



## **Stormwater Management Report 4380 Trail Road, Ottawa, ON**

**Type of Document:**  
Site Plan Application

**Client:**  
Drain-All Ltd.  
3385 Hawthorne Road  
Ottawa, ON K1G 4G2

**Project Number:** OTT-21023795-A0

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**Date Submitted:**  
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**Date Submitted:**  
June 23, 2023



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# 1 Introduction

Drain-All Ltd. has retained EXP Services Inc. (EXP) to undertake a stormwater management study in support of a site plan application for 4380 Trail Road.

The 4.30-hectare property is situated on the south side of Trail Road between Moodie Drive and Barnsdale Road in the City of Ottawa, Ontario as shown on **Figure A-1** in **Appendix A**. The site is currently being used as a soil dump facility. With the zoning by-law amendment application, the client wishes to continue the use of the site as a soil sump facility.

The description of the subject property is noted below:

- Part of 1 of Plan 5R-11776, City of Ottawa, consisting of:
  - PIN 04592-007 (4380 Trail Road)

This report will discuss the existing and proposed stormwater management scheme for the site. This report provides a design brief for submission, along with the engineering drawings, for City approval.

# 2 Existing Conditions

The subject property is being used as a soil dump facility. Within the subject property, there is an existing gravel access road, concrete pads and depressed sand trenches for storm drainage and infiltration.

There are no municipal or private services within the subject property or along Trail Road.

The existing topography of the site is relatively flat in the center of the property with steeper slopes around the edges. In some areas the property lines are approximately 9m to 11m higher than the center. Refer to **Figure A-3** in **Appendix A** for existing topography of the area. Topographic survey by a certified land surveyor is also included in **Appendix E**.

The existing soil type within the property has a high infiltration rate, with a steady ground water elevation at  $\pm 96.0\text{m}$  as per the Ground Water Monitoring Report and Geotechnical Investigation Report. In the existing condition the stormwater management is achieved by infiltration throughout the site and overland flows towards the depressed sand trenches. There is no additional storm water management infrastructure on site.

# 3 Referenced Guidelines

Various documents were referred to in preparing the current report including:

- Sewer Design Guidelines, Second Edition, Document SDG002, October 2012, City of Ottawa (Guidelines) including:
- Ontario Ministry of Transportation (MTO) Drainage Manual, 1995-1997
- Stormwater Management Planning and Design Manual, Ontario Ministry of the Environment and Climate Change, March 2003 (SMPDM).
- Hydrology National Engineering Handbook, United States Department of Agriculture (USDA) (July 2004)

- Land Inventory Ontario – Elevation Mapping Program
- Stormwater Management Criteria, Toronto and Region Conservation Authority (TRCA) (August 2012)
- Low Impact Development Stormwater Management Planning and Design Guide (LID SMPDG), Credit Valley Conservation (CVC) and Toronto Region Conservation Authority (TRCA) (2010)

## 4 Stormwater Management

### 4.1 Design Criteria

The proposed stormwater system is designed in conformance with the latest version of the City of Ottawa Design Guidelines (October 2012) - section 8 “Stormwater Management” and Stormwater Management Planning and Design Manual, Ontario Ministry of the Environment and Climate Change, March 2003 (SMPDM). Stormwater management requirements noted in the pre-consultation meeting minutes with the City is included in **Appendix D** and is summarized below:

- Control post-development discharge rate for up-to and including 100-year storm event to pre-development discharge rates.
- Post-development discharge rates must demonstrate that its equal to pre-development discharge rates during 2-year and 100-year storm events.
- Demonstrated that stormwater can be managed for the current condition, various stages of infill, and for final site rehabilitation.
- Stormwater management quality criteria of 80% TSS removal.

### 4.2 Pre-Development Conditions and Allowable Release Rates

In the existing condition, the stormwater management within the subject property is achieved by on-site infiltration. There are no municipal services available within the property or within Trail Road. About  $\pm 2400$  m<sup>2</sup> of external area drains towards the subject property and  $\pm 3500$  m<sup>2</sup> area of the subject property along Trail Road drains towards the City ROW. Therefore, a total effective area of  $\pm 41,900$  m<sup>2</sup> (4.19 ha) is currently managed by on-site infiltration. **Figure A-2** in **Appendix A** shows pre-development subcatchment areas contributing to stormwater management related to the subject site.

Given that the site is situated in rural area, SCS Type II – 12 hours and 24 hours storms for up to 100-year return period were used to simulate the existing condition stormwater management on-site and to estimate the allowable release rate for the post-development condition based on the quantity of water leaving the site for each storm event in the existing conditions. The modelling was done using PCSWMM - version 7.5.3406 (SWMM - version 5.1.015) by CHI Water. To accurately simulate the existing conditions, 12 infiltration tests were performed at 6 locations on the subject site at varying depths from ground level. The results of the tests showed infiltration rates ranging between 120 mm/hr to 638 mm/hr at depths of 0.9 – 1.7 m and 293 mm/hr to 768 mm/hr at depths of 2 – 3 m. To model the infiltration rate in PCSWMM, the geometric mean of the test results was divided by a Factor of Safety of 2.5 based on Table C2 of LID SMPDG, 2010. This resulted in the infiltration rates of 143 mm/hr at shallow depths and 187 mm/hr at depths between 2 m – 3 m. For details, refer to the memo – “Percolation Tests – 4380 Trail Road, Richmond, Ontario” dated October 24, 2022 included in **Appendix D**. In addition to the infiltration test, it was noted in Geotechnical Investigation – Slope Stability Analysis Report prepared by EXP Services Inc. dated August 26, 2022 that the groundwater levels at the subject site range between 96.1 m to 96.4m (3 m to 7m below ground surface) and found to be steady between the months of May 2022 and June 2022.

Based on the above noted information and applicable guidelines, the input parameters used in PCSWMM for pre-development conditions are summarized below:

1. Rain Gauge: SCS Type II – 12 Hour and 24 Hour Storms
  1. 2-year, 12-hour Storm: 43.2 mm
  2. 5-year, 12-hour Storm: 57.6 mm
  3. 100-year, 12-hour Storm: 96 mm
  4. 2-year, 24-hour Storm: 48 mm
  5. 5-year, 24-hour Storm: 62.4 mm
  6. 100-year, 24-hour Storm: 103.2 mm
2. Manning's N
  1. for Impervious Surface: 0.013
  2. for Pervious Surface: 0.15
3. Depression Storage Depth
  1. for Impervious Surface: 1.57 mm
  2. for Pervious Surface: 4.67 mm
4. Method for Infiltration Losses: Curve Number Method
5. Curve Number: 77 (Assuming Soil Group A based on Geo Investigation report, Barren Lands as per USDA, 2004 – Chapter 9)
6. Hydraulic Conductivity: 88.4 mm/hr (Assuming Soil Group A, value taken from Table 7-1 of Chapter 7, USDA, 2004)
7. Drying Time: 7 days

These parameters were applied on pre-development subcatchments E1 to E7, shown in **Figure A-2** in **Appendix A**. These 7 subcatchments were created from the subcatchments derived using Watershed Delineation Tool (WDT) in PCSWMM performed on Digital Terrain Model (DTM) surface derived from Land Inventory Ontario Lidar derived raster dataset package from Ottawa-Gatineau 2019-20 project. **Figure A-3** in **Appendix A** shows the existing topography of the area surrounding the subject property based on the DTM surface. In addition to defining subcatchments, appropriate outlets were also assigned to each subcatchments based on Watershed Delineation Tool output. Based on the existing topography, catchments E1 to E5 contribute to the on-site storm drainage and includes some external drainage areas routing towards the site. Whereas subcatchments E6 and E7 are the areas within the subject property draining outside, towards the neighboring property on the south and Trail Road, respectively.

To model the existing infiltration by on-site depressed areas, Low Impact Development (LID) definitions were assigned to each subcatchments. The type of LID used was infiltration trench with varying berm height (depth of surface ponding), ranging between 1 m to 2 m depending on the existing conditions. The profiles of the existing depressed areas within subcatchments E1 to E5 are shown in **Figure 4-1** to **Figure 4-5** below. The area and width of these LIDs were chosen carefully to replicate the existing conditions. **Table 4-1** below summarizes the LID parameters assigned to applicable catchments along with the maximum depth of ponding utilized in these depressed areas during the critical storm event. Based on PCSWMM output, it is evident that the peak runoff occurs during SCS Type II – 12-hour, 100-year storm event, whereas maximum volume of runoff occurs during SCS Type II – 24-hour, 100-year

storm event. [Table 4-2](#) and [Table 4-3](#) below summarizes flowrates and volume of run-off from each subcatchments.

[Table 4-4](#) below provides the summary of peak runoff and maximum total runoff volumes to each of the 3 outlets (OF1, OF2 and OF3) considering the on-site infiltration in applicable subcatchments. Detailed infiltration reports (LID reports from PCSWMM) are provided in [Appendix B](#) along with output report for pre-development condition.

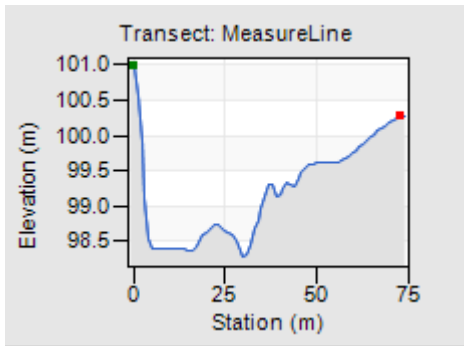


Figure 4-1 - Profile of Existing Depressed Area in Subcatchment E1

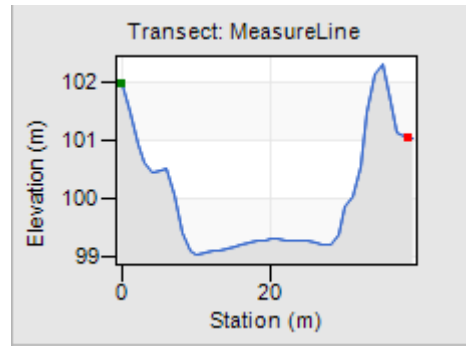


Figure 4-2 - Profile of Existing Depressed Area in Subcatchment E2

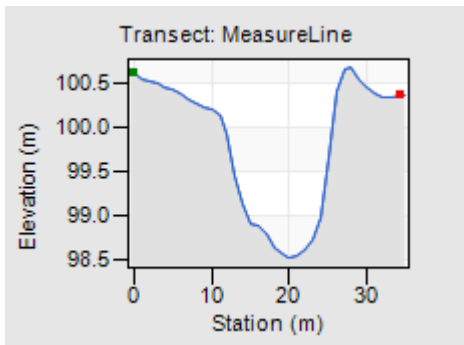


Figure 4-3 - Profile of Existing Depressed Area in Subcatchment E3

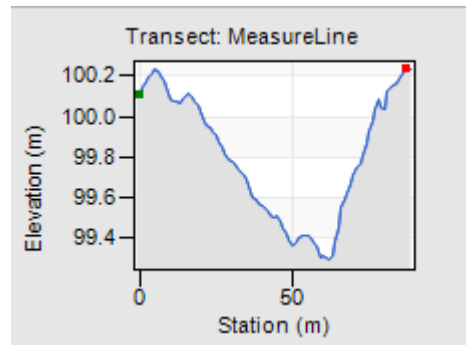


Figure 4-4 - Profile of Existing Depressed Area in Subcatchment E4

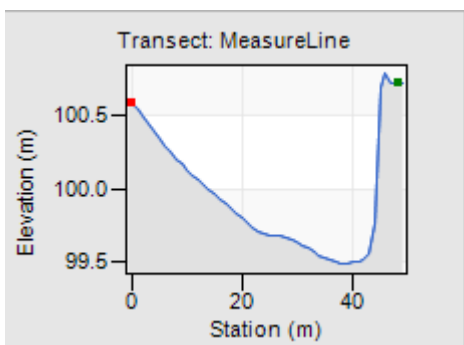


Figure 4-5 - Profile of Existing Depressed Area in Subcatchment E5

Table 4-1 - LID Parameters Input in PCSWMM to Replicate Existing Condition and Output

Input					Output	
Sub catchment	Existing Depressed Area (m <sup>2</sup> )	% of Subcatchment Occupied	Max. Surface Ponding Depth (mm)	Existing Infiltration Rate (mm/hr)	Max. Depth of Ponding Utilized During Critical Storm Event	Critical Storm Event
E1	850.00	15.60	2000.00	143.00	98.65	SCS_Type_II_96m_m_12hr_100yr
E2	850.00	29.00	2000.00	143.00	34.80	SCS_Type_II_96m_m_12hr_100yr
E3	500.00	5.50	2000.00	143.00	388.95	SCS_Type_II_96m_m_12hr_100yr
E4	2500.00	12.00	1000.00	143.00	121.48	SCS_Type_II_96m_m_12hr_100yr
E5	500.00	12.80	1000.00	143.00	122.69	SCS_Type_II_96m_m_12hr_100yr

Table 4-2 – Max. Runoff and Total Runoff Volume from Pre-Dev Subcatchments During 12-hr Design Storms

Subcatchment	Area (ha)	SCS_Type_II_43.2mm_12hr_2yr		SCS_Type_II_57.6mm_12hr_5yr		SCS_Type_II_96mm_12hr_100yr	
		Max. Runoff (L/s)	Total Runoff (m <sup>3</sup> )	Max. Runoff (L/s)	Total Runoff (m <sup>3</sup> )	Max. Runoff (L/s)	Total Runoff (m <sup>3</sup> )
E1	0.54	14.74	58.25	41.28	108.30	112.50	264.70
E2	0.29	9.42	31.68	24.42	58.72	64.15	143.10
E3	0.90	16.78	95.22	53.63	178.10	171.80	438.20
E4	2.08	35.68	218.60	116.60	409.40	385.90	1009.00
E5	0.39	11.48	41.97	31.02	77.91	82.16	190.20
E6	0.07	4.41	8.31	8.55	14.49	18.83	34.11
E7	0.27	15.88	30.95	30.60	55.87	72.55	133.80
Total	4.56	108.38	484.98	306.10	902.79	907.89	2213.11

Table 4-3 – Max. Runoff and Total Runoff Volume from Pre-Dev Subcatchments During 24-hr Design Storms

Subcatchment	Area (ha)	SCS_Type_II_48mm_24hr_2yr		SCS_Type_II_62.4mm_24hr_5yr		SCS_Type_II_103.2mm_24hr_100yr	
		Max. Runoff (L/s)	Total Runoff (m <sup>3</sup> )	Max. Runoff (L/s)	Total Runoff (m <sup>3</sup> )	Max. Runoff (L/s)	Total Runoff (m <sup>3</sup> )
E1	0.54	18.67	74.79	41.96	126.70	104.50	297.10
E2	0.29	11.62	40.55	24.39	68.58	60.37	160.50
E3	0.90	22.18	123.20	56.42	209.50	160.90	492.70
E4	2.08	47.50	283.20	123.50	482.00	362.60	1135.00
E5	0.39	14.36	53.81	31.28	91.09	77.58	213.40
E6	0.07	5.17	9.95	8.19	16.49	17.61	38.17
E7	0.27	16.43	38.75	30.25	64.48	67.82	149.80
Total	4.56	135.93	624.25	315.99	1058.84	851.38	2486.67



Table 4-4 – Summary of Max. Runoff and Max. Total Runoff Volume to Outlets

Outlet	Contributing Subcatchments	Max. Runoff (L/s)	Associated Rainfall Event	Max. Total Runoff (m <sup>3</sup> )	Associated Rainfall Event	Comments
OF1	E6	18.83	SCS_Type_II_96mm_12hr_100yr	38.17	SCS_Type_II_103.2mm_24hr_100yr	Outlet towards Trail Road and neighboring property to the South
OF2	E1, E2, E3, E4, E5	0.00	SCS_Type_II_96mm_12hr_100yr	0.00	SCS_Type_II_103.2mm_24hr_100yr	Infiltration via existing on-site depressed areas
OF3	E7	72.55	SCS_Type_II_96mm_12hr_100yr	149.80	SCS_Type_II_103.2mm_24hr_100yr	Outlet towards neighboring property to the South

From the outputs of pre-development condition modelling from PCSWMM, it was found that no run-off from subcatchments E1 – E5 drains off-site. Run-off from these areas is entirely managed by on-site surface ponding and infiltration up-to and including 100-year storm events. Therefore, in post-development condition, run-off from these areas must be detained on-site, up-to and including 100-year storm event and no run-off shall leave the site during the design storm events. No development or changes are proposed within subcatchments E6 and E7. Therefore, post-development run-off from these areas will not change and shall meet the design criteria.

### 4.3 Post-Development Conditions and Runoff

In post-development conditions, the subject site is proposed to be used as a soil dump facility. The outline of the areas of backfill can be found on Civil drawings attached in **Appendix E**. The site is proposed to be back filled in six phases. The grading and drainage plans show the stormwater conveyance and proposed grades at the end of each phase. Civil drawing #C200-4 shows the ultimate grading plan at the end of six phases of soil backfilling. **Figure A-4** in **Appendix A** shows post-development subcatchment areas based on the existing conditions and proposed grading.

The proposed infiltration trenches were designed using modelling in PCSWMM and are accordance with the Stormwater Management Planning and Design Manual, Ontario Ministry of the Environment and Climate Change, March 2003 (SMPDM).

There are total of three infiltration trenches proposed to be built on-site to manage post-development storm drainage to pre-development levels up to and including 100-year storm events. One infiltration trench having a surface area of 150 m<sup>2</sup> is proposed on the south-east section of the site, hereon referred to as the east infiltration trench. Two infiltration trenches having a surface area of 450 m<sup>2</sup> each, are proposed in the west section of the site, hereon referred to as the west infiltration trench. The east infiltration trench will be built prior to backfilling 'Area C' (post dev subcatchment S6) to accommodate storm drainage from this area as shown on Civil drawing #C200-3. The west infiltration trenches are proposed to be built after the final backfilling is completed. Storm drainage in the interim will be managed by the existing depressed areas on-site, consistent with the pre-development conditions. The existing depressed areas will remain functional until the proposed infiltration trenches are constructed to replace them. The existing depressed areas are shown on **Figure A-3** in **Appendix A**.

The input parameters in PCSWMM for post-development conditions are summarized below:

1. Rain Gauge: SCS Type II – 12 Hour and 24 Hour Storms

1. 2-year, 12-hour Storm: 43.2 mm
  2. 5-year, 12-hour Storm: 57.6 mm
  3. 100-year, 12-hour Storm: 96 mm
  4. 100-year + 20%, 12-hour Storm: 115.2 mm
  5. 2-year, 24-hour Storm: 48 mm
  6. 5-year, 24-hour Storm: 62.4 mm
  7. 100-year, 24-hour Storm: 103.2 mm
  8. 100-year + 20%, 24-hour Storm: 123.84 mm
2. Manning's N
1. for Impervious Surface: 0.013
  2. for Pervious Surface: 0.15
3. Depression Storage Depth
1. for Impervious Surface: 1.57 mm
  2. for Pervious Surface: 4.67 mm
4. Method for Infiltration Losses: Curve Number Method for unchanged areas from pre-development condition, Horton Method for soil dump areas.
5. Curve Number: 77 (Assuming Soil Group A, Barren Lands as per USDA, 2004 – Chapter 9)
6. Hydraulic Conductivity: 88.4 mm/hr (Assuming Soil Group A, value taken from Table 7-1 of Chapter 7, USDA, 2004)
7. Infiltration Rate for Horton Method: Initial Infiltration Rate ( $f_0$ ) = 76.2 mm, Final Infiltration Rate ( $f_c$ ) = 12.7 mm, Decay Coefficient ( $k$ ) = 4 /h (City of Ottawa Sewer Design Guidelines, October 2012).

As noted in the input parameters above, 100-year + 20% storms were modelled in addition to 2-year, 5-year and 100-year SCS Type II storms for 12-hour and 24-hour periods to confirm the adequacy of the on-site stormwater drainage system considering the climate change impact.

Following criteria were taken into account for the infiltration trench design as per MECP SMPDM 2003:

1. Maximum depth of water: 2.0 m
2. Maximum area managed: 2 ha/trench
3. Thickness of sand filter layer at the bottom of the trench: 300 mm
4. Groundwater: > 1 m below bottom
5. Bedrock: > 1 m below bottom
6. Infiltration Rate:  $\geq$  60 mm/hr
7. Porosity of Storage Layer ( $n$ ): 0.4 (50 mm dia. clear stone)
8. Design Infiltration rate ( $P$ ): 187 mm/hour (Measured by On-site infiltration test)
9. Target Retention time ( $\Delta t$ ) = 24 hours
10. Runoff volume to be infiltrated ( $V$ ) = 1310 m<sup>3</sup> for west infiltration trench and 120 m<sup>3</sup> for east infiltration trench (value taken from PCSWMM for 100-year SCS Type-II, 24-hour storm event)

The west infiltration trenches are proposed to have a bottom area of 475 m<sup>2</sup> each, adding to a total area of 950 m<sup>2</sup>. The trenches will have a total depth of 2.3 m which includes 1.0m of surface storage, 1.0 m of clear stone storage layer, and 0.3 m of sand filter layer. The total area draining towards the west infiltration trenches will be 3.8 ha (1.9 ha each). 3.8 ha of area draining into the west infiltration trench includes subcatchments S1, S2, S3, S4 and S5. The two trenches will be connected with three 300mm

diameter pipe installed at 0.2 m above the bottom of the storage layer to ensure equal distribution of storm drainage flows and avoid compaction of subsurface soil layer due to excess infiltration from one trench.

The east infiltration trench is proposed to have a bottom area of 150 m<sup>2</sup> and a total depth of 1.8 m which includes 0.5 m of surface storage, 1.0 m of clear stone storage layer, and 0.3 m of sand filter layer. The total area draining towards the east trench will be 0.43 ha (subcatchment S6).

Over 2 m separation will be provided between the bottom of the trench and ground water level. No bedrock is present at shallow depth within the subject site. Refer to the hydrogeological assessment and geotechnical report for further details on bedrock and soil types for the subject site.

Refer to Civil drawing #C200-4 for further details regarding proposed infiltration trenches.

To ensure the proposed infiltration trenches have large enough areas to allow for uniform distribution of water within the storage layer, the minimum bottom trench area was calculated using Equation 4.3: Infiltration Trench Bottom Area from the Stormwater Management Planning and Design Manual, Ontario Ministry of the Environment and Climate Change, March 2003 (SMPDM). The above-noted criteria were used in the equation below.

$$A = \frac{1000 V}{P n \Delta t}$$

The required infiltration trench bottom area was calculated as 729.70 m<sup>2</sup> and 66.85 m<sup>2</sup> for west trench and east trench, respectively. Therefore, the proposed bottom area for the west infiltration trench (950 m<sup>2</sup>) and east infiltration trench (150 m<sup>2</sup>) are more than the minimum required area as per SMPDM, March 2003.

The above noted parameters were applied to 8 post-development drainage areas S1 to S8 in PCSWMM, as shown on **Figure A-4** in **Appendix A**. Drainage areas S2, S3, S5, S7 and S8 will remain unchanged from pre-development condition. Drainage area S4 and S6 represents the area used for soil dump which will drain towards the west infiltration trench in area S1 and east infiltration trench in area S6, respectively. The proposed infiltration trenches were modelled as LID definitions in PCSWMM with the following input,

West Infiltration Trench applied to drainage area S1:

Berm Height (Surface Storage): 1000 mm  
Infiltration Rate: 187 mm/hr  
Storage Layer Thickness: 1000 mm  
Void Ratio: 0.6 (0.4 Porosity = 0.6 Void Ratio)  
Area: 950 m<sup>2</sup>

East Infiltration Trench applied to drainage area S6:

Berm Height (Surface Storage): 1000 mm  
Infiltration Rate: 187 mm/hr  
Storage Layer Thickness: 1000 mm  
Void Ratio: 0.6 (0.4 Porosity = 0.6 Void Ratio)  
Area: 150 m<sup>2</sup>

**Table 4-8** and **Table 4-9** below summarizes the depth of water in each infiltration trench during the design storm events derived from the detailed LID reports from PCSWMM output and the adjusted depth of water based on the stage storage report derived from CAD. The PCSWMM output water depth is based on the area of the infiltration trenches only and does not take into account the actual ponding area available above the storage layer. The "Adjusted Depth" in **Table 4-8** and **Table 4-9** below accounts for the actual tapered trapezoidal ponding area available above the storage layer. These water depths and ponding areas are illustrated on civil drawing #C200-4. Detailed LID reports and stage storage reports are included in **Appendix C** along with the output report for post-development condition from PCSWMM. The maximum depth of water in the west trenches is 1.75 m and the maximum depth of water in the east trench is 1.47 m during 100-year + 20% storm event, which is well below the maximum suggested water level of 2.0 m in MECF SMPDM, March 2003 to prevent subsurface soil compaction. Maximum water levels during 100-year storm events in the west trench and east trench are 1.42 m and 1.35 m, respectively. **Table 4-7** below provides a comparison of pre-development and post-development discharge rates to outfalls OF1, OF2 and OF3.

**Table 4-5** and **Table 4-6** provides a summary of peak runoff and total runoff volume from post-development subcatchments during each storm event.

Table 4-5 – Max. Runoff and Total Runoff Volume from Post-Dev Subcatchments during 12-hr Design Storms

Sub catchment	Area (ha)	SCS_Type_II_43.2 mm_12hr_2yr		SCS_Type_II_57.6 mm_12hr_5yr		SCS_Type_II_96m m_12hr_100yr		SCS_Type_II_96mm_1 2hr_100yr+20%	
		Max. Runoff (L/s)	Total Runoff (m <sup>3</sup> )	Max. Runoff (L/s)	Total Runoff (m <sup>3</sup> )	Max. Runoff (L/s)	Total Runoff (m <sup>3</sup> )	Max. Runoff (L/s)	Total Runoff (m <sup>3</sup> )
S1	0.59	5.33	58.65	17.29	111.80	74.56	279.70	109.70	372.60
S2	0.53	24.12	58.16	50.61	106.80	131.20	258.30	174.50	342.00
S3	0.25	14.14	28.22	27.15	51.15	66.06	122.70	86.60	162.40
S4	2.21	9.63	7.42	55.87	96.40	260.80	558.50	377.20	811.00
S5	0.22	8.66	23.65	19.86	43.63	51.50	105.80	69.13	140.20
S6	0.43	12.08	6.73	45.63	39.84	128.90	139.20	170.60	188.10
S7	0.27	15.88	30.95	30.60	55.87	72.55	133.80	94.92	177.00
S8	0.07	4.41	8.31	8.55	14.49	18.83	34.11	24.48	45.11
Total	4.56	94.25	222.08	255.56	519.98	804.40	1632.11	1107.13	2238.41

Table 4-6 – Max. Runoff and Total Runoff Volume from Post-Dev Subcatchments during 24-hr Design Storms

Sub catchment	Area (ha)	SCS_Type_II_48m m_24hr_2yr		SCS_Type_II_62.4 mm_24hr_5yr		SCS_Type_II_103.2mm_24hr_100yr		SCS_Type_II_103.2mm_24hr_100yr+20%	
		Max. Runoff (L/s)	Total Runoff (m <sup>3</sup> )	Max. Runoff (L/s)	Total Runoff (m <sup>3</sup> )	Max. Runoff (L/s)	Total Runoff (m <sup>3</sup> )	Max. Runoff (L/s)	Total Runoff (m <sup>3</sup> )
S1	0.59	6.55	77.69	19.15	133.30	73.08	316.50	104.20	418.10
S2	0.53	27.44	73.84	48.89	124.10	122.60	289.30	162.30	381.00
S3	0.25	14.85	35.45	27.15	59.11	61.73	137.40	80.62	180.80
S4	2.21	10.23	8.68	50.43	85.32	220.50	469.60	317.00	681.70
S5	0.22	10.20	30.13	19.37	50.79	48.21	118.60	64.29	156.20
S6	0.43	12.60	7.48	41.68	36.63	112.40	121.80	149.10	163.20
S7	0.27	16.43	38.75	30.25	64.48	67.82	149.80	88.38	197.10

S8	0.07	5.17	9.95	8.19	16.49	17.61	38.17	22.81	50.21
<b>Total</b>	<b>4.56</b>	<b>103.47</b>	<b>281.98</b>	<b>245.11</b>	<b>570.22</b>	<b>723.95</b>	<b>1641.17</b>	<b>988.70</b>	<b>2228.31</b>

Table 4-7 – Comparison of Pre-Development and Post-Development Peak Runoff Rates to Outlets

Outlet	Pre Dev Catchments	PostDev Catchments	Pre Dev Max. Runoff (L/s)	Post Dev Max. Runoff (L/s)	Associated Rainfall Event	Comments
OF1	E6	S8	18.83	18.83	SCS_Type_II_96mm_12hr_100yr	Outlet towards Trail Road and neighbouring property to the South
OF2	E1, E2, E3, E4, E5	S1, S2, S3, S4, S5, S6	0.00	0.00	SCS_Type_II_96mm_12hr_100yr	Infiltration via proposed west and east infiltration trenches
OF3	E7	S7	72.55	72.55	SCS_Type_II_96mm_12hr_100yr	Outlet towards neighbouring property to the South

Table 4-8 – Depth of Water in Proposed Infiltration Trenches During 12-hr Design Storm Events

Infiltration Trench (catchment)	Max. Depth of Water from LID Reports and Equivalent Adjusted Depth of Water based on Stage Storage Report (mm)							
	SCS_Type_II_43.2m_12hr_2yr		SCS_Type_II_57.6m_12hr_5yr		SCS_Type_II_96mm_12hr_100yr		SCS_Type_II_96mm_12hr_100yr+20%	
	Depth from Model	Adjusted Depth	Depth from Model	Adjusted Depth	Depth from Model	Adjusted Depth	Depth from Model	Adjusted Depth
West (S1)	0.00	0.00	201.62	201.62	1444.12	<b>1420.00</b>	1886.08	<b>1750.00</b>
East (S6)	39.80	39.80	501.59	501.59	1412.51	<b>1350.00</b>	1705.43	<b>1470.00</b>

Table 4-9 – Depth of Water in Proposed Infiltration Trenches During 24-hr Design Storm Events

Infiltration Trench (catchment)	Max. Depth of Water from LID Reports and Equivalent Adjusted Depth of Water based on Stage Storage Report (mm)							
	SCS_Type_II_48m_24hr_2yr		SCS_Type_II_62.4m_24hr_5yr		SCS_Type_II_103.2m_24hr_100yr		SCS_Type_II_103.2m_24hr_100yr+20%	
	Depth from Model	Adjusted Depth	Depth from Model	Adjusted Depth	Depth from Model	Adjusted Depth	Depth from Model	Adjusted Depth
West (S1)	0.00	0.00	196.12	196.12	1340.08	<b>1340.08</b>	1716.19	<b>1610.00</b>
East (S6)	42.17	42.17	446.84	446.84	1303.43	<b>1250.00</b>	1553.17	<b>1400.00</b>

Based on these results, it is evident that the proposed infiltration trenches are sufficient to meet the design criteria of maintaining pre-development run-offs from the development area up to and including 100-year storm event in the post-development conditions.

Since post-development drainage areas S7 and S8 remain unchanged from pre-development condition (pre-development areas E6 and E7), no further control has been proposed in these areas.

Quality control for this site will be achieved naturally through infiltration. A 300 mm sand filter layer is proposed at the bottom of the infiltration trench to promote water quality enhancement before it infiltrates into the native soil. No run-off drains off-site in the post-development conditions therefore, 80% TSS removal criteria does not apply for the proposed stormwater management strategy.

## 5 Erosion and Sediment Control

During all construction activities, erosion and sedimentation shall be controlled by the following techniques:

- Extent of exposed soils shall be limited as much as possible,
- Backfilled soil shall be vegetated after completion of each phase of backfilling,
- Light duty silt fencing shall be used around the backfilled area until sufficient vegetation cover is established. Silt fencing locations are identified on the erosion control plan,
- Visual inspection shall be completed daily on sediment control barriers and any damage repaired immediately. Care will be taken to prevent damage during site operations,
- In some cases, barriers may be removed temporarily to accommodate the site operations. The affected barriers shall be reinstated as soon as possible,
- Sediment control devices shall be cleaned of accumulated silt as required,
- Construction and maintenance requirements for erosion and sediment controls are to comply with Ontario Provincial Standard Specification (OPSS) OPSS 805, and City of Ottawa specifications.

## 6 Conclusions

This report addresses stormwater design for the purposes of Zoning By-Law Amendment application with the City of Ottawa. The following summarizes the Stormwater Management Design for the site:

- Post-Development storm run-off shall be controlled to pre-development levels for each storm event up to and including 100-year storm.
- The site is located in rural area, hence SCS Type II storms were used for stormwater management design.
- Stormwater runoff from 4.19 ha of total drainage area which includes 3.71 ha of area within the property and 0.24 ha of external areas, are being managed by on-site surface ponding and infiltration. 0.35 ha of property drains towards Trail Road and neighboring property to the south.
- Pre-development subcatchments E1 to E5 includes drainage areas being managed by on-site surface ponding and infiltration. No storm run-off occurs off-site from these areas up to and including SCS Type II – 100-year events of 12 hour and 24 hour duration. Drainage areas E6 and E7 drains off-site and are proposed to be unchanged in the post-development condition.
- Soil backfilling within the subject property will take place in six phases.
- Three infiltration trenches are proposed to be built in post-development conditions. The east infiltration trench, which will have 150 m<sup>2</sup> area and 1.5 m of total water depth, will be built before backfilling subcatchment S6. The west infiltration trenches, which includes two equal size trenches of 450 m<sup>2</sup> and 2.0m of total water depth, will be built after completion of all soil dump operations on site.
- No run-off occurs off-site from the development area (post-development subcatchments S1 to S6) including SCS Type II 100 year and 100 year + 20% (climate change consideration) storm events of 12 hour and 24 hour durations. The maximum depth of water within the west and east infiltration trench will be 1.75 m and 1.47 m, respectively during 100 year + 20% storms. This is well below the maximum suggested depth of 2.0 m in MECP SMPDM guidelines. Therefore, the design criteria for the stormwater management of the subject site can be met successfully.
- During all soil dump activities, erosion and sedimentation will be controlled on site.

## Appendix A – Figures

**Figure A-1: Site Location Plan**

**Figure A-2: Pre-Development SWM Subcatchments**

**Figure A-3: Pre-Development Site Topography**

**Figure A-4: Post-Development SWM Subcatchments**



Figure A-1 - Site Location Plan

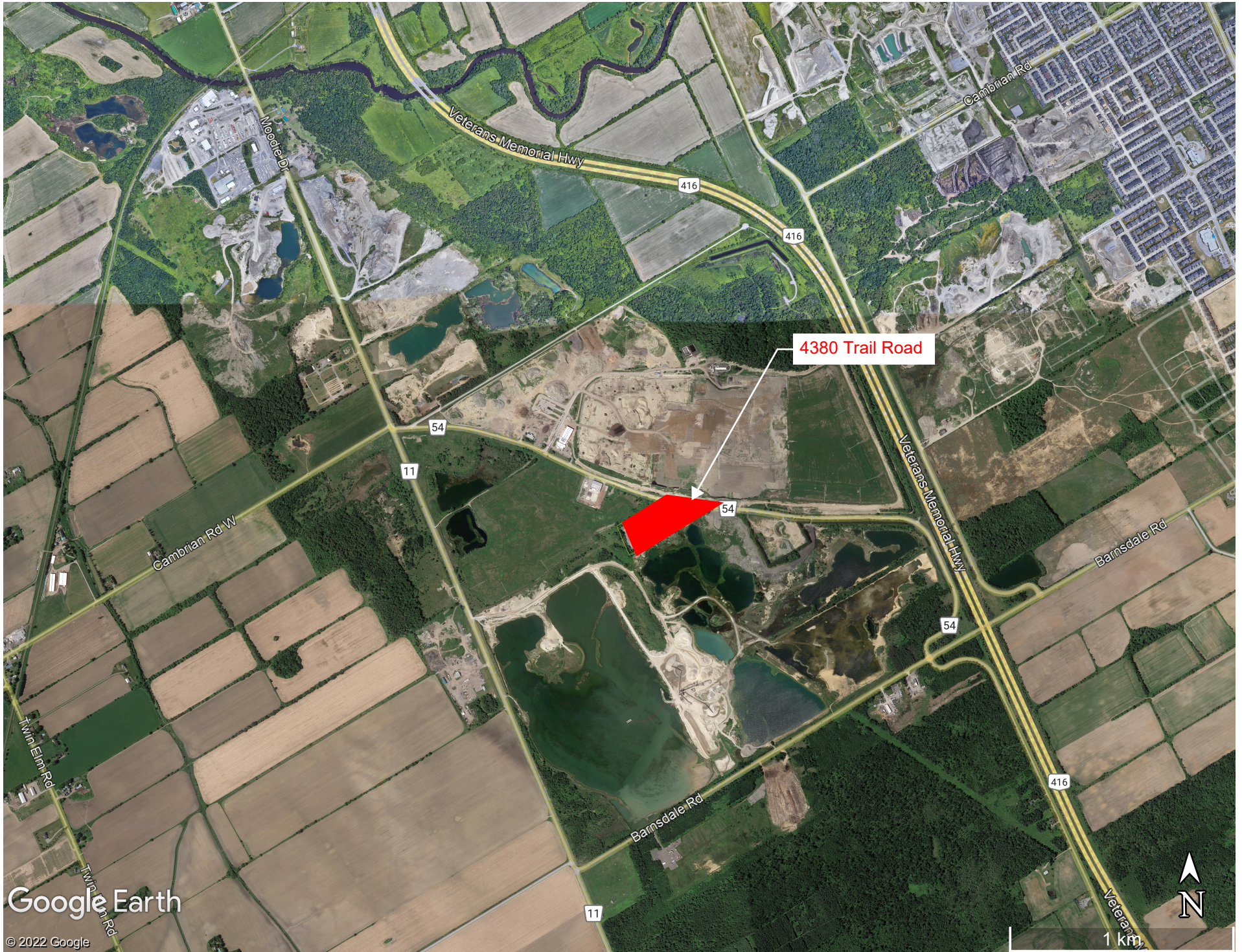




Figure A-2 - Pre-Development SWM Subcatchments

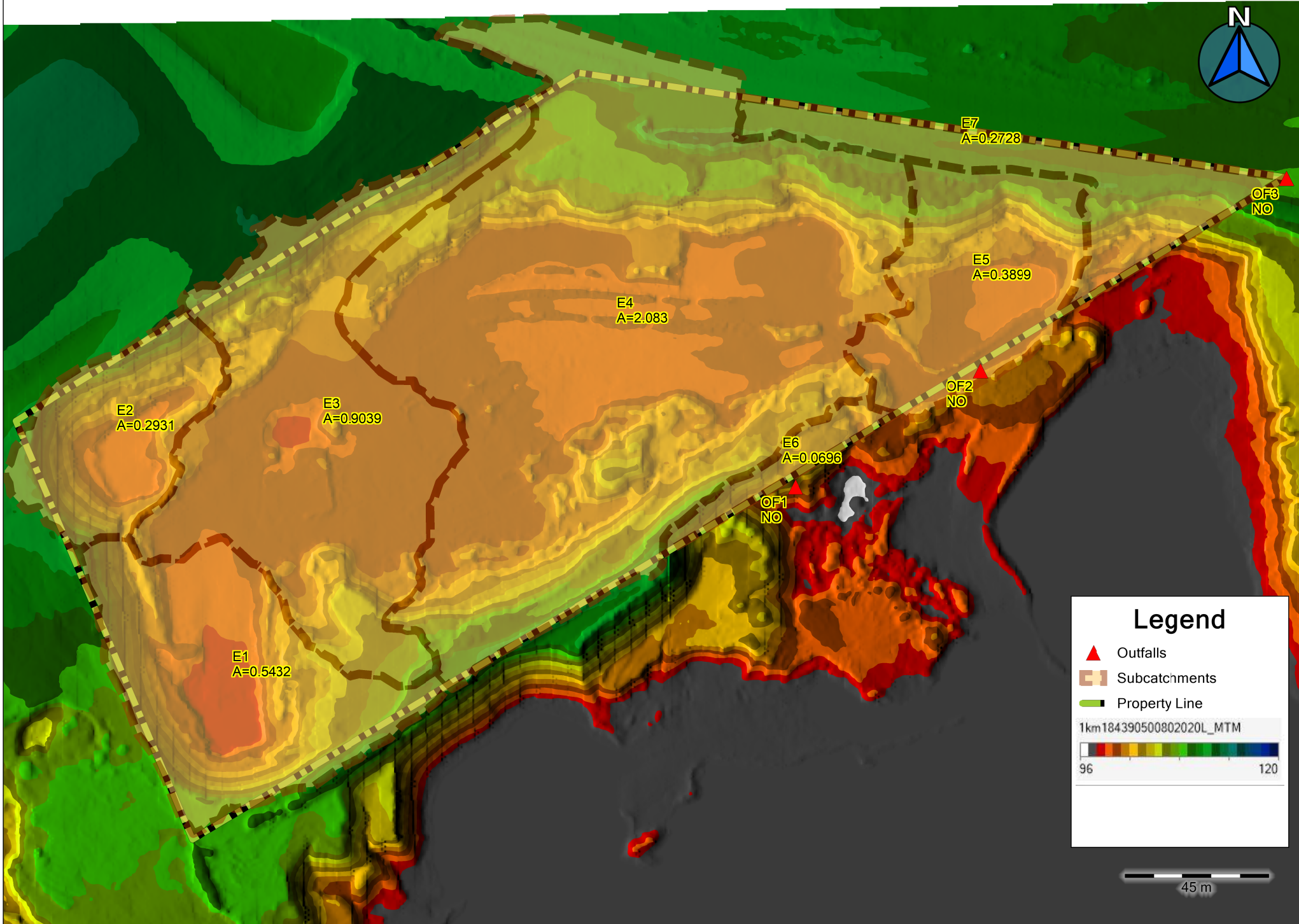
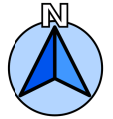
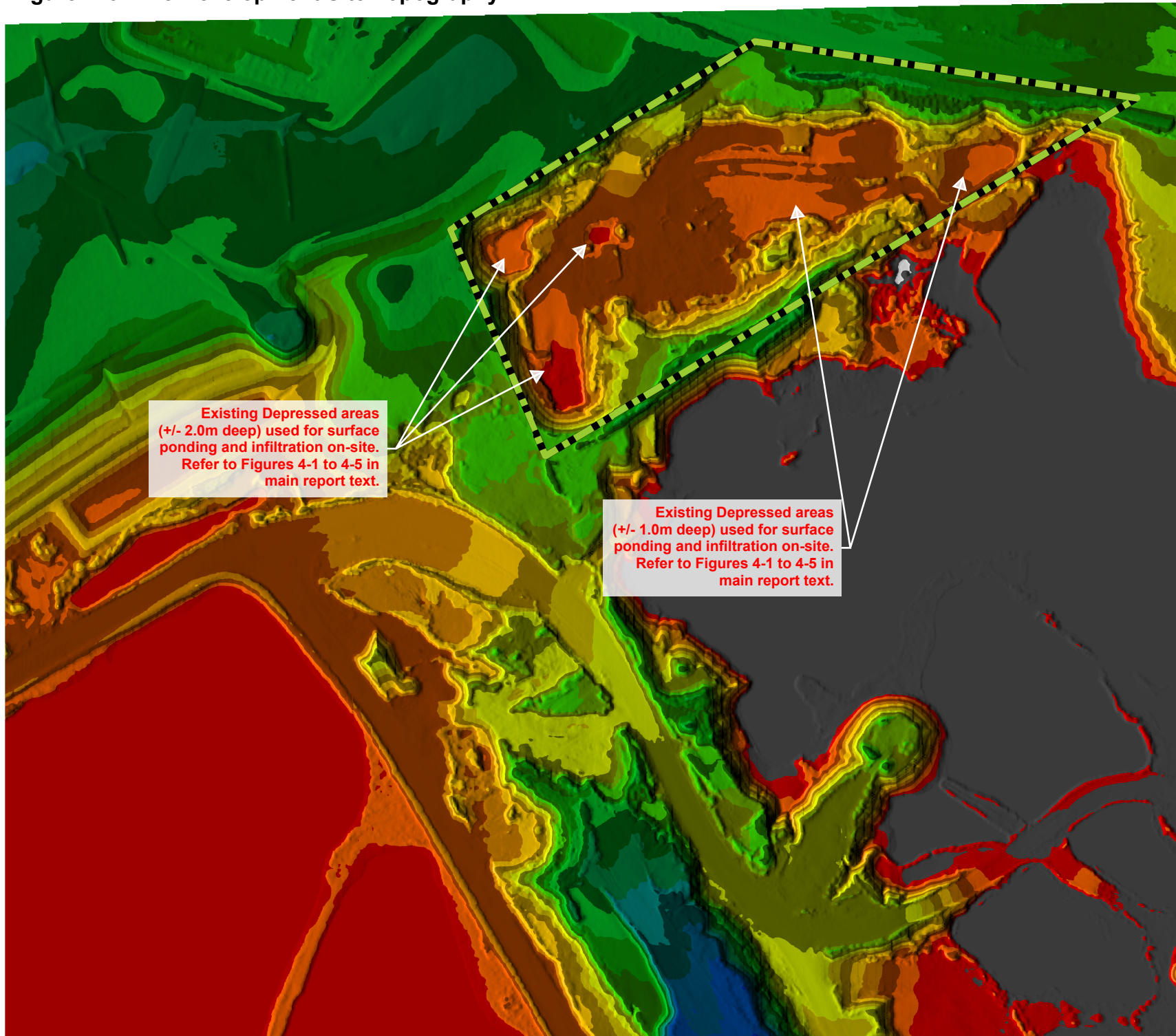


Figure A-3 - Pre-Development Site Topography



### Legend

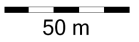
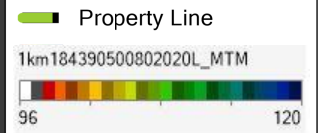
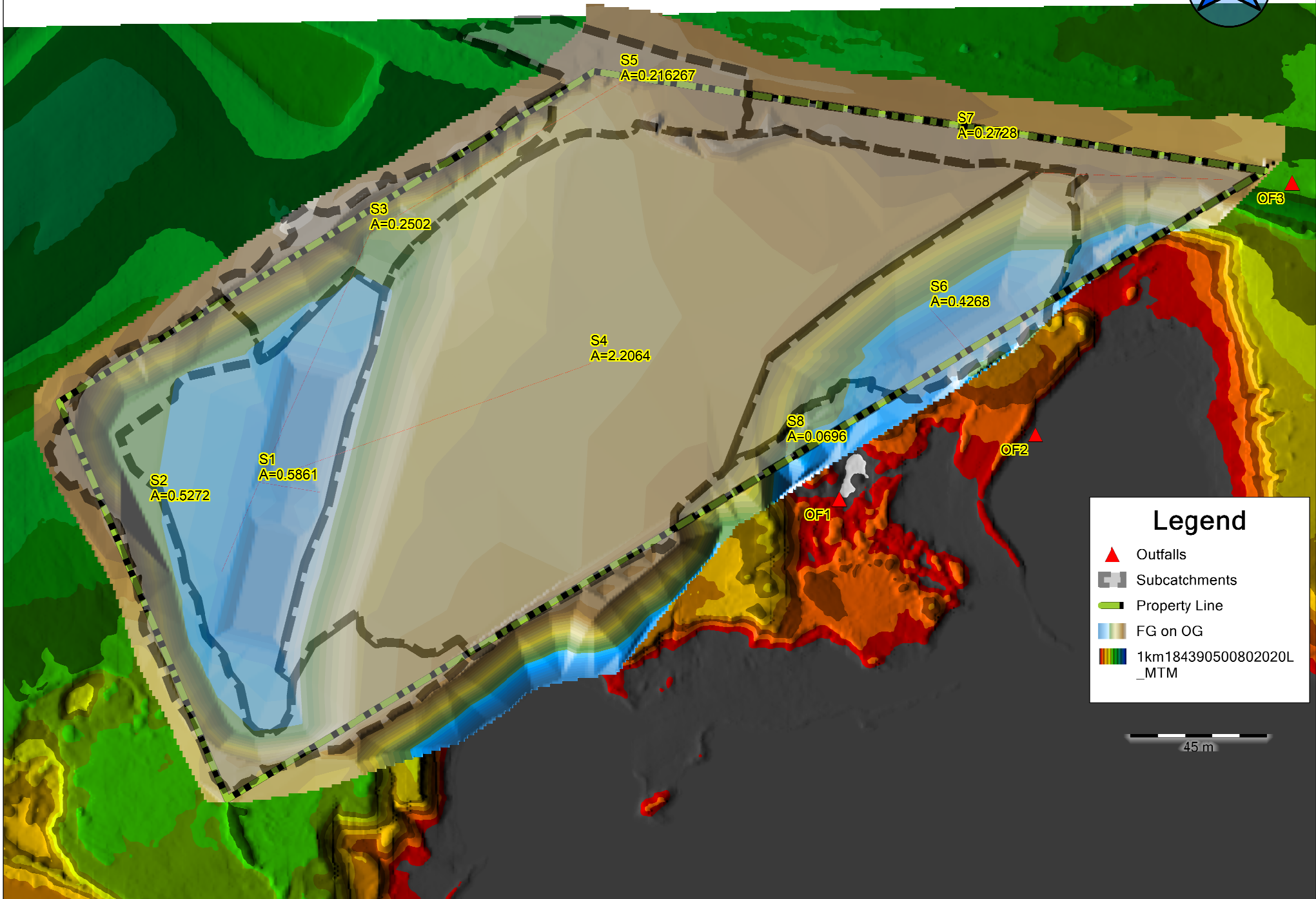
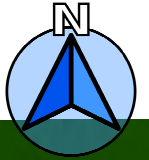




Figure A-4 - Post-Development SWM Subcatchments



## Appendix B – Pre-Development SWM

# PCSWMM Report

Pre\_Dev\_Oct 19 2022  
Model 21023795 - Pre\_Dev Rev5.inp

exp Services Inc.  
October 21, 2022

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### Summary 1A: Subcatchment statistics

Name	SCS_Type_II_103.2mm_100yr	SCS_Type_II_48mm_2yr
Max. width (m)	300	300
Min. width (m)	35	35
Max. area ( ha)	2.083	2.083
Min. area ( ha)	0.0696	0.0696
Total area ( ha)	4.5555	4.5555
Max. length of overland flow (m)	148.7857	148.7857
Min. length of overland flow (m)	4.64	4.64
Max. slope (%)	43.482	43.482
Min. slope (%)	10	10
Max. imperviousness (%)	0	0
Min. imperviousness (%)	0	0
Max. imp. roughness	0.013	0.013
Min. imp. roughness	0.013	0.013
Max. perv. roughness	0.15	0.15
Min. perv. roughness	0.15	0.15
Max. imp. depression storage (mm)	1.57	1.57
Min. imp. depression storage (mm)	1.57	1.57
Max. perv. depression storage (mm)	4.67	4.67
Min. perv. depression storage (mm)	4.67	4.67

### Summary 1B: Subcatchment statistics

Name	SCS_Type_II_62.4mm_5yr	SCS_Type_II_43.2mm_12hr_2yr
Max. width (m)	300	300
Min. width (m)	35	35
Max. area ( ha)	2.083	2.083
Min. area ( ha)	0.0696	0.0696
Total area ( ha)	4.5555	4.5555
Max. length of overland flow (m)	148.7857	148.7857
Min. length of overland flow (m)	4.64	4.64
Max. slope (%)	43.482	43.482
Min. slope (%)	10	10
Max. imperviousness (%)	0	0
Min. imperviousness (%)	0	0
Max. imp. roughness	0.013	0.013
Min. imp. roughness	0.013	0.013
Max. perv. roughness	0.15	0.15
Min. perv. roughness	0.15	0.15
Max. imp. depression storage (mm)	1.57	1.57



### Summary 1B: Subcatchment statistics (continued...)

Name	SCS_Type_II_62.4mm_5yr	SCS_Type_II_43.2mm_12hr_2yr
Min. imp. depression storage (mm)	1.57	1.57
Max. perv. depression storage (mm)	4.67	4.67
Min. perv. depression storage (mm)	4.67	4.67

### Summary 1C: Subcatchment statistics

Name	SCS_Type_II_57.6mm_12hr_5yr	SCS_Type_II_96mm_12hr_100yr
Max. width (m)	300	300
Min. width (m)	35	35
Max. area ( ha)	2.083	2.083
Min. area ( ha)	0.0696	0.0696
Total area ( ha)	4.5555	4.5555
Max. length of overland flow (m)	148.7857	148.7857
Min. length of overland flow (m)	4.64	4.64
Max. slope (%)	43.482	43.482
Min. slope (%)	10	10
Max. imperviousness (%)	0	0
Min. imperviousness (%)	0	0
Max. imp. roughness	0.013	0.013
Min. imp. roughness	0.013	0.013
Max. perv. roughness	0.15	0.15
Min. perv. roughness	0.15	0.15
Max. imp. depression storage (mm)	1.57	1.57
Min. imp. depression storage (mm)	1.57	1.57
Max. perv. depression storage (mm)	4.67	4.67
Min. perv. depression storage (mm)	4.67	4.67

### Summary 2A: Results statistics

Name	SCS_Type_II_103.2mm_100yr	SCS_Type_II_48mm_2yr
Max. subcatchment total runoff (ML)	1.13	0.28
Max. subcatchment peak runoff (L/s)	362.64	47.5
Max. subcatchment runoff coefficient	0.532	0.298
Max. subcatchment total precip (mm)	103.2	48
Min. subcatchment total precip (mm)	103.2	48
Max. node depth (m)	0.49	0.17
Num. nodes surcharged	0	0
Max. node surcharge duration (hours)	0	0

## Summary 2A: Results statistics (continued...)

Name	SCS_Type_II_103.2mm_100yr	SCS_Type_II_48mm_2yr
Max. node height above crown (m)	0	0
Min. node depth below rim (m)	0	0
Num. nodes flooded	0	0
Max. node flooding duration (hours)	0	0
Max. node flood volume (ML)	0	0
Max. node ponded volume or depth (ha-mm/1000 m <sup>3</sup> /m)	0	0
Max. storage volume (1000 m <sup>3</sup> )	n/a	n/a
Max. storage percent full (%)	n/a	n/a
Max. outfall flow frequency (%)	34.18	29.91
Max. outfall peak flow (L/s)	748.92	101.07
Max. outfall total volume (ML)	2.299	0.576
Total outfall volume (ML)	2.487	0.625
Max. link peak flow (L/s)	748.92	101.07
Max. link peak velocity (m/s)	7.08	3.87
Min. link peak velocity (m/s)	0.4	0.4
Num. conduits surcharged	0	0
Max. conduit surcharge duration (hours)	0	0
Max. conduit capacity limited duration (hours)	0	0

## Summary 2B: Results statistics

Name	SCS_Type_II_62.4mm_5yr
Max. subcatchment total runoff (ML)	0.48
Max. subcatchment peak runoff (L/s)	123.46
Max. subcatchment runoff coefficient	0.38
Max. subcatchment total precip (mm)	62.4
Min. subcatchment total precip (mm)	62.4
Max. node depth (m)	0.27
Num. nodes surcharged	0
Max. node surcharge duration (hours)	0
Max. node height above crown (m)	0
Min. node depth below rim (m)	0
Num. nodes flooded	0
Max. node flooding duration (hours)	0
Max. node flood volume (ML)	0
Max. node ponded volume or depth (ha-mm/1000 m <sup>3</sup> /m)	0
Max. storage volume (1000 m <sup>3</sup> )	n/a
Max. storage percent full (%)	n/a
Max. outfall flow frequency (%)	30.79

## Summary 2B: Results statistics (continued...)

Name	SCS_Type_I1_62.4mm_5yr
Max. outfall peak flow (L/s)	259.83
Max. outfall total volume (ML)	0.978
Total outfall volume (ML)	1.059
Max. link peak flow (L/s)	259.83
Max. link peak velocity (m/s)	5.16
Min. link peak velocity (m/s)	0.38
Num. conduits surcharged	0
Max. conduit surcharge duration (hours)	0
Max. conduit capacity limited duration (hours)	0

## Summary 2C: Results statistics

Name	SCS_Type_I1_43.2mm_12hr_2yr
Max. subcatchment total runoff (ML)	0.22
Max. subcatchment peak runoff (L/s)	35.68
Max. subcatchment runoff coefficient	0.276
Max. subcatchment total precip (mm)	43.2
Min. subcatchment total precip (mm)	43.2
Max. node depth (m)	0.15
Num. nodes surcharged	0
Max. node surcharge duration (hours)	0
Max. node height above crown (m)	0
Min. node depth below rim (m)	0
Num. nodes flooded	0
Max. node flooding duration (hours)	0
Max. node flood volume (ML)	0
Max. node ponded volume or depth (ha-mm/1000 m <sup>3</sup> /m)	0
Max. storage volume (1000 m <sup>3</sup> )	n/a
Max. storage percent full (%)	n/a
Max. outfall flow frequency (%)	22.36
Max. outfall peak flow (L/s)	78.03
Max. outfall total volume (ML)	0.446
Total outfall volume (ML)	0.485
Max. link peak flow (L/s)	78.03
Max. link peak velocity (m/s)	3.58
Min. link peak velocity (m/s)	0.34
Num. conduits surcharged	0
Max. conduit surcharge duration (hours)	0
Max. conduit capacity limited duration (hours)	0

## Summary 2D: Results statistics

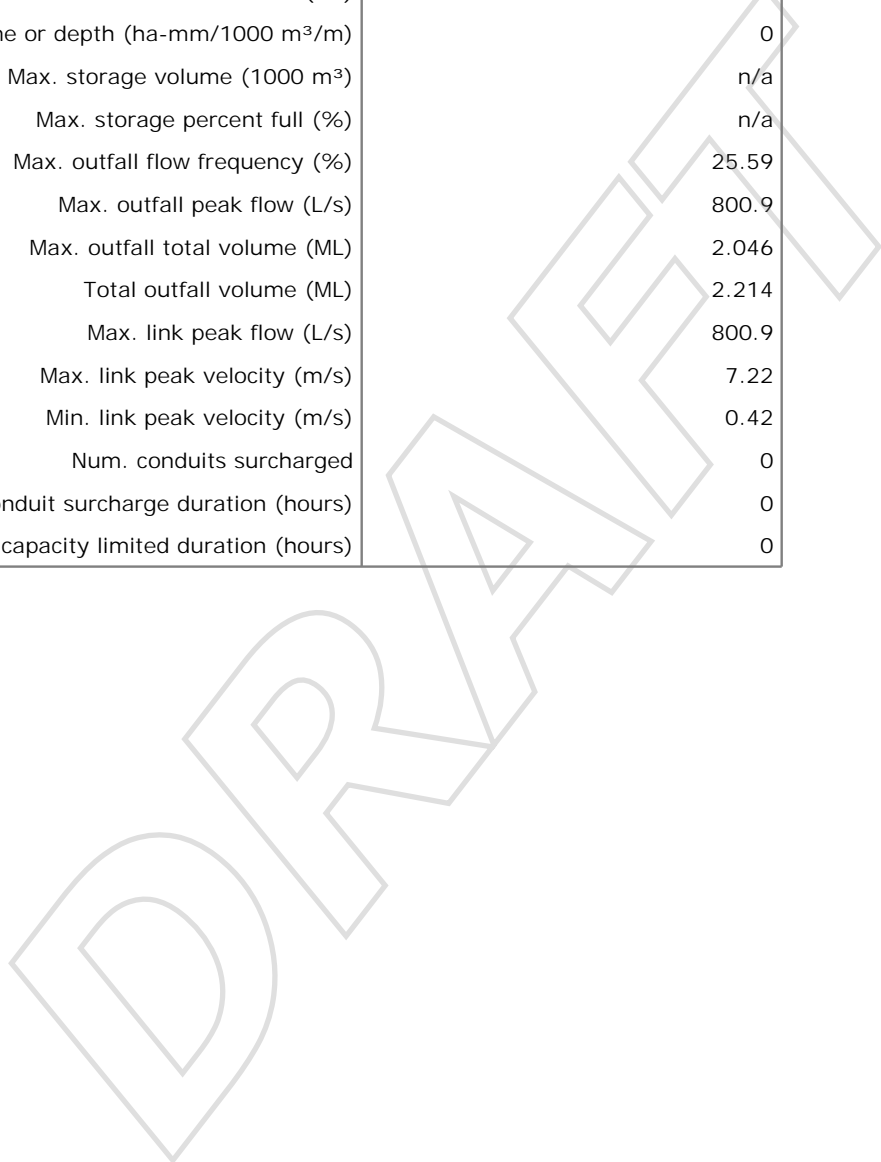
Name	SCS_Type-II_57.6mm_12hr_5yr
Max. subcatchment total runoff (ML)	0.41
Max. subcatchment peak runoff (L/s)	116.62
Max. subcatchment runoff coefficient	0.361
Max. subcatchment total precip (mm)	57.6
Min. subcatchment total precip (mm)	57.6
Max. node depth (m)	0.27
Num. nodes surcharged	0
Max. node surcharge duration (hours)	0
Max. node height above crown (m)	0
Min. node depth below rim (m)	0
Num. nodes flooded	0
Max. node flooding duration (hours)	0
Max. node flood volume (ML)	0
Max. node ponded volume or depth (ha-mm/1000 m <sup>3</sup> /m)	0
Max. storage volume (1000 m <sup>3</sup> )	n/a
Max. storage percent full (%)	n/a
Max. outfall flow frequency (%)	23.2
Max. outfall peak flow (L/s)	245.17
Max. outfall total volume (ML)	0.833
Total outfall volume (ML)	0.903
Max. link peak flow (L/s)	245.17
Max. link peak velocity (m/s)	5.07
Min. link peak velocity (m/s)	0.42
Num. conduits surcharged	0
Max. conduit surcharge duration (hours)	0
Max. conduit capacity limited duration (hours)	0

## Summary 2E: Results statistics

Name	SCS_Type-II_96mm_12hr_100yr
Max. subcatchment total runoff (ML)	1.01
Max. subcatchment peak runoff (L/s)	385.9
Max. subcatchment runoff coefficient	0.511
Max. subcatchment total precip (mm)	96
Min. subcatchment total precip (mm)	96
Max. node depth (m)	0.5
Num. nodes surcharged	0
Max. node surcharge duration (hours)	0
Max. node height above crown (m)	0

## Summary 2E: Results statistics (continued...)

Name	SCS_Type_I1_96mm_12hr_100yr
Min. node depth below rim (m)	0
Num. nodes flooded	0
Max. node flooding duration (hours)	0
Max. node flood volume (ML)	0
Max. node ponded volume or depth (ha-mm/1000 m <sup>3</sup> /m)	0
Max. storage volume (1000 m <sup>3</sup> )	n/a
Max. storage percent full (%)	n/a
Max. outfall flow frequency (%)	25.59
Max. outfall peak flow (L/s)	800.9
Max. outfall total volume (ML)	2.046
Total outfall volume (ML)	2.214
Max. link peak flow (L/s)	800.9
Max. link peak velocity (m/s)	7.22
Min. link peak velocity (m/s)	0.42
Num. conduits surcharged	0
Max. conduit surcharge duration (hours)	0
Max. conduit capacity limited duration (hours)	0



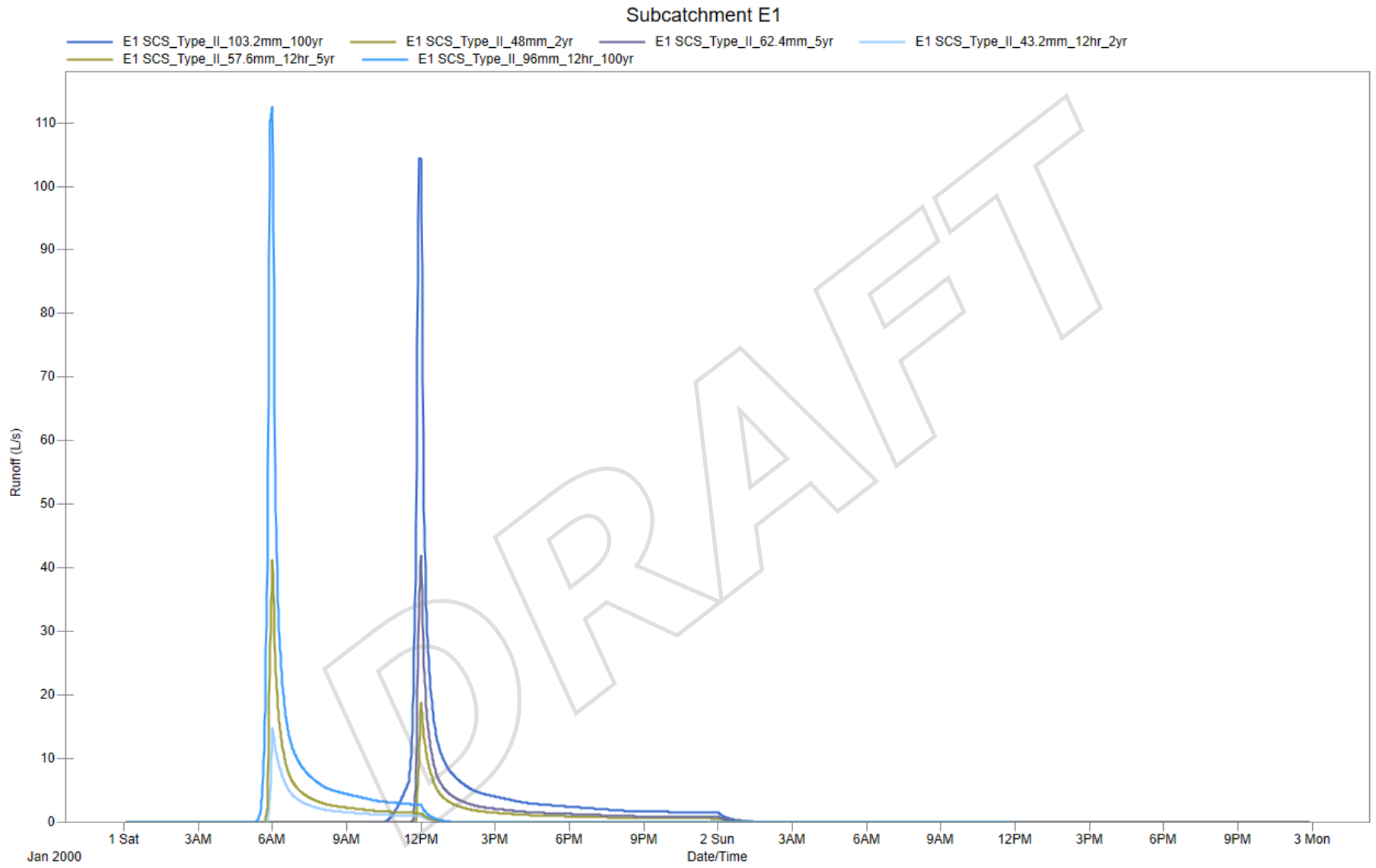


Figure 1: E1

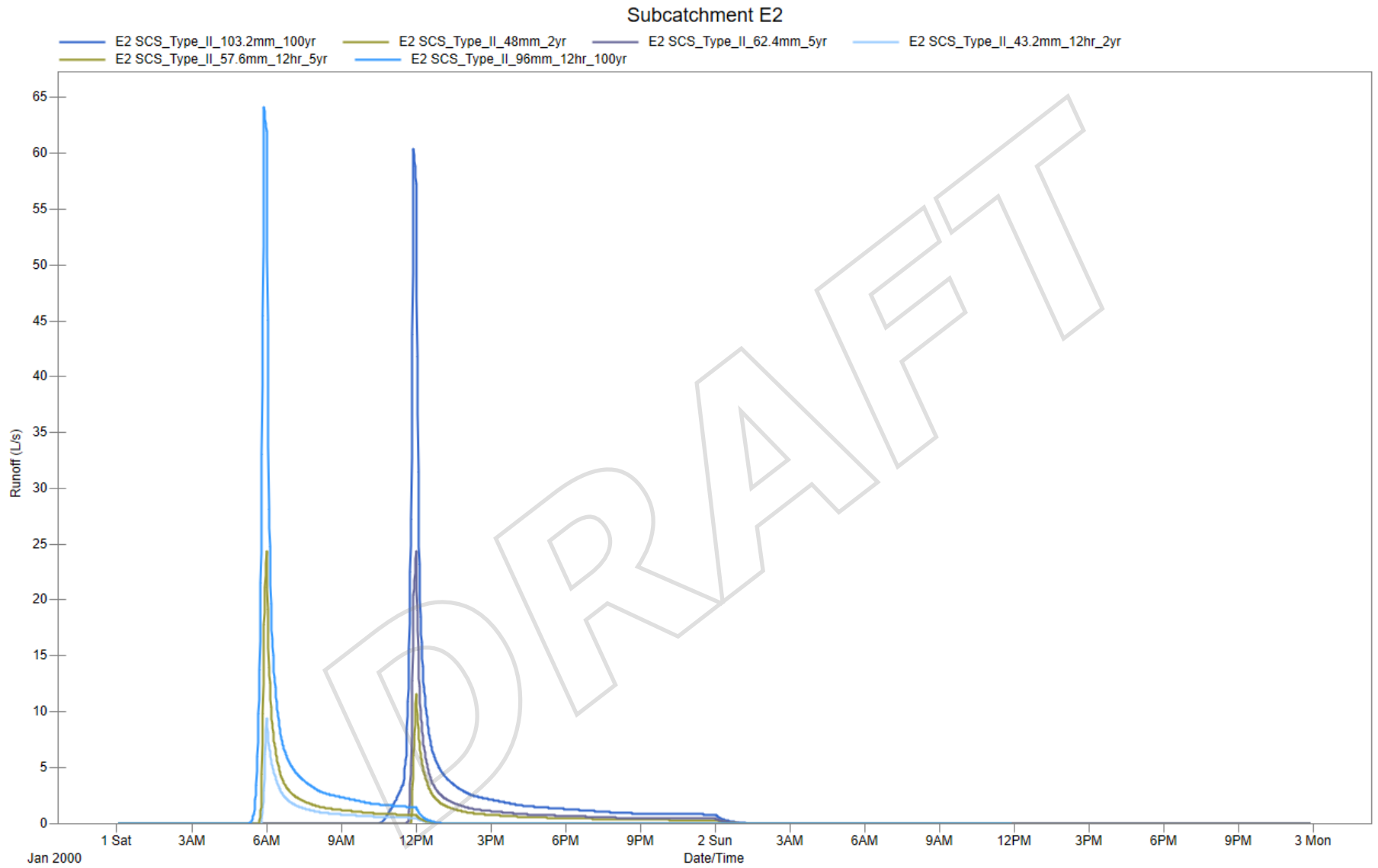


Figure 2: E2

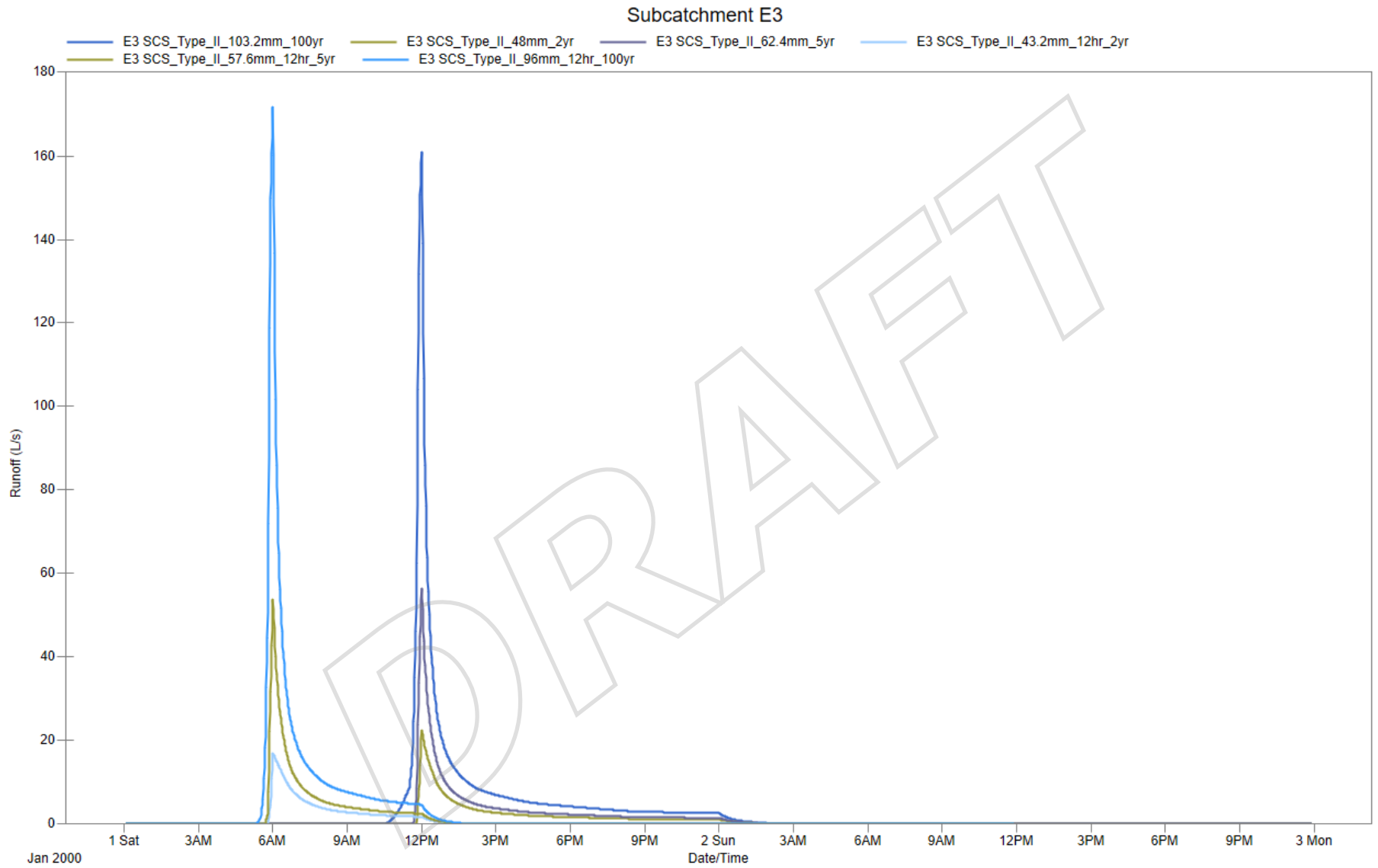


Figure 3: E3



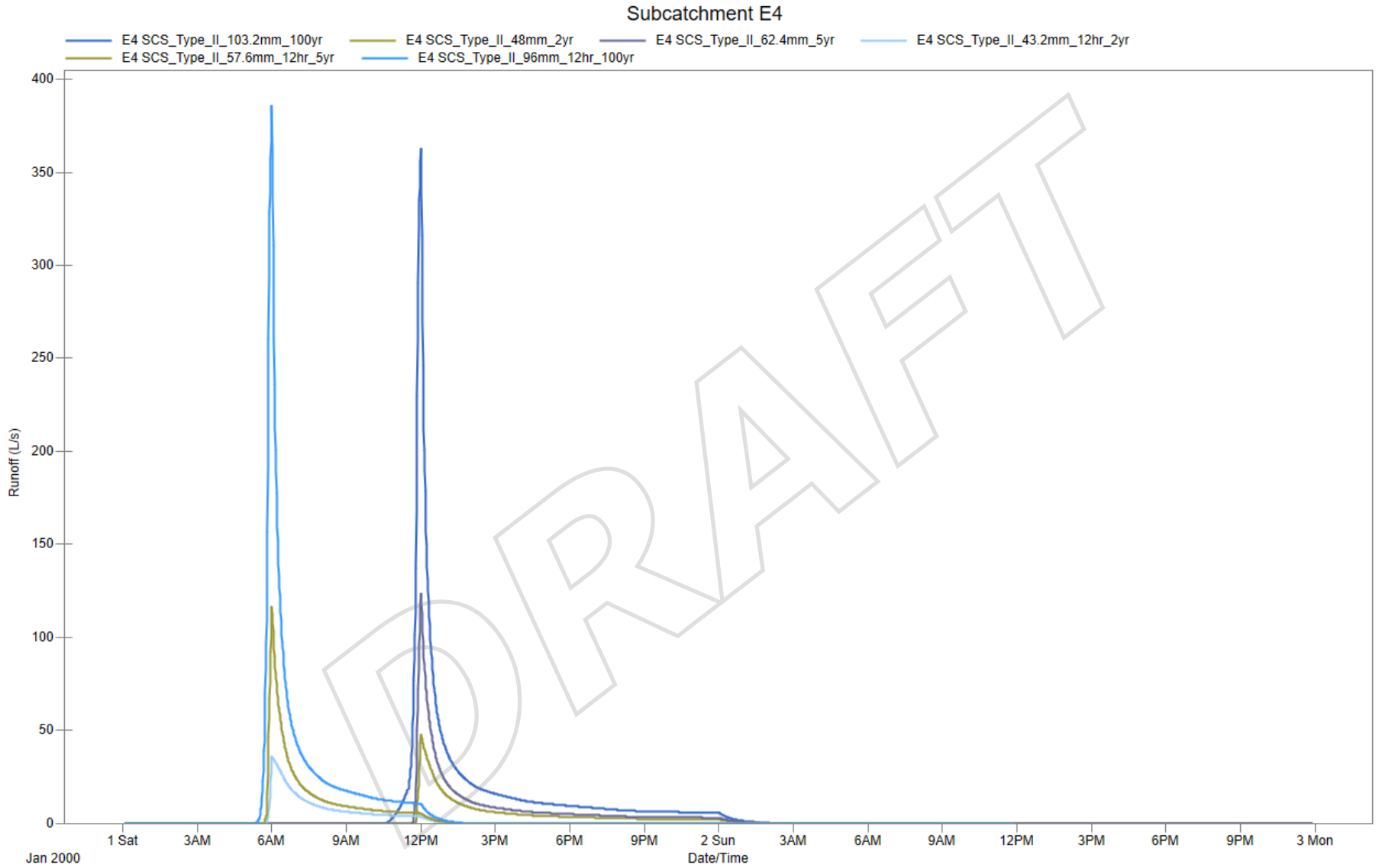


Figure 4: E4

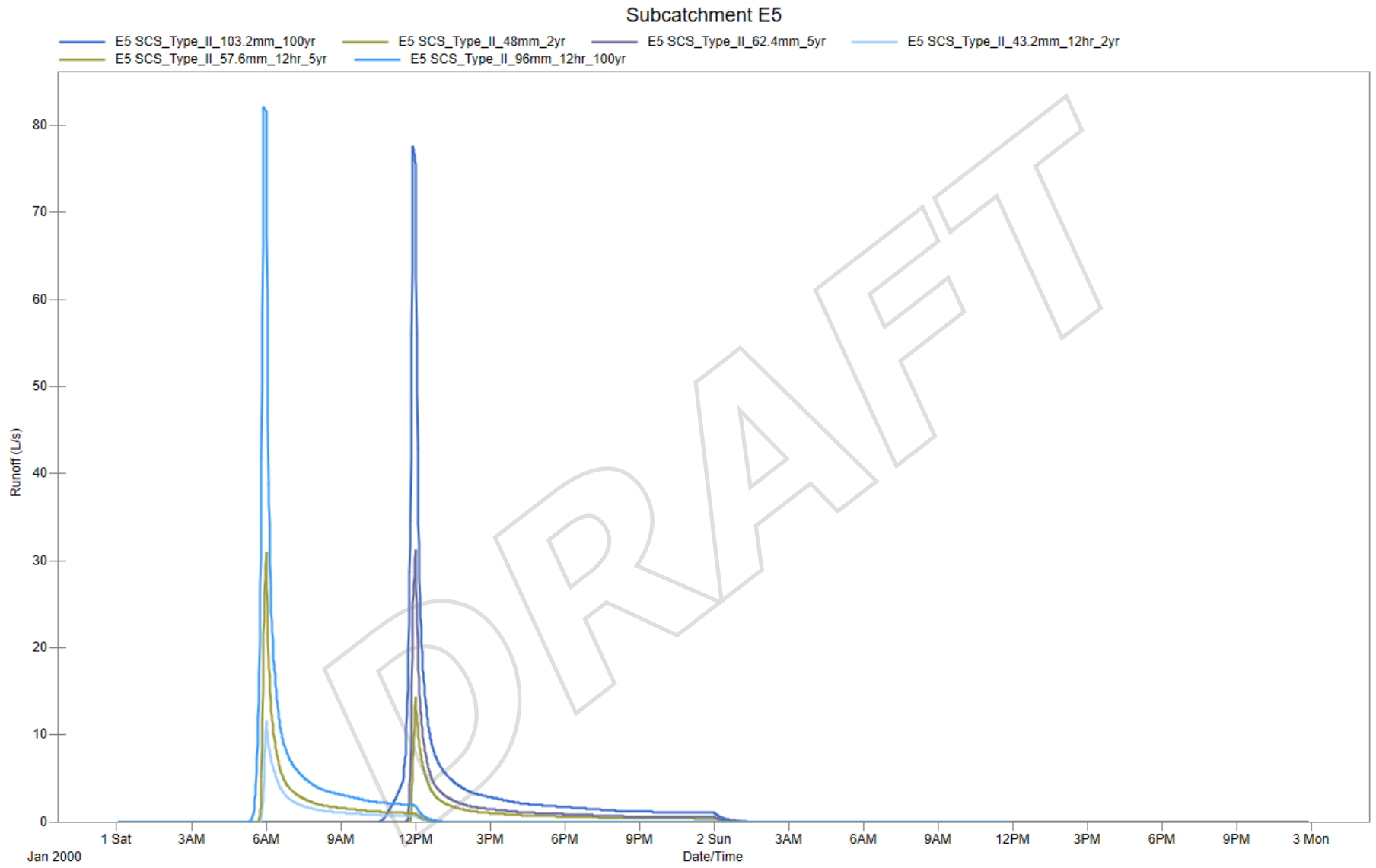


Figure 5: E5

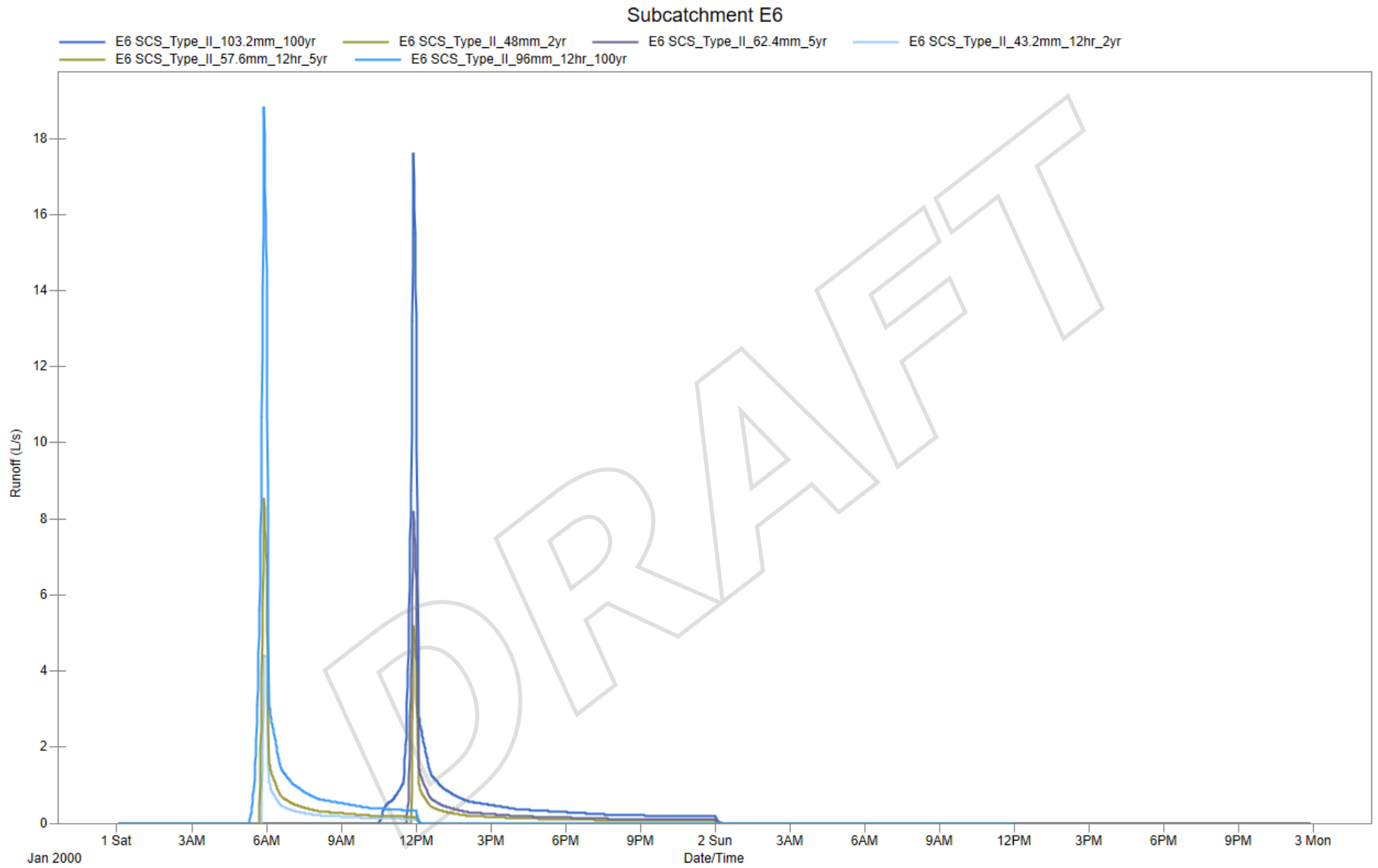


Figure 6: E6

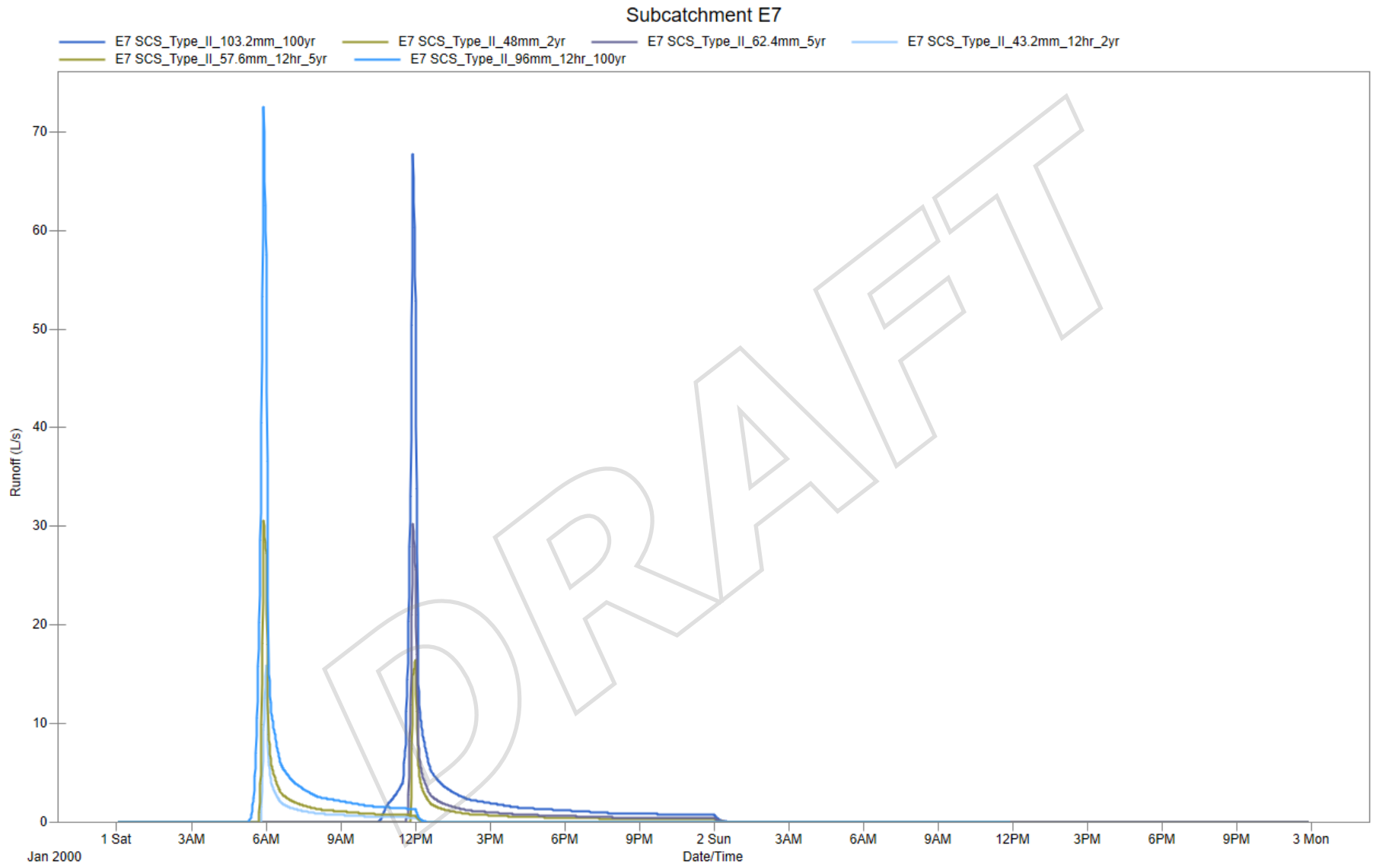


Figure 7: E7

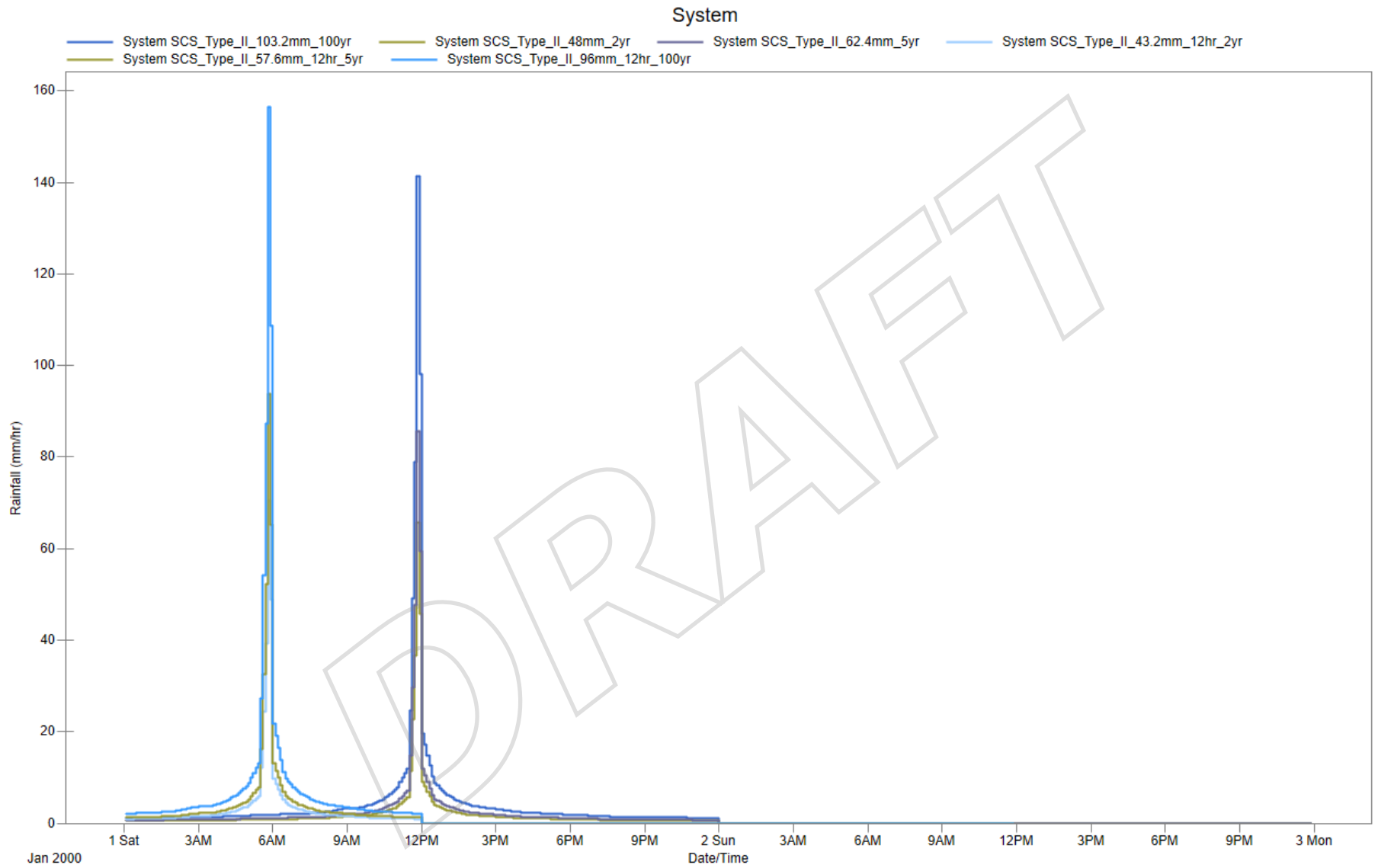


Figure 8: Rainfall 2yr to 100yr

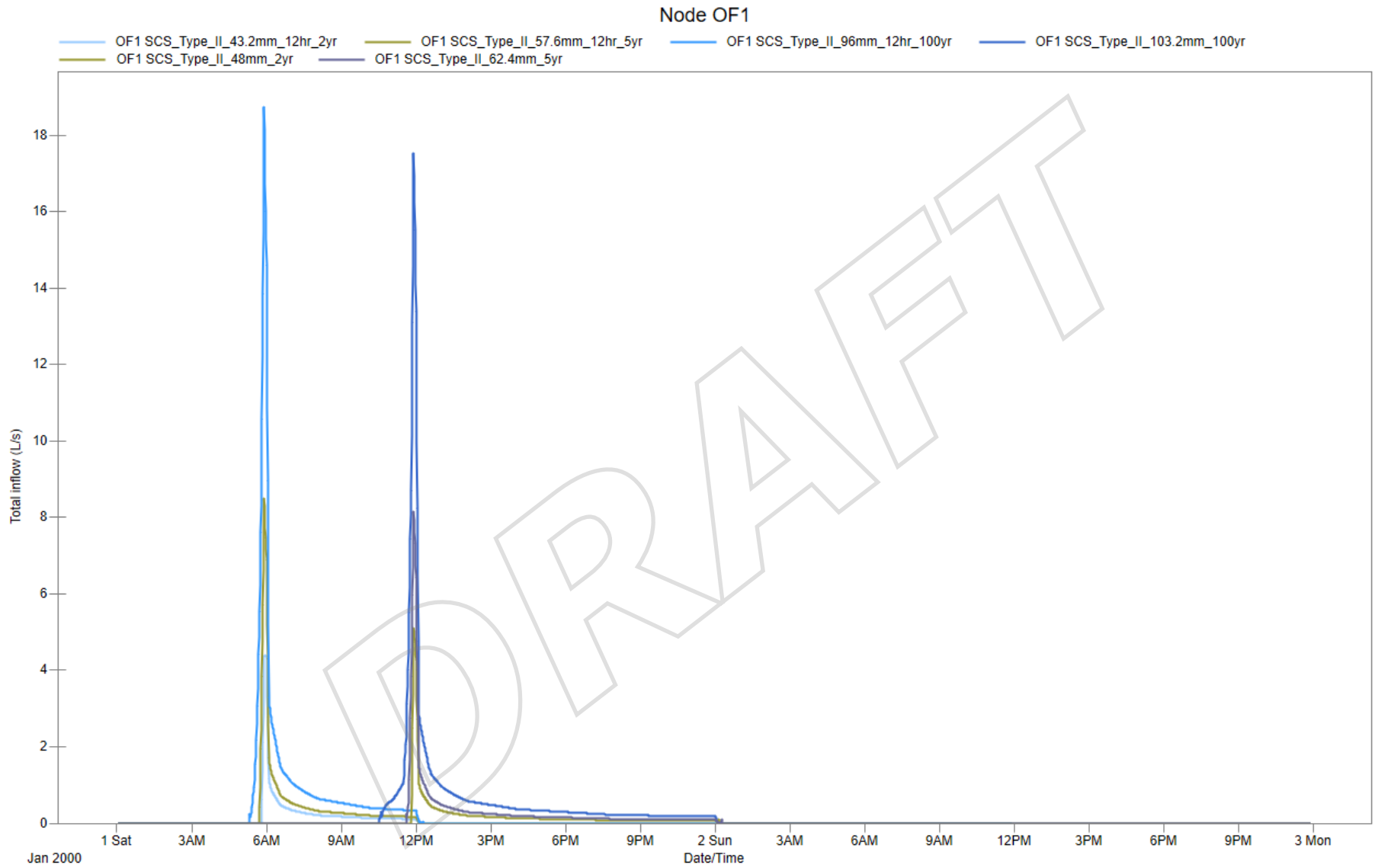


Figure 9: OF1

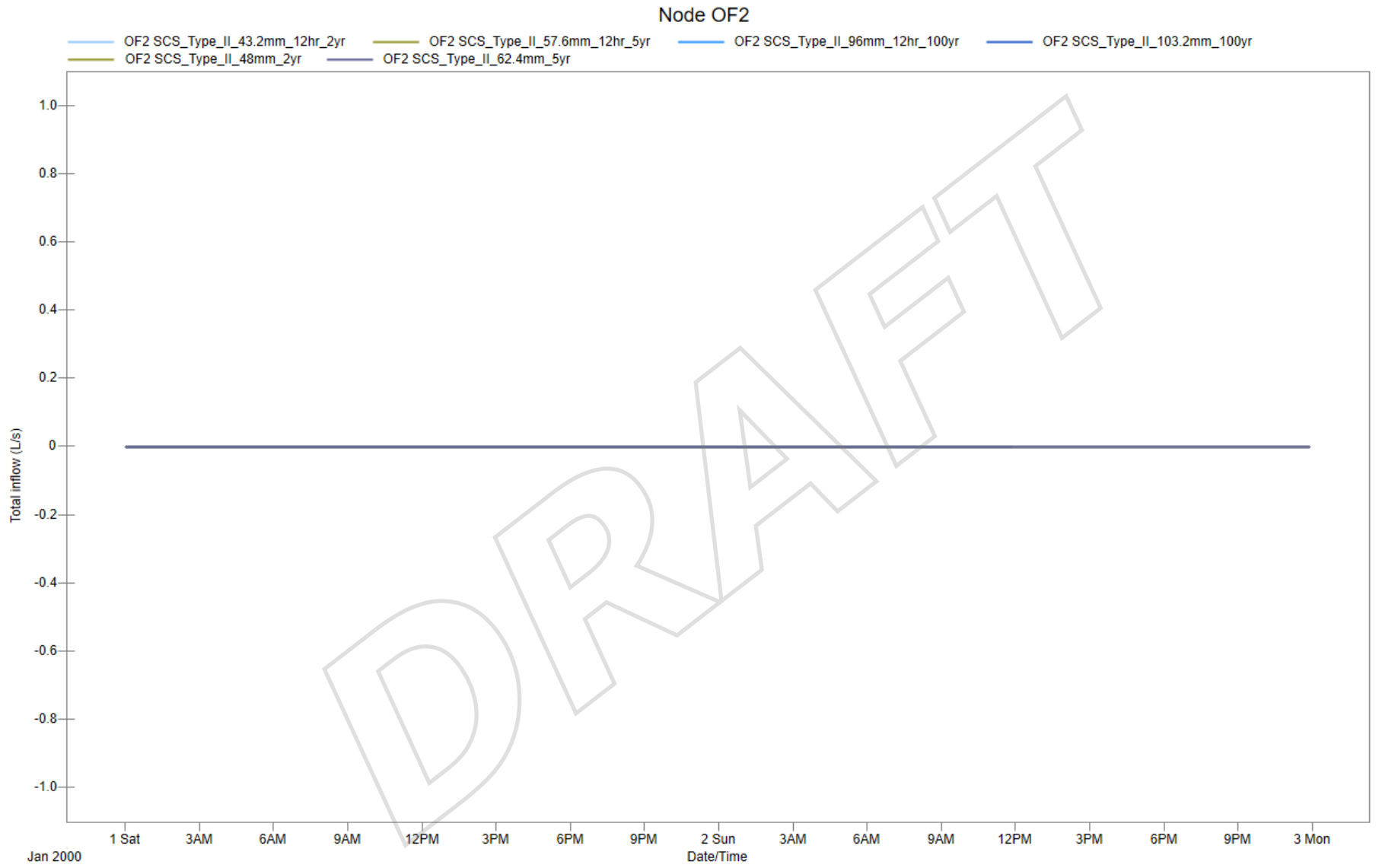


Figure 10: OF2

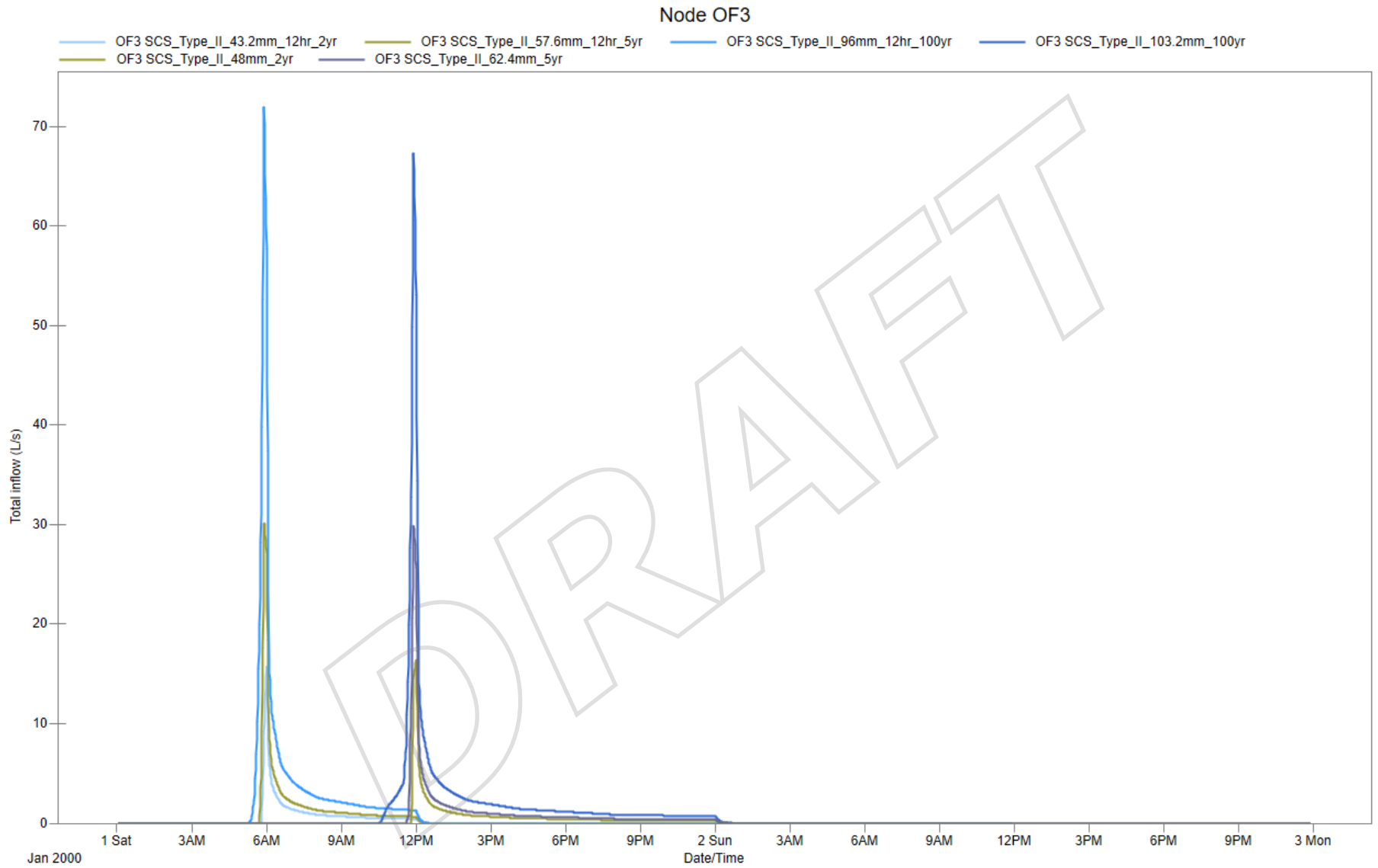


Figure 11: OF3



**Pre-Development Subcatchment Tables for Each Storm Event**

Name	Tag	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Dstore Imperv (mm)	Dstore Perv (mm)	Infiltration Method	Drying Time (days)	Conductivity (mm/hr)	Curve Number	Precipitation (mm)	Infiltration (mm)	Imperv Runoff (mm)	Perv Runoff (mm)	Runoff Depth (mm)	Runoff Volume (ML)	Peak Runoff (L/s)	Runoff Coefficient
E1	WDT	SCS_Type_II_43.2mm_12hr_2yr	J1	0.5432	56	97	35.165	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	43.2	31.34	0	10.73	10.73	0.06	14.74	0.248
E2	WDT	SCS_Type_II_43.2mm_12hr_2yr	J2	0.2931	35	83.743	43.482	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	43.2	31.27	0	10.81	10.81	0.03	9.42	0.25
E3	WDT	SCS_Type_II_43.2mm_12hr_2yr	J3	0.9039	67.348	134.213	24.589	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	43.2	31.49	0	10.54	10.54	0.1	16.78	0.244
E4	WDT	SCS_Type_II_43.2mm_12hr_2yr	J4	2.083	140	148.786	24.794	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	43.2	31.53	0	10.5	10.5	0.22	35.68	0.243
E5	WDT	SCS_Type_II_43.2mm_12hr_2yr	J5	0.3899	50.638	76.998	28.106	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	43.2	31.3	0	10.77	10.77	0.04	11.48	0.249
E6		SCS_Type_II_43.2mm_12hr_2yr	J6	0.0696	150	4.64	30	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	43.2	31	0	11.93	11.93	0.01	4.41	0.276
E7		SCS_Type_II_43.2mm_12hr_2yr	J7	0.2728	300	9.093	10	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	43.2	31.08	0	11.35	11.35	0.03	15.88	0.263

Name	Tag	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Dstore Imperv (mm)	Dstore Perv (mm)	Infiltration Method	Drying Time (days)	Conductivity (mm/hr)	Curve Number	Precipitation (mm)	Infiltration (mm)	Imperv Runoff (mm)	Perv Runoff (mm)	Runoff Depth (mm)	Runoff Volume (ML)	Peak Runoff (L/s)	Runoff Coefficient
E1	WDT	SCS_Type_II_57.6mm_12hr_5yr	J1	0.5432	56	97	35.165	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	57.6	36.63	0	19.94	19.94	0.11	41.28	0.346
E2	WDT	SCS_Type_II_57.6mm_12hr_5yr	J2	0.2931	35	83.743	43.482	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	57.6	36.55	0	20.04	20.04	0.06	24.42	0.348
E3	WDT	SCS_Type_II_57.6mm_12hr_5yr	J3	0.9039	67.348	134.213	24.589	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	57.6	36.79	0	19.71	19.71	0.18	53.63	0.342
E4	WDT	SCS_Type_II_57.6mm_12hr_5yr	J4	2.083	140	148.786	24.794	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	57.6	36.83	0	19.66	19.66	0.41	116.62	0.341
E5	WDT	SCS_Type_II_57.6mm_12hr_5yr	J5	0.3899	50.638	76.998	28.106	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	57.6	36.59	0	19.98	19.98	0.08	31.02	0.347
E6		SCS_Type_II_57.6mm_12hr_5yr	J6	0.0696	150	4.64	30	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	57.6	36.23	0	20.82	20.82	0.01	8.55	0.361
E7		SCS_Type_II_57.6mm_12hr_5yr	J7	0.2728	300	9.093	10	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	57.6	36.31	0	20.48	20.48	0.06	30.6	0.356

Name	Tag	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Dstore Imperv (mm)	Dstore Perv (mm)	Infiltration Method	Drying Time (days)	Conductivity (mm/hr)	Curve Number	Precipitation (mm)	Infiltration (mm)	Imperv Runoff (mm)	Perv Runoff (mm)	Runoff Depth (mm)	Runoff Volume (ML)	Peak Runoff (L/s)	Runoff Coefficient
E1	WDT	SCS_Type_II_96mm_12hr_100yr	J1	0.5432	56	97	35.165	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	96	46.33	0	48.73	48.73	0.26	112.51	0.508
E2	WDT	SCS_Type_II_96mm_12hr_100yr	J2	0.2931	35	83.743	43.482	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	96	46.29	0	48.83	48.83	0.14	64.15	0.509
E3	WDT	SCS_Type_II_96mm_12hr_100yr	J3	0.9039	67.348	134.213	24.589	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	96	46.53	0	48.48	48.48	0.44	171.77	0.505
E4	WDT	SCS_Type_II_96mm_12hr_100yr	J4	2.083	140	148.786	24.794	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	96	46.61	0	48.43	48.43	1.01	385.9	0.504
E5	WDT	SCS_Type_II_96mm_12hr_100yr	J5	0.3899	50.638	76.998	28.106	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	96	46.33	0	48.78	48.78	0.19	82.16	0.508
E6		SCS_Type_II_96mm_12hr_100yr	J6	0.0696	150	4.64	30	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	96	45.89	0	49.01	49.01	0.03	18.83	0.511
E7		SCS_Type_II_96mm_12hr_100yr	J7	0.2728	300	9.093	10	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	96	46.01	0	49.05	49.05	0.13	72.55	0.511

Name	Tag	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Dstore Imperv (mm)	Dstore Perv (mm)	Infiltration Method	Drying Time (days)	Conductivity (mm/hr)	Curve Number	Precipitation (mm)	Infiltration (mm)	Imperv Runoff (mm)	Perv Runoff (mm)	Runoff Depth (mm)	Runoff Volume (ML)	Peak Runoff (L/s)	Runoff Coefficient
E1	WDT	SCS_Type_II_48mm_2yr	J1	0.5432	56	97	35.165	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	48	33.09	0	13.77	13.77	0.07	18.67	0.287
E2	WDT	SCS_Type_II_48mm_2yr	J2	0.2931	35	83.743	43.482	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	48	33.05	0	13.84	13.84	0.04	11.62	0.288
E3	WDT	SCS_Type_II_48mm_2yr	J3	0.9039	67.348	134.213	24.589	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	48	33.18	0	13.63	13.63	0.12	22.18	0.284
E4	WDT	SCS_Type_II_48mm_2yr	J4	2.083	140	148.786	24.794	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	48	33.2	0	13.6	13.6	0.28	47.5	0.283
E5	WDT	SCS_Type_II_48mm_2yr	J5	0.3899	50.638	76.998	28.106	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	48	33.07	0	13.8	13.8	0.05	14.36	0.288
E6		SCS_Type_II_48mm_2yr	J6	0.0696	150	4.64	30	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	48	32.85	0	14.3	14.3	0.01	5.17	0.298
E7		SCS_Type_II_48mm_2yr	J7	0.2728	300	9.093	10	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	48	32.91	0	14.2	14.2	0.04	16.43	0.296

Name	Tag	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Dstore Imperv (mm)	Dstore Perv (mm)	Infiltration Method	Drying Time (days)	Conductivity (mm/hr)	Curve Number	Precipitation (mm)	Infiltration (mm)	Imperv Runoff (mm)	Perv Runoff (mm)	Runoff Depth (mm)	Runoff Volume (ML)	Peak Runoff (L/s)	Runoff Coefficient
E1	WDT	SCS_Type_II_62.4mm_5yr	J1	0.5432	56	97	35.165	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	62.4	37.96	0	23.33	23.33	0.13	41.96	0.374
E2	WDT	SCS_Type_II_62.4mm_5yr	J2	0.2931	35	83.743	43.482	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	62.4	37.92	0	23.4	23.4	0.07	24.39	0.375
E3	WDT	SCS_Type_II_62.4mm_5yr	J3	0.9039	67.348	134.213	24.589	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	62.4	38.09	0	23.18	23.18	0.21	56.42	0.371
E4	WDT	SCS_Type_II_62.4mm_5yr	J4	2.083	140	148.786	24.794	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	62.4	38.11	0	23.14	23.14	0.48	123.46	0.371
E5	WDT	SCS_Type_II_62.4mm_5yr	J5	0.3899	50.638	76.998	28.106	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	62.4	37.94	0	23.37	23.37	0.09	31.28	0.374
E6		SCS_Type_II_62.4mm_5yr	J6	0.0696	150	4.64	30	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	62.4	37.71	0	23.69	23.69	0.02	8.19	0.38
E7		SCS_Type_II_62.4mm_5yr	J7	0.2728	300	9.093	10	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	62.4	37.75	0	23.64	23.64	0.06	30.25	0.379

Name	Tag	Rain Gage	Outlet	Area (ha)	Width (m)	Flow Length (m)	Slope (%)	Imperv. (%)	N Imperv	N Perv	Dstore Imperv (mm)	Dstore Perv (mm)	Infiltration Method	Drying Time (days)	Conductivity (mm/hr)	Curve Number	Precipitation (mm)	Infiltration (mm)	Imperv Runoff (mm)	Perv Runoff (mm)	Runoff Depth (mm)	Runoff Volume (ML)	Peak Runoff (L/s)	Runoff Coefficient
E1	WDT	SCS_Type_II_103.2mm_100yr	J1	0.5432	56	97	35.165	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	103.2	47.5	0	54.69	54.69	0.3	104.49	0.53
E2	WDT	SCS_Type_II_103.2mm_100yr	J2	0.2931	35	83.743	43.482	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	103.2	47.46	0	54.76	54.76	0.16	60.37	0.531
E3	WDT	SCS_Type_II_103.2mm_100yr	J3	0.9039	67.348	134.213	24.589	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	103.2	47.64	0	54.52	54.52	0.49	160.91	0.528
E4	WDT	SCS_Type_II_103.2mm_100yr	J4	2.083	140	148.786	24.794	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	103.2	47.66	0	54.48	54.48	1.13	362.64	0.528
E5	WDT	SCS_Type_II_103.2mm_100yr	J5	0.3899	50.638	76.998	28.106	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	103.2	47.48	0	54.73	54.73	0.21	77.58	0.53
E6		SCS_Type_II_103.2mm_100yr	J6	0.0696	150	4.64	30	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	103.2	47.19	0	54.84	54.84	0.04	17.61	0.531
E7		SCS_Type_II_103.2mm_100yr	J7	0.2728	300	9.093	10	0	0.013	0.15	1.57	4.67	CURVE_NUMBER	7	88.4	77	103.2	47.27	0	54.92	54.92	0.15	67.82	0.532





01/01/2000 12:30:00	12.500	0.565	0.0000	0.565	0.000	0.000	0.565	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:36:00	12.600	0.350	0.0000	0.350	0.000	0.000	0.350	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:42:00	12.700	0.190	0.0000	0.190	0.000	0.000	0.190	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:48:00	12.800	0.077	0.0000	0.077	0.000	0.000	0.077	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:54:00	12.900	0.011	0.0000	0.011	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.000	0.000













































































01/01/2000 12:30:00	12.500	0.494	0.0000	0.494	0.000	0.000	0.494	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:36:00	12.600	0.296	0.0000	0.296	0.000	0.000	0.296	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:42:00	12.700	0.157	0.0000	0.157	0.000	0.000	0.157	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:48:00	12.800	0.064	0.0000	0.064	0.000	0.000	0.064	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:54:00	12.900	0.010	0.0000	0.010	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000



























SWMM5 LID Report File

Project:  
 LID Unit: INF\_2m in Subcatchment E3  
 Storm: SCS\_Type\_II\_57.6mm\_5yr\_12hours

Date	Time	Elapsed Time Hours	Total Inflow mm/hr	Total Evap mm/hr	Surface Infil mm/hr	Pavement Perc mm/hr	Soil Perc mm/hr	Storage Exfil mm/hr	Surface Runoff mm/hr	Drain OutFlow mm/hr	Surface Level mm	Pavement Level mm	Soil Moisture Content	Storage Level mm
01/01/2000	00:06:00	0.100	1.240	0.0000	1.240	0.000	0.000	1.240	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:12:00	0.200	1.253	0.0000	1.253	0.000	0.000	1.253	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:18:00	0.300	1.267	0.0000	1.267	0.000	0.000	1.267	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:24:00	0.400	1.281	0.0000	1.281	0.000	0.000	1.281	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:30:00	0.500	1.294	0.0000	1.294	0.000	0.000	1.294	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:36:00	0.600	1.308	0.0000	1.308	0.000	0.000	1.308	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:42:00	0.700	1.322	0.0000	1.322	0.000	0.000	1.322	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:48:00	0.800	1.336	0.0000	1.336	0.000	0.000	1.336	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:54:00	0.900	1.349	0.0000	1.349	0.000	0.000	1.349	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:00:00	1.000	1.363	0.0000	1.363	0.000	0.000	1.363	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:06:00	1.100	1.377	0.0000	1.377	0.000	0.000	1.377	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:12:00	1.200	1.390	0.0000	1.390	0.000	0.000	1.390	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:18:00	1.300	1.404	0.0000	1.404	0.000	0.000	1.404	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:24:00	1.400	1.418	0.0000	1.418	0.000	0.000	1.418	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:30:00	1.500	1.431	0.0000	1.431	0.000	0.000	1.431	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:36:00	1.600	1.445	0.0000	1.445	0.000	0.000	1.445	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:42:00	1.700	1.459	0.0000	1.459	0.000	0.000	1.459	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:48:00	1.800	1.473	0.0000	1.473	0.000	0.000	1.473	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:54:00	1.900	1.486	0.0000	1.486	0.000	0.000	1.486	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:00:00	2.000	1.500	0.0000	1.500	0.000	0.000	1.500	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:06:00	2.100	1.541	0.0000	1.541	0.000	0.000	1.541	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:12:00	2.200	1.610	0.0000	1.610	0.000	0.000	1.610	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:18:00	2.300	1.678	0.0000	1.678	0.000	0.000	1.678	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:24:00	2.400	1.746	0.0000	1.746	0.000	0.000	1.746	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:30:00	2.500	1.815	0.0000	1.815	0.000	0.000	1.815	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:36:00	2.600	1.883	0.0000	1.883	0.000	0.000	1.883	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:42:00	2.700	1.952	0.0000	1.952	0.000	0.000	1.952	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:48:00	2.800	2.020	0.0000	2.020	0.000	0.000	2.020	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:54:00	2.900	2.089	0.0000	2.089	0.000	0.000	2.089	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:00:00	3.000	2.157	0.0000	2.157	0.000	0.000	2.157	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:06:00	3.100	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:12:00	3.200	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:18:00	3.300	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:24:00	3.400	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:30:00	3.500	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:36:00	3.600	2.246	0.0000	2.246	0.000	0.000	2.246	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:42:00	3.700	2.356	0.0000	2.356	0.000	0.000	2.356	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:48:00	3.800	2.466	0.0000	2.466	0.000	0.000	2.466	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:54:00	3.900	2.575	0.0000	2.575	0.000	0.000	2.575	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:00:00	4.000	2.685	0.0000	2.685	0.000	0.000	2.685	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:06:00	4.100	2.822	0.0000	2.822	0.000	0.000	2.822	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:12:00	4.200	2.986	0.0000	2.986	0.000	0.000	2.986	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:18:00	4.300	3.151	0.0000	3.151	0.000	0.000	3.151	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:24:00	4.400	3.315	0.0000	3.315	0.000	0.000	3.315	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:30:00	4.500	3.479	0.0000	3.479	0.000	0.000	3.479	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:36:00	4.600	3.698	0.0000	3.698	0.000	0.000	3.698	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:42:00	4.700	3.972	0.0000	3.972	0.000	0.000	3.972	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:48:00	4.800	4.246	0.0000	4.246	0.000	0.000	4.246	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:54:00	4.900	4.520	0.0000	4.520	0.000	0.000	4.520	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:00:00	5.000	4.794	0.0000	4.794	0.000	0.000	4.794	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:06:00	5.100	5.260	0.0000	5.260	0.000	0.000	5.260	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:12:00	5.200	5.918	0.0000	5.918	0.000	0.000	5.918	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:18:00	5.300	6.575	0.0000	6.575	0.000	0.000	6.575	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:24:00	5.400	7.233	0.0000	7.233	0.000	0.000	7.233	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:30:00	5.500	7.890	0.0000	7.890	0.000	0.000	7.890	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:36:00	5.600	16.328	0.0000	16.328	0.000	0.000	16.328	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:42:00	5.700	32.546	0.0000	32.546	0.000	0.000	32.546	0.000	0.000	0.000	0.000	0.000	0.000

































01/02/2000 01:54:00	25.900	0.362	0.0000	0.362	0.000	0.000	0.362	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 02:00:00	26.000	0.241	0.0000	0.241	0.000	0.000	0.241	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 02:06:00	26.100	0.144	0.0000	0.144	0.000	0.000	0.144	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 02:12:00	26.200	0.069	0.0000	0.069	0.000	0.000	0.069	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 02:18:00	26.300	0.019	0.0000	0.019	0.000	0.000	0.019	0.000	0.000	0.000	0.000	0.000	0.000

















SWMM5 LID Report File

Project:

LID Unit: INF\_1m in Subcatchment E4

Storm: SCS\_Type\_II\_57.6mm\_5yr\_12hours

Date	Time	Elapsed Time Hours	Total Inflow mm/hr	Total Evap mm/hr	Surface Infil mm/hr	Pavement Perc mm/hr	Soil Perc mm/hr	Storage Exfil mm/hr	Surface Runoff mm/hr	Drain OutFlow mm/hr	Surface Level mm	Pavement Level mm	Soil Moisture Content	Storage Level mm
01/01/2000	00:06:00	0.100	1.240	0.0000	1.240	0.000	0.000	1.240	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:12:00	0.200	1.253	0.0000	1.253	0.000	0.000	1.253	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:18:00	0.300	1.267	0.0000	1.267	0.000	0.000	1.267	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:24:00	0.400	1.281	0.0000	1.281	0.000	0.000	1.281	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:30:00	0.500	1.294	0.0000	1.294	0.000	0.000	1.294	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:36:00	0.600	1.308	0.0000	1.308	0.000	0.000	1.308	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:42:00	0.700	1.322	0.0000	1.322	0.000	0.000	1.322	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:48:00	0.800	1.336	0.0000	1.336	0.000	0.000	1.336	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:54:00	0.900	1.349	0.0000	1.349	0.000	0.000	1.349	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:00:00	1.000	1.363	0.0000	1.363	0.000	0.000	1.363	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:06:00	1.100	1.377	0.0000	1.377	0.000	0.000	1.377	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:12:00	1.200	1.390	0.0000	1.390	0.000	0.000	1.390	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:18:00	1.300	1.404	0.0000	1.404	0.000	0.000	1.404	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:24:00	1.400	1.418	0.0000	1.418	0.000	0.000	1.418	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:30:00	1.500	1.431	0.0000	1.431	0.000	0.000	1.431	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:36:00	1.600	1.445	0.0000	1.445	0.000	0.000	1.445	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:42:00	1.700	1.459	0.0000	1.459	0.000	0.000	1.459	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:48:00	1.800	1.473	0.0000	1.473	0.000	0.000	1.473	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:54:00	1.900	1.486	0.0000	1.486	0.000	0.000	1.486	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:00:00	2.000	1.500	0.0000	1.500	0.000	0.000	1.500	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:06:00	2.100	1.541	0.0000	1.541	0.000	0.000	1.541	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:12:00	2.200	1.610	0.0000	1.610	0.000	0.000	1.610	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:18:00	2.300	1.678	0.0000	1.678	0.000	0.000	1.678	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:24:00	2.400	1.746	0.0000	1.746	0.000	0.000	1.746	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:30:00	2.500	1.815	0.0000	1.815	0.000	0.000	1.815	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:36:00	2.600	1.883	0.0000	1.883	0.000	0.000	1.883	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:42:00	2.700	1.952	0.0000	1.952	0.000	0.000	1.952	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:48:00	2.800	2.020	0.0000	2.020	0.000	0.000	2.020	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:54:00	2.900	2.089	0.0000	2.089	0.000	0.000	2.089	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:00:00	3.000	2.157	0.0000	2.157	0.000	0.000	2.157	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:06:00	3.100	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:12:00	3.200	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:18:00	3.300	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:24:00	3.400	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:30:00	3.500	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:36:00	3.600	2.246	0.0000	2.246	0.000	0.000	2.246	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:42:00	3.700	2.356	0.0000	2.356	0.000	0.000	2.356	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:48:00	3.800	2.466	0.0000	2.466	0.000	0.000	2.466	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:54:00	3.900	2.575	0.0000	2.575	0.000	0.000	2.575	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:00:00	4.000	2.685	0.0000	2.685	0.000	0.000	2.685	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:06:00	4.100	2.822	0.0000	2.822	0.000	0.000	2.822	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:12:00	4.200	2.986	0.0000	2.986	0.000	0.000	2.986	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:18:00	4.300	3.151	0.0000	3.151	0.000	0.000	3.151	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:24:00	4.400	3.315	0.0000	3.315	0.000	0.000	3.315	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:30:00	4.500	3.479	0.0000	3.479	0.000	0.000	3.479	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:36:00	4.600	3.698	0.0000	3.698	0.000	0.000	3.698	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:42:00	4.700	3.972	0.0000	3.972	0.000	0.000	3.972	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:48:00	4.800	4.246	0.0000	4.246	0.000	0.000	4.246	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:54:00	4.900	4.520	0.0000	4.520	0.000	0.000	4.520	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:00:00	5.000	4.794	0.0000	4.794	0.000	0.000	4.794	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:06:00	5.100	5.260	0.0000	5.260	0.000	0.000	5.260	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:12:00	5.200	5.918	0.0000	5.918	0.000	0.000	5.918	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:18:00	5.300	6.575	0.0000	6.575	0.000	0.000	6.575	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:24:00	5.400	7.233	0.0000	7.233	0.000	0.000	7.233	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:30:00	5.500	7.890	0.0000	7.890	0.000	0.000	7.890	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:36:00	5.600	16.328	0.0000	16.328	0.000	0.000	16.328	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:42:00	5.700	32.546	0.0000	32.546	0.000	0.000	32.546	0.000	0.000	0.000	0.000	0.000	0.000

01/01/2000 05:48:00	5.800	60.055	0.0000	60.055	0.000	0.000	60.055	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 05:54:00	5.900	188.195	0.0000	143.500	0.000	0.000	143.000	0.000	0.000	0.000	4.470	0.000	0.100
01/01/2000 06:00:00	6.000	224.367	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	0.000	12.606	0.000	0.100
01/01/2000 06:06:00	6.100	130.594	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	0.000	11.366	0.000	0.100
01/01/2000 06:12:00	6.200	103.883	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	0.000	7.454	0.000	0.100
01/01/2000 06:18:00	6.300	85.365	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	0.000	1.690	0.000	0.100
01/01/2000 06:24:00	6.400	71.257	0.0000	88.161	0.000	0.000	88.661	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:30:00	6.500	59.662	0.0000	59.662	0.000	0.000	59.662	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:36:00	6.600	50.919	0.0000	50.919	0.000	0.000	50.919	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:42:00	6.700	44.882	0.0000	44.882	0.000	0.000	44.882	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:48:00	6.800	40.182	0.0000	40.182	0.000	0.000	40.182	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:54:00	6.900	36.359	0.0000	36.359	0.000	0.000	36.359	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:00:00	7.000	33.125	0.0000	33.125	0.000	0.000	33.125	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:06:00	7.100	30.465	0.0000	30.465	0.000	0.000	30.465	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:12:00	7.200	28.316	0.0000	28.316	0.000	0.000	28.316	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:18:00	7.300	26.471	0.0000	26.471	0.000	0.000	26.471	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:24:00	7.400	24.845	0.0000	24.845	0.000	0.000	24.845	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:30:00	7.500	23.377	0.0000	23.377	0.000	0.000	23.377	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:36:00	7.600	22.081	0.0000	22.081	0.000	0.000	22.081	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:42:00	7.700	20.943	0.0000	20.943	0.000	0.000	20.943	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:48:00	7.800	19.904	0.0000	19.904	0.000	0.000	19.904	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:54:00	7.900	18.940	0.0000	18.940	0.000	0.000	18.940	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:00:00	8.000	18.031	0.0000	18.031	0.000	0.000	18.031	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:06:00	8.100	17.256	0.0000	17.256	0.000	0.000	17.256	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:12:00	8.200	16.611	0.0000	16.611	0.000	0.000	16.611	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:18:00	8.300	16.065	0.0000	16.065	0.000	0.000	16.065	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:24:00	8.400	15.560	0.0000	15.560	0.000	0.000	15.560	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:30:00	8.500	15.125	0.0000	15.125	0.000	0.000	15.125	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:36:00	8.600	14.708	0.0000	14.708	0.000	0.000	14.708	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:42:00	8.700	14.341	0.0000	14.341	0.000	0.000	14.341	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:48:00	8.800	13.978	0.0000	13.978	0.000	0.000	13.978	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:54:00	8.900	13.654	0.0000	13.654	0.000	0.000	13.654	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:00:00	9.000	13.326	0.0000	13.326	0.000	0.000	13.326	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:06:00	9.100	13.030	0.0000	13.030	0.000	0.000	13.030	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:12:00	9.200	12.723	0.0000	12.723	0.000	0.000	12.723	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:18:00	9.300	12.444	0.0000	12.444	0.000	0.000	12.444	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:24:00	9.400	12.151	0.0000	12.151	0.000	0.000	12.151	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:30:00	9.500	11.883	0.0000	11.883	0.000	0.000	11.883	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:36:00	9.600	11.598	0.0000	11.598	0.000	0.000	11.598	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:42:00	9.700	11.337	0.0000	11.337	0.000	0.000	11.337	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:48:00	9.800	11.058	0.0000	11.058	0.000	0.000	11.058	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:54:00	9.900	10.800	0.0000	10.800	0.000	0.000	10.800	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:00:00	10.000	10.525	0.0000	10.525	0.000	0.000	10.525	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:06:00	10.100	10.293	0.0000	10.293	0.000	0.000	10.293	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:12:00	10.200	10.088	0.0000	10.088	0.000	0.000	10.088	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:18:00	10.300	9.911	0.0000	9.911	0.000	0.000	9.911	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:24:00	10.400	9.739	0.0000	9.739	0.000	0.000	9.739	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:30:00	10.500	9.589	0.0000	9.589	0.000	0.000	9.589	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:36:00	10.600	9.440	0.0000	9.440	0.000	0.000	9.440	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:42:00	10.700	9.308	0.0000	9.308	0.000	0.000	9.308	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:48:00	10.800	9.174	0.0000	9.174	0.000	0.000	9.174	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:54:00	10.900	9.056	0.0000	9.056	0.000	0.000	9.056	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:00:00	11.000	8.933	0.0000	8.933	0.000	0.000	8.933	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:06:00	11.100	8.823	0.0000	8.823	0.000	0.000	8.823	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:12:00	11.200	8.708	0.0000	8.708	0.000	0.000	8.708	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:18:00	11.300	8.604	0.0000	8.604	0.000	0.000	8.604	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:24:00	11.400	8.494	0.0000	8.494	0.000	0.000	8.494	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:30:00	11.500	8.395	0.0000	8.395	0.000	0.000	8.395	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:36:00	11.600	8.288	0.0000	8.288	0.000	0.000	8.288	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:42:00	11.700	8.192	0.0000	8.192	0.000	0.000	8.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:48:00	11.800	8.087	0.0000	8.087	0.000	0.000	8.087	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:54:00	11.900	7.993	0.0000	7.993	0.000	0.000	7.993	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:00:00	12.000	7.890	0.0000	7.890	0.000	0.000	7.890	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:06:00	12.100	5.351	0.0000	5.351	0.000	0.000	5.351	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:12:00	12.200	4.315	0.0000	4.315	0.000	0.000	4.315	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:18:00	12.300	3.479	0.0000	3.479	0.000	0.000	3.479	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:24:00	12.400	2.797	0.0000	2.797	0.000	0.000	2.797	0.000	0.000	0.000	0.000	0.000	0.000















SWMM5 LID Report File

Project:  
 LID Unit: INF\_1m in Subcatchment E4  
 Storm: SCS\_Type\_II\_96mm\_100yr\_12hours

Date	Time	Elapsed Time Hours	Total Inflow mm/hr	Total Evap mm/hr	Surface Infil mm/hr	Pavement Perc mm/hr	Soil Perc mm/hr	Storage Exfil mm/hr	Surface Runoff mm/hr	Drain OutFlow mm/hr	Surface Level mm	Pavement Level mm	Soil Moisture Content	Storage Level mm
01/01/2000	00:06:00	0.100	2.066	0.0000	2.066	0.000	0.000	2.066	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:12:00	0.200	2.089	0.0000	2.089	0.000	0.000	2.089	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:18:00	0.300	2.112	0.0000	2.112	0.000	0.000	2.112	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:24:00	0.400	2.135	0.0000	2.135	0.000	0.000	2.135	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:30:00	0.500	2.157	0.0000	2.157	0.000	0.000	2.157	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:36:00	0.600	2.180	0.0000	2.180	0.000	0.000	2.180	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:42:00	0.700	2.203	0.0000	2.203	0.000	0.000	2.203	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:48:00	0.800	2.226	0.0000	2.226	0.000	0.000	2.226	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:54:00	0.900	2.249	0.0000	2.249	0.000	0.000	2.249	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:00:00	1.000	2.272	0.0000	2.272	0.000	0.000	2.272	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:06:00	1.100	2.294	0.0000	2.294	0.000	0.000	2.294	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:12:00	1.200	2.317	0.0000	2.317	0.000	0.000	2.317	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:18:00	1.300	2.340	0.0000	2.340	0.000	0.000	2.340	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:24:00	1.400	2.363	0.0000	2.363	0.000	0.000	2.363	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:30:00	1.500	2.386	0.0000	2.386	0.000	0.000	2.386	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:36:00	1.600	2.409	0.0000	2.409	0.000	0.000	2.409	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:42:00	1.700	2.431	0.0000	2.431	0.000	0.000	2.431	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:48:00	1.800	2.454	0.0000	2.454	0.000	0.000	2.454	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:54:00	1.900	2.477	0.0000	2.477	0.000	0.000	2.477	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:00:00	2.000	2.500	0.0000	2.500	0.000	0.000	2.500	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:06:00	2.100	2.568	0.0000	2.568	0.000	0.000	2.568	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:12:00	2.200	2.683	0.0000	2.683	0.000	0.000	2.683	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:18:00	2.300	2.797	0.0000	2.797	0.000	0.000	2.797	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:24:00	2.400	2.911	0.0000	2.911	0.000	0.000	2.911	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:30:00	2.500	3.025	0.0000	3.025	0.000	0.000	3.025	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:36:00	2.600	3.139	0.0000	3.139	0.000	0.000	3.139	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:42:00	2.700	3.253	0.0000	3.253	0.000	0.000	3.253	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:48:00	2.800	3.367	0.0000	3.367	0.000	0.000	3.367	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:54:00	2.900	3.482	0.0000	3.482	0.000	0.000	3.482	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:00:00	3.000	3.596	0.0000	3.596	0.000	0.000	3.596	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:06:00	3.100	3.653	0.0000	3.653	0.000	0.000	3.653	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:12:00	3.200	3.653	0.0000	3.653	0.000	0.000	3.653	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:18:00	3.300	3.653	0.0000	3.653	0.000	0.000	3.653	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:24:00	3.400	3.653	0.0000	3.653	0.000	0.000	3.653	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:30:00	3.500	3.653	0.0000	3.653	0.000	0.000	3.653	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:36:00	3.600	3.744	0.0000	3.744	0.000	0.000	3.744	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:42:00	3.700	3.927	0.0000	3.927	0.000	0.000	3.927	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:48:00	3.800	4.109	0.0000	4.109	0.000	0.000	4.109	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:54:00	3.900	4.292	0.0000	4.292	0.000	0.000	4.292	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:00:00	4.000	4.475	0.0000	4.475	0.000	0.000	4.475	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:06:00	4.100	4.703	0.0000	4.703	0.000	0.000	4.703	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:12:00	4.200	4.977	0.0000	4.977	0.000	0.000	4.977	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:18:00	4.300	5.251	0.0000	5.251	0.000	0.000	5.251	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:24:00	4.400	5.525	0.0000	5.525	0.000	0.000	5.525	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:30:00	4.500	5.799	0.0000	5.799	0.000	0.000	5.799	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:36:00	4.600	6.164	0.0000	6.164	0.000	0.000	6.164	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:42:00	4.700	6.621	0.0000	6.621	0.000	0.000	6.621	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:48:00	4.800	7.077	0.0000	7.077	0.000	0.000	7.077	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:54:00	4.900	7.534	0.0000	7.534	0.000	0.000	7.534	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:00:00	5.000	7.990	0.0000	7.990	0.000	0.000	7.990	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:06:00	5.100	8.767	0.0000	8.767	0.000	0.000	8.767	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:12:00	5.200	9.863	0.0000	9.863	0.000	0.000	9.863	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:18:00	5.300	10.958	0.0000	10.958	0.000	0.000	10.958	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:24:00	5.400	12.581	0.0000	12.581	0.000	0.000	12.581	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:30:00	5.500	17.054	0.0000	17.054	0.000	0.000	17.054	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:36:00	5.600	44.304	0.0000	44.304	0.000	0.000	44.304	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:42:00	5.700	115.966	0.0000	115.966	0.000	0.000	115.966	0.000	0.000	0.000	0.000	0.000	0.000

01/01/2000 05:48:00	5.800	254.852	0.0000	143.500	0.000	0.000	0.000	143.000	0.000	0.000	11.135	0.000	0.000	0.100
01/01/2000 05:54:00	5.900	600.150	0.0000	143.000	0.000	0.000	0.000	143.000	0.000	0.000	56.850	0.000	0.000	0.100
01/01/2000 06:00:00	6.000	613.657	0.0000	143.000	0.000	0.000	0.000	143.000	0.000	0.000	103.916	0.000	0.000	0.100
01/01/2000 06:06:00	6.100	317.384	0.0000	143.000	0.000	0.000	0.000	143.000	0.000	0.000	121.354	0.000	0.000	0.100
01/01/2000 06:12:00	6.200	222.929	0.0000	143.000	0.000	0.000	0.000	143.000	0.000	0.000	129.347	0.000	0.000	0.100
01/01/2000 06:18:00	6.300	170.646	0.0000	143.000	0.000	0.000	0.000	143.000	0.000	0.000	132.112	0.000	0.000	0.100
01/01/2000 06:24:00	6.400	136.464	0.0000	143.000	0.000	0.000	0.000	143.000	0.000	0.000	131.458	0.000	0.000	0.100
01/01/2000 06:30:00	6.500	110.982	0.0000	143.000	0.000	0.000	0.000	143.000	0.000	0.000	128.256	0.000	0.000	0.100
01/01/2000 06:36:00	6.600	92.916	0.0000	143.000	0.000	0.000	0.000	143.000	0.000	0.000	123.248	0.000	0.000	0.100
01/01/2000 06:42:00	6.700	81.159	0.0000	143.000	0.000	0.000	0.000	143.000	0.000	0.000	117.064	0.000	0.000	0.100
01/01/2000 06:48:00	6.800	72.447	0.0000	143.000	0.000	0.000	0.000	143.000	0.000	0.000	110.008	0.000	0.000	0.100
01/01/2000 06:54:00	6.900	65.561	0.0000	143.000	0.000	0.000	0.000	143.000	0.000	0.000	102.265	0.000	0.000	0.100
01/01/2000 07:00:00	7.000	59.809	0.0000	143.000	0.000	0.000	0.000	143.000	0.000	0.000	93.945	0.000	0.000	0.100
01/01/2000 07:06:00	7.100	55.133	0.0000	143.000	0.000	0.000	0.000	143.000	0.000	0.000	85.159	0.000	0.000	0.100
01/01/2000 07:12:00	7.200	51.417	0.0000	143.000	0.000	0.000	0.000	143.000	0.000	0.000	76.000	0.000	0.000	0.100
01/01/2000 07:18:00	7.300	48.246	0.0000	143.000	0.000	0.000	0.000	143.000	0.000	0.000	66.525	0.000	0.000	0.100
01/01/2000 07:24:00	7.400	45.441	0.0000	143.000	0.000	0.000	0.000	143.000	0.000	0.000	56.769	0.000	0.000	0.100
01/01/2000 07:30:00	7.500	42.886	0.0000	143.000	0.000	0.000	0.000	143.000	0.000	0.000	46.758	0.000	0.000	0.100
01/01/2000 07:36:00	7.600	40.614	0.0000	143.000	0.000	0.000	0.000	143.000	0.000	0.000	36.519	0.000	0.000	0.100
01/01/2000 07:42:00	7.700	38.618	0.0000	143.000	0.000	0.000	0.000	143.000	0.000	0.000	26.081	0.000	0.000	0.100
01/01/2000 07:48:00	7.800	36.783	0.0000	143.000	0.000	0.000	0.000	143.000	0.000	0.000	15.459	0.000	0.000	0.100
01/01/2000 07:54:00	7.900	35.063	0.0000	143.000	0.000	0.000	0.000	143.000	0.000	0.000	4.665	0.000	0.000	0.100
01/01/2000 08:00:00	8.000	33.425	0.0000	80.079	0.000	0.000	0.000	80.579	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:06:00	8.100	32.032	0.0000	32.032	0.000	0.000	0.000	32.032	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:12:00	8.200	30.891	0.0000	30.891	0.000	0.000	0.000	30.891	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:18:00	8.300	29.947	0.0000	29.947	0.000	0.000	0.000	29.947	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:24:00	8.400	29.078	0.0000	29.078	0.000	0.000	0.000	29.078	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:30:00	8.500	28.334	0.0000	28.334	0.000	0.000	0.000	28.334	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:36:00	8.600	27.614	0.0000	27.614	0.000	0.000	0.000	27.614	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:42:00	8.700	26.981	0.0000	26.981	0.000	0.000	0.000	26.981	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:48:00	8.800	26.345	0.0000	26.345	0.000	0.000	0.000	26.345	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:54:00	8.900	25.774	0.0000	25.774	0.000	0.000	0.000	25.774	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:00:00	9.000	25.184	0.0000	25.184	0.000	0.000	0.000	25.184	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:06:00	9.100	24.648	0.0000	24.648	0.000	0.000	0.000	24.648	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:12:00	9.200	24.085	0.0000	24.085	0.000	0.000	0.000	24.085	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:18:00	9.300	23.569	0.0000	23.569	0.000	0.000	0.000	23.569	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:24:00	9.400	23.020	0.0000	23.020	0.000	0.000	0.000	23.020	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:30:00	9.500	22.515	0.0000	22.515	0.000	0.000	0.000	22.515	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:36:00	9.600	21.974	0.0000	21.974	0.000	0.000	0.000	21.974	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:42:00	9.700	21.474	0.0000	21.474	0.000	0.000	0.000	21.474	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:48:00	9.800	20.938	0.0000	20.938	0.000	0.000	0.000	20.938	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:54:00	9.900	20.440	0.0000	20.440	0.000	0.000	0.000	20.440	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:00:00	10.000	19.906	0.0000	19.906	0.000	0.000	0.000	19.906	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:06:00	10.100	19.459	0.0000	19.459	0.000	0.000	0.000	19.459	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:12:00	10.200	19.069	0.0000	19.069	0.000	0.000	0.000	19.069	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:18:00	10.300	18.738	0.0000	18.738	0.000	0.000	0.000	18.738	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:24:00	10.400	18.422	0.0000	18.422	0.000	0.000	0.000	18.422	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:30:00	10.500	18.149	0.0000	18.149	0.000	0.000	0.000	18.149	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:36:00	10.600	17.878	0.0000	17.878	0.000	0.000	0.000	17.878	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:42:00	10.700	17.641	0.0000	17.641	0.000	0.000	0.000	17.641	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:48:00	10.800	17.399	0.0000	17.399	0.000	0.000	0.000	17.399	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:54:00	10.900	17.185	0.0000	17.185	0.000	0.000	0.000	17.185	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:00:00	11.000	16.960	0.0000	16.960	0.000	0.000	0.000	16.960	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:06:00	11.100	16.760	0.0000	16.760	0.000	0.000	0.000	16.760	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:12:00	11.200	16.547	0.0000	16.547	0.000	0.000	0.000	16.547	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:18:00	11.300	16.356	0.0000	16.356	0.000	0.000	0.000	16.356	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:24:00	11.400	16.150	0.0000	16.150	0.000	0.000	0.000	16.150	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:30:00	11.500	15.964	0.0000	15.964	0.000	0.000	0.000	15.964	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:36:00	11.600	15.762	0.0000	15.762	0.000	0.000	0.000	15.762	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:42:00	11.700	15.580	0.0000	15.580	0.000	0.000	0.000	15.580	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:48:00	11.800	15.381	0.0000	15.381	0.000	0.000	0.000	15.381	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:54:00	11.900	15.200	0.0000	15.200	0.000	0.000	0.000	15.200	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:00:00	12.000	15.003	0.0000	15.003	0.000	0.000	0.000	15.003	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:06:00	12.100	10.198	0.0000	10.198	0.000	0.000	0.000	10.198	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:12:00	12.200	8.116	0.0000	8.116	0.000	0.000	0.000	8.116	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:18:00	12.300	6.503	0.0000	6.503	0.000	0.000	0.000	6.503	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:24:00	12.400	5.232	0.0000	5.232	0.000	0.000	0.000	5.232	0.000	0.000	0.000	0.000	0.000	0.000

01/01/2000 12:30:00	12.500	4.218	0.0000	4.218	0.000	0.000	4.218	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:36:00	12.600	3.398	0.0000	3.398	0.000	0.000	3.398	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:42:00	12.700	2.729	0.0000	2.729	0.000	0.000	2.729	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:48:00	12.800	2.179	0.0000	2.179	0.000	0.000	2.179	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:54:00	12.900	1.723	0.0000	1.723	0.000	0.000	1.723	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:00:00	13.000	1.345	0.0000	1.345	0.000	0.000	1.345	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:06:00	13.100	1.030	0.0000	1.030	0.000	0.000	1.030	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:12:00	13.200	0.767	0.0000	0.767	0.000	0.000	0.767	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:18:00	13.300	0.550	0.0000	0.550	0.000	0.000	0.550	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:24:00	13.400	0.372	0.0000	0.372	0.000	0.000	0.372	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:30:00	13.500	0.230	0.0000	0.230	0.000	0.000	0.230	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:36:00	13.600	0.120	0.0000	0.120	0.000	0.000	0.120	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:42:00	13.700	0.043	0.0000	0.043	0.000	0.000	0.043	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:48:00	13.800	0.002	0.0000	0.002	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000

SWMM5 LID Report File

Project:  
 LID Unit: INF\_1m in Subcatchment E4  
 Storm: SCS\_Type\_II\_103.2mm\_100yr\_24hours

Date	Time	Elapsed Time Hours	Total Inflow mm/hr	Total Evap mm/hr	Surface Infil mm/hr	Pavement Perc mm/hr	Soil Perc mm/hr	Storage Exfil mm/hr	Surface Runoff mm/hr	Drain OutFlow mm/hr	Surface Level mm	Pavement Level mm	Soil Moisture Content	Storage Level mm
01/01/2000	00:06:00	0.100	1.042	0.0000	1.042	0.000	0.000	1.042	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:12:00	0.200	1.042	0.0000	1.042	0.000	0.000	1.042	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:18:00	0.300	1.063	0.0000	1.063	0.000	0.000	1.063	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:24:00	0.400	1.063	0.0000	1.063	0.000	0.000	1.063	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:30:00	0.500	1.084	0.0000	1.084	0.000	0.000	1.084	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:36:00	0.600	1.084	0.0000	1.084	0.000	0.000	1.084	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:42:00	0.700	1.104	0.0000	1.104	0.000	0.000	1.104	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:48:00	0.800	1.104	0.0000	1.104	0.000	0.000	1.104	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:54:00	0.900	1.125	0.0000	1.125	0.000	0.000	1.125	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:00:00	1.000	1.125	0.0000	1.125	0.000	0.000	1.125	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:06:00	1.100	1.146	0.0000	1.146	0.000	0.000	1.146	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:12:00	1.200	1.146	0.0000	1.146	0.000	0.000	1.146	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:18:00	1.300	1.166	0.0000	1.166	0.000	0.000	1.166	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:24:00	1.400	1.166	0.0000	1.166	0.000	0.000	1.166	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:30:00	1.500	1.187	0.0000	1.187	0.000	0.000	1.187	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:36:00	1.600	1.187	0.0000	1.187	0.000	0.000	1.187	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:42:00	1.700	1.207	0.0000	1.207	0.000	0.000	1.207	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:48:00	1.800	1.207	0.0000	1.207	0.000	0.000	1.207	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:54:00	1.900	1.228	0.0000	1.228	0.000	0.000	1.228	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:00:00	2.000	1.228	0.0000	1.228	0.000	0.000	1.228	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:06:00	2.100	1.249	0.0000	1.249	0.000	0.000	1.249	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:12:00	2.200	1.249	0.0000	1.249	0.000	0.000	1.249	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:18:00	2.300	1.269	0.0000	1.269	0.000	0.000	1.269	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:24:00	2.400	1.269	0.0000	1.269	0.000	0.000	1.269	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:30:00	2.500	1.290	0.0000	1.290	0.000	0.000	1.290	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:36:00	2.600	1.290	0.0000	1.290	0.000	0.000	1.290	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:42:00	2.700	1.311	0.0000	1.311	0.000	0.000	1.311	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:48:00	2.800	1.311	0.0000	1.311	0.000	0.000	1.311	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:54:00	2.900	1.331	0.0000	1.331	0.000	0.000	1.331	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:00:00	3.000	1.331	0.0000	1.331	0.000	0.000	1.331	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:06:00	3.100	1.352	0.0000	1.352	0.000	0.000	1.352	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:12:00	3.200	1.352	0.0000	1.352	0.000	0.000	1.352	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:18:00	3.300	1.373	0.0000	1.373	0.000	0.000	1.373	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:24:00	3.400	1.373	0.0000	1.373	0.000	0.000	1.373	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:30:00	3.500	1.393	0.0000	1.393	0.000	0.000	1.393	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:36:00	3.600	1.393	0.0000	1.393	0.000	0.000	1.393	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:42:00	3.700	1.414	0.0000	1.414	0.000	0.000	1.414	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:48:00	3.800	1.414	0.0000	1.414	0.000	0.000	1.414	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:54:00	3.900	1.434	0.0000	1.434	0.000	0.000	1.434	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:00:00	4.000	1.434	0.0000	1.434	0.000	0.000	1.434	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:06:00	4.100	1.455	0.0000	1.455	0.000	0.000	1.455	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:12:00	4.200	1.476	0.0000	1.476	0.000	0.000	1.476	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:18:00	4.300	1.496	0.0000	1.496	0.000	0.000	1.496	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:24:00	4.400	1.517	0.0000	1.517	0.000	0.000	1.517	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:30:00	4.500	1.538	0.0000	1.538	0.000	0.000	1.538	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:36:00	4.600	1.558	0.0000	1.558	0.000	0.000	1.558	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:42:00	4.700	1.579	0.0000	1.579	0.000	0.000	1.579	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:48:00	4.800	1.600	0.0000	1.600	0.000	0.000	1.600	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:54:00	4.900	1.620	0.0000	1.620	0.000	0.000	1.620	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:00:00	5.000	1.641	0.0000	1.641	0.000	0.000	1.641	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:06:00	5.100	1.662	0.0000	1.662	0.000	0.000	1.662	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:12:00	5.200	1.682	0.0000	1.682	0.000	0.000	1.682	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:18:00	5.300	1.703	0.0000	1.703	0.000	0.000	1.703	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:24:00	5.400	1.723	0.0000	1.723	0.000	0.000	1.723	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:30:00	5.500	1.744	0.0000	1.744	0.000	0.000	1.744	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:36:00	5.600	1.765	0.0000	1.765	0.000	0.000	1.765	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:42:00	5.700	1.785	0.0000	1.785	0.000	0.000	1.785	0.000	0.000	0.000	0.000	0.000	0.000

01/01/2000 05:48:00	5.800	1.806	0.0000	1.806	0.000	0.000	1.806	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 05:54:00	5.900	1.827	0.0000	1.827	0.000	0.000	1.827	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:00:00	6.000	1.847	0.0000	1.847	0.000	0.000	1.847	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:06:00	6.100	1.868	0.0000	1.868	0.000	0.000	1.868	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:12:00	6.200	1.889	0.0000	1.889	0.000	0.000	1.889	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:18:00	6.300	1.909	0.0000	1.909	0.000	0.000	1.909	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:24:00	6.400	1.930	0.0000	1.930	0.000	0.000	1.930	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:30:00	6.500	1.950	0.0000	1.950	0.000	0.000	1.950	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:36:00	6.600	1.971	0.0000	1.971	0.000	0.000	1.971	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:42:00	6.700	1.992	0.0000	1.992	0.000	0.000	1.992	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:48:00	6.800	2.012	0.0000	2.012	0.000	0.000	2.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:54:00	6.900	2.033	0.0000	2.033	0.000	0.000	2.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:00:00	7.000	2.054	0.0000	2.054	0.000	0.000	2.054	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:06:00	7.100	2.074	0.0000	2.074	0.000	0.000	2.074	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:12:00	7.200	2.095	0.0000	2.095	0.000	0.000	2.095	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:18:00	7.300	2.116	0.0000	2.116	0.000	0.000	2.116	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:24:00	7.400	2.136	0.0000	2.136	0.000	0.000	2.136	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:30:00	7.500	2.157	0.0000	2.157	0.000	0.000	2.157	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:36:00	7.600	2.178	0.0000	2.178	0.000	0.000	2.178	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:42:00	7.700	2.198	0.0000	2.198	0.000	0.000	2.198	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:48:00	7.800	2.219	0.0000	2.219	0.000	0.000	2.219	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:54:00	7.900	2.239	0.0000	2.239	0.000	0.000	2.239	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:00:00	8.000	2.260	0.0000	2.260	0.000	0.000	2.260	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:06:00	8.100	2.322	0.0000	2.322	0.000	0.000	2.322	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:12:00	8.200	2.425	0.0000	2.425	0.000	0.000	2.425	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:18:00	8.300	2.528	0.0000	2.528	0.000	0.000	2.528	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:24:00	8.400	2.632	0.0000	2.632	0.000	0.000	2.632	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:30:00	8.500	2.735	0.0000	2.735	0.000	0.000	2.735	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:36:00	8.600	2.838	0.0000	2.838	0.000	0.000	2.838	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:42:00	8.700	2.941	0.0000	2.941	0.000	0.000	2.941	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:48:00	8.800	3.044	0.0000	3.044	0.000	0.000	3.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:54:00	8.900	3.148	0.0000	3.148	0.000	0.000	3.148	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:00:00	9.000	3.251	0.0000	3.251	0.000	0.000	3.251	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:06:00	9.100	3.302	0.0000	3.302	0.000	0.000	3.302	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:12:00	9.200	3.302	0.0000	3.302	0.000	0.000	3.302	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:18:00	9.300	3.302	0.0000	3.302	0.000	0.000	3.302	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:24:00	9.400	3.302	0.0000	3.302	0.000	0.000	3.302	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:30:00	9.500	3.302	0.0000	3.302	0.000	0.000	3.302	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:36:00	9.600	3.385	0.0000	3.385	0.000	0.000	3.385	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:42:00	9.700	3.550	0.0000	3.550	0.000	0.000	3.550	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:48:00	9.800	3.715	0.0000	3.715	0.000	0.000	3.715	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:54:00	9.900	3.880	0.0000	3.880	0.000	0.000	3.880	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:00:00	10.000	4.045	0.0000	4.045	0.000	0.000	4.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:06:00	10.100	4.252	0.0000	4.252	0.000	0.000	4.252	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:12:00	10.200	4.500	0.0000	4.500	0.000	0.000	4.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:18:00	10.300	4.747	0.0000	4.747	0.000	0.000	4.747	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:24:00	10.400	4.995	0.0000	4.995	0.000	0.000	4.995	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:30:00	10.500	5.243	0.0000	5.243	0.000	0.000	5.243	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:36:00	10.600	5.769	0.0000	5.769	0.000	0.000	5.769	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:42:00	10.700	7.150	0.0000	7.150	0.000	0.000	7.150	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:48:00	10.800	9.129	0.0000	9.129	0.000	0.000	9.129	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:54:00	10.900	11.571	0.0000	11.571	0.000	0.000	11.571	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:00:00	11.000	14.356	0.0000	14.356	0.000	0.000	14.356	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:06:00	11.100	17.817	0.0000	17.817	0.000	0.000	17.817	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:12:00	11.200	22.059	0.0000	22.059	0.000	0.000	22.059	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:18:00	11.300	26.759	0.0000	26.759	0.000	0.000	26.759	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:24:00	11.400	31.872	0.0000	31.872	0.000	0.000	31.872	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:30:00	11.500	37.350	0.0000	37.350	0.000	0.000	37.350	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:36:00	11.600	65.912	0.0000	65.912	0.000	0.000	65.912	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:42:00	11.700	136.391	0.0000	136.391	0.000	0.000	136.391	0.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:48:00	11.800	263.834	0.0000	143.500	0.000	0.000	143.000	0.000	0.000	0.000	12.033	0.000	0.000	0.100
01/01/2000 11:54:00	11.900	571.262	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	0.000	54.860	0.000	0.000	0.100
01/01/2000 12:00:00	12.000	570.913	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	0.000	97.651	0.000	0.000	0.100
01/01/2000 12:06:00	12.100	298.194	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	0.000	113.170	0.000	0.000	0.100
01/01/2000 12:12:00	12.200	209.298	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	0.000	119.800	0.000	0.000	0.100
01/01/2000 12:18:00	12.300	159.787	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	0.000	121.479	0.000	0.000	0.100
01/01/2000 12:24:00	12.400	127.433	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	0.000	119.922	0.000	0.000	0.100

01/01/2000 12:30:00	12.500	103.440	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	115.966	0.000	0.000	0.100
01/01/2000 12:36:00	12.600	86.437	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	110.310	0.000	0.000	0.100
01/01/2000 12:42:00	12.700	75.303	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	103.540	0.000	0.000	0.100
01/01/2000 12:48:00	12.800	67.047	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	95.945	0.000	0.000	0.100
01/01/2000 12:54:00	12.900	60.536	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	87.699	0.000	0.000	0.100
01/01/2000 13:00:00	13.000	55.120	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	78.911	0.000	0.000	0.100
01/01/2000 13:06:00	13.100	50.724	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	69.683	0.000	0.000	0.100
01/01/2000 13:12:00	13.200	47.228	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	60.106	0.000	0.000	0.100
01/01/2000 13:18:00	13.300	44.251	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	50.231	0.000	0.000	0.100
01/01/2000 13:24:00	13.400	41.628	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	40.094	0.000	0.000	0.100
01/01/2000 13:30:00	13.500	39.248	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	29.718	0.000	0.000	0.100
01/01/2000 13:36:00	13.600	37.137	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	19.132	0.000	0.000	0.100
01/01/2000 13:42:00	13.700	35.284	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	8.360	0.000	0.000	0.100
01/01/2000 13:48:00	13.800	33.586	0.0000	117.190	0.000	0.000	117.690	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:54:00	13.900	31.998	0.0000	31.998	0.000	0.000	31.998	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:00:00	14.000	30.489	0.0000	30.489	0.000	0.000	30.489	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:06:00	14.100	29.205	0.0000	29.205	0.000	0.000	29.205	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:12:00	14.200	28.149	0.0000	28.149	0.000	0.000	28.149	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:18:00	14.300	27.272	0.0000	27.272	0.000	0.000	27.272	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:24:00	14.400	26.465	0.0000	26.465	0.000	0.000	26.465	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:30:00	14.500	25.773	0.0000	25.773	0.000	0.000	25.773	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:36:00	14.600	25.106	0.0000	25.106	0.000	0.000	25.106	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:42:00	14.700	24.519	0.0000	24.519	0.000	0.000	24.519	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:48:00	14.800	23.931	0.0000	23.931	0.000	0.000	23.931	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:54:00	14.900	23.404	0.0000	23.404	0.000	0.000	23.404	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:00:00	15.000	22.862	0.0000	22.862	0.000	0.000	22.862	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:06:00	15.100	22.369	0.0000	22.369	0.000	0.000	22.369	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:12:00	15.200	21.854	0.0000	21.854	0.000	0.000	21.854	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:18:00	15.300	21.381	0.0000	21.381	0.000	0.000	21.381	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:24:00	15.400	20.881	0.0000	20.881	0.000	0.000	20.881	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:30:00	15.500	20.420	0.0000	20.420	0.000	0.000	20.420	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:36:00	15.600	19.928	0.0000	19.928	0.000	0.000	19.928	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:42:00	15.700	19.473	0.0000	19.473	0.000	0.000	19.473	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:48:00	15.800	18.986	0.0000	18.986	0.000	0.000	18.986	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:54:00	15.900	18.535	0.0000	18.535	0.000	0.000	18.535	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 16:00:00	16.000	18.050	0.0000	18.050	0.000	0.000	18.050	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 16:06:00	16.100	17.644	0.0000	17.644	0.000	0.000	17.644	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 16:12:00	16.200	17.288	0.0000	17.288	0.000	0.000	17.288	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 16:18:00	16.300	16.985	0.0000	16.985	0.000	0.000	16.985	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 16:24:00	16.400	16.695	0.0000	16.695	0.000	0.000	16.695	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 16:30:00	16.500	16.444	0.0000	16.444	0.000	0.000	16.444	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 16:36:00	16.600	16.195	0.0000	16.195	0.000	0.000	16.195	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 16:42:00	16.700	15.977	0.0000	15.977	0.000	0.000	15.977	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 16:48:00	16.800	15.755	0.0000	15.755	0.000	0.000	15.755	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 16:54:00	16.900	15.558	0.0000	15.558	0.000	0.000	15.558	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 17:00:00	17.000	15.352	0.0000	15.352	0.000	0.000	15.352	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 17:06:00	17.100	15.169	0.0000	15.169	0.000	0.000	15.169	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 17:12:00	17.200	14.974	0.0000	14.974	0.000	0.000	14.974	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 17:18:00	17.300	14.799	0.0000	14.799	0.000	0.000	14.799	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 17:24:00	17.400	14.611	0.0000	14.611	0.000	0.000	14.611	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 17:30:00	17.500	14.441	0.0000	14.441	0.000	0.000	14.441	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 17:36:00	17.600	14.257	0.0000	14.257	0.000	0.000	14.257	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 17:42:00	17.700	14.091	0.0000	14.091	0.000	0.000	14.091	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 17:48:00	17.800	13.910	0.0000	13.910	0.000	0.000	13.910	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 17:54:00	17.900	13.746	0.0000	13.746	0.000	0.000	13.746	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 18:00:00	18.000	13.567	0.0000	13.567	0.000	0.000	13.567	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 18:06:00	18.100	13.404	0.0000	13.404	0.000	0.000	13.404	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 18:12:00	18.200	13.226	0.0000	13.226	0.000	0.000	13.226	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 18:18:00	18.300	13.064	0.0000	13.064	0.000	0.000	13.064	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 18:24:00	18.400	12.886	0.0000	12.886	0.000	0.000	12.886	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 18:30:00	18.500	12.725	0.0000	12.725	0.000	0.000	12.725	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 18:36:00	18.600	12.547	0.0000	12.547	0.000	0.000	12.547	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 18:42:00	18.700	12.385	0.0000	12.385	0.000	0.000	12.385	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 18:48:00	18.800	12.208	0.0000	12.208	0.000	0.000	12.208	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 18:54:00	18.900	12.047	0.0000	12.047	0.000	0.000	12.047	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 19:00:00	19.000	11.869	0.0000	11.869	0.000	0.000	11.869	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 19:06:00	19.100	11.707	0.0000	11.707	0.000	0.000	11.707	0.000	0.000	0.000	0.000	0.000	0.000























SWMM5 LID Report File

Project:

LID Unit: INF\_1m in Subcatchment E5

Storm: SCS\_Type\_II\_57.6mm\_5yr\_12hours

Date	Time	Elapsed Time Hours	Total Inflow mm/hr	Total Evap mm/hr	Surface Infil mm/hr	Pavement Perc mm/hr	Soil Perc mm/hr	Storage Exfil mm/hr	Surface Runoff mm/hr	Drain OutFlow mm/hr	Surface Level mm	Pavement Level mm	Soil Moisture Content	Storage Level mm
01/01/2000	00:06:00	0.100	1.240	0.0000	1.240	0.000	0.000	1.240	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:12:00	0.200	1.253	0.0000	1.253	0.000	0.000	1.253	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:18:00	0.300	1.267	0.0000	1.267	0.000	0.000	1.267	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:24:00	0.400	1.281	0.0000	1.281	0.000	0.000	1.281	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:30:00	0.500	1.294	0.0000	1.294	0.000	0.000	1.294	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:36:00	0.600	1.308	0.0000	1.308	0.000	0.000	1.308	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:42:00	0.700	1.322	0.0000	1.322	0.000	0.000	1.322	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:48:00	0.800	1.336	0.0000	1.336	0.000	0.000	1.336	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:54:00	0.900	1.349	0.0000	1.349	0.000	0.000	1.349	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:00:00	1.000	1.363	0.0000	1.363	0.000	0.000	1.363	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:06:00	1.100	1.377	0.0000	1.377	0.000	0.000	1.377	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:12:00	1.200	1.390	0.0000	1.390	0.000	0.000	1.390	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:18:00	1.300	1.404	0.0000	1.404	0.000	0.000	1.404	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:24:00	1.400	1.418	0.0000	1.418	0.000	0.000	1.418	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:30:00	1.500	1.431	0.0000	1.431	0.000	0.000	1.431	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:36:00	1.600	1.445	0.0000	1.445	0.000	0.000	1.445	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:42:00	1.700	1.459	0.0000	1.459	0.000	0.000	1.459	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:48:00	1.800	1.473	0.0000	1.473	0.000	0.000	1.473	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:54:00	1.900	1.486	0.0000	1.486	0.000	0.000	1.486	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:00:00	2.000	1.500	0.0000	1.500	0.000	0.000	1.500	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:06:00	2.100	1.541	0.0000	1.541	0.000	0.000	1.541	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:12:00	2.200	1.610	0.0000	1.610	0.000	0.000	1.610	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:18:00	2.300	1.678	0.0000	1.678	0.000	0.000	1.678	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:24:00	2.400	1.746	0.0000	1.746	0.000	0.000	1.746	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:30:00	2.500	1.815	0.0000	1.815	0.000	0.000	1.815	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:36:00	2.600	1.883	0.0000	1.883	0.000	0.000	1.883	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:42:00	2.700	1.952	0.0000	1.952	0.000	0.000	1.952	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:48:00	2.800	2.020	0.0000	2.020	0.000	0.000	2.020	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:54:00	2.900	2.089	0.0000	2.089	0.000	0.000	2.089	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:00:00	3.000	2.157	0.0000	2.157	0.000	0.000	2.157	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:06:00	3.100	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:12:00	3.200	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:18:00	3.300	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:24:00	3.400	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:30:00	3.500	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:36:00	3.600	2.246	0.0000	2.246	0.000	0.000	2.246	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:42:00	3.700	2.356	0.0000	2.356	0.000	0.000	2.356	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:48:00	3.800	2.466	0.0000	2.466	0.000	0.000	2.466	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:54:00	3.900	2.575	0.0000	2.575	0.000	0.000	2.575	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:00:00	4.000	2.685	0.0000	2.685	0.000	0.000	2.685	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:06:00	4.100	2.822	0.0000	2.822	0.000	0.000	2.822	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:12:00	4.200	2.986	0.0000	2.986	0.000	0.000	2.986	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:18:00	4.300	3.151	0.0000	3.151	0.000	0.000	3.151	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:24:00	4.400	3.315	0.0000	3.315	0.000	0.000	3.315	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:30:00	4.500	3.479	0.0000	3.479	0.000	0.000	3.479	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:36:00	4.600	3.698	0.0000	3.698	0.000	0.000	3.698	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:42:00	4.700	3.972	0.0000	3.972	0.000	0.000	3.972	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:48:00	4.800	4.246	0.0000	4.246	0.000	0.000	4.246	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:54:00	4.900	4.520	0.0000	4.520	0.000	0.000	4.520	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:00:00	5.000	4.794	0.0000	4.794	0.000	0.000	4.794	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:06:00	5.100	5.260	0.0000	5.260	0.000	0.000	5.260	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:12:00	5.200	5.918	0.0000	5.918	0.000	0.000	5.918	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:18:00	5.300	6.575	0.0000	6.575	0.000	0.000	6.575	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:24:00	5.400	7.233	0.0000	7.233	0.000	0.000	7.233	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:30:00	5.500	7.890	0.0000	7.890	0.000	0.000	7.890	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:36:00	5.600	16.328	0.0000	16.328	0.000	0.000	16.328	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:42:00	5.700	32.546	0.0000	32.546	0.000	0.000	32.546	0.000	0.000	0.000	0.000	0.000	0.000















SWMM5 LID Report File

Project:

LID Unit: INF\_1m in Subcatchment E5

Storm: SCS\_Type\_II\_96mm\_100yr\_12hours

Date	Time	Elapsed Time Hours	Total Inflow mm/hr	Total Evap mm/hr	Surface Infil mm/hr	Pavement Perc mm/hr	Soil Perc mm/hr	Storage Exfil mm/hr	Surface Runoff mm/hr	Drain OutFlow mm/hr	Surface Level mm	Pavement Level mm	Soil Moisture Content	Storage Level mm
01/01/2000	00:06:00	0.100	2.066	0.0000	2.066	0.000	0.000	2.066	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:12:00	0.200	2.089	0.0000	2.089	0.000	0.000	2.089	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:18:00	0.300	2.112	0.0000	2.112	0.000	0.000	2.112	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:24:00	0.400	2.135	0.0000	2.135	0.000	0.000	2.135	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:30:00	0.500	2.157	0.0000	2.157	0.000	0.000	2.157	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:36:00	0.600	2.180	0.0000	2.180	0.000	0.000	2.180	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:42:00	0.700	2.203	0.0000	2.203	0.000	0.000	2.203	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:48:00	0.800	2.226	0.0000	2.226	0.000	0.000	2.226	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:54:00	0.900	2.249	0.0000	2.249	0.000	0.000	2.249	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:00:00	1.000	2.272	0.0000	2.272	0.000	0.000	2.272	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:06:00	1.100	2.294	0.0000	2.294	0.000	0.000	2.294	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:12:00	1.200	2.317	0.0000	2.317	0.000	0.000	2.317	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:18:00	1.300	2.340	0.0000	2.340	0.000	0.000	2.340	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:24:00	1.400	2.363	0.0000	2.363	0.000	0.000	2.363	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:30:00	1.500	2.386	0.0000	2.386	0.000	0.000	2.386	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:36:00	1.600	2.409	0.0000	2.409	0.000	0.000	2.409	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:42:00	1.700	2.431	0.0000	2.431	0.000	0.000	2.431	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:48:00	1.800	2.454	0.0000	2.454	0.000	0.000	2.454	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:54:00	1.900	2.477	0.0000	2.477	0.000	0.000	2.477	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:00:00	2.000	2.500	0.0000	2.500	0.000	0.000	2.500	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:06:00	2.100	2.568	0.0000	2.568	0.000	0.000	2.568	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:12:00	2.200	2.683	0.0000	2.683	0.000	0.000	2.683	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:18:00	2.300	2.797	0.0000	2.797	0.000	0.000	2.797	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:24:00	2.400	2.911	0.0000	2.911	0.000	0.000	2.911	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:30:00	2.500	3.025	0.0000	3.025	0.000	0.000	3.025	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:36:00	2.600	3.139	0.0000	3.139	0.000	0.000	3.139	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:42:00	2.700	3.253	0.0000	3.253	0.000	0.000	3.253	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:48:00	2.800	3.367	0.0000	3.367	0.000	0.000	3.367	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:54:00	2.900	3.482	0.0000	3.482	0.000	0.000	3.482	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:00:00	3.000	3.596	0.0000	3.596	0.000	0.000	3.596	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:06:00	3.100	3.653	0.0000	3.653	0.000	0.000	3.653	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:12:00	3.200	3.653	0.0000	3.653	0.000	0.000	3.653	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:18:00	3.300	3.653	0.0000	3.653	0.000	0.000	3.653	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:24:00	3.400	3.653	0.0000	3.653	0.000	0.000	3.653	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:30:00	3.500	3.653	0.0000	3.653	0.000	0.000	3.653	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:36:00	3.600	3.744	0.0000	3.744	0.000	0.000	3.744	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:42:00	3.700	3.927	0.0000	3.927	0.000	0.000	3.927	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:48:00	3.800	4.109	0.0000	4.109	0.000	0.000	4.109	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:54:00	3.900	4.292	0.0000	4.292	0.000	0.000	4.292	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:00:00	4.000	4.475	0.0000	4.475	0.000	0.000	4.475	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:06:00	4.100	4.703	0.0000	4.703	0.000	0.000	4.703	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:12:00	4.200	4.977	0.0000	4.977	0.000	0.000	4.977	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:18:00	4.300	5.251	0.0000	5.251	0.000	0.000	5.251	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:24:00	4.400	5.525	0.0000	5.525	0.000	0.000	5.525	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:30:00	4.500	5.799	0.0000	5.799	0.000	0.000	5.799	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:36:00	4.600	6.164	0.0000	6.164	0.000	0.000	6.164	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:42:00	4.700	6.621	0.0000	6.621	0.000	0.000	6.621	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:48:00	4.800	7.077	0.0000	7.077	0.000	0.000	7.077	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:54:00	4.900	7.534	0.0000	7.534	0.000	0.000	7.534	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:00:00	5.000	7.990	0.0000	7.990	0.000	0.000	7.990	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:06:00	5.100	8.767	0.0000	8.767	0.000	0.000	8.767	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:12:00	5.200	9.863	0.0000	9.863	0.000	0.000	9.863	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:18:00	5.300	10.958	0.0000	10.958	0.000	0.000	10.958	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:24:00	5.400	13.059	0.0000	13.059	0.000	0.000	13.059	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:30:00	5.500	20.175	0.0000	20.175	0.000	0.000	20.175	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:36:00	5.600	55.639	0.0000	55.639	0.000	0.000	55.639	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:42:00	5.700	147.079	0.0000	143.500	0.000	0.000	143.000	0.000	0.000	0.358	0.000	0.000	0.100

01/01/2000 05:48:00	5.800	311.010	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	17.159	0.000	0.000	0.100
01/01/2000 05:54:00	5.900	692.486	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	72.108	0.000	0.000	0.100
01/01/2000 06:00:00	6.000	626.176	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	120.425	0.000	0.000	0.100
01/01/2000 06:06:00	6.100	255.819	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	131.707	0.000	0.000	0.100
01/01/2000 06:12:00	6.200	169.276	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	134.335	0.000	0.000	0.100
01/01/2000 06:18:00	6.300	129.337	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	132.968	0.000	0.000	0.100
01/01/2000 06:24:00	6.400	104.540	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	129.122	0.000	0.000	0.100
01/01/2000 06:30:00	6.500	85.549	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	123.377	0.000	0.000	0.100
01/01/2000 06:36:00	6.600	72.318	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	116.309	0.000	0.000	0.100
01/01/2000 06:42:00	6.700	64.449	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	108.454	0.000	0.000	0.100
01/01/2000 06:48:00	6.800	58.692	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	100.023	0.000	0.000	0.100
01/01/2000 06:54:00	6.900	54.011	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	91.124	0.000	0.000	0.100
01/01/2000 07:00:00	7.000	49.896	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	81.814	0.000	0.000	0.100
01/01/2000 07:06:00	7.100	46.499	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	72.164	0.000	0.000	0.100
01/01/2000 07:12:00	7.200	43.832	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	62.247	0.000	0.000	0.100
01/01/2000 07:18:00	7.300	41.499	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	52.097	0.000	0.000	0.100
01/01/2000 07:24:00	7.400	39.358	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	41.733	0.000	0.000	0.100
01/01/2000 07:30:00	7.500	37.327	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	31.165	0.000	0.000	0.100
01/01/2000 07:36:00	7.600	35.491	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	20.414	0.000	0.000	0.100
01/01/2000 07:42:00	7.700	33.873	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	9.502	0.000	0.000	0.100
01/01/2000 07:48:00	7.800	32.359	0.0000	127.376	0.000	0.000	127.876	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:54:00	7.900	30.908	0.0000	30.908	0.000	0.000	30.908	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:00:00	8.000	29.495	0.0000	29.495	0.000	0.000	29.495	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:06:00	8.100	28.325	0.0000	28.325	0.000	0.000	28.325	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:12:00	8.200	27.414	0.0000	27.414	0.000	0.000	27.414	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:18:00	8.300	26.695	0.0000	26.695	0.000	0.000	26.695	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:24:00	8.400	26.023	0.0000	26.023	0.000	0.000	26.023	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:30:00	8.500	25.457	0.0000	25.457	0.000	0.000	25.457	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:36:00	8.600	24.885	0.0000	24.885	0.000	0.000	24.885	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:42:00	8.700	24.384	0.0000	24.384	0.000	0.000	24.384	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:48:00	8.800	23.854	0.0000	23.854	0.000	0.000	23.854	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:54:00	8.900	23.380	0.0000	23.380	0.000	0.000	23.380	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:00:00	9.000	22.867	0.0000	22.867	0.000	0.000	22.867	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:06:00	9.100	22.404	0.0000	22.404	0.000	0.000	22.404	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:12:00	9.200	21.897	0.0000	21.897	0.000	0.000	21.897	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:18:00	9.300	21.437	0.0000	21.437	0.000	0.000	21.437	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:24:00	9.400	20.933	0.0000	20.933	0.000	0.000	20.933	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:30:00	9.500	20.473	0.0000	20.473	0.000	0.000	20.473	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:36:00	9.600	19.968	0.0000	19.968	0.000	0.000	19.968	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:42:00	9.700	19.507	0.0000	19.507	0.000	0.000	19.507	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:48:00	9.800	19.001	0.0000	19.001	0.000	0.000	19.001	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:54:00	9.900	18.539	0.0000	18.539	0.000	0.000	18.539	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:00:00	10.000	18.032	0.0000	18.032	0.000	0.000	18.032	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:06:00	10.100	17.626	0.0000	17.626	0.000	0.000	17.626	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:12:00	10.200	17.288	0.0000	17.288	0.000	0.000	17.288	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:18:00	10.300	17.017	0.0000	17.017	0.000	0.000	17.017	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:24:00	10.400	16.756	0.0000	16.756	0.000	0.000	16.756	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:30:00	10.500	16.540	0.0000	16.540	0.000	0.000	16.540	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:36:00	10.600	16.318	0.0000	16.318	0.000	0.000	16.318	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:42:00	10.700	16.129	0.0000	16.129	0.000	0.000	16.129	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:48:00	10.800	15.926	0.0000	15.926	0.000	0.000	15.926	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:54:00	10.900	15.751	0.0000	15.751	0.000	0.000	15.751	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:00:00	11.000	15.557	0.0000	15.557	0.000	0.000	15.557	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:06:00	11.100	15.388	0.0000	15.388	0.000	0.000	15.388	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:12:00	11.200	15.199	0.0000	15.199	0.000	0.000	15.199	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:18:00	11.300	15.033	0.0000	15.033	0.000	0.000	15.033	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:24:00	11.400	14.847	0.0000	14.847	0.000	0.000	14.847	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:30:00	11.500	14.682	0.0000	14.682	0.000	0.000	14.682	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:36:00	11.600	14.496	0.0000	14.496	0.000	0.000	14.496	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:42:00	11.700	14.331	0.0000	14.331	0.000	0.000	14.331	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:48:00	11.800	14.146	0.0000	14.146	0.000	0.000	14.146	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:54:00	11.900	13.981	0.0000	13.981	0.000	0.000	13.981	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:00:00	12.000	13.795	0.0000	13.795	0.000	0.000	13.795	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:06:00	12.100	8.158	0.0000	8.158	0.000	0.000	8.158	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:12:00	12.200	5.780	0.0000	5.780	0.000	0.000	5.780	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:18:00	12.300	4.133	0.0000	4.133	0.000	0.000	4.133	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:24:00	12.400	2.955	0.0000	2.955	0.000	0.000	2.955	0.000	0.000	0.000	0.000	0.000	0.000



SWMM5 LID Report File

Project:

LID Unit: INF\_1m in Subcatchment E5

Storm: SCS\_Type\_II\_103.2mm\_100yr\_24hours

Date	Time	Elapsed Time Hours	Total Inflow mm/hr	Total Evap mm/hr	Surface Infil mm/hr	Pavement Perc mm/hr	Soil Perc mm/hr	Storage Exfil mm/hr	Surface Runoff mm/hr	Drain OutFlow mm/hr	Surface Level mm	Pavement Level mm	Soil Moisture Content	Storage Level mm
01/01/2000	00:06:00	0.100	1.042	0.0000	1.042	0.000	0.000	1.042	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:12:00	0.200	1.042	0.0000	1.042	0.000	0.000	1.042	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:18:00	0.300	1.063	0.0000	1.063	0.000	0.000	1.063	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:24:00	0.400	1.063	0.0000	1.063	0.000	0.000	1.063	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:30:00	0.500	1.084	0.0000	1.084	0.000	0.000	1.084	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:36:00	0.600	1.084	0.0000	1.084	0.000	0.000	1.084	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:42:00	0.700	1.104	0.0000	1.104	0.000	0.000	1.104	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:48:00	0.800	1.104	0.0000	1.104	0.000	0.000	1.104	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:54:00	0.900	1.125	0.0000	1.125	0.000	0.000	1.125	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:00:00	1.000	1.125	0.0000	1.125	0.000	0.000	1.125	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:06:00	1.100	1.146	0.0000	1.146	0.000	0.000	1.146	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:12:00	1.200	1.146	0.0000	1.146	0.000	0.000	1.146	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:18:00	1.300	1.166	0.0000	1.166	0.000	0.000	1.166	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:24:00	1.400	1.166	0.0000	1.166	0.000	0.000	1.166	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:30:00	1.500	1.187	0.0000	1.187	0.000	0.000	1.187	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:36:00	1.600	1.187	0.0000	1.187	0.000	0.000	1.187	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:42:00	1.700	1.207	0.0000	1.207	0.000	0.000	1.207	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:48:00	1.800	1.207	0.0000	1.207	0.000	0.000	1.207	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:54:00	1.900	1.228	0.0000	1.228	0.000	0.000	1.228	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:00:00	2.000	1.228	0.0000	1.228	0.000	0.000	1.228	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:06:00	2.100	1.249	0.0000	1.249	0.000	0.000	1.249	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:12:00	2.200	1.249	0.0000	1.249	0.000	0.000	1.249	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:18:00	2.300	1.269	0.0000	1.269	0.000	0.000	1.269	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:24:00	2.400	1.269	0.0000	1.269	0.000	0.000	1.269	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:30:00	2.500	1.290	0.0000	1.290	0.000	0.000	1.290	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:36:00	2.600	1.290	0.0000	1.290	0.000	0.000	1.290	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:42:00	2.700	1.311	0.0000	1.311	0.000	0.000	1.311	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:48:00	2.800	1.311	0.0000	1.311	0.000	0.000	1.311	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:54:00	2.900	1.331	0.0000	1.331	0.000	0.000	1.331	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:00:00	3.000	1.331	0.0000	1.331	0.000	0.000	1.331	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:06:00	3.100	1.352	0.0000	1.352	0.000	0.000	1.352	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:12:00	3.200	1.352	0.0000	1.352	0.000	0.000	1.352	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:18:00	3.300	1.373	0.0000	1.373	0.000	0.000	1.373	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:24:00	3.400	1.373	0.0000	1.373	0.000	0.000	1.373	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:30:00	3.500	1.393	0.0000	1.393	0.000	0.000	1.393	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:36:00	3.600	1.393	0.0000	1.393	0.000	0.000	1.393	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:42:00	3.700	1.414	0.0000	1.414	0.000	0.000	1.414	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:48:00	3.800	1.414	0.0000	1.414	0.000	0.000	1.414	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:54:00	3.900	1.434	0.0000	1.434	0.000	0.000	1.434	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:00:00	4.000	1.434	0.0000	1.434	0.000	0.000	1.434	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:06:00	4.100	1.455	0.0000	1.455	0.000	0.000	1.455	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:12:00	4.200	1.476	0.0000	1.476	0.000	0.000	1.476	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:18:00	4.300	1.496	0.0000	1.496	0.000	0.000	1.496	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:24:00	4.400	1.517	0.0000	1.517	0.000	0.000	1.517	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:30:00	4.500	1.538	0.0000	1.538	0.000	0.000	1.538	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:36:00	4.600	1.558	0.0000	1.558	0.000	0.000	1.558	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:42:00	4.700	1.579	0.0000	1.579	0.000	0.000	1.579	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:48:00	4.800	1.600	0.0000	1.600	0.000	0.000	1.600	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:54:00	4.900	1.620	0.0000	1.620	0.000	0.000	1.620	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:00:00	5.000	1.641	0.0000	1.641	0.000	0.000	1.641	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:06:00	5.100	1.662	0.0000	1.662	0.000	0.000	1.662	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:12:00	5.200	1.682	0.0000	1.682	0.000	0.000	1.682	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:18:00	5.300	1.703	0.0000	1.703	0.000	0.000	1.703	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:24:00	5.400	1.723	0.0000	1.723	0.000	0.000	1.723	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:30:00	5.500	1.744	0.0000	1.744	0.000	0.000	1.744	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:36:00	5.600	1.765	0.0000	1.765	0.000	0.000	1.765	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:42:00	5.700	1.785	0.0000	1.785	0.000	0.000	1.785	0.000	0.000	0.000	0.000	0.000	0.000

01/01/2000 05:48:00	5.800	1.806	0.0000	1.806	0.000	0.000	1.806	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 05:54:00	5.900	1.827	0.0000	1.827	0.000	0.000	1.827	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:00:00	6.000	1.847	0.0000	1.847	0.000	0.000	1.847	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:06:00	6.100	1.868	0.0000	1.868	0.000	0.000	1.868	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:12:00	6.200	1.889	0.0000	1.889	0.000	0.000	1.889	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:18:00	6.300	1.909	0.0000	1.909	0.000	0.000	1.909	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:24:00	6.400	1.930	0.0000	1.930	0.000	0.000	1.930	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:30:00	6.500	1.950	0.0000	1.950	0.000	0.000	1.950	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:36:00	6.600	1.971	0.0000	1.971	0.000	0.000	1.971	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:42:00	6.700	1.992	0.0000	1.992	0.000	0.000	1.992	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:48:00	6.800	2.012	0.0000	2.012	0.000	0.000	2.012	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:54:00	6.900	2.033	0.0000	2.033	0.000	0.000	2.033	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:00:00	7.000	2.054	0.0000	2.054	0.000	0.000	2.054	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:06:00	7.100	2.074	0.0000	2.074	0.000	0.000	2.074	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:12:00	7.200	2.095	0.0000	2.095	0.000	0.000	2.095	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:18:00	7.300	2.116	0.0000	2.116	0.000	0.000	2.116	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:24:00	7.400	2.136	0.0000	2.136	0.000	0.000	2.136	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:30:00	7.500	2.157	0.0000	2.157	0.000	0.000	2.157	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:36:00	7.600	2.178	0.0000	2.178	0.000	0.000	2.178	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:42:00	7.700	2.198	0.0000	2.198	0.000	0.000	2.198	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:48:00	7.800	2.219	0.0000	2.219	0.000	0.000	2.219	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:54:00	7.900	2.239	0.0000	2.239	0.000	0.000	2.239	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:00:00	8.000	2.260	0.0000	2.260	0.000	0.000	2.260	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:06:00	8.100	2.322	0.0000	2.322	0.000	0.000	2.322	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:12:00	8.200	2.425	0.0000	2.425	0.000	0.000	2.425	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:18:00	8.300	2.528	0.0000	2.528	0.000	0.000	2.528	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:24:00	8.400	2.632	0.0000	2.632	0.000	0.000	2.632	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:30:00	8.500	2.735	0.0000	2.735	0.000	0.000	2.735	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:36:00	8.600	2.838	0.0000	2.838	0.000	0.000	2.838	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:42:00	8.700	2.941	0.0000	2.941	0.000	0.000	2.941	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:48:00	8.800	3.044	0.0000	3.044	0.000	0.000	3.044	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:54:00	8.900	3.148	0.0000	3.148	0.000	0.000	3.148	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:00:00	9.000	3.251	0.0000	3.251	0.000	0.000	3.251	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:06:00	9.100	3.302	0.0000	3.302	0.000	0.000	3.302	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:12:00	9.200	3.302	0.0000	3.302	0.000	0.000	3.302	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:18:00	9.300	3.302	0.0000	3.302	0.000	0.000	3.302	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:24:00	9.400	3.302	0.0000	3.302	0.000	0.000	3.302	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:30:00	9.500	3.302	0.0000	3.302	0.000	0.000	3.302	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:36:00	9.600	3.385	0.0000	3.385	0.000	0.000	3.385	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:42:00	9.700	3.550	0.0000	3.550	0.000	0.000	3.550	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:48:00	9.800	3.715	0.0000	3.715	0.000	0.000	3.715	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:54:00	9.900	3.880	0.0000	3.880	0.000	0.000	3.880	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:00:00	10.000	4.045	0.0000	4.045	0.000	0.000	4.045	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:06:00	10.100	4.252	0.0000	4.252	0.000	0.000	4.252	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:12:00	10.200	4.500	0.0000	4.500	0.000	0.000	4.500	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:18:00	10.300	4.747	0.0000	4.747	0.000	0.000	4.747	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:24:00	10.400	4.995	0.0000	4.995	0.000	0.000	4.995	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:30:00	10.500	5.243	0.0000	5.243	0.000	0.000	5.243	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:36:00	10.600	5.948	0.0000	5.948	0.000	0.000	5.948	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:42:00	10.700	8.129	0.0000	8.129	0.000	0.000	8.129	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:48:00	10.800	11.160	0.0000	11.160	0.000	0.000	11.160	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:54:00	10.900	14.607	0.0000	14.607	0.000	0.000	14.607	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:00:00	11.000	18.159	0.0000	18.159	0.000	0.000	18.159	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:06:00	11.100	22.160	0.0000	22.160	0.000	0.000	22.160	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:12:00	11.200	26.783	0.0000	26.783	0.000	0.000	26.783	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:18:00	11.300	31.676	0.0000	31.676	0.000	0.000	31.676	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:24:00	11.400	36.793	0.0000	36.793	0.000	0.000	36.793	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:30:00	11.500	42.106	0.0000	42.106	0.000	0.000	42.106	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:36:00	11.600	75.251	0.0000	75.251	0.000	0.000	75.251	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:42:00	11.700	159.669	0.0000	143.500	0.000	0.000	143.000	0.000	0.000	1.617	0.000	0.000	0.100
01/01/2000 11:48:00	11.800	306.160	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	17.933	0.000	0.000	0.100
01/01/2000 11:54:00	11.900	645.936	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	68.226	0.000	0.000	0.100
01/01/2000 12:00:00	12.000	576.692	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	111.596	0.000	0.000	0.100
01/01/2000 12:06:00	12.100	239.069	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	121.202	0.000	0.000	0.100
01/01/2000 12:12:00	12.200	157.825	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	122.685	0.000	0.000	0.100
01/01/2000 12:18:00	12.300	120.014	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	120.386	0.000	0.000	0.100
01/01/2000 12:24:00	12.400	96.630	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	115.749	0.000	0.000	0.100

01/01/2000 12:30:00	12.500	78.901	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	109.339	0.000	0.000	0.100
01/01/2000 12:36:00	12.600	66.569	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	101.696	0.000	0.000	0.100
01/01/2000 12:42:00	12.700	59.175	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	93.314	0.000	0.000	0.100
01/01/2000 12:48:00	12.800	53.769	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	84.391	0.000	0.000	0.100
01/01/2000 12:54:00	12.900	49.395	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	75.030	0.000	0.000	0.100
01/01/2000 13:00:00	13.000	45.576	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	65.288	0.000	0.000	0.100
01/01/2000 13:06:00	13.100	42.430	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	55.231	0.000	0.000	0.100
01/01/2000 13:12:00	13.200	39.956	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	44.927	0.000	0.000	0.100
01/01/2000 13:18:00	13.300	37.799	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	34.406	0.000	0.000	0.100
01/01/2000 13:24:00	13.400	35.826	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	23.689	0.000	0.000	0.100
01/01/2000 13:30:00	13.500	33.962	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	12.785	0.000	0.000	0.100
01/01/2000 13:36:00	13.600	32.280	0.0000	143.000	0.000	0.000	143.000	0.000	0.000	1.713	0.000	0.000	0.100
01/01/2000 13:42:00	13.700	30.797	0.0000	47.930	0.000	0.000	48.430	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:48:00	13.800	29.412	0.0000	29.412	0.000	0.000	29.412	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:54:00	13.900	28.086	0.0000	28.086	0.000	0.000	28.086	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:00:00	14.000	26.798	0.0000	26.798	0.000	0.000	26.798	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:06:00	14.100	25.728	0.0000	25.728	0.000	0.000	25.728	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:12:00	14.200	24.891	0.0000	24.891	0.000	0.000	24.891	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:18:00	14.300	24.226	0.0000	24.226	0.000	0.000	24.226	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:24:00	14.400	23.606	0.0000	23.606	0.000	0.000	23.606	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:30:00	14.500	23.083	0.0000	23.083	0.000	0.000	23.083	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:36:00	14.600	22.557	0.0000	22.557	0.000	0.000	22.557	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:42:00	14.700	22.097	0.0000	22.097	0.000	0.000	22.097	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:48:00	14.800	21.612	0.0000	21.612	0.000	0.000	21.612	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:54:00	14.900	21.178	0.0000	21.178	0.000	0.000	21.178	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:00:00	15.000	20.711	0.0000	20.711	0.000	0.000	20.711	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:06:00	15.100	20.289	0.0000	20.289	0.000	0.000	20.289	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:12:00	15.200	19.829	0.0000	19.829	0.000	0.000	19.829	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:18:00	15.300	19.410	0.0000	19.410	0.000	0.000	19.410	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:24:00	15.400	18.953	0.0000	18.953	0.000	0.000	18.953	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:30:00	15.500	18.535	0.0000	18.535	0.000	0.000	18.535	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:36:00	15.600	18.079	0.0000	18.079	0.000	0.000	18.079	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:42:00	15.700	17.661	0.0000	17.661	0.000	0.000	17.661	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:48:00	15.800	17.203	0.0000	17.203	0.000	0.000	17.203	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:54:00	15.900	16.785	0.0000	16.785	0.000	0.000	16.785	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 16:00:00	16.000	16.326	0.0000	16.326	0.000	0.000	16.326	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 16:06:00	16.100	15.958	0.0000	15.958	0.000	0.000	15.958	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 16:12:00	16.200	15.649	0.0000	15.649	0.000	0.000	15.649	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 16:18:00	16.300	15.400	0.0000	15.400	0.000	0.000	15.400	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 16:24:00	16.400	15.161	0.0000	15.161	0.000	0.000	15.161	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 16:30:00	16.500	14.962	0.0000	14.962	0.000	0.000	14.962	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 16:36:00	16.600	14.758	0.0000	14.758	0.000	0.000	14.758	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 16:42:00	16.700	14.584	0.0000	14.584	0.000	0.000	14.584	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 16:48:00	16.800	14.399	0.0000	14.399	0.000	0.000	14.399	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 16:54:00	16.900	14.238	0.0000	14.238	0.000	0.000	14.238	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 17:00:00	17.000	14.062	0.0000	14.062	0.000	0.000	14.062	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 17:06:00	17.100	13.908	0.0000	13.908	0.000	0.000	13.908	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 17:12:00	17.200	13.736	0.0000	13.736	0.000	0.000	13.736	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 17:18:00	17.300	13.585	0.0000	13.585	0.000	0.000	13.585	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 17:24:00	17.400	13.416	0.0000	13.416	0.000	0.000	13.416	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 17:30:00	17.500	13.266	0.0000	13.266	0.000	0.000	13.266	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 17:36:00	17.600	13.097	0.0000	13.097	0.000	0.000	13.097	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 17:42:00	17.700	12.948	0.0000	12.948	0.000	0.000	12.948	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 17:48:00	17.800	12.780	0.0000	12.780	0.000	0.000	12.780	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 17:54:00	17.900	12.631	0.0000	12.631	0.000	0.000	12.631	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 18:00:00	18.000	12.463	0.0000	12.463	0.000	0.000	12.463	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 18:06:00	18.100	12.313	0.0000	12.313	0.000	0.000	12.313	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 18:12:00	18.200	12.145	0.0000	12.145	0.000	0.000	12.145	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 18:18:00	18.300	11.996	0.0000	11.996	0.000	0.000	11.996	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 18:24:00	18.400	11.827	0.0000	11.827	0.000	0.000	11.827	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 18:30:00	18.500	11.677	0.0000	11.677	0.000	0.000	11.677	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 18:36:00	18.600	11.509	0.0000	11.509	0.000	0.000	11.509	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 18:42:00	18.700	11.358	0.0000	11.358	0.000	0.000	11.358	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 18:48:00	18.800	11.189	0.0000	11.189	0.000	0.000	11.189	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 18:54:00	18.900	11.039	0.0000	11.039	0.000	0.000	11.039	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 19:00:00	19.000	10.870	0.0000	10.870	0.000	0.000	10.870	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 19:06:00	19.100	10.718	0.0000	10.718	0.000	0.000	10.718	0.000	0.000	0.000	0.000	0.000	0.000



## Appendix C – Post-Development SWM



# PCSWMM Report

Post\_Dev\_October\_19  
Model 21023795 - Post-Dev\_Rev4.inp

exp Services Inc.  
October 21, 2022

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### Summary 1A: Subcatchment statistics

Name	SCS_Type_II_115.2mm_12hr_100yr + 20%	SCS_Type_II_43.2mm_12hr_2yr
Max. width (m)	300	300
Min. width (m)	50.638	50.638
Max. area ( ha)	2.2064	2.2064
Min. area ( ha)	0.0696	0.0696
Total area ( ha)	4.5554	4.5554
Max. length of overland flow (m)	183.8667	183.8667
Min. length of overland flow (m)	4.64	4.64
Max. slope (%)	38.249	38.249
Min. slope (%)	1	1
Max. imperviousness (%)	0	0
Min. imperviousness (%)	0	0
Max. imp. roughness	0.013	0.013
Min. imp. roughness	0.013	0.013
Max. perv. roughness	0.15	0.15
Min. perv. roughness	0.15	0.15
Max. imp. depression storage (mm)	1.57	1.57
Min. imp. depression storage (mm)	1.57	1.57
Max. perv. depression storage (mm)	4.67	4.67
Min. perv. depression storage (mm)	4.67	4.67

### Summary 1B: Subcatchment statistics

Name	SCS_Type_II_57.6mm_12hr_5yr	SCS_Type_II_96mm_12hr_100yr
Max. width (m)	300	300
Min. width (m)	50.638	50.638
Max. area ( ha)	2.2064	2.2064
Min. area ( ha)	0.0696	0.0696
Total area ( ha)	4.5554	4.5554
Max. length of overland flow (m)	183.8667	183.8667
Min. length of overland flow (m)	4.64	4.64
Max. slope (%)	38.249	38.249
Min. slope (%)	1	1
Max. imperviousness (%)	0	0
Min. imperviousness (%)	0	0
Max. imp. roughness	0.013	0.013
Min. imp. roughness	0.013	0.013

### Summary 1B: Subcatchment statistics (continued...)

Name	SCS_Type_II_57.6mm_12hr_5yr	SCS_Type_II_96mm_12hr_100yr
Max. perv. roughness	0.15	0.15
Min. perv. roughness	0.15	0.15
Max. imp. depression storage (mm)	1.57	1.57
Min. imp. depression storage (mm)	1.57	1.57
Max. perv. depression storage (mm)	4.67	4.67
Min. perv. depression storage (mm)	4.67	4.67

### Summary 1C: Subcatchment statistics

Name	SCS_Type_II_103.2mm_100yr	SCS_Type_II_48mm_2yr
Max. width (m)	300	300
Min. width (m)	50.638	50.638
Max. area ( ha)	2.2064	2.2064
Min. area ( ha)	0.0696	0.0696
Total area ( ha)	4.5554	4.5554
Max. length of overland flow (m)	183.8667	183.8667
Min. length of overland flow (m)	4.64	4.64
Max. slope (%)	38.249	38.249
Min. slope (%)	1	1
Max. imperviousness (%)	0	0
Min. imperviousness (%)	0	0
Max. imp. roughness	0.013	0.013
Min. imp. roughness	0.013	0.013
Max. perv. roughness	0.15	0.15
Min. perv. roughness	0.15	0.15
Max. imp. depression storage (mm)	1.57	1.57
Min. imp. depression storage (mm)	1.57	1.57
Max. perv. depression storage (mm)	4.67	4.67
Min. perv. depression storage (mm)	4.67	4.67

## Summary 1D: Subcatchment statistics

Name	SCS_Type_II_62.4mm_5yr
Max. width (m)	300
Min. width (m)	50.638
Max. area ( ha)	2.2064
Min. area ( ha)	0.0696
Total area ( ha)	4.5554
Max. length of overland flow (m)	183.8667
Min. length of overland flow (m)	4.64
Max. slope (%)	38.249
Min. slope (%)	1
Max. imperviousness (%)	0
Min. imperviousness (%)	0
Max. imp. roughness	0.013
Min. imp. roughness	0.013
Max. perv. roughness	0.15
Min. perv. roughness	0.15
Max. imp. depression storage (mm)	1.57
Min. imp. depression storage (mm)	1.57
Max. perv. depression storage (mm)	4.67
Min. perv. depression storage (mm)	4.67

## Summary 2A: Results statistics

Name	SCS_Type_II_115.2mm_12hr_100yr + 20%
Max. subcatchment total runoff (ML)	0.81
Max. subcatchment peak runoff (L/s)	377.16
Max. subcatchment runoff coefficient	0.563
Max. subcatchment total precip (mm)	115.2
Min. subcatchment total precip (mm)	115.2
Max. node depth (m)	0.32
Num. nodes surcharged	0
Max. node surcharge duration (hours)	0
Max. node height above crown (m)	0
Min. node depth below rim (m)	0
Num. nodes flooded	0
Max. node flooding duration (hours)	0
Max. node flood volume (ML)	0

## Summary 2A: Results statistics (continued...)

Name	SCS_Type-II_115.2mm_12hr_100yr + 20%
Max. node ponded volume or depth (ha-mm/1000 m <sup>3</sup> /m)	0
Max. storage volume (1000 m <sup>3</sup> )	n/a
Max. storage percent full (%)	n/a
Max. outfall flow frequency (%)	29.79
Max. outfall peak flow (L/s)	908.9
Max. outfall total volume (ML)	2.016
Total outfall volume (ML)	2.238
Max. link peak flow (L/s)	908.9
Max. link peak velocity (m/s)	7.88
Min. link peak velocity (m/s)	0.79
Num. conduits surcharged	0
Max. conduit surcharge duration (hours)	0
Max. conduit capacity limited duration (hours)	0

## Summary 2B: Results statistics

Name	SCS_Type-II_43.2mm_12hr_2yr
Max. subcatchment total runoff (ML)	0.06
Max. subcatchment peak runoff (L/s)	24.12
Max. subcatchment runoff coefficient	0.276
Max. subcatchment total precip (mm)	43.2
Min. subcatchment total precip (mm)	43.2
Max. node depth (m)	0.11
Num. nodes surcharged	0
Max. node surcharge duration (hours)	0
Max. node height above crown (m)	0
Min. node depth below rim (m)	0
Num. nodes flooded	0
Max. node flooding duration (hours)	0
Max. node flood volume (ML)	0
Max. node ponded volume or depth (ha-mm/1000 m <sup>3</sup> /m)	0
Max. storage volume (1000 m <sup>3</sup> )	n/a
Max. storage percent full (%)	n/a
Max. outfall flow frequency (%)	24.26
Max. outfall peak flow (L/s)	62.28
Max. outfall total volume (ML)	0.183

## Summary 2B: Results statistics (continued...)

Name	SCS_Type_11_43.2mm_12hr_2yr
Total outfall volume (ML)	0.222
Max. link peak flow (L/s)	62.28
Max. link peak velocity (m/s)	3.51
Min. link peak velocity (m/s)	0.92
Num. conduits surcharged	0
Max. conduit surcharge duration (hours)	0
Max. conduit capacity limited duration (hours)	0

## Summary 2C: Results statistics

Name	SCS_Type_11_57.6mm_12hr_5yr
Max. subcatchment total runoff (ML)	0.11
Max. subcatchment peak runoff (L/s)	55.87
Max. subcatchment runoff coefficient	0.361
Max. subcatchment total precip (mm)	57.6
Min. subcatchment total precip (mm)	57.6
Max. node depth (m)	0.17
Num. nodes surcharged	0
Max. node surcharge duration (hours)	0
Max. node height above crown (m)	0
Min. node depth below rim (m)	0
Num. nodes flooded	0
Max. node flooding duration (hours)	0
Max. node flood volume (ML)	0
Max. node ponded volume or depth (ha-mm/1000 m <sup>3</sup> /m)	0
Max. storage volume (1000 m <sup>3</sup> )	n/a
Max. storage percent full (%)	n/a
Max. outfall flow frequency (%)	25.21
Max. outfall peak flow (L/s)	208.53
Max. outfall total volume (ML)	0.45
Total outfall volume (ML)	0.520
Max. link peak flow (L/s)	208.53
Max. link peak velocity (m/s)	5.1
Min. link peak velocity (m/s)	0.8
Num. conduits surcharged	0
Max. conduit surcharge duration (hours)	0

## Summary 2C: Results statistics (continued...)

Name	SCS_Type_I1_57.6mm_12hr_5yr
Max. conduit capacity limited duration (hours)	0

## Summary 2D: Results statistics

Name	SCS_Type_I1_96mm_12hr_100yr
Max. subcatchment total runoff (ML)	0.56
Max. subcatchment peak runoff (L/s)	260.77
Max. subcatchment runoff coefficient	0.511
Max. subcatchment total precip (mm)	96
Min. subcatchment total precip (mm)	96
Max. node depth (m)	0.27
Num. nodes surcharged	0
Max. node surcharge duration (hours)	0
Max. node height above crown (m)	0
Min. node depth below rim (m)	0
Num. nodes flooded	0
Max. node flooding duration (hours)	0
Max. node flood volume (ML)	0
Max. node ponded volume or depth (ha-mm/1000 m <sup>3</sup> /m)	0
Max. storage volume (1000 m <sup>3</sup> )	n/a
Max. storage percent full (%)	n/a
Max. outfall flow frequency (%)	28.12
Max. outfall peak flow (L/s)	665.32
Max. outfall total volume (ML)	1.464
Total outfall volume (ML)	1.632
Max. link peak flow (L/s)	665.32
Max. link peak velocity (m/s)	7.19
Min. link peak velocity (m/s)	0.76
Num. conduits surcharged	0
Max. conduit surcharge duration (hours)	0
Max. conduit capacity limited duration (hours)	0



## Summary 2E: Results statistics

Name	SCS_Type_II_103.2mm_100yr	SCS_Type_II_48mm_2yr
Max. subcatchment total runoff (ML)	0.47	0.08
Max. subcatchment peak runoff (L/s)	220.48	27.44
Max. subcatchment runoff coefficient	0.532	0.298
Max. subcatchment total precip (mm)	103.2	48
Min. subcatchment total precip (mm)	103.2	48
Max. node depth (m)	0.27	0.12
Num. nodes surcharged	0	0
Max. node surcharge duration (hours)	0	0
Max. node height above crown (m)	0	0
Min. node depth below rim (m)	0	0
Num. nodes flooded	0	0
Max. node flooding duration (hours)	0	0
Max. node flood volume (ML)	0	0
Max. node ponded volume or depth (ha-mm/1000 m <sup>3</sup> /m)	0	0
Max. storage volume (1000 m <sup>3</sup> )	n/a	n/a
Max. storage percent full (%)	n/a	n/a
Max. outfall flow frequency (%)	36.63	31.59
Max. outfall peak flow (L/s)	595.44	74.17
Max. outfall total volume (ML)	1.453	0.233
Total outfall volume (ML)	1.641	0.282
Max. link peak flow (L/s)	595.44	74.17
Max. link peak velocity (m/s)	6.96	3.71
Min. link peak velocity (m/s)	0.73	1.02
Num. conduits surcharged	0	0
Max. conduit surcharge duration (hours)	0	0
Max. conduit capacity limited duration (hours)	0	0

## Summary 2F: Results statistics

Name	SCS_Type_I1_62.4mm_5yr
Max. subcatchment total runoff (ML)	0.13
Max. subcatchment peak runoff (L/s)	50.43
Max. subcatchment runoff coefficient	0.38
Max. subcatchment total precip (mm)	62.4
Min. subcatchment total precip (mm)	62.4
Max. node depth (m)	0.17
Num. nodes surcharged	0
Max. node surcharge duration (hours)	0
Max. node height above crown (m)	0
Min. node depth below rim (m)	0
Num. nodes flooded	0
Max. node flooding duration (hours)	0
Max. node flood volume (ML)	0
Max. node ponded volume or depth (ha-mm/1000 m <sup>3</sup> /m)	0
Max. storage volume (1000 m <sup>3</sup> )	n/a
Max. storage percent full (%)	n/a
Max. outfall flow frequency (%)	32.66
Max. outfall peak flow (L/s)	199.91
Max. outfall total volume (ML)	0.489
Total outfall volume (ML)	0.570
Max. link peak flow (L/s)	199.91
Max. link peak velocity (m/s)	5.04
Min. link peak velocity (m/s)	0.77
Num. conduits surcharged	0
Max. conduit surcharge duration (hours)	0
Max. conduit capacity limited duration (hours)	0

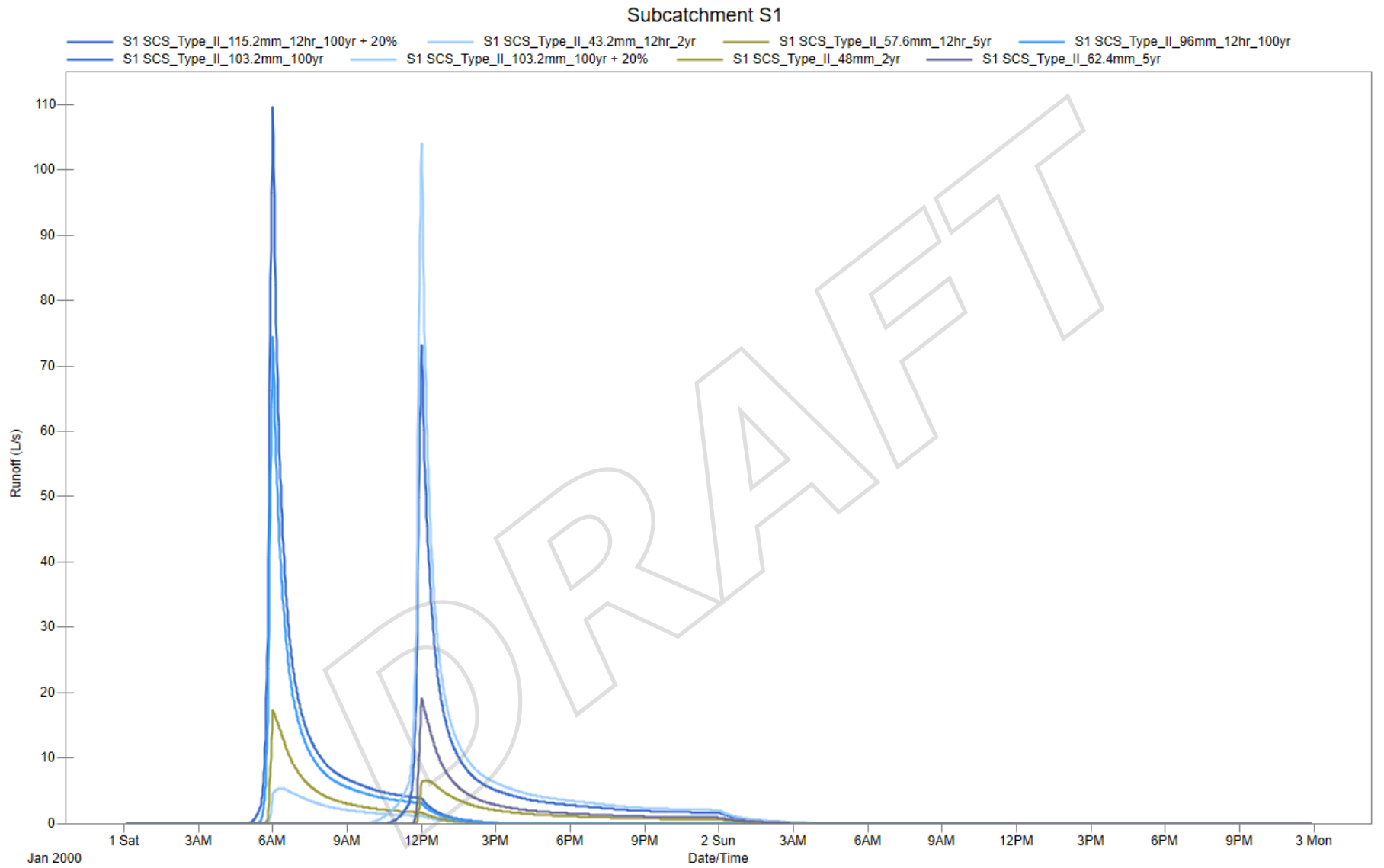


Figure 1: S1

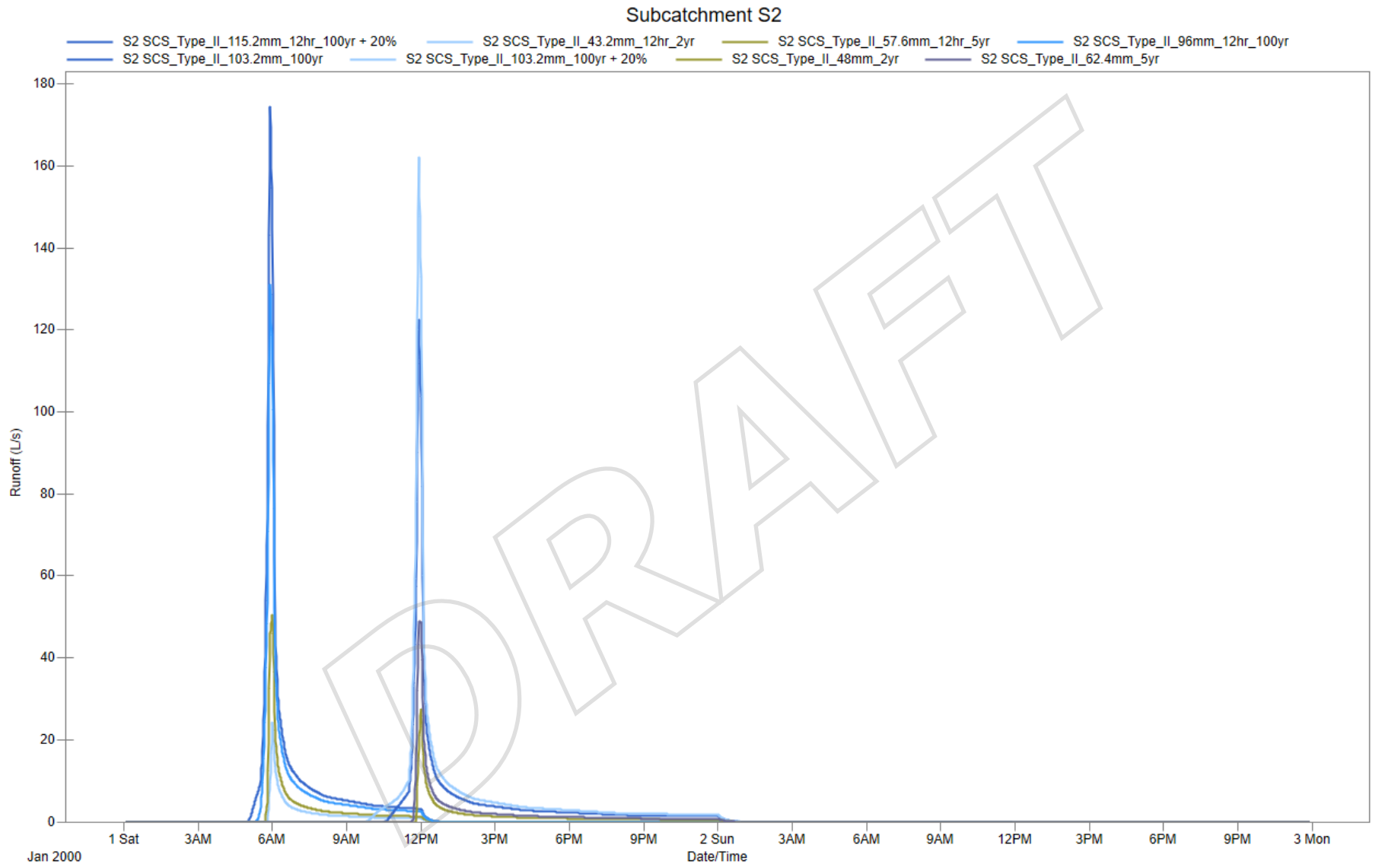


Figure 2: S2

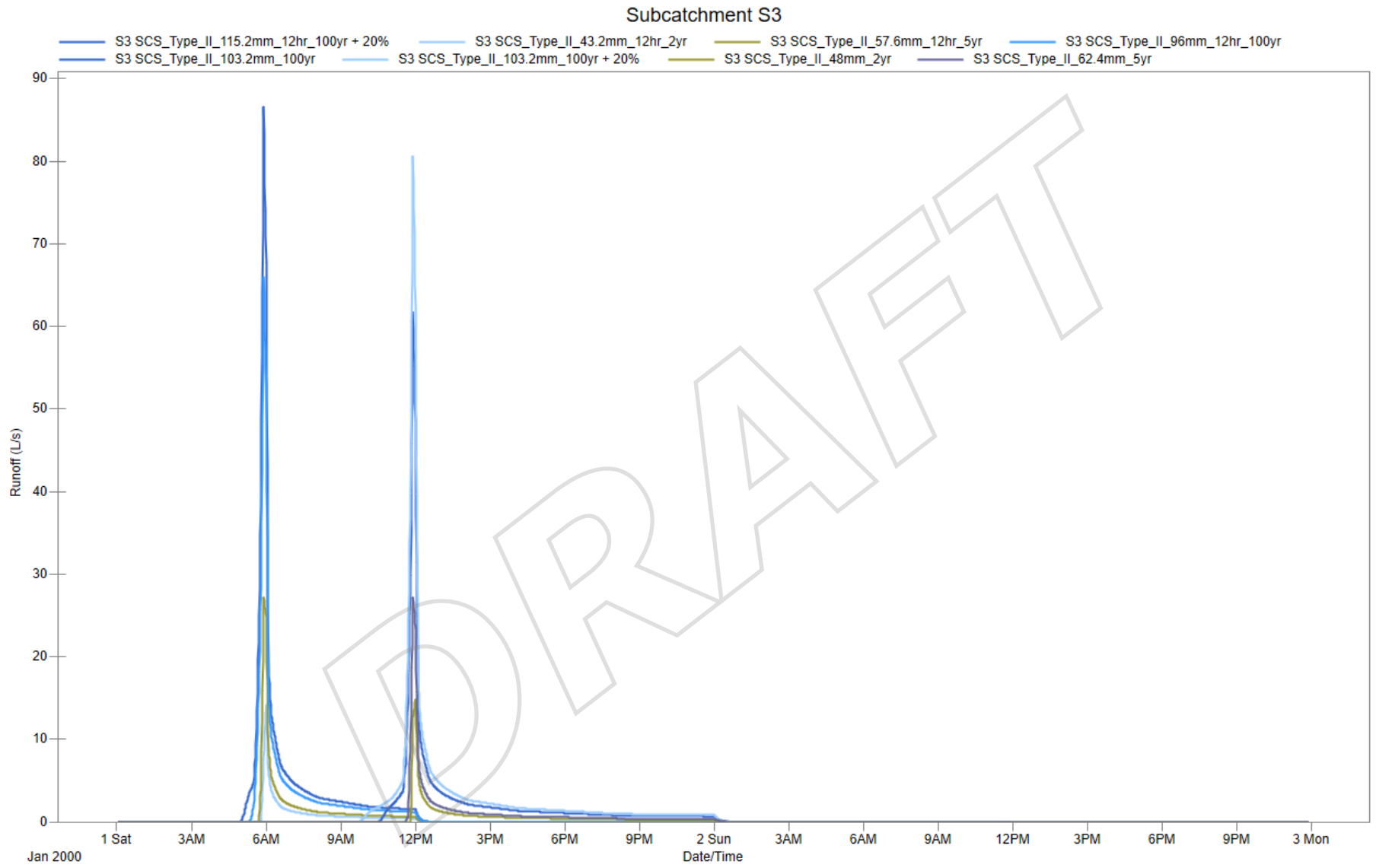


Figure 3: S3

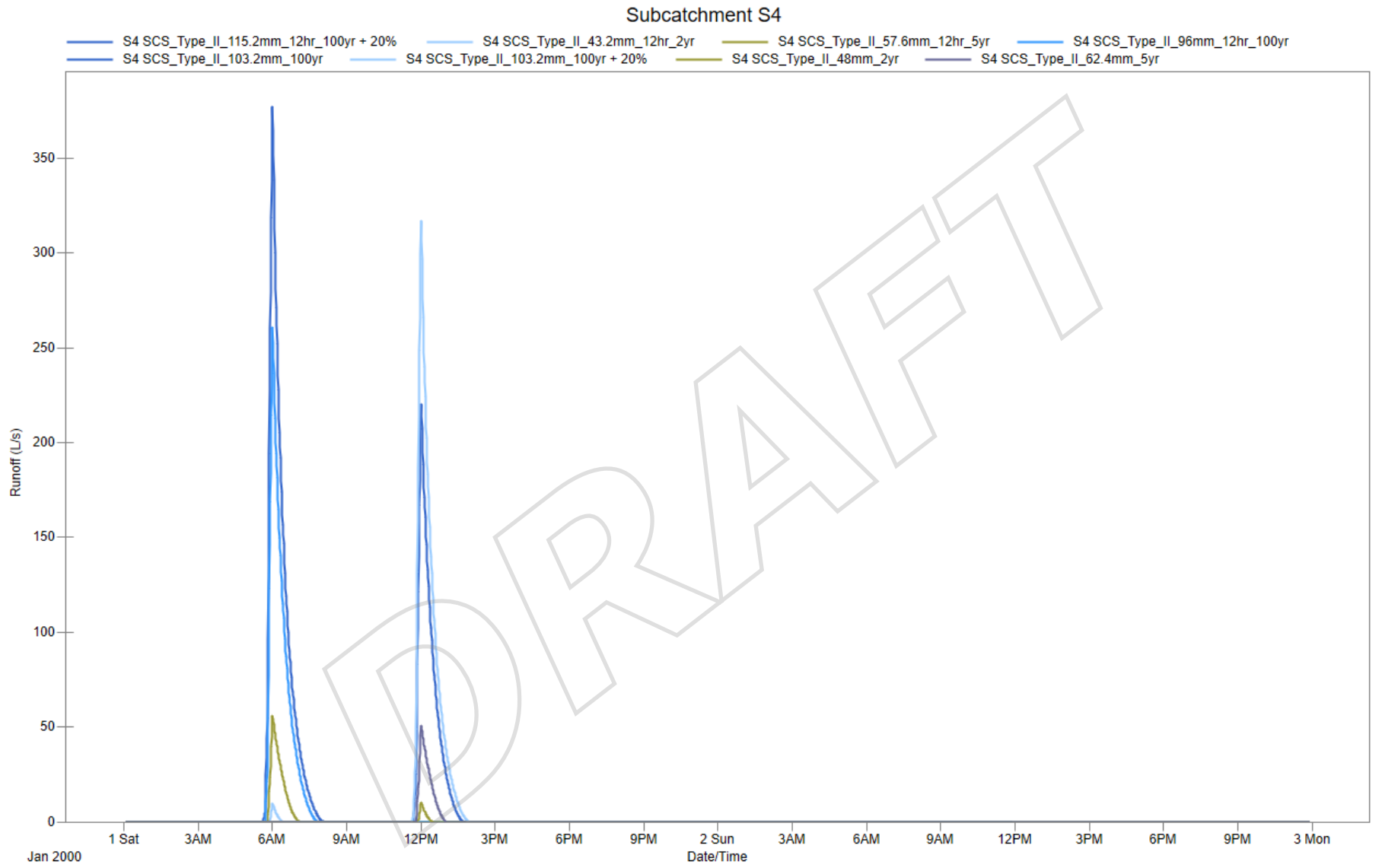


Figure 4: S4

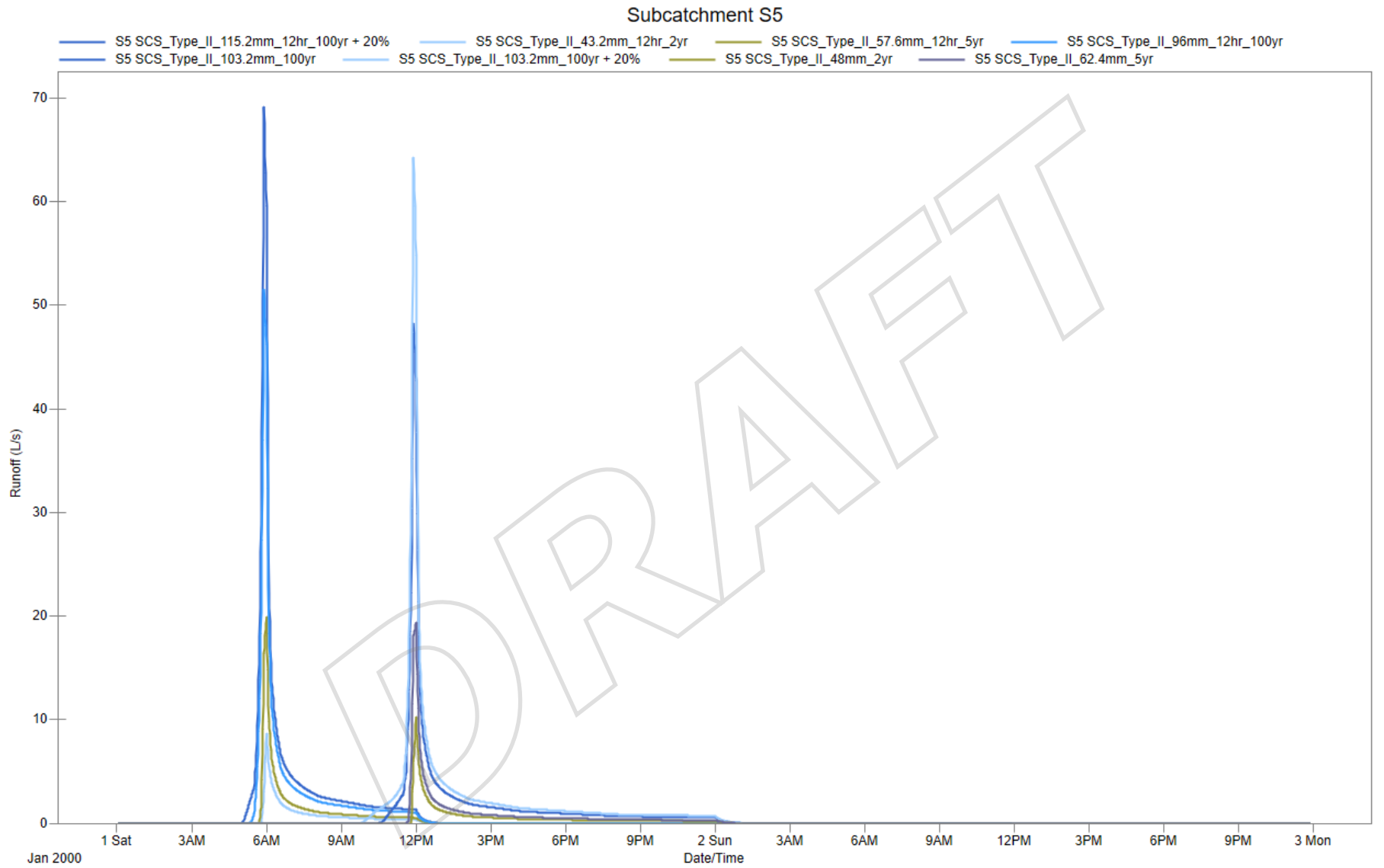


Figure 5: S5

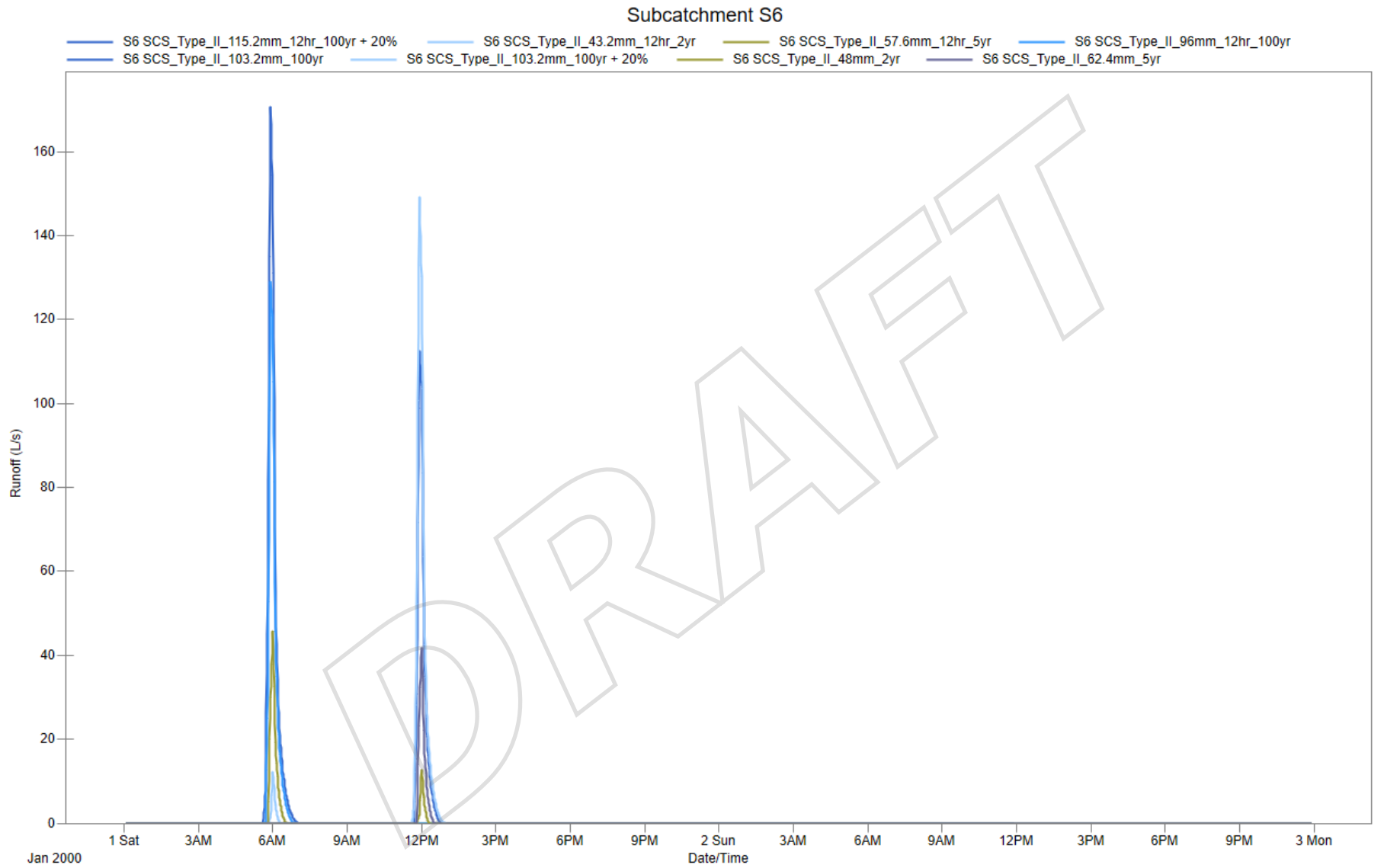


Figure 6: S6



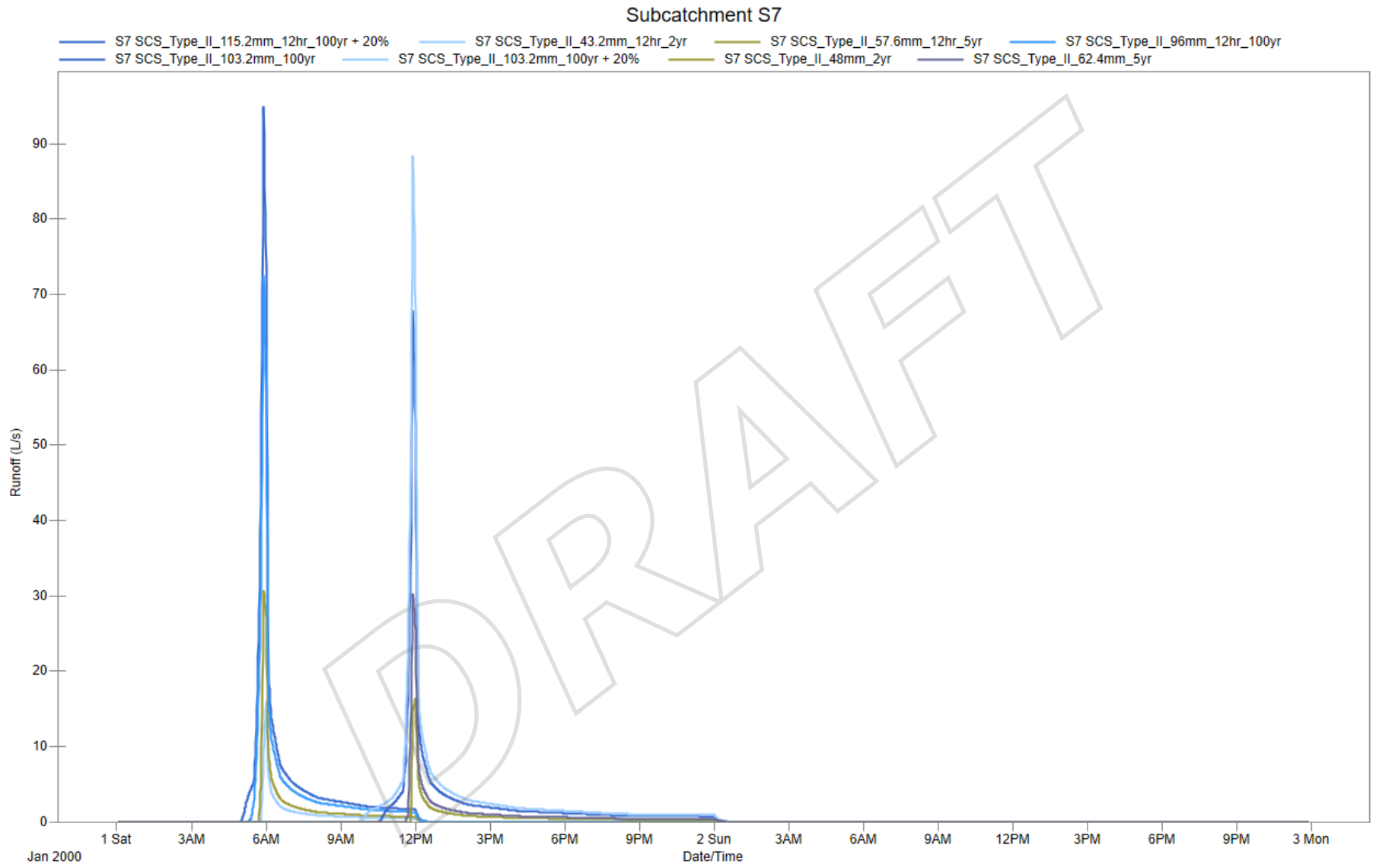


Figure 7: S7

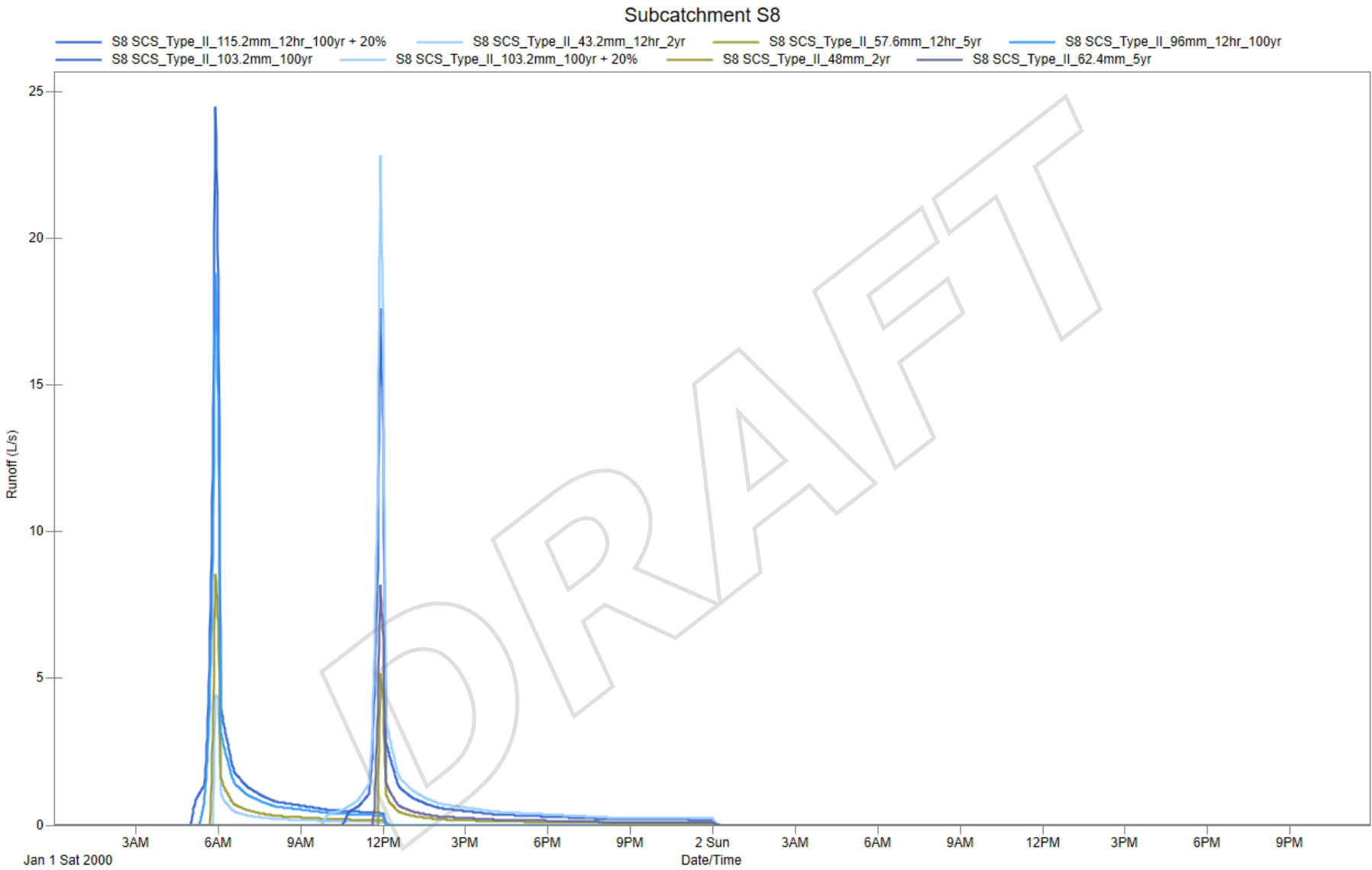


Figure 8: S8

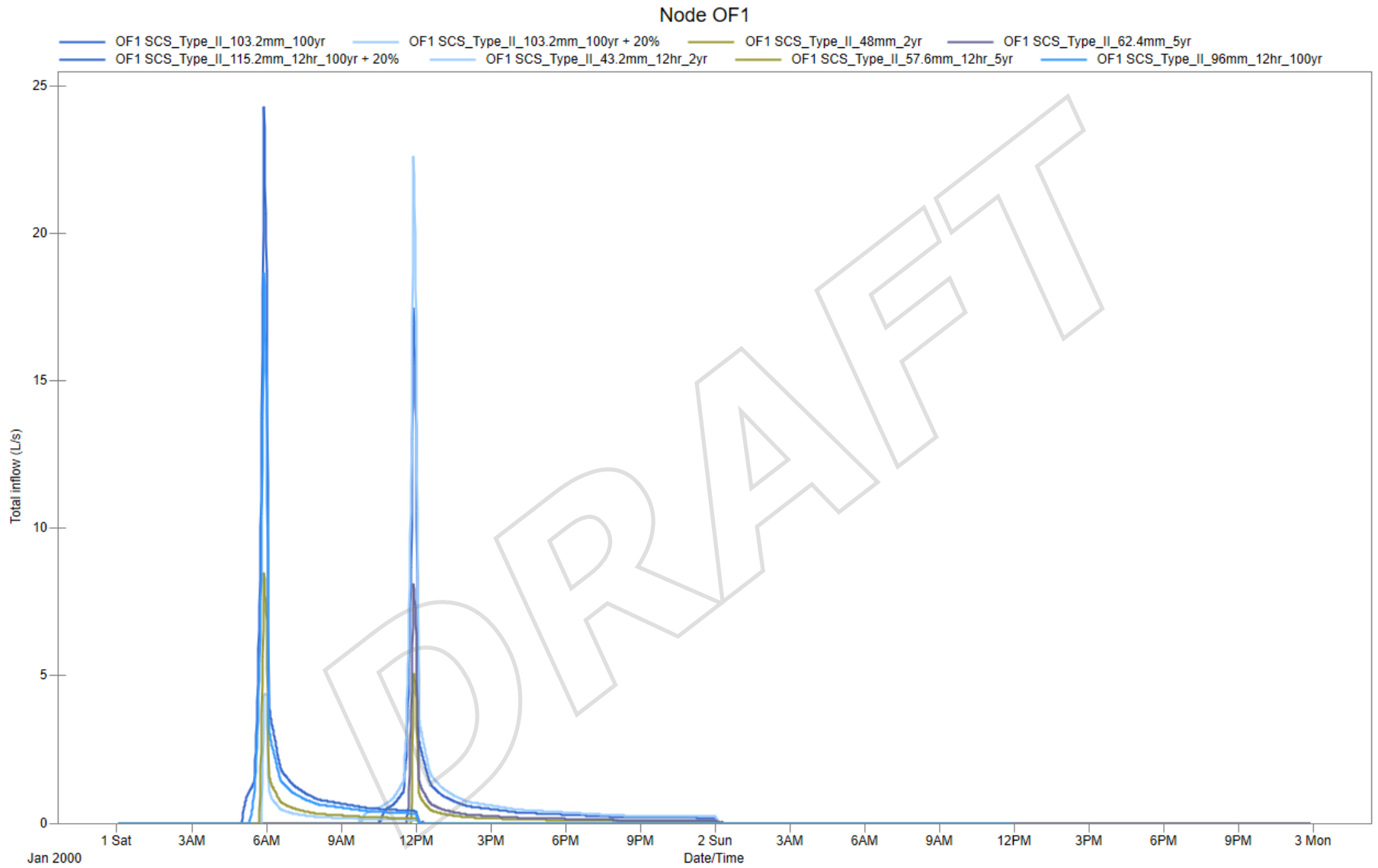


Figure 9: OF1

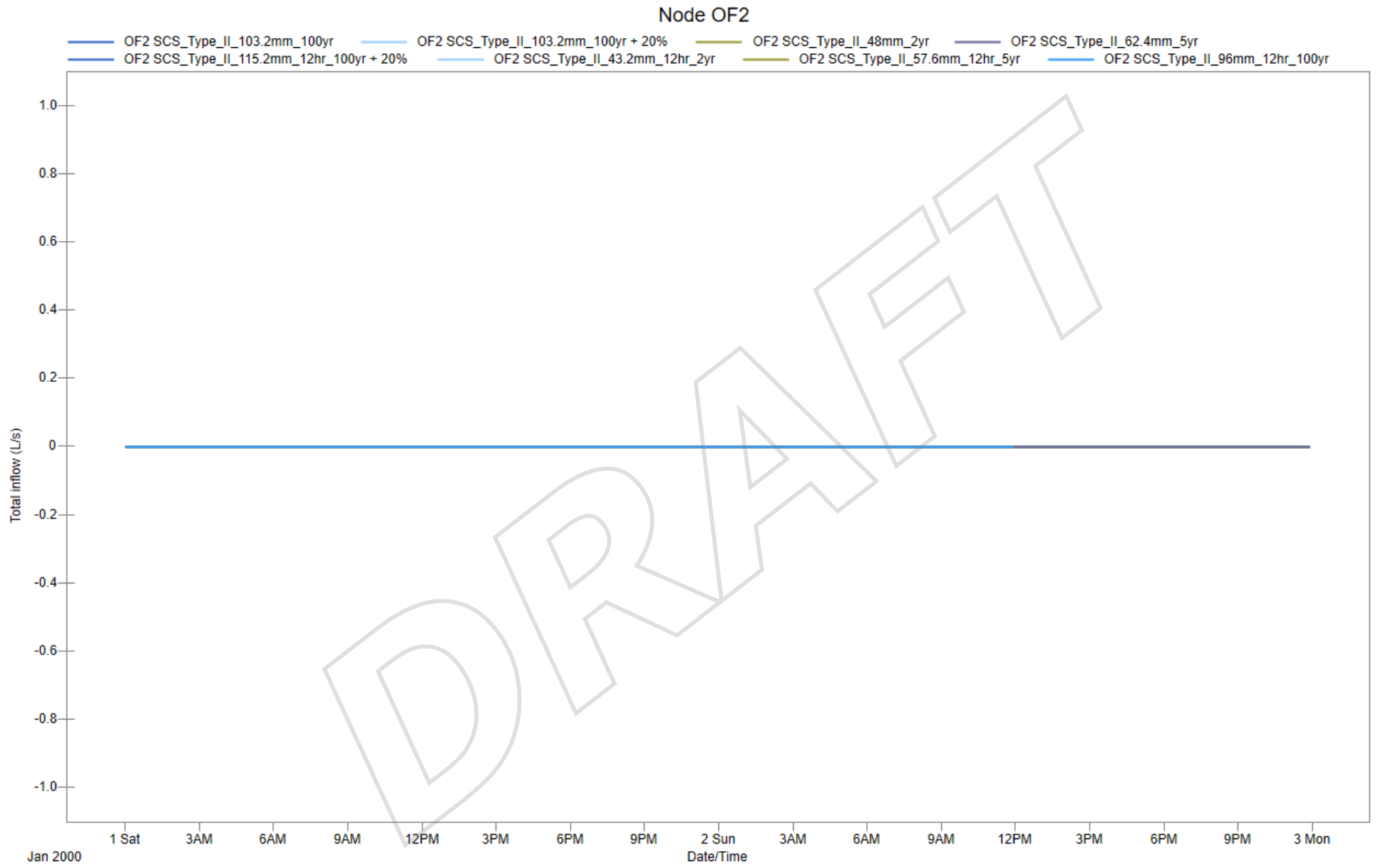


Figure 10: OF2

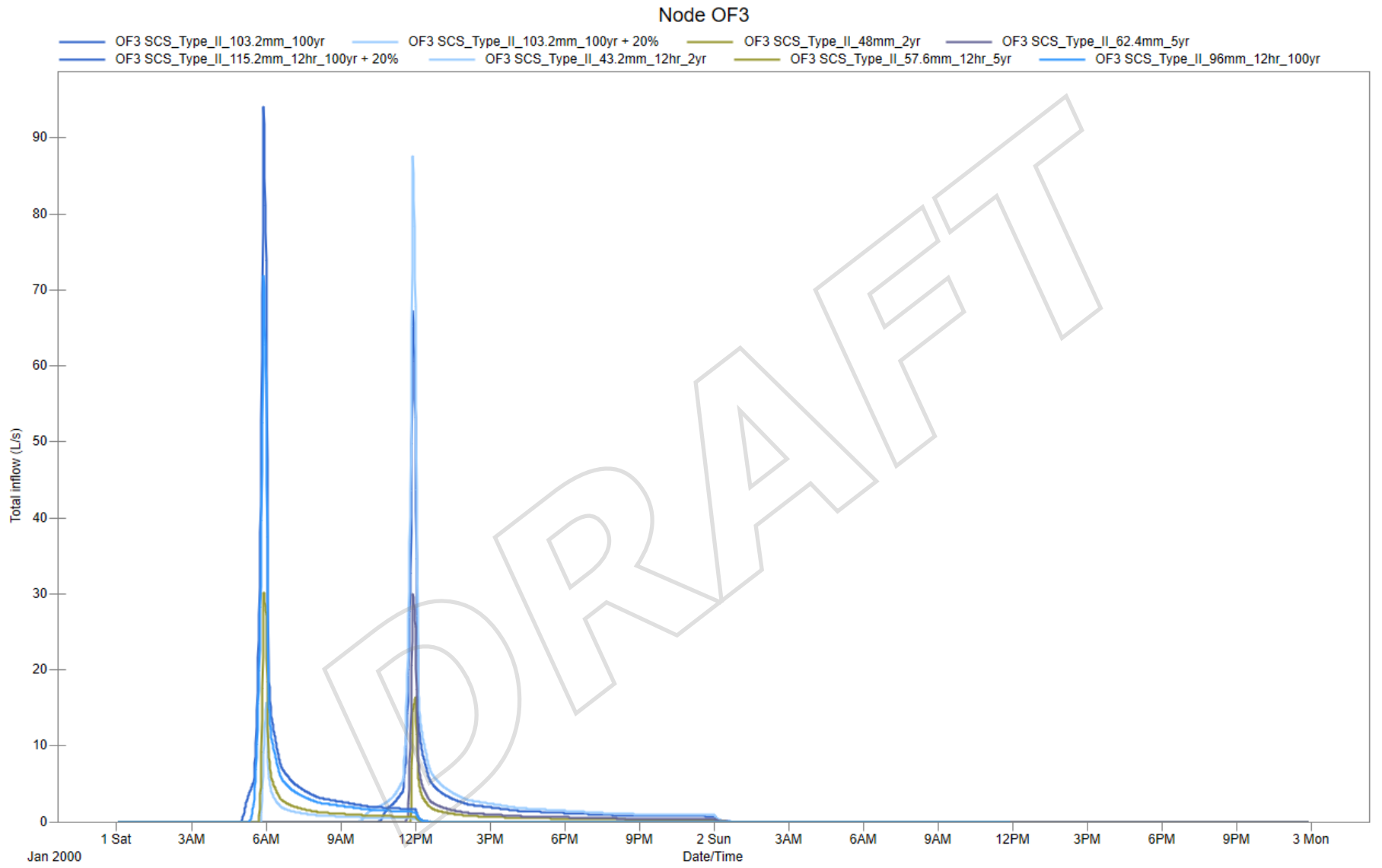


Figure 11: OF3

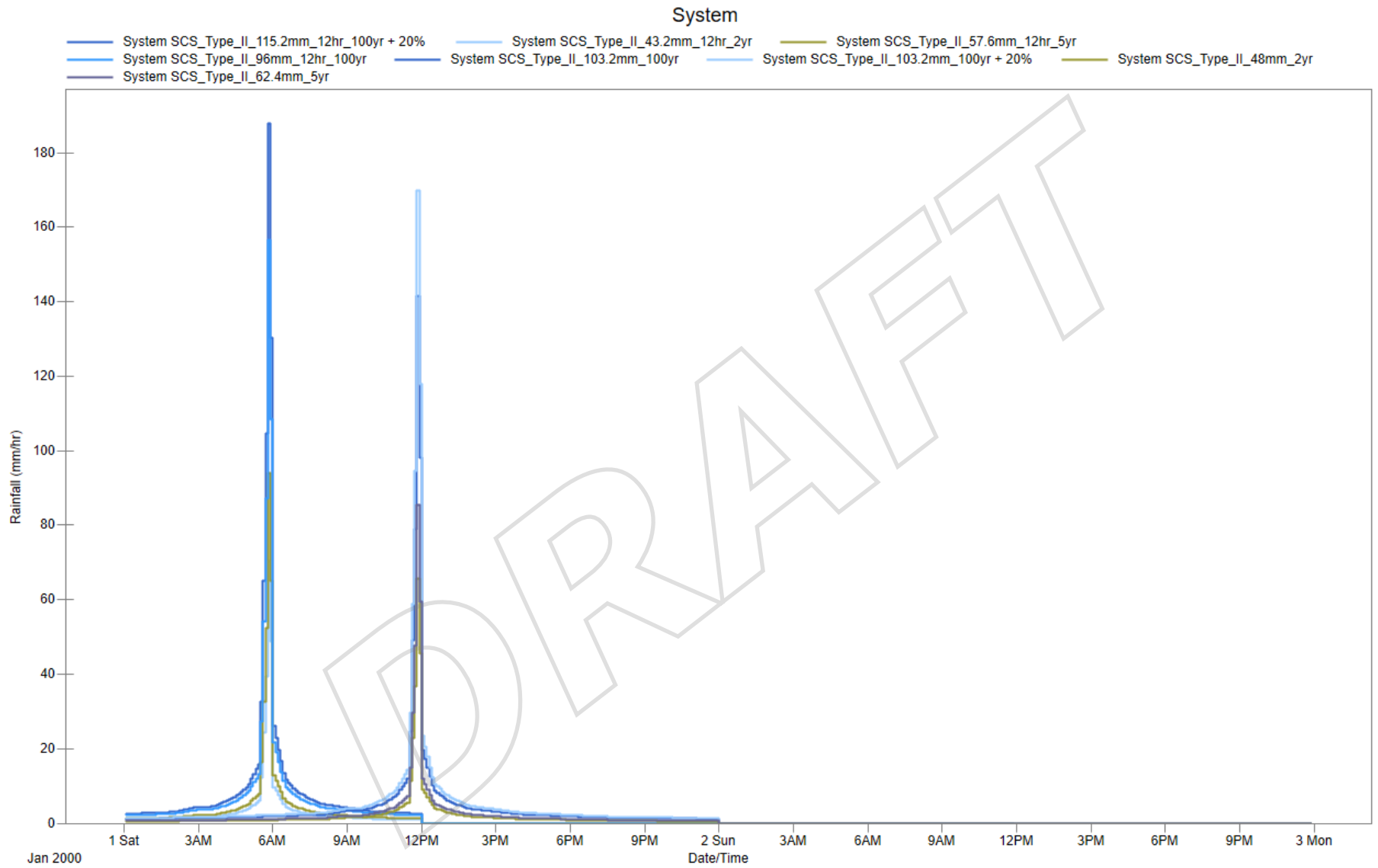


Figure 12: Rainfall\_2yr to 100yr + 20%



















SWMM5 LID Report File

Project:

LID Unit: Trench-East in Subcatchment S6

Storm: SCS\_Type\_II\_57.6mm\_5yr\_12hours

Date	Time	Elapsed Time Hours	Total Inflow mm/hr	Total Evap mm/hr	Surface Infil mm/hr	Pavement Perc mm/hr	Soil Perc mm/hr	Storage Exfil mm/hr	Surface Runoff mm/hr	Drain OutFlow mm/hr	Surface Level mm	Pavement Level mm	Soil Moisture Content	Storage Level mm
01/01/2000	00:06:00	0.100	1.240	0.0000	1.240	0.000	0.000	1.240	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:12:00	0.200	1.253	0.0000	1.253	0.000	0.000	1.253	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:18:00	0.300	1.267	0.0000	1.267	0.000	0.000	1.267	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:24:00	0.400	1.281	0.0000	1.281	0.000	0.000	1.281	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:30:00	0.500	1.294	0.0000	1.294	0.000	0.000	1.294	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:36:00	0.600	1.308	0.0000	1.308	0.000	0.000	1.308	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:42:00	0.700	1.322	0.0000	1.322	0.000	0.000	1.322	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:48:00	0.800	1.336	0.0000	1.336	0.000	0.000	1.336	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:54:00	0.900	1.349	0.0000	1.349	0.000	0.000	1.349	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:00:00	1.000	1.363	0.0000	1.363	0.000	0.000	1.363	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:06:00	1.100	1.377	0.0000	1.377	0.000	0.000	1.377	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:12:00	1.200	1.390	0.0000	1.390	0.000	0.000	1.390	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:18:00	1.300	1.404	0.0000	1.404	0.000	0.000	1.404	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:24:00	1.400	1.418	0.0000	1.418	0.000	0.000	1.418	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:30:00	1.500	1.431	0.0000	1.431	0.000	0.000	1.431	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:36:00	1.600	1.445	0.0000	1.445	0.000	0.000	1.445	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:42:00	1.700	1.459	0.0000	1.459	0.000	0.000	1.459	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:48:00	1.800	1.473	0.0000	1.473	0.000	0.000	1.473	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:54:00	1.900	1.486	0.0000	1.486	0.000	0.000	1.486	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:00:00	2.000	1.500	0.0000	1.500	0.000	0.000	1.500	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:06:00	2.100	1.541	0.0000	1.541	0.000	0.000	1.541	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:12:00	2.200	1.610	0.0000	1.610	0.000	0.000	1.610	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:18:00	2.300	1.678	0.0000	1.678	0.000	0.000	1.678	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:24:00	2.400	1.746	0.0000	1.746	0.000	0.000	1.746	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:30:00	2.500	1.815	0.0000	1.815	0.000	0.000	1.815	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:36:00	2.600	1.883	0.0000	1.883	0.000	0.000	1.883	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:42:00	2.700	1.952	0.0000	1.952	0.000	0.000	1.952	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:48:00	2.800	2.020	0.0000	2.020	0.000	0.000	2.020	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:54:00	2.900	2.089	0.0000	2.089	0.000	0.000	2.089	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:00:00	3.000	2.157	0.0000	2.157	0.000	0.000	2.157	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:06:00	3.100	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:12:00	3.200	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:18:00	3.300	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:24:00	3.400	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:30:00	3.500	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:36:00	3.600	2.246	0.0000	2.246	0.000	0.000	2.246	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:42:00	3.700	2.356	0.0000	2.356	0.000	0.000	2.356	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:48:00	3.800	2.466	0.0000	2.466	0.000	0.000	2.466	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:54:00	3.900	2.575	0.0000	2.575	0.000	0.000	2.575	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:00:00	4.000	2.685	0.0000	2.685	0.000	0.000	2.685	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:06:00	4.100	2.822	0.0000	2.822	0.000	0.000	2.822	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:12:00	4.200	2.986	0.0000	2.986	0.000	0.000	2.986	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:18:00	4.300	3.151	0.0000	3.151	0.000	0.000	3.151	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:24:00	4.400	3.315	0.0000	3.315	0.000	0.000	3.315	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:30:00	4.500	3.479	0.0000	3.479	0.000	0.000	3.479	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:36:00	4.600	3.698	0.0000	3.698	0.000	0.000	3.698	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:42:00	4.700	3.972	0.0000	3.972	0.000	0.000	3.972	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:48:00	4.800	4.246	0.0000	4.246	0.000	0.000	4.246	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:54:00	4.900	4.520	0.0000	4.520	0.000	0.000	4.520	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:00:00	5.000	4.794	0.0000	4.794	0.000	0.000	4.794	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:06:00	5.100	5.260	0.0000	5.260	0.000	0.000	5.260	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:12:00	5.200	5.918	0.0000	5.918	0.000	0.000	5.918	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:18:00	5.300	6.575	0.0000	6.575	0.000	0.000	6.575	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:24:00	5.400	7.233	0.0000	7.233	0.000	0.000	7.233	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:30:00	5.500	7.890	0.0000	7.890	0.000	0.000	7.890	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:36:00	5.600	16.328	0.0000	16.328	0.000	0.000	16.328	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:42:00	5.700	32.546	0.0000	32.546	0.000	0.000	32.546	0.000	0.000	0.000	0.000	0.000	0.000











































## East Trench - 2 Stage Storage Report from CAD

East Trench Surface Ponding between 99.7 to 100.30 elevation

Project: 21023795 - 4380 Trail Road

Basin Description: East Trench

Contour Elevation	Contour Area (sq. m)	Incremental Depth (m)	Avg. End Incremental Volume (cu. m)	Avg. End Cumulative Volume (cu. m)	Conic Incremental Volume (cu. m)	Conic Cumulative Volume (cu. m)
99.75	169.99	N/A	N/A	0.00	N/A	0.00
99.90	231.14	0.15	30.08	30.08	29.97	29.97
100.00	274.56	0.10	25.28	55.37	25.25	55.22
100.10	320.11	0.10	29.73	85.10	29.70	84.93
100.15	343.69	0.05	16.59	101.70	16.59	101.52
100.20	367.79	0.05	17.79	119.48	17.78	119.30
100.23	384.42	0.03	12.74	132.22	12.74	132.04
100.25	392.43	0.02	6.27	138.49	6.26	138.30
100.29	412.52	0.04	16.10	154.59	16.10	154.40



01/01/2000 05:48:00	5.800	39.260	0.0000	39.260	0.000	0.000	39.260	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 05:54:00	5.900	74.550	0.0000	74.550	0.000	0.000	74.550	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:00:00	6.000	76.720	0.0000	76.720	0.000	0.000	76.720	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:06:00	6.100	75.916	0.0000	75.916	0.000	0.000	75.916	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:12:00	6.200	93.470	0.0000	93.470	0.000	0.000	93.470	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:18:00	6.300	96.668	0.0000	96.668	0.000	0.000	96.668	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:24:00	6.400	92.233	0.0000	92.233	0.000	0.000	92.233	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:30:00	6.500	84.368	0.0000	84.368	0.000	0.000	84.368	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:36:00	6.600	76.372	0.0000	76.372	0.000	0.000	76.372	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:42:00	6.700	69.282	0.0000	69.282	0.000	0.000	69.282	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:48:00	6.800	62.968	0.0000	62.968	0.000	0.000	62.968	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 06:54:00	6.900	57.437	0.0000	57.437	0.000	0.000	57.437	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:00:00	7.000	52.591	0.0000	52.591	0.000	0.000	52.591	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:06:00	7.100	48.407	0.0000	48.407	0.000	0.000	48.407	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:12:00	7.200	44.821	0.0000	44.821	0.000	0.000	44.821	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:18:00	7.300	41.690	0.0000	41.690	0.000	0.000	41.690	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:24:00	7.400	38.936	0.0000	38.936	0.000	0.000	38.936	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:30:00	7.500	36.487	0.0000	36.487	0.000	0.000	36.487	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:36:00	7.600	34.314	0.0000	34.314	0.000	0.000	34.314	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:42:00	7.700	32.384	0.0000	32.384	0.000	0.000	32.384	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:48:00	7.800	30.641	0.0000	30.641	0.000	0.000	30.641	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 07:54:00	7.900	29.053	0.0000	29.053	0.000	0.000	29.053	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:00:00	8.000	27.594	0.0000	27.594	0.000	0.000	27.594	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:06:00	8.100	26.293	0.0000	26.293	0.000	0.000	26.293	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:12:00	8.200	25.139	0.0000	25.139	0.000	0.000	25.139	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:18:00	8.300	24.112	0.0000	24.112	0.000	0.000	24.112	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:24:00	8.400	23.177	0.0000	23.177	0.000	0.000	23.177	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:30:00	8.500	22.345	0.0000	22.345	0.000	0.000	22.345	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:36:00	8.600	21.581	0.0000	21.581	0.000	0.000	21.581	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:42:00	8.700	20.896	0.0000	20.896	0.000	0.000	20.896	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:48:00	8.800	20.257	0.0000	20.257	0.000	0.000	20.257	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 08:54:00	8.900	19.678	0.0000	19.678	0.000	0.000	19.678	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:00:00	9.000	19.130	0.0000	19.130	0.000	0.000	19.130	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:06:00	9.100	18.629	0.0000	18.629	0.000	0.000	18.629	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:12:00	9.200	18.145	0.0000	18.145	0.000	0.000	18.145	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:18:00	9.300	17.698	0.0000	17.698	0.000	0.000	17.698	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:24:00	9.400	17.260	0.0000	17.260	0.000	0.000	17.260	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:30:00	9.500	16.851	0.0000	16.851	0.000	0.000	16.851	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:36:00	9.600	16.446	0.0000	16.446	0.000	0.000	16.446	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:42:00	9.700	16.064	0.0000	16.064	0.000	0.000	16.064	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:48:00	9.800	15.681	0.0000	15.681	0.000	0.000	15.681	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 09:54:00	9.900	15.318	0.0000	15.318	0.000	0.000	15.318	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:00:00	10.000	14.951	0.0000	14.951	0.000	0.000	14.951	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:06:00	10.100	14.616	0.0000	14.616	0.000	0.000	14.616	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:12:00	10.200	14.301	0.0000	14.301	0.000	0.000	14.301	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:18:00	10.300	14.009	0.0000	14.009	0.000	0.000	14.009	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:24:00	10.400	13.729	0.0000	13.729	0.000	0.000	13.729	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:30:00	10.500	13.472	0.0000	13.472	0.000	0.000	13.472	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:36:00	10.600	13.225	0.0000	13.225	0.000	0.000	13.225	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:42:00	10.700	12.998	0.0000	12.998	0.000	0.000	12.998	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:48:00	10.800	12.779	0.0000	12.779	0.000	0.000	12.779	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 10:54:00	10.900	12.577	0.0000	12.577	0.000	0.000	12.577	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:00:00	11.000	12.381	0.0000	12.381	0.000	0.000	12.381	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:06:00	11.100	12.199	0.0000	12.199	0.000	0.000	12.199	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:12:00	11.200	12.021	0.0000	12.021	0.000	0.000	12.021	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:18:00	11.300	11.855	0.0000	11.855	0.000	0.000	11.855	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:24:00	11.400	11.690	0.0000	11.690	0.000	0.000	11.690	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:30:00	11.500	11.537	0.0000	11.537	0.000	0.000	11.537	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:36:00	11.600	11.383	0.0000	11.383	0.000	0.000	11.383	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:42:00	11.700	11.239	0.0000	11.239	0.000	0.000	11.239	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:48:00	11.800	11.093	0.0000	11.093	0.000	0.000	11.093	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 11:54:00	11.900	10.956	0.0000	10.956	0.000	0.000	10.956	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:00:00	12.000	10.815	0.0000	10.815	0.000	0.000	10.815	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:06:00	12.100	9.219	0.0000	9.219	0.000	0.000	9.219	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:12:00	12.200	8.399	0.0000	8.399	0.000	0.000	8.399	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:18:00	12.300	7.541	0.0000	7.541	0.000	0.000	7.541	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:24:00	12.400	6.705	0.0000	6.705	0.000	0.000	6.705	0.000	0.000	0.000	0.000	0.000	0.000

01/01/2000 12:30:00	12.500	5.924	0.0000	5.924	0.000	0.000	5.924	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:36:00	12.600	5.212	0.0000	5.212	0.000	0.000	5.212	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:42:00	12.700	4.578	0.0000	4.578	0.000	0.000	4.578	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:48:00	12.800	4.027	0.0000	4.027	0.000	0.000	4.027	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:54:00	12.900	3.546	0.0000	3.546	0.000	0.000	3.546	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:00:00	13.000	3.125	0.0000	3.125	0.000	0.000	3.125	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:06:00	13.100	2.754	0.0000	2.754	0.000	0.000	2.754	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:12:00	13.200	2.427	0.0000	2.427	0.000	0.000	2.427	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:18:00	13.300	2.137	0.0000	2.137	0.000	0.000	2.137	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:24:00	13.400	1.879	0.0000	1.879	0.000	0.000	1.879	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:30:00	13.500	1.650	0.0000	1.650	0.000	0.000	1.650	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:36:00	13.600	1.445	0.0000	1.445	0.000	0.000	1.445	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:42:00	13.700	1.261	0.0000	1.261	0.000	0.000	1.261	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:48:00	13.800	1.097	0.0000	1.097	0.000	0.000	1.097	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:54:00	13.900	0.949	0.0000	0.949	0.000	0.000	0.949	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:00:00	14.000	0.816	0.0000	0.816	0.000	0.000	0.816	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:06:00	14.100	0.697	0.0000	0.697	0.000	0.000	0.697	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:12:00	14.200	0.590	0.0000	0.590	0.000	0.000	0.590	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:18:00	14.300	0.494	0.0000	0.494	0.000	0.000	0.494	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:24:00	14.400	0.408	0.0000	0.408	0.000	0.000	0.408	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:30:00	14.500	0.331	0.0000	0.331	0.000	0.000	0.331	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:36:00	14.600	0.263	0.0000	0.263	0.000	0.000	0.263	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:42:00	14.700	0.203	0.0000	0.203	0.000	0.000	0.203	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:48:00	14.800	0.151	0.0000	0.151	0.000	0.000	0.151	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:54:00	14.900	0.106	0.0000	0.106	0.000	0.000	0.106	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:00:00	15.000	0.068	0.0000	0.068	0.000	0.000	0.068	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:06:00	15.100	0.038	0.0000	0.038	0.000	0.000	0.038	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:12:00	15.200	0.015	0.0000	0.015	0.000	0.000	0.015	0.000	0.000	0.000	0.000	0.000	0.000













SWMM5 LID Report File

Project:

LID Unit: Trench-West in Subcatchment S1

Storm: SCS\_Type\_II\_57.6mm\_5yr\_12hours

Date	Time	Elapsed Time Hours	Total Inflow mm/hr	Total Evap mm/hr	Surface Infil mm/hr	Pavement Perc mm/hr	Soil Perc mm/hr	Storage Exfil mm/hr	Surface Runoff mm/hr	Drain OutFlow mm/hr	Surface Level mm	Pavement Level mm	Soil Moisture Content	Storage Level mm
01/01/2000	00:06:00	0.100	1.240	0.0000	1.240	0.000	0.000	1.240	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:12:00	0.200	1.253	0.0000	1.253	0.000	0.000	1.253	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:18:00	0.300	1.267	0.0000	1.267	0.000	0.000	1.267	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:24:00	0.400	1.281	0.0000	1.281	0.000	0.000	1.281	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:30:00	0.500	1.294	0.0000	1.294	0.000	0.000	1.294	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:36:00	0.600	1.308	0.0000	1.308	0.000	0.000	1.308	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:42:00	0.700	1.322	0.0000	1.322	0.000	0.000	1.322	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:48:00	0.800	1.336	0.0000	1.336	0.000	0.000	1.336	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:54:00	0.900	1.349	0.0000	1.349	0.000	0.000	1.349	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:00:00	1.000	1.363	0.0000	1.363	0.000	0.000	1.363	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:06:00	1.100	1.377	0.0000	1.377	0.000	0.000	1.377	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:12:00	1.200	1.390	0.0000	1.390	0.000	0.000	1.390	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:18:00	1.300	1.404	0.0000	1.404	0.000	0.000	1.404	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:24:00	1.400	1.418	0.0000	1.418	0.000	0.000	1.418	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:30:00	1.500	1.431	0.0000	1.431	0.000	0.000	1.431	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:36:00	1.600	1.445	0.0000	1.445	0.000	0.000	1.445	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:42:00	1.700	1.459	0.0000	1.459	0.000	0.000	1.459	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:48:00	1.800	1.473	0.0000	1.473	0.000	0.000	1.473	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:54:00	1.900	1.486	0.0000	1.486	0.000	0.000	1.486	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:00:00	2.000	1.500	0.0000	1.500	0.000	0.000	1.500	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:06:00	2.100	1.541	0.0000	1.541	0.000	0.000	1.541	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:12:00	2.200	1.610	0.0000	1.610	0.000	0.000	1.610	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:18:00	2.300	1.678	0.0000	1.678	0.000	0.000	1.678	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:24:00	2.400	1.746	0.0000	1.746	0.000	0.000	1.746	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:30:00	2.500	1.815	0.0000	1.815	0.000	0.000	1.815	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:36:00	2.600	1.883	0.0000	1.883	0.000	0.000	1.883	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:42:00	2.700	1.952	0.0000	1.952	0.000	0.000	1.952	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:48:00	2.800	2.020	0.0000	2.020	0.000	0.000	2.020	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:54:00	2.900	2.089	0.0000	2.089	0.000	0.000	2.089	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:00:00	3.000	2.157	0.0000	2.157	0.000	0.000	2.157	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:06:00	3.100	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:12:00	3.200	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:18:00	3.300	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:24:00	3.400	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:30:00	3.500	2.192	0.0000	2.192	0.000	0.000	2.192	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:36:00	3.600	2.246	0.0000	2.246	0.000	0.000	2.246	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:42:00	3.700	2.356	0.0000	2.356	0.000	0.000	2.356	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:48:00	3.800	2.466	0.0000	2.466	0.000	0.000	2.466	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:54:00	3.900	2.575	0.0000	2.575	0.000	0.000	2.575	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:00:00	4.000	2.685	0.0000	2.685	0.000	0.000	2.685	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:06:00	4.100	2.822	0.0000	2.822	0.000	0.000	2.822	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:12:00	4.200	2.986	0.0000	2.986	0.000	0.000	2.986	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:18:00	4.300	3.151	0.0000	3.151	0.000	0.000	3.151	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:24:00	4.400	3.315	0.0000	3.315	0.000	0.000	3.315	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:30:00	4.500	3.479	0.0000	3.479	0.000	0.000	3.479	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:36:00	4.600	3.698	0.0000	3.698	0.000	0.000	3.698	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:42:00	4.700	3.972	0.0000	3.972	0.000	0.000	3.972	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:48:00	4.800	4.246	0.0000	4.246	0.000	0.000	4.246	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:54:00	4.900	4.520	0.0000	4.520	0.000	0.000	4.520	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:00:00	5.000	4.794	0.0000	4.794	0.000	0.000	4.794	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:06:00	5.100	5.260	0.0000	5.260	0.000	0.000	5.260	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:12:00	5.200	5.918	0.0000	5.918	0.000	0.000	5.918	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:18:00	5.300	6.575	0.0000	6.575	0.000	0.000	6.575	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:24:00	5.400	7.233	0.0000	7.233	0.000	0.000	7.233	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:30:00	5.500	7.890	0.0000	7.890	0.000	0.000	7.890	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:36:00	5.600	16.328	0.0000	16.328	0.000	0.000	16.328	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:42:00	5.700	32.546	0.0000	32.546	0.000	0.000	32.546	0.000	0.000	0.000	0.000	0.000	0.000



01/01/2000 12:30:00	12.500	8.542	0.0000	8.542	0.000	0.000	8.542	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:36:00	12.600	7.464	0.0000	7.464	0.000	0.000	7.464	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:42:00	12.700	6.510	0.0000	6.510	0.000	0.000	6.510	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:48:00	12.800	5.682	0.0000	5.682	0.000	0.000	5.682	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 12:54:00	12.900	4.972	0.0000	4.972	0.000	0.000	4.972	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:00:00	13.000	4.358	0.0000	4.358	0.000	0.000	4.358	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:06:00	13.100	3.826	0.0000	3.826	0.000	0.000	3.826	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:12:00	13.200	3.361	0.0000	3.361	0.000	0.000	3.361	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:18:00	13.300	2.953	0.0000	2.953	0.000	0.000	2.953	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:24:00	13.400	2.595	0.0000	2.595	0.000	0.000	2.595	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:30:00	13.500	2.278	0.0000	2.278	0.000	0.000	2.278	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:36:00	13.600	1.997	0.0000	1.997	0.000	0.000	1.997	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:42:00	13.700	1.748	0.0000	1.748	0.000	0.000	1.748	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:48:00	13.800	1.525	0.0000	1.525	0.000	0.000	1.525	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:54:00	13.900	1.327	0.0000	1.327	0.000	0.000	1.327	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:00:00	14.000	1.149	0.0000	1.149	0.000	0.000	1.149	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:06:00	14.100	0.991	0.0000	0.991	0.000	0.000	0.991	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:12:00	14.200	0.848	0.0000	0.848	0.000	0.000	0.848	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:18:00	14.300	0.721	0.0000	0.721	0.000	0.000	0.721	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:24:00	14.400	0.606	0.0000	0.606	0.000	0.000	0.606	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:30:00	14.500	0.504	0.0000	0.504	0.000	0.000	0.504	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:36:00	14.600	0.413	0.0000	0.413	0.000	0.000	0.413	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:42:00	14.700	0.332	0.0000	0.332	0.000	0.000	0.332	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:48:00	14.800	0.260	0.0000	0.260	0.000	0.000	0.260	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:54:00	14.900	0.198	0.0000	0.198	0.000	0.000	0.198	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:00:00	15.000	0.143	0.0000	0.143	0.000	0.000	0.143	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:06:00	15.100	0.097	0.0000	0.097	0.000	0.000	0.097	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:12:00	15.200	0.059	0.0000	0.059	0.000	0.000	0.059	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:18:00	15.300	0.030	0.0000	0.030	0.000	0.000	0.030	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:24:00	15.400	0.009	0.0000	0.009	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000













SWMM5 LID Report File

Project:  
 LID Unit: Trench-West in Subcatchment S1  
 Storm: SCS\_Type\_II\_96mm\_100yr\_12hours

Date	Time	Elapsed Time Hours	Total Inflow mm/hr	Total Evap mm/hr	Surface Infil mm/hr	Pavement Perc mm/hr	Soil Perc mm/hr	Storage Exfil mm/hr	Surface Runoff mm/hr	Drain OutFlow mm/hr	Surface Level mm	Pavement Level mm	Soil Moisture Content	Storage Level mm
01/01/2000	00:06:00	0.100	2.066	0.0000	2.066	0.000	0.000	2.066	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:12:00	0.200	2.089	0.0000	2.089	0.000	0.000	2.089	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:18:00	0.300	2.112	0.0000	2.112	0.000	0.000	2.112	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:24:00	0.400	2.135	0.0000	2.135	0.000	0.000	2.135	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:30:00	0.500	2.157	0.0000	2.157	0.000	0.000	2.157	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:36:00	0.600	2.180	0.0000	2.180	0.000	0.000	2.180	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:42:00	0.700	2.203	0.0000	2.203	0.000	0.000	2.203	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:48:00	0.800	2.226	0.0000	2.226	0.000	0.000	2.226	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:54:00	0.900	2.249	0.0000	2.249	0.000	0.000	2.249	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:00:00	1.000	2.272	0.0000	2.272	0.000	0.000	2.272	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:06:00	1.100	2.294	0.0000	2.294	0.000	0.000	2.294	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:12:00	1.200	2.317	0.0000	2.317	0.000	0.000	2.317	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:18:00	1.300	2.340	0.0000	2.340	0.000	0.000	2.340	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:24:00	1.400	2.363	0.0000	2.363	0.000	0.000	2.363	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:30:00	1.500	2.386	0.0000	2.386	0.000	0.000	2.386	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:36:00	1.600	2.409	0.0000	2.409	0.000	0.000	2.409	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:42:00	1.700	2.431	0.0000	2.431	0.000	0.000	2.431	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:48:00	1.800	2.454	0.0000	2.454	0.000	0.000	2.454	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:54:00	1.900	2.477	0.0000	2.477	0.000	0.000	2.477	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:00:00	2.000	2.500	0.0000	2.500	0.000	0.000	2.500	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:06:00	2.100	2.568	0.0000	2.568	0.000	0.000	2.568	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:12:00	2.200	2.683	0.0000	2.683	0.000	0.000	2.683	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:18:00	2.300	2.797	0.0000	2.797	0.000	0.000	2.797	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:24:00	2.400	2.911	0.0000	2.911	0.000	0.000	2.911	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:30:00	2.500	3.025	0.0000	3.025	0.000	0.000	3.025	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:36:00	2.600	3.139	0.0000	3.139	0.000	0.000	3.139	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:42:00	2.700	3.253	0.0000	3.253	0.000	0.000	3.253	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:48:00	2.800	3.367	0.0000	3.367	0.000	0.000	3.367	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:54:00	2.900	3.482	0.0000	3.482	0.000	0.000	3.482	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:00:00	3.000	3.596	0.0000	3.596	0.000	0.000	3.596	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:06:00	3.100	3.653	0.0000	3.653	0.000	0.000	3.653	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:12:00	3.200	3.653	0.0000	3.653	0.000	0.000	3.653	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:18:00	3.300	3.653	0.0000	3.653	0.000	0.000	3.653	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:24:00	3.400	3.653	0.0000	3.653	0.000	0.000	3.653	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:30:00	3.500	3.653	0.0000	3.653	0.000	0.000	3.653	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:36:00	3.600	3.744	0.0000	3.744	0.000	0.000	3.744	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:42:00	3.700	3.927	0.0000	3.927	0.000	0.000	3.927	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:48:00	3.800	4.109	0.0000	4.109	0.000	0.000	4.109	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:54:00	3.900	4.292	0.0000	4.292	0.000	0.000	4.292	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:00:00	4.000	4.475	0.0000	4.475	0.000	0.000	4.475	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:06:00	4.100	4.703	0.0000	4.703	0.000	0.000	4.703	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:12:00	4.200	4.977	0.0000	4.977	0.000	0.000	4.977	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:18:00	4.300	5.251	0.0000	5.251	0.000	0.000	5.251	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:24:00	4.400	5.525	0.0000	5.525	0.000	0.000	5.525	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:30:00	4.500	5.799	0.0000	5.799	0.000	0.000	5.799	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:36:00	4.600	6.164	0.0000	6.164	0.000	0.000	6.164	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:42:00	4.700	6.621	0.0000	6.621	0.000	0.000	6.621	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:48:00	4.800	7.077	0.0000	7.077	0.000	0.000	7.077	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:54:00	4.900	7.534	0.0000	7.534	0.000	0.000	7.534	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:00:00	5.000	7.990	0.0000	7.990	0.000	0.000	7.990	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:06:00	5.100	8.767	0.0000	8.767	0.000	0.000	8.767	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:12:00	5.200	9.863	0.0000	9.863	0.000	0.000	9.863	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:18:00	5.300	10.958	0.0000	10.958	0.000	0.000	10.958	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:24:00	5.400	12.214	0.0000	12.214	0.000	0.000	12.214	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:30:00	5.500	14.531	0.0000	14.531	0.000	0.000	14.531	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:36:00	5.600	34.871	0.0000	34.871	0.000	0.000	34.871	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:42:00	5.700	89.707	0.0000	89.707	0.000	0.000	89.707	0.000	0.000	0.000	0.000	0.000	0.000



01/01/2000 12:30:00	12.500	15.372	0.0000	15.372	0.000	0.000	187.000	0.000	0.000	0.000	0.000	0.000	344.320
01/01/2000 12:36:00	12.600	13.250	0.0000	13.250	0.000	0.000	187.000	0.000	0.000	0.000	0.000	0.000	297.987
01/01/2000 12:42:00	12.700	11.416	0.0000	11.416	0.000	0.000	187.000	0.000	0.000	0.000	0.000	0.000	251.164
01/01/2000 12:48:00	12.800	9.842	0.0000	9.842	0.000	0.000	187.000	0.000	0.000	0.000	0.000	0.000	203.922
01/01/2000 12:54:00	12.900	8.505	0.0000	8.505	0.000	0.000	187.000	0.000	0.000	0.000	0.000	0.000	156.324
01/01/2000 13:00:00	13.000	7.376	0.0000	7.376	0.000	0.000	187.000	0.000	0.000	0.000	0.000	0.000	108.424
01/01/2000 13:06:00	13.100	6.420	0.0000	6.420	0.000	0.000	187.000	0.000	0.000	0.000	0.000	0.000	60.269
01/01/2000 13:12:00	13.200	5.604	0.0000	5.604	0.000	0.000	187.000	0.000	0.000	0.000	0.000	0.000	11.897
01/01/2000 13:18:00	13.300	4.904	0.0000	4.904	0.000	0.000	49.517	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:24:00	13.400	4.298	0.0000	4.298	0.000	0.000	4.298	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:30:00	13.500	3.772	0.0000	3.772	0.000	0.000	3.772	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:36:00	13.600	3.313	0.0000	3.313	0.000	0.000	3.313	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:42:00	13.700	2.911	0.0000	2.911	0.000	0.000	2.911	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:48:00	13.800	2.556	0.0000	2.556	0.000	0.000	2.556	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 13:54:00	13.900	2.243	0.0000	2.243	0.000	0.000	2.243	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:00:00	14.000	1.966	0.0000	1.966	0.000	0.000	1.966	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:06:00	14.100	1.719	0.0000	1.719	0.000	0.000	1.719	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:12:00	14.200	1.499	0.0000	1.499	0.000	0.000	1.499	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:18:00	14.300	1.303	0.0000	1.303	0.000	0.000	1.303	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:24:00	14.400	1.127	0.0000	1.127	0.000	0.000	1.127	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:30:00	14.500	0.970	0.0000	0.970	0.000	0.000	0.970	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:36:00	14.600	0.830	0.0000	0.830	0.000	0.000	0.830	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:42:00	14.700	0.703	0.0000	0.703	0.000	0.000	0.703	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:48:00	14.800	0.591	0.0000	0.591	0.000	0.000	0.591	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 14:54:00	14.900	0.490	0.0000	0.490	0.000	0.000	0.490	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:00:00	15.000	0.400	0.0000	0.400	0.000	0.000	0.400	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:06:00	15.100	0.320	0.0000	0.320	0.000	0.000	0.320	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:12:00	15.200	0.249	0.0000	0.249	0.000	0.000	0.249	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:18:00	15.300	0.188	0.0000	0.188	0.000	0.000	0.188	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:24:00	15.400	0.135	0.0000	0.135	0.000	0.000	0.135	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:30:00	15.500	0.090	0.0000	0.090	0.000	0.000	0.090	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:36:00	15.600	0.053	0.0000	0.053	0.000	0.000	0.053	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000 15:42:00	15.700	0.025	0.0000	0.025	0.000	0.000	0.025	0.000	0.000	0.000	0.000	0.000	0.000

SWMM5 LID Report File

Project:  
 LID Unit: Trench-West in Subcatchment S1  
 Storm: SCS\_Type\_II\_103.2mm\_100yr\_24hours

Date	Time	Elapsed Time Hours	Total Inflow mm/hr	Total Evap mm/hr	Surface Infil mm/hr	Pavement Perc mm/hr	Soil Perc mm/hr	Storage Exfil mm/hr	Surface Runoff mm/hr	Drain OutFlow mm/hr	Surface Level mm	Pavement Level mm	Soil Moisture Content	Storage Level mm
01/01/2000	00:06:00	0.100	1.042	0.0000	1.042	0.000	0.000	1.042	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:12:00	0.200	1.042	0.0000	1.042	0.000	0.000	1.042	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:18:00	0.300	1.063	0.0000	1.063	0.000	0.000	1.063	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:24:00	0.400	1.063	0.0000	1.063	0.000	0.000	1.063	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:30:00	0.500	1.084	0.0000	1.084	0.000	0.000	1.084	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:36:00	0.600	1.084	0.0000	1.084	0.000	0.000	1.084	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:42:00	0.700	1.104	0.0000	1.104	0.000	0.000	1.104	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:48:00	0.800	1.104	0.0000	1.104	0.000	0.000	1.104	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:54:00	0.900	1.125	0.0000	1.125	0.000	0.000	1.125	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:00:00	1.000	1.125	0.0000	1.125	0.000	0.000	1.125	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:06:00	1.100	1.146	0.0000	1.146	0.000	0.000	1.146	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:12:00	1.200	1.146	0.0000	1.146	0.000	0.000	1.146	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:18:00	1.300	1.166	0.0000	1.166	0.000	0.000	1.166	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:24:00	1.400	1.166	0.0000	1.166	0.000	0.000	1.166	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:30:00	1.500	1.187	0.0000	1.187	0.000	0.000	1.187	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:36:00	1.600	1.187	0.0000	1.187	0.000	0.000	1.187	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:42:00	1.700	1.207	0.0000	1.207	0.000	0.000	1.207	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:48:00	1.800	1.207	0.0000	1.207	0.000	0.000	1.207	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:54:00	1.900	1.228	0.0000	1.228	0.000	0.000	1.228	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:00:00	2.000	1.228	0.0000	1.228	0.000	0.000	1.228	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:06:00	2.100	1.249	0.0000	1.249	0.000	0.000	1.249	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:12:00	2.200	1.249	0.0000	1.249	0.000	0.000	1.249	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:18:00	2.300	1.269	0.0000	1.269	0.000	0.000	1.269	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:24:00	2.400	1.269	0.0000	1.269	0.000	0.000	1.269	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:30:00	2.500	1.290	0.0000	1.290	0.000	0.000	1.290	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:36:00	2.600	1.290	0.0000	1.290	0.000	0.000	1.290	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:42:00	2.700	1.311	0.0000	1.311	0.000	0.000	1.311	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:48:00	2.800	1.311	0.0000	1.311	0.000	0.000	1.311	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:54:00	2.900	1.331	0.0000	1.331	0.000	0.000	1.331	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:00:00	3.000	1.331	0.0000	1.331	0.000	0.000	1.331	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:06:00	3.100	1.352	0.0000	1.352	0.000	0.000	1.352	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:12:00	3.200	1.352	0.0000	1.352	0.000	0.000	1.352	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:18:00	3.300	1.373	0.0000	1.373	0.000	0.000	1.373	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:24:00	3.400	1.373	0.0000	1.373	0.000	0.000	1.373	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:30:00	3.500	1.393	0.0000	1.393	0.000	0.000	1.393	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:36:00	3.600	1.393	0.0000	1.393	0.000	0.000	1.393	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:42:00	3.700	1.414	0.0000	1.414	0.000	0.000	1.414	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:48:00	3.800	1.414	0.0000	1.414	0.000	0.000	1.414	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:54:00	3.900	1.434	0.0000	1.434	0.000	0.000	1.434	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:00:00	4.000	1.434	0.0000	1.434	0.000	0.000	1.434	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:06:00	4.100	1.455	0.0000	1.455	0.000	0.000	1.455	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:12:00	4.200	1.476	0.0000	1.476	0.000	0.000	1.476	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:18:00	4.300	1.496	0.0000	1.496	0.000	0.000	1.496	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:24:00	4.400	1.517	0.0000	1.517	0.000	0.000	1.517	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:30:00	4.500	1.538	0.0000	1.538	0.000	0.000	1.538	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:36:00	4.600	1.558	0.0000	1.558	0.000	0.000	1.558	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:42:00	4.700	1.579	0.0000	1.579	0.000	0.000	1.579	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:48:00	4.800	1.600	0.0000	1.600	0.000	0.000	1.600	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:54:00	4.900	1.620	0.0000	1.620	0.000	0.000	1.620	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:00:00	5.000	1.641	0.0000	1.641	0.000	0.000	1.641	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:06:00	5.100	1.662	0.0000	1.662	0.000	0.000	1.662	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:12:00	5.200	1.682	0.0000	1.682	0.000	0.000	1.682	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:18:00	5.300	1.703	0.0000	1.703	0.000	0.000	1.703	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:24:00	5.400	1.723	0.0000	1.723	0.000	0.000	1.723	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:30:00	5.500	1.744	0.0000	1.744	0.000	0.000	1.744	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:36:00	5.600	1.765	0.0000	1.765	0.000	0.000	1.765	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:42:00	5.700	1.785	0.0000	1.785	0.000	0.000	1.785	0.000	0.000	0.000	0.000	0.000	0.000









01/02/2000 01:54:00	25.900	2.102	0.0000	2.102	0.000	0.000	2.102	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 02:00:00	26.000	1.904	0.0000	1.904	0.000	0.000	1.904	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 02:06:00	26.100	1.725	0.0000	1.725	0.000	0.000	1.725	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 02:12:00	26.200	1.563	0.0000	1.563	0.000	0.000	1.563	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 02:18:00	26.300	1.416	0.0000	1.416	0.000	0.000	1.416	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 02:24:00	26.400	1.282	0.0000	1.282	0.000	0.000	1.282	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 02:30:00	26.500	1.161	0.0000	1.161	0.000	0.000	1.161	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 02:36:00	26.600	1.050	0.0000	1.050	0.000	0.000	1.050	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 02:42:00	26.700	0.949	0.0000	0.949	0.000	0.000	0.949	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 02:48:00	26.800	0.857	0.0000	0.857	0.000	0.000	0.857	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 02:54:00	26.900	0.772	0.0000	0.772	0.000	0.000	0.772	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 03:00:00	27.000	0.694	0.0000	0.694	0.000	0.000	0.694	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 03:06:00	27.100	0.623	0.0000	0.623	0.000	0.000	0.623	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 03:12:00	27.200	0.557	0.0000	0.557	0.000	0.000	0.557	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 03:18:00	27.300	0.497	0.0000	0.497	0.000	0.000	0.497	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 03:24:00	27.400	0.442	0.0000	0.442	0.000	0.000	0.442	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 03:30:00	27.500	0.391	0.0000	0.391	0.000	0.000	0.391	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 03:36:00	27.600	0.344	0.0000	0.344	0.000	0.000	0.344	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 03:42:00	27.700	0.301	0.0000	0.301	0.000	0.000	0.301	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 03:48:00	27.800	0.261	0.0000	0.261	0.000	0.000	0.261	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 03:54:00	27.900	0.225	0.0000	0.225	0.000	0.000	0.225	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 04:00:00	28.000	0.192	0.0000	0.192	0.000	0.000	0.192	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 04:06:00	28.100	0.162	0.0000	0.162	0.000	0.000	0.162	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 04:12:00	28.200	0.134	0.0000	0.134	0.000	0.000	0.134	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 04:18:00	28.300	0.109	0.0000	0.109	0.000	0.000	0.109	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 04:24:00	28.400	0.087	0.0000	0.087	0.000	0.000	0.087	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 04:30:00	28.500	0.067	0.0000	0.067	0.000	0.000	0.067	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 04:36:00	28.600	0.049	0.0000	0.049	0.000	0.000	0.049	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 04:42:00	28.700	0.034	0.0000	0.034	0.000	0.000	0.034	0.000	0.000	0.000	0.000	0.000	0.000
01/02/2000 04:48:00	28.800	0.022	0.0000	0.022	0.000	0.000	0.022	0.000	0.000	0.000	0.000	0.000	0.000

SWMM5 LID Report File

Project:

LID Unit: Trench-West in Subcatchment S1

Storm: SCS\_Type\_II\_96mm + 20%\_100yr + 20%\_12hours

Date	Time	Elapsed Time Hours	Total Inflow mm/hr	Total Evap mm/hr	Surface Infil mm/hr	Pavement Perc mm/hr	Soil Perc mm/hr	Storage Exfil mm/hr	Surface Runoff mm/hr	Drain OutFlow mm/hr	Surface Level mm	Pavement Level mm	Soil Moisture Content	Storage Level mm
01/01/2000	00:06:00	0.100	2.479	0.0000	2.479	0.000	0.000	2.479	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:12:00	0.200	2.507	0.0000	2.507	0.000	0.000	2.507	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:18:00	0.300	2.534	0.0000	2.534	0.000	0.000	2.534	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:24:00	0.400	2.562	0.0000	2.562	0.000	0.000	2.562	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:30:00	0.500	2.589	0.0000	2.589	0.000	0.000	2.589	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:36:00	0.600	2.616	0.0000	2.616	0.000	0.000	2.616	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:42:00	0.700	2.644	0.0000	2.644	0.000	0.000	2.644	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:48:00	0.800	2.671	0.0000	2.671	0.000	0.000	2.671	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:54:00	0.900	2.699	0.0000	2.699	0.000	0.000	2.699	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:00:00	1.000	2.726	0.0000	2.726	0.000	0.000	2.726	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:06:00	1.100	2.753	0.0000	2.753	0.000	0.000	2.753	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:12:00	1.200	2.781	0.0000	2.781	0.000	0.000	2.781	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:18:00	1.300	2.808	0.0000	2.808	0.000	0.000	2.808	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:24:00	1.400	2.835	0.0000	2.835	0.000	0.000	2.835	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:30:00	1.500	2.863	0.0000	2.863	0.000	0.000	2.863	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:36:00	1.600	2.890	0.0000	2.890	0.000	0.000	2.890	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:42:00	1.700	2.918	0.0000	2.918	0.000	0.000	2.918	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:48:00	1.800	2.945	0.0000	2.945	0.000	0.000	2.945	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:54:00	1.900	2.972	0.0000	2.972	0.000	0.000	2.972	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:00:00	2.000	3.000	0.0000	3.000	0.000	0.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:06:00	2.100	3.082	0.0000	3.082	0.000	0.000	3.082	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:12:00	2.200	3.219	0.0000	3.219	0.000	0.000	3.219	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:18:00	2.300	3.356	0.0000	3.356	0.000	0.000	3.356	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:24:00	2.400	3.493	0.0000	3.493	0.000	0.000	3.493	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:30:00	2.500	3.630	0.0000	3.630	0.000	0.000	3.630	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:36:00	2.600	3.767	0.0000	3.767	0.000	0.000	3.767	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:42:00	2.700	3.904	0.0000	3.904	0.000	0.000	3.904	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:48:00	2.800	4.041	0.0000	4.041	0.000	0.000	4.041	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:54:00	2.900	4.178	0.0000	4.178	0.000	0.000	4.178	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:00:00	3.000	4.315	0.0000	4.315	0.000	0.000	4.315	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:06:00	3.100	4.383	0.0000	4.383	0.000	0.000	4.383	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:12:00	3.200	4.383	0.0000	4.383	0.000	0.000	4.383	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:18:00	3.300	4.383	0.0000	4.383	0.000	0.000	4.383	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:24:00	3.400	4.383	0.0000	4.383	0.000	0.000	4.383	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:30:00	3.500	4.383	0.0000	4.383	0.000	0.000	4.383	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:36:00	3.600	4.493	0.0000	4.493	0.000	0.000	4.493	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:42:00	3.700	4.712	0.0000	4.712	0.000	0.000	4.712	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:48:00	3.800	4.931	0.0000	4.931	0.000	0.000	4.931	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:54:00	3.900	5.150	0.0000	5.150	0.000	0.000	5.150	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:00:00	4.000	5.370	0.0000	5.370	0.000	0.000	5.370	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:06:00	4.100	5.644	0.0000	5.644	0.000	0.000	5.644	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:12:00	4.200	5.972	0.0000	5.972	0.000	0.000	5.972	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:18:00	4.300	6.301	0.0000	6.301	0.000	0.000	6.301	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:24:00	4.400	6.630	0.0000	6.630	0.000	0.000	6.630	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:30:00	4.500	6.959	0.0000	6.959	0.000	0.000	6.959	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:36:00	4.600	7.397	0.0000	7.397	0.000	0.000	7.397	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:42:00	4.700	7.945	0.0000	7.945	0.000	0.000	7.945	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:48:00	4.800	8.493	0.0000	8.493	0.000	0.000	8.493	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:54:00	4.900	9.041	0.0000	9.041	0.000	0.000	9.041	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:00:00	5.000	9.589	0.0000	9.589	0.000	0.000	9.589	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:06:00	5.100	10.935	0.0000	10.935	0.000	0.000	10.935	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:12:00	5.200	13.807	0.0000	13.807	0.000	0.000	13.807	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:18:00	5.300	18.875	0.0000	18.875	0.000	0.000	18.875	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:24:00	5.400	27.101	0.0000	27.101	0.000	0.000	27.101	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:30:00	5.500	38.892	0.0000	38.892	0.000	0.000	38.892	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:36:00	5.600	77.332	0.0000	77.332	0.000	0.000	77.332	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:42:00	5.700	168.587	0.0000	168.587	0.000	0.000	168.587	0.000	0.000	0.000	0.000	0.000	0.000





SWMM5 LID Report File

Project:

LID Unit: Trench-West in Subcatchment S1

Storm: SCS\_Type\_II\_103.2mm + 20%\_100yr + 20%\_24hours

Date	Time	Elapsed Time Hours	Total Inflow mm/hr	Total Evap mm/hr	Surface Infil mm/hr	Pavement Perc mm/hr	Soil Perc mm/hr	Storage Exfil mm/hr	Surface Runoff mm/hr	Drain OutFlow mm/hr	Surface Level mm	Pavement Level mm	Soil Moisture Content	Storage Level mm
01/01/2000	00:06:00	0.100	1.251	0.0000	1.251	0.000	0.000	1.251	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:12:00	0.200	1.251	0.0000	1.251	0.000	0.000	1.251	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:18:00	0.300	1.276	0.0000	1.276	0.000	0.000	1.276	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:24:00	0.400	1.276	0.0000	1.276	0.000	0.000	1.276	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:30:00	0.500	1.300	0.0000	1.300	0.000	0.000	1.300	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:36:00	0.600	1.300	0.0000	1.300	0.000	0.000	1.300	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:42:00	0.700	1.325	0.0000	1.325	0.000	0.000	1.325	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:48:00	0.800	1.325	0.0000	1.325	0.000	0.000	1.325	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	00:54:00	0.900	1.350	0.0000	1.350	0.000	0.000	1.350	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:00:00	1.000	1.350	0.0000	1.350	0.000	0.000	1.350	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:06:00	1.100	1.375	0.0000	1.375	0.000	0.000	1.375	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:12:00	1.200	1.375	0.0000	1.375	0.000	0.000	1.375	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:18:00	1.300	1.399	0.0000	1.399	0.000	0.000	1.399	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:24:00	1.400	1.399	0.0000	1.399	0.000	0.000	1.399	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:30:00	1.500	1.424	0.0000	1.424	0.000	0.000	1.424	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:36:00	1.600	1.424	0.0000	1.424	0.000	0.000	1.424	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:42:00	1.700	1.449	0.0000	1.449	0.000	0.000	1.449	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:48:00	1.800	1.449	0.0000	1.449	0.000	0.000	1.449	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	01:54:00	1.900	1.474	0.0000	1.474	0.000	0.000	1.474	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:00:00	2.000	1.474	0.0000	1.474	0.000	0.000	1.474	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:06:00	2.100	1.498	0.0000	1.498	0.000	0.000	1.498	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:12:00	2.200	1.498	0.0000	1.498	0.000	0.000	1.498	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:18:00	2.300	1.523	0.0000	1.523	0.000	0.000	1.523	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:24:00	2.400	1.523	0.0000	1.523	0.000	0.000	1.523	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:30:00	2.500	1.548	0.0000	1.548	0.000	0.000	1.548	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:36:00	2.600	1.548	0.0000	1.548	0.000	0.000	1.548	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:42:00	2.700	1.573	0.0000	1.573	0.000	0.000	1.573	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:48:00	2.800	1.573	0.0000	1.573	0.000	0.000	1.573	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	02:54:00	2.900	1.598	0.0000	1.598	0.000	0.000	1.598	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:00:00	3.000	1.598	0.0000	1.598	0.000	0.000	1.598	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:06:00	3.100	1.622	0.0000	1.622	0.000	0.000	1.622	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:12:00	3.200	1.622	0.0000	1.622	0.000	0.000	1.622	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:18:00	3.300	1.647	0.0000	1.647	0.000	0.000	1.647	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:24:00	3.400	1.647	0.0000	1.647	0.000	0.000	1.647	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:30:00	3.500	1.672	0.0000	1.672	0.000	0.000	1.672	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:36:00	3.600	1.672	0.0000	1.672	0.000	0.000	1.672	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:42:00	3.700	1.697	0.0000	1.697	0.000	0.000	1.697	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:48:00	3.800	1.697	0.0000	1.697	0.000	0.000	1.697	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	03:54:00	3.900	1.721	0.0000	1.721	0.000	0.000	1.721	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:00:00	4.000	1.721	0.0000	1.721	0.000	0.000	1.721	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:06:00	4.100	1.746	0.0000	1.746	0.000	0.000	1.746	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:12:00	4.200	1.771	0.0000	1.771	0.000	0.000	1.771	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:18:00	4.300	1.796	0.0000	1.796	0.000	0.000	1.796	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:24:00	4.400	1.820	0.0000	1.820	0.000	0.000	1.820	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:30:00	4.500	1.845	0.0000	1.845	0.000	0.000	1.845	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:36:00	4.600	1.870	0.0000	1.870	0.000	0.000	1.870	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:42:00	4.700	1.895	0.0000	1.895	0.000	0.000	1.895	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:48:00	4.800	1.920	0.0000	1.920	0.000	0.000	1.920	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	04:54:00	4.900	1.944	0.0000	1.944	0.000	0.000	1.944	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:00:00	5.000	1.969	0.0000	1.969	0.000	0.000	1.969	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:06:00	5.100	1.994	0.0000	1.994	0.000	0.000	1.994	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:12:00	5.200	2.019	0.0000	2.019	0.000	0.000	2.019	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:18:00	5.300	2.043	0.0000	2.043	0.000	0.000	2.043	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:24:00	5.400	2.068	0.0000	2.068	0.000	0.000	2.068	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:30:00	5.500	2.093	0.0000	2.093	0.000	0.000	2.093	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:36:00	5.600	2.118	0.0000	2.118	0.000	0.000	2.118	0.000	0.000	0.000	0.000	0.000	0.000
01/01/2000	05:42:00	5.700	2.142	0.0000	2.142	0.000	0.000	2.142	0.000	0.000	0.000	0.000	0.000	0.000











## West Trench - 1 Stage Storage Report from CAD

West Trench - 1 Surface Ponding between 99.7 to 101.25 elevation

Project: 21023795 - 4380 Trail Road

Basin Description: West Trench - 1

Contour Elevation	Contour Area (sq. m)	Incremental Depth (m)	Avg. End Incremental Volume (cu. m)	Avg. End Cumulative Volume (cu. m)	Conic Incremental Volume (cu. m)	Conic Cumulative Volume (cu. m)
99.75	500.66	N/A	N/A	0.00	N/A	0.00
99.90	555.33	0.15	79.20	79.20	79.16	79.16
100.00	591.06	0.10	57.32	136.52	57.31	136.47
100.10	631.11	0.10	61.11	197.63	61.10	197.57
100.12	639.63	0.02	12.71	210.33	12.71	210.28
100.15	652.74	0.03	19.39	229.72	19.39	229.66
100.20	675.46	0.05	33.21	262.92	33.20	262.87
100.25	698.65	0.05	34.35	297.28	34.35	297.22
100.30	721.72	0.05	35.51	332.79	35.51	332.73
100.40	767.50	0.10	74.46	407.25	74.45	407.18
100.50	812.79	0.10	79.01	486.26	79.00	486.18
100.55	835.25	0.05	41.20	527.46	41.20	527.38
100.60	857.59	0.05	42.32	569.78	42.32	569.70
100.70	901.90	0.10	87.97	657.76	87.96	657.66
100.75	924.60	0.05	45.66	703.42	45.66	703.32
100.80	947.01	0.05	46.79	750.21	46.79	750.11
100.85	969.12	0.05	47.90	798.11	47.90	798.02
101.00	1,033.70	0.15	150.21	948.33	150.19	948.20
101.25	1,135.46	0.25	271.15	1219.47	271.05	1219.25

## West Trench - 2 Stage Storage Report from CAD

West Trench - 2 Surface Ponding between 99.7 to 101.25 elevation

Project: 21023795 - 4380 Trail Road

Basin Description: West Trench - 2

Contour Elevation	Contour Area (sq. m)	Incremental Depth (m)	Avg. End Incremental Volume (cu. m)	Avg. End Cumulative Volume (cu. m)	Conic Incremental Volume (cu. m)	Conic Cumulative Volume (cu. m)
99.75	500.66	N/A	N/A	0.00	N/A	0.00
99.90	555.33	0.15	79.20	79.20	79.16	79.16
100.00	591.06	0.10	57.32	136.52	57.31	136.47
100.10	631.11	0.10	61.11	197.63	61.10	197.57
100.12	639.63	0.02	12.71	210.33	12.71	210.28
100.15	652.74	0.03	19.39	229.72	19.39	229.66
100.20	675.46	0.05	33.21	262.92	33.20	262.87
100.25	698.65	0.05	34.35	297.28	34.35	297.22
100.30	721.72	0.05	35.51	332.79	35.51	332.73
100.40	767.50	0.10	74.46	407.25	74.45	407.18
100.50	812.79	0.10	79.01	486.26	79.00	486.18
100.55	835.25	0.05	41.20	527.46	41.20	527.38
100.60	857.59	0.05	42.32	569.78	42.32	569.70
100.70	901.90	0.10	87.97	657.76	87.96	657.66
100.75	924.60	0.05	45.66	703.42	45.66	703.32
100.80	947.01	0.05	46.79	750.21	46.79	750.11
100.85	969.12	0.05	47.90	798.11	47.90	798.02
101.00	1,033.70	0.15	150.21	948.33	150.19	948.20
101.25	1,135.46	0.25	271.15	1219.47	271.05	1219.25

## Appendix D – Background Info.

# Site Plan and Zoning By-law Amendment Pre-Application Consultation

4380 Trail Road

Meeting Date: November 2, 2021

PC2021-0356

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**Applicant:** Fotenn c/o Ghada Zaki      **Owner:** Drain-All Ltd. c/o David Elsie  
**Ward**      21 – Rideau Gouldburn      **Proposal Summary:** Permit the continued use of subject property as waste processing activity

**Attendees:**

Cheryl McWilliams, File Lead, City of Ottawa  
Christine Reist, Project Manager, City of Ottawa  
Matthew Hayley, Environmental Planner, City of Ottawa  
Heidi Scott, Program Manager at Trail Waste Facility, City of Ottawa  
Brandon Maynard, Compliance Manager at Trail Waste Facility, City of Ottawa  
Brent Loney, Trail Waste Facility Consultant, Dillon Consulting  
Samantha Willock, Student Planner, City of Ottawa

*Regrets*

Tessa Di Iorio, Senior Project Manager – Hydrogeology, City of Ottawa  
Neeti Paudel, Transportation Engineer, City of Ottawa  
Eric Lalande, Rideau Valley Conservation Authority

*Consultation Team*

Ghada Zaki, Applicant, Fotenn  
David Elsie, Drain-All, Waste Transfer and Processing Facility Manager  
Frank Cardinali, Drain-All, President  
Richard Roth, Drain-All, Chief Executive Officer  
Michael Long

## ***Meeting Minutes***

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### **Proposal Details**

- Drain-All using site for storing clean excess soils removed from other sites.
- Site was previously a pit which is not currently licensed; NDMNRF deferred to MECP process for oversight of excess soils.
- Proposed to use excess soils to rehabilitate the abandoned pit in accordance with NDMNRF guidelines.
- Site includes a segregated containment area for soils awaiting contamination study results; contaminated soils taken to a different site.
- No servicing is required on site.

### **Planning Comments** - *Provided by Cheryl McWilliams*

- The City has received confirmation from NDMNRF that the site is depleted of any viable sand and gravel aggregate resources.
- The site is zoned as Parks and Open Space (O1) and Mineral Aggregate Reserve, exception 7 (MR[7r]). As the site no longer contains aggregate resources, it will need to be removed from this zone. The site will likely be rezoned to a rural industrial zone, which would limit the potential uses for the site.
- Please note that the City recently adopted a new Official Plan. During this transition period, any planning applications must be evaluated against the existing Official Plan and the Council approved new Official Plan. When provisions between the two plans are not consistent, the more restrictive will be applied.
- Under the new Official Plan, this site is designated Rural Countryside, which contemplates light industrial uses. This would permit the transfer, but not disposal, of excess soils. The **Planning Rationale** must prove the site is not disposal in regard to Official Plan policies.
- Please review the newly adopted Official Plan and ensure that all requirements regarding the adjacent land uses will be met (See Sections 5.6.3 and 10.1.7).
- Please note that waste facilities require a Site Plan Control approval. As the proposal doesn't include the construction of buildings, the **Site Plan** will need to illustrate the existing conditions, use, and final conditions instead.
- Regarding the formal application process, this proposal will require a Major Rural Zoning By-law Amendment and a Small, Rural Site Plan Control application. These applications can be handed concurrently.
  - Depending on the outcome of the ECA and anything else that may arise during our review, site plan control approval may be accomplished through a letter of undertaking instead of a site plan control agreement. In this scenario, the approval would acknowledge the ECA as dealing with the rehabilitation portion of the development.

## **Engineering Comments** - *Provided by Christine Reist & Tessa Di Iorio*

Following the pre-consultation meeting on November 2, 2021, the City corresponded with the MECP and NDMNRF. Based on the City's correspondence with the MECP and NDMNRF, it's our understanding that:

- The following documents are already requested by the MECP as part of the ECA application: "...a hydrogeological study to assess the impacts of infiltration at the site and all proposed monitoring, a stormwater management assessment in so far as it pertains to contact water generated on-site soil piles or rates of infiltration, and the design of the liquid storage and infiltration area."
- The former pit is depleted of sand and gravel resources.
- The former pit is no longer licensed by NDMNRF.
- As the former pit is no longer licensed, the NDMNRF doesn't have rehabilitation requirements for this property. The rehabilitation requirements for the property are to be determined by the City.

It is the City's understanding that the applicant is proposing to rehabilitate the former pit using excess soils generated by the soil management activities on site.

The requirements below assume that there is no potential for the site to be privately serviced, and that a Site Plan application would also be required.

### *Mineral Aggregate Resources:*

- An **Abandoned Pit Study** is required to provide the information outlined in section 10.1.10 of the newly adopted Official Plan. This study will need to include the proposed rehabilitation details for the property.
- There are licensed Pits adjacent to the south and west sides of the property. Refer to section 5.6.3.2 of the newly adopted Official Plan for information on development in proximity to existing pits. The development described in this pre-consultation application wouldn't be considered to conflict with future mineral aggregate extraction, and therefore there are no associated submission requirements. This comment is included for information purposes to note that if there are changes to the development proposal in the future, it will need to be re-evaluated to determine if a Mineral Resource impact Assessment would be required.

### *Servicing:*

- There are no existing municipal services. It is the City's understanding that there is no intention to provide private servicing (well and septic) for the site. A holding provision will be required on the proposed zoning to restrict any future private servicing on the site unless a **Hydrogeological Report and Terrain Analysis** is provided to demonstrate suitability of servicing the site. Alternatively, if the applicant would like the zoning to allow for the future potential of servicing the site (i.e., avoid having a holding provision on the zoning), then a Hydrogeological Report and Terrain Analysis will be required with the application. The Hydrogeological Report



would need to demonstrate that the proposed supply well can provide satisfactory quality and quantity of drinking water to the site, and that the supply well is protected in the long term from contamination. The Terrain Analysis would need to demonstrate that the site is suitable for the proposed septic system and would need to include a septic impact assessment. Refer to the [City's Hydrogeological and Terrain Analysis Guidelines](#).

*Stormwater Management:*

- It will need to be demonstrated that there is legal and sufficient stormwater outlet from the site.
- Stormwater management quality criteria shall be set by the Rideau Valley Conservation Authority (RVCA) and is anticipated to be 80% TSS removal.
- The stormwater management quantity criteria for the subject site is that the post-development peak flow rate must match the pre-development peak flow rate as per section 8.3.6.1 of the Ottawa Sewer Design Guidelines (SDG). It must be demonstrated that the storm runoff post-development is equal to the storm runoff pre-development in the 5-year and 100-year storm events. If the MECP has different stormwater management quantity criteria, the most stringent criteria shall apply.
- It will need to be demonstrated that stormwater can be managed for the current condition, various stages of infill, and for final site rehabilitation.
- Please note that stormwater systems for industrial-use sites require a direct submission **ECA** application to the MECP. It is anticipated that the stormwater systems for this site will be included under the ECA application for the management of excess soils.
- Provided that the **Stormwater Management Report** prepared for the ECA application submitted to the MECP meets the City's submission requirements, the same Stormwater Management Report can be submitted to the City.
- Please also refer to 'Permits and Approvals' section below.

*Hydrogeological:*

- A **Groundwater Impact Assessment** is required to assess the impact associated with the potential land use(s) resulting from the proposed re-zoning application (e.g., discussion of impacts of placing liquid and dry soils on site and impacts of potentially contaminated leachate from soils before sampling results are received, as well as addressing any supply wells as sensitive receptors). The Groundwater Impact Assessment will also need to include the proposed current and future monitoring and reporting plan.
- Given that the Site has been used for soil management for solid and liquid soils from various sites over the past years, it is anticipated that the list of parameters to be tested as part of the Groundwater Impact Assessment will include many, if not all, of the parameters identified in the applicable tables of the Soil, ground water and sediment standards for use under Part XV.1 of the Environmental Protection Act. Note that where applicable, this testing can be coordinated with the testing

undertaken as part of the Environmental Site Assessment to avoid duplication (refer to 'Environmental Site Assessment' section below).

- Provided that the hydrogeological information prepared for the ECA application submitted to the MECP meets the City's submission requirements, the same reports can be submitted to the City. Please also refer to 'Permits and Approvals' section below.
- Please also refer to 'Servicing' section above.

*Geotechnical:*

- A **Geotechnical Investigation Report** is required to demonstrate that the site is geotechnically suitable for the proposed use (i.e., current condition, various stages of infill, and final site rehabilitation).

*Slope Stability:*

- The available topographic information shows that the site is 8-12m below the original grade in most areas with side slopes around 1.5:1 to 2:1. A **Slope Stability Assessment Report** is required to demonstrate that the site is suitable for the proposed use (i.e., current condition, various stages of infill, and final site rehabilitation).

*Environmental Site Assessment:*

- A **Phase 1 Environmental Site Assessment (ESA)** completed in accordance with Ontario Regulation (O.Reg.) 153/04 is required.
- A **Phase 2 ESA** may be required, depending on the outcome of the Phase 1 ESA.
  - Given that the Site has been used for soil management for solid and liquid soils from various sites over the past years, it is anticipated that the list of parameters to be tested as part of the Environmental Site Assessment will include many, if not all, of the parameters identified in the applicable tables of the Soil, ground water and sediment standards for use under Part XV.1 of the Environmental Protection Act. Note that where applicable, this testing can be coordinated with the testing undertaken as part of the Groundwater Impact Assessment to avoid duplication (refer to 'Hydrogeological' section above).

*Permits and Approvals:*

- Please contact RVCA amongst other federal and provincial departments/agencies, to identify all the necessary permits and approvals required to facilitate the development. Responsibility rests with the developer and their consultant for obtaining all external agency approvals. The address shall be in good standing with all approval agencies. Copies of confirmation of correspondence will be required by the City of Ottawa from all approval agencies that a form of assent is given.
- It is requested that the reports and plans submitted to the MECP in support of the ECA application are provided to the City. Note that depending on what's included in

the information to be provided, the City may have additional submission requirements.

- It is acknowledged that there may be overlap between the information being reviewed by the MECP and the information being requested by the City at this time. Where applicable, the same reports and plans submitted to the MECP can be submitted to the City, provided that they meet the City's submission requirements. For items where the MECP has the same submission requirements as the City, and the MECP has already reviewed the information, the City won't duplicate the review process. However, please be aware that in order for the City to confirm that requirements have already been addressed by the MECP, the applicant will need to provide sufficient information such as, copies of the reports and plans, MECP's review comments, copies of correspondence, etc.
- Please also refer to the 'Stormwater Management' and 'Hydrogeological' sections above for comments related to the ECA.

*Zoning By-law Amendment – Report Submission Requirements for Engineering:*

- Abandoned Pit Study
- Stormwater Management Report
- Hydrogeological Report and Terrain Analysis, only required if potential future servicing is proposed (refer to Servicing comment above)
- Groundwater Impact Assessment
- Geotechnical Investigation Report
- Slope Stability Assessment Report
- Phase 1 Environmental Site Assessment
- Phase 2 Environmental Site Assessment, if required depending on the outcome of Phase 1 ESA

*Site Plan – Plan Submission Requirements for Engineering:*

A Site Plan application will have the same requirements as the Zoning By-law Amendment application with the addition of the following plans to provide the details of what's proposed.

- Site Rehabilitation Plan
- Grade Control and Drainage Plan
- Stormwater Management Plan
- Erosion and Sediment Control Plan

**Environmental Comments** - *Provided by Matthew Hayley*

- The zoning by-law amendment will need to be supported by an **Environmental Impact Statement** that addresses species at risk.

**Transportation Engineering Comments** - *Provided by Neeti Paudel*

- As this site does not fall under the type of land use provided in the TIA screening form, please update the screening form to include the number of anticipated site generated vehicle trips. This information is required to determine if a full Transportation Impact Assessment is required.

**Rideau Valley Conservation Authority Comments** - *Provided by Eric*

*Lalande*

- The Rideau Valley Conservation Authority comments are to ensure that groundwater protections are adequately addressed. The RVCA will defer to the City's Hydrogeologist on this matter.

## ***Application Submission Information***

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### Application Type:

#### **Major Zoning By-law Amendment & Rural Small Site Plan Control**

For more information on Zoning By-law Amendment and Site Plan Control Applications, including fees, please visit: <https://ottawa.ca/en/planning-development-and-construction/developing-property/development-application-review-process/development-application-submission/development-applications#>

For information on the preparation of Studies and Plans and the City's requirements, please visit: <https://ottawa.ca/en/planning-development-and-construction/developing-property/development-application-review-process/development-application-submission/guide-preparing-studies-and-plans>

All identified required plans are to be submitted on standard A1 size sheets and use an appropriate metric scale as per [Guide to preparing studies and plans | City of Ottawa](#), and shall note the survey monument used to establish datum (beyond the local benchmark) on the plans with sufficient information to enable a layperson to locate the monument.

Note that many of the plans and studies collected with this application must be signed, sealed and dated by a qualified engineer, architect, surveyor, planner, or designated specialist. As per Section 53 of the Professional Engineers Act, O.Reg. 941/40, R.S.O. 1990, all documents prepared by engineers must be signed and dated on the seal.

To request City of Ottawa plan(s) or report information please contact the City of Ottawa Information Centre: [informationcentre@ottawa.ca](mailto:informationcentre@ottawa.ca) OR (613) 580-2424 ext. 44455

***\*A complete list of required studies and plans accompanies this document\****



## Memorandum

To: Karlinda Hinds, P. Eng. Project Manager, From: Delwar Ahmed, P. Geo Project Manager

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Date: October 24, 2022

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Project No.: OTT-21023795-A0 ---

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Subject: Percolation Tests - 4380 Trail Road, Richmond, Ontario

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Distribution: Chris Kimmerly, P. Geo., Manager, Earth and Environmental Sciences

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To determine infiltration rates, percolation tests were performed on June 10, 2022 at the above subject site. The following is a summary of the completed tests and the estimated infiltration rates that will be used in the designing of the infiltration basin/trench or the storm water management pond (SWMP)

A **percolation test** is a test to determine the water absorption rate of soil (that is, its capacity for percolation) in preparation for the building of a septic drain field (leach field) or infiltration basin. In its broadest terms, percolation testing is simply observing how quickly a known volume of water dissipates into the subsoil of a drilled hole of known surface area.

A percolation test consists of digging one or more holes in the soil of the proposed infiltration basin or storm water management pond (SWMP) area to a specified depth, presoaking the holes by maintaining a high-water level in the holes, then running the test by filling the holes to a specific level and timing the drop of the water level as the water percolates into the surrounding soil. The results are reported in various formats but most commonly as units of mm/hr. For testing, a minimum of two test holes are drilled or dug by hand, most commonly 150 mm to 200 mm in diameter. Ideally, these should be drilled to different depths from 0.9 m to 1.8 m below the surface.

Percolation tests were performed at six (6) select locations at the 4380 Trail Road site on June 10, 2022. The testing locations are shown in the site plan Figure 1. The tests were performed in order to select potential locations of infiltration trench and or storm water management pond for the proposed development site. Two holes (shallow and deep), 200 mm in diameter were dug at the testing locations 1S/D, 2S/D, 3S, 4S/D, 5S/D and 6S/D. Due to soil stability issues (frequent cave in) at test location 3D, a 50 mm diameter well was installed to a depth of 3.1 m below ground surface (mbgs). All of the testing locations were equipped with electronic datalogger to facilitate data collection at very discrete intervals. Manual water levels were also measured as a backup and for comparison.

For the tests, known volumes of water was poured in to the wells and the drop in water level were measured using both electronic dataloggers and conventional manual measurements to calculate infiltration rates. The summary of the test results are provided in the following table, Table 1.

The range of infiltration rates varies considering both the shallow and deep wells 120 mm/hr to 768 mm/hr. The geometric mean of the rates for shallow depth soils is 359 mm/hr and that for the deeper soils is 468 mm/hr which corroborates with the site soil types of fill composed of sandy silt, with gravel underlain by silty sand, sandy gravel and sand. The extraordinary higher rate of infiltration at test location #3 could be the result of very high hydraulic head pressure induced by large volume of water being poured in during the test. Since the soil is relatively high permeability type pouring high volume of water in short interval resulted in an equivalent of an very high column

*Memorandum  
Percolation Test Results,  
4389 Trail Road, Richmond, Ontario  
OTT-21023795-A0  
October 19, 2022*

of water at the location may have influenced the infiltration rates. So in the geometric mean calculations the values from test #3 was not included as it would have biased the geometric means of the infiltration rates.

For the designing the infiltration trench and or SWMP the geometric mean values should be used for infiltration rates where required.

Should you have any questions, please get contact this office.

Sincerely,

**Delwar Ahmed**

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Attachment:

Table 1 – Infiltration Rates

Table 1 Infiltration Rate Calculations  
4380 Trail Road site

**Infiltration Rates based on Manual Data**

Test ID	Well Dia (m)	Well Depth (m)	Vol of the well (L)	Vol of Water Poured in (L)	Test start	Test End	Test well status
Inf #1 S	0.2032	0.96	31.13	40	9:30	13:30	Dry in the end
Inf #1 D	0.2032	1.94	62.91	80	10:16	12:10	Dry in the end
Inf #2 S	0.2032	1.5	48.64	60	11:24	12:10	Dry in the end
Inf #2 D	0.2032	2.84	92.10	80	11:42	12:27	Dry in the end
Inf #3 S	0.2032	1.44	46.70		13:39	14:06	Dry in the end
Inf #3 D	0.0508	3.1	6.28	40	13:56	14:19	
Inf #4 S	0.2032	1.7	55.13		14:24	15:23	
Inf #4 D	0.2032	3.06	99.23	80	14:45	15:43	Dry in the end
Inf #5 S	0.2032	1.22	39.56	20	15:32	16:39	
Inf #5 D	0.2032	2.8	90.80		15:51	16:16	Dry in the end
Inf #6 S	0.2032	1.35	43.78	20	16:51	17:23	Dry in the end
Inf #6 D	0.2032	3	97.29	60	17:04	17:37	Dry in the end



Table 1 Infiltration  
4380 Trail Road :

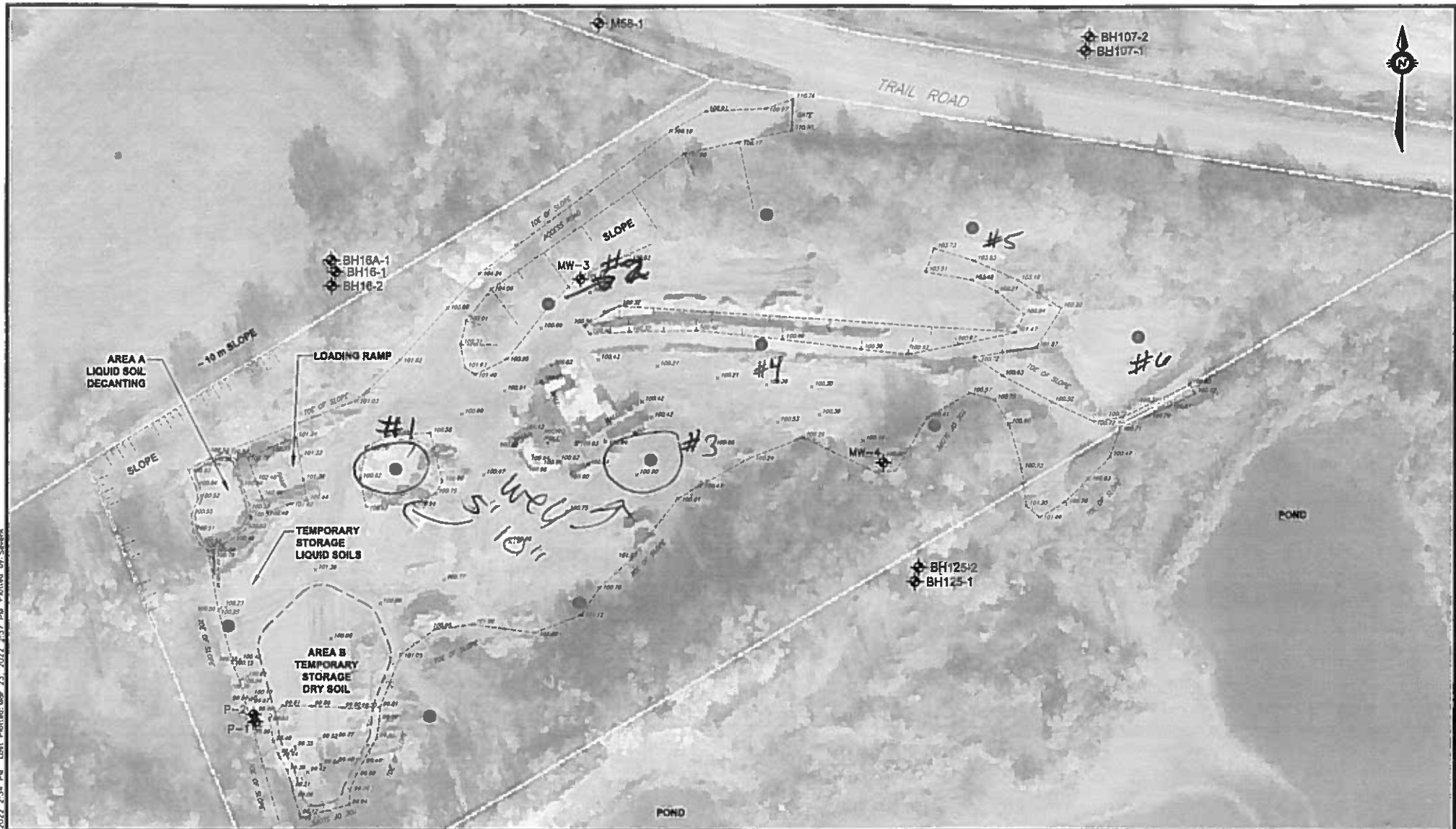
Test ID	Initial WL (m)	Final WL (m)	Duration (h:min)	In Minutes	INF Rate (m/min)	INF Rate (m/s)	m/hr	mm/hr
Inf #1 S	0.18	0.66	4:00	240	0.0020	3.33E-05	1.20E-01	120
Inf #1 D	0.91	1.47	1:54	114	0.0049	8.19E-05	2.95E-01	295
Inf #2 S	0.78	1.25	0:46	46	0.0102	1.70E-04	6.13E-01	613
Inf #2 D	1.66	1.88	0:45	45	0.0049	8.15E-05	2.93E-01	293
Inf #3 S	0.86	1.35	0:27	27	0.0181	3.02E-04	1.09E+00	1089
Inf #3 D	2.32	3.03	0:23	23	0.0309	5.14E-04	1.85E+00	1852
Inf #4 S	1.09	1.44	0:59	59	0.0059	9.89E-05	3.56E-01	356
Inf #4 D	1.80	2.25	0:58	58	0.0078	1.29E-04	4.66E-01	466
Inf #5 S	0.47	0.87	1:07	67	0.0060	9.95E-05	3.58E-01	358
Inf #5 D	1.88	2.20	0:25	25	0.0128	2.13E-04	7.68E-01	768
Inf #6 S	0.96	1.30	0:32	32	0.0106	1.77E-04	6.38E-01	638
Inf #6 D	2.02	2.42	0:33	33	0.0121	2.02E-04	7.27E-01	727

Min (S+D) =	3.33E-05	1.20E-01	120
Max (S+D) =	2.13E-04	7.68E-01	768

Values of 3S/D were omitted as the values are extraordinarily high

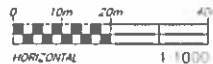
S geomean =	9.98E-05	3.59E-01	359
D geomean =	1.30E-04	4.68E-01	468

Values of 3S/D were omitted as the values are extraordinarily high



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**LEGEND**  
 MONITORING WELL LOCATION  P-1  
 GROUND ELEVATION  100.00  
 MONITORING WELL NO. & LOCATION  BH125-1



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DESIGN PJV  
 DRAWN P.JV/AS  
 DATE 03/23/22  
 FILE NO OTT-21023795

PROPOSED GROUNDWATER MONITORING PROGRAM  
 4380 TRAIL ROAD, OTTAWA, ONTARIO

SITE LAYOUT

SCALE 1:1000  
 SKETCH NO

FIG 3

## Appendix E – Drawings

- Included Separately