

March 15, 2024

Project Number: 1474

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

**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 (FAA) 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 the Foster 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 <sup>3</sup> )	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 <sup>3</sup> )	693	76	103	152	146	87	130
Total Vol. (m <sup>3</sup> )	881	96	131	193	186	110	165
Area of Trench (m <sup>2</sup> )	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 <sup>3</sup> /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 m<sup>3</sup>/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
m <sup>3</sup>	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
m <sup>3</sup>	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
m <sup>3</sup>	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



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

[jfsa.com](http://jfsa.com)

Ottawa, ON  
Paris, ON  
Gatineau, QC  
Montréal, QC  
Québec, QC

# Attachment A

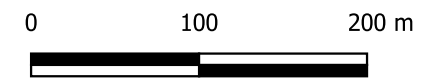
SWMHYMO Models & Parameters



**Legend**

- Soil Name (SCS Value)
- BRANDON (D)
- CARSONBY (C)
- Development Area

SCALE: 1:4500



Conservancy West

Figure A1: Soil Types

PROJECT	1474(03)
DRAWN	JB
DATE	March 2024



**Legend**

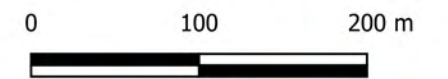
Land Use

■ Hedge Rows

■ Tilled

Development Area

SCALE: 1:4500



Conservancy West

Figure A2: Land Use

PROJECT	1474(03)
---------	----------

DRAWN	JB
-------	----

DATE	March 2024
------	------------

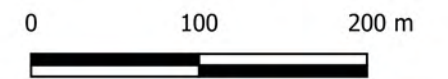




**Legend**

- Streams
- Major Flow Path
- Development Area
- Terrain (m)
- 94.75
- 90.5
- Contours
- 0.25 m

SCALE: 1:4500



Conservancy West

Figure A3: Flow Paths

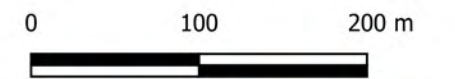
PROJECT	1474(03)
DRAWN	JB
DATE	March 2024



### Legend

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

SCALE: 1:4500



Conservancy West

Figure A4: Proposed Development

PROJECT	1474(03)
DRAWN	JB
DATE	March 2024

**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	
							<b>CN</b>	<b>79.7</b>
							<b>CN*</b>	<b>72</b>

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	
							<b>CN</b>	<b>82.7</b>
							<b>CN*</b>	<b>76</b>

#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	
							<b>CN</b>	<b>79.0</b>
							<b>CN*</b>	<b>71</b>

**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 yr 24 hr SCS stom	P(mm)	48.5	48.5	48.5
	la(mm)	4.67	4.67	4.67
	RV(mm)	13.5	15.6	13.0
	C	-	0.28	0.32
Ptotal to calc C from CN, use 2 yr 3 hr CHI stom	P(mm)	31.9	31.9	31.9
	la(mm)	4.67	4.67	4.67
	RV(mm)	5.9	7.0	5.6
	C	-	0.18	0.22
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%
<b>Kirpich</b>				
Time of Concentration	mins	26	32	54
Time to Peak	min	17	21	36
Time to Peak	Hours	0.29	0.35	0.60
<b>FAA (SCS)</b>				
Time of Concentration	mins	103	113	186
Time to Peak	mins	69	75	124
Time to Peak	Hours	1.14	1.26	2.07
<b>FAA (CHI)</b>				
Time of Concentration	mins	114	128	207
Time to Peak	mins	76	86	138
Time to Peak	Hours	1.27	1.43	2.29
<b>Barnsby Williams</b>				
Time of Concentration	mins	32	37	58
Time to Peak	mins	21	25	39
Time to Peak	Hours	0.36	0.42	0.65
<b>SCS</b>				
Time of Concentration	mins	134	151	337
Time to Peak	mins	90	100	225
Time to Peak	Hours	1.49	1.67	3.75
<b>Selected Method</b>				
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

```

1  20      Metric units / ID Numbers OFF
2  *#*****
3  *# SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
4  *#*****
5  *# Project Name: Barrhaven Conservancy Development
6  *# Project Number: 1474
7  *# Date       : 2021/Oct/18
8  *# Modeller   : J.Burnett, P.Eng.
9  *# Updated    : 2022/Dec/07 [JB]
10 *# Updated    : 2022/Dec/13 [LP]
11 *# Updated    : 2024/Mar/14 [JB]
12 *# Company    : J.F. Sabourin and Associates
13 *# License #  : 2582634
14 *#*****
15 START          TZERO=[1967.0101], METOUT=[2], NSTORM=[0], NRUN=[67]
16 *%             [""] <--storm filename, one per line for NSTORM time
17 *%-----|-----
18 *# Ottawa International Airport (1967 - 2003)
19 READ AES DATA AES_FILENAME=["YOW_1967_2007.123"],
20                IELEM=[123], START_DATE=[0], END_DATE=[-364]
21 *%-----|-----
22 COMPUTE API    APII=[50], APIK=[0.90]/day
23 *%-----|-----
24 *#*****
25 *#           Barrhaven Conservancy West Developments (WITH INFILTRATION) - PRE
26 *#           DEVELOPMENT CONDITIONS
27 *#*****
28 CONTINUOUS NASHYD NHYD=["West_1"], DT=[5](min), AREA=[14.27](ha)
29                DWF=[0](cms), CN/C=[72], IA=[4.67](mm), N=[3], TP=[1.14](hrs),
30                Continuous simulation parameters:
31                IaRECper=[6](hrs),SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.03]/(mm),
32                InterEventTime=[12](hrs)
33                Baseflow simulation parameters:
34                BaseFlowOption=[1], InitGWResVol=[10](mm), GWResK=[0.9](mm/day/mm)
35                VHydCond=[1.0](mm/hr), END=-1
36 *%-----|-----
37 CONTINUOUS NASHYD NHYD=["West_2"], DT=[5](min), AREA=[20.14](ha)
38                DWF=[0](cms), CN/C=[76], IA=[4.67](mm), N=[3], TP=[1.26](hrs),
39                Continuous simulation parameters:
40                IaRECper=[6](hrs),SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.03]/(mm),
41                InterEventTime=[12](hrs)
42                Baseflow simulation parameters:
43                BaseFlowOption=[1], InitGWResVol=[10](mm), GWResK=[0.9](mm/day/mm)
44                VHydCond=[1.0](mm/hr), END=-1
45 *%-----|-----
46 CONTINUOUS NASHYD NHYD=["West_3"], DT=[5](min), AREA=[14.01](ha)
47                DWF=[0](cms), CN/C=[71], IA=[4.67](mm), N=[3], TP=[2.07](hrs),
48                Continuous simulation parameters:
49                IaRECper=[6](hrs),SMIN=[-1](mm), SMAX=[-1](mm), SK=[0.03]/(mm),
50                InterEventTime=[12](hrs)
51                Baseflow simulation parameters:
52                BaseFlowOption=[1], InitGWResVol=[10](mm), GWResK=[0.9](mm/day/mm)
53                VHydCond=[1.0](mm/hr), END=-1
54 *%-----|-----
55 ADD HYD          NHYDsum=["West-Total"], NHYDs to add=["West_1","West_2","West_3"]
56 *%-----|-----

```

```

54 *#*****
55 *#          Barrhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE
DEVELOPMENT CONDITIONS
56 *#*****
57 *#          Set infiltration to 0 (CN = 99.99) for water balance analysis
58 *#*****
59 CONTINUOUS NASHYD  NHYD=["INF-West_1"], DT=[5](min), AREA=[14.27](ha)
60                   DWF=[0](cms),  CN/C=[99.99], IA=[4.67](mm), N=[3], TP=[1.14](hrs),
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 *%-----|-----
67 CONTINUOUS NASHYD  NHYD=["INF-West_2"], DT=[5](min), AREA=[20.14](ha)
68                   DWF=[0](cms),  CN/C=[99.99], IA=[4.67](mm), N=[3], TP=[1.26](hrs),
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 *%-----|-----
75 CONTINUOUS NASHYD  NHYD=["INF-West_3"], DT=[5](min), AREA=[14.01](ha)
76                   DWF=[0](cms),  CN/C=[99.99], IA=[4.67](mm), N=[3], TP=[2.07](hrs),
77                   Continuous simulation parameters:
78                   IaREcper=[6](hrs),SMIN=[-1](mm),  SMAX=[-1](mm), SK=[0.00]/(mm),
                   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
82 *%-----|-----
83 ADD HYD          NHYDsum=["INF-West-Total"], NHYDs to
add=["INF-West_1","INF-West_2","INF-West_3"]
84 *%-----|-----
85 *#####
86 *# CONTINUOUS RAINFALL DATA
87 *#####
88 *%-----|-----
89 *%-----|-----
90 START          TZERO=[1968.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[68]
91 *%-----|-----
92 START          TZERO=[1969.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[69]
93 *%-----|-----
94 START          TZERO=[1970.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[70]
95 *%-----|-----
96 START          TZERO=[1971.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[71]
97 *%-----|-----
98 START          TZERO=[1972.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[72]
99 *%-----|-----
100 START         TZERO=[1973.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[73]
101 *%-----|-----

```

102	START	TZERO=[1974.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[74]
103	*%-----				
104	START	TZERO=[1975.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[75]
105	*%-----				
106	START	TZERO=[1976.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[76]
107	*%-----				
108	START	TZERO=[1977.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[77]
109	*%-----				
110	START	TZERO=[1978.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[78]
111	*%-----				
112	START	TZERO=[1979.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[79]
113	*%-----				
114	START	TZERO=[1980.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[80]
115	*%-----				
116	START	TZERO=[1981.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[81]
117	*%-----				
118	START	TZERO=[1982.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[82]
119	*%-----				
120	START	TZERO=[1983.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[83]
121	*%-----				
122	START	TZERO=[1984.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[84]
123	*%-----				
124	START	TZERO=[1985.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[85]
125	*%-----				
126	START	TZERO=[1986.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[86]
127	*%-----				
128	START	TZERO=[1987.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[87]
129	*%-----				
130	START	TZERO=[1988.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[88]
131	*%-----				
132	START	TZERO=[1989.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[89]
133	*%-----				
134	START	TZERO=[1990.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[90]
135	*%-----				
136	START	TZERO=[1991.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[91]
137	*%-----				
138	START	TZERO=[1992.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[92]
139	*%-----				
140	START	TZERO=[1993.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[93]
141	*%-----				
142	START	TZERO=[1994.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[94]
143	*%-----				
144	START	TZERO=[1995.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[95]
145	*%-----				
146	START	TZERO=[1996.0101],	METOUT=[2],	NSTORM=[0],	NRUN=[96]
147	*%-----				



```
148 START          TZERO=[1997.0101], METOUT=[2], NSTORM=[0], NRUN=[97]
149 *%-----|-----
-----|
150 START          TZERO=[1998.0101], METOUT=[2], NSTORM=[0], NRUN=[98]
151 *%-----|-----
-----|
152 START          TZERO=[1999.0101], METOUT=[2], NSTORM=[0], NRUN=[99]
153 *%-----|-----
-----|
154 START          TZERO=[2000.0101], METOUT=[2], NSTORM=[0], NRUN=[100]
155 *%-----|-----
-----|
156 *% MISSING FROM AES RAINFALL DATA
157 *%START          TZERO=[2001.0101], METOUT=[2], NSTORM=[0], NRUN=[101]
158 *%-----|-----
-----|
159 START          TZERO=[2002.0101], METOUT=[2], NSTORM=[0], NRUN=[102]
160 *%-----|-----
-----|
161 START          TZERO=[2003.0101], METOUT=[2], NSTORM=[0], NRUN=[103]
162 *%-----|-----
-----|
163 FINISH
```

```

00001 *****
00002 *****
00003 *****
00004 *****
00005 *****
00006 *****
00007 *****
00008 *****
00009 *****
00010 *****
00011 *****
00012 *****
00013 *****
00014 *****
00015 *****
00016 *****
00017 *****
00018 *****
00019 *****
00020 *****
00021 *****
00022 *****
00023 *****
00024 *****
00025 *****
00026 *****
00027 *****
00028 *****
00029 *****
00030 *****
00031 *****
00032 *****
00033 *****
00034 *****
00035 *****
00036 *****
00037 *****
00038 *****
00039 *****
00040 *****
00041 *****
00042 *****
00043 *****
00044 *****
00045 *****
00046 *****
00047 *****
00048 *****
00049 *****
00050 *****
00051 *****
00052 *****
00053 *****
00054 *****
00055 *****
00056 *****
00057 *****
00058 *****
00059 *****
00060 *****
00061 *****
00062 *****
00063 *****
00064 *****
00065 *****
00066 *****
00067 *****
00068 *****
00069 *****
00070 *****
00071 *****
00072 *****
00073 *****
00074 *****
00075 *****
00076 *****
00077 *****
00078 *****
00079 *****
00080 *****
00081 *****
00082 *****
00083 *****
00084 *****
00085 *****
00086 *****
00087 *****
00088 *****
00089 *****
00090 *****
00091 *****
00092 *****
00093 *****
00094 *****
00095 *****
00096 *****
00097 *****
00098 *****
00099 *****
00100 *****
00101 *****
00102 *****
00103 *****
00104 *****
00105 *****
00106 *****
00107 *****
00108 *****
00109 *****
00110 *****
00111 *****
00112 *****
00113 *****
00114 *****
00115 *****
00116 *****
00117 *****
00118 *****
00119 *****
00120 *****
00121 *****
00122 *****
00123 *****
00124 *****
00125 *****
00126 *****
00127 *****
00128 *****
00129 *****
00130 *****
00131 *****
00132 *****
00133 *****
00134 *****
00135 *****
00136 *****
00137 *****
00138 *****
00139 *****
00140 *****
00141 *****
00142 *****
00143 *****
00144 *****
00145 *****
00146 *****
00147 *****
00148 *****
00149 *****
00150 *****
00151 *****
00152 *****
00153 *****
00154 *****
00155 *****
00156 *****
00157 *****
00158 *****
00159 *****
00160 *****
00161 *****
00162 *****
00163 *****
00164 *****
00165 *****
00166 *****
00167 *****
00168 *****
00169 *****
00170 *****
00171 *****
00172 *****
00173 *****
00174 *****
00175 *****
00176 *****
00177 *****
00178 *****
00179 *****
00180 *****

```

```

00181 # Project Name: Barhaven Conservancy Development
00182 # Project Number: 1474
00183 # Date : 2021/Oct/18
00184 # Modeler : J.Burnett, P.Eng.
00185 # Updated : 2022/Oct/07 [LB]
00186 # Updated : 2022/Dec/13 [LP]
00187 # Updated : 2024/Mar/14 [SB]
00188 # Company : J.F. Sabourin and Associates
00189 # License # : 2582634
00190 # Ottawa International Airport (1967 - 2003)
00191 # READ AES DATA
00192 # (Filename = YOM_1967_2007_123 )
00193 # (Start_date = 1967-01-01; End_date = 1967-12-31)
00194 # (DT= 60; min; Length= 8760; hrs; WetHrs= 413; DryHrs= 8347; PTO= 592.80)
00195 # Maximum average rainfall intensities over
00196 # 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
00197 # 39.30 17.05 11.37 6.23 3.74 1.87 1.26 .96 .70 mm/hr
00198 # 19.60 10.00 6.50 3.50 2.00 1.00 0.60 0.40 0.30 mm
00199 # 1969018 1969018 1969018 1969018 1969018 1969018 1969018 1969018 1969018 data
00200 # Number of rainfall events per following interevent time
00201 # 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
00202 # 137 105 95 84 72 63 48 43 36
00203 # Number of events with at least the following durations
00204 # 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
00205 # 126 76 49 18 5 0 0 0 0
00206 # *****
00207 # *****
00208 # *****
00209 # *****
00210 # *****
00211 # *****
00212 # *****
00213 # *****
00214 # *****
00215 # *****
00216 # *****
00217 # *****
00218 # *****
00219 # *****
00220 # *****
00221 # *****
00222 # *****
00223 # *****
00224 # *****
00225 # *****
00226 # *****
00227 # *****
00228 # *****
00229 # *****
00230 # *****
00231 # *****
00232 # *****
00233 # *****
00234 # *****
00235 # *****
00236 # *****
00237 # *****
00238 # *****
00239 # *****
00240 # *****
00241 # *****
00242 # *****
00243 # *****
00244 # *****
00245 # *****
00246 # *****
00247 # *****
00248 # *****
00249 # *****
00250 # *****
00251 # *****
00252 # *****
00253 # *****
00254 # *****
00255 # *****
00256 # *****
00257 # *****
00258 # *****
00259 # *****
00260 # *****
00261 # *****
00262 # *****
00263 # *****
00264 # *****
00265 # *****
00266 # *****
00267 # *****
00268 # *****
00269 # *****
00270 # *****
00271 # *****
00272 # *****
00273 # *****
00274 # *****
00275 # *****
00276 # *****
00277 # *****
00278 # *****
00279 # *****
00280 # *****
00281 # *****
00282 # *****
00283 # *****
00284 # *****
00285 # *****
00286 # *****
00287 # *****
00288 # *****
00289 # *****
00290 # *****
00291 # *****
00292 # *****
00293 # *****
00294 # *****
00295 # *****
00296 # *****
00297 # *****
00298 # *****
00299 # *****
00300 # *****
00301 # *****
00302 # *****
00303 # *****
00304 # *****
00305 # *****
00306 # *****
00307 # *****
00308 # *****
00309 # *****
00310 # *****
00311 # *****
00312 # *****
00313 # *****
00314 # *****
00315 # *****
00316 # *****
00317 # *****
00318 # *****
00319 # *****
00320 # *****
00321 # *****
00322 # *****
00323 # *****
00324 # *****
00325 # *****
00326 # *****
00327 # *****
00328 # *****
00329 # *****
00330 # *****
00331 # *****
00332 # *****
00333 # *****
00334 # *****
00335 # *****
00336 # *****
00337 # *****
00338 # *****
00339 # *****
00340 # *****
00341 # *****
00342 # *****
00343 # *****
00344 # *****
00345 # *****
00346 # *****
00347 # *****
00348 # *****
00349 # *****
00350 # *****
00351 # *****
00352 # *****
00353 # *****
00354 # *****
00355 # *****
00356 # *****
00357 # *****
00358 # *****
00359 # *****
00360 # *****

```



00721# CONTINUOUS NASHYD 5.0 01:West\_2 20.14 .336 1973.0808.2100 101.49 .136 .000
00722# [CEN:16.0; W: 3.00; Tpe:1.24]
00723# [IAREC:6.00; SMIN:32.46; SMAX=216.39; ESK= .030]
00724# [InterEventTime=12.00]
00725# R0073:CO0008-----OtmIn-ID:INHYD-----AREHA-QFEARCS-TpeakDate\_hh:mm-----Rvm-R-C-----DWFCMS
00726# CONTINUOUS NASHYD 5.0 01:West\_3 14.01 .132 1973.0808.2145 87.18 117 .000
00727# [CEN:16.0; W: 3.00; Tpe:1.24]
00728# [IAREC:6.00; SMIN:41.38; SMAX=275.84; ESK= .030]
00729# [InterEventTime=12.00]
00730# R0073:CO0007-----OtmIn-ID:INHYD-----AREHA-QFEARCS-TpeakDate\_hh:mm-----Rvm-R-C-----DWFCMS
00731# ADD HYD + 5.0 02:West\_1 14.27 .228 1973.0808.2050 89.43 n/a .000
00732# + 5.0 02:West\_2 20.14 .336 1973.0808.2100 101.49 n/a .000
00733# + 5.0 02:West\_3 14.01 .132 1973.0808.2145 87.18 n/a .000
00734# SBM= 5.0 01:West-Total 48.42 .474 1973.0808.2100 93.79 n/a .000
00735# [CEN:16.0; W: 3.00; Tpe:1.24]
00736# Barhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
00737# \*\*\*\*\*
00738# Set infiltration to 0 (CN = 99.99) for water balance analysis
00739# [InterEventTime=12.00]
00740# R0073:CO0008-----OtmIn-ID:INHYD-----AREHA-QFEARCS-TpeakDate\_hh:mm-----Rvm-R-C-----DWFCMS
00741# CONTINUOUS NASHYD 5.0 01:INF-West\_1 14.27 .497 1973.0808.2035 275.63 370 .000
00742# [CEN:100.0; W: 3.00; Tpe:1.14]
00743# [IAREC:6.00; SMIN:1.39; SMAX= 9.24; ESK= .000]
00744# [InterEventTime=12.00]
00745# R0073:CO0008-----OtmIn-ID:INHYD-----AREHA-QFEARCS-TpeakDate\_hh:mm-----Rvm-R-C-----DWFCMS
00746# CONTINUOUS NASHYD 5.0 01:INF-West\_2 20.14 .650 1973.0808.2045 275.63 370 .000
00747# [CEN:100.0; W: 3.00; Tpe:1.14]
00748# [IAREC:6.00; SMIN:1.39; SMAX= 9.24; ESK= .000]
00749# [InterEventTime=12.00]
00750# R0073:CO0010-----OtmIn-ID:INHYD-----AREHA-QFEARCS-TpeakDate\_hh:mm-----Rvm-R-C-----DWFCMS
00751# CONTINUOUS NASHYD 5.0 01:INF-West\_3 14.01 .300 1973.0808.2130 275.63 370 .000
00752# [CEN:100.0; W: 3.00; Tpe:1.20]
00753# [IAREC:6.00; SMIN:1.39; SMAX= 9.24; ESK= .000]
00754# [InterEventTime=12.00]
00755# R0073:CO0011-----OtmIn-ID:INHYD-----AREHA-QFEARCS-TpeakDate\_hh:mm-----Rvm-R-C-----DWFCMS
00756# ADD HYD + 5.0 02:INF-West\_1 14.27 .497 1973.0808.2035 275.63 n/a .000
00757# + 5.0 02:INF-West\_2 20.14 .650 1973.0808.2045 275.63 n/a .000
00758# + 5.0 02:INF-West\_3 14.01 .300 1973.0808.2130 275.63 n/a .000
00759# SBM= 5.0 01:INF-West-7 48.42 .140 1973.0808.2045 275.63 n/a .000
00760# \*\*\*\*\*
00761# CONTINUOUS RAINFALL DATA
00762# \*\*\*\*\*
00763# \*\* END OF RUN : 73
00764#
00765#
00766#
00767#
00768#
00769#
00770#
00771# RUN:COMMAND#
00772# R0074:CO0001-----OtmIn-ID:INHYD-----AREHA-QFEARCS-TpeakDate\_hh:mm-----Rvm-R-C-----DWFCMS
00773# START [INTER= .00 hrs on 19740101]
00774# [METOUT= 2 (Impigral, 2-metric output)]
00775# [INTFORM= 0 ]
00776# [RUN= 0017 ]
00777# \*\*\*\*\*
00778# SWMHYM Ver:5.02/Jan 2001 -GEMTA / INPUT DATA FILE
00779# \*\*\*\*\*
00780# Project Name: Barhaven Conservancy Development
00781# Project Number: 1474
00782# Date : 2021/Oct/18
00783# Modeler : J.Burnett, P.Eng.
00784# Updated : 2022/Dec/07 [LB]
00785# Updated : 2022/Dec/13 [LP]
00786# Updated : 2024/Oct/18 [JFS]
00787# Company : J.F. Sabourin and Associates
00788# License # : 2582634
00789# \*\*\*\*\*
00790# \*\*\*\*\*
00791# \*\*\*\*\*
00792# \*\*\*\*\*
00793# \*\*\*\*\*
00794# \*\*\*\*\*
00795# \*\*\*\*\*
00796# \*\*\*\*\*
00797# \*\*\*\*\*
00798# \*\*\*\*\*
00799# \*\*\*\*\*
00800# \*\*\*\*\*
00801# \*\*\*\*\*
00802# \*\*\*\*\*
00803# \*\*\*\*\*
00804# \*\*\*\*\*
00805# \*\*\*\*\*
00806# \*\*\*\*\*
00807# \*\*\*\*\*
00808# \*\*\*\*\*
00809# \*\*\*\*\*
00810# \*\*\*\*\*
00811# \*\*\*\*\*
00812# \*\*\*\*\*
00813# \*\*\*\*\*
00814# \*\*\*\*\*
00815# \*\*\*\*\*
00816# \*\*\*\*\*
00817# \*\*\*\*\*
00818# \*\*\*\*\*
00819# \*\*\*\*\*
00820# \*\*\*\*\*
00821# \*\*\*\*\*
00822# \*\*\*\*\*
00823# \*\*\*\*\*
00824# \*\*\*\*\*
00825# \*\*\*\*\*
00826# \*\*\*\*\*
00827# \*\*\*\*\*
00828# \*\*\*\*\*
00829# \*\*\*\*\*
00830# \*\*\*\*\*
00831# \*\*\*\*\*
00832# \*\*\*\*\*
00833# \*\*\*\*\*
00834# \*\*\*\*\*
00835# \*\*\*\*\*
00836# \*\*\*\*\*
00837# \*\*\*\*\*
00838# \*\*\*\*\*
00839# \*\*\*\*\*
00840# \*\*\*\*\*
00841# \*\*\*\*\*
00842# \*\*\*\*\*
00843# \*\*\*\*\*
00844# \*\*\*\*\*
00845# \*\*\*\*\*
00846# \*\*\*\*\*
00847# \*\*\*\*\*
00848# \*\*\*\*\*
00849# \*\*\*\*\*
00850# \*\*\*\*\*
00851# \*\*\*\*\*
00852# \*\*\*\*\*
00853# \*\*\*\*\*
00854# \*\*\*\*\*
00855# \*\*\*\*\*
00856# \*\*\*\*\*
00857# \*\*\*\*\*
00858# \*\*\*\*\*
00859# \*\*\*\*\*
00860# \*\*\*\*\*
00861# \*\*\*\*\*
00862# \*\*\*\*\*
00863# \*\*\*\*\*
00864# \*\*\*\*\*
00865# \*\*\*\*\*
00866# \*\*\*\*\*
00867# \*\*\*\*\*
00868# \*\*\*\*\*
00869# \*\*\*\*\*
00870# \*\*\*\*\*
00871# \*\*\*\*\*
00872# \*\*\*\*\*
00873# \*\*\*\*\*
00874# \*\*\*\*\*
00875# \*\*\*\*\*
00876# \*\*\*\*\*
00877# \*\*\*\*\*
00878# \*\*\*\*\*
00879# \*\*\*\*\*
00880# \*\*\*\*\*
00881# \*\*\*\*\*
00882# \*\*\*\*\*
00883# \*\*\*\*\*
00884# \*\*\*\*\*
00885# \*\*\*\*\*
00886# \*\*\*\*\*
00887# \*\*\*\*\*
00888# \*\*\*\*\*
00889# \*\*\*\*\*
00890# \*\*\*\*\*
00891# \*\*\*\*\*
00892# \*\*\*\*\*
00893# \*\*\*\*\*
00894# \*\*\*\*\*
00895# \*\*\*\*\*
00896# \*\*\*\*\*
00897# \*\*\*\*\*
00898# \*\*\*\*\*
00899# \*\*\*\*\*
00900# \*\*\*\*\*
00901# \*\*\*\*\*
00902# \*\*\*\*\*
00903# \*\*\*\*\*
00904# \*\*\*\*\*
00905# \*\*\*\*\*
00906# \*\*\*\*\*
00907# \*\*\*\*\*
00908# \*\*\*\*\*
00909# \*\*\*\*\*
00910# \*\*\*\*\*
00911# \*\*\*\*\*
00912# \*\*\*\*\*
00913# \*\*\*\*\*
00914# \*\*\*\*\*
00915# \*\*\*\*\*
00916# \*\*\*\*\*
00917# \*\*\*\*\*
00918# \*\*\*\*\*
00919# \*\*\*\*\*
00920# \*\*\*\*\*
00921# \*\*\*\*\*
00922# \*\*\*\*\*
00923# \*\*\*\*\*
00924# \*\*\*\*\*
00925# \*\*\*\*\*
00926# \*\*\*\*\*
00927# \*\*\*\*\*
00928# \*\*\*\*\*
00929# \*\*\*\*\*
00930# \*\*\*\*\*
00931# \*\*\*\*\*
00932# \*\*\*\*\*
00933# \*\*\*\*\*
00934# \*\*\*\*\*
00935# \*\*\*\*\*
00936# \*\*\*\*\*
00937# \*\*\*\*\*
00938# \*\*\*\*\*
00939# \*\*\*\*\*
00940# \*\*\*\*\*
00941# \*\*\*\*\*
00942# \*\*\*\*\*
00943# \*\*\*\*\*
00944# \*\*\*\*\*
00945# \*\*\*\*\*
00946# \*\*\*\*\*
00947# \*\*\*\*\*
00948# \*\*\*\*\*
00949# \*\*\*\*\*
00950# \*\*\*\*\*
00951# \*\*\*\*\*
00952# \*\*\*\*\*
00953# \*\*\*\*\*
00954# \*\*\*\*\*
00955# \*\*\*\*\*
00956# \*\*\*\*\*
00957# \*\*\*\*\*
00958# \*\*\*\*\*
00959# \*\*\*\*\*
00960# \*\*\*\*\*
00961# \*\*\*\*\*
00962# \*\*\*\*\*
00963# \*\*\*\*\*
00964# \*\*\*\*\*
00965# \*\*\*\*\*
00966# \*\*\*\*\*
00967# \*\*\*\*\*
00968# \*\*\*\*\*
00969# \*\*\*\*\*
00970# \*\*\*\*\*
00971# \*\*\*\*\*
00972# \*\*\*\*\*
00973# \*\*\*\*\*
00974# \*\*\*\*\*
00975# \*\*\*\*\*
00976# \*\*\*\*\*
00977# \*\*\*\*\*
00978# \*\*\*\*\*
00979# \*\*\*\*\*
00980# \*\*\*\*\*
00981# \*\*\*\*\*
00982# \*\*\*\*\*
00983# \*\*\*\*\*
00984# \*\*\*\*\*
00985# \*\*\*\*\*
00986# \*\*\*\*\*
00987# \*\*\*\*\*
00988# \*\*\*\*\*
00989# \*\*\*\*\*
00990# \*\*\*\*\*
00991# \*\*\*\*\*
00992# \*\*\*\*\*
00993# \*\*\*\*\*
00994# \*\*\*\*\*
00995# \*\*\*\*\*
00996# \*\*\*\*\*
00997# \*\*\*\*\*
00998# \*\*\*\*\*
00999# \*\*\*\*\*
01000# \*\*\*\*\*
01001# \*\*\*\*\*
01002# \*\*\*\*\*
01003# \*\*\*\*\*
01004# \*\*\*\*\*
01005# \*\*\*\*\*
01006# \*\*\*\*\*
01007# \*\*\*\*\*
01008# \*\*\*\*\*
01009# \*\*\*\*\*
01010# \*\*\*\*\*
01011# \*\*\*\*\*
01012# \*\*\*\*\*
01013# \*\*\*\*\*
01014# \*\*\*\*\*
01015# \*\*\*\*\*
01016# \*\*\*\*\*
01017# \*\*\*\*\*
01018# \*\*\*\*\*
01019# \*\*\*\*\*
01020# \*\*\*\*\*
01021# \*\*\*\*\*
01022# \*\*\*\*\*
01023# \*\*\*\*\*
01024# \*\*\*\*\*
01025# \*\*\*\*\*
01026# \*\*\*\*\*
01027# \*\*\*\*\*
01028# \*\*\*\*\*
01029# \*\*\*\*\*
01030# \*\*\*\*\*
01031# \*\*\*\*\*
01032# \*\*\*\*\*
01033# \*\*\*\*\*
01034# \*\*\*\*\*
01035# \*\*\*\*\*
01036# \*\*\*\*\*
01037# \*\*\*\*\*
01038# \*\*\*\*\*
01039# \*\*\*\*\*
01040# \*\*\*\*\*
01041# \*\*\*\*\*
01042# \*\*\*\*\*
01043# \*\*\*\*\*
01044# \*\*\*\*\*
01045# \*\*\*\*\*
01046# \*\*\*\*\*
01047# \*\*\*\*\*
01048# \*\*\*\*\*
01049# \*\*\*\*\*
01050# \*\*\*\*\*
01051# \*\*\*\*\*
01052# \*\*\*\*\*
01053# \*\*\*\*\*
01054# \*\*\*\*\*
01055# \*\*\*\*\*
01056# \*\*\*\*\*
01057# \*\*\*\*\*
01058# \*\*\*\*\*
01059# \*\*\*\*\*
01060# \*\*\*\*\*
01061# \*\*\*\*\*
01062# \*\*\*\*\*
01063# \*\*\*\*\*
01064# \*\*\*\*\*
01065# \*\*\*\*\*
01066# \*\*\*\*\*
01067# \*\*\*\*\*
01068# \*\*\*\*\*
01069# \*\*\*\*\*
01070# \*\*\*\*\*
01071# \*\*\*\*\*
01072# \*\*\*\*\*
01073# \*\*\*\*\*
01074# \*\*\*\*\*
01075# \*\*\*\*\*
01076# \*\*\*\*\*
01077# \*\*\*\*\*
01078# \*\*\*\*\*
01079# \*\*\*\*\*
01080# \*\*\*\*\*
01081# \*\*\*\*\*
01082# \*\*\*\*\*
01083# \*\*\*\*\*
01084# \*\*\*\*\*
01085# \*\*\*\*\*
01086# \*\*\*\*\*
01087# \*\*\*\*\*
01088# \*\*\*\*\*
01089# \*\*\*\*\*
01090# \*\*\*\*\*
01091# \*\*\*\*\*
01092# \*\*\*\*\*
01093# \*\*\*\*\*
01094# \*\*\*\*\*
01095# \*\*\*\*\*
01096# \*\*\*\*\*
01097# \*\*\*\*\*
01098# \*\*\*\*\*
01099# \*\*\*\*\*
01100# \*\*\*\*\*



```

01441# CONTINUOUS NASHYD 5.0 01:INF-West-1 14.27 .167 1980.0901.21:10 202.99 .326 .000
01442# [CWI:10.0: Hw: 3.0:0: Typ: 1.26]
01443# [IAREC: 6.0:0: EMIN: 1.39: SMAX: 9.24: SK: .030]
01444# [InterEventTime: 12.00]
01445# R0821:C0001-----OtrIn-ID:INHYD-----AREAhA-QFEARcMs-TpaeDate_hh:mm-----RvM-R-C-----DWFCMs
01446# CONTINUOUS NASHYD 5.0 01:INF-West-2 20.14 .221 1980.0901.21:15 202.99 .326 .000
01447# [CWI:10.0: Hw: 3.0:0: Typ: 1.26]
01448# [IAREC: 6.0:0: EMIN: 1.39: SMAX: 9.24: SK: .030]
01449# [InterEventTime: 12.00]
01450# R0821:C0010-----OtrIn-ID:INHYD-----AREAhA-QFEARcMs-TpaeDate_hh:mm-----RvM-R-C-----DWFCMs
01451# CONTINUOUS NASHYD 5.0 01:INF-West-3 14.01 .133 1980.0321.16:10 202.99 .326 .000
01452# [CWI:10.0: Hw: 3.0:0: Typ: 1.26]
01453# [IAREC: 6.0:0: EMIN: 1.39: SMAX: 9.24: SK: .030]
01454# [InterEventTime: 12.00]
01455# R0821:C0011-----OtrIn-ID:INHYD-----AREAhA-QFEARcMs-TpaeDate_hh:mm-----RvM-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# SBM + 5.0 01:INF-West-7 48.42 .191 1980.0321.15:30 202.99 n/a .000
01460# ##### CONTINUOUS RAINFALL DATA #####
01461# ** END OF RUN : 80 #####
01462#
01463# ** END OF RUN : 80 #####
01464#
01465# [InterEventTime: 12.00]
01466# R0821:C0006-----OtrIn-ID:INHYD-----AREAhA-QFEARcMs-TpaeDate_hh:mm-----RvM-R-C-----DWFCMs
01467# CONTINUOUS NASHYD 5.0 01:INF-West-2 20.14 .358 1982.0825.11:40 182.36 .306 .000
01468# [CWI:100.0: Hw: 3.0:0: Typ: 1.26]
01469# [IAREC: 6.0:0: EMIN: 1.39: SMAX: 9.24: SK: .030]
01470# [InterEventTime: 12.00]
01471# R0821:C0007-----OtrIn-ID:INHYD-----AREAhA-QFEARcMs-TpaeDate_hh:mm-----RvM-R-C-----DWFCMs
01472# CONTINUOUS NASHYD 5.0 01:INF-West-3 14.01 .196 1982.0825.12:45 182.36 .306 .000
01473# [CWI:100.0: Hw: 3.0:0: Typ: 2.07]
01474# [IAREC: 6.0:0: EMIN: 1.39: SMAX: 9.24: SK: .030]
01475# [InterEventTime: 12.00]
01476# R0821:C0011-----OtrIn-ID:INHYD-----AREAhA-QFEARcMs-TpaeDate_hh:mm-----RvM-R-C-----DWFCMs
01477# ADD HYD + 5.0 02:INF-West-1 14.27 .264 1982.0825.11:35 182.36 n/a .000
01478# + 5.0 02:INF-West-2 20.14 .358 1982.0825.11:40 182.36 n/a .000
01479# + 5.0 02:INF-West-3 14.01 .196 1982.0825.12:45 182.36 n/a .000
01480# SBM + 5.0 01:INF-West-7 48.42 .194 1982.0825.11:50 182.36 n/a .000
01481# ##### CONTINUOUS RAINFALL DATA #####
01482# ** END OF RUN : 82 #####
01483#
01484# READ AES DATA
01485# [FileName = YOM_1967_2007_123 ]
01486# [Start_Date = 1981.01:01; End_Date = 1981.12:31]
01487# [DT= 60;min; Length= 8760;hrs; WetHrs= 641; DryHrs= 8119; PTO= 936.40]
01488# Maximum average rainfall intensities over
01489# 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs mm/hr
01490# 35.30 31.85 26.20 18.15 9.27 4.88 3.22 2.41 1.62
01491# 35.30 31.85 26.20 18.15 9.27 4.88 3.22 2.41 1.62 mm
01492# 1981005 1981005 1981005 1981005 1981005 1981005 1981005 1981005 1981005
01493# Number of events with at least the following durations
01494# 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
01495# 226 171 136 109 83 68 59 47 30
01496# Number of events with at least the following durations
01497# 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
01498# 225 128 79 28 7 0 0 0 0
01499# R0821:C0003-----OtrIn-ID:INHYD-----AREAhA-QFEARcMs-TpaeDate_hh:mm-----RvM-R-C-----DWFCMs
01500# COMPUTE API
01501# [APIIn: 30.00; APIQty: 9000; APIKdt: 9956]
01502# [APIMax: 123.49; APIAvg: 25.89; APImin: .26]
01503#
01504# Barhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01505# R0821:C0004-----OtrIn-ID:INHYD-----AREAhA-QFEARcMs-TpaeDate_hh:mm-----RvM-R-C-----DWFCMs
01506# CONTINUOUS NASHYD 5.0 01:West-1 14.27 .785 1981.0805.2:55 179.64 192 .000
01507# [CWI: 72.0: Hw: 3.0:0: Typ: 1.41]
01508# [IAREC: 6.0:0: EMIN: 39.75: SMAX=264.99: SK: .030]
01509# [InterEventTime: 12.00]
01510# R0821:C0009-----OtrIn-ID:INHYD-----AREAhA-QFEARcMs-TpaeDate_hh:mm-----RvM-R-C-----DWFCMs
01511# CONTINUOUS NASHYD 5.0 01:West-2 20.14 1.116 1981.0805.3:05 196.98 210 .000
01512# [CWI: 72.0: Hw: 3.0:0: Typ: 1.41]
01513# [IAREC: 6.0:0: EMIN: 32.46: SMAX=216.39: SK: .030]
01514# [InterEventTime: 12.00]
01515# R0821:C0010-----OtrIn-ID:INHYD-----AREAhA-QFEARcMs-TpaeDate_hh:mm-----RvM-R-C-----DWFCMs
01516# CONTINUOUS NASHYD 5.0 01:West-3 14.01 .557 1981.0805.4:25 176.32 188 .000
01517# [CWI: 72.0: Hw: 3.0:0: Typ: 1.41]
01518# [IAREC: 6.0:0: EMIN: 41.38: SMAX=275.84: SK: .030]
01519# [InterEventTime: 12.00]
01520# R0821:C0011-----OtrIn-ID:INHYD-----AREAhA-QFEARcMs-TpaeDate_hh:mm-----RvM-R-C-----DWFCMs
01521# ADD HYD + 5.0 02:West-1 14.27 .785 1981.0805.2:55 179.64 n/a .000
01522# + 5.0 02:West-2 20.14 1.116 1981.0805.3:05 196.98 n/a .000
01523# + 5.0 02:West-3 14.01 .557 1981.0805.4:25 176.32 n/a .000
01524# SBM + 5.0 01:West-Total 48.42 2.353 1981.0805.3:10 185.89 n/a .000
01525#
01526# Barhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01527# R0821:C0008-----OtrIn-ID:INHYD-----AREAhA-QFEARcMs-TpaeDate_hh:mm-----RvM-R-C-----DWFCMs
01528# CONTINUOUS NASHYD 5.0 01:West-1 14.27 1.007 1981.0805.2:35 380.71 407 .000
01529# [CWI:10.0: Hw: 3.0:0: Typ: 2.07]
01530# [IAREC: 6.0:0: EMIN: 1.39: SMAX: 9.24: SK: .030]
01531# [InterEventTime: 12.00]
01532# R0821:C0009-----OtrIn-ID:INHYD-----AREAhA-QFEARcMs-TpaeDate_hh:mm-----RvM-R-C-----DWFCMs
01533# CONTINUOUS NASHYD 5.0 01:INF-West-2 20.14 1.352 1981.0805.2:40 380.71 407 .000
01534# [CWI:10.0: Hw: 3.0:0: Typ: 2.07]
01535# [IAREC: 6.0:0: EMIN: 1.39: SMAX: 9.24: SK: .030]
01536# [InterEventTime: 12.00]
01537# R0821:C0010-----OtrIn-ID:INHYD-----AREAhA-QFEARcMs-TpaeDate_hh:mm-----RvM-R-C-----DWFCMs
01538# CONTINUOUS NASHYD 5.0 01:INF-West-3 14.01 .710 1981.0805.3:45 380.70 407 .000
01539# [CWI:10.0: Hw: 3.0:0: Typ: 2.07]
01540# [IAREC: 6.0:0: EMIN: 1.39: SMAX: 9.24: SK: .030]
01541# [InterEventTime: 12.00]
01542# R0821:C0011-----OtrIn-ID:INHYD-----AREAhA-QFEARcMs-TpaeDate_hh:mm-----RvM-R-C-----DWFCMs
01543# ADD HYD + 5.0 02:INF-West-1 14.27 1.007 1981.0805.2:35 380.70 n/a .000
01544# + 5.0 02:INF-West-2 20.14 1.352 1981.0805.2:40 380.71 n/a .000
01545# + 5.0 02:INF-West-3 14.01 .710 1981.0805.3:45 380.70 n/a .000
01546# SBM + 5.0 01:INF-West-7 48.42 2.967 1981.0805.2:45 380.70 n/a .000
01547#
01548# Barhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01549# R0821:C0008-----OtrIn-ID:INHYD-----AREAhA-QFEARcMs-TpaeDate_hh:mm-----RvM-R-C-----DWFCMs
01550# CONTINUOUS NASHYD 5.0 01:INF-West-1 14.27 1.007 1981.0805.2:35 380.71 407 .000
01551# [CWI:10.0: Hw: 3.0:0: Typ: 2.07]
01552# [IAREC: 6.0:0: EMIN: 1.39: SMAX: 9.24: SK: .030]
01553# [InterEventTime: 12.00]
01554# R0821:C0009-----OtrIn-ID:INHYD-----AREAhA-QFEARcMs-TpaeDate_hh:mm-----RvM-R-C-----DWFCMs
01555# ADD HYD + 5.0 02:INF-West-1 14.27 1.007 1981.0805.2:35 380.70 n/a .000
01556# + 5.0 02:INF-West-2 20.14 1.352 1981.0805.2:40 380.71 n/a .000
01557# + 5.0 02:INF-West-3 14.01 .710 1981.0805.3:45 380.70 n/a .000
01558# SBM + 5.0 01:INF-West-7 48.42 2.967 1981.0805.2:45 380.70 n/a .000
01559#
01560# ##### CONTINUOUS RAINFALL DATA #####
01561# ** END OF RUN : 81 #####
01562#
01563# ** END OF RUN : 81 #####
01564#
01565# [InterEventTime: 12.00]
01566# R0821:C0006-----OtrIn-ID:INHYD-----AREAhA-QFEARcMs-TpaeDate_hh:mm-----RvM-R-C-----DWFCMs
01567# CONTINUOUS NASHYD 5.0 01:INF-West-2 20.14 .339 1983.1005.1:6:10 172.99 .294 .000
01568# [CWI:100.0: Hw: 3.0:0: Typ: 1.26]
01569# [IAREC: 6.0:0: EMIN: 1.39: SMAX: 9.24: SK: .030]
01570# [InterEventTime: 12.00]
01571# R0821:C0007-----OtrIn-ID:INHYD-----AREAhA-QFEARcMs-TpaeDate_hh:mm-----RvM-R-C-----DWFCMs
01572# CONTINUOUS NASHYD 5.0 01:INF-West-3 14.01 .184 1983.1005.1:7:20 172.99 .294 .000
01573# [CWI:100.0: Hw: 3.0:0: Typ: 2.07]
01574# [IAREC: 6.0:0: EMIN: 1.39: SMAX: 9.24: SK: .030]
01575# [InterEventTime: 12.00]
01576# R0821:C0011-----OtrIn-ID:INHYD-----AREAhA-QFEARcMs-TpaeDate_hh:mm-----RvM-R-C-----DWFCMs
01577# ADD HYD + 5.0 02:INF-West-1 14.27 .252 1983.1005.1:6:00 172.99 n/a .000
01578# + 5.0 02:INF-West-2 20.14 .339 1983.1005.1:6:10 172.99 n/a .000
01579# + 5.0 02:INF-West-3 14.01 .184 1983.1005.1:7:20 172.99 n/a .000
01580# SBM + 5.0 01:INF-West-7 48.42 .766 1983.1005.1:6:15 172.99 n/a .000
01581# ##### CONTINUOUS RAINFALL DATA #####
01582# ** END OF RUN : 83 #####
01583#
01584# READ AES DATA
01585# [FileName = YOM_1967_2007_123 ]
01586# [Start_Date = 1981.01:01; End_Date = 1984.12:30]
01587# [DT= 60;min; Length= 8760;hrs; WetHrs= 308; DryHrs= 8452; PTO= 459.40]
01588# Maximum average rainfall intensities over
01589# 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs mm/hr
01590# 37.80 34.40 27.70 19.40 10.10 5.33 3.01 1.85 1.38
01591# 37.80 34.40 27.70 19.40 10.10 5.33 3.01 1.85 1.38 mm
01592# 1982001 1982001 1982001 1982001 1982001 1982001 1982001 1982001 1982001
01593# Number of events with at least the following durations
01594# 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
01595# 134 110 98 78 66 66 66 66 66
01596# Number of events with at least the following durations
01597# 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
01598# 123 81 58 18 4 2 0 1 0 0
01599# R0821:C0003-----OtrIn-ID:INHYD-----AREAhA-QFEARcMs-TpaeDate_hh:mm-----RvM-R-C-----DWFCMs
01600# COMPUTE API
01601# [APIIn: 30.00; APIQty: 9000; APIKdt: 9956]
01602# [APIMax: 56.66; APIAvg: 16.78; APImin: .03]
01603#
01604# Barhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
01605# R0821:C0004-----OtrIn-ID:INHYD-----AREAhA-QFEARcMs-TpaeDate_hh:mm-----RvM-R-C-----DWFCMs
01606# CONTINUOUS NASHYD 5.0 01:West-1 14.27 .102 1982.0825.12:15 47.17 079 .000
01607# [CWI: 72.0: Hw: 3.0:0: Typ: 1.41]
01608# [IAREC: 6.0:0: EMIN: 39.75: SMAX=264.99: SK: .030]
01609# [InterEventTime: 12.00]

```

01801 19840812 19840812 19840812 19840806 19840812 19840812 19840813 19840814 19840815 date
01802 Number of rainfall events per following interevent time
01803 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
01804 9 8 8 7 5 3 5 5 8 48 40 34 26

01981 # Project Name: Barhaven Conservancy Development
01982 # Project Number: 1474
01983 # Date : 2021/Oct/18
01984 # Modeler : J.Burnett, P.Eng.
01985 # Updated : 2022/Dec/07 [LB]





02521> CONTINUOUS NASHYD 5.0 01:West\_2 20.14 .125 1991.0410.4105 52.68 .095 .000
02522> [CN=16.0; W= 3.00; Tpe=1.14]
02523> [IAREC= 6.00; SMIN= 32.46; SMAX=216.39; EK= .030]
02524> [InterEventTime= 12.00]
02525> R0991C00008-----Othm-ID:INHYD-----AREHA-QFEARMS-TpeaDate\_hh:mm-----Rvm-R-C-----DWfms
02526> CONTINUOUS NASHYD 5.0 01:West\_3 14.01 .049 1991.0410.4155 44.92 .081 .000
02527> [CN=16.0; W= 3.00; Tpe=1.14]
02528> [IAREC= 6.00; SMIN= 41.38; SMAX=275.84; EK= .030]
02529> [InterEventTime= 12.00]
02530> R0991C00007-----Othm-ID:INHYD-----AREHA-QFEARMS-TpeaDate\_hh:mm-----Rvm-R-C-----DWfms
02531> ADD HYD + 5.0 02:West\_1 14.27 .085 1991.0410.4100 46.13 n/a .000
02532> + 5.0 02:West\_2 20.14 .125 1991.0410.4105 52.68 n/a .000
02533> + 5.0 02:West\_3 14.01 .049 1991.0410.4155 44.92 n/a .000
02534> SBM= 5.0 01:West-Total 48.42 .252 1991.0410.4110 48.50 n/a .000
02535> [CN=16.0; W= 3.00; Tpe=1.28]
02536> # Barhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02537> \*\*\*\*\*
02538> # Set infiltration to 0 (CN = 99.99) for water balance analysis
02539> [InterEventTime= 12.00]
02540> R0991C00008-----Othm-ID:INHYD-----AREHA-QFEARMS-TpeaDate\_hh:mm-----Rvm-R-C-----DWfms
02541> CONTINUOUS NASHYD 5.0 01:INF-West\_1 14.27 .175 1991.0409.1140 159.83 .287 .000
02542> [CN=100.0; W= 3.00; Tpe=1.14]
02543> [IAREC= 6.00; SMIN= 1.39; SMAX= 9.24; EK= .000]
02544> [InterEventTime= 12.00]
02545> R0991C00009-----Othm-ID:INHYD-----AREHA-QFEARMS-TpeaDate\_hh:mm-----Rvm-R-C-----DWfms
02546> CONTINUOUS NASHYD 5.0 01:INF-West\_2 20.14 .228 1991.0409.1150 159.83 .287 .000
02547> [CN=100.0; W= 3.00; Tpe=1.14]
02548> [IAREC= 6.00; SMIN= 1.39; SMAX= 9.24; EK= .000]
02549> [InterEventTime= 12.00]
02550> R0991C00010-----Othm-ID:INHYD-----AREHA-QFEARMS-TpeaDate\_hh:mm-----Rvm-R-C-----DWfms
02551> CONTINUOUS NASHYD 5.0 01:INF-West\_3 14.01 .105 1991.0409.2145 159.83 .287 .000
02552> [CN=100.0; W= 3.00; Tpe=1.20]
02553> [IAREC= 6.00; SMIN= 1.39; SMAX= 9.24; EK= .000]
02554> [InterEventTime= 12.00]
02555> R0991C00011-----Othm-ID:INHYD-----AREHA-QFEARMS-TpeaDate\_hh:mm-----Rvm-R-C-----DWfms
02556> ADD HYD + 5.0 02:INF-West\_1 14.27 .175 1991.0409.1140 159.83 n/a .000
02557> + 5.0 02:INF-West\_2 20.14 .228 1991.0409.1150 159.83 n/a .000
02558> + 5.0 02:INF-West\_3 14.01 .105 1991.0409.2145 159.83 n/a .000
02559> SBM= 5.0 01:INF-West-7 48.42 .490 1991.0409.1150 159.83 n/a .000
02560> \*\*\*\*\*
02561> # CONTINUOUS RAINFALL DATA
02562> \*\*\*\*\*
02563> \*\* END OF RUN : 91
02564>
02565>
02566>
02567>
02568>
02569>
02570>
02571> RUN:COMMAND#
02572> R0993C00001-----Othm-ID:INHYD-----AREHA-QFEARMS-TpeaDate\_hh:mm-----Rvm-R-C-----DWfms
02573> START [TZERO = .00 hrs on 19920101]
02574> [METOUT= 2 (Histogram, 2-metric output)]
02575> [INFORM= 0]
02576> [NRUN = 008]
02577> \*\*\*\*\*
02578> # SWMHYM Ver:02/Jan 2001 <BETA> / INPUT DATA FILE
02579> \*\*\*\*\*
02580> # Project Name: Barhaven Conservancy Development
02581> # Project Number: 1474
02582> # Date : 2021/Oct/18
02583> # Modeler : J.Burnett, P.Eng.
02584> # Updated : 2022/Dec/07 [LB]
02585> # Updated : 2022/Dec/13 [LP]
02586> # Updated : 2024/Oct/03 [JFS]
02587> # Company : J.F. Sabourin and Associates
02588> # License # : 2262434
02589> # Project Location: 1967-2003
02590> # Ottawa International Airport (1967 - 2003)
02591> \*\*\*\*\*
02592> R0993C00002-----Othm-ID:INHYD-----AREHA-QFEARMS-TpeaDate\_hh:mm-----Rvm-R-C-----DWfms
02593> READ AED DATA
02594> [Filename = YOM\_1967\_2007\_123 ]
02595> [Start\_date = 1992-01-01; End\_date = 1992-12-31]
02596> [DT= 60\_min; Length= 8760\_hrs; WetHrs= 551; DryHrs= 8209; PTO= 732.80]
02597> Maximum average rainfall intensities over
02598> 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
02599> 31.50 18.00 13.30 7.22 4.14 2.26 1.51 1.51 1.02 mm/hr
02600> 31.50 36.00 39.90 42.30 49.70 54.20 54.20 72.60 73.60 mm
02601> 1992004 1992004 1992004 1992004 1992004 1992004 1992004 1992004 1992004 date
02602> Number of rainfall events per following interval time
02603> 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
02604> 190 151 132 100 66 47 38
02605> Number of events with at least the following durations
02606> 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
02607> 189 109 70 22 5 1 0 0 0
02608> R0993C00003-----Othm-ID:INHYD-----AREHA-QFEARMS-TpeaDate\_hh:mm-----Rvm-R-C-----DWfms
02609> COMPUTE API
02610> [APIIn= 50.00; APIkdy= 9000; APIkms= 9956]
02611> [APIMax= 97.62; APIAvg= 20.33; APImin= 1.07]
02612> \*\*\*\*\*
02613> # Barhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02614> \*\*\*\*\*
02615> R0992C00004-----Othm-ID:INHYD-----AREHA-QFEARMS-TpeaDate\_hh:mm-----Rvm-R-C-----DWfms
02616> CONTINUOUS NASHYD 5.0 01:West\_1 14.27 .293 1992.0717.19120 94.75 .129 .000
02617> [CN=16.0; W= 3.00; Tpe=1.14]
02618> [IAREC= 6.00; SMIN= 39.75; SMAX=264.99; EK= .030]
02619> [InterEventTime= 12.00]
02620> R0992C00005-----Othm-ID:INHYD-----AREHA-QFEARMS-TpeaDate\_hh:mm-----Rvm-R-C-----DWfms
02621> CONTINUOUS NASHYD 5.0 01:West\_2 20.14 .432 1992.0717.19125 106.69 .146 .000
02622> [CN=16.0; W= 3.00; Tpe=1.14]
02623> [IAREC= 6.00; SMIN= 32.46; SMAX=216.39; EK= .030]
02624> [InterEventTime= 12.00]
02625> R0992C00006-----Othm-ID:INHYD-----AREHA-QFEARMS-TpeaDate\_hh:mm-----Rvm-R-C-----DWfms
02626> CONTINUOUS NASHYD 5.0 01:West\_3 14.01 .191 1992.0717.20115 92.50 .126 .000
02627> [CN=16.0; W= 3.00; Tpe=1.14]
02628> [IAREC= 6.00; SMIN= 41.38; SMAX=275.84; EK= .030]
02629> [InterEventTime= 12.00]
02630> R0992C00007-----Othm-ID:INHYD-----AREHA-QFEARMS-TpeaDate\_hh:mm-----Rvm-R-C-----DWfms
02631> ADD HYD + 5.0 02:West\_1 14.27 .293 1992.0717.19120 94.75 n/a .000
02632> + 5.0 02:West\_2 20.14 .432 1992.0717.19125 106.69 n/a .000
02633> + 5.0 02:West\_3 14.01 .191 1992.0717.20115 92.50 n/a .000
02634> SBM= 5.0 01:West-Total 48.42 .890 1992.0717.19130 99.07 n/a .000
02635> [CN=16.0; W= 3.00; Tpe=1.28]
02636> # Barhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
02637> \*\*\*\*\*
02638> # Set infiltration to 0 (CN = 99.99) for water balance analysis
02639> [InterEventTime= 12.00]
02640> R0992C00008-----Othm-ID:INHYD-----AREHA-QFEARMS-TpeaDate\_hh:mm-----Rvm-R-C-----DWfms
02641> CONTINUOUS NASHYD 5.0 01:INF-West\_1 14.27 .486 1992.0717.19100 266.21 .363 .000
02642> [CN=100.0; W= 3.00; Tpe=1.14]
02643> [IAREC= 6.00; SMIN= 1.39; SMAX= 9.24; EK= .000]
02644> [InterEventTime= 12.00]
02645> R0992C00009-----Othm-ID:INHYD-----AREHA-QFEARMS-TpeaDate\_hh:mm-----Rvm-R-C-----DWfms
02646> CONTINUOUS NASHYD 5.0 01:INF-West\_2 20.14 .650 1992.0717.19110 266.21 .363 .000
02647> [CN=100.0; W= 3.00; Tpe=1.14]
02648> [IAREC= 6.00; SMIN= 1.39; SMAX= 9.24; EK= .000]
02649> [InterEventTime= 12.00]
02650> R0992C00010-----Othm-ID:INHYD-----AREHA-QFEARMS-TpeaDate\_hh:mm-----Rvm-R-C-----DWfms
02651> CONTINUOUS NASHYD 5.0 01:INF-West\_3 14.01 .327 1992.0717.20100 266.21 .363 .000
02652> [CN=100.0; W= 3.00; Tpe=1.20]
02653> [IAREC= 6.00; SMIN= 1.39; SMAX= 9.24; EK= .000]
02654> [InterEventTime= 12.00]
02655> R0992C00011-----Othm-ID:INHYD-----AREHA-QFEARMS-TpeaDate\_hh:mm-----Rvm-R-C-----DWfms
02656> ADD HYD + 5.0 02:INF-West\_1 14.27 .486 1992.0717.19100 266.21 n/a .000
02657> + 5.0 02:INF-West\_2 20.14 .650 1992.0717.19110 266.21 n/a .000
02658> + 5.0 02:INF-West\_3 14.01 .327 1992.0717.20100 266.21 n/a .000
02659> SBM= 5.0 01:INF-West-7 48.42 .1420 1992.0717.19115 266.21 n/a .000
02660> \*\*\*\*\*
02661> # CONTINUOUS RAINFALL DATA
02662> \*\*\*\*\*
02663> \*\* END OF RUN : 92
02664>
02665>
02666>
02667>
02668>
02669>
02670>
02671> RUN:COMMAND#
02672> R0993C00001-----Othm-ID:INHYD-----AREHA-QFEARMS-TpeaDate\_hh:mm-----Rvm-R-C-----DWfms
02673> START [TZERO = .00 hrs on 19930101]
02674> [METOUT= 2 (Histogram, 2-metric output)]
02675> [INFORM= 0]
02676> [NRUN = 008]
02677> \*\*\*\*\*
02678> # SWMHYM Ver:02/Jan 2001 <BETA> / INPUT DATA FILE
02679> \*\*\*\*\*
02680> # Project Name: Barhaven Conservancy Development
02681> # Project Number: 1474
02682> # Date : 2021/Oct/18
02683> # Modeler : J.Burnett, P.Eng.
02684> # Updated : 2022/Dec/07 [LB]
02685> # Updated : 2022/Dec/13 [LP]
02686> # Updated : 2024/Oct/03 [JFS]
02687> # Company : J.F. Sabourin and Associates
02688> # License # : 2262434
02689> # Project Location: 1967-2003
02690> # Ottawa International Airport (1967 - 2003)
02691> \*\*\*\*\*
02692> R0993C00002-----Othm-ID:INHYD-----AREHA-QFEARMS-TpeaDate\_hh:mm-----Rvm-R-C-----DWfms
02693> READ AED DATA
02694> [Filename = YOM\_1967\_2007\_123 ]
02695> [Start\_date = 1993-01-01; End\_date = 1993-12-31]
02696> [DT= 60\_min; Length= 8760\_hrs; WetHrs= 585; DryHrs= 8175; PTO= 721.30]
02697> Maximum average rainfall intensities over
02698> 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
02699> 12.60 6.60 4.83 3.72 3.58 2.31 1.61 1.21 .81 mm/hr
02700> 12.60 13.20 14.50 22.30 43.00 55.10 58.10 58.10 58.10





```

03601* 20030711 20030711 20030711 20030711 20031021 20031015 20030525 20030526 20030527 date
03602* Number of rainfall events per following increment time
03603* 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
03604* 145 127 109 86 64 45 38 25 15
03605* Number of events with at least the following durations
03606* 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
03607* 144 80 49 13 5 1 0 0 0
03608* R0103:C00002-----
03609* COMPUTE API
03610* [APIIntr= 50.00; APIKdy= .9500; APIKdt= .9956]
03611* [APIMax= 72.10; APIAvg= 28.54; APIMin= 4.70]
03612* -----
03613* # Barhaven Conservancy West Developments (WITH INFILTRATION) - PRE DEVELOPMENT CONDITIONS
03614* -----
03615* R0103:C00004-----Othar-D:NBYD-----AREAh-QFEAGms-TpeakDate_hh:mm-----SvNm-R.C-----DWFGms
03616* CONTINUOUS NASHVD 5.0 01:West_1 14.27 .149 2003.0711.17:45 76.16 .137 .000
03617* [CN= 12.0; N= 3.00; T= 1.14]
03618* [IaRE= 6.00; SMIN= 39.75; SMAX=264.99; BK= .030]
03619* [InterEventTime= 12.00]
03620* R0103:C00005-----Othar-D:NBYD-----AREAh-QFEAGms-TpeakDate_hh:mm-----SvNm-R.C-----DWFGms
03621* CONTINUOUS NASHVD 5.0 01:West_2 20.14 .221 2003.0711.17:50 86.07 n/a .000
03622* [CN= 16.0; N= 3.00; T= 1.28]
03623* [IaRE= 6.00; SMIN= 32.46; SMAX=216.39; BK= .030]
03624* [InterEventTime= 12.00]
03625* R0103:C00006-----Othar-D:NBYD-----AREAh-QFEAGms-TpeakDate_hh:mm-----SvNm-R.C-----DWFGms
03626* CONTINUOUS NASHVD 5.0 01:West_3 14.01 .091 2003.1021.9:50 74.30 .134 .000
03627* [CN= 11.0; N= 3.00; T= 1.07]
03628* [IaRE= 6.00; SMIN= 41.38; SMAX=275.84; BK= .030]
03629* [InterEventTime= 12.00]
03630* R0103:C00007-----Othar-D:NBYD-----AREAh-QFEAGms-TpeakDate_hh:mm-----SvNm-R.C-----DWFGms
03631* ADD HYD 5.0 02:West_1 14.27 .149 2003.0711.17:45 76.16 n/a .000
03632* + 5.0 02:West_2 20.14 .221 2003.0711.17:50 86.07 n/a .000
03633* + 5.0 02:West_3 14.01 .091 2003.1021.9:50 74.30 n/a .000
03634* SIm= 5.0 01:West-Total 48.42 .444 2003.0711.17:55 99.74 n/a .000
03635* -----
03636* # Barhaven Conservancy West Developments (WITHOUT INFILTRATION) - PRE DEVELOPMENT CONDITIONS
03637* -----
03638* # Set infiltration to 0 (CN = 99.99) for water balance analysis
03639* -----
03640* R0103:C00008-----Othar-D:NBYD-----AREAh-QFEAGms-TpeakDate_hh:mm-----SvNm-R.C-----DWFGms
03641* CONTINUOUS NASHVD 5.0 01:1NF-West_1 14.27 .307 2003.0711.17:35 204.68 .369 .000
03642* [CN=10.0; N= 3.00; T= 1.28]
03643* [IaRE= 6.00; SMIN= 1.39; SMAX= 9.24; BK= .000]
03644* [InterEventTime= 12.00]
03645* R0103:C00009-----Othar-D:NBYD-----AREAh-QFEAGms-TpeakDate_hh:mm-----SvNm-R.C-----DWFGms
03646* CONTINUOUS NASHVD 5.0 01:1NF-West_2 20.14 .403 2003.0711.17:40 204.68 .369 .000
03647* [CN=10.0; N= 3.00; T= 1.07]
03648* [IaRE= 6.00; SMIN= 1.39; SMAX= 9.24; BK= .000]
03649* [InterEventTime= 12.00]
03650* R0103:C00010-----Othar-D:NBYD-----AREAh-QFEAGms-TpeakDate_hh:mm-----SvNm-R.C-----DWFGms
03651* CONTINUOUS NASHVD 5.0 01:1NF-West_3 14.01 .191 2003.0711.18:20 204.68 .369 .000
03652* [CN=10.0; N= 3.00; T= 1.07]
03653* [IaRE= 6.00; SMIN= 1.39; SMAX= 9.24; BK= .000]
03654* [InterEventTime= 12.00]
03655* R0103:C00011-----Othar-D:NBYD-----AREAh-QFEAGms-TpeakDate_hh:mm-----SvNm-R.C-----DWFGms
03656* ADD HYD 5.0 02:1NF-West_1 14.27 .307 2003.0711.17:35 204.68 n/a .000
03657* + 5.0 02:1NF-West_2 20.14 .403 2003.0711.17:40 204.68 n/a .000
03658* + 5.0 02:1NF-West_3 14.01 .191 2003.0711.18:20 204.68 n/a .000
03659* SIm= 5.0 01:1NF-West-7 48.42 .476 2003.0711.17:40 204.68 n/a .000
03660* #####
03661* # CONTINUOUS RAINFALL DATA
03662* #####
03663* R0103:C00002-----
03664* FINISH
03665* -----
03666* -----
03667* WARNINGS / ERRORS / NOTES
03668* -----
03669* R007:C00002 READ AEG DATA
03670* *** WARNING: Requested start date is less than start date in file.
03671* *** WARNING: Missing rainfall increments were set to 0.
03672* *** WARNING: Missing rainfall increments were set to 0.
03673* *** WARNING: Missing rainfall increments were set to 0.
03674* *** WARNING: Missing rainfall increments were set to 0.
03675* *** WARNING: Missing rainfall increments were set to 0.
03676* *** WARNING: Missing rainfall increments were set to 0.
03677* *** WARNING: Missing rainfall increments were set to 0.
03678* *** WARNING: Missing rainfall increments were set to 0.
03679* *** WARNING: Missing rainfall increments were set to 0.
03680* *** WARNING: Missing rainfall increments were set to 0.
03681* *** WARNING: Requested start date is less than start date in file.
03682* *** WARNING: Missing rainfall increments were set to 0.
03683* *** WARNING: Missing rainfall increments were set to 0.
03684* *** WARNING: Missing rainfall increments were set to 0.
03685* *** WARNING: Missing rainfall increments were set to 0.
03686* *** WARNING: Missing rainfall increments were set to 0.
03687* *** WARNING: Missing rainfall increments were set to 0.
03688* *** WARNING: Missing rainfall increments were set to 0.
03689* *** WARNING: Missing rainfall increments were set to 0.
03690* *** WARNING: Missing rainfall increments were set to 0.
03691* *** WARNING: Missing rainfall increments were set to 0.
03692* *** WARNING: Requested start date is less than start date in file.
03693* *** WARNING: Missing rainfall increments were set to 0.
03694* *** WARNING: Missing rainfall increments were set to 0.
03695* *** WARNING: Missing rainfall increments were set to 0.
03696* *** WARNING: Requested start date is less than start date in file.
03697* *** WARNING: Missing rainfall increments were set to 0.
03698* *** WARNING: Missing rainfall increments were set to 0.
03699* *** WARNING: Missing rainfall increments were set to 0.
03700* *** WARNING: Missing rainfall increments were set to 0.
03701* *** WARNING: Missing rainfall increments were set to 0.
03702* *** WARNING: Missing rainfall increments were set to 0.
03703* *** WARNING: Requested start date is less than start date in file.
03704* *** WARNING: Missing rainfall increments were set to 0.
03705* *** WARNING: Missing rainfall increments were set to 0.
03706* *** WARNING: Requested start date is less than start date in file.
03707* *** WARNING: Missing rainfall increments were set to 0.
03708* *** WARNING: Requested start date is less than start date in file.
03709* *** WARNING: Missing rainfall increments were set to 0.
03710* *** WARNING: Requested start date is less than start date in file.
03711* *** WARNING: Missing rainfall increments were set to 0.
03712* *** WARNING: Requested start date is less than start date in file.
03713* *** WARNING: Missing rainfall increments were set to 0.
03714* *** WARNING: Requested start date is less than start date in file.
03715* *** WARNING: Missing rainfall increments were set to 0.
03716* Simulation ended on 2024-03-14 at 20:05:19
03717* -----
03718* -----

```

```

1  20      Metric units / ID Numbers OFF
2  *#*****
3  *# SWMHYMO Ver:5.02/Jan 2001 <BETA> / INPUT DATA FILE
4  *#*****
5  *# Project Name: Barrhaven Conservancy Development
6  *# Project Number: 1474
7  *# Date       : 2021/Oct/18
8  *# Modeller  : J.Burnett, P.Eng.
9  *# Updated   : 2024/Mar/14 [LP]
10 *# Company   : J.F. Sabourin and Associates
11 *# License #  : 2582634
12 *#*****
13 START          TZERO=[1967.0101], METOUT=[2], NSTORM=[0], NRUN=[67]
14 *%             [""] <--storm filename, one per line for NSTORM time
15 *%-----|-----
16 *# Ottawa International Airport (1967 - 2003)
17 READ AES DATA AES_FILENAME=["YOW_1967_2007.123"],
18 IELEM=[123], START_DATE=[0], END_DATE=[-364]
19 *%-----|-----
20 COMPUTE API    APII=[50], APIK=[0.90]/day
21 *%-----|-----
22 *#*****
23 *#           Barrhaven Conservancy Development Phase 3 (WITH INFILTRATION) -
24 POST DEVELOPMENT CONDITIONS
25 *#*****
26 CONTINUOUS STANDHYD NHYD=["W1"], DT=[5] (min), AREA=[5.76] (ha)
27 XIMP=[0.55], TIMP=[0.66], DWF=[0] (cms),
28 LOSS=[2]: SCS curve number CN=[71],
29 Pervious areas: IAper=[4.67] (mm), SLPP=[2.0] (%), LGP=[40] (m),
30 MNP=[0.250], SCP=[0] (min),
31 Impervious areas: IAimp=[1.57] (mm), SLPI=[0.5] (%), LGI=[196] (m),
32 MNI=[0.013], SCI=[0] (min),
33 Continuous simulation parameters:
34 IaRECper=[6] (hrs), IaRECimp=[1.5] (hrs),
35 SMIN=[-1] (mm), SMAX=[-1] (mm), SK=[0.03]/(mm),
36 InterEventTime=[12] (hrs), END=-1
37 *%-----|-----
38 *# LID for Outlet W1 (14 catchbasins, 30 m long trench each)
39 *# Assumed 420 m long trench 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm
40 diameter perforated pipe
41 *# Total Volume provided by LID - 96 m3
42 *# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
43 ROUTE RESERVOIR NHYDout=["W1-LID"], NHYDin=["W1"], RDT=[5] (min),
44 TABLE of ( OUTFLOW-STORAGE ) values
45 (cms) - (ha-m)
46 [ 0.0000 , 0.0000 ]
47 [ 0.0004 , 0.0001 ]
48 [ 0.0005 , 0.0096 ]
49 [ -1 , -1 ]
50 NHYDovf=["W1-LID-Out"],
51 *%-----|-----
52 CONTINUOUS STANDHYD NHYD=["W2"], DT=[5] (min), AREA=[8.51] (ha)
53 XIMP=[0.50], TIMP=[0.60], DWF=[0] (cms),
54 LOSS=[2]: SCS curve number CN=[71],
55 Pervious areas: IAper=[4.67] (mm), SLPP=[2.0] (%), LGP=[40] (m),
56 MNP=[0.250], SCP=[0] (min),
57 Impervious areas: IAimp=[1.57] (mm), SLPI=[0.5] (%), LGI=[238] (m),

```

```

53             MNI=[0.013], SCI=[0] (min),
54             Continuous simulation parameters:
55             IaREcper=[6] (hrs), IaREcimp=[1.5] (hrs),
56             SMIN=[-1] (mm), SMAX=[-1] (mm), SK=[0.03]/(mm),
57             InterEventTime=[12] (hrs), END=-1
58 *%-----|-----
59 *# LID for Outlet W2 (19 catchbasins, 30 m long trench each)
60 *# Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm
61 diameter perforated pipe
62 *# Total Volume provided by LID - 131 m³
63 *# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
64 ROUTE RESERVOIR      NHYDout=["W2-LID"], NHYDin=["W2"], RDT=[5] (min),
65                       TABLE of ( OUTFLOW-STORAGE ) values
66                       (cms) - (ha-m)
67                       [ 0.0000 , 0.0000 ]
68                       [ 0.0006 , 0.0001 ]
69                       [ 0.0007 , 0.0131 ]
70                       [ -1 , -1 ]
71             NHYDovf=["W2-LID-Out"],
72 *%-----|-----
73 CONTINUOUS STANDHYD NHYD=["W3"], DT=[5] (min), AREA=[10.03] (ha)
74 XIMP=[0.66], TIMP=[0.76], DWF=[0] (cms),
75 LOSS=[2]: SCS curve number CN=[71],
76 Pervious areas: IAper=[4.67] (mm), SLPP=[2.0] (%), LGP=[40] (m),
77 MNP=[0.250], SCP=[0] (min),
78 Impervious areas: IAimp=[1.57] (mm), SLPI=[0.5] (%), LGI=[259] (m),
79 MNI=[0.013], SCI=[0] (min),
80 Continuous simulation parameters:
81 IaREcper=[6] (hrs), IaREcimp=[1.5] (hrs),
82 SMIN=[-1] (mm), SMAX=[-1] (mm), SK=[0.03]/(mm),
83 InterEventTime=[12] (hrs), END=-1
84 *%-----|-----
85 *# LID for Outlet W3 (28 catchbasins, 30 m long trench each)
86 *# Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm
87 diameter perforated pipe
88 *# Total Volume provided by LID - 193 m³
89 *# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
90 ROUTE RESERVOIR      NHYDout=["W3-LID"], NHYDin=["W3"], RDT=[5] (min),
91                       TABLE of ( OUTFLOW-STORAGE ) values
92                       (cms) - (ha-m)
93                       [ 0.0000 , 0.0000 ]
94                       [ 0.0010 , 0.0001 ]
95                       [ 0.0011 , 0.0193 ]
96                       [ -1 , -1 ]
97             NHYDovf=["W3-LID-Out"],
98 *%-----|-----
99 CONTINUOUS STANDHYD NHYD=["W4"], DT=[5] (min), AREA=[10.11] (ha)
100 XIMP=[0.60], TIMP=[0.70], DWF=[0] (cms),
101 LOSS=[2]: SCS curve number CN=[71],
102 Pervious areas: IAper=[4.67] (mm), SLPP=[2.0] (%), LGP=[40] (m),
103 MNP=[0.250], SCP=[0] (min),
104 Impervious areas: IAimp=[1.57] (mm), SLPI=[0.5] (%), LGI=[260] (m),
105 MNI=[0.013], SCI=[0] (min),
106 Continuous simulation parameters:
107 IaREcper=[6] (hrs), IaREcimp=[1.5] (hrs),
108 SMIN=[-1] (mm), SMAX=[-1] (mm), SK=[0.03]/(mm),
109 InterEventTime=[12] (hrs), END=-1
110 *%-----|-----
111 *# LID for Outlet W4 (27 catchbasins, 30 m long trench each)
112 *# Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm
113 diameter perforated pipe
114 *# Total Volume provided by LID - 186 m³
115 *# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
116 ROUTE RESERVOIR      NHYDout=["W4-LID"], NHYDin=["W4"], RDT=[5] (min),

```

```

106             TABLE of ( OUTFLOW-STORAGE ) values
107             (cms) - (ha-m)
108             [ 0.0000 , 0.0000 ]
109             [ 0.0009 , 0.0001 ]
110             [ 0.0010 , 0.0186 ]
111             [ -1 , -1 ]
112             NHYDovf=["W4-LID-Out"],
113 *%-----|-----
114 CONTINUOUS STANDHYD NHYD=["W5"], DT=[5] (min), AREA=[6.20] (ha)
115 XIMP=[0.57], TIMP=[0.67], DWF=[0] (cms),
116 LOSS=[2]: SCS curve number CN=[71],
117 Pervious areas: IAper=[4.67] (mm), SLPP=[2.0] (%), LGP=[40] (m),
118 MNP=[0.250], SCP=[0] (min),
119 Impervious areas: IAimp=[1.57] (mm), SLPI=[0.5] (%), LGI=[203] (m),
120 MNI=[0.013], SCI=[0] (min),
121 Continuous simulation parameters:
122 IaREcper=[6] (hrs), IaREcimp=[1.5] (hrs),
123 SMIN=[-1] (mm), SMAX=[-1] (mm), SK=[0.03]/(mm),
124 InterEventTime=[12] (hrs), END=-1
125 *%-----|-----
126 *# LID for Outlet W5 (16 catchbasins, 30 m long trench each)
127 *# Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm
128 diameter perforated pipe
129 *# Total Volume provided by LID - 110 m³
130 *# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
131 ROUTE RESERVOIR NHYDout=["W5-LID"], NHYDin=["W5"], RDT=[5] (min),
132             TABLE of ( OUTFLOW-STORAGE ) values
133             (cms) - (ha-m)
134             [ 0.0000 , 0.0000 ]
135             [ 0.0005 , 0.0001 ]
136             [ 0.0006 , 0.0110 ]
137             [ -1 , -1 ]
138             NHYDovf=["W5-LID-Out"],
139 *%-----|-----
140 CONTINUOUS STANDHYD NHYD=["W6"], DT=[5] (min), AREA=[7.81] (ha)
141 XIMP=[0.71], TIMP=[0.81], DWF=[0] (cms),
142 LOSS=[2]: SCS curve number CN=[71],
143 Pervious areas: IAper=[4.67] (mm), SLPP=[2.0] (%), LGP=[40] (m),
144 MNP=[0.250], SCP=[0] (min),
145 Impervious areas: IAimp=[1.57] (mm), SLPI=[0.5] (%), LGI=[228] (m),
146 MNI=[0.013], SCI=[0] (min),
147 Continuous simulation parameters:
148 IaREcper=[6] (hrs), IaREcimp=[1.5] (hrs),
149 SMIN=[-1] (mm), SMAX=[-1] (mm), SK=[0.03]/(mm),
150 InterEventTime=[12] (hrs), END=-1
151 *%-----|-----
152 *# LID for Outlet W6 (24 catchbasins, 30 m long trench each)
153 *# Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm
154 diameter perforated pipe
155 *# Total Volume provided by LID - 165 m³
156 *# Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
157 ROUTE RESERVOIR NHYDout=["W6-LID"], NHYDin=["W6"], RDT=[5] (min),
158             TABLE of ( OUTFLOW-STORAGE ) values
159             (cms) - (ha-m)
160             [ 0.0000 , 0.0000 ]
161             [ 0.0008 , 0.0001 ]
162             [ 0.0009 , 0.0165 ]
163             [ -1 , -1 ]
164             NHYDovf=["W6-LID-Out"],
165 *%-----|-----
166 *Development Without LIDs
167 ADD HYD NHYDsum=["BCD-PH3"], NHYDs to add=["W1", "W2", "W3", "W4", "W5", "W6"]
168 *%-----|-----

```

```

161 *Development With LIDs
162 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"]
163 *%-----|-----
-----|
164 *#*****
*****
165 *#          Barrhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION) -
POST DEVELOPMENT CONDITIONS
166 *#*****
*****
167 *#          Set infiltration to 0 (CN = 99.99) for water balance analysis
168 *#*****
*****
169 *%-----|-----
-----|
170 CONTINUOUS STANDHYD NHYD=["INF-W1"], DT=[5] (min), AREA=[5.76] (ha)
171 XIMP=[0.55], TIMP=[0.66], DWF=[0] (cms),
172 LOSS=[2]: SCS curve number CN=[99.99],
173 Pervious areas: IAper=[4.67] (mm), SLPP=[2.0] (%), LGP=[40] (m),
MNP=[0.250], SCP=[0] (min),
174 Impervious areas: IAimp=[1.57] (mm), SLPI=[0.5] (%), LGI=[196] (m),
MNI=[0.013], SCI=[0] (min),
175 Continuous simulation parameters:
176 IaREcper=[6] (hrs), IaREcimp=[1.5] (hrs),
177 SMIN=[-1] (mm), SMAX=[-1] (mm), SK=[0.00]/(mm),
InterEventTime=[12] (hrs), END=-1
178 *%-----|-----
-----|
179 CONTINUOUS STANDHYD NHYD=["INF-W2"], DT=[5] (min), AREA=[8.51] (ha)
180 XIMP=[0.50], TIMP=[0.60], DWF=[0] (cms),
181 LOSS=[2]: SCS curve number CN=[99.99],
182 Pervious areas: IAper=[4.67] (mm), SLPP=[2.0] (%), LGP=[40] (m),
MNP=[0.250], SCP=[0] (min),
183 Impervious areas: IAimp=[1.57] (mm), SLPI=[0.5] (%), LGI=[238] (m),
MNI=[0.013], SCI=[0] (min),
184 Continuous simulation parameters:
185 IaREcper=[6] (hrs), IaREcimp=[1.5] (hrs),
186 SMIN=[-1] (mm), SMAX=[-1] (mm), SK=[0.00]/(mm),
InterEventTime=[12] (hrs), END=-1
187 *%-----|-----
-----|
188 CONTINUOUS STANDHYD NHYD=["INF-W3"], DT=[5] (min), AREA=[10.03] (ha)
189 XIMP=[0.66], TIMP=[0.76], DWF=[0] (cms),
190 LOSS=[2]: SCS curve number CN=[99.99],
191 Pervious areas: IAper=[4.67] (mm), SLPP=[2.0] (%), LGP=[40] (m),
MNP=[0.250], SCP=[0] (min),
192 Impervious areas: IAimp=[1.57] (mm), SLPI=[0.5] (%), LGI=[259] (m),
MNI=[0.013], SCI=[0] (min),
193 Continuous simulation parameters:
194 IaREcper=[6] (hrs), IaREcimp=[1.5] (hrs),
195 SMIN=[-1] (mm), SMAX=[-1] (mm), SK=[0.00]/(mm),
InterEventTime=[12] (hrs), END=-1
196 *%-----|-----
-----|
197 CONTINUOUS STANDHYD NHYD=["INF-W4"], DT=[5] (min), AREA=[10.11] (ha)
198 XIMP=[0.60], TIMP=[0.70], DWF=[0] (cms),
199 LOSS=[2]: SCS curve number CN=[99.99],
200 Pervious areas: IAper=[4.67] (mm), SLPP=[2.0] (%), LGP=[40] (m),
MNP=[0.250], SCP=[0] (min),
201 Impervious areas: IAimp=[1.57] (mm), SLPI=[0.5] (%), LGI=[260] (m),
MNI=[0.013], SCI=[0] (min),
202 Continuous simulation parameters:
203 IaREcper=[6] (hrs), IaREcimp=[1.5] (hrs),
204 SMIN=[-1] (mm), SMAX=[-1] (mm), SK=[0.00]/(mm),
InterEventTime=[12] (hrs), END=-1
205 *%-----|-----
-----|
206 CONTINUOUS STANDHYD NHYD=["INF-W5"], DT=[5] (min), AREA=[6.20] (ha)

```



```

207 XIMP=[0.57], TIMP=[0.67], DWF=[0] (cms),
208 LOSS=[2]: SCS curve number CN=[99.99],
209 Pervious areas: IAper=[4.67] (mm), SLPP=[2.0] (%), LGP=[40] (m),
MNP=[0.250], SCP=[0] (min),
210 Impervious areas: IAimp=[1.57] (mm), SLPI=[0.5] (%), LGI=[203] (m),
MNI=[0.013], SCI=[0] (min),
211 Continuous simulation parameters:
212 IaRECper=[6] (hrs), IaRECimp=[1.5] (hrs),
213 SMIN=[-1] (mm), SMAX=[-1] (mm), SK=[0.00]/(mm),
InterEventTime=[12] (hrs), END=-1
214 *%-----|-----
CONTINUOUS STANDHYD NHYD=["INF-W6"], DT=[5] (min), AREA=[7.81] (ha)
215 XIMP=[0.71], TIMP=[0.81], DWF=[0] (cms),
216 LOSS=[2]: SCS curve number CN=[99.99],
217 Pervious areas: IAper=[4.67] (mm), SLPP=[2.0] (%), LGP=[40] (m),
MNP=[0.250], SCP=[0] (min),
218 Impervious areas: IAimp=[1.57] (mm), SLPI=[0.5] (%), LGI=[228] (m),
MNI=[0.013], SCI=[0] (min),
219 Continuous simulation parameters:
220 IaRECper=[6] (hrs), IaRECimp=[1.5] (hrs),
221 SMIN=[-1] (mm), SMAX=[-1] (mm), SK=[0.00]/(mm),
222 InterEventTime=[12] (hrs), END=-1
223 *%-----|-----
224 *Development Without Infiltration for water budget
225 ADD HYD NHYDsum=["INF-BCD-PH3"], NHYDs to add=["INF-W1", "INF-W2", "INF-W3",
"INF-W4", "INF-W5", "INF-W6"]
226 *%-----|-----
227 *#####
228 *# CONTINUOUS RAINFALL DATA
229 *#####
230 *%-----|-----
231 *%-----|-----
232 START TZERO=[1968.0101], METOUT=[2], NSTORM=[0], NRUN=[68]
233 *%-----|-----
234 START TZERO=[1969.0101], METOUT=[2], NSTORM=[0], NRUN=[69]
235 *%-----|-----
236 START TZERO=[1970.0101], METOUT=[2], NSTORM=[0], NRUN=[70]
237 *%-----|-----
238 START TZERO=[1971.0101], METOUT=[2], NSTORM=[0], NRUN=[71]
239 *%-----|-----
240 START TZERO=[1972.0101], METOUT=[2], NSTORM=[0], NRUN=[72]
241 *%-----|-----
242 START TZERO=[1973.0101], METOUT=[2], NSTORM=[0], NRUN=[73]
243 *%-----|-----
244 START TZERO=[1974.0101], METOUT=[2], NSTORM=[0], NRUN=[74]
245 *%-----|-----
246 START TZERO=[1975.0101], METOUT=[2], NSTORM=[0], NRUN=[75]
247 *%-----|-----
248 START TZERO=[1976.0101], METOUT=[2], NSTORM=[0], NRUN=[76]
249 *%-----|-----
250 START TZERO=[1977.0101], METOUT=[2], NSTORM=[0], NRUN=[77]
251 *%-----|-----
252 START TZERO=[1978.0101], METOUT=[2], NSTORM=[0], NRUN=[78]
253 *%-----|-----

```

254 START TZERO=[1979.0101], METOUT=[2], NSTORM=[0], NRUN=[79]

255 \*%-----

256 START TZERO=[1980.0101], METOUT=[2], NSTORM=[0], NRUN=[80]

257 \*%-----

258 START TZERO=[1981.0101], METOUT=[2], NSTORM=[0], NRUN=[81]

259 \*%-----

260 START TZERO=[1982.0101], METOUT=[2], NSTORM=[0], NRUN=[82]

261 \*%-----

262 START TZERO=[1983.0101], METOUT=[2], NSTORM=[0], NRUN=[83]

263 \*%-----

264 START TZERO=[1984.0101], METOUT=[2], NSTORM=[0], NRUN=[84]

265 \*%-----

266 START TZERO=[1985.0101], METOUT=[2], NSTORM=[0], NRUN=[85]

267 \*%-----

268 START TZERO=[1986.0101], METOUT=[2], NSTORM=[0], NRUN=[86]

269 \*%-----

270 START TZERO=[1987.0101], METOUT=[2], NSTORM=[0], NRUN=[87]

271 \*%-----

272 START TZERO=[1988.0101], METOUT=[2], NSTORM=[0], NRUN=[88]

273 \*%-----

274 START TZERO=[1989.0101], METOUT=[2], NSTORM=[0], NRUN=[89]

275 \*%-----

276 START TZERO=[1990.0101], METOUT=[2], NSTORM=[0], NRUN=[90]

277 \*%-----

278 START TZERO=[1991.0101], METOUT=[2], NSTORM=[0], NRUN=[91]

279 \*%-----

280 START TZERO=[1992.0101], METOUT=[2], NSTORM=[0], NRUN=[92]

281 \*%-----

282 START TZERO=[1993.0101], METOUT=[2], NSTORM=[0], NRUN=[93]

283 \*%-----

284 START TZERO=[1994.0101], METOUT=[2], NSTORM=[0], NRUN=[94]

285 \*%-----

286 START TZERO=[1995.0101], METOUT=[2], NSTORM=[0], NRUN=[95]

287 \*%-----

288 START TZERO=[1996.0101], METOUT=[2], NSTORM=[0], NRUN=[96]

289 \*%-----

290 START TZERO=[1997.0101], METOUT=[2], NSTORM=[0], NRUN=[97]

291 \*%-----

292 START TZERO=[1998.0101], METOUT=[2], NSTORM=[0], NRUN=[98]

293 \*%-----

294 START TZERO=[1999.0101], METOUT=[2], NSTORM=[0], NRUN=[99]

295 \*%-----

296 START TZERO=[2000.0101], METOUT=[2], NSTORM=[0], NRUN=[100]

297 \*%-----

298 \*% MISSING FROM AES RAINFALL DATA

299 \*%START TZERO=[2001.0101], METOUT=[2], NSTORM=[0], NRUN=[101]

```
300 *%-----|-----  
-----|  
301 START          TZERO=[2002.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[102]  
302 *%-----|-----  
-----|  
303 START          TZERO=[2003.0101],  METOUT=[2],  NSTORM=[0],  NRUN=[103]  
304 *%-----|-----  
-----|  
305 FINISH
```

```

00001 .....
00002 .....
00003 .....
00004 .....
00005 .....
00006 .....
00007 .....
00008 .....
00009 .....
00010 .....
00011 .....
00012 .....
00013 .....
00014 .....
00015 .....
00016 .....
00017 .....
00018 .....
00019 .....
00020 .....
00021 .....
00022 .....
00023 .....
00024 .....
00025 .....
00026 .....
00027 .....
00028 .....
00029 .....
00030 .....
00031 .....
00032 .....
00033 .....
00034 .....
00035 .....
00036 .....
00037 .....
00038 .....
00039 .....
00040 .....
00041 .....
00042 .....
00043 .....
00044 .....
00045 .....
00046 .....
00047 .....
00048 .....
00049 .....
00050 .....
00051 .....
00052 .....
00053 .....
00054 .....
00055 .....
00056 .....
00057 .....
00058 .....
00059 .....
00060 .....
00061 .....
00062 .....
00063 .....
00064 .....
00065 .....
00066 .....
00067 .....
00068 .....
00069 .....
00070 .....
00071 .....
00072 .....
00073 .....
00074 .....
00075 .....
00076 .....
00077 .....
00078 .....
00079 .....
00080 .....
00081 .....
00082 .....
00083 .....
00084 .....
00085 .....
00086 .....
00087 .....
00088 .....
00089 .....
00090 .....
00091 .....
00092 .....
00093 .....
00094 .....
00095 .....
00096 .....
00097 .....
00098 .....
00099 .....
00100 .....
00101 .....
00102 .....
00103 .....
00104 .....
00105 .....
00106 .....
00107 .....
00108 .....
00109 .....
00110 .....
00111 .....
00112 .....
00113 .....
00114 .....
00115 .....
00116 .....
00117 .....
00118 .....
00119 .....
00120 .....
00121 .....
00122 .....
00123 .....
00124 .....
00125 .....
00126 .....
00127 .....
00128 .....
00129 .....
00130 .....
00131 .....
00132 .....
00133 .....
00134 .....
00135 .....
00136 .....
00137 .....
00138 .....
00139 .....
00140 .....
00141 .....
00142 .....
00143 .....
00144 .....
00145 .....
00146 .....
00147 .....
00148 .....
00149 .....
00150 .....
00151 .....
00152 .....
00153 .....
00154 .....
00155 .....
00156 .....
00157 .....
00158 .....
00159 .....
00160 .....
00161 .....
00162 .....
00163 .....
00164 .....
00165 .....
00166 .....
00167 .....
00168 .....
00169 .....
00170 .....
00171 .....
00172 .....
00173 .....
00174 .....
00175 .....
00176 .....
00177 .....
00178 .....
00179 .....
00180 .....
00181 .....
00182 .....
00183 .....
00184 .....
00185 .....
00186 .....
00187 .....
00188 .....
00189 .....
00190 .....
00191 .....
00192 .....
00193 .....
00194 .....
00195 .....
00196 .....
00197 .....
00198 .....
00199 .....
00200 .....
00201 .....
00202 .....
00203 .....
00204 .....
00205 .....
00206 .....
00207 .....
00208 .....
00209 .....
00210 .....
00211 .....
00212 .....
00213 .....
00214 .....
00215 .....
00216 .....
00217 .....
00218 .....
00219 .....
00220 .....
00221 .....
00222 .....
00223 .....
00224 .....
00225 .....
00226 .....
00227 .....
00228 .....
00229 .....
00230 .....
00231 .....
00232 .....
00233 .....
00234 .....
00235 .....
00236 .....
00237 .....
00238 .....
00239 .....
00240 .....
00241 .....
00242 .....
00243 .....
00244 .....
00245 .....
00246 .....
00247 .....
00248 .....
00249 .....
00250 .....
00251 .....
00252 .....
00253 .....
00254 .....
00255 .....
00256 .....
00257 .....
00258 .....
00259 .....
00260 .....
00261 .....
00262 .....
00263 .....
00264 .....
00265 .....
00266 .....
00267 .....
00268 .....
00269 .....
00270 .....
00271 .....
00272 .....
00273 .....
00274 .....
00275 .....
00276 .....
00277 .....
00278 .....
00279 .....
00280 .....
00281 .....
00282 .....
00283 .....
00284 .....
00285 .....
00286 .....
00287 .....
00288 .....
00289 .....
00290 .....
00291 .....
00292 .....
00293 .....
00294 .....
00295 .....
00296 .....
00297 .....
00298 .....
00299 .....
00300 .....
00301 .....
00302 .....
00303 .....
00304 .....
00305 .....
00306 .....
00307 .....
00308 .....
00309 .....
00310 .....
00311 .....
00312 .....
00313 .....
00314 .....
00315 .....
00316 .....
00317 .....
00318 .....
00319 .....
00320 .....
00321 .....
00322 .....
00323 .....
00324 .....
00325 .....
00326 .....
00327 .....
00328 .....
00329 .....
00330 .....
00331 .....
00332 .....
00333 .....
00334 .....
00335 .....
00336 .....
00337 .....
00338 .....
00339 .....
00340 .....
00341 .....
00342 .....
00343 .....
00344 .....
00345 .....
00346 .....
00347 .....
00348 .....
00349 .....
00350 .....
00351 .....
00352 .....
00353 .....
00354 .....
00355 .....
00356 .....
00357 .....
00358 .....
00359 .....
00360 .....
00361 .....
00362 .....
00363 .....
00364 .....
00365 .....
00366 .....
00367 .....
00368 .....
00369 .....
00370 .....
00371 .....
00372 .....
00373 .....
00374 .....
00375 .....
00376 .....
00377 .....
00378 .....
00379 .....
00380 .....
00381 .....
00382 .....
00383 .....
00384 .....
00385 .....
00386 .....
00387 .....
00388 .....
00389 .....
00390 .....
00391 .....
00392 .....
00393 .....
00394 .....
00395 .....
00396 .....
00397 .....
00398 .....
00399 .....
00400 .....

```

00361 CONTINUOUS STANDBY 5.0 01:1M2 8.51 .496 1968.0817, 5:00 263.54 445 .000
00362 [LGS2 2 :CN= 71.0]
00363 [Previous area: IArea= 4.67:SLFP=2.00:LG= 40.1MNP=250:SCP= .0]
00364 [Impervious area: IArea= 1.57:SLFP= .50:LG= 238.1MNP= .013:SCI= .0]
00365 [IARClamp= 1.50: IARSCP= 6.00]
00366 [SMN= 41.38: SMAK= 275.84: SX= .030]
00367 # LID for Outlet W2 (19 catchbasin, 30 m long trench each)
00368 # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
00369 # Total Volume provided by LID = 193 m^3

00431 # SWMHYM Ver:5.02/Jan 2001 «BETA» / INPUT DATA FILE
00432 \*\*\*\*\*
00433 # Project Name: Barhaven Conservancy Development
00434 # Project Number: 1474
00435 Date : 2024/03/18
00436 # Modeler : J.Burnett, P.Eng.
00437 # Updated : 2024/Mar/14
00438 # Company : J.F. Sabourin and Associates
00439 # License # : 226234
00440 \*\*\*\*\*
00551 # Ottawa International Airport (1967 - 2003)
.....
00552 # READ RES DATA
00553 # (Filename = YOM\_1967\_2007\_123 )
00554 # (Start date = 1969.0131; End Date = 1969.1231)
00555 # (DT= 60; min: Length= 8760; hrs: WetRes= 470; DryRes= 8290; PTO= 570.30)
00556 # Maximum average rainfall intensities over
00557 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
00558 21.10 16.25 10.83 7.78 3.93 2.10 1.40 1.09 .75 mm/hr
00559 21.10 16.25 10.83 7.78 47.20 50.30 50.30 52.10 54.00 mm
00560 # Number of rainfall events per following interevent time
00561 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
00562 157 119 107 92 72 58 49 43 32
00563 # Number of events with at least the following durations
00564 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
00565 156 88 21 5 0 0 0
00566 #
00567 #
00568 #
00569 #
00570 #
00571 #
00572 #
00573 #
00574 #
00575 #
00576 #
00577 #
00578 #
00579 #
00580 #
00581 #
00582 #
00583 #
00584 #
00585 #
00586 #
00587 #
00588 #
00589 #
00590 #
00591 #
00592 #
00593 #
00594 #
00595 #
00596 #
00597 #
00598 #
00599 #
00600 #
00601 #
00602 #
00603 #
00604 #
00605 #
00606 #
00607 #
00608 #
00609 #
00610 #
00611 #
00612 #
00613 #
00614 #
00615 #
00616 #
00617 #
00618 #
00619 #
00620 #
00621 #
00622 #
00623 #
00624 #
00625 #
00626 #
00627 #
00628 #
00629 #
00630 #
00631 #
00632 #
00633 #
00634 #
00635 #
00636 #
00637 #
00638 #
00639 #
00640 #
00641 #
00642 #
00643 #
00644 #
00645 #
00646 #
00647 #
00648 #
00649 #
00650 #
00651 #
00652 #
00653 #
00654 #
00655 #
00656 #
00657 #
00658 #
00659 #
00660 #
00661 #
00662 #
00663 #
00664 #
00665 #
00666 #
00667 #
00668 #
00669 #
00670 #
00671 #
00672 #
00673 #
00674 #
00675 #
00676 #
00677 #
00678 #
00679 #
00680 #
00681 #
00682 #
00683 #
00684 #
00685 #
00686 #
00687 #
00688 #
00689 #
00690 #
00691 #
00692 #
00693 #
00694 #
00695 #
00696 #
00697 #
00698 #
00699 #
00700 #
00701 #
00702 #
00703 #
00704 #
00705 #
00706 #
00707 #
00708 #
00709 #
00710 #
00711 #
00712 #
00713 #
00714 #
00715 #
00716 #
00717 #
00718 #
00719 #
00720 #

00011 [SMIN=1.39; SMAX= 9.24; SE= .000] -----AREAha-GFEARms-TpeaDate\_hhm-----Rvm-R.C-----DWFms

00012 R069-C00011 5.0 0.12NF-W4 10.11 .559 1969.0818.2200 343.93 603 .000

00023 CONTINUOUS STANDHYD 5.0 0.12NF-W4 10.11 .559 1969.0818.2200 343.93 603 .000

00024 [XIMP=.60;TIMP=.70]

00025 [LOGS= 2 ;CN=100.0]

00026 [Previous area: IArea= 4.67;SILP=2.00;LGP= 40.;MNF=.250;SCP=.0]

00027 [Impervious area: IAImp= 1.57;SILP=.50;LGT= 260.;MNI=.013;SCI=.0]

00028 [IARECLIP= 1.50; IARECP= 6.00]

00029 [SMIN= 1.39; SMAX= 9.24; SE= .000] -----AREAha-GFEARms-TpeaDate\_hhm-----Rvm-R.C-----DWFms

00030 R070-C00016 5.0 0.11NF-W5 6.20 .343 1969.0818.2200 337.04 591 .000

00031 CONTINUOUS STANDHYD 5.0 0.11NF-W5 6.20 .343 1969.0818.2200 337.04 591 .000

00032 [XIMP=.71;TIMP=.60]

00033 [LOGS= 2 ;CN=100.0]

00034 [Previous area: IArea= 4.67;SILP=2.00;LGP= 40.;MNF=.250;SCP=.0]

00035 [Impervious area: IAImp= 1.57;SILP=.50;LGT= 260.;MNI=.013;SCI=.0]

00036 [IARECLIP= 1.50; IARECP= 6.00]

00037 [SMIN= 1.39; SMAX= 9.24; SE= .000] -----AREAha-GFEARms-TpeaDate\_hhm-----Rvm-R.C-----DWFms

00038 R069-C00023 5.0 0.12NF-W4 7.81 .443 1969.0818.2200 369.49 648 .000

00039 CONTINUOUS STANDHYD 5.0 0.12NF-W4 7.81 .443 1969.0818.2200 369.49 648 .000

00040 [XIMP=.60;TIMP=.70]

00041 [LOGS= 2 ;CN=100.0]

00042 [Previous area: IArea= 4.67;SILP=2.00;LGP= 40.;MNF=.250;SCP=.0]

00043 [Impervious area: IAImp= 1.57;SILP=.50;LGT= 228.;MNI=.013;SCI=.0]

00044 [IARECLIP= 1.50; IARECP= 6.00]

00045 [SMIN= 1.39; SMAX= 9.24; SE= .000] -----AREAha-GFEARms-TpeaDate\_hhm-----Rvm-R.C-----DWFms

00046 R070-C00024 5.0 0.11NF-W5 10.03 .923 1970.0926.2100 349.41 625 .000

00047 CONTINUOUS STANDHYD 5.0 0.11NF-W5 10.03 .923 1970.0926.2100 349.41 625 .000

00048 [XIMP=.64;TIMP=.66]

00049 [LOGS= 2 ;CN=100.0]

00050 [Previous area: IArea= 4.67;SILP=2.00;LGP= 40.;MNF=.250;SCP=.0]

00051 [Impervious area: IAImp= 1.57;SILP=.50;LGT= 238.;MNI=.013;SCI=.0]

00052 [IARECLIP= 1.50; IARECP= 6.00]

00053 [SMIN= 1.39; SMAX= 9.24; SE= .000] -----AREAha-GFEARms-TpeaDate\_hhm-----Rvm-R.C-----DWFms

00054 R069-C00029 5.0 0.12NF-W4 8.51 .462 1969.0818.2200 321.07 n/a .000

00055 CONTINUOUS STANDHYD 5.0 0.12NF-W4 8.51 .462 1969.0818.2200 321.07 n/a .000

00056 [XIMP=.60;TIMP=.70]

00057 [LOGS= 2 ;CN=100.0]

00058 [Previous area: IArea= 4.67;SILP=2.00;LGP= 40.;MNF=.250;SCP=.0]

00059 [Impervious area: IAImp= 1.57;SILP=.50;LGT= 260.;MNI=.013;SCI=.0]

00060 [IARECLIP= 1.50; IARECP= 6.00]

00061 [SMIN= 1.39; SMAX= 9.24; SE= .000] -----AREAha-GFEARms-TpeaDate\_hhm-----Rvm-R.C-----DWFms

00062 R070-C00018 5.0 0.11NF-W5 5.76 .526 1970.0926.2100 325.35 582 .000

00063 CONTINUOUS STANDHYD 5.0 0.11NF-W5 5.76 .526 1970.0926.2100 325.35 582 .000

00064 [XIMP=.50;TIMP=.70]

00065 [LOGS= 2 ;CN=100.0]

00066 [Previous area: IArea= 4.67;SILP=2.00;LGP= 40.;MNF=.250;SCP=.0]

00067 [Impervious area: IAImp= 1.57;SILP=.50;LGT= 259.;MNI=.013;SCI=.0]

00068 [IARECLIP= 1.50; IARECP= 6.00]

00069 [SMIN= 1.39; SMAX= 9.24; SE= .000] -----AREAha-GFEARms-TpeaDate\_hhm-----Rvm-R.C-----DWFms

00070 R070-C00018 5.0 0.11NF-W5 10.03 .923 1970.0926.2100 349.41 625 .000

00071 CONTINUOUS STANDHYD 5.0 0.11NF-W5 10.03 .923 1970.0926.2100 349.41 625 .000

00072 [XIMP=.64;TIMP=.66]

00073 [LOGS= 2 ;CN=100.0]

00074 [Previous area: IArea= 4.67;SILP=2.00;LGP= 40.;MNF=.250;SCP=.0]

00075 [Impervious area: IAImp= 1.57;SILP=.50;LGT= 238.;MNI=.013;SCI=.0]

00076 [IARECLIP= 1.50; IARECP= 6.00]

00077 [SMIN= 1.39; SMAX= 9.24; SE= .000] -----AREAha-GFEARms-TpeaDate\_hhm-----Rvm-R.C-----DWFms

00078 R070-C00029 5.0 0.12NF-W4 8.51 .462 1969.0818.2200 321.07 n/a .000

00079 CONTINUOUS STANDHYD 5.0 0.12NF-W4 8.51 .462 1969.0818.2200 321.07 n/a .000

00080 [XIMP=.60;TIMP=.70]

00081 [LOGS= 2 ;CN=100.0]

00082 [Previous area: IArea= 4.67;SILP=2.00;LGP= 40.;MNF=.250;SCP=.0]

00083 [Impervious area: IAImp= 1.57;SILP=.50;LGT= 260.;MNI=.013;SCI=.0]

00084 [IARECLIP= 1.50; IARECP= 6.00]

00085 [SMIN= 1.39; SMAX= 9.24; SE= .000] -----AREAha-GFEARms-TpeaDate\_hhm-----Rvm-R.C-----DWFms

00086 R070-C00024 5.0 0.11NF-W5 10.03 .923 1970.0926.2100 349.41 625 .000

00087 CONTINUOUS STANDHYD 5.0 0.11NF-W5 10.03 .923 1970.0926.2100 349.41 625 .000

00088 [XIMP=.64;TIMP=.66]

00089 [LOGS= 2 ;CN=100.0]

00090 [Previous area: IArea= 4.67;SILP=2.00;LGP= 40.;MNF=.250;SCP=.0]

00091 [Impervious area: IAImp= 1.57;SILP=.50;LGT= 238.;MNI=.013;SCI=.0]

00092 [IARECLIP= 1.50; IARECP= 6.00]

00093 [SMIN= 1.39; SMAX= 9.24; SE= .000] -----AREAha-GFEARms-TpeaDate\_hhm-----Rvm-R.C-----DWFms

00094 R070-C00029 5.0 0.12NF-W4 8.51 .462 1969.0818.2200 321.07 n/a .000

00095 CONTINUOUS STANDHYD 5.0 0.12NF-W4 8.51 .462 1969.0818.2200 321.07 n/a .000

00096 [XIMP=.60;TIMP=.70]

00097 [LOGS= 2 ;CN=100.0]

00098 [Previous area: IArea= 4.67;SILP=2.00;LGP= 40.;MNF=.250;SCP=.0]

00099 [Impervious area: IAImp= 1.57;SILP=.50;LGT= 260.;MNI=.013;SCI=.0]

00100 [IARECLIP= 1.50; IARECP= 6.00]



01441 [SMIN= 1.39; SMAX= 9.24; SK= .000]
01442 ROUTE TO:CO001-----DRAIN-ID:INHYD-----AREHA-GFEARMS-TpeakDate\_hh:mm-----RvM-R-C-----DWfms
01443 ADD HYD + 5.0 02:1NF-W2 5.76 .560 1972.0712 4:00 501.39 n/a .000
01444 [Previous area: IApex= 4.67;SLFPP=2.00;LGF= 40.1MNP=.250;SCP= .0]
01445 [Impervious area: IAlmp= 1.57;SLF= .50;LGI= 238.1MNI=.013;SCT= .0]
01446 [IAREClmp= 1.50; IARECape= 6.00]
01447 [SMIN= 1.39; SMAX= 9.24; SK= .000]
01448 \*\*\*\*\*
01449 \*\*\*\*\*
01450 \*\*\*\*\*
01451 \*\*\*\*\*
01452 \*\*\*\*\*
01453 \*\*\*\*\*
01454 \*\*\*\*\*
01455 \*\*\*\*\*
01456 \*\*\*\*\*
01457 \*\*\*\*\*
01458 \*\*\*\*\*
01459 \*\*\*\*\*
01460 \*\*\*\*\*
01461 \*\*\*\*\*
01462 \*\*\*\*\*
01463 \*\*\*\*\*
01464 \*\*\*\*\*
01465 \*\*\*\*\*
01466 \*\*\*\*\*
01467 \*\*\*\*\*
01468 \*\*\*\*\*
01469 \*\*\*\*\*
01470 \*\*\*\*\*
01471 \*\*\*\*\*
01472 \*\*\*\*\*
01473 \*\*\*\*\*
01474 \*\*\*\*\*
01475 \*\*\*\*\*
01476 \*\*\*\*\*
01477 \*\*\*\*\*
01478 \*\*\*\*\*
01479 \*\*\*\*\*
01480 \*\*\*\*\*
01481 \*\*\*\*\*
01482 \*\*\*\*\*
01483 \*\*\*\*\*
01484 \*\*\*\*\*
01485 \*\*\*\*\*
01486 \*\*\*\*\*
01487 \*\*\*\*\*
01488 \*\*\*\*\*
01489 \*\*\*\*\*
01490 \*\*\*\*\*
01491 \*\*\*\*\*
01492 \*\*\*\*\*
01493 \*\*\*\*\*
01494 \*\*\*\*\*
01495 \*\*\*\*\*
01496 \*\*\*\*\*
01497 \*\*\*\*\*
01498 \*\*\*\*\*
01499 \*\*\*\*\*
01500 \*\*\*\*\*
01501 \*\*\*\*\*
01502 \*\*\*\*\*
01503 \*\*\*\*\*
01504 \*\*\*\*\*
01505 \*\*\*\*\*
01506 \*\*\*\*\*
01507 \*\*\*\*\*
01508 \*\*\*\*\*
01509 \*\*\*\*\*
01510 \*\*\*\*\*
01511 \*\*\*\*\*
01512 \*\*\*\*\*
01513 \*\*\*\*\*
01514 \*\*\*\*\*
01515 \*\*\*\*\*
01516 \*\*\*\*\*
01517 \*\*\*\*\*
01518 \*\*\*\*\*
01519 \*\*\*\*\*
01520 \*\*\*\*\*
01521 \*\*\*\*\*
01522 \*\*\*\*\*
01523 \*\*\*\*\*
01524 \*\*\*\*\*
01525 \*\*\*\*\*
01526 \*\*\*\*\*
01527 \*\*\*\*\*
01528 \*\*\*\*\*
01529 \*\*\*\*\*
01530 \*\*\*\*\*
01531 \*\*\*\*\*
01532 \*\*\*\*\*
01533 \*\*\*\*\*
01534 \*\*\*\*\*
01535 \*\*\*\*\*
01536 \*\*\*\*\*
01537 \*\*\*\*\*
01538 \*\*\*\*\*
01539 \*\*\*\*\*
01540 \*\*\*\*\*
01541 \*\*\*\*\*
01542 \*\*\*\*\*
01543 \*\*\*\*\*
01544 \*\*\*\*\*
01545 \*\*\*\*\*
01546 \*\*\*\*\*
01547 \*\*\*\*\*
01548 \*\*\*\*\*
01549 \*\*\*\*\*
01550 \*\*\*\*\*
01551 \*\*\*\*\*
01552 \*\*\*\*\*
01553 \*\*\*\*\*
01554 \*\*\*\*\*
01555 \*\*\*\*\*
01556 \*\*\*\*\*
01557 \*\*\*\*\*
01558 \*\*\*\*\*
01559 \*\*\*\*\*
01560 \*\*\*\*\*
01561 \*\*\*\*\*
01562 \*\*\*\*\*
01563 \*\*\*\*\*
01564 \*\*\*\*\*
01565 \*\*\*\*\*
01566 \*\*\*\*\*
01567 \*\*\*\*\*
01568 \*\*\*\*\*
01569 \*\*\*\*\*
01570 \*\*\*\*\*
01571 \*\*\*\*\*
01572 \*\*\*\*\*
01573 \*\*\*\*\*
01574 \*\*\*\*\*
01575 \*\*\*\*\*
01576 \*\*\*\*\*
01577 \*\*\*\*\*
01578 \*\*\*\*\*
01579 \*\*\*\*\*
01580 \*\*\*\*\*
01581 \*\*\*\*\*
01582 \*\*\*\*\*
01583 \*\*\*\*\*
01584 \*\*\*\*\*
01585 \*\*\*\*\*
01586 \*\*\*\*\*
01587 \*\*\*\*\*
01588 \*\*\*\*\*
01589 \*\*\*\*\*
01590 \*\*\*\*\*
01591 \*\*\*\*\*
01592 \*\*\*\*\*
01593 \*\*\*\*\*
01594 \*\*\*\*\*
01595 \*\*\*\*\*
01596 \*\*\*\*\*
01597 \*\*\*\*\*
01598 \*\*\*\*\*
01599 \*\*\*\*\*
01600 \*\*\*\*\*
01601 \*\*\*\*\*
01602 \*\*\*\*\*
01603 \*\*\*\*\*
01604 \*\*\*\*\*
01605 \*\*\*\*\*
01606 \*\*\*\*\*
01607 \*\*\*\*\*
01608 \*\*\*\*\*
01609 \*\*\*\*\*
01610 \*\*\*\*\*
01611 \*\*\*\*\*
01612 \*\*\*\*\*
01613 \*\*\*\*\*
01614 \*\*\*\*\*
01615 \*\*\*\*\*
01616 \*\*\*\*\*
01617 \*\*\*\*\*
01618 \*\*\*\*\*
01619 \*\*\*\*\*
01620 \*\*\*\*\*
01621 \*\*\*\*\*
01622 \*\*\*\*\*
01623 \*\*\*\*\*
01624 \*\*\*\*\*
01625 \*\*\*\*\*
01626 \*\*\*\*\*
01627 \*\*\*\*\*
01628 \*\*\*\*\*
01629 \*\*\*\*\*
01630 \*\*\*\*\*
01631 \*\*\*\*\*
01632 \*\*\*\*\*
01633 \*\*\*\*\*
01634 \*\*\*\*\*
01635 \*\*\*\*\*
01636 \*\*\*\*\*
01637 \*\*\*\*\*
01638 \*\*\*\*\*
01639 \*\*\*\*\*
01640 \*\*\*\*\*
01641 \*\*\*\*\*
01642 \*\*\*\*\*
01643 \*\*\*\*\*
01644 \*\*\*\*\*
01645 \*\*\*\*\*
01646 \*\*\*\*\*
01647 \*\*\*\*\*
01648 \*\*\*\*\*
01649 \*\*\*\*\*
01650 \*\*\*\*\*
01651 \*\*\*\*\*
01652 \*\*\*\*\*
01653 \*\*\*\*\*
01654 \*\*\*\*\*
01655 \*\*\*\*\*
01656 \*\*\*\*\*
01657 \*\*\*\*\*
01658 \*\*\*\*\*
01659 \*\*\*\*\*
01660 \*\*\*\*\*
01661 \*\*\*\*\*
01662 \*\*\*\*\*
01663 \*\*\*\*\*
01664 \*\*\*\*\*
01665 \*\*\*\*\*
01666 \*\*\*\*\*
01667 \*\*\*\*\*
01668 \*\*\*\*\*
01669 \*\*\*\*\*
01670 \*\*\*\*\*
01671 \*\*\*\*\*
01672 \*\*\*\*\*
01673 \*\*\*\*\*
01674 \*\*\*\*\*
01675 \*\*\*\*\*
01676 \*\*\*\*\*
01677 \*\*\*\*\*
01678 \*\*\*\*\*
01679 \*\*\*\*\*
01680 \*\*\*\*\*
01681 \*\*\*\*\*
01682 \*\*\*\*\*
01683 \*\*\*\*\*
01684 \*\*\*\*\*
01685 \*\*\*\*\*
01686 \*\*\*\*\*
01687 \*\*\*\*\*
01688 \*\*\*\*\*
01689 \*\*\*\*\*
01690 \*\*\*\*\*
01691 \*\*\*\*\*
01692 \*\*\*\*\*
01693 \*\*\*\*\*
01694 \*\*\*\*\*
01695 \*\*\*\*\*
01696 \*\*\*\*\*
01697 \*\*\*\*\*
01698 \*\*\*\*\*
01699 \*\*\*\*\*
01700 \*\*\*\*\*
01701 \*\*\*\*\*
01702 \*\*\*\*\*
01703 \*\*\*\*\*
01704 \*\*\*\*\*
01705 \*\*\*\*\*
01706 \*\*\*\*\*
01707 \*\*\*\*\*
01708 \*\*\*\*\*
01709 \*\*\*\*\*
01710 \*\*\*\*\*
01711 \*\*\*\*\*
01712 \*\*\*\*\*
01713 \*\*\*\*\*
01714 \*\*\*\*\*
01715 \*\*\*\*\*
01716 \*\*\*\*\*
01717 \*\*\*\*\*
01718 \*\*\*\*\*
01719 \*\*\*\*\*
01720 \*\*\*\*\*
01721 \*\*\*\*\*
01722 \*\*\*\*\*
01723 \*\*\*\*\*
01724 \*\*\*\*\*
01725 \*\*\*\*\*
01726 \*\*\*\*\*
01727 \*\*\*\*\*
01728 \*\*\*\*\*
01729 \*\*\*\*\*
01730 \*\*\*\*\*
01731 \*\*\*\*\*
01732 \*\*\*\*\*
01733 \*\*\*\*\*
01734 \*\*\*\*\*
01735 \*\*\*\*\*
01736 \*\*\*\*\*
01737 \*\*\*\*\*
01738 \*\*\*\*\*
01739 \*\*\*\*\*
01740 \*\*\*\*\*
01741 \*\*\*\*\*
01742 \*\*\*\*\*
01743 \*\*\*\*\*
01744 \*\*\*\*\*
01745 \*\*\*\*\*
01746 \*\*\*\*\*
01747 \*\*\*\*\*
01748 \*\*\*\*\*
01749 \*\*\*\*\*
01750 \*\*\*\*\*
01751 \*\*\*\*\*
01752 \*\*\*\*\*
01753 \*\*\*\*\*
01754 \*\*\*\*\*
01755 \*\*\*\*\*
01756 \*\*\*\*\*
01757 \*\*\*\*\*
01758 \*\*\*\*\*
01759 \*\*\*\*\*
01760 \*\*\*\*\*
01761 \*\*\*\*\*
01762 \*\*\*\*\*
01763 \*\*\*\*\*
01764 \*\*\*\*\*
01765 \*\*\*\*\*
01766 \*\*\*\*\*
01767 \*\*\*\*\*
01768 \*\*\*\*\*
01769 \*\*\*\*\*
01770 \*\*\*\*\*
01771 \*\*\*\*\*
01772 \*\*\*\*\*
01773 \*\*\*\*\*
01774 \*\*\*\*\*
01775 \*\*\*\*\*
01776 \*\*\*\*\*
01777 \*\*\*\*\*
01778 \*\*\*\*\*
01779 \*\*\*\*\*
01780 \*\*\*\*\*
01781 \*\*\*\*\*
01782 \*\*\*\*\*
01783 \*\*\*\*\*
01784 \*\*\*\*\*
01785 \*\*\*\*\*
01786 \*\*\*\*\*
01787 \*\*\*\*\*
01788 \*\*\*\*\*
01789 \*\*\*\*\*
01790 \*\*\*\*\*
01791 \*\*\*\*\*
01792 \*\*\*\*\*
01793 \*\*\*\*\*
01794 \*\*\*\*\*
01795 \*\*\*\*\*
01796 \*\*\*\*\*
01797 \*\*\*\*\*
01798 \*\*\*\*\*
01799 \*\*\*\*\*
01800 \*\*\*\*\*





02163 [METOUT = 2 (1=imperial, 2=metric output)]
02163 [INTFORM = 0]
02163 [MUN = 0076]
02165 # SRRYND Ver:3.02/jan 2001 <BETA> - INPUT DATA FILE
02165 # Project Name: Barhaven Conservancy Development
02165 # Project Number: 1474
02169 # Date : 2021/Oct/18
02170 # Modeler : T.S.Barrett, F.Eng.
02171 # Updated : 2024/Mar/14 [IP]
02172 # Company : T.S. Barrown and Associates
02173 # License : 2382634
02174 # Ottawa International Airport (1967 - 2003)
02176 # ROAD AREA DATA
02177 # READ AREA DATA
02177 [Filename = YOM\_1967\_2007\_123 ]
02179 [Start\_date = 1976.0101; EndDate = 1976.1230]
02180 [DTM = 60; min; Length = 864; hrs; Minutes = 30; DirsHrs = 7674; PTO = 493.20]

020231 [Impervious area: IAlpwr=1.57;SLPFl=50.0;IWI=228.1MW;O13;SIC1=...]

02881 19790616 19790616 19790616 19790616 19790919 19790919 19790919 19790919 19790919 19790919 19790919
Number of events with following interval time
02882 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
02883 188 147 129 103 86 60 53 43 36
02884 188 147 129 103 86 60 53 43 36
02885 Number of events with at least the following duration:
02886 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
02887 187 97 68 25 6 1 0 0 0
02888 R0079:CO0001-----
02889 COMPUTE API
02890 [AFmax: 50.00; APfmax: 9500; APfmin: 9556]
02891 [AFmax: 68.72; APfmax: 23.13; APfmin: 113]
02892 \*\*\*\*\*
02893 # Barhaven Conservancy Development Phase 3 (WITH INFILTRATION) - POST DEVELOPMENT CONDITIONS
02894 # \*\*\*\*\*
02895 R0079:CO0004-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
02896 CONTINUOUS STANDBY 5.0 01:3M 5.76 .411 1979.0616:14:00 455.94 1526 .000
02897 [XMP:50:TIMP:60]
02898 [LOS2:2:CNM:71.0]
02899 [Previous area: IApex: 4.67;SIFP2:2.00;LGP: 40.0MNP:250:SCP: 0]
02900 [Imperious area: IAlpex: 1.57;SIFP: 50.01G: 238.0MNP:013:SC: 0]
02901 [IARClamp: 1.50; IARcSpc: 6.00]
02902 [SMN: 41.38; SMAK: 275.84; SK: 030]
02903 # LID for Outlet W1 (14 catchbasins, 30 m long trench each)
02904 # Assumed 920 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02905 # Total Volume provided by LID = 186 m^3
02906 # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02907 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
02908 ROUTE RESERVOIR -> 5.0 02:3M 5.76 .411 1979.0616:14:00 455.94 n/a .000
02909 out <= 5.0 01:3M-LID 1.04 .001 1979.0616:14:00 455.94 n/a .000
02910 overflow <= 5.0 01:3M-LID 0.84 .001 1979.0616:14:00 455.94 n/a .000
02911 [MstOfsed: 195992-02 m3, TotOfVol: 2151E+01 m3, N-OfV: 119, TotOfOrf: 213 hrs]
02912 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
02913 CONTINUOUS STANDBY 5.0 01:3M 8.51 .578 1979.0616:14:00 425.51 1491 .000
02914 [XMP:50:TIMP:60]
02915 [LOS2:2:CNM:71.0]
02916 [Previous area: IApex: 4.67;SIFP2:2.00;LGP: 40.0MNP:250:SCP: 0]
02917 [Imperious area: IAlpex: 1.57;SIFP: 50.01G: 238.0MNP:013:SC: 0]
02918 [IARClamp: 1.50; IARcSpc: 6.00]
02919 [SMN: 41.38; SMAK: 275.84; SK: 030]
02920 # LID for Outlet W1 (19 catchbasins, 30 m long trench each)
02921 # Assumed 970 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02922 # Total Volume provided by LID = 186 m^3
02923 # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02924 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
02925 ROUTE RESERVOIR -> 5.0 02:3M 8.51 .578 1979.0616:14:00 425.51 n/a .000
02926 out <= 5.0 01:3M-LID 1.54 .001 1979.0616:14:00 425.51 n/a .000
02927 overflow <= 5.0 01:3M-LID 0.87 .001 1979.0616:14:00 425.51 n/a .000
02928 [MstOfsed: 130992-01 m3, TotOfVol: 2366E+01 m3, N-OfV: 124, TotOfOrf: 214 hrs]
02929 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
02930 CONTINUOUS STANDBY 5.0 01:3M 10.03 .788 1979.0616:14:00 546.48 1936 .000
02931 [XMP:66:TIMP:76]
02932 [LOS2:2:CNM:101.0]
02933 [Previous area: IApex: 4.67;SIFP2:2.00;LGP: 40.0MNP:250:SCP: 0]
02934 [Imperious area: IAlpex: 1.57;SIFP: 50.01G: 259.0MNP:013:SC: 0]
02935 [SMN: 41.38; SMAK: 275.84; SK: 030]
02936 # LID for Outlet W2 (22 catchbasins, 30 m long trench each)
02937 # Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02938 # Total Volume provided by LID = 193 m^3
02939 # Soil infiltration rates assumed 9mm/hr with a safety factor of 2.5
02940 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
02941 ROUTE RESERVOIR -> 5.0 02:3M 10.03 .788 1979.0616:14:00 425.51 n/a .000
02942 out <= 5.0 01:3M-LID 1.92 .001 1979.0616:14:00 516.68 n/a .000
02943 overflow <= 5.0 03:3M-LID 0.81 .767 1979.0616:14:00 516.68 n/a .000
02944 [MstOfsed: 13930E-01 m3, TotOfVol: 4192E+01 m3, N-OfV: 129, TotOfOrf: 212 hrs]
02945 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
02946 CONTINUOUS STANDBY 5.0 01:3M 10.11 .793 1979.0616:14:00 482.39 1557 .000
02947 [XMP:60:TIMP:70]
02948 [LOS2:2:CNM:71.0]
02949 [Previous area: IApex: 4.67;SIFP2:2.00;LGP: 40.0MNP:250:SCP: 0]
02950 [Imperious area: IAlpex: 1.57;SIFP: 50.01G: 260.0MNP:013:SC: 0]
02951 [IARClamp: 1.50; IARcSpc: 6.00]
02952 [SMN: 41.38; SMAK: 275.84; SK: 030]
02953 # LID for Outlet W2 (27 catchbasins, 30 m long trench each)
02954 # Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02955 # Total Volume provided by LID = 186 m^3
02956 # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02957 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
02958 ROUTE RESERVOIR -> 5.0 02:3M 10.11 .793 1979.0616:14:00 482.39 n/a .000
02959 out <= 5.0 01:3M-LID 1.84 .001 1979.0616:14:00 482.39 n/a .000
02960 overflow <= 5.0 03:3M-LID 0.87 .001 1979.0616:14:00 482.39 n/a .000
02961 [MstOfsed: 14930E-01 m3, TotOfVol: 2342E+01 m3, N-OfV: 128, TotOfOrf: 211 hrs]
02962 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
02963 CONTINUOUS STANDBY 5.0 01:3M 6.20 .468 1979.0616:14:00 465.26 1537 .000
02964 [XMP:50:TIMP:60]
02965 [LOS2:2:CNM:71.0]
02966 [Previous area: IApex: 4.67;SIFP2:2.00;LGP: 40.0MNP:250:SCP: 0]
02967 [Imperious area: IAlpex: 1.57;SIFP: 50.01G: 203.0MNP:013:SC: 0]
02968 [IARClamp: 1.50; IARcSpc: 6.00]
02969 [SMN: 41.38; SMAK: 275.84; SK: 030]
02970 # LID for Outlet W3 (16 catchbasins, 30 m long trench each)
02971 # Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02972 # Total Volume provided by LID = 110 m^3
02973 # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02974 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
02975 ROUTE RESERVOIR -> 5.0 02:3M 10.11 .793 1979.0616:14:00 482.39 n/a .000
02976 out <= 5.0 01:3M-LID 2.18 .001 1979.0616:14:00 545.65 n/a .000
02977 overflow <= 5.0 03:3M-LID 0.81 .767 1979.0616:14:00 545.65 n/a .000
02978 [MstOfsed: 11000E-01 m3, TotOfVol: 2334E+01 m3, N-OfV: 117, TotOfOrf: 209 hrs]
02979 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
02980 CONTINUOUS STANDBY 5.0 01:3M 7.81 .657 1979.0616:14:00 545.65 1630 .000
02981 [XMP:71:TIMP:81]
02982 [LOS2:2:CNM:71.0]
02983 [Previous area: IApex: 4.67;SIFP2:2.00;LGP: 40.0MNP:250:SCP: 0]
02984 [Imperious area: IAlpex: 1.57;SIFP: 50.01G: 228.0MNP:013:SC: 0]
02985 [IARClamp: 1.50; IARcSpc: 6.00]
02986 [SMN: 41.38; SMAK: 275.84; SK: 030]
02987 # LID for Outlet W4 (24 catchbasins, 30 m long trench each)
02988 # Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
02989 # Total Volume provided by LID = 186 m^3
02990 # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
02991 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
02992 ROUTE RESERVOIR -> 5.0 02:3M 7.81 .657 1979.0616:14:00 545.65 n/a .000
02993 out <= 5.0 01:3M-LID 1.53 .001 1979.0616:14:00 545.65 n/a .000
02994 overflow <= 5.0 03:3M-LID 0.81 .767 1979.0616:14:00 545.65 n/a .000
02995 [MstOfsed: 1649E-01 m3, TotOfVol: 2428E+01 m3, N-OfV: 124, TotOfOrf: 209 hrs]
02996 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
02997 ADD HYD
02998 + 5.0 02:3M 8.51 .578 1979.0616:14:00 455.94 n/a .000
02999 + 5.0 02:3M 10.11 .793 1979.0616:14:00 482.39 n/a .000
03000 + 5.0 02:3M 8.51 .578 1979.0616:14:00 455.94 n/a .000
03001 + 5.0 02:3M 10.11 .793 1979.0616:14:00 482.39 n/a .000
03002 + 5.0 02:3M 8.51 .578 1979.0616:14:00 455.94 n/a .000
03003 + 5.0 02:3M 10.11 .793 1979.0616:14:00 482.39 n/a .000
03004 + 5.0 02:3M 8.51 .578 1979.0616:14:00 455.94 n/a .000
03005 SIM#
03006 5.0 01:3M-PTH 48.42 3.675 1979.0616:14:00 484.36 n/a .000
03007 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
03008 ADD HYD
03009 + 5.0 02:1M-LID 0.72 .411 1979.0616:14:00 455.94 n/a .000
03010 + 5.0 02:1M-LID 0.81 .767 1979.0616:14:00 516.68 n/a .000
03011 + 5.0 02:1M-LID 0.87 .729 1979.0616:14:00 482.39 n/a .000
03012 + 5.0 02:1M-LID 1.18 .001 1979.0616:14:00 455.94 n/a .000
03013 + 5.0 02:1M-LID 0.81 .767 1979.0616:14:00 482.39 n/a .000
03014 + 5.0 02:1M-LID 0.87 .729 1979.0616:14:00 482.39 n/a .000
03015 SIM#
03016 5.0 01:3M-PTH 39.27 2.947 1979.0616:14:00 484.34 n/a .000
03017 \*\*\*\*\*
03018 # Barhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION) - POST DEVELOPMENT CONDITIONS
03019 # \*\*\*\*\*
03020 # Set infiltration to 0 (CN = 99.99) for water balance analysis
03021 # \*\*\*\*\*
03022 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
03023 CONTINUOUS STANDBY 5.0 01:3M-W 5.76 .411 1979.0616:14:00 577.15 1666 .000
03024 [XMP:55:TIMP:66]
03025 [LOS2:2:CNM:100.0]
03026 [Previous area: IApex: 4.67;SIFP2:2.00;LGP: 40.0MNP:250:SCP: 0]
03027 [Imperious area: IAlpex: 1.57;SIFP: 50.01G: 196.0MNP:013:SC: 0]
03028 [IARClamp: 1.50; IARcSpc: 6.00]
03029 [SMN: 1.39; SMAK: 9.24; SK: 000]
03030 # LID for Outlet W5 (16 catchbasins, 30 m long trench each)
03031 # Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03032 # Total Volume provided by LID = 110 m^3
03033 # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03034 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
03035 ROUTE RESERVOIR -> 5.0 02:3M 8.51 .578 1979.0616:14:00 557.82 1644 .000
03036 out <= 5.0 01:3M-LID 0.72 .411 1979.0616:14:00 455.94 n/a .000
03037 overflow <= 5.0 01:3M-LID 0.81 .767 1979.0616:14:00 516.68 n/a .000
03038 [MstOfsed: 1099E-01 m3, TotOfVol: 1382E+01 m3, N-OfV: 118, TotOfOrf: 164 hrs]
03039 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
03040 CONTINUOUS STANDBY 5.0 01:3M-W 10.11 .939 1979.0616:14:00 590.39 1681 .000
03041 [XMP:60:TIMP:70]
03042 [LOS2:2:CNM:100.0]
03043 [Previous area: IApex: 4.67;SIFP2:2.00;LGP: 40.0MNP:250:SCP: 0]
03044 [Imperious area: IAlpex: 1.57;SIFP: 50.01G: 259.0MNP:013:SC: 0]
03045 [IARClamp: 1.50; IARcSpc: 6.00]
03046 [SMN: 1.39; SMAK: 9.24; SK: 000]
03047 # LID for Outlet W6 (12 catchbasins, 30 m long trench each)
03048 # Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03049 # Total Volume provided by LID = 186 m^3
03050 # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03051 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
03052 ROUTE RESERVOIR -> 5.0 02:3M 10.11 .793 1979.0616:14:00 577.15 1666 .000
03053 out <= 5.0 02:3M 8.51 .578 1979.0616:14:00 557.82 1644 .000
03054 overflow <= 5.0 02:3M 10.11 .793 1979.0616:14:00 577.15 1666 .000
03055 [MstOfsed: 1099E-01 m3, TotOfVol: 1382E+01 m3, N-OfV: 118, TotOfOrf: 164 hrs]
03056 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
03057 CONTINUOUS STANDBY 5.0 01:3M-W 6.20 .468 1979.0616:14:00 580.37 1670 .000
03058 [XMP:55:TIMP:66]
03059 [LOS2:2:CNM:100.0]
03060 [Previous area: IApex: 4.67;SIFP2:2.00;LGP: 40.0MNP:250:SCP: 0]
03061 [Imperious area: IAlpex: 1.57;SIFP: 50.01G: 196.0MNP:013:SC: 0]
03062 [IARClamp: 1.50; IARcSpc: 6.00]
03063 [SMN: 1.39; SMAK: 9.24; SK: 000]
03064 # LID for Outlet W7 (18 catchbasins, 30 m long trench each)
03065 # Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03066 # Total Volume provided by LID = 186 m^3
03067 # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03068 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
03069 ROUTE RESERVOIR -> 5.0 02:3M 6.20 .468 1979.0616:14:00 580.37 1670 .000
03070 out <= 5.0 02:3M 8.51 .578 1979.0616:14:00 557.82 1644 .000
03071 overflow <= 5.0 02:3M 6.20 .468 1979.0616:14:00 580.37 1670 .000
03072 [MstOfsed: 1099E-01 m3, TotOfVol: 1382E+01 m3, N-OfV: 118, TotOfOrf: 164 hrs]
03073 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
03074 CONTINUOUS STANDBY 5.0 01:3M-W 10.11 .939 1979.0616:14:00 590.39 1681 .000
03075 [XMP:66:TIMP:76]
03076 [LOS2:2:CNM:101.0]
03077 [Previous area: IApex: 4.67;SIFP2:2.00;LGP: 40.0MNP:250:SCP: 0]
03078 [Imperious area: IAlpex: 1.57;SIFP: 50.01G: 238.0MNP:013:SC: 0]
03079 [IARClamp: 1.50; IARcSpc: 6.00]
03080 [SMN: 41.38; SMAK: 275.84; SK: 030]
03081 # LID for Outlet W8 (24 catchbasins, 30 m long trench each)
03082 # Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03083 # Total Volume provided by LID = 186 m^3
03084 # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03085 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
03086 ROUTE RESERVOIR -> 5.0 02:3M 10.11 .793 1979.0616:14:00 580.37 1670 .000
03087 out <= 5.0 01:3M-LID 2.02 .001 1980.01:11:20 386.52 n/a .000
03088 overflow <= 5.0 03:3M-LID 0.78 .276 1980.08:03:14:00 388.87 n/a .000
03089 [MstOfsed: 1930E-01 m3, TotOfVol: 2328E+01 m3, N-OfV: 129, TotOfOrf: 169 hrs]
03090 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
03091 CONTINUOUS STANDBY 5.0 01:3M-W 10.03 .788 1979.0616:14:00 316.16 503 .000
03092 [XMP:50:TIMP:60]
03093 [LOS2:2:CNM:71.0]
03094 [Previous area: IApex: 4.67;SIFP2:2.00;LGP: 40.0MNP:250:SCP: 0]
03095 [Imperious area: IAlpex: 1.57;SIFP: 50.01G: 260.0MNP:013:SC: 0]
03096 [IARClamp: 1.50; IARcSpc: 6.00]
03097 [SMN: 41.38; SMAK: 275.84; SK: 030]
03098 # LID for Outlet W9 (27 catchbasins, 30 m long trench each)
03099 # Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03100 # Total Volume provided by LID = 186 m^3
03101 # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03102 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
03103 ROUTE RESERVOIR -> 5.0 02:3M 10.03 .788 1979.0616:14:00 316.16 503 .000
03104 out <= 5.0 01:3M-LID 2.11 .001 1980.01:11:20 297.78 n/a .000
03105 overflow <= 5.0 03:3M-LID 0.81 .767 1980.08:03:14:00 316.16 n/a .000
03106 [MstOfsed: 1930E-01 m3, TotOfVol: 1732E+01 m3, N-OfV: 123, TotOfOrf: 169 hrs]
03107 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
03108 CONTINUOUS STANDBY 5.0 01:3M-W 10.03 .788 1979.0616:14:00 316.16 503 .000
03109 [XMP:50:TIMP:60]
03110 [LOS2:2:CNM:71.0]
03111 [Previous area: IApex: 4.67;SIFP2:2.00;LGP: 40.0MNP:250:SCP: 0]
03112 [Imperious area: IAlpex: 1.57;SIFP: 50.01G: 260.0MNP:013:SC: 0]
03113 [IARClamp: 1.50; IARcSpc: 6.00]
03114 [SMN: 41.38; SMAK: 275.84; SK: 030]
03115 # LID for Outlet W10 (24 catchbasins, 30 m long trench each)
03116 # Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03117 # Total Volume provided by LID = 186 m^3
03118 # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03119 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
03120 ROUTE RESERVOIR -> 5.0 02:3M 10.03 .788 1979.0616:14:00 316.16 503 .000
03121 out <= 5.0 01:3M-LID 2.00 .001 1980.01:11:20 386.52 n/a .000
03122 overflow <= 5.0 03:3M-LID 0.78 .276 1980.08:03:14:00 388.87 n/a .000
03123 [MstOfsed: 1930E-01 m3, TotOfVol: 2328E+01 m3, N-OfV: 129, TotOfOrf: 169 hrs]
03124 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
03125 CONTINUOUS STANDBY 5.0 01:3M-W 10.03 .788 1979.0616:14:00 316.16 503 .000
03126 [XMP:50:TIMP:60]
03127 [LOS2:2:CNM:71.0]
03128 [Previous area: IApex: 4.67;SIFP2:2.00;LGP: 40.0MNP:250:SCP: 0]
03129 [Imperious area: IAlpex: 1.57;SIFP: 50.01G: 260.0MNP:013:SC: 0]
03130 [IARClamp: 1.50; IARcSpc: 6.00]
03131 [SMN: 41.38; SMAK: 275.84; SK: 030]
03132 # LID for Outlet W11 (24 catchbasins, 30 m long trench each)
03133 # Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03134 # Total Volume provided by LID = 186 m^3
03135 # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03136 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
03137 ROUTE RESERVOIR -> 5.0 02:3M 10.03 .788 1979.0616:14:00 316.16 503 .000
03138 out <= 5.0 01:3M-LID 2.11 .001 1980.01:11:20 278.58 n/a .000
03139 overflow <= 5.0 03:3M-LID 0.81 .767 1980.08:03:14:00 316.16 n/a .000
03140 [MstOfsed: 1859E-01 m3, TotOfVol: 2351E+01 m3, N-OfV: 119, TotOfOrf: 166 hrs]
03141 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
03142 CONTINUOUS STANDBY 5.0 01:3M-W 10.03 .788 1979.0616:14:00 316.16 503 .000
03143 [XMP:66:TIMP:76]
03144 [LOS2:2:CNM:101.0]
03145 [Previous area: IApex: 4.67;SIFP2:2.00;LGP: 40.0MNP:250:SCP: 0]
03146 [Imperious area: IAlpex: 1.57;SIFP: 50.01G: 259.0MNP:013:SC: 0]
03147 [IARClamp: 1.50; IARcSpc: 6.00]
03148 [SMN: 41.38; SMAK: 275.84; SK: 030]
03149 # LID for Outlet W12 (28 catchbasins, 30 m long trench each)
03150 # Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03151 # Total Volume provided by LID = 193 m^3
03152 # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
03153 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
03154 ROUTE RESERVOIR -> 5.0 02:3M 10.03 .788 1979.0616:14:00 316.16 503 .000
03155 out <= 5.0 02:3M 10.03 .788 1979.0616:14:00 316.16 503 .000
03156 overflow <= 5.0 01:3M-LID 2.11 .001 1980.01:11:20 297.78 n/a .000
03157 [MstOfsed: 1930E-01 m3, TotOfVol: 2328E+01 m3, N-OfV: 129, TotOfOrf: 169 hrs]
03158 R0079:CO0001-----DRAIN:ID:INVD-----AREAA:GFEARMS:TpeaDate:hh:mm-----Rvm:R:C-----DWPCMS
03159 CONTINUOUS STANDBY 5.0 01:3M-W 10.03 .788 1979.0616:14:00 316.16 503 .000
03160 [XMP:50:TIMP:60]
03161 [LOS2:2:CNM:71.0]
03162 [Previous area: IApex: 4.67;SIFP2:2.00;LGP: 40.0MNP:250:SCP: 0]
03163 [Imperious area: IAlpex: 1.57;SIFP: 50.01G: 260.0MNP:013:SC: 0]
03164 [IARClamp: 1.50; IARcSpc: 6.00]
03165 [SMN: 41.38; SMAK: 275.84; SK: 030]
03166 # LID for

Main body of text containing technical data, project details, and a large table with columns for various parameters and values.

```

03601 # Total Volume provided by LID = 96 m3
03602 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03603 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03604 ROUTE RESERVOIR -> 5.0 021M 5.76 .189 1982.0801.1900 277.52 n/a .000
03605 ROUTE RESERVOIR -> out <= 5.0 031M-LID 2.81 .001 1982.0313.1120 277.52 n/a .000
03606 overflow <= 5.0 031M-LID-out 4.18 .189 1982.0801.1900 277.52 n/a .000
03607 (MstOvrsd=1895E-01 m3, TotOvVol=1.161E+01 m3, N-Ov=129, TotOvDwF= 182 hrs)
03608 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03609 CONTINUOUS STANDBYD 5.0 012M2 8.51 .249 1982.0801.1900 255.70 429 .000
03610 [XIMP=50:TIMP=60]
03611 [LOGS= 2 :CN= 71.0]
03612 [Previous area :Iapev= 4.67:SLFP=2.00:LG= 40.0:IMP=250:SCP= .0]
03613 [Impervious area :Ialmp= 1.57:SLP= .50:LSI= 238.0:MMI=.013:SCI=.0]
03614 [IARClmp= 1.50 :IARCPev= 6.00]
03615 [SMN= 41.38 :SMAX=275.84 :SK= .030]
03616 # LID for Outlet W3 (19 catchbasins, 30 m long trench each)
03617 # Assumed 370 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03618 # Total Volume provided by LID = 131 m3
03619 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03620 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03621 ROUTE RESERVOIR -> 5.0 021M2 8.51 .249 1982.0801.1900 255.70 n/a .000
03622 out <= 5.0 031M-LID 2.39 .001 1982.0313.1120 255.70 n/a .000
03623 overflow <= 5.0 031M-LID-out 6.16 .246 1982.0801.1900 255.70 n/a .000
03624 (MstOvrsd=1209E-01 m3, TotOvVol=1.574E+01 m3, N-Ov= 126, TotOvDwF= 182 hrs)
03625 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03626 CONTINUOUS STANDBYD 5.0 012M3 10.03 .378 1982.0801.1900 322.88 1542 .000
03627 [XIMP=60:TIMP=76]
03628 [LOGS= 2 :CN= 71.0]
03629 [Previous area :Iapev= 4.67:SLFP=2.00:LG= 40.0:IMP=250:SCP= .0]
03630 [Impervious area :Ialmp= 1.57:SLP= .50:LSI= 239.0:MMI=.013:SCI=.0]
03631 [IARClmp= 1.50 :IARCPev= 6.00]
03632 [SMN= 41.38 :SMAX=275.84 :SK= .030]
03633 # LID for Outlet W3 (28 catchbasins, 30 m long trench each)
03634 # Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03635 # Total Volume provided by LID = 193 m3
03636 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03637 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03638 ROUTE RESERVOIR -> 5.0 021M3 10.03 .378 1982.0801.1900 322.88 n/a .000
03639 out <= 5.0 031M-LID 2.80 .001 1982.0313.1120 322.88 n/a .000
03640 overflow <= 5.0 031M-LID-out 7.23 .378 1982.0801.1900 322.88 n/a .000
03641 (MstOvrsd=1929E-01 m3, TotOvVol=2.335E+01 m3, N-Ov= 121, TotOvDwF= 181 hrs)
03642 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03643 CONTINUOUS STANDBYD 5.0 012M4 10.11 .349 1982.0801.1900 297.60 1499 .000
03644 [XIMP=60:TIMP=70]
03645 [LOGS= 2 :CN= 71.0]
03646 [Previous area :Iapev= 4.67:SLFP=2.00:LG= 40.0:IMP=250:SCP= .0]
03647 [Impervious area :Ialmp= 1.57:SLP= .50:LSI= 260.0:MMI=.013:SCI=.0]
03648 [IARClmp= 1.50 :IARCPev= 6.00]
03649 [SMN= 41.38 :SMAX=275.84 :SK= .030]
03650 # LID for Outlet W3 (27 catchbasins, 30 m long trench each)
03651 # Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03652 # Total Volume provided by LID = 145 m3
03653 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03654 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03655 ROUTE RESERVOIR -> 5.0 021M3 10.03 .378 1982.0801.1900 322.88 n/a .000
03656 out <= 5.0 031M-LID 2.89 .001 1982.0313.1120 297.61 n/a .000
03657 overflow <= 5.0 031M-LID-out 7.23 .344 1982.0801.1900 297.61 n/a .000
03658 (MstOvrsd=1859E-01 m3, TotOvVol=2.125E+01 m3, N-Ov= 125, TotOvDwF= 180 hrs)
03659 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03660 CONTINUOUS STANDBYD 5.0 012M5 6.20 .205 1982.0801.1900 285.01 478 .000
03661 [XIMP=57:TIMP=67]
03662 [LOGS= 2 :CN= 71.0]
03663 [Previous area :Iapev= 4.67:SLFP=2.00:LG= 40.0:IMP=250:SCP= .0]
03664 [Impervious area :Ialmp= 1.50:SLP= .50:LSI= 203.0:MMI=.013:SCI=.0]
03665 [IARClmp= 1.50 :IARCPev= 6.00]
03666 [SMN= 41.38 :SMAX=275.84 :SK= .030]
03667 # LID for Outlet W3 (16 catchbasins, 30 m long trench each)
03668 # Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03669 # Total Volume provided by LID = 110 m3
03670 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03671 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03672 ROUTE RESERVOIR -> 5.0 021M2 8.51 .249 1982.0801.1900 255.70 n/a .000
03673 out <= 5.0 031M-LID 1.77 .001 1982.0313.1120 255.70 n/a .000
03674 overflow <= 5.0 031M-LID-out 4.43 .203 1982.0801.1900 255.70 n/a .000
03675 (MstOvrsd=1198E-01 m3, TotOvVol=1.232E+01 m3, N-Ov= 126, TotOvDwF= 178 hrs)
03676 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03677 CONTINUOUS STANDBYD 5.0 012M6 7.81 .216 1982.0801.1900 344.12 1577 .000
03678 [XIMP=71:TIMP=81]
03679 [LOGS= 2 :CN= 71.0]
03680 [Previous area :Iapev= 4.67:SLFP=2.00:LG= 40.0:IMP=250:SCP= .0]
03681 [Impervious area :Ialmp= 1.57:SLP= .50:LSI= 228.0:MMI=.013:SCI=.0]
03682 [IARClmp= 1.50 :IARCPev= 6.00]
03683 [SMN= 41.38 :SMAX=275.84 :SK= .030]
03684 # LID for Outlet W6 (24 catchbasins, 30 m long trench each)
03685 # Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03686 # Total Volume provided by LID = 145 m3
03687 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03688 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03689 ROUTE RESERVOIR -> 5.0 021M6 6.20 .205 1982.0801.1900 344.12 n/a .000
03690 out <= 5.0 031M-LID 2.81 .216 1982.0801.1900 344.12 n/a .000
03691 overflow <= 5.0 031M-LID-out 5.60 .132 1982.0801.1900 344.12 n/a .000
03692 (MstOvrsd=1488E-01 m3, TotOvVol=1.925E+01 m3, N-Ov= 117, TotOvDwF= 178 hrs)
03693 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03694 ADD HYD 5.0 021M1 5.76 .189 1982.0801.1900 277.52 n/a .000
03695 + 5.0 021M2 6.20 .205 1982.0801.1900 255.70 n/a .000
03696 + 5.0 021M3 10.03 .378 1982.0801.1900 322.88 n/a .000
03697 + 5.0 021M4 8.51 .249 1982.0801.1900 255.70 n/a .000
03698 + 5.0 021M5 6.20 .205 1982.0801.1900 285.01 n/a .000
03699 + 5.0 021M6 7.81 .216 1982.0801.1900 344.12 n/a .000
03700 SIM= 5.0 012M7 48.42 .148 1982.0801.1900 297.60 n/a .000
03701 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03702 ADD HYD 5.0 021M8 7.23 .378 1982.0801.1900 322.88 n/a .000
03703 + 5.0 021M9-LID 6.16 .246 1982.0801.1900 255.70 n/a .000
03704 + 5.0 021M10-LID 7.23 .373 1982.0801.1900 322.88 n/a .000
03705 + 5.0 021M11-LID 2.21 .001 1982.0313.1120 344.13 n/a .000
03706 + 5.0 021M12-LID 4.43 .203 1982.0801.1900 285.01 n/a .000
03707 + 5.0 021M13-LID 4.43 .204 1982.0801.1900 344.12 n/a .000
03708 + 5.0 012M14-PH3 L1 34.82 .161 1982.0801.1900 298.90 n/a .000
03709 ***** Barhavers Conservancy Development Phase 3 (WITHOUT INFILTRATION) - POST DEVELOPMENT CONDITIONS *****
03710 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03711 # Total Volume provided by LID = 157 m3
03712 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03713 # Total Volume provided by LID = 165 m3
03714 CONTINUOUS STANDBYD 5.0 012M8 7.81 .216 1982.0801.1900 355.35 936 .000
03715 [XIMP=55:TIMP=66]
03716 [LOGS= 2 :CN= 100.0]
03717 [Previous area :Iapev= 4.67:SLFP=2.00:LG= 40.0:IMP=250:SCP= .0]
03718 [Impervious area :Ialmp= 1.57:SLP= .50:LSI= 196.0:MMI=.013:SCI=.0]
03719 [IARClmp= 1.50 :IARCPev= 6.00]
03720 [SMN= 1.39 :SMAX= 9.24 :SK= .000]
03721 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03722 # Total Volume provided by LID = 110 m3
03723 CONTINUOUS STANDBYD 5.0 012M9 8.51 .263 1982.0801.1900 339.12 1569 .000
03724 [XIMP=50:TIMP=60]
03725 [LOGS= 2 :CN= 100.0]
03726 [Previous area :Iapev= 4.67:SLFP=2.00:LG= 40.0:IMP=250:SCP= .0]
03727 [Impervious area :Ialmp= 1.57:SLP= .50:LSI= 238.0:MMI=.013:SCI=.0]
03728 [IARClmp= 1.50 :IARCPev= 6.00]
03729 [SMN= 1.39 :SMAX= 9.24 :SK= .000]
03730 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03731 # Total Volume provided by LID = 110 m3
03732 CONTINUOUS STANDBYD 5.0 012M10 10.03 .474 1982.0801.1900 384.48 1645 .000
03733 [XIMP=60:TIMP=76]
03734 [LOGS= 2 :CN= 100.0]
03735 [Previous area :Iapev= 4.67:SLFP=2.00:LG= 40.0:IMP=250:SCP= .0]
03736 [Impervious area :Ialmp= 1.57:SLP= .50:LSI= 259.0:MMI=.013:SCI=.0]
03737 [IARClmp= 1.50 :IARCPev= 6.00]
03738 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03739 CONTINUOUS STANDBYD 5.0 012M11 10.11 .459 1982.0801.1900 367.31 1616 .000
03740 [XIMP=60:TIMP=70]
03741 [LOGS= 2 :CN= 100.0]
03742 [Previous area :Iapev= 4.67:SLFP=2.00:LG= 40.0:IMP=250:SCP= .0]
03743 [Impervious area :Ialmp= 1.57:SLP= .50:LSI= 260.0:MMI=.013:SCI=.0]
03744 [IARClmp= 1.50 :IARCPev= 6.00]
03745 [SMN= 1.39 :SMAX= 9.24 :SK= .000]
03746 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03747 # Total Volume provided by LID = 165 m3
03748 CONTINUOUS STANDBYD 5.0 012M12 6.20 .205 1982.0801.1900 358.79 1602 .000
03749 [XIMP=57:TIMP=67]
03750 [LOGS= 2 :CN= 100.0]
03751 [Previous area :Iapev= 4.67:SLFP=2.00:LG= 40.0:IMP=250:SCP= .0]
03752 [Impervious area :Ialmp= 1.57:SLP= .50:LSI= 203.0:MMI=.013:SCI=.0]
03753 [IARClmp= 1.50 :IARCPev= 6.00]
03754 [SMN= 1.39 :SMAX= 9.24 :SK= .000]
03755 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03756 # Total Volume provided by LID = 157 m3
03757 CONTINUOUS STANDBYD 5.0 012M13 7.81 .216 1982.0801.1900 359.02 1469 .000
03758 [XIMP=71:TIMP=81]
03759 [LOGS= 2 :CN= 100.0]
03760 [Previous area :Iapev= 4.67:SLFP=2.00:LG= 40.0:IMP=250:SCP= .0]
03761 [Impervious area :Ialmp= 1.57:SLP= .50:LSI= 228.0:MMI=.013:SCI=.0]
03762 [IARClmp= 1.50 :IARCPev= 6.00]
03763 [SMN= 1.39 :SMAX= 9.24 :SK= .000]
03764 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03765 # Total Volume provided by LID = 157 m3
03766 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03767 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03768 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03769 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03770 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03771 # CONTINUOUS RAINFALL DATA
03772 *****
03773 ** END OF RUN = 82
03774
03775
03776
03777
03778
03779
03780
03781 RUN(COMMAND)
03782 ROBS(COORD)
03783 START
03784 [PRE= .00 hrs on 19831011]
03785 [RETRV= 2 :I= Imperial , Z= Metric output]
03786 [INSTORM= 0]
03787 [RNUM= 2 :002]
03788 *****
03789 # SWMHYM0 Ver:15.02/Jan 2001 -BETA / INPUT DATA FILE
03790 # Project Number: 474
03791 # Project Name: Barhavers Conservancy Development
03792 # Project Number: 474
03793 # Date : 2024/Oct/18
03794 # Modeler : J. Burnett, P.Eng.
03795 # Updated : 2024/Mar/14 [18]
03796 # Company : J.P. Sabourin and Associates
03797 # License #
03798 *****
03799 # Octava International Agency (1967 - 2003)
03800 # READ RES DATA
03801 [Filename = 'W0M_1967_2007_123 ]
03802 [Start_date= 1983.0101 End_date= 1983.1231]
03803 [DF= 60:min;Length= 8760:hrs;WeItrms= 462;Drytrs= 8298;FDT= 587.50]
03804 # Maximum average rainfall intensities over:
03805 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
03806 10.40 9.70 7.50 5.43 4.18 2.36 1.68 1.32 .92 mm/hr
03807 10.40 19.40 22.60 32.60 38.20 56.70 60.40 63.20 66.00 mm/hr
03808 19831004 19830921 19830901 19831005 19831005 19831005 19831005 19831005 19831005 date
03810 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
03811 142 87 84 85 70 55 50 45 35
03812 # Number of events with at least the following durations
03813 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
03814 142 87 84 85 70 55 50 45 35
03815 *****
03816 ROBS(COORD)
03817 # CONVER SEP
03818 [API= 50.00 :APkdy= 9000 :APkdv= 9996]
03819 [APmx= 79.86 :APmvg= 16.57 :APfime= .05]
03820 *****
03821 # Barhavers Conservancy Development Phase 3 (WITH INFILTRATION) - POST DEVELOPMENT CONDITIONS
03822 *****
03823 ROBS(COORD)-----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03824 CONTINUOUS STANDBYD 5.0 012M1 5.76 .121 1983.1005.1500 268.59 457 .000
03825 [LOGS= 2 :CN= 71.0]
03826 [Previous area :Iapev= 4.67:SLFP=2.00:LG= 40.0:IMP=250:SCP= .0]
03827 [Impervious area :Ialmp= 1.57:SLP= .50:LSI= 196.0:MMI=.013:SCI=.0]
03828 [IARClmp= 1.50 :IARCPev= 6.00]
03829 [SMN= 41.38 :SMAX=275.84 :SK= .030]
03830 # LID for Outlet W1 (14 catchbasins, 30 m long trench each)
03831 # Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03832 # Total Volume provided by LID = 96 m3
03833 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03834 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03835 ROUTE RESERVOIR -> 5.0 021M1 5.76 .121 1983.1005.1500 268.59 n/a .000
03836 out <= 5.0 031M-LID 2.87 .001 1983.0313.2135 310.81 n/a .000
03837 overflow <= 5.0 031M-LID-out 4.16 .119 1983.1005.1500 268.59 n/a .000
03838 (MstOvrsd=1929E-01 m3, TotOvVol=1.118E+01 m3, N-Ov= 129, TotOvDwF= 189 hrs)
03839 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03840 CONTINUOUS STANDBYD 5.0 012M2 8.51 .168 1983.1005.1500 248.06 422 .000
03841 [XIMP=50:TIMP=60]
03842 [LOGS= 2 :CN= 71.0]
03843 [Previous area :Iapev= 4.67:SLFP=2.00:LG= 40.0:IMP=250:SCP= .0]
03844 [Impervious area :Ialmp= 1.57:SLP= .50:LSI= 203.0:MMI=.013:SCI=.0]
03845 [IARClmp= 1.50 :IARCPev= 6.00]
03846 [SMN= 41.38 :SMAX=275.84 :SK= .030]
03847 # LID for Outlet W2 (19 catchbasins, 30 m long trench each)
03848 # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03849 # Total Volume provided by LID = 131 m3
03850 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03851 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03852 ROUTE RESERVOIR -> 5.0 021M2 8.51 .168 1983.1005.1500 248.06 n/a .000
03853 out <= 5.0 031M-LID 2.39 .001 1983.0313.2135 248.06 n/a .000
03854 overflow <= 5.0 031M-LID-out 4.12 .167 1983.1005.1500 248.06 n/a .000
03855 (MstOvrsd=1310E-01 m3, TotOvVol=1.519E+01 m3, N-Ov= 128, TotOvDwF= 190 hrs)
03856 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03857 CONTINUOUS STANDBYD 5.0 012M3 10.03 .229 1983.1005.1500 310.81 529 .000
03858 [XIMP=60:TIMP=76]
03859 [LOGS= 2 :CN= 71.0]
03860 [Previous area :Iapev= 4.67:SLFP=2.00:LG= 40.0:IMP=250:SCP= .0]
03861 [Impervious area :Ialmp= 1.57:SLP= .50:LSI= 239.0:MMI=.013:SCI=.0]
03862 [IARClmp= 1.50 :IARCPev= 6.00]
03863 [SMN= 41.38 :SMAX=275.84 :SK= .030]
03864 # LID for Outlet W3 (28 catchbasins, 30 m long trench each)
03865 # Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03866 # Total Volume provided by LID = 193 m3
03867 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03868 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03869 ROUTE RESERVOIR -> 5.0 021M3 10.03 .229 1983.1005.1500 310.81 529 .000
03870 out <= 5.0 031M-LID 2.87 .001 1983.0313.2135 310.81 n/a .000
03871 overflow <= 5.0 031M-LID-out 4.12 .167 1983.1005.1500 248.06 n/a .000
03872 (MstOvrsd=1929E-01 m3, TotOvVol=2.225E+01 m3, N-Ov= 122, TotOvDwF= 188 hrs)
03873 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03874 CONTINUOUS STANDBYD 5.0 012M4 10.11 .219 1983.1005.1500 287.18 1489 .000
03875 [XIMP=50:TIMP=60]
03876 [LOGS= 2 :CN= 71.0]
03877 [Previous area :Iapev= 4.67:SLFP=2.00:LG= 40.0:IMP=250:SCP= .0]
03878 [Impervious area :Ialmp= 1.57:SLP= .50:LSI= 260.0:MMI=.013:SCI=.0]
03879 [IARClmp= 1.50 :IARCPev= 6.00]
03880 [SMN= 41.38 :SMAX=275.84 :SK= .030]
03881 # LID for Outlet W4 (16 catchbasins, 30 m long trench each)
03882 # Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03883 # Total Volume provided by LID = 110 m3
03884 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03885 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03886 ROUTE RESERVOIR -> 5.0 021M2 8.51 .219 1983.1005.1500 287.18 n/a .000
03887 out <= 5.0 031M-LID 1.77 .001 1983.0313.2135 310.81 n/a .000
03888 overflow <= 5.0 031M-LID-out 4.16 .119 1983.1005.1500 248.06 n/a .000
03889 (MstOvrsd=1859E-01 m3, TotOvVol=1.268E+01 m3, N-Ov= 126, TotOvDwF= 187 hrs)
03890 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03891 CONTINUOUS STANDBYD 5.0 012M5 6.20 .132 1983.1005.1500 275.42 469 .000
03892 [XIMP=57:TIMP=67]
03893 [LOGS= 2 :CN= 71.0]
03894 [Previous area :Iapev= 4.67:SLFP=2.00:LG= 40.0:IMP=250:SCP= .0]
03895 [Impervious area :Ialmp= 1.57:SLP= .50:LSI= 203.0:MMI=.013:SCI=.0]
03896 [IARClmp= 1.50 :IARCPev= 6.00]
03897 [SMN= 1.39 :SMAX= 9.24 :SK= .000]
03898 # LID for Outlet W5 (16 catchbasins, 30 m long trench each)
03899 # Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03900 # Total Volume provided by LID = 110 m3
03901 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03902 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03903 ROUTE RESERVOIR -> 5.0 021M5 6.20 .132 1983.1005.1500 275.42 n/a .000
03904 out <= 5.0 031M-LID 1.49 .001 1983.0313.2135 275.41 n/a .000
03905 overflow <= 5.0 031M-LID-out 4.39 .130 1983.1005.1500 275.42 n/a .000
03906 (MstOvrsd=1488E-01 m3, TotOvVol=1.210E+01 m3, N-Ov= 126, TotOvDwF= 184 hrs)
03907 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03908 CONTINUOUS STANDBYD 5.0 012M6 7.81 .187 1983.1005.1500 330.68 1563 .000
03909 [XIMP=60:TIMP=76]
03910 [LOGS= 2 :CN= 71.0]
03911 [Previous area :Iapev= 4.67:SLFP=2.00:LG= 40.0:IMP=250:SCP= .0]
03912 [Impervious area :Ialmp= 1.57:SLP= .50:LSI= 228.0:MMI=.013:SCI=.0]
03913 [IARClmp= 1.50 :IARCPev= 6.00]
03914 [SMN= 41.38 :SMAX=275.84 :SK= .030]
03915 # LID for Outlet W6 (24 catchbasins, 30 m long trench each)
03916 # Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
03917 # Total Volume provided by LID = 145 m3
03918 # Soil infiltration rates assumed at 9m/hr with a safety factor of 2.5
03919 ROUTE RESERVOIR -> -----DRAIN-ID:HYD-----AREAha-GPEARms-TpeakDate_hh:mm-----Rvm-R-C-----DWFCms
03920 ROUTE RESERVOIR -> 5.0 021M6 6.20 .187 1983.1005.1500 330.68 n/a .000
03921 out <= 5.0 031M-LID 2.27 .001 1983.0313.2135 330.68 n/a .000
03922 overflow <= 5.0 031M-LID-out 5.54 .184 1983.1005.1500 330.68 n/a .000
03923 (MstOvrsd=1650E-01 m3, TotOvVol=1.831E+01 m3, N-Ov= 119,
```



```

042321 R0805C00008 -----Dtain-ID:INBYD-----AREAh-QFEAKms=PeakDate:hh:mm-----Rvm=R.C-----DWFCms
042322 CONTINUOUS STANDBY 5.0 01:196 10.03 .363 1985.0716:14:00 318.25 .569 .000
042323 [XIMP=66:TIMP=76]
042324 [LOGS 2 :CN=71.0]
042325 [Previous area: IArea= 4.67:SLLP=2.00:LGP= 40.IMP=250:SICP= .0]
042326 [Impervious area: IAImp= 1.57:SLP= .50:IM= 250:IM1=.013:SIC1= .0]
042327 [IAREC= 1.50: IARECP= 6.00]
042328 [SMIN= 41.38: SMAX=275.84: SE= .003]
042329 # LID for Outlet W3 (28 catchbasins, 30 m long trench each)
042330 # Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
042331 # Total Volume provided by LID = 193 m^3
042332 # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
042333 R0805C00009 -----Dtain-ID:INBYD-----AREAh-QFEAKms=PeakDate:hh:mm-----Rvm=R.C-----DWFCms
042334 ROUTE RESERVOIR --> 5.0 02:198 10.03 .363 1985.0716:14:00 318.25 n/a .000
042335 out <= 5.0 01:196-LID 2.22 .001 1985.0222:12:30 293.85 n/a .000
042336 overflow <= 5.0 03:198-LID-OUT 7.78 .359 1985.0716:14:00 318.25 n/a .000
042337 [MdtOfUsed= 1190E-01 m3, TotOfVol= 2470E+01 m3, N-Over= 189, TotOfDur= 144 hrs]
042338 R0805C00010 -----Dtain-ID:INBYD-----AREAh-QFEAKms=PeakDate:hh:mm-----Rvm=R.C-----DWFCms
042339 CONTINUOUS STANDBY 5.0 01:196 10.11 .336 1985.0716:14:00 293.85 .525 .000
042340 [XIMP=60:TIMP=70]
042341 [LOGS 2 :CN=71.0]
042342 [Previous area: IArea= 4.67:SLLP=2.00:LGP= 40.IMP=250:SICP= .0]
042343 [Impervious area: IAImp= 1.57:SLP= .50:IM= 260:IM1=.013:SIC1= .0]
042344 [IAREC= 1.50: IARECP= 6.00]
042345 [SMIN= 41.38: SMAX=275.84: SE= .003]
042346 # LID for Outlet W4 (27 catchbasins, 30 m long trench each)
042347 # Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
042348 # Total Volume provided by LID = 186 m^3
042349 # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
042350 R0805C00011 -----Dtain-ID:INBYD-----AREAh-QFEAKms=PeakDate:hh:mm-----Rvm=R.C-----DWFCms
042351 ROUTE RESERVOIR --> 5.0 02:198 10.11 .336 1985.0716:14:00 293.85 n/a .000
042352 out <= 5.0 01:196-LID 1.43 .001 1985.0222:12:30 281.65 n/a .000
042353 overflow <= 5.0 03:198-LID-OUT 7.78 .329 1985.0716:14:00 293.85 n/a .000
042354 [MdtOfUsed= 1160E-01 m3, TotOfVol= 2287E+01 m3, N-Over= 74, TotOfDur= 148 hrs]
042355 R0805C00012 -----Dtain-ID:INBYD-----AREAh-QFEAKms=PeakDate:hh:mm-----Rvm=R.C-----DWFCms
042356 CONTINUOUS STANDBY 5.0 01:195 6.20 .198 1985.0716:14:00 281.65 .503 .000
042357 [XIMP=67:TIMP=67]
042358 [LOGS 2 :CN=71.0]
042359 [Previous area: IArea= 4.67:SLLP=2.00:LGP= 40.IMP=250:SICP= .0]
042360 [Impervious area: IAImp= 1.57:SLP= .50:IM= 235:IM1=.013:SIC1= .0]
042361 [IAREC= 1.50: IARECP= 6.00]
042362 [SMIN= 41.38: SMAX=275.84: SE= .003]
042363 # LID for Outlet W5 (16 catchbasins, 30 m long trench each)
042364 # Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
042365 # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
042366 R0805C00013 -----Dtain-ID:INBYD-----AREAh-QFEAKms=PeakDate:hh:mm-----Rvm=R.C-----DWFCms
042367 ROUTE RESERVOIR --> 5.0 02:195 10.11 .336 1985.0716:14:00 281.65 n/a .000
042368 out <= 5.0 01:196-LID 1.43 .001 1985.0222:12:30 281.65 n/a .000
042369 overflow <= 5.0 03:198-LID-OUT 4.77 .781 1985.0716:14:00 338.94 n/a .000
042370 [MdtOfUsed= 1100E-01 m3, TotOfVol= 1143E+01 m3, N-Over= 85, TotOfDur= 147 hrs]
042371 R0805C00014 -----Dtain-ID:INBYD-----AREAh-QFEAKms=PeakDate:hh:mm-----Rvm=R.C-----DWFCms
042372 CONTINUOUS STANDBY 5.0 01:196 7.81 .306 1985.0716:14:00 338.94 .605 .000
042373 [XIMP=71:TIMP=81]
042374 [LOGS 2 :CN=71.0]
042375 [Previous area: IArea= 4.67:SLLP=2.00:LGP= 40.IMP=250:SICP= .0]
042376 [Impervious area: IAImp= 1.57:SLP= .50:IM= 228:IM1=.013:SIC1= .0]
042377 [IAREC= 1.50: IARECP= 6.00]
042378 [SMIN= 41.38: SMAX=275.84: SE= .003]
042379 # LID for Outlet W6 (24 catchbasins, 30 m long trench each)
042380 # Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
042381 # Total Volume provided by LID = 186 m^3
042382 # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
042383 R0805C00015 -----Dtain-ID:INBYD-----AREAh-QFEAKms=PeakDate:hh:mm-----Rvm=R.C-----DWFCms
042384 ROUTE RESERVOIR --> 5.0 02:198 10.11 .336 1985.0716:14:00 274.48 n/a .000
042385 out <= 5.0 01:196-LID 1.80 .001 1985.0222:12:30 318.94 n/a .000
042386 overflow <= 5.0 03:198-LID-OUT 6.01 .102 1985.0716:14:00 338.94 n/a .000
042387 [MdtOfUsed= 1649E-01 m3, TotOfVol= 2038E+01 m3, N-Over= 82, TotOfDur= 145 hrs]
042388 R0805C00016 -----Dtain-ID:INBYD-----AREAh-QFEAKms=PeakDate:hh:mm-----Rvm=R.C-----DWFCms
042389 ADD HYD + 5.0 02:198 8.51 .240 1985.0716:14:00 253.27 n/a .000
042390 + 5.0 02:198 10.03 .363 1985.0716:14:00 338.94 n/a .000
042391 + 5.0 02:198 10.11 .336 1985.0716:14:00 293.85 n/a .000
042392 + 5.0 02:198 6.20 .198 1985.0716:14:00 281.65 n/a .000
042393 + 5.0 02:198 6.20 .198 1985.0716:14:00 338.94 n/a .000
042394 + 5.0 02:198 48.42 1.621 1985.0716:14:00 295.20 n/a .000
042395 [SUM= 5.0 01:196-P3 48.42 1.621 1985.0716:14:00 295.20 n/a .000]
042396 R0805C00017 -----Dtain-ID:INBYD-----AREAh-QFEAKms=PeakDate:hh:mm-----Rvm=R.C-----DWFCms
042397 ADD HYD + 5.0 02:198-LID-OUT 4.49 .276 1985.0716:14:00 274.48 n/a .000
042398 + 5.0 02:198-LID-OUT 6.51 .237 1985.0716:14:00 253.27 n/a .000
042399 + 5.0 02:198-LID-OUT 7.78 .329 1985.0716:14:00 293.85 n/a .000
042400 + 5.0 02:198-LID-OUT 7.78 .329 1985.0716:14:00 293.85 n/a .000
042401 + 5.0 02:198-LID-OUT 7.78 .329 1985.0716:14:00 293.85 n/a .000
042402 + 5.0 02:198-LID-OUT 7.78 .329 1985.0716:14:00 293.85 n/a .000
042403 + 5.0 02:198-LID-OUT 6.01 .302 1985.0716:14:00 338.94 n/a .000
042404 + 5.0 02:198-LID-OUT 6.01 .302 1985.0716:14:00 338.94 n/a .000
042405 [SUM= 5.0 01:196-P3-L1 37.42 1.601 1985.0716:14:00 295.33 n/a .000]
042406 *****
042407 *****
042408 # Barhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION) - POST DEVELOPMENT CONDITIONS
042409 # Set infiltration to 0 (CN = 99.99) for water balance analysis
042410 R0805C00018 -----Dtain-ID:INBYD-----AREAh-QFEAKms=PeakDate:hh:mm-----Rvm=R.C-----DWFCms
042411 CONTINUOUS STANDBY 5.0 01:196-M1 5.76 .254 1985.0716:14:00 361.80 .646 .000
042412 [XIMP=58:TIMP=64]
042413 [LOGS 2 :CN=100.0]
042414 [Previous area: IArea= 4.67:SLLP=2.00:LGP= 40.IMP=250:SICP= .0]
042415 [Impervious area: IAImp= 1.57:SLP= .50:IM= 196:IM1=.013:SIC1= .0]
042416 [IAREC= 1.50: IARECP= 6.00]
042417 [SMIN= 41.38: SMAX=275.84: SE= .003]
042418 R0805C00019 -----Dtain-ID:INBYD-----AREAh-QFEAKms=PeakDate:hh:mm-----Rvm=R.C-----DWFCms
042419 CONTINUOUS STANDBY 5.0 01:196-M2 8.51 .350 1985.0716:14:00 347.74 .621 .000
042420 [XIMP=59:TIMP=60]
042421 [LOGS 2 :CN=100.0]
042422 [Previous area: IArea= 4.67:SLLP=2.00:LGP= 40.IMP=250:SICP= .0]
042423 [Impervious area: IAImp= 1.57:SLP= .50:IM= 238:IM1=.013:SIC1= .0]
042424 [IAREC= 1.50: IARECP= 6.00]
042425 [SMIN= 1.39: SMAX= 9.24: SE= .000]
042426 R0805C00020 -----Dtain-ID:INBYD-----AREAh-QFEAKms=PeakDate:hh:mm-----Rvm=R.C-----DWFCms
042427 CONTINUOUS STANDBY 5.0 01:196-M3 10.03 .456 1985.0716:14:00 386.27 .690 .000
042428 [XIMP=66:TIMP=76]
042429 [LOGS 2 :CN=100.0]
042430 [Previous area: IArea= 4.67:SLLP=2.00:LGP= 40.IMP=250:SICP= .0]
042431 [Impervious area: IAImp= 1.57:SLP= .50:IM= 259:IM1=.013:SIC1= .0]
042432 [IAREC= 1.50: IARECP= 6.00]
042433 [SMIN= 1.39: SMAX= 9.24: SE= .000]
042434 R0805C00021 -----Dtain-ID:INBYD-----AREAh-QFEAKms=PeakDate:hh:mm-----Rvm=R.C-----DWFCms
042435 CONTINUOUS STANDBY 5.0 01:196-M4 10.11 .442 1985.0716:14:00 371.72 .664 .000
042436 [XIMP=60:TIMP=70]
042437 [LOGS 2 :CN=100.0]
042438 [Previous area: IArea= 4.67:SLLP=2.00:LGP= 40.IMP=250:SICP= .0]
042439 [Impervious area: IAImp= 1.57:SLP= .50:IM= 260:IM1=.013:SIC1= .0]
042440 [IAREC= 1.50: IARECP= 6.00]
042441 [SMIN= 1.39: SMAX= 9.24: SE= .000]
042442 R0805C00022 -----Dtain-ID:INBYD-----AREAh-QFEAKms=PeakDate:hh:mm-----Rvm=R.C-----DWFCms
042443 CONTINUOUS STANDBY 5.0 01:196-M5 6.20 .274 1985.0716:14:00 364.50 .651 .000
042444 [XIMP=57:TIMP=67]
042445 [LOGS 2 :CN=100.0]
042446 [Previous area: IArea= 4.67:SLLP=2.00:LGP= 40.IMP=250:SICP= .0]
042447 [Impervious area: IAImp= 1.57:SLP= .50:IM= 203:IM1=.013:SIC1= .0]
042448 [IAREC= 1.50: IARECP= 6.00]
042449 [SMIN= 1.39: SMAX= 9.24: SE= .000]
042450 R0805C00023 -----Dtain-ID:INBYD-----AREAh-QFEAKms=PeakDate:hh:mm-----Rvm=R.C-----DWFCms
042451 CONTINUOUS STANDBY 5.0 01:196-M6 7.81 .372 1985.0716:14:00 398.36 .712 .000
042452 [XIMP=62:TIMP=67]
042453 [LOGS 2 :CN=100.0]
042454 [Previous area: IArea= 4.67:SLLP=2.00:LGP= 40.IMP=250:SICP= .0]
042455 [Impervious area: IAImp= 1.57:SLP= .50:IM= 228:IM1=.013:SIC1= .0]
042456 [IAREC= 1.50: IARECP= 6.00]
042457 [SMIN= 1.39: SMAX= 9.24: SE= .000]
042458 R0805C00024 -----Dtain-ID:INBYD-----AREAh-QFEAKms=PeakDate:hh:mm-----Rvm=R.C-----DWFCms
042459 ADD HYD + 5.0 02:198-M3 5.76 .254 1985.0716:14:00 361.80 n/a .000
042460 + 5.0 02:198-M4 10.03 .456 1985.0716:14:00 386.27 n/a .000
042461 + 5.0 02:198-M5 6.20 .274 1985.0716:14:00 364.50 n/a .000
042462 + 5.0 02:198-M6 7.81 .372 1985.0716:14:00 398.36 n/a .000
042463 + 5.0 02:198-M6 7.81 .372 1985.0716:14:00 398.36 n/a .000
042464 [SUM= 5.0 01:196-P3-PH 48.42 1.621 1985.0716:14:00 295.20 n/a .000]
042465 *****
042466 *****
042467 *****
042468 *****
042469 ** END OF RUN : 85
042470
042471
042472
042473
042474
042475
042476
042477 RNN:COMMANDS
042478 R0806C00001
042479 START
042480 ITRNO = 00 hrs on 19860101
042481 [METOUT= 2 (1 imperial, 2 metric output)]
042482 [NETOUT= 0]
042483 [RUN = 0086 ]
042484 *****
042485 # SNEYMON Ver.02/Jan 2001 <BETA> / INPUT DATA FILE
042486 *****
042487 # Project Name: Barhaven Conservancy Development
042488 # Project Number: 1474
042489 # Date : 2021/08/19
042490 # Modeler : J.F. Ruffin, P. Eng.
042491 # Updated : 2024/Mar/14 [P]
042492 # Company : J.F. Ruffin & Associates
042493 # License #: 2382634
042494 *****
042495 # Ottawa International Airport (1967 - 2003)
042496 R0806C00002
042497 # READ THIS DATA
042498 [Filename = YON_1967_2003_123]
042499 [Start_date = 1986.0101: End_date = 1986.1231]
042500 [Dte_dt_min: Length= 8@4: hrs; Metric= 520; DvYhrs= 7520; PDT= 8@9.40]

```



04681 [SMIN: 1.39; SMAX: 9.24; SE: .000]-----AREAh-QFEARMS-TpeakDate\_hh:mm-----Rvm-R.C-----DWFCms
04682 R08B7C0001-----Dtain-ID:INVD-----AREAh-QFEARMS-TpeakDate\_hh:mm-----Rvm-R.C-----DWFCms
04683 CONTINUOUS STANDBY 5.0 01:1NF-W2 7.81 .390 1987.0724.13:00 602.49 .709 .000
04684 [XIMP: 71:TMP: 81]
04685 [LGS2: 2 :CM: 71.0]
04686 [Previous area: IArea: 4.67;SLFP:2.00;LGF: 40.1MNF:250;SCP: .0]
04687 [Impervious area: IAlmp: 1.57;SLFP: .50;LGT: 238.1MNF:013;SCL: .0]
04688 [IAREClmp: 1.50; IARESCP: 6.00]
04689 [SMIN: 1.39; SMAX: 9.24; SE: .000]
04690 R08B7C0002-----Dtain-ID:INVD-----AREAh-QFEARMS-TpeakDate\_hh:mm-----Rvm-R.C-----DWFCms
04691 ADD HYD + 5.0 02:1NF-W1 5.76 .283 1987.0724.13:00 551.31 n/a .000
04692 [Previous area: IArea: 4.67;SLFP:2.00;LGF: 40.1MNF:250;SCP: .0]
04693 [Impervious area: IAlmp: 1.57;SLFP: .50;LGT: 238.1MNF:013;SCL: .0]
04694 [IAREClmp: 1.50; IARESCP: 6.00]
04695 [SMIN: 1.39; SMAX: 9.24; SE: .000]
04696 [Previous area: IArea: 4.67;SLFP:2.00;LGF: 40.1MNF:250;SCP: .0]
04697 [Impervious area: IAlmp: 1.57;SLFP: .50;LGT: 238.1MNF:013;SCL: .0]
04698 [IAREClmp: 1.50; IARESCP: 6.00]
04699 [SMIN: 1.39; SMAX: 9.24; SE: .000]
04700 \*\*\*\*\*
04701 \*\*\*\*\*
04702 \*\*\*\*\*
04703 \*\*\*\*\*
04704 \*\*\*\*\*
04705 \*\*\*\*\*
04706 \*\*\*\*\*
04707 \*\*\*\*\*
04708 \*\*\*\*\*
04709 R08B7C0003-----Dtain-ID:INVD-----AREAh-QFEARMS-TpeakDate\_hh:mm-----Rvm-R.C-----DWFCms
04710 [ITER0: .00 hrs on 19870101]
04711 [MTCOUT: 2 (Impervial, 2 metric output)]
04712 [MTCOUT: 0]
04713 [MNF: 087]
04714 \*\*\*\*\*
04715 \*\*\*\*\*
04716 \*\*\*\*\*
04717 \*\*\*\*\*
04718 \*\*\*\*\*
04719 \*\*\*\*\*
04720 \*\*\*\*\*
04721 \*\*\*\*\*
04722 \*\*\*\*\*
04723 \*\*\*\*\*
04724 \*\*\*\*\*
04725 \*\*\*\*\*
04726 \*\*\*\*\*
04727 \*\*\*\*\*
04728 R08B7C0002-----Dtain-ID:INVD-----AREAh-QFEARMS-TpeakDate\_hh:mm-----Rvm-R.C-----DWFCms
04729 \*\*\*\*\*
04730 \*\*\*\*\*
04731 \*\*\*\*\*
04732 \*\*\*\*\*
04733 \*\*\*\*\*
04734 \*\*\*\*\*
04735 \*\*\*\*\*
04736 \*\*\*\*\*
04737 \*\*\*\*\*
04738 \*\*\*\*\*
04739 \*\*\*\*\*
04740 \*\*\*\*\*
04741 \*\*\*\*\*
04742 \*\*\*\*\*
04743 \*\*\*\*\*
04744 \*\*\*\*\*
04745 \*\*\*\*\*
04746 \*\*\*\*\*
04747 \*\*\*\*\*
04748 \*\*\*\*\*
04749 \*\*\*\*\*
04750 \*\*\*\*\*
04751 \*\*\*\*\*
04752 \*\*\*\*\*
04753 \*\*\*\*\*
04754 \*\*\*\*\*
04755 \*\*\*\*\*
04756 \*\*\*\*\*
04757 \*\*\*\*\*
04758 \*\*\*\*\*
04759 \*\*\*\*\*
04760 \*\*\*\*\*
04761 \*\*\*\*\*
04762 \*\*\*\*\*
04763 \*\*\*\*\*
04764 \*\*\*\*\*
04765 \*\*\*\*\*
04766 \*\*\*\*\*
04767 \*\*\*\*\*
04768 \*\*\*\*\*
04769 \*\*\*\*\*
04770 \*\*\*\*\*
04771 \*\*\*\*\*
04772 \*\*\*\*\*
04773 \*\*\*\*\*
04774 \*\*\*\*\*
04775 \*\*\*\*\*
04776 \*\*\*\*\*
04777 \*\*\*\*\*
04778 \*\*\*\*\*
04779 \*\*\*\*\*
04780 \*\*\*\*\*
04781 \*\*\*\*\*
04782 \*\*\*\*\*
04783 \*\*\*\*\*
04784 \*\*\*\*\*
04785 \*\*\*\*\*
04786 \*\*\*\*\*
04787 \*\*\*\*\*
04788 \*\*\*\*\*
04789 \*\*\*\*\*
04790 \*\*\*\*\*
04791 \*\*\*\*\*
04792 \*\*\*\*\*
04793 \*\*\*\*\*
04794 \*\*\*\*\*
04795 \*\*\*\*\*
04796 \*\*\*\*\*
04797 \*\*\*\*\*
04798 \*\*\*\*\*
04799 \*\*\*\*\*
04800 \*\*\*\*\*
04801 \*\*\*\*\*
04802 \*\*\*\*\*
04803 \*\*\*\*\*
04804 \*\*\*\*\*
04805 \*\*\*\*\*
04806 \*\*\*\*\*
04807 \*\*\*\*\*
04808 \*\*\*\*\*
04809 \*\*\*\*\*
04810 \*\*\*\*\*
04811 \*\*\*\*\*
04812 \*\*\*\*\*
04813 \*\*\*\*\*
04814 \*\*\*\*\*
04815 \*\*\*\*\*
04816 \*\*\*\*\*
04817 \*\*\*\*\*
04818 \*\*\*\*\*
04819 \*\*\*\*\*
04820 \*\*\*\*\*
04821 \*\*\*\*\*
04822 \*\*\*\*\*
04823 \*\*\*\*\*
04824 \*\*\*\*\*
04825 \*\*\*\*\*
04826 \*\*\*\*\*
04827 \*\*\*\*\*
04828 \*\*\*\*\*
04829 \*\*\*\*\*
04830 \*\*\*\*\*
04831 \*\*\*\*\*
04832 \*\*\*\*\*
04833 \*\*\*\*\*
04834 \*\*\*\*\*
04835 \*\*\*\*\*
04836 \*\*\*\*\*
04837 \*\*\*\*\*
04838 \*\*\*\*\*
04839 \*\*\*\*\*
04840 \*\*\*\*\*
04841 \*\*\*\*\*
04842 \*\*\*\*\*
04843 \*\*\*\*\*
04844 \*\*\*\*\*
04845 \*\*\*\*\*
04846 \*\*\*\*\*
04847 \*\*\*\*\*
04848 \*\*\*\*\*
04849 \*\*\*\*\*
04850 \*\*\*\*\*
04851 \*\*\*\*\*
04852 \*\*\*\*\*
04853 \*\*\*\*\*
04854 \*\*\*\*\*
04855 \*\*\*\*\*
04856 \*\*\*\*\*
04857 \*\*\*\*\*
04858 \*\*\*\*\*
04859 \*\*\*\*\*
04860 \*\*\*\*\*







```

061213 # HEAD AES DATA
061213 # Filenames: YOM_1967_2007_123 1
061213 # [Start_date= 1993.0101; End_date= 1993.1231]
061213 # [DT= 60; min; Length= 8760; hrs; Wethrs= 585; Dryhrs= 8175; PLOT= 721.30]
061213 # Maximum average rainfall intensities over
061213 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
061213 12.00 6.40 5.18 3.38 2.38 1.78 1.21 .81 mm/hr
061213 12.60 13.20 14.50 22.30 43.00 55.50 58.10 58.10 58.10
061213 19930703 19930703 19931127 19931128 19931128 19931128 19931128 19931128 19931129 date
061213 # Number of rainfall events per following interval time
061213 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
061213 193 154 97 48 34
061213 # Number of events with at least the following durations
061213 1 hr 2 hrs 3 hrs 6 hrs 12 hrs 24 hrs 36 hrs 48 hrs 72 hrs
061213 190 152 97 47 32 19
061213 R0931C0003-----Dtain:ID:HYD-----AREAh-APEARms-TpeakData_hh:mm-----Rvm-R.C-----DWFCms
061213 # COMPUTE HYD
061213 # [AFIncl= 50.00; APItkdy= 9000; APItkd= 9956]
061213 # [AFIncl= 66.36; APFavg= 20.01; AFIncl= .11]
061213 # [Impervious area: IArea= 4.67;SIFP=2.00;LGP= 40.0MP=250;SCP= .0]
061213 # [Impervious area: IArea= 1.57;SIFP= .50;LGI= 196.0MM= .013;SCI= .0]
061213 # [IARClmp= 1.50; IARCPe= 6.00]
061213 # [SMIN= 41.38; SMAX=275.84; SK= .030]
061213 # # LID for Outlet W1 (14 catchbasins, 30 m long trench each)
061213 # Assumed 420 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
061213 # Total Volume provided by LID = 96 m3
061213 # # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
061213 ROUTE RESERVOIR -> 5.0 021M 5.76 .113 1993.0703 9:00 330.14 n/a .000
061213 out <= 5.0 01M-LID 2.45 .001 1993.0104 1:00 304.80 n/a .000
061213 overlow <= 5.0 03M-LID 4.12 .111 1993.0703 9:00 330.14 n/a .000
061213 # (MdtOsead=.9396E-02 m3, TotVolVoi=.1139E+01 m3, N-Ovr= 150, TotDurOvr= 232 hrs)
061213 R0931C0004-----Dtain:ID:HYD-----AREAh-APEARms-TpeakData_hh:mm-----Rvm-R.C-----DWFCms
061213 # CONTINUOUS STANDBY 5.0 011M 5.76 .113 1993.0703 9:00 330.14 458 .000
061213 # [XMP= 55;TIMP= 66]
061213 # [LOS= 2; C=CN100.0]
061213 # [Previous area: IArea= 4.67;SIFP=2.00;LGP= 40.0MP=250;SCP= .0]
061213 # [Impervious area: IArea= 1.57;SIFP= .50;LGI= 196.0MM= .013;SCI= .0]
061213 # [IARClmp= 1.50; IARCPe= 6.00]
061213 # [SMIN= 41.38; SMAX=275.84; SK= .030]
061213 # # LID for Outlet W2 (19 catchbasins, 30 m long trench each)
061213 # Assumed 570 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
061213 # Total Volume provided by LID = 131 m3
061213 # # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
061213 ROUTE RESERVOIR -> 5.0 021M 8.51 .150 1993.0703 9:00 304.80 n/a .000
061213 out <= 5.0 01M-LID 2.45 .001 1993.0104 1:00 304.80 n/a .000
061213 overlow <= 5.0 03M-LID 4.12 .111 1993.0703 9:00 330.14 n/a .000
061213 # (MdtOsead=.1310E-01 m3, TotVolVoi=.1847E+01 m3, N-Ovr= 150, TotDurOvr= 234 hrs)
061213 R0931C0005-----Dtain:ID:HYD-----AREAh-APEARms-TpeakData_hh:mm-----Rvm-R.C-----DWFCms
061213 # CONTINUOUS STANDBY 5.0 011M 8.51 .150 1993.0703 9:00 304.80 423 .000
061213 # [XMP= 66;TIMP= 76]
061213 # [LOS= 2; C=CN100.0]
061213 # [Previous area: IArea= 4.67;SIFP=2.00;LGP= 40.0MP=250;SCP= .0]
061213 # [Impervious area: IArea= 1.57;SIFP= .50;LGI= 238.0MM= .013;SCI= .0]
061213 # [IARClmp= 1.50; IARCPe= 6.00]
061213 # [SMIN= 41.38; SMAX=275.84; SK= .030]
061213 # # LID for Outlet W3 (28 catchbasins, 30 m long trench each)
061213 # Assumed 840 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
061213 # Total Volume provided by LID = 187 m3
061213 # # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
061213 ROUTE RESERVOIR -> 5.0 021M 8.51 .150 1993.0703 9:00 304.80 n/a .000
061213 out <= 5.0 01M-LID 2.45 .001 1993.0104 1:00 304.80 n/a .000
061213 overlow <= 5.0 03M-LID 4.12 .111 1993.0703 9:00 330.14 n/a .000
061213 # (MdtOsead=.1930E-01 m3, TotVolVoi=.2702E+01 m3, N-Ovr= 150, TotDurOvr= 225 hrs)
061213 R0931C0006-----Dtain:ID:HYD-----AREAh-APEARms-TpeakData_hh:mm-----Rvm-R.C-----DWFCms
061213 # CONTINUOUS STANDBY 5.0 011M 10.03 .229 1993.0703 9:00 382.29 490 .000
061213 # [XMP= 60;TIMP= 70]
061213 # [LOS= 2; C=CN100.0]
061213 # [Previous area: IArea= 4.67;SIFP=2.00;LGP= 40.0MP=250;SCP= .0]
061213 # [Impervious area: IArea= 1.57;SIFP= .50;LGI= 260.0MM= .013;SCI= .0]
061213 # [IARClmp= 1.50; IARCPe= 6.00]
061213 # [SMIN= 41.38; SMAX=275.84; SK= .030]
061213 # # LID for Outlet W4 (27 catchbasins, 30 m long trench each)
061213 # Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
061213 # Total Volume provided by LID = 186 m3
061213 # # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
061213 ROUTE RESERVOIR -> 5.0 021M 8.51 .150 1993.0703 9:00 382.29 n/a .000
061213 out <= 5.0 01M-LID 2.45 .001 1993.0104 1:00 304.80 n/a .000
061213 overlow <= 5.0 03M-LID 4.12 .111 1993.0703 9:00 330.14 n/a .000
061213 # (MdtOsead=.1860E-01 m3, TotVolVoi=.2505E+01 m3, N-Ovr= 150, TotDurOvr= 225 hrs)
061213 R0931C0007-----Dtain:ID:HYD-----AREAh-APEARms-TpeakData_hh:mm-----Rvm-R.C-----DWFCms
061213 # CONTINUOUS STANDBY 5.0 011M 6.20 .125 1993.0703 9:00 338.37 469 .000
061213 # [XMP= 57;TIMP= 67]
061213 # [LOS= 2; C=CN100.0]
061213 # [Previous area: IArea= 4.67;SIFP=2.00;LGP= 40.0MP=250;SCP= .0]
061213 # [Impervious area: IArea= 1.57;SIFP= .50;LGI= 203.0MM= .013;SCI= .0]
061213 # [IARClmp= 1.50; IARCPe= 6.00]
061213 # [SMIN= 41.38; SMAX=275.84; SK= .030]
061213 # # LID for Outlet W5 (16 catchbasins, 30 m long trench each)
061213 # Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
061213 # Total Volume provided by LID = 110 m3
061213 # # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
061213 ROUTE RESERVOIR -> 5.0 021M 6.20 .125 1993.0703 9:00 338.37 n/a .000
061213 out <= 5.0 01M-LID 2.45 .001 1993.0104 1:00 338.37 n/a .000
061213 overlow <= 5.0 03M-LID 4.12 .111 1993.0703 9:00 338.37 n/a .000
061213 # (MdtOsead=.1190E-01 m3, TotVolVoi=.1742E+01 m3, N-Ovr= 151, TotDurOvr= 224 hrs)
061213 R0931C0008-----Dtain:ID:HYD-----AREAh-APEARms-TpeakData_hh:mm-----Rvm-R.C-----DWFCms
061213 # CONTINUOUS STANDBY 5.0 011M 7.81 .193 1993.0703 9:00 406.85 564 .000
061213 # [XMP= 61;TIMP= 71]
061213 # [LOS= 2; C=CN100.0]
061213 # [Previous area: IArea= 4.67;SIFP=2.00;LGP= 40.0MP=250;SCP= .0]
061213 # [Impervious area: IArea= 1.57;SIFP= .50;LGI= 228.0MM= .013;SCI= .0]
061213 # [IARClmp= 1.50; IARCPe= 6.00]
061213 # [SMIN= 41.38; SMAX=275.84; SK= .030]
061213 # # LID for Outlet W6 (24 catchbasins, 30 m long trench each)
061213 # Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
061213 # Total Volume provided by LID = 165 m3
061213 # # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
061213 ROUTE RESERVOIR -> 5.0 021M 7.81 .193 1993.0703 9:00 406.85 n/a .000
061213 out <= 5.0 01M-LID 2.45 .001 1993.0104 1:00 406.85 n/a .000
061213 overlow <= 5.0 03M-LID 4.12 .111 1993.0703 9:00 406.85 n/a .000
061213 # (MdtOsead=.1650E-01 m3, TotVolVoi=.2227E+01 m3, N-Ovr= 156, TotDurOvr= 225 hrs)
061213 R0931C0009-----Dtain:ID:HYD-----AREAh-APEARms-TpeakData_hh:mm-----Rvm-R.C-----DWFCms
061213 # CONTINUOUS STANDBY 5.0 011M 6.20 .125 1993.0703 9:00 304.80 n/a .000
061213 # [XMP= 62;TIMP= 72]
061213 # [LOS= 2; C=CN100.0]
061213 # [Previous area: IArea= 4.67;SIFP=2.00;LGP= 40.0MP=250;SCP= .0]
061213 # [Impervious area: IArea= 1.57;SIFP= .50;LGI= 203.0MM= .013;SCI= .0]
061213 # [IARClmp= 1.50; IARCPe= 6.00]
061213 # [SMIN= 41.38; SMAX=275.84; SK= .030]
061213 # # LID for Outlet W7 (24 catchbasins, 30 m long trench each)
061213 # Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
061213 # Total Volume provided by LID = 165 m3
061213 # # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
061213 ROUTE RESERVOIR -> 5.0 021M 7.81 .193 1993.0703 9:00 406.85 n/a .000
061213 out <= 5.0 01M-LID 2.45 .001 1993.0104 1:00 406.85 n/a .000
061213 overlow <= 5.0 03M-LID 4.12 .111 1993.0703 9:00 406.85 n/a .000
061213 # (MdtOsead=.1460E-01 m3, TotVolVoi=.2076E+01 m3, N-Ovr= 151, TotDurOvr= 220 hrs)
061213 R0931C0010-----Dtain:ID:HYD-----AREAh-APEARms-TpeakData_hh:mm-----Rvm-R.C-----DWFCms
061213 # CONTINUOUS STANDBY 5.0 011M 48.42 .1023 1993.0703 9:00 294.73 459 .000
061213 # [XMP= 60;TIMP= 70]
061213 # [LOS= 2; C=CN100.0]
061213 # [Previous area: IArea= 4.67;SIFP=2.00;LGP= 40.0MP=250;SCP= .0]
061213 # [Impervious area: IArea= 1.57;SIFP= .50;LGI= 260.0MM= .013;SCI= .0]
061213 # [IARClmp= 1.50; IARCPe= 6.00]
061213 # [SMIN= 41.38; SMAX=275.84; SK= .030]
061213 # # LID for Outlet W8 (24 catchbasins, 30 m long trench each)
061213 # Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
061213 # Total Volume provided by LID = 165 m3
061213 # # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
061213 ROUTE RESERVOIR -> 5.0 021M 7.81 .193 1993.0703 9:00 406.85 n/a .000
061213 out <= 5.0 01M-LID 2.45 .001 1993.0104 1:00 406.85 n/a .000
061213 overlow <= 5.0 03M-LID 4.12 .111 1993.0703 9:00 406.85 n/a .000
061213 # (MdtOsead=.1100E-01 m3, TotVolVoi=.1221E+01 m3, N-Ovr= 108, TotDurOvr= 118 hrs)
061213 R0931C0011-----Dtain:ID:HYD-----AREAh-APEARms-TpeakData_hh:mm-----Rvm-R.C-----DWFCms
061213 # CONTINUOUS STANDBY 5.0 011M 48.42 .1023 1993.0703 9:00 294.73 459 .000
061213 # [XMP= 60;TIMP= 70]
061213 # [LOS= 2; C=CN100.0]
061213 # [Previous area: IArea= 4.67;SIFP=2.00;LGP= 40.0MP=250;SCP= .0]
061213 # [Impervious area: IArea= 1.57;SIFP= .50;LGI= 260.0MM= .013;SCI= .0]
061213 # [IARClmp= 1.50; IARCPe= 6.00]
061213 # [SMIN= 41.38; SMAX=275.84; SK= .030]
061213 # # LID for Outlet W9 (24 catchbasins, 30 m long trench each)
061213 # Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
061213 # Total Volume provided by LID = 165 m3
061213 # # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
061213 ROUTE RESERVOIR -> 5.0 021M 7.81 .193 1993.0703 9:00 406.85 n/a .000
061213 out <= 5.0 01M-LID 2.45 .001 1993.0104 1:00 406.85 n/a .000
061213 overlow <= 5.0 03M-LID 4.12 .111 1993.0703 9:00 406.85 n/a .000
061213 # (MdtOsead=.1460E-01 m3, TotVolVoi=.1221E+01 m3, N-Ovr= 108, TotDurOvr= 118 hrs)
061213 R0931C0012-----Dtain:ID:HYD-----AREAh-APEARms-TpeakData_hh:mm-----Rvm-R.C-----DWFCms
061213 # CONTINUOUS STANDBY 5.0 011M 6.20 .125 1993.0703 9:00 419.30 581 .000
061213 # [XMP= 57;TIMP= 67]
061213 # [LOS= 2; C=CN100.0]
061213 # [Previous area: IArea= 4.67;SIFP=2.00;LGP= 40.0MP=250;SCP= .0]
061213 # [Impervious area: IArea= 1.57;SIFP= .50;LGI= 238.0MM= .013;SCI= .0]
061213 # [IARClmp= 1.50; IARCPe= 6.00]
061213 # [SMIN= 41.38; SMAX=275.84; SK= .030]

```

```

06481 + 5.0 021#4 10.11 .436 1994.0629.1300 272.94 n/a .000
06482 + 5.0 021#3 6.10 1.20 189 1994.0629.1300 262.21 n/a .000
06483 + 5.0 021#6 7.81 .385 1994.0629.1300 312.81 n/a .000
06484 SIM# 5.0 01:IN#-PH3 48.42 .232 1994.0629.1300 274.20 n/a .000
06485 #####
06486 ADD HYD + 5.0 021#-LID-out 4.41 .231 1994.0629.1300 256.11 n/a .000
06487 [Impervious area: IApex=4.67:SLF#2.00:LGP= 40.1#MP=.250:SCP= .0]
06488 [IARECLAMP= 1.50: IARECPER= 6.00]
06489 [SMIN= 41.38: SMA#275.84: SE= .030]
06490 [Impervious area: IApex=1.57:SLF#1.50:LGP= 50.1#M=196.0#M1=.013:SC1= .0]
06491 [IARECLAMP= 1.50: IARECPER= 6.00]
06492 [SMIN= 1.39: SMA# 9.24: SE= .000]
06493 * Set infiltration to 0 (CN = 99.99) for water balance analysis
06494 #####
06495 R0994:R0994:00018-----Dtain-ID:IN#D-----AREA#-QFEAR#ms-TpeakDate_hh:mm-----Rv#m-R-C-----DWFCms
06496 CONTINUOUS STANDHYD 5.0 01:IN#-W2 5.76 .351 1994.0629.1300 325.37 .602 .000
06497 [XMP= 50:TIM#-60]
06498 [LOS# 2 :CN#100.0]
06499 [Impervious area: IApex= 4.67:SLF#2.00:LGP= 40.1#MP=.250:SCP= .0]
06500 [Impervious area: IApex= 1.57:SLF#1.50:LGP= 50.1#M=196.0#M1=.013:SC1= .0]
06501 [IARECLAMP= 1.50: IARECPER= 6.00]
06502 [SMIN= 1.39: SMA# 9.24: SE= .000]
06503 R0994:R0994:00019-----Dtain-ID:IN#D-----AREA#-QFEAR#ms-TpeakDate_hh:mm-----Rv#m-R-C-----DWFCms
06504 CONTINUOUS STANDHYD 5.0 01:IN#-W2 6.51 .440 1994.0629.1300 311.75 .577 .000
06505 [XMP= 50:TIM#-60]
06506 [LOS# 2 :CN#100.0]
06507 [Impervious area: IApex= 4.67:SLF#2.00:LGP= 40.1#MP=.250:SCP= .0]
06508 [Impervious area: IApex= 1.57:SLF#1.50:LGP= 50.1#M=238.0#M1=.013:SC1= .0]
06509 [IARECLAMP= 1.50: IARECPER= 6.00]
06510 [SMIN= 1.39: SMA# 9.24: SE= .000]
06511 * Set infiltration to 0 (CN = 99.99) for water balance analysis
06512 #####
06513 R0994:R0994:00020-----Dtain-ID:IN#D-----AREA#-QFEAR#ms-TpeakDate_hh:mm-----Rv#m-R-C-----DWFCms
06514 CONTINUOUS STANDHYD 5.0 01:IN#-W4 10.11 .548 1994.0629.1300 334.76 .620 .000
06515 [XMP= 60:TIM#-70]
06516 [LOS# 2 :CN#100.0]
06517 [Impervious area: IApex= 4.67:SLF#2.00:LGP= 40.1#MP=.250:SCP= .0]
06518 [Impervious area: IApex= 1.57:SLF#1.50:LGP= 50.1#M=259.0#M1=.013:SC1= .0]
06519 [IARECLAMP= 1.50: IARECPER= 6.00]
06520 [SMIN= 1.39: SMA# 9.24: SE= .000]
06521 * Set infiltration to 0 (CN = 99.99) for water balance analysis
06522 #####
06523 R0994:R0994:00021-----Dtain-ID:IN#D-----AREA#-QFEAR#ms-TpeakDate_hh:mm-----Rv#m-R-C-----DWFCms
06524 CONTINUOUS STANDHYD 5.0 01:IN#-W4 10.11 .548 1994.0629.1300 334.76 .620 .000
06525 [XMP= 60:TIM#-70]
06526 [LOS# 2 :CN#100.0]
06527 [Impervious area: IApex= 4.67:SLF#2.00:LGP= 40.1#MP=.250:SCP= .0]
06528 [Impervious area: IApex= 1.57:SLF#1.50:LGP= 50.1#M=259.0#M1=.013:SC1= .0]
06529 [IARECLAMP= 1.50: IARECPER= 6.00]
06530 [SMIN= 1.39: SMA# 9.24: SE= .000]
06531 * Set infiltration to 0 (CN = 99.99) for water balance analysis
06532 #####
06533 R0994:R0994:00022-----Dtain-ID:IN#D-----AREA#-QFEAR#ms-TpeakDate_hh:mm-----Rv#m-R-C-----DWFCms
06534 CONTINUOUS STANDHYD 5.0 01:IN#-W5 6.20 .335 1994.0629.1300 327.82 .607 .000
06535 [XMP= 50:TIM#-60]
06536 [LOS# 2 :CN#100.0]
06537 [Impervious area: IApex= 4.67:SLF#2.00:LGP= 40.1#MP=.250:SCP= .0]
06538 [Impervious area: IApex= 1.57:SLF#1.50:LGP= 50.1#M=259.0#M1=.013:SC1= .0]
06539 [IARECLAMP= 1.50: IARECPER= 6.00]
06540 [SMIN= 1.39: SMA# 9.24: SE= .000]
06541 * Set infiltration to 0 (CN = 99.99) for water balance analysis
06542 #####
06543 R0994:R0994:00023-----Dtain-ID:IN#D-----AREA#-QFEAR#ms-TpeakDate_hh:mm-----Rv#m-R-C-----DWFCms
06544 CONTINUOUS STANDHYD 5.0 01:IN#-W6 7.81 .449 1994.0629.1300 360.68 .668 .000
06545 [XMP= 60:TIM#-81]
06546 [LOS# 2 :CN#100.0]
06547 [Impervious area: IApex= 4.67:SLF#2.00:LGP= 40.1#MP=.250:SCP= .0]
06548 [Impervious area: IApex= 1.57:SLF#1.50:LGP= 50.1#M=228.0#M1=.013:SC1= .0]
06549 [IARECLAMP= 1.50: IARECPER= 6.00]
06550 [SMIN= 1.39: SMA# 9.24: SE= .000]
06551 * Set infiltration to 0 (CN = 99.99) for water balance analysis
06552 #####
06553 R0994:R0994:00024-----Dtain-ID:IN#D-----AREA#-QFEAR#ms-TpeakDate_hh:mm-----Rv#m-R-C-----DWFCms
06554 CONTINUOUS STANDHYD 5.0 01:IN#-W6 8.51 .440 1994.0629.1300 311.75 n/a .000
06555 + 5.0 021#W-6 10.03 .561 1994.0629.1300 348.77 n/a .000
06556 + 5.0 021#W-4 10.11 .548 1994.0629.1300 334.76 n/a .000
06557 + 5.0 021#W-4 6.20 .335 1994.0629.1300 327.83 n/a .000
06558 + 5.0 021#W-4 10.11 .548 1994.0629.1300 360.68 n/a .000
06559 SIM# 5.0 01:IN#-BCD-PH 48.42 .243 1994.0629.1300 335.79 n/a .000
06560 #####
06561 *****
06562 *****
06563 *****
06564 *****
06565 *****
06566 *****
06567 *****
06568 *****
06569 *****
06570 *****
06571 *****
06572 *****
06573 *****
06574 *****
06575 *****
06576 *****
06577 *****
06578 *****
06579 *****
06580 *****
06581 *****
06582 *****
06583 *****
06584 *****
06585 *****
06586 *****
06587 *****
06588 *****
06589 *****
06590 *****
06591 *****
06592 *****
06593 *****
06594 *****
06595 *****
06596 *****
06597 *****
06598 *****
06599 *****
06600 *****
06601 *****
06602 *****
06603 *****
06604 *****
06605 *****
06606 *****
06607 *****
06608 *****
06609 *****
06610 *****
06611 *****
06612 *****
06613 *****
06614 *****
06615 *****
06616 *****
06617 *****
06618 *****
06619 *****
06620 *****
06621 *****
06622 *****
06623 *****
06624 *****
06625 *****
06626 *****
06627 *****
06628 *****
06629 *****
06630 *****
06631 *****
06632 *****
06633 *****
06634 *****
06635 *****
06636 *****
06637 *****
06638 *****
06639 *****
06640 *****
06641 *****
06642 *****
06643 *****
06644 *****
06645 *****
06646 *****
06647 *****
06648 *****
06649 *****
06650 *****
06651 *****
06652 *****
06653 *****
06654 *****
06655 *****
06656 *****
06657 *****
06658 *****
06659 *****
06660 *****
06661 *****
06662 *****
06663 *****
06664 *****
06665 *****
06666 *****
06667 *****
06668 *****
06669 *****
06670 *****
06671 *****
06672 *****
06673 *****
06674 *****
06675 *****
06676 *****
06677 *****
06678 *****
06679 *****
06680 *****
06681 *****
06682 *****
06683 *****
06684 *****
06685 *****
06686 *****
06687 *****
06688 *****
06689 *****
06690 *****
06691 *****
06692 *****
06693 *****
06694 *****
06695 *****
06696 *****
06697 *****
06698 *****
06699 *****
06700 *****
06701 *****
06702 *****
06703 *****
06704 *****
06705 *****
06706 *****
06707 *****
06708 *****
06709 *****
06710 *****
06711 *****
06712 *****
06713 *****
06714 *****
06715 *****
06716 *****
06717 *****
06718 *****
06719 *****
06720 *****
06721 *****
06722 *****
06723 *****
06724 *****
06725 *****
06726 *****
06727 *****
06728 *****
06729 *****
06730 *****
06731 *****
06732 *****
06733 *****
06734 *****
06735 *****
06736 *****
06737 *****
06738 *****
06739 *****
06740 *****
06741 *****
06742 *****
06743 *****
06744 *****
06745 *****
06746 *****
06747 *****
06748 *****
06749 *****
06750 *****
06751 *****
06752 *****
06753 *****
06754 *****
06755 *****
06756 *****
06757 *****
06758 *****
06759 *****
06760 *****
06761 *****
06762 *****
06763 *****
06764 *****
06765 *****
06766 *****
06767 *****
06768 *****
06769 *****
06770 *****
06771 *****
06772 *****
06773 *****
06774 *****
06775 *****
06776 *****
06777 *****
06778 *****
06779 *****
06780 *****
06781 *****
06782 *****
06783 *****
06784 *****
06785 *****
06786 *****
06787 *****
06788 *****
06789 *****
06790 *****
06791 *****
06792 *****
06793 *****
06794 *****
06795 *****
06796 *****
06797 *****
06798 *****
06799 *****
06800 *****
06801 *****
06802 *****
06803 *****
06804 *****
06805 *****
06806 *****
06807 *****
06808 *****
06809 *****
06810 *****
06811 *****
06812 *****
06813 *****
06814 *****
06815 *****
06816 *****
06817 *****
06818 *****
06819 *****
06820 *****
06821 *****
06822 *****
06823 *****
06824 *****
06825 *****
06826 *****
06827 *****
06828 *****
06829 *****
06830 *****
06831 *****
06832 *****
06833 *****
06834 *****
06835 *****
06836 *****
06837 *****
06838 *****
06839 *****
06840 *****
06841 *****
06842 *****
06843 *****
06844 *****
06845 *****
06846 *****
06847 *****
06848 *****
06849 *****
06850 *****

```











08281 [Mdt=05ed=1930E-01 m3, TotDurVol=.2355E+01 m3, N-Ovr= 100, TotDurOvr= 164.hrs]
08282 R0103:C00015-----Dtain-ID:INVD-----AREAh-QFEARgms-TpeakDate\_hh:mm-----RvNm-R.C-----DWFCms
08283 CONTINUOUS STANDHYD 5.0 01:INF-M4 10.11 .328 2003.0711.17:00 289.96 .523 .000
08284 [XIMP=.60:TIMP=.70]
08285 [LOSS= 2 :CNM=71.0]
08286 [Fervious area: IApex= 4.67:SLFP=2.00:IGP= 40.:MNF=.250:SCF=.0]
08287 [Impervious area: IAImp= 1.57:SLPI=.50:IGI= 203.:MNI=.013:SCI=.0]
08288 [IARCClmp= 1.50: IARCCPex= 6.00]
08289 [SMIN= 41.38: SMAX=275.84: SK= .030]
08290 # LID for Outlet W6 (27 catchbasins, 30 m long trench each)
08291 # Assumed 810 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
08292 # Total Volume provided by LID = 186 m^3
08293 # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
08294 R0103:C00011-----Dtain-ID:INVD-----AREAh-QFEARgms-TpeakDate\_hh:mm-----RvNm-R.C-----DWFCms
08295 ROUTE RESERVOIR -> 5.0 02:INF 6.20 .198 2003.0711.17:00 279.28 n/a .000
08296 out <= 5.0 01:INF-LID 2.49 .001 2003.0501.10:25 289.97 n/a .000
08297 overflow <= 5.0 01:INF-LID-Out 4.62 .193 2003.0711.17:00 279.28 n/a .000
08298 [Mdt=05ed=1860E-01 m3, TotDurVol=.2209E+01 m3, N-Ovr= 96, TotDurOvr= 163.hrs]
08299 R0103:C00012-----Dtain-ID:INVD-----AREAh-QFEARgms-TpeakDate\_hh:mm-----RvNm-R.C-----DWFCms
08300 CONTINUOUS STANDHYD 5.0 01:INF-M4 6.20 .198 2003.0711.17:00 279.28 .504 .000
08301 [XIMP=.57:TIMP=.67]
08302 [LOSS= 2 :CNM=71.0]
08303 [Fervious area: IApex= 4.67:SLFP=2.00:IGP= 40.:MNF=.250:SCF=.0]
08304 [Impervious area: IAImp= 1.57:SLPI=.50:IGI= 203.:MNI=.013:SCI=.0]
08305 [IARCClmp= 1.50: IARCCPex= 6.00]
08306 [SMIN= 41.38: SMAX=275.84: SK= .030]
08307 # LID for Outlet W6 (16 catchbasins, 30 m long trench each)
08308 # Assumed 480 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
08309 # Total Volume provided by LID = 110 m^3
08310 # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
08311 R0103:C00013-----Dtain-ID:INVD-----AREAh-QFEARgms-TpeakDate\_hh:mm-----RvNm-R.C-----DWFCms
08312 ROUTE RESERVOIR -> 5.0 02:INF 6.20 .198 2003.0711.17:00 279.28 n/a .000
08313 out <= 5.0 01:INF-LID 1.52 .001 2003.0501.10:25 279.27 n/a .000
08314 overflow <= 5.0 01:INF-LID-Out 4.68 .193 2003.0711.17:00 279.28 n/a .000
08315 [Mdt=05ed=1100E-01 m3, TotDurVol=.1306E+01 m3, N-Ovr= 94, TotDurOvr= 161.hrs]
08316 R0103:C00014-----Dtain-ID:INVD-----AREAh-QFEARgms-TpeakDate\_hh:mm-----RvNm-R.C-----DWFCms
08317 CONTINUOUS STANDHYD 5.0 01:INF-M4 7.81 .279 2003.0711.17:00 329.94 .594 .000
08318 [XIMP=.71:TIMP=.81]
08319 [LOSS= 2 :CNM=71.0]
08320 [Fervious area: IApex= 4.67:SLFP=2.00:IGP= 40.:MNF=.250:SCF=.0]
08321 [Impervious area: IAImp= 1.57:SLPI=.50:IGI= 228.:MNI=.013:SCI=.0]
08322 [IARCClmp= 1.50: IARCCPex= 6.00]
08323 [SMIN= 41.38: SMAX=275.84: SK= .030]
08324 # LID for Outlet W6 (24 catchbasins, 30 m long trench each)
08325 # Assumed 720 m long trench, 1.25 m wide by 0.40 m deep, porosity of 0.40 with 250 mm diameter perforated pipe
08326 # Total Volume provided by LID = 145 m^3
08327 # Soil infiltration rates assumed at 9mm/hr with a safety factor of 2.5
08328 R0103:C00015-----Dtain-ID:INVD-----AREAh-QFEARgms-TpeakDate\_hh:mm-----RvNm-R.C-----DWFCms
08329 ROUTE RESERVOIR -> 5.0 02:INF 7.81 .279 2003.0711.17:00 329.94 n/a .000
08330 out <= 5.0 01:INF-LID 1.96 .001 2003.0501.10:20 329.94 n/a .000
08331 overflow <= 5.0 01:INF-LID-Out 5.85 .275 2003.0711.17:00 329.94 n/a .000
08332 [Mdt=05ed=1400E-01 m3, TotDurVol=.1928E+01 m3, N-Ovr= 99, TotDurOvr= 162.hrs]
08333 R0103:C00016-----Dtain-ID:INVD-----AREAh-QFEARgms-TpeakDate\_hh:mm-----RvNm-R.C-----DWFCms
08334 ADD HYD + 5.0 02:INF 5.76 .182 2003.0711.17:00 273.32 n/a .000
08335 + 5.0 02:INF 8.31 .253 2003.0711.17:00 284.44 n/a .000
08336 + 5.0 02:INF 10.03 .343 2003.0711.17:00 311.42 n/a .000
08337 + 5.0 02:INF 10.11 .328 2003.0711.17:00 289.96 n/a .000
08338 + 5.0 02:INF 6.20 .198 2003.0711.17:00 279.28 n/a .000
08339 + 5.0 02:INF 7.81 .279 2003.0711.17:00 329.94 n/a .000
08340 SIM= 5.0 01:INF-PH3 48.42 .183 2003.0711.17:00 281.20 n/a .000
08341 R0103:C00017-----Dtain-ID:INVD-----AREAh-QFEARgms-TpeakDate\_hh:mm-----RvNm-R.C-----DWFCms
08342 ADD HYD + 5.0 02:INF-LID-Out 4.41 .178 2003.0711.17:00 273.32 n/a .000
08343 + 5.0 02:INF-LID-Out 6.52 .247 2003.0711.17:00 284.44 n/a .000
08344 + 5.0 02:INF-LID-Out 7.56 .337 2003.0711.17:00 311.42 n/a .000
08345 + 5.0 02:INF-LID-Out 7.62 .322 2003.0711.17:00 289.96 n/a .000
08346 + 5.0 02:INF-LID-Out 4.68 .193 2003.0711.17:00 279.28 n/a .000
08347 + 5.0 02:INF-LID-Out 5.85 .275 2003.0711.17:00 329.94 n/a .000
08348 SIM= 5.0 01:INF-PH3-LI 36.64 .151 2003.0711.17:00 291.02 n/a .000
08349 #
08350 # Barhaven Conservancy Development Phase 3 (WITHOUT INFILTRATION) - POST DEVELOPMENT CONDITIONS
08351 #
08352 # Set infiltration rates to 0 for balance analysis
08353 #
08354 R0103:C00018-----Dtain-ID:INVD-----AREAh-QFEARgms-TpeakDate\_hh:mm-----RvNm-R.C-----DWFCms
08355 CONTINUOUS STANDHYD 5.0 01:INF-M5 9.76 .228 2003.0711.17:00 341.42 .616 .000
08356 [XIMP=.55:TIMP=.66]
08357 [LOSS= 2 :CNM=100.0]
08358 [Fervious area: IApex= 4.67:SLFP=2.00:IGP= 40.:MNF=.250:SCF=.0]
08359 [Impervious area: IAImp= 1.57:SLPI=.50:IGI= 196.:MNI=.013:SCI=.0]
08360 [IARCClmp= 1.50: IARCCPex= 6.00]
08361 [SMIN= 1.39: SMAX= 9.24: SK= .000]
08362 R0103:C00019-----Dtain-ID:INVD-----AREAh-QFEARgms-TpeakDate\_hh:mm-----RvNm-R.C-----DWFCms
08363 CONTINUOUS STANDHYD 5.0 01:INF-M2 8.51 .331 2003.0711.17:00 328.44 .592 .000
08364 [XIMP=.50:TIMP=.60]
08365 [LOSS= 2 :CNM=100.0]
08366 [Fervious area: IApex= 4.67:SLFP=2.00:IGP= 40.:MNF=.250:SCF=.0]
08367 [Impervious area: IAImp= 1.57:SLPI=.50:IGI= 238.:MNI=.013:SCI=.0]
08368 [IARCClmp= 1.50: IARCCPex= 6.00]
08369 [SMIN= 1.39: SMAX= 9.24: SK= .000]
08370 R0103:C00020-----Dtain-ID:INVD-----AREAh-QFEARgms-TpeakDate\_hh:mm-----RvNm-R.C-----DWFCms
08371 CONTINUOUS STANDHYD 5.0 01:INF-M3 10.03 .400 2003.0711.17:00 364.17 .657 .000
08372 [XIMP=.60:TIMP=.75]
08373 [LOSS= 2 :CNM=100.0]
08374 [Fervious area: IApex= 4.67:SLFP=2.00:IGP= 40.:MNF=.250:SCF=.0]
08375 [Impervious area: IAImp= 1.57:SLPI=.50:IGI= 239.:MNI=.013:SCI=.0]
08376 [IARCClmp= 1.50: IARCCPex= 6.00]
08377 [SMIN= 1.29: SMAX= 9.24: SK= .000]
08378 R0103:C00021-----Dtain-ID:INVD-----AREAh-QFEARgms-TpeakDate\_hh:mm-----RvNm-R.C-----DWFCms
08379 CONTINUOUS STANDHYD 5.0 01:INF-M4 10.11 .399 2003.0711.17:00 350.68 .632 .000
08380 [XIMP=.60:TIMP=.70]
08381 [LOSS= 2 :CNM=100.0]
08382 [Fervious area: IApex= 4.67:SLFP=2.00:IGP= 40.:MNF=.250:SCF=.0]
08383 [Impervious area: IAImp= 1.57:SLPI=.50:IGI= 260.:MNI=.013:SCI=.0]
08384 [IARCClmp= 1.50: IARCCPex= 6.00]
08385 [SMIN= 1.39: SMAX= 9.24: SK= .000]
08386 R0103:C00022-----Dtain-ID:INVD-----AREAh-QFEARgms-TpeakDate\_hh:mm-----RvNm-R.C-----DWFCms
08387 CONTINUOUS STANDHYD 5.0 01:INF-M5 6.20 .245 2003.0711.17:00 343.98 .620 .000
08388 [XIMP=.57:TIMP=.67]
08389 [LOSS= 2 :CNM=100.0]
08390 [Fervious area: IApex= 4.67:SLFP=2.00:IGP= 40.:MNF=.250:SCF=.0]
08391 [Impervious area: IAImp= 1.57:SLPI=.50:IGI= 203.:MNI=.013:SCI=.0]
08392 [IARCClmp= 1.50: IARCCPex= 6.00]
08393 [SMIN= 1.39: SMAX= 9.24: SK= .000]
08394 R0103:C00023-----Dtain-ID:INVD-----AREAh-QFEARgms-TpeakDate\_hh:mm-----RvNm-R.C-----DWFCms
08395 CONTINUOUS STANDHYD 5.0 01:INF-M6 7.81 .315 2003.0711.17:00 375.60 .677 .000
08396 [XIMP=.71:TIMP=.81]
08397 [LOSS= 2 :CNM=100.0]
08398 [Fervious area: IApex= 4.67:SLFP=2.00:IGP= 40.:MNF=.250:SCF=.0]
08399 [Impervious area: IAImp= 1.57:SLPI=.50:IGI= 228.:MNI=.013:SCI=.0]
08400 [IARCClmp= 1.50: IARCCPex= 6.00]
08401 [SMIN= 1.39: SMAX= 9.24: SK= .000]
08402 R0103:C00024-----Dtain-ID:INVD-----AREAh-QFEARgms-TpeakDate\_hh:mm-----RvNm-R.C-----DWFCms
08403 ADD HYD + 5.0 02:INF-M1 5.76 .228 2003.0711.17:00 341.42 n/a .000
08404 + 5.0 02:INF-M2 8.51 .331 2003.0711.17:00 328.44 n/a .000
08405 + 5.0 02:INF-M3 10.03 .400 2003.0711.17:00 364.17 n/a .000
08406 + 5.0 02:INF-M4 10.11 .399 2003.0711.17:00 350.68 n/a .000
08407 + 5.0 02:INF-M5 6.20 .245 2003.0711.17:00 343.98 n/a .000
08408 + 5.0 02:INF-M6 7.81 .315 2003.0711.17:00 375.60 n/a .000
08409 SIM= 5.0 01:INF-PH3-PH 48.42 .183 2003.0711.17:00 351.63 n/a .000
08410 #####
08411 # CONTINUOUS RAINFALL DATA
08412 #####
08413 R0103:C00002-----Dtain-ID:INVD-----AREAh-QFEARgms-TpeakDate\_hh:mm-----RvNm-R.C-----DWFCms
08414 FINISH
08415
08416
08417
08418
08419 R0067:C00002 READ ARE DATA
08420 #
08421 # WARNING: Requested start date is less than start date in file.
08422 # WARNING: Missing rainfall increments were set to 0.
08423 # WARNING: Missing rainfall increments were set to 0.
08424 # WARNING: Missing rainfall increments were set to 0.
08425 # WARNING: Missing rainfall increments were set to 0.
08426 # WARNING: Missing rainfall increments were set to 0.
08427 # WARNING: Missing rainfall increments were set to 0.
08428 # WARNING: Missing rainfall increments were set to 0.
08429 # WARNING: Missing rainfall increments were set to 0.
08430 # WARNING: Missing rainfall increments were set to 0.
08431 # WARNING: Requested start date is less than start date in file.
08432 # WARNING: Missing rainfall increments were set to 0.
08433 # WARNING: Missing rainfall increments were set to 0.
08434 # WARNING: Missing rainfall increments were set to 0.
08435 # WARNING: Missing rainfall increments were set to 0.
08436 # WARNING: Missing rainfall increments were set to 0.
08437 # WARNING: Missing rainfall increments were set to 0.
08438 # WARNING: Missing rainfall increments were set to 0.
08439 # WARNING: Missing rainfall increments were set to 0.
08440 # WARNING: Missing rainfall increments were set to 0.
08441 # WARNING: Requested start date is less than start date in file.
08442 # WARNING: Missing rainfall increments were set to 0.
08443 # WARNING: Missing rainfall increments were set to 0.
08444 # WARNING: Missing rainfall increments were set to 0.
08445 # WARNING: Missing rainfall increments were set to 0.
08446 # WARNING: Requested start date is less than start date in file.
08447 # WARNING: Missing rainfall increments were set to 0.
08448 # WARNING: Missing rainfall increments were set to 0.
08449 # WARNING: Missing rainfall increments were set to 0.
08450 # WARNING: Missing rainfall increments were set to 0.
08451 # WARNING: Missing rainfall increments were set to 0.
08452 # WARNING: Missing rainfall increments were set to 0.
08453 # WARNING: Requested start date is less than start date in file.
08454 # WARNING: Missing rainfall increments were set to 0.
08455 # WARNING: Missing rainfall increments were set to 0.
08456 # WARNING: Requested start date is less than start date in file.
08457 # WARNING: Missing rainfall increments were set to 0.
08458 # WARNING: Requested start date is less than start date in file.
08459 # WARNING: Missing rainfall increments were set to 0.
08460 # WARNING: Requested start date is less than start date in file.

08461 \*\*\* WARNING: Missing rainfall increments were set to 0.
08462 \*\*\* WARNING: Requested start date is less than start date in file.
08463 \*\*\* WARNING: Missing rainfall increments were set to 0.
08464 \*\*\* WARNING: Requested start date is less than start date in file.
08465 \*\*\* WARNING: Missing rainfall increments were set to 0.
08466 Simulation ended on 2024-03-14 at 20:59:26
08467 #####
08468

# Attachment B

Water Budget Results

**Table B1: BCD West - Pre Development Water Budget**

Year	Total Rainfall		Evaporation		Runoff		Infiltration	
	(mm)	(m <sup>3</sup> )	(mm)	(m <sup>3</sup> )	(mm)	(m <sup>3</sup> )	(mm)	(m <sup>3</sup> )
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 <sup>3</sup> )	(mm)	(m <sup>3</sup> )	(mm)	(m <sup>3</sup> )	(mm)	(m <sup>3</sup> )
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 <sup>3</sup> )	(mm)	(m <sup>3</sup> )	(mm)	(m <sup>3</sup> )	(mm)	(m <sup>3</sup> )
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**

<b>LID</b>	<b>Area (ha)</b>	<b>Average Annual LID Infiltration Volume (m<sup>3</sup>/Yr)</b>	<b>Average Annual LID Infiltration Volume (mm/Yr)</b>
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
<b>Total/Average</b>	<b>48.42</b>	<b>36,361</b>	<b>75</b>