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March 15, 2024 Project Number: 1474

David Schaeffer Engineering Ltd
120 Iber Road, Unit 103
Ottawa, Ontario
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Attention: **Marc Pichette, 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 Borrisokane Road. The proposed development is approximately **48.42 ha** that will primarily comprise of single and townhouse residential lots, stacked condos and a park. 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**.

The time to peak (Tp) for these areas 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 3 individual areas (Split by theFoster and Okeefe drains) with the results of the 3 areas added together to provide the full site pre-development water budget.

Post-Development – Without LIDs

Under post-development conditions, the site will have 6 individual storm sewer outlets, as such the development lands have been broken into these 6 discrete areas (with a total drainage area of **48.42 ha**, matching existing conditions). Based on the development conceptual plan, the **48.42 ha** site will have a total imperviousness of **70%**, 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.

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 the DSEL *Figures & Drawings* package for more details about the proposed LID configuration). A conceptual design of these LID 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. Based on this analysis the site on average will need **3.75 CBs** per impervious hectare of development. Each of the LID clusters has 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 Group's 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

Parameters	Total	W1	W2	W3	W4	W5	W6
Area (ha)	48.42	5.76	8.51	10.03	10.11	6.20	7.81
RC	0.72	0.66	0.62	0.73	0.69	0.67	0.77
Total Imp. (%)	70%	66%	60%	76%	70%	67%	81%
Imp Area (ha)	34.08	3.78	5.11	7.59	7.08	4.16	6.36
# of CBMH's	128	14	19	28	27	16	24
Pipe Dia (mm)	-	250	250	250	250	250	250
Perf. Pipe Length (m)	3840	420	570	840	810	480	720
Pipe Vol. (m^3)	188	21	28	41	40	24	35
Trench Width (m)	-	1.25	1.25	1.25	1.25	1.25	1.25
Trench Height (m)	-	0.4	0.4	0.4	0.4	0.4	0.4
Trench Length (m)	-	30	30	30	30	30	30
Void Ratio	-	0.4	0.4	0.4	0.4	0.4	0.4
Trench Vol. (m^3)	693	76	103	152	146	87	130
Total Vol. (m^3)	881	96	131	193	186	110	165
Area of Trench (m^2)	4800	525	713	1050	1013	600	900
Soil Infiltration Rate (mm/hr)	-	9	9	9	9	9	9
Safety Factor	-	2.5	2.5	2.5	2.5	2.5	2.5
Reduced Rate (mm/hr)	-	3.6	3.6	3.6	3.6	3.6	3.6
Infiltration rate (m^3/hr)	-	0.0005	0.0007	0.0011	0.0010	0.0006	0.0009

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 were 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)		48.42	Imperviousness:	7%
Annual Average Volume	Precipitation	Evapotranspiration	Runoff	Infiltration
m³	288,466	188,545	35,419	64,503
mm	596	389	73	133
%	100%	65.4%	12.3%	22.4%

Table 3:Post Development Water Balance – Without LIDs

Drainage Area (ha)		48.42	Imperviousness:	70%
Annual Average Volume	Precipitation	Evapotranspiration	Runoff	Infiltration
m³	288,466	107,821	148,079	32,566
mm	596	223	306	67
%	100.0%	37.4%	51.3%	11.3%

Table 4:Post Development Water Balance – With LIDs

Drainage Area (ha)		48.42	Imperviousness:	70%
Annual Average Volume	Precipitation	Evapotranspiration	Runoff	Infiltration
m³	288,466	107,821	111,716	68,929
mm	596	223	231	142
%	100%	37.4%	38.7%	23.9%

Based on this analysis of pre-development conditions, this site will evaporate **65.4%**, runoff **12.3%** and infiltrate **22.4%** of all annual rainfall. Under post-development conditions without LIDs, this site will evaporate **37.4%**, runoff **51.3%** and infiltrate **11.3%** of all annual rainfall, resulting in a deficit of **66 mm/year** infiltrated from pre-development conditions. Under post-development conditions with LIDs, this site will evaporate **37.4%**, runoff **38.7%** and infiltrate **23.9%** of all annual rainfall, resulting in an exceedance of 9 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 **75 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 **66 mm/yr**. (**-49%** from existing). Implementing LIDs in the way of infiltration trenches connected to the catchbasins at a rate of **3.75 CB** per impervious hectare would exceed the annual infiltration rate by **9 mm/year** (**+1.5%** 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_v03.dat
BCD_WEST-POST_v03.dat

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Attachment A

SWMHYMO Models & Parameters

N

Legend

Soil Name (SCS Value)

- BRANDON (D)
- CARSONBY (C)
- Development Area

SCALE: 1:4500

0 100 200 m

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Conservancy West

Figure A1: Soil Types

PROJECT	1474(03)
DRAWN	JB
DATE	March 2024

C:\Users\BrennanThomas\J.F. Sabourin and Associates Inc\JFSA-OTTAWA-SERVER - Documents\PROJ\1474(03)-21\202403-BCDC West - Prelim Design\Design\GIS\20240306-Pre Dev Parameters

N

Legend

Land Use

- Hedge Rows
- Tilled
- Development Area

SCALE: 1:4500

0 100 200 m

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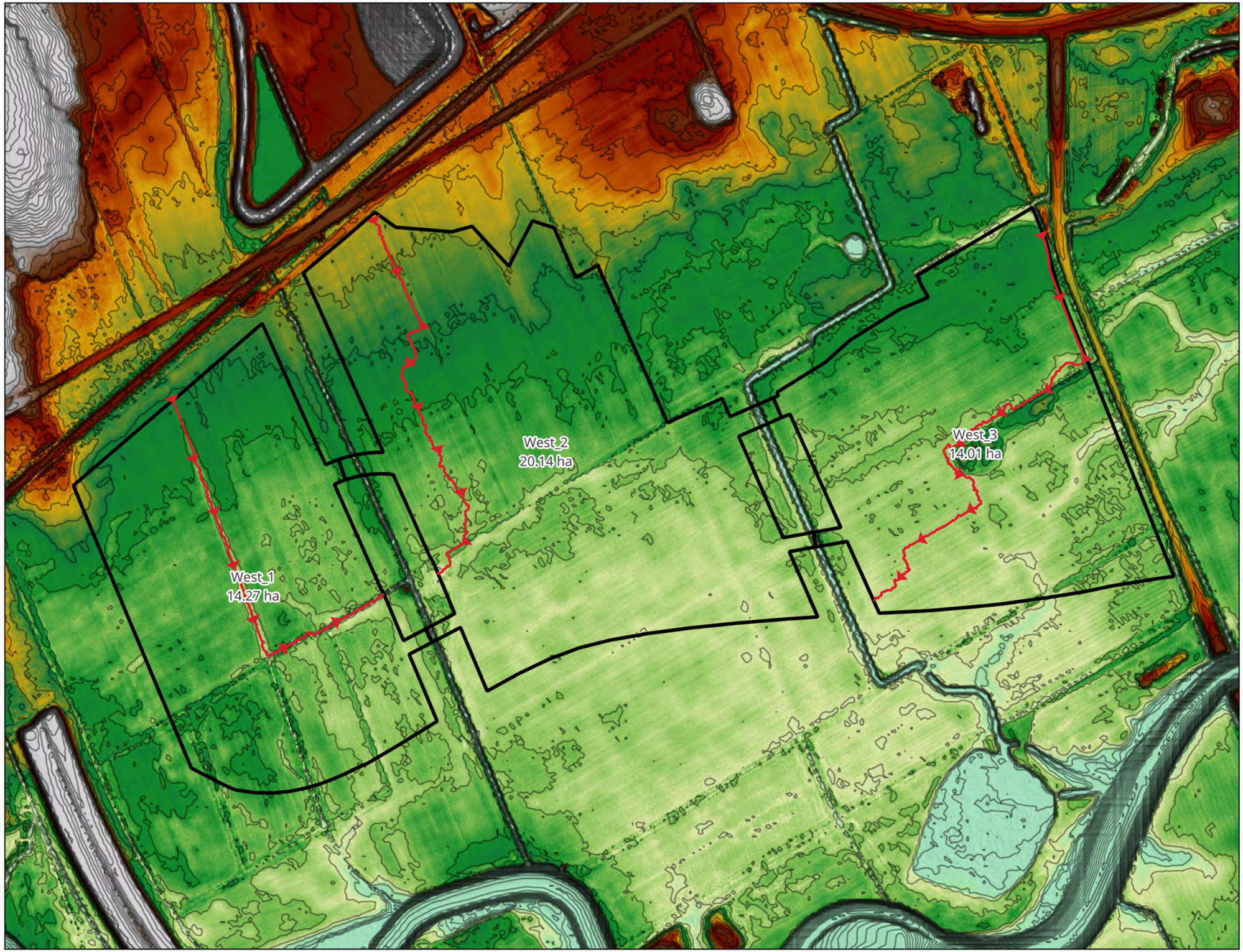
Figure A2: Land Use

PROJECT	1474(03)
DRAWN	JB
DATE	March 2024

C:\Users\BrennanThomas\J.F. Sabourin and Associates Inc\JFSA-OTTAWA-SERVER - Documents\PROJ\1474(03)-21\202403-BCDC West - Prelim Design\Design\GIS\20240306-Pre Dev Parameters



N

Legend

Streams

Major Flow Path

Development Area

Terrain (m)

94.75

90.5

Contours

0.25 m

SCALE: 1:4500

0 100 200 m

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Figure A3: Flow Paths

PROJECT	1474(03)
DRAWN	JB
DATE	March 2024

C:\Users\JonathonBurnett\J.F. Sabourin and Associates Inc\JFSA-OTTAWA-SERVER - Documents\PROJ\1474(03)-21\202403-BCDC West - Prelim Design\Design\GIS\20240306-Pre Dev Parameters

N

Legend

- Junctions
- Site Plan
- Minor System
- Lumped Areas:
  <Name>
  <Area>
  <Runoff Coefficient>

SCALE: 1:4500

0 100 200 m

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Figure A4: Proposed Development

PROJECT	1474(03)
DRAWN	JB
DATE	March 2024

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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_1 (14.27 ha)							
Area (ha)	Land Type	Soil Name	Soil Condition	Soil Group	CN	% of Catchment	Weighted CN
8.979	Tilled	CARSONBY	C	Fair	79	62.9%	49.7
4.166	Tilled	BRANDON	D	Fair	84	29.2%	24.5
1.123	Hedge Rows	CARSONBY	C	Fair	70	7.9%	5.5
						CN	**79.7**
						CN*	**72**

West_2 (20.138 ha)							
Area (ha)	Land Type	Soil Name	Soil Condition	Soil Group	CN	% of Catchment	Weighted CN
4.879	Tilled	CARSONBY	C	Fair	79	24.2%	19.1
15.117	Tilled	BRANDON	D	Fair	84	75.1%	63.1
0.109	Hedge Rows	CARSONBY	C	Fair	70	0.5%	0.4
0.034	Hedge Rows	BRANDON	D	Fair	77	0.2%	0.1
						CN	**82.7**
						CN*	**76**

#REF!							
Area (ha)	Land Type	Soil Name	Soil Condition	Soil Group	CN	% of Catchment	Weighted CN
14.007	Tilled	CARSONBY	C	Fair	79	100.0%	79.0
						CN	**79.0**
						CN*	**71**

Table A3: Time to Peak Calculations

Parameter	Units	West_1	West_2	West_3
Area	ha	14.268	20.139	14.007
CN*	-	72	76	71
Ptotal to calc C from CN, use 2	P(mm)	48.5	48.5	48.5
yr 24 hr SCS stom	Ia(mm)	4.67	4.67	4.67
	RV(mm)	13.5	15.6	13.0
C	-	0.28	0.32	0.27
Ptotal to calc C from CN, use 2	P(mm)	31.9	31.9	31.9
yr 3 hr CHI stom	Ia(mm)	4.67	4.67	4.67
	RV(mm)	5.9	7.0	5.6
C	-	0.18	0.22	0.18
Length of Channel	m	541	619	764
	ft	1776	2029	2507
Elevation of Head Water	m	91.52	92.07	91.50
	ft	300	302	300
Elevation of Outlet	m	90.31	91.00	91.00
	ft	296	299	299
Average Slope	m/m	0.22%	0.17%	0.07%
	ft/ft	0.22%	0.17%	0.07%
Kirpich				
Time of Concentration	mins	26	32	54
Time to Peak	min	17	21	36
Time to Peak	Hours	0.29	0.35	0.60
FAA (SCS)				
Time of Concentration	mins	103	113	186
Time to Peak	mins	69	75	124
Time to Peak	Hours	1.14	1.26	2.07
FAA (CHI)				
Time of Concentration	mins	114	128	207
Time to Peak	mins	76	86	138
Time to Peak	Hours	1.27	1.43	2.29
Barnsby Williams				
Time of Concentration	mins	32	37	58
Time to Peak	mins	21	25	39
Time to Peak	Hours	0.36	0.42	0.65
SCS				
Time of Concentration	mins	134	151	337
Time to Peak	mins	90	100	225
Time to Peak	Hours	1.49	1.67	3.75
Selected Method				
FAA (SCS)				
Time to Peak	min	69	75	124
Time to Peak	Hours	1.14	1.26	2.07

Note:

All methods calculated as per Appendix A of the SWMHYMO manual

Time to Peak calculated as 2/3 Time of concentration

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*#  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]
*#  Updated     : 2024/Mar/14 [JB]
*#  Company     : J.F. Sabourin and Associates
*#  License #   : 2582634
*#*************************************************************************************************************
START               TZERO=[1967.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[67]
*%                   [""] <--storm filename, one per line for NSTORM time
*%-----------------|-------------------------------------------------------------------------------------------
*# Ottawa International Airport (1967 - 2003)
READ AES DATA       AES_FILENAME=["YOW_1967_2007.123"],
                    IELEM=[123], START_DATE=[0], END_DATE=[-364]
*%-----------------|-------------------------------------------------------------------------------------------
COMPUTE API         APII=[50], APIK=[0.90]/day
*%-----------------|-------------------------------------------------------------------------------------------
*#*************************************************************************************************************
*#                   Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
*#*************************************************************************************************************
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                      InterEventTime=[12](hrs)
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                      BaseFlowOption=[1] , InitGWResVol=[10](mm), GWResK=[0.9](mm/day/mm)
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                      InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                      BaseFlowOption=[1] , InitGWResVol=[10](mm), GWResK=[0.9](mm/day/mm)
                      VHydCond=[1.0](mm/hr), END=-1
*%-----------------|-------------------------------------------------------------------------------------------
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                      InterEventTime=[12](hrs)
                    Baseflow simulation parameters:
                      BaseFlowOption=[1] , InitGWResVol=[10](mm), GWResK=[0.9](mm/day/mm)
                      VHydCond=[1.0](mm/hr), END=-1
*%-----------------|-------------------------------------------------------------------------------------------
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*%-----------------|-------------------------------------------------------------------------------------------
```

```
   ------------------------------|
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   ******************************
55 *#                   Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE
   DEVELOPMENT CONDITIONS
56 *#*****************************************************************************************
   ******************************
57 *#                   Set infiltration to 0 (CN = 99.99) for water balance analysis
58 *#*****************************************************************************************
   ******************************
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61                    Continuous simulation parameters:
62                      IaRECper=[6](hrs),SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.00]/(mm),
                        InterEventTime=[12](hrs)
63                    Baseflow simulation parameters:
64                      BaseFlowOption=[1] , InitGWResVol=[10](mm), GWResK=[0.9](mm/day/mm)
65                      VHydCond=[1.0](mm/hr), END=-1
66 *%-----------------|-----------------------------------------------------------------------
   ------------------------------|
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69                    Continuous simulation parameters:
70                      IaRECper=[6](hrs),SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.00]/(mm),
                        InterEventTime=[12](hrs)
71                    Baseflow simulation parameters:
72                      BaseFlowOption=[1] , InitGWResVol=[10](mm), GWResK=[0.9](mm/day/mm)
73                      VHydCond=[1.0](mm/hr), END=-1
74 *%-----------------|-----------------------------------------------------------------------
   ------------------------------|
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                        InterEventTime=[12](hrs)
79                    Baseflow simulation parameters:
80                      BaseFlowOption=[1] , InitGWResVol=[10](mm), GWResK=[0.9](mm/day/mm)
81                      VHydCond=[1.0](mm/hr), END=-1
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   ------------------------------|
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   add=["INF-West_1","INF-West_2","INF-West_3"]
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   ------------------------------|
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87 *#############################################################################
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   ------------------------------|
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   ------------------------------|
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   ------------------------------|
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   ------------------------------|
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   ------------------------------|
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   ------------------------------|
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99 *%-----------------|-----------------------------------------------------------------------
   ------------------------------|
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   ------------------------------|
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*%-----------------|-------------------------------------------------------------------------------|
START                TZERO=[1976.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[76]
*%-----------------|-------------------------------------------------------------------------------|
START                TZERO=[1977.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[77]
*%-----------------|-------------------------------------------------------------------------------|
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*%-----------------|-------------------------------------------------------------------------------|
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*%-----------------|-------------------------------------------------------------------------------|
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*%-----------------|-------------------------------------------------------------------------------|
START                TZERO=[1981.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[81]
*%-----------------|-------------------------------------------------------------------------------|
START                TZERO=[1982.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[82]
*%-----------------|-------------------------------------------------------------------------------|
START                TZERO=[1983.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[83]
*%-----------------|-------------------------------------------------------------------------------|
START                TZERO=[1984.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[84]
*%-----------------|-------------------------------------------------------------------------------|
START                TZERO=[1985.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[85]
*%-----------------|-------------------------------------------------------------------------------|
START                TZERO=[1986.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[86]
*%-----------------|-------------------------------------------------------------------------------|
START                TZERO=[1987.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[87]
*%-----------------|-------------------------------------------------------------------------------|
START                TZERO=[1988.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[88]
*%-----------------|-------------------------------------------------------------------------------|
START                TZERO=[1989.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[89]
*%-----------------|-------------------------------------------------------------------------------|
START                TZERO=[1990.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[90]
*%-----------------|-------------------------------------------------------------------------------|
START                TZERO=[1991.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[91]
*%-----------------|-------------------------------------------------------------------------------|
START                TZERO=[1992.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[92]
*%-----------------|-------------------------------------------------------------------------------|
START                TZERO=[1993.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[93]
*%-----------------|-------------------------------------------------------------------------------|
START                TZERO=[1994.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[94]
*%-----------------|-------------------------------------------------------------------------------|
START                TZERO=[1995.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[95]
*%-----------------|-------------------------------------------------------------------------------|
START                TZERO=[1996.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[96]
*%-----------------|-------------------------------------------------------------------------------|
```

```
START              TZERO=[1997.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[97]
*%-----------------|-------------------------------------------------------------------------------
-------------------------------|
START              TZERO=[1998.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[98]
*%-----------------|-------------------------------------------------------------------------------
-------------------------------|
START              TZERO=[1999.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[99]
*%-----------------|-------------------------------------------------------------------------------
-------------------------------|
START              TZERO=[2000.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[100]
*%-----------------|-------------------------------------------------------------------------------
-------------------------------|
*% MISSING FROM AES RAINFALL DATA
*%START              TZERO=[2001.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[101]
*%-----------------|-------------------------------------------------------------------------------
-------------------------------|
START              TZERO=[2002.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[102]
*%-----------------|-------------------------------------------------------------------------------
-------------------------------|
START              TZERO=[2003.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[103]
*%-----------------|-------------------------------------------------------------------------------
-------------------------------|
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: 2024-03-14     TIME: 20:05:04     RUN COUNTER: 008081              *
 **********************************************************************************
 * Input   file: C:\Temp\20240306-Pre-Dev\BCD_WEST-PRE_v03.dat                                  *
 * Output  file: C:\Temp\20240306-Pre-Dev\BCD_WEST-PRE_v03.out                                  *
 * Summary file: C:\Temp\20240306-Pre-Dev\BCD_WEST-PRE_v03.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]
#  Updated      : 2024/Mar/14 [JB]
#  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]
#  Updated      : 2024/Mar/14 [JB]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#****************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0067:C00002----------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                          ]
      [Start_date= 1967.0101: End_date= 1967.1231]
      {DT= 60.min: Length= 3984.hrs: WetHrs=  257: DryHrs= 3727: PTOT= 386.90}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       24.60    17.65    13.20     7.25     3.83     2.36     1.73     1.32      .90    mm/hr
       24.60    35.30    39.60    43.50    46.00    56.60    62.30    63.20    64.90    mm
      19670921 19670921 19670921 19670921 19670921 19670922 19670922 19670923 19670924  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
          80       65       56       40       32       29       24       20       18
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
          79       42       29       14        3        0        0        0        0
R0067:C00003----------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 76.77: APIavg= 24.81: APImin=  3.06}
#****************************************************************************************************
#                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#****************************************************************************************************
R0067:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_1        14.27     .144 1967.0921_18:50   63.09 .163     .000
      [CN= 72.0: N= 3.00: Tp= 1.14]
      [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
      [InterEventTime=  12.00]
R0067:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_2        20.14     .221 1967.0921_19:05   70.91 .183     .000
      [CN= 76.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
      [InterEventTime=  12.00]
R0067:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_3        14.01     .102 1967.0921_20:15   61.60 .159     .000
      [CN= 71.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
      [InterEventTime=  12.00]
R0067:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:West_1        14.27     .144 1967.0921_18:50   63.09  n/a     .000
                    +     5.0 02:West_2        20.14     .221 1967.0921_19:05   70.91  n/a     .000
                    +     5.0 02:West_3        14.01     .102 1967.0921_20:15   61.60  n/a     .000
                 SUM=     5.0 01:West-Total    48.42     .451 1967.0921_19:15   65.91  n/a     .000
#****************************************************************************************************
#                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#****************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#****************************************************************************************************
R0067:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .389 1967.0921_18:20  157.58 .407     .000
      [CN=100.0: N= 3.00: Tp= 1.14]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0067:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .517 1967.0921_18:30  157.58 .407     .000
      [CN=100.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0067:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .260 1967.0921_19:30  157.58 .407     .000
      [CN=100.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0067:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-West_1    14.27     .389 1967.0921_18:20  157.58  n/a     .000
                    +     5.0 02:INF-West_2    20.14     .517 1967.0921_18:30  157.58  n/a     .000
                    +     5.0 02:INF-West_3    14.01     .260 1967.0921_19:30  157.58  n/a     .000
                 SUM=     5.0 01:INF-West-T    48.42    1.122 1967.0921_18:35  157.58  n/a     .000
################################################################################
# CONTINUOUS RAINFALL DATA
################################################################################
  ** END OF RUN :   67
***********************************************************************************
 RUN#:COMMAND#
R0068:C00001----------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19680101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0068 ]
#****************************************************************************************************
#  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]
#  Updated      : 2024/Mar/14 [JB]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#****************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0068:C00002----------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                          ]
      [Start_date= 1968.0101: End_date= 1968.1230]
      {DT= 60.min: Length= 8760.hrs: WetHrs=  413: DryHrs= 8347: PTOT= 592.80}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       33.30    17.05    11.37     6.23     3.74     1.87     1.26      .95      .70    mm/hr
       33.30    34.10    34.10    37.40    44.90    44.90    45.40    45.40    50.20    mm
      19680817 19680817 19680817 19680808 19680817 19680818 19680817 19680808 19680820  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         137      105       93       84       72       63       48       43       36
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         136       76       49       18        5        0        0        0        0
R0068:C00003----------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 67.52: APIavg= 16.74: APImin=   .27}
#****************************************************************************************************
#                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#****************************************************************************************************
R0068:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_1        14.27     .151 1968.0817_ 5:55   67.82 .114     .000
      [CN= 72.0: N= 3.00: Tp= 1.14]
      [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
      [InterEventTime=  12.00]
R0068:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_2        20.14     .223 1968.0817_ 6:00   77.11 .130     .000
      [CN= 76.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
      [InterEventTime=  12.00]
R0068:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_3        14.01     .082 1968.0817_ 6:50   66.09 .111     .000
      [CN= 71.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
      [InterEventTime=  12.00]
R0068:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:West_1        14.27     .151 1968.0817_ 5:55   67.82  n/a     .000
                    +     5.0 02:West_2        20.14     .223 1968.0817_ 6:00   77.11  n/a     .000
                    +     5.0 02:West_3        14.01     .082 1968.0817_ 6:50   66.09  n/a     .000
                 SUM=     5.0 01:West-Total    48.42     .442 1968.0817_ 6:05   71.18  n/a     .000
#****************************************************************************************************
#                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#****************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#****************************************************************************************************
R0068:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .406 1968.0817_ 5:45  210.47 .355     .000
      [CN=100.0: N= 3.00: Tp= 1.14]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0068:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .522 1968.0817_ 5:55  210.47 .355     .000
      [CN=100.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0068:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .226 1968.0817_ 6:40  210.47 .355     .000
      [CN=100.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0068:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-West_1    14.27     .406 1968.0817_ 5:45  210.47  n/a     .000
                    +     5.0 02:INF-West_2    20.14     .522 1968.0817_ 5:55  210.47  n/a     .000
                    +     5.0 02:INF-West_3    14.01     .226 1968.0817_ 6:40  210.47  n/a     .000
                 SUM=     5.0 01:INF-West-T    48.42    1.113 1968.0817_ 5:55  210.47  n/a     .000
################################################################################
# CONTINUOUS RAINFALL DATA
################################################################################
  ** END OF RUN :   68
***********************************************************************************
 RUN#:COMMAND#
R0069:C00001----------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19690101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0069 ]
#****************************************************************************************************
#  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]
#  Updated      : 2024/Mar/14 [JB]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#****************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0069:C00002----------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                          ]
      [Start_date= 1969.0101: End_date= 1969.1231]
      {DT= 60.min: Length= 8760.hrs: WetHrs=  470: DryHrs= 8290: PTOT= 570.30}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       21.10    16.25    10.83     7.78     3.93     2.10     1.40     1.09      .75    mm/hr
       21.10    32.50    32.50    46.70    47.20    50.30    50.30    52.10    54.00    mm
      19690818 19690818 19690818 19690819 19690819 19690819 19690819 19690819 19690819  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         157      119      107       92       72       58       49       43       32
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         156       84       58       21        5        0        0        0        0
R0069:C00003----------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 56.77: APIavg= 16.06: APImin=   .06}
#****************************************************************************************************
#                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#****************************************************************************************************
R0069:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_1        14.27     .135 1969.0819_ 2:50   55.35 .097     .000
      [CN= 72.0: N= 3.00: Tp= 1.14]
      [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
      [InterEventTime=  12.00]
R0069:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_2        20.14     .196 1969.0819_ 3:00   63.40 .111     .000
      [CN= 76.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
      [InterEventTime=  12.00]
R0069:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_3        14.01     .086 1969.0819_ 3:35   53.87 .094     .000
      [CN= 71.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
      [InterEventTime=  12.00]
R0069:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:West_1        14.27     .135 1969.0819_ 2:50   55.35  n/a     .000
                    +     5.0 02:West_2        20.14     .196 1969.0819_ 3:00   63.40  n/a     .000
                    +     5.0 02:West_3        14.01     .086 1969.0819_ 3:35   53.87  n/a     .000
                 SUM=     5.0 01:West-Total    48.42     .410 1969.0819_ 3:00   58.27  n/a     .000
#****************************************************************************************************
#                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#****************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#****************************************************************************************************
R0069:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .360 1969.0818_22:40  191.45 .336     .000
      [CN=100.0: N= 3.00: Tp= 1.14]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0069:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .467 1969.0818_22:45  191.45 .336     .000
      [CN=100.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0069:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .207 1969.0818_23:30  191.45 .336     .000
      [CN=100.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0069:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-West_1    14.27     .360 1969.0818_22:40  191.45  n/a     .000
                    +     5.0 02:INF-West_2    20.14     .467 1969.0818_22:45  191.45  n/a     .000
                    +     5.0 02:INF-West_3    14.01     .207 1969.0818_23:30  191.45  n/a     .000
                 SUM=     5.0 01:INF-West-T    48.42     .998 1969.0818_22:45  191.45  n/a     .000
################################################################################
```

```
# CONTINUOUS RAINFALL DATA
##########################################################################
  ** END OF RUN :   69

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 RUN#:COMMAND#
R0070:C00001-------------------------------------------------------------------------------
     START
       [TZERO =    .00 hrs on 19700101]
       [METOUT=   2    (1=imperial, 2=metric output)]
       [NSTORM=   0 ]
       [NRUN  = 0070 ]
#****************************************************************************************************
#  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]
#  Updated      : 2024/Mar/14 [JB]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#****************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0070:C00002-------------------------------------------------------------------------------
  *  READ AES DATA
       [Filename  = YOW_1967_2007.123                                          ]
       [Start_date= 1970.0101: End_date= 1970.1231]
       {DT= 60.min: Length= 8760.hrs: WetHrs=  373: DryHrs= 8387: PTOT= 558.90}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       35.30    18.30    12.20     6.10     3.63     1.81     1.21     1.46      .99    mm/hr
       35.30    36.60    36.60    36.60    43.50    43.50    43.50    69.90    71.20    mm
      19700926 19700926 19700926 19700927 19700817 19700817 19700818 19700926 19700927  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         148      127      109       84       72       60       54       41       30
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         147       79       40       15        3        0        0        0        0
R0070:C00003-------------------------------------------------------------------------------
     COMPUTE API
       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
       {APImax= 76.00: APIavg= 15.84: APImin=   .07}
#****************************************************************************************************
#                   Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#****************************************************************************************************
R0070:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_1        14.27     .193 1970.0926_22:00   52.85 .095     .000
       [CN= 72.0: N= 3.00: Tp= 1.14]
       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
       [InterEventTime=  12.00]
R0070:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_2        20.14     .282 1970.0926_22:05   60.26 .108     .000
       [CN= 76.0: N= 3.00: Tp= 1.26]
       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
       [InterEventTime=  12.00]
R0070:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_3        14.01     .108 1970.0926_22:55   51.48 .092     .000
       [CN= 71.0: N= 3.00: Tp= 2.07]
       [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
       [InterEventTime=  12.00]
R0070:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:West_1        14.27     .193 1970.0926_22:00   52.85  n/a     .000
                    +     5.0 02:West_2        20.14     .282 1970.0926_22:05   60.26  n/a     .000
                    +     5.0 02:West_3        14.01     .108 1970.0926_22:55   51.48  n/a     .000
                 SUM=     5.0 01:West-Total    48.42     .562 1970.0926_22:10   55.53  n/a     .000
#****************************************************************************************************
#                   Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#****************************************************************************************************
#                   Set infiltration to 0 (CN = 99.99) for water balance analysis
#****************************************************************************************************
R0070:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .436 1970.0926_21:50  178.67 .320     .000
       [CN=100.0: N= 3.00: Tp= 1.14]
       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
       [InterEventTime=  12.00]
R0070:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .563 1970.0926_21:55  178.67 .320     .000
       [CN=100.0: N= 3.00: Tp= 1.26]
       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
       [InterEventTime=  12.00]
R0070:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .247 1970.0926_22:45  178.67 .320     .000
       [CN=100.0: N= 3.00: Tp= 2.07]
       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
       [InterEventTime=  12.00]
R0070:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-West_1    14.27     .436 1970.0926_21:50  178.67  n/a     .000
                    +     5.0 02:INF-West_2    20.14     .563 1970.0926_21:55  178.67  n/a     .000
                    +     5.0 02:INF-West_3    14.01     .247 1970.0926_22:45  178.67  n/a     .000
                 SUM=     5.0 01:INF-West-T    48.42    1.199 1970.0926_22:00  178.67  n/a     .000
##########################################################################
# CONTINUOUS RAINFALL DATA
##########################################################################
  ** END OF RUN :   70

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 RUN#:COMMAND#
R0071:C00001-------------------------------------------------------------------------------
     START
       [TZERO =    .00 hrs on 19710101]
       [METOUT=   2    (1=imperial, 2=metric output)]
       [NSTORM=   0 ]
       [NRUN  = 0071 ]
#****************************************************************************************************
#  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]
#  Updated      : 2024/Mar/14 [JB]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#****************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0071:C00002-------------------------------------------------------------------------------
  *  READ AES DATA
       [Filename  = YOW_1967_2007.123                                          ]
       [Start_date= 1971.0101: End_date= 1971.1231]
       {DT= 60.min: Length= 8760.hrs: WetHrs=  412: DryHrs= 8348: PTOT= 522.10}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       24.60    16.60    11.67     6.13     3.09     1.56     1.06      .79      .54    mm/hr
       24.60    33.20    35.00    36.80    37.10    37.40    38.00    38.00    38.90    mm
      19710810 19710810 19710810 19710810 19710810 19710810 19710811 19710812 19710830  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         156      123      113       93       72       61       52       42       33
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         155       81       59       21        2        0        0        0        0
R0071:C00003-------------------------------------------------------------------------------
     COMPUTE API
       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
       {APImax= 62.22: APIavg= 14.84: APImin=   .36}
#****************************************************************************************************
#                   Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#****************************************************************************************************
R0071:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_1        14.27     .140 1971.0810_16:30   39.74 .076     .000
       [CN= 72.0: N= 3.00: Tp= 1.14]
       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
       [InterEventTime=  12.00]
R0071:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_2        20.14     .212 1971.0810_16:35   45.48 .087     .000
       [CN= 76.0: N= 3.00: Tp= 1.26]
       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
       [InterEventTime=  12.00]
R0071:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_3        14.01     .085 1971.0810_17:20   38.68 .074     .000
       [CN= 71.0: N= 3.00: Tp= 2.07]
       [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
       [InterEventTime=  12.00]
R0071:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:West_1        14.27     .140 1971.0810_16:30   39.74  n/a     .000
                    +     5.0 02:West_2        20.14     .212 1971.0810_16:35   45.48  n/a     .000
                    +     5.0 02:West_3        14.01     .085 1971.0810_17:20   38.68  n/a     .000
                 SUM=     5.0 01:West-Total    48.42     .425 1971.0810_16:35   41.82  n/a     .000
#****************************************************************************************************
#                   Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#****************************************************************************************************
#                   Set infiltration to 0 (CN = 99.99) for water balance analysis
#****************************************************************************************************
R0071:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .386 1971.0810_16:10  143.53 .275     .000
       [CN=100.0: N= 3.00: Tp= 1.14]
       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
       [InterEventTime=  12.00]
R0071:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .510 1971.0810_16:15  143.53 .275     .000
       [CN=100.0: N= 3.00: Tp= 1.26]
       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
       [InterEventTime=  12.00]
R0071:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .240 1971.0810_17:00  143.53 .275     .000
       [CN=100.0: N= 3.00: Tp= 2.07]
       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
       [InterEventTime=  12.00]
R0071:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-West_1    14.27     .386 1971.0810_16:10  143.53  n/a     .000
                    +     5.0 02:INF-West_2    20.14     .510 1971.0810_16:15  143.53  n/a     .000
                    +     5.0 02:INF-West_3    14.01     .240 1971.0810_17:00  143.53  n/a     .000
                 SUM=     5.0 01:INF-West-T    48.42    1.102 1971.0810_16:20  143.53  n/a     .000
##########################################################################
# CONTINUOUS RAINFALL DATA
##########################################################################
  ** END OF RUN :   71

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 RUN#:COMMAND#
R0072:C00001-------------------------------------------------------------------------------
     START
       [TZERO =    .00 hrs on 19720101]
       [METOUT=   2    (1=imperial, 2=metric output)]
       [NSTORM=   0 ]
       [NRUN  = 0072 ]
#****************************************************************************************************
#  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]
#  Updated      : 2024/Mar/14 [JB]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#****************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0072:C00002-------------------------------------------------------------------------------
  *  READ AES DATA
       [Filename  = YOW_1967_2007.123                                          ]
       [Start_date= 1972.0101: End_date= 1972.1230]
       {DT= 60.min: Length= 8760.hrs: WetHrs=  489: DryHrs= 8271: PTOT= 784.30}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       37.30    19.15    12.97     8.15     4.50     2.53     2.00     1.71     1.17    mm/hr
       37.30    38.30    38.90    48.90    54.00    60.70    72.10    82.20    84.20    mm
      19720712 19720712 19720807 19720808 19720808 19720808 19720713 19720714 19720715  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         170      133      122       86       76       60       45       41       31
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         169       96       58       21        5        0        0        0        0
R0072:C00003-------------------------------------------------------------------------------
     COMPUTE API
       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
       {APImax=108.88: APIavg= 21.70: APImin=   .00}
#****************************************************************************************************
#                   Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#****************************************************************************************************
R0072:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_1        14.27     .278 1972.0807_23:45  121.97 .156     .000
       [CN= 72.0: N= 3.00: Tp= 1.14]
       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
       [InterEventTime=  12.00]
R0072:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_2        20.14     .402 1972.0807_23:50  136.80 .174     .000
       [CN= 76.0: N= 3.00: Tp= 1.26]
       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
       [InterEventTime=  12.00]
R0072:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_3        14.01     .164 1972.0808_ 0:55  119.16 .152     .000
       [CN= 71.0: N= 3.00: Tp= 2.07]
       [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
       [InterEventTime=  12.00]
R0072:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:West_1        14.27     .278 1972.0807_23:45  121.97  n/a     .000
                    +     5.0 02:West_2        20.14     .402 1972.0807_23:50  136.80  n/a     .000
                    +     5.0 02:West_3        14.01     .164 1972.0808_ 0:55  119.16  n/a     .000
                 SUM=     5.0 01:West-Total    48.42     .814 1972.0807_23:55  127.32  n/a     .000
#****************************************************************************************************
#                   Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#****************************************************************************************************
#                   Set infiltration to 0 (CN = 99.99) for water balance analysis
#****************************************************************************************************
R0072:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .507 1972.0807_23:35  305.45 .389     .000
       [CN=100.0: N= 3.00: Tp= 1.14]
       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
       [InterEventTime=  12.00]
R0072:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .663 1972.0807_23:40  305.45 .389     .000
       [CN=100.0: N= 3.00: Tp= 1.26]
       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
       [InterEventTime=  12.00]
R0072:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .307 1972.0808_ 0:30  305.45 .389     .000
       [CN=100.0: N= 3.00: Tp= 2.07]
       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
       [InterEventTime=  12.00]
R0072:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-West_1    14.27     .507 1972.0807_23:35  305.45  n/a     .000
                    +     5.0 02:INF-West_2    20.14     .663 1972.0807_23:40  305.46  n/a     .000
                    +     5.0 02:INF-West_3    14.01     .307 1972.0808_ 0:30  305.45  n/a     .000
                 SUM=     5.0 01:INF-West-T    48.42    1.429 1972.0807_23:45  305.45  n/a     .000
##########################################################################
# CONTINUOUS RAINFALL DATA
##########################################################################
  ** END OF RUN :   72

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 RUN#:COMMAND#
R0073:C00001-------------------------------------------------------------------------------
     START
       [TZERO =    .00 hrs on 19730101]
       [METOUT=   2    (1=imperial, 2=metric output)]
       [NSTORM=   0 ]
       [NRUN  = 0073 ]
#****************************************************************************************************
#  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]
#  Updated      : 2024/Mar/14 [JB]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#****************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0073:C00002-------------------------------------------------------------------------------
  *  READ AES DATA
       [Filename  = YOW_1967_2007.123                                          ]
       [Start_date= 1973.0101: End_date= 1973.1231]
       {DT= 60.min: Length= 8760.hrs: WetHrs=  549: DryHrs= 8211: PTOT= 744.90}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       30.00    17.25    12.33     7.10     3.63     1.89     1.28      .96      .96    mm/hr
       30.00    34.50    37.00    42.60    43.60    45.40    46.00    46.00    69.20    mm
      19730611 19730808 19730808 19730808 19730808 19730616 19730616 19730616 19731005  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         200      164      143      108       79       61       54       43       37
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         200      102       66       20        4        0        0        0        0
R0073:C00003-------------------------------------------------------------------------------
     COMPUTE API
       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
       {APImax= 78.26: APIavg= 20.56: APImin=   .06}
#****************************************************************************************************
#                   Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#****************************************************************************************************
R0073:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_1        14.27     .228 1973.0808_20:50   89.43 .120     .000
       [CN= 72.0: N= 3.00: Tp= 1.14]
       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
       [InterEventTime=  12.00]
R0073:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
```

```
    CONTINUOUS NASHYD     5.0 01:West_2        20.14     .336 1973.0808_21:00  101.49 .136     .000
      [CN= 76.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
      [InterEventTime=  12.00]
R0073:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_3        14.01     .132 1973.0808_21:45   87.18 .117     .000
      [CN= 71.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
      [InterEventTime=  12.00]
R0073:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:West_1        14.27     .228 1973.0808_20:50   89.43  n/a     .000
                   +      5.0 02:West_2        20.14     .336 1973.0808_21:00  101.49  n/a     .000
                   +      5.0 02:West_3        14.01     .132 1973.0808_21:45   87.18  n/a     .000
                SUM=      5.0 01:West-Total    48.42     .674 1973.0808_21:00   93.79  n/a     .000
#***************************************************************************************************************
#                 Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#***************************************************************************************************************
#                 Set infiltration to 0 (CN = 99.99) for water balance analysis
#***************************************************************************************************************
R0073:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .497 1973.0808_20:35  275.63 .370     .000
      [CN=100.0: N= 3.00: Tp= 1.14]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0073:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .650 1973.0808_20:45  275.63 .370     .000
      [CN=100.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0073:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .300 1973.0808_21:30  275.63 .370     .000
      [CN=100.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0073:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-West_1    14.27     .497 1973.0808_20:35  275.63  n/a     .000
                   +      5.0 02:INF-West_2    20.14     .650 1973.0808_20:45  275.63  n/a     .000
                   +      5.0 02:INF-West_3    14.01     .300 1973.0808_21:30  275.63  n/a     .000
                SUM=      5.0 01:INF-West-T    48.42    1.401 1973.0808_20:45  275.63  n/a     .000
###############################################################################
# CONTINUOUS RAINFALL DATA
###############################################################################
  ** END OF RUN :   73

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





 RUN#:COMMAND#
R0074:C00001----------------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19740101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0074 ]
#***************************************************************************************************************
#  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]
#  Updated      : 2024/Mar/14 [JB]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#***************************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0074:C00002----------------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                            ]
      [Start_date= 1974.0101: End_date= 1974.1231]
      {DT= 60.min: Length= 8760.hrs: WetHrs=  320: DryHrs= 8440: PTOT= 386.20}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       20.60    15.40    10.37     5.18     2.98     1.63     1.08      .81      .54    mm/hr
       20.60    30.80    31.10    31.10    35.70    39.00    39.00    39.00    39.00    mm
      19740718 19740719 19740719 19740719 19740305 19740305 19740306 19740306 19740307  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         129      105       93       77       63       50       38       33       23
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         128       66       32       10        3        0        0        0        0
R0074:C00003----------------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 52.93: APIavg= 11.36: APImin=   .00}
#***************************************************************************************************************
#                 Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#***************************************************************************************************************
R0074:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_1        14.27     .085 1974.0719_ 1:40   24.04 .062     .000
      [CN= 72.0: N= 3.00: Tp= 1.14]
      [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
      [InterEventTime=  12.00]
R0074:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_2        20.14     .130 1974.0719_ 1:45   27.61 .072     .000
      [CN= 76.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
      [InterEventTime=  12.00]
R0074:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_3        14.01     .050 1974.0719_ 2:30   23.38 .061     .000
      [CN= 71.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
      [InterEventTime=  12.00]
R0074:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:West_1        14.27     .085 1974.0719_ 1:40   24.04  n/a     .000
                   +      5.0 02:West_2        20.14     .130 1974.0719_ 1:45   27.61  n/a     .000
                   +      5.0 02:West_3        14.01     .050 1974.0719_ 2:30   23.38  n/a     .000
                SUM=      5.0 01:West-Total    48.42     .257 1974.0719_ 1:45   25.33  n/a     .000
#***************************************************************************************************************
#                 Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#***************************************************************************************************************
#                 Set infiltration to 0 (CN = 99.99) for water balance analysis
#***************************************************************************************************************
R0074:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .310 1974.0719_ 1:20   95.45 .247     .000
      [CN=100.0: N= 3.00: Tp= 1.14]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0074:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .408 1974.0719_ 1:30   95.45 .247     .000
      [CN=100.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0074:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .189 1974.0719_ 2:10   95.45 .247     .000
      [CN=100.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0074:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-West_1    14.27     .310 1974.0719_ 1:20   95.45  n/a     .000
                   +      5.0 02:INF-West_2    20.14     .408 1974.0719_ 1:30   95.45  n/a     .000
                   +      5.0 02:INF-West_3    14.01     .189 1974.0719_ 2:10   95.45  n/a     .000
                SUM=      5.0 01:INF-West-T    48.42     .880 1974.0719_ 1:30   95.45  n/a     .000
###############################################################################
# CONTINUOUS RAINFALL DATA
###############################################################################
  ** END OF RUN :   74

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 RUN#:COMMAND#
R0075:C00001----------------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19750101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0075 ]
#***************************************************************************************************************
#  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]
#  Updated      : 2024/Mar/14 [JB]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#***************************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0075:C00002----------------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                            ]
      [Start_date= 1975.0101: End_date= 1975.1231]
      {DT= 60.min: Length= 8760.hrs: WetHrs=  344: DryHrs= 8416: PTOT= 535.50}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       34.80    18.40    12.53     6.32     3.33     1.73     1.15      .87      .62    mm/hr
       34.80    36.80    37.60    37.90    40.00    41.50    41.50    41.80    44.40    mm
      19750708 19750720 19750720 19750720 19750721 19750721 19750721 19750721 19750928  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         136      118       99       78       61       49       40       33       25
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         135       70       40       17        1        0        0        0        0
R0075:C00003----------------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 73.23: APIavg= 15.16: APImin=   .00}
#***************************************************************************************************************
#                 Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#***************************************************************************************************************
R0075:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_1        14.27     .147 1975.0720_17:40   53.72 .100     .000
      [CN= 72.0: N= 3.00: Tp= 1.14]
      [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
      [InterEventTime=  12.00]
R0075:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_2        20.14     .222 1975.0720_17:45   61.11 .114     .000
      [CN= 76.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
      [InterEventTime=  12.00]
R0075:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_3        14.01     .089 1975.0720_18:35   52.35 .098     .000
      [CN= 71.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
      [InterEventTime=  12.00]
R0075:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:West_1        14.27     .147 1975.0720_17:40   53.72  n/a     .000
                   +      5.0 02:West_2        20.14     .222 1975.0720_17:45   61.11  n/a     .000
                   +      5.0 02:West_3        14.01     .089 1975.0720_18:35   52.35  n/a     .000
                SUM=      5.0 01:West-Total    48.42     .445 1975.0720_17:50   56.40  n/a     .000
#***************************************************************************************************************
#                 Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#***************************************************************************************************************
#                 Set infiltration to 0 (CN = 99.99) for water balance analysis
#***************************************************************************************************************
R0075:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .421 1975.0708_17:45  174.49 .326     .000
      [CN=100.0: N= 3.00: Tp= 1.14]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0075:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .542 1975.0708_17:55  174.49 .326     .000
      [CN=100.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0075:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .247 1975.0720_18:15  174.49 .326     .000
      [CN=100.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0075:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-West_1    14.27     .421 1975.0708_17:45  174.49  n/a     .000
                   +      5.0 02:INF-West_2    20.14     .542 1975.0708_17:55  174.49  n/a     .000
                   +      5.0 02:INF-West_3    14.01     .247 1975.0720_18:15  174.49  n/a     .000
                SUM=      5.0 01:INF-West-T    48.42    1.153 1975.0708_17:55  174.49  n/a     .000
###############################################################################
# CONTINUOUS RAINFALL DATA
###############################################################################
  ** END OF RUN :   75

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





 RUN#:COMMAND#
R0076:C00001----------------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19760101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0076 ]
#***************************************************************************************************************
#  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]
#  Updated      : 2024/Mar/14 [JB]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#***************************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0076:C00002----------------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                            ]
      [Start_date= 1976.0101: End_date= 1976.1230]
      {DT= 60.min: Length= 8064.hrs: WetHrs=  390: DryHrs= 7674: PTOT= 493.20}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       14.00     8.90     6.43     4.65     2.35     1.39      .97      .99      .80    mm/hr
       14.00    17.80    19.30    27.90    28.20    33.30    35.10    47.60    57.50    mm
      19760828 19760828 19760828 19760828 19760828 19760920 19760520 19760520 19760921  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         164      133      117       89       72       62       46       40       28
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         163       80       47       15        2        0        0        0        0
R0076:C00003----------------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 59.66: APIavg= 15.35: APImin=   .02}
#***************************************************************************************************************
#                 Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#***************************************************************************************************************
R0076:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_1        14.27     .065 1976.0519_23:20   36.78 .075     .000
      [CN= 72.0: N= 3.00: Tp= 1.14]
      [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
      [InterEventTime=  12.00]
R0076:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_2        20.14     .101 1976.0519_23:20   42.34 .086     .000
      [CN= 76.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
      [InterEventTime=  12.00]
R0076:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_3        14.01     .051 1976.0520_ 0:00   35.75 .072     .000
      [CN= 71.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
      [InterEventTime=  12.00]
R0076:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:West_1        14.27     .065 1976.0519_23:20   36.78  n/a     .000
                   +      5.0 02:West_2        20.14     .101 1976.0519_23:20   42.34  n/a     .000
                   +      5.0 02:West_3        14.01     .051 1976.0520_ 0:00   35.75  n/a     .000
                SUM=      5.0 01:West-Total    48.42     .215 1976.0519_23:25   38.79  n/a     .000
#***************************************************************************************************************
#                 Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#***************************************************************************************************************
#                 Set infiltration to 0 (CN = 99.99) for water balance analysis
#***************************************************************************************************************
R0076:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .132 1976.0828_20:20  137.15 .278     .000
      [CN=100.0: N= 3.00: Tp= 1.14]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0076:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .182 1976.0828_22:50  137.15 .278     .000
      [CN=100.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0076:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .113 1976.0828_23:20  137.15 .278     .000
      [CN=100.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0076:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-West_1    14.27     .132 1976.0828_20:20  137.15  n/a     .000
                   +      5.0 02:INF-West_2    20.14     .182 1976.0828_22:50  137.15  n/a     .000
                   +      5.0 02:INF-West_3    14.01     .113 1976.0828_23:20  137.15  n/a     .000
                SUM=      5.0 01:INF-West-T    48.42     .423 1976.0828_22:55  137.15  n/a     .000
###############################################################################
# CONTINUOUS RAINFALL DATA
###############################################################################
  ** END OF RUN :   76

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





 RUN#:COMMAND#
R0077:C00001----------------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19770101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0077 ]
#***************************************************************************************************************
#  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
#***************************************************************************************************************
```

```
01081> #  Project Name: Barrhaven Conservancy Development
01082> #  Project Number: 1474
01083> #  Date       : 2021/Oct/18
01084> #  Modeller   : J.Burnett, P.Eng.
01085> #  Updated    : 2022/Dec/07 [JB]
01086> #  Updated    : 2022/Dec/13 [LP]
01087> #  Updated    : 2024/Mar/14 [JB]
01088> #  Company    : J.F. Sabourin and Associates
01089> #  License #  : 2582634
01090> #*******************************************************************************************************
01091> # Ottawa International Airport (1967 - 2003)
01092> R0077:C00002-------------------------------------------------------------------------------------------
01093>   *  READ AES DATA
01094>       [Filename  = YOW_1967_2007.123                                          ]
01095>       [Start_date= 1977.0101: End_date= 1977.1231]
01096>       [DT= 60.min: Length= 8016.hrs: WetHrs=  512: DryHrs= 7504: PTOT= 677.80)
01097>       Maximum average rainfall intensities over
01098>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01099>        21.30    15.20    10.40     6.53     3.30     1.66     1.40     1.06      .73    mm/hr
01100>        21.30    30.40    31.20    39.20    39.60    39.80    50.40    51.00    52.40    mm
01101>      19770717 19770717 19770717 19770717 19770902 19770902 19770314 19770314 19770314 19770718  date
01102>       Number of rainfall events per following interevent time
01103>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01104>          172      142      126       99       78       63       53       42       30
01105>       Number of events with at least the following durations
01106>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01107>          171       88       60       22        5        1        0        0        0
01108> R0077:C00003-------------------------------------------------------------------------------------------
01109>       COMPUTE API
01110>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01111>       [APImax= 74.80: APIavg= 20.62: APImin=  1.63)
01112> #*******************************************************************************************************
01113> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01114> #*******************************************************************************************************
01115> R0077:C00004-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01116>     CONTINUOUS NASHYD      5.0 01:West_1      14.27      .145 1977.0901_23:50   70.59 .104     .000
01117>       [CN= 72.0: N= 3.00: Tp= 1.14]
01118>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
01119>       [InterEventTime=  12.00]
01120> R0077:C00005-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01121>     CONTINUOUS NASHYD      5.0 01:West_2      20.14      .217 1977.0901_23:55   80.37 .119     .000
01122>       [CN= 76.0: N= 3.00: Tp= 1.26]
01123>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
01124>       [InterEventTime=  12.00]
01125> R0077:C00006-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01126>     CONTINUOUS NASHYD      5.0 01:West_3      14.01      .085 1977.0902_ 0:40   68.77 .101     .000
01127>       [CN= 71.0: N= 3.00: Tp= 2.07]
01128>       [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
01129>       [InterEventTime=  12.00]
01130> R0077:C00007-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01131>     ADD HYD                5.0 02:West_1      14.27      .145 1977.0901_23:50   70.59  n/a     .000
01132>                      +     5.0 02:West_2      20.14      .217 1977.0901_23:55   80.37  n/a     .000
01133>                      +     5.0 02:West_3      14.01      .085 1977.0902_ 0:40   68.77  n/a     .000
01134>                    SUM=    5.0 01:West-Total  48.42      .436 1977.0901_23:55   74.13  n/a     .000
01135> #*******************************************************************************************************
01136> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01137> #*******************************************************************************************************
01138> #                Set infiltration to 0 (CN = 99.99) for water balance analysis
01139> #*******************************************************************************************************
01140> R0077:C00008-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01141>     CONTINUOUS NASHYD      5.0 01:INF-West_1  14.27      .364 1977.0901_23:35   229.46 .339     .000
01142>       [CN=100.0: N= 3.00: Tp= 1.14]
01143>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
01144>       [InterEventTime=  12.00]
01145> R0077:C00009-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01146>     CONTINUOUS NASHYD      5.0 01:INF-West_2  20.14      .481 1977.0901_23:40   229.47 .339     .000
01147>       [CN=100.0: N= 3.00: Tp= 1.26]
01148>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
01149>       [InterEventTime=  12.00]
01150> R0077:C00010-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01151>     CONTINUOUS NASHYD      5.0 01:INF-West_3  14.01      .234 1977.0902_ 0:20   229.46 .339     .000
01152>       [CN=100.0: N= 3.00: Tp= 2.07]
01153>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
01154>       [InterEventTime=  12.00]
01155> R0077:C00011-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01156>     ADD HYD                5.0 02:INF-West_1  14.27      .364 1977.0901_23:35   229.46  n/a     .000
01157>                      +     5.0 02:INF-West_2  20.14      .481 1977.0901_23:40   229.46  n/a     .000
01158>                      +     5.0 02:INF-West_3  14.01      .234 1977.0902_ 0:20   229.46  n/a     .000
01159>                    SUM=    5.0 01:INF-West-T  48.42     1.054 1977.0901_23:40   229.46  n/a     .000
01160> ###################################################################################
01161> # CONTINUOUS RAINFALL DATA
01162> ###################################################################################
01163>  ** END OF RUN :   77
01164>
01165> ***************************************************************************************
01166>
01167>
01168>
01169>
01170>
01171>  RUN#:COMMAND#
01172> R0078:C00001-------------------------------------------------------------------------------------------
01173>       START
01174>       [TZERO =    .00 hrs on 19780101]
01175>       [METOUT=  2   (1=imperial, 2=metric output)]
01176>       [NSTORM=  0 ]
01177>       [NRUN  = 0078 ]
01178> #*******************************************************************************************************
01179> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01180> #*******************************************************************************************************
01181> #  Project Name: Barrhaven Conservancy Development
01182> #  Project Number: 1474
01183> #  Date       : 2021/Oct/18
01184> #  Modeller   : J.Burnett, P.Eng.
01185> #  Updated    : 2022/Dec/07 [JB]
01186> #  Updated    : 2022/Dec/13 [LP]
01187> #  Updated    : 2024/Mar/14 [JB]
01188> #  Company    : J.F. Sabourin and Associates
01189> #  License #  : 2582634
01190> #*******************************************************************************************************
01191> # Ottawa International Airport (1967 - 2003)
01192> R0078:C00002-------------------------------------------------------------------------------------------
01193>   *  READ AES DATA
01194>       [Filename  = YOW_1967_2007.123                                          ]
01195>       [Start_date= 1978.0101: End_date= 1978.1231]
01196>       [DT= 60.min: Length= 8040.hrs: WetHrs=  409: DryHrs= 7631: PTOT= 641.40)
01197>       Maximum average rainfall intensities over
01198>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01199>        36.00    18.15    12.10     6.05     3.04     1.64     1.13      .87      .58    mm/hr
01200>        36.00    36.30    36.30    36.30    36.50    39.40    40.60    41.60    41.60    mm
01201>      19780618 19780618 19780618 19780618 19780619 19780411 19780412 19780620 19780621  date
01202>       Number of rainfall events per following interevent time
01203>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01204>          154      128      118       97       71       58       51       46       33
01205>       Number of events with at least the following durations
01206>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01207>          154       75       44       18        5        0        0        0        0
01208> R0078:C00003-------------------------------------------------------------------------------------------
01209>       COMPUTE API
01210>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01211>       [APImax= 65.36: APIavg= 19.25: APImin=  .25)
01212> #*******************************************************************************************************
01213> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01214> #*******************************************************************************************************
01215> R0078:C00004-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01216>     CONTINUOUS NASHYD      5.0 01:West_1      14.27      .180 1978.0618_17:55   53.70 .084     .000
01217>       [CN= 72.0: N= 3.00: Tp= 1.14]
01218>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
01219>       [InterEventTime=  12.00]
01220> R0078:C00005-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01221>     CONTINUOUS NASHYD      5.0 01:West_2      20.14      .264 1978.0618_18:05   61.75 .096     .000
01222>       [CN= 76.0: N= 3.00: Tp= 1.26]
01223>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
01224>       [InterEventTime=  12.00]
01225> R0078:C00006-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01226>     CONTINUOUS NASHYD      5.0 01:West_3      14.01      .098 1978.0618_18:50   52.22 .081     .000
01227>       [CN= 71.0: N= 3.00: Tp= 2.07]
01228>       [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
01229>       [InterEventTime=  12.00]
01230> R0078:C00007-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01231>     ADD HYD                5.0 02:West_1      14.27      .180 1978.0618_17:55   53.70  n/a     .000
01232>                      +     5.0 02:West_2      20.14      .264 1978.0618_18:05   61.75  n/a     .000
01233>                      +     5.0 02:West_3      14.01      .098 1978.0618_18:50   52.22  n/a     .000
01234>                    SUM=    5.0 01:West-Total  48.42      .523 1978.0618_18:05   56.62  n/a     .000
01235> #*******************************************************************************************************
01236> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01237> #*******************************************************************************************************
01238> #                Set infiltration to 0 (CN = 99.99) for water balance analysis
01239> #*******************************************************************************************************
01240> R0078:C00008-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01241>     CONTINUOUS NASHYD      5.0 01:INF-West_1  14.27      .441 1978.0618_17:45   214.53 .334     .000
01242>       [CN=100.0: N= 3.00: Tp= 1.14]
01243>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
01244>       [InterEventTime=  12.00]
01245> R0078:C00009-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01246>     CONTINUOUS NASHYD      5.0 01:INF-West_2  20.14      .568 1978.0618_17:55   214.53 .334     .000
01247>       [CN=100.0: N= 3.00: Tp= 1.26]
01248>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
01249>       [InterEventTime=  12.00]
01250> R0078:C00010-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01251>     CONTINUOUS NASHYD      5.0 01:INF-West_3  14.01      .247 1978.0618_18:40   214.53 .334     .000
01252>       [CN=100.0: N= 3.00: Tp= 2.07]
01253>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
01254>       [InterEventTime=  12.00]
01255> R0078:C00011-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01256>     ADD HYD                5.0 02:INF-West_1  14.27      .441 1978.0618_17:45   214.53  n/a     .000
01257>                      +     5.0 02:INF-West_2  20.14      .568 1978.0618_17:55   214.53  n/a     .000
01258>                      +     5.0 02:INF-West_3  14.01      .247 1978.0618_18:40   214.53  n/a     .000
01259>                    SUM=    5.0 01:INF-West-T  48.42     1.209 1978.0618_17:55   214.53  n/a     .000
01260> ###################################################################################
01261> # CONTINUOUS RAINFALL DATA
01262> ###################################################################################
01263>  ** END OF RUN :   78
01264>
01265> ***************************************************************************************
01266>
01267>
01268>
01269>
01270>
01271>  RUN#:COMMAND#
01272> R0079:C00001-------------------------------------------------------------------------------------------
01273>       START
01274>       [TZERO =    .00 hrs on 19790101]
01275>       [METOUT=  2   (1=imperial, 2=metric output)]
01276>       [NSTORM=  0 ]
01277>       [NRUN  = 0079 ]
01278> #*******************************************************************************************************
01279> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01280> #*******************************************************************************************************
01281> #  Project Name: Barrhaven Conservancy Development
01282> #  Project Number: 1474
01283> #  Date       : 2021/Oct/18
01284> #  Modeller   : J.Burnett, P.Eng.
01285> #  Updated    : 2022/Dec/07 [JB]
01286> #  Updated    : 2022/Dec/13 [LP]
01287> #  Updated    : 2024/Mar/14 [JB]
01288> #  Company    : J.F. Sabourin and Associates
01289> #  License #  : 2582634
01290> #*******************************************************************************************************
01291> # Ottawa International Airport (1967 - 2003)
01292> R0079:C00002-------------------------------------------------------------------------------------------
01293>   *  READ AES DATA
01294>       [Filename  = YOW_1967_2007.123                                          ]
01295>       [Start_date= 1979.0101: End_date= 1979.1231]
01296>       [DT= 60.min: Length= 8760.hrs: WetHrs=  546: DryHrs= 8214: PTOT= 866.50)
01297>       Maximum average rainfall intensities over
01298>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01299>        34.90    22.00    14.67     7.33     5.14     2.63     1.75     1.31      .88    mm/hr
01300>        34.90    44.00    44.00    44.00    61.70    63.00    63.00    63.00    63.00    mm
01301>      19790616 19790616 19790616 19790616 19790914 19790915 19790915 19790915 19790917  date
01302>       Number of rainfall events per following interevent time
01303>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01304>          188      147      129      103       86       60       53       43       36
01305>       Number of events with at least the following durations
01306>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01307>          187       97       65       25        6        1        0        0        0
01308> R0079:C00003-------------------------------------------------------------------------------------------
01309>       COMPUTE API
01310>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01311>       [APImax= 78.42: APIavg= 23.13: APImin=  .13)
01312> #*******************************************************************************************************
01313> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01314> #*******************************************************************************************************
01315> R0079:C00004-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01316>     CONTINUOUS NASHYD      5.0 01:West_1      14.27      .252 1979.0616_14:55   141.56 .163     .000
01317>       [CN= 72.0: N= 3.00: Tp= 1.14]
01318>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
01319>       [InterEventTime=  12.00]
01320> R0079:C00005-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01321>     CONTINUOUS NASHYD      5.0 01:West_2      20.14      .367 1979.0616_15:00   159.06 .184     .000
01322>       [CN= 76.0: N= 3.00: Tp= 1.26]
01323>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
01324>       [InterEventTime=  12.00]
01325> R0079:C00006-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01326>     CONTINUOUS NASHYD      5.0 01:West_3      14.01      .139 1979.0616_15:45   138.25 .160     .000
01327>       [CN= 71.0: N= 3.00: Tp= 2.07]
01328>       [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
01329>       [InterEventTime=  12.00]
01330> R0079:C00007-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01331>     ADD HYD                5.0 02:West_1      14.27      .252 1979.0616_14:55   141.55  n/a     .000
01332>                      +     5.0 02:West_2      20.14      .367 1979.0616_15:00   159.06  n/a     .000
01333>                      +     5.0 02:West_3      14.01      .139 1979.0616_15:45   138.25  n/a     .000
01334>                    SUM=    5.0 01:West-Total  48.42      .731 1979.0616_15:00   147.88  n/a     .000
01335> #*******************************************************************************************************
01336> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01337> #*******************************************************************************************************
01338> #                Set infiltration to 0 (CN = 99.99) for water balance analysis
01339> #*******************************************************************************************************
01340> R0079:C00008-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01341>     CONTINUOUS NASHYD      5.0 01:INF-West_1  14.27      .561 1979.0616_14:40   372.09 .429     .000
01342>       [CN=100.0: N= 3.00: Tp= 1.14]
01343>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
01344>       [InterEventTime=  12.00]
01345> R0079:C00009-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01346>     CONTINUOUS NASHYD      5.0 01:INF-West_2  20.14      .725 1979.0616_14:45   372.09 .429     .000
01347>       [CN=100.0: N= 3.00: Tp= 1.26]
01348>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
01349>       [InterEventTime=  12.00]
01350> R0079:C00010-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01351>     CONTINUOUS NASHYD      5.0 01:INF-West_3  14.01      .318 1979.0616_15:35   372.09 .429     .000
01352>       [CN=100.0: N= 3.00: Tp= 2.07]
01353>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
01354>       [InterEventTime=  12.00]
01355> R0079:C00011-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01356>     ADD HYD                5.0 02:INF-West_1  14.27      .561 1979.0616_14:40   372.09  n/a     .000
01357>                      +     5.0 02:INF-West_2  20.14      .725 1979.0616_14:45   372.09  n/a     .000
01358>                      +     5.0 02:INF-West_3  14.01      .318 1979.0616_15:35   372.09  n/a     .000
01359>                    SUM=    5.0 01:INF-West-T  48.42     1.548 1979.0616_14:50   372.09  n/a     .000
01360> ###################################################################################
01361> # CONTINUOUS RAINFALL DATA
01362> ###################################################################################
01363>  ** END OF RUN :   79
01364>
01365> ***************************************************************************************
01366>
01367>
01368>
01369>
01370>
01371>  RUN#:COMMAND#
01372> R0080:C00001-------------------------------------------------------------------------------------------
01373>       START
01374>       [TZERO =    .00 hrs on 19800101]
01375>       [METOUT=  2   (1=imperial, 2=metric output)]
01376>       [NSTORM=  0 ]
01377>       [NRUN  = 0080 ]
01378> #*******************************************************************************************************
01379> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01380> #*******************************************************************************************************
01381> #  Project Name: Barrhaven Conservancy Development
01382> #  Project Number: 1474
01383> #  Date       : 2021/Oct/18
01384> #  Modeller   : J.Burnett, P.Eng.
01385> #  Updated    : 2022/Dec/07 [JB]
01386> #  Updated    : 2022/Dec/13 [LP]
01387> #  Updated    : 2024/Mar/14 [JB]
01388> #  Company    : J.F. Sabourin and Associates
01389> #  License #  : 2582634
01390> #*******************************************************************************************************
01391> # Ottawa International Airport (1967 - 2003)
01392> R0080:C00002-------------------------------------------------------------------------------------------
01393>   *  READ AES DATA
01394>       [Filename  = YOW_1967_2007.123                                          ]
01395>       [Start_date= 1980.0101: End_date= 1980.1230]
01396>       [DT= 60.min: Length= 8760.hrs: WetHrs=  427: DryHrs= 8333: PTOT= 622.00)
01397>       Maximum average rainfall intensities over
01398>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01399>        15.00     9.20     6.50     4.72     3.57     1.97     1.35     1.01      .86    mm/hr
01400>        15.00    18.40    19.50    28.30    42.80    47.20    48.60    48.60    62.00    mm
01401>      19800830 19800830 19801025 19801025 19801026 19801026 19801027 19801027 19800902  date
01402>       Number of rainfall events per following interevent time
01403>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01404>          151      125      112       93       79       62       49       44       28
01405>       Number of events with at least the following durations
01406>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01407>          150       85       54       16        4        0        0        0        0
01408> R0080:C00003-------------------------------------------------------------------------------------------
01409>       COMPUTE API
01410>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01411>       [APImax= 68.72: APIavg= 17.50: APImin=  .06)
01412> #*******************************************************************************************************
01413> #                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01414> #*******************************************************************************************************
01415> R0080:C00004-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01416>     CONTINUOUS NASHYD      5.0 01:West_1      14.27      .080 1980.1026_ 0:30    58.50 .094     .000
01417>       [CN= 72.0: N= 3.00: Tp= 1.14]
01418>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
01419>       [InterEventTime=  12.00]
01420> R0080:C00005-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01421>     CONTINUOUS NASHYD      5.0 01:West_2      20.14      .122 1980.1026_ 0:35    66.79 .107     .000
01422>       [CN= 76.0: N= 3.00: Tp= 1.26]
01423>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
01424>       [InterEventTime=  12.00]
01425> R0080:C00006-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01426>     CONTINUOUS NASHYD      5.0 01:West_3      14.01      .061 1980.1026_ 1:10    56.97 .092     .000
01427>       [CN= 71.0: N= 3.00: Tp= 2.07]
01428>       [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
01429>       [InterEventTime=  12.00]
01430> R0080:C00007-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01431>     ADD HYD                5.0 02:West_1      14.27      .080 1980.1026_ 0:30    58.50  n/a     .000
01432>                      +     5.0 02:West_2      20.14      .122 1980.1026_ 0:35    66.79  n/a     .000
01433>                      +     5.0 02:West_3      14.01      .061 1980.1026_ 1:10    56.97  n/a     .000
01434>                    SUM=    5.0 01:West-Total  48.42      .260 1980.1026_ 0:35    61.50  n/a     .000
01435> #*******************************************************************************************************
01436> #                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01437> #*******************************************************************************************************
01438> #                Set infiltration to 0 (CN = 99.99) for water balance analysis
01439> #*******************************************************************************************************
01440> R0080:C00008-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
```

```
01441>     CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .167 1980.0901_21:10  202.99 .326     .000
01442>       [CN=100.0: N= 3.00: Tp= 1.14]
01443>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
01444>       [InterEventTime=  12.00]
01445> R0080:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01446>     CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .221 1980.0901_21:15  202.99 .326     .000
01447>       [CN=100.0: N= 3.00: Tp= 1.26]
01448>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
01449>       [InterEventTime=  12.00]
01450> R0080:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01451>     CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .133 1980.0321_16:10  202.99 .326     .000
01452>       [CN=100.0: N= 3.00: Tp= 2.07]
01453>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
01454>       [InterEventTime=  12.00]
01455> R0080:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01456>     ADD HYD               5.0 02:INF-West_1    14.27     .167 1980.0901_21:10  202.99  n/a     .000
01457>                     +     5.0 02:INF-West_2    20.14     .221 1980.0901_21:15  202.99  n/a     .000
01458>                     +     5.0 02:INF-West_3    14.01     .133 1980.0321_16:10  202.99  n/a     .000
01459>                   SUM=    5.0 01:INF-West-T    48.42     .491 1980.0321_15:30  202.99  n/a     .000
01460> ##############################################################################
01461> # CONTINUOUS RAINFALL DATA
01462> ##############################################################################
01463>  ** END OF RUN :   80
01464>
01465> *****************************************************************************
01466>
01467>
01468>
01469>
01470>
01471>  RUN#:COMMAND#
01472> R0081:C00001------------------------------------------------------------------------------------------
01473>     START
01474>       [TZERO =    .00 hrs on 19810101]
01475>       [METOUT=   2    (1=imperial, 2=metric output)]
01476>       [NSTORM=   0 ]
01477>       [NRUN  = 0081 ]
01478> *****************************************************************************************************
01479> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01480> *****************************************************************************************************
01481> #  Project Name: Barrhaven Conservancy Development
01482> #  Project Number: 1474
01483> #  Date        : 2021/Oct/18
01484> #  Modeller    : J.Burnett, P.Eng.
01485> #  Updated     : 2022/Dec/07 [JB]
01486> #  Updated     : 2022/Dec/13 [LP]
01487> #  Updated     : 2024/Mar/14 [JB]
01488> #  Company     : J.F. Sabourin and Associates
01489> #  License #   : 2582634
01490> *****************************************************************************************************
01491> # Ottawa International Airport (1967 - 2003)
01492> R0081:C00002------------------------------------------------------------------------------------------
01493>   *  READ AES DATA
01494>       [Filename  = YOW_1967_2007.123                                    ]
01495>       [Start_date= 1981.0101: End_date= 1981.1231]
01496>       [DT= 60.min: Length= 8760.hrs: WetHrs=  641: DryHrs= 8119: PTOT= 936.40)
01497>       Maximum average rainfall intensities over
01498>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01499>        35.30    31.85    26.20    18.15     9.27     4.83     3.22     2.41     1.62     mm/hr
01500>        35.30    63.70    78.60   108.90   111.30   115.90   115.90   115.90   116.70     mm
01501>       19810805 19810805 19810805 19810805 19810805 19810806 19810806 19810806 19810805  date
01502>       Number of rainfall events per following interevent time
01503>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01504>          226      171      136      109       83       68       59       47       30
01505>       Number of events with at least the following durations
01506>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01507>          225      128       79       28        7        0        0        0        0
01508> R0081:C00003------------------------------------------------------------------------------------------
01509>       COMPUTE API
01510>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01511>       [APImax=123.49: APIavg= 25.69: APImin=  .26]
01512> *****************************************************************************************************
01513> #                    Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01514> *****************************************************************************************************
01515> R0081:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01516>     CONTINUOUS NASHYD     5.0 01:West_1        14.27     .785 1981.0805_ 2:55  179.64 .192     .000
01517>       [CN= 72.0: N= 3.00: Tp= 1.14]
01518>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
01519>       [InterEventTime=  12.00]
01520> R0081:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01521>     CONTINUOUS NASHYD     5.0 01:West_2        20.14    1.116 1981.0805_ 3:05  196.98 .210     .000
01522>       [CN= 76.0: N= 3.00: Tp= 1.26]
01523>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
01524>       [InterEventTime=  12.00]
01525> R0081:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01526>     CONTINUOUS NASHYD     5.0 01:West_3        14.01     .557 1981.0805_ 4:25  176.32 .188     .000
01527>       [CN= 71.0: N= 3.00: Tp= 2.07]
01528>       [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
01529>       [InterEventTime=  12.00]
01530> R0081:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01531>     ADD HYD               5.0 02:West_1        14.27     .785 1981.0805_ 2:55  179.64  n/a     .000
01532>                     +     5.0 02:West_2        20.14    1.116 1981.0805_ 3:05  196.98  n/a     .000
01533>                     +     5.0 02:West_3        14.01     .557 1981.0805_ 4:25  176.32  n/a     .000
01534>                   SUM=    5.0 01:West-Total    48.42    2.353 1981.0805_ 3:10  185.89  n/a     .000
01535> *****************************************************************************************************
01536> #                    Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01537> *****************************************************************************************************
01538> #                    Set infiltration to 0 (CN = 99.99) for water balance analysis
01539> *****************************************************************************************************
01540> R0081:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01541>     CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27    1.007 1981.0805_ 2:35  380.71 .407     .000
01542>       [CN=100.0: N= 3.00: Tp= 1.14]
01543>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
01544>       [InterEventTime=  12.00]
01545> R0081:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01546>     CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14    1.352 1981.0805_ 2:40  380.71 .407     .000
01547>       [CN=100.0: N= 3.00: Tp= 1.26]
01548>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
01549>       [InterEventTime=  12.00]
01550> R0081:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01551>     CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .710 1981.0805_ 3:45  380.70 .407     .000
01552>       [CN=100.0: N= 3.00: Tp= 2.07]
01553>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
01554>       [InterEventTime=  12.00]
01555> R0081:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01556>     ADD HYD               5.0 02:INF-West_1    14.27    1.007 1981.0805_ 2:35  380.70  n/a     .000
01557>                     +     5.0 02:INF-West_2    20.14    1.352 1981.0805_ 2:40  380.71  n/a     .000
01558>                     +     5.0 02:INF-West_3    14.01     .710 1981.0805_ 3:45  380.70  n/a     .000
01559>                   SUM=    5.0 01:INF-West-T    48.42    2.967 1981.0805_ 2:45  380.70  n/a     .000
01560> ##############################################################################
01561> # CONTINUOUS RAINFALL DATA
01562> ##############################################################################
01563>  ** END OF RUN :   81
01564>
01565> *****************************************************************************
01566>
01567>
01568>
01569>
01570>
01571>  RUN#:COMMAND#
01572> R0082:C00001------------------------------------------------------------------------------------------
01573>     START
01574>       [TZERO =    .00 hrs on 19820101]
01575>       [METOUT=   2    (1=imperial, 2=metric output)]
01576>       [NSTORM=   0 ]
01577>       [NRUN  = 0082 ]
01578> *****************************************************************************************************
01579> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01580> *****************************************************************************************************
01581> #  Project Name: Barrhaven Conservancy Development
01582> #  Project Number: 1474
01583> #  Date        : 2021/Oct/18
01584> #  Modeller    : J.Burnett, P.Eng.
01585> #  Updated     : 2022/Dec/07 [JB]
01586> #  Updated     : 2022/Dec/13 [LP]
01587> #  Updated     : 2024/Mar/14 [JB]
01588> #  Company     : J.F. Sabourin and Associates
01589> #  License #   : 2582634
01590> *****************************************************************************************************
01591> # Ottawa International Airport (1967 - 2003)
01592> R0082:C00002------------------------------------------------------------------------------------------
01593>   *  READ AES DATA
01594>       [Filename  = YOW_1967_2007.123                                    ]
01595>       [Start_date= 1982.0101: End_date= 1982.1231]
01596>       [DT= 60.min: Length= 8760.hrs: WetHrs=  436: DryHrs= 8324: PTOT= 596.10)
01597>       Maximum average rainfall intensities over
01598>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01599>        19.80    10.75     7.60     5.83     3.36     1.68     1.12      .96      .80     mm/hr
01600>        19.80    21.50    22.80    35.00    40.30    40.30    40.30    46.30    57.30     mm
01601>       19820801 19820901 19820825 19820825 19820825 19820826 19820826 19820825 19820825  date
01602>       Number of rainfall events per following interevent time
01603>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01604>          134      110       98       78       66       57       48       41       33
01605>       Number of events with at least the following durations
01606>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01607>          133       81       58       18        4        1        1        0        0
01608> R0082:C00003------------------------------------------------------------------------------------------
01609>       COMPUTE API
01610>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01611>       [APImax= 56.66: APIavg= 16.78: APImin=  .03]
01612> *****************************************************************************************************
01613> #                    Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01614> *****************************************************************************************************
01615> R0082:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01616>     CONTINUOUS NASHYD     5.0 01:West_1        14.27     .102 1982.0825_12:15   47.17 .079     .000
01617>       [CN= 72.0: N= 3.00: Tp= 1.14]
01618>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
01619>       [InterEventTime=  12.00]
01620> R0082:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01621>     CONTINUOUS NASHYD     5.0 01:West_2        20.14     .159 1982.0825_12:25   54.10 .091     .000
01622>       [CN= 76.0: N= 3.00: Tp= 1.26]
01623>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
01624>       [InterEventTime=  12.00]
01625> R0082:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01626>     CONTINUOUS NASHYD     5.0 01:West_3        14.01     .076 1982.0825_13:35   45.89 .077     .000
01627>       [CN= 71.0: N= 3.00: Tp= 2.07]
01628>       [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
01629>       [InterEventTime=  12.00]
01630> R0082:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01631>     ADD HYD               5.0 02:West_1        14.27     .102 1982.0825_12:15   47.17  n/a     .000
01632>                     +     5.0 02:West_2        20.14     .159 1982.0825_12:25   54.10  n/a     .000
01633>                     +     5.0 02:West_3        14.01     .076 1982.0825_13:35   45.89  n/a     .000
01634>                   SUM=    5.0 01:West-Total    48.42     .327 1982.0825_12:30   49.68  n/a     .000
01635> *****************************************************************************************************
01636> #                    Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01637> *****************************************************************************************************
01638> #                    Set infiltration to 0 (CN = 99.99) for water balance analysis
01639> *****************************************************************************************************
01640> R0082:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01641>     CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .264 1982.0825_11:35  182.36 .306     .000
01642>       [CN=100.0: N= 3.00: Tp= 1.14]
01643>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
01644>       [InterEventTime=  12.00]
01645> R0082:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01646>     CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .358 1982.0825_11:40  182.36 .306     .000
01647>       [CN=100.0: N= 3.00: Tp= 1.26]
01648>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
01649>       [InterEventTime=  12.00]
01650> R0082:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01651>     CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .196 1982.0825_12:45  182.36 .306     .000
01652>       [CN=100.0: N= 3.00: Tp= 2.07]
01653>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
01654>       [InterEventTime=  12.00]
01655> R0082:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01656>     ADD HYD               5.0 02:INF-West_1    14.27     .264 1982.0825_11:35  182.36  n/a     .000
01657>                     +     5.0 02:INF-West_2    20.14     .358 1982.0825_11:40  182.36  n/a     .000
01658>                     +     5.0 02:INF-West_3    14.01     .196 1982.0825_12:45  182.36  n/a     .000
01659>                   SUM=    5.0 01:INF-West-T    48.42     .794 1982.0825_11:50  182.36  n/a     .000
01660> ##############################################################################
01661> # CONTINUOUS RAINFALL DATA
01662> ##############################################################################
01663>  ** END OF RUN :   82
01664>
01665> *****************************************************************************
01666>
01667>
01668>
01669>
01670>
01671>  RUN#:COMMAND#
01672> R0083:C00001------------------------------------------------------------------------------------------
01673>     START
01674>       [TZERO =    .00 hrs on 19830101]
01675>       [METOUT=   2    (1=imperial, 2=metric output)]
01676>       [NSTORM=   0 ]
01677>       [NRUN  = 0083 ]
01678> *****************************************************************************************************
01679> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01680> *****************************************************************************************************
01681> #  Project Name: Barrhaven Conservancy Development
01682> #  Project Number: 1474
01683> #  Date        : 2021/Oct/18
01684> #  Modeller    : J.Burnett, P.Eng.
01685> #  Updated     : 2022/Dec/07 [JB]
01686> #  Updated     : 2022/Dec/13 [LP]
01687> #  Updated     : 2024/Mar/14 [JB]
01688> #  Company     : J.F. Sabourin and Associates
01689> #  License #   : 2582634
01690> *****************************************************************************************************
01691> # Ottawa International Airport (1967 - 2003)
01692> R0083:C00002------------------------------------------------------------------------------------------
01693>   *  READ AES DATA
01694>       [Filename  = YOW_1967_2007.123                                    ]
01695>       [Start_date= 1983.0101: End_date= 1983.1231]
01696>       [DT= 60.min: Length= 8760.hrs: WetHrs=  462: DryHrs= 8298: PTOT= 587.50)
01697>       Maximum average rainfall intensities over
01698>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01699>        10.40     9.70     7.53     5.43     3.18     2.36     1.68     1.32      .92     mm/hr
01700>        10.40    19.40    22.60    32.60    38.20    56.70    60.40    63.20    66.00     mm
01701>       19831004 19830921 19830921 19831005 19831005 19831005 19831005 19831006 19831008  date
01702>       Number of rainfall events per following interevent time
01703>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01704>          143      115      103       85       70       55       50       45       35
01705>       Number of events with at least the following durations
01706>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01707>          142       87       56       28        5        0        0        0        0
01708> R0083:C00003------------------------------------------------------------------------------------------
01709>       COMPUTE API
01710>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01711>       [APImax= 79.86: APIavg= 16.57: APImin=  .05)
01712> *****************************************************************************************************
01713> #                    Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01714> *****************************************************************************************************
01715> R0083:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01716>     CONTINUOUS NASHYD     5.0 01:West_1        14.27     .132 1983.1005_16:30   51.78 .088     .000
01717>       [CN= 72.0: N= 3.00: Tp= 1.14]
01718>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
01719>       [InterEventTime=  12.00]
01720> R0083:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01721>     CONTINUOUS NASHYD     5.0 01:West_2        20.14     .202 1983.1005_16:35   58.94 .100     .000
01722>       [CN= 76.0: N= 3.00: Tp= 1.26]
01723>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
01724>       [InterEventTime=  12.00]
01725> R0083:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01726>     CONTINUOUS NASHYD     5.0 01:West_3        14.01     .100 1983.1005_17:50   50.45 .086     .000
01727>       [CN= 71.0: N= 3.00: Tp= 2.07]
01728>       [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
01729>       [InterEventTime=  12.00]
01730> R0083:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01731>     ADD HYD               5.0 02:West_1        14.27     .132 1983.1005_16:30   51.78  n/a     .000
01732>                     +     5.0 02:West_2        20.14     .202 1983.1005_16:35   58.94  n/a     .000
01733>                     +     5.0 02:West_3        14.01     .100 1983.1005_17:50   50.45  n/a     .000
01734>                   SUM=    5.0 01:West-Total    48.42     .419 1983.1005_16:45   54.37  n/a     .000
01735> *****************************************************************************************************
01736> #                    Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01737> *****************************************************************************************************
01738> #                    Set infiltration to 0 (CN = 99.99) for water balance analysis
01739> *****************************************************************************************************
01740> R0083:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01741>     CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .252 1983.1005_16:00  172.99 .294     .000
01742>       [CN=100.0: N= 3.00: Tp= 1.14]
01743>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
01744>       [InterEventTime=  12.00]
01745> R0083:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01746>     CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .339 1983.1005_16:10  172.99 .294     .000
01747>       [CN=100.0: N= 3.00: Tp= 1.26]
01748>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
01749>       [InterEventTime=  12.00]
01750> R0083:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01751>     CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .184 1983.1005_17:20  172.99 .294     .000
01752>       [CN=100.0: N= 3.00: Tp= 2.07]
01753>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
01754>       [InterEventTime=  12.00]
01755> R0083:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
01756>     ADD HYD               5.0 02:INF-West_1    14.27     .252 1983.1005_16:00  172.99  n/a     .000
01757>                     +     5.0 02:INF-West_2    20.14     .339 1983.1005_16:10  172.99  n/a     .000
01758>                     +     5.0 02:INF-West_3    14.01     .184 1983.1005_17:20  172.99  n/a     .000
01759>                   SUM=    5.0 01:INF-West-T    48.42     .746 1983.1005_16:15  172.99  n/a     .000
01760> ##############################################################################
01761> # CONTINUOUS RAINFALL DATA
01762> ##############################################################################
01763>  ** END OF RUN :   83
01764>
01765> *****************************************************************************
01766>
01767>
01768>
01769>
01770>
01771>  RUN#:COMMAND#
01772> R0084:C00001------------------------------------------------------------------------------------------
01773>     START
01774>       [TZERO =    .00 hrs on 19840101]
01775>       [METOUT=   2    (1=imperial, 2=metric output)]
01776>       [NSTORM=   0 ]
01777>       [NRUN  = 0084 ]
01778> *****************************************************************************************************
01779> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01780> *****************************************************************************************************
01781> #  Project Name: Barrhaven Conservancy Development
01782> #  Project Number: 1474
01783> #  Date        : 2021/Oct/18
01784> #  Modeller    : J.Burnett, P.Eng.
01785> #  Updated     : 2022/Dec/07 [JB]
01786> #  Updated     : 2022/Dec/13 [LP]
01787> #  Updated     : 2024/Mar/14 [JB]
01788> #  Company     : J.F. Sabourin and Associates
01789> #  License #   : 2582634
01790> *****************************************************************************************************
01791> # Ottawa International Airport (1967 - 2003)
01792> R0084:C00002------------------------------------------------------------------------------------------
01793>   *  READ AES DATA
01794>       [Filename  = YOW_1967_2007.123                                    ]
01795>       [Start_date= 1984.0101: End_date= 1984.1230]
01796>       [DT= 60.min: Length= 8760.hrs: WetHrs=  308: DryHrs= 8452: PTOT= 459.40)
01797>       Maximum average rainfall intensities over
01798>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01799>        17.80     9.70     7.57     4.33     3.01     1.85     1.58     1.19     1.00     mm/hr
01800>        17.80    19.40    22.70    26.00    36.10    44.30    57.00    57.00    72.20     mm
```

```
      19840812 19840812 19840812 19840806 19840812 19840813 19840813 19840814 19840813  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         98       80       75       63       55       48       40       34       26
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         97       58       39       11        3        1        0        0        0
R0084:C00003-----------------------------------------------------------------------------------------
     COMPUTE API
       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
       {APImax= 86.83: APIavg= 13.22: APImin=   .00}
#*************************************************************************************************************************
#                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#*************************************************************************************************************************
R0084:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_1        14.27     .112 1984.0813_ 7:05   49.92 .109     .000
       [CN= 72.0: N= 3.00: Tp= 1.14]
       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
       [InterEventTime=  12.00]
R0084:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_2        20.14     .162 1984.0813_ 7:15   56.90 .124     .000
       [CN= 76.0: N= 3.00: Tp= 1.26]
       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
       [InterEventTime=  12.00]
R0084:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_3        14.01     .073 1984.0813_ 8:35   48.62 .106     .000
       [CN= 71.0: N= 3.00: Tp= 2.07]
       [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
       [InterEventTime=  12.00]
R0084:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:West_1        14.27     .112 1984.0813_ 7:05   49.92  n/a     .000
                   +      5.0 02:West_2        20.14     .162 1984.0813_ 7:15   56.90  n/a     .000
                   +      5.0 02:West_3        14.01     .073 1984.0813_ 8:35   48.62  n/a     .000
                SUM=      5.0 01:West-Total    48.42     .332 1984.0813_ 7:20   52.45  n/a     .000
#*************************************************************************************************************************
#                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#*************************************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#*************************************************************************************************************************
R0084:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .223 1984.0812_ 7:45  167.70 .365     .000
       [CN=100.0: N= 3.00: Tp= 1.14]
       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
       [InterEventTime=  12.00]
R0084:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .287 1984.0812_ 7:50  167.70 .365     .000
       [CN=100.0: N= 3.00: Tp= 1.26]
       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
       [InterEventTime=  12.00]
R0084:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .142 1984.0807_ 0:00  167.70 .365     .000
       [CN=100.0: N= 3.00: Tp= 2.07]
       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
       [InterEventTime=  12.00]
R0084:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-West_1    14.27     .223 1984.0812_ 7:45  167.70  n/a     .000
                   +      5.0 02:INF-West_2    20.14     .287 1984.0812_ 7:50  167.70  n/a     .000
                   +      5.0 02:INF-West_3    14.01     .142 1984.0807_ 0:00  167.70  n/a     .000
                SUM=      5.0 01:INF-West-T    48.42     .628 1984.0806_23:25  167.70  n/a     .000
################################################################################
# CONTINUOUS RAINFALL DATA
################################################################################
  ** END OF RUN :   84

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 RUN#:COMMAND#
R0085:C00001-----------------------------------------------------------------------------------------
     START
       [TZERO =    .00 hrs on 19850101]
       [METOUT=   2    (1=imperial, 2=metric output)]
       [NSTORM=   0 ]
       [NRUN  = 0085 ]
#*************************************************************************************************************************
#  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]
#  Updated      : 2024/Mar/14 [JB]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#*************************************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0085:C00002-----------------------------------------------------------------------------------------
  *  READ AES DATA
       [Filename  = YOW_1967_2007.123                                           ]
       [Start_date= 1985.0101: End_date= 1985.1231]
       {DT= 60.min: Length= 8760.hrs: WetHrs=  354: DryHrs= 8406: PTOT= 559.90}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       19.00    13.60    11.73     6.60     3.30     1.65     1.11      .89      .60    mm/hr
       19.00    27.20    35.20    39.60    39.60    39.60    40.10    42.80    43.40    mm
      19850716 19850617 19850617 19850618 19850618 19850618 19850618 19850827 19850827  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
        108       88       84       74       69       56       49       43       32
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
        107       70       43       13        4        1        0        0        0
R0085:C00003-----------------------------------------------------------------------------------------
     COMPUTE API
       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
       {APImax= 57.29: APIavg= 15.86: APImin=   .20}
#*************************************************************************************************************************
#                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#*************************************************************************************************************************
R0085:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_1        14.27     .125 1985.0618_ 0:35   52.48 .094     .000
       [CN= 72.0: N= 3.00: Tp= 1.14]
       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
       [InterEventTime=  12.00]
R0085:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_2        20.14     .192 1985.0618_ 0:40   60.37 .108     .000
       [CN= 76.0: N= 3.00: Tp= 1.26]
       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
       [InterEventTime=  12.00]
R0085:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_3        14.01     .085 1985.0618_ 1:45   51.04 .091     .000
       [CN= 71.0: N= 3.00: Tp= 2.07]
       [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
       [InterEventTime=  12.00]
R0085:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:West_1        14.27     .125 1985.0618_ 0:35   52.48  n/a     .000
                   +      5.0 02:West_2        20.14     .192 1985.0618_ 0:40   60.37  n/a     .000
                   +      5.0 02:West_3        14.01     .085 1985.0618_ 1:45   51.04  n/a     .000
                SUM=      5.0 01:West-Total    48.42     .389 1985.0618_ 0:45   55.34  n/a     .000
#*************************************************************************************************************************
#                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#*************************************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#*************************************************************************************************************************
R0085:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .328 1985.0618_ 0:10  212.50 .380     .000
       [CN=100.0: N= 3.00: Tp= 1.14]
       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
       [InterEventTime=  12.00]
R0085:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .441 1985.0618_ 0:15  212.50 .380     .000
       [CN=100.0: N= 3.00: Tp= 1.26]
       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
       [InterEventTime=  12.00]
R0085:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .224 1985.0618_ 1:10  212.50 .380     .000
       [CN=100.0: N= 3.00: Tp= 2.07]
       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
       [InterEventTime=  12.00]
R0085:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-West_1    14.27     .328 1985.0618_ 0:10  212.50  n/a     .000
                   +      5.0 02:INF-West_2    20.14     .441 1985.0618_ 0:15  212.50  n/a     .000
                   +      5.0 02:INF-West_3    14.01     .224 1985.0618_ 1:10  212.50  n/a     .000
                SUM=      5.0 01:INF-West-T    48.42     .964 1985.0618_ 0:20  212.50  n/a     .000
################################################################################
# CONTINUOUS RAINFALL DATA
################################################################################
  ** END OF RUN :   85

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





 RUN#:COMMAND#
R0086:C00001-----------------------------------------------------------------------------------------
     START
       [TZERO =    .00 hrs on 19860101]
       [METOUT=   2    (1=imperial, 2=metric output)]
       [NSTORM=   0 ]
       [NRUN  = 0086 ]
#*************************************************************************************************************************
#  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]
#  Updated      : 2024/Mar/14 [JB]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#*************************************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0086:C00002-----------------------------------------------------------------------------------------
  *  READ AES DATA
       [Filename  = YOW_1967_2007.123                                           ]
       [Start_date= 1986.0101: End_date= 1986.1231]
       {DT= 60.min: Length= 8040.hrs: WetHrs=  520: DryHrs= 7520: PTOT= 849.40}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       18.30    17.80    13.57     7.07     4.84     2.89     2.42     1.85     1.31    mm/hr
       18.30    35.60    40.70    42.40    58.10    69.30    87.00    88.60    94.40    mm
      19860729 19860729 19860729 19860729 19860912 19860912 19860912 19860912 19860913  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
        178      144      131      104       80       63       53       48       33
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
        177      104       76       24        2        0        0        0        0
R0086:C00003-----------------------------------------------------------------------------------------
     COMPUTE API
       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
       {APImax=102.23: APIavg= 25.30: APImin=   .17}
#*************************************************************************************************************************
#                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#*************************************************************************************************************************
R0086:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_1        14.27     .258 1986.0911_23:40  146.75 .173     .000
       [CN= 72.0: N= 3.00: Tp= 1.14]
       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
       [InterEventTime=  12.00]
R0086:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_2        20.14     .376 1986.0911_23:45  163.14 .192     .000
       [CN= 76.0: N= 3.00: Tp= 1.26]
       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
       [InterEventTime=  12.00]
R0086:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_3        14.01     .190 1986.0912_ 0:30  143.62 .169     .000
       [CN= 71.0: N= 3.00: Tp= 2.07]
       [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
       [InterEventTime=  12.00]
R0086:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:West_1        14.27     .258 1986.0911_23:40  146.75  n/a     .000
                   +      5.0 02:West_2        20.14     .376 1986.0911_23:45  163.15  n/a     .000
                   +      5.0 02:West_3        14.01     .190 1986.0912_ 0:30  143.62  n/a     .000
                SUM=      5.0 01:West-Total    48.42     .807 1986.0911_23:50  152.66  n/a     .000
#*************************************************************************************************************************
#                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#*************************************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#*************************************************************************************************************************
R0086:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .422 1986.0729_15:40  340.34 .401     .000
       [CN=100.0: N= 3.00: Tp= 1.14]
       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
       [InterEventTime=  12.00]
R0086:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .560 1986.0729_15:50  340.34 .401     .000
       [CN=100.0: N= 3.00: Tp= 1.26]
       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
       [InterEventTime=  12.00]
R0086:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .275 1986.0729_16:40  340.34 .401     .000
       [CN=100.0: N= 3.00: Tp= 2.07]
       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
       [InterEventTime=  12.00]
R0086:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-West_1    14.27     .422 1986.0729_15:40  340.34  n/a     .000
                   +      5.0 02:INF-West_2    20.14     .560 1986.0729_15:50  340.34  n/a     .000
                   +      5.0 02:INF-West_3    14.01     .275 1986.0729_16:40  340.34  n/a     .000
                SUM=      5.0 01:INF-West-T    48.42    1.213 1986.0729_15:55  340.34  n/a     .000
################################################################################
# CONTINUOUS RAINFALL DATA
################################################################################
  ** END OF RUN :   86

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





 RUN#:COMMAND#
R0087:C00001-----------------------------------------------------------------------------------------
     START
       [TZERO =    .00 hrs on 19870101]
       [METOUT=   2    (1=imperial, 2=metric output)]
       [NSTORM=   0 ]
       [NRUN  = 0087 ]
#*************************************************************************************************************************
#  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]
#  Updated      : 2024/Mar/14 [JB]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#*************************************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0087:C00002-----------------------------------------------------------------------------------------
  *  READ AES DATA
       [Filename  = YOW_1967_2007.123                                           ]
       [Start_date= 1987.0101: End_date= 1987.1231]
       {DT= 60.min: Length= 7344.hrs: WetHrs=  492: DryHrs= 6852: PTOT= 640.10}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       20.00    13.90    14.03     7.05     4.87     2.46     1.84     1.40      .93    mm/hr
       20.00    27.80    42.10    42.30    58.40    59.00    66.40    67.00    67.00    mm
      19870724 19870724 19870724 19870724 19870724 19870725 19870725 19870726 19870726  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
        180      147      128       93       74       55       49       41       28
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
        179       94       60       20        3        0        0        0        0
R0087:C00003-----------------------------------------------------------------------------------------
     COMPUTE API
       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
       {APImax= 75.76: APIavg= 21.41: APImin=  1.18}
#*************************************************************************************************************************
#                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#*************************************************************************************************************************
R0087:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_1        14.27     .183 1987.0724_15:40   68.56 .107     .000
       [CN= 72.0: N= 3.00: Tp= 1.14]
       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
       [InterEventTime=  12.00]
R0087:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_2        20.14     .274 1987.0724_15:45   77.04 .120     .000
       [CN= 76.0: N= 3.00: Tp= 1.26]
       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
       [InterEventTime=  12.00]
R0087:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_3        14.01     .115 1987.0724_16:25   66.97 .105     .000
       [CN= 71.0: N= 3.00: Tp= 2.07]
       [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
       [InterEventTime=  12.00]
R0087:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:West_1        14.27     .183 1987.0724_15:40   68.56  n/a     .000
                   +      5.0 02:West_2        20.14     .274 1987.0724_15:45   77.04  n/a     .000
                   +      5.0 02:West_3        14.01     .115 1987.0724_16:25   66.97  n/a     .000
                SUM=      5.0 01:West-Total    48.42     .560 1987.0724_15:45   71.63  n/a     .000
#*************************************************************************************************************************
#                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#*************************************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#*************************************************************************************************************************
R0087:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .382 1987.0724_15:20  195.07 .305     .000
       [CN=100.0: N= 3.00: Tp= 1.14]
       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
       [InterEventTime=  12.00]
R0087:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .516 1987.0724_15:25  195.07 .305     .000
       [CN=100.0: N= 3.00: Tp= 1.26]
       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
       [InterEventTime=  12.00]
R0087:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .266 1987.0724_16:05  195.07 .305     .000
       [CN=100.0: N= 3.00: Tp= 2.07]
       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
       [InterEventTime=  12.00]
R0087:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-West_1    14.27     .382 1987.0724_15:20  195.07  n/a     .000
                   +      5.0 02:INF-West_2    20.14     .516 1987.0724_15:25  195.07  n/a     .000
                   +      5.0 02:INF-West_3    14.01     .266 1987.0724_16:05  195.07  n/a     .000
                SUM=      5.0 01:INF-West-T    48.42    1.141 1987.0724_15:30  195.07  n/a     .000
################################################################################
```

```
02161> # CONTINUOUS RAINFALL DATA
02162> ##############################################################################
02163>  ** END OF RUN :  87
02164>
02165> *****************************************************************************************

02166>
02167>
02168>
02169>
02170>
02171>  RUN#:COMMAND#
02172> R0088:C00001-------------------------------------------------------------------------
02173>      START
02174>       [TZERO =    .00 hrs on 19880101]
02175>       [METOUT=  2    (1=imperial, 2=metric output)]
02176>       [NSTORM=  0 ]
02177>       [NRUN  = 0088 ]
02178> *****************************************************************************************
02179> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02180> *****************************************************************************************
02181> #  Project Name: Barrhaven Conservancy Development
02182> #  Project Number: 1474
02183> #  Date       : 2021/Oct/18
02184> #  Modeller   : J.Burnett, P.Eng.
02185> #  Updated    : 2022/Dec/07 [JB]
02186> #  Updated    : 2022/Dec/13 [LP]
02187> #  Updated    : 2024/Mar/14 [JB]
02188> #  Company    : J.F. Sabourin and Associates
02189> #  License #  : 2582634
02190> *****************************************************************************************
02191> # Ottawa International Airport (1967 - 2003)
02192> R0088:C00002-------------------------------------------------------------------------
02193>  *  READ AES DATA
02194>       [Filename  = YOW_1967_2007.123                                    ]
02195>       [Start_date= 1988.0101: End_date= 1988.1230]
02196>       (DT= 60.min: Length= 8760.hrs: WetHrs=  487: DryHrs= 8273: PTOT= 643.80)
02197>       Maximum average rainfall intensities over
02198>         1 hr   2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02199>        25.50  18.20    12.77     7.37     3.78     1.91     1.27     .95      .94    mm/hr
02200>        25.50  36.40    38.30    44.20    45.40    45.80    45.80    45.80    67.40    mm
02201>       19880917 19880726 19880625 19880625 19880625 19880625 19880625 19880626 19880625  date
02202>       Number of rainfall events per following interevent time
02203>         1 hr   2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02204>          165      130      109       80       66       56       49       42       26
02205>       Number of events with at least the following durations
02206>         1 hr   2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02207>          164      102       71       20        5        0        0        0        0
02208> R0088:C00003-------------------------------------------------------------------------
02209>      COMPUTE API
02210>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02211>       [APImax= 66.04: APIavg= 18.06: APImin=  .03]
02212> *****************************************************************************************
02213> #                Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02214> *****************************************************************************************
02215> R0088:C00004-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02216>      CONTINUOUS NASHYD     5.0 01:West_1        14.27     .228 1988.0625_13:40   66.49 .103     .000
02217>        [CN= 72.0: N= 3.00: Tp= 1.14]
02218>        [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
02219>        [InterEventTime=  12.00]
02220> R0088:C00005-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02221>      CONTINUOUS NASHYD     5.0 01:West_2        20.14     .337 1988.0625_13:45   75.66 .118     .000
02222>        [CN= 76.0: N= 3.00: Tp= 1.26]
02223>        [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
02224>        [InterEventTime=  12.00]
02225> R0088:C00006-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02226>      CONTINUOUS NASHYD     5.0 01:West_3        14.01     .135 1988.0625_14:30   64.79 .101     .000
02227>        [CN= 71.0: N= 3.00: Tp= 2.07]
02228>        [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
02229>        [InterEventTime=  12.00]
02230> R0088:C00007-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02231>      ADD HYD               5.0 02:West_1        14.27     .228 1988.0625_13:40   66.49  n/a     .000
02232>                      +     5.0 02:West_2        20.14     .337 1988.0625_13:45   75.66  n/a     .000
02233>                      +     5.0 02:West_3        14.01     .135 1988.0625_14:30   64.79  n/a     .000
02234>                    SUM=    5.0 01:West-Total    48.42     .681 1988.0625_13:50   69.81  n/a     .000
02235> *****************************************************************************************
02236> #                Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02237> *****************************************************************************************
02238> #                Set infiltration to 0 (CN = 99.99) for water balance analysis
02239> *****************************************************************************************
02240> R0088:C00008-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02241>      CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .467 1988.0625_13:25  208.89 .324     .000
02242>        [CN=100.0: N= 3.00: Tp= 1.14]
02243>        [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
02244>        [InterEventTime=  12.00]
02245> R0088:C00009-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02246>      CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .619 1988.0625_13:30  208.89 .324     .000
02247>        [CN=100.0: N= 3.00: Tp= 1.26]
02248>        [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
02249>        [InterEventTime=  12.00]
02250> R0088:C00010-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02251>      CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .297 1988.0625_14:15  208.89 .324     .000
02252>        [CN=100.0: N= 3.00: Tp= 2.07]
02253>        [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
02254>        [InterEventTime=  12.00]
02255> R0088:C00011-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02256>      ADD HYD               5.0 01:INF-West_1    14.27     .467 1988.0625_13:25  208.89  n/a     .000
02257>                      +     5.0 02:INF-West_2    20.14     .619 1988.0625_13:30  208.89  n/a     .000
02258>                      +     5.0 02:INF-West_3    14.01     .297 1988.0625_14:15  208.89  n/a     .000
02259>                    SUM=    5.0 01:INF-West-T    48.42    1.348 1988.0625_13:35  208.89  n/a     .000
02260> ##############################################################################
02261> # CONTINUOUS RAINFALL DATA
02262> ##############################################################################
02263>  ** END OF RUN :  88
02264>
02265> *****************************************************************************************

02266>
02267>
02268>
02269>
02270>
02271>  RUN#:COMMAND#
02272> R0089:C00001-------------------------------------------------------------------------
02273>      START
02274>       [TZERO =    .00 hrs on 19890101]
02275>       [METOUT=  2    (1=imperial, 2=metric output)]
02276>       [NSTORM=  0 ]
02277>       [NRUN  = 0089 ]
02278> *****************************************************************************************
02279> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02280> *****************************************************************************************
02281> #  Project Name: Barrhaven Conservancy Development
02282> #  Project Number: 1474
02283> #  Date       : 2021/Oct/18
02284> #  Modeller   : J.Burnett, P.Eng.
02285> #  Updated    : 2022/Dec/07 [JB]
02286> #  Updated    : 2022/Dec/13 [LP]
02287> #  Updated    : 2024/Mar/14 [JB]
02288> #  Company    : J.F. Sabourin and Associates
02289> #  License #  : 2582634
02290> *****************************************************************************************
02291> # Ottawa International Airport (1967 - 2003)
02292> R0089:C00002-------------------------------------------------------------------------
02293>  *  READ AES DATA
02294>       [Filename  = YOW_1967_2007.123                                    ]
02295>       [Start_date= 1989.0101: End_date= 1989.1231]
02296>       (DT= 60.min: Length= 8040.hrs: WetHrs=  422: DryHrs= 7618: PTOT= 523.20)
02297>       Maximum average rainfall intensities over
02298>         1 hr   2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02299>        22.70  12.60     8.93     5.75     3.03     1.69     1.14      .86      .59    mm/hr
02300>        22.70  25.20    26.80    34.50    36.30    40.60    40.90    41.30    42.50    mm
02301>       19890727 19890727 19890727 19890727 19890727 19891020 19891021 19891021 19891022  date
02302>       Number of rainfall events per following interevent time
02303>         1 hr   2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02304>          151      125      108       89       67       53       42       37       29
02305>       Number of events with at least the following durations
02306>         1 hr   2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02307>          150       81       52       19        5        0        0        0        0
02308> R0089:C00003-------------------------------------------------------------------------
02309>      COMPUTE API
02310>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02311>       [APImax= 55.10: APIavg= 16.03: APImin=  .02]
02312> *****************************************************************************************
02313> #                Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02314> *****************************************************************************************
02315> R0089:C00004-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02316>      CONTINUOUS NASHYD     5.0 01:West_1        14.27     .096 1989.0727_16:05   41.43 .079     .000
02317>        [CN= 72.0: N= 3.00: Tp= 1.14]
02318>        [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
02319>        [InterEventTime=  12.00]
02320> R0089:C00005-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02321>      CONTINUOUS NASHYD     5.0 01:West_2        20.14     .147 1989.0727_16:15   47.58 .091     .000
02322>        [CN= 76.0: N= 3.00: Tp= 1.26]
02323>        [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
02324>        [InterEventTime=  12.00]
02325> R0089:C00006-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02326>      CONTINUOUS NASHYD     5.0 01:West_3        14.01     .060 1989.0727_17:15   40.31 .077     .000
02327>        [CN= 71.0: N= 3.00: Tp= 2.07]
02328>        [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
02329>        [InterEventTime=  12.00]
02330> R0089:C00007-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02331>      ADD HYD               5.0 02:West_1        14.27     .096 1989.0727_16:05   41.43  n/a     .000
02332>                      +     5.0 02:West_2        20.14     .147 1989.0727_16:15   47.58  n/a     .000
02333>                      +     5.0 02:West_3        14.01     .060 1989.0727_17:15   40.31  n/a     .000
02334>                    SUM=    5.0 01:West-Total    48.42     .292 1989.0727_16:20   43.66  n/a     .000
02335> *****************************************************************************************
02336> #                Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02337> *****************************************************************************************
02338> #                Set infiltration to 0 (CN = 99.99) for water balance analysis
02339> *****************************************************************************************
02340> R0089:C00008-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02341>      CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .329 1989.0727_15:50  159.72 .305     .000
02342>        [CN=100.0: N= 3.00: Tp= 1.14]
02343>        [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
02344>        [InterEventTime=  12.00]
02345> R0089:C00009-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02346>      CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .428 1989.0727_15:55  159.72 .305     .000
02347>        [CN=100.0: N= 3.00: Tp= 1.26]
02348>        [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
02349>        [InterEventTime=  12.00]
02350> R0089:C00010-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02351>      CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .199 1989.0727_16:50  159.72 .305     .000
02352>        [CN=100.0: N= 3.00: Tp= 2.07]
02353>        [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
02354>        [InterEventTime=  12.00]
02355> R0089:C00011-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02356>      ADD HYD               5.0 02:INF-West_1    14.27     .329 1989.0727_15:50  159.72  n/a     .000
02357>                      +     5.0 02:INF-West_2    20.14     .428 1989.0727_15:55  159.72  n/a     .000
02358>                      +     5.0 02:INF-West_3    14.01     .199 1989.0727_16:50  159.72  n/a     .000
02359>                    SUM=    5.0 01:INF-West-T    48.42     .920 1989.0727_16:00  159.72  n/a     .000
02360> ##############################################################################
02361> # CONTINUOUS RAINFALL DATA
02362> ##############################################################################
02363>  ** END OF RUN :  89
02364>
02365> *****************************************************************************************

02366>
02367>
02368>
02369>
02370>
02371>  RUN#:COMMAND#
02372> R0090:C00001-------------------------------------------------------------------------
02373>      START
02374>       [TZERO =    .00 hrs on 19900101]
02375>       [METOUT=  2    (1=imperial, 2=metric output)]
02376>       [NSTORM=  0 ]
02377>       [NRUN  = 0090 ]
02378> *****************************************************************************************
02379> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02380> *****************************************************************************************
02381> #  Project Name: Barrhaven Conservancy Development
02382> #  Project Number: 1474
02383> #  Date       : 2021/Oct/18
02384> #  Modeller   : J.Burnett, P.Eng.
02385> #  Updated    : 2022/Dec/07 [JB]
02386> #  Updated    : 2022/Dec/13 [LP]
02387> #  Updated    : 2024/Mar/14 [JB]
02388> #  Company    : J.F. Sabourin and Associates
02389> #  License #  : 2582634
02390> *****************************************************************************************
02391> # Ottawa International Airport (1967 - 2003)
02392> R0090:C00002-------------------------------------------------------------------------
02393>  *  READ AES DATA
02394>       [Filename  = YOW_1967_2007.123                                    ]
02395>       [Start_date= 1990.0101: End_date= 1990.1231]
02396>       (DT= 60.min: Length= 7344.hrs: WetHrs=  618: DryHrs= 6726: PTOT= 727.80)
02397>       Maximum average rainfall intensities over
02398>         1 hr   2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02399>        20.60  12.25     9.60     5.58     4.43     2.25     1.50     1.23     1.06    mm/hr
02400>        20.60  24.50    28.80    33.50    53.20    54.00    54.00    59.00    76.60    mm
02401>       19900720 19900720 19900828 19900828 19900828 19900720 19900720 19900722 19900723  date
02402>       Number of rainfall events per following interevent time
02403>         1 hr   2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02404>          204      156      107       84       66       56       47       33
02405>       Number of events with at least the following durations
02406>         1 hr   2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02407>          203      116       75       31        6        1        0        0        0
02408> R0090:C00003-------------------------------------------------------------------------
02409>      COMPUTE API
02410>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02411>       [APImax= 75.10: APIavg= 23.47: APImin=  3.10]
02412> *****************************************************************************************
02413> #                Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02414> *****************************************************************************************
02415> R0090:C00004-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02416>      CONTINUOUS NASHYD     5.0 01:West_1        14.27     .186 1990.0720_14:05   85.06 .117     .000
02417>        [CN= 72.0: N= 3.00: Tp= 1.14]
02418>        [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
02419>        [InterEventTime=  12.00]
02420> R0090:C00005-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02421>      CONTINUOUS NASHYD     5.0 01:West_2        20.14     .274 1990.0720_14:10   96.52 .133     .000
02422>        [CN= 76.0: N= 3.00: Tp= 1.26]
02423>        [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
02424>        [InterEventTime=  12.00]
02425> R0090:C00006-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02426>      CONTINUOUS NASHYD     5.0 01:West_3        14.01     .126 1990.0720_14:55   82.91 .114     .000
02427>        [CN= 71.0: N= 3.00: Tp= 2.07]
02428>        [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
02429>        [InterEventTime=  12.00]
02430> R0090:C00007-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02431>      ADD HYD               5.0 02:West_1        14.27     .186 1990.0720_14:05   85.06  n/a     .000
02432>                      +     5.0 02:West_2        20.14     .274 1990.0720_14:10   96.52  n/a     .000
02433>                      +     5.0 02:West_3        14.01     .126 1990.0720_14:55   82.91  n/a     .000
02434>                    SUM=    5.0 01:West-Total    48.42     .573 1990.0720_14:15   89.21  n/a     .000
02435> *****************************************************************************************
02436> #                Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02437> *****************************************************************************************
02438> #                Set infiltration to 0 (CN = 99.99) for water balance analysis
02439> *****************************************************************************************
02440> R0090:C00008-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02441>      CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .288 1990.0720_ 5:50  250.74 .345     .000
02442>        [CN=100.0: N= 3.00: Tp= 1.14]
02443>        [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
02444>        [InterEventTime=  12.00]
02445> R0090:C00009-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02446>      CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .375 1990.0720_ 6:00  250.74 .345     .000
02447>        [CN=100.0: N= 3.00: Tp= 1.26]
02448>        [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
02449>        [InterEventTime=  12.00]
02450> R0090:C00010-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02451>      CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .190 1990.0720_14:40  250.74 .345     .000
02452>        [CN=100.0: N= 3.00: Tp= 2.07]
02453>        [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
02454>        [InterEventTime=  12.00]
02455> R0090:C00011-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02456>      ADD HYD               5.0 02:INF-West_1    14.27     .288 1990.0720_ 5:50  250.74  n/a     .000
02457>                      +     5.0 02:INF-West_2    20.14     .375 1990.0720_ 6:00  250.74  n/a     .000
02458>                      +     5.0 02:INF-West_3    14.01     .190 1990.0720_14:40  250.74  n/a     .000
02459>                    SUM=    5.0 01:INF-West-T    48.42     .805 1990.0720_14:05  250.74  n/a     .000
02460> ##############################################################################
02461> # CONTINUOUS RAINFALL DATA
02462> ##############################################################################
02463>  ** END OF RUN :  90
02464>
02465> *****************************************************************************************

02466>
02467>
02468>
02469>
02470>
02471>  RUN#:COMMAND#
02472> R0091:C00001-------------------------------------------------------------------------
02473>      START
02474>       [TZERO =    .00 hrs on 19910101]
02475>       [METOUT=  2    (1=imperial, 2=metric output)]
02476>       [NSTORM=  0 ]
02477>       [NRUN  = 0091 ]
02478> *****************************************************************************************
02479> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02480> *****************************************************************************************
02481> #  Project Name: Barrhaven Conservancy Development
02482> #  Project Number: 1474
02483> #  Date       : 2021/Oct/18
02484> #  Modeller   : J.Burnett, P.Eng.
02485> #  Updated    : 2022/Dec/07 [JB]
02486> #  Updated    : 2022/Dec/13 [LP]
02487> #  Updated    : 2024/Mar/14 [JB]
02488> #  Company    : J.F. Sabourin and Associates
02489> #  License #  : 2582634
02490> *****************************************************************************************
02491> # Ottawa International Airport (1967 - 2003)
02492> R0091:C00002-------------------------------------------------------------------------
02493>  *  READ AES DATA
02494>       [Filename  = YOW_1967_2007.123                                    ]
02495>       [Start_date= 1991.0101: End_date= 1991.1231]
02496>       (DT= 60.min: Length= 8040.hrs: WetHrs=  486: DryHrs= 7554: PTOT= 556.00)
02497>       Maximum average rainfall intensities over
02498>         1 hr   2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02499>        11.30    9.90     6.87     4.10     2.53     1.72     1.28     1.08      .79    mm/hr
02500>        11.30   19.80    20.60    24.60    30.40    41.20    46.00    51.60    57.00    mm
02501>       19910409 19910409 19910409 19910409 19911016 19910422 19910410 19910410 19910423  date
02502>       Number of rainfall events per following interevent time
02503>         1 hr   2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02504>          165      137      127      102       80       63       52       45       38
02505>       Number of events with at least the following durations
02506>         1 hr   2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02507>          164       89       56       21        6        1        0        0        0
02508> R0091:C00003-------------------------------------------------------------------------
02509>      COMPUTE API
02510>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02511>       [APImax= 72.80: APIavg= 16.88: APImin=  .26]
02512> *****************************************************************************************
02513> #                Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02514> *****************************************************************************************
02515> R0091:C00004-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02516>      CONTINUOUS NASHYD     5.0 01:West_1        14.27     .085 1991.0410_ 4:00   46.13 .083     .000
02517>        [CN= 72.0: N= 3.00: Tp= 1.14]
02518>        [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
02519>        [InterEventTime=  12.00]
02520> R0091:C00005-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
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    CONTINUOUS NASHYD     5.0 01:West_2        20.14     .125 1991.0410_ 4:05   52.68 .095     .000
      [CN= 76.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
      [InterEventTime=  12.00]
R0091:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_3        14.01     .049 1991.0410_ 4:55   44.92 .081     .000
      [CN= 71.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
      [InterEventTime=  12.00]
R0091:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:West_1        14.27     .085 1991.0410_ 4:00   46.13  n/a     .000
                   +      5.0 02:West_2        20.14     .125 1991.0410_ 4:05   52.68  n/a     .000
                   +      5.0 02:West_3        14.01     .049 1991.0410_ 4:55   44.92  n/a     .000
                SUM=      5.0 01:West-Total    48.42     .252 1991.0410_ 4:10   48.50  n/a     .000
#***************************************************************************************************
#                 Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#***************************************************************************************************
#                 Set infiltration to 0 (CN = 99.99) for water balance analysis
#***************************************************************************************************
R0091:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .175 1991.0409_ 1:40  159.83 .287     .000
      [CN=100.0: N= 3.00: Tp= 1.14]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0091:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .228 1991.0409_ 1:50  159.83 .287     .000
      [CN=100.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0091:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .105 1991.0409_ 2:45  159.83 .287     .000
      [CN=100.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0091:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-West_1    14.27     .175 1991.0409_ 1:40  159.83  n/a     .000
                   +      5.0 02:INF-West_2    20.14     .228 1991.0409_ 1:50  159.83  n/a     .000
                   +      5.0 02:INF-West_3    14.01     .105 1991.0409_ 2:45  159.83  n/a     .000
                SUM=      5.0 01:INF-West-T    48.42     .490 1991.0409_ 1:50  159.83  n/a     .000
##################################################################################
# CONTINUOUS RAINFALL DATA
##################################################################################
  ** END OF RUN :   91

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 RUN#:COMMAND#
R0092:C00001------------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19920101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0092 ]
#***************************************************************************************************
#  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]
#  Updated      : 2024/Mar/14 [JB]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#***************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0092:C00002------------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                           ]
      [Start_date= 1992.0101: End_date= 1992.1230]
      {DT= 60.min: Length= 8760.hrs: WetHrs=  551: DryHrs= 8209: PTOT= 732.80}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       31.50    18.00    13.30     7.22     4.14     2.26     1.51     1.51     1.02    mm/hr
       31.50    36.00    39.90    43.30    49.70    54.20    54.20    72.60    73.60    mm
      19920804 19920804 19920804 19920804 19920717 19920718 19920718 19920719 19920720  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         190      151      132      100       84       69       55       47       38
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         189      109       70       22        5        1        0        0        0
R0092:C00003------------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 97.62: APIavg= 20.33: APImin=  1.07}
#***************************************************************************************************
#                 Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#***************************************************************************************************
R0092:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_1        14.27     .293 1992.0717_19:20   94.75 .129     .000
      [CN= 72.0: N= 3.00: Tp= 1.14]
      [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
      [InterEventTime=  12.00]
R0092:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_2        20.14     .432 1992.0717_19:25  106.69 .146     .000
      [CN= 76.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
      [InterEventTime=  12.00]
R0092:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_3        14.01     .191 1992.0717_20:15   92.50 .126     .000
      [CN= 71.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
      [InterEventTime=  12.00]
R0092:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:West_1        14.27     .293 1992.0717_19:20   94.75  n/a     .000
                   +      5.0 02:West_2        20.14     .432 1992.0717_19:25  106.69  n/a     .000
                   +      5.0 02:West_3        14.01     .191 1992.0717_20:15   92.50  n/a     .000
                SUM=      5.0 01:West-Total    48.42     .890 1992.0717_19:30   99.07  n/a     .000
#***************************************************************************************************
#                 Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#***************************************************************************************************
#                 Set infiltration to 0 (CN = 99.99) for water balance analysis
#***************************************************************************************************
R0092:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .486 1992.0717_19:00  266.21 .363     .000
      [CN=100.0: N= 3.00: Tp= 1.14]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0092:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .650 1992.0717_19:10  266.21 .363     .000
      [CN=100.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0092:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .327 1992.0717_20:00  266.21 .363     .000
      [CN=100.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0092:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-West_1    14.27     .486 1992.0717_19:00  266.21  n/a     .000
                   +      5.0 02:INF-West_2    20.14     .650 1992.0717_19:10  266.21  n/a     .000
                   +      5.0 02:INF-West_3    14.01     .327 1992.0717_20:00  266.21  n/a     .000
                SUM=      5.0 01:INF-West-T    48.42    1.420 1992.0717_19:15  266.21  n/a     .000
##################################################################################
# CONTINUOUS RAINFALL DATA
##################################################################################
  ** END OF RUN :   92

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





 RUN#:COMMAND#
R0093:C00001------------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19930101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0093 ]
#***************************************************************************************************
#  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]
#  Updated      : 2024/Mar/14 [JB]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#***************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0093:C00002------------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                           ]
      [Start_date= 1993.0101: End_date= 1993.1231]
      {DT= 60.min: Length= 8760.hrs: WetHrs=  585: DryHrs= 8175: PTOT= 721.30}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       12.60     6.60     4.83     3.72     3.58     2.31     1.61     1.21      .81    mm/hr
       12.60    13.20    14.50    22.30    43.00    55.50    58.10    58.10    58.10    mm
      19930703 19930703 19931127 19931128 19931128 19931128 19931128 19931128 19931129  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         191      154      137      111       91       73       57       48       34
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         190      110       66       27        7        2        0        0        0
R0093:C00003------------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 66.56: APIavg= 20.01: APImin=   .11}
#***************************************************************************************************
#                 Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#***************************************************************************************************
R0093:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_1        14.27     .104 1993.1128_ 7:35   62.59 .087     .000
      [CN= 72.0: N= 3.00: Tp= 1.14]
      [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
      [InterEventTime=  12.00]
R0093:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_2        20.14     .158 1993.1128_ 7:40   71.45 .099     .000
      [CN= 76.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
      [InterEventTime=  12.00]
R0093:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_3        14.01     .082 1993.1128_ 8:35   60.95 .085     .000
      [CN= 71.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
      [InterEventTime=  12.00]
R0093:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:West_1        14.27     .104 1993.1128_ 7:35   62.59  n/a     .000
                   +      5.0 02:West_2        20.14     .158 1993.1128_ 7:40   71.45  n/a     .000
                   +      5.0 02:West_3        14.01     .082 1993.1128_ 8:35   60.95  n/a     .000
                SUM=      5.0 01:West-Total    48.42     .340 1993.1128_ 7:40   65.80  n/a     .000
#***************************************************************************************************
#                 Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#***************************************************************************************************
#                 Set infiltration to 0 (CN = 99.99) for water balance analysis
#***************************************************************************************************
R0093:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .162 1993.1128_ 7:20  211.67 .293     .000
      [CN=100.0: N= 3.00: Tp= 1.14]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0093:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .224 1993.1128_ 7:25  211.68 .293     .000
      [CN=100.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0093:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .138 1993.1128_ 7:55  211.67 .293     .000
      [CN=100.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0093:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-West_1    14.27     .162 1993.1128_ 7:20  211.67  n/a     .000
                   +      5.0 02:INF-West_2    20.14     .224 1993.1128_ 7:25  211.67  n/a     .000
                   +      5.0 02:INF-West_3    14.01     .138 1993.1128_ 7:55  211.67  n/a     .000
                SUM=      5.0 01:INF-West-T    48.42     .521 1993.1128_ 7:25  211.67  n/a     .000
##################################################################################
# CONTINUOUS RAINFALL DATA
##################################################################################
  ** END OF RUN :   93

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





 RUN#:COMMAND#
R0094:C00001------------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19940101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0094 ]
#***************************************************************************************************
#  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]
#  Updated      : 2024/Mar/14 [JB]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#***************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0094:C00002------------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                           ]
      [Start_date= 1994.0101: End_date= 1994.1231]
      {DT= 60.min: Length= 8760.hrs: WetHrs=  342: DryHrs= 8418: PTOT= 540.20}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       22.60    11.90     8.43     5.42     2.92     1.79     1.19      .89     1.15    mm/hr
       22.60    23.80    25.30    32.50    35.00    42.90    42.90    42.90    82.60    mm
      19940629 19940629 19940627 19940625 19940625 19940625 19940626 19940626 19940627  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         138      115      101       79       62       48       39       34       26
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         137       72       48       12        1        0        0        0        0
R0094:C00003------------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 97.84: APIavg= 15.35: APImin=   .02}
#***************************************************************************************************
#                 Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#***************************************************************************************************
R0094:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_1        14.27     .103 1994.0627_11:30   59.78 .111     .000
      [CN= 72.0: N= 3.00: Tp= 1.14]
      [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
      [InterEventTime=  12.00]
R0094:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_2        20.14     .159 1994.0627_11:35   67.89 .126     .000
      [CN= 76.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
      [InterEventTime=  12.00]
R0094:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_3        14.01     .074 1994.0627_12:35   58.28 .108     .000
      [CN= 71.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
      [InterEventTime=  12.00]
R0094:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:West_1        14.27     .103 1994.0627_11:30   59.78  n/a     .000
                   +      5.0 02:West_2        20.14     .159 1994.0627_11:35   67.89  n/a     .000
                   +      5.0 02:West_3        14.01     .074 1994.0627_12:35   58.28  n/a     .000
                SUM=      5.0 01:West-Total    48.42     .326 1994.0627_11:45   62.72  n/a     .000
#***************************************************************************************************
#                 Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#***************************************************************************************************
#                 Set infiltration to 0 (CN = 99.99) for water balance analysis
#***************************************************************************************************
R0094:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .239 1994.0627_11:00  182.47 .338     .000
      [CN=100.0: N= 3.00: Tp= 1.14]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0094:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .324 1994.0627_11:10  182.47 .338     .000
      [CN=100.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0094:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .173 1994.0627_12:10  182.47 .338     .000
      [CN=100.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0094:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-West_1    14.27     .239 1994.0627_11:00  182.47  n/a     .000
                   +      5.0 02:INF-West_2    20.14     .324 1994.0627_11:10  182.47  n/a     .000
                   +      5.0 02:INF-West_3    14.01     .173 1994.0627_12:10  182.47  n/a     .000
                SUM=      5.0 01:INF-West-T    48.42     .714 1994.0627_11:15  182.47  n/a     .000
##################################################################################
# CONTINUOUS RAINFALL DATA
##################################################################################
  ** END OF RUN :   94

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





 RUN#:COMMAND#
R0095:C00001------------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19950101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0095 ]
#***************************************************************************************************
#  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
#***************************************************************************************************
```

```
02881> #  Project Name: Barrhaven Conservancy Development
02882> #  Project Number: 1474
02883> #  Date       : 2021/Oct/18
02884> #  Modeller   : J.Burnett, P.Eng.
02885> #  Updated    : 2022/Dec/07 [JB]
02886> #  Updated    : 2022/Dec/13 [LP]
02887> #  Updated    : 2024/Mar/14 [JB]
02888> #  Company    : J.F. Sabourin and Associates
02889> #  License #  : 2582634
02890> #*****************************************************************************************************
02891> # Ottawa International Airport (1967 - 2003)
02892> R0095:C00002-------------------------------------------------------------------------------------------
02893>   *  READ AES DATA
02894>       [Filename  = YOW_1967_2007.123                                    ]
02895>       [Start_date= 1995.0101: End_date= 1995.1231]
02896>       [DT= 60.min: Length= 8040.hrs: WetHrs=  332: DryHrs= 7708: PTOT= 538.50]
02897>       Maximum average rainfall intensities over
02898>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02899>        16.90    13.25    11.33     8.98     6.35     3.48     2.95     2.21     1.48    mm/hr
02900>        16.90    26.50    34.00    53.90    76.20    83.40   106.20   106.20   106.20    mm
02901>       19950603 19950603 19951006 19951006 19951006 19951006 19951007 19951007 19951008  date
02902>       Number of rainfall events per following interevent time
02903>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02904>           91       73       65       55       47       41       34       31       25
02905>       Number of events with at least the following durations
02906>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02907>           90       54       35       16        7        1        0        0        0
02908> R0095:C00003-------------------------------------------------------------------------------------------
02909>       COMPUTE API
02910>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02911>       [APImax= 99.57: APIavg= 16.58: APImin=  .00]
02912> #*****************************************************************************************************
02913> #                    Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02914> #*****************************************************************************************************
02915> R0095:C00004-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02916>     CONTINUOUS NASHYD      5.0 01:West_1      14.27      .311 1995.0603_ 9:30  159.14 .296     .000
02917>       [CN= 72.0: N= 3.00: Tp= 1.14]
02918>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
02919>       [InterEventTime=  12.00]
02920> R0095:C00005-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02921>     CONTINUOUS NASHYD      5.0 01:West_2      20.14      .442 1995.0603_ 9:35  172.16 .320     .000
02922>       [CN= 76.0: N= 3.00: Tp= 1.26]
02923>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
02924>       [InterEventTime=  12.00]
02925> R0095:C00006-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02926>     CONTINUOUS NASHYD      5.0 01:West_3      14.01      .236 1995.1006_ 8:35  156.58 .291     .000
02927>       [CN= 71.0: N= 3.00: Tp= 2.07]
02928>       [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
02929>       [InterEventTime=  12.00]
02930> R0095:C00007-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02931>     ADD HYD                5.0 02:West_1      14.27      .311 1995.0603_ 9:30  159.14  n/a     .000
02932>                      +     5.0 02:West_2      20.14      .442 1995.0603_ 9:35  172.16  n/a     .000
02933>                      +     5.0 02:West_3      14.01      .236 1995.1006_ 8:35  156.58  n/a     .000
02934>                    SUM=    5.0 01:West-Total  48.42      .959 1995.0603_ 9:40  163.82  n/a     .000
02935> #*****************************************************************************************************
02936> #                    Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02937> #*****************************************************************************************************
02938> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
02939> #*****************************************************************************************************
02940> R0095:C00008-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02941>     CONTINUOUS NASHYD      5.0 01:INF-West_1  14.27      .418 1995.1006_ 6:05  283.64 .527     .000
02942>       [CN=100.0: N= 3.00: Tp= 1.14]
02943>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
02944>       [InterEventTime=  12.00]
02945> R0095:C00009-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02946>     CONTINUOUS NASHYD      5.0 01:INF-West_2  20.14      .576 1995.1006_ 6:15  283.64 .527     .000
02947>       [CN=100.0: N= 3.00: Tp= 1.26]
02948>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
02949>       [InterEventTime=  12.00]
02950> R0095:C00010-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02951>     CONTINUOUS NASHYD      5.0 01:INF-West_3  14.01      .350 1995.1006_ 7:35  283.64 .527     .000
02952>       [CN=100.0: N= 3.00: Tp= 2.07]
02953>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
02954>       [InterEventTime=  12.00]
02955> R0095:C00011-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02956>     ADD HYD                5.0 02:INF-West_1  14.27      .418 1995.1006_ 6:05  283.64  n/a     .000
02957>                      +     5.0 02:INF-West_2  20.14      .576 1995.1006_ 6:15  283.64  n/a     .000
02958>                      +     5.0 02:INF-West_3  14.01      .350 1995.1006_ 7:35  283.64  n/a     .000
02959>                    SUM=    5.0 01:INF-West-T  48.42     1.310 1995.1006_ 6:30  283.64  n/a     .000
02960> ##############################################################################
02961> # CONTINUOUS RAINFALL DATA
02962> ##############################################################################
02963>  ** END OF RUN :   95
02964>
02965> *****************************************************************************************************
02966>
02967>
02968>
02969>
02970>
02971>  RUN#:COMMAND#
02972> R0096:C00001-------------------------------------------------------------------------------------------
02973>     START
02974>       [TZERO =    .00 hrs on 19960101]
02975>       [METOUT=  2   (1=imperial, 2=metric output)]
02976>       [NSTORM=  0 ]
02977>       [NRUN  = 0096 ]
02978> #*****************************************************************************************************
02979> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02980> #*****************************************************************************************************
02981> #  Project Name: Barrhaven Conservancy Development
02982> #  Project Number: 1474
02983> #  Date       : 2021/Oct/18
02984> #  Modeller   : J.Burnett, P.Eng.
02985> #  Updated    : 2022/Dec/07 [JB]
02986> #  Updated    : 2022/Dec/13 [LP]
02987> #  Updated    : 2024/Mar/14 [JB]
02988> #  Company    : J.F. Sabourin and Associates
02989> #  License #  : 2582634
02990> #*****************************************************************************************************
02991> # Ottawa International Airport (1967 - 2003)
02992> R0096:C00002-------------------------------------------------------------------------------------------
02993>   *  READ AES DATA
02994>       [Filename  = YOW_1967_2007.123                                    ]
02995>       [Start_date= 1996.0101: End_date= 1996.1230]
02996>       [DT= 60.min: Length= 6552.hrs: WetHrs=  387: DryHrs= 6165: PTOT= 512.20]
02997>       Maximum average rainfall intensities over
02998>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02999>        18.50    13.55     9.03     5.42     2.93     1.84     1.32     1.02      .70    mm/hr
03000>        18.50    27.10    27.10    32.50    35.10    44.10    47.50    49.00    50.30    mm
03001>       19960731 19960731 19960731 19960731 19960731 19961109 19961109 19961109 19961109  date
03002>       Number of rainfall events per following interevent time
03003>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03004>          132      104       93       71       59       43       36       31       24
03005>       Number of events with at least the following durations
03006>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03007>          131       72       50       19        2        1        0        0        0
03008> R0096:C00003-------------------------------------------------------------------------------------------
03009>       COMPUTE API
03010>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
03011>       [APImax= 63.22: APIavg= 19.39: APImin=  .71]
03012> #*****************************************************************************************************
03013> #                    Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
03014> #*****************************************************************************************************
03015> R0096:C00004-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03016>     CONTINUOUS NASHYD      5.0 01:West_1      14.27      .107 1996.0731_16:30   46.54 .091     .000
03017>       [CN= 72.0: N= 3.00: Tp= 1.14]
03018>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
03019>       [InterEventTime=  12.00]
03020> R0096:C00005-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03021>     CONTINUOUS NASHYD      5.0 01:West_2      20.14      .162 1996.0731_16:40   53.26 .104     .000
03022>       [CN= 76.0: N= 3.00: Tp= 1.26]
03023>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
03024>       [InterEventTime=  12.00]
03025> R0096:C00006-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03026>     CONTINUOUS NASHYD      5.0 01:West_3      14.01      .064 1996.0731_17:30   45.29 .088     .000
03027>       [CN= 71.0: N= 3.00: Tp= 2.07]
03028>       [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
03029>       [InterEventTime=  12.00]
03030> R0096:C00007-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03031>     ADD HYD                5.0 02:West_1      14.27      .107 1996.0731_16:30   46.54  n/a     .000
03032>                      +     5.0 02:West_2      20.14      .162 1996.0731_16:40   53.26  n/a     .000
03033>                      +     5.0 02:West_3      14.01      .064 1996.0731_17:30   45.29  n/a     .000
03034>                    SUM=    5.0 01:West-Total  48.42      .324 1996.0731_16:40   48.97  n/a     .000
03035> #*****************************************************************************************************
03036> #                    Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
03037> #*****************************************************************************************************
03038> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
03039> #*****************************************************************************************************
03040> R0096:C00008-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03041>     CONTINUOUS NASHYD      5.0 01:INF-West_1  14.27      .290 1996.0731_16:20  157.48 .307     .000
03042>       [CN=100.0: N= 3.00: Tp= 1.14]
03043>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
03044>       [InterEventTime=  12.00]
03045> R0096:C00009-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03046>     CONTINUOUS NASHYD      5.0 01:INF-West_2  20.14      .382 1996.0731_16:25  157.48 .307     .000
03047>       [CN=100.0: N= 3.00: Tp= 1.26]
03048>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
03049>       [InterEventTime=  12.00]
03050> R0096:C00010-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03051>     CONTINUOUS NASHYD      5.0 01:INF-West_3  14.01      .178 1996.0731_17:10  157.48 .307     .000
03052>       [CN=100.0: N= 3.00: Tp= 2.07]
03053>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
03054>       [InterEventTime=  12.00]
03055> R0096:C00011-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03056>     ADD HYD                5.0 02:INF-West_1  14.27      .290 1996.0731_16:20  157.48  n/a     .000
03057>                      +     5.0 02:INF-West_2  20.14      .382 1996.0731_16:25  157.48  n/a     .000
03058>                      +     5.0 02:INF-West_3  14.01      .178 1996.0731_17:10  157.48  n/a     .000
03059>                    SUM=    5.0 01:INF-West-T  48.42      .824 1996.0731_16:25  157.48  n/a     .000
03060> ##############################################################################
03061> # CONTINUOUS RAINFALL DATA
03062> ##############################################################################
03063>  ** END OF RUN :   96
03064>
03065> *****************************************************************************************************
03066>
03067>
03068>
03069>
03070>
03071>  RUN#:COMMAND#
03072> R0097:C00001-------------------------------------------------------------------------------------------
03073>     START
03074>       [TZERO =    .00 hrs on 19970101]
03075>       [METOUT=  2   (1=imperial, 2=metric output)]
03076>       [NSTORM=  0 ]
03077>       [NRUN  = 0097 ]
03078> #*****************************************************************************************************
03079> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
03080> #*****************************************************************************************************
03081> #  Project Name: Barrhaven Conservancy Development
03082> #  Project Number: 1474
03083> #  Date       : 2021/Oct/18
03084> #  Modeller   : J.Burnett, P.Eng.
03085> #  Updated    : 2022/Dec/07 [JB]
03086> #  Updated    : 2022/Dec/13 [LP]
03087> #  Updated    : 2024/Mar/14 [JB]
03088> #  Company    : J.F. Sabourin and Associates
03089> #  License #  : 2582634
03090> #*****************************************************************************************************
03091> # Ottawa International Airport (1967 - 2003)
03092> R0097:C00002-------------------------------------------------------------------------------------------
03093>   *  READ AES DATA
03094>       [Filename  = YOW_1967_2007.123                                    ]
03095>       [Start_date= 1997.0101: End_date= 1997.1231]
03096>       [DT= 60.min: Length= 8040.hrs: WetHrs=  379: DryHrs= 7661: PTOT= 433.20]
03097>       Maximum average rainfall intensities over
03098>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03099>        12.50     7.60     5.67     4.43     2.91     1.68     1.12      .84      .63    mm/hr
03100>        12.50    15.20    17.00    26.60    34.90    40.40    40.40    40.40    45.30    mm
03101>       19970622 19970622 19970622 19970221 19970222 19970222 19970222 19970222 19970222  date
03102>       Number of rainfall events per following interevent time
03103>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03104>          113       92       83       67       61       55       48       43       30
03105>       Number of events with at least the following durations
03106>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03107>          112       70       46       20        4        0        0        0        0
03108> R0097:C00003-------------------------------------------------------------------------------------------
03109>       COMPUTE API
03110>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
03111>       [APImax= 50.00: APIavg= 13.66: APImin=  .27]
03112> #*****************************************************************************************************
03113> #                    Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
03114> #*****************************************************************************************************
03115> R0097:C00004-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03116>     CONTINUOUS NASHYD      5.0 01:West_1      14.27      .062 1997.0221_21:35   27.92 .064     .000
03117>       [CN= 72.0: N= 3.00: Tp= 1.14]
03118>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
03119>       [InterEventTime=  12.00]
03120> R0097:C00005-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03121>     CONTINUOUS NASHYD      5.0 01:West_2      20.14      .096 1997.0221_21:40   32.31 .075     .000
03122>       [CN= 76.0: N= 3.00: Tp= 1.26]
03123>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
03124>       [InterEventTime=  12.00]
03125> R0097:C00006-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03126>     CONTINUOUS NASHYD      5.0 01:West_3      14.01      .044 1997.0221_22:25   27.13 .063     .000
03127>       [CN= 71.0: N= 3.00: Tp= 2.07]
03128>       [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
03129>       [InterEventTime=  12.00]
03130> R0097:C00007-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03131>     ADD HYD                5.0 02:West_1      14.27      .062 1997.0221_21:35   27.92  n/a     .000
03132>                      +     5.0 02:West_2      20.14      .096 1997.0221_21:40   32.31  n/a     .000
03133>                      +     5.0 02:West_3      14.01      .044 1997.0221_22:25   27.13  n/a     .000
03134>                    SUM=    5.0 01:West-Total  48.42      .199 1997.0221_21:45   29.52  n/a     .000
03135> #*****************************************************************************************************
03136> #                    Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
03137> #*****************************************************************************************************
03138> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
03139> #*****************************************************************************************************
03140> R0097:C00008-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03141>     CONTINUOUS NASHYD      5.0 01:INF-West_1  14.27      .177 1997.0221_21:15  128.55 .297     .000
03142>       [CN=100.0: N= 3.00: Tp= 1.14]
03143>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
03144>       [InterEventTime=  12.00]
03145> R0097:C00009-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03146>     CONTINUOUS NASHYD      5.0 01:INF-West_2  20.14      .245 1997.0221_21:20  128.55 .297     .000
03147>       [CN=100.0: N= 3.00: Tp= 1.26]
03148>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
03149>       [InterEventTime=  12.00]
03150> R0097:C00010-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03151>     CONTINUOUS NASHYD      5.0 01:INF-West_3  14.01      .145 1997.0221_21:50  128.55 .297     .000
03152>       [CN=100.0: N= 3.00: Tp= 2.07]
03153>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
03154>       [InterEventTime=  12.00]
03155> R0097:C00011-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03156>     ADD HYD                5.0 02:INF-West_1  14.27      .177 1997.0221_21:15  128.55  n/a     .000
03157>                      +     5.0 02:INF-West_2  20.14      .245 1997.0221_21:20  128.55  n/a     .000
03158>                      +     5.0 02:INF-West_3  14.01      .145 1997.0221_21:50  128.55  n/a     .000
03159>                    SUM=    5.0 01:INF-West-T  48.42      .562 1997.0221_21:25  128.55  n/a     .000
03160> ##############################################################################
03161> # CONTINUOUS RAINFALL DATA
03162> ##############################################################################
03163>  ** END OF RUN :   97
03164>
03165> *****************************************************************************************************
03166>
03167>
03168>
03169>
03170>
03171>  RUN#:COMMAND#
03172> R0098:C00001-------------------------------------------------------------------------------------------
03173>     START
03174>       [TZERO =    .00 hrs on 19980101]
03175>       [METOUT=  2   (1=imperial, 2=metric output)]
03176>       [NSTORM=  0 ]
03177>       [NRUN  = 0098 ]
03178> #*****************************************************************************************************
03179> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
03180> #*****************************************************************************************************
03181> #  Project Name: Barrhaven Conservancy Development
03182> #  Project Number: 1474
03183> #  Date       : 2021/Oct/18
03184> #  Modeller   : J.Burnett, P.Eng.
03185> #  Updated    : 2022/Dec/07 [JB]
03186> #  Updated    : 2022/Dec/13 [LP]
03187> #  Updated    : 2024/Mar/14 [JB]
03188> #  Company    : J.F. Sabourin and Associates
03189> #  License #  : 2582634
03190> #*****************************************************************************************************
03191> # Ottawa International Airport (1967 - 2003)
03192> R0098:C00002-------------------------------------------------------------------------------------------
03193>   *  READ AES DATA
03194>       [Filename  = YOW_1967_2007.123                                    ]
03195>       [Start_date= 1998.0101: End_date= 1998.1231]
03196>       [DT= 60.min: Length= 5088.hrs: WetHrs=  291: DryHrs= 4797: PTOT= 440.30]
03197>       Maximum average rainfall intensities over
03198>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03199>        15.80     8.90     7.60     4.00     2.54     1.82     1.27      .95      .76    mm/hr
03200>        15.80    17.80    22.80    24.00    30.50    43.60    45.80    45.80    54.60    mm
03201>       19980716 19980627 19980927 19980927 19980927 19980927 19980928 19980928 19980615  date
03202>       Number of rainfall events per following interevent time
03203>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03204>          126      104       95       78       63       42       37       32       21
03205>       Number of events with at least the following durations
03206>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03207>          125       64       43        8        1        0        0        0        0
03208> R0098:C00003-------------------------------------------------------------------------------------------
03209>       COMPUTE API
03210>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
03211>       [APImax= 57.22: APIavg= 21.28: APImin=  1.69]
03212> #*****************************************************************************************************
03213> #                    Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
03214> #*****************************************************************************************************
03215> R0098:C00004-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03216>     CONTINUOUS NASHYD      5.0 01:West_1      14.27      .070 1998.0927_15:05   32.64 .074     .000
03217>       [CN= 72.0: N= 3.00: Tp= 1.14]
03218>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
03219>       [InterEventTime=  12.00]
03220> R0098:C00005-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03221>     CONTINUOUS NASHYD      5.0 01:West_2      20.14      .103 1998.0927_15:15   37.63 .085     .000
03222>       [CN= 76.0: N= 3.00: Tp= 1.26]
03223>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
03224>       [InterEventTime=  12.00]
03225> R0098:C00006-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03226>     CONTINUOUS NASHYD      5.0 01:West_3      14.01      .040 1998.0927_16:00   31.73 .072     .000
03227>       [CN= 71.0: N= 3.00: Tp= 2.07]
03228>       [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
03229>       [InterEventTime=  12.00]
03230> R0098:C00007-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03231>     ADD HYD                5.0 02:West_1      14.27      .070 1998.0927_15:05   32.64  n/a     .000
03232>                      +     5.0 02:West_2      20.14      .103 1998.0927_15:15   37.63  n/a     .000
03233>                      +     5.0 02:West_3      14.01      .040 1998.0927_16:00   31.73  n/a     .000
03234>                    SUM=    5.0 01:West-Total  48.42      .206 1998.0927_15:15   34.45  n/a     .000
03235> #*****************************************************************************************************
03236> #                    Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
03237> #*****************************************************************************************************
03238> #                  Set infiltration to 0 (CN = 99.99) for water balance analysis
03239> #*****************************************************************************************************
03240> R0098:C00008-------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
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03241>     CONTINUOUS NASHYD      5.0 01:INF-West_1    14.27     .176 1998.0627_ 1:50  127.31 .289     .000
03242>       [CN=100.0: N= 3.00: Tp= 1.14]
03243>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
03244>       [InterEventTime=  12.00]
03245> R0098:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03246>     CONTINUOUS NASHYD      5.0 01:INF-West_2    20.14     .242 1998.0927_ 3:20  127.31 .289     .000
03247>       [CN=100.0: N= 3.00: Tp= 1.26]
03248>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
03249>       [InterEventTime=  12.00]
03250> R0098:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03251>     CONTINUOUS NASHYD      5.0 01:INF-West_3    14.01     .135 1998.0927_ 3:50  127.31 .289     .000
03252>       [CN=100.0: N= 3.00: Tp= 2.07]
03253>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
03254>       [InterEventTime=  12.00]
03255> R0098:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03256>     ADD HYD                5.0 02:INF-West_1    14.27     .176 1998.0627_ 1:50  127.31  n/a     .000
03257>                      +     5.0 02:INF-West_2    20.14     .242 1998.0927_ 3:20  127.31  n/a     .000
03258>                      +     5.0 02:INF-West_3    14.01     .135 1998.0927_ 3:50  127.31  n/a     .000
03259>                    SUM=    5.0 01:INF-West-T    48.42     .544 1998.0927_ 3:20  127.31  n/a     .000
03260> ##############################################################################
03261> # CONTINUOUS RAINFALL DATA
03262> ##############################################################################
03263>  ** END OF RUN :   98
03264>
03265> *******************************************************************************
03266>
03267>
03268>
03269>
03270>
03271>  RUN#:COMMAND#
03272> R0099:C00001------------------------------------------------------------------------------
03273>     START
03274>       [TZERO =    .00 hrs on 19990101]
03275>       [METOUT=   2    (1=imperial, 2=metric output)]
03276>       [NSTORM=   0 ]
03277>       [NRUN  = 0099 ]
03278> *******************************************************************************************************
03279> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
03280> *******************************************************************************************************
03281> #  Project Name: Barrhaven Conservancy Development
03282> #  Project Number: 1474
03283> #  Date        : 2021/Oct/18
03284> #  Modeller    : J.Burnett, P.Eng.
03285> #  Updated     : 2022/Dec/07 [JB]
03286> #  Updated     : 2022/Dec/13 [LP]
03287> #  Updated     : 2024/Mar/14 [JB]
03288> #  Company     : J.F. Sabourin and Associates
03289> #  License #   : 2582634
03290> *******************************************************************************************************
03291> # Ottawa International Airport (1967 - 2003)
03292> R0099:C00002------------------------------------------------------------------------------
03293>   *  READ AES DATA
03294>       [Filename  = YOW_1967_2007.123                                    ]
03295>       [Start_date= 1999.0101: End_date= 1999.1231]
03296>       [DT= 60.min: Length= 4440.hrs: WetHrs=  247: DryHrs= 4193: PTOT= 424.40)
03297>       Maximum average rainfall intensities over
03298>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03299>        17.50    10.10     9.03     6.57     3.31     1.65     1.45     1.22      .97    mm/hr
03300>        17.50    20.20    27.10    39.40    39.70    39.70    52.20    58.60    69.50    mm
03301>       19990717 19990717 19990906 19990906 19990906 19990906 19990907 19990908 19990908  date
03302>       Number of rainfall events per following interevent time
03303>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03304>          102       80       70       63       56       39       31       28       18
03305>       Number of events with at least the following durations
03306>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03307>          101       57       31       10        1        0        0        0        0
03308> R0099:C00003------------------------------------------------------------------------------
03309>       COMPUTE API
03310>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
03311>       [APImax= 69.51: APIavg= 23.97: APImin=  1.93]
03312> *******************************************************************************************************
03313> #                    Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
03314> *******************************************************************************************************
03315> R0099:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03316>     CONTINUOUS NASHYD      5.0 01:West_1        14.27     .092 1999.0906_10:15   33.50 .079     .000
03317>       [CN= 72.0: N= 3.00: Tp= 1.14]
03318>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
03319>       [InterEventTime=  12.00]
03320> R0099:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03321>     CONTINUOUS NASHYD      5.0 01:West_2        20.14     .146 1999.0906_10:20   38.58 .091     .000
03322>       [CN= 76.0: N= 3.00: Tp= 1.26]
03323>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
03324>       [InterEventTime=  12.00]
03325> R0099:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03326>     CONTINUOUS NASHYD      5.0 01:West_3        14.01     .069 1999.0906_11:05   32.57 .077     .000
03327>       [CN= 71.0: N= 3.00: Tp= 2.07]
03328>       [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
03329>       [InterEventTime=  12.00]
03330> R0099:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03331>     ADD HYD                5.0 02:West_1        14.27     .092 1999.0906_10:15   33.50  n/a     .000
03332>                      +     5.0 02:West_2        20.14     .146 1999.0906_10:20   38.58  n/a     .000
03333>                      +     5.0 02:West_3        14.01     .069 1999.0906_11:05   32.57  n/a     .000
03334>                    SUM=    5.0 01:West-Total    48.42     .302 1999.0906_10:25   35.34  n/a     .000
03335> *******************************************************************************************************
03336> #                    Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
03337> *******************************************************************************************************
03338> #                    Set infiltration to 0 (CN = 99.99) for water balance analysis
03339> *******************************************************************************************************
03340> R0099:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03341>     CONTINUOUS NASHYD      5.0 01:INF-West_1    14.27     .277 1999.0906_ 9:05  131.43 .310     .000
03342>       [CN=100.0: N= 3.00: Tp= 1.14]
03343>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
03344>       [InterEventTime=  12.00]
03345> R0099:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03346>     CONTINUOUS NASHYD      5.0 01:INF-West_2    20.14     .377 1999.0906_ 9:15  131.43 .310     .000
03347>       [CN=100.0: N= 3.00: Tp= 1.26]
03348>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
03349>       [InterEventTime=  12.00]
03350> R0099:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03351>     CONTINUOUS NASHYD      5.0 01:INF-West_3    14.01     .209 1999.0906_10:20  131.43 .310     .000
03352>       [CN=100.0: N= 3.00: Tp= 2.07]
03353>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
03354>       [InterEventTime=  12.00]
03355> R0099:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03356>     ADD HYD                5.0 02:INF-West_1    14.27     .277 1999.0906_ 9:05  131.43  n/a     .000
03357>                      +     5.0 02:INF-West_2    20.14     .377 1999.0906_ 9:15  131.43  n/a     .000
03358>                      +     5.0 02:INF-West_3    14.01     .209 1999.0906_10:20  131.43  n/a     .000
03359>                    SUM=    5.0 01:INF-West-T    48.42     .836 1999.0906_ 9:20  131.43  n/a     .000
03360> ##############################################################################
03361> # CONTINUOUS RAINFALL DATA
03362> ##############################################################################
03363>  ** END OF RUN :   99
03364>
03365> *******************************************************************************
03366>
03367>
03368>
03369>
03370>
03371>  RUN#:COMMAND#
03372> R0100:C00001------------------------------------------------------------------------------
03373>     START
03374>       [TZERO =    .00 hrs on 20000101]
03375>       [METOUT=   2    (1=imperial, 2=metric output)]
03376>       [NSTORM=   0 ]
03377>       [NRUN  = 0100 ]
03378> *******************************************************************************************************
03379> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
03380> *******************************************************************************************************
03381> #  Project Name: Barrhaven Conservancy Development
03382> #  Project Number: 1474
03383> #  Date        : 2021/Oct/18
03384> #  Modeller    : J.Burnett, P.Eng.
03385> #  Updated     : 2022/Dec/07 [JB]
03386> #  Updated     : 2022/Dec/13 [LP]
03387> #  Updated     : 2024/Mar/14 [JB]
03388> #  Company     : J.F. Sabourin and Associates
03389> #  License #   : 2582634
03390> *******************************************************************************************************
03391> # Ottawa International Airport (1967 - 2003)
03392> R0100:C00002------------------------------------------------------------------------------
03393>   *  READ AES DATA
03394>       [Filename  = YOW_1967_2007.123                                    ]
03395>       [Start_date= 2000.0101: End_date= 2000.1230]
03396>       [DT= 60.min: Length= 5160.hrs: WetHrs=  401: DryHrs= 4759: PTOT= 535.90)
03397>       Maximum average rainfall intensities over
03398>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03399>        14.70     9.60     8.03     6.43     3.89     1.95     1.30     1.03      .84    mm/hr
03400>        14.70    19.20    24.10    38.60    46.70    46.70    46.80    49.30    60.40    mm
03401>       20000625 20000625 20000625 20000625 20000625 20000625 20000625 20000626 20000510 20000511  date
03402>       Number of rainfall events per following interevent time
03403>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03404>          156      125      110       86       67       46       34       30       23
03405>       Number of events with at least the following durations
03406>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03407>          155       82       49       16        2        0        0        0        0
03408> R0100:C00003------------------------------------------------------------------------------
03409>       COMPUTE API
03410>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
03411>       [APImax= 76.65: APIavg= 25.66: APImin=  5.70]
03412> *******************************************************************************************************
03413> #                    Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
03414> *******************************************************************************************************
03415> R0100:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03416>     CONTINUOUS NASHYD      5.0 01:West_1        14.27     .207 2000.0625_10:40   56.28 .105     .000
03417>       [CN= 72.0: N= 3.00: Tp= 1.14]
03418>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
03419>       [InterEventTime=  12.00]
03420> R0100:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03421>     CONTINUOUS NASHYD      5.0 01:West_2        20.14     .303 2000.0625_10:45   63.91 .119     .000
03422>       [CN= 76.0: N= 3.00: Tp= 1.26]
03423>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
03424>       [InterEventTime=  12.00]
03425> R0100:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03426>     CONTINUOUS NASHYD      5.0 01:West_3        14.01     .135 2000.0625_11:25   54.85 .102     .000
03427>       [CN= 71.0: N= 3.00: Tp= 2.07]
03428>       [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
03429>       [InterEventTime=  12.00]
03430> R0100:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03431>     ADD HYD                5.0 02:West_1        14.27     .207 2000.0625_10:40   56.28  n/a     .000
03432>                      +     5.0 02:West_2        20.14     .303 2000.0625_10:45   63.91  n/a     .000
03433>                      +     5.0 02:West_3        14.01     .135 2000.0625_11:25   54.85  n/a     .000
03434>                    SUM=    5.0 01:West-Total    48.42     .631 2000.0625_10:50   59.04  n/a     .000
03435> *******************************************************************************************************
03436> #                    Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
03437> *******************************************************************************************************
03438> #                    Set infiltration to 0 (CN = 99.99) for water balance analysis
03439> *******************************************************************************************************
03440> R0100:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03441>     CONTINUOUS NASHYD      5.0 01:INF-West_1    14.27     .327 2000.0625_10:30  172.01 .321     .000
03442>       [CN=100.0: N= 3.00: Tp= 1.14]
03443>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
03444>       [InterEventTime=  12.00]
03445> R0100:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03446>     CONTINUOUS NASHYD      5.0 01:INF-West_2    20.14     .439 2000.0625_10:35  172.01 .321     .000
03447>       [CN=100.0: N= 3.00: Tp= 1.26]
03448>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
03449>       [InterEventTime=  12.00]
03450> R0100:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03451>     CONTINUOUS NASHYD      5.0 01:INF-West_3    14.01     .237 2000.0625_11:10  172.01 .321     .000
03452>       [CN=100.0: N= 3.00: Tp= 2.07]
03453>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
03454>       [InterEventTime=  12.00]
03455> R0100:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03456>     ADD HYD                5.0 02:INF-West_1    14.27     .327 2000.0625_10:30  172.01  n/a     .000
03457>                      +     5.0 02:INF-West_2    20.14     .439 2000.0625_10:35  172.01  n/a     .000
03458>                      +     5.0 02:INF-West_3    14.01     .237 2000.0625_11:10  172.01  n/a     .000
03459>                    SUM=    5.0 01:INF-West-T    48.42     .987 2000.0625_10:35  172.01  n/a     .000
03460> ##############################################################################
03461> # CONTINUOUS RAINFALL DATA
03462> ##############################################################################
03463>  ** END OF RUN :  101
03464>
03465> *******************************************************************************
03466>
03467>
03468>
03469>
03470>
03471>  RUN#:COMMAND#
03472> R0102:C00001------------------------------------------------------------------------------
03473>     START
03474>       [TZERO =    .00 hrs on 20020101]
03475>       [METOUT=   2    (1=imperial, 2=metric output)]
03476>       [NSTORM=   0 ]
03477>       [NRUN  = 0102 ]
03478> *******************************************************************************************************
03479> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
03480> *******************************************************************************************************
03481> #  Project Name: Barrhaven Conservancy Development
03482> #  Project Number: 1474
03483> #  Date        : 2021/Oct/18
03484> #  Modeller    : J.Burnett, P.Eng.
03485> #  Updated     : 2022/Dec/07 [JB]
03486> #  Updated     : 2022/Dec/13 [LP]
03487> #  Updated     : 2024/Mar/14 [JB]
03488> #  Company     : J.F. Sabourin and Associates
03489> #  License #   : 2582634
03490> *******************************************************************************************************
03491> # Ottawa International Airport (1967 - 2003)
03492> R0102:C00002------------------------------------------------------------------------------
03493>   *  READ AES DATA
03494>       [Filename  = YOW_1967_2007.123                                    ]
03495>       [Start_date= 2002.0101: End_date= 2002.1231]
03496>       [DT= 60.min: Length= 5088.hrs: WetHrs=  304: DryHrs= 4784: PTOT= 551.50)
03497>       Maximum average rainfall intensities over
03498>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03499>        45.00    26.75    18.40     9.48     4.74     2.48     2.08     1.56     1.04    mm/hr
03500>        45.00    53.50    55.20    56.90    56.90    59.50    74.90    74.90    74.90    mm
03501>       20020627 20020627 20020627 20020627 20020627 20020627 20020627 20020627 20020628 20020629  date
03502>       Number of rainfall events per following interevent time
03503>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03504>          100       83       78       56       47       41       36       34       25
03505>       Number of events with at least the following durations
03506>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03507>          100       59       33       13        5        0        0        0        0
03508> R0102:C00003------------------------------------------------------------------------------
03509>       COMPUTE API
03510>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
03511>       [APImax=114.06: APIavg= 26.37: APImin=  4.40]
03512> *******************************************************************************************************
03513> #                    Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
03514> *******************************************************************************************************
03515> R0102:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03516>     CONTINUOUS NASHYD      5.0 01:West_1        14.27     .455 2002.0627_14:50  103.15 .187     .000
03517>       [CN= 72.0: N= 3.00: Tp= 1.14]
03518>       [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
03519>       [InterEventTime=  12.00]
03520> R0102:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03521>     CONTINUOUS NASHYD      5.0 01:West_2        20.14     .645 2002.0627_15:00  114.49 .208     .000
03522>       [CN= 76.0: N= 3.00: Tp= 1.26]
03523>       [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
03524>       [InterEventTime=  12.00]
03525> R0102:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03526>     CONTINUOUS NASHYD      5.0 01:West_3        14.01     .260 2002.0627_15:50  100.99 .183     .000
03527>       [CN= 71.0: N= 3.00: Tp= 2.07]
03528>       [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
03529>       [InterEventTime=  12.00]
03530> R0102:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03531>     ADD HYD                5.0 02:West_1        14.27     .455 2002.0627_14:50  103.15  n/a     .000
03532>                      +     5.0 02:West_2        20.14     .645 2002.0627_15:00  114.49  n/a     .000
03533>                      +     5.0 02:West_3        14.01     .260 2002.0627_15:50  100.99  n/a     .000
03534>                    SUM=    5.0 01:West-Total    48.42    1.311 2002.0627_15:00  107.24  n/a     .000
03535> *******************************************************************************************************
03536> #                    Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
03537> *******************************************************************************************************
03538> #                    Set infiltration to 0 (CN = 99.99) for water balance analysis
03539> *******************************************************************************************************
03540> R0102:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03541>     CONTINUOUS NASHYD      5.0 01:INF-West_1    14.27     .736 2002.0627_14:45  243.89 .442     .000
03542>       [CN=100.0: N= 3.00: Tp= 1.14]
03543>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
03544>       [InterEventTime=  12.00]
03545> R0102:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03546>     CONTINUOUS NASHYD      5.0 01:INF-West_2    20.14     .953 2002.0627_14:50  243.89 .442     .000
03547>       [CN=100.0: N= 3.00: Tp= 1.26]
03548>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
03549>       [InterEventTime=  12.00]
03550> R0102:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03551>     CONTINUOUS NASHYD      5.0 01:INF-West_3    14.01     .425 2002.0627_15:40  243.89 .442     .000
03552>       [CN=100.0: N= 3.00: Tp= 2.07]
03553>       [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
03554>       [InterEventTime=  12.00]
03555> R0102:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03556>     ADD HYD                5.0 02:INF-West_1    14.27     .736 2002.0627_14:45  243.89  n/a     .000
03557>                      +     5.0 02:INF-West_2    20.14     .953 2002.0627_14:50  243.89  n/a     .000
03558>                      +     5.0 02:INF-West_3    14.01     .425 2002.0627_15:40  243.89  n/a     .000
03559>                    SUM=    5.0 01:INF-West-T    48.42    2.034 2002.0627_14:50  243.89  n/a     .000
03560> ##############################################################################
03561> # CONTINUOUS RAINFALL DATA
03562> ##############################################################################
03563>  ** END OF RUN :  102
03564>
03565> *******************************************************************************
03566>
03567>
03568>
03569>
03570>
03571>  RUN#:COMMAND#
03572> R0103:C00001------------------------------------------------------------------------------
03573>     START
03574>       [TZERO =    .00 hrs on 20030101]
03575>       [METOUT=   2    (1=imperial, 2=metric output)]
03576>       [NSTORM=   0 ]
03577>       [NRUN  = 0103 ]
03578> *******************************************************************************************************
03579> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
03580> *******************************************************************************************************
03581> #  Project Name: Barrhaven Conservancy Development
03582> #  Project Number: 1474
03583> #  Date        : 2021/Oct/18
03584> #  Modeller    : J.Burnett, P.Eng.
03585> #  Updated     : 2022/Dec/07 [JB]
03586> #  Updated     : 2022/Dec/13 [LP]
03587> #  Updated     : 2024/Mar/14 [JB]
03588> #  Company     : J.F. Sabourin and Associates
03589> #  License #   : 2582634
03590> *******************************************************************************************************
03591> # Ottawa International Airport (1967 - 2003)
03592> R0103:C00002------------------------------------------------------------------------------
03593>   *  READ AES DATA
03594>       [Filename  = YOW_1967_2007.123                                    ]
03595>       [Start_date= 2003.0101: End_date= 2003.1231]
03596>       [DT= 60.min: Length= 4440.hrs: WetHrs=  406: DryHrs= 4034: PTOT= 554.60)
03597>       Maximum average rainfall intensities over
03598>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
03599>        15.10    10.00     7.13     4.28     3.18     1.86     1.25      .94      .81    mm/hr
03600>        15.10    20.00    21.40    25.70    38.20    44.60    44.90    45.10    58.30    mm
```

```
      20030711 20030711 20030711 20030711 20031021 20031015 20030525 20030526 20030527  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         145      127      109       86       64       45       38       25       15
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         144       80       43       13        5        1        0        0        0
R0103:C00003------------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 72.10: APIavg= 28.54: APImin=  4.70}
#*****************************************************************************************************
#                  Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#*****************************************************************************************************
R0103:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_1        14.27     .149 2003.0711_17:45   76.16 .137     .000
      [CN= 72.0: N= 3.00: Tp= 1.14]
      [IaREC= 6.00: SMIN= 39.75: SMAX=264.99: SK= .030]
      [InterEventTime=  12.00]
R0103:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_2        20.14     .221 2003.0711_17:50   86.07 .155     .000
      [CN= 76.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN= 32.46: SMAX=216.39: SK= .030]
      [InterEventTime=  12.00]
R0103:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:West_3        14.01     .091 2003.1021_ 9:50   74.30 .134     .000
      [CN= 71.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN= 41.38: SMAX=275.84: SK= .030]
      [InterEventTime=  12.00]
R0103:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:West_1        14.27     .149 2003.0711_17:45   76.16  n/a     .000
                    +     5.0 02:West_2        20.14     .221 2003.0711_17:50   86.07  n/a     .000
                    +     5.0 02:West_3        14.01     .091 2003.1021_ 9:50   74.30  n/a     .000
                 SUM=     5.0 01:West-Total    48.42     .444 2003.0711_17:55   79.74  n/a     .000
#*****************************************************************************************************
#                  Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
#*****************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#*****************************************************************************************************
R0103:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_1    14.27     .307 2003.0711_17:35  204.68 .369     .000
      [CN=100.0: N= 3.00: Tp= 1.14]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0103:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_2    20.14     .403 2003.0711_17:40  204.68 .369     .000
      [CN=100.0: N= 3.00: Tp= 1.26]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0103:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS NASHYD     5.0 01:INF-West_3    14.01     .191 2003.0711_18:20  204.68 .369     .000
      [CN=100.0: N= 3.00: Tp= 2.07]
      [IaREC= 6.00: SMIN=  1.39: SMAX=  9.24: SK= .000]
      [InterEventTime=  12.00]
R0103:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-West_1    14.27     .307 2003.0711_17:35  204.68  n/a     .000
                    +     5.0 02:INF-West_2    20.14     .403 2003.0711_17:40  204.68  n/a     .000
                    +     5.0 02:INF-West_3    14.01     .191 2003.0711_18:20  204.68  n/a     .000
                 SUM=     5.0 01:INF-West-T    48.42     .876 2003.0711_17:40  204.68  n/a     .000
#################################################################################
# CONTINUOUS RAINFALL DATA
#################################################################################
R0103:C00002------------------------------------------------------------------------------------
    FINISH
-------------------------------------------------------------------------------------------------
*************************************************************************************************
     WARNINGS / ERRORS / NOTES
     -------------------------
R0067:C00002  READ AES DATA
*** WARNING: Requested start date is less than start date in file.
*** WARNING: Missing rainfall increments were set to 0.
*** WARNING: Missing rainfall increments were set to 0.
*** WARNING: Missing rainfall increments were set to 0.
*** WARNING: Missing rainfall increments were set to 0.
*** WARNING: Missing rainfall increments were set to 0.
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*** WARNING: Requested start date is less than start date in file.
*** WARNING: Missing rainfall increments were set to 0.
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*** WARNING: Requested start date is less than start date in file.
*** WARNING: Missing rainfall increments were set to 0.
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*** WARNING: Requested start date is less than start date in file.
*** WARNING: Missing rainfall increments were set to 0.
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*** WARNING: Requested start date is less than start date in file.
*** WARNING: Missing rainfall increments were set to 0.
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*** WARNING: Requested start date is less than start date in file.
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*** WARNING: Requested start date is less than start date in file.
*** WARNING: Missing rainfall increments were set to 0.
*** WARNING: Requested start date is less than start date in file.
*** WARNING: Missing rainfall increments were set to 0.
*** WARNING: Requested start date is less than start date in file.
*** WARNING: Missing rainfall increments were set to 0.
*** WARNING: Requested start date is less than start date in file.
*** WARNING: Missing rainfall increments were set to 0.
   Simulation ended on 2024-03-14     at 20:05:19
=================================================================================================
```

```
20     Metric units / ID Numbers OFF
*#*************************************************************************************************************
*#  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     : 2024/Mar/14 [LP]
*#  Company     : J.F. Sabourin and Associates
*#  License #   : 2582634
*#*************************************************************************************************************
START               TZERO=[1967.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[67]
*%                   [""] <--storm filename, one per line for NSTORM time
*%-----------------|-------------------------------------------------------------------------------------------|
*# Ottawa International Airport (1967 - 2003)
READ AES DATA       AES_FILENAME=["YOW_1967_2007.123"],
                    IELEM=[123], START_DATE=[0], END_DATE=[-364]
*%-----------------|-------------------------------------------------------------------------------------------|
COMPUTE API         APII=[50], APIK=[0.90]/day
*%-----------------|-------------------------------------------------------------------------------------------|
*#*************************************************************************************************************
*#                   Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
*#*************************************************************************************************************
*%-----------------|-------------------------------------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["W1"], DT=[5](min), AREA=[5.76](ha)
                    XIMP=[0.55], TIMP=[0.66], DWF=[0](cms),
                    LOSS=[2]: SCS curve number CN=[71],
                    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=[196](m),
                    MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[6](hrs),  IaRECimp=[1.5](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.03]/(mm),
                    InterEventTime=[12](hrs), END=-1
*%-----------------|-------------------------------------------------------------------------------------------|
*# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
*# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
*# Total Volume provided by LID  - 96 m³
*# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
ROUTE RESERVOIR     NHYDout=["W1-LID"], NHYDin=["W1"], RDT=[5](min),
                         TABLE of ( OUTFLOW-STORAGE ) values
                                   (cms) - (ha-m)
                                 [   0.0000 ,  0.0000  ]
                                 [   0.0004 ,  0.0001  ]
                                 [   0.0005 ,  0.0096  ]
                                 [      -1   ,  -1     ]
                    NHYDovf=["W1-LID-Out"],
*%-----------------|-------------------------------------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["W2"], DT=[5](min), AREA=[8.51](ha)
                    XIMP=[0.50], TIMP=[0.60], DWF=[0](cms),
                    LOSS=[2]: SCS curve number CN=[71],
                    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=[238](m),
```

```
                    MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[6](hrs),  IaRECimp=[1.5](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.03]/(mm),
                    InterEventTime=[12](hrs), END=-1
*%-----------------|-------------------------------------------------------------------------------|
*# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
*# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
*# Total Volume provided by LID  - 131 m³
*# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
ROUTE RESERVOIR     NHYDout=["W2-LID"], NHYDin=["W2"], RDT=[5](min),
                         TABLE of ( OUTFLOW-STORAGE ) values
                                   (cms) - (ha-m)
                                [   0.0000 ,  0.0000  ]
                                [   0.0006 ,  0.0001  ]
                                [   0.0007 ,  0.0131  ]
                                [      -1  ,  -1      ]
                    NHYDovf=["W2-LID-Out"],
*%-----------------|-------------------------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["W3"], DT=[5](min), AREA=[10.03](ha)
                    XIMP=[0.66], TIMP=[0.76], DWF=[0](cms),
                    LOSS=[2]: SCS curve number CN=[71],
                    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=[259](m),
                    MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[6](hrs),  IaRECimp=[1.5](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.03]/(mm),
                    InterEventTime=[12](hrs), END=-1
*%-----------------|-------------------------------------------------------------------------------|
*# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
*# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
*# Total Volume provided by LID  - 193 m³
*# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
ROUTE RESERVOIR     NHYDout=["W3-LID"], NHYDin=["W3"], RDT=[5](min),
                         TABLE of ( OUTFLOW-STORAGE ) values
                                   (cms) - (ha-m)
                                [   0.0000 ,  0.0000  ]
                                [   0.0010 ,  0.0001  ]
                                [   0.0011 ,  0.0193  ]
                                [      -1  ,  -1      ]
                    NHYDovf=["W3-LID-Out"],
*%-----------------|-------------------------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["W4"], DT=[5](min), AREA=[10.11](ha)
                    XIMP=[0.60], TIMP=[0.70], DWF=[0](cms),
                    LOSS=[2]: SCS curve number CN=[71],
                    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=[260](m),
                    MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[6](hrs),  IaRECimp=[1.5](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.03]/(mm),
                    InterEventTime=[12](hrs), END=-1
*%-----------------|-------------------------------------------------------------------------------|
*# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
*# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
*# Total Volume provided by LID  - 186 m³
*# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
ROUTE RESERVOIR     NHYDout=["W4-LID"], NHYDin=["W4"], RDT=[5](min),
```

```
                          TABLE of ( OUTFLOW-STORAGE ) values
                                   (cms) - (ha-m)
                                 [   0.0000 ,  0.0000  ]
                                 [   0.0009 ,  0.0001  ]
                                 [   0.0010 ,  0.0186  ]
                                 [      -1   ,  -1     ]
                     NHYDovf=["W4-LID-Out"],
*%-----------------|-------------------------------------------------------------------------------
-----------------------------|
CONTINUOUS STANDHYD NHYD=["W5"], DT=[5](min), AREA=[6.20](ha)
                     XIMP=[0.57], TIMP=[0.67], DWF=[0](cms),
                     LOSS=[2]: SCS curve number CN=[71],
                     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=[203](m),
                     MNI=[0.013], SCI=[0](min),
                     Continuous simulation parameters:
                     IaRECper=[6](hrs),  IaRECimp=[1.5](hrs),
                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.03]/(mm),
                     InterEventTime=[12](hrs), END=-1
*%-----------------|-------------------------------------------------------------------------------
-----------------------------|
*# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
*# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm
diameter perforated pipe
*# Total Volume provided by LID  - 110 m³
*# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
ROUTE RESERVOIR      NHYDout=["W5-LID"], NHYDin=["W5"], RDT=[5](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                   (cms) - (ha-m)
                                 [   0.0000 ,  0.0000  ]
                                 [   0.0005 ,  0.0001  ]
                                 [   0.0006 ,  0.0110  ]
                                 [      -1   ,  -1     ]
                     NHYDovf=["W5-LID-Out"],
*%-----------------|-------------------------------------------------------------------------------
-----------------------------|
CONTINUOUS STANDHYD NHYD=["W6"], DT=[5](min), AREA=[7.81](ha)
                     XIMP=[0.71], TIMP=[0.81], DWF=[0](cms),
                     LOSS=[2]: SCS curve number CN=[71],
                     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=[228](m),
                     MNI=[0.013], SCI=[0](min),
                     Continuous simulation parameters:
                     IaRECper=[6](hrs),  IaRECimp=[1.5](hrs),
                     SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.03]/(mm),
                     InterEventTime=[12](hrs), END=-1
*%-----------------|-------------------------------------------------------------------------------
-----------------------------|
*# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
*# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm
diameter perforated pipe
*# Total Volume provided by LID  - 165 m³
*# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
ROUTE RESERVOIR      NHYDout=["W6-LID"], NHYDin=["W6"], RDT=[5](min),
                          TABLE of ( OUTFLOW-STORAGE ) values
                                   (cms) - (ha-m)
                                 [   0.0000 ,  0.0000  ]
                                 [   0.0008 ,  0.0001  ]
                                 [   0.0009 ,  0.0165  ]
                                 [      -1   ,  -1     ]
                     NHYDovf=["W6-LID-Out"],
*%-----------------|-------------------------------------------------------------------------------
-----------------------------|
*Development Without LIDs
ADD HYD              NHYDsum=["BCD-PH3"], NHYDs to add=["W1", "W2", "W3", "W4","W5","W6"]
*%-----------------|-------------------------------------------------------------------------------
-----------------------------|
```

```
*Development With LIDs
ADD HYD             NHYDsum=["BCD-PH3-LID"], NHYDs to
add=["W1-LID-Out","W2-LID-Out","W3-LID-Out","W4-LID-Out", "W5-LID-Out", "W6-LID-Out"]
*%-----------------|-------------------------------------------------------------------------------|
*#*****************************************************************************************************
*#                   Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  -
POST DEVELOPMENT CONDITIONS
*#*****************************************************************************************************
*#                   Set infiltration to 0 (CN = 99.99) for water balance analysis
*#*****************************************************************************************************
*%-----------------|-------------------------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["INF-W1"], DT=[5](min), AREA=[5.76](ha)
                    XIMP=[0.55], TIMP=[0.66], DWF=[0](cms),
                    LOSS=[2]: SCS curve number CN=[99.99],
                    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=[196](m),
                    MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[6](hrs),  IaRECimp=[1.5](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.00]/(mm),
                    InterEventTime=[12](hrs), END=-1
*%-----------------|-------------------------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["INF-W2"], DT=[5](min), AREA=[8.51](ha)
                    XIMP=[0.50], TIMP=[0.60], DWF=[0](cms),
                    LOSS=[2]: SCS curve number CN=[99.99],
                    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=[238](m),
                    MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[6](hrs),  IaRECimp=[1.5](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.00]/(mm),
                    InterEventTime=[12](hrs), END=-1
*%-----------------|-------------------------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["INF-W3"], DT=[5](min), AREA=[10.03](ha)
                    XIMP=[0.66], TIMP=[0.76], DWF=[0](cms),
                    LOSS=[2]: SCS curve number CN=[99.99],
                    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=[259](m),
                    MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[6](hrs),  IaRECimp=[1.5](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.00]/(mm),
                    InterEventTime=[12](hrs), END=-1
*%-----------------|-------------------------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["INF-W4"], DT=[5](min), AREA=[10.11](ha)
                    XIMP=[0.60], TIMP=[0.70], DWF=[0](cms),
                    LOSS=[2]: SCS curve number CN=[99.99],
                    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=[260](m),
                    MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[6](hrs),  IaRECimp=[1.5](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.00]/(mm),
                    InterEventTime=[12](hrs), END=-1
*%-----------------|-------------------------------------------------------------------------------|
CONTINUOUS STANDHYD NHYD=["INF-W5"], DT=[5](min), AREA=[6.20](ha)
```

```
                    XIMP=[0.57], TIMP=[0.67], DWF=[0](cms),
                    LOSS=[2]: SCS curve number CN=[99.99],
                    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=[203](m),
                    MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[6](hrs),  IaRECimp=[1.5](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.00]/(mm),
                    InterEventTime=[12](hrs), END=-1
*%-----------------|-------------------------------------------------------------------
-----------------------------|
CONTINUOUS STANDHYD NHYD=["INF-W6"], DT=[5](min), AREA=[7.81](ha)
                    XIMP=[0.71], TIMP=[0.81], DWF=[0](cms),
                    LOSS=[2]: SCS curve number CN=[99.99],
                    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=[228](m),
                    MNI=[0.013], SCI=[0](min),
                    Continuous simulation parameters:
                    IaRECper=[6](hrs),  IaRECimp=[1.5](hrs),
                    SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.00]/(mm),
                    InterEventTime=[12](hrs), END=-1
*%-----------------|-------------------------------------------------------------------
-----------------------------|
*Development Without Infiltration for water budget
ADD HYD             NHYDsum=["INF-BCD-PH3"], NHYDs to add=["INF-W1", "INF-W2", "INF-W3",
"INF-W4", "INF-W5", "INF-W6"]
*%-----------------|-------------------------------------------------------------------
-----------------------------|
*###############################################################################
*# CONTINUOUS RAINFALL DATA
*###############################################################################
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-----------------------------|
*%-----------------|-------------------------------------------------------------------
-----------------------------|
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*%-----------------|-------------------------------------------------------------------
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*%-----------------|-------------------------------------------------------------------
-----------------------------|
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*%-----------------|-------------------------------------------------------------------
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*%-----------------|-------------------------------------------------------------------
-----------------------------|
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*%-----------------|-------------------------------------------------------------------
-----------------------------|
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*%-----------------|-------------------------------------------------------------------
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START               TZERO=[1978.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[78]
*%-----------------|-------------------------------------------------------------------
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------------------------------|
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------------------------------|
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*%-----------------|-------------------------------------------------------------------
------------------------------|
START                TZERO=[1987.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[87]
*%-----------------|-------------------------------------------------------------------
------------------------------|
START                TZERO=[1988.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[88]
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------------------------------|
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*%-----------------|-------------------------------------------------------------------
------------------------------|
START                TZERO=[1991.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[91]
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START                TZERO=[1992.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[92]
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START                TZERO=[1997.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[97]
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START                TZERO=[1998.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[98]
*%-----------------|-------------------------------------------------------------------
------------------------------|
START                TZERO=[1999.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[99]
*%-----------------|-------------------------------------------------------------------
------------------------------|
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*%-----------------|-------------------------------------------------------------------
------------------------------|
*% MISSING FROM AES RAINFALL DATA
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```

```
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*%-----------------|-------------------------------------------------------------------------------|
START               TZERO=[2003.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[103]
*%-----------------|-------------------------------------------------------------------------------|
FINISH
```

```
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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: 2024-03-14     TIME: 20:58:37     RUN COUNTER: 008083              *
***********************************************************************************
* Input   file: C:\Temp\20240314-Post-Dev\BCD_WEST-POST_v03.dat                                  *
* Output  file: C:\Temp\20240314-Post-Dev\BCD_WEST-POST_v03.out                                  *
* Summary file: C:\Temp\20240314-Post-Dev\BCD_WEST-POST_v03.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      : 2024/Mar/14 [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      : 2024/Mar/14 [LP]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#**********************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0067:C00002----------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                                   ]
      [Start_date= 1967.0101: End_date= 1967.1231]
      {DT= 60.min: Length= 3984.hrs: WetHrs=  257: DryHrs= 3727: PTOT= 386.90}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       24.60    17.65    13.20     7.25     3.83     2.36     1.73     1.32      .90    mm/hr
       24.60    35.30    39.60    43.50    46.00    56.60    62.30    63.20    64.90    mm
      19670921 19670921 19670921 19670921 19670921 19670922 19670922 19670923 19670924  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
          80       65       56       40       32       29       24       20       18
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
          79       42       29       14        3        0        0        0        0
R0067:C00003----------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 76.77: APIavg= 24.81: APImin=  3.06}
#**********************************************************************************************
#                   Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#**********************************************************************************************
R0067:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W1             5.76     .240 1967.0921_17:00  203.20 .525     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0067:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W1             5.76     .240 1967.0921_17:00  203.20  n/a     .000
                out <=    5.0 01:W1-LID         1.07     .001 1967.0725_ 0:30  203.20  n/a     .000
           overflow <=    5.0 03:W1-LID-Out     4.69     .235 1967.0921_17:00  203.20  n/a     .000
     {MxStoUsed=.9599E-02  m3, TotOvfVol=.9523E+00  m3, N-Ovf=   73, TotDurOvf=  123.hrs}
R0067:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W2             8.51     .324 1967.0921_17:00  189.65 .490     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0067:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2             8.51     .324 1967.0921_17:00  189.65  n/a     .000
                out <=    5.0 01:W2-LID         1.59     .001 1967.0725_ 0:30  189.65  n/a     .000
           overflow <=    5.0 03:W2-LID-Out     6.92     .318 1967.0921_17:00  189.65  n/a     .000
     {MxStoUsed=.1309E-01  m3, TotOvfVol=.1313E+01  m3, N-Ovf=   69, TotDurOvf=  125.hrs}
R0067:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3            10.03     .484 1967.0921_17:00  229.91 .594     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0067:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3            10.03     .484 1967.0921_17:00  229.91  n/a     .000
                out <=    5.0 01:W3-LID         1.99     .001 1967.0725_ 0:30  229.92  n/a     .000
           overflow <=    5.0 03:W3-LID-Out     8.04     .477 1967.0921_17:00  229.91  n/a     .000
     {MxStoUsed=.1929E-01  m3, TotOvfVol=.1848E+01  m3, N-Ovf=   62, TotDurOvf=  122.hrs}
R0067:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4            10.11     .449 1967.0921_17:00  214.68 .555     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0067:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4            10.11     .449 1967.0921_17:00  214.68  n/a     .000
                out <=    5.0 01:W4-LID         2.00     .001 1967.0725_ 0:30  214.68  n/a     .000
           overflow <=    5.0 03:W4-LID-Out     8.11     .442 1967.0921_17:00  214.68  n/a     .000
     {MxStoUsed=.1860E-01  m3, TotOvfVol=.1741E+01  m3, N-Ovf=   71, TotDurOvf=  122.hrs}
R0067:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5             6.20     .264 1967.0921_17:00  207.14 .535     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0067:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5             6.20     .264 1967.0921_17:00  207.14  n/a     .000
                out <=    5.0 01:W5-LID         1.22     .001 1967.0725_ 0:30  207.15  n/a     .000
           overflow <=    5.0 03:W5-LID-Out     4.98     .260 1967.0921_17:00  207.14  n/a     .000
     {MxStoUsed=.1100E-01  m3, TotOvfVol=.1031E+01  m3, N-Ovf=   75, TotDurOvf=  121.hrs}
R0067:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6             7.81     .403 1967.0921_17:00  242.59 .627     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0067:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6             7.81     .403 1967.0921_17:00  242.59  n/a     .000
                out <=    5.0 01:W6-LID         1.58     .001 1967.0725_ 0:30  242.58  n/a     .000
           overflow <=    5.0 03:W6-LID-Out     6.23     .398 1967.0921_17:00  242.59  n/a     .000
     {MxStoUsed=.1649E-01  m3, TotOvfVol=.1511E+01  m3, N-Ovf=   70, TotDurOvf=  120.hrs}
R0067:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1             5.76     .240 1967.0921_17:00  203.20  n/a     .000
                    +     5.0 02:W2             8.51     .324 1967.0921_17:00  189.65  n/a     .000
                    +     5.0 02:W3            10.03     .484 1967.0921_17:00  229.91  n/a     .000
                    +     5.0 02:W4            10.11     .449 1967.0921_17:00  214.68  n/a     .000
                    +     5.0 02:W5             6.20     .264 1967.0921_17:00  207.14  n/a     .000
                    +     5.0 02:W6             7.81     .403 1967.0921_17:00  242.59  n/a     .000
                 SUM=     5.0 01:BCD-PH3       48.42    2.163 1967.0921_17:00  215.61  n/a     .000
R0067:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out     4.69     .235 1967.0921_17:00  203.20  n/a     .000
                    +     5.0 02:W2-LID-Out     6.92     .318 1967.0921_17:00  189.65  n/a     .000
                    +     5.0 02:W3-LID-Out     8.04     .477 1967.0921_17:00  229.91  n/a     .000
                    +     5.0 02:W4-LID-Out     8.11     .442 1967.0921_17:00  214.68  n/a     .000
                    +     5.0 02:W5-LID-Out     4.98     .260 1967.0921_17:00  207.14  n/a     .000
                    +     5.0 02:W6-LID-Out     6.23     .398 1967.0921_17:00  242.59  n/a     .000
                 SUM=     5.0 01:BCD-PH3-LI    38.97    2.131 1967.0921_17:00  215.49  n/a     .000
#**********************************************************************************************
#                   Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#**********************************************************************************************
#                   Set infiltration to 0 (CN = 99.99) for water balance analysis
#**********************************************************************************************
R0067:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .349 1967.0921_17:00  252.77 .653     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0067:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2         8.51     .499 1967.0921_17:00  243.78 .630     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0067:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3        10.03     .627 1967.0921_17:00  267.93 .693     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0067:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4        10.11     .616 1967.0921_17:00  258.82 .669     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0067:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W5         6.20     .377 1967.0921_17:00  254.30 .657     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0067:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W6         7.81     .500 1967.0921_17:00  275.68 .713     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0067:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-W1         5.76     .349 1967.0921_17:00  252.77  n/a     .000
                    +     5.0 02:INF-W2         8.51     .499 1967.0921_17:00  243.78  n/a     .000
                    +     5.0 02:INF-W3        10.03     .627 1967.0921_17:00  267.93  n/a     .000
                    +     5.0 02:INF-W4        10.11     .616 1967.0921_17:00  258.82  n/a     .000
                    +     5.0 02:INF-W5         6.20     .377 1967.0921_17:00  254.30  n/a     .000
                    +     5.0 02:INF-W6         7.81     .500 1967.0921_17:00  275.68  n/a     .000
                 SUM=     5.0 01:INF-BCD-PH    48.42    2.968 1967.0921_17:00  259.49  n/a     .000
##############################################################################
# CONTINUOUS RAINFALL DATA
##############################################################################
  ** END OF RUN :   67
***********************************************************************************
 RUN#:COMMAND#
R0068:C00001----------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19680101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0068 ]
#**********************************************************************************************
#  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      : 2024/Mar/14 [LP]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#**********************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0068:C00002----------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                                   ]
      [Start_date= 1968.0101: End_date= 1968.1230]
      {DT= 60.min: Length= 8760.hrs: WetHrs=  413: DryHrs= 8347: PTOT= 592.80}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       33.30    17.05    11.37     6.23     3.74     1.87     1.26      .95      .70    mm/hr
       33.30    34.10    34.10    37.40    44.90    44.90    45.40    45.40    50.20    mm
      19680817 19680817 19680817 19680808 19680817 19680818 19680817 19680808 19680820  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         137      105       93       84       72       63       48       43       36
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         136       76       49       18        5        0        0        0        0
R0068:C00003----------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 67.52: APIavg= 16.74: APImin=   .27}
#**********************************************************************************************
#                   Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#**********************************************************************************************
R0068:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W1             5.76     .361 1968.0817_ 5:00  284.26 .480     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0068:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W1             5.76     .361 1968.0817_ 5:00  284.27  n/a     .000
                out <=    5.0 01:W1-LID         1.46     .001 1968.0130_ 4:05  284.27  n/a     .000
           overflow <=    5.0 03:W1-LID-Out     4.30     .350 1968.0817_ 5:00  284.27  n/a     .000
     {MxStoUsed=.9598E-02  m3, TotOvfVol=.1222E+01  m3, N-Ovf=  113, TotDurOvf=  168.hrs}
R0068:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
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    CONTINUOUS STANDHYD   5.0 01:W2             8.51     .496 1968.0817_ 5:00  263.54 .445     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0068:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2             8.51     .496 1968.0817_ 5:00  263.54  n/a     .000
                   out <=    5.0 01:W2-LID      2.17     .001 1968.0202_ 3:15  263.55  n/a     .000
              overflow <=    5.0 03:W2-LID-Out  6.34     .479 1968.0817_ 5:00  263.54  n/a     .000
     {MxStoUsed=.1310E-01  m3, TotOvfVol=.1671E+01  m3, N-Ovf=  114, TotDurOvf=  169.hrs}
R0068:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3            10.03     .704 1968.0817_ 5:00  326.57 .551     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0068:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3            10.03     .704 1968.0817_ 5:00  326.57  n/a     .000
                   out <=    5.0 01:W3-LID      2.65     .001 1968.0130_ 4:00  326.56  n/a     .000
              overflow <=    5.0 03:W3-LID-Out  7.38     .689 1968.0817_ 5:00  326.57  n/a     .000
     {MxStoUsed=.1930E-01  m3, TotOvfVol=.2411E+01  m3, N-Ovf=  110, TotDurOvf=  167.hrs}
R0068:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4            10.11     .663 1968.0817_ 5:00  302.84 .511     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0068:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4            10.11     .663 1968.0817_ 5:00  302.84  n/a     .000
                   out <=    5.0 01:W4-LID      2.69     .001 1968.0202_ 3:15  302.85  n/a     .000
              overflow <=    5.0 03:W4-LID-Out  7.42     .646 1968.0817_ 5:00  302.84  n/a     .000
     {MxStoUsed=.1860E-01  m3, TotOvfVol=.2246E+01  m3, N-Ovf=  109, TotDurOvf=  166.hrs}
R0068:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5             6.20     .395 1968.0817_ 5:00  291.03 .491     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0068:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5             6.20     .395 1968.0817_ 5:00  291.03  n/a     .000
                   out <=    5.0 01:W5-LID      1.65     .001 1968.0202_ 3:20  291.03  n/a     .000
              overflow <=    5.0 03:W5-LID-Out  4.55     .384 1968.0817_ 5:00  291.03  n/a     .000
     {MxStoUsed=.1100E-01  m3, TotOvfVol=.1324E+01  m3, N-Ovf=  110, TotDurOvf=  165.hrs}
R0068:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6             7.81     .580 1968.0817_ 5:00  346.56 .585     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0068:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6             7.81     .580 1968.0817_ 5:00  346.56  n/a     .000
                   out <=    5.0 01:W6-LID      2.10     .001 1968.0130_ 4:05  346.56  n/a     .000
              overflow <=    5.0 03:W6-LID-Out  5.71     .569 1968.0817_ 5:00  346.56  n/a     .000
     {MxStoUsed=.1650E-01  m3, TotOvfVol=.1979E+01  m3, N-Ovf=  103, TotDurOvf=  165.hrs}
R0068:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1             5.76     .361 1968.0817_ 5:00  284.27  n/a     .000
                    +     5.0 02:W2             8.51     .496 1968.0817_ 5:00  263.54  n/a     .000
                    +     5.0 02:W3            10.03     .704 1968.0817_ 5:00  326.57  n/a     .000
                    +     5.0 02:W4            10.11     .663 1968.0817_ 5:00  302.84  n/a     .000
                    +     5.0 02:W5             6.20     .395 1968.0817_ 5:00  291.03  n/a     .000
                    +     5.0 02:W6             7.81     .580 1968.0817_ 5:00  346.56  n/a     .000
                 SUM=     5.0 01:BCD-PH3       48.42    3.199 1968.0817_ 5:00  304.18  n/a     .000
R0068:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out     4.30     .350 1968.0817_ 5:00  284.27  n/a     .000
                    +     5.0 02:W2-LID-Out     6.34     .479 1968.0817_ 5:00  263.54  n/a     .000
                    +     5.0 02:W3-LID-Out     7.38     .689 1968.0817_ 5:00  326.57  n/a     .000
                    +     5.0 02:W4-LID-Out     7.42     .646 1968.0817_ 5:00  302.84  n/a     .000
                    +     5.0 02:W5-LID-Out     4.55     .384 1968.0817_ 5:00  291.03  n/a     .000
                    +     5.0 02:W6-LID-Out     5.71     .569 1968.0817_ 5:00  346.56  n/a     .000
                 SUM=     5.0 01:BCD-PH3-LI    35.70    3.117 1968.0817_ 5:00  304.02  n/a     .000
#*************************************************************************************************
#                    Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*************************************************************************************************
#                    Set infiltration to 0 (CN = 99.99) for water balance analysis
#*************************************************************************************************
R0068:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .496 1968.0817_ 5:00  362.10 .611     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0068:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2         8.51     .707 1968.0817_ 5:00  347.68 .587     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0068:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3        10.03     .870 1968.0817_ 5:00  387.27 .653     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0068:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4        10.11     .862 1968.0817_ 5:00  372.28 .628     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0068:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W5         6.20     .528 1968.0817_ 5:00  364.85 .615     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0068:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W6         7.81     .693 1968.0817_ 5:00  399.98 .675     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0068:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-W1         5.76     .496 1968.0817_ 5:00  362.10  n/a     .000
                    +     5.0 02:INF-W2         8.51     .707 1968.0817_ 5:00  347.68  n/a     .000
                    +     5.0 02:INF-W3        10.03     .870 1968.0817_ 5:00  387.27  n/a     .000
                    +     5.0 02:INF-W4        10.11     .862 1968.0817_ 5:00  372.28  n/a     .000
                    +     5.0 02:INF-W5         6.20     .528 1968.0817_ 5:00  364.85  n/a     .000
                    +     5.0 02:INF-W6         7.81     .693 1968.0817_ 5:00  399.98  n/a     .000
                 SUM=     5.0 01:INF-BCD-PH    48.42    4.157 1968.0817_ 5:00  373.37  n/a     .000
################################################################################
# CONTINUOUS RAINFALL DATA
################################################################################
  ** END OF RUN :   68

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

 RUN#:COMMAND#
R0069:C00001-------------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19690101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0069 ]
#************************************************************************************************
#  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       : 2024/Mar/14 [LP]
#  Company       : J.F. Sabourin and Associates
#  License #     : 2582634
#************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0069:C00002-------------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                          ]
      [Start_date= 1969.0101: End_date= 1969.1231]
      {DT= 60.min: Length= 8760.hrs: WetHrs=  470: DryHrs= 8290: PTOT= 570.30}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       21.10    16.25    10.83     7.78     3.93     2.10     1.40     1.09      .75    mm/hr
       21.10    32.50    32.50    46.70    47.20    50.30    50.30    52.10    54.00    mm
      19690818 19690818 19690818 19690819 19690819 19690819 19690819 19690819 19690819  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         157      119      107       92       72       58       49       43       32
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         156       84       58       21        5        0        0        0        0
R0069:C00003-------------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 56.77: APIavg= 16.06: APImin=   .06}
#************************************************************************************************
#                    Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#************************************************************************************************
R0069:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W1             5.76     .225 1969.0818_22:00  259.68 .455     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0069:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W1             5.76     .225 1969.0818_22:00  259.68  n/a     .000
                   out <=    5.0 01:W1-LID      1.47     .001 1969.0124_11:10  259.68  n/a     .000
              overflow <=    5.0 03:W1-LID-Out  4.29     .220 1969.0818_22:00  259.68  n/a     .000
     {MxStoUsed=.9599E-02  m3, TotOvfVol=.1115E+01  m3, N-Ovf=   96, TotDurOvf=  178.hrs}
R0069:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W2             8.51     .309 1969.0818_22:00  240.14 .421     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0069:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2             8.51     .309 1969.0818_22:00  240.14  n/a     .000
                   out <=    5.0 01:W2-LID      2.17     .001 1969.0124_11:15  240.15  n/a     .000
              overflow <=    5.0 03:W2-LID-Out  6.34     .302 1969.0818_22:00  240.14  n/a     .000
     {MxStoUsed=.1310E-01  m3, TotOvfVol=.1521E+01  m3, N-Ovf=   96, TotDurOvf=  180.hrs}
R0069:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3            10.03     .441 1969.0818_22:00  299.51 .525     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0069:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3            10.03     .441 1969.0818_22:00  299.51  n/a     .000
                   out <=    5.0 01:W3-LID      2.64     .001 1969.0124_11:05  299.51  n/a     .000
              overflow <=    5.0 03:W3-LID-Out  7.39     .435 1969.0818_22:00  299.51  n/a     .000
     {MxStoUsed=.1929E-01  m3, TotOvfVol=.2213E+01  m3, N-Ovf=   92, TotDurOvf=  179.hrs}
R0069:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4            10.11     .415 1969.0818_22:00  277.15 .486     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0069:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4            10.11     .415 1969.0818_22:00  277.15  n/a     .000
                   out <=    5.0 01:W4-LID      2.68     .001 1969.0124_11:15  277.16  n/a     .000
              overflow <=    5.0 03:W4-LID-Out  7.43     .408 1969.0818_22:00  277.15  n/a     .000
     {MxStoUsed=.1859E-01  m3, TotOvfVol=.2058E+01  m3, N-Ovf=   96, TotDurOvf=  178.hrs}
R0069:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5             6.20     .247 1969.0818_22:00  266.02 .466     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0069:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5             6.20     .247 1969.0818_22:00  266.02  n/a     .000
                   out <=    5.0 01:W5-LID      1.65     .001 1969.0124_11:15  266.02  n/a     .000
              overflow <=    5.0 03:W5-LID-Out  4.55     .242 1969.0818_22:00  266.02  n/a     .000
     {MxStoUsed=.1100E-01  m3, TotOvfVol=.1211E+01  m3, N-Ovf=   93, TotDurOvf=  176.hrs}
R0069:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6             7.81     .368 1969.0818_22:00  318.32 .558     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0069:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6             7.81     .368 1969.0818_22:00  318.32  n/a     .000
                   out <=    5.0 01:W6-LID      2.09     .001 1969.0124_11:10  318.33  n/a     .000
              overflow <=    5.0 03:W6-LID-Out  5.72     .362 1969.0818_22:00  318.32  n/a     .000
     {MxStoUsed=.1650E-01  m3, TotOvfVol=.1821E+01  m3, N-Ovf=   89, TotDurOvf=  176.hrs}
R0069:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1             5.76     .225 1969.0818_22:00  259.68  n/a     .000
                    +     5.0 02:W2             8.51     .309 1969.0818_22:00  240.14  n/a     .000
                    +     5.0 02:W3            10.03     .441 1969.0818_22:00  299.51  n/a     .000
                    +     5.0 02:W4            10.11     .415 1969.0818_22:00  277.15  n/a     .000
                    +     5.0 02:W5             6.20     .247 1969.0818_22:00  266.02  n/a     .000
                    +     5.0 02:W6             7.81     .368 1969.0818_22:00  318.32  n/a     .000
                 SUM=     5.0 01:BCD-PH3       48.42    2.004 1969.0818_22:00  278.42  n/a     .000
R0069:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out     4.29     .220 1969.0818_22:00  259.68  n/a     .000
                    +     5.0 02:W2-LID-Out     6.34     .302 1969.0818_22:00  240.14  n/a     .000
                    +     5.0 02:W3-LID-Out     7.39     .435 1969.0818_22:00  299.51  n/a     .000
                    +     5.0 02:W4-LID-Out     7.43     .408 1969.0818_22:00  277.15  n/a     .000
                    +     5.0 02:W5-LID-Out     4.55     .242 1969.0818_22:00  266.02  n/a     .000
                    +     5.0 02:W6-LID-Out     5.72     .362 1969.0818_22:00  318.32  n/a     .000
                 SUM=     5.0 01:BCD-PH3-LI    35.72    1.968 1969.0818_22:00  278.29  n/a     .000
#************************************************************************************************
#                    Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#************************************************************************************************
#                    Set infiltration to 0 (CN = 99.99) for water balance analysis
#************************************************************************************************
R0069:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .318 1969.0818_22:00  334.54 .587     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0069:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2         8.51     .462 1969.0818_22:00  321.07 .563     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0069:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3        10.03     .561 1969.0818_22:00  357.79 .627     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
```

```
00721>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
00722> R0069:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00723>     CONTINUOUS STANDHYD    5.0 01:INF-W4          10.11     .559 1969.0818_22:00  343.93 .603     .000
00724>       [XIMP=.60:TIMP=.70]
00725>       [LOSS= 2 :CN=100.0]
00726>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00727>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
00728>       [IaRECimp=   1.50: IaRECper=   6.00]
00729>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
00730> R0069:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00731>     CONTINUOUS STANDHYD    5.0 01:INF-W5          6.20      .343 1969.0818_22:00  337.04 .591     .000
00732>       [XIMP=.57:TIMP=.67]
00733>       [LOSS= 2 :CN=100.0]
00734>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00735>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
00736>       [IaRECimp=   1.50: IaRECper=   6.00]
00737>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
00738> R0069:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00739>     CONTINUOUS STANDHYD    5.0 01:INF-W6          7.81      .443 1969.0818_22:00  369.49 .648     .000
00740>       [XIMP=.71:TIMP=.81]
00741>       [LOSS= 2 :CN=100.0]
00742>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00743>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
00744>       [IaRECimp=   1.50: IaRECper=   6.00]
00745>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
00746> R0069:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00747>     ADD HYD                5.0 02:INF-W1          5.76      .318 1969.0818_22:00  334.54  n/a     .000
00748>                        +    5.0 02:INF-W2          8.51      .462 1969.0818_22:00  321.07  n/a     .000
00749>                        +    5.0 02:INF-W3         10.03      .561 1969.0818_22:00  357.79  n/a     .000
00750>                        +    5.0 02:INF-W4         10.11      .559 1969.0818_22:00  343.93  n/a     .000
00751>                        +    5.0 02:INF-W5          6.20      .343 1969.0818_22:00  337.04  n/a     .000
00752>                        +    5.0 02:INF-W6          7.81      .443 1969.0818_22:00  369.49  n/a     .000
00753>                    SUM=     5.0 01:INF-BCD-PH     48.42     2.685 1969.0818_22:00  344.91  n/a     .000
00754> ##############################################################################
00755> # CONTINUOUS RAINFALL DATA
00756> ##############################################################################
00757>   ** END OF RUN :   69
00758>
00759> ******************************************************************************************************
00760>
00761>
00762>
00763>
00764>
00765>  RUN#:COMMAND#
00766> R0070:C00001------------------------------------------------------------------------------
00767>       START
00768>       [TZERO =    .00 hrs on 19700101]
00769>       [METOUT=   2    (1=imperial, 2=metric output)]
00770>       [NSTORM=   0 ]
00771>       [NRUN  = 0070 ]
00772> ******************************************************************************************************
00773> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
00774> ******************************************************************************************************
00775> #  Project Name: Barrhaven Conservancy Development
00776> #  Project Number: 1474
00777> #  Date       : 2021/Oct/18
00778> #  Modeller   : J.Burnett, P.Eng.
00779> #  Updated    : 2024/Mar/14 [LP]
00780> #  Company    : J.F. Sabourin and Associates
00781> #  License #  : 2582634
00782> ******************************************************************************************************
00783> # Ottawa International Airport (1967 - 2003)
00784> R0070:C00002------------------------------------------------------------------------------
00785>   *  READ AES DATA
00786>       [Filename  = YOW_1967_2007.123                                          ]
00787>       [Start_date= 1970.0101: End_date= 1970.1231]
00788>       [DT= 60.min: Length= 8760.hrs: WetHrs=  373: DryHrs= 8387: PTOT= 558.90)
00789>       Maximum average rainfall intensities over
00790>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00791>        35.30    18.30    12.20     6.10     3.63     1.81     1.21     1.46      .99    mm/hr
00792>        35.30    36.60    36.60    36.60    43.50    43.50    43.50    69.90    71.20    mm
00793>      19700926 19700926 19700926 19700927 19700817 19700817 19700818 19700926 19700927  date
00794>      Number of rainfall events per following interevent time
00795>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00796>          148      127      109       84       72       60       54       41       30
00797>      Number of events with at least the following durations
00798>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
00799>          147       79       40       15        3        0        0        0        0
00800> R0070:C00003------------------------------------------------------------------------------
00801>       COMPUTE API
00802>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
00803>       [APImax= 76.00: APIavg= 15.84: APImin=   .07]
00804> ******************************************************************************************************
00805> #                 Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
00806> ******************************************************************************************************
00807> R0070:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00808>     CONTINUOUS STANDHYD    5.0 01:W1              5.76      .398 1970.0926_21:00  254.24 .455     .000
00809>       [XIMP=.55:TIMP=.66]
00810>       [LOSS= 2 :CN= 71.0]
00811>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00812>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
00813>       [IaRECimp=   1.50: IaRECper=   6.00]
00814>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00815> # LID for Outlet W1 (14 catchbasins, 30 m long trench each)
00816> # Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00817> # Total Volume provided by LID  - 96 m³
00818> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00819> R0070:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00820>     ROUTE RESERVOIR ->     5.0 02:W1              5.76      .398 1970.0926_21:00  254.24  n/a     .000
00821>                        out <=    5.0 01:W1-LID       1.46      .001 1970.0202_11:45  254.25  n/a     .000
00822>                  overflow <=    5.0 03:W1-LID-Out     4.30      .386 1970.0926_21:00  254.24  n/a     .000
00823>      (MxStoUsed=.9598E-02  m3, TotOvfVol=.1094E+01  m3, N-Ovf=   91, TotDurOvf=  138.hrs)
00824> R0070:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00825>     CONTINUOUS STANDHYD    5.0 01:W2              8.51      .550 1970.0926_21:00  234.94 .420     .000
00826>       [XIMP=.50:TIMP=.60]
00827>       [LOSS= 2 :CN= 71.0]
00828>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00829>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
00830>       [IaRECimp=   1.50: IaRECper=   6.00]
00831>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00832> # LID for Outlet W2 (19 catchbasins, 30 m long trench each)
00833> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00834> # Total Volume provided by LID  - 131 m³
00835> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00836> R0070:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00837>     ROUTE RESERVOIR ->     5.0 02:W2              8.51      .550 1970.0926_21:00  234.94  n/a     .000
00838>                        out <=    5.0 01:W2-LID       2.17      .001 1970.0202_11:50  234.95  n/a     .000
00839>                  overflow <=    5.0 03:W2-LID-Out     6.34      .531 1970.0926_21:00  234.94  n/a     .000
00840>      (MxStoUsed=.1309E-01  m3, TotOvfVol=.1490E+01  m3, N-Ovf=   95, TotDurOvf=  137.hrs)
00841> R0070:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00842>     CONTINUOUS STANDHYD    5.0 01:W3             10.03      .767 1970.0926_21:00  293.73 .526     .000
00843>       [XIMP=.66:TIMP=.76]
00844>       [LOSS= 2 :CN= 71.0]
00845>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00846>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
00847>       [IaRECimp=   1.50: IaRECper=   6.00]
00848>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00849> # LID for Outlet W3 (28 catchbasins, 30 m long trench each)
00850> # Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00851> # Total Volume provided by LID  - 193 m³
00852> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00853> R0070:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00854>     ROUTE RESERVOIR ->     5.0 02:W3             10.03      .767 1970.0926_21:00  293.73  n/a     .000
00855>                        out <=    5.0 01:W3-LID       2.63      .001 1970.0202_11:50  293.73  n/a     .000
00856>                  overflow <=    5.0 03:W3-LID-Out     7.40      .750 1970.0926_21:00  293.73  n/a     .000
00857>      (MxStoUsed=.1930E-01  m3, TotOvfVol=.2175E+01  m3, N-Ovf=   92, TotDurOvf=  138.hrs)
00858> R0070:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00859>     CONTINUOUS STANDHYD    5.0 01:W4             10.11      .727 1970.0926_21:00  271.59 .486     .000
00860>       [XIMP=.60:TIMP=.70]
00861>       [LOSS= 2 :CN= 71.0]
00862>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00863>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
00864>       [IaRECimp=   1.50: IaRECper=   6.00]
00865>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00866> # LID for Outlet W4 (27 catchbasins, 30 m long trench each)
00867> # Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00868> # Total Volume provided by LID  - 186 m³
00869> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00870> R0070:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00871>     ROUTE RESERVOIR ->     5.0 02:W4             10.11      .727 1970.0926_21:00  271.59  n/a     .000
00872>                        out <=    5.0 01:W4-LID       2.68      .001 1970.0202_11:50  271.59  n/a     .000
00873>                  overflow <=    5.0 03:W4-LID-Out     7.43      .708 1970.0926_21:00  271.59  n/a     .000
00874>      (MxStoUsed=.1860E-01  m3, TotOvfVol=.2019E+01  m3, N-Ovf=   87, TotDurOvf=  137.hrs)
00875> R0070:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00876>     CONTINUOUS STANDHYD    5.0 01:W5              6.20      .435 1970.0926_21:00  260.57 .466     .000
00877>       [XIMP=.57:TIMP=.67]
00878>       [LOSS= 2 :CN= 71.0]
00879>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00880>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
00881>       [IaRECimp=   1.50: IaRECper=   6.00]
00882>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00883> # LID for Outlet W5 (16 catchbasins, 30 m long trench each)
00884> # Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00885> # Total Volume provided by LID  - 110 m³
00886> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00887> R0070:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00888>     ROUTE RESERVOIR ->     5.0 02:W5              6.20      .435 1970.0926_21:00  260.57  n/a     .000
00889>                        out <=    5.0 01:W5-LID       1.64      .001 1970.0202_11:50  260.56  n/a     .000
00890>                  overflow <=    5.0 03:W5-LID-Out     4.56      .422 1970.0926_21:00  260.57  n/a     .000
00891>      (MxStoUsed=.1100E-01  m3, TotOvfVol=.1187E+01  m3, N-Ovf=   96, TotDurOvf=  134.hrs)
00892> R0070:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00893>     CONTINUOUS STANDHYD    5.0 01:W6              7.81      .642 1970.0926_21:00  312.37 .559     .000
00894>       [XIMP=.71:TIMP=.81]
00895>       [LOSS= 2 :CN= 71.0]
00896>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00897>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
00898>       [IaRECimp=   1.50: IaRECper=   6.00]
00899>       [SMIN= 41.38: SMAX=275.84: SK= .030]
00900> # LID for Outlet W6 (24 catchbasins, 30 m long trench each)
00901> # Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00902> # Total Volume provided by LID  - 165 m³
00903> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
00904> R0070:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00905>     ROUTE RESERVOIR ->     5.0 02:W6              7.81      .642 1970.0926_21:00  312.37  n/a     .000
00906>                        out <=    5.0 01:W6-LID       2.08      .001 1970.0202_11:50  312.38  n/a     .000
00907>                  overflow <=    5.0 03:W6-LID-Out     5.73      .627 1970.0926_21:00  312.37  n/a     .000
00908>      (MxStoUsed=.1650E-01  m3, TotOvfVol=.1791E+01  m3, N-Ovf=   87, TotDurOvf=  134.hrs)
00909> R0070:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00910>     ADD HYD                5.0 02:W1              5.76      .398 1970.0926_21:00  254.24  n/a     .000
00911>                        +    5.0 02:W2              8.51      .550 1970.0926_21:00  234.94  n/a     .000
00912>                        +    5.0 02:W3             10.03      .767 1970.0926_21:00  293.73  n/a     .000
00913>                        +    5.0 02:W4             10.11      .727 1970.0926_21:00  271.59  n/a     .000
00914>                        +    5.0 02:W5              6.20      .435 1970.0926_21:00  260.57  n/a     .000
00915>                        +    5.0 02:W6              7.81      .642 1970.0926_21:00  312.37  n/a     .000
00916>                    SUM=     5.0 01:BCD-PH3        48.42     3.519 1970.0926_21:00  272.84  n/a     .000
00917> R0070:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00918>     ADD HYD                5.0 02:W1-LID-Out      4.30      .386 1970.0926_21:00  254.24  n/a     .000
00919>                        +    5.0 02:W2-LID-Out      6.34      .531 1970.0926_21:00  234.94  n/a     .000
00920>                        +    5.0 02:W3-LID-Out      7.40      .750 1970.0926_21:00  293.73  n/a     .000
00921>                        +    5.0 02:W4-LID-Out      7.43      .708 1970.0926_21:00  271.59  n/a     .000
00922>                        +    5.0 02:W5-LID-Out      4.56      .422 1970.0926_21:00  260.57  n/a     .000
00923>                        +    5.0 02:W6-LID-Out      5.73      .627 1970.0926_21:00  312.37  n/a     .000
00924>                    SUM=     5.0 01:BCD-PH3-LI     35.77     3.423 1970.0926_21:00  272.72  n/a     .000
00925> ******************************************************************************************************
00926> #                 Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
00927> ******************************************************************************************************
00928> #                 Set infiltration to 0 (CN = 99.99) for water balance analysis
00929> ******************************************************************************************************
00930> R0070:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00931>     CONTINUOUS STANDHYD    5.0 01:INF-W1          5.76      .526 1970.0926_21:00  325.35 .582     .000
00932>       [XIMP=.55:TIMP=.66]
00933>       [LOSS= 2 :CN=100.0]
00934>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00935>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
00936>       [IaRECimp=   1.50: IaRECper=   6.00]
00937>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
00938> R0070:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00939>     CONTINUOUS STANDHYD    5.0 01:INF-W2          8.51      .751 1970.0926_21:00  311.41 .557     .000
00940>       [XIMP=.50:TIMP=.60]
00941>       [LOSS= 2 :CN=100.0]
00942>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00943>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
00944>       [IaRECimp=   1.50: IaRECper=   6.00]
00945>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
00946> R0070:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00947>     CONTINUOUS STANDHYD    5.0 01:INF-W3         10.03      .923 1970.0926_21:00  349.41 .625     .000
00948>       [XIMP=.66:TIMP=.76]
00949>       [LOSS= 2 :CN=100.0]
00950>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00951>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
00952>       [IaRECimp=   1.50: IaRECper=   6.00]
00953>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
00954> R0070:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00955>     CONTINUOUS STANDHYD    5.0 01:INF-W4         10.11      .915 1970.0926_21:00  335.05 .599     .000
00956>       [XIMP=.60:TIMP=.70]
00957>       [LOSS= 2 :CN=100.0]
00958>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00959>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
00960>       [IaRECimp=   1.50: IaRECper=   6.00]
00961>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
00962> R0070:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00963>     CONTINUOUS STANDHYD    5.0 01:INF-W5          6.20      .567 1970.0926_21:00  327.92 .587     .000
00964>       [XIMP=.57:TIMP=.67]
00965>       [LOSS= 2 :CN=100.0]
00966>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00967>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
00968>       [IaRECimp=   1.50: IaRECper=   6.00]
00969>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
00970> R0070:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00971>     CONTINUOUS STANDHYD    5.0 01:INF-W6          7.81      .736 1970.0926_21:00  361.56 .647     .000
00972>       [XIMP=.71:TIMP=.81]
00973>       [LOSS= 2 :CN=100.0]
00974>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
00975>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
00976>       [IaRECimp=   1.50: IaRECper=   6.00]
00977>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
00978> R0070:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
00979>     ADD HYD                5.0 02:INF-W1          5.76      .526 1970.0926_21:00  325.35  n/a     .000
00980>                        +    5.0 02:INF-W2          8.51      .751 1970.0926_21:00  311.41  n/a     .000
00981>                        +    5.0 02:INF-W3         10.03      .923 1970.0926_21:00  349.41  n/a     .000
00982>                        +    5.0 02:INF-W4         10.11      .915 1970.0926_21:00  335.05  n/a     .000
00983>                        +    5.0 02:INF-W5          6.20      .567 1970.0926_21:00  327.92  n/a     .000
00984>                        +    5.0 02:INF-W6          7.81      .736 1970.0926_21:00  361.56  n/a     .000
00985>                    SUM=     5.0 01:INF-BCD-PH     48.42     4.419 1970.0926_21:00  336.08  n/a     .000
00986> ##############################################################################
00987> # CONTINUOUS RAINFALL DATA
00988> ##############################################################################
00989>   ** END OF RUN :   70
00990>
00991> ******************************************************************************************************
00992>
00993>
00994>
00995>
00996>
00997>  RUN#:COMMAND#
00998> R0071:C00001------------------------------------------------------------------------------
00999>       START
01000>       [TZERO =    .00 hrs on 19710101]
01001>       [METOUT=   2    (1=imperial, 2=metric output)]
01002>       [NSTORM=   0 ]
01003>       [NRUN  = 0071 ]
01004> ******************************************************************************************************
01005> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
01006> ******************************************************************************************************
01007> #  Project Name: Barrhaven Conservancy Development
01008> #  Project Number: 1474
01009> #  Date       : 2021/Oct/18
01010> #  Modeller   : J.Burnett, P.Eng.
01011> #  Updated    : 2024/Mar/14 [LP]
01012> #  Company    : J.F. Sabourin and Associates
01013> #  License #  : 2582634
01014> ******************************************************************************************************
01015> # Ottawa International Airport (1967 - 2003)
01016> R0071:C00002------------------------------------------------------------------------------
01017>   *  READ AES DATA
01018>       [Filename  = YOW_1967_2007.123                                          ]
01019>       [Start_date= 1971.0101: End_date= 1971.1231]
01020>       [DT= 60.min: Length= 8760.hrs: WetHrs=  412: DryHrs= 8348: PTOT= 522.10)
01021>       Maximum average rainfall intensities over
01022>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01023>        24.60    16.60    11.67     6.13     3.09     1.56     1.06      .79      .54    mm/hr
01024>        24.60    33.20    35.00    36.80    37.10    37.40    38.00    38.00    38.90    mm
01025>      19710810 19710810 19710810 19710810 19710810 19710810 19710811 19710812 19710830  date
01026>      Number of rainfall events per following interevent time
01027>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01028>          156      123      113       93       72       61       52       42       33
01029>      Number of events with at least the following durations
01030>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
01031>          155       81       59       21        2        0        0        0        0
01032> R0071:C00003------------------------------------------------------------------------------
01033>       COMPUTE API
01034>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
01035>       [APImax= 62.22: APIavg= 14.84: APImin=   .36]
01036> ******************************************************************************************************
01037> #                 Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
01038> ******************************************************************************************************
01039> R0071:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
01040>     CONTINUOUS STANDHYD    5.0 01:W1              5.76      .248 1971.0810_15:00  225.61 .432     .000
01041>       [XIMP=.55:TIMP=.66]
01042>       [LOSS= 2 :CN= 71.0]
01043>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01044>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
01045>       [IaRECimp=   1.50: IaRECper=   6.00]
01046>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01047> # LID for Outlet W1 (14 catchbasins, 30 m long trench each)
01048> # Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01049> # Total Volume provided by LID  - 96 m³
01050> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01051> R0071:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
01052>     ROUTE RESERVOIR ->     5.0 02:W1              5.76      .248 1971.0810_15:00  225.61  n/a     .000
01053>                        out <=    5.0 01:W1-LID       1.69      .001 1971.0402_ 2:55  225.62  n/a     .000
01054>                  overflow <=    5.0 03:W1-LID-Out     4.07      .243 1971.0810_15:00  225.61  n/a     .000
01055>      (MxStoUsed=.9597E-02  m3, TotOvfVol=.9176E+00  m3, N-Ovf=   95, TotDurOvf=  121.hrs)
01056> R0071:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
01057>     CONTINUOUS STANDHYD    5.0 01:W2              8.51      .337 1971.0810_15:00  207.90 .398     .000
01058>       [XIMP=.50:TIMP=.60]
01059>       [LOSS= 2 :CN= 71.0]
01060>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01061>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
01062>       [IaRECimp=   1.50: IaRECper=   6.00]
01063>       [SMIN= 41.38: SMAX=275.84: SK= .030]
01064> # LID for Outlet W2 (19 catchbasins, 30 m long trench each)
01065> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
01066> # Total Volume provided by LID  - 131 m³
01067> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
01068> R0071:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
01069>     ROUTE RESERVOIR ->     5.0 02:W2              8.51      .337 1971.0810_15:00  207.90  n/a     .000
01070>                        out <=    5.0 01:W2-LID       2.53      .001 1971.0402_ 3:00  207.90  n/a     .000
01071>                  overflow <=    5.0 03:W2-LID-Out     5.98      .330 1971.0810_15:00  207.90  n/a     .000
01072>      (MxStoUsed=.1310E-01  m3, TotOvfVol=.1244E+01  m3, N-Ovf=   94, TotDurOvf=  121.hrs)
01073> R0071:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFCms
01074>     CONTINUOUS STANDHYD    5.0 01:W3             10.03      .495 1971.0810_15:00  262.19 .502     .000
01075>       [XIMP=.66:TIMP=.76]
01076>       [LOSS= 2 :CN= 71.0]
01077>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
01078>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
01079>       [IaRECimp=   1.50: IaRECper=   6.00]
01080>       [SMIN= 41.38: SMAX=275.84: SK= .030]
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# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0071:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ROUTE RESERVOIR ->    5.0 02:W3           10.03      .495 1971.0810_15:00  262.19  n/a     .000
                 out <=    5.0 01:W3-LID        3.02      .001 1971.0402_ 2:50  262.18  n/a     .000
            overflow <=    5.0 03:W3-LID-Out    7.01      .487 1971.0810_15:00  262.19  n/a     .000
      {MxStoUsed=.1929E-01  m3, TotOvfVol=.1837E+01  m3, N-Ovf=  100, TotDurOvf=  120.hrs}
R0071:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:W4           10.11      .461 1971.0810_15:00  241.75 .463     .000
       [XIMP=.60:TIMP=.70]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0071:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ROUTE RESERVOIR ->    5.0 02:W4           10.11      .461 1971.0810_15:00  241.75  n/a     .000
                 out <=    5.0 01:W4-LID        3.10      .001 1971.0402_ 3:00  241.75  n/a     .000
            overflow <=    5.0 03:W4-LID-Out    7.01      .453 1971.0810_15:00  241.75  n/a     .000
      {MxStoUsed=.1859E-01  m3, TotOvfVol=.1696E+01  m3, N-Ovf=  103, TotDurOvf=  119.hrs}
R0071:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:W5            6.20      .273 1971.0810_15:00  231.57 .444     .000
       [XIMP=.57:TIMP=.67]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0071:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ROUTE RESERVOIR ->    5.0 02:W5            6.20      .273 1971.0810_15:00  231.57  n/a     .000
                 out <=    5.0 01:W5-LID        1.90      .001 1971.0402_ 3:05  231.57  n/a     .000
            overflow <=    5.0 03:W5-LID-Out    4.30      .268 1971.0810_15:00  231.57  n/a     .000
      {MxStoUsed=.1100E-01  m3, TotOvfVol=.9950E+00  m3, N-Ovf=   89, TotDurOvf=  117.hrs}
R0071:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:W6            7.81      .410 1971.0810_15:00  279.38 .535     .000
       [XIMP=.71:TIMP=.81]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0071:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ROUTE RESERVOIR ->    5.0 02:W6            7.81      .410 1971.0810_15:00  279.38  n/a     .000
                 out <=    5.0 01:W6-LID        2.39      .001 1971.0402_ 2:50  279.38  n/a     .000
            overflow <=    5.0 03:W6-LID-Out    5.42      .405 1971.0810_15:00  279.38  n/a     .000
      {MxStoUsed=.1650E-01  m3, TotOvfVol=.1514E+01  m3, N-Ovf=   92, TotDurOvf=  118.hrs}
R0071:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ADD HYD               5.0 02:W1            5.76      .248 1971.0810_15:00  225.61  n/a     .000
                    +      5.0 02:W2            8.51      .337 1971.0810_15:00  207.90  n/a     .000
                    +      5.0 02:W3           10.03      .495 1971.0810_15:00  262.19  n/a     .000
                    +      5.0 02:W4           10.11      .461 1971.0810_15:00  241.75  n/a     .000
                    +      5.0 02:W5            6.20      .273 1971.0810_15:00  231.57  n/a     .000
                    +      5.0 02:W6            7.81      .410 1971.0810_15:00  279.38  n/a     .000
                 SUM=      5.0 01:BCD-PH3      48.42     2.223 1971.0810_15:00  242.88  n/a     .000
R0071:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ADD HYD               5.0 02:W1-LID-Out    4.07      .243 1971.0810_15:00  225.61  n/a     .000
                    +      5.0 02:W2-LID-Out    5.98      .330 1971.0810_15:00  207.90  n/a     .000
                    +      5.0 02:W3-LID-Out    7.01      .487 1971.0810_15:00  262.19  n/a     .000
                    +      5.0 02:W4-LID-Out    7.01      .453 1971.0810_15:00  241.75  n/a     .000
                    +      5.0 02:W5-LID-Out    4.30      .268 1971.0810_15:00  231.57  n/a     .000
                    +      5.0 02:W6-LID-Out    5.42      .405 1971.0810_15:00  279.38  n/a     .000
                 SUM=      5.0 01:BCD-PH3-LI   33.79     2.186 1971.0810_15:00  242.79  n/a     .000
#*************************************************************************************************************
#                   Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*************************************************************************************************************
#                   Set infiltration to 0 (CN = 99.99) for water balance analysis
#*************************************************************************************************************
R0071:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W1        5.76      .357 1971.0810_15:00  286.42 .549     .000
       [XIMP=.55:TIMP=.66]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0071:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W2        8.51      .513 1971.0810_15:00  272.87 .523     .000
       [XIMP=.50:TIMP=.60]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0071:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W3       10.03      .636 1971.0810_15:00  310.20 .594     .000
       [XIMP=.66:TIMP=.76]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0071:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W4       10.11      .629 1971.0810_15:00  296.07 .567     .000
       [XIMP=.60:TIMP=.70]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0071:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W5        6.20      .385 1971.0810_15:00  289.07 .554     .000
       [XIMP=.57:TIMP=.67]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0071:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W6        7.81      .505 1971.0810_15:00  322.18 .617     .000
       [XIMP=.71:TIMP=.81]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0071:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ADD HYD               5.0 02:INF-W1        5.76      .357 1971.0810_15:00  286.42  n/a     .000
                    +      5.0 02:INF-W2        8.51      .513 1971.0810_15:00  272.86  n/a     .000
                    +      5.0 02:INF-W3       10.03      .636 1971.0810_15:00  310.20  n/a     .000
                    +      5.0 02:INF-W4       10.11      .629 1971.0810_15:00  296.07  n/a     .000
                    +      5.0 02:INF-W5        6.20      .385 1971.0810_15:00  289.07  n/a     .000
                    +      5.0 02:INF-W6        7.81      .505 1971.0810_15:00  322.18  n/a     .000
                 SUM=      5.0 01:INF-BCD-PH   48.42     3.025 1971.0810_15:00  297.09  n/a     .000
##################################################################################
# CONTINUOUS RAINFALL DATA
##################################################################################
  ** END OF RUN :   71

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





 RUN#:COMMAND#
R0072:C00001-----------------------------------------------------------------------------------------
      START
       [TZERO =    .00 hrs on 19720101]
       [METOUT=   2    (1=imperial, 2=metric output)]
       [NSTORM=   0 ]
       [NRUN  = 0072 ]
#*************************************************************************************************************
#  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      : 2024/Mar/14 [LP]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#*************************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0072:C00002-----------------------------------------------------------------------------------------
   *  READ AES DATA
       [Filename  = YOW_1967_2007.123                                         ]
       [Start_date= 1972.0101: End_date= 1972.1230]
       {DT= 60.min: Length= 8760.hrs: WetHrs=  489: DryHrs= 8271: PTOT= 784.30}
       Maximum average rainfall intensities over
         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
        37.30    19.15    12.97     8.15     4.50     2.53     2.00     1.71     1.17    mm/hr
        37.30    38.30    38.90    48.90    54.00    60.70    72.10    82.20    84.20    mm
       19720712 19720712 19720807 19720808 19720808 19720808 19720713 19720714 19720715  date
       Number of rainfall events per following interevent time
         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
          170      133      122       86       76       60       45       41       31
       Number of events with at least the following durations
         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
          169       96       58       21        5        0        0        0        0
R0072:C00003-----------------------------------------------------------------------------------------
      COMPUTE API
       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
       {APImax=108.88: APIavg= 21.70: APImin=   .00}
#*************************************************************************************************************
#                   Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*************************************************************************************************************
R0072:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:W1            5.76      .432 1972.0712_ 4:00  403.12 .514     .000
       [XIMP=.55:TIMP=.66]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0072:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ROUTE RESERVOIR ->    5.0 02:W1            5.76      .432 1972.0712_ 4:00  403.12  n/a     .000
                 out <=    5.0 01:W1-LID        1.13      .001 1972.0413_ 9:55  403.13  n/a     .000
            overflow <=    5.0 03:W1-LID-Out    4.63      .413 1972.0712_ 4:00  403.12  n/a     .000
      {MxStoUsed=.9597E-02  m3, TotOvfVol=.1868E+01  m3, N-Ovf=  132, TotDurOvf=  202.hrs}
R0072:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:W2            8.51      .574 1972.0712_ 4:00  376.14 .480     .000
       [XIMP=.50:TIMP=.60]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0072:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ROUTE RESERVOIR ->    5.0 02:W2            8.51      .574 1972.0712_ 4:00  376.14  n/a     .000
                 out <=    5.0 01:W2-LID        1.66      .001 1972.0413_10:00  376.14  n/a     .000
            overflow <=    5.0 03:W2-LID-Out    6.85      .552 1972.0712_ 4:00  376.14  n/a     .000
      {MxStoUsed=.1310E-01  m3, TotOvfVol=.2575E+01  m3, N-Ovf=  141, TotDurOvf=  205.hrs}
R0072:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:W3           10.03      .805 1972.0712_ 4:00  457.01 .583     .000
       [XIMP=.66:TIMP=.76]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0072:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ROUTE RESERVOIR ->    5.0 02:W3           10.03      .805 1972.0712_ 4:00  457.01  n/a     .000
                 out <=    5.0 01:W3-LID        2.08      .001 1972.0413_ 9:55  457.00  n/a     .000
            overflow <=    5.0 03:W3-LID-Out    7.95      .785 1972.0712_ 4:00  457.01  n/a     .000
      {MxStoUsed=.1930E-01  m3, TotOvfVol=.3635E+01  m3, N-Ovf=  143, TotDurOvf=  203.hrs}
R0072:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:W4           10.11      .762 1972.0712_ 4:00  426.51 .544     .000
       [XIMP=.60:TIMP=.70]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0072:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ROUTE RESERVOIR ->    5.0 02:W4           10.11      .762 1972.0712_ 4:00  426.51  n/a     .000
                 out <=    5.0 01:W4-LID        2.09      .001 1972.0413_10:00  426.53  n/a     .000
            overflow <=    5.0 03:W4-LID-Out    8.02      .740 1972.0712_ 4:00  426.51  n/a     .000
      {MxStoUsed=.1858E-01  m3, TotOvfVol=.3419E+01  m3, N-Ovf=  141, TotDurOvf=  201.hrs}
R0072:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:W5            6.20      .471 1972.0712_ 4:00  411.36 .525     .000
       [XIMP=.57:TIMP=.67]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0072:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ROUTE RESERVOIR ->    5.0 02:W5            6.20      .471 1972.0712_ 4:00  411.36  n/a     .000
                 out <=    5.0 01:W5-LID        1.28      .001 1972.0413_ 9:55  411.35  n/a     .000
            overflow <=    5.0 03:W5-LID-Out    4.92      .452 1972.0712_ 4:00  411.36  n/a     .000
      {MxStoUsed=.1100E-01  m3, TotOvfVol=.2024E+01  m3, N-Ovf=  139, TotDurOvf=  198.hrs}
R0072:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:W6            7.81      .675 1972.0712_ 4:00  482.65 .615     .000
       [XIMP=.71:TIMP=.81]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0072:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ROUTE RESERVOIR ->    5.0 02:W6            7.81      .675 1972.0712_ 4:00  482.65  n/a     .000
                 out <=    5.0 01:W6-LID        1.65      .001 1972.0413_ 9:55  482.66  n/a     .000
            overflow <=    5.0 03:W6-LID-Out    6.16      .657 1972.0712_ 4:00  482.65  n/a     .000
      {MxStoUsed=.1649E-01  m3, TotOvfVol=.2973E+01  m3, N-Ovf=  131, TotDurOvf=  198.hrs}
R0072:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ADD HYD               5.0 02:W1            5.76      .432 1972.0712_ 4:00  403.12  n/a     .000
                    +      5.0 02:W2            8.51      .574 1972.0712_ 4:00  376.14  n/a     .000
                    +      5.0 02:W3           10.03      .805 1972.0712_ 4:00  457.01  n/a     .000
                    +      5.0 02:W4           10.11      .762 1972.0712_ 4:00  426.51  n/a     .000
                    +      5.0 02:W5            6.20      .471 1972.0712_ 4:00  411.36  n/a     .000
                    +      5.0 02:W6            7.81      .675 1972.0712_ 4:00  482.65  n/a     .000
                 SUM=      5.0 01:BCD-PH3      48.42     3.718 1972.0712_ 4:00  428.31  n/a     .000
R0072:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ADD HYD               5.0 02:W1-LID-Out    4.63      .413 1972.0712_ 4:00  403.12  n/a     .000
                    +      5.0 02:W2-LID-Out    6.85      .552 1972.0712_ 4:00  376.14  n/a     .000
                    +      5.0 02:W3-LID-Out    7.95      .785 1972.0712_ 4:00  457.01  n/a     .000
                    +      5.0 02:W4-LID-Out    8.02      .740 1972.0712_ 4:00  426.51  n/a     .000
                    +      5.0 02:W5-LID-Out    4.92      .452 1972.0712_ 4:00  411.36  n/a     .000
                    +      5.0 02:W6-LID-Out    6.16      .657 1972.0712_ 4:00  482.65  n/a     .000
                 SUM=      5.0 01:BCD-PH3-LI   38.53     3.600 1972.0712_ 4:00  428.08  n/a     .000
#*************************************************************************************************************
#                   Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*************************************************************************************************************
#                   Set infiltration to 0 (CN = 99.99) for water balance analysis
#*************************************************************************************************************
R0072:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W1        5.76      .560 1972.0712_ 4:00  501.39 .639     .000
       [XIMP=.55:TIMP=.66]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0072:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W2        8.51      .800 1972.0712_ 4:00  482.92 .616     .000
       [XIMP=.50:TIMP=.60]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0072:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W3       10.03      .980 1972.0712_ 4:00  533.03 .680     .000
       [XIMP=.66:TIMP=.76]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0072:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W4       10.11      .973 1972.0712_ 4:00  514.10 .656     .000
       [XIMP=.60:TIMP=.70]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0072:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W5        6.20      .603 1972.0712_ 4:00  504.71 .644     .000
       [XIMP=.57:TIMP=.67]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0072:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W6        7.81      .780 1972.0712_ 4:00  549.01 .700     .000
       [XIMP=.71:TIMP=.81]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
```

```
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0072:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD              5.0 02:INF-W1         5.76     .560 1972.0712_ 4:00  501.39  n/a     .000
                  +      5.0 02:INF-W2         8.51     .800 1972.0712_ 4:00  482.92  n/a     .000
                  +      5.0 02:INF-W3        10.03     .980 1972.0712_ 4:00  533.03  n/a     .000
                  +      5.0 02:INF-W4        10.11     .973 1972.0712_ 4:00  514.10  n/a     .000
                  +      5.0 02:INF-W5         6.20     .603 1972.0712_ 4:00  504.71  n/a     .000
                  +      5.0 02:INF-W6         7.81     .780 1972.0712_ 4:00  549.01  n/a     .000
               SUM=      5.0 01:INF-BCD-PH    48.42    4.696 1972.0712_ 4:00  515.46  n/a     .000
#################################################################################
# CONTINUOUS RAINFALL DATA
#################################################################################
  ** END OF RUN :   72

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





 RUN#:COMMAND#
R0073:C00001------------------------------------------------------------------------------------------
      START
       [TZERO =    .00 hrs on 19730101]
       [METOUT=   2    (1=imperial, 2=metric output)]
       [NSTORM=   0 ]
       [NRUN  = 0073 ]
#*******************************************************************************************************************
#  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      : 2024/Mar/14 [LP]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#*******************************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0073:C00002------------------------------------------------------------------------------------------
  *  READ AES DATA
       [Filename  = YOW_1967_2007.123                                            ]
       [Start_date= 1973.0101: End_date= 1973.1231]
       {DT= 60.min: Length= 8760.hrs: WetHrs=  549: DryHrs= 8211: PTOT= 744.90}
       Maximum average rainfall intensities over
         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
        30.00    17.25    12.33     7.10     3.63     1.89     1.28      .96      .96    mm/hr
        30.00    34.50    37.00    42.60    43.60    45.40    46.00    46.00    69.20    mm
       19730611 19730808 19730808 19730808 19730808 19730616 19730616 19730616 19731005  date
       Number of rainfall events per following interevent time
         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
          200      164      143      108       79       61       54       43       37
       Number of events with at least the following durations
         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
          200      102       66       20        4        0        0        0        0
R0073:C00003------------------------------------------------------------------------------------------
      COMPUTE API
       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
       {APImax= 78.26: APIavg= 20.56: APImin=   .06}
#*******************************************************************************************************************
#                   Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*******************************************************************************************************************
R0073:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W1             5.76     .317 1973.0808_20:00  356.07 .478     .000
       [XIMP=.55:TIMP=.66]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0073:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W1             5.76     .317 1973.0808_20:00  356.07  n/a     .000
                out <=    5.0 01:W1-LID         1.22     .001 1973.0317_ 7:55  356.08  n/a     .000
           overflow <=    5.0 03:W1-LID-Out     4.54     .308 1973.0611_17:00  356.07  n/a     .000
      {MxStoUsed=.9595E-02  m3, TotOvfVol=.1615E+01  m3, N-Ovf=  105, TotDurOvf=  193.hrs}
R0073:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W2             8.51     .443 1973.0808_20:00  330.43 .444     .000
       [XIMP=.50:TIMP=.60]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0073:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2             8.51     .443 1973.0808_20:00  330.43  n/a     .000
                out <=    5.0 01:W2-LID         1.82     .001 1973.0317_ 7:55  330.43  n/a     .000
           overflow <=    5.0 03:W2-LID-Out     6.69     .428 1973.0808_20:00  330.43  n/a     .000
      {MxStoUsed=.1309E-01  m3, TotOvfVol=.2211E+01  m3, N-Ovf=  116, TotDurOvf=  193.hrs}
R0073:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3            10.03     .622 1973.0611_17:00  408.11 .548     .000
       [XIMP=.66:TIMP=.76]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0073:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3            10.03     .622 1973.0611_17:00  408.11  n/a     .000
                out <=    5.0 01:W3-LID         2.23     .001 1973.0317_ 7:55  408.11  n/a     .000
           overflow <=    5.0 03:W3-LID-Out     7.80     .610 1973.0611_17:00  408.11  n/a     .000
      {MxStoUsed=.1929E-01  m3, TotOvfVol=.3182E+01  m3, N-Ovf=  107, TotDurOvf=  192.hrs}
R0073:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4            10.11     .584 1973.0611_17:00  378.84 .509     .000
       [XIMP=.60:TIMP=.70]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0073:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4            10.11     .584 1973.0611_17:00  378.84  n/a     .000
                out <=    5.0 01:W4-LID         2.26     .001 1973.0317_ 7:55  378.86  n/a     .000
           overflow <=    5.0 03:W4-LID-Out     7.85     .571 1973.0611_17:00  378.84  n/a     .000
      {MxStoUsed=.1860E-01  m3, TotOvfVol=.2973E+01  m3, N-Ovf=  118, TotDurOvf=  192.hrs}
R0073:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5             6.20     .347 1973.0611_17:00  364.28 .489     .000
       [XIMP=.57:TIMP=.67]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0073:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5             6.20     .347 1973.0611_17:00  364.28  n/a     .000
                out <=    5.0 01:W5-LID         1.39     .001 1973.0317_ 7:55  364.28  n/a     .000
           overflow <=    5.0 03:W5-LID-Out     4.81     .338 1973.0611_17:00  364.28  n/a     .000
      {MxStoUsed=.1100E-01  m3, TotOvfVol=.1754E+01  m3, N-Ovf=  109, TotDurOvf=  189.hrs}
R0073:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6             7.81     .514 1973.0611_17:00  432.79 .581     .000
       [XIMP=.71:TIMP=.81]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0073:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6             7.81     .514 1973.0611_17:00  432.79  n/a     .000
                out <=    5.0 01:W6-LID         1.77     .001 1973.0317_ 7:55  432.80  n/a     .000
           overflow <=    5.0 03:W6-LID-Out     6.04     .505 1973.0611_17:00  432.79  n/a     .000
      {MxStoUsed=.1650E-01  m3, TotOvfVol=.2615E+01  m3, N-Ovf=  107, TotDurOvf=  191.hrs}
R0073:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1             5.76     .317 1973.0808_20:00  356.07  n/a     .000
                  +       5.0 02:W2             8.51     .443 1973.0808_20:00  330.43  n/a     .000
                  +       5.0 02:W3            10.03     .622 1973.0611_17:00  408.11  n/a     .000
                  +       5.0 02:W4            10.11     .584 1973.0611_17:00  378.84  n/a     .000
                  +       5.0 02:W5             6.20     .347 1973.0611_17:00  364.28  n/a     .000
                  +       5.0 02:W6             7.81     .514 1973.0611_17:00  432.79  n/a     .000
               SUM=       5.0 01:BCD-PH3       48.42    2.817 1973.0611_17:00  380.52  n/a     .000
R0073:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out     4.54     .308 1973.0611_17:00  356.07  n/a     .000
                  +       5.0 02:W2-LID-Out     6.69     .428 1973.0808_20:00  330.43  n/a     .000
                  +       5.0 02:W3-LID-Out     7.80     .610 1973.0611_17:00  408.11  n/a     .000
                  +       5.0 02:W4-LID-Out     7.85     .571 1973.0611_17:00  378.84  n/a     .000
                  +       5.0 02:W5-LID-Out     4.81     .338 1973.0611_17:00  364.28  n/a     .000
                  +       5.0 02:W6-LID-Out     6.04     .505 1973.0611_17:00  432.79  n/a     .000
               SUM=       5.0 01:BCD-PH3-LI    37.73    2.751 1973.0611_17:00  380.35  n/a     .000
#*******************************************************************************************************************
#                   Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*******************************************************************************************************************
#                   Set infiltration to 0 (CN = 99.99) for water balance analysis
#*******************************************************************************************************************
R0073:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .433 1973.0611_17:00  456.76 .613     .000
       [XIMP=.55:TIMP=.66]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0073:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2         8.51     .621 1973.0611_17:00  439.71 .590     .000
       [XIMP=.50:TIMP=.60]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0073:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3        10.03     .772 1973.0611_17:00  486.10 .653     .000
       [XIMP=.66:TIMP=.76]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0073:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4        10.11     .762 1973.0611_17:00  468.59 .629     .000
       [XIMP=.60:TIMP=.70]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0073:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W5         6.20     .466 1973.0611_17:00  459.90 .617     .000
       [XIMP=.57:TIMP=.67]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0073:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W6         7.81     .613 1973.0611_17:00  501.00 .673     .000
       [XIMP=.71:TIMP=.81]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0073:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD              5.0 02:INF-W1         5.76     .433 1973.0611_17:00  456.76  n/a     .000
                  +      5.0 02:INF-W2         8.51     .621 1973.0611_17:00  439.71  n/a     .000
                  +      5.0 02:INF-W3        10.03     .772 1973.0611_17:00  486.10  n/a     .000
                  +      5.0 02:INF-W4        10.11     .762 1973.0611_17:00  468.59  n/a     .000
                  +      5.0 02:INF-W5         6.20     .466 1973.0611_17:00  459.90  n/a     .000
                  +      5.0 02:INF-W6         7.81     .613 1973.0611_17:00  501.00  n/a     .000
               SUM=      5.0 01:INF-BCD-PH    48.42    3.668 1973.0611_17:00  469.85  n/a     .000
#################################################################################
# CONTINUOUS RAINFALL DATA
#################################################################################
  ** END OF RUN :   73

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





 RUN#:COMMAND#
R0074:C00001------------------------------------------------------------------------------------------
      START
       [TZERO =    .00 hrs on 19740101]
       [METOUT=   2    (1=imperial, 2=metric output)]
       [NSTORM=   0 ]
       [NRUN  = 0074 ]
#*******************************************************************************************************************
#  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      : 2024/Mar/14 [LP]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#*******************************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0074:C00002------------------------------------------------------------------------------------------
  *  READ AES DATA
       [Filename  = YOW_1967_2007.123                                            ]
       [Start_date= 1974.0101: End_date= 1974.1231]
       {DT= 60.min: Length= 8760.hrs: WetHrs=  320: DryHrs= 8440: PTOT= 386.20}
       Maximum average rainfall intensities over
         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
        20.60    15.40    10.37     5.18     2.98     1.63     1.08      .81      .54    mm/hr
        20.60    30.80    31.10    31.10    35.70    39.00    39.00    39.00    39.00    mm
       19740718 19740719 19740719 19740719 19740305 19740305 19740306 19740306 19740307  date
       Number of rainfall events per following interevent time
         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
          129      105       93       77       63       50       38       33       23
       Number of events with at least the following durations
         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
          128       66       32       10        3        0        0        0        0
R0074:C00003------------------------------------------------------------------------------------------
      COMPUTE API
       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
       {APImax= 52.93: APIavg= 11.36: APImin=   .00}
#*******************************************************************************************************************
#                   Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*******************************************************************************************************************
R0074:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W1             5.76     .191 1974.0719_ 0:00  159.37 .413     .000
       [XIMP=.55:TIMP=.66]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0074:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W1             5.76     .191 1974.0719_ 0:00  159.37  n/a     .000
                out <=    5.0 01:W1-LID         1.87     .001 1974.0222_14:40  159.37  n/a     .000
           overflow <=    5.0 03:W1-LID-Out     3.89     .189 1974.0719_ 0:00  159.37  n/a     .000
      {MxStoUsed=.9601E-02  m3, TotOvfVol=.6200E+00  m3, N-Ovf=  100, TotDurOvf=   99.hrs}
R0074:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W2             8.51     .257 1974.0719_ 0:00  146.54 .379     .000
       [XIMP=.50:TIMP=.60]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0074:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2             8.51     .257 1974.0719_ 0:00  146.54  n/a     .000
                out <=    5.0 01:W2-LID         2.80     .001 1974.0222_14:45  146.54  n/a     .000
           overflow <=    5.0 03:W2-LID-Out     5.71     .253 1974.0719_ 0:00  146.54  n/a     .000
      {MxStoUsed=.1310E-01  m3, TotOvfVol=.8360E+00  m3, N-Ovf=   83, TotDurOvf=  100.hrs}
R0074:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3            10.03     .391 1974.0719_ 0:00  186.12 .482     .000
       [XIMP=.66:TIMP=.76]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0074:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3            10.03     .391 1974.0719_ 0:00  186.12  n/a     .000
                out <=    5.0 01:W3-LID         3.33     .001 1974.0222_14:35  186.12  n/a     .000
           overflow <=    5.0 03:W3-LID-Out     6.70     .386 1974.0719_ 0:00  186.12  n/a     .000
      {MxStoUsed=.1930E-01  m3, TotOvfVol=.1246E+01  m3, N-Ovf=   91, TotDurOvf=   97.hrs}
R0074:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4            10.11     .360 1974.0719_ 0:00  171.22 .443     .000
       [XIMP=.60:TIMP=.70]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0074:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4            10.11     .360 1974.0719_ 0:00  171.22  n/a     .000
                out <=    5.0 01:W4-LID         3.42     .001 1974.0222_14:45  171.22  n/a     .000
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            overflow <=    5.0 03:W4-LID-Out     6.69     .356 1974.0719_ 0:00  171.22  n/a     .000
        {MxStoUsed=.1858E-01  m3, TotOvfVol=.1145E+01  m3, N-Ovf=   77, TotDurOvf=   98.hrs}
R0074:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5             6.20     .212 1974.0719_ 0:00  163.80 .424     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0074:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5             6.20     .212 1974.0719_ 0:00  163.80  n/a     .000
                out <=    5.0 01:W5-LID         2.11     .001 1974.0222_14:45  163.80  n/a     .000
           overflow <=    5.0 03:W5-LID-Out     4.09     .209 1974.0719_ 0:00  163.80  n/a     .000
       {MxStoUsed=.1100E-01  m3, TotOvfVol=.6704E+00  m3, N-Ovf=   81, TotDurOvf=   95.hrs}
R0074:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6             7.81     .327 1974.0719_ 0:00  198.65 .514     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0074:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6             7.81     .327 1974.0719_ 0:00  198.65  n/a     .000
                out <=    5.0 01:W6-LID         2.63     .001 1974.0222_14:40  198.65  n/a     .000
           overflow <=    5.0 03:W6-LID-Out     5.18     .324 1974.0719_ 0:00  198.65  n/a     .000
       {MxStoUsed=.1650E-01  m3, TotOvfVol=.1029E+01  m3, N-Ovf=   97, TotDurOvf=   96.hrs}
R0074:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1             5.76     .191 1974.0719_ 0:00  159.37  n/a     .000
                   +      5.0 02:W2             8.51     .257 1974.0719_ 0:00  146.54  n/a     .000
                   +      5.0 02:W3            10.03     .391 1974.0719_ 0:00  186.12  n/a     .000
                   +      5.0 02:W4            10.11     .360 1974.0719_ 0:00  171.22  n/a     .000
                   +      5.0 02:W5             6.20     .212 1974.0719_ 0:00  163.80  n/a     .000
                   +      5.0 02:W6             7.81     .327 1974.0719_ 0:00  198.65  n/a     .000
                SUM=      5.0 01:BCD-PH3       48.42    1.736 1974.0719_ 0:00  172.03  n/a     .000
R0074:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out     3.89     .189 1974.0719_ 0:00  159.37  n/a     .000
                   +      5.0 02:W2-LID-Out     5.71     .253 1974.0719_ 0:00  146.54  n/a     .000
                   +      5.0 02:W3-LID-Out     6.70     .386 1974.0719_ 0:00  186.12  n/a     .000
                   +      5.0 02:W4-LID-Out     6.69     .356 1974.0719_ 0:00  171.22  n/a     .000
                   +      5.0 02:W5-LID-Out     4.09     .209 1974.0719_ 0:00  163.80  n/a     .000
                   +      5.0 02:W6-LID-Out     5.18     .324 1974.0719_ 0:00  198.65  n/a     .000
                SUM=      5.0 01:BCD-PH3-LI    32.25    1.717 1974.0719_ 0:00  171.98  n/a     .000
#*****************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*****************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#*****************************************************************************************************
R0074:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .279 1974.0719_ 0:00  202.28 .524     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0074:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2         8.51     .385 1974.0719_ 0:00  192.08 .497     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0074:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3        10.03     .498 1974.0719_ 0:00  220.24 .570     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0074:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4        10.11     .485 1974.0719_ 0:00  209.58 .543     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0074:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W5         6.20     .301 1974.0719_ 0:00  204.30 .529     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0074:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W6         7.81     .406 1974.0719_ 0:00  229.31 .594     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0074:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-W1         5.76     .279 1974.0719_ 0:00  202.28  n/a     .000
                   +      5.0 02:INF-W2         8.51     .385 1974.0719_ 0:00  192.08  n/a     .000
                   +      5.0 02:INF-W3        10.03     .498 1974.0719_ 0:00  220.24  n/a     .000
                   +      5.0 02:INF-W4        10.11     .485 1974.0719_ 0:00  209.58  n/a     .000
                   +      5.0 02:INF-W5         6.20     .301 1974.0719_ 0:00  204.30  n/a     .000
                   +      5.0 02:INF-W6         7.81     .406 1974.0719_ 0:00  229.31  n/a     .000
                SUM=      5.0 01:INF-BCD-PH    48.42    2.354 1974.0719_ 0:00  210.35  n/a     .000
###############################################################################
# CONTINUOUS RAINFALL DATA
###############################################################################
  ** END OF RUN :   74
*****************************************************************************************
 RUN#:COMMAND#
R0075:C00001-----------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19750101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0075 ]
#*****************************************************************************************************
#  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     : 2024/Mar/14 [LP]
#  Company     : J.F. Sabourin and Associates
#  License #   : 2582634
#*****************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0075:C00002-----------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                           ]
      [Start_date= 1975.0101: End_date= 1975.1231]
      {DT= 60.min: Length= 8760.hrs: WetHrs=  344: DryHrs= 8416: PTOT= 535.50}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       34.80    18.40    12.53     6.32     3.33     1.73     1.15      .87      .62    mm/hr
       34.80    36.80    37.60    37.90    40.00    41.50    41.50    41.80    44.40    mm
      19750708 19750720 19750720 19750720 19750721 19750721 19750721 19750721 19750928  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         136      118       99       78       61       49       40       33       25
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         135       70       40       17        1        0        0        0        0
R0075:C00003-----------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 73.23: APIavg= 15.16: APImin=   .00}
#*****************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*****************************************************************************************************
R0075:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W1             5.76     .359 1975.0708_17:00  250.69 .468     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0075:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W1             5.76     .359 1975.0708_17:00  250.69  n/a     .000
                out <=    5.0 01:W1-LID         1.39     .001 1975.0109_ 8:35  250.70  n/a     .000
           overflow <=    5.0 03:W1-LID-Out     4.37     .349 1975.0708_17:00  250.69  n/a     .000
       {MxStoUsed=.9599E-02  m3, TotOvfVol=.1095E+01  m3, N-Ovf=   99, TotDurOvf=  123.hrs}
R0075:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W2             8.51     .491 1975.0708_17:00  231.77 .433     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0075:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2             8.51     .491 1975.0708_17:00  231.77  n/a     .000
                out <=    5.0 01:W2-LID         2.08     .001 1975.0109_ 8:45  231.77  n/a     .000
           overflow <=    5.0 03:W2-LID-Out     6.43     .475 1975.0708_17:00  231.77  n/a     .000
       {MxStoUsed=.1309E-01  m3, TotOvfVol=.1490E+01  m3, N-Ovf=   98, TotDurOvf=  122.hrs}
R0075:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3            10.03     .712 1975.0708_17:00  289.41 .540     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0075:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3            10.03     .712 1975.0708_17:00  289.41  n/a     .000
                out <=    5.0 01:W3-LID         2.53     .001 1975.0109_ 8:40  289.41  n/a     .000
           overflow <=    5.0 03:W3-LID-Out     7.50     .697 1975.0708_17:00  289.41  n/a     .000
       {MxStoUsed=.1930E-01  m3, TotOvfVol=.2170E+01  m3, N-Ovf=   97, TotDurOvf=  120.hrs}
R0075:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4            10.11     .666 1975.0708_17:00  267.71 .500     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0075:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4            10.11     .666 1975.0708_17:00  267.71  n/a     .000
                out <=    5.0 01:W4-LID         2.57     .001 1975.0109_ 8:45  267.72  n/a     .000
           overflow <=    5.0 03:W4-LID-Out     7.54     .650 1975.0708_17:00  267.71  n/a     .000
       {MxStoUsed=.1860E-01  m3, TotOvfVol=.2017E+01  m3, N-Ovf=   97, TotDurOvf=  120.hrs}
R0075:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5             6.20     .395 1975.0708_17:00  256.90 .480     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0075:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5             6.20     .395 1975.0708_17:00  256.90  n/a     .000
                out <=    5.0 01:W5-LID         1.58     .001 1975.0109_ 8:40  256.90  n/a     .000
           overflow <=    5.0 03:W5-LID-Out     4.62     .384 1975.0708_17:00  256.90  n/a     .000
       {MxStoUsed=.1099E-01  m3, TotOvfVol=.1187E+01  m3, N-Ovf=   98, TotDurOvf=  119.hrs}
R0075:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6             7.81     .589 1975.0708_17:00  307.71 .575     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0075:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6             7.81     .589 1975.0708_17:00  307.72  n/a     .000
                out <=    5.0 01:W6-LID         2.00     .001 1975.0109_ 8:40  307.72  n/a     .000
           overflow <=    5.0 03:W6-LID-Out     5.81     .578 1975.0708_17:00  307.72  n/a     .000
       {MxStoUsed=.1649E-01  m3, TotOvfVol=.1788E+01  m3, N-Ovf=   97, TotDurOvf=  119.hrs}
R0075:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1             5.76     .359 1975.0708_17:00  250.69  n/a     .000
                   +      5.0 02:W2             8.51     .491 1975.0708_17:00  231.77  n/a     .000
                   +      5.0 02:W3            10.03     .712 1975.0708_17:00  289.41  n/a     .000
                   +      5.0 02:W4            10.11     .666 1975.0708_17:00  267.71  n/a     .000
                   +      5.0 02:W5             6.20     .395 1975.0708_17:00  256.90  n/a     .000
                   +      5.0 02:W6             7.81     .589 1975.0708_17:00  307.72  n/a     .000
                SUM=      5.0 01:BCD-PH3       48.42    3.212 1975.0708_17:00  268.93  n/a     .000
R0075:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out     4.37     .349 1975.0708_17:00  250.69  n/a     .000
                   +      5.0 02:W2-LID-Out     6.43     .475 1975.0708_17:00  231.77  n/a     .000
                   +      5.0 02:W3-LID-Out     7.50     .697 1975.0708_17:00  289.41  n/a     .000
                   +      5.0 02:W4-LID-Out     7.54     .650 1975.0708_17:00  267.71  n/a     .000
                   +      5.0 02:W5-LID-Out     4.62     .384 1975.0708_17:00  256.90  n/a     .000
                   +      5.0 02:W6-LID-Out     5.81     .578 1975.0708_17:00  307.72  n/a     .000
                SUM=      5.0 01:BCD-PH3-LI    36.26    3.132 1975.0708_17:00  268.81  n/a     .000
#*****************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*****************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#*****************************************************************************************************
R0075:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .518 1975.0708_17:00  319.75 .597     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0075:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2         8.51     .739 1975.0708_17:00  305.94 .571     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0075:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3        10.03     .909 1975.0708_17:00  343.56 .642     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0075:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4        10.11     .901 1975.0708_17:00  329.34 .615     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0075:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W5         6.20     .558 1975.0708_17:00  322.28 .602     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0075:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W6         7.81     .725 1975.0708_17:00  355.58 .664     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0075:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-W1         5.76     .518 1975.0708_17:00  319.75  n/a     .000
                   +      5.0 02:INF-W2         8.51     .739 1975.0708_17:00  305.94  n/a     .000
                   +      5.0 02:INF-W3        10.03     .909 1975.0708_17:00  343.56  n/a     .000
                   +      5.0 02:INF-W4        10.11     .901 1975.0708_17:00  329.34  n/a     .000
                   +      5.0 02:INF-W5         6.20     .558 1975.0708_17:00  322.28  n/a     .000
                   +      5.0 02:INF-W6         7.81     .725 1975.0708_17:00  355.58  n/a     .000
                SUM=      5.0 01:INF-BCD-PH    48.42    4.350 1975.0708_17:00  330.36  n/a     .000
###############################################################################
# CONTINUOUS RAINFALL DATA
###############################################################################
  ** END OF RUN :   75
*****************************************************************************************
 RUN#:COMMAND#
R0076:C00001-----------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19760101]
```

```
02161>       [METOUT=  2    (1=imperial, 2=metric output)]
02162>       [NSTORM=  0 ]
02163>       [NRUN  = 0076 ]
02164> #*************************************************************************************************
02165> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02166> #*************************************************************************************************
02167> #  Project Name: Barrhaven Conservancy Development
02168> #  Project Number: 1474
02169> #  Date     : 2021/Oct/18
02170> #  Modeller    : J.Burnett, P.Eng.
02171> #  Updated     : 2024/Mar/14 [LP]
02172> #  Company     : J.F. Sabourin and Associates
02173> #  License #   : 2582634
02174> #*************************************************************************************************
02175> # Ottawa International Airport (1967 - 2003)
02176> R0076:C00002------------------------------------------------------------------------
02177>   *  READ AES DATA
02178>       [Filename  = YOW_1967_2007.123                                          ]
02179>       [Start_date= 1976.0101: End_date= 1976.1230]
02180>       [DT= 60.min: Length= 8064.hrs: WetHrs=  390: DryHrs= 7674: PTOT= 493.20]
02181>       Maximum average rainfall intensities over
02182>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02183>        14.00    8.90     6.43     4.65     2.35     1.39     .97      .99      .80     mm/hr
02184>        14.00   17.80    19.30    27.90    28.20    33.30    35.10    47.60    57.50    mm
02185>      19760828 19760828 19760828 19760828 19760828 19760920 19760520 19760520 19760921  date
02186>      Number of rainfall events per following intervent time
02187>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02188>          164      133      117       89       72       62       46       40       28
02189>      Number of events with at least the following durations
02190>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02191>          163       80       47       15        2        0        0        0        0
02192> R0076:C00003------------------------------------------------------------------------
02193>     COMPUTE API
02194>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02195>       [APImax= 59.66: APIavg= 15.35: APImin=  .02]
02196> #*************************************************************************************************
02197> #              Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
02198> #*************************************************************************************************
02199> R0076:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02200>     CONTINUOUS STANDHYD   5.0 01:W1              5.76     .125 1976.0828_19:00  209.98 .426     .000
02201>       [XIMP=.55:TIMP=.66]
02202>       [LOSS= 2 :CN= 71.0]
02203>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02204>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
02205>       [IaRECimp=   1.50: IaRECper=   6.00]
02206>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02207> # LID for Outlet W1 (14 catchbasins, 30 m long trench each)
02208> # Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02209> # Total Volume provided by LID  - 96 m³
02210> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02211> R0076:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02212>     ROUTE RESERVOIR ->     5.0 02:W1              5.76     .125 1976.0828_19:00  209.98  n/a     .000
02213>                  out <=    5.0 01:W1-LID          1.66     .001 1976.0331_15:10  209.98  n/a     .000
02214>              overflow <=   5.0 03:W1-LID-Out      4.10     .124 1976.0828_19:00  209.98  n/a     .000
02215>       (MxStoUsed=.9600E-02  m3, TotOvrVol=.8613E+00  m3, N-Ovf=  125, TotDurOvf=  145.hrs)
02216> R0076:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02217>     CONTINUOUS STANDHYD   5.0 01:W2              8.51     .167 1976.0828_19:00  193.59 .393     .000
02218>       [XIMP=.50:TIMP=.60]
02219>       [LOSS= 2 :CN= 71.0]
02220>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02221>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
02222>       [IaRECimp=   1.50: IaRECper=   6.00]
02223>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02224> # LID for Outlet W2 (19 catchbasins, 30 m long trench each)
02225> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02226> # Total Volume provided by LID  - 131 m³
02227> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02228> R0076:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02229>     ROUTE RESERVOIR ->     5.0 02:W2              8.51     .167 1976.0828_19:00  193.59  n/a     .000
02230>                  out <=    5.0 01:W2-LID          2.48     .001 1976.0331_15:15  193.59  n/a     .000
02231>              overflow <=   5.0 03:W2-LID-Out      6.03     .165 1976.0828_19:00  193.59  n/a     .000
02232>       (MxStoUsed=.1310E-01  m3, TotOvrVol=.1168E+01  m3, N-Ovf=  124, TotDurOvf=  148.hrs)
02233> R0076:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02234>     CONTINUOUS STANDHYD   5.0 01:W3             10.03     .258 1976.0828_19:00  243.72 .494     .000
02235>       [XIMP=.66:TIMP=.76]
02236>       [LOSS= 2 :CN= 71.0]
02237>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02238>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
02239>       [IaRECimp=   1.50: IaRECper=   6.00]
02240>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02241> # LID for Outlet W3 (28 catchbasins, 30 m long trench each)
02242> # Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02243> # Total Volume provided by LID  - 193 m³
02244> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02245> R0076:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02246>     ROUTE RESERVOIR ->     5.0 02:W3             10.03     .258 1976.0828_19:00  243.72  n/a     .000
02247>                  out <=    5.0 01:W3-LID          2.97     .001 1976.0331_15:10  243.72  n/a     .000
02248>              overflow <=   5.0 03:W3-LID-Out      7.06     .255 1976.0828_19:00  243.72  n/a     .000
02249>       (MxStoUsed=.1929E-01  m3, TotOvrVol=.1720E+01  m3, N-Ovf=  114, TotDurOvf=  143.hrs)
02250> R0076:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02251>     CONTINUOUS STANDHYD   5.0 01:W4             10.11     .236 1976.0828_19:00  224.84 .456     .000
02252>       [XIMP=.60:TIMP=.70]
02253>       [LOSS= 2 :CN= 71.0]
02254>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02255>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
02256>       [IaRECimp=   1.50: IaRECper=   6.00]
02257>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02258> # LID for Outlet W4 (27 catchbasins, 30 m long trench each)
02259> # Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02260> # Total Volume provided by LID  - 186 m³
02261> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02262> R0076:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02263>     ROUTE RESERVOIR ->    10.11     .236 1976.0828_19:00  224.84  n/a     .000
02264>                  out <=    5.0 01:W4-LID          3.04     .001 1976.0331_15:15  224.84  n/a     .000
02265>              overflow <=   5.0 03:W4-LID-Out      7.07     .234 1976.0828_19:00  224.84  n/a     .000
02266>       (MxStoUsed=.1859E-01  m3, TotOvrVol=.1590E+01  m3, N-Ovf=  121, TotDurOvf=  143.hrs)
02267> R0076:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02268>     CONTINUOUS STANDHYD   5.0 01:W5              6.20     .139 1976.0828_19:00  215.45 .437     .000
02269>       [XIMP=.57:TIMP=.67]
02270>       [LOSS= 2 :CN= 71.0]
02271>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02272>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
02273>       [IaRECimp=   1.50: IaRECper=   6.00]
02274>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02275> # LID for Outlet W5 (16 catchbasins, 30 m long trench each)
02276> # Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02277> # Total Volume provided by LID  - 110 m³
02278> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02279> R0076:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02280>     ROUTE RESERVOIR ->     5.0 02:W5              6.20     .139 1976.0828_19:00  215.45  n/a     .000
02281>                  out <=    5.0 01:W5-LID          1.87     .001 1976.0331_15:15  215.45  n/a     .000
02282>              overflow <=   5.0 03:W5-LID-Out      4.33     .138 1976.0828_19:00  215.45  n/a     .000
02283>       (MxStoUsed=.1100E-01  m3, TotOvrVol=.9331E+00  m3, N-Ovf=  120, TotDurOvf=  141.hrs)
02284> R0076:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02285>     CONTINUOUS STANDHYD   5.0 01:W6              7.81     .217 1976.0828_19:00  259.60 .526     .000
02286>       [XIMP=.71:TIMP=.81]
02287>       [LOSS= 2 :CN= 71.0]
02288>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02289>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
02290>       [IaRECimp=   1.50: IaRECper=   6.00]
02291>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02292> # LID for Outlet W6 (24 catchbasins, 30 m long trench each)
02293> # Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02294> # Total Volume provided by LID  - 165 m³
02295> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02296> R0076:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02297>     ROUTE RESERVOIR ->     5.0 02:W6              7.81     .217 1976.0828_19:00  259.60  n/a     .000
02298>                  out <=    5.0 01:W6-LID          2.35     .001 1976.0331_15:10  259.61  n/a     .000
02299>              overflow <=   5.0 03:W6-LID-Out      5.46     .215 1976.0828_19:00  259.60  n/a     .000
02300>       (MxStoUsed=.1650E-01  m3, TotOvrVol=.1419E+01  m3, N-Ovf=  121, TotDurOvf=  137.hrs)
02301> R0076:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02302>     ADD HYD               5.0 02:W1              5.76     .125 1976.0828_19:00  209.98  n/a     .000
02303>                     +     5.0 02:W2              8.51     .167 1976.0828_19:00  193.59  n/a     .000
02304>                     +     5.0 02:W3             10.03     .258 1976.0828_19:00  243.72  n/a     .000
02305>                     +     5.0 02:W4             10.11     .236 1976.0828_19:00  224.84  n/a     .000
02306>                     +     5.0 02:W5              6.20     .139 1976.0828_19:00  215.45  n/a     .000
02307>                     +     5.0 02:W6              7.81     .217 1976.0828_19:00  259.60  n/a     .000
02308>                   SUM=    5.0 01:BCD-PH3        48.42    1.142 1976.0828_19:00  225.90  n/a     .000
02309> R0076:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02310>     ADD HYD               5.0 02:W1-LID-Out      4.10     .124 1976.0828_19:00  209.98  n/a     .000
02311>                     +     5.0 02:W2-LID-Out      6.03     .165 1976.0828_19:00  193.59  n/a     .000
02312>                     +     5.0 02:W3-LID-Out      7.06     .255 1976.0828_19:00  243.72  n/a     .000
02313>                     +     5.0 02:W4-LID-Out      7.07     .234 1976.0828_19:00  224.84  n/a     .000
02314>                     +     5.0 02:W5-LID-Out      4.33     .138 1976.0828_19:00  215.45  n/a     .000
02315>                     +     5.0 02:W6-LID-Out      5.46     .215 1976.0828_19:00  259.60  n/a     .000
02316>                   SUM=    5.0 01:BCD-PH3-LI     34.06    1.131 1976.0828_19:00  225.81  n/a     .000
02317> #*************************************************************************************************
02318> #              Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
02319> #*************************************************************************************************
02320> #                Set infiltration to 0 (CN = 99.99) for water balance analysis
02321> #*************************************************************************************************
02322> R0076:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02323>     CONTINUOUS STANDHYD   5.0 01:INF-W1            5.76     .169 1976.0828_19:00  268.14 .544     .000
02324>       [XIMP=.55:TIMP=.66]
02325>       [LOSS= 2 :CN=100.0]
02326>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02327>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
02328>       [IaRECimp=   1.50: IaRECper=   6.00]
02329>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
02330> R0076:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02331>     CONTINUOUS STANDHYD   5.0 01:INF-W2            8.51     .226 1976.0828_19:00  255.68 .518     .000
02332>       [XIMP=.50:TIMP=.60]
02333>       [LOSS= 2 :CN=100.0]
02334>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02335>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
02336>       [IaRECimp=   1.50: IaRECper=   6.00]
02337>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
02338> R0076:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02339>     CONTINUOUS STANDHYD   5.0 01:INF-W3            10.03     .316 1976.0828_19:00  289.67 .587     .000
02340>       [XIMP=.66:TIMP=.76]
02341>       [LOSS= 2 :CN=100.0]
02342>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02343>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
02344>       [IaRECimp=   1.50: IaRECper=   6.00]
02345>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
02346> R0076:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02347>     CONTINUOUS STANDHYD   5.0 01:INF-W4            10.11     .296 1976.0828_19:00  276.80 .561     .000
02348>       [XIMP=.60:TIMP=.70]
02349>       [LOSS= 2 :CN=100.0]
02350>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02351>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
02352>       [IaRECimp=   1.50: IaRECper=   6.00]
02353>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
02354> R0076:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02355>     CONTINUOUS STANDHYD   5.0 01:INF-W5            6.20     .183 1976.0828_19:00  270.43 .548     .000
02356>       [XIMP=.57:TIMP=.67]
02357>       [LOSS= 2 :CN=100.0]
02358>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02359>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
02360>       [IaRECimp=   1.50: IaRECper=   6.00]
02361>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
02362> R0076:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02363>     CONTINUOUS STANDHYD   5.0 01:INF-W6            7.81     .259 1976.0828_19:00  300.63 .610     .000
02364>       [XIMP=.71:TIMP=.81]
02365>       [LOSS= 2 :CN=100.0]
02366>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02367>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
02368>       [IaRECimp=   1.50: IaRECper=   6.00]
02369>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
02370> R0076:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02371>     ADD HYD               5.0 02:INF-W1            5.76     .169 1976.0828_19:00  268.14  n/a     .000
02372>                     +     5.0 02:INF-W2            8.51     .226 1976.0828_19:00  255.68  n/a     .000
02373>                     +     5.0 02:INF-W3           10.03     .316 1976.0828_19:00  289.67  n/a     .000
02374>                     +     5.0 02:INF-W4           10.11     .296 1976.0828_19:00  276.80  n/a     .000
02375>                     +     5.0 02:INF-W5            6.20     .183 1976.0828_19:00  270.43  n/a     .000
02376>                     +     5.0 02:INF-W6            7.81     .259 1976.0828_19:00  300.63  n/a     .000
02377>                   SUM=    5.0 01:INF-BCD-PH       48.42    1.449 1976.0828_19:00  277.75  n/a     .000
02378> ##########################################################################
02379> # CONTINUOUS RAINFALL DATA
02380> ##########################################################################
02381>  ** END OF RUN :   76
02382>
02383> ***************************************************************************************************
02384>
02385>
02386>
02387>
02388>
02389>  RUN#:COMMAND#
02390> R0077:C00001------------------------------------------------------------------------
02391>      START
02392>       [TZERO =    .00 hrs on 19770101]
02393>       [METOUT=  2   (1=imperial, 2=metric output)]
02394>       [NSTORM=  0 ]
02395>       [NRUN  = 0077 ]
02396> #*************************************************************************************************
02397> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
02398> #*************************************************************************************************
02399> #  Project Name: Barrhaven Conservancy Development
02400> #  Project Number: 1474
02401> #  Date     : 2021/Oct/18
02402> #  Modeller    : J.Burnett, P.Eng.
02403> #  Updated     : 2024/Mar/14 [LP]
02404> #  Company     : J.F. Sabourin and Associates
02405> #  License #   : 2582634
02406> #*************************************************************************************************
02407> # Ottawa International Airport (1967 - 2003)
02408> R0077:C00002------------------------------------------------------------------------
02409>   *  READ AES DATA
02410>       [Filename  = YOW_1967_2007.123                                          ]
02411>       [Start_date= 1977.0101: End_date= 1977.1231]
02412>       [DT= 60.min: Length= 8016.hrs: WetHrs=  512: DryHrs= 7504: PTOT= 677.80]
02413>       Maximum average rainfall intensities over
02414>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02415>        21.30    15.20    10.40     6.53     3.30     1.66     1.40     1.06      .73     mm/hr
02416>        21.30    30.40    31.20    39.20    39.60    39.80    50.40    51.00    52.40     mm
02417>      19770717 19770717 19770717 19770717 19770901 19770902 19770314 19770314 19770314  date
02418>      Number of rainfall events per following intervent time
02419>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02420>          172      142      126       99       78       63       53       42       30
02421>      Number of events with at least the following durations
02422>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
02423>          171       88       60       22        5        1        0        0        0
02424> R0077:C00003------------------------------------------------------------------------
02425>     COMPUTE API
02426>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
02427>       [APImax= 74.80: APIavg= 20.62: APImin=  1.63]
02428> #*************************************************************************************************
02429> #              Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
02430> #*************************************************************************************************
02431> R0077:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02432>     CONTINUOUS STANDHYD   5.0 01:W1              5.76     .220 1977.0901_23:00  321.78 .475     .000
02433>       [XIMP=.55:TIMP=.66]
02434>       [LOSS= 2 :CN= 71.0]
02435>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02436>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
02437>       [IaRECimp=   1.50: IaRECper=   6.00]
02438>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02439> # LID for Outlet W1 (14 catchbasins, 30 m long trench each)
02440> # Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02441> # Total Volume provided by LID  - 96 m³
02442> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02443> R0077:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02444>     ROUTE RESERVOIR ->     5.0 02:W1              5.76     .220 1977.0901_23:00  321.78  n/a     .000
02445>                  out <=    5.0 01:W1-LID          1.43     .001 1977.0304_20:50  321.79  n/a     .000
02446>              overflow <=   5.0 03:W1-LID-Out      4.33     .213 1977.0901_23:00  321.78  n/a     .000
02447>       (MxStoUsed=.9584E-02  m3, TotOvrVol=.1395E+01  m3, N-Ovf=  122, TotDurOvf=  216.hrs)
02448> R0077:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02449>     CONTINUOUS STANDHYD   5.0 01:W2              8.51     .298 1977.0901_23:00  297.80 .439     .000
02450>       [XIMP=.50:TIMP=.60]
02451>       [LOSS= 2 :CN= 71.0]
02452>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02453>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
02454>       [IaRECimp=   1.50: IaRECper=   6.00]
02455>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02456> # LID for Outlet W2 (19 catchbasins, 30 m long trench each)
02457> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02458> # Total Volume provided by LID  - 131 m³
02459> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02460> R0077:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02461>     ROUTE RESERVOIR ->     5.0 02:W2              8.51     .298 1977.0901_23:00  297.80  n/a     .000
02462>                  out <=    5.0 01:W2-LID          2.14     .001 1977.0304_20:50  297.80  n/a     .000
02463>              overflow <=   5.0 03:W2-LID-Out      6.37     .291 1977.0901_23:00  297.80  n/a     .000
02464>       (MxStoUsed=.1310E-01  m3, TotOvrVol=.1898E+01  m3, N-Ovf=  124, TotDurOvf=  217.hrs)
02465> R0077:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02466>     CONTINUOUS STANDHYD   5.0 01:W3             10.03     .421 1977.0717_16:00  370.99 .547     .000
02467>       [XIMP=.66:TIMP=.76]
02468>       [LOSS= 2 :CN= 71.0]
02469>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02470>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
02471>       [IaRECimp=   1.50: IaRECper=   6.00]
02472>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02473> # LID for Outlet W3 (28 catchbasins, 30 m long trench each)
02474> # Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02475> # Total Volume provided by LID  - 193 m³
02476> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02477> R0077:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02478>     ROUTE RESERVOIR ->     5.0 02:W3             10.03     .421 1977.0717_16:00  370.99  n/a     .000
02479>                  out <=    5.0 01:W3-LID          2.59     .001 1977.0304_20:50  370.98  n/a     .000
02480>              overflow <=   5.0 03:W3-LID-Out      7.44     .415 1977.0717_16:00  370.99  n/a     .000
02481>       (MxStoUsed=.1928E-01  m3, TotOvrVol=.1275E+01  m3, N-Ovf=  118, TotDurOvf=  215.hrs)
02482> R0077:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02483>     CONTINUOUS STANDHYD   5.0 01:W4             10.11     .393 1977.0901_23:00  343.43 .507     .000
02484>       [XIMP=.60:TIMP=.70]
02485>       [LOSS= 2 :CN= 71.0]
02486>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02487>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
02488>       [IaRECimp=   1.50: IaRECper=   6.00]
02489>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02490> # LID for Outlet W4 (27 catchbasins, 30 m long trench each)
02491> # Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02492> # Total Volume provided by LID  - 186 m³
02493> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02494> R0077:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02495>     ROUTE RESERVOIR ->    10.11     .393 1977.0901_23:00  343.43  n/a     .000
02496>                  out <=    5.0 01:W4-LID          2.64     .001 1977.0304_20:50  343.44  n/a     .000
02497>              overflow <=   5.0 03:W4-LID-Out      7.47     .385 1977.0901_23:00  343.43  n/a     .000
02498>       (MxStoUsed=.1860E-01  m3, TotOvrVol=.2564E+01  m3, N-Ovf=  128, TotDurOvf=  213.hrs)
02499> R0077:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02500>     CONTINUOUS STANDHYD   5.0 01:W5              6.20     .235 1977.0901_23:00  329.71 .486     .000
02501>       [XIMP=.57:TIMP=.67]
02502>       [LOSS= 2 :CN= 71.0]
02503>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
02504>       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
02505>       [IaRECimp=   1.50: IaRECper=   6.00]
02506>       [SMIN= 41.38: SMAX=275.84: SK= .030]
02507> # LID for Outlet W5 (16 catchbasins, 30 m long trench each)
02508> # Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02509> # Total Volume provided by LID  - 110 m³
02510> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02511> R0077:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02512>     ROUTE RESERVOIR ->     5.0 02:W5              6.20     .235 1977.0901_23:00  329.71  n/a     .000
02513>                  out <=    5.0 01:W5-LID          1.62     .001 1977.0304_20:50  329.71  n/a     .000
02514>              overflow <=   5.0 03:W5-LID-Out      4.58     .230 1977.0901_23:00  329.71  n/a     .000
02515>       (MxStoUsed=.1100E-01  m3, TotOvrVol=.1509E+01  m3, N-Ovf=  122, TotDurOvf=  211.hrs)
02516> R0077:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
02517>     CONTINUOUS STANDHYD   5.0 01:W6              7.81     .353 1977.0717_16:00  394.17 .582     .000
02518>       [XIMP=.71:TIMP=.81]
02519>       [LOSS= 2 :CN= 71.0]
02520>       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
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      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0077:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6            7.81     .353 1977.0717_16:00  394.17  n/a     .000
                 out <=    5.0 01:W6-LID        2.05     .001 1977.0304_20:50  394.18  n/a     .000
            overflow <=    5.0 03:W6-LID-Out    5.76     .349 1977.0717_16:00  394.17  n/a     .000
     {MxStoUsed=.1648E-01  m3, TotOvfVol=.2270E+01  m3, N-Ovf=  126, TotDurOvf=  211.hrs}
R0077:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1            5.76     .220 1977.0901_23:00  321.78  n/a     .000
                   +      5.0 02:W2            8.51     .298 1977.0901_23:00  297.80  n/a     .000
                   +      5.0 02:W3           10.03     .421 1977.0717_16:00  370.99  n/a     .000
                   +      5.0 02:W4           10.11     .393 1977.0901_23:00  343.43  n/a     .000
                   +      5.0 02:W5            6.20     .235 1977.0901_23:00  329.71  n/a     .000
                   +      5.0 02:W6            7.81     .353 1977.0717_16:00  394.17  n/a     .000
                SUM=      5.0 01:BCD-PH3      48.42    1.903 1977.0901_23:00  344.97  n/a     .000
R0077:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out    4.33     .213 1977.0901_23:00  321.78  n/a     .000
                   +      5.0 02:W2-LID-Out    6.37     .291 1977.0901_23:00  297.80  n/a     .000
                   +      5.0 02:W3-LID-Out    7.44     .415 1977.0717_16:00  370.99  n/a     .000
                   +      5.0 02:W4-LID-Out    7.47     .385 1977.0901_23:00  343.43  n/a     .000
                   +      5.0 02:W5-LID-Out    4.58     .230 1977.0901_23:00  329.71  n/a     .000
                   +      5.0 02:W6-LID-Out    5.76     .349 1977.0717_16:00  394.17  n/a     .000
                SUM=      5.0 01:BCD-PH3-LI   35.95    1.863 1977.0717_16:00  344.81  n/a     .000
#******************************************************************************************************
#                   Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#******************************************************************************************************
#                   Set infiltration to 0 (CN = 99.99) for water balance analysis
#******************************************************************************************************
R0077:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .292 1977.0717_16:00  410.97 .606     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0077:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2         8.51     .418 1977.0901_23:00  393.74 .581     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0077:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3        10.03     .529 1977.0717_16:00  440.83 .650     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0077:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4        10.11     .509 1977.0717_16:00  423.03 .624     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0077:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W5         6.20     .316 1977.0717_16:00  414.20 .611     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0077:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W6         7.81     .424 1977.0717_16:00  455.90 .673     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0077:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-W1         5.76     .292 1977.0717_16:00  410.97  n/a     .000
                   +      5.0 02:INF-W2         8.51     .418 1977.0901_23:00  393.74  n/a     .000
                   +      5.0 02:INF-W3        10.03     .529 1977.0717_16:00  440.83  n/a     .000
                   +      5.0 02:INF-W4        10.11     .509 1977.0717_16:00  423.03  n/a     .000
                   +      5.0 02:INF-W5         6.20     .316 1977.0717_16:00  414.20  n/a     .000
                   +      5.0 02:INF-W6         7.81     .424 1977.0717_16:00  455.90  n/a     .000
                SUM=      5.0 01:INF-BCD-PH    48.42    2.485 1977.0717_16:00  424.30  n/a     .000
####################################################################################
# CONTINUOUS RAINFALL DATA
####################################################################################
  ** END OF RUN :   77

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






 RUN#:COMMAND#
R0078:C00001---------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19780101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0078 ]
#******************************************************************************************************
#  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      : 2024/Mar/14 [LP]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#******************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0078:C00002---------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                            ]
      [Start_date= 1978.0101: End_date= 1978.1231]
      {DT= 60.min: Length= 8040.hrs: WetHrs=  409: DryHrs= 7631: PTOT= 641.40}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       36.00    18.15    12.10     6.05     3.04     1.64     1.13      .87      .58    mm/hr
       36.00    36.30    36.30    36.30    36.50    39.40    40.60    41.60    41.60    mm
      19780618 19780618 19780618 19780618 19780619 19780411 19780412 19780620 19780621  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         154      128      118       97       71       58       51       46       33
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         154       75       44       18        5        0        0        0        0
R0078:C00003---------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 65.36: APIavg= 19.25: APImin=   .25}
#******************************************************************************************************
#                   Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#******************************************************************************************************
R0078:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W1             5.76     .398 1978.0618_17:00  302.94 .472     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0078:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W1            5.76     .398 1978.0618_17:00  302.94  n/a     .000
                 out <=    5.0 01:W1-LID        1.44     .001 1978.0108_ 3:25  302.95  n/a     .000
            overflow <=    5.0 03:W1-LID-Out    4.32     .385 1978.0618_17:00  302.94  n/a     .000
     {MxStoUsed=.9600E-02  m3, TotOvfVol=.1307E+01  m3, N-Ovf=  100, TotDurOvf=  164.hrs}
R0078:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W2             8.51     .548 1978.0618_17:00  279.22 .435     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0078:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2            8.51     .548 1978.0618_17:00  279.22  n/a     .000
                 out <=    5.0 01:W2-LID        2.15     .001 1978.0108_ 3:30  279.22  n/a     .000
            overflow <=    5.0 03:W2-LID-Out    6.36     .529 1978.0618_17:00  279.22  n/a     .000
     {MxStoUsed=.1310E-01  m3, TotOvfVol=.1776E+01  m3, N-Ovf=  100, TotDurOvf=  164.hrs}
R0078:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3            10.03     .772 1978.0618_17:00  352.12 .549     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0078:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3           10.03     .772 1978.0618_17:00  352.12  n/a     .000
                 out <=    5.0 01:W3-LID        2.57     .001 1978.0108_ 3:30  352.11  n/a     .000
            overflow <=    5.0 03:W3-LID-Out    7.46     .754 1978.0618_17:00  352.12  n/a     .000
     {MxStoUsed=.1929E-01  m3, TotOvfVol=.2628E+01  m3, N-Ovf=  102, TotDurOvf=  162.hrs}
R0078:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4            10.11     .730 1978.0618_17:00  324.67 .506     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0078:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4           10.11     .730 1978.0618_17:00  324.67  n/a     .000
                 out <=    5.0 01:W4-LID        2.63     .001 1978.0108_ 3:30  324.68  n/a     .000
            overflow <=    5.0 03:W4-LID-Out    7.48     .710 1978.0618_17:00  324.67  n/a     .000
     {MxStoUsed=.1860E-01  m3, TotOvfVol=.2428E+01  m3, N-Ovf=  100, TotDurOvf=  163.hrs}
R0078:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5             6.20     .435 1978.0618_17:00  311.00 .485     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0078:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5            6.20     .435 1978.0618_17:00  311.00  n/a     .000
                 out <=    5.0 01:W5-LID        1.62     .001 1978.0108_ 3:30  311.00  n/a     .000
            overflow <=    5.0 03:W5-LID-Out    4.58     .422 1978.0618_17:00  311.00  n/a     .000
     {MxStoUsed=.1100E-01  m3, TotOvfVol=.1424E+01  m3, N-Ovf=   93, TotDurOvf=  162.hrs}
R0078:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6             7.81     .648 1978.0618_17:00  375.18 .585     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0078:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6            7.81     .648 1978.0618_17:00  375.18  n/a     .000
                 out <=    5.0 01:W6-LID        2.03     .001 1978.0108_ 3:30  375.19  n/a     .000
            overflow <=    5.0 03:W6-LID-Out    5.78     .631 1978.0618_17:00  375.18  n/a     .000
     {MxStoUsed=.1650E-01  m3, TotOvfVol=.2168E+01  m3, N-Ovf=   98, TotDurOvf=  159.hrs}
R0078:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1            5.76     .398 1978.0618_17:00  302.94  n/a     .000
                   +      5.0 02:W2            8.51     .548 1978.0618_17:00  279.22  n/a     .000
                   +      5.0 02:W3           10.03     .772 1978.0618_17:00  352.12  n/a     .000
                   +      5.0 02:W4           10.11     .730 1978.0618_17:00  324.67  n/a     .000
                   +      5.0 02:W5            6.20     .435 1978.0618_17:00  311.00  n/a     .000
                   +      5.0 02:W6            7.81     .648 1978.0618_17:00  375.18  n/a     .000
                SUM=      5.0 01:BCD-PH3      48.42    3.532 1978.0618_17:00  326.18  n/a     .000
R0078:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out    4.32     .385 1978.0618_17:00  302.94  n/a     .000
                   +      5.0 02:W2-LID-Out    6.36     .529 1978.0618_17:00  279.22  n/a     .000
                   +      5.0 02:W3-LID-Out    7.46     .754 1978.0618_17:00  352.12  n/a     .000
                   +      5.0 02:W4-LID-Out    7.48     .710 1978.0618_17:00  324.67  n/a     .000
                   +      5.0 02:W5-LID-Out    4.58     .422 1978.0618_17:00  311.00  n/a     .000
                   +      5.0 02:W6-LID-Out    5.78     .631 1978.0618_17:00  375.18  n/a     .000
                SUM=      5.0 01:BCD-PH3-LI   35.98    3.431 1978.0618_17:00  326.09  n/a     .000
#******************************************************************************************************
#                   Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#******************************************************************************************************
#                   Set infiltration to 0 (CN = 99.99) for water balance analysis
#******************************************************************************************************
R0078:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .538 1978.0618_17:00  393.23 .613     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0078:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2         8.51     .768 1978.0618_17:00  376.38 .587     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0078:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3        10.03     .943 1978.0618_17:00  422.77 .659     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0078:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4        10.11     .935 1978.0618_17:00  405.25 .632     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0078:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W5         6.20     .580 1978.0618_17:00  396.55 .618     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0078:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W6         7.81     .751 1978.0618_17:00  437.59 .682     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0078:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-W1         5.76     .538 1978.0618_17:00  393.23  n/a     .000
                   +      5.0 02:INF-W2         8.51     .768 1978.0618_17:00  376.38  n/a     .000
                   +      5.0 02:INF-W3        10.03     .943 1978.0618_17:00  422.77  n/a     .000
                   +      5.0 02:INF-W4        10.11     .935 1978.0618_17:00  405.25  n/a     .000
                   +      5.0 02:INF-W5         6.20     .580 1978.0618_17:00  396.55  n/a     .000
                   +      5.0 02:INF-W6         7.81     .751 1978.0618_17:00  437.59  n/a     .000
                SUM=      5.0 01:INF-BCD-PH    48.42    4.516 1978.0618_17:00  406.48  n/a     .000
####################################################################################
# CONTINUOUS RAINFALL DATA
####################################################################################
  ** END OF RUN :   78

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






 RUN#:COMMAND#
R0079:C00001---------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19790101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0079 ]
#******************************************************************************************************
#  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      : 2024/Mar/14 [LP]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#******************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0079:C00002---------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                            ]
      [Start_date= 1979.0101: End_date= 1979.1231]
      {DT= 60.min: Length= 8760.hrs: WetHrs=  546: DryHrs= 8214: PTOT= 866.50}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       34.90    22.00    14.67     7.33     5.14     2.63     1.75     1.31      .88    mm/hr
       34.90    44.00    44.00    44.00    61.70    63.00    63.00    63.00    63.00    mm
```

```
      19790616 19790616 19790616 19790616 19790914 19790915 19790915 19790915 19790917  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         188      147      129      103       86       60       53       43       36
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         187       97       65       25        6        1        0        0        0
R0079:C00003----------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 78.42: APIavg= 23.13: APImin=   .13}
#*****************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*****************************************************************************************************
R0079:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W1             5.76     .431 1979.0616_14:00  455.94 .526     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0079:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W1             5.76     .431 1979.0616_14:00  455.94  n/a     .000
                out <=    5.0 01:W1-LID         1.04     .001 1979.0101_19:45  455.95  n/a     .000
           overflow <=    5.0 03:W1-LID-Out     4.72     .411 1979.0616_14:00  455.94  n/a     .000
     {MxStoUsed=.9599E-02  m3, TotOvfVol=.2151E+01  m3, N-Ovf=  119, TotDurOvf=  213.hrs}
R0079:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W2             8.51     .578 1979.0616_14:00  425.51 .491     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0079:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2             8.51     .578 1979.0616_14:00  425.51  n/a     .000
                out <=    5.0 01:W2-LID         1.54     .001 1979.0101_19:55  425.51  n/a     .000
           overflow <=    5.0 03:W2-LID-Out     6.97     .557 1979.0616_14:05  425.51  n/a     .000
     {MxStoUsed=.1309E-01  m3, TotOvfVol=.2966E+01  m3, N-Ovf=  124, TotDurOvf=  214.hrs}
R0079:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3            10.03     .788 1979.0616_14:00  516.68 .596     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0079:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3            10.03     .788 1979.0616_14:00  516.68  n/a     .000
                out <=    5.0 01:W3-LID         1.92     .001 1979.0101_19:45  516.68  n/a     .000
           overflow <=    5.0 03:W3-LID-Out     8.11     .767 1979.0616_14:00  516.68  n/a     .000
     {MxStoUsed=.1930E-01  m3, TotOvfVol=.4192E+01  m3, N-Ovf=  125, TotDurOvf=  212.hrs}
R0079:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4            10.11     .753 1979.0616_14:00  482.39 .557     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0079:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4            10.11     .753 1979.0616_14:00  482.39  n/a     .000
                out <=    5.0 01:W4-LID         1.94     .001 1979.0101_19:55  482.40  n/a     .000
           overflow <=    5.0 03:W4-LID-Out     8.17     .729 1979.0616_14:00  482.39  n/a     .000
     {MxStoUsed=.1860E-01  m3, TotOvfVol=.3942E+01  m3, N-Ovf=  128, TotDurOvf=  211.hrs}
R0079:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5             6.20     .468 1979.0616_14:00  465.26 .537     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0079:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5             6.20     .468 1979.0616_14:00  465.26  n/a     .000
                out <=    5.0 01:W5-LID         1.18     .001 1979.0101_19:50  465.25  n/a     .000
           overflow <=    5.0 03:W5-LID-Out     5.02     .448 1979.0616_14:00  465.26  n/a     .000
     {MxStoUsed=.1100E-01  m3, TotOvfVol=.2334E+01  m3, N-Ovf=  117, TotDurOvf=  209.hrs}
R0079:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6             7.81     .657 1979.0616_14:00  545.65 .630     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0079:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6             7.81     .657 1979.0616_14:00  545.65  n/a     .000
                out <=    5.0 01:W6-LID         1.53     .001 1979.0101_19:45  545.66  n/a     .000
           overflow <=    5.0 03:W6-LID-Out     6.28     .637 1979.0616_14:00  545.65  n/a     .000
     {MxStoUsed=.1649E-01  m3, TotOvfVol=.3428E+01  m3, N-Ovf=  124, TotDurOvf=  209.hrs}
R0079:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1             5.76     .431 1979.0616_14:00  455.94  n/a     .000
                   +      5.0 02:W2             8.51     .578 1979.0616_14:00  425.51  n/a     .000
                   +      5.0 02:W3            10.03     .788 1979.0616_14:00  516.68  n/a     .000
                   +      5.0 02:W4            10.11     .753 1979.0616_14:00  482.39  n/a     .000
                   +      5.0 02:W5             6.20     .468 1979.0616_14:00  465.26  n/a     .000
                   +      5.0 02:W6             7.81     .657 1979.0616_14:00  545.65  n/a     .000
                SUM=      5.0 01:BCD-PH3       48.42    3.675 1979.0616_14:00  484.36  n/a     .000
R0079:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out     4.72     .411 1979.0616_14:00  455.94  n/a     .000
                   +      5.0 02:W2-LID-Out     6.97     .557 1979.0616_14:05  425.51  n/a     .000
                   +      5.0 02:W3-LID-Out     8.11     .767 1979.0616_14:00  516.68  n/a     .000
                   +      5.0 02:W4-LID-Out     8.17     .729 1979.0616_14:00  482.39  n/a     .000
                   +      5.0 02:W5-LID-Out     5.02     .448 1979.0616_14:00  465.26  n/a     .000
                   +      5.0 02:W6-LID-Out     6.28     .637 1979.0616_14:00  545.65  n/a     .000
                SUM=      5.0 01:BCD-PH3-LI    39.27    3.547 1979.0616_14:00  484.14  n/a     .000
#*****************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*****************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#*****************************************************************************************************
R0079:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .538 1979.0616_14:00  577.15 .666     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0079:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2         8.51     .780 1979.0616_14:00  557.82 .644     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0079:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3        10.03     .940 1979.0616_14:00  610.15 .704     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0079:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4        10.11     .939 1979.0616_14:00  590.39 .681     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0079:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W5         6.20     .579 1979.0616_14:00  580.57 .670     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0079:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W6         7.81     .741 1979.0616_14:00  626.86 .723     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0079:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-W1         5.76     .538 1979.0616_14:00  577.15  n/a     .000
                   +      5.0 02:INF-W2         8.51     .780 1979.0616_14:00  557.82  n/a     .000
                   +      5.0 02:INF-W3        10.03     .940 1979.0616_14:00  610.15  n/a     .000
                   +      5.0 02:INF-W4        10.11     .939 1979.0616_14:00  590.39  n/a     .000
                   +      5.0 02:INF-W5         6.20     .579 1979.0616_14:00  580.57  n/a     .000
                   +      5.0 02:INF-W6         7.81     .741 1979.0616_14:00  626.86  n/a     .000
                SUM=      5.0 01:INF-BCD-PH    48.42    4.516 1979.0616_14:00  591.81  n/a     .000
###############################################################################
# CONTINUOUS RAINFALL DATA
###############################################################################
  ** END OF RUN :   79

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





 RUN#:COMMAND#
R0080:C00001----------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19800101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0080 ]
#*****************************************************************************************************
#  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      : 2024/Mar/14 [LP]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#*****************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0080:C00002----------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                       ]
      [Start_date= 1980.0101: End_date= 1980.1230]
      {DT= 60.min: Length= 8760.hrs: WetHrs=  427: DryHrs= 8333: PTOT= 622.00}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       15.00     9.20     6.50     4.72     3.57     1.97     1.35     1.01      .86    mm/hr
       15.00    18.40    19.50    28.30    42.80    47.20    48.60    48.60    62.00    mm
      19800830 19800830 19801025 19801025 19801026 19801026 19801026 19801027 19800902  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         151      125      112       93       79       62       49       44       28
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         150       85       54       16        4        0        0        0        0
R0080:C00003----------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 68.72: APIavg= 17.50: APImin=   .06}
#*****************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*****************************************************************************************************
R0080:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W1             5.76     .136 1980.0830_14:00  292.96 .471     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0080:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W1             5.76     .136 1980.0830_14:00  292.96  n/a     .000
                out <=    5.0 01:W1-LID         1.42     .001 1980.0111_21:05  292.97  n/a     .000
           overflow <=    5.0 03:W1-LID-Out     4.34     .135 1980.0830_14:00  292.96  n/a     .000
     {MxStoUsed=.9599E-02  m3, TotOvfVol=.1272E+01  m3, N-Ovf=  121, TotDurOvf=  170.hrs}
R0080:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W2             8.51     .182 1980.0830_14:00  270.58 .435     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0080:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2             8.51     .182 1980.0830_14:00  270.58  n/a     .000
                out <=    5.0 01:W2-LID         2.11     .001 1980.0111_21:10  270.58  n/a     .000
           overflow <=    5.0 03:W2-LID-Out     6.40     .180 1980.0830_14:00  270.58  n/a     .000
     {MxStoUsed=.1309E-01  m3, TotOvfVol=.1731E+01  m3, N-Ovf=  125, TotDurOvf=  169.hrs}
R0080:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3            10.03     .279 1980.0830_14:00  338.87 .545     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0080:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3            10.03     .279 1980.0830_14:00  338.87  n/a     .000
                out <=    5.0 01:W3-LID         2.55     .001 1980.0111_21:05  338.86  n/a     .000
           overflow <=    5.0 03:W3-LID-Out     7.48     .276 1980.0830_14:00  338.87  n/a     .000
     {MxStoUsed=.1930E-01  m3, TotOvfVol=.2535E+01  m3, N-Ovf=  119, TotDurOvf=  166.hrs}
R0080:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4            10.11     .257 1980.0830_14:00  313.16 .503     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0080:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4            10.11     .257 1980.0830_14:00  313.16  n/a     .000
                out <=    5.0 01:W4-LID         2.60     .001 1980.0111_21:10  313.17  n/a     .000
           overflow <=    5.0 03:W4-LID-Out     7.51     .253 1980.0830_14:00  313.16  n/a     .000
     {MxStoUsed=.1859E-01  m3, TotOvfVol=.2351E+01  m3, N-Ovf=  119, TotDurOvf=  166.hrs}
R0080:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5             6.20     .151 1980.0830_14:00  300.36 .483     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0080:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5             6.20     .151 1980.0830_14:00  300.36  n/a     .000
                out <=    5.0 01:W5-LID         1.60     .001 1980.0111_21:10  300.35  n/a     .000
           overflow <=    5.0 03:W5-LID-Out     4.60     .149 1980.0830_14:00  300.36  n/a     .000
     {MxStoUsed=.1099E-01  m3, TotOvfVol=.1382E+01  m3, N-Ovf=  118, TotDurOvf=  164.hrs}
R0080:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6             7.81     .234 1980.0830_14:00  360.51 .580     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0080:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6             7.81     .234 1980.0830_14:00  360.51  n/a     .000
                out <=    5.0 01:W6-LID         2.02     .001 1980.0111_21:05  360.52  n/a     .000
           overflow <=    5.0 03:W6-LID-Out     5.79     .232 1980.0830_14:00  360.51  n/a     .000
     {MxStoUsed=.1650E-01  m3, TotOvfVol=.2088E+01  m3, N-Ovf=  121, TotDurOvf=  162.hrs}
R0080:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1             5.76     .136 1980.0830_14:00  292.96  n/a     .000
                   +      5.0 02:W2             8.51     .182 1980.0830_14:00  270.58  n/a     .000
                   +      5.0 02:W3            10.03     .279 1980.0830_14:00  338.87  n/a     .000
                   +      5.0 02:W4            10.11     .257 1980.0830_14:00  313.16  n/a     .000
                   +      5.0 02:W5             6.20     .151 1980.0830_14:00  300.36  n/a     .000
                   +      5.0 02:W6             7.81     .234 1980.0830_14:00  360.51  n/a     .000
                SUM=      5.0 01:BCD-PH3       48.42    1.239 1980.0830_14:00  314.60  n/a     .000
R0080:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out     4.34     .135 1980.0830_14:00  292.96  n/a     .000
                   +      5.0 02:W2-LID-Out     6.40     .180 1980.0830_14:00  270.58  n/a     .000
                   +      5.0 02:W3-LID-Out     7.48     .276 1980.0830_14:00  338.87  n/a     .000
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                     +     5.0 02:W4-LID-Out     7.51      .253 1980.0830_14:00  313.16  n/a     .000
                     +     5.0 02:W5-LID-Out     4.60      .149 1980.0830_14:00  300.36  n/a     .000
                     +     5.0 02:W6-LID-Out     5.79      .232 1980.0830_14:00  360.51  n/a     .000
                  SUM=     5.0 01:BCD-PH3-LI    36.12     1.225 1980.0830_14:00  314.48  n/a     .000
#****************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#****************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#****************************************************************************************************
R0080:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1          5.76      .181 1980.0830_14:00  374.57 .602     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0080:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2          8.51      .251 1980.0830_14:00  358.25 .576     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0080:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3         10.03      .339 1980.0830_14:00  402.83 .648     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0080:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4         10.11      .325 1980.0830_14:00  385.99 .621     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0080:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W5          6.20      .197 1980.0830_14:00  377.63 .607     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0080:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W6          7.81      .277 1980.0830_14:00  417.08 .671     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0080:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD                5.0 02:INF-W1          5.76      .181 1980.0830_14:00  374.57  n/a     .000
                     +     5.0 02:INF-W2          8.51      .251 1980.0830_14:00  358.25  n/a     .000
                     +     5.0 02:INF-W3         10.03      .339 1980.0830_14:00  402.83  n/a     .000
                     +     5.0 02:INF-W4         10.11      .325 1980.0830_14:00  385.99  n/a     .000
                     +     5.0 02:INF-W5          6.20      .197 1980.0830_14:00  377.63  n/a     .000
                     +     5.0 02:INF-W6          7.81      .277 1980.0830_14:00  417.08  n/a     .000
                  SUM=     5.0 01:INF-BCD-PH    48.42     1.570 1980.0830_14:00  387.19  n/a     .000
################################################################################
# CONTINUOUS RAINFALL DATA
################################################################################
  ** END OF RUN :   80

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

 RUN#:COMMAND#
R0081:C00001-----------------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19810101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0081 ]
#****************************************************************************************************
#  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      : 2024/Mar/14 [LP]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#****************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0081:C00002-----------------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                          ]
      [Start_date= 1981.0101: End_date= 1981.1231]
      {DT= 60.min: Length= 8760.hrs: WetHrs=  641: DryHrs= 8119: PTOT= 936.40}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       35.30    31.85    26.20    18.15     9.27     4.83     3.22     2.41     1.62    mm/hr
       35.30    63.70    78.60   108.90   111.30   115.90   115.90   115.90   116.70    mm
      19810805 19810805 19810805 19810805 19810805 19810805 19810806 19810806 19810805  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         226      171      136      109       83       68       59       47       30
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         225      128       79       28        7        0        0        0        0
R0081:C00003-----------------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax=123.49: APIavg= 25.69: APImin=   .26}
#****************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#****************************************************************************************************
R0081:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W1              5.76      .552 1981.0805_ 2:00  494.90 .529     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0081:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W1              5.76      .552 1981.0805_ 2:00  494.90  n/a     .000
                out <=    5.0 01:W1-LID          1.11      .001 1981.0202_12:25  494.91  n/a     .000
           overflow <=    5.0 03:W1-LID-Out      4.65      .528 1981.0805_ 2:00  494.90  n/a     .000
     {MxStoUsed=.9588E-02  m3, TotOvfVol=.2299E+01  m3, N-Ovf=  151, TotDurOvf=  223.hrs}
R0081:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W2              8.51      .812 1981.0805_ 2:05  464.51 .496     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0081:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2              8.51      .812 1981.0805_ 2:05  464.51  n/a     .000
                out <=    5.0 01:W2-LID          1.64      .001 1981.0202_12:35  464.52  n/a     .000
           overflow <=    5.0 03:W2-LID-Out      6.87      .807 1981.0805_ 2:05  464.51  n/a     .000
     {MxStoUsed=.1309E-01  m3, TotOvfVol=.3191E+01  m3, N-Ovf=  152, TotDurOvf=  223.hrs}
R0081:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3             10.03      .969 1981.0805_ 2:00  555.60 .593     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0081:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3             10.03      .969 1981.0805_ 2:00  555.60  n/a     .000
                out <=    5.0 01:W3-LID          2.08      .001 1981.0202_12:25  555.60  n/a     .000
           overflow <=    5.0 03:W3-LID-Out      7.95      .952 1981.0805_ 2:05  555.60  n/a     .000
     {MxStoUsed=.1929E-01  m3, TotOvfVol=.4416E+01  m3, N-Ovf=  151, TotDurOvf=  222.hrs}
R0081:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4             10.11      .968 1981.0805_ 2:00  521.27 .557     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0081:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4             10.11      .968 1981.0805_ 2:00  521.27  n/a     .000
                out <=    5.0 01:W4-LID          2.09      .001 1981.0202_12:35  521.27  n/a     .000
           overflow <=    5.0 03:W4-LID-Out      8.02      .959 1981.0805_ 2:05  521.27  n/a     .000
     {MxStoUsed=.1858E-01  m3, TotOvfVol=.4181E+01  m3, N-Ovf=  153, TotDurOvf=  221.hrs}
R0081:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5              6.20      .594 1981.0805_ 2:00  504.21 .538     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0081:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5              6.20      .594 1981.0805_ 2:00  504.21  n/a     .000
                out <=    5.0 01:W5-LID          1.27      .001 1981.0202_12:35  504.21  n/a     .000
           overflow <=    5.0 03:W5-LID-Out      4.93      .569 1981.0805_ 2:00  504.21  n/a     .000
     {MxStoUsed=.1100E-01  m3, TotOvfVol=.2484E+01  m3, N-Ovf=  145, TotDurOvf=  219.hrs}
R0081:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6              7.81      .761 1981.0805_ 2:00  584.48 .624     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0081:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6              7.81      .761 1981.0805_ 2:00  584.48  n/a     .000
                out <=    5.0 01:W6-LID          1.66      .001 1981.0202_12:30  584.48  n/a     .000
           overflow <=    5.0 03:W6-LID-Out      6.15      .742 1981.0805_ 2:05  584.48  n/a     .000
     {MxStoUsed=.1649E-01  m3, TotOvfVol=.3593E+01  m3, N-Ovf=  158, TotDurOvf=  220.hrs}
R0081:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD                5.0 02:W1              5.76      .552 1981.0805_ 2:00  494.90  n/a     .000
                     +     5.0 02:W2              8.51      .812 1981.0805_ 2:05  464.51  n/a     .000
                     +     5.0 02:W3             10.03      .969 1981.0805_ 2:00  555.60  n/a     .000
                     +     5.0 02:W4             10.11      .968 1981.0805_ 2:00  521.27  n/a     .000
                     +     5.0 02:W5              6.20      .594 1981.0805_ 2:00  504.21  n/a     .000
                     +     5.0 02:W6              7.81      .761 1981.0805_ 2:00  584.48  n/a     .000
                  SUM=     5.0 01:BCD-PH3       48.42     4.648 1981.0805_ 2:00  523.28  n/a     .000
R0081:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD                5.0 02:W1-LID-Out      4.65      .528 1981.0805_ 2:00  494.90  n/a     .000
                     +     5.0 02:W2-LID-Out      6.87      .807 1981.0805_ 2:05  464.51  n/a     .000
                     +     5.0 02:W3-LID-Out      7.95      .952 1981.0805_ 2:05  555.60  n/a     .000
                     +     5.0 02:W4-LID-Out      8.02      .959 1981.0805_ 2:05  521.27  n/a     .000
                     +     5.0 02:W5-LID-Out      4.93      .569 1981.0805_ 2:00  504.21  n/a     .000
                     +     5.0 02:W6-LID-Out      6.15      .742 1981.0805_ 2:05  584.48  n/a     .000
                  SUM=     5.0 01:BCD-PH3-LI    38.56     4.534 1981.0805_ 2:05  522.96  n/a     .000
#****************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#****************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#****************************************************************************************************
R0081:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1          5.76      .560 1981.0805_ 2:00  603.20 .644     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0081:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2          8.51      .824 1981.0805_ 2:00  582.16 .622     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0081:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3         10.03      .976 1981.0805_ 2:00  639.50 .683     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0081:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4         10.11      .982 1981.0805_ 2:00  617.81 .660     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0081:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W5          6.20      .603 1981.0805_ 2:00  607.05 .648     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0081:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W6          7.81      .762 1981.0805_ 2:00  657.84 .703     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0081:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD                5.0 02:INF-W1          5.76      .560 1981.0805_ 2:00  603.20  n/a     .000
                     +     5.0 02:INF-W2          8.51      .824 1981.0805_ 2:00  582.16  n/a     .000
                     +     5.0 02:INF-W3         10.03      .976 1981.0805_ 2:00  639.50  n/a     .000
                     +     5.0 02:INF-W4         10.11      .982 1981.0805_ 2:00  617.82  n/a     .000
                     +     5.0 02:INF-W5          6.20      .603 1981.0805_ 2:00  607.05  n/a     .000
                     +     5.0 02:INF-W6          7.81      .762 1981.0805_ 2:00  657.84  n/a     .000
                  SUM=     5.0 01:INF-BCD-PH    48.42     4.708 1981.0805_ 2:00  619.38  n/a     .000
################################################################################
# CONTINUOUS RAINFALL DATA
################################################################################
  ** END OF RUN :   81

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

 RUN#:COMMAND#
R0082:C00001-----------------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19820101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0082 ]
#****************************************************************************************************
#  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      : 2024/Mar/14 [LP]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#****************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0082:C00002-----------------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                          ]
      [Start_date= 1982.0101: End_date= 1982.1231]
      {DT= 60.min: Length= 8760.hrs: WetHrs=  436: DryHrs= 8324: PTOT= 596.10}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       19.80    10.75     7.60     5.83     3.36     1.68     1.12      .96      .80    mm/hr
       19.80    21.50    22.80    35.00    40.30    40.30    40.30    46.30    57.30    mm
      19820801 19820901 19820825 19820825 19820825 19820826 19820826 19820825 19820825  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         134      110       98       78       66       57       48       41       33
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         133       81       58       18        4        1        1        0        0
R0082:C00003-----------------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 56.66: APIavg= 16.78: APImin=   .03}
#****************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#****************************************************************************************************
R0082:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W1              5.76      .185 1982.0801_19:00  277.52 .466     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 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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# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0082:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W1             5.76     .185 1982.0801_19:00  277.52  n/a     .000
                out <=    5.0 01:W1-LID         1.58     .001 1982.0313_11:15  277.52  n/a     .000
           overflow <=    5.0 03:W1-LID-Out     4.18     .183 1982.0801_19:00  277.52  n/a     .000
      {MxStoUsed=.9599E-02  m3, TotOvfVol=.1161E+01  m3, N-Ovf=  125, TotDurOvf=  182.hrs}
R0082:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W2             8.51     .249 1982.0801_19:00  255.70 .429     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0082:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2             8.51     .249 1982.0801_19:00  255.70  n/a     .000
                out <=    5.0 01:W2-LID         2.35     .001 1982.0313_11:20  255.70  n/a     .000
           overflow <=    5.0 03:W2-LID-Out     6.16     .246 1982.0801_19:00  255.70  n/a     .000
      {MxStoUsed=.1309E-01  m3, TotOvfVol=.1574E+01  m3, N-Ovf=  126, TotDurOvf=  182.hrs}
R0082:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3            10.03     .378 1982.0801_19:00  322.88 .542     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0082:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3            10.03     .378 1982.0801_19:00  322.88  n/a     .000
                out <=    5.0 01:W3-LID         2.80     .001 1982.0313_11:15  322.88  n/a     .000
           overflow <=    5.0 03:W3-LID-Out     7.23     .373 1982.0801_19:00  322.88  n/a     .000
      {MxStoUsed=.1929E-01  m3, TotOvfVol=.2335E+01  m3, N-Ovf=  121, TotDurOvf=  181.hrs}
R0082:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4            10.11     .349 1982.0801_19:00  297.60 .499     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0082:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4            10.11     .349 1982.0801_19:00  297.60  n/a     .000
                out <=    5.0 01:W4-LID         2.88     .001 1982.0313_11:20  297.61  n/a     .000
           overflow <=    5.0 03:W4-LID-Out     7.23     .344 1982.0801_19:00  297.60  n/a     .000
      {MxStoUsed=.1859E-01  m3, TotOvfVol=.2152E+01  m3, N-Ovf=  125, TotDurOvf=  180.hrs}
R0082:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5             6.20     .205 1982.0801_19:00  285.01 .478     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0082:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5             6.20     .205 1982.0801_19:00  285.01  n/a     .000
                out <=    5.0 01:W5-LID         1.77     .001 1982.0313_11:20  285.00  n/a     .000
           overflow <=    5.0 03:W5-LID-Out     4.43     .203 1982.0801_19:00  285.01  n/a     .000
      {MxStoUsed=.1099E-01  m3, TotOvfVol=.1261E+01  m3, N-Ovf=  126, TotDurOvf=  178.hrs}
R0082:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6             7.81     .316 1982.0801_19:00  344.12 .577     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0082:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6             7.81     .316 1982.0801_19:00  344.12  n/a     .000
                out <=    5.0 01:W6-LID         2.21     .001 1982.0313_11:15  344.13  n/a     .000
           overflow <=    5.0 03:W6-LID-Out     5.60     .312 1982.0801_19:00  344.12  n/a     .000
      {MxStoUsed=.1648E-01  m3, TotOvfVol=.1925E+01  m3, N-Ovf=  117, TotDurOvf=  178.hrs}
R0082:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1             5.76     .185 1982.0801_19:00  277.52  n/a     .000
                     +    5.0 02:W2             8.51     .249 1982.0801_19:00  255.70  n/a     .000
                     +    5.0 02:W3            10.03     .378 1982.0801_19:00  322.88  n/a     .000
                     +    5.0 02:W4            10.11     .349 1982.0801_19:00  297.60  n/a     .000
                     +    5.0 02:W5             6.20     .205 1982.0801_19:00  285.01  n/a     .000
                     +    5.0 02:W6             7.81     .316 1982.0801_19:00  344.12  n/a     .000
                  SUM=    5.0 01:BCD-PH3       48.42    1.681 1982.0801_19:00  298.98  n/a     .000
R0082:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out     4.18     .183 1982.0801_19:00  277.52  n/a     .000
                     +    5.0 02:W2-LID-Out     6.16     .246 1982.0801_19:00  255.70  n/a     .000
                     +    5.0 02:W3-LID-Out     7.23     .373 1982.0801_19:00  322.88  n/a     .000
                     +    5.0 02:W4-LID-Out     7.23     .344 1982.0801_19:00  297.60  n/a     .000
                     +    5.0 02:W5-LID-Out     4.43     .203 1982.0801_19:00  285.01  n/a     .000
                     +    5.0 02:W6-LID-Out     5.60     .312 1982.0801_19:00  344.12  n/a     .000
                  SUM=    5.0 01:BCD-PH3-LI    34.82    1.661 1982.0801_19:00  298.90  n/a     .000
#*********************************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*********************************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#*********************************************************************************************************************
R0082:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .264 1982.0801_19:00  355.55 .596     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0082:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2         8.51     .363 1982.0801_19:00  339.12 .569     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0082:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3        10.03     .474 1982.0801_19:00  384.48 .645     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0082:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4        10.11     .459 1982.0801_19:00  367.31 .616     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0082:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W5         6.20     .285 1982.0801_19:00  358.79 .602     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0082:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W6         7.81     .387 1982.0801_19:00  399.02 .669     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0082:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-W1         5.76     .264 1982.0801_19:00  355.56  n/a     .000
                     +    5.0 02:INF-W2         8.51     .363 1982.0801_19:00  339.12  n/a     .000
                     +    5.0 02:INF-W3        10.03     .474 1982.0801_19:00  384.48  n/a     .000
                     +    5.0 02:INF-W4        10.11     .459 1982.0801_19:00  367.31  n/a     .000
                     +    5.0 02:INF-W5         6.20     .285 1982.0801_19:00  358.79  n/a     .000
                     +    5.0 02:INF-W6         7.81     .387 1982.0801_19:00  399.02  n/a     .000
                  SUM=    5.0 01:INF-BCD-PH    48.42    2.232 1982.0801_19:00  368.54  n/a     .000
################################################################################
# CONTINUOUS RAINFALL DATA
################################################################################
  ** END OF RUN :   82

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





 RUN#:COMMAND#
R0083:C00001---------------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19830101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0083 ]
#*********************************************************************************************************************
#  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      : 2024/Mar/14 [LP]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#*********************************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0083:C00002---------------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                              ]
      [Start_date= 1983.0101: End_date= 1983.1231]
      {DT= 60.min: Length= 8760.hrs: WetHrs=  462: DryHrs= 8298: PTOT= 587.50}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       10.40     9.70     7.53     5.43     3.18     2.36     1.68     1.32      .92    mm/hr
       10.40    19.40    22.60    32.60    38.20    56.70    60.40    63.20    66.00    mm
      19831004 19830921 19830921 19831005 19831005 19831005 19831005 19831006 19831008  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         143      115      103       85       70       55       50       45       35
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         142       87       56       28        5        0        0        0        0
R0083:C00003---------------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 79.86: APIavg= 16.57: APImin=   .05}
#*********************************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*********************************************************************************************************************
R0083:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W1             5.76     .121 1983.1005_15:00  268.59 .457     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0083:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W1             5.76     .121 1983.1005_15:00  268.59  n/a     .000
                out <=    5.0 01:W1-LID         1.60     .001 1983.0318_23:30  268.60  n/a     .000
           overflow <=    5.0 03:W1-LID-Out     4.16     .119 1983.1005_15:00  268.59  n/a     .000
      {MxStoUsed=.9596E-02  m3, TotOvfVol=.1116E+01  m3, N-Ovf=  129, TotDurOvf=  189.hrs}
R0083:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W2             8.51     .168 1983.1005_15:00  248.06 .422     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0083:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2             8.51     .168 1983.1005_15:00  248.06  n/a     .000
                out <=    5.0 01:W2-LID         2.39     .001 1983.0318_23:35  248.06  n/a     .000
           overflow <=    5.0 03:W2-LID-Out     6.12     .167 1983.1005_15:05  248.06  n/a     .000
      {MxStoUsed=.1310E-01  m3, TotOvfVol=.1519E+01  m3, N-Ovf=  128, TotDurOvf=  190.hrs}
R0083:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3            10.03     .229 1983.1005_15:00  310.81 .529     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0083:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3            10.03     .229 1983.1005_15:00  310.81  n/a     .000
                out <=    5.0 01:W3-LID         2.87     .001 1983.0318_23:35  310.80  n/a     .000
           overflow <=    5.0 03:W3-LID-Out     7.16     .226 1983.1005_15:05  310.81  n/a     .000
      {MxStoUsed=.1929E-01  m3, TotOvfVol=.2225E+01  m3, N-Ovf=  122, TotDurOvf=  188.hrs}
R0083:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4            10.11     .219 1983.1005_15:00  287.18 .489     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0083:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4            10.11     .219 1983.1005_15:00  287.18  n/a     .000
                out <=    5.0 01:W4-LID         2.94     .001 1983.0318_23:40  287.19  n/a     .000
           overflow <=    5.0 03:W4-LID-Out     7.17     .217 1983.1005_15:05  287.18  n/a     .000
      {MxStoUsed=.1859E-01  m3, TotOvfVol=.2060E+01  m3, N-Ovf=  130, TotDurOvf=  187.hrs}
R0083:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5             6.20     .132 1983.1005_15:00  275.42 .469     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0083:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5             6.20     .132 1983.1005_15:00  275.42  n/a     .000
                out <=    5.0 01:W5-LID         1.81     .001 1983.0318_23:35  275.41  n/a     .000
           overflow <=    5.0 03:W5-LID-Out     4.39     .130 1983.1005_15:00  275.42  n/a     .000
      {MxStoUsed=.1100E-01  m3, TotOvfVol=.1210E+01  m3, N-Ovf=  130, TotDurOvf=  184.hrs}
R0083:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6             7.81     .187 1983.1005_15:00  330.68 .563     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0083:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6             7.81     .187 1983.1005_15:00  330.68  n/a     .000
                out <=    5.0 01:W6-LID         2.27     .001 1983.0318_23:35  330.68  n/a     .000
           overflow <=    5.0 03:W6-LID-Out     5.54     .184 1983.1005_15:00  330.68  n/a     .000
      {MxStoUsed=.1650E-01  m3, TotOvfVol=.1831E+01  m3, N-Ovf=  119, TotDurOvf=  185.hrs}
R0083:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1             5.76     .121 1983.1005_15:00  268.59  n/a     .000
                     +    5.0 02:W2             8.51     .168 1983.1005_15:00  248.06  n/a     .000
                     +    5.0 02:W3            10.03     .229 1983.1005_15:00  310.81  n/a     .000
                     +    5.0 02:W4            10.11     .219 1983.1005_15:00  287.18  n/a     .000
                     +    5.0 02:W5             6.20     .132 1983.1005_15:00  275.42  n/a     .000
                     +    5.0 02:W6             7.81     .187 1983.1005_15:00  330.68  n/a     .000
                  SUM=    5.0 01:BCD-PH3       48.42    1.056 1983.1005_15:00  288.50  n/a     .000
R0083:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out     4.16     .119 1983.1005_15:00  268.59  n/a     .000
                     +    5.0 02:W2-LID-Out     6.12     .167 1983.1005_15:05  248.06  n/a     .000
                     +    5.0 02:W3-LID-Out     7.16     .226 1983.1005_15:05  310.81  n/a     .000
                     +    5.0 02:W4-LID-Out     7.17     .217 1983.1005_15:05  287.18  n/a     .000
                     +    5.0 02:W5-LID-Out     4.39     .130 1983.1005_15:00  275.42  n/a     .000
                     +    5.0 02:W6-LID-Out     5.54     .184 1983.1005_15:00  330.68  n/a     .000
                  SUM=    5.0 01:BCD-PH3-LI    34.54    1.042 1983.1005_15:05  288.38  n/a     .000
#*********************************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*********************************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#*********************************************************************************************************************
R0083:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .153 1983.1005_15:00  339.17 .577     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0083:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2         8.51     .222 1983.1005_15:00  323.35 .550     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
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03961>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
03962> R0083:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03963>      CONTINUOUS STANDHYD    5.0 01:INF-W3          10.03     .268 1983.1005_15:00  366.59 .624     .000
03964>        [XIMP=.66:TIMP=.76]
03965>        [LOSS= 2 :CN=100.0]
03966>        [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03967>        [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
03968>        [IaRECimp=   1.50: IaRECper=   6.00]
03969>        [SMIN=  1.39: SMAX=  9.24: SK= .000]
03970> R0083:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03971>      CONTINUOUS STANDHYD    5.0 01:INF-W4          10.11     .268 1983.1005_15:00  350.25 .596     .000
03972>        [XIMP=.60:TIMP=.70]
03973>        [LOSS= 2 :CN=100.0]
03974>        [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03975>        [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
03976>        [IaRECimp=   1.50: IaRECper=   6.00]
03977>        [SMIN=  1.39: SMAX=  9.24: SK= .000]
03978> R0083:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03979>      CONTINUOUS STANDHYD    5.0 01:INF-W5          6.20      .164 1983.1005_15:00  342.14 .582     .000
03980>        [XIMP=.57:TIMP=.67]
03981>        [LOSS= 2 :CN=100.0]
03982>        [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03983>        [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
03984>        [IaRECimp=   1.50: IaRECper=   6.00]
03985>        [SMIN=  1.39: SMAX=  9.24: SK= .000]
03986> R0083:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03987>      CONTINUOUS STANDHYD    5.0 01:INF-W6          7.81      .211 1983.1005_15:00  380.42 .648     .000
03988>        [XIMP=.71:TIMP=.81]
03989>        [LOSS= 2 :CN=100.0]
03990>        [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
03991>        [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
03992>        [IaRECimp=   1.50: IaRECper=   6.00]
03993>        [SMIN=  1.39: SMAX=  9.24: SK= .000]
03994> R0083:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
03995>      ADD HYD                5.0 02:INF-W1          5.76      .153 1983.1005_15:00  339.17  n/a     .000
03996>                         +    5.0 02:INF-W2          8.51      .222 1983.1005_15:00  323.35  n/a     .000
03997>                         +    5.0 02:INF-W3         10.03      .268 1983.1005_15:00  366.59  n/a     .000
03998>                         +    5.0 02:INF-W4         10.11      .268 1983.1005_15:00  350.25  n/a     .000
03999>                         +    5.0 02:INF-W5          6.20      .164 1983.1005_15:00  342.14  n/a     .000
04000>                         +    5.0 02:INF-W6          7.81      .211 1983.1005_15:00  380.42  n/a     .000
04001>                       SUM=   5.0 01:INF-BCD-PH     48.42     1.286 1983.1005_15:00  351.42  n/a     .000
04002> ##############################################################################
04003> # CONTINUOUS RAINFALL DATA
04004> ##############################################################################
04005>  ** END OF RUN :   83
04006>
04007> ************************************************************************************
04008>
04009>
04010>
04011>
04012>
04013>  RUN#:COMMAND#
04014> R0084:C00001------------------------------------------------------------------------------
04015>      START
04016>        [TZERO =    .00 hrs on 19840101]
04017>        [METOUT=  2     (1=imperial, 2=metric output)]
04018>        [NSTORM=  0 ]
04019>        [NRUN  = 0084 ]
04020> ************************************************************************************
04021> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
04022> ************************************************************************************
04023> #  Project Name: Barrhaven Conservancy Development
04024> #  Project Number: 1474
04025> #  Date     : 2021/Oct/18
04026> #  Modeller    : J.Burnett, P.Eng.
04027> #  Updated     : 2024/Mar/14 [LP]
04028> #  Company     : J.F. Sabourin and Associates
04029> #  License #   : 2582634
04030> ************************************************************************************
04031> # Ottawa International Airport (1967 - 2003)
04032> R0084:C00002------------------------------------------------------------------------------
04033>  *  READ AES DATA
04034>        [Filename  = YOW_1967_2007.123                                    ]
04035>        [Start_date= 1984.0101: End_date= 1984.1230]
04036>        [DT= 60.min: Length= 8760.hrs: WetHrs=  308: DryHrs= 8452: PTOT= 459.40)
04037>        Maximum average rainfall intensities over
04038>          1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
04039>          17.80     9.70     7.57     4.33     3.01     1.85     1.58     1.19     1.00    mm/hr
04040>          17.80    19.40    22.70    26.00    36.10    44.30    57.00    57.00    72.20    mm
04041>        19840812 19840812 19840812 19840806 19840812 19840813 19840813 19840814 19840813  date
04042>        Number of rainfall events per following interevent time
04043>          1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
04044>            98       80       75       63       55       48       40       34       26
04045>        Number of events with at least the following durations
04046>          1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
04047>            97       58       39       11        3        1        0        0        0
04048> R0084:C00003------------------------------------------------------------------------------
04049>      COMPUTE API
04050>        [APIinit= 50.00: APIkdy= .9000: APIkdt= .9956]
04051>        [APImax= 86.83: APIavg= 13.22: APImin=  .00]
04052> ************************************************************************************************************
04053> #              Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
04054> ************************************************************************************************************
04055> R0084:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04056>      CONTINUOUS STANDHYD    5.0 01:W1              5.76      .184 1984.0812_ 7:00  224.78 .489     .000
04057>        [XIMP=.55:TIMP=.66]
04058>        [LOSS= 2 :CN= 71.0]
04059>        [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04060>        [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
04061>        [IaRECimp=   1.50: IaRECper=   6.00]
04062>        [SMIN= 41.38: SMAX=275.84: SK= .030]
04063> # LID for Outlet W1 (14 catchbasins, 30 m long trench each)
04064> # Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04065> # Total Volume provided by LID  - 96 m³
04066> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04067> R0084:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04068>      ROUTE RESERVOIR ->     5.0 02:W1              5.76      .184 1984.0812_ 7:00  224.78  n/a     .000
04069>                       out <=    5.0 01:W1-LID        1.28      .001 1984.0214_ 9:05  224.79  n/a     .000
04070>              overflow <=    5.0 03:W1-LID-Out      4.48      .181 1984.0812_ 7:00  224.78  n/a     .000
04071>        (MxStoUsed=.9596E-02  m3, TotOvfVol=.1008E+01  m3, N-Ovf=   89, TotDurOvf=  144.hrs)
04072> R0084:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04073>      CONTINUOUS STANDHYD    5.0 01:W2              8.51      .251 1984.0812_ 7:00  208.10 .453     .000
04074>        [XIMP=.50:TIMP=.60]
04075>        [LOSS= 2 :CN= 71.0]
04076>        [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04077>        [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
04078>        [IaRECimp=   1.50: IaRECper=   6.00]
04079>        [SMIN= 41.38: SMAX=275.84: SK= .030]
04080> # LID for Outlet W2 (19 catchbasins, 30 m long trench each)
04081> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04082> # Total Volume provided by LID  - 131 m³
04083> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04084> R0084:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04085>      ROUTE RESERVOIR ->     5.0 02:W2              8.51      .251 1984.0812_ 7:00  208.10  n/a     .000
04086>                       out <=    5.0 01:W2-LID        1.89      .001 1984.0214_ 9:10  208.10  n/a     .000
04087>              overflow <=    5.0 03:W2-LID-Out      6.62      .246 1984.0812_ 7:00  208.10  n/a     .000
04088>        (MxStoUsed=.1310E-01  m3, TotOvfVol=.1377E+01  m3, N-Ovf=   99, TotDurOvf=  144.hrs)
04089> R0084:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04090>      CONTINUOUS STANDHYD    5.0 01:W3             10.03      .364 1984.0812_ 7:00  258.62 .563     .000
04091>        [XIMP=.66:TIMP=.76]
04092>        [LOSS= 2 :CN= 71.0]
04093>        [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04094>        [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
04095>        [IaRECimp=   1.50: IaRECper=   6.00]
04096>        [SMIN= 41.38: SMAX=275.84: SK= .030]
04097> # LID for Outlet W3 (28 catchbasins, 30 m long trench each)
04098> # Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04099> # Total Volume provided by LID  - 193 m³
04100> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04101> R0084:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04102>      ROUTE RESERVOIR ->     5.0 02:W3             10.03      .364 1984.0812_ 7:00  258.62  n/a     .000
04103>                       out <=    5.0 01:W3-LID        2.30      .001 1984.0214_ 9:00  258.62  n/a     .000
04104>              overflow <=    5.0 03:W3-LID-Out      7.73      .358 1984.0812_ 7:00  258.62  n/a     .000
04105>        (MxStoUsed=.1929E-01  m3, TotOvfVol=.2000E+01  m3, N-Ovf=   88, TotDurOvf=  142.hrs)
04106> R0084:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04107>      CONTINUOUS STANDHYD    5.0 01:W4             10.11      .340 1984.0812_ 7:00  239.62 .522     .000
04108>        [XIMP=.60:TIMP=.70]
04109>        [LOSS= 2 :CN= 71.0]
04110>        [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04111>        [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
04112>        [IaRECimp=   1.50: IaRECper=   6.00]
04113>        [SMIN= 41.38: SMAX=275.84: SK= .030]
04114> # LID for Outlet W4 (27 catchbasins, 30 m long trench each)
04115> # Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04116> # Total Volume provided by LID  - 186 m³
04117> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04118> R0084:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04119>      ROUTE RESERVOIR ->     5.0 02:W4             10.11      .340 1984.0812_ 7:00  239.62  n/a     .000
04120>                       out <=    5.0 01:W4-LID        2.34      .001 1984.0214_ 9:10  239.62  n/a     .000
04121>              overflow <=    5.0 03:W4-LID-Out      7.77      .335 1984.0812_ 7:00  239.62  n/a     .000
04122>        (MxStoUsed=.1860E-01  m3, TotOvfVol=.1862E+01  m3, N-Ovf=   91, TotDurOvf=  142.hrs)
04123> R0084:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04124>      CONTINUOUS STANDHYD    5.0 01:W5              6.20      .202 1984.0812_ 7:00  230.18 .501     .000
04125>        [XIMP=.57:TIMP=.67]
04126>        [LOSS= 2 :CN= 71.0]
04127>        [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04128>        [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
04129>        [IaRECimp=   1.50: IaRECper=   6.00]
04130>        [SMIN= 41.38: SMAX=275.84: SK= .030]
04131> # LID for Outlet W5 (16 catchbasins, 30 m long trench each)
04132> # Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04133> # Total Volume provided by LID  - 110 m³
04134> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04135> R0084:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04136>      ROUTE RESERVOIR ->     5.0 02:W5              6.20      .202 1984.0812_ 7:00  230.18  n/a     .000
04137>                       out <=    5.0 01:W5-LID        1.44      .001 1984.0214_ 9:10  230.17  n/a     .000
04138>              overflow <=    5.0 03:W5-LID-Out      4.76      .199 1984.0812_ 7:00  230.18  n/a     .000
04139>        (MxStoUsed=.1098E-01  m3, TotOvfVol=.1096E+01  m3, N-Ovf=   91, TotDurOvf=  140.hrs)
04140> R0084:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04141>      CONTINUOUS STANDHYD    5.0 01:W6              7.81      .301 1984.0812_ 7:00  274.64 .598     .000
04142>        [XIMP=.71:TIMP=.81]
04143>        [LOSS= 2 :CN= 71.0]
04144>        [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04145>        [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
04146>        [IaRECimp=   1.50: IaRECper=   6.00]
04147>        [SMIN= 41.38: SMAX=275.84: SK= .030]
04148> # LID for Outlet W6 (24 catchbasins, 30 m long trench each)
04149> # Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04150> # Total Volume provided by LID  - 165 m³
04151> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04152> R0084:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04153>      ROUTE RESERVOIR ->     5.0 02:W6              7.81      .301 1984.0812_ 7:00  274.64  n/a     .000
04154>                       out <=    5.0 01:W6-LID        1.82      .001 1984.0214_ 9:05  274.64  n/a     .000
04155>              overflow <=    5.0 03:W6-LID-Out      5.99      .297 1984.0812_ 7:00  274.64  n/a     .000
04156>        (MxStoUsed=.1650E-01  m3, TotOvfVol=.1645E+01  m3, N-Ovf=   88, TotDurOvf=  140.hrs)
04157> R0084:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04158>      ADD HYD                5.0 02:W1              5.76      .184 1984.0812_ 7:00  224.78  n/a     .000
04159>                         +    5.0 02:W2              8.51      .251 1984.0812_ 7:00  208.10  n/a     .000
04160>                         +    5.0 02:W3             10.03      .364 1984.0812_ 7:00  258.62  n/a     .000
04161>                         +    5.0 02:W4             10.11      .340 1984.0812_ 7:00  239.62  n/a     .000
04162>                         +    5.0 02:W5              6.20      .202 1984.0812_ 7:00  230.18  n/a     .000
04163>                         +    5.0 02:W6              7.81      .301 1984.0812_ 7:00  274.64  n/a     .000
04164>                       SUM=   5.0 01:BCD-PH3        48.42     1.641 1984.0812_ 7:00  240.69  n/a     .000
04165> R0084:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04166>      ADD HYD                5.0 02:W1-LID-Out      4.48      .181 1984.0812_ 7:00  224.78  n/a     .000
04167>                         +    5.0 02:W2-LID-Out      6.62      .246 1984.0812_ 7:00  208.10  n/a     .000
04168>                         +    5.0 02:W3-LID-Out      7.73      .358 1984.0812_ 7:00  258.62  n/a     .000
04169>                         +    5.0 02:W4-LID-Out      7.77      .335 1984.0812_ 7:00  239.62  n/a     .000
04170>                         +    5.0 02:W5-LID-Out      4.76      .199 1984.0812_ 7:00  230.18  n/a     .000
04171>                         +    5.0 02:W6-LID-Out      5.99      .297 1984.0812_ 7:00  274.64  n/a     .000
04172>                       SUM=   5.0 01:BCD-PH3-LI     37.36     1.615 1984.0812_ 7:00  240.60  n/a     .000
04173> ************************************************************************************************************
04174> #                    Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
04175> ************************************************************************************************************
04176> #                    Set infiltration to 0 (CN = 99.99) for water balance analysis
04177> ************************************************************************************************************
04178> R0084:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04179>      CONTINUOUS STANDHYD    5.0 01:INF-W1          5.76      .253 1984.0812_ 7:00  289.40 .630     .000
04180>        [XIMP=.55:TIMP=.66]
04181>        [LOSS= 2 :CN=100.0]
04182>        [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04183>        [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
04184>        [IaRECimp=   1.50: IaRECper=   6.00]
04185>        [SMIN=  1.39: SMAX=  9.24: SK= .000]
04186> R0084:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04187>      CONTINUOUS STANDHYD    5.0 01:INF-W2          8.51      .357 1984.0812_ 7:00  277.94 .605     .000
04188>        [XIMP=.50:TIMP=.60]
04189>        [LOSS= 2 :CN=100.0]
04190>        [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04191>        [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
04192>        [IaRECimp=   1.50: IaRECper=   6.00]
04193>        [SMIN=  1.39: SMAX=  9.24: SK= .000]
04194> R0084:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04195>      CONTINUOUS STANDHYD    5.0 01:INF-W3         10.03      .449 1984.0812_ 7:00  308.99 .673     .000
04196>        [XIMP=.66:TIMP=.76]
04197>        [LOSS= 2 :CN=100.0]
04198>        [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04199>        [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
04200>        [IaRECimp=   1.50: IaRECper=   6.00]
04201>        [SMIN=  1.39: SMAX=  9.24: SK= .000]
04202> R0084:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04203>      CONTINUOUS STANDHYD    5.0 01:INF-W4         10.11      .441 1984.0812_ 7:00  297.26 .647     .000
04204>        [XIMP=.60:TIMP=.70]
04205>        [LOSS= 2 :CN=100.0]
04206>        [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04207>        [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
04208>        [IaRECimp=   1.50: IaRECper=   6.00]
04209>        [SMIN=  1.39: SMAX=  9.24: SK= .000]
04210> R0084:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04211>      CONTINUOUS STANDHYD    5.0 01:INF-W5          6.20      .270 1984.0812_ 7:00  291.44 .634     .000
04212>        [XIMP=.57:TIMP=.67]
04213>        [LOSS= 2 :CN=100.0]
04214>        [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04215>        [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
04216>        [IaRECimp=   1.50: IaRECper=   6.00]
04217>        [SMIN=  1.39: SMAX=  9.24: SK= .000]
04218> R0084:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04219>      CONTINUOUS STANDHYD    5.0 01:INF-W6          7.81      .358 1984.0812_ 7:00  318.96 .694     .000
04220>        [XIMP=.71:TIMP=.81]
04221>        [LOSS= 2 :CN=100.0]
04222>        [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04223>        [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
04224>        [IaRECimp=   1.50: IaRECper=   6.00]
04225>        [SMIN=  1.39: SMAX=  9.24: SK= .000]
04226> R0084:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04227>      ADD HYD                5.0 02:INF-W1          5.76      .253 1984.0812_ 7:00  289.40  n/a     .000
04228>                         +    5.0 02:INF-W2          8.51      .357 1984.0812_ 7:00  277.94  n/a     .000
04229>                         +    5.0 02:INF-W3         10.03      .449 1984.0812_ 7:00  308.99  n/a     .000
04230>                         +    5.0 02:INF-W4         10.11      .441 1984.0812_ 7:00  297.26  n/a     .000
04231>                         +    5.0 02:INF-W5          6.20      .270 1984.0812_ 7:00  291.44  n/a     .000
04232>                         +    5.0 02:INF-W6          7.81      .358 1984.0812_ 7:00  318.96  n/a     .000
04233>                       SUM=   5.0 01:INF-BCD-PH     48.42     2.127 1984.0812_ 7:00  298.11  n/a     .000
04234> ##############################################################################
04235> # CONTINUOUS RAINFALL DATA
04236> ##############################################################################
04237>  ** END OF RUN :   84
04238>
04239> ************************************************************************************
04240>
04241>
04242>
04243>
04244>
04245>  RUN#:COMMAND#
04246> R0085:C00001------------------------------------------------------------------------------
04247>      START
04248>        [TZERO =    .00 hrs on 19850101]
04249>        [METOUT=  2     (1=imperial, 2=metric output)]
04250>        [NSTORM=  0 ]
04251>        [NRUN  = 0085 ]
04252> ************************************************************************************
04253> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
04254> ************************************************************************************
04255> #  Project Name: Barrhaven Conservancy Development
04256> #  Project Number: 1474
04257> #  Date     : 2021/Oct/18
04258> #  Modeller    : J.Burnett, P.Eng.
04259> #  Updated     : 2024/Mar/14 [LP]
04260> #  Company     : J.F. Sabourin and Associates
04261> #  License #   : 2582634
04262> ************************************************************************************
04263> # Ottawa International Airport (1967 - 2003)
04264> R0085:C00002------------------------------------------------------------------------------
04265>  *  READ AES DATA
04266>        [Filename  = YOW_1967_2007.123                                    ]
04267>        [Start_date= 1985.0101: End_date= 1985.1231]
04268>        [DT= 60.min: Length= 8760.hrs: WetHrs=  354: DryHrs= 8406: PTOT= 559.90)
04269>        Maximum average rainfall intensities over
04270>          1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
04271>          19.00    13.60    11.23     7.33     6.60     3.30     1.65     1.11      .89      .60    mm/hr
04272>          19.00    27.20    35.20    39.60    39.60    39.60    40.10    42.80    43.40     mm
04273>        19850716 19850617 19850617 19850618 19850618 19850618 19850618 19850827 19850827  date
04274>        Number of rainfall events per following interevent time
04275>          1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
04276>            108       88       84       74       69       56       49       43       32
04277>        Number of events with at least the following durations
04278>          1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
04279>            107       70       43       13        4        1        0        0        0
04280> R0085:C00003------------------------------------------------------------------------------
04281>      COMPUTE API
04282>        [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
04283>        [APImax= 57.29: APIavg= 15.86: APImin=  .20]
04284> ************************************************************************************************************
04285> #              Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
04286> ************************************************************************************************************
04287> R0085:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04288>      CONTINUOUS STANDHYD    5.0 01:W1              5.76      .178 1985.0716_14:00  274.48 .490     .000
04289>        [XIMP=.55:TIMP=.66]
04290>        [LOSS= 2 :CN= 71.0]
04291>        [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04292>        [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
04293>        [IaRECimp=   1.50: IaRECper=   6.00]
04294>        [SMIN= 41.38: SMAX=275.84: SK= .030]
04295> # LID for Outlet W1 (14 catchbasins, 30 m long trench each)
04296> # Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04297> # Total Volume provided by LID  - 96 m³
04298> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04299> R0085:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04300>      ROUTE RESERVOIR ->     5.0 02:W1              5.76      .178 1985.0716_14:00  274.48  n/a     .000
04301>                       out <=    5.0 01:W1-LID        1.27      .001 1985.0223_12:20  274.49  n/a     .000
04302>              overflow <=    5.0 03:W1-LID-Out      4.49      .176 1985.0716_14:00  274.48  n/a     .000
04303>        (MxStoUsed=.9596E-02  m3, TotOvfVol=.1231E+01  m3, N-Ovf=   77, TotDurOvf=  150.hrs)
04304> R0085:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04305>      CONTINUOUS STANDHYD    5.0 01:W2              8.51      .240 1985.0716_14:00  253.27 .452     .000
04306>        [XIMP=.50:TIMP=.60]
04307>        [LOSS= 2 :CN= 71.0]
04308>        [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
04309>        [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
04310>        [IaRECimp=   1.50: IaRECper=   6.00]
04311>        [SMIN= 41.38: SMAX=275.84: SK= .030]
04312> # LID for Outlet W2 (19 catchbasins, 30 m long trench each)
04313> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
04314> # Total Volume provided by LID  - 131 m³
04315> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
04316> R0085:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
04317>      ROUTE RESERVOIR ->     5.0 02:W2              8.51      .240 1985.0716_14:00  253.27  n/a     .000
04318>                       out <=    5.0 01:W2-LID        1.90      .001 1985.0223_12:25  253.28  n/a     .000
04319>              overflow <=    5.0 03:W2-LID-Out      6.61      .237 1985.0716_14:00  253.27  n/a     .000
04320>        (MxStoUsed=.1310E-01  m3, TotOvfVol=.1675E+01  m3, N-Ovf=   84, TotDurOvf=  151.hrs)
```

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R0085:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3            10.03     .363 1985.0716_14:00  318.35 .569     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0085:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3            10.03     .363 1985.0716_14:00  318.35  n/a     .000
                out <=    5.0 01:W3-LID         2.27     .001 1985.0222_ 9:15  318.34  n/a     .000
           overflow <=    5.0 03:W3-LID-Out     7.76     .359 1985.0716_14:00  318.35  n/a     .000
     {MxStoUsed=.1930E-01  m3, TotOvfVol=.2470E+01  m3, N-Ovf=   85, TotDurOvf=  148.hrs}
R0085:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4            10.11     .336 1985.0716_14:00  293.85 .525     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0085:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4            10.11     .336 1985.0716_14:00  293.85  n/a     .000
                out <=    5.0 01:W4-LID         2.33     .001 1985.0223_12:30  293.85  n/a     .000
           overflow <=    5.0 03:W4-LID-Out     7.78     .332 1985.0716_14:00  293.85  n/a     .000
     {MxStoUsed=.1860E-01  m3, TotOvfVol=.2287E+01  m3, N-Ovf=   74, TotDurOvf=  148.hrs}
R0085:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5             6.20     .198 1985.0716_14:00  281.65 .503     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0085:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5             6.20     .198 1985.0716_14:00  281.65  n/a     .000
                out <=    5.0 01:W5-LID         1.43     .001 1985.0223_12:30  281.65  n/a     .000
           overflow <=    5.0 03:W5-LID-Out     4.77     .195 1985.0716_14:00  281.65  n/a     .000
     {MxStoUsed=.1100E-01  m3, TotOvfVol=.1343E+01  m3, N-Ovf=   85, TotDurOvf=  147.hrs}
R0085:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6             7.81     .306 1985.0716_14:00  338.94 .605     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0085:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6             7.81     .306 1985.0716_14:00  338.94  n/a     .000
                out <=    5.0 01:W6-LID         1.80     .001 1985.0222_ 9:25  338.94  n/a     .000
           overflow <=    5.0 03:W6-LID-Out     6.01     .302 1985.0716_14:00  338.94  n/a     .000
     {MxStoUsed=.1649E-01  m3, TotOvfVol=.2038E+01  m3, N-Ovf=   82, TotDurOvf=  145.hrs}
R0085:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1             5.76     .178 1985.0716_14:00  274.48  n/a     .000
                    +     5.0 02:W2             8.51     .240 1985.0716_14:00  253.27  n/a     .000
                    +     5.0 02:W3            10.03     .363 1985.0716_14:00  318.35  n/a     .000
                    +     5.0 02:W4            10.11     .336 1985.0716_14:00  293.85  n/a     .000
                    +     5.0 02:W5             6.20     .198 1985.0716_14:00  281.65  n/a     .000
                    +     5.0 02:W6             7.81     .306 1985.0716_14:00  338.94  n/a     .000
                 SUM=     5.0 01:BCD-PH3       48.42    1.621 1985.0716_14:00  295.20  n/a     .000
R0085:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out     4.49     .176 1985.0716_14:00  274.48  n/a     .000
                    +     5.0 02:W2-LID-Out     6.61     .237 1985.0716_14:00  253.27  n/a     .000
                    +     5.0 02:W3-LID-Out     7.76     .359 1985.0716_14:00  318.35  n/a     .000
                    +     5.0 02:W4-LID-Out     7.78     .332 1985.0716_14:00  293.85  n/a     .000
                    +     5.0 02:W5-LID-Out     4.77     .195 1985.0716_14:00  281.65  n/a     .000
                    +     5.0 02:W6-LID-Out     6.01     .302 1985.0716_14:00  338.94  n/a     .000
                 SUM=     5.0 01:BCD-PH3-LI    37.42    1.601 1985.0716_14:00  295.13  n/a     .000
#****************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#****************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#****************************************************************************************************
R0085:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .254 1985.0716_14:00  361.80 .646     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0085:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2         8.51     .350 1985.0716_14:00  347.74 .621     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0085:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3        10.03     .456 1985.0716_14:00  386.27 .690     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0085:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4        10.11     .442 1985.0716_14:00  371.72 .664     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0085:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W5         6.20     .274 1985.0716_14:00  364.50 .651     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0085:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W6         7.81     .372 1985.0716_14:00  398.56 .712     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0085:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-W1         5.76     .254 1985.0716_14:00  361.80  n/a     .000
                    +     5.0 02:INF-W2         8.51     .350 1985.0716_14:00  347.74  n/a     .000
                    +     5.0 02:INF-W3        10.03     .456 1985.0716_14:00  386.27  n/a     .000
                    +     5.0 02:INF-W4        10.11     .442 1985.0716_14:00  371.72  n/a     .000
                    +     5.0 02:INF-W5         6.20     .274 1985.0716_14:00  364.50  n/a     .000
                    +     5.0 02:INF-W6         7.81     .372 1985.0716_14:00  398.56  n/a     .000
                 SUM=     5.0 01:INF-BCD-PH    48.42    2.148 1985.0716_14:00  372.74  n/a     .000
################################################################################
# CONTINUOUS RAINFALL DATA
################################################################################
  ** END OF RUN :   85

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

 RUN#:COMMAND#
R0086:C00001----------------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19860101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0086 ]
#****************************************************************************************************
#  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      : 2024/Mar/14 [LP]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#****************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0086:C00002----------------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                          ]
      [Start_date= 1986.0101: End_date= 1986.1231]
      {DT= 60.min: Length= 8040.hrs: WetHrs=  520: DryHrs= 7520: PTOT= 849.40}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       18.30    17.80    13.57     7.07     4.84     2.89     2.42     1.85     1.31    mm/hr
       18.30    35.60    40.70    42.40    58.10    69.30    87.00    88.60    94.40    mm
      19860729 19860729 19860729 19860729 19860912 19860912 19860912 19860912 19860913  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         178      144      131      104       80       63       53       48       33
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         177      104       76       24        2        0        0        0        0
R0086:C00003----------------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax=102.23: APIavg= 25.30: APImin=   .17}
#****************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#****************************************************************************************************
R0086:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W1             5.76     .222 1986.0729_15:00  447.81 .527     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0086:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W1             5.76     .222 1986.0729_15:00  447.81  n/a     .000
                out <=    5.0 01:W1-LID         1.11     .001 1986.0119_19:25  447.82  n/a     .000
           overflow <=    5.0 03:W1-LID-Out     4.65     .218 1986.0729_15:00  447.81  n/a     .000
     {MxStoUsed=.9601E-02  m3, TotOvfVol=.2082E+01  m3, N-Ovf=  161, TotDurOvf=  209.hrs}
R0086:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W2             8.51     .311 1986.0729_15:00  418.92 .493     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0086:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2             8.51     .311 1986.0729_15:00  418.93  n/a     .000
                out <=    5.0 01:W2-LID         1.64     .001 1986.0119_19:30  418.93  n/a     .000
           overflow <=    5.0 03:W2-LID-Out     6.87     .304 1986.0729_15:00  418.93  n/a     .000
     {MxStoUsed=.1310E-01  m3, TotOvfVol=.2878E+01  m3, N-Ovf=  166, TotDurOvf=  212.hrs}
R0086:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3            10.03     .420 1986.0729_15:00  505.22 .595     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0086:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3            10.03     .420 1986.0729_15:00  505.22  n/a     .000
                out <=    5.0 01:W3-LID         2.06     .001 1986.0119_19:25  505.21  n/a     .000
           overflow <=    5.0 03:W3-LID-Out     7.97     .414 1986.0729_15:00  505.22  n/a     .000
     {MxStoUsed=.1929E-01  m3, TotOvfVol=.4026E+01  m3, N-Ovf=  159, TotDurOvf=  206.hrs}
R0086:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4            10.11     .402 1986.0729_15:00  472.67 .556     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0086:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4            10.11     .402 1986.0729_15:00  472.68  n/a     .000
                out <=    5.0 01:W4-LID         2.07     .001 1986.0119_19:30  472.69  n/a     .000
           overflow <=    5.0 03:W4-LID-Out     8.04     .396 1986.0729_15:00  472.68  n/a     .000
     {MxStoUsed=.1859E-01  m3, TotOvfVol=.3799E+01  m3, N-Ovf=  160, TotDurOvf=  209.hrs}
R0086:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5             6.20     .241 1986.0729_15:00  456.50 .537     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0086:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5             6.20     .241 1986.0729_15:00  456.50  n/a     .000
                out <=    5.0 01:W5-LID         1.26     .001 1986.0119_19:30  456.50  n/a     .000
           overflow <=    5.0 03:W5-LID-Out     4.94     .237 1986.0729_15:00  456.50  n/a     .000
     {MxStoUsed=.1100E-01  m3, TotOvfVol=.2253E+01  m3, N-Ovf=  170, TotDurOvf=  203.hrs}
R0086:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6             7.81     .341 1986.0729_15:00  532.62 .627     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0086:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6             7.81     .341 1986.0729_15:00  532.62  n/a     .000
                out <=    5.0 01:W6-LID         1.64     .001 1986.0119_19:25  532.63  n/a     .000
           overflow <=    5.0 03:W6-LID-Out     6.17     .337 1986.0729_15:00  532.62  n/a     .000
     {MxStoUsed=.1648E-01  m3, TotOvfVol=.3286E+01  m3, N-Ovf=  154, TotDurOvf=  204.hrs}
R0086:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1             5.76     .222 1986.0729_15:00  447.81  n/a     .000
                    +     5.0 02:W2             8.51     .311 1986.0729_15:00  418.93  n/a     .000
                    +     5.0 02:W3            10.03     .420 1986.0729_15:00  505.22  n/a     .000
                    +     5.0 02:W4            10.11     .402 1986.0729_15:00  472.68  n/a     .000
                    +     5.0 02:W5             6.20     .241 1986.0729_15:00  456.50  n/a     .000
                    +     5.0 02:W6             7.81     .341 1986.0729_15:00  532.62  n/a     .000
                 SUM=     5.0 01:BCD-PH3       48.42    1.937 1986.0729_15:00  474.61  n/a     .000
R0086:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out     4.65     .218 1986.0729_15:00  447.81  n/a     .000
                    +     5.0 02:W2-LID-Out     6.87     .304 1986.0729_15:00  418.93  n/a     .000
                    +     5.0 02:W3-LID-Out     7.97     .414 1986.0729_15:00  505.22  n/a     .000
                    +     5.0 02:W4-LID-Out     8.04     .396 1986.0729_15:00  472.68  n/a     .000
                    +     5.0 02:W5-LID-Out     4.94     .237 1986.0729_15:00  456.50  n/a     .000
                    +     5.0 02:W6-LID-Out     6.17     .337 1986.0729_15:00  532.62  n/a     .000
                 SUM=     5.0 01:BCD-PH3-LI    38.63    1.905 1986.0729_15:00  474.34  n/a     .000
#****************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#****************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#****************************************************************************************************
R0086:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .283 1986.0729_15:00  551.31 .649     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0086:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2         8.51     .412 1986.0729_15:00  531.43 .626     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0086:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3        10.03     .496 1986.0729_15:00  585.29 .689     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0086:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4        10.11     .495 1986.0729_15:00  564.94 .665     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0086:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W5         6.20     .304 1986.0729_15:00  554.85 .653     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
```

```
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0086:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W6         7.81     .390 1986.0729_15:00  602.49 .709     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0086:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD              5.0 02:INF-W1         5.76     .283 1986.0729_15:00  551.31  n/a     .000
                 +       5.0 02:INF-W2         8.51     .412 1986.0729_15:00  531.43  n/a     .000
                 +       5.0 02:INF-W3        10.03     .496 1986.0729_15:00  585.29  n/a     .000
                 +       5.0 02:INF-W4        10.11     .495 1986.0729_15:00  564.95  n/a     .000
                 +       5.0 02:INF-W5         6.20     .304 1986.0729_15:00  554.85  n/a     .000
                 +       5.0 02:INF-W6         7.81     .390 1986.0729_15:00  602.49  n/a     .000
              SUM=       5.0 01:INF-BCD-PH    48.42    2.379 1986.0729_15:00  566.41  n/a     .000
################################################################################
# CONTINUOUS RAINFALL DATA
################################################################################
  ** END OF RUN :   86

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

 RUN#:COMMAND#
R0087:C00001----------------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19870101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0087 ]
#*******************************************************************************************************
#  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      : 2024/Mar/14 [LP]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#*******************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0087:C00002----------------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                          ]
      [Start_date= 1987.0101: End_date= 1987.1231]
      {DT= 60.min: Length= 7344.hrs: WetHrs=  492: DryHrs= 6852: PTOT= 640.10}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       20.00    13.90    14.03     7.05     4.87     2.46     1.84     1.40      .93    mm/hr
       20.00    27.80    42.10    42.30    58.40    59.00    66.40    67.00    67.00    mm
      19870724 19870724 19870724 19870724 19870724 19870725 19870725 19870726 19870726  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         180      147      128       93       74       55       49       41       28
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         179       94       60       20        3        0        0        0        0
R0087:C00003----------------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 75.76: APIavg= 21.41: APImin=  1.18}
#*******************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*******************************************************************************************************
R0087:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W1             5.76     .190 1987.0724_13:00  294.46 .460     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0087:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W1             5.76     .190 1987.0724_13:00  294.46  n/a     .000
                out <=    5.0 01:W1-LID         1.50     .001 1987.0326_15:25  294.46  n/a     .000
           overflow <=    5.0 03:W1-LID-Out     4.26     .187 1987.0724_13:00  294.46  n/a     .000
     {MxStoUsed=.9600E-02  m3, TotOvfVol=.1255E+01  m3, N-Ovf=  131, TotDurOvf=  163.hrs}
R0087:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W2             8.51     .257 1987.0724_13:00  272.79 .426     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0087:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2             8.51     .257 1987.0724_13:00  272.78  n/a     .000
                out <=    5.0 01:W2-LID         2.23     .001 1987.0326_15:45  272.79  n/a     .000
           overflow <=    5.0 03:W2-LID-Out     6.28     .252 1987.0724_13:00  272.78  n/a     .000
     {MxStoUsed=.1310E-01  m3, TotOvfVol=.1714E+01  m3, N-Ovf=  128, TotDurOvf=  165.hrs}
R0087:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3            10.03     .386 1987.0724_13:00  338.63 .529     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0087:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3            10.03     .386 1987.0724_13:00  338.63  n/a     .000
                out <=    5.0 01:W3-LID         2.72     .001 1987.0326_15:20  338.62  n/a     .000
           overflow <=    5.0 03:W3-LID-Out     7.31     .381 1987.0724_13:00  338.63  n/a     .000
     {MxStoUsed=.1928E-01  m3, TotOvfVol=.2476E+01  m3, N-Ovf=  136, TotDurOvf=  163.hrs}
R0087:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4            10.11     .357 1987.0724_13:00  313.83 .490     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0087:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4            10.11     .357 1987.0724_13:00  313.83  n/a     .000
                out <=    5.0 01:W4-LID         2.77     .001 1987.0326_15:50  313.84  n/a     .000
           overflow <=    5.0 03:W4-LID-Out     7.34     .352 1987.0724_13:00  313.83  n/a     .000
     {MxStoUsed=.1860E-01  m3, TotOvfVol=.2305E+01  m3, N-Ovf=  134, TotDurOvf=  162.hrs}
R0087:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5             6.20     .211 1987.0724_13:00  301.51 .471     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0087:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5             6.20     .211 1987.0724_13:00  301.51  n/a     .000
                out <=    5.0 01:W5-LID         1.70     .001 1987.0326_16:00  301.51  n/a     .000
           overflow <=    5.0 03:W5-LID-Out     4.50     .208 1987.0724_13:00  301.51  n/a     .000
     {MxStoUsed=.1099E-01  m3, TotOvfVol=.1358E+01  m3, N-Ovf=  130, TotDurOvf=  159.hrs}
R0087:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6             7.81     .322 1987.0724_13:00  359.51 .562     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0087:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6             7.81     .322 1987.0724_13:00  359.51  n/a     .000
                out <=    5.0 01:W6-LID         2.15     .001 1987.0326_15:25  359.52  n/a     .000
           overflow <=    5.0 03:W6-LID-Out     5.66     .319 1987.0724_13:00  359.51  n/a     .000
     {MxStoUsed=.1649E-01  m3, TotOvfVol=.2033E+01  m3, N-Ovf=  137, TotDurOvf=  162.hrs}
R0087:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1             5.76     .190 1987.0724_13:00  294.46  n/a     .000
                 +        5.0 02:W2             8.51     .257 1987.0724_13:00  272.78  n/a     .000
                 +        5.0 02:W3            10.03     .386 1987.0724_13:00  338.63  n/a     .000
                 +        5.0 02:W4            10.11     .357 1987.0724_13:00  313.83  n/a     .000
                 +        5.0 02:W5             6.20     .211 1987.0724_13:00  301.51  n/a     .000
                 +        5.0 02:W6             7.81     .322 1987.0724_13:00  359.51  n/a     .000
              SUM=        5.0 01:BCD-PH3       48.42    1.723 1987.0724_13:00  315.24  n/a     .000
R0087:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out     4.26     .187 1987.0724_13:00  294.46  n/a     .000
                 +        5.0 02:W2-LID-Out     6.28     .252 1987.0724_13:00  272.78  n/a     .000
                 +        5.0 02:W3-LID-Out     7.31     .381 1987.0724_13:00  338.63  n/a     .000
                 +        5.0 02:W4-LID-Out     7.34     .352 1987.0724_13:00  313.83  n/a     .000
                 +        5.0 02:W5-LID-Out     4.50     .208 1987.0724_13:00  301.51  n/a     .000
                 +        5.0 02:W6-LID-Out     5.66     .319 1987.0724_13:00  359.51  n/a     .000
              SUM=        5.0 01:BCD-PH3-LI    35.36    1.699 1987.0724_13:00  315.07  n/a     .000
#*******************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*******************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#*******************************************************************************************************
R0087:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .267 1987.0724_13:00  367.26 .574     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0087:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2         8.51     .368 1987.0724_13:00  350.74 .548     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0087:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3        10.03     .479 1987.0724_13:00  396.13 .619     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0087:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4        10.11     .465 1987.0724_13:00  378.87 .592     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0087:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W5         6.20     .289 1987.0724_13:00  370.36 .579     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0087:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W6         7.81     .392 1987.0724_13:00  410.80 .642     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0087:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-W1         5.76     .267 1987.0724_13:00  367.27  n/a     .000
                 +        5.0 02:INF-W2         8.51     .368 1987.0724_13:00  350.74  n/a     .000
                 +        5.0 02:INF-W3        10.03     .479 1987.0724_13:00  396.13  n/a     .000
                 +        5.0 02:INF-W4        10.11     .465 1987.0724_13:00  378.87  n/a     .000
                 +        5.0 02:INF-W5         6.20     .289 1987.0724_13:00  370.36  n/a     .000
                 +        5.0 02:INF-W6         7.81     .392 1987.0724_13:00  410.80  n/a     .000
              SUM=        5.0 01:INF-BCD-PH    48.42    2.260 1987.0724_13:00  380.18  n/a     .000
################################################################################
# CONTINUOUS RAINFALL DATA
################################################################################
  ** END OF RUN :   87

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

 RUN#:COMMAND#
R0088:C00001----------------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19880101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0088 ]
#*******************************************************************************************************
#  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      : 2024/Mar/14 [LP]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#*******************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0088:C00002----------------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                          ]
      [Start_date= 1988.0101: End_date= 1988.1230]
      {DT= 60.min: Length= 8760.hrs: WetHrs=  487: DryHrs= 8273: PTOT= 643.80}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       25.50    18.20    12.77     7.37     3.78     1.91     1.27      .95      .94    mm/hr
       25.50    36.40    38.30    44.20    45.40    45.80    45.80    45.80    67.40    mm
      19880917 19880726 19880625 19880625 19880625 19880625 19880625 19880626 19880625  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         165      130      109       80       66       56       49       42       26
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         164      102       71       20        5        0        0        0        0
R0088:C00003----------------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 66.04: APIavg= 18.06: APImin=   .03}
#*******************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*******************************************************************************************************
R0088:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W1             5.76     .259 1988.0726_13:00  295.21 .459     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0088:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W1             5.76     .259 1988.0726_13:00  295.21  n/a     .000
                out <=    5.0 01:W1-LID         1.50     .001 1988.0117_22:45  295.22  n/a     .000
           overflow <=    5.0 03:W1-LID-Out     4.26     .253 1988.0726_13:00  295.21  n/a     .000
     {MxStoUsed=.9601E-02  m3, TotOvfVol=.1258E+01  m3, N-Ovf=  120, TotDurOvf=  165.hrs}
R0088:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W2             8.51     .353 1988.0726_13:00  273.19 .424     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0088:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2             8.51     .353 1988.0726_13:00  273.19  n/a     .000
                out <=    5.0 01:W2-LID         2.23     .001 1988.0117_22:50  273.19  n/a     .000
           overflow <=    5.0 03:W2-LID-Out     6.28     .345 1988.0726_13:05  273.19  n/a     .000
     {MxStoUsed=.1310E-01  m3, TotOvfVol=.1714E+01  m3, N-Ovf=  119, TotDurOvf=  165.hrs}
R0088:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3            10.03     .514 1988.0726_13:00  340.15 .528     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0088:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3            10.03     .514 1988.0726_13:00  340.15  n/a     .000
                out <=    5.0 01:W3-LID         2.72     .001 1988.0117_22:40  340.14  n/a     .000
           overflow <=    5.0 03:W3-LID-Out     7.31     .505 1988.0726_13:00  340.15  n/a     .000
     {MxStoUsed=.1929E-01  m3, TotOvfVol=.2487E+01  m3, N-Ovf=  131, TotDurOvf=  165.hrs}
R0088:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4            10.11     .480 1988.0726_13:00  314.93 .489     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
```

```
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0088:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4            10.11     .480 1988.0726_13:00  314.93  n/a     .000
                 out <=    5.0 01:W4-LID          2.77     .001 1988.0117_22:50  314.95  n/a     .000
            overflow <=    5.0 03:W4-LID-Out     7.34     .471 1988.0726_13:00  314.93  n/a     .000
     {MxStoUsed=.1860E-01  m3, TotOvfVol=.2313E+01  m3, N-Ovf=  126, TotDurOvf=  163.hrs}
R0088:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5             6.20     .285 1988.0726_13:00  302.40 .470     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0088:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5             6.20     .285 1988.0726_13:00  302.40  n/a     .000
                 out <=    5.0 01:W5-LID          1.70     .001 1988.0117_22:50  302.39  n/a     .000
            overflow <=    5.0 03:W5-LID-Out     4.50     .279 1988.0726_13:00  302.40  n/a     .000
     {MxStoUsed=.1099E-01  m3, TotOvfVol=.1362E+01  m3, N-Ovf=  122, TotDurOvf=  159.hrs}
R0088:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6             7.81     .426 1988.0726_13:00  361.38 .561     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0088:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6             7.81     .426 1988.0726_13:00  361.38  n/a     .000
                 out <=    5.0 01:W6-LID          2.15     .001 1988.0117_22:40  361.38  n/a     .000
            overflow <=    5.0 03:W6-LID-Out     5.66     .419 1988.0726_13:00  361.38  n/a     .000
     {MxStoUsed=.1647E-01  m3, TotOvfVol=.2045E+01  m3, N-Ovf=  127, TotDurOvf=  162.hrs}
R0088:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1             5.76     .259 1988.0726_13:00  295.21  n/a     .000
                    +     5.0 02:W2             8.51     .353 1988.0726_13:00  273.19  n/a     .000
                    +     5.0 02:W3            10.03     .514 1988.0726_13:00  340.15  n/a     .000
                    +     5.0 02:W4            10.11     .480 1988.0726_13:00  314.93  n/a     .000
                    +     5.0 02:W5             6.20     .285 1988.0726_13:00  302.40  n/a     .000
                    +     5.0 02:W6             7.81     .426 1988.0726_13:00  361.38  n/a     .000
                 SUM=     5.0 01:BCD-PH3       48.42    2.318 1988.0726_13:00  316.36  n/a     .000
R0088:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out     4.26     .253 1988.0726_13:00  295.21  n/a     .000
                    +     5.0 02:W2-LID-Out     6.28     .345 1988.0726_13:05  273.19  n/a     .000
                    +     5.0 02:W3-LID-Out     7.31     .505 1988.0726_13:00  340.15  n/a     .000
                    +     5.0 02:W4-LID-Out     7.34     .471 1988.0726_13:00  314.93  n/a     .000
                    +     5.0 02:W5-LID-Out     4.50     .279 1988.0726_13:00  302.40  n/a     .000
                    +     5.0 02:W6-LID-Out     5.66     .419 1988.0726_13:00  361.38  n/a     .000
                 SUM=     5.0 01:BCD-PH3-LI    35.35    2.271 1988.0726_13:00  316.20  n/a     .000
#*****************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*****************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#*****************************************************************************************************
R0088:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .358 1988.0917_19:00  373.38 .580     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0088:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2         8.51     .511 1988.0917_19:00  357.59 .555     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0088:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3        10.03     .643 1988.0917_19:00  401.25 .623     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0088:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4        10.11     .632 1988.0917_19:00  384.68 .598     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0088:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W5         6.20     .386 1988.0917_19:00  376.49 .585     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0088:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W6         7.81     .514 1988.0917_19:00  415.36 .645     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0088:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-W1         5.76     .358 1988.0917_19:00  373.38  n/a     .000
                    +     5.0 02:INF-W2         8.51     .511 1988.0917_19:00  357.59  n/a     .000
                    +     5.0 02:INF-W3        10.03     .643 1988.0917_19:00  401.25  n/a     .000
                    +     5.0 02:INF-W4        10.11     .632 1988.0917_19:00  384.68  n/a     .000
                    +     5.0 02:INF-W5         6.20     .386 1988.0917_19:00  376.49  n/a     .000
                    +     5.0 02:INF-W6         7.81     .514 1988.0917_19:00  415.36  n/a     .000
                 SUM=     5.0 01:INF-BCD-PH    48.42    3.044 1988.0917_19:00  385.91  n/a     .000
###############################################################################
# CONTINUOUS RAINFALL DATA
###############################################################################
  ** END OF RUN :   88
*****************************************************************************************
 RUN#:COMMAND#
R0089:C00001-----------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19890101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0089 ]
#*****************************************************************************************************
#  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      : 2024/Mar/14 [LP]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#*****************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0089:C00002-----------------------------------------------------------------------------------
   *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                          ]
      [Start_date= 1989.0101: End_date= 1989.1231]
      {DT= 60.min: Length= 8040.hrs: WetHrs=  422: DryHrs= 7618: PTOT= 523.20}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       22.70    12.60     8.93     5.75     3.03     1.69     1.14      .86      .59    mm/hr
       22.70    25.20    26.80    34.50    36.30    40.60    40.90    41.30    42.50    mm
      19890727 19890727 19890727 19890727 19890727 19891020 19891021 19891021 19891022  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         151      125      108       89       67       53       42       37       29
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         150       81       52       19        5        0        0        0        0
R0089:C00003-----------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 55.10: APIavg= 16.03: APImin=   .02}
#*****************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*****************************************************************************************************
R0089:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W1             5.76     .231 1989.0727_15:00  233.88 .447     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0089:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W1             5.76     .231 1989.0727_15:00  233.88  n/a     .000
                 out <=    5.0 01:W1-LID          1.54     .001 1989.0325_13:30  233.89  n/a     .000
            overflow <=    5.0 03:W1-LID-Out     4.22     .227 1989.0727_15:00  233.88  n/a     .000
     {MxStoUsed=.9599E-02  m3, TotOvfVol=.9859E+00  m3, N-Ovf=  100, TotDurOvf=  156.hrs}
R0089:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W2             8.51     .315 1989.0727_15:00  215.57 .412     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0089:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2             8.51     .315 1989.0727_15:00  215.57  n/a     .000
                 out <=    5.0 01:W2-LID          2.31     .001 1989.0325_13:35  215.57  n/a     .000
            overflow <=    5.0 03:W2-LID-Out     6.20     .308 1989.0727_15:00  215.57  n/a     .000
     {MxStoUsed=.1310E-01  m3, TotOvfVol=.1337E+01  m3, N-Ovf=  103, TotDurOvf=  156.hrs}
R0089:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3            10.03     .460 1989.0727_15:00  271.80 .520     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0089:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3            10.03     .460 1989.0727_15:00  271.80  n/a     .000
                 out <=    5.0 01:W3-LID          2.78     .001 1989.0325_13:30  271.80  n/a     .000
            overflow <=    5.0 03:W3-LID-Out     7.25     .452 1989.0727_15:00  271.80  n/a     .000
     {MxStoUsed=.1930E-01  m3, TotOvfVol=.1971E+01  m3, N-Ovf=  100, TotDurOvf=  156.hrs}
R0089:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4            10.11     .429 1989.0727_15:00  250.63 .479     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0089:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4            10.11     .429 1989.0727_15:00  250.63  n/a     .000
                 out <=    5.0 01:W4-LID          2.83     .001 1989.0325_13:35  250.63  n/a     .000
            overflow <=    5.0 03:W4-LID-Out     7.28     .422 1989.0727_15:00  250.63  n/a     .000
     {MxStoUsed=.1859E-01  m3, TotOvfVol=.1824E+01  m3, N-Ovf=   97, TotDurOvf=  155.hrs}
R0089:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5             6.20     .254 1989.0727_15:00  240.09 .459     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0089:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5             6.20     .254 1989.0727_15:00  240.09  n/a     .000
                 out <=    5.0 01:W5-LID          1.74     .001 1989.0325_13:35  240.09  n/a     .000
            overflow <=    5.0 03:W5-LID-Out     4.46     .250 1989.0727_15:00  240.09  n/a     .000
     {MxStoUsed=.1100E-01  m3, TotOvfVol=.1071E+01  m3, N-Ovf=   99, TotDurOvf=  153.hrs}
R0089:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6             7.81     .381 1989.0727_15:00  289.61 .554     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0089:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6             7.81     .381 1989.0727_15:00  289.61  n/a     .000
                 out <=    5.0 01:W6-LID          2.19     .001 1989.0325_13:30  289.61  n/a     .000
            overflow <=    5.0 03:W6-LID-Out     5.62     .376 1989.0727_15:00  289.61  n/a     .000
     {MxStoUsed=.1649E-01  m3, TotOvfVol=.1627E+01  m3, N-Ovf=   99, TotDurOvf=  154.hrs}
R0089:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1             5.76     .231 1989.0727_15:00  233.88  n/a     .000
                    +     5.0 02:W2             8.51     .315 1989.0727_15:00  215.57  n/a     .000
                    +     5.0 02:W3            10.03     .460 1989.0727_15:00  271.80  n/a     .000
                    +     5.0 02:W4            10.11     .429 1989.0727_15:00  250.63  n/a     .000
                    +     5.0 02:W5             6.20     .254 1989.0727_15:00  240.09  n/a     .000
                    +     5.0 02:W6             7.81     .381 1989.0727_15:00  289.61  n/a     .000
                 SUM=     5.0 01:BCD-PH3       48.42    2.071 1989.0727_15:00  251.80  n/a     .000
R0089:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out     4.22     .227 1989.0727_15:00  233.88  n/a     .000
                    +     5.0 02:W2-LID-Out     6.20     .308 1989.0727_15:00  215.57  n/a     .000
                    +     5.0 02:W3-LID-Out     7.25     .452 1989.0727_15:00  271.80  n/a     .000
                    +     5.0 02:W4-LID-Out     7.28     .422 1989.0727_15:00  250.63  n/a     .000
                    +     5.0 02:W5-LID-Out     4.46     .250 1989.0727_15:00  240.09  n/a     .000
                    +     5.0 02:W6-LID-Out     5.62     .376 1989.0727_15:00  289.61  n/a     .000
                 SUM=     5.0 01:BCD-PH3-LI    35.03    2.034 1989.0727_15:00  251.70  n/a     .000
#*****************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*****************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#*****************************************************************************************************
R0089:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .334 1989.0727_15:00  301.09 .575     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0089:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2         8.51     .482 1989.0727_15:00  287.73 .550     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0089:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3        10.03     .592 1989.0727_15:00  324.51 .620     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0089:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4        10.11     .587 1989.0727_15:00  310.62 .594     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0089:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W5         6.20     .360 1989.0727_15:00  303.72 .581     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0089:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W6         7.81     .469 1989.0727_15:00  336.27 .643     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0089:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-W1         5.76     .334 1989.0727_15:00  301.09  n/a     .000
                    +     5.0 02:INF-W2         8.51     .482 1989.0727_15:00  287.73  n/a     .000
                    +     5.0 02:INF-W3        10.03     .592 1989.0727_15:00  324.51  n/a     .000
                    +     5.0 02:INF-W4        10.11     .587 1989.0727_15:00  310.62  n/a     .000
                    +     5.0 02:INF-W5         6.20     .360 1989.0727_15:00  303.72  n/a     .000
                    +     5.0 02:INF-W6         7.81     .469 1989.0727_15:00  336.27  n/a     .000
                 SUM=     5.0 01:INF-BCD-PH    48.42    2.824 1989.0727_15:00  311.59  n/a     .000
###############################################################################
# CONTINUOUS RAINFALL DATA
###############################################################################
  ** END OF RUN :   89
*****************************************************************************************
```

```
05401>
05402>
05403>
05404>
05405>  RUN#:COMMAND#
05406> R0090:C00001-------------------------------------------------------------------------------
05407>       START
05408>         [TZERO =    .00 hrs on 19900101]
05409>         [METOUT=   2    (1=imperial, 2=metric output)]
05410>         [NSTORM=   0 ]
05411>         [NRUN  = 0090 ]
05412> #*****************************************************************************************
05413> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
05414> #*****************************************************************************************
05415> #  Project Name: Barrhaven Conservancy Development
05416> #  Project Number: 1474
05417> #  Date        : 2021/Oct/18
05418> #  Modeller    : J.Burnett, P.Eng.
05419> #  Updated     : 2024/Mar/14 [LP]
05420> #  Company     : J.F. Sabourin and Associates
05421> #  License #   : 2582634
05422> #*****************************************************************************************
05423> # Ottawa International Airport (1967 - 2003)
05424> R0090:C00002-------------------------------------------------------------------------------
05425>   *  READ AES DATA
05426>         [Filename  = YOW_1967_2007.123                                          ]
05427>         [Start_date= 1990.0101: End_date= 1990.1231]
05428>         [DT= 60.min: Length= 7344.hrs: WetHrs=  618: DryHrs= 6726: PTOT= 727.80)
05429>         Maximum average rainfall intensities over
05430>           1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05431>          20.60    12.25     9.60     5.58     4.43     2.25     1.50     1.23     1.06    mm/hr
05432>          20.60    24.50    28.80    33.50    53.20    54.00    54.00    59.00    76.60    mm
05433>         19900720 19900720 19900828 19900828 19900720 19900720 19900720 19900722 19900723  date
05434>         Number of rainfall events per following interevent time
05435>           1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05436>            204      156      141      107       84       66       56       47       33
05437>         Number of events with at least the following durations
05438>           1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05439>            203      116       75       31        6        1        0        0        0
05440> R0090:C00003-------------------------------------------------------------------------------
05441>       COMPUTE API
05442>         [APIinit= 50.00: APIkdy= .9000: APIkdt= .9956]
05443>         [APImax= 75.10: APIavg= 23.47: APImin=  3.10]
05444> #*****************************************************************************************
05445> #                 Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
05446> #*****************************************************************************************
05447> R0090:C00004-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05448>       CONTINUOUS STANDHYD    5.0 01:W1          5.76     .205 1990.0720_ 5:00  343.66 .472     .000
05449>         [XIMP=.55:TIMP=.66]
05450>         [LOSS= 2 :CN= 71.0]
05451>         [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05452>         [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
05453>         [IaRECimp=   1.50: IaRECper=   6.00]
05454>         [SMIN= 41.38: SMAX=275.84: SK= .030]
05455> # LID for Outlet W1 (14 catchbasins, 30 m long trench each)
05456> # Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05457> # Total Volume provided by LID  - 96 m³
05458> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05459> R0090:C00005-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05460>       ROUTE RESERVOIR ->     5.0 02:W1          5.76     .205 1990.0720_ 5:00  343.66  n/a     .000
05461>                    out <=    5.0 01:W1-LID      1.38     .001 1990.0312_17:15  343.66  n/a     .000
05462>               overflow <=    5.0 03:W1-LID-Out  4.38     .202 1990.0720_ 5:00  343.66  n/a     .000
05463>        (MxStoUsed=.9601E-02  m3, TotOvfVol=.1506E+01  m3, N-Ovf=  133, TotDurOvf=  230.hrs)
05464> R0090:C00006-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05465>       CONTINUOUS STANDHYD    5.0 01:W2          8.51     .279 1990.0720_ 5:00  318.93 .438     .000
05466>         [XIMP=.50:TIMP=.60]
05467>         [LOSS= 2 :CN= 71.0]
05468>         [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05469>         [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
05470>         [IaRECimp=   1.50: IaRECper=   6.00]
05471>         [SMIN= 41.38: SMAX=275.84: SK= .030]
05472> # LID for Outlet W2 (19 catchbasins, 30 m long trench each)
05473> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05474> # Total Volume provided by LID  - 131 m³
05475> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05476> R0090:C00007-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05477>       ROUTE RESERVOIR ->     5.0 02:W2          8.51     .279 1990.0720_ 5:00  318.93  n/a     .000
05478>                    out <=    5.0 01:W2-LID      2.04     .001 1990.0312_17:20  318.94  n/a     .000
05479>               overflow <=    5.0 03:W2-LID-Out  6.47     .273 1990.0720_ 5:00  318.93  n/a     .000
05480>        (MxStoUsed=.1310E-01  m3, TotOvfVol=.2063E+01  m3, N-Ovf=  116, TotDurOvf=  230.hrs)
05481> R0090:C00008-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05482>       CONTINUOUS STANDHYD    5.0 01:W3         10.03     .411 1990.0720_ 5:00  393.94 .541     .000
05483>         [XIMP=.66:TIMP=.76]
05484>         [LOSS= 2 :CN= 71.0]
05485>         [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05486>         [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
05487>         [IaRECimp=   1.50: IaRECper=   6.00]
05488>         [SMIN= 41.38: SMAX=275.84: SK= .030]
05489> # LID for Outlet W3 (28 catchbasins, 30 m long trench each)
05490> # Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05491> # Total Volume provided by LID  - 193 m³
05492> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05493> R0090:C00009-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05494>       ROUTE RESERVOIR ->     5.0 02:W3         10.03     .411 1990.0720_ 5:00  393.94  n/a     .000
05495>                    out <=    5.0 01:W3-LID      2.50     .001 1990.0312_17:15  393.93  n/a     .000
05496>               overflow <=    5.0 03:W3-LID-Out  7.53     .405 1990.0720_ 5:00  393.94  n/a     .000
05497>        (MxStoUsed=.1929E-01  m3, TotOvfVol=.2965E+01  m3, N-Ovf=  125, TotDurOvf=  229.hrs)
05498> R0090:C00010-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05499>       CONTINUOUS STANDHYD    5.0 01:W4         10.11     .383 1990.0720_ 5:00  365.69 .502     .000
05500>         [XIMP=.60:TIMP=.70]
05501>         [LOSS= 2 :CN= 71.0]
05502>         [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05503>         [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
05504>         [IaRECimp=   1.50: IaRECper=   6.00]
05505>         [SMIN= 41.38: SMAX=275.84: SK= .030]
05506> # LID for Outlet W4 (27 catchbasins, 30 m long trench each)
05507> # Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05508> # Total Volume provided by LID  - 186 m³
05509> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05510> R0090:C00011-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05511>       ROUTE RESERVOIR ->     5.0 02:W4         10.11     .383 1990.0720_ 5:00  365.69  n/a     .000
05512>                    out <=    5.0 01:W4-LID      2.54     .001 1990.0312_17:20  365.70  n/a     .000
05513>               overflow <=    5.0 03:W4-LID-Out  7.57     .377 1990.0720_ 5:00  365.69  n/a     .000
05514>        (MxStoUsed=.1859E-01  m3, TotOvfVol=.2768E+01  m3, N-Ovf=  122, TotDurOvf=  228.hrs)
05515> R0090:C00012-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05516>       CONTINUOUS STANDHYD    5.0 01:W5          6.20     .226 1990.0720_ 5:00  351.63 .483     .000
05517>         [XIMP=.57:TIMP=.67]
05518>         [LOSS= 2 :CN= 71.0]
05519>         [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05520>         [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
05521>         [IaRECimp=   1.50: IaRECper=   6.00]
05522>         [SMIN= 41.38: SMAX=275.84: SK= .030]
05523> # LID for Outlet W5 (16 catchbasins, 30 m long trench each)
05524> # Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05525> # Total Volume provided by LID  - 110 m³
05526> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05527> R0090:C00013-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05528>       ROUTE RESERVOIR ->     5.0 02:W5          6.20     .226 1990.0720_ 5:00  351.63  n/a     .000
05529>                    out <=    5.0 01:W5-LID      1.56     .001 1990.0312_17:20  351.62  n/a     .000
05530>               overflow <=    5.0 03:W5-LID-Out  4.64     .222 1990.0720_ 5:00  351.63  n/a     .000
05531>        (MxStoUsed=.1100E-01  m3, TotOvfVol=.1632E+01  m3, N-Ovf=  115, TotDurOvf=  225.hrs)
05532> R0090:C00014-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05533>       CONTINUOUS STANDHYD    5.0 01:W6          7.81     .341 1990.0720_ 5:00  417.73 .574     .000
05534>         [XIMP=.71:TIMP=.81]
05535>         [LOSS= 2 :CN= 71.0]
05536>         [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05537>         [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
05538>         [IaRECimp=   1.50: IaRECper=   6.00]
05539>         [SMIN= 41.38: SMAX=275.84: SK= .030]
05540> # LID for Outlet W6 (24 catchbasins, 30 m long trench each)
05541> # Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05542> # Total Volume provided by LID  - 165 m³
05543> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05544> R0090:C00015-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05545>       ROUTE RESERVOIR ->     5.0 02:W6          7.81     .341 1990.0720_ 5:00  417.73  n/a     .000
05546>                    out <=    5.0 01:W6-LID      1.99     .001 1990.0312_17:15  417.73  n/a     .000
05547>               overflow <=    5.0 03:W6-LID-Out  5.82     .337 1990.0720_ 5:00  417.73  n/a     .000
05548>        (MxStoUsed=.1650E-01  m3, TotOvfVol=.2433E+01  m3, N-Ovf=  120, TotDurOvf=  227.hrs)
05549> R0090:C00016-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05550>       ADD HYD                1     5.0 01:W1          5.76     .205 1990.0720_ 5:00  343.66  n/a     .000
05551>                              +     5.0 02:W2          8.51     .279 1990.0720_ 5:00  318.93  n/a     .000
05552>                              +     5.0 02:W3         10.03     .411 1990.0720_ 5:00  393.94  n/a     .000
05553>                              +     5.0 02:W4         10.11     .383 1990.0720_ 5:00  365.69  n/a     .000
05554>                              +     5.0 02:W5          6.20     .226 1990.0720_ 5:00  351.63  n/a     .000
05555>                              +     5.0 02:W6          7.81     .341 1990.0720_ 5:00  417.73  n/a     .000
05556>                            SUM=    5.0 01:BCD-PH3    48.42    1.844 1990.0720_ 5:00  367.30  n/a     .000
05557> R0090:C00017-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05558>       ADD HYD                1     5.0 02:W1-LID-Out  4.38     .202 1990.0720_ 5:00  343.66  n/a     .000
05559>                              +     5.0 02:W2-LID-Out  6.47     .273 1990.0720_ 5:00  318.93  n/a     .000
05560>                              +     5.0 02:W3-LID-Out  7.53     .405 1990.0720_ 5:00  393.94  n/a     .000
05561>                              +     5.0 02:W4-LID-Out  7.57     .377 1990.0720_ 5:00  365.69  n/a     .000
05562>                              +     5.0 02:W5-LID-Out  4.64     .222 1990.0720_ 5:00  351.63  n/a     .000
05563>                              +     5.0 02:W6-LID-Out  5.82     .337 1990.0720_ 5:00  417.73  n/a     .000
05564>                            SUM=    5.0 01:BCD-PH3-LI  36.41   1.816 1990.0720_ 5:00  367.10  n/a     .000
05565> #*****************************************************************************************
05566> #                 Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
05567> #*****************************************************************************************
05568> #                 Set infiltration to 0 (CN = 99.99) for water balance analysis
05569> #*****************************************************************************************
05570> R0090:C00018-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05571>       CONTINUOUS STANDHYD    5.0 01:INF-W1      5.76     .299 1990.0720_ 5:00  434.49 .597     .000
05572>         [XIMP=.55:TIMP=.66]
05573>         [LOSS= 2 :CN=100.0]
05574>         [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05575>         [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
05576>         [IaRECimp=   1.50: IaRECper=   6.00]
05577>         [SMIN=  1.39: SMAX=  9.24: SK= .000]
05578> R0090:C00019-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05579>       CONTINUOUS STANDHYD    5.0 01:INF-W2      8.51     .424 1990.0720_ 5:00  417.09 .573     .000
05580>         [XIMP=.50:TIMP=.60]
05581>         [LOSS= 2 :CN=100.0]
05582>         [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05583>         [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
05584>         [IaRECimp=   1.50: IaRECper=   6.00]
05585>         [SMIN=  1.39: SMAX=  9.24: SK= .000]
05586> R0090:C00020-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05587>       CONTINUOUS STANDHYD    5.0 01:INF-W3     10.03     .532 1990.0720_ 5:00  464.71 .639     .000
05588>         [XIMP=.66:TIMP=.76]
05589>         [LOSS= 2 :CN=100.0]
05590>         [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05591>         [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
05592>         [IaRECimp=   1.50: IaRECper=   6.00]
05593>         [SMIN=  1.39: SMAX=  9.24: SK= .000]
05594> R0090:C00021-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05595>       CONTINUOUS STANDHYD    5.0 01:INF-W4     10.11     .521 1990.0720_ 5:00  446.71 .614     .000
05596>         [XIMP=.60:TIMP=.70]
05597>         [LOSS= 2 :CN=100.0]
05598>         [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05599>         [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
05600>         [IaRECimp=   1.50: IaRECper=   6.00]
05601>         [SMIN=  1.39: SMAX=  9.24: SK= .000]
05602> R0090:C00022-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05603>       CONTINUOUS STANDHYD    5.0 01:INF-W5      6.20     .322 1990.0720_ 5:00  437.78 .602     .000
05604>         [XIMP=.57:TIMP=.67]
05605>         [LOSS= 2 :CN=100.0]
05606>         [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05607>         [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
05608>         [IaRECimp=   1.50: IaRECper=   6.00]
05609>         [SMIN=  1.39: SMAX=  9.24: SK= .000]
05610> R0090:C00023-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05611>       CONTINUOUS STANDHYD    5.0 01:INF-W6      7.81     .423 1990.0720_ 5:00  480.01 .660     .000
05612>         [XIMP=.71:TIMP=.81]
05613>         [LOSS= 2 :CN=100.0]
05614>         [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05615>         [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
05616>         [IaRECimp=   1.50: IaRECper=   6.00]
05617>         [SMIN=  1.39: SMAX=  9.24: SK= .000]
05618> R0090:C00024-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05619>       ADD HYD                1     5.0 02:INF-W1      5.76     .299 1990.0720_ 5:00  434.49  n/a     .000
05620>                              +     5.0 02:INF-W2      8.51     .424 1990.0720_ 5:00  417.09  n/a     .000
05621>                              +     5.0 02:INF-W3     10.03     .532 1990.0720_ 5:00  464.71  n/a     .000
05622>                              +     5.0 02:INF-W4     10.11     .521 1990.0720_ 5:00  446.71  n/a     .000
05623>                              +     5.0 02:INF-W5      6.20     .322 1990.0720_ 5:00  437.78  n/a     .000
05624>                              +     5.0 02:INF-W6      7.81     .423 1990.0720_ 5:00  480.01  n/a     .000
05625>                            SUM=    5.0 01:INF-BCD-PH    48.42    2.520 1990.0720_ 5:00  448.01  n/a     .000
05626> ##########################################################################
05627> # CONTINUOUS RAINFALL DATA
05628> ##########################################################################
05629>  ** END OF RUN :  90
05630>
05631> *****************************************************************************************
05632>
05633>
05634>
05635>
05636>
05637>  RUN#:COMMAND#
05638> R0091:C00001-------------------------------------------------------------------------------
05639>       START
05640>         [TZERO =    .00 hrs on 19910101]
05641>         [METOUT=   2    (1=imperial, 2=metric output)]
05642>         [NSTORM=   0 ]
05643>         [NRUN  = 0091 ]
05644> #*****************************************************************************************
05645> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
05646> #*****************************************************************************************
05647> #  Project Name: Barrhaven Conservancy Development
05648> #  Project Number: 1474
05649> #  Date        : 2021/Oct/18
05650> #  Modeller    : J.Burnett, P.Eng.
05651> #  Updated     : 2024/Mar/14 [LP]
05652> #  Company     : J.F. Sabourin and Associates
05653> #  License #   : 2582634
05654> #*****************************************************************************************
05655> # Ottawa International Airport (1967 - 2003)
05656> R0091:C00002-------------------------------------------------------------------------------
05657>   *  READ AES DATA
05658>         [Filename  = YOW_1967_2007.123                                          ]
05659>         [Start_date= 1991.0101: End_date= 1991.1231]
05660>         [DT= 60.min: Length= 8040.hrs: WetHrs=  486: DryHrs= 7554: PTOT= 556.00)
05661>         Maximum average rainfall intensities over
05662>           1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05663>          11.30     9.90     6.87     4.10     2.53     1.72     1.28     1.08      .79    mm/hr
05664>          11.30    19.80    20.60    24.60    30.40    41.20    46.00    51.60    57.00    mm
05665>         19910409 19910409 19910409 19910409 19910409 19911016 19910422 19910410 19910410 19910423  date
05666>         Number of rainfall events per following interevent time
05667>           1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05668>            165      137      127      102       80       63       52       45       38
05669>         Number of events with at least the following durations
05670>           1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
05671>            164       89       56       21        6        1        0        0        0
05672> R0091:C00003-------------------------------------------------------------------------------
05673>       COMPUTE API
05674>         [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
05675>         [APImax= 72.80: APIavg= 16.88: APImin=  .26]
05676> #*****************************************************************************************
05677> #                 Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
05678> #*****************************************************************************************
05679> R0091:C00004-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05680>       CONTINUOUS STANDHYD    5.0 01:W1          5.76     .123 1991.0410_ 3:00  252.05 .453     .000
05681>         [XIMP=.55:TIMP=.66]
05682>         [LOSS= 2 :CN= 71.0]
05683>         [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05684>         [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
05685>         [IaRECimp=   1.50: IaRECper=   6.00]
05686>         [SMIN= 41.38: SMAX=275.84: SK= .030]
05687> # LID for Outlet W1 (14 catchbasins, 30 m long trench each)
05688> # Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05689> # Total Volume provided by LID  - 96 m³
05690> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05691> R0091:C00005-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05692>       ROUTE RESERVOIR ->     5.0 02:W1          5.76     .123 1991.0410_ 3:00  252.05  n/a     .000
05693>                    out <=    5.0 01:W1-LID      1.72     .001 1991.0302_ 6:45  252.06  n/a     .000
05694>               overflow <=    5.0 03:W1-LID-Out  4.04     .119 1991.0410_ 3:00  252.05  n/a     .000
05695>        (MxStoUsed=.9596E-02  m3, TotOvfVol=.1017E+01  m3, N-Ovf=  108, TotDurOvf=  190.hrs)
05696> R0091:C00006-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05697>       CONTINUOUS STANDHYD    5.0 01:W2          8.51     .167 1991.0410_ 3:00  232.57 .418     .000
05698>         [XIMP=.50:TIMP=.60]
05699>         [LOSS= 2 :CN= 71.0]
05700>         [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05701>         [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
05702>         [IaRECimp=   1.50: IaRECper=   6.00]
05703>         [SMIN= 41.38: SMAX=275.84: SK= .030]
05704> # LID for Outlet W2 (19 catchbasins, 30 m long trench each)
05705> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05706> # Total Volume provided by LID  - 131 m³
05707> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05708> R0091:C00007-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05709>       ROUTE RESERVOIR ->     5.0 02:W2          8.51     .167 1991.0410_ 3:00  232.57  n/a     .000
05710>                    out <=    5.0 01:W2-LID      2.58     .001 1991.0302_ 6:50  232.57  n/a     .000
05711>               overflow <=    5.0 03:W2-LID-Out  5.93     .166 1991.0410_ 3:05  232.57  n/a     .000
05712>        (MxStoUsed=.1310E-01  m3, TotOvfVol=.1380E+01  m3, N-Ovf=  116, TotDurOvf=  188.hrs)
05713> R0091:C00008-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05714>       CONTINUOUS STANDHYD    5.0 01:W3         10.03     .232 1991.0410_ 3:00  292.35 .526     .000
05715>         [XIMP=.66:TIMP=.76]
05716>         [LOSS= 2 :CN= 71.0]
05717>         [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05718>         [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
05719>         [IaRECimp=   1.50: IaRECper=   6.00]
05720>         [SMIN= 41.38: SMAX=275.84: SK= .030]
05721> # LID for Outlet W3 (28 catchbasins, 30 m long trench each)
05722> # Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05723> # Total Volume provided by LID  - 193 m³
05724> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05725> R0091:C00009-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05726>       ROUTE RESERVOIR ->     5.0 02:W3         10.03     .232 1991.0410_ 3:00  292.35  n/a     .000
05727>                    out <=    5.0 01:W3-LID      3.11     .001 1991.0302_ 6:50  292.35  n/a     .000
05728>               overflow <=    5.0 03:W3-LID-Out  6.92     .227 1991.0410_ 3:05  292.35  n/a     .000
05729>        (MxStoUsed=.1930E-01  m3, TotOvfVol=.2024E+01  m3, N-Ovf=  108, TotDurOvf=  189.hrs)
05730> R0091:C00010-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05731>       CONTINUOUS STANDHYD    5.0 01:W4         10.11     .220 1991.0410_ 3:00  269.85 .485     .000
05732>         [XIMP=.60:TIMP=.70]
05733>         [LOSS= 2 :CN= 71.0]
05734>         [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05735>         [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
05736>         [IaRECimp=   1.50: IaRECper=   6.00]
05737>         [SMIN= 41.38: SMAX=275.84: SK= .030]
05738> # LID for Outlet W4 (27 catchbasins, 30 m long trench each)
05739> # Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05740> # Total Volume provided by LID  - 186 m³
05741> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05742> R0091:C00011-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05743>       ROUTE RESERVOIR ->     5.0 02:W4         10.11     .220 1991.0410_ 3:00  269.85  n/a     .000
05744>                    out <=    5.0 01:W4-LID      3.17     .001 1991.0302_ 6:50  269.85  n/a     .000
05745>               overflow <=    5.0 03:W4-LID-Out  6.94     .216 1991.0410_ 3:05  269.85  n/a     .000
05746>        (MxStoUsed=.1860E-01  m3, TotOvfVol=.1872E+01  m3, N-Ovf=  109, TotDurOvf=  188.hrs)
05747> R0091:C00012-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05748>       CONTINUOUS STANDHYD    5.0 01:W5          6.20     .134 1991.0410_ 3:00  258.64 .465     .000
05749>         [XIMP=.57:TIMP=.67]
05750>         [LOSS= 2 :CN= 71.0]
05751>         [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
05752>         [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
05753>         [IaRECimp=   1.50: IaRECper=   6.00]
05754>         [SMIN= 41.38: SMAX=275.84: SK= .030]
05755> # LID for Outlet W5 (16 catchbasins, 30 m long trench each)
05756> # Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
05757> # Total Volume provided by LID  - 110 m³
05758> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
05759> R0091:C00013-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm-----RVmm-R.C.---DWFcms
05760>       ROUTE RESERVOIR ->     5.0 02:W5          6.20     .134 1991.0410_ 3:00  258.64  n/a     .000
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                 out <=    5.0 01:W5-LID         1.95     .001 1991.0302_ 6:45  258.64  n/a     .000
            overflow <=    5.0 03:W5-LID-Out     4.25     .130 1991.0410_ 3:00  258.64  n/a     .000
      {MxStoUsed=.1100E-01  m3, TotOvfVol=.1100E+01  m3, N-Ovf=  113, TotDurOvf=  185.hrs}
R0091:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:W6             7.81     .192 1991.0410_ 3:00  311.26 .560     .000
       [XIMP=.71:TIMP=.81]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0091:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ROUTE RESERVOIR ->    5.0 02:W6             7.81     .192 1991.0410_ 3:00  311.27  n/a     .000
                 out <=    5.0 01:W6-LID         2.45     .001 1991.0302_ 6:45  311.27  n/a     .000
            overflow <=    5.0 03:W6-LID-Out     5.36     .188 1991.0410_ 3:00  311.27  n/a     .000
      {MxStoUsed=.1649E-01  m3, TotOvfVol=.1668E+01  m3, N-Ovf=  108, TotDurOvf=  186.hrs}
R0091:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ADD HYD               5.0 02:W1             5.76     .123 1991.0410_ 3:00  252.05  n/a     .000
                     +     5.0 02:W2             8.51     .167 1991.0410_ 3:00  232.57  n/a     .000
                     +     5.0 02:W3            10.03     .232 1991.0410_ 3:00  292.35  n/a     .000
                     +     5.0 02:W4            10.11     .220 1991.0410_ 3:00  269.85  n/a     .000
                     +     5.0 02:W5             6.20     .134 1991.0410_ 3:00  258.64  n/a     .000
                     +     5.0 02:W6             7.81     .192 1991.0410_ 3:00  311.27  n/a     .000
                  SUM=     5.0 01:BCD-PH3       48.42    1.067 1991.0410_ 3:00  271.09  n/a     .000
R0091:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ADD HYD               5.0 02:W1-LID-Out     4.04     .119 1991.0410_ 3:00  252.05  n/a     .000
                     +     5.0 02:W2-LID-Out     5.93     .166 1991.0410_ 3:05  232.57  n/a     .000
                     +     5.0 02:W3-LID-Out     6.92     .227 1991.0410_ 3:05  292.35  n/a     .000
                     +     5.0 02:W4-LID-Out     6.94     .216 1991.0410_ 3:05  269.85  n/a     .000
                     +     5.0 02:W5-LID-Out     4.25     .130 1991.0410_ 3:00  258.64  n/a     .000
                     +     5.0 02:W6-LID-Out     5.36     .188 1991.0410_ 3:00  311.27  n/a     .000
                  SUM=     5.0 01:BCD-PH3-LI    33.44    1.040 1991.0410_ 3:00  270.96  n/a     .000
#***************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#***************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#***************************************************************************************************
R0091:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .163 1991.0409_ 1:00  317.67 .571     .000
       [XIMP=.55:TIMP=.66]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0091:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W2         8.51     .231 1991.0409_ 1:00  302.66 .544     .000
       [XIMP=.50:TIMP=.60]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0091:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W3        10.03     .290 1991.0409_ 1:00  344.17 .619     .000
       [XIMP=.66:TIMP=.76]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0091:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W4        10.11     .285 1991.0409_ 1:00  328.46 .591     .000
       [XIMP=.60:TIMP=.70]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0091:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W5         6.20     .176 1991.0409_ 1:00  320.69 .577     .000
       [XIMP=.57:TIMP=.67]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0091:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W6         7.81     .232 1991.0409_ 1:00  357.50 .643     .000
       [XIMP=.71:TIMP=.81]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0091:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ADD HYD               5.0 02:INF-W1         5.76     .163 1991.0409_ 1:00  317.67  n/a     .000
                     +     5.0 02:INF-W2         8.51     .231 1991.0409_ 1:00  302.66  n/a     .000
                     +     5.0 02:INF-W3        10.03     .290 1991.0409_ 1:00  344.17  n/a     .000
                     +     5.0 02:INF-W4        10.11     .285 1991.0409_ 1:00  328.46  n/a     .000
                     +     5.0 02:INF-W5         6.20     .176 1991.0409_ 1:00  320.69  n/a     .000
                     +     5.0 02:INF-W6         7.81     .232 1991.0409_ 1:00  357.50  n/a     .000
                  SUM=     5.0 01:INF-BCD-PH    48.42    1.376 1991.0409_ 1:00  329.59  n/a     .000
################################################################################
# CONTINUOUS RAINFALL DATA
################################################################################
  ** END OF RUN :   91

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

 RUN#:COMMAND#
R0092:C00001----------------------------------------------------------------------------------------
      START
       [TZERO =    .00 hrs on 19920101]
       [METOUT=   2    (1=imperial, 2=metric output)]
       [NSTORM=   0 ]
       [NRUN  = 0092 ]
#***************************************************************************************************
#  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     : 2024/Mar/14 [LP]
#  Company     : J.F. Sabourin and Associates
#  License #   : 2582634
#***************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0092:C00002----------------------------------------------------------------------------------------
   *  READ AES DATA
       [Filename  = YOW_1967_2007.123                                              ]
       [Start_date= 1992.0101: End_date= 1992.1230]
       {DT= 60.min: Length= 8760.hrs: WetHrs=  551: DryHrs= 8209: PTOT= 732.80}
       Maximum average rainfall intensities over
         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
        31.50    18.00    13.30     7.22     4.14     2.26     1.51     1.51     1.02    mm/hr
        31.50    36.00    39.90    43.30    49.70    54.20    54.20    72.60    73.60    mm
       19920804 19920804 19920804 19920804 19920717 19920718 19920718 19920719 19920720  date
       Number of rainfall events per following interevent time
         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
          190      151      132      100       84       69       55       47       38
       Number of events with at least the following durations
         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
          189      109       70       22        5        1        0        0        0
R0092:C00003----------------------------------------------------------------------------------------
      COMPUTE API
       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
       {APImax= 97.62: APIavg= 20.33: APImin=  1.07}
#***************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#***************************************************************************************************
R0092:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:W1             5.76     .373 1992.0804_14:00  356.10 .486     .000
       [XIMP=.55:TIMP=.66]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0092:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ROUTE RESERVOIR ->    5.0 02:W1             5.76     .373 1992.0804_14:00  356.10  n/a     .000
                 out <=    5.0 01:W1-LID         1.35     .001 1992.0104_21:50  356.11  n/a     .000
            overflow <=    5.0 03:W1-LID-Out     4.41     .363 1992.0804_14:00  356.10  n/a     .000
      {MxStoUsed=.9585E-02  m3, TotOvfVol=.1571E+01  m3, N-Ovf=  122, TotDurOvf=  191.hrs}
R0092:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:W2             8.51     .519 1992.0804_14:00  331.08 .452     .000
       [XIMP=.50:TIMP=.60]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0092:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ROUTE RESERVOIR ->    5.0 02:W2             8.51     .519 1992.0804_14:00  331.08  n/a     .000
                 out <=    5.0 01:W2-LID         2.00     .001 1992.0104_22:00  331.08  n/a     .000
            overflow <=    5.0 03:W2-LID-Out     6.51     .503 1992.0804_14:00  331.08  n/a     .000
      {MxStoUsed=.1310E-01  m3, TotOvfVol=.2155E+01  m3, N-Ovf=  120, TotDurOvf=  190.hrs}
R0092:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:W3            10.03     .709 1992.0804_14:00  407.08 .556     .000
       [XIMP=.66:TIMP=.76]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0092:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ROUTE RESERVOIR ->    5.0 02:W3            10.03     .709 1992.0804_14:00  407.08  n/a     .000
                 out <=    5.0 01:W3-LID         2.46     .001 1992.0104_21:50  407.07  n/a     .000
            overflow <=    5.0 03:W3-LID-Out     7.57     .694 1992.0804_14:00  407.08  n/a     .000
      {MxStoUsed=.1928E-01  m3, TotOvfVol=.3082E+01  m3, N-Ovf=  115, TotDurOvf=  191.hrs}
R0092:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:W4            10.11     .677 1992.0804_14:00  378.45 .516     .000
       [XIMP=.60:TIMP=.70]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0092:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ROUTE RESERVOIR ->    5.0 02:W4            10.11     .677 1992.0804_14:00  378.45  n/a     .000
                 out <=    5.0 01:W4-LID         2.50     .001 1992.0104_22:00  378.46  n/a     .000
            overflow <=    5.0 03:W4-LID-Out     7.61     .660 1992.0804_14:00  378.45  n/a     .000
      {MxStoUsed=.1859E-01  m3, TotOvfVol=.2882E+01  m3, N-Ovf=  125, TotDurOvf=  189.hrs}
R0092:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:W5             6.20     .406 1992.0804_14:00  364.21 .497     .000
       [XIMP=.57:TIMP=.67]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0092:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ROUTE RESERVOIR ->    5.0 02:W5             6.20     .406 1992.0804_14:00  364.21  n/a     .000
                 out <=    5.0 01:W5-LID         1.53     .001 1992.0104_22:00  364.21  n/a     .000
            overflow <=    5.0 03:W5-LID-Out     4.67     .395 1992.0804_14:00  364.21  n/a     .000
      {MxStoUsed=.1097E-01  m3, TotOvfVol=.1701E+01  m3, N-Ovf=  112, TotDurOvf=  185.hrs}
R0092:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:W6             7.81     .578 1992.0804_14:00  431.16 .588     .000
       [XIMP=.71:TIMP=.81]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0092:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ROUTE RESERVOIR ->    5.0 02:W6             7.81     .578 1992.0804_14:00  431.16  n/a     .000
                 out <=    5.0 01:W6-LID         1.95     .001 1992.0104_21:50  431.17  n/a     .000
            overflow <=    5.0 03:W6-LID-Out     5.86     .568 1992.0804_14:00  431.16  n/a     .000
      {MxStoUsed=.1648E-01  m3, TotOvfVol=.2525E+01  m3, N-Ovf=  122, TotDurOvf=  189.hrs}
R0092:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ADD HYD               5.0 02:W1             5.76     .373 1992.0804_14:00  356.10  n/a     .000
                     +     5.0 02:W2             8.51     .519 1992.0804_14:00  331.08  n/a     .000
                     +     5.0 02:W3            10.03     .709 1992.0804_14:00  407.08  n/a     .000
                     +     5.0 02:W4            10.11     .677 1992.0804_14:00  378.45  n/a     .000
                     +     5.0 02:W5             6.20     .406 1992.0804_14:00  364.21  n/a     .000
                     +     5.0 02:W6             7.81     .578 1992.0804_14:00  431.16  n/a     .000
                  SUM=     5.0 01:BCD-PH3       48.42    3.263 1992.0804_14:00  380.07  n/a     .000
R0092:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ADD HYD               5.0 02:W1-LID-Out     4.41     .363 1992.0804_14:00  356.10  n/a     .000
                     +     5.0 02:W2-LID-Out     6.51     .503 1992.0804_14:00  331.08  n/a     .000
                     +     5.0 02:W3-LID-Out     7.57     .694 1992.0804_14:00  407.08  n/a     .000
                     +     5.0 02:W4-LID-Out     7.61     .660 1992.0804_14:00  378.45  n/a     .000
                     +     5.0 02:W5-LID-Out     4.67     .395 1992.0804_14:00  364.21  n/a     .000
                     +     5.0 02:W6-LID-Out     5.86     .568 1992.0804_14:00  431.16  n/a     .000
                  SUM=     5.0 01:BCD-PH3-LI    36.64    3.183 1992.0804_14:00  379.87  n/a     .000
#***************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#***************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#***************************************************************************************************
R0092:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .474 1992.0804_14:00  449.91 .614     .000
       [XIMP=.55:TIMP=.66]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0092:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W2         8.51     .688 1992.0804_14:00  432.52 .590     .000
       [XIMP=.50:TIMP=.60]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0092:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W3        10.03     .837 1992.0804_14:00  480.12 .655     .000
       [XIMP=.66:TIMP=.76]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0092:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W4        10.11     .833 1992.0804_14:00  462.13 .631     .000
       [XIMP=.60:TIMP=.70]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0092:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W5         6.20     .511 1992.0804_14:00  453.20 .618     .000
       [XIMP=.57:TIMP=.67]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0092:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     CONTINUOUS STANDHYD   5.0 01:INF-W6         7.81     .660 1992.0804_14:00  495.39 .676     .000
       [XIMP=.71:TIMP=.81]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0092:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
     ADD HYD               5.0 02:INF-W1         5.76     .474 1992.0804_14:00  449.91  n/a     .000
                     +     5.0 02:INF-W2         8.51     .688 1992.0804_14:00  432.52  n/a     .000
                     +     5.0 02:INF-W3        10.03     .837 1992.0804_14:00  480.12  n/a     .000
                     +     5.0 02:INF-W4        10.11     .833 1992.0804_14:00  462.12  n/a     .000
                     +     5.0 02:INF-W5         6.20     .511 1992.0804_14:00  453.20  n/a     .000
                     +     5.0 02:INF-W6         7.81     .660 1992.0804_14:00  495.39  n/a     .000
                  SUM=     5.0 01:INF-BCD-PH    48.42    4.003 1992.0804_14:00  463.42  n/a     .000
################################################################################
# CONTINUOUS RAINFALL DATA
################################################################################
  ** END OF RUN :   92

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

 RUN#:COMMAND#
R0093:C00001----------------------------------------------------------------------------------------
      START
       [TZERO =    .00 hrs on 19930101]
       [METOUT=   2    (1=imperial, 2=metric output)]
       [NSTORM=   0 ]
       [NRUN  = 0093 ]
#***************************************************************************************************
#  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     : 2024/Mar/14 [LP]
#  Company     : J.F. Sabourin and Associates
#  License #   : 2582634
#***************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0093:C00002----------------------------------------------------------------------------------------
```

```
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                                  ]
      [Start_date= 1993.0101: End_date= 1993.1231]
      {DT= 60.min: Length= 8760.hrs: WetHrs=  585: DryHrs= 8175: PTOT= 721.30}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       12.60     6.60     4.83     3.72     3.58     2.31     1.61     1.21      .81    mm/hr
       12.60    13.20    14.50    22.30    43.00    55.50    58.10    58.10    58.10    mm
      19930703 19930703 19931127 19931128 19931128 19931128 19931128 19931128 19931129  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         191      154      137      111       91       73       57       48       34
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         190      110       66       27        7        2        0        0        0
R0093:C00003-------------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 66.56: APIavg= 20.01: APImin=   .11}
#***************************************************************************************************
#                    Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#***************************************************************************************************
R0093:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W1             5.76     .113 1993.0703_ 9:00  330.14 .458     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0093:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W1             5.76     .113 1993.0703_ 9:00  330.14  n/a     .000
                out <=    5.0 01:W1-LID         1.64     .001 1993.0104_ 1:00  330.14  n/a     .000
           overflow <=    5.0 03:W1-LID-Out     4.12     .111 1993.0703_ 9:00  330.14  n/a     .000
     {MxStoUsed=.9596E-02  m3, TotOvfVol=.1359E+01  m3, N-Ovf=  150, TotDurOvf=  232.hrs}
R0093:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W2             8.51     .150 1993.0703_ 9:00  304.80 .423     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0093:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2             8.51     .150 1993.0703_ 9:00  304.80  n/a     .000
                out <=    5.0 01:W2-LID         2.45     .001 1993.0104_ 1:05  304.80  n/a     .000
           overflow <=    5.0 03:W2-LID-Out     6.06     .148 1993.0703_ 9:00  304.80  n/a     .000
     {MxStoUsed=.1310E-01  m3, TotOvfVol=.1847E+01  m3, N-Ovf=  153, TotDurOvf=  234.hrs}
R0093:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3            10.03     .229 1993.0703_ 9:00  382.29 .530     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0093:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3            10.03     .229 1993.0703_ 9:00  382.29  n/a     .000
                out <=    5.0 01:W3-LID         2.96     .001 1993.0104_ 1:00  382.29  n/a     .000
           overflow <=    5.0 03:W3-LID-Out     7.07     .226 1993.0703_ 9:00  382.29  n/a     .000
     {MxStoUsed=.1930E-01  m3, TotOvfVol=.2702E+01  m3, N-Ovf=  153, TotDurOvf=  229.hrs}
R0093:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4            10.11     .211 1993.0703_ 9:00  353.08 .490     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0093:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4            10.11     .211 1993.0703_ 9:00  353.08  n/a     .000
                out <=    5.0 01:W4-LID         3.01     .001 1993.0104_ 1:10  353.08  n/a     .000
           overflow <=    5.0 03:W4-LID-Out     7.10     .208 1993.0703_ 9:00  353.08  n/a     .000
     {MxStoUsed=.1860E-01  m3, TotOvfVol=.2505E+01  m3, N-Ovf=  150, TotDurOvf=  229.hrs}
R0093:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5             6.20     .125 1993.0703_ 9:00  338.57 .469     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0093:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5             6.20     .125 1993.0703_ 9:00  338.57  n/a     .000
                out <=    5.0 01:W5-LID         1.85     .001 1993.0104_ 1:05  338.56  n/a     .000
           overflow <=    5.0 03:W5-LID-Out     4.35     .124 1993.0703_ 9:00  338.57  n/a     .000
     {MxStoUsed=.1100E-01  m3, TotOvfVol=.1472E+01  m3, N-Ovf=  151, TotDurOvf=  226.hrs}
R0093:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6             7.81     .195 1993.0703_ 9:00  406.85 .564     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0093:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6             7.81     .195 1993.0703_ 9:00  406.85  n/a     .000
                out <=    5.0 01:W6-LID         2.34     .001 1993.0104_ 1:00  406.85  n/a     .000
           overflow <=    5.0 03:W6-LID-Out     5.47     .193 1993.0703_ 9:00  406.85  n/a     .000
     {MxStoUsed=.1650E-01  m3, TotOvfVol=.2227E+01  m3, N-Ovf=  156, TotDurOvf=  225.hrs}
R0093:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1             5.76     .113 1993.0703_ 9:00  330.14  n/a     .000
                   +      5.0 02:W2             8.51     .150 1993.0703_ 9:00  304.80  n/a     .000
                   +      5.0 02:W3            10.03     .229 1993.0703_ 9:00  382.29  n/a     .000
                   +      5.0 02:W4            10.11     .211 1993.0703_ 9:00  353.08  n/a     .000
                   +      5.0 02:W5             6.20     .125 1993.0703_ 9:00  338.57  n/a     .000
                   +      5.0 02:W6             7.81     .195 1993.0703_ 9:00  406.85  n/a     .000
                SUM=      5.0 01:BCD-PH3       48.42    1.023 1993.0703_ 9:00  354.73  n/a     .000
R0093:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out     4.12     .111 1993.0703_ 9:00  330.14  n/a     .000
                   +      5.0 02:W2-LID-Out     6.06     .148 1993.0703_ 9:00  304.80  n/a     .000
                   +      5.0 02:W3-LID-Out     7.07     .226 1993.0703_ 9:00  382.29  n/a     .000
                   +      5.0 02:W4-LID-Out     7.10     .208 1993.0703_ 9:00  353.08  n/a     .000
                   +      5.0 02:W5-LID-Out     4.35     .124 1993.0703_ 9:00  338.57  n/a     .000
                   +      5.0 02:W6-LID-Out     5.47     .193 1993.0703_ 9:00  406.85  n/a     .000
                SUM=      5.0 01:BCD-PH3-LI    34.16    1.009 1993.0703_ 9:00  354.56  n/a     .000
#***************************************************************************************************
#                    Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#***************************************************************************************************
#                    Set infiltration to 0 (CN = 99.99) for water balance analysis
#***************************************************************************************************
R0093:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .144 1993.0703_ 9:00  415.48 .576     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0093:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2         8.51     .191 1993.0703_ 9:00  396.17 .549     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0093:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3        10.03     .267 1993.0703_ 9:00  449.47 .623     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0093:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4        10.11     .252 1993.0703_ 9:00  429.29 .595     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0093:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W5         6.20     .152 1993.0703_ 9:00  419.30 .581     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0093:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W6         7.81     .225 1993.0703_ 9:00  466.63 .647     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0093:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-W1         5.76     .144 1993.0703_ 9:00  415.48  n/a     .000
                   +      5.0 02:INF-W2         8.51     .191 1993.0703_ 9:00  396.17  n/a     .000
                   +      5.0 02:INF-W3        10.03     .267 1993.0703_ 9:00  449.48  n/a     .000
                   +      5.0 02:INF-W4        10.11     .252 1993.0703_ 9:00  429.29  n/a     .000
                   +      5.0 02:INF-W5         6.20     .152 1993.0703_ 9:00  419.30  n/a     .000
                   +      5.0 02:INF-W6         7.81     .225 1993.0703_ 9:00  466.63  n/a     .000
                SUM=      5.0 01:INF-BCD-PH    48.42    1.232 1993.0703_ 9:00  430.75  n/a     .000
##############################################################################
# CONTINUOUS RAINFALL DATA
##############################################################################
  ** END OF RUN :   93

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

 RUN#:COMMAND#
R0094:C00001-------------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19940101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0094 ]
#***************************************************************************************************
#  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      : 2024/Mar/14 [LP]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#***************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0094:C00002-------------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                                  ]
      [Start_date= 1994.0101: End_date= 1994.1231]
      {DT= 60.min: Length= 8760.hrs: WetHrs=  342: DryHrs= 8418: PTOT= 540.20}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       22.60    11.90     8.43     5.42     2.92     1.79     1.19      .89     1.15    mm/hr
       22.60    23.80    25.30    32.50    35.00    42.90    42.90    42.90    82.60    mm
      19940629 19940629 19940627 19940625 19940625 19940625 19940626 19940626 19940627  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         138      115      101       79       62       48       39       34       26
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         137       72       48       12        1        0        0        0        0
R0094:C00003-------------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 97.84: APIavg= 15.35: APImin=   .02}
#***************************************************************************************************
#                    Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#***************************************************************************************************
R0094:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W1             5.76     .236 1994.0629_13:00  256.11 .474     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0094:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W1             5.76     .236 1994.0629_13:00  256.11  n/a     .000
                out <=    5.0 01:W1-LID         1.35     .001 1994.0322_ 1:30  256.11  n/a     .000
           overflow <=    5.0 03:W1-LID-Out     4.41     .231 1994.0629_13:00  256.11  n/a     .000
     {MxStoUsed=.9596E-02  m3, TotOvfVol=.1129E+01  m3, N-Ovf=  107, TotDurOvf=  122.hrs}
R0094:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W2             8.51     .322 1994.0629_13:00  237.25 .439     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0094:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2             8.51     .322 1994.0629_13:00  237.25  n/a     .000
                out <=    5.0 01:W2-LID         2.02     .001 1994.0322_ 1:35  237.26  n/a     .000
           overflow <=    5.0 03:W2-LID-Out     6.49     .315 1994.0629_13:00  237.25  n/a     .000
     {MxStoUsed=.1309E-01  m3, TotOvfVol=.1540E+01  m3, N-Ovf=  112, TotDurOvf=  123.hrs}
R0094:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3            10.03     .465 1994.0629_13:00  294.56 .545     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0094:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3            10.03     .465 1994.0629_13:00  294.56  n/a     .000
                out <=    5.0 01:W3-LID         2.46     .001 1994.0322_ 1:30  294.56  n/a     .000
           overflow <=    5.0 03:W3-LID-Out     7.57     .458 1994.0629_13:00  294.56  n/a     .000
     {MxStoUsed=.1928E-01  m3, TotOvfVol=.2229E+01  m3, N-Ovf=  107, TotDurOvf=  121.hrs}
R0094:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4            10.11     .436 1994.0629_13:00  272.95 .505     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0094:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4            10.11     .436 1994.0629_13:00  272.94  n/a     .000
                out <=    5.0 01:W4-LID         2.50     .001 1994.0322_ 1:35  272.95  n/a     .000
           overflow <=    5.0 03:W4-LID-Out     7.61     .428 1994.0629_13:00  272.94  n/a     .000
     {MxStoUsed=.1860E-01  m3, TotOvfVol=.2076E+01  m3, N-Ovf=  111, TotDurOvf=  120.hrs}
R0094:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5             6.20     .259 1994.0629_13:00  262.21 .485     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0094:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5             6.20     .259 1994.0629_13:00  262.21  n/a     .000
                out <=    5.0 01:W5-LID         1.54     .001 1994.0322_ 1:40  262.21  n/a     .000
           overflow <=    5.0 03:W5-LID-Out     4.66     .254 1994.0629_13:00  262.21  n/a     .000
     {MxStoUsed=.1100E-01  m3, TotOvfVol=.1223E+01  m3, N-Ovf=  108, TotDurOvf=  118.hrs}
R0094:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6             7.81     .385 1994.0629_13:00  312.81 .579     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0094:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6             7.81     .385 1994.0629_13:00  312.81  n/a     .000
                out <=    5.0 01:W6-LID         1.95     .001 1994.0322_ 1:30  312.81  n/a     .000
           overflow <=    5.0 03:W6-LID-Out     5.86     .380 1994.0629_13:00  312.81  n/a     .000
     {MxStoUsed=.1650E-01  m3, TotOvfVol=.1834E+01  m3, N-Ovf=  105, TotDurOvf=  118.hrs}
R0094:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1             5.76     .236 1994.0629_13:00  256.11  n/a     .000
                   +      5.0 02:W2             8.51     .322 1994.0629_13:00  237.25  n/a     .000
                   +      5.0 02:W3            10.03     .465 1994.0629_13:00  294.56  n/a     .000
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                  +     5.0 02:W4           10.11     .436 1994.0629_13:00  272.94  n/a     .000
                  +     5.0 02:W5            6.20     .259 1994.0629_13:00  262.21  n/a     .000
                  +     5.0 02:W6            7.81     .385 1994.0629_13:00  312.81  n/a     .000
               SUM=     5.0 01:BCD-PH3      48.42    2.102 1994.0629_13:00  274.20  n/a     .000
R0094:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD             5.0 02:W1-LID-Out    4.41     .231 1994.0629_13:00  256.11  n/a     .000
                  +     5.0 02:W2-LID-Out    6.49     .315 1994.0629_13:00  237.25  n/a     .000
                  +     5.0 02:W3-LID-Out    7.57     .458 1994.0629_13:00  294.56  n/a     .000
                  +     5.0 02:W4-LID-Out    7.61     .428 1994.0629_13:00  272.94  n/a     .000
                  +     5.0 02:W5-LID-Out    4.66     .254 1994.0629_13:00  262.21  n/a     .000
                  +     5.0 02:W6-LID-Out    5.86     .380 1994.0629_13:00  312.81  n/a     .000
               SUM=     5.0 01:BCD-PH3-LI   36.60    2.066 1994.0629_13:00  274.07  n/a     .000
#****************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#****************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#****************************************************************************************************
R0094:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1        5.76     .310 1994.0629_13:00  325.37 .602     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0094:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2        8.51     .440 1994.0629_13:00  311.75 .577     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0094:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3       10.03     .561 1994.0629_13:00  348.77 .646     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0094:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4       10.11     .548 1994.0629_13:00  334.76 .620     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0094:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W5        6.20     .335 1994.0629_13:00  327.82 .607     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0094:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W6        7.81     .449 1994.0629_13:00  360.68 .668     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0094:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD             5.0 02:INF-W1        5.76     .310 1994.0629_13:00  325.37  n/a     .000
                  +     5.0 02:INF-W2        8.51     .440 1994.0629_13:00  311.75  n/a     .000
                  +     5.0 02:INF-W3       10.03     .561 1994.0629_13:00  348.77  n/a     .000
                  +     5.0 02:INF-W4       10.11     .548 1994.0629_13:00  334.76  n/a     .000
                  +     5.0 02:INF-W5        6.20     .335 1994.0629_13:00  327.83  n/a     .000
                  +     5.0 02:INF-W6        7.81     .449 1994.0629_13:00  360.68  n/a     .000
               SUM=     5.0 01:INF-BCD-PH   48.42    2.643 1994.0629_13:00  335.79  n/a     .000
################################################################################
# CONTINUOUS RAINFALL DATA
################################################################################
  ** END OF RUN :   94

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






 RUN#:COMMAND#
R0095:C00001----------------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19950101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0095 ]
#****************************************************************************************************
#  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     : 2024/Mar/14 [LP]
#  Company     : J.F. Sabourin and Associates
#  License #   : 2582634
#****************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0095:C00002----------------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                               ]
      [Start_date= 1995.0101: End_date= 1995.1231]
      {DT= 60.min: Length= 8040.hrs: WetHrs=  332: DryHrs= 7708: PTOT= 538.50}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       16.90    13.25    11.33     8.98     6.35     3.48     2.95     2.21     1.48    mm/hr
       16.90    26.50    34.00    53.90    76.20    83.40   106.20   106.20   106.20    mm
      19950603 19950603 19951006 19951006 19951006 19951006 19951007 19951007 19951008  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
          91       73       65       55       47       41       34       31       25
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
          90       54       35       16        7        1        0        0        0
R0095:C00003----------------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 99.57: APIavg= 16.58: APImin=   .00}
#****************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#****************************************************************************************************
R0095:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W1            5.76     .188 1995.0603_ 8:05  326.81 .607     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0095:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W1            5.76     .188 1995.0603_ 8:05  326.81  n/a     .000
                out <=    5.0 01:W1-LID         .83     .001 1995.0113_15:35  326.81  n/a     .000
           overflow <=    5.0 03:W1-LID-Out    4.93     .187 1995.0603_ 8:05  326.81  n/a     .000
     {MxStoUsed=.9595E-02  m3, TotOvfVol=.1612E+01  m3, N-Ovf=   61, TotDurOvf=  157.hrs}
R0095:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W2            8.51     .271 1995.0603_ 8:05  310.39 .576     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0095:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2            8.51     .271 1995.0603_ 8:05  310.39  n/a     .000
                out <=    5.0 01:W2-LID        1.20     .001 1995.0113_15:35  310.39  n/a     .000
           overflow <=    5.0 03:W2-LID-Out    7.31     .268 1995.0603_ 8:05  310.39  n/a     .000
     {MxStoUsed=.1309E-01  m3, TotOvfVol=.2270E+01  m3, N-Ovf=   71, TotDurOvf=  157.hrs}
R0095:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3           10.03     .359 1995.0603_ 2:00  358.83 .666     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0095:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3           10.03     .359 1995.0603_ 2:00  358.83  n/a     .000
                out <=    5.0 01:W3-LID        1.56     .001 1995.0113_15:35  358.83  n/a     .000
           overflow <=    5.0 03:W3-LID-Out    8.47     .354 1995.0603_ 2:00  358.83  n/a     .000
     {MxStoUsed=.1930E-01  m3, TotOvfVol=.3038E+01  m3, N-Ovf=   66, TotDurOvf=  156.hrs}
R0095:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4           10.11     .339 1995.0603_ 2:00  340.59 .632     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0095:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4           10.11     .339 1995.0603_ 2:00  340.59  n/a     .000
                out <=    5.0 01:W4-LID        1.55     .001 1995.0113_15:35  340.60  n/a     .000
           overflow <=    5.0 03:W4-LID-Out    8.56     .333 1995.0603_ 2:00  340.59  n/a     .000
     {MxStoUsed=.1860E-01  m3, TotOvfVol=.2914E+01  m3, N-Ovf=   71, TotDurOvf=  156.hrs}
R0095:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5            6.20     .203 1995.0603_ 8:05  331.54 .616     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0095:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5            6.20     .203 1995.0603_ 8:05  331.54  n/a     .000
                out <=    5.0 01:W5-LID         .94     .001 1995.0113_15:35  331.53  n/a     .000
           overflow <=    5.0 03:W5-LID-Out    5.26     .202 1995.0603_ 8:05  331.54  n/a     .000
     {MxStoUsed=.1100E-01  m3, TotOvfVol=.1744E+01  m3, N-Ovf=   65, TotDurOvf=  154.hrs}
R0095:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6            7.81     .295 1995.0603_ 2:00  374.12 .695     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0095:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6            7.81     .295 1995.0603_ 2:00  374.12  n/a     .000
                out <=    5.0 01:W6-LID        1.26     .001 1995.0113_15:35  374.12  n/a     .000
           overflow <=    5.0 03:W6-LID-Out    6.55     .292 1995.0603_ 2:00  374.12  n/a     .000
     {MxStoUsed=.1649E-01  m3, TotOvfVol=.2449E+01  m3, N-Ovf=   69, TotDurOvf=  155.hrs}
R0095:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD             5.0 02:W1            5.76     .188 1995.0603_ 8:05  326.81  n/a     .000
                  +     5.0 02:W2            8.51     .271 1995.0603_ 8:05  310.39  n/a     .000
                  +     5.0 02:W3           10.03     .359 1995.0603_ 2:00  358.83  n/a     .000
                  +     5.0 02:W4           10.11     .339 1995.0603_ 2:00  340.59  n/a     .000
                  +     5.0 02:W5            6.20     .203 1995.0603_ 8:05  331.54  n/a     .000
                  +     5.0 02:W6            7.81     .295 1995.0603_ 2:00  374.12  n/a     .000
               SUM=     5.0 01:BCD-PH3      48.42    1.635 1995.0603_ 2:00  341.67  n/a     .000
R0095:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD             5.0 02:W1-LID-Out    4.93     .187 1995.0603_ 8:05  326.81  n/a     .000
                  +     5.0 02:W2-LID-Out    7.31     .268 1995.0603_ 8:05  310.39  n/a     .000
                  +     5.0 02:W3-LID-Out    8.47     .354 1995.0603_ 2:00  358.83  n/a     .000
                  +     5.0 02:W4-LID-Out    8.56     .333 1995.0603_ 2:00  340.59  n/a     .000
                  +     5.0 02:W5-LID-Out    5.26     .202 1995.0603_ 8:05  331.54  n/a     .000
                  +     5.0 02:W6-LID-Out    6.55     .292 1995.0603_ 2:00  374.12  n/a     .000
               SUM=     5.0 01:BCD-PH3-LI   41.07    1.608 1995.0603_ 2:00  341.50  n/a     .000
#****************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#****************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#****************************************************************************************************
R0095:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1        5.76     .252 1995.0603_ 2:00  389.39 .723     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0095:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2        8.51     .365 1995.0603_ 2:00  379.39 .705     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0095:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3       10.03     .446 1995.0603_ 2:00  406.52 .755     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0095:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4       10.11     .443 1995.0603_ 2:00  396.28 .736     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0095:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W5        6.20     .271 1995.0603_ 2:00  391.20 .726     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0095:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W6        7.81     .352 1995.0603_ 2:00  415.16 .771     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0095:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD             5.0 02:INF-W1        5.76     .252 1995.0603_ 2:00  389.39  n/a     .000
                  +     5.0 02:INF-W2        8.51     .365 1995.0603_ 2:00  379.39  n/a     .000
                  +     5.0 02:INF-W3       10.03     .446 1995.0603_ 2:00  406.52  n/a     .000
                  +     5.0 02:INF-W4       10.11     .443 1995.0603_ 2:00  396.28  n/a     .000
                  +     5.0 02:INF-W5        6.20     .271 1995.0603_ 2:00  391.20  n/a     .000
                  +     5.0 02:INF-W6        7.81     .352 1995.0603_ 2:00  415.16  n/a     .000
               SUM=     5.0 01:INF-BCD-PH   48.42    2.128 1995.0603_ 2:00  397.01  n/a     .000
################################################################################
# CONTINUOUS RAINFALL DATA
################################################################################
  ** END OF RUN :   95

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





 RUN#:COMMAND#
R0096:C00001----------------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19960101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0096 ]
#****************************************************************************************************
#  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     : 2024/Mar/14 [LP]
#  Company     : J.F. Sabourin and Associates
#  License #   : 2582634
#****************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0096:C00002----------------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                               ]
      [Start_date= 1996.0101: End_date= 1996.1230]
      {DT= 60.min: Length= 6552.hrs: WetHrs=  387: DryHrs= 6165: PTOT= 512.20}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       18.50    13.55     9.03     5.42     2.93     1.84     1.32     1.02      .70    mm/hr
       18.50    27.10    27.10    32.50    35.10    44.10    47.50    49.00    50.30    mm
      19960731 19960731 19960731 19960731 19960731 19961109 19961109 19961109 19961109  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         132      104       93       71       59       43       36       31       24
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         131       72       50       19        2        1        0        0        0
R0096:C00003----------------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 63.22: APIavg= 19.39: APImin=   .71}
#****************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#****************************************************************************************************
R0096:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W1            5.76     .185 1996.0731_15:00  236.06 .461     .000
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       [XIMP=.55:TIMP=.66]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0096:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W1             5.76     .185 1996.0731_15:00  236.06  n/a     .000
                out <=    5.0 01:W1-LID         1.51     .001 1996.0416_16:20  236.07  n/a     .000
           overflow <=    5.0 03:W1-LID-Out     4.25     .182 1996.0731_15:00  236.06  n/a     .000
      {MxStoUsed=.9594E-02  m3, TotOvfVol=.1003E+01  m3, N-Ovf=  108, TotDurOvf=  150.hrs}
R0096:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W2             8.51     .247 1996.0731_15:00  218.08 .426     .000
       [XIMP=.50:TIMP=.60]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0096:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2             8.51     .247 1996.0731_15:00  218.08  n/a     .000
                out <=    5.0 01:W2-LID         2.25     .001 1996.0416_16:20  218.08  n/a     .000
           overflow <=    5.0 03:W2-LID-Out     6.26     .242 1996.0731_15:00  218.08  n/a     .000
      {MxStoUsed=.1309E-01  m3, TotOvfVol=.1364E+01  m3, N-Ovf=  113, TotDurOvf=  152.hrs}
R0096:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3            10.03     .367 1996.0731_15:00  272.95 .533     .000
       [XIMP=.66:TIMP=.76]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0096:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3            10.03     .367 1996.0731_15:00  272.95  n/a     .000
                out <=    5.0 01:W3-LID         2.73     .001 1996.0416_16:15  272.95  n/a     .000
           overflow <=    5.0 03:W3-LID-Out     7.30     .362 1996.0731_15:00  272.95  n/a     .000
      {MxStoUsed=.1929E-01  m3, TotOvfVol=.1993E+01  m3, N-Ovf=  106, TotDurOvf=  149.hrs}
R0096:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4            10.11     .341 1996.0731_15:00  252.25 .492     .000
       [XIMP=.60:TIMP=.70]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0096:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4            10.11     .341 1996.0731_15:00  252.25  n/a     .000
                out <=    5.0 01:W4-LID         2.78     .001 1996.0416_16:25  252.26  n/a     .000
           overflow <=    5.0 03:W4-LID-Out     7.33     .335 1996.0731_15:00  252.25  n/a     .000
      {MxStoUsed=.1860E-01  m3, TotOvfVol=.1849E+01  m3, N-Ovf=  110, TotDurOvf=  149.hrs}
R0096:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5             6.20     .201 1996.0731_15:00  241.96 .472     .000
       [XIMP=.57:TIMP=.67]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0096:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5             6.20     .201 1996.0731_15:00  241.96  n/a     .000
                out <=    5.0 01:W5-LID         1.71     .001 1996.0416_16:25  241.96  n/a     .000
           overflow <=    5.0 03:W5-LID-Out     4.49     .198 1996.0731_15:00  241.96  n/a     .000
      {MxStoUsed=.1100E-01  m3, TotOvfVol=.1087E+01  m3, N-Ovf=  104, TotDurOvf=  147.hrs}
R0096:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6             7.81     .309 1996.0731_15:00  290.36 .567     .000
       [XIMP=.71:TIMP=.81]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0096:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6             7.81     .309 1996.0731_15:00  290.36  n/a     .000
                out <=    5.0 01:W6-LID         2.15     .001 1996.0416_16:15  290.36  n/a     .000
           overflow <=    5.0 03:W6-LID-Out     5.66     .305 1996.0731_15:00  290.36  n/a     .000
      {MxStoUsed=.1649E-01  m3, TotOvfVol=.1642E+01  m3, N-Ovf=   99, TotDurOvf=  146.hrs}
R0096:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1             5.76     .185 1996.0731_15:00  236.06  n/a     .000
                     +    5.0 02:W2             8.51     .247 1996.0731_15:00  218.08  n/a     .000
                     +    5.0 02:W3            10.03     .367 1996.0731_15:00  272.95  n/a     .000
                     +    5.0 02:W4            10.11     .341 1996.0731_15:00  252.25  n/a     .000
                     +    5.0 02:W5             6.20     .201 1996.0731_15:00  241.96  n/a     .000
                     +    5.0 02:W6             7.81     .309 1996.0731_15:00  290.36  n/a     .000
                  SUM=    5.0 01:BCD-PH3       48.42    1.650 1996.0731_15:00  253.44  n/a     .000
R0096:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out     4.25     .182 1996.0731_15:00  236.06  n/a     .000
                     +    5.0 02:W2-LID-Out     6.26     .242 1996.0731_15:00  218.08  n/a     .000
                     +    5.0 02:W3-LID-Out     7.30     .362 1996.0731_15:00  272.95  n/a     .000
                     +    5.0 02:W4-LID-Out     7.33     .335 1996.0731_15:00  252.25  n/a     .000
                     +    5.0 02:W5-LID-Out     4.49     .198 1996.0731_15:00  241.96  n/a     .000
                     +    5.0 02:W6-LID-Out     5.66     .305 1996.0731_15:00  290.36  n/a     .000
                  SUM=    5.0 01:BCD-PH3-LI    35.29    1.624 1996.0731_15:00  253.33  n/a     .000
#*************************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*************************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#*************************************************************************************************************
R0096:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .259 1996.0731_15:00  299.13 .584     .000
       [XIMP=.55:TIMP=.66]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0096:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2         8.51     .361 1996.0731_15:00  285.70 .558     .000
       [XIMP=.50:TIMP=.60]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0096:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3        10.03     .461 1996.0731_15:00  322.49 .630     .000
       [XIMP=.66:TIMP=.76]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0096:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4        10.11     .450 1996.0731_15:00  308.57 .602     .000
       [XIMP=.60:TIMP=.70]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0096:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W5         6.20     .279 1996.0731_15:00  301.66 .589     .000
       [XIMP=.57:TIMP=.67]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0096:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W6         7.81     .373 1996.0731_15:00  334.27 .653     .000
       [XIMP=.71:TIMP=.81]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0096:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-W1         5.76     .259 1996.0731_15:00  299.13  n/a     .000
                     +    5.0 02:INF-W2         8.51     .361 1996.0731_15:00  285.70  n/a     .000
                     +    5.0 02:INF-W3        10.03     .461 1996.0731_15:00  322.49  n/a     .000
                     +    5.0 02:INF-W4        10.11     .450 1996.0731_15:00  308.57  n/a     .000
                     +    5.0 02:INF-W5         6.20     .279 1996.0731_15:00  301.66  n/a     .000
                     +    5.0 02:INF-W6         7.81     .373 1996.0731_15:00  334.27  n/a     .000
                  SUM=    5.0 01:INF-BCD-PH    48.42    2.182 1996.0731_15:00  309.57  n/a     .000
################################################################################
# CONTINUOUS RAINFALL DATA
################################################################################
  ** END OF RUN :   96

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






 RUN#:COMMAND#
R0097:C00001----------------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 19970101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0097 ]
#*************************************************************************************************************
#  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      : 2024/Mar/14 [LP]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#*************************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0097:C00002----------------------------------------------------------------------------------------
   *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                              ]
      [Start_date= 1997.0101: End_date= 1997.1231]
      {DT= 60.min: Length= 8040.hrs: WetHrs=  379: DryHrs= 7661: PTOT= 433.20}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       12.50     7.60     5.67     4.43     2.91     1.68     1.12      .84      .63    mm/hr
       12.50    15.20    17.00    26.60    34.90    40.40    40.40    40.40    45.30    mm
      19970622 19970622 19970622 19970221 19970222 19970222 19970222 19970222 19970222  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         113       92       83       67       61       55       48       43       30
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         112       70       46       20        4        0        0        0        0
R0097:C00003----------------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 50.00: APIavg= 13.66: APImin=   .27}
#*************************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*************************************************************************************************************
R0097:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W1             5.76     .119 1997.0622_ 4:00  196.28 .453     .000
       [XIMP=.55:TIMP=.66]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0097:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W1             5.76     .119 1997.0622_ 4:00  196.28  n/a     .000
                out <=    5.0 01:W1-LID         1.64     .001 1997.0219_19:10  196.29  n/a     .000
           overflow <=    5.0 03:W1-LID-Out     4.12     .118 1997.0622_ 4:00  196.28  n/a     .000
      {MxStoUsed=.9599E-02  m3, TotOvfVol=.8095E+00  m3, N-Ovf=   81, TotDurOvf=  164.hrs}
R0097:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W2             8.51     .161 1997.0622_ 4:00  180.37 .416     .000
       [XIMP=.50:TIMP=.60]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0097:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2             8.51     .161 1997.0622_ 4:00  180.37  n/a     .000
                out <=    5.0 01:W2-LID         2.46     .001 1997.0219_19:25  180.37  n/a     .000
           overflow <=    5.0 03:W2-LID-Out     6.05     .159 1997.0622_ 4:00  180.37  n/a     .000
      {MxStoUsed=.1310E-01  m3, TotOvfVol=.1092E+01  m3, N-Ovf=   87, TotDurOvf=  164.hrs}
R0097:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3            10.03     .241 1997.0622_ 4:00  229.41 .530     .000
       [XIMP=.66:TIMP=.76]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0097:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3            10.03     .241 1997.0622_ 4:00  229.41  n/a     .000
                out <=    5.0 01:W3-LID         2.92     .001 1997.0219_19:05  229.40  n/a     .000
           overflow <=    5.0 03:W3-LID-Out     7.11     .238 1997.0622_ 4:00  229.41  n/a     .000
      {MxStoUsed=.1930E-01  m3, TotOvfVol=.1632E+01  m3, N-Ovf=   91, TotDurOvf=  162.hrs}
R0097:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4            10.11     .223 1997.0622_ 4:00  210.95 .487     .000
       [XIMP=.60:TIMP=.70]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0097:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4            10.11     .223 1997.0622_ 4:00  210.95  n/a     .000
                out <=    5.0 01:W4-LID         2.99     .001 1997.0219_19:30  210.95  n/a     .000
           overflow <=    5.0 03:W4-LID-Out     7.12     .220 1997.0622_ 4:00  210.95  n/a     .000
      {MxStoUsed=.1860E-01  m3, TotOvfVol=.1501E+01  m3, N-Ovf=   84, TotDurOvf=  162.hrs}
R0097:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5             6.20     .132 1997.0622_ 4:00  201.76 .466     .000
       [XIMP=.57:TIMP=.67]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0097:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5             6.20     .132 1997.0622_ 4:00  201.76  n/a     .000
                out <=    5.0 01:W5-LID         1.84     .001 1997.0221_12:10  201.76  n/a     .000
           overflow <=    5.0 03:W5-LID-Out     4.36     .130 1997.0622_ 4:00  201.76  n/a     .000
      {MxStoUsed=.1100E-01  m3, TotOvfVol=.8788E+00  m3, N-Ovf=   81, TotDurOvf=  160.hrs}
R0097:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6             7.81     .203 1997.0622_ 4:00  244.92 .565     .000
       [XIMP=.71:TIMP=.81]
       [LOSS= 2 :CN= 71.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
       [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0097:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6             7.81     .203 1997.0622_ 4:00  244.92  n/a     .000
                out <=    5.0 01:W6-LID         2.30     .001 1997.0219_19:05  244.92  n/a     .000
           overflow <=    5.0 03:W6-LID-Out     5.51     .201 1997.0622_ 4:00  244.92  n/a     .000
      {MxStoUsed=.1650E-01  m3, TotOvfVol=.1350E+01  m3, N-Ovf=   82, TotDurOvf=  159.hrs}
R0097:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1             5.76     .119 1997.0622_ 4:00  196.28  n/a     .000
                     +    5.0 02:W2             8.51     .161 1997.0622_ 4:00  180.37  n/a     .000
                     +    5.0 02:W3            10.03     .241 1997.0622_ 4:00  229.41  n/a     .000
                     +    5.0 02:W4            10.11     .223 1997.0622_ 4:00  210.95  n/a     .000
                     +    5.0 02:W5             6.20     .132 1997.0622_ 4:00  201.76  n/a     .000
                     +    5.0 02:W6             7.81     .203 1997.0622_ 4:00  244.92  n/a     .000
                  SUM=    5.0 01:BCD-PH3       48.42    1.080 1997.0622_ 4:00  211.96  n/a     .000
R0097:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out     4.12     .118 1997.0622_ 4:00  196.28  n/a     .000
                     +    5.0 02:W2-LID-Out     6.05     .159 1997.0622_ 4:00  180.37  n/a     .000
                     +    5.0 02:W3-LID-Out     7.11     .238 1997.0622_ 4:00  229.41  n/a     .000
                     +    5.0 02:W4-LID-Out     7.12     .220 1997.0622_ 4:00  210.95  n/a     .000
                     +    5.0 02:W5-LID-Out     4.36     .130 1997.0622_ 4:00  201.76  n/a     .000
                     +    5.0 02:W6-LID-Out     5.51     .201 1997.0622_ 4:00  244.92  n/a     .000
                  SUM=    5.0 01:BCD-PH3-LI    34.28    1.066 1997.0622_ 4:00  211.91  n/a     .000
#*************************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*************************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#*************************************************************************************************************
R0097:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .171 1997.0622_ 4:00  255.46 .590     .000
       [XIMP=.55:TIMP=.66]
       [LOSS= 2 :CN=100.0]
       [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
       [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
       [IaRECimp=   1.50: IaRECper=   6.00]
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07201>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
07202> R0097:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07203>      CONTINUOUS STANDHYD    5.0 01:INF-W2          8.51     .239 1997.0622_ 4:00  243.46 .562     .000
07204>         [XIMP=.50:TIMP=.60]
07205>         [LOSS= 2 :CN=100.0]
07206>         [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
07207>         [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
07208>         [IaRECimp=   1.50: IaRECper=   6.00]
07209>         [SMIN=  1.39: SMAX=  9.24: SK= .000]
07210> R0097:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07211>      CONTINUOUS STANDHYD    5.0 01:INF-W3         10.03     .307 1997.0622_ 4:00  276.18 .638     .000
07212>         [XIMP=.66:TIMP=.76]
07213>         [LOSS= 2 :CN=100.0]
07214>         [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
07215>         [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
07216>         [IaRECimp=   1.50: IaRECper=   6.00]
07217>         [SMIN=  1.39: SMAX=  9.24: SK= .000]
07218> R0097:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07219>      CONTINUOUS STANDHYD    5.0 01:INF-W4         10.11     .299 1997.0622_ 4:00  263.82 .609     .000
07220>         [XIMP=.60:TIMP=.70]
07221>         [LOSS= 2 :CN=100.0]
07222>         [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
07223>         [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
07224>         [IaRECimp=   1.50: IaRECper=   6.00]
07225>         [SMIN=  1.39: SMAX=  9.24: SK= .000]
07226> R0097:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07227>      CONTINUOUS STANDHYD    5.0 01:INF-W5          6.20     .185 1997.0622_ 4:00  257.69 .595     .000
07228>         [XIMP=.57:TIMP=.67]
07229>         [LOSS= 2 :CN=100.0]
07230>         [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
07231>         [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
07232>         [IaRECimp=   1.50: IaRECper=   6.00]
07233>         [SMIN=  1.39: SMAX=  9.24: SK= .000]
07234> R0097:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07235>      CONTINUOUS STANDHYD    5.0 01:INF-W6          7.81     .249 1997.0622_ 4:00  286.64 .662     .000
07236>         [XIMP=.71:TIMP=.81]
07237>         [LOSS= 2 :CN=100.0]
07238>         [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
07239>         [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
07240>         [IaRECimp=   1.50: IaRECper=   6.00]
07241>         [SMIN=  1.39: SMAX=  9.24: SK= .000]
07242> R0097:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07243>      ADD HYD                5.0 02:INF-W1          5.76     .171 1997.0622_ 4:00  255.46  n/a     .000
07244>                           +  5.0 02:INF-W2          8.51     .239 1997.0622_ 4:00  243.46  n/a     .000
07245>                           +  5.0 02:INF-W3         10.03     .307 1997.0622_ 4:00  276.18  n/a     .000
07246>                           +  5.0 02:INF-W4         10.11     .299 1997.0622_ 4:00  263.82  n/a     .000
07247>                           +  5.0 02:INF-W5          6.20     .185 1997.0622_ 4:00  257.68  n/a     .000
07248>                           +  5.0 02:INF-W6          7.81     .249 1997.0622_ 4:00  286.64  n/a     .000
07249>                         SUM=   5.0 01:INF-BCD-PH   48.42    1.450 1997.0622_ 4:00  264.70  n/a     .000
07250> ##############################################################################
07251> # CONTINUOUS RAINFALL DATA
07252> ##############################################################################
07253>  ** END OF RUN :   97
07254>
07255> *****************************************************************************************
07256>
07257>
07258>
07259>
07260>
07261>  RUN#:COMMAND#
07262> R0098:C00001------------------------------------------------------------------------------
07263>      START
07264>         [TZERO =    .00 hrs on 19980101]
07265>         [METOUT=   2    (1=imperial, 2=metric output)]
07266>         [NSTORM=   0 ]
07267>         [NRUN   = 0098 ]
07268> *****************************************************************************************
07269> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
07270> *****************************************************************************************
07271> #  Project Name: Barrhaven Conservancy Development
07272> #  Project Number: 1474
07273> #  Date       : 2021/Oct/18
07274> #  Modeller   : J.Burnett, P.Eng.
07275> #  Updated    : 2024/Mar/14 [LP]
07276> #  Company    : J.F. Sabourin and Associates
07277> #  License #  : 2582634
07278> *****************************************************************************************
07279> # Ottawa International Airport (1967 - 2003)
07280> R0098:C00002------------------------------------------------------------------------------
07281>  *  READ AES DATA
07282>         [Filename  = YOW_1967_2007.123                                          ]
07283>         [Start_date= 1998.0101: End_date= 1998.1231]
07284>         [DT= 60.min: Length= 5004.hrs: WetHrs=  291: DryHrs= 4797: PTOT= 440.30)
07285>         Maximum average rainfall intensities over
07286>           1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
07287>         15.80     8.90     7.60     4.00     2.54     1.82     1.27      .95      .76    mm/hr
07288>         15.80    17.80    22.80    24.00    30.50    43.60    45.80    45.80    54.60    mm
07289>       19980716 19980627 19980927 19980927 19980927 19980927 19980928 19980928 19980615  date
07290>       Number of rainfall events per following interevent time
07291>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
07292>          126      104       95       78       63       42       37       32       21
07293>       Number of events with at least the following durations
07294>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
07295>          125       64       43        8        1        0        0        0        0
07296> R0098:C00003------------------------------------------------------------------------------
07297>      COMPUTE API
07298>         [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
07299>         [APImax= 57.22: APIavg= 21.28: APImin=  1.69]
07300> *****************************************************************************************
07301> #                Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
07302> *****************************************************************************************
07303> R0098:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07304>      CONTINUOUS STANDHYD    5.0 01:W1              5.76     .154 1998.0627_ 1:00  193.13 .439     .000
07305>         [XIMP=.55:TIMP=.66]
07306>         [LOSS= 2 :CN= 71.0]
07307>         [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
07308>         [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
07309>         [IaRECimp=   1.50: IaRECper=   6.00]
07310>         [SMIN= 41.38: SMAX=275.84: SK= .030]
07311> # LID for Outlet W1 (14 catchbasins, 30 m long trench each)
07312> # Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
07313> # Total Volume provided by LID  - 96 m³
07314> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
07315> R0098:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07316>      ROUTE RESERVOIR ->     5.0 02:W1              5.76     .154 1998.0627_ 1:00  193.13  n/a     .000
07317>                        out <=    5.0 01:W1-LID       1.54     .001 1998.0424_17:30  193.13  n/a     .000
07318>                   overflow <=    5.0 03:W1-LID-Out   4.22     .152 1998.0627_ 1:00  193.13  n/a     .000
07319>        (MxStoUsed=.9597E-02  m3, TotOvfVol=.8148E+00  m3, N-Ovf=   93, TotDurOvf=  108.hrs)
07320> R0098:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07321>      CONTINUOUS STANDHYD    5.0 01:W2              8.51     .207 1998.0627_ 1:00  177.91 .404     .000
07322>         [XIMP=.50:TIMP=.60]
07323>         [LOSS= 2 :CN= 71.0]
07324>         [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
07325>         [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
07326>         [IaRECimp=   1.50: IaRECper=   6.00]
07327>         [SMIN= 41.38: SMAX=275.84: SK= .030]
07328> # LID for Outlet W2 (19 catchbasins, 30 m long trench each)
07329> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
07330> # Total Volume provided by LID  - 131 m³
07331> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
07332> R0098:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07333>      ROUTE RESERVOIR ->     5.0 02:W2              8.51     .207 1998.0627_ 1:00  177.91  n/a     .000
07334>                        out <=    5.0 01:W2-LID       2.30     .001 1998.0424_17:35  177.91  n/a     .000
07335>                   overflow <=    5.0 03:W2-LID-Out   6.21     .203 1998.0627_ 1:00  177.91  n/a     .000
07336>        (MxStoUsed=.1310E-01  m3, TotOvfVol=.1104E+01  m3, N-Ovf=   92, TotDurOvf=  110.hrs)
07337> R0098:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07338>      CONTINUOUS STANDHYD    5.0 01:W3             10.03     .309 1998.0627_ 1:00  224.60 .510     .000
07339>         [XIMP=.66:TIMP=.76]
07340>         [LOSS= 2 :CN= 71.0]
07341>         [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
07342>         [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
07343>         [IaRECimp=   1.50: IaRECper=   6.00]
07344>         [SMIN= 41.38: SMAX=275.84: SK= .030]
07345> # LID for Outlet W3 (28 catchbasins, 30 m long trench each)
07346> # Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
07347> # Total Volume provided by LID  - 193 m³
07348> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
07349> R0098:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07350>      ROUTE RESERVOIR ->     5.0 02:W3             10.03     .309 1998.0627_ 1:00  224.60  n/a     .000
07351>                        out <=    5.0 01:W3-LID       2.76     .001 1998.0424_17:30  224.59  n/a     .000
07352>                   overflow <=    5.0 03:W3-LID-Out   7.27     .305 1998.0627_ 1:00  224.60  n/a     .000
07353>        (MxStoUsed=.1929E-01  m3, TotOvfVol=.1632E+01  m3, N-Ovf=   95, TotDurOvf=  108.hrs)
07354> R0098:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07355>      CONTINUOUS STANDHYD    5.0 01:W4             10.11     .286 1998.0627_ 1:00  206.97 .470     .000
07356>         [XIMP=.60:TIMP=.70]
07357>         [LOSS= 2 :CN= 71.0]
07358>         [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
07359>         [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
07360>         [IaRECimp=   1.50: IaRECper=   6.00]
07361>         [SMIN= 41.38: SMAX=275.84: SK= .030]
07362> # LID for Outlet W4 (27 catchbasins, 30 m long trench each)
07363> # Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
07364> # Total Volume provided by LID  - 186 m³
07365> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
07366> R0098:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07367>      ROUTE RESERVOIR ->     5.0 02:W4             10.11     .286 1998.0627_ 1:00  206.97  n/a     .000
07368>                        out <=    5.0 01:W4-LID       2.82     .001 1998.0424_17:35  206.97  n/a     .000
07369>                   overflow <=    5.0 03:W4-LID-Out   7.29     .282 1998.0627_ 1:00  206.97  n/a     .000
07370>        (MxStoUsed=.1860E-01  m3, TotOvfVol=.1508E+01  m3, N-Ovf=   91, TotDurOvf=  108.hrs)
07371> R0098:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07372>      CONTINUOUS STANDHYD    5.0 01:W5              6.20     .170 1998.0627_ 1:00  198.22 .450     .000
07373>         [XIMP=.57:TIMP=.67]
07374>         [LOSS= 2 :CN= 71.0]
07375>         [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
07376>         [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
07377>         [IaRECimp=   1.50: IaRECper=   6.00]
07378>         [SMIN= 41.38: SMAX=275.84: SK= .030]
07379> # LID for Outlet W5 (16 catchbasins, 30 m long trench each)
07380> # Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
07381> # Total Volume provided by LID  - 110 m³
07382> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
07383> R0098:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07384>      ROUTE RESERVOIR ->     5.0 02:W5              6.20     .170 1998.0627_ 1:00  198.22  n/a     .000
07385>                        out <=    5.0 01:W5-LID       1.73     .001 1998.0424_17:35  198.22  n/a     .000
07386>                   overflow <=    5.0 03:W5-LID-Out   4.47     .168 1998.0627_ 1:00  198.22  n/a     .000
07387>        (MxStoUsed=.1100E-01  m3, TotOvfVol=.8852E+00  m3, N-Ovf=   91, TotDurOvf=  104.hrs)
07388> R0098:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07389>      CONTINUOUS STANDHYD    5.0 01:W6              7.81     .259 1998.0627_ 1:00  239.36 .544     .000
07390>         [XIMP=.71:TIMP=.81]
07391>         [LOSS= 2 :CN= 71.0]
07392>         [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
07393>         [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
07394>         [IaRECimp=   1.50: IaRECper=   6.00]
07395>         [SMIN= 41.38: SMAX=275.84: SK= .030]
07396> # LID for Outlet W6 (24 catchbasins, 30 m long trench each)
07397> # Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
07398> # Total Volume provided by LID  - 165 m³
07399> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
07400> R0098:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07401>      ROUTE RESERVOIR ->     5.0 02:W6              7.81     .259 1998.0627_ 1:00  239.36  n/a     .000
07402>                        out <=    5.0 01:W6-LID       2.18     .001 1998.0424_17:30  239.37  n/a     .000
07403>                   overflow <=    5.0 03:W6-LID-Out   5.63     .256 1998.0627_ 1:00  239.36  n/a     .000
07404>        (MxStoUsed=.1650E-01  m3, TotOvfVol=.1348E+01  m3, N-Ovf=   98, TotDurOvf=  105.hrs)
07405> R0098:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07406>      ADD HYD                5.0 02:W1              5.76     .154 1998.0627_ 1:00  193.13  n/a     .000
07407>                           +  5.0 02:W2              8.51     .207 1998.0627_ 1:00  177.91  n/a     .000
07408>                           +  5.0 02:W3             10.03     .309 1998.0627_ 1:00  224.60  n/a     .000
07409>                           +  5.0 02:W4             10.11     .286 1998.0627_ 1:00  206.97  n/a     .000
07410>                           +  5.0 02:W5              6.20     .170 1998.0627_ 1:00  198.22  n/a     .000
07411>                           +  5.0 02:W6              7.81     .259 1998.0627_ 1:00  239.36  n/a     .000
07412>                         SUM=   5.0 01:BCD-PH3      48.42    1.385 1998.0627_ 1:00  207.97  n/a     .000
07413> R0098:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07414>      ADD HYD                5.0 02:W1-LID-Out      4.22     .152 1998.0627_ 1:00  193.13  n/a     .000
07415>                           +  5.0 02:W2-LID-Out      6.21     .203 1998.0627_ 1:00  177.91  n/a     .000
07416>                           +  5.0 02:W3-LID-Out      7.27     .305 1998.0627_ 1:00  224.60  n/a     .000
07417>                           +  5.0 02:W4-LID-Out      7.29     .282 1998.0627_ 1:00  206.97  n/a     .000
07418>                           +  5.0 02:W5-LID-Out      4.47     .168 1998.0627_ 1:00  198.22  n/a     .000
07419>                           +  5.0 02:W6-LID-Out      5.63     .256 1998.0627_ 1:00  239.36  n/a     .000
07420>                         SUM=   5.0 01:BCD-PH3-LI   35.08    1.366 1998.0627_ 1:00  207.90  n/a     .000
07421> #*****************************************************************************************
07422> #                Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
07423> #*****************************************************************************************
07424> #                Set infiltration to 0 (CN = 99.99) for water balance analysis
07425> #*****************************************************************************************
07426> R0098:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07427>      CONTINUOUS STANDHYD    5.0 01:INF-W1          5.76     .214 1998.0627_ 1:00  247.71 .563     .000
07428>         [XIMP=.55:TIMP=.66]
07429>         [LOSS= 2 :CN=100.0]
07430>         [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
07431>         [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
07432>         [IaRECimp=   1.50: IaRECper=   6.00]
07433>         [SMIN=  1.39: SMAX=  9.24: SK= .000]
07434> R0098:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07435>      CONTINUOUS STANDHYD    5.0 01:INF-W2          8.51     .303 1998.0627_ 1:00  236.31 .537     .000
07436>         [XIMP=.50:TIMP=.60]
07437>         [LOSS= 2 :CN=100.0]
07438>         [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
07439>         [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
07440>         [IaRECimp=   1.50: IaRECper=   6.00]
07441>         [SMIN=  1.39: SMAX=  9.24: SK= .000]
07442> R0098:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07443>      CONTINUOUS STANDHYD    5.0 01:INF-W3         10.03     .389 1998.0627_ 1:00  267.49 .608     .000
07444>         [XIMP=.66:TIMP=.76]
07445>         [LOSS= 2 :CN=100.0]
07446>         [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
07447>         [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
07448>         [IaRECimp=   1.50: IaRECper=   6.00]
07449>         [SMIN=  1.39: SMAX=  9.24: SK= .000]
07450> R0098:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07451>      CONTINUOUS STANDHYD    5.0 01:INF-W4         10.11     .379 1998.0627_ 1:00  255.71 .581     .000
07452>         [XIMP=.60:TIMP=.70]
07453>         [LOSS= 2 :CN=100.0]
07454>         [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
07455>         [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
07456>         [IaRECimp=   1.50: IaRECper=   6.00]
07457>         [SMIN=  1.39: SMAX=  9.24: SK= .000]
07458> R0098:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07459>      CONTINUOUS STANDHYD    5.0 01:INF-W5          6.20     .231 1998.0627_ 1:00  249.86 .567     .000
07460>         [XIMP=.57:TIMP=.67]
07461>         [LOSS= 2 :CN=100.0]
07462>         [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
07463>         [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
07464>         [IaRECimp=   1.50: IaRECper=   6.00]
07465>         [SMIN=  1.39: SMAX=  9.24: SK= .000]
07466> R0098:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07467>      CONTINUOUS STANDHYD    5.0 01:INF-W6          7.81     .312 1998.0627_ 1:00  277.45 .630     .000
07468>         [XIMP=.71:TIMP=.81]
07469>         [LOSS= 2 :CN=100.0]
07470>         [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
07471>         [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
07472>         [IaRECimp=   1.50: IaRECper=   6.00]
07473>         [SMIN=  1.39: SMAX=  9.24: SK= .000]
07474> R0098:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07475>      ADD HYD                5.0 02:INF-W1          5.76     .214 1998.0627_ 1:00  247.71  n/a     .000
07476>                           +  5.0 02:INF-W2          8.51     .303 1998.0627_ 1:00  236.31  n/a     .000
07477>                           +  5.0 02:INF-W3         10.03     .389 1998.0627_ 1:00  267.49  n/a     .000
07478>                           +  5.0 02:INF-W4         10.11     .379 1998.0627_ 1:00  255.71  n/a     .000
07479>                           +  5.0 02:INF-W5          6.20     .231 1998.0627_ 1:00  249.86  n/a     .000
07480>                           +  5.0 02:INF-W6          7.81     .312 1998.0627_ 1:00  277.45  n/a     .000
07481>                         SUM=   5.0 01:INF-BCD-PH   48.42    1.829 1998.0627_ 1:00  256.54  n/a     .000
07482> ##############################################################################
07483> # CONTINUOUS RAINFALL DATA
07484> ##############################################################################
07485>  ** END OF RUN :   98
07486>
07487> *****************************************************************************************
07488>
07489>
07490>
07491>
07492>
07493>  RUN#:COMMAND#
07494> R0099:C00001------------------------------------------------------------------------------
07495>      START
07496>         [TZERO =    .00 hrs on 19990101]
07497>         [METOUT=   2    (1=imperial, 2=metric output)]
07498>         [NSTORM=   0 ]
07499>         [NRUN   = 0099 ]
07500> *****************************************************************************************
07501> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
07502> *****************************************************************************************
07503> #  Project Name: Barrhaven Conservancy Development
07504> #  Project Number: 1474
07505> #  Date       : 2021/Oct/18
07506> #  Modeller   : J.Burnett, P.Eng.
07507> #  Updated    : 2024/Mar/14 [LP]
07508> #  Company    : J.F. Sabourin and Associates
07509> #  License #  : 2582634
07510> *****************************************************************************************
07511> # Ottawa International Airport (1967 - 2003)
07512> R0099:C00002------------------------------------------------------------------------------
07513>  *  READ AES DATA
07514>         [Filename  = YOW_1967_2007.123                                          ]
07515>         [Start_date= 1999.0101: End_date= 1999.1231]
07516>         [DT= 60.min: Length= 4440.hrs: WetHrs=  247: DryHrs= 4193: PTOT= 424.40)
07517>         Maximum average rainfall intensities over
07518>           1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
07519>         17.50    10.10     9.03     6.57     3.31     1.65     1.45     1.22      .97    mm/hr
07520>         17.50    20.20    27.10    39.40    39.70    39.70    52.20    58.60    69.50    mm
07521>       19990717 19990717 19990906 19990906 19990906 19990906 19990907 19990908 19990908  date
07522>       Number of rainfall events per following interevent time
07523>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
07524>          102       63       56       39       31       28       18
07525>       Number of events with at least the following durations
07526>         1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
07527>          101       57       31       10        1        0        0        0        0
07528> R0099:C00003------------------------------------------------------------------------------
07529>      COMPUTE API
07530>         [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
07531>         [APImax= 69.51: APIavg= 23.97: APImin=  1.93]
07532> *****************************************************************************************
07533> #                Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
07534> *****************************************************************************************
07535> R0099:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07536>      CONTINUOUS STANDHYD    5.0 01:W1              5.76     .167 1999.0717_15:00  195.66 .461     .000
07537>         [XIMP=.55:TIMP=.66]
07538>         [LOSS= 2 :CN= 71.0]
07539>         [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
07540>         [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
07541>         [IaRECimp=   1.50: IaRECper=   6.00]
07542>         [SMIN= 41.38: SMAX=275.84: SK= .030]
07543> # LID for Outlet W1 (14 catchbasins, 30 m long trench each)
07544> # Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
07545> # Total Volume provided by LID  - 96 m³
07546> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
07547> R0099:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07548>      ROUTE RESERVOIR ->     5.0 02:W1              5.76     .167 1999.0717_15:00  195.66  n/a     .000
07549>                        out <=    5.0 01:W1-LID       1.33     .001 1999.0508_17:45  195.66  n/a     .000
07550>                   overflow <=    5.0 03:W1-LID-Out   4.43     .165 1999.0717_15:00  195.66  n/a     .000
07551>        (MxStoUsed=.9594E-02  m3, TotOvfVol=.8665E+00  m3, N-Ovf=   99, TotDurOvf=  101.hrs)
07552> R0099:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07553>      CONTINUOUS STANDHYD    5.0 01:W2              8.51     .223 1999.0717_15:00  180.18 .425     .000
07554>         [XIMP=.50:TIMP=.60]
07555>         [LOSS= 2 :CN= 71.0]
07556>         [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
07557>         [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
07558>         [IaRECimp=   1.50: IaRECper=   6.00]
07559>         [SMIN= 41.38: SMAX=275.84: SK= .030]
07560> # LID for Outlet W2 (19 catchbasins, 30 m long trench each)
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# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0099:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2             8.51     .223 1999.0717_15:00  180.18  n/a     .000
                out <=    5.0 01:W2-LID         2.00     .001 1999.0508_17:50  180.19  n/a     .000
           overflow <=    5.0 03:W2-LID-Out     6.51     .220 1999.0717_15:00  180.18  n/a     .000
     {MxStoUsed=.1310E-01  m3, TotOvfVol=.1173E+01  m3, N-Ovf=   90, TotDurOvf=  104.hrs}
R0099:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3            10.03     .339 1999.0717_15:00  227.58 .536     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0099:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3            10.03     .339 1999.0717_15:00  227.58  n/a     .000
                out <=    5.0 01:W3-LID         2.40     .001 1999.0508_17:45  227.58  n/a     .000
           overflow <=    5.0 03:W3-LID-Out     7.63     .335 1999.0717_15:00  227.58  n/a     .000
     {MxStoUsed=.1930E-01  m3, TotOvfVol=.1738E+01  m3, N-Ovf=   93, TotDurOvf=   98.hrs}
R0099:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4            10.11     .311 1999.0717_15:00  209.73 .494     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0099:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4            10.11     .311 1999.0717_15:00  209.73  n/a     .000
                out <=    5.0 01:W4-LID         2.46     .001 1999.0508_17:50  209.73  n/a     .000
           overflow <=    5.0 03:W4-LID-Out     7.65     .308 1999.0717_15:00  209.73  n/a     .000
     {MxStoUsed=.1859E-01  m3, TotOvfVol=.1605E+01  m3, N-Ovf=  100, TotDurOvf=  101.hrs}
R0099:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5             6.20     .185 1999.0717_15:00  200.84 .473     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0099:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5             6.20     .185 1999.0717_15:00  200.84  n/a     .000
                out <=    5.0 01:W5-LID         1.51     .001 1999.0508_17:50  200.84  n/a     .000
           overflow <=    5.0 03:W5-LID-Out     4.69     .182 1999.0717_15:00  200.84  n/a     .000
     {MxStoUsed=.1100E-01  m3, TotOvfVol=.9419E+00  m3, N-Ovf=   96, TotDurOvf=   98.hrs}
R0099:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6             7.81     .283 1999.0717_15:00  242.59 .572     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0099:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6             7.81     .283 1999.0717_15:00  242.59  n/a     .000
                out <=    5.0 01:W6-LID         1.89     .001 1999.0508_17:45  242.59  n/a     .000
           overflow <=    5.0 03:W6-LID-Out     5.92     .280 1999.0717_15:00  242.59  n/a     .000
     {MxStoUsed=.1648E-01  m3, TotOvfVol=.1437E+01  m3, N-Ovf=   96, TotDurOvf=   96.hrs}
R0099:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1             5.76     .167 1999.0717_15:00  195.66  n/a     .000
                    +     5.0 02:W2             8.51     .223 1999.0717_15:00  180.18  n/a     .000
                    +     5.0 02:W3            10.03     .339 1999.0717_15:00  227.58  n/a     .000
                    +     5.0 02:W4            10.11     .311 1999.0717_15:00  209.73  n/a     .000
                    +     5.0 02:W5             6.20     .185 1999.0717_15:00  200.84  n/a     .000
                    +     5.0 02:W6             7.81     .283 1999.0717_15:00  242.59  n/a     .000
                 SUM=     5.0 01:BCD-PH3       48.42    1.509 1999.0717_15:00  210.72  n/a     .000
R0099:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out     4.43     .165 1999.0717_15:00  195.66  n/a     .000
                    +     5.0 02:W2-LID-Out     6.51     .220 1999.0717_15:00  180.18  n/a     .000
                    +     5.0 02:W3-LID-Out     7.63     .335 1999.0717_15:00  227.58  n/a     .000
                    +     5.0 02:W4-LID-Out     7.65     .308 1999.0717_15:00  209.73  n/a     .000
                    +     5.0 02:W5-LID-Out     4.69     .182 1999.0717_15:00  200.84  n/a     .000
                    +     5.0 02:W6-LID-Out     5.92     .280 1999.0717_15:00  242.59  n/a     .000
                 SUM=     5.0 01:BCD-PH3-LI    36.84    1.491 1999.0717_15:00  210.67  n/a     .000
#****************************************************************************************************
#                 Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#****************************************************************************************************
#                 Set infiltration to 0 (CN = 99.99) for water balance analysis
#****************************************************************************************************
R0099:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .235 1999.0717_15:00  252.69 .595     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0099:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2         8.51     .333 1999.0717_15:00  241.19 .568     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0099:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3        10.03     .428 1999.0717_15:00  272.46 .642     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0099:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4        10.11     .417 1999.0717_15:00  260.65 .614     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0099:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W5         6.20     .254 1999.0717_15:00  254.79 .600     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0099:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W6         7.81     .344 1999.0717_15:00  282.44 .666     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0099:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-W1         5.76     .235 1999.0717_15:00  252.69  n/a     .000
                    +     5.0 02:INF-W2         8.51     .333 1999.0717_15:00  241.19  n/a     .000
                    +     5.0 02:INF-W3        10.03     .428 1999.0717_15:00  272.46  n/a     .000
                    +     5.0 02:INF-W4        10.11     .417 1999.0717_15:00  260.65  n/a     .000
                    +     5.0 02:INF-W5         6.20     .254 1999.0717_15:00  254.79  n/a     .000
                    +     5.0 02:INF-W6         7.81     .344 1999.0717_15:00  282.44  n/a     .000
                 SUM=     5.0 01:INF-BCD-PH    48.42    2.012 1999.0717_15:00  261.49  n/a     .000
################################################################################
# CONTINUOUS RAINFALL DATA
################################################################################
  ** END OF RUN :   99

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

 RUN#:COMMAND#
R0100:C00001-------------------------------------------------------------------------------------
     START
      [TZERO =    .00 hrs on 20000101]
      [METOUT=   2    (1=imperial, 2=metric output)]
      [NSTORM=   0 ]
      [NRUN  = 0100 ]
#****************************************************************************************************
#  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      : 2024/Mar/14 [LP]
#  Company      : J.F. Sabourin and Associates
#  License #    : 2582634
#****************************************************************************************************
# Ottawa International Airport (1967 - 2003)
R0100:C00002-------------------------------------------------------------------------------------
  *  READ AES DATA
      [Filename  = YOW_1967_2007.123                                             ]
      [Start_date= 2000.0101: End_date= 2000.1230]
      {DT= 60.min: Length= 5160.hrs: WetHrs=  401: DryHrs= 4759: PTOT= 535.90}
      Maximum average rainfall intensities over
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
       14.70     9.60     8.03     6.43     3.89     1.95     1.30     1.03      .84    mm/hr
       14.70    19.20    24.10    38.60    46.70    46.70    46.80    49.30    60.40    mm
      20000625 20000625 20000625 20000625 20000625 20000625 20000626 20000510 20000511  date
      Number of rainfall events per following interevent time
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         156      125      110       86       67       46       34       30       23
      Number of events with at least the following durations
        1 hr    2 hrs    3 hrs    6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
         155       82       49       16        2        0        0        0        0
R0100:C00003-------------------------------------------------------------------------------------
     COMPUTE API
      [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
      {APImax= 76.65: APIavg= 25.66: APImin=  5.70}
#****************************************************************************************************
#                 Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#****************************************************************************************************
R0100:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W1             5.76     .192 2000.0625_10:00  246.57 .460     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 96 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0100:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W1             5.76     .192 2000.0625_10:00  246.57  n/a     .000
                out <=    5.0 01:W1-LID         1.38     .001 2000.0421_ 4:25  246.57  n/a     .000
           overflow <=    5.0 03:W1-LID-Out     4.38     .188 2000.0625_10:00  246.57  n/a     .000
     {MxStoUsed=.9597E-02  m3, TotOvfVol=.1080E+01  m3, N-Ovf=  106, TotDurOvf=  138.hrs}
R0100:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W2             8.51     .272 2000.0625_10:00  228.22 .426     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 131 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0100:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W2             8.51     .272 2000.0625_10:00  228.22  n/a     .000
                out <=    5.0 01:W2-LID         2.05     .001 2000.0421_ 4:30  228.22  n/a     .000
           overflow <=    5.0 03:W2-LID-Out     6.46     .266 2000.0625_10:00  228.22  n/a     .000
     {MxStoUsed=.1309E-01  m3, TotOvfVol=.1475E+01  m3, N-Ovf=  101, TotDurOvf=  139.hrs}
R0100:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W3            10.03     .354 2000.0625_10:00  283.49 .529     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 193 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0100:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W3            10.03     .354 2000.0625_10:00  283.49  n/a     .000
                out <=    5.0 01:W3-LID         2.50     .001 2000.0421_ 4:25  283.48  n/a     .000
           overflow <=    5.0 03:W3-LID-Out     7.53     .348 2000.0625_10:00  283.49  n/a     .000
     {MxStoUsed=.1930E-01  m3, TotOvfVol=.2135E+01  m3, N-Ovf=   94, TotDurOvf=  137.hrs}
R0100:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4            10.11     .343 2000.0625_10:00  262.71 .490     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0100:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4            10.11     .343 2000.0625_10:00  262.71  n/a     .000
                out <=    5.0 01:W4-LID         2.54     .001 2000.0421_ 4:30  262.72  n/a     .000
           overflow <=    5.0 03:W4-LID-Out     7.57     .337 2000.0625_10:00  262.71  n/a     .000
     {MxStoUsed=.1859E-01  m3, TotOvfVol=.1990E+01  m3, N-Ovf=   96, TotDurOvf=  137.hrs}
R0100:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5             6.20     .208 2000.0625_10:00  252.42 .471     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0100:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5             6.20     .208 2000.0625_10:00  252.42  n/a     .000
                out <=    5.0 01:W5-LID         1.56     .001 2000.0421_ 4:30  252.42  n/a     .000
           overflow <=    5.0 03:W5-LID-Out     4.64     .204 2000.0625_10:00  252.42  n/a     .000
     {MxStoUsed=.1099E-01  m3, TotOvfVol=.1172E+01  m3, N-Ovf=   97, TotDurOvf=  135.hrs}
R0100:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6             7.81     .285 2000.0625_10:00  301.01 .562     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0100:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6             7.81     .285 2000.0625_10:00  301.01  n/a     .000
                out <=    5.0 01:W6-LID         1.98     .001 2000.0421_ 4:25  301.01  n/a     .000
           overflow <=    5.0 03:W6-LID-Out     5.83     .281 2000.0625_10:00  301.01  n/a     .000
     {MxStoUsed=.1649E-01  m3, TotOvfVol=.1755E+01  m3, N-Ovf=   97, TotDurOvf=  135.hrs}
R0100:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1             5.76     .192 2000.0625_10:00  246.57  n/a     .000
                    +     5.0 02:W2             8.51     .272 2000.0625_10:00  228.22  n/a     .000
                    +     5.0 02:W3            10.03     .354 2000.0625_10:00  283.49  n/a     .000
                    +     5.0 02:W4            10.11     .343 2000.0625_10:00  262.71  n/a     .000
                    +     5.0 02:W5             6.20     .208 2000.0625_10:00  252.42  n/a     .000
                    +     5.0 02:W6             7.81     .285 2000.0625_10:00  301.01  n/a     .000
                 SUM=     5.0 01:BCD-PH3       48.42    1.654 2000.0625_10:00  263.89  n/a     .000
R0100:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out     4.38     .188 2000.0625_10:00  246.57  n/a     .000
                    +     5.0 02:W2-LID-Out     6.46     .266 2000.0625_10:00  228.22  n/a     .000
                    +     5.0 02:W3-LID-Out     7.53     .348 2000.0625_10:00  283.49  n/a     .000
                    +     5.0 02:W4-LID-Out     7.57     .337 2000.0625_10:00  262.71  n/a     .000
                    +     5.0 02:W5-LID-Out     4.64     .204 2000.0625_10:00  252.42  n/a     .000
                    +     5.0 02:W6-LID-Out     5.83     .281 2000.0625_10:00  301.01  n/a     .000
                 SUM=     5.0 01:BCD-PH3-LI    36.42    1.624 2000.0625_10:00  263.76  n/a     .000
#****************************************************************************************************
#                 Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#****************************************************************************************************
#                 Set infiltration to 0 (CN = 99.99) for water balance analysis
#****************************************************************************************************
R0100:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1         5.76     .222 2000.0625_10:00  310.34 .579     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0100:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2         8.51     .323 2000.0625_10:00  297.12 .554     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0100:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3        10.03     .390 2000.0625_10:00  333.34 .622     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0100:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4        10.11     .389 2000.0625_10:00  319.63 .596     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
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07921>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
07922> R0100:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07923>      CONTINUOUS STANDHYD    5.0 01:INF-W5          6.20     .239 2000.0625_10:00  312.83 .584     .000
07924>       [XIMP=.57:TIMP=.67]
07925>       [LOSS= 2 :CN=100.0]
07926>       [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
07927>       [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
07928>       [IaRECimp=   1.50: IaRECper=   6.00]
07929>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
07930> R0100:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07931>      CONTINUOUS STANDHYD    5.0 01:INF-W6          7.81     .307 2000.0625_10:00  344.99 .644     .000
07932>       [XIMP=.71:TIMP=.81]
07933>       [LOSS= 2 :CN=100.0]
07934>       [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
07935>       [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
07936>       [IaRECimp=   1.50: IaRECper=   6.00]
07937>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
07938> R0100:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
07939>     ADD HYD              5.0 02:INF-W1          5.76     .222 2000.0625_10:00  310.34  n/a     .000
07940>                    +     5.0 02:INF-W2          8.51     .323 2000.0625_10:00  297.12  n/a     .000
07941>                    +     5.0 02:INF-W3         10.03     .390 2000.0625_10:00  333.34  n/a     .000
07942>                    +     5.0 02:INF-W4         10.11     .389 2000.0625_10:00  319.63  n/a     .000
07943>                    +     5.0 02:INF-W5          6.20     .239 2000.0625_10:00  312.83  n/a     .000
07944>                    +     5.0 02:INF-W6          7.81     .307 2000.0625_10:00  344.99  n/a     .000
07945>                   SUM=   5.0 01:INF-BCD-PH     48.42    1.872 2000.0625_10:00  320.63  n/a     .000
07946> ##############################################################################
07947> # CONTINUOUS RAINFALL DATA
07948> ##############################################################################
07949>  ** END OF RUN :  101
07950>
07951> ********************************************************************************
07952>
07953>
07954>
07955>
07956>
07957>  RUN#:COMMAND#
07958> R0102:C00001------------------------------------------------------------------------------
07959>      START
07960>       [TZERO =    .00 hrs on 20020101]
07961>       [METOUT=  2     (1=imperial, 2=metric output)]
07962>       [NSTORM=  0 ]
07963>       [NRUN  = 0102 ]
07964> ********************************************************************************
07965> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
07966> ********************************************************************************
07967> #  Project Name: Barrhaven Conservancy Development
07968> #  Project Number: 1474
07969> #  Date        : 2021/Oct/18
07970> #  Modeller    : J.Burnett, P.Eng.
07971> #  Updated     : 2024/Mar/14 [LP]
07972> #  Company     : J.F. Sabourin and Associates
07973> #  License #   : 2582634
07974> ********************************************************************************
07975> # Ottawa International Airport (1967 - 2003)
07976> R0102:C00002------------------------------------------------------------------------------
07977>   *  READ AES DATA
07978>       [Filename  = YOW_1967_2007.123                                    ]
07979>       [Start_date= 2002.0101: End_date= 2002.1231]
07980>       [DT= 60.min: Length= 5088.hrs: WetHrs=  304: DryHrs= 4784: PTOT= 551.50)
07981>       Maximum average rainfall intensities over
07982>         1 hr   2 hrs   3 hrs   6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
07983>        45.00    26.75    18.40     9.48     4.74     2.48     2.08     1.56     1.04    mm/hr
07984>        45.00    53.50    55.20    56.90    56.90    59.50    74.90    74.90    74.90    mm
07985>       20020627 20020627 20020627 20020627 20020627 20020627 20020627 20020628 20020629  date
07986>       Number of rainfall events per following interevent time
07987>         1 hr   2 hrs   3 hrs   6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
07988>          100      83      78      56      47      41      36      34      25
07989>       Number of events with at least the following durations
07990>         1 hr   2 hrs   3 hrs   6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
07991>          100      59      33      13       5       0       0       0       0
07992> R0102:C00003------------------------------------------------------------------------------
07993>      COMPUTE API
07994>       [APIini= 50.00: APIkdt= .9000: APIkdt= .9956]
07995>       (APImax=114.06: APIavg= 26.37: APImin=  4.40)
07996> ********************************************************************************
07997> #                Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
07998> ********************************************************************************
07999> R0102:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08000>      CONTINUOUS STANDHYD    5.0 01:W1              5.76     .621 2002.0627_14:00  299.25 .543     .000
08001>       [XIMP=.55:TIMP=.66]
08002>       [LOSS= 2 :CN= 71.0]
08003>       [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
08004>       [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
08005>       [IaRECimp=   1.50: IaRECper=   6.00]
08006>       [SMIN= 41.38: SMAX=275.84: SK= .030]
08007> # LID for Outlet W1 (14 catchbasins, 30 m long trench each)
08008> # Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
08009> # Total Volume provided by LID  - 96 m³
08010> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
08011> R0102:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08012>      ROUTE RESERVOIR ->     5.0 02:W1              5.76     .621 2002.0627_14:00  299.25  n/a     .000
08013>                       out <=    5.0 01:W1-LID        .97     .001 2002.0412_23:20  299.25  n/a     .000
08014>                overflow <=    5.0 03:W1-LID-Out    4.79     .600 2002.0627_14:00  299.25  n/a     .000
08015>       (MxStoUsed=.9597E-02  m3, TotOvfVol=.1432E+01  m3, N-Ovf=   79, TotDurOvf=  143.hrs)
08016> R0102:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08017>      CONTINUOUS STANDHYD    5.0 01:W2              8.51     .885 2002.0627_14:00  280.37 .508     .000
08018>       [XIMP=.50:TIMP=.60]
08019>       [LOSS= 2 :CN= 71.0]
08020>       [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
08021>       [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
08022>       [IaRECimp=   1.50: IaRECper=   6.00]
08023>       [SMIN= 41.38: SMAX=275.84: SK= .030]
08024> # LID for Outlet W2 (19 catchbasins, 30 m long trench each)
08025> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
08026> # Total Volume provided by LID  - 131 m³
08027> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
08028> R0102:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08029>      ROUTE RESERVOIR ->     5.0 02:W2              8.51     .885 2002.0627_14:00  280.37  n/a     .000
08030>                       out <=    5.0 01:W2-LID        1.43     .001 2002.0412_23:25  280.37  n/a     .000
08031>                overflow <=    5.0 03:W2-LID-Out    7.08     .851 2002.0627_14:00  280.37  n/a     .000
08032>       (MxStoUsed=.1310E-01  m3, TotOvfVol=.1984E+01  m3, N-Ovf=   86, TotDurOvf=  143.hrs)
08033> R0102:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08034>      CONTINUOUS STANDHYD    5.0 01:W3             10.03     1.128 2002.0627_14:00  337.10 .611     .000
08035>       [XIMP=.66:TIMP=.76]
08036>       [LOSS= 2 :CN= 71.0]
08037>       [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
08038>       [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
08039>       [IaRECimp=   1.50: IaRECper=   6.00]
08040>       [SMIN= 41.38: SMAX=275.84: SK= .030]
08041> # LID for Outlet W3 (28 catchbasins, 30 m long trench each)
08042> # Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
08043> # Total Volume provided by LID  - 193 m³
08044> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
08045> R0102:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08046>      ROUTE RESERVOIR ->     5.0 02:W3             10.03     1.128 2002.0627_14:00  337.10  n/a     .000
08047>                       out <=    5.0 01:W3-LID        1.79     .001 2002.0412_23:20  337.10  n/a     .000
08048>                overflow <=    5.0 03:W3-LID-Out    8.24     1.099 2002.0627_14:00  337.10  n/a     .000
08049>       (MxStoUsed=.1929E-01  m3, TotOvfVol=.2777E+01  m3, N-Ovf=   89, TotDurOvf=  143.hrs)
08050> R0102:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08051>      CONTINUOUS STANDHYD    5.0 01:W4             10.11     1.103 2002.0627_14:00  315.73 .572     .000
08052>       [XIMP=.60:TIMP=.70]
08053>       [LOSS= 2 :CN= 71.0]
08054>       [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
08055>       [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
08056>       [IaRECimp=   1.50: IaRECper=   6.00]
08057>       [SMIN= 41.38: SMAX=275.84: SK= .030]
08058> # LID for Outlet W4 (27 catchbasins, 30 m long trench each)
08059> # Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
08060> # Total Volume provided by LID  - 186 m³
08061> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
08062> R0102:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08063>      ROUTE RESERVOIR ->     5.0 02:W4             10.11     1.103 2002.0627_14:00  315.73  n/a     .000
08064>                       out <=    5.0 01:W4-LID        1.81     .001 2002.0412_23:25  315.73  n/a     .000
08065>                overflow <=    5.0 03:W4-LID-Out    8.30     1.070 2002.0627_14:00  315.73  n/a     .000
08066>       (MxStoUsed=.1860E-01  m3, TotOvfVol=.2620E+01  m3, N-Ovf=   83, TotDurOvf=  142.hrs)
08067> R0102:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08068>      CONTINUOUS STANDHYD    5.0 01:W5              6.20     .671 2002.0627_14:00  305.09 .553     .000
08069>       [XIMP=.57:TIMP=.67]
08070>       [LOSS= 2 :CN= 71.0]
08071>       [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
08072>       [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
08073>       [IaRECimp=   1.50: IaRECper=   6.00]
08074>       [SMIN= 41.38: SMAX=275.84: SK= .030]
08075> # LID for Outlet W5 (16 catchbasins, 30 m long trench each)
08076> # Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
08077> # Total Volume provided by LID  - 110 m³
08078> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
08079> R0102:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08080>      ROUTE RESERVOIR ->     5.0 02:W5              6.20     .671 2002.0627_14:00  305.09  n/a     .000
08081>                       out <=    5.0 01:W5-LID        1.11     .001 2002.0412_23:25  305.10  n/a     .000
08082>                overflow <=    5.0 03:W5-LID-Out    5.09     .649 2002.0627_14:00  305.09  n/a     .000
08083>       (MxStoUsed=.1136E-01  m3, TotOvfVol=.1554E+01  m3, N-Ovf=   82, TotDurOvf=  141.hrs)
08084> R0102:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08085>      CONTINUOUS STANDHYD    5.0 01:W6              7.81     .902 2002.0627_14:00  355.25 .644     .000
08086>       [XIMP=.71:TIMP=.81]
08087>       [LOSS= 2 :CN= 71.0]
08088>       [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
08089>       [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
08090>       [IaRECimp=   1.50: IaRECper=   6.00]
08091>       [SMIN= 41.38: SMAX=275.84: SK= .030]
08092> # LID for Outlet W6 (24 catchbasins, 30 m long trench each)
08093> # Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
08094> # Total Volume provided by LID  - 165 m³
08095> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
08096> R0102:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08097>      ROUTE RESERVOIR ->     5.0 02:W6              7.81     .902 2002.0627_14:00  355.25  n/a     .000
08098>                       out <=    5.0 01:W6-LID        1.43     .001 2002.0412_23:20  355.25  n/a     .000
08099>                overflow <=    5.0 03:W6-LID-Out    6.38     .883 2002.0627_14:00  355.25  n/a     .000
08100>       (MxStoUsed=.1650E-01  m3, TotOvfVol=.2266E+01  m3, N-Ovf=   76, TotDurOvf=  141.hrs)
08101> R0102:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08102>     ADD HYD              5.0 02:W1              5.76     .621 2002.0627_14:00  299.25  n/a     .000
08103>                    +     5.0 02:W2              8.51     .885 2002.0627_14:00  280.37  n/a     .000
08104>                    +     5.0 02:W3             10.03    1.128 2002.0627_14:00  337.10  n/a     .000
08105>                    +     5.0 02:W4             10.11    1.103 2002.0627_14:00  315.73  n/a     .000
08106>                    +     5.0 02:W5              6.20     .671 2002.0627_14:00  305.09  n/a     .000
08107>                    +     5.0 02:W6              7.81     .902 2002.0627_14:00  355.25  n/a     .000
08108>                   SUM=   5.0 01:BCD-PH3        48.42    5.311 2002.0627_14:00  316.99  n/a     .000
08109> R0102:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08110>     ADD HYD              5.0 02:W1-LID-Out      4.79     .600 2002.0627_14:00  299.25  n/a     .000
08111>                    +     5.0 02:W2-LID-Out      7.08     .851 2002.0627_14:00  280.37  n/a     .000
08112>                    +     5.0 02:W3-LID-Out      8.24    1.099 2002.0627_14:00  337.10  n/a     .000
08113>                    +     5.0 02:W4-LID-Out      8.30    1.070 2002.0627_14:00  315.73  n/a     .000
08114>                    +     5.0 02:W5-LID-Out      5.09     .649 2002.0627_14:00  305.09  n/a     .000
08115>                    +     5.0 02:W6-LID-Out      6.38     .883 2002.0627_14:00  355.25  n/a     .000
08116>                   SUM=   5.0 01:BCD-PH3-LI     39.87    5.152 2002.0627_14:00  316.85  n/a     .000
08117> ********************************************************************************
08118> #                Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
08119> ********************************************************************************
08120> #                Set infiltration to 0 (CN = 99.99) for water balance analysis
08121> ********************************************************************************
08122> R0102:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08123>      CONTINUOUS STANDHYD    5.0 01:INF-W1          5.76     .700 2002.0627_14:00  373.71 .678     .000
08124>       [XIMP=.55:TIMP=.66]
08125>       [LOSS= 2 :CN=100.0]
08126>       [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
08127>       [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
08128>       [IaRECimp=   1.50: IaRECper=   6.00]
08129>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
08130> R0102:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08131>      CONTINUOUS STANDHYD    5.0 01:INF-W2          8.51    1.025 2002.0627_14:00  361.44 .655     .000
08132>       [XIMP=.50:TIMP=.60]
08133>       [LOSS= 2 :CN=100.0]
08134>       [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
08135>       [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
08136>       [IaRECimp=   1.50: IaRECper=   6.00]
08137>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
08138> R0102:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08139>      CONTINUOUS STANDHYD    5.0 01:INF-W3         10.03    1.226 2002.0627_14:00  394.64 .716     .000
08140>       [XIMP=.66:TIMP=.76]
08141>       [LOSS= 2 :CN=100.0]
08142>       [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
08143>       [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
08144>       [IaRECimp=   1.50: IaRECper=   6.00]
08145>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
08146> R0102:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08147>      CONTINUOUS STANDHYD    5.0 01:INF-W4         10.11    1.228 2002.0627_14:00  382.09 .693     .000
08148>       [XIMP=.60:TIMP=.70]
08149>       [LOSS= 2 :CN=100.0]
08150>       [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
08151>       [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
08152>       [IaRECimp=   1.50: IaRECper=   6.00]
08153>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
08154> R0102:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08155>      CONTINUOUS STANDHYD    5.0 01:INF-W5          6.20     .754 2002.0627_14:00  375.85 .682     .000
08156>       [XIMP=.57:TIMP=.67]
08157>       [LOSS= 2 :CN=100.0]
08158>       [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
08159>       [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
08160>       [IaRECimp=   1.50: IaRECper=   6.00]
08161>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
08162> R0102:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08163>      CONTINUOUS STANDHYD    5.0 01:INF-W6          7.81     .961 2002.0627_14:00  405.25 .735     .000
08164>       [XIMP=.71:TIMP=.81]
08165>       [LOSS= 2 :CN=100.0]
08166>       [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
08167>       [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
08168>       [IaRECimp=   1.50: IaRECper=   6.00]
08169>       [SMIN=  1.39: SMAX=  9.24: SK= .000]
08170> R0102:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08171>     ADD HYD              5.0 02:INF-W1          5.76     .700 2002.0627_14:00  373.71  n/a     .000
08172>                    +     5.0 02:INF-W2          8.51    1.025 2002.0627_14:00  361.44  n/a     .000
08173>                    +     5.0 02:INF-W3         10.03    1.226 2002.0627_14:00  394.64  n/a     .000
08174>                    +     5.0 02:INF-W4         10.11    1.228 2002.0627_14:00  382.09  n/a     .000
08175>                    +     5.0 02:INF-W5          6.20     .754 2002.0627_14:00  375.85  n/a     .000
08176>                    +     5.0 02:INF-W6          7.81     .961 2002.0627_14:00  405.25  n/a     .000
08177>                   SUM=   5.0 01:INF-BCD-PH     48.42    5.894 2002.0627_14:00  383.00  n/a     .000
08178> ##############################################################################
08179> # CONTINUOUS RAINFALL DATA
08180> ##############################################################################
08181>  ** END OF RUN :  102
08182>
08183> ********************************************************************************
08184>
08185>
08186>
08187>
08188>
08189>  RUN#:COMMAND#
08190> R0103:C00001------------------------------------------------------------------------------
08191>      START
08192>       [TZERO =    .00 hrs on 20030101]
08193>       [METOUT=  2     (1=imperial, 2=metric output)]
08194>       [NSTORM=  0 ]
08195>       [NRUN  = 0103 ]
08196> ********************************************************************************
08197> #  SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
08198> ********************************************************************************
08199> #  Project Name: Barrhaven Conservancy Development
08200> #  Project Number: 1474
08201> #  Date        : 2021/Oct/18
08202> #  Modeller    : J.Burnett, P.Eng.
08203> #  Updated     : 2024/Mar/14 [LP]
08204> #  Company     : J.F. Sabourin and Associates
08205> #  License #   : 2582634
08206> ********************************************************************************
08207> # Ottawa International Airport (1967 - 2003)
08208> R0103:C00002------------------------------------------------------------------------------
08209>   *  READ AES DATA
08210>       [Filename  = YOW_1967_2007.123                                    ]
08211>       [Start_date= 2003.0101: End_date= 2003.1231]
08212>       [DT= 60.min: Length= 4440.hrs: WetHrs=  406: DryHrs= 4034: PTOT= 554.60)
08213>       Maximum average rainfall intensities over
08214>         1 hr   2 hrs   3 hrs   6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
08215>        15.10    10.00     7.13     4.28     3.18     1.86     1.25      .94      .81    mm/hr
08216>        15.10    20.00    21.40    25.70    38.20    44.60    44.90    45.10    58.30    mm
08217>       20030711 20030711 20030711 20030710 20031021 20031015 20030525 20030526 20030527  date
08218>       Number of rainfall events per following interevent time
08219>         1 hr   2 hrs   3 hrs   6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
08220>          145      127      109       86       64       45       38       25       15
08221>       Number of events with at least the following durations
08222>         1 hr   2 hrs   3 hrs   6 hrs   12 hrs   24 hrs   36 hrs   48 hrs   72 hrs
08223>          144       80       43       13        5        1        0        0        0
08224> R0103:C00003------------------------------------------------------------------------------
08225>      COMPUTE API
08226>       [APIini= 50.00: APIkdy= .9000: APIkdt= .9956]
08227>       [APImax= 72.10: APIavg= 28.54: APImin=  4.70)
08228> ********************************************************************************
08229> #                Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION)  - POST DEVELOPMENT CONDITIONS
08230> ********************************************************************************
08231> R0103:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08232>      CONTINUOUS STANDHYD    5.0 01:W1              5.76     .182 2003.0711_17:00  273.32 .493     .000
08233>       [XIMP=.55:TIMP=.66]
08234>       [LOSS= 2 :CN= 71.0]
08235>       [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
08236>       [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
08237>       [IaRECimp=   1.50: IaRECper=   6.00]
08238>       [SMIN= 41.38: SMAX=275.84: SK= .030]
08239> # LID for Outlet W1 (14 catchbasins, 30 m long trench each)
08240> # Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
08241> # Total Volume provided by LID  - 96 m³
08242> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
08243> R0103:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08244>      ROUTE RESERVOIR ->     5.0 02:W1              5.76     .182 2003.0711_17:00  273.32  n/a     .000
08245>                       out <=    5.0 01:W1-LID        1.35     .001 2003.0501_10:20  273.32  n/a     .000
08246>                overflow <=    5.0 03:W1-LID-Out    4.41     .178 2003.0711_17:00  273.32  n/a     .000
08247>       (MxStoUsed=.9597E-02  m3, TotOvfVol=.1206E+01  m3, N-Ovf=   96, TotDurOvf=  165.hrs)
08248> R0103:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08249>      CONTINUOUS STANDHYD    5.0 01:W2              8.51     .253 2003.0711_17:00  254.44 .459     .000
08250>       [XIMP=.50:TIMP=.60]
08251>       [LOSS= 2 :CN= 71.0]
08252>       [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
08253>       [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
08254>       [IaRECimp=   1.50: IaRECper=   6.00]
08255>       [SMIN= 41.38: SMAX=275.84: SK= .030]
08256> # LID for Outlet W2 (19 catchbasins, 30 m long trench each)
08257> # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
08258> # Total Volume provided by LID  - 131 m³
08259> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
08260> R0103:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08261>      ROUTE RESERVOIR ->     5.0 02:W2              8.51     .253 2003.0711_17:00  254.44  n/a     .000
08262>                       out <=    5.0 01:W2-LID        1.99     .001 2003.0501_10:25  254.44  n/a     .000
08263>                overflow <=    5.0 03:W2-LID-Out    6.52     .247 2003.0711_17:00  254.44  n/a     .000
08264>       (MxStoUsed=.1310E-01  m3, TotOvfVol=.1659E+01  m3, N-Ovf=   97, TotDurOvf=  165.hrs)
08265> R0103:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08266>      CONTINUOUS STANDHYD    5.0 01:W3             10.03     .343 2003.0711_17:00  311.42 .562     .000
08267>       [XIMP=.66:TIMP=.76]
08268>       [LOSS= 2 :CN= 71.0]
08269>       [Pervious    area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
08270>       [Impervious  area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
08271>       [IaRECimp=   1.50: IaRECper=   6.00]
08272>       [SMIN= 41.38: SMAX=275.84: SK= .030]
08273> # LID for Outlet W3 (28 catchbasins, 30 m long trench each)
08274> # Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
08275> # Total Volume provided by LID  - 193 m³
08276> # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
08277> R0103:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
08278>      ROUTE RESERVOIR ->     5.0 02:W3             10.03     .343 2003.0711_17:00  311.42  n/a     .000
08279>                       out <=    5.0 01:W3-LID        2.47     .001 2003.0501_10:20  311.41  n/a     .000
08280>                overflow <=    5.0 03:W3-LID-Out    7.56     .337 2003.0711_17:00  311.42  n/a     .000
```

```
     {MxStoUsed=.1930E-01  m3, TotOvfVol=.2355E+01  m3, N-Ovf=  100, TotDurOvf=  164.hrs}
R0103:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W4           10.11     .328 2003.0711_17:00  289.96 .523     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 186 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0103:C00011------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W4           10.11     .328 2003.0711_17:00  289.96  n/a     .000
                out <=    5.0 01:W4-LID        2.49     .001 2003.0501_10:25  289.97  n/a     .000
           overflow <=    5.0 03:W4-LID-Out    7.62     .322 2003.0711_17:00  289.96  n/a     .000
     {MxStoUsed=.1860E-01  m3, TotOvfVol=.2209E+01  m3, N-Ovf=   96, TotDurOvf=  163.hrs}
R0103:C00012------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W5            6.20     .198 2003.0711_17:00  279.28 .504     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 110 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0103:C00013------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W5            6.20     .198 2003.0711_17:00  279.28  n/a     .000
                out <=    5.0 01:W5-LID        1.52     .001 2003.0501_10:25  279.27  n/a     .000
           overflow <=    5.0 03:W5-LID-Out    4.68     .193 2003.0711_17:00  279.28  n/a     .000
     {MxStoUsed=.1100E-01  m3, TotOvfVol=.1306E+01  m3, N-Ovf=   95, TotDurOvf=  161.hrs}
R0103:C00014------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:W6            7.81     .279 2003.0711_17:00  329.54 .594     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN= 71.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN= 41.38: SMAX=275.84: SK= .030]
# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
# Total Volume provided by LID  - 165 m³
# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
R0103:C00015------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ROUTE RESERVOIR ->    5.0 02:W6            7.81     .279 2003.0711_17:00  329.54  n/a     .000
                out <=    5.0 01:W6-LID        1.96     .001 2003.0501_10:20  329.54  n/a     .000
           overflow <=    5.0 03:W6-LID-Out    5.85     .275 2003.0711_17:00  329.54  n/a     .000
     {MxStoUsed=.1650E-01  m3, TotOvfVol=.1928E+01  m3, N-Ovf=   99, TotDurOvf=  162.hrs}
R0103:C00016------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1            5.76     .182 2003.0711_17:00  273.32  n/a     .000
                     +    5.0 02:W2            8.51     .253 2003.0711_17:00  254.44  n/a     .000
                     +    5.0 02:W3           10.03     .343 2003.0711_17:00  311.42  n/a     .000
                     +    5.0 02:W4           10.11     .328 2003.0711_17:00  289.96  n/a     .000
                     +    5.0 02:W5            6.20     .198 2003.0711_17:00  279.28  n/a     .000
                     +    5.0 02:W6            7.81     .279 2003.0711_17:00  329.54  n/a     .000
                  SUM=    5.0 01:BCD-PH3      48.42    1.583 2003.0711_17:00  291.20  n/a     .000
R0103:C00017------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:W1-LID-Out    4.41     .178 2003.0711_17:00  273.32  n/a     .000
                     +    5.0 02:W2-LID-Out    6.52     .247 2003.0711_17:00  254.44  n/a     .000
                     +    5.0 02:W3-LID-Out    7.56     .337 2003.0711_17:00  311.42  n/a     .000
                     +    5.0 02:W4-LID-Out    7.62     .322 2003.0711_17:00  289.96  n/a     .000
                     +    5.0 02:W5-LID-Out    4.68     .193 2003.0711_17:00  279.28  n/a     .000
                     +    5.0 02:W6-LID-Out    5.85     .275 2003.0711_17:00  329.54  n/a     .000
                  SUM=    5.0 01:BCD-PH3-LI   36.64    1.551 2003.0711_17:00  291.02  n/a     .000
#*********************************************************************************************************
#                  Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION)  - POST DEVELOPMENT CONDITIONS
#*********************************************************************************************************
#                  Set infiltration to 0 (CN = 99.99) for water balance analysis
#*********************************************************************************************************
R0103:C00018------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W1        5.76     .228 2003.0711_17:00  341.42 .616     .000
      [XIMP=.55:TIMP=.66]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 196.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0103:C00019------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W2        8.51     .331 2003.0711_17:00  328.44 .592     .000
      [XIMP=.50:TIMP=.60]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 238.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0103:C00020------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W3       10.03     .400 2003.0711_17:00  364.17 .657     .000
      [XIMP=.66:TIMP=.76]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 259.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0103:C00021------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W4       10.11     .399 2003.0711_17:00  350.68 .632     .000
      [XIMP=.60:TIMP=.70]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 260.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0103:C00022------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W5        6.20     .245 2003.0711_17:00  343.98 .620     .000
      [XIMP=.57:TIMP=.67]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 203.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0103:C00023------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    CONTINUOUS STANDHYD   5.0 01:INF-W6        7.81     .315 2003.0711_17:00  375.60 .677     .000
      [XIMP=.71:TIMP=.81]
      [LOSS= 2 :CN=100.0]
      [Pervious     area: IAper= 4.67:SLPP=2.00:LGP=  40.:MNP=.250:SCP=   .0]
      [Impervious   area: IAimp= 1.57:SLPI= .50:LGI= 228.:MNI=.013:SCI=   .0]
      [IaRECimp=   1.50: IaRECper=   6.00]
      [SMIN=  1.39: SMAX=  9.24: SK= .000]
R0103:C00024------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
    ADD HYD               5.0 02:INF-W1        5.76     .228 2003.0711_17:00  341.42  n/a     .000
                     +    5.0 02:INF-W2        8.51     .331 2003.0711_17:00  328.44  n/a     .000
                     +    5.0 02:INF-W3       10.03     .400 2003.0711_17:00  364.17  n/a     .000
                     +    5.0 02:INF-W4       10.11     .399 2003.0711_17:00  350.68  n/a     .000
                     +    5.0 02:INF-W5        6.20     .245 2003.0711_17:00  343.98  n/a     .000
                     +    5.0 02:INF-W6        7.81     .315 2003.0711_17:00  375.60  n/a     .000
                  SUM=    5.0 01:INF-BCD-PH   48.42    1.919 2003.0711_17:00  351.63  n/a     .000
##############################################################################
# CONTINUOUS RAINFALL DATA
##############################################################################
R0103:C00002------------------------------------------------------------------------------------
    FINISH
-----------------------------------------------------------------------------------------------
***********************************************************************************************
     WARNINGS / ERRORS / NOTES
     -------------------------
R0067:C00002  READ AES DATA
*** WARNING: Requested start date is less than start date in file.
*** WARNING: Missing rainfall increments were set to 0.
*** WARNING: Missing rainfall increments were set to 0.
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*** WARNING: Missing rainfall increments were set to 0.
*** WARNING: Requested start date is less than start date in file.
*** WARNING: Missing rainfall increments were set to 0.
   Simulation ended on 2024-03-14     at 20:59:26
===============================================================================================
```

JFSA
WATER RESOURCES AND ENVIRONMENTAL CONSULTANTS

Ottawa. ON
Paris. ON
Gatineau. QC
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	187,337	229.3	111,037	65.9	31,914	91.7	44,387
1968	592.8	287,034	382.3	185,124	71.2	34,465	139.3	67,444
1969	570.3	276,139	378.9	183,439	58.3	28,214	133.2	64,486
1970	558.9	270,619	380.2	184,107	55.5	26,888	123.1	59,624
1971	522.1	252,801	378.6	183,304	41.8	20,249	101.7	49,248
1972	784.3	379,758	478.9	231,859	127.3	61,648	178.1	86,251
1973	744.9	360,681	469.3	227,221	93.8	45,413	181.8	88,047
1974	386.2	186,998	290.8	140,781	25.3	12,265	70.1	33,952
1975	535.5	259,289	361.0	174,801	56.4	27,309	118.1	57,179
1976	493.2	238,807	356.1	172,399	38.8	18,782	98.4	47,626
1977	677.8	328,191	448.3	217,086	74.1	35,894	155.3	75,211
1978	641.4	310,566	426.9	206,690	56.6	27,415	157.9	76,460
1979	866.5	419,559	494.4	239,393	147.9	71,603	224.2	108,562
1980	622	301,172	419.0	202,885	61.5	29,778	141.5	68,509
1981	936.4	453,405	555.7	269,070	185.9	90,008	194.8	94,327
1982	596.1	288,632	413.7	200,333	49.7	24,055	132.7	64,244
1983	587.5	284,468	414.5	200,706	54.4	26,326	118.6	57,436
1984	459.4	222,441	291.7	141,241	52.5	25,396	115.3	55,804
1985	559.9	271,104	347.4	168,211	55.3	26,796	157.2	76,097
1986	849.4	411,279	509.1	246,487	152.7	73,918	187.7	90,875
1987	640.1	309,936	445.0	215,484	71.6	34,683	123.4	59,770
1988	643.8	311,728	434.9	210,583	69.8	33,802	139.1	67,343
1989	523.2	253,333	363.5	175,997	43.7	21,140	116.1	56,196
1990	727.8	352,401	477.1	230,992	89.2	43,195	161.5	78,213
1991	556	269,215	396.2	191,826	48.5	23,484	111.3	53,906
1992	732.8	354,822	466.6	225,923	99.1	47,970	167.1	80,929
1993	721.3	349,253	509.6	246,763	65.8	31,860	145.9	70,630
1994	540.2	261,565	357.7	173,213	62.7	30,369	119.8	57,983
1995	538.5	260,742	254.9	123,403	163.8	79,322	119.8	58,017
1996	512.2	248,007	354.7	171,755	49.0	23,711	108.5	52,541
1997	433.2	209,755	304.7	147,512	29.5	14,294	99.0	47,950
1998	440.3	213,193	313.0	151,550	34.5	16,681	92.9	44,963
1999	424.4	205,494	293.0	141,856	35.3	17,112	96.1	46,527
2000	535.9	259,483	363.9	176,196	59.0	28,587	113.0	54,700
2002	551.5	267,036	307.6	148,945	107.2	51,926	136.7	66,166
2003	554.6	268,537	349.9	169,431	79.7	38,610	124.9	60,496
Minimum	386.2	186,998	229.3	111,037	25.3	12,265	70.1	33,952
Maximum	936.4	453,405	555.7	269,070	185.9	90,008	224.2	108,562
Average	595.8	288,466	389.4	188,545	73.1	35,419	133.2	64,503
Percentage	100.0%	100.0%	65.4%	65.4%	12.3%	12.3%	22.4%	22.4%

Table B2: BCD West - Post Development Water Budget - Without LIDs

Year	Total Rainfall		Evaporation		Runoff		Infiltration	
	(mm)	(m^3)	(mm)	(m^3)	(mm)	(m^3)	(mm)	(m^3)
1967	386.9	187,337	127.4	61,692	215.6	104,398	43.9	21,247
1968	592.8	287,034	219.4	106,248	304.2	147,284	69.2	33,502
1969	570.3	276,139	225.4	109,134	278.4	134,811	66.5	32,194
1970	558.9	270,619	222.8	107,889	272.8	132,109	63.2	30,621
1971	522.1	252,801	225.0	108,950	242.9	117,602	54.2	26,248
1972	784.3	379,758	268.8	130,172	428.3	207,388	87.2	42,198
1973	744.9	360,681	275.1	133,179	380.5	184,248	89.3	43,254
1974	386.2	186,998	175.9	85,147	172.0	83,297	38.3	18,555
1975	535.5	259,289	205.1	99,329	268.9	130,216	61.4	29,744
1976	493.2	238,807	215.5	104,321	225.9	109,381	51.9	25,106
1977	677.8	328,191	253.5	122,745	345.0	167,034	79.3	38,412
1978	641.4	310,566	234.9	113,748	326.2	157,936	80.3	38,881
1979	866.5	419,559	274.7	133,005	484.4	234,527	107.5	52,027
1980	622	301,172	234.8	113,695	314.6	152,329	72.6	35,148
1981	936.4	453,405	317.0	153,501	523.3	253,372	96.1	46,532
1982	596.1	288,632	227.6	110,185	299.0	144,766	69.6	33,681
1983	587.5	284,468	236.1	114,310	288.5	139,692	62.9	30,466
1984	459.4	222,441	161.3	78,097	240.7	116,542	57.4	27,803
1985	559.9	271,104	187.2	90,623	295.2	142,936	77.5	37,545
1986	849.4	411,279	283.0	137,024	474.6	229,806	91.8	44,450
1987	640.1	309,936	259.9	125,853	315.2	152,639	64.9	31,444
1988	643.8	311,728	257.9	124,870	316.4	153,182	69.6	33,676
1989	523.2	253,333	211.6	102,462	251.8	121,922	59.8	28,950
1990	727.8	352,401	279.8	135,474	367.3	177,847	80.7	39,080
1991	556	269,215	226.4	109,628	271.1	131,262	58.5	28,326
1992	732.8	354,822	269.4	130,434	380.1	184,030	83.4	40,358
1993	721.3	349,253	290.6	140,684	354.7	171,760	76.0	36,809
1994	540.2	261,565	204.4	98,975	274.2	132,768	61.6	29,822
1995	538.5	260,742	141.5	68,509	341.7	165,437	55.3	26,796
1996	512.2	248,007	202.6	98,113	253.4	122,716	56.1	27,178
1997	433.2	209,755	168.5	81,588	212.0	102,631	52.7	25,537
1998	440.3	213,193	183.8	88,977	208.0	100,699	48.6	23,518
1999	424.4	205,494	162.9	78,881	210.7	102,031	50.8	24,583
2000	535.9	259,483	215.3	104,234	263.9	127,776	56.7	27,474
2002	551.5	267,036	168.5	81,588	317.0	153,487	66.0	31,962
2003	554.6	268,537	203.0	98,278	291.2	140,999	60.4	29,260
Minimum	386.2	186,998	127.4	61,692	172.0	83,297	38.3	18,555
Maximum	936.4	453,405	317.0	153,501	523.3	253,372	107.5	52,027
Average	595.8	288,466	222.7	107,821	305.8	148,079	67.3	32,566
Percentage	100.0%	100.0%	37.4%	37.4%	51.3%	51.3%	11.3%	11.3%

Table B3: BCD West - Post Development Water Budget - With LIDs

Year	Total Rainfall		Evaporation		Runoff		Infiltration	
	(mm)	(m^3)	(mm)	(m^3)	(mm)	(m^3)	(mm)	(m^3)
1967	386.9	187,337	127.4	61,692	173.4	83,976	86.1	41,669
1968	592.8	287,034	219.4	106,248	224.2	108,535	149.2	72,251
1969	570.3	276,139	225.4	109,134	205.3	99,405	139.6	67,600
1970	558.9	270,619	222.8	107,889	201.5	97,552	134.6	65,178
1971	522.1	252,801	225.0	108,950	169.4	82,039	127.7	61,812
1972	784.3	379,758	268.8	130,172	340.6	164,939	174.8	84,647
1973	744.9	360,681	275.1	133,179	296.4	143,506	173.5	83,995
1974	386.2	186,998	175.9	85,147	114.5	55,464	95.8	46,388
1975	535.5	259,289	205.1	99,329	201.3	97,471	129.1	62,490
1976	493.2	238,807	215.5	104,321	158.8	76,911	118.9	57,576
1977	677.8	328,191	253.5	122,745	256.0	123,959	168.3	81,487
1978	641.4	310,566	234.9	113,748	242.3	117,327	164.2	79,490
1979	866.5	419,559	274.7	133,005	392.7	190,122	199.2	96,433
1980	622	301,172	234.8	113,695	234.6	113,590	152.6	73,887
1981	936.4	453,405	317.0	153,501	416.5	201,653	202.9	98,250
1982	596.1	288,632	227.6	110,185	214.9	104,077	153.6	74,370
1983	587.5	284,468	236.1	114,310	205.7	99,606	145.7	70,551
1984	459.4	222,441	161.3	78,097	185.6	89,888	112.5	54,457
1985	559.9	271,104	187.2	90,623	228.1	110,438	144.7	70,043
1986	849.4	411,279	283.0	137,024	378.4	183,238	188.0	91,018
1987	640.1	309,936	259.9	125,853	230.1	111,409	150.1	72,674
1988	643.8	311,728	257.9	124,870	230.8	111,777	155.1	75,081
1989	523.2	253,333	211.6	102,462	182.1	88,171	129.5	62,701
1990	727.8	352,401	279.8	135,474	276.0	133,661	172.0	83,265
1991	556	269,215	226.4	109,628	187.1	90,609	142.5	68,978
1992	732.8	354,822	269.4	130,434	287.5	139,184	176.0	85,204
1993	721.3	349,253	290.6	140,684	250.1	121,118	180.6	87,451
1994	540.2	261,565	204.4	98,975	207.2	100,310	128.6	62,280
1995	538.5	260,742	141.5	68,509	289.7	140,254	107.3	51,978
1996	512.2	248,007	202.6	98,113	184.6	89,400	124.9	60,494
1997	433.2	209,755	168.5	81,588	150.0	72,643	114.7	55,525
1998	440.3	213,193	183.8	88,977	150.6	72,931	105.9	51,285
1999	424.4	205,494	162.9	78,881	160.3	77,611	101.2	49,003
2000	535.9	259,483	215.3	104,234	198.4	96,061	122.2	59,188
2002	551.5	267,036	168.5	81,588	260.9	126,328	122.1	59,121
2003	554.6	268,537	203.0	98,278	220.2	106,630	131.4	63,630
Minimum	386.2	186,998	127.4	61,692	114.5	55,464	86.1	41,669
Maximum	936.4	453,405	317.0	153,501	416.5	201,653	202.9	98,250
Average	595.8	288,466	222.7	107,821	230.7	111,716	142.4	68,929
Percentage	100.0%	100.0%	37.4%	37.4%	38.7%	38.7%	23.9%	23.9%

Table B4 - LID Infiltration Summary

LID	Area (ha)	Average Annual LID Infiltration Volume (m^3/Yr)	Average Annual LID Infiltration Volume (mm/Yr)
W1	5.76	3,893	68
W2	8.51	5,365	63
W3	10.03	8,117	81
W4	10.11	7,650	76
W5	6.20	4,509	73
W6	7.81	6,826	87
Total/Average	**48.42**	**36,361**	**75**