

**TOWN OF CALEDON
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**STORMWATER MANAGEMENT
IMPLEMENTATION REPORT**

HUMBER STATION DISTRIBUTION CENTRE

**TOWN OF CALEDON
REGION OF PEEL**

PREPARED FOR:

PROLOGIS

PREPARED BY:

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1.0 Introduction

C.F. Crozier & Associates Inc. (Crozier) was retained by Prologis to prepare a Stormwater Management Implementation Report to support the Site Plan Application for a proposed industrial development located at 12519-12713 Humber Station Road within the Humber Station Employment Area in the Town of Caledon. For orientation purposes, within this report Humber Station Road is considered to be running north to south, and Street A is east to west.

The property occupies 78.3 hectares and is located east of Humber Station Road between Healy Road and Mayfield Road. This report demonstrates that the property's stormwater management plan meets the design criteria established by the Town of Caledon, Region of Peel, Toronto Region Conservation Authority (TRCA), and the Province of Ontario. The development of the property will split into phases, with Phase 1A occupying the northeast side of the site, Phase 1B occupying the northwest side of the site, and Phase 2 occupying the south side of the site. Access for passenger vehicles and trucks is proposed via two driveway accesses to a proposed 'Street A' (designed by others) which will run east-west through the property area connecting Phase 1A to Humber Station Road.

This report will focus on the detailed design of Phase 1A and the functional design of Phase 1B. The design of Phase 2 will be completed as part of a separate application. Note, a Functional Servicing Report was submitted by Crozier and Associates dated November 2024, under separate cover.

The following reports, design standards, and documentations were referenced during the preparation of this report:

- Ministry of Environment (MOE) Stormwater Management Planning and Design Manual, dated March 2003
- Town of Caledon Development Standards Manual (2019)
- Environmental Compliance Approval for the Corporation of the Town of Caledon (ECA Number 324-S701 Issue Number 1, October 2022)
- Region of Peel Public Works Stormwater Design Criteria Manual and Procedural Manual (Version 2.1, June 2019)
- Public Works Design, Specifications & Procedures Manual Stormwater Management Report (Region of Peel, December 2022)
- Consolidated Linear Infrastructure Environmental Compliance Approval (CLI-ECA) for the Regional Municipality of Peel Stormwater Management System (ECA Number 009-S701)
- Toronto and Region Conservation Authority Stormwater Management Criteria (August 2012)
- MTO Stormwater Management Requirements for Land Development Proposals (April 2022)
- Hydrogeological Investigation (IBI Group, March 2022)
- Humber Station – Comprehensive Environmental Impact Study and Management Plan – Phase 1 – Characterization/Existing Conditions and Baseline Inventory (GEI Consultants et al., July 2024); hereon referred to as CEISMP Phase 1 Report (GEI, July 2024)

- Humber Station Village Phase 2 Stormwater Management Report (Schaeffers, August 2024); completed as part of the CEISMP Phase 2 Report, hereon referred to as Phase 2 SWM Report (Schaeffers, August 2024)
- Supplemental Geotechnical Investigation – Proposed Industrial Development (Pinchin, October 2023); hereon referred to as Geotechnical Investigation (Pinchin, October 2023)
- Master Site Plan (Petroff, November 2024)
- Topographic Survey (David B.Searles Surveying Ltd., May 2023)
- Ontario Classified Point Cloud (Lidar-Derived) (Ministry of Natural Resources and Forestry, August 2019)
- Street A Profile (LEA Consulting, April 2024)
- Hydrogeological Assessment, 12519 & 12713 Humber Station Road, Bolton, Ontario (Palmer, November 2024); hereon referred to as Hydrogeological Assessment (Palmer, November 2024)
- Environmental Impact Study – 12519 and 12713 Humber Station Road, Caledon (SLR, November 2024)
- Mechanical Drawing C001 to C203F (Hammerschlag & Joffe Inc., November 2024)

2.0 Site Description and Background

2.1 Existing drainage

The 78.30 ha property is in a rural area of the West Humber Watershed and is bordered on the east by industrial lands, on the north and south by agricultural lands planned for industrial development and to the west by Humber Station Road. Under existing conditions, the property consists primarily of agricultural fields with residential dwellings fronting onto Humber Station Road. The topography splits the property drainage to the south, east and west, as illustrated in Drawing C120 Pre-development Drainage Plan. Existing ground elevation ranges from approximately 238.50 m from the northern portion of the site to approximately 231.50 m in the southern portion of the property. Ultimately property runoff drains into the Humber River and eventually outlets into Lake Ontario.

The property is within the TRCA-regulated area due to its associated watercourses and wetlands. There are two (2) West Humber River tributaries located near the property.

- Clarkway Drive Tributary runs north-south direction along the eastern property line, located within a valley with a landscape cover of riparian meadow marsh and meadow shallow marsh vegetation. It is a perennial watercourse, expected to serve as a primary wildlife corridor, providing connectivity between smaller woodlots and wetlands to the Main Humber River watershed. HDF-8 drains into the Clarkway Drive Tributary immediately south of Mayfield Road.
- Goreway Road Tributary reach 1 runs north-south directions, west of the Humber Station Road. The western side of the property drains to the roadside ditch on the East side of Humber Station Road. The east roadside ditch drains to the west roadside ditch through culverts, then drains into the Goreway Road tributary through three small drainage features.

The Clarkway Drive Tributary and Goreway Road Tributaries drain north-south, parallel to each other, and converge into the West Humber River approximately 10 km south of the property.

Drainage within the property is collected in seven (7) Headwater Drainage Features (HDF) that occur within the property.

HDF within Clarkway Drive Tributary

- HDF-6 starts midway through the property and extends to the east portion of the property, connecting to Clarkway Drive Tributary.
- HDF-8 starts midway through the property and extends to the south portion of the property, traveling south and eventually outlet to Clarkway Drive Tributary. This feature was observed to be dry during all monitoring events based on CEISMP Phase 1 Report (GEI, July 2024)
- HDF-14 starts at the southeast corner of the property and connects east to the Clarkway Drive Tributary.

HDF within Goreway Road Tributary reach 1

- HDF-1 starts at the southwest corner of the property and connects west to the Goreway Road Tributary reach 1.
- HDF-2 starts midway through the property along the west side and connects west to the Goreway Road Tributary reach 1.
- HDF-3 extends from the wooded area in the north to the southwest portion of the property, connecting into an existing wetland, with an existing natural pond area. The wetland then drains to the Goreway Road Tributary Reach 1 through the existing culvert under Humber Station Road. According to CEISMP Phase 1 Report (GEI, July 2024), this feature appears to be realigned for agricultural drainage purposes and was observed with intermittent flow through the monitoring events.
- HDF-7 starts at the northwest corner of the property and connects west to the Goreway Road Tributary reach 1.

Please refer to Figure 2.1: Pre-development Drainage Plan in the Phase 2 SWM report (Schaeffers, August 2024), Figure 4a: Observed Natural Heritage Features - Terrestrial (GEI, April 2024), and Figure 6: Opportunities and Constraints (GEI, August 2024) in Appendix A for details.

Drawing C120 Pre-development Drainage Plan identifies the property drainage to each tributary, in general conformance with the Figure 2.1 and Figure 4.3 in the Phase 2 SWM report (Schaeffers, August 2024), see Appendix A. Table 1 summarized the drainage patterns under existing conditions.

Table 1: Existing Drainage Area Summary

Outlet	Catchment ID	Humber River Catchment ID	Hatch	HDF ID	Area (ha)
Clarkway Drive Tributary	101A, 101B	43.03	Orange	HDF-8	26.71
	103A, 103B	43.10	Cyan	HDF-6	2.09
	102A, 102B	43.06	Green	HDF-14	2.50
	Part of Phase 2 Lands	43.03	Orange	HDF-8	7.68
	Part of Phase 2 Lands	43.06	Green	HDF-14	2.90
Goreway Road Tributary reach 1	106	41.06	Yellow	HDF-1	2.10
	Part of Phase 2 Lands	41.06	Yellow	HDF-1	4.67
	104 A, 104B, 104C, 104D	41.07	Pink	HDF-3	17.06
	105, 105B	41.08	Blue	HDF-7	1.68
Natural Heritage System	-	-	-	-	10.91
Total Property					78.30

2.2 Soil Conditions

According to the Geotechnical Investigation (Pinchin, October 2023) the topsoil on site ranges from 150 mm to 260 mm deep. Below the topsoil, a 2.9 m to 6.5 m thick deposit of sandy silty clay to silty clay with sand till was encountered. This is consistent with the data obtained from the Ontario Geological Survey Maps, which identifies the overburden soil as Halton till.

The hydraulic conductivity was estimated to range from 1.6×10^{-9} m/s to 6.5×10^{-10} m/s, according to the Hydrogeological Investigation (IBI Group, March 2022). This finding indicates that the soil on site has low permeability, which is in general conformance with the Geotechnical Investigation (Pinchin, October 2023).

2.3 Groundwater Conditions

The groundwater levels range from 0.6 to 1.5 m below existing ground, according to Geotechnical Investigation (Pinchin, October 2023). The highest groundwater level 238.42 m was measured at MW124 and WL2-17, the north edge of the property. The lowest groundwater elevation 231.20 was measured at MW8, the southwest corner of the site. The shallow groundwater generally flows southeasterly direction toward Lake Ontario based on the Figure 1: Site Investigation Plan in Hydrogeological Assessment (Palmer, November 2024), see Appendix A, which is in general conformance with the Hydrogeological Investigation (IBI Group, March 2022).

2.4 Constraints

The property constraints include various natural features, including wetlands, woodlands, and watercourses. There are two existing wetland areas within the site, where 30 m buffers are applied for the proposed Phase 1A and Phase 1B areas. The existing west wetland is located along the west property line within Phase 1A development. The existing east wetland is located at the southwest corner of Phase 1B, with an existing natural pond, fronting Humber Station Road. There is a woodland area located at the north border of the site. An existing watercourse HDF-3 connects the existing woodland and east wetland, conveying the drainage southwest from the existing woodland to the east wetland.

Archaeological assessment was completed by Archeoworks Inc, dated October 2024. The most conservative setback from the natural features and archaeological assessments are used as the constraints for proposed development's design. Please refer to the Master Site Plan (Petroff, November 2024) and Figure 4a: Observed Natural Heritage Features - Terrestrial (GEI Consultants, April 2024) In Appendix A for details.

3.0 Proposed Development

The property is located within the Humber Station Villages Employment Area, Lots 1-5, Concession 5 (Albion) in the Town of Caledon. A Comprehensive Environmental Impact Study and Management Plan (CEISMP) Phase 1- Characterization/Existing Conditions and Baseline Inventory was prepared by GEI Consultants et al. dated July 2024. The Humber Station Village Phase 2 Stormwater Management Report prepared by Schaeffers dated August 2024, hereon referred to as Phase 2 SWM Report (Schaeffers, August 2024).

Phase 2 SWM Report (Schaeffers, August 2024) was completed as part of the CEISMP Phase 2 Report. This report provides a plan for stormwater management for the Humber Station Villages Employment Area, including the preliminary design of three (3) stormwater management ponds to support development within the study area. The proposed development for the property is in general conformance with the proposed stormwater management strategies in the Phase 2 SWM Report (Schaeffers, November 2024).

3.1 Property Layout

The property will be phased with the first phase of construction (Phase 1A) occupying approximately 31.3 ha in the northeast of the site. The Phase 1B area, occupying 20.42 ha in the Northwest of the site will be constructed after Phase 1A. The Phase 2 area, in the south, will be developed in the future. The concept plan for Phase 2 of the development will be determined through a separate submission. Refer to the Master Site Plan (Petroff, November 2024) and Drawing C200 for the General Servicing plan illustrating the proposed development.

Based on the Master Site Plan (Petroff, November 2024), the proposed Phase 1A consists of the following:

- Proposed industrial building no.1
- Associated parking areas (truck parking and vehicle parking) and drive aisle
- Natural Heritage System (wetland)

Based on the Master Site Plan (Petroff, November 2024), the proposed Phase 1B consists of the following:

- Proposed industrial buildings
- Associated parking areas (truck parking and vehicle parking) and drive aisle
- Natural Heritage System (woodland area and west wetland)
- Realigned channel designed by others

Access for passenger vehicles and trucks is proposed via two driveway accesses to a proposed 'Street A' (designed by others) which will run east-west through the property area connecting Phase 1A to Humber Station Road.

A proposed 'Street A2' designed, by others, will run north-south along Clarkway Drive Tributary through the Humber Station Villages Employment Area connecting to Street A based on Phase 2 SWM Report (Schaeffers, August 2024).

4.0 Stormwater Management (Ultimate Scenario)

4.1 Design Criteria

The proposed drainage and stormwater management system for the property has been designed in accordance with the design guidelines provided by Town of Caledon, Region of Peel, TRCA, and the Ministry of the Environment, Conservation and Parks (MECP). Phase 2 SWM Report (Schaeffers, August 2024) was also referenced when determining the criteria for the stormwater management design. The stormwater management criteria include:

Quantity Control

Control post-development flows for the 2 through 100 year storm events to unitary release rates for Sub-basin 36 of the Humber River watershed. Refer to Equation F from Table E.1 in the TRCA SWM Criteria.

For areas draining to the Clarkway Drive Tributary system via the future municipal Storm sewer and Pond, control post-development flows for the regional storm to release rates calculated based on the Figure 4.3 Regional Release Rate in the Phase 2 SWM Report (Schaeffers, August 2024).

For areas draining to the Goreway Road Tributary reach 1 no quantity control is required for the Regional Storm.

Quality Control

Water quality treatment is required to meet an Enhanced level of Water Quality Protection. This requires treatment to an average annual rate of 80% Total Suspended Solids (TSS) removal rate, as specified in the 2003 MOE Stormwater Management Planning and Design Guidelines.

For areas draining to the Clarkway Drive Tributary system via the future municipal Storm sewer and Pond, water quality treatment will be provided by the future municipal pond.

Erosion Control

- Retain the first 5 mm of rainfall across the property's impervious areas.
- Provide a minimum of 48 hours of the drawdown time for 25 mm event.

For areas draining to the Clarkway Drive Tributary system via the future municipal Storm sewer and Pond, extended detention will be provided in the future municipal pond.

Water Balance

Maintain pre-development annual infiltration levels by providing mitigation measures to infiltrate clean stormwater for site-based water balance.

4.2 Quantity Control

This section discusses the methodology and results for the quantity control design for Phase 1A and Phase 1B and the design for the proposed stormwater infrastructures, including underground storage tank, outlet control structures, and sewer networks. The Design for the Phase 1B lands is preliminary, and additional details will be provided in the future. The design of Phase 2 will be completed as part of a separate application.

4.2.1 Target Release Rates

Under proposed conditions runoff from the developed portions of the Phase 1A lands will be collected, stored and released at a controlled release rate. Runoff from undeveloped areas will continue to sheet flow to the Clarkway Drive Tributary, as it does in existing conditions.

Phase 1A Outlet to Clarkway Drive Tributary

Under existing conditions, 4.00 ha of agricultural lands located at east portion of the Phase 1A area sheet flows east towards Clarkway Drive Tributary. This area is shown as Catchments 102A, 102B, 103 A, and 103B on Drawings C120, pre-development drainage plan. Under the proposed conditions, 2.33 ha along the east of Phase 1A will remain undeveloped and will sheet flow towards Clarkway Drive Tributary, mimicking the existing conditions. Given the 1.67 ha reduction in area there is no anticipated increase in peak flows from these catchment and no stormwater quantity control is provided for this landscaped area. Table 2 provides a detailed breakdown of the uncontrolled pre and post development areas draining to the Clarkway Drive Tributary.

Table 2: Phase 1A change in uncontrolled drainage Area to Clarkway Drive Tributary

Humber River Catchment ID	Catchment ID		Area (ha)		Difference ha (%)
	Existing	Proposed	Existing	Proposed	
43.10	103A + 103B	UC02	1.50	1.15	-0.35 (-23%)
43.06	102A + 102B	UC01	2.50	1.18	-1.32 (-53%)
Total Area			4.00	2.33	-1.67 (-42%)

The remaining Phase 1A development Area will drain to the future municipal storm pond 3 via the future municipal sewer along Street A and Street A2. This infrastructure will be designed by others per the recommendations in the Phase 2 SWM Report (Schaeffers, August 2024). Phase 2 SWM Report (Schaeffers, August 2024) uses the 64.2 ha area within Humber River Catchments 43.03 (orange), 43.06 (green), and 43.10 (cyan) to size the storm sewers and SWM Pond 3, to Figure 4.3: Regional Release Rate (Schaeffers, August 2024) for details. These calculated unit flow rates, in L/s/ha, were multiplied by the areas in Phase 1A which are part of Humber River Catchment 43.03, 43.06, 43.10. Refer to Table 4 for a breakdown of the areas used to calculate the target release rates for Phase 1A.

Table 3: Phase 1A Existing Areas to Calculate Target Flow Rates

Humber River Catchment ID	Catchment ID	Existing Area (ha)	Total Area (ha)
43.03	101A	21.78	26.92
	101B	5.14	
43.06	102A	1.47	1.47
43.10	103B	1.12	1.12
Total Area	-	-	29.52

Note: The discrepancy between the existing area summation and total area is due to rounding.

The 29.52 ha area calculated in Table 5 was used to calculate the target release rates for the Phase 1A area contributing drainage to future SWM Pond 3, following strategy from Phase 2 SWM Report (Schaeffers, August 2024). Table 4, below, provides the target release rates for the 2 through 100-year storm events for Phase 1A.

Table 4: Phase 1A Target Release Rates Summary (2 to 100-year)

Storm Event	Sub-Basin 36 Controlled Release Rate (L/s/ha)	Clarkway Drive Tributary	
		Existing Drainage Area (ha)	Target Release Rate (m ³ /s)
2-year	6.51	29.52	0.192
5-year	9.92		0.293
10-year	12.24		0.361
25-year	15.39		0.454
50-year	17.90		0.528
100-year	20.27		0.598

Notes:

1. CEISMP area of 64.2 ha is used to calculate sub-basin 36 controlled release rate (L/s/ha) using Equation F from Table E.1 in the Stormwater Management Criteria (TRCA, August 2012).

Regional target release rates are calculated based on the same contributing drainage areas (29.52 ha) as the 2-100 year storms and unitary release rates provided in Figure 4.3 - Regional Release Rates in the Phase 2 SWM Report (Schaeffers, August 2024), see table below for summary.

Table 5: Phase 1A Target Release Rates Summary (Regional)

Humber River Catchment ID	Unitary Release Rates (m ³ /s/ha)	Drainage Area (ha)	Target Release Rate (m ³ /s)
43.03 (Orange)	0.071	26.92	1.91
43.10 (Cyan)	0.136	1.47	0.20
43.06 (Green)	0.1025	1.12	0.12
Phase 1A		29.52	2.23

As shown in Table 4 the regional Target release rate for Phase 1A area is 2.23 m³/s.

Phase 1B Outlet to Goreway Road Tributary Reach 1

Phase 1B outlets to the Goreway Road Tributary, the exact location of the outlets for the Phase 1B parcels have not yet been determined. For this submission it is assumed that each parcel in Phase 1B will include its own quantity control storage, so targets are set for Phase 1B North (11.41 ha) and Phase 1B South (8.29 ha).

The Total Phase 1B drainage area (19.70 ha) was used to calculate the Sub-Basin 36 Controlled release rates. These release rates are multiplied by the areas for each Phase 1B parcel to establish the target release rates. The areas used to calculate the release rates do not match the proposed development areas as they are based on the existing drainage areas to the Goreway Road Tributary. Areas for each parcel are Summarized in Table 6, release rates are calculated in Table 7.

Table 6: Phase 1B Existing Areas to Calculate Target Flow Rates

Humber River Catchment ID (Colour on Drawing C120)	Existing Conditions Catchment ID	Area (ha)
Phase 1B North		
41.07 (Pink)	104B	10.40
41.08 (Cyan)	105	1.01
Total Area	-	11.41
Phase 1B South		
41.06 (Yellow)	106	2.10
41.07 (Pink)	104A	3.42
41.07 (Pink)	104C	2.77
Total Area	-	8.29
Total Phase 1B Area	-	17.60

Table 7: Phase 1B Target Release Rates Summary

Storm Event	Sub-Basin 36 Controlled Release Rate (L/s/ha)	Phase 1B North		Phase 1B South	
		Drainage Area (ha)	Target Release Rate (m ³ /s)	Drainage Area (ha)	Target Release Rate (m ³ /s)
2-year	7.4	11.41	0.084	8.29	0.061
5-year	11.3		0.129		0.093
10-year	13.9		0.158		0.115
25-year	17.5		0.199		0.145
50-year	20.4		0.233		0.169
100-year	23.0		0.263		0.191

Notes:

1. Area of 19.70 ha is used to calculate sub-basin 36 controlled release rate using Equation F from Table E.1 in the Stormwater Management Criteria (TRCA, August 2012).
2. Drainage area per Drawing C120: Pre-development Drainage Plan in the appendices.

Based on the Phase 2 SWM Report (Schaeffers, August 2024), region control is not required for catchments outletting to Goreway Road Tributary Reach 1. Therefore, Phase 1B has no target release rate for the Regional Storm.

4.2.2 Design Storm Selection

VO model (version 6.2) was used to determine the appropriate design storm to use for peak flow calculations and quantity control analysis, since the Humber River unit flow rates are based on results from VO model. As the Town, Region and TRCA each require specific design storm distributions to be used to size stormwater conveyance systems and quantity controls, a sensitivity analysis was completed in VO model to determine the most conservative storm event. This analysis looked at five storm distributions including:

- 24-hour Chicago storm, developed with the Town/Region IDF
- 4-hour Chicago storm, developed with the Town/Region IDF
- 24-hour - SCS Type II storm, developed with the Town/Region IDF

- 6-hour AES storm, taken from the Humber River Subwatershed Model
- 12-hour AES storm, taken from the Humber River Subwatershed Model

A preliminary model was set up for Phase 1A and the required storage meets the target peak flow for the outlet are summarized in the table below. It should be noted that this analysis was completed during the preliminary design phases to identify the most conservative storm event, minor changes have been made to the site plan which are not reflected in this preliminary analysis.

Table 8: Design Storm Storage Summary

Storm Event	Required Storage (m ³)
100yr 24hr 15min Chicago	19,828
100yr 4hr 15min Chicago	18,980
100yr 24hr 15min SCS Type II	15,915
100 Year 6 Hour AES (Bloor, TRCA)	16,282
100 Year 12 Hour AES (Bloor, TRCA)	15,822

Based on the storage volume summarized in Table 8 above, the 24-hour Chicago storm results in the greatest storage volume required. Thus, the 24-hour Chicago storm is the design storm that was selected to design the quantity control storage for the property. Once the design is completed all other storm events are run in the model to confirm that the design works for all storms.

4.2.3 Phase 1A Quantity Control

Under the post-development conditions, the existing drainage features HDF-6 and HDF-8 will be removed for the proposed Phase 1A industrial development, based on the Master Site Plan (Petroff, November 2024). Mitigation for the watercourse removal, if required, will be provided at the property further south of the site by others, according Figure 4a: Observed Natural Heritage Features - Terrestrial (GEI Consultants, April 2024) in Appendix A.

Catchments 201, 202, 203, 204, 205, and 206 consist of truck parking areas and a drive aisle. The runoff from Catchments 201 to 206 will be collected by the proposed manholes with honeycomb lids, which are sized to capture runoff from the 100-year event. The captured runoff is stored in the proposed underground storage tank A, along the east side of Phase 1A, and under underground storage tank B, along the east side of Phase 1A.

Catchments 207A and 207B consist of the east and west portion of vehicle parking areas and drive aisle, respectively. The runoff will be collected by double catchbasins and double catchbasin manholes, which are sized to capture runoff from the 100-year event. The captured runoff is stored in the proposed underground storage tank C. The proposed underground storage Tanks A and B are hydraulically connected to Tank C. The proposed underground storage chambers A, B, and C are designed by others, see Appendix C for specifications and details.

Catchments 201R, 202R, 203R, 204R, 205R, and 206R consist of rooftop runoff, which will be conveyed by two roof leaders per catchment. The rooftop runoff from Catchment 204R will be controlled on the rooftop and routed to Tank B directly. The rooftop runoff from Catchments 201R, 202R, 203R, 205R, and 206R will be controlled on the rooftop and routed at a controlled release rate to infiltration tanks (Tank no. 1, 2, and 3), mitigating the rainwater infiltration deficit and providing the required 5 mm of onsite retention for erosion mitigation. The overflow from Tank 1 and Tank 2 will spill into the proposed underground storage chamber A and B, and the overflow from Tank 3 will spill into the proposed underground storage chamber C.

For Catchments 201 to 207 and Catchments 201R to 206R, the 2-year to 100-year quantity control will be provided through a combination of rooftop storage and underground storage chambers. The regional quantity control will be provided through rooftop storage, underground storage chambers with surface ponding at 237.45 m.

Catchments 208A and 208B consist of east and west Phase 1A entrances. The runoff will be collected by catchbasins, conveyed and stored in the proposed 1.2 m x 1.8 m box sewer with 75 mm diameter orifice control.

Catchment UC01, UC02 and UC03 consist of landscape area along north and east corner of the Phase 1A. As mentioned in Section 4.2.1, the total catchment area of for UC01 and UC02 (2.33 ha) is less than the uncontrolled landscape/restored area (4.00 ha) under the existing conditions, therefore, no quantity control is provided for these area. Catchment UC03 is part of Catchment 10A in existing conditions. This area will remain unchanged and is not included in the target release rate calculations for either Phase 1A or 1B, so not controls are proposed for this area.

The input parameters for Phase 1A post-development catchments are summarized in Table 9 below. Refer to Drawing C121, C200, and C300 for a depiction of the Post-development Drainage Area Plan, Overall Site Servicing Plan, and Overall Site Grading Plan.

Table 9: Post-Development Catchments for Phase 1A

Catchment ID	NASHYD/ STANHYD	Drainage Area (ha)	Total IMP (%)	Curve Number (CN)	Curve Number (CN*)	Initial Abstraction (IA)	Time to Peak (hrs)
C201	STANHYD	1.45	96	74	73	5.0	-
C202	STANHYD	1.70	100	74	73	5.0	-
C203	STANHYD	1.33	98	74	73	5.0	-
C204	STANHYD	1.61	92	74	73	5.0	-
C205	STANHYD	1.69	100	74	73	5.0	-
C206	STANHYD	1.32	100	74	73	5.0	-
C201R	STANHYD	2.40	100	74	73	5.0	-
C202R	STANHYD	2.37	100	74	73	5.0	-
C203R	STANHYD	2.40	100	74	73	5.0	-
C204R	STANHYD	2.39	100	74	73	5.0	-
C205R	STANHYD	2.36	100	74	73	5.0	-
C206R	STANHYD	2.39	100	74	73	5.0	-
C207A	STANHYD	1.06	94	74	73	5.0	-
C207B	STANHYD	1.20	93	74	73	5.0	-
C208A	STANHYD	0.19	95	74	73	5.0	-
C208B	STANHYD	0.20	95	74	73	5.0	-
Subtotal	-	26.06	-	-	-	-	-
C209A	STANHYD	1.24	99	74	73	5.0	-
Total	-	27.30	-	-	-	-	-

Note:

1. The CN is converted to CN* based on the 100-year rainfall volume of 101.55 mm.
2. CN values for STANHYD commands are for pervious areas only.
3. Subtotal area consists of Phase 1A area. Total areas includes Phase 1A area and east of Street A.

4.2.4 VO Modeling Methodology

Visual Otthymo 6.2 is used for the detailed quantity control model for Phase 1A. The Model includes catchments from the Roof, denoted with an R in the catchment ID, the parking lot and uncontrolled areas. For rooftop Catchments 201R to 206R, rooftop storage is provided in this design. DiverHyd commands are used to separate a portion of the major flow, which would spill from the Scuppers, r and controlled minor flow through the roof drain system. This DiverHyd is used to stabilize the model and does not impact the model results. A preliminary roof storage curve is used and will be detailed with mechanical engineers in future submissions.

The controlled roof runoff and the overflow through the suppers is added to the pavement runoff from Catchments 201 to 206, 207A, and 207B. This runoff is then controlled through a storage node, representing the combined storage of underground storage chambers (Tanks A, B, and C) with surface ponding at 237.45 m.

Runoff from catchments 208A and 208B are routed to their respective storage nodes, representing 1.2 m x 1.8 m box sewers. All stage-discharge curves were iterated to best utilize the available volume within the proposed storage system while keeping the peak runoff below the target release rates identified in Section 4.2.1.

As the infiltration tanks (Tanks 1, 2, and 3) are designed to drain slowly over time these tanks are not included in the quantity control analysis and thus not included in the VO model.

Catchment 212 within Phase 1A area is sloping west towards Phase 1B. Preliminary modeling was completed for Phase 1B which outlets to the Goreway Road Tributary reach 1, see Section 4.2.6. for details of this analysis.

With the iterated stage discharge curves and provided storage volumes, the controlled release rates from Phase 1A, which drains to the future municipal storm sewer and pond, are below the target release rates calculated in Section 4.2.1.

Table 10: Phase 1A Peak Flow Comparison Summary

Storm Event	Phase 1A Peak Flow Summary (m ³ /s)	
	Target	Controlled
2-year	0.192	0.179
5-year	0.293	0.272
10-year	0.361	0.321
25-year	0.454	0.417
50-year	0.528	0.464
100-year	0.598	0.508
Regional	2.227	2.141

Note: VO peak flows from 24-hour Chicago storms and 48-hour Hazel are used to be conservative.

4.2.5 Phase 1A Storage Design and Outlet Controls

Quantity control for the Phase 1A area is proposed through a combination of roof top storage, underground storage and surface storage. Concrete tanks are proposed for quantity control as they allow for more development area and are accepted by all review agencies. The dimensions of the quantity control tanks are constrained by the proposed servicing layout to maintain the minimum separation required from sanitary sewers and water main. The tank heights are limited by the proposed grading, sewer inverts at crossings, groundwater elevations, and pavement makeup.

All quantity control tanks are closed-bottom due to high groundwater levels throughout the site. During large storm events (>100 year event) the storage tanks are designed to back up into the parking lots and utilize surface storage. The parking lot is designed to provide up to 0.23m of ponding before spilling towards Street A. Provided storage is summarized in Table 11, below.

Table 11: Site Storage Summary

Roof Storage (m ³)	Underground Storage Tanks (m ³)	Surface Ponding (m ³)	Total Storage (m ³)
4,587	34,519	2,797	41,903

For this submission, the underground storage tanks for quantity control are designed by StormTrap. Detailed tank designs are provided for Phase 1A, see Drawing C200: Overall Servicing Plan and Tank Specifications provided in Appendix B for details.

Due to grading constraints the two site entrances could not be connected to the underground storage tanks. Quantity control for these areas is provided through superpipes (box sewer) and separate control structures are provided for each area. As these areas are relatively small a 0.75mm orifice was used to provide flow reduction at each control structure. The required storage and release rates for these two areas is provided in Table 12 and Table 13, below.

Table 12: Storage-discharge summary - East Super Pipe (Box Sewer)

Design Storm	Controlled Release Rates (m ³ /s)	Required Storage (m ³)	Provided Storage (m ³)
2-year	0.006	40	151
5-year	0.009	57	
10-year	0.009	71	
25-year	0.010	90	
50-year	0.011	103	
100-year	0.012	117	
Regional	0.139	150	

Table 13: Storage-discharge summary – West Super Pipe (Box Sewer)

Design Storm	Controlled Release Rates (m ³ /s)	Required Storage (m ³)	Provided Storage (m ³)
2-year	0.006	38	151
5-year	0.008	54	
10-year	0.009	67	
25-year	0.010	85	
50-year	0.011	97	
100-year	0.012	110	
Regional	0.130	141	

The peak flows from two proposed entrances (Catchments 208A and 208B) were subtracted from the target release rate for Phase 1A in order to establish a target release rate for the remainder of the developed area.

Table 14: Storage-discharge summary – Site Storage

Design Storm	Target Release Rates (m ³ /s)	Controlled Release Rates (m ³ /s)	Peak Flow Differences (%)	Required Storage (m ³)	Provided Storage (m ³)
2-year	0.180	0.176	-7%	6,274	37,320
5-year	0.276	0.266	-7%	7,843	
10-year	0.343	0.310	-11%	8,847	
25-year	0.435	0.400	-8%	11,573	
50-year	0.506	0.444	-12%	13,269	
100-year	0.575	0.486	-15%	15,267	
Regional	2.200	2.116	-4%	35,041	

Note: VO peak flows from 24-hour Chicago storms and 48-hour Hazel are used to be conservative.

Quantity control measures will be provided within the control manholes downstream of the proposed underground storage tank C, east superpipe, west superpipe. The proposed control manholes will be completed with poured-in concrete baffle walls with multi-staged orifice plates. Table 15 summarizes the dimensions of orifices designed for quantity control. For detailed orifice designs for Phase 1A see Drawing C200: Overall Servicing Plan and Drawing C607: Interim Stormwater Management Pond details.

Table 15: Phase 1A Outlet Controls

Outlet Control at MH 7T			East and West Box Sewer
Circular Orifice	Circular Orifice	Weir	Orifice
290 mm diameter Invert = 232.75 masl	350 mm diameter Invert = 233.35 masl	450 mm wide Invert = 236.00	75 mm diameter Invert = 234.30

Note: MH 7T structure is a 2400 mm diameter manhole structure downstream of the Tank A, B, and C.

4.2.6 Phase 1B Quantity Control

As part of the Phase 1B development the existing watercourse HDF-3 will be realigned, connecting the woodland area to the east wetland, fronting Humber Station Road. The channel realignment design and analysis will be completed by others. The existing watercourse HDF-2 and HDF-8 will be removed to support Phase 1B industrial development, based on the Master Site Plan (Petroff, November 2024). Mitigation for the watercourse removal, if required, will be provided at the property further south of the site by others, according to Figure 4a: Observed Natural Heritage Features - Terrestrial (GEI Consultants, April 2024) in Appendix A.

Catchments 104A and 104B consist of the natural heritage system with woodland, wetland, and realigned channel, eventually outlet to Goreway Road Tributary reach 1, see Drawing C121 Post-development Drainage Plan for details.

Catchment 209B consists of east of Street A right-of-way, where the runoff will be collected by the catchbasins within the right-of-way, conveyed by the storm sewer into a designated storage unit with quantity control before discharging to Goreway Road Tributary reach 1.

Catchments 210 and 211 consist of a proposed industrial building, associated parking area, and drive aisle. Catchment 212 consists of landscape area from the southwest corner of Phase 1A, sheet flowing west towards Catchment 211 in Phase 1B. The runoff from Catchments 210, 211, and 212 will be collected by proposed catch basins and conveyed to proposed storage units with quantity control measures, eventually outletting Goreway Road Tributary reach 1. Detailed stormwater management strategies will be provided under separate covers in the future.

The input parameters for Phase 1B post-development catchments are summarized in Table 16 below. Refer to Drawing C121, C200, and C300 for a depiction of the Post-development Drainage Plan, Overall Site Servicing Plan, and Overall Site Grading Plan.

Table 16: Post-Development Catchments for Phase 1B

Catchment ID	NASHYD/ STANHYD	Drainage Area (ha)	Total IMP (%)	Curve Number (CN)	Curve Number (CN*)	Initial Abstraction (IA)	Time to Peak (hrs)
209B	STANHYD	0.59	100	74	73	5.0	-
210	STANHYD	11.38	100	74	73	5.0	-
211	STANHYD	10.90	100	74	73	5.0	-
212	NASHYD	0.21	0	74	73	5.0	0.05
Sub-total	-	23.08	-	-	-	-	-

Note: The CN is converted to CN* based on the 100-year rainfall volume of 101.55 mm. CN values for STANHYD commands are for pervious areas only.

4.2.7 Phase 1B Storage Design and Outlet Controls

Preliminary storage sizing is completed for Phase 1B North and South area based on Table 17 and Table 18. The stormwater quantity storage design and outlet control will be detailed in the detailed design stage, in future submission.

Table 17: Required Volume Summary for Phase 1B North Quantity Controls

Design Storm	Target Release Rates (m ³ /s)	Controlled Release Rates (m ³ /s)	Peak Flow Differences (%)	Required Storage (m ³)	Provided Storage (m ³)
2-year	0.084	0.079	-6%	3,328	8,700
5-year	0.129	0.128	-1%	4,837	
10-year	0.158	0.152	-4%	5,699	
25-year	0.199	0.198	-1%	6,913	
50-year	0.232	0.224	-4%	7,738	
100-year	0.263	0.251	-4%	8,649	

Note: VO peak flows from 24-hour Chicago storms are used to be conservative.

Table 18: Required Volume Summary for Phase 1B South Quantity Controls

Design Storm	Target Release Rates (m ³ /s)	Controlled Release Rates (m ³ /s)	Peak Flow Differences (%)	Required Storage (m ³)	Provided Storage (m ³)
2-year	0.061	0.058	-6%	3,317	8,700
5-year	0.093	0.089	-5%	4,866	
10-year	0.115	0.110	-5%	5,707	
25-year	0.145	0.138	-4%	6,932	
50-year	0.169	0.162	-4%	7,742	
100-year	0.191	0.181	-5%	8,650	

Note: VO peak flows from 24-hour Chicago storms are used to be conservative.

4.3 Quality Control

The property is required to provide “Enhanced Level Protection, removing 80% of the total suspended solids (TSS) from 90% of the annual runoff for water quality.

4.3.1 Phase 1A

Following Phase 2 SWM Report (Schaeffers, August 2024), the controlled Phase 1A runoff will be conveyed by the proposed sewer along ‘Street A2’ (design by others) to the Stormwater Management (SWM) Pond 3.

SWM Pond 3 will be located at the southeast corner of the Humber Station Villages Employment Area. SWM Pond 3 is designed with a contributing areas of 75.39 ha from the site plans and 2.87 ha from proposed municipal roadways, accepting on-site controlled flows and uncontrolled runoff from the proposed municipal roadways, including Street A and Street A2. SWM Pond 3 will provide enhanced level water quality protection for the upstream contributing area, including Phase 1A area, achieving 80 % TSS removal.

Therefore, no water quality treatment is required for Phase 1A development.

4.3.2 Phase 1B

Stormwater quality control for Phase 1B will be detailed in the detailed design stage, meeting the Enhanced Level Protection, removing 80% of the total suspended solids (TSS), as specified in the 2003 MOE Stormwater Management Planning and Design Guidelines.

4.4 Erosion Control

As outlined in Section 4.0, minimum 5 mm retention is required across the site’s impervious area for erosion control, as well as providing a minimum 48 hours of drawdown time for 25 mm storm events.

4.4.1 Phase 1A

The 5 mm of onsite retention was calculated for Phase 1A as 26.06 ha (developed area in Phase 1A). The required volume of 1,303 m³ will be provided in infiltration tank 1, 2, and 3, summarized in Table 19 below, details see Section 4.5.1.

Table 19: Phase 1A On-site Retention Summary

Phase 1A Area (ha)	On-site Retention (mm)	Volume Required (m ³)	Volume Provided (m ³)
26.06	5	1,303	2,640

SWM Pond 3 (designed by others) provides a minimum of 48 hours of drawdown time for 25 mm storm events per Phase 2 SWM Report (Schaeffers, August 2024). As SWM Pond 3’s contributing drainage area includes Phase 1A, Street A, and Street A2, on-site extended detention is not required for Phase 1A.

4.4.2 Phase 1B

Erosion control for Phase 1B will be detailed in the detailed design stage, minimum 5 mm retention is required across the site’s impervious area for erosion control, as well as providing a minimum 48 hours of drawdown time for 25 mm storm events.

4.5 Water Balance

The property is required to maintain pre-development annual infiltration levels by providing mitigation measures to infiltrate clean stormwater for site-based water balance.

4.5.1 Phase 1A

A site-wide water balance analysis was completed for Phase 1A development with a reduction of infiltration of 25,476 m³/year, according to the Hydrogeological Assessment (Palmer, November 2024). As neither the wetland east nor west of the Phase 1A area receive groundwater discharge contribution, the minor reduction in filtration within the catchment of each wetland will not adversely impact the wetland; therefore, no feature-based water balance is required on Phase 1A area.

To meet the side-wide water balance infiltration deficits, the rooftop runoff from Catchments 201R and north portion of 202R will connect to the proposed infiltration tank 1; the rooftop runoff from Catchment 203R and south portion of 202R will connect to the proposed infiltration tank 2; and rooftop runoff from Catchment 205R and 206R will connect to proposed infiltration tank 3. With an infiltration deficit of 25,476 m³/year, equivalent of 20 mm rainstorm events based on the water balance calculation, the proposed infiltration tanks 1, 2, and 3 are designed for a minimum 20 mm storm events. Water balance tanks dimensions are summarized in the Table below.

Table 20: Water Balance Tank Summary

Infiltration Tank NO.	Contributing Drainage Area (m ²)	Dimensions	Provided Volume (m ³)
Tank 1	35,806	91.4 m (L) x 12.2 m (W) x 1.06 m (H)	725
Tank 2	35,806	91.4 m (L) x 12.2 m (W) x 1.06 m (H)	725
Tank 3	47,741	149.2 m (L) x 12.2 m (W) x 1.06 m (H)	1,190
Total	119,353	-	2,640

Note: Void ratio of 0.62 is applied to calculate the provided tank volume. The details of the infiltration tanks will be provided in the future submission.

Phase 1A is challenging to promote infiltrate and implement low-impact development features due to the low hydraulic conductivity of the native soil (silts and clays) identified by the Supplemental Geotechnical Investigation (Pinchin, 2023) and the Hydrogeological Investigation (Palmer, November 2024). Additionally, the groundwater on the site flows north to south and is approximately 0.4 m - 1.0 m below the existing ground, which is in close proximity to the existing ground.

Considering the site will be filled for grading, infiltration is proposed in areas with >2 m of fill, so infiltration does not rely on the native soil to achieve the water balance criteria. Best efforts of 0.7 m separation between groundwater elevation and infiltration tank bottom and 72-hour drawdown time are applied to the infiltration tank design because of the high groundwater elevation and limited roof leader inverts. See Drawing C300 Servicing Drawing and Figure 2 LID Layout for details.

SWM Pond 3 (designed by others) provides water balance for municipal roadway, including Street A and Street A2, per Phase 2 SWM Report (Schaeffers, August 2024).

4.5.2 Phase 1B

Infiltration deficit will be completed by others for Phase 1B in the detailed design stage. Water balance measures will be provided to mitigate the infiltration deficit caused by the proposed Phase 1B development.

5.0 Stormwater Management (Phase 1A Interim Scenario)

Under the interim scenario where Phase 1A construction is ahead of the Humber Station Villages Employment Area construction, SWM Pond 3 will not be available. Phase 1A will discharge directly towards the Clarkway Drive Tributary at the southeast corner of the property.

An interim SWM Pond will be located downstream of Phase 1A, in the Phase 2 area, providing water quality, erosion control, and additional water quantity control on top of Phase 1A's on-site control, due to the stricter discharge criteria on the Clarkway Drive Tributary. The interim SWM Pond will be removed once SWM Pond 3 is constructed and fully functional.

A flow diversion analysis has been completed per TRCA's request, demonstrating that the controlled runoff from Phase 1A can be discharged to the Clarkway Drive Tributary as a temporary outlet, without negatively impacting the downstream. Refer to Prologis Humber Station – Temporary Stormwater Management Outlet Letter (Crozier, November 2024) for flow diversion analysis under separate cover. The Phase 1A interim stormwater management criteria were established based on the meeting with TRCA dated September 6, 2024. The stormwater management criteria include:

Quantity Control

Attenuation of the post-development to the Target release rates calculated in the Prologis Humber Station – Temporary Stormwater Management Outlet Letter (Crozier, November 2024). The Target release rates are calculated for the portion of Phase 1A that drains to the Clarkway Drive Tributary under existing conditions.

Quality Control

Water quality treatment is required to meet an Enhanced level of Water Quality Protection. This requires treatment to an average annual rate of 80% Total Suspended Solids (TSS) removal rate, as specified in the 2003 MOE Stormwater Management Planning and Design Guidelines.

Erosion Control

- Retain the first 5 mm of rainfall across Phase 1A's impervious areas.
- Provide a minimum of 48 hours of the drawdown time for 25 mm event.
- Retain an additional 5 mm of rainfall across the rooftop.

Please note water balance will be satisfied in the infiltration tanks proposed in Phase 1A development, which also provide retention for the first 5mm of rainfall, thus no additional water balance features are required for the interim conditions. Refer to Section 4.5.1 for details of the infiltration tank design.

5.1 Quantity Control

The Target release rates are calculated for the Phase 1A are summarized in Table 21 below, see Prologis Humber Station – Temporary Stormwater Management Outlet Letter (Crozier, November 2024) for calculations details.

Table 21: Interim Phase 1A Target Release Rates

Return Period	Phase 1A Target Release Rates (m ³ /s)	Interim Phase 1A Target Release Rates (m ³ /s)
2-Year	0.192	0.300
5-Year	0.293	0.464
10-Year	0.361	0.568
25-Year	0.454	0.716
50-Year	0.528	0.836
100-Year	0.598	0.944
Regional	2.230	1.697

The proposed Phase 1A infrastructure will be designed and constructed to the ultimate scenario. As the 2-year to 100-year interim Phase 1A Target release rates in Table 21 are greater than the ultimate Phase 1A target release rates in Table 4, the interim SWM pond is only required to provide quantity control for the regional storm. A total active storage of 45,208 m³ is provided in the interim SWM pond.

5.2 Quality and Erosion Control

The interim SWM pond located downstream of Phase 1A area will provide additional quality and erosion control.

5.2.1 Permanent Pool

Enhanced level water quality control will be achieved through the permanent pool component and extended detention of the proposed interim SWM Pond. Detailed permanent pool sizing calculations are provided in Appendix C. Results are summarized in Table 22 below.

Table 22: Interim SWM Facility Water Quality Storage Volume

Contributing Drainage Area (ha)	Imperviousness of Drainage Area (%)	Required PP Storage ¹ (m ³ /ha)	Required PP Storage (m ³)	Provided PP Storage (m ³)
27.30	100	287	6,755	31,615

Note:

1. Required storage volumes interpolated from Table 3.2 of MECP SWM Planning and Design Manual (2003) based on upstream impervious area, less 40 m³/ha for extended detention.
2. PP stands for Permanent Pool.
3. The contributing area is assumed to be 100% to be conservative.

As demonstrated in Table 22, the proposed SWM facility exceeds the permanent pool volumes required to achieve the Enhanced Level Protection criteria.

5.2.2 Extended Detention

Per the MECP SWM Planning and Design Manual (2003) water quality ponds require a minimum extended detention time of 24 hours for a volume of 40 m³/ha to allow for settling of suspended solids. The effectiveness of wet ponds for providing quality control can be further enhanced by providing extended detention of 48 hours. Calculations are summarized in Table 23.

Table 23: SWM Facility Extended Detention

SWM Facility	Contributing Drainage Area	Percent Impervious	MOE Recommendations		Provide Extended Detention	
			ED Volume	ED Time	ED Volume	ED Time
	(ha)	(%)	(m ³)	(hrs)	(m ³)	(hrs)
SWMP	27.30	100	1,092	48	6,304	48

Note: 1. The contributing area is assumed to be 100% to be conservative.

Following the results provided in table above, the volume and duration required to meet the erosion criteria for the Phase 1A development, exceeding those required by MECP. Thus, the extended detention design provided will meet the MECP requirements to provide settling as part of the water quality design of the interim SWM pond.

5.2.3 Forebay Sizing

Forebay sizing for the interim SWM pond was completed using calculations outlined in Section 4.6.2 of the MOE SWM Planning & Design Manual (2003). Detailed calculations are provided in Appendix C. Results are summarized in Table 24 below.

Table 24: SWM Facility Forebay Sizing Summary

Design Criteria	Target	Provided
Forebay Length (Settling Calculation)	Minimum 57.6 m	135 m
Forebay Length (Dispersion Calculation)	Minimum 5.7 m	135 m
Forebay Bottom Width	Minimum 7.2 m	42 m
Length to Width Ratio	Minimum 2:1	3.2 : 1
Average Forebay velocity	Maximum 0.50 m/s	0.01 m/s

Note: The provided forebay length is measured from the forebay berm to the closest inlet to be conservative. Average Forebay Velocity = $8 * \text{Inlet Flow Rate} * \text{Dispersion Length} / \text{Depth of Forebay}$

As shown in Table 24, the forebay design for the proposed SWM facilities meet the criteria outlined by the MECP.

5.2.4 Additional on-site Retention

The temporary outlet to Clarkway Drive Tributary has stricter criteria and an additional 5 mm on-site retention is required across Phase 1A under interim condition, based on the meeting with TRCA dated September 6, 2024.

An additional 5 mm on-site retention across 14.4 ha roof area requires 716 m³ of storage, which will be achieved through the adjustable roof drain. Under the interim scenario, the roof drain control will be standing 6 cm above the proposed low points of the roof, allowing ponding water on the roof and evaporate, refer to Appendix B for detailed calculations.

The roof drain will be adjusted to the proposed low point of the roof to eliminate standing water, once the SWM Pond 3 is constructed downstream of the Phase 1A area.

5.3 Interim SWM Pond Design

In addition to the criteria listed in the sections above, the interim SWM pond has been designed with considerations for grading, public safety, access for future maintenance, and safe conveyance of emergency flows, following Table 4.6 MECP SWM Planning and Design Manual (2003).

5.3.1 Pond Grading

The preliminary SWM Pond design includes the following features:

- Provide safe overland conveyance of flows exceeding the capacity of the storm sewer system to the stormwater management facility;
- Pond cells graded with maximum side slopes of 4:1 from the pond base to the normal water level, and with maximum side slopes of 3:1 elsewhere within the pond;
- Permanent pool volume sized as per the Enhanced Level Protection with a maximum depth of 1.5 m in forebays and main cells;
- Permanent pool elevation set above the Regional water level of receiving watercourse (230.26 m);
- Storage for both quantity and erosion control sized per criteria in Table 3.2 of MECP SWM Planning and Design Manual (2003)
- Emergency spillway to control overtopping of the pond in extreme storm events;
- Minimum 0.3 m freeboard above Regional level; and
- A 5.0 m wide maintenance access road with a maximum longitudinal slope of 8:1 and a maximum cross-fall slope of 2% to be provided within the SWM Pond block. The access road will facilitate access to the forebay and outlet structure for maintenance.

Refer to detailed pond design Drawings enclosed with this report as DWG 605 to 607.

5.3.2 Pond Outlet Control

The interim SWM pond has been graded to provide the required storage volumes and a multi-stage outlet control has been designed to provide the required extended detention and quantity (peak flow) controls. The multi-stage outlet control consists of a circular orifice to control the extended detention component of the pond, and above the extended detention water level, rectangular weir controls the quantity components of the pond volume for regional storm. Details of the proposed outlet controls are summarized in Table 25.

Table 25: Interim SWM Pond Outlet Controls

Extended Detention Control	Active Storage Controls
Circular Orifice	Rectangular Weir
235 mm diameter Invert = 232.60 masl	1500 mm wide Invert = 231.00 Top of Weir = 232.45

The outlet structure details are provided in Drawing C607. The detailed stage-storage discharge table, including orifice and weir sizing calculations, is provided in Appendix C. A summary of the required and provided active storage and discharge rates is provided in Table 26.

Table 26: Interim SWM Pond Operation Level

Design Storm	Target Release Rates (m ³ /s)	Controlled Release Rates (m ³ /s)	Peak Flow Differences (%)	Required Storage (m ³)	Provided Storage (m ³)
2-year	0.300	0.061	-80%	-	45,208
5-year	0.464	0.129	-72%	-	
10-year	0.568	0.175	-69%	-	
25-year	0.716	0.263	-63%	-	
50-year	0.836	0.302	-64%	-	
100-year	0.944	0.346	-63%	-	
Regional	1.697	1.132	-33%	16,540	

Note: VO peak flows from 24-hour Chicago storms and 48-hour Hazel are used to be conservative.

The stormwater outfall for the interim SWM Pond is located at the southeast corner of Phase 2, within TRCA regulated area, discharging southeast towards Clarkway Drive Tributary. The outfall invert is set at 230.06 m, at the 25-year water level (230.05 m) in the water course.

5.3.3 Emergency Spillway

An emergency spillway has been provided within the main cell of the stormwater management pond to provide safe conveyance of flows over topping the pond. The emergency spillway discharges towards the Clarkway Drive Tributary. The emergency spill ways provide a controlled point of discharge should the outlet become blocked or runoff from back-to-back storm events exceeds the capacity of the pond. The spillway invert (232.50 m) is set above the regional water level of the pond (231.52 m).

5.3.4 Riprap Sizing

The proposed erosion treatment (riprap stones) for pond inlet, outlet, forebay berm, and emergency has been sized according to requirements of the MTO Drainage Management Manual. Detailed calculations for rip rap sizing used MTO Design Chart 2.24 (provided in Appendix C for reference) to determine the tractive force of the flow. Critical shear stress resistance of the riprap stone is calculated using Equation 5.31 from the MTO Drainage Management Manual.

To mitigate erosive impacts, the critical shear stress resistance of the riprap stone must exceed the tractive force of the discharge. A minimum D50 rip rap stone size of 150 mm diameter has been specified to deter vandalism. The riprap sizing is summarized in the Table 27.

Table 27: Interim SWM Pond RipRap Sizing

Location	Design Storm	Peak Flow (m ³ /s)	Proposed Rip Rap
Inlet	100-Year 24-hour Chicago (Controlled)	2.27	D ₅₀ = 150 mm Ø
Forebay	100-Year 24-hour Chicago (Uncontrolled)	12.53	D ₅₀ = 150 mm Ø
Emergency Spillway			D ₅₀ = 150 mm Ø
Emergency Outflow Channel			D ₅₀ = 150 mm Ø

Note: Peak flows obtained from VO Model.

6.0 Conclusions and Recommendations

We conclude that the proposed development of the subject property can be readily serviced from a functional stormwater management perspective. The proposed stormwater management design outlined in this report can meet the objectives of the regulatory agencies and will be subject to further detail design as a part of the active Site Plan Application for Phase 1A.

Based on the information contained in this report, we offer the following conclusions:

1. The City, Region and TRCA stormwater quantity criteria are satisfied through a combination of measures including surface ponding, underground storage tank, rooftop storage, and control structures to restrict the flow down to the target release rates, following Phase 2 SWM Report (Schaeffers, August 2024).
2. Water balance criteria are satisfied by infiltration system on-site. The Street A's water balance will be provided by SWM Pond 3, downstream of the property, designed by others.
3. Stormwater quality control criteria for Phase 1A, Street A, and Street A2 are satisfied by SWM Pond 3, downstream of the property designed by others.
4. Erosion sediment control criteria are satisfied by providing infiltration tanks for 5 mm on-site retention and the SWM Pond 3 downstream will provide extended detention with minimum 48-hour drawdown time for 25 mm storm events.
5. During the interim scenario where Phase 1A construction is ahead of the Humber Station Villages Employment Area construction and SWM Pond 3 is not available, the interim SWM pond will provide stormwater quantity control, quality control, and extended detention, discharging towards Clarkway Drive Tributary directly. The adjustable roof drain within Phase 1A will provide additional 5 mm retention on the roof through evaporation.

We recommend approval of the Site Plan Application for the development of the Site from the perspective of the Stormwater Management requirements. If you have any questions about this report, please call us.

Respectfully submitted,

C.F. CROZIER & ASSOCIATES INC.


Shiyang (Heaven) Lin, P.Eng., M.Eng.
Land Development



C.F. CROZIER & ASSOCIATES INC.


Rebecca Archer, P.Eng.
Senior Project Engineer

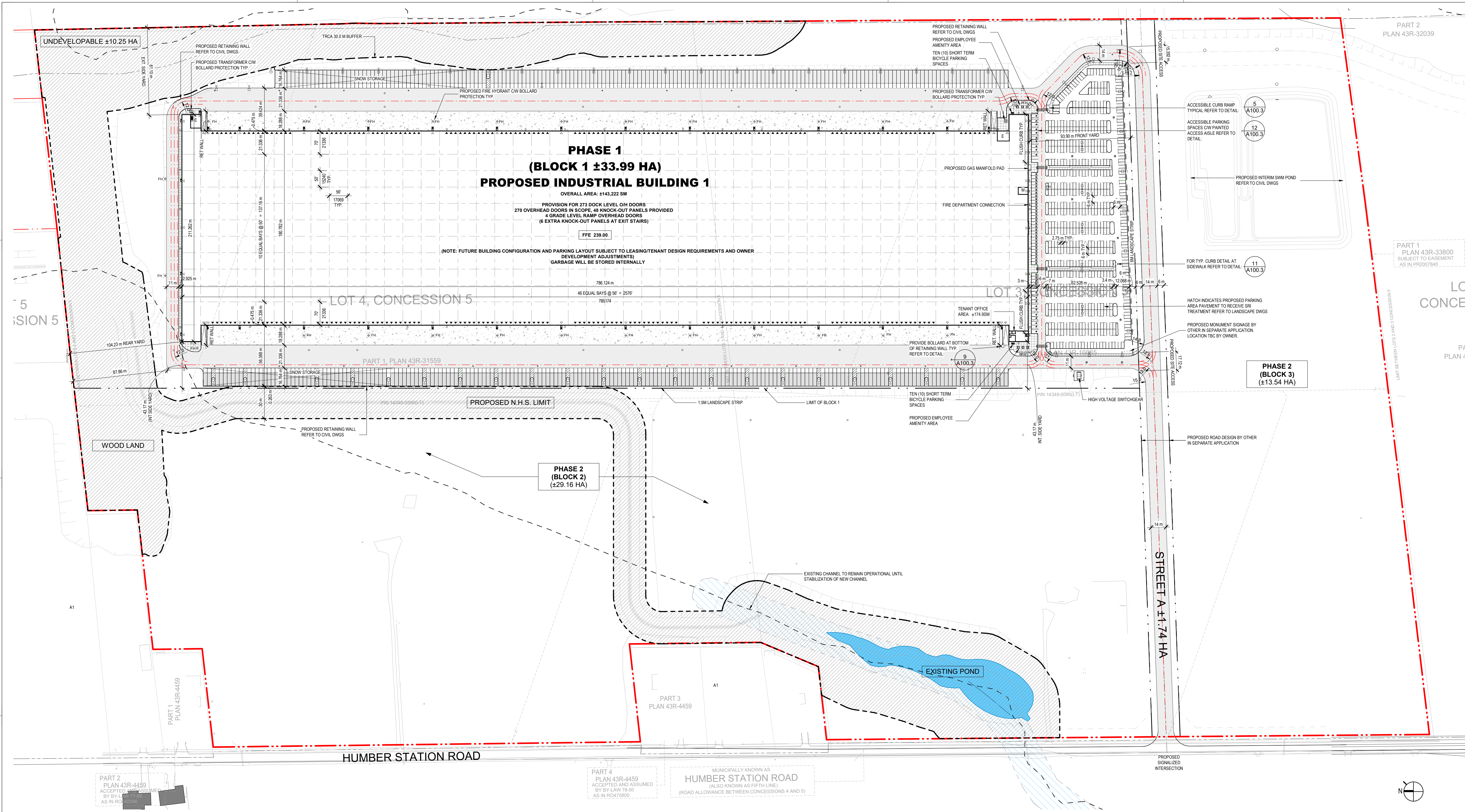


HL/stm

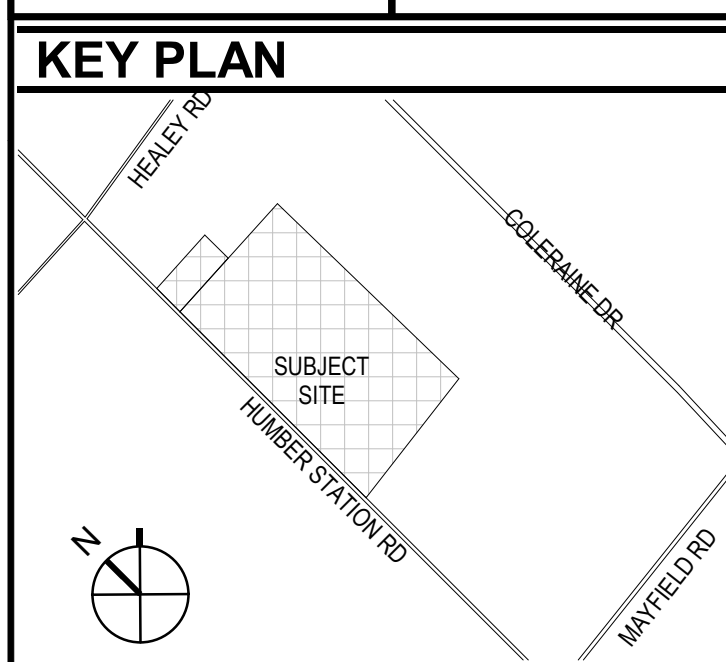
J:\600\624 - Prologis\6777 - Prologis Humber Station - Phase 1 & 2\Reports\2024.11.12_SWM Report\2024.11.22_(624-6777)_SWM Report_Final.docx

APPENDIX A

Site Information



260 TOWN CENTRE BLVD.
SUITE 300
MARKHAM, ONTARIO
L3R 8H8
T 905.470.7000
F 905.470.2500
www.petroff.com



LEGAL DESCRIPTION
ADDRESS:
PLAN OF SURVEY OF
12519-12712 HUMBER STATION ROAD
REGIONAL MUNICIPALITY OF PEEL
TOWN OF CALEDON
REGIONAL MUNICIPALITY OF PEEL
SITE SPECIFIC ZONING TO BE VERIFIED UPON
CONSULTATION WITH TOWN OF CALEDON.
MASTER PLAN LAYOUT IS SUBJECT TO
IMPLEMENTATION OF ENVIRONMENTAL, STORM WATER
MANAGEMENT, ETC. REQUIREMENTS UPON
CONSULTATION WITH AUTHORITIES HAVING
JURISDICTION.
NOTE:
ALL SURVEY INFORMATION FROM DAVID B. SEARLES
SURVEYING LTD. ONTARIO LAND SURVEYOR, DATED JULY 4, 2022.
FOR LANDSCAPE AND SITE FURNITURE INFORMATION,
REFER TO DRAWINGS BY MHC.
FOR GRADING AND SERVICING INFORMATION, REFER
TO DRAWINGS BY CROZIER.
FOR ELECTRICAL INFORMATION, REFER TO DRAWINGS
BY HAMMERSCHLAG & JOFFE.
FOR TRAFFIC SIGNAGE AND DESIGN REFER TO
DRAWINGS BY LEA.

- SITE LEGEND**
- PAINTED PEDESTRIAN CROSSWALK
 - ENTRANCE/EXIT DOOR
 - LOADING DOCK DOOR
 - DRIVE IN DOOR
 - PRINCIPAL ENTRANCE
 - FIRE ACCESS ROUTE
 - PROPERTY LINE
 - ACCESSIBLE PARKING SPACE
 - ELECTRICAL VEHICLE PARKING SPACE
 - BOLLARD
 - FIRE HYDRANT
 - LIGHT STANDARD
SEE ELECTRICAL DWGS.
 - WALL MOUNTED LIGHT FIXTURE
SEE ELEC.
 - CATCH BASIN SEE CIVIL DWGS
 - DUAL CATCH BASIN AND MANHOLE
SEE CIVIL DWGS
 - HEAVY DUTY ASPHALT
 - CONCRETE PAVEMENT
 - CONCRETE SIDEWALK
 - EXTENT OF SRI TREATMENT ON
ASPHALT SEE LANDSCAPE
DWGS

REV #	DATE	REVISION TITLE
1	NOV 14, 2023	ISSUED FOR CLIENT
2	APR 19, 2024	ISSUED FOR SPA
3	NOV. 22, 2024	ISSUED FOR SPA SUBMISSION 1B

PROJECT NO: 22095.00
DRAWN BY: TL
CHECKED BY: RBC

PROJECT TITLE:
HUMBER STATION DC1
TOR02790
HUMBER STATION ROAD
CALEDON, ONTARIO

Prologis Inc. (Canada)
185 The West Mall, Suite 700, Toronto
647-258-2600

https://www.prologis.com

SHEET TITLE:
OVERALL SITE PLAN

SEAL: ARCHITECTS
ALY HANNOY
LICENCE #198

SHEET NO.
A100.0

1 OVERALL SITE PLAN
A100.0 Scale: 1 : 1500

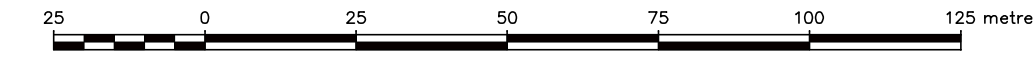
ZONING COMPLIANCE CHART		
ZONING	REQUIRED	PROPOSED
MP		
LOT AREA	925 SM	±784,600 SM
LOT FRONTAGE (MIN)	30 M	1,129 M
FRONT YARD (MIN)	20 M	94 M
EXT. SIDE YARD (MIN)	15 M (RES), 7.5 M	NA
REAR YARD (MIN)	15 M	104 M
INT. SIDE YARD (MIN)	15 M	43 M
BUILDING HEIGHTS (MAX)	18M	16 M
LANDSCAPE (MIN)	10%	10%
PLANTING STRIP WIDTH (MIN)	6 M	6 M
PARKING SETBACK (MIN)	6M (FRONT YARD), 3M	208 M
PARKING STALLS	2.75M X 6M	2.75M X 6M

STATISTICS	
AREA:	
SITE AREA:	± 78.50 HA
STREET A:	± 1.74
PHASE 1:	± 34.07 HA
PHASE 2:	± 42.70 H
BUILDING DC 1:	±143,222 SM
TOTAL GROSS BUILDING AREA:	±143,222 SM
PARKING:	
ZONING REQUIREMENT AS PER COMPREHENSIVE ZONING BY-LAW 2006-50: 168 + 1/1170 m ² (OF NFA OVER 20,000SM)	
REQUIRED PARKING STANDARD:	893 PARKING SPACES
TOTAL PARKING PROPOSED:	685 PARKING SPACES
REQUIRED ACCESSIBLE PARKING SPACES:	20 PARKING SPACES
TOTAL ACCESSIBLE PARKING SPACES PROPOSED:	20 PARKING SPACES
TRAILER PARKING:	
BUILDING DC 1:	362 PARKING SPACES
LOADING SPACES:	
ZONING REQUIREMENT AS PER COMPREHENSIVE ZONING BY-LAW: GFIA 7.441 SM OR GREATER IS 3+1 ADDITIONAL SPACE FOR EACH ADDITIONAL 9.300 SM OR PORTION THEREOF IN EXCESS OF 7.441 SM	
REQUIRED LOADING SPACES:	18 LOADING SPACES
TOTAL LOADING SPACES PROPOSED:	270 LOADING SPACES AT OH DOCK DOORS
LANDSCAPE:	
TOTAL LANDSCAPE AREA:	±43,062 SM
SOFTSCAPE:	±40,067 SM
HARDSCAPE:	±2,995 SM
COVERAGE:	42.04% (BLOCK 1)

BICYCLE PARKING	
REQUIRED SHORT TERM BICYCLE PARKING	3 BICYCLE PARKING SPACES
WAREHOUSE (143,047 SM):	17 BICYCLE PARKING SPACES
TOTAL BICYCLE PARKING SPACES PROPOSED:	20 BICYCLE PARKING SPACES
ELECTRIC VEHICLE CHARGING	
PERCENTAGE OF EV READY SPACES:	5%
TOTAL NO. OF EV READY SPACES PROVIDED:	35
URBAN HEAT ISLAND	
TOTAL AREA OF NON-ROOF HARDSCAPE AREA:	±21,502 SM
TOTAL AREA OF TREATED NON-ROOF HARDSCAPE AREA:	±10,517 SM
TOTAL AREA OF HIGH-ALBEDO SURFACE MATERIAL:	±3,128 SM
TOTAL AREA OF SHADE FROM TREE CANOPY:	±8,949 SM
TOTAL AVAILABLE ROOF AREA:	±143,222 SM
TOTAL AVAILABLE ROOF AREA TREATED WITH A COOL ROOF:	±143,222 SM
% OF ROOF AREA TREATED WITH HEAT ISLAND STRATEGY:	100%

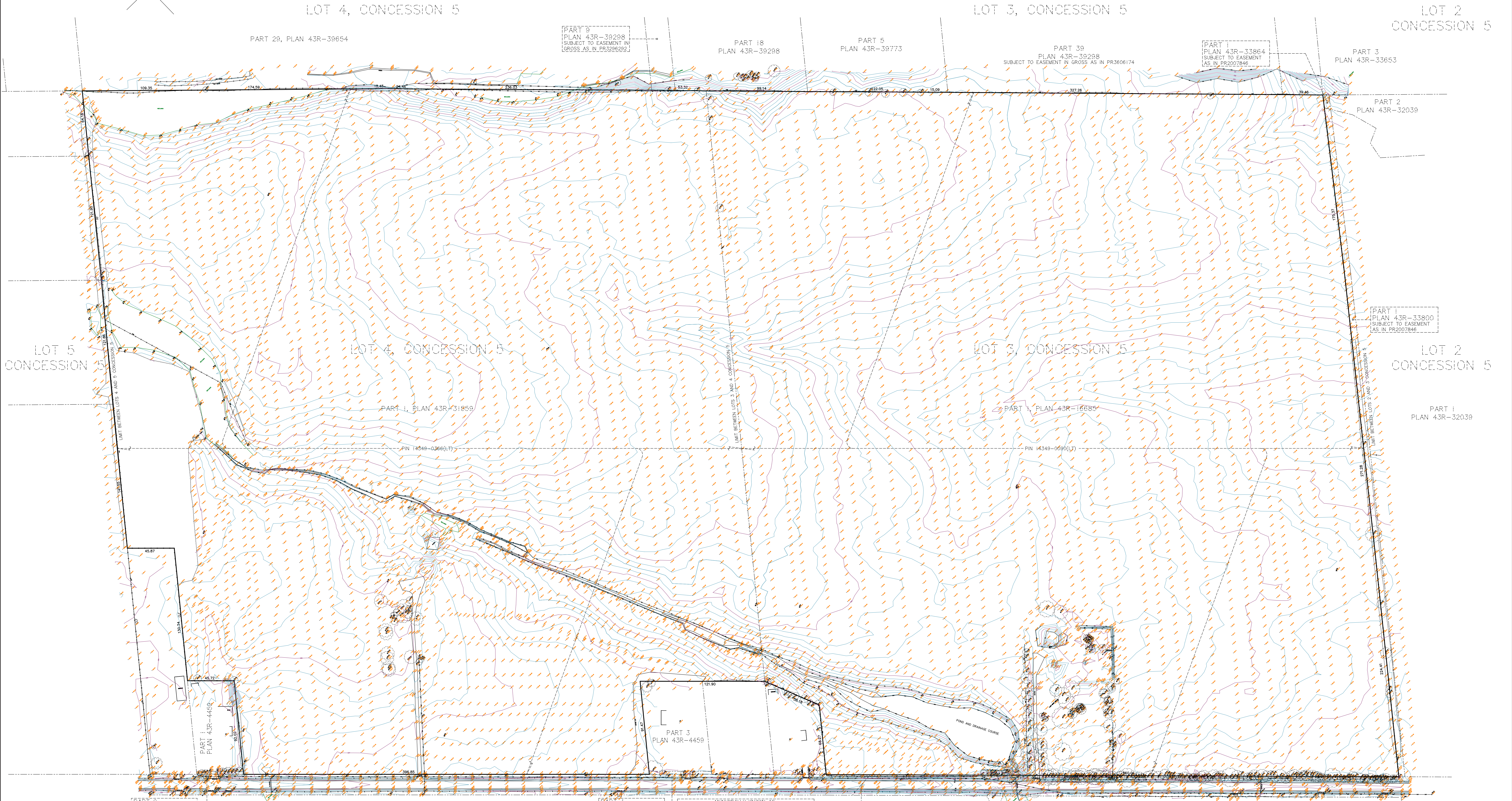
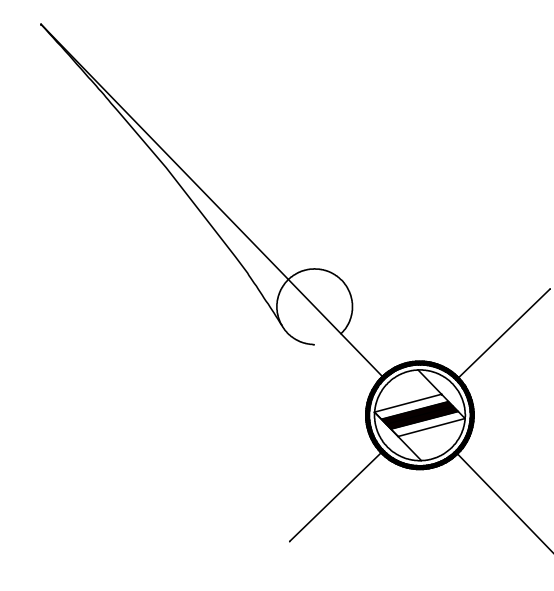
SKETCH ILLUSTRATING
TOPOGRAPHIC INFORMATION
12519-12713 HUMBER STATION ROAD
FOR THE PURPOSE OF SITE ASSESSMENT
TOWN OF CALEDON
REGIONAL MUNICIPALITY OF PEEL

SCALE 1: 1250



David B. Searles Surveying Ltd.
ONTARIO LAND SURVEYORS

METRIC
DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048



LEGEND

ANC	DENOTES ANCHOR
BB	DENOTES BELL BOX
BF	DENOTES BRASS FENCE
BSL	DENOTES BRASS FENCE
CB	DENOTES CATCH BASIN
CC	DENOTES CHAIN LINK FENCE
CLF	DENOTES CHAIN LINK FENCE
CSP	DENOTES CONCRETE SIDE WALK
CSD	DENOTES CONCRETE SIDE WALK
CSH	DENOTES CONCRETE SIDE WALK
DS	DENOTES DOOR SILL
EG	DENOTES EDGE OF GRAVEL
EP	DENOTES EDGE OF PAVEMENT
FF	DENOTES FINISHED FLOOR
FR	DENOTES FIRE HYDRANT
FL	DENOTES LIGHT PILE
IN	DENOTES INVERT
MB	DENOTES MONITORING WELL
MSX	DENOTES MAILBOX
RF	DENOTES RAIL FENCE
RF	DENOTES POST AND WIRE FENCE
RM	DENOTES ROAD MARKING
SP	DENOTES SIGN POST
WF	DENOTES WROUGHT IRON FENCE
WV	DENOTES WATER VALVE
○	DENOTES DIAMETER
△	DENOTES BOTTOM OF SLOPE
▽	DENOTES DITCH LINE
—	DENOTES OVERHEAD WIRES
—	DENOTES SNAKE
—	DENOTES TOP OF SLOPE
○	DENOTES CONIFEROUS TREE
○	DENOTES DECIDUOUS TREE
○	DENOTES TREE LINE

BENCHMARK NOTE
ELEVATIONS ARE REFERRED TO THE REGION OF PEEL BENCHMARK No. 40
LOCATED ON THE SOUTH FACE AT THE WEST CORNER OF SOUTH END OF A
CONCRETE BOX CULVERT ACROSS MARFIELD ROAD APPROXIMATELY 0.56 KM
EAST OF GURWAY DRIVE, HAVING AN ELEVATION OF 222.150 m.
VERTICAL DATUM: CANADIAN GEODETIC DATUM, 1928
(1978 SOUTHERN ONTARIO READJUSTMENT)

CAUTION
BOUNDARY INFORMATION ILLUSTRATED HEREON HAS BEEN COMPILED FROM
REGISTRY OFFICE INFORMATION AND PLAN OF SURVEY BY DAVID B. SEARLES
SURVEYING LTD. (FILE 19-0-22) AND HAS NOT BEEN VERIFIED BY FIELD MEASUREMENT.
THIS IS NOT A PLAN OF SURVEY AND SHALL NOT BE USED EXCEPT FOR THE
PURPOSE INDICATED IN THE TITLE BLOCK.
FIELDWORK COMPLETED ON 27 APRIL, 2022

PART 2
PLAN 43R-4459
ACCEPTED AND ASSUMED
BY BY-LAW 77-85
AS IN R0442546

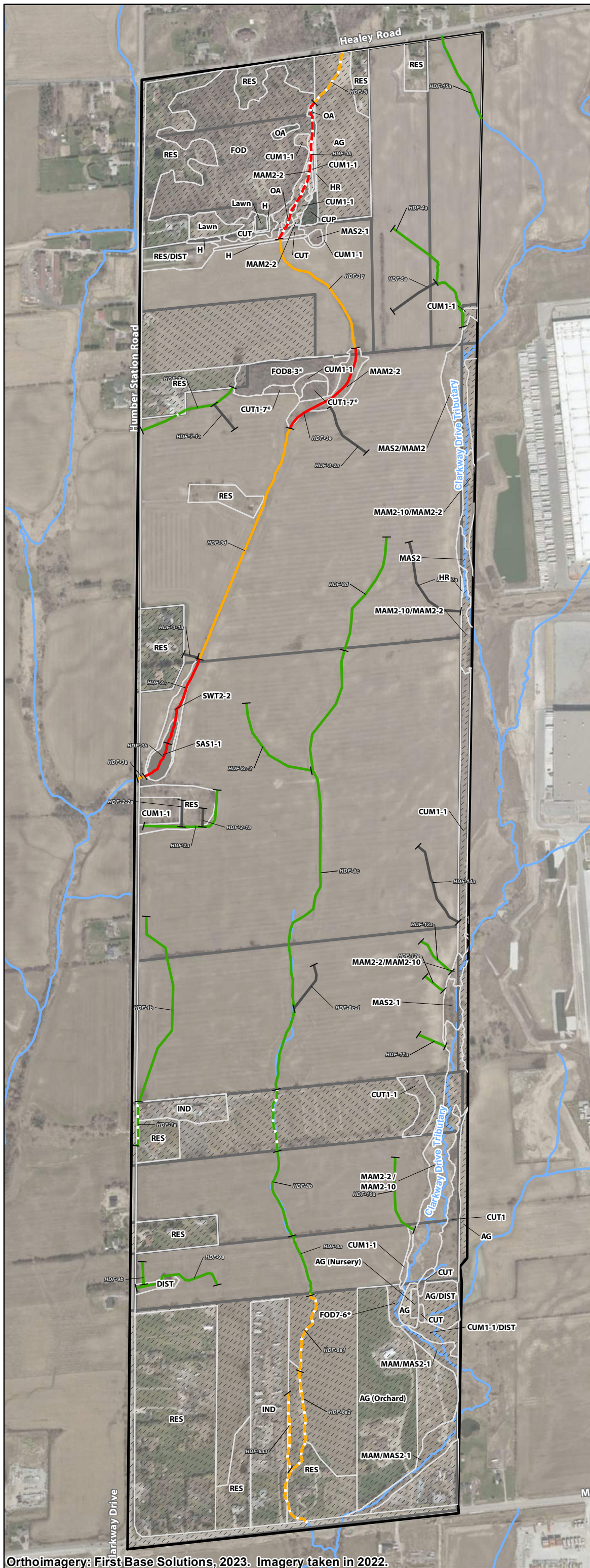
PART 3
PLAN 43R-4459

PART 4
PLAN 43R-4459
ACCEPTED AND ASSUMED
BY BY-LAW 78-80
AS IN R0475800

MUNICIPALLY KNOWN AS
HUMBER STATION ROAD
(ALSO KNOWN AS FIFTH LINE)
(ROAD ALLOWANCE BETWEEN CONCESSIONS 4 AND 5)

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IS STRICTLY PROHIBITED.

David B. Searles Surveying Ltd.		Ontario Land Surveyors	Ontario Land Surveyors
4255 Sheppard Avenue West, Suite 206, Mississauga, Ontario L4Z 1Y5		Ontario Land Surveyors	Ontario Land Surveyors
Tel: (905) 273-0463 Fax: (905) 886-4410		Ontario Land Surveyors	Ontario Land Surveyors
Email: info@dsurveying.com		Ontario Land Surveyors	Ontario Land Surveyors
19-22CALC.DWG	19-1-22.DWG	19-1-22	19-1-22



ELC Legend

CUM1-1	Dry Moist Old Field Meadow
CUP	Coniferous Plantation
CUT	Cultural Thicket
CUT1	Mineral Cultural Thicket
CUT1-1	Sumac Cultural Thicket
CUT1-7*	Buckthorn Cultural Thicket
FOD	Deciduous Forest
FOD7-6*	Fresh-Moist Manitoba Maple Lowland Deciduous Forest
FOD8-3*	Fresh-Moist Basswood Deciduous Forest
MAM	Meadow Marsh
MAM2	Mineral Meadow Marsh
MAM2-2	Reed-canary Grass Mineral Meadow Marsh
MAM2-10	Forb Mineral Meadow Marsh
MAS	Shallow Marsh
MAS2	Mineral Shallow Marsh
MAS2-1	Cattail Mineral Shallow Marsh
OA	Open Aquatic
SAS1-1	Pondweed Submerged Shallow Aquatic
SWT2-2	Willow Mineral Thicket Swamp
AG	Agricultural
DIST	Disturbed
H	Hedgerow
IND	Industrial
Lawn	Lawn
Pond	Pond
RES	Residential

*Not included in Southern Ontario ELC Field Guide.

- Study Area
 - Participating Properties
 - Non-participating Properties
 - Watercourse (MNRF LIO)
 - Ecological Land Classification
- HDF Management Recommendations**
- Conservation
 - Protection
 - Mitigation
 - No Management Required
 - Conservation - Non-participating Ownership
 - Protection - Non-participating Ownership
 - Mitigation - Non-participating Ownership

NOTES:
 1. Coordinate System: NAD 1983 UTM Zone 17N.
 2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2023.
 3. Orthoimagery © First Base Solutions, 2023. Imagery taken in 2022.

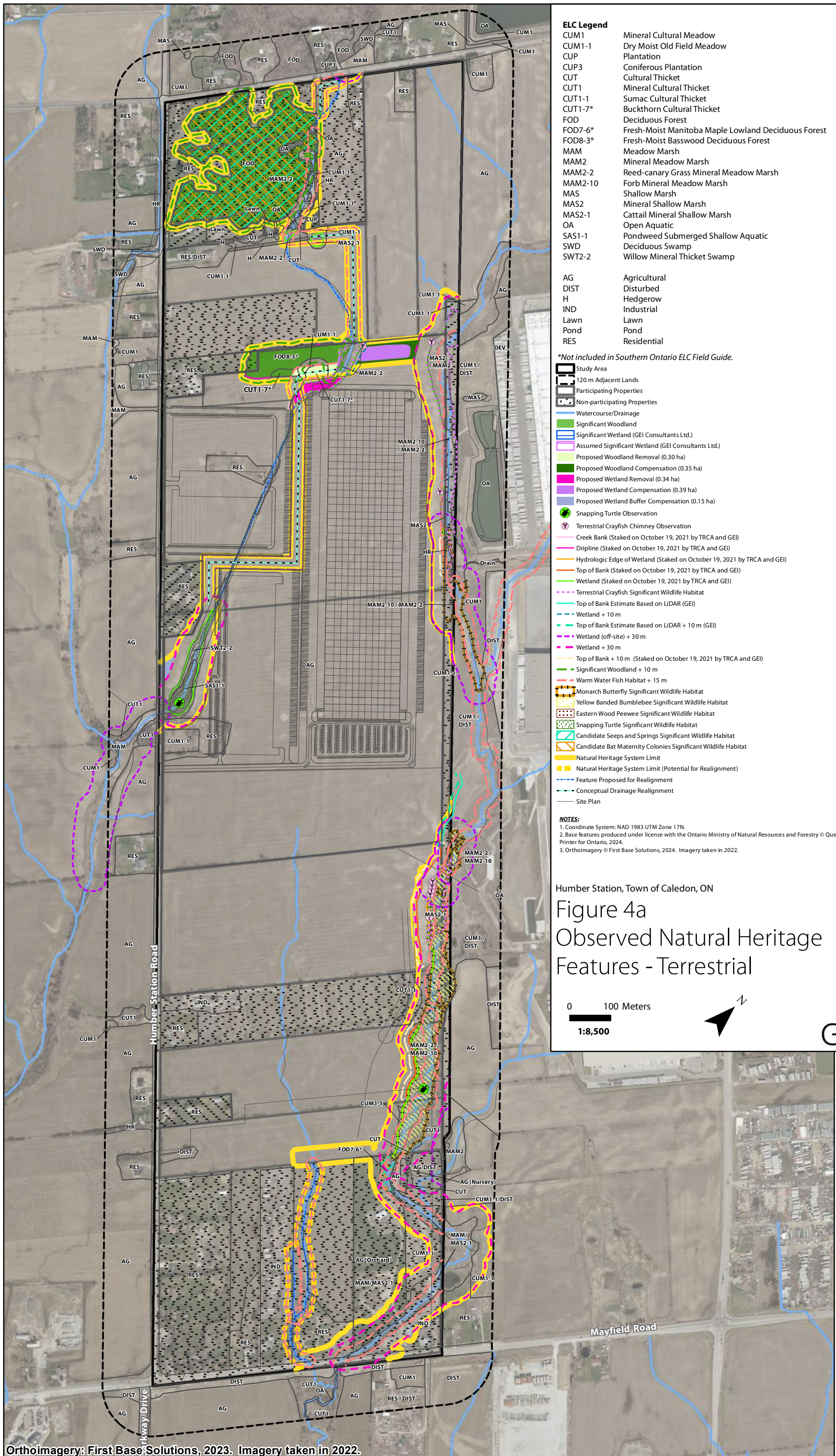
Project 1901485

Humber Station, Town of Caledon, ON

Figure 4b
 Observed Natural Heritage
 Features - Aquatic

0 100 Meters
 1:8,000





ELC Legend

- CUM1 Mineral Cultural Meadow
- CUM1-1 Dry Moist Old Field Meadow
- CUP Plantation
- CUP3 Coniferous Plantation
- CUT Cultural Thicket
- CUT1 Mineral Cultural Thicket
- CUT1-1 Sumac Cultural Thicket
- CUT1-7* Buckthorn Cultural Thicket
- FOD Deciduous Forest
- FOD7-6* Fresh-Moist Manitoba Maple Lowland Deciduous Forest
- FOD8-3* Fresh-Moist Basswood Deciduous Forest
- MAM Meadow Marsh
- MAM2 Mineral Meadow Marsh
- MAM2-2 Reed-canary Grass Mineral Meadow Marsh
- MAM2-10 Forb Mineral Meadow Marsh
- MAS Shallow Marsh
- MAS2 Mineral Shallow Marsh
- MAS2-1 Cattail Mineral Shallow Marsh
- OA Open Aquatic
- SAS1-1 Pondweed Submerged Shallow Aquatic
- SWD Deciduous Swamp
- SWT2-2 Willow Mineral Thicket Swamp

- AG Agricultural
- DIST Disturbed
- H Hedgerow
- IND Industrial
- Lawn Lawn
- Pond Pond
- RES Residential

*Not included in Southern Ontario ELC Field Guide.

- Study Area
- 120 m Adjacent Lands
- Participating Properties
- Non-participating Properties
- Watercourse/Drainage
- Significant Woodland
- Significant Wetland (GEI Consultants Ltd.)
- Assumed Significant Wetland (GEI Consultants Ltd.)
- Proposed Woodland Removal (0.30 ha)
- Proposed Woodland Compensation (0.35 ha)
- Proposed Wetland Removal (0.34 ha)
- Proposed Wetland Compensation (0.39 ha)
- Proposed Wetland Buffer Compensation (0.15 ha)
- Snapping Turtle Observation
- Terrestrial Crayfish Chimney Observation
- Creek Bank (Staked on October 19, 2021 by TRCA and GEI)
- Dripline (Staked on October 19, 2021 by TRCA and GEI)
- Hydrologic Edge of Wetland (Staked on October 19, 2021 by TRCA and GEI)
- Top of Bank (Staked on October 19, 2021 by TRCA and GEI)
- Wetland (Staked on October 19, 2021 by TRCA and GEI)
- Terrestrial Crayfish Significant Wildlife Habitat
- Top of Bank Estimate Based on LIDAR (GEI)
- Wetland + 10 m
- Top of Bank Estimate Based on LIDAR + 10 m (GEI)
- Wetland (off-site) + 30 m
- Wetland + 30 m
- Top of Bank + 10 m (Staked on October 19, 2021 by TRCA and GEI)
- Significant Woodland + 10 m
- Warm Water Fish Habitat + 15 m
- Monarch Butterfly Significant Wildlife Habitat
- Yellow Banded Bumblebee Significant Wildlife Habitat
- Eastern Wood Peewee Significant Wildlife Habitat
- Snapping Turtle Significant Wildlife Habitat
- Candidate Seeps and Springs Significant Wildlife Habitat
- Candidate Bat Maternity Colonies Significant Wildlife Habitat
- Natural Heritage System Limit
- Natural Heritage System Limit (Potential for Realignment)
- Feature Proposed for Realignment
- Conceptual Drainage Realignment
- Site Plan

NOTES:

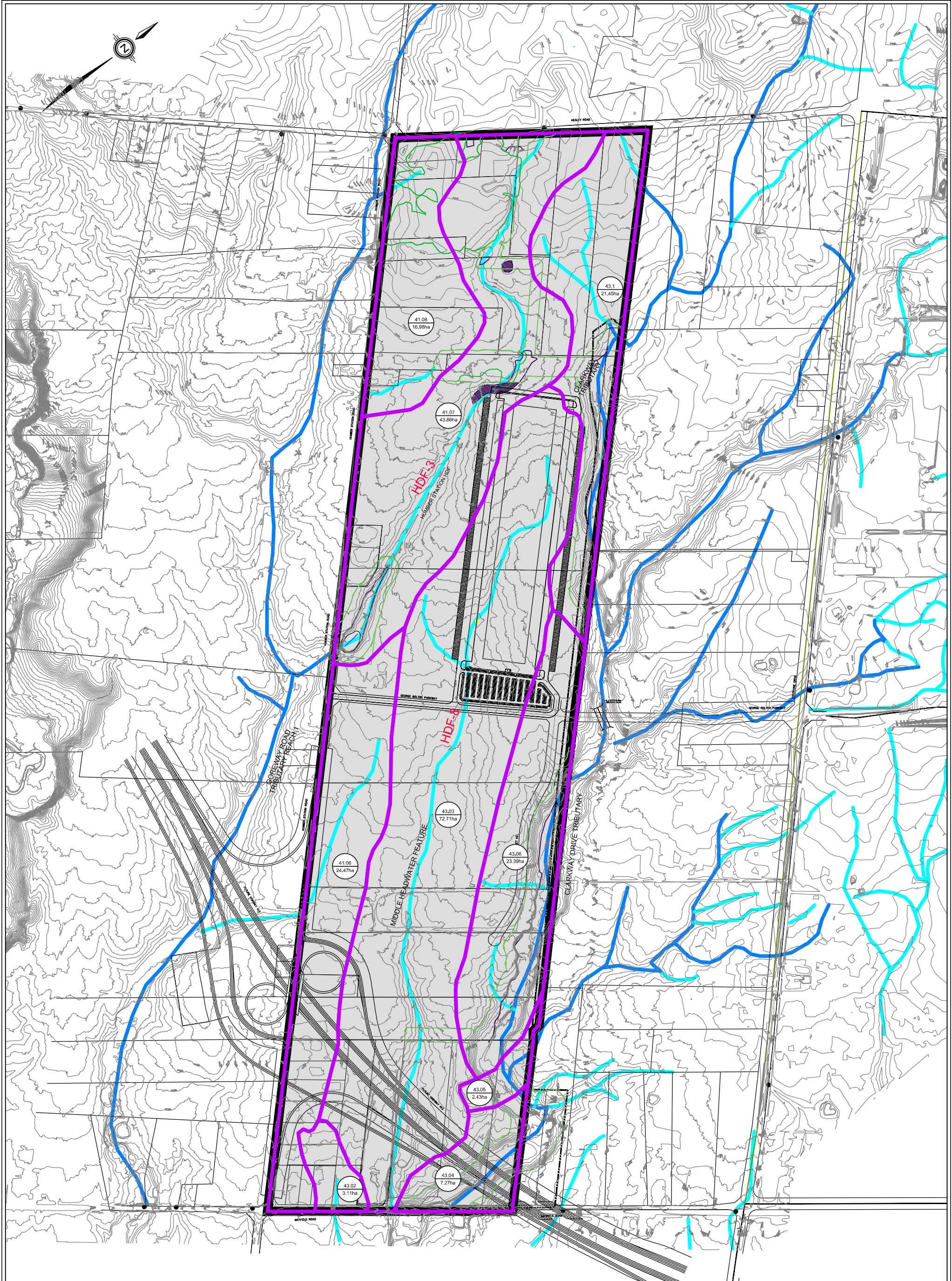
1. Coordinate System: NAD 1983 UTM Zone 17N.
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2024.
3. Orthoimagery © First Base Solutions, 2024. Imagery taken in 2022.

Project 1901485

Humber Station, Town of Caledon, ON
Figure 4a
 Observed Natural Heritage
 Features - Terrestrial

0 100 Meters
 1:8,500





HUMBER STATION VILLAGES
TOWN OF CALEDON

SCHAEFFERS
CONSULTING ENGINEERS
6 Ronrose Drive, Concord, Ontario L4K 4R3
Tel: (905) 738-6100 Email: general@schaeffers.com

www.schaeffers.com

LEGEND

- SUBJECT LOCATION
- PRE DEVELOPMENT DRAINAGE BOUNDARY
- TRCA CATCHMENT ID
TRCA AREA IN HECTARES
- WATERCOURSE
- HDF

FIGURE 2.1
PRE-DEVELOPMENT
DRAINAGE PLAN

2021-5139

AUGUST 2024

SCALE: N.T.S.



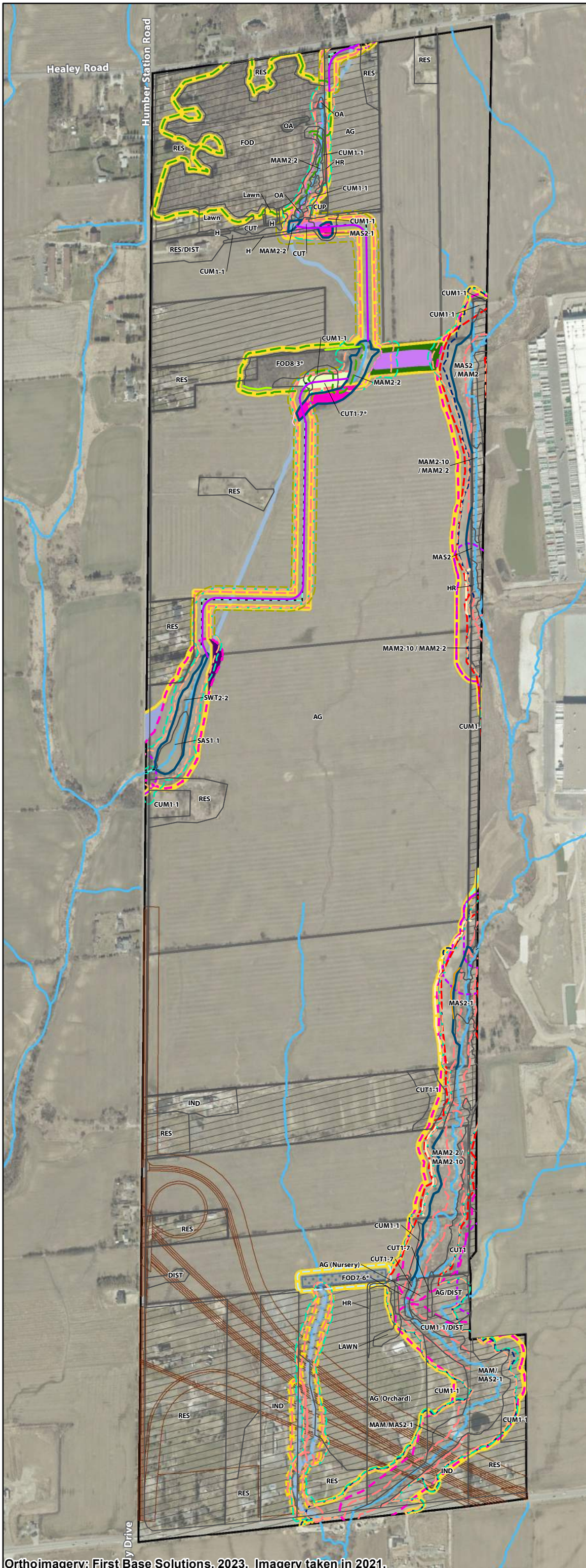
HUMBER STATION VILLAGES
TOWN OF CALEDON

LEGEND

SUBJECT LOCATION

PRE-DEVELOPMENT CATHCMENT ID
88L/s/ha REGIONAL RELEASE RATE

FIGURE 4.3
REGIONAL RELEASE RATE



ELC Legend

- CUM1-1 Dry Moist Old Field Meadow
- CUP Coniferous Plantation
- CUT Cultural Thicket
- CUT1 Mineral Cultural Thicket
- CUT1-1 Sumac Cultural Thicket
- CUT1-7* Buckthorn Cultural Thicket
- FOD Deciduous Forest
- FOD7-6* Fresh-Moist Manitoba Maple Lowland Deciduous Forest
- FOD8-3* Fresh-Moist Basswood Deciduous Forest
- MAM Meadow Marsh
- MAM2 Mineral Meadow Marsh
- MAM2-2 Reed-canary Grass Mineral Meadow Marsh
- MAM2-10 Forb Mineral Meadow Marsh
- MAS Shallow Marsh
- MAS2 Mineral Shallow Marsh
- MAS2-1 Cattail Mineral Shallow Marsh
- OA Open Aquatic
- SAS1-1 Pondweed Submerged Shallow Aquatic
- SWT2-2 Willow Mineral Thicket Swamp

- AG Agricultural
- DIST Disturbed
- H Hedgerow
- IND Industrial
- Lawn Lawn
- Pond Pond
- RES Residential

*Not included in Southern Ontario ELC Field Guide.

- Study Area
- Participating Properties
- Non-participating Properties
- Drainage (Suitable for Realignment)
- Drainage (Suitable for Realignment Non-participating Owner)
- Conceptual Drainage Realignment
- Watercourse/Drainage
- Creek Bank (Staked on October 19, 2021 by TRCA and GEI)
- Dripline (Staked on October 19, 2021 by TRCA and GEI)
- Hydrologic Edge of Wetland (Staked on October 19, 2021 by TRCA and GEI)
- Wetland (Staked on October 19, 2021 by TRCA and GEI)
- Stable Top of Slope (GEI) + 10 m
- Top of Bank Estimate Based on LIDAR + 10 m
- Conceptual Wetland Compensation + 10 m
- Wetland + 10 m
- Wetland + 30 m
- Wetland (off-site) + 30 m
- Floodplain (Schaeffers 2023) + 10 m
- Regional Floodline + 10 m
- 100 Year Floodline + 10 m
- Top of Bank + 10 m (Staked on October 19, 2021 by TRCA and GEI)
- Drainage Realignment Top of Bank + 10 m
- Significant Woodland + 10 m
- Warm Water Fish Habitat + 15 m
- Preliminary Natural Heritage System Limit
- Preliminary Natural Heritage System Limit (Potential for Realignment)
- Proposed Woodland Removal (0.34 ha)
- Proposed Woodland Compensation (0.35 ha)
- Proposed Wetland Removal (0.38 ha)
- Proposed Wetland Buffer Removal (0.15 ha)
- Proposed Wetland Compensation (0.47 ha)
- Proposed Wetland Buffer Compensation (0.15 ha)
- Conceptual Wetland Compensation (0.35 ha)
- Approximate Highway 413 Alignment
- Proposed Channel Realignment

Humber Station, Town of Caledon, ON

Figure 6
Opportunities and Constraints

0 100 Meters





LEGEND

-  Site Boundary
-  Monitoring Well
-  Mini-Piezometer



120 120 240 m

North American Datum 1983, UTM Zone 17N (EPSG: 26917)

Scale: 1:7,000
Page Size: Letter (11 x 8.5 inches)

Drawn: FL
Checked: JC
Date: Aug 2024
Source Notes:
Basemap - Google Satellite (2020)
Topo Contour - Peel Region (Spring 2021)




CLIENT	Prologis
PROJECT	12519 & 12713 Humber Station Road, Bolton, Ontario
TITLE	Site Investigation Plan
 PART OF 	REF. NO. 2008102 Figure 1

CHART H2-1 - REPORTS OF THE ONTARIO SOIL SURVEY (6,66)

Soil Maps

	No.		No.
Norfolk	1	Welland	5
Elgin	2	Middlesex	6
Kent	3	Carleton	7
Haldimand	4	Brant	-

Reports

	No.		No.
Carleton (1944 report & map) (See also Map list)	7	Simcoe	29
Parts of Northwest Ontario	8	Soil Assocs. of S.Ont.	30
Durham	9	Parry Sound	31
Prince Edward	10	Wentworth	32
Essex	11	Prescott and Russell	33
Grenville	12	Lincoln	34
Huron	13	Wellington	35
Dundas	14	Lennox & Addington	36
Perth	15	Renfrew	37
Bruce	16	Dufferin	38
Grey	17	Frontenac	39
Peel	18	Lanark	40
York	19	Leeds	41
Stormont	20	Northumberland	42
New Liskeard-Englehart	21	Halton	43
Lambton	22	Waterloo	44
Ontario	23	Peterborough	45
Glengarry	24	Timmins-Noranda-Rouyn	46
Victoria	25	Ottawa Urban Fringe	47
Manitoulin	26	Thunder Bay Area	48
Hastings	27	Sudbury Area	49
Oxford	28	Blind River-Sault Ste Marie	50

CHART H2-2 - HYDROLOGIC SOIL GROUPS FOR GENERAL SOIL TYPES

<u>Sands, Sandy Loams and Gravels</u> - overlying sand, gravel or limestone bedrock, very well drained. - ditto, imperfectly drained - shallow, overlying Precambrian bedrock or clay subsoil	A AB B
<u>Medium to Coarse Loams</u> - overlying sand, gravel or limestone, well drained - shallow, overlying Precambrian bedrock or clay subsoil	AB B
<u>Medium Textured Loams</u> - shallow, overlying limestone bedrock - overlying medium textured subsoil	B BC
<u>Silt Loams, some Loams</u> - with good internal drainage - with slow internal drainage and good external drainage	BC C
<u>Clays, Clay Loams, Silty Clay Loams</u> - with good internal drainage - with imperfect or poor external drainage - with slow internal drainage and good external drainage	C C D

Note: Soils are classified on the basis of bare soil having maximum swelling at the end of a long storm whose rainfall exceeds infiltration into soil. Classifications shown are subject to modification as experience dictates.

Classifications are based on SCS definitions (9) modified to suit Ontario conditions.

CHART H2 - 3

CHART H2-3 - HYDROLOGIC SOIL GROUPS FOR SOILS IDENTIFIED ON SURFICIAL GEOLOGY MAPS (8)

Map Ref. No.	Soil Type or Texture	Hydrologic Soil Group (Tentative)
	<u>Ground Moraine</u>	
1a	Usually sandy till, stony, varying depth. (Most widespread type in Shield).	Usually B (shallow); may be A or AB
1b	Clayey till, varying depth.	BC-C
	<u>End or Interlobate Moraine</u>	
2a	Sand & stones, deep. (May be rough topography).	A
2b	Sand & stones capped by till, deep.	A-C depending on type of till
2c	Sand & stones, deep. (Smoother topography).	A
	<u>Kames & Eskers</u>	
3a	Sand & stones, deep. (May be rough topography).	A
3b	Sand & stones capped by till, deep.	A-C depending on type of till.
3c	Sand & stones, deep. (Smoother topography).	A
	<u>Lacustrine</u>	
4a	Clay & silt, in lowlands.	BC-C
4b	Fine sand, in lowlands.	AB-B
4c	Sand, in lowlands.	AB
4d	Sand (deltas & valley trains).	A-AB
	<u>Outwash</u>	
5	Sand, some gravel, deep.	A
	<u>Aeolian</u>	
6	Very fine sand & silt, shallow. (Loess)	B
	<u>Bedrock</u>	
7	Bare bedrock (normally negligible areas):	Varies according to rock type.

See footnotes to Chart H2-2.

CHART H2 - 4

CHART H2-4 - HYDROLOGIC SOIL GROUPS FOR SOILS IDENTIFIED ON LAND CLASSIFICATION MAPS (7)

Soil Depth								Relief & Soil Type
Bare & Shallow		Shallow Some Deep		Deep & Shallow		Deep		
LC No.	HSG (Tentat.)	LC No.	HSG (Tentat.)	LC No.	HSG (Tentat.)	LC No.	HSG (Tentat.)	
<p>P 1 2 3 4 5</p> <p>B) A-B) BC) BC) C) -</p> <p>Unspecified soil depth</p> <p>Insufficient data to classify soils</p>								<p><u>Flat Terrain</u></p> <p>Mostly peat Sand Loam Silt Clay Various soils</p>
<p>6-10 -</p> <p>Insufficient data to classify soils</p> <p>11 AB 21 AB 31 A 41 A 12 B 22 B 32 AB 42 A 13 B 23 B 33 AB 43 AB 14 B 24 B 34 B 44 B 15 BC 25 BC 35 BC 45 BC 16 BC 26 BC 36 BC 46 BC 17 C 27 C 37 C 47 C 18 C 28 C 38 C 48 C 19 C 29 C 39 C 49 C 20 C 30 C 40 C 50 C</p>								<p><u>Undulating</u></p> <p>Shallow on bedrock Sand (coarse/med.) Sand (fine) Sand (graded) Sand & other Loam Loam & other Silt Silt & other Clay Clay & other</p>
<p>51 AB 61 AB 71 A 81 A 52 AB 62 AB 72 A 82 A 53 B 63 B 73 AB 83 AB 54 B 64 B 74 B 84 B 55 C 65 C 75 BC 85 BC 56 C 66 BC 76 BC 86 BC 57 C 67 C 77 C 87 C 58 C 68 C 78 C 88 C 59 CD 69 CD 79 CD 89 CD 60 C 70 C 80 C 90 C</p>								<p><u>Fairly Hilly</u></p> <p>Sand (coarse/med.) Sand (fine) Sand (graded) Sand & other Loam Loam & other Silt Silt & other Clay Clay & other</p>
<p>91-99 -</p> <p>Insufficient data to classify soils</p>								<p><u>Hilly</u></p> <p>Various soils</p>

- Notes: 1. See footnotes to Chart H2-2.
 2. "LC No." = Landform Class Number (usually first part of green number on map, but is second part on some northern maps).
 3. "P" when attached to LC number denotes 20% to 30% peat, and HSG should be reduced one step (e.g. BC to B).

CHART H2-5

CHART H2-5 - HYDROLOGIC SOIL GROUPS FOR SOIL ASSOCIATIONS IN SOUTHERN ONTARIO (SOIL REPORT NO. 30) (6)

Soil Assoc. No.	Tentative Hydrologic Soil Group	Soil Assoc. No.	Tentative Hydrologic Soil Group
1	A	37	B
2	A	38	B
3	A	39	*
4	A	40	BC
5	A exc. Elgin, Wentworth & Lambton*	41	BC
6	A	42	*
7	AB	43	BC
8	*	44	B
9	AB	45	B
10	AB	46	B
11	*	47	CD exc. York(prt.).BC
12	A exc. Mattawa area...B	48	C
13	AB	49	BC exc. sandy areas B
14	B exc. Russell*	50	CD exc. Huron Cty...D Peel Cty....D
15	B	51	CD exc. Dufferin*
16	*	52	C
17	A	53	*
18	AB	54	C
19	AB	55	*
20	AB	56	*
21	*	57	*
22	AB	58	C
23	AB exc. Lennox & Addington, (part)*	59	*
24	A	60	*
25	B	61	*
26	A	62	D
27	A	63	*
28	*	64	C
29	BC	65	*
30	B	66	C
31	B	67	C exc. Pres. & Russ. & Carleton*
32	*	68	*
33	*	69	B
34	*	70	B
35	B	71	AB
36	BC	72	B
		73	BC

See footnotes to Chart H2-2

* Very variable soils - refer to land classification maps (Chart H2-4) or agricultural soil maps listed in Chart H2-1, or use airphoto interpretation.

CHART H2-6A - HYDRDLOGIC SOIL GROUPS FOR PRINCIPAL SOIL TEXTURES
 IDENTIFIED ON AGRICULTURAL SOILS MAPS (6)

Soils Series	Soil Texture	Hyd. Soil Grp.	Soils Series	Soil Texture	Hyd. Soil Grp.	Soils Series	Soil Texture	Hyd. Soil Grp.
Alberton	si l	BC	Bolingbr.	s	A	"	c	C
Allendale	s l	B	Bondhead	s l	AB	"	l	BC
Alliston	s l	AB	"	l	B	Camilla	s l	AB
Almonte	si c l	C	Bookton	s l	AB	"	si l	BC
Aneliasbg	c l	C	Boomer	l	B	Campbell	si c	C
"	l	B	Brady	s l	AB	Cane	si l	BC
Ancaster	si l & s	B	"	s	A	"	si c l	C
"	si l	BC	Brant	s & si l	B	Carp	c & c l	C
Anstruther	s	A	Brantford	si l	BC	Casey	si l	BC
Appleton	si l & s	B	"	si c l	C	Cashel	c	D
Atherley	c	C	"	l	BC	Castor	s l	AB
"	si c l	C	"	c l	D	"	si l	BC
Athol	s l	A	Brentha	s l	A	"	c	C
Atwood	c	C	"	l	B	Chesley	si l	BC
Ayr	s l	B	Brethour	si l	BC	"	si c l	C
Bainsville	s	B	Breypen	limest.	B	"	c l	C
"	si l	B	Bridgman	s	A	Chinguac'y	l	BC
Balderson	s l	B	Brighton	s	A	"	si l	BC
Bamford	s	AB	"	s l	AU	"	c l	C
Bancroft	s	A	Brisbane	s g	AB	"	c	D
"	s l	B	"	l	B	Christy	s l	B
Bass	c	D	Brockport	c	D	Clyde	l	BC
Bastard	s	A	Brooke	l	B	"	si l	BC
Battersea	si l	BC	Brookston	s l	B	"	c l	C
"	s l	AB	"	l	C	"	c	C
Bearbrook	s l	B	"	si l	C	Colborne	s	A
"	si c l	C	"	si c l	C	Colwood	s l	B
"	c	C	"	c l	C	"	si l	B
Belmeade	m & c	B	"	c	C	"	l	BC
Bennington	s l	B	Bucke	s	AB	Codrington	si l	BC
"	s	A	"	s l	AB	Conestogo	l	BC
"	si l	A	Burford	s l	A	Conover	c l	C
Berrien	s	AB	"	l	AB	"	l	BC
"	s l	AB	Bumbrae	l	B	Cooksville	c	D
Berrledale	s & si	AB	Burnstown	l	B	Coutts	s l	AB
Beverly	l	BC	Burpee	s	A	"	l	BC
"	si l	C	Burris	c l	C	Craigleith	c	C
"	si c l	C	Buzwah	si c l	C	Cramahe	s g	A
Binbrook	si l	C	Buzwah	c l	D	Crombie	s l	B
Blackwell	c	C	Caledon	s l	A	"	si l	BC
Blanche	si l	BC	"	l	B	Dack	c	D
Blue	c l	C	Caistor	c l	C	Dalton	s	AB

Notes: 1. See footnotes to Chart H2-2.

2. Key to abbreviations: c - clay; f - fine; g - gravel; l - loam; ma - marl; m - muck; p - peat; r - rock; s - sand; si - silt.

DESIGN FLOOD ESTIMATION

DESIGN CHARTS
CHART H2-6A
 (Cont'd)

CHART H2-6A - continued

Soils Series	Soil Texture	Hyd. Soil Grp.	Soils Series	Soil Texture	Hyd. Soil Grp.	Soils Series	Soil Texture	Hyd. Soil Grp.
Darlington	s	B	"	c l	C	Heidelberg	f s l	B
"	l	C	Ferndale	si l	BC	Hendrie	s /g	AB
Dawson	s l	A	"	c l	C	Henwood	s /g	A
"	l	B	Flamoro	s	B	Hespeler	s l	B
Deloro	l	B	"	s l	B	Hillier	c & c l	C
Devlin	si c /	C	Floradale	l	B	Hillsburgh	s l	A
"	c l		Fonthill	g	A	Himsworth	si l	BC
Dinorwic	c	BC	"	l	B	Hinchirbr.	s l	B
Dobie	c /l	BC	Font	g s l	A	"	l	BC
Doe	s l	B	Forbes	c	D	"	si l	BC
"	si l	BC	Fox	s	A	Honeywood	s l	AB
Donald	l	B	"	s l	AB	"	si l	BC
Donnybrook	s g	A	"	gr l	AB	"	s	A
"	s l	AB	Foxboro	s	A	Howland	s l	B
"	l	B	Franktown	l	B	"	l	BC
Dorion	c /l	C	Freeport	s l	B	Huron	s l	B
Dorking	si c l	BC	Galesburg	s l	A	"	l	BC
Dumfries	s l	A	"	l	AB	"	si l	BC
"	l	AB	Gameland	s /q	AB	"	c l	CorD
Dummer	s l	A	Gananoque	c	C	"	c	D
"	l	B	Cerow	c l	C	Innisville	s l	B
Dundonald	s l	AB	Gilford	s l	B	Jeddo	l	BC
Dunedin	c	D	"	l	B	"	c l	C
Dymond	s l	AB	Gordon	si c	C	"	c	D
"	l	B	Granby	s	B	Kagawong	si l	BC
Eagle Lake	s /g	AB	"	s l	B	Kars	s /q	A
Eamer	l	BC	Grand	l	B	"	s l	B
Earlton	si l	B	Grenville	s l	A	Kemble	si l	BC
"	c l	C	"	l	BC	"	si c l	C
Eastport	s	A	Grimsby	s l	A	"	si c	C
Edenvale	s	AB	Guelph	s l	A	"	c l	D
"	s l	B	"	l	BC	Kenabeek	s	B
Eganville	l	B	"	si l	BC	"	s l	B
Elderslie	si l	BC	Guerin	s l	AB	Killean	l /s l	AB
"	si c l	C	"	l	B	King	si l	BC
"	c l	C	Gwillmb.	g	AB	"	c l	C
Eldorado	s l	A	Haileybury	si c l	C	Kirkland	s l	A
"	l	B	"	si c	C	Kossuth	s l	B
Elk Pit	s g	A	"	c	CD	L'Achigan	s	AB
Ellwood	c l	C	Haldimand	si l	BC	Lambton	l	BC
Elmbrook	si l	BC	"	si c l	C	"	si l	BC
"	c l	C	"	c	CorD	Lanark	c	C
"	c	C	"	c l	C	Lansdowne	c /si l	C
Elmira	l	B	Hanbury	si c l	C	Leech	si c l	C
Elmsley	s l	B	"	si c	C	"	c l	D
Embro	s l	BC	"	c	D	Leitrim	g	B
"	si l	C	Harkaway	l	B	Leith	si l	BC
Emily	l	B	"	si l	BC	Lily	l /s l	B
Emo	c & p	C	Harriston	l	BC	Lincoln	si c	C
Englehart	s l	B	"	si l	BC	"	c	C
Evanturel	si l	BC	Harrow	s	A	Lindsay	c l	C
"	si c l	C	"	s l	AB	"	c	C
Falardeau	si l	BC	"	l	B	Lisbon	s l	A
"	si c l	C	Havelock	s /g	A	Listowel	l	B/BC
Farmington	s l	A	Hawkesvi.	l	B	"	si l	BC
"	l	B	Haysville	s l	AB	Little Cur.	c	C

CHART H2-6A - continued

Soils Series	Soil Texture	Hyd. Soil Grp.	Soils Series	Soil Texture	Hyd. Soil Grp.	Soils Series	Soil Texture	Hyd. Soil Grp.
Lockport	c	D	Mountain	s l	AB	"	l	C
London	l	BC	Muck	m	B	"	si l	C
"	si l	BC	Murray	si l /f	"	"	si c l	CD
Lovering	si c l	C	"	s	B	"	c l	CD
"	c	D	Napanee	c /si l	C	"	c	CD
"	c l	CD	Neebing	s /si	B	Petherwick	si l	BC
Lyons	l	B	Nepean	s	AB	Phipps	si c l	C
Macton	l	B	Newburgh	s l	A	"	c l	C
Magnetawan	si l	BC	"	si l	BC	Piccadilly	s l	B
Mallard	s	AB	Newcastle	l	BC	"	l	BC
"	s l	AB	"	c l	C	"	si l	BC
Malton	c	C	"	si l	BC	Pike	c	D
Mannheim	l	B	Newton	s l	B	Pike Lake	l	B
Manotick	s	AB	Nelson	c	D	Plainfield	s	A
Maplewood	si l	BC	New lisk.	si c	C	Pontypool	s	A
Marionville	s	B	"	c	C	"	s l	AB
"	s l	B	Niagara	c	D	Powassan	si l	BC
Martin	s /g	AB	Nipissing	s /si	B	Preston	s l	B
Maryhill	l	BC	Norham	si l	BC	Raglan	s /g	A
Matilda	l	BC	North Gow.	c l	C	Rainy Riv.	p	B
Matson	si l	BC	"	c	C	Renfrew	c l	C
Medonte	si l	BC	O'Connor	c	D	"	l	BC
"	si c l	C	Oliver	l /si l	B-BC	Rideau	c l	D
McCool	c	C	Oneida	l	BC	"	c	D
McInnis Cr	c l/l	"	"	si l	BC	Rossllyn	s /g	A
"	&P	BC	"	si c l	C	Rubicon	s	AB
McIntyre	s	AB	"	c l	D	"	s l	AB
Miami	l	BC	Ontario	l	BC	Sandford	c	D
"	si l	BC	Osgoode	l	BC	Sargent	s /g	A
"	c l	D	"	si l	BC	"	s l	AB
"	g l	AB	"	si c l	C	Saugeen	si l	BC
Milberta	c /si	"	Oshtemo	s	A	"	si c l	C
"	c l	C	Osnabruck	c l	C	"	c l	D
Mill	s	B	Osprey	s l	A	Schomberg	si l	BC
"	s l	B	"	l	B	"	si c l	C
Milliken	s l	AB	Otonabee	s l	A	"	c l	C
"	l	BC	"	l	B	Scoble	si c	C
Minesing	ma si	"	Otterskin	s l	B	Seely's Bay	si c l	C
"	c l	BC	Oxdrift	c	D	Shashawan	l	B
"	ma c	C	Palpoonge	c	C	Shenston	c l &p	BC
Mississauga	c	C	Parkhill	l	BC	Sidney	c	C
Monaghan	l	BC	"	si l	BC	Sifton	si c /c	"
"	si l	BC	Peat	p	B	"	l	C
"	c l	C	Peel	c	D	Simcoe	si l	BC
Monteagle	s l	A	Pelham	s l	A	"	si c l	C
"	sl + r	B	Pense	si l	BC	"	c l	C
Moose	s l	B	Pense	si c l	C	Slate River	s /l	B
"	l	BC	Perch	c	C	Smithfield	si l	C
Morley	c si	"	Percy	s	A	"	si l	C
"	c l	C	"	f s l	B	"	c l	CD
Morrisburg	c	C	"	s l	B	Smithville	l	BC
Moscow	si c	C	Perth	s l	AB	"	si c l	C

CHART H2-6A - continued

Soils Series	Soil Texture	Hyd. Soil Grp.	Soils Series	Soil Texture	Hyd. Soil Grp.	Soils Series	Soil Texture	Hyd. Soil Grp.
"	si l	BC	Uplands	s	A			
Snedden	si c l	C	"	s l	A			
Solmesville	c l	C	Upsala	f s	AB			
South Bay	c l	D	Vars	l	B			
"	c	D	Vasey	s l	AB			
Spohn	s /g /		"	l	B			
	c	BC	Vergennes	si l	BC			
Springvale	s l	A	"	l	BC			
Stafford	l	B	"	c	C			
Stockdale	si l/f		Vincent	si l	BC			
	s	B	"	si c l	C			
St. Clem.	s l	A	"	c l	D			
"	si c l	C	Vineland	s l	AB			
St. Jacobs	l	B	Wabi	s l	A			
St. Peter	s /g	A	"	l	B			
St. Rosalie	c	C	Wabigoon	c	C			
St. Samuel	s	B	Waterloo	s	A			
"	s l	B	"	s l	A			
St. Thomas	s	A	Watrin	s	B			
Sullivan	s	A	Waupoos	c l	D			
"	s l	A	"	c	D			
Sutton Bay	s	B	Wauseon	s l	B			
"	s l	B	Wayside	s	AB			
Tansley	c	D	Welland	c	C			
Tavistock	s l	AB	Wellesley	s l	AB			
"	si l	BC	"	si c l	C			
Tecumseth	s	AB	Wemyss	s l	AB			
			Wendigo	s	A			
Teeswater	si l	B	"	s l + r	AB			
Temisk'g	r &c	C	"	s l	AB			
Tennyson	s l	A	Wendover	c l	D			
Thames	c l	D	"	c	D			
Thorah	s	B	Westmeath	s	A			
Thornloe	c	C	Whitby	l	BC			
Thwaites	si l	BC	White Lake	s /g	A			
Tioga	s	A	Whitfield	si l	B			
"	s l	A	Wiarton	l	B			
Toledo	si l	BC	"	si l	BC			
"	si c l	C	Wilmot	s l	B			
"	c l	C	"	si c l	C			
"	c	C	Winona	s l	AB			
Trafalgar	c	D	Woburn	s l	A			
Trent	s	AB	"	l	B*			
Tuscola	s l	AB	Wolford	c l	D			
"	si l	BC	Wolsey	si c	C			
Tweed	s l	A	Wooler	si l/f				
"	s l + r	AB		s	AB			
"	r	AB	Woolwich	l	BC			
Undiffer'd	s l + r	AB or B(dep. on depth)	Worthing.	s /g /c	BC			
			Wyevale	s /g	A			

CHART H2-6B - HYDROLOGIC SOIL GROUPS FOR PRINCIPAL SOIL SERIES
IDENTIFIED ON PRELIMINARY SOIL MAPS FOR NORTHERN ONTARIO (5)*

Soils Series	Map Symbol	Hyd. Soil Grp.	Soils Series	Map Symbol	Hyd. Soil Grp.	Soils Series	Map Symbol	Hyd. Soil Grp.
Abitibi	Ab s	A	Black Bay	Bb cl	C	Coderette	Ct	B
"	Ab sl	A	"	Bb l	C	Contact Bay	C	A
"	Ab l	B	Black River	Br sl	AB	Corbell	Cor	B
"	Ab gsl	A	Blake	Bk fsl	B	Corn	C cl	C
Abram	Ab l	BC	"	Bk l	B	"	C l	BC
"	Ab cl	C	"	Bk v fsl	B	"	C sil	BC
"	Ab sic	C	Blyth	BH	B	Coutsville	Cv	B
"	Ab sicl	C	Bob Lake	Bl sl	AB	Crystal Fal	Cf	B
Agnew	Ag sil	BC	Bradley	B l	BC	Curran	CN	B
"	Ag sl	B	"	B sl	AB	Current R.	CR l	B
Alban	Al c	C	"	B v fsl	B	"	CR sil	B
"	Al fs	B	Breakneck	Bk sl	B	"	CR sl	B
"	Al sl	B	Broadtail	Br lc	C	Cutler	Cu sl	AB
"	Al sil	C	"	Vr fs	A	"	Cu sil	BC
Alcock	Al fs	AB	"	Br fsl	A	Dakis	Dk fs	A
"	Al ls	AB	"	Br ls	A	Daltes	Da sl	AB
"	Al s	AB	"	Br s	A	Dayton	Da sil	BC
"	Al sl	AB	"	Br si	BC	Deception	De gs	A
Allan	A fs	A	"	Br sl	A	"	De gsl	A
Alpine	Ap sil	BC	Burnet	Bt sl	A	"	De ls	A
Ansonville	An s	AB	Burning	Bu sic	C	"	De s	A
"	An sl	AB	"	Bu sicl	C	"	De sl	A
Arthur	Ar fsl	B	"	Bu sil	BC	Dela Mere	D cl	C
"	Ar l	B	Burpee	Bp fs	B	"	D fsl	AB
Audrey	A cl	C	"	Bp l	BC	"	D sil	BC
"	A l	BC	Burt	Bx	B	Delray	De cl	C
"	A sil	BC	Cacha Lake	C c	B	"	De l	BC
Avery	Av sil	AB	Callum	Cx	B	Deltaic	D. S.	A
"	Av v fsl	AB	Capreol	Cp l	B	Denman	De sl	B
Azilda	A sil	BC	"	Cp v fsl	AB	Devitt	Dt cl	C
"	A cl	C	Camody	Cy	B	"	Dt c	C
"	A fs	B	Carterton	Ct	B	"	Dt l	BC
"	A fsl	B	Casimar	Ca c	C	"	Dt sil	BC
Bain	Ba sl	AB	"	Ca cl	C	Dorion	Do cl	C
"	Ba sil	BC	"	Ca sl	B	"	Do fsl	B
Baird	Bd	B	"	Ca fs	B	"	Do l	BC
Baldwin	Bw sil	BC	Chamberlain	Cha	B	"	Do sil	C
"	Bw sl	B	Chartrend	C l	BC	Drury	Dr	B
Basket	Ba sil	BC	"	C sl	B	Dryden	Dry	B
Beartrack	Be sl	AB	"	C sil	BC	Duchesnay	Dhy	B
Beverhouse	Bh sl	AB	"	C c	C	Duchesnay R	DR	B
Belle Vall.	Bv	B	Chiswick	Ci	B	Eagle L.	Eq	B
Berry Lake	Bry	B	Clegg	C cl	C	Eaket	Ea cl	C
Binabich	Bi fsl	B	"	C c	C	"	Ea sl	AB
"	Bi sl	B	"	C l	BC	Eccleston	E sil	BC
Biz	B sil	BC	"	C sil	BC	Elliot	Eil	BC
"	B cl	C	Corbett	Cb	B	English	En s	AB

* Scales 1/50 000 and 1/250 000.
See footnotes to Chart H2-2.

CHART H2-6B - continued

Soils Series	Map Symbol	Hyd. Soil Grp.	Soils Series	Map Symbol	Hyd. Soil Grp.	Soils Series	Map Symbol	Hyd. Soil Grp.
English	En sl	AB	Hallam	Ha sl	AB	Kell	Ke	B
Espanola	Es	B	Hanna	Hn s	A	Kenabeek	K sl	AB
Estaire	Ee	B	"	Hn sl	A	"	K fsl	B
Everard	Ev cl	D	"	Hn l	B	"	K sil	BC
"	Ev sil	C	Hapstone	Hp fsl	B	"	K vsil	B
Everett	Et sil	BC	"	Hp sl	B	Kenogami	Kg	B
Fleck	F	B	Harfred	H fsl	B	Kerns	Kn	B
Ford	Fo cl	C	"	H sil	BC	Killaby	Ki sl	AB
"	Fo l	BC	Harfred L.	Har	B	Kim	Km l	BC
Fomal	Fo gsl	A	Harley	Hy	B	Kushog	Ku	B
"	Fo l	B	Harris Hill	HH	B	Kynock	Ky sl	AB
"	Fo sl	AB	Hartman	H sil	BC	Lappe	La c	C
"	Fo g	A	Hearst	He cl	C	"	La cl	C
Ft. William	FW fsl	B	"	He c	C	Larder	Ld	B
"	FW l	B	"	He l	BC	Leeville	Le	B
"	FW s	B	"	He sil	C	Linko	Ln	B
"	FW sl	B	Heaslip	Hl	B	Lola L.	Ll	B
Frechette	F sil	BC	Hillard	Hr	B	Lowther	Lo cl	C
Fredrick	Fr s	AB	Hilton	Hi l	B	"	Lo c	C
"	Fr sl	AB	Hilton L.	HL	B	MacIntyre	MIn	AB
Frere L.	F.L.	B	Hindick	Hn	B	Macobe	Mk sl	AB
Fremlin	Fn sl	AB	Hughes	Hhs	B	Mallard	Md sl	AB
Fynx	Fy sil	BC	Huntsville	Hv	B	"	Md fsl	B
Gaffney	Ga s	AB	Hyndman	Hy sil	BC	"	Ms	AB
"	Ga sl	AB	Ilford	Il l	BC	Manders	Mx	B
Gaffney L.	Gf	B	Ingram	In	B	Marsh	Ma	B
Gawes	Gaw cl	C	Innes L.	INE	B	Marshall	Ml sl	B
Genesee	Ge	B	Isbester	Is sl	B	Mary	My s	A
Giant	Gt l	AB	Jaffray	J cl	C	"	My sl	A
"	Gt sil	B	"	J c	C	Matheson	Mt gls	A
Glen	Gn gsl	AB	"	J ls	A	"	Mt sl	A
"	Gn sl	AB	"	J sl	A	"	Mt qs	A
"	Gn p	B	Janden	Ja l	BC	Maybrook	Mb	B
Gough	G gsl	AB	Jarvis R.	JR c	D	McKellar	Mk fsl	B
Goulais	G sl	AB	"	JR cl	CD	"	Mk l	B
"	G sil	BC	"	JR sil	C	Mede	Me fs	AB
Govereau	Ga sl	AB	Jeanie	Jn sl	A	"	Me sl	AB
"	Ga fsl	B	"	Jn s	A	Melgund	M qsl	AB
Gravel	G	A	"	Jn qs	A	Melick	Me cl	C
Gullwing L.	GW	B	Jocelyn	Jy	B	Mennin	Min sil	BC
Guy L.	GL sl	AB	Junbo	Jbo	B	Merritt	Mt sil	BC
Haddo	Hd cl	C	Kanimiwiska	Kw	B	Meurow	Mu l	B
"	Hd sil	C	Kapuskasig	K sil	BC	"	Mu sil	B
"	Hd fsl	B	Karbuskong	Kr	B	Mickle	Mi sil	BC
Hagar	Hg fsl	AB	Kawasheghmak	Kk	B	Mietzle	Mz g	A
Haileybury	Ha c	D	Keenoa	Ka sl	AB	"	Mz gsl	A

CHART H2 - 6B
(Cont'd)

CHART H2-6B - continued

Soils Series	Map Symbol	Hyd. Soil Grp.	Soils Series	Map Symbol	Hyd. Soil Grp.	Soils Series	Map Symbol	Hyd. Soil Grp.
Meitzle	Mz s	A	Ouellette	O l	BC	Sesekinika	Sk	B
"	Mz sl	AB	"	O c	C	Shenston	Ss	B
Milford	Mf	B	Quimet	Qu cl	C	Shetland	Sh cl	C
Millerand	Mi sicl	C	"	Ou sil	BC	"	Sh l	BC
"	Mi cl	C	Paipoonge	Pa sicl	C	"	Sh c	C
"	Mi sl	B	"	Pa sil	C	"	Sh sil	BC
Minnitaki	Mn c	C	Parke	Pa sl	B	Siamese	Si sil	BC
"	Mn cl	C	Parrish	Pr sil	BC	Sibley	Sh sil	BC
"	Mn l	BC	"	Pr fsl	B	Silver	Sr cl	C
"	Mn sicl	C	Parry Sound	PS	B	"	Sr l	BC
"	Mn sil	BC	Pass	Ps	B	"	Sr sil	BC
Misema R.	MR	B	Pearl	Pe gsl	A	Sloux	Si cl	C
Mission	Mi s	AB	"	Pe sl	AB	"	Si sicl	C
"	Mi sl	AB	Pearson	Pr gsl	B	"	Si sil	BC
"	Mi p	B	"	Pr sl	B	Slate R.	SR fsl	AB
Mount Eagle	M sl	A	Peat	P	B	"	SR s	A
Mousseau	Mu v fsl	B	Pedley	Ped	B	"	SR sl	AB
"	Mu cl	C	Peganeis L.	Pg	B	Springer L.	Spr	B
Muck	M	B	Penassen	Pen	B	Stinson	St sil	BC
Mudcat Cr.	MC	B	Pense	Pes	BC	Strawberry	St l	B
Mud L.	Mud	B	Pettypiece	P	B	"	St sl	B
Muller	Mu sil	BC	Phelans	Ph sl	A	"	St P	B
Murillo	Mz (i)	B	Porquis	P sl	BC	Sturgeon Fl	S fs	AB
Nairn	Nn v fsl	AB	Pyne	Py s	AB	"	S sil	BC
Neebing	Ne gsl	AB	"	Py sl	AB	Sturgeon R.	Stu	B
"	Ne ls	AB	Quire	Q l	B	Sunstrum	Sn	B
"	Ne sl	B	Raft L.	Rf	B	Tacher	Ts	AB
Newfeld	N sl	AB	Rainy R.	RR	B	"	T sl	AB
Noelville	N sl	B	Raith	Ra	B	Tarbutt	Ta sl	AB
"	N sil	BC	Recollect	Re sl	AB	Tarentorus	Ts cl	C
Nolan	Nol l	B	Redvers	Rd cl	C	"	Ts l	BC
"	Nol sil	BC	"	Rd l	BC	Thibault	Tb l	B
"	Nol sl	AB	Ridge	Rd sl	AB	Thistle	T l	B
"	Nol gl	AB	Ridout	Ri sl	B	Thunder L.	Td	B
Norenbega	Ng	B	Robitaille	Ro cl	C	Timiskaming	T	C
Notre Dame	ND	B	"	Ro v fsl	B	Tomstown	Tom	B
Nugget	N s	AB	Rock	R	?	Treaty	Tr s	AB
"	N sl	AB	Rockbound L	Rc	B	"	Tr sl	AB
Oak	Oa sil	BC	Ryland	Ry cl	C	Tunis	Tu sil	BC
"	Oa sicl	C	"	Ry c	C	Twin City	TC fsl	B
Orbit L.	OR	B	"	Ry sil	BC	"	TC l	B
Oskondoga	Ok c	C	Sables	Sb l	BC	"	TC P	B
"	Ok cl	C	St. Josephs	SJ l	B	Twyming	Tw sl	AB
"	Ok sicl	C	San Pierre	Sa l	BC	Uno Park	U	B
"	Ok sil	BC	Sasaginaga	Sa s	B	Val Cote	Vc l	BC
Ouellette	O fsl	B	Sellars	Se sil	C	"	Vc cl	C

CHART H2-6B - continued

Soils Series	Map Symbol	Hyd. Soil Grp.	Soils Series	Map Symbol	Hyd. Soil Grp.	Soils Series	Map Symbol	Hyd. Soil Grp.
Val Cote	Vc c	D						
Van Horne	VH fsl	B						
Vasey	Val-Sh	?						
Vermillion	Vr sl	B						
Verner	Vn sil	BC						
"	Vn fs	AB						
Veuve	V sl	AB						
"	V sil	BC						
Wade	We	B						
Wahnapitei	Wt	B						
Wamsley	Wa l	B						
"	Wa sl	AB						
"	Wa v fsl	B						
Warnica	Wr sl	B						
Warren	W fsl	B						
"	W sil	BC						
Wendigo	Wd s	A						
"	Wd sl	AB						
Wickens	Wk s	AB						
"	Wk gs	AB						
Wilderness	W sil	BC						
Wild Rice L	Wl	B						
Willbank	Wi sl	AB						
"	Wi v fsl	AB						
Wistiwasing	Ww	B						
Withington	Wn s	AB						
"	Wn sl	AB						
Wolf	Wo l	BC						
"	Wo cl	C						
"	Wo sil	BC						
Wolf R.	Wf	B						
Wolf Pup	Wp gsl	AB						
"	Wp s	A						
"	Wp sl	AB						
Wooley	Wo s	A						
"	Wo sl	AB						
Zealand	Z s	AB						
"	Z sl	AB						

CHART H2 - 7

CHART H2-7 - LAND USE TABLES

County, District or Township	% of fam area			Ratio Crop: Past.	County, District or Township	% of fam area			Ratio Crop: Past.
	Crop	Past.	Wood			Crop	Past.	Wood	
<u>Algoma Dist.</u>	50	50	-	1.0	<u>Halton Cty.</u>	-	-	-	-
<u>Brant Cty.</u>	73	19	8	3.8	<u>Burlington</u>	70	21	9	3.3
<u>Bruce Cty.</u>	-	-	-	-	<u>Esquesing</u>	60	29	11	2.1
South part	49	41	10	1.2	<u>Nassagaweya</u>	43	38	19	1.1
<u>Bruce Penins.</u>	37	63	-	0.6	<u>Oakville</u>	66	29	5	2.3
<u>Carleton Cty.</u>	47	39	14	1.2	<u>Hastings Cty.</u>	-	-	-	-
<u>Cochrane Oist.</u>	41	59	-	0.7	<u>Hungerford</u>	24	58	18	0.4
<u>Dufferin Cty.</u>	54	37	9	1.5	<u>Huntingdon</u>	35	43	22	0.8
<u>Dundas Cty.</u>	57	35	8	1.6	<u>Rawdon</u>	45	38	17	1.2
<u>Durham Cty.</u>	49	38	13	1.3	<u>Sidney</u>	51	33	16	1.5
<u>Elgin Cty.</u>	68	22	10	3.1	<u>Thurlow</u>	50	36	14	1.4
<u>Essex Cty.</u>	91	6	3	15.2	<u>Tyendinaga</u>	35	51	14	0.7
<u>Frontenac Cty.</u>	-	-	-	-	<u>Northern Twps.</u>	37	63	-	0.6
Howe Island	59	14	27	4.2	<u>Huron Cty.</u>	58	33	9	1.8
Kingston	41	45	14	0.9	<u>Kenora Oist.</u>	44	56	-	0.8
Loughborough	34	45	21	0.8	<u>Kent Cty.</u>	87	10	3	8.7
Pittsburgh	46	45	9	1.0	<u>Lambton Cty.</u>	63	27	10	2.3
Portland	31	54	15	0.6	<u>Lanark Cty.</u>	-	-	-	-
Storrington	40	41	19	1.0	<u>Bathurst</u>	25	51	24	0.5
Wolfe Island	55	42	3	1.3	<u>Drummond</u>	33	40	27	0.8
<u>Northern Twps.</u>	17	83	-	0.2	<u>Elmsley N.</u>	30	54	16	0.6
<u>Glengarry Cty.</u>	49	36	15	1.4	<u>Lanark</u>	21	36	43	0.6
<u>Grenville Cty.</u>	40	40	20	1.0	<u>Ramsay</u>	35	36	29	1.0
<u>Grey Cty.</u>	43	42	15	1.0	<u>Other Twps.</u>	37	63	-	0.6
<u>Haldimand Cty.</u>	69	22	9	3.1	<u>Leeds Cty.</u>	-	-	-	-
<u>Haliburton Cty.</u>	29	71	-	0.4	<u>Bastard & South Burgess</u>	30	41	29	0.7
					<u>Elizabethtown</u>	41	38	21	1.1
					<u>Elmsley S.</u>	31	50	19	0.6
					<u>Escott, Front</u>	32	50	18	0.6
					<u>Leeds & Lansdowne, Front</u>	44	47	9	0.9

Tables are based on Census of Canada data (10)

NOTE Apply land use percentages to farmed areas only, excluding large wooded areas.
(See Subsection 2.3.3).

(2) Use of table 9-1

Chapters 7 and 8 of NEH 630 describe how soils and covers of watersheds or other land areas are classified in the field. After the classification is completed, CNs are read from table 9-1 and applied as described

in chapter 10. Because the principal use of CNs is for estimating runoff from rainfall, the examples of applications are given in chapter 10.

MONOGHAN CLAY LOAM**Table 9-1** Runoff curve numbers for agricultural lands ^{1/}

----- covertypes	Cover description treatment ^{2/}	----- hydrologic condition ^{3/}	-- CN for hydrologic soil group --			
			A	B	C	D
Fallow	Bare Soil	---	77	86	91	94
	Crop residue cover (CR)	Poor	76	85	90	93
		Good	74	83	88	90
Row crops	Straight row (SR)	Poor	72	81	88	91
		Good	67	78	85	89
	SR + CR	Poor	71	80	87	90
		Good	64	75	82	85
	Contoured (C)	Poor	70	79	84	88
		Good	65	75	82	86
	C + CR	Poor	69	78	83	87
		Good	64	74	81	85
	Contoured & terraced (C & T)	Poor	66	74	80	82
		Good	62	71	78	81
	C & T + CR	Poor	65	73	79	81
		Good	61	70	77	80
Small grain	SR	Poor	65	76	84	88
		Good	63	75	83	87
	SR + CR	Poor	64	75	83	86
		Good	60	72	80	84
	C	Poor	63	74	82	85
		Good	61	73	81	84
	C + CR	Poor	62	73	81	84
		Good	60	72	80	83
	C & T	Poor	61	72	79	82
		Good	59	70	78	81
	C & T + CR	Poor	60	71	78	81
		Good	58	69	77	80
Close-seeded or broadcast legumes or rotation meadow	SR	Poor	66	77	85	89
		Good	58	72	81	85
	C	Poor	64	75	83	85
		Good	55	69	78	83
	C & T	Poor	63	73	80	83
		Good	51	67	76	80

See footnotes at end of table.

Table 9-1 Runoff curve numbers for agricultural lands ^{1/} — Continued

----- Cover description ----- covertype	----- treatment ^{2/} ----- hydrologic condition ^{3/}	-- CN for hydrologic soil group --			
		A	B	C	D
Pasture, grassland, or range- continuous forage for grazing ^{4/}	Poor	68	79	86	89
	Fair	49	69	79	84
	Good	39	61	74	80
Meadow-continuous grass, protected from grazing and generally mowed for hay	Good	30	58	71	78
Brush-brush-forbs-grass mixture with brush the major element ^{5/}	Poor	48	67	77	83
	Fair	35	56	70	77
	Good	30 ^{6/}	48	65	73
Woods-grass combination (orchard or tree farm) ^{7/}	Poor	57	73	82	86
	Fair	43	65	76	82
	Good	32	58	72	79
Woods ^{8/}	Poor	45	66	77	83
	Fair	36	60	73	79
	Good	30	55	70	77
Farmstead—buildings, lanes, driveways, and surrounding lots	---	59	74	82	86
Roads (including right-of-way):					
Dirt	---	72	82	87	89
Gravel	---	76	85	89	91

1/ Average runoff condition, and $I_a = 0.2s$.

2/ Crop residue cover applies only if residue is on at least 5 percent of the surface throughout the year.

3/ Hydrologic condition is based on combinations of factors that affect infiltration and runoff, including (a) density and canopy of vegetative areas, (b) amount of year-round cover, (c) amount of grass or close-seeded legumes, (d) percent of residue cover on the land surface (good $\geq 20\%$), and (e) degree of surface toughness.

Poor: Factors impair infiltration and tend to increase runoff.

Good: Factors encourage average and better than average infiltration and tend to decrease runoff.

For conservation tillage poor hydrologic condition, 5 to 20 percent of the surface is covered with residue (less than 750 pounds per acre for row crops or 300 pounds per acre for small grain).

For conservation tillage good hydrologic condition, more than 20 percent of the surface is covered with residue (greater than 750 pounds per acre for row crops or 300 pounds per acre for small grain).

4/ Poor: < 50% ground cover or heavily grazed with no mulch.

Fair: 50 to 75% ground cover and not heavily grazed.

Good: > 75% ground cover and lightly or only occasionally grazed.

5/ Poor: < 50% ground cover.

Fair: 50 to 75% ground cover.

Good: > 75% ground cover.

6/ If actual curve number is less than 30, use CN = 30 for runoff computation.

7/ CNs shown were computed for areas with 50 percent woods and 50 percent grass (pasture) cover. Other combinations of conditions may be computed from the CNs for woods and pasture.

8/ Poor: Forest litter, small trees, and brush are destroyed by heavy grazing or regular burning.

Fair: Woods are grazed, but not burned, and some forest litter covers the soil.

Good: Woods are protected from grazing, and litter and brush adequately cover the soil.

Active coordinate

43° 50' 15" N, 79° 43' 45" W (43.837500,-79.729167)

Retrieved: Tue, 26 Mar 2024 13:46:39 GMT



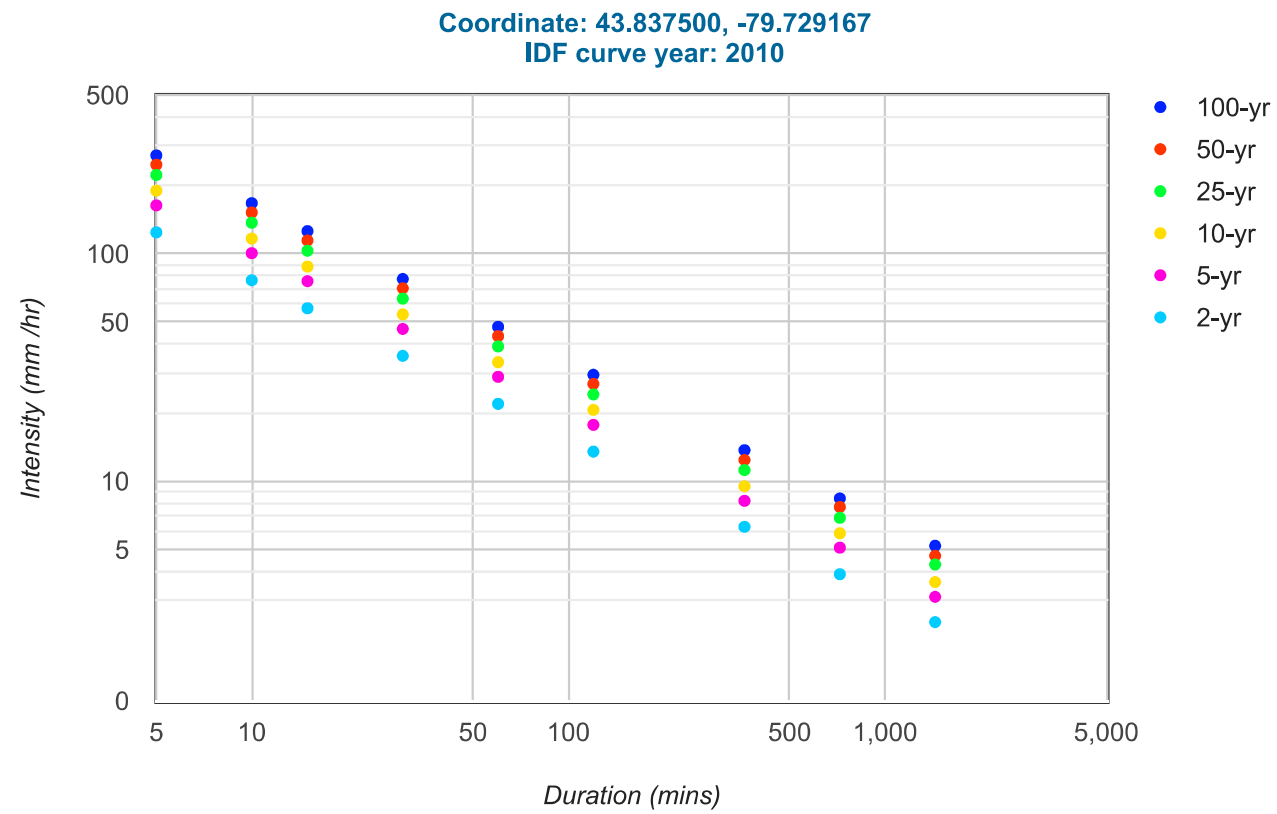
Location summary

These are the locations in the selection.

IDF Curve: 43° 50' 15" N, 79° 43' 45" W (43.837500,-79.729167)

Results

An IDF curve was found.



Coefficient summary

IDF Curve: 43° 50' 15" N, 79° 43' 45" W (43.837500,-79.729167)

Retrieved: Tue, 26 Mar 2024 13:46:39 GMT

Data year: 2010

IDF curve year: 2010

Return period	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
A	21.9	28.8	33.4	39.2	43.5	47.8
B	-0.699	-0.699	-0.699	-0.699	-0.699	-0.699

Statistics

Rainfall intensity (mm hr⁻¹)

Duration	5-min	10-min	15-min	30-min	1-hr	2-hr	6-hr	12-hr	24-hr
2-yr	124.4	76.6	57.7	35.6	21.9	13.5	6.3	3.9	2.4
5-yr	163.6	100.8	75.9	46.8	28.8	17.7	8.2	5.1	3.1
10-yr	189.7	116.9	88.0	54.2	33.4	20.6	9.5	5.9	3.6
25-yr	222.7	137.2	103.3	63.6	39.2	24.1	11.2	6.9	4.3
50-yr	247.1	152.2	114.6	70.6	43.5	26.8	12.4	7.7	4.7
100-yr	271.5	167.2	126.0	77.6	47.8	29.4	13.7	8.4	5.2

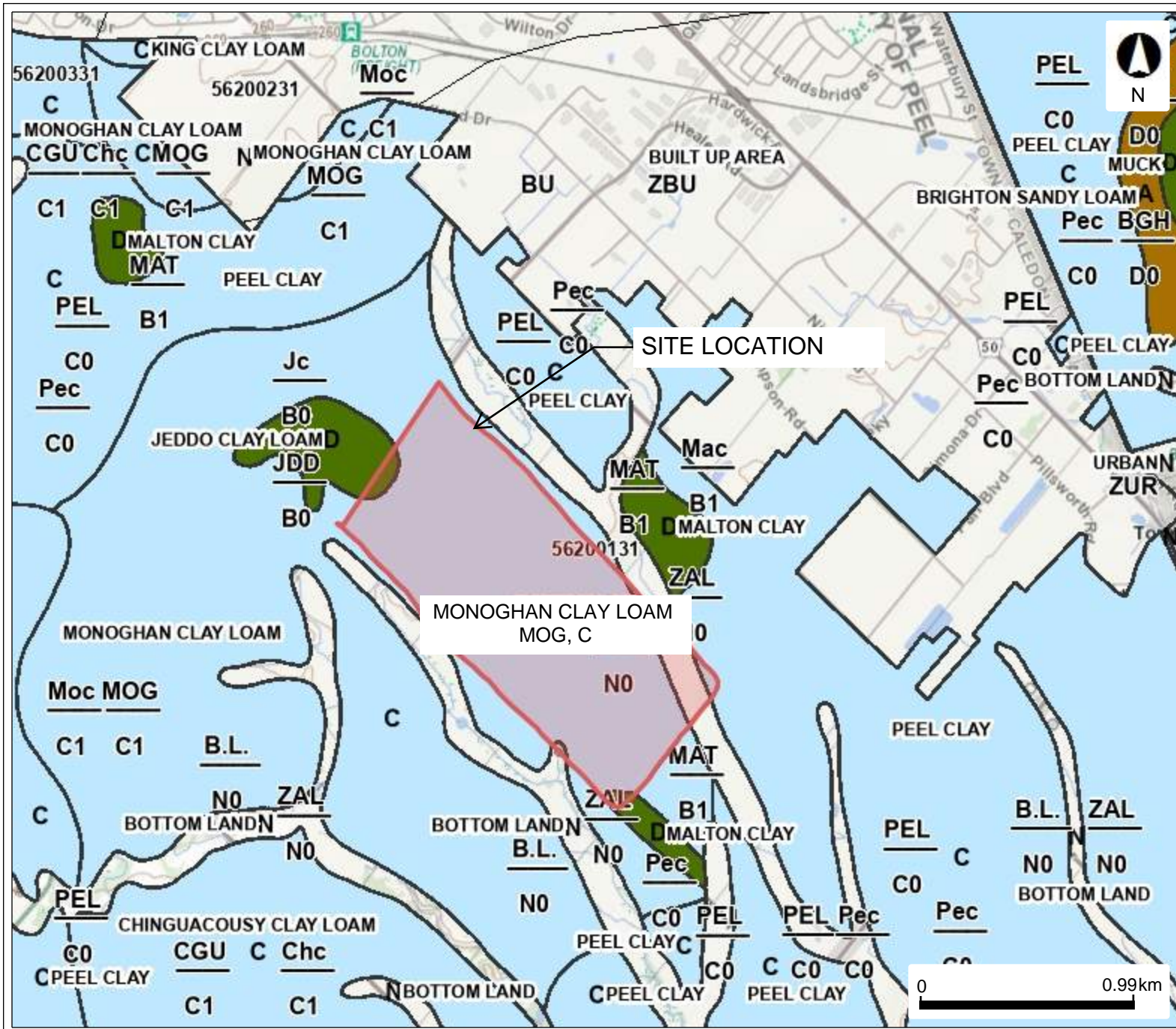
Rainfall depth (mm)

Duration	5-min	10-min	15-min	30-min	1-hr	2-hr	6-hr	12-hr	24-hr
2-yr	10.4	12.8	14.4	17.8	21.9	27.0	37.6	46.3	57.0
5-yr	13.6	16.8	19.0	23.4	28.8	35.5	49.4	60.8	75.0
10-yr	15.8	19.5	22.0	27.1	33.4	41.1	57.3	70.6	86.9
25-yr	18.6	22.9	25.8	31.8	39.2	48.3	67.2	82.8	102.0
50-yr	20.6	25.4	28.7	35.3	43.5	53.6	74.6	91.9	113.2
100-yr	22.6	27.9	31.5	38.8	47.8	58.9	82.0	101.0	124.4

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Ontario Soils Map



Legend

- Soil Name Label
- Soil Code
- Soil Symbol
- Hydrologic Soil Group
 - A - High
 - B - Moderate
 - C - Slow
 - D - Very Slow
- Soil Landscapes - Soil Order

This map should not be relied on as a precise indicator of routes or locations, nor as a guide to navigation. The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) shall not be liable in any way for the use or any information on this map, or reliance upon, this map.


APPENDIX B

Stormwater Management Calculations (Ultimate Condition)



HUMBER STATION VILLAGES
TOWN OF CALEDON

LEGEND

 SUBJECT LOCATION


 PRE-DEVELOPMENT CATHCMENT ID
88L/s/ha REGIONAL RELEASE RATE

FIGURE 4.3
REGIONAL RELEASE RATE

Humber River Unitary Flow Rates Summary - Phase 1A - Ultimate Conditions Outlet to SWM Pond 3

CEISMP Area	64.22	ha
Humber River Watershed Sub-Basin 36		
Return Period	Controlled Release Rate (L/s/ha)	
2-Year	6.51	
5-Year	9.92	
10-Year	12.24	
25-Year	15.39	
50-Year	17.90	
100-Year	20.27	

NOTE:

- 1) Q - unit flow (L/s/ha - litres per second per hectare)
- 2) A - area in hectares (ha).
- 3) Pre-development unit flow rate area
- 4) Equation: $29.912-2.316 \cdot \ln(\text{Area})$
- 5) The controlled release rates are calculated with 64.2 ha, and consistent with Table 4.10 in the CEISMP Phase 2 Report (Schaeffers, August 2024).

Sub-Basin ID	36		ha
Existing Contributing Area	29.52		ha
Return Period	Calculated Unit Flow Rate		
	L/s	(m ³ /s)	
2-Year	192.3	0.192	
5-Year	292.9	0.293	
10-Year	361.4	0.361	
25-Year	454.3	0.454	
50-Year	528.4	0.528	
100-Year	598.4	0.598	

NOTE:

- 1) Existing contributing areas are based on Drawing C120: Pre-development Drainage Plan.

Regional Flow Criteria

Humber River Catchment ID	Colour (Outlet)	Regional Release Rate (L/s/ha)
43.10	Blue (HDF-6)	136.0
43.03	Orange (HDF-8)	71.0
43.06	Green (HDF-14)	102.5

Description	Existing Contributing Area (ha)	Humber River Catchment ID	Colour (Outlet)	Regional Release Rate (L/s/ha)	Total Regional Release Rate (m ³ /s)
Phase 1A	1.47	43.10	Blue (HDF-6)	200.3	2.227
	26.92	43.03	Orange (HDF-8)	1911.5	
	1.12	43.06	Green (HDF-14)	115.0	
Street A	1.04	43.03	Orange (HDF-8)	73.8	0.112
	0.37	43.06	Green (HDF-14)	37.9	

NOTE:

- 1) Street A will be George Bolton Parkway in the ultimate condition.



Project Name: Prologis Humber Station

Project No: 0624-6777

Date: 2024.11.04

Designed by: MJ

Reviewed by: RA

Humber River Unitary Flow Rates Summary - Phase 1A - Interim Conditions Outlet to Clarkway Drive Tributary

Clarkway Trib Area = 9.56 ha

Humber River Watershed Sub-Basin 36	
Return Period	Controlled Release Rate (L/s/ha)
2-Year	7.9
5-Year	12.1
10-Year	14.9
25-Year	18.7
50-Year	21.9
100-Year	24.7

NOTE:

- 1) Q - unit flow (L/s/ha - litres per second per hectare)
- 2) A - area in hectares (ha).
- 3) Pre-development unit flow rate area
- 4) Equation: $29.912 - 2.316 * \ln(\text{Area})$

Sub-Basin ID 36

Return Period	Calculated Unit Flow Rate	
	L/s	m^3/s
2-Year	75.4	0.075
5-Year	115.6	0.116
10-Year	142.0	0.142
25-Year	178.9	0.179
50-Year	209.0	0.209
100-Year	236.0	0.236



Project Name: Prologis Humber Station
Project No: 0624-6777
Date: 2024.04.11
Designed by: HL'
Reviewed by: RA

Humber River Unitary Flow Rates Summary - Phase 1B Outlet to Goreway Road Tributary Reach 1

Existing Contributing Area 19.70 ha

Humber River Watershed Sub-Basin 36	
Return Period	Controlled Release Rate (L/s/ha)
2-Year	7.4
5-Year	11.3
10-Year	13.9
25-Year	17.4
50-Year	20.4
100-Year	23.0

NOTE:

- 1) Q - unit flow (L/s/ha - litres per second per hectare)
- 2) A - area in hectares (ha).
- 3) Pre-development unit flow rate area
- 4) Equation: $29.912 - 2.316 * \ln(\text{Area})$
- 5) The controlled release rates are calculated with 19.36 ha contributing area from existing conditions.

Sub-Basin ID 36
 Phase 1B North 11.41
 Phase 1B South 8.29

Return Period	Phase 1B North Calculated Unit Flow Rate		Phase 1B South Calculated Unit Flow Rate	
	L/s	(m ³ /s)	L/s	(m ³ /s)
2-Year	84.0	0.084	61.0	0.061
5-Year	128.5	0.129	93.4	0.093
10-Year	158.2	0.158	114.9	0.115
25-Year	199.1	0.199	144.7	0.145
50-Year	232.3	0.232	168.8	0.169
100-Year	262.5	0.263	190.7	0.191

NOTE:

- 1) Regional outlet control is not required for Goreway Road Tributary Reach 1.



Project Name: Prologis Humber Station
Project No: 0624-6777
Date: 2024.11.04
Designed by: HL
Reviewed by: RA

VO Result Summary - Phase 1A - Ultimate Conditions Outlet to SWM Pond 3

Storm Events	Target Release Rates (m ³ /s)
2-Year	0.192
5-Year	0.293
10-Year	0.361
25-Year	0.454
50-Year	0.528
100-Year	0.598
48hr Hazel	2.227

VO Storm	Peak Flow (m ³ /s)	Differences
2yr 24hr 15min Chicago	0.179	-7%
5yr 24hr 15min Chicago	0.272	-7%
10yr 24hr 15min Chicago	0.321	-11%
25yr 24hr 15min Chicago	0.417	-8%
50yr 24hr 15min Chicago	0.464	-12%
100yr 24hr 15min Chicago	0.508	-15%
2yr 4hr 15min Chicago	0.145	-25%
5yr 4hr 15min Chicago	0.239	-18%
10yr 4hr 15min Chicago	0.296	-18%
25yr 4hr 15min Chicago	0.387	-15%
50yr 4hr 15min Chicago	0.437	-17%
100yr 4hr 15min Chicago	0.491	-18%
2yr 24hr 15min SCS Type II	0.161	-16%
5yr 24hr 15min SCS Type II	0.258	-12%
10yr 24hr 15min SCS Type II	0.294	-19%
25yr 24hr 15min SCS Type II	0.340	-25%
50yr 24hr 15min SCS Type II	0.373	-29%
100yr 24hr 15min SCS Type II	0.418	-30%
2 Year 6 Hour AES (Bloor, TRCA)	0.151	-21%
5 Year 6 Hour AES (Bloor, TRCA)	0.222	-24%
10 Year 6 Hour AES (Bloor, TRCA)	0.264	-27%
25 Year 6 Hour AES (Bloor, TRCA)	0.334	-27%
50 Year 6 Hour AES (Bloor, TRCA)	0.397	-25%
100 Year 6 Hour AES (Bloor, TRCA)	0.427	-29%
2 Year 12 Hour AES (Bloor, TRCA)	0.180	-6%
5 Year 12 Hour AES (Bloor, TRCA)	0.239	-19%
10 Year 12 Hour AES (Bloor, TRCA)	0.281	-22%
25 Year 12 Hour AES (Bloor, TRCA)	0.337	-26%
50 Year 12 Hour AES (Bloor, TRCA)	0.383	-27%
100 Year 12 Hour AES (Bloor, TRCA)	0.420	-30%
48 hour Hazel	2.141	-4%

Note: Peak flows are extracted from NHYD 7706, downstream of Phase 1A.



Project Name: Prologis Humber Station
Project No: 0624-6777
Date: 2024.11.04
Designed by: HL
Reviewed by: RA

VO Result Summary - Phase 1A - Interim Conditions Outlet to Clarkway Drive Tributary

Storm Events	Target Release Rates (m ³ /s)
2-Year	0.300
5-Year	0.464
10-Year	0.568
25-Year	0.716
50-Year	0.836
100-Year	0.944
48hr Hazel	1.697

VO Storm	Peak Flow (m ³ /s)	Differences
2yr 24hr 15min Chicago	0.061	-80%
5yr 24hr 15min Chicago	0.129	-72%
10yr 24hr 15min Chicago	0.175	-69%
25yr 24hr 15min Chicago	0.263	-63%
50yr 24hr 15min Chicago	0.302	-64%
100yr 24hr 15min Chicago	0.346	-63%
2yr 4hr 15min Chicago	0.052	-83%
5yr 4hr 15min Chicago	0.084	-82%
10yr 4hr 15min Chicago	0.117	-79%
25yr 4hr 15min Chicago	0.198	-72%
50yr 4hr 15min Chicago	0.252	-70%
100yr 4hr 15min Chicago	0.303	-68%
2yr 24hr 15min SCS Type II	0.061	-80%
5yr 24hr 15min SCS Type II	0.131	-72%
10yr 24hr 15min SCS Type II	0.173	-70%
25yr 24hr 15min SCS Type II	0.247	-66%
50yr 24hr 15min SCS Type II	0.284	-66%
100yr 24hr 15min SCS Type II	0.320	-66%
2 Year 6 Hour AES (Bloor, TRCA)	0.053	-82%
5 Year 6 Hour AES (Bloor, TRCA)	0.077	-83%
10 Year 6 Hour AES (Bloor, TRCA)	0.106	-81%
25 Year 6 Hour AES (Bloor, TRCA)	0.153	-79%
50 Year 6 Hour AES (Bloor, TRCA)	0.216	-74%
100 Year 6 Hour AES (Bloor, TRCA)	0.251	-73%
2 Year 12 Hour AES (Bloor, TRCA)	0.059	-80%
5 Year 12 Hour AES (Bloor, TRCA)	0.101	-78%
10 Year 12 Hour AES (Bloor, TRCA)	0.136	-76%
25 Year 12 Hour AES (Bloor, TRCA)	0.201	-72%
50 Year 12 Hour AES (Bloor, TRCA)	0.251	-70%
100 Year 12 Hour AES (Bloor, TRCA)	0.288	-70%
48 hour Hazel	1.132	-33%

Note: Peak flows are extracted from NHYD 7711, at the Interim SWM Pond.



Project Name: Prologis Humber Station
 Project No: 0624-6777
 Date: 2024.11.04
 Designed by: HL
 Reviewed by: RA

VO Result Summary - Phase 1B
Outlet to Goreway Road Tributary Reach 1

Storm Events	Phase 1B North	
	Target Release Rates (m ³ /s)	
2-Year	0.084	
5-Year	0.129	
10-Year	0.158	
25-Year	0.199	
50-Year	0.232	
100-Year	0.263	
48hr Hazel	-	

Regional control is not required for Goreway Road Tributary Reach 1.

Storm Events	Phase 1B South	
	Target Release Rates (m ³ /s)	
2-Year	0.061	
5-Year	0.093	
10-Year	0.115	
25-Year	0.145	
50-Year	0.169	
100-Year	0.191	
48hr Hazel	-	

Regional control is not required for Goreway Road Tributary Reach 1.

VO Storm	Peak Flow (m ³ /s)	Differences
2yr 24hr 15min Chicago	0.079	-6%
5yr 24hr 15min Chicago	0.128	-1%
10yr 24hr 15min Chicago	0.152	-4%
25yr 24hr 15min Chicago	0.198	-1%
50yr 24hr 15min Chicago	0.224	-4%
100yr 24hr 15min Chicago	0.251	-4%
2yr 4hr 15min Chicago	0.071	-15%
5yr 4hr 15min Chicago	0.113	-12%
10yr 4hr 15min Chicago	0.140	-11%
25yr 4hr 15min Chicago	0.181	-9%
50yr 4hr 15min Chicago	0.211	-9%
100yr 4hr 15min Chicago	0.239	-9%
2yr 24hr 15min SCS Type II	0.072	-14%
5yr 24hr 15min SCS Type II	0.115	-11%
10yr 24hr 15min SCS Type II	0.133	-16%
25yr 24hr 15min SCS Type II	0.159	-20%
50yr 24hr 15min SCS Type II	0.180	-22%
100yr 24hr 15min SCS Type II	0.203	-23%
2 Year 6 Hour AES (Bloor, TRCA)	0.075	-11%
5 Year 6 Hour AES (Bloor, TRCA)	0.107	-17%
10 Year 6 Hour AES (Bloor, TRCA)	0.130	-18%
25 Year 6 Hour AES (Bloor, TRCA)	0.156	-22%
50 Year 6 Hour AES (Bloor, TRCA)	0.181	-22%
100 Year 6 Hour AES (Bloor, TRCA)	0.204	-22%
2 Year 12 Hour AES (Bloor, TRCA)	0.079	-6%
5 Year 12 Hour AES (Bloor, TRCA)	0.110	-14%
10 Year 12 Hour AES (Bloor, TRCA)	0.131	-17%
25 Year 12 Hour AES (Bloor, TRCA)	0.155	-22%
50 Year 12 Hour AES (Bloor, TRCA)	0.177	-24%
100 Year 12 Hour AES (Bloor, TRCA)	0.200	-24%
48 hour Hazel	-	-

Note: Peak flows are extracted from NHYD 7593. Storage node downstream of C210.

VO Storm	Peak Flow (m ³ /s)	Differences
2yr 24hr 15min Chicago	0.058	-6%
5yr 24hr 15min Chicago	0.089	-5%
10yr 24hr 15min Chicago	0.110	-5%
25yr 24hr 15min Chicago	0.138	-4%
50yr 24hr 15min Chicago	0.162	-4%
100yr 24hr 15min Chicago	0.181	-5%
2yr 4hr 15min Chicago	0.052	-15%
5yr 4hr 15min Chicago	0.080	-14%
10yr 4hr 15min Chicago	0.099	-14%
25yr 4hr 15min Chicago	0.128	-11%
50yr 4hr 15min Chicago	0.150	-11%
100yr 4hr 15min Chicago	0.173	-10%
2yr 24hr 15min SCS Type II	0.054	-12%
5yr 24hr 15min SCS Type II	0.083	-12%
10yr 24hr 15min SCS Type II	0.096	-17%
25yr 24hr 15min SCS Type II	0.118	-19%
50yr 24hr 15min SCS Type II	0.131	-22%
100yr 24hr 15min SCS Type II	0.148	-23%
2 Year 6 Hour AES (Bloor, TRCA)	0.055	-10%
5 Year 6 Hour AES (Bloor, TRCA)	0.076	-18%
10 Year 6 Hour AES (Bloor, TRCA)	0.092	-20%
25 Year 6 Hour AES (Bloor, TRCA)	0.114	-22%
50 Year 6 Hour AES (Bloor, TRCA)	0.129	-23%
100 Year 6 Hour AES (Bloor, TRCA)	0.146	-23%
2 Year 12 Hour AES (Bloor, TRCA)	0.059	-4%
5 Year 12 Hour AES (Bloor, TRCA)	0.080	-15%
10 Year 12 Hour AES (Bloor, TRCA)	0.095	-18%
25 Year 12 Hour AES (Bloor, TRCA)	0.115	-20%
50 Year 12 Hour AES (Bloor, TRCA)	0.130	-23%
100 Year 12 Hour AES (Bloor, TRCA)	0.146	-23%
48 hour Hazel	-	-

Note: Peak flows are extracted from NHYD 7685. Storage node downstream of C211 and C212.



Project Name.: Prologis Humber Station
Project No.: 0624-6777
Design by: HL
Reviewed by: RA
Date: 2024.11.19

Box Culvert Stage-Storage-Curve for Catchments 208A and 208B

Box Culvert Dimension: 1.2 m (height) x 1.8 m (width) x 70 m (length)

ED Orifice Diameter: 0.075 m
ED Orifice Invert Elevation: 234.30 m

Elev.	Depth	Area	Storage Volume	1st Orifice Discharge	2nd Orifice Discharge	Emerg. Weir Ave. Width	Emerg. Weir Discharge	Total Discharge	Storage
(m)	(m)	(sqm)	(cu.m)	(cu.m/s)	(cu.m/s)	(m)	(cu.m/s)	(cu.m/s)	(ha-m)
234.50	0.00	126.00	0.00	0.000	0.000	0.00	0.000	0.000	0.000
234.60	0.10	126.00	12.60	0.003	0.000	0.00	0.000	0.003	0.001
234.70	0.20	126.00	25.20	0.005	0.000	0.00	0.000	0.005	0.003
234.80	0.30	126.00	37.80	0.006	0.000	0.00	0.000	0.006	0.004
234.90	0.40	126.00	50.40	0.008	0.000	0.00	0.000	0.008	0.005
235.00	0.50	126.00	63.00	0.009	0.000	0.00	0.000	0.009	0.006
235.10	0.60	126.00	75.60	0.009	0.000	0.00	0.000	0.009	0.008
235.20	0.70	126.00	88.20	0.010	0.000	0.00	0.000	0.010	0.009
235.30	0.80	126.00	100.80	0.011	0.000	0.00	0.000	0.011	0.010
235.40	0.90	126.00	113.40	0.012	0.000	0.00	0.000	0.012	0.011
235.50	1.00	126.00	126.00	0.012	0.000	0.00	0.000	0.012	0.013
235.60	1.10	126.00	138.60	0.013	0.000	0.00	0.000	0.013	0.014
235.70	1.20	126.00	151.20	0.014	0.000	0.00	0.000	0.014	0.015



Project Name: Prologis Humber Station

Project No: 0624-6777

Date: 2024.11.19

Designed by: HL

Reviewed by: RA

Roof Drain Stage Storage Curve - Phase 1A - Interim Scenario

Total Phase 1A Roof Area: 143222 sq.m
 On-site Retention: 5 mm
 On-site Retention: 716.11 m³

Approximated Number of Roof Drain: 119
 Dead Storage per Roof Drain: 6.0 m³
 Roof Drain Depth above Grade: 6.3 cm
 Active Storage per Roof Drain: 38.5 m³
 Total Active Storage on Roof: 4586.5 m³

SSD per Roof Drain			
Depth (m)	Total Volume (m ³)	Active Depth (m)	Active Volume (m ³)
0.00	0.0	-	-
0.05	2.9	-	-
0.06	6.0	0.00	0.0
0.10	15.3	0.04	9.3
0.15	44.6	0.09	38.6

SSD for All Roof Drain				
Depth (m)	Total Volume (m ³)	Active Depth (m)	Active Volume (m ³)	Release Rate (m ³ /s)
0.00	0	-	-	-
0.05	343	-	-	-
0.06	714	0.00	0	0.000
0.10	1,825	0.04	1,111	0.198
0.15	5,303	0.09	4,589	0.269

Note:

1. An additional 5 mm on-site retention is required across Phase 1A under interim condition, based on the meeting with TRCA dated September 6, 2024.
2. The roof drain will be adjusted to the proposed low point of the roof to eliminate standing water under ultimate scenario, once the SWM Pond 3 is constructed downstream of the Phase 1A area.
3. Roof drain numbers to be confirmed with Mechanical Engineers in future submissions.



Underground Storage + Surface Ponding Operation Levels

Orifice 1

Orifice 1 Coefficient: 0.62
Orifice 1 Diameter: 0.290 m
Orifice 1 Invert Elevation: 232.75 m
Orifice 1 Centroid Elevation: 232.90 m

Orifice 2

Orifice 2 Coefficient: 0.62
Orifice 2 Diameter: 0.350 m
Orifice 2 Invert Elevation: 233.35 m
Orifice 2 Centroid Elevation: 233.53 m

Weir 1

Weir 1 Coefficient: 1.84
Weir 1 Width: 0.45 m
Weir 1 Invert Elevation: 236.00 m
Number of Contractions: 2.00
Top of weir 1: 237.50 m

Operating Level	Elev.	Depth Above Bottom of Pond	Depth Above PP / ED Orifice	Total Storage Volume	Discharge Orifice 1	Discharge Orifice 2	Discharge Weir 1	Emerg. Weir Avg. Width	Emerg. Weir Discharge	Total Discharge	Storage
	(m)	(m)	(m)	(cu.m)	(cu.m/s)	(cu.m/s)	(cu.m/s)	(m)	(cu.m/s)	(cu.m/s)	(ha-m)
Lowest Invert of Tank	232.83	0.00	0.00	0	0.000	0.000	0.000	0.00	0.000	0.000	0.000
	232.91	0.08	0.14	489	0.000	0.000	0.000	0.00	0.000	0.000	0.049
	232.98	0.15	0.23	1,379	0.000	0.000	0.000	0.00	0.000	0.000	0.138
	233.06	0.23	0.31	2,077	0.102	0.000	0.000	0.00	0.000	0.102	0.208
	233.14	0.30	0.38	2,766	0.114	0.000	0.000	0.00	0.000	0.114	0.277
	233.21	0.38	0.46	3,456	0.124	0.000	0.000	0.00	0.000	0.124	0.346
	233.29	0.46	0.54	4,145	0.134	0.000	0.000	0.00	0.000	0.134	0.414
	233.36	0.53	0.61	4,834	0.143	0.000	0.000	0.00	0.000	0.143	0.483
	233.44	0.61	0.69	5,533	0.151	0.048	0.000	0.00	0.000	0.220	0.553
	233.52	0.69	0.77	6,222	0.159	0.100	0.000	0.00	0.000	0.259	0.622
2-year (233.55 m)	233.59	0.76	0.84	6,911	0.167	0.124	0.000	0.00	0.000	0.291	0.691
	233.67	0.84	0.92	7,600	0.175	0.144	0.000	0.00	0.000	0.318	0.760
5-year (233.69 m)	233.74	0.91	0.99	8,290	0.182	0.161	0.000	0.00	0.000	0.343	0.829
10-year (233.81 m)	233.82	0.99	1.07	8,988	0.188	0.177	0.000	0.00	0.000	0.365	0.899
	233.90	1.07	1.15	9,677	0.195	0.191	0.000	0.00	0.000	0.386	0.968
	233.97	1.14	1.22	10,367	0.201	0.205	0.000	0.00	0.000	0.406	1.037
	234.05	1.22	1.30	11,056	0.207	0.217	0.000	0.00	0.000	0.425	1.106
25-year (234.11 m)	234.13	1.29	1.38	11,745	0.213	0.229	0.000	0.00	0.000	0.443	1.175
	234.20	1.37	1.45	12,444	0.219	0.240	0.000	0.00	0.000	0.459	1.244
	234.28	1.45	1.53	13,133	0.225	0.251	0.000	0.00	0.000	0.476	1.313
50-year (234.29 m)	234.35	1.52	1.60	13,822	0.230	0.262	0.000	0.00	0.000	0.492	1.382
	234.43	1.60	1.68	14,667	0.236	0.272	0.000	0.00	0.000	0.507	1.467
100-year (234.51 m)	234.51	1.68	1.76	15,511	0.241	0.281	0.000	0.00	0.000	0.522	1.551
	234.58	1.75	1.83	16,366	0.246	0.291	0.000	0.00	0.000	0.537	1.637
	234.66	1.83	1.91	17,210	0.248	0.294	0.000	0.00	0.000	0.541	1.721
	234.74	1.91	1.99	18,055	0.256	0.308	0.000	0.00	0.000	0.564	1.805
	234.76	1.93	2.01	18,899	0.261	0.317	0.000	0.00	0.000	0.578	1.890
	234.89	2.06	2.14	19,743	0.266	0.325	0.000	0.00	0.000	0.591	1.974
	234.96	2.13	2.21	20,598	0.270	0.333	0.000	0.00	0.000	0.604	2.060
	235.04	2.21	2.29	21,443	0.275	0.341	0.000	0.00	0.000	0.616	2.144
	235.12	2.29	2.37	22,287	0.279	0.349	0.000	0.00	0.000	0.628	2.229
	235.19	2.36	2.44	23,131	0.284	0.356	0.000	0.00	0.000	0.640	2.313
	235.27	2.44	2.52	23,975	0.288	0.364	0.000	0.00	0.000	0.652	2.398
	235.35	2.51	2.60	24,829	0.293	0.371	0.000	0.00	0.000	0.664	2.483
	235.42	2.59	2.67	25,667	0.297	0.378	0.000	0.00	0.000	0.675	2.567
	235.50	2.67	2.75	26,503	0.301	0.385	0.000	0.00	0.000	0.686	2.650
	235.57	2.74	2.82	27,339	0.305	0.392	0.000	0.00	0.000	0.697	2.734
	235.65	2.82	2.90	28,123	0.309	0.399	0.000	0.00	0.000	0.708	2.812
	235.73	2.90	2.98	28,918	0.313	0.405	0.000	0.00	0.000	0.719	2.892
	235.80	2.97	3.05	29,702	0.317	0.412	0.000	0.00	0.000	0.729	2.970
	235.88	3.05	3.13	30,487	0.321	0.418	0.004	0.00	0.000	0.744	3.049
	235.95	3.12	3.20	31,271	0.325	0.425	0.029	0.00	0.000	0.779	3.127
	236.03	3.20	3.28	32,055	0.329	0.431	0.065	0.00	0.000	0.825	3.204
	236.11	3.28	3.36	32,815	0.333	0.437	0.109	0.00	0.000	0.879	3.281
	236.18	3.35	3.43	33,547	0.334	0.439	0.125	0.00	0.000	0.898	3.355
	236.26	3.43	3.51	34,279	0.377	0.508	1.116	0.00	0.000	2.001	3.428
	236.28	3.45	3.53	34,519	0.379	0.511	1.185	0.00	0.000	2.076	3.452
	237.22	4.39	4.47	34,519	0.382	0.515	1.256	0.00	0.000	2.152	3.452
	237.27	4.44	4.52	34,561	0.384	0.518	1.328	0.00	0.000	2.230	3.456
	237.32	4.49	4.57	34,751	0.386	0.521	1.401	0.00	0.000	2.308	3.475
Regional (237.34 m)	237.37	4.54	4.62	35,535	0.387	0.523	1.446	0.00	0.000	2.356	3.554
	237.42	4.59	4.67	36,740	0.000	0.000	0.000	0.00	0.000	0.000	3.674
Surface Ponding Spill @ 237.45	237.45	4.62	4.70	37,316	0.000	0.000	0.000	0.00	0.000	0.000	3.732

MH7T to MH22


Project Description

Friction Method	Manning Formula
Solve For	Discharge

Input Data

Roughness Coefficient	0.013
Channel Slope	0.04110 m/m
Normal Depth	0.90 m
Diameter	0.90 m

Results

Discharge	3.67 m ³ /s	
Flow Area	0.64 m ²	
Wetted Perimeter	2.83 m	
Hydraulic Radius	0.23 m	
Top Width	0.00 m	
Critical Depth	0.89 m	
Percent Full	100.0 %	
Critical Slope	0.03773 m/m	
Velocity	5.77 m/s	
Velocity Head	1.70 m	
Specific Energy	2.60 m	
Froude Number	0.00	
Maximum Discharge	3.95 m ³ /s	
Discharge Full	3.67 m ³ /s	
Slope Full	0.04110 m/m	
Flow Type	SubCritical	

GVF Input Data

Downstream Depth	0.00 m
Length	0.00 m
Number Of Steps	0

GVF Output Data

Upstream Depth	0.00 m
Profile Description	
Profile Headloss	0.00 m
Average End Depth Over Rise	0.00 %
Normal Depth Over Rise	100.00 %
Downstream Velocity	Infinity m/s

MH7T to MH22

GVF Output Data

Upstream Velocity	Infinity	m/s
Normal Depth	0.90	m
Critical Depth	0.89	m
Channel Slope	0.04110	m/m
Critical Slope	0.03773	m/m

APPENDIX C

Stormwater Management Calculations (Interim Condition)



Project Name: Prologis Humber Station
Project No: 0624-6777
Design By: HL
Check By: RA
Date: 2024.11.19

EXTENDED DETENTION SPECIFICATIONS - SWM POND DESIGN

Extended Detention Volume	6304 m ³
Mimimum Drawdown time	48 hrs
Mimimum Drawdown time	172800 s

Calculation for minimum orifice size

$$t = \frac{0.66 * C2 * h^{1.5} + 2 * C3 * h^{0.5}}{2.75 * A0}$$

Equation 4.11
MOE SWM Planning & Design Manual (2003)

A ₀	Cross sectional area of the orifice (m ²)	
h	Maximum water elevation above the orifice (m)	0.37 m
C2	Slope coefficient for the area-depth Linear regression	3201.10
C3	Intercept for the area-depth linear regression	16560.00

A _o =	0.0432 m ²	d _{max} =	235	mm
------------------	-----------------------	--------------------	-----	----

Extended Detention Orifice Diameter (as designed)	d =	235	mm
---	-----	-----	----

Extended Detention Orifice Area (as designed)	A _o =	0.0434 m ²
---	------------------	-----------------------

Calculated Drawdown time	t =	48 hrs
--------------------------	-----	--------

Maximum Head Above Centroid	h =	0.68 m
Calculated Peak Flow	Q _{max} =	0.098 cms



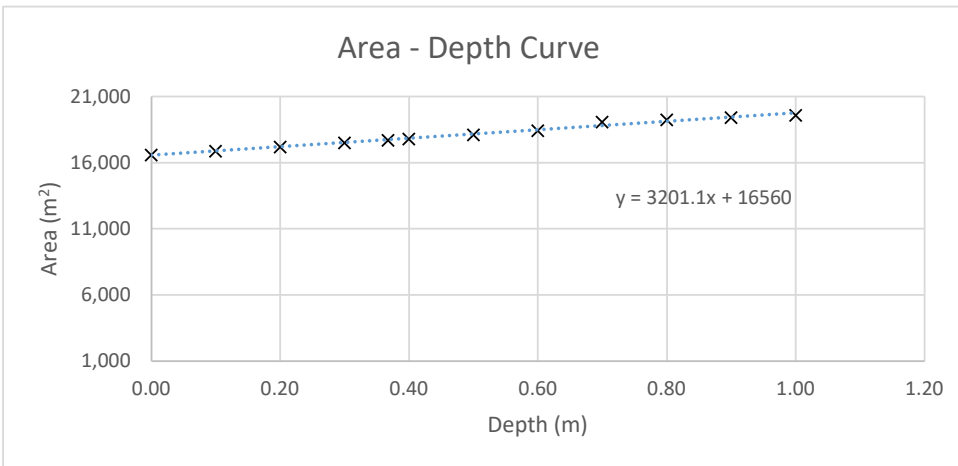
Project Name: Prologis Humber Station
Project No: 0624-6777
Design By: HL
Check By: RA
Date: 2024.11.19

EXTENDED DETENTION SPECIFICATIONS - SWM POND DESIGN

Active Storage at 230.60 m

Elevation (m)	Depth (m)	Area (m ²)	Volume (m ³)
230.60	0.00	16582	0
230.70	0.10	16884	1673
230.80	0.20	17187	3377
230.90	0.30	17491	5111
230.97	0.37	17697	6304
231.00	0.40	17798	6875
231.10	0.50	18109	8671
231.20	0.60	18424	10497
231.30	0.70	19071	12372
231.40	0.80	19245	14288
231.50	0.90	19419	16221
231.60	1.00	19594	18172

ED





Phase 1A Interim SWM Pond Operation Levels

ED Orifice

ED Orifice Coefficient: 0.62
ED Orifice Diameter: 0.235 m
ED Orifice Invert Elevation: 230.60 m
ED Orifice Centroid Elevation: 230.72 m

Weir 1

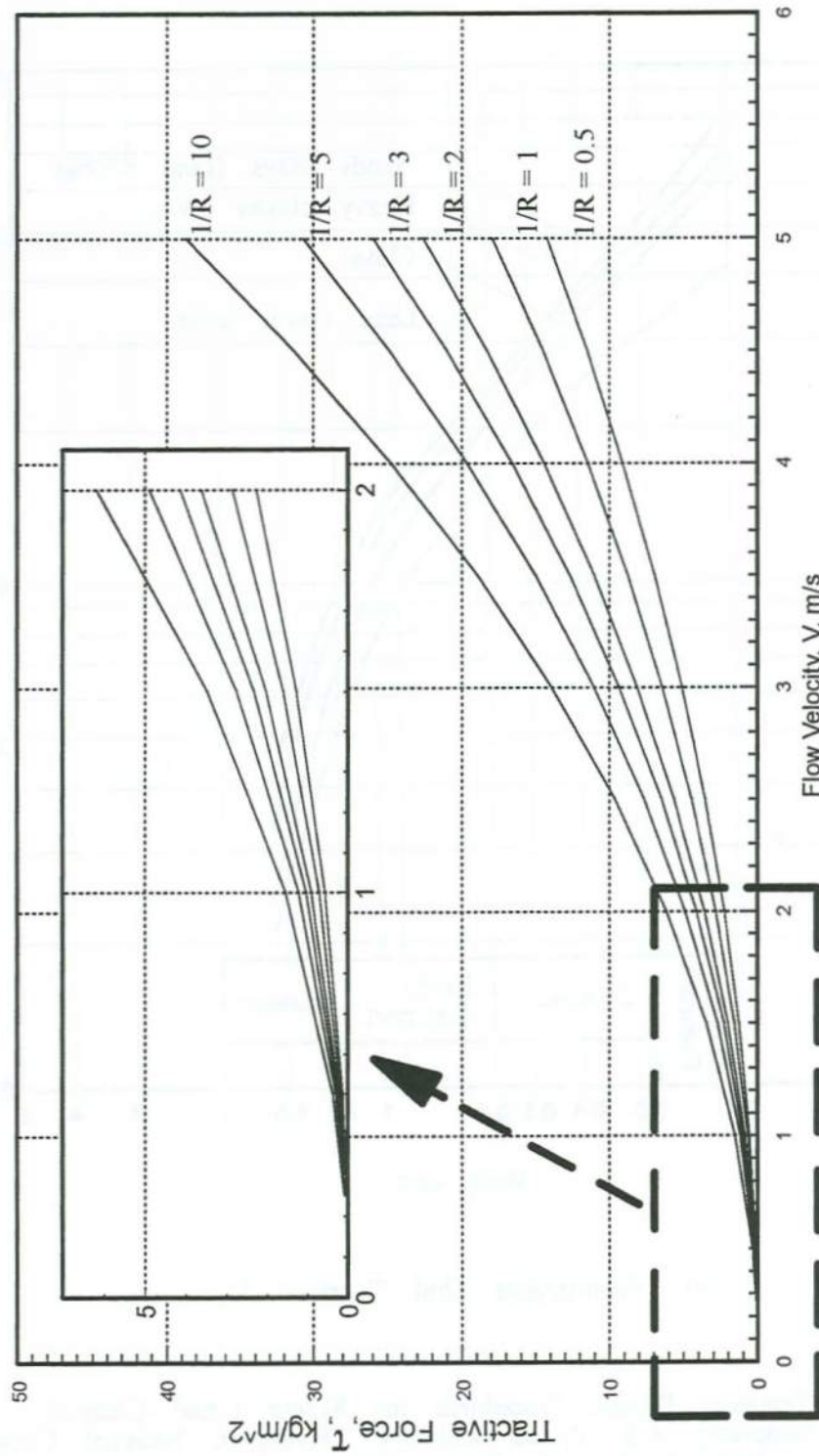
Weir 1 Coefficient: 1.84
Weir 1 Width: 1.50
Weir 1 Invert Elevation: 231.00
Number of Contractions: 2
Top of weir 1: 232.45

Emergency Weir

Weir Coefficient: 1.68
Emergency Spill Elev.: 232.50 m
Em. Spill Bot. Width: 10 m
Trap. Side Slopes: 10.0 :1 H:V

Operating Level	Elev.	Depth Above Bottom of Pond	Depth Above PP / ED Orifice	Area	Total Storage Volume	Storage Volume Above PP	Discharge ED Orifice	Discharge Weir 1	Emerg. Weir Avg. Width	Emerg. Weir Discharge	Total Discharge	Storage
	(m)	(m)	(m)	(sq.m)	(cu.m)	(cu.m)	(cu.m/s)	(cu.m/s)	(m)	(cu.m/s)	(cu.m/s)	(ha-m)
Bottom of Pond	229.10	0.00	0.00	2,902	0	0	0.000	0.000	0.00	0.000	0.000	0.000
Top of Permanent Pool	230.60	1.50	0.00	16,582	16,832	0	0.000	0.000	0.00	0.000	0.000	0.000
	230.70	1.60	0.10	16,884	18,506	1673	0.000	0.000	0.00	0.000	0.000	0.167
	230.80	1.70	0.20	17,187	20,209	3377	0.034	0.000	0.00	0.000	0.034	0.338
	230.90	1.80	0.30	17,491	21,943	5111	0.051	0.000	0.00	0.000	0.051	0.511
Top of Extended Detention (230.97 m)	231.00	1.90	0.40	17,798	23,708	6875	0.063	0.000	0.00	0.000	0.063	0.688
	231.10	2.00	0.50	18,109	25,503	8671	0.074	0.087	0.00	0.000	0.161	0.867
	231.20	2.10	0.60	18,424	27,330	10497	0.083	0.247	0.00	0.000	0.330	1.050
100-year (231.21 m)	231.30	2.20	0.70	19,071	29,204	12372	0.091	0.454	0.00	0.000	0.544	1.237
	231.40	2.30	0.80	19,245	31,120	14288	0.098	0.698	0.00	0.000	0.797	1.429
	231.50	2.40	0.90	19,419	33,053	16221	0.105	0.976	0.00	0.000	1.081	1.622
Regional (231.52 m)	231.60	2.50	1.00	19,594	35,004	18172	0.112	1.283	0.00	0.000	1.395	1.817
	231.70	2.60	1.10	19,770	36,972	20140	0.118	1.616	0.00	0.000	1.734	2.014
	231.80	2.70	1.20	19,947	38,958	22126	0.124	1.975	0.00	0.000	2.099	2.213
	231.90	2.80	1.30	20,126	40,962	24129	0.130	2.357	0.00	0.000	2.486	2.413
	232.00	2.90	1.40	20,307	42,984	26151	0.135	2.760	0.00	0.000	2.895	2.615
	232.10	3.00	1.50	20,488	45,023	28191	0.140	3.184	0.00	0.000	3.324	2.819
	232.20	3.10	1.60	20,671	47,081	30249	0.145	3.628	0.00	0.000	3.773	3.025
	232.30	3.20	1.70	20,854	49,157	32325	0.150	4.091	0.00	0.000	4.241	3.232
	232.40	3.30	1.80	21,038	51,252	34420	0.155	4.572	0.00	0.000	4.726	3.442
Emergency Spillway (232.50 m)	232.50	3.40	1.90	21,225	53,365	36533	0.159	4.819	10.00	0.000	4.978	3.653
	232.60	3.50	2.00	21,424	55,498	38665	0.163	4.819	11.00	0.584	5.567	3.867
	232.70	3.60	2.10	21,691	57,653	40821	0.168	4.819	12.00	1.803	6.790	4.082
	232.80	3.70	2.20	21,934	59,835	43002	0.172	4.819	13.00	3.589	8.580	4.300
Top of Pond	232.90	3.80	2.30	22,180	62,040	45208	0.176	4.819	14.00	5.950	10.945	4.521

Design Chart 2.24: Tractive Force - Velocity Relationships



$$V = \frac{0.0316}{n} R^{1/6} \tau^{1/2}$$

$n = 0.027$
 For other n values,
 multiply by $0.027/n$

- Legend:**
- n = Manning roughness coefficient
 - R = Hydraulic Radius, m
 - V = Flow velocity, m/s
 - τ = Tractive force kg/m^2



Project: Prologis Humber Station
Project No.: 0624-6777
Created By: HL
Checked By: RA
Date: 2024.11.22

Prologis Humber Station - Stone Sizing Calculations - Overland Spillway

Actual Shear Stress based on Velocity

Input:

Flow Rate (Q) =	12.53	m ³ /s	(100-year uncontrolled flow from VO)
Average Stone Width =	40.00	m	
Flow Area =	13.07	m ²	(From FlowMaster Model)
Wetted Perimeter =	40.65	m	(From FlowMaster Model)
Hydraulic Radius (R) =	0.32	m	
Velocity =	0.96	m/s	

Output:

1/R =	3.11		
Tractive Force (T) =	0.98	kg/m ²	(From MTO Design Chart 2.24)

Critical Shear Stress Resistance of Stone

Input:

Stone Size (D ₅₀) =	150	mm	
Min. Stone Thickness =	225	mm	(MTO Design Manual, Chapter 5)

Output:

Critical Shear Stress Resistance (T _{cb}) =	0.0642 x D ₅₀		(MTO Equation 5.31)
=	9.63	kg/m ²	

Conclusion: Since the critical shear stress capacity of the stone is greater than the tractive force of the flow, the proposed stone size is appropriate

SWMP Inlet Sewer Sizing

Project Description

Friction Method	Manning Formula
Solve For	Discharge

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.00400	m/m
Normal Depth	1.35	m
Diameter	1.35	m

**Minimum slope in system
in order to be conservative**

Results

Discharge	3.38	m ³ /s	Greater than 2.27 cms (Regional Storm at NHYD 7718)
Flow Area	1.43	m ²	
Wetted Perimeter	4.24	m	
Hydraulic Radius	0.34	m	
Top Width	0.00	m	
Critical Depth	0.98	m	
Percent Full	100.0	%	
Critical Slope	0.00515	m/m	
Velocity	2.36	m/s	
Velocity Head	0.28	m	
Specific Energy	1.63	m	
Froude Number	0.00		
Maximum Discharge	3.63	m ³ /s	
Discharge Full	3.38	m ³ /s	
Slope Full	0.00400	m/m	
Flow Type	SubCritical		

GVF Input Data

Downstream Depth	0.00	m
Length	0.00	m
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	m
Profile Description		
Profile Headloss	0.00	m
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	100.00	%
Downstream Velocity	Infinity	m/s

SWMP Inlet Sewer Sizing

GVF Output Data

Upstream Velocity	Infinity	m/s
Normal Depth	1.35	m
Critical Depth	0.98	m
Channel Slope	0.00400	m/m
Critical Slope	0.00515	m/m

SWMP Outlet Sewer Sizing

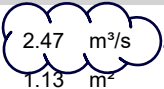
Project Description

Friction Method	Manning Formula
Solve For	Discharge

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.00400	m/m
Normal Depth	1.20	m
Diameter	1.20	m

Results

Discharge	2.47	m ³ /s	 <p>Greater than 1.31 cms (Regional Storm at NHYD 7711)</p>
Flow Area	1.13	m ²	
Wetted Perimeter	3.77	m	
Hydraulic Radius	0.30	m	
Top Width	0.00	m	
Critical Depth	0.87	m	
Percent Full	100.0	%	
Critical Slope	0.00528	m/m	
Velocity	2.18	m/s	
Velocity Head	0.24	m	
Specific Energy	1.44	m	
Froude Number	0.00		
Maximum Discharge	2.65	m ³ /s	
Discharge Full	2.47	m ³ /s	
Slope Full	0.00400	m/m	
Flow Type	SubCritical		

GVF Input Data

Downstream Depth	0.00	m
Length	0.00	m
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	m
Profile Description		
Profile Headloss	0.00	m
Average End Depth Over Rise	0.00	%
Normal Depth Over Rise	100.00	%
Downstream Velocity	Infinity	m/s

SWMP Outlet Sewer Sizing

GVF Output Data

Upstream Velocity	Infinity	m/s
Normal Depth	1.20	m
Critical Depth	0.87	m
Channel Slope	0.00400	m/m
Critical Slope	0.00528	m/m

APPENDIX D

Visual Otthymo Model



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: UC01
 Catchment Area (ha): 1.44

Hydrologic Parameters: NASHYD Command
 Pre-Development Drainage Area: Catchment UC01

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	1.44
Total Area Check				1.44

Impervious Landuses Present:											
Soils	Roadway		Sidewalk		Gravel Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	0.00	89			0.00						0.00
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG									1.44	74	1.44
CN Calculations										Total Area	1.44
										Composite Curve Number	74

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	1.44	0.25	0.25
Impervious	0.00	0.90	0.00
Total Subcatchment	1.4	-	0.25

Initial Abstraction Calculations

Landuse	IA (mm)	Area (ha)
Pervious	5	1.4
Impervious	1	0.00
Total	5.0	1.4

Time to Peak Calculations

Time to Peak Inputs					Uplands			Bransby Williams		Airport	
Length (m)	Drop (m)	Slope (%)	$V/S^{0.5}$	Velocity (m/s)	Tc (hr)	Tp(hr)	TOTAL Tp (hr)	Tc (hr)	Tp(hr)	Tc (hr)	Tp(hr)
335	7.34	2.19%	2.3	0.34	0.27	0.16	0.16	0.26	0.18	0.65	0.44

Appropriate calculated time to peak: 0.44 Appropriate Method: Airport



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: UC02
 Catchment Area (ha): 0.98

Hydrologic Parameters: NASHYD Command
 Pre-Development Drainage Area: Catchment UC02

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	1.0
Total Area Check				1.0

Impervious Landuses Present:											
Soils	Roadway		Sidewalk		Gravel Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	0.00	89			0.00						0.00
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG									0.98	74	0.98
CN Calculations										Total Area	0.98
										Composite Curve Number	74

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.98	0.25	0.25
Impervious	0.00	0.90	0.00
Total Subcatchment	1.0	-	0.25

Initial Abstraction Calculations

Landuse	IA (mm)	Area (ha)
Pervious	5	1.0
Impervious	1	0.00
Total	5.0	1.0

Time to Peak Calculations

Time to Peak Inputs					Uplands			Bransby Williams		Airport	
Length (m)	Drop (m)	Slope (%)	$V/S^{0.5}$	Velocity (m/s)	Tc (hr)	Tp (hr)	TOTAL Tp (hr)	Tc (hr)	Tp (hr)	Tc (hr)	Tp (hr)
68	2.6	3.82%	2.3	0.45	0.04	0.03	0.03	0.05	0.03	0.24	0.16

Appropriate calculated time to peak: 0.16 | Appropriate Method: Airport
 Minimum Tp = 0.17hr or 10 minutes is used in VO model



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: UC03
 Catchment Area (ha): 0.45

Hydrologic Parameters: NASHYD Command
 Pre-Development Drainage Area: Catchment UC03

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	0.5
Total Area Check				0.5

Impervious Landuses Present:											
Soils	Roadway		Sidewalk		Gravel Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	0.00	89			0.00						0.00
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG									0.45	74	0.45
CN Calculations										Total Area	0.45
										Composite Curve Number	74

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.45	0.25	0.25
Impervious	0.00	0.90	0.00
Total Subcatchment	0.5	-	0.25

Initial Abstraction Calculations

Landuse	IA (mm)	Area (ha)
Pervious	5	0.5
Impervious	1	0.00
Total	5.0	0.5

Time to Peak Calculations

Time to Peak Inputs					Uplands			Bransby Williams		Airport	
Length (m)	Drop (m)	Slope (%)	$V/S^{0.5}$	Velocity (m/s)	Tc (hr)	Tp (hr)	TOTAL Tp (hr)	Tc (hr)	Tp (hr)	Tc (hr)	Tp (hr)
75	1.75	2.33%	2.3	0.35	0.06	0.04	0.04	0.07	0.04	0.30	0.20

Appropriate calculated time to peak: 0.20 Appropriate Method: Airport



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: C201
 Catchment Area (ha): 1.45

Hydrologic Parameters: STANDHYD Command
 Post-Development Drainage Area: Catchment C201

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	1.45
Total Area Check				1.45

Impervious Landuses Present:											
Soils	Paved/Rooftops		Sidewalk		Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	1.40	98									1.40
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG									0.05	74	0.05
CN Calculations										Total Area	1.45
										Pervious Curve Number	74

Initial Abstraction Calculations

Landuse	IA (mm)	Area (ha)
Pervious	5	0.052
Impervious	1	1.40
Total	1.1	1.45

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.05	0.25	0.01
Impervious	1.40	0.90	0.87
Total Subcatchment	1.45	-	0.88

TIMP 0.96
 XIMP 0.96

Flow Length Calculations

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0	145	0.25
Impervious	2.0	1.1	100	0.013



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: C201R
 Catchment Area (ha): 2.40

Hydrologic Parameters: STANHYD Command
 Post-Development Drainage Area: Catchment C201R

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	2.4
Total Area Check				2.4

Impervious Landuses Present:											
Soils	Paved/Rooftops		Sidewalk		Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	2.40	98									2.40
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG										74	0.00
CN Calculations										Total Area	2.40
										Pervious Curve Number	74

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.00	0.25	0.00
Impervious	2.40	0.90	0.90
Total Subcatchment	2.40	-	0.90

TIMP 0.99
 XIMP 0.99

Flow Length Calculations

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0	20	0.25
Impervious	1.0	1.0	20	0.013



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: C202
 Catchment Area (ha): 1.70

Hydrologic Parameters: STANDHYD Command
Post-Development Drainage Area: Catchment C202

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	1.70
Total Area Check				1.70

Impervious Landuses Present:											
Soils	Paved/Rooftops		Sidewalk		Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	1.70	98									1.70
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG										74	0.00
CN Calculations										Total Area	1.70
										Pervious Curve Number	74

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.00	0.25	0.00
Impervious	1.70	0.90	0.90
Total Subcatchment	1.70	-	0.90

TIMP 0.99
 XIMP 0.99

Flow Length Calculations

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0	40	0.25
Impervious	2.0	1.1	100	0.013



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: C202R
 Catchment Area (ha): 2.37

Hydrologic Parameters: STANDHYD Command
Post-Development Drainage Area: Catchment C202R

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	2.37
Total Area Check				2.37

Impervious Landuses Present:											
Soils	Paved/Rooftops		Sidewalk		Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	2.37	98									2.37
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG										74	0.00
CN Calculations										Total Area	2.37
										Pervious Curve Number	74

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.00	0.25	0.00
Impervious	2.37	0.90	0.90
Total Subcatchment	2.37	-	0.90

TIMP 0.99
 XIMP 0.99

Flow Length Calculations

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0	20	0.25
Impervious	1.0	1.0	20	0.013



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: C203
 Catchment Area (ha): 1.33

Hydrologic Parameters: STANDHYD Command
Post-Development Drainage Area: Catchment C203

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	1.3
Total Area Check				1.3

Impervious Landuses Present:											
Soils	Paved/Rooftops		Sidewalk		Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	1.31	98									1.31
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG									0.02	74	0.02
CN Calculations										Total Area	1.33
										Pervious Curve Number	74

Initial Abstraction Calculations

Landuse	IA (mm)	Area (ha)
Pervious	5	0.022
Impervious	1	1.31
Total	1.1	1.33

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.00	0.25	0.00
Impervious	1.31	0.90	0.90
Total Subcatchment	1.31	-	0.90

TIMP **0.98**
 XIMP **0.98**

Flow Length Calculations

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0	40	0.25
Impervious	2.0	1.1	100	0.013



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: C203R
 Catchment Area (ha): 2.40

Hydrologic Parameters: STANDHYD Command
Post-Development Drainage Area: Catchment C203R

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	2.4
Total Area Check				2.4

Impervious Landuses Present:											
Soils	Paved/Rooftops		Sidewalk		Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	2.40	98									2.40
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG										74	0.00
CN Calculations										Total Area	2.40
										Pervious Curve Number	74

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.00	0.25	0.00
Impervious	2.40	0.90	0.90
Total Subcatchment	2.40	-	0.90

TIMP 0.99
 XIMP 0.99

Flow Length Calculations

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	1.0	20	0.25
Impervious	1.0	1.0	20	0.013



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: C204
 Catchment Area (ha): 1.61

Hydrologic Parameters: STANDHYD Command
Post-Development Drainage Area: Catchment C204

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	1.6
Total Area Check				1.6

Impervious Landuses Present:											
Soils	Paved/Rooftops		Sidewalk		Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	1.48	98									1.48
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG									0.13	74	0.13
CN Calculations										Total Area	1.61
										Pervious Curve Number	74

Initial Abstraction Calculations

Landuse	IA (mm)	Area (ha)
Pervious	5	0.126
Impervious	1	1.48
Total	1.3	1.61

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.00	0.25	0.00
Impervious	1.48	0.90	0.90
Total Subcatchment	1.48	-	0.90

TIMP **0.92**
 XIMP **0.92**

Flow Length Calculations

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0	145	0.25
Impervious	2.0	1.1	100	0.013



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: C204R
 Catchment Area (ha): 2.39

Hydrologic Parameters: STANDHYD Command
Post-Development Drainage Area: Catchment C204R

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	2.4
Total Area Check				2.4

Impervious Landuses Present:											
Soils	Paved/Rooftops		Sidewalk		Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	2.39	98									2.39
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG										74	0.00
CN Calculations										Total Area	2.39
										Pervious Curve Number	74

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.00	0.25	0.00
Impervious	2.39	0.90	0.90
Total Subcatchment	2.39	-	0.90

TIMP 0.99
 XIMP 0.99

Flow Length Calculations

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	1.0	20	0.25
Impervious	1.0	1.0	20	0.013



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: C205
 Catchment Area (ha): 1.69

Hydrologic Parameters: STANDHYD Command
Post-Development Drainage Area: Catchment C205

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	1.7
Total Area Check				1.7

Impervious Landuses Present:											
Soils	Paved/Rooftops		Sidewalk		Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	1.69	98									1.69
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG										74	0.00
CN Calculations										Total Area	1.69
										Pervious Curve Number	74

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.00	0.25	0.00
Impervious	1.69	0.90	0.90
Total Subcatchment	1.69	-	0.90

TIMP 0.99
 XIMP 0.99

Flow Length Calculations

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0	40	0.25
Impervious	2.0	1.1	100	0.013



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: C205R
 Catchment Area (ha): 2.36

Hydrologic Parameters: STANDHYD Command
Post-Development Drainage Area: Catchment C205R

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	2.36
Total Area Check				2.36

Impervious Landuses Present:											
Soils	Paved/Rooftops		Sidewalk		Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	2.36	98									2.36
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG										74	0.00
CN Calculations										Total Area	2.36
										Pervious Curve Number	74

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.00	0.25	0.00
Impervious	2.36	0.90	0.90
Total Subcatchment	2.36	-	0.90

TIMP 0.99
 XIMP 0.99

Flow Length Calculations

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	1.0	20	0.25
Impervious	1.0	1.0	20	0.013



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: C206
 Catchment Area (ha): 1.32

Hydrologic Parameters: STANDHYD Command
 Post-Development Drainage Area: Catchment C206

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	1.32
Total Area Check				1.32

Impervious Landuses Present:											
Soils	Paved/Rooftops		Sidewalk		Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	1.31	98									1.31
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG									0.01	74	0.01
CN Calculations										Total Area	1.32
										Pervious Curve Number	74

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.00	0.25	0.00
Impervious	1.31	0.90	0.90
Total Subcatchment	1.3	-	0.90

TIMP 0.99
 XIMP 0.99

Flow Length Calculations

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0	40	0.25
Impervious	2.0	1.1	100	0.013



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: C206R
 Catchment Area (ha): 2.39

Hydrologic Parameters: STANDHYD Command
Post-Development Drainage Area: Catchment C206R

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	2.4
Total Area Check				2.4

Impervious Landuses Present:											
Soils	Paved/Rooftops		Sidewalk		Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	2.39	98									2.39
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG										74	0.00
CN Calculations										Total Area	2.39
										Pervious Curve Number	74

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.00	0.25	0.00
Impervious	2.39	0.90	0.90
Total Subcatchment	2.4	-	0.90

TIMP 0.99
 XIMP 0.99

Flow Length Calculations

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	1.0	20	0.25
Impervious	1.0	1.0	20	0.013



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: C207A
 Catchment Area (ha): 1.06

Hydrologic Parameters: STANDHYD Command
Post-Development Drainage Area: Catchment C207A

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	1.06
Total Area Check				1.06

Impervious Landuses Present:											
Soils	Paved/Rooftops		Sidewalk		Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	1.01	89									1.01
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG									0.05	74	0.05
CN Calculations										Total Area	1.06
										Pervious Curve Number	74

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.00	0.25	0.00
Impervious	1.01	0.90	0.90
Total Subcatchment	1.0	-	0.90

TIMP **0.95**
 XIMP **0.95**

Initial Abstraction Calculations

Landuse	IA (mm)	Area (ha)
Pervious	5	0.053
Impervious	1	1.01
Total	1.2	1.06

Flow Length Calculations

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0	40	0.25
Impervious	2.0	2.5	60	0.013



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: C207B
 Catchment Area (ha): 1.20

Hydrologic Parameters: STANDHYD Command
Post-Development Drainage Area: Catchment C207B

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	1.20
Total Area Check				1.20

Impervious Landuses Present:											
Soils	Paved/Rooftops		Sidewalk		Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	1.14	89									1.14
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG									0.06	74	0.06
CN Calculations										Total Area	1.20
										Pervious Curve Number	74

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.00	0.25	0.00
Impervious	1.14	0.90	0.90
Total Subcatchment	1.1	-	0.90

TIMP 0.95
 XIMP 0.95

Flow Length Calculations

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0	40	0.25
Impervious	2.0	2.5	60	0.013



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: C208A
 Catchment Area (ha): 0.19

Hydrologic Parameters: STANDHYD Command
 Pre-Development Drainage Area: Catchment C208A

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	0.19
Total Area Check				0.19

Impervious Landuses Present:											
Soils	Paved/Rooftops		Sidewalk		Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	0.18	98									0.18
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG									0.009	74	0.01
CN Calculations										Total Area	0.19
										Pervious Curve Number	74

Initial Abstraction Calculations

Landuse	IA (mm)	Area (ha)
Pervious	5	0.009
Impervious	1	0.18
Total	1.2	0.19

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.00	0.25	0.00
Impervious	0.18	0.90	0.90
Total Subcatchment	0.2	-	0.90

TIMP 0.95
 XIMP 0.95

Flow Length Calculations

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0	40	0.25
Impervious	2.0	2.5	60	0.013



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: C208B
 Catchment Area (ha): 0.20

Hydrologic Parameters: STANDHYD Command
Pre-Development Drainage Area: Catchment C208B

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	0.2
Total Area Check				0.2

Impervious Landuses Present:											
Soils	Roadway/Rooftops		Sidewalk		Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	0.19	89									0.19
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG									0.01	74	0.01
CN Calculations										Total Area	0.20
										Composite Curve Number	74

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.00	0.25	0.00
Impervious	0.19	0.90	0.90
Total Subcatchment	0.2	-	0.90

TIMP **0.95**
 XIMP **0.95**

Initial Abstraction Calculations

Landuse	IA (mm)	Area (ha)
Pervious	5	0.010
Impervious	1	0.19
Total	1.2	0.20

Flow Length Calculations

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2	40	0.25
Impervious	1.0	2	60	0.013



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: C209A
 Catchment Area (ha): 1.24

Hydrologic Parameters: STANDHYD Command
Pre-Development Drainage Area: Catchment C209A

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	1.24
Total Area Check				1.24

Impervious Landuses Present:											
Soils	Roadway/Rooftops		Sidewalk		Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	1.24	89									1.24
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG										74	0.00
CN Calculations										Total Area	1.24
										Composite Curve Number	74

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.00	0.25	0.00
Impervious	1.24	0.90	0.90
Total Subcatchment	1.2	-	0.90

TIMP **0.99**
 XIMP **0.99**

Initial Abstraction Calculations

Landuse	IA (mm)	Area (ha)
Pervious	5	0.000
Impervious	1	1.24
Total	1.0	1.24

Flow Length Calculations

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0	40	0.25
Impervious	1.0	2.0	91 (Auto)	0.013



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: C209B
 Catchment Area (ha): 0.59

Hydrologic Parameters: STANDHYD Command
Pre-Development Drainage Area: Catchment C209

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	0.6
Total Area Check				0.6

Impervious Landuses Present:											
Soils	Roadway/Rooftops		Sidewalk		Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	0.59	89									0.59
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG										74	0.00
CN Calculations										Total Area	0.59
										Composite Curve Number	74

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.00	0.25	0.00
Impervious	0.59	0.90	0.90
Total Subcatchment	0.6	-	0.90

TIMP	0.99
XIMP	0.99

Initial Abstraction Calculations

Landuse	IA (mm)	Area (ha)
Pervious	5	0.000
Impervious	1	0.59
Total	1.0	0.59

Flow Length Calculations

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0	40.00	0.25
Impervious	1.0	2.0	62.72 (Auto)	0.013



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: C210
 Catchment Area (ha): 11.38

Hydrologic Parameters: STANDHYD Command
Pre-Development Drainage Area: Catchment C209

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	11.4
Total Area Check				11.4

Impervious Landuses Present:											
Soils	Roadway/Rooftops		Sidewalk		Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	11.38	89									11.38
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG										74	0.00
CN Calculations										Total Area	11.38
										Composite Curve Number	74

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.00	0.25	0.00
Impervious	11.38	0.90	0.90
Total Subcatchment	11.4	-	0.90

TIMP **0.99**
 XIMP **0.99**

Initial Abstraction Calculations

Landuse	IA (mm)	Area (ha)
Pervious	5	0.000
Impervious	1	11.38
Total	1.0	11.38

Flow Length Calculations

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0	40	0.25
Impervious	1.0	2.0	275.44 (AUTO)	0.013



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: C211
 Catchment Area (ha): 10.90

Hydrologic Parameters: STANDHYD Command
Pre-Development Drainage Area: Catchment C210

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	10.9
Total Area Check				10.9

Impervious Landuses Present:											
Soils	Roadway/Rooftops		Sidewalk		Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	10.90	89									10.90
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG							0.00	74			0.00
CN Calculations										Total Area	10.90
										Composite Curve Number	74

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.00	0.25	0.00
Impervious	10.90	0.90	0.90
Total Subcatchment	10.9	-	0.90

TIMP **0.99**
 XIMP **0.99**

Initial Abstraction Calculations

Landuse	IA (mm)	Area (ha)
Pervious	5	0.000
Impervious	1	10.90
Total	1.0	10.90

Flow Length Calculations

Land Use	IA (mm)	Slope (%)	Travel Length (m)	Manning's n
Pervious	5.0	2.0	40.00	0.25
Impervious	1.0	2.0	269.57 (AUTO)	0.013



Project Name: Prologis Humber Station
 Project Number: 624-6777
 Date: 2024.04.11

By: MJ
 Checked by: RA

Catchment Name: C212
 Catchment Area (ha): 0.21

Hydrologic Parameters: NASHYD Command
 Pre-Development Drainage Area: Catchment 212

Curve Number Calculation

Soil Types Present:				
Type	ID	Hydrologic Group	% Area	Area
Monogham Clay Loam	MOG	C	100	0.21
Total Area Check				0.21

Impervious Landuses Present:											
Soils	Roadway		Sidewalk		Gravel Parking Lot		Building		SWMF		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG	0.00	89			0.00						0.00
Pervious Landuses Present:											
Soils	Woodland		Meadow		Wetland		Meadows		Landscape/Lawn		Subtotal Area
	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	Area (ha)	CN	
MOG									0.21	74	0.21
CN Calculations										Total Area Composite	0.21
										Curve Number	74

Runoff Coefficient Calculations

Land Use	Area (ha)	C	Weighted Average C
Pervious	0.21	0.25	0.25
Impervious	0.00	0.90	0.00
Total Subcatchment	0.21	-	0.25

Initial Abstraction Calculations

Landuse	IA (mm)	Area (ha)
Pervious	5.0	0.21
Impervious	1.0	0.00
Total	5.0	0.21

Time to Peak Calculations

Time to Peak Inputs					Uplands			Bransby Williams		Airport	
Length (m)	Drop (m)	Slope (%)	$V/S^{0.5}$	Velocity (m/s)	Tc (hr)	Tp (hr)	TOTAL Tp (hr)	Tc (hr)	Tp (hr)	Tc (hr)	Tp (hr)
17.8	3.09	17.36%	2.3	0.96	0.01	0.00	0.00	0.01	0.01	0.08	0.05

Appropriate calculated time to peak: 0.05 | Appropriate Method: Airport
 Minimum Tp = 0.17hr or 10 minutes is used in VO model



Project #: 0624-6777

Project Name: Humber Station

Proposed Conditions (Preliminary)

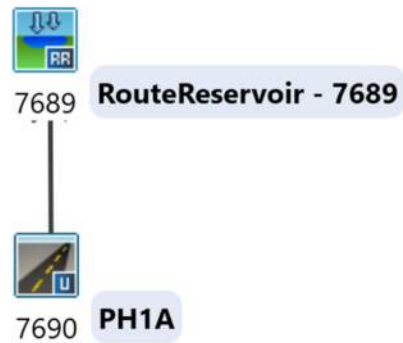
100-Year, 24-Hour and 4-Hour Chicago Design Storms

100-Year, 24-Hour SCS Type II Design Storm

100-Year, 12-Hour and 6-Hour AES Design Storms

November 20, 2024

VO Model Schematic





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-----
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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```

5.25 0.94 | 11.25 1.50 | 17.25 0.39 | 23.25 0.21
5.50 1.09 | 11.50 1.36 | 17.50 0.38 | 23.50 0.21
5.75 1.30 | 11.75 1.24 | 17.75 0.36 | 23.75 0.21

```

```

-----
CALIB
STANDHYD ( 7690) Area (ha)= 26.06
ID= 1 DT= 5.0 min Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 25.80 0.26
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 416.81 40.00
Mannings n = 0.013 0.250

```

***** DETAILED OUTPUT *****

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat
Output filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\cle604d2-23ba-4f1b-8e3b-b91927ff6a26\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\cle604d2-23ba-4f1b-8e3b-b91927ff6a26\scen

```

DATE: 11-20-2024 TIME: 03:21:29

USER:

COMMENTS: _____

```

*****
** SIMULATION : A - 100yr 24hr 15min Chicago **
*****

```

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-----
CHICAGO STORM IDf curve parameters: A=4688.000
Ptotal=101.55 mm B= 17.000
C= 0.962
-----

```

used in: INTENSITY = A / (t + B)^C

Duration of storm = 24.00 hrs
Storm time step = 15.00 min
Time to peak ratio = 0.33

TIME	RAIN	TIME	RAIN	'	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	hrs	mm/hr
0.00	0.22	6.00	1.58	12.00	1.14	18.00	0.35	
0.25	0.22	6.25	2.00	12.25	1.05	18.25	0.34	
0.50	0.23	6.50	2.65	12.50	0.98	18.50	0.33	
0.75	0.24	6.75	3.77	12.75	0.91	18.75	0.32	
1.00	0.25	7.00	6.01	13.00	0.85	19.00	0.31	
1.25	0.27	7.25	11.82	13.25	0.80	19.25	0.31	
1.50	0.28	7.50	39.93	13.50	0.75	19.50	0.30	
1.75	0.29	7.75	166.89	13.75	0.71	19.75	0.29	
2.00	0.31	8.00	55.37	14.00	0.67	20.00	0.28	
2.25	0.33	8.25	24.55	14.25	0.64	20.25	0.28	
2.50	0.35	8.50	14.23	14.50	0.61	20.50	0.27	
2.75	0.37	8.75	9.45	14.75	0.58	20.75	0.26	
3.00	0.39	9.00	6.83	15.00	0.55	21.00	0.26	
3.25	0.42	9.25	5.22	15.25	0.53	21.25	0.25	
3.50	0.46	9.50	4.15	15.50	0.51	21.50	0.25	
3.75	0.49	9.75	3.41	15.75	0.48	21.75	0.24	
4.00	0.54	10.00	2.86	16.00	0.47	22.00	0.24	
4.25	0.59	10.25	2.45	16.25	0.45	22.25	0.23	
4.50	0.65	10.50	2.13	16.50	0.43	22.50	0.23	
4.75	0.73	10.75	1.88	16.75	0.42	22.75	0.22	
5.00	0.82	11.00	1.67	17.00	0.40	23.00	0.22	

```

----- TRANSFORMED HYETOGRAPH -----

```

TIME	RAIN	TIME	RAIN	'	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	hrs	mm/hr
0.083	0.22	6.083	1.58	12.083	1.14	18.08	0.35	
0.167	0.22	6.167	1.58	12.167	1.14	18.17	0.35	
0.250	0.22	6.250	1.58	12.250	1.14	18.25	0.35	
0.333	0.22	6.333	2.00	12.333	1.05	18.33	0.34	
0.417	0.22	6.417	2.00	12.417	1.05	18.42	0.34	
0.500	0.22	6.500	2.00	12.500	1.05	18.50	0.34	
0.583	0.23	6.583	2.65	12.583	0.98	18.58	0.33	
0.667	0.23	6.667	2.65	12.667	0.98	18.67	0.33	
0.750	0.23	6.750	2.65	12.750	0.98	18.75	0.33	
0.833	0.24	6.833	3.77	12.833	0.91	18.83	0.32	
0.917	0.24	6.917	3.77	12.917	0.91	18.92	0.32	
1.000	0.24	7.000	3.77	13.000	0.91	19.00	0.32	
1.083	0.25	7.083	6.01	13.083	0.85	19.08	0.31	
1.167	0.25	7.167	6.01	13.167	0.85	19.17	0.31	
1.250	0.25	7.250	6.01	13.250	0.85	19.25	0.31	
1.333	0.27	7.333	11.82	13.333	0.80	19.33	0.31	
1.417	0.27	7.417	11.82	13.417	0.80	19.42	0.31	
1.500	0.27	7.500	11.82	13.500	0.80	19.50	0.31	
1.583	0.28	7.583	39.93	13.583	0.75	19.58	0.30	
1.667	0.28	7.667	39.93	13.667	0.75	19.67	0.30	
1.750	0.28	7.750	39.94	13.750	0.75	19.75	0.30	
1.833	0.29	7.833	166.89	13.833	0.71	19.83	0.29	
1.917	0.29	7.917	166.89	13.917	0.71	19.92	0.29	
2.000	0.29	8.000	166.88	14.000	0.71	20.00	0.29	
2.083	0.31	8.083	55.37	14.083	0.67	20.08	0.28	
2.167	0.31	8.167	55.37	14.167	0.67	20.17	0.28	
2.250	0.31	8.250	55.37	14.250	0.67	20.25	0.28	
2.333	0.33	8.333	24.55	14.333	0.64	20.33	0.28	
2.417	0.33	8.417	24.55	14.417	0.64	20.42	0.28	
2.500	0.33	8.500	24.55	14.500	0.64	20.50	0.28	
2.583	0.35	8.583	14.23	14.583	0.61	20.58	0.27	
2.667	0.35	8.667	14.23	14.667	0.61	20.67	0.27	
2.750	0.35	8.750	14.23	14.750	0.61	20.75	0.27	
2.833	0.37	8.833	9.45	14.833	0.58	20.83	0.26	
2.917	0.37	8.917	9.45	14.917	0.58	20.92	0.26	
3.000	0.37	9.000	9.45	15.000	0.58	21.00	0.26	
3.083	0.39	9.083	6.83	15.083	0.55	21.08	0.26	
3.167	0.39	9.167	6.83	15.167	0.55	21.17	0.26	
3.250	0.39	9.250	6.83	15.250	0.55	21.25	0.26	
3.333	0.42	9.333	5.22	15.333	0.53	21.33	0.25	
3.417	0.42	9.417	5.22	15.417	0.53	21.42	0.25	
3.500	0.42	9.500	5.22	15.500	0.53	21.50	0.25	
3.583	0.46	9.583	4.15	15.583	0.51	21.58	0.25	
3.667	0.46	9.667	4.15	15.667	0.51	21.67	0.25	
3.750	0.46	9.750	4.15	15.750	0.51	21.75	0.25	
3.833	0.49	9.833	3.41	15.833	0.48	21.83	0.24	
3.917	0.49	9.917	3.41	15.917	0.48	21.92	0.24	
4.000	0.49	10.000	3.41	16.000	0.48	22.00	0.24	
4.083	0.54	10.083	2.86	16.083	0.47	22.08	0.24	
4.167	0.54	10.167	2.86	16.167	0.47	22.17	0.24	
4.250	0.54	10.250	2.86	16.250	0.47	22.25	0.24	
4.333	0.59	10.333	2.45	16.333	0.45	22.33	0.23	

4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23
4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23
4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22
5.000	0.73	11.000	1.88	17.000	0.42	23.00	0.22
5.083	0.82	11.083	1.67	17.083	0.40	23.08	0.22
5.167	0.82	11.167	1.67	17.167	0.40	23.17	0.22
5.250	0.82	11.250	1.67	17.250	0.40	23.25	0.22
5.333	0.94	11.333	1.50	17.333	0.39	23.33	0.21
5.417	0.94	11.417	1.50	17.417	0.39	23.42	0.21
5.500	0.94	11.500	1.50	17.500	0.39	23.50	0.21
5.583	1.09	11.583	1.36	17.583	0.38	23.58	0.21
5.667	1.09	11.667	1.36	17.667	0.38	23.67	0.21
5.750	1.09	11.750	1.36	17.750	0.38	23.75	0.21
5.833	1.30	11.833	1.24	17.833	0.36	23.83	0.21
5.917	1.30	11.917	1.24	17.917	0.36	23.92	0.21
6.000	1.30	12.000	1.24	18.000	0.36	24.00	0.21

Max.Eff.Inten.(mm/hr)= 166.89 89.69
over (min) = 5.00 10.00
Storage Coeff. (min)= 4.90 (ii) 5.82 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.22 0.15

TOTALS

PEAK FLOW (cms)= 11.53 0.05 11.580 (iii)
TIME TO PEAK (hrs)= 8.00 8.08 8.00
RUNOFF VOLUME (mm)= 100.55 50.17 100.05
TOTAL RAINFALL (mm)= 101.55 101.55 101.55
RUNOFF COEFFICIENT = 0.99 0.49 0.99

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR(7689)		OVERFLOW IS OFF			
IN= 2--> OUT= 1					
DT= 5.0 min					
		OUTFLOW	STORAGE	OUTFLOW	STORAGE
		(cms)	(ha.m.)	(cms)	(ha.m.)
		0.0000	0.0000	0.5980	2.0000
		AREA	QPEAK	TPEAK	R.V.
		(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7690)	26.060	11.580	8.00	100.05	
OUTFLOW: ID= 1 (7689)	26.060	0.593	9.08	100.01	
PEAK FLOW REDUCTION [Qout/Qin] (%)= 5.12					
TIME SHIFT OF PEAK FLOW (min)= 65.00					
MAXIMUM STORAGE USED (ha.m.)= 1.9828					



```

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*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUUU A A LLLLL

000 TTTT TTTT H H Y Y M M 000 TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
000 T T H H Y Y M M 000

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```

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat
Output filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-F544-4d5a-b245-
a4eb17ead57\12661c49-e56e-4ebe-90b2-ca268383bee8\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-F544-4d5a-b245-
a4eb17ead57\12661c49-e56e-4ebe-90b2-ca268383bee8\scen

```

DATE: 11-20-2024 TIME: 03:21:28

USER:

COMMENTS: _____

```

*****
** SIMULATION : B - 100yr 4hr 15min Chicago **
*****

```

```

CHICAGO STORM IDf curve parameters: A=4688.000
Ptotal= 89.76 mm B= 17.000
C= 0.962
used in: INTENSITY = A / (t + B)^C
Duration of storm = 4.00 hrs
Storm time step = 15.00 min
Time to peak ratio = 0.33

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	3.77	1.00	166.89	2.00	9.45	3.00	3.41
0.25	6.01	1.25	55.37	2.25	6.83	3.25	2.86
0.50	11.82	1.50	24.55	2.50	5.22	3.50	2.45
0.75	39.93	1.75	14.23	2.75	4.15	3.75	2.13

```

----- TRANSFORMED HYETOGRAPH -----

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.77	1.083	166.89	2.083	9.45	3.08	3.41
0.167	3.77	1.167	166.89	2.167	9.45	3.17	3.41
0.250	3.77	1.250	166.89	2.250	9.45	3.25	3.41
0.333	6.01	1.333	55.37	2.333	6.83	3.33	2.86
0.417	6.01	1.417	55.37	2.417	6.83	3.42	2.86
0.500	6.01	1.500	55.37	2.500	6.83	3.50	2.86
0.583	11.82	1.583	24.55	2.583	5.22	3.58	2.45
0.667	11.82	1.667	24.55	2.667	5.22	3.67	2.45
0.750	11.82	1.750	24.55	2.750	5.22	3.75	2.45
0.833	39.93	1.833	14.23	2.833	4.15	3.83	2.13
0.917	39.93	1.917	14.23	2.917	4.15	3.92	2.13
1.000	39.93	2.000	14.23	3.000	4.15	4.00	2.13

```

Max.Eff.Inten.(mm/hr)= 166.89 84.06
over (min) = 5.00 10.00
Storage Coeff. (min)= 4.90 (ii) 5.82 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.22 0.15

```

```

*TOTALS*
PEAK FLOW (cms)= 11.53 0.05 11.576 (iii)
TIME TO PEAK (hrs)= 1.25 1.33 1.25
RUNOFF VOLUME (mm)= 88.76 41.29 88.29
TOTAL RAINFALL (mm)= 89.76 89.76 89.76
RUNOFF COEFFICIENT = 0.99 0.46 0.98

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

RESERVOIR ( 7689)
IN= 2----> OUT= 1
DT= 5.0 min

```

OVERFLOW IS OFF		OUTFLOW STORAGE		OUTFLOW STORAGE	
(cms)	(ha.m.)	(cms)	(ha.m.)	(cms)	(ha.m.)
0.0000	0.0000	0.5980	2.0000		
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 2 (7690)	26.060	11.576	1.25	88.29	
OUTFLOW: ID= 1 (7689)	26.060	0.567	2.33	88.26	
	PEAK FLOW REDUCTION [Qout/Qin](%)=	4.90			
	TIME SHIFT OF PEAK FLOW (min)=	65.00			
	MAXIMUM STORAGE USED (ha.m.)=	1.8980			

```

CALIB
STANDHYD ( 7690)
ID= 1 DT= 5.0 min
Area (ha)= 26.06
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

```

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	25.80	0.26
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	416.81	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.



6.00 1.80 | 12.25 17.40 | 18.50 1.73 |

```
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL
```

```
OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO
```

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```
CALIB
STANDHYD ( 7690) Area (ha)= 26.06
ID= 1 DT= 5.0 min Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
```

```
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 25.80 0.26
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 416.81 40.00
Mannings n = 0.013 0.250
```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat
Output filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-a4eb17ead57\ee93cb4a-6664-42e1-bd47-2f15f2ab825e\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-a4eb17ead57\ee93cb4a-6664-42e1-bd47-2f15f2ab825e\scen

DATE: 11-20-2024 TIME: 03:21:29

USER:

COMMENTS:

** SIMULATION : C - 100yr 24hr 15min SCS Type **

```
READ STORM Filename: C:\Users\mhooper\AppData\Local\Temp\
d744cbdl-7blb-4f6f-95f5-5ce8d028fa93\f3a89182
Ptotal=101.55 mm Comments: 100yr 24hr 15min SCS Type II
```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.25	1.85	12.50	11.84	18.75	1.67
0.25	1.03	6.50	1.90	12.75	8.15	19.00	1.61
0.50	1.05	6.75	1.96	13.00	6.88	19.25	1.54
0.75	1.08	7.00	2.00	13.25	5.82	19.50	1.48
1.00	1.10	7.25	2.06	13.50	5.14	19.75	1.41
1.25	1.13	7.50	2.11	13.75	4.51	20.00	1.35
1.50	1.16	7.75	2.16	14.00	4.02	20.25	1.31
1.75	1.18	8.00	2.21	14.25	3.67	20.50	1.30
2.00	1.20	8.25	2.27	14.50	3.50	20.75	1.29
2.25	1.23	8.50	2.61	14.75	3.31	21.00	1.28
2.50	1.26	8.75	2.87	15.00	3.14	21.25	1.26
2.75	1.28	9.00	3.12	15.25	2.96	21.50	1.25
3.00	1.31	9.25	3.25	15.50	2.78	21.75	1.24
3.25	1.33	9.50	3.25	15.75	2.60	22.00	1.22
3.50	1.36	9.75	3.46	16.00	2.43	22.25	1.21
3.75	1.38	10.00	3.85	16.25	2.30	22.50	1.20
4.00	1.41	10.25	4.38	16.50	2.24	22.75	1.19
4.25	1.45	10.50	4.96	16.75	2.18	23.00	1.17
4.50	1.50	10.75	5.81	17.00	2.11	23.25	1.16
4.75	1.55	11.00	6.78	17.25	2.05	23.50	1.15
5.00	1.60	11.25	8.58	17.50	1.99	23.75	1.14
5.25	1.65	11.50	10.92	17.75	1.92	24.00	1.12
5.50	1.70	11.75	14.51	18.00	1.86		
5.75	1.75	12.00	109.85	18.25	1.80		

```
----- TRANSFORMED HYETOGRAPH -----
```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.80	12.250	109.85	18.33	1.80
0.167	0.00	6.250	1.80	12.333	17.41	18.42	1.80
0.250	0.00	6.333	1.85	12.417	17.40	18.50	1.80
0.333	1.03	6.417	1.85	12.500	17.40	18.58	1.73
0.417	1.03	6.500	1.85	12.583	11.85	18.67	1.73
0.500	1.03	6.583	1.90	12.667	11.84	18.75	1.73
0.583	1.05	6.667	1.90	12.750	11.84	18.83	1.67
0.667	1.05	6.750	1.90	12.833	8.15	18.92	1.67
0.750	1.05	6.833	1.96	12.917	8.15	19.00	1.67
0.833	1.08	6.917	1.96	13.000	8.15	19.08	1.61
0.917	1.08	7.000	1.96	13.083	6.88	19.17	1.61
1.000	1.08	7.083	2.00	13.167	6.88	19.25	1.61
1.083	1.10	7.167	2.00	13.250	6.88	19.33	1.54
1.167	1.10	7.250	2.00	13.333	5.83	19.42	1.54
1.250	1.10	7.333	2.06	13.417	5.82	19.50	1.54
1.333	1.13	7.417	2.06	13.500	5.82	19.58	1.48
1.417	1.13	7.500	2.06	13.583	5.14	19.67	1.48
1.500	1.13	7.583	2.11	13.667	5.14	19.75	1.48
1.583	1.16	7.667	2.11	13.750	5.14	19.83	1.41
1.667	1.16	7.750	2.11	13.833	4.51	19.92	1.41
1.750	1.16	7.833	2.16	13.917	4.51	20.00	1.41
1.833	1.18	7.917	2.16	14.000	4.51	20.08	1.35
1.917	1.18	8.000	2.16	14.083	4.02	20.17	1.35
2.000	1.18	8.083	2.21	14.167	4.02	20.25	1.35
2.083	1.20	8.167	2.21	14.250	4.02	20.33	1.31
2.167	1.20	8.250	2.21	14.333	3.67	20.42	1.31
2.250	1.20	8.333	2.37	14.417	3.67	20.50	1.31
2.333	1.23	8.417	2.37	14.500	3.67	20.58	1.30
2.417	1.23	8.500	2.37	14.583	3.50	20.67	1.30
2.500	1.23	8.583	2.61	14.667	3.50	20.75	1.30
2.583	1.26	8.667	2.61	14.750	3.50	20.83	1.29
2.667	1.26	8.750	2.61	14.833	3.31	20.92	1.29
2.750	1.26	8.833	2.87	14.917	3.31	21.00	1.29
2.833	1.28	8.917	2.87	15.000	3.31	21.08	1.28
2.917	1.28	9.000	2.87	15.083	3.14	21.17	1.28
3.000	1.28	9.083	3.12	15.167	3.14	21.25	1.28
3.083	1.31	9.167	3.12	15.250	3.14	21.33	1.26
3.167	1.31	9.250	3.12	15.333	2.96	21.42	1.26
3.250	1.31	9.333	3.25	15.417	2.96	21.50	1.26
3.333	1.33	9.417	3.25	15.500	2.96	21.58	1.25
3.417	1.33	9.500	3.25	15.583	2.78	21.67	1.25
3.500	1.33	9.583	3.25	15.667	2.78	21.75	1.25
3.583	1.36	9.667	3.25	15.750	2.78	21.83	1.24
3.667	1.36	9.750	3.25	15.833	2.60	21.92	1.24
3.750	1.36	9.833	3.46	15.917	2.60	22.00	1.24
3.833	1.38	9.917	3.46	16.000	2.60	22.08	1.22
3.917	1.38	10.000	3.46	16.083	2.43	22.17	1.22
4.000	1.38	10.083	3.85	16.167	2.43	22.25	1.22
4.083	1.41	10.167	3.85	16.250	2.43	22.33	1.21
4.167	1.41	10.250	3.85	16.333	2.30	22.42	1.21
4.250	1.41	10.333	4.38	16.417	2.30	22.50	1.21
4.333	1.45	10.417	4.38	16.500	2.30	22.58	1.20
4.417	1.45	10.500	4.38	16.583	2.24	22.67	1.20
4.500	1.45	10.583	4.96	16.667	2.24	22.75	1.20

4.583	1.50	10.667	4.96	16.750	2.24	22.83	1.19
4.667	1.50	10.750	4.96	16.833	2.18	22.92	1.19
4.750	1.50	10.833	5.81	16.917	2.18	23.00	1.19
4.833	1.55	10.917	5.81	17.000	2.18	23.08	1.17
4.917	1.55	11.000	5.81	17.083	2.11	23.17	1.17
5.000	1.55	11.083	6.78	17.167	2.11	23.25	1.17
5.083	1.60	11.167	6.78	17.250	2.11	23.33	1.16
5.167	1.60	11.250	6.78	17.333	2.05	23.42	1.16
5.250	1.60	11.333	8.58	17.417	2.05	23.50	1.16
5.333	1.65	11.417	8.58	17.500	2.05	23.58	1.15
5.417	1.65	11.500	8.58	17.583	1.99	23.67	1.15
5.500	1.65	11.583	10.92	17.667	1.99	23.75	1.15
5.583	1.70	11.667	10.92	17.750	1.99	23.83	1.14
5.667	1.70	11.750	10.92	17.833	1.92	23.92	1.14
5.750	1.70	11.833	44.51	17.917	1.92	24.00	1.14
5.833	1.75	11.917	44.51	18.000	1.92	24.08	1.12
5.917	1.75	12.000	44.51	18.083	1.86	24.17	1.12
6.000	1.75	12.083	109.84	18.167	1.86	24.25	1.12
6.083	1.80	12.167	109.85	18.250	1.86		

Max.Eff.Inten.(mm/hr)=	109.85	66.53	
over (min)	5.00	10.00	
Storage Coeff. (min)=	5.79 (ii)	6.88 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.20	0.14	
			TOTALS
PEAK FLOW (cms)=	7.51	0.04	7.547 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	100.55	50.17	100.05
TOTAL RAINFALL (mm)=	101.55	101.55	101.55
RUNOFF COEFFICIENT =	0.99	0.49	0.99

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR(7689)	OVERFLOW IS OFF			
IN= 2--> OUT= 1				
DT= 5.0 min	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.5980	2.0000
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7690)	26.060	7.547	12.25	100.05
OUTFLOW: ID= 1 (7689)	26.060	0.476	13.33	100.01
	PEAK FLOW REDUCTION [Qout/Qin] (%)=	6.30		
	TIME SHIFT OF PEAK FLOW (min)=	65.00		
	MAXIMUM STORAGE USED (ha.m.)=	1.5915		

FINISH



```

-----
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

```

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat
 Output filename: C:\Users\mhoooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-a4eb17eaa57\afafda8e-132e-493c-87dc-2d142f5868d9\scen
 Summary filename: C:\Users\mhoooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-a4eb17eaa57\afafda8e-132e-493c-87dc-2d142f5868d9\scen

DATE: 11-20-2024 TIME: 03:21:29

USER:

COMMENTS: _____

 ** SIMULATION : D - 100 Year 12 Hour AES (Blo **

READ STORM Filename: C:\Users\mhoooper\AppData\Local\Temp\d744cbdl-7b1b-4f6f-95f5-5ce8d028fa93\52278e53
 Ptotal= 88.54 mm Comments: 100 Year 12 Hour AES (Bloor, TRCA)

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	3.25	15.05	6.50	6.20	9.75	0.89
0.25	0.89	3.50	15.05	6.75	6.20	10.00	0.89
0.50	0.89	3.75	15.05	7.00	6.20	10.25	0.89
0.75	0.89	4.00	15.05	7.25	3.54	10.50	0.89
1.00	0.89	4.25	40.71	7.50	3.54	10.75	0.89
1.25	0.89	4.50	40.71	7.75	3.54	11.00	0.89
1.50	0.89	4.75	40.71	8.00	3.54	11.25	0.89
1.75	0.89	5.00	40.71	8.25	1.77	11.50	0.89
2.00	0.89	5.25	11.51	8.50	1.77	11.75	0.89
2.25	5.31	5.50	11.51	8.75	1.77	12.00	0.89
2.50	5.31	5.75	11.51	9.00	1.77		
2.75	5.31	6.00	11.51	9.25	0.89		
3.00	5.31	6.25	6.20	9.50	0.89		

CALIB		STANDHYD (7690)		ID= 1 DT= 5.0 min	
Area	(ha)=	26.06	Total Imp (%)=	99.00	Dir. Conn. (%)= 99.00
Surface Area	(ha)=	25.80	IMPERVIOUS	PERVIOUS (i)	
Dep. Storage	(mm)=	1.00		0.26	5.00

Average Slope (%)= 1.00 2.00
 Length (m)= 416.81 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME		RAIN		TIME		RAIN	
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	5.31	6.250	11.51	9.33	0.89
0.167	0.00	3.250	5.31	6.333	6.20	9.42	0.89
0.250	0.00	3.333	15.05	6.417	6.20	9.50	0.89
0.333	0.89	3.417	15.05	6.500	6.20	9.58	0.89
0.417	0.89	3.500	15.05	6.583	6.20	9.67	0.89
0.500	0.89	3.583	15.05	6.667	6.20	9.75	0.89
0.583	0.89	3.667	15.05	6.750	6.20	9.83	0.89
0.667	0.89	3.750	15.05	6.833	6.20	9.92	0.89
0.750	0.89	3.833	15.05	6.917	6.20	10.00	0.89
0.833	0.89	3.917	15.05	7.000	6.20	10.08	0.89
0.917	0.89	4.000	15.05	7.083	6.20	10.17	0.89
1.000	0.89	4.083	15.05	7.167	6.20	10.25	0.89
1.083	0.89	4.167	15.05	7.250	6.20	10.33	0.89
1.167	0.89	4.250	15.05	7.333	3.54	10.42	0.89
1.250	0.89	4.333	40.71	7.417	3.54	10.50	0.89
1.333	0.89	4.417	40.71	7.500	3.54	10.58	0.89
1.417	0.89	4.500	40.71	7.583	3.54	10.67	0.89
1.500	0.89	4.583	40.71	7.667	3.54	10.75	0.89
1.583	0.89	4.667	40.71	7.750	3.54	10.83	0.89
1.667	0.89	4.750	40.71	7.833	3.54	10.92	0.89
1.750	0.89	4.833	40.71	7.917	3.54	11.00	0.89
1.833	0.89	4.917	40.71	8.000	3.54	11.08	0.89
1.917	0.89	5.000	40.71	8.083	3.54	11.17	0.89
2.000	0.89	5.083	40.71	8.167	3.54	11.25	0.89
2.083	0.89	5.167	40.71	8.250	3.54	11.33	0.89
2.167	0.89	5.250	40.71	8.333	1.77	11.42	0.89
2.250	0.89	5.333	11.51	8.417	1.77	11.50	0.89
2.333	5.31	5.417	11.51	8.500	1.77	11.58	0.89
2.417	5.31	5.500	11.51	8.583	1.77	11.67	0.89
2.500	5.31	5.583	11.51	8.667	1.77	11.75	0.89
2.583	5.31	5.667	11.51	8.750	1.77	11.83	0.89
2.667	5.31	5.750	11.51	8.833	1.77	11.92	0.89
2.750	5.31	5.833	11.51	8.917	1.77	12.00	0.89
2.833	5.31	5.917	11.51	9.000	1.77	12.08	0.89
2.917	5.31	6.000	11.51	9.083	1.77	12.17	0.89
3.000	5.31	6.083	11.51	9.167	1.77	12.25	0.89
3.083	5.31	6.167	11.51	9.250	1.77		

Max.Eff.Inten.(mm/hr)= 40.71 25.00
 over (min) 10.00 15.00
 Storage Coeff. (min)= 8.62 (ii) 10.23 (ii)
 Unit Hyd. Tpeak (min)= 10.00 15.00
 Unit Hyd. peak (cms)= 0.12 0.09

TOTALS
 PEAK FLOW (cms)= 2.91 0.02 2.932 (iii)
 TIME TO PEAK (hrs)= 5.25 5.25 5.25
 RUNOFF VOLUME (mm)= 87.54 40.39 87.07
 TOTAL RAINFALL (mm)= 88.54 88.54 88.54
 RUNOFF COEFFICIENT = 0.99 0.46 0.98

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES: CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7689)		OVERFLOW IS OFF	
IN= 2---> OUT= 1		DT= 5.0 min	
OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.5980	2.0000
AREA	QPEAK	TPEAK	R.V.

	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7690)	26.060	2.932	5.25	87.07
OUTFLOW: ID= 1 (7689)	26.060	0.473	6.67	87.04

PEAK FLOW REDUCTION [Qout/Qin] (%)= 16.14
TIME SHIFT OF PEAK FLOW (min)= 85.00
MAXIMUM STORAGE USED (ha.m.)= 1.5822



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*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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***** D E T A I L E D O U T P U T *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat
 Output filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-a4eb17eaad57\defc4079-43b1-48ba-9a13-d27e69162820\scen
 Summary filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-a4eb17eaad57\defc4079-43b1-48ba-9a13-d27e69162820\scen

DATE: 11-20-2024 TIME: 03:21:29

USER:

COMMENTS: _____

----- TRANSFORMED HYETOGRAPH -----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	9.64	3.250	20.88	4.83	1.61				
0.167	0.00	1.750	9.64	3.333	11.24	4.92	1.61				
0.250	0.00	1.833	27.30	3.417	11.24	5.00	1.61				
0.333	1.61	1.917	27.30	3.500	11.24	5.08	1.61				
0.417	1.61	2.000	27.30	3.583	11.24	5.17	1.61				
0.500	1.61	2.083	27.30	3.667	11.24	5.25	1.61				
0.583	1.61	2.167	27.30	3.750	11.24	5.33	1.61				
0.667	1.61	2.250	27.30	3.833	6.42	5.42	1.61				
0.750	1.61	2.333	73.88	3.917	6.42	5.50	1.61				
0.833	1.61	2.417	73.88	4.000	6.42	5.58	1.61				
0.917	1.61	2.500	73.88	4.083	6.42	5.67	1.61				
1.000	1.61	2.583	73.88	4.167	6.42	5.75	1.61				
1.083	1.61	2.667	73.88	4.250	6.42	5.83	1.61				
1.167	1.61	2.750	73.88	4.333	3.21	5.92	1.61				
1.250	1.61	2.833	20.88	4.417	3.21	6.00	1.61				
1.333	9.64	2.917	20.88	4.500	3.21	6.08	1.61				
1.417	9.64	3.000	20.88	4.583	3.21	6.17	1.61				
1.500	9.64	3.083	20.88	4.667	3.21	6.25	1.61				
1.583	9.64	3.167	20.88	4.750	3.21						

Max.Eff.Inten.(mm/hr)= 73.88 41.58
 over (min) 5.00 10.00
 Storage Coeff. (min)= 6.79 (ii) 8.06 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.18 0.13
 PEAK FLOW (cms)= 5.25 0.03 *TOTALS*
 TIME TO PEAK (hrs)= 2.75 2.75 5.281 (iii)
 RUNOFF VOLUME (mm)= 79.31 34.47 78.86
 TOTAL RAINFALL (mm)= 80.31 80.31 80.31
 RUNOFF COEFFICIENT = 0.99 0.43 0.98

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

READ STORM Filename: C:\Users\mhooper\AppData\Local\Temp\d744cbdl-7b1b-4f6f-95f5-5ce8d028fa93\0dff70fd
 Ptotal= 80.31 mm Comments: 100 Year 6 Hour AES (Bloor, TRCA)

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	1.75	27.30	3.50	11.24	5.25	1.61
0.25	1.61	2.00	27.30	3.75	6.42	5.50	1.61
0.50	1.61	2.25	73.88	4.00	6.42	5.75	1.61
0.75	1.61	2.50	73.88	4.25	3.21	6.00	1.61
1.00	1.61	2.75	20.88	4.50	3.21		
1.25	9.64	3.00	20.88	4.75	1.61		
1.50	9.64	3.25	11.24	5.00	1.61		

RESERVOIR (7689) OVERFLOW IS OFF
 IN= 2--> OUT= 1
 DT= 5.0 min

	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.5980	2.0000

AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW : ID= 2 (7690) 26.060 5.281 2.75 78.86
 OUTFLOW: ID= 1 (7689) 26.060 0.487 4.08 78.83

PEAK FLOW REDUCTION [Qout/Qin] (%) = 9.22
 TIME SHIFT OF PEAK FLOW (min) = 80.00
 MAXIMUM STORAGE USED (ha.m.) = 1.6282

CALIB STANDHYD (7690) Area (ha) = 26.06
 ID= 1 DT= 5.0 min Total Imp(%) = 99.00 Dir. Conn.(%) = 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha) =	25.80	0.26
Dep. Storage (mm) =	1.00	5.00
Average Slope (%) =	1.00	2.00
Length (m) =	416.81	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.



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*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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***** D E T A I L E D O U T P U T *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\mhoooper\AppData\Local\Civica\VH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\75fa37e0-2c80-4351-a7b4-91ca8f68d920\scen
Summary filename: C:\Users\mhoooper\AppData\Local\Civica\VH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\75fa37e0-2c80-4351-a7b4-91ca8f68d920\scen

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DATE: 11-22-2024 TIME: 12:17:33

USER:

COMMENTS: _____

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*****
** SIMULATION : 25 mm
*****

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| READ STORM | Filename: C:\Users\mhoooper\AppData
| | | ata\Local\Temp\
| | | 23be32ce-1a71-4ae6-a5bf-302738051fdc\04b981df
| Ptotal= 25.00 mm | Comments: 25 mm
-----

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	1.03	1.00	6.66	2.00	3.75	3.00	1.46
0.08	1.10	1.08	11.29	2.08	3.32	3.08	1.39
0.17	1.19	1.17	28.70	2.17	2.98	3.17	1.33
0.25	1.30	1.25	83.50	2.25	2.70	3.25	1.27
0.33	1.43	1.33	37.38	2.33	2.47	3.33	1.22
0.42	1.58	1.42	20.06	2.42	2.28	3.42	1.17
0.50	1.78	1.50	13.10	2.50	2.11	3.50	1.12
0.58	2.03	1.58	9.51	2.58	1.96	3.58	1.08
0.67	2.37	1.67	7.37	2.67	1.84	3.67	1.04
0.75	2.84	1.75	5.98	2.75	1.73	3.75	1.01
0.83	3.53	1.83	5.00	2.83	1.63	3.83	0.98
0.92	4.64	1.92	4.29	2.92	1.54	3.92	0.94

```

-----
| CALIB |
| STANDHYD ( 7640) | Area (ha)= 0.59
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----

```

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	0.58	0.01
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	2.00	2.00

```

Length (m)= 62.72 40.00
Mannings n = 0.013 0.250

Max.Eff.Inten.(mm/hr)= 83.50 6.89
over (min) 5.00 5.00
Storage Coeff. (min)= 1.69 (ii) 2.89 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.32 0.28

```

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*****
*TOTALS*
PEAK FLOW (cms)= 0.13 0.00 0.131 (iii)
TIME TO PEAK (hrs)= 1.33 1.42 1.33
RUNOFF VOLUME (mm)= 23.00 3.51 22.80
TOTAL RAINFALL (mm)= 25.00 25.00 25.00
RUNOFF COEFFICIENT = 0.92 0.14 0.91

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| CALIB |
| NASHYD ( 7721) | Area (ha)= 0.21 Curve Number (CN)= 73.0
| ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
| | | U.H. Tp (hrs)= 0.17
-----

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Unit Hyd Qpeak (cms)= 0.047

PEAK FLOW (cms)= 0.002 (i)
TIME TO PEAK (hrs)= 1.583
RUNOFF VOLUME (mm)= 3.496
TOTAL RAINFALL (mm)= 25.000
RUNOFF COEFFICIENT = 0.140

```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| CALIB |
| STANDHYD ( 7599) | Area (ha)= 10.90
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----

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```

Surface Area (ha)= 10.79 PERVIOUS (i) 0.11
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 269.57 40.00
Mannings n = 0.013 0.250

```

```

Max.Eff.Inten.(mm/hr)= 83.50 6.89
over (min) 5.00 10.00
Storage Coeff. (min)= 4.98 (ii) 6.19 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.22 0.15

```

```

*****
*TOTALS*
PEAK FLOW (cms)= 1.82 0.00 1.822 (iii)
TIME TO PEAK (hrs)= 1.33 1.50 1.33
RUNOFF VOLUME (mm)= 23.00 3.51 22.80
TOTAL RAINFALL (mm)= 25.00 25.00 25.00
RUNOFF COEFFICIENT = 0.92 0.14 0.91

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7722)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7599):	10.90	1.822	1.33	22.80
+ ID2= 2 (7721):	0.21	0.002	1.58	3.50
ID = 3 (7722):	11.11	1.822	1.33	22.44

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7685)	OVERFLOW IS OFF			
IN= 2--> OUT= 1	OUTFLOW	STORAGE	OUTFLOW	STORAGE
DT= 5.0 min	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.1390	0.6960
	0.0590	0.3400	0.1630	0.7780
	0.0900	0.4907	0.1840	0.8800
	0.1110	0.5760	0.0000	0.0000

INFLOW : ID= 2 (7722)	AREA	QPEAK	TPEAK	R.V.
OUTFLOW : ID= 1 (7685)	(ha)	(cms)	(hrs)	(mm)
	11.108	1.822	1.33	22.44
	11.108	0.037	3.42	22.31

PEAK FLOW REDUCTION [Qout/Qin] (%) = 2.05
 TIME SHIFT OF PEAK FLOW (min) = 125.00
 MAXIMUM STORAGE USED (ha.m.) = 0.2157

CALIB	Area	(ha)	Total Imp (%)	Dir. Conn. (%)
STANDHYD (7591)	11.38	11.38	99.00	99.00
ID= 1 DT= 5.0 min				

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)	11.27	0.11	
Dep. Storage (mm)	2.00	5.00	
Average Slope (%)	1.00	2.00	
Length (m)	275.44	40.00	
Mannings n	0.013	0.250	
Max.Eff.Inten. (mm/hr)	83.50	6.89	
over (min)	5.00	10.00	
Storage Coeff. (min)	5.04 (ii)	6.25 (ii)	
Unit Hyd. Tpeak (min)	5.00	10.00	
Unit Hyd. peak (cms)	0.21	0.15	
			TOTALS
PEAK FLOW (cms)	1.89	0.00	1.891 (iii)
TIME TO PEAK (hrs)	1.33	1.50	1.33
RUNOFF VOLUME (mm)	23.00	3.51	22.80
TOTAL RAINFALL (mm)	25.00	25.00	25.00
RUNOFF COEFFICIENT	0.92	0.14	0.91

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES: CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7593)	OVERFLOW IS OFF			
IN= 2--> OUT= 1	OUTFLOW	STORAGE	OUTFLOW	STORAGE
DT= 5.0 min	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.1990	0.6950
	0.0830	0.3500	0.2320	0.8000
	0.1280	0.4850	0.2620	0.9000
	0.1580	0.5900	0.0000	0.0000

INFLOW : ID= 2 (7591)	AREA	QPEAK	TPEAK	R.V.
OUTFLOW : ID= 1 (7593)	(ha)	(cms)	(hrs)	(mm)
	11.380	1.891	1.33	22.80
	11.380	0.051	3.00	22.71

PEAK FLOW REDUCTION [Qout/Qin] (%) = 2.72
 TIME SHIFT OF PEAK FLOW (min) = 100.00
 MAXIMUM STORAGE USED (ha.m.) = 0.2166

ADD HYD (7643)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7593):	11.38	0.051	3.00	22.71
+ ID2= 2 (7685):	11.11	0.037	3.42	22.31
ID = 3 (7643):	22.49	0.089	3.17	22.51

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area	(ha)	Total Imp (%)	Dir. Conn. (%)
STANDHYD (7590)	2.39	2.39	99.00	99.00
ID= 1 DT= 5.0 min				

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)	2.37	0.02	
Dep. Storage (mm)	1.00	5.00	
Average Slope (%)	1.00	2.00	
Length (m)	20.00	20.00	
Mannings n	0.013	0.250	
Max.Eff.Inten. (mm/hr)	83.50	6.89	
over (min)	5.00	5.00	
Storage Coeff. (min)	1.05 (ii)	1.84 (ii)	
Unit Hyd. Tpeak (min)	5.00	5.00	
Unit Hyd. peak (cms)	0.34	0.32	
			TOTALS
PEAK FLOW (cms)	0.55	0.00	0.546 (iii)
TIME TO PEAK (hrs)	1.33	1.33	1.33
RUNOFF VOLUME (mm)	24.00	3.51	23.79
TOTAL RAINFALL (mm)	25.00	25.00	25.00
RUNOFF COEFFICIENT	0.96	0.14	0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES: CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area	(ha)	Total Imp (%)	Dir. Conn. (%)
STANDHYD (7632)	2.36	2.36	99.00	99.00
ID= 1 DT= 5.0 min				

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)	2.34	0.02	
Dep. Storage (mm)	1.00	5.00	
Average Slope (%)	1.00	2.00	
Length (m)	20.00	20.00	
Mannings n	0.013	0.250	
Max.Eff.Inten. (mm/hr)	83.50	6.89	
over (min)	5.00	5.00	
Storage Coeff. (min)	1.05 (ii)	1.84 (ii)	
Unit Hyd. Tpeak (min)	5.00	5.00	
Unit Hyd. peak (cms)	0.34	0.32	
			TOTALS
PEAK FLOW (cms)	0.54	0.00	0.539 (iii)
TIME TO PEAK (hrs)	1.33	1.33	1.33
RUNOFF VOLUME (mm)	24.00	3.51	23.79
TOTAL RAINFALL (mm)	25.00	25.00	25.00
RUNOFF COEFFICIENT	0.96	0.14	0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!



- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| CALIB |
| STANDHYD ( 7644) | Area (ha)= 2.40
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----

```

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	2.38	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	
Max.Eff.Inten.(mm/hr)=	83.50	6.89	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.05 (ii)	1.84 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.34	0.32	
PEAK FLOW (cms)=	0.55	0.00	*TOTALS*
TIME TO PEAK (hrs)=	1.33	1.33	0.549 (iii)
RUNOFF VOLUME (mm)=	24.00	3.51	1.33
TOTAL RAINFALL (mm)=	25.00	25.00	23.79
RUNOFF COEFFICIENT =	0.96	0.14	25.00
			0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| CALIB |
| STANDHYD ( 7652) | Area (ha)= 2.40
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
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	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	2.38	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	
Max.Eff.Inten.(mm/hr)=	83.50	6.89	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.05 (ii)	1.84 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.34	0.32	
PEAK FLOW (cms)=	0.55	0.00	*TOTALS*
TIME TO PEAK (hrs)=	1.33	1.33	0.549 (iii)
RUNOFF VOLUME (mm)=	24.00	3.51	1.33
TOTAL RAINFALL (mm)=	25.00	25.00	23.79
RUNOFF COEFFICIENT =	0.96	0.14	25.00
			0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB |

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| STANDHYD ( 7661) | Area (ha)= 2.39
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
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```

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	2.37	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	
Max.Eff.Inten.(mm/hr)=	83.50	6.89	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.05 (ii)	1.84 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.34	0.32	
PEAK FLOW (cms)=	0.55	0.00	*TOTALS*
TIME TO PEAK (hrs)=	1.33	1.33	0.546 (iii)
RUNOFF VOLUME (mm)=	24.00	3.51	1.33
TOTAL RAINFALL (mm)=	25.00	25.00	23.79
RUNOFF COEFFICIENT =	0.96	0.14	25.00
			0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7671) | Area (ha)= 2.37
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----

```

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	2.35	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	
Max.Eff.Inten.(mm/hr)=	83.50	6.89	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.05 (ii)	1.84 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.34	0.32	
PEAK FLOW (cms)=	0.54	0.00	*TOTALS*
TIME TO PEAK (hrs)=	1.33	1.33	0.542 (iii)
RUNOFF VOLUME (mm)=	24.00	3.51	1.33
TOTAL RAINFALL (mm)=	25.00	25.00	23.79
RUNOFF COEFFICIENT =	0.96	0.14	25.00
			0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7698) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
| (ha) (cms) (hrs) (mm)
-----
ID1= 1 ( 7590): 2.39 0.546 1.33 23.79
+ ID2= 2 ( 7632): 2.36 0.539 1.33 23.79
-----
ID = 3 ( 7698): 4.75 1.086 1.33 23.79
-----

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.



```

0.0000 0.0000 | 0.2690 0.4589
0.1980 0.1112 | 0.0000 0.0000

```

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ADD HYD (7698)				
3 + 2 = 1				
ID1= 3 (7698) :	4.75	1.086	1.33	23.79
+ ID2= 2 (7644) :	2.40	0.549	1.33	23.79
=====				
ID = 1 (7698) :	7.15	1.634	1.33	23.79

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ADD HYD (7698)				
1 + 2 = 3				
ID1= 1 (7698) :	7.15	1.634	1.33	23.79
+ ID2= 2 (7652) :	2.40	0.549	1.33	23.79
=====				
ID = 3 (7698) :	9.55	2.183	1.33	23.79

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ADD HYD (7698)				
3 + 2 = 1				
ID1= 3 (7698) :	9.55	2.183	1.33	23.79
+ ID2= 2 (7661) :	2.39	0.546	1.33	23.79
=====				
ID = 1 (7698) :	11.94	2.729	1.33	23.79

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ADD HYD (7698)				
1 + 2 = 3				
ID1= 1 (7698) :	11.94	2.729	1.33	23.79
+ ID2= 2 (7671) :	2.37	0.542	1.33	23.79
=====				
ID = 3 (7698) :	14.31	3.271	1.33	23.79

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| DIVERTHYD(7713) |
| IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1	Flow 2	Flow 3	Flow 4	Flow 5	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ADD HYD (7714)				
3 + 2 = 1				
ID1= 1 (7699) :	12.49	0.213	1.92	23.78
+ ID2= 2 (7713) :	1.82	1.135	1.33	23.79
=====				
ID = 3 (7714) :	14.31	1.298	1.33	23.79

```

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

```

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
Junction Command(7715)				
INFLOW : ID= 2 (7713)	12.490	2.135	1.33	23.79
OUTFLOW: ID= 1 (7699)	12.490	0.213	1.92	23.78
OVERFLOW: ID= 3 (0003)	0.000	0.000	0.00	0.00

PEAK FLOW REDUCTION [Qout/Qin](%) = 10.00
TIME SHIFT OF PEAK FLOW (min) = 35.00
MAXIMUM STORAGE USED (ha.m.) = 0.1872

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ADD HYD (7714)				
1 + 2 = 3				
ID1= 1 (7699) :	12.49	0.213	1.92	23.78
+ ID2= 2 (7713) :	1.82	1.135	1.33	23.79
=====				
ID = 3 (7714) :	14.31	1.298	1.33	23.79

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

*** W A R N I N G : HYDROGRAPH 7715 <ID= 2> IS DRY.
*** W A R N I N G : HYDROGRAPH 0001 = HYDROGRAPH 0003

```

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ADD HYD (7714)				
3 + 2 = 1				
ID1= 3 (7714) :	14.31	1.298	1.33	23.79
+ ID2= 2 (7715) :	0.00	0.000	0.00	0.00
=====				
ID = 1 (7714) :	14.31	1.298	1.33	23.79

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB		Area (ha)=	1.45
STANDHYD (7620)		Total Imp(%)=	96.00
ID= 1 DT= 5.0 min		Dir. Conn.(%)=	96.00
Surface Area	(ha)=	1.39	0.06
Dep. Storage	(mm)=	2.00	5.00
Average Slope	(%)=	1.10	2.00
Length	(m)=	100.00	145.00
Mannings n	=	0.013	0.250
Max.Eff.Inten.(mm/hr)=		83.50	6.89
over (min)		5.00	10.00
Storage Coeff. (min)=		2.67 (ii)	7.28 (ii)
Unit Hyd. Tpeak (min)=		5.00	10.00
Unit Hyd. peak (cms)=		0.29	0.14
TOTALS			
PEAK FLOW	(cms)=	0.29	0.00
TIME TO PEAK	(hrs)=	1.33	1.50
RUNOFF VOLUME	(mm)=	23.00	3.51
			22.22

RESERVOIR (7699)			
IN= 2---> OUT= 1			
DT= 5.0 min			
OUTFLOW	STORAGE	OUTFLOW	STORAGE
(cms)	(ha.m.)	(cms)	(ha.m.)
OVERFLOW IS ON			



TOTAL RAINFALL (mm) = 25.00 25.00 25.00
 RUNOFF COEFFICIENT = 0.92 0.14 0.89

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

| CALIB |
| STANDHYD ( 7629) | Area (ha)= 1.70
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
| IMPERVIOUS | PERVIOUS (i)
| Surface Area (ha)= 1.68 | 0.02
| Dep. Storage (mm)= 2.00 | 5.00
| Average Slope (%)= 1.10 | 2.00
| Length (m)= 100.00 | 40.00
| Mannings n = 0.013 | 0.250
|
| Max.Eff.Inten.(mm/hr)= 83.50 | 6.89
| over (min)= 5.00 | 5.00
| Storage Coeff. (min)= 2.67 (ii) | 3.88 (ii)
| Unit Hyd. Tpeak (min)= 5.00 | 5.00
| Unit Hyd. peak (cms)= 0.29 | 0.25
|
| PEAK FLOW (cms)= 0.35 | 0.00 *TOTALS*
| TIME TO PEAK (hrs)= 1.33 | 1.42 0.349 (iii)
| RUNOFF VOLUME (mm)= 23.00 | 3.51 1.33
| TOTAL RAINFALL (mm)= 25.00 | 25.00 22.80
| RUNOFF COEFFICIENT = 0.92 | 0.14 22.80
  
```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

| CALIB |
| STANDHYD ( 7651) | Area (ha)= 1.33
| ID= 1 DT= 5.0 min | Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00
-----
| IMPERVIOUS | PERVIOUS (i)
| Surface Area (ha)= 1.30 | 0.03
| Dep. Storage (mm)= 2.00 | 5.00
| Average Slope (%)= 1.10 | 2.00
| Length (m)= 100.00 | 40.00
| Mannings n = 0.013 | 0.250
|
| Max.Eff.Inten.(mm/hr)= 83.50 | 6.89
| over (min)= 5.00 | 5.00
| Storage Coeff. (min)= 2.67 (ii) | 4.27 (ii)
| Unit Hyd. Tpeak (min)= 5.00 | 5.00
| Unit Hyd. peak (cms)= 0.29 | 0.23
|
| PEAK FLOW (cms)= 0.27 | 0.00 *TOTALS*
| TIME TO PEAK (hrs)= 1.33 | 1.42 0.271 (iii)
| RUNOFF VOLUME (mm)= 23.00 | 3.51 1.33
| TOTAL RAINFALL (mm)= 25.00 | 25.00 22.61
| RUNOFF COEFFICIENT = 0.92 | 0.14 22.61
  
```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

| ADD HYD ( 7700) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
| (ha) (cms) (hrs) (mm)
| ID1= 1 ( 7620): 1.45 0.289 1.33 22.22
| + ID2= 2 ( 7629): 1.70 0.349 1.33 22.80
|-----|
| ID = 3 ( 7700): 3.15 0.638 1.33 22.54
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| ADD HYD ( 7700) |
| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
| (ha) (cms) (hrs) (mm)
| ID1= 3 ( 7700): 3.15 0.638 1.33 22.54
| + ID2= 2 ( 7651): 1.33 0.271 1.33 22.61
|-----|
| ID = 1 ( 7700): 4.48 0.909 1.33 22.56
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| CALIB |
| STANDHYD ( 7623) | Area (ha)= 1.20
| ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00
-----
| IMPERVIOUS | PERVIOUS (i)
| Surface Area (ha)= 1.14 | 0.06
| Dep. Storage (mm)= 2.00 | 5.00
| Average Slope (%)= 2.50 | 2.00
| Length (m)= 60.00 | 40.00
| Mannings n = 0.013 | 0.250
|
| Max.Eff.Inten.(mm/hr)= 83.50 | 7.22
| over (min)= 5.00 | 5.00
| Storage Coeff. (min)= 1.54 (ii) | 3.87 (ii)
| Unit Hyd. Tpeak (min)= 5.00 | 5.00
| Unit Hyd. peak (cms)= 0.33 | 0.25
|
| PEAK FLOW (cms)= 0.26 | 0.00 *TOTALS*
| TIME TO PEAK (hrs)= 1.33 | 1.42 0.259 (iii)
| RUNOFF VOLUME (mm)= 23.00 | 3.66 1.33
| TOTAL RAINFALL (mm)= 25.00 | 25.00 22.03
| RUNOFF COEFFICIENT = 0.92 | 0.15 22.03
  
```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

| CALIB |
| STANDHYD ( 7654) | Area (ha)= 1.69
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
| IMPERVIOUS | PERVIOUS (i)
| Surface Area (ha)= 1.67 | 0.02
| Dep. Storage (mm)= 2.00 | 5.00
| Average Slope (%)= 1.10 | 2.00
| Length (m)= 100.00 | 40.00
| Mannings n = 0.013 | 0.250
|
| Max.Eff.Inten.(mm/hr)= 83.50 | 6.89
| over (min)= 5.00 | 5.00
| Storage Coeff. (min)= 2.67 (ii) | 3.88 (ii)
| Unit Hyd. Tpeak (min)= 5.00 | 5.00
| Unit Hyd. peak (cms)= 0.29 | 0.25
  
```

TOTALS
 PEAK FLOW (cms) = 0.35 0.00 0.347 (iii)
 TIME TO PEAK (hrs) = 1.33 1.42 1.33
 RUNOFF VOLUME (mm) = 23.00 3.51 22.80
 TOTAL RAINFALL (mm) = 25.00 25.00 25.00
 RUNOFF COEFFICIENT = 0.92 0.14 0.91

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
 | STANDHYD (7655) | Area (ha) = 1.32
 | ID= 1 DT= 5.0 min | Total Imp(%) = 99.00 Dir. Conn.(%) = 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha) =	1.31	0.01
Dep. Storage (mm) =	2.00	5.00
Average Slope (%) =	1.10	2.00
Length (m) =	100.00	40.00
Mannings n =	0.013	0.250
Max.Eff.Inten.(mm/hr) =	83.50	6.89
over (min) =	5.00	5.00
Storage Coeff. (min) =	2.67 (ii)	3.88 (ii)
Unit Hyd. Tpeak (min) =	5.00	5.00
Unit Hyd. peak (cms) =	0.29	0.25

TOTALS
 PEAK FLOW (cms) = 0.27 0.00 0.271 (iii)
 TIME TO PEAK (hrs) = 1.33 1.42 1.33
 RUNOFF VOLUME (mm) = 23.00 3.51 22.80
 TOTAL RAINFALL (mm) = 25.00 25.00 25.00
 RUNOFF COEFFICIENT = 0.92 0.14 0.91

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
 | STANDHYD (7662) | Area (ha) = 1.61
 | ID= 1 DT= 5.0 min | Total Imp(%) = 92.00 Dir. Conn.(%) = 92.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha) =	1.48	0.13
Dep. Storage (mm) =	2.00	5.00
Average Slope (%) =	1.10	2.00
Length (m) =	100.00	145.00
Mannings n =	0.013	0.250
Max.Eff.Inten.(mm/hr) =	83.50	2.68
over (min) =	5.00	70.00
Storage Coeff. (min) =	2.67 (ii)	67.65 (ii)
Unit Hyd. Tpeak (min) =	5.00	70.00
Unit Hyd. peak (cms) =	0.29	0.02

TOTALS
 PEAK FLOW (cms) = 0.31 0.00 0.307 (iii)
 TIME TO PEAK (hrs) = 1.33 2.67 1.33
 RUNOFF VOLUME (mm) = 23.00 3.51 21.42
 TOTAL RAINFALL (mm) = 25.00 25.00 25.00
 RUNOFF COEFFICIENT = 0.92 0.14 0.86

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:

- CN* = 73.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| ADD HYD (7701) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7654): 1.69 0.347 1.33 22.80
 + ID2= 2 (7655): 1.32 0.271 1.33 22.80
 =====
 ID = 3 (7701): 3.01 0.618 1.33 22.80

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (7701) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7701): 3.01 0.618 1.33 22.80
 + ID2= 2 (7662): 1.61 0.307 1.33 21.42
 =====
 ID = 1 (7701): 4.62 0.926 1.33 22.32

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |
 | STANDHYD (7707) | Area (ha) = 1.06
 | ID= 1 DT= 5.0 min | Total Imp(%) = 95.00 Dir. Conn.(%) = 95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha) =	1.01	0.05
Dep. Storage (mm) =	2.00	5.00
Average Slope (%) =	2.50	2.00
Length (m) =	60.00	40.00
Mannings n =	0.013	0.250
Max.Eff.Inten.(mm/hr) =	83.50	7.22
over (min) =	5.00	5.00
Storage Coeff. (min) =	1.54 (ii)	3.87 (ii)
Unit Hyd. Tpeak (min) =	5.00	5.00
Unit Hyd. peak (cms) =	0.33	0.25

TOTALS
 PEAK FLOW (cms) = 0.23 0.00 0.228 (iii)
 TIME TO PEAK (hrs) = 1.33 1.42 1.33
 RUNOFF VOLUME (mm) = 23.00 3.66 22.03
 TOTAL RAINFALL (mm) = 25.00 25.00 25.00
 RUNOFF COEFFICIENT = 0.92 0.15 0.88

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| ADD HYD (7702) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7623): 1.20 0.259 1.33 22.03
 + ID2= 2 (7700): 4.48 0.909 1.33 22.56
 =====
 ID = 3 (7702): 5.68 1.167 1.33 22.45

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)	AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7702):	5.68	1.167	1.33	22.45
+ ID2= 2 (7701):	4.62	0.926	1.33	22.32
ID = 1 (7702):	10.30	2.093	1.33	22.39

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7702):	10.30	2.093	1.33	22.39
+ ID2= 2 (7707):	1.06	0.228	1.33	22.03
ID = 3 (7702):	11.36	2.321	1.33	22.36

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)	AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7702):	11.36	2.321	1.33	22.36
+ ID2= 2 (7714):	14.31	1.298	1.33	23.79
ID = 1 (7702):	25.67	3.620	1.33	23.15

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7705)	OVERFLOW IS OFF			
IN= 2---> OUT= 1	OUTFLOW	STORAGE	OUTFLOW	STORAGE
DT= 5.0 min	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.6280	2.3980
	0.0730	0.2080	0.6400	2.4830
	0.0890	0.2770	0.6520	2.5670
	0.1340	0.5530	0.6640	2.6500
	0.2910	0.8290	0.6750	2.7340
	0.3860	1.1060	0.7190	3.0490
	0.4590	1.3820	0.8250	3.3550
	0.5220	1.7210	2.0760	3.4560
	0.5780	2.0600	2.3560	3.7320
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7702)	25.670	3.620	1.33	23.15
OUTFLOW: ID= 1 (7705)	25.670	0.111	4.67	23.12
	PEAK FLOW REDUCTION [Qout/Qin](%) = 3.07			
	TIME SHIFT OF PEAK FLOW (min)=200.00			
	MAXIMUM STORAGE USED (ha.m.) = 0.4133			

CALIB	STANDHYD (7716)		
ID= 1 DT= 5.0 min	Area	(ha)=	0.19
	Total Imp(%)=	95.00	Dir. Conn.(%)= 95.00
	IMPERVIOUS	PERVIOUS (i)	
Surface Area	(ha)=	0.18	0.01
Dep. Storage	(mm)=	2.00	5.00
Average Slope	(%)=	2.50	2.00
Length	(m)=	60.00	40.00
Mannings n	=	0.013	0.250
Max.Eff.Inten.(mm/hr)=	83.50	7.22	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.54 (ii)	3.87 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	

Unit Hyd. peak (cms)=	0.33	0.25	
PEAK FLOW (cms)=	0.04	0.00	*TOTALS*
TIME TO PEAK (hrs)=	1.33	1.42	0.041 (iii)
RUNOFF VOLUME (mm)=	23.00	3.66	1.33
TOTAL RAINFALL (mm)=	25.00	25.00	22.03
RUNOFF COEFFICIENT =	0.92	0.15	25.00
			0.88

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES: CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7720)	OVERFLOW IS OFF			
IN= 2---> OUT= 1	OUTFLOW	STORAGE	OUTFLOW	STORAGE
DT= 5.0 min	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.0100	0.0090
	0.0030	0.0010	0.0110	0.0100
	0.0050	0.0030	0.0120	0.0110
	0.0060	0.0040	0.0120	0.0130
	0.0080	0.0050	0.0130	0.0140
	0.0090	0.0060	0.0140	0.0150
	0.0090	0.0080	0.0000	0.0000
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7716)	0.190	0.041	1.33	22.03
OUTFLOW: ID= 1 (7720)	0.190	0.005	1.67	21.62

PEAK FLOW REDUCTION [Qout/Qin](%) = 11.00
 TIME SHIFT OF PEAK FLOW (min)= 20.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0025

CALIB	STANDHYD (7717)		
ID= 1 DT= 5.0 min	Area	(ha)=	0.20
	Total Imp(%)=	95.00	Dir. Conn.(%)= 95.00
	IMPERVIOUS	PERVIOUS (i)	
Surface Area	(ha)=	0.19	0.01
Dep. Storage	(mm)=	2.00	5.00
Average Slope	(%)=	2.50	2.00
Length	(m)=	36.51	40.00
Mannings n	=	0.013	0.250
Max.Eff.Inten.(mm/hr)=	83.50	7.22	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.14 (ii)	3.48 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.34	0.26	

PEAK FLOW (cms)=	0.04	0.00	*TOTALS*
TIME TO PEAK (hrs)=	1.33	1.42	0.044 (iii)
RUNOFF VOLUME (mm)=	23.00	3.66	1.33
TOTAL RAINFALL (mm)=	25.00	25.00	22.03
RUNOFF COEFFICIENT =	0.92	0.15	25.00
			0.88

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES: CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7719)	OVERFLOW IS OFF			
IN= 2---> OUT= 1	OUTFLOW	STORAGE	OUTFLOW	STORAGE

DT= 5.0 min	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.0100	0.0090
	0.0030	0.0010	0.0110	0.0100
	0.0050	0.0030	0.0120	0.0110
	0.0060	0.0040	0.0120	0.0130
	0.0080	0.0050	0.0130	0.0140
	0.0090	0.0060	0.0140	0.0150
	0.0090	0.0080	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7717)	0.200	0.044	1.33	22.03
OUTFLOW: ID= 1 (7719)	0.200	0.005	1.67	21.64

PEAK FLOW REDUCTION [Qout/Qin] (%) = 10.60
 TIME SHIFT OF PEAK FLOW (min) = 20.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0027

ADD HYD (7706)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7705):	25.67	0.111	4.67	23.12
+ ID2= 2 (7719):	0.20	0.005	1.67	21.64
ID = 3 (7706):	25.87	0.113	4.25	23.11

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7706)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (7706):	25.87	0.113	4.25	23.11
+ ID2= 2 (7720):	0.19	0.005	1.67	21.62
ID = 1 (7706):	26.06	0.114	4.08	23.10

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7595)	1.24	99.00
ID= 1 DT= 5.0 min	Total Imp (%) = 99.00	

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	1.23	0.01
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	2.00	2.00
Length (m)	91.00	40.00
Mannings n	0.013	0.250

Max.Eff.Inten.(mm/hr)=	83.50	6.89
over (min)	5.00	5.00
Storage Coeff. (min)=	2.11 (ii)	3.31 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.31	0.26

	PEAK FLOW (cms)	TPEAK (hrs)	R.V. (mm)
PEAK FLOW (cms)	0.27	0.00	0.267 (iii)
TIME TO PEAK (hrs)	1.33	1.42	1.33
RUNOFF VOLUME (mm)	23.00	3.51	22.80
TOTAL RAINFALL (mm)	25.00	25.00	25.00
RUNOFF COEFFICIENT	0.92	0.14	0.91

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7718)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7595):	1.24	0.267	1.33	22.80
+ ID2= 2 (7706):	26.06	0.114	4.08	23.10
ID = 3 (7718):	27.30	0.309	1.33	23.09

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7711)	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	1.0810	1.6220
	0.0010	0.1670	1.3950	1.8170
	0.0340	0.3380	2.0990	2.2130
	0.0510	0.5110	2.8950	2.6150
	0.0630	0.6880	3.7730	3.0250
	0.1610	0.8670	4.7260	3.4420
	0.3300	1.0500	5.5670	3.8670
	0.5440	1.2370	8.5800	4.3000
	0.7970	1.4290	10.9450	4.5210

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7718)	27.302	0.309	1.33	23.09
OUTFLOW: ID= 1 (7711)	27.302	0.039	17.42	17.99

PEAK FLOW REDUCTION [Qout/Qin] (%) = 12.63
 TIME SHIFT OF PEAK FLOW (min) = 965.00
 MAXIMUM STORAGE USED (ha.m.) = 0.3896



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*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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5.25 0.71 | 11.25 0.98 | 17.25 0.38 | 23.25 0.24
5.50 0.78 | 11.50 0.91 | 17.50 0.37 | 23.50 0.24
5.75 0.88 | 11.75 0.86 | 17.75 0.36 | 23.75 0.23

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| CALIB |
| STANDBYD ( 7640) | Area (ha)= 0.59
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.58 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 62.72 40.00
Mannings n = 0.013 0.250

```

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\mhooper\AppData\Local\Civica\540fcb7f5-f544-4d5a-b245-
a4eb17ead57\244bf005-f536-4382-999f-bb8f26fb7d7a\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\540fcb7f5-f544-4d5a-b245-
a4eb17ead57\244bf005-f536-4382-999f-bb8f26fb7d7a\scen

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DATE: 11-22-2024 TIME: 12:17:31

USER:

COMMENTS:

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*****
** SIMULATION : A - 2yr 24hr 15min Chicago **
*****

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| CHICAGO STORM | IDF curve parameters: A=1070.000
| Ptotal= 43.76 mm | B= 7.850
| | C= 0.876
-----
used in: INTENSITY = A / (t + B)^C

Duration of storm = 24.00 hrs
Storm time step = 15.00 min
Time to peak ratio = 0.33

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.01	12.083	0.81	18.08	0.35
0.167	0.24	6.167	1.01	12.167	0.81	18.17	0.35
0.250	0.24	6.250	1.01	12.250	0.81	18.25	0.35
0.333	0.25	6.333	1.19	12.333	0.76	18.33	0.34
0.417	0.25	6.417	1.19	12.417	0.76	18.42	0.34
0.500	0.25	6.500	1.19	12.500	0.76	18.50	0.34
0.583	0.26	6.583	1.44	12.583	0.73	18.58	0.34
0.667	0.26	6.667	1.44	12.667	0.73	18.67	0.34
0.750	0.26	6.750	1.44	12.750	0.73	18.75	0.34
0.833	0.27	6.833	1.84	12.833	0.69	18.83	0.33
0.917	0.27	6.917	1.84	12.917	0.69	18.92	0.33
1.000	0.27	7.000	1.84	13.000	0.69	19.00	0.33
1.083	0.28	7.083	2.57	13.083	0.66	19.08	0.32
1.167	0.28	7.167	2.57	13.167	0.66	19.17	0.32
1.250	0.28	7.250	2.57	13.250	0.66	19.25	0.32
1.333	0.29	7.333	4.28	13.333	0.63	19.33	0.32
1.417	0.29	7.417	4.28	13.417	0.63	19.42	0.32
1.500	0.29	7.500	4.28	13.500	0.63	19.50	0.32
1.583	0.30	7.583	12.47	13.583	0.60	19.58	0.31
1.667	0.30	7.667	12.47	13.667	0.60	19.67	0.31
1.750	0.30	7.750	12.47	13.750	0.60	19.75	0.31
1.833	0.31	7.833	69.05	13.833	0.58	19.83	0.30
1.917	0.31	7.917	69.05	13.917	0.58	19.92	0.30
2.000	0.31	8.000	69.04	14.000	0.58	20.00	0.30
2.083	0.32	8.083	17.10	14.083	0.56	20.08	0.30
2.167	0.32	8.167	17.10	14.167	0.56	20.17	0.30
2.250	0.32	8.250	17.10	14.250	0.56	20.25	0.30
2.333	0.33	8.333	7.85	14.333	0.54	20.33	0.29
2.417	0.33	8.417	7.85	14.417	0.54	20.42	0.29
2.500	0.33	8.500	7.85	14.500	0.54	20.50	0.29
2.583	0.35	8.583	4.97	14.583	0.52	20.58	0.29
2.667	0.35	8.667	4.97	14.667	0.52	20.67	0.29
2.750	0.35	8.750	4.97	14.750	0.52	20.75	0.29
2.833	0.36	8.833	3.61	14.833	0.50	20.83	0.28
2.917	0.36	8.917	3.61	14.917	0.50	20.92	0.28
3.000	0.36	9.000	3.61	15.000	0.50	21.00	0.28
3.083	0.38	9.083	2.83	15.083	0.49	21.08	0.28
3.167	0.38	9.167	2.83	15.167	0.49	21.17	0.28
3.250	0.38	9.250	2.83	15.250	0.49	21.25	0.28
3.333	0.40	9.333	2.32	15.333	0.47	21.33	0.27
3.417	0.40	9.417	2.32	15.417	0.47	21.42	0.27
3.500	0.40	9.500	2.32	15.500	0.47	21.50	0.27
3.583	0.42	9.583	1.98	15.583	0.46	21.58	0.27
3.667	0.42	9.667	1.98	15.667	0.46	21.67	0.27
3.750	0.42	9.750	1.98	15.750	0.46	21.75	0.27
3.833	0.45	9.833	1.72	15.833	0.44	21.83	0.26
3.917	0.45	9.917	1.72	15.917	0.44	21.92	0.26
4.000	0.45	10.000	1.72	16.000	0.44	22.00	0.26
4.083	0.48	10.083	1.52	16.083	0.43	22.08	0.26
4.167	0.48	10.167	1.52	16.167	0.43	22.17	0.26
4.250	0.48	10.250	1.52	16.250	0.43	22.25	0.26
4.333	0.51	10.333	1.37	16.333	0.42	22.33	0.26



4.417	0.51	10.417	1.37	16.417	0.42	22.42	0.26
4.500	0.51	10.500	1.37	16.500	0.42	22.50	0.26
4.583	0.55	10.583	1.24	16.583	0.41	22.58	0.25
4.667	0.55	10.667	1.24	16.667	0.41	22.67	0.25
4.750	0.55	10.750	1.24	16.750	0.41	22.75	0.25
4.833	0.59	10.833	1.14	16.833	0.40	22.83	0.25
4.917	0.59	10.917	1.14	16.917	0.40	22.92	0.25
5.000	0.59	11.000	1.14	17.000	0.40	23.00	0.25
5.083	0.64	11.083	1.05	17.083	0.39	23.08	0.24
5.167	0.64	11.167	1.05	17.167	0.39	23.17	0.24
5.250	0.64	11.250	1.05	17.250	0.39	23.25	0.24
5.333	0.71	11.333	0.98	17.333	0.38	23.33	0.24
5.417	0.71	11.417	0.98	17.417	0.38	23.42	0.24
5.500	0.71	11.500	0.98	17.500	0.38	23.50	0.24
5.583	0.78	11.583	0.91	17.583	0.37	23.58	0.24
5.667	0.78	11.667	0.91	17.667	0.37	23.67	0.24
5.750	0.78	11.750	0.91	17.750	0.37	23.75	0.24
5.833	0.88	11.833	0.86	17.833	0.36	23.83	0.23
5.917	0.88	11.917	0.86	17.917	0.36	23.92	0.23
6.000	0.88	12.000	0.86	18.000	0.36	24.00	0.23

1.917	0.31	7.917	69.05	13.917	0.58	19.92	0.30
2.000	0.31	8.000	69.04	14.000	0.58	20.00	0.30
2.083	0.32	8.083	17.10	14.083	0.56	20.08	0.30
2.167	0.32	8.167	17.10	14.167	0.56	20.17	0.30
2.250	0.32	8.250	17.10	14.250	0.56	20.25	0.30
2.333	0.33	8.333	7.85	14.333	0.54	20.33	0.29
2.417	0.33	8.417	7.85	14.417	0.54	20.42	0.29
2.500	0.33	8.500	7.85	14.500	0.54	20.50	0.29
2.583	0.35	8.583	4.97	14.583	0.52	20.58	0.29
2.667	0.35	8.667	4.97	14.667	0.52	20.67	0.29
2.750	0.35	8.750	4.97	14.750	0.52	20.75	0.29
2.833	0.36	8.833	3.61	14.833	0.50	20.83	0.28
2.917	0.36	8.917	3.61	14.917	0.50	20.92	0.28
3.000	0.36	9.000	3.61	15.000	0.50	21.00	0.28
3.083	0.38	9.083	2.83	15.083	0.49	21.08	0.28
3.167	0.38	9.167	2.83	15.167	0.49	21.17	0.28
3.250	0.38	9.250	2.83	15.250	0.49	21.25	0.28
3.333	0.40	9.333	2.32	15.333	0.47	21.33	0.27
3.417	0.40	9.417	2.32	15.417	0.47	21.42	0.27
3.500	0.40	9.500	2.32	15.500	0.47	21.50	0.27
3.583	0.42	9.583	1.98	15.583	0.46	21.58	0.27
3.667	0.42	9.667	1.98	15.667	0.46	21.67	0.27
3.750	0.42	9.750	1.98	15.750	0.46	21.75	0.27
3.833	0.45	9.833	1.72	15.833	0.44	21.83	0.26
3.917	0.45	9.917	1.72	15.917	0.44	21.92	0.26
4.000	0.45	10.000	1.72	16.000	0.44	22.00	0.26
4.083	0.48	10.083	1.52	16.083	0.43	22.08	0.26
4.167	0.48	10.167	1.52	16.167	0.43	22.17	0.26
4.250	0.48	10.250	1.52	16.250	0.43	22.25	0.26
4.333	0.51	10.333	1.37	16.333	0.42	22.33	0.26
4.417	0.51	10.417	1.37	16.417	0.42	22.42	0.26
4.500	0.51	10.500	1.37	16.500	0.42	22.50	0.26
4.583	0.55	10.583	1.24	16.583	0.41	22.58	0.25
4.667	0.55	10.667	1.24	16.667	0.41	22.67	0.25
4.750	0.55	10.750	1.24	16.750	0.41	22.75	0.25
4.833	0.59	10.833	1.14	16.833	0.40	22.83	0.25
4.917	0.59	10.917	1.14	16.917	0.40	22.92	0.25
5.000	0.59	11.000	1.14	17.000	0.40	23.00	0.25
5.083	0.64	11.083	1.05	17.083	0.39	23.08	0.24
5.167	0.64	11.167	1.05	17.167	0.39	23.17	0.24
5.250	0.64	11.250	1.05	17.250	0.39	23.25	0.24
5.333	0.71	11.333	0.98	17.333	0.38	23.33	0.24
5.417	0.71	11.417	0.98	17.417	0.38	23.42	0.24
5.500	0.71	11.500	0.98	17.500	0.38	23.50	0.24
5.583	0.78	11.583	0.91	17.583	0.37	23.58	0.24
5.667	0.78	11.667	0.91	17.667	0.37	23.67	0.24
5.750	0.78	11.750	0.91	17.750	0.37	23.75	0.24
5.833	0.88	11.833	0.86	17.833	0.36	23.83	0.23
5.917	0.88	11.917	0.86	17.917	0.36	23.92	0.23
6.000	0.88	12.000	0.86	18.000	0.36	24.00	0.23

Max.Eff.Inten.(mm/hr)= 69.05 17.84
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.82 (ii) 3.12 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.27

PEAK FLOW (cms)= 0.11 0.00 0.112 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00
 RUNOFF VOLUME (mm)= 41.76 11.32 41.46
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.26 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALLIB |
 | NASHYD (7721) | Area (ha)= 0.21 Curve Number (CN)= 73.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00

 U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.01	12.083	0.81	18.08	0.35
0.167	0.24	6.167	1.01	12.167	0.81	18.17	0.35
0.250	0.24	6.250	1.01	12.250	0.81	18.25	0.35
0.333	0.25	6.333	1.19	12.333	0.76	18.33	0.34
0.417	0.25	6.417	1.19	12.417	0.76	18.42	0.34
0.500	0.25	6.500	1.19	12.500	0.76	18.50	0.34
0.583	0.26	6.583	1.44	12.583	0.73	18.58	0.34
0.667	0.26	6.667	1.44	12.667	0.73	18.67	0.34
0.750	0.26	6.750	1.44	12.750	0.73	18.75	0.34
0.833	0.27	6.833	1.84	12.833	0.69	18.83	0.33
0.917	0.27	6.917	1.84	12.917	0.69	18.92	0.33
1.000	0.27	7.000	1.84	13.000	0.69	19.00	0.33
1.083	0.28	7.083	2.57	13.083	0.66	19.08	0.32
1.167	0.28	7.167	2.57	13.167	0.66	19.17	0.32
1.250	0.28	7.250	2.57	13.250	0.66	19.25	0.32
1.333	0.29	7.333	4.28	13.333	0.63	19.33	0.32
1.417	0.29	7.417	4.28	13.417	0.63	19.42	0.32
1.500	0.29	7.500	4.28	13.500	0.63	19.50	0.32
1.583	0.30	7.583	12.47	13.583	0.60	19.58	0.31
1.667	0.30	7.667	12.47	13.667	0.60	19.67	0.31
1.750	0.30	7.750	12.47	13.750	0.60	19.75	0.31
1.833	0.31	7.833	69.05	13.833	0.58	19.83	0.30

Unit Hyd Qpeak (cms)= 0.047

PEAK FLOW (cms)= 0.007 (i)
 TIME TO PEAK (hrs)= 8.083
 RUNOFF VOLUME (mm)= 11.280
 TOTAL RAINFALL (mm)= 43.764
 RUNOFF COEFFICIENT = 0.258

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALLIB |
 | STRANDHYD (7599) | Area (ha)= 10.90
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	10.79	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	269.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.24	6.083	1.01	12.083	0.81	18.08	0.35
0.167	0.24	6.167	1.01	12.167	0.81	18.17	0.35
0.250	0.24	6.250	1.01	12.250	0.81	18.25	0.35
0.333	0.25	6.333	1.19	12.333	0.76	18.33	0.34
0.417	0.25	6.417	1.19	12.417	0.76	18.42	0.34
0.500	0.25	6.500	1.19	12.500	0.76	18.50	0.34
0.583	0.26	6.583	1.44	12.583	0.73	18.58	0.34
0.667	0.26	6.667	1.44	12.667	0.73	18.67	0.34
0.750	0.26	6.750	1.44	12.750	0.73	18.75	0.34
0.833	0.27	6.833	1.84	12.833	0.69	18.83	0.33
0.917	0.27	6.917	1.84	12.917	0.69	18.92	0.33
1.000	0.27	7.000	1.84	13.000	0.69	19.00	0.33
1.083	0.28	7.083	2.57	13.083	0.66	19.08	0.32
1.167	0.28	7.167	2.57	13.167	0.66	19.17	0.32
1.250	0.28	7.250	2.57	13.250	0.66	19.25	0.32
1.333	0.29	7.333	4.28	13.333	0.63	19.33	0.32
1.417	0.29	7.417	4.28	13.417	0.63	19.42	0.32
1.500	0.29	7.500	4.28	13.500	0.63	19.50	0.32
1.583	0.30	7.583	12.47	13.583	0.60	19.58	0.31
1.667	0.30	7.667	12.47	13.667	0.60	19.67	0.31
1.750	0.30	7.750	12.47	13.750	0.60	19.75	0.31
1.833	0.31	7.833	69.05	13.833	0.58	19.83	0.30
1.917	0.31	7.917	69.05	13.917	0.58	19.92	0.30
2.000	0.31	8.000	69.04	14.000	0.58	20.00	0.30
2.083	0.32	8.083	17.10	14.083	0.56	20.08	0.30
2.167	0.32	8.167	17.10	14.167	0.56	20.17	0.30
2.250	0.32	8.250	17.10	14.250	0.56	20.25	0.30
2.333	0.33	8.333	7.85	14.333	0.54	20.33	0.29
2.417	0.33	8.417	7.85	14.417	0.54	20.42	0.29
2.500	0.33	8.500	7.85	14.500	0.54	20.50	0.29
2.583	0.35	8.583	4.97	14.583	0.52	20.58	0.29
2.667	0.35	8.667	4.97	14.667	0.52	20.67	0.29
2.750	0.35	8.750	4.97	14.750	0.52	20.75	0.29
2.833	0.36	8.833	3.61	14.833	0.50	20.83	0.28
2.917	0.36	8.917	3.61	14.917	0.50	20.92	0.28
3.000	0.36	9.000	3.61	15.000	0.50	21.00	0.28
3.083	0.38	9.083	2.83	15.083	0.49	21.08	0.28
3.167	0.38	9.167	2.83	15.167	0.49	21.17	0.28
3.250	0.38	9.250	2.83	15.250	0.49	21.25	0.28
3.333	0.40	9.333	2.32	15.333	0.47	21.33	0.27
3.417	0.40	9.417	2.32	15.417	0.47	21.42	0.27
3.500	0.40	9.500	2.32	15.500	0.47	21.50	0.27
3.583	0.42	9.583	1.98	15.583	0.46	21.58	0.27
3.667	0.42	9.667	1.98	15.667	0.46	21.67	0.27
3.750	0.42	9.750	1.98	15.750	0.46	21.75	0.27
3.833	0.45	9.833	1.72	15.833	0.44	21.83	0.26
3.917	0.45	9.917	1.72	15.917	0.44	21.92	0.26
4.000	0.45	10.000	1.72	16.000	0.44	22.00	0.26
4.083	0.48	10.083	1.52	16.083	0.43	22.08	0.26
4.167	0.48	10.167	1.52	16.167	0.43	22.17	0.26
4.250	0.48	10.250	1.52	16.250	0.43	22.25	0.26
4.333	0.51	10.333	1.37	16.333	0.42	22.33	0.26
4.417	0.51	10.417	1.37	16.417	0.42	22.42	0.26
4.500	0.51	10.500	1.37	16.500	0.42	22.50	0.26
4.583	0.55	10.583	1.24	16.583	0.41	22.58	0.25
4.667	0.55	10.667	1.24	16.667	0.41	22.67	0.25
4.750	0.55	10.750	1.24	16.750	0.41	22.75	0.25
4.833	0.59	10.833	1.14	16.833	0.40	22.83	0.25
4.917	0.59	10.917	1.14	16.917	0.40	22.92	0.25
5.000	0.59	11.000	1.14	17.000	0.40	23.00	0.25
5.083	0.64	11.083	1.05	17.083	0.39	23.08	0.24
5.167	0.64	11.167	1.05	17.167	0.39	23.17	0.24
5.250	0.64	11.250	1.05	17.250	0.39	23.25	0.24
5.333	0.71	11.333	0.98	17.333	0.38	23.33	0.24
5.417	0.71	11.417	0.98	17.417	0.38	23.42	0.24
5.500	0.71	11.500	0.98	17.500	0.38	23.50	0.24
5.583	0.78	11.583	0.91	17.583	0.37	23.58	0.24
5.667	0.78	11.667	0.91	17.667	0.37	23.67	0.24
5.750	0.78	11.750	0.91	17.750	0.37	23.75	0.24
5.833	0.88	11.833	0.86	17.833	0.36	23.83	0.23
5.917	0.88	11.917	0.86	17.917	0.36	23.92	0.23
6.000	0.88	12.000	0.86	18.000	0.36	24.00	0.23

Max.Eff.Inten.(mm/hr)= 69.05 17.84
 over (min)= 5.00 10.00
 Storage Coeff. (min)= 5.37 (ii) 6.67 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.21 0.14

PEAK FLOW (cms)= 1.96 0.00
 TIME TO PEAK (hrs)= 8.00 8.08
 RUNOFF VOLUME (mm)= 41.76 11.32
 TOTAL RAINFALL (mm)= 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.26

TOTALS
 1.969 (iii)
 8.00
 41.46
 43.76
 0.95

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7722)
 1 + 2 = 3
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7599): 10.90 1.969 8.00 41.46
 + ID2= 2 (7721): 0.21 0.007 8.08 11.28
 ID = 3 (7722): 11.11 1.974 8.00 40.89

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7685) OVERFLOW IS OFF
 IN= 2---> OUT= 1
 DT= 5.0 min
 OUTFLOW STORAGE OUTFLOW STORAGE
 (cms) (ha.m.) (cms) (ha.m.)
 0.0000 0.0000 | 0.1390 0.6960
 0.0590 0.3400 | 0.1630 0.7780
 0.0900 0.4907 | 0.1840 0.8800
 0.1110 0.5760 | 0.0000 0.0000

AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW : ID= 2 (7722) 11.108 1.974 8.00 40.89
 OUTFLOW: ID= 1 (7685) 11.108 0.058 9.83 40.76

PEAK FLOW REDUCTION [Qout/Qin](%) = 2.92
 TIME SHIFT OF PEAK FLOW (min)=110.00
 MAXIMUM STORAGE USED (ha.m.)= 0.3317

CALIB
 STANDHYD (7591) Area (ha)= 11.38
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 11.27 0.11
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 275.44 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.24	6.083	1.01	12.083	0.81	18.08	0.35
0.167	0.24	6.167	1.01	12.167	0.81	18.17	0.35
0.250	0.24	6.250	1.01	12.250	0.81	18.25	0.35
0.333	0.25	6.333	1.19	12.333	0.76	18.33	0.34
0.417	0.25	6.417	1.19	12.417	0.76	18.42	0.34

0.500	0.25	6.500	1.19	12.500	0.76	18.50	0.34
0.583	0.26	6.583	1.44	12.583	0.73	18.58	0.34
0.667	0.26	6.667	1.44	12.667	0.73	18.67	0.34
0.750	0.26	6.750	1.44	12.750	0.73	18.75	0.34
0.833	0.27	6.833	1.84	12.833	0.69	18.83	0.33
0.917	0.27	6.917	1.84	12.917	0.69	18.92	0.33
1.000	0.27	7.000	1.84	13.000	0.69	19.00	0.33
1.083	0.28	7.083	2.57	13.083	0.66	19.08	0.32
1.167	0.28	7.167	2.57	13.167	0.66	19.17	0.32
1.250	0.28	7.250	2.57	13.250	0.66	19.25	0.32
1.333	0.29	7.333	4.28	13.333	0.63	19.33	0.32
1.417	0.29	7.417	4.28	13.417	0.63	19.42	0.32
1.500	0.29	7.500	4.28	13.500	0.63	19.50	0.32
1.583	0.30	7.583	12.47	13.583	0.60	19.58	0.31
1.667	0.30	7.667	12.47	13.667	0.60	19.67	0.31
1.750	0.30	7.750	12.47	13.750	0.60	19.75	0.31
1.833	0.31	7.833	69.05	13.833	0.58	19.83	0.30
1.917	0.31	7.917	69.05	13.917	0.58	19.92	0.30
2.000	0.31	8.000	69.04	14.000	0.58	20.00	0.30
2.083	0.32	8.083	17.10	14.083	0.56	20.08	0.30
2.167	0.32	8.167	17.10	14.167	0.56	20.17	0.30
2.250	0.32	8.250	17.10	14.250	0.56	20.25	0.30
2.333	0.33	8.333	7.85	14.333	0.54	20.33	0.29
2.417	0.33	8.417	7.85	14.417	0.54	20.42	0.29
2.500	0.33	8.500	7.85	14.500	0.54	20.50	0.29
2.583	0.35	8.583	4.97	14.583	0.52	20.58	0.29
2.667	0.35	8.667	4.97	14.667	0.52	20.67	0.29
2.750	0.35	8.750	4.97	14.750	0.52	20.75	0.29
2.833	0.36	8.833	3.61	14.833	0.50	20.83	0.28
2.917	0.36	8.917	3.61	14.917	0.50	20.92	0.28
3.000	0.36	9.000	3.61	15.000	0.50	21.00	0.28
3.083	0.38	9.083	2.83	15.083	0.49	21.08	0.28
3.167	0.38	9.167	2.83	15.167	0.49	21.17	0.28
3.250	0.38	9.250	2.83	15.250	0.49	21.25	0.28
3.333	0.40	9.333	2.32	15.333	0.47	21.33	0.27
3.417	0.40	9.417	2.32	15.417	0.47	21.42	0.27
3.500	0.40	9.500	2.32	15.500	0.47	21.50	0.27
3.583	0.42	9.583	1.98	15.583	0.46	21.58	0.27
3.667	0.42	9.667	1.98	15.667	0.46	21.67	0.27
3.750	0.42	9.750	1.98	15.750	0.46	21.75	0.27
3.833	0.45	9.833	1.72	15.833	0.44	21.83	0.26
3.917	0.45	9.917	1.72	15.917	0.44	21.92	0.26
4.000	0.45	10.000	1.72	16.000	0.44	22.00	0.26
4.083	0.48	10.083	1.52	16.083	0.43	22.08	0.26
4.167	0.48	10.167	1.52	16.167	0.43	22.17	0.26
4.250	0.48	10.250	1.52	16.250	0.43	22.25	0.26
4.333	0.51	10.333	1.37	16.333	0.42	22.33	0.26
4.417	0.51	10.417	1.37	16.417	0.42	22.42	0.26
4.500	0.51	10.500	1.37	16.500	0.42	22.50	0.26
4.583	0.55	10.583	1.24	16.583	0.41	22.58	0.25
4.667	0.55	10.667	1.24	16.667	0.41	22.67	0.25
4.750	0.55	10.750	1.24	16.750	0.41	22.75	0.25
4.833	0.59	10.833	1.14	16.833	0.40	22.83	0.25
4.917	0.59	10.917	1.14	16.917	0.40	22.92	0.25
5.000	0.59	11.000	1.14	17.000	0.40	23.00	0.25
5.083	0.64	11.083	1.05	17.083	0.39	23.08	0.24
5.167	0.64	11.167	1.05	17.167	0.39	23.17	0.24
5.250	0.64	11.250	1.05	17.250	0.39	23.25	0.24
5.333	0.71	11.333	0.98	17.333	0.38	23.33	0.24
5.417	0.71	11.417	0.98	17.417	0.38	23.42	0.24
5.500	0.71	11.500	0.98	17.500	0.38	23.50	0.24
5.583	0.78	11.583	0.91	17.583	0.37	23.58	0.24
5.667	0.78	11.667	0.91	17.667	0.37	23.67	0.24
5.750	0.78	11.750	0.91	17.750	0.37	23.75	0.24
5.833	0.88	11.833	0.86	17.833	0.36	23.83	0.23
5.917	0.88	11.917	0.86	17.917	0.36	23.92	0.23
6.000	0.88	12.000	0.86	18.000	0.36	24.00	0.23

Max.Eff.Inten.(mm/hr)= 69.05 17.84
 over (min) 5.00 10.00
 Storage Coeff. (min)= 5.44 (ii) 6.74 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.20 0.14

PEAK FLOW (cms)= 2.05 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 8.00 8.08 8.00 (iii)

RUNOFF VOLUME (mm)= 41.76 11.32 41.46
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.26 0.95

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7593) OVERFLOW IS OFF				
IN= 2--> OUT= 1				
DT= 5.0 min				
	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.1990	0.6950
	0.0830	0.3500	0.2320	0.8000
	0.1280	0.4850	0.2620	0.9000
	0.1580	0.5900	0.0000	0.0000
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW: ID= 2 (7591):	11.380	2.051	8.00	41.46
OUTFLOW: ID= 1 (7593):	11.380	0.079	9.33	41.37
	PEAK FLOW REDUCTION [Qout/Qin](%)=	3.85		
	TIME SHIFT OF PEAK FLOW	(min)= 80.00		
	MAXIMUM STORAGE USED	(ha.m.)= 0.3328		

ADD HYD (7643)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7593):	11.38	0.079	9.33	41.37
+ ID2= 2 (7685):	11.11	0.058	9.83	40.76
ID = 3 (7643):	22.49	0.136	9.50	41.07

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB		
STANDHYD (7590) Area (ha)= 2.39		
ID= 1 DT= 5.0 min Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00		
	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.01	12.083	0.81	18.08	0.35
0.167	0.24	6.167	1.01	12.167	0.81	18.17	0.35
0.250	0.24	6.250	1.01	12.250	0.81	18.25	0.35
0.333	0.25	6.333	1.19	12.333	0.76	18.33	0.34
0.417	0.25	6.417	1.19	12.417	0.76	18.42	0.34
0.500	0.25	6.500	1.19	12.500	0.76	18.50	0.34
0.583	0.26	6.583	1.44	12.583	0.73	18.58	0.34
0.667	0.26	6.667	1.44	12.667	0.73	18.67	0.34
0.750	0.26	6.750	1.44	12.750	0.73	18.75	0.34
0.833	0.27	6.833	1.84	12.833	0.69	18.83	0.33
0.917	0.27	6.917	1.84	12.917	0.69	18.92	0.33
1.000	0.27	7.000	1.84	13.000	0.69	19.00	0.33
1.083	0.28	7.083	2.57	13.083	0.66	19.08	0.32
1.167	0.28	7.167	2.57	13.167	0.66	19.17	0.32



1.250	0.28	7.250	2.57	13.250	0.66	19.25	0.32
1.333	0.29	7.333	4.28	13.333	0.63	19.33	0.32
1.417	0.29	7.417	4.28	13.417	0.63	19.42	0.32
1.500	0.29	7.500	4.28	13.500	0.63	19.50	0.32
1.583	0.30	7.583	12.47	13.583	0.60	19.58	0.31
1.667	0.30	7.667	12.47	13.667	0.60	19.67	0.31
1.750	0.30	7.750	12.47	13.750	0.60	19.75	0.31
1.833	0.31	7.833	69.05	13.833	0.58	19.83	0.30
1.917	0.31	7.917	69.05	13.917	0.58	19.92	0.30
2.000	0.31	8.000	69.04	14.000	0.58	20.00	0.30
2.083	0.32	8.083	17.10	14.083	0.56	20.08	0.30
2.167	0.32	8.167	17.10	14.167	0.56	20.17	0.30
2.250	0.32	8.250	17.10	14.250	0.56	20.25	0.30
2.333	0.33	8.333	7.85	14.333	0.54	20.33	0.29
2.417	0.33	8.417	7.85	14.417	0.54	20.42	0.29
2.500	0.33	8.500	7.85	14.500	0.54	20.50	0.29
2.583	0.35	8.583	4.97	14.583	0.52	20.58	0.29
2.667	0.35	8.667	4.97	14.667	0.52	20.67	0.29
2.750	0.35	8.750	4.97	14.750	0.52	20.75	0.29
2.833	0.36	8.833	3.61	14.833	0.50	20.83	0.28
2.917	0.36	8.917	3.61	14.917	0.50	20.92	0.28
3.000	0.36	9.000	3.61	15.000	0.50	21.00	0.28
3.083	0.38	9.083	2.83	15.083	0.49	21.08	0.28
3.167	0.38	9.167	2.83	15.167	0.49	21.17	0.28
3.250	0.38	9.250	2.83	15.250	0.49	21.25	0.28
3.333	0.40	9.333	2.32	15.333	0.47	21.33	0.27
3.417	0.40	9.417	2.32	15.417	0.47	21.42	0.27
3.500	0.40	9.500	2.32	15.500	0.47	21.50	0.27
3.583	0.42	9.583	1.98	15.583	0.46	21.58	0.27
3.667	0.42	9.667	1.98	15.667	0.46	21.67	0.27
3.750	0.42	9.750	1.98	15.750	0.46	21.75	0.27
3.833	0.45	9.833	1.72	15.833	0.44	21.83	0.26
3.917	0.45	9.917	1.72	15.917	0.44	21.92	0.26
4.000	0.45	10.000	1.72	16.000	0.44	22.00	0.26
4.083	0.48	10.083	1.52	16.083	0.43	22.08	0.26
4.167	0.48	10.167	1.52	16.167	0.43	22.17	0.26
4.250	0.48	10.250	1.52	16.250	0.43	22.25	0.26
4.333	0.51	10.333	1.37	16.333	0.42	22.33	0.26
4.417	0.51	10.417	1.37	16.417	0.42	22.42	0.26
4.500	0.51	10.500	1.37	16.500	0.42	22.50	0.26
4.583	0.55	10.583	1.24	16.583	0.41	22.58	0.25
4.667	0.55	10.667	1.24	16.667	0.41	22.67	0.25
4.750	0.55	10.750	1.24	16.750	0.41	22.75	0.25
4.833	0.59	10.833	1.14	16.833	0.40	22.83	0.25
4.917	0.59	10.917	1.14	16.917	0.40	22.92	0.25
5.000	0.59	11.000	1.14	17.000	0.40	23.00	0.25
5.083	0.64	11.083	1.05	17.083	0.39	23.08	0.24
5.167	0.64	11.167	1.05	17.167	0.39	23.17	0.24
5.250	0.64	11.250	1.05	17.250	0.39	23.25	0.24
5.333	0.71	11.333	0.98	17.333	0.38	23.33	0.24
5.417	0.71	11.417	0.98	17.417	0.38	23.42	0.24
5.500	0.71	11.500	0.98	17.500	0.38	23.50	0.24
5.583	0.78	11.583	0.91	17.583	0.37	23.58	0.24
5.667	0.78	11.667	0.91	17.667	0.37	23.67	0.24
5.750	0.78	11.750	0.91	17.750	0.37	23.75	0.24
5.833	0.88	11.833	0.86	17.833	0.36	23.83	0.23
5.917	0.88	11.917	0.86	17.917	0.36	23.92	0.23
6.000	0.88	12.000	0.86	18.000	0.36	24.00	0.23

Max.Eff. Inten. (mm/hr)= 69.05 17.84
 over (min) 5.00
 Storage Coeff. (min)= 1.13 (ii) 1.99 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.31

TOTALS
 PEAK FLOW (cms)= 0.45 0.00 0.455 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00
 RUNOFF VOLUME (mm)= 42.76 11.32 42.45
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.98 0.26 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL

THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7632)	Area (ha)=	2.36	
ID= 1 DT= 5.0 min	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	2.34	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.01	12.083	0.81	18.08	0.35		
0.167	0.24	6.167	1.01	12.167	0.81	18.17	0.35		
0.250	0.24	6.250	1.01	12.250	0.81	18.25	0.35		
0.333	0.25	6.333	1.19	12.333	0.76	18.33	0.34		
0.417	0.25	6.417	1.19	12.417	0.76	18.42	0.34		
0.500	0.25	6.500	1.19	12.500	0.76	18.50	0.34		
0.583	0.26	6.583	1.44	12.583	0.73	18.58	0.34		
0.667	0.26	6.667	1.44	12.667	0.73	18.67	0.34		
0.750	0.26	6.750	1.44	12.750	0.73	18.75	0.34		
0.833	0.27	6.833	1.84	12.833	0.69	18.83	0.33		
0.917	0.27	6.917	1.84	12.917	0.69	18.92	0.33		
1.000	0.27	7.000	1.84	13.000	0.69	19.00	0.33		
1.083	0.28	7.083	2.57	13.083	0.66	19.08	0.32		
1.167	0.28	7.167	2.57	13.167	0.66	19.17	0.32		
1.250	0.28	7.250	2.57	13.250	0.66	19.25	0.32		
1.333	0.29	7.333	4.28	13.333	0.63	19.33	0.32		
1.417	0.29	7.417	4.28	13.417	0.63	19.42	0.32		
1.500	0.29	7.500	4.28	13.500	0.63	19.50	0.32		
1.583	0.30	7.583	12.47	13.583	0.60	19.58	0.31		
1.667	0.30	7.667	12.47	13.667	0.60	19.67	0.31		
1.750	0.30	7.750	12.47	13.750	0.60	19.75	0.31		
1.833	0.31	7.833	69.05	13.833	0.58	19.83	0.30		
1.917	0.31	7.917	69.05	13.917	0.58	19.92	0.30		
2.000	0.31	8.000	69.04	14.000	0.58	20.00	0.30		
2.083	0.32	8.083	17.10	14.083	0.56	20.08	0.30		
2.167	0.32	8.167	17.10	14.167	0.56	20.17	0.30		
2.250	0.32	8.250	17.10	14.250	0.56	20.25	0.30		
2.333	0.33	8.333	7.85	14.333	0.54	20.33	0.29		
2.417	0.33	8.417	7.85	14.417	0.54	20.42	0.29		
2.500	0.33	8.500	7.85	14.500	0.54	20.50	0.29		
2.583	0.35	8.583	4.97	14.583	0.52	20.58	0.29		
2.667	0.35	8.667	4.97	14.667	0.52	20.67	0.29		
2.750	0.35	8.750	4.97	14.750	0.52	20.75	0.29		
2.833	0.36	8.833	3.61	14.833	0.50	20.83	0.28		
2.917	0.36	8.917	3.61	14.917	0.50	20.92	0.28		
3.000	0.36	9.000	3.61	15.000	0.50	21.00	0.28		
3.083	0.38	9.083	2.83	15.083	0.49	21.08	0.28		
3.167	0.38	9.167	2.83	15.167	0.49	21.17	0.28		
3.250	0.38	9.250	2.83	15.250	0.49	21.25	0.28		
3.333	0.40	9.333	2.32	15.333	0.47	21.33	0.27		
3.417	0.40	9.417	2.32	15.417	0.47	21.42	0.27		
3.500	0.40	9.500	2.32	15.500	0.47	21.50	0.27		
3.583	0.42	9.583	1.98	15.583	0.46	21.58	0.27		
3.667	0.42	9.667	1.98	15.667	0.46	21.67	0.27		
3.750	0.42	9.750	1.98	15.750	0.46	21.75	0.27		
3.833	0.45	9.833	1.72	15.833	0.44	21.83	0.26		
3.917	0.45	9.917	1.72	15.917	0.44	21.92	0.26		
4.000	0.45	10.000	1.72	16.000	0.44	22.00	0.26		
4.083	0.48	10.083	1.52	16.083	0.43	22.08	0.26		
4.167	0.48	10.167	1.52	16.167	0.43	22.17	0.26		
4.250	0.48	10.250	1.52	16.250	0.43	22.25	0.26		
4.333	0.51	10.333	1.37	16.333	0.42	22.33	0.26		
4.417	0.51	10.417	1.37	16.417	0.42	22.42	0.26		
4.500	0.51	10.500	1.37	16.500	0.42	22.50	0.26		
4.583	0.55	10.583	1.24	16.583	0.41	22.58	0.25		
4.667	0.55	10.667	1.24	16.667	0.41	22.67	0.25		
4.750	0.55	10.750	1.24	16.750	0.41	22.75	0.25		
4.833	0.59	10.833	1.14	16.833	0.40	22.83	0.25		
4.917	0.59	10.917	1.14	16.917	0.40	22.92	0.25		
5.000	0.59	11.000	1.14	17.000	0.40	23.00	0.25		
5.083	0.64	11.083	1.05	17.083	0.39	23.08	0.24		
5.167	0.64	11.167	1.05	17.167	0.39	23.17	0.24		
5.250	0.64	11.250	1.05	17.250	0.39	23.25	0.24		
5.333	0.71	11.333	0.98	17.333	0.38	23.33	0.24		
5.417	0.71	11.417	0.98	17.417	0.38	23.42	0.24		
5.500	0.71	11.500	0.98	17.500	0.38	23.50	0.24		
5.583	0.78	11.583	0.91	17.583	0.37	23.58	0.24		
5.667	0.78	11.667	0.91	17.667	0.37	23.67	0.24		
5.750	0.78	11.750	0.91	17.750	0.37	23.75	0.24		
5.833	0.88	11.833	0.86	17.833	0.36	23.83	0.23		

4.583	0.55	10.583	1.24	16.583	0.41	22.58	0.25
4.667	0.55	10.667	1.24	16.667	0.41	22.67	0.25
4.750	0.55	10.750	1.24	16.750	0.41	22.75	0.25
4.833	0.59	10.833	1.14	16.833	0.40	22.83	0.25
4.917	0.59	10.917	1.14	16.917	0.40	22.92	0.25
5.000	0.59	11.000	1.14	17.000	0.40	23.00	0.25
5.083	0.64	11.083	1.05	17.083	0.39	23.08	0.24
5.167	0.64	11.167	1.05	17.167	0.39	23.17	0.24
5.250	0.64	11.250	1.05	17.250	0.39	23.25	0.24
5.333	0.71	11.333	0.98	17.333	0.38	23.33	0.24
5.417	0.71	11.417	0.98	17.417	0.38	23.42	0.24
5.500	0.71	11.500	0.98	17.500	0.38	23.50	0.24
5.583	0.78	11.583	0.91	17.583	0.37	23.58	0.24
5.667	0.78	11.667	0.91	17.667	0.37	23.67	0.24
5.750	0.78	11.750	0.91	17.750	0.37	23.75	0.24
5.833	0.88	11.833	0.86	17.833	0.36	23.83	0.23
5.917	0.88	11.917	0.86	17.917	0.36	23.92	0.23
6.000	0.88	12.000	0.86	18.000	0.36	24.00	0.23

Max.Eff.Inten.(mm/hr)= 69.05 17.84
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.13 (ii) 1.99 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.31

PEAK FLOW (cms)= 0.45 0.00
 TIME TO PEAK (hrs)= 8.00 8.00
 RUNOFF VOLUME (mm)= 42.76 11.32 42.45
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.98 0.26 0.97

****TOTALS****

0.449 (iii)

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7644) |
 |ID= 1 DT= 5.0 min | Area (ha)= 2.40
 | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	2.38	0.02
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	1.00	2.00
Length	(m)=	20.00	20.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.01	12.083	0.81	18.08	0.35
0.167	0.24	6.167	1.01	12.167	0.81	18.17	0.35
0.250	0.24	6.250	1.01	12.250	0.81	18.25	0.35
0.333	0.25	6.333	1.19	12.333	0.76	18.33	0.34
0.417	0.25	6.417	1.19	12.417	0.76	18.42	0.34
0.500	0.25	6.500	1.19	12.500	0.76	18.50	0.34
0.583	0.26	6.583	1.44	12.583	0.73	18.58	0.34
0.667	0.26	6.667	1.44	12.667	0.73	18.67	0.34
0.750	0.26	6.750	1.44	12.750	0.73	18.75	0.34
0.833	0.27	6.833	1.84	12.833	0.69	18.83	0.33
0.917	0.27	6.917	1.84	12.917	0.69	18.92	0.33
1.000	0.27	7.000	1.84	13.000	0.69	19.00	0.33
1.083	0.28	7.083	2.57	13.083	0.66	19.08	0.32
1.167	0.28	7.167	2.57	13.167	0.66	19.17	0.32
1.250	0.28	7.250	2.57	13.250	0.66	19.25	0.32
1.333	0.29	7.333	4.28	13.333	0.63	19.33	0.32
1.417	0.29	7.417	4.28	13.417	0.63	19.42	0.32
1.500	0.29	7.500	4.28	13.500	0.63	19.50	0.32

1.583	0.30	7.583	12.47	13.583	0.60	19.58	0.31
1.667	0.30	7.667	12.47	13.667	0.60	19.67	0.31
1.750	0.30	7.750	12.47	13.750	0.60	19.75	0.31
1.833	0.31	7.833	69.05	13.833	0.58	19.83	0.30
1.917	0.31	7.917	69.05	13.917	0.58	19.92	0.30
2.000	0.31	8.000	69.04	14.000	0.58	20.00	0.30
2.083	0.32	8.083	17.10	14.083	0.56	20.08	0.30
2.167	0.32	8.167	17.10	14.167	0.56	20.17	0.30
2.250	0.32	8.250	17.10	14.250	0.56	20.25	0.30
2.333	0.33	8.333	7.85	14.333	0.54	20.33	0.29
2.417	0.33	8.417	7.85	14.417	0.54	20.42	0.29
2.500	0.33	8.500	7.85	14.500	0.54	20.50	0.29
2.583	0.35	8.583	4.97	14.583	0.52	20.58	0.29
2.667	0.35	8.667	4.97	14.667	0.52	20.67	0.29
2.750	0.35	8.750	4.97	14.750	0.52	20.75	0.29
2.833	0.36	8.833	3.61	14.833	0.50	20.83	0.28
2.917	0.36	8.917	3.61	14.917	0.50	20.92	0.28
3.000	0.36	9.000	3.61	15.000	0.50	21.00	0.28
3.083	0.38	9.083	2.83	15.083	0.49	21.08	0.28
3.167	0.38	9.167	2.83	15.167	0.49	21.17	0.28
3.250	0.38	9.250	2.83	15.250	0.49	21.25	0.28
3.333	0.40	9.333	2.32	15.333	0.47	21.33	0.27
3.417	0.40	9.417	2.32	15.417	0.47	21.42	0.27
3.500	0.40	9.500	2.32	15.500	0.47	21.50	0.27
3.583	0.42	9.583	1.98	15.583	0.46	21.58	0.27
3.667	0.42	9.667	1.98	15.667	0.46	21.67	0.27
3.750	0.42	9.750	1.98	15.750	0.46	21.75	0.27
3.833	0.45	9.833	1.72	15.833	0.44	21.83	0.26
3.917	0.45	9.917	1.72	15.917	0.44	21.92	0.26
4.000	0.45	10.000	1.72	16.000	0.44	22.00	0.26
4.083	0.48	10.083	1.52	16.083	0.43	22.08	0.26
4.167	0.48	10.167	1.52	16.167	0.43	22.17	0.26
4.250	0.48	10.250	1.52	16.250	0.43	22.25	0.26
4.333	0.51	10.333	1.37	16.333	0.42	22.33	0.26
4.417	0.51	10.417	1.37	16.417	0.42	22.42	0.26
4.500	0.51	10.500	1.37	16.500	0.42	22.50	0.26
4.583	0.55	10.583	1.24	16.583	0.41	22.58	0.25
4.667	0.55	10.667	1.24	16.667	0.41	22.67	0.25
4.750	0.55	10.750	1.24	16.750	0.41	22.75	0.25
4.833	0.59	10.833	1.14	16.833	0.40	22.83	0.25
4.917	0.59	10.917	1.14	16.917	0.40	22.92	0.25
5.000	0.59	11.000	1.14	17.000	0.40	23.00	0.25
5.083	0.64	11.083	1.05	17.083	0.39	23.08	0.24
5.167	0.64	11.167	1.05	17.167	0.39	23.17	0.24
5.250	0.64	11.250	1.05	17.250	0.39	23.25	0.24
5.333	0.71	11.333	0.98	17.333	0.38	23.33	0.24
5.417	0.71	11.417	0.98	17.417	0.38	23.42	0.24
5.500	0.71	11.500	0.98	17.500	0.38	23.50	0.24
5.583	0.78	11.583	0.91	17.583	0.37	23.58	0.24
5.667	0.78	11.667	0.91	17.667	0.37	23.67	0.24
5.750	0.78	11.750	0.91	17.750	0.37	23.75	0.24
5.833	0.88	11.833	0.86	17.833	0.36	23.83	0.23
5.917	0.88	11.917	0.86	17.917	0.36	23.92	0.23
6.000	0.88	12.000	0.86	18.000	0.36	24.00	0.23

Max.Eff.Inten.(mm/hr)= 69.05 17.84
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.13 (ii) 1.99 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.31

PEAK FLOW (cms)= 0.46 0.00
 TIME TO PEAK (hrs)= 8.00 8.00
 RUNOFF VOLUME (mm)= 42.76 11.32 42.45
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.98 0.26 0.97

****TOTALS****

0.457 (iii)

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.



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| CALIB |
| STANDHYD ( 7652) | Area (ha)= 2.40
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
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IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 2.38 0.02
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 20.00 20.00
Mannings n = 0.013 0.250

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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---- TRANSFORMED HYETOGRAPH ----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.24 | 6.083 1.01 | 12.083 0.81 | 18.08 0.35
0.167 0.24 | 6.167 1.01 | 12.167 0.81 | 18.17 0.35
0.250 0.24 | 6.250 1.01 | 12.250 0.81 | 18.25 0.35
0.333 0.25 | 6.333 1.19 | 12.333 0.76 | 18.33 0.34
0.417 0.25 | 6.417 1.19 | 12.417 0.76 | 18.42 0.34
0.500 0.25 | 6.500 1.19 | 12.500 0.76 | 18.50 0.34
0.583 0.26 | 6.583 1.44 | 12.583 0.73 | 18.58 0.34
0.667 0.26 | 6.667 1.44 | 12.667 0.73 | 18.67 0.34
0.750 0.26 | 6.750 1.44 | 12.750 0.73 | 18.75 0.34
0.833 0.27 | 6.833 1.84 | 12.833 0.69 | 18.83 0.33
0.917 0.27 | 6.917 1.84 | 12.917 0.69 | 18.92 0.33
1.000 0.27 | 7.000 1.84 | 13.000 0.69 | 19.00 0.33
1.083 0.28 | 7.083 2.57 | 13.083 0.66 | 19.08 0.32
1.167 0.28 | 7.167 2.57 | 13.167 0.66 | 19.17 0.32
1.250 0.28 | 7.250 2.57 | 13.250 0.66 | 19.25 0.32
1.333 0.29 | 7.333 4.28 | 13.333 0.63 | 19.33 0.32
1.417 0.29 | 7.417 4.28 | 13.417 0.63 | 19.42 0.32
1.500 0.29 | 7.500 4.28 | 13.500 0.63 | 19.50 0.32
1.583 0.30 | 7.583 12.47 | 13.583 0.60 | 19.58 0.31
1.667 0.30 | 7.667 12.47 | 13.667 0.60 | 19.67 0.31
1.750 0.30 | 7.750 12.47 | 13.750 0.60 | 19.75 0.31
1.833 0.31 | 7.833 69.05 | 13.833 0.58 | 19.83 0.30
1.917 0.31 | 7.917 69.05 | 13.917 0.58 | 19.92 0.30
2.000 0.31 | 8.000 69.04 | 14.000 0.58 | 20.00 0.30
2.083 0.32 | 8.083 17.10 | 14.083 0.56 | 20.08 0.30
2.167 0.32 | 8.167 17.10 | 14.167 0.56 | 20.17 0.30
2.250 0.32 | 8.250 17.10 | 14.250 0.56 | 20.25 0.30
2.333 0.33 | 8.333 7.85 | 14.333 0.54 | 20.33 0.29
2.417 0.33 | 8.417 7.85 | 14.417 0.54 | 20.42 0.29
2.500 0.33 | 8.500 7.85 | 14.500 0.54 | 20.50 0.29
2.583 0.35 | 8.583 4.97 | 14.583 0.52 | 20.58 0.29
2.667 0.35 | 8.667 4.97 | 14.667 0.52 | 20.67 0.29
2.750 0.35 | 8.750 4.97 | 14.750 0.52 | 20.75 0.29
2.833 0.36 | 8.833 3.61 | 14.833 0.50 | 20.83 0.28
2.917 0.36 | 8.917 3.61 | 14.917 0.50 | 20.92 0.28
3.000 0.36 | 9.000 3.61 | 15.000 0.50 | 21.00 0.28
3.083 0.38 | 9.083 2.83 | 15.083 0.49 | 21.08 0.28
3.167 0.38 | 9.167 2.83 | 15.167 0.49 | 21.17 0.28
3.250 0.38 | 9.250 2.83 | 15.250 0.49 | 21.25 0.28
3.333 0.40 | 9.333 2.32 | 15.333 0.47 | 21.33 0.27
3.417 0.40 | 9.417 2.32 | 15.417 0.47 | 21.42 0.27
3.500 0.40 | 9.500 2.32 | 15.500 0.47 | 21.50 0.27
3.583 0.42 | 9.583 1.98 | 15.583 0.46 | 21.58 0.27
3.667 0.42 | 9.667 1.98 | 15.667 0.46 | 21.67 0.27
3.750 0.42 | 9.750 1.98 | 15.750 0.46 | 21.75 0.27
3.833 0.45 | 9.833 1.72 | 15.833 0.44 | 21.83 0.26
3.917 0.45 | 9.917 1.72 | 15.917 0.44 | 21.92 0.26
4.000 0.45 | 10.000 1.72 | 16.000 0.44 | 22.00 0.26
4.083 0.48 | 10.083 1.52 | 16.083 0.43 | 22.08 0.26
4.167 0.48 | 10.167 1.52 | 16.167 0.43 | 22.17 0.26
4.250 0.48 | 10.250 1.52 | 16.250 0.43 | 22.25 0.26
4.333 0.51 | 10.333 1.37 | 16.333 0.42 | 22.33 0.26
4.417 0.51 | 10.417 1.37 | 16.417 0.42 | 22.42 0.26
4.500 0.51 | 10.500 1.37 | 16.500 0.42 | 22.50 0.26
4.583 0.55 | 10.583 1.24 | 16.583 0.41 | 22.58 0.25
4.667 0.55 | 10.667 1.24 | 16.667 0.41 | 22.67 0.25
4.750 0.55 | 10.750 1.24 | 16.750 0.41 | 22.75 0.25
4.833 0.59 | 10.833 1.14 | 16.833 0.40 | 22.83 0.25

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4.917 0.59 | 10.917 1.14 | 16.917 0.40 | 22.92 0.25
5.000 0.59 | 11.000 1.14 | 17.000 0.40 | 23.00 0.25
5.083 0.64 | 11.083 1.05 | 17.083 0.39 | 23.08 0.24
5.167 0.64 | 11.167 1.05 | 17.167 0.39 | 23.17 0.24
5.250 0.64 | 11.250 1.05 | 17.250 0.39 | 23.25 0.24
5.333 0.71 | 11.333 0.98 | 17.333 0.38 | 23.33 0.24
5.417 0.71 | 11.417 0.98 | 17.417 0.38 | 23.42 0.24
5.500 0.71 | 11.500 0.98 | 17.500 0.38 | 23.50 0.24
5.583 0.78 | 11.583 0.91 | 17.583 0.37 | 23.58 0.24
5.667 0.78 | 11.667 0.91 | 17.667 0.37 | 23.67 0.24
5.750 0.78 | 11.750 0.91 | 17.750 0.37 | 23.75 0.24
5.833 0.88 | 11.833 0.86 | 17.833 0.36 | 23.83 0.23
5.917 0.88 | 11.917 0.86 | 17.917 0.36 | 23.92 0.23
6.000 0.88 | 12.000 0.86 | 18.000 0.36 | 24.00 0.23

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Max.Eff.Inten.(mm/hr)= 69.05 17.84
over (min) 5.00 5.00
Storage Coeff. (min)= 1.13 (ii) 1.99 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.31

PEAK FLOW (cms)= 0.46 0.00 *TOTALS*
TIME TO PEAK (hrs)= 8.00 8.00 8.00
RUNOFF VOLUME (mm)= 42.76 11.32 42.45
TOTAL RAINFALL (mm)= 43.76 43.76 43.76
RUNOFF COEFFICIENT = 0.98 0.26 0.97

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***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB |
| STANDHYD ( 7661) | Area (ha)= 2.39
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
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IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 2.37 0.02
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 20.00 20.00
Mannings n = 0.013 0.250

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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---- TRANSFORMED HYETOGRAPH ----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.24 | 6.083 1.01 | 12.083 0.81 | 18.08 0.35
0.167 0.24 | 6.167 1.01 | 12.167 0.81 | 18.17 0.35
0.250 0.24 | 6.250 1.01 | 12.250 0.81 | 18.25 0.35
0.333 0.25 | 6.333 1.19 | 12.333 0.76 | 18.33 0.34
0.417 0.25 | 6.417 1.19 | 12.417 0.76 | 18.42 0.34
0.500 0.25 | 6.500 1.19 | 12.500 0.76 | 18.50 0.34
0.583 0.26 | 6.583 1.44 | 12.583 0.73 | 18.58 0.34
0.667 0.26 | 6.667 1.44 | 12.667 0.73 | 18.67 0.34
0.750 0.26 | 6.750 1.44 | 12.750 0.73 | 18.75 0.34
0.833 0.27 | 6.833 1.84 | 12.833 0.69 | 18.83 0.33
0.917 0.27 | 6.917 1.84 | 12.917 0.69 | 18.92 0.33
1.000 0.27 | 7.000 1.84 | 13.000 0.69 | 19.00 0.33
1.083 0.28 | 7.083 2.57 | 13.083 0.66 | 19.08 0.32
1.167 0.28 | 7.167 2.57 | 13.167 0.66 | 19.17 0.32
1.250 0.28 | 7.250 2.57 | 13.250 0.66 | 19.25 0.32
1.333 0.29 | 7.333 4.28 | 13.333 0.63 | 19.33 0.32
1.417 0.29 | 7.417 4.28 | 13.417 0.63 | 19.42 0.32
1.500 0.29 | 7.500 4.28 | 13.500 0.63 | 19.50 0.32
1.583 0.30 | 7.583 12.47 | 13.583 0.60 | 19.58 0.31
1.667 0.30 | 7.667 12.47 | 13.667 0.60 | 19.67 0.31
1.750 0.30 | 7.750 12.47 | 13.750 0.60 | 19.75 0.31
1.833 0.31 | 7.833 69.05 | 13.833 0.58 | 19.83 0.30

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1.917	0.31	7.917	69.05	13.917	0.58	19.92	0.30
2.000	0.31	8.000	69.04	14.000	0.58	20.00	0.30
2.083	0.32	8.083	17.10	14.083	0.56	20.08	0.30
2.167	0.32	8.167	17.10	14.167	0.56	20.17	0.30
2.250	0.32	8.250	17.10	14.250	0.56	20.25	0.30
2.333	0.33	8.333	7.85	14.333	0.54	20.33	0.29
2.417	0.33	8.417	7.85	14.417	0.54	20.42	0.29
2.500	0.33	8.500	7.85	14.500	0.54	20.50	0.29
2.583	0.35	8.583	4.97	14.583	0.52	20.58	0.29
2.667	0.35	8.667	4.97	14.667	0.52	20.67	0.29
2.750	0.35	8.750	4.97	14.750	0.52	20.75	0.29
2.833	0.36	8.833	3.61	14.833	0.50	20.83	0.28
2.917	0.36	8.917	3.61	14.917	0.50	20.92	0.28
3.000	0.36	9.000	3.61	15.000	0.50	21.00	0.28
3.083	0.38	9.083	2.83	15.083	0.49	21.08	0.28
3.167	0.38	9.167	2.83	15.167	0.49	21.17	0.28
3.250	0.38	9.250	2.83	15.250	0.49	21.25	0.28
3.333	0.40	9.333	2.32	15.333	0.47	21.33	0.27
3.417	0.40	9.417	2.32	15.417	0.47	21.42	0.27
3.500	0.40	9.500	2.32	15.500	0.47	21.50	0.27
3.583	0.42	9.583	1.98	15.583	0.46	21.58	0.27
3.667	0.42	9.667	1.98	15.667	0.46	21.67	0.27
3.750	0.42	9.750	1.98	15.750	0.46	21.75	0.27
3.833	0.45	9.833	1.72	15.833	0.44	21.83	0.26
3.917	0.45	9.917	1.72	15.917	0.44	21.92	0.26
4.000	0.45	10.000	1.72	16.000	0.44	22.00	0.26
4.083	0.48	10.083	1.52	16.083	0.43	22.08	0.26
4.167	0.48	10.167	1.52	16.167	0.43	22.17	0.26
4.250	0.48	10.250	1.52	16.250	0.43	22.25	0.26
4.333	0.51	10.333	1.37	16.333	0.42	22.33	0.26
4.417	0.51	10.417	1.37	16.417	0.42	22.42	0.26
4.500	0.51	10.500	1.37	16.500	0.42	22.50	0.26
4.583	0.55	10.583	1.24	16.583	0.41	22.58	0.25
4.667	0.55	10.667	1.24	16.667	0.41	22.67	0.25
4.750	0.55	10.750	1.24	16.750	0.41	22.75	0.25
4.833	0.59	10.833	1.14	16.833	0.40	22.83	0.25
4.917	0.59	10.917	1.14	16.917	0.40	22.92	0.25
5.000	0.59	11.000	1.14	17.000	0.40	23.00	0.25
5.083	0.64	11.083	1.05	17.083	0.39	23.08	0.24
5.167	0.64	11.167	1.05	17.167	0.39	23.17	0.24
5.250	0.64	11.250	1.05	17.250	0.39	23.25	0.24
5.333	0.71	11.333	0.98	17.333	0.38	23.33	0.24
5.417	0.71	11.417	0.98	17.417	0.38	23.42	0.24
5.500	0.71	11.500	0.98	17.500	0.38	23.50	0.24
5.583	0.78	11.583	0.91	17.583	0.37	23.58	0.24
5.667	0.78	11.667	0.91	17.667	0.37	23.67	0.24
5.750	0.78	11.750	0.91	17.750	0.37	23.75	0.24
5.833	0.88	11.833	0.86	17.833	0.36	23.83	0.23
5.917	0.88	11.917	0.86	17.917	0.36	23.92	0.23
6.000	0.88	12.000	0.86	18.000	0.36	24.00	0.23

Max.Eff.Inten.(mm/hr)= 69.05 17.84
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.13 (ii) 1.99 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.31

TOTALS
 PEAK FLOW (cms)= 0.45 0.00 0.455 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 42.76 11.32 42.45
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.98 0.26 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Surface Area	(ha)= 2.35
Dep. Storage	(mm)= 1.00
Average Slope	(%)= 1.00
Length	(m)= 20.00
Mannings n	= 0.013
	PERVIOUS (i) 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.01	12.083	0.81	18.08	0.35				
0.167	0.24	6.167	1.01	12.167	0.81	18.17	0.35				
0.250	0.24	6.250	1.01	12.250	0.81	18.25	0.35				
0.333	0.25	6.333	1.19	12.333	0.76	18.33	0.34				
0.417	0.25	6.417	1.19	12.417	0.76	18.42	0.34				
0.500	0.25	6.500	1.19	12.500	0.76	18.50	0.34				
0.583	0.26	6.583	1.44	12.583	0.73	18.58	0.34				
0.667	0.26	6.667	1.44	12.667	0.73	18.67	0.34				
0.750	0.26	6.750	1.44	12.750	0.73	18.75	0.34				
0.833	0.27	6.833	1.84	12.833	0.69	18.83	0.33				
0.917	0.27	6.917	1.84	12.917	0.69	18.92	0.33				
1.000	0.27	7.000	1.84	13.000	0.69	19.00	0.33				
1.083	0.28	7.083	2.57	13.083	0.66	19.08	0.32				
1.167	0.28	7.167	2.57	13.167	0.66	19.17	0.32				
1.250	0.28	7.250	2.57	13.250	0.66	19.25	0.32				
1.333	0.29	7.333	4.28	13.333	0.63	19.33	0.32				
1.417	0.29	7.417	4.28	13.417	0.63	19.42	0.32				
1.500	0.29	7.500	4.28	13.500	0.63	19.50	0.32				
1.583	0.30	7.583	12.47	13.583	0.60	19.58	0.31				
1.667	0.30	7.667	12.47	13.667	0.60	19.67	0.31				
1.750	0.30	7.750	12.47	13.750	0.60	19.75	0.31				
1.833	0.31	7.833	69.05	13.833	0.58	19.83	0.30				
1.917	0.31	7.917	69.05	13.917	0.58	19.92	0.30				
2.000	0.31	8.000	69.04	14.000	0.58	20.00	0.30				
2.083	0.32	8.083	17.10	14.083	0.56	20.08	0.30				
2.167	0.32	8.167	17.10	14.167	0.56	20.17	0.30				
2.250	0.32	8.250	17.10	14.250	0.56	20.25	0.30				
2.333	0.33	8.333	7.85	14.333	0.54	20.33	0.29				
2.417	0.33	8.417	7.85	14.417	0.54	20.42	0.29				
2.500	0.33	8.500	7.85	14.500	0.54	20.50	0.29				
2.583	0.35	8.583	4.97	14.583	0.52	20.58	0.29				
2.667	0.35	8.667	4.97	14.667	0.52	20.67	0.29				
2.750	0.35	8.750	4.97	14.750	0.52	20.75	0.29				
2.833	0.36	8.833	3.61	14.833	0.50	20.83	0.28				
2.917	0.36	8.917	3.61	14.917	0.50	20.92	0.28				
3.000	0.36	9.000	3.61	15.000	0.50	21.00	0.28				
3.083	0.38	9.083	2.83	15.083	0.49	21.08	0.28				
3.167	0.38	9.167	2.83	15.167	0.49	21.17	0.28				
3.250	0.38	9.250	2.83	15.250	0.49	21.25	0.28				
3.333	0.40	9.333	2.32	15.333	0.47	21.33	0.27				
3.417	0.40	9.417	2.32	15.417	0.47	21.42	0.27				
3.500	0.40	9.500	2.32	15.500	0.47	21.50	0.27				
3.583	0.42	9.583	1.98	15.583	0.46	21.58	0.27				
3.667	0.42	9.667	1.98	15.667	0.46	21.67	0.27				
3.750	0.42	9.750	1.98	15.750	0.46	21.75	0.27				
3.833	0.45	9.833	1.72	15.833	0.44	21.83	0.26				
3.917	0.45	9.917	1.72	15.917	0.44	21.92	0.26				
4.000	0.45	10.000	1.72	16.000	0.44	22.00	0.26				
4.083	0.48	10.083	1.52	16.083	0.43	22.08	0.26				
4.167	0.48	10.167	1.52	16.167	0.43	22.17	0.26				
4.250	0.48	10.250	1.52	16.250	0.43	22.25	0.26				
4.333	0.51	10.333	1.37	16.333	0.42	22.33	0.26				
4.417	0.51	10.417	1.37	16.417	0.42	22.42	0.26				
4.500	0.51	10.500	1.37	16.500	0.42	22.50	0.26				
4.583	0.55	10.583	1.24	16.583	0.41	22.58	0.25				
4.667	0.55	10.667	1.24	16.667	0.41	22.67	0.25				
4.750	0.55	10.750	1.24	16.750	0.41	22.75	0.25				
4.833	0.59	10.833	1.14	16.833	0.40	22.83	0.25				
4.917	0.59	10.917	1.14	16.917	0.40	22.92	0.25				
5.000	0.59	11.000	1.14	17.000	0.40	23.00	0.25				
5.083	0.64	11.083	1.05	17.083	0.39	23.08	0.24				
5.167	0.64	11.167	1.05	17.167	0.39	23.17	0.24				
5.250	0.64	11.250	1.05	17.250	0.39	23.25	0.24				
5.333	0.71	11.333	0.98	17.333	0.38	23.33	0.24				
5.417	0.71	11.417	0.98	17.417	0.38	23.42	0.24				
5.500	0.71	11.500	0.98	17.500	0.38	23.50	0.24				
5.583	0.78	11.583	0.91	17.583	0.37	23.58	0.24				
5.667	0.78	11.667	0.91	17.667	0.37	23.67	0.24				
5.750	0.78	11.750	0.91	17.750	0.37	23.75	0.24				
5.833	0.88	11.833	0.86	17.833	0.36	23.83	0.23				
5.917	0.88	11.917	0.86	17.917	0.36	23.92	0.23				
6.000	0.88	12.000	0.86	18.000	0.36	24.00	0.23				

 | CALIB |
 | STANDHYD (7671) | Area (ha)= 2.37
 | ID= 1 DT= 5.0 min | Total Imp(%)=

5.250	0.64	11.250	1.05	17.250	0.39	23.25	0.24
5.333	0.71	11.333	0.98	17.333	0.38	23.33	0.24
5.417	0.71	11.417	0.98	17.417	0.38	23.42	0.24
5.500	0.71	11.500	0.98	17.500	0.38	23.50	0.24
5.583	0.78	11.583	0.91	17.583	0.37	23.58	0.24
5.667	0.78	11.667	0.91	17.667	0.37	23.67	0.24
5.750	0.78	11.750	0.91	17.750	0.37	23.75	0.24
5.833	0.88	11.833	0.86	17.833	0.36	23.83	0.23
5.917	0.88	11.917	0.86	17.917	0.36	23.92	0.23
6.000	0.88	12.000	0.86	18.000	0.36	24.00	0.23

Max.Eff.Inten. (mm/hr)= 69.05 17.84
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.13 (ii) 1.99 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.31

PEAK FLOW (cms)= 0.45 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 8.00 8.00 0.451 (iii)
 RUNOFF VOLUME (mm)= 42.76 11.32 42.45
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.98 0.26 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7698)					
1 + 2 = 3					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7590):	2.39	0.455	8.00	42.45	
+ ID2= 2 (7632):	2.36	0.449	8.00	42.45	
=====					
ID = 3 (7698):	4.75	0.905	8.00	42.45	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)					
3 + 2 = 1					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7698):	4.75	0.905	8.00	42.45	
+ ID2= 2 (7644):	2.40	0.457	8.00	42.45	
=====					
ID = 1 (7698):	7.15	1.362	8.00	42.45	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)					
1 + 2 = 3					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7698):	7.15	1.362	8.00	42.45	
+ ID2= 2 (7652):	2.40	0.457	8.00	42.45	
=====					
ID = 3 (7698):	9.55	1.819	8.00	42.45	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)					
3 + 2 = 1					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7698):	9.55	1.819	8.00	42.45	
+ ID2= 2 (7661):	2.39	0.455	8.00	42.45	
=====					

ID = 1 (7698): 11.94 2.274 8.00 42.45

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)					
1 + 2 = 3					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7698):	11.94	2.274	8.00	42.45	
+ ID2= 2 (7671):	2.37	0.451	8.00	42.45	
=====					
ID = 3 (7698):	14.31	2.725	8.00	42.45	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| DIVERTHYD (7713) |
 | IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1 + Flow 2 + Flow 3 + Flow 4 + Flow 5 = Total					
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
TOTAL HYD. (ID= 1):	14.31	2.72	8.00	42.45	
=====					
ID= 2 (2):	12.49	1.86	8.00	42.45	
ID= 3 (2):	1.82	0.86	8.00	42.45	
ID= 4 (2):	0.00	0.00	0.00	0.00	
ID= 5 (2):	0.00	0.00	0.00	0.00	
ID= 6 (2):	0.00	0.00	0.00	0.00	

RESERVOIR (7699)					
IN= 2----> OUT= 1					
DT= 5.0 min					
	OUTFLOW	STORAGE	OUTFLOW	STORAGE	
	(cms)	(ha.m.)	(cms)	(ha.m.)	
	0.0000	0.0000	0.2690	0.4589	
	0.1980	0.1112	0.0000	0.0000	
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 2 (7713)	12.490	1.862	8.00	42.45	
OUTFLOW: ID= 1 (7699)	12.490	0.230	8.58	42.44	
OVERFLOW: ID= 3 (0003)	0.000	0.000	0.00	0.00	

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
 CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
 PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

PEAK FLOW REDUCTION [Qout/Qin] (%) = 12.37
 TIME SHIFT OF PEAK FLOW (min) = 35.00
 MAXIMUM STORAGE USED (ha.m.) = 0.2698

| Junction Command(7715) |

	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 3 (7699)	0.00	0.00	0.00	0.00	
OUTFLOW: ID= 2 (7715)	0.00	0.00	0.00	0.00	

| ADD HYD (7714) |

1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7699):	12.49	0.230	8.58	42.44
+ ID2= 2 (7713):	1.82	0.863	8.00	42.45

ID = 3 (7714):	14.31	1.078	8.00	42.44

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ADD HYD (7714)				
3 + 2 = 1				

ID1= 3 (7714):	14.31	1.078	8.00	42.44
+ ID2= 2 (7715):	0.00	0.000	0.00	0.00

ID = 1 (7714):	14.31	1.078	8.00	42.44

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)=	1.45
STANDHYD (7620)	Total Imp(%)=	96.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	96.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.39	0.06
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	'	TIME	RAIN	TIME	RAIN	
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.01	12.083	0.81	18.08	0.35		
0.167	0.24	6.167	1.01	12.167	0.81	18.17	0.35		
0.250	0.24	6.250	1.01	12.250	0.81	18.25	0.35		
0.333	0.25	6.333	1.19	12.333	0.76	18.33	0.34		
0.417	0.25	6.417	1.19	12.417	0.76	18.42	0.34		
0.500	0.25	6.500	1.19	12.500	0.76	18.50	0.34		
0.583	0.26	6.583	1.44	12.583	0.73	18.58	0.34		
0.667	0.26	6.667	1.44	12.667	0.73	18.67	0.34		
0.750	0.26	6.750	1.44	12.750	0.73	18.75	0.34		
0.833	0.27	6.833	1.84	12.833	0.69	18.83	0.33		
0.917	0.27	6.917	1.84	12.917	0.69	18.92	0.33		
1.000	0.27	7.000	1.84	13.000	0.69	19.00	0.33		
1.083	0.28	7.083	2.57	13.083	0.66	19.08	0.32		
1.167	0.28	7.167	2.57	13.167	0.66	19.17	0.32		
1.250	0.28	7.250	2.57	13.250	0.66	19.25	0.32		
1.333	0.29	7.333	4.28	13.333	0.63	19.33	0.32		
1.417	0.29	7.417	4.28	13.417	0.63	19.42	0.32		
1.500	0.29	7.500	4.28	13.500	0.63	19.50	0.32		
1.583	0.30	7.583	12.47	13.583	0.60	19.58	0.31		
1.667	0.30	7.667	12.47	13.667	0.60	19.67	0.31		
1.750	0.30	7.750	12.47	13.750	0.60	19.75	0.31		
1.833	0.31	7.833	69.05	13.833	0.58	19.83	0.30		
1.917	0.31	7.917	69.05	13.917	0.58	19.92	0.30		
2.000	0.31	8.000	69.04	14.000	0.58	20.00	0.30		
2.083	0.32	8.083	17.10	14.083	0.56	20.08	0.30		
2.167	0.32	8.167	17.10	14.167	0.56	20.17	0.30		
2.250	0.32	8.250	17.10	14.250	0.56	20.25	0.30		
2.333	0.33	8.333	7.85	14.333	0.54	20.33	0.29		
2.417	0.33	8.417	7.85	14.417	0.54	20.42	0.29		
2.500	0.33	8.500	7.85	14.500	0.54	20.50	0.29		
2.583	0.35	8.583	4.97	14.583	0.52	20.58	0.29		
2.667	0.35	8.667	4.97	14.667	0.52	20.67	0.29		
2.750	0.35	8.750	4.97	14.750	0.52	20.75	0.29		
2.833	0.36	8.833	3.61	14.833	0.50	20.83	0.28		
2.917	0.36	8.917	3.61	14.917	0.50	20.92	0.28		

3.000	0.36	9.000	3.61	15.000	0.50	21.00	0.28		
3.083	0.38	9.083	2.83	15.083	0.49	21.08	0.28		
3.167	0.38	9.167	2.83	15.167	0.49	21.17	0.28		
3.250	0.38	9.250	2.83	15.250	0.49	21.25	0.28		
3.333	0.40	9.333	2.32	15.333	0.47	21.33	0.27		
3.417	0.40	9.417	2.32	15.417	0.47	21.42	0.27		
3.500	0.40	9.500	2.32	15.500	0.47	21.50	0.27		
3.583	0.42	9.583	1.98	15.583	0.46	21.58	0.27		
3.667	0.42	9.667	1.98	15.667	0.46	21.67	0.27		
3.750	0.42	9.750	1.98	15.750	0.46	21.75	0.27		
3.833	0.45	9.833	1.72	15.833	0.44	21.83	0.26		
3.917	0.45	9.917	1.72	15.917	0.44	21.92	0.26		
4.000	0.45	10.000	1.72	16.000	0.44	22.00	0.26		
4.083	0.48	10.083	1.52	16.083	0.43	22.08	0.26		
4.167	0.48	10.167	1.52	16.167	0.43	22.17	0.26		
4.250	0.48	10.250	1.52	16.250	0.43	22.25	0.26		
4.333	0.51	10.333	1.37	16.333	0.42	22.33	0.26		
4.417	0.51	10.417	1.37	16.417	0.42	22.42	0.26		
4.500	0.51	10.500	1.37	16.500	0.42	22.50	0.26		
4.583	0.55	10.583	1.24	16.583	0.41	22.58	0.25		
4.667	0.55	10.667	1.24	16.667	0.41	22.67	0.25		
4.750	0.55	10.750	1.24	16.750	0.41	22.75	0.25		
4.833	0.59	10.833	1.14	16.833	0.40	22.83	0.25		
4.917	0.59	10.917	1.14	16.917	0.40	22.92	0.25		
5.000	0.59	11.000	1.14	17.000	0.40	23.00	0.25		
5.083	0.64	11.083	1.05	17.083	0.39	23.08	0.24		
5.167	0.64	11.167	1.05	17.167	0.39	23.17	0.24		
5.250	0.64	11.250	1.05	17.250	0.39	23.25	0.24		
5.333	0.71	11.333	0.98	17.333	0.38	23.33	0.24		
5.417	0.71	11.417	0.98	17.417	0.38	23.42	0.24		
5.500	0.71	11.500	0.98	17.500	0.38	23.50	0.24		
5.583	0.78	11.583	0.91	17.583	0.37	23.58	0.24		
5.667	0.78	11.667	0.91	17.667	0.37	23.67	0.24		
5.750	0.78	11.750	0.91	17.750	0.37	23.75	0.24		
5.833	0.88	11.833	0.86	17.833	0.36	23.83	0.23		
5.917	0.88	11.917	0.86	17.917	0.36	23.92	0.23		
6.000	0.88	12.000	0.86	18.000	0.36	24.00	0.23		

Max.Eff.Inten.(mm/hr)=	69.05	17.84		
over (min)	5.00	10.00		
Storage Coeff. (min)=	2.88 (ii)	7.85 (ii)		
Unit Hyd. Tpeak (min)=	5.00	10.00		
Unit Hyd. peak (cms)=	0.28	0.13		
PEAK FLOW (cms)=	0.27	0.00	*TOTALS*	0.268 (iii)
TIME TO PEAK (hrs)=	8.00	8.08		
RUNOFF VOLUME (mm)=	41.76	11.32		40.54
TOTAL RAINFALL (mm)=	43.76	43.76		43.76
RUNOFF COEFFICIENT =	0.95	0.26		0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	1.70
STANDHYD (7629)	Total Imp(%)=	99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.68	0.02
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	'	TIME	RAIN	TIME	RAIN	



hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.01	12.083	0.81	18.08	0.35	
0.167	0.24	6.167	1.01	12.167	0.81	18.17	0.35	
0.250	0.24	6.250	1.01	12.250	0.81	18.25	0.35	
0.333	0.25	6.333	1.19	12.333	0.76	18.33	0.34	
0.417	0.25	6.417	1.19	12.417	0.76	18.42	0.34	
0.500	0.25	6.500	1.19	12.500	0.76	18.50	0.34	
0.583	0.26	6.583	1.44	12.583	0.73	18.58	0.34	
0.667	0.26	6.667	1.44	12.667	0.73	18.67	0.34	
0.750	0.26	6.750	1.44	12.750	0.73	18.75	0.34	
0.833	0.27	6.833	1.84	12.833	0.69	18.83	0.33	
0.917	0.27	6.917	1.84	12.917	0.69	18.92	0.33	
1.000	0.27	7.000	1.84	13.000	0.69	19.00	0.33	
1.083	0.28	7.083	2.57	13.083	0.66	19.08	0.32	
1.167	0.28	7.167	2.57	13.167	0.66	19.17	0.32	
1.250	0.28	7.250	2.57	13.250	0.66	19.25	0.32	
1.333	0.29	7.333	4.28	13.333	0.63	19.33	0.32	
1.417	0.29	7.417	4.28	13.417	0.63	19.42	0.32	
1.500	0.29	7.500	4.28	13.500	0.63	19.50	0.32	
1.583	0.30	7.583	12.47	13.583	0.60	19.58	0.31	
1.667	0.30	7.667	12.47	13.667	0.60	19.67	0.31	
1.750	0.30	7.750	12.47	13.750	0.60	19.75	0.31	
1.833	0.31	7.833	69.05	13.833	0.58	19.83	0.30	
1.917	0.31	7.917	69.05	13.917	0.58	19.92	0.30	
2.000	0.31	8.000	69.04	14.000	0.58	20.00	0.30	
2.083	0.32	8.083	17.10	14.083	0.56	20.08	0.30	
2.167	0.32	8.167	17.10	14.167	0.56	20.17	0.30	
2.250	0.32	8.250	17.10	14.250	0.56	20.25	0.30	
2.333	0.33	8.333	7.85	14.333	0.54	20.33	0.29	
2.417	0.33	8.417	7.85	14.417	0.54	20.42	0.29	
2.500	0.33	8.500	7.85	14.500	0.54	20.50	0.29	
2.583	0.35	8.583	4.97	14.583	0.52	20.58	0.29	
2.667	0.35	8.667	4.97	14.667	0.52	20.67	0.29	
2.750	0.35	8.750	4.97	14.750	0.52	20.75	0.29	
2.833	0.36	8.833	3.61	14.833	0.50	20.83	0.28	
2.917	0.36	8.917	3.61	14.917	0.50	20.92	0.28	
3.000	0.36	9.000	3.61	15.000	0.50	21.00	0.28	
3.083	0.38	9.083	2.83	15.083	0.49	21.08	0.28	
3.167	0.38	9.167	2.83	15.167	0.49	21.17	0.28	
3.250	0.38	9.250	2.83	15.250	0.49	21.25	0.28	
3.333	0.40	9.333	2.32	15.333	0.47	21.33	0.27	
3.417	0.40	9.417	2.32	15.417	0.47	21.42	0.27	
3.500	0.40	9.500	2.32	15.500	0.47	21.50	0.27	
3.583	0.42	9.583	1.98	15.583	0.46	21.58	0.27	
3.667	0.42	9.667	1.98	15.667	0.46	21.67	0.27	
3.750	0.42	9.750	1.98	15.750	0.46	21.75	0.27	
3.833	0.45	9.833	1.72	15.833	0.44	21.83	0.26	
3.917	0.45	9.917	1.72	15.917	0.44	21.92	0.26	
4.000	0.45	10.000	1.72	16.000	0.44	22.00	0.26	
4.083	0.48	10.083	1.52	16.083	0.43	22.08	0.26	
4.167	0.48	10.167	1.52	16.167	0.43	22.17	0.26	
4.250	0.48	10.250	1.52	16.250	0.43	22.25	0.26	
4.333	0.51	10.333	1.37	16.333	0.42	22.33	0.26	
4.417	0.51	10.417	1.37	16.417	0.42	22.42	0.26	
4.500	0.51	10.500	1.37	16.500	0.42	22.50	0.26	
4.583	0.55	10.583	1.24	16.583	0.41	22.58	0.25	
4.667	0.55	10.667	1.24	16.667	0.41	22.67	0.25	
4.750	0.55	10.750	1.24	16.750	0.41	22.75	0.25	
4.833	0.59	10.833	1.14	16.833	0.40	22.83	0.25	
4.917	0.59	10.917	1.14	16.917	0.40	22.92	0.25	
5.000	0.59	11.000	1.14	17.000	0.40	23.00	0.25	
5.083	0.64	11.083	1.05	17.083	0.39	23.08	0.24	
5.167	0.64	11.167	1.05	17.167	0.39	23.17	0.24	
5.250	0.64	11.250	1.05	17.250	0.39	23.25	0.24	
5.333	0.71	11.333	0.98	17.333	0.38	23.33	0.24	
5.417	0.71	11.417	0.98	17.417	0.38	23.42	0.24	
5.500	0.71	11.500	0.98	17.500	0.38	23.50	0.24	
5.583	0.78	11.583	0.91	17.583	0.37	23.58	0.24	
5.667	0.78	11.667	0.91	17.667	0.37	23.67	0.24	
5.750	0.78	11.750	0.91	17.750	0.37	23.75	0.24	
5.833	0.88	11.833	0.86	17.833	0.36	23.83	0.23	
5.917	0.88	11.917	0.86	17.917	0.36	23.92	0.23	
6.000	0.88	12.000	0.86	18.000	0.36	24.00	0.23	

Max.Eff. Inten. (mm/hr)= 69.05 17.84
 over (min) 5.00 5.00

Storage Coeff. (min)=	2.88 (ii)	4.18 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.28	0.24	
TOTALS			
PEAK FLOW (cms)=	0.32	0.00	0.322 (iii)
TIME TO PEAK (hrs)=	8.00	8.00	8.00
RUNOFF VOLUME (mm)=	41.76	11.32	41.46
TOTAL RAINFALL (mm)=	43.76	43.76	43.76
RUNOFF COEFFICIENT =	0.95	0.26	0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		Area (ha)= 1.33		Dir. Conn.(%)= 98.00	
STANDHYD (7651)		Total Imp(%)=	98.00		

Surface Area (ha)=	1.30	IMPERVIOUS		PERVIOUS (i)	
Dep. Storage (mm)=	2.00		0.03		
Average Slope (%)=	1.10		5.00		
Length (m)=	100.00		2.00		
Mannings n =	0.013		40.00		
			0.250		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	'	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME
hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	'	hrs	mm/hr	'	hrs
0.083	0.24	6.083	1.01	12.083	0.81	18.08	0.35				
0.167	0.24	6.167	1.01	12.167	0.81	18.17	0.35				
0.250	0.24	6.250	1.01	12.250	0.81	18.25	0.35				
0.333	0.25	6.333	1.19	12.333	0.76	18.33	0.34				
0.417	0.25	6.417	1.19	12.417	0.76	18.42	0.34				
0.500	0.25	6.500	1.19	12.500	0.76	18.50	0.34				
0.583	0.26	6.583	1.44	12.583	0.73	18.58	0.34				
0.667	0.26	6.667	1.44	12.667	0.73	18.67	0.34				
0.750	0.26	6.750	1.44	12.750	0.73	18.75	0.34				
0.833	0.27	6.833	1.84	12.833	0.69	18.83	0.33				
0.917	0.27	6.917	1.84	12.917	0.69	18.92	0.33				
1.000	0.27	7.000	1.84	13.000	0.69	19.00	0.33				
1.083	0.28	7.083	2.57	13.083	0.66	19.08	0.32				
1.167	0.28	7.167	2.57	13.167	0.66	19.17	0.32				
1.250	0.28	7.250	2.57	13.250	0.66	19.25	0.32				
1.333	0.29	7.333	4.28	13.333	0.63	19.33	0.32				
1.417	0.29	7.417	4.28	13.417	0.63	19.42	0.32				
1.500	0.29	7.500	4.28	13.500	0.63	19.50	0.32				
1.583	0.30	7.583	12.47	13.583	0.60	19.58	0.31				
1.667	0.30	7.667	12.47	13.667	0.60	19.67	0.31				
1.750	0.30	7.750	12.47	13.750	0.60	19.75	0.31				
1.833	0.31	7.833	69.05	13.833	0.58	19.83	0.30				
1.917	0.31	7.917	69.05	13.917	0.58	19.92	0.30				
2.000	0.31	8.000	69.04	14.000	0.58	20.00	0.30				
2.083	0.32	8.083	17.10	14.083	0.56	20.08	0.30				
2.167	0.32	8.167	17.10	14.167	0.56	20.17	0.30				
2.250	0.32	8.250	17.10	14.250	0.56	20.25	0.30				
2.333	0.33	8.333	7.85	14.333	0.54	20.33	0.29				
2.417	0.33	8.417	7.85	14.417	0.54	20.42	0.29				
2.500	0.33	8.500	7.85	14.500	0.54	20.50	0.29				
2.583	0.35	8.583	4.97	14.583	0.52	20.58	0.29				
2.667	0.35	8.667	4.97	14.667	0.52	20.67	0.29				
2.750	0.35	8.750	4.97	14.750	0.52	20.75	0.29				
2.833	0.36	8.833	3.61	14.833	0.50	20.83	0.28				
2.917	0.36	8.917	3.61	14.917	0.50	20.92	0.28				
3.000	0.36	9.000	3.61	15.000	0.50	21.00	0.28				
3.083	0.38	9.083	2.83	15.083	0.49	21.08	0.28				
3.167	0.38	9.167	2.83	15.167	0.49	21.17	0.28				
3.250	0.38	9.250	2.83	15.250	0.49	21.25	0.28				
3.333	0.40	9.333	2.32	15.333	0.47	21.33	0.27				
3.417	0.40	9.417	2.32	15.417	0.47	21.42	0.27				
3.500	0.40	9.500	2.32	15.500	0.47	21.50	0.27				
3.583	0.42	9.583	1.98	15.583	0.46	21.58	0.27				
3.667	0.42	9.667	1.98	15.667	0.46	21.67	0.27				
3.750	0.42	9.750	1.98	15.750	0.46	21.75	0.27				
3.833	0.45	9.833	1.72	15.833	0.44	21.83					

3.333	0.40	9.333	2.32	15.333	0.47	21.33	0.27
3.417	0.40	9.417	2.32	15.417	0.47	21.42	0.27
3.500	0.40	9.500	2.32	15.500	0.47	21.50	0.27
3.583	0.42	9.583	1.98	15.583	0.46	21.58	0.27
3.667	0.42	9.667	1.98	15.667	0.46	21.67	0.27
3.750	0.42	9.750	1.98	15.750	0.46	21.75	0.27
3.833	0.45	9.833	1.72	15.833	0.44	21.83	0.26
3.917	0.45	9.917	1.72	15.917	0.44	21.92	0.26
4.000	0.45	10.000	1.72	16.000	0.44	22.00	0.26
4.083	0.48	10.083	1.52	16.083	0.43	22.08	0.26
4.167	0.48	10.167	1.52	16.167	0.43	22.17	0.26
4.250	0.48	10.250	1.52	16.250	0.43	22.25	0.26
4.333	0.51	10.333	1.37	16.333	0.42	22.33	0.26
4.417	0.51	10.417	1.37	16.417	0.42	22.42	0.26
4.500	0.51	10.500	1.37	16.500	0.42	22.50	0.26
4.583	0.55	10.583	1.24	16.583	0.41	22.58	0.25
4.667	0.55	10.667	1.24	16.667	0.41	22.67	0.25
4.750	0.55	10.750	1.24	16.750	0.41	22.75	0.25
4.833	0.59	10.833	1.14	16.833	0.40	22.83	0.25
4.917	0.59	10.917	1.14	16.917	0.40	22.92	0.25
5.000	0.59	11.000	1.14	17.000	0.40	23.00	0.25
5.083	0.64	11.083	1.05	17.083	0.39	23.08	0.24
5.167	0.64	11.167	1.05	17.167	0.39	23.17	0.24
5.250	0.64	11.250	1.05	17.250	0.39	23.25	0.24
5.333	0.71	11.333	0.98	17.333	0.38	23.33	0.24
5.417	0.71	11.417	0.98	17.417	0.38	23.42	0.24
5.500	0.71	11.500	0.98	17.500	0.38	23.50	0.24
5.583	0.78	11.583	0.91	17.583	0.37	23.58	0.24
5.667	0.78	11.667	0.91	17.667	0.37	23.67	0.24
5.750	0.78	11.750	0.91	17.750	0.37	23.75	0.24
5.833	0.88	11.833	0.86	17.833	0.36	23.83	0.23
5.917	0.88	11.917	0.86	17.917	0.36	23.92	0.23
6.000	0.88	12.000	0.86	18.000	0.36	24.00	0.23

Max.Eff.Inten.(mm/hr)= 69.05 17.84
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.88 (ii) 4.60 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.28 0.23

TOTALS
 PEAK FLOW (cms)= 0.25 0.00 0.250 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 41.76 11.32 41.15
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.26 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7700)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7620):	1.45	0.268	8.00	40.54
+ ID2= 2 (7629):	1.70	0.322	8.00	41.46

ID = 3 (7700):	3.15	0.590	8.00	41.04

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7700)				
3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7700):	3.15	0.590	8.00	41.04
+ ID2= 2 (7651):	1.33	0.250	8.00	41.15

ID = 1 (7700):	4.48	0.840	8.00	41.07

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7623)	Area (ha)=	1.20	
ID= 1 DT= 5.0 min	Total Imp(%)=	95.00 Dir. Conn.(%)= 95.00	

Surface Area (ha)=	IMPERVIOUS	PERVIOUS (i)	
Dep. Storage (mm)=	1.14	0.06	
Average Slope (%)=	2.00	5.00	
Length (m)=	2.50	2.00	
Mannings n =	60.00	40.00	
	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.01	12.083	0.81	18.08	0.35
0.167	0.24	6.167	1.01	12.167	0.81	18.17	0.35
0.250	0.24	6.250	1.01	12.250	0.81	18.25	0.35
0.333	0.25	6.333	1.19	12.333	0.76	18.33	0.34
0.417	0.25	6.417	1.19	12.417	0.76	18.42	0.34
0.500	0.25	6.500	1.19	12.500	0.76	18.50	0.34
0.583	0.26	6.583	1.44	12.583	0.73	18.58	0.34
0.667	0.26	6.667	1.44	12.667	0.73	18.67	0.34
0.750	0.26	6.750	1.44	12.750	0.73	18.75	0.34
0.833	0.27	6.833	1.84	12.833	0.69	18.83	0.33
0.917	0.27	6.917	1.84	12.917	0.69	18.92	0.33
1.000	0.27	7.000	1.84	13.000	0.69	19.00	0.33
1.083	0.28	7.083	2.57	13.083	0.66	19.08	0.32
1.167	0.28	7.167	2.57	13.167	0.66	19.17	0.32
1.250	0.28	7.250	2.57	13.250	0.66	19.25	0.32
1.333	0.29	7.333	4.28	13.333	0.63	19.33	0.32
1.417	0.29	7.417	4.28	13.417	0.63	19.42	0.32
1.500	0.29	7.500	4.28	13.500	0.63	19.50	0.32
1.583	0.30	7.583	12.47	13.583	0.60	19.58	0.31
1.667	0.30	7.667	12.47	13.667	0.60	19.67	0.31
1.750	0.30	7.750	12.47	13.750	0.60	19.75	0.31
1.833	0.31	7.833	69.05	13.833	0.58	19.83	0.30
1.917	0.31	7.917	69.05	13.917	0.58	19.92	0.30
2.000	0.31	8.000	69.04	14.000	0.58	20.00	0.30
2.083	0.32	8.083	17.10	14.083	0.56	20.08	0.30
2.167	0.32	8.167	17.10	14.167	0.56	20.17	0.30
2.250	0.32	8.250	17.10	14.250	0.56	20.25	0.30
2.333	0.33	8.333	7.85	14.333	0.54	20.33	0.29
2.417	0.33	8.417	7.85	14.417	0.54	20.42	0.29
2.500	0.33	8.500	7.85	14.500	0.54	20.50	0.29
2.583	0.35	8.583	4.97	14.583	0.52	20.58	0.29
2.667	0.35	8.667	4.97	14.667	0.52	20.67	0.29
2.750	0.35	8.750	4.97	14.750	0.52	20.75	0.29
2.833	0.36	8.833	3.61	14.833	0.50	20.83	0.28
2.917	0.36	8.917	3.61	14.917	0.50	20.92	0.28
3.000	0.36	9.000	3.61	15.000	0.50	21.00	0.28
3.083	0.38	9.083	2.83	15.083	0.49	21.08	0.28
3.167	0.38	9.167	2.83	15.167	0.49	21.17	0.28
3.250	0.38	9.250	2.83	15.250	0.49	21.25	0.28
3.333	0.40	9.333	2.32	15.333	0.47	21.33	0.27
3.417	0.40	9.417	2.32	15.417	0.47	21.42	0.27
3.500	0.40	9.500	2.32	15.500	0.47	21.50	0.27
3.583	0.42	9.583	1.98	15.583	0.46	21.58	0.27
3.667	0.42	9.667	1.98	15.667	0.46	21.67	0.27
3.750	0.42	9.750	1.98	15.750	0.46	21.75	0.27
3.833	0.45	9.833	1.72	15.833	0.44	21.83	0.26
3.917	0.45	9.917	1.72	15.917	0.44	21.92	0.26
4.000	0.45	10.000	1.72	16.000	0.44	22.00	0.26
4.083	0.48	10.083	1.52	16.083	0.43	22.08	0.26
4.167	0.48	10.167	1.52	16.167	0.43	22.17	0.26
4.250	0.48	10.250	1.52	16.250	0.43	22.25	0.26
4.333	0.51	10.333	1.37	16.333	0.42	22.33	0.26
4.417	0.51	10.417	1.37	16.417	0.42	22.42	0.26
4.500	0.51	10.500	1.37	16.500	0.42	22.50	0.26
4.583	0.55	10.583	1.24	16.583	0.41	22.58	0.25

4.667	0.55	10.667	1.24	16.667	0.41	22.67	0.25
4.750	0.55	10.750	1.24	16.750	0.41	22.75	0.25
4.833	0.59	10.833	1.14	16.833	0.40	22.83	0.25
4.917	0.59	10.917	1.14	16.917	0.40	22.92	0.25
5.000	0.59	11.000	1.14	17.000	0.40	23.00	0.25
5.083	0.64	11.083	1.05	17.083	0.39	23.08	0.24
5.167	0.64	11.167	1.05	17.167	0.39	23.17	0.24
5.250	0.64	11.250	1.05	17.250	0.39	23.25	0.24
5.333	0.71	11.333	0.98	17.333	0.38	23.33	0.24
5.417	0.71	11.417	0.98	17.417	0.38	23.42	0.24
5.500	0.71	11.500	0.98	17.500	0.38	23.50	0.24
5.583	0.78	11.583	0.91	17.583	0.37	23.58	0.24
5.667	0.78	11.667	0.91	17.667	0.37	23.67	0.24
5.750	0.78	11.750	0.91	17.750	0.37	23.75	0.24
5.833	0.88	11.833	0.86	17.833	0.36	23.83	0.23
5.917	0.88	11.917	0.86	17.917	0.36	23.92	0.23
6.000	0.88	12.000	0.86	18.000	0.36	24.00	0.23

Max.Eff.Inten.(mm/hr)= 69.05 18.57
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.66 (ii) 4.18 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.24

TOTALS

PEAK FLOW (cms)= 0.22 0.00 0.222 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 41.76 11.74 40.26
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.27 0.92

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	1.69
STANDHYD (7654)	Total Imp(%)=	99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	99.00
Surface Area (ha)=	IMPERVIOUS	PERVIOUS (i)
Dep. Storage (mm)=		
Average Slope (%)=		
Length (m)=		
Mannings n =		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.24	6.083	1.01	12.083	0.81
0.167	0.24	6.167	1.01	12.167	0.81
0.250	0.24	6.250	1.01	12.250	0.81
0.333	0.25	6.333	1.19	12.333	0.76
0.417	0.25	6.417	1.19	12.417	0.76
0.500	0.25	6.500	1.19	12.500	0.76
0.583	0.26	6.583	1.44	12.583	0.73
0.667	0.26	6.667	1.44	12.667	0.73
0.750	0.26	6.750	1.44	12.750	0.73
0.833	0.27	6.833	1.84	12.833	0.69
0.917	0.27	6.917	1.84	12.917	0.69
1.000	0.27	7.000	1.84	13.000	0.69
1.083	0.28	7.083	2.57	13.083	0.66
1.167	0.28	7.167	2.57	13.167	0.66
1.250	0.28	7.250	2.57	13.250	0.66
1.333	0.29	7.333	4.28	13.333	0.63
1.417	0.29	7.417	4.28	13.417	0.63
1.500	0.29	7.500	4.28	13.500	0.63
1.583	0.30	7.583	12.47	13.583	0.60

1.667	0.30	7.667	12.47	13.667	0.60	19.67	0.31
1.750	0.30	7.750	12.47	13.750	0.60	19.75	0.31
1.833	0.31	7.833	69.05	13.833	0.58	19.83	0.30
1.917	0.31	7.917	69.05	13.917	0.58	19.92	0.30
2.000	0.31	8.000	69.04	14.000	0.58	20.00	0.30
2.083	0.32	8.083	17.10	14.083	0.56	20.08	0.30
2.167	0.32	8.167	17.10	14.167	0.56	20.17	0.30
2.250	0.32	8.250	17.10	14.250	0.56	20.25	0.30
2.333	0.33	8.333	7.85	14.333	0.54	20.33	0.29
2.417	0.33	8.417	7.85	14.417	0.54	20.42	0.29
2.500	0.33	8.500	7.85	14.500	0.54	20.50	0.29
2.583	0.35	8.583	4.97	14.583	0.52	20.58	0.29
2.667	0.35	8.667	4.97	14.667	0.52	20.67	0.29
2.750	0.35	8.750	4.97	14.750	0.52	20.75	0.29
2.833	0.36	8.833	3.61	14.833	0.50	20.83	0.28
2.917	0.36	8.917	3.61	14.917	0.50	20.92	0.28
3.000	0.36	9.000	3.61	15.000	0.50	21.00	0.28
3.083	0.38	9.083	2.83	15.083	0.49	21.08	0.28
3.167	0.38	9.167	2.83	15.167	0.49	21.17	0.28
3.250	0.38	9.250	2.83	15.250	0.49	21.25	0.28
3.333	0.40	9.333	2.32	15.333	0.47	21.33	0.27
3.417	0.40	9.417	2.32	15.417	0.47	21.42	0.27
3.500	0.40	9.500	2.32	15.500	0.47	21.50	0.27
3.583	0.42	9.583	1.98	15.583	0.46	21.58	0.27
3.667	0.42	9.667	1.98	15.667	0.46	21.67	0.27
3.750	0.42	9.750	1.98	15.750	0.46	21.75	0.27
3.833	0.45	9.833	1.72	15.833	0.44	21.83	0.26
3.917	0.45	9.917	1.72	15.917	0.44	21.92	0.26
4.000	0.45	10.000	1.72	16.000	0.44	22.00	0.26
4.083	0.48	10.083	1.52	16.083	0.43	22.08	0.26
4.167	0.48	10.167	1.52	16.167	0.43	22.17	0.26
4.250	0.48	10.250	1.52	16.250	0.43	22.25	0.26
4.333	0.51	10.333	1.37	16.333	0.42	22.33	0.26
4.417	0.51	10.417	1.37	16.417	0.42	22.42	0.26
4.500	0.51	10.500	1.37	16.500	0.42	22.50	0.26
4.583	0.55	10.583	1.24	16.583	0.41	22.58	0.25
4.667	0.55	10.667	1.24	16.667	0.41	22.67	0.25
4.750	0.55	10.750	1.24	16.750	0.41	22.75	0.25
4.833	0.59	10.833	1.14	16.833	0.40	22.83	0.25
4.917	0.59	10.917	1.14	16.917	0.40	22.92	0.25
5.000	0.59	11.000	1.14	17.000	0.40	23.00	0.25
5.083	0.64	11.083	1.05	17.083	0.39	23.08	0.24
5.167	0.64	11.167	1.05	17.167	0.39	23.17	0.24
5.250	0.64	11.250	1.05	17.250	0.39	23.25	0.24
5.333	0.71	11.333	0.98	17.333	0.38	23.33	0.24
5.417	0.71	11.417	0.98	17.417	0.38	23.42	0.24
5.500	0.71	11.500	0.98	17.500	0.38	23.50	0.24
5.583	0.78	11.583	0.91	17.583	0.37	23.58	0.24
5.667	0.78	11.667	0.91	17.667	0.37	23.67	0.24
5.750	0.78	11.750	0.91	17.750	0.37	23.75	0.24
5.833	0.88	11.833	0.86	17.833	0.36	23.83	0.23
5.917	0.88	11.917	0.86	17.917	0.36	23.92	0.23
6.000	0.88	12.000	0.86	18.000	0.36	24.00	0.23

Max.Eff.Inten.(mm/hr)= 69.05 17.84
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.88 (ii) 4.18 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.28 0.24

TOTALS

PEAK FLOW (cms)= 0.32 0.00 0.320 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 41.76 11.32 41.46
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.26 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.



CALIB
 STANDHYD (7655) | Area (ha)= 1.32
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.31 0.01
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.01	12.083	0.81	18.08	0.35
0.167	0.24	6.167	1.01	12.167	0.81	18.17	0.35
0.250	0.24	6.250	1.01	12.250	0.81	18.25	0.35
0.333	0.25	6.333	1.19	12.333	0.76	18.33	0.34
0.417	0.25	6.417	1.19	12.417	0.76	18.42	0.34
0.500	0.25	6.500	1.19	12.500	0.76	18.50	0.34
0.583	0.26	6.583	1.44	12.583	0.73	18.58	0.34
0.667	0.26	6.667	1.44	12.667	0.73	18.67	0.34
0.750	0.26	6.750	1.44	12.750	0.73	18.75	0.34
0.833	0.27	6.833	1.84	12.833	0.69	18.83	0.33
0.917	0.27	6.917	1.84	12.917	0.69	18.92	0.33
1.000	0.27	7.000	1.84	13.000	0.69	19.00	0.33
1.083	0.28	7.083	2.57	13.083	0.66	19.08	0.32
1.167	0.28	7.167	2.57	13.167	0.66	19.17	0.32
1.250	0.28	7.250	2.57	13.250	0.66	19.25	0.32
1.333	0.29	7.333	4.28	13.333	0.63	19.33	0.32
1.417	0.29	7.417	4.28	13.417	0.63	19.42	0.32
1.500	0.29	7.500	4.28	13.500	0.63	19.50	0.32
1.583	0.30	7.583	12.47	13.583	0.60	19.58	0.31
1.667	0.30	7.667	12.47	13.667	0.60	19.67	0.31
1.750	0.30	7.750	12.47	13.750	0.60	19.75	0.31
1.833	0.31	7.833	69.05	13.833	0.58	19.83	0.30
1.917	0.31	7.917	69.05	13.917	0.58	19.92	0.30
2.000	0.31	8.000	69.04	14.000	0.58	20.00	0.30
2.083	0.32	8.083	17.10	14.083	0.56	20.08	0.30
2.167	0.32	8.167	17.10	14.167	0.56	20.17	0.30
2.250	0.32	8.250	17.10	14.250	0.56	20.25	0.30
2.333	0.33	8.333	7.85	14.333	0.54	20.33	0.29
2.417	0.33	8.417	7.85	14.417	0.54	20.42	0.29
2.500	0.33	8.500	7.85	14.500	0.54	20.50	0.29
2.583	0.35	8.583	4.97	14.583	0.52	20.58	0.29
2.667	0.35	8.667	4.97	14.667	0.52	20.67	0.29
2.750	0.35	8.750	4.97	14.750	0.52	20.75	0.29
2.833	0.36	8.833	3.61	14.833	0.50	20.83	0.28
2.917	0.36	8.917	3.61	14.917	0.50	20.92	0.28
3.000	0.36	9.000	3.61	15.000	0.50	21.00	0.28
3.083	0.38	9.083	2.83	15.083	0.49	21.08	0.28
3.167	0.38	9.167	2.83	15.167	0.49	21.17	0.28
3.250	0.38	9.250	2.83	15.250	0.49	21.25	0.28
3.333	0.40	9.333	2.32	15.333	0.47	21.33	0.27
3.417	0.40	9.417	2.32	15.417	0.47	21.42	0.27
3.500	0.40	9.500	2.32	15.500	0.47	21.50	0.27
3.583	0.42	9.583	1.98	15.583	0.46	21.58	0.27
3.667	0.42	9.667	1.98	15.667	0.46	21.67	0.27
3.750	0.42	9.750	1.98	15.750	0.46	21.75	0.27
3.833	0.45	9.833	1.72	15.833	0.44	21.83	0.26
3.917	0.45	9.917	1.72	15.917	0.44	21.92	0.26
4.000	0.45	10.000	1.72	16.000	0.44	22.00	0.26
4.083	0.48	10.083	1.52	16.083	0.43	22.08	0.26
4.167	0.48	10.167	1.52	16.167	0.43	22.17	0.26
4.250	0.48	10.250	1.52	16.250	0.43	22.25	0.26
4.333	0.51	10.333	1.37	16.333	0.42	22.33	0.26
4.417	0.51	10.417	1.37	16.417	0.42	22.42	0.26
4.500	0.51	10.500	1.37	16.500	0.42	22.50	0.26
4.583	0.55	10.583	1.24	16.583	0.41	22.58	0.25
4.667	0.55	10.667	1.24	16.667	0.41	22.67	0.25
4.750	0.55	10.750	1.24	16.750	0.41	22.75	0.25
4.833	0.59	10.833	1.14	16.833	0.40	22.83	0.25
4.917	0.59	10.917	1.14	16.917	0.40	22.92	0.25

5.000	0.59	11.000	1.14	17.000	0.40	23.00	0.25
5.083	0.64	11.083	1.05	17.083	0.39	23.08	0.24
5.167	0.64	11.167	1.05	17.167	0.39	23.17	0.24
5.250	0.64	11.250	1.05	17.250	0.39	23.25	0.24
5.333	0.71	11.333	0.98	17.333	0.38	23.33	0.24
5.417	0.71	11.417	0.98	17.417	0.38	23.42	0.24
5.500	0.71	11.500	0.98	17.500	0.38	23.50	0.24
5.583	0.78	11.583	0.91	17.583	0.37	23.58	0.24
5.667	0.78	11.667	0.91	17.667	0.37	23.67	0.24
5.750	0.78	11.750	0.91	17.750	0.37	23.75	0.24
5.833	0.88	11.833	0.86	17.833	0.36	23.83	0.23
5.917	0.88	11.917	0.86	17.917	0.36	23.92	0.23
6.000	0.88	12.000	0.86	18.000	0.36	24.00	0.23

Max.Eff.Inten.(mm/hr)= 69.05 17.84
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.88 (ii) 4.18 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.28 0.24

TOTALS

PEAK FLOW (cms)= 0.25 0.00 0.250 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 41.76 11.32 41.46
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.26 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 STANDHYD (7662) | Area (ha)= 1.61
 ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.48 0.13
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 145.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.01	12.083	0.81	18.08	0.35
0.167	0.24	6.167	1.01	12.167	0.81	18.17	0.35
0.250	0.24	6.250	1.01	12.250	0.81	18.25	0.35
0.333	0.25	6.333	1.19	12.333	0.76	18.33	0.34
0.417	0.25	6.417	1.19	12.417	0.76	18.42	0.34
0.500	0.25	6.500	1.19	12.500	0.76	18.50	0.34
0.583	0.26	6.583	1.44	12.583	0.73	18.58	0.34
0.667	0.26	6.667	1.44	12.667	0.73	18.67	0.34
0.750	0.26	6.750	1.44	12.750	0.73	18.75	0.34
0.833	0.27	6.833	1.84	12.833	0.69	18.83	0.33
0.917	0.27	6.917	1.84	12.917	0.69	18.92	0.33
1.000	0.27	7.000	1.84	13.000	0.69	19.00	0.33
1.083	0.28	7.083	2.57	13.083	0.66	19.08	0.32
1.167	0.28	7.167	2.57	13.167	0.66	19.17	0.32
1.250	0.28	7.250	2.57	13.250	0.66	19.25	0.32
1.333	0.29	7.333	4.28	13.333	0.63	19.33	0.32
1.417	0.29	7.417	4.28	13.417	0.63	19.42	0.32
1.500	0.29	7.500	4.28	13.500	0.63	19.50	0.32
1.583	0.30	7.583	12.47	13.583	0.60	19.58	0.31
1.667	0.30	7.667	12.47	13.667	0.60	19.67	0.31
1.750	0.30	7.750	12.47	13.750	0.60	19.75	0.31
1.833	0.31	7.833	69.05	13.833	0.58	19.83	0.30
1.917	0.31	7.917	69.05	13.917	0.58	19.92	0.30



2.000	0.31	8.000	69.04	14.000	0.58	20.00	0.30
2.083	0.32	8.083	17.10	14.083	0.56	20.08	0.30
2.167	0.32	8.167	17.10	14.167	0.56	20.17	0.30
2.250	0.32	8.250	17.10	14.250	0.56	20.25	0.30
2.333	0.33	8.333	7.85	14.333	0.54	20.33	0.29
2.417	0.33	8.417	7.85	14.417	0.54	20.42	0.29
2.500	0.33	8.500	7.85	14.500	0.54	20.50	0.29
2.583	0.35	8.583	4.97	14.583	0.52	20.58	0.29
2.667	0.35	8.667	4.97	14.667	0.52	20.67	0.29
2.750	0.35	8.750	4.97	14.750	0.52	20.75	0.29
2.833	0.36	8.833	3.61	14.833	0.50	20.83	0.28
2.917	0.36	8.917	3.61	14.917	0.50	20.92	0.28
3.000	0.36	9.000	3.61	15.000	0.50	21.00	0.28
3.083	0.38	9.083	2.83	15.083	0.49	21.08	0.28
3.167	0.38	9.167	2.83	15.167	0.49	21.17	0.28
3.250	0.38	9.250	2.83	15.250	0.49	21.25	0.28
3.333	0.40	9.333	2.32	15.333	0.47	21.33	0.27
3.417	0.40	9.417	2.32	15.417	0.47	21.42	0.27
3.500	0.40	9.500	2.32	15.500	0.47	21.50	0.27
3.583	0.42	9.583	1.98	15.583	0.46	21.58	0.27
3.667	0.42	9.667	1.98	15.667	0.46	21.67	0.27
3.750	0.42	9.750	1.98	15.750	0.46	21.75	0.27
3.833	0.45	9.833	1.72	15.833	0.44	21.83	0.26
3.917	0.45	9.917	1.72	15.917	0.44	21.92	0.26
4.000	0.45	10.000	1.72	16.000	0.44	22.00	0.26
4.083	0.48	10.083	1.52	16.083	0.43	22.08	0.26
4.167	0.48	10.167	1.52	16.167	0.43	22.17	0.26
4.250	0.48	10.250	1.52	16.250	0.43	22.25	0.26
4.333	0.51	10.333	1.37	16.333	0.42	22.33	0.26
4.417	0.51	10.417	1.37	16.417	0.42	22.42	0.26
4.500	0.51	10.500	1.37	16.500	0.42	22.50	0.26
4.583	0.55	10.583	1.24	16.583	0.41	22.58	0.25
4.667	0.55	10.667	1.24	16.667	0.41	22.67	0.25
4.750	0.55	10.750	1.24	16.750	0.41	22.75	0.25
4.833	0.59	10.833	1.14	16.833	0.40	22.83	0.25
4.917	0.59	10.917	1.14	16.917	0.40	22.92	0.25
5.000	0.59	11.000	1.14	17.000	0.40	23.00	0.25
5.083	0.64	11.083	1.05	17.083	0.39	23.08	0.24
5.167	0.64	11.167	1.05	17.167	0.39	23.17	0.24
5.250	0.64	11.250	1.05	17.250	0.39	23.25	0.24
5.333	0.71	11.333	0.98	17.333	0.38	23.33	0.24
5.417	0.71	11.417	0.98	17.417	0.38	23.42	0.24
5.500	0.71	11.500	0.98	17.500	0.38	23.50	0.24
5.583	0.78	11.583	0.91	17.583	0.37	23.58	0.24
5.667	0.78	11.667	0.91	17.667	0.37	23.67	0.24
5.750	0.78	11.750	0.91	17.750	0.37	23.75	0.24
5.833	0.88	11.833	0.86	17.833	0.36	23.83	0.23
5.917	0.88	11.917	0.86	17.917	0.36	23.92	0.23
6.000	0.88	12.000	0.86	18.000	0.36	24.00	0.23

Max.Eff.Inten.(mm/hr)= 69.05 7.99
 over (min) 5.00 45.00
 Storage Coeff. (min)= 2.88 (ii) 44.87 (ii)
 Unit Hyd. Tpeak (min)= 5.00 45.00
 Unit Hyd. peak (cms)= 0.28 0.03

TOTALS
 PEAK FLOW (cms)= 0.28 0.00 0.283 (iii)
 TIME TO PEAK (hrs)= 8.00 8.67 8.00
 RUNOFF VOLUME (mm)= 41.76 11.32 39.32
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.26 0.90

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7701)				
1 + 2 = 3				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	

ID1= 1 (7654):	1.69	0.320	8.00	41.46
+ ID2= 2 (7655):	1.32	0.250	8.00	41.46

ID = 3 (7701):	3.01	0.570	8.00	41.46

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7701)				
3 + 2 = 1				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7701):	3.01	0.570	8.00	41.46
+ ID2= 2 (7662):	1.61	0.283	8.00	39.32

ID = 1 (7701):	4.62	0.854	8.00	40.71

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7707)			
ID= 1 DT= 5.0 min	Area (ha)=	1.06	
	Total Imp(%)=	95.00	Dir. Conn.(%)= 95.00

IMPERVIOUS			PERVIOUS (i)	
Surface Area (ha)=	1.01	0.05		
Dep. Storage (mm)=	2.00	5.00		
Average Slope (%)=	2.50	2.00		
Length (m)=	60.00	40.00		
Mannings n =	0.013	0.250		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.01	12.083	0.81	18.083	0.35		
0.167	0.24	6.167	1.01	12.167	0.81	18.167	0.35		
0.250	0.24	6.250	1.01	12.250	0.81	18.250	0.35		
0.333	0.25	6.333	1.19	12.333	0.76	18.333	0.34		
0.417	0.25	6.417	1.19	12.417	0.76	18.42	0.34		
0.500	0.25	6.500	1.19	12.500	0.76	18.50	0.34		
0.583	0.26	6.583	1.44	12.583	0.73	18.58	0.34		
0.667	0.26	6.667	1.44	12.667	0.73	18.67	0.34		
0.750	0.26	6.750	1.44	12.750	0.73	18.75	0.34		
0.833	0.27	6.833	1.84	12.833	0.69	18.83	0.33		
0.917	0.27	6.917	1.84	12.917	0.69	18.92	0.33		
1.000	0.27	7.000	1.84	13.000	0.69	19.00	0.33		
1.083	0.28	7.083	2.57	13.083	0.66	19.08	0.32		
1.167	0.28	7.167	2.57	13.167	0.66	19.17	0.32		
1.250	0.28	7.250	2.57	13.250	0.66	19.25	0.32		
1.333	0.29	7.333	4.28	13.333	0.63	19.33	0.32		
1.417	0.29	7.417	4.28	13.417	0.63	19.42	0.32		
1.500	0.29	7.500	4.28	13.500	0.63	19.50	0.32		
1.583	0.30	7.583	12.47	13.583	0.60	19.58	0.31		
1.667	0.30	7.667	12.47	13.667	0.60	19.67	0.31		
1.750	0.30	7.750	12.47	13.750	0.60	19.75	0.31		
1.833	0.31	7.833	69.05	13.833	0.58	19.83	0.30		
1.917	0.31	7.917	69.05	13.917	0.58	19.92	0.30		
2.000	0.31	8.000	69.04	14.000	0.58	20.00	0.30		
2.083	0.32	8.083	17.10	14.083	0.56	20.08	0.30		
2.167	0.32	8.167	17.10	14.167	0.56	20.17	0.30		
2.250	0.32	8.250	17.10	14.250	0.56	20.25	0.30		
2.333	0.33	8.333	7.85	14.333	0.54	20.33	0.29		
2.417	0.33	8.417	7.85	14.417	0.54	20.42	0.29		
2.500	0.33	8.500	7.85	14.500	0.54	20.50	0.29		
2.583	0.35	8.583	4.97	14.583	0.52	20.58	0.29		
2.667	0.35	8.667	4.97	14.667	0.52	20.67	0.29		
2.750	0.35	8.750	4.97	14.750	0.52	20.75	0.29		
2.833	0.36	8.833	3.61	14.833	0.50	20.83	0.28		
2.917	0.36	8.917	3.61	14.917	0.50	20.92	0.28		
3.000	0.36	9.000	3.61	15.000	0.50	21.00	0.28		
3.083	0.38	9.083	2.83	15.083	0.49	21.08	0.28		
3.167	0.38	9.167	2.83	15.167	0.49	21.17	0.28		
3.250	0.38	9.250	2.83	15.250	0.49	21.25	0.28		

3.333	0.40	9.333	2.32	15.333	0.47	21.33	0.27
3.417	0.40	9.417	2.32	15.417	0.47	21.42	0.27
3.500	0.40	9.500	2.32	15.500	0.47	21.50	0.27
3.583	0.42	9.583	1.98	15.583	0.46	21.58	0.27
3.667	0.42	9.667	1.98	15.667	0.46	21.67	0.27
3.750	0.42	9.750	1.98	15.750	0.46	21.75	0.27
3.833	0.45	9.833	1.72	15.833	0.44	21.83	0.26
3.917	0.45	9.917	1.72	15.917	0.44	21.92	0.26
4.000	0.45	10.000	1.72	16.000	0.44	22.00	0.26
4.083	0.48	10.083	1.52	16.083	0.43	22.08	0.26
4.167	0.48	10.167	1.52	16.167	0.43	22.17	0.26
4.250	0.48	10.250	1.52	16.250	0.43	22.25	0.26
4.333	0.51	10.333	1.37	16.333	0.42	22.33	0.26
4.417	0.51	10.417	1.37	16.417	0.42	22.42	0.26
4.500	0.51	10.500	1.37	16.500	0.42	22.50	0.26
4.583	0.55	10.583	1.24	16.583	0.41	22.58	0.25
4.667	0.55	10.667	1.24	16.667	0.41	22.67	0.25
4.750	0.55	10.750	1.24	16.750	0.41	22.75	0.25
4.833	0.59	10.833	1.14	16.833	0.40	22.83	0.25
4.917	0.59	10.917	1.14	16.917	0.40	22.92	0.25
5.000	0.59	11.000	1.14	17.000	0.40	23.00	0.25
5.083	0.64	11.083	1.05	17.083	0.39	23.08	0.24
5.167	0.64	11.167	1.05	17.167	0.39	23.17	0.24
5.250	0.64	11.250	1.05	17.250	0.39	23.25	0.24
5.333	0.71	11.333	0.98	17.333	0.38	23.33	0.24
5.417	0.71	11.417	0.98	17.417	0.38	23.42	0.24
5.500	0.71	11.500	0.98	17.500	0.38	23.50	0.24
5.583	0.78	11.583	0.91	17.583	0.37	23.58	0.24
5.667	0.78	11.667	0.91	17.667	0.37	23.67	0.24
5.750	0.78	11.750	0.91	17.750	0.37	23.75	0.24
5.833	0.88	11.833	0.86	17.833	0.36	23.83	0.23
5.917	0.88	11.917	0.86	17.917	0.36	23.92	0.23
6.000	0.88	12.000	0.86	18.000	0.36	24.00	0.23

Max.Eff.Inten.(mm/hr)= 69.05 18.57
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.66 (ii) 4.18 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.24

TOTALS
 PEAK FLOW (cms)= 0.19 0.00 0.196 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 41.76 11.74 40.26
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.27 0.92

- ***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
 - (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
 - (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7702)							
1 + 2 = 3							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 1 (7623):	1.20	0.222	8.00	40.26			
+ ID2= 2 (7700):	4.48	0.840	8.00	41.07			
=====							
ID = 3 (7702):	5.68	1.062	8.00	40.90			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)							
3 + 2 = 1							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 3 (7702):	5.68	1.062	8.00	40.90			
+ ID2= 2 (7701):	4.62	0.854	8.00	40.71			
=====							
ID = 1 (7702):	10.30	1.915	8.00	40.82			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)					
1 + 2 = 3					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7702):	10.30	1.915	8.00	40.82	
+ ID2= 2 (7707):	1.06	0.196	8.00	40.26	
=====					
ID = 3 (7702):	11.36	2.111	8.00	40.76	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)					
3 + 2 = 1					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7702):	11.36	2.111	8.00	40.76	
+ ID2= 2 (7714):	14.31	1.078	8.00	42.44	
=====					
ID = 1 (7702):	25.67	3.189	8.00	41.70	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7705)					
OVERFLOW IS OFF					
IN= 2---> OUT= 1					
DT= 5.0 min					
	OUTFLOW	STORAGE	OUTFLOW	STORAGE	
	(cms)	(ha.m.)	(cms)	(ha.m.)	
	0.0000	0.0000	0.6280	2.3980	
	0.0730	0.2080	0.6400	2.4830	
	0.0890	0.2770	0.6520	2.5670	
	0.1340	0.5530	0.6640	2.6500	
	0.2910	0.8290	0.6750	2.7340	
	0.3860	1.1060	0.7190	3.0490	
	0.4590	1.3820	0.8250	3.3550	
	0.5220	1.7210	2.0760	3.4560	
	0.5780	2.0600	2.3560	3.7320	

	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 2 (7702)	25.670	3.189	8.00	41.70	
OUTFLOW: ID= 1 (7705)	25.670	0.176	12.25	41.67	

PEAK FLOW REDUCTION [Qout/Qin](%) = 5.52
 TIME SHIFT OF PEAK FLOW (min) = 255.00
 MAXIMUM STORAGE USED (ha.m.) = 0.6272

CALIB					
STANDHYD (7716)					
ID= 1 DT= 5.0 min					
	Area	(ha)=	0.19		
	Total Imp(%)	=	95.00	Dir. Conn.(%)	= 95.00
=====					
	SURFACE AREA	(ha)=	0.18	PERVIOUS (i)	
	Dep. Storage	(mm)=	2.00	5.00	
	Average Slope	(%)=	2.50	2.00	
	Length	(m)=	60.00	40.00	
	Mannings n	=	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.01	12.083	0.81	18.08	0.35				
0.167	0.24	6.167	1.01	12.167	0.81	18.17	0.35				
0.250	0.24	6.250	1.01	12.250	0.81	18.25	0.35				
0.333	0.25	6.333	1.19	12.333	0.76	18.33	0.34				
0.417	0.25	6.417	1.19	12.417	0.76	18.42	0.34				
0.500	0.25	6.500	1.19	12.500	0.76	18.50	0.34				

2.000	0.31	8.000	69.04	14.000	0.58	20.00	0.30
2.083	0.32	8.083	17.10	14.083	0.56	20.08	0.30
2.167	0.32	8.167	17.10	14.167	0.56	20.17	0.30
2.250	0.32	8.250	17.10	14.250	0.56	20.25	0.30
2.333	0.33	8.333	7.85	14.333	0.54	20.33	0.29
2.417	0.33	8.417	7.85	14.417	0.54	20.42	0.29
2.500	0.33	8.500	7.85	14.500	0.54	20.50	0.29
2.583	0.35	8.583	4.97	14.583	0.52	20.58	0.29
2.667	0.35	8.667	4.97	14.667	0.52	20.67	0.29
2.750	0.35	8.750	4.97	14.750	0.52	20.75	0.29
2.833	0.36	8.833	3.61	14.833	0.50	20.83	0.28
2.917	0.36	8.917	3.61	14.917	0.50	20.92	0.28
3.000	0.36	9.000	3.61	15.000	0.50	21.00	0.28
3.083	0.38	9.083	2.83	15.083	0.49	21.08	0.28
3.167	0.38	9.167	2.83	15.167	0.49	21.17	0.28
3.250	0.38	9.250	2.83	15.250	0.49	21.25	0.28
3.333	0.40	9.333	2.32	15.333	0.47	21.33	0.27
3.417	0.40	9.417	2.32	15.417	0.47	21.42	0.27
3.500	0.40	9.500	2.32	15.500	0.47	21.50	0.27
3.583	0.42	9.583	1.98	15.583	0.46	21.58	0.27
3.667	0.42	9.667	1.98	15.667	0.46	21.67	0.27
3.750	0.42	9.750	1.98	15.750	0.46	21.75	0.27
3.833	0.45	9.833	1.72	15.833	0.44	21.83	0.26
3.917	0.45	9.917	1.72	15.917	0.44	21.92	0.26
4.000	0.45	10.000	1.72	16.000	0.44	22.00	0.26
4.083	0.48	10.083	1.52	16.083	0.43	22.08	0.26
4.167	0.48	10.167	1.52	16.167	0.43	22.17	0.26
4.250	0.48	10.250	1.52	16.250	0.43	22.25	0.26
4.333	0.51	10.333	1.37	16.333	0.42	22.33	0.26
4.417	0.51	10.417	1.37	16.417	0.42	22.42	0.26
4.500	0.51	10.500	1.37	16.500	0.42	22.50	0.26
4.583	0.55	10.583	1.24	16.583	0.41	22.58	0.25
4.667	0.55	10.667	1.24	16.667	0.41	22.67	0.25
4.750	0.55	10.750	1.24	16.750	0.41	22.75	0.25
4.833	0.59	10.833	1.14	16.833	0.40	22.83	0.25
4.917	0.59	10.917	1.14	16.917	0.40	22.92	0.25
5.000	0.59	11.000	1.14	17.000	0.40	23.00	0.25
5.083	0.64	11.083	1.05	17.083	0.39	23.08	0.24
5.167	0.64	11.167	1.05	17.167	0.39	23.17	0.24
5.250	0.64	11.250	1.05	17.250	0.39	23.25	0.24
5.333	0.71	11.333	0.98	17.333	0.38	23.33	0.24
5.417	0.71	11.417	0.98	17.417	0.38	23.42	0.24
5.500	0.71	11.500	0.98	17.500	0.38	23.50	0.24
5.583	0.78	11.583	0.91	17.583	0.37	23.58	0.24
5.667	0.78	11.667	0.91	17.667	0.37	23.67	0.24
5.750	0.78	11.750	0.91	17.750	0.37	23.75	0.24
5.833	0.88	11.833	0.86	17.833	0.36	23.83	0.23
5.917	0.88	11.917	0.86	17.917	0.36	23.92	0.23
6.000	0.88	12.000	0.86	18.000	0.36	24.00	0.23

Max.Eff.Inten.(mm/hr)= 69.05 18.57
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.23 (ii) 3.75 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.25

TOTALS
 PEAK FLOW (cms)= 0.04 0.00 0.037 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00
 RUNOFF VOLUME (mm)= 41.76 11.74 40.26
 TOTAL RAINFALL (mm)= 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.27 0.92

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7719)				OVERFLOW IS OFF			
IN= 2--> OUT= 1							
DT= 5.0 min							
OUTFLOW (cms)		STORAGE (ha.m.)		OUTFLOW (cms)		STORAGE (ha.m.)	

0.0000	0.0000	0.0100	0.0090
0.0030	0.0010	0.0110	0.0100
0.0050	0.0030	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7717)	0.200	0.037	8.00	40.26
OUTFLOW : ID= 1 (7719)	0.200	0.006	8.33	40.06

PEAK FLOW REDUCTION [Qout/Qin](%)= 16.27
 TIME SHIFT OF PEAK FLOW (min)= 20.00
 MAXIMUM STORAGE USED (ha.m.)= 0.0040

ADD HYD (7706)				
1 + 2 = 3				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7705):	25.67	0.176	12.25	41.67
+ ID2= 2 (7719):	0.20	0.006	8.33	40.06
ID = 3 (7706):	25.87	0.177	12.25	41.66

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7706)				
3 + 2 = 1				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (7706):	25.87	0.177	12.25	41.66
+ ID2= 2 (7720):	0.19	0.006	8.33	40.06
ID = 1 (7706):	26.06	0.179	12.17	41.65

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB STANDHYD (7595)		Area (ha)= 1.24
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00	Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.23	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	91.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.24	6.083	1.01	12.083	0.81	18.08	0.35
0.167	0.24	6.167	1.01	12.167	0.81	18.17	0.35
0.250	0.24	6.250	1.01	12.250	0.81	18.25	0.35
0.333	0.25	6.333	1.19	12.333	0.76	18.33	0.34
0.417	0.25	6.417	1.19	12.417	0.76	18.42	0.34
0.500	0.25	6.500	1.19	12.500	0.76	18.50	0.34
0.583	0.26	6.583	1.44	12.583	0.73	18.58	0.34
0.667	0.26	6.667	1.44	12.667	0.73	18.67	0.34
0.750	0.26	6.750	1.44	12.750	0.73	18.75	0.34
0.833	0.27	6.833	1.84	12.833	0.69	18.83	0.33
0.917	0.27	6.917	1.84	12.917	0.69	18.92	0.33
1.000	0.27	7.000	1.84	13.000	0.69	19.00	0.33
1.083	0.28	7.083	2.57	13.083	0.66	19.08	0.32
1.167	0.28	7.167	2.57	13.167	0.66	19.17	0.32
1.250	0.28	7.250	2.57	13.250	0.66	19.25	0.32
1.333	0.29	7.333	4.28	13.333	0.63	19.33	0.32



1.417	0.29	7.417	4.28	13.417	0.63	19.42	0.32
1.500	0.29	7.500	4.28	13.500	0.63	19.50	0.32
1.583	0.30	7.583	12.47	13.583	0.60	19.58	0.31
1.667	0.30	7.667	12.47	13.667	0.60	19.67	0.31
1.750	0.30	7.750	12.47	13.750	0.60	19.75	0.31
1.833	0.31	7.833	69.05	13.833	0.58	19.83	0.30
1.917	0.31	7.917	69.05	13.917	0.58	19.92	0.30
2.000	0.31	8.000	69.04	14.000	0.58	20.00	0.30
2.083	0.32	8.083	17.10	14.083	0.56	20.08	0.30
2.167	0.32	8.167	17.10	14.167	0.56	20.17	0.30
2.250	0.32	8.250	17.10	14.250	0.56	20.25	0.30
2.333	0.33	8.333	7.85	14.333	0.54	20.33	0.29
2.417	0.33	8.417	7.85	14.417	0.54	20.42	0.29
2.500	0.33	8.500	7.85	14.500	0.54	20.50	0.29
2.583	0.35	8.583	4.97	14.583	0.52	20.58	0.29
2.667	0.35	8.667	4.97	14.667	0.52	20.67	0.29
2.750	0.35	8.750	4.97	14.750	0.52	20.75	0.29
2.833	0.36	8.833	3.61	14.833	0.50	20.83	0.28
2.917	0.36	8.917	3.61	14.917	0.50	20.92	0.28
3.000	0.36	9.000	3.61	15.000	0.50	21.00	0.28
3.083	0.38	9.083	2.83	15.083	0.49	21.08	0.28
3.167	0.38	9.167	2.83	15.167	0.49	21.17	0.28
3.250	0.38	9.250	2.83	15.250	0.49	21.25	0.28
3.333	0.40	9.333	2.32	15.333	0.47	21.33	0.27
3.417	0.40	9.417	2.32	15.417	0.47	21.42	0.27
3.500	0.40	9.500	2.32	15.500	0.47	21.50	0.27
3.583	0.42	9.583	1.98	15.583	0.46	21.58	0.27
3.667	0.42	9.667	1.98	15.667	0.46	21.67	0.27
3.750	0.42	9.750	1.98	15.750	0.46	21.75	0.27
3.833	0.45	9.833	1.72	15.833	0.44	21.83	0.26
3.917	0.45	9.917	1.72	15.917	0.44	21.92	0.26
4.000	0.45	10.000	1.72	16.000	0.44	22.00	0.26
4.083	0.48	10.083	1.52	16.083	0.43	22.08	0.26
4.167	0.48	10.167	1.52	16.167	0.43	22.17	0.26
4.250	0.48	10.250	1.52	16.250	0.43	22.25	0.26
4.333	0.51	10.333	1.37	16.333	0.42	22.33	0.26
4.417	0.51	10.417	1.37	16.417	0.42	22.42	0.26
4.500	0.51	10.500	1.37	16.500	0.42	22.50	0.26
4.583	0.55	10.583	1.24	16.583	0.41	22.58	0.25
4.667	0.55	10.667	1.24	16.667	0.41	22.67	0.25
4.750	0.55	10.750	1.24	16.750	0.41	22.75	0.25
4.833	0.59	10.833	1.14	16.833	0.40	22.83	0.25
4.917	0.59	10.917	1.14	16.917	0.40	22.92	0.25
5.000	0.59	11.000	1.14	17.000	0.40	23.00	0.25
5.083	0.64	11.083	1.05	17.083	0.39	23.08	0.24
5.167	0.64	11.167	1.05	17.167	0.39	23.17	0.24
5.250	0.64	11.250	1.05	17.250	0.39	23.25	0.24
5.333	0.71	11.333	0.98	17.333	0.38	23.33	0.24
5.417	0.71	11.417	0.98	17.417	0.38	23.42	0.24
5.500	0.71	11.500	0.98	17.500	0.38	23.50	0.24
5.583	0.78	11.583	0.91	17.583	0.37	23.58	0.24
5.667	0.78	11.667	0.91	17.667	0.37	23.67	0.24
5.750	0.78	11.750	0.91	17.750	0.37	23.75	0.24
5.833	0.88	11.833	0.86	17.833	0.36	23.83	0.23
5.917	0.88	11.917	0.86	17.917	0.36	23.92	0.23
6.000	0.88	12.000	0.86	18.000	0.36	24.00	0.23

Max.Eff.Inten.(mm/hr)= 69.05 17.84
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.27 (ii) 3.58 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.30 0.26

TOTALS
 PEAK FLOW (cms)= 0.24 0.00 0.236 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00
 RUNOFF VOLUME (mm)= 41.76 11.32 41.46
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.26 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7718) |
| 1 + 2 = 3 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7595): 1.24 0.236 8.00 41.46
+ ID2= 2 ( 7706): 26.06 0.179 12.17 41.65
-----
ID = 3 ( 7718): 27.30 0.343 8.00 41.64
-----
NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-----
| RESERVOIR ( 7711) | OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT= 5.0 min |
-----
OUTFLOW STORAGE | OUTFLOW STORAGE
(cms) (ha.m.) | (cms) (ha.m.)
0.0000 0.0000 | 1.0810 1.6220
0.0010 0.1670 | 1.3950 1.8170
0.0340 0.3380 | 2.0990 2.2130
0.0510 0.5110 | 2.8950 2.6150
0.0630 0.6880 | 3.7730 3.0250
0.1610 0.8670 | 4.7260 3.4420
0.3300 1.0500 | 5.5670 3.8670
0.5440 1.2370 | 6.5800 4.3000
0.7970 1.4290 | 10.9450 4.5210
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 2 ( 7718) 27.302 0.343 8.00 41.64
OUTFLOW: ID= 1 ( 7711) 27.302 0.061 28.58 36.26
-----
PEAK FLOW REDUCTION [Qout/Qin](%)= 17.64
TIME SHIFT OF PEAK FLOW (min)=*****
MAXIMUM STORAGE USED (ha.m.)= 0.6516
-----

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=====
5.25 1.05 | 11.25 1.47 | 17.25 0.55 | 23.25 0.35
5.50 1.17 | 11.50 1.37 | 17.50 0.54 | 23.50 0.34
5.75 1.32 | 11.75 1.28 | 17.75 0.52 | 23.75 0.34
=====
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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| CALIB |
| STANDBYD ( 7640) | Area (ha)= 0.59
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.58 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 62.72 40.00
Mannings n = 0.013 0.250

```

***** D E T A I L E D O U T P U T *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\8299cdd-348b-4b78-b627-78b794ef3643\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\8299cdd-348b-4b78-b627-78b794ef3643\scen

DATE: 11-22-2024 TIME: 12:17:32

USER:

COMMENTS:

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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-----
** SIMULATION : B - 5yr 24hr 15min Chicago **
-----
| CHICAGO STORM | IDF curve parameters: A=1593.000
| Ptotal= 63.63 mm | B= 11.000
| | C= 0.879
-----
used in: INTENSITY = A / (t + B)^C

Duration of storm = 24.00 hrs
Storm time step = 15.00 min
Time to peak ratio = 0.33

```

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.35	6.083	1.52	12.083	1.20	18.08	0.51
0.167	0.35	6.167	1.52	12.167	1.20	18.17	0.51
0.250	0.35	6.250	1.52	12.250	1.20	18.25	0.51
0.333	0.36	6.333	1.80	12.333	1.14	18.33	0.50
0.417	0.36	6.417	1.80	12.417	1.14	18.42	0.50
0.500	0.36	6.500	1.80	12.500	1.14	18.50	0.50
0.583	0.37	6.583	2.21	12.583	1.08	18.58	0.49
0.667	0.37	6.667	2.21	12.667	1.08	18.67	0.49
0.750	0.37	6.750	2.21	12.750	1.08	18.75	0.49
0.833	0.39	6.833	2.85	12.833	1.02	18.83	0.48
0.917	0.39	6.917	2.85	12.917	1.02	18.92	0.48
1.000	0.39	7.000	2.85	13.000	1.02	19.00	0.48
1.083	0.40	7.083	4.04	13.083	0.98	19.08	0.47
1.167	0.40	7.167	4.04	13.167	0.98	19.17	0.47
1.250	0.40	7.250	4.04	13.250	0.98	19.25	0.47
1.333	0.41	7.333	6.85	13.333	0.93	19.33	0.46
1.417	0.41	7.417	6.85	13.417	0.93	19.42	0.46
1.500	0.41	7.500	6.85	13.500	0.93	19.50	0.46
1.583	0.43	7.583	19.82	13.583	0.89	19.58	0.45
1.667	0.43	7.667	19.82	13.667	0.89	19.67	0.45
1.750	0.43	7.750	19.82	13.750	0.89	19.75	0.45
1.833	0.45	7.833	90.91	13.833	0.86	19.83	0.44
1.917	0.45	7.917	90.91	13.917	0.86	19.92	0.44
2.000	0.45	8.000	90.90	14.000	0.86	20.00	0.44
2.083	0.46	8.083	26.99	14.083	0.82	20.08	0.43
2.167	0.46	8.167	26.99	14.167	0.82	20.17	0.43
2.250	0.46	8.250	26.99	14.250	0.82	20.25	0.43
2.333	0.48	8.333	12.67	14.333	0.79	20.33	0.42
2.417	0.48	8.417	12.67	14.417	0.79	20.42	0.42
2.500	0.48	8.500	12.67	14.500	0.79	20.50	0.42
2.583	0.51	8.583	7.98	14.583	0.76	20.58	0.42
2.667	0.51	8.667	7.98	14.667	0.76	20.67	0.42
2.750	0.51	8.750	7.98	14.750	0.76	20.75	0.42
2.833	0.53	8.833	5.74	14.833	0.74	20.83	0.41
2.917	0.53	8.917	5.74	14.917	0.74	20.92	0.41
3.000	0.53	9.000	5.74	15.000	0.74	21.00	0.41
3.083	0.56	9.083	4.46	15.083	0.71	21.08	0.40
3.167	0.56	9.167	4.46	15.167	0.71	21.17	0.40
3.250	0.56	9.250	4.46	15.250	0.71	21.25	0.40
3.333	0.59	9.333	3.63	15.333	0.69	21.33	0.40
3.417	0.59	9.417	3.63	15.417	0.69	21.42	0.40
3.500	0.59	9.500	3.63	15.500	0.69	21.50	0.40
3.583	0.62	9.583	3.07	15.583	0.67	21.58	0.39
3.667	0.62	9.667	3.07	15.667	0.67	21.67	0.39
3.750	0.62	9.750	3.07	15.750	0.67	21.75	0.39
3.833	0.66	9.833	2.65	15.833	0.65	21.83	0.38
3.917	0.66	9.917	2.65	15.917	0.65	21.92	0.38
4.000	0.66	10.000	2.65	16.000	0.65	22.00	0.38
4.083	0.70	10.083	2.33	16.083	0.63	22.08	0.38
4.167	0.70	10.167	2.33	16.167	0.63	22.17	0.38
4.250	0.70	10.250	2.33	16.250	0.63	22.25	0.38
4.333	0.75	10.333	2.09	16.333	0.61	22.33	0.37

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.35	6.00	1.52	12.00	1.20	18.00	0.51
0.25	0.36	6.25	1.80	12.25	1.14	18.25	0.50
0.50	0.37	6.50	2.21	12.50	1.08	18.50	0.49
0.75	0.39	6.75	2.85	12.75	1.02	18.75	0.48
1.00	0.40	7.00	4.04	13.00	0.98	19.00	0.47
1.25	0.41	7.25	6.85	13.25	0.93	19.25	0.46
1.50	0.43	7.50	19.82	13.50	0.89	19.50	0.45
1.75	0.45	7.75	90.91	13.75	0.86	19.75	0.44
2.00	0.46	8.00	26.99	14.00	0.82	20.00	0.43
2.25	0.48	8.25	12.67	14.25	0.79	20.25	0.42
2.50	0.51	8.50	7.98	14.50	0.76	20.50	0.42
2.75	0.53	8.75	5.74	14.75	0.74	20.75	0.41
3.00	0.56	9.00	4.46	15.00	0.71	21.00	0.40
3.25	0.59	9.25	3.63	15.25	0.69	21.25	0.40
3.50	0.62	9.50	3.07	15.50	0.67	21.50	0.39
3.75	0.66	9.75	2.65	15.75	0.65	21.75	0.38
4.00	0.70	10.00	2.33	16.00	0.63	22.00	0.38
4.25	0.75	10.25	2.09	16.25	0.61	22.25	0.37
4.50	0.81	10.50	1.89	16.50	0.59	22.50	0.36
4.75	0.87	10.75	1.72	16.75	0.58	22.75	0.36
5.00	0.95	11.00	1.58	17.00	0.56	23.00	0.35



4.417	0.75	10.417	2.09	16.417	0.61	22.42	0.37
4.500	0.75	10.500	2.09	16.500	0.61	22.50	0.37
4.583	0.81	10.583	1.89	16.583	0.59	22.58	0.36
4.667	0.81	10.667	1.89	16.667	0.59	22.67	0.36
4.750	0.81	10.750	1.89	16.750	0.59	22.75	0.36
4.833	0.87	10.833	1.72	16.833	0.58	22.83	0.36
4.917	0.87	10.917	1.72	16.917	0.58	22.92	0.36
5.000	0.87	11.000	1.72	17.000	0.58	23.00	0.36
5.083	0.95	11.083	1.58	17.083	0.56	23.08	0.35
5.167	0.95	11.167	1.58	17.167	0.56	23.17	0.35
5.250	0.95	11.250	1.58	17.250	0.56	23.25	0.35
5.333	1.05	11.333	1.47	17.333	0.55	23.33	0.35
5.417	1.05	11.417	1.47	17.417	0.55	23.42	0.35
5.500	1.05	11.500	1.47	17.500	0.55	23.50	0.35
5.583	1.17	11.583	1.37	17.583	0.54	23.58	0.34
5.667	1.17	11.667	1.37	17.667	0.54	23.67	0.34
5.750	1.17	11.750	1.37	17.750	0.54	23.75	0.34
5.833	1.32	11.833	1.28	17.833	0.52	23.83	0.34
5.917	1.32	11.917	1.28	17.917	0.52	23.92	0.34
6.000	1.32	12.000	1.28	18.000	0.52	24.00	0.34

1.917	0.45	7.917	90.91	13.917	0.86	19.92	0.44
2.000	0.45	8.000	90.90	14.000	0.86	20.00	0.44
2.083	0.46	8.083	26.99	14.083	0.82	20.08	0.43
2.167	0.46	8.167	26.99	14.167	0.82	20.17	0.43
2.250	0.46	8.250	26.99	14.250	0.82	20.25	0.43
2.333	0.48	8.333	12.67	14.333	0.79	20.33	0.42
2.417	0.48	8.417	12.67	14.417	0.79	20.42	0.42
2.500	0.48	8.500	12.67	14.500	0.79	20.50	0.42
2.583	0.51	8.583	7.98	14.583	0.76	20.58	0.42
2.667	0.51	8.667	7.98	14.667	0.76	20.67	0.42
2.750	0.51	8.750	7.98	14.750	0.76	20.75	0.42
2.833	0.53	8.833	5.74	14.833	0.74	20.83	0.41
2.917	0.53	8.917	5.74	14.917	0.74	20.92	0.41
3.000	0.53	9.000	5.74	15.000	0.74	21.00	0.41
3.083	0.56	9.083	4.46	15.083	0.71	21.08	0.40
3.167	0.56	9.167	4.46	15.167	0.71	21.17	0.40
3.250	0.56	9.250	4.46	15.250	0.71	21.25	0.40
3.333	0.59	9.333	3.63	15.333	0.69	21.33	0.40
3.417	0.59	9.417	3.63	15.417	0.69	21.42	0.40
3.500	0.59	9.500	3.63	15.500	0.69	21.50	0.40
3.583	0.62	9.583	3.07	15.583	0.67	21.58	0.39
3.667	0.62	9.667	3.07	15.667	0.67	21.67	0.39
3.750	0.62	9.750	3.07	15.750	0.67	21.75	0.39
3.833	0.66	9.833	2.65	15.833	0.65	21.83	0.38
3.917	0.66	9.917	2.65	15.917	0.65	21.92	0.38
4.000	0.66	10.000	2.65	16.000	0.65	22.00	0.38
4.083	0.70	10.083	2.33	16.083	0.63	22.08	0.38
4.167	0.70	10.167	2.33	16.167	0.63	22.17	0.38
4.250	0.70	10.250	2.33	16.250	0.63	22.25	0.38
4.333	0.75	10.333	2.09	16.333	0.61	22.33	0.37
4.417	0.75	10.417	2.09	16.417	0.61	22.42	0.37
4.500	0.75	10.500	2.09	16.500	0.61	22.50	0.37
4.583	0.81	10.583	1.89	16.583	0.59	22.58	0.36
4.667	0.81	10.667	1.89	16.667	0.59	22.67	0.36
4.750	0.81	10.750	1.89	16.750	0.59	22.75	0.36
4.833	0.87	10.833	1.72	16.833	0.58	22.83	0.36
4.917	0.87	10.917	1.72	16.917	0.58	22.92	0.36
5.000	0.87	11.000	1.72	17.000	0.58	23.00	0.36
5.083	0.95	11.083	1.58	17.083	0.56	23.08	0.35
5.167	0.95	11.167	1.58	17.167	0.56	23.17	0.35
5.250	0.95	11.250	1.58	17.250	0.56	23.25	0.35
5.333	1.05	11.333	1.47	17.333	0.55	23.33	0.35
5.417	1.05	11.417	1.47	17.417	0.55	23.42	0.35
5.500	1.05	11.500	1.47	17.500	0.55	23.50	0.35
5.583	1.17	11.583	1.37	17.583	0.54	23.58	0.34
5.667	1.17	11.667	1.37	17.667	0.54	23.67	0.34
5.750	1.17	11.750	1.37	17.750	0.54	23.75	0.34
5.833	1.32	11.833	1.28	17.833	0.52	23.83	0.34
5.917	1.32	11.917	1.28	17.917	0.52	23.92	0.34
6.000	1.32	12.000	1.28	18.000	0.52	24.00	0.34

Max.Eff.Inten.(mm/hr)= 90.91 32.71
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.63 (ii) 2.80 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.28

PEAK FLOW (cms)= 0.15 0.00 0.148 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00
 RUNOFF VOLUME (mm)= 61.63 22.53 61.23
 TOTAL RAINFALL (mm)= 63.63 63.63 63.63
 RUNOFF COEFFICIENT = 0.97 0.35 0.96

****TOTALS****

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALLIB |
 | NASHYD (7721) | Area (ha)= 0.21 Curve Number (CN)= 73.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00

 U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.35	6.083	1.52	12.083	1.20	18.08	0.51
0.167	0.35	6.167	1.52	12.167	1.20	18.17	0.51
0.250	0.35	6.250	1.52	12.250	1.20	18.25	0.51
0.333	0.36	6.333	1.80	12.333	1.14	18.33	0.50
0.417	0.36	6.417	1.80	12.417	1.14	18.42	0.50
0.500	0.36	6.500	1.80	12.500	1.14	18.50	0.50
0.583	0.37	6.583	2.21	12.583	1.08	18.58	0.49
0.667	0.37	6.667	2.21	12.667	1.08	18.67	0.49
0.750	0.37	6.750	2.21	12.750	1.08	18.75	0.49
0.833	0.39	6.833	2.85	12.833	1.02	18.83	0.48
0.917	0.39	6.917	2.85	12.917	1.02	18.92	0.48
1.000	0.39	7.000	2.85	13.000	1.02	19.00	0.48
1.083	0.40	7.083	4.04	13.083	0.98	19.08	0.47
1.167	0.40	7.167	4.04	13.167	0.98	19.17	0.47
1.250	0.40	7.250	4.04	13.250	0.98	19.25	0.47
1.333	0.41	7.333	6.85	13.333	0.93	19.33	0.46
1.417	0.41	7.417	6.85	13.417	0.93	19.42	0.46
1.500	0.41	7.500	6.85	13.500	0.93	19.50	0.46
1.583	0.43	7.583	19.82	13.583	0.89	19.58	0.45
1.667	0.43	7.667	19.82	13.667	0.89	19.67	0.45
1.750	0.43	7.750	19.82	13.750	0.89	19.75	0.45
1.833	0.45	7.833	90.91	13.833	0.86	19.83	0.44

Unit Hyd Ppeak (cms)= 0.047

PEAK FLOW (cms)= 0.013 (i)
 TIME TO PEAK (hrs)= 8.083
 RUNOFF VOLUME (mm)= 22.445
 TOTAL RAINFALL (mm)= 63.626
 RUNOFF COEFFICIENT = 0.353

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALLIB |
 | STANDHYD (7599) | Area (ha)= 10.79
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

 IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 10.79 0.11
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 269.57 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	'	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.35	6.083	1.52	12.083	1.20	18.08	0.51	
0.167	0.35	6.167	1.52	12.167	1.20	18.17	0.51	
0.250	0.35	6.250	1.52	12.250	1.20	18.25	0.51	
0.333	0.36	6.333	1.80	12.333	1.14	18.33	0.50	
0.417	0.36	6.417	1.80	12.417	1.14	18.42	0.50	
0.500	0.36	6.500	1.80	12.500	1.14	18.50	0.50	
0.583	0.37	6.583	2.21	12.583	1.08	18.58	0.49	
0.667	0.37	6.667	2.21	12.667	1.08	18.67	0.49	
0.750	0.37	6.750	2.21	12.750	1.08	18.75	0.49	
0.833	0.39	6.833	2.85	12.833	1.02	18.83	0.48	
0.917	0.39	6.917	2.85	12.917	1.02	18.92	0.48	
1.000	0.39	7.000	2.85	13.000	1.02	19.00	0.48	
1.083	0.40	7.083	4.04	13.083	0.98	19.08	0.47	
1.167	0.40	7.167	4.04	13.167	0.98	19.17	0.47	
1.250	0.40	7.250	4.04	13.250	0.98	19.25	0.47	
1.333	0.41	7.333	6.85	13.333	0.93	19.33	0.46	
1.417	0.41	7.417	6.85	13.417	0.93	19.42	0.46	
1.500	0.41	7.500	6.85	13.500	0.93	19.50	0.46	
1.583	0.43	7.583	19.82	13.583	0.89	19.58	0.45	
1.667	0.43	7.667	19.82	13.667	0.89	19.67	0.45	
1.750	0.43	7.750	19.82	13.750	0.89	19.75	0.45	
1.833	0.45	7.833	90.91	13.833	0.86	19.83	0.44	
1.917	0.45	7.917	90.91	13.917	0.86	19.92	0.44	
2.000	0.45	8.000	90.90	14.000	0.86	20.00	0.44	
2.083	0.46	8.083	26.99	14.083	0.82	20.08	0.43	
2.167	0.46	8.167	26.99	14.167	0.82	20.17	0.43	
2.250	0.46	8.250	26.99	14.250	0.82	20.25	0.43	
2.333	0.48	8.333	12.67	14.333	0.79	20.33	0.42	
2.417	0.48	8.417	12.67	14.417	0.79	20.42	0.42	
2.500	0.48	8.500	12.67	14.500	0.79	20.50	0.42	
2.583	0.51	8.583	7.98	14.583	0.76	20.58	0.42	
2.667	0.51	8.667	7.98	14.667	0.76	20.67	0.42	
2.750	0.51	8.750	7.98	14.750	0.76	20.75	0.42	
2.833	0.53	8.833	5.74	14.833	0.74	20.83	0.41	
2.917	0.53	8.917	5.74	14.917	0.74	20.92	0.41	
3.000	0.53	9.000	5.74	15.000	0.74	21.00	0.41	
3.083	0.56	9.083	4.46	15.083	0.71	21.08	0.40	
3.167	0.56	9.167	4.46	15.167	0.71	21.17	0.40	
3.250	0.56	9.250	4.46	15.250	0.71	21.25	0.40	
3.333	0.59	9.333	3.63	15.333	0.69	21.33	0.40	
3.417	0.59	9.417	3.63	15.417	0.69	21.42	0.40	
3.500	0.59	9.500	3.63	15.500	0.69	21.50	0.40	
3.583	0.62	9.583	3.07	15.583	0.67	21.58	0.39	
3.667	0.62	9.667	3.07	15.667	0.67	21.67	0.39	
3.750	0.62	9.750	3.07	15.750	0.67	21.75	0.39	
3.833	0.66	9.833	2.65	15.833	0.65	21.83	0.38	
3.917	0.66	9.917	2.65	15.917	0.65	21.92	0.38	
4.000	0.66	10.000	2.65	16.000	0.65	22.00	0.38	
4.083	0.70	10.083	2.33	16.083	0.63	22.08	0.38	
4.167	0.70	10.167	2.33	16.167	0.63	22.17	0.38	
4.250	0.70	10.250	2.33	16.250	0.63	22.25	0.38	
4.333	0.75	10.333	2.09	16.333	0.61	22.33	0.37	
4.417	0.75	10.417	2.09	16.417	0.61	22.42	0.37	
4.500	0.75	10.500	2.09	16.500	0.61	22.50	0.37	
4.583	0.81	10.583	1.89	16.583	0.59	22.58	0.36	
4.667	0.81	10.667	1.89	16.667	0.59	22.67	0.36	
4.750	0.81	10.750	1.89	16.750	0.59	22.75	0.36	
4.833	0.87	10.833	1.72	16.833	0.58	22.83	0.36	
4.917	0.87	10.917	1.72	16.917	0.58	22.92	0.36	
5.000	0.87	11.000	1.72	17.000	0.58	23.00	0.36	
5.083	0.95	11.083	1.58	17.083	0.56	23.08	0.35	
5.167	0.95	11.167	1.58	17.167	0.56	23.17	0.35	
5.250	0.95	11.250	1.58	17.250	0.56	23.25	0.35	
5.333	1.05	11.333	1.47	17.333	0.55	23.33	0.35	
5.417	1.05	11.417	1.47	17.417	0.55	23.42	0.35	
5.500	1.05	11.500	1.47	17.500	0.55	23.50	0.35	
5.583	1.17	11.583	1.37	17.583	0.54	23.58	0.34	
5.667	1.17	11.667	1.37	17.667	0.54	23.67	0.34	
5.750	1.17	11.750	1.37	17.750	0.54	23.75	0.34	
5.833	1.32	11.833	1.28	17.833	0.52	23.83	0.34	
5.917	1.32	11.917	1.28	17.917	0.52	23.92	0.34	
6.000	1.32	12.000	1.28	18.000	0.52	24.00	0.34	

Max.Eff.Inten.(mm/hr)= 90.91 32.71
 over (min)= 5.00 10.00
 Storage Coeff. (min)= 4.81 (ii) 5.98 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.22 0.15

PEAK FLOW (cms)= 2.63 0.01
 TIME TO PEAK (hrs)= 8.00 8.08
 RUNOFF VOLUME (mm)= 61.63 22.53
 TOTAL RAINFALL (mm)= 63.63 63.63
 RUNOFF COEFFICIENT = 0.97 0.35

**TOTALS*
2.637 (iii)
8.00
61.23
63.63
0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | ADD HYD (7722) |
1 + 2 = 3
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7599): 10.90 2.637 8.00 61.23
 + ID2= 2 (7721): 0.21 0.013 8.08 22.45

 ID = 3 (7722): 11.11 2.648 8.00 60.51

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | RESERVOIR (7685) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
DT= 5.0 min
 OUTFLOW STORAGE OUTFLOW STORAGE
 (cms) (ha.m.) (cms) (ha.m.)
 0.0000 0.0000 | 0.1390 0.6960
 0.0590 0.3400 | 0.1630 0.7780
 0.0900 0.4907 | 0.1840 0.8800
 0.1110 0.5760 | 0.0000 0.0000

AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW : ID= 2 (7722) 11.108 2.648 8.00 60.51
 OUTFLOW: ID= 1 (7685) 11.108 0.089 9.83 60.38

PEAK FLOW REDUCTION [Qout/Qin] (%) = 3.37
 TIME SHIFT OF PEAK FLOW (min) = 110.00
 MAXIMUM STORAGE USED (ha.m.) = 0.4866

 | CALIB |
 | STANDHYD (7591) | Area (ha) = 11.38
 | ID= 1 DT= 5.0 min | Total Imp (%) = 99.00 Dir. Conn. (%) = 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha) = 11.27 0.11
 Dep. Storage (mm) = 2.00 5.00
 Average Slope (%) = 1.00 2.00
 Length (m) = 275.44 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	'	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.35	6.083	1.52	12.083	1.20	18.08	0.51	
0.167	0.35	6.167	1.52	12.167	1.20	18.17	0.51	
0.250	0.35	6.250	1.52	12.250	1.20	18.25	0.51	
0.333	0.36	6.333	1.80	12.333	1.14	18.33	0.50	

0.417	0.36	6.417	1.80	12.417	1.14	18.42	0.50
0.500	0.36	6.500	1.80	12.500	1.14	18.50	0.50
0.583	0.37	6.583	2.21	12.583	1.08	18.58	0.49
0.667	0.37	6.667	2.21	12.667	1.08	18.67	0.49
0.750	0.37	6.750	2.21	12.750	1.08	18.75	0.49
0.833	0.39	6.833	2.85	12.833	1.02	18.83	0.48
0.917	0.39	6.917	2.85	12.917	1.02	18.92	0.48
1.000	0.39	7.000	2.85	13.000	1.02	19.00	0.48
1.083	0.40	7.083	4.04	13.083	0.98	19.08	0.47
1.167	0.40	7.167	4.04	13.167	0.98	19.17	0.47
1.250	0.40	7.250	4.04	13.250	0.98	19.25	0.47
1.333	0.41	7.333	6.85	13.333	0.93	19.33	0.46
1.417	0.41	7.417	6.85	13.417	0.93	19.42	0.46
1.500	0.41	7.500	6.85	13.500	0.93	19.50	0.46
1.583	0.43	7.583	19.82	13.583	0.89	19.58	0.45
1.667	0.43	7.667	19.82	13.667	0.89	19.67	0.45
1.750	0.43	7.750	19.82	13.750	0.89	19.75	0.45
1.833	0.45	7.833	90.91	13.833	0.86	19.83	0.44
1.917	0.45	7.917	90.91	13.917	0.86	19.92	0.44
2.000	0.45	8.000	90.90	14.000	0.86	20.00	0.44
2.083	0.46	8.083	26.99	14.083	0.82	20.08	0.43
2.167	0.46	8.167	26.99	14.167	0.82	20.17	0.43
2.250	0.46	8.250	26.99	14.250	0.82	20.25	0.43
2.333	0.48	8.333	12.67	14.333	0.79	20.33	0.42
2.417	0.48	8.417	12.67	14.417	0.79	20.42	0.42
2.500	0.48	8.500	12.67	14.500	0.79	20.50	0.42
2.583	0.51	8.583	7.98	14.583	0.76	20.58	0.42
2.667	0.51	8.667	7.98	14.667	0.76	20.67	0.42
2.750	0.51	8.750	7.98	14.750	0.76	20.75	0.42
2.833	0.53	8.833	5.74	14.833	0.74	20.83	0.41
2.917	0.53	8.917	5.74	14.917	0.74	20.92	0.41
3.000	0.53	9.000	5.74	15.000	0.74	21.00	0.41
3.083	0.56	9.083	4.46	15.083	0.71	21.08	0.40
3.167	0.56	9.167	4.46	15.167	0.71	21.17	0.40
3.250	0.56	9.250	4.46	15.250	0.71	21.25	0.40
3.333	0.59	9.333	3.63	15.333	0.69	21.33	0.40
3.417	0.59	9.417	3.63	15.417	0.69	21.42	0.40
3.500	0.59	9.500	3.63	15.500	0.69	21.50	0.40
3.583	0.62	9.583	3.07	15.583	0.67	21.58	0.39
3.667	0.62	9.667	3.07	15.667	0.67	21.67	0.39
3.750	0.62	9.750	3.07	15.750	0.67	21.75	0.39
3.833	0.66	9.833	2.65	15.833	0.65	21.83	0.38
3.917	0.66	9.917	2.65	15.917	0.65	21.92	0.38
4.000	0.66	10.000	2.65	16.000	0.65	22.00	0.38
4.083	0.70	10.083	2.33	16.083	0.63	22.08	0.38
4.167	0.70	10.167	2.33	16.167	0.63	22.17	0.38
4.250	0.70	10.250	2.33	16.250	0.63	22.25	0.38
4.333	0.75	10.333	2.09	16.333	0.61	22.33	0.37
4.417	0.75	10.417	2.09	16.417	0.61	22.42	0.37
4.500	0.75	10.500	2.09	16.500	0.61	22.50	0.37
4.583	0.81	10.583	1.89	16.583	0.59	22.58	0.36
4.667	0.81	10.667	1.89	16.667	0.59	22.67	0.36
4.750	0.81	10.750	1.89	16.750	0.59	22.75	0.36
4.833	0.87	10.833	1.72	16.833	0.58	22.83	0.36
4.917	0.87	10.917	1.72	16.917	0.58	22.92	0.36
5.000	0.87	11.000	1.72	17.000	0.58	23.00	0.36
5.083	0.95	11.083	1.58	17.083	0.56	23.08	0.35
5.167	0.95	11.167	1.58	17.167	0.56	23.17	0.35
5.250	0.95	11.250	1.58	17.250	0.56	23.25	0.35
5.333	1.05	11.333	1.47	17.333	0.55	23.33	0.35
5.417	1.05	11.417	1.47	17.417	0.55	23.42	0.35
5.500	1.05	11.500	1.47	17.500	0.55	23.50	0.35
5.583	1.17	11.583	1.37	17.583	0.54	23.58	0.34
5.667	1.17	11.667	1.37	17.667	0.54	23.67	0.34
5.750	1.17	11.750	1.37	17.750	0.54	23.75	0.34
5.833	1.32	11.833	1.28	17.833	0.52	23.83	0.34
5.917	1.32	11.917	1.28	17.917	0.52	23.92	0.34
6.000	1.32	12.000	1.28	18.000	0.52	24.00	0.34

Max.Eff.Inten.(mm/hr)= 90.91 32.71
over (min) 5.00 10.00
Storage Coeff. (min)= 4.87 (ii) 6.04 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.22 0.15

TOTALS
PEAK FLOW (cms)= 2.74 0.01 2.749 (iii)

TIME TO PEAK (hrs)= 8.00 8.08 8.00
RUNOFF VOLUME (mm)= 61.63 22.53 61.23
TOTAL RAINFALL (mm)= 63.63 63.63 63.63
RUNOFF COEFFICIENT = 0.97 0.35 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| RESERVOIR (7593) | OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
DT= 5.0 min
OUTFLOW STORAGE | OUTFLOW STORAGE
(cms) (ha.m.) | (cms) (ha.m.)
0.0000 0.0000 | 0.1990 0.6950
0.0830 0.3500 | 0.2320 0.8000
0.1280 0.4850 | 0.2620 0.9000
0.1580 0.5900 | 0.0000 0.0000

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 2 (7591) 11.380 2.749 8.00 61.23
OUTFLOW: ID= 1 (7593) 11.380 0.128 9.33 61.14

PEAK FLOW REDUCTION [Qout/Qin] (%) = 4.64
TIME SHIFT OF PEAK FLOW (min) = 80.00
MAXIMUM STORAGE USED (ha.m.) = 0.4837

| ADD HYD (7643) |
1 + 2 = 3
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (7593): 11.38 0.128 9.33 61.14
+ ID2= 2 (7685): 11.11 0.089 9.83 60.38

ID = 3 (7643): 22.49 0.216 9.50 60.76

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |
| STANDHYD (7590) | Area (ha)= 2.39
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 2.37 0.02
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 20.00 20.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.35 | 6.083 1.52 | 12.083 1.20 | 18.08 0.51
0.167 0.35 | 6.167 1.52 | 12.167 1.20 | 18.17 0.51
0.250 0.35 | 6.250 1.52 | 12.250 1.20 | 18.25 0.51
0.333 0.36 | 6.333 1.80 | 12.333 1.14 | 18.33 0.50
0.417 0.36 | 6.417 1.80 | 12.417 1.14 | 18.42 0.50
0.500 0.36 | 6.500 1.80 | 12.500 1.14 | 18.50 0.50
0.583 0.37 | 6.583 2.21 | 12.583 1.08 | 18.58 0.49
0.667 0.37 | 6.667 2.21 | 12.667 1.08 | 18.67 0.49
0.750 0.37 | 6.750 2.21 | 12.750 1.08 | 18.75 0.49
0.833 0.39 | 6.833 2.85 | 12.833 1.02 | 18.83 0.48
0.917 0.39 | 6.917 2.85 | 12.917 1.02 | 18.92 0.48
1.000 0.39 | 7.000 2.85 | 13.000 1.02 | 19.00 0.48

1.083	0.40	7.083	4.04	13.083	0.98	19.08	0.47
1.167	0.40	7.167	4.04	13.167	0.98	19.17	0.47
1.250	0.40	7.250	4.04	13.250	0.98	19.25	0.47
1.333	0.41	7.333	6.85	13.333	0.93	19.33	0.46
1.417	0.41	7.417	6.85	13.417	0.93	19.42	0.46
1.500	0.41	7.500	6.85	13.500	0.93	19.50	0.46
1.583	0.43	7.583	19.82	13.583	0.89	19.58	0.45
1.667	0.43	7.667	19.82	13.667	0.89	19.67	0.45
1.750	0.43	7.750	19.82	13.750	0.89	19.75	0.45
1.833	0.45	7.833	90.91	13.833	0.86	19.83	0.44
1.917	0.45	7.917	90.91	13.917	0.86	19.92	0.44
2.000	0.45	8.000	90.90	14.000	0.86	20.00	0.44
2.083	0.46	8.083	26.99	14.083	0.82	20.08	0.43
2.167	0.46	8.167	26.99	14.167	0.82	20.17	0.43
2.250	0.46	8.250	26.99	14.250	0.82	20.25	0.43
2.333	0.48	8.333	12.67	14.333	0.79	20.33	0.42
2.417	0.48	8.417	12.67	14.417	0.79	20.42	0.42
2.500	0.48	8.500	12.67	14.500	0.79	20.50	0.42
2.583	0.51	8.583	7.98	14.583	0.76	20.58	0.42
2.667	0.51	8.667	7.98	14.667	0.76	20.67	0.42
2.750	0.51	8.750	7.98	14.750	0.76	20.75	0.42
2.833	0.53	8.833	5.74	14.833	0.74	20.83	0.41
2.917	0.53	8.917	5.74	14.917	0.74	20.92	0.41
3.000	0.53	9.000	5.74	15.000	0.74	21.00	0.41
3.083	0.56	9.083	4.46	15.083	0.71	21.08	0.40
3.167	0.56	9.167	4.46	15.167	0.71	21.17	0.40
3.250	0.56	9.250	4.46	15.250	0.71	21.25	0.40
3.333	0.59	9.333	3.63	15.333	0.69	21.33	0.40
3.417	0.59	9.417	3.63	15.417	0.69	21.42	0.40
3.500	0.59	9.500	3.63	15.500	0.69	21.50	0.40
3.583	0.62	9.583	3.07	15.583	0.67	21.58	0.39
3.667	0.62	9.667	3.07	15.667	0.67	21.67	0.39
3.750	0.62	9.750	3.07	15.750	0.67	21.75	0.39
3.833	0.66	9.833	2.65	15.833	0.65	21.83	0.38
3.917	0.66	9.917	2.65	15.917	0.65	21.92	0.38
4.000	0.66	10.000	2.65	16.000	0.65	22.00	0.38
4.083	0.70	10.083	2.33	16.083	0.63	22.08	0.38
4.167	0.70	10.167	2.33	16.167	0.63	22.17	0.38
4.250	0.70	10.250	2.33	16.250	0.63	22.25	0.38
4.333	0.75	10.333	2.09	16.333	0.61	22.33	0.37
4.417	0.75	10.417	2.09	16.417	0.61	22.42	0.37
4.500	0.75	10.500	2.09	16.500	0.61	22.50	0.37
4.583	0.81	10.583	1.89	16.583	0.59	22.58	0.36
4.667	0.81	10.667	1.89	16.667	0.59	22.67	0.36
4.750	0.81	10.750	1.89	16.750	0.59	22.75	0.36
4.833	0.87	10.833	1.72	16.833	0.58	22.83	0.36
4.917	0.87	10.917	1.72	16.917	0.58	22.92	0.36
5.000	0.87	11.000	1.72	17.000	0.58	23.00	0.36
5.083	0.95	11.083	1.58	17.083	0.56	23.08	0.35
5.167	0.95	11.167	1.58	17.167	0.56	23.17	0.35
5.250	0.95	11.250	1.58	17.250	0.56	23.25	0.35
5.333	1.05	11.333	1.47	17.333	0.55	23.33	0.35
5.417	1.05	11.417	1.47	17.417	0.55	23.42	0.35
5.500	1.05	11.500	1.47	17.500	0.55	23.50	0.35
5.583	1.17	11.583	1.37	17.583	0.54	23.58	0.34
5.667	1.17	11.667	1.37	17.667	0.54	23.67	0.34
5.750	1.17	11.750	1.37	17.750	0.54	23.75	0.34
5.833	1.32	11.833	1.28	17.833	0.52	23.83	0.34
5.917	1.32	11.917	1.28	17.917	0.52	23.92	0.34
6.000	1.32	12.000	1.28	18.000	0.52	24.00	0.34

Max.Eff.Inten. (mm/hr)=	90.91	32.71
over (min)=	5.00	5.00
Storage Coeff. (min)=	1.01 (ii)	1.78 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.32

TOTALS			
PEAK FLOW (cms)=	0.60	0.00	0.600 (iii)
TIME TO PEAK (hrs)=	7.92	8.00	8.00
RUNOFF VOLUME (mm)=	62.63	22.53	62.22
TOTAL RAINFALL (mm)=	63.63	63.63	63.63
RUNOFF COEFFICIENT =	0.98	0.35	0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

- CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		Area (ha)=	2.36
STANDHYD (7632)		Total Imp(%)=	99.00
ID= 1 DT= 5.0 min		Dir. Conn.(%)=	99.00

Surface Area (ha)=	2.34	IMPERVIOUS	PERVIOUS (i)
Dep. Storage (mm)=	1.00	0.02	5.00
Average Slope (%)=	1.00	2.00	2.00
Length (m)=	20.00	20.00	20.00
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	' hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.35	6.083	1.52	12.083	1.20	18.08	0.51		
0.167	0.35	6.167	1.52	12.167	1.20	18.17	0.51		
0.250	0.35	6.250	1.52	12.250	1.20	18.25	0.51		
0.333	0.36	6.333	1.80	12.333	1.14	18.33	0.50		
0.417	0.36	6.417	1.80	12.417	1.14	18.42	0.50		
0.500	0.36	6.500	1.80	12.500	1.14	18.50	0.50		
0.583	0.37	6.583	2.21	12.583	1.08	18.58	0.49		
0.667	0.37	6.667	2.21	12.667	1.08	18.67	0.49		
0.750	0.37	6.750	2.21	12.750	1.08	18.75	0.49		
0.833	0.39	6.833	2.85	12.833	1.02	18.83	0.48		
0.917	0.39	6.917	2.85	12.917	1.02	18.92	0.48		
1.000	0.39	7.000	2.85	13.000	1.02	19.00	0.48		
1.083	0.40	7.083	4.04	13.083	0.98	19.08	0.47		
1.167	0.40	7.167	4.04	13.167	0.98	19.17	0.47		
1.250	0.40	7.250	4.04	13.250	0.98	19.25	0.47		
1.333	0.41	7.333	6.85	13.333	0.93	19.33	0.46		
1.417	0.41	7.417	6.85	13.417	0.93	19.42	0.46		
1.500	0.41	7.500	6.85	13.500	0.93	19.50	0.46		
1.583	0.43	7.583	19.82	13.583	0.89	19.58	0.45		
1.667	0.43	7.667	19.82	13.667	0.89	19.67	0.45		
1.750	0.43	7.750	19.82	13.750	0.89	19.75	0.45		
1.833	0.45	7.833	90.91	13.833	0.86	19.83	0.44		
1.917	0.45	7.917	90.91	13.917	0.86	19.92	0.44		
2.000	0.45	8.000	90.90	14.000	0.86	20.00	0.44		
2.083	0.46	8.083	26.99	14.083	0.82	20.08	0.43		
2.167	0.46	8.167	26.99	14.167	0.82	20.17	0.43		
2.250	0.46	8.250	26.99	14.250	0.82	20.25	0.43		
2.333	0.48	8.333	12.67	14.333	0.79	20.33	0.42		
2.417	0.48	8.417	12.67	14.417	0.79	20.42	0.42		
2.500	0.48	8.500	12.67	14.500	0.79	20.50	0.42		
2.583	0.51	8.583	7.98	14.583	0.76	20.58	0.42		
2.667	0.51	8.667	7.98	14.667	0.76	20.67	0.42		
2.750	0.51	8.750	7.98	14.750	0.76	20.75	0.42		
2.833	0.53	8.833	5.74	14.833	0.74	20.83	0.41		
2.917	0.53	8.917	5.74	14.917	0.74	20.92	0.41		
3.000	0.53	9.000	5.74	15.000	0.74	21.00	0.41		
3.083	0.56	9.083	4.46	15.083	0.71	21.08	0.40		
3.167	0.56	9.167	4.46	15.167	0.71	21.17	0.40		
3.250	0.56	9.250	4.46	15.250	0.71	21.25	0.40		
3.333	0.59	9.333	3.63	15.333	0.69	21.33	0.40		
3.417	0.59	9.417	3.63	15.417	0.69	21.42	0.40		
3.500	0.59	9.500	3.63	15.500	0.69	21.50	0.40		
3.583	0.62	9.583	3.07	15.583	0.67	21.58	0.39		
3.667	0.62	9.667	3.07	15.667	0.67	21.67	0.39		
3.750	0.62	9.750	3.07	15.750	0.67	21.75	0.39		
3.833	0.66	9.833	2.65	15.833	0.65	21.83	0.38		
3.917	0.66	9.917	2.65	15.917	0.65	21.92	0.38		
4.000	0.66	10.000	2.65	16.000	0.65	22.00	0.38		
4.083	0.70	10.083	2.33	16.083	0.63	22.08	0.38		
4.167	0.70	10.167	2.33	16.167	0.63	22.17	0.38		
4.250	0.70	10.250	2.33	16.250	0.63	22.25	0.38		
4.333	0.75	10.333	2.09	16.333	0.61	22.33	0.37		
4.417	0.75	10.417	2.09	16.417	0.61	22.42	0.37		
4.500	0.75	10.500	2.09	16.500	0.61	22.50	0.37		
4.583	0.81	10.583	1.89	16.583	0.59	22.58	0.36		
4.667	0.81	10.667	1.89	16.667	0.59	22.67	0.36		
4.750	0.81	10.750	1.89	16.750	0.59	22.75	0.36		
4.833	0.87	10.833	1.72	16.833	0.58	22.83	0.36		
4.917	0.87	10.917	1.72	16.917	0.58	22.92	0.36		
5.000	0.87	11.000	1.72	17.000	0.58	23.00	0.36		
5.083	0.95	11.083	1.58	17.083	0.56	23.08	0.35		
5.167	0.95	11.167	1.58	17.167	0.56	23.17	0.35		
5.250	0.95	11.250	1.58	17.250	0.56	23.25	0.35		
5.333	1.05	11.333	1.47	17.333	0.55	23.33	0.35		
5.417	1.05	11.417	1.47	17.417	0.55	23.42	0.35		
5.500	1.05	11.500	1.47	17.500					



4.417	0.75	10.417	2.09	16.417	0.61	22.42	0.37
4.500	0.75	10.500	2.09	16.500	0.61	22.50	0.37
4.583	0.81	10.583	1.89	16.583	0.59	22.58	0.36
4.667	0.81	10.667	1.89	16.667	0.59	22.67	0.36
4.750	0.81	10.750	1.89	16.750	0.59	22.75	0.36
4.833	0.87	10.833	1.72	16.833	0.58	22.83	0.36
4.917	0.87	10.917	1.72	16.917	0.58	22.92	0.36
5.000	0.87	11.000	1.72	17.000	0.58	23.00	0.36
5.083	0.95	11.083	1.58	17.083	0.56	23.08	0.35
5.167	0.95	11.167	1.58	17.167	0.56	23.17	0.35
5.250	0.95	11.250	1.58	17.250	0.56	23.25	0.35
5.333	1.05	11.333	1.47	17.333	0.55	23.33	0.35
5.417	1.05	11.417	1.47	17.417	0.55	23.42	0.35
5.500	1.05	11.500	1.47	17.500	0.55	23.50	0.35
5.583	1.17	11.583	1.37	17.583	0.54	23.58	0.34
5.667	1.17	11.667	1.37	17.667	0.54	23.67	0.34
5.750	1.17	11.750	1.37	17.750	0.54	23.75	0.34
5.833	1.32	11.833	1.28	17.833	0.52	23.83	0.34
5.917	1.32	11.917	1.28	17.917	0.52	23.92	0.34
6.000	1.32	12.000	1.28	18.000	0.52	24.00	0.34

1.417	0.41	7.417	6.85	13.417	0.93	19.42	0.46
1.500	0.41	7.500	6.85	13.500	0.93	19.50	0.46
1.583	0.43	7.583	19.82	13.583	0.89	19.58	0.45
1.667	0.43	7.667	19.82	13.667	0.89	19.67	0.45
1.750	0.43	7.750	19.82	13.750	0.89	19.75	0.45
1.833	0.45	7.833	90.91	13.833	0.86	19.83	0.44
1.917	0.45	7.917	90.91	13.917	0.86	19.92	0.44
2.000	0.45	8.000	90.90	14.000	0.86	20.00	0.44
2.083	0.46	8.083	26.99	14.083	0.82	20.08	0.43
2.167	0.46	8.167	26.99	14.167	0.82	20.17	0.43
2.250	0.46	8.250	26.99	14.250	0.82	20.25	0.43
2.333	0.48	8.333	12.67	14.333	0.79	20.33	0.42
2.417	0.48	8.417	12.67	14.417	0.79	20.42	0.42
2.500	0.48	8.500	12.67	14.500	0.79	20.50	0.42
2.583	0.51	8.583	7.98	14.583	0.76	20.58	0.42
2.667	0.51	8.667	7.98	14.667	0.76	20.67	0.42
2.750	0.51	8.750	7.98	14.750	0.76	20.75	0.42
2.833	0.53	8.833	5.74	14.833	0.74	20.83	0.41
2.917	0.53	8.917	5.74	14.917	0.74	20.92	0.41
3.000	0.53	9.000	5.74	15.000	0.74	21.00	0.41
3.083	0.56	9.083	4.46	15.083	0.71	21.08	0.40
3.167	0.56	9.167	4.46	15.167	0.71	21.17	0.40
3.250	0.56	9.250	4.46	15.250	0.71	21.25	0.40
3.333	0.59	9.333	3.63	15.333	0.69	21.33	0.40
3.417	0.59	9.417	3.63	15.417	0.69	21.42	0.40
3.500	0.59	9.500	3.63	15.500	0.69	21.50	0.40
3.583	0.62	9.583	3.07	15.583	0.67	21.58	0.39
3.667	0.62	9.667	3.07	15.667	0.67	21.67	0.39
3.750	0.62	9.750	3.07	15.750	0.67	21.75	0.39
3.833	0.66	9.833	2.65	15.833	0.65	21.83	0.38
3.917	0.66	9.917	2.65	15.917	0.65	21.92	0.38
4.000	0.66	10.000	2.65	16.000	0.65	22.00	0.38
4.083	0.70	10.083	2.33	16.083	0.63	22.08	0.38
4.167	0.70	10.167	2.33	16.167	0.63	22.17	0.38
4.250	0.70	10.250	2.33	16.250	0.63	22.25	0.38
4.333	0.75	10.333	2.09	16.333	0.61	22.33	0.37
4.417	0.75	10.417	2.09	16.417	0.61	22.42	0.37
4.500	0.75	10.500	2.09	16.500	0.61	22.50	0.37
4.583	0.81	10.583	1.89	16.583	0.59	22.58	0.36
4.667	0.81	10.667	1.89	16.667	0.59	22.67	0.36
4.750	0.81	10.750	1.89	16.750	0.59	22.75	0.36
4.833	0.87	10.833	1.72	16.833	0.58	22.83	0.36
4.917	0.87	10.917	1.72	16.917	0.58	22.92	0.36
5.000	0.87	11.000	1.72	17.000	0.58	23.00	0.36
5.083	0.95	11.083	1.58	17.083	0.56	23.08	0.35
5.167	0.95	11.167	1.58	17.167	0.56	23.17	0.35
5.250	0.95	11.250	1.58	17.250	0.56	23.25	0.35
5.333	1.05	11.333	1.47	17.333	0.55	23.33	0.35
5.417	1.05	11.417	1.47	17.417	0.55	23.42	0.35
5.500	1.05	11.500	1.47	17.500	0.55	23.50	0.35
5.583	1.17	11.583	1.37	17.583	0.54	23.58	0.34
5.667	1.17	11.667	1.37	17.667	0.54	23.67	0.34
5.750	1.17	11.750	1.37	17.750	0.54	23.75	0.34
5.833	1.32	11.833	1.28	17.833	0.52	23.83	0.34
5.917	1.32	11.917	1.28	17.917	0.52	23.92	0.34
6.000	1.32	12.000	1.28	18.000	0.52	24.00	0.34

Max.Eff.Inten.(mm/hr)=	90.91	32.71	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.01 (ii)	1.78 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.34	0.32	
			TOTALS
PEAK FLOW (cms)=	0.59	0.00	0.592 (iii)
TIME TO PEAK (hrs)=	7.92	8.00	8.00
RUNOFF VOLUME (mm)=	62.63	22.53	62.22
TOTAL RAINFALL (mm)=	63.63	63.63	63.63
RUNOFF COEFFICIENT =	0.98	0.35	0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDBY (7644) |
ID= 1 DT= 5.0 min
 Area (ha)= 2.40
 Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.35	6.083	1.52	12.083	1.20	18.08	0.51
0.167	0.35	6.167	1.52	12.167	1.20	18.17	0.51
0.250	0.35	6.250	1.52	12.250	1.20	18.25	0.51
0.333	0.36	6.333	1.80	12.333	1.14	18.33	0.50
0.417	0.36	6.417	1.80	12.417	1.14	18.42	0.50
0.500	0.36	6.500	1.80	12.500	1.14	18.50	0.50
0.583	0.37	6.583	2.21	12.583	1.08	18.58	0.49
0.667	0.37	6.667	2.21	12.667	1.08	18.67	0.49
0.750	0.37	6.750	2.21	12.750	1.08	18.75	0.49
0.833	0.39	6.833	2.85	12.833	1.02	18.83	0.48
0.917	0.39	6.917	2.85	12.917	1.02	18.92	0.48
1.000	0.39	7.000	2.85	13.000	1.02	19.00	0.48
1.083	0.40	7.083	4.04	13.083	0.98	19.08	0.47
1.167	0.40	7.167	4.04	13.167	0.98	19.17	0.47
1.250	0.40	7.250	4.04	13.250	0.98	19.25	0.47
1.333	0.41	7.333	6.85	13.333	0.93	19.33	0.46

Max.Eff.Inten.(mm/hr)=	90.91	32.71	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.01 (ii)	1.78 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.34	0.32	
			TOTALS
PEAK FLOW (cms)=	0.60	0.00	0.602 (iii)
TIME TO PEAK (hrs)=	7.92	8.00	8.00
RUNOFF VOLUME (mm)=	62.63	22.53	62.22
TOTAL RAINFALL (mm)=	63.63	63.63	63.63
RUNOFF COEFFICIENT =	0.98	0.35	0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7652) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	hrs
0.083	0.35	6.083	1.52	12.083	1.20	18.08	0.51
0.167	0.35	6.167	1.52	12.167	1.20	18.17	0.51
0.250	0.35	6.250	1.52	12.250	1.20	18.25	0.51
0.333	0.36	6.333	1.80	12.333	1.14	18.33	0.50
0.417	0.36	6.417	1.80	12.417	1.14	18.42	0.50
0.500	0.36	6.500	1.80	12.500	1.14	18.50	0.50
0.583	0.37	6.583	2.21	12.583	1.08	18.58	0.49
0.667	0.37	6.667	2.21	12.667	1.08	18.67	0.49
0.750	0.37	6.750	2.21	12.750	1.08	18.75	0.49
0.833	0.39	6.833	2.85	12.833	1.02	18.83	0.48
0.917	0.39	6.917	2.85	12.917	1.02	18.92	0.48
1.000	0.39	7.000	2.85	13.000	1.02	19.00	0.48
1.083	0.40	7.083	4.04	13.083	0.98	19.08	0.47
1.167	0.40	7.167	4.04	13.167	0.98	19.17	0.47
1.250	0.40	7.250	4.04	13.250	0.98	19.25	0.47
1.333	0.41	7.333	6.85	13.333	0.93	19.33	0.46
1.417	0.41	7.417	6.85	13.417	0.93	19.42	0.46
1.500	0.41	7.500	6.85	13.500	0.93	19.50	0.46
1.583	0.43	7.583	19.82	13.583	0.89	19.58	0.45
1.667	0.43	7.667	19.82	13.667	0.89	19.67	0.45
1.750	0.43	7.750	19.82	13.750	0.89	19.75	0.45
1.833	0.45	7.833	90.91	13.833	0.86	19.83	0.44
1.917	0.45	7.917	90.91	13.917	0.86	19.92	0.44
2.000	0.45	8.000	90.90	14.000	0.86	20.00	0.44
2.083	0.46	8.083	26.99	14.083	0.82	20.08	0.43
2.167	0.46	8.167	26.99	14.167	0.82	20.17	0.43
2.250	0.46	8.250	26.99	14.250	0.82	20.25	0.43
2.333	0.48	8.333	12.67	14.333	0.79	20.33	0.42
2.417	0.48	8.417	12.67	14.417	0.79	20.42	0.42
2.500	0.48	8.500	12.67	14.500	0.79	20.50	0.42
2.583	0.51	8.583	7.98	14.583	0.76	20.58	0.42
2.667	0.51	8.667	7.98	14.667	0.76	20.67	0.42
2.750	0.51	8.750	7.98	14.750	0.76	20.75	0.42
2.833	0.53	8.833	5.74	14.833	0.74	20.83	0.41
2.917	0.53	8.917	5.74	14.917	0.74	20.92	0.41
3.000	0.53	9.000	5.74	15.000	0.74	21.00	0.41
3.083	0.56	9.083	4.46	15.083	0.71	21.08	0.40
3.167	0.56	9.167	4.46	15.167	0.71	21.17	0.40
3.250	0.56	9.250	4.46	15.250	0.71	21.25	0.40
3.333	0.59	9.333	3.63	15.333	0.69	21.33	0.40
3.417	0.59	9.417	3.63	15.417	0.69	21.42	0.40
3.500	0.59	9.500	3.63	15.500	0.69	21.50	0.40
3.583	0.62	9.583	3.07	15.583	0.67	21.58	0.39
3.667	0.62	9.667	3.07	15.667	0.67	21.67	0.39
3.750	0.62	9.750	3.07	15.750	0.67	21.75	0.39
3.833	0.66	9.833	2.65	15.833	0.65	21.83	0.38
3.917	0.66	9.917	2.65	15.917	0.65	21.92	0.38
4.000	0.66	10.000	2.65	16.000	0.65	22.00	0.38
4.083	0.70	10.083	2.33	16.083	0.63	22.08	0.38
4.167	0.70	10.167	2.33	16.167	0.63	22.17	0.38
4.250	0.70	10.250	2.33	16.250	0.63	22.25	0.38
4.333	0.75	10.333	2.09	16.333	0.61	22.33	0.37
4.417	0.75	10.417	2.09	16.417	0.61	22.42	0.37
4.500	0.75	10.500	2.09	16.500	0.61	22.50	0.37
4.583	0.81	10.583	1.89	16.583	0.59	22.58	0.36
4.667	0.81	10.667	1.89	16.667	0.59	22.67	0.36

4.750	0.81	10.750	1.89	16.750	0.59	22.75	0.36
4.833	0.87	10.833	1.72	16.833	0.58	22.83	0.36
4.917	0.87	10.917	1.72	16.917	0.58	22.92	0.36
5.000	0.87	11.000	1.72	17.000	0.58	23.00	0.36
5.083	0.95	11.083	1.58	17.083	0.56	23.08	0.35
5.167	0.95	11.167	1.58	17.167	0.56	23.17	0.35
5.250	0.95	11.250	1.58	17.250	0.56	23.25	0.35
5.333	1.05	11.333	1.47	17.333	0.55	23.33	0.35
5.417	1.05	11.417	1.47	17.417	0.55	23.42	0.35
5.500	1.05	11.500	1.47	17.500	0.55	23.50	0.35
5.583	1.17	11.583	1.37	17.583	0.54	23.58	0.34
5.667	1.17	11.667	1.37	17.667	0.54	23.67	0.34
5.750	1.17	11.750	1.37	17.750	0.54	23.75	0.34
5.833	1.32	11.833	1.28	17.833	0.52	23.83	0.34
5.917	1.32	11.917	1.28	17.917	0.52	23.92	0.34
6.000	1.32	12.000	1.28	18.000	0.52	24.00	0.34

Max.Eff.Inten.(mm/hr)= 90.91 32.71
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 1.01 (ii) 1.78 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

TOTALS
 PEAK FLOW (cms)= 0.60 0.00 0.602 (iii)
 TIME TO PEAK (hrs)= 7.92 8.00 8.00
 RUNOFF VOLUME (mm)= 62.63 22.53 62.22
 TOTAL RAINFALL (mm)= 63.63 63.63 63.63
 RUNOFF COEFFICIENT = 0.98 0.35 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7661) | Area (ha)= 2.39
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	hrs
0.083	0.35	6.083	1.52	12.083	1.20	18.08	0.51
0.167	0.35	6.167	1.52	12.167	1.20	18.17	0.51
0.250	0.35	6.250	1.52	12.250	1.20	18.25	0.51
0.333	0.36	6.333	1.80	12.333	1.14	18.33	0.50
0.417	0.36	6.417	1.80	12.417	1.14	18.42	0.50
0.500	0.36	6.500	1.80	12.500	1.14	18.50	0.50
0.583	0.37	6.583	2.21	12.583	1.08	18.58	0.49
0.667	0.37	6.667	2.21	12.667	1.08	18.67	0.49
0.750	0.37	6.750	2.21	12.750	1.08	18.75	0.49
0.833	0.39	6.833	2.85	12.833	1.02	18.83	0.48
0.917	0.39	6.917	2.85	12.917	1.02	18.92	0.48
1.000	0.39	7.000	2.85	13.000	1.02	19.00	0.48
1.083	0.40	7.083	4.04	13.083	0.98	19.08	0.47
1.167	0.40	7.167	4.04	13.167	0.98	19.17	0.47
1.250	0.40	7.250	4.04	13.250	0.98	19.25	0.47
1.333	0.41	7.333	6.85	13.333	0.93	19.33	0.46
1.417	0.41	7.417	6.85	13.417	0.93	19.42	0.46
1.500	0.41	7.500	6.85	13.500	0.93	19.50	0.46
1.583	0.43	7.583	19.82	13.583	0.89	19.58	0.45
1.667	0.43	7.667	19.82	13.667	0.89	19.67	0.45



1.750	0.43	7.750	19.82	13.750	0.89	19.75	0.45
1.833	0.45	7.833	90.91	13.833	0.86	19.83	0.44
1.917	0.45	7.917	90.91	13.917	0.86	19.92	0.44
2.000	0.45	8.000	90.90	14.000	0.86	20.00	0.44
2.083	0.46	8.083	26.99	14.083	0.82	20.08	0.43
2.167	0.46	8.167	26.99	14.167	0.82	20.17	0.43
2.250	0.46	8.250	26.99	14.250	0.82	20.25	0.43
2.333	0.48	8.333	12.67	14.333	0.79	20.33	0.42
2.417	0.48	8.417	12.67	14.417	0.79	20.42	0.42
2.500	0.48	8.500	12.67	14.500	0.79	20.50	0.42
2.583	0.51	8.583	7.98	14.583	0.76	20.58	0.42
2.667	0.51	8.667	7.98	14.667	0.76	20.67	0.42
2.750	0.51	8.750	7.98	14.750	0.76	20.75	0.42
2.833	0.53	8.833	5.74	14.833	0.74	20.83	0.41
2.917	0.53	8.917	5.74	14.917	0.74	20.92	0.41
3.000	0.53	9.000	5.74	15.000	0.74	21.00	0.41
3.083	0.56	9.083	4.46	15.083	0.71	21.08	0.40
3.167	0.56	9.167	4.46	15.167	0.71	21.17	0.40
3.250	0.56	9.250	4.46	15.250	0.71	21.25	0.40
3.333	0.59	9.333	3.63	15.333	0.69	21.33	0.40
3.417	0.59	9.417	3.63	15.417	0.69	21.42	0.40
3.500	0.59	9.500	3.63	15.500	0.69	21.50	0.40
3.583	0.62	9.583	3.07	15.583	0.67	21.58	0.39
3.667	0.62	9.667	3.07	15.667	0.67	21.67	0.39
3.750	0.62	9.750	3.07	15.750	0.67	21.75	0.39
3.833	0.66	9.833	2.65	15.833	0.65	21.83	0.38
3.917	0.66	9.917	2.65	15.917	0.65	21.92	0.38
4.000	0.66	10.000	2.65	16.000	0.65	22.00	0.38
4.083	0.70	10.083	2.33	16.083	0.63	22.08	0.38
4.167	0.70	10.167	2.33	16.167	0.63	22.17	0.38
4.250	0.70	10.250	2.33	16.250	0.63	22.25	0.38
4.333	0.75	10.333	2.09	16.333	0.61	22.33	0.37
4.417	0.75	10.417	2.09	16.417	0.61	22.42	0.37
4.500	0.75	10.500	2.09	16.500	0.61	22.50	0.37
4.583	0.81	10.583	1.89	16.583	0.59	22.58	0.36
4.667	0.81	10.667	1.89	16.667	0.59	22.67	0.36
4.750	0.81	10.750	1.89	16.750	0.59	22.75	0.36
4.833	0.87	10.833	1.72	16.833	0.58	22.83	0.36
4.917	0.87	10.917	1.72	16.917	0.58	22.92	0.36
5.000	0.87	11.000	1.72	17.000	0.58	23.00	0.36
5.083	0.95	11.083	1.58	17.083	0.56	23.08	0.35
5.167	0.95	11.167	1.58	17.167	0.56	23.17	0.35
5.250	0.95	11.250	1.58	17.250	0.56	23.25	0.35
5.333	1.05	11.333	1.47	17.333	0.55	23.33	0.35
5.417	1.05	11.417	1.47	17.417	0.55	23.42	0.35
5.500	1.05	11.500	1.47	17.500	0.55	23.50	0.35
5.583	1.17	11.583	1.37	17.583	0.54	23.58	0.34
5.667	1.17	11.667	1.37	17.667	0.54	23.67	0.34
5.750	1.17	11.750	1.37	17.750	0.54	23.75	0.34
5.833	1.32	11.833	1.28	17.833	0.52	23.83	0.34
5.917	1.32	11.917	1.28	17.917	0.52	23.92	0.34
6.000	1.32	12.000	1.28	18.000	0.52	24.00	0.34

Max.Eff.Inten. (mm/hr)= 90.91 32.71
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.01 (ii) 1.78 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

PEAK FLOW (cms)= 0.60 0.00 *TOTALS* 0.600 (iii)
 TIME TO PEAK (hrs)= 7.92 8.00 8.00
 RUNOFF VOLUME (mm)= 62.63 22.53 62.02
 TOTAL RAINFALL (mm)= 63.63 63.63 63.63
 RUNOFF COEFFICIENT = 0.98 0.35 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |

| STANDHYD (7671) | Area (ha)= 2.37
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.35	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.35	6.083	1.52	12.083	1.20	18.08	0.51
0.167	0.35	6.167	1.52	12.167	1.20	18.17	0.51
0.250	0.35	6.250	1.52	12.250	1.20	18.25	0.51
0.333	0.36	6.333	1.80	12.333	1.14	18.33	0.50
0.417	0.36	6.417	1.80	12.417	1.14	18.42	0.50
0.500	0.36	6.500	1.80	12.500	1.14	18.50	0.50
0.583	0.37	6.583	2.21	12.583	1.08	18.58	0.49
0.667	0.37	6.667	2.21	12.667	1.08	18.67	0.49
0.750	0.37	6.750	2.21	12.750	1.08	18.75	0.49
0.833	0.39	6.833	2.85	12.833	1.02	18.83	0.48
0.917	0.39	6.917	2.85	12.917	1.02	18.92	0.48
1.000	0.39	7.000	2.85	13.000	1.02	19.00	0.48
1.083	0.40	7.083	4.04	13.083	0.98	19.08	0.47
1.167	0.40	7.167	4.04	13.167	0.98	19.17	0.47
1.250	0.40	7.250	4.04	13.250	0.98	19.25	0.47
1.333	0.41	7.333	6.85	13.333	0.93	19.33	0.46
1.417	0.41	7.417	6.85	13.417	0.93	19.42	0.46
1.500	0.41	7.500	6.85	13.500	0.93	19.50	0.46
1.583	0.43	7.583	19.82	13.583	0.89	19.58	0.45
1.667	0.43	7.667	19.82	13.667	0.89	19.67	0.45
1.750	0.43	7.750	19.82	13.750	0.89	19.75	0.45
1.833	0.45	7.833	90.91	13.833	0.86	19.83	0.44
1.917	0.45	7.917	90.91	13.917	0.86	19.92	0.44
2.000	0.45	8.000	90.90	14.000	0.86	20.00	0.44
2.083	0.46	8.083	26.99	14.083	0.82	20.08	0.43
2.167	0.46	8.167	26.99	14.167	0.82	20.17	0.43
2.250	0.46	8.250	26.99	14.250	0.82	20.25	0.43
2.333	0.48	8.333	12.67	14.333	0.79	20.33	0.42
2.417	0.48	8.417	12.67	14.417	0.79	20.42	0.42
2.500	0.48	8.500	12.67	14.500	0.79	20.50	0.42
2.583	0.51	8.583	7.98	14.583	0.76	20.58	0.42
2.667	0.51	8.667	7.98	14.667	0.76	20.67	0.42
2.750	0.51	8.750	7.98	14.750	0.76	20.75	0.42
2.833	0.53	8.833	5.74	14.833	0.74	20.83	0.41
2.917	0.53	8.917	5.74	14.917	0.74	20.92	0.41
3.000	0.53	9.000	5.74	15.000	0.74	21.00	0.41
3.083	0.56	9.083	4.46	15.083	0.71	21.08	0.40
3.167	0.56	9.167	4.46	15.167	0.71	21.17	0.40
3.250	0.56	9.250	4.46	15.250	0.71	21.25	0.40
3.333	0.59	9.333	3.63	15.333	0.69	21.33	0.40
3.417	0.59	9.417	3.63	15.417	0.69	21.42	0.40
3.500	0.59	9.500	3.63	15.500	0.69	21.50	0.40
3.583	0.62	9.583	3.07	15.583	0.67	21.58	0.39
3.667	0.62	9.667	3.07	15.667	0.67	21.67	0.39
3.750	0.62	9.750	3.07	15.750	0.67	21.75	0.39
3.833	0.66	9.833	2.65	15.833	0.65	21.83	0.38
3.917	0.66	9.917	2.65	15.917	0.65	21.92	0.38
4.000	0.66	10.000	2.65	16.000	0.65	22.00	0.38
4.083	0.70	10.083	2.33	16.083	0.63	22.08	0.38
4.167	0.70	10.167	2.33	16.167	0.63	22.17	0.38
4.250	0.70	10.250	2.33	16.250	0.63	22.25	0.38
4.333	0.75	10.333	2.09	16.333	0.61	22.33	0.37
4.417	0.75	10.417	2.09	16.417	0.61	22.42	0.37
4.500	0.75	10.500	2.09	16.500	0.61	22.50	0.37
4.583	0.81	10.583	1.89	16.583	0.59	22.58	0.36
4.667	0.81	10.667	1.89	16.667	0.59	22.67	0.36
4.750	0.81	10.750	1.89	16.750	0.59	22.75	0.36
4.833	0.87	10.833	1.72	16.833	0.58	22.83	0.36
4.917	0.87	10.917	1.72	16.917	0.58	22.92	0.36
5.000	0.87	11.000	1.72	17.000	0.58	23.00	0.36

5.083	0.95	111.083	1.58	17.083	0.56	23.08	0.35
5.167	0.95	111.167	1.58	17.167	0.56	23.17	0.35
5.250	0.95	111.250	1.58	17.250	0.56	23.25	0.35
5.333	1.05	111.333	1.47	17.333	0.55	23.33	0.35
5.417	1.05	111.417	1.47	17.417	0.55	23.42	0.35
5.500	1.05	111.500	1.47	17.500	0.55	23.50	0.35
5.583	1.17	111.583	1.37	17.583	0.54	23.58	0.34
5.667	1.17	111.667	1.37	17.667	0.54	23.67	0.34
5.750	1.17	111.750	1.37	17.750	0.54	23.75	0.34
5.833	1.32	111.833	1.28	17.833	0.52	23.83	0.34
5.917	1.32	111.917	1.28	17.917	0.52	23.92	0.34
6.000	1.32	112.000	1.28	18.000	0.52	24.00	0.34

Max.Eff.Inten.(mm/hr)= 90.91 32.71
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.01 (ii) 1.78 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

*****TOTALS*
 PEAK FLOW (cms)= 0.59 0.00 0.595 (iii)
 TIME TO PEAK (hrs)= 7.92 8.00 8.00
 RUNOFF VOLUME (mm)= 62.63 22.53 62.22
 TOTAL RAINFALL (mm)= 63.63 63.63 63.63
 RUNOFF COEFFICIENT = 0.98 0.35 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

| ADD HYD ( 7698) |
| 1 + 2 = 3 |
-----
ID1= 1 ( 7590): 2.39 0.600 8.00 62.22
+ ID2= 2 ( 7632): 2.36 0.592 8.00 62.22
-----
ID = 3 ( 7698): 4.75 1.192 8.00 62.22
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| ADD HYD ( 7698) |
| 3 + 2 = 1 |
-----
ID1= 3 ( 7698): 4.75 1.192 8.00 62.22
+ ID2= 2 ( 7644): 2.40 0.602 8.00 62.22
-----
ID = 1 ( 7698): 7.15 1.795 8.00 62.22
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| ADD HYD ( 7698) |
| 1 + 2 = 3 |
-----
ID1= 1 ( 7698): 7.15 1.795 8.00 62.22
+ ID2= 2 ( 7652): 2.40 0.602 8.00 62.22
-----
ID = 3 ( 7698): 9.55 2.397 8.00 62.22
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| ADD HYD ( 7698) |
| 3 + 2 = 1 |
-----
ID1= 3 ( 7698): 9.55 2.397 8.00 62.22
  
```

```

+ ID2= 2 ( 7661): 2.39 0.600 8.00 62.22
-----
ID = 1 ( 7698): 11.94 2.997 8.00 62.22
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| ADD HYD ( 7698) |
| 1 + 2 = 3 |
-----
ID1= 1 ( 7698): 11.94 2.997 8.00 62.22
+ ID2= 2 ( 7671): 2.37 0.595 8.00 62.22
-----
ID = 3 ( 7698): 14.31 3.592 8.00 62.22
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| DIVERTHYD ( 7713) |
| IN= 1 # OUT= 5 |
  
```

Outflow / Inflow Relationships

Flow 1 +	Flow 2 +	Flow 3 +	Flow 4 +	Flow 5 =	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

```

-----
TOTAL HYD.(ID= 1): 14.31 3.59 8.00 62.22
-----
ID= 2 ( 2) : 12.39 2.30 8.00 62.22
ID= 3 ( 2) : 1.92 1.30 8.00 62.22
ID= 4 ( 2) : 0.00 0.00 0.00 0.00
ID= 5 ( 2) : 0.00 0.00 0.00 0.00
ID= 6 ( 2) : 0.00 0.00 0.00 0.00
  
```

```

| RESERVOIR ( 7699) | OVERFLOW IS ON
| IN= 2----> OUT= 1 |
| DT= 5.0 min |
-----
OUTFLOW STORAGE | OUTFLOW STORAGE
(cms) (ha.m.) | (cms) (ha.m.)
0.0000 0.0000 | 0.2690 0.4589
0.1980 0.1112 | 0.0000 0.0000
  
```

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7713)	12.387	2.296	8.00	62.22
OUTFLOW: ID= 1 (7699)	12.387	0.257	8.83	62.21
OVERFLOW:ID= 3 (0003)	0.000	0.000	0.00	0.00

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
 CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
 PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

PEAK FLOW REDUCTION [Qout/Qin] (%) = 11.18
 TIME SHIFT OF PEAK FLOW (min) = 50.00
 MAXIMUM STORAGE USED (ha.m.) = 0.3994

```

| Junction Command(7715) |
  
```

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 3 (7699)	0.00	0.00	0.00	0.00
OUTFLOW: ID= 2 (7715)	0.00	0.00	0.00	0.00

ADD HYD (7714)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7699):	12.39	0.257	8.83	62.21
+ ID2= 2 (7713):	1.92	1.296	8.00	62.22
ID = 3 (7714):	14.31	1.526	8.00	62.21

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7714)	AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1	(ha)	(cms)	(hrs)	(mm)
*** W A R N I N G : HYDROGRAPH 7715 <ID= 2> IS DRY.				
*** W A R N I N G : HYDROGRAPH 0001 = HYDROGRAPH 0003				
ID1= 3 (7714):	14.31	1.526	8.00	62.21
+ ID2= 2 (7715):	0.00	0.000	0.00	0.00
ID = 1 (7714):	14.31	1.526	8.00	62.21

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALLIB		Area (ha)= 1.45		Dir. Conn.(%)= 96.00	
STANDHYD (7620)		Total Imp(%)= 96.00		ID= 1 DT= 5.0 min	
Surface Area	(ha)=	1.39	0.06		
Dep. Storage	(mm)=	2.00	5.00		
Average Slope	(%)=	1.10	2.00		
Length	(m)=	100.00	145.00		
Mannings n	=	0.013	0.250		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.35	6.083	1.52	12.083	1.20	18.08	0.51
0.167	0.35	6.167	1.52	12.167	1.20	18.17	0.51
0.250	0.35	6.250	1.52	12.250	1.20	18.25	0.51
0.333	0.36	6.333	1.80	12.333	1.14	18.33	0.50
0.417	0.36	6.417	1.80	12.417	1.14	18.42	0.50
0.500	0.36	6.500	1.80	12.500	1.14	18.50	0.50
0.583	0.37	6.583	2.21	12.583	1.08	18.58	0.49
0.667	0.37	6.667	2.21	12.667	1.08	18.67	0.49
0.750	0.37	6.750	2.21	12.750	1.08	18.75	0.49
0.833	0.39	6.833	2.85	12.833	1.02	18.83	0.48
0.917	0.39	6.917	2.85	12.917	1.02	18.92	0.48
1.000	0.39	7.000	2.85	13.000	1.02	19.00	0.48
1.083	0.40	7.083	4.04	13.083	0.98	19.08	0.47
1.167	0.40	7.167	4.04	13.167	0.98	19.17	0.47
1.250	0.40	7.250	4.04	13.250	0.98	19.25	0.47
1.333	0.41	7.333	6.85	13.333	0.93	19.33	0.46
1.417	0.41	7.417	6.85	13.417	0.93	19.42	0.46
1.500	0.41	7.500	6.85	13.500	0.93	19.50	0.46
1.583	0.43	7.583	19.82	13.583	0.89	19.58	0.45
1.667	0.43	7.667	19.82	13.667	0.89	19.67	0.45
1.750	0.43	7.750	19.82	13.750	0.89	19.75	0.45
1.833	0.45	7.833	90.91	13.833	0.86	19.83	0.44
1.917	0.45	7.917	90.91	13.917	0.86	19.92	0.44
2.000	0.45	8.000	90.90	14.000	0.86	20.00	0.44
2.083	0.46	8.083	26.99	14.083	0.82	20.08	0.43
2.167	0.46	8.167	26.99	14.167	0.82	20.17	0.43
2.250	0.46	8.250	26.99	14.250	0.82	20.25	0.43
2.333	0.48	8.333	12.67	14.333	0.79	20.33	0.42
2.417	0.48	8.417	12.67	14.417	0.79	20.42	0.42
2.500	0.48	8.500	12.67	14.500	0.79	20.50	0.42
2.583	0.51	8.583	7.98	14.583	0.76	20.58	0.42
2.667	0.51	8.667	7.98	14.667	0.76	20.67	0.42
2.750	0.51	8.750	7.98	14.750	0.76	20.75	0.42

2.833	0.53	8.833	5.74	14.833	0.74	20.83	0.41
2.917	0.53	8.917	5.74	14.917	0.74	20.92	0.41
3.000	0.53	9.000	5.74	15.000	0.74	21.00	0.41
3.083	0.56	9.083	4.46	15.083	0.71	21.08	0.40
3.167	0.56	9.167	4.46	15.167	0.71	21.17	0.40
3.250	0.56	9.250	4.46	15.250	0.71	21.25	0.40
3.333	0.59	9.333	3.63	15.333	0.69	21.33	0.40
3.417	0.59	9.417	3.63	15.417	0.69	21.42	0.40
3.500	0.59	9.500	3.63	15.500	0.69	21.50	0.40
3.583	0.62	9.583	3.07	15.583	0.67	21.58	0.39
3.667	0.62	9.667	3.07	15.667	0.67	21.67	0.39
3.750	0.62	9.750	3.07	15.750	0.67	21.75	0.39
3.833	0.66	9.833	2.65	15.833	0.65	21.83	0.38
3.917	0.66	9.917	2.65	15.917	0.65	21.92	0.38
4.000	0.66	10.000	2.65	16.000	0.65	22.00	0.38
4.083	0.70	10.083	2.33	16.083	0.63	22.08	0.38
4.167	0.70	10.167	2.33	16.167	0.63	22.17	0.38
4.250	0.70	10.250	2.33	16.250	0.63	22.25	0.38
4.333	0.75	10.333	2.09	16.333	0.61	22.33	0.37
4.417	0.75	10.417	2.09	16.417	0.61	22.42	0.37
4.500	0.75	10.500	2.09	16.500	0.61	22.50	0.37
4.583	0.81	10.583	1.89	16.583	0.59	22.58	0.36
4.667	0.81	10.667	1.89	16.667	0.59	22.67	0.36
4.750	0.81	10.750	1.89	16.750	0.59	22.75	0.36
4.833	0.87	10.833	1.72	16.833	0.58	22.83	0.36
4.917	0.87	10.917	1.72	16.917	0.58	22.92	0.36
5.000	0.87	11.000	1.72	17.000	0.58	23.00	0.36
5.083	0.95	11.083	1.58	17.083	0.56	23.08	0.35
5.167	0.95	11.167	1.58	17.167	0.56	23.17	0.35
5.250	0.95	11.250	1.58	17.250	0.56	23.25	0.35
5.333	1.05	11.333	1.47	17.333	0.55	23.33	0.35
5.417	1.05	11.417	1.47	17.417	0.55	23.42	0.35
5.500	1.05	11.500	1.47	17.500	0.55	23.50	0.35
5.583	1.17	11.583	1.37	17.583	0.54	23.58	0.34
5.667	1.17	11.667	1.37	17.667	0.54	23.67	0.34
5.750	1.17	11.750	1.37	17.750	0.54	23.75	0.34
5.833	1.32	11.833	1.28	17.833	0.52	23.83	0.34
5.917	1.32	11.917	1.28	17.917	0.52	23.92	0.34
6.000	1.32	12.000	1.28	18.000	0.52	24.00	0.34

Max.Eff.Inten.(mm/hr)=	90.91	32.71	
over (min)	5.00	10.00	
Storage Coeff. (min)=	2.58 (ii)	7.03 (iii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.29	0.14	
PEAK FLOW (cms)=	0.35	0.00	*TOTALS*
TIME TO PEAK (hrs)=	8.00	8.08	8.00
RUNOFF VOLUME (mm)=	61.63	22.53	60.06
TOTAL RAINFALL (mm)=	63.63	63.63	63.63
RUNOFF COEFFICIENT =	0.97	0.35	0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALLIB		Area (ha)= 1.70		Dir. Conn.(%)= 99.00	
STANDHYD (7629)		Total Imp(%)= 99.00		ID= 1 DT= 5.0 min	
Surface Area	(ha)=	1.68	0.02		
Dep. Storage	(mm)=	2.00	5.00		
Average Slope	(%)=	1.10	2.00		
Length	(m)=	100.00	40.00		
Mannings n	=	0.013	0.250		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.35	6.083	1.52	12.083	1.20	18.08	0.51
0.167	0.35	6.167	1.52	12.167	1.20	18.17	0.51
0.250	0.35	6.250	1.52	12.250	1.20	18.25	0.51
0.333	0.36	6.333	1.80	12.333	1.14	18.33	0.50
0.417	0.36	6.417	1.80	12.417	1.14	18.42	0.50
0.500	0.36	6.500	1.80	12.500	1.14	18.50	0.50
0.583	0.37	6.583	2.21	12.583	1.08	18.58	0.49
0.667	0.37	6.667	2.21	12.667	1.08	18.67	0.49
0.750	0.37	6.750	2.21	12.750	1.08	18.75	0.49
0.833	0.39	6.833	2.85	12.833	1.02	18.83	0.48
0.917	0.39	6.917	2.85	12.917	1.02	18.92	0.48
1.000	0.39	7.000	2.85	13.000	1.02	19.00	0.48
1.083	0.40	7.083	4.04	13.083	0.98	19.08	0.47
1.167	0.40	7.167	4.04	13.167	0.98	19.17	0.47
1.250	0.40	7.250	4.04	13.250	0.98	19.25	0.47
1.333	0.41	7.333	6.85	13.333	0.93	19.33	0.46
1.417	0.41	7.417	6.85	13.417	0.93	19.42	0.46
1.500	0.41	7.500	6.85	13.500	0.93	19.50	0.46
1.583	0.43	7.583	19.82	13.583	0.89	19.58	0.45
1.667	0.43	7.667	19.82	13.667	0.89	19.67	0.45
1.750	0.43	7.750	19.82	13.750	0.89	19.75	0.45
1.833	0.45	7.833	90.91	13.833	0.86	19.83	0.44
1.917	0.45	7.917	90.91	13.917	0.86	19.92	0.44
2.000	0.45	8.000	90.90	14.000	0.86	20.00	0.44
2.083	0.46	8.083	26.99	14.083	0.82	20.08	0.43
2.167	0.46	8.167	26.99	14.167	0.82	20.17	0.43
2.250	0.46	8.250	26.99	14.250	0.82	20.25	0.43
2.333	0.48	8.333	12.67	14.333	0.79	20.33	0.42
2.417	0.48	8.417	12.67	14.417	0.79	20.42	0.42
2.500	0.48	8.500	12.67	14.500	0.79	20.50	0.42
2.583	0.51	8.583	7.98	14.583	0.76	20.58	0.42
2.667	0.51	8.667	7.98	14.667	0.76	20.67	0.42
2.750	0.51	8.750	7.98	14.750	0.76	20.75	0.42
2.833	0.53	8.833	5.74	14.833	0.74	20.83	0.41
2.917	0.53	8.917	5.74	14.917	0.74	20.92	0.41
3.000	0.53	9.000	5.74	15.000	0.74	21.00	0.41
3.083	0.56	9.083	4.46	15.083	0.71	21.08	0.40
3.167	0.56	9.167	4.46	15.167	0.71	21.17	0.40
3.250	0.56	9.250	4.46	15.250	0.71	21.25	0.40
3.333	0.59	9.333	3.63	15.333	0.69	21.33	0.40
3.417	0.59	9.417	3.63	15.417	0.69	21.42	0.40
3.500	0.59	9.500	3.63	15.500	0.69	21.50	0.40
3.583	0.62	9.583	3.07	15.583	0.67	21.58	0.39
3.667	0.62	9.667	3.07	15.667	0.67	21.67	0.39
3.750	0.62	9.750	3.07	15.750	0.67	21.75	0.39
3.833	0.66	9.833	2.65	15.833	0.65	21.83	0.38
3.917	0.66	9.917	2.65	15.917	0.65	21.92	0.38
4.000	0.66	10.000	2.65	16.000	0.65	22.00	0.38
4.083	0.70	10.083	2.33	16.083	0.63	22.08	0.38
4.167	0.70	10.167	2.33	16.167	0.63	22.17	0.38
4.250	0.70	10.250	2.33	16.250	0.63	22.25	0.38
4.333	0.75	10.333	2.09	16.333	0.61	22.33	0.37
4.417	0.75	10.417	2.09	16.417	0.61	22.42	0.37
4.500	0.75	10.500	2.09	16.500	0.61	22.50	0.37
4.583	0.81	10.583	1.89	16.583	0.59	22.58	0.36
4.667	0.81	10.667	1.89	16.667	0.59	22.67	0.36
4.750	0.81	10.750	1.89	16.750	0.59	22.75	0.36
4.833	0.87	10.833	1.72	16.833	0.58	22.83	0.36
4.917	0.87	10.917	1.72	16.917	0.58	22.92	0.36
5.000	0.87	11.000	1.72	17.000	0.58	23.00	0.36
5.083	0.95	11.083	1.58	17.083	0.56	23.08	0.35
5.167	0.95	11.167	1.58	17.167	0.56	23.17	0.35
5.250	0.95	11.250	1.58	17.250	0.56	23.25	0.35
5.333	1.05	11.333	1.47	17.333	0.55	23.33	0.35
5.417	1.05	11.417	1.47	17.417	0.55	23.42	0.35
5.500	1.05	11.500	1.47	17.500	0.55	23.50	0.35
5.583	1.17	11.583	1.37	17.583	0.54	23.58	0.34
5.667	1.17	11.667	1.37	17.667	0.54	23.67	0.34
5.750	1.17	11.750	1.37	17.750	0.54	23.75	0.34
5.833	1.32	11.833	1.28	17.833	0.52	23.83	0.34
5.917	1.32	11.917	1.28	17.917	0.52	23.92	0.34
6.000	1.32	12.000	1.28	18.000	0.52	24.00	0.34

Max.Eff.Inten.(mm/hr)=	90.91	32.71	
over (min)	5.00	5.00	
Storage Coeff. (min)=	2.58 (ii)	3.75 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.29	0.25	
PEAK FLOW (cms)=	0.42	0.00	*TOTALS*
TIME TO PEAK (hrs)=	8.00	8.00	0.426 (iii)
RUNOFF VOLUME (mm)=	61.63	22.53	8.00
TOTAL RAINFALL (mm)=	63.63	63.63	61.23
RUNOFF COEFFICIENT =	0.97	0.35	63.63
			0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (7651)	Area (ha)= 1.33
ID= 1 DT= 5.0 min	Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

	IMPERVIOUS PERVIOUS (i)
Surface Area (ha)=	1.30 0.03
Dep. Storage (mm)=	2.00 5.00
Average Slope (%)=	1.10 2.00
Length (m)=	100.00 40.00
Mannings n =	0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.35	6.083	1.52	12.083	1.20	18.08	0.51
0.167	0.35	6.167	1.52	12.167	1.20	18.17	0.51
0.250	0.35	6.250	1.52	12.250	1.20	18.25	0.51
0.333	0.36	6.333	1.80	12.333	1.14	18.33	0.50
0.417	0.36	6.417	1.80	12.417	1.14	18.42	0.50
0.500	0.36	6.500	1.80	12.500	1.14	18.50	0.50
0.583	0.37	6.583	2.21	12.583	1.08	18.58	0.49
0.667	0.37	6.667	2.21	12.667	1.08	18.67	0.49
0.750	0.37	6.750	2.21	12.750	1.08	18.75	0.49
0.833	0.39	6.833	2.85	12.833	1.02	18.83	0.48
0.917	0.39	6.917	2.85	12.917	1.02	18.92	0.48
1.000	0.39	7.000	2.85	13.000	1.02	19.00	0.48
1.083	0.40	7.083	4.04	13.083	0.98	19.08	0.47
1.167	0.40	7.167	4.04	13.167	0.98	19.17	0.47
1.250	0.40	7.250	4.04	13.250	0.98	19.25	0.47
1.333	0.41	7.333	6.85	13.333	0.93	19.33	0.46
1.417	0.41	7.417	6.85	13.417	0.93	19.42	0.46
1.500	0.41	7.500	6.85	13.500	0.93	19.50	0.46
1.583	0.43	7.583	19.82	13.583	0.89	19.58	0.45
1.667	0.43	7.667	19.82	13.667	0.89	19.67	0.45
1.750	0.43	7.750	19.82	13.750	0.89	19.75	0.45
1.833	0.45	7.833	90.91	13.833	0.86	19.83	0.44
1.917	0.45	7.917	90.91	13.917	0.86	19.92	0.44
2.000	0.45	8.000	90.90	14.000	0.86	20.00	0.44
2.083	0.46	8.083	26.99	14.083	0.82	20.08	0.43
2.167	0.46	8.167	26.99	14.167	0.82	20.17	0.43
2.250	0.46	8.250	26.99	14.250	0.82	20.25	0.43
2.333	0.48	8.333	12.67	14.333	0.79	20.33	0.42
2.417	0.48	8.417	12.67	14.417	0.79	20.42	0.42
2.500	0.48	8.500	12.67	14.500	0.79	20.50	0.42
2.583	0.51	8.583	7.98	14.583	0.76	20.58	0.42
2.667	0.51	8.667	7.98	14.667	0.76	20.67	0.42
2.750	0.51	8.750	7.98	14.750	0.76	20.75	0.42
2.833	0.53	8.833	5.74	14.833	0.74	20.83	0.41
2.917	0.53	8.917	5.74	14.917	0.74	20.92	0.41
3.000	0.53	9.000	5.74	15.000	0.74	21.00	0.41
3.083	0.56	9.083	4.46	15.083	0.71	21.08	0.40

3.167	0.56	9.167	4.46	15.167	0.71	21.17	0.40
3.250	0.56	9.250	4.46	15.250	0.71	21.25	0.40
3.333	0.59	9.333	3.63	15.333	0.69	21.33	0.40
3.417	0.59	9.417	3.63	15.417	0.69	21.42	0.40
3.500	0.59	9.500	3.63	15.500	0.69	21.50	0.40
3.583	0.62	9.583	3.07	15.583	0.67	21.58	0.39
3.667	0.62	9.667	3.07	15.667	0.67	21.67	0.39
3.750	0.62	9.750	3.07	15.750	0.67	21.75	0.39
3.833	0.66	9.833	2.65	15.833	0.65	21.83	0.38
3.917	0.66	9.917	2.65	15.917	0.65	21.92	0.38
4.000	0.66	10.000	2.65	16.000	0.65	22.00	0.38
4.083	0.70	10.083	2.33	16.083	0.63	22.08	0.38
4.167	0.70	10.167	2.33	16.167	0.63	22.17	0.38
4.250	0.70	10.250	2.33	16.250	0.63	22.25	0.38
4.333	0.75	10.333	2.09	16.333	0.61	22.33	0.37
4.417	0.75	10.417	2.09	16.417	0.61	22.42	0.37
4.500	0.75	10.500	2.09	16.500	0.61	22.50	0.37
4.583	0.81	10.583	1.89	16.583	0.59	22.58	0.36
4.667	0.81	10.667	1.89	16.667	0.59	22.67	0.36
4.750	0.81	10.750	1.89	16.750	0.59	22.75	0.36
4.833	0.87	10.833	1.72	16.833	0.58	22.83	0.36
4.917	0.87	10.917	1.72	16.917	0.58	22.92	0.36
5.000	0.87	11.000	1.72	17.000	0.58	23.00	0.36
5.083	0.95	11.083	1.58	17.083	0.56	23.08	0.35
5.167	0.95	11.167	1.58	17.167	0.56	23.17	0.35
5.250	0.95	11.250	1.58	17.250	0.56	23.25	0.35
5.333	1.05	11.333	1.47	17.333	0.55	23.33	0.35
5.417	1.05	11.417	1.47	17.417	0.55	23.42	0.35
5.500	1.05	11.500	1.47	17.500	0.55	23.50	0.35
5.583	1.17	11.583	1.37	17.583	0.54	23.58	0.34
5.667	1.17	11.667	1.37	17.667	0.54	23.67	0.34
5.750	1.17	11.750	1.37	17.750	0.54	23.75	0.34
5.833	1.32	11.833	1.28	17.833	0.52	23.83	0.34
5.917	1.32	11.917	1.28	17.917	0.52	23.92	0.34
6.000	1.32	12.000	1.28	18.000	0.52	24.00	0.34

Max.Eff.Inten. (mm/hr)=	90.91	32.71	
over (min)	5.00	5.00	
Storage Coeff. (min)=	2.58 (ii)	4.12 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.29	0.24	
			TOTALS
PEAK FLOW (cms)=	0.33	0.00	0.331 (iii)
TIME TO PEAK (hrs)=	8.00	8.00	8.00
RUNOFF VOLUME (mm)=	61.63	22.53	60.84
TOTAL RAINFALL (mm)=	63.63	63.63	63.63
RUNOFF COEFFICIENT =	0.97	0.35	0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7700)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7620):	1.45	0.354	8.00	60.06
+ ID2= 2 (7629):	1.70	0.426	8.00	61.23

ID = 3 (7700):	3.15	0.780	8.00	60.69

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7700)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7700):	3.15	0.780	8.00	60.69
+ ID2= 2 (7651):	1.33	0.331	8.00	60.84

ID = 1 (7700): 4.48 1.111 8.00 60.74

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB (7623)			
STANDHYD (7623)			
ID= 1 DT= 5.0 min	Area (ha)=	1.20	
	Total Imp(%)=	95.00	Dir. Conn.(%)= 95.00

Surface Area (ha)=	IMPERVIOUS	PERVIOUS (i)	
Dep. Storage (mm)=	1.14	0.06	
Average Slope (%)=	2.00	5.00	
Length (m)=	2.50	2.00	
Mannings n =	60.00	40.00	
	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.35	6.083	1.52	12.083	1.20	18.08	0.51
0.167	0.35	6.167	1.52	12.167	1.20	18.17	0.51
0.250	0.35	6.250	1.52	12.250	1.20	18.25	0.51
0.333	0.36	6.333	1.80	12.333	1.14	18.33	0.50
0.417	0.36	6.417	1.80	12.417	1.14	18.42	0.50
0.500	0.36	6.500	1.80	12.500	1.14	18.50	0.50
0.583	0.37	6.583	2.21	12.583	1.08	18.58	0.49
0.667	0.37	6.667	2.21	12.667	1.08	18.67	0.49
0.750	0.37	6.750	2.21	12.750	1.08	18.75	0.49
0.833	0.39	6.833	2.85	12.833	1.02	18.83	0.48
0.917	0.39	6.917	2.85	12.917	1.02	18.92	0.48
1.000	0.39	7.000	2.85	13.000	1.02	19.00	0.48
1.083	0.40	7.083	4.04	13.083	0.98	19.08	0.47
1.167	0.40	7.167	4.04	13.167	0.98	19.17	0.47
1.250	0.40	7.250	4.04	13.250	0.98	19.25	0.47
1.333	0.41	7.333	6.85	13.333	0.93	19.33	0.46
1.417	0.41	7.417	6.85	13.417	0.93	19.42	0.46
1.500	0.41	7.500	6.85	13.500	0.93	19.50	0.46
1.583	0.43	7.583	19.82	13.583	0.89	19.58	0.45
1.667	0.43	7.667	19.82	13.667	0.89	19.67	0.45
1.750	0.43	7.750	19.82	13.750	0.89	19.75	0.45
1.833	0.45	7.833	90.91	13.833	0.86	19.83	0.44
1.917	0.45	7.917	90.91	13.917	0.86	19.92	0.44
2.000	0.45	8.000	90.90	14.000	0.86	20.00	0.44
2.083	0.46	8.083	26.99	14.083	0.82	20.08	0.43
2.167	0.46	8.167	26.99	14.167	0.82	20.17	0.43
2.250	0.46	8.250	26.99	14.250	0.82	20.25	0.43
2.333	0.48	8.333	12.67	14.333	0.79	20.33	0.42
2.417	0.48	8.417	12.67	14.417	0.79	20.42	0.42
2.500	0.48	8.500	12.67	14.500	0.79	20.50	0.42
2.583	0.51	8.583	7.98	14.583	0.76	20.58	0.42
2.667	0.51	8.667	7.98	14.667	0.76	20.67	0.42
2.750	0.51	8.750	7.98	14.750	0.76	20.75	0.42
2.833	0.53	8.833	5.74	14.833	0.74	20.83	0.41
2.917	0.53	8.917	5.74	14.917	0.74	20.92	0.41
3.000	0.53	9.000	5.74	15.000	0.74	21.00	0.41
3.083	0.56	9.083	4.46	15.083	0.71	21.08	0.40
3.167	0.56	9.167	4.46	15.167	0.71	21.17	0.40
3.250	0.56	9.250	4.46	15.250	0.71	21.25	0.40
3.333	0.59	9.333	3.63	15.333	0.69	21.33	0.40
3.417	0.59	9.417	3.63	15.417	0.69	21.42	0.40
3.500	0.59	9.500	3.63	15.500	0.69	21.50	0.40
3.583	0.62	9.583	3.07	15.583	0.67	21.58	0.39
3.667	0.62	9.667	3.07	15.667	0.67	21.67	0.39
3.750	0.62	9.750	3.07	15.750	0.67	21.75	0.39
3.833	0.66	9.833	2.65	15.833	0.65	21.83	0.38
3.917	0.66	9.917	2.65	15.917	0.65	21.92	0.38
4.000	0.66	10.000	2.65	16.000	0.65	22.00	0.38
4.083	0.70	10.083	2.33	16.083	0.63	22.08	0.38
4.167	0.70	10.167	2.33	16.167	0.63	22.17	0.38
4.250	0.70	10.250	2.33	16.250	0.63	22.25	0.38
4.333	0.75	10.333	2.09	16.333	0.61	22.33	0.37
4.417	0.75	10.417	2.09	16.417	0.61	22.42	0.37



4.500	0.75	10.500	2.09	16.500	0.61	22.50	0.37
4.583	0.81	10.583	1.89	16.583	0.59	22.58	0.36
4.667	0.81	10.667	1.89	16.667	0.59	22.67	0.36
4.750	0.81	10.750	1.89	16.750	0.59	22.75	0.36
4.833	0.87	10.833	1.72	16.833	0.58	22.83	0.36
4.917	0.87	10.917	1.72	16.917	0.58	22.92	0.36
5.000	0.87	11.000	1.72	17.000	0.58	23.00	0.36
5.083	0.95	11.083	1.58	17.083	0.56	23.08	0.35
5.167	0.95	11.167	1.58	17.167	0.56	23.17	0.35
5.250	0.95	11.250	1.58	17.250	0.56	23.25	0.35
5.333	1.05	11.333	1.47	17.333	0.55	23.33	0.35
5.417	1.05	11.417	1.47	17.417	0.55	23.42	0.35
5.500	1.05	11.500	1.47	17.500	0.55	23.50	0.35
5.583	1.17	11.583	1.37	17.583	0.54	23.58	0.34
5.667	1.17	11.667	1.37	17.667	0.54	23.67	0.34
5.750	1.17	11.750	1.37	17.750	0.54	23.75	0.34
5.833	1.32	11.833	1.28	17.833	0.52	23.83	0.34
5.917	1.32	11.917	1.28	17.917	0.52	23.92	0.34
6.000	1.32	12.000	1.28	18.000	0.52	24.00	0.34

Max.Eff.Inten.(mm/hr)= 90.91 33.91
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.48 (ii) 3.74 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.25

TOTALS
 PEAK FLOW (cms)= 0.29 0.01 0.294 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 61.63 23.24 59.71
 TOTAL RAINFALL (mm)= 63.63 63.63 63.63
 RUNOFF COEFFICIENT = 0.97 0.37 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANHYD (7654) | Area (ha)= 1.69
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

Surface Area	(ha)=	1.67	0.02
Dep. Storage	(mm)=	2.00	5.00
Average Slope	(%)=	1.10	2.00
Length	(m)=	100.00	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.35	6.083	1.52	12.083	1.20
0.167	0.35	6.167	1.52	12.167	1.20
0.250	0.35	6.250	1.52	12.250	1.20
0.333	0.36	6.333	1.80	12.333	1.14
0.417	0.36	6.417	1.80	12.417	1.14
0.500	0.36	6.500	1.80	12.500	1.14
0.583	0.37	6.583	2.21	12.583	1.08
0.667	0.37	6.667	2.21	12.667	1.08
0.750	0.37	6.750	2.21	12.750	1.08
0.833	0.39	6.833	2.85	12.833	1.02
0.917	0.39	6.917	2.85	12.917	1.02
1.000	0.39	7.000	2.85	13.000	1.02
1.083	0.40	7.083	4.04	13.083	0.98
1.167	0.40	7.167	4.04	13.167	0.98
1.250	0.40	7.250	4.04	13.250	0.98
1.333	0.41	7.333	6.85	13.333	0.93
1.417	0.41	7.417	6.85	13.417	0.93

1.500	0.41	7.500	6.85	13.500	0.93	19.50	0.46
1.583	0.43	7.583	19.82	13.583	0.89	19.58	0.45
1.667	0.43	7.667	19.82	13.667	0.89	19.67	0.45
1.750	0.43	7.750	19.82	13.750	0.89	19.75	0.45
1.833	0.45	7.833	90.91	13.833	0.86	19.83	0.44
1.917	0.45	7.917	90.91	13.917	0.86	19.92	0.44
2.000	0.45	8.000	90.90	14.000	0.86	20.00	0.44
2.083	0.46	8.083	26.99	14.083	0.82	20.08	0.43
2.167	0.46	8.167	26.99	14.167	0.82	20.17	0.43
2.250	0.46	8.250	26.99	14.250	0.82	20.25	0.43
2.333	0.48	8.333	12.67	14.333	0.79	20.33	0.42
2.417	0.48	8.417	12.67	14.417	0.79	20.42	0.42
2.500	0.48	8.500	12.67	14.500	0.79	20.50	0.42
2.583	0.51	8.583	7.98	14.583	0.76	20.58	0.42
2.667	0.51	8.667	7.98	14.667	0.76	20.67	0.42
2.750	0.51	8.750	7.98	14.750	0.76	20.75	0.42
2.833	0.53	8.833	5.74	14.833	0.74	20.83	0.41
2.917	0.53	8.917	5.74	14.917	0.74	20.92	0.41
3.000	0.53	9.000	5.74	15.000	0.74	21.00	0.41
3.083	0.56	9.083	4.46	15.083	0.71	21.08	0.40
3.167	0.56	9.167	4.46	15.167	0.71	21.17	0.40
3.250	0.56	9.250	4.46	15.250	0.71	21.25	0.40
3.333	0.59	9.333	3.63	15.333	0.69	21.33	0.40
3.417	0.59	9.417	3.63	15.417	0.69	21.42	0.40
3.500	0.59	9.500	3.63	15.500	0.69	21.50	0.40
3.583	0.62	9.583	3.07	15.583	0.67	21.58	0.39
3.667	0.62	9.667	3.07	15.667	0.67	21.67	0.39
3.750	0.62	9.750	3.07	15.750	0.67	21.75	0.39
3.833	0.66	9.833	2.65	15.833	0.65	21.83	0.38
3.917	0.66	9.917	2.65	15.917	0.65	21.92	0.38
4.000	0.66	10.000	2.65	16.000	0.65	22.00	0.38
4.083	0.70	10.083	2.33	16.083	0.63	22.08	0.38
4.167	0.70	10.167	2.33	16.167	0.63	22.17	0.38
4.250	0.70	10.250	2.33	16.250	0.63	22.25	0.38
4.333	0.75	10.333	2.09	16.333	0.61	22.33	0.37
4.417	0.75	10.417	2.09	16.417	0.61	22.42	0.37
4.500	0.75	10.500	2.09	16.500	0.61	22.50	0.37
4.583	0.81	10.583	1.89	16.583	0.59	22.58	0.36
4.667	0.81	10.667	1.89	16.667	0.59	22.67	0.36
4.750	0.81	10.750	1.89	16.750	0.59	22.75	0.36
4.833	0.87	10.833	1.72	16.833	0.58	22.83	0.36
4.917	0.87	10.917	1.72	16.917	0.58	22.92	0.36
5.000	0.87	11.000	1.72	17.000	0.58	23.00	0.36
5.083	0.95	11.083	1.58	17.083	0.56	23.08	0.35
5.167	0.95	11.167	1.58	17.167	0.56	23.17	0.35
5.250	0.95	11.250	1.58	17.250	0.56	23.25	0.35
5.333	1.05	11.333	1.47	17.333	0.55	23.33	0.35
5.417	1.05	11.417	1.47	17.417	0.55	23.42	0.35
5.500	1.05	11.500	1.47	17.500	0.55	23.50	0.35
5.583	1.17	11.583	1.37	17.583	0.54	23.58	0.34
5.667	1.17	11.667	1.37	17.667	0.54	23.67	0.34
5.750	1.17	11.750	1.37	17.750	0.54	23.75	0.34
5.833	1.32	11.833	1.28	17.833	0.52	23.83	0.34
5.917	1.32	11.917	1.28	17.917	0.52	23.92	0.34
6.000	1.32	12.000	1.28	18.000	0.52	24.00	0.34

Max.Eff.Inten.(mm/hr)= 90.91 32.71
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.58 (ii) 3.75 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.29 0.25

TOTALS
 PEAK FLOW (cms)= 0.42 0.00 0.423 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 61.63 22.53 61.23
 TOTAL RAINFALL (mm)= 63.63 63.63 63.63
 RUNOFF COEFFICIENT = 0.97 0.35 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7655) | Area (ha)= 1.32
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.31 0.01
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 2.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.35	6.083	1.52	12.083	1.20
0.167	0.35	6.167	1.52	12.167	1.20
0.250	0.35	6.250	1.52	12.250	1.20
0.333	0.36	6.333	1.80	12.333	1.14
0.417	0.36	6.417	1.80	12.417	1.14
0.500	0.36	6.500	1.80	12.500	1.14
0.583	0.37	6.583	2.21	12.583	1.08
0.667	0.37	6.667	2.21	12.667	1.08
0.750	0.37	6.750	2.21	12.750	1.08
0.833	0.39	6.833	2.85	12.833	1.02
0.917	0.39	6.917	2.85	12.917	1.02
1.000	0.39	7.000	2.85	13.000	1.02
1.083	0.40	7.083	4.04	13.083	0.98
1.167	0.40	7.167	4.04	13.167	0.98
1.250	0.40	7.250	4.04	13.250	0.98
1.333	0.41	7.333	6.85	13.333	0.93
1.417	0.41	7.417	6.85	13.417	0.93
1.500	0.41	7.500	6.85	13.500	0.93
1.583	0.43	7.583	19.82	13.583	0.89
1.667	0.43	7.667	19.82	13.667	0.89
1.750	0.43	7.750	19.82	13.750	0.89
1.833	0.45	7.833	90.91	13.833	0.86
1.917	0.45	7.917	90.91	13.917	0.86
2.000	0.45	8.000	90.91	14.000	0.86
2.083	0.46	8.083	26.99	14.083	0.82
2.167	0.46	8.167	26.99	14.167	0.82
2.250	0.46	8.250	26.99	14.250	0.82
2.333	0.48	8.333	12.67	14.333	0.79
2.417	0.48	8.417	12.67	14.417	0.79
2.500	0.48	8.500	12.67	14.500	0.79
2.583	0.51	8.583	7.98	14.583	0.76
2.667	0.51	8.667	7.98	14.667	0.76
2.750	0.51	8.750	7.98	14.750	0.76
2.833	0.53	8.833	5.74	14.833	0.74
2.917	0.53	8.917	5.74	14.917	0.74
3.000	0.53	9.000	5.74	15.000	0.74
3.083	0.56	9.083	4.46	15.083	0.71
3.167	0.56	9.167	4.46	15.167	0.71
3.250	0.56	9.250	4.46	15.250	0.71
3.333	0.59	9.333	3.63	15.333	0.69
3.417	0.59	9.417	3.63	15.417	0.69
3.500	0.59	9.500	3.63	15.500	0.69
3.583	0.62	9.583	3.07	15.583	0.67
3.667	0.62	9.667	3.07	15.667	0.67
3.750	0.62	9.750	3.07	15.750	0.67
3.833	0.66	9.833	2.65	15.833	0.65
3.917	0.66	9.917	2.65	15.917	0.65
4.000	0.66	10.000	2.65	16.000	0.65
4.083	0.70	10.083	2.33	16.083	0.63
4.167	0.70	10.167	2.33	16.167	0.63
4.250	0.70	10.250	2.33	16.250	0.63
4.333	0.75	10.333	2.09	16.333	0.61
4.417	0.75	10.417	2.09	16.417	0.61
4.500	0.75	10.500	2.09	16.500	0.61
4.583	0.81	10.583	1.89	16.583	0.59
4.667	0.81	10.667	1.89	16.667	0.59
4.750	0.81	10.750	1.89	16.750	0.59

4.833	0.87	10.833	1.72	16.833	0.58
4.917	0.87	10.917	1.72	16.917	0.58
5.000	0.87	11.000	1.72	17.000	0.58
5.083	0.95	11.083	1.58	17.083	0.56
5.167	0.95	11.167	1.58	17.167	0.56
5.250	0.95	11.250	1.58	17.250	0.56
5.333	1.05	11.333	1.47	17.333	0.55
5.417	1.05	11.417	1.47	17.417	0.55
5.500	1.05	11.500	1.47	17.500	0.55
5.583	1.17	11.583	1.37	17.583	0.54
5.667	1.17	11.667	1.37	17.667	0.54
5.750	1.17	11.750	1.37	17.750	0.54
5.833	1.32	11.833	1.28	17.833	0.52
5.917	1.32	11.917	1.28	17.917	0.52
6.000	1.32	12.000	1.28	18.000	0.52

Max.Eff.Inten.(mm/hr)= 90.91 32.71
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.58 (ii) 3.75 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.29 0.25
 TOTALS
 PEAK FLOW (cms)= 0.33 0.00 0.330 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 61.63 22.53 61.23
 TOTAL RAINFALL (mm)= 63.63 63.63 63.63
 RUNOFF COEFFICIENT = 0.97 0.35 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7662) | Area (ha)= 1.61
 | ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.48 0.13
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 145.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.35	6.083	1.52	12.083	1.20
0.167	0.35	6.167	1.52	12.167	1.20
0.250	0.35	6.250	1.52	12.250	1.20
0.333	0.36	6.333	1.80	12.333	1.14
0.417	0.36	6.417	1.80	12.417	1.14
0.500	0.36	6.500	1.80	12.500	1.14
0.583	0.37	6.583	2.21	12.583	1.08
0.667	0.37	6.667	2.21	12.667	1.08
0.750	0.37	6.750	2.21	12.750	1.08
0.833	0.39	6.833	2.85	12.833	1.02
0.917	0.39	6.917	2.85	12.917	1.02
1.000	0.39	7.000	2.85	13.000	1.02
1.083	0.40	7.083	4.04	13.083	0.98
1.167	0.40	7.167	4.04	13.167	0.98
1.250	0.40	7.250	4.04	13.250	0.98
1.333	0.41	7.333	6.85	13.333	0.93
1.417	0.41	7.417	6.85	13.417	0.93
1.500	0.41	7.500	6.85	13.500	0.93
1.583	0.43	7.583	19.82	13.583	0.89
1.667	0.43	7.667	19.82	13.667	0.89
1.750	0.43	7.750	19.82	13.750	0.89

1.833	0.45	7.833	90.91	13.833	0.86	19.83	0.44
1.917	0.45	7.917	90.91	13.917	0.86	19.92	0.44
2.000	0.45	8.000	90.90	14.000	0.86	20.00	0.44
2.083	0.46	8.083	26.99	14.083	0.82	20.08	0.43
2.167	0.46	8.167	26.99	14.167	0.82	20.17	0.43
2.250	0.46	8.250	26.99	14.250	0.82	20.25	0.43
2.333	0.48	8.333	12.67	14.333	0.79	20.33	0.42
2.417	0.48	8.417	12.67	14.417	0.79	20.42	0.42
2.500	0.48	8.500	12.67	14.500	0.79	20.50	0.42
2.583	0.51	8.583	7.98	14.583	0.76	20.58	0.42
2.667	0.51	8.667	7.98	14.667	0.76	20.67	0.42
2.750	0.51	8.750	7.98	14.750	0.76	20.75	0.42
2.833	0.53	8.833	5.74	14.833	0.74	20.83	0.41
2.917	0.53	8.917	5.74	14.917	0.74	20.92	0.41
3.000	0.53	9.000	5.74	15.000	0.74	21.00	0.41
3.083	0.56	9.083	4.46	15.083	0.71	21.08	0.40
3.167	0.56	9.167	4.46	15.167	0.71	21.17	0.40
3.250	0.56	9.250	4.46	15.250	0.71	21.25	0.40
3.333	0.59	9.333	3.63	15.333	0.69	21.33	0.40
3.417	0.59	9.417	3.63	15.417	0.69	21.42	0.40
3.500	0.59	9.500	3.63	15.500	0.69	21.50	0.40
3.583	0.62	9.583	3.07	15.583	0.67	21.58	0.39
3.667	0.62	9.667	3.07	15.667	0.67	21.67	0.39
3.750	0.62	9.750	3.07	15.750	0.67	21.75	0.39
3.833	0.66	9.833	2.65	15.833	0.65	21.83	0.38
3.917	0.66	9.917	2.65	15.917	0.65	21.92	0.38
4.000	0.66	10.000	2.65	16.000	0.65	22.00	0.38
4.083	0.70	10.083	2.33	16.083	0.63	22.08	0.38
4.167	0.70	10.167	2.33	16.167	0.63	22.17	0.38
4.250	0.70	10.250	2.33	16.250	0.63	22.25	0.38
4.333	0.75	10.333	2.09	16.333	0.61	22.33	0.37
4.417	0.75	10.417	2.09	16.417	0.61	22.42	0.37
4.500	0.75	10.500	2.09	16.500	0.61	22.50	0.37
4.583	0.81	10.583	1.89	16.583	0.59	22.58	0.36
4.667	0.81	10.667	1.89	16.667	0.59	22.67	0.36
4.750	0.81	10.750	1.89	16.750	0.59	22.75	0.36
4.833	0.87	10.833	1.72	16.833	0.58	22.83	0.36
4.917	0.87	10.917	1.72	16.917	0.58	22.92	0.36
5.000	0.87	11.000	1.72	17.000	0.58	23.00	0.36
5.083	0.95	11.083	1.58	17.083	0.56	23.08	0.35
5.167	0.95	11.167	1.58	17.167	0.56	23.17	0.35
5.250	0.95	11.250	1.58	17.250	0.56	23.25	0.35
5.333	1.05	11.333	1.47	17.333	0.55	23.33	0.35
5.417	1.05	11.417	1.47	17.417	0.55	23.42	0.35
5.500	1.05	11.500	1.47	17.500	0.55	23.50	0.35
5.583	1.17	11.583	1.37	17.583	0.54	23.58	0.34
5.667	1.17	11.667	1.37	17.667	0.54	23.67	0.34
5.750	1.17	11.750	1.37	17.750	0.54	23.75	0.34
5.833	1.32	11.833	1.28	17.833	0.52	23.83	0.34
5.917	1.32	11.917	1.28	17.917	0.52	23.92	0.34
6.000	1.32	12.000	1.28	18.000	0.52	24.00	0.34

Max.Eff.Inten.(mm/hr)= 90.91 20.50
 over (min) 5.00 35.00
 Storage Coeff. (min)= 2.58 (ii) 31.39 (ii)
 Unit Hyd. Tpeak (min)= 5.00 35.00
 Unit Hyd. peak (cms)= 0.29 0.03

****TOTALS****
 PEAK FLOW (cms)= 0.37 0.00 0.374 (iii)
 TIME TO PEAK (hrs)= 8.00 8.50 8.00
 RUNOFF VOLUME (mm)= 61.63 22.53 58.49
 TOTAL RAINFALL (mm)= 63.63 63.63 63.63
 RUNOFF COEFFICIENT = 0.97 0.35 0.92

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | ADD HYD (7701) |

1 + 2 = 3				AREA	QPEAK	TPEAK	R.V.
-----				(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7654):				1.69	0.423	8.00	61.23
+ ID2= 2 (7655):				1.32	0.330	8.00	61.23

ID = 3 (7701):				3.01	0.754	8.00	61.23

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7701)				AREA	QPEAK	TPEAK	R.V.
-----				(ha)	(cms)	(hrs)	(mm)
3 + 2 = 1							

ID1= 3 (7701):				3.01	0.754	8.00	61.23
+ ID2= 2 (7662):				1.61	0.374	8.00	58.49

ID = 1 (7701):				4.62	1.128	8.00	60.28

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB				Area (ha)=	1.06		
STANDHYD (7707)				Total Imp(%)=	95.00	Dir. Conn.(%)=	95.00
ID= 1 DT= 5.0 min							

				IMPERVIOUS	PERVIOUS (i)		
Surface Area (ha)=				1.01	0.05		
Dep. Storage (mm)=				2.00	5.00		
Average Slope (%)=				2.50	2.00		
Length (m)=				60.00	40.00		
Mannings n =				0.013	0.250		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.35	6.083	1.52	12.083	1.20	18.083	0.51				
0.167	0.35	6.167	1.52	12.167	1.20	18.167	0.51				
0.250	0.35	6.250	1.52	12.250	1.20	18.250	0.51				
0.333	0.36	6.333	1.80	12.333	1.14	18.333	0.50				
0.417	0.36	6.417	1.80	12.417	1.14	18.417	0.50				
0.500	0.36	6.500	1.80	12.500	1.14	18.500	0.50				
0.583	0.37	6.583	2.21	12.583	1.08	18.583	0.49				
0.667	0.37	6.667	2.21	12.667	1.08	18.667	0.49				
0.750	0.37	6.750	2.21	12.750	1.08	18.750	0.49				
0.833	0.39	6.833	2.85	12.833	1.02	18.833	0.48				
0.917	0.39	6.917	2.85	12.917	1.02	18.917	0.48				
1.000	0.39	7.000	2.85	13.000	1.02	19.000	0.48				
1.083	0.40	7.083	4.04	13.083	0.98	19.083	0.47				
1.167	0.40	7.167	4.04	13.167	0.98	19.167	0.47				
1.250	0.40	7.250	4.04	13.250	0.98	19.250	0.47				
1.333	0.41	7.333	6.85	13.333	0.93	19.333	0.46				
1.417	0.41	7.417	6.85	13.417	0.93	19.417	0.46				
1.500	0.41	7.500	6.85	13.500	0.93	19.500	0.46				
1.583	0.43	7.583	19.82	13.583	0.89	19.583	0.45				
1.667	0.43	7.667	19.82	13.667	0.89	19.667	0.45				
1.750	0.43	7.750	19.82	13.750	0.89	19.750	0.45				
1.833	0.45	7.833	90.91	13.833	0.86	19.833	0.44				
1.917	0.45	7.917	90.91	13.917	0.86	19.917	0.44				
2.000	0.45	8.000	90.90	14.000	0.86	20.000	0.44				
2.083	0.46	8.083	26.99	14.083	0.82	20.083	0.43				
2.167	0.46	8.167	26.99	14.167	0.82	20.167	0.43				
2.250	0.46	8.250	26.99	14.250	0.82	20.250	0.43				
2.333	0.48	8.333	12.67	14.333	0.79	20.333	0.42				
2.417	0.48	8.417	12.67	14.417	0.79	20.417	0.42				
2.500	0.48	8.500	12.67	14.500	0.79	20.500	0.42				
2.583	0.51	8.583	7.98	14.583	0.76	20.583	0.42				
2.667	0.51	8.667	7.98	14.667	0.76	20.667	0.42				
2.750	0.51	8.750	7.98	14.750	0.76	20.750	0.42				
2.833	0.53	8.833	5.74	14.833	0.74	20.833	0.41				
2.917	0.53	8.917	5.74	14.917	0.74	20.917	0.41				
3.000	0.53	9.000	5.74	15.000	0.74	21.000	0.41				
3.083	0.56	9.083	4.46	15.083	0.71	21.083	0.40				

3.167	0.56	9.167	4.46	15.167	0.71	21.17	0.40
3.250	0.56	9.250	4.46	15.250	0.71	21.25	0.40
3.333	0.59	9.333	3.63	15.333	0.69	21.33	0.40
3.417	0.59	9.417	3.63	15.417	0.69	21.42	0.40
3.500	0.59	9.500	3.63	15.500	0.69	21.50	0.40
3.583	0.62	9.583	3.07	15.583	0.67	21.58	0.39
3.667	0.62	9.667	3.07	15.667	0.67	21.67	0.39
3.750	0.62	9.750	3.07	15.750	0.67	21.75	0.39
3.833	0.66	9.833	2.65	15.833	0.65	21.83	0.38
3.917	0.66	9.917	2.65	15.917	0.65	21.92	0.38
4.000	0.66	10.000	2.65	16.000	0.65	22.00	0.38
4.083	0.70	10.083	2.33	16.083	0.63	22.08	0.38
4.167	0.70	10.167	2.33	16.167	0.63	22.17	0.38
4.250	0.70	10.250	2.33	16.250	0.63	22.25	0.38
4.333	0.75	10.333	2.09	16.333	0.61	22.33	0.37
4.417	0.75	10.417	2.09	16.417	0.61	22.42	0.37
4.500	0.75	10.500	2.09	16.500	0.61	22.50	0.37
4.583	0.81	10.583	1.89	16.583	0.59	22.58	0.36
4.667	0.81	10.667	1.89	16.667	0.59	22.67	0.36
4.750	0.81	10.750	1.89	16.750	0.59	22.75	0.36
4.833	0.87	10.833	1.72	16.833	0.58	22.83	0.36
4.917	0.87	10.917	1.72	16.917	0.58	22.92	0.36
5.000	0.87	11.000	1.72	17.000	0.58	23.00	0.36
5.083	0.95	11.083	1.58	17.083	0.56	23.08	0.35
5.167	0.95	11.167	1.58	17.167	0.56	23.17	0.35
5.250	0.95	11.250	1.58	17.250	0.56	23.25	0.35
5.333	1.05	11.333	1.47	17.333	0.55	23.33	0.35
5.417	1.05	11.417	1.47	17.417	0.55	23.42	0.35
5.500	1.05	11.500	1.47	17.500	0.55	23.50	0.35
5.583	1.17	11.583	1.37	17.583	0.54	23.58	0.34
5.667	1.17	11.667	1.37	17.667	0.54	23.67	0.34
5.750	1.17	11.750	1.37	17.750	0.54	23.75	0.34
5.833	1.32	11.833	1.28	17.833	0.52	23.83	0.34
5.917	1.32	11.917	1.28	17.917	0.52	23.92	0.34
6.000	1.32	12.000	1.28	18.000	0.52	24.00	0.34

Max.Eff.Inten. (mm/hr)= 90.91 33.91
 over (min) = 5.00 5.00
 Storage Coeff. (min) = 1.48 (ii) 3.74 (iii)
 Unit Hyd. Tpeak (min) = 5.00 5.00
 Unit Hyd. peak (cms) = 0.33 0.25

PEAK FLOW (cms) = 0.25 0.01 *TOTALS*
 TIME TO PEAK (hrs) = 8.00 8.00 (iii)
 RUNOFF VOLUME (mm) = 61.63 23.24 59.71
 TOTAL RAINFALL (mm) = 63.63 63.63 63.63
 RUNOFF COEFFICIENT = 0.97 0.37 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7702)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7623):	1.20	0.294	8.00	59.71
+ ID2= 2 (7700):	4.48	1.111	8.00	60.74

ID = 3 (7702):	5.68	1.404	8.00	60.52

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7702):	5.68	1.404	8.00	60.52
+ ID2= 2 (7701):	4.62	1.128	8.00	60.28

 ID = 1 (7702): 10.30 2.532 8.00 60.41

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7702):	10.30	2.532	8.00	60.41
+ ID2= 2 (7707):	1.06	0.259	8.00	59.71

ID = 3 (7702):	11.36	2.792	8.00	60.35

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7702):	11.36	2.792	8.00	60.35
+ ID2= 2 (7714):	14.31	1.526	8.00	62.21

ID = 1 (7702):	25.67	4.318	8.00	61.39

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7705)				
OVERFLOW IS OFF				
IN= 2---> OUT= 1				
DT= 5.0 min				
	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.6280	2.3980
	0.0730	0.2080	0.6400	2.4830
	0.0890	0.2770	0.6520	2.5670
	0.1340	0.5530	0.6640	2.6500
	0.2910	0.8290	0.6750	2.7340
	0.3860	1.1060	0.7190	3.0490
	0.4590	1.3820	0.8250	3.3550
	0.5220	1.7210	2.0760	3.4560
	0.5780	2.0600	2.3560	3.7320

INFLOW : ID= 2 (7702) 25.670 4.318 8.00 61.39
 OUTFLOW: ID= 1 (7705) 25.670 0.265 11.83 61.36

PEAK FLOW REDUCTION [Qout/Qin] (%) = 6.15
 TIME SHIFT OF PEAK FLOW (min) = 230.00
 MAXIMUM STORAGE USED (ha.m.) = 0.7841

CALIB				
STANDHYD (7716)				
ID= 1 DT= 5.0 min				
	Area	(ha) =	0.19	
	Total Imp (%) =	95.00	Dir. Conn. (%) =	95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha) =	0.18	0.01
Dep. Storage (mm) =	2.00	5.00
Average Slope (%) =	2.50	2.00
Length (m) =	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.35	6.083	1.52	12.083	1.20	18.08	0.51		
0.167	0.35	6.167	1.52	12.167	1.20	18.17	0.51		
0.250	0.35	6.250	1.52	12.250	1.20	18.25	0.51		
0.333	0.36	6.333	1.80	12.333	1.14	18.33	0.50		



0.417	0.36	6.417	1.80	12.417	1.14	18.42	0.50
0.500	0.36	6.500	1.80	12.500	1.14	18.50	0.50
0.583	0.37	6.583	2.21	12.583	1.08	18.58	0.49
0.667	0.37	6.667	2.21	12.667	1.08	18.67	0.49
0.750	0.37	6.750	2.21	12.750	1.08	18.75	0.49
0.833	0.39	6.833	2.85	12.833	1.02	18.83	0.48
0.917	0.39	6.917	2.85	12.917	1.02	18.92	0.48
1.000	0.39	7.000	2.85	13.000	1.02	19.00	0.48
1.083	0.40	7.083	4.04	13.083	0.98	19.08	0.47
1.167	0.40	7.167	4.04	13.167	0.98	19.17	0.47
1.250	0.40	7.250	4.04	13.250	0.98	19.25	0.47
1.333	0.41	7.333	6.85	13.333	0.93	19.33	0.46
1.417	0.41	7.417	6.85	13.417	0.93	19.42	0.46
1.500	0.41	7.500	6.85	13.500	0.93	19.50	0.46
1.583	0.43	7.583	19.82	13.583	0.89	19.58	0.45
1.667	0.43	7.667	19.82	13.667	0.89	19.67	0.45
1.750	0.43	7.750	19.82	13.750	0.89	19.75	0.45
1.833	0.45	7.833	90.91	13.833	0.86	19.83	0.44
1.917	0.45	7.917	90.91	13.917	0.86	19.92	0.44
2.000	0.45	8.000	90.90	14.000	0.86	20.00	0.44
2.083	0.46	8.083	26.99	14.083	0.82	20.08	0.43
2.167	0.46	8.167	26.99	14.167	0.82	20.17	0.43
2.250	0.46	8.250	26.99	14.250	0.82	20.25	0.43
2.333	0.48	8.333	12.67	14.333	0.79	20.33	0.42
2.417	0.48	8.417	12.67	14.417	0.79	20.42	0.42
2.500	0.48	8.500	12.67	14.500	0.79	20.50	0.42
2.583	0.51	8.583	7.98	14.583	0.76	20.58	0.42
2.667	0.51	8.667	7.98	14.667	0.76	20.67	0.42
2.750	0.51	8.750	7.98	14.750	0.76	20.75	0.42
2.833	0.53	8.833	5.74	14.833	0.74	20.83	0.41
2.917	0.53	8.917	5.74	14.917	0.74	20.92	0.41
3.000	0.53	9.000	5.74	15.000	0.74	21.00	0.41
3.083	0.56	9.083	4.46	15.083	0.71	21.08	0.40
3.167	0.56	9.167	4.46	15.167	0.71	21.17	0.40
3.250	0.56	9.250	4.46	15.250	0.71	21.25	0.40
3.333	0.59	9.333	3.63	15.333	0.69	21.33	0.40
3.417	0.59	9.417	3.63	15.417	0.69	21.42	0.40
3.500	0.59	9.500	3.63	15.500	0.69	21.50	0.40
3.583	0.62	9.583	3.07	15.583	0.67	21.58	0.39
3.667	0.62	9.667	3.07	15.667	0.67	21.67	0.39
3.750	0.62	9.750	3.07	15.750	0.67	21.75	0.39
3.833	0.66	9.833	2.65	15.833	0.65	21.83	0.38
3.917	0.66	9.917	2.65	15.917	0.65	21.92	0.38
4.000	0.66	10.000	2.65	16.000	0.65	22.00	0.38
4.083	0.70	10.083	2.33	16.083	0.63	22.08	0.38
4.167	0.70	10.167	2.33	16.167	0.63	22.17	0.38
4.250	0.70	10.250	2.33	16.250	0.63	22.25	0.38
4.333	0.75	10.333	2.09	16.333	0.61	22.33	0.37
4.417	0.75	10.417	2.09	16.417	0.61	22.42	0.37
4.500	0.75	10.500	2.09	16.500	0.61	22.50	0.37
4.583	0.81	10.583	1.89	16.583	0.59	22.58	0.36
4.667	0.81	10.667	1.89	16.667	0.59	22.67	0.36
4.750	0.81	10.750	1.89	16.750	0.59	22.75	0.36
4.833	0.87	10.833	1.72	16.833	0.58	22.83	0.36
4.917	0.87	10.917	1.72	16.917	0.58	22.92	0.36
5.000	0.87	11.000	1.72	17.000	0.58	23.00	0.36
5.083	0.95	11.083	1.58	17.083	0.56	23.08	0.35
5.167	0.95	11.167	1.58	17.167	0.56	23.17	0.35
5.250	0.95	11.250	1.58	17.250	0.56	23.25	0.35
5.333	1.05	11.333	1.47	17.333	0.55	23.33	0.35
5.417	1.05	11.417	1.47	17.417	0.55	23.42	0.35
5.500	1.05	11.500	1.47	17.500	0.55	23.50	0.35
5.583	1.17	11.583	1.37	17.583	0.54	23.58	0.34
5.667	1.17	11.667	1.37	17.667	0.54	23.67	0.34
5.750	1.17	11.750	1.37	17.750	0.54	23.75	0.34
5.833	1.32	11.833	1.28	17.833	0.52	23.83	0.34
5.917	1.32	11.917	1.28	17.917	0.52	23.92	0.34
6.000	1.32	12.000	1.28	18.000	0.52	24.00	0.34

Max.Eff.Inten.(mm/hr)= 90.91 33.91
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.48 (ii) 3.74 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.25

TOTALS
 PEAK FLOW (cms)= 0.05 0.00 0.046 (iii)

TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 61.63 23.24 59.71
 TOTAL RAINFALL (mm)= 63.63 63.63 63.63
 RUNOFF COEFFICIENT = 0.97 0.37 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | RESERVOIR (7720) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
DT= 5.0 min

	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000		0.0100	0.0090
0.0030	0.0010		0.0110	0.0100
0.0050	0.0030		0.0120	0.0110
0.0060	0.0040		0.0120	0.0130
0.0080	0.0050		0.0130	0.0140
0.0090	0.0060		0.0140	0.0150
0.0090	0.0080		0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7716)	0.190	0.046	8.00	59.71
OUTFLOW : ID= 1 (7720)	0.190	0.008	8.33	59.41

PEAK FLOW REDUCTION [Qout/Qin](%)= 18.10
 TIME SHIFT OF PEAK FLOW (min)= 20.00
 MAXIMUM STORAGE USED (ha.m.)= 0.0054

 | CALIB |
 | STANDHYD (7717) | Area (ha)= 0.20
 | ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.19	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	36.51	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.35	6.083	1.52	12.083	1.20	18.08	0.51
0.167	0.35	6.167	1.52	12.167	1.20	18.17	0.51
0.250	0.35	6.250	1.52	12.250	1.20	18.25	0.51
0.333	0.36	6.333	1.80	12.333	1.14	18.33	0.50
0.417	0.36	6.417	1.80	12.417	1.14	18.42	0.50
0.500	0.36	6.500	1.80	12.500	1.14	18.50	0.50
0.583	0.37	6.583	2.21	12.583	1.08	18.58	0.49
0.667	0.37	6.667	2.21	12.667	1.08	18.67	0.49
0.750	0.37	6.750	2.21	12.750	1.08	18.75	0.49
0.833	0.39	6.833	2.85	12.833	1.02	18.83	0.48
0.917	0.39	6.917	2.85	12.917	1.02	18.92	0.48
1.000	0.39	7.000	2.85	13.000	1.02	19.00	0.48
1.083	0.40	7.083	4.04	13.083	0.98	19.08	0.47
1.167	0.40	7.167	4.04	13.167	0.98	19.17	0.47
1.250	0.40	7.250	4.04	13.250	0.98	19.25	0.47
1.333	0.41	7.333	6.85	13.333	0.93	19.33	0.46
1.417	0.41	7.417	6.85	13.417	0.93	19.42	0.46
1.500	0.41	7.500	6.85	13.500	0.93	19.50	0.46
1.583	0.43	7.583	19.82	13.583	0.89	19.58	0.45
1.667	0.43	7.667	19.82	13.667	0.89	19.67	0.45
1.750	0.43	7.750	19.82	13.750	0.89	19.75	0.45

1.833	0.45	7.833	90.91	13.833	0.86	19.83	0.44
1.917	0.45	7.917	90.91	13.917	0.86	19.92	0.44
2.000	0.45	8.000	90.90	14.000	0.86	20.00	0.44
2.083	0.46	8.083	26.99	14.083	0.82	20.08	0.43
2.167	0.46	8.167	26.99	14.167	0.82	20.17	0.43
2.250	0.46	8.250	26.99	14.250	0.82	20.25	0.43
2.333	0.48	8.333	12.67	14.333	0.79	20.33	0.42
2.417	0.48	8.417	12.67	14.417	0.79	20.42	0.42
2.500	0.48	8.500	12.67	14.500	0.79	20.50	0.42
2.583	0.51	8.583	7.98	14.583	0.76	20.58	0.42
2.667	0.51	8.667	7.98	14.667	0.76	20.67	0.42
2.750	0.51	8.750	7.98	14.750	0.76	20.75	0.42
2.833	0.53	8.833	5.74	14.833	0.74	20.83	0.41
2.917	0.53	8.917	5.74	14.917	0.74	20.92	0.41
3.000	0.53	9.000	5.74	15.000	0.74	21.00	0.41
3.083	0.56	9.083	4.46	15.083	0.71	21.08	0.40
3.167	0.56	9.167	4.46	15.167	0.71	21.17	0.40
3.250	0.56	9.250	4.46	15.250	0.71	21.25	0.40
3.333	0.59	9.333	3.63	15.333	0.69	21.33	0.40
3.417	0.59	9.417	3.63	15.417	0.69	21.42	0.40
3.500	0.59	9.500	3.63	15.500	0.69	21.50	0.40
3.583	0.62	9.583	3.07	15.583	0.67	21.58	0.39
3.667	0.62	9.667	3.07	15.667	0.67	21.67	0.39
3.750	0.62	9.750	3.07	15.750	0.67	21.75	0.39
3.833	0.66	9.833	2.65	15.833	0.65	21.83	0.38
3.917	0.66	9.917	2.65	15.917	0.65	21.92	0.38
4.000	0.66	10.000	2.65	16.000	0.65	22.00	0.38
4.083	0.70	10.083	2.33	16.083	0.63	22.08	0.38
4.167	0.70	10.167	2.33	16.167	0.63	22.17	0.38
4.250	0.70	10.250	2.33	16.250	0.63	22.25	0.38
4.333	0.75	10.333	2.09	16.333	0.61	22.33	0.37
4.417	0.75	10.417	2.09	16.417	0.61	22.42	0.37
4.500	0.75	10.500	2.09	16.500	0.61	22.50	0.37
4.583	0.81	10.583	1.89	16.583	0.59	22.58	0.36
4.667	0.81	10.667	1.89	16.667	0.59	22.67	0.36
4.750	0.81	10.750	1.89	16.750	0.59	22.75	0.36
4.833	0.87	10.833	1.72	16.833	0.58	22.83	0.36
4.917	0.87	10.917	1.72	16.917	0.58	22.92	0.36
5.000	0.87	11.000	1.72	17.000	0.58	23.00	0.36
5.083	0.95	11.083	1.58	17.083	0.56	23.08	0.35
5.167	0.95	11.167	1.58	17.167	0.56	23.17	0.35
5.250	0.95	11.250	1.58	17.250	0.56	23.25	0.35
5.333	1.05	11.333	1.47	17.333	0.55	23.33	0.35
5.417	1.05	11.417	1.47	17.417	0.55	23.42	0.35
5.500	1.05	11.500	1.47	17.500	0.55	23.50	0.35
5.583	1.17	11.583	1.37	17.583	0.54	23.58	0.34
5.667	1.17	11.667	1.37	17.667	0.54	23.67	0.34
5.750	1.17	11.750	1.37	17.750	0.54	23.75	0.34
5.833	1.32	11.833	1.28	17.833	0.52	23.83	0.34
5.917	1.32	11.917	1.28	17.917	0.52	23.92	0.34
6.000	1.32	12.000	1.28	18.000	0.52	24.00	0.34

Max.Eff.Inten.(mm/hr)= 90.91 33.91
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.10 (ii) 3.36 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.26

TOTALS
 PEAK FLOW (cms)= 0.05 0.00 0.049 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00
 RUNOFF VOLUME (mm)= 61.63 23.24 59.71
 TOTAL RAINFALL (mm)= 63.63 63.63
 RUNOFF COEFFICIENT = 0.97 0.37 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR(7719) OVERFLOW IS OFF
 IN= 2---> OUT= 1

DT= 5.0 min	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.0100	0.0090
	0.0030	0.0010	0.0110	0.0100
	0.0050	0.0030	0.0120	0.0110
	0.0060	0.0040	0.0120	0.0130
	0.0080	0.0050	0.0130	0.0140
	0.0090	0.0060	0.0140	0.0150
	0.0090	0.0080	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7717)	0.200	0.049	8.00	59.71
OUTFLOW: ID= 1 (7719)	0.200	0.009	8.33	59.41

PEAK FLOW REDUCTION [Qout/Qin](%)= 17.81
 TIME SHIFT OF PEAK FLOW (min)= 20.00
 MAXIMUM STORAGE USED (ha.m.)= 0.0057

ADD HYD (7706)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7705):	25.67	0.265	11.83	61.36
+ ID2= 2 (7719):	0.20	0.009	8.33	59.41
ID = 3 (7706):	25.87	0.269	11.75	61.34

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7706)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7706):	25.87	0.269	11.75	61.34
+ ID2= 2 (7720):	0.19	0.008	8.33	59.41
ID = 1 (7706):	26.06	0.272	11.50	61.33

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)=	1.24
STANDHYD (7595)	Total Imp(%)=	99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.23	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	91.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----					
TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.35	6.083	1.52	12.083	1.20
0.167	0.35	6.167	1.52	12.167	1.20
0.250	0.35	6.250	1.52	12.250	1.20
0.333	0.36	6.333	1.80	12.333	1.14
0.417	0.36	6.417	1.80	12.417	1.14
0.500	0.36	6.500	1.80	12.500	1.14
0.583	0.37	6.583	2.21	12.583	1.08
0.667	0.37	6.667	2.21	12.667	1.08
0.750	0.37	6.750	2.21	12.750	1.08
0.833	0.39	6.833	2.85	12.833	1.02
0.917	0.39	6.917	2.85	12.917	1.02
1.000	0.39	7.000	2.85	13.000	1.02
1.083	0.40	7.083	4.04	13.083	0.98
1.167	0.40	7.167	4.04	13.167	0.98

1.250	0.40	7.250	4.04	13.250	0.98	19.25	0.47
1.333	0.41	7.333	6.85	13.333	0.93	19.33	0.46
1.417	0.41	7.417	6.85	13.417	0.93	19.42	0.46
1.500	0.41	7.500	6.85	13.500	0.93	19.50	0.46
1.583	0.43	7.583	19.82	13.583	0.89	19.58	0.45
1.667	0.43	7.667	19.82	13.667	0.89	19.67	0.45
1.750	0.43	7.750	19.82	13.750	0.89	19.75	0.45
1.833	0.45	7.833	90.91	13.833	0.86	19.83	0.44
1.917	0.45	7.917	90.91	13.917	0.86	19.92	0.44
2.000	0.45	8.000	90.90	14.000	0.86	20.00	0.44
2.083	0.46	8.083	26.99	14.083	0.82	20.08	0.43
2.167	0.46	8.167	26.99	14.167	0.82	20.17	0.43
2.250	0.46	8.250	26.99	14.250	0.82	20.25	0.43
2.333	0.48	8.333	12.67	14.333	0.79	20.33	0.42
2.417	0.48	8.417	12.67	14.417	0.79	20.42	0.42
2.500	0.48	8.500	12.67	14.500	0.79	20.50	0.42
2.583	0.51	8.583	7.98	14.583	0.76	20.58	0.42
2.667	0.51	8.667	7.98	14.667	0.76	20.67	0.42
2.750	0.51	8.750	7.98	14.750	0.76	20.75	0.42
2.833	0.53	8.833	5.74	14.833	0.74	20.83	0.41
2.917	0.53	8.917	5.74	14.917	0.74	20.92	0.41
3.000	0.53	9.000	5.74	15.000	0.74	21.00	0.41
3.083	0.56	9.083	4.46	15.083	0.71	21.08	0.40
3.167	0.56	9.167	4.46	15.167	0.71	21.17	0.40
3.250	0.56	9.250	4.46	15.250	0.71	21.25	0.40
3.333	0.59	9.333	3.63	15.333	0.69	21.33	0.40
3.417	0.59	9.417	3.63	15.417	0.69	21.42	0.40
3.500	0.59	9.500	3.63	15.500	0.69	21.50	0.40
3.583	0.62	9.583	3.07	15.583	0.67	21.58	0.39
3.667	0.62	9.667	3.07	15.667	0.67	21.67	0.39
3.750	0.62	9.750	3.07	15.750	0.67	21.75	0.39
3.833	0.66	9.833	2.65	15.833	0.65	21.83	0.38
3.917	0.66	9.917	2.65	15.917	0.65	21.92	0.38
4.000	0.66	10.000	2.65	16.000	0.65	22.00	0.38
4.083	0.70	10.083	2.33	16.083	0.63	22.08	0.38
4.167	0.70	10.167	2.33	16.167	0.63	22.17	0.38
4.250	0.70	10.250	2.33	16.250	0.63	22.25	0.38
4.333	0.75	10.333	2.09	16.333	0.61	22.33	0.37
4.417	0.75	10.417	2.09	16.417	0.61	22.42	0.37
4.500	0.75	10.500	2.09	16.500	0.61	22.50	0.37
4.583	0.81	10.583	1.89	16.583	0.59	22.58	0.36
4.667	0.81	10.667	1.89	16.667	0.59	22.67	0.36
4.750	0.81	10.750	1.89	16.750	0.59	22.75	0.36
4.833	0.87	10.833	1.72	16.833	0.58	22.83	0.36
4.917	0.87	10.917	1.72	16.917	0.58	22.92	0.36
5.000	0.87	11.000	1.72	17.000	0.58	23.00	0.36
5.083	0.95	11.083	1.58	17.083	0.56	23.08	0.35
5.167	0.95	11.167	1.58	17.167	0.56	23.17	0.35
5.250	0.95	11.250	1.58	17.250	0.56	23.25	0.35
5.333	1.05	11.333	1.47	17.333	0.55	23.33	0.35
5.417	1.05	11.417	1.47	17.417	0.55	23.42	0.35
5.500	1.05	11.500	1.47	17.500	0.55	23.50	0.35
5.583	1.17	11.583	1.37	17.583	0.54	23.58	0.34
5.667	1.17	11.667	1.37	17.667	0.54	23.67	0.34
5.750	1.17	11.750	1.37	17.750	0.54	23.75	0.34
5.833	1.32	11.833	1.28	17.833	0.52	23.83	0.34
5.917	1.32	11.917	1.28	17.917	0.52	23.92	0.34
6.000	1.32	12.000	1.28	18.000	0.52	24.00	0.34

Max.Eff. Inten. (mm/hr)= 90.91 32.71
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.04 (ii) 3.20 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.31 0.27

TOTALS
 PEAK FLOW (cms)= 0.31 0.00 0.312 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 61.63 22.53 61.23
 TOTAL RAINFALL (mm)= 63.63 63.63 63.63
 RUNOFF COEFFICIENT = 0.97 0.35 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL

THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7718) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
| (ha) (cms) (hrs) (mm)
-----
ID1= 1 ( 7595): 1.24 0.312 8.00 61.23
+ ID2= 2 ( 7706): 26.06 0.272 11.50 61.33
-----
ID = 3 ( 7718): 27.30 0.446 8.00 61.33
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| RESERVOIR( 7711) | OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT= 5.0 min |
-----
OUTFLOW STORAGE | OUTFLOW STORAGE
(cms) (ha.m.) | (cms) (ha.m.)
0.0000 0.0000 | 1.0810 1.6220
0.0010 0.1670 | 1.3950 1.8170
0.0340 0.3380 | 2.0990 2.2130
0.0510 0.5110 | 2.8950 2.6150
0.0630 0.6880 | 3.7730 3.0250
0.1610 0.8670 | 4.7260 3.4420
0.3300 1.0500 | 5.5670 3.8670
0.5440 1.2370 | 8.5800 4.3000
0.7970 1.4290 | 10.9450 4.5210
  
```

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7718)	27.302	0.446	8.00	61.33
OUTFLOW: ID= 1 (7711)	27.302	0.129	21.00	55.88

PEAK FLOW REDUCTION [Qout/Qin](%)= 28.79
 TIME SHIFT OF PEAK FLOW (min)=780.00
 MAXIMUM STORAGE USED (ha.m.)= 0.8077



```

=====
5.25 1.00 | 11.25 1.43 | 17.25 0.50 | 23.25 0.31
5.50 1.12 | 11.50 1.33 | 17.50 0.48 | 23.50 0.30
5.75 1.28 | 11.75 1.24 | 17.75 0.47 | 23.75 0.30
=====
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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| CALIB |
| STANDBYD ( 7640) | Area (ha)= 0.59
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.58 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 62.72 40.00
Mannings n = 0.013 0.250

```

***** D E T A I L E D O U T P U T *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\c4a73457-5eb7-4379-83b2-cc12a7e5b69d\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\c4a73457-5eb7-4379-83b2-cc12a7e5b69d\scen

DATE: 11-22-2024 TIME: 12:17:32

USER:

COMMENTS:

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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-----
** SIMULATION : C - 10yr 24hr 15min Chicago **
-----
| CHICAGO STORM | IDF curve parameters: A=2221.000
| Ptotal= 71.73 mm | B= 12.000
| | C= 0.908
-----
used in: INTENSITY = A / (t + B)^C

Duration of storm = 24.00 hrs
Storm time step = 15.00 min
Time to peak ratio = 0.33

```

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.31	6.083	1.49	12.083	1.16	18.08	0.46
0.167	0.31	6.167	1.49	12.167	1.16	18.17	0.46
0.250	0.31	6.250	1.49	12.250	1.16	18.25	0.46
0.333	0.32	6.333	1.79	12.333	1.09	18.33	0.45
0.417	0.32	6.417	1.79	12.417	1.09	18.42	0.45
0.500	0.32	6.500	1.79	12.500	1.09	18.50	0.45
0.583	0.33	6.583	2.23	12.583	1.02	18.58	0.44
0.667	0.33	6.667	2.23	12.667	1.02	18.67	0.44
0.750	0.33	6.750	2.23	12.750	1.02	18.75	0.44
0.833	0.34	6.833	2.96	12.833	0.97	18.83	0.43
0.917	0.34	6.917	2.96	12.917	0.97	18.92	0.43
1.000	0.34	7.000	2.96	13.000	0.97	19.00	0.43
1.083	0.35	7.083	4.33	13.083	0.92	19.08	0.42
1.167	0.35	7.167	4.33	13.167	0.92	19.17	0.42
1.250	0.35	7.250	4.33	13.250	0.92	19.25	0.42
1.333	0.37	7.333	7.68	13.333	0.88	19.33	0.41
1.417	0.37	7.417	7.68	13.417	0.88	19.42	0.41
1.500	0.37	7.500	7.68	13.500	0.88	19.50	0.41
1.583	0.38	7.583	23.81	13.583	0.84	19.58	0.40
1.667	0.38	7.667	23.81	13.667	0.84	19.67	0.40
1.750	0.38	7.750	23.82	13.750	0.84	19.75	0.40
1.833	0.40	7.833	111.40	13.833	0.80	19.83	0.39
1.917	0.40	7.917	111.40	13.917	0.80	19.92	0.39
2.000	0.40	8.000	111.39	14.000	0.80	20.00	0.39
2.083	0.41	8.083	32.82	14.083	0.76	20.08	0.39
2.167	0.41	8.167	32.82	14.167	0.76	20.17	0.39
2.250	0.41	8.250	32.82	14.250	0.76	20.25	0.39
2.333	0.43	8.333	14.85	14.333	0.73	20.33	0.38
2.417	0.43	8.417	14.85	14.417	0.73	20.42	0.38
2.500	0.43	8.500	14.84	14.500	0.73	20.50	0.38
2.583	0.45	8.583	9.05	14.583	0.71	20.58	0.37
2.667	0.45	8.667	9.05	14.667	0.71	20.67	0.37
2.750	0.45	8.750	9.05	14.750	0.71	20.75	0.37
2.833	0.48	8.833	6.34	14.833	0.68	20.83	0.36
2.917	0.48	8.917	6.34	14.917	0.68	20.92	0.36
3.000	0.48	9.000	6.34	15.000	0.68	21.00	0.36
3.083	0.50	9.083	4.81	15.083	0.66	21.08	0.36
3.167	0.50	9.167	4.81	15.167	0.66	21.17	0.36
3.250	0.50	9.250	4.81	15.250	0.66	21.25	0.36
3.333	0.53	9.333	3.85	15.333	0.63	21.33	0.35
3.417	0.53	9.417	3.85	15.417	0.63	21.42	0.35
3.500	0.53	9.500	3.85	15.500	0.63	21.50	0.35
3.583	0.56	9.583	3.20	15.583	0.61	21.58	0.34
3.667	0.56	9.667	3.20	15.667	0.61	21.67	0.34
3.750	0.56	9.750	3.20	15.750	0.61	21.75	0.34
3.833	0.60	9.833	2.73	15.833	0.59	21.83	0.34
3.917	0.60	9.917	2.73	15.917	0.59	21.92	0.34
4.000	0.60	10.000	2.73	16.000	0.59	22.00	0.34
4.083	0.64	10.083	2.38	16.083	0.57	22.08	0.33
4.167	0.64	10.167	2.38	16.167	0.57	22.17	0.33
4.250	0.64	10.250	2.38	16.250	0.57	22.25	0.33
4.333	0.69	10.333	2.10	16.333	0.56	22.33	0.33

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.31	6.00	1.49	12.00	1.16	18.00	0.46
0.25	0.32	6.25	1.79	12.25	1.09	18.25	0.45
0.50	0.33	6.50	2.23	12.50	1.02	18.50	0.44
0.75	0.34	6.75	2.96	12.75	0.97	18.75	0.43
1.00	0.35	7.00	4.33	13.00	0.92	19.00	0.42
1.25	0.37	7.25	7.68	13.25	0.88	19.25	0.41
1.50	0.38	7.50	23.81	13.50	0.84	19.50	0.40
1.75	0.40	7.75	111.40	13.75	0.80	19.75	0.39
2.00	0.41	8.00	32.82	14.00	0.76	20.00	0.39
2.25	0.43	8.25	14.85	14.25	0.73	20.25	0.38
2.50	0.45	8.50	9.05	14.50	0.71	20.50	0.37
2.75	0.48	8.75	6.34	14.75	0.68	20.75	0.36
3.00	0.50	9.00	4.81	15.00	0.66	21.00	0.36
3.25	0.53	9.25	3.85	15.25	0.63	21.25	0.35
3.50	0.56	9.50	3.20	15.50	0.61	21.50	0.34
3.75	0.60	9.75	2.73	15.75	0.59	21.75	0.34
4.00	0.64	10.00	2.38	16.00	0.57	22.00	0.33
4.25	0.69	10.25	2.10	16.25	0.56	22.25	0.33
4.50	0.75	10.50	1.88	16.50	0.54	22.50	0.32
4.75	0.82	10.75	1.70	16.75	0.53	22.75	0.32
5.00	0.90	11.00	1.56	17.00	0.51	23.00	0.31



4.417	0.69	10.417	2.10	16.417	0.56	22.42	0.33
4.500	0.69	10.500	2.10	16.500	0.56	22.50	0.33
4.583	0.75	10.583	1.88	16.583	0.54	22.58	0.32
4.667	0.75	10.667	1.88	16.667	0.54	22.67	0.32
4.750	0.75	10.750	1.88	16.750	0.54	22.75	0.32
4.833	0.82	10.833	1.70	16.833	0.53	22.83	0.32
4.917	0.82	10.917	1.70	16.917	0.53	22.92	0.32
5.000	0.82	11.000	1.70	17.000	0.53	23.00	0.32
5.083	0.90	11.083	1.56	17.083	0.51	23.08	0.31
5.167	0.90	11.167	1.56	17.167	0.51	23.17	0.31
5.250	0.90	11.250	1.56	17.250	0.51	23.25	0.31
5.333	1.00	11.333	1.43	17.333	0.50	23.33	0.31
5.417	1.00	11.417	1.43	17.417	0.50	23.42	0.31
5.500	1.00	11.500	1.43	17.500	0.50	23.50	0.31
5.583	1.12	11.583	1.33	17.583	0.48	23.58	0.30
5.667	1.12	11.667	1.33	17.667	0.48	23.67	0.30
5.750	1.12	11.750	1.33	17.750	0.48	23.75	0.30
5.833	1.28	11.833	1.24	17.833	0.47	23.83	0.30
5.917	1.28	11.917	1.24	17.917	0.47	23.92	0.30
6.000	1.28	12.000	1.24	18.000	0.47	24.00	0.30

1.917	0.40	7.917	111.40	13.917	0.80	19.92	0.39
2.000	0.40	8.000	111.39	14.000	0.80	20.00	0.39
2.083	0.41	8.083	32.82	14.083	0.76	20.08	0.39
2.167	0.41	8.167	32.82	14.167	0.76	20.17	0.39
2.250	0.41	8.250	32.82	14.250	0.76	20.25	0.39
2.333	0.43	8.333	14.85	14.333	0.73	20.33	0.38
2.417	0.43	8.417	14.85	14.417	0.73	20.42	0.38
2.500	0.43	8.500	14.84	14.500	0.73	20.50	0.38
2.583	0.45	8.583	9.05	14.583	0.71	20.58	0.37
2.667	0.45	8.667	9.05	14.667	0.71	20.67	0.37
2.750	0.45	8.750	9.05	14.750	0.71	20.75	0.37
2.833	0.48	8.833	6.34	14.833	0.68	20.83	0.36
2.917	0.48	8.917	6.34	14.917	0.68	20.92	0.36
3.000	0.48	9.000	6.34	15.000	0.68	21.00	0.36
3.083	0.50	9.083	4.81	15.083	0.66	21.08	0.36
3.167	0.50	9.167	4.81	15.167	0.66	21.17	0.36
3.250	0.50	9.250	4.81	15.250	0.66	21.25	0.36
3.333	0.53	9.333	3.85	15.333	0.63	21.33	0.35
3.417	0.53	9.417	3.85	15.417	0.63	21.42	0.35
3.500	0.53	9.500	3.85	15.500	0.63	21.50	0.35
3.583	0.56	9.583	3.20	15.583	0.61	21.58	0.34
3.667	0.56	9.667	3.20	15.667	0.61	21.67	0.34
3.750	0.56	9.750	3.20	15.750	0.61	21.75	0.34
3.833	0.60	9.833	2.73	15.833	0.59	21.83	0.34
3.917	0.60	9.917	2.73	15.917	0.59	21.92	0.34
4.000	0.60	10.000	2.73	16.000	0.59	22.00	0.34
4.083	0.64	10.083	2.38	16.083	0.57	22.08	0.33
4.167	0.64	10.167	2.38	16.167	0.57	22.17	0.33
4.250	0.64	10.250	2.38	16.250	0.57	22.25	0.33
4.333	0.69	10.333	2.10	16.333	0.56	22.33	0.33
4.417	0.69	10.417	2.10	16.417	0.56	22.42	0.33
4.500	0.69	10.500	2.10	16.500	0.56	22.50	0.33
4.583	0.75	10.583	1.88	16.583	0.54	22.58	0.32
4.667	0.75	10.667	1.88	16.667	0.54	22.67	0.32
4.750	0.75	10.750	1.88	16.750	0.54	22.75	0.32
4.833	0.82	10.833	1.70	16.833	0.53	22.83	0.32
4.917	0.82	10.917	1.70	16.917	0.53	22.92	0.32
5.000	0.82	11.000	1.70	17.000	0.53	23.00	0.32
5.083	0.90	11.083	1.56	17.083	0.51	23.08	0.31
5.167	0.90	11.167	1.56	17.167	0.51	23.17	0.31
5.250	0.90	11.250	1.56	17.250	0.51	23.25	0.31
5.333	1.00	11.333	1.43	17.333	0.50	23.33	0.31
5.417	1.00	11.417	1.43	17.417	0.50	23.42	0.31
5.500	1.00	11.500	1.43	17.500	0.50	23.50	0.31
5.583	1.12	11.583	1.33	17.583	0.48	23.58	0.30
5.667	1.12	11.667	1.33	17.667	0.48	23.67	0.30
5.750	1.12	11.750	1.33	17.750	0.48	23.75	0.30
5.833	1.28	11.833	1.24	17.833	0.47	23.83	0.30
5.917	1.28	11.917	1.24	17.917	0.47	23.92	0.30
6.000	1.28	12.000	1.24	18.000	0.47	24.00	0.30

Max.Eff.Inten.(mm/hr)= 111.40 45.04
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.50 (ii) 2.58 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.29

****TOTALS*
 PEAK FLOW (cms)= 0.18 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00
 RUNOFF VOLUME (mm)= 69.73 27.71 69.31
 TOTAL RAINFALL (mm)= 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.97 0.39 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALLIB |
 | NASHYD (7721) | Area (ha)= 0.21 Curve Number (CN)= 73.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00

 U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.31	6.083	1.49	12.083	1.16	18.08	0.46
0.167	0.31	6.167	1.49	12.167	1.16	18.17	0.46
0.250	0.31	6.250	1.49	12.250	1.16	18.25	0.46
0.333	0.32	6.333	1.79	12.333	1.09	18.33	0.45
0.417	0.32	6.417	1.79	12.417	1.09	18.42	0.45
0.500	0.32	6.500	1.79	12.500	1.09	18.50	0.45
0.583	0.33	6.583	2.23	12.583	1.02	18.58	0.44
0.667	0.33	6.667	2.23	12.667	1.02	18.67	0.44
0.750	0.33	6.750	2.23	12.750	1.02	18.75	0.44
0.833	0.34	6.833	2.96	12.833	0.97	18.83	0.43
0.917	0.34	6.917	2.96	12.917	0.97	18.92	0.43
1.000	0.34	7.000	2.96	13.000	0.97	19.00	0.43
1.083	0.35	7.083	4.33	13.083	0.92	19.08	0.42
1.167	0.35	7.167	4.33	13.167	0.92	19.17	0.42
1.250	0.35	7.250	4.33	13.250	0.92	19.25	0.42
1.333	0.37	7.333	7.68	13.333	0.88	19.33	0.41
1.417	0.37	7.417	7.68	13.417	0.88	19.42	0.41
1.500	0.37	7.500	7.68	13.500	0.88	19.50	0.41
1.583	0.38	7.583	23.81	13.583	0.84	19.58	0.40
1.667	0.38	7.667	23.81	13.667	0.84	19.67	0.40
1.750	0.38	7.750	23.82	13.750	0.84	19.75	0.40
1.833	0.40	7.833	111.40	13.833	0.80	19.83	0.39

Unit Hyd Qpeak (cms)= 0.047

PEAK FLOW (cms)= 0.017 (i)
 TIME TO PEAK (hrs)= 8.083
 RUNOFF VOLUME (mm)= 27.612
 TOTAL RAINFALL (mm)= 71.728
 RUNOFF COEFFICIENT = 0.385

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALLIB |
 | STANDHYD (7599) | Area (ha)= 10.90
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	10.79	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	269.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.31	6.083	1.49	12.083	1.16	18.08	0.46
0.167	0.31	6.167	1.49	12.167	1.16	18.17	0.46
0.250	0.31	6.250	1.49	12.250	1.16	18.25	0.46
0.333	0.32	6.333	1.79	12.333	1.09	18.33	0.45
0.417	0.32	6.417	1.79	12.417	1.09	18.42	0.45
0.500	0.32	6.500	1.79	12.500	1.09	18.50	0.45
0.583	0.33	6.583	2.23	12.583	1.02	18.58	0.44
0.667	0.33	6.667	2.23	12.667	1.02	18.67	0.44
0.750	0.33	6.750	2.23	12.750	1.02	18.75	0.44
0.833	0.34	6.833	2.96	12.833	0.97	18.83	0.43
0.917	0.34	6.917	2.96	12.917	0.97	18.92	0.43
1.000	0.34	7.000	2.96	13.000	0.97	19.00	0.43
1.083	0.35	7.083	4.33	13.083	0.92	19.08	0.42
1.167	0.35	7.167	4.33	13.167	0.92	19.17	0.42
1.250	0.35	7.250	4.33	13.250	0.92	19.25	0.42
1.333	0.37	7.333	7.68	13.333	0.88	19.33	0.41
1.417	0.37	7.417	7.68	13.417	0.88	19.42	0.41
1.500	0.37	7.500	7.68	13.500	0.88	19.50	0.41
1.583	0.38	7.583	23.81	13.583	0.84	19.58	0.40
1.667	0.38	7.667	23.81	13.667	0.84	19.67	0.40
1.750	0.38	7.750	23.81	13.750	0.84	19.75	0.40
1.833	0.40	7.833	11.40	13.833	0.80	19.83	0.39
1.917	0.40	7.917	11.40	13.917	0.80	19.92	0.39
2.000	0.40	8.000	11.39	14.000	0.80	20.00	0.39
2.083	0.41	8.083	32.82	14.083	0.76	20.08	0.39
2.167	0.41	8.167	32.82	14.167	0.76	20.17	0.39
2.250	0.41	8.250	32.82	14.250	0.76	20.25	0.39
2.333	0.43	8.333	14.85	14.333	0.73	20.33	0.38
2.417	0.43	8.417	14.85	14.417	0.73	20.42	0.38
2.500	0.43	8.500	14.84	14.500	0.73	20.50	0.38
2.583	0.45	8.583	9.05	14.583	0.71	20.58	0.37
2.667	0.45	8.667	9.05	14.667	0.71	20.67	0.37
2.750	0.45	8.750	9.05	14.750	0.71	20.75	0.37
2.833	0.48	8.833	6.34	14.833	0.68	20.83	0.36
2.917	0.48	8.917	6.34	14.917	0.68	20.92	0.36
3.000	0.48	9.000	6.34	15.000	0.68	21.00	0.36
3.083	0.50	9.083	4.81	15.083	0.66	21.08	0.36
3.167	0.50	9.167	4.81	15.167	0.66	21.17	0.36
3.250	0.50	9.250	4.81	15.250	0.66	21.25	0.36
3.333	0.53	9.333	3.85	15.333	0.63	21.33	0.35
3.417	0.53	9.417	3.85	15.417	0.63	21.42	0.35
3.500	0.53	9.500	3.85	15.500	0.63	21.50	0.35
3.583	0.56	9.583	3.20	15.583	0.61	21.58	0.34
3.667	0.56	9.667	3.20	15.667	0.61	21.67	0.34
3.750	0.56	9.750	3.20	15.750	0.61	21.75	0.34
3.833	0.60	9.833	2.73	15.833	0.59	21.83	0.34
3.917	0.60	9.917	2.73	15.917	0.59	21.92	0.34
4.000	0.60	10.000	2.73	16.000	0.59	22.00	0.34
4.083	0.64	10.083	2.38	16.083	0.57	22.08	0.33
4.167	0.64	10.167	2.38	16.167	0.57	22.17	0.33
4.250	0.64	10.250	2.38	16.250	0.57	22.25	0.33
4.333	0.69	10.333	2.10	16.333	0.56	22.33	0.33
4.417	0.69	10.417	2.10	16.417	0.56	22.42	0.33
4.500	0.69	10.500	2.10	16.500	0.56	22.50	0.33
4.583	0.75	10.583	1.88	16.583	0.54	22.58	0.32
4.667	0.75	10.667	1.88	16.667	0.54	22.67	0.32
4.750	0.75	10.750	1.88	16.750	0.54	22.75	0.32
4.833	0.82	10.833	1.70	16.833	0.53	22.83	0.32
4.917	0.82	10.917	1.70	16.917	0.53	22.92	0.32
5.000	0.82	11.000	1.70	17.000	0.53	23.00	0.32
5.083	0.90	11.083	1.56	17.083	0.51	23.08	0.31
5.167	0.90	11.167	1.56	17.167	0.51	23.17	0.31
5.250	0.90	11.250	1.56	17.250	0.51	23.25	0.31
5.333	1.00	11.333	1.43	17.333	0.50	23.33	0.31
5.417	1.00	11.417	1.43	17.417	0.50	23.42	0.31
5.500	1.00	11.500	1.43	17.500	0.50	23.50	0.31
5.583	1.12	11.583	1.33	17.583	0.48	23.58	0.30
5.667	1.12	11.667	1.33	17.667	0.48	23.67	0.30
5.750	1.12	11.750	1.33	17.750	0.48	23.75	0.30
5.833	1.28	11.833	1.24	17.833	0.47	23.83	0.30
5.917	1.28	11.917	1.24	17.917	0.47	23.92	0.30
6.000	1.28	12.000	1.24	18.000	0.47	24.00	0.30

Max.Eff.Inten.(mm/hr)= 111.40 45.04
 over (min)= 5.00 10.00
 Storage Coeff. (min)= 4.44 (ii) 5.51 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.23 0.16

PEAK FLOW (cms)= 3.25 0.01
 TIME TO PEAK (hrs)= 8.00 8.08
 RUNOFF VOLUME (mm)= 69.73 27.71
 TOTAL RAINFALL (mm)= 71.73 71.73
 RUNOFF COEFFICIENT = 0.97 0.39

**TOTALS*
3.260 (iii)
8.00
69.31
71.73
0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | ADD HYD (7722) |
1 + 2 = 3
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7599): 10.90 3.260 8.00 69.31
 + ID2= 2 (7721): 0.21 0.017 8.08 27.61

 ID = 3 (7722): 11.11 3.275 8.00 68.53

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | RESERVOIR (7685) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
DT= 5.0 min
 OUTFLOW STORAGE OUTFLOW STORAGE
 (cms) (ha.m.) (cms) (ha.m.)
 0.0000 0.0000 | 0.1390 0.6960
 0.0590 0.3400 | 0.1630 0.7780
 0.0900 0.4907 | 0.1840 0.8800
 0.1110 0.5760 | 0.0000 0.0000

AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW : ID= 2 (7722) 11.108 3.275 8.00 68.53
 OUTFLOW: ID= 1 (7685) 11.108 0.110 9.58 68.40

PEAK FLOW REDUCTION [Qout/Qin] (%) = 3.35
 TIME SHIFT OF PEAK FLOW (min) = 95.00
 MAXIMUM STORAGE USED (ha.m.) = 0.5707

 | CALIB |
 | STANDHYD (7591) | Area (ha)= 11.38
 | ID= 1 DT= 5.0 min | Total Imp (%) = 99.00 Dir. Conn. (%) = 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 11.27 0.11
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%) = 1.00 2.00
 Length (m) = 275.44 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.31	6.083	1.49	12.083	1.16	18.08	0.46
0.167	0.31	6.167	1.49	12.167	1.16	18.17	0.46
0.250	0.31	6.250	1.49	12.250	1.16	18.25	0.46
0.333	0.32	6.333	1.79	12.333	1.09	18.33	0.45

0.417	0.32	6.417	1.79	12.417	1.09	18.42	0.45
0.500	0.32	6.500	1.79	12.500	1.09	18.50	0.45
0.583	0.33	6.583	2.23	12.583	1.02	18.58	0.44
0.667	0.33	6.667	2.23	12.667	1.02	18.67	0.44
0.750	0.33	6.750	2.23	12.750	1.02	18.75	0.44
0.833	0.34	6.833	2.96	12.833	0.97	18.83	0.43
0.917	0.34	6.917	2.96	12.917	0.97	18.92	0.43
1.000	0.34	7.000	2.96	13.000	0.97	19.00	0.43
1.083	0.35	7.083	4.33	13.083	0.92	19.08	0.42
1.167	0.35	7.167	4.33	13.167	0.92	19.17	0.42
1.250	0.35	7.250	4.33	13.250	0.92	19.25	0.42
1.333	0.37	7.333	7.68	13.333	0.88	19.33	0.41
1.417	0.37	7.417	7.68	13.417	0.88	19.42	0.41
1.500	0.37	7.500	7.68	13.500	0.88	19.50	0.41
1.583	0.38	7.583	23.81	13.583	0.84	19.58	0.40
1.667	0.38	7.667	23.81	13.667	0.84	19.67	0.40
1.750	0.38	7.750	23.82	13.750	0.84	19.75	0.40
1.833	0.40	7.833	111.40	13.833	0.80	19.83	0.39
1.917	0.40	7.917	111.40	13.917	0.80	19.92	0.39
2.000	0.40	8.000	111.39	14.000	0.80	20.00	0.39
2.083	0.41	8.083	32.82	14.083	0.76	20.08	0.39
2.167	0.41	8.167	32.82	14.167	0.76	20.17	0.39
2.250	0.41	8.250	32.82	14.250	0.76	20.25	0.39
2.333	0.43	8.333	14.85	14.333	0.73	20.33	0.38
2.417	0.43	8.417	14.85	14.417	0.73	20.42	0.38
2.500	0.43	8.500	14.84	14.500	0.73	20.50	0.38
2.583	0.45	8.583	9.05	14.583	0.71	20.58	0.37
2.667	0.45	8.667	9.05	14.667	0.71	20.67	0.37
2.750	0.45	8.750	9.05	14.750	0.71	20.75	0.37
2.833	0.48	8.833	6.34	14.833	0.68	20.83	0.36
2.917	0.48	8.917	6.34	14.917	0.68	20.92	0.36
3.000	0.48	9.000	6.34	15.000	0.68	21.00	0.36
3.083	0.50	9.083	4.81	15.083	0.66	21.08	0.36
3.167	0.50	9.167	4.81	15.167	0.66	21.17	0.36
3.250	0.50	9.250	4.81	15.250	0.66	21.25	0.36
3.333	0.53	9.333	3.85	15.333	0.63	21.33	0.35
3.417	0.53	9.417	3.85	15.417	0.63	21.42	0.35
3.500	0.53	9.500	3.85	15.500	0.63	21.50	0.35
3.583	0.56	9.583	3.20	15.583	0.61	21.58	0.34
3.667	0.56	9.667	3.20	15.667	0.61	21.67	0.34
3.750	0.56	9.750	3.20	15.750	0.61	21.75	0.34
3.833	0.60	9.833	2.73	15.833	0.59	21.83	0.34
3.917	0.60	9.917	2.73	15.917	0.59	21.92	0.34
4.000	0.60	10.000	2.73	16.000	0.59	22.00	0.34
4.083	0.64	10.083	2.38	16.083	0.57	22.08	0.33
4.167	0.64	10.167	2.38	16.167	0.57	22.17	0.33
4.250	0.64	10.250	2.38	16.250	0.57	22.25	0.33
4.333	0.69	10.333	2.10	16.333	0.56	22.33	0.33
4.417	0.69	10.417	2.10	16.417	0.56	22.42	0.33
4.500	0.69	10.500	2.10	16.500	0.56	22.50	0.33
4.583	0.75	10.583	1.88	16.583	0.54	22.58	0.32
4.667	0.75	10.667	1.88	16.667	0.54	22.67	0.32
4.750	0.75	10.750	1.88	16.750	0.54	22.75	0.32
4.833	0.82	10.833	1.70	16.833	0.53	22.83	0.32
4.917	0.82	10.917	1.70	16.917	0.53	22.92	0.32
5.000	0.82	11.000	1.70	17.000	0.53	23.00	0.32
5.083	0.90	11.083	1.56	17.083	0.51	23.08	0.31
5.167	0.90	11.167	1.56	17.167	0.51	23.17	0.31
5.250	0.90	11.250	1.56	17.250	0.51	23.25	0.31
5.333	1.00	11.333	1.43	17.333	0.50	23.33	0.31
5.417	1.00	11.417	1.43	17.417	0.50	23.42	0.31
5.500	1.00	11.500	1.43	17.500	0.50	23.50	0.31
5.583	1.12	11.583	1.33	17.583	0.48	23.58	0.30
5.667	1.12	11.667	1.33	17.667	0.48	23.67	0.30
5.750	1.12	11.750	1.33	17.750	0.48	23.75	0.30
5.833	1.28	11.833	1.24	17.833	0.47	23.83	0.30
5.917	1.28	11.917	1.24	17.917	0.47	23.92	0.30
6.000	1.28	12.000	1.24	18.000	0.47	24.00	0.30

Max.Eff.Inten.(mm/hr)= 111.40 45.04
 over (min) 5.00 10.00
 Storage Coeff. (min)= 4.49 (ii) 5.57 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.23 0.16

TOTALS
 PEAK FLOW (cms)= 3.39 0.01 3.399 (iii)

TIME TO PEAK (hrs)= 8.00 8.08 8.00
 RUNOFF VOLUME (mm)= 69.73 27.71 69.31
 TOTAL RAINFALL (mm)= 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.97 0.39 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | RESERVOIR (7593) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
DT= 5.0 min

	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.1990	0.6950
	0.0830	0.3500	0.2320	0.8000
	0.1280	0.4850	0.2620	0.9000
	0.1580	0.5900	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7591)	11.380	3.399	8.00	69.31
OUTFLOW: ID= 1 (7593)	11.380	0.152	9.25	69.21

PEAK FLOW REDUCTION [Qout/Qin] (%) = 4.48
 TIME SHIFT OF PEAK FLOW (min) = 75.00
 MAXIMUM STORAGE USED (ha.m.) = 0.5699

 | ADD HYD (7643) |
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7593):	11.38	0.152	9.25	69.21
+ ID2= 2 (7685):	11.11	0.110	9.58	68.40
=====				
ID = 3 (7643):	22.49	0.262	9.33	68.81

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |
 | STANDHYD (7590) | Area (ha)= 2.39
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.31	6.083	1.49	12.083	1.16	18.08	0.46
0.167	0.31	6.167	1.49	12.167	1.16	18.17	0.46
0.250	0.31	6.250	1.49	12.250	1.16	18.25	0.46
0.333	0.32	6.333	1.79	12.333	1.09	18.33	0.45
0.417	0.32	6.417	1.79	12.417	1.09	18.42	0.45
0.500	0.32	6.500	1.79	12.500	1.09	18.50	0.45
0.583	0.33	6.583	2.23	12.583	1.02	18.58	0.44
0.667	0.33	6.667	2.23	12.667	1.02	18.67	0.44
0.750	0.33	6.750	2.23	12.750	1.02	18.75	0.44
0.833	0.34	6.833	2.96	12.833	0.97	18.83	0.43
0.917	0.34	6.917	2.96	12.917	0.97	18.92	0.43
1.000	0.34	7.000	2.96	13.000	0.97	19.00	0.43



1.083	0.35	7.083	4.33	13.083	0.92	19.08	0.42
1.167	0.35	7.167	4.33	13.167	0.92	19.17	0.42
1.250	0.35	7.250	4.33	13.250	0.92	19.25	0.42
1.333	0.37	7.333	7.68	13.333	0.88	19.33	0.41
1.417	0.37	7.417	7.68	13.417	0.88	19.42	0.41
1.500	0.37	7.500	7.68	13.500	0.88	19.50	0.41
1.583	0.38	7.583	23.81	13.583	0.84	19.58	0.40
1.667	0.38	7.667	23.81	13.667	0.84	19.67	0.40
1.750	0.38	7.750	23.82	13.750	0.84	19.75	0.40
1.833	0.40	7.833	111.40	13.833	0.80	19.83	0.39
1.917	0.40	7.917	111.40	13.917	0.80	19.92	0.39
2.000	0.40	8.000	111.39	14.000	0.80	20.00	0.39
2.083	0.41	8.083	32.82	14.083	0.76	20.08	0.39
2.167	0.41	8.167	32.82	14.167	0.76	20.17	0.39
2.250	0.41	8.250	32.82	14.250	0.76	20.25	0.39
2.333	0.43	8.333	14.85	14.333	0.73	20.33	0.38
2.417	0.43	8.417	14.85	14.417	0.73	20.42	0.38
2.500	0.43	8.500	14.84	14.500	0.73	20.50	0.38
2.583	0.45	8.583	9.05	14.583	0.71	20.58	0.37
2.667	0.45	8.667	9.05	14.667	0.71	20.67	0.37
2.750	0.45	8.750	9.05	14.750	0.71	20.75	0.37
2.833	0.48	8.833	6.34	14.833	0.68	20.83	0.36
2.917	0.48	8.917	6.34	14.917	0.68	20.92	0.36
3.000	0.48	9.000	6.34	15.000	0.68	21.00	0.36
3.083	0.50	9.083	4.81	15.083	0.66	21.08	0.36
3.167	0.50	9.167	4.81	15.167	0.66	21.17	0.36
3.250	0.50	9.250	4.81	15.250	0.66	21.25	0.36
3.333	0.53	9.333	3.85	15.333	0.63	21.33	0.35
3.417	0.53	9.417	3.85	15.417	0.63	21.42	0.35
3.500	0.53	9.500	3.85	15.500	0.63	21.50	0.35
3.583	0.56	9.583	3.20	15.583	0.61	21.58	0.34
3.667	0.56	9.667	3.20	15.667	0.61	21.67	0.34
3.750	0.56	9.750	3.20	15.750	0.61	21.75	0.34
3.833	0.60	9.833	2.73	15.833	0.59	21.83	0.34
3.917	0.60	9.917	2.73	15.917	0.59	21.92	0.34
4.000	0.60	10.000	2.73	16.000	0.59	22.00	0.34
4.083	0.64	10.083	2.38	16.083	0.57	22.08	0.33
4.167	0.64	10.167	2.38	16.167	0.57	22.17	0.33
4.250	0.64	10.250	2.38	16.250	0.57	22.25	0.33
4.333	0.69	10.333	2.10	16.333	0.56	22.33	0.33
4.417	0.69	10.417	2.10	16.417	0.56	22.42	0.33
4.500	0.69	10.500	2.10	16.500	0.56	22.50	0.33
4.583	0.75	10.583	1.88	16.583	0.54	22.58	0.32
4.667	0.75	10.667	1.88	16.667	0.54	22.67	0.32
4.750	0.75	10.750	1.88	16.750	0.54	22.75	0.32
4.833	0.82	10.833	1.70	16.833	0.53	22.83	0.32
4.917	0.82	10.917	1.70	16.917	0.53	22.92	0.32
5.000	0.82	11.000	1.70	17.000	0.53	23.00	0.32
5.083	0.90	11.083	1.56	17.083	0.51	23.08	0.31
5.167	0.90	11.167	1.56	17.167	0.51	23.17	0.31
5.250	0.90	11.250	1.56	17.250	0.51	23.25	0.31
5.333	1.00	11.333	1.43	17.333	0.50	23.33	0.31
5.417	1.00	11.417	1.43	17.417	0.50	23.42	0.31
5.500	1.00	11.500	1.43	17.500	0.50	23.50	0.31
5.583	1.12	11.583	1.33	17.583	0.48	23.58	0.30
5.667	1.12	11.667	1.33	17.667	0.48	23.67	0.30
5.750	1.12	11.750	1.33	17.750	0.48	23.75	0.30
5.833	1.28	11.833	1.24	17.833	0.47	23.83	0.30
5.917	1.28	11.917	1.24	17.917	0.47	23.92	0.30
6.000	1.28	12.000	1.24	18.000	0.47	24.00	0.30

Max.Eff.Inten. (mm/hr)=	111.40	45.04
over (min)=	5.00	5.00
Storage Coeff. (min)=	0.93 (ii)	1.64 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.32

TOTALS			
PEAK FLOW (cms)=	0.73	0.00	0.735 (iii)
TIME TO PEAK (hrs)=	7.92	8.00	
RUNOFF VOLUME (mm)=	70.73	27.71	70.30
TOTAL RAINFALL (mm)=	71.73	71.73	71.73
RUNOFF COEFFICIENT =	0.99	0.39	0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:

- CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		Area (ha)=	2.36
STANDHYD (7632)		Total Imp(%)=	99.00
ID= 1 DT= 5.0 min		Dir. Conn.(%)=	99.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.34	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN				
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr				
0.083	0.31	6.083	1.49	12.083	1.16	18.08	0.46				
0.167	0.31	6.167	1.49	12.167	1.16	18.17	0.46				
0.250	0.31	6.250	1.49	12.250	1.16	18.25	0.46				
0.333	0.32	6.333	1.79	12.333	1.09	18.33	0.45				
0.417	0.32	6.417	1.79	12.417	1.09	18.42	0.45				
0.500	0.32	6.500	1.79	12.500	1.09	18.50	0.45				
0.583	0.33	6.583	2.23	12.583	1.02	18.58	0.44				
0.667	0.33	6.667	2.23	12.667	1.02	18.67	0.44				
0.750	0.33	6.750	2.23	12.750	1.02	18.75	0.44				
0.833	0.34	6.833	2.96	12.833	0.97	18.83	0.43				
0.917	0.34	6.917	2.96	12.917	0.97	18.92	0.43				
1.000	0.34	7.000	2.96	13.000	0.97	19.00	0.43				
1.083	0.35	7.083	4.33	13.083	0.92	19.08	0.42				
1.167	0.35	7.167	4.33	13.167	0.92	19.17	0.42				
1.250	0.35	7.250	4.33	13.250	0.92	19.25	0.42				
1.333	0.37	7.333	7.68	13.333	0.88	19.33	0.41				
1.417	0.37	7.417	7.68	13.417	0.88	19.42	0.41				
1.500	0.37	7.500	7.68	13.500	0.88	19.50	0.41				
1.583	0.38	7.583	23.81	13.583	0.84	19.58	0.40				
1.667	0.38	7.667	23.81	13.667	0.84	19.67	0.40				
1.750	0.38	7.750	23.82	13.750	0.84	19.75	0.40				
1.833	0.40	7.833	111.40	13.833	0.80	19.83	0.39				
1.917	0.40	7.917	111.40	13.917	0.80	19.92	0.39				
2.000	0.40	8.000	111.39	14.000	0.80	20.00	0.39				
2.083	0.41	8.083	32.82	14.083	0.76	20.08	0.39				
2.167	0.41	8.167	32.82	14.167	0.76	20.17	0.39				
2.250	0.41	8.250	32.82	14.250	0.76	20.25	0.39				
2.333	0.43	8.333	14.85	14.333	0.73	20.33	0.38				
2.417	0.43	8.417	14.85	14.417	0.73	20.42	0.38				
2.500	0.43	8.500	14.84	14.500	0.73	20.50	0.38				
2.583	0.45	8.583	9.05	14.583	0.71	20.58	0.37				
2.667	0.45	8.667	9.05	14.667	0.71	20.67	0.37				
2.750	0.45	8.750	9.05	14.750	0.71	20.75	0.37				
2.833	0.48	8.833	6.34	14.833	0.68	20.83	0.36				
2.917	0.48	8.917	6.34	14.917	0.68	20.92	0.36				
3.000	0.48	9.000	6.34	15.000	0.68	21.00	0.36				
3.083	0.50	9.083	4.81	15.083	0.66	21.08	0.36				
3.167	0.50	9.167	4.81	15.167	0.66	21.17	0.36				
3.250	0.50	9.250	4.81	15.250	0.66	21.25	0.36				
3.333	0.53	9.333	3.85	15.333	0.63	21.33	0.35				
3.417	0.53	9.417	3.85	15.417	0.63	21.42	0.35				
3.500	0.53	9.500	3.85	15.500	0.63	21.50	0.35				
3.583	0.56	9.583	3.20	15.583	0.61	21.58	0.34				
3.667	0.56	9.667	3.20	15.667	0.61	21.67	0.34				
3.750	0.56	9.750	3.20	15.750	0.61	21.75	0.34				
3.833	0.60	9.833	2.73	15.833	0.59	21.83	0.34				
3.917	0.60	9.917	2.73	15.917	0.59	21.92	0.34				
4.000	0.60	10.000	2.73	16.000	0.59	22.00	0.34				
4.083	0.64	10.083	2.38	16.083	0.57	22.08	0.33				
4.167	0.64	10.167	2.38	16.167	0.57	22.17	0.33				
4.250	0.64	10.250	2.38	16.250	0.57	22.25	0.33				
4.333	0.69	10.333	2.10	16.333	0.56	22.33	0.33				



4.417	0.69	10.417	2.10	16.417	0.56	22.42	0.33
4.500	0.69	10.500	2.10	16.500	0.56	22.50	0.33
4.583	0.75	10.583	1.88	16.583	0.54	22.58	0.32
4.667	0.75	10.667	1.88	16.667	0.54	22.67	0.32
4.750	0.75	10.750	1.88	16.750	0.54	22.75	0.32
4.833	0.82	10.833	1.70	16.833	0.53	22.83	0.32
4.917	0.82	10.917	1.70	16.917	0.53	22.92	0.32
5.000	0.82	11.000	1.70	17.000	0.53	23.00	0.32
5.083	0.90	11.083	1.56	17.083	0.51	23.08	0.31
5.167	0.90	11.167	1.56	17.167	0.51	23.17	0.31
5.250	0.90	11.250	1.56	17.250	0.51	23.25	0.31
5.333	1.00	11.333	1.43	17.333	0.50	23.33	0.31
5.417	1.00	11.417	1.43	17.417	0.50	23.42	0.31
5.500	1.00	11.500	1.43	17.500	0.50	23.50	0.31
5.583	1.12	11.583	1.33	17.583	0.48	23.58	0.30
5.667	1.12	11.667	1.33	17.667	0.48	23.67	0.30
5.750	1.12	11.750	1.33	17.750	0.48	23.75	0.30
5.833	1.28	11.833	1.24	17.833	0.47	23.83	0.30
5.917	1.28	11.917	1.24	17.917	0.47	23.92	0.30
6.000	1.28	12.000	1.24	18.000	0.47	24.00	0.30

Max.Eff.Inten.(mm/hr)= 111.40 45.04
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 0.93 (ii) 1.64 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

PEAK FLOW (cms)= 0.72 0.00 0.726 (iii)
 TIME TO PEAK (hrs)= 7.92 8.00 8.00
 RUNOFF VOLUME (mm)= 70.73 27.71 70.30
 TOTAL RAINFALL (mm)= 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.99 0.39 0.98

****TOTALS****

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDBY (7644) |
ID= 1 DT= 5.0 min
 Area (ha)= 2.40
 Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.31	6.083	1.49	12.083	1.16
0.167	0.31	6.167	1.49	12.167	1.16
0.250	0.31	6.250	1.49	12.250	1.16
0.333	0.32	6.333	1.79	12.333	1.09
0.417	0.32	6.417	1.79	12.417	1.09
0.500	0.32	6.500	1.79	12.500	1.09
0.583	0.33	6.583	2.23	12.583	1.02
0.667	0.33	6.667	2.23	12.667	1.02
0.750	0.33	6.750	2.23	12.750	1.02
0.833	0.34	6.833	2.96	12.833	0.97
0.917	0.34	6.917	2.96	12.917	0.97
1.000	0.34	7.000	2.96	13.000	0.97
1.083	0.35	7.083	4.33	13.083	0.92
1.167	0.35	7.167	4.33	13.167	0.92
1.250	0.35	7.250	4.33	13.250	0.92
1.333	0.37	7.333	7.68	13.333	0.88

1.417	0.37	7.417	7.68	13.417	0.88	19.42	0.41
1.500	0.37	7.500	7.68	13.500	0.88	19.50	0.41
1.583	0.38	7.583	23.81	13.583	0.84	19.58	0.40
1.667	0.38	7.667	23.81	13.667	0.84	19.67	0.40
1.750	0.38	7.750	23.82	13.750	0.84	19.75	0.40
1.833	0.40	7.833	111.40	13.833	0.80	19.83	0.39
1.917	0.40	7.917	111.40	13.917	0.80	19.92	0.39
2.000	0.40	8.000	111.39	14.000	0.80	20.00	0.39
2.083	0.41	8.083	32.82	14.083	0.76	20.08	0.39
2.167	0.41	8.167	32.82	14.167	0.76	20.17	0.39
2.250	0.41	8.250	32.82	14.250	0.76	20.25	0.39
2.333	0.43	8.333	14.85	14.333	0.73	20.33	0.38
2.417	0.43	8.417	14.85	14.417	0.73	20.42	0.38
2.500	0.43	8.500	14.84	14.500	0.73	20.50	0.38
2.583	0.45	8.583	9.05	14.583	0.71	20.58	0.37
2.667	0.45	8.667	9.05	14.667	0.71	20.67	0.37
2.750	0.45	8.750	9.05	14.750	0.71	20.75	0.37
2.833	0.48	8.833	6.34	14.833	0.68	20.83	0.36
2.917	0.48	8.917	6.34	14.917	0.68	20.92	0.36
3.000	0.48	9.000	6.34	15.000	0.68	21.00	0.36
3.083	0.50	9.083	4.81	15.083	0.66	21.08	0.36
3.167	0.50	9.167	4.81	15.167	0.66	21.17	0.36
3.250	0.50	9.250	4.81	15.250	0.66	21.25	0.36
3.333	0.53	9.333	3.85	15.333	0.63	21.33	0.35
3.417	0.53	9.417	3.85	15.417	0.63	21.42	0.35
3.500	0.53	9.500	3.85	15.500	0.63	21.50	0.35
3.583	0.56	9.583	3.20	15.583	0.61	21.58	0.34
3.667	0.56	9.667	3.20	15.667	0.61	21.67	0.34
3.750	0.56	9.750	3.20	15.750	0.61	21.75	0.34
3.833	0.60	9.833	2.73	15.833	0.59	21.83	0.34
3.917	0.60	9.917	2.73	15.917	0.59	21.92	0.34
4.000	0.60	10.000	2.73	16.000	0.59	22.00	0.34
4.083	0.64	10.083	2.38	16.083	0.57	22.08	0.33
4.167	0.64	10.167	2.38	16.167	0.57	22.17	0.33
4.250	0.64	10.250	2.38	16.250	0.57	22.25	0.33
4.333	0.69	10.333	2.10	16.333	0.56	22.33	0.33
4.417	0.69	10.417	2.10	16.417	0.56	22.42	0.33
4.500	0.69	10.500	2.10	16.500	0.56	22.50	0.33
4.583	0.75	10.583	1.88	16.583	0.54	22.58	0.32
4.667	0.75	10.667	1.88	16.667	0.54	22.67	0.32
4.750	0.75	10.750	1.88	16.750	0.54	22.75	0.32
4.833	0.82	10.833	1.70	16.833	0.53	22.83	0.32
4.917	0.82	10.917	1.70	16.917	0.53	22.92	0.32
5.000	0.82	11.000	1.70	17.000	0.53	23.00	0.32
5.083	0.90	11.083	1.56	17.083	0.51	23.08	0.31
5.167	0.90	11.167	1.56	17.167	0.51	23.17	0.31
5.250	0.90	11.250	1.56	17.250	0.51	23.25	0.31
5.333	1.00	11.333	1.43	17.333	0.50	23.33	0.31
5.417	1.00	11.417	1.43	17.417	0.50	23.42	0.31
5.500	1.00	11.500	1.43	17.500	0.50	23.50	0.31
5.583	1.12	11.583	1.33	17.583	0.48	23.58	0.30
5.667	1.12	11.667	1.33	17.667	0.48	23.67	0.30
5.750	1.12	11.750	1.33	17.750	0.48	23.75	0.30
5.833	1.28	11.833	1.24	17.833	0.47	23.83	0.30
5.917	1.28	11.917	1.24	17.917	0.47	23.92	0.30
6.000	1.28	12.000	1.24	18.000	0.47	24.00	0.30

Max.Eff.Inten.(mm/hr)= 111.40 45.04
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 0.93 (ii) 1.64 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

PEAK FLOW (cms)= 0.74 0.00 0.738 (iii)
 TIME TO PEAK (hrs)= 7.92 8.00 8.00
 RUNOFF VOLUME (mm)= 70.73 27.71 70.30
 TOTAL RAINFALL (mm)= 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.99 0.39 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7652) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.31	6.083	1.49	12.083	1.16	18.08	0.46
0.167	0.31	6.167	1.49	12.167	1.16	18.17	0.46
0.250	0.31	6.250	1.49	12.250	1.16	18.25	0.46
0.333	0.32	6.333	1.79	12.333	1.09	18.33	0.45
0.417	0.32	6.417	1.79	12.417	1.09	18.42	0.45
0.500	0.32	6.500	1.79	12.500	1.09	18.50	0.45
0.583	0.33	6.583	2.23	12.583	1.02	18.58	0.44
0.667	0.33	6.667	2.23	12.667	1.02	18.67	0.44
0.750	0.33	6.750	2.23	12.750	1.02	18.75	0.44
0.833	0.34	6.833	2.96	12.833	0.97	18.83	0.43
0.917	0.34	6.917	2.96	12.917	0.97	18.92	0.43
1.000	0.34	7.000	2.96	13.000	0.97	19.00	0.43
1.083	0.35	7.083	4.33	13.083	0.92	19.08	0.42
1.167	0.35	7.167	4.33	13.167	0.92	19.17	0.42
1.250	0.35	7.250	4.33	13.250	0.92	19.25	0.42
1.333	0.37	7.333	7.68	13.333	0.88	19.33	0.41
1.417	0.37	7.417	7.68	13.417	0.88	19.42	0.41
1.500	0.37	7.500	7.68	13.500	0.88	19.50	0.41
1.583	0.38	7.583	23.81	13.583	0.84	19.58	0.40
1.667	0.38	7.667	23.81	13.667	0.84	19.67	0.40
1.750	0.38	7.750	23.82	13.750	0.84	19.75	0.40
1.833	0.40	7.833	111.40	13.833	0.80	19.83	0.39
1.917	0.40	7.917	111.40	13.917	0.80	19.92	0.39
2.000	0.40	8.000	111.39	14.000	0.80	20.00	0.39
2.083	0.41	8.083	32.82	14.083	0.76	20.08	0.39
2.167	0.41	8.167	32.82	14.167	0.76	20.17	0.39
2.250	0.41	8.250	32.82	14.250	0.76	20.25	0.39
2.333	0.43	8.333	14.85	14.333	0.73	20.33	0.38
2.417	0.43	8.417	14.85	14.417	0.73	20.42	0.38
2.500	0.43	8.500	14.84	14.500	0.73	20.50	0.38
2.583	0.45	8.583	9.05	14.583	0.71	20.58	0.37
2.667	0.45	8.667	9.05	14.667	0.71	20.67	0.37
2.750	0.45	8.750	9.05	14.750	0.71	20.75	0.37
2.833	0.48	8.833	6.34	14.833	0.68	20.83	0.36
2.917	0.48	8.917	6.34	14.917	0.68	20.92	0.36
3.000	0.48	9.000	6.34	15.000	0.68	21.00	0.36
3.083	0.50	9.083	4.81	15.083	0.66	21.08	0.36
3.167	0.50	9.167	4.81	15.167	0.66	21.17	0.36
3.250	0.50	9.250	4.81	15.250	0.66	21.25	0.36
3.333	0.53	9.333	3.85	15.333	0.63	21.33	0.35
3.417	0.53	9.417	3.85	15.417	0.63	21.42	0.35
3.500	0.53	9.500	3.85	15.500	0.63	21.50	0.35
3.583	0.56	9.583	3.20	15.583	0.61	21.58	0.34
3.667	0.56	9.667	3.20	15.667	0.61	21.67	0.34
3.750	0.56	9.750	3.20	15.750	0.61	21.75	0.34
3.833	0.60	9.833	2.73	15.833	0.59	21.83	0.34
3.917	0.60	9.917	2.73	15.917	0.59	21.92	0.34
4.000	0.60	10.000	2.73	16.000	0.59	22.00	0.34
4.083	0.64	10.083	2.38	16.083	0.57	22.08	0.33
4.167	0.64	10.167	2.38	16.167	0.57	22.17	0.33
4.250	0.64	10.250	2.38	16.250	0.57	22.25	0.33
4.333	0.69	10.333	2.10	16.333	0.56	22.33	0.33
4.417	0.69	10.417	2.10	16.417	0.56	22.42	0.33
4.500	0.69	10.500	2.10	16.500	0.56	22.50	0.33
4.583	0.75	10.583	1.88	16.583	0.54	22.58	0.32
4.667	0.75	10.667	1.88	16.667	0.54	22.67	0.32

4.750	0.75	10.750	1.88	16.750	0.54	22.75	0.32
4.833	0.82	10.833	1.70	16.833	0.53	22.83	0.32
4.917	0.82	10.917	1.70	16.917	0.53	22.92	0.32
5.000	0.82	11.000	1.70	17.000	0.53	23.00	0.32
5.083	0.90	11.083	1.56	17.083	0.51	23.08	0.31
5.167	0.90	11.167	1.56	17.167	0.51	23.17	0.31
5.250	0.90	11.250	1.56	17.250	0.51	23.25	0.31
5.333	1.00	11.333	1.43	17.333	0.50	23.33	0.31
5.417	1.00	11.417	1.43	17.417	0.50	23.42	0.31
5.500	1.00	11.500	1.43	17.500	0.50	23.50	0.31
5.583	1.12	11.583	1.33	17.583	0.48	23.58	0.30
5.667	1.12	11.667	1.33	17.667	0.48	23.67	0.30
5.750	1.12	11.750	1.33	17.750	0.48	23.75	0.30
5.833	1.28	11.833	1.24	17.833	0.47	23.83	0.30
5.917	1.28	11.917	1.24	17.917	0.47	23.92	0.30
6.000	1.28	12.000	1.24	18.000	0.47	24.00	0.30

Max.Eff.Inten.(mm/hr)= 111.40 45.04
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 0.93 (ii) 1.64 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

PEAK FLOW (cms)= 0.74 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 7.92 8.00 8.00
 RUNOFF VOLUME (mm)= 70.73 27.71 70.30
 TOTAL RAINFALL (mm)= 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.99 0.39 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7661) | Area (ha)= 2.39
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.31	6.083	1.49	12.083	1.16	18.08	0.46
0.167	0.31	6.167	1.49	12.167	1.16	18.17	0.46
0.250	0.31	6.250	1.49	12.250	1.16	18.25	0.46
0.333	0.32	6.333	1.79	12.333	1.09	18.33	0.45
0.417	0.32	6.417	1.79	12.417	1.09	18.42	0.45
0.500	0.32	6.500	1.79	12.500	1.09	18.50	0.45
0.583	0.33	6.583	2.23	12.583	1.02	18.58	0.44
0.667	0.33	6.667	2.23	12.667	1.02	18.67	0.44
0.750	0.33	6.750	2.23	12.750	1.02	18.75	0.44
0.833	0.34	6.833	2.96	12.833	0.97	18.83	0.43
0.917	0.34	6.917	2.96	12.917	0.97	18.92	0.43
1.000	0.34	7.000	2.96	13.000	0.97	19.00	0.43
1.083	0.35	7.083	4.33	13.083	0.92	19.08	0.42
1.167	0.35	7.167	4.33	13.167	0.92	19.17	0.42
1.250	0.35	7.250	4.33	13.250	0.92	19.25	0.42
1.333	0.37	7.333	7.68	13.333	0.88	19.33	0.41
1.417	0.37	7.417	7.68	13.417	0.88	19.42	0.41
1.500	0.37	7.500	7.68	13.500	0.88	19.50	0.41
1.583	0.38	7.583	23.81	13.583	0.84	19.58	0.40
1.667	0.38	7.667	23.81	13.667	0.84	19.67	0.40



1.750	0.38	7.750	23.82	13.750	0.84	19.75	0.40
1.833	0.40	7.833	111.40	13.833	0.80	19.83	0.39
1.917	0.40	7.917	111.40	13.917	0.80	19.92	0.39
2.000	0.40	8.000	111.39	14.000	0.80	20.00	0.39
2.083	0.41	8.083	32.82	14.083	0.76	20.08	0.39
2.167	0.41	8.167	32.82	14.167	0.76	20.17	0.39
2.250	0.41	8.250	32.82	14.250	0.76	20.25	0.39
2.333	0.43	8.333	14.85	14.333	0.73	20.33	0.38
2.417	0.43	8.417	14.85	14.417	0.73	20.42	0.38
2.500	0.43	8.500	14.84	14.500	0.73	20.50	0.38
2.583	0.45	8.583	9.05	14.583	0.71	20.58	0.37
2.667	0.45	8.667	9.05	14.667	0.71	20.67	0.37
2.750	0.45	8.750	9.05	14.750	0.71	20.75	0.37
2.833	0.48	8.833	6.34	14.833	0.68	20.83	0.36
2.917	0.48	8.917	6.34	14.917	0.68	20.92	0.36
3.000	0.48	9.000	6.34	15.000	0.68	21.00	0.36
3.083	0.50	9.083	4.81	15.083	0.66	21.08	0.36
3.167	0.50	9.167	4.81	15.167	0.66	21.17	0.36
3.250	0.50	9.250	4.81	15.250	0.66	21.25	0.36
3.333	0.53	9.333	3.85	15.333	0.63	21.33	0.35
3.417	0.53	9.417	3.85	15.417	0.63	21.42	0.35
3.500	0.53	9.500	3.85	15.500	0.63	21.50	0.35
3.583	0.56	9.583	3.20	15.583	0.61	21.58	0.34
3.667	0.56	9.667	3.20	15.667	0.61	21.67	0.34
3.750	0.56	9.750	3.20	15.750	0.61	21.75	0.34
3.833	0.60	9.833	2.73	15.833	0.59	21.83	0.34
3.917	0.60	9.917	2.73	15.917	0.59	21.92	0.34
4.000	0.60	10.000	2.73	16.000	0.59	22.00	0.34
4.083	0.64	10.083	2.38	16.083	0.57	22.08	0.33
4.167	0.64	10.167	2.38	16.167	0.57	22.17	0.33
4.250	0.64	10.250	2.38	16.250	0.57	22.25	0.33
4.333	0.69	10.333	2.10	16.333	0.56	22.33	0.33
4.417	0.69	10.417	2.10	16.417	0.56	22.42	0.33
4.500	0.69	10.500	2.10	16.500	0.56	22.50	0.33
4.583	0.75	10.583	1.88	16.583	0.54	22.58	0.32
4.667	0.75	10.667	1.88	16.667	0.54	22.67	0.32
4.750	0.75	10.750	1.88	16.750	0.54	22.75	0.32
4.833	0.82	10.833	1.70	16.833	0.53	22.83	0.32
4.917	0.82	10.917	1.70	16.917	0.53	22.92	0.32
5.000	0.82	11.000	1.70	17.000	0.53	23.00	0.32
5.083	0.90	11.083	1.56	17.083	0.51	23.08	0.31
5.167	0.90	11.167	1.56	17.167	0.51	23.17	0.31
5.250	0.90	11.250	1.56	17.250	0.51	23.25	0.31
5.333	1.00	11.333	1.43	17.333	0.50	23.33	0.31
5.417	1.00	11.417	1.43	17.417	0.50	23.42	0.31
5.500	1.00	11.500	1.43	17.500	0.50	23.50	0.31
5.583	1.12	11.583	1.33	17.583	0.48	23.58	0.30
5.667	1.12	11.667	1.33	17.667	0.48	23.67	0.30
5.750	1.12	11.750	1.33	17.750	0.48	23.75	0.30
5.833	1.28	11.833	1.24	17.833	0.47	23.83	0.30
5.917	1.28	11.917	1.24	17.917	0.47	23.92	0.30
6.000	1.28	12.000	1.24	18.000	0.47	24.00	0.30

Max.Eff.Inten.(mm/hr)= 111.40 45.04
 over (min) 5.00 5.00
 Storage Coeff. (min)= 0.93 (ii) 1.64 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

PEAK FLOW (cms)= 0.73 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 7.92 8.00 0.735 (iii)
 RUNOFF VOLUME (mm)= 70.73 27.71 70.30
 TOTAL RAINFALL (mm)= 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.99 0.39 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| STANDHYD (7671) | Area (ha)= 2.37
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

 Surface Area (ha)= 2.35 IMPERVIOUS PERVIOUS (i)
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.31	6.083	1.49	12.083	1.16	18.08	0.46
0.167	0.31	6.167	1.49	12.167	1.16	18.17	0.46
0.250	0.31	6.250	1.49	12.250	1.16	18.25	0.46
0.333	0.32	6.333	1.79	12.333	1.09	18.33	0.45
0.417	0.32	6.417	1.79	12.417	1.09	18.42	0.45
0.500	0.32	6.500	1.79	12.500	1.09	18.50	0.45
0.583	0.33	6.583	2.23	12.583	1.02	18.58	0.44
0.667	0.33	6.667	2.23	12.667	1.02	18.67	0.44
0.750	0.33	6.750	2.23	12.750	1.02	18.75	0.44
0.833	0.34	6.833	2.96	12.833	0.97	18.83	0.43
0.917	0.34	6.917	2.96	12.917	0.97	18.92	0.43
1.000	0.34	7.000	2.96	13.000	0.97	19.00	0.43
1.083	0.35	7.083	4.33	13.083	0.92	19.08	0.42
1.167	0.35	7.167	4.33	13.167	0.92	19.17	0.42
1.250	0.35	7.250	4.33	13.250	0.92	19.25	0.42
1.333	0.37	7.333	7.68	13.333	0.88	19.33	0.41
1.417	0.37	7.417	7.68	13.417	0.88	19.42	0.41
1.500	0.37	7.500	7.68	13.500	0.88	19.50	0.41
1.583	0.38	7.583	23.81	13.583	0.84	19.58	0.40
1.667	0.38	7.667	23.81	13.667	0.84	19.67	0.40
1.750	0.38	7.750	23.82	13.750	0.84	19.75	0.40
1.833	0.40	7.833	111.40	13.833	0.80	19.83	0.39
1.917	0.40	7.917	111.40	13.917	0.80	19.92	0.39
2.000	0.40	8.000	111.39	14.000	0.80	20.00	0.39
2.083	0.41	8.083	32.82	14.083	0.76	20.08	0.39
2.167	0.41	8.167	32.82	14.167	0.76	20.17	0.39
2.250	0.41	8.250	32.82	14.250	0.76	20.25	0.39
2.333	0.43	8.333	14.85	14.333	0.73	20.33	0.38
2.417	0.43	8.417	14.85	14.417	0.73	20.42	0.38
2.500	0.43	8.500	14.84	14.500	0.73	20.50	0.38
2.583	0.45	8.583	9.05	14.583	0.71	20.58	0.37
2.667	0.45	8.667	9.05	14.667	0.71	20.67	0.37
2.750	0.45	8.750	9.05	14.750	0.71	20.75	0.37
2.833	0.48	8.833	6.34	14.833	0.68	20.83	0.36
2.917	0.48	8.917	6.34	14.917	0.68	20.92	0.36
3.000	0.48	9.000	6.34	15.000	0.68	21.00	0.36
3.083	0.50	9.083	4.81	15.083	0.66	21.08	0.36
3.167	0.50	9.167	4.81	15.167	0.66	21.17	0.36
3.250	0.50	9.250	4.81	15.250	0.66	21.25	0.36
3.333	0.53	9.333	3.85	15.333	0.63	21.33	0.35
3.417	0.53	9.417	3.85	15.417	0.63	21.42	0.35
3.500	0.53	9.500	3.85	15.500	0.63	21.50	0.35
3.583	0.56	9.583	3.20	15.583	0.61	21.58	0.34
3.667	0.56	9.667	3.20	15.667	0.61	21.67	0.34
3.750	0.56	9.750	3.20	15.750	0.61	21.75	0.34
3.833	0.60	9.833	2.73	15.833	0.59	21.83	0.34
3.917	0.60	9.917	2.73	15.917	0.59	21.92	0.34
4.000	0.60	10.000	2.73	16.000	0.59	22.00	0.34
4.083	0.64	10.083	2.38	16.083	0.57	22.08	0.33
4.167	0.64	10.167	2.38	16.167	0.57	22.17	0.33
4.250	0.64	10.250	2.38	16.250	0.57	22.25	0.33
4.333	0.69	10.333	2.10	16.333	0.56	22.33	0.33
4.417	0.69	10.417	2.10	16.417	0.56	22.42	0.33
4.500	0.69	10.500	2.10	16.500	0.56	22.50	0.33
4.583	0.75	10.583	1.88	16.583	0.54	22.58	0.32
4.667	0.75	10.667	1.88	16.667	0.54	22.67	0.32
4.750	0.75	10.750	1.88	16.750	0.54	22.75	0.32
4.833	0.82	10.833	1.70	16.833	0.53	22.83	0.32
4.917	0.82	10.917	1.70	16.917	0.53	22.92	0.32
5.000	0.82	11.000	1.70	17.000	0.53	23.00	0.32

 | CALIB |

5.083	0.90	111.083	1.56	17.083	0.51	23.08	0.31
5.167	0.90	111.167	1.56	17.167	0.51	23.17	0.31
5.250	0.90	111.250	1.56	17.250	0.51	23.25	0.31
5.333	1.00	111.333	1.43	17.333	0.50	23.33	0.31
5.417	1.00	111.417	1.43	17.417	0.50	23.42	0.31
5.500	1.00	111.500	1.43	17.500	0.50	23.50	0.31
5.583	1.12	111.583	1.33	17.583	0.48	23.58	0.30
5.667	1.12	111.667	1.33	17.667	0.48	23.67	0.30
5.750	1.12	111.750	1.33	17.750	0.48	23.75	0.30
5.833	1.28	111.833	1.24	17.833	0.47	23.83	0.30
5.917	1.28	111.917	1.24	17.917	0.47	23.92	0.30
6.000	1.28	112.000	1.24	18.000	0.47	24.00	0.30

Max.Eff.Inten.(mm/hr)= 111.40 45.04
 over (min) 5.00 5.00
 Storage Coeff. (min)= 0.93 (ii) 1.64 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

*****TOTALS*
 PEAK FLOW (cms)= 0.73 0.00 0.729 (iii)
 TIME TO PEAK (hrs)= 7.92 8.00 8.00
 RUNOFF VOLUME (mm)= 70.73 27.71 70.30
 TOTAL RAINFALL (mm)= 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.99 0.39 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7698)							
1 + 2 = 3							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 1 (7590):	2.39	0.735	8.00	70.30			
+ ID2= 2 (7632):	2.36	0.726	8.00	70.30			
=====							
ID = 3 (7698):	4.75	1.462	8.00	70.30			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)							
3 + 2 = 1							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 3 (7698):	4.75	1.462	8.00	70.30			
+ ID2= 2 (7644):	2.40	0.738	8.00	70.30			
=====							
ID = 1 (7698):	7.15	2.200	8.00	70.30			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)							
1 + 2 = 3							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 1 (7698):	7.15	2.200	8.00	70.30			
+ ID2= 2 (7652):	2.40	0.738	8.00	70.30			
=====							
ID = 3 (7698):	9.55	2.939	8.00	70.30			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)							
3 + 2 = 1							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 3 (7698):	9.55	2.939	8.00	70.30			

+ ID2= 2 (7661):							
	2.39	0.735	8.00	70.30			
=====							
ID = 1 (7698):	11.94	3.674	8.00	70.30			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)							
1 + 2 = 3							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 1 (7698):	11.94	3.674	8.00	70.30			
+ ID2= 2 (7671):	2.37	0.729	8.00	70.30			
=====							
ID = 3 (7698):	14.31	4.403	8.00	70.30			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| DIVERTHYD (7713) |
 | IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1 + Flow 2 + Flow 3 + Flow 4 + Flow 5 = Total							
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)		
0.00	0.00	0.00	0.00	0.00	0.00		
0.27	0.00	0.00	0.00	0.00	0.27		
1.00	0.00	0.00	0.00	0.00	1.00		
4.00	3.00	0.00	0.00	0.00	7.00		

	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
TOTAL HYD.(ID= 1):	14.31	4.40	8.00	70.30			
=====							
ID= 2 (2):	11.94	2.70	8.00	70.30			
ID= 3 (2):	2.37	1.70	8.00	70.30			
ID= 4 (2):	0.00	0.00	0.00	0.00			
ID= 5 (2):	0.00	0.00	0.00	0.00			
ID= 6 (2):	0.00	0.00	0.00	0.00			

RESERVOIR (7699)							
OVERFLOW IS ON							
IN= 2----> OUT= 1							
DT= 5.0 min							
	OUTFLOW	STORAGE	OUTFLOW	STORAGE			
	(cms)	(ha.m.)	(cms)	(ha.m.)			
	0.0000	0.0000	0.2690	0.4589			
	0.1980	0.1112	0.0000	0.0000			

	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
INFLOW : ID= 2 (7713)	11.941	2.702	8.00	70.30			
OUTFLOW: ID= 1 (7699)	11.781	0.269	8.58	70.31			
OVERFLOW:ID= 3 (0003)	0.160	0.106	8.50	70.31			

TOTAL NUMBER OF SIMULATION OVERFLOW = 3
 CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.25
 PERCENTAGE OF TIME OVERFLOWING (%) = 0.82

PEAK FLOW REDUCTION [Qout/Qin] (%) = 9.96
 TIME SHIFT OF PEAK FLOW (min) = 35.00
 MAXIMUM STORAGE USED (ha.m.) = 0.4589

| Junction Command(7715) |

	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
INFLOW : ID= 3 (7699)	0.16	0.11	8.50	70.31			
OUTFLOW: ID= 2 (7715)	0.16	0.11	8.50	70.31			

ADD HYD (7714)				
1 + 2 = 3				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7699):	11.78	0.269	8.58	70.31
+ ID2= 2 (7713):	2.37	1.702	8.00	70.30

ID = 3 (7714):	14.15	1.941	8.00	70.31

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7714)				
3 + 2 = 1				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (7714):	14.15	1.941	8.00	70.31
+ ID2= 2 (7715):	0.16	0.106	8.50	70.31

ID = 1 (7714):	14.31	1.941	8.00	70.31

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB				
STANDHYD (7620)				
ID= 1 DT= 5.0 min				
	Area (ha)	Imp(%)	Dir. Conn.(%)	
	1.45	96.00	96.00	

	IMPERVIOUS	PERVIOUS (i)		
Surface Area	(ha)= 1.39	0.06		
Dep. Storage	(mm)= 2.00	5.00		
Average Slope	(%)= 1.10	2.00		
Length	(m)= 100.00	145.00		
Mannings n	= 0.013	0.250		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

3.000	0.48	9.000	6.34	15.000	0.68	21.00	0.36
3.083	0.50	9.083	4.81	15.083	0.66	21.08	0.36
3.167	0.50	9.167	4.81	15.167	0.66	21.17	0.36
3.250	0.50	9.250	4.81	15.250	0.66	21.25	0.36
3.333	0.53	9.333	3.85	15.333	0.63	21.33	0.35
3.417	0.53	9.417	3.85	15.417	0.63	21.42	0.35
3.500	0.53	9.500	3.85	15.500	0.63	21.50	0.35
3.583	0.56	9.583	3.20	15.583	0.61	21.58	0.34
3.667	0.56	9.667	3.20	15.667	0.61	21.67	0.34
3.750	0.56	9.750	3.20	15.750	0.61	21.75	0.34
3.833	0.60	9.833	2.73	15.833	0.59	21.83	0.34
3.917	0.60	9.917	2.73	15.917	0.59	21.92	0.34
4.000	0.60	10.000	2.73	16.000	0.59	22.00	0.34
4.083	0.64	10.083	2.38	16.083	0.57	22.08	0.33
4.167	0.64	10.167	2.38	16.167	0.57	22.17	0.33
4.250	0.64	10.250	2.38	16.250	0.57	22.25	0.33
4.333	0.69	10.333	2.10	16.333	0.56	22.33	0.33
4.417	0.69	10.417	2.10	16.417	0.56	22.42	0.33
4.500	0.69	10.500	2.10	16.500	0.56	22.50	0.33
4.583	0.75	10.583	1.88	16.583	0.54	22.58	0.32
4.667	0.75	10.667	1.88	16.667	0.54	22.67	0.32
4.750	0.75	10.750	1.88	16.750	0.54	22.75	0.32
4.833	0.82	10.833	1.70	16.833	0.53	22.83	0.32
4.917	0.82	10.917	1.70	16.917	0.53	22.92	0.32
5.000	0.82	11.000	1.70	17.000	0.53	23.00	0.32
5.083	0.90	11.083	1.56	17.083	0.51	23.08	0.31
5.167	0.90	11.167	1.56	17.167	0.51	23.17	0.31
5.250	0.90	11.250	1.56	17.250	0.51	23.25	0.31
5.333	1.00	11.333	1.43	17.333	0.50	23.33	0.31
5.417	1.00	11.417	1.43	17.417	0.50	23.42	0.31
5.500	1.00	11.500	1.43	17.500	0.50	23.50	0.31
5.583	1.12	11.583	1.33	17.583	0.48	23.58	0.30
5.667	1.12	11.667	1.33	17.667	0.48	23.67	0.30
5.750	1.12	11.750	1.33	17.750	0.48	23.75	0.30
5.833	1.28	11.833	1.24	17.833	0.47	23.83	0.30
5.917	1.28	11.917	1.24	17.917	0.47	23.92	0.30
6.000	1.28	12.000	1.24	18.000	0.47	24.00	0.30

Max.Eff.Inten.(mm/hr)=	111.40	45.04
over (min)	5.00	10.00
Storage Coeff. (min)=	2.38 (ii)	6.48 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.30	0.14

PEAK FLOW (cms)=	0.43	0.01
TIME TO PEAK (hrs)=	8.00	8.08
RUNOFF VOLUME (mm)=	69.73	27.71
TOTAL RAINFALL (mm)=	71.73	71.73
RUNOFF COEFFICIENT =	0.97	0.39
		0.95

TOTALS

0.435 (iii)

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB				
STANDHYD (7629)				
ID= 1 DT= 5.0 min				
	Area (ha)	Imp(%)	Dir. Conn.(%)	
	1.70	99.00	99.00	

	IMPERVIOUS	PERVIOUS (i)		
Surface Area	(ha)= 1.68	0.02		
Dep. Storage	(mm)= 2.00	5.00		
Average Slope	(%)= 1.10	2.00		
Length	(m)= 100.00	40.00		
Mannings n	= 0.013	0.250		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	' hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.31	6.083	1.49	12.083	1.16	18.08	0.46		
0.167	0.31	6.167	1.49	12.167	1.16	18.17	0.46		
0.250	0.31	6.250	1.49	12.250	1.16	18.25	0.46		
0.333	0.32	6.333	1.79	12.333	1.09	18.33	0.45		
0.417	0.32	6.417	1.79	12.417	1.09	18.42	0.45		
0.500	0.32	6.500	1.79	12.500	1.09	18.50	0.45		
0.583	0.33	6.583	2.23	12.583	1.02	18.58	0.44		
0.667	0.33	6.667	2.23	12.667	1.02	18.67	0.44		
0.750	0.33	6.750	2.23	12.750	1.02	18.75	0.44		
0.833	0.34	6.833	2.96	12.833	0.97	18.83	0.43		
0.917	0.34	6.917	2.96	12.917	0.97	18.92	0.43		
1.000	0.34	7.000	2.96	13.000	0.97	19.00	0.43		
1.083	0.35	7.083	4.33	13.083	0.92	19.08	0.42		
1.167	0.35	7.167	4.33	13.167	0.92	19.17	0.42		
1.250	0.35	7.250	4.33	13.250	0.92	19.25	0.42		
1.333	0.37	7.333	7.68	13.333	0.88	19.33	0.41		
1.417	0.37	7.417	7.68	13.417	0.88	19.42	0.41		
1.500	0.37	7.500	7.68	13.500	0.88	19.50	0.41		
1.583	0.38	7.583	23.81	13.583	0.84	19.58	0.40		
1.667	0.38	7.667	23.81	13.667	0.84	19.67	0.40		
1.750	0.38	7.750	23.82	13.750	0.84	19.75	0.40		
1.833	0.40	7.833	111.40	13.833	0.80	19.83	0.39		
1.917	0.40	7.917	111.40	13.917	0.80	19.92	0.39		
2.000	0.40	8.000	111.39	14.000	0.80	20.00	0.39		
2.083	0.41	8.083	32.82	14.083	0.76	20.08	0.39		
2.167	0.41	8.167	32.82	14.167	0.76	20.17	0.39		
2.250	0.41	8.250	32.82	14.250	0.76	20.25	0.39		
2.333	0.43	8.333	14.85	14.333	0.73	20.33	0.38		
2.417	0.43	8.417	14.85	14.417	0.73	20.42	0.38		
2.500	0.43	8.500	14.84	14.500	0.73	20.50	0.38		
2.583	0.45	8.583	9.05	14.583	0.71	20.58	0.37		
2.667	0.45	8.667	9.05	14.667	0.71	20.67	0.37		
2.750	0.45	8.750	9.05	14.750	0.71	20.75	0.37		
2.833	0.48	8.833	6.34	14.833	0.68	20.83	0.36		
2.917	0.48	8.917	6.34	14.917	0.68	20.92	0.36		

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN

hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	hrs	mm/hr
0.083	0.31	6.083	1.49	12.083	1.16	18.08	0.46	
0.167	0.31	6.167	1.49	12.167	1.16	18.17	0.46	
0.250	0.31	6.250	1.49	12.250	1.16	18.25	0.46	
0.333	0.32	6.333	1.79	12.333	1.09	18.33	0.45	
0.417	0.32	6.417	1.79	12.417	1.09	18.42	0.45	
0.500	0.32	6.500	1.79	12.500	1.09	18.50	0.45	
0.583	0.33	6.583	2.23	12.583	1.02	18.58	0.44	
0.667	0.33	6.667	2.23	12.667	1.02	18.67	0.44	
0.750	0.33	6.750	2.23	12.750	1.02	18.75	0.44	
0.833	0.34	6.833	2.96	12.833	0.97	18.83	0.43	
0.917	0.34	6.917	2.96	12.917	0.97	18.92	0.43	
1.000	0.34	7.000	2.96	13.000	0.97	19.00	0.43	
1.083	0.35	7.083	4.33	13.083	0.92	19.08	0.42	
1.167	0.35	7.167	4.33	13.167	0.92	19.17	0.42	
1.250	0.35	7.250	4.33	13.250	0.92	19.25	0.42	
1.333	0.37	7.333	7.68	13.333	0.88	19.33	0.41	
1.417	0.37	7.417	7.68	13.417	0.88	19.42	0.41	
1.500	0.37	7.500	7.68	13.500	0.88	19.50	0.41	
1.583	0.38	7.583	23.81	13.583	0.84	19.58	0.40	
1.667	0.38	7.667	23.81	13.667	0.84	19.67	0.40	
1.750	0.38	7.750	23.82	13.750	0.84	19.75	0.40	
1.833	0.40	7.833	111.40	13.833	0.80	19.83	0.39	
1.917	0.40	7.917	111.40	13.917	0.80	19.92	0.39	
2.000	0.40	8.000	111.39	14.000	0.80	20.00	0.39	
2.083	0.41	8.083	32.82	14.083	0.76	20.08	0.39	
2.167	0.41	8.167	32.82	14.167	0.76	20.17	0.39	
2.250	0.41	8.250	32.82	14.250	0.76	20.25	0.39	
2.333	0.43	8.333	14.85	14.333	0.73	20.33	0.38	
2.417	0.43	8.417	14.85	14.417	0.73	20.42	0.38	
2.500	0.43	8.500	14.84	14.500	0.73	20.50	0.38	
2.583	0.45	8.583	9.05	14.583	0.71	20.58	0.37	
2.667	0.45	8.667	9.05	14.667	0.71	20.67	0.37	
2.750	0.45	8.750	9.05	14.750	0.71	20.75	0.37	
2.833	0.48	8.833	6.34	14.833	0.68	20.83	0.36	
2.917	0.48	8.917	6.34	14.917	0.68	20.92	0.36	
3.000	0.48	9.000	6.34	15.000	0.68	21.00	0.36	
3.083	0.50	9.083	4.81	15.083	0.66	21.08	0.36	
3.167	0.50	9.167	4.81	15.167	0.66	21.17	0.36	
3.250	0.50	9.250	4.81	15.250	0.66	21.25	0.36	
3.333	0.53	9.333	3.85	15.333	0.63	21.33	0.35	
3.417	0.53	9.417	3.85	15.417	0.63	21.42	0.35	
3.500	0.53	9.500	3.85	15.500	0.63	21.50	0.35	
3.583	0.56	9.583	3.20	15.583	0.61	21.58	0.34	
3.667	0.56	9.667	3.20	15.667	0.61	21.67	0.34	
3.750	0.56	9.750	3.20	15.750	0.61	21.75	0.34	
3.833	0.60	9.833	2.73	15.833	0.59	21.83	0.34	
3.917	0.60	9.917	2.73	15.917	0.59	21.92	0.34	
4.000	0.60	10.000	2.73	16.000	0.59	22.00	0.34	
4.083	0.64	10.083	2.38	16.083	0.57	22.08	0.33	
4.167	0.64	10.167	2.38	16.167	0.57	22.17	0.33	
4.250	0.64	10.250	2.38	16.250	0.57	22.25	0.33	
4.333	0.69	10.333	2.10	16.333	0.56	22.33	0.33	
4.417	0.69	10.417	2.10	16.417	0.56	22.42	0.33	
4.500	0.69	10.500	2.10	16.500	0.56	22.50	0.33	
4.583	0.75	10.583	1.88	16.583	0.54	22.58	0.32	
4.667	0.75	10.667	1.88	16.667	0.54	22.67	0.32	
4.750	0.75	10.750	1.88	16.750	0.54	22.75	0.32	
4.833	0.82	10.833	1.70	16.833	0.53	22.83	0.32	
4.917	0.82	10.917	1.70	16.917	0.53	22.92	0.32	
5.000	0.82	11.000	1.70	17.000	0.53	23.00	0.32	
5.083	0.90	11.083	1.56	17.083	0.51	23.08	0.31	
5.167	0.90	11.167	1.56	17.167	0.51	23.17	0.31	
5.250	0.90	11.250	1.56	17.250	0.51	23.25	0.31	
5.333	1.00	11.333	1.43	17.333	0.50	23.33	0.31	
5.417	1.00	11.417	1.43	17.417	0.50	23.42	0.31	
5.500	1.00	11.500	1.43	17.500	0.50	23.50	0.31	
5.583	1.12	11.583	1.33	17.583	0.48	23.58	0.30	
5.667	1.12	11.667	1.33	17.667	0.48	23.67	0.30	
5.750	1.12	11.750	1.33	17.750	0.48	23.75	0.30	
5.833	1.28	11.833	1.24	17.833	0.47	23.83	0.30	
5.917	1.28	11.917	1.24	17.917	0.47	23.92	0.30	
6.000	1.28	12.000	1.24	18.000	0.47	24.00	0.30	

Max.Eff. Inten. (mm/hr)= 111.40
over (min) 5.00

Storage Coeff. (min)= 2.38 (ii) 3.45 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.30 0.26

PEAK FLOW (cms)= 0.52 0.00 *TOTALS*
TIME TO PEAK (hrs)= 8.00 8.00 8.00
RUNOFF VOLUME (mm)= 69.73 27.71 69.31
TOTAL RAINFALL (mm)= 71.73 71.73 71.73
RUNOFF COEFFICIENT = 0.97 0.39 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (7651) | Area (ha)= 1.33
| ID= 1 DT= 5.0 min | Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.30 0.03
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.10 2.00
Length (m)= 100.00 40.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	'	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	hrs	mm/hr
0.083	0.31	6.083	1.49	12.083	1.16	18.08	0.46	
0.167	0.31	6.167	1.49	12.167	1.16	18.17	0.46	
0.250	0.31	6.250	1.49	12.250	1.16	18.25	0.46	
0.333	0.32	6.333	1.79	12.333	1.09	18.33	0.45	
0.417	0.32	6.417	1.79	12.417	1.09	18.42	0.45	
0.500	0.32	6.500	1.79	12.500	1.09	18.50	0.45	
0.583	0.33	6.583	2.23	12.583	1.02	18.58	0.44	
0.667	0.33	6.667	2.23	12.667	1.02	18.67	0.44	
0.750	0.33	6.750	2.23	12.750	1.02	18.75	0.44	
0.833	0.34	6.833	2.96	12.833	0.97	18.83	0.43	
0.917	0.34	6.917	2.96	12.917	0.97	18.92	0.43	
1.000	0.34	7.000	2.96	13.000	0.97	19.00	0.43	
1.083	0.35	7.083	4.33	13.083	0.92	19.08	0.42	
1.167	0.35	7.167	4.33	13.167	0.92	19.17	0.42	
1.250	0.35	7.250	4.33	13.250	0.92	19.25	0.42	
1.333	0.37	7.333	7.68	13.333	0.88	19.33	0.41	
1.417	0.37	7.417	7.68	13.417	0.88	19.42	0.41	
1.500	0.37	7.500	7.68	13.500	0.88	19.50	0.41	
1.583	0.38	7.583	23.81	13.583	0.84	19.58	0.40	
1.667	0.38	7.667	23.81	13.667	0.84	19.67	0.40	
1.750	0.38	7.750	23.82	13.750	0.84	19.75	0.40	
1.833	0.40	7.833	111.40	13.833	0.80	19.83	0.39	
1.917	0.40	7.917	111.40	13.917	0.80	19.92	0.39	
2.000	0.40	8.000	111.39	14.000	0.80	20.00	0.39	
2.083	0.41	8.083	32.82	14.083	0.76	20.08	0.39	
2.167	0.41	8.167	32.82	14.167	0.76	20.17	0.39	
2.250	0.41	8.250	32.82	14.250	0.76	20.25	0.39	
2.333	0.43	8.333	14.85	14.333	0.73	20.33	0.38	
2.417	0.43	8.417	14.85	14.417	0.73	20.42	0.38	
2.500	0.43	8.500	14.84	14.500	0.73	20.50	0.38	
2.583	0.45	8.583	9.05	14.583	0.71	20.58	0.37	
2.667	0.45	8.667	9.05	14.667	0.71	20.67	0.37	
2.750	0.45	8.750	9.05	14.750	0.71	20.75	0.37	
2.833	0.48	8.833	6.34	14.833	0.68	20.83	0.36	
2.917	0.48	8.917	6.34	14.917	0.68	20.92	0.36	
3.000	0.48	9.000	6.34	15.000	0.68	21.00	0.36	
3.083	0.50	9.083	4.81	15.083	0.66	21.08	0.36	
3.167	0.50	9.167	4.81	15.167	0.66	21.17	0.36	
3.250	0.50	9.250	4.81	15.250	0.66	21.25	0.36	

3.333	0.53	9.333	3.85	15.333	0.63	21.33	0.35
3.417	0.53	9.417	3.85	15.417	0.63	21.42	0.35
3.500	0.53	9.500	3.85	15.500	0.63	21.50	0.35
3.583	0.56	9.583	3.20	15.583	0.61	21.58	0.34
3.667	0.56	9.667	3.20	15.667	0.61	21.67	0.34
3.750	0.56	9.750	3.20	15.750	0.61	21.75	0.34
3.833	0.60	9.833	2.73	15.833	0.59	21.83	0.34
3.917	0.60	9.917	2.73	15.917	0.59	21.92	0.34
4.000	0.60	10.000	2.73	16.000	0.59	22.00	0.34
4.083	0.64	10.083	2.38	16.083	0.57	22.08	0.33
4.167	0.64	10.167	2.38	16.167	0.57	22.17	0.33
4.250	0.64	10.250	2.38	16.250	0.57	22.25	0.33
4.333	0.69	10.333	2.10	16.333	0.56	22.33	0.33
4.417	0.69	10.417	2.10	16.417	0.56	22.42	0.33
4.500	0.69	10.500	2.10	16.500	0.56	22.50	0.33
4.583	0.75	10.583	1.88	16.583	0.54	22.58	0.32
4.667	0.75	10.667	1.88	16.667	0.54	22.67	0.32
4.750	0.75	10.750	1.88	16.750	0.54	22.75	0.32
4.833	0.82	10.833	1.70	16.833	0.53	22.83	0.32
4.917	0.82	10.917	1.70	16.917	0.53	22.92	0.32
5.000	0.82	11.000	1.70	17.000	0.53	23.00	0.32
5.083	0.90	11.083	1.56	17.083	0.51	23.08	0.31
5.167	0.90	11.167	1.56	17.167	0.51	23.17	0.31
5.250	0.90	11.250	1.56	17.250	0.51	23.25	0.31
5.333	1.00	11.333	1.43	17.333	0.50	23.33	0.31
5.417	1.00	11.417	1.43	17.417	0.50	23.42	0.31
5.500	1.00	11.500	1.43	17.500	0.50	23.50	0.31
5.583	1.12	11.583	1.33	17.583	0.48	23.58	0.30
5.667	1.12	11.667	1.33	17.667	0.48	23.67	0.30
5.750	1.12	11.750	1.33	17.750	0.48	23.75	0.30
5.833	1.28	11.833	1.24	17.833	0.47	23.83	0.30
5.917	1.28	11.917	1.24	17.917	0.47	23.92	0.30
6.000	1.28	12.000	1.24	18.000	0.47	24.00	0.30

Max.Eff.Inten.(mm/hr)=	111.40	45.04
over (min)	5.00	5.00
Storage Coeff. (min)=	2.38 (ii)	3.80 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.30	0.25

TOTALS			
PEAK FLOW (cms)=	0.40	0.00	0.406 (iii)
TIME TO PEAK (hrs)=	8.00	8.00	8.00
RUNOFF VOLUME (mm)=	69.73	27.71	68.89
TOTAL RAINFALL (mm)=	71.73	71.73	71.73
RUNOFF COEFFICIENT =	0.97	0.39	0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7700)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7620):	1.45	0.435	8.00	68.05
+ ID2= 2 (7629):	1.70	0.522	8.00	69.31
=====				
ID = 3 (7700):	3.15	0.958	8.00	68.73

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7700)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7700):	3.15	0.958	8.00	68.73
+ ID2= 2 (7651):	1.33	0.406	8.00	68.89
=====				
ID = 1 (7700):	4.48	1.364	8.00	68.77

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7623)			
ID= 1 DT= 5.0 min		Area (ha)=	1.20
		Total Imp(%)=	95.00
		Dir. Conn.(%)=	95.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.14	0.06	
Dep. Storage (mm)=	2.00	5.00	
Average Slope (%)=	2.50	2.00	
Length (m)=	60.00	40.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.31	6.083	1.49	12.083	1.16	18.08	1.16	18.08	0.46
0.167	0.31	6.167	1.49	12.167	1.16	18.17	1.16	18.17	0.46
0.250	0.31	6.250	1.49	12.250	1.16	18.25	1.16	18.25	0.46
0.333	0.32	6.333	1.79	12.333	1.09	18.33	1.09	18.33	0.45
0.417	0.32	6.417	1.79	12.417	1.09	18.42	1.09	18.42	0.45
0.500	0.32	6.500	1.79	12.500	1.09	18.50	1.09	18.50	0.45
0.583	0.33	6.583	2.23	12.583	1.02	18.58	1.02	18.58	0.44
0.667	0.33	6.667	2.23	12.667	1.02	18.67	1.02	18.67	0.44
0.750	0.33	6.750	2.23	12.750	1.02	18.75	1.02	18.75	0.44
0.833	0.34	6.833	2.96	12.833	0.97	18.83	0.97	18.83	0.43
0.917	0.34	6.917	2.96	12.917	0.97	18.92	0.97	18.92	0.43
1.000	0.34	7.000	2.96	13.000	0.97	19.00	0.97	19.00	0.43
1.083	0.35	7.083	4.33	13.083	0.92	19.08	0.92	19.08	0.42
1.167	0.35	7.167	4.33	13.167	0.92	19.17	0.92	19.17	0.42
1.250	0.35	7.250	4.33	13.250	0.92	19.25	0.92	19.25	0.42
1.333	0.37	7.333	7.68	13.333	0.88	19.33	0.88	19.33	0.41
1.417	0.37	7.417	7.68	13.417	0.88	19.42	0.88	19.42	0.41
1.500	0.37	7.500	7.68	13.500	0.88	19.50	0.88	19.50	0.41
1.583	0.38	7.583	23.81	13.583	0.84	19.58	0.84	19.58	0.40
1.667	0.38	7.667	23.81	13.667	0.84	19.67	0.84	19.67	0.40
1.750	0.38	7.750	23.82	13.750	0.84	19.75	0.84	19.75	0.40
1.833	0.40	7.833	111.40	13.833	0.80	19.83	0.80	19.83	0.39
1.917	0.40	7.917	111.40	13.917	0.80	19.92	0.80	19.92	0.39
2.000	0.40	8.000	111.39	14.000	0.80	20.00	0.80	20.00	0.39
2.083	0.41	8.083	32.82	14.083	0.76	20.08	0.76	20.08	0.39
2.167	0.41	8.167	32.82	14.167	0.76	20.17	0.76	20.17	0.39
2.250	0.41	8.250	32.82	14.250	0.76	20.25	0.76	20.25	0.39
2.333	0.43	8.333	14.85	14.333	0.73	20.33	0.73	20.33	0.38
2.417	0.43	8.417	14.85	14.417	0.73	20.42	0.73	20.42	0.38
2.500	0.43	8.500	14.84	14.500	0.73	20.50	0.73	20.50	0.38
2.583	0.45	8.583	9.05	14.583	0.71	20.58	0.71	20.58	0.37
2.667	0.45	8.667	9.05	14.667	0.71	20.67	0.71	20.67	0.37
2.750	0.45	8.750	9.05	14.750	0.71	20.75	0.71	20.75	0.37
2.833	0.48	8.833	6.34	14.833	0.68	20.83	0.68	20.83	0.36
2.917	0.48	8.917	6.34	14.917	0.68	20.92	0.68	20.92	0.36
3.000	0.48	9.000	6.34	15.000	0.68	21.00	0.68	21.00	0.36
3.083	0.50	9.083	4.81	15.083	0.66	21.08	0.66	21.08	0.36
3.167	0.50	9.167	4.81	15.167	0.66	21.17	0.66	21.17	0.36
3.250	0.50	9.250	4.81	15.250	0.66	21.25	0.66	21.25	0.36
3.333	0.53	9.333	3.85	15.333	0.63	21.33	0.63	21.33	0.35
3.417	0.53	9.417	3.85	15.417	0.63	21.42	0.63	21.42	0.35
3.500	0.53	9.500	3.85	15.500	0.63	21.50	0.63	21.50	0.35
3.583	0.56	9.583	3.20	15.583	0.61	21.58	0.61	21.58	0.34
3.667	0.56	9.667	3.20	15.667	0.61	21.67	0.61	21.67	0.34
3.750	0.56	9.750	3.20	15.750	0.61	21.75	0.61	21.75	0.34
3.833	0.60	9.833	2.73	15.833	0.59	21.83	0.59	21.83	0.34
3.917	0.60	9.917	2.73	15.917	0.59	21.92	0.59	21.92	0.34
4.000	0.60	10.000	2.73	16.000	0.59	22.00	0.59	22.00	0.34
4.083	0.64	10.083	2.38	16.083	0.57	22.08	0.57	22.08	0.33
4.167	0.64	10.167	2.38	16.167	0.57	22.17	0.57	22.17	0.33
4.250	0.64	10.250	2.38	16.250	0.57	22.25	0.57	22.25	0.33
4.333	0.69	10.333	2.10	16.333	0.56	22.33	0.56	22.33	0.33
4.417	0.69	10.417	2.10	16.417	0.56	22.42	0.56	22.42	0.33
4.500	0.69	10.500	2.10	16.500	0.56	22.50	0.56	22.50	0.33
4.583	0.75	10.583	1.88	16.583	0.54	22.58	0.54	22.58	0.32



4.667	0.75	10.667	1.88	16.667	0.54	22.67	0.32
4.750	0.75	10.750	1.88	16.750	0.54	22.75	0.32
4.833	0.82	10.833	1.70	16.833	0.53	22.83	0.32
4.917	0.82	10.917	1.70	16.917	0.53	22.92	0.32
5.000	0.82	11.000	1.70	17.000	0.53	23.00	0.32
5.083	0.90	11.083	1.56	17.083	0.51	23.08	0.31
5.167	0.90	11.167	1.56	17.167	0.51	23.17	0.31
5.250	0.90	11.250	1.56	17.250	0.51	23.25	0.31
5.333	1.00	11.333	1.43	17.333	0.50	23.33	0.31
5.417	1.00	11.417	1.43	17.417	0.50	23.42	0.31
5.500	1.00	11.500	1.43	17.500	0.50	23.50	0.31
5.583	1.12	11.583	1.33	17.583	0.48	23.58	0.30
5.667	1.12	11.667	1.33	17.667	0.48	23.67	0.30
5.750	1.12	11.750	1.33	17.750	0.48	23.75	0.30
5.833	1.28	11.833	1.24	17.833	0.47	23.83	0.30
5.917	1.28	11.917	1.24	17.917	0.47	23.92	0.30
6.000	1.28	12.000	1.24	18.000	0.47	24.00	0.30

Max.Eff.Inten.(mm/hr)= 111.40 46.59
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.37 (ii) 3.45 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.26

PEAK FLOW (cms)= 0.35 0.01 0.361 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00
 RUNOFF VOLUME (mm)= 69.73 28.55 67.67
 TOTAL RAINFALL (mm)= 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.97 0.40 0.94

TOTALS

1.667	0.38	7.667	23.81	13.667	0.84	19.67	0.40
1.750	0.38	7.750	23.82	13.750	0.84	19.75	0.40
1.833	0.40	7.833	111.40	13.833	0.80	19.83	0.39
1.917	0.40	7.917	111.40	13.917	0.80	19.92	0.39
2.000	0.40	8.000	111.39	14.000	0.80	20.00	0.39
2.083	0.41	8.083	32.82	14.083	0.76	20.08	0.39
2.167	0.41	8.167	32.82	14.167	0.76	20.17	0.39
2.250	0.41	8.250	32.82	14.250	0.76	20.25	0.39
2.333	0.43	8.333	14.85	14.333	0.73	20.33	0.38
2.417	0.43	8.417	14.85	14.417	0.73	20.42	0.38
2.500	0.43	8.500	14.84	14.500	0.73	20.50	0.38
2.583	0.45	8.583	9.05	14.583	0.71	20.58	0.37
2.667	0.45	8.667	9.05	14.667	0.71	20.67	0.37
2.750	0.45	8.750	9.05	14.750	0.71	20.75	0.37
2.833	0.48	8.833	6.34	14.833	0.68	20.83	0.36
2.917	0.48	8.917	6.34	14.917	0.68	20.92	0.36
3.000	0.48	9.000	6.34	15.000	0.68	21.00	0.36
3.083	0.50	9.083	4.81	15.083	0.66	21.08	0.36
3.167	0.50	9.167	4.81	15.167	0.66	21.17	0.36
3.250	0.50	9.250	4.81	15.250	0.66	21.25	0.36
3.333	0.53	9.333	3.85	15.333	0.63	21.33	0.35
3.417	0.53	9.417	3.85	15.417	0.63	21.42	0.35
3.500	0.53	9.500	3.85	15.500	0.63	21.50	0.35
3.583	0.56	9.583	3.20	15.583	0.61	21.58	0.34
3.667	0.56	9.667	3.20	15.667	0.61	21.67	0.34
3.750	0.56	9.750	3.20	15.750	0.61	21.75	0.34
3.833	0.60	9.833	2.73	15.833	0.59	21.83	0.34
3.917	0.60	9.917	2.73	15.917	0.59	21.92	0.34
4.000	0.60	10.000	2.73	16.000	0.59	22.00	0.34
4.083	0.64	10.083	2.38	16.083	0.57	22.08	0.33
4.167	0.64	10.167	2.38	16.167	0.57	22.17	0.33
4.250	0.64	10.250	2.38	16.250	0.57	22.25	0.33
4.333	0.69	10.333	2.10	16.333	0.56	22.33	0.33
4.417	0.69	10.417	2.10	16.417	0.56	22.42	0.33
4.500	0.69	10.500	2.10	16.500	0.56	22.50	0.33
4.583	0.75	10.583	1.88	16.583	0.54	22.58	0.32
4.667	0.75	10.667	1.88	16.667	0.54	22.67	0.32
4.750	0.75	10.750	1.88	16.750	0.54	22.75	0.32
4.833	0.82	10.833	1.70	16.833	0.53	22.83	0.32
4.917	0.82	10.917	1.70	16.917	0.53	22.92	0.32
5.000	0.82	11.000	1.70	17.000	0.53	23.00	0.32
5.083	0.90	11.083	1.56	17.083	0.51	23.08	0.31
5.167	0.90	11.167	1.56	17.167	0.51	23.17	0.31
5.250	0.90	11.250	1.56	17.250	0.51	23.25	0.31
5.333	1.00	11.333	1.43	17.333	0.50	23.33	0.31
5.417	1.00	11.417	1.43	17.417	0.50	23.42	0.31
5.500	1.00	11.500	1.43	17.500	0.50	23.50	0.31
5.583	1.12	11.583	1.33	17.583	0.48	23.58	0.30
5.667	1.12	11.667	1.33	17.667	0.48	23.67	0.30
5.750	1.12	11.750	1.33	17.750	0.48	23.75	0.30
5.833	1.28	11.833	1.24	17.833	0.47	23.83	0.30
5.917	1.28	11.917	1.24	17.917	0.47	23.92	0.30
6.000	1.28	12.000	1.24	18.000	0.47	24.00	0.30

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha) = 1.69
STANDHYD (7654)	Total Imp(%) = 99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%) = 99.00

Surface Area (ha)	= 1.67	PERVIOUS (i)	0.02
Dep. Storage (mm)	= 2.00		5.00
Average Slope (%)	= 1.10		2.00
Length (m)	= 100.00		40.00
Mannings n	= 0.013		0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.31	6.083	1.49	12.083	1.16
0.167	0.31	6.167	1.49	12.167	1.16
0.250	0.31	6.250	1.49	12.250	1.16
0.333	0.32	6.333	1.79	12.333	1.09
0.417	0.32	6.417	1.79	12.417	1.09
0.500	0.32	6.500	1.79	12.500	1.09
0.583	0.33	6.583	2.23	12.583	1.02
0.667	0.33	6.667	2.23	12.667	1.02
0.750	0.33	6.750	2.23	12.750	1.02
0.833	0.34	6.833	2.96	12.833	0.97
0.917	0.34	6.917	2.96	12.917	0.97
1.000	0.34	7.000	2.96	13.000	0.97
1.083	0.35	7.083	4.33	13.083	0.92
1.167	0.35	7.167	4.33	13.167	0.92
1.250	0.35	7.250	4.33	13.250	0.92
1.333	0.37	7.333	7.68	13.333	0.88
1.417	0.37	7.417	7.68	13.417	0.88
1.500	0.37	7.500	7.68	13.500	0.88
1.583	0.38	7.583	23.81	13.583	0.84

Max.Eff.Inten.(mm/hr)= 111.40 45.04
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.38 (ii) 3.45 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.30 0.26

PEAK FLOW (cms)= 0.52 0.00
 TIME TO PEAK (hrs)= 8.00 8.00
 RUNOFF VOLUME (mm)= 69.73 27.71
 TOTAL RAINFALL (mm)= 71.73 71.73
 RUNOFF COEFFICIENT = 0.97 0.39 0.97

TOTALS

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.



CALIB
 STANDHYD (7655) | Area (ha)= 1.32
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.31 0.01
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.31	6.083	1.49	12.083	1.16	18.08	0.46
0.167	0.31	6.167	1.49	12.167	1.16	18.17	0.46
0.250	0.31	6.250	1.49	12.250	1.16	18.25	0.46
0.333	0.32	6.333	1.79	12.333	1.09	18.33	0.45
0.417	0.32	6.417	1.79	12.417	1.09	18.42	0.45
0.500	0.32	6.500	1.79	12.500	1.09	18.50	0.45
0.583	0.33	6.583	2.23	12.583	1.02	18.58	0.44
0.667	0.33	6.667	2.23	12.667	1.02	18.67	0.44
0.750	0.33	6.750	2.23	12.750	1.02	18.75	0.44
0.833	0.34	6.833	2.96	12.833	0.97	18.83	0.43
0.917	0.34	6.917	2.96	12.917	0.97	18.92	0.43
1.000	0.34	7.000	2.96	13.000	0.97	19.00	0.43
1.083	0.35	7.083	4.33	13.083	0.92	19.08	0.42
1.167	0.35	7.167	4.33	13.167	0.92	19.17	0.42
1.250	0.35	7.250	4.33	13.250	0.92	19.25	0.42
1.333	0.37	7.333	7.68	13.333	0.88	19.33	0.41
1.417	0.37	7.417	7.68	13.417	0.88	19.42	0.41
1.500	0.37	7.500	7.68	13.500	0.88	19.50	0.41
1.583	0.38	7.583	23.81	13.583	0.84	19.58	0.40
1.667	0.38	7.667	23.81	13.667	0.84	19.67	0.40
1.750	0.38	7.750	23.82	13.750	0.84	19.75	0.40
1.833	0.40	7.833	111.40	13.833	0.80	19.83	0.39
1.917	0.40	7.917	111.40	13.917	0.80	19.92	0.39
2.000	0.40	8.000	111.39	14.000	0.80	20.00	0.39
2.083	0.41	8.083	32.82	14.083	0.76	20.08	0.39
2.167	0.41	8.167	32.82	14.167	0.76	20.17	0.39
2.250	0.41	8.250	32.82	14.250	0.76	20.25	0.39
2.333	0.43	8.333	14.85	14.333	0.73	20.33	0.38
2.417	0.43	8.417	14.85	14.417	0.73	20.42	0.38
2.500	0.43	8.500	14.84	14.500	0.73	20.50	0.38
2.583	0.45	8.583	9.05	14.583	0.71	20.58	0.37
2.667	0.45	8.667	9.05	14.667	0.71	20.67	0.37
2.750	0.45	8.750	9.05	14.750	0.71	20.75	0.37
2.833	0.48	8.833	6.34	14.833	0.68	20.83	0.36
2.917	0.48	8.917	6.34	14.917	0.68	20.92	0.36
3.000	0.48	9.000	6.34	15.000	0.68	21.00	0.36
3.083	0.50	9.083	4.81	15.083	0.66	21.08	0.36
3.167	0.50	9.167	4.81	15.167	0.66	21.17	0.36
3.250	0.50	9.250	4.81	15.250	0.66	21.25	0.36
3.333	0.53	9.333	3.85	15.333	0.63	21.33	0.35
3.417	0.53	9.417	3.85	15.417	0.63	21.42	0.35
3.500	0.53	9.500	3.85	15.500	0.63	21.50	0.35
3.583	0.56	9.583	3.20	15.583	0.61	21.58	0.34
3.667	0.56	9.667	3.20	15.667	0.61	21.67	0.34
3.750	0.56	9.750	3.20	15.750	0.61	21.75	0.34
3.833	0.60	9.833	2.73	15.833	0.59	21.83	0.34
3.917	0.60	9.917	2.73	15.917	0.59	21.92	0.34
4.000	0.60	10.000	2.73	16.000	0.59	22.00	0.34
4.083	0.64	10.083	2.38	16.083	0.57	22.08	0.33
4.167	0.64	10.167	2.38	16.167	0.57	22.17	0.33
4.250	0.64	10.250	2.38	16.250	0.57	22.25	0.33
4.333	0.69	10.333	2.10	16.333	0.56	22.33	0.33
4.417	0.69	10.417	2.10	16.417	0.56	22.42	0.33
4.500	0.69	10.500	2.10	16.500	0.56	22.50	0.33
4.583	0.75	10.583	1.88	16.583	0.54	22.58	0.32
4.667	0.75	10.667	1.88	16.667	0.54	22.67	0.32
4.750	0.75	10.750	1.88	16.750	0.54	22.75	0.32
4.833	0.82	10.833	1.70	16.833	0.53	22.83	0.32
4.917	0.82	10.917	1.70	16.917	0.53	22.92	0.32

5.000	0.82	11.000	1.70	17.000	0.53	23.00	0.32
5.083	0.90	11.083	1.56	17.083	0.51	23.08	0.31
5.167	0.90	11.167	1.56	17.167	0.51	23.17	0.31
5.250	0.90	11.250	1.56	17.250	0.51	23.25	0.31
5.333	1.00	11.333	1.43	17.333	0.50	23.33	0.31
5.417	1.00	11.417	1.43	17.417	0.50	23.42	0.31
5.500	1.00	11.500	1.43	17.500	0.50	23.50	0.31
5.583	1.12	11.583	1.33	17.583	0.48	23.58	0.30
5.667	1.12	11.667	1.33	17.667	0.48	23.67	0.30
5.750	1.12	11.750	1.33	17.750	0.48	23.75	0.30
5.833	1.28	11.833	1.24	17.833	0.47	23.83	0.30
5.917	1.28	11.917	1.24	17.917	0.47	23.92	0.30
6.000	1.28	12.000	1.24	18.000	0.47	24.00	0.30

Max.Eff.Inten.(mm/hr)= 111.40 45.04
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.38 (ii) 3.45 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.30 0.26

TOTALS

PEAK FLOW (cms)= 0.40 0.00 0.405 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 69.73 27.71 69.31
 TOTAL RAINFALL (mm)= 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.97 0.39 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 STANDHYD (7662) | Area (ha)= 1.61
 ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.48 0.13
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 145.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.31	6.083	1.49	12.083	1.16	18.08	0.46
0.167	0.31	6.167	1.49	12.167	1.16	18.17	0.46
0.250	0.31	6.250	1.49	12.250	1.16	18.25	0.46
0.333	0.32	6.333	1.79	12.333	1.09	18.33	0.45
0.417	0.32	6.417	1.79	12.417	1.09	18.42	0.45
0.500	0.32	6.500	1.79	12.500	1.09	18.50	0.45
0.583	0.33	6.583	2.23	12.583	1.02	18.58	0.44
0.667	0.33	6.667	2.23	12.667	1.02	18.67	0.44
0.750	0.33	6.750	2.23	12.750	1.02	18.75	0.44
0.833	0.34	6.833	2.96	12.833	0.97	18.83	0.43
0.917	0.34	6.917	2.96	12.917	0.97	18.92	0.43
1.000	0.34	7.000	2.96	13.000	0.97	19.00	0.43
1.083	0.35	7.083	4.33	13.083	0.92	19.08	0.42
1.167	0.35	7.167	4.33	13.167	0.92	19.17	0.42
1.250	0.35	7.250	4.33	13.250	0.92	19.25	0.42
1.333	0.37	7.333	7.68	13.333	0.88	19.33	0.41
1.417	0.37	7.417	7.68	13.417	0.88	19.42	0.41
1.500	0.37	7.500	7.68	13.500	0.88	19.50	0.41
1.583	0.38	7.583	23.81	13.583	0.84	19.58	0.40
1.667	0.38	7.667	23.81	13.667	0.84	19.67	0.40
1.750	0.38	7.750	23.82	13.750	0.84	19.75	0.40
1.833	0.40	7.833	111.40	13.833	0.80	19.83	0.39
1.917	0.40	7.917	111.40	13.917	0.80	19.92	0.39

2.000	0.40	8.000	111.39	14.000	0.80	20.00	0.39
2.083	0.41	8.083	32.82	14.083	0.76	20.08	0.39
2.167	0.41	8.167	32.82	14.167	0.76	20.17	0.39
2.250	0.41	8.250	32.82	14.250	0.76	20.25	0.39
2.333	0.43	8.333	14.85	14.333	0.73	20.33	0.38
2.417	0.43	8.417	14.85	14.417	0.73	20.42	0.38
2.500	0.43	8.500	14.84	14.500	0.73	20.50	0.38
2.583	0.45	8.583	9.05	14.583	0.71	20.58	0.37
2.667	0.45	8.667	9.05	14.667	0.71	20.67	0.37
2.750	0.45	8.750	9.05	14.750	0.71	20.75	0.37
2.833	0.48	8.833	6.34	14.833	0.68	20.83	0.36
2.917	0.48	8.917	6.34	14.917	0.68	20.92	0.36
3.000	0.48	9.000	6.34	15.000	0.68	21.00	0.36
3.083	0.50	9.083	4.81	15.083	0.66	21.08	0.36
3.167	0.50	9.167	4.81	15.167	0.66	21.17	0.36
3.250	0.50	9.250	4.81	15.250	0.66	21.25	0.36
3.333	0.53	9.333	3.85	15.333	0.63	21.33	0.35
3.417	0.53	9.417	3.85	15.417	0.63	21.42	0.35
3.500	0.53	9.500	3.85	15.500	0.63	21.50	0.35
3.583	0.56	9.583	3.20	15.583	0.61	21.58	0.34
3.667	0.56	9.667	3.20	15.667	0.61	21.67	0.34
3.750	0.56	9.750	3.20	15.750	0.61	21.75	0.34
3.833	0.60	9.833	2.73	15.833	0.59	21.83	0.34
3.917	0.60	9.917	2.73	15.917	0.59	21.92	0.34
4.000	0.60	10.000	2.73	16.000	0.59	22.00	0.34
4.083	0.64	10.083	2.38	16.083	0.57	22.08	0.33
4.167	0.64	10.167	2.38	16.167	0.57	22.17	0.33
4.250	0.64	10.250	2.38	16.250	0.57	22.25	0.33
4.333	0.69	10.333	2.10	16.333	0.56	22.33	0.33
4.417	0.69	10.417	2.10	16.417	0.56	22.42	0.33
4.500	0.69	10.500	2.10	16.500	0.56	22.50	0.33
4.583	0.75	10.583	1.88	16.583	0.54	22.58	0.32
4.667	0.75	10.667	1.88	16.667	0.54	22.67	0.32
4.750	0.75	10.750	1.88	16.750	0.54	22.75	0.32
4.833	0.82	10.833	1.70	16.833	0.53	22.83	0.32
4.917	0.82	10.917	1.70	16.917	0.53	22.92	0.32
5.000	0.82	11.000	1.70	17.000	0.53	23.00	0.32
5.083	0.90	11.083	1.56	17.083	0.51	23.08	0.31
5.167	0.90	11.167	1.56	17.167	0.51	23.17	0.31
5.250	0.90	11.250	1.56	17.250	0.51	23.25	0.31
5.333	1.00	11.333	1.43	17.333	0.50	23.33	0.31
5.417	1.00	11.417	1.43	17.417	0.50	23.42	0.31
5.500	1.00	11.500	1.43	17.500	0.50	23.50	0.31
5.583	1.12	11.583	1.33	17.583	0.48	23.58	0.30
5.667	1.12	11.667	1.33	17.667	0.48	23.67	0.30
5.750	1.12	11.750	1.33	17.750	0.48	23.75	0.30
5.833	1.28	11.833	1.24	17.833	0.47	23.83	0.30
5.917	1.28	11.917	1.24	17.917	0.47	23.92	0.30
6.000	1.28	12.000	1.24	18.000	0.47	24.00	0.30

Max.Eff.Inten.(mm/hr)= 111.40 30.13
 over (min) 5.00 30.00
 Storage Coeff. (min)= 2.38 (ii) 27.07 (ii)
 Unit Hyd. Tpeak (min)= 5.00 30.00
 Unit Hyd. peak (cms)= 0.30 0.04

TOTALS
 PEAK FLOW (cms)= 0.46 0.01 0.460 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00
 RUNOFF VOLUME (mm)= 69.73 27.71 66.36
 TOTAL RAINFALL (mm)= 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.97 0.39 0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7701)				
1 + 2 = 3				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	

ID1= 1 (7654):	1.69	0.519	8.00	69.31
+ ID2= 2 (7655):	1.32	0.405	8.00	69.31

ID = 3 (7701):	3.01	0.925	8.00	69.31

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7701)				
3 + 2 = 1				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7701):	3.01	0.925	8.00	69.31
+ ID2= 2 (7662):	1.61	0.460	8.00	66.36

ID = 1 (7701):	4.62	1.384	8.00	68.28

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7707)			
Area	(ha)=	1.06	
ID= 1 DT= 5.0 min	Total Imp (%)=	95.00	Dir. Conn. (%)= 95.00

			IMPERVIOUS		PERVIOUS (i)	
Surface Area	(ha)=	1.01	0.05			
Dep. Storage	(mm)=	2.00	5.00			
Average Slope	(%)=	2.50	2.00			
Length	(m)=	60.00	40.00			
Mannings n	=	0.013	0.250			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.31	6.083	1.49	12.083	1.16	18.083	0.46				
0.167	0.31	6.167	1.49	12.167	1.16	18.167	0.46				
0.250	0.31	6.250	1.49	12.250	1.16	18.250	0.46				
0.333	0.32	6.333	1.79	12.333	1.09	18.333	0.45				
0.417	0.32	6.417	1.79	12.417	1.09	18.42	0.45				
0.500	0.32	6.500	1.79	12.500	1.09	18.50	0.45				
0.583	0.33	6.583	2.23	12.583	1.02	18.58	0.44				
0.667	0.33	6.667	2.23	12.667	1.02	18.67	0.44				
0.750	0.33	6.750	2.23	12.750	1.02	18.75	0.44				
0.833	0.34	6.833	2.96	12.833	0.97	18.83	0.43				
0.917	0.34	6.917	2.96	12.917	0.97	18.92	0.43				
1.000	0.34	7.000	2.96	13.000	0.97	19.00	0.43				
1.083	0.35	7.083	4.33	13.083	0.92	19.08	0.42				
1.167	0.35	7.167	4.33	13.167	0.92	19.17	0.42				
1.250	0.35	7.250	4.33	13.250	0.92	19.25	0.42				
1.333	0.37	7.333	7.68	13.333	0.88	19.33	0.41				
1.417	0.37	7.417	7.68	13.417	0.88	19.42	0.41				
1.500	0.37	7.500	7.68	13.500	0.88	19.50	0.41				
1.583	0.38	7.583	23.81	13.583	0.84	19.58	0.40				
1.667	0.38	7.667	23.81	13.667	0.84	19.67	0.40				
1.750	0.38	7.750	23.82	13.750	0.84	19.75	0.40				
1.833	0.40	7.833	111.40	13.833	0.80	19.83	0.39				
1.917	0.40	7.917	111.40	13.917	0.80	19.92	0.39				
2.000	0.40	8.000	111.39	14.000	0.80	20.00	0.39				
2.083	0.41	8.083	32.82	14.083	0.76	20.08	0.39				
2.167	0.41	8.167	32.82	14.167	0.76	20.17	0.39				
2.250	0.41	8.250	32.82	14.250	0.76	20.25	0.39				
2.333	0.43	8.333	14.85	14.333	0.73	20.33	0.38				
2.417	0.43	8.417	14.85	14.417	0.73	20.42	0.38				
2.500	0.43	8.500	14.84	14.500	0.73	20.50	0.38				
2.583	0.45	8.583	9.05	14.583	0.71	20.58	0.37				
2.667	0.45	8.667	9.05	14.667	0.71	20.67	0.37				
2.750	0.45	8.750	9.05	14.750	0.71	20.75	0.37				
2.833	0.48	8.833	6.34	14.833	0.68	20.83	0.36				
2.917	0.48	8.917	6.34	14.917	0.68	20.92	0.36				
3.000	0.48	9.000	6.34	15.000	0.68	21.00	0.36				
3.083	0.50	9.083	4.81	15.083	0.66	21.08	0.36				
3.167	0.50	9.167	4.81	15.167	0.66	21.17	0.36				
3.250	0.50	9.250	4.81	15.250	0.66	21.25	0.36				

3.333	0.53	9.333	3.85	15.333	0.63	21.33	0.35
3.417	0.53	9.417	3.85	15.417	0.63	21.42	0.35
3.500	0.53	9.500	3.85	15.500	0.63	21.50	0.35
3.583	0.56	9.583	3.20	15.583	0.61	21.58	0.34
3.667	0.56	9.667	3.20	15.667	0.61	21.67	0.34
3.750	0.56	9.750	3.20	15.750	0.61	21.75	0.34
3.833	0.60	9.833	2.73	15.833	0.59	21.83	0.34
3.917	0.60	9.917	2.73	15.917	0.59	21.92	0.34
4.000	0.60	10.000	2.73	16.000	0.59	22.00	0.34
4.083	0.64	10.083	2.38	16.083	0.57	22.08	0.33
4.167	0.64	10.167	2.38	16.167	0.57	22.17	0.33
4.250	0.64	10.250	2.38	16.250	0.57	22.25	0.33
4.333	0.69	10.333	2.10	16.333	0.56	22.33	0.33
4.417	0.69	10.417	2.10	16.417	0.56	22.42	0.33
4.500	0.69	10.500	2.10	16.500	0.56	22.50	0.33
4.583	0.75	10.583	1.88	16.583	0.54	22.58	0.32
4.667	0.75	10.667	1.88	16.667	0.54	22.67	0.32
4.750	0.75	10.750	1.88	16.750	0.54	22.75	0.32
4.833	0.82	10.833	1.70	16.833	0.53	22.83	0.32
4.917	0.82	10.917	1.70	16.917	0.53	22.92	0.32
5.000	0.82	11.000	1.70	17.000	0.53	23.00	0.32
5.083	0.90	11.083	1.56	17.083	0.51	23.08	0.31
5.167	0.90	11.167	1.56	17.167	0.51	23.17	0.31
5.250	0.90	11.250	1.56	17.250	0.51	23.25	0.31
5.333	1.00	11.333	1.43	17.333	0.50	23.33	0.31
5.417	1.00	11.417	1.43	17.417	0.50	23.42	0.31
5.500	1.00	11.500	1.43	17.500	0.50	23.50	0.31
5.583	1.12	11.583	1.33	17.583	0.48	23.58	0.30
5.667	1.12	11.667	1.33	17.667	0.48	23.67	0.30
5.750	1.12	11.750	1.33	17.750	0.48	23.75	0.30
5.833	1.28	11.833	1.24	17.833	0.47	23.83	0.30
5.917	1.28	11.917	1.24	17.917	0.47	23.92	0.30
6.000	1.28	12.000	1.24	18.000	0.47	24.00	0.30

Max.Eff.Inten.(mm/hr)= 111.40 46.59
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.37 (ii) 3.45 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.26

TOTALS
 PEAK FLOW (cms)= 0.31 0.01 0.319 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 69.73 28.55 67.67
 TOTAL RAINFALL (mm)= 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.97 0.40 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7702)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7623):	1.20	0.361	8.00	67.67
+ ID2= 2 (7700):	4.48	1.364	8.00	68.77
=====				
ID = 3 (7702):	5.68	1.725	8.00	68.54

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7702):	5.68	1.725	8.00	68.54
+ ID2= 2 (7701):	4.62	1.384	8.00	68.28
=====				
ID = 1 (7702):	10.30	3.109	8.00	68.42

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7702):	10.30	3.109	8.00	68.42
+ ID2= 2 (7707):	1.06	0.319	8.00	67.67
=====				
ID = 3 (7702):	11.36	3.427	8.00	68.35

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7702):	11.36	3.427	8.00	68.35
+ ID2= 2 (7714):	14.31	1.941	8.00	70.31
=====				
ID = 1 (7702):	25.67	5.369	8.00	69.44

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7705)				
OVERFLOW IS OFF				
IN= 2---> OUT= 1				
DT= 5.0 min				
	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.6280	2.3980
	0.0730	0.2080	0.6400	2.4830
	0.0890	0.2770	0.6520	2.5670
	0.1340	0.5530	0.6640	2.6500
	0.2910	0.8290	0.6750	2.7340
	0.3860	1.1060	0.7190	3.0490
	0.4590	1.3820	0.8250	3.3550
	0.5220	1.7210	2.0760	3.4560
	0.5780	2.0600	2.3560	3.7320
=====				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7702)	25.670	5.369	8.00	69.44
OUTFLOW: ID= 1 (7705)	25.670	0.310	10.75	69.41

PEAK FLOW REDUCTION [Qout/Qin](%) = 5.77
 TIME SHIFT OF PEAK FLOW (min)=165.00
 MAXIMUM STORAGE USED (ha.m.)= 0.8843

CALIB				
STANDHYD (7716)				
ID= 1 DT= 5.0 min				
	Area	(ha)=	0.19	
	Total Imp(%)=	95.00	Dir. Conn.(%)=	95.00
=====				
	IMPERVIOUS	PERVIOUS (i)		
Surface Area (ha)=	0.18	0.01		
Dep. Storage (mm)=	2.00	5.00		
Average Slope (%)=	2.50	2.00		
Length (m)=	60.00	40.00		
Mannings n =	0.013	0.250		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.31	6.083	1.49	12.083	1.16	18.08	0.46		
0.167	0.31	6.167	1.49	12.167	1.16	18.17	0.46		
0.250	0.31	6.250	1.49	12.250	1.16	18.25	0.46		
0.333	0.32	6.333	1.79	12.333	1.09	18.33	0.45		
0.417	0.32	6.417	1.79	12.417	1.09	18.42	0.45		
0.500	0.32	6.500	1.79	12.500	1.09	18.50	0.45		



0.583	0.33	6.583	2.23	12.583	1.02	18.58	0.44
0.667	0.33	6.667	2.23	12.667	1.02	18.67	0.44
0.750	0.33	6.750	2.23	12.750	1.02	18.75	0.44
0.833	0.34	6.833	2.96	12.833	0.97	18.83	0.43
0.917	0.34	6.917	2.96	12.917	0.97	18.92	0.43
1.000	0.34	7.000	2.96	13.000	0.97	19.00	0.43
1.083	0.35	7.083	4.33	13.083	0.92	19.08	0.42
1.167	0.35	7.167	4.33	13.167	0.92	19.17	0.42
1.250	0.35	7.250	4.33	13.250	0.92	19.25	0.42
1.333	0.37	7.333	7.68	13.333	0.88	19.33	0.41
1.417	0.37	7.417	7.68	13.417	0.88	19.42	0.41
1.500	0.37	7.500	7.68	13.500	0.88	19.50	0.41
1.583	0.38	7.583	23.81	13.583	0.84	19.58	0.40
1.667	0.38	7.667	23.81	13.667	0.84	19.67	0.40
1.750	0.38	7.750	23.82	13.750	0.84	19.75	0.40
1.833	0.40	7.833	111.40	13.833	0.80	19.83	0.39
1.917	0.40	7.917	111.40	13.917	0.80	19.92	0.39
2.000	0.40	8.000	111.39	14.000	0.80	20.00	0.39
2.083	0.41	8.083	32.82	14.083	0.76	20.08	0.39
2.167	0.41	8.167	32.82	14.167	0.76	20.17	0.39
2.250	0.41	8.250	32.82	14.250	0.76	20.25	0.39
2.333	0.43	8.333	14.85	14.333	0.73	20.33	0.38
2.417	0.43	8.417	14.85	14.417	0.73	20.42	0.38
2.500	0.43	8.500	14.84	14.500	0.73	20.50	0.38
2.583	0.45	8.583	9.05	14.583	0.71	20.58	0.37
2.667	0.45	8.667	9.05	14.667	0.71	20.67	0.37
2.750	0.45	8.750	9.05	14.750	0.71	20.75	0.37
2.833	0.48	8.833	6.34	14.833	0.68	20.83	0.36
2.917	0.48	8.917	6.34	14.917	0.68	20.92	0.36
3.000	0.48	9.000	6.34	15.000	0.68	21.00	0.36
3.083	0.50	9.083	4.81	15.083	0.66	21.08	0.36
3.167	0.50	9.167	4.81	15.167	0.66	21.17	0.36
3.250	0.50	9.250	4.81	15.250	0.66	21.25	0.36
3.333	0.53	9.333	3.85	15.333	0.63	21.33	0.35
3.417	0.53	9.417	3.85	15.417	0.63	21.42	0.35
3.500	0.53	9.500	3.85	15.500	0.63	21.50	0.35
3.583	0.56	9.583	3.20	15.583	0.61	21.58	0.34
3.667	0.56	9.667	3.20	15.667	0.61	21.67	0.34
3.750	0.56	9.750	3.20	15.750	0.61	21.75	0.34
3.833	0.60	9.833	2.73	15.833	0.59	21.83	0.34
3.917	0.60	9.917	2.73	15.917	0.59	21.92	0.34
4.000	0.60	10.000	2.73	16.000	0.59	22.00	0.34
4.083	0.64	10.083	2.38	16.083	0.57	22.08	0.33
4.167	0.64	10.167	2.38	16.167	0.57	22.17	0.33
4.250	0.64	10.250	2.38	16.250	0.57	22.25	0.33
4.333	0.69	10.333	2.10	16.333	0.56	22.33	0.33
4.417	0.69	10.417	2.10	16.417	0.56	22.42	0.33
4.500	0.69	10.500	2.10	16.500	0.56	22.50	0.33
4.583	0.75	10.583	1.88	16.583	0.54	22.58	0.32
4.667	0.75	10.667	1.88	16.667	0.54	22.67	0.32
4.750	0.75	10.750	1.88	16.750	0.54	22.75	0.32
4.833	0.82	10.833	1.70	16.833	0.53	22.83	0.32
4.917	0.82	10.917	1.70	16.917	0.53	22.92	0.32
5.000	0.82	11.000	1.70	17.000	0.53	23.00	0.32
5.083	0.90	11.083	1.56	17.083	0.51	23.08	0.31
5.167	0.90	11.167	1.56	17.167	0.51	23.17	0.31
5.250	0.90	11.250	1.56	17.250	0.51	23.25	0.31
5.333	1.00	11.333	1.43	17.333	0.50	23.33	0.31
5.417	1.00	11.417	1.43	17.417	0.50	23.42	0.31
5.500	1.00	11.500	1.43	17.500	0.50	23.50	0.31
5.583	1.12	11.583	1.33	17.583	0.48	23.58	0.30
5.667	1.12	11.667	1.33	17.667	0.48	23.67	0.30
5.750	1.12	11.750	1.33	17.750	0.48	23.75	0.30
5.833	1.28	11.833	1.24	17.833	0.47	23.83	0.30
5.917	1.28	11.917	1.24	17.917	0.47	23.92	0.30
6.000	1.28	12.000	1.24	18.000	0.47	24.00	0.30

Max.Eff.Inten.(mm/hr)= 111.40 46.59
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.37 (ii) 3.45 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.26

TOTALS
 PEAK FLOW (cms)= 0.06 0.00 0.057 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 69.73 28.55 67.67

TOTAL RAINFALL (mm)= 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.97 0.40 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7720) OVERFLOW IS OFF				
IN= 2--> OUT= 1				
DT= 5.0 min				

	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.0100	0.0090
	0.0030	0.0010	0.0110	0.0100
	0.0050	0.0030	0.0120	0.0110
	0.0060	0.0040	0.0120	0.0130
	0.0080	0.0050	0.0130	0.0140
	0.0090	0.0060	0.0140	0.0150
	0.0090	0.0080	0.0000	0.0000

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7716)	0.190	0.057	8.00	67.67
OUTFLOW: ID= 1 (7720)	0.190	0.009	8.08	67.41

PEAK FLOW REDUCTION [Qout/Qin](%)= 15.76				
TIME SHIFT OF PEAK FLOW (min)= 5.00				
MAXIMUM STORAGE USED (ha.m.)= 0.0067				

CALIB		
STANDHYD (7717)		
ID= 1 DT= 5.0 min		

Area	(ha)=	0.20
Total Imp(%)	=	95.00
Dir. Conn.(%)	=	95.00

Surface Area	(ha)=	0.19
Dep. Storage	(mm)=	2.00
Average Slope	(%)=	2.50
Length	(m)=	36.51
Mannings n	=	0.013
		0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.31	6.083	1.49	12.083	1.16	18.08	0.46
0.167	0.31	6.167	1.49	12.167	1.16	18.17	0.46
0.250	0.31	6.250	1.49	12.250	1.16	18.25	0.46
0.333	0.32	6.333	1.79	12.333	1.09	18.33	0.45
0.417	0.32	6.417	1.79	12.417	1.09	18.42	0.45
0.500	0.32	6.500	1.79	12.500	1.09	18.50	0.45
0.583	0.33	6.583	2.23	12.583	1.02	18.58	0.44
0.667	0.33	6.667	2.23	12.667	1.02	18.67	0.44
0.750	0.33	6.750	2.23	12.750	1.02	18.75	0.44
0.833	0.34	6.833	2.96	12.833	0.97	18.83	0.43
0.917	0.34	6.917	2.96	12.917	0.97	18.92	0.43
1.000	0.34	7.000	2.96	13.000	0.97	19.00	0.43
1.083	0.35	7.083	4.33	13.083	0.92	19.08	0.42
1.167	0.35	7.167	4.33	13.167	0.92	19.17	0.42
1.250	0.35	7.250	4.33	13.250	0.92	19.25	0.42
1.333	0.37	7.333	7.68	13.333	0.88	19.33	0.41
1.417	0.37	7.417	7.68	13.417	0.88	19.42	0.41
1.500	0.37	7.500	7.68	13.500	0.88	19.50	0.41
1.583	0.38	7.583	23.81	13.583	0.84	19.58	0.40
1.667	0.38	7.667	23.81	13.667	0.84	19.67	0.40
1.750	0.38	7.750	23.82	13.750	0.84	19.75	0.40
1.833	0.40	7.833	111.40	13.833	0.80	19.83	0.39
1.917	0.40	7.917	111.40	13.917	0.80	19.92	0.39

2.000	0.40	8.000	111.39	14.000	0.80	20.00	0.39
2.083	0.41	8.083	32.82	14.083	0.76	20.08	0.39
2.167	0.41	8.167	32.82	14.167	0.76	20.17	0.39
2.250	0.41	8.250	32.82	14.250	0.76	20.25	0.39
2.333	0.43	8.333	14.85	14.333	0.73	20.33	0.38
2.417	0.43	8.417	14.85	14.417	0.73	20.42	0.38
2.500	0.43	8.500	14.84	14.500	0.73	20.50	0.38
2.583	0.45	8.583	9.05	14.583	0.71	20.58	0.37
2.667	0.45	8.667	9.05	14.667	0.71	20.67	0.37
2.750	0.45	8.750	9.05	14.750	0.71	20.75	0.37
2.833	0.48	8.833	6.34	14.833	0.68	20.83	0.36
2.917	0.48	8.917	6.34	14.917	0.68	20.92	0.36
3.000	0.48	9.000	6.34	15.000	0.68	21.00	0.36
3.083	0.50	9.083	4.81	15.083	0.66	21.08	0.36
3.167	0.50	9.167	4.81	15.167	0.66	21.17	0.36
3.250	0.50	9.250	4.81	15.250	0.66	21.25	0.36
3.333	0.53	9.333	3.85	15.333	0.63	21.33	0.35
3.417	0.53	9.417	3.85	15.417	0.63	21.42	0.35
3.500	0.53	9.500	3.85	15.500	0.63	21.50	0.35
3.583	0.56	9.583	3.20	15.583	0.61	21.58	0.34
3.667	0.56	9.667	3.20	15.667	0.61	21.67	0.34
3.750	0.56	9.750	3.20	15.750	0.61	21.75	0.34
3.833	0.60	9.833	2.73	15.833	0.59	21.83	0.34
3.917	0.60	9.917	2.73	15.917	0.59	21.92	0.34
4.000	0.60	10.000	2.73	16.000	0.59	22.00	0.34
4.083	0.64	10.083	2.38	16.083	0.57	22.08	0.33
4.167	0.64	10.167	2.38	16.167	0.57	22.17	0.33
4.250	0.64	10.250	2.38	16.250	0.57	22.25	0.33
4.333	0.69	10.333	2.10	16.333	0.56	22.33	0.33
4.417	0.69	10.417	2.10	16.417	0.56	22.42	0.33
4.500	0.69	10.500	2.10	16.500	0.56	22.50	0.33
4.583	0.75	10.583	1.88	16.583	0.54	22.58	0.32
4.667	0.75	10.667	1.88	16.667	0.54	22.67	0.32
4.750	0.75	10.750	1.88	16.750	0.54	22.75	0.32
4.833	0.82	10.833	1.70	16.833	0.53	22.83	0.32
4.917	0.82	10.917	1.70	16.917	0.53	22.92	0.32
5.000	0.82	11.000	1.70	17.000	0.53	23.00	0.32
5.083	0.90	11.083	1.56	17.083	0.51	23.08	0.31
5.167	0.90	11.167	1.56	17.167	0.51	23.17	0.31
5.250	0.90	11.250	1.56	17.250	0.51	23.25	0.31
5.333	1.00	11.333	1.43	17.333	0.50	23.33	0.31
5.417	1.00	11.417	1.43	17.417	0.50	23.42	0.31
5.500	1.00	11.500	1.43	17.500	0.50	23.50	0.31
5.583	1.12	11.583	1.33	17.583	0.48	23.58	0.30
5.667	1.12	11.667	1.33	17.667	0.48	23.67	0.30
5.750	1.12	11.750	1.33	17.750	0.48	23.75	0.30
5.833	1.28	11.833	1.24	17.833	0.47	23.83	0.30
5.917	1.28	11.917	1.24	17.917	0.47	23.92	0.30
6.000	1.28	12.000	1.24	18.000	0.47	24.00	0.30

Max.Eff.Inten.(mm/hr)= 111.40 46.59
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.02 (ii) 3.10 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.27

TOTALS
 PEAK FLOW (cms)= 0.06 0.00 0.060 (iii)
 TIME TO PEAK (hrs)= 7.92 8.00
 RUNOFF VOLUME (mm)= 69.73 28.55 67.67
 TOTAL RAINFALL (mm)= 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.97 0.40 0.94

- ***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
 (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7719)				OVERFLOW IS OFF			
IN= 2--> OUT= 1							
DT= 5.0 min							
OUTFLOW (cms)		STORAGE (ha.m.)		OUTFLOW (cms)		STORAGE (ha.m.)	

0.0000	0.0000	0.0100	0.0090
0.0030	0.0010	0.0110	0.0100
0.0050	0.0030	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW : ID= 2 (7717) 0.200 0.060 8.00 67.67
 OUTFLOW : ID= 1 (7719) 0.200 0.009 8.08 67.41

PEAK FLOW REDUCTION [Qout/Qin](%)= 14.96
 TIME SHIFT OF PEAK FLOW (min)= 5.00
 MAXIMUM STORAGE USED (ha.m.)= 0.0071

ADD HYD (7706)				
1 + 2 = 3				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7705):	25.67	0.310	10.75	69.41
+ ID2= 2 (7719):	0.20	0.009	8.08	67.41
ID = 3 (7706):	25.87	0.315	10.33	69.40

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7706)				
3 + 2 = 1				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (7706):	25.87	0.315	10.33	69.40
+ ID2= 2 (7720):	0.19	0.009	8.08	67.41
ID = 1 (7706):	26.06	0.321	9.58	69.38

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
 STANDHYD (7595) Area (ha)= 1.24
 ID= 1 DT= 5.0 min Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.23	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	91.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.31	6.083	1.49	12.083	1.16	18.083	1.16	18.083	0.46		
0.167	0.31	6.167	1.49	12.167	1.16	18.167	1.16	18.167	0.46		
0.250	0.31	6.250	1.49	12.250	1.16	18.250	1.16	18.250	0.46		
0.333	0.32	6.333	1.79	12.333	1.09	18.333	1.09	18.333	0.45		
0.417	0.32	6.417	1.79	12.417	1.09	18.417	1.09	18.417	0.45		
0.500	0.32	6.500	1.79	12.500	1.09	18.500	1.09	18.500	0.45		
0.583	0.33	6.583	2.23	12.583	1.02	18.583	1.02	18.583	0.44		
0.667	0.33	6.667	2.23	12.667	1.02	18.667	1.02	18.667	0.44		
0.750	0.33	6.750	2.23	12.750	1.02	18.750	1.02	18.750	0.44		
0.833	0.34	6.833	2.96	12.833	0.97	18.833	0.97	18.833	0.43		
0.917	0.34	6.917	2.96	12.917	0.97	18.917	0.97	18.917	0.43		
1.000	0.34	7.000	2.96	13.000	0.97	19.000	0.97	19.000	0.43		
1.083	0.35	7.083	4.33	13.083	0.92	19.083	0.92	19.083	0.42		
1.167	0.35	7.167	4.33	13.167	0.92	19.167	0.92	19.167	0.42		
1.250	0.35	7.250	4.33	13.250	0.92	19.250	0.92	19.250	0.42		
1.333	0.37	7.333	7.68	13.333	0.88	19.333	0.88	19.333	0.41		



1.417	0.37	7.417	7.68	13.417	0.88	19.42	0.41
1.500	0.37	7.500	7.68	13.500	0.88	19.50	0.41
1.583	0.38	7.583	23.81	13.583	0.84	19.58	0.40
1.667	0.38	7.667	23.81	13.667	0.84	19.67	0.40
1.750	0.38	7.750	23.82	13.750	0.84	19.75	0.40
1.833	0.40	7.833	111.40	13.833	0.80	19.83	0.39
1.917	0.40	7.917	111.40	13.917	0.80	19.92	0.39
2.000	0.40	8.000	111.39	14.000	0.80	20.00	0.39
2.083	0.41	8.083	32.82	14.083	0.76	20.08	0.39
2.167	0.41	8.167	32.82	14.167	0.76	20.17	0.39
2.250	0.41	8.250	32.82	14.250	0.76	20.25	0.39
2.333	0.43	8.333	14.85	14.333	0.73	20.33	0.38
2.417	0.43	8.417	14.85	14.417	0.73	20.42	0.38
2.500	0.43	8.500	14.84	14.500	0.73	20.50	0.38
2.583	0.45	8.583	9.05	14.583	0.71	20.58	0.37
2.667	0.45	8.667	9.05	14.667	0.71	20.67	0.37
2.750	0.45	8.750	9.05	14.750	0.71	20.75	0.37
2.833	0.48	8.833	6.34	14.833	0.68	20.83	0.36
2.917	0.48	8.917	6.34	14.917	0.68	20.92	0.36
3.000	0.48	9.000	6.34	15.000	0.68	21.00	0.36
3.083	0.50	9.083	4.81	15.083	0.66	21.08	0.36
3.167	0.50	9.167	4.81	15.167	0.66	21.17	0.36
3.250	0.50	9.250	4.81	15.250	0.66	21.25	0.36
3.333	0.53	9.333	3.85	15.333	0.63	21.33	0.35
3.417	0.53	9.417	3.85	15.417	0.63	21.42	0.35
3.500	0.53	9.500	3.85	15.500	0.63	21.50	0.35
3.583	0.56	9.583	3.20	15.583	0.61	21.58	0.34
3.667	0.56	9.667	3.20	15.667	0.61	21.67	0.34
3.750	0.56	9.750	3.20	15.750	0.61	21.75	0.34
3.833	0.60	9.833	2.73	15.833	0.59	21.83	0.34
3.917	0.60	9.917	2.73	15.917	0.59	21.92	0.34
4.000	0.60	10.000	2.73	16.000	0.59	22.00	0.34
4.083	0.64	10.083	2.38	16.083	0.57	22.08	0.33
4.167	0.64	10.167	2.38	16.167	0.57	22.17	0.33
4.250	0.64	10.250	2.38	16.250	0.57	22.25	0.33
4.333	0.69	10.333	2.10	16.333	0.56	22.33	0.33
4.417	0.69	10.417	2.10	16.417	0.56	22.42	0.33
4.500	0.69	10.500	2.10	16.500	0.56	22.50	0.33
4.583	0.75	10.583	1.88	16.583	0.54	22.58	0.32
4.667	0.75	10.667	1.88	16.667	0.54	22.67	0.32
4.750	0.75	10.750	1.88	16.750	0.54	22.75	0.32
4.833	0.82	10.833	1.70	16.833	0.53	22.83	0.32
4.917	0.82	10.917	1.70	16.917	0.53	22.92	0.32
5.000	0.82	11.000	1.70	17.000	0.53	23.00	0.32
5.083	0.90	11.083	1.56	17.083	0.51	23.08	0.31
5.167	0.90	11.167	1.56	17.167	0.51	23.17	0.31
5.250	0.90	11.250	1.56	17.250	0.51	23.25	0.31
5.333	1.00	11.333	1.43	17.333	0.50	23.33	0.31
5.417	1.00	11.417	1.43	17.417	0.50	23.42	0.31
5.500	1.00	11.500	1.43	17.500	0.50	23.50	0.31
5.583	1.12	11.583	1.33	17.583	0.48	23.58	0.30
5.667	1.12	11.667	1.33	17.667	0.48	23.67	0.30
5.750	1.12	11.750	1.33	17.750	0.48	23.75	0.30
5.833	1.28	11.833	1.24	17.833	0.47	23.83	0.30
5.917	1.28	11.917	1.24	17.917	0.47	23.92	0.30
6.000	1.28	12.000	1.24	18.000	0.47	24.00	0.30

Max.Eff.Inten.(mm/hr)= 111.40 45.04
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 1.88 (ii) 2.95 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.28

TOTALS
 PEAK FLOW (cms)= 0.38 0.00 0.382 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00
 RUNOFF VOLUME (mm)= 69.73 27.71 69.31
 TOTAL RAINFALL (mm)= 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.97 0.39 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7718) |
| 1 + 2 = 3 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7595): 1.24 0.382 8.00 69.31
+ ID2= 2 ( 7706): 26.06 0.321 9.58 69.38
-----
ID = 3 ( 7718): 27.30 0.538 8.00 69.38
-----
NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-----
| RESERVOIR ( 7711) | OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT= 5.0 min |
-----
OUTFLOW STORAGE | OUTFLOW STORAGE
(cms) (ha.m.) | (cms) (ha.m.)
0.0000 0.0000 | 1.0810 1.6220
0.0010 0.1670 | 1.3950 1.8170
0.0340 0.3380 | 2.0990 2.2130
0.0510 0.5110 | 2.8950 2.6150
0.0630 0.6880 | 3.7730 3.0250
0.1610 0.8670 | 4.7260 3.4420
0.3300 1.0500 | 5.5670 3.8670
0.5440 1.2370 | 8.5800 4.3000
0.7970 1.4290 | 10.9450 4.5210
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 2 ( 7718) 27.302 0.538 8.00 69.38
OUTFLOW: ID= 1 ( 7711) 27.302 0.175 18.92 63.93
-----
PEAK FLOW REDUCTION [Qout/Qin](%)= 32.54
TIME SHIFT OF PEAK FLOW (min)=655.00
MAXIMUM STORAGE USED (ha.m.)= 0.8822
-----

```



```

=====
5.25 1.01 | 11.25 1.51 | 17.25 0.47 | 23.25 0.28
5.50 1.15 | 11.50 1.39 | 17.50 0.46 | 23.50 0.27
5.75 1.33 | 11.75 1.28 | 17.75 0.44 | 23.75 0.27
=====
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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| CALIB |
| STANDBYD ( 7640) | Area (ha)= 0.59
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.58 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 62.72 40.00
Mannings n = 0.013 0.250

```

***** D E T A I L E D O U T P U T *****

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\753c69c6-a1e8-4c41-9c13-d2183ddba045\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\753c69c6-a1e8-4c41-9c13-d2183ddba045\scen

```

DATE: 11-22-2024 TIME: 12:17:33

USER:

COMMENTS:

```

*****
** SIMULATION : D - 25yr 24hr 15min Chicago **
*****

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-----
| CHICAGO STORM | IDF curve parameters: A=3158.000
| Ptotal= 84.54 mm | B= 15.000
| | C= 0.933
-----
used in: INTENSITY = A / (t + B)^C

Duration of storm = 24.00 hrs
Storm time step = 15.00 min
Time to peak ratio = 0.33

```

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.28	6.083	1.58	12.083	1.19	18.08	0.43
0.167	0.28	6.167	1.58	12.167	1.19	18.17	0.43
0.250	0.28	6.250	1.58	12.250	1.19	18.25	0.43
0.333	0.29	6.333	1.94	12.333	1.11	18.33	0.42
0.417	0.29	6.417	1.94	12.417	1.11	18.42	0.42
0.500	0.29	6.500	1.94	12.500	1.11	18.50	0.42
0.583	0.30	6.583	2.48	12.583	1.04	18.58	0.41
0.667	0.30	6.667	2.48	12.667	1.04	18.67	0.41
0.750	0.30	6.750	2.48	12.750	1.04	18.75	0.41
0.833	0.31	6.833	3.40	12.833	0.98	18.83	0.40
0.917	0.31	6.917	3.40	12.917	0.98	18.92	0.40
1.000	0.31	7.000	3.40	13.000	0.98	19.00	0.40
1.083	0.32	7.083	5.16	13.083	0.92	19.08	0.39
1.167	0.32	7.167	5.16	13.167	0.92	19.17	0.39
1.250	0.32	7.250	5.16	13.250	0.92	19.25	0.39
1.333	0.34	7.333	9.60	13.333	0.87	19.33	0.38
1.417	0.34	7.417	9.60	13.417	0.87	19.42	0.38
1.500	0.34	7.500	9.60	13.500	0.87	19.50	0.38
1.583	0.35	7.583	30.80	13.583	0.83	19.58	0.37
1.667	0.35	7.667	30.80	13.667	0.83	19.67	0.37
1.750	0.35	7.750	30.81	13.750	0.83	19.75	0.37
1.833	0.37	7.833	131.98	13.833	0.79	19.83	0.36
1.917	0.37	7.917	131.98	13.917	0.79	19.92	0.36
2.000	0.37	8.000	131.98	14.000	0.79	20.00	0.36
2.083	0.38	8.083	42.48	14.083	0.75	20.08	0.36
2.167	0.38	8.167	42.48	14.167	0.75	20.17	0.36
2.250	0.38	8.250	42.48	14.250	0.75	20.25	0.36
2.333	0.40	8.333	19.17	14.333	0.72	20.33	0.35
2.417	0.40	8.417	19.17	14.417	0.72	20.42	0.35
2.500	0.40	8.500	19.17	14.500	0.72	20.50	0.35
2.583	0.42	8.583	11.42	14.583	0.69	20.58	0.34
2.667	0.42	8.667	11.42	14.667	0.69	20.67	0.34
2.750	0.42	8.750	11.42	14.750	0.69	20.75	0.34
2.833	0.45	8.833	7.81	14.833	0.66	20.83	0.33
2.917	0.45	8.917	7.81	14.917	0.66	20.92	0.33
3.000	0.45	9.000	7.81	15.000	0.66	21.00	0.33
3.083	0.47	9.083	5.80	15.083	0.63	21.08	0.33
3.167	0.47	9.167	5.80	15.167	0.63	21.17	0.33
3.250	0.47	9.250	5.80	15.250	0.63	21.25	0.33
3.333	0.50	9.333	4.54	15.333	0.61	21.33	0.32
3.417	0.50	9.417	4.54	15.417	0.61	21.42	0.32
3.500	0.50	9.500	4.54	15.500	0.61	21.50	0.32
3.583	0.54	9.583	3.70	15.583	0.59	21.58	0.31
3.667	0.54	9.667	3.70	15.667	0.59	21.67	0.31
3.750	0.54	9.750	3.70	15.750	0.59	21.75	0.31
3.833	0.58	9.833	3.10	15.833	0.57	21.83	0.31
3.917	0.58	9.917	3.10	15.917	0.57	21.92	0.31
4.000	0.58	10.000	3.10	16.000	0.57	22.00	0.31
4.083	0.62	10.083	2.66	16.083	0.55	22.08	0.30
4.167	0.62	10.167	2.66	16.167	0.55	22.17	0.30
4.250	0.62	10.250	2.66	16.250	0.55	22.25	0.30
4.333	0.67	10.333	2.32	16.333	0.53	22.33	0.30

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.28	6.00	1.58	12.00	1.19	18.00	0.43
0.25	0.29	6.25	1.94	12.25	1.11	18.25	0.42
0.50	0.30	6.50	2.48	12.50	1.04	18.50	0.41
0.75	0.31	6.75	3.40	12.75	0.98	18.75	0.40
1.00	0.32	7.00	5.16	13.00	0.92	19.00	0.39
1.25	0.34	7.25	9.60	13.25	0.87	19.25	0.38
1.50	0.35	7.50	30.80	13.50	0.83	19.50	0.37
1.75	0.37	7.75	131.98	13.75	0.79	19.75	0.36
2.00	0.38	8.00	42.48	14.00	0.75	20.00	0.36
2.25	0.40	8.25	19.17	14.25	0.72	20.25	0.35
2.50	0.42	8.50	11.42	14.50	0.69	20.50	0.34
2.75	0.45	8.75	7.81	14.75	0.66	20.75	0.33
3.00	0.47	9.00	5.80	15.00	0.63	21.00	0.33
3.25	0.50	9.25	4.54	15.25	0.61	21.25	0.32
3.50	0.54	9.50	3.70	15.50	0.59	21.50	0.31
3.75	0.58	9.75	3.10	15.75	0.57	21.75	0.31
4.00	0.62	10.00	2.66	16.00	0.55	22.00	0.30
4.25	0.67	10.25	2.32	16.25	0.53	22.25	0.30
4.50	0.73	10.50	2.05	16.50	0.51	22.50	0.29
4.75	0.81	10.75	1.84	16.75	0.50	22.75	0.29
5.00	0.90	11.00	1.66	17.00	0.48	23.00	0.28



4.417	0.67	10.417	2.32	16.417	0.53	22.42	0.30
4.500	0.67	10.500	2.32	16.500	0.53	22.50	0.30
4.583	0.73	10.583	2.05	16.583	0.51	22.58	0.29
4.667	0.73	10.667	2.05	16.667	0.51	22.67	0.29
4.750	0.73	10.750	2.05	16.750	0.51	22.75	0.29
4.833	0.81	10.833	1.84	16.833	0.50	22.83	0.29
4.917	0.81	10.917	1.84	16.917	0.50	22.92	0.29
5.000	0.81	11.000	1.84	17.000	0.50	23.00	0.29
5.083	0.90	11.083	1.66	17.083	0.48	23.08	0.28
5.167	0.90	11.167	1.66	17.167	0.48	23.17	0.28
5.250	0.90	11.250	1.66	17.250	0.48	23.25	0.28
5.333	1.01	11.333	1.51	17.333	0.47	23.33	0.28
5.417	1.01	11.417	1.51	17.417	0.47	23.42	0.28
5.500	1.01	11.500	1.51	17.500	0.47	23.50	0.28
5.583	1.15	11.583	1.39	17.583	0.46	23.58	0.27
5.667	1.15	11.667	1.39	17.667	0.46	23.67	0.27
5.750	1.15	11.750	1.39	17.750	0.46	23.75	0.27
5.833	1.33	11.833	1.28	17.833	0.44	23.83	0.27
5.917	1.33	11.917	1.28	17.917	0.44	23.92	0.27
6.000	1.33	12.000	1.28	18.000	0.44	24.00	0.27

1.917	0.37	7.917	131.98	13.917	0.79	19.92	0.36
2.000	0.37	8.000	131.98	14.000	0.79	20.00	0.36
2.083	0.38	8.083	42.48	14.083	0.75	20.08	0.36
2.167	0.38	8.167	42.48	14.167	0.75	20.17	0.36
2.250	0.38	8.250	42.48	14.250	0.75	20.25	0.36
2.333	0.40	8.333	19.17	14.333	0.72	20.33	0.35
2.417	0.40	8.417	19.17	14.417	0.72	20.42	0.35
2.500	0.40	8.500	19.17	14.500	0.72	20.50	0.35
2.583	0.42	8.583	11.42	14.583	0.69	20.58	0.34
2.667	0.42	8.667	11.42	14.667	0.69	20.67	0.34
2.750	0.42	8.750	11.42	14.750	0.69	20.75	0.34
2.833	0.45	8.833	7.81	14.833	0.66	20.83	0.33
2.917	0.45	8.917	7.81	14.917	0.66	20.92	0.33
3.000	0.45	9.000	7.81	15.000	0.66	21.00	0.33
3.083	0.47	9.083	5.80	15.083	0.63	21.08	0.33
3.167	0.47	9.167	5.80	15.167	0.63	21.17	0.33
3.250	0.47	9.250	5.80	15.250	0.63	21.25	0.33
3.333	0.50	9.333	4.54	15.333	0.61	21.33	0.32
3.417	0.50	9.417	4.54	15.417	0.61	21.42	0.32
3.500	0.50	9.500	4.54	15.500	0.61	21.50	0.32
3.583	0.54	9.583	3.70	15.583	0.59	21.58	0.31
3.667	0.54	9.667	3.70	15.667	0.59	21.67	0.31
3.750	0.54	9.750	3.70	15.750	0.59	21.75	0.31
3.833	0.58	9.833	3.10	15.833	0.57	21.83	0.31
3.917	0.58	9.917	3.10	15.917	0.57	21.92	0.31
4.000	0.58	10.000	3.10	16.000	0.57	22.00	0.31
4.083	0.62	10.083	2.66	16.083	0.55	22.08	0.30
4.167	0.62	10.167	2.66	16.167	0.55	22.17	0.30
4.250	0.62	10.250	2.66	16.250	0.55	22.25	0.30
4.333	0.67	10.333	2.32	16.333	0.53	22.33	0.30
4.417	0.67	10.417	2.32	16.417	0.53	22.42	0.30
4.500	0.67	10.500	2.32	16.500	0.53	22.50	0.30
4.583	0.73	10.583	2.05	16.583	0.51	22.58	0.29
4.667	0.73	10.667	2.05	16.667	0.51	22.67	0.29
4.750	0.73	10.750	2.05	16.750	0.51	22.75	0.29
4.833	0.81	10.833	1.84	16.833	0.50	22.83	0.29
4.917	0.81	10.917	1.84	16.917	0.50	22.92	0.29
5.000	0.81	11.000	1.84	17.000	0.50	23.00	0.29
5.083	0.90	11.083	1.66	17.083	0.48	23.08	0.28
5.167	0.90	11.167	1.66	17.167	0.48	23.17	0.28
5.250	0.90	11.250	1.66	17.250	0.48	23.25	0.28
5.333	1.01	11.333	1.51	17.333	0.47	23.33	0.28
5.417	1.01	11.417	1.51	17.417	0.47	23.42	0.28
5.500	1.01	11.500	1.51	17.500	0.47	23.50	0.28
5.583	1.15	11.583	1.39	17.583	0.46	23.58	0.27
5.667	1.15	11.667	1.39	17.667	0.46	23.67	0.27
5.750	1.15	11.750	1.39	17.750	0.46	23.75	0.27
5.833	1.33	11.833	1.28	17.833	0.44	23.83	0.27
5.917	1.33	11.917	1.28	17.917	0.44	23.92	0.27
6.000	1.33	12.000	1.28	18.000	0.44	24.00	0.27

Max.Eff.Inten.(mm/hr)= 131.98 60.43
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.40 (ii) 2.41 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.30

****TOTALS****
 PEAK FLOW (cms)= 0.21 0.00 0.215 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00
 RUNOFF VOLUME (mm)= 82.54 36.47 82.08
 TOTAL RAINFALL (mm)= 84.54 84.54 84.54
 RUNOFF COEFFICIENT = 0.98 0.43 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALLIB |
 | NASHYD (7721) | Area (ha)= 0.21 Curve Number (CN)= 73.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00

 U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.28	6.083	1.58	12.083	1.19	18.08	0.43
0.167	0.28	6.167	1.58	12.167	1.19	18.17	0.43
0.250	0.28	6.250	1.58	12.250	1.19	18.25	0.43
0.333	0.29	6.333	1.94	12.333	1.11	18.33	0.42
0.417	0.29	6.417	1.94	12.417	1.11	18.42	0.42
0.500	0.29	6.500	1.94	12.500	1.11	18.50	0.42
0.583	0.30	6.583	2.48	12.583	1.04	18.58	0.41
0.667	0.30	6.667	2.48	12.667	1.04	18.67	0.41
0.750	0.30	6.750	2.48	12.750	1.04	18.75	0.41
0.833	0.31	6.833	3.40	12.833	0.98	18.83	0.40
0.917	0.31	6.917	3.40	12.917	0.98	18.92	0.40
1.000	0.31	7.000	3.40	13.000	0.98	19.00	0.40
1.083	0.32	7.083	5.16	13.083	0.92	19.08	0.39
1.167	0.32	7.167	5.16	13.167	0.92	19.17	0.39
1.250	0.32	7.250	5.16	13.250	0.92	19.25	0.39
1.333	0.34	7.333	9.60	13.333	0.87	19.33	0.38
1.417	0.34	7.417	9.60	13.417	0.87	19.42	0.38
1.500	0.34	7.500	9.60	13.500	0.87	19.50	0.38
1.583	0.35	7.583	30.80	13.583	0.83	19.58	0.37
1.667	0.35	7.667	30.80	13.667	0.83	19.67	0.37
1.750	0.35	7.750	30.81	13.750	0.83	19.75	0.37
1.833	0.37	7.833	131.98	13.833	0.79	19.83	0.36

Unit Hyd Qpeak (cms)= 0.047

PEAK FLOW (cms)= 0.023 (i)
 TIME TO PEAK (hrs)= 8.083
 RUNOFF VOLUME (mm)= 36.340
 TOTAL RAINFALL (mm)= 84.545
 RUNOFF COEFFICIENT = 0.430

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALLIB |
 | STANDHYD (7599) | Area (ha)= 10.90
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	10.79	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	269.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.28	6.083	1.58	12.083	1.19	18.08	0.43
0.167	0.28	6.167	1.58	12.167	1.19	18.17	0.43
0.250	0.28	6.250	1.58	12.250	1.19	18.25	0.43
0.333	0.29	6.333	1.94	12.333	1.11	18.33	0.42
0.417	0.29	6.417	1.94	12.417	1.11	18.42	0.42
0.500	0.29	6.500	1.94	12.500	1.11	18.50	0.42
0.583	0.30	6.583	2.48	12.583	1.04	18.58	0.41
0.667	0.30	6.667	2.48	12.667	1.04	18.67	0.41
0.750	0.30	6.750	2.48	12.750	1.04	18.75	0.41
0.833	0.31	6.833	3.40	12.833	0.98	18.83	0.40
0.917	0.31	6.917	3.40	12.917	0.98	18.92	0.40
1.000	0.31	7.000	3.40	13.000	0.98	19.00	0.40
1.083	0.32	7.083	5.16	13.083	0.92	19.08	0.39
1.167	0.32	7.167	5.16	13.167	0.92	19.17	0.39
1.250	0.32	7.250	5.16	13.250	0.92	19.25	0.39
1.333	0.34	7.333	9.60	13.333	0.87	19.33	0.38
1.417	0.34	7.417	9.60	13.417	0.87	19.42	0.38
1.500	0.34	7.500	9.60	13.500	0.87	19.50	0.38
1.583	0.35	7.583	30.80	13.583	0.83	19.58	0.37
1.667	0.35	7.667	30.80	13.667	0.83	19.67	0.37
1.750	0.35	7.750	30.81	13.750	0.83	19.75	0.37
1.833	0.37	7.833	131.98	13.833	0.79	19.83	0.36
1.917	0.37	7.917	131.98	13.917	0.79	19.92	0.36
2.000	0.37	8.000	131.98	14.000	0.79	20.00	0.36
2.083	0.38	8.083	42.48	14.083	0.75	20.08	0.36
2.167	0.38	8.167	42.48	14.167	0.75	20.17	0.36
2.250	0.38	8.250	42.48	14.250	0.75	20.25	0.36
2.333	0.40	8.333	19.17	14.333	0.72	20.33	0.35
2.417	0.40	8.417	19.17	14.417	0.72	20.42	0.35
2.500	0.40	8.500	19.17	14.500	0.72	20.50	0.35
2.583	0.42	8.583	11.42	14.583	0.69	20.58	0.34
2.667	0.42	8.667	11.42	14.667	0.69	20.67	0.34
2.750	0.42	8.750	11.42	14.750	0.69	20.75	0.34
2.833	0.45	8.833	7.81	14.833	0.66	20.83	0.33
2.917	0.45	8.917	7.81	14.917	0.66	20.92	0.33
3.000	0.45	9.000	7.81	15.000	0.66	21.00	0.33
3.083	0.47	9.083	5.80	15.083	0.63	21.08	0.33
3.167	0.47	9.167	5.80	15.167	0.63	21.17	0.33
3.250	0.47	9.250	5.80	15.250	0.63	21.25	0.33
3.333	0.50	9.333	4.54	15.333	0.61	21.33	0.32
3.417	0.50	9.417	4.54	15.417	0.61	21.42	0.32
3.500	0.50	9.500	4.54	15.500	0.61	21.50	0.32
3.583	0.54	9.583	3.70	15.583	0.59	21.58	0.31
3.667	0.54	9.667	3.70	15.667	0.59	21.67	0.31
3.750	0.54	9.750	3.70	15.750	0.59	21.75	0.31
3.833	0.58	9.833	3.10	15.833	0.57	21.83	0.31
3.917	0.58	9.917	3.10	15.917	0.57	21.92	0.31
4.000	0.58	10.000	3.10	16.000	0.57	22.00	0.31
4.083	0.62	10.083	2.66	16.083	0.55	22.08	0.30
4.167	0.62	10.167	2.66	16.167	0.55	22.17	0.30
4.250	0.62	10.250	2.66	16.250	0.55	22.25	0.30
4.333	0.67	10.333	2.32	16.333	0.53	22.33	0.30
4.417	0.67	10.417	2.32	16.417	0.53	22.42	0.30
4.500	0.67	10.500	2.32	16.500	0.53	22.50	0.30
4.583	0.73	10.583	2.05	16.583	0.51	22.58	0.29
4.667	0.73	10.667	2.05	16.667	0.51	22.67	0.29
4.750	0.73	10.750	2.05	16.750	0.51	22.75	0.29
4.833	0.81	10.833	1.84	16.833	0.50	22.83	0.29
4.917	0.81	10.917	1.84	16.917	0.50	22.92	0.29
5.000	0.81	11.000	1.84	17.000	0.50	23.00	0.29
5.083	0.90	11.083	1.66	17.083	0.48	23.08	0.28
5.167	0.90	11.167	1.66	17.167	0.48	23.17	0.28
5.250	0.90	11.250	1.66	17.250	0.48	23.25	0.28
5.333	1.01	11.333	1.51	17.333	0.47	23.33	0.28
5.417	1.01	11.417	1.51	17.417	0.47	23.42	0.28
5.500	1.01	11.500	1.51	17.500	0.47	23.50	0.28
5.583	1.15	11.583	1.39	17.583	0.46	23.58	0.27
5.667	1.15	11.667	1.39	17.667	0.46	23.67	0.27
5.750	1.15	11.750	1.39	17.750	0.46	23.75	0.27
5.833	1.33	11.833	1.28	17.833	0.44	23.83	0.27
5.917	1.33	11.917	1.28	17.917	0.44	23.92	0.27
6.000	1.33	12.000	1.28	18.000	0.44	24.00	0.27

Max.Eff.Inten.(mm/hr)=	131.98	60.43	
over (min)	5.00	10.00	
Storage Coeff. (min)=	4.15 (ii)	5.15 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.24	0.16	
PEAK FLOW (cms)=	3.87	0.02	**TOTALS*
TIME TO PEAK (hrs)=	8.00	8.08	3.889 (iii)
RUNOFF VOLUME (mm)=	82.54	36.47	8.00
TOTAL RAINFALL (mm)=	84.54	84.54	82.08
RUNOFF COEFFICIENT =	0.98	0.43	84.54
			0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7722)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7599):	10.90	3.889	8.00	82.08
+ ID2= 2 (7721):	0.21	0.023	8.08	36.34
=====				
ID = 3 (7722):	11.11	3.910	8.00	81.23

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7685)				
IN= 2---> OUT= 1				
DT= 5.0 min				
	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.1390	0.6960
	0.0590	0.3400	0.1630	0.7780
	0.0900	0.4907	0.1840	0.8800
	0.1110	0.5760	0.0000	0.0000

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7722)	11.108	3.910	8.00	81.23
OUTFLOW: ID= 1 (7685)	11.108	0.138	9.50	81.10

PEAK FLOW REDUCTION [Qout/Qin] (%) = 3.54
TIME SHIFT OF PEAK FLOW (min) = 90.00
MAXIMUM STORAGE USED (ha.m.) = 0.6932

CALIB				
STANDHYD (7591)				
ID= 1 DT= 5.0 min	Area (ha)=	11.38		
	Total Imp (%) =	99.00	Dir. Conn. (%) =	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	11.27	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%) =	1.00	2.00
Length (m) =	275.44	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.28	6.083	1.58	12.083	1.19	18.08	0.43
0.167	0.28	6.167	1.58	12.167	1.19	18.17	0.43
0.250	0.28	6.250	1.58	12.250	1.19	18.25	0.43
0.333	0.29	6.333	1.94	12.333	1.11	18.33	0.42

0.417	0.29	6.417	1.94	12.417	1.11	18.42	0.42
0.500	0.29	6.500	1.94	12.500	1.11	18.50	0.42
0.583	0.30	6.583	2.48	12.583	1.04	18.58	0.41
0.667	0.30	6.667	2.48	12.667	1.04	18.67	0.41
0.750	0.30	6.750	2.48	12.750	1.04	18.75	0.41
0.833	0.31	6.833	3.40	12.833	0.98	18.83	0.40
0.917	0.31	6.917	3.40	12.917	0.98	18.92	0.40
1.000	0.31	7.000	3.40	13.000	0.98	19.00	0.40
1.083	0.32	7.083	5.16	13.083	0.92	19.08	0.39
1.167	0.32	7.167	5.16	13.167	0.92	19.17	0.39
1.250	0.32	7.250	5.16	13.250	0.92	19.25	0.39
1.333	0.34	7.333	9.60	13.333	0.87	19.33	0.38
1.417	0.34	7.417	9.60	13.417	0.87	19.42	0.38
1.500	0.34	7.500	9.60	13.500	0.87	19.50	0.38
1.583	0.35	7.583	30.80	13.583	0.83	19.58	0.37
1.667	0.35	7.667	30.80	13.667	0.83	19.67	0.37
1.750	0.35	7.750	30.81	13.750	0.83	19.75	0.37
1.833	0.37	7.833	131.98	13.833	0.79	19.83	0.36
1.917	0.37	7.917	131.98	13.917	0.79	19.92	0.36
2.000	0.37	8.000	131.98	14.000	0.79	20.00	0.36
2.083	0.38	8.083	42.48	14.083	0.75	20.08	0.36
2.167	0.38	8.167	42.48	14.167	0.75	20.17	0.36
2.250	0.38	8.250	42.48	14.250	0.75	20.25	0.36
2.333	0.40	8.333	19.17	14.333	0.72	20.33	0.35
2.417	0.40	8.417	19.17	14.417	0.72	20.42	0.35
2.500	0.40	8.500	19.17	14.500	0.72	20.50	0.35
2.583	0.42	8.583	11.42	14.583	0.69	20.58	0.34
2.667	0.42	8.667	11.42	14.667	0.69	20.67	0.34
2.750	0.42	8.750	11.42	14.750	0.69	20.75	0.34
2.833	0.45	8.833	7.81	14.833	0.66	20.83	0.33
2.917	0.45	8.917	7.81	14.917	0.66	20.92	0.33
3.000	0.45	9.000	7.81	15.000	0.66	21.00	0.33
3.083	0.47	9.083	5.80	15.083	0.63	21.08	0.33
3.167	0.47	9.167	5.80	15.167	0.63	21.17	0.33
3.250	0.47	9.250	5.80	15.250	0.63	21.25	0.33
3.333	0.50	9.333	4.54	15.333	0.61	21.33	0.32
3.417	0.50	9.417	4.54	15.417	0.61	21.42	0.32
3.500	0.50	9.500	4.54	15.500	0.61	21.50	0.32
3.583	0.54	9.583	3.70	15.583	0.59	21.58	0.31
3.667	0.54	9.667	3.70	15.667	0.59	21.67	0.31
3.750	0.54	9.750	3.70	15.750	0.59	21.75	0.31
3.833	0.58	9.833	3.10	15.833	0.57	21.83	0.31
3.917	0.58	9.917	3.10	15.917	0.57	21.92	0.31
4.000	0.58	10.000	3.10	16.000	0.57	22.00	0.31
4.083	0.62	10.083	2.66	16.083	0.55	22.08	0.30
4.167	0.62	10.167	2.66	16.167	0.55	22.17	0.30
4.250	0.62	10.250	2.66	16.250	0.55	22.25	0.30
4.333	0.67	10.333	2.32	16.333	0.53	22.33	0.30
4.417	0.67	10.417	2.32	16.417	0.53	22.42	0.30
4.500	0.67	10.500	2.32	16.500	0.53	22.50	0.30
4.583	0.73	10.583	2.05	16.583	0.51	22.58	0.29
4.667	0.73	10.667	2.05	16.667	0.51	22.67	0.29
4.750	0.73	10.750	2.05	16.750	0.51	22.75	0.29
4.833	0.81	10.833	1.84	16.833	0.50	22.83	0.29
4.917	0.81	10.917	1.84	16.917	0.50	22.92	0.29
5.000	0.81	11.000	1.84	17.000	0.50	23.00	0.29
5.083	0.90	11.083	1.66	17.083	0.48	23.08	0.28
5.167	0.90	11.167	1.66	17.167	0.48	23.17	0.28
5.250	0.90	11.250	1.66	17.250	0.48	23.25	0.28
5.333	1.01	11.333	1.51	17.333	0.47	23.33	0.28
5.417	1.01	11.417	1.51	17.417	0.47	23.42	0.28
5.500	1.01	11.500	1.51	17.500	0.47	23.50	0.28
5.583	1.15	11.583	1.39	17.583	0.46	23.58	0.27
5.667	1.15	11.667	1.39	17.667	0.46	23.67	0.27
5.750	1.15	11.750	1.39	17.750	0.46	23.75	0.27
5.833	1.33	11.833	1.28	17.833	0.44	23.83	0.27
5.917	1.33	11.917	1.28	17.917	0.44	23.92	0.27
6.000	1.33	12.000	1.28	18.000	0.44	24.00	0.27

Max.Eff.Inten.(mm/hr)= 131.98 60.43
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 4.20 (ii) 5.20 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.24 0.16

TOTALS
 PEAK FLOW (cms)= 4.04 0.02 4.056 (iii)

TIME TO PEAK (hrs)= 8.00 8.08 8.00
 RUNOFF VOLUME (mm)= 82.54 36.47 82.08
 TOTAL RAINFALL (mm)= 84.54 84.54 84.54
 RUNOFF COEFFICIENT = 0.98 0.43 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | RESERVOIR (7593) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
DT= 5.0 min

	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.1990	0.6950
	0.0830	0.3500	0.2320	0.8000
	0.1280	0.4850	0.2620	0.9000
	0.1580	0.5900	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7591)	11.380	4.056	8.00	82.08
OUTFLOW: ID= 1 (7593)	11.380	0.198	9.08	81.99

PEAK FLOW REDUCTION [Qout/Qin](%) = 4.87
 TIME SHIFT OF PEAK FLOW (min) = 65.00
 MAXIMUM STORAGE USED (ha.m.) = 0.6913

 | ADD HYD (7643) |
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7593):	11.38	0.198	9.08	81.99
+ ID2= 2 (7685):	11.11	0.138	9.50	81.10
-----	-----	-----	-----	-----
ID = 3 (7643):	22.49	0.335	9.25	81.55

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |
 | STANDHYD (7590) | Area (ha)= 2.39
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.28	6.083	1.58	12.083	1.19	18.08	0.43
0.167	0.28	6.167	1.58	12.167	1.19	18.17	0.43
0.250	0.28	6.250	1.58	12.250	1.19	18.25	0.43
0.333	0.29	6.333	1.94	12.333	1.11	18.33	0.42
0.417	0.29	6.417	1.94	12.417	1.11	18.42	0.42
0.500	0.29	6.500	1.94	12.500	1.11	18.50	0.42
0.583	0.30	6.583	2.48	12.583	1.04	18.58	0.41
0.667	0.30	6.667	2.48	12.667	1.04	18.67	0.41
0.750	0.30	6.750	2.48	12.750	1.04	18.75	0.41
0.833	0.31	6.833	3.40	12.833	0.98	18.83	0.40
0.917	0.31	6.917	3.40	12.917	0.98	18.92	0.40
1.000	0.31	7.000	3.40	13.000	0.98	19.00	0.40



1.083	0.32	7.083	5.16	13.083	0.92	19.08	0.39
1.167	0.32	7.167	5.16	13.167	0.92	19.17	0.39
1.250	0.32	7.250	5.16	13.250	0.92	19.25	0.39
1.333	0.34	7.333	9.60	13.333	0.87	19.33	0.38
1.417	0.34	7.417	9.60	13.417	0.87	19.42	0.38
1.500	0.34	7.500	9.60	13.500	0.87	19.50	0.38
1.583	0.35	7.583	30.80	13.583	0.83	19.58	0.37
1.667	0.35	7.667	30.80	13.667	0.83	19.67	0.37
1.750	0.35	7.750	30.81	13.750	0.83	19.75	0.37
1.833	0.37	7.833	131.98	13.833	0.79	19.83	0.36
1.917	0.37	7.917	131.98	13.917	0.79	19.92	0.36
2.000	0.37	8.000	131.98	14.000	0.79	20.00	0.36
2.083	0.38	8.083	42.48	14.083	0.75	20.08	0.36
2.167	0.38	8.167	42.48	14.167	0.75	20.17	0.36
2.250	0.38	8.250	42.48	14.250	0.75	20.25	0.36
2.333	0.40	8.333	19.17	14.333	0.72	20.33	0.35
2.417	0.40	8.417	19.17	14.417	0.72	20.42	0.35
2.500	0.40	8.500	19.17	14.500	0.72	20.50	0.35
2.583	0.42	8.583	11.42	14.583	0.69	20.58	0.34
2.667	0.42	8.667	11.42	14.667	0.69	20.67	0.34
2.750	0.42	8.750	11.42	14.750	0.69	20.75	0.34
2.833	0.45	8.833	7.81	14.833	0.66	20.83	0.33
2.917	0.45	8.917	7.81	14.917	0.66	20.92	0.33
3.000	0.45	9.000	7.81	15.000	0.66	21.00	0.33
3.083	0.47	9.083	5.80	15.083	0.63	21.08	0.33
3.167	0.47	9.167	5.80	15.167	0.63	21.17	0.33
3.250	0.47	9.250	5.80	15.250	0.63	21.25	0.33
3.333	0.50	9.333	4.54	15.333	0.61	21.33	0.32
3.417	0.50	9.417	4.54	15.417	0.61	21.42	0.32
3.500	0.50	9.500	4.54	15.500	0.61	21.50	0.32
3.583	0.54	9.583	3.70	15.583	0.59	21.58	0.31
3.667	0.54	9.667	3.70	15.667	0.59	21.67	0.31
3.750	0.54	9.750	3.70	15.750	0.59	21.75	0.31
3.833	0.58	9.833	3.10	15.833	0.57	21.83	0.31
3.917	0.58	9.917	3.10	15.917	0.57	21.92	0.31
4.000	0.58	10.000	3.10	16.000	0.57	22.00	0.31
4.083	0.62	10.083	2.66	16.083	0.55	22.08	0.30
4.167	0.62	10.167	2.66	16.167	0.55	22.17	0.30
4.250	0.62	10.250	2.66	16.250	0.55	22.25	0.30
4.333	0.67	10.333	2.32	16.333	0.53	22.33	0.30
4.417	0.67	10.417	2.32	16.417	0.53	22.42	0.30
4.500	0.67	10.500	2.32	16.500	0.53	22.50	0.30
4.583	0.73	10.583	2.05	16.583	0.51	22.58	0.29
4.667	0.73	10.667	2.05	16.667	0.51	22.67	0.29
4.750	0.73	10.750	2.05	16.750	0.51	22.75	0.29
4.833	0.81	10.833	1.84	16.833	0.50	22.83	0.29
4.917	0.81	10.917	1.84	16.917	0.50	22.92	0.29
5.000	0.81	11.000	1.84	17.000	0.50	23.00	0.29
5.083	0.90	11.083	1.66	17.083	0.48	23.08	0.28
5.167	0.90	11.167	1.66	17.167	0.48	23.17	0.28
5.250	0.90	11.250	1.66	17.250	0.48	23.25	0.28
5.333	1.01	11.333	1.51	17.333	0.47	23.33	0.28
5.417	1.01	11.417	1.51	17.417	0.47	23.42	0.28
5.500	1.01	11.500	1.51	17.500	0.47	23.50	0.28
5.583	1.15	11.583	1.39	17.583	0.46	23.58	0.27
5.667	1.15	11.667	1.39	17.667	0.46	23.67	0.27
5.750	1.15	11.750	1.39	17.750	0.46	23.75	0.27
5.833	1.33	11.833	1.28	17.833	0.44	23.83	0.27
5.917	1.33	11.917	1.28	17.917	0.44	23.92	0.27
6.000	1.33	12.000	1.28	18.000	0.44	24.00	0.27

Max.Eff.Inten. (mm/hr)=	131.98	60.43
over (min)=	5.00	5.00
Storage Coeff. (min)=	0.87 (ii)	1.53 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.33

TOTALS			
PEAK FLOW (cms)=	0.87	0.00	0.872 (iii)
TIME TO PEAK (hrs)=	7.92	8.00	8.00
RUNOFF VOLUME (mm)=	83.54	36.47	83.07
TOTAL RAINFALL (mm)=	84.54	84.54	84.54
RUNOFF COEFFICIENT =	0.99	0.43	0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

- CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		Area (ha)=	2.36
STANDHYD (7632)		Total Imp(%)=	99.00
ID= 1 DT= 5.0 min		Dir. Conn.(%)=	99.00

IMPERVIOUS PERVIOUS (i)			
Surface Area (ha)=	2.34	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----												
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	
hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	'	hrs	mm/hr	'	hrs	mm/hr
0.083	0.28	6.083	1.58	12.083	1.19	18.08	0.43					
0.167	0.28	6.167	1.58	12.167	1.19	18.17	0.43					
0.250	0.28	6.250	1.58	12.250	1.19	18.25	0.43					
0.333	0.29	6.333	1.94	12.333	1.11	18.33	0.42					
0.417	0.29	6.417	1.94	12.417	1.11	18.42	0.42					
0.500	0.29	6.500	1.94	12.500	1.11	18.50	0.42					
0.583	0.30	6.583	2.48	12.583	1.04	18.58	0.41					
0.667	0.30	6.667	2.48	12.667	1.04	18.67	0.41					
0.750	0.30	6.750	2.48	12.750	1.04	18.75	0.41					
0.833	0.31	6.833	3.40	12.833	0.98	18.83	0.40					
0.917	0.31	6.917	3.40	12.917	0.98	18.92	0.40					
1.000	0.31	7.000	3.40	13.000	0.98	19.00	0.40					
1.083	0.32	7.083	5.16	13.083	0.92	19.08	0.39					
1.167	0.32	7.167	5.16	13.167	0.92	19.17	0.39					
1.250	0.32	7.250	5.16	13.250	0.92	19.25	0.39					
1.333	0.34	7.333	9.60	13.333	0.87	19.33	0.38					
1.417	0.34	7.417	9.60	13.417	0.87	19.42	0.38					
1.500	0.34	7.500	9.60	13.500	0.87	19.50	0.38					
1.583	0.35	7.583	30.80	13.583	0.83	19.58	0.37					
1.667	0.35	7.667	30.80	13.667	0.83	19.67	0.37					
1.750	0.35	7.750	30.81	13.750	0.83	19.75	0.37					
1.833	0.37	7.833	131.98	13.833	0.79	19.83	0.36					
1.917	0.37	7.917	131.98	13.917	0.79	19.92	0.36					
2.000	0.37	8.000	131.98	14.000	0.79	20.00	0.36					
2.083	0.38	8.083	42.48	14.083	0.75	20.08	0.36					
2.167	0.38	8.167	42.48	14.167	0.75	20.17	0.36					
2.250	0.38	8.250	42.48	14.250	0.75	20.25	0.36					
2.333	0.40	8.333	19.17	14.333	0.72	20.33	0.35					
2.417	0.40	8.417	19.17	14.417	0.72	20.42	0.35					
2.500	0.40	8.500	19.17	14.500	0.72	20.50	0.35					
2.583	0.42	8.583	11.42	14.583	0.69	20.58	0.34					
2.667	0.42	8.667	11.42	14.667	0.69	20.67	0.34					
2.750	0.42	8.750	11.42	14.750	0.69	20.75	0.34					
2.833	0.45	8.833	7.81	14.833	0.66	20.83	0.33					
2.917	0.45	8.917	7.81	14.917	0.66	20.92	0.33					
3.000	0.45	9.000	7.81	15.000	0.66	21.00	0.33					
3.083	0.47	9.083	5.80	15.083	0.63	21.08	0.33					
3.167	0.47	9.167	5.80	15.167	0.63	21.17	0.33					
3.250	0.47	9.250	5.80	15.250	0.63	21.25	0.33					
3.333	0.50	9.333	4.54	15.333	0.61	21.33	0.32					
3.417	0.50	9.417	4.54	15.417	0.61	21.42	0.32					
3.500	0.50	9.500	4.54	15.500	0.61	21.50	0.32					
3.583	0.54	9.583	3.70	15.583	0.59	21.58	0.31					
3.667	0.54	9.667	3.70	15.667	0.59	21.67	0.31					
3.750	0.54	9.750	3.70	15.750	0.59	21.75	0.31					
3.833	0.58	9.833	3.10	15.833	0.57	21.83	0.31					
3.917	0.58	9.917	3.10	15.917	0.57	21.92	0.31					
4.000	0.58	10.000	3.10	16.000	0.57	22.00	0.31					
4.083	0.62	10.083	2.66	16.083	0.55	22.08	0.30					
4.167	0.62	10.167	2.66	16.167	0.55	22.17	0.30					
4.250	0.62	10.250	2.66	16.250	0.55	22.25	0.30					
4.333	0.67	10.333	2.32	16.333	0.53	22.33	0.30					
4.417	0.67	10.417	2.32	16.417	0.53	22.42	0.30					
4.500	0.67	10.500	2.32	16.500	0.53	22.50	0.30					
4.583	0.73	10.583	2.05	16.583	0.51	22.58	0.29					
4.667	0.73	10.667	2.05	16.667	0.51	22.67	0.29					
4.750	0.73	10.750	2.05	16.750	0.51	22.75	0.29					
4.833	0.81	10.833	1.84	16.833	0.50	22.83	0.29					
4.917	0.81	10.917	1.84	16.917	0.50	22.92	0.29					
5.000	0.81	11.000	1.84	17.000	0.5							



4.417	0.67	10.417	2.32	16.417	0.53	22.42	0.30
4.500	0.67	10.500	2.32	16.500	0.53	22.50	0.30
4.583	0.73	10.583	2.05	16.583	0.51	22.58	0.29
4.667	0.73	10.667	2.05	16.667	0.51	22.67	0.29
4.750	0.73	10.750	2.05	16.750	0.51	22.75	0.29
4.833	0.81	10.833	1.84	16.833	0.50	22.83	0.29
4.917	0.81	10.917	1.84	16.917	0.50	22.92	0.29
5.000	0.81	11.000	1.84	17.000	0.50	23.00	0.29
5.083	0.90	11.083	1.66	17.083	0.48	23.08	0.28
5.167	0.90	11.167	1.66	17.167	0.48	23.17	0.28
5.250	0.90	11.250	1.66	17.250	0.48	23.25	0.28
5.333	1.01	11.333	1.51	17.333	0.47	23.33	0.28
5.417	1.01	11.417	1.51	17.417	0.47	23.42	0.28
5.500	1.01	11.500	1.51	17.500	0.47	23.50	0.28
5.583	1.15	11.583	1.39	17.583	0.46	23.58	0.27
5.667	1.15	11.667	1.39	17.667	0.46	23.67	0.27
5.750	1.15	11.750	1.39	17.750	0.46	23.75	0.27
5.833	1.33	11.833	1.28	17.833	0.44	23.83	0.27
5.917	1.33	11.917	1.28	17.917	0.44	23.92	0.27
6.000	1.33	12.000	1.28	18.000	0.44	24.00	0.27

Max.Eff.Inten.(mm/hr)= 131.98 60.43
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 0.87 (ii) 1.53 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.33

PEAK FLOW (cms)= 0.86 0.00 0.861 (iii)
 TIME TO PEAK (hrs)= 7.92 8.00 8.00
 RUNOFF VOLUME (mm)= 83.54 36.47 83.07
 TOTAL RAINFALL (mm)= 84.54 84.54 84.54
 RUNOFF COEFFICIENT = 0.99 0.43 0.98

TOTALS

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDBYD (7644) |
ID= 1 DT= 5.0 min
 Area (ha)= 2.40
 Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.28	6.083	1.58	12.083	1.19
0.167	0.28	6.167	1.58	12.167	1.19
0.250	0.28	6.250	1.58	12.250	1.19
0.333	0.29	6.333	1.94	12.333	1.11
0.417	0.29	6.417	1.94	12.417	1.11
0.500	0.29	6.500	1.94	12.500	1.11
0.583	0.30	6.583	2.48	12.583	1.04
0.667	0.30	6.667	2.48	12.667	1.04
0.750	0.30	6.750	2.48	12.750	1.04
0.833	0.31	6.833	3.40	12.833	0.98
0.917	0.31	6.917	3.40	12.917	0.98
1.000	0.31	7.000	3.40	13.000	0.98
1.083	0.32	7.083	5.16	13.083	0.92
1.167	0.32	7.167	5.16	13.167	0.92
1.250	0.32	7.250	5.16	13.250	0.92
1.333	0.34	7.333	9.60	13.333	0.87

1.417	0.34	7.417	9.60	13.417	0.87	19.42	0.38
1.500	0.34	7.500	9.60	13.500	0.87	19.50	0.38
1.583	0.35	7.583	30.80	13.583	0.83	19.58	0.37
1.667	0.35	7.667	30.80	13.667	0.83	19.67	0.37
1.750	0.35	7.750	30.81	13.750	0.83	19.75	0.37
1.833	0.37	7.833	131.98	13.833	0.79	19.83	0.36
1.917	0.37	7.917	131.98	13.917	0.79	19.92	0.36
2.000	0.37	8.000	131.98	14.000	0.79	20.00	0.36
2.083	0.38	8.083	42.48	14.083	0.75	20.08	0.36
2.167	0.38	8.167	42.48	14.167	0.75	20.17	0.36
2.250	0.38	8.250	42.48	14.250	0.75	20.25	0.36
2.333	0.40	8.333	19.17	14.333	0.72	20.33	0.35
2.417	0.40	8.417	19.17	14.417	0.72	20.42	0.35
2.500	0.40	8.500	19.17	14.500	0.72	20.50	0.35
2.583	0.42	8.583	11.42	14.583	0.69	20.58	0.34
2.667	0.42	8.667	11.42	14.667	0.69	20.67	0.34
2.750	0.42	8.750	11.42	14.750	0.69	20.75	0.34
2.833	0.45	8.833	7.81	14.833	0.66	20.83	0.33
2.917	0.45	8.917	7.81	14.917	0.66	20.92	0.33
3.000	0.45	9.000	7.81	15.000	0.66	21.00	0.33
3.083	0.47	9.083	5.80	15.083	0.63	21.08	0.33
3.167	0.47	9.167	5.80	15.167	0.63	21.17	0.33
3.250	0.47	9.250	5.80	15.250	0.63	21.25	0.33
3.333	0.50	9.333	4.54	15.333	0.61	21.33	0.32
3.417	0.50	9.417	4.54	15.417	0.61	21.42	0.32
3.500	0.50	9.500	4.54	15.500	0.61	21.50	0.32
3.583	0.54	9.583	3.70	15.583	0.59	21.58	0.31
3.667	0.54	9.667	3.70	15.667	0.59	21.67	0.31
3.750	0.54	9.750	3.70	15.750	0.59	21.75	0.31
3.833	0.58	9.833	3.10	15.833	0.57	21.83	0.31
3.917	0.58	9.917	3.10	15.917	0.57	21.92	0.31
4.000	0.58	10.000	3.10	16.000	0.57	22.00	0.31
4.083	0.62	10.083	2.66	16.083	0.55	22.08	0.30
4.167	0.62	10.167	2.66	16.167	0.55	22.17	0.30
4.250	0.62	10.250	2.66	16.250	0.55	22.25	0.30
4.333	0.67	10.333	2.32	16.333	0.53	22.33	0.30
4.417	0.67	10.417	2.32	16.417	0.53	22.42	0.30
4.500	0.67	10.500	2.32	16.500	0.53	22.50	0.30
4.583	0.73	10.583	2.05	16.583	0.51	22.58	0.29
4.667	0.73	10.667	2.05	16.667	0.51	22.67	0.29
4.750	0.73	10.750	2.05	16.750	0.51	22.75	0.29
4.833	0.81	10.833	1.84	16.833	0.50	22.83	0.29
4.917	0.81	10.917	1.84	16.917	0.50	22.92	0.29
5.000	0.81	11.000	1.84	17.000	0.50	23.00	0.29
5.083	0.90	11.083	1.66	17.083	0.48	23.08	0.28
5.167	0.90	11.167	1.66	17.167	0.48	23.17	0.28
5.250	0.90	11.250	1.66	17.250	0.48	23.25	0.28
5.333	1.01	11.333	1.51	17.333	0.47	23.33	0.28
5.417	1.01	11.417	1.51	17.417	0.47	23.42	0.28
5.500	1.01	11.500	1.51	17.500	0.47	23.50	0.28
5.583	1.15	11.583	1.39	17.583	0.46	23.58	0.27
5.667	1.15	11.667	1.39	17.667	0.46	23.67	0.27
5.750	1.15	11.750	1.39	17.750	0.46	23.75	0.27
5.833	1.33	11.833	1.28	17.833	0.44	23.83	0.27
5.917	1.33	11.917	1.28	17.917	0.44	23.92	0.27
6.000	1.33	12.000	1.28	18.000	0.44	24.00	0.27

Max.Eff.Inten.(mm/hr)= 131.98 60.43
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 0.87 (ii) 1.53 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.33

PEAK FLOW (cms)= 0.87 0.00 0.875 (iii)
 TIME TO PEAK (hrs)= 7.92 8.00 8.00
 RUNOFF VOLUME (mm)= 83.54 36.47 83.07
 TOTAL RAINFALL (mm)= 84.54 84.54 84.54
 RUNOFF COEFFICIENT = 0.99 0.43 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB |
| STANDHYD ( 7652) | Area (ha)= 2.40
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
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IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 2.38 0.02
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 20.00 20.00
Mannings n = 0.013 0.250

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | ' TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | ' hrs mm/hr | hrs mm/hr
0.083 0.28 | 6.083 1.58 | 12.083 1.19 | 18.08 0.43
0.167 0.28 | 6.167 1.58 | 12.167 1.19 | 18.17 0.43
0.250 0.28 | 6.250 1.58 | 12.250 1.19 | 18.25 0.43
0.333 0.29 | 6.333 1.94 | 12.333 1.11 | 18.33 0.42
0.417 0.29 | 6.417 1.94 | 12.417 1.11 | 18.42 0.42
0.500 0.29 | 6.500 1.94 | 12.500 1.11 | 18.50 0.42
0.583 0.30 | 6.583 2.48 | 12.583 1.04 | 18.58 0.41
0.667 0.30 | 6.667 2.48 | 12.667 1.04 | 18.67 0.41
0.750 0.30 | 6.750 2.48 | 12.750 1.04 | 18.75 0.41
0.833 0.31 | 6.833 3.40 | 12.833 0.98 | 18.83 0.40
0.917 0.31 | 6.917 3.40 | 12.917 0.98 | 18.92 0.40
1.000 0.31 | 7.000 3.40 | 13.000 0.98 | 19.00 0.40
1.083 0.32 | 7.083 5.16 | 13.083 0.92 | 19.08 0.39
1.167 0.32 | 7.167 5.16 | 13.167 0.92 | 19.17 0.39
1.250 0.32 | 7.250 5.16 | 13.250 0.92 | 19.25 0.39
1.333 0.34 | 7.333 9.60 | 13.333 0.87 | 19.33 0.38
1.417 0.34 | 7.417 9.60 | 13.417 0.87 | 19.42 0.38
1.500 0.34 | 7.500 9.60 | 13.500 0.87 | 19.50 0.38
1.583 0.35 | 7.583 30.80 | 13.583 0.83 | 19.58 0.37
1.667 0.35 | 7.667 30.80 | 13.667 0.83 | 19.67 0.37
1.750 0.35 | 7.750 30.81 | 13.750 0.83 | 19.75 0.37
1.833 0.37 | 7.833 131.98 | 13.833 0.79 | 19.83 0.36
1.917 0.37 | 7.917 131.98 | 13.917 0.79 | 19.92 0.36
2.000 0.37 | 8.000 131.98 | 14.000 0.79 | 20.00 0.36
2.083 0.38 | 8.083 42.48 | 14.083 0.75 | 20.08 0.36
2.167 0.38 | 8.167 42.48 | 14.167 0.75 | 20.17 0.36
2.250 0.38 | 8.250 42.48 | 14.250 0.75 | 20.25 0.36
2.333 0.40 | 8.333 19.17 | 14.333 0.72 | 20.33 0.35
2.417 0.40 | 8.417 19.17 | 14.417 0.72 | 20.42 0.35
2.500 0.40 | 8.500 19.17 | 14.500 0.72 | 20.50 0.35
2.583 0.42 | 8.583 11.42 | 14.583 0.69 | 20.58 0.34
2.667 0.42 | 8.667 11.42 | 14.667 0.69 | 20.67 0.34
2.750 0.42 | 8.750 11.42 | 14.750 0.69 | 20.75 0.34
2.833 0.45 | 8.833 7.81 | 14.833 0.66 | 20.83 0.33
2.917 0.45 | 8.917 7.81 | 14.917 0.66 | 20.92 0.33
3.000 0.45 | 9.000 7.81 | 15.000 0.66 | 21.00 0.33
3.083 0.47 | 9.083 5.80 | 15.083 0.63 | 21.08 0.33
3.167 0.47 | 9.167 5.80 | 15.167 0.63 | 21.17 0.33
3.250 0.47 | 9.250 5.80 | 15.250 0.63 | 21.25 0.33
3.333 0.50 | 9.333 4.54 | 15.333 0.61 | 21.33 0.32
3.417 0.50 | 9.417 4.54 | 15.417 0.61 | 21.42 0.32
3.500 0.50 | 9.500 4.54 | 15.500 0.61 | 21.50 0.32
3.583 0.54 | 9.583 3.70 | 15.583 0.59 | 21.58 0.31
3.667 0.54 | 9.667 3.70 | 15.667 0.59 | 21.67 0.31
3.750 0.54 | 9.750 3.70 | 15.750 0.59 | 21.75 0.31
3.833 0.58 | 9.833 3.10 | 15.833 0.57 | 21.83 0.31
3.917 0.58 | 9.917 3.10 | 15.917 0.57 | 21.92 0.31
4.000 0.58 | 10.000 3.10 | 16.000 0.57 | 22.00 0.31
4.083 0.62 | 10.083 2.66 | 16.083 0.55 | 22.08 0.30
4.167 0.62 | 10.167 2.66 | 16.167 0.55 | 22.17 0.30
4.250 0.62 | 10.250 2.66 | 16.250 0.55 | 22.25 0.30
4.333 0.67 | 10.333 2.32 | 16.333 0.53 | 22.33 0.30
4.417 0.67 | 10.417 2.32 | 16.417 0.53 | 22.42 0.30
4.500 0.67 | 10.500 2.32 | 16.500 0.53 | 22.50 0.30
4.583 0.73 | 10.583 2.05 | 16.583 0.51 | 22.58 0.29
4.667 0.73 | 10.667 2.05 | 16.667 0.51 | 22.67 0.29

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4.750 0.73 | 10.750 2.05 | 16.750 0.51 | 22.75 0.29
4.833 0.81 | 10.833 1.84 | 16.833 0.50 | 22.83 0.29
4.917 0.81 | 10.917 1.84 | 16.917 0.50 | 22.92 0.29
5.000 0.81 | 11.000 1.84 | 17.000 0.50 | 23.00 0.29
5.083 0.90 | 11.083 1.66 | 17.083 0.48 | 23.08 0.28
5.167 0.90 | 11.167 1.66 | 17.167 0.48 | 23.17 0.28
5.250 0.90 | 11.250 1.66 | 17.250 0.48 | 23.25 0.28
5.333 1.01 | 11.333 1.51 | 17.333 0.47 | 23.33 0.28
5.417 1.01 | 11.417 1.51 | 17.417 0.47 | 23.42 0.28
5.500 1.01 | 11.500 1.51 | 17.500 0.47 | 23.50 0.28
5.583 1.15 | 11.583 1.39 | 17.583 0.46 | 23.58 0.27
5.667 1.15 | 11.667 1.39 | 17.667 0.46 | 23.67 0.27
5.750 1.15 | 11.750 1.39 | 17.750 0.46 | 23.75 0.27
5.833 1.33 | 11.833 1.28 | 17.833 0.44 | 23.83 0.27
5.917 1.33 | 11.917 1.28 | 17.917 0.44 | 23.92 0.27
6.000 1.33 | 12.000 1.28 | 18.000 0.44 | 24.00 0.27

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Max.Eff.Inten.(mm/hr)= 131.98 60.43
over (min)= 5.00 5.00
Storage Coeff. (min)= 0.87 (ii) 1.53 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.33
*TOTALS*
PEAK FLOW (cms)= 0.87 0.00 0.875 (iii)
TIME TO PEAK (hrs)= 7.92 8.00 8.00
RUNOFF VOLUME (mm)= 83.54 36.47 83.07
TOTAL RAINFALL (mm)= 84.54 84.54 84.54
RUNOFF COEFFICIENT = 0.99 0.43 0.98

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***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB |
| STANDHYD ( 7661) | Area (ha)= 2.39
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
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IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 2.37 0.02
Dep. Storage (mm)= 1.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 20.00 20.00
Mannings n = 0.013 0.250

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | ' TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | ' hrs mm/hr | hrs mm/hr
0.083 0.28 | 6.083 1.58 | 12.083 1.19 | 18.08 0.43
0.167 0.28 | 6.167 1.58 | 12.167 1.19 | 18.17 0.43
0.250 0.28 | 6.250 1.58 | 12.250 1.19 | 18.25 0.43
0.333 0.29 | 6.333 1.94 | 12.333 1.11 | 18.33 0.42
0.417 0.29 | 6.417 1.94 | 12.417 1.11 | 18.42 0.42
0.500 0.29 | 6.500 1.94 | 12.500 1.11 | 18.50 0.42
0.583 0.30 | 6.583 2.48 | 12.583 1.04 | 18.58 0.41
0.667 0.30 | 6.667 2.48 | 12.667 1.04 | 18.67 0.41
0.750 0.30 | 6.750 2.48 | 12.750 1.04 | 18.75 0.41
0.833 0.31 | 6.833 3.40 | 12.833 0.98 | 18.83 0.40
0.917 0.31 | 6.917 3.40 | 12.917 0.98 | 18.92 0.40
1.000 0.31 | 7.000 3.40 | 13.000 0.98 | 19.00 0.40
1.083 0.32 | 7.083 5.16 | 13.083 0.92 | 19.08 0.39
1.167 0.32 | 7.167 5.16 | 13.167 0.92 | 19.17 0.39
1.250 0.32 | 7.250 5.16 | 13.250 0.92 | 19.25 0.39
1.333 0.34 | 7.333 9.60 | 13.333 0.87 | 19.33 0.38
1.417 0.34 | 7.417 9.60 | 13.417 0.87 | 19.42 0.38
1.500 0.34 | 7.500 9.60 | 13.500 0.87 | 19.50 0.38
1.583 0.35 | 7.583 30.80 | 13.583 0.83 | 19.58 0.37
1.667 0.35 | 7.667 30.80 | 13.667 0.83 | 19.67 0.37

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1.750	0.35	7.750	30.81	13.750	0.83	19.75	0.37
1.833	0.37	7.833	131.98	13.833	0.79	19.83	0.36
1.917	0.37	7.917	131.98	13.917	0.79	19.92	0.36
2.000	0.37	8.000	131.98	14.000	0.79	20.00	0.36
2.083	0.38	8.083	42.48	14.083	0.75	20.08	0.36
2.167	0.38	8.167	42.48	14.167	0.75	20.17	0.36
2.250	0.38	8.250	42.48	14.250	0.75	20.25	0.36
2.333	0.40	8.333	19.17	14.333	0.72	20.33	0.35
2.417	0.40	8.417	19.17	14.417	0.72	20.42	0.35
2.500	0.40	8.500	19.17	14.500	0.72	20.50	0.35
2.583	0.42	8.583	11.42	14.583	0.69	20.58	0.34
2.667	0.42	8.667	11.42	14.667	0.69	20.67	0.34
2.750	0.42	8.750	11.42	14.750	0.69	20.75	0.34
2.833	0.45	8.833	7.81	14.833	0.66	20.83	0.33
2.917	0.45	8.917	7.81	14.917	0.66	20.92	0.33
3.000	0.45	9.000	7.81	15.000	0.66	21.00	0.33
3.083	0.47	9.083	5.80	15.083	0.63	21.08	0.33
3.167	0.47	9.167	5.80	15.167	0.63	21.17	0.33
3.250	0.47	9.250	5.80	15.250	0.63	21.25	0.33
3.333	0.50	9.333	4.54	15.333	0.61	21.33	0.32
3.417	0.50	9.417	4.54	15.417	0.61	21.42	0.32
3.500	0.50	9.500	4.54	15.500	0.61	21.50	0.32
3.583	0.54	9.583	3.70	15.583	0.59	21.58	0.31
3.667	0.54	9.667	3.70	15.667	0.59	21.67	0.31
3.750	0.54	9.750	3.70	15.750	0.59	21.75	0.31
3.833	0.58	9.833	3.10	15.833	0.57	21.83	0.31
3.917	0.58	9.917	3.10	15.917	0.57	21.92	0.31
4.000	0.58	10.000	3.10	16.000	0.57	22.00	0.31
4.083	0.62	10.083	2.66	16.083	0.55	22.08	0.30
4.167	0.62	10.167	2.66	16.167	0.55	22.17	0.30
4.250	0.62	10.250	2.66	16.250	0.55	22.25	0.30
4.333	0.67	10.333	2.32	16.333	0.53	22.33	0.30
4.417	0.67	10.417	2.32	16.417	0.53	22.42	0.30
4.500	0.67	10.500	2.32	16.500	0.53	22.50	0.30
4.583	0.73	10.583	2.05	16.583	0.51	22.58	0.29
4.667	0.73	10.667	2.05	16.667	0.51	22.67	0.29
4.750	0.73	10.750	2.05	16.750	0.51	22.75	0.29
4.833	0.81	10.833	1.84	16.833	0.50	22.83	0.29
4.917	0.81	10.917	1.84	16.917	0.50	22.92	0.29
5.000	0.81	11.000	1.84	17.000	0.50	23.00	0.29
5.083	0.90	11.083	1.66	17.083	0.48	23.08	0.28
5.167	0.90	11.167	1.66	17.167	0.48	23.17	0.28
5.250	0.90	11.250	1.66	17.250	0.48	23.25	0.28
5.333	1.01	11.333	1.51	17.333	0.47	23.33	0.28
5.417	1.01	11.417	1.51	17.417	0.47	23.42	0.28
5.500	1.01	11.500	1.51	17.500	0.47	23.50	0.28
5.583	1.15	11.583	1.39	17.583	0.46	23.58	0.27
5.667	1.15	11.667	1.39	17.667	0.46	23.67	0.27
5.750	1.15	11.750	1.39	17.750	0.46	23.75	0.27
5.833	1.33	11.833	1.28	17.833	0.44	23.83	0.27
5.917	1.33	11.917	1.28	17.917	0.44	23.92	0.27
6.000	1.33	12.000	1.28	18.000	0.44	24.00	0.27

Max.Eff.Inten. (mm/hr)= 131.98 60.43
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 0.87 (ii) 1.53 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.33

PEAK FLOW (cms)= 0.87 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 7.92 8.00 0.872 (iii)
 RUNOFF VOLUME (mm)= 83.54 36.47 83.07
 TOTAL RAINFALL (mm)= 84.54 84.54 84.54
 RUNOFF COEFFICIENT = 0.99 0.43 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |

| STANDHYD (7671) | Area (ha)= 2.37
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

 Surface Area (ha)= 2.35 IMPERVIOUS PERVIOUS (i)
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.28	6.083	1.58	12.083	1.19	18.08	0.43
0.167	0.28	6.167	1.58	12.167	1.19	18.17	0.43
0.250	0.28	6.250	1.58	12.250	1.19	18.25	0.43
0.333	0.29	6.333	1.94	12.333	1.11	18.33	0.42
0.417	0.29	6.417	1.94	12.417	1.11	18.42	0.42
0.500	0.29	6.500	1.94	12.500	1.11	18.50	0.42
0.583	0.30	6.583	2.48	12.583	1.04	18.58	0.41
0.667	0.30	6.667	2.48	12.667	1.04	18.67	0.41
0.750	0.30	6.750	2.48	12.750	1.04	18.75	0.41
0.833	0.31	6.833	3.40	12.833	0.98	18.83	0.40
0.917	0.31	6.917	3.40	12.917	0.98	18.92	0.40
1.000	0.31	7.000	3.40	13.000	0.98	19.00	0.40
1.083	0.32	7.083	5.16	13.083	0.92	19.08	0.39
1.167	0.32	7.167	5.16	13.167	0.92	19.17	0.39
1.250	0.32	7.250	5.16	13.250	0.92	19.25	0.39
1.333	0.34	7.333	9.60	13.333	0.87	19.33	0.38
1.417	0.34	7.417	9.60	13.417	0.87	19.42	0.38
1.500	0.34	7.500	9.60	13.500	0.87	19.50	0.38
1.583	0.35	7.583	30.80	13.583	0.83	19.58	0.37
1.667	0.35	7.667	30.80	13.667	0.83	19.67	0.37
1.750	0.35	7.750	30.81	13.750	0.83	19.75	0.37
1.833	0.37	7.833	131.98	13.833	0.79	19.83	0.36
1.917	0.37	7.917	131.98	13.917	0.79	19.92	0.36
2.000	0.37	8.000	131.98	14.000	0.79	20.00	0.36
2.083	0.38	8.083	42.48	14.083	0.75	20.08	0.36
2.167	0.38	8.167	42.48	14.167	0.75	20.17	0.36
2.250	0.38	8.250	42.48	14.250	0.75	20.25	0.36
2.333	0.40	8.333	19.17	14.333	0.72	20.33	0.35
2.417	0.40	8.417	19.17	14.417	0.72	20.42	0.35
2.500	0.40	8.500	19.17	14.500	0.72	20.50	0.35
2.583	0.42	8.583	11.42	14.583	0.69	20.58	0.34
2.667	0.42	8.667	11.42	14.667	0.69	20.67	0.34
2.750	0.42	8.750	11.42	14.750	0.69	20.75	0.34
2.833	0.45	8.833	7.81	14.833	0.66	20.83	0.33
2.917	0.45	8.917	7.81	14.917	0.66	20.92	0.33
3.000	0.45	9.000	7.81	15.000	0.66	21.00	0.33
3.083	0.47	9.083	5.80	15.083	0.63	21.08	0.33
3.167	0.47	9.167	5.80	15.167	0.63	21.17	0.33
3.250	0.47	9.250	5.80	15.250	0.63	21.25	0.33
3.333	0.50	9.333	4.54	15.333	0.61	21.33	0.32
3.417	0.50	9.417	4.54	15.417	0.61	21.42	0.32
3.500	0.50	9.500	4.54	15.500	0.61	21.50	0.32
3.583	0.54	9.583	3.70	15.583	0.59	21.58	0.31
3.667	0.54	9.667	3.70	15.667	0.59	21.67	0.31
3.750	0.54	9.750	3.70	15.750	0.59	21.75	0.31
3.833	0.58	9.833	3.10	15.833	0.57	21.83	0.31
3.917	0.58	9.917	3.10	15.917	0.57	21.92	0.31
4.000	0.58	10.000	3.10	16.000	0.57	22.00	0.31
4.083	0.62	10.083	2.66	16.083	0.55	22.08	0.30
4.167	0.62	10.167	2.66	16.167	0.55	22.17	0.30
4.250	0.62	10.250	2.66	16.250	0.55	22.25	0.30
4.333	0.67	10.333	2.32	16.333	0.53	22.33	0.30
4.417	0.67	10.417	2.32	16.417	0.53	22.42	0.30
4.500	0.67	10.500	2.32	16.500	0.53	22.50	0.30
4.583	0.73	10.583	2.05	16.583	0.51	22.58	0.29
4.667	0.73	10.667	2.05	16.667	0.51	22.67	0.29
4.750	0.73	10.750	2.05	16.750	0.51	22.75	0.29
4.833	0.81	10.833	1.84	16.833	0.50	22.83	0.29
4.917	0.81	10.917	1.84	16.917	0.50	22.92	0.29
5.000	0.81	11.000	1.84	17.000	0.50	23.00	0.29

5.083	0.90	111.083	1.66	17.083	0.48	23.08	0.28
5.167	0.90	111.167	1.66	17.167	0.48	23.17	0.28
5.250	0.90	111.250	1.66	17.250	0.48	23.25	0.28
5.333	1.01	111.333	1.51	17.333	0.47	23.33	0.28
5.417	1.01	111.417	1.51	17.417	0.47	23.42	0.28
5.500	1.01	111.500	1.51	17.500	0.47	23.50	0.28
5.583	1.15	111.583	1.39	17.583	0.46	23.58	0.27
5.667	1.15	111.667	1.39	17.667	0.46	23.67	0.27
5.750	1.15	111.750	1.39	17.750	0.46	23.75	0.27
5.833	1.33	111.833	1.28	17.833	0.44	23.83	0.27
5.917	1.33	111.917	1.28	17.917	0.44	23.92	0.27
6.000	1.33	112.000	1.28	18.000	0.44	24.00	0.27

Max.Eff.Inten.(mm/hr)= 131.98 60.43
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 0.87 (ii) 1.53 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.33

*****TOTALS*
 PEAK FLOW (cms)= 0.86 0.00 0.865 (iii)
 TIME TO PEAK (hrs)= 7.92 8.00 8.00
 RUNOFF VOLUME (mm)= 83.54 36.47 83.07
 TOTAL RAINFALL (mm)= 84.54 84.54 84.54
 RUNOFF COEFFICIENT = 0.99 0.43 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7698)						
1 + 2 = 3						
	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
ID1= 1 (7590):	2.39	0.872	8.00	83.07		
+ ID2= 2 (7632):	2.36	0.861	8.00	83.07		
=====						
ID = 3 (7698):	4.75	1.733	8.00	83.07		

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)						
3 + 2 = 1						
	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
ID1= 3 (7698):	4.75	1.733	8.00	83.07		
+ ID2= 2 (7644):	2.40	0.875	8.00	83.07		
=====						
ID = 1 (7698):	7.15	2.608	8.00	83.07		

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)						
1 + 2 = 3						
	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
ID1= 1 (7698):	7.15	2.608	8.00	83.07		
+ ID2= 2 (7652):	2.40	0.875	8.00	83.07		
=====						
ID = 3 (7698):	9.55	3.484	8.00	83.07		

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)						
3 + 2 = 1						
	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
ID1= 3 (7698):	9.55	3.484	8.00	83.07		

+ ID2= 2 (7661):	2.39	0.872	8.00	83.07		
=====						
ID = 1 (7698):	11.94	4.355	8.00	83.07		

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)						
1 + 2 = 3						
	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
ID1= 1 (7698):	11.94	4.355	8.00	83.07		
+ ID2= 2 (7671):	2.37	0.865	8.00	83.07		
=====						
ID = 3 (7698):	14.31	5.220	8.00	83.07		

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| DIVERTHYD (7713) |
 | IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1 + Flow 2 + Flow 3 + Flow 4 + Flow 5 = Total						
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	0.00	7.00

	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
TOTAL HYD. (ID= 1):	14.31	5.22	8.00	83.07		
=====						
ID= 2 (2):	11.54	3.11	8.00	83.07		
ID= 3 (2):	2.77	2.11	8.00	83.07		
ID= 4 (2):	0.00	0.00	0.00	0.00		
ID= 5 (2):	0.00	0.00	0.00	0.00		
ID= 6 (2):	0.00	0.00	0.00	0.00		

RESERVOIR (7699)						
OVERFLOW IS ON						
IN= 2--> OUT= 1						
DT= 5.0 min						
	OUTFLOW	STORAGE	OUTFLOW	STORAGE		
	(cms)	(ha.m.)	(cms)	(ha.m.)		
	0.0000	0.0000	0.2690	0.4589		
	0.1980	0.1112	0.0000	0.0000		

	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
INFLOW : ID= 2 (7713)	11.540	3.110	8.00	83.07		
OUTFLOW: ID= 1 (7699)	9.882	0.269	8.17	85.40		
OVERFLOW:ID= 3 (0003)	1.659	1.505	8.17	85.40		

TOTAL NUMBER OF SIMULATION OVERFLOW = 11
 CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.92
 PERCENTAGE OF TIME OVERFLOWING (%) = 3.03

PEAK FLOW REDUCTION [Qout/Qin] (%) = 8.65
 TIME SHIFT OF PEAK FLOW (min) = 10.00
 MAXIMUM STORAGE USED (ha.m.) = 0.4589

| Junction Command(7715) |

	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
INFLOW : ID= 3 (7699)	1.66	1.50	8.17	85.40		
OUTFLOW: ID= 2 (7715)	1.66	1.50	8.17	85.40		

```

-----
| ADD HYD ( 7714) |
| 1 + 2 = 3 |
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
ID1= 1 ( 7699):   9.88  0.269  8.17   85.40
+ ID2= 2 ( 7713):   2.77  2.110  8.00   83.07
-----
ID = 3 ( 7714):   12.65  2.361  8.00   84.89

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7714) |
| 3 + 2 = 1 |
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
ID1= 3 ( 7714):   12.65  2.361  8.00   84.89
+ ID2= 2 ( 7715):   1.66  1.505  8.17   85.40
-----
ID = 1 ( 7714):   14.31  2.361  8.00   84.95

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7620) |
| ID= 1 DT= 5.0 min |
-----
Area (ha)= 1.45
Total Imp(%)= 96.00 Dir. Conn.(%)= 96.00

IMPERVIOUS   PERVIOUS (i)
Surface Area (ha)= 1.39   0.06
Dep. Storage (mm)= 2.00   5.00
Average Slope (%)= 1.10   2.00
Length (m)= 100.00   145.00
Mannings n = 0.013   0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

3.000	0.45	9.000	7.81	15.000	0.66	21.00	0.33
3.083	0.47	9.083	5.80	15.083	0.63	21.08	0.33
3.167	0.47	9.167	5.80	15.167	0.63	21.17	0.33
3.250	0.47	9.250	5.80	15.250	0.63	21.25	0.33
3.333	0.50	9.333	4.54	15.333	0.61	21.33	0.32
3.417	0.50	9.417	4.54	15.417	0.61	21.42	0.32
3.500	0.50	9.500	4.54	15.500	0.61	21.50	0.32
3.583	0.54	9.583	3.70	15.583	0.59	21.58	0.31
3.667	0.54	9.667	3.70	15.667	0.59	21.67	0.31
3.750	0.54	9.750	3.70	15.750	0.59	21.75	0.31
3.833	0.58	9.833	3.10	15.833	0.57	21.83	0.31
3.917	0.58	9.917	3.10	15.917	0.57	21.92	0.31
4.000	0.58	10.000	3.10	16.000	0.57	22.00	0.31
4.083	0.62	10.083	2.66	16.083	0.55	22.08	0.30
4.167	0.62	10.167	2.66	16.167	0.55	22.17	0.30
4.250	0.62	10.250	2.66	16.250	0.55	22.25	0.30
4.333	0.67	10.333	2.32	16.333	0.53	22.33	0.30
4.417	0.67	10.417	2.32	16.417	0.53	22.42	0.30
4.500	0.67	10.500	2.32	16.500	0.53	22.50	0.30
4.583	0.73	10.583	2.05	16.583	0.51	22.58	0.29
4.667	0.73	10.667	2.05	16.667	0.51	22.67	0.29
4.750	0.73	10.750	2.05	16.750	0.51	22.75	0.29
4.833	0.81	10.833	1.84	16.833	0.50	22.83	0.29
4.917	0.81	10.917	1.84	16.917	0.50	22.92	0.29
5.000	0.81	11.000	1.84	17.000	0.50	23.00	0.29
5.083	0.90	11.083	1.66	17.083	0.48	23.08	0.28
5.167	0.90	11.167	1.66	17.167	0.48	23.17	0.28
5.250	0.90	11.250	1.66	17.250	0.48	23.25	0.28
5.333	1.01	11.333	1.51	17.333	0.47	23.33	0.28
5.417	1.01	11.417	1.51	17.417	0.47	23.42	0.28
5.500	1.01	11.500	1.51	17.500	0.47	23.50	0.28
5.583	1.15	11.583	1.39	17.583	0.46	23.58	0.27
5.667	1.15	11.667	1.39	17.667	0.46	23.67	0.27
5.750	1.15	11.750	1.39	17.750	0.46	23.75	0.27
5.833	1.33	11.833	1.28	17.833	0.44	23.83	0.27
5.917	1.33	11.917	1.28	17.917	0.44	23.92	0.27
6.000	1.33	12.000	1.28	18.000	0.44	24.00	0.27

```

Max.Eff.Inten.(mm/hr)= 131.98   60.43
over (min) = 5.00   10.00
Storage Coeff. (min)= 2.22 (ii)   6.06 (ii)
Unit Hyd. Tpeak (min)= 5.00   10.00
Unit Hyd. peak (cms)= 0.30   0.15

PEAK FLOW (cms)= 0.51   0.01   *TOTALS*
TIME TO PEAK (hrs)= 8.00   8.08   0.517 (iii)
RUNOFF VOLUME (mm)= 82.54   36.47   80.70
TOTAL RAINFALL (mm)= 84.54   84.54   84.54
RUNOFF COEFFICIENT = 0.98   0.43   0.95

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7629) |
| ID= 1 DT= 5.0 min |
-----
Area (ha)= 1.70
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS   PERVIOUS (i)
Surface Area (ha)= 1.68   0.02
Dep. Storage (mm)= 2.00   5.00
Average Slope (%)= 1.10   2.00
Length (m)= 100.00   40.00
Mannings n = 0.013   0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

-----
| CALIB |
| STANDHYD ( 7620) |
| ID= 1 DT= 5.0 min |
-----
Area (ha)= 1.45
Total Imp(%)= 96.00 Dir. Conn.(%)= 96.00

IMPERVIOUS   PERVIOUS (i)
Surface Area (ha)= 1.39   0.06
Dep. Storage (mm)= 2.00   5.00
Average Slope (%)= 1.10   2.00
Length (m)= 100.00   145.00
Mannings n = 0.013   0.250

```

```

-----
| CALIB |
| STANDHYD ( 7629) |
| ID= 1 DT= 5.0 min |
-----
Area (ha)= 1.70
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS   PERVIOUS (i)
Surface Area (ha)= 1.68   0.02
Dep. Storage (mm)= 2.00   5.00
Average Slope (%)= 1.10   2.00
Length (m)= 100.00   40.00
Mannings n = 0.013   0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

-----
| CALIB |
| STANDHYD ( 7629) |
| ID= 1 DT= 5.0 min |
-----
Area (ha)= 1.70
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS   PERVIOUS (i)
Surface Area (ha)= 1.68   0.02
Dep. Storage (mm)= 2.00   5.00
Average Slope (%)= 1.10   2.00
Length (m)= 100.00   40.00
Mannings n = 0.013   0.250

```



hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	hrs	mm/hr
0.083	0.28	6.083	1.58	12.083	1.19	18.08	0.43	
0.167	0.28	6.167	1.58	12.167	1.19	18.17	0.43	
0.250	0.28	6.250	1.58	12.250	1.19	18.25	0.43	
0.333	0.29	6.333	1.94	12.333	1.11	18.33	0.42	
0.417	0.29	6.417	1.94	12.417	1.11	18.42	0.42	
0.500	0.29	6.500	1.94	12.500	1.11	18.50	0.42	
0.583	0.30	6.583	2.48	12.583	1.04	18.58	0.41	
0.667	0.30	6.667	2.48	12.667	1.04	18.67	0.41	
0.750	0.30	6.750	2.48	12.750	1.04	18.75	0.41	
0.833	0.31	6.833	3.40	12.833	0.98	18.83	0.40	
0.917	0.31	6.917	3.40	12.917	0.98	18.92	0.40	
1.000	0.31	7.000	3.40	13.000	0.98	19.00	0.40	
1.083	0.32	7.083	5.16	13.083	0.92	19.08	0.39	
1.167	0.32	7.167	5.16	13.167	0.92	19.17	0.39	
1.250	0.32	7.250	5.16	13.250	0.92	19.25	0.39	
1.333	0.34	7.333	9.60	13.333	0.87	19.33	0.38	
1.417	0.34	7.417	9.60	13.417	0.87	19.42	0.38	
1.500	0.34	7.500	9.60	13.500	0.87	19.50	0.38	
1.583	0.35	7.583	30.80	13.583	0.83	19.58	0.37	
1.667	0.35	7.667	30.80	13.667	0.83	19.67	0.37	
1.750	0.35	7.750	30.81	13.750	0.83	19.75	0.37	
1.833	0.37	7.833	131.98	13.833	0.79	19.83	0.36	
1.917	0.37	7.917	131.98	13.917	0.79	19.92	0.36	
2.000	0.37	8.000	131.98	14.000	0.79	20.00	0.36	
2.083	0.38	8.083	42.48	14.083	0.75	20.08	0.36	
2.167	0.38	8.167	42.48	14.167	0.75	20.17	0.36	
2.250	0.38	8.250	42.48	14.250	0.75	20.25	0.36	
2.333	0.40	8.333	19.17	14.333	0.72	20.33	0.35	
2.417	0.40	8.417	19.17	14.417	0.72	20.42	0.35	
2.500	0.40	8.500	19.17	14.500	0.72	20.50	0.35	
2.583	0.42	8.583	11.42	14.583	0.69	20.58	0.34	
2.667	0.42	8.667	11.42	14.667	0.69	20.67	0.34	
2.750	0.42	8.750	11.42	14.750	0.69	20.75	0.34	
2.833	0.45	8.833	7.81	14.833	0.66	20.83	0.33	
2.917	0.45	8.917	7.81	14.917	0.66	20.92	0.33	
3.000	0.45	9.000	7.81	15.000	0.66	21.00	0.33	
3.083	0.47	9.083	5.80	15.083	0.63	21.08	0.33	
3.167	0.47	9.167	5.80	15.167	0.63	21.17	0.33	
3.250	0.47	9.250	5.80	15.250	0.63	21.25	0.33	
3.333	0.50	9.333	4.54	15.333	0.61	21.33	0.32	
3.417	0.50	9.417	4.54	15.417	0.61	21.42	0.32	
3.500	0.50	9.500	4.54	15.500	0.61	21.50	0.32	
3.583	0.54	9.583	3.70	15.583	0.59	21.58	0.31	
3.667	0.54	9.667	3.70	15.667	0.59	21.67	0.31	
3.750	0.54	9.750	3.70	15.750	0.59	21.75	0.31	
3.833	0.58	9.833	3.10	15.833	0.57	21.83	0.31	
3.917	0.58	9.917	3.10	15.917	0.57	21.92	0.31	
4.000	0.58	10.000	3.10	16.000	0.57	22.00	0.31	
4.083	0.62	10.083	2.66	16.083	0.55	22.08	0.30	
4.167	0.62	10.167	2.66	16.167	0.55	22.17	0.30	
4.250	0.62	10.250	2.66	16.250	0.55	22.25	0.30	
4.333	0.67	10.333	2.32	16.333	0.53	22.33	0.30	
4.417	0.67	10.417	2.32	16.417	0.53	22.42	0.30	
4.500	0.67	10.500	2.32	16.500	0.53	22.50	0.30	
4.583	0.73	10.583	2.05	16.583	0.51	22.58	0.29	
4.667	0.73	10.667	2.05	16.667	0.51	22.67	0.29	
4.750	0.73	10.750	2.05	16.750	0.51	22.75	0.29	
4.833	0.81	10.833	1.84	16.833	0.50	22.83	0.29	
4.917	0.81	10.917	1.84	16.917	0.50	22.92	0.29	
5.000	0.81	11.000	1.84	17.000	0.50	23.00	0.29	
5.083	0.90	11.083	1.66	17.083	0.48	23.08	0.28	
5.167	0.90	11.167	1.66	17.167	0.48	23.17	0.28	
5.250	0.90	11.250	1.66	17.250	0.48	23.25	0.28	
5.333	1.01	11.333	1.51	17.333	0.47	23.33	0.28	
5.417	1.01	11.417	1.51	17.417	0.47	23.42	0.28	
5.500	1.01	11.500	1.51	17.500	0.47	23.50	0.28	
5.583	1.15	11.583	1.39	17.583	0.46	23.58	0.27	
5.667	1.15	11.667	1.39	17.667	0.46	23.67	0.27	
5.750	1.15	11.750	1.39	17.750	0.46	23.75	0.27	
5.833	1.33	11.833	1.28	17.833	0.44	23.83	0.27	
5.917	1.33	11.917	1.28	17.917	0.44	23.92	0.27	
6.000	1.33	12.000	1.28	18.000	0.44	24.00	0.27	

Max.Eff. Inten. (mm/hr)= 131.98
 over (min) 5.00

Storage Coeff. (min)= 2.22 (ii) 3.23 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.30 0.27

PEAK FLOW (cms)= 0.62 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 82.54 36.47 82.08
 TOTAL RAINFALL (mm)= 84.54 84.54 84.54
 RUNOFF COEFFICIENT = 0.98 0.43 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7651) | Area (ha)= 1.33
 | ID= 1 DT= 5.0 min | Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.30 0.03
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	'	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	mm/hr
0.083	0.28	6.083	1.58	12.083	1.19	18.08	0.43	
0.167	0.28	6.167	1.58	12.167	1.19	18.17	0.43	
0.250	0.28	6.250	1.58	12.250	1.19	18.25	0.43	
0.333	0.29	6.333	1.94	12.333	1.11	18.33	0.42	
0.417	0.29	6.417	1.94	12.417	1.11	18.42	0.42	
0.500	0.29	6.500	1.94	12.500	1.11	18.50	0.42	
0.583	0.30	6.583	2.48	12.583	1.04	18.58	0.41	
0.667	0.30	6.667	2.48	12.667	1.04	18.67	0.41	
0.750	0.30	6.750	2.48	12.750	1.04	18.75	0.41	
0.833	0.31	6.833	3.40	12.833	0.98	18.83	0.40	
0.917	0.31	6.917	3.40	12.917	0.98	18.92	0.40	
1.000	0.31	7.000	3.40	13.000	0.98	19.00	0.40	
1.083	0.32	7.083	5.16	13.083	0.92	19.08	0.39	
1.167	0.32	7.167	5.16	13.167	0.92	19.17	0.39	
1.250	0.32	7.250	5.16	13.250	0.92	19.25	0.39	
1.333	0.34	7.333	9.60	13.333	0.87	19.33	0.38	
1.417	0.34	7.417	9.60	13.417	0.87	19.42	0.38	
1.500	0.34	7.500	9.60	13.500	0.87	19.50	0.38	
1.583	0.35	7.583	30.80	13.583	0.83	19.58	0.37	
1.667	0.35	7.667	30.80	13.667	0.83	19.67	0.37	
1.750	0.35	7.750	30.81	13.750	0.83	19.75	0.37	
1.833	0.37	7.833	131.98	13.833	0.79	19.83	0.36	
1.917	0.37	7.917	131.98	13.917	0.79	19.92	0.36	
2.000	0.37	8.000	131.98	14.000	0.79	20.00	0.36	
2.083	0.38	8.083	42.48	14.083	0.75	20.08	0.36	
2.167	0.38	8.167	42.48	14.167	0.75	20.17	0.36	
2.250	0.38	8.250	42.48	14.250	0.75	20.25	0.36	
2.333	0.40	8.333	19.17	14.333	0.72	20.33	0.35	
2.417	0.40	8.417	19.17	14.417	0.72	20.42	0.35	
2.500	0.40	8.500	19.17	14.500	0.72	20.50	0.35	
2.583	0.42	8.583	11.42	14.583	0.69	20.58	0.34	
2.667	0.42	8.667	11.42	14.667	0.69	20.67	0.34	
2.750	0.42	8.750	11.42	14.750	0.69	20.75	0.34	
2.833	0.45	8.833	7.81	14.833	0.66	20.83	0.33	
2.917	0.45	8.917	7.81	14.917	0.66	20.92	0.33	
3.000	0.45	9.000	7.81	15.000	0.66	21.00	0.33	
3.083	0.47	9.083	5.80	15.083	0.63	21.08	0.33	
3.167	0.47	9.167	5.80	15.167	0.63	21.17	0.33	
3.250	0.47	9.250	5.80	15.250	0.63	21.25	0.33	

3.333	0.50	9.333	4.54	15.333	0.61	21.33	0.32
3.417	0.50	9.417	4.54	15.417	0.61	21.42	0.32
3.500	0.50	9.500	4.54	15.500	0.61	21.50	0.32
3.583	0.54	9.583	3.70	15.583	0.59	21.58	0.31
3.667	0.54	9.667	3.70	15.667	0.59	21.67	0.31
3.750	0.54	9.750	3.70	15.750	0.59	21.75	0.31
3.833	0.58	9.833	3.10	15.833	0.57	21.83	0.31
3.917	0.58	9.917	3.10	15.917	0.57	21.92	0.31
4.000	0.58	10.000	3.10	16.000	0.57	22.00	0.31
4.083	0.62	10.083	2.66	16.083	0.55	22.08	0.30
4.167	0.62	10.167	2.66	16.167	0.55	22.17	0.30
4.250	0.62	10.250	2.66	16.250	0.55	22.25	0.30
4.333	0.67	10.333	2.32	16.333	0.53	22.33	0.30
4.417	0.67	10.417	2.32	16.417	0.53	22.42	0.30
4.500	0.67	10.500	2.32	16.500	0.53	22.50	0.30
4.583	0.73	10.583	2.05	16.583	0.51	22.58	0.29
4.667	0.73	10.667	2.05	16.667	0.51	22.67	0.29
4.750	0.73	10.750	2.05	16.750	0.51	22.75	0.29
4.833	0.81	10.833	1.84	16.833	0.50	22.83	0.29
4.917	0.81	10.917	1.84	16.917	0.50	22.92	0.29
5.000	0.81	11.000	1.84	17.000	0.50	23.00	0.29
5.083	0.90	11.083	1.66	17.083	0.48	23.08	0.28
5.167	0.90	11.167	1.66	17.167	0.48	23.17	0.28
5.250	0.90	11.250	1.66	17.250	0.48	23.25	0.28
5.333	1.01	11.333	1.51	17.333	0.47	23.33	0.28
5.417	1.01	11.417	1.51	17.417	0.47	23.42	0.28
5.500	1.01	11.500	1.51	17.500	0.47	23.50	0.28
5.583	1.15	11.583	1.39	17.583	0.46	23.58	0.27
5.667	1.15	11.667	1.39	17.667	0.46	23.67	0.27
5.750	1.15	11.750	1.39	17.750	0.46	23.75	0.27
5.833	1.33	11.833	1.28	17.833	0.44	23.83	0.27
5.917	1.33	11.917	1.28	17.917	0.44	23.92	0.27
6.000	1.33	12.000	1.28	18.000	0.44	24.00	0.27

Max.Eff.Inten.(mm/hr)= 131.98 60.43
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.22 (ii) 3.55 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.30 0.26

TOTALS
 PEAK FLOW (cms)= 0.48 0.00 0.482 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 82.54 36.47 81.62
 TOTAL RAINFALL (mm)= 84.54 84.54 84.54
 RUNOFF COEFFICIENT = 0.98 0.43 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7700)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7620):	1.45	0.517	8.00	80.70
+ ID2= 2 (7629):	1.70	0.619	8.00	82.08
ID = 3 (7700):	3.15	1.137	8.00	81.45

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7700)				
3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7700):	3.15	1.137	8.00	81.45
+ ID2= 2 (7651):	1.33	0.482	8.00	81.62
ID = 1 (7700):	4.48	1.619	8.00	81.50

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)=	1.20
STANDHYD (7623)	Total Imp(%)=	95.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	95.00

Surface Area	(ha)=	1.14	PERVIOUS (i)	0.06
Dep. Storage	(mm)=	2.00		5.00
Average Slope	(%)=	2.50		2.00
Length	(m)=	60.00		40.00
Mannings n	=	0.013		0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.28	6.083	1.58	12.083	1.19	18.08	0.43		
0.167	0.28	6.167	1.58	12.167	1.19	18.17	0.43		
0.250	0.28	6.250	1.58	12.250	1.19	18.25	0.43		
0.333	0.29	6.333	1.94	12.333	1.11	18.33	0.42		
0.417	0.29	6.417	1.94	12.417	1.11	18.42	0.42		
0.500	0.29	6.500	1.94	12.500	1.11	18.50	0.42		
0.583	0.30	6.583	2.48	12.583	1.04	18.58	0.41		
0.667	0.30	6.667	2.48	12.667	1.04	18.67	0.41		
0.750	0.30	6.750	2.48	12.750	1.04	18.75	0.41		
0.833	0.31	6.833	3.40	12.833	0.98	18.83	0.40		
0.917	0.31	6.917	3.40	12.917	0.98	18.92	0.40		
1.000	0.31	7.000	3.40	13.000	0.98	19.00	0.40		
1.083	0.32	7.083	5.16	13.083	0.92	19.08	0.39		
1.167	0.32	7.167	5.16	13.167	0.92	19.17	0.39		
1.250	0.32	7.250	5.16	13.250	0.92	19.25	0.39		
1.333	0.34	7.333	9.60	13.333	0.87	19.33	0.38		
1.417	0.34	7.417	9.60	13.417	0.87	19.42	0.38		
1.500	0.34	7.500	9.60	13.500	0.87	19.50	0.38		
1.583	0.35	7.583	30.80	13.583	0.83	19.58	0.37		
1.667	0.35	7.667	30.80	13.667	0.83	19.67	0.37		
1.750	0.35	7.750	30.81	13.750	0.83	19.75	0.37		
1.833	0.37	7.833	131.98	13.833	0.79	19.83	0.36		
1.917	0.37	7.917	131.98	13.917	0.79	19.92	0.36		
2.000	0.37	8.000	131.98	14.000	0.79	20.00	0.36		
2.083	0.38	8.083	42.48	14.083	0.75	20.08	0.36		
2.167	0.38	8.167	42.48	14.167	0.75	20.17	0.36		
2.250	0.38	8.250	42.48	14.250	0.75	20.25	0.36		
2.333	0.40	8.333	19.17	14.333	0.72	20.33	0.35		
2.417	0.40	8.417	19.17	14.417	0.72	20.42	0.35		
2.500	0.40	8.500	19.17	14.500	0.72	20.50	0.35		
2.583	0.42	8.583	11.42	14.583	0.69	20.58	0.34		
2.667	0.42	8.667	11.42	14.667	0.69	20.67	0.34		
2.750	0.42	8.750	11.42	14.750	0.69	20.75	0.34		
2.833	0.45	8.833	7.81	14.833	0.66	20.83	0.33		
2.917	0.45	8.917	7.81	14.917	0.66	20.92	0.33		
3.000	0.45	9.000	7.81	15.000	0.66	21.00	0.33		
3.083	0.47	9.083	5.80	15.083	0.63	21.08	0.33		
3.167	0.47	9.167	5.80	15.167	0.63	21.17	0.33		
3.250	0.47	9.250	5.80	15.250	0.63	21.25	0.33		
3.333	0.50	9.333	4.54	15.333	0.61	21.33	0.32		
3.417	0.50	9.417	4.54	15.417	0.61	21.42	0.32		
3.500	0.50	9.500	4.54	15.500	0.61	21.50	0.32		
3.583	0.54	9.583	3.70	15.583	0.59	21.58	0.31		
3.667	0.54	9.667	3.70	15.667	0.59	21.67	0.31		
3.750	0.54	9.750	3.70	15.750	0.59	21.75	0.31		
3.833	0.58	9.833	3.10	15.833	0.57	21.83	0.31		
3.917	0.58	9.917	3.10	15.917	0.57	21.92	0.31		
4.000	0.58	10.000	3.10	16.000	0.57	22.00	0.31		
4.083	0.62	10.083	2.66	16.083	0.55	22.08	0.30		
4.167	0.62	10.167	2.66	16.167	0.55	22.17	0.30		
4.250	0.62	10.250	2.66	16.250	0.55	22.25	0.30		
4.333	0.67	10.333	2.32	16.333	0.53	22.33	0.30		
4.417	0.67	10.417	2.32	16.417	0.53	22.42	0.30		
4.500	0.67	10.500	2.32	16.500	0.53	22.50	0.30		
4.583	0.73	10.583	2.05	16.583	0.51	22.58	0.29		

4.667	0.73	10.667	2.05	16.667	0.51	22.67	0.29
4.750	0.73	10.750	2.05	16.750	0.51	22.75	0.29
4.833	0.81	10.833	1.84	16.833	0.50	22.83	0.29
4.917	0.81	10.917	1.84	16.917	0.50	22.92	0.29
5.000	0.81	11.000	1.84	17.000	0.50	23.00	0.29
5.083	0.90	11.083	1.66	17.083	0.48	23.08	0.28
5.167	0.90	11.167	1.66	17.167	0.48	23.17	0.28
5.250	0.90	11.250	1.66	17.250	0.48	23.25	0.28
5.333	1.01	11.333	1.51	17.333	0.47	23.33	0.28
5.417	1.01	11.417	1.51	17.417	0.47	23.42	0.28
5.500	1.01	11.500	1.51	17.500	0.47	23.50	0.28
5.583	1.15	11.583	1.39	17.583	0.46	23.58	0.27
5.667	1.15	11.667	1.39	17.667	0.46	23.67	0.27
5.750	1.15	11.750	1.39	17.750	0.46	23.75	0.27
5.833	1.33	11.833	1.28	17.833	0.44	23.83	0.27
5.917	1.33	11.917	1.28	17.917	0.44	23.92	0.27
6.000	1.33	12.000	1.28	18.000	0.44	24.00	0.27

Max.Eff.Inten.(mm/hr)= 131.98 62.36
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.28 (ii) 3.22 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.27

TOTALS

PEAK FLOW (cms)= 0.42 0.01 0.429 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 82.54 37.49 80.29
 TOTAL RAINFALL (mm)= 84.54 84.54 84.54
 RUNOFF COEFFICIENT = 0.98 0.44 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		Area (ha) = 1.69	
STANDHYD (7654)		Total Imp(%) = 99.00 Dir. Conn.(%) = 99.00	
ID= 1 DT= 5.0 min			
		IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.67	0.02	
Dep. Storage (mm)=	2.00	5.00	
Average Slope (%)=	1.10	2.00	
Length (m)=	100.00	40.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.28	6.083	1.58	12.083	1.19	18.08	0.43
0.167	0.28	6.167	1.58	12.167	1.19	18.17	0.43
0.250	0.28	6.250	1.58	12.250	1.19	18.25	0.43
0.333	0.29	6.333	1.94	12.333	1.11	18.33	0.42
0.417	0.29	6.417	1.94	12.417	1.11	18.42	0.42
0.500	0.29	6.500	1.94	12.500	1.11	18.50	0.42
0.583	0.30	6.583	2.48	12.583	1.04	18.58	0.41
0.667	0.30	6.667	2.48	12.667	1.04	18.67	0.41
0.750	0.30	6.750	2.48	12.750	1.04	18.75	0.41
0.833	0.31	6.833	3.40	12.833	0.98	18.83	0.40
0.917	0.31	6.917	3.40	12.917	0.98	18.92	0.40
1.000	0.31	7.000	3.40	13.000	0.98	19.00	0.40
1.083	0.32	7.083	5.16	13.083	0.92	19.08	0.39
1.167	0.32	7.167	5.16	13.167	0.92	19.17	0.39
1.250	0.32	7.250	5.16	13.250	0.92	19.25	0.39
1.333	0.34	7.333	9.60	13.333	0.87	19.33	0.38
1.417	0.34	7.417	9.60	13.417	0.87	19.42	0.38
1.500	0.34	7.500	9.60	13.500	0.87	19.50	0.38
1.583	0.35	7.583	30.80	13.583	0.83	19.58	0.37

1.667	0.35	7.667	30.80	13.667	0.83	19.67	0.37
1.750	0.35	7.750	30.81	13.750	0.83	19.75	0.37
1.833	0.37	7.833	131.98	13.833	0.79	19.83	0.36
1.917	0.37	7.917	131.98	13.917	0.79	19.92	0.36
2.000	0.37	8.000	131.98	14.000	0.79	20.00	0.36
2.083	0.38	8.083	42.48	14.083	0.75	20.08	0.36
2.167	0.38	8.167	42.48	14.167	0.75	20.17	0.36
2.250	0.38	8.250	42.48	14.250	0.75	20.25	0.36
2.333	0.40	8.333	19.17	14.333	0.72	20.33	0.35
2.417	0.40	8.417	19.17	14.417	0.72	20.42	0.35
2.500	0.40	8.500	19.17	14.500	0.72	20.50	0.35
2.583	0.42	8.583	11.42	14.583	0.69	20.58	0.34
2.667	0.42	8.667	11.42	14.667	0.69	20.67	0.34
2.750	0.42	8.750	11.42	14.750	0.69	20.75	0.34
2.833	0.45	8.833	7.81	14.833	0.66	20.83	0.33
2.917	0.45	8.917	7.81	14.917	0.66	20.92	0.33
3.000	0.45	9.000	7.81	15.000	0.66	21.00	0.33
3.083	0.47	9.083	5.80	15.083	0.63	21.08	0.33
3.167	0.47	9.167	5.80	15.167	0.63	21.17	0.33
3.250	0.47	9.250	5.80	15.250	0.63	21.25	0.33
3.333	0.50	9.333	4.54	15.333	0.61	21.33	0.32
3.417	0.50	9.417	4.54	15.417	0.61	21.42	0.32
3.500	0.50	9.500	4.54	15.500	0.61	21.50	0.32
3.583	0.54	9.583	3.70	15.583	0.59	21.58	0.31
3.667	0.54	9.667	3.70	15.667	0.59	21.67	0.31
3.750	0.54	9.750	3.70	15.750	0.59	21.75	0.31
3.833	0.58	9.833	3.10	15.833	0.57	21.83	0.31
3.917	0.58	9.917	3.10	15.917	0.57	21.92	0.31
4.000	0.58	10.000	3.10	16.000	0.57	22.00	0.31
4.083	0.62	10.083	2.66	16.083	0.55	22.08	0.30
4.167	0.62	10.167	2.66	16.167	0.55	22.17	0.30
4.250	0.62	10.250	2.66	16.250	0.55	22.25	0.30
4.333	0.67	10.333	2.32	16.333	0.53	22.33	0.30
4.417	0.67	10.417	2.32	16.417	0.53	22.42	0.30
4.500	0.67	10.500	2.32	16.500	0.53	22.50	0.30
4.583	0.73	10.583	2.05	16.583	0.51	22.58	0.29
4.667	0.73	10.667	2.05	16.667	0.51	22.67	0.29
4.750	0.73	10.750	2.05	16.750	0.51	22.75	0.29
4.833	0.81	10.833	1.84	16.833	0.50	22.83	0.29
4.917	0.81	10.917	1.84	16.917	0.50	22.92	0.29
5.000	0.81	11.000	1.84	17.000	0.50	23.00	0.29
5.083	0.90	11.083	1.66	17.083	0.48	23.08	0.28
5.167	0.90	11.167	1.66	17.167	0.48	23.17	0.28
5.250	0.90	11.250	1.66	17.250	0.48	23.25	0.28
5.333	1.01	11.333	1.51	17.333	0.47	23.33	0.28
5.417	1.01	11.417	1.51	17.417	0.47	23.42	0.28
5.500	1.01	11.500	1.51	17.500	0.47	23.50	0.28
5.583	1.15	11.583	1.39	17.583	0.46	23.58	0.27
5.667	1.15	11.667	1.39	17.667	0.46	23.67	0.27
5.750	1.15	11.750	1.39	17.750	0.46	23.75	0.27
5.833	1.33	11.833	1.28	17.833	0.44	23.83	0.27
5.917	1.33	11.917	1.28	17.917	0.44	23.92	0.27
6.000	1.33	12.000	1.28	18.000	0.44	24.00	0.27

Max.Eff.Inten.(mm/hr)= 131.98 60.43
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.22 (ii) 3.23 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.30 0.27

TOTALS

PEAK FLOW (cms)= 0.61 0.00 0.616 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 82.54 36.47 82.08
 TOTAL RAINFALL (mm)= 84.54 84.54 84.54
 RUNOFF COEFFICIENT = 0.98 0.43 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.



CALIB
 STANDHYD (7655) | Area (ha)= 1.32
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.31 0.01
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.28	6.083	1.58	12.083	1.19	18.08	0.43
0.167	0.28	6.167	1.58	12.167	1.19	18.17	0.43
0.250	0.28	6.250	1.58	12.250	1.19	18.25	0.43
0.333	0.29	6.333	1.94	12.333	1.11	18.33	0.42
0.417	0.29	6.417	1.94	12.417	1.11	18.42	0.42
0.500	0.29	6.500	1.94	12.500	1.11	18.50	0.42
0.583	0.30	6.583	2.48	12.583	1.04	18.58	0.41
0.667	0.30	6.667	2.48	12.667	1.04	18.67	0.41
0.750	0.30	6.750	2.48	12.750	1.04	18.75	0.41
0.833	0.31	6.833	3.40	12.833	0.98	18.83	0.40
0.917	0.31	6.917	3.40	12.917	0.98	18.92	0.40
1.000	0.31	7.000	3.40	13.000	0.98	19.00	0.40
1.083	0.32	7.083	5.16	13.083	0.92	19.08	0.39
1.167	0.32	7.167	5.16	13.167	0.92	19.17	0.39
1.250	0.32	7.250	5.16	13.250	0.92	19.25	0.39
1.333	0.34	7.333	9.60	13.333	0.87	19.33	0.38
1.417	0.34	7.417	9.60	13.417	0.87	19.42	0.38
1.500	0.34	7.500	9.60	13.500	0.87	19.50	0.38
1.583	0.35	7.583	30.80	13.583	0.83	19.58	0.37
1.667	0.35	7.667	30.80	13.667	0.83	19.67	0.37
1.750	0.35	7.750	30.81	13.750	0.83	19.75	0.37
1.833	0.37	7.833	131.98	13.833	0.79	19.83	0.36
1.917	0.37	7.917	131.98	13.917	0.79	19.92	0.36
2.000	0.37	8.000	131.98	14.000	0.79	20.00	0.36
2.083	0.38	8.083	42.48	14.083	0.75	20.08	0.36
2.167	0.38	8.167	42.48	14.167	0.75	20.17	0.36
2.250	0.38	8.250	42.48	14.250	0.75	20.25	0.36
2.333	0.40	8.333	19.17	14.333	0.72	20.33	0.35
2.417	0.40	8.417	19.17	14.417	0.72	20.42	0.35
2.500	0.40	8.500	19.17	14.500	0.72	20.50	0.35
2.583	0.42	8.583	11.42	14.583	0.69	20.58	0.34
2.667	0.42	8.667	11.42	14.667	0.69	20.67	0.34
2.750	0.42	8.750	11.42	14.750	0.69	20.75	0.34
2.833	0.45	8.833	7.81	14.833	0.66	20.83	0.33
2.917	0.45	8.917	7.81	14.917	0.66	20.92	0.33
3.000	0.45	9.000	7.81	15.000	0.66	21.00	0.33
3.083	0.47	9.083	5.80	15.083	0.63	21.08	0.33
3.167	0.47	9.167	5.80	15.167	0.63	21.17	0.33
3.250	0.47	9.250	5.80	15.250	0.63	21.25	0.33
3.333	0.50	9.333	4.54	15.333	0.61	21.33	0.32
3.417	0.50	9.417	4.54	15.417	0.61	21.42	0.32
3.500	0.50	9.500	4.54	15.500	0.61	21.50	0.32
3.583	0.54	9.583	3.70	15.583	0.59	21.58	0.31
3.667	0.54	9.667	3.70	15.667	0.59	21.67	0.31
3.750	0.54	9.750	3.70	15.750	0.59	21.75	0.31
3.833	0.58	9.833	3.10	15.833	0.57	21.83	0.31
3.917	0.58	9.917	3.10	15.917	0.57	21.92	0.31
4.000	0.58	10.000	3.10	16.000	0.57	22.00	0.31
4.083	0.62	10.083	2.66	16.083	0.55	22.08	0.30
4.167	0.62	10.167	2.66	16.167	0.55	22.17	0.30
4.250	0.62	10.250	2.66	16.250	0.55	22.25	0.30
4.333	0.67	10.333	2.32	16.333	0.53	22.33	0.30
4.417	0.67	10.417	2.32	16.417	0.53	22.42	0.30
4.500	0.67	10.500	2.32	16.500	0.53	22.50	0.30
4.583	0.73	10.583	2.05	16.583	0.51	22.58	0.29
4.667	0.73	10.667	2.05	16.667	0.51	22.67	0.29
4.750	0.73	10.750	2.05	16.750	0.51	22.75	0.29
4.833	0.81	10.833	1.84	16.833	0.50	22.83	0.29
4.917	0.81	10.917	1.84	16.917	0.50	22.92	0.29

5.000	0.81	11.000	1.84	17.000	0.50	23.00	0.29
5.083	0.90	11.083	1.66	17.083	0.48	23.08	0.28
5.167	0.90	11.167	1.66	17.167	0.48	23.17	0.28
5.250	0.90	11.250	1.66	17.250	0.48	23.25	0.28
5.333	1.01	11.333	1.51	17.333	0.47	23.33	0.28
5.417	1.01	11.417	1.51	17.417	0.47	23.42	0.28
5.500	1.01	11.500	1.51	17.500	0.47	23.50	0.28
5.583	1.15	11.583	1.39	17.583	0.46	23.58	0.27
5.667	1.15	11.667	1.39	17.667	0.46	23.67	0.27
5.750	1.15	11.750	1.39	17.750	0.46	23.75	0.27
5.833	1.33	11.833	1.28	17.833	0.44	23.83	0.27
5.917	1.33	11.917	1.28	17.917	0.44	23.92	0.27
6.000	1.33	12.000	1.28	18.000	0.44	24.00	0.27

Max.Eff.Inten.(mm/hr)= 131.98 60.43
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.22 (ii) 3.23 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.30 0.27

TOTALS

PEAK FLOW (cms)= 0.48 0.00 0.481 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 82.54 36.47 82.08
 TOTAL RAINFALL (mm)= 84.54 84.54 84.54
 RUNOFF COEFFICIENT = 0.98 0.43 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 STANDHYD (7662) | Area (ha)= 1.61
 ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.48 0.13
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 145.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.28	6.083	1.58	12.083	1.19	18.08	0.43
0.167	0.28	6.167	1.58	12.167	1.19	18.17	0.43
0.250	0.28	6.250	1.58	12.250	1.19	18.25	0.43
0.333	0.29	6.333	1.94	12.333	1.11	18.33	0.42
0.417	0.29	6.417	1.94	12.417	1.11	18.42	0.42
0.500	0.29	6.500	1.94	12.500	1.11	18.50	0.42
0.583	0.30	6.583	2.48	12.583	1.04	18.58	0.41
0.667	0.30	6.667	2.48	12.667	1.04	18.67	0.41
0.750	0.30	6.750	2.48	12.750	1.04	18.75	0.41
0.833	0.31	6.833	3.40	12.833	0.98	18.83	0.40
0.917	0.31	6.917	3.40	12.917	0.98	18.92	0.40
1.000	0.31	7.000	3.40	13.000	0.98	19.00	0.40
1.083	0.32	7.083	5.16	13.083	0.92	19.08	0.39
1.167	0.32	7.167	5.16	13.167	0.92	19.17	0.39
1.250	0.32	7.250	5.16	13.250	0.92	19.25	0.39
1.333	0.34	7.333	9.60	13.333	0.87	19.33	0.38
1.417	0.34	7.417	9.60	13.417	0.87	19.42	0.38
1.500	0.34	7.500	9.60	13.500	0.87	19.50	0.38
1.583	0.35	7.583	30.80	13.583	0.83	19.58	0.37
1.667	0.35	7.667	30.80	13.667	0.83	19.67	0.37
1.750	0.35	7.750	30.81	13.750	0.83	19.75	0.37
1.833	0.37	7.833	131.98	13.833	0.79	19.83	0.36
1.917	0.37	7.917	131.98	13.917	0.79	19.92	0.36

2.000	0.37	8.000	131.98	14.000	0.79	20.00	0.36
2.083	0.38	8.083	42.48	14.083	0.75	20.08	0.36
2.167	0.38	8.167	42.48	14.167	0.75	20.17	0.36
2.250	0.38	8.250	42.48	14.250	0.75	20.25	0.36
2.333	0.40	8.333	19.17	14.333	0.72	20.33	0.35
2.417	0.40	8.417	19.17	14.417	0.72	20.42	0.35
2.500	0.40	8.500	19.17	14.500	0.72	20.50	0.35
2.583	0.42	8.583	11.42	14.583	0.69	20.58	0.34
2.667	0.42	8.667	11.42	14.667	0.69	20.67	0.34
2.750	0.42	8.750	11.42	14.750	0.69	20.75	0.34
2.833	0.45	8.833	7.81	14.833	0.66	20.83	0.33
2.917	0.45	8.917	7.81	14.917	0.66	20.92	0.33
3.000	0.45	9.000	7.81	15.000	0.66	21.00	0.33
3.083	0.47	9.083	5.80	15.083	0.63	21.08	0.33
3.167	0.47	9.167	5.80	15.167	0.63	21.17	0.33
3.250	0.47	9.250	5.80	15.250	0.63	21.25	0.33
3.333	0.50	9.333	4.54	15.333	0.61	21.33	0.32
3.417	0.50	9.417	4.54	15.417	0.61	21.42	0.32
3.500	0.50	9.500	4.54	15.500	0.61	21.50	0.32
3.583	0.54	9.583	3.70	15.583	0.59	21.58	0.31
3.667	0.54	9.667	3.70	15.667	0.59	21.67	0.31
3.750	0.54	9.750	3.70	15.750	0.59	21.75	0.31
3.833	0.58	9.833	3.10	15.833	0.57	21.83	0.31
3.917	0.58	9.917	3.10	15.917	0.57	21.92	0.31
4.000	0.58	10.000	3.10	16.000	0.57	22.00	0.31
4.083	0.62	10.083	2.66	16.083	0.55	22.08	0.30
4.167	0.62	10.167	2.66	16.167	0.55	22.17	0.30
4.250	0.62	10.250	2.66	16.250	0.55	22.25	0.30
4.333	0.67	10.333	2.32	16.333	0.53	22.33	0.30
4.417	0.67	10.417	2.32	16.417	0.53	22.42	0.30
4.500	0.67	10.500	2.32	16.500	0.53	22.50	0.30
4.583	0.73	10.583	2.05	16.583	0.51	22.58	0.29
4.667	0.73	10.667	2.05	16.667	0.51	22.67	0.29
4.750	0.73	10.750	2.05	16.750	0.51	22.75	0.29
4.833	0.81	10.833	1.84	16.833	0.50	22.83	0.29
4.917	0.81	10.917	1.84	16.917	0.50	22.92	0.29
5.000	0.81	11.000	1.84	17.000	0.50	23.00	0.29
5.083	0.90	11.083	1.66	17.083	0.48	23.08	0.28
5.167	0.90	11.167	1.66	17.167	0.48	23.17	0.28
5.250	0.90	11.250	1.66	17.250	0.48	23.25	0.28
5.333	1.01	11.333	1.51	17.333	0.47	23.33	0.28
5.417	1.01	11.417	1.51	17.417	0.47	23.42	0.28
5.500	1.01	11.500	1.51	17.500	0.47	23.50	0.28
5.583	1.15	11.583	1.39	17.583	0.46	23.58	0.27
5.667	1.15	11.667	1.39	17.667	0.46	23.67	0.27
5.750	1.15	11.750	1.39	17.750	0.46	23.75	0.27
5.833	1.33	11.833	1.28	17.833	0.44	23.83	0.27
5.917	1.33	11.917	1.28	17.917	0.44	23.92	0.27
6.000	1.33	12.000	1.28	18.000	0.44	24.00	0.27

Max.Eff.Inten.(mm/hr)= 131.98 41.42
over (min) 5.00 25.00
Storage Coeff. (min)= 2.22 (ii) 23.97 (ii)
Unit Hyd. Tpeak (min)= 5.00 25.00
Unit Hyd. peak (cms)= 0.30 0.05

TOTALS
PEAK FLOW (cms)= 0.54 0.01 0.546 (iii)
TIME TO PEAK (hrs)= 8.00 8.33 8.00
RUNOFF VOLUME (mm)= 82.54 36.47 78.85
TOTAL RAINFALL (mm)= 84.54 84.54 84.54
RUNOFF COEFFICIENT = 0.98 0.43 0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7701)				
1 + 2 = 3				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	

ID1= 1 (7654):	1.69	0.616	8.00	82.08
+ ID2= 2 (7655):	1.32	0.481	8.00	82.08

ID = 3 (7701):	3.01	1.097	8.00	82.08

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7701)				
3 + 2 = 1				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7701):	3.01	1.097	8.00	82.08
+ ID2= 2 (7662):	1.61	0.546	8.00	78.85

ID = 1 (7701):	4.62	1.643	8.00	80.96

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7707)			
ID= 1 DT= 5.0 min	Area (ha)=	1.06	
	Total Imp(%)=	95.00	Dir. Conn.(%)= 95.00

			IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.01	0.05		
Dep. Storage (mm)=	2.00	5.00		
Average Slope (%)=	2.50	2.00		
Length (m)=	60.00	40.00		
Mannings n =	0.013	0.250		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.28	6.083	1.58	12.083	1.19	18.08	0.43				
0.167	0.28	6.167	1.58	12.167	1.19	18.17	0.43				
0.250	0.28	6.250	1.58	12.250	1.19	18.25	0.43				
0.333	0.29	6.333	1.94	12.333	1.11	18.33	0.42				
0.417	0.29	6.417	1.94	12.417	1.11	18.42	0.42				
0.500	0.29	6.500	1.94	12.500	1.11	18.50	0.42				
0.583	0.30	6.583	2.48	12.583	1.04	18.58	0.41				
0.667	0.30	6.667	2.48	12.667	1.04	18.67	0.41				
0.750	0.30	6.750	2.48	12.750	1.04	18.75	0.41				
0.833	0.31	6.833	3.40	12.833	0.98	18.83	0.40				
0.917	0.31	6.917	3.40	12.917	0.98	18.92	0.40				
1.000	0.31	7.000	3.40	13.000	0.98	19.00	0.40				
1.083	0.32	7.083	5.16	13.083	0.92	19.08	0.39				
1.167	0.32	7.167	5.16	13.167	0.92	19.17	0.39				
1.250	0.32	7.250	5.16	13.250	0.92	19.25	0.39				
1.333	0.34	7.333	9.60	13.333	0.87	19.33	0.38				
1.417	0.34	7.417	9.60	13.417	0.87	19.42	0.38				
1.500	0.34	7.500	9.60	13.500	0.87	19.50	0.38				
1.583	0.35	7.583	30.80	13.583	0.83	19.58	0.37				
1.667	0.35	7.667	30.80	13.667	0.83	19.67	0.37				
1.750	0.35	7.750	30.81	13.750	0.83	19.75	0.37				
1.833	0.37	7.833	131.98	13.833	0.79	19.83	0.36				
1.917	0.37	7.917	131.98	13.917	0.79	19.92	0.36				
2.000	0.37	8.000	131.98	14.000	0.79	20.00	0.36				
2.083	0.38	8.083	42.48	14.083	0.75	20.08	0.36				
2.167	0.38	8.167	42.48	14.167	0.75	20.17	0.36				
2.250	0.38	8.250	42.48	14.250	0.75	20.25	0.36				
2.333	0.40	8.333	19.17	14.333	0.72	20.33	0.35				
2.417	0.40	8.417	19.17	14.417	0.72	20.42	0.35				
2.500	0.40	8.500	19.17	14.500	0.72	20.50	0.35				
2.583	0.42	8.583	11.42	14.583	0.69	20.58	0.34				
2.667	0.42	8.667	11.42	14.667	0.69	20.67	0.34				
2.750	0.42	8.750	11.42	14.750	0.69	20.75	0.34				
2.833	0.45	8.833	7.81	14.833	0.66	20.83	0.33				
2.917	0.45	8.917	7.81	14.917	0.66	20.92	0.33				
3.000	0.45	9.000	7.81	15.000	0.66	21.00	0.33				
3.083	0.47	9.083	5.80	15.083	0.63	21.08	0.33				
3.167	0.47	9.167	5.80	15.167	0.63	21.17	0.33				
3.250	0.47	9.250	5.80	15.250	0.63	21.25	0.33				

3.333	0.50	9.333	4.54	15.333	0.61	21.33	0.32
3.417	0.50	9.417	4.54	15.417	0.61	21.42	0.32
3.500	0.50	9.500	4.54	15.500	0.61	21.50	0.32
3.583	0.54	9.583	3.70	15.583	0.59	21.58	0.31
3.667	0.54	9.667	3.70	15.667	0.59	21.67	0.31
3.750	0.54	9.750	3.70	15.750	0.59	21.75	0.31
3.833	0.58	9.833	3.10	15.833	0.57	21.83	0.31
3.917	0.58	9.917	3.10	15.917	0.57	21.92	0.31
4.000	0.58	10.000	3.10	16.000	0.57	22.00	0.31
4.083	0.62	10.083	2.66	16.083	0.55	22.08	0.30
4.167	0.62	10.167	2.66	16.167	0.55	22.17	0.30
4.250	0.62	10.250	2.66	16.250	0.55	22.25	0.30
4.333	0.67	10.333	2.32	16.333	0.53	22.33	0.30
4.417	0.67	10.417	2.32	16.417	0.53	22.42	0.30
4.500	0.67	10.500	2.32	16.500	0.53	22.50	0.30
4.583	0.73	10.583	2.05	16.583	0.51	22.58	0.29
4.667	0.73	10.667	2.05	16.667	0.51	22.67	0.29
4.750	0.73	10.750	2.05	16.750	0.51	22.75	0.29
4.833	0.81	10.833	1.84	16.833	0.50	22.83	0.29
4.917	0.81	10.917	1.84	16.917	0.50	22.92	0.29
5.000	0.81	11.000	1.84	17.000	0.50	23.00	0.29
5.083	0.90	11.083	1.66	17.083	0.48	23.08	0.28
5.167	0.90	11.167	1.66	17.167	0.48	23.17	0.28
5.250	0.90	11.250	1.66	17.250	0.48	23.25	0.28
5.333	1.01	11.333	1.51	17.333	0.47	23.33	0.28
5.417	1.01	11.417	1.51	17.417	0.47	23.42	0.28
5.500	1.01	11.500	1.51	17.500	0.47	23.50	0.28
5.583	1.15	11.583	1.39	17.583	0.46	23.58	0.27
5.667	1.15	11.667	1.39	17.667	0.46	23.67	0.27
5.750	1.15	11.750	1.39	17.750	0.46	23.75	0.27
5.833	1.33	11.833	1.28	17.833	0.44	23.83	0.27
5.917	1.33	11.917	1.28	17.917	0.44	23.92	0.27
6.000	1.33	12.000	1.28	18.000	0.44	24.00	0.27

Max.Eff.Inten.(mm/hr)=	131.98	62.36
over (min)	5.00	5.00
Storage Coeff. (min)=	1.28 (ii)	3.22 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.27

TOTALS			
PEAK FLOW (cms)=	0.37	0.01	0.379 (iii)
TIME TO PEAK (hrs)=	8.00	8.00	8.00
RUNOFF VOLUME (mm)=	82.54	37.49	80.29
TOTAL RAINFALL (mm)=	84.54	84.54	84.54
RUNOFF COEFFICIENT =	0.98	0.44	0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7702)					
1 + 2 = 3					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7623):	1.20	0.429	8.00	80.29	
+ ID2= 2 (7700):	4.48	1.619	8.00	81.50	
=====					
ID = 3 (7702):	5.68	2.048	8.00	81.24	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)					
3 + 2 = 1					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7702):	5.68	2.048	8.00	81.24	
+ ID2= 2 (7701):	4.62	1.643	8.00	80.96	
=====					
ID = 1 (7702):	10.30	3.690	8.00	81.12	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)					
1 + 2 = 3					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7702):	10.30	3.690	8.00	81.12	
+ ID2= 2 (7707):	1.06	0.379	8.00	80.29	
=====					
ID = 3 (7702):	11.36	4.069	8.00	81.04	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)					
3 + 2 = 1					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7702):	11.36	4.069	8.00	81.04	
+ ID2= 2 (7714):	14.31	2.361	8.00	84.95	
=====					
ID = 1 (7702):	25.67	6.430	8.00	83.22	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7705)					
OVERFLOW IS OFF					
IN= 2---> OUT= 1					
DT= 5.0 min					
	OUTFLOW	STORAGE	OUTFLOW	STORAGE	
	(cms)	(ha.m.)	(cms)	(ha.m.)	
	0.0000	0.0000	0.6280	2.3980	
	0.0730	0.2080	0.6400	2.4830	
	0.0890	0.2770	0.6520	2.5670	
	0.1340	0.5530	0.6640	2.6500	
	0.2910	0.8290	0.6750	2.7340	
	0.3860	1.1060	0.7190	3.0490	
	0.4590	1.3820	0.8250	3.3550	
	0.5220	1.7210	2.0760	3.4560	
	0.5780	2.0600	2.3560	3.7320	
=====					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 2 (7702)	25.670	6.430	8.00	83.22	
OUTFLOW: ID= 1 (7705)	25.670	0.399	9.50	83.19	

PEAK FLOW REDUCTION [Qout/Qin](%) = 6.21
TIME SHIFT OF PEAK FLOW (min) = 90.00
MAXIMUM STORAGE USED (ha.m.) = 1.1565

CALIB					
STANDHYD (7716)					
ID= 1 DT= 5.0 min					
	Area	(ha)=	0.19		
	Total Imp(%)=		95.00	Dir. Conn.(%)=	95.00
=====					
	IMPERVIOUS	PERVIOUS (i)			
Surface Area (ha)=	0.18	0.01			
Dep. Storage (mm)=	2.00	5.00			
Average Slope (%)=	2.50	2.00			
Length (m)=	60.00	40.00			
Mannings n =	0.013	0.250			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.28	6.083	1.58	12.083	1.19	18.08	0.43				
0.167	0.28	6.167	1.58	12.167	1.19	18.17	0.43				
0.250	0.28	6.250	1.58	12.250	1.19	18.25	0.43				
0.333	0.29	6.333	1.94	12.333	1.11	18.33	0.42				
0.417	0.29	6.417	1.94	12.417	1.11	18.42	0.42				
0.500	0.29	6.500	1.94	12.500	1.11	18.50	0.42				



0.583	0.30	6.583	2.48	12.583	1.04	18.58	0.41
0.667	0.30	6.667	2.48	12.667	1.04	18.67	0.41
0.750	0.30	6.750	2.48	12.750	1.04	18.75	0.41
0.833	0.31	6.833	3.40	12.833	0.98	18.83	0.40
0.917	0.31	6.917	3.40	12.917	0.98	18.92	0.40
1.000	0.31	7.000	3.40	13.000	0.98	19.00	0.40
1.083	0.32	7.083	5.16	13.083	0.92	19.08	0.39
1.167	0.32	7.167	5.16	13.167	0.92	19.17	0.39
1.250	0.32	7.250	5.16	13.250	0.92	19.25	0.39
1.333	0.34	7.333	9.60	13.333	0.87	19.33	0.38
1.417	0.34	7.417	9.60	13.417	0.87	19.42	0.38
1.500	0.34	7.500	9.60	13.500	0.87	19.50	0.38
1.583	0.35	7.583	30.80	13.583	0.83	19.58	0.37
1.667	0.35	7.667	30.80	13.667	0.83	19.67	0.37
1.750	0.35	7.750	30.81	13.750	0.83	19.75	0.37
1.833	0.37	7.833	131.98	13.833	0.79	19.83	0.36
1.917	0.37	7.917	131.98	13.917	0.79	19.92	0.36
2.000	0.37	8.000	131.98	14.000	0.79	20.00	0.36
2.083	0.38	8.083	42.48	14.083	0.75	20.08	0.36
2.167	0.38	8.167	42.48	14.167	0.75	20.17	0.36
2.250	0.38	8.250	42.48	14.250	0.75	20.25	0.36
2.333	0.40	8.333	19.17	14.333	0.72	20.33	0.35
2.417	0.40	8.417	19.17	14.417	0.72	20.42	0.35
2.500	0.40	8.500	19.17	14.500	0.72	20.50	0.35
2.583	0.42	8.583	11.42	14.583	0.69	20.58	0.34
2.667	0.42	8.667	11.42	14.667	0.69	20.67	0.34
2.750	0.42	8.750	11.42	14.750	0.69	20.75	0.34
2.833	0.45	8.833	7.81	14.833	0.66	20.83	0.33
2.917	0.45	8.917	7.81	14.917	0.66	20.92	0.33
3.000	0.45	9.000	7.81	15.000	0.66	21.00	0.33
3.083	0.47	9.083	5.80	15.083	0.63	21.08	0.33
3.167	0.47	9.167	5.80	15.167	0.63	21.17	0.33
3.250	0.47	9.250	5.80	15.250	0.63	21.25	0.33
3.333	0.50	9.333	4.54	15.333	0.61	21.33	0.32
3.417	0.50	9.417	4.54	15.417	0.61	21.42	0.32
3.500	0.50	9.500	4.54	15.500	0.61	21.50	0.32
3.583	0.54	9.583	3.70	15.583	0.59	21.58	0.31
3.667	0.54	9.667	3.70	15.667	0.59	21.67	0.31
3.750	0.54	9.750	3.70	15.750	0.59	21.75	0.31
3.833	0.58	9.833	3.10	15.833	0.57	21.83	0.31
3.917	0.58	9.917	3.10	15.917	0.57	21.92	0.31
4.000	0.58	10.000	3.10	16.000	0.57	22.00	0.31
4.083	0.62	10.083	2.66	16.083	0.55	22.08	0.30
4.167	0.62	10.167	2.66	16.167	0.55	22.17	0.30
4.250	0.62	10.250	2.66	16.250	0.55	22.25	0.30
4.333	0.67	10.333	2.32	16.333	0.53	22.33	0.30
4.417	0.67	10.417	2.32	16.417	0.53	22.42	0.30
4.500	0.67	10.500	2.32	16.500	0.53	22.50	0.30
4.583	0.73	10.583	2.05	16.583	0.51	22.58	0.29
4.667	0.73	10.667	2.05	16.667	0.51	22.67	0.29
4.750	0.73	10.750	2.05	16.750	0.51	22.75	0.29
4.833	0.81	10.833	1.84	16.833	0.50	22.83	0.29
4.917	0.81	10.917	1.84	16.917	0.50	22.92	0.29
5.000	0.81	11.000	1.84	17.000	0.50	23.00	0.29
5.083	0.90	11.083	1.66	17.083	0.48	23.08	0.28
5.167	0.90	11.167	1.66	17.167	0.48	23.17	0.28
5.250	0.90	11.250	1.66	17.250	0.48	23.25	0.28
5.333	1.01	11.333	1.51	17.333	0.47	23.33	0.28
5.417	1.01	11.417	1.51	17.417	0.47	23.42	0.28
5.500	1.01	11.500	1.51	17.500	0.47	23.50	0.28
5.583	1.15	11.583	1.39	17.583	0.46	23.58	0.27
5.667	1.15	11.667	1.39	17.667	0.46	23.67	0.27
5.750	1.15	11.750	1.39	17.750	0.46	23.75	0.27
5.833	1.33	11.833	1.28	17.833	0.44	23.83	0.27
5.917	1.33	11.917	1.28	17.917	0.44	23.92	0.27
6.000	1.33	12.000	1.28	18.000	0.44	24.00	0.27

Max.Eff.Inten.(mm/hr)= 131.98 62.36
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.28 (ii) 3.22 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.27

TOTALS
 PEAK FLOW (cms)= 0.07 0.00 0.068 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 82.54 37.49 80.29

TOTAL RAINFALL (mm)= 84.54 84.54 84.54
 RUNOFF COEFFICIENT = 0.98 0.44 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7720) OVERFLOW IS OFF				
IN= 2---> OUT= 1				
DT= 5.0 min				

	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.0100	0.0090
	0.0030	0.0010	0.0110	0.0100
	0.0050	0.0030	0.0120	0.0110
	0.0060	0.0040	0.0120	0.0130
	0.0080	0.0050	0.0130	0.0140
	0.0090	0.0060	0.0140	0.0150
	0.0090	0.0080	0.0000	0.0000

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7716)	0.190	0.068	8.00	80.29
OUTFLOW: ID= 1 (7720)	0.190	0.009	8.50	80.05

	PEAK FLOW REDUCTION [Qout/Qin](%)=	13.97		
	TIME SHIFT OF PEAK FLOW	(min)= 30.00		
	MAXIMUM STORAGE USED	(ha.m.)= 0.0085		

CALIB		Area (ha)= 0.20	
STANDHYD (7717)		Total Imp(%)= 95.00	
ID= 1 DT= 5.0 min		Dir. Conn.(%)= 95.00	
-----		-----	
	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	0.19	0.01	
Dep. Storage (mm)=	2.00	5.00	
Average Slope (%)=	2.50	2.00	
Length (m)=	36.51	40.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.28	6.083	1.58	12.083	1.19	18.08	0.43
0.167	0.28	6.167	1.58	12.167	1.19	18.17	0.43
0.250	0.28	6.250	1.58	12.250	1.19	18.25	0.43
0.333	0.29	6.333	1.94	12.333	1.11	18.33	0.42
0.417	0.29	6.417	1.94	12.417	1.11	18.42	0.42
0.500	0.29	6.500	1.94	12.500	1.11	18.50	0.42
0.583	0.30	6.583	2.48	12.583	1.04	18.58	0.41
0.667	0.30	6.667	2.48	12.667	1.04	18.67	0.41
0.750	0.30	6.750	2.48	12.750	1.04	18.75	0.41
0.833	0.31	6.833	3.40	12.833	0.98	18.83	0.40
0.917	0.31	6.917	3.40	12.917	0.98	18.92	0.40
1.000	0.31	7.000	3.40	13.000	0.98	19.00	0.40
1.083	0.32	7.083	5.16	13.083	0.92	19.08	0.39
1.167	0.32	7.167	5.16	13.167	0.92	19.17	0.39
1.250	0.32	7.250	5.16	13.250	0.92	19.25	0.39
1.333	0.34	7.333	9.60	13.333	0.87	19.33	0.38
1.417	0.34	7.417	9.60	13.417	0.87	19.42	0.38
1.500	0.34	7.500	9.60	13.500	0.87	19.50	0.38
1.583	0.35	7.583	30.80	13.583	0.83	19.58	0.37
1.667	0.35	7.667	30.80	13.667	0.83	19.67	0.37
1.750	0.35	7.750	30.81	13.750	0.83	19.75	0.37
1.833	0.37	7.833	131.98	13.833	0.79	19.83	0.36
1.917	0.37	7.917	131.98	13.917	0.79	19.92	0.36

2.000	0.37	8.000	131.98	14.000	0.79	20.00	0.36
2.083	0.38	8.083	42.48	14.083	0.75	20.08	0.36
2.167	0.38	8.167	42.48	14.167	0.75	20.17	0.36
2.250	0.38	8.250	42.48	14.250	0.75	20.25	0.36
2.333	0.40	8.333	19.17	14.333	0.72	20.33	0.35
2.417	0.40	8.417	19.17	14.417	0.72	20.42	0.35
2.500	0.40	8.500	19.17	14.500	0.72	20.50	0.35
2.583	0.42	8.583	11.42	14.583	0.69	20.58	0.34
2.667	0.42	8.667	11.42	14.667	0.69	20.67	0.34
2.750	0.42	8.750	11.42	14.750	0.69	20.75	0.34
2.833	0.45	8.833	7.81	14.833	0.66	20.83	0.33
2.917	0.45	8.917	7.81	14.917	0.66	20.92	0.33
3.000	0.45	9.000	7.81	15.000	0.66	21.00	0.33
3.083	0.47	9.083	5.80	15.083	0.63	21.08	0.33
3.167	0.47	9.167	5.80	15.167	0.63	21.17	0.33
3.250	0.47	9.250	5.80	15.250	0.63	21.25	0.33
3.333	0.50	9.333	4.54	15.333	0.61	21.33	0.32
3.417	0.50	9.417	4.54	15.417	0.61	21.42	0.32
3.500	0.50	9.500	4.54	15.500	0.61	21.50	0.32
3.583	0.54	9.583	3.70	15.583	0.59	21.58	0.31
3.667	0.54	9.667	3.70	15.667	0.59	21.67	0.31
3.750	0.54	9.750	3.70	15.750	0.59	21.75	0.31
3.833	0.58	9.833	3.10	15.833	0.57	21.83	0.31
3.917	0.58	9.917	3.10	15.917	0.57	21.92	0.31
4.000	0.58	10.000	3.10	16.000	0.57	22.00	0.31
4.083	0.62	10.083	2.66	16.083	0.55	22.08	0.30
4.167	0.62	10.167	2.66	16.167	0.55	22.17	0.30
4.250	0.62	10.250	2.66	16.250	0.55	22.25	0.30
4.333	0.67	10.333	2.32	16.333	0.53	22.33	0.30
4.417	0.67	10.417	2.32	16.417	0.53	22.42	0.30
4.500	0.67	10.500	2.32	16.500	0.53	22.50	0.30
4.583	0.73	10.583	2.05	16.583	0.51	22.58	0.29
4.667	0.73	10.667	2.05	16.667	0.51	22.67	0.29
4.750	0.73	10.750	2.05	16.750	0.51	22.75	0.29
4.833	0.81	10.833	1.84	16.833	0.50	22.83	0.29
4.917	0.81	10.917	1.84	16.917	0.50	22.92	0.29
5.000	0.81	11.000	1.84	17.000	0.50	23.00	0.29
5.083	0.90	11.083	1.66	17.083	0.48	23.08	0.28
5.167	0.90	11.167	1.66	17.167	0.48	23.17	0.28
5.250	0.90	11.250	1.66	17.250	0.48	23.25	0.28
5.333	1.01	11.333	1.51	17.333	0.47	23.33	0.28
5.417	1.01	11.417	1.51	17.417	0.47	23.42	0.28
5.500	1.01	11.500	1.51	17.500	0.47	23.50	0.28
5.583	1.15	11.583	1.39	17.583	0.46	23.58	0.27
5.667	1.15	11.667	1.39	17.667	0.46	23.67	0.27
5.750	1.15	11.750	1.39	17.750	0.46	23.75	0.27
5.833	1.33	11.833	1.28	17.833	0.44	23.83	0.27
5.917	1.33	11.917	1.28	17.917	0.44	23.92	0.27
6.000	1.33	12.000	1.28	18.000	0.44	24.00	0.27

Max.Eff.Inten.(mm/hr)= 131.98 62.36
 over (min) 5.00 5.00
 Storage Coeff. (min)= 0.95 (ii) 2.89 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.28

TOTALS
 PEAK FLOW (cms)= 0.07 0.00 0.071 (iii)
 TIME TO PEAK (hrs)= 7.92 8.00 8.00
 RUNOFF VOLUME (mm)= 82.54 37.49 80.29
 TOTAL RAINFALL (mm)= 84.54 84.54 84.54
 RUNOFF COEFFICIENT = 0.98 0.44 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7719) OVERFLOW IS OFF			
IN= 2--> OUT= 1			
DT= 5.0 min			
OUTFLOW	STORAGE	OUTFLOW	STORAGE
(cms)	(ha.m.)	(cms)	(ha.m.)

0.0000	0.0000	0.0100	0.0090
0.0030	0.0010	0.0110	0.0100
0.0050	0.0030	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

AREA	QPEAK	TPEAK	R.V.
(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7717)	0.200	0.071	8.00
OUTFLOW : ID= 1 (7719)	0.200	0.010	8.50 80.05

PEAK FLOW REDUCTION [Qout/Qin](%)= 13.95
 TIME SHIFT OF PEAK FLOW (min)= 30.00
 MAXIMUM STORAGE USED (ha.m.)= 0.0090

ADD HYD (7706)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7705):	25.67	0.399	9.50	83.19
+ ID2= 2 (7719):	0.20	0.010	8.50	80.05
ID = 3 (7706):	25.87	0.408	9.50	83.17

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7706)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7706):	25.87	0.408	9.50	83.17
+ ID2= 2 (7720):	0.19	0.009	8.50	80.05
ID = 1 (7706):	26.06	0.417	9.50	83.14

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7595)			
ID= 1 DT= 5.0 min	Area (ha)=	1.24	
	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.23	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	91.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.28	6.083	1.58	12.083	1.19	18.08	0.43		
0.167	0.28	6.167	1.58	12.167	1.19	18.17	0.43		
0.250	0.28	6.250	1.58	12.250	1.19	18.25	0.43		
0.333	0.29	6.333	1.94	12.333	1.11	18.33	0.42		
0.417	0.29	6.417	1.94	12.417	1.11	18.42	0.42		
0.500	0.29	6.500	1.94	12.500	1.11	18.50	0.42		
0.583	0.30	6.583	2.48	12.583	1.04	18.58	0.41		
0.667	0.30	6.667	2.48	12.667	1.04	18.67	0.41		
0.750	0.30	6.750	2.48	12.750	1.04	18.75	0.41		
0.833	0.31	6.833	3.40	12.833	0.98	18.83	0.40		
0.917	0.31	6.917	3.40	12.917	0.98	18.92	0.40		
1.000	0.31	7.000	3.40	13.000	0.98	19.00	0.40		
1.083	0.32	7.083	5.16	13.083	0.92	19.08	0.39		
1.167	0.32	7.167	5.16	13.167	0.92	19.17	0.39		
1.250	0.32	7.250	5.16	13.250	0.92	19.25	0.39		
1.333	0.34	7.333	9.60	13.333	0.87	19.33	0.38		



1.417	0.34	7.417	9.60	13.417	0.87	19.42	0.38
1.500	0.34	7.500	9.60	13.500	0.87	19.50	0.38
1.583	0.35	7.583	30.80	13.583	0.83	19.58	0.37
1.667	0.35	7.667	30.80	13.667	0.83	19.67	0.37
1.750	0.35	7.750	30.81	13.750	0.83	19.75	0.37
1.833	0.37	7.833	131.98	13.833	0.79	19.83	0.36
1.917	0.37	7.917	131.98	13.917	0.79	19.92	0.36
2.000	0.37	8.000	131.98	14.000	0.79	20.00	0.36
2.083	0.38	8.083	42.48	14.083	0.75	20.08	0.36
2.167	0.38	8.167	42.48	14.167	0.75	20.17	0.36
2.250	0.38	8.250	42.48	14.250	0.75	20.25	0.36
2.333	0.40	8.333	19.17	14.333	0.72	20.33	0.35
2.417	0.40	8.417	19.17	14.417	0.72	20.42	0.35
2.500	0.40	8.500	19.17	14.500	0.72	20.50	0.35
2.583	0.42	8.583	11.42	14.583	0.69	20.58	0.34
2.667	0.42	8.667	11.42	14.667	0.69	20.67	0.34
2.750	0.42	8.750	11.42	14.750	0.69	20.75	0.34
2.833	0.45	8.833	7.81	14.833	0.66	20.83	0.33
2.917	0.45	8.917	7.81	14.917	0.66	20.92	0.33
3.000	0.45	9.000	7.81	15.000	0.66	21.00	0.33
3.083	0.47	9.083	5.80	15.083	0.63	21.08	0.33
3.167	0.47	9.167	5.80	15.167	0.63	21.17	0.33
3.250	0.47	9.250	5.80	15.250	0.63	21.25	0.33
3.333	0.50	9.333	4.54	15.333	0.61	21.33	0.32
3.417	0.50	9.417	4.54	15.417	0.61	21.42	0.32
3.500	0.50	9.500	4.54	15.500	0.61	21.50	0.32
3.583	0.54	9.583	3.70	15.583	0.59	21.58	0.31
3.667	0.54	9.667	3.70	15.667	0.59	21.67	0.31
3.750	0.54	9.750	3.70	15.750	0.59	21.75	0.31
3.833	0.58	9.833	3.10	15.833	0.57	21.83	0.31
3.917	0.58	9.917	3.10	15.917	0.57	21.92	0.31
4.000	0.58	10.000	3.10	16.000	0.57	22.00	0.31
4.083	0.62	10.083	2.66	16.083	0.55	22.08	0.30
4.167	0.62	10.167	2.66	16.167	0.55	22.17	0.30
4.250	0.62	10.250	2.66	16.250	0.55	22.25	0.30
4.333	0.67	10.333	2.32	16.333	0.53	22.33	0.30
4.417	0.67	10.417	2.32	16.417	0.53	22.42	0.30
4.500	0.67	10.500	2.32	16.500	0.53	22.50	0.30
4.583	0.73	10.583	2.05	16.583	0.51	22.58	0.29
4.667	0.73	10.667	2.05	16.667	0.51	22.67	0.29
4.750	0.73	10.750	2.05	16.750	0.51	22.75	0.29
4.833	0.81	10.833	1.84	16.833	0.50	22.83	0.29
4.917	0.81	10.917	1.84	16.917	0.50	22.92	0.29
5.000	0.81	11.000	1.84	17.000	0.50	23.00	0.29
5.083	0.90	11.083	1.66	17.083	0.48	23.08	0.28
5.167	0.90	11.167	1.66	17.167	0.48	23.17	0.28
5.250	0.90	11.250	1.66	17.250	0.48	23.25	0.28
5.333	1.01	11.333	1.51	17.333	0.47	23.33	0.28
5.417	1.01	11.417	1.51	17.417	0.47	23.42	0.28
5.500	1.01	11.500	1.51	17.500	0.47	23.50	0.28
5.583	1.15	11.583	1.39	17.583	0.46	23.58	0.27
5.667	1.15	11.667	1.39	17.667	0.46	23.67	0.27
5.750	1.15	11.750	1.39	17.750	0.46	23.75	0.27
5.833	1.33	11.833	1.28	17.833	0.44	23.83	0.27
5.917	1.33	11.917	1.28	17.917	0.44	23.92	0.27
6.000	1.33	12.000	1.28	18.000	0.44	24.00	0.27

Max.Eff.Inten.(mm/hr)= 131.98 60.43
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.75 (ii) 2.76 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.28

PEAK FLOW (cms)= 0.45 0.00 0.453 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00
 RUNOFF VOLUME (mm)= 82.54 36.47 82.08
 TOTAL RAINFALL (mm)= 84.54 84.54 84.54
 RUNOFF COEFFICIENT = 0.98 0.43 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| ADD HYD ( 7718) |
| 1 + 2 = 3 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7595): 1.24 0.453 8.00 82.08
+ ID2= 2 ( 7706): 26.06 0.417 9.50 83.14
-----
ID = 3 ( 7718): 27.30 0.677 8.00 83.10
-----
NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-----
| RESERVOIR ( 7711) | OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT= 5.0 min |
-----
OUTFLOW STORAGE | OUTFLOW STORAGE
(cms) (ha.m.) | (cms) (ha.m.)
0.0000 0.0000 | 1.0810 1.6220
0.0010 0.1670 | 1.3950 1.8170
0.0340 0.3380 | 2.0990 2.2130
0.0510 0.5110 | 2.8950 2.6150
0.0630 0.6880 | 3.7730 3.0250
0.1610 0.8670 | 4.7260 3.4420
0.3300 1.0500 | 5.5670 3.8670
0.5440 1.2370 | 8.5800 4.3000
0.7970 1.4290 | 10.9450 4.5210
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 2 ( 7718) 27.302 0.677 8.00 83.10
OUTFLOW: ID= 1 ( 7711) 27.302 0.263 17.75 77.64
-----
PEAK FLOW REDUCTION [Qout/Qin](%)= 38.84
TIME SHIFT OF PEAK FLOW (min)=585.00
MAXIMUM STORAGE USED (ha.m.)= 0.9774
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*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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5.25 0.97 | 11.25 1.49 | 17.25 0.42 | 23.25 0.24
5.50 1.11 | 11.50 1.36 | 17.50 0.41 | 23.50 0.24
5.75 1.30 | 11.75 1.25 | 17.75 0.40 | 23.75 0.23

```

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-----
| CALIB |
| STANDBYD ( 7640) | Area (ha)= 0.59
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.58 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 62.72 40.00
Mannings n = 0.013 0.250

```

***** D E T A I L E D O U T P U T *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\d5b56248-95c4-4fd9-b2cf-d45766d4d489\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\d5b56248-95c4-4fd9-b2cf-d45766d4d489\scen

```

DATE: 11-22-2024 TIME: 12:17:33

USER:

COMMENTS:

```

*****
** SIMULATION : E - 50yr 24hr 15min Chicago **
*****

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-----
| CHICAGO STORM | IDF curve parameters: A=3886.000
| Ptotal= 92.53 mm | B= 16.000
| | C= 0.950
-----
used in: INTENSITY = A / (t + B)^C

Duration of storm = 24.00 hrs
Storm time step = 15.00 min
Time to peak ratio = 0.33

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.57	12.083	1.16	18.08	0.39
0.167	0.24	6.167	1.57	12.167	1.16	18.17	0.39
0.250	0.24	6.250	1.57	12.250	1.16	18.25	0.39
0.333	0.25	6.333	1.95	12.333	1.07	18.33	0.38
0.417	0.25	6.417	1.95	12.417	1.07	18.42	0.38
0.500	0.25	6.500	1.95	12.500	1.07	18.50	0.38
0.583	0.26	6.583	2.55	12.583	1.00	18.58	0.37
0.667	0.26	6.667	2.55	12.667	1.00	18.67	0.37
0.750	0.26	6.750	2.55	12.750	1.00	18.75	0.37
0.833	0.27	6.833	3.55	12.833	0.94	18.83	0.36
0.917	0.27	6.917	3.55	12.917	0.94	18.92	0.36
1.000	0.27	7.000	3.55	13.000	0.94	19.00	0.36
1.083	0.29	7.083	5.54	13.083	0.88	19.08	0.35
1.167	0.29	7.167	5.54	13.167	0.88	19.17	0.35
1.250	0.29	7.250	5.54	13.250	0.88	19.25	0.35
1.333	0.30	7.333	10.62	13.333	0.83	19.33	0.34
1.417	0.30	7.417	10.62	13.417	0.83	19.42	0.34
1.500	0.30	7.500	10.62	13.500	0.83	19.50	0.34
1.583	0.31	7.583	35.13	13.583	0.78	19.58	0.33
1.667	0.31	7.667	35.13	13.667	0.78	19.67	0.33
1.750	0.31	7.750	35.13	13.750	0.78	19.75	0.33
1.833	0.33	7.833	149.09	13.833	0.74	19.83	0.32
1.917	0.33	7.917	149.09	13.917	0.74	19.92	0.32
2.000	0.33	8.000	149.09	14.000	0.74	20.00	0.32
2.083	0.34	8.083	48.62	14.083	0.71	20.08	0.32
2.167	0.34	8.167	48.62	14.167	0.71	20.17	0.32
2.250	0.34	8.250	48.62	14.250	0.71	20.25	0.32
2.333	0.36	8.333	21.69	14.333	0.67	20.33	0.31
2.417	0.36	8.417	21.69	14.417	0.67	20.42	0.31
2.500	0.36	8.500	21.69	14.500	0.67	20.50	0.31
2.583	0.38	8.583	12.72	14.583	0.64	20.58	0.30
2.667	0.38	8.667	12.72	14.667	0.64	20.67	0.30
2.750	0.38	8.750	12.72	14.750	0.64	20.75	0.30
2.833	0.41	8.833	8.56	14.833	0.61	20.83	0.30
2.917	0.41	8.917	8.56	14.917	0.61	20.92	0.30
3.000	0.41	9.000	8.56	15.000	0.61	21.00	0.30
3.083	0.43	9.083	6.26	15.083	0.59	21.08	0.29
3.167	0.43	9.167	6.26	15.167	0.59	21.17	0.29
3.250	0.43	9.250	6.26	15.250	0.59	21.25	0.29
3.333	0.46	9.333	4.84	15.333	0.56	21.33	0.28
3.417	0.46	9.417	4.84	15.417	0.56	21.42	0.28
3.500	0.46	9.500	4.84	15.500	0.56	21.50	0.28
3.583	0.49	9.583	3.89	15.583	0.54	21.58	0.28
3.667	0.49	9.667	3.89	15.667	0.54	21.67	0.28
3.750	0.49	9.750	3.89	15.750	0.54	21.75	0.28
3.833	0.53	9.833	3.23	15.833	0.52	21.83	0.27
3.917	0.53	9.917	3.23	15.917	0.52	21.92	0.27
4.000	0.53	10.000	3.23	16.000	0.52	22.00	0.27
4.083	0.57	10.083	2.74	16.083	0.50	22.08	0.27
4.167	0.57	10.167	2.74	16.167	0.50	22.17	0.27
4.250	0.57	10.250	2.74	16.250	0.50	22.25	0.27
4.333	0.63	10.333	2.36	16.333	0.48	22.33	0.26



4.417	0.63	10.417	2.36	16.417	0.48	22.42	0.26
4.500	0.63	10.500	2.36	16.500	0.48	22.50	0.26
4.583	0.69	10.583	2.07	16.583	0.47	22.58	0.26
4.667	0.69	10.667	2.07	16.667	0.47	22.67	0.26
4.750	0.69	10.750	2.07	16.750	0.47	22.75	0.26
4.833	0.76	10.833	1.84	16.833	0.45	22.83	0.25
4.917	0.76	10.917	1.84	16.917	0.45	22.92	0.25
5.000	0.76	11.000	1.84	17.000	0.45	23.00	0.25
5.083	0.85	11.083	1.65	17.083	0.44	23.08	0.25
5.167	0.85	11.167	1.65	17.167	0.44	23.17	0.25
5.250	0.85	11.250	1.65	17.250	0.44	23.25	0.25
5.333	0.97	11.333	1.49	17.333	0.42	23.33	0.24
5.417	0.97	11.417	1.49	17.417	0.42	23.42	0.24
5.500	0.97	11.500	1.49	17.500	0.42	23.50	0.24
5.583	1.11	11.583	1.36	17.583	0.41	23.58	0.24
5.667	1.11	11.667	1.36	17.667	0.41	23.67	0.24
5.750	1.11	11.750	1.36	17.750	0.41	23.75	0.24
5.833	1.30	11.833	1.25	17.833	0.40	23.83	0.23
5.917	1.30	11.917	1.25	17.917	0.40	23.92	0.23
6.000	1.30	12.000	1.25	18.000	0.40	24.00	0.23

1.917	0.33	7.917	149.09	13.917	0.74	19.92	0.32
2.000	0.33	8.000	149.09	14.000	0.74	20.00	0.32
2.083	0.34	8.083	48.62	14.083	0.71	20.08	0.32
2.167	0.34	8.167	48.62	14.167	0.71	20.17	0.32
2.250	0.34	8.250	48.62	14.250	0.71	20.25	0.32
2.333	0.36	8.333	21.69	14.333	0.67	20.33	0.31
2.417	0.36	8.417	21.69	14.417	0.67	20.42	0.31
2.500	0.36	8.500	21.69	14.500	0.67	20.50	0.31
2.583	0.38	8.583	12.72	14.583	0.64	20.58	0.30
2.667	0.38	8.667	12.72	14.667	0.64	20.67	0.30
2.750	0.38	8.750	12.72	14.750	0.64	20.75	0.30
2.833	0.41	8.833	8.56	14.833	0.61	20.83	0.30
2.917	0.41	8.917	8.56	14.917	0.61	20.92	0.30
3.000	0.41	9.000	8.56	15.000	0.61	21.00	0.30
3.083	0.43	9.083	6.26	15.083	0.59	21.08	0.29
3.167	0.43	9.167	6.26	15.167	0.59	21.17	0.29
3.250	0.43	9.250	6.26	15.250	0.59	21.25	0.29
3.333	0.46	9.333	4.84	15.333	0.56	21.33	0.28
3.417	0.46	9.417	4.84	15.417	0.56	21.42	0.28
3.500	0.46	9.500	4.84	15.500	0.56	21.50	0.28
3.583	0.49	9.583	3.89	15.583	0.54	21.58	0.28
3.667	0.49	9.667	3.89	15.667	0.54	21.67	0.28
3.750	0.49	9.750	3.89	15.750	0.54	21.75	0.28
3.833	0.53	9.833	3.23	15.833	0.52	21.83	0.27
3.917	0.53	9.917	3.23	15.917	0.52	21.92	0.27
4.000	0.53	10.000	3.23	16.000	0.52	22.00	0.27
4.083	0.57	10.083	2.74	16.083	0.50	22.08	0.27
4.167	0.57	10.167	2.74	16.167	0.50	22.17	0.27
4.250	0.57	10.250	2.74	16.250	0.50	22.25	0.27
4.333	0.63	10.333	2.36	16.333	0.48	22.33	0.26
4.417	0.63	10.417	2.36	16.417	0.48	22.42	0.26
4.500	0.63	10.500	2.36	16.500	0.48	22.50	0.26
4.583	0.69	10.583	2.07	16.583	0.47	22.58	0.26
4.667	0.69	10.667	2.07	16.667	0.47	22.67	0.26
4.750	0.69	10.750	2.07	16.750	0.47	22.75	0.26
4.833	0.76	10.833	1.84	16.833	0.45	22.83	0.25
4.917	0.76	10.917	1.84	16.917	0.45	22.92	0.25
5.000	0.76	11.000	1.84	17.000	0.45	23.00	0.25
5.083	0.85	11.083	1.65	17.083	0.44	23.08	0.25
5.167	0.85	11.167	1.65	17.167	0.44	23.17	0.25
5.250	0.85	11.250	1.65	17.250	0.44	23.25	0.25
5.333	0.97	11.333	1.49	17.333	0.42	23.33	0.24
5.417	0.97	11.417	1.49	17.417	0.42	23.42	0.24
5.500	0.97	11.500	1.49	17.500	0.42	23.50	0.24
5.583	1.11	11.583	1.36	17.583	0.41	23.58	0.24
5.667	1.11	11.667	1.36	17.667	0.41	23.67	0.24
5.750	1.11	11.750	1.36	17.750	0.41	23.75	0.24
5.833	1.30	11.833	1.25	17.833	0.40	23.83	0.23
5.917	1.30	11.917	1.25	17.917	0.40	23.92	0.23
6.000	1.30	12.000	1.25	18.000	0.40	24.00	0.23

Max.Eff.Inten.(mm/hr)= 149.09 73.08
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.34 (ii) 2.29 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.30

****TOTALS****
 PEAK FLOW (cms)= 0.24 0.00 0.243 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00
 RUNOFF VOLUME (mm)= 90.53 42.22 90.05
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.98 0.46 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALLIB |
 | NASHYD (7721) | Area (ha)= 0.21 Curve Number (CN)= 73.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00

 U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.57	12.083	1.16	18.08	0.39
0.167	0.24	6.167	1.57	12.167	1.16	18.17	0.39
0.250	0.24	6.250	1.57	12.250	1.16	18.25	0.39
0.333	0.25	6.333	1.95	12.333	1.07	18.33	0.38
0.417	0.25	6.417	1.95	12.417	1.07	18.42	0.38
0.500	0.25	6.500	1.95	12.500	1.07	18.50	0.38
0.583	0.26	6.583	2.55	12.583	1.00	18.58	0.37
0.667	0.26	6.667	2.55	12.667	1.00	18.67	0.37
0.750	0.26	6.750	2.55	12.750	1.00	18.75	0.37
0.833	0.27	6.833	3.55	12.833	0.94	18.83	0.36
0.917	0.27	6.917	3.55	12.917	0.94	18.92	0.36
1.000	0.27	7.000	3.55	13.000	0.94	19.00	0.36
1.083	0.29	7.083	5.54	13.083	0.88	19.08	0.35
1.167	0.29	7.167	5.54	13.167	0.88	19.17	0.35
1.250	0.29	7.250	5.54	13.250	0.88	19.25	0.35
1.333	0.30	7.333	10.62	13.333	0.83	19.33	0.34
1.417	0.30	7.417	10.62	13.417	0.83	19.42	0.34
1.500	0.30	7.500	10.62	13.500	0.83	19.50	0.34
1.583	0.31	7.583	35.13	13.583	0.78	19.58	0.33
1.667	0.31	7.667	35.13	13.667	0.78	19.67	0.33
1.750	0.31	7.750	35.13	13.750	0.78	19.75	0.33
1.833	0.33	7.833	149.09	13.833	0.74	19.83	0.32

Unit Hyd Qpeak (cms)= 0.047

PEAK FLOW (cms)= 0.028 (i)
 TIME TO PEAK (hrs)= 8.083
 RUNOFF VOLUME (mm)= 42.066
 TOTAL RAINFALL (mm)= 92.531
 RUNOFF COEFFICIENT = 0.455

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALLIB |
 | STANDHYD (7599) | Area (ha)= 10.79
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	10.79	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	269.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.24	6.083	1.57	12.083	1.16	18.08	0.39
0.167	0.24	6.167	1.57	12.167	1.16	18.17	0.39
0.250	0.24	6.250	1.57	12.250	1.16	18.25	0.39
0.333	0.25	6.333	1.95	12.333	1.07	18.33	0.38
0.417	0.25	6.417	1.95	12.417	1.07	18.42	0.38
0.500	0.25	6.500	1.95	12.500	1.07	18.50	0.38
0.583	0.26	6.583	2.55	12.583	1.00	18.58	0.37
0.667	0.26	6.667	2.55	12.667	1.00	18.67	0.37
0.750	0.26	6.750	2.55	12.750	1.00	18.75	0.37
0.833	0.27	6.833	3.55	12.833	0.94	18.83	0.36
0.917	0.27	6.917	3.55	12.917	0.94	18.92	0.36
1.000	0.27	7.000	3.55	13.000	0.94	19.00	0.36
1.083	0.29	7.083	5.54	13.083	0.88	19.08	0.35
1.167	0.29	7.167	5.54	13.167	0.88	19.17	0.35
1.250	0.29	7.250	5.54	13.250	0.88	19.25	0.35
1.333	0.30	7.333	10.62	13.333	0.83	19.33	0.34
1.417	0.30	7.417	10.62	13.417	0.83	19.42	0.34
1.500	0.30	7.500	10.62	13.500	0.83	19.50	0.34
1.583	0.31	7.583	35.13	13.583	0.78	19.58	0.33
1.667	0.31	7.667	35.13	13.667	0.78	19.67	0.33
1.750	0.31	7.750	35.13	13.750	0.78	19.75	0.33
1.833	0.33	7.833	149.09	13.833	0.74	19.83	0.32
1.917	0.33	7.917	149.09	13.917	0.74	19.92	0.32
2.000	0.33	8.000	149.09	14.000	0.74	20.00	0.32
2.083	0.34	8.083	48.62	14.083	0.71	20.08	0.32
2.167	0.34	8.167	48.62	14.167	0.71	20.17	0.32
2.250	0.34	8.250	48.62	14.250	0.71	20.25	0.32
2.333	0.36	8.333	21.69	14.333	0.67	20.33	0.31
2.417	0.36	8.417	21.69	14.417	0.67	20.42	0.31
2.500	0.36	8.500	21.69	14.500	0.67	20.50	0.31
2.583	0.38	8.583	12.72	14.583	0.64	20.58	0.30
2.667	0.38	8.667	12.72	14.667	0.64	20.67	0.30
2.750	0.38	8.750	12.72	14.750	0.64	20.75	0.30
2.833	0.41	8.833	8.56	14.833	0.61	20.83	0.30
2.917	0.41	8.917	8.56	14.917	0.61	20.92	0.30
3.000	0.41	9.000	8.56	15.000	0.61	21.00	0.30
3.083	0.43	9.083	6.26	15.083	0.59	21.08	0.29
3.167	0.43	9.167	6.26	15.167	0.59	21.17	0.29
3.250	0.43	9.250	6.26	15.250	0.59	21.25	0.29
3.333	0.46	9.333	4.84	15.333	0.56	21.33	0.28
3.417	0.46	9.417	4.84	15.417	0.56	21.42	0.28
3.500	0.46	9.500	4.84	15.500	0.56	21.50	0.28
3.583	0.49	9.583	3.89	15.583	0.54	21.58	0.28
3.667	0.49	9.667	3.89	15.667	0.54	21.67	0.28
3.750	0.49	9.750	3.89	15.750	0.54	21.75	0.28
3.833	0.53	9.833	3.23	15.833	0.52	21.83	0.27
3.917	0.53	9.917	3.23	15.917	0.52	21.92	0.27
4.000	0.53	10.000	3.23	16.000	0.52	22.00	0.27
4.083	0.57	10.083	2.74	16.083	0.50	22.08	0.27
4.167	0.57	10.167	2.74	16.167	0.50	22.17	0.27
4.250	0.57	10.250	2.74	16.250	0.50	22.25	0.27
4.333	0.63	10.333	2.36	16.333	0.48	22.33	0.26
4.417	0.63	10.417	2.36	16.417	0.48	22.42	0.26
4.500	0.63	10.500	2.36	16.500	0.48	22.50	0.26
4.583	0.69	10.583	2.07	16.583	0.47	22.58	0.26
4.667	0.69	10.667	2.07	16.667	0.47	22.67	0.26
4.750	0.69	10.750	2.07	16.750	0.47	22.75	0.26
4.833	0.76	10.833	1.84	16.833	0.45	22.83	0.25
4.917	0.76	10.917	1.84	16.917	0.45	22.92	0.25
5.000	0.76	11.000	1.84	17.000	0.45	23.00	0.25
5.083	0.85	11.083	1.65	17.083	0.44	23.08	0.25
5.167	0.85	11.167	1.65	17.167	0.44	23.17	0.25
5.250	0.85	11.250	1.65	17.250	0.44	23.25	0.25
5.333	0.97	11.333	1.49	17.333	0.42	23.33	0.24
5.417	0.97	11.417	1.49	17.417	0.42	23.42	0.24
5.500	0.97	11.500	1.49	17.500	0.42	23.50	0.24
5.583	1.11	11.583	1.36	17.583	0.41	23.58	0.24
5.667	1.11	11.667	1.36	17.667	0.41	23.67	0.24
5.750	1.11	11.750	1.36	17.750	0.41	23.75	0.24
5.833	1.30	11.833	1.25	17.833	0.40	23.83	0.23
5.917	1.30	11.917	1.25	17.917	0.40	23.92	0.23
6.000	1.30	12.000	1.25	18.000	0.40	24.00	0.23

Max.Eff.Inten.(mm/hr)=	149.09	73.08	
over (min)	5.00	5.00	
Storage Coeff. (min)=	3.95 (ii)	4.91 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.24	0.22	
PEAK FLOW (cms)=	4.39	0.02	**TOTALS*
TIME TO PEAK (hrs)=	8.00	8.00	4.414 (iii)
RUNOFF VOLUME (mm)=	90.53	42.22	90.05
TOTAL RAINFALL (mm)=	92.53	92.53	92.53
RUNOFF COEFFICIENT =	0.98	0.46	0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7722)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7599):	10.90	4.414	8.00	90.05
+ ID2= 2 (7721):	0.21	0.028	8.08	42.07
=====				
ID = 3 (7722):	11.11	4.439	8.00	89.15

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7685)				
IN= 2---> OUT= 1				
DT= 5.0 min				
	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.1390	0.6960
	0.0590	0.3400	0.1630	0.7780
	0.0900	0.4907	0.1840	0.8800
	0.1110	0.5760	0.0000	0.0000

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7722)	11.108	4.439	8.00	89.15
OUTFLOW: ID= 1 (7685)	11.108	0.162	9.33	89.02

PEAK FLOW REDUCTION [Qout/Qin] (%) = 3.65
TIME SHIFT OF PEAK FLOW (min) = 80.00
MAXIMUM STORAGE USED (ha.m.) = 0.7742

CALIB			
STANDHYD (7591)			
ID= 1	DT= 5.0 min	Area (ha)=	11.38
		Total Imp (%) =	99.00
		Dir. Conn. (%) =	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	11.27	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%) =	1.00	2.00
Length (m) =	275.44	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.24	6.083	1.57	12.083	1.16	18.08	0.39
0.167	0.24	6.167	1.57	12.167	1.16	18.17	0.39
0.250	0.24	6.250	1.57	12.250	1.16	18.25	0.39
0.333	0.25	6.333	1.95	12.333	1.07	18.33	0.38

0.417	0.25	6.417	1.95	12.417	1.07	18.42	0.38
0.500	0.25	6.500	1.95	12.500	1.07	18.50	0.38
0.583	0.26	6.583	2.55	12.583	1.00	18.58	0.37
0.667	0.26	6.667	2.55	12.667	1.00	18.67	0.37
0.750	0.26	6.750	2.55	12.750	1.00	18.75	0.37
0.833	0.27	6.833	3.55	12.833	0.94	18.83	0.36
0.917	0.27	6.917	3.55	12.917	0.94	18.92	0.36
1.000	0.27	7.000	3.55	13.000	0.94	19.00	0.36
1.083	0.29	7.083	5.54	13.083	0.88	19.08	0.35
1.167	0.29	7.167	5.54	13.167	0.88	19.17	0.35
1.250	0.29	7.250	5.54	13.250	0.88	19.25	0.35
1.333	0.30	7.333	10.62	13.333	0.83	19.33	0.34
1.417	0.30	7.417	10.62	13.417	0.83	19.42	0.34
1.500	0.30	7.500	10.62	13.500	0.83	19.50	0.34
1.583	0.31	7.583	35.13	13.583	0.78	19.58	0.33
1.667	0.31	7.667	35.13	13.667	0.78	19.67	0.33
1.750	0.31	7.750	35.13	13.750	0.78	19.75	0.33
1.833	0.33	7.833	149.09	13.833	0.74	19.83	0.32
1.917	0.33	7.917	149.09	13.917	0.74	19.92	0.32
2.000	0.33	8.000	149.09	14.000	0.74	20.00	0.32
2.083	0.34	8.083	48.62	14.083	0.71	20.08	0.32
2.167	0.34	8.167	48.62	14.167	0.71	20.17	0.32
2.250	0.34	8.250	48.62	14.250	0.71	20.25	0.32
2.333	0.36	8.333	21.69	14.333	0.67	20.33	0.31
2.417	0.36	8.417	21.69	14.417	0.67	20.42	0.31
2.500	0.36	8.500	21.69	14.500	0.67	20.50	0.31
2.583	0.38	8.583	12.72	14.583	0.64	20.58	0.30
2.667	0.38	8.667	12.72	14.667	0.64	20.67	0.30
2.750	0.38	8.750	12.72	14.750	0.64	20.75	0.30
2.833	0.41	8.833	8.56	14.833	0.61	20.83	0.30
2.917	0.41	8.917	8.56	14.917	0.61	20.92	0.30
3.000	0.41	9.000	8.56	15.000	0.61	21.00	0.30
3.083	0.43	9.083	6.26	15.083	0.59	21.08	0.29
3.167	0.43	9.167	6.26	15.167	0.59	21.17	0.29
3.250	0.43	9.250	6.26	15.250	0.59	21.25	0.29
3.333	0.46	9.333	4.84	15.333	0.56	21.33	0.28
3.417	0.46	9.417	4.84	15.417	0.56	21.42	0.28
3.500	0.46	9.500	4.84	15.500	0.56	21.50	0.28
3.583	0.49	9.583	3.89	15.583	0.54	21.58	0.28
3.667	0.49	9.667	3.89	15.667	0.54	21.67	0.28
3.750	0.49	9.750	3.89	15.750	0.54	21.75	0.28
3.833	0.53	9.833	3.23	15.833	0.52	21.83	0.27
3.917	0.53	9.917	3.23	15.917	0.52	21.92	0.27
4.000	0.53	10.000	3.23	16.000	0.52	22.00	0.27
4.083	0.57	10.083	2.74	16.083	0.50	22.08	0.27
4.167	0.57	10.167	2.74	16.167	0.50	22.17	0.27
4.250	0.57	10.250	2.74	16.250	0.50	22.25	0.27
4.333	0.63	10.333	2.36	16.333	0.48	22.33	0.26
4.417	0.63	10.417	2.36	16.417	0.48	22.42	0.26
4.500	0.63	10.500	2.36	16.500	0.48	22.50	0.26
4.583	0.69	10.583	2.07	16.583	0.47	22.58	0.26
4.667	0.69	10.667	2.07	16.667	0.47	22.67	0.26
4.750	0.69	10.750	2.07	16.750	0.47	22.75	0.26
4.833	0.76	10.833	1.84	16.833	0.45	22.83	0.25
4.917	0.76	10.917	1.84	16.917	0.45	22.92	0.25
5.000	0.76	11.000	1.84	17.000	0.45	23.00	0.25
5.083	0.85	11.083	1.65	17.083	0.44	23.08	0.25
5.167	0.85	11.167	1.65	17.167	0.44	23.17	0.25
5.250	0.85	11.250	1.65	17.250	0.44	23.25	0.25
5.333	0.97	11.333	1.49	17.333	0.42	23.33	0.24
5.417	0.97	11.417	1.49	17.417	0.42	23.42	0.24
5.500	0.97	11.500	1.49	17.500	0.42	23.50	0.24
5.583	1.11	11.583	1.36	17.583	0.41	23.58	0.24
5.667	1.11	11.667	1.36	17.667	0.41	23.67	0.24
5.750	1.11	11.750	1.36	17.750	0.41	23.75	0.24
5.833	1.30	11.833	1.25	17.833	0.40	23.83	0.23
5.917	1.30	11.917	1.25	17.917	0.40	23.92	0.23
6.000	1.30	12.000	1.25	18.000	0.40	24.00	0.23

Max.Eff.Inten.(mm/hr)= 149.09 73.08
 over (min) 5.00 5.00
 Storage Coeff. (min)= 4.00 (ii) 4.96 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.24 0.22

TOTALS
 PEAK FLOW (cms)= 4.58 0.02 4.604 (iii)

TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 90.53 42.22 90.05
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.98 0.46 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | RESERVOIR (7593) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
DT= 5.0 min

	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.1990	0.6950
	0.0830	0.3500	0.2320	0.8000
	0.1280	0.4850	0.2620	0.9000
	0.1580	0.5900	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7591)	11.380	4.604	8.00	90.05
OUTFLOW: ID= 1 (7593)	11.380	0.224	9.08	89.95

PEAK FLOW REDUCTION [Qout/Qin](%) = 4.86
 TIME SHIFT OF PEAK FLOW (min) = 65.00
 MAXIMUM STORAGE USED (ha.m.) = 0.7738

 | ADD HYD (7643) |
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7593):	11.38	0.224	9.08	89.95
+ ID2= 2 (7685):	11.11	0.162	9.33	89.02
ID = 3 (7643):	22.49	0.385	9.25	89.49

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |
 | STANDHYD (7590) | Area (ha)= 2.39
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.24	6.083	1.57	12.083	1.16	18.08	0.39
0.167	0.24	6.167	1.57	12.167	1.16	18.17	0.39
0.250	0.24	6.250	1.57	12.250	1.16	18.25	0.39
0.333	0.25	6.333	1.95	12.333	1.07	18.33	0.38
0.417	0.25	6.417	1.95	12.417	1.07	18.42	0.38
0.500	0.25	6.500	1.95	12.500	1.07	18.50	0.38
0.583	0.26	6.583	2.55	12.583	1.00	18.58	0.37
0.667	0.26	6.667	2.55	12.667	1.00	18.67	0.37
0.750	0.26	6.750	2.55	12.750	1.00	18.75	0.37
0.833	0.27	6.833	3.55	12.833	0.94	18.83	0.36
0.917	0.27	6.917	3.55	12.917	0.94	18.92	0.36
1.000	0.27	7.000	3.55	13.000	0.94	19.00	0.36



1.083	0.29	7.083	5.54	13.083	0.88	19.08	0.35
1.167	0.29	7.167	5.54	13.167	0.88	19.17	0.35
1.250	0.29	7.250	5.54	13.250	0.88	19.25	0.35
1.333	0.30	7.333	10.62	13.333	0.83	19.33	0.34
1.417	0.30	7.417	10.62	13.417	0.83	19.42	0.34
1.500	0.30	7.500	10.62	13.500	0.83	19.50	0.34
1.583	0.31	7.583	35.13	13.583	0.78	19.58	0.33
1.667	0.31	7.667	35.13	13.667	0.78	19.67	0.33
1.750	0.31	7.750	35.13	13.750	0.78	19.75	0.33
1.833	0.33	7.833	149.09	13.833	0.74	19.83	0.32
1.917	0.33	7.917	149.09	13.917	0.74	19.92	0.32
2.000	0.33	8.000	149.09	14.000	0.74	20.00	0.32
2.083	0.34	8.083	48.62	14.083	0.71	20.08	0.32
2.167	0.34	8.167	48.62	14.167	0.71	20.17	0.32
2.250	0.34	8.250	48.62	14.250	0.71	20.25	0.32
2.333	0.36	8.333	21.69	14.333	0.67	20.33	0.31
2.417	0.36	8.417	21.69	14.417	0.67	20.42	0.31
2.500	0.36	8.500	21.69	14.500	0.67	20.50	0.31
2.583	0.38	8.583	12.72	14.583	0.64	20.58	0.30
2.667	0.38	8.667	12.72	14.667	0.64	20.67	0.30
2.750	0.38	8.750	12.72	14.750	0.64	20.75	0.30
2.833	0.41	8.833	8.56	14.833	0.61	20.83	0.30
2.917	0.41	8.917	8.56	14.917	0.61	20.92	0.30
3.000	0.41	9.000	8.56	15.000	0.61	21.00	0.30
3.083	0.43	9.083	6.26	15.083	0.59	21.08	0.29
3.167	0.43	9.167	6.26	15.167	0.59	21.17	0.29
3.250	0.43	9.250	6.26	15.250	0.59	21.25	0.29
3.333	0.46	9.333	4.84	15.333	0.56	21.33	0.28
3.417	0.46	9.417	4.84	15.417	0.56	21.42	0.28
3.500	0.46	9.500	4.84	15.500	0.56	21.50	0.28
3.583	0.49	9.583	3.89	15.583	0.54	21.58	0.28
3.667	0.49	9.667	3.89	15.667	0.54	21.67	0.28
3.750	0.49	9.750	3.89	15.750	0.54	21.75	0.28
3.833	0.53	9.833	3.23	15.833	0.52	21.83	0.27
3.917	0.53	9.917	3.23	15.917	0.52	21.92	0.27
4.000	0.53	10.000	3.23	16.000	0.52	22.00	0.27
4.083	0.57	10.083	2.74	16.083	0.50	22.08	0.27
4.167	0.57	10.167	2.74	16.167	0.50	22.17	0.27
4.250	0.57	10.250	2.74	16.250	0.50	22.25	0.27
4.333	0.63	10.333	2.36	16.333	0.48	22.33	0.26
4.417	0.63	10.417	2.36	16.417	0.48	22.42	0.26
4.500	0.63	10.500	2.36	16.500	0.48	22.50	0.26
4.583	0.69	10.583	2.07	16.583	0.47	22.58	0.26
4.667	0.69	10.667	2.07	16.667	0.47	22.67	0.26
4.750	0.69	10.750	2.07	16.750	0.47	22.75	0.26
4.833	0.76	10.833	1.84	16.833	0.45	22.83	0.25
4.917	0.76	10.917	1.84	16.917	0.45	22.92	0.25
5.000	0.76	11.000	1.84	17.000	0.45	23.00	0.25
5.083	0.85	11.083	1.65	17.083	0.44	23.08	0.25
5.167	0.85	11.167	1.65	17.167	0.44	23.17	0.25
5.250	0.85	11.250	1.65	17.250	0.44	23.25	0.25
5.333	0.97	11.333	1.49	17.333	0.42	23.33	0.24
5.417	0.97	11.417	1.49	17.417	0.42	23.42	0.24
5.500	0.97	11.500	1.49	17.500	0.42	23.50	0.24
5.583	1.11	11.583	1.36	17.583	0.41	23.58	0.24
5.667	1.11	11.667	1.36	17.667	0.41	23.67	0.24
5.750	1.11	11.750	1.36	17.750	0.41	23.75	0.24
5.833	1.30	11.833	1.25	17.833	0.40	23.83	0.23
5.917	1.30	11.917	1.25	17.917	0.40	23.92	0.23
6.000	1.30	12.000	1.25	18.000	0.40	24.00	0.23

Max.Eff.Inten. (mm/hr)=	149.09	73.08
over (min)=	5.00	5.00
Storage Coeff. (min)=	0.83 (ii)	1.46 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.33

TOTALS			
PEAK FLOW (cms)=	0.98	0.01	0.985 (iii)
TIME TO PEAK (hrs)=	7.92	8.00	
RUNOFF VOLUME (mm)=	91.53	42.22	91.04
TOTAL RAINFALL (mm)=	92.53	92.53	92.53
RUNOFF COEFFICIENT =	0.99	0.46	0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

- CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		Area (ha)=	2.36
STANDHYD (7632)		Total Imp(%)=	99.00
ID= 1 DT= 5.0 min		Dir. Conn.(%)=	99.00

Surface Area (ha)=	2.34	IMPERVIOUS	PERVIOUS (i)
Dep. Storage (mm)=	1.00		
Average Slope (%)=	1.00		
Length (m)=	20.00		
Mannings n =	0.013		0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN				
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr				
0.083	0.24	6.083	1.57	12.083	1.16	18.08	0.39				
0.167	0.24	6.167	1.57	12.167	1.16	18.17	0.39				
0.250	0.24	6.250	1.57	12.250	1.16	18.25	0.39				
0.333	0.25	6.333	1.95	12.333	1.07	18.33	0.38				
0.417	0.25	6.417	1.95	12.417	1.07	18.42	0.38				
0.500	0.25	6.500	1.95	12.500	1.07	18.50	0.38				
0.583	0.26	6.583	2.55	12.583	1.00	18.58	0.37				
0.667	0.26	6.667	2.55	12.667	1.00	18.67	0.37				
0.750	0.26	6.750	2.55	12.750	1.00	18.75	0.37				
0.833	0.27	6.833	3.55	12.833	0.94	18.83	0.36				
0.917	0.27	6.917	3.55	12.917	0.94	18.92	0.36				
1.000	0.27	7.000	3.55	13.000	0.94	19.00	0.36				
1.083	0.29	7.083	5.54	13.083	0.88	19.08	0.35				
1.167	0.29	7.167	5.54	13.167	0.88	19.17	0.35				
1.250	0.29	7.250	5.54	13.250	0.88	19.25	0.35				
1.333	0.30	7.333	10.62	13.333	0.83	19.33	0.34				
1.417	0.30	7.417	10.62	13.417	0.83	19.42	0.34				
1.500	0.30	7.500	10.62	13.500	0.83	19.50	0.34				
1.583	0.31	7.583	35.13	13.583	0.78	19.58	0.33				
1.667	0.31	7.667	35.13	13.667	0.78	19.67	0.33				
1.750	0.31	7.750	35.13	13.750	0.78	19.75	0.33				
1.833	0.33	7.833	149.09	13.833	0.74	19.83	0.32				
1.917	0.33	7.917	149.09	13.917	0.74	19.92	0.32				
2.000	0.33	8.000	149.09	14.000	0.74	20.00	0.32				
2.083	0.34	8.083	48.62	14.083	0.71	20.08	0.32				
2.167	0.34	8.167	48.62	14.167	0.71	20.17	0.32				
2.250	0.34	8.250	48.62	14.250	0.71	20.25	0.32				
2.333	0.36	8.333	21.69	14.333	0.67	20.33	0.31				
2.417	0.36	8.417	21.69	14.417	0.67	20.42	0.31				
2.500	0.36	8.500	21.69	14.500	0.67	20.50	0.31				
2.583	0.38	8.583	12.72	14.583	0.64	20.58	0.30				
2.667	0.38	8.667	12.72	14.667	0.64	20.67	0.30				
2.750	0.38	8.750	12.72	14.750	0.64	20.75	0.30				
2.833	0.41	8.833	8.56	14.833	0.61	20.83	0.30				
2.917	0.41	8.917	8.56	14.917	0.61	20.92	0.30				
3.000	0.41	9.000	8.56	15.000	0.61	21.00	0.30				
3.083	0.43	9.083	6.26	15.083	0.59	21.08	0.29				
3.167	0.43	9.167	6.26	15.167	0.59	21.17	0.29				
3.250	0.43	9.250	6.26	15.250	0.59	21.25	0.29				
3.333	0.46	9.333	4.84	15.333	0.56	21.33	0.28				
3.417	0.46	9.417	4.84	15.417	0.56	21.42	0.28				
3.500	0.46	9.500	4.84	15.500	0.56	21.50	0.28				
3.583	0.49	9.583	3.89	15.583	0.54	21.58	0.28				
3.667	0.49	9.667	3.89	15.667	0.54	21.67	0.28				
3.750	0.49	9.750	3.89	15.750	0.54	21.75	0.28				
3.833	0.53	9.833	3.23	15.833	0.52	21.83	0.27				
3.917	0.53	9.917	3.23	15.917	0.52	21.92	0.27				
4.000	0.53	10.000	3.23	16.000	0.52	22.00	0.27				
4.083	0.57	10.083	2.74	16.083	0.50	22.08	0.27				
4.167	0.57	10.167	2.74	16.167	0.50	22.17	0.27				
4.250	0.57	10.250	2.74	16.250	0.50	22.25	0.27				
4.333	0.63	10.333	2.36	16.333	0.48	22.33	0.26				



4.417	0.63	10.417	2.36	16.417	0.48	22.42	0.26
4.500	0.63	10.500	2.36	16.500	0.48	22.50	0.26
4.583	0.69	10.583	2.07	16.583	0.47	22.58	0.26
4.667	0.69	10.667	2.07	16.667	0.47	22.67	0.26
4.750	0.69	10.750	2.07	16.750	0.47	22.75	0.26
4.833	0.76	10.833	1.84	16.833	0.45	22.83	0.25
4.917	0.76	10.917	1.84	16.917	0.45	22.92	0.25
5.000	0.76	11.000	1.84	17.000	0.45	23.00	0.25
5.083	0.85	11.083	1.65	17.083	0.44	23.08	0.25
5.167	0.85	11.167	1.65	17.167	0.44	23.17	0.25
5.250	0.85	11.250	1.65	17.250	0.44	23.25	0.25
5.333	0.97	11.333	1.49	17.333	0.42	23.33	0.24
5.417	0.97	11.417	1.49	17.417	0.42	23.42	0.24
5.500	0.97	11.500	1.49	17.500	0.42	23.50	0.24
5.583	1.11	11.583	1.36	17.583	0.41	23.58	0.24
5.667	1.11	11.667	1.36	17.667	0.41	23.67	0.24
5.750	1.11	11.750	1.36	17.750	0.41	23.75	0.24
5.833	1.30	11.833	1.25	17.833	0.40	23.83	0.23
5.917	1.30	11.917	1.25	17.917	0.40	23.92	0.23
6.000	1.30	12.000	1.25	18.000	0.40	24.00	0.23

1.417	0.30	7.417	10.62	13.417	0.83	19.42	0.34
1.500	0.30	7.500	10.62	13.500	0.83	19.50	0.34
1.583	0.31	7.583	35.13	13.583	0.78	19.58	0.33
1.667	0.31	7.667	35.13	13.667	0.78	19.67	0.33
1.750	0.31	7.750	35.13	13.750	0.78	19.75	0.33
1.833	0.33	7.833	149.09	13.833	0.74	19.83	0.32
1.917	0.33	7.917	149.09	13.917	0.74	19.92	0.32
2.000	0.33	8.000	149.09	14.000	0.74	20.00	0.32
2.083	0.34	8.083	48.62	14.083	0.71	20.08	0.32
2.167	0.34	8.167	48.62	14.167	0.71	20.17	0.32
2.250	0.34	8.250	48.62	14.250	0.71	20.25	0.32
2.333	0.36	8.333	21.69	14.333	0.67	20.33	0.31
2.417	0.36	8.417	21.69	14.417	0.67	20.42	0.31
2.500	0.36	8.500	21.69	14.500	0.67	20.50	0.31
2.583	0.38	8.583	12.72	14.583	0.64	20.58	0.30
2.667	0.38	8.667	12.72	14.667	0.64	20.67	0.30
2.750	0.38	8.750	12.72	14.750	0.64	20.75	0.30
2.833	0.41	8.833	8.56	14.833	0.61	20.83	0.30
2.917	0.41	8.917	8.56	14.917	0.61	20.92	0.30
3.000	0.41	9.000	8.56	15.000	0.61	21.00	0.30
3.083	0.43	9.083	6.26	15.083	0.59	21.08	0.29
3.167	0.43	9.167	6.26	15.167	0.59	21.17	0.29
3.250	0.43	9.250	6.26	15.250	0.59	21.25	0.29
3.333	0.46	9.333	4.84	15.333	0.56	21.33	0.28
3.417	0.46	9.417	4.84	15.417	0.56	21.42	0.28
3.500	0.46	9.500	4.84	15.500	0.56	21.50	0.28
3.583	0.49	9.583	3.89	15.583	0.54	21.58	0.28
3.667	0.49	9.667	3.89	15.667	0.54	21.67	0.28
3.750	0.49	9.750	3.89	15.750	0.54	21.75	0.28
3.833	0.53	9.833	3.23	15.833	0.52	21.83	0.27
3.917	0.53	9.917	3.23	15.917	0.52	21.92	0.27
4.000	0.53	10.000	3.23	16.000	0.52	22.00	0.27
4.083	0.57	10.083	2.74	16.083	0.50	22.08	0.27
4.167	0.57	10.167	2.74	16.167	0.50	22.17	0.27
4.250	0.57	10.250	2.74	16.250	0.50	22.25	0.27
4.333	0.63	10.333	2.36	16.333	0.48	22.33	0.26
4.417	0.63	10.417	2.36	16.417	0.48	22.42	0.26
4.500	0.63	10.500	2.36	16.500	0.48	22.50	0.26
4.583	0.69	10.583	2.07	16.583	0.47	22.58	0.26
4.667	0.69	10.667	2.07	16.667	0.47	22.67	0.26
4.750	0.69	10.750	2.07	16.750	0.47	22.75	0.26
4.833	0.76	10.833	1.84	16.833	0.45	22.83	0.25
4.917	0.76	10.917	1.84	16.917	0.45	22.92	0.25
5.000	0.76	11.000	1.84	17.000	0.45	23.00	0.25
5.083	0.85	11.083	1.65	17.083	0.44	23.08	0.25
5.167	0.85	11.167	1.65	17.167	0.44	23.17	0.25
5.250	0.85	11.250	1.65	17.250	0.44	23.25	0.25
5.333	0.97	11.333	1.49	17.333	0.42	23.33	0.24
5.417	0.97	11.417	1.49	17.417	0.42	23.42	0.24
5.500	0.97	11.500	1.49	17.500	0.42	23.50	0.24
5.583	1.11	11.583	1.36	17.583	0.41	23.58	0.24
5.667	1.11	11.667	1.36	17.667	0.41	23.67	0.24
5.750	1.11	11.750	1.36	17.750	0.41	23.75	0.24
5.833	1.30	11.833	1.25	17.833	0.40	23.83	0.23
5.917	1.30	11.917	1.25	17.917	0.40	23.92	0.23
6.000	1.30	12.000	1.25	18.000	0.40	24.00	0.23

Max.Eff.Inten.(mm/hr)= 149.09 73.08
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 0.83 (ii) 1.46 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.33

****TOTALS*
 PEAK FLOW (cms)= 0.97 0.01 0.973 (iii)
 TIME TO PEAK (hrs)= 7.92 8.00 8.00
 RUNOFF VOLUME (mm)= 91.53 42.22 91.04
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.99 0.46 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDBYD (7644) |
ID= 1 DT= 5.0 min
 Area (ha)= 2.40
 Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.24	6.083	1.57	12.083	1.16	18.08	0.39
0.167	0.24	6.167	1.57	12.167	1.16	18.17	0.39
0.250	0.24	6.250	1.57	12.250	1.16	18.25	0.39
0.333	0.25	6.333	1.95	12.333	1.07	18.33	0.38
0.417	0.25	6.417	1.95	12.417	1.07	18.42	0.38
0.500	0.25	6.500	1.95	12.500	1.07	18.50	0.38
0.583	0.26	6.583	2.55	12.583	1.00	18.58	0.37
0.667	0.26	6.667	2.55	12.667	1.00	18.67	0.37
0.750	0.26	6.750	2.55	12.750	1.00	18.75	0.37
0.833	0.27	6.833	3.55	12.833	0.94	18.83	0.36
0.917	0.27	6.917	3.55	12.917	0.94	18.92	0.36
1.000	0.27	7.000	3.55	13.000	0.94	19.00	0.36
1.083	0.29	7.083	5.54	13.083	0.88	19.08	0.35
1.167	0.29	7.167	5.54	13.167	0.88	19.17	0.35
1.250	0.29	7.250	5.54	13.250	0.88	19.25	0.35
1.333	0.30	7.333	10.62	13.333	0.83	19.33	0.34

Max.Eff.Inten.(mm/hr)= 149.09 73.08
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 0.83 (ii) 1.46 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.33

****TOTALS*
 PEAK FLOW (cms)= 0.98 0.01 0.989 (iii)
 TIME TO PEAK (hrs)= 7.92 8.00 8.00
 RUNOFF VOLUME (mm)= 91.53 42.22 91.04
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.99 0.46 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7652) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.38 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.57	12.083	1.16	18.08	0.39
0.167	0.24	6.167	1.57	12.167	1.16	18.17	0.39
0.250	0.24	6.250	1.57	12.250	1.16	18.25	0.39
0.333	0.25	6.333	1.95	12.333	1.07	18.33	0.38
0.417	0.25	6.417	1.95	12.417	1.07	18.42	0.38
0.500	0.25	6.500	1.95	12.500	1.07	18.50	0.38
0.583	0.26	6.583	2.55	12.583	1.00	18.58	0.37
0.667	0.26	6.667	2.55	12.667	1.00	18.67	0.37
0.750	0.26	6.750	2.55	12.750	1.00	18.75	0.37
0.833	0.27	6.833	3.55	12.833	0.94	18.83	0.36
0.917	0.27	6.917	3.55	12.917	0.94	18.92	0.36
1.000	0.27	7.000	3.55	13.000	0.94	19.00	0.36
1.083	0.29	7.083	5.54	13.083	0.88	19.08	0.35
1.167	0.29	7.167	5.54	13.167	0.88	19.17	0.35
1.250	0.29	7.250	5.54	13.250	0.88	19.25	0.35
1.333	0.30	7.333	10.62	13.333	0.83	19.33	0.34
1.417	0.30	7.417	10.62	13.417	0.83	19.42	0.34
1.500	0.30	7.500	10.62	13.500	0.83	19.50	0.34
1.583	0.31	7.583	35.13	13.583	0.78	19.58	0.33
1.667	0.31	7.667	35.13	13.667	0.78	19.67	0.33
1.750	0.31	7.750	35.13	13.750	0.78	19.75	0.33
1.833	0.33	7.833	149.09	13.833	0.74	19.83	0.32
1.917	0.33	7.917	149.09	13.917	0.74	19.92	0.32
2.000	0.33	8.000	149.09	14.000	0.74	20.00	0.32
2.083	0.34	8.083	48.62	14.083	0.71	20.08	0.32
2.167	0.34	8.167	48.62	14.167	0.71	20.17	0.32
2.250	0.34	8.250	48.62	14.250	0.71	20.25	0.32
2.333	0.36	8.333	21.69	14.333	0.67	20.33	0.31
2.417	0.36	8.417	21.69	14.417	0.67	20.42	0.31
2.500	0.36	8.500	21.69	14.500	0.67	20.50	0.31
2.583	0.38	8.583	12.72	14.583	0.64	20.58	0.30
2.667	0.38	8.667	12.72	14.667	0.64	20.67	0.30
2.750	0.38	8.750	12.72	14.750	0.64	20.75	0.30
2.833	0.41	8.833	8.56	14.833	0.61	20.83	0.30
2.917	0.41	8.917	8.56	14.917	0.61	20.92	0.30
3.000	0.41	9.000	8.56	15.000	0.61	21.00	0.30
3.083	0.43	9.083	6.26	15.083	0.59	21.08	0.29
3.167	0.43	9.167	6.26	15.167	0.59	21.17	0.29
3.250	0.43	9.250	6.26	15.250	0.59	21.25	0.29
3.333	0.46	9.333	4.84	15.333	0.56	21.33	0.28
3.417	0.46	9.417	4.84	15.417	0.56	21.42	0.28
3.500	0.46	9.500	4.84	15.500	0.56	21.50	0.28
3.583	0.49	9.583	3.89	15.583	0.54	21.58	0.28
3.667	0.49	9.667	3.89	15.667	0.54	21.67	0.28
3.750	0.49	9.750	3.89	15.750	0.54	21.75	0.28
3.833	0.53	9.833	3.23	15.833	0.52	21.83	0.27
3.917	0.53	9.917	3.23	15.917	0.52	21.92	0.27
4.000	0.53	10.000	3.23	16.000	0.52	22.00	0.27
4.083	0.57	10.083	2.74	16.083	0.50	22.08	0.27
4.167	0.57	10.167	2.74	16.167	0.50	22.17	0.27
4.250	0.57	10.250	2.74	16.250	0.50	22.25	0.27
4.333	0.63	10.333	2.36	16.333	0.48	22.33	0.26
4.417	0.63	10.417	2.36	16.417	0.48	22.42	0.26
4.500	0.63	10.500	2.36	16.500	0.48	22.50	0.26
4.583	0.69	10.583	2.07	16.583	0.47	22.58	0.26
4.667	0.69	10.667	2.07	16.667	0.47	22.67	0.26

4.750	0.69	10.750	2.07	16.750	0.47	22.75	0.26
4.833	0.76	10.833	1.84	16.833	0.45	22.83	0.25
4.917	0.76	10.917	1.84	16.917	0.45	22.92	0.25
5.000	0.76	11.000	1.84	17.000	0.45	23.00	0.25
5.083	0.85	11.083	1.65	17.083	0.44	23.08	0.25
5.167	0.85	11.167	1.65	17.167	0.44	23.17	0.25
5.250	0.85	11.250	1.65	17.250	0.44	23.25	0.25
5.333	0.97	11.333	1.49	17.333	0.42	23.33	0.24
5.417	0.97	11.417	1.49	17.417	0.42	23.42	0.24
5.500	0.97	11.500	1.49	17.500	0.42	23.50	0.24
5.583	1.11	11.583	1.36	17.583	0.41	23.58	0.24
5.667	1.11	11.667	1.36	17.667	0.41	23.67	0.24
5.750	1.11	11.750	1.36	17.750	0.41	23.75	0.24
5.833	1.30	11.833	1.25	17.833	0.40	23.83	0.23
5.917	1.30	11.917	1.25	17.917	0.40	23.92	0.23
6.000	1.30	12.000	1.25	18.000	0.40	24.00	0.23

Max.Eff.Inten.(mm/hr)= 149.09 73.08
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 0.83 (ii) 1.46 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.33
 TOTALS
 PEAK FLOW (cms)= 0.98 0.01 0.989 (iii)
 TIME TO PEAK (hrs)= 7.92 8.00 8.00
 RUNOFF VOLUME (mm)= 91.53 42.22 91.04
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.99 0.46 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7661) | Area (ha)= 2.39
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.37 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.57	12.083	1.16	18.08	0.39
0.167	0.24	6.167	1.57	12.167	1.16	18.17	0.39
0.250	0.24	6.250	1.57	12.250	1.16	18.25	0.39
0.333	0.25	6.333	1.95	12.333	1.07	18.33	0.38
0.417	0.25	6.417	1.95	12.417	1.07	18.42	0.38
0.500	0.25	6.500	1.95	12.500	1.07	18.50	0.38
0.583	0.26	6.583	2.55	12.583	1.00	18.58	0.37
0.667	0.26	6.667	2.55	12.667	1.00	18.67	0.37
0.750	0.26	6.750	2.55	12.750	1.00	18.75	0.37
0.833	0.27	6.833	3.55	12.833	0.94	18.83	0.36
0.917	0.27	6.917	3.55	12.917	0.94	18.92	0.36
1.000	0.27	7.000	3.55	13.000	0.94	19.00	0.36
1.083	0.29	7.083	5.54	13.083	0.88	19.08	0.35
1.167	0.29	7.167	5.54	13.167	0.88	19.17	0.35
1.250	0.29	7.250	5.54	13.250	0.88	19.25	0.35
1.333	0.30	7.333	10.62	13.333	0.83	19.33	0.34
1.417	0.30	7.417	10.62	13.417	0.83	19.42	0.34
1.500	0.30	7.500	10.62	13.500	0.83	19.50	0.34
1.583	0.31	7.583	35.13	13.583	0.78	19.58	0.33
1.667	0.31	7.667	35.13	13.667	0.78	19.67	0.33



1.750	0.31	7.750	35.13	13.750	0.78	19.75	0.33
1.833	0.33	7.833	149.09	13.833	0.74	19.83	0.32
1.917	0.33	7.917	149.09	13.917	0.74	19.92	0.32
2.000	0.33	8.000	149.09	14.000	0.74	20.00	0.32
2.083	0.34	8.083	48.62	14.083	0.71	20.08	0.32
2.167	0.34	8.167	48.62	14.167	0.71	20.17	0.32
2.250	0.34	8.250	48.62	14.250	0.71	20.25	0.32
2.333	0.36	8.333	21.69	14.333	0.67	20.33	0.31
2.417	0.36	8.417	21.69	14.417	0.67	20.42	0.31
2.500	0.36	8.500	21.69	14.500	0.67	20.50	0.31
2.583	0.38	8.583	12.72	14.583	0.64	20.58	0.30
2.667	0.38	8.667	12.72	14.667	0.64	20.67	0.30
2.750	0.38	8.750	12.72	14.750	0.64	20.75	0.30
2.833	0.41	8.833	8.56	14.833	0.61	20.83	0.30
2.917	0.41	8.917	8.56	14.917	0.61	20.92	0.30
3.000	0.41	9.000	8.56	15.000	0.61	21.00	0.30
3.083	0.43	9.083	6.26	15.083	0.59	21.08	0.29
3.167	0.43	9.167	6.26	15.167	0.59	21.17	0.29
3.250	0.43	9.250	6.26	15.250	0.59	21.25	0.29
3.333	0.46	9.333	4.84	15.333	0.56	21.33	0.28
3.417	0.46	9.417	4.84	15.417	0.56	21.42	0.28
3.500	0.46	9.500	4.84	15.500	0.56	21.50	0.28
3.583	0.49	9.583	3.89	15.583	0.54	21.58	0.28
3.667	0.49	9.667	3.89	15.667	0.54	21.67	0.28
3.750	0.49	9.750	3.89	15.750	0.54	21.75	0.28
3.833	0.53	9.833	3.23	15.833	0.52	21.83	0.27
3.917	0.53	9.917	3.23	15.917	0.52	21.92	0.27
4.000	0.53	10.000	3.23	16.000	0.52	22.00	0.27
4.083	0.57	10.083	2.74	16.083	0.50	22.08	0.27
4.167	0.57	10.167	2.74	16.167	0.50	22.17	0.27
4.250	0.57	10.250	2.74	16.250	0.50	22.25	0.27
4.333	0.63	10.333	2.36	16.333	0.48	22.33	0.26
4.417	0.63	10.417	2.36	16.417	0.48	22.42	0.26
4.500	0.63	10.500	2.36	16.500	0.48	22.50	0.26
4.583	0.69	10.583	2.07	16.583	0.47	22.58	0.26
4.667	0.69	10.667	2.07	16.667	0.47	22.67	0.26
4.750	0.69	10.750	2.07	16.750	0.47	22.75	0.26
4.833	0.76	10.833	1.84	16.833	0.45	22.83	0.25
4.917	0.76	10.917	1.84	16.917	0.45	22.92	0.25
5.000	0.76	11.000	1.84	17.000	0.45	23.00	0.25
5.083	0.85	11.083	1.65	17.083	0.44	23.08	0.25
5.167	0.85	11.167	1.65	17.167	0.44	23.17	0.25
5.250	0.85	11.250	1.65	17.250	0.44	23.25	0.25
5.333	0.97	11.333	1.49	17.333	0.42	23.33	0.24
5.417	0.97	11.417	1.49	17.417	0.42	23.42	0.24
5.500	0.97	11.500	1.49	17.500	0.42	23.50	0.24
5.583	1.11	11.583	1.36	17.583	0.41	23.58	0.24
5.667	1.11	11.667	1.36	17.667	0.41	23.67	0.24
5.750	1.11	11.750	1.36	17.750	0.41	23.75	0.24
5.833	1.30	11.833	1.25	17.833	0.40	23.83	0.23
5.917	1.30	11.917	1.25	17.917	0.40	23.92	0.23
6.000	1.30	12.000	1.25	18.000	0.40	24.00	0.23

Max.Eff.Inten. (mm/hr)=	149.09	73.08	
over (min)	5.00	5.00	
Storage Coeff. (min)=	0.83 (ii)	1.46 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.34	0.33	
TOTALS			
PEAK FLOW (cms)=	0.98	0.01	0.985 (iii)
TIME TO PEAK (hrs)=	7.92	8.00	
RUNOFF VOLUME (mm)=	91.53	42.22	
TOTAL RAINFALL (mm)=	92.53	92.53	
RUNOFF COEFFICIENT =	0.99	0.46	0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |

| STANDHYD (7671) | Area (ha)= 2.37
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.35	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.57	12.083	1.16	18.08	0.39				
0.167	0.24	6.167	1.57	12.167	1.16	18.17	0.39				
0.250	0.24	6.250	1.57	12.250	1.16	18.25	0.39				
0.333	0.25	6.333	1.95	12.333	1.07	18.33	0.38				
0.417	0.25	6.417	1.95	12.417	1.07	18.42	0.38				
0.500	0.25	6.500	1.95	12.500	1.07	18.50	0.38				
0.583	0.26	6.583	2.55	12.583	1.00	18.58	0.37				
0.667	0.26	6.667	2.55	12.667	1.00	18.67	0.37				
0.750	0.26	6.750	2.55	12.750	1.00	18.75	0.37				
0.833	0.27	6.833	3.55	12.833	0.94	18.83	0.36				
0.917	0.27	6.917	3.55	12.917	0.94	18.92	0.36				
1.000	0.27	7.000	3.55	13.000	0.94	19.00	0.36				
1.083	0.29	7.083	5.54	13.083	0.88	19.08	0.35				
1.167	0.29	7.167	5.54	13.167	0.88	19.17	0.35				
1.250	0.29	7.250	5.54	13.250	0.88	19.25	0.35				
1.333	0.30	7.333	10.62	13.333	0.83	19.33	0.34				
1.417	0.30	7.417	10.62	13.417	0.83	19.42	0.34				
1.500	0.30	7.500	10.62	13.500	0.83	19.50	0.34				
1.583	0.31	7.583	35.13	13.583	0.78	19.58	0.33				
1.667	0.31	7.667	35.13	13.667	0.78	19.67	0.33				
1.750	0.31	7.750	35.13	13.750	0.78	19.75	0.33				
1.833	0.33	7.833	149.09	13.833	0.74	19.83	0.32				
1.917	0.33	7.917	149.09	13.917	0.74	19.92	0.32				
2.000	0.33	8.000	149.09	14.000	0.74	20.00	0.32				
2.083	0.34	8.083	48.62	14.083	0.71	20.08	0.32				
2.167	0.34	8.167	48.62	14.167	0.71	20.17	0.32				
2.250	0.34	8.250	48.62	14.250	0.71	20.25	0.32				
2.333	0.36	8.333	21.69	14.333	0.67	20.33	0.31				
2.417	0.36	8.417	21.69	14.417	0.67	20.42	0.31				
2.500	0.36	8.500	21.69	14.500	0.67	20.50	0.31				
2.583	0.38	8.583	12.72	14.583	0.64	20.58	0.30				
2.667	0.38	8.667	12.72	14.667	0.64	20.67	0.30				
2.750	0.38	8.750	12.72	14.750	0.64	20.75	0.30				
2.833	0.41	8.833	8.56	14.833	0.61	20.83	0.30				
2.917	0.41	8.917	8.56	14.917	0.61	20.92	0.30				
3.000	0.41	9.000	8.56	15.000	0.61	21.00	0.30				
3.083	0.43	9.083	6.26	15.083	0.59	21.08	0.29				
3.167	0.43	9.167	6.26	15.167	0.59	21.17	0.29				
3.250	0.43	9.250	6.26	15.250	0.59	21.25	0.29				
3.333	0.46	9.333	4.84	15.333	0.56	21.33	0.28				
3.417	0.46	9.417	4.84	15.417	0.56	21.42	0.28				
3.500	0.46	9.500	4.84	15.500	0.56	21.50	0.28				
3.583	0.49	9.583	3.89	15.583	0.54	21.58	0.28				
3.667	0.49	9.667	3.89	15.667	0.54	21.67	0.28				
3.750	0.49	9.750	3.89	15.750	0.54	21.75	0.28				
3.833	0.53	9.833	3.23	15.833	0.52	21.83	0.27				
3.917	0.53	9.917	3.23	15.917	0.52	21.92	0.27				
4.000	0.53	10.000	3.23	16.000	0.52	22.00	0.27				
4.083	0.57	10.083	2.74	16.083	0.50	22.08	0.27				
4.167	0.57	10.167	2.74	16.167	0.50	22.17	0.27				
4.250	0.57	10.250	2.74	16.250	0.50	22.25	0.27				
4.333	0.63	10.333	2.36	16.333	0.48	22.33	0.26				
4.417	0.63	10.417	2.36	16.417	0.48	22.42	0.26				
4.500	0.63	10.500	2.36	16.500	0.48	22.50	0.26				
4.583	0.69	10.583	2.07	16.583	0.47	22.58	0.26				
4.667	0.69	10.667	2.07	16.667	0.47	22.67	0.26				
4.750	0.69	10.750	2.07	16.750	0.47	22.75	0.26				
4.833	0.76	10.833	1.84	16.833	0.45	22.83	0.25				
4.917	0.76	10.917	1.84	16.917	0.45	22.92	0.25				
5.000	0.76	11.000	1.84	17.000	0.45	23.00	0.25				

5.083	0.85	111.083	1.65	17.083	0.44	23.08	0.25
5.167	0.85	111.167	1.65	17.167	0.44	23.17	0.25
5.250	0.85	111.250	1.65	17.250	0.44	23.25	0.25
5.333	0.97	111.333	1.49	17.333	0.42	23.33	0.24
5.417	0.97	111.417	1.49	17.417	0.42	23.42	0.24
5.500	0.97	111.500	1.49	17.500	0.42	23.50	0.24
5.583	1.11	111.583	1.36	17.583	0.41	23.58	0.24
5.667	1.11	111.667	1.36	17.667	0.41	23.67	0.24
5.750	1.11	111.750	1.36	17.750	0.41	23.75	0.24
5.833	1.30	111.833	1.25	17.833	0.40	23.83	0.23
5.917	1.30	111.917	1.25	17.917	0.40	23.92	0.23
6.000	1.30	112.000	1.25	18.000	0.40	24.00	0.23

Max.Eff.Inten.(mm/hr)= 149.09 73.08
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 0.83 (ii) 1.46 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.33

*****TOTALS*
 PEAK FLOW (cms)= 0.97 0.01 0.977 (iii)
 TIME TO PEAK (hrs)= 7.92 8.00 8.00
 RUNOFF VOLUME (mm)= 91.53 42.22 91.04
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.99 0.46 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7698)						
1 + 2 = 3						
	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
ID1= 1 (7590):	2.39	0.985	8.00	91.04		
+ ID2= 2 (7632):	2.36	0.973	8.00	91.04		
=====						
ID = 3 (7698):	4.75	1.958	8.00	91.04		

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)						
3 + 2 = 1						
	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
ID1= 3 (7698):	4.75	1.958	8.00	91.04		
+ ID2= 2 (7644):	2.40	0.989	8.00	91.04		
=====						
ID = 1 (7698):	7.15	2.947	8.00	91.04		

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)						
1 + 2 = 3						
	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
ID1= 1 (7698):	7.15	2.947	8.00	91.04		
+ ID2= 2 (7652):	2.40	0.989	8.00	91.04		
=====						
ID = 3 (7698):	9.55	3.937	8.00	91.04		

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)						
3 + 2 = 1						
	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
ID1= 3 (7698):	9.55	3.937	8.00	91.04		

+ ID2= 2 (7661):	2.39	0.985	8.00	91.04		
=====						
ID = 1 (7698):	11.94	4.922	8.00	91.04		

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)						
1 + 2 = 3						
	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
ID1= 1 (7698):	11.94	4.922	8.00	91.04		
+ ID2= 2 (7671):	2.37	0.977	8.00	91.04		
=====						
ID = 3 (7698):	14.31	5.899	8.00	91.04		

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| DIVERTHYD (7713) |
 | IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1 + Flow 2 + Flow 3 + Flow 4 + Flow 5 = Total						
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	0.00	7.00

	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
TOTAL HYD.(ID= 1):	14.31	5.90	8.00	91.04		
=====						
ID= 2 (2):	11.24	3.45	8.00	91.04		
ID= 3 (2):	3.07	2.45	8.00	91.04		
ID= 4 (2):	0.00	0.00	0.00	0.00		
ID= 5 (2):	0.00	0.00	0.00	0.00		
ID= 6 (2):	0.00	0.00	0.00	0.00		

RESERVOIR (7699)						
OVERFLOW IS ON						
IN= 2--> OUT= 1						
DT= 5.0 min						
	OUTFLOW	STORAGE	OUTFLOW	STORAGE		
	(cms)	(ha.m.)	(cms)	(ha.m.)		
	0.0000	0.0000	0.2690	0.4589		
	0.1980	0.1112	0.0000	0.0000		

	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
INFLOW : ID= 2 (7713)	11.243	3.449	8.00	91.04		
OUTFLOW: ID= 1 (7699)	9.145	0.269	8.08	91.83		
OVERFLOW:ID= 3 (0003)	2.098	1.347	8.08	91.83		

TOTAL NUMBER OF SIMULATION OVERFLOW = 12
 CUMULATIVE TIME OF OVERFLOW (HOURS) = 1.00
 PERCENTAGE OF TIME OVERFLOWING (%) = 3.33

PEAK FLOW REDUCTION [Qout/Qin] (%) = 7.80
 TIME SHIFT OF PEAK FLOW (min) = 5.00
 MAXIMUM STORAGE USED (ha.m.) = 0.4589

| Junction Command(7715) |

	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
INFLOW : ID= 3 (7699)	2.10	1.35	8.08	91.83		
OUTFLOW: ID= 2 (7715)	2.10	1.35	8.08	91.83		

ADD HYD (7714)				
1 + 2 = 3				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7699):	9.15	0.269	8.08	91.83
+ ID2= 2 (7713):	3.07	2.449	8.00	91.04

ID = 3 (7714):	12.21	2.708	8.00	91.63

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7714)				
3 + 2 = 1				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (7714):	12.21	2.708	8.00	91.63
+ ID2= 2 (7715):	2.10	1.347	8.08	91.83

ID = 1 (7714):	14.31	2.708	8.00	91.66

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB				
STANDHYD (7620)				
ID= 1 DT= 5.0 min				
	Area (ha)	Imp(%)	Dir. Conn.(%)	
	1.45	96.00	96.00	

	IMPERVIOUS	PERVIOUS (i)		
Surface Area	(ha)= 1.39	0.06		
Dep. Storage	(mm)= 2.00	5.00		
Average Slope	(%)= 1.10	2.00		
Length	(m)= 100.00	145.00		
Mannings n	= 0.013	0.250		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

3.000	0.41	9.000	8.56	15.000	0.61	21.00	0.30
3.083	0.43	9.083	6.26	15.083	0.59	21.08	0.29
3.167	0.43	9.167	6.26	15.167	0.59	21.17	0.29
3.250	0.43	9.250	6.26	15.250	0.59	21.25	0.29
3.333	0.46	9.333	4.84	15.333	0.56	21.33	0.28
3.417	0.46	9.417	4.84	15.417	0.56	21.42	0.28
3.500	0.46	9.500	4.84	15.500	0.56	21.50	0.28
3.583	0.49	9.583	3.89	15.583	0.54	21.58	0.28
3.667	0.49	9.667	3.89	15.667	0.54	21.67	0.28
3.750	0.49	9.750	3.89	15.750	0.54	21.75	0.28
3.833	0.53	9.833	3.23	15.833	0.52	21.83	0.27
3.917	0.53	9.917	3.23	15.917	0.52	21.92	0.27
4.000	0.53	10.000	3.23	16.000	0.52	22.00	0.27
4.083	0.57	10.083	2.74	16.083	0.50	22.08	0.27
4.167	0.57	10.167	2.74	16.167	0.50	22.17	0.27
4.250	0.57	10.250	2.74	16.250	0.50	22.25	0.27
4.333	0.63	10.333	2.36	16.333	0.48	22.33	0.26
4.417	0.63	10.417	2.36	16.417	0.48	22.42	0.26
4.500	0.63	10.500	2.36	16.500	0.48	22.50	0.26
4.583	0.69	10.583	2.07	16.583	0.47	22.58	0.26
4.667	0.69	10.667	2.07	16.667	0.47	22.67	0.26
4.750	0.69	10.750	2.07	16.750	0.47	22.75	0.26
4.833	0.76	10.833	1.84	16.833	0.45	22.83	0.25
4.917	0.76	10.917	1.84	16.917	0.45	22.92	0.25
5.000	0.76	11.000	1.84	17.000	0.45	23.00	0.25
5.083	0.85	11.083	1.65	17.083	0.44	23.08	0.25
5.167	0.85	11.167	1.65	17.167	0.44	23.17	0.25
5.250	0.85	11.250	1.65	17.250	0.44	23.25	0.25
5.333	0.97	11.333	1.49	17.333	0.42	23.33	0.24
5.417	0.97	11.417	1.49	17.417	0.42	23.42	0.24
5.500	0.97	11.500	1.49	17.500	0.42	23.50	0.24
5.583	1.11	11.583	1.36	17.583	0.41	23.58	0.24
5.667	1.11	11.667	1.36	17.667	0.41	23.67	0.24
5.750	1.11	11.750	1.36	17.750	0.41	23.75	0.24
5.833	1.30	11.833	1.25	17.833	0.40	23.83	0.23
5.917	1.30	11.917	1.25	17.917	0.40	23.92	0.23
6.000	1.30	12.000	1.25	18.000	0.40	24.00	0.23

Max.Eff.Inten.(mm/hr)=	149.09	73.08	
over (min)	5.00	10.00	
Storage Coeff. (min)=	2.12 (ii)	5.77 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.31	0.15	
			TOTALS
PEAK FLOW (cms)=	0.58	0.01	0.585 (iii)
TIME TO PEAK (hrs)=	8.00	8.08	8.00
RUNOFF VOLUME (mm)=	90.53	42.22	88.60
TOTAL RAINFALL (mm)=	92.53	92.53	92.53
RUNOFF COEFFICIENT =	0.98	0.46	0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB				
STANDHYD (7629)				
ID= 1 DT= 5.0 min				
	Area (ha)	Imp(%)	Dir. Conn.(%)	
	1.70	99.00	99.00	

	IMPERVIOUS	PERVIOUS (i)		
Surface Area	(ha)= 1.68	0.02		
Dep. Storage	(mm)= 2.00	5.00		
Average Slope	(%)= 1.10	2.00		
Length	(m)= 100.00	40.00		
Mannings n	= 0.013	0.250		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	' hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.57	12.083	1.16	18.08	0.39				
0.167	0.24	6.167	1.57	12.167	1.16	18.17	0.39				
0.250	0.24	6.250	1.57	12.250	1.16	18.25	0.39				
0.333	0.25	6.333	1.95	12.333	1.07	18.33	0.38				
0.417	0.25	6.417	1.95	12.417	1.07	18.42	0.38				
0.500	0.25	6.500	1.95	12.500	1.07	18.50	0.38				
0.583	0.26	6.583	2.55	12.583	1.00	18.58	0.37				
0.667	0.26	6.667	2.55	12.667	1.00	18.67	0.37				
0.750	0.26	6.750	2.55	12.750	1.00	18.75	0.37				
0.833	0.27	6.833	3.55	12.833	0.94	18.83	0.36				
0.917	0.27	6.917	3.55	12.917	0.94	18.92	0.36				
1.000	0.27	7.000	3.55	13.000	0.94	19.00	0.36				
1.083	0.29	7.083	5.54	13.083	0.88	19.08	0.35				
1.167	0.29	7.167	5.54	13.167	0.88	19.17	0.35				
1.250	0.29	7.250	5.54	13.250	0.88	19.25	0.35				
1.333	0.30	7.333	10.62	13.333	0.83	19.33	0.34				
1.417	0.30	7.417	10.62	13.417	0.83	19.42	0.34				
1.500	0.30	7.500	10.62	13.500	0.83	19.50	0.34				
1.583	0.31	7.583	35.13	13.583	0.78	19.58	0.33				
1.667	0.31	7.667	35.13	13.667	0.78	19.67	0.33				
1.750	0.31	7.750	35.13	13.750	0.78	19.75	0.33				
1.833	0.33	7.833	149.09	13.833	0.74	19.83	0.32				
1.917	0.33	7.917	149.09	13.917	0.74	19.92	0.32				
2.000	0.33	8.000	149.09	14.000	0.74	20.00	0.32				
2.083	0.34	8.083	48.62	14.083	0.71	20.08	0.32				
2.167	0.34	8.167	48.62	14.167	0.71	20.17	0.32				
2.250	0.34	8.250	48.62	14.250	0.71	20.25	0.32				
2.333	0.36	8.333	21.69	14.333	0.67	20.33	0.31				
2.417	0.36	8.417	21.69	14.417	0.67	20.42	0.31				
2.500	0.36	8.500	21.69	14.500	0.67	20.50	0.31				
2.583	0.38	8.583	12.72	14.583	0.64	20.58	0.30				
2.667	0.38	8.667	12.72	14.667	0.64	20.67	0.30				
2.750	0.38	8.750	12.72	14.750	0.64	20.75	0.30				
2.833	0.41	8.833	8.56	14.833	0.61	20.83	0.30				
2.917	0.41	8.917	8.56	14.917	0.61	20.92	0.30				

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN



hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.57	12.083	1.16	18.08	0.39	
0.167	0.24	6.167	1.57	12.167	1.16	18.17	0.39	
0.250	0.24	6.250	1.57	12.250	1.16	18.25	0.39	
0.333	0.25	6.333	1.95	12.333	1.07	18.33	0.38	
0.417	0.25	6.417	1.95	12.417	1.07	18.42	0.38	
0.500	0.25	6.500	1.95	12.500	1.07	18.50	0.38	
0.583	0.26	6.583	2.55	12.583	1.00	18.58	0.37	
0.667	0.26	6.667	2.55	12.667	1.00	18.67	0.37	
0.750	0.26	6.750	2.55	12.750	1.00	18.75	0.37	
0.833	0.27	6.833	3.55	12.833	0.94	18.83	0.36	
0.917	0.27	6.917	3.55	12.917	0.94	18.92	0.36	
1.000	0.27	7.000	3.55	13.000	0.94	19.00	0.36	
1.083	0.29	7.083	5.54	13.083	0.88	19.08	0.35	
1.167	0.29	7.167	5.54	13.167	0.88	19.17	0.35	
1.250	0.29	7.250	5.54	13.250	0.88	19.25	0.35	
1.333	0.30	7.333	10.62	13.333	0.83	19.33	0.34	
1.417	0.30	7.417	10.62	13.417	0.83	19.42	0.34	
1.500	0.30	7.500	10.62	13.500	0.83	19.50	0.34	
1.583	0.31	7.583	35.13	13.583	0.78	19.58	0.33	
1.667	0.31	7.667	35.13	13.667	0.78	19.67	0.33	
1.750	0.31	7.750	35.13	13.750	0.78	19.75	0.33	
1.833	0.33	7.833	149.09	13.833	0.74	19.83	0.32	
1.917	0.33	7.917	149.09	13.917	0.74	19.92	0.32	
2.000	0.33	8.000	149.09	14.000	0.74	20.00	0.32	
2.083	0.34	8.083	48.62	14.083	0.71	20.08	0.32	
2.167	0.34	8.167	48.62	14.167	0.71	20.17	0.32	
2.250	0.34	8.250	48.62	14.250	0.71	20.25	0.32	
2.333	0.36	8.333	21.69	14.333	0.67	20.33	0.31	
2.417	0.36	8.417	21.69	14.417	0.67	20.42	0.31	
2.500	0.36	8.500	21.69	14.500	0.67	20.50	0.31	
2.583	0.38	8.583	12.72	14.583	0.64	20.58	0.30	
2.667	0.38	8.667	12.72	14.667	0.64	20.67	0.30	
2.750	0.38	8.750	12.72	14.750	0.64	20.75	0.30	
2.833	0.41	8.833	8.56	14.833	0.61	20.83	0.30	
2.917	0.41	8.917	8.56	14.917	0.61	20.92	0.30	
3.000	0.41	9.000	8.56	15.000	0.61	21.00	0.30	
3.083	0.43	9.083	6.26	15.083	0.59	21.08	0.29	
3.167	0.43	9.167	6.26	15.167	0.59	21.17	0.29	
3.250	0.43	9.250	6.26	15.250	0.59	21.25	0.29	
3.333	0.46	9.333	4.84	15.333	0.56	21.33	0.28	
3.417	0.46	9.417	4.84	15.417	0.56	21.42	0.28	
3.500	0.46	9.500	4.84	15.500	0.56	21.50	0.28	
3.583	0.49	9.583	3.89	15.583	0.54	21.58	0.28	
3.667	0.49	9.667	3.89	15.667	0.54	21.67	0.28	
3.750	0.49	9.750	3.89	15.750	0.54	21.75	0.28	
3.833	0.53	9.833	3.23	15.833	0.52	21.83	0.27	
3.917	0.53	9.917	3.23	15.917	0.52	21.92	0.27	
4.000	0.53	10.000	3.23	16.000	0.52	22.00	0.27	
4.083	0.57	10.083	2.74	16.083	0.50	22.08	0.27	
4.167	0.57	10.167	2.74	16.167	0.50	22.17	0.27	
4.250	0.57	10.250	2.74	16.250	0.50	22.25	0.27	
4.333	0.63	10.333	2.36	16.333	0.48	22.33	0.26	
4.417	0.63	10.417	2.36	16.417	0.48	22.42	0.26	
4.500	0.63	10.500	2.36	16.500	0.48	22.50	0.26	
4.583	0.69	10.583	2.07	16.583	0.47	22.58	0.26	
4.667	0.69	10.667	2.07	16.667	0.47	22.67	0.26	
4.750	0.69	10.750	2.07	16.750	0.47	22.75	0.26	
4.833	0.76	10.833	1.84	16.833	0.45	22.83	0.25	
4.917	0.76	10.917	1.84	16.917	0.45	22.92	0.25	
5.000	0.76	11.000	1.84	17.000	0.45	23.00	0.25	
5.083	0.85	11.083	1.65	17.083	0.44	23.08	0.25	
5.167	0.85	11.167	1.65	17.167	0.44	23.17	0.25	
5.250	0.85	11.250	1.65	17.250	0.44	23.25	0.25	
5.333	0.97	11.333	1.49	17.333	0.42	23.33	0.24	
5.417	0.97	11.417	1.49	17.417	0.42	23.42	0.24	
5.500	0.97	11.500	1.49	17.500	0.42	23.50	0.24	
5.583	1.11	11.583	1.36	17.583	0.41	23.58	0.24	
5.667	1.11	11.667	1.36	17.667	0.41	23.67	0.24	
5.750	1.11	11.750	1.36	17.750	0.41	23.75	0.24	
5.833	1.30	11.833	1.25	17.833	0.40	23.83	0.23	
5.917	1.30	11.917	1.25	17.917	0.40	23.92	0.23	
6.000	1.30	12.000	1.25	18.000	0.40	24.00	0.23	

Max.Eff. Inten. (mm/hr)= 149.09
 over (min) 5.00

73.08
 5.00

Storage Coeff. (min)= 2.12 (ii) 3.07 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.31 0.27

PEAK FLOW (cms)= 0.70 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 90.53 42.22 90.05
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.98 0.46 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7651) | Area (ha)= 1.33
 | ID= 1 DT= 5.0 min | Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.30 0.03
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	'	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	mm/hr
0.083	0.24	6.083	1.57	12.083	1.16	18.08	0.39	
0.167	0.24	6.167	1.57	12.167	1.16	18.17	0.39	
0.250	0.24	6.250	1.57	12.250	1.16	18.25	0.39	
0.333	0.25	6.333	1.95	12.333	1.07	18.33	0.38	
0.417	0.25	6.417	1.95	12.417	1.07	18.42	0.38	
0.500	0.25	6.500	1.95	12.500	1.07	18.50	0.38	
0.583	0.26	6.583	2.55	12.583	1.00	18.58	0.37	
0.667	0.26	6.667	2.55	12.667	1.00	18.67	0.37	
0.750	0.26	6.750	2.55	12.750	1.00	18.75	0.37	
0.833	0.27	6.833	3.55	12.833	0.94	18.83	0.36	
0.917	0.27	6.917	3.55	12.917	0.94	18.92	0.36	
1.000	0.27	7.000	3.55	13.000	0.94	19.00	0.36	
1.083	0.29	7.083	5.54	13.083	0.88	19.08	0.35	
1.167	0.29	7.167	5.54	13.167	0.88	19.17	0.35	
1.250	0.29	7.250	5.54	13.250	0.88	19.25	0.35	
1.333	0.30	7.333	10.62	13.333	0.83	19.33	0.34	
1.417	0.30	7.417	10.62	13.417	0.83	19.42	0.34	
1.500	0.30	7.500	10.62	13.500	0.83	19.50	0.34	
1.583	0.31	7.583	35.13	13.583	0.78	19.58	0.33	
1.667	0.31	7.667	35.13	13.667	0.78	19.67	0.33	
1.750	0.31	7.750	35.13	13.750	0.78	19.75	0.33	
1.833	0.33	7.833	149.09	13.833	0.74	19.83	0.32	
1.917	0.33	7.917	149.09	13.917	0.74	19.92	0.32	
2.000	0.33	8.000	149.09	14.000	0.74	20.00	0.32	
2.083	0.34	8.083	48.62	14.083	0.71	20.08	0.32	
2.167	0.34	8.167	48.62	14.167	0.71	20.17	0.32	
2.250	0.34	8.250	48.62	14.250	0.71	20.25	0.32	
2.333	0.36	8.333	21.69	14.333	0.67	20.33	0.31	
2.417	0.36	8.417	21.69	14.417	0.67	20.42	0.31	
2.500	0.36	8.500	21.69	14.500	0.67	20.50	0.31	
2.583	0.38	8.583	12.72	14.583	0.64	20.58	0.30	
2.667	0.38	8.667	12.72	14.667	0.64	20.67	0.30	
2.750	0.38	8.750	12.72	14.750	0.64	20.75	0.30	
2.833	0.41	8.833	8.56	14.833	0.61	20.83	0.30	
2.917	0.41	8.917	8.56	14.917	0.61	20.92	0.30	
3.000	0.41	9.000	8.56	15.000	0.61	21.00	0.30	
3.083	0.43	9.083	6.26	15.083	0.59	21.08	0.29	
3.167	0.43	9.167	6.26	15.167	0.59	21.17	0.29	
3.250	0.43	9.250	6.26	15.250	0.59	21.25	0.29	
3.333	0.46	9.333	4.84	15.333	0.56	21.33	0.28	
3.417	0.46	9.417	4.84	15.417	0.56	21.42	0.28	
3.500	0.46	9.500	4.84	15.500	0.56	21.50	0.28	
3.583	0.49	9.583	3.89	15.583	0.54	21.58	0.28	
3.667	0.49	9.667	3.89	15.667	0.54	21.67	0.28	
3.750	0.49	9.750	3.89	15.750	0.54	21.75	0.28	
3.833	0.53	9.833	3.23	15.833	0.52	21.83	0.27	
3.917	0.53	9.917	3.23	15.917	0.52	21.92	0.27	
4.000	0.53	10.000	3.23	16.000	0.52	22.00	0.27	
4.083	0.57	10.083	2.74	16.083	0.50	22.08	0.27	
4.167	0.57	10.167	2.74	16.167	0.50	22.17	0.27	
4.250	0.57	10.250	2.74	16.250	0.50	22.25	0.27	
4.333	0.63	10.333	2.36	16.333	0.48	22.33	0.26	
4.417	0.63	10.417	2.36	16.417	0.48	22.42	0.26	
4.500	0.63	10.500	2.36	16.500	0.48	22.50	0.26	
4.583	0.69	10.583	2.07	16.583	0.47	22.58	0.26	
4.667	0.69	10.667	2.07	16.667	0.47	22.67	0.26	
4.750	0.69	10.750	2.0					



3.333	0.46	9.333	4.84	15.333	0.56	21.33	0.28
3.417	0.46	9.417	4.84	15.417	0.56	21.42	0.28
3.500	0.46	9.500	4.84	15.500	0.56	21.50	0.28
3.583	0.49	9.583	3.89	15.583	0.54	21.58	0.28
3.667	0.49	9.667	3.89	15.667	0.54	21.67	0.28
3.750	0.49	9.750	3.89	15.750	0.54	21.75	0.28
3.833	0.53	9.833	3.23	15.833	0.52	21.83	0.27
3.917	0.53	9.917	3.23	15.917	0.52	21.92	0.27
4.000	0.53	10.000	3.23	16.000	0.52	22.00	0.27
4.083	0.57	10.083	2.74	16.083	0.50	22.08	0.27
4.167	0.57	10.167	2.74	16.167	0.50	22.17	0.27
4.250	0.57	10.250	2.74	16.250	0.50	22.25	0.27
4.333	0.63	10.333	2.36	16.333	0.48	22.33	0.26
4.417	0.63	10.417	2.36	16.417	0.48	22.42	0.26
4.500	0.63	10.500	2.36	16.500	0.48	22.50	0.26
4.583	0.69	10.583	2.07	16.583	0.47	22.58	0.26
4.667	0.69	10.667	2.07	16.667	0.47	22.67	0.26
4.750	0.69	10.750	2.07	16.750	0.47	22.75	0.26
4.833	0.76	10.833	1.84	16.833	0.45	22.83	0.25
4.917	0.76	10.917	1.84	16.917	0.45	22.92	0.25
5.000	0.76	11.000	1.84	17.000	0.45	23.00	0.25
5.083	0.85	11.083	1.65	17.083	0.44	23.08	0.25
5.167	0.85	11.167	1.65	17.167	0.44	23.17	0.25
5.250	0.85	11.250	1.65	17.250	0.44	23.25	0.25
5.333	0.97	11.333	1.49	17.333	0.42	23.33	0.24
5.417	0.97	11.417	1.49	17.417	0.42	23.42	0.24
5.500	0.97	11.500	1.49	17.500	0.42	23.50	0.24
5.583	1.11	11.583	1.36	17.583	0.41	23.58	0.24
5.667	1.11	11.667	1.36	17.667	0.41	23.67	0.24
5.750	1.11	11.750	1.36	17.750	0.41	23.75	0.24
5.833	1.30	11.833	1.25	17.833	0.40	23.83	0.23
5.917	1.30	11.917	1.25	17.917	0.40	23.92	0.23
6.000	1.30	12.000	1.25	18.000	0.40	24.00	0.23

Max.Eff.Inten.(mm/hr)=	149.09	73.08
over (min)	5.00	5.00
Storage Coeff. (min)=	2.12 (ii)	3.38 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.31	0.26

TOTALS			
PEAK FLOW (cms)=	0.54	0.01	0.545 (iii)
TIME TO PEAK (hrs)=	8.00	8.00	8.00
RUNOFF VOLUME (mm)=	90.53	42.22	89.56
TOTAL RAINFALL (mm)=	92.53	92.53	92.53
RUNOFF COEFFICIENT =	0.98	0.46	0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7700)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7620):	1.45	0.585	8.00	89.60
+ ID2= 2 (7629):	1.70	0.700	8.00	90.05
=====				
ID = 3 (7700):	3.15	1.285	8.00	89.38

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7700)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7700):	3.15	1.285	8.00	89.38
+ ID2= 2 (7651):	1.33	0.545	8.00	89.56
=====				
ID = 1 (7700):	4.48	1.831	8.00	89.43

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7623)			
Area (ha)=		1.20	
Total Imp(%)=		95.00	
Dir. Conn.(%)=		95.00	
ID= 1 DT= 5.0 min			

Surface Area (ha)=		IMPERVIOUS	PERVIOUS (i)
Dep. Storage (mm)=		1.14	0.06
Average Slope (%)=		2.00	5.00
Length (m)=		2.50	2.00
Mannings n =		60.00	40.00
		0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.57	12.083	1.16	18.08	0.39
0.167	0.24	6.167	1.57	12.167	1.16	18.17	0.39
0.250	0.24	6.250	1.57	12.250	1.16	18.25	0.39
0.333	0.25	6.333	1.95	12.333	1.07	18.33	0.38
0.417	0.25	6.417	1.95	12.417	1.07	18.42	0.38
0.500	0.25	6.500	1.95	12.500	1.07	18.50	0.38
0.583	0.26	6.583	2.55	12.583	1.00	18.58	0.37
0.667	0.26	6.667	2.55	12.667	1.00	18.67	0.37
0.750	0.26	6.750	2.55	12.750	1.00	18.75	0.37
0.833	0.27	6.833	3.55	12.833	0.94	18.83	0.36
0.917	0.27	6.917	3.55	12.917	0.94	18.92	0.36
1.000	0.27	7.000	3.55	13.000	0.94	19.00	0.36
1.083	0.29	7.083	5.54	13.083	0.88	19.08	0.35
1.167	0.29	7.167	5.54	13.167	0.88	19.17	0.35
1.250	0.29	7.250	5.54	13.250	0.88	19.25	0.35
1.333	0.30	7.333	10.62	13.333	0.83	19.33	0.34
1.417	0.30	7.417	10.62	13.417	0.83	19.42	0.34
1.500	0.30	7.500	10.62	13.500	0.83	19.50	0.34
1.583	0.31	7.583	35.13	13.583	0.78	19.58	0.33
1.667	0.31	7.667	35.13	13.667	0.78	19.67	0.33
1.750	0.31	7.750	35.13	13.750	0.78	19.75	0.33
1.833	0.33	7.833	149.09	13.833	0.74	19.83	0.32
1.917	0.33	7.917	149.09	13.917	0.74	19.92	0.32
2.000	0.33	8.000	149.09	14.000	0.74	20.00	0.32
2.083	0.34	8.083	48.62	14.083	0.71	20.08	0.32
2.167	0.34	8.167	48.62	14.167	0.71	20.17	0.32
2.250	0.34	8.250	48.62	14.250	0.71	20.25	0.32
2.333	0.36	8.333	21.69	14.333	0.67	20.33	0.31
2.417	0.36	8.417	21.69	14.417	0.67	20.42	0.31
2.500	0.36	8.500	21.69	14.500	0.67	20.50	0.31
2.583	0.38	8.583	12.72	14.583	0.64	20.58	0.30
2.667	0.38	8.667	12.72	14.667	0.64	20.67	0.30
2.750	0.38	8.750	12.72	14.750	0.64	20.75	0.30
2.833	0.41	8.833	8.56	14.833	0.61	20.83	0.30
2.917	0.41	8.917	8.56	14.917	0.61	20.92	0.30
3.000	0.41	9.000	8.56	15.000	0.61	21.00	0.30
3.083	0.43	9.083	6.26	15.083	0.59	21.08	0.29
3.167	0.43	9.167	6.26	15.167	0.59	21.17	0.29
3.250	0.43	9.250	6.26	15.250	0.59	21.25	0.29
3.333	0.46	9.333	4.84	15.333	0.56	21.33	0.28
3.417	0.46	9.417	4.84	15.417	0.56	21.42	0.28
3.500	0.46	9.500	4.84	15.500	0.56	21.50	0.28
3.583	0.49	9.583	3.89	15.583	0.54	21.58	0.28
3.667	0.49	9.667	3.89	15.667	0.54	21.67	0.28
3.750	0.49	9.750	3.89	15.750	0.54	21.75	0.28
3.833	0.53	9.833	3.23	15.833	0.52	21.83	0.27
3.917	0.53	9.917	3.23	15.917	0.52	21.92	0.27
4.000	0.53	10.000	3.23	16.000	0.52	22.00	0.27
4.083	0.57	10.083	2.74	16.083	0.50	22.08	0.27
4.167	0.57	10.167	2.74	16.167	0.50	22.17	0.27
4.250	0.57	10.250	2.74	16.250	0.50	22.25	0.27
4.333	0.63	10.333	2.36	16.333	0.48	22.33	0.26
4.417	0.63	10.417	2.36	16.417	0.48	22.42	0.26
4.500	0.63	10.500	2.36	16.500	0.48	22.50	0.26
4.583	0.69	10.583	2.07	16.583	0.47	22.58	0.26



4.667	0.69	10.667	2.07	16.667	0.47	22.67	0.26
4.750	0.69	10.750	2.07	16.750	0.47	22.75	0.26
4.833	0.76	10.833	1.84	16.833	0.45	22.83	0.25
4.917	0.76	10.917	1.84	16.917	0.45	22.92	0.25
5.000	0.76	11.000	1.84	17.000	0.45	23.00	0.25
5.083	0.85	11.083	1.65	17.083	0.44	23.08	0.25
5.167	0.85	11.167	1.65	17.167	0.44	23.17	0.25
5.250	0.85	11.250	1.65	17.250	0.44	23.25	0.25
5.333	0.97	11.333	1.49	17.333	0.42	23.33	0.24
5.417	0.97	11.417	1.49	17.417	0.42	23.42	0.24
5.500	0.97	11.500	1.49	17.500	0.42	23.50	0.24
5.583	1.11	11.583	1.36	17.583	0.41	23.58	0.24
5.667	1.11	11.667	1.36	17.667	0.41	23.67	0.24
5.750	1.11	11.750	1.36	17.750	0.41	23.75	0.24
5.833	1.30	11.833	1.25	17.833	0.40	23.83	0.23
5.917	1.30	11.917	1.25	17.917	0.40	23.92	0.23
6.000	1.30	12.000	1.25	18.000	0.40	24.00	0.23

1.667	0.31	7.667	35.13	13.667	0.78	19.67	0.33
1.750	0.31	7.750	35.13	13.750	0.78	19.75	0.33
1.833	0.33	7.833	149.09	13.833	0.74	19.83	0.32
1.917	0.33	7.917	149.09	13.917	0.74	19.92	0.32
2.000	0.33	8.000	149.09	14.000	0.74	20.00	0.32
2.083	0.34	8.083	48.62	14.083	0.71	20.08	0.32
2.167	0.34	8.167	48.62	14.167	0.71	20.17	0.32
2.250	0.34	8.250	48.62	14.250	0.71	20.25	0.32
2.333	0.36	8.333	21.69	14.333	0.67	20.33	0.31
2.417	0.36	8.417	21.69	14.417	0.67	20.42	0.31
2.500	0.36	8.500	21.69	14.500	0.67	20.50	0.31
2.583	0.38	8.583	12.72	14.583	0.64	20.58	0.30
2.667	0.38	8.667	12.72	14.667	0.64	20.67	0.30
2.750	0.38	8.750	12.72	14.750	0.64	20.75	0.30
2.833	0.41	8.833	8.56	14.833	0.61	20.83	0.30
2.917	0.41	8.917	8.56	14.917	0.61	20.92	0.30
3.000	0.41	9.000	8.56	15.000	0.61	21.00	0.30
3.083	0.43	9.083	6.26	15.083	0.59	21.08	0.29
3.167	0.43	9.167	6.26	15.167	0.59	21.17	0.29
3.250	0.43	9.250	6.26	15.250	0.59	21.25	0.29
3.333	0.46	9.333	4.84	15.333	0.56	21.33	0.28
3.417	0.46	9.417	4.84	15.417	0.56	21.42	0.28
3.500	0.46	9.500	4.84	15.500	0.56	21.50	0.28
3.583	0.49	9.583	3.89	15.583	0.54	21.58	0.28
3.667	0.49	9.667	3.89	15.667	0.54	21.67	0.28
3.750	0.49	9.750	3.89	15.750	0.54	21.75	0.28
3.833	0.53	9.833	3.23	15.833	0.52	21.83	0.27
3.917	0.53	9.917	3.23	15.917	0.52	21.92	0.27
4.000	0.53	10.000	3.23	16.000	0.52	22.00	0.27
4.083	0.57	10.083	2.74	16.083	0.50	22.08	0.27
4.167	0.57	10.167	2.74	16.167	0.50	22.17	0.27
4.250	0.57	10.250	2.74	16.250	0.50	22.25	0.27
4.333	0.63	10.333	2.36	16.333	0.48	22.33	0.26
4.417	0.63	10.417	2.36	16.417	0.48	22.42	0.26
4.500	0.63	10.500	2.36	16.500	0.48	22.50	0.26
4.583	0.69	10.583	2.07	16.583	0.47	22.58	0.26
4.667	0.69	10.667	2.07	16.667	0.47	22.67	0.26
4.750	0.69	10.750	2.07	16.750	0.47	22.75	0.26
4.833	0.76	10.833	1.84	16.833	0.45	22.83	0.25
4.917	0.76	10.917	1.84	16.917	0.45	22.92	0.25
5.000	0.76	11.000	1.84	17.000	0.45	23.00	0.25
5.083	0.85	11.083	1.65	17.083	0.44	23.08	0.25
5.167	0.85	11.167	1.65	17.167	0.44	23.17	0.25
5.250	0.85	11.250	1.65	17.250	0.44	23.25	0.25
5.333	0.97	11.333	1.49	17.333	0.42	23.33	0.24
5.417	0.97	11.417	1.49	17.417	0.42	23.42	0.24
5.500	0.97	11.500	1.49	17.500	0.42	23.50	0.24
5.583	1.11	11.583	1.36	17.583	0.41	23.58	0.24
5.667	1.11	11.667	1.36	17.667	0.41	23.67	0.24
5.750	1.11	11.750	1.36	17.750	0.41	23.75	0.24
5.833	1.30	11.833	1.25	17.833	0.40	23.83	0.23
5.917	1.30	11.917	1.25	17.917	0.40	23.92	0.23
6.000	1.30	12.000	1.25	18.000	0.40	24.00	0.23

Max.Eff.Inten.(mm/hr)= 149.09 75.29
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.22 (ii) 3.07 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.27

TOTALS
 PEAK FLOW (cms)= 0.47 0.01 0.485 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00
 RUNOFF VOLUME (mm)= 90.53 43.34
 TOTAL RAINFALL (mm)= 92.53 92.53
 RUNOFF COEFFICIENT = 0.98 0.47 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		Area (ha) = 1.69	
STANDHYD (7654)		Total Imp(%) = 99.00	
ID= 1 DT= 5.0 min		Dir. Conn.(%) = 99.00	

Surface Area	(ha)=	1.67	0.02
Dep. Storage	(mm)=	2.00	5.00
Average Slope	(%)=	1.10	2.00
Length	(m)=	100.00	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.57	12.083	1.16	18.08	0.39
0.167	0.24	6.167	1.57	12.167	1.16	18.17	0.39
0.250	0.24	6.250	1.57	12.250	1.16	18.25	0.39
0.333	0.25	6.333	1.95	12.333	1.07	18.33	0.38
0.417	0.25	6.417	1.95	12.417	1.07	18.42	0.38
0.500	0.25	6.500	1.95	12.500	1.07	18.50	0.38
0.583	0.26	6.583	2.55	12.583	1.00	18.58	0.37
0.667	0.26	6.667	2.55	12.667	1.00	18.67	0.37
0.750	0.26	6.750	2.55	12.750	1.00	18.75	0.37
0.833	0.27	6.833	3.55	12.833	0.94	18.83	0.36
0.917	0.27	6.917	3.55	12.917	0.94	18.92	0.36
1.000	0.27	7.000	3.55	13.000	0.94	19.00	0.36
1.083	0.29	7.083	5.54	13.083	0.88	19.08	0.35
1.167	0.29	7.167	5.54	13.167	0.88	19.17	0.35
1.250	0.29	7.250	5.54	13.250	0.88	19.25	0.35
1.333	0.30	7.333	10.62	13.333	0.83	19.33	0.34
1.417	0.30	7.417	10.62	13.417	0.83	19.42	0.34
1.500	0.30	7.500	10.62	13.500	0.83	19.50	0.34
1.583	0.31	7.583	35.13	13.583	0.78	19.58	0.33

Max.Eff.Inten.(mm/hr)= 149.09 73.08
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.12 (ii) 3.07 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.31 0.27

TOTALS
 PEAK FLOW (cms)= 0.69 0.00 0.696 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00
 RUNOFF VOLUME (mm)= 90.53 42.22
 TOTAL RAINFALL (mm)= 92.53 92.53
 RUNOFF COEFFICIENT = 0.98 0.46 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.



CALIB
 STANDHYD (7655) | Area (ha)= 1.32
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.31 0.01
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.57	12.083	1.16
0.167	0.24	6.167	1.57	12.167	1.16
0.250	0.24	6.250	1.57	12.250	1.16
0.333	0.25	6.333	1.95	12.333	1.07
0.417	0.25	6.417	1.95	12.417	1.07
0.500	0.25	6.500	1.95	12.500	1.07
0.583	0.26	6.583	2.55	12.583	1.00
0.667	0.26	6.667	2.55	12.667	1.00
0.750	0.26	6.750	2.55	12.750	1.00
0.833	0.27	6.833	3.55	12.833	0.94
0.917	0.27	6.917	3.55	12.917	0.94
1.000	0.27	7.000	3.55	13.000	0.94
1.083	0.29	7.083	5.54	13.083	0.88
1.167	0.29	7.167	5.54	13.167	0.88
1.250	0.29	7.250	5.54	13.250	0.88
1.333	0.30	7.333	10.62	13.333	0.83
1.417	0.30	7.417	10.62	13.417	0.83
1.500	0.30	7.500	10.62	13.500	0.83
1.583	0.31	7.583	35.13	13.583	0.78
1.667	0.31	7.667	35.13	13.667	0.78
1.750	0.31	7.750	35.13	13.750	0.78
1.833	0.33	7.833	149.09	13.833	0.74
1.917	0.33	7.917	149.09	13.917	0.74
2.000	0.33	8.000	149.09	14.000	0.74
2.083	0.34	8.083	48.62	14.083	0.71
2.167	0.34	8.167	48.62	14.167	0.71
2.250	0.34	8.250	48.62	14.250	0.71
2.333	0.36	8.333	21.69	14.333	0.67
2.417	0.36	8.417	21.69	14.417	0.67
2.500	0.36	8.500	21.69	14.500	0.67
2.583	0.38	8.583	12.72	14.583	0.64
2.667	0.38	8.667	12.72	14.667	0.64
2.750	0.38	8.750	12.72	14.750	0.64
2.833	0.41	8.833	8.56	14.833	0.61
2.917	0.41	8.917	8.56	14.917	0.61
3.000	0.41	9.000	8.56	15.000	0.61
3.083	0.43	9.083	6.26	15.083	0.59
3.167	0.43	9.167	6.26	15.167	0.59
3.250	0.43	9.250	6.26	15.250	0.59
3.333	0.46	9.333	4.84	15.333	0.56
3.417	0.46	9.417	4.84	15.417	0.56
3.500	0.46	9.500	4.84	15.500	0.56
3.583	0.49	9.583	3.89	15.583	0.54
3.667	0.49	9.667	3.89	15.667	0.54
3.750	0.49	9.750	3.89	15.750	0.54
3.833	0.53	9.833	3.23	15.833	0.52
3.917	0.53	9.917	3.23	15.917	0.52
4.000	0.53	10.000	3.23	16.000	0.52
4.083	0.57	10.083	2.74	16.083	0.50
4.167	0.57	10.167	2.74	16.167	0.50
4.250	0.57	10.250	2.74	16.250	0.50
4.333	0.63	10.333	2.36	16.333	0.48
4.417	0.63	10.417	2.36	16.417	0.48
4.500	0.63	10.500	2.36	16.500	0.48
4.583	0.69	10.583	2.07	16.583	0.47
4.667	0.69	10.667	2.07	16.667	0.47
4.750	0.69	10.750	2.07	16.750	0.47
4.833	0.76	10.833	1.84	16.833	0.45
4.917	0.76	10.917	1.84	16.917	0.45

5.000	0.76	11.000	1.84	17.000	0.45
5.083	0.85	11.083	1.65	17.083	0.44
5.167	0.85	11.167	1.65	17.167	0.44
5.250	0.85	11.250	1.65	17.250	0.44
5.333	0.97	11.333	1.49	17.333	0.42
5.417	0.97	11.417	1.49	17.417	0.42
5.500	0.97	11.500	1.49	17.500	0.42
5.583	1.11	11.583	1.36	17.583	0.41
5.667	1.11	11.667	1.36	17.667	0.41
5.750	1.11	11.750	1.36	17.750	0.41
5.833	1.30	11.833	1.25	17.833	0.40
5.917	1.30	11.917	1.25	17.917	0.40
6.000	1.30	12.000	1.25	18.000	0.40

Max.Eff.Inten.(mm/hr)= 149.09 73.08
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.12 (ii) 3.07 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.31 0.27

TOTALS

PEAK FLOW (cms)= 0.54 0.00 0.544 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 90.53 42.22 90.05
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.98 0.46 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 STANDHYD (7662) | Area (ha)= 1.61
 ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.48 0.13
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 145.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.57	12.083	1.16
0.167	0.24	6.167	1.57	12.167	1.16
0.250	0.24	6.250	1.57	12.250	1.16
0.333	0.25	6.333	1.95	12.333	1.07
0.417	0.25	6.417	1.95	12.417	1.07
0.500	0.25	6.500	1.95	12.500	1.07
0.583	0.26	6.583	2.55	12.583	1.00
0.667	0.26	6.667	2.55	12.667	1.00
0.750	0.26	6.750	2.55	12.750	1.00
0.833	0.27	6.833	3.55	12.833	0.94
0.917	0.27	6.917	3.55	12.917	0.94
1.000	0.27	7.000	3.55	13.000	0.94
1.083	0.29	7.083	5.54	13.083	0.88
1.167	0.29	7.167	5.54	13.167	0.88
1.250	0.29	7.250	5.54	13.250	0.88
1.333	0.30	7.333	10.62	13.333	0.83
1.417	0.30	7.417	10.62	13.417	0.83
1.500	0.30	7.500	10.62	13.500	0.83
1.583	0.31	7.583	35.13	13.583	0.78
1.667	0.31	7.667	35.13	13.667	0.78
1.750	0.31	7.750	35.13	13.750	0.78
1.833	0.33	7.833	149.09	13.833	0.74
1.917	0.33	7.917	149.09	13.917	0.74



2.000	0.33	8.000	149.09	14.000	0.74	20.00	0.32
2.083	0.34	8.083	48.62	14.083	0.71	20.08	0.32
2.167	0.34	8.167	48.62	14.167	0.71	20.17	0.32
2.250	0.34	8.250	48.62	14.250	0.71	20.25	0.32
2.333	0.36	8.333	21.69	14.333	0.67	20.33	0.31
2.417	0.36	8.417	21.69	14.417	0.67	20.42	0.31
2.500	0.36	8.500	21.69	14.500	0.67	20.50	0.31
2.583	0.38	8.583	12.72	14.583	0.64	20.58	0.30
2.667	0.38	8.667	12.72	14.667	0.64	20.67	0.30
2.750	0.38	8.750	12.72	14.750	0.64	20.75	0.30
2.833	0.41	8.833	8.56	14.833	0.61	20.83	0.30
2.917	0.41	8.917	8.56	14.917	0.61	20.92	0.30
3.000	0.41	9.000	8.56	15.000	0.61	21.00	0.30
3.083	0.43	9.083	6.26	15.083	0.59	21.08	0.29
3.167	0.43	9.167	6.26	15.167	0.59	21.17	0.29
3.250	0.43	9.250	6.26	15.250	0.59	21.25	0.29
3.333	0.46	9.333	4.84	15.333	0.56	21.33	0.28
3.417	0.46	9.417	4.84	15.417	0.56	21.42	0.28
3.500	0.46	9.500	4.84	15.500	0.56	21.50	0.28
3.583	0.49	9.583	3.89	15.583	0.54	21.58	0.28
3.667	0.49	9.667	3.89	15.667	0.54	21.67	0.28
3.750	0.49	9.750	3.89	15.750	0.54	21.75	0.28
3.833	0.53	9.833	3.23	15.833	0.52	21.83	0.27
3.917	0.53	9.917	3.23	15.917	0.52	21.92	0.27
4.000	0.53	10.000	3.23	16.000	0.52	22.00	0.27
4.083	0.57	10.083	2.74	16.083	0.50	22.08	0.27
4.167	0.57	10.167	2.74	16.167	0.50	22.17	0.27
4.250	0.57	10.250	2.74	16.250	0.50	22.25	0.27
4.333	0.63	10.333	2.36	16.333	0.48	22.33	0.26
4.417	0.63	10.417	2.36	16.417	0.48	22.42	0.26
4.500	0.63	10.500	2.36	16.500	0.48	22.50	0.26
4.583	0.69	10.583	2.07	16.583	0.47	22.58	0.26
4.667	0.69	10.667	2.07	16.667	0.47	22.67	0.26
4.750	0.69	10.750	2.07	16.750	0.47	22.75	0.26
4.833	0.76	10.833	1.84	16.833	0.45	22.83	0.25
4.917	0.76	10.917	1.84	16.917	0.45	22.92	0.25
5.000	0.76	11.000	1.84	17.000	0.45	23.00	0.25
5.083	0.85	11.083	1.65	17.083	0.44	23.08	0.25
5.167	0.85	11.167	1.65	17.167	0.44	23.17	0.25
5.250	0.85	11.250	1.65	17.250	0.44	23.25	0.25
5.333	0.97	11.333	1.49	17.333	0.42	23.33	0.24
5.417	0.97	11.417	1.49	17.417	0.42	23.42	0.24
5.500	0.97	11.500	1.49	17.500	0.42	23.50	0.24
5.583	1.11	11.583	1.36	17.583	0.41	23.58	0.24
5.667	1.11	11.667	1.36	17.667	0.41	23.67	0.24
5.750	1.11	11.750	1.36	17.750	0.41	23.75	0.24
5.833	1.30	11.833	1.25	17.833	0.40	23.83	0.23
5.917	1.30	11.917	1.25	17.917	0.40	23.92	0.23
6.000	1.30	12.000	1.25	18.000	0.40	24.00	0.23

Max.Eff.Inten.(mm/hr)= 149.09 73.08
 over (min) 5.00 10.00
 Storage Coeff. (min)= 2.12 (ii) 7.02 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.31 0.14

TOTALS
 PEAK FLOW (cms)= 0.61 0.02 0.632 (iii)
 TIME TO PEAK (hrs)= 8.00 8.08 8.00
 RUNOFF VOLUME (mm)= 90.53 42.22 86.67
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.98 0.46 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7701)				
1 + 2 = 3				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	

ID1= 1 (7654):	1.69	0.696	8.00	90.05
+ ID2= 2 (7655):	1.32	0.544	8.00	90.05

ID = 3 (7701):	3.01	1.240	8.00	90.05

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7701)				
3 + 2 = 1				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7701):	3.01	1.240	8.00	90.05
+ ID2= 2 (7662):	1.61	0.632	8.00	86.67

ID = 1 (7701):	4.62	1.872	8.00	88.87

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7707)			
Area	(ha)=	1.06	
Total Imp (%)=	95.00	Dir. Conn. (%)=	95.00
ID= 1 DT= 5.0 min			

		IMPERVIOUS		PERVIOUS (i)	
Surface Area	(ha)=	1.01	0.05		
Dep. Storage	(mm)=	2.00	5.00		
Average Slope	(%)=	2.50	2.00		
Length	(m)=	60.00	40.00		
Mannings n	=	0.013	0.250		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.57	12.083	1.16	18.08	0.39				
0.167	0.24	6.167	1.57	12.167	1.16	18.17	0.39				
0.250	0.24	6.250	1.57	12.250	1.16	18.25	0.39				
0.333	0.25	6.333	1.95	12.333	1.07	18.33	0.38				
0.417	0.25	6.417	1.95	12.417	1.07	18.42	0.38				
0.500	0.25	6.500	1.95	12.500	1.07	18.50	0.38				
0.583	0.26	6.583	2.55	12.583	1.00	18.58	0.37				
0.667	0.26	6.667	2.55	12.667	1.00	18.67	0.37				
0.750	0.26	6.750	2.55	12.750	1.00	18.75	0.37				
0.833	0.27	6.833	3.55	12.833	0.94	18.83	0.36				
0.917	0.27	6.917	3.55	12.917	0.94	18.92	0.36				
1.000	0.27	7.000	3.55	13.000	0.94	19.00	0.36				
1.083	0.29	7.083	5.54	13.083	0.88	19.08	0.35				
1.167	0.29	7.167	5.54	13.167	0.88	19.17	0.35				
1.250	0.29	7.250	5.54	13.250	0.88	19.25	0.35				
1.333	0.30	7.333	10.62	13.333	0.83	19.33	0.34				
1.417	0.30	7.417	10.62	13.417	0.83	19.42	0.34				
1.500	0.30	7.500	10.62	13.500	0.83	19.50	0.34				
1.583	0.31	7.583	35.13	13.583	0.78	19.58	0.33				
1.667	0.31	7.667	35.13	13.667	0.78	19.67	0.33				
1.750	0.31	7.750	35.13	13.750	0.78	19.75	0.33				
1.833	0.33	7.833	149.09	13.833	0.74	19.83	0.32				
1.917	0.33	7.917	149.09	13.917	0.74	19.92	0.32				
2.000	0.33	8.000	149.09	14.000	0.74	20.00	0.32				
2.083	0.34	8.083	48.62	14.083	0.71	20.08	0.32				
2.167	0.34	8.167	48.62	14.167	0.71	20.17	0.32				
2.250	0.34	8.250	48.62	14.250	0.71	20.25	0.32				
2.333	0.36	8.333	21.69	14.333	0.67	20.33	0.31				
2.417	0.36	8.417	21.69	14.417	0.67	20.42	0.31				
2.500	0.36	8.500	21.69	14.500	0.67	20.50	0.31				
2.583	0.38	8.583	12.72	14.583	0.64	20.58	0.30				
2.667	0.38	8.667	12.72	14.667	0.64	20.67	0.30				
2.750	0.38	8.750	12.72	14.750	0.64	20.75	0.30				
2.833	0.41	8.833	8.56	14.833	0.61	20.83	0.30				
2.917	0.41	8.917	8.56	14.917	0.61	20.92	0.30				
3.000	0.41	9.000	8.56	15.000	0.61	21.00	0.30				
3.083	0.43	9.083	6.26	15.083	0.59	21.08	0.29				
3.167	0.43	9.167	6.26	15.167	0.59	21.17	0.29				
3.250	0.43	9.250	6.26	15.250	0.59	21.25	0.29				

3.333	0.46	9.333	4.84	15.333	0.56	21.33	0.28
3.417	0.46	9.417	4.84	15.417	0.56	21.42	0.28
3.500	0.46	9.500	4.84	15.500	0.56	21.50	0.28
3.583	0.49	9.583	3.89	15.583	0.54	21.58	0.28
3.667	0.49	9.667	3.89	15.667	0.54	21.67	0.28
3.750	0.49	9.750	3.89	15.750	0.54	21.75	0.28
3.833	0.53	9.833	3.23	15.833	0.52	21.83	0.27
3.917	0.53	9.917	3.23	15.917	0.52	21.92	0.27
4.000	0.53	10.000	3.23	16.000	0.52	22.00	0.27
4.083	0.57	10.083	2.74	16.083	0.50	22.08	0.27
4.167	0.57	10.167	2.74	16.167	0.50	22.17	0.27
4.250	0.57	10.250	2.74	16.250	0.50	22.25	0.27
4.333	0.63	10.333	2.36	16.333	0.48	22.33	0.26
4.417	0.63	10.417	2.36	16.417	0.48	22.42	0.26
4.500	0.63	10.500	2.36	16.500	0.48	22.50	0.26
4.583	0.69	10.583	2.07	16.583	0.47	22.58	0.26
4.667	0.69	10.667	2.07	16.667	0.47	22.67	0.26
4.750	0.69	10.750	2.07	16.750	0.47	22.75	0.26
4.833	0.76	10.833	1.84	16.833	0.45	22.83	0.25
4.917	0.76	10.917	1.84	16.917	0.45	22.92	0.25
5.000	0.76	11.000	1.84	17.000	0.45	23.00	0.25
5.083	0.85	11.083	1.65	17.083	0.44	23.08	0.25
5.167	0.85	11.167	1.65	17.167	0.44	23.17	0.25
5.250	0.85	11.250	1.65	17.250	0.44	23.25	0.25
5.333	0.97	11.333	1.49	17.333	0.42	23.33	0.24
5.417	0.97	11.417	1.49	17.417	0.42	23.42	0.24
5.500	0.97	11.500	1.49	17.500	0.42	23.50	0.24
5.583	1.11	11.583	1.36	17.583	0.41	23.58	0.24
5.667	1.11	11.667	1.36	17.667	0.41	23.67	0.24
5.750	1.11	11.750	1.36	17.750	0.41	23.75	0.24
5.833	1.30	11.833	1.25	17.833	0.40	23.83	0.23
5.917	1.30	11.917	1.25	17.917	0.40	23.92	0.23
6.000	1.30	12.000	1.25	18.000	0.40	24.00	0.23

Max.Eff.Inten.(mm/hr)= 149.09 75.29
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.22 (ii) 3.07 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.27

TOTALS
 PEAK FLOW (cms)= 0.42 0.01 0.429 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 90.53 43.34 88.17
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.98 0.47 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7702)							
1 + 2 = 3							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 1 (7623):	1.20	0.485	8.00	88.17			
+ ID2= 2 (7700):	4.48	1.831	8.00	89.43			
=====							
ID = 3 (7702):	5.68	2.316	8.00	89.17			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)							
3 + 2 = 1							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 3 (7702):	5.68	2.316	8.00	89.17			
+ ID2= 2 (7701):	4.62	1.872	8.00	88.87			
=====							
ID = 1 (7702):	10.30	4.188	8.00	89.03			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)					
1 + 2 = 3					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7702):	10.30	4.188	8.00	89.03	
+ ID2= 2 (7707):	1.06	0.429	8.00	88.17	
=====					
ID = 3 (7702):	11.36	4.616	8.00	88.95	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)					
3 + 2 = 1					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7702):	11.36	4.616	8.00	88.95	
+ ID2= 2 (7714):	14.31	2.708	8.00	91.66	
=====					
ID = 1 (7702):	25.67	7.324	8.00	90.46	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7705)					
OVERFLOW IS OFF					
IN= 2---> OUT= 1					
DT= 5.0 min					
	OUTFLOW	STORAGE	OUTFLOW	STORAGE	
	(cms)	(ha.m.)	(cms)	(ha.m.)	
	0.0000	0.0000	0.6280	2.3980	
	0.0730	0.2080	0.6400	2.4830	
	0.0890	0.2770	0.6520	2.5670	
	0.1340	0.5530	0.6640	2.6500	
	0.2910	0.8290	0.6750	2.7340	
	0.3860	1.1060	0.7190	3.0490	
	0.4590	1.3820	0.8250	3.3550	
	0.5220	1.7210	2.0760	3.4560	
	0.5780	2.0600	2.3560	3.7320	

	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 2 (7702)	25.670	7.324	8.00	90.46	
OUTFLOW: ID= 1 (7705)	25.670	0.444	9.25	90.43	

PEAK FLOW REDUCTION [Qout/Qin](%) = 6.06
 TIME SHIFT OF PEAK FLOW (min) = 75.00
 MAXIMUM STORAGE USED (ha.m.) = 1.3262

CALIB					
STANDHYD (7716)					
ID= 1 DT= 5.0 min					
	Area	(ha)=	0.19		
	Total Imp(%)	=	95.00	Dir. Conn.(%)	= 95.00

	IMPERVIOUS	PERVIOUS (i)			
Surface Area (ha)=	0.18	0.01			
Dep. Storage (mm)=	2.00	5.00			
Average Slope (%)=	2.50	2.00			
Length (m)=	60.00	40.00			
Mannings n =	0.013	0.250			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.57	12.083	1.16	18.08	0.39				
0.167	0.24	6.167	1.57	12.167	1.16	18.17	0.39				
0.250	0.24	6.250	1.57	12.250	1.16	18.25	0.39				
0.333	0.25	6.333	1.95	12.333	1.07	18.33	0.38				
0.417	0.25	6.417	1.95	12.417	1.07	18.42	0.38				
0.500	0.25	6.500	1.95	12.500	1.07	18.50	0.38				



2.000	0.33	8.000	149.09	14.000	0.74	20.00	0.32
2.083	0.34	8.083	48.62	14.083	0.71	20.08	0.32
2.167	0.34	8.167	48.62	14.167	0.71	20.17	0.32
2.250	0.34	8.250	48.62	14.250	0.71	20.25	0.32
2.333	0.36	8.333	21.69	14.333	0.67	20.33	0.31
2.417	0.36	8.417	21.69	14.417	0.67	20.42	0.31
2.500	0.36	8.500	21.69	14.500	0.67	20.50	0.31
2.583	0.38	8.583	12.72	14.583	0.64	20.58	0.30
2.667	0.38	8.667	12.72	14.667	0.64	20.67	0.30
2.750	0.38	8.750	12.72	14.750	0.64	20.75	0.30
2.833	0.41	8.833	8.56	14.833	0.61	20.83	0.30
2.917	0.41	8.917	8.56	14.917	0.61	20.92	0.30
3.000	0.41	9.000	8.56	15.000	0.61	21.00	0.30
3.083	0.43	9.083	6.26	15.083	0.59	21.08	0.29
3.167	0.43	9.167	6.26	15.167	0.59	21.17	0.29
3.250	0.43	9.250	6.26	15.250	0.59	21.25	0.29
3.333	0.46	9.333	4.84	15.333	0.56	21.33	0.28
3.417	0.46	9.417	4.84	15.417	0.56	21.42	0.28
3.500	0.46	9.500	4.84	15.500	0.56	21.50	0.28
3.583	0.49	9.583	3.89	15.583	0.54	21.58	0.28
3.667	0.49	9.667	3.89	15.667	0.54	21.67	0.28
3.750	0.49	9.750	3.89	15.750	0.54	21.75	0.28
3.833	0.53	9.833	3.23	15.833	0.52	21.83	0.27
3.917	0.53	9.917	3.23	15.917	0.52	21.92	0.27
4.000	0.53	10.000	3.23	16.000	0.52	22.00	0.27
4.083	0.57	10.083	2.74	16.083	0.50	22.08	0.27
4.167	0.57	10.167	2.74	16.167	0.50	22.17	0.27
4.250	0.57	10.250	2.74	16.250	0.50	22.25	0.27
4.333	0.63	10.333	2.36	16.333	0.48	22.33	0.26
4.417	0.63	10.417	2.36	16.417	0.48	22.42	0.26
4.500	0.63	10.500	2.36	16.500	0.48	22.50	0.26
4.583	0.69	10.583	2.07	16.583	0.47	22.58	0.26
4.667	0.69	10.667	2.07	16.667	0.47	22.67	0.26
4.750	0.69	10.750	2.07	16.750	0.47	22.75	0.26
4.833	0.76	10.833	1.84	16.833	0.45	22.83	0.25
4.917	0.76	10.917	1.84	16.917	0.45	22.92	0.25
5.000	0.76	11.000	1.84	17.000	0.45	23.00	0.25
5.083	0.85	11.083	1.65	17.083	0.44	23.08	0.25
5.167	0.85	11.167	1.65	17.167	0.44	23.17	0.25
5.250	0.85	11.250	1.65	17.250	0.44	23.25	0.25
5.333	0.97	11.333	1.49	17.333	0.42	23.33	0.24
5.417	0.97	11.417	1.49	17.417	0.42	23.42	0.24
5.500	0.97	11.500	1.49	17.500	0.42	23.50	0.24
5.583	1.11	11.583	1.36	17.583	0.41	23.58	0.24
5.667	1.11	11.667	1.36	17.667	0.41	23.67	0.24
5.750	1.11	11.750	1.36	17.750	0.41	23.75	0.24
5.833	1.30	11.833	1.25	17.833	0.40	23.83	0.23
5.917	1.30	11.917	1.25	17.917	0.40	23.92	0.23
6.000	1.30	12.000	1.25	18.000	0.40	24.00	0.23

Max.Eff.Inten.(mm/hr)= 149.09 75.29
 over (min) 5.00 5.00
 Storage Coeff. (min)= 0.90 (ii) 2.76 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.28

TOTALS
 PEAK FLOW (cms)= 0.08 0.00 0.081 (iii)
 TIME TO PEAK (hrs)= 7.92 8.00 8.00
 RUNOFF VOLUME (mm)= 90.53 43.34 88.17
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.98 0.47 0.95

- ***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
 (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7719) OVERFLOW IS OFF			
IN= 2--> OUT= 1			
DT= 5.0 min			
OUTFLOW	STORAGE	OUTFLOW	STORAGE
(cms)	(ha.m.)	(cms)	(ha.m.)

0.0000	0.0000	0.0100	0.0090
0.0030	0.0010	0.0110	0.0100
0.0050	0.0030	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW : ID= 2 (7717) 0.200 0.081 8.00 88.17
 OUTFLOW : ID= 1 (7719) 0.200 0.011 8.50 87.96

PEAK FLOW REDUCTION [Qout/Qin] (%) = 13.90
 TIME SHIFT OF PEAK FLOW (min) = 30.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0103

ADD HYD (7706)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7705):	25.67	0.444	9.25	90.43
+ ID2= 2 (7719):	0.20	0.011	8.50	87.96
=====				
ID = 3 (7706):	25.87	0.454	9.08	90.41

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7706)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7706):	25.87	0.454	9.08	90.41
+ ID2= 2 (7720):	0.19	0.011	8.50	87.96
=====				
ID = 1 (7706):	26.06	0.464	9.08	90.40

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB | Area (ha)= 1.24
 | STANDHYD (7595) | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
 ID= 1 DT= 5.0 min

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.23	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	91.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.24	6.083	1.57	12.083	1.16	18.08	0.39		
0.167	0.24	6.167	1.57	12.167	1.16	18.17	0.39		
0.250	0.24	6.250	1.57	12.250	1.16	18.25	0.39		
0.333	0.25	6.333	1.95	12.333	1.07	18.33	0.38		
0.417	0.25	6.417	1.95	12.417	1.07	18.42	0.38		
0.500	0.25	6.500	1.95	12.500	1.07	18.50	0.38		
0.583	0.26	6.583	2.55	12.583	1.00	18.58	0.37		
0.667	0.26	6.667	2.55	12.667	1.00	18.67	0.37		
0.750	0.26	6.750	2.55	12.750	1.00	18.75	0.37		
0.833	0.27	6.833	3.55	12.833	0.94	18.83	0.36		
0.917	0.27	6.917	3.55	12.917	0.94	18.92	0.36		
1.000	0.27	7.000	3.55	13.000	0.94	19.00	0.36		
1.083	0.29	7.083	5.54	13.083	0.88	19.08	0.35		
1.167	0.29	7.167	5.54	13.167	0.88	19.17	0.35		
1.250	0.29	7.250	5.54	13.250	0.88	19.25	0.35		
1.333	0.30	7.333	10.62	13.333	0.83	19.33	0.34		



1.417	0.30	7.417	10.62	13.417	0.83	19.42	0.34
1.500	0.30	7.500	10.62	13.500	0.83	19.50	0.34
1.583	0.31	7.583	35.13	13.583	0.78	19.58	0.33
1.667	0.31	7.667	35.13	13.667	0.78	19.67	0.33
1.750	0.31	7.750	35.13	13.750	0.78	19.75	0.33
1.833	0.33	7.833	149.09	13.833	0.74	19.83	0.32
1.917	0.33	7.917	149.09	13.917	0.74	19.92	0.32
2.000	0.33	8.000	149.09	14.000	0.74	20.00	0.32
2.083	0.34	8.083	48.62	14.083	0.71	20.08	0.32
2.167	0.34	8.167	48.62	14.167	0.71	20.17	0.32
2.250	0.34	8.250	48.62	14.250	0.71	20.25	0.32
2.333	0.36	8.333	21.69	14.333	0.67	20.33	0.31
2.417	0.36	8.417	21.69	14.417	0.67	20.42	0.31
2.500	0.36	8.500	21.69	14.500	0.67	20.50	0.31
2.583	0.38	8.583	12.72	14.583	0.64	20.58	0.30
2.667	0.38	8.667	12.72	14.667	0.64	20.67	0.30
2.750	0.38	8.750	12.72	14.750	0.64	20.75	0.30
2.833	0.41	8.833	8.56	14.833	0.61	20.83	0.30
2.917	0.41	8.917	8.56	14.917	0.61	20.92	0.30
3.000	0.41	9.000	8.56	15.000	0.61	21.00	0.30
3.083	0.43	9.083	6.26	15.083	0.59	21.08	0.29
3.167	0.43	9.167	6.26	15.167	0.59	21.17	0.29
3.250	0.43	9.250	6.26	15.250	0.59	21.25	0.29
3.333	0.46	9.333	4.84	15.333	0.56	21.33	0.28
3.417	0.46	9.417	4.84	15.417	0.56	21.42	0.28
3.500	0.46	9.500	4.84	15.500	0.56	21.50	0.28
3.583	0.49	9.583	3.89	15.583	0.54	21.58	0.28
3.667	0.49	9.667	3.89	15.667	0.54	21.67	0.28
3.750	0.49	9.750	3.89	15.750	0.54	21.75	0.28
3.833	0.53	9.833	3.23	15.833	0.52	21.83	0.27
3.917	0.53	9.917	3.23	15.917	0.52	21.92	0.27
4.000	0.53	10.000	3.23	16.000	0.52	22.00	0.27
4.083	0.57	10.083	2.74	16.083	0.50	22.08	0.27
4.167	0.57	10.167	2.74	16.167	0.50	22.17	0.27
4.250	0.57	10.250	2.74	16.250	0.50	22.25	0.27
4.333	0.63	10.333	2.36	16.333	0.48	22.33	0.26
4.417	0.63	10.417	2.36	16.417	0.48	22.42	0.26
4.500	0.63	10.500	2.36	16.500	0.48	22.50	0.26
4.583	0.69	10.583	2.07	16.583	0.47	22.58	0.26
4.667	0.69	10.667	2.07	16.667	0.47	22.67	0.26
4.750	0.69	10.750	2.07	16.750	0.47	22.75	0.26
4.833	0.76	10.833	1.84	16.833	0.45	22.83	0.25
4.917	0.76	10.917	1.84	16.917	0.45	22.92	0.25
5.000	0.76	11.000	1.84	17.000	0.45	23.00	0.25
5.083	0.85	11.083	1.65	17.083	0.44	23.08	0.25
5.167	0.85	11.167	1.65	17.167	0.44	23.17	0.25
5.250	0.85	11.250	1.65	17.250	0.44	23.25	0.25
5.333	0.97	11.333	1.49	17.333	0.42	23.33	0.24
5.417	0.97	11.417	1.49	17.417	0.42	23.42	0.24
5.500	0.97	11.500	1.49	17.500	0.42	23.50	0.24
5.583	1.11	11.583	1.36	17.583	0.41	23.58	0.24
5.667	1.11	11.667	1.36	17.667	0.41	23.67	0.24
5.750	1.11	11.750	1.36	17.750	0.41	23.75	0.24
5.833	1.30	11.833	1.25	17.833	0.40	23.83	0.23
5.917	1.30	11.917	1.25	17.917	0.40	23.92	0.23
6.000	1.30	12.000	1.25	18.000	0.40	24.00	0.23

Max.Eff.Inten.(mm/hr)= 149.09 73.08
over (min) = 5.00 5.00
Storage Coeff. (min)= 1.67 (ii) 2.63 (iii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.32 0.29

TOTALS
PEAK FLOW (cms)= 0.51 0.00 0.512 (iii)
TIME TO PEAK (hrs)= 8.00 8.00
RUNOFF VOLUME (mm)= 90.53 42.22 90.05
TOTAL RAINFALL (mm)= 92.53 92.53
RUNOFF COEFFICIENT = 0.98 0.46 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7718) |
| 1 + 2 = 3 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7595): 1.24 0.512 8.00 90.05
+ ID2= 2 ( 7706): 26.06 0.464 9.08 90.40
-----
ID = 3 ( 7718): 27.30 0.785 8.00 90.38
-----
NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-----
| RESERVOIR ( 7711) | OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT= 5.0 min |
-----
OUTFLOW STORAGE | OUTFLOW STORAGE
(cms) (ha.m.) | (cms) (ha.m.)
0.0000 0.0000 | 1.0810 1.6220
0.0010 0.1670 | 1.3950 1.8170
0.0340 0.3380 | 2.0990 2.2130
0.0510 0.5110 | 2.8950 2.6150
0.0630 0.6880 | 3.7730 3.0250
0.1610 0.8670 | 4.7260 3.4420
0.3300 1.0500 | 5.5670 3.8670
0.5440 1.2370 | 8.5800 4.3000
0.7970 1.4290 | 10.9450 4.5210
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 2 ( 7718) 27.302 0.785 8.00 90.38
OUTFLOW: ID= 1 ( 7711) 27.302 0.302 17.58 84.92
-----
PEAK FLOW REDUCTION [Qout/Qin](%)= 38.44
TIME SHIFT OF PEAK FLOW (min)=575.00
MAXIMUM STORAGE USED (ha.m.)= 1.0193
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=====
5.25 0.94 | 11.25 1.50 | 17.25 0.39 | 23.25 0.21
5.50 1.09 | 11.50 1.36 | 17.50 0.38 | 23.50 0.21
5.75 1.30 | 11.75 1.24 | 17.75 0.36 | 23.75 0.21
=====
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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| CALIB |
| STANDBYD ( 7640) | Area (ha)= 0.59
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.58 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 62.72 40.00
Mannings n = 0.013 0.250

```

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\mhooper\AppData\Local\Civica\540fcb7f5-f544-4d5a-b245-
a4eb17ead57\9b695da-60bd-4b18-871f-6e362c9d9\ed\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\540fcb7f5-f544-4d5a-b245-
a4eb17ead57\9b695da-60bd-4b18-871f-6e362c9d9\ed\scen

```

DATE: 11-22-2024 TIME: 12:17:33

USER:

COMMENTS:

```

*****
** SIMULATION : F - 100yr 24hr 15min Chicago **
*****

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-----
| CHICAGO STORM | IDF curve parameters: A=4688.000
| Ptotal=101.55 mm | B= 17.000
| | C= 0.962
-----
used in: INTENSITY = A / (t + B)^C

Duration of storm = 24.00 hrs
Storm time step = 15.00 min
Time to peak ratio = 0.33

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.22	6.00	1.58	12.00	1.14	18.00	0.35
0.25	0.22	6.25	2.00	12.25	1.05	18.25	0.34
0.50	0.23	6.50	2.65	12.50	0.98	18.50	0.33
0.75	0.24	6.75	3.77	12.75	0.91	18.75	0.32
1.00	0.25	7.00	6.01	13.00	0.85	19.00	0.31
1.25	0.27	7.25	11.82	13.25	0.80	19.25	0.31
1.50	0.28	7.50	39.93	13.50	0.75	19.50	0.30
1.75	0.29	7.75	166.89	13.75	0.71	19.75	0.29
2.00	0.31	8.00	55.37	14.00	0.67	20.00	0.28
2.25	0.33	8.25	24.55	14.25	0.64	20.25	0.28
2.50	0.35	8.50	14.23	14.50	0.61	20.50	0.27
2.75	0.37	8.75	9.45	14.75	0.58	20.75	0.26
3.00	0.39	9.00	6.83	15.00	0.55	21.00	0.26
3.25	0.42	9.25	5.22	15.25	0.53	21.25	0.25
3.50	0.46	9.50	4.15	15.50	0.51	21.50	0.25
3.75	0.49	9.75	3.41	15.75	0.48	21.75	0.24
4.00	0.54	10.00	2.86	16.00	0.47	22.00	0.24
4.25	0.59	10.25	2.45	16.25	0.45	22.25	0.23
4.50	0.65	10.50	2.13	16.50	0.43	22.50	0.23
4.75	0.73	10.75	1.88	16.75	0.42	22.75	0.22
5.00	0.82	11.00	1.67	17.00	0.40	23.00	0.22

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.22	6.083	1.58	12.083	1.14	18.08	0.35
0.167	0.22	6.167	1.58	12.167	1.14	18.17	0.35
0.250	0.22	6.250	1.58	12.250	1.14	18.25	0.35
0.333	0.22	6.333	2.00	12.333	1.05	18.33	0.34
0.417	0.22	6.417	2.00	12.417	1.05	18.42	0.34
0.500	0.22	6.500	2.00	12.500	1.05	18.50	0.34
0.583	0.23	6.583	2.65	12.583	0.98	18.58	0.33
0.667	0.23	6.667	2.65	12.667	0.98	18.67	0.33
0.750	0.23	6.750	2.65	12.750	0.98	18.75	0.33
0.833	0.24	6.833	3.77	12.833	0.91	18.83	0.32
0.917	0.24	6.917	3.77	12.917	0.91	18.92	0.32
1.000	0.24	7.000	3.77	13.000	0.91	19.00	0.32
1.083	0.25	7.083	6.01	13.083	0.85	19.08	0.31
1.167	0.25	7.167	6.01	13.167	0.85	19.17	0.31
1.250	0.25	7.250	6.01	13.250	0.85	19.25	0.31
1.333	0.27	7.333	11.82	13.333	0.80	19.33	0.31
1.417	0.27	7.417	11.82	13.417	0.80	19.42	0.31
1.500	0.27	7.500	11.82	13.500	0.80	19.50	0.31
1.583	0.28	7.583	39.93	13.583	0.75	19.58	0.30
1.667	0.28	7.667	39.93	13.667	0.75	19.67	0.30
1.750	0.28	7.750	39.94	13.750	0.75	19.75	0.30
1.833	0.29	7.833	166.89	13.833	0.71	19.83	0.29
1.917	0.29	7.917	166.89	13.917	0.71	19.92	0.29
2.000	0.29	8.000	166.88	14.000	0.71	20.00	0.29
2.083	0.31	8.083	55.37	14.083	0.67	20.08	0.28
2.167	0.31	8.167	55.37	14.167	0.67	20.17	0.28
2.250	0.31	8.250	55.37	14.250	0.67	20.25	0.28
2.333	0.33	8.333	24.55	14.333	0.64	20.33	0.28
2.417	0.33	8.417	24.55	14.417	0.64	20.42	0.28
2.500	0.33	8.500	24.55	14.500	0.64	20.50	0.28
2.583	0.35	8.583	14.23	14.583	0.61	20.58	0.27
2.667	0.35	8.667	14.23	14.667	0.61	20.67	0.27
2.750	0.35	8.750	14.23	14.750	0.61	20.75	0.27
2.833	0.37	8.833	9.45	14.833	0.58	20.83	0.26
2.917	0.37	8.917	9.45	14.917	0.58	20.92	0.26
3.000	0.37	9.000	9.45	15.000	0.58	21.00	0.26
3.083	0.39	9.083	6.83	15.083	0.55	21.08	0.26
3.167	0.39	9.167	6.83	15.167	0.55	21.17	0.26
3.250	0.39	9.250	6.83	15.250	0.55	21.25	0.26
3.333	0.42	9.333	5.22	15.333	0.53	21.33	0.25
3.417	0.42	9.417	5.22	15.417	0.53	21.42	0.25
3.500	0.42	9.500	5.22	15.500	0.53	21.50	0.25
3.583	0.46	9.583	4.15	15.583	0.51	21.58	0.25
3.667	0.46	9.667	4.15	15.667	0.51	21.67	0.25
3.750	0.46	9.750	4.15	15.750	0.51	21.75	0.25
3.833	0.49	9.833	3.41	15.833	0.48	21.83	0.24
3.917	0.49	9.917	3.41	15.917	0.48	21.92	0.24
4.000	0.49	10.000	3.41	16.000	0.48	22.00	0.24
4.083	0.54	10.083	2.86	16.083	0.47	22.08	0.24
4.167	0.54	10.167	2.86	16.167	0.47	22.17	0.24
4.250	0.54	10.250	2.86	16.250	0.47	22.25	0.24
4.333	0.59	10.333	2.45	16.333	0.45	22.33	0.23



4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23
4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23
4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22
5.000	0.73	11.000	1.88	17.000	0.42	23.00	0.22
5.083	0.82	11.083	1.67	17.083	0.40	23.08	0.22
5.167	0.82	11.167	1.67	17.167	0.40	23.17	0.22
5.250	0.82	11.250	1.67	17.250	0.40	23.25	0.22
5.333	0.94	11.333	1.50	17.333	0.39	23.33	0.21
5.417	0.94	11.417	1.50	17.417	0.39	23.42	0.21
5.500	0.94	11.500	1.50	17.500	0.39	23.50	0.21
5.583	1.09	11.583	1.36	17.583	0.38	23.58	0.21
5.667	1.09	11.667	1.36	17.667	0.38	23.67	0.21
5.750	1.09	11.750	1.36	17.750	0.38	23.75	0.21
5.833	1.30	11.833	1.24	17.833	0.36	23.83	0.21
5.917	1.30	11.917	1.24	17.917	0.36	23.92	0.21
6.000	1.30	12.000	1.24	18.000	0.36	24.00	0.21

1.917	0.29	7.917	166.89	13.917	0.71	19.92	0.29
2.000	0.29	8.000	166.88	14.000	0.71	20.00	0.29
2.083	0.31	8.083	55.37	14.083	0.67	20.08	0.28
2.167	0.31	8.167	55.37	14.167	0.67	20.17	0.28
2.250	0.31	8.250	55.37	14.250	0.67	20.25	0.28
2.333	0.33	8.333	24.55	14.333	0.64	20.33	0.28
2.417	0.33	8.417	24.55	14.417	0.64	20.42	0.28
2.500	0.33	8.500	24.55	14.500	0.64	20.50	0.28
2.583	0.35	8.583	14.23	14.583	0.61	20.58	0.27
2.667	0.35	8.667	14.23	14.667	0.61	20.67	0.27
2.750	0.35	8.750	14.23	14.750	0.61	20.75	0.27
2.833	0.37	8.833	9.45	14.833	0.58	20.83	0.26
2.917	0.37	8.917	9.45	14.917	0.58	20.92	0.26
3.000	0.37	9.000	9.45	15.000	0.58	21.00	0.26
3.083	0.39	9.083	6.83	15.083	0.55	21.08	0.26
3.167	0.39	9.167	6.83	15.167	0.55	21.17	0.26
3.250	0.39	9.250	6.83	15.250	0.55	21.25	0.26
3.333	0.42	9.333	5.22	15.333	0.53	21.33	0.25
3.417	0.42	9.417	5.22	15.417	0.53	21.42	0.25
3.500	0.42	9.500	5.22	15.500	0.53	21.50	0.25
3.583	0.46	9.583	4.15	15.583	0.51	21.58	0.25
3.667	0.46	9.667	4.15	15.667	0.51	21.67	0.25
3.750	0.46	9.750	4.15	15.750	0.51	21.75	0.25
3.833	0.49	9.833	3.41	15.833	0.48	21.83	0.24
3.917	0.49	9.917	3.41	15.917	0.48	21.92	0.24
4.000	0.49	10.000	3.41	16.000	0.48	22.00	0.24
4.083	0.54	10.083	2.86	16.083	0.47	22.08	0.24
4.167	0.54	10.167	2.86	16.167	0.47	22.17	0.24
4.250	0.54	10.250	2.86	16.250	0.47	22.25	0.24
4.333	0.59	10.333	2.45	16.333	0.45	22.33	0.23
4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23
4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23
4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22
5.000	0.73	11.000	1.88	17.000	0.42	23.00	0.22
5.083	0.82	11.083	1.67	17.083	0.40	23.08	0.22
5.167	0.82	11.167	1.67	17.167	0.40	23.17	0.22
5.250	0.82	11.250	1.67	17.250	0.40	23.25	0.22
5.333	0.94	11.333	1.50	17.333	0.39	23.33	0.21
5.417	0.94	11.417	1.50	17.417	0.39	23.42	0.21
5.500	0.94	11.500	1.50	17.500	0.39	23.50	0.21
5.583	1.09	11.583	1.36	17.583	0.38	23.58	0.21
5.667	1.09	11.667	1.36	17.667	0.38	23.67	0.21
5.750	1.09	11.750	1.36	17.750	0.38	23.75	0.21
5.833	1.30	11.833	1.24	17.833	0.36	23.83	0.21
5.917	1.30	11.917	1.24	17.917	0.36	23.92	0.21
6.000	1.30	12.000	1.24	18.000	0.36	24.00	0.21

Max.Eff.Inten.(mm/hr)= 166.89 87.18
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.28 (ii) 2.19 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.31

PEAK FLOW (cms)= 0.27 0.00 0.272 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00
 RUNOFF VOLUME (mm)= 99.55 48.94 99.04
 TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.98 0.48 0.98

TOTALS

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALLIB |
 | NASHYD (7721) | Area (ha)= 0.21 Curve Number (CN)= 73.0
 | ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00

 U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.22	6.083	1.58	12.083	1.14	18.08	0.35
0.167	0.22	6.167	1.58	12.167	1.14	18.17	0.35
0.250	0.22	6.250	1.58	12.250	1.14	18.25	0.35
0.333	0.22	6.333	2.00	12.333	1.05	18.33	0.34
0.417	0.22	6.417	2.00	12.417	1.05	18.42	0.34
0.500	0.22	6.500	2.00	12.500	1.05	18.50	0.34
0.583	0.23	6.583	2.65	12.583	0.98	18.58	0.33
0.667	0.23	6.667	2.65	12.667	0.98	18.67	0.33
0.750	0.23	6.750	2.65	12.750	0.98	18.75	0.33
0.833	0.24	6.833	3.77	12.833	0.91	18.83	0.32
0.917	0.24	6.917	3.77	12.917	0.91	18.92	0.32
1.000	0.24	7.000	3.77	13.000	0.91	19.00	0.32
1.083	0.25	7.083	6.01	13.083	0.85	19.08	0.31
1.167	0.25	7.167	6.01	13.167	0.85	19.17	0.31
1.250	0.25	7.250	6.01	13.250	0.85	19.25	0.31
1.333	0.27	7.333	11.82	13.333	0.80	19.33	0.31
1.417	0.27	7.417	11.82	13.417	0.80	19.42	0.31
1.500	0.27	7.500	11.82	13.500	0.80	19.50	0.31
1.583	0.28	7.583	39.93	13.583	0.75	19.58	0.30
1.667	0.28	7.667	39.93	13.667	0.75	19.67	0.30
1.750	0.28	7.750	39.94	13.750	0.75	19.75	0.30
1.833	0.29	7.833	166.89	13.833	0.71	19.83	0.29

Unit Hyd Qpeak (cms)= 0.047

PEAK FLOW (cms)= 0.034 (i)
 TIME TO PEAK (hrs)= 8.083
 RUNOFF VOLUME (mm)= 48.759
 TOTAL RAINFALL (mm)= 101.551
 RUNOFF COEFFICIENT = 0.480

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALLIB |
 | STANDHYD (7599) | Area (ha)= 10.90
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 10.79 0.11
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 269.57 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.22	6.083	1.58	12.083	1.14	18.08	0.35
0.167	0.22	6.167	1.58	12.167	1.14	18.17	0.35
0.250	0.22	6.250	1.58	12.250	1.14	18.25	0.35
0.333	0.22	6.333	2.00	12.333	1.05	18.33	0.34
0.417	0.22	6.417	2.00	12.417	1.05	18.42	0.34
0.500	0.22	6.500	2.00	12.500	1.05	18.50	0.34
0.583	0.23	6.583	2.65	12.583	0.98	18.58	0.33
0.667	0.23	6.667	2.65	12.667	0.98	18.67	0.33
0.750	0.23	6.750	2.65	12.750	0.98	18.75	0.33
0.833	0.24	6.833	3.77	12.833	0.91	18.83	0.32
0.917	0.24	6.917	3.77	12.917	0.91	18.92	0.32
1.000	0.24	7.000	3.77	13.000	0.91	19.00	0.32
1.083	0.25	7.083	6.01	13.083	0.85	19.08	0.31
1.167	0.25	7.167	6.01	13.167	0.85	19.17	0.31
1.250	0.25	7.250	6.01	13.250	0.85	19.25	0.31
1.333	0.27	7.333	11.82	13.333	0.80	19.33	0.31
1.417	0.27	7.417	11.82	13.417	0.80	19.42	0.31
1.500	0.27	7.500	11.82	13.500	0.80	19.50	0.31
1.583	0.28	7.583	39.93	13.583	0.75	19.58	0.30
1.667	0.28	7.667	39.93	13.667	0.75	19.67	0.30
1.750	0.28	7.750	39.93	13.750	0.75	19.75	0.30
1.833	0.29	7.833	166.89	13.833	0.71	19.83	0.29
1.917	0.29	7.917	166.89	13.917	0.71	19.92	0.29
2.000	0.29	8.000	166.88	14.000	0.71	20.00	0.29
2.083	0.31	8.083	55.37	14.083	0.67	20.08	0.28
2.167	0.31	8.167	55.37	14.167	0.67	20.17	0.28
2.250	0.31	8.250	55.37	14.250	0.67	20.25	0.28
2.333	0.33	8.333	24.55	14.333	0.64	20.33	0.28
2.417	0.33	8.417	24.55	14.417	0.64	20.42	0.28
2.500	0.33	8.500	24.55	14.500	0.64	20.50	0.28
2.583	0.35	8.583	14.23	14.583	0.61	20.58	0.27
2.667	0.35	8.667	14.23	14.667	0.61	20.67	0.27
2.750	0.35	8.750	14.23	14.750	0.61	20.75	0.27
2.833	0.37	8.833	9.45	14.833	0.58	20.83	0.26
2.917	0.37	8.917	9.45	14.917	0.58	20.92	0.26
3.000	0.37	9.000	9.45	15.000	0.58	21.00	0.26
3.083	0.39	9.083	6.83	15.083	0.55	21.08	0.26
3.167	0.39	9.167	6.83	15.167	0.55	21.17	0.26
3.250	0.39	9.250	6.83	15.250	0.55	21.25	0.26
3.333	0.42	9.333	5.22	15.333	0.53	21.33	0.25
3.417	0.42	9.417	5.22	15.417	0.53	21.42	0.25
3.500	0.42	9.500	5.22	15.500	0.53	21.50	0.25
3.583	0.46	9.583	4.15	15.583	0.51	21.58	0.25
3.667	0.46	9.667	4.15	15.667	0.51	21.67	0.25
3.750	0.46	9.750	4.15	15.750	0.51	21.75	0.25
3.833	0.49	9.833	3.41	15.833	0.48	21.83	0.24
3.917	0.49	9.917	3.41	15.917	0.48	21.92	0.24
4.000	0.49	10.000	3.41	16.000	0.48	22.00	0.24
4.083	0.54	10.083	2.86	16.083	0.47	22.08	0.24
4.167	0.54	10.167	2.86	16.167	0.47	22.17	0.24
4.250	0.54	10.250	2.86	16.250	0.47	22.25	0.24
4.333	0.59	10.333	2.45	16.333	0.45	22.33	0.23
4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23
4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23
4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22
5.000	0.73	11.000	1.88	17.000	0.42	23.00	0.22
5.083	0.82	11.083	1.67	17.083	0.40	23.08	0.22
5.167	0.82	11.167	1.67	17.167	0.40	23.17	0.22
5.250	0.82	11.250	1.67	17.250	0.40	23.25	0.22
5.333	0.94	11.333	1.50	17.333	0.39	23.33	0.21
5.417	0.94	11.417	1.50	17.417	0.39	23.42	0.21
5.500	0.94	11.500	1.50	17.500	0.39	23.50	0.21
5.583	1.09	11.583	1.36	17.583	0.38	23.58	0.21
5.667	1.09	11.667	1.36	17.667	0.38	23.67	0.21
5.750	1.09	11.750	1.36	17.750	0.38	23.75	0.21
5.833	1.30	11.833	1.24	17.833	0.36	23.83	0.21
5.917	1.30	11.917	1.24	17.917	0.36	23.92	0.21
6.000	1.30	12.000	1.24	18.000	0.36	24.00	0.21

Max.Eff.Inten.(mm/hr)= 166.89 87.18
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 3.77 (ii) 4.69 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.25 0.22

PEAK FLOW (cms)= 4.93 0.03 *TOTALS*
 TIME TO PEAK (hrs)= 8.00 8.00 4.956 (iii)
 RUNOFF VOLUME (mm)= 99.55 48.94 99.04
 TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.98 0.48 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | ADD HYD (7722) |
 | 1 + 2 = 3 |
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7599): 10.90 4.956 8.00 99.04
 + ID2= 2 (7721): 0.21 0.034 8.08 48.76
 ID = 3 (7722): 11.11 4.987 8.00 98.10

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | RESERVOIR (7685) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
 | DT= 5.0 min |
 OUTFLOW STORAGE OUTFLOW STORAGE
 (cms) (ha.m.) (cms) (ha.m.)
 0.0000 0.0000 | 0.1390 0.6960
 0.0590 0.3400 | 0.1630 0.7780
 0.0900 0.4907 | 0.1840 0.8800
 0.1110 0.5760 | 0.0000 0.0000

AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW : ID= 2 (7722) 11.108 4.987 8.00 98.10
 OUTFLOW: ID= 1 (7685) 11.108 0.181 9.33 97.97

PEAK FLOW REDUCTION [Qout/Qin] (%) = 3.63
 TIME SHIFT OF PEAK FLOW (min) = 80.00
 MAXIMUM STORAGE USED (ha.m.) = 0.8650

 | CALIB |
 | STANDHYD (7591) | Area (ha) = 11.38
 | ID= 1 DT= 5.0 min | Total Imp (%) = 99.00 Dir. Conn. (%) = 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha) = 11.27 0.11
 Dep. Storage (mm) = 2.00 5.00
 Average Slope (%) = 1.00 2.00
 Length (m) = 275.44 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.22	6.083	1.58	12.083	1.14	18.08	0.35
0.167	0.22	6.167	1.58	12.167	1.14	18.17	0.35
0.250	0.22	6.250	1.58	12.250	1.14	18.25	0.35
0.333	0.22	6.333	2.00	12.333	1.05	18.33	0.34

0.417	0.22	6.417	2.00	12.417	1.05	18.42	0.34
0.500	0.22	6.500	2.00	12.500	1.05	18.50	0.34
0.583	0.23	6.583	2.65	12.583	0.98	18.58	0.33
0.667	0.23	6.667	2.65	12.667	0.98	18.67	0.33
0.750	0.23	6.750	2.65	12.750	0.98	18.75	0.33
0.833	0.24	6.833	3.77	12.833	0.91	18.83	0.32
0.917	0.24	6.917	3.77	12.917	0.91	18.92	0.32
1.000	0.24	7.000	3.77	13.000	0.91	19.00	0.32
1.083	0.25	7.083	6.01	13.083	0.85	19.08	0.31
1.167	0.25	7.167	6.01	13.167	0.85	19.17	0.31
1.250	0.25	7.250	6.01	13.250	0.85	19.25	0.31
1.333	0.27	7.333	11.82	13.333	0.80	19.33	0.31
1.417	0.27	7.417	11.82	13.417	0.80	19.42	0.31
1.500	0.27	7.500	11.82	13.500	0.80	19.50	0.31
1.583	0.28	7.583	39.93	13.583	0.75	19.58	0.30
1.667	0.28	7.667	39.93	13.667	0.75	19.67	0.30
1.750	0.28	7.750	39.94	13.750	0.75	19.75	0.30
1.833	0.29	7.833	166.89	13.833	0.71	19.83	0.29
1.917	0.29	7.917	166.89	13.917	0.71	19.92	0.29
2.000	0.29	8.000	166.88	14.000	0.71	20.00	0.29
2.083	0.31	8.083	55.37	14.083	0.67	20.08	0.28
2.167	0.31	8.167	55.37	14.167	0.67	20.17	0.28
2.250	0.31	8.250	55.37	14.250	0.67	20.25	0.28
2.333	0.33	8.333	24.55	14.333	0.64	20.33	0.28
2.417	0.33	8.417	24.55	14.417	0.64	20.42	0.28
2.500	0.33	8.500	24.55	14.500	0.64	20.50	0.28
2.583	0.35	8.583	14.23	14.583	0.61	20.58	0.27
2.667	0.35	8.667	14.23	14.667	0.61	20.67	0.27
2.750	0.35	8.750	14.23	14.750	0.61	20.75	0.27
2.833	0.37	8.833	9.45	14.833	0.58	20.83	0.26
2.917	0.37	8.917	9.45	14.917	0.58	20.92	0.26
3.000	0.37	9.000	9.45	15.000	0.58	21.00	0.26
3.083	0.39	9.083	6.83	15.083	0.55	21.08	0.26
3.167	0.39	9.167	6.83	15.167	0.55	21.17	0.26
3.250	0.39	9.250	6.83	15.250	0.55	21.25	0.26
3.333	0.42	9.333	5.22	15.333	0.53	21.33	0.25
3.417	0.42	9.417	5.22	15.417	0.53	21.42	0.25
3.500	0.42	9.500	5.22	15.500	0.53	21.50	0.25
3.583	0.46	9.583	4.15	15.583	0.51	21.58	0.25
3.667	0.46	9.667	4.15	15.667	0.51	21.67	0.25
3.750	0.46	9.750	4.15	15.750	0.51	21.75	0.25
3.833	0.49	9.833	3.41	15.833	0.48	21.83	0.24
3.917	0.49	9.917	3.41	15.917	0.48	21.92	0.24
4.000	0.49	10.000	3.41	16.000	0.48	22.00	0.24
4.083	0.54	10.083	2.86	16.083	0.47	22.08	0.24
4.167	0.54	10.167	2.86	16.167	0.47	22.17	0.24
4.250	0.54	10.250	2.86	16.250	0.47	22.25	0.24
4.333	0.59	10.333	2.45	16.333	0.45	22.33	0.23
4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23
4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23
4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22
5.000	0.73	11.000	1.88	17.000	0.42	23.00	0.22
5.083	0.82	11.083	1.67	17.083	0.40	23.08	0.22
5.167	0.82	11.167	1.67	17.167	0.40	23.17	0.22
5.250	0.82	11.250	1.67	17.250	0.40	23.25	0.22
5.333	0.94	11.333	1.50	17.333	0.39	23.33	0.21
5.417	0.94	11.417	1.50	17.417	0.39	23.42	0.21
5.500	0.94	11.500	1.50	17.500	0.39	23.50	0.21
5.583	1.09	11.583	1.36	17.583	0.38	23.58	0.21
5.667	1.09	11.667	1.36	17.667	0.38	23.67	0.21
5.750	1.09	11.750	1.36	17.750	0.38	23.75	0.21
5.833	1.30	11.833	1.24	17.833	0.36	23.83	0.21
5.917	1.30	11.917	1.24	17.917	0.36	23.92	0.21
6.000	1.30	12.000	1.24	18.000	0.36	24.00	0.21

Max.Eff.Inten.(mm/hr)= 166.89 87.18
 over (min) 5.00 5.00
 Storage Coeff. (min)= 3.82 (ii) 4.74 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.25 0.22

TOTALS
 PEAK FLOW (cms)= 5.14 0.03 5.171 (iii)

TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 99.55 48.94 99.04
 TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.98 0.48 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | RESERVOIR (7593) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
DT= 5.0 min

	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.1990	0.6950
	0.0830	0.3500	0.2320	0.8000
	0.1280	0.4850	0.2620	0.9000
	0.1580	0.5900	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7591)	11.380	5.171	8.00	99.04
OUTFLOW: ID= 1 (7593)	11.380	0.251	9.08	98.95

PEAK FLOW REDUCTION [Qout/Qin](%) = 4.86
 TIME SHIFT OF PEAK FLOW (min) = 65.00
 MAXIMUM STORAGE USED (ha.m.) = 0.8649

 | ADD HYD (7643) |
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7593):	11.38	0.251	9.08	98.95
+ ID2= 2 (7685):	11.11	0.181	9.33	97.97
ID = 3 (7643):	22.49	0.432	9.17	98.47

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |
 | STANDHYD (7590) | Area (ha)= 2.39
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.22	6.083	1.58	12.083	1.14	18.08	0.35
0.167	0.22	6.167	1.58	12.167	1.14	18.17	0.35
0.250	0.22	6.250	1.58	12.250	1.14	18.25	0.35
0.333	0.22	6.333	2.00	12.333	1.05	18.33	0.34
0.417	0.22	6.417	2.00	12.417	1.05	18.42	0.34
0.500	0.22	6.500	2.00	12.500	1.05	18.50	0.34
0.583	0.23	6.583	2.65	12.583	0.98	18.58	0.33
0.667	0.23	6.667	2.65	12.667	0.98	18.67	0.33
0.750	0.23	6.750	2.65	12.750	0.98	18.75	0.33
0.833	0.24	6.833	3.77	12.833	0.91	18.83	0.32
0.917	0.24	6.917	3.77	12.917	0.91	18.92	0.32
1.000	0.24	7.000	3.77	13.000	0.91	19.00	0.32

1.083	0.25	7.083	6.01	13.083	0.85	19.08	0.31
1.167	0.25	7.167	6.01	13.167	0.85	19.17	0.31
1.250	0.25	7.250	6.01	13.250	0.85	19.25	0.31
1.333	0.27	7.333	11.82	13.333	0.80	19.33	0.31
1.417	0.27	7.417	11.82	13.417	0.80	19.42	0.31
1.500	0.27	7.500	11.82	13.500	0.80	19.50	0.31
1.583	0.28	7.583	39.93	13.583	0.75	19.58	0.30
1.667	0.28	7.667	39.93	13.667	0.75	19.67	0.30
1.750	0.28	7.750	39.94	13.750	0.75	19.75	0.30
1.833	0.29	7.833	166.89	13.833	0.71	19.83	0.29
1.917	0.29	7.917	166.89	13.917	0.71	19.92	0.29
2.000	0.29	8.000	166.88	14.000	0.71	20.00	0.29
2.083	0.31	8.083	55.37	14.083	0.67	20.08	0.28
2.167	0.31	8.167	55.37	14.167	0.67	20.17	0.28
2.250	0.31	8.250	55.37	14.250	0.67	20.25	0.28
2.333	0.33	8.333	24.55	14.333	0.64	20.33	0.28
2.417	0.33	8.417	24.55	14.417	0.64	20.42	0.28
2.500	0.33	8.500	24.55	14.500	0.64	20.50	0.28
2.583	0.35	8.583	14.23	14.583	0.61	20.58	0.27
2.667	0.35	8.667	14.23	14.667	0.61	20.67	0.27
2.750	0.35	8.750	14.23	14.750	0.61	20.75	0.27
2.833	0.37	8.833	9.45	14.833	0.58	20.83	0.26
2.917	0.37	8.917	9.45	14.917	0.58	20.92	0.26
3.000	0.37	9.000	9.45	15.000	0.58	21.00	0.26
3.083	0.39	9.083	6.83	15.083	0.55	21.08	0.26
3.167	0.39	9.167	6.83	15.167	0.55	21.17	0.26
3.250	0.39	9.250	6.83	15.250	0.55	21.25	0.26
3.333	0.42	9.333	5.22	15.333	0.53	21.33	0.25
3.417	0.42	9.417	5.22	15.417	0.53	21.42	0.25
3.500	0.42	9.500	5.22	15.500	0.53	21.50	0.25
3.583	0.46	9.583	4.15	15.583	0.51	21.58	0.25
3.667	0.46	9.667	4.15	15.667	0.51	21.67	0.25
3.750	0.46	9.750	4.15	15.750	0.51	21.75	0.25
3.833	0.49	9.833	3.41	15.833	0.48	21.83	0.24
3.917	0.49	9.917	3.41	15.917	0.48	21.92	0.24
4.000	0.49	10.000	3.41	16.000	0.48	22.00	0.24
4.083	0.54	10.083	2.86	16.083	0.47	22.08	0.24
4.167	0.54	10.167	2.86	16.167	0.47	22.17	0.24
4.250	0.54	10.250	2.86	16.250	0.47	22.25	0.24
4.333	0.59	10.333	2.45	16.333	0.45	22.33	0.23
4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23
4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23
4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22
5.000	0.73	11.000	1.88	17.000	0.42	23.00	0.22
5.083	0.82	11.083	1.67	17.083	0.40	23.08	0.22
5.167	0.82	11.167	1.67	17.167	0.40	23.17	0.22
5.250	0.82	11.250	1.67	17.250	0.40	23.25	0.22
5.333	0.94	11.333	1.50	17.333	0.39	23.33	0.21
5.417	0.94	11.417	1.50	17.417	0.39	23.42	0.21
5.500	0.94	11.500	1.50	17.500	0.39	23.50	0.21
5.583	1.09	11.583	1.36	17.583	0.38	23.58	0.21
5.667	1.09	11.667	1.36	17.667	0.38	23.67	0.21
5.750	1.09	11.750	1.36	17.750	0.38	23.75	0.21
5.833	1.30	11.833	1.24	17.833	0.36	23.83	0.21
5.917	1.30	11.917	1.24	17.917	0.36	23.92	0.21
6.000	1.30	12.000	1.24	18.000	0.36	24.00	0.21

Max.Eff.Inten. (mm/hr)=	166.89	87.18
over (min)=	5.00	5.00
Storage Coeff. (min)=	0.79 (ii)	1.40 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.33

TOTALS			
PEAK FLOW (cms)=	1.10	0.01	1.103 (iii)
TIME TO PEAK (hrs)=	7.92	8.00	8.00
RUNOFF VOLUME (mm)=	100.55	48.94	100.03
TOTAL RAINFALL (mm)=	101.55	101.55	101.55
RUNOFF COEFFICIENT =	0.99	0.48	0.99

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

- CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		Area (ha)=	2.36
STANDHYD (7632)		Total Imp(%)=	99.00
ID= 1 DT= 5.0 min		Dir. Conn.(%)=	99.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.34	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.22	6.083	1.58	12.083	1.14	18.08	0.35				
0.167	0.22	6.167	1.58	12.167	1.14	18.17	0.35				
0.250	0.22	6.250	1.58	12.250	1.14	18.25	0.35				
0.333	0.22	6.333	2.00	12.333	1.05	18.33	0.34				
0.417	0.22	6.417	2.00	12.417	1.05	18.42	0.34				
0.500	0.22	6.500	2.00	12.500	1.05	18.50	0.34				
0.583	0.23	6.583	2.65	12.583	0.98	18.58	0.33				
0.667	0.23	6.667	2.65	12.667	0.98	18.67	0.33				
0.750	0.23	6.750	2.65	12.750	0.98	18.75	0.33				
0.833	0.24	6.833	3.77	12.833	0.91	18.83	0.32				
0.917	0.24	6.917	3.77	12.917	0.91	18.92	0.32				
1.000	0.24	7.000	3.77	13.000	0.91	19.00	0.32				
1.083	0.25	7.083	6.01	13.083	0.85	19.08	0.31				
1.167	0.25	7.167	6.01	13.167	0.85	19.17	0.31				
1.250	0.25	7.250	6.01	13.250	0.85	19.25	0.31				
1.333	0.27	7.333	11.82	13.333	0.80	19.33	0.31				
1.417	0.27	7.417	11.82	13.417	0.80	19.42	0.31				
1.500	0.27	7.500	11.82	13.500	0.80	19.50	0.31				
1.583	0.28	7.583	39.93	13.583	0.75	19.58	0.30				
1.667	0.28	7.667	39.93	13.667	0.75	19.67	0.30				
1.750	0.28	7.750	39.94	13.750	0.75	19.75	0.30				
1.833	0.29	7.833	166.89	13.833	0.71	19.83	0.29				
1.917	0.29	7.917	166.89	13.917	0.71	19.92	0.29				
2.000	0.29	8.000	166.88	14.000	0.71	20.00	0.29				
2.083	0.31	8.083	55.37	14.083	0.67	20.08	0.28				
2.167	0.31	8.167	55.37	14.167	0.67	20.17	0.28				
2.250	0.31	8.250	55.37	14.250	0.67	20.25	0.28				
2.333	0.33	8.333	24.55	14.333	0.64	20.33	0.28				
2.417	0.33	8.417	24.55	14.417	0.64	20.42	0.28				
2.500	0.33	8.500	24.55	14.500	0.64	20.50	0.28				
2.583	0.35	8.583	14.23	14.583	0.61	20.58	0.27				
2.667	0.35	8.667	14.23	14.667	0.61	20.67	0.27				
2.750	0.35	8.750	14.23	14.750	0.61	20.75	0.27				
2.833	0.37	8.833	9.45	14.833	0.58	20.83	0.26				
2.917	0.37	8.917	9.45	14.917	0.58	20.92	0.26				
3.000	0.37	9.000	9.45	15.000	0.58	21.00	0.26				
3.083	0.39	9.083	6.83	15.083	0.55	21.08	0.26				
3.167	0.39	9.167	6.83	15.167	0.55	21.17	0.26				
3.250	0.39	9.250	6.83	15.250	0.55	21.25	0.26				
3.333	0.42	9.333	5.22	15.333	0.53	21.33	0.25				
3.417	0.42	9.417	5.22	15.417	0.53	21.42	0.25				
3.500	0.42	9.500	5.22	15.500	0.53	21.50	0.25				
3.583	0.46	9.583	4.15	15.583	0.51	21.58	0.25				
3.667	0.46	9.667	4.15	15.667	0.51	21.67	0.25				
3.750	0.46	9.750	4.15	15.750	0.51	21.75	0.25				
3.833	0.49	9.833	3.41	15.833	0.48	21.83	0.24				
3.917	0.49	9.917	3.41	15.917	0.48	21.92	0.24				
4.000	0.49	10.000	3.41	16.000	0.48	22.00	0.24				
4.083	0.54	10.083	2.86	16.083	0.47	22.08	0.24				
4.167	0.54	10.167	2.86	16.167	0.47	22.17	0.24				
4.250	0.54	10.250	2.86	16.250	0.47	22.25	0.24				
4.333	0.59	10.333	2.45	16.333	0.45	22.33	0.23				
4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23				
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23				
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23				
4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23				
4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23				
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22				
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22				
5.000	0										



4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23
4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23
4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22
5.000	0.73	11.000	1.88	17.000	0.42	23.00	0.22
5.083	0.82	11.083	1.67	17.083	0.40	23.08	0.22
5.167	0.82	11.167	1.67	17.167	0.40	23.17	0.22
5.250	0.82	11.250	1.67	17.250	0.40	23.25	0.22
5.333	0.94	11.333	1.50	17.333	0.39	23.33	0.21
5.417	0.94	11.417	1.50	17.417	0.39	23.42	0.21
5.500	0.94	11.500	1.50	17.500	0.39	23.50	0.21
5.583	1.09	11.583	1.36	17.583	0.38	23.58	0.21
5.667	1.09	11.667	1.36	17.667	0.38	23.67	0.21
5.750	1.09	11.750	1.36	17.750	0.38	23.75	0.21
5.833	1.30	11.833	1.24	17.833	0.36	23.83	0.21
5.917	1.30	11.917	1.24	17.917	0.36	23.92	0.21
6.000	1.30	12.000	1.24	18.000	0.36	24.00	0.21

Max.Eff.Inten.(mm/hr)=	166.89	87.18	
over (min)	5.00	5.00	
Storage Coeff. (min)=	0.79 (ii)	1.40 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.34	0.33	
			TOTALS
PEAK FLOW (cms)=	1.08	0.01	1.089 (iii)
TIME TO PEAK (hrs)=	7.92	8.00	
RUNOFF VOLUME (mm)=	100.55	48.94	100.03
TOTAL RAINFALL (mm)=	101.55	101.55	101.55
RUNOFF COEFFICIENT =	0.99	0.48	0.99

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDBY (7644) |
ID= 1 DT= 5.0 min
 Area (ha)= 2.40
 Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.22	6.083	1.58	12.083	1.14	18.08	0.35
0.167	0.22	6.167	1.58	12.167	1.14	18.17	0.35
0.250	0.22	6.250	1.58	12.250	1.14	18.25	0.35
0.333	0.22	6.333	2.00	12.333	1.05	18.33	0.34
0.417	0.22	6.417	2.00	12.417	1.05	18.42	0.34
0.500	0.22	6.500	2.00	12.500	1.05	18.50	0.34
0.583	0.23	6.583	2.65	12.583	0.98	18.58	0.33
0.667	0.23	6.667	2.65	12.667	0.98	18.67	0.33
0.750	0.23	6.750	2.65	12.750	0.98	18.75	0.33
0.833	0.24	6.833	3.77	12.833	0.91	18.83	0.32
0.917	0.24	6.917	3.77	12.917	0.91	18.92	0.32
1.000	0.24	7.000	3.77	13.000	0.91	19.00	0.32
1.083	0.25	7.083	6.01	13.083	0.85	19.08	0.31
1.167	0.25	7.167	6.01	13.167	0.85	19.17	0.31
1.250	0.25	7.250	6.01	13.250	0.85	19.25	0.31
1.333	0.27	7.333	11.82	13.333	0.80	19.33	0.31

1.417	0.27	7.417	11.82	13.417	0.80	19.42	0.31
1.500	0.27	7.500	11.82	13.500	0.80	19.50	0.31
1.583	0.28	7.583	39.93	13.583	0.75	19.58	0.30
1.667	0.28	7.667	39.93	13.667	0.75	19.67	0.30
1.750	0.28	7.750	39.94	13.750	0.75	19.75	0.30
1.833	0.29	7.833	166.89	13.833	0.71	19.83	0.29
1.917	0.29	7.917	166.89	13.917	0.71	19.92	0.29
2.000	0.29	8.000	166.88	14.000	0.71	20.00	0.29
2.083	0.31	8.083	55.37	14.083	0.67	20.08	0.28
2.167	0.31	8.167	55.37	14.167	0.67	20.17	0.28
2.250	0.31	8.250	55.37	14.250	0.67	20.25	0.28
2.333	0.33	8.333	24.55	14.333	0.64	20.33	0.28
2.417	0.33	8.417	24.55	14.417	0.64	20.42	0.28
2.500	0.33	8.500	24.55	14.500	0.64	20.50	0.28
2.583	0.35	8.583	14.23	14.583	0.61	20.58	0.27
2.667	0.35	8.667	14.23	14.667	0.61	20.67	0.27
2.750	0.35	8.750	14.23	14.750	0.61	20.75	0.27
2.833	0.37	8.833	9.45	14.833	0.58	20.83	0.26
2.917	0.37	8.917	9.45	14.917	0.58	20.92	0.26
3.000	0.37	9.000	9.45	15.000	0.58	21.00	0.26
3.083	0.39	9.083	6.83	15.083	0.55	21.08	0.26
3.167	0.39	9.167	6.83	15.167	0.55	21.17	0.26
3.250	0.39	9.250	6.83	15.250	0.55	21.25	0.26
3.333	0.42	9.333	5.22	15.333	0.53	21.33	0.25
3.417	0.42	9.417	5.22	15.417	0.53	21.42	0.25
3.500	0.42	9.500	5.22	15.500	0.53	21.50	0.25
3.583	0.46	9.583	4.15	15.583	0.51	21.58	0.25
3.667	0.46	9.667	4.15	15.667	0.51	21.67	0.25
3.750	0.46	9.750	4.15	15.750	0.51	21.75	0.25
3.833	0.49	9.833	3.41	15.833	0.48	21.83	0.24
3.917	0.49	9.917	3.41	15.917	0.48	21.92	0.24
4.000	0.49	10.000	3.41	16.000	0.48	22.00	0.24
4.083	0.54	10.083	2.86	16.083	0.47	22.08	0.24
4.167	0.54	10.167	2.86	16.167	0.47	22.17	0.24
4.250	0.54	10.250	2.86	16.250	0.47	22.25	0.24
4.333	0.59	10.333	2.45	16.333	0.45	22.33	0.23
4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23
4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23
4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22
5.000	0.73	11.000	1.88	17.000	0.42	23.00	0.22
5.083	0.82	11.083	1.67	17.083	0.40	23.08	0.22
5.167	0.82	11.167	1.67	17.167	0.40	23.17	0.22
5.250	0.82	11.250	1.67	17.250	0.40	23.25	0.22
5.333	0.94	11.333	1.50	17.333	0.39	23.33	0.21
5.417	0.94	11.417	1.50	17.417	0.39	23.42	0.21
5.500	0.94	11.500	1.50	17.500	0.39	23.50	0.21
5.583	1.09	11.583	1.36	17.583	0.38	23.58	0.21
5.667	1.09	11.667	1.36	17.667	0.38	23.67	0.21
5.750	1.09	11.750	1.36	17.750	0.38	23.75	0.21
5.833	1.30	11.833	1.24	17.833	0.36	23.83	0.21
5.917	1.30	11.917	1.24	17.917	0.36	23.92	0.21
6.000	1.30	12.000	1.24	18.000	0.36	24.00	0.21

Max.Eff.Inten.(mm/hr)=	166.89	87.18	
over (min)	5.00	5.00	
Storage Coeff. (min)=	0.79 (ii)	1.40 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.34	0.33	
			TOTALS
PEAK FLOW (cms)=	1.10	0.01	1.108 (iii)
TIME TO PEAK (hrs)=	7.92	8.00	
RUNOFF VOLUME (mm)=	100.55	48.94	100.03
TOTAL RAINFALL (mm)=	101.55	101.55	101.55
RUNOFF COEFFICIENT =	0.99	0.48	0.99

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22
5.000	0.73	11.000	1.88	17.000	0.42	23.00	0.22
5.083	0.82	11.083	1.67	17.083	0.40	23.08	0.22
5.167	0.82	11.167	1.67	17.167	0.40	23.17	0.22
5.250	0.82	11.250	1.67	17.250	0.40	23.25	0.22
5.333	0.94	11.333	1.50	17.333	0.39	23.33	0.21
5.417	0.94	11.417	1.50	17.417	0.39	23.42	0.21
5.500	0.94	11.500	1.50	17.500	0.39	23.50	0.21
5.583	1.09	11.583	1.36	17.583	0.38	23.58	0.21
5.667	1.09	11.667	1.36	17.667	0.38	23.67	0.21
5.750	1.09	11.750	1.36	17.750	0.38	23.75	0.21
5.833	1.30	11.833	1.24	17.833	0.36	23.83	0.21
5.917	1.30	11.917	1.24	17.917	0.36	23.92	0.21
6.000	1.30	12.000	1.24	18.000	0.36	24.00	0.21

 | CALIB |
 | STANDHYD (7652) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)= 2.38	0.02
Dep. Storage (mm)= 1.00	5.00
Average Slope (%)= 1.00	2.00
Length (m)= 20.00	20.00
Mannings n = 0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.22	6.083	1.58	12.083	1.14	18.08	0.35
0.167	0.22	6.167	1.58	12.167	1.14	18.17	0.35
0.250	0.22	6.250	1.58	12.250	1.14	18.25	0.35
0.333	0.22	6.333	2.00	12.333	1.05	18.33	0.34
0.417	0.22	6.417	2.00	12.417	1.05	18.42	0.34
0.500	0.22	6.500	2.00	12.500	1.05	18.50	0.34
0.583	0.23	6.583	2.65	12.583	0.98	18.58	0.33
0.667	0.23	6.667	2.65	12.667	0.98	18.67	0.33
0.750	0.23	6.750	2.65	12.750	0.98	18.75	0.33
0.833	0.24	6.833	3.77	12.833	0.91	18.83	0.32
0.917	0.24	6.917	3.77	12.917	0.91	18.92	0.32
1.000	0.24	7.000	3.77	13.000	0.91	19.00	0.32
1.083	0.25	7.083	6.01	13.083	0.85	19.08	0.31
1.167	0.25	7.167	6.01	13.167	0.85	19.17	0.31
1.250	0.25	7.250	6.01	13.250	0.85	19.25	0.31
1.333	0.27	7.333	11.82	13.333	0.80	19.33	0.31
1.417	0.27	7.417	11.82	13.417	0.80	19.42	0.31
1.500	0.27	7.500	11.82	13.500	0.80	19.50	0.31
1.583	0.28	7.583	39.93	13.583	0.75	19.58	0.30
1.667	0.28	7.667	39.93	13.667	0.75	19.67	0.30
1.750	0.28	7.750	39.94	13.750	0.75	19.75	0.30
1.833	0.29	7.833	166.89	13.833	0.71	19.83	0.29
1.917	0.29	7.917	166.89	13.917	0.71	19.92	0.29
2.000	0.29	8.000	166.88	14.000	0.71	20.00	0.29
2.083	0.31	8.083	55.37	14.083	0.67	20.08	0.28
2.167	0.31	8.167	55.37	14.167	0.67	20.17	0.28
2.250	0.31	8.250	55.37	14.250	0.67	20.25	0.28
2.333	0.33	8.333	24.55	14.333	0.64	20.33	0.28
2.417	0.33	8.417	24.55	14.417	0.64	20.42	0.28
2.500	0.33	8.500	24.55	14.500	0.64	20.50	0.28
2.583	0.35	8.583	14.23	14.583	0.61	20.58	0.27
2.667	0.35	8.667	14.23	14.667	0.61	20.67	0.27
2.750	0.35	8.750	14.23	14.750	0.61	20.75	0.27
2.833	0.37	8.833	9.45	14.833	0.58	20.83	0.26
2.917	0.37	8.917	9.45	14.917	0.58	20.92	0.26
3.000	0.37	9.000	9.45	15.000	0.58	21.00	0.26
3.083	0.39	9.083	6.83	15.083	0.55	21.08	0.26
3.167	0.39	9.167	6.83	15.167	0.55	21.17	0.26
3.250	0.39	9.250	6.83	15.250	0.55	21.25	0.26
3.333	0.42	9.333	5.22	15.333	0.53	21.33	0.25
3.417	0.42	9.417	5.22	15.417	0.53	21.42	0.25
3.500	0.42	9.500	5.22	15.500	0.53	21.50	0.25
3.583	0.46	9.583	4.15	15.583	0.51	21.58	0.25
3.667	0.46	9.667	4.15	15.667	0.51	21.67	0.25
3.750	0.46	9.750	4.15	15.750	0.51	21.75	0.25
3.833	0.49	9.833	3.41	15.833	0.48	21.83	0.24
3.917	0.49	9.917	3.41	15.917	0.48	21.92	0.24
4.000	0.49	10.000	3.41	16.000	0.48	22.00	0.24
4.083	0.54	10.083	2.86	16.083	0.47	22.08	0.24
4.167	0.54	10.167	2.86	16.167	0.47	22.17	0.24
4.250	0.54	10.250	2.86	16.250	0.47	22.25	0.24
4.333	0.59	10.333	2.45	16.333	0.45	22.33	0.23
4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23
4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23

Max.Eff.Inten.(mm/hr)= 166.89 87.18
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 0.79 (ii) 1.40 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.33

TOTALS
 PEAK FLOW (cms)= 1.10 0.01 1.108 (iii)
 TIME TO PEAK (hrs)= 7.92 8.00 8.00
 RUNOFF VOLUME (mm)= 100.55 48.94 100.03
 TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.99 0.48 0.99

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7661) | Area (ha)= 2.39
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)= 2.37	0.02
Dep. Storage (mm)= 1.00	5.00
Average Slope (%)= 1.00	2.00
Length (m)= 20.00	20.00
Mannings n = 0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.22	6.083	1.58	12.083	1.14	18.08	0.35
0.167	0.22	6.167	1.58	12.167	1.14	18.17	0.35
0.250	0.22	6.250	1.58	12.250	1.14	18.25	0.35
0.333	0.22	6.333	2.00	12.333	1.05	18.33	0.34
0.417	0.22	6.417	2.00	12.417	1.05	18.42	0.34
0.500	0.22	6.500	2.00	12.500	1.05	18.50	0.34
0.583	0.23	6.583	2.65	12.583	0.98	18.58	0.33
0.667	0.23	6.667	2.65	12.667	0.98	18.67	0.33
0.750	0.23	6.750	2.65	12.750	0.98	18.75	0.33
0.833	0.24	6.833	3.77	12.833	0.91	18.83	0.32
0.917	0.24	6.917	3.77	12.917	0.91	18.92	0.32
1.000	0.24	7.000	3.77	13.000	0.91	19.00	0.32
1.083	0.25	7.083	6.01	13.083	0.85	19.08	0.31
1.167	0.25	7.167	6.01	13.167	0.85	19.17	0.31
1.250	0.25	7.250	6.01	13.250	0.85	19.25	0.31
1.333	0.27	7.333	11.82	13.333	0.80	19.33	0.31
1.417	0.27	7.417	11.82	13.417	0.80	19.42	0.31
1.500	0.27	7.500	11.82	13.500	0.80	19.50	0.31
1.583	0.28	7.583	39.93	13.583	0.75	19.58	0.30
1.667	0.28	7.667	39.93	13.667	0.75	19.67	0.30



1.750	0.28	7.750	39.94	13.750	0.75	19.75	0.30
1.833	0.29	7.833	166.89	13.833	0.71	19.83	0.29
1.917	0.29	7.917	166.89	13.917	0.71	19.92	0.29
2.000	0.29	8.000	166.88	14.000	0.71	20.00	0.29
2.083	0.31	8.083	55.37	14.083	0.67	20.08	0.28
2.167	0.31	8.167	55.37	14.167	0.67	20.17	0.28
2.250	0.31	8.250	55.37	14.250	0.67	20.25	0.28
2.333	0.33	8.333	24.55	14.333	0.64	20.33	0.28
2.417	0.33	8.417	24.55	14.417	0.64	20.42	0.28
2.500	0.33	8.500	24.55	14.500	0.64	20.50	0.28
2.583	0.35	8.583	14.23	14.583	0.61	20.58	0.27
2.667	0.35	8.667	14.23	14.667	0.61	20.67	0.27
2.750	0.35	8.750	14.23	14.750	0.61	20.75	0.27
2.833	0.37	8.833	9.45	14.833	0.58	20.83	0.26
2.917	0.37	8.917	9.45	14.917	0.58	20.92	0.26
3.000	0.37	9.000	9.45	15.000	0.58	21.00	0.26
3.083	0.39	9.083	6.83	15.083	0.55	21.08	0.26
3.167	0.39	9.167	6.83	15.167	0.55	21.17	0.26
3.250	0.39	9.250	6.83	15.250	0.55	21.25	0.26
3.333	0.42	9.333	5.22	15.333	0.53	21.33	0.25
3.417	0.42	9.417	5.22	15.417	0.53	21.42	0.25
3.500	0.42	9.500	5.22	15.500	0.53	21.50	0.25
3.583	0.46	9.583	4.15	15.583	0.51	21.58	0.25
3.667	0.46	9.667	4.15	15.667	0.51	21.67	0.25
3.750	0.46	9.750	4.15	15.750	0.51	21.75	0.25
3.833	0.49	9.833	3.41	15.833	0.48	21.83	0.24
3.917	0.49	9.917	3.41	15.917	0.48	21.92	0.24
4.000	0.49	10.000	3.41	16.000	0.48	22.00	0.24
4.083	0.54	10.083	2.86	16.083	0.47	22.08	0.24
4.167	0.54	10.167	2.86	16.167	0.47	22.17	0.24
4.250	0.54	10.250	2.86	16.250	0.47	22.25	0.24
4.333	0.59	10.333	2.45	16.333	0.45	22.33	0.23
4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23
4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23
4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22
5.000	0.73	11.000	1.88	17.000	0.42	23.00	0.22
5.083	0.82	11.083	1.67	17.083	0.40	23.08	0.22
5.167	0.82	11.167	1.67	17.167	0.40	23.17	0.22
5.250	0.82	11.250	1.67	17.250	0.40	23.25	0.22
5.333	0.94	11.333	1.50	17.333	0.39	23.33	0.21
5.417	0.94	11.417	1.50	17.417	0.39	23.42	0.21
5.500	0.94	11.500	1.50	17.500	0.39	23.50	0.21
5.583	1.09	11.583	1.36	17.583	0.38	23.58	0.21
5.667	1.09	11.667	1.36	17.667	0.38	23.67	0.21
5.750	1.09	11.750	1.36	17.750	0.38	23.75	0.21
5.833	1.30	11.833	1.24	17.833	0.36	23.83	0.21
5.917	1.30	11.917	1.24	17.917	0.36	23.92	0.21
6.000	1.30	12.000	1.24	18.000	0.36	24.00	0.21

Max.Eff.Inten. (mm/hr)= 166.89 87.18
 over (min) 5.00 5.00
 Storage Coeff. (min)= 0.79 (ii) 1.40 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.33

PEAK FLOW (cms)= 1.10 0.01 *TOTALS*
 TIME TO PEAK (hrs)= 7.92 1.103 (iii)
 RUNOFF VOLUME (mm)= 100.55 48.94 100.03
 TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.99 0.48 0.99

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| STANDHYD (7671) | Area (ha)= 2.37
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

 Surface Area (ha)= 2.35 IMPVIOUS PVIOUS (i)
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.22	6.083	1.58	12.083	1.14	18.08	0.35
0.167	0.22	6.167	1.58	12.167	1.14	18.17	0.35
0.250	0.22	6.250	1.58	12.250	1.14	18.25	0.35
0.333	0.22	6.333	2.00	12.333	1.05	18.33	0.34
0.417	0.22	6.417	2.00	12.417	1.05	18.42	0.34
0.500	0.22	6.500	2.00	12.500	1.05	18.50	0.34
0.583	0.23	6.583	2.65	12.583	0.98	18.58	0.33
0.667	0.23	6.667	2.65	12.667	0.98	18.67	0.33
0.750	0.23	6.750	2.65	12.750	0.98	18.75	0.33
0.833	0.24	6.833	3.77	12.833	0.91	18.83	0.32
0.917	0.24	6.917	3.77	12.917	0.91	18.92	0.32
1.000	0.24	7.000	3.77	13.000	0.91	19.00	0.32
1.083	0.25	7.083	6.01	13.083	0.85	19.08	0.31
1.167	0.25	7.167	6.01	13.167	0.85	19.17	0.31
1.250	0.25	7.250	6.01	13.250	0.85	19.25	0.31
1.333	0.27	7.333	11.82	13.333	0.80	19.33	0.31
1.417	0.27	7.417	11.82	13.417	0.80	19.42	0.31
1.500	0.27	7.500	11.82	13.500	0.80	19.50	0.31
1.583	0.28	7.583	39.93	13.583	0.75	19.58	0.30
1.667	0.28	7.667	39.93	13.667	0.75	19.67	0.30
1.750	0.28	7.750	39.94	13.750	0.75	19.75	0.30
1.833	0.29	7.833	166.89	13.833	0.71	19.83	0.29
1.917	0.29	7.917	166.89	13.917	0.71	19.92	0.29
2.000	0.29	8.000	166.88	14.000	0.71	20.00	0.29
2.083	0.31	8.083	55.37	14.083	0.67	20.08	0.28
2.167	0.31	8.167	55.37	14.167	0.67	20.17	0.28
2.250	0.31	8.250	55.37	14.250	0.67	20.25	0.28
2.333	0.33	8.333	24.55	14.333	0.64	20.33	0.28
2.417	0.33	8.417	24.55	14.417	0.64	20.42	0.28
2.500	0.33	8.500	24.55	14.500	0.64	20.50	0.28
2.583	0.35	8.583	14.23	14.583	0.61	20.58	0.27
2.667	0.35	8.667	14.23	14.667	0.61	20.67	0.27
2.750	0.35	8.750	14.23	14.750	0.61	20.75	0.27
2.833	0.37	8.833	9.45	14.833	0.58	20.83	0.26
2.917	0.37	8.917	9.45	14.917	0.58	20.92	0.26
3.000	0.37	9.000	9.45	15.000	0.58	21.00	0.26
3.083	0.39	9.083	6.83	15.083	0.55	21.08	0.26
3.167	0.39	9.167	6.83	15.167	0.55	21.17	0.26
3.250	0.39	9.250	6.83	15.250	0.55	21.25	0.26
3.333	0.42	9.333	5.22	15.333	0.53	21.33	0.25
3.417	0.42	9.417	5.22	15.417	0.53	21.42	0.25
3.500	0.42	9.500	5.22	15.500	0.53	21.50	0.25
3.583	0.46	9.583	4.15	15.583	0.51	21.58	0.25
3.667	0.46	9.667	4.15	15.667	0.51	21.67	0.25
3.750	0.46	9.750	4.15	15.750	0.51	21.75	0.25
3.833	0.49	9.833	3.41	15.833	0.48	21.83	0.24
3.917	0.49	9.917	3.41	15.917	0.48	21.92	0.24
4.000	0.49	10.000	3.41	16.000	0.48	22.00	0.24
4.083	0.54	10.083	2.86	16.083	0.47	22.08	0.24
4.167	0.54	10.167	2.86	16.167	0.47	22.17	0.24
4.250	0.54	10.250	2.86	16.250	0.47	22.25	0.24
4.333	0.59	10.333	2.45	16.333	0.45	22.33	0.23
4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23
4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23
4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22
5.000	0.73	11.000	1.88	17.000	0.42	23.00	0.22

 | CALIB |

5.083	0.82	11.083	1.67	17.083	0.40	23.08	0.22
5.167	0.82	11.167	1.67	17.167	0.40	23.17	0.22
5.250	0.82	11.250	1.67	17.250	0.40	23.25	0.22
5.333	0.94	11.333	1.50	17.333	0.39	23.33	0.21
5.417	0.94	11.417	1.50	17.417	0.39	23.42	0.21
5.500	0.94	11.500	1.50	17.500	0.39	23.50	0.21
5.583	1.09	11.583	1.36	17.583	0.38	23.58	0.21
5.667	1.09	11.667	1.36	17.667	0.38	23.67	0.21
5.750	1.09	11.750	1.36	17.750	0.38	23.75	0.21
5.833	1.30	11.833	1.24	17.833	0.36	23.83	0.21
5.917	1.30	11.917	1.24	17.917	0.36	23.92	0.21
6.000	1.30	12.000	1.24	18.000	0.36	24.00	0.21

Max.Eff.Inten.(mm/hr)= 166.89 87.18
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 0.79 (ii) 1.40 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.33

*****TOTALS*
 PEAK FLOW (cms)= 1.09 0.01 1.094 (iii)
 TIME TO PEAK (hrs)= 7.92 8.00 8.00
 RUNOFF VOLUME (mm)= 100.55 48.94 100.03
 TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.99 0.48 0.99

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7698)							
1 + 2 = 3							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 1 (7590):	2.39	1.103	8.00	100.03			
+ ID2= 2 (7632):	2.36	1.089	8.00	100.03			
=====							
ID = 3 (7698):	4.75	2.192	8.00	100.03			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)							
3 + 2 = 1							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 3 (7698):	4.75	2.192	8.00	100.03			
+ ID2= 2 (7644):	2.40	1.108	8.00	100.03			
=====							
ID = 1 (7698):	7.15	3.300	8.00	100.03			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)							
1 + 2 = 3							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 1 (7698):	7.15	3.300	8.00	100.03			
+ ID2= 2 (7652):	2.40	1.108	8.00	100.03			
=====							
ID = 3 (7698):	9.55	4.408	8.00	100.03			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)							
3 + 2 = 1							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 3 (7698):	9.55	4.408	8.00	100.03			

+ ID2= 2 (7661):	2.39	1.103	8.00	100.03			
=====							
ID = 1 (7698):	11.94	5.511	8.00	100.03			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)							
1 + 2 = 3							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 1 (7698):	11.94	5.511	8.00	100.03			
+ ID2= 2 (7671):	2.37	1.094	8.00	100.03			
=====							
ID = 3 (7698):	14.31	6.605	8.00	100.03			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| DIVERTHYD (7713) |
 | IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1 + Flow 2 + Flow 3 + Flow 4 + Flow 5 = Total							
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	0.00	0.00	7.00

	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
TOTAL HYD. (ID= 1):	14.31	6.61	8.00	100.03			
=====							
ID= 2 (2):	11.00	3.80	8.00	100.03			
ID= 3 (2):	3.31	2.80	8.00	100.03			
ID= 4 (2):	0.00	0.00	0.00	0.00			
ID= 5 (2):	0.00	0.00	0.00	0.00			
ID= 6 (2):	0.00	0.00	0.00	0.00			

RESERVOIR (7699)							
OVERFLOW IS ON							
IN= 2--> OUT= 1							
DT= 5.0 min							
	OUTFLOW	STORAGE	OUTFLOW	STORAGE			
	(cms)	(ha.m.)	(cms)	(ha.m.)			
	0.0000	0.0000	0.2690	0.4589			
	0.1980	0.1112	0.0000	0.0000			

	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
INFLOW : ID= 2 (7713)	10.995	3.803	8.00	100.03			
OUTFLOW: ID= 1 (7699)	8.398	0.269	8.08	100.01			
OVERFLOW:ID= 3 (0003)	2.598	1.353	8.00	100.01			

TOTAL NUMBER OF SIMULATION OVERFLOW = 14
 CUMULATIVE TIME OF OVERFLOW (HOURS) = 1.17
 PERCENTAGE OF TIME OVERFLOWING (%) = 3.91

PEAK FLOW REDUCTION [Qout/Qin] (%) = 7.07
 TIME SHIFT OF PEAK FLOW (min) = 5.00
 MAXIMUM STORAGE USED (ha.m.) = 0.4589

| Junction Command(7715) |

	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
INFLOW : ID= 3 (7699)	2.60	1.35	8.00	100.01			
OUTFLOW: ID= 2 (7715)	2.60	1.35	8.00	100.01			

```

-----
| ADD HYD ( 7714) |
| 1 + 2 = 3 |
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
ID1= 1 ( 7699):  8.40  0.269  8.08  100.01
+ ID2= 2 ( 7713):  3.31  2.803  8.00  100.03
-----
ID = 3 ( 7714):  11.71  3.069  8.00  100.01

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-----
| ADD HYD ( 7714) |
| 3 + 2 = 1 |
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
ID1= 3 ( 7714):  11.71  3.069  8.00  100.01
+ ID2= 2 ( 7715):  2.60  1.353  8.00  100.01
-----
ID = 1 ( 7714):  14.31  4.422  8.00  100.01

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| CALIB |
| STANDHYD ( 7620) |
| ID= 1 DT= 5.0 min |
-----
          Area (ha)= 1.45
          Total Imp(%)= 96.00   Dir. Conn.(%)= 96.00

          IMPERVIOUS   PERVIOUS (i)
Surface Area (ha)= 1.39   0.06
Dep. Storage (mm)= 2.00   5.00
Average Slope (%)= 1.10   2.00
Length (m)= 100.00   145.00
Mannings n = 0.013   0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

3.000	0.37	9.000	9.45	15.000	0.58	21.00	0.26
3.083	0.39	9.083	6.83	15.083	0.55	21.08	0.26
3.167	0.39	9.167	6.83	15.167	0.55	21.17	0.26
3.250	0.39	9.250	6.83	15.250	0.55	21.25	0.26
3.333	0.42	9.333	5.22	15.333	0.53	21.33	0.25
3.417	0.42	9.417	5.22	15.417	0.53	21.42	0.25
3.500	0.42	9.500	5.22	15.500	0.53	21.50	0.25
3.583	0.46	9.583	4.15	15.583	0.51	21.58	0.25
3.667	0.46	9.667	4.15	15.667	0.51	21.67	0.25
3.750	0.46	9.750	4.15	15.750	0.51	21.75	0.25
3.833	0.49	9.833	3.41	15.833	0.48	21.83	0.24
3.917	0.49	9.917	3.41	15.917	0.48	21.92	0.24
4.000	0.49	10.000	3.41	16.000	0.48	22.00	0.24
4.083	0.54	10.083	2.86	16.083	0.47	22.08	0.24
4.167	0.54	10.167	2.86	16.167	0.47	22.17	0.24
4.250	0.54	10.250	2.86	16.250	0.47	22.25	0.24
4.333	0.59	10.333	2.45	16.333	0.45	22.33	0.23
4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23
4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23
4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22
5.000	0.73	11.000	1.88	17.000	0.42	23.00	0.22
5.083	0.82	11.083	1.67	17.083	0.40	23.08	0.22
5.167	0.82	11.167	1.67	17.167	0.40	23.17	0.22
5.250	0.82	11.250	1.67	17.250	0.40	23.25	0.22
5.333	0.94	11.333	1.50	17.333	0.39	23.33	0.21
5.417	0.94	11.417	1.50	17.417	0.39	23.42	0.21
5.500	0.94	11.500	1.50	17.500	0.39	23.50	0.21
5.583	1.09	11.583	1.36	17.583	0.38	23.58	0.21
5.667	1.09	11.667	1.36	17.667	0.38	23.67	0.21
5.750	1.09	11.750	1.36	17.750	0.38	23.75	0.21
5.833	1.30	11.833	1.24	17.833	0.36	23.83	0.21
5.917	1.30	11.917	1.24	17.917	0.36	23.92	0.21
6.000	1.30	12.000	1.24	18.000	0.36	24.00	0.21

```

Max.Eff.Inten.(mm/hr)= 166.89   87.18
over (min) = 5.00   10.00
Storage Coeff. (min)= 2.02 (ii)   5.52 (ii)
Unit Hyd. Tpeak (min)= 5.00   10.00
Unit Hyd. peak (cms)= 0.31   0.16

          *TOTALS*
PEAK FLOW (cms)= 0.64   0.01   0.656 (iii)
TIME TO PEAK (hrs)= 8.00   8.08   8.00
RUNOFF VOLUME (mm)= 99.55   48.94   97.52
TOTAL RAINFALL (mm)= 101.55   101.55   101.55
RUNOFF COEFFICIENT = 0.98   0.48   0.96

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7629) |
| ID= 1 DT= 5.0 min |
-----
          Area (ha)= 1.70
          Total Imp(%)= 99.00   Dir. Conn.(%)= 99.00

          IMPERVIOUS   PERVIOUS (i)
Surface Area (ha)= 1.68   0.02
Dep. Storage (mm)= 2.00   5.00
Average Slope (%)= 1.10   2.00
Length (m)= 100.00   40.00
Mannings n = 0.013   0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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-----
| CALIB |
| STANDHYD ( 7620) |
| ID= 1 DT= 5.0 min |
-----
          Area (ha)= 1.45
          Total Imp(%)= 96.00   Dir. Conn.(%)= 96.00

          IMPERVIOUS   PERVIOUS (i)
Surface Area (ha)= 1.39   0.06
Dep. Storage (mm)= 2.00   5.00
Average Slope (%)= 1.10   2.00
Length (m)= 100.00   145.00
Mannings n = 0.013   0.250

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-----
| CALIB |
| STANDHYD ( 7629) |
| ID= 1 DT= 5.0 min |
-----
          Area (ha)= 1.70
          Total Imp(%)= 99.00   Dir. Conn.(%)= 99.00

          IMPERVIOUS   PERVIOUS (i)
Surface Area (ha)= 1.68   0.02
Dep. Storage (mm)= 2.00   5.00
Average Slope (%)= 1.10   2.00
Length (m)= 100.00   40.00
Mannings n = 0.013   0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.



hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	hrs	mm/hr
0.083	0.22	6.083	1.58	12.083	1.14	18.08	0.35	
0.167	0.22	6.167	1.58	12.167	1.14	18.17	0.35	
0.250	0.22	6.250	1.58	12.250	1.14	18.25	0.35	
0.333	0.22	6.333	2.00	12.333	1.05	18.33	0.34	
0.417	0.22	6.417	2.00	12.417	1.05	18.42	0.34	
0.500	0.22	6.500	2.00	12.500	1.05	18.50	0.34	
0.583	0.23	6.583	2.65	12.583	0.98	18.58	0.33	
0.667	0.23	6.667	2.65	12.667	0.98	18.67	0.33	
0.750	0.23	6.750	2.65	12.750	0.98	18.75	0.33	
0.833	0.24	6.833	3.77	12.833	0.91	18.83	0.32	
0.917	0.24	6.917	3.77	12.917	0.91	18.92	0.32	
1.000	0.24	7.000	3.77	13.000	0.91	19.00	0.32	
1.083	0.25	7.083	6.01	13.083	0.85	19.08	0.31	
1.167	0.25	7.167	6.01	13.167	0.85	19.17	0.31	
1.250	0.25	7.250	6.01	13.250	0.85	19.25	0.31	
1.333	0.27	7.333	11.82	13.333	0.80	19.33	0.31	
1.417	0.27	7.417	11.82	13.417	0.80	19.42	0.31	
1.500	0.27	7.500	11.82	13.500	0.80	19.50	0.31	
1.583	0.28	7.583	39.93	13.583	0.75	19.58	0.30	
1.667	0.28	7.667	39.93	13.667	0.75	19.67	0.30	
1.750	0.28	7.750	39.94	13.750	0.75	19.75	0.30	
1.833	0.29	7.833	166.89	13.833	0.71	19.83	0.29	
1.917	0.29	7.917	166.89	13.917	0.71	19.92	0.29	
2.000	0.29	8.000	166.88	14.000	0.71	20.00	0.29	
2.083	0.31	8.083	55.37	14.083	0.67	20.08	0.28	
2.167	0.31	8.167	55.37	14.167	0.67	20.17	0.28	
2.250	0.31	8.250	55.37	14.250	0.67	20.25	0.28	
2.333	0.33	8.333	24.55	14.333	0.64	20.33	0.28	
2.417	0.33	8.417	24.55	14.417	0.64	20.42	0.28	
2.500	0.33	8.500	24.55	14.500	0.64	20.50	0.28	
2.583	0.35	8.583	14.23	14.583	0.61	20.58	0.27	
2.667	0.35	8.667	14.23	14.667	0.61	20.67	0.27	
2.750	0.35	8.750	14.23	14.750	0.61	20.75	0.27	
2.833	0.37	8.833	9.45	14.833	0.58	20.83	0.26	
2.917	0.37	8.917	9.45	14.917	0.58	20.92	0.26	
3.000	0.37	9.000	9.45	15.000	0.58	21.00	0.26	
3.083	0.39	9.083	6.83	15.083	0.55	21.08	0.26	
3.167	0.39	9.167	6.83	15.167	0.55	21.17	0.26	
3.250	0.39	9.250	6.83	15.250	0.55	21.25	0.26	
3.333	0.42	9.333	5.22	15.333	0.53	21.33	0.25	
3.417	0.42	9.417	5.22	15.417	0.53	21.42	0.25	
3.500	0.42	9.500	5.22	15.500	0.53	21.50	0.25	
3.583	0.46	9.583	4.15	15.583	0.51	21.58	0.25	
3.667	0.46	9.667	4.15	15.667	0.51	21.67	0.25	
3.750	0.46	9.750	4.15	15.750	0.51	21.75	0.25	
3.833	0.49	9.833	3.41	15.833	0.48	21.83	0.24	
3.917	0.49	9.917	3.41	15.917	0.48	21.92	0.24	
4.000	0.49	10.000	3.41	16.000	0.48	22.00	0.24	
4.083	0.54	10.083	2.86	16.083	0.47	22.08	0.24	
4.167	0.54	10.167	2.86	16.167	0.47	22.17	0.24	
4.250	0.54	10.250	2.86	16.250	0.47	22.25	0.24	
4.333	0.59	10.333	2.45	16.333	0.45	22.33	0.23	
4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23	
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23	
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23	
4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23	
4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23	
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22	
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22	
5.000	0.73	11.000	1.88	17.000	0.42	23.00	0.22	
5.083	0.82	11.083	1.67	17.083	0.40	23.08	0.22	
5.167	0.82	11.167	1.67	17.167	0.40	23.17	0.22	
5.250	0.82	11.250	1.67	17.250	0.40	23.25	0.22	
5.333	0.94	11.333	1.50	17.333	0.39	23.33	0.21	
5.417	0.94	11.417	1.50	17.417	0.39	23.42	0.21	
5.500	0.94	11.500	1.50	17.500	0.39	23.50	0.21	
5.583	1.09	11.583	1.36	17.583	0.38	23.58	0.21	
5.667	1.09	11.667	1.36	17.667	0.38	23.67	0.21	
5.750	1.09	11.750	1.36	17.750	0.38	23.75	0.21	
5.833	1.30	11.833	1.24	17.833	0.36	23.83	0.21	
5.917	1.30	11.917	1.24	17.917	0.36	23.92	0.21	
6.000	1.30	12.000	1.24	18.000	0.36	24.00	0.21	

Max.Eff. Inten. (mm/hr)= 166.89 87.18
 over (min) 5.00 5.00

Storage Coeff. (min)= 2.02 (ii) 2.94 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.31 0.28

PEAK FLOW (cms)= 0.78 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 8.00 8.00 0.784 (iii)
 RUNOFF VOLUME (mm)= 99.55 48.94 99.04
 TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.98 0.48 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7651) | Area (ha)= 1.33
 | ID= 1 DT= 5.0 min | Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.30 0.03
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	'	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	hrs	mm/hr
0.083	0.22	6.083	1.58	12.083	1.14	18.08	0.35	
0.167	0.22	6.167	1.58	12.167	1.14	18.17	0.35	
0.250	0.22	6.250	1.58	12.250	1.14	18.25	0.35	
0.333	0.22	6.333	2.00	12.333	1.05	18.33	0.34	
0.417	0.22	6.417	2.00	12.417	1.05	18.42	0.34	
0.500	0.22	6.500	2.00	12.500	1.05	18.50	0.34	
0.583	0.23	6.583	2.65	12.583	0.98	18.58	0.33	
0.667	0.23	6.667	2.65	12.667	0.98	18.67	0.33	
0.750	0.23	6.750	2.65	12.750	0.98	18.75	0.33	
0.833	0.24	6.833	3.77	12.833	0.91	18.83	0.32	
0.917	0.24	6.917	3.77	12.917	0.91	18.92	0.32	
1.000	0.24	7.000	3.77	13.000	0.91	19.00	0.32	
1.083	0.25	7.083	6.01	13.083	0.85	19.08	0.31	
1.167	0.25	7.167	6.01	13.167	0.85	19.17	0.31	
1.250	0.25	7.250	6.01	13.250	0.85	19.25	0.31	
1.333	0.27	7.333	11.82	13.333	0.80	19.33	0.31	
1.417	0.27	7.417	11.82	13.417	0.80	19.42	0.31	
1.500	0.27	7.500	11.82	13.500	0.80	19.50	0.31	
1.583	0.28	7.583	39.93	13.583	0.75	19.58	0.30	
1.667	0.28	7.667	39.93	13.667	0.75	19.67	0.30	
1.750	0.28	7.750	39.94	13.750	0.75	19.75	0.30	
1.833	0.29	7.833	166.89	13.833	0.71	19.83	0.29	
1.917	0.29	7.917	166.89	13.917	0.71	19.92	0.29	
2.000	0.29	8.000	166.88	14.000	0.71	20.00	0.29	
2.083	0.31	8.083	55.37	14.083	0.67	20.08	0.28	
2.167	0.31	8.167	55.37	14.167	0.67	20.17	0.28	
2.250	0.31	8.250	55.37	14.250	0.67	20.25	0.28	
2.333	0.33	8.333	24.55	14.333	0.64	20.33	0.28	
2.417	0.33	8.417	24.55	14.417	0.64	20.42	0.28	
2.500	0.33	8.500	24.55	14.500	0.64	20.50	0.28	
2.583	0.35	8.583	14.23	14.583	0.61	20.58	0.27	
2.667	0.35	8.667	14.23	14.667	0.61	20.67	0.27	
2.750	0.35	8.750	14.23	14.750	0.61	20.75	0.27	
2.833	0.37	8.833	9.45	14.833	0.58	20.83	0.26	
2.917	0.37	8.917	9.45	14.917	0.58	20.92	0.26	
3.000	0.37	9.000	9.45	15.000	0.58	21.00	0.26	
3.083	0.39	9.083	6.83	15.083	0.55	21.08	0.26	
3.167	0.39	9.167	6.83	15.167	0.55	21.17	0.26	
3.250	0.39	9.250	6.83	15.250	0.55	21.25	0.26	

3.333	0.42	9.333	5.22	15.333	0.53	21.33	0.25
3.417	0.42	9.417	5.22	15.417	0.53	21.42	0.25
3.500	0.42	9.500	5.22	15.500	0.53	21.50	0.25
3.583	0.46	9.583	4.15	15.583	0.51	21.58	0.25
3.667	0.46	9.667	4.15	15.667	0.51	21.67	0.25
3.750	0.46	9.750	4.15	15.750	0.51	21.75	0.25
3.833	0.49	9.833	3.41	15.833	0.48	21.83	0.24
3.917	0.49	9.917	3.41	15.917	0.48	21.92	0.24
4.000	0.49	10.000	3.41	16.000	0.48	22.00	0.24
4.083	0.54	10.083	2.86	16.083	0.47	22.08	0.24
4.167	0.54	10.167	2.86	16.167	0.47	22.17	0.24
4.250	0.54	10.250	2.86	16.250	0.47	22.25	0.24
4.333	0.59	10.333	2.45	16.333	0.45	22.33	0.23
4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23
4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23
4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22
5.000	0.73	11.000	1.88	17.000	0.42	23.00	0.22
5.083	0.82	11.083	1.67	17.083	0.40	23.08	0.22
5.167	0.82	11.167	1.67	17.167	0.40	23.17	0.22
5.250	0.82	11.250	1.67	17.250	0.40	23.25	0.22
5.333	0.94	11.333	1.50	17.333	0.39	23.33	0.21
5.417	0.94	11.417	1.50	17.417	0.39	23.42	0.21
5.500	0.94	11.500	1.50	17.500	0.39	23.50	0.21
5.583	1.09	11.583	1.36	17.583	0.38	23.58	0.21
5.667	1.09	11.667	1.36	17.667	0.38	23.67	0.21
5.750	1.09	11.750	1.36	17.750	0.38	23.75	0.21
5.833	1.30	11.833	1.24	17.833	0.36	23.83	0.21
5.917	1.30	11.917	1.24	17.917	0.36	23.92	0.21
6.000	1.30	12.000	1.24	18.000	0.36	24.00	0.21

Max.Eff.Inten.(mm/hr)= 166.89 87.18
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.02 (ii) 3.24 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.31 0.27

TOTALS
 PEAK FLOW (cms)= 0.60 0.01 0.611 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 99.55 48.94 98.54
 TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.98 0.48 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7700)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7620):	1.45	0.656	8.00	97.52
+ ID2= 2 (7629):	1.70	0.784	8.00	99.04

ID = 3 (7700):	3.15	1.440	8.00	98.34

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7700)				
3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7700):	3.15	1.440	8.00	98.34
+ ID2= 2 (7651):	1.33	0.611	8.00	98.54

ID = 1 (7700):	4.48	2.051	8.00	98.40

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB		Area (ha)= 1.20	
STANDHYD (7623)		Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00	
ID= 1 DT= 5.0 min			

Surface Area	(ha)=	IMPERVIOUS	PERVIOUS (i)
Dep. Storage	(mm)=	1.14	0.06
Average Slope	(%)=	2.00	5.00
Length	(m)=	2.50	2.00
Mannings n	=	60.00	40.00
		0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.22	6.083	1.58	12.083	1.14	18.08	0.35
0.167	0.22	6.167	1.58	12.167	1.14	18.17	0.35
0.250	0.22	6.250	1.58	12.250	1.14	18.25	0.35
0.333	0.22	6.333	2.00	12.333	1.05	18.33	0.34
0.417	0.22	6.417	2.00	12.417	1.05	18.42	0.34
0.500	0.22	6.500	2.00	12.500	1.05	18.50	0.34
0.583	0.23	6.583	2.65	12.583	0.98	18.58	0.33
0.667	0.23	6.667	2.65	12.667	0.98	18.67	0.33
0.750	0.23	6.750	2.65	12.750	0.98	18.75	0.33
0.833	0.24	6.833	3.77	12.833	0.91	18.83	0.32
0.917	0.24	6.917	3.77	12.917	0.91	18.92	0.32
1.000	0.24	7.000	3.77	13.000	0.91	19.00	0.32
1.083	0.25	7.083	6.01	13.083	0.85	19.08	0.31
1.167	0.25	7.167	6.01	13.167	0.85	19.17	0.31
1.250	0.25	7.250	6.01	13.250	0.85	19.25	0.31
1.333	0.27	7.333	11.82	13.333	0.80	19.33	0.31
1.417	0.27	7.417	11.82	13.417	0.80	19.42	0.31
1.500	0.27	7.500	11.82	13.500	0.80	19.50	0.31
1.583	0.28	7.583	39.93	13.583	0.75	19.58	0.30
1.667	0.28	7.667	39.93	13.667	0.75	19.67	0.30
1.750	0.28	7.750	39.94	13.750	0.75	19.75	0.30
1.833	0.29	7.833	166.89	13.833	0.71	19.83	0.29
1.917	0.29	7.917	166.89	13.917	0.71	19.92	0.29
2.000	0.29	8.000	166.88	14.000	0.71	20.00	0.29
2.083	0.31	8.083	55.37	14.083	0.67	20.08	0.28
2.167	0.31	8.167	55.37	14.167	0.67	20.17	0.28
2.250	0.31	8.250	55.37	14.250	0.67	20.25	0.28
2.333	0.33	8.333	24.55	14.333	0.64	20.33	0.28
2.417	0.33	8.417	24.55	14.417	0.64	20.42	0.28
2.500	0.33	8.500	24.55	14.500	0.64	20.50	0.28
2.583	0.35	8.583	14.23	14.583	0.61	20.58	0.27
2.667	0.35	8.667	14.23	14.667	0.61	20.67	0.27
2.750	0.35	8.750	14.23	14.750	0.61	20.75	0.27
2.833	0.37	8.833	9.45	14.833	0.58	20.83	0.26
2.917	0.37	8.917	9.45	14.917	0.58	20.92	0.26
3.000	0.37	9.000	9.45	15.000	0.58	21.00	0.26
3.083	0.39	9.083	6.83	15.083	0.55	21.08	0.26
3.167	0.39	9.167	6.83	15.167	0.55	21.17	0.26
3.250	0.39	9.250	6.83	15.250	0.55	21.25	0.26
3.333	0.42	9.333	5.22	15.333	0.53	21.33	0.25
3.417	0.42	9.417	5.22	15.417	0.53	21.42	0.25
3.500	0.42	9.500	5.22	15.500	0.53	21.50	0.25
3.583	0.46	9.583	4.15	15.583	0.51	21.58	0.25
3.667	0.46	9.667	4.15	15.667	0.51	21.67	0.25
3.750	0.46	9.750	4.15	15.750	0.51	21.75	0.25
3.833	0.49	9.833	3.41	15.833	0.48	21.83	0.24
3.917	0.49	9.917	3.41	15.917	0.48	21.92	0.24
4.000	0.49	10.000	3.41	16.000	0.48	22.00	0.24
4.083	0.54	10.083	2.86	16.083	0.47	22.08	0.24
4.167	0.54	10.167	2.86	16.167	0.47	22.17	0.24
4.250	0.54	10.250	2.86	16.250	0.47	22.25	0.24
4.333	0.59	10.333	2.45	16.333	0.45	22.33	0.23
4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23

4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23
4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22
5.000	0.73	11.000	1.88	17.000	0.42	23.00	0.22
5.083	0.82	11.083	1.67	17.083	0.40	23.08	0.22
5.167	0.82	11.167	1.67	17.167	0.40	23.17	0.22
5.250	0.82	11.250	1.67	17.250	0.40	23.25	0.22
5.333	0.94	11.333	1.50	17.333	0.39	23.33	0.21
5.417	0.94	11.417	1.50	17.417	0.39	23.42	0.21
5.500	0.94	11.500	1.50	17.500	0.39	23.50	0.21
5.583	1.09	11.583	1.36	17.583	0.38	23.58	0.21
5.667	1.09	11.667	1.36	17.667	0.38	23.67	0.21
5.750	1.09	11.750	1.36	17.750	0.38	23.75	0.21
5.833	1.30	11.833	1.24	17.833	0.36	23.83	0.21
5.917	1.30	11.917	1.24	17.917	0.36	23.92	0.21
6.000	1.30	12.000	1.24	18.000	0.36	24.00	0.21

Max.Eff.Inten.(mm/hr)= 166.89 89.69
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.16 (ii) 2.93 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.28

TOTALS

PEAK FLOW (cms)= 0.53 0.02 0.544 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 99.55 50.17 97.08
 TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.98 0.49 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		Area (ha) = 1.69	
STANDHYD (7654)		Total Imp(%) = 99.00 Dir. Conn.(%) = 99.00	
ID= 1 DT= 5.0 min			

Surface Area	(ha) = 1.67	PERVIOUS (i)	0.02
Dep. Storage	(mm) = 2.00		5.00
Average Slope	(%) = 1.10		2.00
Length	(m) = 100.00		40.00
Mannings n	= 0.013		0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.22	6.083	1.58	12.083	1.14	18.08	0.35
0.167	0.22	6.167	1.58	12.167	1.14	18.17	0.35
0.250	0.22	6.250	1.58	12.250	1.14	18.25	0.35
0.333	0.22	6.333	2.00	12.333	1.05	18.33	0.34
0.417	0.22	6.417	2.00	12.417	1.05	18.42	0.34
0.500	0.22	6.500	2.00	12.500	1.05	18.50	0.34
0.583	0.23	6.583	2.65	12.583	0.98	18.58	0.33
0.667	0.23	6.667	2.65	12.667	0.98	18.67	0.33
0.750	0.23	6.750	2.65	12.750	0.98	18.75	0.33
0.833	0.24	6.833	3.77	12.833	0.91	18.83	0.32
0.917	0.24	6.917	3.77	12.917	0.91	18.92	0.32
1.000	0.24	7.000	3.77	13.000	0.91	19.00	0.32
1.083	0.25	7.083	6.01	13.083	0.85	19.08	0.31
1.167	0.25	7.167	6.01	13.167	0.85	19.17	0.31
1.250	0.25	7.250	6.01	13.250	0.85	19.25	0.31
1.333	0.27	7.333	11.82	13.333	0.80	19.33	0.31
1.417	0.27	7.417	11.82	13.417	0.80	19.42	0.31
1.500	0.27	7.500	11.82	13.500	0.80	19.50	0.31
1.583	0.28	7.583	39.93	13.583	0.75	19.58	0.30

1.667	0.28	7.667	39.93	13.667	0.75	19.67	0.30
1.750	0.28	7.750	39.94	13.750	0.75	19.75	0.30
1.833	0.29	7.833	166.89	13.833	0.71	19.83	0.29
1.917	0.29	7.917	166.89	13.917	0.71	19.92	0.29
2.000	0.29	8.000	166.88	14.000	0.71	20.00	0.29
2.083	0.31	8.083	55.37	14.083	0.67	20.08	0.28
2.167	0.31	8.167	55.37	14.167	0.67	20.17	0.28
2.250	0.31	8.250	55.37	14.250	0.67	20.25	0.28
2.333	0.33	8.333	24.55	14.333	0.64	20.33	0.28
2.417	0.33	8.417	24.55	14.417	0.64	20.42	0.28
2.500	0.33	8.500	24.55	14.500	0.64	20.50	0.28
2.583	0.35	8.583	14.23	14.583	0.61	20.58	0.27
2.667	0.35	8.667	14.23	14.667	0.61	20.67	0.27
2.750	0.35	8.750	14.23	14.750	0.61	20.75	0.27
2.833	0.37	8.833	9.45	14.833	0.58	20.83	0.26
2.917	0.37	8.917	9.45	14.917	0.58	20.92	0.26
3.000	0.37	9.000	9.45	15.000	0.58	21.00	0.26
3.083	0.39	9.083	6.83	15.083	0.55	21.08	0.26
3.167	0.39	9.167	6.83	15.167	0.55	21.17	0.26
3.250	0.39	9.250	6.83	15.250	0.55	21.25	0.26
3.333	0.42	9.333	5.22	15.333	0.53	21.33	0.25
3.417	0.42	9.417	5.22	15.417	0.53	21.42	0.25
3.500	0.42	9.500	5.22	15.500	0.53	21.50	0.25
3.583	0.46	9.583	4.15	15.583	0.51	21.58	0.25
3.667	0.46	9.667	4.15	15.667	0.51	21.67	0.25
3.750	0.46	9.750	4.15	15.750	0.51	21.75	0.25
3.833	0.49	9.833	3.41	15.833	0.48	21.83	0.24
3.917	0.49	9.917	3.41	15.917	0.48	21.92	0.24
4.000	0.49	10.000	3.41	16.000	0.48	22.00	0.24
4.083	0.54	10.083	2.86	16.083	0.47	22.08	0.24
4.167	0.54	10.167	2.86	16.167	0.47	22.17	0.24
4.250	0.54	10.250	2.86	16.250	0.47	22.25	0.24
4.333	0.59	10.333	2.45	16.333	0.45	22.33	0.23
4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23
4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23
4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22
5.000	0.73	11.000	1.88	17.000	0.42	23.00	0.22
5.083	0.82	11.083	1.67	17.083	0.40	23.08	0.22
5.167	0.82	11.167	1.67	17.167	0.40	23.17	0.22
5.250	0.82	11.250	1.67	17.250	0.40	23.25	0.22
5.333	0.94	11.333	1.50	17.333	0.39	23.33	0.21
5.417	0.94	11.417	1.50	17.417	0.39	23.42	0.21
5.500	0.94	11.500	1.50	17.500	0.39	23.50	0.21
5.583	1.09	11.583	1.36	17.583	0.38	23.58	0.21
5.667	1.09	11.667	1.36	17.667	0.38	23.67	0.21
5.750	1.09	11.750	1.36	17.750	0.38	23.75	0.21
5.833	1.30	11.833	1.24	17.833	0.36	23.83	0.21
5.917	1.30	11.917	1.24	17.917	0.36	23.92	0.21
6.000	1.30	12.000	1.24	18.000	0.36	24.00	0.21

Max.Eff.Inten.(mm/hr)= 166.89 87.18
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.02 (ii) 2.94 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.31 0.28

TOTALS

PEAK FLOW (cms)= 0.78 0.00 0.780 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 99.55 48.94 99.04
 TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.98 0.48 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.



CALIB
 STANDHYD (7655) | Area (ha)= 1.32
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.31 0.01
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN		
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr		
0.083	0.22	6.083	1.58	12.083	1.14	18.08	0.35
0.167	0.22	6.167	1.58	12.167	1.14	18.17	0.35
0.250	0.22	6.250	1.58	12.250	1.14	18.25	0.35
0.333	0.22	6.333	2.00	12.333	1.05	18.33	0.34
0.417	0.22	6.417	2.00	12.417	1.05	18.42	0.34
0.500	0.22	6.500	2.00	12.500	1.05	18.50	0.34
0.583	0.23	6.583	2.65	12.583	0.98	18.58	0.33
0.667	0.23	6.667	2.65	12.667	0.98	18.67	0.33
0.750	0.23	6.750	2.65	12.750	0.98	18.75	0.33
0.833	0.24	6.833	3.77	12.833	0.91	18.83	0.32
0.917	0.24	6.917	3.77	12.917	0.91	18.92	0.32
1.000	0.24	7.000	3.77	13.000	0.91	19.00	0.32
1.083	0.25	7.083	6.01	13.083	0.85	19.08	0.31
1.167	0.25	7.167	6.01	13.167	0.85	19.17	0.31
1.250	0.25	7.250	6.01	13.250	0.85	19.25	0.31
1.333	0.27	7.333	11.82	13.333	0.80	19.33	0.31
1.417	0.27	7.417	11.82	13.417	0.80	19.42	0.31
1.500	0.27	7.500	11.82	13.500	0.80	19.50	0.31
1.583	0.28	7.583	39.93	13.583	0.75	19.58	0.30
1.667	0.28	7.667	39.93	13.667	0.75	19.67	0.30
1.750	0.28	7.750	39.94	13.750	0.75	19.75	0.30
1.833	0.29	7.833	166.89	13.833	0.71	19.83	0.29
1.917	0.29	7.917	166.89	13.917	0.71	19.92	0.29
2.000	0.29	8.000	166.88	14.000	0.71	20.00	0.29
2.083	0.31	8.083	55.37	14.083	0.67	20.08	0.28
2.167	0.31	8.167	55.37	14.167	0.67	20.17	0.28
2.250	0.31	8.250	55.37	14.250	0.67	20.25	0.28
2.333	0.33	8.333	24.55	14.333	0.64	20.33	0.28
2.417	0.33	8.417	24.55	14.417	0.64	20.42	0.28
2.500	0.33	8.500	24.55	14.500	0.64	20.50	0.28
2.583	0.35	8.583	14.23	14.583	0.61	20.58	0.27
2.667	0.35	8.667	14.23	14.667	0.61	20.67	0.27
2.750	0.35	8.750	14.23	14.750	0.61	20.75	0.27
2.833	0.37	8.833	9.45	14.833	0.58	20.83	0.26
2.917	0.37	8.917	9.45	14.917	0.58	20.92	0.26
3.000	0.37	9.000	9.45	15.000	0.58	21.00	0.26
3.083	0.39	9.083	6.83	15.083	0.55	21.08	0.26
3.167	0.39	9.167	6.83	15.167	0.55	21.17	0.26
3.250	0.39	9.250	6.83	15.250	0.55	21.25	0.26
3.333	0.42	9.333	5.22	15.333	0.53	21.33	0.25
3.417	0.42	9.417	5.22	15.417	0.53	21.42	0.25
3.500	0.42	9.500	5.22	15.500	0.53	21.50	0.25
3.583	0.46	9.583	4.15	15.583	0.51	21.58	0.25
3.667	0.46	9.667	4.15	15.667	0.51	21.67	0.25
3.750	0.46	9.750	4.15	15.750	0.51	21.75	0.25
3.833	0.49	9.833	3.41	15.833	0.48	21.83	0.24
3.917	0.49	9.917	3.41	15.917	0.48	21.92	0.24
4.000	0.49	10.000	3.41	16.000	0.48	22.00	0.24
4.083	0.54	10.083	2.86	16.083	0.47	22.08	0.24
4.167	0.54	10.167	2.86	16.167	0.47	22.17	0.24
4.250	0.54	10.250	2.86	16.250	0.47	22.25	0.24
4.333	0.59	10.333	2.45	16.333	0.45	22.33	0.23
4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23
4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23
4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22

5.000	0.73	11.000	1.88	17.000	0.42	23.00	0.22
5.083	0.82	11.083	1.67	17.083	0.40	23.08	0.22
5.167	0.82	11.167	1.67	17.167	0.40	23.17	0.22
5.250	0.82	11.250	1.67	17.250	0.40	23.25	0.22
5.333	0.94	11.333	1.50	17.333	0.39	23.33	0.21
5.417	0.94	11.417	1.50	17.417	0.39	23.42	0.21
5.500	0.94	11.500	1.50	17.500	0.39	23.50	0.21
5.583	1.09	11.583	1.36	17.583	0.38	23.58	0.21
5.667	1.09	11.667	1.36	17.667	0.38	23.67	0.21
5.750	1.09	11.750	1.36	17.750	0.38	23.75	0.21
5.833	1.30	11.833	1.24	17.833	0.36	23.83	0.21
5.917	1.30	11.917	1.24	17.917	0.36	23.92	0.21
6.000	1.30	12.000	1.24	18.000	0.36	24.00	0.21

Max.Eff.Inten.(mm/hr)= 166.89 87.18
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.02 (ii) 2.94 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.31 0.28

TOTALS

PEAK FLOW (cms)= 0.61 0.00 0.609 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 99.55 48.94 99.04
 TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.98 0.48 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 STANDHYD (7662) | Area (ha)= 1.61
 ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.48 0.13
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 145.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN		
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr		
0.083	0.22	6.083	1.58	12.083	1.14	18.08	0.35
0.167	0.22	6.167	1.58	12.167	1.14	18.17	0.35
0.250	0.22	6.250	1.58	12.250	1.14	18.25	0.35
0.333	0.22	6.333	2.00	12.333	1.05	18.33	0.34
0.417	0.22	6.417	2.00	12.417	1.05	18.42	0.34
0.500	0.22	6.500	2.00	12.500	1.05	18.50	0.34
0.583	0.23	6.583	2.65	12.583	0.98	18.58	0.33
0.667	0.23	6.667	2.65	12.667	0.98	18.67	0.33
0.750	0.23	6.750	2.65	12.750	0.98	18.75	0.33
0.833	0.24	6.833	3.77	12.833	0.91	18.83	0.32
0.917	0.24	6.917	3.77	12.917	0.91	18.92	0.32
1.000	0.24	7.000	3.77	13.000	0.91	19.00	0.32
1.083	0.25	7.083	6.01	13.083	0.85	19.08	0.31
1.167	0.25	7.167	6.01	13.167	0.85	19.17	0.31
1.250	0.25	7.250	6.01	13.250	0.85	19.25	0.31
1.333	0.27	7.333	11.82	13.333	0.80	19.33	0.31
1.417	0.27	7.417	11.82	13.417	0.80	19.42	0.31
1.500	0.27	7.500	11.82	13.500	0.80	19.50	0.31
1.583	0.28	7.583	39.93	13.583	0.75	19.58	0.30
1.667	0.28	7.667	39.93	13.667	0.75	19.67	0.30
1.750	0.28	7.750	39.94	13.750	0.75	19.75	0.30
1.833	0.29	7.833	166.89	13.833	0.71	19.83	0.29
1.917	0.29	7.917	166.89	13.917	0.71	19.92	0.29



2.000	0.29	8.000	166.88	14.000	0.71	20.00	0.29
2.083	0.31	8.083	55.37	14.083	0.67	20.08	0.28
2.167	0.31	8.167	55.37	14.167	0.67	20.17	0.28
2.250	0.31	8.250	55.37	14.250	0.67	20.25	0.28
2.333	0.33	8.333	24.55	14.333	0.64	20.33	0.28
2.417	0.33	8.417	24.55	14.417	0.64	20.42	0.28
2.500	0.33	8.500	24.55	14.500	0.64	20.50	0.28
2.583	0.35	8.583	14.23	14.583	0.61	20.58	0.27
2.667	0.35	8.667	14.23	14.667	0.61	20.67	0.27
2.750	0.35	8.750	14.23	14.750	0.61	20.75	0.27
2.833	0.37	8.833	9.45	14.833	0.58	20.83	0.26
2.917	0.37	8.917	9.45	14.917	0.58	20.92	0.26
3.000	0.37	9.000	9.45	15.000	0.58	21.00	0.26
3.083	0.39	9.083	6.83	15.083	0.55	21.08	0.26
3.167	0.39	9.167	6.83	15.167	0.55	21.17	0.26
3.250	0.39	9.250	6.83	15.250	0.55	21.25	0.26
3.333	0.42	9.333	5.22	15.333	0.53	21.33	0.25
3.417	0.42	9.417	5.22	15.417	0.53	21.42	0.25
3.500	0.42	9.500	5.22	15.500	0.53	21.50	0.25
3.583	0.46	9.583	4.15	15.583	0.51	21.58	0.25
3.667	0.46	9.667	4.15	15.667	0.51	21.67	0.25
3.750	0.46	9.750	4.15	15.750	0.51	21.75	0.25
3.833	0.49	9.833	3.41	15.833	0.48	21.83	0.24
3.917	0.49	9.917	3.41	15.917	0.48	21.92	0.24
4.000	0.49	10.000	3.41	16.000	0.48	22.00	0.24
4.083	0.54	10.083	2.86	16.083	0.47	22.08	0.24
4.167	0.54	10.167	2.86	16.167	0.47	22.17	0.24
4.250	0.54	10.250	2.86	16.250	0.47	22.25	0.24
4.333	0.59	10.333	2.45	16.333	0.45	22.33	0.23
4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23
4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23
4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22
5.000	0.73	11.000	1.88	17.000	0.42	23.00	0.22
5.083	0.82	11.083	1.67	17.083	0.40	23.08	0.22
5.167	0.82	11.167	1.67	17.167	0.40	23.17	0.22
5.250	0.82	11.250	1.67	17.250	0.40	23.25	0.22
5.333	0.94	11.333	1.50	17.333	0.39	23.33	0.21
5.417	0.94	11.417	1.50	17.417	0.39	23.42	0.21
5.500	0.94	11.500	1.50	17.500	0.39	23.50	0.21
5.583	1.09	11.583	1.36	17.583	0.38	23.58	0.21
5.667	1.09	11.667	1.36	17.667	0.38	23.67	0.21
5.750	1.09	11.750	1.36	17.750	0.38	23.75	0.21
5.833	1.30	11.833	1.24	17.833	0.36	23.83	0.21
5.917	1.30	11.917	1.24	17.917	0.36	23.92	0.21
6.000	1.30	12.000	1.24	18.000	0.36	24.00	0.21

Max.Eff.Inten.(mm/hr)= 166.89 87.18
 over (min) 5.00 10.00
 Storage Coeff. (min)= 2.02 (ii) 6.71 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.31 0.14

TOTALS
 PEAK FLOW (cms)= 0.69 0.02 0.710 (iii)
 TIME TO PEAK (hrs)= 8.00 8.08 8.00
 RUNOFF VOLUME (mm)= 99.55 48.94 95.50
 TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.98 0.48 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7701)				
1 + 2 = 3				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	

ID1= 1 (7654):	1.69	0.780	8.00	99.04
+ ID2= 2 (7655):	1.32	0.609	8.00	99.04

ID = 3 (7701):	3.01	1.388	8.00	99.04

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7701)				
3 + 2 = 1				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7701):	3.01	1.388	8.00	99.04
+ ID2= 2 (7662):	1.61	0.710	8.00	95.50

ID = 1 (7701):	4.62	2.098	8.00	97.81

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB				
STANDHYD (7707)				
Area	(ha)=	1.06		
Total Imp (%)=	95.00	Dir. Conn. (%)=	95.00	
ID= 1 DT= 5.0 min				

			IMPERVIOUS		PERVIOUS (i)	
Surface Area	(ha)=	1.01	0.05			
Dep. Storage	(mm)=	2.00	5.00			
Average Slope	(%)=	2.50	2.00			
Length	(m)=	60.00	40.00			
Mannings n	=	0.013	0.250			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.22	6.083	1.58	12.083	1.14	18.083	0.35				
0.167	0.22	6.167	1.58	12.167	1.14	18.167	0.35				
0.250	0.22	6.250	1.58	12.250	1.14	18.250	0.35				
0.333	0.22	6.333	2.00	12.333	1.05	18.333	0.34				
0.417	0.22	6.417	2.00	12.417	1.05	18.417	0.34				
0.500	0.22	6.500	2.00	12.500	1.05	18.500	0.34				
0.583	0.23	6.583	2.65	12.583	0.98	18.583	0.33				
0.667	0.23	6.667	2.65	12.667	0.98	18.667	0.33				
0.750	0.23	6.750	2.65	12.750	0.98	18.750	0.33				
0.833	0.24	6.833	3.77	12.833	0.91	18.833	0.32				
0.917	0.24	6.917	3.77	12.917	0.91	18.917	0.32				
1.000	0.24	7.000	3.77	13.000	0.91	19.000	0.32				
1.083	0.25	7.083	6.01	13.083	0.85	19.083	0.31				
1.167	0.25	7.167	6.01	13.167	0.85	19.167	0.31				
1.250	0.25	7.250	6.01	13.250	0.85	19.250	0.31				
1.333	0.27	7.333	11.82	13.333	0.80	19.333	0.31				
1.417	0.27	7.417	11.82	13.417	0.80	19.417	0.31				
1.500	0.27	7.500	11.82	13.500	0.80	19.500	0.31				
1.583	0.28	7.583	39.93	13.583	0.75	19.583	0.30				
1.667	0.28	7.667	39.93	13.667	0.75	19.667	0.30				
1.750	0.28	7.750	39.94	13.750	0.75	19.750	0.30				
1.833	0.29	7.833	166.89	13.833	0.71	19.833	0.29				
1.917	0.29	7.917	166.89	13.917	0.71	19.917	0.29				
2.000	0.29	8.000	166.88	14.000	0.71	20.000	0.29				
2.083	0.31	8.083	55.37	14.083	0.67	20.083	0.28				
2.167	0.31	8.167	55.37	14.167	0.67	20.167	0.28				
2.250	0.31	8.250	55.37	14.250	0.67	20.250	0.28				
2.333	0.33	8.333	24.55	14.333	0.64	20.333	0.28				
2.417	0.33	8.417	24.55	14.417	0.64	20.417	0.28				
2.500	0.33	8.500	24.55	14.500	0.64	20.500	0.28				
2.583	0.35	8.583	14.23	14.583	0.61	20.583	0.27				
2.667	0.35	8.667	14.23	14.667	0.61	20.667	0.27				
2.750	0.35	8.750	14.23	14.750	0.61	20.750	0.27				
2.833	0.37	8.833	9.45	14.833	0.58	20.833	0.26				
2.917	0.37	8.917	9.45	14.917	0.58	20.917	0.26				
3.000	0.37	9.000	9.45	15.000	0.58	21.000	0.26				
3.083	0.39	9.083	6.83	15.083	0.55	21.083	0.26				
3.167	0.39	9.167	6.83	15.167	0.55	21.167	0.26				
3.250	0.39	9.250	6.83	15.250	0.55	21.250	0.26				

3.333	0.42	9.333	5.22	15.333	0.53	21.33	0.25
3.417	0.42	9.417	5.22	15.417	0.53	21.42	0.25
3.500	0.42	9.500	5.22	15.500	0.53	21.50	0.25
3.583	0.46	9.583	4.15	15.583	0.51	21.58	0.25
3.667	0.46	9.667	4.15	15.667	0.51	21.67	0.25
3.750	0.46	9.750	4.15	15.750	0.51	21.75	0.25
3.833	0.49	9.833	3.41	15.833	0.48	21.83	0.24
3.917	0.49	9.917	3.41	15.917	0.48	21.92	0.24
4.000	0.49	10.000	3.41	16.000	0.48	22.00	0.24
4.083	0.54	10.083	2.86	16.083	0.47	22.08	0.24
4.167	0.54	10.167	2.86	16.167	0.47	22.17	0.24
4.250	0.54	10.250	2.86	16.250	0.47	22.25	0.24
4.333	0.59	10.333	2.45	16.333	0.45	22.33	0.23
4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23
4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23
4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22
5.000	0.73	11.000	1.88	17.000	0.42	23.00	0.22
5.083	0.82	11.083	1.67	17.083	0.40	23.08	0.22
5.167	0.82	11.167	1.67	17.167	0.40	23.17	0.22
5.250	0.82	11.250	1.67	17.250	0.40	23.25	0.22
5.333	0.94	11.333	1.50	17.333	0.39	23.33	0.21
5.417	0.94	11.417	1.50	17.417	0.39	23.42	0.21
5.500	0.94	11.500	1.50	17.500	0.39	23.50	0.21
5.583	1.09	11.583	1.36	17.583	0.38	23.58	0.21
5.667	1.09	11.667	1.36	17.667	0.38	23.67	0.21
5.750	1.09	11.750	1.36	17.750	0.38	23.75	0.21
5.833	1.30	11.833	1.24	17.833	0.36	23.83	0.21
5.917	1.30	11.917	1.24	17.917	0.36	23.92	0.21
6.000	1.30	12.000	1.24	18.000	0.36	24.00	0.21

Max.Eff.Inten.(mm/hr)=	166.89	89.69
over (min)	5.00	5.00
Storage Coeff. (min)=	1.16 (ii)	2.93 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.28

TOTALS			
PEAK FLOW (cms)=	0.47	0.01	0.481 (iii)
TIME TO PEAK (hrs)=	8.00	8.00	8.00
RUNOFF VOLUME (mm)=	99.55	50.17	97.08
TOTAL RAINFALL (mm)=	101.55	101.55	101.55
RUNOFF COEFFICIENT =	0.98	0.49	0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7702)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7623):	1.20	0.544	8.00	97.08
+ ID2= 2 (7700):	4.48	2.051	8.00	98.40
=====				
ID = 3 (7702):	5.68	2.595	8.00	98.12

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7702):	5.68	2.595	8.00	98.12
+ ID2= 2 (7701):	4.62	2.098	8.00	97.81
=====				
ID = 1 (7702):	10.30	4.693	8.00	97.98

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7702):	10.30	4.693	8.00	97.98
+ ID2= 2 (7707):	1.06	0.481	8.00	97.08
=====				
ID = 3 (7702):	11.36	5.174	8.00	97.90

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7702):	11.36	5.174	8.00	97.90
+ ID2= 2 (7714):	14.31	4.422	8.00	100.01
=====				
ID = 1 (7702):	25.67	9.595	8.00	99.08

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7705)				
OVERFLOW IS OFF				
IN= 2---> OUT= 1				
DT= 5.0 min				
	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.6280	2.3980
	0.0730	0.2080	0.6400	2.4830
	0.0890	0.2770	0.6520	2.5670
	0.1340	0.5530	0.6640	2.6500
	0.2910	0.8290	0.6750	2.7340
	0.3860	1.1060	0.7190	3.0490
	0.4590	1.3820	0.8250	3.3550
	0.5220	1.7210	0.2070	3.4560
	0.5780	2.0600	2.3560	3.7320

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7702)	25.670	9.595	8.00	99.08
OUTFLOW: ID= 1 (7705)	25.670	0.486	9.17	99.05

PEAK FLOW REDUCTION [Qout/Qin](%) = 5.06
TIME SHIFT OF PEAK FLOW (min) = 70.00
MAXIMUM STORAGE USED (ha.m.) = 1.5258

CALIB				
STANDHYD (7716)				
ID= 1 DT= 5.0 min				
	Area	(ha)=	0.19	
	Total Imp(%)=	95.00	Dir. Conn.(%)=	95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.18	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.22	6.083	1.58	12.083	1.14	18.08	0.35		
0.167	0.22	6.167	1.58	12.167	1.14	18.17	0.35		
0.250	0.22	6.250	1.58	12.250	1.14	18.25	0.35		
0.333	0.22	6.333	2.00	12.333	1.05	18.33	0.34		
0.417	0.22	6.417	2.00	12.417	1.05	18.42	0.34		
0.500	0.22	6.500	2.00	12.500	1.05	18.50	0.34		



0.583	0.23	6.583	2.65	12.583	0.98	18.58	0.33
0.667	0.23	6.667	2.65	12.667	0.98	18.67	0.33
0.750	0.23	6.750	2.65	12.750	0.98	18.75	0.33
0.833	0.24	6.833	3.77	12.833	0.91	18.83	0.32
0.917	0.24	6.917	3.77	12.917	0.91	18.92	0.32
1.000	0.24	7.000	3.77	13.000	0.91	19.00	0.32
1.083	0.25	7.083	6.01	13.083	0.85	19.08	0.31
1.167	0.25	7.167	6.01	13.167	0.85	19.17	0.31
1.250	0.25	7.250	6.01	13.250	0.85	19.25	0.31
1.333	0.27	7.333	11.82	13.333	0.80	19.33	0.31
1.417	0.27	7.417	11.82	13.417	0.80	19.42	0.31
1.500	0.27	7.500	11.82	13.500	0.80	19.50	0.31
1.583	0.28	7.583	39.93	13.583	0.75	19.58	0.30
1.667	0.28	7.667	39.93	13.667	0.75	19.67	0.30
1.750	0.28	7.750	39.94	13.750	0.75	19.75	0.30
1.833	0.29	7.833	166.89	13.833	0.71	19.83	0.29
1.917	0.29	7.917	166.89	13.917	0.71	19.92	0.29
2.000	0.29	8.000	166.88	14.000	0.71	20.00	0.29
2.083	0.31	8.083	55.37	14.083	0.67	20.08	0.28
2.167	0.31	8.167	55.37	14.167	0.67	20.17	0.28
2.250	0.31	8.250	55.37	14.250	0.67	20.25	0.28
2.333	0.33	8.333	24.55	14.333	0.64	20.33	0.28
2.417	0.33	8.417	24.55	14.417	0.64	20.42	0.28
2.500	0.33	8.500	24.55	14.500	0.64	20.50	0.28
2.583	0.35	8.583	14.23	14.583	0.61	20.58	0.27
2.667	0.35	8.667	14.23	14.667	0.61	20.67	0.27
2.750	0.35	8.750	14.23	14.750	0.61	20.75	0.27
2.833	0.37	8.833	9.45	14.833	0.58	20.83	0.26
2.917	0.37	8.917	9.45	14.917	0.58	20.92	0.26
3.000	0.37	9.000	9.45	15.000	0.58	21.00	0.26
3.083	0.39	9.083	6.83	15.083	0.55	21.08	0.26
3.167	0.39	9.167	6.83	15.167	0.55	21.17	0.26
3.250	0.39	9.250	6.83	15.250	0.55	21.25	0.26
3.333	0.42	9.333	5.22	15.333	0.53	21.33	0.25
3.417	0.42	9.417	5.22	15.417	0.53	21.42	0.25
3.500	0.42	9.500	5.22	15.500	0.53	21.50	0.25
3.583	0.46	9.583	4.15	15.583	0.51	21.58	0.25
3.667	0.46	9.667	4.15	15.667	0.51	21.67	0.25
3.750	0.46	9.750	4.15	15.750	0.51	21.75	0.25
3.833	0.49	9.833	3.41	15.833	0.48	21.83	0.24
3.917	0.49	9.917	3.41	15.917	0.48	21.92	0.24
4.000	0.49	10.000	3.41	16.000	0.48	22.00	0.24
4.083	0.54	10.083	2.86	16.083	0.47	22.08	0.24
4.167	0.54	10.167	2.86	16.167	0.47	22.17	0.24
4.250	0.54	10.250	2.86	16.250	0.47	22.25	0.24
4.333	0.59	10.333	2.45	16.333	0.45	22.33	0.23
4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23
4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23
4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22
5.000	0.73	11.000	1.88	17.000	0.42	23.00	0.22
5.083	0.82	11.083	1.67	17.083	0.40	23.08	0.22
5.167	0.82	11.167	1.67	17.167	0.40	23.17	0.22
5.250	0.82	11.250	1.67	17.250	0.40	23.25	0.22
5.333	0.94	11.333	1.50	17.333	0.39	23.33	0.21
5.417	0.94	11.417	1.50	17.417	0.39	23.42	0.21
5.500	0.94	11.500	1.50	17.500	0.39	23.50	0.21
5.583	1.09	11.583	1.36	17.583	0.38	23.58	0.21
5.667	1.09	11.667	1.36	17.667	0.38	23.67	0.21
5.750	1.09	11.750	1.36	17.750	0.38	23.75	0.21
5.833	1.30	11.833	1.24	17.833	0.36	23.83	0.21
5.917	1.30	11.917	1.24	17.917	0.36	23.92	0.21
6.000	1.30	12.000	1.24	18.000	0.36	24.00	0.21

Max.Eff.Inten.(mm/hr)= 166.89 89.69
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.16 (ii) 2.93 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.28

TOTALS

PEAK FLOW (cms)= 0.08 0.00 0.086 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00 8.00
 RUNOFF VOLUME (mm)= 99.55 50.17 97.08

TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.98 0.49 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7720) OVERFLOW IS OFF				
IN= 2--> OUT= 1				
DT= 5.0 min				

	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.0100	0.0090
	0.0030	0.0010	0.0110	0.0100
	0.0050	0.0030	0.0120	0.0110
	0.0060	0.0040	0.0120	0.0130
	0.0080	0.0050	0.0130	0.0140
	0.0090	0.0060	0.0140	0.0150
	0.0090	0.0080	0.0000	0.0000

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7716)	0.190	0.086	8.00	97.08
OUTFLOW: ID= 1 (7720)	0.190	0.012	8.50	96.90

PEAK FLOW REDUCTION [Qout/Qin](%)= 13.92				
TIME SHIFT OF PEAK FLOW (min)= 30.00				
MAXIMUM STORAGE USED (ha.m.)= 0.0110				

CALIB		
STANDHYD (7717)		
ID= 1 DT= 5.0 min		

	Area	(ha)= 0.20
	Total Imp(%)=	95.00
	Dir. Conn.(%)=	95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.19	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	36.51	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.22	6.083	1.58	12.083	1.14	18.08	0.35				
0.167	0.22	6.167	1.58	12.167	1.14	18.17	0.35				
0.250	0.22	6.250	1.58	12.250	1.14	18.25	0.35				
0.333	0.22	6.333	2.00	12.333	1.05	18.33	0.34				
0.417	0.22	6.417	2.00	12.417	1.05	18.42	0.34				
0.500	0.22	6.500	2.00	12.500	1.05	18.50	0.34				
0.583	0.23	6.583	2.65	12.583	0.98	18.58	0.33				
0.667	0.23	6.667	2.65	12.667	0.98	18.67	0.33				
0.750	0.23	6.750	2.65	12.750	0.98	18.75	0.33				
0.833	0.24	6.833	3.77	12.833	0.91	18.83	0.32				
0.917	0.24	6.917	3.77	12.917	0.91	18.92	0.32				
1.000	0.24	7.000	3.77	13.000	0.91	19.00	0.32				
1.083	0.25	7.083	6.01	13.083	0.85	19.08	0.31				
1.167	0.25	7.167	6.01	13.167	0.85	19.17	0.31				
1.250	0.25	7.250	6.01	13.250	0.85	19.25	0.31				
1.333	0.27	7.333	11.82	13.333	0.80	19.33	0.31				
1.417	0.27	7.417	11.82	13.417	0.80	19.42	0.31				
1.500	0.27	7.500	11.82	13.500	0.80	19.50	0.31				
1.583	0.28	7.583	39.93	13.583	0.75	19.58	0.30				
1.667	0.28	7.667	39.93	13.667	0.75	19.67	0.30				
1.750	0.28	7.750	39.94	13.750	0.75	19.75	0.30				
1.833	0.29	7.833	166.89	13.833	0.71	19.83	0.29				
1.917	0.29	7.917	166.89	13.917	0.71	19.92	0.29				



2.000	0.29	8.000	166.88	14.000	0.71	20.00	0.29
2.083	0.31	8.083	55.37	14.083	0.67	20.08	0.28
2.167	0.31	8.167	55.37	14.167	0.67	20.17	0.28
2.250	0.31	8.250	55.37	14.250	0.67	20.25	0.28
2.333	0.33	8.333	24.55	14.333	0.64	20.33	0.28
2.417	0.33	8.417	24.55	14.417	0.64	20.42	0.28
2.500	0.33	8.500	24.55	14.500	0.64	20.50	0.28
2.583	0.35	8.583	14.23	14.583	0.61	20.58	0.27
2.667	0.35	8.667	14.23	14.667	0.61	20.67	0.27
2.750	0.35	8.750	14.23	14.750	0.61	20.75	0.27
2.833	0.37	8.833	9.45	14.833	0.58	20.83	0.26
2.917	0.37	8.917	9.45	14.917	0.58	20.92	0.26
3.000	0.37	9.000	9.45	15.000	0.58	21.00	0.26
3.083	0.39	9.083	6.83	15.083	0.55	21.08	0.26
3.167	0.39	9.167	6.83	15.167	0.55	21.17	0.26
3.250	0.39	9.250	6.83	15.250	0.55	21.25	0.26
3.333	0.42	9.333	5.22	15.333	0.53	21.33	0.25
3.417	0.42	9.417	5.22	15.417	0.53	21.42	0.25
3.500	0.42	9.500	5.22	15.500	0.53	21.50	0.25
3.583	0.46	9.583	4.15	15.583	0.51	21.58	0.25
3.667	0.46	9.667	4.15	15.667	0.51	21.67	0.25
3.750	0.46	9.750	4.15	15.750	0.51	21.75	0.25
3.833	0.49	9.833	3.41	15.833	0.48	21.83	0.24
3.917	0.49	9.917	3.41	15.917	0.48	21.92	0.24
4.000	0.49	10.000	3.41	16.000	0.48	22.00	0.24
4.083	0.54	10.083	2.86	16.083	0.47	22.08	0.24
4.167	0.54	10.167	2.86	16.167	0.47	22.17	0.24
4.250	0.54	10.250	2.86	16.250	0.47	22.25	0.24
4.333	0.59	10.333	2.45	16.333	0.45	22.33	0.23
4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23
4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23
4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22
5.000	0.73	11.000	1.88	17.000	0.42	23.00	0.22
5.083	0.82	11.083	1.67	17.083	0.40	23.08	0.22
5.167	0.82	11.167	1.67	17.167	0.40	23.17	0.22
5.250	0.82	11.250	1.67	17.250	0.40	23.25	0.22
5.333	0.94	11.333	1.50	17.333	0.39	23.33	0.21
5.417	0.94	11.417	1.50	17.417	0.39	23.42	0.21
5.500	0.94	11.500	1.50	17.500	0.39	23.50	0.21
5.583	1.09	11.583	1.36	17.583	0.38	23.58	0.21
5.667	1.09	11.667	1.36	17.667	0.38	23.67	0.21
5.750	1.09	11.750	1.36	17.750	0.38	23.75	0.21
5.833	1.30	11.833	1.24	17.833	0.36	23.83	0.21
5.917	1.30	11.917	1.24	17.917	0.36	23.92	0.21
6.000	1.30	12.000	1.24	18.000	0.36	24.00	0.21

Max.Eff.Inten.(mm/hr)= 166.89 89.69
 over (min) 5.00 5.00
 Storage Coeff. (min)= 0.86 (ii) 2.63 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.29

TOTALS
 PEAK FLOW (cms)= 0.09 0.00 0.091 (iii)
 TIME TO PEAK (hrs)= 7.92 8.00 8.00
 RUNOFF VOLUME (mm)= 99.55 50.17 97.08
 TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.98 0.49 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7719)				OVERFLOW IS OFF			
IN= 2--> OUT= 1							
DT= 5.0 min							
	OUTFLOW	STORAGE		OUTFLOW	STORAGE		
	(cms)	(ha.m.)		(cms)	(ha.m.)		

0.0000	0.0000	0.0100	0.0090
0.0030	0.0010	0.0110	0.0100
0.0050	0.0030	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7717)	0.200	0.091	8.00	97.08
OUTFLOW: ID= 1 (7719)	0.200	0.012	8.25	96.90

PEAK FLOW REDUCTION [Qout/Qin](%)= 13.23
 TIME SHIFT OF PEAK FLOW (min)= 15.00
 MAXIMUM STORAGE USED (ha.m.)= 0.0117

ADD HYD (7706)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7705):	25.67	0.486	9.17	99.05
+ ID2= 2 (7719):	0.20	0.012	8.25	96.90
ID = 3 (7706):	25.87	0.497	9.08	99.03

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7706)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7706):	25.87	0.497	9.08	99.03
+ ID2= 2 (7720):	0.19	0.012	8.50	96.90
ID = 1 (7706):	26.06	0.508	9.08	99.02

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7595)			
	Area	(ha)=	1.24
ID= 1 DT= 5.0 min	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	1.23 0.01
Dep. Storage	(mm)=	2.00 5.00
Average Slope	(%)=	2.00 2.00
Length	(m)=	91.00 40.00
Mannings n	=	0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.22	6.083	1.58	12.083	1.14	18.08	0.35				
0.167	0.22	6.167	1.58	12.167	1.14	18.17	0.35				
0.250	0.22	6.250	1.58	12.250	1.14	18.25	0.35				
0.333	0.22	6.333	2.00	12.333	1.05	18.33	0.34				
0.417	0.22	6.417	2.00	12.417	1.05	18.42	0.34				
0.500	0.22	6.500	2.00	12.500	1.05	18.50	0.34				
0.583	0.23	6.583	2.65	12.583	0.98	18.58	0.33				
0.667	0.23	6.667	2.65	12.667	0.98	18.67	0.33				
0.750	0.23	6.750	2.65	12.750	0.98	18.75	0.33				
0.833	0.24	6.833	3.77	12.833	0.91	18.83	0.32				
0.917	0.24	6.917	3.77	12.917	0.91	18.92	0.32				
1.000	0.24	7.000	3.77	13.000	0.91	19.00	0.32				
1.083	0.25	7.083	6.01	13.083	0.85	19.08	0.31				
1.167	0.25	7.167	6.01	13.167	0.85	19.17	0.31				
1.250	0.25	7.250	6.01	13.250	0.85	19.25	0.31				
1.333	0.27	7.333	11.82	13.333	0.80	19.33	0.31				



1.417	0.27	7.417	11.82	13.417	0.80	19.42	0.31
1.500	0.27	7.500	11.82	13.500	0.80	19.50	0.31
1.583	0.28	7.583	39.93	13.583	0.75	19.58	0.30
1.667	0.28	7.667	39.93	13.667	0.75	19.67	0.30
1.750	0.28	7.750	39.94	13.750	0.75	19.75	0.30
1.833	0.29	7.833	166.89	13.833	0.71	19.83	0.29
1.917	0.29	7.917	166.89	13.917	0.71	19.92	0.29
2.000	0.29	8.000	166.88	14.000	0.71	20.00	0.29
2.083	0.31	8.083	55.37	14.083	0.67	20.08	0.28
2.167	0.31	8.167	55.37	14.167	0.67	20.17	0.28
2.250	0.31	8.250	55.37	14.250	0.67	20.25	0.28
2.333	0.33	8.333	24.55	14.333	0.64	20.33	0.28
2.417	0.33	8.417	24.55	14.417	0.64	20.42	0.28
2.500	0.33	8.500	24.55	14.500	0.64	20.50	0.28
2.583	0.35	8.583	14.23	14.583	0.61	20.58	0.27
2.667	0.35	8.667	14.23	14.667	0.61	20.67	0.27
2.750	0.35	8.750	14.23	14.750	0.61	20.75	0.27
2.833	0.37	8.833	9.45	14.833	0.58	20.83	0.26
2.917	0.37	8.917	9.45	14.917	0.58	20.92	0.26
3.000	0.37	9.000	9.45	15.000	0.58	21.00	0.26
3.083	0.39	9.083	6.83	15.083	0.55	21.08	0.26
3.167	0.39	9.167	6.83	15.167	0.55	21.17	0.26
3.250	0.39	9.250	6.83	15.250	0.55	21.25	0.26
3.333	0.42	9.333	5.22	15.333	0.53	21.33	0.25
3.417	0.42	9.417	5.22	15.417	0.53	21.42	0.25
3.500	0.42	9.500	5.22	15.500	0.53	21.50	0.25
3.583	0.46	9.583	4.15	15.583	0.51	21.58	0.25
3.667	0.46	9.667	4.15	15.667	0.51	21.67	0.25
3.750	0.46	9.750	4.15	15.750	0.51	21.75	0.25
3.833	0.49	9.833	3.41	15.833	0.48	21.83	0.24
3.917	0.49	9.917	3.41	15.917	0.48	21.92	0.24
4.000	0.49	10.000	3.41	16.000	0.48	22.00	0.24
4.083	0.54	10.083	2.86	16.083	0.47	22.08	0.24
4.167	0.54	10.167	2.86	16.167	0.47	22.17	0.24
4.250	0.54	10.250	2.86	16.250	0.47	22.25	0.24
4.333	0.59	10.333	2.45	16.333	0.45	22.33	0.23
4.417	0.59	10.417	2.45	16.417	0.45	22.42	0.23
4.500	0.59	10.500	2.45	16.500	0.45	22.50	0.23
4.583	0.65	10.583	2.13	16.583	0.43	22.58	0.23
4.667	0.65	10.667	2.13	16.667	0.43	22.67	0.23
4.750	0.65	10.750	2.13	16.750	0.43	22.75	0.23
4.833	0.73	10.833	1.88	16.833	0.42	22.83	0.22
4.917	0.73	10.917	1.88	16.917	0.42	22.92	0.22
5.000	0.73	11.000	1.88	17.000	0.42	23.00	0.22
5.083	0.82	11.083	1.67	17.083	0.40	23.08	0.22
5.167	0.82	11.167	1.67	17.167	0.40	23.17	0.22
5.250	0.82	11.250	1.67	17.250	0.40	23.25	0.22
5.333	0.94	11.333	1.50	17.333	0.39	23.33	0.21
5.417	0.94	11.417	1.50	17.417	0.39	23.42	0.21
5.500	0.94	11.500	1.50	17.500	0.39	23.50	0.21
5.583	1.09	11.583	1.36	17.583	0.38	23.58	0.21
5.667	1.09	11.667	1.36	17.667	0.38	23.67	0.21
5.750	1.09	11.750	1.36	17.750	0.38	23.75	0.21
5.833	1.30	11.833	1.24	17.833	0.36	23.83	0.21
5.917	1.30	11.917	1.24	17.917	0.36	23.92	0.21
6.000	1.30	12.000	1.24	18.000	0.36	24.00	0.21

Max.Eff.Inten.(mm/hr)= 166.89 87.18
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.60 (ii) 2.51 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.29

TOTALS
 PEAK FLOW (cms)= 0.57 0.00 0.573 (iii)
 TIME TO PEAK (hrs)= 8.00 8.00
 RUNOFF VOLUME (mm)= 99.55 48.94 99.04
 TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.98 0.48 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7718) |
| 1 + 2 = 3 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7595): 1.24 0.573 8.00 99.04
+ ID2= 2 ( 7706): 26.06 0.508 9.08 99.02
-----
ID = 3 ( 7718): 27.30 0.900 8.00 99.02
-----
NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.
-----
| RESERVOIR ( 7711) | OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT= 5.0 min |
-----
OUTFLOW STORAGE | OUTFLOW STORAGE
(cms) (ha.m.) | (cms) (ha.m.)
0.0000 0.0000 | 1.0810 1.6220
0.0010 0.1670 | 1.3950 1.8170
0.0340 0.3380 | 2.0990 2.2130
0.0510 0.5110 | 2.8950 2.6150
0.0630 0.6880 | 3.7730 3.0250
0.1610 0.8670 | 4.7260 3.4420
0.3300 1.0500 | 5.5670 3.8670
0.5440 1.2370 | 8.5800 4.3000
0.7970 1.4290 | 10.9450 4.5210
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 2 ( 7718) 27.302 0.900 8.00 99.02
OUTFLOW: ID= 1 ( 7711) 27.302 0.346 17.25 93.55
-----
PEAK FLOW REDUCTION [Qout/Qin](%)= 38.42
TIME SHIFT OF PEAK FLOW (min)=555.00
MAXIMUM STORAGE USED (ha.m.)= 1.0636
-----

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*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | ' hrs mm/hr | hrs mm/hr
0.083 1.84 | 1.083 69.05 | 2.083 3.61 | 3.08 1.72
0.167 1.84 | 1.167 69.05 | 2.167 3.61 | 3.17 1.72
0.250 1.84 | 1.250 69.05 | 2.250 3.61 | 3.25 1.72
0.333 2.57 | 1.333 17.10 | 2.333 2.83 | 3.33 1.52
0.417 2.57 | 1.417 17.10 | 2.417 2.83 | 3.42 1.52
0.500 2.57 | 1.500 17.10 | 2.500 2.83 | 3.50 1.52
0.583 4.28 | 1.583 7.85 | 2.583 2.32 | 3.58 1.37
0.667 4.28 | 1.667 7.85 | 2.667 2.32 | 3.67 1.37
0.750 4.28 | 1.750 7.85 | 2.750 2.32 | 3.75 1.37
0.833 12.47 | 1.833 4.97 | 2.833 1.98 | 3.83 1.24
0.917 12.47 | 1.917 4.97 | 2.917 1.98 | 3.92 1.24
1.000 12.47 | 2.000 4.97 | 3.000 1.98 | 4.00 1.24

```

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\mhoooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\c7aal6f1-d3e5-4e54-a07b-2ca2337afleb\scen
Summary filename: C:\Users\mhoooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\c7aal6f1-d3e5-4e54-a07b-2ca2337afleb\scen

```

```

DATE: 11-22-2024 TIME: 12:17:35
USER:

```

COMMENTS: _____

```

Max.Eff.Inten.(mm/hr)= 69.05 14.39
over (min) = 5.00 5.00
Storage Coeff. (min)= 1.82 (ii) 3.12 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.32 0.27

PEAK FLOW (cms)= 0.11 0.00 *TOTALS*
TIME TO PEAK (hrs)= 1.25 1.25 1.25
RUNOFF VOLUME (mm)= 32.18 6.91 31.92
TOTAL RAINFALL (mm)= 34.18 34.18 34.18
RUNOFF COEFFICIENT = 0.94 0.20 0.93

```

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

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*****
** SIMULATION : G - 2yr 4hr 15min Chicago **
*****

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| CHICAGO STORM | IDF curve parameters: A=1070.000
| Ptotal= 34.18 mm | B= 7.850
C= 0.876
used in: INTENSITY = A / (t + B)^C
Duration of storm = 4.00 hrs
Storm time step = 15.00 min
Time to peak ratio = 0.33

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	hrs
0.00	1.84	1.00	69.05	2.00	3.61	3.00	1.72
0.25	2.57	1.25	17.10	2.25	2.83	3.25	1.52
0.50	4.28	1.50	7.85	2.50	2.32	3.50	1.37
0.75	12.47	1.75	4.97	2.75	1.98	3.75	1.24

```

| CALIB |
| NASHYD ( 7721) | Area (ha)= 0.21 Curve Number (CN)= 73.0
| ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 0.17

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | ' hrs mm/hr | hrs mm/hr
0.083 1.84 | 1.083 69.05 | 2.083 3.61 | 3.08 1.72
0.167 1.84 | 1.167 69.05 | 2.167 3.61 | 3.17 1.72
0.250 1.84 | 1.250 69.05 | 2.250 3.61 | 3.25 1.72
0.333 2.57 | 1.333 17.10 | 2.333 2.83 | 3.33 1.52
0.417 2.57 | 1.417 17.10 | 2.417 2.83 | 3.42 1.52
0.500 2.57 | 1.500 17.10 | 2.500 2.83 | 3.50 1.52
0.583 4.28 | 1.583 7.85 | 2.583 2.32 | 3.58 1.37
0.667 4.28 | 1.667 7.85 | 2.667 2.32 | 3.67 1.37
0.750 4.28 | 1.750 7.85 | 2.750 2.32 | 3.75 1.37
0.833 12.47 | 1.833 4.97 | 2.833 1.98 | 3.83 1.24
0.917 12.47 | 1.917 4.97 | 2.917 1.98 | 3.92 1.24
1.000 12.47 | 2.000 4.97 | 3.000 1.98 | 4.00 1.24

```

Unit Hyd Qpeak (cms)= 0.047

```

PEAK FLOW (cms)= 0.005 (i)
TIME TO PEAK (hrs)= 1.333
RUNOFF VOLUME (mm)= 6.888
TOTAL RAINFALL (mm)= 34.177
RUNOFF COEFFICIENT = 0.202

```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

| CALIB |
| STANDHYD ( 7640) | Area (ha)= 0.59
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.58 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 62.72 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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| CALIB |

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STANDHYD (7599) | Area (ha)= 10.90
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	10.79	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	269.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	1.84	1.083	69.05	2.083	3.61	3.08	1.72
0.167	1.84	1.167	69.05	2.167	3.61	3.17	1.72
0.250	1.84	1.250	69.05	2.250	3.61	3.25	1.72
0.333	2.57	1.333	17.10	2.333	2.83	3.33	1.52
0.417	2.57	1.417	17.10	2.417	2.83	3.42	1.52
0.500	2.57	1.500	17.10	2.500	2.83	3.50	1.52
0.583	4.28	1.583	7.85	2.583	2.32	3.58	1.37
0.667	4.28	1.667	7.85	2.667	2.32	3.67	1.37
0.750	4.28	1.750	7.85	2.750	2.32	3.75	1.37
0.833	12.47	1.833	4.97	2.833	1.98	3.83	1.24
0.917	12.47	1.917	4.97	2.917	1.98	3.92	1.24
1.000	12.47	2.000	4.97	3.000	1.98	4.00	1.24

Max.Eff.Inten.(mm/hr)=	69.05	14.39
over (min)	5.00	10.00
Storage Coeff. (min)=	5.37 (ii)	6.67 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.21	0.14

TOTALS

PEAK FLOW (cms)=	1.96	0.00	1.967 (iii)
TIME TO PEAK (hrs)=	1.25	1.33	
RUNOFF VOLUME (mm)=	32.18	6.91	31.92
TOTAL RAINFALL (mm)=	34.18	34.18	
RUNOFF COEFFICIENT =	0.94	0.20	0.93

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 ADD HYD (7722) |
 1 + 2 = 3 |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7599):	10.90	1.967	1.25	31.92
+ ID2= 2 (7721):	0.21	0.005	1.33	6.89
ID = 3 (7722):	11.11	1.971	1.25	31.46

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7685) | OVERFLOW IS OFF
 IN= 2--> OUT= 1 |
 DT= 5.0 min |

	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.1390	0.6960
	0.0590	0.3400	0.1630	0.7780
	0.0900	0.4907	0.1840	0.8800
	0.1110	0.5760	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7722)	11.108	1.971	1.25	31.46
OUTFLOW: ID= 1 (7685)	11.108	0.052	3.25	31.32

PEAK FLOW REDUCTION [Qout/Qin](%)= 2.64
 TIME SHIFT OF PEAK FLOW (min)=120.00
 MAXIMUM STORAGE USED (ha.m.)= 0.3001

 CALIB (7591) | Area (ha)= 11.38
 STANDHYD (7591) | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
 ID= 1 DT= 5.0 min |

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	11.27	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	275.44	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	1.84	1.083	69.05	2.083	3.61	3.08	1.72
0.167	1.84	1.167	69.05	2.167	3.61	3.17	1.72
0.250	1.84	1.250	69.05	2.250	3.61	3.25	1.72
0.333	2.57	1.333	17.10	2.333	2.83	3.33	1.52
0.417	2.57	1.417	17.10	2.417	2.83	3.42	1.52
0.500	2.57	1.500	17.10	2.500	2.83	3.50	1.52
0.583	4.28	1.583	7.85	2.583	2.32	3.58	1.37
0.667	4.28	1.667	7.85	2.667	2.32	3.67	1.37
0.750	4.28	1.750	7.85	2.750	2.32	3.75	1.37
0.833	12.47	1.833	4.97	2.833	1.98	3.83	1.24
0.917	12.47	1.917	4.97	2.917	1.98	3.92	1.24
1.000	12.47	2.000	4.97	3.000	1.98	4.00	1.24

Max.Eff.Inten.(mm/hr)=	69.05	14.39
over (min)	5.00	10.00
Storage Coeff. (min)=	5.44 (ii)	6.74 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.20	0.14

TOTALS

PEAK FLOW (cms)=	2.05	0.00	2.050 (iii)
TIME TO PEAK (hrs)=	1.25	1.33	
RUNOFF VOLUME (mm)=	32.18	6.91	31.92
TOTAL RAINFALL (mm)=	34.18	34.18	
RUNOFF COEFFICIENT =	0.94	0.20	0.93

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7593) | OVERFLOW IS OFF
 IN= 2--> OUT= 1 |
 DT= 5.0 min |

	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.1990	0.6950
	0.0830	0.3500	0.2320	0.8000
	0.1280	0.4850	0.2620	0.9000
	0.1580	0.5900	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7591)	11.380	2.050	1.25	31.92
OUTFLOW: ID= 1 (7593)	11.380	0.071	2.75	31.83

PEAK FLOW REDUCTION [Qout/Qin](%)= 3.48
 TIME SHIFT OF PEAK FLOW (min)= 90.00
 MAXIMUM STORAGE USED (ha.m.)= 0.3011



NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

ADD HYD (7643)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7593):	11.38	0.071	2.75	31.83
+ ID2= 2 (7685):	11.11	0.052	3.25	31.32
ID = 3 (7643):	22.49	0.123	2.92	31.58

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)=	2.39
STANDHYD (7590)	Total Imp(%)=	99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	1.84	1.083	69.05	2.083	3.61	3.08	1.72
0.167	1.84	1.167	69.05	2.167	3.61	3.17	1.72
0.250	1.84	1.250	69.05	2.250	3.61	3.25	1.72
0.333	2.57	1.333	17.10	2.333	2.83	3.33	1.52
0.417	2.57	1.417	17.10	2.417	2.83	3.42	1.52
0.500	2.57	1.500	17.10	2.500	2.83	3.50	1.52
0.583	4.28	1.583	7.85	2.583	2.32	3.58	1.37
0.667	4.28	1.667	7.85	2.667	2.32	3.67	1.37
0.750	4.28	1.750	7.85	2.750	2.32	3.75	1.37
0.833	12.47	1.833	4.97	2.833	1.98	3.83	1.24
0.917	12.47	1.917	4.97	2.917	1.98	3.92	1.24
1.000	12.47	2.000	4.97	3.000	1.98	4.00	1.24

Max.Eff.Inten.(mm/hr)=	69.05	14.39
over (min)	5.00	5.00
Storage Coeff. (min)=	1.13 (ii)	1.99 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.31
PEAK FLOW (cms)=	0.45	0.00
TIME TO PEAK (hrs)=	1.25	1.25
RUNOFF VOLUME (mm)=	33.18	6.91
TOTAL RAINFALL (mm)=	34.18	34.18
RUNOFF COEFFICIENT =	0.97	0.20

TOTALS	0.455 (iii)
----------	-------------

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	2.36
STANDHYD (7632)	Total Imp(%)=	99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.34	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	1.84	1.083	69.05	2.083	3.61	3.08	1.72
0.167	1.84	1.167	69.05	2.167	3.61	3.17	1.72
0.250	1.84	1.250	69.05	2.250	3.61	3.25	1.72
0.333	2.57	1.333	17.10	2.333	2.83	3.33	1.52
0.417	2.57	1.417	17.10	2.417	2.83	3.42	1.52
0.500	2.57	1.500	17.10	2.500	2.83	3.50	1.52
0.583	4.28	1.583	7.85	2.583	2.32	3.58	1.37
0.667	4.28	1.667	7.85	2.667	2.32	3.67	1.37
0.750	4.28	1.750	7.85	2.750	2.32	3.75	1.37
0.833	12.47	1.833	4.97	2.833	1.98	3.83	1.24
0.917	12.47	1.917	4.97	2.917	1.98	3.92	1.24
1.000	12.47	2.000	4.97	3.000	1.98	4.00	1.24

Max.Eff.Inten.(mm/hr)=	69.05	14.39
over (min)	5.00	5.00
Storage Coeff. (min)=	1.13 (ii)	1.99 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.31

PEAK FLOW (cms)=	0.45	0.00
TIME TO PEAK (hrs)=	1.25	1.25
RUNOFF VOLUME (mm)=	33.18	6.91
TOTAL RAINFALL (mm)=	34.18	34.18
RUNOFF COEFFICIENT =	0.97	0.20

TOTALS
0.449 (iii)

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	2.40
STANDHYD (7644)	Total Imp(%)=	99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	1.84	1.083	69.05	2.083	3.61	3.08	1.72
0.167	1.84	1.167	69.05	2.167	3.61	3.17	1.72
0.250	1.84	1.250	69.05	2.250	3.61	3.25	1.72
0.333	2.57	1.333	17.10	2.333	2.83	3.33	1.52
0.417	2.57	1.417	17.10	2.417	2.83	3.42	1.52
0.500	2.57	1.500	17.10	2.500	2.83	3.50	1.52
0.583	4.28	1.583	7.85	2.583	2.32	3.58	1.37
0.667	4.28	1.667	7.85	2.667	2.32	3.67	1.37
0.750	4.28	1.750	7.85	2.750	2.32	3.75	1.37
0.833	12.47	1.833	4.97	2.833	1.98	3.83	1.24
0.917	12.47	1.917	4.97	2.917	1.98	3.92	1.24
1.000	12.47	2.000	4.97	3.000	1.98	4.00	1.24

Max.Eff.Inten.(mm/hr)=	69.05	14.39
over (min)	5.00	5.00
Storage Coeff. (min)=	1.13 (ii)	1.99 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.31

TOTALS
 PEAK FLOW (cms) = 0.46 0.00 0.457 (iii)
 TIME TO PEAK (hrs) = 1.25 1.25 1.25
 RUNOFF VOLUME (mm) = 33.18 6.91 32.91
 TOTAL RAINFALL (mm) = 34.18 34.18 34.18
 RUNOFF COEFFICIENT = 0.97 0.20 0.96

Average Slope (%) = 1.00 2.00
 Length (m) = 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7652) | Area (ha) = 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%) = 99.00 Dir. Conn.(%) = 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	2.38	0.02
Dep. Storage (mm)	1.00	5.00
Average Slope (%)	1.00	2.00
Length (m)	20.00	20.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	1.84	1.083	69.05	2.083	3.61	3.08	1.72
0.167	1.84	1.167	69.05	2.167	3.61	3.17	1.72
0.250	1.84	1.250	69.05	2.250	3.61	3.25	1.72
0.333	2.57	1.333	17.10	2.333	2.83	3.33	1.52
0.417	2.57	1.417	17.10	2.417	2.83	3.42	1.52
0.500	2.57	1.500	17.10	2.500	2.83	3.50	1.52
0.583	4.28	1.583	7.85	2.583	2.32	3.58	1.37
0.667	4.28	1.667	7.85	2.667	2.32	3.67	1.37
0.750	4.28	1.750	7.85	2.750	2.32	3.75	1.37
0.833	12.47	1.833	4.97	2.833	1.98	3.83	1.24
0.917	12.47	1.917	4.97	2.917	1.98	3.92	1.24
1.000	12.47	2.000	4.97	3.000	1.98	4.00	1.24

Max.Eff.Inten. (mm/hr)	69.05	14.39
over (min)	5.00	5.00
Storage Coeff. (min)	1.13 (ii)	1.99 (ii)
Unit Hyd. Tpeak (min)	5.00	5.00
Unit Hyd. peak (cms)	0.34	0.31

TOTALS
 PEAK FLOW (cms) = 0.46 0.00 0.457 (iii)
 TIME TO PEAK (hrs) = 1.25 1.25 1.25
 RUNOFF VOLUME (mm) = 33.18 6.91 32.91
 TOTAL RAINFALL (mm) = 34.18 34.18 34.18
 RUNOFF COEFFICIENT = 0.97 0.20 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7661) | Area (ha) = 2.39
 | ID= 1 DT= 5.0 min | Total Imp(%) = 99.00 Dir. Conn.(%) = 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	2.37	0.02
Dep. Storage (mm)	1.00	5.00

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	1.84	1.083	69.05	2.083	3.61	3.08	1.72
0.167	1.84	1.167	69.05	2.167	3.61	3.17	1.72
0.250	1.84	1.250	69.05	2.250	3.61	3.25	1.72
0.333	2.57	1.333	17.10	2.333	2.83	3.33	1.52
0.417	2.57	1.417	17.10	2.417	2.83	3.42	1.52
0.500	2.57	1.500	17.10	2.500	2.83	3.50	1.52
0.583	4.28	1.583	7.85	2.583	2.32	3.58	1.37
0.667	4.28	1.667	7.85	2.667	2.32	3.67	1.37
0.750	4.28	1.750	7.85	2.750	2.32	3.75	1.37
0.833	12.47	1.833	4.97	2.833	1.98	3.83	1.24
0.917	12.47	1.917	4.97	2.917	1.98	3.92	1.24
1.000	12.47	2.000	4.97	3.000	1.98	4.00	1.24

Max.Eff.Inten. (mm/hr)	69.05	14.39
over (min)	5.00	5.00
Storage Coeff. (min)	1.13 (ii)	1.99 (ii)
Unit Hyd. Tpeak (min)	5.00	5.00
Unit Hyd. peak (cms)	0.34	0.31

TOTALS
 PEAK FLOW (cms) = 0.45 0.00 0.455 (iii)
 TIME TO PEAK (hrs) = 1.25 1.25 1.25
 RUNOFF VOLUME (mm) = 33.18 6.91 32.91
 TOTAL RAINFALL (mm) = 34.18 34.18 34.18
 RUNOFF COEFFICIENT = 0.97 0.20 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7671) | Area (ha) = 2.37
 | ID= 1 DT= 5.0 min | Total Imp(%) = 99.00 Dir. Conn.(%) = 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	2.35	0.02
Dep. Storage (mm)	1.00	5.00
Average Slope (%)	1.00	2.00
Length (m)	20.00	20.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	1.84	1.083	69.05	2.083	3.61	3.08	1.72
0.167	1.84	1.167	69.05	2.167	3.61	3.17	1.72
0.250	1.84	1.250	69.05	2.250	3.61	3.25	1.72
0.333	2.57	1.333	17.10	2.333	2.83	3.33	1.52
0.417	2.57	1.417	17.10	2.417	2.83	3.42	1.52
0.500	2.57	1.500	17.10	2.500	2.83	3.50	1.52
0.583	4.28	1.583	7.85	2.583	2.32	3.58	1.37
0.667	4.28	1.667	7.85	2.667	2.32	3.67	1.37
0.750	4.28	1.750	7.85	2.750	2.32	3.75	1.37
0.833	12.47	1.833	4.97	2.833	1.98	3.83	1.24
0.917	12.47	1.917	4.97	2.917	1.98	3.92	1.24
1.000	12.47	2.000	4.97	3.000	1.98	4.00	1.24

Max.Eff.Inten. (mm/hr)	69.05	14.39
------------------------	-------	-------

over (min) 5.00 5.00
 Storage Coeff. (min)= 1.13 (ii) 1.99 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.31

TOTALS
 PEAK FLOW (cms)= 0.45 0.00 0.451 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 33.18 6.91 32.91
 TOTAL RAINFALL (mm)= 34.18 34.18 34.18
 RUNOFF COEFFICIENT = 0.97 0.20 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

| ADD HYD ( 7698) |
| 1 + 2 = 3 |
-----
ID1= 1 ( 7590): 2.39 0.455 1.25 32.91
+ ID2= 2 ( 7632): 2.36 0.449 1.25 32.91
-----
ID = 3 ( 7698): 4.75 0.904 1.25 32.91
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| ADD HYD ( 7698) |
| 3 + 2 = 1 |
-----
ID1= 3 ( 7698): 4.75 0.904 1.25 32.91
+ ID2= 2 ( 7644): 2.40 0.457 1.25 32.91
-----
ID = 1 ( 7698): 7.15 1.361 1.25 32.91
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| ADD HYD ( 7698) |
| 1 + 2 = 3 |
-----
ID1= 1 ( 7698): 7.15 1.361 1.25 32.91
+ ID2= 2 ( 7652): 2.40 0.457 1.25 32.91
-----
ID = 3 ( 7698): 9.55 1.818 1.25 32.91
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| ADD HYD ( 7698) |
| 3 + 2 = 1 |
-----
ID1= 3 ( 7698): 9.55 1.818 1.25 32.91
+ ID2= 2 ( 7661): 2.39 0.455 1.25 32.91
-----
ID = 1 ( 7698): 11.94 2.273 1.25 32.91
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| ADD HYD ( 7698) |
| 1 + 2 = 3 |
-----
ID1= 1 ( 7698): 11.94 2.273 1.25 32.91
+ ID2= 2 ( 7671): 2.37 0.451 1.25 32.91
-----
  
```

ID = 3 (7698): 14.31 2.724 1.25 32.91

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| DIVERTHYD ( 7713) |
| IN= 1 # OUT= 5 |
  
```

Outflow / Inflow Relationships

Flow 1 +	Flow 2 +	Flow 3 +	Flow 4 +	Flow 5 =	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD. (ID= 1):	14.31	2.72	1.25	32.91

ID= 2 (2) :	11.97	1.86	1.25	32.91
ID= 3 (2) :	2.34	0.86	1.25	32.91
ID= 4 (2) :	0.00	0.00	0.00	0.00
ID= 5 (2) :	0.00	0.00	0.00	0.00
ID= 6 (2) :	0.00	0.00	0.00	0.00

```

| RESERVOIR ( 7699) |
| IN= 2--> OUT= 1 |
| DT= 5.0 min |
  
```

OVERFLOW IS ON

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.2690	0.4589
0.1980	0.1112	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7713)	11.966	1.862	1.25	32.91
OUTFLOW: ID= 1 (7699)	11.966	0.227	1.83	32.90
OVERFLOW: ID= 3 (0003)	0.000	0.000	0.00	0.00

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
 CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
 PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

PEAK FLOW REDUCTION [Qout/Qin](%) = 12.19
 TIME SHIFT OF PEAK FLOW (min) = 35.00
 MAXIMUM STORAGE USED (ha.m.) = 0.2533

```

| Junction Command(7715) |
  
```

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 3(7699)	0.00	0.00	0.00	0.00
OUTFLOW: ID= 2(7715)	0.00	0.00	0.00	0.00

```

| ADD HYD ( 7714) |
| 1 + 2 = 3 |
  
```

ID1= 1 (7699):	11.97	0.227	1.83	32.90
+ ID2= 2 (7713):	2.34	0.862	1.25	32.91
ID = 3 (7714):	14.31	1.074	1.25	32.90

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| ADD HYD ( 7714) |
  
```



```

| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
|-----| (ha) (cms) (hrs) (mm)
*** WARNING : HYDROGRAPH 7715 <ID= 2> IS DRY.
*** WARNING : HYDROGRAPH 0001 = HYDROGRAPH 0003
ID1= 3 ( 7714): 14.31 1.074 1.25 32.90
+ ID2= 2 ( 7715): 0.00 0.000 0.00 0.00
-----
ID = 1 ( 7714): 14.31 1.074 1.25 32.90

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| CALIB |
| STANDBYD ( 7620) | Area (ha)= 1.45
| ID= 1 DT= 5.0 min | Total Imp(%)= 96.00 Dir. Conn.(%)= 96.00

```

```

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.39 0.06
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.10 2.00
Length (m)= 100.00 145.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 1.84 | 1.083 69.05 | 2.083 3.61 | 3.08 1.72
0.167 1.84 | 1.167 69.05 | 2.167 3.61 | 3.17 1.72
0.250 1.84 | 1.250 69.05 | 2.250 3.61 | 3.25 1.72
0.333 2.57 | 1.333 17.10 | 2.333 2.83 | 3.33 1.52
0.417 2.57 | 1.417 17.10 | 2.417 2.83 | 3.42 1.52
0.500 2.57 | 1.500 17.10 | 2.500 2.83 | 3.50 1.52
0.583 4.28 | 1.583 7.85 | 2.583 2.32 | 3.58 1.37
0.667 4.28 | 1.667 7.85 | 2.667 2.32 | 3.67 1.37
0.750 4.28 | 1.750 7.85 | 2.750 2.32 | 3.75 1.37
0.833 12.47 | 1.833 4.97 | 2.833 1.98 | 3.83 1.24
0.917 12.47 | 1.917 4.97 | 2.917 1.98 | 3.92 1.24
1.000 12.47 | 2.000 4.97 | 3.000 1.98 | 4.00 1.24

```

```

Max.Eff.Inten.(mm/hr)= 69.05 14.39
over (min)= 5.00 10.00
Storage Coeff. (min)= 2.88 (ii) 7.85 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.28 0.13
*TOTALS*
PEAK FLOW (cms)= 0.27 0.00 0.267 (iii)
TIME TO PEAK (hrs)= 1.25 1.33 1.25
RUNOFF VOLUME (mm)= 32.18 6.91 31.17
TOTAL RAINFALL (mm)= 34.18 34.18 34.18
RUNOFF COEFFICIENT = 0.94 0.20 0.91

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

```

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

```

| CALIB |
| STANDBYD ( 7629) | Area (ha)= 1.70
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

```

```

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.68 0.02
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.10 2.00
Length (m)= 100.00 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 1.84 | 1.083 69.05 | 2.083 3.61 | 3.08 1.72
0.167 1.84 | 1.167 69.05 | 2.167 3.61 | 3.17 1.72
0.250 1.84 | 1.250 69.05 | 2.250 3.61 | 3.25 1.72
0.333 2.57 | 1.333 17.10 | 2.333 2.83 | 3.33 1.52
0.417 2.57 | 1.417 17.10 | 2.417 2.83 | 3.42 1.52
0.500 2.57 | 1.500 17.10 | 2.500 2.83 | 3.50 1.52
0.583 4.28 | 1.583 7.85 | 2.583 2.32 | 3.58 1.37
0.667 4.28 | 1.667 7.85 | 2.667 2.32 | 3.67 1.37
0.750 4.28 | 1.750 7.85 | 2.750 2.32 | 3.75 1.37
0.833 12.47 | 1.833 4.97 | 2.833 1.98 | 3.83 1.24
0.917 12.47 | 1.917 4.97 | 2.917 1.98 | 3.92 1.24
1.000 12.47 | 2.000 4.97 | 3.000 1.98 | 4.00 1.24

```

```

Max.Eff.Inten.(mm/hr)= 69.05 14.39
over (min)= 5.00 5.00
Storage Coeff. (min)= 2.88 (ii) 4.18 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.28 0.24

```

```

*TOTALS*
PEAK FLOW (cms)= 0.32 0.00 0.322 (iii)
TIME TO PEAK (hrs)= 1.25 1.25 1.25
RUNOFF VOLUME (mm)= 32.18 6.91 31.92
TOTAL RAINFALL (mm)= 34.18 34.18 34.18
RUNOFF COEFFICIENT = 0.94 0.20 0.93

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

```

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

```

| CALIB |
| STANDBYD ( 7651) | Area (ha)= 1.33
| ID= 1 DT= 5.0 min | Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

```

```

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.30 0.03
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.10 2.00
Length (m)= 100.00 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 1.84 | 1.083 69.05 | 2.083 3.61 | 3.08 1.72
0.167 1.84 | 1.167 69.05 | 2.167 3.61 | 3.17 1.72
0.250 1.84 | 1.250 69.05 | 2.250 3.61 | 3.25 1.72
0.333 2.57 | 1.333 17.10 | 2.333 2.83 | 3.33 1.52
0.417 2.57 | 1.417 17.10 | 2.417 2.83 | 3.42 1.52
0.500 2.57 | 1.500 17.10 | 2.500 2.83 | 3.50 1.52
0.583 4.28 | 1.583 7.85 | 2.583 2.32 | 3.58 1.37
0.667 4.28 | 1.667 7.85 | 2.667 2.32 | 3.67 1.37
0.750 4.28 | 1.750 7.85 | 2.750 2.32 | 3.75 1.37
0.833 12.47 | 1.833 4.97 | 2.833 1.98 | 3.83 1.24
0.917 12.47 | 1.917 4.97 | 2.917 1.98 | 3.92 1.24
1.000 12.47 | 2.000 4.97 | 3.000 1.98 | 4.00 1.24

```

```

Max.Eff.Inten.(mm/hr)= 69.05 14.39
over (min)= 5.00 5.00
Storage Coeff. (min)= 2.88 (ii) 4.60 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.28 0.23

```

TOTALS



PEAK FLOW (cms)= 0.25 0.00 0.250 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 32.18 6.91 31.67
 TOTAL RAINFALL (mm)= 34.18 34.18 34.18
 RUNOFF COEFFICIENT = 0.94 0.20 0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7700) |
| 1 + 2 = 3 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7620): 1.45 0.267 1.25 31.17
+ ID2= 2 ( 7629): 1.70 0.322 1.25 31.92
-----
ID = 3 ( 7700): 3.15 0.589 1.25 31.57
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7700) |
| 3 + 2 = 1 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 3 ( 7700): 3.15 0.589 1.25 31.57
+ ID2= 2 ( 7651): 1.33 0.250 1.25 31.67
-----
ID = 1 ( 7700): 4.48 0.839 1.25 31.60
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7623) | Area (ha)= 1.20
| ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00
-----
  
```

```

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.14 0.06
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.50 2.00
Length (m)= 60.00 40.00
Mannings n = 0.013 0.250
  
```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

-----
| CALIB |
| STANDHYD ( 7655) | Area (ha)= 1.32
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
  
```

```

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.31 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.10 2.00
  
```

TOTALS

PEAK FLOW (cms)= 0.22 0.00 0.221 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 32.18 7.19 30.93
 TOTAL RAINFALL (mm)= 34.18 34.18 34.18
 RUNOFF COEFFICIENT = 0.94 0.21 0.90

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7654) | Area (ha)= 1.69
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
  
```

```

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.67 0.02
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.10 2.00
Length (m)= 100.00 40.00
Mannings n = 0.013 0.250
  
```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

-----
| CALIB |
| STANDHYD ( 7655) | Area (ha)= 1.32
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
  
```

```

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.31 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.10 2.00
  
```

```

PEAK FLOW (cms)= 0.32 0.00 0.320 (iii)
TIME TO PEAK (hrs)= 1.25 1.25 1.25
RUNOFF VOLUME (mm)= 32.18 6.91 31.92
TOTAL RAINFALL (mm)= 34.18 34.18 34.18
RUNOFF COEFFICIENT = 0.94 0.20 0.93
  
```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7655) | Area (ha)= 1.32
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
  
```

```

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.31 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.10 2.00
  
```



Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	1.84	1.083	69.05	2.083	3.61	3.08	1.72
0.167	1.84	1.167	69.05	2.167	3.61	3.17	1.72
0.250	1.84	1.250	69.05	2.250	3.61	3.25	1.72
0.333	2.57	1.333	17.10	2.333	2.83	3.33	1.52
0.417	2.57	1.417	17.10	2.417	2.83	3.42	1.52
0.500	2.57	1.500	17.10	2.500	2.83	3.50	1.52
0.583	4.28	1.583	7.85	2.583	2.32	3.58	1.37
0.667	4.28	1.667	7.85	2.667	2.32	3.67	1.37
0.750	4.28	1.750	7.85	2.750	2.32	3.75	1.37
0.833	12.47	1.833	4.97	2.833	1.98	3.83	1.24
0.917	12.47	1.917	4.97	2.917	1.98	3.92	1.24
1.000	12.47	2.000	4.97	3.000	1.98	4.00	1.24

Max.Eff.Inten.(mm/hr)= 69.05 14.39
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.88 (ii) 4.18 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.28 0.24

PEAK FLOW (cms)= 0.25 0.00
 TIME TO PEAK (hrs)= 1.25 1.25
 RUNOFF VOLUME (mm)= 32.18 6.91
 TOTAL RAINFALL (mm)= 34.18 34.18
 RUNOFF COEFFICIENT = 0.94 0.20

TOTALS
 PEAK FLOW (cms)= 0.25 0.00 0.250 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 32.18 6.91 31.92
 TOTAL RAINFALL (mm)= 34.18 34.18 34.18
 RUNOFF COEFFICIENT = 0.94 0.20 0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 STANDHYD (7662) Area (ha)= 1.61
 ID= 1 DT= 5.0 min Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.48 0.13
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 145.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	1.84	1.083	69.05	2.083	3.61	3.08	1.72
0.167	1.84	1.167	69.05	2.167	3.61	3.17	1.72
0.250	1.84	1.250	69.05	2.250	3.61	3.25	1.72
0.333	2.57	1.333	17.10	2.333	2.83	3.33	1.52
0.417	2.57	1.417	17.10	2.417	2.83	3.42	1.52
0.500	2.57	1.500	17.10	2.500	2.83	3.50	1.52
0.583	4.28	1.583	7.85	2.583	2.32	3.58	1.37
0.667	4.28	1.667	7.85	2.667	2.32	3.67	1.37
0.750	4.28	1.750	7.85	2.750	2.32	3.75	1.37
0.833	12.47	1.833	4.97	2.833	1.98	3.83	1.24
0.917	12.47	1.917	4.97	2.917	1.98	3.92	1.24
1.000	12.47	2.000	4.97	3.000	1.98	4.00	1.24

Max.Eff.Inten.(mm/hr)= 69.05 5.95
 over (min) = 5.00 5.00

Storage Coeff. (min)= 2.88 (ii) 50.14 (ii)
 Unit Hyd. Tpeak (min)= 5.00 55.00
 Unit Hyd. peak (cms)= 0.28 0.02

TOTALS
 PEAK FLOW (cms)= 0.28 0.00 0.283 (iii)
 TIME TO PEAK (hrs)= 1.25 2.17 1.25
 RUNOFF VOLUME (mm)= 32.18 6.91 30.14
 TOTAL RAINFALL (mm)= 34.18 34.18 34.18
 RUNOFF COEFFICIENT = 0.94 0.20 0.88

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7701)
 1 + 2 = 3 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7654): 1.69 0.320 1.25 31.92
 + ID2= 2 (7655): 1.32 0.250 1.25 31.92
 ID= 3 (7701): 3.01 0.570 1.25 31.92

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7701)
 3 + 2 = 1 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7701): 3.01 0.570 1.25 31.92
 + ID2= 2 (7662): 1.61 0.283 1.25 30.14
 ID= 1 (7701): 4.62 0.853 1.25 31.30

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
 STANDHYD (7707) Area (ha)= 1.06
 ID= 1 DT= 5.0 min Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.01 0.05
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 2.50 2.00
 Length (m)= 60.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	1.84	1.083	69.05	2.083	3.61	3.08	1.72
0.167	1.84	1.167	69.05	2.167	3.61	3.17	1.72
0.250	1.84	1.250	69.05	2.250	3.61	3.25	1.72
0.333	2.57	1.333	17.10	2.333	2.83	3.33	1.52
0.417	2.57	1.417	17.10	2.417	2.83	3.42	1.52
0.500	2.57	1.500	17.10	2.500	2.83	3.50	1.52
0.583	4.28	1.583	7.85	2.583	2.32	3.58	1.37
0.667	4.28	1.667	7.85	2.667	2.32	3.67	1.37
0.750	4.28	1.750	7.85	2.750	2.32	3.75	1.37
0.833	12.47	1.833	4.97	2.833	1.98	3.83	1.24
0.917	12.47	1.917	4.97	2.917	1.98	3.92	1.24
1.000	12.47	2.000	4.97	3.000	1.98	4.00	1.24

Max.Eff.Inten.(mm/hr)= 69.05 15.01
 over (min) = 5.00 5.00

Storage Coeff. (min)= 1.66 (ii) 4.18 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.24

PEAK FLOW (cms)= 0.19 0.00
 TIME TO PEAK (hrs)= 1.25 1.25
 RUNOFF VOLUME (mm)= 32.18 7.19
 TOTAL RAINFALL (mm)= 34.18 34.18
 RUNOFF COEFFICIENT = 0.94 0.21

TOTALS
 0.195 (iii)
 1.25
 30.93
 34.18
 0.90

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7702)
 1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7623):	1.20	0.221	1.25	30.93
+ ID2= 2 (7700):	4.48	0.839	1.25	31.60
ID = 3 (7702):	5.68	1.060	1.25	31.46

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)
 3 + 2 = 1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (7702):	5.68	1.060	1.25	31.46
+ ID2= 2 (7701):	4.62	0.853	1.25	31.30
ID = 1 (7702):	10.30	1.913	1.25	31.39

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)
 1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7702):	10.30	1.913	1.25	31.39
+ ID2= 2 (7707):	1.06	0.195	1.25	30.93
ID = 3 (7702):	11.36	2.109	1.25	31.35

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)
 3 + 2 = 1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (7702):	11.36	2.109	1.25	31.35
+ ID2= 2 (7714):	14.31	1.074	1.25	32.90
ID = 1 (7702):	25.67	3.183	1.25	32.21

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7705)
 IN= 2---> OUT= 1
 DT= 5.0 min

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.6280	2.3980
0.0730	0.2080	0.6400	2.4830
0.0890	0.2770	0.6520	2.5670
0.1340	0.5530	0.6640	2.6500

0.2910	0.8290	0.6750	2.7340
0.3860	1.1060	0.7190	3.0490
0.4590	1.3820	0.8250	3.3550
0.5220	1.7210	0.2760	3.4560
0.5780	2.0600	2.3560	3.7320

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7702)	25.670	3.183	1.25	32.21
OUTFLOW: ID= 1 (7705)	25.670	0.142	5.17	32.19

PEAK FLOW REDUCTION [Qout/Qin](%) = 4.47
 TIME SHIFT OF PEAK FLOW (min) = 235.00
 MAXIMUM STORAGE USED (ha.m.) = 0.5678

CALIB
 STANDHYD (7716)
 ID= 1 DT= 5.0 min

	Area (ha)	Total Imp (%)	Dir. Conn. (%)
	0.19	95.00	95.00

	IMPERVIOUS (ha)	PERVIOUS (i) (mm)
Surface Area	0.18	0.01
Dep. Storage	2.00	5.00
Average Slope	2.50	2.00
Length	60.00	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	1.84	1.083	69.05	2.083	3.61	3.08	1.72
0.167	1.84	1.167	69.05	2.167	3.61	3.17	1.72
0.250	1.84	1.250	69.05	2.250	3.61	3.25	1.72
0.333	2.57	1.333	17.10	2.333	2.83	3.33	1.52
0.417	2.57	1.417	17.10	2.417	2.83	3.42	1.52
0.500	2.57	1.500	17.10	2.500	2.83	3.50	1.52
0.583	4.28	1.583	7.85	2.583	2.32	3.58	1.37
0.667	4.28	1.667	7.85	2.667	2.32	3.67	1.37
0.750	4.28	1.750	7.85	2.750	2.32	3.75	1.37
0.833	12.47	1.833	4.97	2.833	1.98	3.83	1.24
0.917	12.47	1.917	4.97	2.917	1.98	3.92	1.24
1.000	12.47	2.000	4.97	3.000	1.98	4.00	1.24

Max.Eff.Inten. (mm/hr)= 69.05 15.01
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.66 (ii) 4.18 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.24

TOTALS
 PEAK FLOW (cms)= 0.03 0.00 0.035 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 32.18 7.19 30.92
 TOTAL RAINFALL (mm)= 34.18 34.18 34.18
 RUNOFF COEFFICIENT = 0.94 0.21 0.90

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7720)
 IN= 2---> OUT= 1
 DT= 5.0 min

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.0100	0.0090
0.0030	0.0010	0.0110	0.0100
0.0050	0.0030	0.0120	0.0110

0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

AREA	QPEAK	TPEAK	R.V.
(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7716)	0.190	0.035	1.25
OUTFLOW: ID= 1 (7720)	0.190	0.006	1.58
			30.92
			30.52

PEAK FLOW REDUCTION [Qout/Qin](%)= 15.92
 TIME SHIFT OF PEAK FLOW (min)= 20.00
 MAXIMUM STORAGE USED (ha.m.)= 0.0036

0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

AREA	QPEAK	TPEAK	R.V.
(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7717)	0.200	0.037	1.25
OUTFLOW: ID= 1 (7719)	0.200	0.006	1.58
			30.93
			30.53

PEAK FLOW REDUCTION [Qout/Qin](%)= 15.68
 TIME SHIFT OF PEAK FLOW (min)= 20.00
 MAXIMUM STORAGE USED (ha.m.)= 0.0038

CALIB |
 STANDHYD (7717) | Area (ha)= 0.20
 ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00

IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.19
Dep. Storage (mm)=	2.00
Average Slope (%)=	2.50
Length (m)=	36.51
Mannings n =	0.013
	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	1.84	1.083	69.05	2.083	3.61	3.08	1.72
0.167	1.84	1.167	69.05	2.167	3.61	3.17	1.72
0.250	1.84	1.250	69.05	2.250	3.61	3.25	1.72
0.333	2.57	1.333	17.10	2.333	2.83	3.33	1.52
0.417	2.57	1.417	17.10	2.417	2.83	3.42	1.52
0.500	2.57	1.500	17.10	2.500	2.83	3.50	1.52
0.583	4.28	1.583	7.85	2.583	2.32	3.58	1.37
0.667	4.28	1.667	7.85	2.667	2.32	3.67	1.37
0.750	4.28	1.750	7.85	2.750	2.32	3.75	1.37
0.833	12.47	1.833	4.97	2.833	1.98	3.83	1.24
0.917	12.47	1.917	4.97	2.917	1.98	3.92	1.24
1.000	12.47	2.000	4.97	3.000	1.98	4.00	1.24

Max.Eff.Inten.(mm/hr)=	69.05	15.01
over (min)	5.00	5.00
Storage Coeff. (min)=	1.23 (ii)	3.75 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.25

TOTALS

PEAK FLOW (cms)=	0.04	0.00	0.037 (iii)
TIME TO PEAK (hrs)=	1.25	1.25	
RUNOFF VOLUME (mm)=	32.18	7.19	30.93
TOTAL RAINFALL (mm)=	34.18	34.18	34.18
RUNOFF COEFFICIENT =	0.94	0.21	0.90

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7719) | OVERFLOW IS OFF
 IN= 2---> OUT= 1 |
 DT= 5.0 min |

OUTFLOW	STORAGE	OUTFLOW	STORAGE
(cms)	(ha.m.)	(cms)	(ha.m.)
0.0000	0.0000	0.0100	0.0090
0.0030	0.0010	0.0110	0.0100
0.0050	0.0030	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130

ADD HYD (7706) |
 1 + 2 = 3 |

AREA	QPEAK	TPEAK	R.V.
(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7705):	25.67	0.142	5.17
+ ID2= 2 (7719):	0.20	0.006	1.58
			30.53
ID = 3 (7706):	25.87	0.144	5.08
			32.17

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7706) |
 3 + 2 = 1 |

AREA	QPEAK	TPEAK	R.V.
(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7706):	25.87	0.144	5.08
+ ID2= 2 (7720):	0.19	0.006	1.58
			30.52
ID = 1 (7706):	26.06	0.145	5.00
			32.16

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB |
 STANDHYD (7595) | Area (ha)= 1.24
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.23
Dep. Storage (mm)=	2.00
Average Slope (%)=	2.00
Length (m)=	91.00
Mannings n =	0.013
	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	1.84	1.083	69.05	2.083	3.61	3.08	1.72
0.167	1.84	1.167	69.05	2.167	3.61	3.17	1.72
0.250	1.84	1.250	69.05	2.250	3.61	3.25	1.72
0.333	2.57	1.333	17.10	2.333	2.83	3.33	1.52
0.417	2.57	1.417	17.10	2.417	2.83	3.42	1.52
0.500	2.57	1.500	17.10	2.500	2.83	3.50	1.52
0.583	4.28	1.583	7.85	2.583	2.32	3.58	1.37
0.667	4.28	1.667	7.85	2.667	2.32	3.67	1.37
0.750	4.28	1.750	7.85	2.750	2.32	3.75	1.37
0.833	12.47	1.833	4.97	2.833	1.98	3.83	1.24
0.917	12.47	1.917	4.97	2.917	1.98	3.92	1.24
1.000	12.47	2.000	4.97	3.000	1.98	4.00	1.24

Max.Eff.Inten.(mm/hr)=	69.05	14.39
over (min)	5.00	5.00
Storage Coeff. (min)=	2.27 (ii)	3.58 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.30	0.26

TOTALS

PEAK FLOW (cms)=	0.24	0.00	0.236 (iii)
------------------	------	------	-------------

TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 32.18 6.91 31.92
 TOTAL RAINFALL (mm)= 34.18 34.18 34.18
 RUNOFF COEFFICIENT = 0.94 0.20 0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7718) |
| 1 + 2 = 3 |
-----
      AREA   QPEAK   TPEAK   R.V.
      (ha)   (cms)   (hrs)   (mm)
ID1= 1 ( 7595):  1.24  0.236  1.25  31.92
+ ID2= 2 ( 7706): 26.06  0.145  5.00  32.16
-----
ID = 3 ( 7718):  27.30  0.332  1.25  32.15
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| RESERVOIR( 7711) | OVERFLOW IS OFF
| IN= 2--> OUT= 1 |
| DT= 5.0 min |
-----
      OUTFLOW   STORAGE | OUTFLOW   STORAGE
      (cms)   (ha.m.) | (cms)   (ha.m.)
0.0000  0.0000 | 1.0810  1.6220
0.0010  0.1670 | 1.3950  1.8170
0.0340  0.3380 | 2.0990  2.2130
0.0510  0.5110 | 2.8950  2.6150
0.0630  0.6880 | 3.7730  3.0250
0.1610  0.8670 | 4.7260  3.4420
0.3300  1.0500 | 5.5670  3.8670
0.5440  1.2370 | 8.5800  4.3000
0.7970  1.4290 | 10.9450 4.5210
-----
      AREA   QPEAK   TPEAK   R.V.
      (ha)   (cms)   (hrs)   (mm)
INFLOW : ID= 2 ( 7718) 27.302  0.332  1.25  32.15
OUTFLOW: ID= 1 ( 7711) 27.302  0.051  19.25  26.95
  
```

PEAK FLOW REDUCTION [Qout/Qin](%)= 15.52
 TIME SHIFT OF PEAK FLOW (min)=*****
 MAXIMUM STORAGE USED (ha.m.)= 0.5180



```

=====
*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | ' hrs mm/hr | hrs mm/hr
0.083 2.85 | 1.083 90.91 | 2.083 5.74 | 3.08 2.65
0.167 2.85 | 1.167 90.91 | 2.167 5.74 | 3.17 2.65
0.250 2.85 | 1.250 90.91 | 2.250 5.74 | 3.25 2.65
0.333 4.04 | 1.333 26.99 | 2.333 4.46 | 3.33 2.33
0.417 4.04 | 1.417 26.99 | 2.417 4.46 | 3.42 2.33
0.500 4.04 | 1.500 26.99 | 2.500 4.46 | 3.50 2.33
0.583 6.85 | 1.583 12.67 | 2.583 3.63 | 3.58 2.09
0.667 6.85 | 1.667 12.67 | 2.667 3.63 | 3.67 2.09
0.750 6.85 | 1.750 12.67 | 2.750 3.63 | 3.75 2.09
0.833 19.82 | 1.833 7.98 | 2.833 3.07 | 3.83 1.89
0.917 19.82 | 1.917 7.98 | 2.917 3.07 | 3.92 1.89
1.000 19.82 | 2.000 7.98 | 3.000 3.07 | 4.00 1.89

```

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\91b4bd47-e3f1-4e89-8d20-c99239df9b42\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\91b4bd47-e3f1-4e89-8d20-c99239df9b42\scen

```

DATE: 11-22-2024 TIME: 12:17:34

USER:

COMMENTS: _____

```

Max.Eff.Inten.(mm/hr)= 90.91 27.21
over (min) = 5.00 5.00
Storage Coeff. (min)= 1.63 (ii) 2.80 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.32 0.28

*TOTALS*
PEAK FLOW (cms)= 0.15 0.00 0.148 (iii)
TIME TO PEAK (hrs)= 1.25 1.25 1.25
RUNOFF VOLUME (mm)= 47.49 14.30 47.16
TOTAL RAINFALL (mm)= 49.49 49.49 49.49
RUNOFF COEFFICIENT = 0.96 0.29 0.95

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

*****
** SIMULATION : H - 5yr 4hr 15min Chicago **
*****

```

```

| CHICAGO STORM | IDF curve parameters: A=1593.000
| Ptotal= 49.49 mm | B= 11.000
| | C= 0.879
-----
used in: INTENSITY = A / (t + B)^C

Duration of storm = 4.00 hrs
Storm time step = 15.00 min
Time to peak ratio = 0.33

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	mm/hr
0.00	2.85	1.00	90.91	2.00	5.74	3.00	2.65
0.25	4.04	1.25	26.99	2.25	4.46	3.25	2.33
0.50	6.85	1.50	12.67	2.50	3.63	3.50	2.09
0.75	19.82	1.75	7.98	2.75	3.07	3.75	1.89

```

| CALIB |
| NASHYD ( 7721) | Area (ha)= 0.21 Curve Number (CN)= 73.0
| ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res. (N)= 3.00
| U.H. Tp (hrs)= 0.17

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | ' hrs mm/hr | hrs mm/hr
0.083 2.85 | 1.083 90.91 | 2.083 5.74 | 3.08 2.65
0.167 2.85 | 1.167 90.91 | 2.167 5.74 | 3.17 2.65
0.250 2.85 | 1.250 90.91 | 2.250 5.74 | 3.25 2.65
0.333 4.04 | 1.333 26.99 | 2.333 4.46 | 3.33 2.33
0.417 4.04 | 1.417 26.99 | 2.417 4.46 | 3.42 2.33
0.500 4.04 | 1.500 26.99 | 2.500 4.46 | 3.50 2.33
0.583 6.85 | 1.583 12.67 | 2.583 3.63 | 3.58 2.09
0.667 6.85 | 1.667 12.67 | 2.667 3.63 | 3.67 2.09
0.750 6.85 | 1.750 12.67 | 2.750 3.63 | 3.75 2.09
0.833 19.82 | 1.833 7.98 | 2.833 3.07 | 3.83 1.89
0.917 19.82 | 1.917 7.98 | 2.917 3.07 | 3.92 1.89
1.000 19.82 | 2.000 7.98 | 3.000 3.07 | 4.00 1.89

```

Unit Hyd Qpeak (cms)= 0.047

```

PEAK FLOW (cms)= 0.010 (i)
TIME TO PEAK (hrs)= 1.333
RUNOFF VOLUME (mm)= 14.244
TOTAL RAINFALL (mm)= 49.488
RUNOFF COEFFICIENT = 0.288

```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

| CALIB |
| STANDHYD ( 7640) | Area (ha)= 0.59
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

```

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.58	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	62.72	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

| CALIB |

```




STANDHYD (7599) | Area (ha)= 10.90
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 10.79 0.11
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 269.57 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.85	1.083	90.91	2.083	5.74	3.08	2.65
0.167	2.85	1.167	90.91	2.167	5.74	3.17	2.65
0.250	2.85	1.250	90.91	2.250	5.74	3.25	2.65
0.333	4.04	1.333	26.99	2.333	4.46	3.33	2.33
0.417	4.04	1.417	26.99	2.417	4.46	3.42	2.33
0.500	4.04	1.500	26.99	2.500	4.46	3.50	2.33
0.583	6.85	1.583	12.67	2.583	3.63	3.58	2.09
0.667	6.85	1.667	12.67	2.667	3.63	3.67	2.09
0.750	6.85	1.750	12.67	2.750	3.63	3.75	2.09
0.833	19.82	1.833	7.98	2.833	3.07	3.83	1.89
0.917	19.82	1.917	7.98	2.917	3.07	3.92	1.89
1.000	19.82	2.000	7.98	3.000	3.07	4.00	1.89

Max.Eff.Inten.(mm/hr)= 90.91 27.21
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 4.81 (ii) 5.98 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.22 0.15

TOTALS
 PEAK FLOW (cms)= 2.63 0.01 2.636 (iii)
 TIME TO PEAK (hrs)= 1.25 1.33 1.25
 RUNOFF VOLUME (mm)= 47.49 14.30 47.16
 TOTAL RAINFALL (mm)= 49.49 49.49 49.49
 RUNOFF COEFFICIENT = 0.96 0.29 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7722)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7599):	10.90	2.636	1.25	47.16
+ ID2= 2 (7721):	0.21	0.010	1.33	14.24
ID = 3 (7722):	11.11	2.644	1.25	46.54

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7685)	OVERFLOW IS OFF			
IN= 2---> OUT= 1	OUTFLOW	STORAGE	OUTFLOW	STORAGE
DT= 5.0 min	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.1390	0.6960
	0.0590	0.3400	0.1630	0.7780
	0.0900	0.4907	0.1840	0.8800
	0.1110	0.5760	0.0000	0.0000
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7722)	11.108	2.644	1.25	46.54
OUTFLOW: ID= 1 (7685)	11.108	0.080	3.25	46.41

PEAK FLOW REDUCTION [Qout/Qin](%)= 3.02
 TIME SHIFT OF PEAK FLOW (min)=120.00
 MAXIMUM STORAGE USED (ha.m.)= 0.4419

CALIB
 STANDHYD (7591) | Area (ha)= 11.38
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 11.27 0.11
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 275.44 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.85	1.083	90.91	2.083	5.74	3.08	2.65
0.167	2.85	1.167	90.91	2.167	5.74	3.17	2.65
0.250	2.85	1.250	90.91	2.250	5.74	3.25	2.65
0.333	4.04	1.333	26.99	2.333	4.46	3.33	2.33
0.417	4.04	1.417	26.99	2.417	4.46	3.42	2.33
0.500	4.04	1.500	26.99	2.500	4.46	3.50	2.33
0.583	6.85	1.583	12.67	2.583	3.63	3.58	2.09
0.667	6.85	1.667	12.67	2.667	3.63	3.67	2.09
0.750	6.85	1.750	12.67	2.750	3.63	3.75	2.09
0.833	19.82	1.833	7.98	2.833	3.07	3.83	1.89
0.917	19.82	1.917	7.98	2.917	3.07	3.92	1.89
1.000	19.82	2.000	7.98	3.000	3.07	4.00	1.89

Max.Eff.Inten.(mm/hr)= 90.91 27.21
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 4.87 (ii) 6.04 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.22 0.15

TOTALS
 PEAK FLOW (cms)= 2.74 0.01 2.748 (iii)
 TIME TO PEAK (hrs)= 1.25 1.33 1.25
 RUNOFF VOLUME (mm)= 47.49 14.30 47.16
 TOTAL RAINFALL (mm)= 49.49 49.49 49.49
 RUNOFF COEFFICIENT = 0.96 0.29 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7593)	OVERFLOW IS OFF			
IN= 2---> OUT= 1	OUTFLOW	STORAGE	OUTFLOW	STORAGE
DT= 5.0 min	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.1990	0.6950
	0.0830	0.3500	0.2320	0.8000
	0.1280	0.4850	0.2620	0.9000
	0.1580	0.5900	0.0000	0.0000
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7591)	11.380	2.748	1.25	47.16
OUTFLOW: ID= 1 (7593)	11.380	0.113	2.75	47.06

PEAK FLOW REDUCTION [Qout/Qin](%)= 4.12
 TIME SHIFT OF PEAK FLOW (min)= 90.00
 MAXIMUM STORAGE USED (ha.m.)= 0.4404

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

ADD HYD (7643)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7593):	11.38	0.113	2.75	47.06
+ ID2= 2 (7685):	11.11	0.080	3.25	46.41
ID = 3 (7643):	22.49	0.193	2.83	46.74

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7590)	2.39	99.00
ID= 1 DT= 5.0 min		

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	2.37	0.02
Dep. Storage (mm)	1.00	5.00
Average Slope (%)	1.00	2.00
Length (m)	20.00	20.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.85	1.083	90.91	2.083	5.74	3.08	2.65
0.167	2.85	1.167	90.91	2.167	5.74	3.17	2.65
0.250	2.85	1.250	90.91	2.250	5.74	3.25	2.65
0.333	4.04	1.333	26.99	2.333	4.46	3.33	2.33
0.417	4.04	1.417	26.99	2.417	4.46	3.42	2.33
0.500	4.04	1.500	26.99	2.500	4.46	3.50	2.33
0.583	6.85	1.583	12.67	2.583	3.63	3.58	2.09
0.667	6.85	1.667	12.67	2.667	3.63	3.67	2.09
0.750	6.85	1.750	12.67	2.750	3.63	3.75	2.09
0.833	19.82	1.833	7.98	2.833	3.07	3.83	1.89
0.917	19.82	1.917	7.98	2.917	3.07	3.92	1.89
1.000	19.82	2.000	7.98	3.000	3.07	4.00	1.89

Max.Eff.Inten. (mm/hr)=	90.91	27.21
over (min)	5.00	5.00
Storage Coeff. (min)=	1.01 (ii)	1.78 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.32
PEAK FLOW (cms)=	0.60	0.00
TIME TO PEAK (hrs)=	1.25	1.25
RUNOFF VOLUME (mm)=	48.49	14.30
TOTAL RAINFALL (mm)=	49.49	49.49
RUNOFF COEFFICIENT =	0.98	0.29

TOTALS		
PEAK FLOW (cms)	0.600	(iii)
TIME TO PEAK (hrs)	1.25	
RUNOFF VOLUME (mm)	48.14	
TOTAL RAINFALL (mm)	49.49	
RUNOFF COEFFICIENT =	0.97	

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7632)	2.36	99.00
ID= 1 DT= 5.0 min		

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	2.34	0.02
Dep. Storage (mm)	1.00	5.00
Average Slope (%)	1.00	2.00
Length (m)	20.00	20.00

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.85	1.083	90.91	2.083	5.74	3.08	2.65
0.167	2.85	1.167	90.91	2.167	5.74	3.17	2.65
0.250	2.85	1.250	90.91	2.250	5.74	3.25	2.65
0.333	4.04	1.333	26.99	2.333	4.46	3.33	2.33
0.417	4.04	1.417	26.99	2.417	4.46	3.42	2.33
0.500	4.04	1.500	26.99	2.500	4.46	3.50	2.33
0.583	6.85	1.583	12.67	2.583	3.63	3.58	2.09
0.667	6.85	1.667	12.67	2.667	3.63	3.67	2.09
0.750	6.85	1.750	12.67	2.750	3.63	3.75	2.09
0.833	19.82	1.833	7.98	2.833	3.07	3.83	1.89
0.917	19.82	1.917	7.98	2.917	3.07	3.92	1.89
1.000	19.82	2.000	7.98	3.000	3.07	4.00	1.89

Max.Eff.Inten. (mm/hr)=	90.91	27.21
over (min)	5.00	5.00
Storage Coeff. (min)=	1.01 (ii)	1.78 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.32

PEAK FLOW (cms)=	0.59	0.00
TIME TO PEAK (hrs)=	1.25	1.25
RUNOFF VOLUME (mm)=	48.49	14.30
TOTAL RAINFALL (mm)=	49.49	49.49
RUNOFF COEFFICIENT =	0.98	0.29

TOTALS		
PEAK FLOW (cms)	0.592	(iii)
TIME TO PEAK (hrs)	1.25	
RUNOFF VOLUME (mm)	48.14	
TOTAL RAINFALL (mm)	49.49	
RUNOFF COEFFICIENT =	0.97	

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7644)	2.40	99.00
ID= 1 DT= 5.0 min		

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	2.38	0.02
Dep. Storage (mm)	1.00	5.00
Average Slope (%)	1.00	2.00
Length (m)	20.00	20.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.85	1.083	90.91	2.083	5.74	3.08	2.65
0.167	2.85	1.167	90.91	2.167	5.74	3.17	2.65
0.250	2.85	1.250	90.91	2.250	5.74	3.25	2.65
0.333	4.04	1.333	26.99	2.333	4.46	3.33	2.33
0.417	4.04	1.417	26.99	2.417	4.46	3.42	2.33
0.500	4.04	1.500	26.99	2.500	4.46	3.50	2.33
0.583	6.85	1.583	12.67	2.583	3.63	3.58	2.09
0.667	6.85	1.667	12.67	2.667	3.63	3.67	2.09
0.750	6.85	1.750	12.67	2.750	3.63	3.75	2.09
0.833	19.82	1.833	7.98	2.833	3.07	3.83	1.89
0.917	19.82	1.917	7.98	2.917	3.07	3.92	1.89
1.000	19.82	2.000	7.98	3.000	3.07	4.00	1.89

Max.Eff.Inten. (mm/hr)=	90.91	27.21
over (min)	5.00	5.00
Storage Coeff. (min)=	1.01 (ii)	1.78 (ii)



Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

TOTALS
 PEAK FLOW (cms)= 0.60 0.00 0.602 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 48.49 14.30 48.14
 TOTAL RAINFALL (mm)= 49.49 49.49 49.49
 RUNOFF COEFFICIENT = 0.98 0.29 0.97

Surface Area (ha)= 2.37 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7652) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.38 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.85	1.083	90.91	2.083	5.74	3.08	2.65
0.167	2.85	1.167	90.91	2.167	5.74	3.17	2.65
0.250	2.85	1.250	90.91	2.250	5.74	3.25	2.65
0.333	4.04	1.333	26.99	2.333	4.46	3.33	2.33
0.417	4.04	1.417	26.99	2.417	4.46	3.42	2.33
0.500	4.04	1.500	26.99	2.500	4.46	3.50	2.33
0.583	6.85	1.583	12.67	2.583	3.63	3.58	2.09
0.667	6.85	1.667	12.67	2.667	3.63	3.67	2.09
0.750	6.85	1.750	12.67	2.750	3.63	3.75	2.09
0.833	19.82	1.833	7.98	2.833	3.07	3.83	1.89
0.917	19.82	1.917	7.98	2.917	3.07	3.92	1.89
1.000	19.82	2.000	7.98	3.000	3.07	4.00	1.89

Max.Eff.Inten.(mm/hr)= 90.91 27.21
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.01 (ii) 1.78 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

TOTALS
 PEAK FLOW (cms)= 0.60 0.00 0.602 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 48.49 14.30 48.14
 TOTAL RAINFALL (mm)= 49.49 49.49 49.49
 RUNOFF COEFFICIENT = 0.98 0.29 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7661) | Area (ha)= 2.39
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.85	1.083	90.91	2.083	5.74	3.08	2.65
0.167	2.85	1.167	90.91	2.167	5.74	3.17	2.65
0.250	2.85	1.250	90.91	2.250	5.74	3.25	2.65
0.333	4.04	1.333	26.99	2.333	4.46	3.33	2.33
0.417	4.04	1.417	26.99	2.417	4.46	3.42	2.33
0.500	4.04	1.500	26.99	2.500	4.46	3.50	2.33
0.583	6.85	1.583	12.67	2.583	3.63	3.58	2.09
0.667	6.85	1.667	12.67	2.667	3.63	3.67	2.09
0.750	6.85	1.750	12.67	2.750	3.63	3.75	2.09
0.833	19.82	1.833	7.98	2.833	3.07	3.83	1.89
0.917	19.82	1.917	7.98	2.917	3.07	3.92	1.89
1.000	19.82	2.000	7.98	3.000	3.07	4.00	1.89

Max.Eff.Inten.(mm/hr)= 90.91 27.21
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.01 (ii) 1.78 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

TOTALS
 PEAK FLOW (cms)= 0.60 0.00 0.600 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 48.49 14.30 48.14
 TOTAL RAINFALL (mm)= 49.49 49.49 49.49
 RUNOFF COEFFICIENT = 0.98 0.29 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7671) | Area (ha)= 2.37
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.35 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.85	1.083	90.91	2.083	5.74	3.08	2.65
0.167	2.85	1.167	90.91	2.167	5.74	3.17	2.65
0.250	2.85	1.250	90.91	2.250	5.74	3.25	2.65
0.333	4.04	1.333	26.99	2.333	4.46	3.33	2.33
0.417	4.04	1.417	26.99	2.417	4.46	3.42	2.33
0.500	4.04	1.500	26.99	2.500	4.46	3.50	2.33
0.583	6.85	1.583	12.67	2.583	3.63	3.58	2.09
0.667	6.85	1.667	12.67	2.667	3.63	3.67	2.09
0.750	6.85	1.750	12.67	2.750	3.63	3.75	2.09
0.833	19.82	1.833	7.98	2.833	3.07	3.83	1.89
0.917	19.82	1.917	7.98	2.917	3.07	3.92	1.89
1.000	19.82	2.000	7.98	3.000	3.07	4.00	1.89

```

Max.Eff.Inten.(mm/hr)= 90.91 27.21
over (min) = 5.00 5.00
Storage Coeff. (min)= 1.01 (ii) 1.78 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.32

PEAK FLOW (cms)= 0.59 0.00 **TOTALS*
TIME TO PEAK (hrs)= 1.25 1.25 0.595 (iii)
RUNOFF VOLUME (mm)= 48.49 14.30 1.25
TOTAL RAINFALL (mm)= 49.49 49.49 48.14
RUNOFF COEFFICIENT = 0.98 0.29 0.97
  
```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7698) |
| 1 + 2 = 3 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7590): 2.39 0.600 1.25 48.14
+ ID2= 2 ( 7632): 2.36 0.592 1.25 48.14
-----
ID = 3 ( 7698): 4.75 1.192 1.25 48.14
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7698) |
| 3 + 2 = 1 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 3 ( 7698): 4.75 1.192 1.25 48.14
+ ID2= 2 ( 7644): 2.40 0.602 1.25 48.14
-----
ID = 1 ( 7698): 7.15 1.794 1.25 48.14
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7698) |
| 1 + 2 = 3 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7698): 7.15 1.794 1.25 48.14
+ ID2= 2 ( 7652): 2.40 0.602 1.25 48.14
-----
ID = 3 ( 7698): 9.55 2.396 1.25 48.14
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7698) |
| 3 + 2 = 1 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 3 ( 7698): 9.55 2.396 1.25 48.14
+ ID2= 2 ( 7661): 2.39 0.600 1.25 48.14
-----
ID = 1 ( 7698): 11.94 2.995 1.25 48.14
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7698) |
| 1 + 2 = 3 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7698): 11.94 2.995 1.25 48.14
  
```

```

+ ID2= 2 ( 7671): 2.37 0.595 1.25 48.14
-----
ID = 3 ( 7698): 14.31 3.590 1.25 48.14
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| DIVERTHYD ( 7713) |
| IN= 1 # OUT= 5 |
  
```

Outflow / Inflow Relationships

```

Flow 1 + Flow 2 + Flow 3 + Flow 4 + Flow 5 = Total
(cms) (cms) (cms) (cms) (cms) (cms)
0.00 0.00 0.00 0.00 0.00 0.00
0.27 0.00 0.00 0.00 0.00 0.27
1.00 0.00 0.00 0.00 0.00 1.00
4.00 3.00 0.00 0.00 0.00 7.00
  
```

```

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
TOTAL HYD. (ID= 1): 14.31 3.59 1.25 48.14
-----
ID= 2 ( 2) : 11.83 2.29 1.25 48.14
ID= 3 ( 2) : 2.48 1.29 1.25 48.14
ID= 4 ( 2) : 0.00 0.00 0.00 0.00
ID= 5 ( 2) : 0.00 0.00 0.00 0.00
ID= 6 ( 2) : 0.00 0.00 0.00 0.00
  
```

```

| RESERVOIR ( 7699) |
| IN= 2--> OUT= 1 |
| DT= 5.0 min |
  
```

OVERFLOW IS ON

```

OUTFLOW STORAGE | OUTFLOW STORAGE
(cms) (ha.m.) | (cms) (ha.m.)
0.0000 0.0000 | 0.2690 0.4589
0.1980 0.1112 | 0.0000 0.0000
  
```

```

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 2 ( 7713) 11.829 2.295 1.25 48.14
OUTFLOW: ID= 1 ( 7699) 11.829 0.252 2.08 48.13
OVERFLOW: ID= 3 ( 0003) 0.000 0.000 0.00 0.00
  
```

```

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
PERCENTAGE OF TIME OVERFLOWING (%) = 0.00
  
```

```

PEAK FLOW REDUCTION [Qout/Qin](%) = 11.00
TIME SHIFT OF PEAK FLOW (min) = 50.00
MAXIMUM STORAGE USED (ha.m.) = 0.3780
  
```

```

| Junction Command(7715) |
  
```

```

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 3( 7699) 0.00 0.00 0.00 0.00
OUTFLOW: ID= 2( 7715) 0.00 0.00 0.00 0.00
  
```

```

-----
| ADD HYD ( 7714) |
| 1 + 2 = 3 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7699): 11.83 0.252 2.08 48.13
+ ID2= 2 ( 7713): 2.48 1.295 1.25 48.14
-----
ID = 3 ( 7714): 14.31 1.521 1.25 48.14
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.



```

-----
| ADD HYD ( 7714) |
| 3 + 2 = 1 |
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
*** W A R N I N G : HYDROGRAPH 7715 <ID= 2> IS DRY.
*** W A R N I N G : HYDROGRAPH 0001 = HYDROGRAPH 0003
ID1= 3 ( 7714):  14.31  1.521  1.25  48.14
+ ID2= 2 ( 7715):  0.00  0.000  0.00  0.00
-----
ID = 1 ( 7714):  14.31  1.521  1.25  48.14

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7620) |
| ID= 1 DT= 5.0 min |
-----
          Area (ha)= 1.45
          Total Imp(%)= 96.00 Dir. Conn.(%)= 96.00
-----
          IMPERVIOUS   PERVIOUS (i)
Surface Area (ha)= 1.39 0.06
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.10 2.00
Length (m)= 100.00 145.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

-----
          TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
          hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 2.85 | 1.083 90.91 | 2.083 5.74 | 3.08 2.65
0.167 2.85 | 1.167 90.91 | 2.167 5.74 | 3.17 2.65
0.250 2.85 | 1.250 90.91 | 2.250 5.74 | 3.25 2.65
0.333 4.04 | 1.333 26.99 | 2.333 4.46 | 3.33 2.33
0.417 4.04 | 1.417 26.99 | 2.417 4.46 | 3.42 2.33
0.500 4.04 | 1.500 26.99 | 2.500 4.46 | 3.50 2.33
0.583 6.85 | 1.583 12.67 | 2.583 3.63 | 3.58 2.09
0.667 6.85 | 1.667 12.67 | 2.667 3.63 | 3.67 2.09
0.750 6.85 | 1.750 12.67 | 2.750 3.63 | 3.75 2.09
0.833 19.82 | 1.833 7.98 | 2.833 3.07 | 3.83 1.89
0.917 19.82 | 1.917 7.98 | 2.917 3.07 | 3.92 1.89
1.000 19.82 | 2.000 7.98 | 3.000 3.07 | 4.00 1.89

```

```

Max.Eff.Inten.(mm/hr)= 90.91 27.21
over (min)= 5.00 10.00
Storage Coeff. (min)= 2.58 (ii) 7.03 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.29 0.14
-----
          *TOTALS*
PEAK FLOW (cms)= 0.35 0.00 0.354 (iii)
TIME TO PEAK (hrs)= 1.25 1.25
RUNOFF VOLUME (mm)= 47.49 14.30 46.16
TOTAL RAINFALL (mm)= 49.49 49.49 49.49
RUNOFF COEFFICIENT = 0.96 0.29 0.93

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7629) |
| ID= 1 DT= 5.0 min |
-----
          Area (ha)= 1.70
          Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
          IMPERVIOUS   PERVIOUS (i)
Surface Area (ha)= 1.68 0.02
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.10 2.00
Length (m)= 100.00 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

-----
          TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
          hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 2.85 | 1.083 90.91 | 2.083 5.74 | 3.08 2.65
0.167 2.85 | 1.167 90.91 | 2.167 5.74 | 3.17 2.65
0.250 2.85 | 1.250 90.91 | 2.250 5.74 | 3.25 2.65
0.333 4.04 | 1.333 26.99 | 2.333 4.46 | 3.33 2.33
0.417 4.04 | 1.417 26.99 | 2.417 4.46 | 3.42 2.33
0.500 4.04 | 1.500 26.99 | 2.500 4.46 | 3.50 2.33
0.583 6.85 | 1.583 12.67 | 2.583 3.63 | 3.58 2.09
0.667 6.85 | 1.667 12.67 | 2.667 3.63 | 3.67 2.09
0.750 6.85 | 1.750 12.67 | 2.750 3.63 | 3.75 2.09
0.833 19.82 | 1.833 7.98 | 2.833 3.07 | 3.83 1.89
0.917 19.82 | 1.917 7.98 | 2.917 3.07 | 3.92 1.89
1.000 19.82 | 2.000 7.98 | 3.000 3.07 | 4.00 1.89

```

```

Max.Eff.Inten.(mm/hr)= 90.91 27.21
over (min)= 5.00 5.00
Storage Coeff. (min)= 2.58 (ii) 3.75 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.29 0.25
-----
          *TOTALS*
PEAK FLOW (cms)= 0.42 0.00 0.425 (iii)
TIME TO PEAK (hrs)= 1.25 1.25
RUNOFF VOLUME (mm)= 47.49 14.30 47.16
TOTAL RAINFALL (mm)= 49.49 49.49 49.49
RUNOFF COEFFICIENT = 0.96 0.29 0.95

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7651) |
| ID= 1 DT= 5.0 min |
-----
          Area (ha)= 1.33
          Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00
-----
          IMPERVIOUS   PERVIOUS (i)
Surface Area (ha)= 1.30 0.03
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.10 2.00
Length (m)= 100.00 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

-----
          TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
          hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 2.85 | 1.083 90.91 | 2.083 5.74 | 3.08 2.65
0.167 2.85 | 1.167 90.91 | 2.167 5.74 | 3.17 2.65
0.250 2.85 | 1.250 90.91 | 2.250 5.74 | 3.25 2.65
0.333 4.04 | 1.333 26.99 | 2.333 4.46 | 3.33 2.33
0.417 4.04 | 1.417 26.99 | 2.417 4.46 | 3.42 2.33
0.500 4.04 | 1.500 26.99 | 2.500 4.46 | 3.50 2.33
0.583 6.85 | 1.583 12.67 | 2.583 3.63 | 3.58 2.09
0.667 6.85 | 1.667 12.67 | 2.667 3.63 | 3.67 2.09
0.750 6.85 | 1.750 12.67 | 2.750 3.63 | 3.75 2.09
0.833 19.82 | 1.833 7.98 | 2.833 3.07 | 3.83 1.89
0.917 19.82 | 1.917 7.98 | 2.917 3.07 | 3.92 1.89
1.000 19.82 | 2.000 7.98 | 3.000 3.07 | 4.00 1.89

```

```

Max.Eff.Inten.(mm/hr)= 90.91 27.21
over (min)= 5.00 5.00
Storage Coeff. (min)= 2.58 (ii) 4.12 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00

```



Unit Hyd. peak (cms)= 0.29 0.24
 PEAK FLOW (cms)= 0.33 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 1.25 1.25 0.330 (iii)
 RUNOFF VOLUME (mm)= 47.49 14.30 46.82
 TOTAL RAINFALL (mm)= 49.49 49.49 49.49
 RUNOFF COEFFICIENT = 0.96 0.29 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
 (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7700)
 1 + 2 = 3
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7620): 1.45 0.354 1.25 46.16
 + ID2= 2 (7629): 1.70 0.425 1.25 47.16
 ID= 3 (7700): 3.15 0.779 1.25 46.70

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7700)
 3 + 2 = 1
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7700): 3.15 0.779 1.25 46.70
 + ID2= 2 (7651): 1.33 0.330 1.25 46.82
 ID= 1 (7700): 4.48 1.109 1.25 46.73

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
 STANDHYD (7623) Area (ha)= 1.20
 ID= 1 DT= 5.0 min Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.14 0.06
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 2.50 2.00
 Length (m)= 60.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---
 TIME RAIN | TIME RAIN | ' TIME RAIN | TIME RAIN
 hrs mm/hr | hrs mm/hr | ' hrs mm/hr | hrs mm/hr
 0.083 2.85 | 1.083 90.91 | 2.083 5.74 | 3.08 2.65
 0.167 2.85 | 1.167 90.91 | 2.167 5.74 | 3.17 2.65
 0.250 2.85 | 1.250 90.91 | 2.250 5.74 | 3.25 2.65
 0.333 4.04 | 1.333 26.99 | 2.333 4.46 | 3.33 2.33
 0.417 4.04 | 1.417 26.99 | 2.417 4.46 | 3.42 2.33
 0.500 4.04 | 1.500 26.99 | 2.500 4.46 | 3.50 2.33
 0.583 6.85 | 1.583 12.67 | 2.583 3.63 | 3.58 2.09
 0.667 6.85 | 1.667 12.67 | 2.667 3.63 | 3.67 2.09
 0.750 6.85 | 1.750 12.67 | 2.750 3.63 | 3.75 2.09
 0.833 19.82 | 1.833 7.98 | 2.833 3.07 | 3.83 1.89
 0.917 19.82 | 1.917 7.98 | 2.917 3.07 | 3.92 1.89
 1.000 19.82 | 2.000 7.98 | 3.000 3.07 | 4.00 1.89

Max.Eff.Inten.(mm/hr)= 90.91 28.28
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.48 (ii) 3.74 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.33 0.25
 PEAK FLOW (cms)= 0.29 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 1.25 1.25 0.293 (iii)
 RUNOFF VOLUME (mm)= 47.49 14.80 45.85
 TOTAL RAINFALL (mm)= 49.49 49.49 49.49
 RUNOFF COEFFICIENT = 0.96 0.30 0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
 (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 STANDHYD (7654) Area (ha)= 1.69
 ID= 1 DT= 5.0 min Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.67 0.02
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---
 TIME RAIN | TIME RAIN | ' TIME RAIN | TIME RAIN
 hrs mm/hr | hrs mm/hr | ' hrs mm/hr | hrs mm/hr
 0.083 2.85 | 1.083 90.91 | 2.083 5.74 | 3.08 2.65
 0.167 2.85 | 1.167 90.91 | 2.167 5.74 | 3.17 2.65
 0.250 2.85 | 1.250 90.91 | 2.250 5.74 | 3.25 2.65
 0.333 4.04 | 1.333 26.99 | 2.333 4.46 | 3.33 2.33
 0.417 4.04 | 1.417 26.99 | 2.417 4.46 | 3.42 2.33
 0.500 4.04 | 1.500 26.99 | 2.500 4.46 | 3.50 2.33
 0.583 6.85 | 1.583 12.67 | 2.583 3.63 | 3.58 2.09
 0.667 6.85 | 1.667 12.67 | 2.667 3.63 | 3.67 2.09
 0.750 6.85 | 1.750 12.67 | 2.750 3.63 | 3.75 2.09
 0.833 19.82 | 1.833 7.98 | 2.833 3.07 | 3.83 1.89
 0.917 19.82 | 1.917 7.98 | 2.917 3.07 | 3.92 1.89
 1.000 19.82 | 2.000 7.98 | 3.000 3.07 | 4.00 1.89

Max.Eff.Inten.(mm/hr)= 90.91 27.21
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.58 (ii) 3.75 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.29 0.25

PEAK FLOW (cms)= 0.42 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 1.25 1.25 0.423 (iii)
 RUNOFF VOLUME (mm)= 47.49 14.30 47.16
 TOTAL RAINFALL (mm)= 49.49 49.49 49.49
 RUNOFF COEFFICIENT = 0.96 0.29 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
 (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 STANDHYD (7655) Area (ha)= 1.32
 ID= 1 DT= 5.0 min Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.31 0.01



Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.85	1.083	90.91	2.083	5.74	3.08	2.65
0.167	2.85	1.167	90.91	2.167	5.74	3.17	2.65
0.250	2.85	1.250	90.91	2.250	5.74	3.25	2.65
0.333	4.04	1.333	26.99	2.333	4.46	3.33	2.33
0.417	4.04	1.417	26.99	2.417	4.46	3.42	2.33
0.500	4.04	1.500	26.99	2.500	4.46	3.50	2.33
0.583	6.85	1.583	12.67	2.583	3.63	3.58	2.09
0.667	6.85	1.667	12.67	2.667	3.63	3.67	2.09
0.750	6.85	1.750	12.67	2.750	3.63	3.75	2.09
0.833	19.82	1.833	7.98	2.833	3.07	3.83	1.89
0.917	19.82	1.917	7.98	2.917	3.07	3.92	1.89
1.000	19.82	2.000	7.98	3.000	3.07	4.00	1.89

Max.Eff.Inten.(mm/hr)= 90.91 27.21
 over (min) 5.00
 Storage Coeff. (min)= 2.58 (ii) 3.75 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.29 0.25

TOTALS
 PEAK FLOW (cms)= 0.33 0.00 0.330 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 47.49 14.30 47.16
 TOTAL RAINFALL (mm)= 49.49 49.49 49.49
 RUNOFF COEFFICIENT = 0.96 0.29 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7662) | Area (ha)= 1.61
 | ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.48	0.13
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.85	1.083	90.91	2.083	5.74	3.08	2.65
0.167	2.85	1.167	90.91	2.167	5.74	3.17	2.65
0.250	2.85	1.250	90.91	2.250	5.74	3.25	2.65
0.333	4.04	1.333	26.99	2.333	4.46	3.33	2.33
0.417	4.04	1.417	26.99	2.417	4.46	3.42	2.33
0.500	4.04	1.500	26.99	2.500	4.46	3.50	2.33
0.583	6.85	1.583	12.67	2.583	3.63	3.58	2.09
0.667	6.85	1.667	12.67	2.667	3.63	3.67	2.09
0.750	6.85	1.750	12.67	2.750	3.63	3.75	2.09
0.833	19.82	1.833	7.98	2.833	3.07	3.83	1.89
0.917	19.82	1.917	7.98	2.917	3.07	3.92	1.89
1.000	19.82	2.000	7.98	3.000	3.07	4.00	1.89

Max.Eff.Inten.(mm/hr)= 90.91 15.22
 over (min) 5.00 40.00
 Storage Coeff. (min)= 2.58 (ii) 35.03 (ii)
 Unit Hyd. Tpeak (min)= 5.00 40.00
 Unit Hyd. peak (cms)= 0.29 0.03

TOTALS
 PEAK FLOW (cms)= 0.37 0.00 0.374 (iii)
 TIME TO PEAK (hrs)= 1.25 1.83 1.25
 RUNOFF VOLUME (mm)= 47.49 14.30 44.82
 TOTAL RAINFALL (mm)= 49.49 49.49 49.49
 RUNOFF COEFFICIENT = 0.96 0.29 0.91

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | ADD HYD (7701) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7654): 1.69 0.423 1.25 47.16
 + ID2= 2 (7655): 1.32 0.330 1.25 47.16
 ID = 3 (7701): 3.01 0.753 1.25 47.16

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7701) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7701): 3.01 0.753 1.25 47.16
 + ID2= 2 (7662): 1.61 0.374 1.25 44.82
 ID = 1 (7701): 4.62 1.127 1.25 46.34

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |
 | STANDHYD (7707) | Area (ha)= 1.06
 | ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.01	0.05
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.85	1.083	90.91	2.083	5.74	3.08	2.65
0.167	2.85	1.167	90.91	2.167	5.74	3.17	2.65
0.250	2.85	1.250	90.91	2.250	5.74	3.25	2.65
0.333	4.04	1.333	26.99	2.333	4.46	3.33	2.33
0.417	4.04	1.417	26.99	2.417	4.46	3.42	2.33
0.500	4.04	1.500	26.99	2.500	4.46	3.50	2.33
0.583	6.85	1.583	12.67	2.583	3.63	3.58	2.09
0.667	6.85	1.667	12.67	2.667	3.63	3.67	2.09
0.750	6.85	1.750	12.67	2.750	3.63	3.75	2.09
0.833	19.82	1.833	7.98	2.833	3.07	3.83	1.89
0.917	19.82	1.917	7.98	2.917	3.07	3.92	1.89
1.000	19.82	2.000	7.98	3.000	3.07	4.00	1.89



Max.Eff.Inten.(mm/hr)= 90.91 28.28
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.48 (ii) 3.74 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.25

PEAK FLOW (cms)= 0.25 0.00
 TIME TO PEAK (hrs)= 1.25 1.25
 RUNOFF VOLUME (mm)= 47.49 14.80
 TOTAL RAINFALL (mm)= 49.49 49.49
 RUNOFF COEFFICIENT = 0.96 0.30

TOTALS
 0.259 (iii)
 1.25
 45.85
 49.49
 0.93

0.0890 0.2770 | 0.6520 2.5670
 0.1340 0.5530 | 0.6640 2.6500
 0.2910 0.8290 | 0.6750 2.7340
 0.3860 1.1060 | 0.7190 3.0490
 0.4590 1.3820 | 0.8250 3.3550
 0.5220 1.7210 | 2.0760 3.4560
 0.5780 2.0600 | 2.3560 3.7320

AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW : ID= 2 (7702) 25.670 4.308 1.25 47.37
 OUTFLOW: ID= 1 (7705) 25.670 0.231 4.33 47.34

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

PEAK FLOW REDUCTION [Qout/Qin] (%) = 5.37
 TIME SHIFT OF PEAK FLOW (min)=185.00
 MAXIMUM STORAGE USED (ha.m.) = 0.7239

 | CALIB |
 | STANDHYD (7716) | Area (ha)= 0.19
 | ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.18 0.01
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 2.50 2.00
 Length (m)= 60.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

 | ADD HYD (7702) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7623): 1.20 0.293 1.25 45.85
 + ID2= 2 (7700): 4.48 1.109 1.25 46.73
 ID = 3 (7702): 5.68 1.402 1.25 46.55

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7702) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7702): 5.68 1.402 1.25 46.55
 + ID2= 2 (7701): 4.62 1.127 1.25 46.34
 ID = 1 (7702): 10.30 2.529 1.25 46.46

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7702) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7702): 10.30 2.529 1.25 46.46
 + ID2= 2 (7707): 1.06 0.259 1.25 45.85
 ID = 3 (7702): 11.36 2.788 1.25 46.40

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7702) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7702): 11.36 2.788 1.25 46.40
 + ID2= 2 (7714): 14.31 1.521 1.25 48.14
 ID = 1 (7702): 25.67 4.308 1.25 47.37

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | RESERVOIR(7705) | OVERFLOW IS OFF
 | IN= 2----> OUT= 1 |
 | DT= 5.0 min |
 OUTFLOW STORAGE OUTFLOW STORAGE
 (cms) (ha.m.) (cms) (ha.m.)
 0.0000 0.0000 | 0.6280 2.3980
 0.0730 0.2080 | 0.6400 2.4830

----- TRANSFORMED HYETOGRAPH -----
 TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
 hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
 0.083 2.85 | 1.083 90.91 | 2.083 5.74 | 3.08 2.65
 0.167 2.85 | 1.167 90.91 | 2.167 5.74 | 3.17 2.65
 0.250 2.85 | 1.250 90.91 | 2.250 5.74 | 3.25 2.65
 0.333 4.04 | 1.333 26.99 | 2.333 4.46 | 3.33 2.33
 0.417 4.04 | 1.417 26.99 | 2.417 4.46 | 3.42 2.33
 0.500 4.04 | 1.500 26.99 | 2.500 4.46 | 3.50 2.33
 0.583 6.85 | 1.583 12.67 | 2.583 3.63 | 3.58 2.09
 0.667 6.85 | 1.667 12.67 | 2.667 3.63 | 3.67 2.09
 0.750 6.85 | 1.750 12.67 | 2.750 3.63 | 3.75 2.09
 0.833 19.82 | 1.833 7.98 | 2.833 3.07 | 3.83 1.89
 0.917 19.82 | 1.917 7.98 | 2.917 3.07 | 3.92 1.89
 1.000 19.82 | 2.000 7.98 | 3.000 3.07 | 4.00 1.89

Max.Eff.Inten.(mm/hr)= 90.91 28.28
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.48 (ii) 3.74 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.25

TOTALS
 PEAK FLOW (cms)= 0.05 0.00 0.046 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 47.49 14.80 45.85
 TOTAL RAINFALL (mm)= 49.49 49.49 49.49
 RUNOFF COEFFICIENT = 0.96 0.30 0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | RESERVOIR(7720) | OVERFLOW IS OFF
 | IN= 2----> OUT= 1 |
 | DT= 5.0 min |
 OUTFLOW STORAGE OUTFLOW STORAGE
 (cms) (ha.m.) (cms) (ha.m.)
 0.0000 0.0000 | 0.0100 0.0090



0.0030	0.0010	0.0110	0.0100
0.0050	0.0030	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

INFLOW : ID= 2 (7716)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
OUTFLOW: ID= 1 (7720)	0.190	0.046	1.25	45.85
	0.190	0.008	1.58	45.43

PEAK FLOW REDUCTION [Qout/Qin] (%) = 17.67
 TIME SHIFT OF PEAK FLOW (min) = 20.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0052

CALIB	Area (ha) =	0.20
STANDHYD (7717)	Total Imp (%) =	95.00
ID= 1 DT= 5.0 min	Dir. Conn. (%) =	95.00

IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha) =	0.19	0.01
Dep. Storage (mm) =	2.00	5.00
Average Slope (%) =	2.50	2.00
Length (m) =	36.51	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.85	1.083	90.91	2.083	5.74	3.08	2.65
0.167	2.85	1.167	90.91	2.167	5.74	3.17	2.65
0.250	2.85	1.250	90.91	2.250	5.74	3.25	2.65
0.333	4.04	1.333	26.99	2.333	4.46	3.33	2.33
0.417	4.04	1.417	26.99	2.417	4.46	3.42	2.33
0.500	4.04	1.500	26.99	2.500	4.46	3.50	2.33
0.583	6.85	1.583	12.67	2.583	3.63	3.58	2.09
0.667	6.85	1.667	12.67	2.667	3.63	3.67	2.09
0.750	6.85	1.750	12.67	2.750	3.63	3.75	2.09
0.833	19.82	1.833	7.98	2.833	3.07	3.83	1.89
0.917	19.82	1.917	7.98	2.917	3.07	3.92	1.89
1.000	19.82	2.000	7.98	3.000	3.07	4.00	1.89

Max.Eff.Inten. (mm/hr) =	90.91	28.28
over (min) =	5.00	5.00
Storage Coeff. (min) =	1.10 (ii)	3.36 (ii)
Unit Hyd. Tpeak (min) =	5.00	5.00
Unit Hyd. peak (cms) =	0.34	0.26

TOTALS

PEAK FLOW (cms) =	0.05	0.00	0.049 (iii)
TIME TO PEAK (hrs) =	1.25	1.25	
RUNOFF VOLUME (mm) =	47.49	14.80	45.85
TOTAL RAINFALL (mm) =	49.49	49.49	49.49
RUNOFF COEFFICIENT =	0.96	0.30	0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7719)	OVERFLOW IS OFF		
IN= 2--> OUT= 1			
DT= 5.0 min			
OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.0100	0.0090
0.0030	0.0010	0.0110	0.0100

0.0050	0.0030	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

INFLOW : ID= 2 (7717)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
OUTFLOW: ID= 1 (7719)	0.200	0.049	1.25	45.85
	0.200	0.008	1.58	45.48

PEAK FLOW REDUCTION [Qout/Qin] (%) = 17.36
 TIME SHIFT OF PEAK FLOW (min) = 20.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0055

ADD HYD (7706)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7705)	25.67	0.231	4.33	47.34
+ ID2= 2 (7719)	0.20	0.008	1.58	45.48
ID = 3 (7706)	25.87	0.235	4.17	47.32

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7706)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7706)	25.87	0.235	4.17	47.32
+ ID2= 2 (7720)	0.19	0.008	1.58	45.43
ID = 1 (7706)	26.06	0.239	4.08	47.31

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha) =	1.24
STANDHYD (7595)	Total Imp (%) =	99.00
ID= 1 DT= 5.0 min	Dir. Conn. (%) =	99.00

IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha) =	1.23	0.01
Dep. Storage (mm) =	2.00	5.00
Average Slope (%) =	2.00	2.00
Length (m) =	91.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.85	1.083	90.91	2.083	5.74	3.08	2.65
0.167	2.85	1.167	90.91	2.167	5.74	3.17	2.65
0.250	2.85	1.250	90.91	2.250	5.74	3.25	2.65
0.333	4.04	1.333	26.99	2.333	4.46	3.33	2.33
0.417	4.04	1.417	26.99	2.417	4.46	3.42	2.33
0.500	4.04	1.500	26.99	2.500	4.46	3.50	2.33
0.583	6.85	1.583	12.67	2.583	3.63	3.58	2.09
0.667	6.85	1.667	12.67	2.667	3.63	3.67	2.09
0.750	6.85	1.750	12.67	2.750	3.63	3.75	2.09
0.833	19.82	1.833	7.98	2.833	3.07	3.83	1.89
0.917	19.82	1.917	7.98	2.917	3.07	3.92	1.89
1.000	19.82	2.000	7.98	3.000	3.07	4.00	1.89

Max.Eff.Inten. (mm/hr) =	90.91	27.21
over (min) =	5.00	5.00
Storage Coeff. (min) =	2.04 (ii)	3.20 (ii)
Unit Hyd. Tpeak (min) =	5.00	5.00
Unit Hyd. peak (cms) =	0.31	0.27



```

                                *TOTALS*
PEAK FLOW      (cms)=      0.31      0.00      0.311 (iii)
TIME TO PEAK   (hrs)=      1.25      1.25      1.25
RUNOFF VOLUME  (mm)=      47.49     14.30     47.15
TOTAL RAINFALL (mm)=      49.49     49.49     49.49
RUNOFF COEFFICIENT =      0.96      0.29      0.95

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7718) |
| 1 + 2 = 3 |
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
ID1= 1 ( 7595):  1.24  0.311  1.25  47.15
+ ID2= 2 ( 7706): 26.06  0.239  4.08  47.31
-----
ID = 3 ( 7718):  27.30  0.431  1.25  47.30

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| RESERVOIR( 7711) | OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT= 5.0 min |
-----
          OUTFLOW   STORAGE | OUTFLOW   STORAGE
          (cms)   (ha.m.) | (cms)   (ha.m.)
0.0000  0.0000 | 1.0810  1.6220
0.0010  0.1670 | 1.3950  1.8170
0.0340  0.3380 | 2.0990  2.2130
0.0510  0.5110 | 2.8950  2.6150
0.0630  0.6880 | 3.7730  3.0250
0.1610  0.8670 | 4.7260  3.4420
0.3300  1.0500 | 5.5670  3.8670
0.5440  1.2370 | 8.5800  4.3000
0.7970  1.4290 | 10.9450 4.5210
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
INFLOW : ID= 2 ( 7718) 27.302  0.431  1.25  47.30
OUTFLOW: ID= 1 ( 7711) 27.302  0.084  18.17 41.99

```

```

PEAK FLOW REDUCTION [Qout/Qin](%)= 19.49
TIME SHIFT OF PEAK FLOW (min)=*****
MAXIMUM STORAGE USED (ha.m.)= 0.7263

```



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*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 2.96 | 1.083 111.40 | 2.083 6.34 | 3.08 2.73
0.167 2.96 | 1.167 111.40 | 2.167 6.34 | 3.17 2.73
0.250 2.96 | 1.250 111.40 | 2.250 6.34 | 3.25 2.73
0.333 4.33 | 1.333 32.82 | 2.333 4.81 | 3.33 2.38
0.417 4.33 | 1.417 32.82 | 2.417 4.81 | 3.42 2.38
0.500 4.33 | 1.500 32.82 | 2.500 4.81 | 3.50 2.38
0.583 7.68 | 1.583 14.85 | 2.583 3.85 | 3.58 2.10
0.667 7.68 | 1.667 14.85 | 2.667 3.85 | 3.67 2.10
0.750 7.68 | 1.750 14.85 | 2.750 3.85 | 3.75 2.10
0.833 23.81 | 1.833 9.05 | 2.833 3.20 | 3.83 1.88
0.917 23.81 | 1.917 9.05 | 2.917 3.20 | 3.92 1.88
1.000 23.81 | 2.000 9.05 | 3.000 3.20 | 4.00 1.88

```

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat
Output filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\ccalf7da-de66-4c20-87cf-1afb162be39e\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\ccalf7da-de66-4c20-87cf-1afb162be39e\scen

DATE: 11-22-2024 TIME: 12:17:35
USER:
COMMENTS:

```

```

Max.Eff.Inten.(mm/hr)= 111.40 39.38
over (min) = 5.00 5.00
Storage Coeff. (min)= 1.50 (ii) 2.58 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.33 0.29

*TOTALS*
PEAK FLOW (cms)= 0.18 0.00 0.181 (iii)
TIME TO PEAK (hrs)= 1.25 1.25 1.25
RUNOFF VOLUME (mm)= 56.54 19.44 56.17
TOTAL RAINFALL (mm)= 58.54 58.54 58.54
RUNOFF COEFFICIENT = 0.97 0.33 0.96

```

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

```

*****
** SIMULATION : I - 10yr 4hr 15min Chicago **
*****

```

```

| CALIB |
| NASHYD ( 7721) | Area (ha)= 0.21 Curve Number (CN)= 73.0
| ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 0.17

```

```

| CHICAGO STORM | IDF curve parameters: A=2221.000
| Ptotal= 58.54 mm | B= 12.000
| | C= 0.908
-----
used in: INTENSITY = A / (t + B)^C
Duration of storm = 4.00 hrs
Storm time step = 15.00 min
Time to peak ratio = 0.33

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	2.96	1.00	111.40	2.00	6.34	3.00	2.73
0.25	4.33	1.25	32.82	2.25	4.81	3.25	2.38
0.50	7.68	1.50	14.85	2.50	3.85	3.50	2.10
0.75	23.81	1.75	9.05	2.75	3.20	3.75	1.88

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 2.96 | 1.083 111.40 | 2.083 6.34 | 3.08 2.73
0.167 2.96 | 1.167 111.40 | 2.167 6.34 | 3.17 2.73
0.250 2.96 | 1.250 111.40 | 2.250 6.34 | 3.25 2.73
0.333 4.33 | 1.333 32.82 | 2.333 4.81 | 3.33 2.38
0.417 4.33 | 1.417 32.82 | 2.417 4.81 | 3.42 2.38
0.500 4.33 | 1.500 32.82 | 2.500 4.81 | 3.50 2.38
0.583 7.68 | 1.583 14.85 | 2.583 3.85 | 3.58 2.10
0.667 7.68 | 1.667 14.85 | 2.667 3.85 | 3.67 2.10
0.750 7.68 | 1.750 14.85 | 2.750 3.85 | 3.75 2.10
0.833 23.81 | 1.833 9.05 | 2.833 3.20 | 3.83 1.88
0.917 23.81 | 1.917 9.05 | 2.917 3.20 | 3.92 1.88
1.000 23.81 | 2.000 9.05 | 3.000 3.20 | 4.00 1.88

```

```

| CALIB |
| STANDHYD ( 7640) | Area (ha)= 0.59
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

```

Unit Hyd Qpeak (cms)= 0.047

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.58	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	62.72	40.00
Mannings n =	0.013	0.250

```

PEAK FLOW (cms)= 0.015 (i)
TIME TO PEAK (hrs)= 1.333
RUNOFF VOLUME (mm)= 19.367
TOTAL RAINFALL (mm)= 58.544
RUNOFF COEFFICIENT = 0.331

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

-----
| CALIB |

```



STANDHYD (7599) | Area (ha)= 10.90
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 10.79 0.11
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 269.57 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.96	1.083	111.40	2.083	6.34	3.08	2.73
0.167	2.96	1.167	111.40	2.167	6.34	3.17	2.73
0.250	2.96	1.250	111.40	2.250	6.34	3.25	2.73
0.333	4.33	1.333	32.82	2.333	4.81	3.33	2.38
0.417	4.33	1.417	32.82	2.417	4.81	3.42	2.38
0.500	4.33	1.500	32.82	2.500	4.81	3.50	2.38
0.583	7.68	1.583	14.85	2.583	3.85	3.58	2.10
0.667	7.68	1.667	14.85	2.667	3.85	3.67	2.10
0.750	7.68	1.750	14.85	2.750	3.85	3.75	2.10
0.833	23.81	1.833	9.05	2.833	3.20	3.83	1.88
0.917	23.81	1.917	9.05	2.917	3.20	3.92	1.88
1.000	23.81	2.000	9.05	3.000	3.20	4.00	1.88

Max.Eff.Inten.(mm/hr)= 111.40 39.38
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 4.44 (ii) 5.51 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.23 0.16

PEAK FLOW (cms)= 3.25 0.01 3.258 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25
 RUNOFF VOLUME (mm)= 56.54 19.44 56.17
 TOTAL RAINFALL (mm)= 58.54 58.54
 RUNOFF COEFFICIENT = 0.97 0.33 0.96

TOTALS

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7722) |

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7599):	10.90	3.258	1.25	56.17
+ ID2= 2 (7721):	0.21	0.015	1.33	19.37
ID = 3 (7722):	11.11	3.271	1.25	55.48

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7685) | OVERFLOW IS OFF

	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
0.0000	0.0000		0.1390	0.6960
0.0590	0.3400		0.1630	0.7780
0.0900	0.4907		0.1840	0.8800
0.1110	0.5760		0.0000	0.0000

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7722)	11.108	3.271	1.25	55.48
OUTFLOW: ID= 1 (7685)	11.108	0.099	2.92	55.35

PEAK FLOW REDUCTION [Qout/Qin](%)= 3.03
 TIME SHIFT OF PEAK FLOW (min)=100.00
 MAXIMUM STORAGE USED (ha.m.)= 0.5283

CALIB
 STANDHYD (7591) | Area (ha)= 11.38
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 11.27 0.11
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 275.44 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.96	1.083	111.40	2.083	6.34	3.08	2.73
0.167	2.96	1.167	111.40	2.167	6.34	3.17	2.73
0.250	2.96	1.250	111.40	2.250	6.34	3.25	2.73
0.333	4.33	1.333	32.82	2.333	4.81	3.33	2.38
0.417	4.33	1.417	32.82	2.417	4.81	3.42	2.38
0.500	4.33	1.500	32.82	2.500	4.81	3.50	2.38
0.583	7.68	1.583	14.85	2.583	3.85	3.58	2.10
0.667	7.68	1.667	14.85	2.667	3.85	3.67	2.10
0.750	7.68	1.750	14.85	2.750	3.85	3.75	2.10
0.833	23.81	1.833	9.05	2.833	3.20	3.83	1.88
0.917	23.81	1.917	9.05	2.917	3.20	3.92	1.88
1.000	23.81	2.000	9.05	3.000	3.20	4.00	1.88

Max.Eff.Inten.(mm/hr)= 111.40 39.38
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 4.49 (ii) 5.57 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.23 0.16

PEAK FLOW (cms)= 3.39 0.01 3.397 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25
 RUNOFF VOLUME (mm)= 56.54 19.44 56.17
 TOTAL RAINFALL (mm)= 58.54 58.54 58.54
 RUNOFF COEFFICIENT = 0.97 0.33 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7593) | OVERFLOW IS OFF

	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
0.0000	0.0000		0.1990	0.6950
0.0830	0.3500		0.2320	0.8000
0.1280	0.4850		0.2620	0.9000
0.1580	0.5900		0.0000	0.0000

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7591)	11.380	3.397	1.25	56.17
OUTFLOW: ID= 1 (7593)	11.380	0.140	2.58	56.08

PEAK FLOW REDUCTION [Qout/Qin](%)= 4.13
 TIME SHIFT OF PEAK FLOW (min)= 80.00
 MAXIMUM STORAGE USED (ha.m.)= 0.5277

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

ADD HYD (7643)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7593):	11.38	0.140	2.58	56.08
+ ID2= 2 (7685):	11.11	0.099	2.92	55.35
ID = 3 (7643):	22.49	0.239	2.75	55.72

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7590)	2.39	99.00
ID= 1 DT= 5.0 min		

	IMPERVIOUS (ha)	PERVIOUS (i)
Surface Area	2.37	0.02
Dep. Storage	1.00	5.00
Average Slope	1.00	2.00
Length	20.00	20.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.96	1.083	111.40	2.083	6.34	3.08	2.73
0.167	2.96	1.167	111.40	2.167	6.34	3.17	2.73
0.250	2.96	1.250	111.40	2.250	6.34	3.25	2.73
0.333	4.33	1.333	32.82	2.333	4.81	3.33	2.38
0.417	4.33	1.417	32.82	2.417	4.81	3.42	2.38
0.500	4.33	1.500	32.82	2.500	4.81	3.50	2.38
0.583	7.68	1.583	14.85	2.583	3.85	3.58	2.10
0.667	7.68	1.667	14.85	2.667	3.85	3.67	2.10
0.750	7.68	1.750	14.85	2.750	3.85	3.75	2.10
0.833	23.81	1.833	9.05	2.833	3.20	3.83	1.88
0.917	23.81	1.917	9.05	2.917	3.20	3.92	1.88
1.000	23.81	2.000	9.05	3.000	3.20	4.00	1.88

Max.Eff.Inten. (mm/hr)=	111.40	39.38
over (min)	5.00	5.00
Storage Coeff. (min)=	0.93 (ii)	1.64 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.32
PEAK FLOW (cms)=	0.73	0.00
TIME TO PEAK (hrs)=	1.25	1.25
RUNOFF VOLUME (mm)=	57.54	19.44
TOTAL RAINFALL (mm)=	58.54	58.54
RUNOFF COEFFICIENT =	0.98	0.33

	IMPERVIOUS	PERVIOUS (i)
Surface Area	2.34	0.02
Dep. Storage	1.00	5.00
Average Slope	1.00	2.00
Length	20.00	20.00
Mannings n	0.013	0.250

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7632)	2.36	99.00
ID= 1 DT= 5.0 min		

	IMPERVIOUS (ha)	PERVIOUS (i)
Surface Area	2.34	0.02
Dep. Storage	1.00	5.00
Average Slope	1.00	2.00
Length	20.00	20.00
Mannings n	0.013	0.250

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.96	1.083	111.40	2.083	6.34	3.08	2.73
0.167	2.96	1.167	111.40	2.167	6.34	3.17	2.73
0.250	2.96	1.250	111.40	2.250	6.34	3.25	2.73
0.333	4.33	1.333	32.82	2.333	4.81	3.33	2.38
0.417	4.33	1.417	32.82	2.417	4.81	3.42	2.38
0.500	4.33	1.500	32.82	2.500	4.81	3.50	2.38
0.583	7.68	1.583	14.85	2.583	3.85	3.58	2.10
0.667	7.68	1.667	14.85	2.667	3.85	3.67	2.10
0.750	7.68	1.750	14.85	2.750	3.85	3.75	2.10
0.833	23.81	1.833	9.05	2.833	3.20	3.83	1.88
0.917	23.81	1.917	9.05	2.917	3.20	3.92	1.88
1.000	23.81	2.000	9.05	3.000	3.20	4.00	1.88

Max.Eff.Inten. (mm/hr)=	111.40	39.38
over (min)	5.00	5.00
Storage Coeff. (min)=	0.93 (ii)	1.64 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.32

PEAK FLOW (cms)=	0.72	0.00
TIME TO PEAK (hrs)=	1.25	1.25
RUNOFF VOLUME (mm)=	57.54	19.44
TOTAL RAINFALL (mm)=	58.54	58.54
RUNOFF COEFFICIENT =	0.98	0.33

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7644)	2.40	99.00
ID= 1 DT= 5.0 min		

	IMPERVIOUS	PERVIOUS (i)
Surface Area	2.38	0.02
Dep. Storage	1.00	5.00
Average Slope	1.00	2.00
Length	20.00	20.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.96	1.083	111.40	2.083	6.34	3.08	2.73
0.167	2.96	1.167	111.40	2.167	6.34	3.17	2.73
0.250	2.96	1.250	111.40	2.250	6.34	3.25	2.73
0.333	4.33	1.333	32.82	2.333	4.81	3.33	2.38
0.417	4.33	1.417	32.82	2.417	4.81	3.42	2.38
0.500	4.33	1.500	32.82	2.500	4.81	3.50	2.38
0.583	7.68	1.583	14.85	2.583	3.85	3.58	2.10
0.667	7.68	1.667	14.85	2.667	3.85	3.67	2.10
0.750	7.68	1.750	14.85	2.750	3.85	3.75	2.10
0.833	23.81	1.833	9.05	2.833	3.20	3.83	1.88
0.917	23.81	1.917	9.05	2.917	3.20	3.92	1.88
1.000	23.81	2.000	9.05	3.000	3.20	4.00	1.88

Max.Eff.Inten. (mm/hr)=	111.40	39.38
over (min)	5.00	5.00
Storage Coeff. (min)=	0.93 (ii)	1.64 (ii)



Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

TOTALS
 PEAK FLOW (cms)= 0.74 0.00 0.738 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 57.54 19.44 57.16
 TOTAL RAINFALL (mm)= 58.54 58.54 58.54
 RUNOFF COEFFICIENT = 0.98 0.33 0.98

Surface Area (ha)= 2.37 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7652) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.38 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.96	1.083	111.40	2.083	6.34	3.08	2.73
0.167	2.96	1.167	111.40	2.167	6.34	3.17	2.73
0.250	2.96	1.250	111.40	2.250	6.34	3.25	2.73
0.333	4.33	1.333	32.82	2.333	4.81	3.33	2.38
0.417	4.33	1.417	32.82	2.417	4.81	3.42	2.38
0.500	4.33	1.500	32.82	2.500	4.81	3.50	2.38
0.583	7.68	1.583	14.85	2.583	3.85	3.58	2.10
0.667	7.68	1.667	14.85	2.667	3.85	3.67	2.10
0.750	7.68	1.750	14.85	2.750	3.85	3.75	2.10
0.833	23.81	1.833	9.05	2.833	3.20	3.83	1.88
0.917	23.81	1.917	9.05	2.917	3.20	3.92	1.88
1.000	23.81	2.000	9.05	3.000	3.20	4.00	1.88

Max.Eff.Inten.(mm/hr)= 111.40 39.38
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 0.93 (ii) 1.64 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

TOTALS
 PEAK FLOW (cms)= 0.74 0.00 0.738 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 57.54 19.44 57.16
 TOTAL RAINFALL (mm)= 58.54 58.54 58.54
 RUNOFF COEFFICIENT = 0.98 0.33 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7661) | Area (ha)= 2.39
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.96	1.083	111.40	2.083	6.34	3.08	2.73
0.167	2.96	1.167	111.40	2.167	6.34	3.17	2.73
0.250	2.96	1.250	111.40	2.250	6.34	3.25	2.73
0.333	4.33	1.333	32.82	2.333	4.81	3.33	2.38
0.417	4.33	1.417	32.82	2.417	4.81	3.42	2.38
0.500	4.33	1.500	32.82	2.500	4.81	3.50	2.38
0.583	7.68	1.583	14.85	2.583	3.85	3.58	2.10
0.667	7.68	1.667	14.85	2.667	3.85	3.67	2.10
0.750	7.68	1.750	14.85	2.750	3.85	3.75	2.10
0.833	23.81	1.833	9.05	2.833	3.20	3.83	1.88
0.917	23.81	1.917	9.05	2.917	3.20	3.92	1.88
1.000	23.81	2.000	9.05	3.000	3.20	4.00	1.88

Max.Eff.Inten.(mm/hr)= 111.40 39.38
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 0.93 (ii) 1.64 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

TOTALS
 PEAK FLOW (cms)= 0.73 0.00 0.735 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 57.54 19.44 57.16
 TOTAL RAINFALL (mm)= 58.54 58.54 58.54
 RUNOFF COEFFICIENT = 0.98 0.33 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7671) | Area (ha)= 2.37
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.35 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.96	1.083	111.40	2.083	6.34	3.08	2.73
0.167	2.96	1.167	111.40	2.167	6.34	3.17	2.73
0.250	2.96	1.250	111.40	2.250	6.34	3.25	2.73
0.333	4.33	1.333	32.82	2.333	4.81	3.33	2.38
0.417	4.33	1.417	32.82	2.417	4.81	3.42	2.38
0.500	4.33	1.500	32.82	2.500	4.81	3.50	2.38
0.583	7.68	1.583	14.85	2.583	3.85	3.58	2.10
0.667	7.68	1.667	14.85	2.667	3.85	3.67	2.10
0.750	7.68	1.750	14.85	2.750	3.85	3.75	2.10
0.833	23.81	1.833	9.05	2.833	3.20	3.83	1.88
0.917	23.81	1.917	9.05	2.917	3.20	3.92	1.88
1.000	23.81	2.000	9.05	3.000	3.20	4.00	1.88

```

Max.Eff.Inten.(mm/hr)= 111.40 39.38
over (min) = 5.00 5.00
Storage Coeff. (min)= 0.93 (ii) 1.64 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.32

PEAK FLOW (cms)= 0.73 0.00 **TOTALS*
TIME TO PEAK (hrs)= 1.25 1.25 0.729 (iii)
RUNOFF VOLUME (mm)= 57.54 19.44 1.25
TOTAL RAINFALL (mm)= 58.54 58.54 58.54
RUNOFF COEFFICIENT = 0.98 0.33 0.98
  
```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

| ADD HYD ( 7698) |
| 1 + 2 = 3 |
-----
ID1= 1 ( 7590): 2.39 0.735 1.25 57.16
+ ID2= 2 ( 7632): 2.36 0.726 1.25 57.16
-----
ID = 3 ( 7698): 4.75 1.461 1.25 57.16
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| ADD HYD ( 7698) |
| 3 + 2 = 1 |
-----
ID1= 3 ( 7698): 4.75 1.461 1.25 57.16
+ ID2= 2 ( 7644): 2.40 0.738 1.25 57.16
-----
ID = 1 ( 7698): 7.15 2.199 1.25 57.16
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| ADD HYD ( 7698) |
| 1 + 2 = 3 |
-----
ID1= 1 ( 7698): 7.15 2.199 1.25 57.16
+ ID2= 2 ( 7652): 2.40 0.738 1.25 57.16
-----
ID = 3 ( 7698): 9.55 2.937 1.25 57.16
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| ADD HYD ( 7698) |
| 3 + 2 = 1 |
-----
ID1= 3 ( 7698): 9.55 2.937 1.25 57.16
+ ID2= 2 ( 7661): 2.39 0.735 1.25 57.16
-----
ID = 1 ( 7698): 11.94 3.672 1.25 57.16
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| ADD HYD ( 7698) |
| 1 + 2 = 3 |
-----
ID1= 1 ( 7698): 11.94 3.672 1.25 57.16
  
```

```

+ ID2= 2 ( 7671): 2.37 0.729 1.25 57.16
-----
ID = 3 ( 7698): 14.31 4.401 1.25 57.16
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| DIVERTHYD ( 7713) |
| IN= 1 # OUT= 5 |
  
```

Outflow / Inflow Relationships

```

Flow 1 + Flow 2 + Flow 3 + Flow 4 + Flow 5 = Total
(cms) (cms) (cms) (cms) (cms) (cms)
0.00 0.00 0.00 0.00 0.00 0.00
0.27 0.00 0.00 0.00 0.00 0.27
1.00 0.00 0.00 0.00 0.00 1.00
4.00 3.00 0.00 0.00 0.00 7.00
  
```

```

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
TOTAL HYD. (ID= 1): 14.31 4.40 1.25 57.16
-----
ID= 2 ( 2) : 11.40 2.70 1.25 57.16
ID= 3 ( 2) : 2.91 1.70 1.25 57.16
ID= 4 ( 2) : 0.00 0.00 0.00 0.00
ID= 5 ( 2) : 0.00 0.00 0.00 0.00
ID= 6 ( 2) : 0.00 0.00 0.00 0.00
  
```

```

| RESERVOIR ( 7699) |
| IN= 2--> OUT= 1 |
| DT= 5.0 min |
  
```

OVERFLOW IS ON

```

OUTFLOW STORAGE | OUTFLOW STORAGE
(cms) (ha.m.) | (cms) (ha.m.)
0.0000 0.0000 | 0.2690 0.4589
0.1980 0.1112 | 0.0000 0.0000
  
```

```

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 2 ( 7713) 11.400 2.701 1.25 57.16
OUTFLOW: ID= 1 ( 7699) 11.400 0.267 2.08 57.15
OVERFLOW: ID= 3 ( 0003) 0.000 0.000 0.00 0.00
  
```

```

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
PERCENTAGE OF TIME OVERFLOWING (%) = 0.00
  
```

```

PEAK FLOW REDUCTION [Qout/Qin](%) = 9.88
TIME SHIFT OF PEAK FLOW (min) = 50.00
MAXIMUM STORAGE USED (ha.m.) = 0.4487
  
```

```

| Junction Command(7715) |
  
```

```

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 3( 7699) 0.00 0.00 0.00 0.00
OUTFLOW: ID= 2( 7715) 0.00 0.00 0.00 0.00
  
```

```

| ADD HYD ( 7714) |
| 1 + 2 = 3 |
-----
ID1= 1 ( 7699): 11.40 0.267 2.08 57.15
+ ID2= 2 ( 7713): 2.91 1.701 1.25 57.16
-----
ID = 3 ( 7714): 14.31 1.936 1.25 57.15
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.



```

-----
| ADD HYD ( 7714) |
| 3 + 2 = 1 |
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
*** W A R N I N G : HYDROGRAPH 7715 <ID= 2> IS DRY.
*** W A R N I N G : HYDROGRAPH 0001 = HYDROGRAPH 0003
ID1= 3 ( 7714):   14.31  1.936  1.25  57.15
+ ID2= 2 ( 7715):   0.00  0.000  0.00  0.00
-----
ID = 1 ( 7714):   14.31  1.936  1.25  57.15

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7620) |
| ID= 1 DT= 5.0 min |
-----
          Area (ha)= 1.45
          Total Imp(%)= 96.00 Dir. Conn.(%)= 96.00
-----
          IMPERVIOUS   PERVIOUS (i)
Surface Area (ha)= 1.39 0.06
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.10 2.00
Length (m)= 100.00 145.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

-----
          TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
          hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 2.96 | 1.083 111.40 | 2.083 6.34 | 3.08 2.73
0.167 2.96 | 1.167 111.40 | 2.167 6.34 | 3.17 2.73
0.250 2.96 | 1.250 111.40 | 2.250 6.34 | 3.25 2.73
0.333 4.33 | 1.333 32.82 | 2.333 4.81 | 3.33 2.38
0.417 4.33 | 1.417 32.82 | 2.417 4.81 | 3.42 2.38
0.500 4.33 | 1.500 32.82 | 2.500 4.81 | 3.50 2.38
0.583 7.68 | 1.583 14.85 | 2.583 3.85 | 3.58 2.10
0.667 7.68 | 1.667 14.85 | 2.667 3.85 | 3.67 2.10
0.750 7.68 | 1.750 14.85 | 2.750 3.85 | 3.75 2.10
0.833 23.81 | 1.833 9.05 | 2.833 3.20 | 3.83 1.88
0.917 23.81 | 1.917 9.05 | 2.917 3.20 | 3.92 1.88
1.000 23.81 | 2.000 9.05 | 3.000 3.20 | 4.00 1.88
-----
Max.Eff.Inten.(mm/hr)= 111.40 39.38
over (min)= 5.00 10.00
Storage Coeff. (min)= 2.38 (ii) 6.48 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.30 0.14
-----
PEAK FLOW (cms)= 0.43 0.00 *TOTALS* 0.435 (iii)
TIME TO PEAK (hrs)= 1.25 1.25
RUNOFF VOLUME (mm)= 56.54 19.44 55.06
TOTAL RAINFALL (mm)= 58.54 58.54 58.54
RUNOFF COEFFICIENT = 0.97 0.33 0.94

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7629) |
| ID= 1 DT= 5.0 min |
-----
          Area (ha)= 1.70
          Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
          IMPERVIOUS   PERVIOUS (i)
Surface Area (ha)= 1.68 0.02
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.10 2.00
Length (m)= 100.00 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

-----
          TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
          hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 2.96 | 1.083 111.40 | 2.083 6.34 | 3.08 2.73
0.167 2.96 | 1.167 111.40 | 2.167 6.34 | 3.17 2.73
0.250 2.96 | 1.250 111.40 | 2.250 6.34 | 3.25 2.73
0.333 4.33 | 1.333 32.82 | 2.333 4.81 | 3.33 2.38
0.417 4.33 | 1.417 32.82 | 2.417 4.81 | 3.42 2.38
0.500 4.33 | 1.500 32.82 | 2.500 4.81 | 3.50 2.38
0.583 7.68 | 1.583 14.85 | 2.583 3.85 | 3.58 2.10
0.667 7.68 | 1.667 14.85 | 2.667 3.85 | 3.67 2.10
0.750 7.68 | 1.750 14.85 | 2.750 3.85 | 3.75 2.10
0.833 23.81 | 1.833 9.05 | 2.833 3.20 | 3.83 1.88
0.917 23.81 | 1.917 9.05 | 2.917 3.20 | 3.92 1.88
1.000 23.81 | 2.000 9.05 | 3.000 3.20 | 4.00 1.88
-----
Max.Eff.Inten.(mm/hr)= 111.40 39.38
over (min)= 5.00 5.00
Storage Coeff. (min)= 2.38 (ii) 3.45 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.30 0.26
-----
PEAK FLOW (cms)= 0.52 0.00 *TOTALS* 0.522 (iii)
TIME TO PEAK (hrs)= 1.25 1.25
RUNOFF VOLUME (mm)= 56.54 19.44 56.17
TOTAL RAINFALL (mm)= 58.54 58.54 58.54
RUNOFF COEFFICIENT = 0.97 0.33 0.96

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7651) |
| ID= 1 DT= 5.0 min |
-----
          Area (ha)= 1.33
          Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00
-----
          IMPERVIOUS   PERVIOUS (i)
Surface Area (ha)= 1.30 0.03
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.10 2.00
Length (m)= 100.00 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

-----
          TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
          hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 2.96 | 1.083 111.40 | 2.083 6.34 | 3.08 2.73
0.167 2.96 | 1.167 111.40 | 2.167 6.34 | 3.17 2.73
0.250 2.96 | 1.250 111.40 | 2.250 6.34 | 3.25 2.73
0.333 4.33 | 1.333 32.82 | 2.333 4.81 | 3.33 2.38
0.417 4.33 | 1.417 32.82 | 2.417 4.81 | 3.42 2.38
0.500 4.33 | 1.500 32.82 | 2.500 4.81 | 3.50 2.38
0.583 7.68 | 1.583 14.85 | 2.583 3.85 | 3.58 2.10
0.667 7.68 | 1.667 14.85 | 2.667 3.85 | 3.67 2.10
0.750 7.68 | 1.750 14.85 | 2.750 3.85 | 3.75 2.10
0.833 23.81 | 1.833 9.05 | 2.833 3.20 | 3.83 1.88
0.917 23.81 | 1.917 9.05 | 2.917 3.20 | 3.92 1.88
1.000 23.81 | 2.000 9.05 | 3.000 3.20 | 4.00 1.88
-----
Max.Eff.Inten.(mm/hr)= 111.40 39.38
over (min)= 5.00 5.00
Storage Coeff. (min)= 2.38 (ii) 3.80 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00

```




Unit Hyd. peak (cms)= 0.30 0.25
 PEAK FLOW (cms)= 0.40 0.00
 TIME TO PEAK (hrs)= 1.25 1.25
 RUNOFF VOLUME (mm)= 56.54 19.44
 TOTAL RAINFALL (mm)= 58.54 58.54
 RUNOFF COEFFICIENT = 0.97 0.33

TOTALS
 0.406 (iii)
 1.25
 55.80
 58.54
 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
 (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7700)
 1 + 2 = 3
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7620): 1.45 0.435 1.25 55.06
 + ID2= 2 (7629): 1.70 0.522 1.25 56.17
 ID = 3 (7700): 3.15 0.957 1.25 55.66

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7700)
 3 + 2 = 1
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7700): 3.15 0.957 1.25 55.66
 + ID2= 2 (7651): 1.33 0.406 1.25 55.80
 ID = 1 (7700): 4.48 1.362 1.25 55.70

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
 STANDHYD (7623) Area (ha)= 1.20
 ID= 1 DT= 5.0 min Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.14 0.06
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 2.50 2.00
 Length (m)= 60.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---
 TIME RAIN | TIME RAIN | ' TIME RAIN | TIME RAIN
 hrs mm/hr | hrs mm/hr | ' hrs mm/hr | hrs mm/hr
 0.083 2.96 | 1.083 111.40 | 2.083 6.34 | 3.08 2.73
 0.167 2.96 | 1.167 111.40 | 2.167 6.34 | 3.17 2.73
 0.250 2.96 | 1.250 111.40 | 2.250 6.34 | 3.25 2.73
 0.333 4.33 | 1.333 32.82 | 2.333 4.81 | 3.33 2.38
 0.417 4.33 | 1.417 32.82 | 2.417 4.81 | 3.42 2.38
 0.500 4.33 | 1.500 32.82 | 2.500 4.81 | 3.50 2.38
 0.583 7.68 | 1.583 14.85 | 2.583 3.85 | 3.58 2.10
 0.667 7.68 | 1.667 14.85 | 2.667 3.85 | 3.67 2.10
 0.750 7.68 | 1.750 14.85 | 2.750 3.85 | 3.75 2.10
 0.833 23.81 | 1.833 9.05 | 2.833 3.20 | 3.83 1.88
 0.917 23.81 | 1.917 9.05 | 2.917 3.20 | 3.92 1.88
 1.000 23.81 | 2.000 9.05 | 3.000 3.20 | 4.00 1.88

Max.Eff.Inten.(mm/hr)= 111.40 40.82
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.37 (ii) 3.45 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00

Unit Hyd. peak (cms)= 0.33 0.26
 PEAK FLOW (cms)= 0.35 0.01
 TIME TO PEAK (hrs)= 1.25 1.25
 RUNOFF VOLUME (mm)= 56.54 20.08
 TOTAL RAINFALL (mm)= 58.54 58.54
 RUNOFF COEFFICIENT = 0.97 0.34

TOTALS
 0.360 (iii)
 1.25
 54.72
 58.54
 0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
 (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 STANDHYD (7654) Area (ha)= 1.69
 ID= 1 DT= 5.0 min Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.67 0.02
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---
 TIME RAIN | TIME RAIN | ' TIME RAIN | TIME RAIN
 hrs mm/hr | hrs mm/hr | ' hrs mm/hr | hrs mm/hr
 0.083 2.96 | 1.083 111.40 | 2.083 6.34 | 3.08 2.73
 0.167 2.96 | 1.167 111.40 | 2.167 6.34 | 3.17 2.73
 0.250 2.96 | 1.250 111.40 | 2.250 6.34 | 3.25 2.73
 0.333 4.33 | 1.333 32.82 | 2.333 4.81 | 3.33 2.38
 0.417 4.33 | 1.417 32.82 | 2.417 4.81 | 3.42 2.38
 0.500 4.33 | 1.500 32.82 | 2.500 4.81 | 3.50 2.38
 0.583 7.68 | 1.583 14.85 | 2.583 3.85 | 3.58 2.10
 0.667 7.68 | 1.667 14.85 | 2.667 3.85 | 3.67 2.10
 0.750 7.68 | 1.750 14.85 | 2.750 3.85 | 3.75 2.10
 0.833 23.81 | 1.833 9.05 | 2.833 3.20 | 3.83 1.88
 0.917 23.81 | 1.917 9.05 | 2.917 3.20 | 3.92 1.88
 1.000 23.81 | 2.000 9.05 | 3.000 3.20 | 4.00 1.88

Max.Eff.Inten.(mm/hr)= 111.40 39.38
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.38 (ii) 3.45 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.30 0.26

PEAK FLOW (cms)= 0.52 0.00
 TIME TO PEAK (hrs)= 1.25 1.25
 RUNOFF VOLUME (mm)= 56.54 19.44
 TOTAL RAINFALL (mm)= 58.54 58.54
 RUNOFF COEFFICIENT = 0.97 0.33

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
 (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 STANDHYD (7655) Area (ha)= 1.32
 ID= 1 DT= 5.0 min Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.31 0.01



Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.96	1.083	111.40	2.083	6.34	3.08	2.73
0.167	2.96	1.167	111.40	2.167	6.34	3.17	2.73
0.250	2.96	1.250	111.40	2.250	6.34	3.25	2.73
0.333	4.33	1.333	32.82	2.333	4.81	3.33	2.38
0.417	4.33	1.417	32.82	2.417	4.81	3.42	2.38
0.500	4.33	1.500	32.82	2.500	4.81	3.50	2.38
0.583	7.68	1.583	14.85	2.583	3.85	3.58	2.10
0.667	7.68	1.667	14.85	2.667	3.85	3.67	2.10
0.750	7.68	1.750	14.85	2.750	3.85	3.75	2.10
0.833	23.81	1.833	9.05	2.833	3.20	3.83	1.88
0.917	23.81	1.917	9.05	2.917	3.20	3.92	1.88
1.000	23.81	2.000	9.05	3.000	3.20	4.00	1.88

Max.Eff.Inten.(mm/hr)= 111.40 39.38
 over (min)= 5.00
 Storage Coeff. (min)= 2.38 (ii) 3.45 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.30 0.26
 TOTALS
 PEAK FLOW (cms)= 0.40 0.00 0.405 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 56.54 19.44 56.17
 TOTAL RAINFALL (mm)= 58.54 58.54 58.54
 RUNOFF COEFFICIENT = 0.97 0.33 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7662) | Area (ha)= 1.61
 | ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.48	0.13
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.96	1.083	111.40	2.083	6.34	3.08	2.73
0.167	2.96	1.167	111.40	2.167	6.34	3.17	2.73
0.250	2.96	1.250	111.40	2.250	6.34	3.25	2.73
0.333	4.33	1.333	32.82	2.333	4.81	3.33	2.38
0.417	4.33	1.417	32.82	2.417	4.81	3.42	2.38
0.500	4.33	1.500	32.82	2.500	4.81	3.50	2.38
0.583	7.68	1.583	14.85	2.583	3.85	3.58	2.10
0.667	7.68	1.667	14.85	2.667	3.85	3.67	2.10
0.750	7.68	1.750	14.85	2.750	3.85	3.75	2.10
0.833	23.81	1.833	9.05	2.833	3.20	3.83	1.88
0.917	23.81	1.917	9.05	2.917	3.20	3.92	1.88
1.000	23.81	2.000	9.05	3.000	3.20	4.00	1.88

Max.Eff.Inten.(mm/hr)= 111.40 24.21
 over (min)= 5.00 30.00
 Storage Coeff. (min)= 2.38 (ii) 29.33 (ii)
 Unit Hyd. Tpeak (min)= 5.00 30.00
 Unit Hyd. peak (cms)= 0.30 0.04

TOTALS
 PEAK FLOW (cms)= 0.46 0.00 0.459 (iii)
 TIME TO PEAK (hrs)= 1.25 1.67 1.25
 RUNOFF VOLUME (mm)= 56.54 19.44 53.56
 TOTAL RAINFALL (mm)= 58.54 58.54 58.54
 RUNOFF COEFFICIENT = 0.97 0.33 0.91

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | ADD HYD (7701) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7654): 1.69 0.519 1.25 56.17
 + ID2= 2 (7655): 1.32 0.405 1.25 56.17
 ID= 3 (7701): 3.01 0.924 1.25 56.17

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7701) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7701): 3.01 0.924 1.25 56.17
 + ID2= 2 (7662): 1.61 0.459 1.25 53.56
 ID= 1 (7701): 4.62 1.383 1.25 55.26

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |
 | STANDHYD (7707) | Area (ha)= 1.06
 | ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.01	0.05
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.96	1.083	111.40	2.083	6.34	3.08	2.73
0.167	2.96	1.167	111.40	2.167	6.34	3.17	2.73
0.250	2.96	1.250	111.40	2.250	6.34	3.25	2.73
0.333	4.33	1.333	32.82	2.333	4.81	3.33	2.38
0.417	4.33	1.417	32.82	2.417	4.81	3.42	2.38
0.500	4.33	1.500	32.82	2.500	4.81	3.50	2.38
0.583	7.68	1.583	14.85	2.583	3.85	3.58	2.10
0.667	7.68	1.667	14.85	2.667	3.85	3.67	2.10
0.750	7.68	1.750	14.85	2.750	3.85	3.75	2.10
0.833	23.81	1.833	9.05	2.833	3.20	3.83	1.88
0.917	23.81	1.917	9.05	2.917	3.20	3.92	1.88
1.000	23.81	2.000	9.05	3.000	3.20	4.00	1.88

Max.Eff.Inten.(mm/hr)= 111.40 40.82
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.37 (ii) 3.45 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.26

PEAK FLOW (cms)= 0.31 0.01 0.318 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 56.54 20.08 54.72
 TOTAL RAINFALL (mm)= 58.54 58.54 58.54
 RUNOFF COEFFICIENT = 0.97 0.34 0.93

TOTALS

0.0890 0.2770 | 0.6520 2.5670
 0.1340 0.5530 | 0.6640 2.6500
 0.2910 0.8290 | 0.6750 2.7340
 0.3860 1.1060 | 0.7190 3.0490
 0.4590 1.3820 | 0.8250 3.3550
 0.5220 1.7210 | 2.0760 3.4560
 0.5780 2.0600 | 2.3560 3.7320

AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW : ID= 2 (7702) 25.670 5.359 1.25 56.35
 OUTFLOW: ID= 1 (7705) 25.670 0.287 4.00 56.32

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

PEAK FLOW REDUCTION [Qout/Qin](%)= 5.35
 TIME SHIFT OF PEAK FLOW (min)=165.00
 MAXIMUM STORAGE USED (ha.m.)= 0.8219

 | CALIB |
 | STANDHYD (7716) | Area (ha)= 0.19
 | ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.18 0.01
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 2.50 2.00
 Length (m)= 60.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

 | ADD HYD (7702) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7623): 1.20 0.360 1.25 54.72
 + ID2= 2 (7700): 4.48 1.362 1.25 55.70

 ID = 3 (7702): 5.68 1.722 1.25 55.49

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7702) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7702): 5.68 1.722 1.25 55.49
 + ID2= 2 (7701): 4.62 1.383 1.25 55.26

 ID = 1 (7702): 10.30 3.105 1.25 55.39

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7702) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7702): 10.30 3.105 1.25 55.39
 + ID2= 2 (7707): 1.06 0.318 1.25 54.72

 ID = 3 (7702): 11.36 3.423 1.25 55.33

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7702) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7702): 11.36 3.423 1.25 55.33
 + ID2= 2 (7714): 14.31 1.936 1.25 57.15

 ID = 1 (7702): 25.67 5.359 1.25 56.35

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | RESERVOIR(7705) | OVERFLOW IS OFF
 | IN= 2----> OUT= 1 |
 | DT= 5.0 min | OUTFLOW STORAGE OUTFLOW STORAGE
 (cms) (ha.m.) (cms) (ha.m.)
 0.0000 0.0000 | 0.6280 2.3980
 0.0730 0.2080 | 0.6400 2.4830

----- TRANSFORMED HYETOGRAPH -----
 TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
 hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
 0.083 2.96 | 1.083 111.40 | 2.083 6.34 | 3.08 2.73
 0.167 2.96 | 1.167 111.40 | 2.167 6.34 | 3.17 2.73
 0.250 2.96 | 1.250 111.40 | 2.250 6.34 | 3.25 2.73
 0.333 4.33 | 1.333 32.82 | 2.333 4.81 | 3.33 2.38
 0.417 4.33 | 1.417 32.82 | 2.417 4.81 | 3.42 2.38
 0.500 4.33 | 1.500 32.82 | 2.500 4.81 | 3.50 2.38
 0.583 7.68 | 1.583 14.85 | 2.583 3.85 | 3.58 2.10
 0.667 7.68 | 1.667 14.85 | 2.667 3.85 | 3.67 2.10
 0.750 7.68 | 1.750 14.85 | 2.750 3.85 | 3.75 2.10
 0.833 23.81 | 1.833 9.05 | 2.833 3.20 | 3.83 1.88
 0.917 23.81 | 1.917 9.05 | 2.917 3.20 | 3.92 1.88
 1.000 23.81 | 2.000 9.05 | 3.000 3.20 | 4.00 1.88

Max.Eff.Inten.(mm/hr)= 111.40 40.82
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.37 (ii) 3.45 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.26

PEAK FLOW (cms)= 0.06 0.00 0.057 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 56.54 20.08 54.72
 TOTAL RAINFALL (mm)= 58.54 58.54 58.54
 RUNOFF COEFFICIENT = 0.97 0.34 0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | RESERVOIR(7720) | OVERFLOW IS OFF
 | IN= 2----> OUT= 1 |
 | DT= 5.0 min | OUTFLOW STORAGE OUTFLOW STORAGE
 (cms) (ha.m.) (cms) (ha.m.)
 0.0000 0.0000 | 0.0100 0.0090

0.0030	0.0010	0.0110	0.0100
0.0050	0.0030	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7716)	0.190	0.057	1.25	54.72
OUTFLOW: ID= 1 (7720)	0.190	0.009	1.42	54.30

PEAK FLOW REDUCTION [Qout/Qin] (%) = 15.79
 TIME SHIFT OF PEAK FLOW (min) = 10.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0064

CALIB			
STANDHYD (7717)			
ID= 1 DT= 5.0 min	Area (ha)=	0.20	
	Total Imp (%) =	95.00	Dir. Conn. (%) = 95.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.19	0.01	
Dep. Storage (mm)=	2.00	5.00	
Average Slope (%)=	2.50	2.00	
Length (m)=	36.51	40.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.96	1.083	111.40	2.083	6.34	3.08	2.73
0.167	2.96	1.167	111.40	2.167	6.34	3.17	2.73
0.250	2.96	1.250	111.40	2.250	6.34	3.25	2.73
0.333	4.33	1.333	32.82	2.333	4.81	3.33	2.38
0.417	4.33	1.417	32.82	2.417	4.81	3.42	2.38
0.500	4.33	1.500	32.82	2.500	4.81	3.50	2.38
0.583	7.68	1.583	14.85	2.583	3.85	3.58	2.10
0.667	7.68	1.667	14.85	2.667	3.85	3.67	2.10
0.750	7.68	1.750	14.85	2.750	3.85	3.75	2.10
0.833	23.81	1.833	9.05	2.833	3.20	3.83	1.88
0.917	23.81	1.917	9.05	2.917	3.20	3.92	1.88
1.000	23.81	2.000	9.05	3.000	3.20	4.00	1.88

Max.Eff.Inten. (mm/hr)=	111.40	40.82
over (min)	5.00	5.00
Storage Coeff. (min)=	1.02 (ii)	3.10 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.27

TOTALS

PEAK FLOW (cms)=	0.06	0.00	0.060 (iii)
TIME TO PEAK (hrs)=	1.25	1.25	
RUNOFF VOLUME (mm)=	56.54	20.08	54.72
TOTAL RAINFALL (mm)=	58.54	58.54	58.54
RUNOFF COEFFICIENT =	0.97	0.34	0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7719)			
IN= 2--> OUT= 1			
DT= 5.0 min			
OVERFLOW IS OFF			
	OUTFLOW	STORAGE	OUTFLOW
	(cms)	(ha.m.)	(cms)
	0.0000	0.0000	0.0100
	0.0030	0.0010	0.0110

0.0050	0.0030	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7717)	0.200	0.060	1.25	54.72
OUTFLOW: ID= 1 (7719)	0.200	0.009	1.33	54.33

PEAK FLOW REDUCTION [Qout/Qin] (%) = 15.00
 TIME SHIFT OF PEAK FLOW (min) = 5.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0068

ADD HYD (7706)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7705):	25.67	0.287	4.00	56.32
+ ID2= 2 (7719):	0.20	0.009	1.33	54.33

ID = 3 (7706):	25.87	0.292	4.00	56.30

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7706)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7706):	25.87	0.292	4.00	56.30
+ ID2= 2 (7720):	0.19	0.009	1.42	54.30

ID = 1 (7706):	26.06	0.296	4.00	56.29

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7595)			
ID= 1 DT= 5.0 min	Area (ha)=	1.24	
	Total Imp (%) =	99.00	Dir. Conn. (%) = 99.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.23	0.01	
Dep. Storage (mm)=	2.00	5.00	
Average Slope (%)=	2.00	2.00	
Length (m)=	91.00	40.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	2.96	1.083	111.40	2.083	6.34	3.08	2.73
0.167	2.96	1.167	111.40	2.167	6.34	3.17	2.73
0.250	2.96	1.250	111.40	2.250	6.34	3.25	2.73
0.333	4.33	1.333	32.82	2.333	4.81	3.33	2.38
0.417	4.33	1.417	32.82	2.417	4.81	3.42	2.38
0.500	4.33	1.500	32.82	2.500	4.81	3.50	2.38
0.583	7.68	1.583	14.85	2.583	3.85	3.58	2.10
0.667	7.68	1.667	14.85	2.667	3.85	3.67	2.10
0.750	7.68	1.750	14.85	2.750	3.85	3.75	2.10
0.833	23.81	1.833	9.05	2.833	3.20	3.83	1.88
0.917	23.81	1.917	9.05	2.917	3.20	3.92	1.88
1.000	23.81	2.000	9.05	3.000	3.20	4.00	1.88

Max.Eff.Inten. (mm/hr)=	111.40	39.38
over (min)	5.00	5.00
Storage Coeff. (min)=	1.88 (ii)	2.95 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.32	0.28

```

                                *TOTALS*
PEAK FLOW      (cms)=      0.38      0.00      0.382 (iii)
TIME TO PEAK   (hrs)=      1.25      1.25      1.25
RUNOFF VOLUME  (mm)=      56.54     19.44     56.17
TOTAL RAINFALL (mm)=      58.54     58.54     58.54
RUNOFF COEFFICIENT =      0.97      0.33      0.96

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7718) |
| 1 + 2 = 3 |
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
ID1= 1 ( 7595):  1.24  0.382  1.25  56.17
+ ID2= 2 ( 7706): 26.06  0.296  4.00  56.29
-----
ID = 3 ( 7718):  27.30  0.520  1.25  56.28

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| RESERVOIR( 7711) | OVERFLOW IS OFF
| IN= 2--> OUT= 1 |
| DT= 5.0 min |
-----
          OUTFLOW   STORAGE | OUTFLOW   STORAGE
          (cms)   (ha.m.) | (cms)   (ha.m.)
0.0000  0.0000 | 1.0810  1.6220
0.0010  0.1670 | 1.3950  1.8170
0.0340  0.3380 | 2.0990  2.2130
0.0510  0.5110 | 2.8950  2.6150
0.0630  0.6880 | 3.7730  3.0250
0.1610  0.8670 | 4.7260  3.4420
0.3300  1.0500 | 5.5670  3.8670
0.5440  1.2370 | 8.5800  4.3000
0.7970  1.4290 | 10.9450 4.5210
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
INFLOW : ID= 2 ( 7718) 27.302  0.520  1.25  56.28
OUTFLOW: ID= 1 ( 7711) 27.302  0.117  14.00  50.95

```

```

PEAK FLOW REDUCTION [Qout/Qin](%)= 22.58
TIME SHIFT OF PEAK FLOW (min)=765.00
MAXIMUM STORAGE USED (ha.m.)= 0.7874

```



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=====
*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 3.40 | 1.083 131.98 | 2.083 7.81 | 3.08 3.10
0.167 3.40 | 1.167 131.98 | 2.167 7.81 | 3.17 3.10
0.250 3.40 | 1.250 131.98 | 2.250 7.81 | 3.25 3.10
0.333 5.16 | 1.333 42.48 | 2.333 5.80 | 3.33 2.66
0.417 5.16 | 1.417 42.48 | 2.417 5.80 | 3.42 2.66
0.500 5.16 | 1.500 42.48 | 2.500 5.80 | 3.50 2.66
0.583 9.60 | 1.583 19.17 | 2.583 4.54 | 3.58 2.32
0.667 9.60 | 1.667 19.17 | 2.667 4.54 | 3.67 2.32
0.750 9.60 | 1.750 19.17 | 2.750 4.54 | 3.75 2.32
0.833 30.80 | 1.833 11.42 | 2.833 3.70 | 3.83 2.05
0.917 30.80 | 1.917 11.42 | 2.917 3.70 | 3.92 2.05
1.000 30.80 | 2.000 11.42 | 3.000 3.70 | 4.00 2.05

```

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat
Output filename: C:\Users\mhoooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17eaa57\834e963f-2699-4f1e-9cac-87b50f265cb5\scen
Summary filename: C:\Users\mhoooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17eaa57\834e963f-2699-4f1e-9cac-87b50f265cb5\scen

```

```

Max.Eff.Inten.(mm/hr)= 131.98 54.60
over (min) = 5.00 5.00
Storage Coeff. (min)= 1.40 (ii) 2.41 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.33 0.30

*TOTALS*
PEAK FLOW (cms)= 0.21 0.00 0.215 (iii)
TIME TO PEAK (hrs)= 1.25 1.25 1.25
RUNOFF VOLUME (mm)= 69.50 27.56 69.08
TOTAL RAINFALL (mm)= 71.50 71.50 71.50
RUNOFF COEFFICIENT = 0.97 0.39 0.97

```

DATE: 11-22-2024 TIME: 12:17:34

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

USER:

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

COMMENTS: _____

```

*****
** SIMULATION : J - 25yr 4hr 15min Chicago **
*****

```

```

| CALIB |
| NASHYD ( 7721) | Area (ha)= 0.21 Curve Number (CN)= 73.0
| ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 0.17

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

| CHICAGO STORM | IDF curve parameters: A=3158.000
| Ptotal= 71.50 mm | B= 15.000
| | C= 0.933
-----
used in: INTENSITY = A / (t + B)^C
Duration of storm = 4.00 hrs
Storm time step = 15.00 min
Time to peak ratio = 0.33

```

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 3.40 | 1.083 131.98 | 2.083 7.81 | 3.08 3.10
0.167 3.40 | 1.167 131.98 | 2.167 7.81 | 3.17 3.10
0.250 3.40 | 1.250 131.98 | 2.250 7.81 | 3.25 3.10
0.333 5.16 | 1.333 42.48 | 2.333 5.80 | 3.33 2.66
0.417 5.16 | 1.417 42.48 | 2.417 5.80 | 3.42 2.66
0.500 5.16 | 1.500 42.48 | 2.500 5.80 | 3.50 2.66
0.583 9.60 | 1.583 19.17 | 2.583 4.54 | 3.58 2.32
0.667 9.60 | 1.667 19.17 | 2.667 4.54 | 3.67 2.32
0.750 9.60 | 1.750 19.17 | 2.750 4.54 | 3.75 2.32
0.833 30.80 | 1.833 11.42 | 2.833 3.70 | 3.83 2.05
0.917 30.80 | 1.917 11.42 | 2.917 3.70 | 3.92 2.05
1.000 30.80 | 2.000 11.42 | 3.000 3.70 | 4.00 2.05

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	3.40	1.00	131.98	2.00	7.81	3.00	3.10
0.25	5.16	1.25	42.48	2.25	5.80	3.25	2.66
0.50	9.60	1.50	19.17	2.50	4.54	3.50	2.32
0.75	30.80	1.75	11.42	2.75	3.70	3.75	2.05

Unit Hyd Qpeak (cms)= 0.047

```

PEAK FLOW (cms)= 0.021 (i)
TIME TO PEAK (hrs)= 1.333
RUNOFF VOLUME (mm)= 27.462
TOTAL RAINFALL (mm)= 71.501
RUNOFF COEFFICIENT = 0.384

```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

| CALIB |
| STANDHYD ( 7640) | Area (ha)= 0.59
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

```

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.58	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	62.72	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

| CALIB |

```



STANDHYD (7599) | Area (ha)= 10.90
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	10.79	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	269.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.40	1.083	131.98	2.083	7.81	3.08	3.10
0.167	3.40	1.167	131.98	2.167	7.81	3.17	3.10
0.250	3.40	1.250	131.98	2.250	7.81	3.25	3.10
0.333	5.16	1.333	42.48	2.333	5.80	3.33	2.66
0.417	5.16	1.417	42.48	2.417	5.80	3.42	2.66
0.500	5.16	1.500	42.48	2.500	5.80	3.50	2.66
0.583	9.60	1.583	19.17	2.583	4.54	3.58	2.32
0.667	9.60	1.667	19.17	2.667	4.54	3.67	2.32
0.750	9.60	1.750	19.17	2.750	4.54	3.75	2.32
0.833	30.80	1.833	11.42	2.833	3.70	3.83	2.05
0.917	30.80	1.917	11.42	2.917	3.70	3.92	2.05
1.000	30.80	2.000	11.42	3.000	3.70	4.00	2.05

Max.Eff.Inten.(mm/hr)=	131.98	54.60
over (min)	5.00	10.00
Storage Coeff. (min)=	4.15 (ii)	5.15 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.24	0.16

TOTALS

PEAK FLOW (cms)=	3.87	0.01	3.887 (iii)
TIME TO PEAK (hrs)=	1.25	1.33	1.25
RUNOFF VOLUME (mm)=	69.50	27.56	69.08
TOTAL RAINFALL (mm)=	71.50	71.50	71.50
RUNOFF COEFFICIENT =	0.97	0.39	0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ID	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7599):	10.90	3.887	1.25	69.08
+ ID2= 2 (7721):	0.21	0.021	1.33	27.46
ID = 3 (7722):	11.11	3.905	1.25	68.30

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7685) OVERFLOW IS OFF					
IN= 2--> OUT= 1	DT= 5.0 min	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
		0.0000	0.0000	0.1390	0.6960
		0.0590	0.3400	0.1630	0.7780
		0.0900	0.4907	0.1840	0.8800
		0.1110	0.5760	0.0000	0.0000
		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7722)		11.108	3.905	1.25	68.30
OUTFLOW: ID= 1 (7685)		11.108	0.128	2.83	68.17

PEAK FLOW REDUCTION [Qout/Qin] (%) = 3.29
 TIME SHIFT OF PEAK FLOW (min) = 95.00
 MAXIMUM STORAGE USED (ha.m.) = 0.6502

CALIB
 STANDHYD (7591) | Area (ha)= 11.38
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	11.27	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	275.44	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.40	1.083	131.98	2.083	7.81	3.08	3.10
0.167	3.40	1.167	131.98	2.167	7.81	3.17	3.10
0.250	3.40	1.250	131.98	2.250	7.81	3.25	3.10
0.333	5.16	1.333	42.48	2.333	5.80	3.33	2.66
0.417	5.16	1.417	42.48	2.417	5.80	3.42	2.66
0.500	5.16	1.500	42.48	2.500	5.80	3.50	2.66
0.583	9.60	1.583	19.17	2.583	4.54	3.58	2.32
0.667	9.60	1.667	19.17	2.667	4.54	3.67	2.32
0.750	9.60	1.750	19.17	2.750	4.54	3.75	2.32
0.833	30.80	1.833	11.42	2.833	3.70	3.83	2.05
0.917	30.80	1.917	11.42	2.917	3.70	3.92	2.05
1.000	30.80	2.000	11.42	3.000	3.70	4.00	2.05

Max.Eff.Inten.(mm/hr)=	131.98	54.60
over (min)	5.00	10.00
Storage Coeff. (min)=	4.20 (ii)	5.20 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.24	0.16

TOTALS

PEAK FLOW (cms)=	4.04	0.01	4.054 (iii)
TIME TO PEAK (hrs)=	1.25	1.33	1.25
RUNOFF VOLUME (mm)=	69.50	27.56	69.08
TOTAL RAINFALL (mm)=	71.50	71.50	71.50
RUNOFF COEFFICIENT =	0.97	0.39	0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7593) OVERFLOW IS OFF					
IN= 2--> OUT= 1	DT= 5.0 min	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
		0.0000	0.0000	0.1990	0.6950
		0.0830	0.3500	0.2320	0.8000
		0.1280	0.4850	0.2620	0.9000
		0.1580	0.5900	0.0000	0.0000
		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7591)		11.380	4.054	1.25	69.08
OUTFLOW: ID= 1 (7593)		11.380	0.181	2.50	68.99

PEAK FLOW REDUCTION [Qout/Qin] (%) = 4.47
 TIME SHIFT OF PEAK FLOW (min) = 75.00
 MAXIMUM STORAGE USED (ha.m.) = 0.6498

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

ADD HYD (7643)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID= 1 (7593):	11.38	0.181	2.50	68.99
+ ID2= 2 (7685):	11.11	0.128	2.83	68.17
ID = 3 (7643):	22.49	0.309	2.58	68.58

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7590)	2.39	99.00
ID= 1 DT= 5.0 min		

	IMPERVIOUS (ha)	PERVIOUS (i)
Surface Area	2.37	0.02
Dep. Storage	1.00	5.00
Average Slope	1.00	2.00
Length	20.00	20.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.40	1.083	131.98	2.083	7.81	3.08	3.10
0.167	3.40	1.167	131.98	2.167	7.81	3.17	3.10
0.250	3.40	1.250	131.98	2.250	7.81	3.25	3.10
0.333	5.16	1.333	42.48	2.333	5.80	3.33	2.66
0.417	5.16	1.417	42.48	2.417	5.80	3.42	2.66
0.500	5.16	1.500	42.48	2.500	5.80	3.50	2.66
0.583	9.60	1.583	19.17	2.583	4.54	3.58	2.32
0.667	9.60	1.667	19.17	2.667	4.54	3.67	2.32
0.750	9.60	1.750	19.17	2.750	4.54	3.75	2.32
0.833	30.80	1.833	11.42	2.833	3.70	3.83	2.05
0.917	30.80	1.917	11.42	2.917	3.70	3.92	2.05
1.000	30.80	2.000	11.42	3.000	3.70	4.00	2.05

Max.Eff.Inten. (mm/hr)=	131.98	54.60
over (min)	5.00	5.00
Storage Coeff. (min)=	0.87 (ii)	1.53 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.33
PEAK FLOW (cms)=	0.87	0.00
TIME TO PEAK (hrs)=	1.25	1.25
RUNOFF VOLUME (mm)=	70.50	27.56
TOTAL RAINFALL (mm)=	71.50	71.50
RUNOFF COEFFICIENT =	0.99	0.39

TOTALS	0.872 (iii)	0.98
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***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7632)	2.36	99.00
ID= 1 DT= 5.0 min		

	IMPERVIOUS (ha)	PERVIOUS (i)
Surface Area	2.34	0.02
Dep. Storage	1.00	5.00
Average Slope	1.00	2.00
Length	20.00	20.00

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.40	1.083	131.98	2.083	7.81	3.08	3.10
0.167	3.40	1.167	131.98	2.167	7.81	3.17	3.10
0.250	3.40	1.250	131.98	2.250	7.81	3.25	3.10
0.333	5.16	1.333	42.48	2.333	5.80	3.33	2.66
0.417	5.16	1.417	42.48	2.417	5.80	3.42	2.66
0.500	5.16	1.500	42.48	2.500	5.80	3.50	2.66
0.583	9.60	1.583	19.17	2.583	4.54	3.58	2.32
0.667	9.60	1.667	19.17	2.667	4.54	3.67	2.32
0.750	9.60	1.750	19.17	2.750	4.54	3.75	2.32
0.833	30.80	1.833	11.42	2.833	3.70	3.83	2.05
0.917	30.80	1.917	11.42	2.917	3.70	3.92	2.05
1.000	30.80	2.000	11.42	3.000	3.70	4.00	2.05

Max.Eff.Inten. (mm/hr)=	131.98	54.60
over (min)	5.00	5.00
Storage Coeff. (min)=	0.87 (ii)	1.53 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.33

PEAK FLOW (cms)=	0.86	0.00
TIME TO PEAK (hrs)=	1.25	1.25
RUNOFF VOLUME (mm)=	70.50	27.56
TOTAL RAINFALL (mm)=	71.50	71.50
RUNOFF COEFFICIENT =	0.99	0.39

TOTALS

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7644)	2.40	99.00
ID= 1 DT= 5.0 min		

	IMPERVIOUS (ha)	PERVIOUS (i)
Surface Area	2.38	0.02
Dep. Storage	1.00	5.00
Average Slope	1.00	2.00
Length	20.00	20.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.40	1.083	131.98	2.083	7.81	3.08	3.10
0.167	3.40	1.167	131.98	2.167	7.81	3.17	3.10
0.250	3.40	1.250	131.98	2.250	7.81	3.25	3.10
0.333	5.16	1.333	42.48	2.333	5.80	3.33	2.66
0.417	5.16	1.417	42.48	2.417	5.80	3.42	2.66
0.500	5.16	1.500	42.48	2.500	5.80	3.50	2.66
0.583	9.60	1.583	19.17	2.583	4.54	3.58	2.32
0.667	9.60	1.667	19.17	2.667	4.54	3.67	2.32
0.750	9.60	1.750	19.17	2.750	4.54	3.75	2.32
0.833	30.80	1.833	11.42	2.833	3.70	3.83	2.05
0.917	30.80	1.917	11.42	2.917	3.70	3.92	2.05
1.000	30.80	2.000	11.42	3.000	3.70	4.00	2.05

Max.Eff.Inten. (mm/hr)=	131.98	54.60
over (min)	5.00	5.00
Storage Coeff. (min)=	0.87 (ii)	1.53 (ii)



Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.33

TOTALS
 PEAK FLOW (cms)= 0.87 0.00 0.875 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25
 RUNOFF VOLUME (mm)= 70.50 27.56 70.07
 TOTAL RAINFALL (mm)= 71.50 71.50
 RUNOFF COEFFICIENT = 0.99 0.39 0.98

Surface Area (ha)= 2.37 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7652) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.38 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.40	1.083	131.98	2.083	7.81	3.08	3.10
0.167	3.40	1.167	131.98	2.167	7.81	3.17	3.10
0.250	3.40	1.250	131.98	2.250	7.81	3.25	3.10
0.333	5.16	1.333	42.48	2.333	5.80	3.33	2.66
0.417	5.16	1.417	42.48	2.417	5.80	3.42	2.66
0.500	5.16	1.500	42.48	2.500	5.80	3.50	2.66
0.583	9.60	1.583	19.17	2.583	4.54	3.58	2.32
0.667	9.60	1.667	19.17	2.667	4.54	3.67	2.32
0.750	9.60	1.750	19.17	2.750	4.54	3.75	2.32
0.833	30.80	1.833	11.42	2.833	3.70	3.83	2.05
0.917	30.80	1.917	11.42	2.917	3.70	3.92	2.05
1.000	30.80	2.000	11.42	3.000	3.70	4.00	2.05

Max.Eff.Inten.(mm/hr)= 131.98 54.60
 over (min) 5.00 5.00
 Storage Coeff. (min)= 0.87 (ii) 1.53 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.33

TOTALS
 PEAK FLOW (cms)= 0.87 0.00 0.875 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25
 RUNOFF VOLUME (mm)= 70.50 27.56 70.07
 TOTAL RAINFALL (mm)= 71.50 71.50
 RUNOFF COEFFICIENT = 0.99 0.39 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7661) | Area (ha)= 2.39
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.40	1.083	131.98	2.083	7.81	3.08	3.10
0.167	3.40	1.167	131.98	2.167	7.81	3.17	3.10
0.250	3.40	1.250	131.98	2.250	7.81	3.25	3.10
0.333	5.16	1.333	42.48	2.333	5.80	3.33	2.66
0.417	5.16	1.417	42.48	2.417	5.80	3.42	2.66
0.500	5.16	1.500	42.48	2.500	5.80	3.50	2.66
0.583	9.60	1.583	19.17	2.583	4.54	3.58	2.32
0.667	9.60	1.667	19.17	2.667	4.54	3.67	2.32
0.750	9.60	1.750	19.17	2.750	4.54	3.75	2.32
0.833	30.80	1.833	11.42	2.833	3.70	3.83	2.05
0.917	30.80	1.917	11.42	2.917	3.70	3.92	2.05
1.000	30.80	2.000	11.42	3.000	3.70	4.00	2.05

Max.Eff.Inten.(mm/hr)= 131.98 54.60
 over (min) 5.00 5.00
 Storage Coeff. (min)= 0.87 (ii) 1.53 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.33

TOTALS
 PEAK FLOW (cms)= 0.87 0.00 0.872 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25
 RUNOFF VOLUME (mm)= 70.50 27.56 70.07
 TOTAL RAINFALL (mm)= 71.50 71.50
 RUNOFF COEFFICIENT = 0.99 0.39 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7671) | Area (ha)= 2.37
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.35 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.40	1.083	131.98	2.083	7.81	3.08	3.10
0.167	3.40	1.167	131.98	2.167	7.81	3.17	3.10
0.250	3.40	1.250	131.98	2.250	7.81	3.25	3.10
0.333	5.16	1.333	42.48	2.333	5.80	3.33	2.66
0.417	5.16	1.417	42.48	2.417	5.80	3.42	2.66
0.500	5.16	1.500	42.48	2.500	5.80	3.50	2.66
0.583	9.60	1.583	19.17	2.583	4.54	3.58	2.32
0.667	9.60	1.667	19.17	2.667	4.54	3.67	2.32
0.750	9.60	1.750	19.17	2.750	4.54	3.75	2.32
0.833	30.80	1.833	11.42	2.833	3.70	3.83	2.05
0.917	30.80	1.917	11.42	2.917	3.70	3.92	2.05
1.000	30.80	2.000	11.42	3.000	3.70	4.00	2.05

Max.Eff.Inten.(mm/hr)=	131.98	54.60	
over (min)	5.00	5.00	
Storage Coeff. (min)=	0.87 (ii)	1.53 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.34	0.33	
PEAK FLOW (cms)=	0.86	0.00	**TOTALS*
TIME TO PEAK (hrs)=	1.25	1.25	0.864 (iii)
RUNOFF VOLUME (mm)=	70.50	27.56	1.25
TOTAL RAINFALL (mm)=	71.50	71.50	70.07
RUNOFF COEFFICIENT =	0.99	0.39	71.50
			0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7698)					
1 + 2 = 3					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7590):	2.39	0.872	1.25	70.07	
+ ID2= 2 (7632):	2.36	0.861	1.25	70.07	
=====					
ID = 3 (7698):	4.75	1.732	1.25	70.07	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)					
3 + 2 = 1					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7698):	4.75	1.732	1.25	70.07	
+ ID2= 2 (7644):	2.40	0.875	1.25	70.07	
=====					
ID = 1 (7698):	7.15	2.607	1.25	70.07	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)					
1 + 2 = 3					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7698):	7.15	2.607	1.25	70.07	
+ ID2= 2 (7652):	2.40	0.875	1.25	70.07	
=====					
ID = 3 (7698):	9.55	3.482	1.25	70.07	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)					
3 + 2 = 1					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7698):	9.55	3.482	1.25	70.07	
+ ID2= 2 (7661):	2.39	0.872	1.25	70.07	
=====					
ID = 1 (7698):	11.94	4.354	1.25	70.07	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)					
1 + 2 = 3					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7698):	11.94	4.354	1.25	70.07	

+ ID2= 2 (7671):	2.37	0.864	1.25	70.07
=====				
ID = 3 (7698):	14.31	5.218	1.25	70.07

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| DIVERTHYD (7713) |
| IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1 +	Flow 2 +	Flow 3 +	Flow 4 +	Flow 5 =	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
TOTAL HYD. (ID= 1):	14.31	5.22	1.25	70.07
=====				
ID= 2 (2):	11.03	3.11	1.25	70.07
ID= 3 (2):	3.28	2.11	1.25	70.07
ID= 4 (2):	0.00	0.00	0.00	0.00
ID= 5 (2):	0.00	0.00	0.00	0.00
ID= 6 (2):	0.00	0.00	0.00	0.00

| RESERVOIR (7699) |
| IN= 2--> OUT= 1 |
| DT= 5.0 min |

OVERFLOW IS ON

OUTFLOW	STORAGE	OUTFLOW	STORAGE
(cms)	(ha.m.)	(cms)	(ha.m.)
0.0000	0.0000	0.2690	0.4589
0.1980	0.1112	0.0000	0.0000

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7713)	11.030	3.109	1.25	70.07
OUTFLOW: ID= 1 (7699)	9.598	0.269	1.50	71.06
OVERFLOW: ID= 3 (0003)	1.432	1.248	1.50	71.06

TOTAL NUMBER OF SIMULATION OVERFLOW = 10
CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.83
PERCENTAGE OF TIME OVERFLOWING (%) = 4.65

PEAK FLOW REDUCTION [Qout/Qin](%) = 8.65
TIME SHIFT OF PEAK FLOW (min) = 15.00
MAXIMUM STORAGE USED (ha.m.) = 0.4589

| Junction Command(7715) |

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 3(7699)	1.43	1.25	1.50	71.06
OUTFLOW: ID= 2(7715)	1.43	1.25	1.50	71.06

ADD HYD (7714)					
1 + 2 = 3					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7699):	9.60	0.269	1.50	71.06	
+ ID2= 2 (7713):	3.28	2.109	1.25	70.07	
=====					
ID = 3 (7714):	12.88	2.355	1.25	70.81	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.



ADD HYD (7714)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7714):	12.88	2.355	1.25	70.81
+ ID2= 2 (7715):	1.43	1.248	1.50	71.06
ID = 1 (7714):	14.31	2.355	1.25	70.83

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	PERVIOUS (i)
STANDHYD (7620)	1.45	
ID= 1 DT= 5.0 min	Total Imp(%)= 96.00	Dir. Conn.(%)= 96.00

Surface Area (ha)	Dep. Storage (mm)	Average Slope (%)	Length (m)	Mannings n
1.39	2.00	1.10	100.00	0.013
0.06	5.00	2.00	145.00	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)
0.083	3.40	1.083	131.98	2.083	7.81	3.08	3.10
0.167	3.40	1.167	131.98	2.167	7.81	3.17	3.10
0.250	3.40	1.250	131.98	2.250	7.81	3.25	3.10
0.333	5.16	1.333	42.48	2.333	5.80	3.33	2.66
0.417	5.16	1.417	42.48	2.417	5.80	3.42	2.66
0.500	5.16	1.500	42.48	2.500	5.80	3.50	2.66
0.583	9.60	1.583	19.17	2.583	4.54	3.58	2.32
0.667	9.60	1.667	19.17	2.667	4.54	3.67	2.32
0.750	9.60	1.750	19.17	2.750	4.54	3.75	2.32
0.833	30.80	1.833	11.42	2.833	3.70	3.83	2.05
0.917	30.80	1.917	11.42	2.917	3.70	3.92	2.05
1.000	30.80	2.000	11.42	3.000	3.70	4.00	2.05

Max.Eff.Inten. (mm/hr)=	131.98	54.60
over (min)=	5.00	10.00
Storage Coeff. (min)=	2.22 (ii)	6.06 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.30	0.15
PEAK FLOW (cms)=	0.51	0.01
TIME TO PEAK (hrs)=	1.25	1.33
RUNOFF VOLUME (mm)=	69.50	27.56
TOTAL RAINFALL (mm)=	71.50	71.50
RUNOFF COEFFICIENT =	0.97	0.39

TOTALS	0.516 (iii)
0.516 (iii)	
1.25	
67.82	
71.50	
0.95	

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES: CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	PERVIOUS (i)
STANDHYD (7629)	1.70	
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00	Dir. Conn.(%)= 99.00

Surface Area (ha)	Dep. Storage (mm)	Average Slope (%)	Length (m)	Mannings n
1.68	2.00	1.10	100.00	0.013
0.02	5.00	2.00	40.00	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)
0.083	3.40	1.083	131.98	2.083	7.81	3.08	3.10
0.167	3.40	1.167	131.98	2.167	7.81	3.17	3.10
0.250	3.40	1.250	131.98	2.250	7.81	3.25	3.10
0.333	5.16	1.333	42.48	2.333	5.80	3.33	2.66
0.417	5.16	1.417	42.48	2.417	5.80	3.42	2.66
0.500	5.16	1.500	42.48	2.500	5.80	3.50	2.66
0.583	9.60	1.583	19.17	2.583	4.54	3.58	2.32
0.667	9.60	1.667	19.17	2.667	4.54	3.67	2.32
0.750	9.60	1.750	19.17	2.750	4.54	3.75	2.32
0.833	30.80	1.833	11.42	2.833	3.70	3.83	2.05
0.917	30.80	1.917	11.42	2.917	3.70	3.92	2.05
1.000	30.80	2.000	11.42	3.000	3.70	4.00	2.05

Max.Eff.Inten. (mm/hr)=	131.98	54.60
over (min)=	5.00	5.00
Storage Coeff. (min)=	2.22 (ii)	3.23 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.30	0.27

PEAK FLOW (cms)=	0.62	0.00	0.619 (iii)
TIME TO PEAK (hrs)=	1.25	1.25	
RUNOFF VOLUME (mm)=	69.50	27.56	69.08
TOTAL RAINFALL (mm)=	71.50	71.50	71.50
RUNOFF COEFFICIENT =	0.97	0.39	0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES: CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	PERVIOUS (i)
STANDHYD (7651)	1.33	
ID= 1 DT= 5.0 min	Total Imp(%)= 98.00	Dir. Conn.(%)= 98.00

Surface Area (ha)	Dep. Storage (mm)	Average Slope (%)	Length (m)	Mannings n
1.30	2.00	1.10	100.00	0.013
0.03	5.00	2.00	40.00	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)
0.083	3.40	1.083	131.98	2.083	7.81	3.08	3.10
0.167	3.40	1.167	131.98	2.167	7.81	3.17	3.10
0.250	3.40	1.250	131.98	2.250	7.81	3.25	3.10
0.333	5.16	1.333	42.48	2.333	5.80	3.33	2.66
0.417	5.16	1.417	42.48	2.417	5.80	3.42	2.66
0.500	5.16	1.500	42.48	2.500	5.80	3.50	2.66
0.583	9.60	1.583	19.17	2.583	4.54	3.58	2.32
0.667	9.60	1.667	19.17	2.667	4.54	3.67	2.32
0.750	9.60	1.750	19.17	2.750	4.54	3.75	2.32
0.833	30.80	1.833	11.42	2.833	3.70	3.83	2.05
0.917	30.80	1.917	11.42	2.917	3.70	3.92	2.05
1.000	30.80	2.000	11.42	3.000	3.70	4.00	2.05

Max.Eff.Inten. (mm/hr)=	131.98	54.60
over (min)=	5.00	5.00
Storage Coeff. (min)=	2.22 (ii)	3.55 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.30	0.26

TOTALS



PEAK FLOW (cms)= 0.48 0.00 0.482 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 69.50 27.56 68.66
 TOTAL RAINFALL (mm)= 71.50 71.50 71.50
 RUNOFF COEFFICIENT = 0.97 0.39 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | ADD HYD (7700) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 | (ha) (cms) (hrs) (mm)
 ID1= 1 (7620): 1.45 0.516 1.25 67.82
 + ID2= 2 (7629): 1.70 0.619 1.25 69.08

 ID = 3 (7700): 3.15 1.136 1.25 68.50

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7700) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 | (ha) (cms) (hrs) (mm)
 ID1= 3 (7700): 3.15 1.136 1.25 68.50
 + ID2= 2 (7651): 1.33 0.482 1.25 68.66

 ID = 1 (7700): 4.48 1.617 1.25 68.55

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |
 | STANDHYD (7623) | Area (ha)= 1.20
 | ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00

 IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.14 0.06
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 2.50 2.00
 Length (m)= 60.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

 ---- TRANSFORMED HYETOGRAPH ----
 TIME RAIN | TIME RAIN | ' TIME RAIN | TIME RAIN
 hrs mm/hr | hrs mm/hr | ' hrs mm/hr | hrs mm/hr
 0.083 3.40 | 1.083 131.98 | 2.083 7.81 | 3.08 3.10
 0.167 3.40 | 1.167 131.98 | 2.167 7.81 | 3.17 3.10
 0.250 3.40 | 1.250 131.98 | 2.250 7.81 | 3.25 3.10
 0.333 5.16 | 1.333 42.48 | 2.333 5.80 | 3.33 2.66
 0.417 5.16 | 1.417 42.48 | 2.417 5.80 | 3.42 2.66
 0.500 5.16 | 1.500 42.48 | 2.500 5.80 | 3.50 2.66
 0.583 9.60 | 1.583 19.17 | 2.583 4.54 | 3.58 2.32
 0.667 9.60 | 1.667 19.17 | 2.667 4.54 | 3.67 2.32
 0.750 9.60 | 1.750 19.17 | 2.750 4.54 | 3.75 2.32
 0.833 30.80 | 1.833 11.42 | 2.833 3.70 | 3.83 2.05
 0.917 30.80 | 1.917 11.42 | 2.917 3.70 | 3.92 2.05
 1.000 30.80 | 2.000 11.42 | 3.000 3.70 | 4.00 2.05

Max.Eff.Inten.(mm/hr)= 131.98 56.45
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.28 (ii) 3.22 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.27

TOTALS

PEAK FLOW (cms)= 0.42 0.01 0.428 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 69.50 28.39 67.44
 TOTAL RAINFALL (mm)= 71.50 71.50 71.50
 RUNOFF COEFFICIENT = 0.97 0.40 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7654) | Area (ha)= 1.69
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.67 0.02
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

 ---- TRANSFORMED HYETOGRAPH ----
 TIME RAIN | TIME RAIN | ' TIME RAIN | TIME RAIN
 hrs mm/hr | hrs mm/hr | ' hrs mm/hr | hrs mm/hr
 0.083 3.40 | 1.083 131.98 | 2.083 7.81 | 3.08 3.10
 0.167 3.40 | 1.167 131.98 | 2.167 7.81 | 3.17 3.10
 0.250 3.40 | 1.250 131.98 | 2.250 7.81 | 3.25 3.10
 0.333 5.16 | 1.333 42.48 | 2.333 5.80 | 3.33 2.66
 0.417 5.16 | 1.417 42.48 | 2.417 5.80 | 3.42 2.66
 0.500 5.16 | 1.500 42.48 | 2.500 5.80 | 3.50 2.66
 0.583 9.60 | 1.583 19.17 | 2.583 4.54 | 3.58 2.32
 0.667 9.60 | 1.667 19.17 | 2.667 4.54 | 3.67 2.32
 0.750 9.60 | 1.750 19.17 | 2.750 4.54 | 3.75 2.32
 0.833 30.80 | 1.833 11.42 | 2.833 3.70 | 3.83 2.05
 0.917 30.80 | 1.917 11.42 | 2.917 3.70 | 3.92 2.05
 1.000 30.80 | 2.000 11.42 | 3.000 3.70 | 4.00 2.05

Max.Eff.Inten.(mm/hr)= 131.98 54.60
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.22 (ii) 3.23 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.30 0.27

TOTALS

PEAK FLOW (cms)= 0.61 0.00 0.616 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 69.50 27.56 69.08
 TOTAL RAINFALL (mm)= 71.50 71.50 71.50
 RUNOFF COEFFICIENT = 0.97 0.39 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7655) | Area (ha)= 1.32
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.31 0.01
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00



Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.40	1.083	131.98	2.083	7.81	3.08	3.10
0.167	3.40	1.167	131.98	2.167	7.81	3.17	3.10
0.250	3.40	1.250	131.98	2.250	7.81	3.25	3.10
0.333	5.16	1.333	42.48	2.333	5.80	3.33	2.66
0.417	5.16	1.417	42.48	2.417	5.80	3.42	2.66
0.500	5.16	1.500	42.48	2.500	5.80	3.50	2.66
0.583	9.60	1.583	19.17	2.583	4.54	3.58	2.32
0.667	9.60	1.667	19.17	2.667	4.54	3.67	2.32
0.750	9.60	1.750	19.17	2.750	4.54	3.75	2.32
0.833	30.80	1.833	11.42	2.833	3.70	3.83	2.05
0.917	30.80	1.917	11.42	2.917	3.70	3.92	2.05
1.000	30.80	2.000	11.42	3.000	3.70	4.00	2.05

Max.Eff.Inten.(mm/hr)= 131.98 54.60
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.22 (ii) 3.23 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.30 0.27

PEAK FLOW (cms)= 0.48 0.00
 TIME TO PEAK (hrs)= 1.25 1.25
 RUNOFF VOLUME (mm)= 69.50 27.56
 TOTAL RAINFALL (mm)= 71.50 71.50
 RUNOFF COEFFICIENT = 0.97 0.39

TOTALS

0.481 (iii)

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 STANDHYD (7662) Area (ha)= 1.61
 ID= 1 DT= 5.0 min Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.48	0.13
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.40	1.083	131.98	2.083	7.81	3.08	3.10
0.167	3.40	1.167	131.98	2.167	7.81	3.17	3.10
0.250	3.40	1.250	131.98	2.250	7.81	3.25	3.10
0.333	5.16	1.333	42.48	2.333	5.80	3.33	2.66
0.417	5.16	1.417	42.48	2.417	5.80	3.42	2.66
0.500	5.16	1.500	42.48	2.500	5.80	3.50	2.66
0.583	9.60	1.583	19.17	2.583	4.54	3.58	2.32
0.667	9.60	1.667	19.17	2.667	4.54	3.67	2.32
0.750	9.60	1.750	19.17	2.750	4.54	3.75	2.32
0.833	30.80	1.833	11.42	2.833	3.70	3.83	2.05
0.917	30.80	1.917	11.42	2.917	3.70	3.92	2.05
1.000	30.80	2.000	11.42	3.000	3.70	4.00	2.05

Max.Eff.Inten.(mm/hr)= 131.98 36.79
 over (min) = 5.00 30.00

Storage Coeff. (min)= 2.22 (ii) 25.02 (ii)
 Unit Hyd. Tpeak (min)= 5.00 30.00
 Unit Hyd. peak (cms)= 0.30 0.04

TOTALS
 PEAK FLOW (cms)= 0.54 0.01 0.545 (iii)
 TIME TO PEAK (hrs)= 1.25 1.67 1.25
 RUNOFF VOLUME (mm)= 69.50 27.56 66.14
 TOTAL RAINFALL (mm)= 71.50 71.50 71.50
 RUNOFF COEFFICIENT = 0.97 0.39 0.92

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7701)
 1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7654):	1.69	0.616	1.25	69.08
+ ID2= 2 (7655):	1.32	0.481	1.25	69.08
ID = 3 (7701):	3.01	1.096	1.25	69.08

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7701)
 3 + 2 = 1

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (7701):	3.01	1.096	1.25	69.08
+ ID2= 2 (7662):	1.61	0.545	1.25	66.14
ID = 1 (7701):	4.62	1.641	1.25	68.05

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
 STANDHYD (7707) Area (ha)= 1.06
 ID= 1 DT= 5.0 min Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.01	0.05
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.40	1.083	131.98	2.083	7.81	3.08	3.10
0.167	3.40	1.167	131.98	2.167	7.81	3.17	3.10
0.250	3.40	1.250	131.98	2.250	7.81	3.25	3.10
0.333	5.16	1.333	42.48	2.333	5.80	3.33	2.66
0.417	5.16	1.417	42.48	2.417	5.80	3.42	2.66
0.500	5.16	1.500	42.48	2.500	5.80	3.50	2.66
0.583	9.60	1.583	19.17	2.583	4.54	3.58	2.32
0.667	9.60	1.667	19.17	2.667	4.54	3.67	2.32
0.750	9.60	1.750	19.17	2.750	4.54	3.75	2.32
0.833	30.80	1.833	11.42	2.833	3.70	3.83	2.05
0.917	30.80	1.917	11.42	2.917	3.70	3.92	2.05
1.000	30.80	2.000	11.42	3.000	3.70	4.00	2.05

Max.Eff.Inten.(mm/hr)= 131.98 56.45
 over (min) = 5.00 5.00

Storage Coeff. (min)= 1.28 (ii) 3.22 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.27

PEAK FLOW (cms)= 0.37 0.01 0.378 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 69.50 28.39 67.44
 TOTAL RAINFALL (mm)= 71.50 71.50 71.50
 RUNOFF COEFFICIENT = 0.97 0.40 0.94

TOTALS

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7702)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7623):	1.20	0.428	1.25	67.44
+ ID2= 2 (7700):	4.48	1.617	1.25	68.55
ID = 3 (7702):	5.68	2.045	1.25	68.32

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)	AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7702):	5.68	2.045	1.25	68.32
+ ID2= 2 (7701):	4.62	1.641	1.25	68.05
ID = 1 (7702):	10.30	3.686	1.25	68.20

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7702):	10.30	3.686	1.25	68.20
+ ID2= 2 (7707):	1.06	0.378	1.25	67.44
ID = 3 (7702):	11.36	4.064	1.25	68.13

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)	AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7702):	11.36	4.064	1.25	68.13
+ ID2= 2 (7714):	14.31	2.355	1.25	70.83
ID = 1 (7702):	25.67	6.419	1.25	69.64

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7705)	OUTFLOW	STORAGE	OUTFLOW	STORAGE
IN= 2---> OUT= 1	(cms)	(ha.m.)	(cms)	(ha.m.)
DT= 5.0 min				
	0.0000	0.0000	0.6280	2.3980
	0.0730	0.2080	0.6400	2.4830
	0.0890	0.2770	0.6520	2.5670
	0.1340	0.5530	0.6640	2.6500

	0.2910	0.8290	0.6750	2.7340
	0.3860	1.1060	0.7190	3.0490
	0.4590	1.3820	0.8250	3.3550
	0.5220	1.7210	0.2760	3.4560
	0.5780	2.0600	2.3560	3.7320

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7702)	25.670	6.419	1.25	69.64
OUTFLOW: ID= 1 (7705)	25.670	0.369	3.08	69.61

PEAK FLOW REDUCTION [Qout/Qin](%)= 5.74
 TIME SHIFT OF PEAK FLOW (min)=110.00
 MAXIMUM STORAGE USED (ha.m.)= 1.0555

CALIB	Area	Total Imp	Dir. Conn.
STANDHYD (7716)	(ha)=	(%)=	(%)=
ID= 1 DT= 5.0 min	0.19	95.00	95.00

	IMPERVIOUS	PERVIOUS (i)
	(ha)=	(mm)=
Surface Area	0.18	0.01
Dep. Storage	2.00	5.00
Average Slope	2.50	2.00
Length	60.00	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.40	1.083	131.98	2.083	7.81	3.08	3.10
0.167	3.40	1.167	131.98	2.167	7.81	3.17	3.10
0.250	3.40	1.250	131.98	2.250	7.81	3.25	3.10
0.333	5.16	1.333	42.48	2.333	5.80	3.33	2.66
0.417	5.16	1.417	42.48	2.417	5.80	3.42	2.66
0.500	5.16	1.500	42.48	2.500	5.80	3.50	2.66
0.583	9.60	1.583	19.17	2.583	4.54	3.58	2.32
0.667	9.60	1.667	19.17	2.667	4.54	3.67	2.32
0.750	9.60	1.750	19.17	2.750	4.54	3.75	2.32
0.833	30.80	1.833	11.42	2.833	3.70	3.83	2.05
0.917	30.80	1.917	11.42	2.917	3.70	3.92	2.05
1.000	30.80	2.000	11.42	3.000	3.70	4.00	2.05

Max.Eff.Inten.(mm/hr)= 131.98 56.45
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.28 (ii) 3.22 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.27

PEAK FLOW (cms)= 0.07 0.00 0.068 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 69.50 28.39 67.44
 TOTAL RAINFALL (mm)= 71.50 71.50 71.50
 RUNOFF COEFFICIENT = 0.97 0.40 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7720)	OUTFLOW	STORAGE	OUTFLOW	STORAGE
IN= 2---> OUT= 1	(cms)	(ha.m.)	(cms)	(ha.m.)
DT= 5.0 min				
	0.0000	0.0000	0.0100	0.0090
	0.0030	0.0010	0.0110	0.0100
	0.0050	0.0030	0.0120	0.0110

0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7716)	0.190	0.068	1.25	67.44
OUTFLOW: ID= 1 (7720)	0.190	0.009	1.75	67.02

PEAK FLOW REDUCTION [Qout/Qin] (%) = 13.62
 TIME SHIFT OF PEAK FLOW (min) = 30.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0082

0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7717)	0.200	0.071	1.25	67.44
OUTFLOW: ID= 1 (7719)	0.200	0.010	1.75	67.05

PEAK FLOW REDUCTION [Qout/Qin] (%) = 13.61
 TIME SHIFT OF PEAK FLOW (min) = 30.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0087

CALIB	Area (ha) = 0.20
STANDHYD (7717)	Total Imp (%) = 95.00
ID= 1 DT= 5.0 min	Dir. Conn. (%) = 95.00

	IMPERVIOUS (ha)	PERVIOUS (i)
Surface Area	0.19	0.01
Dep. Storage	2.00	5.00
Average Slope	2.50	2.00
Length	36.51	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.40	1.083	131.98	2.083	7.81	3.08	3.10
0.167	3.40	1.167	131.98	2.167	7.81	3.17	3.10
0.250	3.40	1.250	131.98	2.250	7.81	3.25	3.10
0.333	5.16	1.333	42.48	2.333	5.80	3.33	2.66
0.417	5.16	1.417	42.48	2.417	5.80	3.42	2.66
0.500	5.16	1.500	42.48	2.500	5.80	3.50	2.66
0.583	9.60	1.583	19.17	2.583	4.54	3.58	2.32
0.667	9.60	1.667	19.17	2.667	4.54	3.67	2.32
0.750	9.60	1.750	19.17	2.750	4.54	3.75	2.32
0.833	30.80	1.833	11.42	2.833	3.70	3.83	2.05
0.917	30.80	1.917	11.42	2.917	3.70	3.92	2.05
1.000	30.80	2.000	11.42	3.000	3.70	4.00	2.05

Max.Eff.Inten. (mm/hr)=	131.98	56.45
over (min)	5.00	5.00
Storage Coeff. (min)=	0.95 (ii)	2.89 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.28

TOTALS

PEAK FLOW (cms)=	0.07	0.00	0.071 (iii)
TIME TO PEAK (hrs)=	1.25	1.25	
RUNOFF VOLUME (mm)=	69.50	28.39	67.44
TOTAL RAINFALL (mm)=	71.50	71.50	71.50
RUNOFF COEFFICIENT =	0.97	0.40	0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7719)	OVERFLOW IS OFF		
IN= 2---> OUT= 1			
DT= 5.0 min			
OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.0100	0.0090
0.0030	0.0010	0.0110	0.0100
0.0050	0.0030	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130

ADD HYD (7706)	Area (ha) = 0.20			
1 + 2 = 3	Total Imp (%) = 95.00			
ID1= 1 (7705):	25.67	0.369	3.08	69.61
+ ID2= 2 (7719):	0.20	0.010	1.75	67.05
ID = 3 (7706):	25.87	0.378	3.08	69.59

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7706)	Area (ha) = 0.20			
3 + 2 = 1	Total Imp (%) = 95.00			
ID1= 3 (7706):	25.87	0.378	3.08	69.59
+ ID2= 2 (7720):	0.19	0.009	1.75	67.02
ID = 1 (7706):	26.06	0.386	2.92	69.57

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha) = 1.24
STANDHYD (7595)	Total Imp (%) = 99.00
ID= 1 DT= 5.0 min	Dir. Conn. (%) = 99.00

	IMPERVIOUS (ha)	PERVIOUS (i)
Surface Area	1.23	0.01
Dep. Storage	2.00	5.00
Average Slope	2.00	2.00
Length	91.00	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.40	1.083	131.98	2.083	7.81	3.08	3.10
0.167	3.40	1.167	131.98	2.167	7.81	3.17	3.10
0.250	3.40	1.250	131.98	2.250	7.81	3.25	3.10
0.333	5.16	1.333	42.48	2.333	5.80	3.33	2.66
0.417	5.16	1.417	42.48	2.417	5.80	3.42	2.66
0.500	5.16	1.500	42.48	2.500	5.80	3.50	2.66
0.583	9.60	1.583	19.17	2.583	4.54	3.58	2.32
0.667	9.60	1.667	19.17	2.667	4.54	3.67	2.32
0.750	9.60	1.750	19.17	2.750	4.54	3.75	2.32
0.833	30.80	1.833	11.42	2.833	3.70	3.83	2.05
0.917	30.80	1.917	11.42	2.917	3.70	3.92	2.05
1.000	30.80	2.000	11.42	3.000	3.70	4.00	2.05

Max.Eff.Inten. (mm/hr)=	131.98	56.45
over (min)	5.00	5.00
Storage Coeff. (min)=	1.75 (ii)	2.76 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.32	0.28

TOTALS

PEAK FLOW (cms)=	0.45	0.00	0.453 (iii)
------------------	------	------	-------------

TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 69.50 27.56 69.08
 TOTAL RAINFALL (mm)= 71.50 71.50 71.50
 RUNOFF COEFFICIENT = 0.97 0.39 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7718) |
| 1 + 2 = 3 |
-----
      AREA   QPEAK   TPEAK   R.V.
      (ha)   (cms)   (hrs)   (mm)
ID1= 1 ( 7595):   1.24   0.453   1.25   69.08
+ ID2= 2 ( 7706):  26.06   0.386   2.92   69.57
-----
ID = 3 ( 7718):   27.30   0.630   1.25   69.55
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| RESERVOIR( 7711) | OVERFLOW IS OFF
| IN= 2--> OUT= 1 |
| DT= 5.0 min |
-----
      OUTFLOW   STORAGE | OUTFLOW   STORAGE
      (cms)   (ha.m.) | (cms)   (ha.m.)
0.0000   0.0000 | 1.0810   1.6220
0.0010   0.1670 | 1.3950   1.8170
0.0340   0.3380 | 2.0990   2.2130
0.0510   0.5110 | 2.8950   2.6150
0.0630   0.6880 | 3.7730   3.0250
0.1610   0.8670 | 4.7260   3.4420
0.3300   1.0500 | 5.5670   3.8670
0.5440   1.2370 | 8.5800   4.3000
0.7970   1.4290 | 10.9450  4.5210
-----
      AREA   QPEAK   TPEAK   R.V.
      (ha)   (cms)   (hrs)   (mm)
INFLOW : ID= 2 ( 7718)  27.302   0.630   1.25   69.55
OUTFLOW: ID= 1 ( 7711)  27.302   0.198   10.92  64.20
  
```

PEAK FLOW REDUCTION [Qout/Qin](%)= 31.49
 TIME SHIFT OF PEAK FLOW (min)=580.00
 MAXIMUM STORAGE USED (ha.m.)= 0.9075



```

-----
*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | ' hrs mm/hr | hrs mm/hr
0.083 3.55 | 1.083 149.09 | 2.083 8.56 | 3.08 3.23
0.167 3.55 | 1.167 149.09 | 2.167 8.56 | 3.17 3.23
0.250 3.55 | 1.250 149.09 | 2.250 8.56 | 3.25 3.23
0.333 5.54 | 1.333 48.62 | 2.333 6.26 | 3.33 2.74
0.417 5.54 | 1.417 48.62 | 2.417 6.26 | 3.42 2.74
0.500 5.54 | 1.500 48.62 | 2.500 6.26 | 3.50 2.74
0.583 10.62 | 1.583 21.69 | 2.583 4.84 | 3.58 2.36
0.667 10.62 | 1.667 21.69 | 2.667 4.84 | 3.67 2.36
0.750 10.62 | 1.750 21.69 | 2.750 4.84 | 3.75 2.36
0.833 35.12 | 1.833 12.72 | 2.833 3.89 | 3.83 2.07
0.917 35.13 | 1.917 12.72 | 2.917 3.89 | 3.92 2.07
1.000 35.13 | 2.000 12.72 | 3.000 3.89 | 4.00 2.07

```

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\mhoooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\2239a87f-ab4c-4764-bb3a-61ffe76c689\scen
Summary filename: C:\Users\mhoooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\2239a87f-ab4c-4764-bb3a-61ffe76c689\scen

DATE: 11-22-2024 TIME: 12:17:34

USER:

COMMENTS: _____

```

```

Max.Eff.Inten.(mm/hr)= 149.09 67.37
over (min) = 5.00 5.00
Storage Coeff. (min)= 1.34 (ii) 2.29 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.33 0.30

*TOTALS*
PEAK FLOW (cms)= 0.24 0.00 0.243 (iii)
TIME TO PEAK (hrs)= 1.25 1.25 1.25
RUNOFF VOLUME (mm)= 78.22 33.45 77.77
TOTAL RAINFALL (mm)= 80.22 80.22 80.22
RUNOFF COEFFICIENT = 0.98 0.42 0.97

```

- ***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
 - (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
 - (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

*****
** SIMULATION : K - 50yr 4hr 15min Chicago **
*****

```

```

| CHICAGO STORM | IDF curve parameters: A=3886.000
| Ptotal= 80.22 mm | B= 16.000
| | C= 0.950
used in: INTENSITY = A / (t + B)^C
Duration of storm = 4.00 hrs
Storm time step = 15.00 min
Time to peak ratio = 0.33

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	3.55	1.00	149.09	2.00	8.56	3.00	3.23
0.25	5.54	1.25	48.62	2.25	6.26	3.25	2.74
0.50	10.62	1.50	21.69	2.50	4.84	3.50	2.36
0.75	35.13	1.75	12.72	2.75	3.89	3.75	2.07

```

| CALIB |
| NASHYD ( 7721) | Area (ha)= 0.21 Curve Number (CN)= 73.0
| ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 0.17

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | ' hrs mm/hr | hrs mm/hr
0.083 3.55 | 1.083 149.09 | 2.083 8.56 | 3.08 3.23
0.167 3.55 | 1.167 149.09 | 2.167 8.56 | 3.17 3.23
0.250 3.55 | 1.250 149.09 | 2.250 8.56 | 3.25 3.23
0.333 5.54 | 1.333 48.62 | 2.333 6.26 | 3.33 2.74
0.417 5.54 | 1.417 48.62 | 2.417 6.26 | 3.42 2.74
0.500 5.54 | 1.500 48.62 | 2.500 6.26 | 3.50 2.74
0.583 10.62 | 1.583 21.69 | 2.583 4.84 | 3.58 2.36
0.667 10.62 | 1.667 21.69 | 2.667 4.84 | 3.67 2.36
0.750 10.62 | 1.750 21.69 | 2.750 4.84 | 3.75 2.36
0.833 35.12 | 1.833 12.72 | 2.833 3.89 | 3.83 2.07
0.917 35.13 | 1.917 12.72 | 2.917 3.89 | 3.92 2.07
1.000 35.13 | 2.000 12.72 | 3.000 3.89 | 4.00 2.07

```

Unit Hyd Qpeak (cms)= 0.047

```

PEAK FLOW (cms)= 0.026 (i)
TIME TO PEAK (hrs)= 1.333
RUNOFF VOLUME (mm)= 33.327
TOTAL RAINFALL (mm)= 80.223
RUNOFF COEFFICIENT = 0.415

```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

| CALIB |
| STANDHYD ( 7640) | Area (ha)= 0.59
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.58 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 62.72 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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| CALIB |

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STANDHYD (7599) | Area (ha)= 10.90
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 10.79 0.11
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 269.57 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.55	1.083	149.09	2.083	8.56	3.08	3.23
0.167	3.55	1.167	149.09	2.167	8.56	3.17	3.23
0.250	3.55	1.250	149.09	2.250	8.56	3.25	3.23
0.333	5.54	1.333	48.62	2.333	6.26	3.33	2.74
0.417	5.54	1.417	48.62	2.417	6.26	3.42	2.74
0.500	5.54	1.500	48.62	2.500	6.26	3.50	2.74
0.583	10.62	1.583	21.69	2.583	4.84	3.58	2.36
0.667	10.62	1.667	21.69	2.667	4.84	3.67	2.36
0.750	10.62	1.750	21.69	2.750	4.84	3.75	2.36
0.833	35.12	1.833	12.72	2.833	3.89	3.83	2.07
0.917	35.13	1.917	12.72	2.917	3.89	3.92	2.07
1.000	35.13	2.000	12.72	3.000	3.89	4.00	2.07

Max.Eff.Inten.(mm/hr)= 149.09 67.37
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 3.95 (ii) 4.91 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.24 0.22

PEAK FLOW (cms)= 4.39 0.02 4.412 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25
 RUNOFF VOLUME (mm)= 78.22 33.45 77.78
 TOTAL RAINFALL (mm)= 80.22 80.22
 RUNOFF COEFFICIENT = 0.98 0.42 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7722) |

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7599):	10.90	4.412	1.25	77.78
+ ID2= 2 (7721):	0.21	0.026	1.33	33.33
ID = 3 (7722):	11.11	4.434	1.25	76.94

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7685) | OVERFLOW IS OFF

	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
0.0000	0.0000		0.1390	0.6960
0.0590	0.3400		0.1630	0.7780
0.0900	0.4907		0.1840	0.8800
0.1110	0.5760		0.0000	0.0000

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7722)	11.108	4.434	1.25	76.94
OUTFLOW: ID= 1 (7685)	11.108	0.150	2.75	76.81

PEAK FLOW REDUCTION [Qout/Qin](%)= 3.38
 TIME SHIFT OF PEAK FLOW (min)= 90.00
 MAXIMUM STORAGE USED (ha.m.)= 0.7334

CALIB |
 STANDHYD (7591) | Area (ha)= 11.38
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 11.27 0.11
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 275.44 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.55	1.083	149.09	2.083	8.56	3.08	3.23
0.167	3.55	1.167	149.09	2.167	8.56	3.17	3.23
0.250	3.55	1.250	149.09	2.250	8.56	3.25	3.23
0.333	5.54	1.333	48.62	2.333	6.26	3.33	2.74
0.417	5.54	1.417	48.62	2.417	6.26	3.42	2.74
0.500	5.54	1.500	48.62	2.500	6.26	3.50	2.74
0.583	10.62	1.583	21.69	2.583	4.84	3.58	2.36
0.667	10.62	1.667	21.69	2.667	4.84	3.67	2.36
0.750	10.62	1.750	21.69	2.750	4.84	3.75	2.36
0.833	35.12	1.833	12.72	2.833	3.89	3.83	2.07
0.917	35.13	1.917	12.72	2.917	3.89	3.92	2.07
1.000	35.13	2.000	12.72	3.000	3.89	4.00	2.07

Max.Eff.Inten.(mm/hr)= 149.09 67.37
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 4.00 (ii) 4.96 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.24 0.22

PEAK FLOW (cms)= 4.58 0.02 4.602 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25
 RUNOFF VOLUME (mm)= 78.22 33.45 77.78
 TOTAL RAINFALL (mm)= 80.22 80.22
 RUNOFF COEFFICIENT = 0.98 0.42 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7593) | OVERFLOW IS OFF

	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
0.0000	0.0000		0.1990	0.6950
0.0830	0.3500		0.2320	0.8000
0.1280	0.4850		0.2620	0.9000
0.1580	0.5900		0.0000	0.0000

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7591)	11.380	4.602	1.25	77.78
OUTFLOW: ID= 1 (7593)	11.380	0.211	2.42	77.68

PEAK FLOW REDUCTION [Qout/Qin](%)= 4.58
 TIME SHIFT OF PEAK FLOW (min)= 70.00
 MAXIMUM STORAGE USED (ha.m.)= 0.7329



Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

ADD HYD (7643)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID= 1 (7593):	11.38	0.211	2.42	77.68
+ ID2= 2 (7685):	11.11	0.150	2.75	76.81
ID = 3 (7643):	22.49	0.360	2.50	77.25

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7590)	2.39	99.00
ID= 1 DT= 5.0 min		

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	2.37	0.02
Dep. Storage (mm)	1.00	5.00
Average Slope (%)	1.00	2.00
Length (m)	20.00	20.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.55	1.083	149.09	2.083	8.56	3.08	3.23
0.167	3.55	1.167	149.09	2.167	8.56	3.17	3.23
0.250	3.55	1.250	149.09	2.250	8.56	3.25	3.23
0.333	5.54	1.333	48.62	2.333	6.26	3.33	2.74
0.417	5.54	1.417	48.62	2.417	6.26	3.42	2.74
0.500	5.54	1.500	48.62	2.500	6.26	3.50	2.74
0.583	10.62	1.583	21.69	2.583	4.84	3.58	2.36
0.667	10.62	1.667	21.69	2.667	4.84	3.67	2.36
0.750	10.62	1.750	21.69	2.750	4.84	3.75	2.36
0.833	35.12	1.833	12.72	2.833	3.89	3.83	2.07
0.917	35.13	1.917	12.72	2.917	3.89	3.92	2.07
1.000	35.13	2.000	12.72	3.000	3.89	4.00	2.07

Max.Eff.Inten. (mm/hr)=	149.09	67.37
over (min)	5.00	5.00
Storage Coeff. (min)=	0.83 (ii)	1.46 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.33
PEAK FLOW (cms)=	0.98	0.00
TIME TO PEAK (hrs)=	1.25	1.25
RUNOFF VOLUME (mm)=	79.22	33.45
TOTAL RAINFALL (mm)=	80.22	80.22
RUNOFF COEFFICIENT =	0.99	0.42

TOTALS	
0.985 (iii)	0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7632)	2.36	99.00
ID= 1 DT= 5.0 min		

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	2.34	0.02
Dep. Storage (mm)	1.00	5.00
Average Slope (%)	1.00	2.00
Length (m)	20.00	20.00

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.55	1.083	149.09	2.083	8.56	3.08	3.23
0.167	3.55	1.167	149.09	2.167	8.56	3.17	3.23
0.250	3.55	1.250	149.09	2.250	8.56	3.25	3.23
0.333	5.54	1.333	48.62	2.333	6.26	3.33	2.74
0.417	5.54	1.417	48.62	2.417	6.26	3.42	2.74
0.500	5.54	1.500	48.62	2.500	6.26	3.50	2.74
0.583	10.62	1.583	21.69	2.583	4.84	3.58	2.36
0.667	10.62	1.667	21.69	2.667	4.84	3.67	2.36
0.750	10.62	1.750	21.69	2.750	4.84	3.75	2.36
0.833	35.12	1.833	12.72	2.833	3.89	3.83	2.07
0.917	35.13	1.917	12.72	2.917	3.89	3.92	2.07
1.000	35.13	2.000	12.72	3.000	3.89	4.00	2.07

Max.Eff.Inten. (mm/hr)=	149.09	67.37
over (min)	5.00	5.00
Storage Coeff. (min)=	0.83 (ii)	1.46 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.33

TOTALS		
0.973 (iii)	0.97	0.00
1.25	1.25	1.25
78.77	79.22	33.45
80.22	80.22	80.22
0.98	0.99	0.42

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7644)	2.40	99.00
ID= 1 DT= 5.0 min		

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	2.38	0.02
Dep. Storage (mm)	1.00	5.00
Average Slope (%)	1.00	2.00
Length (m)	20.00	20.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.55	1.083	149.09	2.083	8.56	3.08	3.23
0.167	3.55	1.167	149.09	2.167	8.56	3.17	3.23
0.250	3.55	1.250	149.09	2.250	8.56	3.25	3.23
0.333	5.54	1.333	48.62	2.333	6.26	3.33	2.74
0.417	5.54	1.417	48.62	2.417	6.26	3.42	2.74
0.500	5.54	1.500	48.62	2.500	6.26	3.50	2.74
0.583	10.62	1.583	21.69	2.583	4.84	3.58	2.36
0.667	10.62	1.667	21.69	2.667	4.84	3.67	2.36
0.750	10.62	1.750	21.69	2.750	4.84	3.75	2.36
0.833	35.12	1.833	12.72	2.833	3.89	3.83	2.07
0.917	35.13	1.917	12.72	2.917	3.89	3.92	2.07
1.000	35.13	2.000	12.72	3.000	3.89	4.00	2.07

Max.Eff.Inten. (mm/hr)=	149.09	67.37
over (min)	5.00	5.00
Storage Coeff. (min)=	0.83 (ii)	1.46 (ii)



Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.33

TOTALS
 PEAK FLOW (cms)= 0.98 0.00 0.989 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 79.22 33.45 78.77
 TOTAL RAINFALL (mm)= 80.22 80.22 80.22
 RUNOFF COEFFICIENT = 0.99 0.42 0.98

Surface Area (ha)= 2.37 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7652) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.38 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.55	1.083	149.09	2.083	8.56	3.08	3.23
0.167	3.55	1.167	149.09	2.167	8.56	3.17	3.23
0.250	3.55	1.250	149.09	2.250	8.56	3.25	3.23
0.333	5.54	1.333	48.62	2.333	6.26	3.33	2.74
0.417	5.54	1.417	48.62	2.417	6.26	3.42	2.74
0.500	5.54	1.500	48.62	2.500	6.26	3.50	2.74
0.583	10.62	1.583	21.69	2.583	4.84	3.58	2.36
0.667	10.62	1.667	21.69	2.667	4.84	3.67	2.36
0.750	10.62	1.750	21.69	2.750	4.84	3.75	2.36
0.833	35.12	1.833	12.72	2.833	3.89	3.83	2.07
0.917	35.13	1.917	12.72	2.917	3.89	3.92	2.07
1.000	35.13	2.000	12.72	3.000	3.89	4.00	2.07

Max.Eff.Inten.(mm/hr)= 149.09 67.37
 over (min) 5.00 5.00
 Storage Coeff. (min)= 0.83 (ii) 1.46 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.33

TOTALS
 PEAK FLOW (cms)= 0.98 0.00 0.989 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 79.22 33.45 78.77
 TOTAL RAINFALL (mm)= 80.22 80.22 80.22
 RUNOFF COEFFICIENT = 0.99 0.42 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7661) | Area (ha)= 2.39
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.55	1.083	149.09	2.083	8.56	3.08	3.23
0.167	3.55	1.167	149.09	2.167	8.56	3.17	3.23
0.250	3.55	1.250	149.09	2.250	8.56	3.25	3.23
0.333	5.54	1.333	48.62	2.333	6.26	3.33	2.74
0.417	5.54	1.417	48.62	2.417	6.26	3.42	2.74
0.500	5.54	1.500	48.62	2.500	6.26	3.50	2.74
0.583	10.62	1.583	21.69	2.583	4.84	3.58	2.36
0.667	10.62	1.667	21.69	2.667	4.84	3.67	2.36
0.750	10.62	1.750	21.69	2.750	4.84	3.75	2.36
0.833	35.12	1.833	12.72	2.833	3.89	3.83	2.07
0.917	35.13	1.917	12.72	2.917	3.89	3.92	2.07
1.000	35.13	2.000	12.72	3.000	3.89	4.00	2.07

Max.Eff.Inten.(mm/hr)= 149.09 67.37
 over (min) 5.00 5.00
 Storage Coeff. (min)= 0.83 (ii) 1.46 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.33

TOTALS
 PEAK FLOW (cms)= 0.98 0.00 0.985 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 79.22 33.45 78.77
 TOTAL RAINFALL (mm)= 80.22 80.22 80.22
 RUNOFF COEFFICIENT = 0.99 0.42 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7671) | Area (ha)= 2.37
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.35 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.55	1.083	149.09	2.083	8.56	3.08	3.23
0.167	3.55	1.167	149.09	2.167	8.56	3.17	3.23
0.250	3.55	1.250	149.09	2.250	8.56	3.25	3.23
0.333	5.54	1.333	48.62	2.333	6.26	3.33	2.74
0.417	5.54	1.417	48.62	2.417	6.26	3.42	2.74
0.500	5.54	1.500	48.62	2.500	6.26	3.50	2.74
0.583	10.62	1.583	21.69	2.583	4.84	3.58	2.36
0.667	10.62	1.667	21.69	2.667	4.84	3.67	2.36
0.750	10.62	1.750	21.69	2.750	4.84	3.75	2.36
0.833	35.12	1.833	12.72	2.833	3.89	3.83	2.07
0.917	35.13	1.917	12.72	2.917	3.89	3.92	2.07
1.000	35.13	2.000	12.72	3.000	3.89	4.00	2.07

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Max.Eff.Inten.(mm/hr)= 149.09 67.37
over (min) = 5.00 5.00
Storage Coeff. (min)= 0.83 (ii) 1.46 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.33

PEAK FLOW (cms)= 0.97 0.00
TIME TO PEAK (hrs)= 1.25 1.25
RUNOFF VOLUME (mm)= 79.22 33.45
TOTAL RAINFALL (mm)= 80.22 80.22
RUNOFF COEFFICIENT = 0.99 0.42

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**TOTALS*
0.977 (iii)
1.25
78.77
80.22
0.98

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***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

| ADD HYD ( 7698) |
| 1 + 2 = 3 |
-----
ID1= 1 ( 7590): 2.39 0.985 1.25 78.77
+ ID2= 2 ( 7632): 2.36 0.973 1.25 78.77
-----
ID = 3 ( 7698): 4.75 1.957 1.25 78.77

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| ADD HYD ( 7698) |
| 3 + 2 = 1 |
-----
ID1= 3 ( 7698): 4.75 1.957 1.25 78.77
+ ID2= 2 ( 7644): 2.40 0.989 1.25 78.77
-----
ID = 1 ( 7698): 7.15 2.946 1.25 78.77

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| ADD HYD ( 7698) |
| 1 + 2 = 3 |
-----
ID1= 1 ( 7698): 7.15 2.946 1.25 78.77
+ ID2= 2 ( 7652): 2.40 0.989 1.25 78.77
-----
ID = 3 ( 7698): 9.55 3.935 1.25 78.77

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| ADD HYD ( 7698) |
| 3 + 2 = 1 |
-----
ID1= 3 ( 7698): 9.55 3.935 1.25 78.77
+ ID2= 2 ( 7661): 2.39 0.985 1.25 78.77
-----
ID = 1 ( 7698): 11.94 4.920 1.25 78.77

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| ADD HYD ( 7698) |
| 1 + 2 = 3 |
-----
ID1= 1 ( 7698): 11.94 4.920 1.25 78.77

```

```

+ ID2= 2 ( 7671): 2.37 0.977 1.25 78.77
-----
ID = 3 ( 7698): 14.31 5.897 1.25 78.77

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| DIVERTHYD ( 7713) |
| IN= 1 # OUT= 5 |

```

Outflow / Inflow Relationships

```

Flow 1 + Flow 2 + Flow 3 + Flow 4 + Flow 5 = Total
(cms) (cms) (cms) (cms) (cms) (cms)
0.00 0.00 0.00 0.00 0.00 0.00
0.27 0.00 0.00 0.00 0.00 0.27
1.00 0.00 0.00 0.00 0.00 1.00
4.00 3.00 0.00 0.00 0.00 7.00

```

```

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
TOTAL HYD. (ID= 1): 14.31 5.90 1.25 78.77
-----
ID= 2 ( 2) : 10.77 3.45 1.25 78.77
ID= 3 ( 2) : 3.54 2.45 1.25 78.77
ID= 4 ( 2) : 0.00 0.00 0.00 0.00
ID= 5 ( 2) : 0.00 0.00 0.00 0.00
ID= 6 ( 2) : 0.00 0.00 0.00 0.00

```

```

| RESERVOIR ( 7699) |
| IN= 2--> OUT= 1 |
| DT= 5.0 min |

```

OVERFLOW IS ON

```

OUTFLOW STORAGE | OUTFLOW STORAGE
(cms) (ha.m.) | (cms) (ha.m.)
0.0000 0.0000 | 0.2690 0.4589
0.1980 0.1112 | 0.0000 0.0000

```

```

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 2 ( 7713) 10.768 3.448 1.25 78.77
OUTFLOW: ID= 1 ( 7699) 8.741 0.269 1.42 78.77
OVERFLOW: ID= 3 ( 0003) 2.027 1.193 1.50 78.77

```

```

TOTAL NUMBER OF SIMULATION OVERFLOW = 11
CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.92
PERCENTAGE OF TIME OVERFLOWING (%) = 5.12

```

```

PEAK FLOW REDUCTION [Qout/Qin](%) = 7.80
TIME SHIFT OF PEAK FLOW (min) = 10.00
MAXIMUM STORAGE USED (ha.m.) = 0.4589

```

```

| Junction Command(7715) |

```

```

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 3( 7699) 2.03 1.19 1.50 78.77
OUTFLOW: ID= 2( 7715) 2.03 1.19 1.50 78.77

```

```

| ADD HYD ( 7714) |
| 1 + 2 = 3 |
-----
ID1= 1 ( 7699): 8.74 0.269 1.42 78.77
+ ID2= 2 ( 7713): 3.54 2.448 1.25 78.77
-----
ID = 3 ( 7714): 12.28 2.702 1.25 78.77

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.



ADD HYD (7714)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7714):	12.28	2.702	1.25	78.77
+ ID2= 2 (7715):	2.03	1.193	1.50	78.77
ID = 1 (7714):	14.31	2.702	1.25	78.77

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	PERVIOUS (i)
STANDHYD (7620)	1.45	
ID= 1 DT= 5.0 min	Total Imp(%)= 96.00	Dir. Conn.(%)= 96.00

Surface Area (ha)	Dep. Storage (mm)	Average Slope (%)	Length (m)	Mannings n
1.39	2.00	1.10	100.00	0.013
0.06	5.00	2.00	145.00	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)
0.083	3.55	1.083	149.09	2.083	8.56	3.08	3.23
0.167	3.55	1.167	149.09	2.167	8.56	3.17	3.23
0.250	3.55	1.250	149.09	2.250	8.56	3.25	3.23
0.333	5.54	1.333	48.62	2.333	6.26	3.33	2.74
0.417	5.54	1.417	48.62	2.417	6.26	3.42	2.74
0.500	5.54	1.500	48.62	2.500	6.26	3.50	2.74
0.583	10.62	1.583	21.69	2.583	4.84	3.58	2.36
0.667	10.62	1.667	21.69	2.667	4.84	3.67	2.36
0.750	10.62	1.750	21.69	2.750	4.84	3.75	2.36
0.833	35.12	1.833	12.72	2.833	3.89	3.83	2.07
0.917	35.13	1.917	12.72	2.917	3.89	3.92	2.07
1.000	35.13	2.000	12.72	3.000	3.89	4.00	2.07

Max.Eff.Inten. (mm/hr)=	149.09	67.37
over (min)=	5.00	10.00
Storage Coeff. (min)=	2.12 (ii)	5.77 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.31	0.15
PEAK FLOW (cms)=	0.58	0.01
TIME TO PEAK (hrs)=	1.25	1.33
RUNOFF VOLUME (mm)=	78.22	33.45
TOTAL RAINFALL (mm)=	80.22	80.22
RUNOFF COEFFICIENT =	0.98	0.42

TOTALS	0.584 (iii)	1.25	76.43	80.22	0.95
----------	-------------	------	-------	-------	------

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES: CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	PERVIOUS (i)
STANDHYD (7629)	1.70	
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00	Dir. Conn.(%)= 99.00

Surface Area (ha)	Dep. Storage (mm)	Average Slope (%)	Length (m)	Mannings n
1.68	2.00	1.10	100.00	0.013
0.02	5.00	2.00	40.00	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)
0.083	3.55	1.083	149.09	2.083	8.56	3.08	3.23
0.167	3.55	1.167	149.09	2.167	8.56	3.17	3.23
0.250	3.55	1.250	149.09	2.250	8.56	3.25	3.23
0.333	5.54	1.333	48.62	2.333	6.26	3.33	2.74
0.417	5.54	1.417	48.62	2.417	6.26	3.42	2.74
0.500	5.54	1.500	48.62	2.500	6.26	3.50	2.74
0.583	10.62	1.583	21.69	2.583	4.84	3.58	2.36
0.667	10.62	1.667	21.69	2.667	4.84	3.67	2.36
0.750	10.62	1.750	21.69	2.750	4.84	3.75	2.36
0.833	35.12	1.833	12.72	2.833	3.89	3.83	2.07
0.917	35.13	1.917	12.72	2.917	3.89	3.92	2.07
1.000	35.13	2.000	12.72	3.000	3.89	4.00	2.07

Max.Eff.Inten. (mm/hr)=	149.09	67.37
over (min)=	5.00	5.00
Storage Coeff. (min)=	2.12 (ii)	3.07 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.31	0.27

PEAK FLOW (cms)=	0.70	0.00	0.700 (iii)
TIME TO PEAK (hrs)=	1.25	1.25	1.25
RUNOFF VOLUME (mm)=	78.22	33.45	77.77
TOTAL RAINFALL (mm)=	80.22	80.22	80.22
RUNOFF COEFFICIENT =	0.98	0.42	0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES: CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	PERVIOUS (i)
STANDHYD (7651)	1.33	
ID= 1 DT= 5.0 min	Total Imp(%)= 98.00	Dir. Conn.(%)= 98.00

Surface Area (ha)	Dep. Storage (mm)	Average Slope (%)	Length (m)	Mannings n
1.30	2.00	1.10	100.00	0.013
0.03	5.00	2.00	40.00	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)
0.083	3.55	1.083	149.09	2.083	8.56	3.08	3.23
0.167	3.55	1.167	149.09	2.167	8.56	3.17	3.23
0.250	3.55	1.250	149.09	2.250	8.56	3.25	3.23
0.333	5.54	1.333	48.62	2.333	6.26	3.33	2.74
0.417	5.54	1.417	48.62	2.417	6.26	3.42	2.74
0.500	5.54	1.500	48.62	2.500	6.26	3.50	2.74
0.583	10.62	1.583	21.69	2.583	4.84	3.58	2.36
0.667	10.62	1.667	21.69	2.667	4.84	3.67	2.36
0.750	10.62	1.750	21.69	2.750	4.84	3.75	2.36
0.833	35.12	1.833	12.72	2.833	3.89	3.83	2.07
0.917	35.13	1.917	12.72	2.917	3.89	3.92	2.07
1.000	35.13	2.000	12.72	3.000	3.89	4.00	2.07

Max.Eff.Inten. (mm/hr)=	149.09	67.37
over (min)=	5.00	5.00
Storage Coeff. (min)=	2.12 (ii)	3.38 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.31	0.26

TOTALS



PEAK FLOW (cms)= 0.54 0.01 0.545 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 78.22 33.45 77.33
 TOTAL RAINFALL (mm)= 80.22 80.22 80.22
 RUNOFF COEFFICIENT = 0.98 0.42 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7700) |
| 1 + 2 = 3 |
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
-----
ID1= 1 ( 7620):  1.45  0.584  1.25  76.43
+ ID2= 2 ( 7629):  1.70  0.700  1.25  77.77
-----
ID = 3 ( 7700):  3.15  1.284  1.25  77.16
-----

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7700) |
| 3 + 2 = 1 |
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
-----
ID1= 3 ( 7700):  3.15  1.284  1.25  77.16
+ ID2= 2 ( 7651):  1.33  0.545  1.25  77.33
-----
ID = 1 ( 7700):  4.48  1.829  1.25  77.21
-----

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7623) | Area (ha)= 1.20
| ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00
-----
          IMPERVIOUS   PERVIOUS (i)
          (ha)         (mm)
-----
Surface Area (ha)= 1.14 0.06
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.50 2.00
Length (m)= 60.00 40.00
Mannings n = 0.013 0.250
-----

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

-----
          TIME   RAIN | TIME   RAIN | ' TIME   RAIN | TIME   RAIN
          hrs   mm/hr | hrs   mm/hr | ' hrs   mm/hr | hrs   mm/hr
-----
0.083  3.55 | 1.083 149.09 | 2.083  8.56 | 3.08  3.23
0.167  3.55 | 1.167 149.09 | 2.167  8.56 | 3.17  3.23
0.250  3.55 | 1.250 149.09 | 2.250  8.56 | 3.25  3.23
0.333  5.54 | 1.333  48.62 | 2.333  6.26 | 3.33  2.74
0.417  5.54 | 1.417  48.62 | 2.417  6.26 | 3.42  2.74
0.500  5.54 | 1.500  48.62 | 2.500  6.26 | 3.50  2.74
0.583 10.62 | 1.583  21.69 | 2.583  4.84 | 3.58  2.36
0.667 10.62 | 1.667  21.69 | 2.667  4.84 | 3.67  2.36
0.750 10.62 | 1.750  21.69 | 2.750  4.84 | 3.75  2.36
0.833 35.12 | 1.833  12.72 | 2.833  3.89 | 3.83  2.07
0.917 35.13 | 1.917  12.72 | 2.917  3.89 | 3.92  2.07
1.000 35.13 | 2.000  12.72 | 3.000  3.89 | 4.00  2.07
-----

```

Max.Eff.Inten.(mm/hr)= 149.09 69.54
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.22 (ii) 3.07 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.27

TOTALS

PEAK FLOW (cms)= 0.47 0.01 0.484 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 78.22 34.41 76.03
 TOTAL RAINFALL (mm)= 80.22 80.22 80.22
 RUNOFF COEFFICIENT = 0.98 0.43 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7654) | Area (ha)= 1.69
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----

```

```

          IMPERVIOUS   PERVIOUS (i)
          (ha)         (mm)
-----
Surface Area (ha)= 1.67 0.02
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.10 2.00
Length (m)= 100.00 40.00
Mannings n = 0.013 0.250
-----

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

-----
          TIME   RAIN | TIME   RAIN | ' TIME   RAIN | TIME   RAIN
          hrs   mm/hr | hrs   mm/hr | ' hrs   mm/hr | hrs   mm/hr
-----
0.083  3.55 | 1.083 149.09 | 2.083  8.56 | 3.08  3.23
0.167  3.55 | 1.167 149.09 | 2.167  8.56 | 3.17  3.23
0.250  3.55 | 1.250 149.09 | 2.250  8.56 | 3.25  3.23
0.333  5.54 | 1.333  48.62 | 2.333  6.26 | 3.33  2.74
0.417  5.54 | 1.417  48.62 | 2.417  6.26 | 3.42  2.74
0.500  5.54 | 1.500  48.62 | 2.500  6.26 | 3.50  2.74
0.583 10.62 | 1.583  21.69 | 2.583  4.84 | 3.58  2.36
0.667 10.62 | 1.667  21.69 | 2.667  4.84 | 3.67  2.36
0.750 10.62 | 1.750  21.69 | 2.750  4.84 | 3.75  2.36
0.833 35.12 | 1.833  12.72 | 2.833  3.89 | 3.83  2.07
0.917 35.13 | 1.917  12.72 | 2.917  3.89 | 3.92  2.07
1.000 35.13 | 2.000  12.72 | 3.000  3.89 | 4.00  2.07
-----
Max.Eff.Inten.(mm/hr)= 149.09 67.37
over (min) 5.00 5.00
Storage Coeff. (min)= 2.12 (ii) 3.07 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.31 0.27
-----
          *TOTALS*
PEAK FLOW (cms)= 0.69 0.00 0.696 (iii)
TIME TO PEAK (hrs)= 1.25 1.25 1.25
RUNOFF VOLUME (mm)= 78.22 33.45 77.77
TOTAL RAINFALL (mm)= 80.22 80.22 80.22
RUNOFF COEFFICIENT = 0.98 0.42 0.97
-----

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7655) | Area (ha)= 1.32
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----

```

```

          IMPERVIOUS   PERVIOUS (i)
          (ha)         (mm)
-----
Surface Area (ha)= 1.31 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.10 2.00
-----

```



Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.55	1.083	149.09	2.083	8.56	3.08	3.23
0.167	3.55	1.167	149.09	2.167	8.56	3.17	3.23
0.250	3.55	1.250	149.09	2.250	8.56	3.25	3.23
0.333	5.54	1.333	48.62	2.333	6.26	3.33	2.74
0.417	5.54	1.417	48.62	2.417	6.26	3.42	2.74
0.500	5.54	1.500	48.62	2.500	6.26	3.50	2.74
0.583	10.62	1.583	21.69	2.583	4.84	3.58	2.36
0.667	10.62	1.667	21.69	2.667	4.84	3.67	2.36
0.750	10.62	1.750	21.69	2.750	4.84	3.75	2.36
0.833	35.12	1.833	12.72	2.833	3.89	3.83	2.07
0.917	35.13	1.917	12.72	2.917	3.89	3.92	2.07
1.000	35.13	2.000	12.72	3.000	3.89	4.00	2.07

Max.Eff.Inten.(mm/hr)= 149.09 67.37
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.12 (ii) 3.07 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.31 0.27

PEAK FLOW (cms)= 0.54 0.00
 TIME TO PEAK (hrs)= 1.25 1.25
 RUNOFF VOLUME (mm)= 78.22 33.45
 TOTAL RAINFALL (mm)= 80.22 80.22
 RUNOFF COEFFICIENT = 0.98 0.42

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	Dir. Conn.(%)
STANDHYD (7662)	1.61	92.00
ID= 1 DT= 5.0 min	Total Imp(%)= 92.00	Dir. Conn.(%)= 92.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.48	0.13
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.55	1.083	149.09	2.083	8.56	3.08	3.23
0.167	3.55	1.167	149.09	2.167	8.56	3.17	3.23
0.250	3.55	1.250	149.09	2.250	8.56	3.25	3.23
0.333	5.54	1.333	48.62	2.333	6.26	3.33	2.74
0.417	5.54	1.417	48.62	2.417	6.26	3.42	2.74
0.500	5.54	1.500	48.62	2.500	6.26	3.50	2.74
0.583	10.62	1.583	21.69	2.583	4.84	3.58	2.36
0.667	10.62	1.667	21.69	2.667	4.84	3.67	2.36
0.750	10.62	1.750	21.69	2.750	4.84	3.75	2.36
0.833	35.12	1.833	12.72	2.833	3.89	3.83	2.07
0.917	35.13	1.917	12.72	2.917	3.89	3.92	2.07
1.000	35.13	2.000	12.72	3.000	3.89	4.00	2.07

Max.Eff.Inten.(mm/hr)= 149.09 67.37
 over (min) = 5.00 10.00

Storage Coeff. (min)= 2.12 (ii) 7.02 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.31 0.14

TOTALS

PEAK FLOW (cms)=	0.61	0.02	0.630 (iii)
TIME TO PEAK (hrs)=	1.25	1.33	1.25
RUNOFF VOLUME (mm)=	78.22	33.45	74.64
TOTAL RAINFALL (mm)=	80.22	80.22	80.22
RUNOFF COEFFICIENT =	0.98	0.42	0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7701)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7654):	1.69	0.696	1.25	77.77
+ ID2= 2 (7655):	1.32	0.543	1.25	77.77
ID= 3 (7701):	3.01	1.239	1.25	77.77

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7701)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7701):	3.01	1.239	1.25	77.77
+ ID2= 2 (7662):	1.61	0.630	1.25	74.64
ID= 1 (7701):	4.62	1.869	1.25	76.68

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	Dir. Conn.(%)
STANDHYD (7707)	1.06	95.00
ID= 1 DT= 5.0 min	Total Imp(%)= 95.00	Dir. Conn.(%)= 95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.01	0.05
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.55	1.083	149.09	2.083	8.56	3.08	3.23
0.167	3.55	1.167	149.09	2.167	8.56	3.17	3.23
0.250	3.55	1.250	149.09	2.250	8.56	3.25	3.23
0.333	5.54	1.333	48.62	2.333	6.26	3.33	2.74
0.417	5.54	1.417	48.62	2.417	6.26	3.42	2.74
0.500	5.54	1.500	48.62	2.500	6.26	3.50	2.74
0.583	10.62	1.583	21.69	2.583	4.84	3.58	2.36
0.667	10.62	1.667	21.69	2.667	4.84	3.67	2.36
0.750	10.62	1.750	21.69	2.750	4.84	3.75	2.36
0.833	35.12	1.833	12.72	2.833	3.89	3.83	2.07
0.917	35.13	1.917	12.72	2.917	3.89	3.92	2.07
1.000	35.13	2.000	12.72	3.000	3.89	4.00	2.07

Max.Eff.Inten.(mm/hr)= 149.09 69.54
 over (min) = 5.00 5.00



Storage Coeff. (min)= 1.22 (ii) 3.07 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.27

PEAK FLOW (cms)= 0.42 0.01 0.428 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 78.22 34.41 76.03
 TOTAL RAINFALL (mm)= 80.22 80.22 80.22
 RUNOFF COEFFICIENT = 0.98 0.43 0.95

TOTALS

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7702)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7623):	1.20	0.484	1.25	76.03
+ ID2= 2 (7700):	4.48	1.829	1.25	77.21
ID = 3 (7702):	5.68	2.313	1.25	76.96

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)	AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7702):	5.68	2.313	1.25	76.96
+ ID2= 2 (7701):	4.62	1.869	1.25	76.68
ID = 1 (7702):	10.30	4.183	1.25	76.83

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7702):	10.30	4.183	1.25	76.83
+ ID2= 2 (7707):	1.06	0.428	1.25	76.03
ID = 3 (7702):	11.36	4.610	1.25	76.76

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)	AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7702):	11.36	4.610	1.25	76.76
+ ID2= 2 (7714):	14.31	2.702	1.25	78.77
ID = 1 (7702):	25.67	7.312	1.25	77.88

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7705)	OVERFLOW IS OFF			
IN= 2---> OUT= 1	OUTFLOW	STORAGE	OUTFLOW	STORAGE
DT= 5.0 min	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.6280	2.3980
	0.0730	0.2080	0.6400	2.4830
	0.0890	0.2770	0.6520	2.5670
	0.1340	0.5530	0.6640	2.6500

0.2910	0.8290	0.6750	2.7340
0.3860	1.1060	0.7190	3.0490
0.4590	1.3820	0.8250	3.3550
0.5220	1.7210	2.0760	3.4560
0.5780	2.0600	2.3560	3.7320

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7702)	25.670	7.312	1.25	77.88
OUTFLOW: ID= 1 (7705)	25.670	0.418	2.75	77.85

PEAK FLOW REDUCTION [Qout/Qin](%)= 5.72
 TIME SHIFT OF PEAK FLOW (min)= 90.00
 MAXIMUM STORAGE USED (ha.m.)= 1.2283

CALIB	Area	Total Imp	Dir. Conn.
STANDHYD (7716)	(ha)=	(%)=	(%)=
ID= 1 DT= 5.0 min	0.19	95.00	95.00

	IMPERVIOUS	PERVIOUS (i)
	(ha)=	(mm)=
Surface Area	0.18	0.01
Dep. Storage	2.00	5.00
Average Slope	2.50	2.00
Length	60.00	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.55	1.083	149.09	2.083	8.56	3.08	3.23
0.167	3.55	1.167	149.09	2.167	8.56	3.17	3.23
0.250	3.55	1.250	149.09	2.250	8.56	3.25	3.23
0.333	5.54	1.333	48.62	2.333	6.26	3.33	2.74
0.417	5.54	1.417	48.62	2.417	6.26	3.42	2.74
0.500	5.54	1.500	48.62	2.500	6.26	3.50	2.74
0.583	10.62	1.583	21.69	2.583	4.84	3.58	2.36
0.667	10.62	1.667	21.69	2.667	4.84	3.67	2.36
0.750	10.62	1.750	21.69	2.750	4.84	3.75	2.36
0.833	35.12	1.833	12.72	2.833	3.89	3.83	2.07
0.917	35.13	1.917	12.72	2.917	3.89	3.92	2.07
1.000	35.13	2.000	12.72	3.000	3.89	4.00	2.07

Max.Eff.Inten.(mm/hr)= 149.09 69.54
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.22 (ii) 3.07 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.27

PEAK FLOW (cms)= 0.07 0.00 0.077 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 78.22 34.41 76.03
 TOTAL RAINFALL (mm)= 80.22 80.22 80.22
 RUNOFF COEFFICIENT = 0.98 0.43 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7720)	OVERFLOW IS OFF			
IN= 2---> OUT= 1	OUTFLOW	STORAGE	OUTFLOW	STORAGE
DT= 5.0 min	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.0100	0.0090
	0.0030	0.0010	0.0110	0.0100
	0.0050	0.0030	0.0120	0.0110

0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 2 (7716)	0.190	0.077	1.25	76.03
OUTFLOW: ID= 1 (7720)	0.190	0.010	1.75	75.60

PEAK FLOW REDUCTION [Qout/Qin](%) = 13.63
 TIME SHIFT OF PEAK FLOW (min) = 30.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0095

0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 2 (7717)	0.200	0.081	1.25	76.03
OUTFLOW: ID= 1 (7719)	0.200	0.011	1.75	75.64

PEAK FLOW REDUCTION [Qout/Qin](%) = 13.60
 TIME SHIFT OF PEAK FLOW (min) = 30.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0100

CALIB
 STANDHYD (7717) | Area (ha) = 0.20
 ID= 1 DT= 5.0 min | Total Imp(%) = 95.00 Dir. Conn.(%) = 95.00

IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha) =	0.19	0.01
Dep. Storage (mm) =	2.00	5.00
Average Slope (%) =	2.50	2.00
Length (m) =	36.51	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.55	1.083	149.09	2.083	8.56	3.08	3.23				
0.167	3.55	1.167	149.09	2.167	8.56	3.17	3.23				
0.250	3.55	1.250	149.09	2.250	8.56	3.25	3.23				
0.333	5.54	1.333	48.62	2.333	6.26	3.33	2.74				
0.417	5.54	1.417	48.62	2.417	6.26	3.42	2.74				
0.500	5.54	1.500	48.62	2.500	6.26	3.50	2.74				
0.583	10.62	1.583	21.69	2.583	4.84	3.58	2.36				
0.667	10.62	1.667	21.69	2.667	4.84	3.67	2.36				
0.750	10.62	1.750	21.69	2.750	4.84	3.75	2.36				
0.833	35.12	1.833	12.72	2.833	3.89	3.83	2.07				
0.917	35.13	1.917	12.72	2.917	3.89	3.92	2.07				
1.000	35.13	2.000	12.72	3.000	3.89	4.00	2.07				

Max.Eff.Inten.(mm/hr) = 149.09
 over (min) = 5.00
 Storage Coeff. (min) = 0.90 (ii)
 Unit Hyd. Tpeak (min) = 5.00
 Unit Hyd. peak (cms) = 0.34

TOTALS

PEAK FLOW (cms) =	0.08	0.00	0.081 (iii)
TIME TO PEAK (hrs) =	1.25	1.25	
RUNOFF VOLUME (mm) =	78.22	34.41	76.03
TOTAL RAINFALL (mm) =	80.22	80.22	80.22
RUNOFF COEFFICIENT =	0.98	0.43	0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7719) | OVERFLOW IS OFF
 IN= 2---> OUT= 1 |
 DT= 5.0 min |
 OUTFLOW STORAGE | OUTFLOW STORAGE
 (cms) (ha.m.) | (cms) (ha.m.)
 0.0000 0.0000 | 0.0100 0.0090
 0.0030 0.0010 | 0.0110 0.0100
 0.0050 0.0030 | 0.0120 0.0110
 0.0060 0.0040 | 0.0120 0.0130

ADD HYD (7706) |
 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7705): 25.67 0.418 2.75 77.85
 + ID2= 2 (7719): 0.20 0.011 1.75 75.64
 ID = 3 (7706): 25.87 0.428 2.58 77.84

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7706) |
 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7706): 25.87 0.428 2.58 77.84
 + ID2= 2 (7720): 0.19 0.010 1.75 75.60
 ID = 1 (7706): 26.06 0.437 2.50 77.82

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
 STANDHYD (7595) | Area (ha) = 1.24
 ID= 1 DT= 5.0 min | Total Imp(%) = 99.00 Dir. Conn.(%) = 99.00

IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha) =	1.23	0.01
Dep. Storage (mm) =	2.00	5.00
Average Slope (%) =	2.00	2.00
Length (m) =	91.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.55	1.083	149.09	2.083	8.56	3.08	3.23				
0.167	3.55	1.167	149.09	2.167	8.56	3.17	3.23				
0.250	3.55	1.250	149.09	2.250	8.56	3.25	3.23				
0.333	5.54	1.333	48.62	2.333	6.26	3.33	2.74				
0.417	5.54	1.417	48.62	2.417	6.26	3.42	2.74				
0.500	5.54	1.500	48.62	2.500	6.26	3.50	2.74				
0.583	10.62	1.583	21.69	2.583	4.84	3.58	2.36				
0.667	10.62	1.667	21.69	2.667	4.84	3.67	2.36				
0.750	10.62	1.750	21.69	2.750	4.84	3.75	2.36				
0.833	35.12	1.833	12.72	2.833	3.89	3.83	2.07				
0.917	35.13	1.917	12.72	2.917	3.89	3.92	2.07				
1.000	35.13	2.000	12.72	3.000	3.89	4.00	2.07				

Max.Eff.Inten.(mm/hr) = 149.09
 over (min) = 5.00
 Storage Coeff. (min) = 1.67 (ii)
 Unit Hyd. Tpeak (min) = 5.00
 Unit Hyd. peak (cms) = 0.32

TOTALS

PEAK FLOW (cms) =	0.51	0.00	0.512 (iii)
-------------------	------	------	-------------



TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 78.22 33.45 77.78
 TOTAL RAINFALL (mm)= 80.22 80.22 80.22
 RUNOFF COEFFICIENT = 0.98 0.42 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| ADD HYD ( 7718) |
| 1 + 2 = 3 |
-----
      AREA   QPEAK   TPEAK   R.V.
      (ha)   (cms)   (hrs)   (mm)
ID1= 1 ( 7595):   1.24  0.512  1.25  77.78
+ ID2= 2 ( 7706):  26.06  0.437  2.50  77.82
-----
      ID = 3 ( 7718):  27.30  0.740  1.25  77.82
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| RESERVOIR( 7711) | OVERFLOW IS OFF
| IN= 2--> OUT= 1 |
| DT= 5.0 min |
-----
      OUTFLOW   STORAGE | OUTFLOW   STORAGE
      (cms)     (ha.m.) | (cms)     (ha.m.)
0.0000  0.0000 | 1.0810  1.6220
0.0010  0.1670 | 1.3950  1.8170
0.0340  0.3380 | 2.0990  2.2130
0.0510  0.5110 | 2.8950  2.6150
0.0630  0.6880 | 3.7730  3.0250
0.1610  0.8670 | 4.7260  3.4420
0.3300  1.0500 | 5.5670  3.8670
0.5440  1.2370 | 8.5800  4.3000
0.7970  1.4290 | 10.9450  4.5210
-----
      AREA   QPEAK   TPEAK   R.V.
      (ha)   (cms)   (hrs)   (mm)
INFLOW : ID= 2 ( 7718)  27.302  0.740  1.25  77.82
OUTFLOW: ID= 1 ( 7711)  27.302  0.252  10.50  72.46
  
```

PEAK FLOW REDUCTION [Qout/Qin] (%) = 34.05
 TIME SHIFT OF PEAK FLOW (min) = 555.00
 MAXIMUM STORAGE USED (ha.m.) = 0.9655



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*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U A A A A L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y M M O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 3.77 | 1.083 166.89 | 2.083 9.45 | 3.08 3.41
0.167 3.77 | 1.167 166.89 | 2.167 9.45 | 3.17 3.41
0.250 3.77 | 1.250 166.89 | 2.250 9.45 | 3.25 3.41
0.333 6.01 | 1.333 55.37 | 2.333 6.83 | 3.33 2.86
0.417 6.01 | 1.417 55.37 | 2.417 6.83 | 3.42 2.86
0.500 6.01 | 1.500 55.37 | 2.500 6.83 | 3.50 2.86
0.583 11.82 | 1.583 24.55 | 2.583 5.22 | 3.58 2.45
0.667 11.82 | 1.667 24.55 | 2.667 5.22 | 3.67 2.45
0.750 11.82 | 1.750 24.55 | 2.750 5.22 | 3.75 2.45
0.833 39.93 | 1.833 14.23 | 2.833 4.15 | 3.83 2.13
0.917 39.93 | 1.917 14.23 | 2.917 4.15 | 3.92 2.13
1.000 39.93 | 2.000 14.23 | 3.000 4.15 | 4.00 2.13

```

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\ff24aa6d-fe9-425b-8f8e-34f74f11f7e3\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\ff24aa6d-fe9-425b-8f8e-34f74f11f7e3\scen

```

DATE: 11-22-2024 TIME: 12:17:35

USER:

COMMENTS: _____

```

Max.Eff.Inten.(mm/hr)= 166.89 81.59
over (min)= 5.00 5.00
Storage Coeff. (min)= 1.28 (ii) 2.19 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.33 0.31

PEAK FLOW (cms)= 0.27 0.00 0.272 (iii)
TIME TO PEAK (hrs)= 1.25 1.25 1.25
RUNOFF VOLUME (mm)= 87.76 40.20 87.28
TOTAL RAINFALL (mm)= 89.76 89.76 89.76
RUNOFF COEFFICIENT = 0.98 0.45 0.97

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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*****
** SIMULATION : L - 100yr 4hr 15min Chicago **
*****

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| CHICAGO STORM | IDF curve parameters: A=4688.000
| Ptotal= 89.76 mm | B= 17.000
| | C= 0.962
-----
used in: INTENSITY = A / (t + B)^C

Duration of storm = 4.00 hrs
Storm time step = 15.00 min
Time to peak ratio = 0.33

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	3.77	1.00	166.89	2.00	9.45	3.00	3.41
0.25	6.01	1.25	55.37	2.25	6.83	3.25	2.86
0.50	11.82	1.50	24.55	2.50	5.22	3.50	2.45
0.75	39.93	1.75	14.23	2.75	4.15	3.75	2.13

```

| CALIB |
| NASHYD ( 7721) | Area (ha)= 0.21 Curve Number (CN)= 73.0
| ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res. (N)= 3.00
| U.H. Tp(hrs)= 0.17

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 3.77 | 1.083 166.89 | 2.083 9.45 | 3.08 3.41
0.167 3.77 | 1.167 166.89 | 2.167 9.45 | 3.17 3.41
0.250 3.77 | 1.250 166.89 | 2.250 9.45 | 3.25 3.41
0.333 6.01 | 1.333 55.37 | 2.333 6.83 | 3.33 2.86
0.417 6.01 | 1.417 55.37 | 2.417 6.83 | 3.42 2.86
0.500 6.01 | 1.500 55.37 | 2.500 6.83 | 3.50 2.86
0.583 11.82 | 1.583 24.55 | 2.583 5.22 | 3.58 2.45
0.667 11.82 | 1.667 24.55 | 2.667 5.22 | 3.67 2.45
0.750 11.82 | 1.750 24.55 | 2.750 5.22 | 3.75 2.45
0.833 39.93 | 1.833 14.23 | 2.833 4.15 | 3.83 2.13
0.917 39.93 | 1.917 14.23 | 2.917 4.15 | 3.92 2.13
1.000 39.93 | 2.000 14.23 | 3.000 4.15 | 4.00 2.13

```

Unit Hyd Qpeak (cms)= 0.047

```

PEAK FLOW (cms)= 0.031 (i)
TIME TO PEAK (hrs)= 1.333
RUNOFF VOLUME (mm)= 40.058
TOTAL RAINFALL (mm)= 89.764
RUNOFF COEFFICIENT = 0.446

```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

| CALIB |
| STANDHYD ( 7640) | Area (ha)= 0.59
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

```

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.58	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	62.72	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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| CALIB |

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| STANDHYD (7599) | Area (ha)= 10.90
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	10.79	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	269.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.77	1.083	166.89	2.083	9.45	3.08	3.41
0.167	3.77	1.167	166.89	2.167	9.45	3.17	3.41
0.250	3.77	1.250	166.89	2.250	9.45	3.25	3.41
0.333	6.01	1.333	55.37	2.333	6.83	3.33	2.86
0.417	6.01	1.417	55.37	2.417	6.83	3.42	2.86
0.500	6.01	1.500	55.37	2.500	6.83	3.50	2.86
0.583	11.82	1.583	24.55	2.583	5.22	3.58	2.45
0.667	11.82	1.667	24.55	2.667	5.22	3.67	2.45
0.750	11.82	1.750	24.55	2.750	5.22	3.75	2.45
0.833	39.93	1.833	14.23	2.833	4.15	3.83	2.13
0.917	39.93	1.917	14.23	2.917	4.15	3.92	2.13
1.000	39.93	2.000	14.23	3.000	4.15	4.00	2.13

Max.Eff.Inten.(mm/hr)=	166.89	81.59
over (min)	5.00	5.00
Storage Coeff. (min)=	3.77 (ii)	4.69 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.25	0.22

TOTALS

PEAK FLOW (cms)=	4.93	0.02	4.955 (iii)
TIME TO PEAK (hrs)=	1.25	1.25	
RUNOFF VOLUME (mm)=	87.76	40.20	87.29
TOTAL RAINFALL (mm)=	89.76	89.76	89.76
RUNOFF COEFFICIENT =	0.98	0.45	0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7599):	10.90	4.955	1.25	87.29
+ ID2= 2 (7721):	0.21	0.031	1.33	40.06
ID = 3 (7722):	11.11	4.982	1.25	86.40

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7685) OVERFLOW IS OFF					
IN= 2--> OUT= 1	DT= 5.0 min	OUTFLOW	STORAGE	OUTFLOW	STORAGE
		(cms)	(ha.m.)	(cms)	(ha.m.)
0.0000	0.0000	0.1390	0.6960		
0.0590	0.3400	0.1630	0.7780		
0.0900	0.4907	0.1840	0.8800		
0.1110	0.5760	0.0000	0.0000		
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 2 (7722)	11.108	4.982	1.25	86.40	
OUTFLOW: ID= 1 (7685)	11.108	0.172	2.58	86.27	

PEAK FLOW REDUCTION [Qout/Qin](%)=	3.46
TIME SHIFT OF PEAK FLOW (min)=	80.00
MAXIMUM STORAGE USED (ha.m.)=	0.8240

| CALIB |
 | STANDHYD (7591) | Area (ha)= 11.38
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	11.27	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	275.44	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.77	1.083	166.89	2.083	9.45	3.08	3.41
0.167	3.77	1.167	166.89	2.167	9.45	3.17	3.41
0.250	3.77	1.250	166.89	2.250	9.45	3.25	3.41
0.333	6.01	1.333	55.37	2.333	6.83	3.33	2.86
0.417	6.01	1.417	55.37	2.417	6.83	3.42	2.86
0.500	6.01	1.500	55.37	2.500	6.83	3.50	2.86
0.583	11.82	1.583	24.55	2.583	5.22	3.58	2.45
0.667	11.82	1.667	24.55	2.667	5.22	3.67	2.45
0.750	11.82	1.750	24.55	2.750	5.22	3.75	2.45
0.833	39.93	1.833	14.23	2.833	4.15	3.83	2.13
0.917	39.93	1.917	14.23	2.917	4.15	3.92	2.13
1.000	39.93	2.000	14.23	3.000	4.15	4.00	2.13

Max.Eff.Inten.(mm/hr)=	166.89	81.59
over (min)	5.00	5.00
Storage Coeff. (min)=	3.82 (ii)	4.74 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.25	0.22

TOTALS

PEAK FLOW (cms)=	5.14	0.03	5.169 (iii)
TIME TO PEAK (hrs)=	1.25	1.25	
RUNOFF VOLUME (mm)=	87.76	40.20	87.29
TOTAL RAINFALL (mm)=	89.76	89.76	89.76
RUNOFF COEFFICIENT =	0.98	0.45	0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7593) OVERFLOW IS OFF					
IN= 2--> OUT= 1	DT= 5.0 min	OUTFLOW	STORAGE	OUTFLOW	STORAGE
		(cms)	(ha.m.)	(cms)	(ha.m.)
0.0000	0.0000	0.1990	0.6950		
0.0830	0.3500	0.2320	0.8000		
0.1280	0.4850	0.2620	0.9000		
0.1580	0.5900	0.0000	0.0000		
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 2 (7591)	11.380	5.169	1.25	87.29	
OUTFLOW: ID= 1 (7593)	11.380	0.239	2.33	87.19	

PEAK FLOW REDUCTION [Qout/Qin](%)=	4.63
TIME SHIFT OF PEAK FLOW (min)=	65.00
MAXIMUM STORAGE USED (ha.m.)=	0.8247

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

ADD HYD (7643)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID= 1 (7593):	11.38	0.239	2.33	87.19
+ ID2= 2 (7685):	11.11	0.172	2.58	86.27
ID = 3 (7643):	22.49	0.411	2.50	86.74

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7590)	2.39	99.00
ID= 1 DT= 5.0 min		

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	2.37	0.02
Dep. Storage (mm)	1.00	5.00
Average Slope (%)	1.00	2.00
Length (m)	20.00	20.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.77	1.083	166.89	2.083	9.45	3.08	3.41
0.167	3.77	1.167	166.89	2.167	9.45	3.17	3.41
0.250	3.77	1.250	166.89	2.250	9.45	3.25	3.41
0.333	6.01	1.333	55.37	2.333	6.83	3.33	2.86
0.417	6.01	1.417	55.37	2.417	6.83	3.42	2.86
0.500	6.01	1.500	55.37	2.500	6.83	3.50	2.86
0.583	11.82	1.583	24.55	2.583	5.22	3.58	2.45
0.667	11.82	1.667	24.55	2.667	5.22	3.67	2.45
0.750	11.82	1.750	24.55	2.750	5.22	3.75	2.45
0.833	39.93	1.833	14.23	2.833	4.15	3.83	2.13
0.917	39.93	1.917	14.23	2.917	4.15	3.92	2.13
1.000	39.93	2.000	14.23	3.000	4.15	4.00	2.13

Max.Eff.Inten. (mm/hr)=	166.89	81.59
over (min)	5.00	5.00
Storage Coeff. (min)=	0.79 (ii)	1.40 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.33
PEAK FLOW (cms)=	1.10	0.01
TIME TO PEAK (hrs)=	1.25	1.25
RUNOFF VOLUME (mm)=	88.76	40.20
TOTAL RAINFALL (mm)=	89.76	89.76
RUNOFF COEFFICIENT =	0.99	0.45

TOTALS		
PEAK FLOW (cms)=	1.103 (iii)	
TIME TO PEAK (hrs)=	1.25	
RUNOFF VOLUME (mm)=	88.28	
TOTAL RAINFALL (mm)=	89.76	
RUNOFF COEFFICIENT =	0.98	

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7632)	2.36	99.00
ID= 1 DT= 5.0 min		

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	2.34	0.02
Dep. Storage (mm)	1.00	5.00
Average Slope (%)	1.00	2.00
Length (m)	20.00	20.00

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.77	1.083	166.89	2.083	9.45	3.08	3.41
0.167	3.77	1.167	166.89	2.167	9.45	3.17	3.41
0.250	3.77	1.250	166.89	2.250	9.45	3.25	3.41
0.333	6.01	1.333	55.37	2.333	6.83	3.33	2.86
0.417	6.01	1.417	55.37	2.417	6.83	3.42	2.86
0.500	6.01	1.500	55.37	2.500	6.83	3.50	2.86
0.583	11.82	1.583	24.55	2.583	5.22	3.58	2.45
0.667	11.82	1.667	24.55	2.667	5.22	3.67	2.45
0.750	11.82	1.750	24.55	2.750	5.22	3.75	2.45
0.833	39.93	1.833	14.23	2.833	4.15	3.83	2.13
0.917	39.93	1.917	14.23	2.917	4.15	3.92	2.13
1.000	39.93	2.000	14.23	3.000	4.15	4.00	2.13

Max.Eff.Inten. (mm/hr)=	166.89	81.59
over (min)	5.00	5.00
Storage Coeff. (min)=	0.79 (ii)	1.40 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.33

TOTALS		
PEAK FLOW (cms)=	1.08	0.01
TIME TO PEAK (hrs)=	1.25	1.25
RUNOFF VOLUME (mm)=	88.76	40.20
TOTAL RAINFALL (mm)=	89.76	89.76
RUNOFF COEFFICIENT =	0.99	0.45

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7644)	2.40	99.00
ID= 1 DT= 5.0 min		

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	2.38	0.02
Dep. Storage (mm)	1.00	5.00
Average Slope (%)	1.00	2.00
Length (m)	20.00	20.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.77	1.083	166.89	2.083	9.45	3.08	3.41
0.167	3.77	1.167	166.89	2.167	9.45	3.17	3.41
0.250	3.77	1.250	166.89	2.250	9.45	3.25	3.41
0.333	6.01	1.333	55.37	2.333	6.83	3.33	2.86
0.417	6.01	1.417	55.37	2.417	6.83	3.42	2.86
0.500	6.01	1.500	55.37	2.500	6.83	3.50	2.86
0.583	11.82	1.583	24.55	2.583	5.22	3.58	2.45
0.667	11.82	1.667	24.55	2.667	5.22	3.67	2.45
0.750	11.82	1.750	24.55	2.750	5.22	3.75	2.45
0.833	39.93	1.833	14.23	2.833	4.15	3.83	2.13
0.917	39.93	1.917	14.23	2.917	4.15	3.92	2.13
1.000	39.93	2.000	14.23	3.000	4.15	4.00	2.13

Max.Eff.Inten. (mm/hr)=	166.89	81.59
over (min)	5.00	5.00
Storage Coeff. (min)=	0.79 (ii)	1.40 (ii)



Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.33

TOTALS
 PEAK FLOW (cms)= 1.10 0.01 1.107 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 88.76 40.20 88.28
 TOTAL RAINFALL (mm)= 89.76 89.76 89.76
 RUNOFF COEFFICIENT = 0.99 0.45 0.98

Surface Area (ha)= 2.37 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7652) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.38 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.77	1.083	166.89	2.083	9.45	3.08	3.41
0.167	3.77	1.167	166.89	2.167	9.45	3.17	3.41
0.250	3.77	1.250	166.89	2.250	9.45	3.25	3.41
0.333	6.01	1.333	55.37	2.333	6.83	3.33	2.86
0.417	6.01	1.417	55.37	2.417	6.83	3.42	2.86
0.500	6.01	1.500	55.37	2.500	6.83	3.50	2.86
0.583	11.82	1.583	24.55	2.583	5.22	3.58	2.45
0.667	11.82	1.667	24.55	2.667	5.22	3.67	2.45
0.750	11.82	1.750	24.55	2.750	5.22	3.75	2.45
0.833	39.93	1.833	14.23	2.833	4.15	3.83	2.13
0.917	39.93	1.917	14.23	2.917	4.15	3.92	2.13
1.000	39.93	2.000	14.23	3.000	4.15	4.00	2.13

Max.Eff.Inten.(mm/hr)= 166.89 81.59
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 0.79 (ii) 1.40 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.33

TOTALS
 PEAK FLOW (cms)= 1.10 0.01 1.107 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 88.76 40.20 88.28
 TOTAL RAINFALL (mm)= 89.76 89.76 89.76
 RUNOFF COEFFICIENT = 0.99 0.45 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7661) | Area (ha)= 2.39
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.77	1.083	166.89	2.083	9.45	3.08	3.41
0.167	3.77	1.167	166.89	2.167	9.45	3.17	3.41
0.250	3.77	1.250	166.89	2.250	9.45	3.25	3.41
0.333	6.01	1.333	55.37	2.333	6.83	3.33	2.86
0.417	6.01	1.417	55.37	2.417	6.83	3.42	2.86
0.500	6.01	1.500	55.37	2.500	6.83	3.50	2.86
0.583	11.82	1.583	24.55	2.583	5.22	3.58	2.45
0.667	11.82	1.667	24.55	2.667	5.22	3.67	2.45
0.750	11.82	1.750	24.55	2.750	5.22	3.75	2.45
0.833	39.93	1.833	14.23	2.833	4.15	3.83	2.13
0.917	39.93	1.917	14.23	2.917	4.15	3.92	2.13
1.000	39.93	2.000	14.23	3.000	4.15	4.00	2.13

Max.Eff.Inten.(mm/hr)= 166.89 81.59
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 0.79 (ii) 1.40 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.33

TOTALS
 PEAK FLOW (cms)= 1.10 0.01 1.103 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 88.76 40.20 88.28
 TOTAL RAINFALL (mm)= 89.76 89.76 89.76
 RUNOFF COEFFICIENT = 0.99 0.45 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7671) | Area (ha)= 2.37
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.35 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.77	1.083	166.89	2.083	9.45	3.08	3.41
0.167	3.77	1.167	166.89	2.167	9.45	3.17	3.41
0.250	3.77	1.250	166.89	2.250	9.45	3.25	3.41
0.333	6.01	1.333	55.37	2.333	6.83	3.33	2.86
0.417	6.01	1.417	55.37	2.417	6.83	3.42	2.86
0.500	6.01	1.500	55.37	2.500	6.83	3.50	2.86
0.583	11.82	1.583	24.55	2.583	5.22	3.58	2.45
0.667	11.82	1.667	24.55	2.667	5.22	3.67	2.45
0.750	11.82	1.750	24.55	2.750	5.22	3.75	2.45
0.833	39.93	1.833	14.23	2.833	4.15	3.83	2.13
0.917	39.93	1.917	14.23	2.917	4.15	3.92	2.13
1.000	39.93	2.000	14.23	3.000	4.15	4.00	2.13

```

Max.Eff.Inten.(mm/hr)= 166.89      81.59
                    over (min)    5.00      5.00
Storage Coeff. (min)= 0.79 (ii)   1.40 (ii)
Unit Hyd. Tpeak (min)= 5.00      5.00
Unit Hyd. peak (cms)= 0.34      0.33

PEAK FLOW (cms)= 1.09      0.01      **TOTALS**
TIME TO PEAK (hrs)= 1.25      1.25      1.094 (iii)
RUNOFF VOLUME (mm)= 88.76     40.20     88.28
TOTAL RAINFALL (mm)= 89.76     89.76     89.76
RUNOFF COEFFICIENT = 0.99      0.45      0.98
  
```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7698) |
| 1 + 2 = 3 |
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
-----
ID1= 1 ( 7590):  2.39  1.103  1.25  88.28
+ ID2= 2 ( 7632): 2.36  1.089  1.25  88.28
-----
ID = 3 ( 7698):  4.75  2.192  1.25  88.28
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7698) |
| 3 + 2 = 1 |
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
-----
ID1= 3 ( 7698):  4.75  2.192  1.25  88.28
+ ID2= 2 ( 7644): 2.40  1.107  1.25  88.28
-----
ID = 1 ( 7698):  7.15  3.299  1.25  88.28
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7698) |
| 1 + 2 = 3 |
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
-----
ID1= 1 ( 7698):  7.15  3.299  1.25  88.28
+ ID2= 2 ( 7652): 2.40  1.107  1.25  88.28
-----
ID = 3 ( 7698):  9.55  4.407  1.25  88.28
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7698) |
| 3 + 2 = 1 |
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
-----
ID1= 3 ( 7698):  9.55  4.407  1.25  88.28
+ ID2= 2 ( 7661): 2.39  1.103  1.25  88.28
-----
ID = 1 ( 7698):  11.94 5.510  1.25  88.28
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7698) |
| 1 + 2 = 3 |
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
-----
ID1= 1 ( 7698):  11.94 5.510  1.25  88.28
  
```

```

+ ID2= 2 ( 7671):  2.37  1.094  1.25  88.28
-----
ID = 3 ( 7698):  14.31 6.603  1.25  88.28
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| DIVERTHYD ( 7713) |
| IN= 1 # OUT= 5 |
  
```

Outflow / Inflow Relationships

```

Flow 1 + Flow 2 + Flow 3 + Flow 4 + Flow 5 = Total
(cms) (cms) (cms) (cms) (cms) (cms)
0.00  0.00  0.00  0.00  0.00  0.00
0.27  0.00  0.00  0.00  0.00  0.27
1.00  0.00  0.00  0.00  0.00  1.00
4.00  3.00  0.00  0.00  0.00  7.00
  
```

```

          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
-----
TOTAL HYD. (ID= 1): 14.31  6.60  1.25  88.28
-----
ID= 2 ( 2) : 10.56  3.80  1.25  88.28
ID= 3 ( 2) :  3.75  2.80  1.25  88.28
ID= 4 ( 2) :  0.00  0.00  0.00  0.00
ID= 5 ( 2) :  0.00  0.00  0.00  0.00
ID= 6 ( 2) :  0.00  0.00  0.00  0.00
  
```

```

| RESERVOIR ( 7699) |
| IN= 2--> OUT= 1 |
| DT= 5.0 min |
  
```

OVERFLOW IS ON

```

          OUTFLOW   STORAGE   |   OUTFLOW   STORAGE
          (cms)   (ha.m.)   |   (cms)   (ha.m.)
-----
0.0000  0.0000   | 0.2690  0.4589
0.1980  0.1112   | 0.0000  0.0000
  
```

```

          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
-----
INFLOW : ID= 2 ( 7713) 10.557  3.802  1.25  88.28
OUTFLOW: ID= 1 ( 7699)  7.891  0.269  1.33  88.24
OVERFLOW: ID= 3 ( 0003)  2.666  1.331  1.33  88.24
  
```

```

TOTAL NUMBER OF SIMULATION OVERFLOW = 13
CUMULATIVE TIME OF OVERFLOW (HOURS) = 1.08
PERCENTAGE OF TIME OVERFLOWING (%) = 6.02
  
```

```

PEAK FLOW REDUCTION [Qout/Qin](%) = 7.08
TIME SHIFT OF PEAK FLOW (min) = 5.00
MAXIMUM STORAGE USED (ha.m.) = 0.4589
  
```

```

| Junction Command(7715) |
  
```

```

          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
-----
INFLOW : ID= 3( 7699)  2.67  1.33  1.33  88.24
OUTFLOW: ID= 2( 7715)  2.67  1.33  1.33  88.24
  
```

```

| ADD HYD ( 7714) |
| 1 + 2 = 3 |
  
```

```

          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
-----
ID1= 1 ( 7699):  7.89  0.269  1.33  88.24
+ ID2= 2 ( 7713): 3.75  2.802  1.25  88.28
-----
ID = 3 ( 7714):  11.64 3.063  1.25  88.25
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.



ADD HYD (7714)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7714):	11.64	3.063	1.25	88.25
+ ID2= 2 (7715):	2.67	1.331	1.33	88.24
ID = 1 (7714):	14.31	3.600	1.25	88.25

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	PERVIOUS (i)
STANDHYD (7620)	1.45	
ID= 1 DT= 5.0 min	Total Imp(%)= 96.00	Dir. Conn.(%)= 96.00

Surface Area (ha)	Dep. Storage (mm)	Average Slope (%)	Length (m)	Mannings n
1.39	2.00	1.10	100.00	0.013
0.06	5.00	2.00	145.00	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME RAIN	TIME RAIN	TIME RAIN	TIME RAIN
0.083 3.77	1.083 166.89	2.083 9.45	3.08 3.41
0.167 3.77	1.167 166.89	2.167 9.45	3.17 3.41
0.250 3.77	1.250 166.89	2.250 9.45	3.25 3.41
0.333 6.01	1.333 55.37	2.333 6.83	3.33 2.86
0.417 6.01	1.417 55.37	2.417 6.83	3.42 2.86
0.500 6.01	1.500 55.37	2.500 6.83	3.50 2.86
0.583 11.82	1.583 24.55	2.583 5.22	3.58 2.45
0.667 11.82	1.667 24.55	2.667 5.22	3.67 2.45
0.750 11.82	1.750 24.55	2.750 5.22	3.75 2.45
0.833 39.93	1.833 14.23	2.833 4.15	3.83 2.13
0.917 39.93	1.917 14.23	2.917 4.15	3.92 2.13
1.000 39.93	2.000 14.23	3.000 4.15	4.00 2.13

Max.Eff.Inten. (mm/hr)=	166.89	81.59
over (min)	5.00	10.00
Storage Coeff. (min)=	2.02 (ii)	5.52 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.31	0.16
PEAK FLOW (cms)=	0.65	0.01
TIME TO PEAK (hrs)=	1.25	1.33
RUNOFF VOLUME (mm)=	87.76	40.20
TOTAL RAINFALL (mm)=	89.76	89.76
RUNOFF COEFFICIENT =	0.98	0.45

TOTALS	0.655 (iii)
----------	-------------

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES: CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	PERVIOUS (i)
STANDHYD (7629)	1.70	
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00	Dir. Conn.(%)= 99.00

Surface Area (ha)	Dep. Storage (mm)	Average Slope (%)	Length (m)	Mannings n
1.68	2.00	1.10	100.00	0.013
0.02	5.00	2.00	40.00	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME RAIN	TIME RAIN	TIME RAIN	TIME RAIN
0.083 3.77	1.083 166.89	2.083 9.45	3.08 3.41
0.167 3.77	1.167 166.89	2.167 9.45	3.17 3.41
0.250 3.77	1.250 166.89	2.250 9.45	3.25 3.41
0.333 6.01	1.333 55.37	2.333 6.83	3.33 2.86
0.417 6.01	1.417 55.37	2.417 6.83	3.42 2.86
0.500 6.01	1.500 55.37	2.500 6.83	3.50 2.86
0.583 11.82	1.583 24.55	2.583 5.22	3.58 2.45
0.667 11.82	1.667 24.55	2.667 5.22	3.67 2.45
0.750 11.82	1.750 24.55	2.750 5.22	3.75 2.45
0.833 39.93	1.833 14.23	2.833 4.15	3.83 2.13
0.917 39.93	1.917 14.23	2.917 4.15	3.92 2.13
1.000 39.93	2.000 14.23	3.000 4.15	4.00 2.13

Max.Eff.Inten. (mm/hr)=	166.89	81.59
over (min)	5.00	5.00
Storage Coeff. (min)=	2.02 (ii)	2.94 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.31	0.28

PEAK FLOW (cms)=	0.78	0.00	0.784 (iii)
TIME TO PEAK (hrs)=	1.25	1.25	
RUNOFF VOLUME (mm)=	87.76	40.20	
TOTAL RAINFALL (mm)=	89.76	89.76	
RUNOFF COEFFICIENT =	0.98	0.45	0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES: CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	PERVIOUS (i)
STANDHYD (7651)	1.33	
ID= 1 DT= 5.0 min	Total Imp(%)= 98.00	Dir. Conn.(%)= 98.00

Surface Area (ha)	Dep. Storage (mm)	Average Slope (%)	Length (m)	Mannings n
1.30	2.00	1.10	100.00	0.013
0.03	5.00	2.00	40.00	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME RAIN	TIME RAIN	TIME RAIN	TIME RAIN
0.083 3.77	1.083 166.89	2.083 9.45	3.08 3.41
0.167 3.77	1.167 166.89	2.167 9.45	3.17 3.41
0.250 3.77	1.250 166.89	2.250 9.45	3.25 3.41
0.333 6.01	1.333 55.37	2.333 6.83	3.33 2.86
0.417 6.01	1.417 55.37	2.417 6.83	3.42 2.86
0.500 6.01	1.500 55.37	2.500 6.83	3.50 2.86
0.583 11.82	1.583 24.55	2.583 5.22	3.58 2.45
0.667 11.82	1.667 24.55	2.667 5.22	3.67 2.45
0.750 11.82	1.750 24.55	2.750 5.22	3.75 2.45
0.833 39.93	1.833 14.23	2.833 4.15	3.83 2.13
0.917 39.93	1.917 14.23	2.917 4.15	3.92 2.13
1.000 39.93	2.000 14.23	3.000 4.15	4.00 2.13

Max.Eff.Inten. (mm/hr)=	166.89	81.59
over (min)	5.00	5.00
Storage Coeff. (min)=	2.02 (ii)	3.24 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.31	0.27

TOTALS



PEAK FLOW (cms)= 0.60 0.01 0.610 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 87.76 40.20 86.81
 TOTAL RAINFALL (mm)= 89.76 89.76 89.76
 RUNOFF COEFFICIENT = 0.98 0.45 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7700) |
| 1 + 2 = 3 |
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
ID1= 1 ( 7620):  1.45  0.655  1.25  85.86
+ ID2= 2 ( 7629):  1.70  0.784  1.25  87.29
-----
ID = 3 ( 7700):  3.15  1.439  1.25  86.63
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7700) |
| 3 + 2 = 1 |
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
ID1= 3 ( 7700):  3.15  1.439  1.25  86.63
+ ID2= 2 ( 7651):  1.33  0.610  1.25  86.81
-----
ID = 1 ( 7700):  4.48  2.049  1.25  86.68
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| CALIB          |
| STANDHYD ( 7623) | Area (ha)= 1.20
| ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00
-----
  
```

```

          IMPERVIOUS   PERVIOUS (i)
          (ha)=       1.14       0.06
Surface Area (mm)=       2.00       5.00
Dep. Storage (%)=       2.50       2.00
Average Slope (m)=       60.00      40.00
Mannings n   =       0.013      0.250
  
```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

-----
          TIME   RAIN | TIME   RAIN | TIME   RAIN | TIME   RAIN
          hrs   mm/hr | hrs   mm/hr | '   hrs   mm/hr | '   hrs   mm/hr
0.083  3.77 | 1.083 166.89 | 2.083  9.45 | 3.08  3.41
0.167  3.77 | 1.167 166.89 | 2.167  9.45 | 3.17  3.41
0.250  3.77 | 1.250 166.89 | 2.250  9.45 | 3.25  3.41
0.333  6.01 | 1.333  55.37 | 2.333  6.83 | 3.33  2.86
0.417  6.01 | 1.417  55.37 | 2.417  6.83 | 3.42  2.86
0.500  6.01 | 1.500  55.37 | 2.500  6.83 | 3.50  2.86
0.583 11.82 | 1.583  24.55 | 2.583  5.22 | 3.58  2.45
0.667 11.82 | 1.667  24.55 | 2.667  5.22 | 3.67  2.45
0.750 11.82 | 1.750  24.55 | 2.750  5.22 | 3.75  2.45
0.833 39.93 | 1.833 14.23 | 2.833  4.15 | 3.83  2.13
0.917 39.93 | 1.917 14.23 | 2.917  4.15 | 3.92  2.13
1.000 39.93 | 2.000 14.23 | 3.000  4.15 | 4.00  2.13
  
```

```

Max.Eff.Inten.(mm/hr)= 166.89 84.06
over (min)           5.00 5.00
Storage Coeff. (min)= 1.16 (ii) 2.93 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.28
  
```

TOTALS

PEAK FLOW (cms)= 0.53 0.01 0.543 (iii)
 TIME TO PEAK (hrs)= 1.25 1.25 1.25
 RUNOFF VOLUME (mm)= 87.76 41.29 85.44
 TOTAL RAINFALL (mm)= 89.76 89.76 89.76
 RUNOFF COEFFICIENT = 0.98 0.46 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB          |
| STANDHYD ( 7654) | Area (ha)= 1.69
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
  
```

```

          IMPERVIOUS   PERVIOUS (i)
          (ha)=       1.67       0.02
Surface Area (mm)=       2.00       5.00
Dep. Storage (%)=       1.10       2.00
Average Slope (m)=       100.00     40.00
Mannings n   =       0.013      0.250
  
```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

-----
          TIME   RAIN | TIME   RAIN | TIME   RAIN | TIME   RAIN
          hrs   mm/hr | hrs   mm/hr | '   hrs   mm/hr | '   hrs   mm/hr
0.083  3.77 | 1.083 166.89 | 2.083  9.45 | 3.08  3.41
0.167  3.77 | 1.167 166.89 | 2.167  9.45 | 3.17  3.41
0.250  3.77 | 1.250 166.89 | 2.250  9.45 | 3.25  3.41
0.333  6.01 | 1.333  55.37 | 2.333  6.83 | 3.33  2.86
0.417  6.01 | 1.417  55.37 | 2.417  6.83 | 3.42  2.86
0.500  6.01 | 1.500  55.37 | 2.500  6.83 | 3.50  2.86
0.583 11.82 | 1.583  24.55 | 2.583  5.22 | 3.58  2.45
0.667 11.82 | 1.667  24.55 | 2.667  5.22 | 3.67  2.45
0.750 11.82 | 1.750  24.55 | 2.750  5.22 | 3.75  2.45
0.833 39.93 | 1.833 14.23 | 2.833  4.15 | 3.83  2.13
0.917 39.93 | 1.917 14.23 | 2.917  4.15 | 3.92  2.13
1.000 39.93 | 2.000 14.23 | 3.000  4.15 | 4.00  2.13
  
```

```

Max.Eff.Inten.(mm/hr)= 166.89 81.59
over (min)           5.00 5.00
Storage Coeff. (min)= 2.02 (ii) 2.94 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.31 0.28
  
```

TOTALS

```

PEAK FLOW (cms)= 0.78 0.00 0.779 (iii)
TIME TO PEAK (hrs)= 1.25 1.25 1.25
RUNOFF VOLUME (mm)= 87.76 40.20 87.29
TOTAL RAINFALL (mm)= 89.76 89.76 89.76
RUNOFF COEFFICIENT = 0.98 0.45 0.97
  
```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB          |
| STANDHYD ( 7655) | Area (ha)= 1.32
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
  
```

```

          IMPERVIOUS   PERVIOUS (i)
          (ha)=       1.31       0.01
Surface Area (mm)=       2.00       5.00
Dep. Storage (%)=       1.10       2.00
Average Slope (m)=       100.00     40.00
  
```



Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.77	1.083	166.89	2.083	9.45	3.08	3.41
0.167	3.77	1.167	166.89	2.167	9.45	3.17	3.41
0.250	3.77	1.250	166.89	2.250	9.45	3.25	3.41
0.333	6.01	1.333	55.37	2.333	6.83	3.33	2.86
0.417	6.01	1.417	55.37	2.417	6.83	3.42	2.86
0.500	6.01	1.500	55.37	2.500	6.83	3.50	2.86
0.583	11.82	1.583	24.55	2.583	5.22	3.58	2.45
0.667	11.82	1.667	24.55	2.667	5.22	3.67	2.45
0.750	11.82	1.750	24.55	2.750	5.22	3.75	2.45
0.833	39.93	1.833	14.23	2.833	4.15	3.83	2.13
0.917	39.93	1.917	14.23	2.917	4.15	3.92	2.13
1.000	39.93	2.000	14.23	3.000	4.15	4.00	2.13

Max.Eff.Inten.(mm/hr)= 166.89 81.59
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.02 (ii) 2.94 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.31 0.28

PEAK FLOW (cms)= 0.61 0.00
 TIME TO PEAK (hrs)= 1.25 1.25
 RUNOFF VOLUME (mm)= 87.76 40.20
 TOTAL RAINFALL (mm)= 89.76 89.76
 RUNOFF COEFFICIENT = 0.98 0.45

TOTALS

0.61 0.00
 0.609 (iii)
 1.25
 87.29
 89.76
 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 STANDHYD (7662) Area (ha)= 1.61
 ID= 1 DT= 5.0 min Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.48 0.13
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 145.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.77	1.083	166.89	2.083	9.45	3.08	3.41
0.167	3.77	1.167	166.89	2.167	9.45	3.17	3.41
0.250	3.77	1.250	166.89	2.250	9.45	3.25	3.41
0.333	6.01	1.333	55.37	2.333	6.83	3.33	2.86
0.417	6.01	1.417	55.37	2.417	6.83	3.42	2.86
0.500	6.01	1.500	55.37	2.500	6.83	3.50	2.86
0.583	11.82	1.583	24.55	2.583	5.22	3.58	2.45
0.667	11.82	1.667	24.55	2.667	5.22	3.67	2.45
0.750	11.82	1.750	24.55	2.750	5.22	3.75	2.45
0.833	39.93	1.833	14.23	2.833	4.15	3.83	2.13
0.917	39.93	1.917	14.23	2.917	4.15	3.92	2.13
1.000	39.93	2.000	14.23	3.000	4.15	4.00	2.13

Max.Eff.Inten.(mm/hr)= 166.89 81.59
 over (min) = 5.00 10.00

Storage Coeff. (min)= 2.02 (ii) 6.71 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.31 0.14

PEAK FLOW (cms)= 0.69 0.02
 TIME TO PEAK (hrs)= 1.25 1.33
 RUNOFF VOLUME (mm)= 87.76 40.20
 TOTAL RAINFALL (mm)= 89.76 89.76
 RUNOFF COEFFICIENT = 0.98 0.45

TOTALS

0.708 (iii)
 1.25
 83.96
 89.76
 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7701)
 1 + 2 = 3 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7654): 1.69 0.779 1.25 87.29
 + ID2= 2 (7655): 1.32 0.609 1.25 87.29
 ID= 3 (7701): 3.01 1.388 1.25 87.29

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7701)
 3 + 2 = 1 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7701): 3.01 1.388 1.25 87.29
 + ID2= 2 (7662): 1.61 0.708 1.25 83.96
 ID= 1 (7701): 4.62 2.096 1.25 86.13

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
 STANDHYD (7707) Area (ha)= 1.06
 ID= 1 DT= 5.0 min Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.01 0.05
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 2.50 2.00
 Length (m)= 60.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.77	1.083	166.89	2.083	9.45	3.08	3.41
0.167	3.77	1.167	166.89	2.167	9.45	3.17	3.41
0.250	3.77	1.250	166.89	2.250	9.45	3.25	3.41
0.333	6.01	1.333	55.37	2.333	6.83	3.33	2.86
0.417	6.01	1.417	55.37	2.417	6.83	3.42	2.86
0.500	6.01	1.500	55.37	2.500	6.83	3.50	2.86
0.583	11.82	1.583	24.55	2.583	5.22	3.58	2.45
0.667	11.82	1.667	24.55	2.667	5.22	3.67	2.45
0.750	11.82	1.750	24.55	2.750	5.22	3.75	2.45
0.833	39.93	1.833	14.23	2.833	4.15	3.83	2.13
0.917	39.93	1.917	14.23	2.917	4.15	3.92	2.13
1.000	39.93	2.000	14.23	3.000	4.15	4.00	2.13

Max.Eff.Inten.(mm/hr)= 166.89 84.06
 over (min) = 5.00 5.00



```

Storage Coeff. (min)= 1.16 (ii) 2.93 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.28

*TOTALS*
PEAK FLOW (cms)= 0.47 0.01 0.480 (iii)
TIME TO PEAK (hrs)= 1.25 1.25 1.25
RUNOFF VOLUME (mm)= 87.76 41.29 85.44
TOTAL RAINFALL (mm)= 89.76 89.76 89.76
RUNOFF COEFFICIENT = 0.98 0.46 0.95

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7702) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
| (ha) (cms) (hrs) (mm)
ID1= 1 ( 7623): 1.20 0.543 1.25 85.44
+ ID2= 2 ( 7700): 4.48 2.049 1.25 86.68
-----
ID = 3 ( 7702): 5.68 2.593 1.25 86.42

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7702) |
| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
| (ha) (cms) (hrs) (mm)
ID1= 3 ( 7702): 5.68 2.593 1.25 86.42
+ ID2= 2 ( 7701): 4.62 2.096 1.25 86.13
-----
ID = 1 ( 7702): 10.30 4.688 1.25 86.29

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7702) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
| (ha) (cms) (hrs) (mm)
ID1= 1 ( 7702): 10.30 4.688 1.25 86.29
+ ID2= 2 ( 7707): 1.06 0.480 1.25 85.44
-----
ID = 3 ( 7702): 11.36 5.168 1.25 86.21

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7702) |
| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
| (ha) (cms) (hrs) (mm)
ID1= 3 ( 7702): 11.36 5.168 1.25 86.21
+ ID2= 2 ( 7714): 14.31 3.600 1.25 88.25
-----
ID = 1 ( 7702): 25.67 8.768 1.25 87.35

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| RESERVOIR( 7705) | OVERFLOW IS OFF
| IN= 2--> OUT= 1 |
| DT= 5.0 min |
-----
| OUTFLOW STORAGE | OUTFLOW STORAGE
| (cms) (ha.m.) | (cms) (ha.m.)
0.0000 0.0000 | 0.6280 2.3980
0.0730 0.2080 | 0.6400 2.4830
0.0890 0.2770 | 0.6520 2.5670
0.1340 0.5530 | 0.6640 2.6500

```

```

0.2910 0.8290 | 0.6750 2.7340
0.3860 1.1060 | 0.7190 3.0490
0.4590 1.3820 | 0.8250 3.3550
0.5220 1.7210 | 2.0760 3.4560
0.5780 2.0600 | 2.3560 3.7320

```

```

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 2 ( 7702) 25.670 8.768 1.25 87.35
OUTFLOW: ID= 1 ( 7705) 25.670 0.469 2.50 87.32

```

```

PEAK FLOW REDUCTION [Qout/Qin](%)= 5.35
TIME SHIFT OF PEAK FLOW (min)= 75.00
MAXIMUM STORAGE USED (ha.m.)= 1.4358

```

```

-----
| CALIB |
| STANDHYD ( 7716) | Area (ha)= 0.19
| ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00
-----

```

```

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.18 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.50 2.00
Length (m)= 60.00 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

-----
| TRANSFORMED HYETOGRAPH |
| TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN |
| hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr |
0.083 3.77 | 1.083 166.89 | 2.083 9.45 | 3.08 3.41
0.167 3.77 | 1.167 166.89 | 2.167 9.45 | 3.17 3.41
0.250 3.77 | 1.250 166.89 | 2.250 9.45 | 3.25 3.41
0.333 6.01 | 1.333 55.37 | 2.333 6.83 | 3.33 2.86
0.417 6.01 | 1.417 55.37 | 2.417 6.83 | 3.42 2.86
0.500 6.01 | 1.500 55.37 | 2.500 6.83 | 3.50 2.86
0.583 11.82 | 1.583 24.55 | 2.583 5.22 | 3.58 2.45
0.667 11.82 | 1.667 24.55 | 2.667 5.22 | 3.67 2.45
0.750 11.82 | 1.750 24.55 | 2.750 5.22 | 3.75 2.45
0.833 39.93 | 1.833 14.23 | 2.833 4.15 | 3.83 2.13
0.917 39.93 | 1.917 14.23 | 2.917 4.15 | 3.92 2.13
1.000 39.93 | 2.000 14.23 | 3.000 4.15 | 4.00 2.13

```

```

Max.Eff.Inten.(mm/hr)= 166.89 84.06
over (min) 5.00 5.00
Storage Coeff. (min)= 1.16 (ii) 2.93 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.34 0.28

```

```

*TOTALS*
PEAK FLOW (cms)= 0.08 0.00 0.086 (iii)
TIME TO PEAK (hrs)= 1.25 1.25 1.25
RUNOFF VOLUME (mm)= 87.76 41.29 85.44
TOTAL RAINFALL (mm)= 89.76 89.76 89.76
RUNOFF COEFFICIENT = 0.98 0.46 0.95

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| RESERVOIR( 7720) | OVERFLOW IS OFF
| IN= 2--> OUT= 1 |
| DT= 5.0 min |
-----
| OUTFLOW STORAGE | OUTFLOW STORAGE
| (cms) (ha.m.) | (cms) (ha.m.)
0.0000 0.0000 | 0.0100 0.0090
0.0030 0.0010 | 0.0110 0.0100
0.0050 0.0030 | 0.0120 0.0110

```

0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 2 (7716)	0.190	0.086	1.25	85.44
OUTFLOW: ID= 1 (7720)	0.190	0.012	1.75	85.02

PEAK FLOW REDUCTION [Qout/Qin] (%) = 13.66
 TIME SHIFT OF PEAK FLOW (min) = 30.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0108

0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 2 (7717)	0.200	0.091	1.25	85.44
OUTFLOW: ID= 1 (7719)	0.200	0.012	1.58	85.05

PEAK FLOW REDUCTION [Qout/Qin] (%) = 13.25
 TIME SHIFT OF PEAK FLOW (min) = 20.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0114

CALIB
 STANDHYD (7717)
 ID= 1 DT= 5.0 min
 Area (ha) = 0.20
 Total Imp (%) = 95.00
 Dir. Conn. (%) = 95.00

IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)	0.19	0.01
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	2.50	2.00
Length (m)	36.51	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.77	1.083	166.89	2.083	9.45	3.08	3.41				
0.167	3.77	1.167	166.89	2.167	9.45	3.17	3.41				
0.250	3.77	1.250	166.89	2.250	9.45	3.25	3.41				
0.333	6.01	1.333	55.37	2.333	6.83	3.33	2.86				
0.417	6.01	1.417	55.37	2.417	6.83	3.42	2.86				
0.500	6.01	1.500	55.37	2.500	6.83	3.50	2.86				
0.583	11.82	1.583	24.55	2.583	5.22	3.58	2.45				
0.667	11.82	1.667	24.55	2.667	5.22	3.67	2.45				
0.750	11.82	1.750	24.55	2.750	5.22	3.75	2.45				
0.833	39.93	1.833	14.23	2.833	4.15	3.83	2.13				
0.917	39.93	1.917	14.23	2.917	4.15	3.92	2.13				
1.000	39.93	2.000	14.23	3.000	4.15	4.00	2.13				

Max.Eff.Inten. (mm/hr) = 166.89
 over (min) = 5.00
 Storage Coeff. (min) = 0.86 (ii)
 Unit Hyd. Tpeak (min) = 5.00
 Unit Hyd. peak (cms) = 0.34

TOTALS

PEAK FLOW (cms)	0.09	0.00	0.091 (iii)
TIME TO PEAK (hrs)	1.25	1.25	
RUNOFF VOLUME (mm)	87.76	41.29	85.44
TOTAL RAINFALL (mm)	89.76	89.76	89.76
RUNOFF COEFFICIENT	0.98	0.46	0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7719)
 IN= 2---> OUT= 1
 DT= 5.0 min
 OVERFLOW IS OFF
 OUTFLOW STORAGE OUTFLOW STORAGE
 (cms) (ha.m.) (cms) (ha.m.)
 0.0000 0.0000 0.0100 0.0090
 0.0030 0.0010 0.0110 0.0100
 0.0050 0.0030 0.0120 0.0110
 0.0060 0.0040 0.0120 0.0130

ADD HYD (7706)
 1 + 2 = 3
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7705): 25.67 0.469 2.50 87.32
 + ID2= 2 (7719): 0.20 0.012 1.58 85.05
 ID = 3 (7706): 25.87 0.480 2.33 87.30

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7706)
 3 + 2 = 1
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7706): 25.87 0.480 2.33 87.30
 + ID2= 2 (7720): 0.19 0.012 1.75 85.02
 ID = 1 (7706): 26.06 0.491 2.33 87.29

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
 STANDHYD (7595)
 ID= 1 DT= 5.0 min
 Area (ha) = 1.24
 Total Imp (%) = 99.00
 Dir. Conn. (%) = 99.00

IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)	1.23	0.01
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	2.00	2.00
Length (m)	91.00	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	3.77	1.083	166.89	2.083	9.45	3.08	3.41				
0.167	3.77	1.167	166.89	2.167	9.45	3.17	3.41				
0.250	3.77	1.250	166.89	2.250	9.45	3.25	3.41				
0.333	6.01	1.333	55.37	2.333	6.83	3.33	2.86				
0.417	6.01	1.417	55.37	2.417	6.83	3.42	2.86				
0.500	6.01	1.500	55.37	2.500	6.83	3.50	2.86				
0.583	11.82	1.583	24.55	2.583	5.22	3.58	2.45				
0.667	11.82	1.667	24.55	2.667	5.22	3.67	2.45				
0.750	11.82	1.750	24.55	2.750	5.22	3.75	2.45				
0.833	39.93	1.833	14.23	2.833	4.15	3.83	2.13				
0.917	39.93	1.917	14.23	2.917	4.15	3.92	2.13				
1.000	39.93	2.000	14.23	3.000	4.15	4.00	2.13				

Max.Eff.Inten. (mm/hr) = 166.89
 over (min) = 5.00
 Storage Coeff. (min) = 1.60 (ii)
 Unit Hyd. Tpeak (min) = 5.00
 Unit Hyd. peak (cms) = 0.32

TOTALS

PEAK FLOW (cms)	0.57	0.00	0.573 (iii)
-----------------	------	------	-------------



```

TIME TO PEAK (hrs)= 1.25 1.25 1.25
RUNOFF VOLUME (mm)= 87.76 40.20 87.29
TOTAL RAINFALL (mm)= 89.76 89.76 89.76
RUNOFF COEFFICIENT = 0.98 0.45 0.97

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7718) |
| 1 + 2 = 3 |
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
ID1= 1 ( 7595):  1.24  0.573  1.25  87.29
+ ID2= 2 ( 7706): 26.06  0.491  2.33  87.29
-----
ID = 3 ( 7718):  27.30  0.860  1.25  87.29

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| RESERVOIR( 7711) | OVERFLOW IS OFF
| IN= 2--> OUT= 1 |
| DT= 5.0 min |
-----
          OUTFLOW   STORAGE | OUTFLOW   STORAGE
          (cms)   (ha.m.) | (cms)   (ha.m.)
0.0000  0.0000 | 1.0810  1.6220
0.0010  0.1670 | 1.3950  1.8170
0.0340  0.3380 | 2.0990  2.2130
0.0510  0.5110 | 2.8950  2.6150
0.0630  0.6880 | 3.7730  3.0250
0.1610  0.8670 | 4.7260  3.4420
0.3300  1.0500 | 5.5670  3.8670
0.5440  1.2370 | 8.5800  4.3000
0.7970  1.4290 | 10.9450 4.5210
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
INFLOW : ID= 2 ( 7718) 27.302  0.860  1.25  87.29
OUTFLOW: ID= 1 ( 7711) 27.302  0.303  10.33  81.92

```

```

PEAK FLOW REDUCTION [Qout/Qin](%)= 35.17
TIME SHIFT OF PEAK FLOW (min)=545.00
MAXIMUM STORAGE USED (ha.m.)= 1.0203

```



6.00 0.78 | 12.25 7.50 | 18.50 0.75 |

```
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL
```

```
OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O O
O O T T H H Y Y M M O O O
OOO T T H H Y Y M M OOO
```

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```
-----
| CALIB |
| STANDHYD ( 7640) | Area (ha)= 0.59
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.58 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 62.72 40.00
Mannings n = 0.013 0.250
```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat
Output filename: C:\Users\mhooper\AppData\Local\Civica\5\40fcb7f5-f544-4d5a-b245-a4eb17ead57\51d39aab-5886-49dc-b113-6eec52dae39e\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\5\40fcb7f5-f544-4d5a-b245-a4eb17ead57\51d39aab-5886-49dc-b113-6eec52dae39e\scen

DATE: 11-22-2024 TIME: 12:17:36

USER:

COMMENTS:

** SIMULATION : M - 2yr 24hr 15min SCS Type I **

```
-----
| READ STORM | Filename: C:\Users\mhooper\AppData\Local\Temp\23be32ce-1a71-4aef-a5bf-302738051fdc\617729d9
| Ptotal= 43.76 mm | Comments: 2yr 24hr 15min SCS Type II
-----
```

TIME	RAIN	TIME	RAIN	'	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.25	0.80	12.50	5.10	18.75	0.72	
0.25	0.44	6.50	0.82	12.75	3.51	19.00	0.69	
0.50	0.45	6.75	0.84	13.00	2.97	19.25	0.66	
0.75	0.46	7.00	0.86	13.25	2.51	19.50	0.64	
1.00	0.48	7.25	0.89	13.50	2.22	19.75	0.61	
1.25	0.49	7.50	0.91	13.75	1.94	20.00	0.58	
1.50	0.50	7.75	0.93	14.00	1.73	20.25	0.57	
1.75	0.51	8.00	0.95	14.25	1.58	20.50	0.56	
2.00	0.52	8.25	1.02	14.50	1.51	20.75	0.55	
2.25	0.53	8.50	1.12	14.75	1.43	21.00	0.55	
2.50	0.54	8.75	1.24	15.00	1.35	21.25	0.54	
2.75	0.55	9.00	1.34	15.25	1.27	21.50	0.54	
3.00	0.56	9.25	1.40	15.50	1.20	21.75	0.53	
3.25	0.58	9.50	1.40	15.75	1.12	22.00	0.53	
3.50	0.59	9.75	1.49	16.00	1.05	22.25	0.52	
3.75	0.60	10.00	1.66	16.25	0.99	22.50	0.52	
4.00	0.61	10.25	1.89	16.50	0.97	22.75	0.51	
4.25	0.62	10.50	2.14	16.75	0.94	23.00	0.51	
4.50	0.65	10.75	2.50	17.00	0.91	23.25	0.50	
4.75	0.67	11.00	2.92	17.25	0.88	23.50	0.50	
5.00	0.69	11.25	3.70	17.50	0.86	23.75	0.49	
5.25	0.71	11.50	4.71	17.75	0.83	24.00	0.48	
5.50	0.73	11.75	19.18	18.00	0.80			
5.75	0.76	12.00	47.34	18.25	0.77			

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	'	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	0.78	12.250	47.34	18.33	0.77	
0.167	0.00	6.250	0.78	12.333	7.50	18.42	0.77	
0.250	0.00	6.333	0.80	12.417	7.50	18.50	0.77	
0.333	0.44	6.417	0.80	12.500	7.50	18.58	0.75	
0.417	0.44	6.500	0.80	12.583	5.10	18.67	0.75	
0.500	0.44	6.583	0.82	12.667	5.10	18.75	0.75	
0.583	0.45	6.667	0.82	12.750	5.10	18.83	0.72	
0.667	0.45	6.750	0.82	12.833	3.51	18.92	0.72	
0.750	0.45	6.833	0.84	12.917	3.51	19.00	0.72	
0.833	0.46	6.917	0.84	13.000	3.51	19.08	0.69	
0.917	0.46	7.000	0.84	13.083	2.97	19.17	0.69	
1.000	0.46	7.083	0.86	13.167	2.97	19.25	0.69	
1.083	0.48	7.167	0.86	13.250	2.97	19.33	0.66	
1.167	0.48	7.250	0.86	13.333	2.51	19.42	0.66	
1.250	0.48	7.333	0.89	13.417	2.51	19.50	0.66	
1.333	0.49	7.417	0.89	13.500	2.51	19.58	0.64	
1.417	0.49	7.500	0.89	13.583	2.22	19.67	0.64	
1.500	0.49	7.583	0.91	13.667	2.22	19.75	0.64	
1.583	0.50	7.667	0.91	13.750	2.22	19.83	0.61	
1.667	0.50	7.750	0.91	13.833	1.94	19.92	0.61	
1.750	0.50	7.833	0.93	13.917	1.94	20.00	0.61	
1.833	0.51	7.917	0.93	14.000	1.94	20.08	0.58	
1.917	0.51	8.000	0.93	14.083	1.73	20.17	0.58	
2.000	0.51	8.083	0.95	14.167	1.73	20.25	0.58	
2.083	0.52	8.167	0.95	14.250	1.73	20.33	0.57	
2.167	0.52	8.250	0.95	14.333	1.58	20.42	0.57	
2.250	0.52	8.333	1.02	14.417	1.58	20.50	0.57	
2.333	0.53	8.417	1.02	14.500	1.58	20.58	0.56	
2.417	0.53	8.500	1.02	14.583	1.51	20.67	0.56	
2.500	0.53	8.583	1.12	14.667	1.51	20.75	0.56	
2.583	0.54	8.667	1.12	14.750	1.51	20.83	0.55	
2.667	0.54	8.750	1.12	14.833	1.43	20.92	0.55	
2.750	0.54	8.833	1.24	14.917	1.43	21.00	0.55	
2.833	0.55	8.917	1.24	15.000	1.43	21.08	0.55	
2.917	0.55	9.000	1.24	15.083	1.35	21.17	0.55	
3.000	0.55	9.083	1.34	15.167	1.35	21.25	0.55	
3.083	0.56	9.167	1.34	15.250	1.35	21.33	0.54	
3.167	0.56	9.250	1.34	15.333	1.27	21.42	0.54	
3.250	0.56	9.333	1.40	15.417	1.27	21.50	0.54	
3.333	0.58	9.417	1.40	15.500	1.27	21.58	0.54	
3.417	0.58	9.500	1.40	15.583	1.20	21.67	0.54	
3.500	0.58	9.583	1.40	15.667	1.20	21.75	0.54	
3.583	0.59	9.667	1.40	15.750	1.20	21.83	0.53	
3.667	0.59	9.750	1.40	15.833	1.12	21.92	0.53	
3.750	0.59	9.833	1.49	15.917	1.12	22.00	0.53	
3.833	0.60	9.917	1.49	16.000	1.12	22.08	0.53	
3.917	0.60	10.000	1.49	16.083	1.05	22.17	0.53	
4.000	0.60	10.083	1.66	16.167	1.05	22.25	0.53	
4.083	0.61	10.167	1.66	16.250	1.05	22.33	0.52	
4.167	0.61	10.250	1.66	16.333	0.99	22.42	0.52	
4.250	0.61	10.333	1.89	16.417	0.99	22.50	0.52	
4.333	0.62	10.417	1.89	16.500	0.99	22.58	0.52	
4.417	0.62	10.500	1.89	16.583	0.97	22.67	0.52	
4.500	0.62	10.583	2.14	16.667	0.97	22.75	0.52	



4.583	0.65	10.667	2.14	16.750	0.97	22.83	0.51
4.667	0.65	10.750	2.14	16.833	0.94	22.92	0.51
4.750	0.65	10.833	2.50	16.917	0.94	23.00	0.51
4.833	0.67	10.917	2.50	17.000	0.94	23.08	0.51
4.917	0.67	11.000	2.50	17.083	0.91	23.17	0.51
5.000	0.67	11.083	2.92	17.167	0.91	23.25	0.51
5.083	0.69	11.167	2.92	17.250	0.91	23.33	0.50
5.167	0.69	11.250	2.92	17.333	0.88	23.42	0.50
5.250	0.69	11.333	3.70	17.417	0.88	23.50	0.50
5.333	0.71	11.417	3.70	17.500	0.88	23.58	0.50
5.417	0.71	11.500	3.70	17.583	0.86	23.67	0.50
5.500	0.71	11.583	4.70	17.667	0.86	23.75	0.50
5.583	0.73	11.667	4.71	17.750	0.86	23.83	0.49
5.667	0.73	11.750	4.71	17.833	0.83	23.92	0.49
5.750	0.73	11.833	19.18	17.917	0.83	24.00	0.49
5.833	0.76	11.917	19.18	18.000	0.83	24.08	0.48
5.917	0.76	12.000	19.18	18.083	0.80	24.17	0.48
6.000	0.76	12.083	47.33	18.167	0.80	24.25	0.48
6.083	0.78	12.167	47.34	18.250	0.80		

Max.Eff.Inten.(mm/hr)= 47.34 15.16
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.12 (ii) 3.63 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.31 0.25

TOTALS
 PEAK FLOW (cms)= 0.08 0.00
 TIME TO PEAK (hrs)= 12.25 12.25 12.25 (iii)
 RUNOFF VOLUME (mm)= 41.76 11.32 41.45
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.26 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | NASHYD (7721) | Area (ha)= 0.21 Curve Number (CN)= 73.0
 |ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00

 U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.78	12.250	47.34	18.33	0.77
0.167	0.00	6.250	0.78	12.333	7.50	18.42	0.77
0.250	0.00	6.333	0.80	12.417	7.50	18.50	0.77
0.333	0.44	6.417	0.80	12.500	7.50	18.58	0.75
0.417	0.44	6.500	0.80	12.583	5.10	18.67	0.75
0.500	0.44	6.583	0.82	12.667	5.10	18.75	0.75
0.583	0.45	6.667	0.82	12.750	5.10	18.83	0.72
0.667	0.45	6.750	0.82	12.833	3.51	18.92	0.72
0.750	0.45	6.833	0.84	12.917	3.51	19.00	0.72
0.833	0.46	6.917	0.84	13.000	3.51	19.08	0.69
0.917	0.46	7.000	0.84	13.083	2.97	19.17	0.69
1.000	0.46	7.083	0.86	13.167	2.97	19.25	0.69
1.083	0.48	7.167	0.86	13.250	2.97	19.33	0.66
1.167	0.48	7.250	0.86	13.333	2.51	19.42	0.66
1.250	0.48	7.333	0.89	13.417	2.51	19.50	0.66
1.333	0.49	7.417	0.89	13.500	2.51	19.58	0.64
1.417	0.49	7.500	0.89	13.583	2.22	19.67	0.64
1.500	0.49	7.583	0.91	13.667	2.22	19.75	0.64
1.583	0.50	7.667	0.91	13.750	2.22	19.83	0.61
1.667	0.50	7.750	0.91	13.833	1.94	19.92	0.61
1.750	0.50	7.833	0.93	13.917	1.94	20.00	0.61
1.833	0.51	7.917	0.93	14.000	1.94	20.08	0.58
1.917	0.51	8.000	0.93	14.083	1.73	20.17	0.58

2.000	0.51	8.083	0.95	14.167	1.73	20.25	0.58
2.083	0.52	8.167	0.95	14.250	1.73	20.33	0.57
2.167	0.52	8.250	0.95	14.333	1.58	20.42	0.57
2.250	0.52	8.333	1.02	14.417	1.58	20.50	0.57
2.333	0.53	8.417	1.02	14.500	1.58	20.58	0.56
2.417	0.53	8.500	1.02	14.583	1.51	20.67	0.56
2.500	0.53	8.583	1.12	14.667	1.51	20.75	0.56
2.583	0.54	8.667	1.12	14.750	1.51	20.83	0.55
2.667	0.54	8.750	1.12	14.833	1.43	20.92	0.55
2.750	0.54	8.833	1.24	14.917	1.43	21.00	0.55
2.833	0.55	8.917	1.24	15.000	1.43	21.08	0.55
2.917	0.55	9.000	1.24	15.083	1.35	21.17	0.55
3.000	0.55	9.083	1.34	15.167	1.35	21.25	0.55
3.083	0.56	9.167	1.34	15.250	1.35	21.33	0.54
3.167	0.56	9.250	1.34	15.333	1.27	21.42	0.54
3.250	0.56	9.333	1.40	15.417	1.27	21.50	0.54
3.333	0.58	9.417	1.40	15.500	1.27	21.58	0.54
3.417	0.58	9.500	1.40	15.583	1.20	21.67	0.54
3.500	0.58	9.583	1.40	15.667	1.20	21.75	0.54
3.583	0.59	9.667	1.40	15.750	1.20	21.83	0.53
3.667	0.59	9.750	1.40	15.833	1.12	21.92	0.53
3.750	0.59	9.833	1.49	15.917	1.12	22.00	0.53
3.833	0.60	9.917	1.49	16.000	1.12	22.08	0.53
3.917	0.60	10.000	1.49	16.083	1.05	22.17	0.53
4.000	0.60	10.083	1.66	16.167	1.05	22.25	0.53
4.083	0.61	10.167	1.66	16.250	1.05	22.33	0.52
4.167	0.61	10.250	1.66	16.333	0.99	22.42	0.52
4.250	0.61	10.333	1.89	16.417	0.99	22.50	0.52
4.333	0.62	10.417	1.89	16.500	0.99	22.58	0.52
4.417	0.62	10.500	1.89	16.583	0.97	22.67	0.52
4.500	0.62	10.583	2.14	16.667	0.97	22.75	0.52
4.583	0.65	10.667	2.14	16.750	0.97	22.83	0.51
4.667	0.65	10.750	2.14	16.833	0.94	22.92	0.51
4.750	0.65	10.833	2.50	16.917	0.94	23.00	0.51
4.833	0.67	10.917	2.50	17.000	0.94	23.08	0.51
4.917	0.67	11.000	2.50	17.083	0.91	23.17	0.51
5.000	0.67	11.083	2.92	17.167	0.91	23.25	0.51
5.083	0.69	11.167	2.92	17.250	0.91	23.33	0.50
5.167	0.69	11.250	2.92	17.333	0.88	23.42	0.50
5.250	0.69	11.333	3.70	17.417	0.88	23.50	0.50
5.333	0.71	11.417	3.70	17.500	0.88	23.58	0.50
5.417	0.71	11.500	3.70	17.583	0.86	23.67	0.50
5.500	0.71	11.583	4.70	17.667	0.86	23.75	0.50
5.583	0.73	11.667	4.71	17.750	0.86	23.83	0.49
5.667	0.73	11.750	4.71	17.833	0.83	23.92	0.49
5.750	0.73	11.833	19.18	17.917	0.83	24.00	0.49
5.833	0.76	11.917	19.18	18.000	0.83	24.08	0.48
5.917	0.76	12.000	19.18	18.083	0.80	24.17	0.48
6.000	0.76	12.083	47.33	18.167	0.80	24.25	0.48
6.083	0.78	12.167	47.34	18.250	0.80		

Unit Hyd Qpeak (cms)= 0.047

PEAK FLOW (cms)= 0.006 (i)
 TIME TO PEAK (hrs)= 12.333
 RUNOFF VOLUME (mm)= 11.279
 TOTAL RAINFALL (mm)= 43.760
 RUNOFF COEFFICIENT = 0.258

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STRANDHYD (7599) | Area (ha)= 10.79
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

 IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 10.79 0.11
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 269.57 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.78	12.250	47.34	18.33	0.77
0.167	0.00	6.250	0.78	12.333	7.50	18.42	0.77
0.250	0.00	6.333	0.80	12.417	7.50	18.50	0.77
0.333	0.44	6.417	0.80	12.500	7.50	18.58	0.75
0.417	0.44	6.500	0.80	12.583	5.10	18.67	0.75
0.500	0.44	6.583	0.82	12.667	5.10	18.75	0.75
0.583	0.45	6.667	0.82	12.750	5.10	18.83	0.72
0.667	0.45	6.750	0.82	12.833	3.51	18.92	0.72
0.750	0.45	6.833	0.84	12.917	3.51	19.00	0.72
0.833	0.46	6.917	0.84	13.000	3.51	19.08	0.69
0.917	0.46	7.000	0.84	13.083	2.97	19.17	0.69
1.000	0.46	7.083	0.86	13.167	2.97	19.25	0.69
1.083	0.48	7.167	0.86	13.250	2.97	19.33	0.66
1.167	0.48	7.250	0.86	13.333	2.51	19.42	0.66
1.250	0.48	7.333	0.89	13.417	2.51	19.50	0.66
1.333	0.49	7.417	0.89	13.500	2.51	19.58	0.64
1.417	0.49	7.500	0.89	13.583	2.22	19.67	0.64
1.500	0.49	7.583	0.91	13.667	2.22	19.75	0.64
1.583	0.50	7.667	0.91	13.750	2.22	19.83	0.61
1.667	0.50	7.750	0.91	13.833	1.94	19.92	0.61
1.750	0.50	7.833	0.93	13.917	1.94	20.00	0.61
1.833	0.51	7.917	0.93	14.000	1.94	20.08	0.58
1.917	0.51	8.000	0.93	14.083	1.73	20.17	0.58
2.000	0.51	8.083	0.95	14.167	1.73	20.25	0.58
2.083	0.52	8.167	0.95	14.250	1.73	20.33	0.57
2.167	0.52	8.250	0.95	14.333	1.58	20.42	0.57
2.250	0.52	8.333	1.02	14.417	1.58	20.50	0.57
2.333	0.53	8.417	1.02	14.500	1.58	20.58	0.56
2.417	0.53	8.500	1.02	14.583	1.51	20.67	0.56
2.500	0.53	8.583	1.12	14.667	1.51	20.75	0.56
2.583	0.54	8.667	1.12	14.750	1.51	20.83	0.55
2.667	0.54	8.750	1.12	14.833	1.43	20.92	0.55
2.750	0.54	8.833	1.24	14.917	1.43	21.00	0.55
2.833	0.55	8.917	1.24	15.000	1.43	21.08	0.55
2.917	0.55	9.000	1.24	15.083	1.35	21.17	0.55
3.000	0.55	9.083	1.34	15.167	1.35	21.25	0.55
3.083	0.56	9.167	1.34	15.250	1.35	21.33	0.54
3.167	0.56	9.250	1.34	15.333	1.27	21.42	0.54
3.250	0.56	9.333	1.40	15.417	1.27	21.50	0.54
3.333	0.58	9.417	1.40	15.500	1.27	21.58	0.54
3.417	0.58	9.500	1.40	15.583	1.20	21.67	0.54
3.500	0.58	9.583	1.40	15.667	1.20	21.75	0.54
3.583	0.59	9.667	1.40	15.750	1.20	21.83	0.53
3.667	0.59	9.750	1.40	15.833	1.12	21.92	0.53
3.750	0.59	9.833	1.49	15.917	1.12	22.00	0.53
3.833	0.60	9.917	1.49	16.000	1.12	22.08	0.53
3.917	0.60	10.000	1.49	16.083	1.05	22.17	0.53
4.000	0.60	10.083	1.66	16.167	1.05	22.25	0.53
4.083	0.61	10.167	1.66	16.250	1.05	22.33	0.52
4.167	0.61	10.250	1.66	16.333	0.99	22.42	0.52
4.250	0.61	10.333	1.89	16.417	0.99	22.50	0.52
4.333	0.62	10.417	1.89	16.500	0.99	22.58	0.52
4.417	0.62	10.500	1.89	16.583	0.97	22.67	0.52
4.500	0.62	10.583	2.14	16.667	0.97	22.75	0.52
4.583	0.65	10.667	2.14	16.750	0.97	22.83	0.51
4.667	0.65	10.750	2.14	16.833	0.94	22.92	0.51
4.750	0.65	10.833	2.50	16.917	0.94	23.00	0.51
4.833	0.67	10.917	2.50	17.000	0.94	23.08	0.51
4.917	0.67	11.000	2.50	17.083	0.91	23.17	0.51
5.000	0.67	11.083	2.92	17.167	0.91	23.25	0.51
5.083	0.69	11.167	2.92	17.250	0.91	23.33	0.50
5.167	0.69	11.250	2.92	17.333	0.88	23.42	0.50
5.250	0.69	11.333	3.70	17.417	0.88	23.50	0.50
5.333	0.71	11.417	3.70	17.500	0.88	23.58	0.50
5.417	0.71	11.500	3.70	17.583	0.86	23.67	0.50
5.500	0.71	11.583	4.70	17.667	0.86	23.75	0.50
5.583	0.73	11.667	4.71	17.750	0.86	23.83	0.49
5.667	0.73	11.750	4.71	17.833	0.83	23.92	0.49
5.750	0.73	11.833	19.18	17.917	0.83	24.00	0.49
5.833	0.76	11.917	19.18	18.000	0.83	24.08	0.48
5.917	0.76	12.000	19.18	18.083	0.80	24.17	0.48
6.000	0.76	12.083	47.33	18.167	0.80	24.25	0.48

6.083 0.78 |12.167 47.34 |18.250 0.80 |

Max.Eff.Inten.(mm/hr)= 47.34 15.16
 over (min) 5.00 10.00
 Storage Coeff. (min)= 6.25 (ii) 7.76 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.19 0.13

TOTALS

PEAK FLOW (cms)= 1.34 0.00 1.342 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 41.76 11.32 41.46
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.26 0.95

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | ADD HYD (7722) |
 | 1 + 2 = 3 |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7599):	10.90	1.342	12.25	41.46
+ ID2= 2 (7721):	0.21	0.006	12.33	11.28
=====				
ID = 3 (7722):	11.11	1.348	12.25	40.89

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | RESERVOIR (7685) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
 | DT= 5.0 min |

	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.1390	0.6960
	0.0590	0.3400	0.1630	0.7780
	0.0900	0.4907	0.1840	0.8800
	0.1110	0.5760	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7722)	11.108	1.348	12.25	40.89
OUTFLOW: ID= 1 (7685)	11.108	0.054	14.17	40.76

PEAK FLOW REDUCTION [Qout/Qin](%)= 3.98
 TIME SHIFT OF PEAK FLOW (min)=115.00
 MAXIMUM STORAGE USED (ha.m.)= 0.3094

 | CALIB |
 | STANDHYD (7591) | Area (ha)= 11.38
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	11.27	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	275.44	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.78	12.250	47.34	18.33	0.77
0.167	0.00	6.250	0.78	12.333	7.50	18.42	0.77
0.250	0.00	6.333	0.80	12.417	7.50	18.50	0.77
0.333	0.44	6.417	0.80	12.500	7.50	18.58	0.75

0.417	0.44	6.500	0.80	12.583	5.10	18.67	0.75
0.500	0.44	6.583	0.82	12.667	5.10	18.75	0.75
0.583	0.45	6.667	0.82	12.750	5.10	18.83	0.72
0.667	0.45	6.750	0.82	12.833	3.51	18.92	0.72
0.750	0.45	6.833	0.84	12.917	3.51	19.00	0.72
0.833	0.46	6.917	0.84	13.000	3.51	19.08	0.69
0.917	0.46	7.000	0.84	13.083	2.97	19.17	0.69
1.000	0.46	7.083	0.86	13.167	2.97	19.25	0.69
1.083	0.48	7.167	0.86	13.250	2.97	19.33	0.66
1.167	0.48	7.250	0.86	13.333	2.51	19.42	0.66
1.250	0.48	7.333	0.89	13.417	2.51	19.50	0.66
1.333	0.49	7.417	0.89	13.500	2.51	19.58	0.64
1.417	0.49	7.500	0.89	13.583	2.22	19.67	0.64
1.500	0.49	7.583	0.91	13.667	2.22	19.75	0.64
1.583	0.50	7.667	0.91	13.750	2.22	19.83	0.61
1.667	0.50	7.750	0.91	13.833	1.94	19.92	0.61
1.750	0.50	7.833	0.93	13.917	1.94	20.00	0.61
1.833	0.51	7.917	0.93	14.000	1.94	20.08	0.58
1.917	0.51	8.000	0.93	14.083	1.73	20.17	0.58
2.000	0.51	8.083	0.95	14.167	1.73	20.25	0.58
2.083	0.52	8.167	0.95	14.250	1.73	20.33	0.57
2.167	0.52	8.250	0.95	14.333	1.58	20.42	0.57
2.250	0.52	8.333	1.02	14.417	1.58	20.50	0.57
2.333	0.53	8.417	1.02	14.500	1.58	20.58	0.56
2.417	0.53	8.500	1.02	14.583	1.51	20.67	0.56
2.500	0.53	8.583	1.12	14.667	1.51	20.75	0.56
2.583	0.54	8.667	1.12	14.750	1.51	20.83	0.55
2.667	0.54	8.750	1.12	14.833	1.43	20.92	0.55
2.750	0.54	8.833	1.24	14.917	1.43	21.00	0.55
2.833	0.55	8.917	1.24	15.000	1.43	21.08	0.55
2.917	0.55	9.000	1.24	15.083	1.35	21.17	0.55
3.000	0.55	9.083	1.34	15.167	1.35	21.25	0.55
3.083	0.56	9.167	1.34	15.250	1.35	21.33	0.54
3.167	0.56	9.250	1.34	15.333	1.27	21.42	0.54
3.250	0.56	9.333	1.40	15.417	1.27	21.50	0.54
3.333	0.58	9.417	1.40	15.500	1.27	21.58	0.54
3.417	0.58	9.500	1.40	15.583	1.20	21.67	0.54
3.500	0.58	9.583	1.40	15.667	1.20	21.75	0.54
3.583	0.59	9.667	1.40	15.750	1.20	21.83	0.53
3.667	0.59	9.750	1.40	15.833	1.12	21.92	0.53
3.750	0.59	9.833	1.49	15.917	1.12	22.00	0.53
3.833	0.60	9.917	1.49	16.000	1.12	22.08	0.53
3.917	0.60	10.000	1.49	16.083	1.05	22.17	0.53
4.000	0.60	10.083	1.66	16.167	1.05	22.25	0.53
4.083	0.61	10.167	1.66	16.250	1.05	22.33	0.52
4.167	0.61	10.250	1.66	16.333	0.99	22.42	0.52
4.250	0.61	10.333	1.89	16.417	0.99	22.50	0.52
4.333	0.62	10.417	1.89	16.500	0.99	22.58	0.52
4.417	0.62	10.500	1.89	16.583	0.97	22.67	0.52
4.500	0.62	10.583	2.14	16.667	0.97	22.75	0.52
4.583	0.65	10.667	2.14	16.750	0.97	22.83	0.51
4.667	0.65	10.750	2.14	16.833	0.94	22.92	0.51
4.750	0.65	10.833	2.50	16.917	0.94	23.00	0.51
4.833	0.67	10.917	2.50	17.000	0.94	23.08	0.51
4.917	0.67	11.000	2.50	17.083	0.91	23.17	0.51
5.000	0.67	11.083	2.92	17.167	0.91	23.25	0.51
5.083	0.69	11.167	2.92	17.250	0.91	23.33	0.50
5.167	0.69	11.250	2.92	17.333	0.88	23.42	0.50
5.250	0.69	11.333	3.70	17.417	0.88	23.50	0.50
5.333	0.71	11.417	3.70	17.500	0.88	23.58	0.50
5.417	0.71	11.500	3.70	17.583	0.86	23.67	0.50
5.500	0.71	11.583	4.70	17.667	0.86	23.75	0.50
5.583	0.73	11.667	4.71	17.750	0.86	23.83	0.49
5.667	0.73	11.750	4.71	17.833	0.83	23.92	0.49
5.750	0.73	11.833	19.18	17.917	0.83	24.00	0.49
5.833	0.76	11.917	19.18	18.000	0.83	24.08	0.48
5.917	0.76	12.000	19.18	18.083	0.80	24.17	0.48
6.000	0.76	12.083	47.33	18.167	0.80	24.25	0.48
6.083	0.78	12.167	47.34	18.250	0.80		

Max.Eff.Inten. (mm/hr)= 47.34 15.16
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 6.33 (ii) 7.84 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.19 0.13

TOTALS

PEAK FLOW (cms)= 1.40 0.00 1.399 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 41.76 11.32 41.46
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.26 0.95

- (i) CN PROCEDURE SELECTED FOR Pervious Losses:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | RESERVOIR (7593) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
DT= 5.0 min

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.1990	0.6950
0.0830	0.3500	0.2320	0.8000
0.1280	0.4850	0.2620	0.9000
0.1580	0.5900	0.0000	0.0000

AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
11.380	1.399	12.25	41.46
11.380	0.072	13.67	41.36

INFLOW : ID= 2 (7591)
 OUTFLOW: ID= 1 (7593)

PEAK FLOW REDUCTION [Qout/Qin] (%) = 5.18
 TIME SHIFT OF PEAK FLOW (min) = 85.00
 MAXIMUM STORAGE USED (ha.m.) = 0.3053

 | ADD HYD (7643) |
1 + 2 = 3

ID	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7593):	11.38	0.072	13.67	41.36
+ ID2= 2 (7685):	11.11	0.054	14.17	40.76
-----	-----	-----	-----	-----
ID = 3 (7643):	22.49	0.126	13.83	41.06

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |
 | STANDHYD (7590) | Area (ha)= 2.39
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.78	12.250	47.34	18.33	0.77
0.167	0.00	6.250	0.78	12.333	7.50	18.42	0.77
0.250	0.00	6.333	0.80	12.417	7.50	18.50	0.77
0.333	0.44	6.417	0.80	12.500	7.50	18.58	0.75
0.417	0.44	6.500	0.80	12.583	5.10	18.67	0.75
0.500	0.44	6.583	0.82	12.667	5.10	18.75	0.75
0.583	0.45	6.667	0.82	12.750	5.10	18.83	0.72
0.667	0.45	6.750	0.82	12.833	3.51	18.92	0.72
0.750	0.45	6.833	0.84	12.917	3.51	19.00	0.72
0.833	0.46	6.917	0.84	13.000	3.51	19.08	0.69
0.917	0.46	7.000	0.84	13.083	2.97	19.17	0.69
1.000	0.46	7.083	0.86	13.167	2.97	19.25	0.69



1.083	0.48	7.167	0.86	13.250	2.97	19.33	0.66
1.167	0.48	7.250	0.86	13.333	2.51	19.42	0.66
1.250	0.48	7.333	0.89	13.417	2.51	19.50	0.66
1.333	0.49	7.417	0.89	13.500	2.51	19.58	0.64
1.417	0.49	7.500	0.89	13.583	2.22	19.67	0.64
1.500	0.49	7.583	0.91	13.667	2.22	19.75	0.64
1.583	0.50	7.667	0.91	13.750	2.22	19.83	0.61
1.667	0.50	7.750	0.91	13.833	1.94	19.92	0.61
1.750	0.50	7.833	0.93	13.917	1.94	20.00	0.61
1.833	0.51	7.917	0.93	14.000	1.94	20.08	0.58
1.917	0.51	8.000	0.93	14.083	1.73	20.17	0.58
2.000	0.51	8.083	0.95	14.167	1.73	20.25	0.58
2.083	0.52	8.167	0.95	14.250	1.73	20.33	0.57
2.167	0.52	8.250	0.95	14.333	1.58	20.42	0.57
2.250	0.52	8.333	1.02	14.417	1.58	20.50	0.57
2.333	0.53	8.417	1.02	14.500	1.58	20.58	0.56
2.417	0.53	8.500	1.02	14.583	1.51	20.67	0.56
2.500	0.53	8.583	1.12	14.667	1.51	20.75	0.56
2.583	0.54	8.667	1.12	14.750	1.51	20.83	0.55
2.667	0.54	8.750	1.12	14.833	1.43	20.92	0.55
2.750	0.54	8.833	1.24	14.917	1.43	21.00	0.55
2.833	0.55	8.917	1.24	15.000	1.43	21.08	0.55
2.917	0.55	9.000	1.24	15.083	1.35	21.17	0.55
3.000	0.55	9.083	1.34	15.167	1.35	21.25	0.55
3.083	0.56	9.167	1.34	15.250	1.35	21.33	0.54
3.167	0.56	9.250	1.34	15.333	1.27	21.42	0.54
3.250	0.56	9.333	1.40	15.417	1.27	21.50	0.54
3.333	0.58	9.417	1.40	15.500	1.27	21.58	0.54
3.417	0.58	9.500	1.40	15.583	1.20	21.67	0.54
3.500	0.58	9.583	1.40	15.667	1.20	21.75	0.54
3.583	0.59	9.667	1.40	15.750	1.20	21.83	0.53
3.667	0.59	9.750	1.40	15.833	1.12	21.92	0.53
3.750	0.59	9.833	1.49	15.917	1.12	22.00	0.53
3.833	0.60	9.917	1.49	16.000	1.12	22.08	0.53
3.917	0.60	10.000	1.49	16.083	1.05	22.17	0.53
4.000	0.60	10.083	1.66	16.167	1.05	22.25	0.53
4.083	0.61	10.167	1.66	16.250	1.05	22.33	0.52
4.167	0.61	10.250	1.66	16.333	0.99	22.42	0.52
4.250	0.61	10.333	1.89	16.417	0.99	22.50	0.52
4.333	0.62	10.417	1.89	16.500	0.99	22.58	0.52
4.417	0.62	10.500	1.89	16.583	0.97	22.67	0.52
4.500	0.62	10.583	2.14	16.667	0.97	22.75	0.52
4.583	0.65	10.667	2.14	16.750	0.97	22.83	0.51
4.667	0.65	10.750	2.14	16.833	0.94	22.92	0.51
4.750	0.65	10.833	2.50	16.917	0.94	23.00	0.51
4.833	0.67	10.917	2.50	17.000	0.94	23.08	0.51
4.917	0.67	11.000	2.50	17.083	0.91	23.17	0.51
5.000	0.67	11.083	2.92	17.167	0.91	23.25	0.51
5.083	0.69	11.167	2.92	17.250	0.91	23.33	0.50
5.167	0.69	11.250	2.92	17.333	0.88	23.42	0.50
5.250	0.69	11.333	3.70	17.417	0.88	23.50	0.50
5.333	0.71	11.417	3.70	17.500	0.88	23.58	0.50
5.417	0.71	11.500	3.70	17.583	0.86	23.67	0.50
5.500	0.71	11.583	4.70	17.667	0.86	23.75	0.50
5.583	0.73	11.667	4.71	17.750	0.86	23.83	0.49
5.667	0.73	11.750	4.71	17.833	0.83	23.92	0.49
5.750	0.73	11.833	19.18	17.917	0.83	24.00	0.49
5.833	0.76	11.917	19.18	18.000	0.83	24.08	0.48
5.917	0.76	12.000	19.18	18.083	0.80	24.17	0.48
6.000	0.76	12.083	47.33	18.167	0.80	24.25	0.48
6.083	0.78	12.167	47.34	18.250	0.80		

Max.Eff.Inten. (mm/hr)= 47.34 15.16
over (min) = 5.00 5.00
Storage Coeff. (min)= 1.31 (ii) 2.31 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.33 0.30

TOTALS
PEAK FLOW (cms)= 0.31 0.00 0.312 (iii)
TIME TO PEAK (hrs)= 12.25 12.25 12.25
RUNOFF VOLUME (mm)= 42.76 11.32 42.44
TOTAL RAINFALL (mm)= 43.76 43.76 43.76
RUNOFF COEFFICIENT = 0.98 0.26 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7632)	Area (ha)=	2.36	
ID= 1 DT= 5.0 min	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00
IMPERVIOUS PERVIOUS (i)			
Surface Area (ha)=	2.34	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	0.78	12.250	47.34	18.33	0.77
0.167	0.00	6.250	0.78	12.333	7.50	18.42	0.77
0.250	0.00	6.333	0.80	12.417	7.50	18.50	0.77
0.333	0.44	6.417	0.80	12.500	7.50	18.58	0.75
0.417	0.44	6.500	0.80	12.583	5.10	18.67	0.75
0.500	0.44	6.583	0.82	12.667	5.10	18.75	0.75
0.583	0.45	6.667	0.82	12.750	5.10	18.83	0.72
0.667	0.45	6.750	0.82	12.833	3.51	18.92	0.72
0.750	0.45	6.833	0.84	12.917	3.51	19.00	0.72
0.833	0.46	6.917	0.84	13.000	3.51	19.08	0.69
0.917	0.46	7.000	0.84	13.083	2.97	19.17	0.69
1.000	0.46	7.083	0.86	13.167	2.97	19.25	0.69
1.083	0.48	7.167	0.86	13.250	2.97	19.33	0.66
1.167	0.48	7.250	0.86	13.333	2.51	19.42	0.66
1.250	0.48	7.333	0.89	13.417	2.51	19.50	0.66
1.333	0.49	7.417	0.89	13.500	2.51	19.58	0.64
1.417	0.49	7.500	0.89	13.583	2.22	19.67	0.64
1.500	0.49	7.583	0.91	13.667	2.22	19.75	0.64
1.583	0.50	7.667	0.91	13.750	2.22	19.83	0.61
1.667	0.50	7.750	0.91	13.833	1.94	19.92	0.61
1.750	0.50	7.833	0.93	13.917	1.94	20.00	0.61
1.833	0.51	7.917	0.93	14.000	1.94	20.08	0.58
1.917	0.51	8.000	0.93	14.083	1.73	20.17	0.58
2.000	0.51	8.083	0.95	14.167	1.73	20.25	0.58
2.083	0.52	8.167	0.95	14.250	1.73	20.33	0.57
2.167	0.52	8.250	0.95	14.333	1.58	20.42	0.57
2.250	0.52	8.333	1.02	14.417	1.58	20.50	0.57
2.333	0.53	8.417	1.02	14.500	1.58	20.58	0.56
2.417	0.53	8.500	1.02	14.583	1.51	20.67	0.56
2.500	0.53	8.583	1.12	14.667	1.51	20.75	0.56
2.583	0.54	8.667	1.12	14.750	1.51	20.83	0.55
2.667	0.54	8.750	1.12	14.833	1.43	20.92	0.55
2.750	0.54	8.833	1.24	14.917	1.43	21.00	0.55
2.833	0.55	8.917	1.24	15.000	1.43	21.08	0.55
2.917	0.55	9.000	1.24	15.083	1.35	21.17	0.55
3.000	0.55	9.083	1.34	15.167	1.35	21.25	0.55
3.083	0.56	9.167	1.34	15.250	1.35	21.33	0.54
3.167	0.56	9.250	1.34	15.333	1.27	21.42	0.54
3.250	0.56	9.333	1.40	15.417	1.27	21.50	0.54
3.333	0.58	9.417	1.40	15.500	1.27	21.58	0.54
3.417	0.58	9.500	1.40	15.583	1.20	21.67	0.54
3.500	0.58	9.583	1.40	15.667	1.20	21.75	0.54
3.583	0.59	9.667	1.40	15.750	1.20	21.83	0.53
3.667	0.59	9.750	1.40	15.833	1.12	21.92	0.53
3.750	0.59	9.833	1.49	15.917	1.12	22.00	0.53
3.833	0.60	9.917	1.49	16.000	1.12	22.08	0.53
3.917	0.60	10.000	1.49	16.083	1.05	22.17	0.53
4.000	0.60	10.083	1.66	16.167	1.05	22.25	0.53
4.083	0.61	10.167	1.66	16.250	1.05	22.33	0.52
4.167	0.61	10.250	1.66	16.333	0.99	22.42	0.52
4.250	0.61	10.333	1.89	16.417	0.99	22.50	0.52

4.333	0.62	10.417	1.89	16.500	0.99	22.58	0.52
4.417	0.62	10.500	1.89	16.583	0.97	22.67	0.52
4.500	0.62	10.583	2.14	16.667	0.97	22.75	0.52
4.583	0.65	10.667	2.14	16.750	0.97	22.83	0.51
4.667	0.65	10.750	2.14	16.833	0.94	22.92	0.51
4.750	0.65	10.833	2.50	16.917	0.94	23.00	0.51
4.833	0.67	10.917	2.50	17.000	0.94	23.08	0.51
4.917	0.67	11.000	2.50	17.083	0.91	23.17	0.51
5.000	0.67	11.083	2.92	17.167	0.91	23.25	0.51
5.083	0.69	11.167	2.92	17.250	0.91	23.33	0.50
5.167	0.69	11.250	2.92	17.333	0.88	23.42	0.50
5.250	0.69	11.333	3.70	17.417	0.88	23.50	0.50
5.333	0.71	11.417	3.70	17.500	0.88	23.58	0.50
5.417	0.71	11.500	3.70	17.583	0.86	23.67	0.50
5.500	0.71	11.583	4.70	17.667	0.86	23.75	0.50
5.583	0.73	11.667	4.71	17.750	0.86	23.83	0.49
5.667	0.73	11.750	4.71	17.833	0.83	23.92	0.49
5.750	0.73	11.833	19.18	17.917	0.83	24.00	0.49
5.833	0.76	11.917	19.18	18.000	0.83	24.08	0.48
5.917	0.76	12.000	19.18	18.083	0.80	24.17	0.48
6.000	0.76	12.083	47.33	18.167	0.80	24.25	0.48
6.083	0.78	12.167	47.34	18.250	0.80		

Max.Eff.Inten.(mm/hr)= 47.34 15.16
 over (min) 5.00
 Storage Coeff. (min)= 1.31 (ii) 2.31 (iii)
 Unit Hyd. Tpeak (min)= 5.00
 Unit Hyd. peak (cms)= 0.33 0.30

TOTALS
 PEAK FLOW (cms)= 0.31 0.00 0.308 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 42.76 11.32 42.44
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.98 0.26 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 CALIB |
 | STANDBY (7644) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	0.78	12.250	47.34	18.33	0.77
0.167	0.00	6.250	0.78	12.333	7.50	18.42	0.77
0.250	0.00	6.333	0.80	12.417	7.50	18.50	0.77
0.333	0.44	6.417	0.80	12.500	7.50	18.58	0.75
0.417	0.44	6.500	0.80	12.583	5.10	18.67	0.75
0.500	0.44	6.583	0.82	12.667	5.10	18.75	0.75
0.583	0.45	6.667	0.82	12.750	5.10	18.83	0.72
0.667	0.45	6.750	0.82	12.833	3.51	18.92	0.72
0.750	0.45	6.833	0.84	12.917	3.51	19.00	0.72
0.833	0.46	6.917	0.84	13.000	3.51	19.08	0.69
0.917	0.46	7.000	0.84	13.083	2.97	19.17	0.69
1.000	0.46	7.083	0.86	13.167	2.97	19.25	0.69
1.083	0.48	7.167	0.86	13.250	2.97	19.33	0.66
1.167	0.48	7.250	0.86	13.333	2.51	19.42	0.66

1.250	0.48	7.333	0.89	13.417	2.51	19.50	0.66
1.333	0.49	7.417	0.89	13.500	2.51	19.58	0.64
1.417	0.49	7.500	0.89	13.583	2.22	19.67	0.64
1.500	0.49	7.583	0.91	13.667	2.22	19.75	0.64
1.583	0.50	7.667	0.91	13.750	2.22	19.83	0.61
1.667	0.50	7.750	0.91	13.833	1.94	19.92	0.61
1.750	0.50	7.833	0.93	13.917	1.94	20.00	0.61
1.833	0.51	7.917	0.93	14.000	1.94	20.08	0.58
1.917	0.51	8.000	0.93	14.083	1.73	20.17	0.58
2.000	0.51	8.083	0.95	14.167	1.73	20.25	0.58
2.083	0.52	8.167	0.95	14.250	1.73	20.33	0.57
2.167	0.52	8.250	0.95	14.333	1.58	20.42	0.57
2.250	0.52	8.333	1.02	14.417	1.58	20.50	0.57
2.333	0.53	8.417	1.02	14.500	1.58	20.58	0.56
2.417	0.53	8.500	1.02	14.583	1.51	20.67	0.56
2.500	0.53	8.583	1.12	14.667	1.51	20.75	0.56
2.583	0.54	8.667	1.12	14.750	1.51	20.83	0.55
2.667	0.54	8.750	1.12	14.833	1.43	20.92	0.55
2.750	0.54	8.833	1.24	14.917	1.43	21.00	0.55
2.833	0.55	8.917	1.24	15.000	1.43	21.08	0.55
2.917	0.55	9.000	1.24	15.083	1.35	21.17	0.55
3.000	0.55	9.083	1.34	15.167	1.35	21.25	0.55
3.083	0.56	9.167	1.34	15.250	1.35	21.33	0.54
3.167	0.56	9.250	1.34	15.333	1.27	21.42	0.54
3.250	0.56	9.333	1.40	15.417	1.27	21.50	0.54
3.333	0.58	9.417	1.40	15.500	1.27	21.58	0.54
3.417	0.58	9.500	1.40	15.583	1.20	21.67	0.54
3.500	0.58	9.583	1.40	15.667	1.20	21.75	0.54
3.583	0.59	9.667	1.40	15.750	1.20	21.83	0.53
3.667	0.59	9.750	1.40	15.833	1.12	21.92	0.53
3.750	0.59	9.833	1.49	15.917	1.12	22.00	0.53
3.833	0.60	9.917	1.49	16.000	1.12	22.08	0.53
3.917	0.60	10.000	1.49	16.083	1.05	22.17	0.53
4.000	0.60	10.083	1.66	16.167	1.05	22.25	0.53
4.083	0.61	10.167	1.66	16.250	1.05	22.33	0.52
4.167	0.61	10.250	1.66	16.333	0.99	22.42	0.52
4.250	0.61	10.333	1.89	16.417	0.99	22.50	0.52
4.333	0.62	10.417	1.89	16.500	0.99	22.58	0.52
4.417	0.62	10.500	1.89	16.583	0.97	22.67	0.52
4.500	0.62	10.583	2.14	16.667	0.97	22.75	0.52
4.583	0.65	10.667	2.14	16.750	0.97	22.83	0.51
4.667	0.65	10.750	2.14	16.833	0.94	22.92	0.51
4.750	0.65	10.833	2.50	16.917	0.94	23.00	0.51
4.833	0.67	10.917	2.50	17.000	0.94	23.08	0.51
4.917	0.67	11.000	2.50	17.083	0.91	23.17	0.51
5.000	0.67	11.083	2.92	17.167	0.91	23.25	0.51
5.083	0.69	11.167	2.92	17.250	0.91	23.33	0.50
5.167	0.69	11.250	2.92	17.333	0.88	23.42	0.50
5.250	0.69	11.333	3.70	17.417	0.88	23.50	0.50
5.333	0.71	11.417	3.70	17.500	0.88	23.58	0.50
5.417	0.71	11.500	3.70	17.583	0.86	23.67	0.50
5.500	0.71	11.583	4.70	17.667	0.86	23.75	0.50
5.583	0.73	11.667	4.71	17.750	0.86	23.83	0.49
5.667	0.73	11.750	4.71	17.833	0.83	23.92	0.49
5.750	0.73	11.833	19.18	17.917	0.83	24.00	0.49
5.833	0.76	11.917	19.18	18.000	0.83	24.08	0.48
5.917	0.76	12.000	19.18	18.083	0.80	24.17	0.48
6.000	0.76	12.083	47.33	18.167	0.80	24.25	0.48
6.083	0.78	12.167	47.34	18.250	0.80		

Max.Eff.Inten.(mm/hr)= 47.34 15.16
 over (min) 5.00
 Storage Coeff. (min)= 1.31 (ii) 2.31 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.30

TOTALS
 PEAK FLOW (cms)= 0.31 0.00 0.313 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 42.76 11.32 42.44
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.98 0.26 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)

- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	2.40	
STANDHYD (7652)	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00
ID= 1 DT= 5.0 min	-----		
	IMPERVIOUS	PERVIOUS (i)	
Surface Area	(ha)=	2.38	0.02
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	1.00	2.00
Length	(m)=	20.00	20.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	0.78	12.250	47.34	18.33	0.77
0.167	0.00	6.250	0.78	12.333	7.50	18.42	0.77
0.250	0.00	6.333	0.80	12.417	7.50	18.50	0.77
0.333	0.44	6.417	0.80	12.500	7.50	18.58	0.75
0.417	0.44	6.500	0.80	12.583	5.10	18.67	0.75
0.500	0.44	6.583	0.82	12.667	5.10	18.75	0.75
0.583	0.45	6.667	0.82	12.750	5.10	18.83	0.72
0.667	0.45	6.750	0.82	12.833	3.51	18.92	0.72
0.750	0.45	6.833	0.84	12.917	3.51	19.00	0.72
0.833	0.46	6.917	0.84	13.000	3.51	19.08	0.69
0.917	0.46	7.000	0.84	13.083	2.97	19.17	0.69
1.000	0.46	7.083	0.86	13.167	2.97	19.25	0.69
1.083	0.48	7.167	0.86	13.250	2.97	19.33	0.66
1.167	0.48	7.250	0.86	13.333	2.51	19.42	0.66
1.250	0.48	7.333	0.89	13.417	2.51	19.50	0.66
1.333	0.49	7.417	0.89	13.500	2.51	19.58	0.64
1.417	0.49	7.500	0.89	13.583	2.22	19.67	0.64
1.500	0.49	7.583	0.91	13.667	2.22	19.75	0.64
1.583	0.50	7.667	0.91	13.750	2.22	19.83	0.61
1.667	0.50	7.750	0.91	13.833	1.94	19.92	0.61
1.750	0.50	7.833	0.93	13.917	1.94	20.00	0.61
1.833	0.51	7.917	0.93	14.000	1.94	20.08	0.58
1.917	0.51	8.000	0.93	14.083	1.73	20.17	0.58
2.000	0.51	8.083	0.95	14.167	1.73	20.25	0.58
2.083	0.52	8.167	0.95	14.250	1.73	20.33	0.57
2.167	0.52	8.250	0.95	14.333	1.58	20.42	0.57
2.250	0.52	8.333	1.02	14.417	1.58	20.50	0.57
2.333	0.53	8.417	1.02	14.500	1.58	20.58	0.56
2.417	0.53	8.500	1.02	14.583	1.51	20.67	0.56
2.500	0.53	8.583	1.12	14.667	1.51	20.75	0.56
2.583	0.54	8.667	1.12	14.750	1.51	20.83	0.55
2.667	0.54	8.750	1.12	14.833	1.43	20.92	0.55
2.750	0.54	8.833	1.24	14.917	1.43	21.00	0.55
2.833	0.55	8.917	1.24	15.000	1.43	21.08	0.55
2.917	0.55	9.000	1.24	15.083	1.35	21.17	0.55
3.000	0.55	9.083	1.34	15.167	1.35	21.25	0.55
3.083	0.56	9.167	1.34	15.250	1.35	21.33	0.54
3.167	0.56	9.250	1.34	15.333	1.27	21.42	0.54
3.250	0.56	9.333	1.40	15.417	1.27	21.50	0.54
3.333	0.58	9.417	1.40	15.500	1.27	21.58	0.54
3.417	0.58	9.500	1.40	15.583	1.20	21.67	0.54
3.500	0.58	9.583	1.40	15.667	1.20	21.75	0.54
3.583	0.59	9.667	1.40	15.750	1.20	21.83	0.53
3.667	0.59	9.750	1.40	15.833	1.12	21.92	0.53
3.750	0.59	9.833	1.49	15.917	1.12	22.00	0.53
3.833	0.60	9.917	1.49	16.000	1.12	22.08	0.53
3.917	0.60	10.000	1.49	16.083	1.05	22.17	0.53
4.000	0.60	10.083	1.66	16.167	1.05	22.25	0.53
4.083	0.61	10.167	1.66	16.250	1.05	22.33	0.52
4.167	0.61	10.250	1.66	16.333	0.99	22.42	0.52
4.250	0.61	10.333	1.89	16.417	0.99	22.50	0.52
4.333	0.62	10.417	1.89	16.500	0.99	22.58	0.52
4.417	0.62	10.500	1.89	16.583	0.97	22.67	0.52

4.500	0.62	10.583	2.14	16.667	0.97	22.75	0.52
4.583	0.65	10.667	2.14	16.750	0.97	22.83	0.51
4.667	0.65	10.750	2.14	16.833	0.94	22.92	0.51
4.750	0.65	10.833	2.50	16.917	0.94	23.00	0.51
4.833	0.67	10.917	2.50	17.000	0.94	23.08	0.51
4.917	0.67	11.000	2.50	17.083	0.91	23.17	0.51
5.000	0.67	11.083	2.92	17.167	0.91	23.25	0.51
5.083	0.69	11.167	2.92	17.250	0.91	23.33	0.50
5.167	0.69	11.250	2.92	17.333	0.88	23.42	0.50
5.250	0.69	11.333	3.70	17.417	0.88	23.50	0.50
5.333	0.71	11.417	3.70	17.500	0.88	23.58	0.50
5.417	0.71	11.500	3.70	17.583	0.86	23.67	0.50
5.500	0.71	11.583	4.70	17.667	0.86	23.75	0.50
5.583	0.73	11.667	4.71	17.750	0.86	23.83	0.49
5.667	0.73	11.750	4.71	17.833	0.83	23.92	0.49
5.750	0.73	11.833	19.18	17.917	0.83	24.00	0.49
5.833	0.76	11.917	19.18	18.000	0.83	24.08	0.48
5.917	0.76	12.000	19.18	18.083	0.80	24.17	0.48
6.000	0.76	12.083	47.33	18.167	0.80	24.25	0.48
6.083	0.78	12.167	47.34	18.250	0.80		

Max.Eff.Inten.(mm/hr)=	47.34	15.16	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.31 (ii)	2.31 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.33	0.30	
PEAK FLOW (cms)=	0.31	0.00	*TOTALS*
TIME TO PEAK (hrs)=	12.25	12.25	0.313 (iii)
RUNOFF VOLUME (mm)=	42.76	11.32	12.25
TOTAL RAINFALL (mm)=	43.76	43.76	42.44
RUNOFF COEFFICIENT =	0.98	0.26	43.76
			0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	2.39	
STANDHYD (7661)	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00
ID= 1 DT= 5.0 min	-----		
	IMPERVIOUS	PERVIOUS (i)	
Surface Area	(ha)=	2.37	0.02
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	1.00	2.00
Length	(m)=	20.00	20.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	0.78	12.250	47.34	18.33	0.77
0.167	0.00	6.250	0.78	12.333	7.50	18.42	0.77
0.250	0.00	6.333	0.80	12.417	7.50	18.50	0.77
0.333	0.44	6.417	0.80	12.500	7.50	18.58	0.75
0.417	0.44	6.500	0.80	12.583	5.10	18.67	0.75
0.500	0.44	6.583	0.82	12.667	5.10	18.75	0.75
0.583	0.45	6.667	0.82	12.750	5.10	18.83	0.72
0.667	0.45	6.750	0.82	12.833	3.51	18.92	0.72
0.750	0.45	6.833	0.84	12.917	3.51	19.00	0.72
0.833	0.46	6.917	0.84	13.000	3.51	19.08	0.69
0.917	0.46	7.000	0.84	13.083	2.97	19.17	0.69
1.000	0.46	7.083	0.86	13.167	2.97	19.25	0.69
1.083	0.48	7.167	0.86	13.250	2.97	19.33	0.66
1.167	0.48	7.250	0.86	13.333	2.51	19.42	0.66
1.250	0.48	7.333	0.89	13.417	2.51	19.50	0.66
1.333	0.49	7.417	0.89	13.500	2.51	19.58	0.64



1.417	0.49	7.500	0.89	13.583	2.22	19.67	0.64
1.500	0.49	7.583	0.91	13.667	2.22	19.75	0.64
1.583	0.50	7.667	0.91	13.750	2.22	19.83	0.61
1.667	0.50	7.750	0.91	13.833	1.94	19.92	0.61
1.750	0.50	7.833	0.93	13.917	1.94	20.00	0.61
1.833	0.51	7.917	0.93	14.000	1.94	20.08	0.58
1.917	0.51	8.000	0.93	14.083	1.73	20.17	0.58
2.000	0.51	8.083	0.95	14.167	1.73	20.25	0.58
2.083	0.52	8.167	0.95	14.250	1.73	20.33	0.57
2.167	0.52	8.250	0.95	14.333	1.58	20.42	0.57
2.250	0.52	8.333	1.02	14.417	1.58	20.50	0.57
2.333	0.53	8.417	1.02	14.500	1.58	20.58	0.56
2.417	0.53	8.500	1.02	14.583	1.51	20.67	0.56
2.500	0.53	8.583	1.12	14.667	1.51	20.75	0.56
2.583	0.54	8.667	1.12	14.750	1.51	20.83	0.55
2.667	0.54	8.750	1.12	14.833	1.43	20.92	0.55
2.750	0.54	8.833	1.24	14.917	1.43	21.00	0.55
2.833	0.55	8.917	1.24	15.000	1.43	21.08	0.55
2.917	0.55	9.000	1.24	15.083	1.35	21.17	0.55
3.000	0.55	9.083	1.34	15.167	1.35	21.25	0.55
3.083	0.56	9.167	1.34	15.250	1.35	21.33	0.54
3.167	0.56	9.250	1.34	15.333	1.27	21.42	0.54
3.250	0.56	9.333	1.40	15.417	1.27	21.50	0.54
3.333	0.58	9.417	1.40	15.500	1.27	21.58	0.54
3.417	0.58	9.500	1.40	15.583	1.20	21.67	0.54
3.500	0.58	9.583	1.40	15.667	1.20	21.75	0.54
3.583	0.59	9.667	1.40	15.750	1.20	21.83	0.53
3.667	0.59	9.750	1.40	15.833	1.12	21.92	0.53
3.750	0.59	9.833	1.49	15.917	1.12	22.00	0.53
3.833	0.60	9.917	1.49	16.000	1.12	22.08	0.53
3.917	0.60	10.000	1.49	16.083	1.05	22.17	0.53
4.000	0.60	10.083	1.66	16.167	1.05	22.25	0.53
4.083	0.61	10.167	1.66	16.250	1.05	22.33	0.52
4.167	0.61	10.250	1.66	16.333	0.99	22.42	0.52
4.250	0.61	10.333	1.89	16.417	0.99	22.50	0.52
4.333	0.62	10.417	1.89	16.500	0.99	22.58	0.52
4.417	0.62	10.500	1.89	16.583	0.97	22.67	0.52
4.500	0.62	10.583	2.14	16.667	0.97	22.75	0.52
4.583	0.65	10.667	2.14	16.750	0.97	22.83	0.51
4.667	0.65	10.750	2.14	16.833	0.94	22.92	0.51
4.750	0.65	10.833	2.50	16.917	0.94	23.00	0.51
4.833	0.67	10.917	2.50	17.000	0.94	23.08	0.51
4.917	0.67	11.000	2.50	17.083	0.91	23.17	0.51
5.000	0.67	11.083	2.92	17.167	0.91	23.25	0.51
5.083	0.69	11.167	2.92	17.250	0.91	23.33	0.50
5.167	0.69	11.250	2.92	17.333	0.88	23.42	0.50
5.250	0.69	11.333	3.70	17.417	0.88	23.50	0.50
5.333	0.71	11.417	3.70	17.500	0.88	23.58	0.50
5.417	0.71	11.500	3.70	17.583	0.86	23.67	0.50
5.500	0.71	11.583	4.70	17.667	0.86	23.75	0.50
5.583	0.73	11.667	4.71	17.750	0.86	23.83	0.49
5.667	0.73	11.750	4.71	17.833	0.83	23.92	0.49
5.750	0.73	11.833	19.18	17.917	0.83	24.00	0.49
5.833	0.76	11.917	19.18	18.000	0.83	24.08	0.48
5.917	0.76	12.000	19.18	18.083	0.80	24.17	0.48
6.000	0.76	12.083	47.34	18.167	0.80	24.25	0.48
6.083	0.78	12.167	47.34	18.250	0.80		

Max.Eff.Inten.(mm/hr)= 47.34 15.16
 over (min)= 5.00
 Storage Coeff. (min)= 1.31 (ii) 2.31 (iii)
 Unit Hyd. Tpeak (min)= 5.00
 Unit Hyd. peak (cms)= 0.33 0.30

TOTALS
 PEAK FLOW (cms)= 0.31 0.00 0.312 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 42.76 11.32 42.44
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.98 0.26 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.

(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7671) | Area (ha)= 2.37
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.35 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	0.78	12.250	47.34	18.33	0.77
0.167	0.00	6.250	0.78	12.333	7.50	18.42	0.77
0.250	0.00	6.333	0.80	12.417	7.50	18.50	0.77
0.333	0.44	6.417	0.80	12.500	7.50	18.58	0.75
0.417	0.44	6.500	0.80	12.583	5.10	18.67	0.75
0.500	0.44	6.583	0.82	12.667	5.10	18.75	0.75
0.583	0.45	6.667	0.82	12.750	5.10	18.83	0.72
0.667	0.45	6.750	0.82	12.833	3.51	18.92	0.72
0.750	0.45	6.833	0.84	12.917	3.51	19.00	0.72
0.833	0.46	6.917	0.84	13.000	3.51	19.08	0.69
0.917	0.46	7.000	0.84	13.083	2.97	19.17	0.69
1.000	0.46	7.083	0.86	13.167	2.97	19.25	0.69
1.083	0.48	7.167	0.86	13.250	2.97	19.33	0.66
1.167	0.48	7.250	0.86	13.333	2.51	19.42	0.66
1.250	0.48	7.333	0.89	13.417	2.51	19.50	0.66
1.333	0.49	7.417	0.89	13.500	2.51	19.58	0.64
1.417	0.49	7.500	0.89	13.583	2.22	19.67	0.64
1.500	0.49	7.583	0.91	13.667	2.22	19.75	0.64
1.583	0.50	7.667	0.91	13.750	2.22	19.83	0.61
1.667	0.50	7.750	0.91	13.833	1.94	19.92	0.61
1.750	0.50	7.833	0.93	13.917	1.94	20.00	0.61
1.833	0.51	7.917	0.93	14.000	1.94	20.08	0.58
1.917	0.51	8.000	0.93	14.083	1.73	20.17	0.58
2.000	0.51	8.083	0.95	14.167	1.73	20.25	0.58
2.083	0.52	8.167	0.95	14.250	1.73	20.33	0.57
2.167	0.52	8.250	0.95	14.333	1.58	20.42	0.57
2.250	0.52	8.333	1.02	14.417	1.58	20.50	0.57
2.333	0.53	8.417	1.02	14.500	1.58	20.58	0.56
2.417	0.53	8.500	1.02	14.583	1.51	20.67	0.56
2.500	0.53	8.583	1.12	14.667	1.51	20.75	0.56
2.583	0.54	8.667	1.12	14.750	1.51	20.83	0.55
2.667	0.54	8.750	1.12	14.833	1.43	20.92	0.55
2.750	0.54	8.833	1.24	14.917	1.43	21.00	0.55
2.833	0.55	8.917	1.24	15.000	1.43	21.08	0.55
2.917	0.55	9.000	1.24	15.083	1.35	21.17	0.55
3.000	0.55	9.083	1.34	15.167	1.35	21.25	0.55
3.083	0.56	9.167	1.34	15.250	1.35	21.33	0.54
3.167	0.56	9.250	1.34	15.333	1.27	21.42	0.54
3.250	0.56	9.333	1.40	15.417	1.27	21.50	0.54
3.333	0.58	9.417	1.40	15.500	1.20	21.58	0.54
3.417	0.58	9.500	1.40	15.583	1.20	21.67	0.54
3.500	0.58	9.583	1.40	15.667	1.20	21.75	0.54
3.583	0.59	9.667	1.40	15.750	1.20	21.83	0.53
3.667	0.59	9.750	1.40	15.833	1.12	21.92	0.53
3.750	0.59	9.833	1.49	15.917	1.12	22.00	0.53
3.833	0.60	9.917	1.49	16.000	1.12	22.08	0.53
3.917	0.60	10.000	1.49	16.083	1.05	22.17	0.53
4.000	0.60	10.083	1.66	16.167	1.05	22.25	0.53
4.083	0.61	10.167	1.66	16.250	1.05	22.33	0.52
4.167	0.61	10.250	1.66	16.333	0.99	22.42	0.52
4.250	0.61	10.333	1.89	16.417	0.99	22.50	0.52
4.333	0.62	10.417	1.89	16.500	0.99	22.58	0.52
4.417	0.62	10.500	1.89	16.583	0.97	22.67	0.52
4.500	0.62	10.583	2.14	16.667	0.97	22.75	0.52
4.583	0.65	10.667	2.14	16.750	0.97	22.83	0.51

4.667	0.65	10.750	2.14	16.833	0.94	22.92	0.51
4.750	0.65	10.833	2.50	16.917	0.94	23.00	0.51
4.833	0.67	10.917	2.50	17.000	0.94	23.08	0.51
4.917	0.67	11.000	2.50	17.083	0.91	23.17	0.51
5.000	0.67	11.083	2.92	17.167	0.91	23.25	0.51
5.083	0.69	11.167	2.92	17.250	0.91	23.33	0.50
5.167	0.69	11.250	2.92	17.333	0.88	23.42	0.50
5.250	0.69	11.333	3.70	17.417	0.88	23.50	0.50
5.333	0.71	11.417	3.70	17.500	0.88	23.58	0.50
5.417	0.71	11.500	3.70	17.583	0.86	23.67	0.50
5.500	0.71	11.583	4.70	17.667	0.86	23.75	0.50
5.583	0.73	11.667	4.71	17.750	0.86	23.83	0.49
5.667	0.73	11.750	4.71	17.833	0.83	23.92	0.49
5.750	0.73	11.833	19.18	17.917	0.83	24.00	0.49
5.833	0.76	11.917	19.18	18.000	0.83	24.08	0.48
5.917	0.76	12.000	19.18	18.083	0.80	24.17	0.48
6.000	0.76	12.083	47.33	18.167	0.80	24.25	0.48
6.083	0.78	12.167	47.34	18.250	0.80		

Max.Eff.Inten.(mm/hr)= 47.34 15.16
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.31 (ii) 2.31 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.30

PEAK FLOW (cms)= 0.31 0.00
 TIME TO PEAK (hrs)= 12.25 12.25
 RUNOFF VOLUME (mm)= 42.76 11.32
 TOTAL RAINFALL (mm)= 43.76 43.76
 RUNOFF COEFFICIENT = 0.98 0.26

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7698)							
1 + 2 = 3							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 1 (7590):	2.39	0.312	12.25	42.44			
+ ID2= 2 (7632):	2.36	0.308	12.25	42.44			

ID = 3 (7698):	4.75	0.620	12.25	42.44			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)							
3 + 2 = 1							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 3 (7698):	4.75	0.620	12.25	42.44			
+ ID2= 2 (7644):	2.40	0.313	12.25	42.44			

ID = 1 (7698):	7.15	0.934	12.25	42.44			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)							
1 + 2 = 3							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 1 (7698):	7.15	0.934	12.25	42.44			
+ ID2= 2 (7652):	2.40	0.313	12.25	42.44			

ID = 3 (7698):	9.55	1.247	12.25	42.44			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)							
3 + 2 = 1							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 3 (7698):	9.55	1.247	12.25	42.44			
+ ID2= 2 (7661):	2.39	0.312	12.25	42.44			

ID = 1 (7698):	11.94	1.560	12.25	42.44			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)							
1 + 2 = 3							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 1 (7698):	11.94	1.560	12.25	42.44			
+ ID2= 2 (7671):	2.37	0.310	12.25	42.44			

ID = 3 (7698):	14.31	1.869	12.25	42.44			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| DIVERTHYD(7713) |
 | IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1 +	Flow 2 +	Flow 3 +	Flow 4 +	Flow 5 =	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
TOTAL HYD. (ID= 1):	14.31	1.87	12.25	42.44			

ID= 2 (2):	13.39	1.43	12.25	42.44			
ID= 3 (2):	0.92	0.43	12.25	42.44			
ID= 4 (2):	0.00	0.00	0.00	0.00			
ID= 5 (2):	0.00	0.00	0.00	0.00			
ID= 6 (2):	0.00	0.00	0.00	0.00			

RESERVOIR(7699)							
OVERFLOW IS ON							
IN= 2--> OUT= 1							
DT= 5.0 min							
	OUTFLOW	STORAGE	OUTFLOW	STORAGE			
	(cms)	(ha.m.)	(cms)	(ha.m.)			
	0.0000	0.0000	0.2690	0.4589			
	0.1980	0.1112	0.0000	0.0000			

	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
INFLOW : ID= 2 (7713)	13.395	1.434	12.25	42.44			
OUTFLOW: ID= 1 (7699)	13.395	0.222	12.58	42.43			
OVERFLOW:ID= 3 (0003)	0.000	0.000	0.00	0.00			

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
 CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
 PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

PEAK FLOW REDUCTION [Qout/Qin](%) = 15.45
 TIME SHIFT OF PEAK FLOW (min) = 20.00
 MAXIMUM STORAGE USED (ha.m.) = 0.2268

| Junction Command(7715) |

AREA QPEAK TPEAK R.V.

INFLOW : ID= 3(7699) (ha) (cms) (hrs) (mm) 0.00 0.00 0.00 0.00
 OUTFLOW: ID= 2(7715) 0.00 0.00 0.00 0.00

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-----
| ADD HYD ( 7714) |
| 1 + 2 = 3 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7699): 13.39 0.222 12.58 42.43
+ ID2= 2 ( 7713): 0.92 0.435 12.25 42.44
-----
ID = 3 ( 7714): 14.31 0.651 12.25 42.44
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-----
| ADD HYD ( 7714) |
| 3 + 2 = 1 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
*** W A R N I N G : HYDROGRAPH 7715 <ID= 2> IS DRY.
*** W A R N I N G : HYDROGRAPH 0001 = HYDROGRAPH 0003
ID1= 3 ( 7714): 14.31 0.651 12.25 42.44
+ ID2= 2 ( 7715): 0.00 0.000 0.00 0.00
-----
ID = 1 ( 7714): 14.31 0.651 12.25 42.44
  
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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| CALIB |
| STANDHYD ( 7620) | Area (ha)= 1.45
| ID= 1 DT= 5.0 min | Total Imp(%)= 96.00 Dir. Conn.(%)= 96.00
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	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.39	0.06
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.78	12.250	47.34	18.33	0.77
0.167	0.00	6.250	0.78	12.333	7.50	18.42	0.77
0.250	0.00	6.333	0.80	12.417	7.50	18.50	0.77
0.333	0.44	6.417	0.80	12.500	7.50	18.58	0.75
0.417	0.44	6.500	0.80	12.583	5.10	18.67	0.75
0.500	0.44	6.583	0.82	12.667	5.10	18.75	0.75
0.583	0.45	6.667	0.82	12.750	5.10	18.83	0.72
0.667	0.45	6.750	0.82	12.833	3.51	18.92	0.72
0.750	0.45	6.833	0.84	12.917	3.51	19.00	0.72
0.833	0.46	6.917	0.84	13.000	3.51	19.08	0.69
0.917	0.46	7.000	0.84	13.083	2.97	19.17	0.69
1.000	0.46	7.083	0.86	13.167	2.97	19.25	0.69
1.083	0.48	7.167	0.86	13.250	2.97	19.33	0.66
1.167	0.48	7.250	0.86	13.333	2.51	19.42	0.66
1.250	0.48	7.333	0.89	13.417	2.51	19.50	0.66
1.333	0.49	7.417	0.89	13.500	2.51	19.58	0.64
1.417	0.49	7.500	0.89	13.583	2.22	19.67	0.64
1.500	0.49	7.583	0.91	13.667	2.22	19.75	0.64
1.583	0.50	7.667	0.91	13.750	2.22	19.83	0.61
1.667	0.50	7.750	0.91	13.833	1.94	19.92	0.61
1.750	0.50	7.833	0.93	13.917	1.94	20.00	0.61
1.833	0.51	7.917	0.93	14.000	1.94	20.08	0.58
1.917	0.51	8.000	0.93	14.083	1.73	20.17	0.58
2.000	0.51	8.083	0.95	14.167	1.73	20.25	0.58
2.083	0.52	8.167	0.95	14.250	1.73	20.33	0.57
2.167	0.52	8.250	0.95	14.333	1.58	20.42	0.57
2.250	0.52	8.333	1.02	14.417	1.58	20.50	0.57

2.333	0.53	8.417	1.02	14.500	1.58	20.58	0.56
2.417	0.53	8.500	1.02	14.583	1.51	20.67	0.56
2.500	0.53	8.583	1.12	14.667	1.51	20.75	0.56
2.583	0.54	8.667	1.12	14.750	1.51	20.83	0.55
2.667	0.54	8.750	1.12	14.833	1.43	20.92	0.55
2.750	0.54	8.833	1.24	14.917	1.43	21.00	0.55
2.833	0.55	8.917	1.24	15.000	1.43	21.08	0.55
2.917	0.55	9.000	1.24	15.083	1.35	21.17	0.55
3.000	0.55	9.083	1.34	15.167	1.35	21.25	0.55
3.083	0.56	9.167	1.34	15.250	1.35	21.33	0.54
3.167	0.56	9.250	1.34	15.333	1.27	21.42	0.54
3.250	0.56	9.333	1.40	15.417	1.27	21.50	0.54
3.333	0.58	9.417	1.40	15.500	1.27	21.58	0.54
3.417	0.58	9.500	1.40	15.583	1.20	21.67	0.54
3.500	0.58	9.583	1.40	15.667	1.20	21.75	0.54
3.583	0.59	9.667	1.40	15.750	1.20	21.83	0.53
3.667	0.59	9.750	1.40	15.833	1.12	21.92	0.53
3.750	0.59	9.833	1.49	15.917	1.12	22.00	0.53
3.833	0.60	9.917	1.49	16.000	1.12	22.08	0.53
3.917	0.60	10.000	1.49	16.083	1.05	22.17	0.53
4.000	0.60	10.083	1.66	16.167	1.05	22.25	0.53
4.083	0.61	10.167	1.66	16.250	1.05	22.33	0.52
4.167	0.61	10.250	1.66	16.333	0.99	22.42	0.52
4.250	0.61	10.333	1.89	16.417	0.99	22.50	0.52
4.333	0.62	10.417	1.89	16.500	0.99	22.58	0.52
4.417	0.62	10.500	1.89	16.583	0.97	22.67	0.52
4.500	0.62	10.583	2.14	16.667	0.97	22.75	0.52
4.583	0.65	10.667	2.14	16.750	0.97	22.83	0.51
4.667	0.65	10.750	2.14	16.833	0.94	22.92	0.51
4.750	0.65	10.833	2.50	16.917	0.94	23.00	0.51
4.833	0.67	10.917	2.50	17.000	0.94	23.08	0.51
4.917	0.67	11.000	2.50	17.083	0.91	23.17	0.51
5.000	0.67	11.083	2.92	17.167	0.91	23.25	0.51
5.083	0.69	11.167	2.92	17.250	0.91	23.33	0.50
5.167	0.69	11.250	2.92	17.333	0.88	23.42	0.50
5.250	0.69	11.333	3.70	17.417	0.88	23.50	0.50
5.333	0.71	11.417	3.70	17.500	0.88	23.58	0.50
5.417	0.71	11.500	3.70	17.583	0.86	23.67	0.50
5.500	0.71	11.583	4.71	17.667	0.86	23.75	0.50
5.583	0.73	11.667	4.71	17.750	0.86	23.83	0.49
5.667	0.73	11.750	4.71	17.833	0.83	23.92	0.49
5.750	0.73	11.833	19.18	17.917	0.83	24.00	0.49
5.833	0.76	11.917	19.18	18.000	0.83	24.08	0.48
5.917	0.76	12.000	19.18	18.083	0.80	24.17	0.48
6.000	0.76	12.083	47.34	18.167	0.80	24.25	0.48
6.083	0.78	12.167	47.34	18.250	0.80		

Max.Eff.Inten.(mm/hr)= 47.34 6.74
 over (min)= 5.00 50.00
 Storage Coeff. (min)= 3.35 (ii) 48.31 (ii)
 Unit Hyd. Tpeak (min)= 5.00 50.00
 Unit Hyd. peak (cms)= 0.26 0.02

TOTALS
 PEAK FLOW (cms)= 0.18 0.00 0.182 (iii)
 TIME TO PEAK (hrs)= 12.25 13.00 12.25
 RUNOFF VOLUME (mm)= 41.76 11.32 40.53
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.26 0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB |
| STANDHYD ( 7629) | Area (ha)= 1.70
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
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	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.68	0.02
Dep. Storage (mm)=	2.00	5.00



Average Slope (%) = 1.10 2.00
 Length (m) = 100.00 40.00
 Mannings n = 0.013 0.250

5.583 0.73 |11.667 4.71 |17.750 0.86 | 23.83 0.49
 5.667 0.73 |11.750 4.71 |17.833 0.83 | 23.92 0.49
 5.750 0.73 |11.833 19.18 |17.917 0.83 | 24.00 0.49
 5.833 0.76 |11.917 19.18 |18.000 0.83 | 24.08 0.48
 5.917 0.76 |12.000 19.18 |18.083 0.80 | 24.17 0.48
 6.000 0.76 |12.083 47.33 |18.167 0.80 | 24.25 0.48
 6.083 0.78 |12.167 47.34 |18.250 0.80 |

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	0.78	12.250	47.34	18.333	0.77
0.167	0.00	6.250	0.78	12.333	7.50	18.42	0.77
0.250	0.00	6.333	0.80	12.417	7.50	18.50	0.77
0.333	0.44	6.417	0.80	12.500	7.50	18.58	0.75
0.417	0.44	6.500	0.80	12.583	5.10	18.67	0.75
0.500	0.44	6.583	0.82	12.667	5.10	18.75	0.75
0.583	0.45	6.667	0.82	12.750	5.10	18.83	0.72
0.667	0.45	6.750	0.82	12.833	3.51	18.92	0.72
0.750	0.45	6.833	0.84	12.917	3.51	19.00	0.72
0.833	0.46	6.917	0.84	13.000	3.51	19.08	0.69
0.917	0.46	7.000	0.84	13.083	2.97	19.17	0.69
1.000	0.46	7.083	0.86	13.167	2.97	19.25	0.69
1.083	0.48	7.167	0.86	13.250	2.97	19.33	0.66
1.167	0.48	7.250	0.86	13.333	2.51	19.42	0.66
1.250	0.48	7.333	0.89	13.417	2.51	19.50	0.66
1.333	0.49	7.417	0.89	13.500	2.51	19.58	0.64
1.417	0.49	7.500	0.89	13.583	2.22	19.67	0.64
1.500	0.49	7.583	0.91	13.667	2.22	19.75	0.64
1.583	0.50	7.667	0.91	13.750	2.22	19.83	0.61
1.667	0.50	7.750	0.91	13.833	1.94	19.92	0.61
1.750	0.50	7.833	0.93	13.917	1.94	20.00	0.61
1.833	0.51	7.917	0.93	14.000	1.94	20.08	0.58
1.917	0.51	8.000	0.93	14.083	1.73	20.17	0.58
2.000	0.51	8.083	0.95	14.167	1.73	20.25	0.58
2.083	0.52	8.167	0.95	14.250	1.73	20.33	0.57
2.167	0.52	8.250	0.95	14.333	1.58	20.42	0.57
2.250	0.52	8.333	1.02	14.417	1.58	20.50	0.57
2.333	0.53	8.417	1.02	14.500	1.58	20.58	0.56
2.417	0.53	8.500	1.02	14.583	1.51	20.67	0.56
2.500	0.53	8.583	1.12	14.667	1.51	20.75	0.56
2.583	0.54	8.667	1.12	14.750	1.51	20.83	0.55
2.667	0.54	8.750	1.12	14.833	1.43	20.92	0.55
2.750	0.54	8.833	1.24	14.917	1.43	21.00	0.55
2.833	0.55	8.917	1.24	15.000	1.43	21.08	0.55
2.917	0.55	9.000	1.24	15.083	1.35	21.17	0.55
3.000	0.55	9.083	1.34	15.167	1.35	21.25	0.55
3.083	0.56	9.167	1.34	15.250	1.35	21.33	0.54
3.167	0.56	9.250	1.34	15.333	1.27	21.42	0.54
3.250	0.56	9.333	1.40	15.417	1.27	21.50	0.54
3.333	0.58	9.417	1.40	15.500	1.27	21.58	0.54
3.417	0.58	9.500	1.40	15.583	1.20	21.67	0.54
3.500	0.58	9.583	1.40	15.667	1.20	21.75	0.54
3.583	0.59	9.667	1.40	15.750	1.20	21.83	0.53
3.667	0.59	9.750	1.40	15.833	1.12	21.92	0.53
3.750	0.59	9.833	1.49	15.917	1.12	22.00	0.53
3.833	0.60	9.917	1.49	16.000	1.12	22.08	0.53
3.917	0.60	10.000	1.49	16.083	1.05	22.17	0.53
4.000	0.60	10.083	1.66	16.167	1.05	22.25	0.53
4.083	0.61	10.167	1.66	16.250	1.05	22.33	0.52
4.167	0.61	10.250	1.66	16.333	0.99	22.42	0.52
4.250	0.61	10.333	1.89	16.417	0.99	22.50	0.52
4.333	0.62	10.417	1.89	16.500	0.99	22.58	0.52
4.417	0.62	10.500	1.89	16.583	0.97	22.67	0.52
4.500	0.62	10.583	2.14	16.667	0.97	22.75	0.52
4.583	0.65	10.667	2.14	16.750	0.97	22.83	0.51
4.667	0.65	10.750	2.14	16.833	0.94	22.92	0.51
4.750	0.65	10.833	2.50	16.917	0.94	23.00	0.51
4.833	0.67	10.917	2.50	17.000	0.94	23.08	0.51
4.917	0.67	11.000	2.50	17.083	0.91	23.17	0.51
5.000	0.67	11.083	2.92	17.167	0.91	23.25	0.51
5.083	0.69	11.167	2.92	17.250	0.91	23.33	0.51
5.167	0.69	11.250	2.92	17.333	0.88	23.42	0.50
5.250	0.69	11.333	3.70	17.417	0.88	23.50	0.50
5.333	0.71	11.417	3.70	17.500	0.88	23.58	0.50
5.417	0.71	11.500	3.70	17.583	0.86	23.67	0.50
5.500	0.71	11.583	4.70	17.667	0.86	23.75	0.50

Max.Eff.Inten.(mm/hr)= 47.34 15.16
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 3.35 (ii) 4.86 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.26 0.22
 TOTALS
 PEAK FLOW (cms)= 0.22 0.00 0.220 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 41.76 11.32 41.46
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.26 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDBYD (7651) | Area (ha)= 1.33
 | ID= 1 DT= 5.0 min | Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.30	0.03
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	0.78	12.250	47.34	18.333	0.77
0.167	0.00	6.250	0.78	12.333	7.50	18.42	0.77
0.250	0.00	6.333	0.80	12.417	7.50	18.50	0.77
0.333	0.44	6.417	0.80	12.500	7.50	18.58	0.75
0.417	0.44	6.500	0.80	12.583	5.10	18.67	0.75
0.500	0.44	6.583	0.82	12.667	5.10	18.75	0.75
0.583	0.45	6.667	0.82	12.750	5.10	18.83	0.72
0.667	0.45	6.750	0.82	12.833	3.51	18.92	0.72
0.750	0.45	6.833	0.84	12.917	3.51	19.00	0.72
0.833	0.46	6.917	0.84	13.000	3.51	19.08	0.69
0.917	0.46	7.000	0.84	13.083	2.97	19.17	0.69
1.000	0.46	7.083	0.86	13.167	2.97	19.25	0.69
1.083	0.48	7.167	0.86	13.250	2.97	19.33	0.66
1.167	0.48	7.250	0.86	13.333	2.51	19.42	0.66
1.250	0.49	7.333	0.89	13.417	2.51	19.50	0.66
1.333	0.49	7.417	0.89	13.500	2.51	19.58	0.64
1.417	0.49	7.500	0.89	13.583	2.22	19.67	0.64
1.500	0.49	7.583	0.91	13.667	2.22	19.75	0.64
1.583	0.50	7.667	0.91	13.750	2.22	19.83	0.61
1.667	0.50	7.750	0.91	13.833	1.94	19.92	0.61
1.750	0.50	7.833	0.93	13.917	1.94	20.00	0.61
1.833	0.51	7.917	0.93	14.000	1.94	20.08	0.58
1.917	0.51	8.000	0.93	14.083	1.73	20.17	0.58
2.000	0.51	8.083	0.95	14.167	1.73	20.25	0.58
2.083	0.52	8.167	0.95	14.250	1.73	20.33	0.57
2.167	0.52	8.250	0.95	14.333	1.58	20.42	0.57
2.250	0.52	8.333	1.02	14.417	1.58	20.50	0.57
2.333	0.53	8.417	1.02	14.500	1.58	20.58	0.56
2.417	0.53	8.500	1.02	14.583	1.51	20.67	0.56

2.500	0.53	8.583	1.12	14.667	1.51	20.75	0.56
2.583	0.54	8.667	1.12	14.750	1.51	20.83	0.55
2.667	0.54	8.750	1.12	14.833	1.43	20.92	0.55
2.750	0.54	8.833	1.24	14.917	1.43	21.00	0.55
2.833	0.55	8.917	1.24	15.000	1.43	21.08	0.55
2.917	0.55	9.000	1.24	15.083	1.35	21.17	0.55
3.000	0.55	9.083	1.34	15.167	1.35	21.25	0.55
3.083	0.56	9.167	1.34	15.250	1.35	21.33	0.54
3.167	0.56	9.250	1.34	15.333	1.27	21.42	0.54
3.250	0.56	9.333	1.40	15.417	1.27	21.50	0.54
3.333	0.58	9.417	1.40	15.500	1.27	21.58	0.54
3.417	0.58	9.500	1.40	15.583	1.20	21.67	0.54
3.500	0.58	9.583	1.40	15.667	1.20	21.75	0.54
3.583	0.59	9.667	1.40	15.750	1.20	21.83	0.53
3.667	0.59	9.750	1.40	15.833	1.12	21.92	0.53
3.750	0.59	9.833	1.49	15.917	1.12	22.00	0.53
3.833	0.60	9.917	1.49	16.000	1.12	22.08	0.53
3.917	0.60	10.000	1.49	16.083	1.05	22.17	0.53
4.000	0.60	10.083	1.66	16.167	1.05	22.25	0.53
4.083	0.61	10.167	1.66	16.250	1.05	22.33	0.52
4.167	0.61	10.250	1.66	16.333	0.99	22.42	0.52
4.250	0.61	10.333	1.89	16.417	0.99	22.50	0.52
4.333	0.62	10.417	1.89	16.500	0.99	22.58	0.52
4.417	0.62	10.500	1.89	16.583	0.97	22.67	0.52
4.500	0.62	10.583	2.14	16.667	0.97	22.75	0.52
4.583	0.65	10.667	2.14	16.750	0.97	22.83	0.51
4.667	0.65	10.750	2.14	16.833	0.94	22.92	0.51
4.750	0.65	10.833	2.50	16.917	0.94	23.00	0.51
4.833	0.67	10.917	2.50	17.000	0.94	23.08	0.51
4.917	0.67	11.000	2.50	17.083	0.91	23.17	0.51
5.000	0.67	11.083	2.92	17.167	0.91	23.25	0.51
5.083	0.69	11.167	2.92	17.250	0.91	23.33	0.50
5.167	0.69	11.250	2.92	17.333	0.88	23.42	0.50
5.250	0.69	11.333	3.70	17.417	0.88	23.50	0.50
5.333	0.71	11.417	3.70	17.500	0.88	23.58	0.50
5.417	0.71	11.500	3.70	17.583	0.86	23.67	0.50
5.500	0.71	11.583	4.70	17.667	0.86	23.75	0.50
5.583	0.73	11.667	4.71	17.750	0.86	23.83	0.49
5.667	0.73	11.750	4.71	17.833	0.83	23.92	0.49
5.750	0.73	11.833	19.18	17.917	0.83	24.00	0.49
5.833	0.76	11.917	19.18	18.000	0.83	24.08	0.48
5.917	0.76	12.000	19.18	18.083	0.80	24.17	0.48
6.000	0.76	12.083	47.33	18.167	0.80	24.25	0.48
6.083	0.78	12.167	47.34	18.250	0.80		

Max.Eff.Inten. (mm/hr)= 47.34 15.16
over (min) = 5.00 10.00
Storage Coeff. (min)= 3.35 (ii) 5.36 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.26 0.16

TOTALS
PEAK FLOW (cms)= 0.17 0.00 0.171 (iii)
TIME TO PEAK (hrs)= 12.25 12.25 12.25
RUNOFF VOLUME (mm)= 41.76 11.32 41.15
TOTAL RAINFALL (mm)= 43.76 43.76 43.76
RUNOFF COEFFICIENT = 0.95 0.26 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Is = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7700)					
1 + 2 = 3					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7620):	1.45	0.182	12.25	40.53	
+ ID2= 2 (7629):	1.70	0.220	12.25	41.46	

ID = 3 (7700):	3.15	0.402	12.25	41.03	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7700)					
3 + 2 = 1					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7700):	3.15	0.402	12.25	41.03	
+ ID2= 2 (7651):	1.33	0.171	12.25	41.15	

ID = 1 (7700):	4.48	0.574	12.25	41.07	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7623)			
ID= 1 DT= 5.0 min			
Area (ha)=	1.20		
Total Imp(%)=	95.00	Dir. Conn.(%)=	95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.14	0.06
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	' hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	0.78	12.250	47.34	18.33	0.77		
0.167	0.00	6.250	0.78	12.333	7.50	18.42	0.77		
0.250	0.00	6.333	0.80	12.417	7.50	18.50	0.77		
0.333	0.44	6.417	0.80	12.500	7.50	18.58	0.75		
0.417	0.44	6.500	0.80	12.583	5.10	18.67	0.75		
0.500	0.44	6.583	0.82	12.667	5.10	18.75	0.75		
0.583	0.45	6.667	0.82	12.750	5.10	18.83	0.72		
0.667	0.45	6.750	0.82	12.833	3.51	18.92	0.72		
0.750	0.45	6.833	0.84	12.917	3.51	19.00	0.72		
0.833	0.46	6.917	0.84	13.000	3.51	19.08	0.69		
0.917	0.46	7.000	0.84	13.083	2.97	19.17	0.69		
1.000	0.46	7.083	0.86	13.167	2.97	19.25	0.69		
1.083	0.48	7.167	0.86	13.250	2.97	19.33	0.66		
1.167	0.48	7.250	0.86	13.333	2.51	19.42	0.66		
1.250	0.48	7.333	0.89	13.417	2.51	19.50	0.66		
1.333	0.49	7.417	0.89	13.500	2.51	19.58	0.64		
1.417	0.49	7.500	0.89	13.583	2.22	19.67	0.64		
1.500	0.49	7.583	0.91	13.667	2.22	19.75	0.64		
1.583	0.50	7.667	0.91	13.750	2.22	19.83	0.61		
1.667	0.50	7.750	0.91	13.833	1.94	19.92	0.61		
1.750	0.50	7.833	0.93	13.917	1.94	20.00	0.61		
1.833	0.51	7.917	0.93	14.000	1.94	20.08	0.58		
1.917	0.51	8.000	0.93	14.083	1.73	20.17	0.58		
2.000	0.51	8.083	0.95	14.167	1.73	20.25	0.58		
2.083	0.52	8.167	0.95	14.250	1.73	20.33	0.57		
2.167	0.52	8.250	0.95	14.333	1.58	20.42	0.57		
2.250	0.52	8.333	1.02	14.417	1.58	20.50	0.57		
2.333	0.53	8.417	1.02	14.500	1.58	20.58	0.56		
2.417	0.53	8.500	1.02	14.583	1.51	20.67	0.56		
2.500	0.53	8.583	1.12	14.667	1.51	20.75	0.56		
2.583	0.54	8.667	1.12	14.750	1.51	20.83	0.55		
2.667	0.54	8.750	1.12	14.833	1.43	20.92	0.55		
2.750	0.54	8.833	1.24	14.917	1.43	21.00	0.55		
2.833	0.55	8.917	1.24	15.000	1.43	21.08	0.55		
2.917	0.55	9.000	1.24	15.083	1.35	21.17	0.55		
3.000	0.55	9.083	1.34	15.167	1.35	21.25	0.55		
3.083	0.56	9.167	1.34	15.250	1.35	21.33	0.54		
3.167	0.56	9.250	1.34	15.333	1.27	21.42	0.54		
3.250	0.56	9.333	1.40	15.417	1.27	21.50	0.54		
3.333	0.58	9.417	1.40	15.500	1.27	21.58	0.54		
3.417	0.58	9.500	1.40	15.583	1.20	21.67	0.54		
3.500	0.58	9.583	1.40	15.667	1.20	21.75	0.54		
3.583	0.59	9.667	1.40	15.750	1.20	21.83	0.53		
3.667	0.59	9.750	1.40	15.833	1.12	21.92	0.53		



3.750	0.59	9.833	1.49	15.917	1.12	22.00	0.53
3.833	0.60	9.917	1.49	16.000	1.12	22.08	0.53
3.917	0.60	10.000	1.49	16.083	1.05	22.17	0.53
4.000	0.60	10.083	1.66	16.167	1.05	22.25	0.53
4.083	0.61	10.167	1.66	16.250	1.05	22.33	0.52
4.167	0.61	10.250	1.66	16.333	0.99	22.42	0.52
4.250	0.61	10.333	1.89	16.417	0.99	22.50	0.52
4.333	0.62	10.417	1.89	16.500	0.99	22.58	0.52
4.417	0.62	10.500	1.89	16.583	0.97	22.67	0.52
4.500	0.62	10.583	2.14	16.667	0.97	22.75	0.52
4.583	0.65	10.667	2.14	16.750	0.97	22.83	0.51
4.667	0.65	10.750	2.14	16.833	0.94	22.92	0.51
4.750	0.65	10.833	2.50	16.917	0.94	23.00	0.51
4.833	0.67	10.917	2.50	17.000	0.94	23.08	0.51
4.917	0.67	11.000	2.50	17.083	0.91	23.17	0.51
5.000	0.67	11.083	2.92	17.167	0.91	23.25	0.51
5.083	0.69	11.167	2.92	17.250	0.91	23.33	0.50
5.167	0.69	11.250	2.92	17.333	0.88	23.42	0.50
5.250	0.69	11.333	3.70	17.417	0.88	23.50	0.50
5.333	0.71	11.417	3.70	17.500	0.88	23.58	0.50
5.417	0.71	11.500	3.70	17.583	0.86	23.67	0.50
5.500	0.71	11.583	4.70	17.667	0.86	23.75	0.50
5.583	0.73	11.667	4.71	17.750	0.86	23.83	0.49
5.667	0.73	11.750	4.71	17.833	0.83	23.92	0.49
5.750	0.73	11.833	19.18	17.917	0.83	24.00	0.49
5.833	0.76	11.917	19.18	18.000	0.83	24.08	0.48
5.917	0.76	12.000	19.18	18.083	0.80	24.17	0.48
6.000	0.76	12.083	47.33	18.167	0.80	24.25	0.48
6.083	0.78	12.167	47.34	18.250	0.80		

Max.Eff.Inten.(mm/hr)= 47.34 15.74
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.93 (ii) 4.86 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.31 0.22

TOTALS
 PEAK FLOW (cms)= 0.15 0.00 0.152 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 41.76 11.74 40.26
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.27 0.92

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7654) |
ID= 1 DT= 5.0 min
 Area (ha)= 1.69
 Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.67	0.02
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	0.78	12.250	47.34	18.33	0.77
0.167	0.00	6.250	0.78	12.333	7.50	18.42	0.77
0.250	0.00	6.333	0.80	12.417	7.50	18.50	0.77
0.333	0.44	6.417	0.80	12.500	7.50	18.58	0.75
0.417	0.44	6.500	0.80	12.583	5.10	18.67	0.75
0.500	0.44	6.583	0.82	12.667	5.10	18.75	0.75
0.583	0.45	6.667	0.82	12.750	5.10	18.83	0.72

0.667	0.45	6.750	0.82	12.833	3.51	18.92	0.72
0.750	0.45	6.833	0.84	12.917	3.51	19.00	0.72
0.833	0.46	6.917	0.84	13.000	3.51	19.08	0.69
0.917	0.46	7.000	0.84	13.083	2.97	19.17	0.69
1.000	0.46	7.083	0.86	13.167	2.97	19.25	0.69
1.083	0.48	7.167	0.86	13.250	2.97	19.33	0.66
1.167	0.48	7.250	0.86	13.333	2.51	19.42	0.66
1.250	0.48	7.333	0.89	13.417	2.51	19.50	0.66
1.333	0.49	7.417	0.89	13.500	2.51	19.58	0.64
1.417	0.49	7.500	0.89	13.583	2.22	19.67	0.64
1.500	0.49	7.583	0.91	13.667	2.22	19.75	0.64
1.583	0.50	7.667	0.91	13.750	2.22	19.83	0.61
1.667	0.50	7.750	0.91	13.833	1.94	19.92	0.61
1.750	0.50	7.833	0.93	13.917	1.94	20.00	0.61
1.833	0.51	7.917	0.93	14.000	1.94	20.08	0.58
1.917	0.51	8.000	0.93	14.083	1.73	20.17	0.58
2.000	0.51	8.083	0.95	14.167	1.73	20.25	0.58
2.083	0.52	8.167	0.95	14.250	1.73	20.33	0.57
2.167	0.52	8.250	0.95	14.333	1.58	20.42	0.57
2.250	0.52	8.333	1.02	14.417	1.58	20.50	0.57
2.333	0.53	8.417	1.02	14.500	1.58	20.58	0.56
2.417	0.53	8.500	1.02	14.583	1.51	20.67	0.56
2.500	0.53	8.583	1.12	14.667	1.51	20.75	0.56
2.583	0.54	8.667	1.12	14.750	1.51	20.83	0.55
2.667	0.54	8.750	1.12	14.833	1.43	20.92	0.55
2.750	0.54	8.833	1.24	14.917	1.43	21.00	0.55
2.833	0.55	8.917	1.24	15.000	1.43	21.08	0.55
2.917	0.55	9.000	1.24	15.083	1.35	21.17	0.55
3.000	0.55	9.083	1.34	15.167	1.35	21.25	0.55
3.083	0.56	9.167	1.34	15.250	1.35	21.33	0.54
3.167	0.56	9.250	1.34	15.333	1.27	21.42	0.54
3.250	0.56	9.333	1.40	15.417	1.27	21.50	0.54
3.333	0.58	9.417	1.40	15.500	1.27	21.58	0.54
3.417	0.58	9.500	1.40	15.583	1.20	21.67	0.54
3.500	0.58	9.583	1.40	15.667	1.20	21.75	0.54
3.583	0.59	9.667	1.40	15.750	1.20	21.83	0.53
3.667	0.59	9.750	1.40	15.833	1.12	21.92	0.53
3.750	0.59	9.833	1.49	15.917	1.12	22.00	0.53
3.833	0.60	9.917	1.49	16.000	1.12	22.08	0.53
3.917	0.60	10.000	1.49	16.083	1.05	22.17	0.53
4.000	0.60	10.083	1.66	16.167	1.05	22.25	0.53
4.083	0.61	10.167	1.66	16.250	1.05	22.33	0.52
4.167	0.61	10.250	1.66	16.333	0.99	22.42	0.52
4.250	0.61	10.333	1.89	16.417	0.99	22.50	0.52
4.333	0.62	10.417	1.89	16.500	0.99	22.58	0.52
4.417	0.62	10.500	1.89	16.583	0.97	22.67	0.52
4.500	0.62	10.583	2.14	16.667	0.97	22.75	0.52
4.583	0.65	10.667	2.14	16.750	0.97	22.83	0.51
4.667	0.65	10.750	2.14	16.833	0.94	22.92	0.51
4.750	0.65	10.833	2.50	16.917	0.94	23.00	0.51
4.833	0.67	10.917	2.50	17.000	0.94	23.08	0.51
4.917	0.67	11.000	2.50	17.083	0.91	23.17	0.51
5.000	0.67	11.083	2.92	17.167	0.91	23.25	0.51
5.083	0.69	11.167	2.92	17.250	0.91	23.33	0.50
5.167	0.69	11.250	2.92	17.333	0.88	23.42	0.50
5.250	0.69	11.333	3.70	17.417	0.88	23.50	0.50
5.333	0.71	11.417	3.70	17.500	0.88	23.58	0.50
5.417	0.71	11.500	3.70	17.583	0.86	23.67	0.50
5.500	0.71	11.583	4.70	17.667	0.86	23.75	0.50
5.583	0.73	11.667	4.71	17.750	0.86	23.83	0.49
5.667	0.73	11.750	4.71	17.833	0.83	23.92	0.49
5.750	0.73	11.833	19.18	17.917	0.83	24.00	0.49
5.833	0.76	11.917	19.18	18.000	0.83	24.08	0.48
5.917	0.76	12.000	19.18	18.083	0.80	24.17	0.48
6.000	0.76	12.083	47.33	18.167	0.80	24.25	0.48
6.083	0.78	12.167	47.34	18.250	0.80		

Max.Eff.Inten.(mm/hr)= 47.34 15.16
 over (min) 5.00 5.00
 Storage Coeff. (min)= 3.35 (ii) 4.86 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.26 0.22

TOTALS
 PEAK FLOW (cms)= 0.22 0.00 0.219 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 41.76 11.32 41.46



TOTAL RAINFALL (mm) = 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.26 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7655) | Area (ha)= 1.32
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.31	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

3.917	0.60	10.000	1.49	16.083	1.05	22.17	0.53
4.000	0.60	10.083	1.66	16.167	1.05	22.25	0.53
4.083	0.61	10.167	1.66	16.250	1.05	22.33	0.52
4.167	0.61	10.250	1.66	16.333	0.99	22.42	0.52
4.250	0.61	10.333	1.89	16.417	0.99	22.50	0.52
4.333	0.62	10.417	1.89	16.500	0.99	22.58	0.52
4.417	0.62	10.500	1.89	16.583	0.97	22.67	0.52
4.500	0.62	10.583	2.14	16.667	0.97	22.75	0.52
4.583	0.65	10.667	2.14	16.750	0.97	22.83	0.51
4.667	0.65	10.750	2.14	16.833	0.94	22.92	0.51
4.750	0.65	10.833	2.50	16.917	0.94	23.00	0.51
4.833	0.67	10.917	2.50	17.000	0.94	23.08	0.51
4.917	0.67	11.000	2.50	17.083	0.91	23.17	0.51
5.000	0.67	11.083	2.92	17.167	0.91	23.25	0.51
5.083	0.69	11.167	2.92	17.250	0.91	23.33	0.50
5.167	0.69	11.250	2.92	17.333	0.88	23.42	0.50
5.250	0.69	11.333	3.70	17.417	0.88	23.50	0.50
5.333	0.71	11.417	3.70	17.500	0.88	23.58	0.50
5.417	0.71	11.500	3.70	17.583	0.86	23.67	0.50
5.500	0.71	11.583	4.70	17.667	0.86	23.75	0.50
5.583	0.73	11.667	4.71	17.750	0.86	23.83	0.49
5.667	0.73	11.750	4.71	17.833	0.83	23.92	0.49
5.750	0.73	11.833	19.18	17.917	0.83	24.00	0.49
5.833	0.76	11.917	19.18	18.000	0.83	24.08	0.48
5.917	0.76	12.000	19.18	18.083	0.80	24.17	0.48
6.000	0.76	12.083	47.34	18.167	0.80	24.25	0.48
6.083	0.78	12.167	47.34	18.250	0.80		

Max.Eff.Inten.(mm/hr)= 47.34 15.16
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 3.35 (ii) 4.86 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.26 0.22

TOTALS
 PEAK FLOW (cms)= 0.17 0.00 0.171 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 41.76 11.32 41.45
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.26 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7662) | Area (ha)= 1.61
 | ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.48	0.13
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	0.78	12.250	47.34	18.33	0.77
0.167	0.00	6.250	0.78	12.333	7.50	18.42	0.77
0.250	0.00	6.333	0.80	12.417	7.50	18.50	0.77
0.333	0.44	6.417	0.80	12.500	7.50	18.58	0.75
0.417	0.44	6.500	0.80	12.583	5.10	18.67	0.75
0.500	0.44	6.583	0.82	12.667	5.10	18.75	0.75
0.583	0.45	6.667	0.82	12.750	5.10	18.83	0.72
0.667	0.45	6.750	0.82	12.833	3.51	18.92	0.72
0.750	0.45	6.833	0.84	12.917	3.51	19.00	0.72



0.833	0.46	6.917	0.84	13.000	3.51	19.08	0.69
0.917	0.46	7.000	0.84	13.083	2.97	19.17	0.69
1.000	0.46	7.083	0.86	13.167	2.97	19.25	0.69
1.083	0.48	7.167	0.86	13.250	2.97	19.33	0.66
1.167	0.48	7.250	0.86	13.333	2.51	19.42	0.66
1.250	0.48	7.333	0.89	13.417	2.51	19.50	0.66
1.333	0.49	7.417	0.89	13.500	2.51	19.58	0.64
1.417	0.49	7.500	0.89	13.583	2.22	19.67	0.64
1.500	0.49	7.583	0.91	13.667	2.22	19.75	0.64
1.583	0.50	7.667	0.91	13.750	2.22	19.83	0.61
1.667	0.50	7.750	0.91	13.833	1.94	19.92	0.61
1.750	0.50	7.833	0.93	13.917	1.94	20.00	0.61
1.833	0.51	7.917	0.93	14.000	1.94	20.08	0.58
1.917	0.51	8.000	0.93	14.083	1.73	20.17	0.58
2.000	0.51	8.083	0.95	14.167	1.73	20.25	0.58
2.083	0.52	8.167	0.95	14.250	1.73	20.33	0.57
2.167	0.52	8.250	0.95	14.333	1.58	20.42	0.57
2.250	0.52	8.333	1.02	14.417	1.58	20.50	0.57
2.333	0.53	8.417	1.02	14.500	1.58	20.58	0.56
2.417	0.53	8.500	1.02	14.583	1.51	20.67	0.56
2.500	0.53	8.583	1.12	14.667	1.51	20.75	0.56
2.583	0.54	8.667	1.12	14.750	1.51	20.83	0.55
2.667	0.54	8.750	1.12	14.833	1.43	20.92	0.55
2.750	0.54	8.833	1.24	14.917	1.43	21.00	0.55
2.833	0.55	8.917	1.24	15.000	1.43	21.08	0.55
2.917	0.55	9.000	1.24	15.083	1.35	21.17	0.55
3.000	0.55	9.083	1.34	15.167	1.35	21.25	0.55
3.083	0.56	9.167	1.34	15.250	1.35	21.33	0.54
3.167	0.56	9.250	1.34	15.333	1.27	21.42	0.54
3.250	0.56	9.333	1.40	15.417	1.27	21.50	0.54
3.333	0.58	9.417	1.40	15.500	1.27	21.58	0.54
3.417	0.58	9.500	1.40	15.583	1.20	21.67	0.54
3.500	0.58	9.583	1.40	15.667	1.20	21.75	0.54
3.583	0.59	9.667	1.40	15.750	1.20	21.83	0.53
3.667	0.59	9.750	1.40	15.833	1.12	21.92	0.53
3.750	0.59	9.833	1.49	15.917	1.12	22.00	0.53
3.833	0.60	9.917	1.49	16.000	1.12	22.08	0.53
3.917	0.60	10.000	1.49	16.083	1.05	22.17	0.53
4.000	0.60	10.083	1.66	16.167	1.05	22.25	0.53
4.083	0.61	10.167	1.66	16.250	1.05	22.33	0.52
4.167	0.61	10.250	1.66	16.333	0.99	22.42	0.52
4.250	0.61	10.333	1.89	16.417	0.99	22.50	0.52
4.333	0.62	10.417	1.89	16.500	0.99	22.58	0.52
4.417	0.62	10.500	1.89	16.583	0.97	22.67	0.52
4.500	0.62	10.583	2.14	16.667	0.97	22.75	0.52
4.583	0.65	10.667	2.14	16.750	0.97	22.83	0.51
4.667	0.65	10.750	2.14	16.833	0.94	22.92	0.51
4.750	0.65	10.833	2.50	16.917	0.94	23.00	0.51
4.833	0.67	10.917	2.50	17.000	0.94	23.08	0.51
4.917	0.67	11.000	2.50	17.083	0.91	23.17	0.51
5.000	0.67	11.083	2.92	17.167	0.91	23.25	0.51
5.083	0.69	11.167	2.92	17.250	0.91	23.33	0.50
5.167	0.69	11.250	2.92	17.333	0.88	23.42	0.50
5.250	0.69	11.333	3.70	17.417	0.88	23.50	0.50
5.333	0.71	11.417	3.70	17.500	0.88	23.58	0.50
5.417	0.71	11.500	3.70	17.583	0.86	23.67	0.50
5.500	0.71	11.583	4.70	17.667	0.86	23.75	0.50
5.583	0.73	11.667	4.71	17.750	0.86	23.83	0.49
5.667	0.73	11.750	4.71	17.833	0.83	23.92	0.49
5.750	0.73	11.833	19.18	17.917	0.83	24.00	0.49
5.833	0.76	11.917	19.18	18.000	0.83	24.08	0.48
5.917	0.76	12.000	19.18	18.083	0.80	24.17	0.48
6.000	0.76	12.083	47.33	18.167	0.80	24.25	0.48
6.083	0.78	12.167	47.34	18.250	0.80		

Max.Eff.Inten.(mm/hr)= 47.34 6.74
 over (min) 5.00 50.00
 Storage Coeff. (min)= 3.35 (ii) 48.31 (iii)
 Unit Hyd. Tpeak (min)= 5.00 50.00
 Unit Hyd. peak (cms)= 0.26 0.02

TOTALS
 PEAK FLOW (cms)= 0.19 0.00 0.194 (iii)
 TIME TO PEAK (hrs)= 12.25 13.00 12.25
 RUNOFF VOLUME (mm)= 41.76 11.32 39.31
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.26 0.90

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7701)					
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7654):	1.69	0.219	12.25	41.46	
+ ID2= 2 (7655):	1.32	0.171	12.25	41.45	
=====					
ID = 3 (7701):	3.01	0.390	12.25	41.45	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7701)					
3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7701):	3.01	0.390	12.25	41.45	
+ ID2= 2 (7662):	1.61	0.194	12.25	39.31	
=====					
ID = 1 (7701):	4.62	0.584	12.25	40.71	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7707)	Area	(ha)=	1.06
ID= 1 DT= 5.0 min	Total Imp (%)=	95.00	Dir. Conn. (%)= 95.00

Surface Area	(ha)=	1.01	0.05
Dep. Storage	(mm)=	2.00	5.00
Average Slope	(%)=	2.50	2.00
Length	(m)=	60.00	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	0.78	12.250	47.34	18.33	0.77				
0.167	0.00	6.250	0.78	12.333	7.50	18.42	0.77				
0.250	0.00	6.333	0.80	12.417	7.50	18.50	0.77				
0.333	0.44	6.417	0.80	12.500	7.50	18.58	0.75				
0.417	0.44	6.500	0.80	12.583	5.10	18.67	0.75				
0.500	0.44	6.583	0.82	12.667	5.10	18.75	0.75				
0.583	0.45	6.667	0.82	12.750	5.10	18.83	0.72				
0.667	0.45	6.750	0.82	12.833	3.51	18.92	0.72				
0.750	0.45	6.833	0.84	12.917	3.51	19.00	0.72				
0.833	0.46	6.917	0.84	13.000	3.51	19.08	0.69				
0.917	0.46	7.000	0.84	13.083	2.97	19.17	0.69				
1.000	0.46	7.083	0.86	13.167	2.97	19.25	0.69				
1.083	0.48	7.167	0.86	13.250	2.97	19.33	0.66				
1.167	0.48	7.250	0.86	13.333	2.51	19.42	0.66				
1.250	0.48	7.333	0.89	13.417	2.51	19.50	0.66				
1.333	0.49	7.417	0.89	13.500	2.51	19.58	0.64				
1.417	0.49	7.500	0.89	13.583	2.22	19.67	0.64				
1.500	0.49	7.583	0.91	13.667	2.22	19.75	0.64				
1.583	0.50	7.667	0.91	13.750	2.22	19.83	0.61				
1.667	0.50	7.750	0.91	13.833	1.94	19.92	0.61				
1.750	0.50	7.833	0.93	13.917	1.94	20.00	0.61				
1.833	0.51	7.917	0.93	14.000	1.94	20.08	0.58				
1.917	0.51	8.000	0.93	14.083	1.73	20.17	0.58				
2.000	0.51	8.083	0.95	14.167	1.73	20.25	0.58				



2.083	0.52	8.167	0.95	14.250	1.73	20.33	0.57
2.167	0.52	8.250	0.95	14.333	1.58	20.42	0.57
2.250	0.52	8.333	1.02	14.417	1.58	20.50	0.57
2.333	0.53	8.417	1.02	14.500	1.58	20.58	0.56
2.417	0.53	8.500	1.02	14.583	1.51	20.67	0.56
2.500	0.53	8.583	1.12	14.667	1.51	20.75	0.56
2.583	0.54	8.667	1.12	14.750	1.51	20.83	0.55
2.667	0.54	8.750	1.12	14.833	1.43	20.92	0.55
2.750	0.54	8.833	1.24	14.917	1.43	21.00	0.55
2.833	0.55	8.917	1.24	15.000	1.43	21.08	0.55
2.917	0.55	9.000	1.24	15.083	1.35	21.17	0.55
3.000	0.55	9.083	1.34	15.167	1.35	21.25	0.55
3.083	0.56	9.167	1.34	15.250	1.35	21.33	0.54
3.167	0.56	9.250	1.34	15.333	1.27	21.42	0.54
3.250	0.56	9.333	1.40	15.417	1.27	21.50	0.54
3.333	0.58	9.417	1.40	15.500	1.27	21.58	0.54
3.417	0.58	9.500	1.40	15.583	1.20	21.67	0.54
3.500	0.58	9.583	1.40	15.667	1.20	21.75	0.54
3.583	0.59	9.667	1.40	15.750	1.20	21.83	0.53
3.667	0.59	9.750	1.40	15.833	1.12	21.92	0.53
3.750	0.59	9.833	1.49	15.917	1.12	22.00	0.53
3.833	0.60	9.917	1.49	16.000	1.12	22.08	0.53
3.917	0.60	10.000	1.49	16.083	1.05	22.17	0.53
4.000	0.60	10.083	1.66	16.167	1.05	22.25	0.53
4.083	0.61	10.167	1.66	16.250	1.05	22.33	0.52
4.167	0.61	10.250	1.66	16.333	0.99	22.42	0.52
4.250	0.61	10.333	1.89	16.417	0.99	22.50	0.52
4.333	0.62	10.417	1.89	16.500	0.99	22.58	0.52
4.417	0.62	10.500	1.89	16.583	0.97	22.67	0.52
4.500	0.62	10.583	2.14	16.667	0.97	22.75	0.52
4.583	0.65	10.667	2.14	16.750	0.97	22.83	0.51
4.667	0.65	10.750	2.14	16.833	0.94	22.92	0.51
4.750	0.65	10.833	2.50	16.917	0.94	23.00	0.51
4.833	0.67	10.917	2.50	17.000	0.94	23.08	0.51
4.917	0.67	11.000	2.50	17.083	0.91	23.17	0.51
5.000	0.67	11.083	2.92	17.167	0.91	23.25	0.50
5.083	0.69	11.167	2.92	17.250	0.91	23.33	0.50
5.167	0.69	11.250	2.92	17.333	0.88	23.42	0.50
5.250	0.69	11.333	3.70	17.417	0.88	23.50	0.50
5.333	0.71	11.417	3.70	17.500	0.88	23.58	0.50
5.417	0.71	11.500	3.70	17.583	0.86	23.67	0.50
5.500	0.71	11.583	4.70	17.667	0.86	23.75	0.50
5.583	0.73	11.667	4.71	17.750	0.86	23.83	0.49
5.667	0.73	11.750	4.71	17.833	0.83	23.92	0.49
5.750	0.73	11.833	19.18	17.917	0.83	24.00	0.49
5.833	0.76	11.917	19.18	18.000	0.83	24.08	0.48
5.917	0.76	12.000	19.18	18.083	0.80	24.17	0.48
6.000	0.76	12.083	47.33	18.167	0.80	24.25	0.48
6.083	0.78	12.167	47.34	18.250	0.80		

Max.Eff.Inten.(mm/hr)= 47.34 15.74
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.93 (ii) 4.86 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.31 0.22

TOTALS
 PEAK FLOW (cms)= 0.13 0.00 0.135 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 41.76 11.74 40.26
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.27 0.92

- ***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
 (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7702)				
1 + 2 = 3				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	

ID1= 1 (7623):	1.20	0.152	12.25	40.26
+ ID2= 2 (7700):	4.48	0.574	12.25	41.07

ID = 3 (7702):	5.68	0.726	12.25	40.89

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
3 + 2 = 1				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7702):	5.68	0.726	12.25	40.89
+ ID2= 2 (7701):	4.62	0.584	12.25	40.71

ID = 1 (7702):	10.30	1.310	12.25	40.81

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
1 + 2 = 3				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7702):	10.30	1.310	12.25	40.81
+ ID2= 2 (7707):	1.06	0.135	12.25	40.26

ID = 3 (7702):	11.36	1.445	12.25	40.76

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
3 + 2 = 1				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7702):	11.36	1.445	12.25	40.76
+ ID2= 2 (7714):	14.31	0.651	12.25	42.44

ID = 1 (7702):	25.67	2.096	12.25	41.69

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7705)				
OVERFLOW IS OFF				
IN= 2--> OUT= 1				
DT= 5.0 min				
OUTFLOW	STORAGE	OUTFLOW	STORAGE	
(cms)	(ha.m.)	(cms)	(ha.m.)	
0.0000	0.0000	0.6280	2.3980	
0.0730	0.2080	0.6400	2.4830	
0.0890	0.2770	0.6520	2.5670	
0.1340	0.5530	0.6640	2.6500	
0.2910	0.8290	0.6750	2.7340	
0.3860	1.1060	0.7190	3.0490	
0.4590	1.3820	0.8250	3.3550	
0.5220	1.7210	2.0760	3.4560	
0.5780	2.0600	2.3560	3.7320	

INFLOW : ID= 2 (7702)	25.670	2.096	12.25	41.69
OUTFLOW: ID= 1 (7705)	25.670	0.159	16.25	41.67

PEAK FLOW REDUCTION [Qout/Qin] (%) = 7.58
 TIME SHIFT OF PEAK FLOW (min) = 240.00
 MAXIMUM STORAGE USED (ha.m.) = 0.5967

CALIB			
STANDHYD (7716)			
ID= 1 DT= 5.0 min	Area (ha)=	0.19	
	Total Imp (%) =	95.00	Dir. Conn. (%) = 95.00

Surface Area	(ha)=	0.18	PERVIOUS (i)
Dep. Storage	(mm)=	2.00	0.01
			5.00



Average Slope (%) = 2.50 2.00
 Length (m) = 60.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	0.78	12.250	47.34	18.33	0.77
0.167	0.00	6.250	0.78	12.333	7.50	18.42	0.77
0.250	0.00	6.333	0.80	12.417	7.50	18.50	0.77
0.333	0.44	6.417	0.80	12.500	7.50	18.58	0.75
0.417	0.44	6.500	0.80	12.583	5.10	18.67	0.75
0.500	0.44	6.583	0.82	12.667	5.10	18.75	0.75
0.583	0.45	6.667	0.82	12.750	5.10	18.83	0.72
0.667	0.45	6.750	0.82	12.833	3.51	18.92	0.72
0.750	0.45	6.833	0.84	12.917	3.51	19.00	0.72
0.833	0.46	6.917	0.84	13.000	3.51	19.08	0.69
0.917	0.46	7.000	0.84	13.083	2.97	19.17	0.69
1.000	0.46	7.083	0.86	13.167	2.97	19.25	0.69
1.083	0.48	7.167	0.86	13.250	2.97	19.33	0.66
1.167	0.48	7.250	0.86	13.333	2.51	19.42	0.66
1.250	0.48	7.333	0.89	13.417	2.51	19.50	0.66
1.333	0.49	7.417	0.89	13.500	2.51	19.58	0.64
1.417	0.49	7.500	0.89	13.583	2.22	19.67	0.64
1.500	0.49	7.583	0.91	13.667	2.22	19.75	0.64
1.583	0.50	7.667	0.91	13.750	2.22	19.83	0.61
1.667	0.50	7.750	0.91	13.833	1.94	19.92	0.61
1.750	0.50	7.833	0.93	13.917	1.94	20.00	0.61
1.833	0.51	7.917	0.93	14.000	1.94	20.08	0.58
1.917	0.51	8.000	0.93	14.083	1.73	20.17	0.58
2.000	0.51	8.083	0.95	14.167	1.73	20.25	0.58
2.083	0.52	8.167	0.95	14.250	1.73	20.33	0.57
2.167	0.52	8.250	0.95	14.333	1.58	20.42	0.57
2.250	0.52	8.333	1.02	14.417	1.58	20.50	0.57
2.333	0.53	8.417	1.02	14.500	1.58	20.58	0.56
2.417	0.53	8.500	1.02	14.583	1.51	20.67	0.56
2.500	0.53	8.583	1.12	14.667	1.51	20.75	0.56
2.583	0.54	8.667	1.12	14.750	1.51	20.83	0.55
2.667	0.54	8.750	1.12	14.833	1.43	20.92	0.55
2.750	0.54	8.833	1.24	14.917	1.43	21.00	0.55
2.833	0.55	8.917	1.24	15.000	1.43	21.08	0.55
2.917	0.55	9.000	1.24	15.083	1.35	21.17	0.55
3.000	0.55	9.083	1.34	15.167	1.35	21.25	0.55
3.083	0.56	9.167	1.34	15.250	1.35	21.33	0.54
3.167	0.56	9.250	1.34	15.333	1.27	21.42	0.54
3.250	0.56	9.333	1.40	15.417	1.27	21.50	0.54
3.333	0.58	9.417	1.40	15.500	1.27	21.58	0.54
3.417	0.58	9.500	1.40	15.583	1.20	21.67	0.54
3.500	0.58	9.583	1.40	15.667	1.20	21.75	0.54
3.583	0.59	9.667	1.40	15.750	1.20	21.83	0.53
3.667	0.59	9.750	1.40	15.833	1.12	21.92	0.53
3.750	0.59	9.833	1.49	15.917	1.12	22.00	0.53
3.833	0.60	9.917	1.49	16.000	1.12	22.08	0.53
3.917	0.60	10.000	1.49	16.083	1.05	22.17	0.53
4.000	0.60	10.083	1.66	16.167	1.05	22.25	0.53
4.083	0.61	10.167	1.66	16.250	1.05	22.33	0.52
4.167	0.61	10.250	1.66	16.333	0.99	22.42	0.52
4.250	0.61	10.333	1.89	16.417	0.99	22.50	0.52
4.333	0.62	10.417	1.89	16.500	0.99	22.58	0.52
4.417	0.62	10.500	1.89	16.583	0.97	22.67	0.52
4.500	0.62	10.583	2.14	16.667	0.97	22.75	0.52
4.583	0.65	10.667	2.14	16.750	0.97	22.83	0.51
4.667	0.65	10.750	2.14	16.833	0.94	22.92	0.51
4.750	0.65	10.833	2.50	16.917	0.94	23.00	0.51
4.833	0.67	10.917	2.50	17.000	0.94	23.08	0.51
4.917	0.67	11.000	2.50	17.083	0.91	23.17	0.51
5.000	0.67	11.083	2.92	17.167	0.91	23.25	0.51
5.083	0.69	11.167	2.92	17.250	0.91	23.33	0.50
5.167	0.69	11.250	2.92	17.333	0.88	23.42	0.50
5.250	0.69	11.333	3.70	17.417	0.88	23.50	0.50
5.333	0.71	11.417	3.70	17.500	0.88	23.58	0.50
5.417	0.71	11.500	3.70	17.583	0.86	23.67	0.50
5.500	0.71	11.583	4.70	17.667	0.86	23.75	0.50

5.583	0.73	11.667	4.71	17.750	0.86	23.83	0.49
5.667	0.73	11.750	4.71	17.833	0.83	23.92	0.49
5.750	0.73	11.833	19.18	17.917	0.83	24.00	0.49
5.833	0.76	11.917	19.18	18.000	0.83	24.08	0.48
5.917	0.76	12.000	19.18	18.083	0.80	24.17	0.48
6.000	0.76	12.083	47.33	18.167	0.80	24.25	0.48
6.083	0.78	12.167	47.34	18.250	0.80		

Max.Eff.Inten. (mm/hr)= 47.34 15.74
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.93 (ii) 4.86 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.31 0.22

TOTALS
 PEAK FLOW (cms)= 0.02 0.00 0.024 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 41.76 11.74 40.26
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.27 0.92

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7720)	OVERFLOW IS OFF	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
IN= 2--> OUT= 1		0.0000	0.0000	0.0100	0.0090
DT= 5.0 min		0.0030	0.0010	0.0110	0.0100
		0.0050	0.0030	0.0120	0.0110
		0.0060	0.0040	0.0120	0.0130
		0.0080	0.0050	0.0130	0.0140
		0.0090	0.0060	0.0140	0.0150
		0.0090	0.0080	0.0000	0.0000

INFLOW : ID= 2 (7716)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
	0.190	0.024	12.25	40.26
OUTFLOW: ID= 1 (7720)	0.190	0.005	12.33	39.84

PEAK FLOW REDUCTION [Qout/Qin] (%) = 20.36
 TIME SHIFT OF PEAK FLOW (min) = 5.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0029

CALIB	Area (ha)	Total Imp (%)	Dir. Conn. (%)
STANDHYD (7717)	0.20	95.00	95.00
ID= 1 DT= 5.0 min			

Surface Area (ha)	IMPERVIOUS (mm)	PERVIOUS (i)
	0.19	0.01
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	2.50	2.00
Length (m)	36.51	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	0.78	12.250	47.34	18.33	0.77
0.167	0.00	6.250	0.78	12.333	7.50	18.42	0.77
0.250	0.00	6.333	0.80	12.417	7.50	18.50	0.77
0.333	0.44	6.417	0.80	12.500	7.50	18.58	0.75
0.417	0.44	6.500	0.80	12.583	5.10	18.67	0.75
0.500	0.44	6.583	0.82	12.667	5.10	18.75	0.75



0.583	0.45	6.667	0.82	12.750	5.10	18.83	0.72
0.667	0.45	6.750	0.82	12.833	3.51	18.92	0.72
0.750	0.45	6.833	0.84	12.917	3.51	19.00	0.72
0.833	0.46	6.917	0.84	13.000	3.51	19.08	0.69
0.917	0.46	7.000	0.84	13.083	2.97	19.17	0.69
1.000	0.46	7.083	0.86	13.167	2.97	19.25	0.69
1.083	0.48	7.167	0.86	13.250	2.97	19.33	0.66
1.167	0.48	7.250	0.86	13.333	2.51	19.42	0.66
1.250	0.48	7.333	0.89	13.417	2.51	19.50	0.66
1.333	0.49	7.417	0.89	13.500	2.51	19.58	0.64
1.417	0.49	7.500	0.89	13.583	2.22	19.67	0.64
1.500	0.49	7.583	0.91	13.667	2.22	19.75	0.64
1.583	0.50	7.667	0.91	13.750	2.22	19.83	0.61
1.667	0.50	7.750	0.91	13.833	1.94	19.92	0.61
1.750	0.50	7.833	0.93	13.917	1.94	20.00	0.61
1.833	0.51	7.917	0.93	14.000	1.94	20.08	0.58
1.917	0.51	8.000	0.93	14.083	1.73	20.17	0.58
2.000	0.51	8.083	0.95	14.167	1.73	20.25	0.58
2.083	0.52	8.167	0.95	14.250	1.73	20.33	0.57
2.167	0.52	8.250	0.95	14.333	1.58	20.42	0.57
2.250	0.52	8.333	1.02	14.417	1.58	20.50	0.57
2.333	0.53	8.417	1.02	14.500	1.58	20.58	0.56
2.417	0.53	8.500	1.02	14.583	1.51	20.67	0.56
2.500	0.53	8.583	1.12	14.667	1.51	20.75	0.56
2.583	0.54	8.667	1.12	14.750	1.51	20.83	0.55
2.667	0.54	8.750	1.12	14.833	1.43	20.92	0.55
2.750	0.54	8.833	1.24	14.917	1.43	21.00	0.55
2.833	0.55	8.917	1.24	15.000	1.43	21.08	0.55
2.917	0.55	9.000	1.24	15.083	1.35	21.17	0.55
3.000	0.55	9.083	1.34	15.167	1.35	21.25	0.55
3.083	0.56	9.167	1.34	15.250	1.35	21.33	0.54
3.167	0.56	9.250	1.34	15.333	1.27	21.42	0.54
3.250	0.56	9.333	1.40	15.417	1.27	21.50	0.54
3.333	0.58	9.417	1.40	15.500	1.27	21.58	0.54
3.417	0.58	9.500	1.40	15.583	1.20	21.67	0.54
3.500	0.58	9.583	1.40	15.667	1.20	21.75	0.54
3.583	0.59	9.667	1.40	15.750	1.20	21.83	0.53
3.667	0.59	9.750	1.40	15.833	1.12	21.92	0.53
3.750	0.59	9.833	1.49	15.917	1.12	22.00	0.53
3.833	0.60	9.917	1.49	16.000	1.12	22.08	0.53
3.917	0.60	10.000	1.49	16.083	1.05	22.17	0.53
4.000	0.60	10.083	1.66	16.167	1.05	22.25	0.53
4.083	0.61	10.167	1.66	16.250	1.05	22.33	0.52
4.167	0.61	10.250	1.66	16.333	0.99	22.42	0.52
4.250	0.61	10.333	1.89	16.417	0.99	22.50	0.52
4.333	0.62	10.417	1.89	16.500	0.99	22.58	0.52
4.417	0.62	10.500	1.89	16.583	0.97	22.67	0.52
4.500	0.62	10.583	2.14	16.667	0.97	22.75	0.52
4.583	0.65	10.667	2.14	16.750	0.97	22.83	0.51
4.667	0.65	10.750	2.14	16.833	0.94	22.92	0.51
4.750	0.65	10.833	2.50	16.917	0.94	23.00	0.51
4.833	0.67	10.917	2.50	17.000	0.94	23.08	0.51
4.917	0.67	11.000	2.50	17.083	0.91	23.17	0.51
5.000	0.67	11.083	2.92	17.167	0.91	23.25	0.51
5.083	0.69	11.167	2.92	17.250	0.91	23.33	0.50
5.167	0.69	11.250	2.92	17.333	0.88	23.42	0.50
5.250	0.69	11.333	3.70	17.417	0.88	23.50	0.50
5.333	0.71	11.417	3.70	17.500	0.88	23.58	0.50
5.417	0.71	11.500	3.70	17.583	0.86	23.67	0.50
5.500	0.71	11.583	4.70	17.667	0.86	23.75	0.50
5.583	0.73	11.667	4.71	17.750	0.86	23.83	0.49
5.667	0.73	11.750	4.71	17.833	0.83	23.92	0.49
5.750	0.73	11.833	19.18	17.917	0.83	24.00	0.49
5.833	0.76	11.917	19.18	18.000	0.83	24.08	0.48
5.917	0.76	12.000	19.18	18.083	0.80	24.17	0.48
6.000	0.76	12.083	47.33	18.167	0.80	24.25	0.48
6.083	0.78	12.167	47.34	18.250	0.80		

Max.Eff.Inten.(mm/hr)= 47.34 15.74
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.43 (ii) 4.36 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.23

PEAK FLOW (cms)= 0.02 0.00
 TIME TO PEAK (hrs)= 12.25 12.25

TOTALS

0.025 (iii)
 12.25

RUNOFF VOLUME (mm)= 41.76 11.74 40.26
 TOTAL RAINFALL (mm)= 43.76 43.76 43.76
 RUNOFF COEFFICIENT = 0.95 0.27 0.92

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7719)		OVERFLOW IS OFF			
IN= 2---> OUT= 1					
DT= 5.0 min		OUTFLOW	STORAGE	OUTFLOW	STORAGE
		(cms)	(ha.m.)	(cms)	(ha.m.)
0.0000	0.0000	0.0100	0.0090		
0.0030	0.0010	0.0110	0.0100		
0.0050	0.0030	0.0120	0.0110		
0.0060	0.0040	0.0120	0.0130		
0.0080	0.0050	0.0130	0.0140		
0.0090	0.0060	0.0140	0.0150		
0.0090	0.0080	0.0000	0.0000		

INFLOW : ID= 2 (7717)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
0.200	0.025	12.25	40.26	
OUTFLOW: ID= 1 (7719)	0.200	0.005	12.33	39.88

PEAK FLOW REDUCTION [Qout/Qin] (%) = 20.06
 TIME SHIFT OF PEAK FLOW (min) = 5.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0031

ADD HYD (7706)		AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7705):	25.67	0.159	16.25	41.67	
+ ID2= 2 (7719):	0.20	0.005	12.33	39.88	
ID = 3 (7706):	25.87	0.160	16.17	41.65	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7706)		AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1		(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7706):	25.87	0.160	16.17	41.65	
+ ID2= 2 (7720):	0.19	0.005	12.33	39.84	
ID = 1 (7706):	26.06	0.161	16.17	41.64	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB		Area (ha)=	1.24
STANDHYD (7595)		Total Imp(%)=	99.00
DT= 5.0 min		Dir. Conn.(%)=	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.23	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	91.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	0.78	12.250	47.34	18.33	0.77
0.167	0.00	6.250	0.78	12.333	7.50	18.42	0.77
0.250	0.00	6.333	0.80	12.417	7.50	18.50	0.77
0.333	0.44	6.417	0.80	12.500	7.50	18.58	0.75
0.417	0.44	6.500	0.80	12.583	5.10	18.67	0.75
0.500	0.44	6.583	0.82	12.667	5.10	18.75	0.75
0.583	0.45	6.667	0.82	12.750	5.10	18.83	0.72
0.667	0.45	6.750	0.82	12.833	3.51	18.92	0.72
0.750	0.45	6.833	0.84	12.917	3.51	19.00	0.72
0.833	0.46	6.917	0.84	13.000	3.51	19.08	0.69
0.917	0.46	7.000	0.84	13.083	2.97	19.17	0.69
1.000	0.46	7.083	0.86	13.167	2.97	19.25	0.69
1.083	0.48	7.167	0.86	13.250	2.97	19.33	0.66
1.167	0.48	7.250	0.86	13.333	2.51	19.42	0.66
1.250	0.48	7.333	0.89	13.417	2.51	19.50	0.66
1.333	0.49	7.417	0.89	13.500	2.51	19.58	0.64
1.417	0.49	7.500	0.89	13.583	2.22	19.67	0.64
1.500	0.49	7.583	0.91	13.667	2.22	19.75	0.64
1.583	0.50	7.667	0.91	13.750	2.22	19.83	0.61
1.667	0.50	7.750	0.91	13.833	1.94	19.92	0.61
1.750	0.50	7.833	0.93	13.917	1.94	20.00	0.61
1.833	0.51	7.917	0.93	14.000	1.94	20.08	0.58
1.917	0.51	8.000	0.93	14.083	1.73	20.17	0.58
2.000	0.51	8.083	0.95	14.167	1.73	20.25	0.58
2.083	0.52	8.167	0.95	14.250	1.73	20.33	0.57
2.167	0.52	8.250	0.95	14.333	1.58	20.42	0.57
2.250	0.52	8.333	1.02	14.417	1.58	20.50	0.57
2.333	0.53	8.417	1.02	14.500	1.58	20.58	0.56
2.417	0.53	8.500	1.02	14.583	1.51	20.67	0.56
2.500	0.53	8.583	1.12	14.667	1.51	20.75	0.56
2.583	0.54	8.667	1.12	14.750	1.51	20.83	0.55
2.667	0.54	8.750	1.12	14.833	1.43	20.92	0.55
2.750	0.54	8.833	1.24	14.917	1.43	21.00	0.55
2.833	0.55	8.917	1.24	15.000	1.43	21.08	0.55
2.917	0.55	9.000	1.24	15.083	1.35	21.17	0.55
3.000	0.55	9.083	1.34	15.167	1.35	21.25	0.55
3.083	0.56	9.167	1.34	15.250	1.35	21.33	0.54
3.167	0.56	9.250	1.34	15.333	1.27	21.42	0.54
3.250	0.56	9.333	1.40	15.417	1.27	21.50	0.54
3.333	0.58	9.417	1.40	15.500	1.27	21.58	0.54
3.417	0.58	9.500	1.40	15.583	1.20	21.67	0.54
3.500	0.58	9.583	1.40	15.667	1.20	21.75	0.54
3.583	0.59	9.667	1.40	15.750	1.20	21.83	0.53
3.667	0.59	9.750	1.40	15.833	1.12	21.92	0.53
3.750	0.59	9.833	1.49	15.917	1.12	22.00	0.53
3.833	0.60	9.917	1.49	16.000	1.12	22.08	0.53
3.917	0.60	10.000	1.49	16.083	1.05	22.17	0.53
4.000	0.60	10.083	1.66	16.167	1.05	22.25	0.53
4.083	0.61	10.167	1.66	16.250	1.05	22.33	0.52
4.167	0.61	10.250	1.66	16.333	0.99	22.42	0.52
4.250	0.61	10.333	1.89	16.417	0.99	22.50	0.52
4.333	0.62	10.417	1.89	16.500	0.99	22.58	0.52
4.417	0.62	10.500	1.89	16.583	0.97	22.67	0.52
4.500	0.62	10.583	2.14	16.667	0.97	22.75	0.52
4.583	0.65	10.667	2.14	16.750	0.97	22.83	0.51
4.667	0.65	10.750	2.14	16.833	0.94	22.92	0.51
4.750	0.65	10.833	2.50	16.917	0.94	23.00	0.51
4.833	0.67	10.917	2.50	17.000	0.94	23.08	0.51
4.917	0.67	11.000	2.50	17.083	0.91	23.17	0.51
5.000	0.67	11.083	2.92	17.167	0.91	23.25	0.51
5.083	0.69	11.167	2.92	17.250	0.91	23.33	0.50
5.167	0.69	11.250	2.92	17.333	0.88	23.42	0.50
5.250	0.69	11.333	3.70	17.417	0.88	23.50	0.50
5.333	0.71	11.417	3.70	17.500	0.88	23.58	0.50
5.417	0.71	11.500	3.70	17.583	0.86	23.67	0.50
5.500	0.71	11.583	4.70	17.667	0.86	23.75	0.50
5.583	0.73	11.667	4.71	17.750	0.86	23.83	0.49
5.667	0.73	11.750	4.71	17.833	0.83	23.92	0.49
5.750	0.73	11.833	19.18	17.917	0.83	24.00	0.49
5.833	0.76	11.917	19.18	18.000	0.83	24.08	0.48
5.917	0.76	12.000	19.18	18.083	0.80	24.17	0.48
6.000	0.76	12.083	47.33	18.167	0.80	24.25	0.48
6.083	0.78	12.167	47.34	18.250	0.80		

Max.Eff.Inten. (mm/hr)=	47.34	15.16	
over (min)	5.00	5.00	
Storage Coeff. (min)=	2.64 (ii)	4.16 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.29	0.24	
PEAK FLOW (cms)=	0.16	0.00	*TOTALS*
TIME TO PEAK (hrs)=	12.25	12.25	0.162 (iii)
RUNOFF VOLUME (mm)=	41.76	11.32	12.25
TOTAL RAINFALL (mm)=	43.76	43.76	41.45
RUNOFF COEFFICIENT =	0.95	0.26	43.76
			0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7718)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7595):	1.24	0.162	12.25	41.45
+ ID2= 2 (7706):	26.06	0.161	16.17	41.64
ID = 3 (7718):	27.30	0.274	12.25	41.63

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7711)	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
IN= 2---> OUT= 1				
DT= 5.0 min				
0.0000	0.0000	1.0810	1.6220	
0.0010	0.1670	1.3950	1.8170	
0.0340	0.3380	2.0990	2.2130	
0.0510	0.5110	2.8950	2.6150	
0.0630	0.6880	3.7730	3.0250	
0.1610	0.8670	4.7260	3.4420	
0.3300	1.0500	5.5670	3.8670	
0.5440	1.2370	8.5800	4.3000	
0.7970	1.4290	10.9450	4.5210	
AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
INFLOW : ID= 2 (7718)	27.302	0.274	12.25	41.63
OUTFLOW : ID= 1 (7711)	27.302	0.061	32.17	36.21

PEAK FLOW REDUCTION [Qout/Qin] (%) = 22.10
 TIME SHIFT OF PEAK FLOW (min) = *****
 MAXIMUM STORAGE USED (ha.m.) = 0.6512



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V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O O
O O T T H H Y Y M M O O O
OOO T T H H Y Y M M OOO

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6.00 1.13 | 12.25 10.90 | 18.50 1.09 |

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| CALIB |
| STANDHYD ( 7640) | Area (ha)= 0.59
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.58 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 62.72 40.00
Mannings n = 0.013 0.250

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb1ead57\86d373fb-c0d7-4404-8737-d078e600294b\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb1ead57\86d373fb-c0d7-4404-8737-d078e600294b\scen

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DATE: 11-22-2024 TIME: 12:17:36

USER:

COMMENTS:

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*****
** SIMULATION : N - 5yr 24hr 15min SCS Type I **
*****

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| READ STORM | Filename: C:\Users\mhooper\AppData
| | ata\Local\Temp\
| | 23be32ce-la7l-4ae6-a5bf-302738051fdc\cld42fef
| Ptotal= 63.63 mm | Comments: 5yr 24hr 15min SCS Type II
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---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.13	12.250	68.83	18.33	1.12
0.167	0.00	6.250	1.13	12.333	10.91	18.42	1.12
0.250	0.00	6.333	1.16	12.417	10.90	18.50	1.12
0.333	0.65	6.417	1.16	12.500	10.90	18.58	1.09
0.417	0.65	6.500	1.16	12.583	7.42	18.67	1.09
0.500	0.65	6.583	1.19	12.667	7.42	18.75	1.09
0.583	0.66	6.667	1.19	12.750	7.42	18.83	1.04
0.667	0.66	6.750	1.19	12.833	5.11	18.92	1.04
0.750	0.66	6.833	1.23	12.917	5.11	19.00	1.04
0.833	0.68	6.917	1.23	13.000	5.11	19.08	1.01
0.917	0.68	7.000	1.23	13.083	4.31	19.17	1.01
1.000	0.68	7.083	1.26	13.167	4.31	19.25	1.01
1.083	0.69	7.167	1.26	13.250	4.31	19.33	0.97
1.167	0.69	7.250	1.26	13.333	3.65	19.42	0.97
1.250	0.69	7.333	1.29	13.417	3.65	19.50	0.97
1.333	0.71	7.417	1.29	13.500	3.65	19.58	0.93
1.417	0.71	7.500	1.29	13.583	3.22	19.67	0.93
1.500	0.71	7.583	1.32	13.667	3.22	19.75	0.93
1.583	0.72	7.667	1.32	13.750	3.22	19.83	0.89
1.667	0.72	7.750	1.32	13.833	2.83	19.92	0.89
1.750	0.72	7.833	1.35	13.917	2.83	20.00	0.89
1.833	0.74	7.917	1.35	14.000	2.83	20.08	0.85
1.917	0.74	8.000	1.35	14.083	2.52	20.17	0.85
2.000	0.74	8.083	1.38	14.167	2.52	20.25	0.85
2.083	0.75	8.167	1.38	14.250	2.52	20.33	0.82
2.167	0.75	8.250	1.38	14.333	2.30	20.42	0.82
2.250	0.75	8.333	1.48	14.417	2.30	20.50	0.82
2.333	0.77	8.417	1.48	14.500	2.30	20.58	0.82
2.417	0.77	8.500	1.48	14.583	2.19	20.67	0.82
2.500	0.77	8.583	1.64	14.667	2.19	20.75	0.82
2.583	0.79	8.667	1.64	14.750	2.19	20.83	0.81
2.667	0.79	8.750	1.64	14.833	2.07	20.92	0.81
2.750	0.79	8.833	1.80	14.917	2.07	21.00	0.81
2.833	0.80	8.917	1.80	15.000	2.07	21.08	0.80
2.917	0.80	9.000	1.80	15.083	1.97	21.17	0.80
3.000	0.80	9.083	1.95	15.167	1.97	21.25	0.80
3.083	0.82	9.167	1.95	15.250	1.97	21.33	0.79
3.167	0.82	9.250	1.95	15.333	1.85	21.42	0.79
3.250	0.82	9.333	2.04	15.417	1.85	21.50	0.79
3.333	0.84	9.417	2.04	15.500	1.85	21.58	0.78
3.417	0.84	9.500	2.04	15.583	1.74	21.67	0.78
3.500	0.84	9.583	2.04	15.667	1.74	21.75	0.78
3.583	0.85	9.667	2.04	15.750	1.74	21.83	0.78
3.667	0.85	9.750	2.04	15.833	1.63	21.92	0.78
3.750	0.85	9.833	2.17	15.917	1.63	22.00	0.78
3.833	0.87	9.917	2.17	16.000	1.63	22.08	0.77
3.917	0.87	10.000	2.17	16.083	1.52	22.17	0.77
4.000	0.87	10.083	2.41	16.167	1.52	22.25	0.77
4.083	0.88	10.167	2.41	16.250	1.52	22.33	0.76
4.167	0.88	10.250	2.41	16.333	1.44	22.42	0.76
4.250	0.88	10.333	2.74	16.417	1.44	22.50	0.76
4.333	0.91	10.417	2.74	16.500	1.44	22.58	0.75
4.417	0.91	10.500	2.74	16.583	1.40	22.67	0.75
4.500	0.91	10.583	3.11	16.667	1.40	22.75	0.75

4.583	0.94	10.667	3.11	16.750	1.40	22.83	0.74
4.667	0.94	10.750	3.11	16.833	1.36	22.92	0.74
4.750	0.94	10.833	3.64	16.917	1.36	23.00	0.74
4.833	0.97	10.917	3.64	17.000	1.36	23.08	0.74
4.917	0.97	11.000	3.64	17.083	1.32	23.17	0.74
5.000	0.97	11.083	4.25	17.167	1.32	23.25	0.74
5.083	1.00	11.167	4.25	17.250	1.32	23.33	0.73
5.167	1.00	11.250	4.25	17.333	1.28	23.42	0.73
5.250	1.00	11.333	5.38	17.417	1.28	23.50	0.73
5.333	1.03	11.417	5.38	17.500	1.28	23.58	0.72
5.417	1.03	11.500	5.38	17.583	1.25	23.67	0.72
5.500	1.03	11.583	6.84	17.667	1.25	23.75	0.72
5.583	1.07	11.667	6.84	17.750	1.25	23.83	0.71
5.667	1.07	11.750	6.84	17.833	1.20	23.92	0.71
5.750	1.07	11.833	27.89	17.917	1.20	24.00	0.71
5.833	1.10	11.917	27.89	18.000	1.20	24.08	0.70
5.917	1.10	12.000	27.89	18.083	1.17	24.17	0.70
6.000	1.10	12.083	68.82	18.167	1.17	24.25	0.70
6.083	1.13	12.167	68.83	18.250	1.17		

2.000	0.74	8.083	1.38	14.167	2.52	20.25	0.85
2.083	0.75	8.167	1.38	14.250	2.52	20.33	0.82
2.167	0.75	8.250	1.38	14.333	2.30	20.42	0.82
2.250	0.75	8.333	1.48	14.417	2.30	20.50	0.82
2.333	0.77	8.417	1.48	14.500	2.30	20.58	0.82
2.417	0.77	8.500	1.48	14.583	2.19	20.67	0.82
2.500	0.77	8.583	1.64	14.667	2.19	20.75	0.82
2.583	0.79	8.667	1.64	14.750	2.19	20.83	0.81
2.667	0.79	8.750	1.64	14.833	2.07	20.92	0.81
2.750	0.79	8.833	1.80	14.917	2.07	21.00	0.81
2.833	0.80	8.917	1.80	15.000	2.07	21.08	0.80
2.917	0.80	9.000	1.80	15.083	1.97	21.17	0.80
3.000	0.80	9.083	1.95	15.167	1.97	21.25	0.80
3.083	0.82	9.167	1.95	15.250	1.97	21.33	0.79
3.167	0.82	9.250	1.95	15.333	1.85	21.42	0.79
3.250	0.82	9.333	2.04	15.417	1.85	21.50	0.79
3.333	0.84	9.417	2.04	15.500	1.85	21.58	0.78
3.417	0.84	9.500	2.04	15.583	1.74	21.67	0.78
3.500	0.84	9.583	2.04	15.667	1.74	21.75	0.78
3.583	0.85	9.667	2.04	15.750	1.74	21.83	0.78
3.667	0.85	9.750	2.04	15.833	1.63	21.92	0.78
3.750	0.85	9.833	2.17	15.917	1.63	22.00	0.78
3.833	0.87	9.917	2.17	16.000	1.63	22.08	0.77
3.917	0.87	10.000	2.17	16.083	1.52	22.17	0.77
4.000	0.87	10.083	2.41	16.167	1.52	22.25	0.77
4.083	0.88	10.167	2.41	16.250	1.52	22.33	0.76
4.167	0.88	10.250	2.41	16.333	1.44	22.42	0.76
4.250	0.88	10.333	2.74	16.417	1.44	22.50	0.76
4.333	0.91	10.417	2.74	16.500	1.44	22.58	0.75
4.417	0.91	10.500	2.74	16.583	1.40	22.67	0.75
4.500	0.91	10.583	3.11	16.667	1.40	22.75	0.75
4.583	0.94	10.667	3.11	16.750	1.40	22.83	0.74
4.667	0.94	10.750	3.11	16.833	1.36	22.92	0.74
4.750	0.94	10.833	3.64	16.917	1.36	23.00	0.74
4.833	0.97	10.917	3.64	17.000	1.36	23.08	0.74
4.917	0.97	11.000	3.64	17.083	1.32	23.17	0.74
5.000	0.97	11.083	4.25	17.167	1.32	23.25	0.74
5.083	1.00	11.167	4.25	17.250	1.32	23.33	0.73
5.167	1.00	11.250	4.25	17.333	1.28	23.42	0.73
5.250	1.00	11.333	5.38	17.417	1.28	23.50	0.73
5.333	1.03	11.417	5.38	17.500	1.28	23.58	0.72
5.417	1.03	11.500	5.38	17.583	1.25	23.67	0.72
5.500	1.03	11.583	6.84	17.667	1.25	23.75	0.72
5.583	1.07	11.667	6.84	17.750	1.25	23.83	0.71
5.667	1.07	11.750	6.84	17.833	1.20	23.92	0.71
5.750	1.07	11.833	27.89	17.917	1.20	24.00	0.71
5.833	1.10	11.917	27.89	18.000	1.20	24.08	0.70
5.917	1.10	12.000	27.89	18.083	1.17	24.17	0.70
6.000	1.10	12.083	68.82	18.167	1.17	24.25	0.70
6.083	1.13	12.167	68.83	18.250	1.17		

Max.Eff.Inten.(mm/hr)=	68.83	30.11
over (min)	5.00	5.00
Storage Coeff. (min)	1.82 (ii)	3.13 (iii)
Unit Hyd. Tpeak (min)	5.00	5.00
Unit Hyd. peak (cms)	0.32	0.27
PEAK FLOW (cms)	0.11	0.00
TIME TO PEAK (hrs)	12.25	12.25
RUNOFF VOLUME (mm)	61.63	22.53
TOTAL RAINFALL (mm)	63.63	63.63
RUNOFF COEFFICIENT	0.97	0.35

TOTALS
0.112 (iii)
61.23
63.63
0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
NASHYD (7721) Area (ha)= 0.21 Curve Number (CN)= 73.0			
ID= 1 DT= 5.0 min Ia (mm)= 5.00 # of Linear Res.(N)= 3.00			
U.H. Tp(hrs)= 0.17			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.13	12.250	68.83	18.33	1.12
0.167	0.00	6.250	1.13	12.333	10.91	18.42	1.12
0.250	0.00	6.333	1.16	12.417	10.90	18.50	1.12
0.333	0.65	6.417	1.16	12.500	10.90	18.58	1.09
0.417	0.65	6.500	1.16	12.583	7.42	18.67	1.09
0.500	0.65	6.583	1.19	12.667	7.42	18.75	1.09
0.583	0.66	6.667	1.19	12.750	7.42	18.83	1.04
0.667	0.66	6.750	1.19	12.833	5.11	18.92	1.04
0.750	0.66	6.833	1.23	12.917	5.11	19.00	1.04
0.833	0.68	6.917	1.23	13.000	5.11	19.08	1.01
0.917	0.68	7.000	1.23	13.083	4.31	19.17	1.01
1.000	0.68	7.083	1.26	13.167	4.31	19.25	1.01
1.083	0.69	7.167	1.26	13.250	4.31	19.33	0.97
1.167	0.69	7.250	1.26	13.333	3.65	19.42	0.97
1.250	0.69	7.333	1.29	13.417	3.65	19.50	0.97
1.333	0.71	7.417	1.29	13.500	3.65	19.58	0.93
1.417	0.71	7.500	1.29	13.583	3.22	19.67	0.93
1.500	0.71	7.583	1.32	13.667	3.22	19.75	0.93
1.583	0.72	7.667	1.32	13.750	3.22	19.83	0.89
1.667	0.72	7.750	1.32	13.833	2.83	19.92	0.89
1.750	0.72	7.833	1.35	13.917	2.83	20.00	0.89
1.833	0.74	7.917	1.35	14.000	2.83	20.08	0.85
1.917	0.74	8.000	1.35	14.083	2.52	20.17	0.85

Unit Hyd Qpeak (cms)= 0.047

PEAK FLOW (cms)	= 0.012 (i)
TIME TO PEAK (hrs)	= 12.250
RUNOFF VOLUME (mm)	= 22.448
TOTAL RAINFALL (mm)	= 63.630
RUNOFF COEFFICIENT	= 0.353

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7599) Area (ha)= 10.79			
ID= 1 DT= 5.0 min Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00			
IMPERVIOUS PERVIOUS (i)			
Surface Area (ha)	= 10.79	0.11	
Dep. Storage (mm)	= 2.00	5.00	
Average Slope (%)	= 1.00	2.00	
Length (m)	= 269.57	40.00	
Mannings n	= 0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.13	12.250	68.83	18.33	1.12
0.167	0.00	6.250	1.13	12.333	10.91	18.42	1.12
0.250	0.00	6.333	1.16	12.417	10.90	18.50	1.12
0.333	0.65	6.417	1.16	12.500	10.90	18.58	1.09
0.417	0.65	6.500	1.16	12.583	7.42	18.67	1.09
0.500	0.65	6.583	1.19	12.667	7.42	18.75	1.09
0.583	0.66	6.667	1.19	12.750	7.42	18.83	1.04
0.667	0.66	6.750	1.19	12.833	5.11	18.92	1.04
0.750	0.66	6.833	1.23	12.917	5.11	19.00	1.04
0.833	0.68	6.917	1.23	13.000	5.11	19.08	1.01
0.917	0.68	7.000	1.23	13.083	4.31	19.17	1.01
1.000	0.68	7.083	1.26	13.167	4.31	19.25	1.01
1.083	0.69	7.167	1.26	13.250	4.31	19.33	0.97
1.167	0.69	7.250	1.26	13.333	3.65	19.42	0.97
1.250	0.69	7.333	1.29	13.417	3.65	19.50	0.97
1.333	0.71	7.417	1.29	13.500	3.65	19.58	0.93
1.417	0.71	7.500	1.29	13.583	3.22	19.67	0.93
1.500	0.71	7.583	1.32	13.667	3.22	19.75	0.93
1.583	0.72	7.667	1.32	13.750	3.22	19.83	0.89
1.667	0.72	7.750	1.32	13.833	2.83	19.92	0.89
1.750	0.72	7.833	1.35	13.917	2.83	20.00	0.89
1.833	0.74	7.917	1.35	14.000	2.83	20.08	0.85
1.917	0.74	8.000	1.35	14.083	2.52	20.17	0.85
2.000	0.74	8.083	1.38	14.167	2.52	20.25	0.85
2.083	0.75	8.167	1.38	14.250	2.52	20.33	0.82
2.167	0.75	8.250	1.38	14.333	2.30	20.42	0.82
2.250	0.75	8.333	1.48	14.417	2.30	20.50	0.82
2.333	0.77	8.417	1.48	14.500	2.30	20.58	0.82
2.417	0.77	8.500	1.48	14.583	2.19	20.67	0.82
2.500	0.77	8.583	1.64	14.667	2.19	20.75	0.82
2.583	0.79	8.667	1.64	14.750	2.19	20.83	0.81
2.667	0.79	8.750	1.64	14.833	2.07	20.92	0.81
2.750	0.79	8.833	1.80	14.917	2.07	21.00	0.81
2.833	0.80	8.917	1.80	15.000	2.07	21.08	0.80
2.917	0.80	9.000	1.80	15.083	1.97	21.17	0.80
3.000	0.80	9.083	1.95	15.167	1.97	21.25	0.80
3.083	0.82	9.167	1.95	15.250	1.97	21.33	0.79
3.167	0.82	9.250	1.95	15.333	1.85	21.42	0.79
3.250	0.82	9.333	2.04	15.417	1.85	21.50	0.79
3.333	0.84	9.417	2.04	15.500	1.85	21.58	0.78
3.417	0.84	9.500	2.04	15.583	1.74	21.67	0.78
3.500	0.84	9.583	2.04	15.667	1.74	21.75	0.78
3.583	0.85	9.667	2.04	15.750	1.74	21.83	0.78
3.667	0.85	9.750	2.04	15.833	1.63	21.92	0.78
3.750	0.85	9.833	2.17	15.917	1.63	22.00	0.78
3.833	0.87	9.917	2.17	16.000	1.63	22.08	0.77
3.917	0.87	10.000	2.17	16.083	1.52	22.17	0.77
4.000	0.87	10.083	2.41	16.167	1.52	22.25	0.77
4.083	0.88	10.167	2.41	16.250	1.52	22.33	0.76
4.167	0.88	10.250	2.41	16.333	1.44	22.42	0.76
4.250	0.88	10.333	2.74	16.417	1.44	22.50	0.76
4.333	0.91	10.417	2.74	16.500	1.44	22.58	0.75
4.417	0.91	10.500	2.74	16.583	1.40	22.67	0.75
4.500	0.91	10.583	3.11	16.667	1.40	22.75	0.75
4.583	0.94	10.667	3.11	16.750	1.40	22.83	0.74
4.667	0.94	10.750	3.11	16.833	1.36	22.92	0.74
4.750	0.94	10.833	3.64	16.917	1.36	23.00	0.74
4.833	0.97	10.917	3.64	17.000	1.36	23.08	0.74
4.917	0.97	11.000	3.64	17.083	1.32	23.17	0.74
5.000	0.97	11.083	4.25	17.167	1.32	23.25	0.74
5.083	1.00	11.167	4.25	17.250	1.32	23.33	0.73
5.167	1.00	11.250	4.25	17.333	1.28	23.42	0.73
5.250	1.00	11.333	5.38	17.417	1.28	23.50	0.73
5.333	1.03	11.417	5.38	17.500	1.28	23.58	0.72
5.417	1.03	11.500	5.38	17.583	1.25	23.67	0.72
5.500	1.03	11.583	6.84	17.667	1.25	23.75	0.72
5.583	1.07	11.667	6.84	17.750	1.25	23.83	0.71
5.667	1.07	11.750	6.84	17.833	1.20	23.92	0.71
5.750	1.07	11.833	27.89	17.917	1.20	24.00	0.71
5.833	1.10	11.917	27.89	18.000	1.20	24.08	0.70
5.917	1.10	12.000	27.89	18.083	1.17	24.17	0.70
6.000	1.10	12.083	68.82	18.167	1.17	24.25	0.70

6.083 1.13 | 12.167 68.83 | 18.250 1.17 |

Max.Eff.Inten.(mm/hr)=	68.83	30.11	
over (min)	5.00	10.00	
Storage Coeff. (min)=	5.38 (ii)	6.68 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.21	0.14	
TOTALS			
PEAK FLOW (cms)=	1.99	0.01	1.993 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	61.63	22.53	61.24
TOTAL RAINFALL (mm)=	63.63	63.63	63.63
RUNOFF COEFFICIENT =	0.97	0.35	0.96

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7722)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7599):	10.90	1.993	12.25	61.24
+ ID2= 2 (7721):	0.21	0.012	12.25	22.45
=====				
ID = 3 (7722):	11.11	2.005	12.25	60.51

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7685)				
OVERFLOW IS OFF				
IN= 2--> OUT= 1				
DT= 5.0 min				
	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.1390	0.6960
	0.0590	0.3400	0.1630	0.7780
	0.0900	0.4907	0.1840	0.8800
	0.1110	0.5760	0.0000	0.0000
=====				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7722)	11.108	2.005	12.25	60.51
OUTFLOW: ID= 1 (7685)	11.108	0.083	14.08	60.38

PEAK FLOW REDUCTION [Qout/Qin](%)= 4.12
TIME SHIFT OF PEAK FLOW (min)=110.00
MAXIMUM STORAGE USED (ha.m.)= 0.4543

CALIB		
STANDHYD (7591)		
ID= 1 DT= 5.0 min	Area (ha)=	11.38
	Total Imp(%)=	99.00
	Dir. Conn.(%)=	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	11.27	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	275.44	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.13	12.250	68.83	18.33	1.12
0.167	0.00	6.250	1.13	12.333	10.91	18.42	1.12
0.250	0.00	6.333	1.16	12.417	10.90	18.50	1.12
0.333	0.65	6.417	1.16	12.500	10.90	18.58	1.09

0.417	0.65	6.500	1.16	12.583	7.42	18.67	1.09
0.500	0.65	6.583	1.19	12.667	7.42	18.75	1.09
0.583	0.66	6.667	1.19	12.750	7.42	18.83	1.04
0.667	0.66	6.750	1.19	12.833	5.11	18.92	1.04
0.750	0.66	6.833	1.23	12.917	5.11	19.00	1.04
0.833	0.68	6.917	1.23	13.000	5.11	19.08	1.01
0.917	0.68	7.000	1.23	13.083	4.31	19.17	1.01
1.000	0.68	7.083	1.26	13.167	4.31	19.25	1.01
1.083	0.69	7.167	1.26	13.250	4.31	19.33	0.97
1.167	0.69	7.250	1.26	13.333	3.65	19.42	0.97
1.250	0.69	7.333	1.29	13.417	3.65	19.50	0.97
1.333	0.71	7.417	1.29	13.500	3.65	19.58	0.93
1.417	0.71	7.500	1.29	13.583	3.22	19.67	0.93
1.500	0.71	7.583	1.32	13.667	3.22	19.75	0.93
1.583	0.72	7.667	1.32	13.750	3.22	19.83	0.89
1.667	0.72	7.750	1.32	13.833	2.83	19.92	0.89
1.750	0.72	7.833	1.35	13.917	2.83	20.00	0.89
1.833	0.74	7.917	1.35	14.000	2.83	20.08	0.85
1.917	0.74	8.000	1.35	14.083	2.52	20.17	0.85
2.000	0.74	8.083	1.38	14.167	2.52	20.25	0.85
2.083	0.75	8.167	1.38	14.250	2.52	20.33	0.82
2.167	0.75	8.250	1.38	14.333	2.30	20.42	0.82
2.250	0.75	8.333	1.48	14.417	2.30	20.50	0.82
2.333	0.77	8.417	1.48	14.500	2.30	20.58	0.82
2.417	0.77	8.500	1.48	14.583	2.19	20.67	0.82
2.500	0.77	8.583	1.64	14.667	2.19	20.75	0.82
2.583	0.79	8.667	1.64	14.750	2.19	20.83	0.81
2.667	0.79	8.750	1.64	14.833	2.07	20.92	0.81
2.750	0.79	8.833	1.80	14.917	2.07	21.00	0.81
2.833	0.80	8.917	1.80	15.000	2.07	21.08	0.80
2.917	0.80	9.000	1.80	15.083	1.97	21.17	0.80
3.000	0.80	9.083	1.95	15.167	1.97	21.25	0.80
3.083	0.82	9.167	1.95	15.250	1.97	21.33	0.79
3.167	0.82	9.250	1.95	15.333	1.85	21.42	0.79
3.250	0.82	9.333	2.04	15.417	1.85	21.50	0.79
3.333	0.84	9.417	2.04	15.500	1.85	21.58	0.78
3.417	0.84	9.500	2.04	15.583	1.74	21.67	0.78
3.500	0.84	9.583	2.04	15.667	1.74	21.75	0.78
3.583	0.85	9.667	2.04	15.750	1.74	21.83	0.78
3.667	0.85	9.750	2.04	15.833	1.63	21.92	0.78
3.750	0.85	9.833	2.17	15.917	1.63	22.00	0.78
3.833	0.87	9.917	2.17	16.000	1.63	22.08	0.77
3.917	0.87	10.000	2.17	16.083	1.52	22.17	0.77
4.000	0.87	10.083	2.41	16.167	1.52	22.25	0.77
4.083	0.88	10.167	2.41	16.250	1.52	22.33	0.76
4.167	0.88	10.250	2.41	16.333	1.44	22.42	0.76
4.250	0.88	10.333	2.74	16.417	1.44	22.50	0.76
4.333	0.91	10.417	2.74	16.500	1.44	22.58	0.75
4.417	0.91	10.500	2.74	16.583	1.40	22.67	0.75
4.500	0.91	10.583	3.11	16.667	1.40	22.75	0.75
4.583	0.94	10.667	3.11	16.750	1.40	22.83	0.74
4.667	0.94	10.750	3.11	16.833	1.36	22.92	0.74
4.750	0.94	10.833	3.64	16.917	1.36	23.00	0.74
4.833	0.97	10.917	3.64	17.000	1.36	23.08	0.74
4.917	0.97	11.000	3.64	17.083	1.32	23.17	0.74
5.000	0.97	11.083	4.25	17.167	1.32	23.25	0.74
5.083	1.00	11.167	4.25	17.250	1.32	23.33	0.73
5.167	1.00	11.250	4.25	17.333	1.28	23.42	0.73
5.250	1.00	11.333	5.38	17.417	1.28	23.50	0.73
5.333	1.03	11.417	5.38	17.500	1.28	23.58	0.72
5.417	1.03	11.500	5.38	17.583	1.25	23.67	0.72
5.500	1.03	11.583	6.84	17.667	1.25	23.75	0.72
5.583	1.07	11.667	6.84	17.750	1.25	23.83	0.71
5.667	1.07	11.750	6.84	17.833	1.20	23.92	0.71
5.750	1.07	11.833	27.89	17.917	1.20	24.00	0.71
5.833	1.10	11.917	27.89	18.000	1.20	24.08	0.70
5.917	1.10	12.000	27.89	18.083	1.17	24.17	0.70
6.000	1.10	12.083	68.82	18.167	1.17	24.25	0.70
6.083	1.13	12.167	68.83	18.250	1.17		

Max.Eff.Inten.(mm/hr)= 68.83 30.11
 over (min) 5.00 10.00
 Storage Coeff. (min)= 5.45 (ii) 6.75 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.20 0.14

TOTALS

PEAK FLOW (cms)= 2.07 0.01 2.077 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 61.63 22.53 61.24
 TOTAL RAINFALL (mm)= 63.63 63.63 63.63
 RUNOFF COEFFICIENT = 0.97 0.35 0.96

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | RESERVOIR (7593) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
DT= 5.0 min

	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.1990	0.6950
	0.0830	0.3500	0.2320	0.8000
	0.1280	0.4850	0.2620	0.9000
	0.1580	0.5900	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7591)	11.380	2.077	12.25	61.24
OUTFLOW: ID= 1 (7593)	11.380	0.115	13.50	61.15

	PEAK FLOW REDUCTION [Qout/Qin](%)	TIME SHIFT OF PEAK FLOW (min)	MAXIMUM STORAGE USED (ha.m.)
	5.53	75.00	0.4454

 | ADD HYD (7643) |
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7593):	11.38	0.115	13.50	61.15
+ ID2= 2 (7685):	11.11	0.083	14.08	60.38
ID = 3 (7643):	22.49	0.197	13.67	60.77

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |
 | STANDHYD (7590) | Area (ha)= 2.39
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.13	12.250	68.83	18.33	1.12
0.167	0.00	6.250	1.13	12.333	10.91	18.42	1.12
0.250	0.00	6.333	1.16	12.417	10.90	18.50	1.12
0.333	0.65	6.417	1.16	12.500	10.90	18.58	1.09
0.417	0.65	6.500	1.16	12.583	7.42	18.67	1.09
0.500	0.65	6.583	1.19	12.667	7.42	18.75	1.09
0.583	0.66	6.667	1.19	12.750	7.42	18.83	1.04
0.667	0.66	6.750	1.19	12.833	5.11	18.92	1.04
0.750	0.66	6.833	1.23	12.917	5.11	19.00	1.04
0.833	0.68	6.917	1.23	13.000	5.11	19.08	1.01
0.917	0.68	7.000	1.23	13.083	4.31	19.17	1.01
1.000	0.68	7.083	1.26	13.167	4.31	19.25	1.01



1.083	0.69	7.167	1.26	13.250	4.31	19.33	0.97
1.167	0.69	7.250	1.26	13.333	3.65	19.42	0.97
1.250	0.69	7.333	1.29	13.417	3.65	19.50	0.97
1.333	0.71	7.417	1.29	13.500	3.65	19.58	0.93
1.417	0.71	7.500	1.29	13.583	3.22	19.67	0.93
1.500	0.71	7.583	1.32	13.667	3.22	19.75	0.93
1.583	0.72	7.667	1.32	13.750	3.22	19.83	0.89
1.667	0.72	7.750	1.32	13.833	2.83	19.92	0.89
1.750	0.72	7.833	1.35	13.917	2.83	20.00	0.89
1.833	0.74	7.917	1.35	14.000	2.83	20.08	0.85
1.917	0.74	8.000	1.35	14.083	2.52	20.17	0.85
2.000	0.74	8.083	1.38	14.167	2.52	20.25	0.85
2.083	0.75	8.167	1.38	14.250	2.52	20.33	0.82
2.167	0.75	8.250	1.38	14.333	2.30	20.42	0.82
2.250	0.75	8.333	1.48	14.417	2.30	20.50	0.82
2.333	0.77	8.417	1.48	14.500	2.30	20.58	0.82
2.417	0.77	8.500	1.48	14.583	2.19	20.67	0.82
2.500	0.77	8.583	1.64	14.667	2.19	20.75	0.82
2.583	0.79	8.667	1.64	14.750	2.19	20.83	0.81
2.667	0.79	8.750	1.64	14.833	2.07	20.92	0.81
2.750	0.79	8.833	1.80	14.917	2.07	21.00	0.81
2.833	0.80	8.917	1.80	15.000	2.07	21.08	0.80
2.917	0.80	9.000	1.80	15.083	1.97	21.17	0.80
3.000	0.80	9.083	1.95	15.167	1.97	21.25	0.80
3.083	0.82	9.167	1.95	15.250	1.97	21.33	0.79
3.167	0.82	9.250	1.95	15.333	1.85	21.42	0.79
3.250	0.82	9.333	2.04	15.417	1.85	21.50	0.79
3.333	0.84	9.417	2.04	15.500	1.85	21.58	0.78
3.417	0.84	9.500	2.04	15.583	1.74	21.67	0.78
3.500	0.84	9.583	2.04	15.667	1.74	21.75	0.78
3.583	0.85	9.667	2.04	15.750	1.74	21.83	0.78
3.667	0.85	9.750	2.04	15.833	1.63	21.92	0.78
3.750	0.85	9.833	2.17	15.917	1.63	22.00	0.78
3.833	0.87	9.917	2.17	16.000	1.63	22.08	0.77
3.917	0.87	10.000	2.17	16.083	1.52	22.17	0.77
4.000	0.87	10.083	2.41	16.167	1.52	22.25	0.77
4.083	0.88	10.167	2.41	16.250	1.52	22.33	0.76
4.167	0.88	10.250	2.41	16.333	1.44	22.42	0.76
4.250	0.88	10.333	2.74	16.417	1.44	22.50	0.76
4.333	0.91	10.417	2.74	16.500	1.44	22.58	0.75
4.417	0.91	10.500	2.74	16.583	1.40	22.67	0.75
4.500	0.91	10.583	3.11	16.667	1.40	22.75	0.75
4.583	0.94	10.667	3.11	16.750	1.40	22.83	0.74
4.667	0.94	10.750	3.11	16.833	1.36	22.92	0.74
4.750	0.94	10.833	3.64	16.917	1.36	23.00	0.74
4.833	0.97	10.917	3.64	17.000	1.36	23.08	0.74
4.917	0.97	11.000	3.64	17.083	1.32	23.17	0.74
5.000	0.97	11.083	4.25	17.167	1.32	23.25	0.74
5.083	1.00	11.167	4.25	17.250	1.32	23.33	0.73
5.167	1.00	11.250	4.25	17.333	1.28	23.42	0.73
5.250	1.00	11.333	5.38	17.417	1.28	23.50	0.73
5.333	1.03	11.417	5.38	17.500	1.28	23.58	0.72
5.417	1.03	11.500	5.38	17.583	1.25	23.67	0.72
5.500	1.03	11.583	6.84	17.667	1.25	23.75	0.72
5.583	1.07	11.667	6.84	17.750	1.25	23.83	0.71
5.667	1.07	11.750	6.84	17.833	1.20	23.92	0.71
5.750	1.07	11.833	27.89	17.917	1.20	24.00	0.71
5.833	1.10	11.917	27.89	18.000	1.20	24.08	0.70
5.917	1.10	12.000	27.89	18.083	1.17	24.17	0.70
6.000	1.10	12.083	68.82	18.167	1.17	24.25	0.70
6.083	1.13	12.167	68.83	18.250	1.17		

Max.Eff.Inten. (mm/hr)=	68.83	30.11
over (min)	5.00	5.00
Storage Coeff. (min)=	1.13 (ii)	1.99 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.31

TOTALS			
PEAK FLOW (cms)=	0.45	0.00	0.454 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	62.63	22.53	62.23
TOTAL RAINFALL (mm)=	63.63	63.63	63.63
RUNOFF COEFFICIENT =	0.98	0.35	0.98

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7632)	Area (ha)=	2.36	
ID= 1 DT= 5.0 min	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)			
Surface Area (ha)=	2.34	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.13	12.250	68.83	18.333	1.12		
0.167	0.00	6.250	1.13	12.333	10.91	18.42	1.12		
0.250	0.00	6.333	1.16	12.417	10.90	18.50	1.12		
0.333	0.65	6.417	1.16	12.500	10.90	18.58	1.09		
0.417	0.65	6.500	1.16	12.583	7.42	18.67	1.09		
0.500	0.65	6.583	1.19	12.667	7.42	18.75	1.09		
0.583	0.66	6.667	1.19	12.750	7.42	18.83	1.04		
0.667	0.66	6.750	1.19	12.833	5.11	18.92	1.04		
0.750	0.66	6.833	1.23	12.917	5.11	19.00	1.04		
0.833	0.68	6.917	1.23	13.000	5.11	19.08	1.01		
0.917	0.68	7.000	1.23	13.083	4.31	19.17	1.01		
1.000	0.68	7.083	1.26	13.167	4.31	19.25	1.01		
1.083	0.69	7.167	1.26	13.250	4.31	19.33	0.97		
1.167	0.69	7.250	1.26	13.333	3.65	19.42	0.97		
1.250	0.69	7.333	1.29	13.417	3.65	19.50	0.97		
1.333	0.71	7.417	1.29	13.500	3.65	19.58	0.93		
1.417	0.71	7.500	1.29	13.583	3.22	19.67	0.93		
1.500	0.71	7.583	1.32	13.667	3.22	19.75	0.93		
1.583	0.72	7.667	1.32	13.750	3.22	19.83	0.89		
1.667	0.72	7.750	1.32	13.833	2.83	19.92	0.89		
1.750	0.72	7.833	1.35	13.917	2.83	20.00	0.89		
1.833	0.74	7.917	1.35	14.000	2.83	20.08	0.85		
1.917	0.74	8.000	1.35	14.083	2.52	20.17	0.85		
2.000	0.74	8.083	1.38	14.167	2.52	20.25	0.82		
2.083	0.75	8.167	1.38	14.250	2.52	20.33	0.82		
2.167	0.75	8.250	1.38	14.333	2.30	20.42	0.82		
2.250	0.75	8.333	1.48	14.417	2.30	20.50	0.82		
2.333	0.77	8.417	1.48	14.500	2.30	20.58	0.82		
2.417	0.77	8.500	1.48	14.583	2.19	20.67	0.82		
2.500	0.77	8.583	1.64	14.667	2.19	20.75	0.82		
2.583	0.79	8.667	1.64	14.750	2.19	20.83	0.81		
2.667	0.79	8.750	1.64	14.833	2.07	20.92	0.81		
2.750	0.79	8.833	1.80	14.917	2.07	21.00	0.81		
2.833	0.80	8.917	1.80	15.000	2.07	21.08	0.80		
2.917	0.80	9.000	1.80	15.083	1.97	21.17	0.80		
3.000	0.80	9.083	1.95	15.167	1.97	21.25	0.80		
3.083	0.82	9.167	1.95	15.250	1.97	21.33	0.79		
3.167	0.82	9.250	1.95	15.333	1.85	21.42	0.79		
3.250	0.82	9.333	2.04	15.417	1.85	21.50	0.79		
3.333	0.84	9.417	2.04	15.500	1.85	21.58	0.78		
3.417	0.84	9.500	2.04	15.583	1.74	21.67	0.78		
3.500	0.84	9.583	2.04	15.667	1.74	21.75	0.78		
3.583	0.85	9.667	2.04	15.750	1.74	21.83	0.78		
3.667	0.85	9.750	2.04	15.833	1.63	21.92	0.78		
3.750	0.85	9.833	2.17	15.917	1.63	22.00	0.78		
3.833	0.87	9.917	2.17	16.000	1.63	22.08	0.77		
3.917	0.87	10.000	2.17	16.083	1.52	22.17	0.77		
4.000	0.87	10.083	2.41	16.167	1.52	22.25	0.77		
4.083	0.88	10.167	2.41	16.250	1.52	22.33	0.76		
4.167	0.88	10.250	2.41	16.333	1.44	22.42	0.76		
4.250	0.88	10.333	2.74	16.417	1.44	22.50	0.76		

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

4.333	0.91	10.417	2.74	16.500	1.44	22.58	0.75
4.417	0.91	10.500	2.74	16.583	1.40	22.67	0.75
4.500	0.91	10.583	3.11	16.667	1.40	22.75	0.75
4.583	0.94	10.667	3.11	16.750	1.40	22.83	0.74
4.667	0.94	10.750	3.11	16.833	1.36	22.92	0.74
4.750	0.94	10.833	3.64	16.917	1.36	23.00	0.74
4.833	0.97	10.917	3.64	17.000	1.36	23.08	0.74
4.917	0.97	11.000	3.64	17.083	1.32	23.17	0.74
5.000	0.97	11.083	4.25	17.167	1.32	23.25	0.74
5.083	1.00	11.167	4.25	17.250	1.32	23.33	0.73
5.167	1.00	11.250	4.25	17.333	1.28	23.42	0.73
5.250	1.00	11.333	5.38	17.417	1.28	23.50	0.73
5.333	1.03	11.417	5.38	17.500	1.28	23.58	0.72
5.417	1.03	11.500	5.38	17.583	1.25	23.67	0.72
5.500	1.03	11.583	6.84	17.667	1.25	23.75	0.72
5.583	1.07	11.667	6.84	17.750	1.25	23.83	0.71
5.667	1.07	11.750	6.84	17.833	1.20	23.92	0.71
5.750	1.07	11.833	27.89	17.917	1.20	24.00	0.71
5.833	1.10	11.917	27.89	18.000	1.20	24.08	0.70
5.917	1.10	12.000	27.89	18.083	1.17	24.17	0.70
6.000	1.10	12.083	68.82	18.167	1.17	24.25	0.70
6.083	1.13	12.167	68.83	18.250	1.17	24.33	0.70

Max.Eff.Inten.(mm/hr)= 68.83 30.11
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.13 (ii) 1.99 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.31

TOTALS
 PEAK FLOW (cms)= 0.45 0.00 0.449 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 62.63 22.53 62.23
 TOTAL RAINFALL (mm)= 63.63 63.63 63.63
 RUNOFF COEFFICIENT = 0.98 0.35 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 CALIB |
 | STANDBY (7644) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.13	12.250	68.83	18.33	1.12
0.167	0.00	6.250	1.13	12.333	10.91	18.42	1.12
0.250	0.00	6.333	1.16	12.417	10.90	18.50	1.12
0.333	0.65	6.417	1.16	12.500	10.90	18.58	1.09
0.417	0.65	6.500	1.16	12.583	7.42	18.67	1.09
0.500	0.65	6.583	1.19	12.667	7.42	18.75	1.09
0.583	0.66	6.667	1.19	12.750	7.42	18.83	1.04
0.667	0.66	6.750	1.19	12.833	5.11	18.92	1.04
0.750	0.66	6.833	1.23	12.917	5.11	19.00	1.04
0.833	0.68	6.917	1.23	13.000	5.11	19.08	1.01
0.917	0.68	7.000	1.23	13.083	4.31	19.17	1.01
1.000	0.68	7.083	1.26	13.167	4.31	19.25	1.01
1.083	0.69	7.167	1.26	13.250	4.31	19.33	0.97
1.167	0.69	7.250	1.26	13.333	3.65	19.42	0.97

1.250	0.69	7.333	1.29	13.417	3.65	19.50	0.97
1.333	0.71	7.417	1.29	13.500	3.65	19.58	0.93
1.417	0.71	7.500	1.29	13.583	3.22	19.67	0.93
1.500	0.71	7.583	1.32	13.667	3.22	19.75	0.93
1.583	0.72	7.667	1.32	13.750	3.22	19.83	0.89
1.667	0.72	7.750	1.32	13.833	2.83	19.92	0.89
1.750	0.72	7.833	1.35	13.917	2.83	20.00	0.89
1.833	0.74	7.917	1.35	14.000	2.83	20.08	0.85
1.917	0.74	8.000	1.35	14.083	2.52	20.17	0.85
2.000	0.74	8.083	1.38	14.167	2.52	20.25	0.85
2.083	0.75	8.167	1.38	14.250	2.52	20.33	0.82
2.167	0.75	8.250	1.38	14.333	2.30	20.42	0.82
2.250	0.75	8.333	1.48	14.417	2.30	20.50	0.82
2.333	0.77	8.417	1.48	14.500	2.30	20.58	0.82
2.417	0.77	8.500	1.48	14.583	2.19	20.67	0.82
2.500	0.77	8.583	1.64	14.667	2.19	20.75	0.82
2.583	0.79	8.667	1.64	14.750	2.19	20.83	0.81
2.667	0.79	8.750	1.64	14.833	2.07	20.92	0.81
2.750	0.79	8.833	1.80	14.917	2.07	21.00	0.81
2.833	0.80	8.917	1.80	15.000	2.07	21.08	0.80
2.917	0.80	9.000	1.80	15.083	1.97	21.17	0.80
3.000	0.80	9.083	1.95	15.167	1.97	21.25	0.80
3.083	0.82	9.167	1.95	15.250	1.97	21.33	0.79
3.167	0.82	9.250	1.95	15.333	1.85	21.42	0.79
3.250	0.82	9.333	2.04	15.417	1.85	21.50	0.79
3.333	0.84	9.417	2.04	15.500	1.85	21.58	0.78
3.417	0.84	9.500	2.04	15.583	1.74	21.67	0.78
3.500	0.84	9.583	2.04	15.667	1.74	21.75	0.78
3.583	0.85	9.667	2.04	15.750	1.74	21.83	0.78
3.667	0.85	9.750	2.04	15.833	1.63	21.92	0.78
3.750	0.85	9.833	2.17	15.917	1.63	22.00	0.78
3.833	0.87	9.917	2.17	16.000	1.63	22.08	0.77
3.917	0.87	10.000	2.17	16.083	1.52	22.17	0.77
4.000	0.87	10.083	2.41	16.167	1.52	22.25	0.77
4.083	0.88	10.167	2.41	16.250	1.52	22.33	0.76
4.167	0.88	10.250	2.41	16.333	1.44	22.42	0.76
4.250	0.88	10.333	2.74	16.417	1.44	22.50	0.76
4.333	0.91	10.417	2.74	16.500	1.44	22.58	0.75
4.417	0.91	10.500	2.74	16.583	1.40	22.67	0.75
4.500	0.91	10.583	3.11	16.667	1.40	22.75	0.75
4.583	0.94	10.667	3.11	16.750	1.40	22.83	0.74
4.667	0.94	10.750	3.11	16.833	1.36	22.92	0.74
4.750	0.94	10.833	3.64	16.917	1.36	23.00	0.74
4.833	0.97	10.917	3.64	17.000	1.36	23.08	0.74
4.917	0.97	11.000	3.64	17.083	1.32	23.17	0.74
5.000	0.97	11.083	4.25	17.167	1.32	23.25	0.74
5.083	1.00	11.167	4.25	17.250	1.32	23.33	0.73
5.167	1.00	11.250	4.25	17.333	1.28	23.42	0.73
5.250	1.00	11.333	5.38	17.417	1.28	23.50	0.73
5.333	1.03	11.417	5.38	17.500	1.28	23.58	0.72
5.417	1.03	11.500	5.38	17.583	1.25	23.67	0.72
5.500	1.03	11.583	6.84	17.667	1.25	23.75	0.72
5.583	1.07	11.667	6.84	17.750	1.25	23.83	0.71
5.667	1.07	11.750	6.84	17.833	1.20	23.92	0.71
5.750	1.07	11.833	27.89	17.917	1.20	24.00	0.71
5.833	1.10	11.917	27.89	18.000	1.20	24.08	0.70
5.917	1.10	12.000	27.89	18.083	1.17	24.17	0.70
6.000	1.10	12.083	68.82	18.167	1.17	24.25	0.70
6.083	1.13	12.167	68.83	18.250	1.17	24.33	0.70

Max.Eff.Inten.(mm/hr)= 68.83 30.11
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.13 (ii) 1.99 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.31

TOTALS
 PEAK FLOW (cms)= 0.45 0.00 0.456 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 62.63 22.53 62.23
 TOTAL RAINFALL (mm)= 63.63 63.63 63.63
 RUNOFF COEFFICIENT = 0.98 0.35 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)

- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		Area (ha)= 2.40	
STANDHYD (7652)		Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00	
ID= 1 DT= 5.0 min			

Surface Area	(ha)=	2.38	0.02
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	1.00	2.00
Length	(m)=	20.00	20.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.13	12.250	68.83	18.33	1.12
0.167	0.00	6.250	1.13	12.333	10.91	18.42	1.12
0.250	0.00	6.333	1.16	12.417	10.90	18.50	1.12
0.333	0.65	6.417	1.16	12.500	10.90	18.58	1.09
0.417	0.65	6.500	1.16	12.583	7.42	18.67	1.09
0.500	0.65	6.583	1.19	12.667	7.42	18.75	1.09
0.583	0.66	6.667	1.19	12.750	7.42	18.83	1.04
0.667	0.66	6.750	1.19	12.833	5.11	18.92	1.04
0.750	0.66	6.833	1.23	12.917	5.11	19.00	1.04
0.833	0.68	6.917	1.23	13.000	5.11	19.08	1.01
0.917	0.68	7.000	1.23	13.083	4.31	19.17	1.01
1.000	0.68	7.083	1.26	13.167	4.31	19.25	1.01
1.083	0.69	7.167	1.26	13.250	4.31	19.33	0.97
1.167	0.69	7.250	1.26	13.333	3.65	19.42	0.97
1.250	0.69	7.333	1.29	13.417	3.65	19.50	0.97
1.333	0.71	7.417	1.29	13.500	3.65	19.58	0.93
1.417	0.71	7.500	1.29	13.583	3.22	19.67	0.93
1.500	0.71	7.583	1.32	13.667	3.22	19.75	0.93
1.583	0.72	7.667	1.32	13.750	3.22	19.83	0.89
1.667	0.72	7.750	1.32	13.833	2.83	19.92	0.89
1.750	0.72	7.833	1.35	13.917	2.83	20.00	0.89
1.833	0.74	7.917	1.35	14.000	2.83	20.08	0.85
1.917	0.74	8.000	1.35	14.083	2.52	20.17	0.85
2.000	0.74	8.083	1.38	14.167	2.52	20.25	0.85
2.083	0.75	8.167	1.38	14.250	2.52	20.33	0.82
2.167	0.75	8.250	1.38	14.333	2.30	20.42	0.82
2.250	0.75	8.333	1.48	14.417	2.30	20.50	0.82
2.333	0.77	8.417	1.48	14.500	2.30	20.58	0.82
2.417	0.77	8.500	1.48	14.583	2.19	20.67	0.82
2.500	0.77	8.583	1.64	14.667	2.19	20.75	0.82
2.583	0.79	8.667	1.64	14.750	2.19	20.83	0.81
2.667	0.79	8.750	1.64	14.833	2.07	20.92	0.81
2.750	0.79	8.833	1.80	14.917	2.07	21.00	0.81
2.833	0.80	8.917	1.80	15.000	2.07	21.08	0.80
2.917	0.80	9.000	1.80	15.083	1.97	21.17	0.80
3.000	0.80	9.083	1.95	15.167	1.97	21.25	0.80
3.083	0.82	9.167	1.95	15.250	1.97	21.33	0.79
3.167	0.82	9.250	1.95	15.333	1.85	21.42	0.79
3.250	0.82	9.333	2.04	15.417	1.85	21.50	0.79
3.333	0.84	9.417	2.04	15.500	1.85	21.58	0.78
3.417	0.84	9.500	2.04	15.583	1.74	21.67	0.78
3.500	0.84	9.583	2.04	15.667	1.74	21.75	0.78
3.583	0.85	9.667	2.04	15.750	1.74	21.83	0.78
3.667	0.85	9.750	2.04	15.833	1.63	21.92	0.78
3.750	0.85	9.833	2.17	15.917	1.63	22.00	0.78
3.833	0.87	9.917	2.17	16.000	1.63	22.08	0.77
3.917	0.87	10.000	2.17	16.083	1.52	22.17	0.77
4.000	0.87	10.083	2.41	16.167	1.52	22.25	0.77
4.083	0.88	10.167	2.41	16.250	1.52	22.33	0.76
4.167	0.88	10.250	2.41	16.333	1.44	22.42	0.76
4.250	0.88	10.333	2.74	16.417	1.44	22.50	0.76
4.333	0.91	10.417	2.74	16.500	1.44	22.58	0.75
4.417	0.91	10.500	2.74	16.583	1.40	22.67	0.75

4.500	0.91	10.583	3.11	16.667	1.40	22.75	0.75
4.583	0.94	10.667	3.11	16.750	1.40	22.83	0.74
4.667	0.94	10.750	3.11	16.833	1.36	22.92	0.74
4.750	0.94	10.833	3.64	16.917	1.36	23.00	0.74
4.833	0.97	10.917	3.64	17.000	1.36	23.08	0.74
4.917	0.97	11.000	3.64	17.083	1.32	23.17	0.74
5.000	0.97	11.083	4.25	17.167	1.32	23.25	0.74
5.083	1.00	11.167	4.25	17.250	1.32	23.33	0.73
5.167	1.00	11.250	4.25	17.333	1.28	23.42	0.73
5.250	1.00	11.333	5.38	17.417	1.28	23.50	0.73
5.333	1.03	11.417	5.38	17.500	1.28	23.58	0.72
5.417	1.03	11.500	5.38	17.583	1.25	23.67	0.72
5.500	1.03	11.583	6.84	17.667	1.25	23.75	0.72
5.583	1.07	11.667	6.84	17.750	1.25	23.83	0.71
5.667	1.07	11.750	6.84	17.833	1.20	23.92	0.71
5.750	1.07	11.833	27.89	17.917	1.20	24.00	0.71
5.833	1.10	11.917	27.89	18.000	1.20	24.08	0.70
5.917	1.10	12.000	27.89	18.083	1.17	24.17	0.70
6.000	1.10	12.083	68.82	18.167	1.17	24.25	0.70
6.083	1.13	12.167	68.83	18.250	1.17		

Max.Eff.Inten.(mm/hr)=	68.83	30.11	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.13 (ii)	1.99 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.34	0.31	
PEAK FLOW (cms)=	0.45	0.00	*TOTALS*
TIME TO PEAK (hrs)=	12.25	12.25	
RUNOFF VOLUME (mm)=	62.63	22.53	62.23
TOTAL RAINFALL (mm)=	63.63	63.63	63.63
RUNOFF COEFFICIENT =	0.98	0.35	0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		Area (ha)= 2.39	
STANDHYD (7661)		Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00	
ID= 1 DT= 5.0 min			

Surface Area	(ha)=	2.37	0.02
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	1.00	2.00
Length	(m)=	20.00	20.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.13	12.250	68.83	18.33	1.12
0.167	0.00	6.250	1.13	12.333	10.91	18.42	1.12
0.250	0.00	6.333	1.16	12.417	10.90	18.50	1.12
0.333	0.65	6.417	1.16	12.500	10.90	18.58	1.09
0.417	0.65	6.500	1.16	12.583	7.42	18.67	1.09
0.500	0.65	6.583	1.19	12.667	7.42	18.75	1.09
0.583	0.66	6.667	1.19	12.750	7.42	18.83	1.04
0.667	0.66	6.750	1.19	12.833	5.11	18.92	1.04
0.750	0.66	6.833	1.23	12.917	5.11	19.00	1.04
0.833	0.68	6.917	1.23	13.000	5.11	19.08	1.01
0.917	0.68	7.000	1.23	13.083	4.31	19.17	1.01
1.000	0.68	7.083	1.26	13.167	4.31	19.25	1.01
1.083	0.69	7.167	1.26	13.250	4.31	19.33	0.97
1.167	0.69	7.250	1.26	13.333	3.65	19.42	0.97
1.250	0.69	7.333	1.29	13.417	3.65	19.50	0.97
1.333	0.71	7.417	1.29	13.500	3.65	19.58	0.93



1.417	0.71	7.500	1.29	13.583	3.22	19.67	0.93
1.500	0.71	7.583	1.32	13.667	3.22	19.75	0.93
1.583	0.72	7.667	1.32	13.750	3.22	19.83	0.89
1.667	0.72	7.750	1.32	13.833	2.83	19.92	0.89
1.750	0.72	7.833	1.35	13.917	2.83	20.00	0.89
1.833	0.74	7.917	1.35	14.000	2.83	20.08	0.85
1.917	0.74	8.000	1.35	14.083	2.52	20.17	0.85
2.000	0.74	8.083	1.38	14.167	2.52	20.25	0.85
2.083	0.75	8.167	1.38	14.250	2.52	20.33	0.82
2.167	0.75	8.250	1.38	14.333	2.30	20.42	0.82
2.250	0.75	8.333	1.48	14.417	2.30	20.50	0.82
2.333	0.77	8.417	1.48	14.500	2.30	20.58	0.82
2.417	0.77	8.500	1.48	14.583	2.19	20.67	0.82
2.500	0.77	8.583	1.64	14.667	2.19	20.75	0.82
2.583	0.79	8.667	1.64	14.750	2.19	20.83	0.81
2.667	0.79	8.750	1.64	14.833	2.07	20.92	0.81
2.750	0.79	8.833	1.80	14.917	2.07	21.00	0.81
2.833	0.80	8.917	1.80	15.000	2.07	21.08	0.80
2.917	0.80	9.000	1.80	15.083	1.97	21.17	0.80
3.000	0.80	9.083	1.95	15.167	1.97	21.25	0.80
3.083	0.82	9.167	1.95	15.250	1.97	21.33	0.79
3.167	0.82	9.250	1.95	15.333	1.85	21.42	0.79
3.250	0.82	9.333	2.04	15.417	1.85	21.50	0.79
3.333	0.84	9.417	2.04	15.500	1.85	21.58	0.78
3.417	0.84	9.500	2.04	15.583	1.74	21.67	0.78
3.500	0.84	9.583	2.04	15.667	1.74	21.75	0.78
3.583	0.85	9.667	2.04	15.750	1.74	21.83	0.78
3.667	0.85	9.750	2.04	15.833	1.63	21.92	0.78
3.750	0.85	9.833	2.17	15.917	1.63	22.00	0.78
3.833	0.87	9.917	2.17	16.000	1.63	22.08	0.77
3.917	0.87	10.000	2.17	16.083	1.52	22.17	0.77
4.000	0.87	10.083	2.41	16.167	1.52	22.25	0.77
4.083	0.88	10.167	2.41	16.250	1.52	22.33	0.76
4.167	0.88	10.250	2.41	16.333	1.44	22.42	0.76
4.250	0.88	10.333	2.74	16.417	1.44	22.50	0.76
4.333	0.91	10.417	2.74	16.500	1.44	22.58	0.75
4.417	0.91	10.500	2.74	16.583	1.40	22.67	0.75
4.500	0.91	10.583	3.11	16.667	1.40	22.75	0.75
4.583	0.94	10.667	3.11	16.750	1.40	22.83	0.74
4.667	0.94	10.750	3.11	16.833	1.36	22.92	0.74
4.750	0.94	10.833	3.64	16.917	1.36	23.00	0.74
4.833	0.97	10.917	3.64	17.000	1.36	23.08	0.74
4.917	0.97	11.000	3.64	17.083	1.32	23.17	0.74
5.000	0.97	11.083	4.25	17.167	1.32	23.25	0.74
5.083	1.00	11.167	4.25	17.250	1.32	23.33	0.73
5.167	1.00	11.250	4.25	17.333	1.28	23.42	0.73
5.250	1.00	11.333	5.38	17.417	1.28	23.50	0.73
5.333	1.03	11.417	5.38	17.500	1.28	23.58	0.72
5.417	1.03	11.500	5.38	17.583	1.25	23.67	0.72
5.500	1.03	11.583	6.84	17.667	1.25	23.75	0.72
5.583	1.07	11.667	6.84	17.750	1.25	23.83	0.71
5.667	1.07	11.750	6.84	17.833	1.20	23.92	0.71
5.750	1.07	11.833	27.89	17.917	1.20	24.00	0.71
5.833	1.10	11.917	27.89	18.000	1.20	24.08	0.70
5.917	1.10	12.000	27.89	18.083	1.17	24.17	0.70
6.000	1.10	12.083	68.82	18.167	1.17	24.25	0.70
6.083	1.13	12.167	68.83	18.250	1.17		

Max.Eff.Inten.(mm/hr)=	68.83	30.11
over (min)	5.00	5.00
Storage Coeff. (min)=	1.13 (ii)	1.99 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.31
PEAK FLOW (cms)=	0.45	0.454 (iii)
TIME TO PEAK (hrs)=	12.25	12.25
RUNOFF VOLUME (mm)=	62.63	62.23
TOTAL RAINFALL (mm)=	63.63	63.63
RUNOFF COEFFICIENT =	0.98	0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.

(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (7671)	Area (ha)= 2.37
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

Surface Area (ha)=	IMPERVIOUS 2.35 PERVIOUS (i) 0.02
Dep. Storage (mm)=	1.00 5.00
Average Slope (%)=	1.00 2.00
Length (m)=	20.00 20.00
Mannings n =	0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.13	12.250	68.83	18.33	1.12				
0.167	0.00	6.250	1.13	12.333	10.91	18.42	1.12				
0.250	0.00	6.333	1.16	12.417	10.90	18.50	1.12				
0.333	0.65	6.417	1.16	12.500	10.90	18.58	1.09				
0.417	0.65	6.500	1.16	12.583	7.42	18.67	1.09				
0.500	0.65	6.583	1.19	12.667	7.42	18.75	1.09				
0.583	0.66	6.667	1.19	12.750	7.42	18.83	1.04				
0.667	0.66	6.750	1.19	12.833	5.11	18.92	1.04				
0.750	0.66	6.833	1.23	12.917	5.11	19.00	1.04				
0.833	0.68	6.917	1.23	13.000	5.11	19.08	1.01				
0.917	0.68	7.000	1.23	13.083	4.31	19.17	1.01				
1.000	0.68	7.083	1.26	13.167	4.31	19.25	1.01				
1.083	0.69	7.167	1.26	13.250	4.31	19.33	0.97				
1.167	0.69	7.250	1.26	13.333	3.65	19.42	0.97				
1.250	0.69	7.333	1.29	13.417	3.65	19.50	0.97				
1.333	0.71	7.417	1.29	13.500	3.65	19.58	0.93				
1.417	0.71	7.500	1.29	13.583	3.22	19.67	0.93				
1.500	0.71	7.583	1.32	13.667	3.22	19.75	0.93				
1.583	0.72	7.667	1.32	13.750	3.22	19.83	0.89				
1.667	0.72	7.750	1.32	13.833	2.83	19.92	0.89				
1.750	0.72	7.833	1.35	13.917	2.83	20.00	0.89				
1.833	0.74	7.917	1.35	14.000	2.83	20.08	0.85				
1.917	0.74	8.000	1.35	14.083	2.52	20.17	0.85				
2.000	0.74	8.083	1.38	14.167	2.52	20.25	0.85				
2.083	0.75	8.167	1.38	14.250	2.52	20.33	0.82				
2.167	0.75	8.250	1.38	14.333	2.30	20.42	0.82				
2.250	0.75	8.333	1.48	14.417	2.30	20.50	0.82				
2.333	0.77	8.417	1.48	14.500	2.30	20.58	0.82				
2.417	0.77	8.500	1.48	14.583	2.19	20.67	0.82				
2.500	0.77	8.583	1.64	14.667	2.19	20.75	0.82				
2.583	0.79	8.667	1.64	14.750	2.19	20.83	0.81				
2.667	0.79	8.750	1.64	14.833	2.07	20.92	0.81				
2.750	0.79	8.833	1.80	14.917	2.07	21.00	0.81				
2.833	0.80	8.917	1.80	15.000	2.07	21.08	0.80				
2.917	0.80	9.000	1.80	15.083	1.97	21.17	0.80				
3.000	0.80	9.083	1.95	15.167	1.97	21.25	0.80				
3.083	0.82	9.167	1.95	15.250	1.97	21.33	0.79				
3.167	0.82	9.250	1.95	15.333	1.85	21.42	0.79				
3.250	0.82	9.333	2.04	15.417	1.85	21.50	0.79				
3.333	0.84	9.417	2.04	15.500	1.85	21.58	0.78				
3.417	0.84	9.500	2.04	15.583	1.74	21.67	0.78				
3.500	0.84	9.583	2.04	15.667	1.74	21.75	0.78				
3.583	0.85	9.667	2.04	15.750	1.74	21.83	0.78				
3.667	0.85	9.750	2.04	15.833	1.63	21.92	0.78				
3.750	0.85	9.833	2.17	15.917	1.63	22.00	0.78				
3.833	0.87	9.917	2.17	16.000	1.63	22.08	0.77				
3.917	0.87	10.000	2.17	16.083	1.52	22.17	0.77				
4.000	0.87	10.083	2.41	16.167	1.52	22.25	0.77				
4.083	0.88	10.167	2.41	16.250	1.52	22.33	0.76				
4.167	0.88	10.250	2.41	16.333	1.44	22.42	0.76				
4.250	0.88	10.333	2.74	16.417	1.44	22.50	0.76				
4.333	0.91	10.417	2.74	16.500	1.44	22.58	0.75				
4.417	0.91	10.500	2.74	16.583	1.40	22.67	0.75				
4.500	0.91	10.583	3.11	16.667	1.40	22.75	0.75				
4.583	0.94	10.667	3.11	16.750	1.40	22.83	0.74				

4.667	0.94	10.750	3.11	16.833	1.36	22.92	0.74
4.750	0.94	10.833	3.64	16.917	1.36	23.00	0.74
4.833	0.97	10.917	3.64	17.000	1.36	23.08	0.74
4.917	0.97	11.000	3.64	17.083	1.32	23.17	0.74
5.000	0.97	11.083	4.25	17.167	1.32	23.25	0.74
5.083	1.00	11.167	4.25	17.250	1.32	23.33	0.73
5.167	1.00	11.250	4.25	17.333	1.28	23.42	0.73
5.250	1.00	11.333	5.38	17.417	1.28	23.50	0.73
5.333	1.03	11.417	5.38	17.500	1.28	23.58	0.72
5.417	1.03	11.500	5.38	17.583	1.25	23.67	0.72
5.500	1.03	11.583	6.84	17.667	1.25	23.75	0.72
5.583	1.07	11.667	6.84	17.750	1.25	23.83	0.71
5.667	1.07	11.750	6.84	17.833	1.20	23.92	0.71
5.750	1.07	11.833	27.89	17.917	1.20	24.00	0.71
5.833	1.10	11.917	27.89	18.000	1.20	24.08	0.70
5.917	1.10	12.000	27.89	18.083	1.17	24.17	0.70
6.000	1.10	12.083	68.82	18.167	1.17	24.25	0.70
6.083	1.13	12.167	68.83	18.250	1.17		

Max.Eff.Inten.(mm/hr)= 68.83 30.11
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.13 (ii) 1.99 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.31

PEAK FLOW (cms)= 0.45 0.00
 TIME TO PEAK (hrs)= 12.25 12.25
 RUNOFF VOLUME (mm)= 62.63 22.53
 TOTAL RAINFALL (mm)= 63.63 63.63
 RUNOFF COEFFICIENT = 0.98 0.35

TOTALS

0.451 (iii)

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7698)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7590):	2.39	0.454	12.25	62.23
+ ID2= 2 (7632):	2.36	0.449	12.25	62.23

ID = 3 (7698):	4.75	0.903	12.25	62.23

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7698):	4.75	0.903	12.25	62.23
+ ID2= 2 (7644):	2.40	0.456	12.25	62.23

ID = 1 (7698):	7.15	1.360	12.25	62.23

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7698):	7.15	1.360	12.25	62.23
+ ID2= 2 (7652):	2.40	0.456	12.25	62.23

ID = 3 (7698):	9.55	1.816	12.25	62.23

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7698):	9.55	1.816	12.25	62.23
+ ID2= 2 (7661):	2.39	0.454	12.25	62.23

ID = 1 (7698):	11.94	2.270	12.25	62.23

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7698):	11.94	2.270	12.25	62.23
+ ID2= 2 (7671):	2.37	0.451	12.25	62.23

ID = 3 (7698):	14.31	2.721	12.25	62.23

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| DIVERTHYD(7713) |
 | IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1 +	Flow 2 +	Flow 3 +	Flow 4 +	Flow 5 =	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
TOTAL HYD. (ID= 1):	14.31	2.72	12.25	62.23

ID= 2 (2):	13.00	1.86	12.25	62.23
ID= 3 (2):	1.31	0.86	12.25	62.23
ID= 4 (2):	0.00	0.00	0.00	0.00
ID= 5 (2):	0.00	0.00	0.00	0.00
ID= 6 (2):	0.00	0.00	0.00	0.00

RESERVOIR(7699)				
OVERFLOW IS ON				
IN= 2--> OUT= 1				
DT= 5.0 min				
	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.2690	0.4589
	0.1980	0.1112	0.0000	0.0000

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7713)	12.998	1.861	12.25	62.23
OUTFLOW: ID= 1 (7699)	12.998	0.242	12.83	62.22
OVERFLOW:ID= 3 (0003)	0.000	0.000	0.00	0.00

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
 CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
 PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

PEAK FLOW REDUCTION [Qout/Qin](%) = 13.00
 TIME SHIFT OF PEAK FLOW (min) = 35.00
 MAXIMUM STORAGE USED (ha.m.) = 0.3267

| Junction Command(7715) |

AREA QPEAK TPEAK R.V.

INFLOW : ID= 3 (7699) (ha) (cms) (hrs) (mm) 0.00 0.00 0.00 0.00
 OUTFLOW: ID= 2 (7715) 0.00 0.00 0.00 0.00

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-----
| ADD HYD ( 7714) |
| 1 + 2 = 3 |
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
ID1= 1 ( 7699): 13.00 0.242 12.83 62.22
+ ID2= 2 ( 7713): 1.31 0.861 12.25 62.23
-----
ID = 3 ( 7714): 14.31 1.093 12.25 62.22
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-----
| ADD HYD ( 7714) |
| 3 + 2 = 1 |
-----
          AREA   QPEAK   TPEAK   R.V.
          (ha)   (cms)   (hrs)   (mm)
*** W A R N I N G : HYDROGRAPH 7715 <ID= 2> IS DRY.
*** W A R N I N G : HYDROGRAPH 0001 = HYDROGRAPH 0003
ID1= 3 ( 7714): 14.31 1.093 12.25 62.22
+ ID2= 2 ( 7715): 0.00 0.000 0.00 0.00
-----
ID = 1 ( 7714): 14.31 1.093 12.25 62.22
  
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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| CALIB |
| STANDHYD ( 7620) | Area (ha)= 1.45
| ID= 1 DT= 5.0 min | Total Imp(%)= 96.00 Dir. Conn.(%)= 96.00
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          IMPERVIOUS   PERVIOUS (i)
Surface Area (ha)= 1.39 0.06
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.10 2.00
Length (m)= 100.00 145.00
Mannings n = 0.013 0.250
  
```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.13	12.250	68.83
0.167	0.00	6.250	1.13	12.333	10.91
0.250	0.00	6.333	1.16	12.417	10.90
0.333	0.65	6.417	1.16	12.500	10.90
0.417	0.65	6.500	1.16	12.583	7.42
0.500	0.65	6.583	1.19	12.667	7.42
0.583	0.66	6.667	1.19	12.750	7.42
0.667	0.66	6.750	1.19	12.833	5.11
0.750	0.66	6.833	1.23	12.917	5.11
0.833	0.68	6.917	1.23	13.000	5.11
0.917	0.68	7.000	1.23	13.083	4.31
1.000	0.68	7.083	1.26	13.167	4.31
1.083	0.69	7.167	1.26	13.250	4.31
1.167	0.69	7.250	1.26	13.333	3.65
1.250	0.69	7.333	1.29	13.417	3.65
1.333	0.71	7.417	1.29	13.500	3.65
1.417	0.71	7.500	1.29	13.583	3.22
1.500	0.71	7.583	1.32	13.667	3.22
1.583	0.72	7.667	1.32	13.750	3.22
1.667	0.72	7.750	1.32	13.833	2.83
1.750	0.72	7.833	1.35	13.917	2.83
1.833	0.74	7.917	1.35	14.000	2.83
1.917	0.74	8.000	1.35	14.083	2.52
2.000	0.74	8.083	1.38	14.167	2.52
2.083	0.75	8.167	1.38	14.250	2.52
2.167	0.75	8.250	1.38	14.333	2.30
2.250	0.75	8.333	1.48	14.417	2.30

2.333	0.77	8.417	1.48	14.500	2.30
2.417	0.77	8.500	1.48	14.583	2.19
2.500	0.77	8.583	1.64	14.667	2.19
2.583	0.79	8.667	1.64	14.750	2.19
2.667	0.79	8.750	1.64	14.833	2.07
2.750	0.79	8.833	1.80	14.917	2.07
2.833	0.80	8.917	1.80	15.000	2.07
2.917	0.80	9.000	1.80	15.083	1.97
3.000	0.80	9.083	1.95	15.167	1.97
3.083	0.82	9.167	1.95	15.250	1.97
3.167	0.82	9.250	1.95	15.333	1.85
3.250	0.82	9.333	2.04	15.417	1.85
3.333	0.84	9.417	2.04	15.500	1.85
3.417	0.84	9.500	2.04	15.583	1.74
3.500	0.84	9.583	2.04	15.667	1.74
3.583	0.85	9.667	2.04	15.750	1.74
3.667	0.85	9.750	2.04	15.833	1.63
3.750	0.85	9.833	2.17	15.917	1.63
3.833	0.87	9.917	2.17	16.000	1.63
3.917	0.87	10.000	2.17	16.083	1.52
4.000	0.87	10.083	2.41	16.167	1.52
4.083	0.88	10.167	2.41	16.250	1.52
4.167	0.88	10.250	2.41	16.333	1.44
4.250	0.88	10.333	2.74	16.417	1.44
4.333	0.91	10.417	2.74	16.500	1.44
4.417	0.91	10.500	2.74	16.583	1.40
4.500	0.91	10.583	3.11	16.667	1.40
4.583	0.94	10.667	3.11	16.750	1.40
4.667	0.94	10.750	3.11	16.833	1.36
4.750	0.94	10.833	3.64	16.917	1.36
4.833	0.97	10.917	3.64	17.000	1.36
4.917	0.97	11.000	3.64	17.083	1.32
5.000	0.97	11.083	4.25	17.167	1.32
5.083	1.00	11.167	4.25	17.250	1.32
5.167	1.00	11.250	4.25	17.333	1.28
5.250	1.00	11.333	5.38	17.417	1.28
5.333	1.03	11.417	5.38	17.500	1.28
5.417	1.03	11.500	5.38	17.583	1.25
5.500	1.03	11.583	6.84	17.667	1.25
5.583	1.07	11.667	6.84	17.750	1.25
5.667	1.07	11.750	6.84	17.833	1.20
5.750	1.07	11.833	27.89	17.917	1.20
5.833	1.10	11.917	27.89	18.000	1.20
5.917	1.10	12.000	27.89	18.083	1.17
6.000	1.10	12.083	68.82	18.167	1.17
6.083	1.13	12.167	68.83	18.250	1.17

Max.Eff.Inten.(mm/hr)= 68.83 30.11
 over (min)= 5.00 10.00
 Storage Coeff. (min)= 2.88 (ii) 7.86 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.28 0.13

TOTALS
 PEAK FLOW (cms)= 0.27 0.00 0.269 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 61.63 22.53 60.06
 TOTAL RAINFALL (mm)= 63.63 63.63 63.63
 RUNOFF COEFFICIENT = 0.97 0.35 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB |
| STANDHYD ( 7629) | Area (ha)= 1.70
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
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          IMPERVIOUS   PERVIOUS (i)
Surface Area (ha)= 1.68 0.02
Dep. Storage (mm)= 2.00 5.00
  
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Average Slope (%) = 1.10 2.00
 Length (m) = 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.13	12.250	68.83	18.33	1.12
0.167	0.00	6.250	1.13	12.333	10.91	18.42	1.12
0.250	0.00	6.333	1.16	12.417	10.90	18.50	1.12
0.333	0.65	6.417	1.16	12.500	10.90	18.58	1.09
0.417	0.65	6.500	1.16	12.583	7.42	18.67	1.09
0.500	0.65	6.583	1.19	12.667	7.42	18.75	1.09
0.583	0.66	6.667	1.19	12.750	7.42	18.83	1.04
0.667	0.66	6.750	1.19	12.833	5.11	18.92	1.04
0.750	0.66	6.833	1.23	12.917	5.11	19.00	1.04
0.833	0.68	6.917	1.23	13.000	5.11	19.08	1.01
0.917	0.68	7.000	1.23	13.083	4.31	19.17	1.01
1.000	0.68	7.083	1.26	13.167	4.31	19.25	1.01
1.083	0.69	7.167	1.26	13.250	4.31	19.33	0.97
1.167	0.69	7.250	1.26	13.333	3.65	19.42	0.97
1.250	0.69	7.333	1.29	13.417	3.65	19.50	0.97
1.333	0.71	7.417	1.29	13.500	3.65	19.58	0.93
1.417	0.71	7.500	1.29	13.583	3.22	19.67	0.93
1.500	0.71	7.583	1.32	13.667	3.22	19.75	0.93
1.583	0.72	7.667	1.32	13.750	3.22	19.83	0.89
1.667	0.72	7.750	1.32	13.833	2.83	19.92	0.89
1.750	0.72	7.833	1.35	13.917	2.83	20.00	0.89
1.833	0.74	7.917	1.35	14.000	2.83	20.08	0.85
1.917	0.74	8.000	1.35	14.083	2.52	20.17	0.85
2.000	0.74	8.083	1.38	14.167	2.52	20.25	0.85
2.083	0.75	8.167	1.38	14.250	2.52	20.33	0.82
2.167	0.75	8.250	1.38	14.333	2.30	20.42	0.82
2.250	0.75	8.333	1.48	14.417	2.30	20.50	0.82
2.333	0.77	8.417	1.48	14.500	2.30	20.58	0.82
2.417	0.77	8.500	1.48	14.583	2.19	20.67	0.82
2.500	0.77	8.583	1.64	14.667	2.19	20.75	0.82
2.583	0.79	8.667	1.64	14.750	2.19	20.83	0.81
2.667	0.79	8.750	1.64	14.833	2.07	20.92	0.81
2.750	0.79	8.833	1.80	14.917	2.07	21.00	0.81
2.833	0.80	8.917	1.80	15.000	2.07	21.08	0.80
2.917	0.80	9.000	1.80	15.083	1.97	21.17	0.80
3.000	0.80	9.083	1.95	15.167	1.97	21.25	0.80
3.083	0.82	9.167	1.95	15.250	1.97	21.33	0.79
3.167	0.82	9.250	1.95	15.333	1.85	21.42	0.79
3.250	0.82	9.333	2.04	15.417	1.85	21.50	0.79
3.333	0.84	9.417	2.04	15.500	1.85	21.58	0.78
3.417	0.84	9.500	2.04	15.583	1.74	21.67	0.78
3.500	0.84	9.583	2.04	15.667	1.74	21.75	0.78
3.583	0.85	9.667	2.04	15.750	1.74	21.83	0.78
3.667	0.85	9.750	2.04	15.833	1.63	21.92	0.78
3.750	0.85	9.833	2.17	15.917	1.63	22.00	0.78
3.833	0.87	9.917	2.17	16.000	1.63	22.08	0.77
3.917	0.87	10.000	2.17	16.083	1.52	22.17	0.77
4.000	0.87	10.083	2.41	16.167	1.52	22.25	0.77
4.083	0.88	10.167	2.41	16.250	1.52	22.33	0.76
4.167	0.88	10.250	2.41	16.333	1.44	22.42	0.76
4.250	0.88	10.333	2.74	16.417	1.44	22.50	0.76
4.333	0.91	10.417	2.74	16.500	1.44	22.58	0.75
4.417	0.91	10.500	2.74	16.583	1.40	22.67	0.75
4.500	0.91	10.583	3.11	16.667	1.40	22.75	0.75
4.583	0.94	10.667	3.11	16.750	1.40	22.83	0.74
4.667	0.94	10.750	3.11	16.833	1.36	22.92	0.74
4.750	0.94	10.833	3.64	16.917	1.36	23.00	0.74
4.833	0.97	10.917	3.64	17.000	1.36	23.08	0.74
4.917	0.97	11.000	3.64	17.083	1.32	23.17	0.74
5.000	0.97	11.083	4.25	17.167	1.32	23.25	0.74
5.083	1.00	11.167	4.25	17.250	1.32	23.33	0.73
5.167	1.00	11.250	4.25	17.333	1.28	23.42	0.73
5.250	1.00	11.333	5.38	17.417	1.28	23.50	0.73
5.333	1.03	11.417	5.38	17.500	1.28	23.58	0.72
5.417	1.03	11.500	5.38	17.583	1.25	23.67	0.72
5.500	1.03	11.583	6.84	17.667	1.25	23.75	0.72

5.583	1.07	11.667	6.84	17.750	1.25	23.83	0.71
5.667	1.07	11.750	6.84	17.833	1.20	23.92	0.71
5.750	1.07	11.833	27.89	17.917	1.20	24.00	0.71
5.833	1.10	11.917	27.89	18.000	1.20	24.08	0.70
5.917	1.10	12.000	27.89	18.083	1.17	24.17	0.70
6.000	1.10	12.083	68.82	18.167	1.17	24.25	0.70
6.083	1.13	12.167	68.83	18.250	1.17		

Max.Eff.Inten. (mm/hr)=	68.83	30.11	
over (min)	5.00	5.00	
Storage Coeff. (min)=	2.88 (ii)	4.19 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.28	0.24	
PEAK FLOW (cms)=	0.32	0.00	0.322 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	61.63	22.53	61.24
TOTAL RAINFALL (mm)=	63.63	63.63	63.63
RUNOFF COEFFICIENT =	0.97	0.35	0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7651) | Area (ha)= 1.33
 | ID= 1 DT= 5.0 min | Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.30	0.03
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.13	12.250	68.83	18.33	1.12
0.167	0.00	6.250	1.13	12.333	10.91	18.42	1.12
0.250	0.00	6.333	1.16	12.417	10.90	18.50	1.12
0.333	0.65	6.417	1.16	12.500	10.90	18.58	1.09
0.417	0.65	6.500	1.16	12.583	7.42	18.67	1.09
0.500	0.65	6.583	1.19	12.667	7.42	18.75	1.09
0.583	0.66	6.667	1.19	12.750	7.42	18.83	1.04
0.667	0.66	6.750	1.19	12.833	5.11	18.92	1.04
0.750	0.66	6.833	1.23	12.917	5.11	19.00	1.04
0.833	0.68	6.917	1.23	13.000	5.11	19.08	1.01
0.917	0.68	7.000	1.23	13.083	4.31	19.17	1.01
1.000	0.68	7.083	1.26	13.167	4.31	19.25	1.01
1.083	0.69	7.167	1.26	13.250	4.31	19.33	0.97
1.167	0.69	7.250	1.26	13.333	3.65	19.42	0.97
1.250	0.69	7.333	1.29	13.417	3.65	19.50	0.97
1.333	0.71	7.417	1.29	13.500	3.65	19.58	0.93
1.417	0.71	7.500	1.29	13.583	3.22	19.67	0.93
1.500	0.71	7.583	1.32	13.667	3.22	19.75	0.93
1.583	0.72	7.667	1.32	13.750	3.22	19.83	0.89
1.667	0.72	7.750	1.32	13.833	2.83	19.92	0.89
1.750	0.72	7.833	1.35	13.917	2.83	20.00	0.89
1.833	0.74	7.917	1.35	14.000	2.83	20.08	0.85
1.917	0.74	8.000	1.35	14.083	2.52	20.17	0.85
2.000	0.74	8.083	1.38	14.167	2.52	20.25	0.85
2.083	0.75	8.167	1.38	14.250	2.52	20.33	0.82
2.167	0.75	8.250	1.38	14.333	2.30	20.42	0.82
2.250	0.75	8.333	1.48	14.417	2.30	20.50	0.82
2.333	0.77	8.417	1.48	14.500	2.30	20.58	0.82
2.417	0.77	8.500	1.48	14.583	2.19	20.67	0.82
2.500	0.77	8.583	1.64	14.667	2.19	20.75	0.82
2.583	0.79	8.667	1.64	14.750	2.19	20.83	0.81
2.667	0.79	8.750	1.64	14.833	2.07	20.92	0.81
2.750	0.79	8.833	1.80	14.917	2.07	21.00	0.81
2.833	0.80	8.917	1.80	15.000	2.07	21.08	0.80
2.917	0.80	9.000	1.80	15.083	1.97	21.17	0.80
3.000	0.80	9.083	1.95	15.167	1.97	21.25	0.80
3.083	0.82	9.167	1.95	15.250	1.97	21.33	0.79
3.167	0.82	9.250	1.95	15.333	1.85	21.42	0.79
3.250	0.82	9.333	2.04	15.417	1.85	21.50	0.79
3.333	0.84	9.417	2.04	15.500	1.85	21.58	0.78
3.417	0.84	9.500	2.04	15.583	1.74	21.67	0.78
3.500	0.84	9.583	2.04	15.667	1.74	21.75	0.78
3.583	0.85	9.667	2.04	15.750	1.74	21.83	0.78
3.667	0.85	9.750	2.04	15.833	1.63	21.92	0.78
3.750	0.85	9.833	2.17	15.917	1.63	22.00	0.78
3.833	0.87	9.917	2.17	16.000	1.63	22.08	0.77
3.917	0.87	10.000	2.17	16.083	1.52	22.17	0.77
4.000	0.87	10.083	2.41	16.167	1.52	22.25	0.77
4.083	0.88	10.167	2.41	16.250	1.52	22.33	0.76
4.167	0.88	10.250	2.41	16.333	1.44	22.42	0.76
4.250	0.88	10.333	2.74	16.417	1.44	22.50	0.76
4.333	0.91	10.417	2.74	16.500	1.44	22.58	0.75
4.417	0.91	10.500	2.74	16.583	1.40	22.67	0.75
4.500	0.91	10.583	3.11	16.667	1.40	22.75	0.75
4.583	0.94	10.667	3.11	16.750	1.40	22.83	0.74
4.667	0.94	10.750	3.11	16.833	1.36	22.92	0.74
4.750	0.94	10.833	3.64	16.917	1.36	23.00	0.74

2.500	0.77	8.583	1.64	14.667	2.19	20.75	0.82
2.583	0.79	8.667	1.64	14.750	2.19	20.83	0.81
2.667	0.79	8.750	1.64	14.833	2.07	20.92	0.81
2.750	0.79	8.833	1.80	14.917	2.07	21.00	0.81
2.833	0.80	8.917	1.80	15.000	2.07	21.08	0.80
2.917	0.80	9.000	1.80	15.083	1.97	21.17	0.80
3.000	0.80	9.083	1.95	15.167	1.97	21.25	0.80
3.083	0.82	9.167	1.95	15.250	1.97	21.33	0.79
3.167	0.82	9.250	1.95	15.333	1.85	21.42	0.79
3.250	0.82	9.333	2.04	15.417	1.85	21.50	0.79
3.333	0.84	9.417	2.04	15.500	1.85	21.58	0.78
3.417	0.84	9.500	2.04	15.583	1.74	21.67	0.78
3.500	0.84	9.583	2.04	15.667	1.74	21.75	0.78
3.583	0.85	9.667	2.04	15.750	1.74	21.83	0.78
3.667	0.85	9.750	2.04	15.833	1.63	21.92	0.78
3.750	0.85	9.833	2.17	15.917	1.63	22.00	0.78
3.833	0.87	9.917	2.17	16.000	1.63	22.08	0.77
3.917	0.87	10.000	2.17	16.083	1.52	22.17	0.77
4.000	0.87	10.083	2.41	16.167	1.52	22.25	0.77
4.083	0.88	10.167	2.41	16.250	1.52	22.33	0.76
4.167	0.88	10.250	2.41	16.333	1.44	22.42	0.76
4.250	0.88	10.333	2.74	16.417	1.44	22.50	0.76
4.333	0.91	10.417	2.74	16.500	1.44	22.58	0.75
4.417	0.91	10.500	2.74	16.583	1.40	22.67	0.75
4.500	0.91	10.583	3.11	16.667	1.40	22.75	0.75
4.583	0.94	10.667	3.11	16.750	1.40	22.83	0.74
4.667	0.94	10.750	3.11	16.833	1.36	22.92	0.74
4.750	0.94	10.833	3.64	16.917	1.36	23.00	0.74
4.833	0.97	10.917	3.64	17.000	1.36	23.08	0.74
4.917	0.97	11.000	3.64	17.083	1.32	23.17	0.74
5.000	0.97	11.083	4.25	17.167	1.32	23.25	0.74
5.083	1.00	11.167	4.25	17.250	1.32	23.33	0.73
5.167	1.00	11.250	4.25	17.333	1.28	23.42	0.73
5.250	1.00	11.333	5.38	17.417	1.28	23.50	0.73
5.333	1.03	11.417	5.38	17.500	1.28	23.58	0.72
5.417	1.03	11.500	5.38	17.583	1.25	23.67	0.72
5.500	1.03	11.583	6.84	17.667	1.25	23.75	0.72
5.583	1.07	11.667	6.84	17.750	1.25	23.83	0.71
5.667	1.07	11.750	6.84	17.833	1.20	23.92	0.71
5.750	1.07	11.833	27.89	17.917	1.20	24.00	0.71
5.833	1.10	11.917	27.89	18.000	1.20	24.08	0.70
5.917	1.10	12.000	27.89	18.083	1.17	24.17	0.70
6.000	1.10	12.083	68.82	18.167	1.17	24.25	0.70
6.083	1.13	12.167	68.83	18.250	1.17		

Max.Eff.Inten. (mm/hr) = 68.83 30.11
over (min) = 5.00 5.00
Storage Coeff. (min) = 2.88 (ii) 4.61 (ii)
Unit Hyd. Tpeak (min) = 5.00 5.00
Unit Hyd. peak (cms) = 0.28 0.22

TOTALS
PEAK FLOW (cms) = 0.25 0.00 0.251 (iii)
TIME TO PEAK (hrs) = 12.25 12.25 12.25
RUNOFF VOLUME (mm) = 61.63 22.53 60.85
TOTAL RAINFALL (mm) = 63.63 63.63 63.63
RUNOFF COEFFICIENT = 0.97 0.35 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7700)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7620):	1.45	0.269	12.25	60.06
+ ID2= 2 (7629):	1.70	0.322	12.25	61.24

ID = 3 (7700):	3.15	0.591	12.25	60.70

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7700)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7700):	3.15	0.591	12.25	60.70
+ ID2= 2 (7651):	1.33	0.251	12.25	60.85

ID = 1 (7700):	4.48	0.842	12.25	60.74

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7623)			
ID= 1 DT= 5.0 min			
Area (ha)=	1.20		
Total Imp(%)=	95.00	Dir. Conn.(%)=	95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.14	0.06
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.13	12.250	68.83	18.33	18.33	1.12	
0.167	0.00	6.250	1.13	12.333	10.91	18.42	1.12		
0.250	0.00	6.333	1.16	12.417	10.90	18.50	1.12		
0.333	0.65	6.417	1.16	12.500	10.90	18.58	1.09		
0.417	0.65	6.500	1.16	12.583	7.42	18.67	1.09		
0.500	0.65	6.583	1.19	12.667	7.42	18.75	1.09		
0.583	0.66	6.667	1.19	12.750	7.42	18.83	1.04		
0.667	0.66	6.750	1.19	12.833	5.11	18.92	1.04		
0.750	0.66	6.833	1.23	12.917	5.11	19.00	1.04		
0.833	0.68	6.917	1.23	13.000	5.11	19.08	1.01		
0.917	0.68	7.000	1.23	13.083	4.31	19.17	1.01		
1.000	0.68	7.083	1.26	13.167	4.31	19.25	1.01		
1.083	0.69	7.167	1.26	13.250	4.31	19.33	0.97		
1.167	0.69	7.250	1.26	13.333	3.65	19.42	0.97		
1.250	0.69	7.333	1.29	13.417	3.65	19.50	0.97		
1.333	0.71	7.417	1.29	13.500	3.65	19.58	0.93		
1.417	0.71	7.500	1.29	13.583	3.22	19.67	0.93		
1.500	0.71	7.583	1.32	13.667	3.22	19.75	0.93		
1.583	0.72	7.667	1.32	13.750	3.22	19.83	0.89		
1.667	0.72	7.750	1.32	13.833	2.83	19.92	0.89		
1.750	0.72	7.833	1.35	13.917	2.83	20.00	0.89		
1.833	0.74	7.917	1.35	14.000	2.83	20.08	0.85		
1.917	0.74	8.000	1.35	14.083	2.52	20.17	0.85		
2.000	0.74	8.083	1.38	14.167	2.52	20.25	0.85		
2.083	0.75	8.167	1.38	14.250	2.52	20.33	0.82		
2.167	0.75	8.250	1.38	14.333	2.30	20.42	0.82		
2.250	0.75	8.333	1.48	14.417	2.30	20.50	0.82		
2.333	0.77	8.417	1.48	14.500	2.30	20.58	0.82		
2.417	0.77	8.500	1.48	14.583	2.19	20.67	0.82		
2.500	0.77	8.583	1.64	14.667	2.19	20.75	0.82		
2.583	0.79	8.667	1.64	14.750	2.19	20.83	0.81		
2.667	0.79	8.750	1.64	14.833	2.07	20.92	0.81		
2.750	0.79	8.833	1.80	14.917	2.07	21.00	0.81		
2.833	0.80	8.917	1.80	15.000	2.07	21.08	0.80		
2.917	0.80	9.000	1.80	15.083	1.97	21.17	0.80		
3.000	0.80	9.083	1.95	15.167	1.97	21.25	0.80		
3.083	0.82	9.167	1.95	15.250	1.97	21.33	0.79		
3.167	0.82	9.250	1.95	15.333	1.85	21.42	0.79		
3.250	0.82	9.333	2.04	15.417	1.85	21.50	0.79		
3.333	0.84	9.417	2.04	15.500	1.85	21.58	0.78		
3.417	0.84	9.500	2.04	15.583	1.74	21.67	0.78		
3.500	0.84	9.583	2.04	15.667	1.74	21.75	0.78		
3.583	0.85	9.667	2.04	15.750	1.74	21.83	0.78		
3.667	0.85	9.750	2.04	15.833	1.63	21.92	0.78		



3.750	0.85	9.833	2.17	15.917	1.63	22.00	0.78
3.833	0.87	9.917	2.17	16.000	1.63	22.08	0.77
3.917	0.87	10.000	2.17	16.083	1.52	22.17	0.77
4.000	0.87	10.083	2.41	16.167	1.52	22.25	0.77
4.083	0.88	10.167	2.41	16.250	1.52	22.33	0.76
4.167	0.88	10.250	2.41	16.333	1.44	22.42	0.76
4.250	0.88	10.333	2.74	16.417	1.44	22.50	0.76
4.333	0.91	10.417	2.74	16.500	1.44	22.58	0.75
4.417	0.91	10.500	2.74	16.583	1.40	22.67	0.75
4.500	0.91	10.583	3.11	16.667	1.40	22.75	0.75
4.583	0.94	10.667	3.11	16.750	1.40	22.83	0.74
4.667	0.94	10.750	3.11	16.833	1.36	22.92	0.74
4.750	0.94	10.833	3.64	16.917	1.36	23.00	0.74
4.833	0.97	10.917	3.64	17.000	1.36	23.08	0.74
4.917	0.97	11.000	3.64	17.083	1.32	23.17	0.74
5.000	0.97	11.083	4.25	17.167	1.32	23.25	0.74
5.083	1.00	11.167	4.25	17.250	1.32	23.33	0.73
5.167	1.00	11.250	4.25	17.333	1.28	23.42	0.73
5.250	1.00	11.333	5.38	17.417	1.28	23.50	0.73
5.333	1.03	11.417	5.38	17.500	1.28	23.58	0.72
5.417	1.03	11.500	5.38	17.583	1.25	23.67	0.72
5.500	1.03	11.583	6.84	17.667	1.25	23.75	0.72
5.583	1.07	11.667	6.84	17.750	1.25	23.83	0.71
5.667	1.07	11.750	6.84	17.833	1.20	23.92	0.71
5.750	1.07	11.833	27.89	17.917	1.20	24.00	0.71
5.833	1.10	11.917	27.89	18.000	1.20	24.08	0.70
5.917	1.10	12.000	27.89	18.083	1.17	24.17	0.70
6.000	1.10	12.083	68.82	18.167	1.17	24.25	0.70
6.083	1.13	12.167	68.83	18.250	1.17		

Max.Eff.Inten.(mm/hr)= 68.83 31.11
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.66 (ii) 4.18 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.24

TOTALS
 PEAK FLOW (cms)= 0.22 0.01 0.223 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 61.63 23.25 59.71
 TOTAL RAINFALL (mm)= 63.63 63.63 63.63
 RUNOFF COEFFICIENT = 0.97 0.37 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7654) |
 |ID= 1 DT= 5.0 min | Area (ha)= 1.69
 | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.67	0.02
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.13	12.250	68.83	18.33	1.12
0.167	0.00	6.250	1.13	12.333	10.91	18.42	1.12
0.250	0.00	6.333	1.16	12.417	10.90	18.50	1.12
0.333	0.65	6.417	1.16	12.500	10.90	18.58	1.09
0.417	0.65	6.500	1.16	12.583	7.42	18.67	1.09
0.500	0.65	6.583	1.19	12.667	7.42	18.75	1.09
0.583	0.66	6.667	1.19	12.750	7.42	18.83	1.04

0.667	0.66	6.750	1.19	12.833	5.11	18.92	1.04
0.750	0.66	6.833	1.23	12.917	5.11	19.00	1.04
0.833	0.68	6.917	1.23	13.000	5.11	19.08	1.01
0.917	0.68	7.000	1.23	13.083	4.31	19.17	1.01
1.000	0.68	7.083	1.26	13.167	4.31	19.25	1.01
1.083	0.69	7.167	1.26	13.250	4.31	19.33	0.97
1.167	0.69	7.250	1.26	13.333	3.65	19.42	0.97
1.250	0.69	7.333	1.29	13.417	3.65	19.50	0.97
1.333	0.71	7.417	1.29	13.500	3.65	19.58	0.93
1.417	0.71	7.500	1.29	13.583	3.22	19.67	0.93
1.500	0.71	7.583	1.32	13.667	3.22	19.75	0.93
1.583	0.72	7.667	1.32	13.750	3.22	19.83	0.89
1.667	0.72	7.750	1.32	13.833	2.83	19.92	0.89
1.750	0.72	7.833	1.35	13.917	2.83	20.00	0.89
1.833	0.74	7.917	1.35	14.000	2.83	20.08	0.85
1.917	0.74	8.000	1.35	14.083	2.52	20.17	0.85
2.000	0.74	8.083	1.38	14.167	2.52	20.25	0.85
2.083	0.75	8.167	1.38	14.250	2.52	20.33	0.82
2.167	0.75	8.250	1.38	14.333	2.30	20.42	0.82
2.250	0.75	8.333	1.48	14.417	2.30	20.50	0.82
2.333	0.77	8.417	1.48	14.500	2.30	20.58	0.82
2.417	0.77	8.500	1.48	14.583	2.19	20.67	0.82
2.500	0.77	8.583	1.64	14.667	2.19	20.75	0.82
2.583	0.79	8.667	1.64	14.750	2.19	20.83	0.81
2.667	0.79	8.750	1.64	14.833	2.07	20.92	0.81
2.750	0.79	8.833	1.80	14.917	2.07	21.00	0.81
2.833	0.80	8.917	1.80	15.000	2.07	21.08	0.80
2.917	0.80	9.000	1.80	15.083	1.97	21.17	0.80
3.000	0.80	9.083	1.95	15.167	1.97	21.25	0.80
3.083	0.82	9.167	1.95	15.250	1.97	21.33	0.79
3.167	0.82	9.250	1.95	15.333	1.85	21.42	0.79
3.250	0.82	9.333	2.04	15.417	1.85	21.50	0.79
3.333	0.84	9.417	2.04	15.500	1.85	21.58	0.78
3.417	0.84	9.500	2.04	15.583	1.74	21.67	0.78
3.500	0.84	9.583	2.04	15.667	1.74	21.75	0.78
3.583	0.85	9.667	2.04	15.750	1.74	21.83	0.78
3.667	0.85	9.750	2.04	15.833	1.63	21.92	0.78
3.750	0.85	9.833	2.17	15.917	1.63	22.00	0.78
3.833	0.87	9.917	2.17	16.000	1.63	22.08	0.77
3.917	0.87	10.000	2.17	16.083	1.52	22.17	0.77
4.000	0.87	10.083	2.41	16.167	1.52	22.25	0.77
4.083	0.88	10.167	2.41	16.250	1.52	22.33	0.76
4.167	0.88	10.250	2.41	16.333	1.44	22.42	0.76
4.250	0.88	10.333	2.74	16.417	1.44	22.50	0.76
4.333	0.91	10.417	2.74	16.500	1.44	22.58	0.75
4.417	0.91	10.500	2.74	16.583	1.40	22.67	0.75
4.500	0.91	10.583	3.11	16.667	1.40	22.75	0.75
4.583	0.94	10.667	3.11	16.750	1.40	22.83	0.74
4.667	0.94	10.750	3.11	16.833	1.36	22.92	0.74
4.750	0.94	10.833	3.64	16.917	1.36	23.00	0.74
4.833	0.97	10.917	3.64	17.000	1.36	23.08	0.74
4.917	0.97	11.000	3.64	17.083	1.32	23.17	0.74
5.000	0.97	11.083	4.25	17.167	1.32	23.25	0.74
5.083	1.00	11.167	4.25	17.250	1.32	23.33	0.73
5.167	1.00	11.250	4.25	17.333	1.28	23.42	0.73
5.250	1.00	11.333	5.38	17.417	1.28	23.50	0.73
5.333	1.03	11.417	5.38	17.500	1.28	23.58	0.72
5.417	1.03	11.500	5.38	17.583	1.25	23.67	0.72
5.500	1.03	11.583	6.84	17.667	1.25	23.75	0.72
5.583	1.07	11.667	6.84	17.750	1.25	23.83	0.71
5.667	1.07	11.750	6.84	17.833	1.20	23.92	0.71
5.750	1.07	11.833	27.89	17.917	1.20	24.00	0.71
5.833	1.10	11.917	27.89	18.000	1.20	24.08	0.70
5.917	1.10	12.000	27.89	18.083	1.17	24.17	0.70
6.000	1.10	12.083	68.82	18.167	1.17	24.25	0.70
6.083	1.13	12.167	68.83	18.250	1.17		

Max.Eff.Inten.(mm/hr)= 68.83 30.11
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.88 (ii) 4.19 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.28 0.24

TOTALS
 PEAK FLOW (cms)= 0.32 0.00 0.320 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 61.63 22.53 61.24

TOTAL RAINFALL (mm) = 63.63 63.63 63.63
 RUNOFF COEFFICIENT = 0.97 0.35 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7655) | Area (ha)= 1.32
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.31	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.13	12.250	68.83	18.33	1.12
0.167	0.00	6.250	1.13	12.333	10.91	18.42	1.12
0.250	0.00	6.333	1.16	12.417	10.90	18.50	1.12
0.333	0.65	6.417	1.16	12.500	10.90	18.58	1.09
0.417	0.65	6.500	1.16	12.583	7.42	18.67	1.09
0.500	0.65	6.583	1.19	12.667	7.42	18.75	1.09
0.583	0.66	6.667	1.19	12.750	7.42	18.83	1.04
0.667	0.66	6.750	1.19	12.833	5.11	18.92	1.04
0.750	0.66	6.833	1.23	12.917	5.11	19.00	1.04
0.833	0.68	6.917	1.23	13.000	5.11	19.08	1.01
0.917	0.68	7.000	1.23	13.083	4.31	19.17	1.01
1.000	0.68	7.083	1.26	13.167	4.31	19.25	1.01
1.083	0.69	7.167	1.26	13.250	4.31	19.33	0.97
1.167	0.69	7.250	1.26	13.333	3.65	19.42	0.97
1.250	0.69	7.333	1.29	13.417	3.65	19.50	0.97
1.333	0.71	7.417	1.29	13.500	3.65	19.58	0.93
1.417	0.71	7.500	1.29	13.583	3.22	19.67	0.93
1.500	0.71	7.583	1.32	13.667	3.22	19.75	0.93
1.583	0.72	7.667	1.32	13.750	3.22	19.83	0.89
1.667	0.72	7.750	1.32	13.833	2.83	19.92	0.89
1.750	0.72	7.833	1.35	13.917	2.83	20.00	0.89
1.833	0.74	7.917	1.35	14.000	2.83	20.08	0.85
1.917	0.74	8.000	1.35	14.083	2.52	20.17	0.85
2.000	0.74	8.083	1.38	14.167	2.52	20.25	0.85
2.083	0.75	8.167	1.38	14.250	2.52	20.33	0.82
2.167	0.75	8.250	1.38	14.333	2.30	20.42	0.82
2.250	0.75	8.333	1.48	14.417	2.30	20.50	0.82
2.333	0.77	8.417	1.48	14.500	2.30	20.58	0.82
2.417	0.77	8.500	1.48	14.583	2.19	20.67	0.82
2.500	0.77	8.583	1.64	14.667	2.19	20.75	0.82
2.583	0.79	8.667	1.64	14.750	2.19	20.83	0.81
2.667	0.79	8.750	1.64	14.833	2.07	20.92	0.81
2.750	0.79	8.833	1.80	14.917	2.07	21.00	0.81
2.833	0.80	8.917	1.80	15.000	2.07	21.08	0.80
2.917	0.80	9.000	1.80	15.083	1.97	21.17	0.80
3.000	0.80	9.083	1.95	15.167	1.97	21.25	0.80
3.083	0.82	9.167	1.95	15.250	1.97	21.33	0.79
3.167	0.82	9.250	1.95	15.333	1.85	21.42	0.79
3.250	0.82	9.333	2.04	15.417	1.85	21.50	0.79
3.333	0.84	9.417	2.04	15.500	1.85	21.58	0.78
3.417	0.84	9.500	2.04	15.583	1.74	21.67	0.78
3.500	0.84	9.583	2.04	15.667	1.74	21.75	0.78
3.583	0.85	9.667	2.04	15.750	1.74	21.83	0.78
3.667	0.85	9.750	2.04	15.833	1.63	21.92	0.78
3.750	0.85	9.833	2.17	15.917	1.63	22.00	0.78
3.833	0.87	9.917	2.17	16.000	1.63	22.08	0.77

3.917	0.87	10.000	2.17	16.083	1.52	22.17	0.77
4.000	0.87	10.083	2.41	16.167	1.52	22.25	0.77
4.083	0.88	10.167	2.41	16.250	1.52	22.33	0.76
4.167	0.88	10.250	2.41	16.333	1.44	22.42	0.76
4.250	0.88	10.333	2.74	16.417	1.44	22.50	0.76
4.333	0.91	10.417	2.74	16.500	1.44	22.58	0.75
4.417	0.91	10.500	2.74	16.583	1.40	22.67	0.75
4.500	0.91	10.583	3.11	16.667	1.40	22.75	0.75
4.583	0.94	10.667	3.11	16.750	1.40	22.83	0.74
4.667	0.94	10.750	3.11	16.833	1.36	22.92	0.74
4.750	0.94	10.833	3.64	16.917	1.36	23.00	0.74
4.833	0.97	10.917	3.64	17.000	1.36	23.08	0.74
4.917	0.97	11.000	3.64	17.083	1.32	23.17	0.74
5.000	0.97	11.083	4.25	17.167	1.32	23.25	0.74
5.083	1.00	11.167	4.25	17.250	1.32	23.33	0.73
5.167	1.00	11.250	4.25	17.333	1.28	23.42	0.73
5.250	1.00	11.333	5.38	17.417	1.28	23.50	0.73
5.333	1.03	11.417	5.38	17.500	1.28	23.58	0.72
5.417	1.03	11.500	5.38	17.583	1.25	23.67	0.72
5.500	1.03	11.583	6.84	17.667	1.25	23.75	0.72
5.583	1.07	11.667	6.84	17.750	1.25	23.83	0.71
5.667	1.07	11.750	6.84	17.833	1.20	23.92	0.71
5.750	1.07	11.833	27.89	17.917	1.20	24.00	0.71
5.833	1.10	11.917	27.89	18.000	1.20	24.08	0.70
5.917	1.10	12.000	27.89	18.083	1.17	24.17	0.70
6.000	1.10	12.083	68.82	18.167	1.17	24.25	0.70
6.083	1.13	12.167	68.83	18.250	1.17		

Max.Eff.Inten.(mm/hr)= 68.83 30.11
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.88 (ii) 4.19 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.28 0.24

TOTALS
 PEAK FLOW (cms)= 0.25 0.00 0.250 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 61.63 22.53 61.24
 TOTAL RAINFALL (mm)= 63.63 63.63 63.63
 RUNOFF COEFFICIENT = 0.97 0.35 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7662) | Area (ha)= 1.61
 | ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.48	0.13
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.13	12.250	68.83	18.33	1.12
0.167	0.00	6.250	1.13	12.333	10.91	18.42	1.12
0.250	0.00	6.333	1.16	12.417	10.90	18.50	1.12
0.333	0.65	6.417	1.16	12.500	10.90	18.58	1.09
0.417	0.65	6.500	1.16	12.583	7.42	18.67	1.09
0.500	0.65	6.583	1.19	12.667	7.42	18.75	1.09
0.583	0.66	6.667	1.19	12.750	7.42	18.83	1.04
0.667	0.66	6.750	1.19	12.833	5.11	18.92	1.04
0.750	0.66	6.833	1.23	12.917	5.11	19.00	1.04



0.833	0.68	6.917	1.23	13.000	5.11	19.08	1.01
0.917	0.68	7.000	1.23	13.083	4.31	19.17	1.01
1.000	0.68	7.083	1.26	13.167	4.31	19.25	1.01
1.083	0.69	7.167	1.26	13.250	4.31	19.33	0.97
1.167	0.69	7.250	1.26	13.333	3.65	19.42	0.97
1.250	0.69	7.333	1.29	13.417	3.65	19.50	0.97
1.333	0.71	7.417	1.29	13.500	3.65	19.58	0.93
1.417	0.71	7.500	1.29	13.583	3.22	19.67	0.93
1.500	0.71	7.583	1.32	13.667	3.22	19.75	0.93
1.583	0.72	7.667	1.32	13.750	3.22	19.83	0.89
1.667	0.72	7.750	1.32	13.833	2.83	19.92	0.89
1.750	0.72	7.833	1.35	13.917	2.83	20.00	0.89
1.833	0.74	7.917	1.35	14.000	2.83	20.08	0.85
1.917	0.74	8.000	1.35	14.083	2.52	20.17	0.85
2.000	0.74	8.083	1.38	14.167	2.52	20.25	0.85
2.083	0.75	8.167	1.38	14.250	2.52	20.33	0.82
2.167	0.75	8.250	1.38	14.333	2.30	20.42	0.82
2.250	0.75	8.333	1.48	14.417	2.30	20.50	0.82
2.333	0.77	8.417	1.48	14.500	2.30	20.58	0.82
2.417	0.77	8.500	1.48	14.583	2.19	20.67	0.82
2.500	0.77	8.583	1.64	14.667	2.19	20.75	0.82
2.583	0.79	8.667	1.64	14.750	2.19	20.83	0.81
2.667	0.79	8.750	1.64	14.833	2.07	20.92	0.81
2.750	0.79	8.833	1.80	14.917	2.07	21.00	0.81
2.833	0.80	8.917	1.80	15.000	2.07	21.08	0.80
2.917	0.80	9.000	1.80	15.083	1.97	21.17	0.80
3.000	0.80	9.083	1.95	15.167	1.97	21.25	0.80
3.083	0.82	9.167	1.95	15.250	1.97	21.33	0.79
3.167	0.82	9.250	1.95	15.333	1.85	21.42	0.79
3.250	0.82	9.333	2.04	15.417	1.85	21.50	0.79
3.333	0.84	9.417	2.04	15.500	1.85	21.58	0.78
3.417	0.84	9.500	2.04	15.583	1.74	21.67	0.78
3.500	0.84	9.583	2.04	15.667	1.74	21.75	0.78
3.583	0.85	9.667	2.04	15.750	1.74	21.83	0.78
3.667	0.85	9.750	2.04	15.833	1.63	21.92	0.78
3.750	0.85	9.833	2.17	15.917	1.63	22.00	0.78
3.833	0.87	9.917	2.17	16.000	1.63	22.08	0.77
3.917	0.87	10.000	2.17	16.083	1.52	22.17	0.77
4.000	0.87	10.083	2.41	16.167	1.52	22.25	0.77
4.083	0.88	10.167	2.41	16.250	1.52	22.33	0.76
4.167	0.88	10.250	2.41	16.333	1.44	22.42	0.76
4.250	0.88	10.333	2.74	16.417	1.44	22.50	0.76
4.333	0.91	10.417	2.74	16.500	1.44	22.58	0.75
4.417	0.91	10.500	2.74	16.583	1.40	22.67	0.75
4.500	0.91	10.583	3.11	16.667	1.40	22.75	0.75
4.583	0.94	10.667	3.11	16.750	1.40	22.83	0.74
4.667	0.94	10.750	3.11	16.833	1.36	22.92	0.74
4.750	0.94	10.833	3.64	16.917	1.36	23.00	0.74
4.833	0.97	10.917	3.64	17.000	1.36	23.08	0.74
4.917	0.97	11.000	3.64	17.083	1.32	23.17	0.74
5.000	0.97	11.083	4.25	17.167	1.32	23.25	0.74
5.083	1.00	11.167	4.25	17.250	1.32	23.33	0.73
5.167	1.00	11.250	4.25	17.333	1.28	23.42	0.73
5.250	1.00	11.333	5.38	17.417	1.28	23.50	0.73
5.333	1.03	11.417	5.38	17.500	1.28	23.58	0.72
5.417	1.03	11.500	5.38	17.583	1.25	23.67	0.72
5.500	1.03	11.583	6.84	17.667	1.25	23.75	0.72
5.583	1.07	11.667	6.84	17.750	1.25	23.83	0.71
5.667	1.07	11.750	6.84	17.833	1.20	23.92	0.71
5.750	1.07	11.833	27.89	17.917	1.20	24.00	0.71
5.833	1.10	11.917	27.89	18.000	1.20	24.08	0.70
5.917	1.10	12.000	27.89	18.083	1.17	24.17	0.70
6.000	1.10	12.083	68.82	18.167	1.17	24.25	0.70
6.083	1.13	12.167	68.83	18.250	1.17		

Max.Eff.Inten.(mm/hr)= 68.83 16.13
 over (min) = 5.00 35.00
 Storage Coeff. (min)= 2.88 (ii) 34.59 (ii)
 Unit Hyd. Tpeak (min)= 5.00 35.00
 Unit Hyd. peak (cms)= 0.28 0.03

TOTALS
 PEAK FLOW (cms)= 0.28 0.00 0.284 (iii)
 TIME TO PEAK (hrs)= 12.25 12.67 12.25
 RUNOFF VOLUME (mm)= 61.63 22.53 58.49
 TOTAL RAINFALL (mm)= 63.63 63.63
 RUNOFF COEFFICIENT = 0.97 0.35 0.92

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7701)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7654):	1.69	0.320	12.25	61.24
+ ID2= 2 (7655):	1.32	0.250	12.25	61.24
=====				
ID = 3 (7701):	3.01	0.570	12.25	61.24

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7701)				
3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7701):	3.01	0.570	12.25	61.24
+ ID2= 2 (7662):	1.61	0.284	12.25	58.49
=====				
ID = 1 (7701):	4.62	0.854	12.25	60.28

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7707)	Area	(ha)=	1.06
ID= 1 DT= 5.0 min	Total Imp(%)=	95.00	Dir. Conn.(%)= 95.00

			IMPERVIOUS		PERVIOUS (i)	
Surface Area	(ha)=	1.01	0.05			
Dep. Storage	(mm)=	2.00	5.00			
Average Slope	(%)=	2.50	2.00			
Length	(m)=	60.00	40.00			
Mannings n	=	0.013	0.250			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.13	12.250	68.83	18.33	1.12				
0.167	0.00	6.250	1.13	12.333	10.91	18.42	1.12				
0.250	0.00	6.333	1.16	12.417	10.90	18.50	1.12				
0.333	0.65	6.417	1.16	12.500	10.90	18.58	1.09				
0.417	0.65	6.500	1.16	12.583	7.42	18.67	1.09				
0.500	0.65	6.583	1.19	12.667	7.42	18.75	1.09				
0.583	0.66	6.667	1.19	12.750	7.42	18.83	1.04				
0.667	0.66	6.750	1.19	12.833	5.11	18.92	1.04				
0.750	0.66	6.833	1.23	12.917	5.11	19.00	1.04				
0.833	0.68	6.917	1.23	13.000	5.11	19.08	1.01				
0.917	0.68	7.000	1.23	13.083	4.31	19.17	1.01				
1.000	0.68	7.083	1.26	13.167	4.31	19.25	1.01				
1.083	0.69	7.167	1.26	13.250	4.31	19.33	0.97				
1.167	0.69	7.250	1.26	13.333	3.65	19.42	0.97				
1.250	0.69	7.333	1.29	13.417	3.65	19.50	0.97				
1.333	0.71	7.417	1.29	13.500	3.65	19.58	0.93				
1.417	0.71	7.500	1.29	13.583	3.22	19.67	0.93				
1.500	0.71	7.583	1.32	13.667	3.22	19.75	0.93				
1.583	0.72	7.667	1.32	13.750	3.22	19.83	0.89				
1.667	0.72	7.750	1.32	13.833	2.83	19.92	0.89				
1.750	0.72	7.833	1.35	13.917	2.83	20.00	0.89				
1.833	0.74	7.917	1.35	14.000	2.83	20.08	0.85				
1.917	0.74	8.000	1.35	14.083	2.52	20.17	0.85				
2.000	0.74	8.083	1.38	14.167	2.52	20.25	0.85				

2.083	0.75	8.167	1.38	14.250	2.52	20.33	0.82
2.167	0.75	8.250	1.38	14.333	2.30	20.42	0.82
2.250	0.75	8.333	1.48	14.417	2.30	20.50	0.82
2.333	0.77	8.417	1.48	14.500	2.30	20.58	0.82
2.417	0.77	8.500	1.48	14.583	2.19	20.67	0.82
2.500	0.77	8.583	1.64	14.667	2.19	20.75	0.82
2.583	0.79	8.667	1.64	14.750	2.19	20.83	0.81
2.667	0.79	8.750	1.64	14.833	2.07	20.92	0.81
2.750	0.79	8.833	1.80	14.917	2.07	21.00	0.81
2.833	0.80	8.917	1.80	15.000	2.07	21.08	0.80
2.917	0.80	9.000	1.80	15.083	1.97	21.17	0.80
3.000	0.80	9.083	1.95	15.167	1.97	21.25	0.80
3.083	0.82	9.167	1.95	15.250	1.97	21.33	0.79
3.167	0.82	9.250	1.95	15.333	1.85	21.42	0.79
3.250	0.82	9.333	2.04	15.417	1.85	21.50	0.79
3.333	0.84	9.417	2.04	15.500	1.85	21.58	0.78
3.417	0.84	9.500	2.04	15.583	1.74	21.67	0.78
3.500	0.84	9.583	2.04	15.667	1.74	21.75	0.78
3.583	0.85	9.667	2.04	15.750	1.74	21.83	0.78
3.667	0.85	9.750	2.04	15.833	1.63	21.92	0.78
3.750	0.85	9.833	2.17	15.917	1.63	22.00	0.78
3.833	0.87	9.917	2.17	16.000	1.63	22.08	0.77
3.917	0.87	10.000	2.17	16.083	1.52	22.17	0.77
4.000	0.87	10.083	2.41	16.167	1.52	22.25	0.77
4.083	0.88	10.167	2.41	16.250	1.52	22.33	0.76
4.167	0.88	10.250	2.41	16.333	1.44	22.42	0.76
4.250	0.88	10.333	2.74	16.417	1.44	22.50	0.76
4.333	0.91	10.417	2.74	16.500	1.44	22.58	0.75
4.417	0.91	10.500	2.74	16.583	1.40	22.67	0.75
4.500	0.91	10.583	3.11	16.667	1.40	22.75	0.75
4.583	0.94	10.667	3.11	16.750	1.40	22.83	0.74
4.667	0.94	10.750	3.11	16.833	1.36	22.92	0.74
4.750	0.94	10.833	3.64	16.917	1.36	23.00	0.74
4.833	0.97	10.917	3.64	17.000	1.36	23.08	0.74
4.917	0.97	11.000	3.64	17.083	1.32	23.17	0.74
5.000	0.97	11.083	4.25	17.167	1.32	23.25	0.74
5.083	1.00	11.167	4.25	17.250	1.32	23.33	0.73
5.167	1.00	11.250	4.25	17.333	1.28	23.42	0.73
5.250	1.00	11.333	5.38	17.417	1.28	23.50	0.73
5.333	1.03	11.417	5.38	17.500	1.28	23.58	0.72
5.417	1.03	11.500	5.38	17.583	1.25	23.67	0.72
5.500	1.03	11.583	6.84	17.667	1.25	23.75	0.72
5.583	1.07	11.667	6.84	17.750	1.25	23.83	0.71
5.667	1.07	11.750	6.84	17.833	1.20	23.92	0.71
5.750	1.07	11.833	27.89	17.917	1.20	24.00	0.71
5.833	1.10	11.917	27.89	18.000	1.20	24.08	0.70
5.917	1.10	12.000	27.89	18.083	1.17	24.17	0.70
6.000	1.10	12.083	68.82	18.167	1.17	24.25	0.70
6.083	1.13	12.167	68.83	18.250	1.17		

Max.Eff.Inten.(mm/hr)= 68.83 31.11
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.66 (ii) 4.18 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.24

TOTALS
 PEAK FLOW (cms)= 0.19 0.00 0.197 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 61.63 23.25 59.71
 TOTAL RAINFALL (mm)= 63.63 63.63 63.63
 RUNOFF COEFFICIENT = 0.97 0.37 0.94

- ***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
 - (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
 - (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7702)				
1 + 2 = 3				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	

ID1= 1 (7623):	1.20	0.223	12.25	59.71
+ ID2= 2 (7700):	4.48	0.842	12.25	60.74

ID = 3 (7702):	5.68	1.065	12.25	60.52

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
3 + 2 = 1				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7702):	5.68	1.065	12.25	60.52
+ ID2= 2 (7701):	4.62	0.854	12.25	60.28

ID = 1 (7702):	10.30	1.919	12.25	60.41

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
1 + 2 = 3				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7702):	10.30	1.919	12.25	60.41
+ ID2= 2 (7707):	1.06	0.197	12.25	59.71

ID = 3 (7702):	11.36	2.116	12.25	60.35

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
3 + 2 = 1				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7702):	11.36	2.116	12.25	60.35
+ ID2= 2 (7714):	14.31	1.093	12.25	62.22

ID = 1 (7702):	25.67	3.209	12.25	61.39

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7705)				
OVERFLOW IS OFF				
IN= 2----> OUT= 1				
DT= 5.0 min				
OUTFLOW	STORAGE	OUTFLOW	STORAGE	
(cms)	(ha.m.)	(cms)	(ha.m.)	
0.0000	0.0000	0.6280	2.3980	
0.0730	0.2080	0.6400	2.4830	
0.0890	0.2770	0.6520	2.5670	
0.1340	0.5530	0.6640	2.6500	
0.2910	0.8290	0.6750	2.7340	
0.3860	1.1060	0.7190	3.0490	
0.4590	1.3820	0.8250	3.3550	
0.5220	1.7210	2.0760	3.4560	
0.5780	2.0600	2.3560	3.7320	

AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 2 (7702)	25.670	3.209	12.25	61.39
OUTFLOW: ID= 1 (7705)	25.670	0.253	16.50	61.36

PEAK FLOW REDUCTION [Qout/Qin] (%) = 7.88
 TIME SHIFT OF PEAK FLOW (min) = 255.00
 MAXIMUM STORAGE USED (ha.m.) = 0.7618

CALIB			
STANDHYD (7716)			
ID= 1 DT= 5.0 min	Area (ha)=	0.19	
	Total Imp (%) =	95.00	Dir. Conn. (%) = 95.00

Surface Area	(ha)=	0.18	0.01
Dep. Storage	(mm)=	2.00	5.00

IMPERVIOUS	PVIOUS (i)		
(ha)=	(mm)=		



Average Slope (%) = 2.50 2.00
 Length (m) = 60.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.13	12.250	68.83	18.33	1.12
0.167	0.00	6.250	1.13	12.333	10.91	18.42	1.12
0.250	0.00	6.333	1.16	12.417	10.90	18.50	1.12
0.333	0.65	6.417	1.16	12.500	10.90	18.58	1.09
0.417	0.65	6.500	1.16	12.583	7.42	18.67	1.09
0.500	0.65	6.583	1.19	12.667	7.42	18.75	1.09
0.583	0.66	6.667	1.19	12.750	7.42	18.83	1.04
0.667	0.66	6.750	1.19	12.833	5.11	18.92	1.04
0.750	0.66	6.833	1.23	12.917	5.11	19.00	1.04
0.833	0.68	6.917	1.23	13.000	5.11	19.08	1.01
0.917	0.68	7.000	1.23	13.083	4.31	19.17	1.01
1.000	0.68	7.083	1.26	13.167	4.31	19.25	1.01
1.083	0.69	7.167	1.26	13.250	4.31	19.33	0.97
1.167	0.69	7.250	1.26	13.333	3.65	19.42	0.97
1.250	0.69	7.333	1.29	13.417	3.65	19.50	0.97
1.333	0.71	7.417	1.29	13.500	3.65	19.58	0.93
1.417	0.71	7.500	1.29	13.583	3.22	19.67	0.93
1.500	0.71	7.583	1.32	13.667	3.22	19.75	0.93
1.583	0.72	7.667	1.32	13.750	3.22	19.83	0.89
1.667	0.72	7.750	1.32	13.833	2.83	19.92	0.89
1.750	0.72	7.833	1.35	13.917	2.83	20.00	0.89
1.833	0.74	7.917	1.35	14.000	2.83	20.08	0.85
1.917	0.74	8.000	1.35	14.083	2.52	20.17	0.85
2.000	0.74	8.083	1.38	14.167	2.52	20.25	0.85
2.083	0.75	8.167	1.38	14.250	2.52	20.33	0.82
2.167	0.75	8.250	1.38	14.333	2.30	20.42	0.82
2.250	0.75	8.333	1.48	14.417	2.30	20.50	0.82
2.333	0.77	8.417	1.48	14.500	2.30	20.58	0.82
2.417	0.77	8.500	1.48	14.583	2.19	20.67	0.82
2.500	0.77	8.583	1.64	14.667	2.19	20.75	0.82
2.583	0.79	8.667	1.64	14.750	2.19	20.83	0.81
2.667	0.79	8.750	1.64	14.833	2.07	20.92	0.81
2.750	0.79	8.833	1.80	14.917	2.07	21.00	0.81
2.833	0.80	8.917	1.80	15.000	2.07	21.08	0.80
2.917	0.80	9.000	1.80	15.083	1.97	21.17	0.80
3.000	0.80	9.083	1.95	15.167	1.97	21.25	0.80
3.083	0.82	9.167	1.95	15.250	1.97	21.33	0.79
3.167	0.82	9.250	1.95	15.333	1.85	21.42	0.79
3.250	0.82	9.333	2.04	15.417	1.85	21.50	0.79
3.333	0.84	9.417	2.04	15.500	1.85	21.58	0.78
3.417	0.84	9.500	2.04	15.583	1.74	21.67	0.78
3.500	0.84	9.583	2.04	15.667	1.74	21.75	0.78
3.583	0.85	9.667	2.04	15.750	1.74	21.83	0.78
3.667	0.85	9.750	2.04	15.833	1.63	21.92	0.78
3.750	0.85	9.833	2.17	15.917	1.63	22.00	0.78
3.833	0.87	9.917	2.17	16.000	1.63	22.08	0.77
3.917	0.87	10.000	2.17	16.083	1.52	22.17	0.77
4.000	0.87	10.083	2.41	16.167	1.52	22.25	0.77
4.083	0.88	10.167	2.41	16.250	1.52	22.33	0.76
4.167	0.88	10.250	2.41	16.333	1.44	22.42	0.76
4.250	0.88	10.333	2.74	16.417	1.44	22.50	0.76
4.333	0.91	10.417	2.74	16.500	1.44	22.58	0.75
4.417	0.91	10.500	2.74	16.583	1.40	22.67	0.75
4.500	0.91	10.583	3.11	16.667	1.40	22.75	0.75
4.583	0.94	10.667	3.11	16.750	1.40	22.83	0.74
4.667	0.94	10.750	3.11	16.833	1.36	22.92	0.74
4.750	0.94	10.833	3.64	16.917	1.36	23.00	0.74
4.833	0.97	10.917	3.64	17.000	1.36	23.08	0.74
4.917	0.97	11.000	3.64	17.083	1.32	23.17	0.74
5.000	0.97	11.083	4.25	17.167	1.32	23.25	0.74
5.083	1.00	11.167	4.25	17.250	1.32	23.33	0.73
5.167	1.00	11.250	4.25	17.333	1.28	23.42	0.73
5.250	1.00	11.333	5.38	17.417	1.28	23.50	0.73
5.333	1.03	11.417	5.38	17.500	1.28	23.58	0.72
5.417	1.03	11.500	5.38	17.583	1.25	23.67	0.72
5.500	1.03	11.583	6.84	17.667	1.25	23.75	0.72

5.583	1.07	11.667	6.84	17.750	1.25	23.83	0.71
5.667	1.07	11.750	6.84	17.833	1.20	23.92	0.71
5.750	1.07	11.833	27.89	17.917	1.20	24.00	0.71
5.833	1.10	11.917	27.89	18.000	1.20	24.08	0.70
5.917	1.10	12.000	27.89	18.083	1.17	24.17	0.70
6.000	1.10	12.083	68.82	18.167	1.17	24.25	0.70
6.083	1.13	12.167	68.83	18.250	1.17		

Max.Eff.Inten. (mm/hr)=	68.83	31.11	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.66 (ii)	4.18 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.32	0.24	
PEAK FLOW (cms)=	0.03	0.00	0.035 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	61.63	23.25	59.71
TOTAL RAINFALL (mm)=	63.63	63.63	63.63
RUNOFF COEFFICIENT =	0.97	0.37	0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7720)	OVERFLOW IS OFF	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
IN= 2---> OUT= 1		0.0000	0.0000	0.0100	0.0090
DT= 5.0 min		0.0030	0.0010	0.0110	0.0100
		0.0050	0.0030	0.0120	0.0110
		0.0060	0.0040	0.0120	0.0130
		0.0080	0.0050	0.0130	0.0140
		0.0090	0.0060	0.0140	0.0150
		0.0090	0.0080	0.0000	0.0000

INFLOW : ID= 2 (7716)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
	0.190	0.035	12.25	59.71
OUTFLOW: ID= 1 (7720)	0.190	0.007	12.33	59.28

PEAK FLOW REDUCTION [Qout/Qin] (%) = 19.24
 TIME SHIFT OF PEAK FLOW (min) = 5.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0044

CALIB	Area (ha)	IMPERVIOUS	PERVIOUS (i)
STANDHYD (7717)	0.20	0.19	0.01
ID= 1 DT= 5.0 min	95.00	2.00	5.00
		2.50	2.00
		36.51	40.00
		0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.13	12.250	68.83	18.33	1.12
0.167	0.00	6.250	1.13	12.333	10.91	18.42	1.12
0.250	0.00	6.333	1.16	12.417	10.90	18.50	1.12
0.333	0.65	6.417	1.16	12.500	10.90	18.58	1.09
0.417	0.65	6.500	1.16	12.583	7.42	18.67	1.09
0.500	0.65	6.583	1.19	12.667	7.42	18.75	1.09

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.13	12.250	68.83	18.33	1.12
0.167	0.00	6.250	1.13	12.333	10.91	18.42	1.12
0.250	0.00	6.333	1.16	12.417	10.90	18.50	1.12
0.333	0.65	6.417	1.16	12.500	10.90	18.58	1.09
0.417	0.65	6.500	1.16	12.583	7.42	18.67	1.09
0.500	0.65	6.583	1.19	12.667	7.42	18.75	1.09
0.583	0.66	6.667	1.19	12.750	7.42	18.83	1.04
0.667	0.66	6.750	1.19	12.833	5.11	18.92	1.04
0.750	0.66	6.833	1.23	12.917	5.11	19.00	1.04
0.833	0.68	6.917	1.23	13.000	5.11	19.08	1.01
0.917	0.68	7.000	1.23	13.083	4.31	19.17	1.01
1.000	0.68	7.083	1.26	13.167	4.31	19.25	1.01
1.083	0.69	7.167	1.26	13.250	4.31	19.33	0.97
1.167	0.69	7.250	1.26	13.333	3.65	19.42	0.97
1.250	0.69	7.333	1.29	13.417	3.65	19.50	0.97
1.333	0.71	7.417	1.29	13.500	3.65	19.58	0.93
1.417	0.71	7.500	1.29	13.583	3.22	19.67	0.93
1.500	0.71	7.583	1.32	13.667	3.22	19.75	0.93
1.583	0.72	7.667	1.32	13.750	3.22	19.83	0.89
1.667	0.72	7.750	1.32	13.833	2.83	19.92	0.89
1.750	0.72	7.833	1.35	13.917	2.83	20.00	0.89
1.833	0.74	7.917	1.35	14.000	2.83	20.08	0.85
1.917	0.74	8.000	1.35	14.083	2.52	20.17	0.85
2.000	0.74	8.083	1.38	14.167	2.52	20.25	0.85
2.083	0.75	8.167	1.38	14.250	2.52	20.33	0.82
2.167	0.75	8.250	1.38	14.333	2.30	20.42	0.82
2.250	0.75	8.333	1.48	14.417	2.30	20.50	0.82
2.333	0.77	8.417	1.48	14.500	2.30	20.58	0.82
2.417	0.77	8.500	1.48	14.583	2.19	20.67	0.82
2.500	0.77	8.583	1.64	14.667	2.19	20.75	0.82
2.583	0.79	8.667	1.64	14.750	2.19	20.83	0.81
2.667	0.79	8.750	1.64	14.833	2.07	20.92	0.81
2.750	0.79	8.833	1.80	14.917	2.07	21.00	0.81
2.833	0.80	8.917	1.80	15.000	2.07	21.08	0.80
2.917	0.80	9.000	1.80	15.083	1.97	21.17	0.80
3.000	0.80	9.083	1.95	15.167	1.97	21.25	0.80
3.083	0.82	9.167	1.95	15.250	1.97	21.33	0.79
3.167	0.82	9.250	1.95	15.333	1.85	21.42	0.79
3.250	0.82	9.333	2.04	15.417	1.85	21.50	0.79
3.333	0.84	9.417	2.04	15.500	1.85	21.58	0.78
3.417	0.84	9.500	2.04	15.583	1.74	21.67	0.78
3.500	0.84	9.583	2.04	15.667	1.74	21.75	0.78
3.583	0.85	9.667	2.04	15.750	1.74	21.83	0.78
3.667	0.85	9.750	2.04	15.833	1.63	21.92	0.78
3.750	0.85	9.833	2.17	15.917	1.63	22.00	0.78
3.833	0.87	9.917	2.17	16.000	1.63	22.08	0.77
3.917	0.87	10.000	2.17	16.083	1.52	22.17	0.77
4.000	0.87	10.083	2.41	16.167	1.52	22.25	0.77
4.083	0.88	10.167	2.41	16.250	1.52	22.33	0.76
4.167	0.88	10.250	2.41	16.333	1.44	22.42	0.76
4.250	0.88	10.333	2.74	16.417	1.44	22.50	0.76
4.333	0.91	10.417	2.74	16.500	1.44	22.58	0.75
4.417	0.91	10.500	2.74	16.583	1.40	22.67	0.75
4.500	0.91	10.583	3.11	16.667	1.40	22.75	0.75
4.583	0.94	10.667	3.11	16.750	1.40	22.83	0.74
4.667	0.94	10.750	3.11	16.833	1.36	22.92	0.74
4.750	0.94	10.833	3.64	16.917	1.36	23.00	0.74
4.833	0.97	10.917	3.64	17.000	1.36	23.08	0.74
4.917	0.97	11.000	3.64	17.083	1.32	23.17	0.74
5.000	0.97	11.083	4.25	17.167	1.32	23.25	0.74
5.083	1.00	11.167	4.25	17.250	1.32	23.33	0.73
5.167	1.00	11.250	4.25	17.333	1.28	23.42	0.73
5.250	1.00	11.333	5.38	17.417	1.28	23.50	0.73
5.333	1.03	11.417	5.38	17.500	1.28	23.58	0.72
5.417	1.03	11.500	5.38	17.583	1.25	23.67	0.72
5.500	1.03	11.583	6.84	17.667	1.25	23.75	0.72
5.583	1.07	11.667	6.84	17.750	1.25	23.83	0.71
5.667	1.07	11.750	6.84	17.833	1.20	23.92	0.71
5.750	1.07	11.833	27.89	17.917	1.20	24.00	0.71
5.833	1.10	11.917	27.89	18.000	1.20	24.08	0.70
5.917	1.10	12.000	27.89	18.083	1.17	24.17	0.70
6.000	1.10	12.083	68.82	18.167	1.17	24.25	0.70
6.083	1.13	12.167	68.83	18.250	1.17		

Max.Eff.Inten.(mm/hr)=	68.83	30.11
over (min)	5.00	5.00
Storage Coeff. (min)=	2.28 (ii)	3.58 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.30	0.26
PEAK FLOW (cms)=	0.23	0.00
TIME TO PEAK (hrs)=	12.25	12.25
RUNOFF VOLUME (mm)=	61.63	22.53
TOTAL RAINFALL (mm)=	63.63	63.63
RUNOFF COEFFICIENT =	0.97	0.35

TOTALS
0.236 (iii)
12.25
61.24
63.63
0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7718)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7595):	1.24	0.236	12.25	61.24
+ ID2= 2 (7706):	26.06	0.258	15.83	61.33
ID = 3 (7718):	27.30	0.382	12.25	61.33

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7711)				
OVERFLOW IS OFF				
IN= 2--> OUT= 1	OUTFLOW	STORAGE	OUTFLOW	STORAGE
DT= 5.0 min	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	1.0810	1.6220
	0.0010	0.1670	1.3950	1.8170
	0.0340	0.3380	2.0990	2.2130
	0.0510	0.5110	2.8950	2.6150
	0.0630	0.6880	3.7730	3.0250
	0.1610	0.8670	4.7260	3.4420
	0.3300	1.0500	5.5670	3.8670
	0.5440	1.2370	8.5800	4.3000
	0.7970	1.4290	10.9450	4.5210
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7718)	27.302	0.382	12.25	61.33
OUTFLOW: ID= 1 (7711)	27.302	0.131	24.50	55.85

PEAK FLOW REDUCTION [Qout/Qin](%) = 34.26
TIME SHIFT OF PEAK FLOW (min)=735.00
MAXIMUM STORAGE USED (ha.m.) = 0.8119



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V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O O
O O T T H H Y Y M M O O O
OOO T T H H Y Y M M OOO

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6.00 1.27 | 12.25 12.29 | 18.50 1.23 |

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| CALIB |
| STANDHYD ( 7640) | Area (ha)= 0.59
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.58 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 62.72 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat
Output filename: C:\Users\mhooper\AppData\Local\Civica\5\40fcb7f5-f544-4d5a-b245-
a4eb1ead57\dac89947-2187-49d7-baaf-9a50341ff16a\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\5\40fcb7f5-f544-4d5a-b245-
a4eb1ead57\dac89947-2187-49d7-baaf-9a50341ff16a\scen

```

DATE: 11-22-2024 TIME: 12:17:36

USER:

COMMENTS: _____

```

*****
** SIMULATION : 0 - 10yr 24hr 15min SCS Type **
*****

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-----
| READ STORM | Filename: C:\Users\mhooper\AppData
| | ata\Local\Temp\
| | 23be32ce-1a71-4aef-a5bf-302738051fdc\d4bdfdc29
| Ptotal= 71.73 mm | Comments: 10yr 24hr 15min SCS Type II
-----

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TIME	RAIN	TIME	RAIN	'	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.25	1.31	12.50	8.37	18.75	1.18	
0.25	0.73	6.50	1.34	12.75	5.76	19.00	1.13	
0.50	0.74	6.75	1.38	13.00	4.86	19.25	1.09	
0.75	0.76	7.00	1.42	13.25	4.11	19.50	1.05	
1.00	0.78	7.25	1.45	13.50	3.63	19.75	1.00	
1.25	0.80	7.50	1.49	13.75	3.18	20.00	0.96	
1.50	0.82	7.75	1.52	14.00	2.84	20.25	0.93	
1.75	0.83	8.00	1.56	14.25	2.59	20.50	0.92	
2.00	0.85	8.25	1.67	14.50	2.47	20.75	0.91	
2.25	0.87	8.50	1.84	14.75	2.34	21.00	0.90	
2.50	0.89	8.75	2.03	15.00	2.22	21.25	0.89	
2.75	0.91	9.00	2.20	15.25	2.09	21.50	0.88	
3.00	0.92	9.25	2.30	15.50	1.97	21.75	0.87	
3.25	0.94	9.50	2.30	15.75	1.83	22.00	0.87	
3.50	0.96	9.75	2.44	16.00	1.71	22.25	0.86	
3.75	0.98	10.00	2.72	16.25	1.63	22.50	0.85	
4.00	0.99	10.25	3.09	16.50	1.58	22.75	0.84	
4.25	1.02	10.50	3.51	16.75	1.54	23.00	0.83	
4.50	1.06	10.75	4.10	17.00	1.49	23.25	0.82	
4.75	1.09	11.00	4.79	17.25	1.45	23.50	0.81	
5.00	1.13	11.25	6.06	17.50	1.40	23.75	0.80	
5.25	1.17	11.50	7.71	17.75	1.36	24.00	0.79	
5.50	1.20	11.75	31.44	18.00	1.31			
5.75	1.24	12.00	77.59	18.25	1.27			

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----- TRANSFORMED HYETOGRAPH -----

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TIME	RAIN	TIME	RAIN	'	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.27	12.250	77.59	18.33	1.27	
0.167	0.00	6.250	1.27	12.333	12.30	18.42	1.27	
0.250	0.00	6.333	1.31	12.417	12.29	18.50	1.27	
0.333	0.73	6.417	1.31	12.500	12.29	18.58	1.23	
0.417	0.73	6.500	1.31	12.583	8.37	18.67	1.23	
0.500	0.73	6.583	1.34	12.667	8.37	18.75	1.23	
0.583	0.74	6.667	1.34	12.750	8.37	18.83	1.18	
0.667	0.74	6.750	1.34	12.833	5.76	18.92	1.18	
0.750	0.74	6.833	1.38	12.917	5.76	19.00	1.18	
0.833	0.76	6.917	1.38	13.000	5.76	19.08	1.13	
0.917	0.76	7.000	1.38	13.083	4.86	19.17	1.13	
1.000	0.76	7.083	1.42	13.167	4.86	19.25	1.13	
1.083	0.78	7.167	1.42	13.250	4.86	19.33	1.09	
1.167	0.78	7.250	1.42	13.333	4.11	19.42	1.09	
1.250	0.78	7.333	1.45	13.417	4.11	19.50	1.09	
1.333	0.80	7.417	1.45	13.500	4.11	19.58	1.05	
1.417	0.80	7.500	1.45	13.583	3.63	19.67	1.05	
1.500	0.80	7.583	1.49	13.667	3.63	19.75	1.05	
1.583	0.82	7.667	1.49	13.750	3.63	19.83	1.00	
1.667	0.82	7.750	1.49	13.833	3.18	19.92	1.00	
1.750	0.82	7.833	1.52	13.917	3.18	20.00	1.00	
1.833	0.83	7.917	1.52	14.000	3.18	20.08	0.96	
1.917	0.83	8.000	1.52	14.083	2.84	20.17	0.96	
2.000	0.83	8.083	1.56	14.167	2.84	20.25	0.96	
2.083	0.85	8.167	1.56	14.250	2.84	20.33	0.93	
2.167	0.85	8.250	1.56	14.333	2.59	20.42	0.93	
2.250	0.85	8.333	1.67	14.417	2.59	20.50	0.93	
2.333	0.87	8.417	1.67	14.500	2.59	20.58	0.92	
2.417	0.87	8.500	1.67	14.583	2.47	20.67	0.92	
2.500	0.87	8.583	1.84	14.667	2.47	20.75	0.92	
2.583	0.89	8.667	1.84	14.750	2.47	20.83	0.91	
2.667	0.89	8.750	1.84	14.833	2.34	20.92	0.91	
2.750	0.89	8.833	2.03	14.917	2.34	21.00	0.91	
2.833	0.91	8.917	2.03	15.000	2.34	21.08	0.90	
2.917	0.91	9.000	2.03	15.083	2.22	21.17	0.90	
3.000	0.91	9.083	2.20	15.167	2.22	21.25	0.90	
3.083	0.92	9.167	2.20	15.250	2.22	21.33	0.89	
3.167	0.92	9.250	2.20	15.333	2.09	21.42	0.89	
3.250	0.92	9.333	2.30	15.417	2.09	21.50	0.89	
3.333	0.94	9.417	2.30	15.500	2.09	21.58	0.88	
3.417	0.94	9.500	2.30	15.583	1.97	21.67	0.88	
3.500	0.94	9.583	2.30	15.667	1.97	21.75	0.88	
3.583	0.96	9.667	2.30	15.750	1.97	21.83	0.87	
3.667	0.96	9.750	2.30	15.833	1.83	21.92	0.87	
3.750	0.96	9.833	2.44	15.917	1.83	22.00	0.87	
3.833	0.98	9.917	2.44	16.000	1.83	22.08	0.87	
3.917	0.98	10.000	2.44	16.083	1.71	22.17	0.87	
4.000	0.98	10.083	2.72	16.167	1.71	22.25	0.87	
4.083	0.99	10.167	2.72	16.250	1.71	22.33	0.86	
4.167	0.99	10.250	2.72	16.333	1.63	22.42	0.86	
4.250	0.99	10.333	3.09	16.417	1.63	22.50	0.86	
4.333	1.02	10.417	3.09	16.500	1.63	22.58	0.85	
4.417	1.02	10.500	3.09	16.583	1.58	22.67	0.85	
4.500	1.02	10.583	3.51	16.667	1.58	22.75	0.85	



4.583	1.06	10.667	3.51	16.750	1.58	22.83	0.84
4.667	1.06	10.750	3.51	16.833	1.54	22.92	0.84
4.750	1.06	10.833	4.10	16.917	1.54	23.00	0.84
4.833	1.09	10.917	4.10	17.000	1.54	23.08	0.83
4.917	1.09	11.000	4.10	17.083	1.49	23.17	0.83
5.000	1.09	11.083	4.79	17.167	1.49	23.25	0.83
5.083	1.13	11.167	4.79	17.250	1.49	23.33	0.82
5.167	1.13	11.250	4.79	17.333	1.45	23.42	0.82
5.250	1.13	11.333	6.06	17.417	1.45	23.50	0.82
5.333	1.17	11.417	6.06	17.500	1.45	23.58	0.81
5.417	1.17	11.500	6.06	17.583	1.40	23.67	0.81
5.500	1.17	11.583	7.71	17.667	1.40	23.75	0.81
5.583	1.20	11.667	7.71	17.750	1.40	23.83	0.80
5.667	1.20	11.750	7.71	17.833	1.36	23.92	0.80
5.750	1.20	11.833	31.44	17.917	1.36	24.00	0.80
5.833	1.24	11.917	31.44	18.000	1.36	24.08	0.79
5.917	1.24	12.000	31.44	18.083	1.31	24.17	0.79
6.000	1.24	12.083	77.58	18.167	1.31	24.25	0.79
6.083	1.27	12.167	77.59	18.250	1.31		

2.000	0.83	8.083	1.56	14.167	2.84	20.25	0.96
2.083	0.85	8.167	1.56	14.250	2.84	20.33	0.93
2.167	0.85	8.250	1.56	14.333	2.59	20.42	0.93
2.250	0.85	8.333	1.67	14.417	2.59	20.50	0.93
2.333	0.87	8.417	1.67	14.500	2.59	20.58	0.92
2.417	0.87	8.500	1.67	14.583	2.47	20.67	0.92
2.500	0.87	8.583	1.84	14.667	2.47	20.75	0.92
2.583	0.89	8.667	1.84	14.750	2.47	20.83	0.91
2.667	0.89	8.750	1.84	14.833	2.34	20.92	0.91
2.750	0.89	8.833	2.03	14.917	2.34	21.00	0.91
2.833	0.91	8.917	2.03	15.000	2.34	21.08	0.90
2.917	0.91	9.000	2.03	15.083	2.22	21.17	0.90
3.000	0.91	9.083	2.20	15.167	2.22	21.25	0.90
3.083	0.92	9.167	2.20	15.250	2.22	21.33	0.89
3.167	0.92	9.250	2.20	15.333	2.09	21.42	0.89
3.250	0.92	9.333	2.30	15.417	2.09	21.50	0.89
3.333	0.94	9.417	2.30	15.500	2.09	21.58	0.88
3.417	0.94	9.500	2.30	15.583	1.97	21.67	0.88
3.500	0.94	9.583	2.30	15.667	1.97	21.75	0.88
3.583	0.96	9.667	2.30	15.750	1.97	21.83	0.87
3.667	0.96	9.750	2.30	15.833	1.83	21.92	0.87
3.750	0.96	9.833	2.44	15.917	1.83	22.00	0.87
3.833	0.98	9.917	2.44	16.000	1.83	22.08	0.87
3.917	0.98	10.000	2.44	16.083	1.71	22.17	0.87
4.000	0.98	10.083	2.72	16.167	1.71	22.25	0.87
4.083	0.99	10.167	2.72	16.250	1.71	22.33	0.86
4.167	0.99	10.250	2.72	16.333	1.63	22.42	0.86
4.250	0.99	10.333	3.09	16.417	1.63	22.50	0.86
4.333	1.02	10.417	3.09	16.500	1.63	22.58	0.85
4.417	1.02	10.500	3.09	16.583	1.58	22.67	0.85
4.500	1.02	10.583	3.51	16.667	1.58	22.75	0.85
4.583	1.06	10.667	3.51	16.750	1.58	22.83	0.84
4.667	1.06	10.750	3.51	16.833	1.54	22.92	0.84
4.750	1.06	10.833	4.10	16.917	1.54	23.00	0.84
4.833	1.09	10.917	4.10	17.000	1.54	23.08	0.83
4.917	1.09	11.000	4.10	17.083	1.49	23.17	0.83
5.000	1.09	11.083	4.79	17.167	1.49	23.25	0.83
5.083	1.13	11.167	4.79	17.250	1.49	23.33	0.82
5.167	1.13	11.250	4.79	17.333	1.45	23.42	0.82
5.250	1.13	11.333	6.06	17.417	1.45	23.50	0.82
5.333	1.17	11.417	6.06	17.500	1.45	23.58	0.81
5.417	1.17	11.500	6.06	17.583	1.40	23.67	0.81
5.500	1.17	11.583	7.71	17.667	1.40	23.75	0.81
5.583	1.20	11.667	7.71	17.750	1.40	23.83	0.80
5.667	1.20	11.750	7.71	17.833	1.36	23.92	0.80
5.750	1.20	11.833	31.44	17.917	1.36	24.00	0.80
5.833	1.24	11.917	31.44	18.000	1.36	24.08	0.79
5.917	1.24	12.000	31.44	18.083	1.31	24.17	0.79
6.000	1.24	12.083	77.58	18.167	1.31	24.25	0.79
6.083	1.27	12.167	77.59	18.250	1.31		

Max.Eff.Inten.(mm/hr)= 77.59 36.99
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.74 (ii) 2.98 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.28

PEAK FLOW (cms)= 0.13 0.00
 TIME TO PEAK (hrs)= 12.25 12.25
 RUNOFF VOLUME (mm)= 69.73 27.71
 TOTAL RAINFALL (mm)= 71.73 71.73
 RUNOFF COEFFICIENT = 0.97 0.39

TOTALS
 0.127 (iii)

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | NASHYD (7721) | Area (ha)= 0.21 Curve Number (CN)= 73.0
 |ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00

 U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.27	12.250	77.59	18.33	1.27
0.167	0.00	6.250	1.27	12.333	12.30	18.42	1.27
0.250	0.00	6.333	1.31	12.417	12.29	18.50	1.27
0.333	0.73	6.417	1.31	12.500	12.29	18.58	1.23
0.417	0.73	6.500	1.31	12.583	8.37	18.67	1.23
0.500	0.73	6.583	1.34	12.667	8.37	18.75	1.23
0.583	0.74	6.667	1.34	12.750	8.37	18.83	1.18
0.667	0.74	6.750	1.34	12.833	5.76	18.92	1.18
0.750	0.74	6.833	1.38	12.917	5.76	19.00	1.18
0.833	0.76	6.917	1.38	13.000	5.76	19.08	1.13
0.917	0.76	7.000	1.38	13.083	4.86	19.17	1.13
1.000	0.76	7.083	1.42	13.167	4.86	19.25	1.13
1.083	0.78	7.167	1.42	13.250	4.86	19.33	1.09
1.167	0.78	7.250	1.42	13.333	4.11	19.42	1.09
1.250	0.78	7.333	1.45	13.417	4.11	19.50	1.09
1.333	0.80	7.417	1.45	13.500	4.11	19.58	1.05
1.417	0.80	7.500	1.45	13.583	3.63	19.67	1.05
1.500	0.80	7.583	1.49	13.667	3.63	19.75	1.05
1.583	0.82	7.667	1.49	13.750	3.63	19.83	1.00
1.667	0.82	7.750	1.49	13.833	3.18	19.92	1.00
1.750	0.82	7.833	1.52	13.917	3.18	20.00	1.00
1.833	0.83	7.917	1.52	14.000	3.18	20.08	0.96
1.917	0.83	8.000	1.52	14.083	2.84	20.17	0.96

Unit Hyd Qpeak (cms)= 0.047

PEAK FLOW (cms)= 0.015 (i)
 TIME TO PEAK (hrs)= 12.250
 RUNOFF VOLUME (mm)= 27.613
 TOTAL RAINFALL (mm)= 71.730
 RUNOFF COEFFICIENT = 0.385

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7599) | Area (ha)= 10.90
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	10.79	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	269.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.27	12.250	77.59	18.33	1.27
0.167	0.00	6.250	1.27	12.333	12.30	18.42	1.27
0.250	0.00	6.333	1.31	12.417	12.29	18.50	1.27
0.333	0.73	6.417	1.31	12.500	12.29	18.58	1.23
0.417	0.73	6.500	1.31	12.583	8.37	18.67	1.23
0.500	0.73	6.583	1.34	12.667	8.37	18.75	1.23
0.583	0.74	6.667	1.34	12.750	8.37	18.83	1.18
0.667	0.74	6.750	1.34	12.833	5.76	18.92	1.18
0.750	0.74	6.833	1.38	12.917	5.76	19.00	1.18
0.833	0.76	6.917	1.38	13.000	5.76	19.08	1.13
0.917	0.76	7.000	1.38	13.083	4.86	19.17	1.13
1.000	0.76	7.083	1.42	13.167	4.86	19.25	1.13
1.083	0.78	7.167	1.42	13.250	4.86	19.33	1.09
1.167	0.78	7.250	1.42	13.333	4.11	19.42	1.09
1.250	0.78	7.333	1.45	13.417	4.11	19.50	1.09
1.333	0.80	7.417	1.45	13.500	4.11	19.58	1.05
1.417	0.80	7.500	1.45	13.583	3.63	19.67	1.05
1.500	0.80	7.583	1.49	13.667	3.63	19.75	1.05
1.583	0.82	7.667	1.49	13.750	3.63	19.83	1.00
1.667	0.82	7.750	1.49	13.833	3.18	19.92	1.00
1.750	0.82	7.833	1.52	13.917	3.18	20.00	1.00
1.833	0.83	7.917	1.52	14.000	3.18	20.08	0.96
1.917	0.83	8.000	1.52	14.083	2.84	20.17	0.96
2.000	0.83	8.083	1.56	14.167	2.84	20.25	0.96
2.083	0.85	8.167	1.56	14.250	2.84	20.33	0.93
2.167	0.85	8.250	1.56	14.333	2.59	20.42	0.93
2.250	0.85	8.333	1.67	14.417	2.59	20.50	0.93
2.333	0.87	8.417	1.67	14.500	2.59	20.58	0.92
2.417	0.87	8.500	1.67	14.583	2.47	20.67	0.92
2.500	0.87	8.583	1.84	14.667	2.47	20.75	0.92
2.583	0.89	8.667	1.84	14.750	2.47	20.83	0.91
2.667	0.89	8.750	1.84	14.833	2.34	20.92	0.91
2.750	0.89	8.833	2.03	14.917	2.34	21.00	0.91
2.833	0.91	8.917	2.03	15.000	2.34	21.08	0.90
2.917	0.91	9.000	2.03	15.083	2.22	21.17	0.90
3.000	0.91	9.083	2.20	15.167	2.22	21.25	0.90
3.083	0.92	9.167	2.20	15.250	2.22	21.33	0.89
3.167	0.92	9.250	2.20	15.333	2.09	21.42	0.89
3.250	0.92	9.333	2.30	15.417	2.09	21.50	0.89
3.333	0.94	9.417	2.30	15.500	2.09	21.58	0.88
3.417	0.94	9.500	2.30	15.583	1.97	21.67	0.88
3.500	0.94	9.583	2.30	15.667	1.97	21.75	0.88
3.583	0.96	9.667	2.30	15.750	1.97	21.83	0.87
3.667	0.96	9.750	2.30	15.833	1.83	21.92	0.87
3.750	0.96	9.833	2.44	15.917	1.83	22.00	0.87
3.833	0.98	9.917	2.44	16.000	1.83	22.08	0.87
3.917	0.98	10.000	2.44	16.083	1.71	22.17	0.87
4.000	0.98	10.083	2.72	16.167	1.71	22.25	0.87
4.083	0.99	10.167	2.72	16.250	1.71	22.33	0.86
4.167	0.99	10.250	2.72	16.333	1.63	22.42	0.86
4.250	0.99	10.333	3.09	16.417	1.63	22.50	0.86
4.333	1.02	10.417	3.09	16.500	1.63	22.58	0.85
4.417	1.02	10.500	3.09	16.583	1.58	22.67	0.85
4.500	1.02	10.583	3.51	16.667	1.58	22.75	0.85
4.583	1.06	10.667	3.51	16.750	1.58	22.83	0.84
4.667	1.06	10.750	3.51	16.833	1.54	22.92	0.84
4.750	1.06	10.833	4.10	16.917	1.54	23.00	0.84
4.833	1.09	10.917	4.10	17.000	1.54	23.08	0.83
4.917	1.09	11.000	4.10	17.083	1.49	23.17	0.83
5.000	1.09	11.083	4.79	17.167	1.49	23.25	0.83
5.083	1.13	11.167	4.79	17.250	1.49	23.33	0.82
5.167	1.13	11.250	4.79	17.333	1.45	23.42	0.82
5.250	1.13	11.333	6.06	17.417	1.45	23.50	0.82
5.333	1.17	11.417	6.06	17.500	1.45	23.58	0.81
5.417	1.17	11.500	6.06	17.583	1.40	23.67	0.81
5.500	1.17	11.583	7.71	17.667	1.40	23.75	0.81
5.583	1.20	11.667	7.71	17.750	1.40	23.83	0.80
5.667	1.20	11.750	7.71	17.833	1.36	23.92	0.80
5.750	1.20	11.833	31.44	17.917	1.36	24.00	0.80
5.833	1.24	11.917	31.44	18.000	1.36	24.08	0.79
5.917	1.24	12.000	31.44	18.083	1.31	24.17	0.79
6.000	1.24	12.083	77.58	18.167	1.31	24.25	0.79

6.083 1.27 |12.167 77.59 |18.250 1.31 |

Max.Eff.Inten.(mm/hr)=	77.59	36.99	
over (min)	5.00	10.00	
Storage Coeff. (min)=	5.13 (ii)	6.37 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.21	0.15	
PEAK FLOW (cms)=	2.25	0.01	*TOTALS*
TIME TO PEAK (hrs)=	12.25	12.25	2.259 (iii)
RUNOFF VOLUME (mm)=	69.73	27.71	12.25
TOTAL RAINFALL (mm)=	71.73	71.73	69.31
RUNOFF COEFFICIENT =	0.97	0.39	71.73
			0.97

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7722)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7599):	10.90	2.259	12.25	69.31
+ ID2= 2 (7721):	0.21	0.015	12.25	27.61
=====				
ID = 3 (7722):	11.11	2.274	12.25	68.53

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7685)				
OVERFLOW IS OFF				
IN= 2--> OUT= 1				
DT= 5.0 min				
	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.1390	0.6960
	0.0590	0.3400	0.1630	0.7780
	0.0900	0.4907	0.1840	0.8800
	0.1110	0.5760	0.0000	0.0000
=====				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7722)	11.108	2.274	12.25	68.53
OUTFLOW: ID= 1 (7685)	11.108	0.095	14.00	68.40

PEAK FLOW REDUCTION [Qout/Qin] (%) = 4.20
TIME SHIFT OF PEAK FLOW (min) = 105.00
MAXIMUM STORAGE USED (ha.m.) = 0.5129

CALIB				
STANDHYD (7591)				
ID= 1 DT= 5.0 min				
	Area	(ha)=	11.38	
	Total Imp (%) =	99.00	Dir. Conn. (%) =	99.00
=====				
	IMPERVIOUS	PERVIOUS (i)		
Surface Area (ha)=	11.27	0.11		
Dep. Storage (mm)=	2.00	5.00		
Average Slope (%) =	1.00	2.00		
Length (m) =	275.44	40.00		
Mannings n =	0.013	0.250		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.27	12.250	77.59	18.33	1.27
0.167	0.00	6.250	1.27	12.333	12.30	18.42	1.27
0.250	0.00	6.333	1.31	12.417	12.29	18.50	1.27
0.333	0.73	6.417	1.31	12.500	12.29	18.58	1.23



0.417	0.73	6.500	1.31	12.583	8.37	18.67	1.23
0.500	0.73	6.583	1.34	12.667	8.37	18.75	1.23
0.583	0.74	6.667	1.34	12.750	8.37	18.83	1.18
0.667	0.74	6.750	1.34	12.833	5.76	18.92	1.18
0.750	0.74	6.833	1.38	12.917	5.76	19.00	1.18
0.833	0.76	6.917	1.38	13.000	5.76	19.08	1.13
0.917	0.76	7.000	1.38	13.083	4.86	19.17	1.13
1.000	0.76	7.083	1.42	13.167	4.86	19.25	1.13
1.083	0.78	7.167	1.42	13.250	4.86	19.33	1.09
1.167	0.78	7.250	1.42	13.333	4.11	19.42	1.09
1.250	0.78	7.333	1.45	13.417	4.11	19.50	1.09
1.333	0.80	7.417	1.45	13.500	4.11	19.58	1.05
1.417	0.80	7.500	1.45	13.583	3.63	19.67	1.05
1.500	0.80	7.583	1.49	13.667	3.63	19.75	1.05
1.583	0.82	7.667	1.49	13.750	3.63	19.83	1.00
1.667	0.82	7.750	1.49	13.833	3.18	19.92	1.00
1.750	0.82	7.833	1.52	13.917	3.18	20.00	1.00
1.833	0.83	7.917	1.52	14.000	3.18	20.08	0.96
1.917	0.83	8.000	1.52	14.083	2.84	20.17	0.96
2.000	0.83	8.083	1.56	14.167	2.84	20.25	0.96
2.083	0.85	8.167	1.56	14.250	2.84	20.33	0.93
2.167	0.85	8.250	1.56	14.333	2.59	20.42	0.93
2.250	0.85	8.333	1.67	14.417	2.59	20.50	0.93
2.333	0.87	8.417	1.67	14.500	2.59	20.58	0.92
2.417	0.87	8.500	1.67	14.583	2.47	20.67	0.92
2.500	0.87	8.583	1.84	14.667	2.47	20.75	0.92
2.583	0.89	8.667	1.84	14.750	2.47	20.83	0.91
2.667	0.89	8.750	1.84	14.833	2.34	20.92	0.91
2.750	0.89	8.833	2.03	14.917	2.34	21.00	0.91
2.833	0.91	8.917	2.03	15.000	2.34	21.08	0.90
2.917	0.91	9.000	2.03	15.083	2.22	21.17	0.90
3.000	0.91	9.083	2.20	15.167	2.22	21.25	0.90
3.083	0.92	9.167	2.20	15.250	2.22	21.33	0.89
3.167	0.92	9.250	2.20	15.333	2.09	21.42	0.89
3.250	0.92	9.333	2.30	15.417	2.09	21.50	0.89
3.333	0.94	9.417	2.30	15.500	2.09	21.58	0.88
3.417	0.94	9.500	2.30	15.583	1.97	21.67	0.88
3.500	0.94	9.583	2.30	15.667	1.97	21.75	0.88
3.583	0.96	9.667	2.30	15.750	1.97	21.83	0.87
3.667	0.96	9.750	2.30	15.833	1.83	21.92	0.87
3.750	0.96	9.833	2.44	15.917	1.83	22.00	0.87
3.833	0.98	9.917	2.44	16.000	1.83	22.08	0.87
3.917	0.98	10.000	2.44	16.083	1.71	22.17	0.87
4.000	0.98	10.083	2.72	16.167	1.71	22.25	0.87
4.083	0.99	10.167	2.72	16.250	1.71	22.33	0.86
4.167	0.99	10.250	2.72	16.333	1.63	22.42	0.86
4.250	0.99	10.333	3.09	16.417	1.63	22.50	0.86
4.333	1.02	10.417	3.09	16.500	1.63	22.58	0.85
4.417	1.02	10.500	3.09	16.583	1.58	22.67	0.85
4.500	1.02	10.583	3.51	16.667	1.58	22.75	0.85
4.583	1.06	10.667	3.51	16.750	1.58	22.83	0.84
4.667	1.06	10.750	3.51	16.833	1.54	22.92	0.84
4.750	1.06	10.833	4.10	16.917	1.54	23.00	0.84
4.833	1.09	10.917	4.10	17.000	1.54	23.08	0.83
4.917	1.09	11.000	4.10	17.083	1.49	23.17	0.83
5.000	1.09	11.083	4.79	17.167	1.49	23.25	0.83
5.083	1.13	11.167	4.79	17.250	1.49	23.33	0.82
5.167	1.13	11.250	4.79	17.333	1.45	23.42	0.82
5.250	1.13	11.333	6.06	17.417	1.45	23.50	0.82
5.333	1.17	11.417	6.06	17.500	1.45	23.58	0.81
5.417	1.17	11.500	6.06	17.583	1.40	23.67	0.81
5.500	1.17	11.583	7.71	17.667	1.40	23.75	0.81
5.583	1.20	11.667	7.71	17.750	1.40	23.83	0.80
5.667	1.20	11.750	7.71	17.833	1.36	23.92	0.80
5.750	1.20	11.833	31.44	17.917	1.36	24.00	0.80
5.833	1.24	11.917	31.44	18.000	1.36	24.08	0.79
5.917	1.24	12.000	31.44	18.083	1.31	24.17	0.79
6.000	1.24	12.083	77.58	18.167	1.31	24.25	0.79
6.083	1.27	12.167	77.59	18.250	1.31		

Max.Eff.Inten.(mm/hr)= 77.59 36.99
 over (min) 5.00 10.00
 Storage Coeff. (min)= 5.19 (ii) 6.44 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.21 0.14

TOTALS

PEAK FLOW (cms)= 2.35 0.01 2.355 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 69.73 27.71 69.31
 TOTAL RAINFALL (mm)= 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.97 0.39 0.97

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7593)		OVERFLOW IS OFF			
IN= 2---> OUT= 1					
DT= 5.0 min					
	OUTFLOW	STORAGE	OUTFLOW	STORAGE	
	(cms)	(ha.m.)	(cms)	(ha.m.)	
	0.0000	0.0000	0.1990	0.6950	
	0.0830	0.3500	0.2320	0.8000	
	0.1280	0.4850	0.2620	0.9000	
	0.1580	0.5900	0.0000	0.0000	
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 2 (7591)	11.380	2.355	12.25	69.31	
OUTFLOW: ID= 1 (7593)	11.380	0.133	13.42	69.22	
	PEAK FLOW REDUCTION [Qout/Qin](%)=	5.64			
	TIME SHIFT OF PEAK FLOW (min)=	70.00			
	MAXIMUM STORAGE USED (ha.m.)=	0.5017			

ADD HYD (7643)					
1 + 2 = 3					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7593):	11.38	0.133	13.42	69.22	
+ ID2= 2 (7685):	11.11	0.095	14.00	68.40	
ID = 3 (7643):	22.49	0.228	13.67	68.81	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB					
STANDHYD (7590)		Area (ha)= 2.39			
ID= 1 DT= 5.0 min		Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00			
	IMPERVIOUS	PERVIOUS (i)			
Surface Area (ha)=	2.37	0.02			
Dep. Storage (mm)=	1.00	5.00			
Average Slope (%)=	1.00	2.00			
Length (m)=	20.00	20.00			
Mannings n =	0.013	0.250			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.27	12.250	77.59	18.33	1.27
0.167	0.00	6.250	1.27	12.333	12.30	18.42	1.27
0.250	0.00	6.333	1.31	12.417	12.29	18.50	1.27
0.333	0.73	6.417	1.31	12.500	12.29	18.58	1.23
0.417	0.73	6.500	1.31	12.583	8.37	18.67	1.23
0.500	0.73	6.583	1.34	12.667	8.37	18.75	1.23
0.583	0.74	6.667	1.34	12.750	8.37	18.83	1.18
0.667	0.74	6.750	1.34	12.833	5.76	18.92	1.18
0.750	0.74	6.833	1.38	12.917	5.76	19.00	1.18
0.833	0.76	6.917	1.38	13.000	5.76	19.08	1.13
0.917	0.76	7.000	1.38	13.083	4.86	19.17	1.13
1.000	0.76	7.083	1.42	13.167	4.86	19.25	1.13



1.083	0.78	7.167	1.42	13.250	4.86	19.33	1.09
1.167	0.78	7.250	1.42	13.333	4.11	19.42	1.09
1.250	0.78	7.333	1.45	13.417	4.11	19.50	1.09
1.333	0.80	7.417	1.45	13.500	4.11	19.58	1.05
1.417	0.80	7.500	1.45	13.583	3.63	19.67	1.05
1.500	0.80	7.583	1.49	13.667	3.63	19.75	1.05
1.583	0.82	7.667	1.49	13.750	3.63	19.83	1.00
1.667	0.82	7.750	1.49	13.833	3.18	19.92	1.00
1.750	0.82	7.833	1.52	13.917	3.18	20.00	1.00
1.833	0.83	7.917	1.52	14.000	3.18	20.08	0.96
1.917	0.83	8.000	1.52	14.083	2.84	20.17	0.96
2.000	0.83	8.083	1.56	14.167	2.84	20.25	0.96
2.083	0.85	8.167	1.56	14.250	2.84	20.33	0.93
2.167	0.85	8.250	1.56	14.333	2.59	20.42	0.93
2.250	0.85	8.333	1.67	14.417	2.59	20.50	0.93
2.333	0.87	8.417	1.67	14.500	2.59	20.58	0.92
2.417	0.87	8.500	1.67	14.583	2.47	20.67	0.92
2.500	0.87	8.583	1.84	14.667	2.47	20.75	0.92
2.583	0.89	8.667	1.84	14.750	2.47	20.83	0.91
2.667	0.89	8.750	1.84	14.833	2.34	20.92	0.91
2.750	0.89	8.833	2.03	14.917	2.34	21.00	0.91
2.833	0.91	8.917	2.03	15.000	2.34	21.08	0.90
2.917	0.91	9.000	2.03	15.083	2.22	21.17	0.90
3.000	0.91	9.083	2.20	15.167	2.22	21.25	0.90
3.083	0.92	9.167	2.20	15.250	2.22	21.33	0.89
3.167	0.92	9.250	2.20	15.333	2.09	21.42	0.89
3.250	0.92	9.333	2.30	15.417	2.09	21.50	0.89
3.333	0.94	9.417	2.30	15.500	2.09	21.58	0.88
3.417	0.94	9.500	2.30	15.583	1.97	21.67	0.88
3.500	0.94	9.583	2.30	15.667	1.97	21.75	0.88
3.583	0.96	9.667	2.30	15.750	1.97	21.83	0.87
3.667	0.96	9.750	2.30	15.833	1.83	21.92	0.87
3.750	0.96	9.833	2.44	15.917	1.83	22.00	0.87
3.833	0.98	9.917	2.44	16.000	1.83	22.08	0.87
3.917	0.98	10.000	2.44	16.083	1.71	22.17	0.87
4.000	0.98	10.083	2.72	16.167	1.71	22.25	0.87
4.083	0.99	10.167	2.72	16.250	1.71	22.33	0.86
4.167	0.99	10.250	2.72	16.333	1.63	22.42	0.86
4.250	0.99	10.333	3.09	16.417	1.63	22.50	0.86
4.333	1.02	10.417	3.09	16.500	1.63	22.58	0.85
4.417	1.02	10.500	3.09	16.583	1.58	22.67	0.85
4.500	1.02	10.583	3.51	16.667	1.58	22.75	0.85
4.583	1.06	10.667	3.51	16.750	1.58	22.83	0.84
4.667	1.06	10.750	3.51	16.833	1.54	22.92	0.84
4.750	1.06	10.833	4.10	16.917	1.54	23.00	0.84
4.833	1.09	10.917	4.10	17.000	1.54	23.08	0.83
4.917	1.09	11.000	4.10	17.083	1.49	23.17	0.83
5.000	1.09	11.083	4.79	17.167	1.49	23.25	0.83
5.083	1.13	11.167	4.79	17.250	1.49	23.33	0.82
5.167	1.13	11.250	4.79	17.333	1.45	23.42	0.82
5.250	1.13	11.333	6.06	17.417	1.45	23.50	0.82
5.333	1.17	11.417	6.06	17.500	1.45	23.58	0.81
5.417	1.17	11.500	6.06	17.583	1.40	23.67	0.81
5.500	1.17	11.583	7.71	17.667	1.40	23.75	0.81
5.583	1.20	11.667	7.71	17.750	1.40	23.83	0.80
5.667	1.20	11.750	7.71	17.833	1.36	23.92	0.80
5.750	1.20	11.833	31.44	17.917	1.36	24.00	0.80
5.833	1.24	11.917	31.44	18.000	1.36	24.08	0.79
5.917	1.24	12.000	31.44	18.083	1.31	24.17	0.79
6.000	1.24	12.083	77.58	18.167	1.31	24.25	0.79
6.083	1.27	12.167	77.59	18.250	1.31		

Max.Eff.Inten. (mm/hr)=	77.59	36.99
over (min)=	5.00	5.00
Storage Coeff. (min)=	1.08 (ii)	1.90 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.32

PEAK FLOW (cms)=	0.51	0.00	*TOTALS*
TIME TO PEAK (hrs)=	12.25	12.25	0.513 (iii)
RUNOFF VOLUME (mm)=	70.73	27.71	70.30
TOTAL RAINFALL (mm)=	71.73	71.73	71.73
RUNOFF COEFFICIENT =	0.99	0.39	0.98

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7632)	Area (ha)=	2.36	
ID= 1 DT= 5.0 min	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=		2.34	0.02
Dep. Storage (mm)=		1.00	5.00
Average Slope (%)=		1.00	2.00
Length (m)=		20.00	20.00
Mannings n =		0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.27	12.250	77.59	18.333	1.27
0.167	0.00	6.250	1.27	12.333	12.30	18.42	1.27
0.250	0.00	6.333	1.31	12.417	12.29	18.50	1.27
0.333	0.73	6.417	1.31	12.500	12.29	18.58	1.23
0.417	0.73	6.500	1.31	12.583	8.37	18.67	1.23
0.500	0.73	6.583	1.34	12.667	8.37	18.75	1.23
0.583	0.74	6.667	1.34	12.750	8.37	18.83	1.18
0.667	0.74	6.750	1.34	12.833	5.76	18.92	1.18
0.750	0.74	6.833	1.38	12.917	5.76	19.00	1.18
0.833	0.76	6.917	1.38	13.000	5.76	19.08	1.13
0.917	0.76	7.000	1.38	13.083	4.86	19.17	1.13
1.000	0.76	7.083	1.42	13.167	4.86	19.25	1.13
1.083	0.78	7.167	1.42	13.250	4.86	19.33	1.09
1.167	0.78	7.250	1.42	13.333	4.11	19.42	1.09
1.250	0.78	7.333	1.45	13.417	4.11	19.50	1.09
1.333	0.80	7.417	1.45	13.500	4.11	19.58	1.05
1.417	0.80	7.500	1.45	13.583	3.63	19.67	1.05
1.500	0.80	7.583	1.49	13.667	3.63	19.75	1.05
1.583	0.82	7.667	1.49	13.750	3.63	19.83	1.00
1.667	0.82	7.750	1.49	13.833	3.18	19.92	1.00
1.750	0.82	7.833	1.52	13.917	3.18	20.00	1.00
1.833	0.83	7.917	1.52	14.000	3.18	20.08	0.96
1.917	0.83	8.000	1.52	14.083	2.84	20.17	0.96
2.000	0.83	8.083	1.56	14.167	2.84	20.25	0.96
2.083	0.85	8.167	1.56	14.250	2.84	20.33	0.93
2.167	0.85	8.250	1.56	14.333	2.59	20.42	0.93
2.250	0.85	8.333	1.67	14.417	2.59	20.50	0.93
2.333	0.87	8.417	1.67	14.500	2.59	20.58	0.92
2.417	0.87	8.500	1.67	14.583	2.47	20.67	0.92
2.500	0.87	8.583	1.84	14.667	2.47	20.75	0.92
2.583	0.89	8.667	1.84	14.750	2.47	20.83	0.91
2.667	0.89	8.750	1.84	14.833	2.34	20.92	0.91
2.750	0.89	8.833	2.03	14.917	2.34	21.00	0.91
2.833	0.91	8.917	2.03	15.000	2.34	21.08	0.90
2.917	0.91	9.000	2.03	15.083	2.22	21.17	0.90
3.000	0.91	9.083	2.20	15.167	2.22	21.25	0.90
3.083	0.92	9.167	2.20	15.250	2.22	21.33	0.89
3.167	0.92	9.250	2.20	15.333	2.09	21.42	0.89
3.250	0.92	9.333	2.30	15.417	2.09	21.50	0.89
3.333	0.94	9.417	2.30	15.500	2.09	21.58	0.88
3.417	0.94	9.500	2.30	15.583	1.97	21.67	0.88
3.500	0.94	9.583	2.30	15.667	1.97	21.75	0.88
3.583	0.96	9.667	2.30	15.750	1.97	21.83	0.87
3.667	0.96	9.750	2.30	15.833	1.83	21.92	0.87
3.750	0.96	9.833	2.44	15.917	1.83	22.00	0.87
3.833	0.98	9.917	2.44	16.000	1.83	22.08	0.87
3.917	0.98	10.000	2.44	16.083	1.71	22.17	0.87
4.000	0.98	10.083	2.72	16.167	1.71	22.25	0.87
4.083	0.99	10.167	2.72	16.250	1.71	22.33	0.86
4.167	0.99	10.250	2.72	16.333	1.63	22.42	0.86
4.250	0.99	10.333	3.09	16.417	1.63	22.50	0.86

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

4.333	1.02	10.417	3.09	16.500	1.63	22.58	0.85
4.417	1.02	10.500	3.09	16.583	1.58	22.67	0.85
4.500	1.02	10.583	3.51	16.667	1.58	22.75	0.85
4.583	1.06	10.667	3.51	16.750	1.58	22.83	0.84
4.667	1.06	10.750	3.51	16.833	1.54	22.92	0.84
4.750	1.06	10.833	4.10	16.917	1.54	23.00	0.84
4.833	1.09	10.917	4.10	17.000	1.54	23.08	0.83
4.917	1.09	11.000	4.10	17.083	1.49	23.17	0.83
5.000	1.09	11.083	4.79	17.167	1.49	23.25	0.83
5.083	1.13	11.167	4.79	17.250	1.49	23.33	0.82
5.167	1.13	11.250	4.79	17.333	1.45	23.42	0.82
5.250	1.13	11.333	6.06	17.417	1.45	23.50	0.82
5.333	1.17	11.417	6.06	17.500	1.45	23.58	0.81
5.417	1.17	11.500	6.06	17.583	1.40	23.67	0.81
5.500	1.17	11.583	7.71	17.667	1.40	23.75	0.81
5.583	1.20	11.667	7.71	17.750	1.40	23.83	0.80
5.667	1.20	11.750	7.71	17.833	1.36	23.92	0.80
5.750	1.20	11.833	31.44	17.917	1.36	24.00	0.80
5.833	1.24	11.917	31.44	18.000	1.36	24.08	0.79
5.917	1.24	12.000	31.44	18.083	1.31	24.17	0.79
6.000	1.24	12.083	77.58	18.167	1.31	24.25	0.79
6.083	1.27	12.167	77.59	18.250	1.31		

Max.Eff.Inten.(mm/hr)= 77.59 36.99
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.08 (ii) 1.90 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

TOTALS
 PEAK FLOW (cms)= 0.50 0.00 0.506 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 70.73 27.71 70.30
 TOTAL RAINFALL (mm)= 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.99 0.39 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 CALIB |
 | STANDBY (7644) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.27	12.250	77.59
0.167	0.00	6.250	1.27	12.333	12.30
0.250	0.00	6.333	1.31	12.417	12.29
0.333	0.73	6.417	1.31	12.500	12.29
0.417	0.73	6.500	1.31	12.583	8.37
0.500	0.73	6.583	1.34	12.667	8.37
0.583	0.74	6.667	1.34	12.750	8.37
0.667	0.74	6.750	1.34	12.833	5.76
0.750	0.74	6.833	1.38	12.917	5.76
0.833	0.76	6.917	1.38	13.000	5.76
0.917	0.76	7.000	1.38	13.083	4.86
1.000	0.76	7.083	1.42	13.167	4.86
1.083	0.78	7.167	1.42	13.250	4.86
1.167	0.78	7.250	1.42	13.333	4.11

1.250	0.78	7.333	1.45	13.417	4.11	19.50	1.09
1.333	0.80	7.417	1.45	13.500	4.11	19.58	1.05
1.417	0.80	7.500	1.45	13.583	3.63	19.67	1.05
1.500	0.80	7.583	1.49	13.667	3.63	19.75	1.05
1.583	0.82	7.667	1.49	13.750	3.63	19.83	1.00
1.667	0.82	7.750	1.49	13.833	3.18	19.92	1.00
1.750	0.82	7.833	1.52	13.917	3.18	20.00	1.00
1.833	0.83	7.917	1.52	14.000	3.18	20.08	0.96
1.917	0.83	8.000	1.52	14.083	2.84	20.17	0.96
2.000	0.83	8.083	1.56	14.167	2.84	20.25	0.96
2.083	0.85	8.167	1.56	14.250	2.84	20.33	0.93
2.167	0.85	8.250	1.56	14.333	2.59	20.42	0.93
2.250	0.85	8.333	1.67	14.417	2.59	20.50	0.93
2.333	0.87	8.417	1.67	14.500	2.59	20.58	0.92
2.417	0.87	8.500	1.67	14.583	2.47	20.67	0.92
2.500	0.87	8.583	1.84	14.667	2.47	20.75	0.92
2.583	0.89	8.667	1.84	14.750	2.47	20.83	0.91
2.667	0.89	8.750	1.84	14.833	2.34	20.92	0.91
2.750	0.89	8.833	2.03	14.917	2.34	21.00	0.91
2.833	0.91	8.917	2.03	15.000	2.34	21.08	0.90
2.917	0.91	9.000	2.03	15.083	2.22	21.17	0.90
3.000	0.91	9.083	2.20	15.167	2.22	21.25	0.90
3.083	0.92	9.167	2.20	15.250	2.22	21.33	0.89
3.167	0.92	9.250	2.20	15.333	2.09	21.42	0.89
3.250	0.92	9.333	2.30	15.417	2.09	21.50	0.89
3.333	0.94	9.417	2.30	15.500	2.09	21.58	0.88
3.417	0.94	9.500	2.30	15.583	1.97	21.67	0.88
3.500	0.94	9.583	2.30	15.667	1.97	21.75	0.88
3.583	0.96	9.667	2.30	15.750	1.97	21.83	0.87
3.667	0.96	9.750	2.30	15.833	1.83	21.92	0.87
3.750	0.96	9.833	2.44	15.917	1.83	22.00	0.87
3.833	0.98	9.917	2.44	16.000	1.83	22.08	0.87
3.917	0.98	10.000	2.44	16.083	1.71	22.17	0.87
4.000	0.98	10.083	2.72	16.167	1.71	22.25	0.87
4.083	0.99	10.167	2.72	16.250	1.71	22.33	0.86
4.167	0.99	10.250	2.72	16.333	1.63	22.42	0.86
4.250	0.99	10.333	3.09	16.417	1.63	22.50	0.86
4.333	1.02	10.417	3.09	16.500	1.63	22.58	0.85
4.417	1.02	10.500	3.09	16.583	1.58	22.67	0.85
4.500	1.02	10.583	3.51	16.667	1.58	22.75	0.85
4.583	1.06	10.667	3.51	16.750	1.58	22.83	0.84
4.667	1.06	10.750	3.51	16.833	1.54	22.92	0.84
4.750	1.06	10.833	4.10	16.917	1.54	23.00	0.84
4.833	1.09	10.917	4.10	17.000	1.54	23.08	0.83
4.917	1.09	11.000	4.10	17.083	1.49	23.17	0.83
5.000	1.09	11.083	4.79	17.167	1.49	23.25	0.83
5.083	1.13	11.167	4.79	17.250	1.49	23.33	0.82
5.167	1.13	11.250	4.79	17.333	1.45	23.42	0.82
5.250	1.13	11.333	6.06	17.417	1.45	23.50	0.82
5.333	1.17	11.417	6.06	17.500	1.45	23.58	0.81
5.417	1.17	11.500	6.06	17.583	1.40	23.67	0.81
5.500	1.17	11.583	7.71	17.667	1.40	23.75	0.81
5.583	1.20	11.667	7.71	17.750	1.40	23.83	0.80
5.667	1.20	11.750	7.71	17.833	1.36	23.92	0.80
5.750	1.20	11.833	31.44	17.917	1.36	24.00	0.80
5.833	1.24	11.917	31.44	18.000	1.36	24.08	0.79
5.917	1.24	12.000	31.44	18.083	1.31	24.17	0.79
6.000	1.24	12.083	77.58	18.167	1.31	24.25	0.79
6.083	1.27	12.167	77.59	18.250	1.31		

Max.Eff.Inten.(mm/hr)= 77.59 36.99
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.08 (ii) 1.90 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

TOTALS
 PEAK FLOW (cms)= 0.51 0.00 0.515 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 70.73 27.71 70.30
 TOTAL RAINFALL (mm)= 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.99 0.39 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)



(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		Area (ha)= 2.40	
STANDHYD (7652)		Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00	
ID= 1 DT= 5.0 min			

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	2.38	0.02
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	1.00	2.00
Length	(m)=	20.00	20.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.27	12.250	77.59	18.33	1.27
0.167	0.00	6.250	1.27	12.333	12.30	18.42	1.27
0.250	0.00	6.333	1.31	12.417	12.29	18.50	1.27
0.333	0.73	6.417	1.31	12.500	12.29	18.58	1.23
0.417	0.73	6.500	1.31	12.583	8.37	18.67	1.23
0.500	0.73	6.583	1.34	12.667	8.37	18.75	1.23
0.583	0.74	6.667	1.34	12.750	8.37	18.83	1.18
0.667	0.74	6.750	1.34	12.833	5.76	18.92	1.18
0.750	0.74	6.833	1.38	12.917	5.76	19.00	1.18
0.833	0.76	6.917	1.38	13.000	5.76	19.08	1.13
0.917	0.76	7.000	1.38	13.083	4.86	19.17	1.13
1.000	0.76	7.083	1.42	13.167	4.86	19.25	1.13
1.083	0.78	7.167	1.42	13.250	4.86	19.33	1.09
1.167	0.78	7.250	1.42	13.333	4.11	19.42	1.09
1.250	0.78	7.333	1.45	13.417	4.11	19.50	1.09
1.333	0.80	7.417	1.45	13.500	4.11	19.58	1.05
1.417	0.80	7.500	1.45	13.583	3.63	19.67	1.05
1.500	0.80	7.583	1.49	13.667	3.63	19.75	1.05
1.583	0.82	7.667	1.49	13.750	3.63	19.83	1.00
1.667	0.82	7.750	1.49	13.833	3.18	19.92	1.00
1.750	0.82	7.833	1.52	13.917	3.18	20.00	1.00
1.833	0.83	7.917	1.52	14.000	3.18	20.08	0.96
1.917	0.83	8.000	1.52	14.083	2.84	20.17	0.96
2.000	0.83	8.083	1.56	14.167	2.84	20.25	0.96
2.083	0.85	8.167	1.56	14.250	2.84	20.33	0.93
2.167	0.85	8.250	1.56	14.333	2.59	20.42	0.93
2.250	0.85	8.333	1.67	14.417	2.59	20.50	0.93
2.333	0.87	8.417	1.67	14.500	2.59	20.58	0.92
2.417	0.87	8.500	1.67	14.583	2.47	20.67	0.92
2.500	0.87	8.583	1.84	14.667	2.47	20.75	0.92
2.583	0.89	8.667	1.84	14.750	2.47	20.83	0.91
2.667	0.89	8.750	1.84	14.833	2.34	20.92	0.91
2.750	0.89	8.833	2.03	14.917	2.34	21.00	0.91
2.833	0.91	8.917	2.03	15.000	2.34	21.08	0.90
2.917	0.91	9.000	2.03	15.083	2.22	21.17	0.90
3.000	0.91	9.083	2.20	15.167	2.22	21.25	0.90
3.083	0.92	9.167	2.20	15.250	2.22	21.33	0.89
3.167	0.92	9.250	2.20	15.333	2.09	21.42	0.89
3.250	0.92	9.333	2.30	15.417	2.09	21.50	0.89
3.333	0.94	9.417	2.30	15.500	2.09	21.58	0.88
3.417	0.94	9.500	2.30	15.583	1.97	21.67	0.88
3.500	0.94	9.583	2.30	15.667	1.97	21.75	0.88
3.583	0.96	9.667	2.30	15.750	1.97	21.83	0.87
3.667	0.96	9.750	2.30	15.833	1.83	21.92	0.87
3.750	0.96	9.833	2.44	15.917	1.83	22.00	0.87
3.833	0.98	9.917	2.44	16.000	1.83	22.08	0.87
3.917	0.98	10.000	2.44	16.083	1.71	22.17	0.87
4.000	0.98	10.083	2.72	16.167	1.71	22.25	0.87
4.083	0.99	10.167	2.72	16.250	1.71	22.33	0.86
4.167	0.99	10.250	2.72	16.333	1.63	22.42	0.86
4.250	0.99	10.333	3.09	16.417	1.63	22.50	0.86
4.333	1.02	10.417	3.09	16.500	1.63	22.58	0.85
4.417	1.02	10.500	3.09	16.583	1.58	22.67	0.85

4.500	1.02	10.583	3.51	16.667	1.58	22.75	0.85
4.583	1.06	10.667	3.51	16.750	1.58	22.83	0.84
4.667	1.06	10.750	3.51	16.833	1.54	22.92	0.84
4.750	1.06	10.833	4.10	16.917	1.54	23.00	0.84
4.833	1.09	10.917	4.10	17.000	1.54	23.08	0.83
4.917	1.09	11.000	4.10	17.083	1.49	23.17	0.83
5.000	1.09	11.083	4.79	17.167	1.49	23.25	0.83
5.083	1.13	11.167	4.79	17.250	1.49	23.33	0.82
5.167	1.13	11.250	4.79	17.333	1.45	23.42	0.82
5.250	1.13	11.333	6.06	17.417	1.45	23.50	0.82
5.333	1.17	11.417	6.06	17.500	1.45	23.58	0.81
5.417	1.17	11.500	6.06	17.583	1.40	23.67	0.81
5.500	1.17	11.583	7.71	17.667	1.40	23.75	0.81
5.583	1.20	11.667	7.71	17.750	1.40	23.83	0.80
5.667	1.20	11.750	7.71	17.833	1.36	23.92	0.80
5.750	1.20	11.833	31.44	17.917	1.36	24.00	0.80
5.833	1.24	11.917	31.44	18.000	1.36	24.08	0.79
5.917	1.24	12.000	31.44	18.083	1.31	24.17	0.79
6.000	1.24	12.083	77.58	18.167	1.31	24.25	0.79
6.083	1.27	12.167	77.59	18.250	1.31		

Max.Eff.Inten.(mm/hr)=	77.59	36.99	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.08 (ii)	1.90 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.34	0.32	
PEAK FLOW (cms)=	0.51	0.00	*TOTALS*
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	70.73	27.71	70.30
TOTAL RAINFALL (mm)=	71.73	71.73	71.73
RUNOFF COEFFICIENT =	0.99	0.39	0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		Area (ha)= 2.39	
STANDHYD (7661)		Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00	
ID= 1 DT= 5.0 min			

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	2.37	0.02
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	1.00	2.00
Length	(m)=	20.00	20.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.27	12.250	77.59	18.33	1.27
0.167	0.00	6.250	1.27	12.333	12.30	18.42	1.27
0.250	0.00	6.333	1.31	12.417	12.29	18.50	1.27
0.333	0.73	6.417	1.31	12.500	12.29	18.58	1.23
0.417	0.73	6.500	1.31	12.583	8.37	18.67	1.23
0.500	0.73	6.583	1.34	12.667	8.37	18.75	1.23
0.583	0.74	6.667	1.34	12.750	8.37	18.83	1.18
0.667	0.74	6.750	1.34	12.833	5.76	18.92	1.18
0.750	0.74	6.833	1.38	12.917	5.76	19.00	1.18
0.833	0.76	6.917	1.38	13.000	5.76	19.08	1.13
0.917	0.76	7.000	1.38	13.083	4.86	19.17	1.13
1.000	0.76	7.083	1.42	13.167	4.86	19.25	1.13
1.083	0.78	7.167	1.42	13.250	4.86	19.33	1.09
1.167	0.78	7.250	1.42	13.333	4.11	19.42	1.09
1.250	0.78	7.333	1.45	13.417	4.11	19.50	1.09
1.333	0.80	7.417	1.45	13.500	4.11	19.58	1.05



1.417	0.80	7.500	1.45	13.583	3.63	19.67	1.05
1.500	0.80	7.583	1.49	13.667	3.63	19.75	1.05
1.583	0.82	7.667	1.49	13.750	3.63	19.83	1.00
1.667	0.82	7.750	1.49	13.833	3.18	19.92	1.00
1.750	0.82	7.833	1.52	13.917	3.18	20.00	1.00
1.833	0.83	7.917	1.52	14.000	3.18	20.08	0.96
1.917	0.83	8.000	1.52	14.083	2.84	20.17	0.96
2.000	0.83	8.083	1.56	14.167	2.84	20.25	0.96
2.083	0.85	8.167	1.56	14.250	2.84	20.33	0.93
2.167	0.85	8.250	1.56	14.333	2.59	20.42	0.93
2.250	0.85	8.333	1.67	14.417	2.59	20.50	0.93
2.333	0.87	8.417	1.67	14.500	2.59	20.58	0.92
2.417	0.87	8.500	1.67	14.583	2.47	20.67	0.92
2.500	0.87	8.583	1.84	14.667	2.47	20.75	0.92
2.583	0.89	8.667	1.84	14.750	2.47	20.83	0.91
2.667	0.89	8.750	1.84	14.833	2.34	20.92	0.91
2.750	0.89	8.833	2.03	14.917	2.34	21.00	0.91
2.833	0.91	8.917	2.03	15.000	2.34	21.08	0.90
2.917	0.91	9.000	2.03	15.083	2.22	21.17	0.90
3.000	0.91	9.083	2.20	15.167	2.22	21.25	0.90
3.083	0.92	9.167	2.20	15.250	2.22	21.33	0.89
3.167	0.92	9.250	2.20	15.333	2.09	21.42	0.89
3.250	0.92	9.333	2.30	15.417	2.09	21.50	0.89
3.333	0.94	9.417	2.30	15.500	2.09	21.58	0.88
3.417	0.94	9.500	2.30	15.583	1.97	21.67	0.88
3.500	0.94	9.583	2.30	15.667	1.97	21.75	0.88
3.583	0.96	9.667	2.30	15.750	1.97	21.83	0.87
3.667	0.96	9.750	2.30	15.833	1.83	21.92	0.87
3.750	0.96	9.833	2.44	15.917	1.83	22.00	0.87
3.833	0.98	9.917	2.44	16.000	1.83	22.08	0.87
3.917	0.98	10.000	2.44	16.083	1.71	22.17	0.87
4.000	0.98	10.083	2.72	16.167	1.71	22.25	0.87
4.083	0.99	10.167	2.72	16.250	1.71	22.33	0.86
4.167	0.99	10.250	2.72	16.333	1.63	22.42	0.86
4.250	0.99	10.333	3.09	16.417	1.63	22.50	0.86
4.333	1.02	10.417	3.09	16.500	1.63	22.58	0.85
4.417	1.02	10.500	3.09	16.583	1.58	22.67	0.85
4.500	1.02	10.583	3.51	16.667	1.58	22.75	0.85
4.583	1.06	10.667	3.51	16.750	1.58	22.83	0.84
4.667	1.06	10.750	3.51	16.833	1.54	22.92	0.84
4.750	1.06	10.833	4.10	16.917	1.54	23.00	0.84
4.833	1.09	10.917	4.10	17.000	1.54	23.08	0.83
4.917	1.09	11.000	4.10	17.083	1.49	23.17	0.83
5.000	1.09	11.083	4.79	17.167	1.49	23.25	0.83
5.083	1.13	11.167	4.79	17.250	1.49	23.33	0.82
5.167	1.13	11.250	4.79	17.333	1.45	23.42	0.82
5.250	1.13	11.333	6.06	17.417	1.45	23.50	0.82
5.333	1.17	11.417	6.06	17.500	1.45	23.58	0.81
5.417	1.17	11.500	6.06	17.583	1.40	23.67	0.81
5.500	1.17	11.583	7.71	17.667	1.40	23.75	0.81
5.583	1.20	11.667	7.71	17.750	1.40	23.83	0.80
5.667	1.20	11.750	7.71	17.833	1.36	23.92	0.80
5.750	1.20	11.833	31.44	17.917	1.36	24.00	0.80
5.833	1.24	11.917	31.44	18.000	1.36	24.08	0.79
5.917	1.24	12.000	31.44	18.083	1.31	24.17	0.79
6.000	1.24	12.083	77.58	18.167	1.31	24.25	0.79
6.083	1.27	12.167	77.59	18.250	1.31		

Max.Eff.Inten.(mm/hr)= 77.59 36.99
 over (min) = 5.00
 Storage Coeff. (min) = 1.08 (ii) 0.51 (iii)
 Unit Hyd. Tpeak (min) = 5.00
 Unit Hyd. peak (cms) = 0.34

PEAK FLOW (cms) = 0.51
 TIME TO PEAK (hrs) = 12.25
 RUNOFF VOLUME (mm) = 70.73
 TOTAL RAINFALL (mm) = 71.73
 RUNOFF COEFFICIENT = 0.99

TOTALS
 0.51 (iii)
 12.25
 70.30
 71.73
 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.

(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB |
 STANDHYD (7671) | Area (ha)= 2.37
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.35 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%) = 1.00 2.00
 Length (m) = 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.27	12.250	77.59	18.33	1.27
0.167	0.00	6.250	1.27	12.333	12.30	18.42	1.27
0.250	0.00	6.333	1.31	12.417	12.29	18.50	1.27
0.333	0.73	6.417	1.31	12.500	12.29	18.58	1.23
0.417	0.73	6.500	1.31	12.583	8.37	18.67	1.23
0.500	0.73	6.583	1.34	12.667	8.37	18.75	1.23
0.583	0.74	6.667	1.34	12.750	8.37	18.83	1.18
0.667	0.74	6.750	1.34	12.833	5.76	18.92	1.18
0.750	0.74	6.833	1.38	12.917	5.76	19.00	1.18
0.833	0.76	6.917	1.38	13.000	5.76	19.08	1.13
0.917	0.76	7.000	1.38	13.083	4.86	19.17	1.13
1.000	0.76	7.083	1.42	13.167	4.86	19.25	1.13
1.083	0.78	7.167	1.42	13.250	4.86	19.33	1.09
1.167	0.78	7.250	1.42	13.333	4.11	19.42	1.09
1.250	0.78	7.333	1.45	13.417	4.11	19.50	1.09
1.333	0.80	7.417	1.45	13.500	4.11	19.58	1.05
1.417	0.80	7.500	1.45	13.583	3.63	19.67	1.05
1.500	0.80	7.583	1.49	13.667	3.63	19.75	1.05
1.583	0.82	7.667	1.49	13.750	3.63	19.83	1.00
1.667	0.82	7.750	1.49	13.833	3.18	19.92	1.00
1.750	0.82	7.833	1.52	13.917	3.18	20.00	1.00
1.833	0.83	7.917	1.52	14.000	3.18	20.08	0.96
1.917	0.83	8.000	1.52	14.083	2.84	20.17	0.96
2.000	0.83	8.083	1.56	14.167	2.84	20.25	0.96
2.083	0.85	8.167	1.56	14.250	2.84	20.33	0.93
2.167	0.85	8.250	1.56	14.333	2.59	20.42	0.93
2.250	0.85	8.333	1.67	14.417	2.59	20.50	0.93
2.333	0.87	8.417	1.67	14.500	2.59	20.58	0.92
2.417	0.87	8.500	1.67	14.583	2.47	20.67	0.92
2.500	0.87	8.583	1.84	14.667	2.47	20.75	0.92
2.583	0.89	8.667	1.84	14.750	2.47	20.83	0.91
2.667	0.89	8.750	1.84	14.833	2.34	20.92	0.91
2.750	0.89	8.833	2.03	14.917	2.34	21.00	0.91
2.833	0.91	8.917	2.03	15.000	2.34	21.08	0.90
2.917	0.91	9.000	2.03	15.083	2.22	21.17	0.90
3.000	0.91	9.083	2.20	15.167	2.22	21.25	0.90
3.083	0.92	9.167	2.20	15.250	2.22	21.33	0.89
3.167	0.92	9.250	2.20	15.333	2.09	21.42	0.89
3.250	0.92	9.333	2.30	15.417	2.09	21.50	0.89
3.333	0.94	9.417	2.30	15.500	2.09	21.58	0.88
3.417	0.94	9.500	2.30	15.583	1.97	21.67	0.88
3.500	0.94	9.583	2.30	15.667	1.97	21.75	0.88
3.583	0.96	9.667	2.30	15.750	1.97	21.83	0.87
3.667	0.96	9.750	2.30	15.833	1.83	21.92	0.87
3.750	0.96	9.833	2.44	15.917	1.83	22.00	0.87
3.833	0.98	9.917	2.44	16.000	1.83	22.08	0.87
3.917	0.98	10.000	2.44	16.083	1.71	22.17	0.87
4.000	0.98	10.083	2.72	16.167	1.71	22.25	0.87
4.083	0.99	10.167	2.72	16.250	1.71	22.33	0.86
4.167	0.99	10.250	2.72	16.333	1.63	22.42	0.86
4.250	0.99	10.333	3.09	16.417	1.63	22.50	0.86
4.333	1.02	10.417	3.09	16.500	1.63	22.58	0.85
4.417	1.02	10.500	3.09	16.583	1.58	22.67	0.85
4.500	1.02	10.583	3.51	16.667	1.58	22.75	0.85
4.583	1.06	10.667	3.51	16.750	1.58	22.83	0.84

4.667	1.06	10.750	3.51	16.833	1.54	22.92	0.84
4.750	1.06	10.833	4.10	16.917	1.54	23.00	0.84
4.833	1.09	10.917	4.10	17.000	1.54	23.08	0.83
4.917	1.09	11.000	4.10	17.083	1.49	23.17	0.83
5.000	1.09	11.083	4.79	17.167	1.49	23.25	0.83
5.083	1.13	11.167	4.79	17.250	1.49	23.33	0.82
5.167	1.13	11.250	4.79	17.333	1.45	23.42	0.82
5.250	1.13	11.333	6.06	17.417	1.45	23.50	0.82
5.333	1.17	11.417	6.06	17.500	1.45	23.58	0.81
5.417	1.17	11.500	6.06	17.583	1.40	23.67	0.81
5.500	1.17	11.583	7.71	17.667	1.40	23.75	0.81
5.583	1.20	11.667	7.71	17.750	1.40	23.83	0.80
5.667	1.20	11.750	7.71	17.833	1.36	23.92	0.80
5.750	1.20	11.833	31.44	17.917	1.36	24.00	0.80
5.833	1.24	11.917	31.44	18.000	1.36	24.08	0.79
5.917	1.24	12.000	31.44	18.083	1.31	24.17	0.79
6.000	1.24	12.083	77.58	18.167	1.31	24.25	0.79
6.083	1.27	12.167	77.59	18.250	1.31		

Max.Eff.Inten.(mm/hr)= 77.59 36.99
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.08 (ii) 1.90 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

PEAK FLOW (cms)= 0.51 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 12.25 12.25 0.508 (iii)
 RUNOFF VOLUME (mm)= 70.73 27.71 70.30
 TOTAL RAINFALL (mm)= 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.99 0.39 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7698)							
1 + 2 = 3							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 1 (7590):	2.39	0.513	12.25	70.30			
+ ID2= 2 (7632):	2.36	0.506	12.25	70.30			

ID = 3 (7698):	4.75	1.019	12.25	70.30			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)							
3 + 2 = 1							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 3 (7698):	4.75	1.019	12.25	70.30			
+ ID2= 2 (7644):	2.40	0.515	12.25	70.30			

ID = 1 (7698):	7.15	1.533	12.25	70.30			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)							
1 + 2 = 3							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 1 (7698):	7.15	1.533	12.25	70.30			
+ ID2= 2 (7652):	2.40	0.515	12.25	70.30			

ID = 3 (7698):	9.55	2.048	12.25	70.30			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)							
3 + 2 = 1							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 3 (7698):	9.55	2.048	12.25	70.30			
+ ID2= 2 (7661):	2.39	0.513	12.25	70.30			

ID = 1 (7698):	11.94	2.561	12.25	70.30			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)							
1 + 2 = 3							
	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
ID1= 1 (7698):	11.94	2.561	12.25	70.30			
+ ID2= 2 (7671):	2.37	0.508	12.25	70.30			

ID = 3 (7698):	14.31	3.069	12.25	70.30			

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| DIVERTHYD(7713) |
 | IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1 +	Flow 2 +	Flow 3 +	Flow 4 +	Flow 5 =	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
TOTAL HYD. (ID= 1):	14.31	3.07	12.25	70.30			

ID= 2 (2):	12.84	2.03	12.25	70.30			
ID= 3 (2):	1.47	1.03	12.25	70.30			
ID= 4 (2):	0.00	0.00	0.00	0.00			
ID= 5 (2):	0.00	0.00	0.00	0.00			
ID= 6 (2):	0.00	0.00	0.00	0.00			

RESERVOIR(7699)							
OVERFLOW IS ON							
IN= 2--> OUT= 1							
DT= 5.0 min							
	OUTFLOW	STORAGE	OUTFLOW	STORAGE			
	(cms)	(ha.m.)	(cms)	(ha.m.)			
	0.0000	0.0000	0.2690	0.4589			
	0.1980	0.1112	0.0000	0.0000			

	AREA	QPEAK	TPEAK	R.V.			
	(ha)	(cms)	(hrs)	(mm)			
INFLOW : ID= 2 (7713)	12.835	2.034	12.25	70.30			
OUTFLOW: ID= 1 (7699)	12.835	0.250	12.83	70.29			
OVERFLOW:ID= 3 (0003)	0.000	0.000	0.00	0.00			

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
 CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
 PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

PEAK FLOW REDUCTION [Qout/Qin](%) = 12.27
 TIME SHIFT OF PEAK FLOW (min) = 35.00
 MAXIMUM STORAGE USED (ha.m.) = 0.3647

| Junction Command(7715) |

AREA QPEAK TPEAK R.V.



INFLOW : ID= 3(7699) 0.00 0.00 0.00 0.00
 OUTFLOW: ID= 2(7715) 0.00 0.00 0.00 0.00

ADD HYD (7714) 1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7699):	12.84	0.250	12.83	70.29
+ ID2= 2 (7713):	1.47	1.034	12.25	70.30
=====				
ID = 3 (7714):	14.31	1.273	12.25	70.29

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7714) 3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
*** W A R N I N G : HYDROGRAPH 7715 <ID= 2> IS DRY.				
*** W A R N I N G : HYDROGRAPH 0001 = HYDROGRAPH 0003				
ID1= 3 (7714):	14.31	1.273	12.25	70.29
+ ID2= 2 (7715):	0.00	0.000	0.00	0.00
=====				
ID = 1 (7714):	14.31	1.273	12.25	70.29

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)=	1.45
STANDHYD (7620)	Total Imp(%)=	96.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	96.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.39	0.06
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.27	12.250	77.59	18.33	1.27
0.167	0.00	6.250	1.27	12.333	12.30	18.42	1.27
0.250	0.00	6.333	1.31	12.417	12.29	18.50	1.27
0.333	0.73	6.417	1.31	12.500	12.29	18.58	1.23
0.417	0.73	6.500	1.31	12.583	8.37	18.67	1.23
0.500	0.73	6.583	1.34	12.667	8.37	18.75	1.23
0.583	0.74	6.667	1.34	12.750	8.37	18.83	1.18
0.667	0.74	6.750	1.34	12.833	5.76	18.92	1.18
0.750	0.74	6.833	1.38	12.917	5.76	19.00	1.18
0.833	0.76	6.917	1.38	13.000	5.76	19.08	1.13
0.917	0.76	7.000	1.38	13.083	4.86	19.17	1.13
1.000	0.76	7.083	1.42	13.167	4.86	19.25	1.13
1.083	0.78	7.167	1.42	13.250	4.86	19.33	1.09
1.167	0.78	7.250	1.42	13.333	4.11	19.42	1.09
1.250	0.78	7.333	1.45	13.417	4.11	19.50	1.09
1.333	0.80	7.417	1.45	13.500	4.11	19.58	1.05
1.417	0.80	7.500	1.45	13.583	3.63	19.67	1.05
1.500	0.80	7.583	1.49	13.667	3.63	19.75	1.05
1.583	0.82	7.667	1.49	13.750	3.63	19.83	1.00
1.667	0.82	7.750	1.49	13.833	3.18	19.92	1.00
1.750	0.82	7.833	1.52	13.917	3.18	20.00	1.00
1.833	0.83	7.917	1.52	14.000	3.18	20.08	0.96
1.917	0.83	8.000	1.52	14.083	2.84	20.17	0.96
2.000	0.83	8.083	1.56	14.167	2.84	20.25	0.96
2.083	0.85	8.167	1.56	14.250	2.84	20.33	0.93
2.167	0.85	8.250	1.56	14.333	2.59	20.42	0.93
2.250	0.85	8.333	1.67	14.417	2.59	20.50	0.93

2.333	0.87	8.417	1.67	14.500	2.59	20.58	0.92
2.417	0.87	8.500	1.67	14.583	2.47	20.67	0.92
2.500	0.87	8.583	1.84	14.667	2.47	20.75	0.92
2.583	0.89	8.667	1.84	14.750	2.47	20.83	0.91
2.667	0.89	8.750	1.84	14.833	2.34	20.92	0.91
2.750	0.89	8.833	2.03	14.917	2.34	21.00	0.91
2.833	0.91	8.917	2.03	15.000	2.34	21.08	0.90
2.917	0.91	9.000	2.03	15.083	2.22	21.17	0.90
3.000	0.91	9.083	2.20	15.167	2.22	21.25	0.90
3.083	0.92	9.167	2.20	15.250	2.22	21.33	0.89
3.167	0.92	9.250	2.20	15.333	2.09	21.42	0.89
3.250	0.92	9.333	2.30	15.417	2.09	21.50	0.89
3.333	0.94	9.417	2.30	15.500	2.09	21.58	0.88
3.417	0.94	9.500	2.30	15.583	1.97	21.67	0.88
3.500	0.94	9.583	2.30	15.667	1.97	21.75	0.88
3.583	0.96	9.667	2.30	15.750	1.97	21.83	0.87
3.667	0.96	9.750	2.30	15.833	1.83	21.92	0.87
3.750	0.96	9.833	2.44	15.917	1.83	22.00	0.87
3.833	0.98	9.917	2.44	16.000	1.83	22.08	0.87
3.917	0.98	10.000	2.44	16.083	1.71	22.17	0.87
4.000	0.98	10.083	2.72	16.167	1.71	22.25	0.87
4.083	0.99	10.167	2.72	16.250	1.71	22.33	0.86
4.167	0.99	10.250	2.72	16.333	1.63	22.42	0.86
4.250	0.99	10.333	3.09	16.417	1.63	22.50	0.86
4.333	1.02	10.417	3.09	16.500	1.63	22.58	0.85
4.417	1.02	10.500	3.09	16.583	1.58	22.67	0.85
4.500	1.02	10.583	3.51	16.667	1.58	22.75	0.85
4.583	1.06	10.667	3.51	16.750	1.58	22.83	0.84
4.667	1.06	10.750	3.51	16.833	1.54	22.92	0.84
4.750	1.06	10.833	4.10	16.917	1.54	23.00	0.84
4.833	1.09	10.917	4.10	17.000	1.54	23.08	0.83
4.917	1.09	11.000	4.10	17.083	1.49	23.17	0.83
5.000	1.09	11.083	4.79	17.167	1.49	23.25	0.83
5.083	1.13	11.167	4.79	17.250	1.49	23.33	0.82
5.167	1.13	11.250	4.79	17.333	1.45	23.42	0.82
5.250	1.13	11.333	6.06	17.417	1.45	23.50	0.82
5.333	1.17	11.417	6.06	17.500	1.45	23.58	0.81
5.417	1.17	11.500	6.06	17.583	1.40	23.67	0.81
5.500	1.17	11.583	7.71	17.667	1.40	23.75	0.81
5.583	1.20	11.667	7.71	17.750	1.40	23.83	0.80
5.667	1.20	11.750	7.71	17.833	1.36	23.92	0.80
5.750	1.20	11.833	31.44	17.917	1.36	24.00	0.80
5.833	1.24	11.917	31.44	18.000	1.36	24.08	0.79
5.917	1.24	12.000	31.44	18.083	1.31	24.17	0.79
6.000	1.24	12.083	77.58	18.167	1.31	24.25	0.79
6.083	1.27	12.167	77.59	18.250	1.31		

Max.Eff.Inten.(mm/hr)= 77.59 36.99
 over (min)= 5.00 10.00
 Storage Coeff. (min)= 2.75 (ii) 7.49 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.28 0.13

TOTALS
 PEAK FLOW (cms)= 0.30 0.00 0.304 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 69.73 27.71 68.05
 TOTAL RAINFALL (mm)= 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.97 0.39 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	1.70
STANDHYD (7629)	Total Imp(%)=	99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.68	0.02
Dep. Storage (mm)=	2.00	5.00



Average Slope (%) = 1.10 2.00
 Length (m) = 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.27	12.250	77.59	18.33	1.27
0.167	0.00	6.250	1.27	12.333	12.30	18.42	1.27
0.250	0.00	6.333	1.31	12.417	12.29	18.50	1.27
0.333	0.73	6.417	1.31	12.500	12.29	18.58	1.23
0.417	0.73	6.500	1.31	12.583	8.37	18.67	1.23
0.500	0.73	6.583	1.34	12.667	8.37	18.75	1.23
0.583	0.74	6.667	1.34	12.750	8.37	18.83	1.18
0.667	0.74	6.750	1.34	12.833	5.76	18.92	1.18
0.750	0.74	6.833	1.38	12.917	5.76	19.00	1.18
0.833	0.76	6.917	1.38	13.000	5.76	19.08	1.13
0.917	0.76	7.000	1.38	13.083	4.86	19.17	1.13
1.000	0.76	7.083	1.42	13.167	4.86	19.25	1.13
1.083	0.78	7.167	1.42	13.250	4.86	19.33	1.09
1.167	0.78	7.250	1.42	13.333	4.11	19.42	1.09
1.250	0.78	7.333	1.45	13.417	4.11	19.50	1.09
1.333	0.80	7.417	1.45	13.500	4.11	19.58	1.05
1.417	0.80	7.500	1.45	13.583	3.63	19.67	1.05
1.500	0.80	7.583	1.49	13.667	3.63	19.75	1.05
1.583	0.82	7.667	1.49	13.750	3.63	19.83	1.00
1.667	0.82	7.750	1.49	13.833	3.18	19.92	1.00
1.750	0.82	7.833	1.52	13.917	3.18	20.00	1.00
1.833	0.83	7.917	1.52	14.000	3.18	20.08	0.96
1.917	0.83	8.000	1.52	14.083	2.84	20.17	0.96
2.000	0.83	8.083	1.56	14.167	2.84	20.25	0.96
2.083	0.85	8.167	1.56	14.250	2.84	20.33	0.93
2.167	0.85	8.250	1.56	14.333	2.59	20.42	0.93
2.250	0.85	8.333	1.67	14.417	2.59	20.50	0.93
2.333	0.87	8.417	1.67	14.500	2.59	20.58	0.92
2.417	0.87	8.500	1.67	14.583	2.47	20.67	0.92
2.500	0.87	8.583	1.84	14.667	2.47	20.75	0.92
2.583	0.89	8.667	1.84	14.750	2.47	20.83	0.91
2.667	0.89	8.750	1.84	14.833	2.34	20.92	0.91
2.750	0.89	8.833	2.03	14.917	2.34	21.00	0.91
2.833	0.91	8.917	2.03	15.000	2.34	21.08	0.90
2.917	0.91	9.000	2.03	15.083	2.22	21.17	0.90
3.000	0.91	9.083	2.20	15.167	2.22	21.25	0.90
3.083	0.92	9.167	2.20	15.250	2.22	21.33	0.89
3.167	0.92	9.250	2.20	15.333	2.09	21.42	0.89
3.250	0.92	9.333	2.30	15.417	2.09	21.50	0.89
3.333	0.94	9.417	2.30	15.500	2.09	21.58	0.88
3.417	0.94	9.500	2.30	15.583	1.97	21.67	0.88
3.500	0.94	9.583	2.30	15.667	1.97	21.75	0.88
3.583	0.96	9.667	2.30	15.750	1.97	21.83	0.87
3.667	0.96	9.750	2.30	15.833	1.83	21.92	0.87
3.750	0.96	9.833	2.44	15.917	1.83	22.00	0.87
3.833	0.98	9.917	2.44	16.000	1.83	22.08	0.87
3.917	0.98	10.000	2.44	16.083	1.71	22.17	0.87
4.000	0.98	10.083	2.72	16.167	1.71	22.25	0.87
4.083	0.99	10.167	2.72	16.250	1.71	22.33	0.86
4.167	0.99	10.250	2.72	16.333	1.63	22.42	0.86
4.250	0.99	10.333	3.09	16.417	1.63	22.50	0.86
4.333	1.02	10.417	3.09	16.500	1.63	22.58	0.85
4.417	1.02	10.500	3.09	16.583	1.58	22.67	0.85
4.500	1.02	10.583	3.51	16.667	1.58	22.75	0.85
4.583	1.06	10.667	3.51	16.750	1.58	22.83	0.84
4.667	1.06	10.750	3.51	16.833	1.54	22.92	0.84
4.750	1.06	10.833	4.10	16.917	1.54	23.00	0.84
4.833	1.09	10.917	4.10	17.000	1.54	23.08	0.83
4.917	1.09	11.000	4.10	17.083	1.49	23.17	0.83
5.000	1.09	11.083	4.79	17.167	1.49	23.25	0.83
5.083	1.13	11.167	4.79	17.250	1.49	23.33	0.82
5.167	1.13	11.250	4.79	17.333	1.45	23.42	0.82
5.250	1.13	11.333	6.06	17.417	1.45	23.50	0.82
5.333	1.17	11.417	6.06	17.500	1.45	23.58	0.81
5.417	1.17	11.500	6.06	17.583	1.40	23.67	0.81
5.500	1.17	11.583	7.71	17.667	1.40	23.75	0.81

5.583	1.20	11.667	7.71	17.750	1.40	23.83	0.80
5.667	1.20	11.750	7.71	17.833	1.36	23.92	0.80
5.750	1.20	11.833	31.44	17.917	1.36	24.00	0.80
5.833	1.24	11.917	31.44	18.000	1.36	24.08	0.79
5.917	1.24	12.000	31.44	18.083	1.31	24.17	0.79
6.000	1.24	12.083	77.58	18.167	1.31	24.25	0.79
6.083	1.27	12.167	77.59	18.250	1.31		

Max.Eff.Inten. (mm/hr)=	77.59	36.99	
over (min)	5.00	5.00	
Storage Coeff. (min)=	2.75 (ii)	3.99 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.28	0.24	
PEAK FLOW (cms)=	0.36	0.00	0.364 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	
RUNOFF VOLUME (mm)=	69.73	27.71	69.31
TOTAL RAINFALL (mm)=	71.73	71.73	71.73
RUNOFF COEFFICIENT =	0.97	0.39	0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7651) | Area (ha)= 1.33
 | ID= 1 DT= 5.0 min | Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.30	0.03
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.27	12.250	77.59	18.33	1.27
0.167	0.00	6.250	1.27	12.333	12.30	18.42	1.27
0.250	0.00	6.333	1.31	12.417	12.29	18.50	1.27
0.333	0.73	6.417	1.31	12.500	12.29	18.58	1.23
0.417	0.73	6.500	1.31	12.583	8.37	18.67	1.23
0.500	0.73	6.583	1.34	12.667	8.37	18.75	1.23
0.583	0.74	6.667	1.34	12.750	8.37	18.83	1.18
0.667	0.74	6.750	1.34	12.833	5.76	18.92	1.18
0.750	0.74	6.833	1.38	12.917	5.76	19.00	1.18
0.833	0.76	6.917	1.38	13.000	5.76	19.08	1.13
0.917	0.76	7.000	1.38	13.083	4.86	19.17	1.13
1.000	0.76	7.083	1.42	13.167	4.86	19.25	1.13
1.083	0.78	7.167	1.42	13.250	4.86	19.33	1.09
1.167	0.78	7.250	1.42	13.333	4.11	19.42	1.09
1.250	0.78	7.333	1.45	13.417	4.11	19.50	1.09
1.333	0.80	7.417	1.45	13.500	4.11	19.58	1.05
1.417	0.80	7.500	1.45	13.583	3.63	19.67	1.05
1.500	0.80	7.583	1.49	13.667	3.63	19.75	1.05
1.583	0.82	7.667	1.49	13.750	3.63	19.83	1.00
1.667	0.82	7.750	1.49	13.833	3.18	19.92	1.00
1.750	0.82	7.833	1.52	13.917	3.18	20.00	1.00
1.833	0.83	7.917	1.52	14.000	3.18	20.08	0.96
1.917	0.83	8.000	1.52	14.083	2.84	20.17	0.96
2.000	0.83	8.083	1.56	14.167	2.84	20.25	0.96
2.083	0.85	8.167	1.56	14.250	2.84	20.33	0.93
2.167	0.85	8.250	1.56	14.333	2.59	20.42	0.93
2.250	0.85	8.333	1.67	14.417	2.59	20.50	0.93
2.333	0.87	8.417	1.67	14.500	2.59	20.58	0.92
2.417	0.87	8.500	1.67	14.583	2.47	20.67	0.92
2.500	0.87	8.583	1.84	14.667	2.47	20.75	0.92
2.583	0.89	8.667	1.84	14.750	2.47	20.83	0.91
2.667	0.89	8.750	1.84	14.833	2.34	20.92	0.91
2.750	0.89	8.833	2.03	14.917	2.34	21.00	0.91
2.833	0.91	8.917	2.03	15.000	2.34	21.08	0.90
2.917	0.91	9.000	2.03	15.083	2.22	21.17	0.90
3.000	0.91	9.083	2.20	15.167	2.22	21.25	0.90
3.083	0.92	9.167	2.20	15.250	2.22	21.33	0.89
3.167	0.92	9.250	2.20	15.333	2.09	21.42	0.89
3.250	0.92	9.333	2.30	15.417	2.09	21.50	0.89
3.333	0.94	9.417	2.30	15.500	2.09	21.58	0.88
3.417	0.94	9.500	2.30	15.583	1.97	21.67	0.88
3.500	0.94	9.583	2.30	15.667	1.97	21.75	0.88
3.583	0.96	9.667	2.30	15.750	1.97	21.83	0.87
3.667	0.96	9.750	2.30	15.833	1.83	21.92	0.87
3.750	0.96	9.833	2.44	15.917	1.83	22.00	0.87
3.833	0.98	9.917	2.44	16.000	1.83	22.08	0.87
3.917	0.98	10.000	2.44	16.083	1.71	22.17	0.87
4.000	0.98	10.083	2.72	16.167	1.71	22.25	0.87
4.083	0.99	10.167	2.72	16.250	1.71	22.33	0.86
4.167	0.99	10.250	2.72	16.333	1.63	22.42	0.86
4.250	0.99	10.333	3.09	16.417	1.63	22.50	0.86
4.333	1.02	10.417	3.09	16.500	1.63	22.58	0.85
4.417	1.02	10.500	3.09	16.583	1.58	22.67	0.85
4.500	1.02	10.583	3.51	16.667	1.58	22.75	0.85
4.583	1.06	10.667	3.51	16.750	1.58	22.83	0.84
4.667	1.06	10.750	3.51	16.833	1.54	22.92	0.84
4.750	1.06	10.833	4.10	16.917	1		

2.500	0.87	8.583	1.84	14.667	2.47	20.75	0.92
2.583	0.89	8.667	1.84	14.750	2.47	20.83	0.91
2.667	0.89	8.750	1.84	14.833	2.34	20.92	0.91
2.750	0.89	8.833	2.03	14.917	2.34	21.00	0.91
2.833	0.91	8.917	2.03	15.000	2.34	21.08	0.90
2.917	0.91	9.000	2.03	15.083	2.22	21.17	0.90
3.000	0.91	9.083	2.20	15.167	2.22	21.25	0.90
3.083	0.92	9.167	2.20	15.250	2.22	21.33	0.89
3.167	0.92	9.250	2.20	15.333	2.09	21.42	0.89
3.250	0.92	9.333	2.30	15.417	2.09	21.50	0.89
3.333	0.94	9.417	2.30	15.500	2.09	21.58	0.88
3.417	0.94	9.500	2.30	15.583	1.97	21.67	0.88
3.500	0.94	9.583	2.30	15.667	1.97	21.75	0.88
3.583	0.96	9.667	2.30	15.750	1.97	21.83	0.87
3.667	0.96	9.750	2.30	15.833	1.83	21.92	0.87
3.750	0.96	9.833	2.44	15.917	1.83	22.00	0.87
3.833	0.98	9.917	2.44	16.000	1.83	22.08	0.87
3.917	0.98	10.000	2.44	16.083	1.71	22.17	0.87
4.000	0.98	10.083	2.72	16.167	1.71	22.25	0.87
4.083	0.99	10.167	2.72	16.250	1.71	22.33	0.86
4.167	0.99	10.250	2.72	16.333	1.63	22.42	0.86
4.250	0.99	10.333	3.09	16.417	1.63	22.50	0.86
4.333	1.02	10.417	3.09	16.500	1.63	22.58	0.85
4.417	1.02	10.500	3.09	16.583	1.58	22.67	0.85
4.500	1.02	10.583	3.51	16.667	1.58	22.75	0.85
4.583	1.06	10.667	3.51	16.750	1.58	22.83	0.84
4.667	1.06	10.750	3.51	16.833	1.54	22.92	0.84
4.750	1.06	10.833	4.10	16.917	1.54	23.00	0.84
4.833	1.09	10.917	4.10	17.000	1.54	23.08	0.83
4.917	1.09	11.000	4.10	17.083	1.49	23.17	0.83
5.000	1.09	11.083	4.79	17.167	1.49	23.25	0.83
5.083	1.13	11.167	4.79	17.250	1.49	23.33	0.82
5.167	1.13	11.250	4.79	17.333	1.45	23.42	0.82
5.250	1.13	11.333	6.06	17.417	1.45	23.50	0.82
5.333	1.17	11.417	6.06	17.500	1.45	23.58	0.81
5.417	1.17	11.500	6.06	17.583	1.40	23.67	0.81
5.500	1.17	11.583	7.71	17.667	1.40	23.75	0.81
5.583	1.20	11.667	7.71	17.750	1.40	23.83	0.80
5.667	1.20	11.750	7.71	17.833	1.36	23.92	0.80
5.750	1.20	11.833	31.44	17.917	1.36	24.00	0.80
5.833	1.24	11.917	31.44	18.000	1.36	24.08	0.79
5.917	1.24	12.000	31.44	18.083	1.31	24.17	0.79
6.000	1.24	12.083	77.58	18.167	1.31	24.25	0.79
6.083	1.27	12.167	77.59	18.250	1.31		

Max.Eff.Inten. (mm/hr) = 77.59 36.99
 over (min) = 5.00 5.00
 Storage Coeff. (min) = 2.75 (ii) 4.39 (ii)
 Unit Hyd. Tpeak (min) = 5.00 5.00
 Unit Hyd. peak (cms) = 0.28 0.23

TOTALS
 PEAK FLOW (cms) = 0.28 0.00 0.283 (iii)
 TIME TO PEAK (hrs) = 12.25 12.25 12.25
 RUNOFF VOLUME (mm) = 69.73 27.71 68.89
 TOTAL RAINFALL (mm) = 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.97 0.39 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7700)				
1 + 2 = 3				

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7620):	1.45	0.304	12.25	68.05
+ ID2= 2 (7629):	1.70	0.364	12.25	69.31

ID = 3 (7700):	3.15	0.668	12.25	68.73

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7700)				
3 + 2 = 1				

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7700):	3.15	0.668	12.25	68.73
+ ID2= 2 (7651):	1.33	0.283	12.25	68.89

ID = 1 (7700):	4.48	0.950	12.25	68.78

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7623)			
ID= 1 DT= 5.0 min			

Area (ha)=	1.20		
Total Imp(%)=	95.00	Dir. Conn.(%)=	95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.14	0.06
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TRANSFORMED HYETOGRAPH									
TIME RAIN TIME RAIN TIME RAIN									
hrs mm/hr hrs mm/hr hrs mm/hr									
----- ----- -----									
0.083	0.00	6.167	1.27	12.250	77.59	18.33	1.27		
0.167	0.00	6.250	1.27	12.333	12.30	18.42	1.27		
0.250	0.00	6.333	1.31	12.417	12.29	18.50	1.27		
0.333	0.73	6.417	1.31	12.500	12.29	18.58	1.23		
0.417	0.73	6.500	1.31	12.583	8.37	18.67	1.23		
0.500	0.73	6.583	1.34	12.667	8.37	18.75	1.23		
0.583	0.74	6.667	1.34	12.750	8.37	18.83	1.18		
0.667	0.74	6.750	1.34	12.833	5.76	18.92	1.18		
0.750	0.74	6.833	1.38	12.917	5.76	19.00	1.18		
0.833	0.76	6.917	1.38	13.000	5.76	19.08	1.13		
0.917	0.76	7.000	1.38	13.083	4.86	19.17	1.13		
1.000	0.76	7.083	1.42	13.167	4.86	19.25	1.13		
1.083	0.78	7.167	1.42	13.250	4.86	19.33	1.09		
1.167	0.78	7.250	1.42	13.333	4.11	19.42	1.09		
1.250	0.78	7.333	1.45	13.417	4.11	19.50	1.09		
1.333	0.80	7.417	1.45	13.500	4.11	19.58	1.05		
1.417	0.80	7.500	1.45	13.583	3.63	19.67	1.05		
1.500	0.80	7.583	1.49	13.667	3.63	19.75	1.05		
1.583	0.82	7.667	1.49	13.750	3.63	19.83	1.00		
1.667	0.82	7.750	1.49	13.833	3.18	19.92	1.00		
1.750	0.82	7.833	1.52	13.917	3.18	20.00	1.00		
1.833	0.83	7.917	1.52	14.000	3.18	20.08	0.96		
1.917	0.83	8.000	1.52	14.083	2.84	20.17	0.96		
2.000	0.83	8.083	1.56	14.167	2.84	20.25	0.96		
2.083	0.85	8.167	1.56	14.250	2.84	20.33	0.93		
2.167	0.85	8.250	1.56	14.333	2.59	20.42	0.93		
2.250	0.85	8.333	1.67	14.417	2.59	20.50	0.93		
2.333	0.87	8.417	1.67	14.500	2.59	20.58	0.92		
2.417	0.87	8.500	1.67	14.583	2.47	20.67	0.92		
2.500	0.87	8.583	1.84	14.667	2.47	20.75	0.92		
2.583	0.89	8.667	1.84	14.750	2.47	20.83	0.91		
2.667	0.89	8.750	1.84	14.833	2.34	20.92	0.91		
2.750	0.89	8.833	2.03	14.917	2.34	21.00	0.91		
2.833	0.91	8.917	2.03	15.000	2.34	21.08	0.90		
2.917	0.91	9.000	2.03	15.083	2.22	21.17	0.90		
3.000	0.91	9.083	2.20	15.167	2.22	21.25	0.90		
3.083	0.92	9.167	2.20	15.250	2.22	21.33	0.89		
3.167	0.92	9.250	2.20	15.333	2.09	21.42	0.89		
3.250	0.92	9.333	2.30	15.417	2.09	21.50	0.89		
3.333	0.94	9.417	2.30	15.500	2.09	21.58	0.88		
3.417	0.94	9.500	2.30	15.583	1.97	21.67	0.88		
3.500	0.94	9.583	2.30	15.667	1.97	21.75	0.88		
3.583	0.96	9.667	2.30	15.750	1.97	21.83	0.87		
3.667	0.96	9.750	2.30	15.833	1.83	21.92	0.87		



3.750	0.96	9.833	2.44	15.917	1.83	22.00	0.87
3.833	0.98	9.917	2.44	16.000	1.83	22.08	0.87
3.917	0.98	10.000	2.44	16.083	1.71	22.17	0.87
4.000	0.98	10.083	2.72	16.167	1.71	22.25	0.87
4.083	0.99	10.167	2.72	16.250	1.71	22.33	0.86
4.167	0.99	10.250	2.72	16.333	1.63	22.42	0.86
4.250	0.99	10.333	3.09	16.417	1.63	22.50	0.86
4.333	1.02	10.417	3.09	16.500	1.63	22.58	0.85
4.417	1.02	10.500	3.09	16.583	1.58	22.67	0.85
4.500	1.02	10.583	3.51	16.667	1.58	22.75	0.85
4.583	1.06	10.667	3.51	16.750	1.58	22.83	0.84
4.667	1.06	10.750	3.51	16.833	1.54	22.92	0.84
4.750	1.06	10.833	4.10	16.917	1.54	23.00	0.84
4.833	1.09	10.917	4.10	17.000	1.54	23.08	0.83
4.917	1.09	11.000	4.10	17.083	1.49	23.17	0.83
5.000	1.09	11.083	4.79	17.167	1.49	23.25	0.83
5.083	1.13	11.167	4.79	17.250	1.49	23.33	0.82
5.167	1.13	11.250	4.79	17.333	1.45	23.42	0.82
5.250	1.13	11.333	6.06	17.417	1.45	23.50	0.82
5.333	1.17	11.417	6.06	17.500	1.45	23.58	0.81
5.417	1.17	11.500	6.06	17.583	1.40	23.67	0.81
5.500	1.17	11.583	7.71	17.667	1.40	23.75	0.81
5.583	1.20	11.667	7.71	17.750	1.40	23.83	0.80
5.667	1.20	11.750	7.71	17.833	1.36	23.92	0.80
5.750	1.20	11.833	31.44	17.917	1.36	24.00	0.80
5.833	1.24	11.917	31.44	18.000	1.36	24.08	0.79
5.917	1.24	12.000	31.44	18.083	1.31	24.17	0.79
6.000	1.24	12.083	77.58	18.167	1.31	24.25	0.79
6.083	1.27	12.167	77.59	18.250	1.31		

Max.Eff.Inten.(mm/hr)= 77.59 38.15
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.58 (ii) 3.99 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.24

PEAK FLOW (cms)= 0.25 0.01 *TOTALS*
 TIME TO PEAK (hrs)= 12.25 12.25 0.252 (iii)
 RUNOFF VOLUME (mm)= 69.73 28.55 67.67
 TOTAL RAINFALL (mm)= 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.97 0.40 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7654) | Area (ha)= 1.69
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	1.67	0.02
Dep. Storage	(mm)=	2.00	5.00
Average Slope	(%)=	1.10	2.00
Length	(m)=	100.00	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.27	12.250	77.59	18.33	1.27
0.167	0.00	6.250	1.27	12.333	12.30	18.42	1.27
0.250	0.00	6.333	1.31	12.417	12.29	18.50	1.27
0.333	0.73	6.417	1.31	12.500	12.29	18.58	1.23
0.417	0.73	6.500	1.31	12.583	8.37	18.67	1.23
0.500	0.73	6.583	1.34	12.667	8.37	18.75	1.23
0.583	0.74	6.667	1.34	12.750	8.37	18.83	1.18

0.667	0.74	6.750	1.34	12.833	5.76	18.92	1.18
0.750	0.74	6.833	1.38	12.917	5.76	19.00	1.18
0.833	0.76	6.917	1.38	13.000	5.76	19.08	1.13
0.917	0.76	7.000	1.38	13.083	4.86	19.17	1.13
1.000	0.76	7.083	1.42	13.167	4.86	19.25	1.13
1.083	0.78	7.167	1.42	13.250	4.86	19.33	1.09
1.167	0.78	7.250	1.42	13.333	4.11	19.42	1.09
1.250	0.78	7.333	1.45	13.417	4.11	19.50	1.09
1.333	0.80	7.417	1.45	13.500	4.11	19.58	1.05
1.417	0.80	7.500	1.45	13.583	3.63	19.67	1.05
1.500	0.80	7.583	1.49	13.667	3.63	19.75	1.05
1.583	0.82	7.667	1.49	13.750	3.63	19.83	1.00
1.667	0.82	7.750	1.49	13.833	3.18	19.92	1.00
1.750	0.82	7.833	1.52	13.917	3.18	20.00	1.00
1.833	0.83	7.917	1.52	14.000	3.18	20.08	0.96
1.917	0.83	8.000	1.52	14.083	2.84	20.17	0.96
2.000	0.83	8.083	1.56	14.167	2.84	20.25	0.96
2.083	0.85	8.167	1.56	14.250	2.84	20.33	0.93
2.167	0.85	8.250	1.56	14.333	2.59	20.42	0.93
2.250	0.85	8.333	1.67	14.417	2.59	20.50	0.93
2.333	0.87	8.417	1.67	14.500	2.59	20.58	0.92
2.417	0.87	8.500	1.67	14.583	2.47	20.67	0.92
2.500	0.87	8.583	1.84	14.667	2.47	20.75	0.92
2.583	0.89	8.667	1.84	14.750	2.47	20.83	0.91
2.667	0.89	8.750	1.84	14.833	2.34	20.92	0.91
2.750	0.89	8.833	2.03	14.917	2.34	21.00	0.91
2.833	0.91	8.917	2.03	15.000	2.34	21.08	0.90
2.917	0.91	9.000	2.03	15.083	2.22	21.17	0.90
3.000	0.91	9.083	2.20	15.167	2.22	21.25	0.90
3.083	0.92	9.167	2.20	15.250	2.22	21.33	0.89
3.167	0.92	9.250	2.20	15.333	2.09	21.42	0.89
3.250	0.92	9.333	2.30	15.417	2.09	21.50	0.89
3.333	0.94	9.417	2.30	15.500	2.09	21.58	0.88
3.417	0.94	9.500	2.30	15.583	1.97	21.67	0.88
3.500	0.94	9.583	2.30	15.667	1.97	21.75	0.88
3.583	0.96	9.667	2.30	15.750	1.97	21.83	0.87
3.667	0.96	9.750	2.30	15.833	1.83	21.92	0.87
3.750	0.96	9.833	2.44	15.917	1.83	22.00	0.87
3.833	0.98	9.917	2.44	16.000	1.83	22.08	0.87
3.917	0.98	10.000	2.44	16.083	1.71	22.17	0.87
4.000	0.98	10.083	2.72	16.167	1.71	22.25	0.87
4.083	0.99	10.167	2.72	16.250	1.71	22.33	0.86
4.167	0.99	10.250	2.72	16.333	1.63	22.42	0.86
4.250	0.99	10.333	3.09	16.417	1.63	22.50	0.86
4.333	1.02	10.417	3.09	16.500	1.63	22.58	0.85
4.417	1.02	10.500	3.09	16.583	1.58	22.67	0.85
4.500	1.02	10.583	3.51	16.667	1.58	22.75	0.85
4.583	1.06	10.667	3.51	16.750	1.58	22.83	0.84
4.667	1.06	10.750	3.51	16.833	1.54	22.92	0.84
4.750	1.06	10.833	4.10	16.917	1.54	23.00	0.84
4.833	1.09	10.917	4.10	17.000	1.54	23.08	0.83
4.917	1.09	11.000	4.10	17.083	1.49	23.17	0.83
5.000	1.09	11.083	4.79	17.167	1.49	23.25	0.83
5.083	1.13	11.167	4.79	17.250	1.49	23.33	0.82
5.167	1.13	11.250	4.79	17.333	1.45	23.42	0.82
5.250	1.13	11.333	6.06	17.417	1.45	23.50	0.82
5.333	1.17	11.417	6.06	17.500	1.45	23.58	0.81
5.417	1.17	11.500	6.06	17.583	1.40	23.67	0.81
5.500	1.17	11.583	7.71	17.667	1.40	23.75	0.81
5.583	1.20	11.667	7.71	17.750	1.40	23.83	0.80
5.667	1.20	11.750	7.71	17.833	1.36	23.92	0.80
5.750	1.20	11.833	31.44	17.917	1.36	24.00	0.80
5.833	1.24	11.917	31.44	18.000	1.36	24.08	0.79
5.917	1.24	12.000	31.44	18.083	1.31	24.17	0.79
6.000	1.24	12.083	77.58	18.167	1.31	24.25	0.79
6.083	1.27	12.167	77.59	18.250	1.31		

Max.Eff.Inten.(mm/hr)= 77.59 36.99
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.75 (ii) 3.99 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.28 0.24

PEAK FLOW (cms)= 0.36 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 69.73 27.71 69.31



TOTAL RAINFALL (mm) = 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.97 0.39 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7655) | Area (ha)= 1.32
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.31	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.27	12.250	77.59	18.33	1.27
0.167	0.00	6.250	1.27	12.333	12.30	18.42	1.27
0.250	0.00	6.333	1.31	12.417	12.29	18.50	1.27
0.333	0.73	6.417	1.31	12.500	12.29	18.58	1.23
0.417	0.73	6.500	1.31	12.583	8.37	18.67	1.23
0.500	0.73	6.583	1.34	12.667	8.37	18.75	1.23
0.583	0.74	6.667	1.34	12.750	8.37	18.83	1.18
0.667	0.74	6.750	1.34	12.833	5.76	18.92	1.18
0.750	0.74	6.833	1.38	12.917	5.76	19.00	1.18
0.833	0.76	6.917	1.38	13.000	5.76	19.08	1.13
0.917	0.76	7.000	1.38	13.083	4.86	19.17	1.13
1.000	0.76	7.083	1.42	13.167	4.86	19.25	1.13
1.083	0.78	7.167	1.42	13.250	4.86	19.33	1.09
1.167	0.78	7.250	1.42	13.333	4.11	19.42	1.09
1.250	0.78	7.333	1.45	13.417	4.11	19.50	1.09
1.333	0.80	7.417	1.45	13.500	4.11	19.58	1.05
1.417	0.80	7.500	1.45	13.583	3.63	19.67	1.05
1.500	0.80	7.583	1.49	13.667	3.63	19.75	1.05
1.583	0.82	7.667	1.49	13.750	3.63	19.83	1.00
1.667	0.82	7.750	1.49	13.833	3.18	19.92	1.00
1.750	0.82	7.833	1.52	13.917	3.18	20.00	1.00
1.833	0.83	7.917	1.52	14.000	3.18	20.08	0.96
1.917	0.83	8.000	1.52	14.083	2.84	20.17	0.96
2.000	0.83	8.083	1.56	14.167	2.84	20.25	0.96
2.083	0.85	8.167	1.56	14.250	2.84	20.33	0.93
2.167	0.85	8.250	1.56	14.333	2.59	20.42	0.93
2.250	0.85	8.333	1.67	14.417	2.59	20.50	0.93
2.333	0.87	8.417	1.67	14.500	2.59	20.58	0.92
2.417	0.87	8.500	1.67	14.583	2.47	20.67	0.92
2.500	0.87	8.583	1.84	14.667	2.47	20.75	0.92
2.583	0.89	8.667	1.84	14.750	2.47	20.83	0.91
2.667	0.89	8.750	1.84	14.833	2.34	20.92	0.91
2.750	0.89	8.833	2.03	14.917	2.34	21.00	0.91
2.833	0.91	8.917	2.03	15.000	2.34	21.08	0.90
2.917	0.91	9.000	2.03	15.083	2.22	21.17	0.90
3.000	0.91	9.083	2.20	15.167	2.22	21.25	0.90
3.083	0.92	9.167	2.20	15.250	2.22	21.33	0.89
3.167	0.92	9.250	2.20	15.333	2.09	21.42	0.89
3.250	0.92	9.333	2.30	15.417	2.09	21.50	0.89
3.333	0.94	9.417	2.30	15.500	2.09	21.58	0.88
3.417	0.94	9.500	2.30	15.583	1.97	21.67	0.88
3.500	0.94	9.583	2.30	15.667	1.97	21.75	0.88
3.583	0.96	9.667	2.30	15.750	1.97	21.83	0.87
3.667	0.96	9.750	2.30	15.833	1.83	21.92	0.87
3.750	0.96	9.833	2.44	15.917	1.83	22.00	0.87
3.833	0.98	9.917	2.44	16.000	1.83	22.08	0.87

3.917	0.98	10.000	2.44	16.083	1.71	22.17	0.87
4.000	0.98	10.083	2.72	16.167	1.71	22.25	0.87
4.083	0.99	10.167	2.72	16.250	1.71	22.33	0.86
4.167	0.99	10.250	2.72	16.333	1.63	22.42	0.86
4.250	0.99	10.333	3.09	16.417	1.63	22.50	0.86
4.333	1.02	10.417	3.09	16.500	1.63	22.58	0.85
4.417	1.02	10.500	3.09	16.583	1.58	22.67	0.85
4.500	1.02	10.583	3.51	16.667	1.58	22.75	0.85
4.583	1.06	10.667	3.51	16.750	1.58	22.83	0.84
4.667	1.06	10.750	3.51	16.833	1.54	22.92	0.84
4.750	1.06	10.833	4.10	16.917	1.54	23.00	0.84
4.833	1.09	10.917	4.10	17.000	1.54	23.08	0.83
4.917	1.09	11.000	4.10	17.083	1.49	23.17	0.83
5.000	1.09	11.083	4.79	17.167	1.49	23.25	0.83
5.083	1.13	11.167	4.79	17.250	1.49	23.33	0.82
5.167	1.13	11.250	4.79	17.333	1.45	23.42	0.82
5.250	1.13	11.333	6.06	17.417	1.45	23.50	0.82
5.333	1.17	11.417	6.06	17.500	1.45	23.58	0.81
5.417	1.17	11.500	6.06	17.583	1.40	23.67	0.81
5.500	1.17	11.583	7.71	17.667	1.40	23.75	0.81
5.583	1.20	11.667	7.71	17.750	1.40	23.83	0.80
5.667	1.20	11.750	7.71	17.833	1.36	23.92	0.80
5.750	1.20	11.833	31.44	17.917	1.36	24.00	0.80
5.833	1.24	11.917	31.44	18.000	1.36	24.08	0.79
5.917	1.24	12.000	31.44	18.083	1.31	24.17	0.79
6.000	1.24	12.083	77.59	18.167	1.31	24.25	0.79
6.083	1.27	12.167	77.59	18.250	1.31		

Max.Eff.Inten.(mm/hr)= 77.59 36.99
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.75 (ii) 3.99 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.28 0.24

 | CALIB |
 | STANDHYD (7662) | Area (ha)= 1.61
 | ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.48	0.13
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.27	12.250	77.59	18.33	1.27
0.167	0.00	6.250	1.27	12.333	12.30	18.42	1.27
0.250	0.00	6.333	1.31	12.417	12.29	18.50	1.27
0.333	0.73	6.417	1.31	12.500	12.29	18.58	1.23
0.417	0.73	6.500	1.31	12.583	8.37	18.67	1.23
0.500	0.73	6.583	1.34	12.667	8.37	18.75	1.23
0.583	0.74	6.667	1.34	12.750	8.37	18.83	1.18
0.667	0.74	6.750	1.34	12.833	5.76	18.92	1.18
0.750	0.74	6.833	1.38	12.917	5.76	19.00	1.18
0.833	0.76	6.917	1.38	13.000	5.76	19.08	1.13
0.917	0.76	7.000	1.38	13.083	4.86	19.17	1.13
1.000	0.76	7.083	1.42	13.167	4.86	19.25	1.13
1.083	0.78	7.167	1.42	13.250	4.11	19.33	1.09
1.167	0.78	7.250	1.42	13.333	4.11	19.42	1.09
1.250	0.78	7.333	1.45	13.417	4.11	19.50	1.09
1.333	0.80	7.417	1.45	13.500	4.11	19.58	1.05
1.417	0.80	7.500	1.45	13.583	3.63	19.67	1.05
1.500	0.80	7.583	1.49	13.667	3.63	19.75	1.05
1.583	0.82	7.667	1.49	13.750	3.63	19.83	1.00
1.667	0.82	7.750	1.49	13.833	3.18	19.92	1.00
1.750	0.82	7.833	1.52	13.917	3.18	20.00	1.00
1.833	0.83	7.917	1.52	14.000	3.18	20.08	0.96
1.917	0.83	8.000	1.52	14.083	2.84	20.17	0.96
2.000	0.83	8.083	1.56	14.167	2.84	20.25	0.96
2.083	0.85	8.167	1.56	14.250	2.84	20.33	0.93
2.167	0.85	8.250	1.56	14.333	2.59	20.42	0.93
2.250	0.85	8.333	1.67	14.417	2.59	20.50	0.93
2.333	0.87	8.417	1.67	14.500	2.59	20.58	0.92
2.417	0.87	8.500	1.67	14.583	2.47	20.67	0.92
2.500	0.87	8.583	1.84	14.667	2.47	20.75	0.92
2.583	0.89	8.667	1.84	14.750	2.47	20.83	0.91
2.667	0.89	8.750	1.84	14.833	2.34	20.92	0.91
2.750	0.89	8.833	2.03	14.917	2.34	21.00	0.91
2.833	0.91	8.917	2.03	15.000	2.34	21.08	0.90
2.917	0.91	9.000	2.03	15.083	2.22	21.17	0.90
3.000	0.91	9.083	2.20	15.167	2.22	21.25	0.90
3.083	0.92	9.167	2.20	15.250	2.22	21.33	0.89
3.167	0.92	9.250	2.20	15.333	2.09	21.42	0.89
3.250	0.92	9.333	2.30	15.417	2.09	21.50	0.89
3.333	0.94	9.417	2.30	15.500	2.09	21.58	0.88
3.417	0.94	9.500	2.30	15.583	1.97	21.67	0.88
3.500	0.94	9.583	2.30	15.667	1.97	21.75	0.88
3.583	0.96	9.667	2.30	15.750	1.97	21.83	0.87
3.667	0.96	9.750	2.30	15.833	1.83	21.92	0.87
3.750	0.96	9.833	2.44	15.917	1.83	22.00	0.87
3.833	0.98	9.917	2.44	16.000	1.83	22.08	0.87

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.



0.833	0.76	6.917	1.38	13.000	5.76	19.08	1.13
0.917	0.76	7.000	1.38	13.083	4.86	19.17	1.13
1.000	0.76	7.083	1.42	13.167	4.86	19.25	1.13
1.083	0.78	7.167	1.42	13.250	4.86	19.33	1.09
1.167	0.78	7.250	1.42	13.333	4.11	19.42	1.09
1.250	0.78	7.333	1.45	13.417	4.11	19.50	1.09
1.333	0.80	7.417	1.45	13.500	4.11	19.58	1.05
1.417	0.80	7.500	1.45	13.583	3.63	19.67	1.05
1.500	0.80	7.583	1.49	13.667	3.63	19.75	1.05
1.583	0.82	7.667	1.49	13.750	3.63	19.83	1.00
1.667	0.82	7.750	1.49	13.833	3.18	19.92	1.00
1.750	0.82	7.833	1.52	13.917	3.18	20.00	1.00
1.833	0.83	7.917	1.52	14.000	3.18	20.08	0.96
1.917	0.83	8.000	1.52	14.083	2.84	20.17	0.96
2.000	0.83	8.083	1.56	14.167	2.84	20.25	0.96
2.083	0.85	8.167	1.56	14.250	2.84	20.33	0.93
2.167	0.85	8.250	1.56	14.333	2.59	20.42	0.93
2.250	0.85	8.333	1.67	14.417	2.59	20.50	0.93
2.333	0.87	8.417	1.67	14.500	2.59	20.58	0.92
2.417	0.87	8.500	1.67	14.583	2.47	20.67	0.92
2.500	0.87	8.583	1.84	14.667	2.47	20.75	0.92
2.583	0.89	8.667	1.84	14.750	2.47	20.83	0.91
2.667	0.89	8.750	1.84	14.833	2.34	20.92	0.91
2.750	0.89	8.833	2.03	14.917	2.34	21.00	0.91
2.833	0.91	8.917	2.03	15.000	2.34	21.08	0.90
2.917	0.91	9.000	2.03	15.083	2.22	21.17	0.90
3.000	0.91	9.083	2.20	15.167	2.22	21.25	0.90
3.083	0.92	9.167	2.20	15.250	2.22	21.33	0.89
3.167	0.92	9.250	2.20	15.333	2.09	21.42	0.89
3.250	0.92	9.333	2.30	15.417	2.09	21.50	0.89
3.333	0.94	9.417	2.30	15.500	2.09	21.58	0.88
3.417	0.94	9.500	2.30	15.583	1.97	21.67	0.88
3.500	0.94	9.583	2.30	15.667	1.97	21.75	0.88
3.583	0.96	9.667	2.30	15.750	1.97	21.83	0.87
3.667	0.96	9.750	2.30	15.833	1.83	21.92	0.87
3.750	0.96	9.833	2.44	15.917	1.83	22.00	0.87
3.833	0.98	9.917	2.44	16.000	1.83	22.08	0.87
3.917	0.98	10.000	2.44	16.083	1.71	22.17	0.87
4.000	0.98	10.083	2.72	16.167	1.71	22.25	0.87
4.083	0.99	10.167	2.72	16.250	1.71	22.33	0.86
4.167	0.99	10.250	2.72	16.333	1.63	22.42	0.86
4.250	0.99	10.333	3.09	16.417	1.63	22.50	0.86
4.333	1.02	10.417	3.09	16.500	1.63	22.58	0.85
4.417	1.02	10.500	3.09	16.583	1.58	22.67	0.85
4.500	1.02	10.583	3.51	16.667	1.58	22.75	0.85
4.583	1.06	10.667	3.51	16.750	1.58	22.83	0.84
4.667	1.06	10.750	3.51	16.833	1.54	22.92	0.84
4.750	1.06	10.833	4.10	16.917	1.54	23.00	0.84
4.833	1.09	10.917	4.10	17.000	1.54	23.08	0.83
4.917	1.09	11.000	4.10	17.083	1.49	23.17	0.83
5.000	1.09	11.083	4.79	17.167	1.49	23.25	0.83
5.083	1.13	11.167	4.79	17.250	1.49	23.33	0.82
5.167	1.13	11.250	4.79	17.333	1.45	23.42	0.82
5.250	1.13	11.333	6.06	17.417	1.45	23.50	0.82
5.333	1.17	11.417	6.06	17.500	1.45	23.58	0.81
5.417	1.17	11.500	6.06	17.583	1.40	23.67	0.81
5.500	1.17	11.583	7.71	17.667	1.40	23.75	0.81
5.583	1.20	11.667	7.71	17.750	1.40	23.83	0.80
5.667	1.20	11.750	7.71	17.833	1.36	23.92	0.80
5.750	1.20	11.833	31.44	17.917	1.36	24.00	0.80
5.833	1.24	11.917	31.44	18.000	1.36	24.08	0.79
5.917	1.24	12.000	31.44	18.083	1.31	24.17	0.79
6.000	1.24	12.083	77.58	18.167	1.31	24.25	0.79
6.083	1.27	12.167	77.58	18.250	1.31		

Max.Eff.Inten.(mm/hr)= 77.59 22.25
 over (min) 5.00 35.00
 Storage Coeff. (min)= 2.75 (ii) 30.63 (iii)
 Unit Hyd. Tpeak (min)= 5.00 35.00
 Unit Hyd. peak (cms)= 0.28 0.04

PEAK FLOW (cms)= 0.32 0.00 0.321 (iii)
 TIME TO PEAK (hrs)= 12.25 12.67 12.25
 RUNOFF VOLUME (mm)= 69.73 27.71 66.36
 TOTAL RAINFALL (mm)= 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.97 0.39 0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7701)					
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7654):	1.69	0.361	12.25	69.31	
+ ID2= 2 (7655):	1.32	0.282	12.25	69.31	
=====					
ID = 3 (7701):	3.01	0.644	12.25	69.31	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7701)					
3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7701):	3.01	0.644	12.25	69.31	
+ ID2= 2 (7662):	1.61	0.321	12.25	66.36	
=====					
ID = 1 (7701):	4.62	0.964	12.25	68.28	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7707)	Area	(ha)=	1.06
ID= 1 DT= 5.0 min	Total Imp(%)=	95.00	Dir. Conn.(%)= 95.00

Surface Area	(ha)=	1.01	0.05
Dep. Storage	(mm)=	2.00	5.00
Average Slope	(%)=	2.50	2.00
Length	(m)=	60.00	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.27	12.250	77.59	18.33	1.27				
0.167	0.00	6.250	1.27	12.333	12.30	18.42	1.27				
0.250	0.00	6.333	1.31	12.417	12.29	18.50	1.27				
0.333	0.73	6.417	1.31	12.500	12.29	18.58	1.23				
0.417	0.73	6.500	1.31	12.583	8.37	18.67	1.23				
0.500	0.73	6.583	1.34	12.667	8.37	18.75	1.23				
0.583	0.74	6.667	1.34	12.750	8.37	18.83	1.18				
0.667	0.74	6.750	1.34	12.833	5.76	18.92	1.18				
0.750	0.74	6.833	1.38	12.917	5.76	19.00	1.18				
0.833	0.76	6.917	1.38	13.000	5.76	19.08	1.13				
0.917	0.76	7.000	1.38	13.083	4.86	19.17	1.13				
1.000	0.76	7.083	1.42	13.167	4.86	19.25	1.13				
1.083	0.78	7.167	1.42	13.250	4.86	19.33	1.09				
1.167	0.78	7.250	1.42	13.333	4.11	19.42	1.09				
1.250	0.78	7.333	1.45	13.417	4.11	19.50	1.09				
1.333	0.80	7.417	1.45	13.500	4.11	19.58	1.05				
1.417	0.80	7.500	1.45	13.583	3.63	19.67	1.05				
1.500	0.80	7.583	1.49	13.667	3.63	19.75	1.05				
1.583	0.82	7.667	1.49	13.750	3.63	19.83	1.00				
1.667	0.82	7.750	1.49	13.833	3.18	19.92	1.00				
1.750	0.82	7.833	1.52	13.917	3.18	20.00	1.00				
1.833	0.83	7.917	1.52	14.000	3.18	20.08	0.96				
1.917	0.83	8.000	1.52	14.083	2.84	20.17	0.96				
2.000	0.83	8.083	1.56	14.167	2.84	20.25	0.96				



2.083	0.85	8.167	1.56	14.250	2.84	20.33	0.93
2.167	0.85	8.250	1.56	14.333	2.59	20.42	0.93
2.250	0.85	8.333	1.67	14.417	2.59	20.50	0.93
2.333	0.87	8.417	1.67	14.500	2.59	20.58	0.92
2.417	0.87	8.500	1.67	14.583	2.47	20.67	0.92
2.500	0.87	8.583	1.84	14.667	2.47	20.75	0.92
2.583	0.89	8.667	1.84	14.750	2.47	20.83	0.91
2.667	0.89	8.750	1.84	14.833	2.34	20.92	0.91
2.750	0.89	8.833	2.03	14.917	2.34	21.00	0.91
2.833	0.91	8.917	2.03	15.000	2.34	21.08	0.90
2.917	0.91	9.000	2.03	15.083	2.22	21.17	0.90
3.000	0.91	9.083	2.20	15.167	2.22	21.25	0.90
3.083	0.92	9.167	2.20	15.250	2.22	21.33	0.89
3.167	0.92	9.250	2.20	15.333	2.09	21.42	0.89
3.250	0.92	9.333	2.30	15.417	2.09	21.50	0.89
3.333	0.94	9.417	2.30	15.500	2.09	21.58	0.88
3.417	0.94	9.500	2.30	15.583	1.97	21.67	0.88
3.500	0.94	9.583	2.30	15.667	1.97	21.75	0.88
3.583	0.96	9.667	2.30	15.750	1.97	21.83	0.87
3.667	0.96	9.750	2.30	15.833	1.83	21.92	0.87
3.750	0.96	9.833	2.44	15.917	1.83	22.00	0.87
3.833	0.98	9.917	2.44	16.000	1.83	22.08	0.87
3.917	0.98	10.000	2.44	16.083	1.71	22.17	0.87
4.000	0.98	10.083	2.72	16.167	1.71	22.25	0.87
4.083	0.99	10.167	2.72	16.250	1.71	22.33	0.86
4.167	0.99	10.250	2.72	16.333	1.63	22.42	0.86
4.250	0.99	10.333	3.09	16.417	1.63	22.50	0.86
4.333	1.02	10.417	3.09	16.500	1.63	22.58	0.85
4.417	1.02	10.500	3.09	16.583	1.58	22.67	0.85
4.500	1.02	10.583	3.51	16.667	1.58	22.75	0.85
4.583	1.06	10.667	3.51	16.750	1.58	22.83	0.84
4.667	1.06	10.750	3.51	16.833	1.54	22.92	0.84
4.750	1.06	10.833	4.10	16.917	1.54	23.00	0.84
4.833	1.09	10.917	4.10	17.000	1.54	23.08	0.83
4.917	1.09	11.000	4.10	17.083	1.49	23.17	0.83
5.000	1.09	11.083	4.79	17.167	1.49	23.25	0.83
5.083	1.13	11.167	4.79	17.250	1.49	23.33	0.82
5.167	1.13	11.250	4.79	17.333	1.45	23.42	0.82
5.250	1.13	11.333	6.06	17.417	1.45	23.50	0.82
5.333	1.17	11.417	6.06	17.500	1.45	23.58	0.81
5.417	1.17	11.500	6.06	17.583	1.40	23.67	0.81
5.500	1.17	11.583	7.71	17.667	1.40	23.75	0.81
5.583	1.20	11.667	7.71	17.750	1.40	23.83	0.80
5.667	1.20	11.750	7.71	17.833	1.36	23.92	0.80
5.750	1.20	11.833	31.44	17.917	1.36	24.00	0.80
5.833	1.24	11.917	31.44	18.000	1.36	24.08	0.79
5.917	1.24	12.000	31.44	18.083	1.31	24.17	0.79
6.000	1.24	12.083	77.58	18.167	1.31	24.25	0.79
6.083	1.27	12.167	77.58	18.250	1.31		

Max.Eff.Inten. (mm/hr)=	77.59	38.15
over (min)	5.00	5.00
Storage Coeff. (min)=	1.58 (ii)	3.99 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.24

TOTALS			
PEAK FLOW (cms)=	0.22	0.01	0.223 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	69.73	28.55	67.67
TOTAL RAINFALL (mm)=	71.73	71.73	71.73
RUNOFF COEFFICIENT =	0.97	0.40	0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7702)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)

ID1= 1 (7623):	1.20	0.252	12.25	67.67
+ ID2= 2 (7700):	4.48	0.950	12.25	68.78
ID = 3 (7702):	5.68	1.203	12.25	68.54

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7702):	5.68	1.203	12.25	68.54
+ ID2= 2 (7701):	4.62	0.964	12.25	68.28
ID = 1 (7702):	10.30	2.167	12.25	68.42

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7702):	10.30	2.167	12.25	68.42
+ ID2= 2 (7707):	1.06	0.223	12.25	67.67
ID = 3 (7702):	11.36	2.389	12.25	68.35

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7702):	11.36	2.389	12.25	68.35
+ ID2= 2 (7714):	14.31	1.273	12.25	70.29
ID = 1 (7702):	25.67	3.662	12.25	69.43

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7705)	OVERFLOW IS OFF			
IN= 2--> OUT= 1				
DT= 5.0 min	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.6280	2.3980
	0.0730	0.2080	0.6400	2.4830
	0.0890	0.2770	0.6520	2.5670
	0.1340	0.5530	0.6640	2.6500
	0.2910	0.8290	0.6750	2.7340
	0.3860	1.1060	0.7190	3.0490
	0.4590	1.3820	0.8250	3.3550
	0.5220	1.7210	2.0760	3.4560
	0.5780	2.0600	2.3560	3.7320

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7702)	25.670	3.662	12.25	69.43
OUTFLOW: ID= 1 (7705)	25.670	0.287	15.67	69.41

PEAK FLOW REDUCTION [Qout/Qin] (%) = 7.85
TIME SHIFT OF PEAK FLOW (min) = 205.00
MAXIMUM STORAGE USED (ha.m.) = 0.8226

CALIB			
STANDHYD (7716)	Area	(ha) = 0.19	
ID= 1 DT= 5.0 min	Total Imp (%) =	95.00	Dir. Conn. (%) = 95.00
	SURFACE AREA	(ha) = 0.18	PERVIOUS (i) 0.01
	DEP. STORAGE	(mm) = 2.00	PERVIOUS (i) 5.00



0.583	0.74	6.667	1.34	12.750	8.37	18.83	1.18
0.667	0.74	6.750	1.34	12.833	5.76	18.92	1.18
0.750	0.74	6.833	1.38	12.917	5.76	19.00	1.18
0.833	0.76	6.917	1.38	13.000	5.76	19.08	1.13
0.917	0.76	7.000	1.38	13.083	4.86	19.17	1.13
1.000	0.76	7.083	1.42	13.167	4.86	19.25	1.13
1.083	0.78	7.167	1.42	13.250	4.86	19.33	1.09
1.167	0.78	7.250	1.42	13.333	4.11	19.42	1.09
1.250	0.78	7.333	1.45	13.417	4.11	19.50	1.09
1.333	0.80	7.417	1.45	13.500	4.11	19.58	1.05
1.417	0.80	7.500	1.45	13.583	3.63	19.67	1.05
1.500	0.80	7.583	1.49	13.667	3.63	19.75	1.05
1.583	0.82	7.667	1.49	13.750	3.63	19.83	1.00
1.667	0.82	7.750	1.49	13.833	3.18	19.92	1.00
1.750	0.82	7.833	1.52	13.917	3.18	20.00	1.00
1.833	0.83	7.917	1.52	14.000	3.18	20.08	0.96
1.917	0.83	8.000	1.52	14.083	2.84	20.17	0.96
2.000	0.83	8.083	1.56	14.167	2.84	20.25	0.96
2.083	0.85	8.167	1.56	14.250	2.84	20.33	0.93
2.167	0.85	8.250	1.56	14.333	2.59	20.42	0.93
2.250	0.85	8.333	1.67	14.417	2.59	20.50	0.93
2.333	0.87	8.417	1.67	14.500	2.59	20.58	0.92
2.417	0.87	8.500	1.67	14.583	2.47	20.67	0.92
2.500	0.87	8.583	1.84	14.667	2.47	20.75	0.92
2.583	0.89	8.667	1.84	14.750	2.47	20.83	0.91
2.667	0.89	8.750	1.84	14.833	2.34	20.92	0.91
2.750	0.89	8.833	2.03	14.917	2.34	21.00	0.91
2.833	0.91	8.917	2.03	15.000	2.34	21.08	0.90
2.917	0.91	9.000	2.03	15.083	2.22	21.17	0.90
3.000	0.91	9.083	2.20	15.167	2.22	21.25	0.90
3.083	0.92	9.167	2.20	15.250	2.22	21.33	0.89
3.167	0.92	9.250	2.20	15.333	2.09	21.42	0.89
3.250	0.92	9.333	2.30	15.417	2.09	21.50	0.89
3.333	0.94	9.417	2.30	15.500	2.09	21.58	0.88
3.417	0.94	9.500	2.30	15.583	1.97	21.67	0.88
3.500	0.94	9.583	2.30	15.667	1.97	21.75	0.88
3.583	0.96	9.667	2.30	15.750	1.97	21.83	0.87
3.667	0.96	9.750	2.30	15.833	1.83	21.92	0.87
3.750	0.96	9.833	2.44	15.917	1.83	22.00	0.87
3.833	0.98	9.917	2.44	16.000	1.83	22.08	0.87
3.917	0.98	10.000	2.44	16.083	1.71	22.17	0.87
4.000	0.98	10.083	2.72	16.167	1.71	22.25	0.87
4.083	0.99	10.167	2.72	16.250	1.71	22.33	0.86
4.167	0.99	10.250	2.72	16.333	1.63	22.42	0.86
4.250	0.99	10.333	3.09	16.417	1.63	22.50	0.86
4.333	1.02	10.417	3.09	16.500	1.63	22.58	0.85
4.417	1.02	10.500	3.09	16.583	1.58	22.67	0.85
4.500	1.02	10.583	3.51	16.667	1.58	22.75	0.85
4.583	1.06	10.667	3.51	16.750	1.58	22.83	0.84
4.667	1.06	10.750	3.51	16.833	1.54	22.92	0.84
4.750	1.06	10.833	4.10	16.917	1.54	23.00	0.84
4.833	1.09	10.917	4.10	17.000	1.54	23.08	0.83
4.917	1.09	11.000	4.10	17.083	1.49	23.17	0.83
5.000	1.09	11.083	4.79	17.167	1.49	23.25	0.83
5.083	1.13	11.167	4.79	17.250	1.49	23.33	0.82
5.167	1.13	11.250	4.79	17.333	1.45	23.42	0.82
5.250	1.13	11.333	6.06	17.417	1.45	23.50	0.82
5.333	1.17	11.417	6.06	17.500	1.45	23.58	0.81
5.417	1.17	11.500	6.06	17.583	1.40	23.67	0.81
5.500	1.17	11.583	7.71	17.667	1.40	23.75	0.81
5.583	1.20	11.667	7.71	17.750	1.40	23.83	0.80
5.667	1.20	11.750	7.71	17.833	1.36	23.92	0.80
5.750	1.20	11.833	31.44	17.917	1.36	24.00	0.80
5.833	1.24	11.917	31.44	18.000	1.36	24.08	0.79
5.917	1.24	12.000	31.44	18.083	1.31	24.17	0.79
6.000	1.24	12.083	77.58	18.167	1.31	24.25	0.79
6.083	1.27	12.167	77.59	18.250	1.31		

Max.Eff.Inten.(mm/hr)= 77.59 38.15
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.17 (ii) 3.58 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.26

PEAK FLOW (cms)= 0.04 0.00 0.042 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25

TOTALS

RUNOFF VOLUME (mm)= 69.73 28.55 67.67
 TOTAL RAINFALL (mm)= 71.73 71.73 71.73
 RUNOFF COEFFICIENT = 0.97 0.40 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | RESERVOIR (7719) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
DT= 5.0 min

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.0100	0.0090
0.0030	0.0010	0.0110	0.0100
0.0050	0.0030	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

INFLOW : ID= 2 (7717)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
0.200	0.200	0.042	12.25	67.67

OUTFLOW: ID= 1 (7719)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
0.200	0.200	0.008	12.33	67.27

PEAK FLOW REDUCTION [Qout/Qin](%)= 19.71
 TIME SHIFT OF PEAK FLOW (min)= 5.00
 MAXIMUM STORAGE USED (ha.m.)= 0.0053

 | ADD HYD (7706) |
1 + 2 = 3

ID	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7705):	25.67	0.287	15.67	69.41
+ ID2= 2 (7719):	0.20	0.008	12.33	67.27

ID = 3 (7706):	25.87	0.291	15.50	69.39

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7706) |
3 + 2 = 1

ID	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (7706):	25.87	0.291	15.50	69.39
+ ID2= 2 (7720):	0.19	0.008	12.33	67.27

ID = 1 (7706):	26.06	0.294	15.33	69.37

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |
 | STANDBYD (7595) | Area (ha)= 1.24
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.23	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	91.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.27	12.250	77.59	18.33	1.27
0.167	0.00	6.250	1.27	12.333	12.30	18.42	1.27
0.250	0.00	6.333	1.31	12.417	12.29	18.50	1.27
0.333	0.73	6.417	1.31	12.500	12.29	18.58	1.23
0.417	0.73	6.500	1.31	12.583	8.37	18.67	1.23
0.500	0.73	6.583	1.34	12.667	8.37	18.75	1.23
0.583	0.74	6.667	1.34	12.750	8.37	18.83	1.18
0.667	0.74	6.750	1.34	12.833	5.76	18.92	1.18
0.750	0.74	6.833	1.38	12.917	5.76	19.00	1.18
0.833	0.76	6.917	1.38	13.000	5.76	19.08	1.13
0.917	0.76	7.000	1.38	13.083	4.86	19.17	1.13
1.000	0.76	7.083	1.42	13.167	4.86	19.25	1.13
1.083	0.78	7.167	1.42	13.250	4.86	19.33	1.09
1.167	0.78	7.250	1.42	13.333	4.11	19.42	1.09
1.250	0.78	7.333	1.45	13.417	4.11	19.50	1.09
1.333	0.80	7.417	1.45	13.500	4.11	19.58	1.05
1.417	0.80	7.500	1.45	13.583	3.63	19.67	1.05
1.500	0.80	7.583	1.49	13.667	3.63	19.75	1.05
1.583	0.82	7.667	1.49	13.750	3.63	19.83	1.00
1.667	0.82	7.750	1.49	13.833	3.18	19.92	1.00
1.750	0.82	7.833	1.52	13.917	3.18	20.00	1.00
1.833	0.83	7.917	1.52	14.000	3.18	20.08	0.96
1.917	0.83	8.000	1.52	14.083	2.84	20.17	0.96
2.000	0.83	8.083	1.56	14.167	2.84	20.25	0.96
2.083	0.85	8.167	1.56	14.250	2.84	20.33	0.93
2.167	0.85	8.250	1.56	14.333	2.59	20.42	0.93
2.250	0.85	8.333	1.67	14.417	2.59	20.50	0.93
2.333	0.87	8.417	1.67	14.500	2.59	20.58	0.92
2.417	0.87	8.500	1.67	14.583	2.47	20.67	0.92
2.500	0.87	8.583	1.84	14.667	2.47	20.75	0.92
2.583	0.89	8.667	1.84	14.750	2.47	20.83	0.91
2.667	0.89	8.750	1.84	14.833	2.34	20.92	0.91
2.750	0.89	8.833	2.03	14.917	2.34	21.00	0.91
2.833	0.91	8.917	2.03	15.000	2.34	21.08	0.90
2.917	0.91	9.000	2.03	15.083	2.22	21.17	0.90
3.000	0.91	9.083	2.20	15.167	2.22	21.25	0.90
3.083	0.92	9.167	2.20	15.250	2.22	21.33	0.89
3.167	0.92	9.250	2.20	15.333	2.09	21.42	0.89
3.250	0.92	9.333	2.30	15.417	2.09	21.50	0.89
3.333	0.94	9.417	2.30	15.500	2.09	21.58	0.88
3.417	0.94	9.500	2.30	15.583	1.97	21.67	0.88
3.500	0.94	9.583	2.30	15.667	1.97	21.75	0.88
3.583	0.96	9.667	2.30	15.750	1.97	21.83	0.87
3.667	0.96	9.750	2.30	15.833	1.83	21.92	0.87
3.750	0.96	9.833	2.44	15.917	1.83	22.00	0.87
3.833	0.98	9.917	2.44	16.000	1.83	22.08	0.87
3.917	0.98	10.000	2.44	16.083	1.71	22.17	0.87
4.000	0.98	10.083	2.72	16.167	1.71	22.25	0.87
4.083	0.99	10.167	2.72	16.250	1.71	22.33	0.86
4.167	0.99	10.250	2.72	16.333	1.63	22.42	0.86
4.250	0.99	10.333	3.09	16.417	1.63	22.50	0.86
4.333	1.02	10.417	3.09	16.500	1.63	22.58	0.85
4.417	1.02	10.500	3.09	16.583	1.58	22.67	0.85
4.500	1.02	10.583	3.51	16.667	1.58	22.75	0.85
4.583	1.06	10.667	3.51	16.750	1.58	22.83	0.84
4.667	1.06	10.750	3.51	16.833	1.54	22.92	0.84
4.750	1.06	10.833	4.10	16.917	1.54	23.00	0.84
4.833	1.09	10.917	4.10	17.000	1.54	23.08	0.83
4.917	1.09	11.000	4.10	17.083	1.49	23.17	0.83
5.000	1.09	11.083	4.79	17.167	1.49	23.25	0.83
5.083	1.13	11.167	4.79	17.250	1.49	23.33	0.82
5.167	1.13	11.250	4.79	17.333	1.45	23.42	0.82
5.250	1.13	11.333	6.06	17.417	1.45	23.50	0.82
5.333	1.17	11.417	6.06	17.500	1.45	23.58	0.81
5.417	1.17	11.500	6.06	17.583	1.40	23.67	0.81
5.500	1.17	11.583	7.71	17.667	1.40	23.75	0.81
5.583	1.20	11.667	7.71	17.750	1.40	23.83	0.80
5.667	1.20	11.750	7.71	17.833	1.36	23.92	0.80
5.750	1.20	11.833	31.44	17.917	1.36	24.00	0.80
5.833	1.24	11.917	31.44	18.000	1.36	24.08	0.79
5.917	1.24	12.000	31.44	18.083	1.31	24.17	0.79
6.000	1.24	12.083	77.58	18.167	1.31	24.25	0.79
6.083	1.27	12.167	77.59	18.250	1.31		

Max.Eff.Inten.(mm/hr)=	77.59	36.99
over (min)	5.00	5.00
Storage Coeff. (min)=	2.17 (ii)	3.41 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.31	0.26
PEAK FLOW (cms)=	0.26	0.00
TIME TO PEAK (hrs)=	12.25	12.25
RUNOFF VOLUME (mm)=	69.73	27.71
TOTAL RAINFALL (mm)=	71.73	71.73
RUNOFF COEFFICIENT =	0.97	0.39

TOTALS

0.266 (iii)

12.25

69.31

71.73

0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7718)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7595):	1.24	0.266	12.25	69.31
+ ID2= 2 (7706):	26.06	0.294	15.33	69.37
ID = 3 (7718):	27.30	0.459	12.25	69.37

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7711)	OVERFLOW IS OFF	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
IN= 2--> OUT= 1					
DT= 5.0 min					
0.0000	0.0000		1.0810	1.6220	
0.0010	0.1670		1.3950	1.8170	
0.0340	0.3380		2.0990	2.2130	
0.0510	0.5110		2.8950	2.6150	
0.0630	0.6880		3.7730	3.0250	
0.1610	0.8670		4.7260	3.4420	
0.3300	1.0500		5.5670	3.8670	
0.5440	1.2370		8.5800	4.3000	
0.7970	1.4290		10.9450	4.5210	

INFLOW : ID= 2 (7718)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
27.302	0.459	12.25	69.37	
OUTFLOW: ID= 1 (7711)	27.302	0.173	23.08	63.88

PEAK FLOW REDUCTION [Qout/Qin](%) = 37.66
 TIME SHIFT OF PEAK FLOW (min)=650.00
 MAXIMUM STORAGE USED (ha.m.) = 0.8799



```

=====
*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O O
O O T T H H Y Y M M O O O
OOO T T H H Y Y M M OOO

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```

6.00 1.50 | 12.25 14.49 | 18.50 1.44 |

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-----
| CALIB |
| STANDHYD ( 7640) | Area (ha)= 0.59
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.58 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 62.72 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\mhooper\AppData\Local\Civica\VH5\40fcb7f5-f544-4d5a-b245-
a4eb1ead57\eed2f24b-b0ed-421b-ae20-4a8805db886a\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\VH5\40fcb7f5-f544-4d5a-b245-
a4eb1ead57\eed2f24b-b0ed-421b-ae20-4a8805db886a\scen

```

DATE: 11-22-2024 TIME: 12:17:37

USER:

COMMENTS:

```

*****
** SIMULATION : P - 25yr 24hr 15min SCS Type **
*****

```

```

-----
READ STORM Filename: C:\Users\mhooper\AppData
ata\Local\Temp\
23be32ce-1a71-4aef-a5bf-302738051fdc\df6726d5
| Ptotal= 84.55 mm | Comments: 25yr 24hr 15min SCS Type II
-----

```

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.50	12.250	91.46	18.33	1.49
0.167	0.00	6.250	1.50	12.333	14.50	18.42	1.49
0.250	0.00	6.333	1.54	12.417	14.49	18.50	1.49
0.333	0.86	6.417	1.54	12.500	14.49	18.58	1.44
0.417	0.86	6.500	1.54	12.583	9.86	18.67	1.44
0.500	0.86	6.583	1.58	12.667	9.86	18.75	1.44
0.583	0.88	6.667	1.58	12.750	9.86	18.83	1.39
0.667	0.88	6.750	1.58	12.833	6.78	18.92	1.39
0.750	0.88	6.833	1.63	12.917	6.78	19.00	1.39
0.833	0.90	6.917	1.63	13.000	6.78	19.08	1.34
0.917	0.90	7.000	1.63	13.083	5.73	19.17	1.34
1.000	0.90	7.083	1.67	13.167	5.73	19.25	1.34
1.083	0.92	7.167	1.67	13.250	5.73	19.33	1.28
1.167	0.92	7.250	1.67	13.333	4.85	19.42	1.28
1.250	0.92	7.333	1.71	13.417	4.85	19.50	1.28
1.333	0.94	7.417	1.71	13.500	4.85	19.58	1.23
1.417	0.94	7.500	1.71	13.583	4.28	19.67	1.23
1.500	0.94	7.583	1.75	13.667	4.28	19.75	1.23
1.583	0.96	7.667	1.75	13.750	4.28	19.83	1.18
1.667	0.96	7.750	1.75	13.833	3.75	19.92	1.18
1.750	0.96	7.833	1.80	13.917	3.75	20.00	1.18
1.833	0.98	7.917	1.80	14.000	3.75	20.08	1.13
1.917	0.98	8.000	1.80	14.083	3.35	20.17	1.13
2.000	0.98	8.083	1.84	14.167	3.35	20.25	1.13
2.083	1.00	8.167	1.84	14.250	3.35	20.33	1.09
2.167	1.00	8.250	1.84	14.333	3.05	20.42	1.09
2.250	1.00	8.333	1.97	14.417	3.05	20.50	1.09
2.333	1.03	8.417	1.97	14.500	3.05	20.58	1.08
2.417	1.03	8.500	1.97	14.583	2.91	20.67	1.08
2.500	1.03	8.583	2.17	14.667	2.91	20.75	1.07
2.583	1.05	8.667	2.17	14.750	2.91	20.83	1.07
2.667	1.05	8.750	2.17	14.833	2.75	20.92	1.07
2.750	1.05	8.833	2.39	14.917	2.75	21.00	1.07
2.833	1.07	8.917	2.39	15.000	2.75	21.08	1.06
2.917	1.07	9.000	2.39	15.083	2.61	21.17	1.06
3.000	1.07	9.083	2.60	15.167	2.61	21.25	1.06
3.083	1.09	9.167	2.60	15.250	2.61	21.33	1.05
3.167	1.09	9.250	2.60	15.333	2.46	21.42	1.05
3.250	1.09	9.333	2.71	15.417	2.46	21.50	1.05
3.333	1.11	9.417	2.71	15.500	2.46	21.58	1.04
3.417	1.11	9.500	2.71	15.583	2.32	21.67	1.04
3.500	1.11	9.583	2.71	15.667	2.32	21.75	1.04
3.583	1.13	9.667	2.71	15.750	2.32	21.83	1.03
3.667	1.13	9.750	2.71	15.833	2.16	21.92	1.03
3.750	1.13	9.833	2.88	15.917	2.16	22.00	1.03
3.833	1.15	9.917	2.88	16.000	2.16	22.08	1.02
3.917	1.15	10.000	2.88	16.083	2.02	22.17	1.02
4.000	1.15	10.083	3.21	16.167	2.02	22.25	1.02
4.083	1.17	10.167	3.21	16.250	2.02	22.33	1.01
4.167	1.17	10.250	3.21	16.333	1.92	22.42	1.01
4.250	1.17	10.333	3.65	16.417	1.92	22.50	1.01
4.333	1.21	10.417	3.65	16.500	1.92	22.58	1.00
4.417	1.21	10.500	3.65	16.583	1.87	22.67	1.00
4.500	1.21	10.583	4.13	16.667	1.87	22.75	1.00



4.583	1.25	10.667	4.13	16.750	1.87	22.83	0.99
4.667	1.25	10.750	4.13	16.833	1.81	22.92	0.99
4.750	1.25	10.833	4.84	16.917	1.81	23.00	0.99
4.833	1.29	10.917	4.84	17.000	1.81	23.08	0.98
4.917	1.29	11.000	4.84	17.083	1.76	23.17	0.98
5.000	1.29	11.083	5.65	17.167	1.76	23.25	0.98
5.083	1.33	11.167	5.65	17.250	1.76	23.33	0.97
5.167	1.33	11.250	5.65	17.333	1.71	23.42	0.97
5.250	1.33	11.333	7.14	17.417	1.71	23.50	0.97
5.333	1.37	11.417	7.14	17.500	1.71	23.58	0.96
5.417	1.37	11.500	7.14	17.583	1.66	23.67	0.96
5.500	1.37	11.583	9.09	17.667	1.66	23.75	0.96
5.583	1.42	11.667	9.09	17.750	1.66	23.83	0.95
5.667	1.42	11.750	9.09	17.833	1.60	23.92	0.95
5.750	1.42	11.833	37.06	17.917	1.60	24.00	0.95
5.833	1.46	11.917	37.06	18.000	1.60	24.08	0.94
5.917	1.46	12.000	37.06	18.083	1.55	24.17	0.94
6.000	1.46	12.083	91.45	18.167	1.55	24.25	0.93
6.083	1.50	12.167	91.46	18.250	1.55		

2.000	0.98	8.083	1.84	14.167	3.35	20.25	1.13
2.083	1.00	8.167	1.84	14.250	3.35	20.33	1.09
2.167	1.00	8.250	1.84	14.333	3.05	20.42	1.09
2.250	1.00	8.333	1.97	14.417	3.05	20.50	1.09
2.333	1.03	8.417	1.97	14.500	3.05	20.58	1.08
2.417	1.03	8.500	1.97	14.583	2.91	20.67	1.08
2.500	1.03	8.583	2.17	14.667	2.91	20.75	1.08
2.583	1.05	8.667	2.17	14.750	2.91	20.83	1.07
2.667	1.05	8.750	2.17	14.833	2.75	20.92	1.07
2.750	1.05	8.833	2.39	14.917	2.75	21.00	1.07
2.833	1.07	8.917	2.39	15.000	2.75	21.08	1.06
2.917	1.07	9.000	2.39	15.083	2.61	21.17	1.06
3.000	1.07	9.083	2.60	15.167	2.61	21.25	1.06
3.083	1.09	9.167	2.60	15.250	2.61	21.33	1.05
3.167	1.09	9.250	2.60	15.333	2.46	21.42	1.05
3.250	1.09	9.333	2.71	15.417	2.46	21.50	1.05
3.333	1.11	9.417	2.71	15.500	2.46	21.58	1.04
3.417	1.11	9.500	2.71	15.583	2.32	21.67	1.04
3.500	1.11	9.583	2.71	15.667	2.32	21.75	1.04
3.583	1.13	9.667	2.71	15.750	2.32	21.83	1.03
3.667	1.13	9.750	2.71	15.833	2.16	21.92	1.03
3.750	1.13	9.833	2.88	15.917	2.16	22.00	1.03
3.833	1.15	9.917	2.88	16.000	2.16	22.08	1.02
3.917	1.15	10.000	2.88	16.083	2.02	22.17	1.02
4.000	1.15	10.083	3.21	16.167	2.02	22.25	1.02
4.083	1.17	10.167	3.21	16.250	2.02	22.33	1.01
4.167	1.17	10.250	3.21	16.333	1.92	22.42	1.01
4.250	1.17	10.333	3.65	16.417	1.92	22.50	1.01
4.333	1.21	10.417	3.65	16.500	1.92	22.58	1.00
4.417	1.21	10.500	3.65	16.583	1.87	22.67	1.00
4.500	1.21	10.583	4.13	16.667	1.87	22.75	1.00
4.583	1.25	10.667	4.13	16.750	1.87	22.83	0.99
4.667	1.25	10.750	4.13	16.833	1.81	22.92	0.99
4.750	1.25	10.833	4.84	16.917	1.81	23.00	0.99
4.833	1.29	10.917	4.84	17.000	1.81	23.08	0.98
4.917	1.29	11.000	4.84	17.083	1.76	23.17	0.98
5.000	1.29	11.083	5.65	17.167	1.76	23.25	0.98
5.083	1.33	11.167	5.65	17.250	1.76	23.33	0.97
5.167	1.33	11.250	5.65	17.333	1.71	23.42	0.97
5.250	1.33	11.333	7.14	17.417	1.71	23.50	0.97
5.333	1.37	11.417	7.14	17.500	1.71	23.58	0.96
5.417	1.37	11.500	7.14	17.583	1.66	23.67	0.96
5.500	1.37	11.583	9.09	17.667	1.66	23.75	0.96
5.583	1.42	11.667	9.09	17.750	1.66	23.83	0.95
5.667	1.42	11.750	9.09	17.833	1.60	23.92	0.95
5.750	1.42	11.833	37.06	17.917	1.60	24.00	0.95
5.833	1.46	11.917	37.06	18.000	1.60	24.08	0.94
5.917	1.46	12.000	37.06	18.083	1.55	24.17	0.94
6.000	1.46	12.083	91.45	18.167	1.55	24.25	0.93
6.083	1.50	12.167	91.46	18.250	1.55		

Max.Eff.Inten.(mm/hr)= 91.46 48.56
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.63 (ii) 2.79 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.28

TOTALS
 0.149 (iii)
 12.25
 82.09
 84.55
 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | NASHYD (7721) | Area (ha)= 0.21 Curve Number (CN)= 73.0
 |ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00

 U.H. Tp(hrs)= 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.50	12.250	91.46	18.33	1.49
0.167	0.00	6.250	1.50	12.333	14.50	18.42	1.49
0.250	0.00	6.333	1.54	12.417	14.49	18.50	1.49
0.333	0.86	6.417	1.54	12.500	14.49	18.58	1.44
0.417	0.86	6.500	1.54	12.583	9.86	18.67	1.44
0.500	0.86	6.583	1.58	12.667	9.86	18.75	1.44
0.583	0.88	6.667	1.58	12.750	9.86	18.83	1.39
0.667	0.88	6.750	1.58	12.833	6.78	18.92	1.39
0.750	0.88	6.833	1.63	12.917	6.78	19.00	1.39
0.833	0.90	6.917	1.63	13.000	6.78	19.08	1.34
0.917	0.90	7.000	1.63	13.083	5.73	19.17	1.34
1.000	0.90	7.083	1.67	13.167	5.73	19.25	1.34
1.083	0.92	7.167	1.67	13.250	5.73	19.33	1.28
1.167	0.92	7.250	1.67	13.333	4.85	19.42	1.28
1.250	0.92	7.333	1.71	13.417	4.85	19.50	1.28
1.333	0.94	7.417	1.71	13.500	4.85	19.58	1.23
1.417	0.94	7.500	1.71	13.583	4.28	19.67	1.23
1.500	0.94	7.583	1.75	13.667	4.28	19.75	1.23
1.583	0.96	7.667	1.75	13.750	4.28	19.83	1.18
1.667	0.96	7.750	1.75	13.833	3.75	19.92	1.18
1.750	0.96	7.833	1.80	13.917	3.75	20.00	1.18
1.833	0.98	7.917	1.80	14.000	3.75	20.08	1.13
1.917	0.98	8.000	1.80	14.083	3.35	20.17	1.13

Unit Hyd Qpeak (cms)= 0.047

PEAK FLOW (cms)= 0.020 (i)
 TIME TO PEAK (hrs)= 12.250
 RUNOFF VOLUME (mm)= 36.342
 TOTAL RAINFALL (mm)= 84.550
 RUNOFF COEFFICIENT = 0.430

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7599) | Area (ha)= 10.79
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	10.79	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	269.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.50	12.250	91.46	18.33	1.49
0.167	0.00	6.250	1.50	12.333	14.50	18.42	1.49
0.250	0.00	6.333	1.54	12.417	14.49	18.50	1.49
0.333	0.86	6.417	1.54	12.500	14.49	18.58	1.44
0.417	0.86	6.500	1.54	12.583	9.86	18.67	1.44
0.500	0.86	6.583	1.58	12.667	9.86	18.75	1.44
0.583	0.88	6.667	1.58	12.750	9.86	18.83	1.39
0.667	0.88	6.750	1.58	12.833	6.78	18.92	1.39
0.750	0.88	6.833	1.63	12.917	6.78	19.00	1.39
0.833	0.90	6.917	1.63	13.000	6.78	19.08	1.34
0.917	0.90	7.000	1.63	13.083	5.73	19.17	1.34
1.000	0.90	7.083	1.67	13.167	5.73	19.25	1.34
1.083	0.92	7.167	1.67	13.250	5.73	19.33	1.28
1.167	0.92	7.250	1.67	13.333	4.85	19.42	1.28
1.250	0.92	7.333	1.71	13.417	4.85	19.50	1.28
1.333	0.94	7.417	1.71	13.500	4.85	19.58	1.23
1.417	0.94	7.500	1.71	13.583	4.28	19.67	1.23
1.500	0.94	7.583	1.75	13.667	4.28	19.75	1.23
1.583	0.96	7.667	1.75	13.750	4.28	19.83	1.18
1.667	0.96	7.750	1.75	13.833	3.75	19.92	1.18
1.750	0.96	7.833	1.80	13.917	3.75	20.00	1.18
1.833	0.98	7.917	1.80	14.000	3.75	20.08	1.13
1.917	0.98	8.000	1.80	14.083	3.35	20.17	1.13
2.000	0.98	8.083	1.84	14.167	3.35	20.25	1.13
2.083	1.00	8.167	1.84	14.250	3.35	20.33	1.09
2.167	1.00	8.250	1.84	14.333	3.05	20.42	1.09
2.250	1.00	8.333	1.97	14.417	3.05	20.50	1.09
2.333	1.03	8.417	1.97	14.500	3.05	20.58	1.08
2.417	1.03	8.500	1.97	14.583	2.91	20.67	1.08
2.500	1.03	8.583	2.17	14.667	2.91	20.75	1.08
2.583	1.05	8.667	2.17	14.750	2.91	20.83	1.07
2.667	1.05	8.750	2.17	14.833	2.75	20.92	1.07
2.750	1.05	8.833	2.39	14.917	2.75	21.00	1.07
2.833	1.07	8.917	2.39	15.000	2.75	21.08	1.06
2.917	1.07	9.000	2.39	15.083	2.61	21.17	1.06
3.000	1.07	9.083	2.60	15.167	2.61	21.25	1.06
3.083	1.09	9.167	2.60	15.250	2.61	21.33	1.05
3.167	1.09	9.250	2.60	15.333	2.46	21.42	1.05
3.250	1.09	9.333	2.71	15.417	2.46	21.50	1.05
3.333	1.11	9.417	2.71	15.500	2.46	21.58	1.04
3.417	1.11	9.500	2.71	15.583	2.32	21.67	1.04
3.500	1.11	9.583	2.71	15.667	2.32	21.75	1.04
3.583	1.13	9.667	2.71	15.750	2.32	21.83	1.03
3.667	1.13	9.750	2.71	15.833	2.16	21.92	1.03
3.750	1.13	9.833	2.88	15.917	2.16	22.00	1.03
3.833	1.15	9.917	2.88	16.000	2.16	22.08	1.02
3.917	1.15	10.000	2.88	16.083	2.02	22.17	1.02
4.000	1.15	10.083	3.21	16.167	2.02	22.25	1.02
4.083	1.17	10.167	3.21	16.250	2.02	22.33	1.01
4.167	1.17	10.250	3.21	16.333	1.92	22.42	1.01
4.250	1.17	10.333	3.65	16.417	1.92	22.50	1.01
4.333	1.21	10.417	3.65	16.500	1.92	22.58	1.00
4.417	1.21	10.500	3.65	16.583	1.87	22.67	1.00
4.500	1.21	10.583	4.13	16.667	1.87	22.75	1.00
4.583	1.25	10.667	4.13	16.750	1.87	22.83	0.99
4.667	1.25	10.750	4.13	16.833	1.81	22.92	0.99
4.750	1.25	10.833	4.84	16.917	1.81	23.00	0.99
4.833	1.29	10.917	4.84	17.000	1.81	23.08	0.98
4.917	1.29	11.000	4.84	17.083	1.76	23.17	0.98
5.000	1.29	11.083	5.65	17.167	1.76	23.25	0.98
5.083	1.33	11.167	5.65	17.250	1.76	23.33	0.97
5.167	1.33	11.250	5.65	17.333	1.71	23.42	0.97
5.250	1.33	11.333	7.14	17.417	1.71	23.50	0.97
5.333	1.37	11.417	7.14	17.500	1.71	23.58	0.96
5.417	1.37	11.500	7.14	17.583	1.66	23.67	0.96
5.500	1.37	11.583	9.09	17.667	1.66	23.75	0.96
5.583	1.42	11.667	9.09	17.750	1.66	23.83	0.95
5.667	1.42	11.750	9.09	17.833	1.60	23.92	0.95
5.750	1.42	11.833	37.06	17.917	1.60	24.00	0.95
5.833	1.46	11.917	37.06	18.000	1.60	24.08	0.94
5.917	1.46	12.000	37.06	18.083	1.55	24.17	0.94
6.000	1.46	12.083	91.45	18.167	1.55	24.25	0.93

6.083 1.50 |12.167 91.46 |18.250 1.55 |

Max.Eff.Inten.(mm/hr)=	91.46	48.56	
over (min)	5.00	10.00	
Storage Coeff. (min)=	4.80 (ii)	5.96 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.22	0.15	
			TOTALS
PEAK FLOW (cms)=	2.67	0.01	2.681 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	82.55	36.47	82.09
TOTAL RAINFALL (mm)=	84.55	84.55	84.55
RUNOFF COEFFICIENT =	0.98	0.43	0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7722)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7599):	10.90	2.681	12.25	82.09
+ ID2= 2 (7721):	0.21	0.020	12.25	36.34
=====				
ID = 3 (7722):	11.11	2.701	12.25	81.23

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7685)				
OVERFLOW IS OFF				
IN= 2---> OUT= 1				
DT= 5.0 min				
	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.1390	0.6960
	0.0590	0.3400	0.1630	0.7780
	0.0900	0.4907	0.1840	0.8800
	0.1110	0.5760	0.0000	0.0000
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7722)	11.108	2.701	12.25	81.23
OUTFLOW: ID= 1 (7685)	11.108	0.118	13.92	81.10

PEAK FLOW REDUCTION [Qout/Qin] (%) = 4.35
TIME SHIFT OF PEAK FLOW (min)=100.00
MAXIMUM STORAGE USED (ha.m.)= 0.6042

CALIB				
STANDHYD (7591)				
ID= 1 DT= 5.0 min				
	Area	(ha)=	11.38	
	Total Imp (%) =	99.00	Dir. Conn. (%) =	99.00
	IMPERVIOUS	PERVIOUS (i)		
Surface Area	(ha)=	11.27	0.11	
Dep. Storage	(mm)=	2.00	5.00	
Average Slope	(%)=	1.00	2.00	
Length	(m)=	275.44	40.00	
Mannings n	=	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.50	12.250	91.46	18.33	1.49
0.167	0.00	6.250	1.50	12.333	14.50	18.42	1.49
0.250	0.00	6.333	1.54	12.417	14.49	18.50	1.49



0.333	0.86	6.417	1.54	12.500	14.49	18.58	1.44
0.417	0.86	6.500	1.54	12.583	9.86	18.67	1.44
0.500	0.86	6.583	1.58	12.667	9.86	18.75	1.44
0.583	0.88	6.667	1.58	12.750	9.86	18.83	1.39
0.667	0.88	6.750	1.58	12.833	6.78	18.92	1.39
0.750	0.88	6.833	1.63	12.917	6.78	19.00	1.39
0.833	0.90	6.917	1.63	13.000	6.78	19.08	1.34
0.917	0.90	7.000	1.63	13.083	5.73	19.17	1.34
1.000	0.90	7.083	1.67	13.167	5.73	19.25	1.34
1.083	0.92	7.167	1.67	13.250	5.73	19.33	1.28
1.167	0.92	7.250	1.67	13.333	4.85	19.42	1.28
1.250	0.92	7.333	1.71	13.417	4.85	19.50	1.28
1.333	0.94	7.417	1.71	13.500	4.85	19.58	1.23
1.417	0.94	7.500	1.71	13.583	4.28	19.67	1.23
1.500	0.94	7.583	1.75	13.667	4.28	19.75	1.23
1.583	0.96	7.667	1.75	13.750	4.28	19.83	1.18
1.667	0.96	7.750	1.75	13.833	3.75	19.92	1.18
1.750	0.96	7.833	1.80	13.917	3.75	20.00	1.18
1.833	0.98	7.917	1.80	14.000	3.75	20.08	1.13
1.917	0.98	8.000	1.80	14.083	3.35	20.17	1.13
2.000	0.98	8.083	1.84	14.167	3.35	20.25	1.13
2.083	1.00	8.167	1.84	14.250	3.35	20.33	1.09
2.167	1.00	8.250	1.84	14.333	3.05	20.42	1.09
2.250	1.00	8.333	1.97	14.417	3.05	20.50	1.09
2.333	1.03	8.417	1.97	14.500	3.05	20.58	1.08
2.417	1.03	8.500	1.97	14.583	2.91	20.67	1.08
2.500	1.03	8.583	2.17	14.667	2.91	20.75	1.08
2.583	1.05	8.667	2.17	14.750	2.91	20.83	1.07
2.667	1.05	8.750	2.17	14.833	2.75	20.92	1.07
2.750	1.05	8.833	2.39	14.917	2.75	21.00	1.07
2.833	1.07	8.917	2.39	15.000	2.75	21.08	1.06
2.917	1.07	9.000	2.39	15.083	2.61	21.17	1.06
3.000	1.07	9.083	2.60	15.167	2.61	21.25	1.06
3.083	1.09	9.167	2.60	15.250	2.61	21.33	1.05
3.167	1.09	9.250	2.60	15.333	2.46	21.42	1.05
3.250	1.09	9.333	2.71	15.417	2.46	21.50	1.05
3.333	1.11	9.417	2.71	15.500	2.46	21.58	1.04
3.417	1.11	9.500	2.71	15.583	2.32	21.67	1.04
3.500	1.11	9.583	2.71	15.667	2.32	21.75	1.04
3.583	1.13	9.667	2.71	15.750	2.32	21.83	1.03
3.667	1.13	9.750	2.71	15.833	2.16	21.92	1.03
3.750	1.13	9.833	2.88	15.917	2.16	22.00	1.03
3.833	1.15	9.917	2.88	16.000	2.16	22.08	1.02
3.917	1.15	10.000	2.88	16.083	2.02	22.17	1.02
4.000	1.15	10.083	3.21	16.167	2.02	22.25	1.02
4.083	1.17	10.167	3.21	16.250	2.02	22.33	1.01
4.167	1.17	10.250	3.21	16.333	1.92	22.42	1.01
4.250	1.17	10.333	3.65	16.417	1.92	22.50	1.01
4.333	1.21	10.417	3.65	16.500	1.92	22.58	1.00
4.417	1.21	10.500	3.65	16.583	1.87	22.67	1.00
4.500	1.21	10.583	4.13	16.667	1.87	22.75	1.00
4.583	1.25	10.667	4.13	16.750	1.87	22.83	0.99
4.667	1.25	10.750	4.13	16.833	1.81	22.92	0.99
4.750	1.25	10.833	4.84	16.917	1.81	23.00	0.99
4.833	1.29	10.917	4.84	17.000	1.81	23.08	0.98
4.917	1.29	11.000	4.84	17.083	1.76	23.17	0.98
5.000	1.29	11.083	5.65	17.167	1.76	23.25	0.98
5.083	1.33	11.167	5.65	17.250	1.76	23.33	0.97
5.167	1.33	11.250	5.65	17.333	1.71	23.42	0.97
5.250	1.33	11.333	7.14	17.417	1.71	23.50	0.97
5.333	1.37	11.417	7.14	17.500	1.71	23.58	0.96
5.417	1.37	11.500	7.14	17.583	1.66	23.67	0.96
5.500	1.37	11.583	9.09	17.667	1.66	23.75	0.96
5.583	1.42	11.667	9.09	17.750	1.66	23.83	0.95
5.667	1.42	11.750	9.09	17.833	1.60	23.92	0.95
5.750	1.42	11.833	37.06	17.917	1.60	24.00	0.95
5.833	1.46	11.917	37.06	18.000	1.60	24.08	0.94
5.917	1.46	12.000	37.06	18.083	1.55	24.17	0.94
6.000	1.46	12.083	91.45	18.167	1.55	24.25	0.93
6.083	1.50	12.167	91.46	18.250	1.55		

Max.Eff.Inten. (mm/hr)= 91.46 48.56
 over (min) = 5.00 10.00
 Storage Coeff. (min) = 4.86 (ii) 6.03 (ii)
 Unit Hyd. Tpeak (min) = 5.00 10.00
 Unit Hyd. peak (cms) = 0.22 0.15

TOTALS
 PEAK FLOW (cms) = 2.78 0.01 2.796 (iii)
 TIME TO PEAK (hrs) = 12.25 12.25 12.25
 RUNOFF VOLUME (mm) = 82.55 36.47 82.09
 TOTAL RAINFALL (mm) = 84.55 84.55 84.55
 RUNOFF COEFFICIENT = 0.98 0.43 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | RESERVOIR (7593) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
DT= 5.0 min

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.1990	0.6950
0.0830	0.3500	0.2320	0.8000
0.1280	0.4850	0.2620	0.9000
0.1580	0.5900	0.0000	0.0000

INFLOW : ID= 2 (7591)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
11.380		2.796	12.25	82.09
OUTFLOW: ID= 1 (7593)	11.380	0.159	13.42	82.00

PEAK FLOW REDUCTION [Qout/Qin] (%) =	5.68
TIME SHIFT OF PEAK FLOW (min) =	70.00
MAXIMUM STORAGE USED (ha.m.) =	0.5922

 | ADD HYD (7643) |
1 + 2 = 3

ID	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7593):	11.38	0.159	13.42	82.00
+ ID2= 2 (7685):	11.11	0.118	13.92	81.10

ID = 3 (7643):	22.49	0.276	13.58	81.55

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |
 | STANDHYD (7590) | Area (ha) = 2.39
 | ID= 1 DT= 5.0 min | Total Imp (%) = 99.00 Dir. Conn. (%) = 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha) =	2.37	0.02
Dep. Storage (mm) =	1.00	5.00
Average Slope (%) =	1.00	2.00
Length (m) =	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.50	12.250	91.46	18.33	1.49
0.167	0.00	6.250	1.50	12.333	14.50	18.42	1.49
0.250	0.00	6.333	1.54	12.417	14.49	18.50	1.49
0.333	0.86	6.417	1.54	12.500	14.49	18.58	1.44
0.417	0.86	6.500	1.54	12.583	9.86	18.67	1.44
0.500	0.86	6.583	1.58	12.667	9.86	18.75	1.44
0.583	0.88	6.667	1.58	12.750	9.86	18.83	1.39
0.667	0.88	6.750	1.58	12.833	6.78	18.92	1.39
0.750	0.88	6.833	1.63	12.917	6.78	19.00	1.39
0.833	0.90	6.917	1.63	13.000	6.78	19.08	1.34



0.917	0.90	7.000	1.63	13.083	5.73	19.17	1.34
1.000	0.90	7.083	1.67	13.167	5.73	19.25	1.34
1.083	0.92	7.167	1.67	13.250	5.73	19.33	1.28
1.167	0.92	7.250	1.67	13.333	4.85	19.42	1.28
1.250	0.92	7.333	1.71	13.417	4.85	19.50	1.28
1.333	0.94	7.417	1.71	13.500	4.85	19.58	1.23
1.417	0.94	7.500	1.71	13.583	4.28	19.67	1.23
1.500	0.94	7.583	1.75	13.667	4.28	19.75	1.23
1.583	0.96	7.667	1.75	13.750	4.28	19.83	1.18
1.667	0.96	7.750	1.75	13.833	3.75	19.92	1.18
1.750	0.96	7.833	1.80	13.917	3.75	20.00	1.18
1.833	0.98	7.917	1.80	14.000	3.75	20.08	1.13
1.917	0.98	8.000	1.80	14.083	3.35	20.17	1.13
2.000	0.98	8.083	1.84	14.167	3.35	20.25	1.13
2.083	1.00	8.167	1.84	14.250	3.35	20.33	1.09
2.167	1.00	8.250	1.84	14.333	3.05	20.42	1.09
2.250	1.00	8.333	1.97	14.417	3.05	20.50	1.09
2.333	1.03	8.417	1.97	14.500	3.05	20.58	1.08
2.417	1.03	8.500	1.97	14.583	2.91	20.67	1.08
2.500	1.03	8.583	2.17	14.667	2.91	20.75	1.08
2.583	1.05	8.667	2.17	14.750	2.91	20.83	1.07
2.667	1.05	8.750	2.17	14.833	2.75	20.92	1.07
2.750	1.05	8.833	2.39	14.917	2.75	21.00	1.07
2.833	1.07	8.917	2.39	15.000	2.75	21.08	1.06
2.917	1.07	9.000	2.39	15.083	2.61	21.17	1.06
3.000	1.07	9.083	2.60	15.167	2.61	21.25	1.06
3.083	1.09	9.167	2.60	15.250	2.61	21.33	1.05
3.167	1.09	9.250	2.60	15.333	2.46	21.42	1.05
3.250	1.09	9.333	2.71	15.417	2.46	21.50	1.05
3.333	1.11	9.417	2.71	15.500	2.46	21.58	1.04
3.417	1.11	9.500	2.71	15.583	2.32	21.67	1.04
3.500	1.11	9.583	2.71	15.667	2.32	21.75	1.04
3.583	1.13	9.667	2.71	15.750	2.32	21.83	1.03
3.667	1.13	9.750	2.71	15.833	2.16	21.92	1.03
3.750	1.13	9.833	2.88	15.917	2.16	22.00	1.03
3.833	1.15	9.917	2.88	16.000	2.16	22.08	1.02
3.917	1.15	10.000	2.88	16.083	2.02	22.17	1.02
4.000	1.15	10.083	3.21	16.167	2.02	22.25	1.02
4.083	1.17	10.167	3.21	16.250	2.02	22.33	1.01
4.167	1.17	10.250	3.21	16.333	1.92	22.42	1.01
4.250	1.17	10.333	3.65	16.417	1.92	22.50	1.01
4.333	1.21	10.417	3.65	16.500	1.92	22.58	1.00
4.417	1.21	10.500	3.65	16.583	1.87	22.67	1.00
4.500	1.21	10.583	4.13	16.667	1.87	22.75	1.00
4.583	1.25	10.667	4.13	16.750	1.87	22.83	0.99
4.667	1.25	10.750	4.13	16.833	1.81	22.92	0.99
4.750	1.25	10.833	4.84	16.917	1.81	23.00	0.99
4.833	1.29	10.917	4.84	17.000	1.81	23.08	0.98
4.917	1.29	11.000	4.84	17.083	1.76	23.17	0.98
5.000	1.29	11.083	5.65	17.167	1.76	23.25	0.98
5.083	1.33	11.167	5.65	17.250	1.76	23.33	0.97
5.167	1.33	11.250	5.65	17.333	1.71	23.42	0.97
5.250	1.33	11.333	7.14	17.417	1.71	23.50	0.97
5.333	1.37	11.417	7.14	17.500	1.71	23.58	0.96
5.417	1.37	11.500	7.14	17.583	1.66	23.67	0.96
5.500	1.37	11.583	9.09	17.667	1.66	23.75	0.96
5.583	1.42	11.667	9.09	17.750	1.66	23.83	0.95
5.667	1.42	11.750	9.09	17.833	1.60	23.92	0.95
5.750	1.42	11.833	37.06	17.917	1.60	24.00	0.95
5.833	1.46	11.917	37.06	18.000	1.60	24.08	0.94
5.917	1.46	12.000	37.06	18.083	1.55	24.17	0.94
6.000	1.46	12.083	91.45	18.167	1.55	24.25	0.93
6.083	1.50	12.167	91.46	18.250	1.55		

Max.Eff.Inten. (mm/hr)= 91.46 48.56
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.01 (ii) 1.78 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

TOTALS
 PEAK FLOW (cms)= 0.60 0.00 0.604 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 83.55 36.47 83.08
 TOTAL RAINFALL (mm)= 84.55 84.55 84.55
 RUNOFF COEFFICIENT = 0.99 0.43 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CMLIB |
 | STANDHYD (7632) | Area (ha)= 2.36
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.34	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.50	12.250	91.46	18.33	1.49
0.167	0.00	6.250	1.50	12.333	14.50	18.42	1.49
0.250	0.00	6.333	1.54	12.417	14.49	18.50	1.49
0.333	0.86	6.417	1.54	12.500	14.49	18.58	1.44
0.417	0.86	6.500	1.54	12.583	9.86	18.67	1.44
0.500	0.86	6.583	1.58	12.667	9.86	18.75	1.44
0.583	0.88	6.667	1.58	12.750	9.86	18.83	1.39
0.667	0.88	6.750	1.58	12.833	6.78	18.92	1.39
0.750	0.88	6.833	1.63	12.917	6.78	19.00	1.39
0.833	0.90	6.917	1.63	13.000	6.78	19.08	1.34
0.917	0.90	7.000	1.63	13.083	5.73	19.17	1.34
1.000	0.90	7.083	1.67	13.167	5.73	19.25	1.34
1.083	0.92	7.167	1.67	13.250	5.73	19.33	1.28
1.167	0.92	7.250	1.67	13.333	4.85	19.42	1.28
1.250	0.92	7.333	1.71	13.417	4.85	19.50	1.28
1.333	0.94	7.417	1.71	13.500	4.85	19.58	1.23
1.417	0.94	7.500	1.71	13.583	4.28	19.67	1.23
1.500	0.94	7.583	1.75	13.667	4.28	19.75	1.23
1.583	0.96	7.667	1.75	13.750	4.28	19.83	1.18
1.667	0.96	7.750	1.75	13.833	3.75	19.92	1.18
1.750	0.96	7.833	1.80	13.917	3.75	20.00	1.18
1.833	0.98	7.917	1.80	14.000	3.75	20.08	1.13
1.917	0.98	8.000	1.80	14.083	3.35	20.17	1.13
2.000	0.98	8.083	1.84	14.167	3.35	20.25	1.13
2.083	1.00	8.167	1.84	14.250	3.35	20.33	1.09
2.167	1.00	8.250	1.84	14.333	3.05	20.42	1.09
2.250	1.00	8.333	1.97	14.417	3.05	20.50	1.09
2.333	1.03	8.417	1.97	14.500	3.05	20.58	1.08
2.417	1.03	8.500	1.97	14.583	2.91	20.67	1.08
2.500	1.03	8.583	2.17	14.667	2.91	20.75	1.08
2.583	1.05	8.667	2.17	14.750	2.91	20.83	1.07
2.667	1.05	8.750	2.17	14.833	2.75	20.92	1.07
2.750	1.05	8.833	2.39	14.917	2.75	21.00	1.07
2.833	1.07	8.917	2.39	15.000	2.61	21.08	1.06
2.917	1.07	9.000	2.39	15.083	2.61	21.17	1.06
3.000	1.07	9.083	2.60	15.167	2.61	21.25	1.06
3.083	1.09	9.167	2.60	15.250	2.61	21.33	1.05
3.167	1.09	9.250	2.60	15.333	2.46	21.42	1.05
3.250	1.09	9.333	2.71	15.417	2.46	21.50	1.05
3.333	1.11	9.417	2.71	15.500	2.46	21.58	1.04
3.417	1.11	9.500	2.71	15.583	2.32	21.67	1.04
3.500	1.11	9.583	2.71	15.667	2.32	21.75	1.04
3.583	1.13	9.667	2.71	15.750	2.32	21.83	1.03
3.667	1.13	9.750	2.71	15.833	2.16	21.92	1.03
3.750	1.13	9.833	2.88	15.917	2.16	22.00	1.03
3.833	1.15	9.917	2.88	16.000	2.16	22.08	1.02
3.917	1.15	10.000	2.88	16.083	2.02	22.17	1.02
4.000	1.15	10.083	3.21	16.167	2.02	22.25	1.02
4.083	1.17	10.167	3.21	16.250	2.02	22.33	1.01

4.167	1.17	10.250	3.21	16.333	1.92	22.42	1.01
4.250	1.17	10.333	3.65	16.417	1.92	22.50	1.01
4.333	1.21	10.417	3.65	16.500	1.92	22.58	1.00
4.417	1.21	10.500	3.65	16.583	1.87	22.67	1.00
4.500	1.21	10.583	4.13	16.667	1.87	22.75	1.00
4.583	1.25	10.667	4.13	16.750	1.87	22.83	0.99
4.667	1.25	10.750	4.13	16.833	1.81	22.92	0.99
4.750	1.25	10.833	4.84	16.917	1.81	23.00	0.99
4.833	1.29	10.917	4.84	17.000	1.81	23.08	0.98
4.917	1.29	11.000	4.84	17.083	1.76	23.17	0.98
5.000	1.29	11.083	5.65	17.167	1.76	23.25	0.98
5.083	1.33	11.167	5.65	17.250	1.76	23.33	0.97
5.167	1.33	11.250	5.65	17.333	1.71	23.42	0.97
5.250	1.33	11.333	7.14	17.417	1.71	23.50	0.97
5.333	1.37	11.417	7.14	17.500	1.71	23.58	0.96
5.417	1.37	11.500	7.14	17.583	1.66	23.67	0.96
5.500	1.37	11.583	9.09	17.667	1.66	23.75	0.96
5.583	1.42	11.667	9.09	17.750	1.66	23.83	0.95
5.667	1.42	11.750	9.09	17.833	1.60	23.92	0.95
5.750	1.42	11.833	37.06	17.917	1.60	24.00	0.95
5.833	1.46	11.917	37.06	18.000	1.60	24.08	0.94
5.917	1.46	12.000	37.06	18.083	1.55	24.17	0.94
6.000	1.46	12.083	91.45	18.167	1.55	24.25	0.93
6.083	1.50	12.167	91.46	18.250	1.55		

Max.Eff.Inten. (mm/hr)= 91.46 48.56
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 1.01 (ii) 1.78 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

TOTALS
 PEAK FLOW (cms)= 0.59 0.00 0.597 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 83.55 36.47 83.08
 TOTAL RAINFALL (mm)= 84.55 84.55 84.55
 RUNOFF COEFFICIENT = 0.99 0.43 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7644) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.50	12.250	91.46	18.33	1.49
0.167	0.00	6.250	1.50	12.333	14.50	18.42	1.49
0.250	0.00	6.333	1.54	12.417	14.49	18.50	1.49
0.333	0.86	6.417	1.54	12.500	14.49	18.58	1.44
0.417	0.86	6.500	1.54	12.583	9.86	18.67	1.44
0.500	0.86	6.583	1.58	12.667	9.86	18.75	1.44
0.583	0.88	6.667	1.58	12.750	9.86	18.83	1.39
0.667	0.88	6.750	1.58	12.833	6.78	18.92	1.39
0.750	0.88	6.833	1.63	12.917	6.78	19.00	1.39
0.833	0.90	6.917	1.63	13.000	6.78	19.08	1.34
0.917	0.90	7.000	1.63	13.083	5.73	19.17	1.34
1.000	0.90	7.083	1.67	13.167	5.73	19.25	1.34

1.083	0.92	7.167	1.67	13.250	5.73	19.33	1.28
1.167	0.92	7.250	1.67	13.333	4.85	19.42	1.28
1.250	0.92	7.333	1.71	13.417	4.85	19.50	1.28
1.333	0.94	7.417	1.71	13.500	4.85	19.58	1.23
1.417	0.94	7.500	1.71	13.583	4.28	19.67	1.23
1.500	0.94	7.583	1.75	13.667	4.28	19.75	1.23
1.583	0.96	7.667	1.75	13.750	4.28	19.83	1.18
1.667	0.96	7.750	1.75	13.833	3.75	19.92	1.18
1.750	0.96	7.833	1.80	13.917	3.75	20.00	1.18
1.833	0.98	7.917	1.80	14.000	3.75	20.08	1.13
1.917	0.98	8.000	1.80	14.083	3.35	20.17	1.13
2.000	0.98	8.083	1.84	14.167	3.35	20.25	1.13
2.083	1.00	8.167	1.84	14.250	3.35	20.33	1.09
2.167	1.00	8.250	1.84	14.333	3.05	20.42	1.09
2.250	1.00	8.333	1.97	14.417	3.05	20.50	1.09
2.333	1.03	8.417	1.97	14.500	3.05	20.58	1.08
2.417	1.03	8.500	1.97	14.583	2.91	20.67	1.08
2.500	1.03	8.583	2.17	14.667	2.91	20.75	1.07
2.583	1.05	8.667	2.17	14.750	2.91	20.83	1.07
2.667	1.05	8.750	2.17	14.833	2.75	20.92	1.07
2.750	1.05	8.833	2.39	14.917	2.75	21.00	1.07
2.833	1.07	8.917	2.39	15.000	2.75	21.08	1.06
2.917	1.07	9.000	2.39	15.083	2.61	21.17	1.06
3.000	1.07	9.083	2.60	15.167	2.61	21.25	1.06
3.083	1.09	9.167	2.60	15.250	2.61	21.33	1.05
3.167	1.09	9.250	2.60	15.333	2.46	21.42	1.05
3.250	1.09	9.333	2.71	15.417	2.46	21.50	1.05
3.333	1.11	9.417	2.71	15.500	2.46	21.58	1.04
3.417	1.11	9.500	2.71	15.583	2.32	21.67	1.04
3.500	1.11	9.583	2.71	15.667	2.32	21.75	1.04
3.583	1.13	9.667	2.71	15.750	2.32	21.83	1.03
3.667	1.13	9.750	2.71	15.833	2.16	21.92	1.03
3.750	1.13	9.833	2.88	15.917	2.16	22.00	1.03
3.833	1.15	9.917	2.88	16.000	2.16	22.08	1.02
3.917	1.15	10.000	2.88	16.083	2.02	22.17	1.02
4.000	1.15	10.083	3.21	16.167	2.02	22.25	1.02
4.083	1.17	10.167	3.21	16.250	2.02	22.33	1.01
4.167	1.17	10.250	3.21	16.333	1.92	22.42	1.01
4.250	1.17	10.333	3.65	16.417	1.92	22.50	1.01
4.333	1.21	10.417	3.65	16.500	1.92	22.58	1.00
4.417	1.21	10.500	3.65	16.583	1.87	22.67	1.00
4.500	1.21	10.583	4.13	16.667	1.87	22.75	1.00
4.583	1.25	10.667	4.13	16.750	1.87	22.83	0.99
4.667	1.25	10.750	4.13	16.833	1.81	22.92	0.99
4.750	1.25	10.833	4.84	16.917	1.81	23.00	0.99
4.833	1.29	10.917	4.84	17.000	1.81	23.08	0.98
4.917	1.29	11.000	4.84	17.083	1.76	23.17	0.98
5.000	1.29	11.083	5.65	17.167	1.76	23.25	0.98
5.083	1.33	11.167	5.65	17.250	1.76	23.33	0.97
5.167	1.33	11.250	5.65	17.333	1.71	23.42	0.97
5.250	1.33	11.333	7.14	17.417	1.71	23.50	0.97
5.333	1.37	11.417	7.14	17.500	1.71	23.58	0.96
5.417	1.37	11.500	7.14	17.583	1.66	23.67	0.96
5.500	1.37	11.583	9.09	17.667	1.66	23.75	0.96
5.583	1.42	11.667	9.09	17.750	1.66	23.83	0.95
5.667	1.42	11.750	9.09	17.833	1.60	23.92	0.95
5.750	1.42	11.833	37.06	17.917	1.60	24.00	0.95
5.833	1.46	11.917	37.06	18.000	1.60	24.08	0.94
5.917	1.46	12.000	37.06	18.083	1.55	24.17	0.94
6.000	1.46	12.083	91.45	18.167	1.55	24.25	0.93
6.083	1.50	12.167	91.46	18.250	1.55		

Max.Eff.Inten. (mm/hr)= 91.46 48.56
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 1.01 (ii) 1.78 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

TOTALS
 PEAK FLOW (cms)= 0.60 0.00 0.607 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 83.55 36.47 83.08
 TOTAL RAINFALL (mm)= 84.55 84.55 84.55
 RUNOFF COEFFICIENT = 0.99 0.43 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7652)	Area (ha)=	2.40	
ID= 1 DT= 5.0 min	Total Imp(%)=	99.00 Dir. Conn.(%)= 99.00	

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.50	12.250	91.46	18.33	1.49
0.167	0.00	6.250	1.50	12.333	14.50	18.42	1.49
0.250	0.00	6.333	1.54	12.417	14.49	18.50	1.49
0.333	0.86	6.417	1.54	12.500	14.49	18.58	1.44
0.417	0.86	6.500	1.54	12.583	9.86	18.67	1.44
0.500	0.86	6.583	1.58	12.667	9.86	18.75	1.44
0.583	0.88	6.667	1.58	12.750	9.86	18.83	1.39
0.667	0.88	6.750	1.58	12.833	6.78	18.92	1.39
0.750	0.88	6.833	1.63	12.917	6.78	19.00	1.39
0.833	0.90	6.917	1.63	13.000	6.78	19.08	1.34
0.917	0.90	7.000	1.63	13.083	5.73	19.17	1.34
1.000	0.90	7.083	1.67	13.167	5.73	19.25	1.34
1.083	0.92	7.167	1.67	13.250	5.73	19.33	1.28
1.167	0.92	7.250	1.67	13.333	4.85	19.42	1.28
1.250	0.92	7.333	1.71	13.417	4.85	19.50	1.28
1.333	0.94	7.417	1.71	13.500	4.85	19.58	1.23
1.417	0.94	7.500	1.71	13.583	4.28	19.67	1.23
1.500	0.94	7.583	1.75	13.667	4.28	19.75	1.23
1.583	0.96	7.667	1.75	13.750	4.28	19.83	1.18
1.667	0.96	7.750	1.75	13.833	3.75	19.92	1.18
1.750	0.96	7.833	1.80	13.917	3.75	20.00	1.18
1.833	0.98	7.917	1.80	14.000	3.75	20.08	1.13
1.917	0.98	8.000	1.80	14.083	3.35	20.17	1.13
2.000	0.98	8.083	1.84	14.167	3.35	20.25	1.13
2.083	1.00	8.167	1.84	14.250	3.35	20.33	1.09
2.167	1.00	8.250	1.84	14.333	3.05	20.42	1.09
2.250	1.00	8.333	1.97	14.417	3.05	20.50	1.09
2.333	1.03	8.417	1.97	14.500	3.05	20.58	1.08
2.417	1.03	8.500	1.97	14.583	2.91	20.67	1.08
2.500	1.03	8.583	2.17	14.667	2.91	20.75	1.08
2.583	1.05	8.667	2.17	14.750	2.91	20.83	1.07
2.667	1.05	8.750	2.17	14.833	2.75	20.92	1.07
2.750	1.05	8.833	2.39	14.917	2.75	21.00	1.07
2.833	1.07	8.917	2.39	15.000	2.75	21.08	1.06
2.917	1.07	9.000	2.39	15.083	2.61	21.17	1.06
3.000	1.07	9.083	2.60	15.167	2.61	21.25	1.06
3.083	1.09	9.167	2.60	15.250	2.61	21.33	1.05
3.167	1.09	9.250	2.60	15.333	2.46	21.42	1.05
3.250	1.09	9.333	2.71	15.417	2.46	21.50	1.05
3.333	1.11	9.417	2.71	15.500	2.46	21.58	1.04
3.417	1.11	9.500	2.71	15.583	2.32	21.67	1.04
3.500	1.11	9.583	2.71	15.667	2.32	21.75	1.04
3.583	1.13	9.667	2.71	15.750	2.32	21.83	1.03
3.667	1.13	9.750	2.71	15.833	2.16	21.92	1.03
3.750	1.13	9.833	2.88	15.917	2.16	22.00	1.03
3.833	1.15	9.917	2.88	16.000	2.16	22.08	1.02
3.917	1.15	10.000	2.88	16.083	2.02	22.17	1.02
4.000	1.15	10.083	3.21	16.167	2.02	22.25	1.02
4.083	1.17	10.167	3.21	16.250	2.02	22.33	1.01
4.167	1.17	10.250	3.21	16.333	1.92	22.42	1.01
4.250	1.17	10.333	3.65	16.417	1.92	22.50	1.01

4.333	1.21	10.417	3.65	16.500	1.92	22.58	1.00
4.417	1.21	10.500	3.65	16.583	1.87	22.67	1.00
4.500	1.21	10.583	4.13	16.667	1.87	22.75	1.00
4.583	1.25	10.667	4.13	16.750	1.87	22.83	0.99
4.667	1.25	10.750	4.13	16.833	1.81	22.92	0.99
4.750	1.25	10.833	4.84	16.917	1.81	23.00	0.99
4.833	1.29	10.917	4.84	17.000	1.81	23.08	0.98
4.917	1.29	11.000	4.84	17.083	1.76	23.17	0.98
5.000	1.29	11.083	5.65	17.167	1.76	23.25	0.98
5.083	1.33	11.167	5.65	17.250	1.76	23.33	0.97
5.167	1.33	11.250	5.65	17.333	1.71	23.42	0.97
5.250	1.33	11.333	7.14	17.417	1.71	23.50	0.97
5.333	1.37	11.417	7.14	17.500	1.71	23.58	0.96
5.417	1.37	11.500	7.14	17.583	1.66	23.67	0.96
5.500	1.37	11.583	9.09	17.667	1.66	23.75	0.96
5.583	1.42	11.667	9.09	17.750	1.66	23.83	0.95
5.667	1.42	11.750	9.09	17.833	1.60	23.92	0.95
5.750	1.42	11.833	37.06	17.917	1.60	24.00	0.95
5.833	1.46	11.917	37.06	18.000	1.60	24.08	0.94
5.917	1.46	12.000	37.06	18.083	1.55	24.17	0.94
6.000	1.46	12.083	91.46	18.167	1.55	24.25	0.93
6.083	1.50	12.167	91.46	18.250	1.55		

Max.Eff.Inten.(mm/hr)=	91.46	48.56	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.01 (ii)	1.78 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.34	0.32	
PEAK FLOW (cms)=	0.60	0.00	0.607 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	
RUNOFF VOLUME (mm)=	83.55	36.47	83.08
TOTAL RAINFALL (mm)=	84.55	84.55	84.55
RUNOFF COEFFICIENT =	0.99	0.43	0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7661)	Area (ha)=	2.39	
ID= 1 DT= 5.0 min	Total Imp(%)=	99.00 Dir. Conn.(%)= 99.00	

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.50	12.250	91.46	18.33	1.49
0.167	0.00	6.250	1.50	12.333	14.50	18.42	1.49
0.250	0.00	6.333	1.54	12.417	14.49	18.50	1.49
0.333	0.86	6.417	1.54	12.500	14.49	18.58	1.44
0.417	0.86	6.500	1.54	12.583	9.86	18.67	1.44
0.500	0.86	6.583	1.58	12.667	9.86	18.75	1.44
0.583	0.88	6.667	1.58	12.750	9.86	18.83	1.39
0.667	0.88	6.750	1.58	12.833	6.78	18.92	1.39
0.750	0.88	6.833	1.63	12.917	6.78	19.00	1.39
0.833	0.90	6.917	1.63	13.000	6.78	19.08	1.34
0.917	0.90	7.000	1.63	13.083	5.73	19.17	1.34
1.000	0.90	7.083	1.67	13.167	5.73	19.25	1.34
1.083	0.92	7.167	1.67	13.250	5.73	19.33	1.28
1.167	0.92	7.250	1.67	13.333	4.85	19.42	1.28



1.250	0.92	7.333	1.71	13.417	4.85	19.50	1.28
1.333	0.94	7.417	1.71	13.500	4.85	19.58	1.23
1.417	0.94	7.500	1.71	13.583	4.28	19.67	1.23
1.500	0.94	7.583	1.75	13.667	4.28	19.75	1.23
1.583	0.96	7.667	1.75	13.750	4.28	19.83	1.18
1.667	0.96	7.750	1.75	13.833	3.75	19.92	1.18
1.750	0.96	7.833	1.80	13.917	3.75	20.00	1.18
1.833	0.98	7.917	1.80	14.000	3.75	20.08	1.13
1.917	0.98	8.000	1.80	14.083	3.35	20.17	1.13
2.000	0.98	8.083	1.84	14.167	3.35	20.25	1.13
2.083	1.00	8.167	1.84	14.250	3.35	20.33	1.09
2.167	1.00	8.250	1.84	14.333	3.05	20.42	1.09
2.250	1.00	8.333	1.97	14.417	3.05	20.50	1.09
2.333	1.03	8.417	1.97	14.500	3.05	20.58	1.08
2.417	1.03	8.500	1.97	14.583	2.91	20.67	1.08
2.500	1.03	8.583	2.17	14.667	2.91	20.75	1.08
2.583	1.05	8.667	2.17	14.750	2.91	20.83	1.07
2.667	1.05	8.750	2.17	14.833	2.75	20.92	1.07
2.750	1.05	8.833	2.39	14.917	2.75	21.00	1.07
2.833	1.07	8.917	2.39	15.000	2.75	21.08	1.06
2.917	1.07	9.000	2.39	15.083	2.61	21.17	1.06
3.000	1.07	9.083	2.60	15.167	2.61	21.25	1.06
3.083	1.09	9.167	2.60	15.250	2.61	21.33	1.05
3.167	1.09	9.250	2.60	15.333	2.46	21.42	1.05
3.250	1.09	9.333	2.71	15.417	2.46	21.50	1.05
3.333	1.11	9.417	2.71	15.500	2.46	21.58	1.04
3.417	1.11	9.500	2.71	15.583	2.32	21.67	1.04
3.500	1.11	9.583	2.71	15.667	2.32	21.75	1.04
3.583	1.13	9.667	2.71	15.750	2.32	21.83	1.03
3.667	1.13	9.750	2.71	15.833	2.16	21.92	1.03
3.750	1.13	9.833	2.88	15.917	2.16	22.00	1.03
3.833	1.15	9.917	2.88	16.000	2.16	22.08	1.02
3.917	1.15	10.000	2.88	16.083	2.02	22.17	1.02
4.000	1.15	10.083	3.21	16.167	2.02	22.25	1.02
4.083	1.17	10.167	3.21	16.250	2.02	22.33	1.01
4.167	1.17	10.250	3.21	16.333	1.92	22.42	1.01
4.250	1.17	10.333	3.65	16.417	1.92	22.50	1.01
4.333	1.21	10.417	3.65	16.500	1.92	22.58	1.00
4.417	1.21	10.500	3.65	16.583	1.87	22.67	1.00
4.500	1.21	10.583	4.13	16.667	1.87	22.75	1.00
4.583	1.25	10.667	4.13	16.750	1.87	22.83	0.99
4.667	1.25	10.750	4.13	16.833	1.81	22.92	0.99
4.750	1.25	10.833	4.84	16.917	1.81	23.00	0.99
4.833	1.29	10.917	4.84	17.000	1.81	23.08	0.98
4.917	1.29	11.000	4.84	17.083	1.76	23.17	0.98
5.000	1.29	11.083	5.65	17.167	1.76	23.25	0.98
5.083	1.33	11.167	5.65	17.250	1.76	23.33	0.97
5.167	1.33	11.250	5.65	17.333	1.71	23.42	0.97
5.250	1.33	11.333	7.14	17.417	1.71	23.50	0.97
5.333	1.37	11.417	7.14	17.500	1.71	23.58	0.96
5.417	1.37	11.500	7.14	17.583	1.66	23.67	0.96
5.500	1.37	11.583	9.09	17.667	1.66	23.75	0.96
5.583	1.42	11.667	9.09	17.750	1.66	23.83	0.95
5.667	1.42	11.750	9.09	17.833	1.60	23.92	0.95
5.750	1.42	11.833	37.06	17.917	1.60	24.00	0.95
5.833	1.46	11.917	37.06	18.000	1.60	24.08	0.94
5.917	1.46	12.000	37.06	18.083	1.55	24.17	0.94
6.000	1.46	12.083	91.45	18.167	1.55	24.25	0.93
6.083	1.50	12.167	91.46	18.250	1.55		

Max.Eff.Inten. (mm/hr)=	91.46	48.56
over (min)	5.00	5.00
Storage Coeff. (min)=	1.01 (ii)	1.78 (iii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.32

PEAK FLOW (cms)=	0.60	0.00	*TOTALS*
TIME TO PEAK (hrs)=	12.25	12.25	0.604 (iii)
RUNOFF VOLUME (mm)=	83.55	36.47	83.08
TOTAL RAINFALL (mm)=	84.55	84.55	84.55
RUNOFF COEFFICIENT =	0.99	0.43	0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)

- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7671)	Area (ha)=	2.37	
ID=1 DT= 5.0 min	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00

Surface Area (ha)=	IMPERVIOUS	PERVIOUS (i)	
Dep. Storage (mm)=	2.35	0.02	
Average Slope (%)=	1.00	5.00	
Length (m)=	1.00	2.00	
Mannings n =	20.00	20.00	
	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.50	12.250	91.46	18.33	1.49		
0.167	0.00	6.250	1.50	12.333	14.50	18.42	1.49		
0.250	0.00	6.333	1.54	12.417	14.49	18.50	1.49		
0.333	0.86	6.417	1.54	12.500	14.49	18.58	1.44		
0.417	0.86	6.500	1.54	12.583	9.86	18.67	1.44		
0.500	0.86	6.583	1.58	12.667	9.86	18.75	1.44		
0.583	0.88	6.667	1.58	12.750	9.86	18.83	1.39		
0.667	0.88	6.750	1.58	12.833	6.78	18.92	1.39		
0.750	0.88	6.833	1.63	12.917	6.78	19.00	1.39		
0.833	0.90	6.917	1.63	13.000	6.78	19.08	1.34		
0.917	0.90	7.000	1.63	13.083	5.73	19.17	1.34		
1.000	0.90	7.083	1.67	13.167	5.73	19.25	1.34		
1.083	0.92	7.167	1.67	13.250	5.73	19.33	1.28		
1.167	0.92	7.250	1.67	13.333	4.85	19.42	1.28		
1.250	0.92	7.333	1.71	13.417	4.85	19.50	1.28		
1.333	0.94	7.417	1.71	13.500	4.85	19.58	1.23		
1.417	0.94	7.500	1.71	13.583	4.28	19.67	1.23		
1.500	0.94	7.583	1.75	13.667	4.28	19.75	1.23		
1.583	0.96	7.667	1.75	13.750	4.28	19.83	1.18		
1.667	0.96	7.750	1.75	13.833	3.75	19.92	1.18		
1.750	0.96	7.833	1.80	13.917	3.75	20.00	1.18		
1.833	0.98	7.917	1.80	14.000	3.75	20.08	1.13		
1.917	0.98	8.000	1.80	14.083	3.35	20.17	1.13		
2.000	0.98	8.083	1.84	14.167	3.35	20.25	1.13		
2.083	1.00	8.167	1.84	14.250	3.35	20.33	1.09		
2.167	1.00	8.250	1.84	14.333	3.05	20.42	1.09		
2.250	1.00	8.333	1.97	14.417	3.05	20.50	1.09		
2.333	1.03	8.417	1.97	14.500	3.05	20.58	1.08		
2.417	1.03	8.500	1.97	14.583	2.91	20.67	1.08		
2.500	1.03	8.583	2.17	14.667	2.91	20.75	1.08		
2.583	1.05	8.667	2.17	14.750	2.91	20.83	1.07		
2.667	1.05	8.750	2.17	14.833	2.75	20.92	1.07		
2.750	1.05	8.833	2.39	14.917	2.75	21.00	1.07		
2.833	1.07	8.917	2.39	15.000	2.75	21.08	1.06		
2.917	1.07	9.000	2.39	15.083	2.61	21.17	1.06		
3.000	1.07	9.083	2.60	15.167	2.61	21.25	1.06		
3.083	1.09	9.167	2.60	15.250	2.61	21.33	1.05		
3.167	1.09	9.250	2.60	15.333	2.46	21.42	1.05		
3.250	1.09	9.333	2.71	15.417	2.46	21.50	1.05		
3.333	1.11	9.417	2.71	15.500	2.46	21.58	1.04		
3.417	1.11	9.500	2.71	15.583	2.32	21.67	1.04		
3.500	1.11	9.583	2.71	15.667	2.32	21.75	1.04		
3.583	1.13	9.667	2.71	15.750	2.32	21.83	1.03		
3.667	1.13	9.750	2.71	15.833	2.16	21.92	1.03		
3.750	1.13	9.833	2.88	15.917	2.16	22.00	1.03		
3.833	1.15	9.917	2.88	16.000	2.16	22.08	1.02		
3.917	1.15	10.000	2.88	16.083	2.02	22.17	1.02		
4.000	1.15	10.083	3.21	16.167	2.02	22.25	1.02		
4.083	1.17	10.167	3.21	16.250	2.02	22.33	1.01		
4.167	1.17	10.250	3.21	16.333	1.92	22.42	1.01		
4.250	1.17	10.333	3.65	16.417	1.92	22.50	1.01		
4.333	1.21	10.417	3.65	16.500	1.92	22.58	1.00		
4.417	1.21	10.500	3.65	16.583	1.87	22.67	1.00		

4.500	1.21	10.583	4.13	16.667	1.87	22.75	1.00
4.583	1.25	10.667	4.13	16.750	1.87	22.83	0.99
4.667	1.25	10.750	4.13	16.833	1.81	22.92	0.99
4.750	1.25	10.833	4.84	16.917	1.81	23.00	0.99
4.833	1.29	10.917	4.84	17.000	1.81	23.08	0.98
4.917	1.29	11.000	4.84	17.083	1.76	23.17	0.98
5.000	1.29	11.083	5.65	17.167	1.76	23.25	0.98
5.083	1.33	11.167	5.65	17.250	1.76	23.33	0.97
5.167	1.33	11.250	5.65	17.333	1.71	23.42	0.97
5.250	1.33	11.333	7.14	17.417	1.71	23.50	0.97
5.333	1.37	11.417	7.14	17.500	1.71	23.58	0.96
5.417	1.37	11.500	7.14	17.583	1.66	23.67	0.96
5.500	1.37	11.583	9.09	17.667	1.66	23.75	0.96
5.583	1.42	11.667	9.09	17.750	1.66	23.83	0.95
5.667	1.42	11.750	9.09	17.833	1.60	23.92	0.95
5.750	1.42	11.833	37.06	17.917	1.60	24.00	0.95
5.833	1.46	11.917	37.06	18.000	1.60	24.08	0.94
5.917	1.46	12.000	37.06	18.083	1.55	24.17	0.94
6.000	1.46	12.083	91.45	18.167	1.55	24.25	0.93
6.083	1.50	12.167	91.46	18.250	1.55		

Max.Eff.Inten.(mm/hr)= 91.46 48.56
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.01 (ii) 1.78 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

PEAK FLOW (cms)= 0.60 0.00 0.599 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25
 RUNOFF VOLUME (mm)= 83.55 36.47 83.08
 TOTAL RAINFALL (mm)= 84.55 84.55
 RUNOFF COEFFICIENT = 0.99 0.43 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7698)						
1 + 2 = 3						
	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
ID1= 1 (7590):	2.39	0.604	12.25	83.08		
+ ID2= 2 (7632):	2.36	0.597	12.25	83.08		
=====						
ID = 3 (7698):	4.75	1.201	12.25	83.08		

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)						
3 + 2 = 1						
	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
ID1= 3 (7698):	4.75	1.201	12.25	83.08		
+ ID2= 2 (7644):	2.40	0.607	12.25	83.08		
=====						
ID = 1 (7698):	7.15	1.808	12.25	83.08		

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)						
1 + 2 = 3						
	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
ID1= 1 (7698):	7.15	1.808	12.25	83.08		
+ ID2= 2 (7652):	2.40	0.607	12.25	83.08		
=====						
ID = 3 (7698):	9.55	2.415	12.25	83.08		

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)						
3 + 2 = 1						
	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
ID1= 3 (7698):	9.55	2.415	12.25	83.08		
+ ID2= 2 (7661):	2.39	0.604	12.25	83.08		
=====						
ID = 1 (7698):	11.94	3.020	12.25	83.08		

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)						
1 + 2 = 3						
	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
ID1= 1 (7698):	11.94	3.020	12.25	83.08		
+ ID2= 2 (7671):	2.37	0.599	12.25	83.08		
=====						
ID = 3 (7698):	14.31	3.619	12.25	83.08		

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| DIVERTHYD (7713) |
 | IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1 +	Flow 2 +	Flow 3 +	Flow 4 +	Flow 5 =	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
TOTAL HYD. (ID= 1):	14.31	3.62	12.25	83.08		
=====						
ID= 2 (2):	12.64	2.31	12.25	83.08		
ID= 3 (2):	1.67	1.31	12.25	83.08		
ID= 4 (2):	0.00	0.00	0.00	0.00		
ID= 5 (2):	0.00	0.00	0.00	0.00		
ID= 6 (2):	0.00	0.00	0.00	0.00		

RESERVOIR (7699)						
IN= 2---> OUT= 1						
DT= 5.0 min						
	OUTFLOW	STORAGE	OUTFLOW	STORAGE		
	(cms)	(ha.m.)	(cms)	(ha.m.)		
	0.0000	0.0000	0.2690	0.4589		
	0.1980	0.1112	0.0000	0.0000		

	AREA	QPEAK	TPEAK	R.V.		
	(ha)	(cms)	(hrs)	(mm)		
INFLOW : ID= 2 (7713)	12.642	2.310	12.25	83.08		
OUTFLOW: ID= 1 (7699)	12.642	0.262	13.00	83.07		
OVERFLOW:ID= 3 (0003)	0.000	0.000	0.00	0.00		

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
 CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
 PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

PEAK FLOW REDUCTION [Qout/Qin](%) = 11.35
 TIME SHIFT OF PEAK FLOW (min) = 45.00
 MAXIMUM STORAGE USED (ha.m.) = 0.4258

| Junction Command(7715) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 3 (7699)	0.00	0.00	0.00	0.00
OUTFLOW: ID= 2 (7715)	0.00	0.00	0.00	0.00

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-----
| ADD HYD ( 7714) |
| 1 + 2 = 3 |
-----
ID1= 1 ( 7699): 12.64 0.262 13.00 83.07
+ ID2= 2 ( 7713): 1.67 1.310 12.25 83.08
-----
ID = 3 ( 7714): 14.31 1.557 12.25 83.07

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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-----
| ADD HYD ( 7714) |
| 3 + 2 = 1 |
-----
*** W A R N I N G : HYDROGRAPH 7715 <ID= 2> IS DRY.
*** W A R N I N G : HYDROGRAPH 0001 = HYDROGRAPH 0003
ID1= 3 ( 7714): 14.31 1.557 12.25 83.07
+ ID2= 2 ( 7715): 0.00 0.000 0.00 0.00
-----
ID = 1 ( 7714): 14.31 1.557 12.25 83.07

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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| CALIB |
| STANDHYD ( 7620) |
| ID= 1 DT= 5.0 min |
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	Area (ha)=	IMPERVIOUS (ha)=	PERVIOUS (i)
Surface Area	1.45	1.39	0.06
Dep. Storage	96.00	2.00	5.00
Average Slope	96.00	1.10	2.00
Length	96.00	100.00	145.00
Mannings n	96.00	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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-----
| CALIB |
| STANDHYD ( 7629) |
| ID= 1 DT= 5.0 min |
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TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.50	12.250	91.46	18.33	1.49
0.167	0.00	6.250	1.50	12.333	14.50	18.42	1.49
0.250	0.00	6.333	1.54	12.417	14.49	18.50	1.49
0.333	0.86	6.417	1.54	12.500	14.49	18.58	1.44
0.417	0.86	6.500	1.54	12.583	9.86	18.67	1.44
0.500	0.86	6.583	1.58	12.667	9.86	18.75	1.44
0.583	0.88	6.667	1.58	12.750	9.86	18.83	1.39
0.667	0.88	6.750	1.58	12.833	6.78	18.92	1.39
0.750	0.88	6.833	1.63	12.917	6.78	19.00	1.39
0.833	0.90	6.917	1.63	13.000	6.78	19.08	1.34
0.917	0.90	7.000	1.63	13.083	5.73	19.17	1.34
1.000	0.90	7.083	1.67	13.167	5.73	19.25	1.34
1.083	0.92	7.167	1.67	13.250	5.73	19.33	1.28
1.167	0.92	7.250	1.67	13.333	4.85	19.42	1.28
1.250	0.92	7.333	1.71	13.417	4.85	19.50	1.28
1.333	0.94	7.417	1.71	13.500	4.85	19.58	1.23
1.417	0.94	7.500	1.71	13.583	4.28	19.67	1.23
1.500	0.94	7.583	1.75	13.667	4.28	19.75	1.23
1.583	0.96	7.667	1.75	13.750	4.28	19.83	1.18
1.667	0.96	7.750	1.75	13.833	3.75	19.92	1.18
1.750	0.96	7.833	1.80	13.917	3.75	20.00	1.18
1.833	0.98	7.917	1.80	14.000	3.75	20.08	1.13
1.917	0.98	8.000	1.80	14.083	3.35	20.17	1.13
2.000	0.98	8.083	1.84	14.167	3.35	20.25	1.13
2.083	1.00	8.167	1.84	14.250	3.35	20.33	1.09

Max.Eff.Inten.(mm/hr)=	91.46	48.56
over (min)	5.00	10.00
Storage Coeff. (min)=	2.57 (ii)	7.02 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.29	0.14

	PEAK FLOW (cms)=	0.35	0.01	0.359 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25	
RUNOFF VOLUME (mm)=	82.55	36.47	80.71	
TOTAL RAINFALL (mm)=	84.55	84.55	84.55	
RUNOFF COEFFICIENT =	0.98	0.43	0.95	

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| CALIB |
| STANDHYD ( 7629) |
| ID= 1 DT= 5.0 min |
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	Area (ha)=	IMPERVIOUS	PERVIOUS (i)
Surface Area	1.70	1.63	0.07
Dep. Storage	99.00	2.00	5.00
Average Slope	99.00	1.10	2.00
Length	99.00	100.00	145.00
Mannings n	99.00	0.013	0.250



Surface Area (ha)= 1.68 0.02
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.50	12.250	91.46	18.33	1.49
0.167	0.00	6.250	1.50	12.333	14.50	18.42	1.49
0.250	0.00	6.333	1.54	12.417	14.49	18.50	1.49
0.333	0.86	6.417	1.54	12.500	14.49	18.58	1.44
0.417	0.86	6.500	1.54	12.583	9.86	18.67	1.44
0.500	0.86	6.583	1.58	12.667	9.86	18.75	1.44
0.583	0.88	6.667	1.58	12.750	9.86	18.83	1.39
0.667	0.88	6.750	1.58	12.833	6.78	18.92	1.39
0.750	0.88	6.833	1.63	12.917	6.78	19.00	1.39
0.833	0.90	6.917	1.63	13.000	6.78	19.08	1.34
0.917	0.90	7.000	1.63	13.083	5.73	19.17	1.34
1.000	0.90	7.083	1.67	13.167	5.73	19.25	1.34
1.083	0.92	7.167	1.67	13.250	5.73	19.33	1.28
1.167	0.92	7.250	1.67	13.333	4.85	19.42	1.28
1.250	0.92	7.333	1.71	13.417	4.85	19.50	1.28
1.333	0.94	7.417	1.71	13.500	4.85	19.58	1.23
1.417	0.94	7.500	1.71	13.583	4.28	19.67	1.23
1.500	0.94	7.583	1.75	13.667	4.28	19.75	1.23
1.583	0.96	7.667	1.75	13.750	4.28	19.83	1.18
1.667	0.96	7.750	1.75	13.833	3.75	19.92	1.18
1.750	0.96	7.833	1.80	13.917	3.75	20.00	1.18
1.833	0.98	7.917	1.80	14.000	3.75	20.08	1.13
1.917	0.98	8.000	1.80	14.083	3.35	20.17	1.13
2.000	0.98	8.083	1.84	14.167	3.35	20.25	1.13
2.083	1.00	8.167	1.84	14.250	3.35	20.33	1.09
2.167	1.00	8.250	1.84	14.333	3.05	20.42	1.09
2.250	1.00	8.333	1.97	14.417	3.05	20.50	1.09
2.333	1.03	8.417	1.97	14.500	3.05	20.58	1.08
2.417	1.03	8.500	1.97	14.583	2.91	20.67	1.08
2.500	1.03	8.583	2.17	14.667	2.91	20.75	1.08
2.583	1.05	8.667	2.17	14.750	2.91	20.83	1.07
2.667	1.05	8.750	2.17	14.833	2.75	20.92	1.07
2.750	1.05	8.833	2.39	14.917	2.75	21.00	1.07
2.833	1.07	8.917	2.39	15.000	2.75	21.08	1.06
2.917	1.07	9.000	2.39	15.083	2.61	21.17	1.06
3.000	1.07	9.083	2.60	15.167	2.61	21.25	1.06
3.083	1.09	9.167	2.60	15.250	2.61	21.33	1.05
3.167	1.09	9.250	2.60	15.333	2.46	21.42	1.05
3.250	1.09	9.333	2.71	15.417	2.46	21.50	1.05
3.333	1.11	9.417	2.71	15.500	2.46	21.58	1.04
3.417	1.11	9.500	2.71	15.583	2.32	21.67	1.04
3.500	1.11	9.583	2.71	15.667	2.32	21.75	1.04
3.583	1.13	9.667	2.71	15.750	2.32	21.83	1.03
3.667	1.13	9.750	2.71	15.833	2.16	21.92	1.03
3.750	1.13	9.833	2.88	15.917	2.16	22.00	1.03
3.833	1.15	9.917	2.88	16.000	2.16	22.08	1.02
3.917	1.15	10.000	2.88	16.083	2.02	22.17	1.02
4.000	1.15	10.083	3.21	16.167	2.02	22.25	1.02
4.083	1.17	10.167	3.21	16.250	2.02	22.33	1.01
4.167	1.17	10.250	3.21	16.333	1.92	22.42	1.01
4.250	1.17	10.333	3.65	16.417	1.92	22.50	1.01
4.333	1.21	10.417	3.65	16.500	1.92	22.58	1.00
4.417	1.21	10.500	3.65	16.583	1.87	22.67	1.00
4.500	1.21	10.583	4.13	16.667	1.87	22.75	1.00
4.583	1.25	10.667	4.13	16.750	1.87	22.83	0.99
4.667	1.25	10.750	4.13	16.833	1.81	22.92	0.99
4.750	1.25	10.833	4.84	16.917	1.81	23.00	0.99
4.833	1.29	10.917	4.84	17.000	1.81	23.08	0.98
4.917	1.29	11.000	4.84	17.083	1.76	23.17	0.98
5.000	1.29	11.083	5.65	17.167	1.76	23.25	0.98
5.083	1.33	11.167	5.65	17.250	1.76	23.33	0.97
5.167	1.33	11.250	5.65	17.333	1.71	23.42	0.97
5.250	1.33	11.333	7.14	17.417	1.71	23.50	0.97
5.333	1.37	11.417	7.14	17.500	1.71	23.58	0.96

5.417	1.37	11.500	7.14	17.583	1.66	23.67	0.96
5.500	1.37	11.583	9.09	17.667	1.66	23.75	0.96
5.583	1.42	11.667	9.09	17.750	1.66	23.83	0.95
5.667	1.42	11.750	9.09	17.833	1.60	23.92	0.95
5.750	1.42	11.833	37.06	17.917	1.60	24.00	0.95
5.833	1.46	11.917	37.06	18.000	1.60	24.08	0.94
5.917	1.46	12.000	37.06	18.083	1.55	24.17	0.94
6.000	1.46	12.083	91.45	18.167	1.55	24.25	0.93
6.083	1.50	12.167	91.46	18.250	1.55		

Max.Eff.Inten.(mm/hr)= 91.46 48.56
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 2.57 (ii) 3.74 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.29 0.25

PEAK FLOW (cms)= 0.43 0.00 0.429 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25
 RUNOFF VOLUME (mm)= 82.55 36.47 82.09
 TOTAL RAINFALL (mm)= 84.55 84.55
 RUNOFF COEFFICIENT = 0.98 0.43 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		Area (ha)= 1.33		Total Imp(%)= 98.00		Dir. Conn.(%)= 98.00	
STANDHYD (7651)		ID= 1 DT= 5.0 min					
Surface Area	(ha)=	1.30	0.03				
Dep. Storage	(mm)=	2.00	5.00				
Average Slope	(%)=	1.10	2.00				
Length	(m)=	100.00	40.00				
Mannings n	=	0.013	0.250				

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.50	12.250	91.46	18.33	1.49
0.167	0.00	6.250	1.50	12.333	14.50	18.42	1.49
0.250	0.00	6.333	1.54	12.417	14.49	18.50	1.49
0.333	0.86	6.417	1.54	12.500	14.49	18.58	1.44
0.417	0.86	6.500	1.54	12.583	9.86	18.67	1.44
0.500	0.86	6.583	1.58	12.667	9.86	18.75	1.44
0.583	0.88	6.667	1.58	12.750	9.86	18.83	1.39
0.667	0.88	6.750	1.58	12.833	6.78	18.92	1.39
0.750	0.88	6.833	1.63	12.917	6.78	19.00	1.39
0.833	0.90	6.917	1.63	13.000	6.78	19.08	1.34
0.917	0.90	7.000	1.63	13.083	5.73	19.17	1.34
1.000	0.90	7.083	1.67	13.167	5.73	19.25	1.34
1.083	0.92	7.167	1.67	13.250	5.73	19.33	1.28
1.167	0.92	7.250	1.67	13.333	4.85	19.42	1.28
1.250	0.92	7.333	1.71	13.417	4.85	19.50	1.28
1.333	0.94	7.417	1.71	13.500	4.85	19.58	1.23
1.417	0.94	7.500	1.71	13.583	4.28	19.67	1.23
1.500	0.94	7.583	1.75	13.667	4.28	19.75	1.23
1.583	0.96	7.667	1.75	13.750	4.28	19.83	1.18
1.667	0.96	7.750	1.75	13.833	3.75	19.92	1.18
1.750	0.96	7.833	1.80	13.917	3.75	20.00	1.18
1.833	0.98	7.917	1.80	14.000	3.75	20.08	1.13
1.917	0.98	8.000	1.80	14.083	3.35	20.17	1.13
2.000	0.98	8.083	1.84	14.167	3.35	20.25	1.13
2.083	1.00	8.167	1.84	14.250	3.35	20.33	1.09
2.167	1.00	8.250	1.84	14.333	3.05	20.42	1.09
2.250	1.00	8.333	1.97	14.417	3.05	20.50	1.09

2.333	1.03	8.417	1.97	14.500	3.05	20.58	1.08
2.417	1.03	8.500	1.97	14.583	2.91	20.67	1.08
2.500	1.03	8.583	2.17	14.667	2.91	20.75	1.08
2.583	1.05	8.667	2.17	14.750	2.91	20.83	1.07
2.667	1.05	8.750	2.17	14.833	2.75	20.92	1.07
2.750	1.05	8.833	2.39	14.917	2.75	21.00	1.07
2.833	1.07	8.917	2.39	15.000	2.75	21.08	1.06
2.917	1.07	9.000	2.39	15.083	2.61	21.17	1.06
3.000	1.07	9.083	2.60	15.167	2.61	21.25	1.06
3.083	1.09	9.167	2.60	15.250	2.61	21.33	1.05
3.167	1.09	9.250	2.60	15.333	2.46	21.42	1.05
3.250	1.09	9.333	2.71	15.417	2.46	21.50	1.05
3.333	1.11	9.417	2.71	15.500	2.46	21.58	1.04
3.417	1.11	9.500	2.71	15.583	2.32	21.67	1.04
3.500	1.11	9.583	2.71	15.667	2.32	21.75	1.04
3.583	1.13	9.667	2.71	15.750	2.32	21.83	1.03
3.667	1.13	9.750	2.71	15.833	2.16	21.92	1.03
3.750	1.13	9.833	2.88	15.917	2.16	22.00	1.03
3.833	1.15	9.917	2.88	16.000	2.16	22.08	1.02
3.917	1.15	10.000	2.88	16.083	2.02	22.17	1.02
4.000	1.15	10.083	3.21	16.167	2.02	22.25	1.02
4.083	1.17	10.167	3.21	16.250	2.02	22.33	1.01
4.167	1.17	10.250	3.21	16.333	1.92	22.42	1.01
4.250	1.17	10.333	3.65	16.417	1.92	22.50	1.01
4.333	1.21	10.417	3.65	16.500	1.92	22.58	1.00
4.417	1.21	10.500	3.65	16.583	1.87	22.67	1.00
4.500	1.21	10.583	4.13	16.667	1.87	22.75	1.00
4.583	1.25	10.667	4.13	16.750	1.87	22.83	0.99
4.667	1.25	10.750	4.13	16.833	1.81	22.92	0.99
4.750	1.25	10.833	4.84	16.917	1.81	23.00	0.99
4.833	1.29	10.917	4.84	17.000	1.81	23.08	0.98
4.917	1.29	11.000	4.84	17.083	1.76	23.17	0.98
5.000	1.29	11.083	5.65	17.167	1.76	23.25	0.98
5.083	1.33	11.167	5.65	17.250	1.76	23.33	0.97
5.167	1.33	11.250	5.65	17.333	1.71	23.42	0.97
5.250	1.33	11.333	7.14	17.417	1.71	23.50	0.97
5.333	1.37	11.417	7.14	17.500	1.71	23.58	0.96
5.417	1.37	11.500	7.14	17.583	1.66	23.67	0.96
5.500	1.37	11.583	9.09	17.667	1.66	23.75	0.96
5.583	1.42	11.667	9.09	17.750	1.66	23.83	0.95
5.667	1.42	11.750	9.09	17.833	1.60	23.92	0.95
5.750	1.42	11.833	37.06	17.917	1.60	24.00	0.95
5.833	1.46	11.917	37.06	18.000	1.60	24.08	0.94
5.917	1.46	12.000	37.06	18.083	1.55	24.17	0.94
6.000	1.46	12.083	91.45	18.167	1.55	24.25	0.93
6.083	1.50	12.167	91.46	18.250	1.55		

Max.Eff.Inten. (mm/hr)= 91.46 48.56
over (min) = 5.00 5.00
Storage Coeff. (min)= 2.57 (ii) 4.12 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.29 0.24

TOTALS
PEAK FLOW (cms)= 0.33 0.00 0.334 (iii)
TIME TO PEAK (hrs)= 12.25 12.25 12.25
RUNOFF VOLUME (mm)= 82.55 36.47 81.63
TOTAL RAINFALL (mm)= 84.55 84.55 84.55
RUNOFF COEFFICIENT = 0.98 0.43 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7700)				
1 + 2 = 3				

ID1= 1 (7620):	1.45	0.359	12.25	80.71
+ ID2= 2 (7629):	1.70	0.429	12.25	82.09

ID = 3 (7700): 3.15 0.789 12.25 81.45

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7700)				
3 + 2 = 1				

ID1= 3 (7700):	3.15	0.789	12.25	81.45
+ ID2= 2 (7651):	1.33	0.334	12.25	81.63

ID = 1 (7700):	4.48	1.123	12.25	81.50

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7623)			
ID= 1 DT= 5.0 min			

Area (ha)=	1.20		
Total Imp(%)=	95.00	Dir. Conn.(%)=	95.00

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	1.14	0.06	
Dep. Storage (mm)=	2.00	5.00	
Average Slope (%)=	2.50	2.00	
Length (m)=	60.00	40.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TRANSFORMED HYETOGRAPH									
TIME RAIN TIME RAIN TIME RAIN TIME RAIN									
hrs mm/hr hrs mm/hr hrs mm/hr hrs mm/hr									

0.083	0.00	6.167	1.50	12.250	91.46	18.33	1.49		
0.167	0.00	6.250	1.50	12.333	14.50	18.42	1.49		
0.250	0.00	6.333	1.54	12.417	14.49	18.50	1.49		
0.333	0.86	6.417	1.54	12.500	14.49	18.58	1.44		
0.417	0.86	6.500	1.54	12.583	9.86	18.67	1.44		
0.500	0.86	6.583	1.58	12.667	9.86	18.75	1.44		
0.583	0.88	6.667	1.58	12.750	9.86	18.83	1.39		
0.667	0.88	6.750	1.58	12.833	6.78	18.92	1.39		
0.750	0.88	6.833	1.63	12.917	6.78	19.00	1.39		
0.833	0.90	6.917	1.63	13.000	6.78	19.08	1.34		
0.917	0.90	7.000	1.63	13.083	5.73	19.17	1.34		
1.000	0.90	7.083	1.67	13.167	5.73	19.25	1.34		
1.083	0.92	7.167	1.67	13.250	5.73	19.33	1.28		
1.167	0.92	7.250	1.67	13.333	4.85	19.42	1.28		
1.250	0.92	7.333	1.71	13.417	4.85	19.50	1.28		
1.333	0.94	7.417	1.71	13.500	4.85	19.58	1.23		
1.417	0.94	7.500	1.71	13.583	4.28	19.67	1.23		
1.500	0.94	7.583	1.75	13.667	4.28	19.75	1.23		
1.583	0.96	7.667	1.75	13.750	4.28	19.83	1.18		
1.667	0.96	7.750	1.75	13.833	3.75	19.92	1.18		
1.750	0.96	7.833	1.80	13.917	3.75	20.00	1.18		
1.833	0.98	7.917	1.80	14.000	3.75	20.08	1.13		
1.917	0.98	8.000	1.80	14.083	3.35	20.17	1.13		
2.000	0.98	8.083	1.84	14.167	3.35	20.25	1.13		
2.083	1.00	8.167	1.84	14.250	3.35	20.33	1.09		
2.167	1.00	8.250	1.84	14.333	3.05	20.42	1.09		
2.250	1.00	8.333	1.97	14.417	3.05	20.50	1.09		
2.333	1.03	8.417	1.97	14.500	3.05	20.58	1.08		
2.417	1.03	8.500	1.97	14.583	2.91	20.67	1.08		
2.500	1.03	8.583	2.17	14.667	2.91	20.75	1.08		
2.583	1.05	8.667	2.17	14.750	2.91	20.83	1.07		
2.667	1.05	8.750	2.17	14.833	2.75	20.92	1.07		
2.750	1.05	8.833	2.39	14.917	2.75	21.00	1.07		
2.833	1.07	8.917	2.39	15.000	2.75	21.08	1.06		
2.917	1.07	9.000	2.39	15.083	2.61	21.17	1.06		
3.000	1.07	9.083	2.60	15.167	2.61	21.25	1.06		
3.083	1.09	9.167	2.60	15.250	2.61	21.33	1.05		
3.167	1.09	9.250	2.60	15.333	2.46	21.42	1.05		
3.250	1.09	9.333	2.71	15.417	2.46	21.50	1.05		
3.333	1.11	9.417	2.71	15.500	2.46	21.58	1.04		
3.417	1.11	9.500	2.71	15.583	2.32	21.67	1.04		
3.500	1.11	9.583	2.71	15.667	2.32	21.75	1.04		



3.583	1.13	9.667	2.71	15.750	2.32	21.83	1.03
3.667	1.13	9.750	2.71	15.833	2.16	21.92	1.03
3.750	1.13	9.833	2.88	15.917	2.16	22.00	1.03
3.833	1.15	9.917	2.88	16.000	2.16	22.08	1.02
3.917	1.15	10.000	2.88	16.083	2.02	22.17	1.02
4.000	1.15	10.083	3.21	16.167	2.02	22.25	1.02
4.083	1.17	10.167	3.21	16.250	2.02	22.33	1.01
4.167	1.17	10.250	3.21	16.333	1.92	22.42	1.01
4.250	1.17	10.333	3.65	16.417	1.92	22.50	1.01
4.333	1.21	10.417	3.65	16.500	1.92	22.58	1.00
4.417	1.21	10.500	3.65	16.583	1.87	22.67	1.00
4.500	1.21	10.583	4.13	16.667	1.87	22.75	1.00
4.583	1.25	10.667	4.13	16.750	1.87	22.83	0.99
4.667	1.25	10.750	4.13	16.833	1.81	22.92	0.99
4.750	1.25	10.833	4.84	16.917	1.81	23.00	0.99
4.833	1.29	10.917	4.84	17.000	1.81	23.08	0.98
4.917	1.29	11.000	4.84	17.083	1.76	23.17	0.98
5.000	1.29	11.083	5.65	17.167	1.76	23.25	0.98
5.083	1.33	11.167	5.65	17.250	1.76	23.33	0.97
5.167	1.33	11.250	5.65	17.333	1.71	23.42	0.97
5.250	1.33	11.333	7.14	17.417	1.71	23.50	0.97
5.333	1.37	11.417	7.14	17.500	1.71	23.58	0.96
5.417	1.37	11.500	7.14	17.583	1.66	23.67	0.96
5.500	1.37	11.583	9.09	17.667	1.66	23.75	0.96
5.583	1.42	11.667	9.09	17.750	1.66	23.83	0.95
5.667	1.42	11.750	9.09	17.833	1.60	23.92	0.95
5.750	1.42	11.833	37.06	17.917	1.60	24.00	0.95
5.833	1.46	11.917	37.06	18.000	1.60	24.08	0.94
5.917	1.46	12.000	37.06	18.083	1.55	24.17	0.94
6.000	1.46	12.083	91.45	18.167	1.55	24.25	0.93
6.083	1.50	12.167	91.46	18.250	1.55		

Max.Eff.Inten.(mm/hr)= 91.46 49.94
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.48 (ii) 3.73 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.25

TOTALS
 PEAK FLOW (cms)= 0.29 0.01 0.298 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 82.55 37.49 80.30
 TOTAL RAINFALL (mm)= 84.55 84.55 84.55
 RUNOFF COEFFICIENT = 0.98 0.44 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7654) | Area (ha)= 1.69
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PVIOUS (i)
 Surface Area (ha)= 1.67 0.02
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%) = 1.10 2.00
 Length (m) = 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.50	12.250	91.46	18.33	1.49
0.167	0.00	6.250	1.50	12.333	14.50	18.42	1.49
0.250	0.00	6.333	1.54	12.417	14.49	18.50	1.49
0.333	0.86	6.417	1.54	12.500	14.49	18.58	1.44
0.417	0.86	6.500	1.54	12.583	9.86	18.67	1.44

0.500	0.86	6.583	1.58	12.667	9.86	18.75	1.44
0.583	0.88	6.667	1.58	12.750	9.86	18.83	1.39
0.667	0.88	6.750	1.58	12.833	6.78	18.92	1.39
0.750	0.88	6.833	1.63	12.917	6.78	19.00	1.39
0.833	0.90	6.917	1.63	13.000	6.78	19.08	1.34
0.917	0.90	7.000	1.63	13.083	5.73	19.17	1.34
1.000	0.90	7.083	1.67	13.167	5.73	19.25	1.34
1.083	0.92	7.167	1.67	13.250	5.73	19.33	1.28
1.167	0.92	7.250	1.67	13.333	4.85	19.42	1.28
1.250	0.92	7.333	1.71	13.417	4.85	19.50	1.28
1.333	0.94	7.417	1.71	13.500	4.85	19.58	1.23
1.417	0.94	7.500	1.71	13.583	4.28	19.67	1.23
1.500	0.94	7.583	1.75	13.667	4.28	19.75	1.23
1.583	0.96	7.667	1.75	13.750	4.28	19.83	1.18
1.667	0.96	7.750	1.75	13.833	3.75	19.92	1.18
1.750	0.96	7.833	1.80	13.917	3.75	20.00	1.18
1.833	0.98	7.917	1.80	14.000	3.75	20.08	1.13
1.917	0.98	8.000	1.80	14.083	3.35	20.17	1.13
2.000	0.98	8.083	1.84	14.167	3.35	20.25	1.13
2.083	1.00	8.167	1.84	14.250	3.35	20.33	1.09
2.167	1.00	8.250	1.84	14.333	3.05	20.42	1.09
2.250	1.00	8.333	1.97	14.417	3.05	20.50	1.09
2.333	1.03	8.417	1.97	14.500	3.05	20.58	1.08
2.417	1.03	8.500	1.97	14.583	2.91	20.67	1.08
2.500	1.03	8.583	2.17	14.667	2.91	20.75	1.08
2.583	1.05	8.667	2.17	14.750	2.91	20.83	1.07
2.667	1.05	8.750	2.17	14.833	2.75	20.92	1.07
2.750	1.05	8.833	2.39	14.917	2.75	21.00	1.07
2.833	1.07	8.917	2.39	15.000	2.75	21.08	1.06
2.917	1.07	9.000	2.39	15.083	2.61	21.17	1.06
3.000	1.07	9.083	2.60	15.167	2.61	21.25	1.06
3.083	1.09	9.167	2.60	15.250	2.61	21.33	1.05
3.167	1.09	9.250	2.60	15.333	2.46	21.42	1.05
3.250	1.09	9.333	2.71	15.417	2.46	21.50	1.05
3.333	1.11	9.417	2.71	15.500	2.46	21.58	1.04
3.417	1.11	9.500	2.71	15.583	2.32	21.67	1.04
3.500	1.11	9.583	2.71	15.667	2.32	21.75	1.04
3.583	1.13	9.667	2.71	15.750	2.32	21.83	1.03
3.667	1.13	9.750	2.71	15.833	2.16	21.92	1.03
3.750	1.13	9.833	2.88	15.917	2.16	22.00	1.03
3.833	1.15	9.917	2.88	16.000	2.16	22.08	1.02
3.917	1.15	10.000	2.88	16.083	2.02	22.17	1.02
4.000	1.15	10.083	3.21	16.167	2.02	22.25	1.02
4.083	1.17	10.167	3.21	16.250	2.02	22.33	1.01
4.167	1.17	10.250	3.21	16.333	1.92	22.42	1.01
4.250	1.17	10.333	3.65	16.417	1.92	22.50	1.01
4.333	1.21	10.417	3.65	16.500	1.92	22.58	1.00
4.417	1.21	10.500	3.65	16.583	1.87	22.67	1.00
4.500	1.21	10.583	4.13	16.667	1.87	22.75	1.00
4.583	1.25	10.667	4.13	16.750	1.87	22.83	0.99
4.667	1.25	10.750	4.13	16.833	1.81	22.92	0.99
4.750	1.25	10.833	4.84	16.917	1.81	23.00	0.99
4.833	1.29	10.917	4.84	17.000	1.81	23.08	0.98
4.917	1.29	11.000	4.84	17.083	1.76	23.17	0.98
5.000	1.29	11.083	5.65	17.167	1.76	23.25	0.98
5.083	1.33	11.167	5.65	17.250	1.76	23.33	0.97
5.167	1.33	11.250	5.65	17.333	1.71	23.42	0.97
5.250	1.33	11.333	7.14	17.417	1.71	23.50	0.97
5.333	1.37	11.417	7.14	17.500	1.71	23.58	0.96
5.417	1.37	11.500	7.14	17.583	1.66	23.67	0.96
5.500	1.37	11.583	9.09	17.667	1.66	23.75	0.96
5.583	1.42	11.667	9.09	17.750	1.66	23.83	0.95
5.667	1.42	11.750	9.09	17.833	1.60	23.92	0.95
5.750	1.42	11.833	37.06	17.917	1.60	24.00	0.95
5.833	1.46	11.917	37.06	18.000	1.60	24.08	0.94
5.917	1.46	12.000	37.06	18.083	1.55	24.17	0.94
6.000	1.46	12.083	91.45	18.167	1.55	24.25	0.93
6.083	1.50	12.167	91.46	18.250	1.55		

Max.Eff.Inten.(mm/hr)= 91.46 48.56
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.57 (ii) 3.74 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.29 0.25

TOTALS
 PEAK FLOW (cms)= 0.42 0.00 0.427 (iii)



TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 82.55 36.47 82.09
 TOTAL RAINFALL (mm)= 84.55 84.55 84.55
 RUNOFF COEFFICIENT = 0.98 0.43 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7655) | Area (ha)= 1.32
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.31	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.50	12.250	91.46	18.33	1.49
0.167	0.00	6.250	1.50	12.333	14.50	18.42	1.49
0.250	0.00	6.333	1.54	12.417	14.49	18.50	1.49
0.333	0.86	6.417	1.54	12.500	14.49	18.58	1.44
0.417	0.86	6.500	1.54	12.583	9.86	18.67	1.44
0.500	0.86	6.583	1.58	12.667	9.86	18.75	1.44
0.583	0.88	6.667	1.58	12.750	9.86	18.83	1.39
0.667	0.88	6.750	1.58	12.833	6.78	18.92	1.39
0.750	0.88	6.833	1.63	12.917	6.78	19.00	1.39
0.833	0.90	6.917	1.63	13.000	6.78	19.08	1.34
0.917	0.90	7.000	1.63	13.083	5.73	19.17	1.34
1.000	0.90	7.083	1.67	13.167	5.73	19.25	1.34
1.083	0.92	7.167	1.67	13.250	5.73	19.33	1.28
1.167	0.92	7.250	1.67	13.333	4.85	19.42	1.28
1.250	0.92	7.333	1.71	13.417	4.85	19.50	1.28
1.333	0.94	7.417	1.71	13.500	4.85	19.58	1.23
1.417	0.94	7.500	1.71	13.583	4.28	19.67	1.23
1.500	0.94	7.583	1.75	13.667	4.28	19.75	1.23
1.583	0.96	7.667	1.75	13.750	4.28	19.83	1.18
1.667	0.96	7.750	1.75	13.833	3.75	19.92	1.18
1.750	0.96	7.833	1.80	13.917	3.75	20.00	1.18
1.833	0.98	7.917	1.80	14.000	3.75	20.08	1.13
1.917	0.98	8.000	1.80	14.083	3.35	20.17	1.13
2.000	0.98	8.083	1.84	14.167	3.35	20.25	1.13
2.083	1.00	8.167	1.84	14.250	3.35	20.33	1.09
2.167	1.00	8.250	1.84	14.333	3.05	20.42	1.09
2.250	1.00	8.333	1.97	14.417	3.05	20.50	1.09
2.333	1.03	8.417	1.97	14.500	3.05	20.58	1.08
2.417	1.03	8.500	1.97	14.583	2.91	20.67	1.08
2.500	1.03	8.583	2.17	14.667	2.91	20.75	1.08
2.583	1.05	8.667	2.17	14.750	2.91	20.83	1.07
2.667	1.05	8.750	2.17	14.833	2.75	20.92	1.07
2.750	1.05	8.833	2.39	14.917	2.75	21.00	1.07
2.833	1.07	8.917	2.39	15.000	2.75	21.08	1.06
2.917	1.07	9.000	2.39	15.083	2.61	21.17	1.06
3.000	1.07	9.083	2.60	15.167	2.61	21.25	1.06
3.083	1.09	9.167	2.60	15.250	2.61	21.33	1.05
3.167	1.09	9.250	2.60	15.333	2.46	21.42	1.05
3.250	1.09	9.333	2.71	15.417	2.46	21.50	1.05
3.333	1.11	9.417	2.71	15.500	2.46	21.58	1.04
3.417	1.11	9.500	2.71	15.583	2.32	21.67	1.04
3.500	1.11	9.583	2.71	15.667	2.32	21.75	1.04
3.583	1.13	9.667	2.71	15.750	2.32	21.83	1.03
3.667	1.13	9.750	2.71	15.833	2.16	21.92	1.03

3.750	1.13	9.833	2.88	15.917	2.16	22.00	1.03
3.833	1.15	9.917	2.88	16.000	2.16	22.08	1.02
3.917	1.15	10.000	2.88	16.083	2.02	22.17	1.02
4.000	1.15	10.083	3.21	16.167	2.02	22.25	1.02
4.083	1.17	10.167	3.21	16.250	2.02	22.33	1.01
4.167	1.17	10.250	3.21	16.333	1.92	22.42	1.01
4.250	1.17	10.333	3.65	16.417	1.92	22.50	1.01
4.333	1.21	10.417	3.65	16.500	1.92	22.58	1.00
4.417	1.21	10.500	3.65	16.583	1.87	22.67	1.00
4.500	1.21	10.583	4.13	16.667	1.87	22.75	1.00
4.583	1.25	10.667	4.13	16.750	1.87	22.83	0.99
4.667	1.25	10.750	4.13	16.833	1.81	22.92	0.99
4.750	1.25	10.833	4.84	16.917	1.81	23.00	0.99
4.833	1.29	10.917	4.84	17.000	1.81	23.08	0.98
4.917	1.29	11.000	4.84	17.083	1.76	23.17	0.98
5.000	1.29	11.083	5.65	17.167	1.76	23.25	0.98
5.083	1.33	11.167	5.65	17.250	1.76	23.33	0.97
5.167	1.33	11.250	5.65	17.333	1.71	23.42	0.97
5.250	1.33	11.333	7.14	17.417	1.71	23.50	0.97
5.333	1.37	11.417	7.14	17.500	1.71	23.58	0.96
5.417	1.37	11.500	7.14	17.583	1.66	23.67	0.96
5.500	1.37	11.583	9.09	17.667	1.66	23.75	0.96
5.583	1.42	11.667	9.09	17.750	1.66	23.83	0.95
5.667	1.42	11.750	9.09	17.833	1.60	23.92	0.95
5.750	1.42	11.833	37.06	17.917	1.60	24.00	0.95
5.833	1.46	11.917	37.06	18.000	1.60	24.08	0.94
5.917	1.46	12.000	37.06	18.083	1.55	24.17	0.94
6.000	1.46	12.083	91.45	18.167	1.55	24.25	0.93
6.083	1.50	12.167	91.46	18.250	1.55		

Max.Eff.Inten.(mm/hr)= 91.46 48.56
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.57 (ii) 3.74 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.29 0.25

TOTALS
 PEAK FLOW (cms)= 0.33 0.00 0.333 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 82.55 36.47 82.09
 TOTAL RAINFALL (mm)= 84.55 84.55 84.55
 RUNOFF COEFFICIENT = 0.98 0.43 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7662) | Area (ha)= 1.61
 | ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.48	0.13
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.50	12.250	91.46	18.33	1.49
0.167	0.00	6.250	1.50	12.333	14.50	18.42	1.49
0.250	0.00	6.333	1.54	12.417	14.49	18.50	1.49
0.333	0.86	6.417	1.54	12.500	14.49	18.58	1.44
0.417	0.86	6.500	1.54	12.583	9.86	18.67	1.44
0.500	0.86	6.583	1.58	12.667	9.86	18.75	1.44
0.583	0.88	6.667	1.58	12.750	9.86	18.83	1.39



0.667	0.88	6.750	1.58	12.833	6.78	18.92	1.39
0.750	0.88	6.833	1.63	12.917	6.78	19.00	1.39
0.833	0.90	6.917	1.63	13.000	6.78	19.08	1.34
0.917	0.90	7.000	1.63	13.083	5.73	19.17	1.34
1.000	0.90	7.083	1.67	13.167	5.73	19.25	1.34
1.083	0.92	7.167	1.67	13.250	5.73	19.33	1.28
1.167	0.92	7.250	1.67	13.333	4.85	19.42	1.28
1.250	0.92	7.333	1.71	13.417	4.85	19.50	1.28
1.333	0.94	7.417	1.71	13.500	4.85	19.58	1.23
1.417	0.94	7.500	1.71	13.583	4.28	19.67	1.23
1.500	0.94	7.583	1.75	13.667	4.28	19.75	1.23
1.583	0.96	7.667	1.75	13.750	4.28	19.83	1.18
1.667	0.96	7.750	1.75	13.833	3.75	19.92	1.18
1.750	0.96	7.833	1.80	13.917	3.75	20.00	1.18
1.833	0.98	7.917	1.80	14.000	3.75	20.08	1.13
1.917	0.98	8.000	1.80	14.083	3.35	20.17	1.13
2.000	0.98	8.083	1.84	14.167	3.35	20.25	1.13
2.083	1.00	8.167	1.84	14.250	3.35	20.33	1.09
2.167	1.00	8.250	1.84	14.333	3.05	20.42	1.09
2.250	1.00	8.333	1.97	14.417	3.05	20.50	1.09
2.333	1.03	8.417	1.97	14.500	3.05	20.58	1.08
2.417	1.03	8.500	1.97	14.583	2.91	20.67	1.08
2.500	1.03	8.583	2.17	14.667	2.91	20.75	1.08
2.583	1.05	8.667	2.17	14.750	2.91	20.83	1.07
2.667	1.05	8.750	2.17	14.833	2.75	20.92	1.07
2.750	1.05	8.833	2.39	14.917	2.75	21.00	1.07
2.833	1.07	8.917	2.39	15.000	2.75	21.08	1.06
2.917	1.07	9.000	2.39	15.083	2.61	21.17	1.06
3.000	1.07	9.083	2.60	15.167	2.61	21.25	1.06
3.083	1.09	9.167	2.60	15.250	2.61	21.33	1.05
3.167	1.09	9.250	2.60	15.333	2.46	21.42	1.05
3.250	1.09	9.333	2.71	15.417	2.46	21.50	1.05
3.333	1.11	9.417	2.71	15.500	2.46	21.58	1.04
3.417	1.11	9.500	2.71	15.583	2.32	21.67	1.04
3.500	1.11	9.583	2.71	15.667	2.32	21.75	1.04
3.583	1.13	9.667	2.71	15.750	2.32	21.83	1.03
3.667	1.13	9.750	2.71	15.833	2.16	21.92	1.03
3.750	1.13	9.833	2.88	15.917	2.16	22.00	1.03
3.833	1.15	9.917	2.88	16.000	2.16	22.08	1.02
3.917	1.15	10.000	2.88	16.083	2.02	22.17	1.02
4.000	1.15	10.083	3.21	16.167	2.02	22.25	1.02
4.083	1.17	10.167	3.21	16.250	2.02	22.33	1.01
4.167	1.17	10.250	3.21	16.333	1.92	22.42	1.01
4.250	1.17	10.333	3.65	16.417	1.92	22.50	1.01
4.333	1.21	10.417	3.65	16.500	1.92	22.58	1.00
4.417	1.21	10.500	3.65	16.583	1.87	22.67	1.00
4.500	1.21	10.583	4.13	16.667	1.87	22.75	1.00
4.583	1.25	10.667	4.13	16.750	1.87	22.83	0.99
4.667	1.25	10.750	4.13	16.833	1.81	22.92	0.99
4.750	1.25	10.833	4.84	16.917	1.81	23.00	0.99
4.833	1.29	10.917	4.84	17.000	1.81	23.08	0.98
4.917	1.29	11.000	4.84	17.083	1.76	23.17	0.98
5.000	1.29	11.083	5.65	17.167	1.76	23.25	0.98
5.083	1.33	11.167	5.65	17.250	1.76	23.33	0.97
5.167	1.33	11.250	5.65	17.333	1.71	23.42	0.97
5.250	1.33	11.333	7.14	17.417	1.71	23.50	0.97
5.333	1.37	11.417	7.14	17.500	1.71	23.58	0.96
5.417	1.37	11.500	7.14	17.583	1.66	23.67	0.96
5.500	1.37	11.583	9.09	17.667	1.66	23.75	0.96
5.583	1.42	11.667	9.09	17.750	1.66	23.83	0.95
5.667	1.42	11.750	9.09	17.833	1.60	23.92	0.95
5.750	1.42	11.833	37.06	17.917	1.60	24.00	0.95
5.833	1.46	11.917	37.06	18.000	1.60	24.08	0.94
5.917	1.46	12.000	37.06	18.083	1.55	24.17	0.94
6.000	1.46	12.083	91.45	18.167	1.55	24.25	0.93
6.083	1.50	12.167	91.46	18.250	1.55		

Max.Eff.Inten.(mm/hr)= 91.46 33.11
 over (min) 5.00 30.00
 Storage Coeff. (min)= 2.57 (ii) 26.35 (iii)
 Unit Hyd. Tpeak (min)= 5.00 30.00
 Unit Hyd. peak (cms)= 0.29 0.04

TOTALS
 PEAK FLOW (cms)= 0.38 0.01 0.379 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 82.55 36.48 78.85

TOTAL RAINFALL (mm)= 84.55 84.55 84.55
 RUNOFF COEFFICIENT = 0.98 0.43 0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7701)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7654):	1.69	0.427	12.25	82.09
+ ID2= 2 (7655):	1.32	0.333	12.25	82.09

ID = 3 (7701):	3.01	0.760	12.25	82.09

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7701)				
3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7701):	3.01	0.760	12.25	82.09
+ ID2= 2 (7662):	1.61	0.379	12.25	78.85

ID = 1 (7701):	4.62	1.139	12.25	80.96

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7707)	Area	(ha)=	1.06
ID= 1 DT= 5.0 min	Total Imp (%)=	95.00	Dir. Conn. (%)= 95.00

Surface Area	(ha)=	1.01	0.05
Dep. Storage	(mm)=	2.00	5.00
Average Slope	(%)=	2.50	2.00
Length	(m)=	60.00	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.50	12.250	91.46	18.33	1.49
0.167	0.00	6.250	1.50	12.333	14.50	18.42	1.49
0.250	0.00	6.333	1.54	12.417	14.49	18.50	1.49
0.333	0.86	6.417	1.54	12.500	14.49	18.58	1.44
0.417	0.86	6.500	1.54	12.583	9.86	18.67	1.44
0.500	0.86	6.583	1.58	12.667	9.86	18.75	1.44
0.583	0.88	6.667	1.58	12.750	9.86	18.83	1.39
0.667	0.88	6.750	1.58	12.833	6.78	18.92	1.39
0.750	0.88	6.833	1.63	12.917	6.78	19.00	1.39
0.833	0.90	6.917	1.63	13.000	6.78	19.08	1.34
0.917	0.90	7.000	1.63	13.083	5.73	19.17	1.34
1.000	0.90	7.083	1.67	13.167	5.73	19.25	1.34
1.083	0.92	7.167	1.67	13.250	5.73	19.33	1.28
1.167	0.92	7.250	1.67	13.333	4.85	19.42	1.28
1.250	0.92	7.333	1.71	13.417	4.85	19.50	1.28
1.333	0.94	7.417	1.71	13.500	4.85	19.58	1.23
1.417	0.94	7.500	1.71	13.583	4.28	19.67	1.23
1.500	0.94	7.583	1.75	13.667	4.28	19.75	1.23
1.583	0.96	7.667	1.75	13.750	4.28	19.83	1.18
1.667	0.96	7.750	1.75	13.833	3.75	19.92	1.18
1.750	0.96	7.833	1.80	13.917	3.75	20.00	1.18
1.833	0.98	7.917	1.80	14.000	3.75	20.08	1.13



1.917	0.98	8.000	1.80	14.083	3.35	20.17	1.13
2.000	0.98	8.083	1.84	14.167	3.35	20.25	1.13
2.083	1.00	8.167	1.84	14.250	3.35	20.33	1.09
2.167	1.00	8.250	1.84	14.333	3.05	20.42	1.09
2.250	1.00	8.333	1.97	14.417	3.05	20.50	1.09
2.333	1.03	8.417	1.97	14.500	3.05	20.58	1.08
2.417	1.03	8.500	1.97	14.583	2.91	20.67	1.08
2.500	1.03	8.583	2.17	14.667	2.91	20.75	1.08
2.583	1.05	8.667	2.17	14.750	2.91	20.83	1.07
2.667	1.05	8.750	2.17	14.833	2.75	20.92	1.07
2.750	1.05	8.833	2.39	14.917	2.75	21.00	1.07
2.833	1.07	8.917	2.39	15.000	2.75	21.08	1.06
2.917	1.07	9.000	2.39	15.083	2.61	21.17	1.06
3.000	1.07	9.083	2.60	15.167	2.61	21.25	1.06
3.083	1.09	9.167	2.60	15.250	2.61	21.33	1.05
3.167	1.09	9.250	2.60	15.333	2.46	21.42	1.05
3.250	1.09	9.333	2.71	15.417	2.46	21.50	1.05
3.333	1.11	9.417	2.71	15.500	2.46	21.58	1.04
3.417	1.11	9.500	2.71	15.583	2.32	21.67	1.04
3.500	1.11	9.583	2.71	15.667	2.32	21.75	1.04
3.583	1.13	9.667	2.71	15.750	2.32	21.83	1.03
3.667	1.13	9.750	2.71	15.833	2.16	21.92	1.03
3.750	1.13	9.833	2.88	15.917	2.16	22.00	1.03
3.833	1.15	9.917	2.88	16.000	2.16	22.08	1.02
3.917	1.15	10.000	2.88	16.083	2.02	22.17	1.02
4.000	1.15	10.083	3.21	16.167	2.02	22.25	1.02
4.083	1.17	10.167	3.21	16.250	2.02	22.33	1.01
4.167	1.17	10.250	3.21	16.333	1.92	22.42	1.01
4.250	1.17	10.333	3.65	16.417	1.92	22.50	1.01
4.333	1.21	10.417	3.65	16.500	1.92	22.58	1.00
4.417	1.21	10.500	3.65	16.583	1.87	22.67	1.00
4.500	1.21	10.583	4.13	16.667	1.87	22.75	1.00
4.583	1.25	10.667	4.13	16.750	1.87	22.83	0.99
4.667	1.25	10.750	4.13	16.833	1.81	22.92	0.99
4.750	1.25	10.833	4.84	16.917	1.81	23.00	0.99
4.833	1.29	10.917	4.84	17.000	1.81	23.08	0.98
4.917	1.29	11.000	4.84	17.083	1.76	23.17	0.98
5.000	1.29	11.083	5.65	17.167	1.76	23.25	0.98
5.083	1.33	11.167	5.65	17.250	1.76	23.33	0.97
5.167	1.33	11.250	5.65	17.333	1.71	23.42	0.97
5.250	1.33	11.333	7.14	17.417	1.71	23.50	0.97
5.333	1.37	11.417	7.14	17.500	1.71	23.58	0.96
5.417	1.37	11.500	7.14	17.583	1.66	23.67	0.96
5.500	1.37	11.583	9.09	17.667	1.66	23.75	0.96
5.583	1.42	11.667	9.09	17.750	1.66	23.83	0.95
5.667	1.42	11.750	9.09	17.833	1.60	23.92	0.95
5.750	1.42	11.833	37.06	17.917	1.60	24.00	0.95
5.833	1.46	11.917	37.06	18.000	1.60	24.08	0.94
5.917	1.46	12.000	37.06	18.083	1.55	24.17	0.94
6.000	1.46	12.083	91.45	18.167	1.55	24.25	0.93
6.083	1.50	12.167	91.46	18.250	1.55		

Max.Eff.Inten.(mm/hr)=	91.46	49.94
over (min)	5.00	5.00
Storage Coeff. (min)=	1.48 (ii)	3.73 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.25

TOTALS

PEAK FLOW (cms)=	0.26	0.01	0.263 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	
RUNOFF VOLUME (mm)=	82.55	37.49	80.30
TOTAL RAINFALL (mm)=	84.55	84.55	
RUNOFF COEFFICIENT =	0.98	0.44	0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

1 + 2 = 3				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7623):	1.20	0.298	12.25	80.30
+ ID2= 2 (7700):	4.48	1.123	12.25	81.50

ID = 3 (7702):	5.68	1.421	12.25	81.25

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
3 + 2 = 1				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7702):	5.68	1.421	12.25	81.25
+ ID2= 2 (7701):	4.62	1.139	12.25	80.96

ID = 1 (7702):	10.30	2.560	12.25	81.12

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
1 + 2 = 3				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7702):	10.30	2.560	12.25	81.12
+ ID2= 2 (7707):	1.06	0.263	12.25	80.30

ID = 3 (7702):	11.36	2.823	12.25	81.04

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
3 + 2 = 1				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7702):	11.36	2.823	12.25	81.04
+ ID2= 2 (7714):	14.31	1.557	12.25	83.07

ID = 1 (7702):	25.67	4.380	12.25	82.17

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7705)			
OVERFLOW IS OFF			
IN= 2--> OUT= 1			
DT= 5.0 min			
OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.6280	2.3980
0.0730	0.2080	0.6400	2.4830
0.0890	0.2770	0.6520	2.5670
0.1340	0.5530	0.6640	2.6500
0.2910	0.8290	0.6750	2.7340
0.3860	1.1060	0.7190	3.0490
0.4590	1.3820	0.8250	3.3550
0.5220	1.7210	2.0760	3.4560
0.5780	2.0600	2.3560	3.7320

INFLOW : ID= 2 (7702)	25.670	4.380	12.25	82.17
OUTFLOW: ID= 1 (7705)	25.670	0.331	15.08	82.14

PEAK FLOW REDUCTION [Qout/Qin](%)= 7.55
TIME SHIFT OF PEAK FLOW (min)=170.00
MAXIMUM STORAGE USED (ha.m.)= 0.9447

CALIB			
STANDHYD (7716)			
Area (ha)=	0.19		
ID= 1 DT= 5.0 min	Total Imp(%)=	95.00	Dir. Conn.(%)= 95.00

IMPERVIOUS PERVIOUS (i)



Surface Area (ha)= 0.18 0.01
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 2.50 2.00
 Length (m)= 60.00 40.00
 Mannings n = 0.013 0.250

5.417 1.37 |11.500 7.14 |17.583 1.66 | 23.67 0.96
 5.500 1.37 |11.583 9.09 |17.667 1.66 | 23.75 0.96
 5.583 1.42 |11.667 9.09 |17.750 1.66 | 23.83 0.95
 5.667 1.42 |11.750 9.09 |17.833 1.60 | 23.92 0.95
 5.750 1.42 |11.833 37.06 |17.917 1.60 | 24.00 0.95
 5.833 1.46 |11.917 37.06 |18.000 1.60 | 24.08 0.94
 5.917 1.46 |12.000 37.06 |18.083 1.55 | 24.17 0.94
 6.000 1.46 |12.083 91.45 |18.167 1.55 | 24.25 0.93
 6.083 1.50 |12.167 91.46 |18.250 1.55 |

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.50	12.250	91.46	18.33	1.49
0.167	0.00	6.250	1.50	12.333	14.50	18.42	1.49
0.250	0.00	6.333	1.54	12.417	14.49	18.50	1.49
0.333	0.86	6.417	1.54	12.500	14.49	18.58	1.44
0.417	0.86	6.500	1.54	12.583	9.86	18.67	1.44
0.500	0.86	6.583	1.58	12.667	9.86	18.75	1.44
0.583	0.88	6.667	1.58	12.750	9.86	18.83	1.39
0.667	0.88	6.750	1.58	12.833	6.78	18.92	1.39
0.750	0.88	6.833	1.63	12.917	6.78	19.00	1.39
0.833	0.90	6.917	1.63	13.000	6.78	19.08	1.34
0.917	0.90	7.000	1.63	13.083	5.73	19.17	1.34
1.000	0.90	7.083	1.67	13.167	5.73	19.25	1.34
1.083	0.92	7.167	1.67	13.250	5.73	19.33	1.28
1.167	0.92	7.250	1.67	13.333	4.85	19.42	1.28
1.250	0.92	7.333	1.71	13.417	4.85	19.50	1.28
1.333	0.94	7.417	1.71	13.500	4.85	19.58	1.23
1.417	0.94	7.500	1.71	13.583	4.28	19.67	1.23
1.500	0.94	7.583	1.75	13.667	4.28	19.75	1.23
1.583	0.96	7.667	1.75	13.750	4.28	19.83	1.18
1.667	0.96	7.750	1.75	13.833	3.75	19.92	1.18
1.750	0.96	7.833	1.80	13.917	3.75	20.00	1.18
1.833	0.98	7.917	1.80	14.000	3.75	20.08	1.13
1.917	0.98	8.000	1.80	14.083	3.35	20.17	1.13
2.000	0.98	8.083	1.84	14.167	3.35	20.25	1.13
2.083	1.00	8.167	1.84	14.250	3.35	20.33	1.09
2.167	1.00	8.250	1.84	14.333	3.05	20.42	1.09
2.250	1.00	8.333	1.97	14.417	3.05	20.50	1.09
2.333	1.03	8.417	1.97	14.500	3.05	20.58	1.08
2.417	1.03	8.500	1.97	14.583	2.91	20.67	1.08
2.500	1.03	8.583	2.17	14.667	2.91	20.75	1.08
2.583	1.05	8.667	2.17	14.750	2.91	20.83	1.07
2.667	1.05	8.750	2.17	14.833	2.75	20.92	1.07
2.750	1.05	8.833	2.39	14.917	2.75	21.00	1.07
2.833	1.07	8.917	2.39	15.000	2.75	21.08	1.06
2.917	1.07	9.000	2.39	15.083	2.61	21.17	1.06
3.000	1.07	9.083	2.60	15.167	2.61	21.25	1.06
3.083	1.09	9.167	2.60	15.250	2.61	21.33	1.05
3.167	1.09	9.250	2.60	15.333	2.46	21.42	1.05
3.250	1.09	9.333	2.71	15.417	2.46	21.50	1.05
3.333	1.11	9.417	2.71	15.500	2.46	21.58	1.04
3.417	1.11	9.500	2.71	15.583	2.32	21.67	1.04
3.500	1.11	9.583	2.71	15.667	2.32	21.75	1.04
3.583	1.13	9.667	2.71	15.750	2.32	21.83	1.03
3.667	1.13	9.750	2.71	15.833	2.16	21.92	1.03
3.750	1.13	9.833	2.88	15.917	2.16	22.00	1.03
3.833	1.15	9.917	2.88	16.000	2.16	22.08	1.02
3.917	1.15	10.000	2.88	16.083	2.02	22.17	1.02
4.000	1.15	10.083	3.21	16.167	2.02	22.25	1.02
4.083	1.17	10.167	3.21	16.250	2.02	22.33	1.01
4.167	1.17	10.250	3.21	16.333	1.92	22.42	1.01
4.250	1.17	10.333	3.65	16.417	1.92	22.50	1.01
4.333	1.21	10.417	3.65	16.500	1.92	22.58	1.00
4.417	1.21	10.500	3.65	16.583	1.87	22.67	1.00
4.500	1.21	10.583	4.13	16.667	1.87	22.75	1.00
4.583	1.25	10.667	4.13	16.750	1.87	22.83	0.99
4.667	1.25	10.750	4.13	16.833	1.81	22.92	0.99
4.750	1.25	10.833	4.84	16.917	1.81	23.00	0.99
4.833	1.29	10.917	4.84	17.000	1.81	23.08	0.98
4.917	1.29	11.000	4.84	17.083	1.76	23.17	0.98
5.000	1.29	11.083	5.65	17.167	1.76	23.25	0.98
5.083	1.33	11.167	5.65	17.250	1.76	23.33	0.97
5.167	1.33	11.250	5.65	17.333	1.71	23.42	0.97
5.250	1.33	11.333	7.14	17.417	1.71	23.50	0.97
5.333	1.37	11.417	7.14	17.500	1.71	23.58	0.96

Max.Eff.Inten.(mm/hr)= 91.46 49.94
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 1.48 (ii) 3.73 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.25

TOTALS
 PEAK FLOW (cms)= 0.05 0.00 0.047 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25
 RUNOFF VOLUME (mm)= 82.55 37.49 80.29
 TOTAL RAINFALL (mm)= 84.55 84.55
 RUNOFF COEFFICIENT = 0.98 0.44 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7720)		OVERFLOW IS OFF	
IN= 2--> OUT= 1	DT= 5.0 min	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.0100	0.0090
0.0030	0.0010	0.0110	0.0100
0.0050	0.0030	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7716)	0.190	0.047	12.25	80.29
OUTFLOW: ID= 1 (7720)	0.190	0.009	12.33	79.90

PEAK FLOW REDUCTION [Qout/Qin] (%) = 18.97
 TIME SHIFT OF PEAK FLOW (min) = 5.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0060

CALIB		STANDHYD (7717)	
Area (ha)	Total Imp (%)	Dir. Conn. (%)	
0.20	95.00	95.00	

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	0.19	0.01
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	2.50	2.00
Length (m)	36.51	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.50	12.250	91.46	18.33	1.49
0.167	0.00	6.250	1.50	12.333	14.50	18.42	1.49
0.250	0.00	6.333	1.54	12.417	14.49	18.50	1.49
0.333	0.86	6.417	1.54	12.500	14.49	18.58	1.44



0.417	0.86	6.500	1.54	12.583	9.86	18.67	1.44
0.500	0.86	6.583	1.58	12.667	9.86	18.75	1.44
0.583	0.88	6.667	1.58	12.750	9.86	18.83	1.39
0.667	0.88	6.750	1.58	12.833	6.78	18.92	1.39
0.750	0.88	6.833	1.63	12.917	6.78	19.00	1.39
0.833	0.90	6.917	1.63	13.000	6.78	19.08	1.34
0.917	0.90	7.000	1.63	13.083	5.73	19.17	1.34
1.000	0.90	7.083	1.67	13.167	5.73	19.25	1.34
1.083	0.92	7.167	1.67	13.250	5.73	19.33	1.28
1.167	0.92	7.250	1.67	13.333	4.85	19.42	1.28
1.250	0.92	7.333	1.71	13.417	4.85	19.50	1.28
1.333	0.94	7.417	1.71	13.500	4.85	19.58	1.23
1.417	0.94	7.500	1.71	13.583	4.28	19.67	1.23
1.500	0.94	7.583	1.75	13.667	4.28	19.75	1.23
1.583	0.96	7.667	1.75	13.750	4.28	19.83	1.18
1.667	0.96	7.750	1.75	13.833	3.75	19.92	1.18
1.750	0.96	7.833	1.80	13.917	3.75	20.00	1.18
1.833	0.98	7.917	1.80	14.000	3.75	20.08	1.13
1.917	0.98	8.000	1.80	14.083	3.35	20.17	1.13
2.000	0.98	8.083	1.84	14.167	3.35	20.25	1.13
2.083	1.00	8.167	1.84	14.250	3.35	20.33	1.09
2.167	1.00	8.250	1.84	14.333	3.05	20.42	1.09
2.250	1.00	8.333	1.97	14.417	3.05	20.50	1.09
2.333	1.03	8.417	1.97	14.500	3.05	20.58	1.08
2.417	1.03	8.500	1.97	14.583	2.91	20.67	1.08
2.500	1.03	8.583	2.17	14.667	2.91	20.75	1.08
2.583	1.05	8.667	2.17	14.750	2.91	20.83	1.07
2.667	1.05	8.750	2.17	14.833	2.75	20.92	1.07
2.750	1.05	8.833	2.39	14.917	2.75	21.00	1.07
2.833	1.07	8.917	2.39	15.000	2.75	21.08	1.06
2.917	1.07	9.000	2.39	15.083	2.61	21.17	1.06
3.000	1.07	9.083	2.60	15.167	2.61	21.25	1.06
3.083	1.09	9.167	2.60	15.250	2.61	21.33	1.05
3.167	1.09	9.250	2.60	15.333	2.46	21.42	1.05
3.250	1.09	9.333	2.71	15.417	2.46	21.50	1.05
3.333	1.11	9.417	2.71	15.500	2.46	21.58	1.04
3.417	1.11	9.500	2.71	15.583	2.32	21.67	1.04
3.500	1.11	9.583	2.71	15.667	2.32	21.75	1.04
3.583	1.13	9.667	2.71	15.750	2.32	21.83	1.03
3.667	1.13	9.750	2.71	15.833	2.16	21.92	1.03
3.750	1.13	9.833	2.88	15.917	2.16	22.00	1.03
3.833	1.15	9.917	2.88	16.000	2.16	22.08	1.02
3.917	1.15	10.000	2.88	16.083	2.02	22.17	1.02
4.000	1.15	10.083	3.21	16.167	2.02	22.25	1.02
4.083	1.17	10.167	3.21	16.250	2.02	22.33	1.01
4.167	1.17	10.250	3.21	16.333	1.92	22.42	1.01
4.250	1.17	10.333	3.65	16.417	1.92	22.50	1.01
4.333	1.21	10.417	3.65	16.500	1.92	22.58	1.00
4.417	1.21	10.500	3.65	16.583	1.87	22.67	1.00
4.500	1.21	10.583	4.13	16.667	1.87	22.75	1.00
4.583	1.25	10.667	4.13	16.750	1.87	22.83	0.99
4.667	1.25	10.750	4.13	16.833	1.81	22.92	0.99
4.750	1.25	10.833	4.84	16.917	1.81	23.00	0.99
4.833	1.29	10.917	4.84	17.000	1.81	23.08	0.98
4.917	1.29	11.000	4.84	17.083	1.76	23.17	0.98
5.000	1.29	11.083	5.65	17.167	1.76	23.25	0.98
5.083	1.33	11.167	5.65	17.250	1.76	23.33	0.97
5.167	1.33	11.250	5.65	17.333	1.71	23.42	0.97
5.250	1.33	11.333	7.14	17.417	1.71	23.50	0.97
5.333	1.37	11.417	7.14	17.500	1.71	23.58	0.96
5.417	1.37	11.500	7.14	17.583	1.66	23.67	0.96
5.500	1.37	11.583	9.09	17.667	1.66	23.75	0.96
5.583	1.42	11.667	9.09	17.750	1.66	23.83	0.95
5.667	1.42	11.750	9.09	17.833	1.60	23.92	0.95
5.750	1.42	11.833	37.06	17.917	1.60	24.00	0.95
5.833	1.46	11.917	37.06	18.000	1.60	24.08	0.94
5.917	1.46	12.000	37.06	18.083	1.55	24.17	0.94
6.000	1.46	12.083	91.45	18.167	1.55	24.25	0.93
6.083	1.50	12.167	91.46	18.250	1.55		

Max.Eff.Inten. (mm/hr)= 91.46 49.94
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.10 (ii) 3.35 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.26

TOTALS

PEAK FLOW (cms)= 0.05 0.00 0.050 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 82.55 37.49 80.30
 TOTAL RAINFALL (mm)= 84.55 84.55 84.55
 RUNOFF COEFFICIENT = 0.98 0.44 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | RESERVOIR (7719) | OVERFLOW IS OFF
 | IN= 2--> OUT= 1 |
 | DT= 5.0 min |

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.0100	0.0090
0.0030	0.0010	0.0110	0.0100
0.0050	0.0030	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

INFLOW : ID= 2 (7717)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
0.200	0.200	0.050	12.25	80.30

OUTFLOW: ID= 1 (7719)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
0.200	0.200	0.009	12.33	79.90

PEAK FLOW REDUCTION [Qout/Qin](%) = 18.12
 TIME SHIFT OF PEAK FLOW (min) = 5.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0063

 | ADD HYD (7706) |
 | 1 + 2 = 3 |

ID	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7705):	25.67	0.331	15.08	82.14
+ ID2= 2 (7719):	0.20	0.009	12.33	79.90
=====				
ID = 3 (7706):	25.87	0.335	14.75	82.13

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7706) |
 | 3 + 2 = 1 |

ID	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (7706):	25.87	0.335	14.75	82.13
+ ID2= 2 (7720):	0.19	0.009	12.33	79.90
=====				
ID = 1 (7706):	26.06	0.340	14.33	82.11

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALLIB |
 | STRANDHYD (7595) | Area (ha)= 1.24
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.23	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	91.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.



---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.50	12.250	91.46	18.33	1.49
0.167	0.00	6.250	1.50	12.333	14.50	18.42	1.49
0.250	0.00	6.333	1.54	12.417	14.49	18.50	1.49
0.333	0.86	6.417	1.54	12.500	14.49	18.58	1.44
0.417	0.86	6.500	1.58	12.583	9.86	18.67	1.44
0.500	0.86	6.583	1.58	12.667	9.86	18.75	1.44
0.583	0.88	6.667	1.58	12.750	9.86	18.83	1.39
0.667	0.88	6.750	1.58	12.833	6.78	18.92	1.39
0.750	0.88	6.833	1.63	12.917	6.78	19.00	1.39
0.833	0.90	6.917	1.63	13.000	6.78	19.08	1.34
0.917	0.90	7.000	1.63	13.083	5.73	19.17	1.34
1.000	0.90	7.083	1.67	13.167	5.73	19.25	1.34
1.083	0.92	7.167	1.67	13.250	5.73	19.33	1.28
1.167	0.92	7.250	1.67	13.333	4.85	19.42	1.28
1.250	0.92	7.333	1.71	13.417	4.85	19.50	1.28
1.333	0.94	7.417	1.71	13.500	4.85	19.58	1.23
1.417	0.94	7.500	1.71	13.583	4.28	19.67	1.23
1.500	0.94	7.583	1.75	13.667	4.28	19.75	1.23
1.583	0.96	7.667	1.75	13.750	4.28	19.83	1.18
1.667	0.96	7.750	1.75	13.833	3.75	19.92	1.18
1.750	0.96	7.833	1.80	13.917	3.75	20.00	1.18
1.833	0.98	7.917	1.80	14.000	3.75	20.08	1.13
1.917	0.98	8.000	1.80	14.083	3.35	20.17	1.13
2.000	0.98	8.083	1.84	14.167	3.35	20.25	1.13
2.083	1.00	8.167	1.84	14.250	3.35	20.33	1.09
2.167	1.00	8.250	1.84	14.333	3.05	20.42	1.09
2.250	1.00	8.333	1.97	14.417	3.05	20.50	1.09
2.333	1.03	8.417	1.97	14.500	3.05	20.58	1.08
2.417	1.03	8.500	1.97	14.583	2.91	20.67	1.08
2.500	1.03	8.583	2.17	14.667	2.91	20.75	1.08
2.583	1.05	8.667	2.17	14.750	2.91	20.83	1.07
2.667	1.05	8.750	2.17	14.833	2.75	20.92	1.07
2.750	1.05	8.833	2.39	14.917	2.75	21.00	1.07
2.833	1.07	8.917	2.39	15.000	2.75	21.08	1.06
2.917	1.07	9.000	2.39	15.083	2.61	21.17	1.06
3.000	1.07	9.083	2.60	15.167	2.61	21.25	1.06
3.083	1.09	9.167	2.60	15.250	2.61	21.33	1.05
3.167	1.09	9.250	2.60	15.333	2.46	21.42	1.05
3.250	1.09	9.333	2.71	15.417	2.46	21.50	1.05
3.333	1.11	9.417	2.71	15.500	2.46	21.58	1.04
3.417	1.11	9.500	2.71	15.583	2.32	21.67	1.04
3.500	1.11	9.583	2.71	15.667	2.32	21.75	1.04
3.583	1.13	9.667	2.71	15.750	2.32	21.83	1.03
3.667	1.13	9.750	2.71	15.833	2.16	21.92	1.03
3.750	1.13	9.833	2.88	15.917	2.16	22.00	1.03
3.833	1.15	9.917	2.88	16.000	2.16	22.08	1.02
3.917	1.15	10.000	2.88	16.083	2.02	22.17	1.02
4.000	1.15	10.083	3.21	16.167	2.02	22.25	1.02
4.083	1.17	10.167	3.21	16.250	2.02	22.33	1.01
4.167	1.17	10.250	3.21	16.333	1.92	22.42	1.01
4.250	1.17	10.333	3.65	16.417	1.92	22.50	1.01
4.333	1.21	10.417	3.65	16.500	1.92	22.58	1.00
4.417	1.21	10.500	3.65	16.583	1.87	22.67	1.00
4.500	1.21	10.583	4.13	16.667	1.87	22.75	1.00
4.583	1.25	10.667	4.13	16.750	1.87	22.83	0.99
4.667	1.25	10.750	4.13	16.833	1.81	22.92	0.99
4.750	1.25	10.833	4.84	16.917	1.81	23.00	0.99
4.833	1.29	10.917	4.84	17.000	1.81	23.08	0.98
4.917	1.29	11.000	4.84	17.083	1.76	23.17	0.98
5.000	1.29	11.083	5.65	17.167	1.76	23.25	0.98
5.083	1.33	11.167	5.65	17.250	1.76	23.33	0.97
5.167	1.33	11.250	5.65	17.333	1.71	23.42	0.97
5.250	1.33	11.333	7.14	17.417	1.71	23.50	0.97
5.333	1.37	11.417	7.14	17.500	1.71	23.58	0.96
5.417	1.37	11.500	7.14	17.583	1.66	23.67	0.96
5.500	1.37	11.583	9.09	17.667	1.66	23.75	0.96
5.583	1.42	11.667	9.09	17.750	1.66	23.83	0.95
5.667	1.42	11.750	9.09	17.833	1.60	23.92	0.95
5.750	1.42	11.833	37.06	17.917	1.60	24.00	0.95
5.833	1.46	11.917	37.06	18.000	1.60	24.08	0.94
5.917	1.46	12.000	37.06	18.083	1.55	24.17	0.94
6.000	1.46	12.083	91.45	18.167	1.55	24.25	0.93

6.083 1.50 |12.167 91.46 |18.250 1.55 |

Max.Eff.Inten.(mm/hr)=	91.46	48.56	
over (min)	5.00	5.00	
Storage Coeff. (min)=	2.03 (ii)	3.20 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.31	0.27	
PEAK FLOW (cms)=	0.31	0.00	*TOTALS*
TIME TO PEAK (hrs)=	12.25	12.25	0.314 (iii)
RUNOFF VOLUME (mm)=	82.55	36.47	12.25
TOTAL RAINFALL (mm)=	84.55	84.55	82.09
RUNOFF COEFFICIENT =	0.98	0.43	84.55
			0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7718)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
-----	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7595):	1.24	0.314	12.25	82.09
+ ID2= 2 (7706):	26.06	0.340	14.33	82.11

ID = 3 (7718):	27.30	0.583	12.25	82.11

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7711)	OVERFLOW IS OFF			
IN= 2---> OUT= 1				
DT= 5.0 min	OUTFLOW	STORAGE	OUTFLOW	STORAGE
-----	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	1.0810	1.6220
	0.0010	0.1670	1.3950	1.8170
	0.0340	0.3380	2.0990	2.2130
	0.0510	0.5110	2.8950	2.6150
	0.0630	0.6880	3.7730	3.0250
	0.1610	0.8670	4.7260	3.4420
	0.3300	1.0500	5.5670	3.8670
	0.5440	1.2370	8.5800	4.3000
	0.7970	1.4290	10.9450	4.5210
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7718)	27.302	0.583	12.25	82.11
OUTFLOW: ID= 1 (7711)	27.302	0.247	22.25	76.60
	PEAK FLOW REDUCTION [Qout/Qin](%)=	42.39		
	TIME SHIFT OF PEAK FLOW	(min)=600.00		
	MAXIMUM STORAGE USED	(ha.m.)= 0.9602		



```

=====
*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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6.00 1.64 | 12.25 15.86 | 18.50 1.58 |

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-----
| CALIB |
| STANDHYD ( 7640) | Area (ha)= 0.59
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----

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-----
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.58 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 62.72 40.00
Mannings n = 0.013 0.250
-----

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\fe744404-90c6-405f-9ad7-cb586989a2fc\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\fe744404-90c6-405f-9ad7-cb586989a2fc\scen

```

DATE: 11-22-2024 TIME: 12:17:37

USER:

COMMENTS: _____

```

*****
** SIMULATION : Q - 50yr 24hr 15min SCS Type **
*****

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-----
| READ STORM | Filename: C:\Users\mhooper\AppData
| | ata\Local\Temp\
| | 23be32ce-1a71-4aef-a5bf-302738051fdc\57f109fa
| Total= 92.53 mm | Comments: 50yr 24hr 15min SCS Type II
-----

```

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.64	12.250	100.09	18.33	1.64
0.167	0.00	6.250	1.64	12.333	15.87	18.42	1.64
0.250	0.00	6.333	1.69	12.417	15.86	18.50	1.64
0.333	0.94	6.417	1.69	12.500	15.86	18.58	1.58
0.417	0.94	6.500	1.69	12.583	10.79	18.67	1.58
0.500	0.94	6.583	1.73	12.667	10.79	18.75	1.58
0.583	0.96	6.667	1.73	12.750	10.79	18.83	1.52
0.667	0.96	6.750	1.73	12.833	7.43	18.92	1.52
0.750	0.96	6.833	1.78	12.917	7.42	19.00	1.52
0.833	0.98	6.917	1.78	13.000	7.42	19.08	1.46
0.917	0.98	7.000	1.78	13.083	6.27	19.17	1.46
1.000	0.98	7.083	1.83	13.167	6.27	19.25	1.46
1.083	1.00	7.167	1.83	13.250	6.27	19.33	1.40
1.167	1.00	7.250	1.83	13.333	5.31	19.42	1.40
1.250	1.00	7.333	1.87	13.417	5.31	19.50	1.40
1.333	1.03	7.417	1.87	13.500	5.31	19.58	1.35
1.417	1.03	7.500	1.87	13.583	4.69	19.67	1.35
1.500	1.03	7.583	1.92	13.667	4.69	19.75	1.35
1.583	1.05	7.667	1.92	13.750	4.69	19.83	1.29
1.667	1.05	7.750	1.92	13.833	4.11	19.92	1.29
1.750	1.05	7.833	1.97	13.917	4.11	20.00	1.29
1.833	1.08	7.917	1.97	14.000	4.11	20.08	1.23
1.917	1.08	8.000	1.97	14.083	3.66	20.17	1.23
2.000	1.08	8.083	2.01	14.167	3.66	20.25	1.23
2.083	1.10	8.167	2.01	14.250	3.66	20.33	1.20
2.167	1.10	8.250	2.01	14.333	3.34	20.42	1.20
2.250	1.10	8.333	2.16	14.417	3.34	20.50	1.20
2.333	1.12	8.417	2.16	14.500	3.34	20.58	1.19
2.417	1.12	8.500	2.16	14.583	3.18	20.67	1.19
2.500	1.12	8.583	2.38	14.667	3.18	20.75	1.19
2.583	1.15	8.667	2.38	14.750	3.18	20.83	1.17
2.667	1.15	8.750	2.38	14.833	3.01	20.92	1.17
2.750	1.15	8.833	2.62	14.917	3.01	21.00	1.17
2.833	1.17	8.917	2.62	15.000	3.01	21.08	1.16
2.917	1.17	9.000	2.62	15.083	2.86	21.17	1.16
3.000	1.17	9.083	2.84	15.167	2.86	21.25	1.16
3.083	1.19	9.167	2.84	15.250	2.86	21.33	1.15
3.167	1.19	9.250	2.84	15.333	2.69	21.42	1.15
3.250	1.19	9.333	2.96	15.417	2.69	21.50	1.15
3.333	1.22	9.417	2.96	15.500	2.69	21.58	1.14
3.417	1.22	9.500	2.96	15.583	2.54	21.67	1.14
3.500	1.22	9.583	2.96	15.667	2.54	21.75	1.14
3.583	1.24	9.667	2.96	15.750	2.54	21.83	1.13
3.667	1.24	9.750	2.96	15.833	2.37	21.92	1.13
3.750	1.24	9.833	3.15	15.917	2.37	22.00	1.13
3.833	1.26	9.917	3.15	16.000	2.37	22.08	1.12
3.917	1.26	10.000	3.15	16.083	2.21	22.17	1.12
4.000	1.26	10.083	3.51	16.167	2.21	22.25	1.12
4.083	1.28	10.167	3.51	16.250	2.21	22.33	1.10
4.167	1.28	10.250	3.51	16.333	2.10	22.42	1.10
4.250	1.28	10.333	3.99	16.417	2.10	22.50	1.10
4.333	1.32	10.417	3.99	16.500	2.10	22.58	1.09
4.417	1.32	10.500	3.99	16.583	2.04	22.67	1.09
4.500	1.32	10.583	4.52	16.667	2.04	22.75	1.09



4.583	1.36	10.667	4.52	16.750	2.04	22.83	1.08
4.667	1.36	10.750	4.52	16.833	1.98	22.92	1.08
4.750	1.36	10.833	5.29	16.917	1.98	23.00	1.08
4.833	1.41	10.917	5.29	17.000	1.98	23.08	1.07
4.917	1.41	11.000	5.29	17.083	1.93	23.17	1.07
5.000	1.41	11.083	6.18	17.167	1.93	23.25	1.07
5.083	1.46	11.167	6.18	17.250	1.93	23.33	1.06
5.167	1.46	11.250	6.18	17.333	1.87	23.42	1.06
5.250	1.46	11.333	7.82	17.417	1.87	23.50	1.06
5.333	1.50	11.417	7.82	17.500	1.87	23.58	1.05
5.417	1.50	11.500	7.82	17.583	1.81	23.67	1.05
5.500	1.50	11.583	9.95	17.667	1.81	23.75	1.05
5.583	1.55	11.667	9.95	17.750	1.81	23.83	1.03
5.667	1.55	11.750	9.95	17.833	1.75	23.92	1.03
5.750	1.55	11.833	40.55	17.917	1.75	24.00	1.03
5.833	1.60	11.917	40.56	18.000	1.75	24.08	1.02
5.917	1.60	12.000	40.56	18.083	1.70	24.17	1.02
6.000	1.60	12.083	100.08	18.167	1.70	24.25	1.02
6.083	1.64	12.167	100.09	18.250	1.70		

2.000	1.08	8.083	2.01	14.167	3.66	20.25	1.23
2.083	1.10	8.167	2.01	14.250	3.66	20.33	1.20
2.167	1.10	8.250	2.01	14.333	3.34	20.42	1.20
2.250	1.10	8.333	2.16	14.417	3.34	20.50	1.20
2.333	1.12	8.417	2.16	14.500	3.34	20.58	1.19
2.417	1.12	8.500	2.16	14.583	3.18	20.67	1.19
2.500	1.12	8.583	2.38	14.667	3.18	20.75	1.19
2.583	1.15	8.667	2.38	14.750	3.18	20.83	1.17
2.667	1.15	8.750	2.38	14.833	3.01	20.92	1.17
2.750	1.15	8.833	2.62	14.917	3.01	21.00	1.17
2.833	1.17	8.917	2.62	15.000	3.01	21.08	1.16
2.917	1.17	9.000	2.62	15.083	2.86	21.17	1.16
3.000	1.17	9.083	2.84	15.167	2.86	21.25	1.16
3.083	1.19	9.167	2.84	15.250	2.86	21.33	1.15
3.167	1.19	9.250	2.84	15.333	2.69	21.42	1.15
3.250	1.19	9.333	2.96	15.417	2.69	21.50	1.15
3.333	1.22	9.417	2.96	15.500	2.69	21.58	1.14
3.417	1.22	9.500	2.96	15.583	2.54	21.67	1.14
3.500	1.22	9.583	2.96	15.667	2.54	21.75	1.14
3.583	1.24	9.667	2.96	15.750	2.54	21.83	1.13
3.667	1.24	9.750	2.96	15.833	2.37	21.92	1.13
3.750	1.24	9.833	3.15	15.917	2.37	22.00	1.13
3.833	1.26	9.917	3.15	16.000	2.37	22.08	1.12
3.917	1.26	10.000	3.15	16.083	2.21	22.17	1.12
4.000	1.26	10.083	3.51	16.167	2.21	22.25	1.12
4.083	1.28	10.167	3.51	16.250	2.21	22.33	1.10
4.167	1.28	10.250	3.51	16.333	2.10	22.42	1.10
4.250	1.28	10.333	3.99	16.417	2.10	22.50	1.10
4.333	1.32	10.417	3.99	16.500	2.10	22.58	1.09
4.417	1.32	10.500	3.99	16.583	2.04	22.67	1.09
4.500	1.32	10.583	4.52	16.667	2.04	22.75	1.09
4.583	1.36	10.667	4.52	16.750	2.04	22.83	1.08
4.667	1.36	10.750	4.52	16.833	1.98	22.92	1.08
4.750	1.36	10.833	5.29	16.917	1.98	23.00	1.08
4.833	1.41	10.917	5.29	17.000	1.98	23.08	1.07
4.917	1.41	11.000	5.29	17.083	1.93	23.17	1.07
5.000	1.41	11.083	6.18	17.167	1.93	23.25	1.07
5.083	1.46	11.167	6.18	17.250	1.93	23.33	1.06
5.167	1.46	11.250	6.18	17.333	1.87	23.42	1.06
5.250	1.46	11.333	7.82	17.417	1.87	23.50	1.06
5.333	1.50	11.417	7.82	17.500	1.87	23.58	1.05
5.417	1.50	11.500	7.82	17.583	1.81	23.67	1.05
5.500	1.50	11.583	9.95	17.667	1.81	23.75	1.05
5.583	1.55	11.667	9.95	17.750	1.81	23.83	1.03
5.667	1.55	11.750	9.95	17.833	1.75	23.92	1.03
5.750	1.55	11.833	40.55	17.917	1.75	24.00	1.03
5.833	1.60	11.917	40.56	18.000	1.75	24.08	1.02
5.917	1.60	12.000	40.56	18.083	1.70	24.17	1.02
6.000	1.60	12.083	100.08	18.167	1.70	24.25	1.02
6.083	1.64	12.167	100.09	18.250	1.70		

Max.Eff.Inten.(mm/hr)= 100.09 56.10
 over (min) = 5.00 5.00
 Storage Coeff. (min) = 1.57 (ii) 2.69 (iii)
 Unit Hyd. Tpeak (min) = 5.00 5.00
 Unit Hyd. peak (cms) = 0.33 0.29

PEAK FLOW (cms) = 0.16 0.00
 TIME TO PEAK (hrs) = 12.25 12.25
 RUNOFF VOLUME (mm) = 90.53 90.04
 TOTAL RAINFALL (mm) = 92.53 92.53
 RUNOFF COEFFICIENT = 0.98 0.46

TOTALS
 0.163 (iii)
 12.25 (iii)
 90.04
 92.53
 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | NASHYD (7721) | Area (ha) = 0.21 Curve Number (CN) = 73.0
 | ID= 1 DT= 5.0 min | Ia (mm) = 5.00 # of Linear Res. (N) = 3.00
 |-----| U.H. Tp (hrs) = 0.17

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.64	12.250	100.09	18.33	1.64
0.167	0.00	6.250	1.64	12.333	15.87	18.42	1.64
0.250	0.00	6.333	1.69	12.417	15.86	18.50	1.64
0.333	0.94	6.417	1.69	12.500	15.86	18.58	1.58
0.417	0.94	6.500	1.69	12.583	10.79	18.67	1.58
0.500	0.94	6.583	1.73	12.667	10.79	18.75	1.58
0.583	0.96	6.667	1.73	12.750	10.79	18.83	1.52
0.667	0.96	6.750	1.73	12.833	7.43	18.92	1.52
0.750	0.96	6.833	1.78	12.917	7.42	19.00	1.52
0.833	0.98	6.917	1.78	13.000	7.42	19.08	1.46
0.917	0.98	7.000	1.78	13.083	6.27	19.17	1.46
1.000	0.98	7.083	1.83	13.167	6.27	19.25	1.46
1.083	1.00	7.167	1.83	13.250	6.27	19.33	1.40
1.167	1.00	7.250	1.83	13.333	5.31	19.42	1.40
1.250	1.00	7.333	1.87	13.417	5.31	19.50	1.40
1.333	1.03	7.417	1.87	13.500	5.31	19.58	1.35
1.417	1.03	7.500	1.87	13.583	4.69	19.67	1.35
1.500	1.03	7.583	1.92	13.667	4.69	19.75	1.35
1.583	1.05	7.667	1.92	13.750	4.69	19.83	1.29
1.667	1.05	7.750	1.92	13.833	4.11	19.92	1.29
1.750	1.05	7.833	1.97	13.917	4.11	20.00	1.29
1.833	1.08	7.917	1.97	14.000	4.11	20.08	1.23
1.917	1.08	8.000	1.97	14.083	3.66	20.17	1.23

Unit Hyd Qpeak (cms) = 0.047

PEAK FLOW (cms) = 0.023 (i)
 TIME TO PEAK (hrs) = 12.250
 RUNOFF VOLUME (mm) = 42.065
 TOTAL RAINFALL (mm) = 92.530
 RUNOFF COEFFICIENT = 0.455

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STRANDHYD (7599) | Area (ha) = 10.90
 | ID= 1 DT= 5.0 min | Total Imp(%) = 99.00 Dir. Conn.(%) = 99.00
 |-----|

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	10.79	0.11
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	1.00	2.00
Length (m)	269.57	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.64	12.250	100.09	18.33	1.64
0.167	0.00	6.250	1.64	12.333	15.87	18.42	1.64
0.250	0.00	6.333	1.69	12.417	15.86	18.50	1.64
0.333	0.94	6.417	1.69	12.500	15.86	18.58	1.58
0.417	0.94	6.500	1.69	12.583	10.79	18.67	1.58
0.500	0.94	6.583	1.73	12.667	10.79	18.75	1.58
0.583	0.96	6.667	1.73	12.750	10.79	18.83	1.52
0.667	0.96	6.750	1.73	12.833	7.43	18.92	1.52
0.750	0.96	6.833	1.78	12.917	7.42	19.00	1.52
0.833	0.98	6.917	1.78	13.000	7.42	19.08	1.46
0.917	0.98	7.000	1.78	13.083	6.27	19.17	1.46
1.000	0.98	7.083	1.83	13.167	6.27	19.25	1.46
1.083	1.00	7.167	1.83	13.250	6.27	19.33	1.40
1.167	1.00	7.250	1.83	13.333	5.31	19.42	1.40
1.250	1.00	7.333	1.87	13.417	5.31	19.50	1.40
1.333	1.03	7.417	1.87	13.500	5.31	19.58	1.35
1.417	1.03	7.500	1.87	13.583	4.69	19.67	1.35
1.500	1.03	7.583	1.92	13.667	4.69	19.75	1.35
1.583	1.05	7.667	1.92	13.750	4.69	19.83	1.29
1.667	1.05	7.750	1.92	13.833	4.11	19.92	1.29
1.750	1.05	7.833	1.97	13.917	4.11	20.00	1.29
1.833	1.08	7.917	1.97	14.000	4.11	20.08	1.23
1.917	1.08	8.000	1.97	14.083	3.66	20.17	1.23
2.000	1.08	8.083	2.01	14.167	3.66	20.25	1.23
2.083	1.10	8.167	2.01	14.250	3.66	20.33	1.20
2.167	1.10	8.250	2.01	14.333	3.34	20.42	1.20
2.250	1.10	8.333	2.16	14.417	3.34	20.50	1.20
2.333	1.12	8.417	2.16	14.500	3.34	20.58	1.19
2.417	1.12	8.500	2.16	14.583	3.18	20.67	1.19
2.500	1.12	8.583	2.38	14.667	3.18	20.75	1.19
2.583	1.15	8.667	2.38	14.750	3.18	20.83	1.17
2.667	1.15	8.750	2.38	14.833	3.01	20.92	1.17
2.750	1.15	8.833	2.62	14.917	3.01	21.00	1.17
2.833	1.17	8.917	2.62	15.000	3.01	21.08	1.16
2.917	1.17	9.000	2.62	15.083	2.86	21.17	1.16
3.000	1.17	9.083	2.84	15.167	2.86	21.25	1.16
3.083	1.19	9.167	2.84	15.250	2.86	21.33	1.15
3.167	1.19	9.250	2.84	15.333	2.69	21.42	1.15
3.250	1.19	9.333	2.96	15.417	2.69	21.50	1.15
3.333	1.22	9.417	2.96	15.500	2.69	21.58	1.14
3.417	1.22	9.500	2.96	15.583	2.54	21.67	1.14
3.500	1.22	9.583	2.96	15.667	2.54	21.75	1.14
3.583	1.24	9.667	2.96	15.750	2.54	21.83	1.13
3.667	1.24	9.750	2.96	15.833	2.37	21.92	1.13
3.750	1.24	9.833	3.15	15.917	2.37	22.00	1.13
3.833	1.26	9.917	3.15	16.000	2.37	22.08	1.12
3.917	1.26	10.000	3.15	16.083	2.21	22.17	1.12
4.000	1.26	10.083	3.51	16.167	2.21	22.25	1.12
4.083	1.28	10.167	3.51	16.250	2.21	22.33	1.10
4.167	1.28	10.250	3.51	16.333	2.10	22.42	1.10
4.250	1.28	10.333	3.99	16.417	2.10	22.50	1.10
4.333	1.32	10.417	3.99	16.500	2.10	22.58	1.09
4.417	1.32	10.500	3.99	16.583	2.04	22.67	1.09
4.500	1.32	10.583	4.52	16.667	2.04	22.75	1.09
4.583	1.36	10.667	4.52	16.750	2.04	22.83	1.08
4.667	1.36	10.750	4.52	16.833	1.98	22.92	1.08
4.750	1.36	10.833	5.29	16.917	1.98	23.00	1.08
4.833	1.41	10.917	5.29	17.000	1.98	23.08	1.07
4.917	1.41	11.000	5.29	17.083	1.93	23.17	1.07
5.000	1.41	11.083	6.18	17.167	1.93	23.25	1.07
5.083	1.46	11.167	6.18	17.250	1.93	23.33	1.06
5.167	1.46	11.250	6.18	17.333	1.87	23.42	1.06
5.250	1.46	11.333	7.82	17.417	1.87	23.50	1.06
5.333	1.50	11.417	7.82	17.500	1.87	23.58	1.05
5.417	1.50	11.500	7.82	17.583	1.81	23.67	1.05
5.500	1.50	11.583	9.95	17.667	1.81	23.75	1.05
5.583	1.55	11.667	9.95	17.750	1.81	23.83	1.03
5.667	1.55	11.750	9.95	17.833	1.75	23.92	1.03
5.750	1.55	11.833	40.55	17.917	1.75	24.00	1.03
5.833	1.60	11.917	40.56	18.000	1.75	24.08	1.02
5.917	1.60	12.000	40.56	18.083	1.70	24.17	1.02
6.000	1.60	12.083	100.08	18.167	1.70	24.25	1.02

6.083 1.64 |12.167 100.09 |18.250 1.70 |

Max.Eff.Inten.(mm/hr)=	100.09	56.10	
over (min)	5.00	10.00	
Storage Coeff. (min)=	4.63 (ii)	5.75 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.22	0.15	
PEAK FLOW (cms)=	2.93	0.01	*TOTALS*
TIME TO PEAK (hrs)=	12.25	12.25	2.944 (iii)
RUNOFF VOLUME (mm)=	90.53	42.22	90.05
TOTAL RAINFALL (mm)=	92.53	92.53	92.53
RUNOFF COEFFICIENT =	0.98	0.46	0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7722)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7599):	10.90	2.944	12.25	90.05
+ ID2= 2 (7721):	0.21	0.023	12.25	42.06
ID = 3 (7722):	11.11	2.967	12.25	89.15

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7685)	OVERFLOW IS OFF
IN= 2---> OUT= 1	
DT= 5.0 min	
	OUTFLOW STORAGE OUTFLOW STORAGE
	(cms) (ha.m.) (cms) (ha.m.)
	0.0000 0.0000 0.1390 0.6960
	0.0590 0.3400 0.1630 0.7780
	0.0900 0.4907 0.1840 0.8800
	0.1110 0.5760 0.0000 0.0000
	AREA QPEAK TPEAK R.V.
	(ha) (cms) (hrs) (mm)
INFLOW : ID= 2 (7722)	11.108 2.967 12.25 89.15
OUTFLOW: ID= 1 (7685)	11.108 0.131 13.83 89.02
PEAK FLOW REDUCTION [Qout/Qin](%)=	4.41
TIME SHIFT OF PEAK FLOW (min)=	95.00
MAXIMUM STORAGE USED (ha.m.)=	0.6614

CALIB	
STANDHYD (7591)	Area (ha)= 11.38
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
	IMPERVIOUS PERVIOUS (i)
Surface Area (ha)=	11.27 0.11
Dep. Storage (mm)=	2.00 5.00
Average Slope (%)=	1.00 2.00
Length (m)=	275.44 40.00
Mannings n =	0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.64	12.250	100.09	18.33	1.64
0.167	0.00	6.250	1.64	12.333	15.87	18.42	1.64
0.250	0.00	6.333	1.69	12.417	15.86	18.50	1.64

0.333	0.94	6.417	1.69	12.500	15.86	18.58	1.58
0.417	0.94	6.500	1.69	12.583	10.79	18.67	1.58
0.500	0.94	6.583	1.73	12.667	10.79	18.75	1.58
0.583	0.96	6.667	1.73	12.750	10.79	18.83	1.52
0.667	0.96	6.750	1.73	12.833	7.43	18.92	1.52
0.750	0.96	6.833	1.78	12.917	7.42	19.00	1.52
0.833	0.98	6.917	1.78	13.000	7.42	19.08	1.46
0.917	0.98	7.000	1.78	13.083	6.27	19.17	1.46
1.000	0.98	7.083	1.83	13.167	6.27	19.25	1.46
1.083	1.00	7.167	1.83	13.250	6.27	19.33	1.40
1.167	1.00	7.250	1.83	13.333	5.31	19.42	1.40
1.250	1.00	7.333	1.87	13.417	5.31	19.50	1.40
1.333	1.03	7.417	1.87	13.500	5.31	19.58	1.35
1.417	1.03	7.500	1.87	13.583	4.69	19.67	1.35
1.500	1.03	7.583	1.92	13.667	4.69	19.75	1.35
1.583	1.05	7.667	1.92	13.750	4.69	19.83	1.29
1.667	1.05	7.750	1.92	13.833	4.11	19.92	1.29
1.750	1.05	7.833	1.97	13.917	4.11	20.00	1.29
1.833	1.08	7.917	1.97	14.000	4.11	20.08	1.23
1.917	1.08	8.000	1.97	14.083	3.66	20.17	1.23
2.000	1.08	8.083	2.01	14.167	3.66	20.25	1.23
2.083	1.10	8.167	2.01	14.250	3.66	20.33	1.20
2.167	1.10	8.250	2.01	14.333	3.34	20.42	1.20
2.250	1.10	8.333	2.16	14.417	3.34	20.50	1.20
2.333	1.12	8.417	2.16	14.500	3.34	20.58	1.19
2.417	1.12	8.500	2.16	14.583	3.18	20.67	1.19
2.500	1.12	8.583	2.38	14.667	3.18	20.75	1.19
2.583	1.15	8.667	2.38	14.750	3.18	20.83	1.17
2.667	1.15	8.750	2.38	14.833	3.01	20.92	1.17
2.750	1.15	8.833	2.62	14.917	3.01	21.00	1.17
2.833	1.17	8.917	2.62	15.000	3.01	21.08	1.16
2.917	1.17	9.000	2.62	15.083	2.86	21.17	1.16
3.000	1.17	9.083	2.84	15.167	2.86	21.25	1.16
3.083	1.19	9.167	2.84	15.250	2.86	21.33	1.15
3.167	1.19	9.250	2.84	15.333	2.69	21.42	1.15
3.250	1.19	9.333	2.96	15.417	2.69	21.50	1.15
3.333	1.22	9.417	2.96	15.500	2.69	21.58	1.14
3.417	1.22	9.500	2.96	15.583	2.54	21.67	1.14
3.500	1.22	9.583	2.96	15.667	2.54	21.75	1.14
3.583	1.24	9.667	2.96	15.750	2.54	21.83	1.13
3.667	1.24	9.750	2.96	15.833	2.37	21.92	1.13
3.750	1.24	9.833	3.15	15.917	2.37	22.00	1.13
3.833	1.26	9.917	3.15	16.000	2.37	22.08	1.12
3.917	1.26	10.000	3.15	16.083	2.21	22.17	1.12
4.000	1.26	10.083	3.51	16.167	2.21	22.25	1.12
4.083	1.28	10.167	3.51	16.250	2.21	22.33	1.10
4.167	1.28	10.250	3.51	16.333	2.10	22.42	1.10
4.250	1.28	10.333	3.99	16.417	2.10	22.50	1.10
4.333	1.32	10.417	3.99	16.500	2.10	22.58	1.09
4.417	1.32	10.500	3.99	16.583	2.04	22.67	1.09
4.500	1.32	10.583	4.52	16.667	2.04	22.75	1.09
4.583	1.36	10.667	4.52	16.750	2.04	22.83	1.08
4.667	1.36	10.750	4.52	16.833	1.98	22.92	1.08
4.750	1.36	10.833	5.29	16.917	1.98	23.00	1.08
4.833	1.41	10.917	5.29	17.000	1.98	23.08	1.07
4.917	1.41	11.000	5.29	17.083	1.93	23.17	1.07
5.000	1.41	11.083	6.18	17.167	1.93	23.25	1.07
5.083	1.46	11.167	6.18	17.250	1.93	23.33	1.06
5.167	1.46	11.250	6.18	17.333	1.87	23.42	1.06
5.250	1.46	11.333	7.82	17.417	1.87	23.50	1.06
5.333	1.50	11.417	7.82	17.500	1.87	23.58	1.05
5.417	1.50	11.500	7.82	17.583	1.81	23.67	1.05
5.500	1.50	11.583	9.95	17.667	1.81	23.75	1.05
5.583	1.55	11.667	9.95	17.750	1.81	23.83	1.03
5.667	1.55	11.750	9.95	17.833	1.75	23.92	1.03
5.750	1.55	11.833	40.55	17.917	1.75	24.00	1.03
5.833	1.60	11.917	40.56	18.000	1.75	24.08	1.02
5.917	1.60	12.000	40.56	18.083	1.70	24.17	1.02
6.000	1.60	12.083	100.08	18.167	1.70	24.25	1.02
6.083	1.64	12.167	100.09	18.250	1.70		

Max.Eff.Inten.(mm/hr)= 100.09 56.10
 over (min) = 5.00 10.00
 Storage Coeff. (min) = 4.69 (ii) 5.81 (ii)
 Unit Hyd. Tpeak (min) = 5.00 10.00
 Unit Hyd. peak (cms) = 0.22 0.15

TOTALS
 PEAK FLOW (cms) = 3.05 0.02 3.070 (iii)
 TIME TO PEAK (hrs) = 12.25 12.25 12.25
 RUNOFF VOLUME (mm) = 90.53 42.22 90.05
 TOTAL RAINFALL (mm) = 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.98 0.46 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | RESERVOIR (7593) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
DT= 5.0 min

	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.1990	0.6950
	0.0830	0.3500	0.2320	0.8000
	0.1280	0.4850	0.2620	0.9000
	0.1580	0.5900	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7591)	11.380	3.070	12.25	90.05
OUTFLOW: ID= 1 (7593)	11.380	0.180	13.33	89.95

 PEAK FLOW REDUCTION [Qout/Qin](%) = 5.87
 TIME SHIFT OF PEAK FLOW (min) = 65.00
 MAXIMUM STORAGE USED (ha.m.) = 0.6470

 | ADD HYD (7643) |
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7593):	11.38	0.180	13.33	89.95
+ ID2= 2 (7685):	11.11	0.131	13.83	89.02
=====				
ID = 3 (7643):	22.49	0.311	13.50	89.49

 NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |
 | STANDHYD (7590) | Area (ha) = 2.39
 | ID= 1 DT= 5.0 min | Total Imp(%) = 99.00 Dir. Conn.(%) = 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha) =	2.37	0.02
Dep. Storage (mm) =	1.00	5.00
Average Slope (%) =	1.00	2.00
Length (m) =	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.64	12.250	100.09	18.33	1.64
0.167	0.00	6.250	1.64	12.333	15.87	18.42	1.64
0.250	0.00	6.333	1.69	12.417	15.86	18.50	1.64
0.333	0.94	6.417	1.69	12.500	15.86	18.58	1.58
0.417	0.94	6.500	1.69	12.583	10.79	18.67	1.58
0.500	0.94	6.583	1.73	12.667	10.79	18.75	1.58
0.583	0.96	6.667	1.73	12.750	10.79	18.83	1.52
0.667	0.96	6.750	1.73	12.833	7.43	18.92	1.52
0.750	0.96	6.833	1.78	12.917	7.42	19.00	1.52
0.833	0.98	6.917	1.78	13.000	7.42	19.08	1.46



0.917	0.98	7.000	1.78	13.083	6.27	19.17	1.46
1.000	0.98	7.083	1.83	13.167	6.27	19.25	1.46
1.083	1.00	7.167	1.83	13.250	6.27	19.33	1.40
1.167	1.00	7.250	1.83	13.333	5.31	19.42	1.40
1.250	1.00	7.333	1.87	13.417	5.31	19.50	1.40
1.333	1.03	7.417	1.87	13.500	5.31	19.58	1.35
1.417	1.03	7.500	1.87	13.583	4.69	19.67	1.35
1.500	1.03	7.583	1.92	13.667	4.69	19.75	1.35
1.583	1.05	7.667	1.92	13.750	4.69	19.83	1.29
1.667	1.05	7.750	1.92	13.833	4.11	19.92	1.29
1.750	1.05	7.833	1.97	13.917	4.11	20.00	1.29
1.833	1.08	7.917	1.97	14.000	4.11	20.08	1.23
1.917	1.08	8.000	1.97	14.083	3.66	20.17	1.23
2.000	1.08	8.083	2.01	14.167	3.66	20.25	1.23
2.083	1.10	8.167	2.01	14.250	3.66	20.33	1.20
2.167	1.10	8.250	2.01	14.333	3.34	20.42	1.20
2.250	1.10	8.333	2.16	14.417	3.34	20.50	1.20
2.333	1.12	8.417	2.16	14.500	3.34	20.58	1.19
2.417	1.12	8.500	2.16	14.583	3.18	20.67	1.19
2.500	1.12	8.583	2.38	14.667	3.18	20.75	1.19
2.583	1.15	8.667	2.38	14.750	3.18	20.83	1.17
2.667	1.15	8.750	2.38	14.833	3.01	20.92	1.17
2.750	1.15	8.833	2.62	14.917	3.01	21.00	1.17
2.833	1.17	8.917	2.62	15.000	3.01	21.08	1.16
2.917	1.17	9.000	2.62	15.083	2.86	21.17	1.16
3.000	1.17	9.083	2.84	15.167	2.86	21.25	1.16
3.083	1.19	9.167	2.84	15.250	2.86	21.33	1.15
3.167	1.19	9.250	2.84	15.333	2.69	21.42	1.15
3.250	1.19	9.333	2.96	15.417	2.69	21.50	1.15
3.333	1.22	9.417	2.96	15.500	2.69	21.58	1.14
3.417	1.22	9.500	2.96	15.583	2.54	21.67	1.14
3.500	1.22	9.583	2.96	15.667	2.54	21.75	1.14
3.583	1.24	9.667	2.96	15.750	2.54	21.83	1.13
3.667	1.24	9.750	2.96	15.833	2.37	21.92	1.13
3.750	1.24	9.833	3.15	15.917	2.37	22.00	1.13
3.833	1.26	9.917	3.15	16.000	2.37	22.08	1.12
3.917	1.26	10.000	3.15	16.083	2.21	22.17	1.12
4.000	1.26	10.083	3.51	16.167	2.21	22.25	1.12
4.083	1.28	10.167	3.51	16.250	2.21	22.33	1.10
4.167	1.28	10.250	3.51	16.333	2.10	22.42	1.10
4.250	1.28	10.333	3.99	16.417	2.10	22.50	1.10
4.333	1.32	10.417	3.99	16.500	2.10	22.58	1.09
4.417	1.32	10.500	3.99	16.583	2.04	22.67	1.09
4.500	1.32	10.583	4.52	16.667	2.04	22.75	1.09
4.583	1.36	10.667	4.52	16.750	2.04	22.83	1.08
4.667	1.36	10.750	4.52	16.833	1.98	22.92	1.08
4.750	1.36	10.833	5.29	16.917	1.98	23.00	1.08
4.833	1.41	10.917	5.29	17.000	1.98	23.08	1.07
4.917	1.41	11.000	5.29	17.083	1.93	23.17	1.07
5.000	1.41	11.083	6.18	17.167	1.93	23.25	1.07
5.083	1.46	11.167	6.18	17.250	1.93	23.33	1.06
5.167	1.46	11.250	6.18	17.333	1.87	23.42	1.06
5.250	1.46	11.333	7.82	17.417	1.87	23.50	1.06
5.333	1.50	11.417	7.82	17.500	1.87	23.58	1.05
5.417	1.50	11.500	7.82	17.583	1.81	23.67	1.05
5.500	1.50	11.583	9.95	17.667	1.81	23.75	1.05
5.583	1.55	11.667	9.95	17.750	1.81	23.83	1.03
5.667	1.55	11.750	9.95	17.833	1.75	23.92	1.03
5.750	1.55	11.833	40.55	17.917	1.75	24.00	1.03
5.833	1.60	11.917	40.56	18.000	1.75	24.08	1.02
5.917	1.60	12.000	40.56	18.083	1.70	24.17	1.02
6.000	1.60	12.083	100.08	18.167	1.70	24.25	1.02
6.083	1.64	12.167	100.09	18.250	1.70		

Max.Eff.Inten. (mm/hr)= 100.09
 over (min) = 5.00
 Storage Coeff. (min)= 0.97 (ii) 1.71 (ii)
 Unit Hyd. Tpeak (min)= 5.00
 Unit Hyd. peak (cms)= 0.34

TOTALS
 PEAK FLOW (cms)= 0.66 0.00 0.662 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 91.53 42.22 91.04
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.99 0.46 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CMLIB |
 | STANDHYD (7632) | Area (ha)= 2.36
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.34	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.64	12.250	100.09	18.33	1.64
0.167	0.00	6.250	1.64	12.333	15.87	18.42	1.64
0.250	0.00	6.333	1.69	12.417	15.86	18.50	1.64
0.333	0.94	6.417	1.69	12.500	15.86	18.58	1.58
0.417	0.94	6.500	1.69	12.583	10.79	18.67	1.58
0.500	0.94	6.583	1.73	12.667	10.79	18.75	1.58
0.583	0.96	6.667	1.73	12.750	10.79	18.83	1.52
0.667	0.96	6.750	1.73	12.833	7.43	18.92	1.52
0.750	0.96	6.833	1.78	12.917	7.42	19.00	1.52
0.833	0.98	6.917	1.78	13.000	7.42	19.08	1.46
0.917	0.98	7.000	1.78	13.083	6.27	19.17	1.46
1.000	0.98	7.083	1.83	13.167	6.27	19.25	1.46
1.083	1.00	7.167	1.83	13.250	6.27	19.33	1.40
1.167	1.00	7.250	1.83	13.333	5.31	19.42	1.40
1.250	1.00	7.333	1.87	13.417	5.31	19.50	1.40
1.333	1.03	7.417	1.87	13.500	5.31	19.58	1.35
1.417	1.03	7.500	1.87	13.583	4.69	19.67	1.35
1.500	1.03	7.583	1.92	13.667	4.69	19.75	1.35
1.583	1.05	7.667	1.92	13.750	4.69	19.83	1.29
1.667	1.05	7.750	1.92	13.833	4.11	19.92	1.29
1.750	1.05	7.833	1.97	13.917	4.11	20.00	1.29
1.833	1.08	7.917	1.97	14.000	4.11	20.08	1.23
1.917	1.08	8.000	1.97	14.083	3.66	20.17	1.23
2.000	1.08	8.083	2.01	14.167	3.66	20.25	1.23
2.083	1.10	8.167	2.01	14.250	3.66	20.33	1.20
2.167	1.10	8.250	2.01	14.333	3.34	20.42	1.20
2.250	1.10	8.333	2.16	14.417	3.34	20.50	1.20
2.333	1.12	8.417	2.16	14.500	3.34	20.58	1.19
2.417	1.12	8.500	2.16	14.583	3.18	20.67	1.19
2.500	1.12	8.583	2.38	14.667	3.18	20.75	1.19
2.583	1.15	8.667	2.38	14.750	3.18	20.83	1.17
2.667	1.15	8.750	2.38	14.833	3.01	20.92	1.17
2.750	1.15	8.833	2.62	14.917	3.01	21.00	1.17
2.833	1.17	8.917	2.62	15.000	3.01	21.08	1.16
2.917	1.17	9.000	2.62	15.083	2.86	21.17	1.16
3.000	1.17	9.083	2.84	15.167	2.86	21.25	1.16
3.083	1.19	9.167	2.84	15.250	2.86	21.33	1.15
3.167	1.19	9.250	2.84	15.333	2.69	21.42	1.15
3.250	1.19	9.333	2.96	15.417	2.69	21.50	1.15
3.333	1.22	9.417	2.96	15.500	2.69	21.58	1.14
3.417	1.22	9.500	2.96	15.583	2.54	21.67	1.14
3.500	1.22	9.583	2.96	15.667	2.54	21.75	1.14
3.583	1.24	9.667	2.96	15.750	2.54	21.83	1.13
3.667	1.24	9.750	2.96	15.833	2.37	21.92	1.13
3.750	1.24	9.833	3.15	15.917	2.37	22.00	1.13
3.833	1.26	9.917	3.15	16.000	2.37	22.08	1.12
3.917	1.26	10.000	3.15	16.083	2.21	22.17	1.12
4.000	1.26	10.083	3.51	16.167	2.21	22.25	1.12
4.083	1.28	10.167	3.51	16.250	2.21	22.33	1.10

4.167	1.28	10.250	3.51	16.333	2.10	22.42	1.10
4.250	1.28	10.333	3.99	16.417	2.10	22.50	1.10
4.333	1.32	10.417	3.99	16.500	2.10	22.58	1.09
4.417	1.32	10.500	3.99	16.583	2.04	22.67	1.09
4.500	1.32	10.583	4.52	16.667	2.04	22.75	1.09
4.583	1.36	10.667	4.52	16.750	2.04	22.83	1.08
4.667	1.36	10.750	4.52	16.833	1.98	22.92	1.08
4.750	1.36	10.833	5.29	16.917	1.98	23.00	1.08
4.833	1.41	10.917	5.29	17.000	1.98	23.08	1.07
4.917	1.41	11.000	5.29	17.083	1.93	23.17	1.07
5.000	1.41	11.083	6.18	17.167	1.93	23.25	1.07
5.083	1.46	11.167	6.18	17.250	1.93	23.33	1.06
5.167	1.46	11.250	6.18	17.333	1.87	23.42	1.06
5.250	1.46	11.333	7.82	17.417	1.87	23.50	1.06
5.333	1.50	11.417	7.82	17.500	1.87	23.58	1.05
5.417	1.50	11.500	7.82	17.583	1.81	23.67	1.05
5.500	1.50	11.583	9.95	17.667	1.81	23.75	1.05
5.583	1.55	11.667	9.95	17.750	1.81	23.83	1.03
5.667	1.55	11.750	9.95	17.833	1.75	23.92	1.03
5.750	1.55	11.833	40.55	17.917	1.75	24.00	1.03
5.833	1.60	11.917	40.56	18.000	1.75	24.08	1.02
5.917	1.60	12.000	40.56	18.083	1.70	24.17	1.02
6.000	1.60	12.083	100.08	18.167	1.70	24.25	1.02
6.083	1.64	12.167	100.09	18.250	1.70		

Max.Eff.Inten. (mm/hr)= 100.09 56.10
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 0.97 (ii) 1.71 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

TOTALS
 PEAK FLOW (cms)= 0.65 0.00 0.653 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25
 RUNOFF VOLUME (mm)= 91.53 42.22 91.04
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.99 0.46 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7644) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.64	12.250	100.09	18.33	1.64
0.167	0.00	6.250	1.64	12.333	15.87	18.42	1.64
0.250	0.00	6.333	1.69	12.417	15.86	18.50	1.64
0.333	0.94	6.417	1.69	12.500	15.86	18.58	1.58
0.417	0.94	6.500	1.69	12.583	10.79	18.67	1.58
0.500	0.94	6.583	1.73	12.667	10.79	18.75	1.58
0.583	0.96	6.667	1.73	12.750	10.79	18.83	1.52
0.667	0.96	6.750	1.73	12.833	7.43	18.92	1.52
0.750	0.96	6.833	1.78	12.917	7.42	19.00	1.52
0.833	0.98	6.917	1.78	13.000	7.42	19.08	1.46
0.917	0.98	7.000	1.78	13.083	6.27	19.17	1.46
1.000	0.98	7.083	1.83	13.167	6.27	19.25	1.46

1.083	1.00	7.167	1.83	13.250	6.27	19.33	1.40
1.167	1.00	7.250	1.83	13.333	5.31	19.42	1.40
1.250	1.00	7.333	1.87	13.417	5.31	19.50	1.40
1.333	1.03	7.417	1.87	13.500	5.31	19.58	1.35
1.417	1.03	7.500	1.87	13.583	4.69	19.67	1.35
1.500	1.03	7.583	1.92	13.667	4.69	19.75	1.35
1.583	1.05	7.667	1.92	13.750	4.69	19.83	1.29
1.667	1.05	7.750	1.92	13.833	4.11	19.92	1.29
1.750	1.05	7.833	1.97	13.917	4.11	20.00	1.29
1.833	1.08	7.917	1.97	14.000	4.11	20.08	1.23
1.917	1.08	8.000	1.97	14.083	3.66	20.17	1.23
2.000	1.08	8.083	2.01	14.167	3.66	20.25	1.23
2.083	1.10	8.167	2.01	14.250	3.66	20.33	1.20
2.167	1.10	8.250	2.01	14.333	3.34	20.42	1.20
2.250	1.10	8.333	2.16	14.417	3.34	20.50	1.20
2.333	1.12	8.417	2.16	14.500	3.34	20.58	1.19
2.417	1.12	8.500	2.16	14.583	3.18	20.67	1.19
2.500	1.12	8.583	2.38	14.667	3.18	20.75	1.19
2.583	1.15	8.667	2.38	14.750	3.18	20.83	1.17
2.667	1.15	8.750	2.38	14.833	3.01	20.92	1.17
2.750	1.15	8.833	2.62	14.917	3.01	21.00	1.17
2.833	1.17	8.917	2.62	15.000	3.01	21.08	1.16
2.917	1.17	9.000	2.62	15.083	2.86	21.17	1.16
3.000	1.17	9.083	2.84	15.167	2.86	21.25	1.16
3.083	1.19	9.167	2.84	15.250	2.86	21.33	1.15
3.167	1.19	9.250	2.84	15.333	2.69	21.42	1.15
3.250	1.19	9.333	2.96	15.417	2.69	21.50	1.15
3.333	1.22	9.417	2.96	15.500	2.69	21.58	1.14
3.417	1.22	9.500	2.96	15.583	2.54	21.67	1.14
3.500	1.22	9.583	2.96	15.667	2.54	21.75	1.14
3.583	1.24	9.667	2.96	15.750	2.54	21.83	1.13
3.667	1.24	9.750	2.96	15.833	2.37	21.92	1.13
3.750	1.24	9.833	3.15	15.917	2.37	22.00	1.13
3.833	1.26	9.917	3.15	16.000	2.37	22.08	1.12
3.917	1.26	10.000	3.15	16.083	2.21	22.17	1.12
4.000	1.26	10.083	3.51	16.167	2.21	22.25	1.12
4.083	1.28	10.167	3.51	16.250	2.21	22.33	1.10
4.167	1.28	10.250	3.51	16.333	2.10	22.42	1.10
4.250	1.28	10.333	3.99	16.417	2.10	22.50	1.10
4.333	1.32	10.417	3.99	16.500	2.10	22.58	1.09
4.417	1.32	10.500	3.99	16.583	2.04	22.67	1.09
4.500	1.32	10.583	4.52	16.667	2.04	22.75	1.09
4.583	1.36	10.667	4.52	16.750	2.04	22.83	1.08
4.667	1.36	10.750	4.52	16.833	1.98	22.92	1.08
4.750	1.36	10.833	5.29	16.917	1.98	23.00	1.08
4.833	1.41	10.917	5.29	17.000	1.98	23.08	1.07
4.917	1.41	11.000	5.29	17.083	1.93	23.17	1.07
5.000	1.41	11.083	6.18	17.167	1.93	23.25	1.07
5.083	1.46	11.167	6.18	17.250	1.93	23.33	1.06
5.167	1.46	11.250	6.18	17.333	1.87	23.42	1.06
5.250	1.46	11.333	7.82	17.417	1.87	23.50	1.06
5.333	1.50	11.417	7.82	17.500	1.87	23.58	1.05
5.417	1.50	11.500	7.82	17.583	1.81	23.67	1.05
5.500	1.50	11.583	9.95	17.667	1.81	23.75	1.05
5.583	1.55	11.667	9.95	17.750	1.81	23.83	1.03
5.667	1.55	11.750	9.95	17.833	1.75	23.92	1.03
5.750	1.55	11.833	40.55	17.917	1.75	24.00	1.03
5.833	1.60	11.917	40.56	18.000	1.75	24.08	1.02
5.917	1.60	12.000	40.56	18.083	1.70	24.17	1.02
6.000	1.60	12.083	100.08	18.167	1.70	24.25	1.02
6.083	1.64	12.167	100.09	18.250	1.70		

Max.Eff.Inten. (mm/hr)= 100.09 56.10
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 0.97 (ii) 1.71 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

TOTALS
 PEAK FLOW (cms)= 0.66 0.00 0.664 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 91.53 42.22 91.04
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.99 0.46 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 CALIB
 STANDHYD (7652) | Area (ha)= 2.40
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.64	12.250	100.09	18.333	1.64
0.167	0.00	6.250	1.64	12.333	15.87	18.42	1.64
0.250	0.00	6.333	1.69	12.417	15.86	18.50	1.64
0.333	0.94	6.417	1.69	12.500	15.86	18.58	1.58
0.417	0.94	6.500	1.69	12.583	10.79	18.67	1.58
0.500	0.94	6.583	1.73	12.667	10.79	18.75	1.58
0.583	0.96	6.667	1.73	12.750	10.79	18.83	1.52
0.667	0.96	6.750	1.73	12.833	7.43	18.92	1.52
0.750	0.96	6.833	1.78	12.917	7.42	19.00	1.52
0.833	0.98	6.917	1.78	13.000	7.42	19.08	1.46
0.917	0.98	7.000	1.78	13.083	6.27	19.17	1.46
1.000	0.98	7.083	1.83	13.167	6.27	19.25	1.46
1.083	1.00	7.167	1.83	13.250	6.27	19.33	1.40
1.167	1.00	7.250	1.83	13.333	5.31	19.42	1.40
1.250	1.00	7.333	1.87	13.417	5.31	19.50	1.40
1.333	1.03	7.417	1.87	13.500	5.31	19.58	1.35
1.417	1.03	7.500	1.87	13.583	4.69	19.67	1.35
1.500	1.03	7.583	1.92	13.667	4.69	19.75	1.35
1.583	1.05	7.667	1.92	13.750	4.69	19.83	1.29
1.667	1.05	7.750	1.92	13.833	4.11	19.92	1.29
1.750	1.05	7.833	1.97	13.917	4.11	20.00	1.29
1.833	1.08	7.917	1.97	14.000	4.11	20.08	1.23
1.917	1.08	8.000	1.97	14.083	3.66	20.17	1.23
2.000	1.08	8.083	2.01	14.167	3.66	20.25	1.23
2.083	1.10	8.167	2.01	14.250	3.66	20.33	1.20
2.167	1.10	8.250	2.01	14.333	3.34	20.42	1.20
2.250	1.10	8.333	2.16	14.417	3.34	20.50	1.20
2.333	1.12	8.417	2.16	14.500	3.34	20.58	1.19
2.417	1.12	8.500	2.16	14.583	3.18	20.67	1.19
2.500	1.12	8.583	2.38	14.667	3.18	20.75	1.19
2.583	1.15	8.667	2.38	14.750	3.18	20.83	1.17
2.667	1.15	8.750	2.38	14.833	3.01	20.92	1.17
2.750	1.15	8.833	2.62	14.917	3.01	21.00	1.17
2.833	1.17	8.917	2.62	15.000	3.01	21.08	1.16
2.917	1.17	9.000	2.62	15.083	2.86	21.17	1.16
3.000	1.17	9.083	2.84	15.167	2.86	21.25	1.16
3.083	1.19	9.167	2.84	15.250	2.86	21.33	1.15
3.167	1.19	9.250	2.84	15.333	2.69	21.42	1.15
3.250	1.19	9.333	2.96	15.417	2.69	21.50	1.15
3.333	1.22	9.417	2.96	15.500	2.69	21.58	1.14
3.417	1.22	9.500	2.96	15.583	2.54	21.67	1.14
3.500	1.22	9.583	2.96	15.667	2.54	21.75	1.14
3.583	1.24	9.667	2.96	15.750	2.54	21.83	1.13
3.667	1.24	9.750	2.96	15.833	2.37	21.92	1.13
3.750	1.24	9.833	3.15	15.917	2.37	22.00	1.13
3.833	1.26	9.917	3.15	16.000	2.37	22.08	1.12
3.917	1.26	10.000	3.15	16.083	2.21	22.17	1.12
4.000	1.26	10.083	3.51	16.167	2.21	22.25	1.12
4.083	1.28	10.167	3.51	16.250	2.21	22.33	1.10
4.167	1.28	10.250	3.51	16.333	2.10	22.42	1.10
4.250	1.28	10.333	3.99	16.417	2.10	22.50	1.10

4.333	1.32	10.417	3.99	16.500	2.10	22.58	1.09
4.417	1.32	10.500	3.99	16.583	2.04	22.67	1.09
4.500	1.32	10.583	4.52	16.667	2.04	22.75	1.09
4.583	1.36	10.667	4.52	16.750	2.04	22.83	1.08
4.667	1.36	10.750	4.52	16.833	1.98	22.92	1.08
4.750	1.36	10.833	5.29	16.917	1.98	23.00	1.08
4.833	1.41	10.917	5.29	17.000	1.98	23.08	1.07
4.917	1.41	11.000	5.29	17.083	1.93	23.17	1.07
5.000	1.41	11.083	6.18	17.167	1.93	23.25	1.07
5.083	1.46	11.167	6.18	17.250	1.93	23.33	1.06
5.167	1.46	11.250	6.18	17.333	1.87	23.42	1.06
5.250	1.46	11.333	7.82	17.417	1.87	23.50	1.06
5.333	1.50	11.417	7.82	17.500	1.87	23.58	1.05
5.417	1.50	11.500	7.82	17.583	1.81	23.67	1.05
5.500	1.50	11.583	9.95	17.667	1.81	23.75	1.05
5.583	1.55	11.667	9.95	17.750	1.81	23.83	1.03
5.667	1.55	11.750	9.95	17.833	1.75	23.92	1.03
5.750	1.55	11.833	40.55	17.917	1.75	24.00	1.03
5.833	1.60	11.917	40.56	18.000	1.75	24.08	1.02
5.917	1.60	12.000	40.56	18.083	1.70	24.17	1.02
6.000	1.60	12.083	100.08	18.167	1.70	24.25	1.02
6.083	1.64	12.167	100.09	18.250	1.70		

Max.Eff.Inten.(mm/hr)= 100.09 56.10
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 0.97 (ii) 1.71 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32
 TOTALS
 PEAK FLOW (cms)= 0.66 0.00 0.664 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25
 RUNOFF VOLUME (mm)= 91.53 42.22 91.04
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.99 0.46 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 CALIB
 STANDHYD (7661) | Area (ha)= 2.39
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.64	12.250	100.09	18.333	1.64
0.167	0.00	6.250	1.64	12.333	15.87	18.42	1.64
0.250	0.00	6.333	1.69	12.417	15.86	18.50	1.64
0.333	0.94	6.417	1.69	12.500	15.86	18.58	1.58
0.417	0.94	6.500	1.69	12.583	10.79	18.67	1.58
0.500	0.94	6.583	1.73	12.667	10.79	18.75	1.58
0.583	0.96	6.667	1.73	12.750	10.79	18.83	1.52
0.667	0.96	6.750	1.73	12.833	7.43	18.92	1.52
0.750	0.96	6.833	1.78	12.917	7.42	19.00	1.52
0.833	0.98	6.917	1.78	13.000	7.42	19.08	1.46
0.917	0.98	7.000	1.78	13.083	6.27	19.17	1.46
1.000	0.98	7.083	1.83	13.167	6.27	19.25	1.46
1.083	1.00	7.167	1.83	13.250	6.27	19.33	1.40
1.167	1.00	7.250	1.83	13.333	5.31	19.42	1.40

1.250	1.00	7.333	1.87	13.417	5.31	19.50	1.40
1.333	1.03	7.417	1.87	13.500	5.31	19.58	1.35
1.417	1.03	7.500	1.87	13.583	4.69	19.67	1.35
1.500	1.03	7.583	1.92	13.667	4.69	19.75	1.35
1.583	1.05	7.667	1.92	13.750	4.69	19.83	1.29
1.667	1.05	7.750	1.92	13.833	4.11	19.92	1.29
1.750	1.05	7.833	1.97	13.917	4.11	20.00	1.29
1.833	1.08	7.917	1.97	14.000	4.11	20.08	1.23
1.917	1.08	8.000	1.97	14.083	3.66	20.17	1.23
2.000	1.08	8.083	2.01	14.167	3.66	20.25	1.23
2.083	1.10	8.167	2.01	14.250	3.66	20.33	1.20
2.167	1.10	8.250	2.01	14.333	3.34	20.42	1.20
2.250	1.10	8.333	2.16	14.417	3.34	20.50	1.20
2.333	1.12	8.417	2.16	14.500	3.34	20.58	1.19
2.417	1.12	8.500	2.16	14.583	3.18	20.67	1.19
2.500	1.12	8.583	2.38	14.667	3.18	20.75	1.19
2.583	1.15	8.667	2.38	14.750	3.18	20.83	1.17
2.667	1.15	8.750	2.38	14.833	3.01	20.92	1.17
2.750	1.15	8.833	2.62	14.917	3.01	21.00	1.17
2.833	1.17	8.917	2.62	15.000	3.01	21.08	1.16
2.917	1.17	9.000	2.62	15.083	2.86	21.17	1.16
3.000	1.17	9.083	2.84	15.167	2.86	21.25	1.16
3.083	1.19	9.167	2.84	15.250	2.86	21.33	1.15
3.167	1.19	9.250	2.84	15.333	2.69	21.42	1.15
3.250	1.19	9.333	2.96	15.417	2.69	21.50	1.15
3.333	1.22	9.417	2.96	15.500	2.69	21.58	1.14
3.417	1.22	9.500	2.96	15.583	2.54	21.67	1.14
3.500	1.22	9.583	2.96	15.667	2.54	21.75	1.14
3.583	1.24	9.667	2.96	15.750	2.54	21.83	1.13
3.667	1.24	9.750	2.96	15.833	2.37	21.92	1.13
3.750	1.24	9.833	3.15	15.917	2.37	22.00	1.13
3.833	1.26	9.917	3.15	16.000	2.37	22.08	1.12
3.917	1.26	10.000	3.15	16.083	2.21	22.17	1.12
4.000	1.26	10.083	3.51	16.167	2.21	22.25	1.12
4.083	1.28	10.167	3.51	16.250	2.21	22.33	1.10
4.167	1.28	10.250	3.51	16.333	2.10	22.42	1.10
4.250	1.28	10.333	3.99	16.417	2.10	22.50	1.10
4.333	1.32	10.417	3.99	16.500	2.10	22.58	1.09
4.417	1.32	10.500	3.99	16.583	2.04	22.67	1.09
4.500	1.32	10.583	4.52	16.667	2.04	22.75	1.09
4.583	1.36	10.667	4.52	16.750	2.04	22.83	1.08
4.667	1.36	10.750	4.52	16.833	1.98	22.92	1.08
4.750	1.36	10.833	5.29	16.917	1.98	23.00	1.08
4.833	1.41	10.917	5.29	17.000	1.98	23.08	1.07
4.917	1.41	11.000	5.29	17.083	1.93	23.17	1.07
5.000	1.41	11.083	6.18	17.167	1.93	23.25	1.07
5.083	1.46	11.167	6.18	17.250	1.93	23.33	1.06
5.167	1.46	11.250	6.18	17.333	1.87	23.42	1.06
5.250	1.46	11.333	7.82	17.417	1.87	23.50	1.06
5.333	1.50	11.417	7.82	17.500	1.87	23.58	1.05
5.417	1.50	11.500	7.82	17.583	1.81	23.67	1.05
5.500	1.50	11.583	9.95	17.667	1.81	23.75	1.05
5.583	1.55	11.667	9.95	17.750	1.81	23.83	1.03
5.667	1.55	11.750	9.95	17.833	1.75	23.92	1.03
5.750	1.55	11.833	40.55	17.917	1.75	24.00	1.03
5.833	1.60	11.917	40.56	18.000	1.75	24.08	1.02
5.917	1.60	12.000	40.56	18.083	1.70	24.17	1.02
6.000	1.60	12.083	100.08	18.167	1.70	24.25	1.02
6.083	1.64	12.167	100.09	18.250	1.70		

Max.Eff.Inten. (mm/hr)=	100.09	56.10
over (min)	5.00	5.00
Storage Coeff. (min)=	0.97 (ii)	1.71 (iii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.32
PEAK FLOW (cms)=	0.66	0.00
TIME TO PEAK (hrs)=	12.25	12.25
RUNOFF VOLUME (mm)=	91.53	42.22
TOTAL RAINFALL (mm)=	92.53	92.53
RUNOFF COEFFICIENT =	0.99	0.46

TOTALS
0.662 (iii)
12.25
42.22
92.53
0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)

- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	(7671)	
STANDHYD	(7671)	
ID= 1	DT= 5.0 min		

Area (ha)=	2.37		
Total Imp(%)=	99.00	Dir. Conn.(%)=	99.00

Surface Area (ha)=	2.35	PERVIOUS (i)	0.02
Dep. Storage (mm)=	1.00		5.00
Average Slope (%)=	1.00		2.00
Length (m)=	20.00		20.00
Mannings n =	0.013		0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.64	12.250	100.09	18.33	1.64		
0.167	0.00	6.250	1.64	12.333	15.87	18.42	1.64		
0.250	0.00	6.333	1.69	12.417	15.86	18.50	1.64		
0.333	0.94	6.417	1.69	12.500	15.86	18.58	1.58		
0.417	0.94	6.500	1.69	12.583	10.79	18.67	1.58		
0.500	0.94	6.583	1.73	12.667	10.79	18.75	1.58		
0.583	0.96	6.667	1.73	12.750	10.79	18.83	1.52		
0.667	0.96	6.750	1.73	12.833	7.43	18.92	1.52		
0.750	0.96	6.833	1.78	12.917	7.42	19.00	1.52		
0.833	0.98	6.917	1.78	13.000	7.42	19.08	1.46		
0.917	0.98	7.000	1.78	13.083	6.27	19.17	1.46		
1.000	0.98	7.083	1.83	13.167	6.27	19.25	1.46		
1.083	1.00	7.167	1.83	13.250	6.27	19.33	1.40		
1.167	1.00	7.250	1.83	13.333	5.31	19.42	1.40		
1.250	1.00	7.333	1.87	13.417	5.31	19.50	1.40		
1.333	1.03	7.417	1.87	13.500	5.31	19.58	1.35		
1.417	1.03	7.500	1.87	13.583	4.69	19.67	1.35		
1.500	1.03	7.583	1.92	13.667	4.69	19.75	1.35		
1.583	1.05	7.667	1.92	13.750	4.69	19.83	1.29		
1.667	1.05	7.750	1.92	13.833	4.11	19.92	1.29		
1.750	1.05	7.833	1.97	13.917	4.11	20.00	1.29		
1.833	1.08	7.917	1.97	14.000	4.11	20.08	1.23		
1.917	1.08	8.000	1.97	14.083	3.66	20.17	1.23		
2.000	1.08	8.083	2.01	14.167	3.66	20.25	1.23		
2.083	1.10	8.167	2.01	14.250	3.66	20.33	1.20		
2.167	1.10	8.250	2.01	14.333	3.34	20.42	1.20		
2.250	1.10	8.333	2.16	14.417	3.34	20.50	1.20		
2.333	1.12	8.417	2.16	14.500	3.34	20.58	1.19		
2.417	1.12	8.500	2.16	14.583	3.18	20.67	1.19		
2.500	1.12	8.583	2.38	14.667	3.18	20.75	1.19		
2.583	1.15	8.667	2.38	14.750	3.18	20.83	1.17		
2.667	1.15	8.750	2.38	14.833	3.01	20.92	1.17		
2.750	1.15	8.833	2.62	14.917	3.01	21.00	1.17		
2.833	1.17	8.917	2.62	15.000	3.01	21.08	1.16		
2.917	1.17	9.000	2.62	15.083	2.86	21.17	1.16		
3.000	1.17	9.083	2.84	15.167	2.86	21.25	1.16		
3.083	1.19	9.167	2.84	15.250	2.86	21.33	1.15		
3.167	1.19	9.250	2.84	15.333	2.69	21.42	1.15		
3.250	1.19	9.333	2.96	15.417	2.69	21.50	1.15		
3.333	1.22	9.417	2.96	15.500	2.69	21.58	1.14		
3.417	1.22	9.500	2.96	15.583	2.54	21.67	1.14		
3.500	1.22	9.583	2.96	15.667	2.54	21.75	1.14		
3.583	1.24	9.667	2.96	15.750	2.54	21.83	1.13		
3.667	1.24	9.750	2.96	15.833	2.37	21.92	1.13		
3.750	1.24	9.833	3.15	15.917	2.37	22.00	1.13		
3.833	1.26	9.917	3.15	16.000	2.37	22.08	1.12		
3.917	1.26	10.000	3.15	16.083	2.21	22.17	1.12		
4.000	1.26	10.083	3.51	16.167	2.21	22.25	1.12		
4.083	1.28	10.167	3.51	16.250	2.21	22.33	1.10		
4.167	1.28	10.250	3.51	16.333	2.10	22.42	1.10		
4.250	1.28	10.333	3.99	16.417	2.10	22.50	1.10		
4.333	1.32	10.417	3.99	16.500	2.10	22.58	1.09		
4.417	1.32	10.500	3.99	16.583	2.04	22.67	1.09		



4.500	1.32	10.583	4.52	16.667	2.04	22.75	1.09
4.583	1.36	10.667	4.52	16.750	2.04	22.83	1.08
4.667	1.36	10.750	4.52	16.833	1.98	22.92	1.08
4.750	1.36	10.833	5.29	16.917	1.98	23.00	1.08
4.833	1.41	10.917	5.29	17.000	1.98	23.08	1.07
4.917	1.41	11.000	5.29	17.083	1.93	23.17	1.07
5.000	1.41	11.083	6.18	17.167	1.93	23.25	1.07
5.083	1.46	11.167	6.18	17.250	1.93	23.33	1.06
5.167	1.46	11.250	6.18	17.333	1.87	23.42	1.06
5.250	1.46	11.333	7.82	17.417	1.87	23.50	1.06
5.333	1.50	11.417	7.82	17.500	1.87	23.58	1.05
5.417	1.50	11.500	7.82	17.583	1.81	23.67	1.05
5.500	1.50	11.583	9.95	17.667	1.81	23.75	1.05
5.583	1.55	11.667	9.95	17.750	1.81	23.83	1.03
5.667	1.55	11.750	9.95	17.833	1.75	23.92	1.03
5.750	1.55	11.833	40.55	17.917	1.75	24.00	1.03
5.833	1.60	11.917	40.56	18.000	1.75	24.08	1.02
5.917	1.60	12.000	40.56	18.083	1.70	24.17	1.02
6.000	1.60	12.083	100.08	18.167	1.70	24.25	1.02
6.083	1.64	12.167	100.09	18.250	1.70		

Max.Eff.Inten.(mm/hr)= 100.09 56.10
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 0.97 (ii) 1.71 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

PEAK FLOW (cms)= 0.65 0.00 0.656 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25
 RUNOFF VOLUME (mm)= 91.53 42.22 91.04
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.99 0.46 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7698)					
1 + 2 = 3					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7590):	2.39	0.662	12.25	91.04	
+ ID2= 2 (7632):	2.36	0.653	12.25	91.04	
=====					
ID = 3 (7698):	4.75	1.315	12.25	91.04	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)					
3 + 2 = 1					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7698):	4.75	1.315	12.25	91.04	
+ ID2= 2 (7644):	2.40	0.664	12.25	91.04	
=====					
ID = 1 (7698):	7.15	1.980	12.25	91.04	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)					
1 + 2 = 3					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7698):	7.15	1.980	12.25	91.04	
+ ID2= 2 (7652):	2.40	0.664	12.25	91.04	
=====					
ID = 3 (7698):	9.55	2.644	12.25	91.04	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)					
3 + 2 = 1					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7698):	9.55	2.644	12.25	91.04	
+ ID2= 2 (7661):	2.39	0.662	12.25	91.04	
=====					
ID = 1 (7698):	11.94	3.306	12.25	91.04	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)					
1 + 2 = 3					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7698):	11.94	3.306	12.25	91.04	
+ ID2= 2 (7671):	2.37	0.656	12.25	91.04	
=====					
ID = 3 (7698):	14.31	3.962	12.25	91.04	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| DIVERTHYD (7713) |
 | IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1 +	Flow 2 +	Flow 3 +	Flow 4 +	Flow 5 =	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
TOTAL HYD. (ID= 1):	14.31	3.96	12.25	91.04	
=====					
ID= 2 (2):	12.55	2.48	12.25	91.04	
ID= 3 (2):	1.76	1.48	12.25	91.04	
ID= 4 (2):	0.00	0.00	0.00	0.00	
ID= 5 (2):	0.00	0.00	0.00	0.00	
ID= 6 (2):	0.00	0.00	0.00	0.00	

RESERVOIR (7699)					
OVERFLOW IS ON					
IN= 2---> OUT= 1					
DT= 5.0 min					
	OUTFLOW	STORAGE	OUTFLOW	STORAGE	
	(cms)	(ha.m.)	(cms)	(ha.m.)	
	0.0000	0.0000	0.2690	0.4589	
	0.1980	0.1112	0.0000	0.0000	

	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 2 (7713)	12.550	2.481	12.25	91.04	
OUTFLOW: ID= 1 (7699)	12.472	0.269	12.75	91.07	
OVERFLOW:ID= 3 (0003)	0.077	0.159	12.75	91.07	

TOTAL NUMBER OF SIMULATION OVERFLOW = 4
 CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.33
 PERCENTAGE OF TIME OVERFLOWING (%) = 1.02

PEAK FLOW REDUCTION [Qout/Qin](%) = 10.84
 TIME SHIFT OF PEAK FLOW (min) = 30.00
 MAXIMUM STORAGE USED (ha.m.) = 0.4589

| Junction Command(7715) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 3 (7699)	0.08	0.16	12.75	91.07
OUTFLOW: ID= 2 (7715)	0.08	0.16	12.75	91.07

ADD HYD (7714)				
1 + 2 = 3				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7699):	12.47	0.269	12.75	91.07
+ ID2= 2 (7713):	1.76	1.481	12.25	91.04
=====				
ID = 3 (7714):	14.23	1.734	12.25	91.07

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7714)				
3 + 2 = 1				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (7714):	14.23	1.734	12.25	91.07
+ ID2= 2 (7715):	0.08	0.159	12.75	91.07
=====				
ID = 1 (7714):	14.31	1.734	12.25	91.07

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB				
STANDHYD (7620)				
ID= 1 DT= 5.0 min				
Area (ha)=	1.45			
Total Imp(%)=	96.00	Dir. Conn.(%)=	96.00	

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.39	0.06
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.64	12.250	100.09	18.33	1.64		
0.167	0.00	6.250	1.64	12.333	15.87	18.42	1.64		
0.250	0.00	6.333	1.69	12.417	15.86	18.50	1.64		
0.333	0.94	6.417	1.69	12.500	15.86	18.58	1.58		
0.417	0.94	6.500	1.69	12.583	10.79	18.67	1.58		
0.500	0.94	6.583	1.73	12.667	10.79	18.75	1.58		
0.583	0.96	6.667	1.73	12.750	10.79	18.83	1.52		
0.667	0.96	6.750	1.73	12.833	7.43	18.92	1.52		
0.750	0.96	6.833	1.78	12.917	7.42	19.00	1.52		
0.833	0.98	6.917	1.78	13.000	7.42	19.08	1.46		
0.917	0.98	7.000	1.78	13.083	6.27	19.17	1.46		
1.000	0.98	7.083	1.83	13.167	6.27	19.25	1.46		
1.083	1.00	7.167	1.83	13.250	6.27	19.33	1.40		
1.167	1.00	7.250	1.83	13.333	5.31	19.42	1.40		
1.250	1.00	7.333	1.87	13.417	5.31	19.50	1.40		
1.333	1.03	7.417	1.87	13.500	5.31	19.58	1.35		
1.417	1.03	7.500	1.87	13.583	4.69	19.67	1.35		
1.500	1.03	7.583	1.92	13.667	4.69	19.75	1.35		
1.583	1.05	7.667	1.92	13.750	4.69	19.83	1.29		
1.667	1.05	7.750	1.92	13.833	4.11	19.92	1.29		
1.750	1.05	7.833	1.97	13.917	4.11	20.00	1.29		
1.833	1.08	7.917	1.97	14.000	4.11	20.08	1.23		
1.917	1.08	8.000	1.97	14.083	3.66	20.17	1.23		
2.000	1.08	8.083	2.01	14.167	3.66	20.25	1.23		
2.083	1.10	8.167	2.01	14.250	3.66	20.33	1.20		
2.167	1.10	8.250	2.01	14.333	3.34	20.42	1.20		
2.250	1.10	8.333	2.16	14.417	3.34	20.50	1.20		

2.333	1.12	8.417	2.16	14.500	3.34	20.58	1.19
2.417	1.12	8.500	2.16	14.583	3.18	20.67	1.19
2.500	1.12	8.583	2.38	14.667	3.18	20.75	1.19
2.583	1.15	8.667	2.38	14.750	3.18	20.83	1.17
2.667	1.15	8.750	2.38	14.833	3.01	20.92	1.17
2.750	1.15	8.833	2.62	14.917	3.01	21.00	1.17
2.833	1.17	8.917	2.62	15.000	3.01	21.08	1.16
2.917	1.17	9.000	2.62	15.083	2.86	21.17	1.16
3.000	1.17	9.083	2.84	15.167	2.86	21.25	1.16
3.083	1.19	9.167	2.84	15.250	2.86	21.33	1.15
3.167	1.19	9.250	2.84	15.333	2.69	21.42	1.15
3.250	1.19	9.333	2.96	15.417	2.69	21.50	1.15
3.333	1.22	9.417	2.96	15.500	2.69	21.58	1.14
3.417	1.22	9.500	2.96	15.583	2.54	21.67	1.14
3.500	1.22	9.583	2.96	15.667	2.54	21.75	1.14
3.583	1.24	9.667	2.96	15.750	2.54	21.83	1.13
3.667	1.24	9.750	2.96	15.833	2.37	21.92	1.13
3.750	1.24	9.833	3.15	15.917	2.37	22.00	1.13
3.833	1.26	9.917	3.15	16.000	2.37	22.08	1.12
3.917	1.26	10.000	3.15	16.083	2.21	22.17	1.12
4.000	1.26	10.083	3.51	16.167	2.21	22.25	1.12
4.083	1.28	10.167	3.51	16.250	2.21	22.33	1.10
4.167	1.28	10.250	3.51	16.333	2.10	22.42	1.10
4.250	1.28	10.333	3.99	16.417	2.10	22.50	1.10
4.333	1.32	10.417	3.99	16.500	2.10	22.58	1.09
4.417	1.32	10.500	3.99	16.583	2.04	22.67	1.09
4.500	1.32	10.583	4.52	16.667	2.04	22.75	1.09
4.583	1.36	10.667	4.52	16.750	2.04	22.83	1.08
4.667	1.36	10.750	4.52	16.833	1.98	22.92	1.08
4.750	1.36	10.833	5.29	16.917	1.98	23.00	1.08
4.833	1.41	10.917	5.29	17.000	1.98	23.08	1.07
4.917	1.41	11.000	5.29	17.083	1.93	23.17	1.07
5.000	1.41	11.083	6.18	17.167	1.93	23.25	1.07
5.083	1.46	11.167	6.18	17.250	1.93	23.33	1.06
5.167	1.46	11.250	6.18	17.333	1.87	23.42	1.06
5.250	1.46	11.333	7.82	17.417	1.87	23.50	1.06
5.333	1.50	11.417	7.82	17.500	1.87	23.58	1.05
5.417	1.50	11.500	7.82	17.583	1.81	23.67	1.05
5.500	1.50	11.583	9.95	17.667	1.81	23.75	1.05
5.583	1.55	11.667	9.95	17.750	1.81	23.83	1.03
5.667	1.55	11.750	9.95	17.833	1.75	23.92	1.03
5.750	1.55	11.833	40.55	17.917	1.75	24.00	1.03
5.833	1.60	11.917	40.56	18.000	1.75	24.08	1.02
5.917	1.60	12.000	40.56	18.083	1.70	24.17	1.02
6.000	1.60	12.083	100.08	18.167	1.70	24.25	1.02
6.083	1.64	12.167	100.09	18.250	1.70		

Max.Eff.Inten.(mm/hr)=	100.09	56.10
over (min)	5.00	10.00
Storage Coeff. (min)=	2.48 (ii)	6.77 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.29	0.14
TOTALS		
PEAK FLOW (cms)=	0.39	0.01
0.394 (iii)		
TIME TO PEAK (hrs)=	12.25	12.25
RUNOFF VOLUME (mm)=	90.53	42.22
88.60		
TOTAL RAINFALL (mm)=	92.53	92.53
92.53		
RUNOFF COEFFICIENT =	0.98	0.46
0.96		

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB				
STANDHYD (7629)				
ID= 1 DT= 5.0 min				
Area (ha)=	1.70			
Total Imp(%)=	99.00	Dir. Conn.(%)=	99.00	

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.68	0.02
Dep. Storage (mm)=	2.00	5.00



Average Slope (%) = 1.10 2.00
 Length (m) = 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.64	12.250	100.09	18.33	1.64
0.167	0.00	6.250	1.64	12.333	15.87	18.42	1.64
0.250	0.00	6.333	1.69	12.417	15.86	18.50	1.64
0.333	0.94	6.417	1.69	12.500	15.86	18.58	1.58
0.417	0.94	6.500	1.69	12.583	10.79	18.67	1.58
0.500	0.94	6.583	1.73	12.667	10.79	18.75	1.58
0.583	0.96	6.667	1.73	12.750	10.79	18.83	1.52
0.667	0.96	6.750	1.73	12.833	7.43	18.92	1.52
0.750	0.96	6.833	1.78	12.917	7.42	19.00	1.52
0.833	0.98	6.917	1.78	13.000	7.42	19.08	1.46
0.917	0.98	7.000	1.78	13.083	6.27	19.17	1.46
1.000	0.98	7.083	1.83	13.167	6.27	19.25	1.46
1.083	1.00	7.167	1.83	13.250	6.27	19.33	1.40
1.167	1.00	7.250	1.83	13.333	5.31	19.42	1.40
1.250	1.00	7.333	1.87	13.417	5.31	19.50	1.40
1.333	1.03	7.417	1.87	13.500	5.31	19.58	1.35
1.417	1.03	7.500	1.87	13.583	4.69	19.67	1.35
1.500	1.03	7.583	1.92	13.667	4.69	19.75	1.35
1.583	1.05	7.667	1.92	13.750	4.69	19.83	1.29
1.667	1.05	7.750	1.92	13.833	4.11	19.92	1.29
1.750	1.05	7.833	1.97	13.917	4.11	20.00	1.29
1.833	1.08	7.917	1.97	14.000	4.11	20.08	1.23
1.917	1.08	8.000	1.97	14.083	3.66	20.17	1.23
2.000	1.08	8.083	2.01	14.167	3.66	20.25	1.23
2.083	1.10	8.167	2.01	14.250	3.66	20.33	1.20
2.167	1.10	8.250	2.01	14.333	3.34	20.42	1.20
2.250	1.10	8.333	2.16	14.417	3.34	20.50	1.20
2.333	1.12	8.417	2.16	14.500	3.34	20.58	1.19
2.417	1.12	8.500	2.16	14.583	3.18	20.67	1.19
2.500	1.12	8.583	2.38	14.667	3.18	20.75	1.19
2.583	1.15	8.667	2.38	14.750	3.18	20.83	1.17
2.667	1.15	8.750	2.38	14.833	3.01	20.92	1.17
2.750	1.15	8.833	2.62	14.917	3.01	21.00	1.17
2.833	1.17	8.917	2.62	15.000	3.01	21.08	1.16
2.917	1.17	9.000	2.62	15.083	2.86	21.17	1.16
3.000	1.17	9.083	2.84	15.167	2.86	21.25	1.16
3.083	1.19	9.167	2.84	15.250	2.86	21.33	1.15
3.167	1.19	9.250	2.84	15.333	2.69	21.42	1.15
3.250	1.19	9.333	2.96	15.417	2.69	21.50	1.15
3.333	1.22	9.417	2.96	15.500	2.69	21.58	1.14
3.417	1.22	9.500	2.96	15.583	2.54	21.67	1.14
3.500	1.22	9.583	2.96	15.667	2.54	21.75	1.14
3.583	1.24	9.667	2.96	15.750	2.54	21.83	1.13
3.667	1.24	9.750	2.96	15.833	2.37	21.92	1.13
3.750	1.24	9.833	3.15	15.917	2.37	22.00	1.13
3.833	1.26	9.917	3.15	16.000	2.37	22.08	1.12
3.917	1.26	10.000	3.15	16.083	2.21	22.17	1.12
4.000	1.26	10.083	3.51	16.167	2.21	22.25	1.12
4.083	1.28	10.167	3.51	16.250	2.21	22.33	1.10
4.167	1.28	10.250	3.51	16.333	2.10	22.42	1.10
4.250	1.28	10.333	3.99	16.417	2.10	22.50	1.10
4.333	1.32	10.417	3.99	16.500	2.10	22.58	1.09
4.417	1.32	10.500	3.99	16.583	2.04	22.67	1.09
4.500	1.32	10.583	4.52	16.667	2.04	22.75	1.09
4.583	1.36	10.667	4.52	16.750	2.04	22.83	1.08
4.667	1.36	10.750	4.52	16.833	1.98	22.92	1.08
4.750	1.36	10.833	5.29	16.917	1.98	23.00	1.08
4.833	1.41	10.917	5.29	17.000	1.98	23.08	1.07
4.917	1.41	11.000	5.29	17.083	1.93	23.17	1.07
5.000	1.41	11.083	6.18	17.167	1.93	23.25	1.07
5.083	1.46	11.167	6.18	17.250	1.93	23.33	1.06
5.167	1.46	11.250	6.18	17.333	1.87	23.42	1.06
5.250	1.46	11.333	7.82	17.417	1.87	23.50	1.06
5.333	1.50	11.417	7.82	17.500	1.87	23.58	1.05
5.417	1.50	11.500	7.82	17.583	1.81	23.67	1.05
5.500	1.50	11.583	9.95	17.667	1.81	23.75	1.05

5.583	1.55	11.667	9.95	17.750	1.81	23.83	1.03
5.667	1.55	11.750	9.95	17.833	1.75	23.92	1.03
5.750	1.55	11.833	40.55	17.917	1.75	24.00	1.03
5.833	1.60	11.917	40.56	18.000	1.75	24.08	1.02
5.917	1.60	12.000	40.56	18.083	1.70	24.17	1.02
6.000	1.60	12.083	100.08	18.167	1.70	24.25	1.02
6.083	1.64	12.167	100.09	18.250	1.70		

Max.Eff.Inten.(mm/hr)= 100.09 56.10
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.48 (ii) 3.60 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.29 0.25
 TOTALS
 PEAK FLOW (cms)= 0.47 0.00 0.470 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 90.53 42.22 90.05
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.98 0.46 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7651) | Area (ha)= 1.33
 | ID= 1 DT= 5.0 min | Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.30	0.03
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.64	12.250	100.09	18.33	1.64
0.167	0.00	6.250	1.64	12.333	15.87	18.42	1.64
0.250	0.00	6.333	1.69	12.417	15.86	18.50	1.64
0.333	0.94	6.417	1.69	12.500	15.86	18.58	1.58
0.417	0.94	6.500	1.69	12.583	10.79	18.67	1.58
0.500	0.94	6.583	1.73	12.667	10.79	18.75	1.58
0.583	0.96	6.667	1.73	12.750	10.79	18.83	1.52
0.667	0.96	6.750	1.73	12.833	7.43	18.92	1.52
0.750	0.96	6.833	1.78	12.917	7.42	19.00	1.52
0.833	0.98	6.917	1.78	13.000	7.42	19.08	1.46
0.917	0.98	7.000	1.78	13.083	6.27	19.17	1.46
1.000	0.98	7.083	1.83	13.167	6.27	19.25	1.46
1.083	1.00	7.167	1.83	13.250	6.27	19.33	1.40
1.167	1.00	7.250	1.83	13.333	5.31	19.42	1.40
1.250	1.00	7.333	1.87	13.417	5.31	19.50	1.40
1.333	1.03	7.417	1.87	13.500	5.31	19.58	1.35
1.417	1.03	7.500	1.87	13.583	4.69	19.67	1.35
1.500	1.03	7.583	1.92	13.667	4.69	19.75	1.35
1.583	1.05	7.667	1.92	13.750	4.69	19.83	1.29
1.667	1.05	7.750	1.92	13.833	4.11	19.92	1.29
1.750	1.05	7.833	1.97	13.917	4.11	20.00	1.29
1.833	1.08	7.917	1.97	14.000	4.11	20.08	1.23
1.917	1.08	8.000	1.97	14.083	3.66	20.17	1.23
2.000	1.08	8.083	2.01	14.167	3.66	20.25	1.23
2.083	1.10	8.167	2.01	14.250	3.66	20.33	1.20
2.167	1.10	8.250	2.01	14.333	3.34	20.42	1.20
2.250	1.10	8.333	2.16	14.417	3.34	20.50	1.20
2.333	1.12	8.417	2.16	14.500	3.34	20.58	1.19
2.417	1.12	8.500	2.16	14.583	3.18	20.67	1.19
2.500	1.12	8.583	2.38	14.667	3.18	20.75	1.19
2.583	1.15	8.667	2.38	14.750	3.18	20.83	1.17
2.667	1.15	8.750	2.38	14.833	3.01	20.92	1.17
2.750	1.15	8.833	2.62	14.917	3.01	21.00	1.17
2.833	1.17	8.917	2.62	15.000	3.01	21.08	1.16
2.917	1.17	9.000	2.62	15.083	2.86	21.17	1.16
3.000	1.17	9.083	2.84	15.167	2.86	21.25	1.16
3.083	1.19	9.167	2.84	15.250	2.86	21.33	1.15
3.167	1.19	9.250	2.84	15.333	2.69	21.42	1.15
3.250	1.19	9.333	2.96	15.417	2.69	21.50	1.15
3.333	1.22	9.417	2.96	15.500	2.69	21.58	1.14
3.417	1.22	9.500	2.96	15.583	2.54	21.67	1.14
3.500	1.22	9.583	2.96	15.667	2.54	21.75	1.14
3.583	1.24	9.667	2.96	15.750	2.54	21.83	1.13
3.667	1.24	9.750	2.96	15.833	2.37	21.92	1.13
3.750	1.24	9.833	3.15	15.917	2.37	22.00	1.13
3.833	1.26	9.917	3.15	16.000	2.37	22.08	1.12
3.917	1.26	10.000	3.15	16.083	2.21	22.17	1.12
4.000	1.26	10.083	3.51	16.167	2.21	22.25	1.12
4.083	1.28	10.167	3.51	16.250	2.21	22.33	1.10
4.167	1.28	10.250	3.51	16.333	2.10	22.42	1.10
4.250	1.28	10.333	3.99	16.417	2.10	22.50	1.10
4.333	1.32	10.417	3.99	16.500	2.10	22.58	1.09
4.417	1.32	10.500	3.99	16.583	2.04	22.67	1.09
4.500	1.32	10.583	4.52	16.667	2.04	22.75	1.09
4.583	1.36	10.667	4.52	16.750	2.04	22.83	1.08
4.667	1.36	10.750	4.52	16.833	1.98	22.92	1.08
4.750	1.36	10.833	5.29	16.917	1.98	23.00	1.08
4.833	1.41	10.917	5.29	17.000	1.98	23.08	1.07
4.917	1.41	11.000	5.29	17.08			

2.500	1.12	8.583	2.38	14.667	3.18	20.75	1.19
2.583	1.15	8.667	2.38	14.750	3.18	20.83	1.17
2.667	1.15	8.750	2.38	14.833	3.01	20.92	1.17
2.750	1.15	8.833	2.62	14.917	3.01	21.00	1.17
2.833	1.17	8.917	2.62	15.000	3.01	21.08	1.16
2.917	1.17	9.000	2.62	15.083	2.86	21.17	1.16
3.000	1.17	9.083	2.84	15.167	2.86	21.25	1.16
3.083	1.19	9.167	2.84	15.250	2.86	21.33	1.15
3.167	1.19	9.250	2.84	15.333	2.69	21.42	1.15
3.250	1.19	9.333	2.96	15.417	2.69	21.50	1.15
3.333	1.22	9.417	2.96	15.500	2.69	21.58	1.14
3.417	1.22	9.500	2.96	15.583	2.54	21.67	1.14
3.500	1.22	9.583	2.96	15.667	2.54	21.75	1.14
3.583	1.24	9.667	2.96	15.750	2.54	21.83	1.13
3.667	1.24	9.750	2.96	15.833	2.37	21.92	1.13
3.750	1.24	9.833	3.15	15.917	2.37	22.00	1.13
3.833	1.26	9.917	3.15	16.000	2.37	22.08	1.12
3.917	1.26	10.000	3.15	16.083	2.21	22.17	1.12
4.000	1.26	10.083	3.51	16.167	2.21	22.25	1.12
4.083	1.28	10.167	3.51	16.250	2.21	22.33	1.10
4.167	1.28	10.250	3.51	16.333	2.10	22.42	1.10
4.250	1.28	10.333	3.99	16.417	2.10	22.50	1.10
4.333	1.32	10.417	3.99	16.500	2.10	22.58	1.09
4.417	1.32	10.500	3.99	16.583	2.04	22.67	1.09
4.500	1.32	10.583	4.52	16.667	2.04	22.75	1.09
4.583	1.36	10.667	4.52	16.750	2.04	22.83	1.08
4.667	1.36	10.750	4.52	16.833	1.98	22.92	1.08
4.750	1.36	10.833	5.29	16.917	1.98	23.00	1.08
4.833	1.41	10.917	5.29	17.000	1.98	23.08	1.07
4.917	1.41	11.000	5.29	17.083	1.93	23.17	1.07
5.000	1.41	11.083	6.18	17.167	1.93	23.25	1.07
5.083	1.46	11.167	6.18	17.250	1.93	23.33	1.06
5.167	1.46	11.250	6.18	17.333	1.87	23.42	1.06
5.250	1.46	11.333	7.82	17.417	1.87	23.50	1.06
5.333	1.50	11.417	7.82	17.500	1.87	23.58	1.05
5.417	1.50	11.500	7.82	17.583	1.81	23.67	1.05
5.500	1.50	11.583	9.95	17.667	1.81	23.75	1.05
5.583	1.55	11.667	9.95	17.750	1.81	23.83	1.03
5.667	1.55	11.750	9.95	17.833	1.75	23.92	1.03
5.750	1.55	11.833	40.55	17.917	1.75	24.00	1.03
5.833	1.60	11.917	40.56	18.000	1.75	24.08	1.02
5.917	1.60	12.000	40.56	18.083	1.70	24.17	1.02
6.000	1.60	12.083	100.08	18.167	1.70	24.25	1.02
6.083	1.64	12.167	100.09	18.250	1.70		

Max.Eff.Inten. (mm/hr)= 100.09 56.10
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.48 (ii) 3.97 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.29 0.24

TOTALS
 PEAK FLOW (cms)= 0.36 0.00 0.366 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 90.53 89.56
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.98 0.46 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Is = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7700)					
1 + 2 = 3					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7620):	1.45	0.394	12.25	88.60	
+ ID2= 2 (7629):	1.70	0.470	12.25	90.05	

ID = 3 (7700):	3.15	0.864	12.25	89.38	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7700)					
3 + 2 = 1					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7700):	3.15	0.864	12.25	89.38	
+ ID2= 2 (7651):	1.33	0.366	12.25	89.56	

ID = 1 (7700):	4.48	1.230	12.25	89.43	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7623)			
ID= 1 DT= 5.0 min			
Area (ha)=	1.20		
Total Imp(%)=	95.00	Dir. Conn.(%)=	95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.14	0.06
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----												
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	
hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.64	12.250	100.09	18.33	1.64					
0.167	0.00	6.250	1.64	12.333	15.87	18.42	1.64					
0.250	0.00	6.333	1.69	12.417	15.86	18.50	1.64					
0.333	0.94	6.417	1.69	12.500	15.86	18.58	1.58					
0.417	0.94	6.500	1.69	12.583	10.79	18.67	1.58					
0.500	0.94	6.583	1.73	12.667	10.79	18.75	1.58					
0.583	0.96	6.667	1.73	12.750	10.79	18.83	1.52					
0.667	0.96	6.750	1.73	12.833	7.43	18.92	1.52					
0.750	0.96	6.833	1.78	12.917	7.42	19.00	1.52					
0.833	0.98	6.917	1.78	13.000	7.42	19.08	1.46					
0.917	0.98	7.000	1.78	13.083	6.27	19.17	1.46					
1.000	0.98	7.083	1.83	13.167	6.27	19.25	1.46					
1.083	1.00	7.167	1.83	13.250	6.27	19.33	1.40					
1.167	1.00	7.250	1.83	13.333	5.31	19.42	1.40					
1.250	1.00	7.333	1.87	13.417	5.31	19.50	1.40					
1.333	1.03	7.417	1.87	13.500	5.31	19.58	1.35					
1.417	1.03	7.500	1.87	13.583	4.69	19.67	1.35					
1.500	1.03	7.583	1.92	13.667	4.69	19.75	1.35					
1.583	1.05	7.667	1.92	13.750	4.69	19.83	1.29					
1.667	1.05	7.750	1.92	13.833	4.11	19.92	1.29					
1.750	1.05	7.833	1.97	13.917	4.11	20.00	1.29					
1.833	1.08	7.917	1.97	14.000	4.11	20.08	1.23					
1.917	1.08	8.000	1.97	14.083	3.66	20.17	1.23					
2.000	1.08	8.083	2.01	14.167	3.66	20.25	1.23					
2.083	1.10	8.167	2.01	14.250	3.66	20.33	1.20					
2.167	1.10	8.250	2.01	14.333	3.34	20.42	1.20					
2.250	1.10	8.333	2.16	14.417	3.34	20.50	1.20					
2.333	1.12	8.417	2.16	14.500	3.34	20.58	1.19					
2.417	1.12	8.500	2.16	14.583	3.18	20.67	1.19					
2.500	1.12	8.583	2.38	14.667	3.18	20.75	1.19					
2.583	1.15	8.667	2.38	14.750	3.18	20.83	1.17					
2.667	1.15	8.750	2.38	14.833	3.01	20.92	1.17					
2.750	1.15	8.833	2.62	14.917	3.01	21.00	1.17					
2.833	1.17	8.917	2.62	15.000	3.01	21.08	1.16					
2.917	1.17	9.000	2.62	15.083	2.86	21.17	1.16					
3.000	1.17	9.083	2.84	15.167	2.86	21.25	1.16					
3.083	1.19	9.167	2.84	15.250	2.86	21.33	1.15					
3.167	1.19	9.250	2.84	15.333	2.69	21.42	1.15					
3.250	1.19	9.333	2.96	15.417	2.69	21.50	1.15					
3.333	1.22	9.417	2.96	15.500	2.69	21.58	1.14					
3.417	1.22	9.500	2.96	15.583	2.54	21.67	1.14					
3.500	1.22	9.583	2.96	15.667	2.54	21.75	1.14					
3.583	1.24	9.667	2.96	15.750	2.54	21.83	1.13					
3.667	1.24	9.750	2.96	15.833	2.37	21.92	1.13					



3.750	1.24	9.833	3.15	15.917	2.37	22.00	1.13
3.833	1.26	9.917	3.15	16.000	2.37	22.08	1.12
3.917	1.26	10.000	3.15	16.083	2.21	22.17	1.12
4.000	1.26	10.083	3.51	16.167	2.21	22.25	1.12
4.083	1.28	10.167	3.51	16.250	2.21	22.33	1.10
4.167	1.28	10.250	3.51	16.333	2.10	22.42	1.10
4.250	1.28	10.333	3.99	16.417	2.10	22.50	1.10
4.333	1.32	10.417	3.99	16.500	2.10	22.58	1.09
4.417	1.32	10.500	3.99	16.583	2.04	22.67	1.09
4.500	1.32	10.583	4.52	16.667	2.04	22.75	1.09
4.583	1.36	10.667	4.52	16.750	2.04	22.83	1.08
4.667	1.36	10.750	4.52	16.833	1.98	22.92	1.08
4.750	1.36	10.833	5.29	16.917	1.98	23.00	1.08
4.833	1.41	10.917	5.29	17.000	1.98	23.08	1.07
4.917	1.41	11.000	5.29	17.083	1.93	23.17	1.07
5.000	1.41	11.083	6.18	17.167	1.93	23.25	1.07
5.083	1.46	11.167	6.18	17.250	1.93	23.33	1.06
5.167	1.46	11.250	6.18	17.333	1.87	23.42	1.06
5.250	1.46	11.333	7.82	17.417	1.87	23.50	1.06
5.333	1.50	11.417	7.82	17.500	1.87	23.58	1.05
5.417	1.50	11.500	7.82	17.583	1.81	23.67	1.05
5.500	1.50	11.583	9.95	17.667	1.81	23.75	1.05
5.583	1.55	11.667	9.95	17.750	1.81	23.83	1.03
5.667	1.55	11.750	9.95	17.833	1.75	23.92	1.03
5.750	1.55	11.833	40.55	17.917	1.75	24.00	1.03
5.833	1.60	11.917	40.56	18.000	1.75	24.08	1.02
5.917	1.60	12.000	40.56	18.083	1.70	24.17	1.02
6.000	1.60	12.083	100.08	18.167	1.70	24.25	1.02
6.083	1.64	12.167	100.09	18.250	1.70		

Max.Eff.Inten.(mm/hr)= 100.09 57.62
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.43 (ii) 3.60 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.26

TOTALS
 PEAK FLOW (cms)= 0.32 0.01 0.327 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 90.53 43.34 88.17
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.98 0.47 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7654) |
ID= 1 DT= 5.0 min
 Area (ha)= 1.69
 Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	1.67	0.02
Dep. Storage	(mm)=	2.00	5.00
Average Slope	(%)=	1.10	2.00
Length	(m)=	100.00	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.64	12.250	100.09	18.33	1.64
0.167	0.00	6.250	1.64	12.333	15.87	18.42	1.64
0.250	0.00	6.333	1.69	12.417	15.86	18.50	1.64
0.333	0.94	6.417	1.69	12.500	15.86	18.58	1.58
0.417	0.94	6.500	1.69	12.583	10.79	18.67	1.58
0.500	0.94	6.583	1.73	12.667	10.79	18.75	1.58
0.583	0.96	6.667	1.73	12.750	10.79	18.83	1.52

0.667	0.96	6.750	1.73	12.833	7.43	18.92	1.52
0.750	0.96	6.833	1.78	12.917	7.42	19.00	1.52
0.833	0.98	6.917	1.78	13.000	7.42	19.08	1.46
0.917	0.98	7.000	1.78	13.083	6.27	19.17	1.46
1.000	0.98	7.083	1.83	13.167	6.27	19.25	1.46
1.083	1.00	7.167	1.83	13.250	6.27	19.33	1.40
1.167	1.00	7.250	1.83	13.333	5.31	19.42	1.40
1.250	1.00	7.333	1.87	13.417	5.31	19.50	1.40
1.333	1.03	7.417	1.87	13.500	5.31	19.58	1.35
1.417	1.03	7.500	1.87	13.583	4.69	19.67	1.35
1.500	1.03	7.583	1.92	13.667	4.69	19.75	1.35
1.583	1.05	7.667	1.92	13.750	4.69	19.83	1.29
1.667	1.05	7.750	1.92	13.833	4.11	19.92	1.29
1.750	1.05	7.833	1.97	13.917	4.11	20.00	1.29
1.833	1.08	7.917	1.97	14.000	4.11	20.08	1.23
1.917	1.08	8.000	1.97	14.083	3.66	20.17	1.23
2.000	1.08	8.083	2.01	14.167	3.66	20.25	1.23
2.083	1.10	8.167	2.01	14.250	3.66	20.33	1.20
2.167	1.10	8.250	2.01	14.333	3.34	20.42	1.20
2.250	1.10	8.333	2.16	14.417	3.34	20.50	1.20
2.333	1.12	8.417	2.16	14.500	3.34	20.58	1.19
2.417	1.12	8.500	2.16	14.583	3.18	20.67	1.19
2.500	1.12	8.583	2.38	14.667	3.18	20.75	1.19
2.583	1.15	8.667	2.38	14.750	3.18	20.83	1.17
2.667	1.15	8.750	2.38	14.833	3.01	20.92	1.17
2.750	1.15	8.833	2.62	14.917	3.01	21.00	1.17
2.833	1.17	8.917	2.62	15.000	3.01	21.08	1.16
2.917	1.17	9.000	2.62	15.083	2.86	21.17	1.16
3.000	1.17	9.083	2.84	15.167	2.86	21.25	1.16
3.083	1.19	9.167	2.84	15.250	2.86	21.33	1.15
3.167	1.19	9.250	2.84	15.333	2.69	21.42	1.15
3.250	1.19	9.333	2.96	15.417	2.69	21.50	1.15
3.333	1.22	9.417	2.96	15.500	2.69	21.58	1.14
3.417	1.22	9.500	2.96	15.583	2.54	21.67	1.14
3.500	1.22	9.583	2.96	15.667	2.54	21.75	1.14
3.583	1.24	9.667	2.96	15.750	2.54	21.83	1.13
3.667	1.24	9.750	2.96	15.833	2.37	21.92	1.13
3.750	1.24	9.833	3.15	15.917	2.37	22.00	1.13
3.833	1.26	9.917	3.15	16.000	2.37	22.08	1.12
3.917	1.26	10.000	3.15	16.083	2.21	22.17	1.12
4.000	1.26	10.083	3.51	16.167	2.21	22.25	1.12
4.083	1.28	10.167	3.51	16.250	2.21	22.33	1.10
4.167	1.28	10.250	3.51	16.333	2.10	22.42	1.10
4.250	1.28	10.333	3.99	16.417	2.10	22.50	1.10
4.333	1.32	10.417	3.99	16.500	2.10	22.58	1.09
4.417	1.32	10.500	3.99	16.583	2.04	22.67	1.09
4.500	1.32	10.583	4.52	16.667	2.04	22.75	1.09
4.583	1.36	10.667	4.52	16.750	2.04	22.83	1.08
4.667	1.36	10.750	4.52	16.833	1.98	22.92	1.08
4.750	1.36	10.833	5.29	16.917	1.98	23.00	1.08
4.833	1.41	10.917	5.29	17.000	1.98	23.08	1.07
4.917	1.41	11.000	5.29	17.083	1.93	23.17	1.07
5.000	1.41	11.083	6.18	17.167	1.93	23.25	1.07
5.083	1.46	11.167	6.18	17.250	1.93	23.33	1.06
5.167	1.46	11.250	6.18	17.333	1.87	23.42	1.06
5.250	1.46	11.333	7.82	17.417	1.87	23.50	1.06
5.333	1.50	11.417	7.82	17.500	1.87	23.58	1.05
5.417	1.50	11.500	7.82	17.583	1.81	23.67	1.05
5.500	1.50	11.583	9.95	17.667	1.81	23.75	1.05
5.583	1.55	11.667	9.95	17.750	1.81	23.83	1.03
5.667	1.55	11.750	9.95	17.833	1.75	23.92	1.03
5.750	1.55	11.833	40.55	17.917	1.75	24.00	1.02
5.833	1.60	11.917	40.56	18.000	1.75	24.08	1.02
5.917	1.60	12.000	40.56	18.083	1.70	24.17	1.02
6.000	1.60	12.083	100.08	18.167	1.70	24.25	1.02
6.083	1.64	12.167	100.09	18.250	1.70		

Max.Eff.Inten.(mm/hr)= 100.09 56.10
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.48 (ii) 3.60 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.29 0.25

TOTALS
 PEAK FLOW (cms)= 0.46 0.00 0.467 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 90.53 42.22 90.05



TOTAL RAINFALL (mm) = 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.98 0.46 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7655) | Area (ha)= 1.32
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.31	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.64	12.250	100.09	18.33	1.64
0.167	0.00	6.250	1.64	12.333	15.87	18.42	1.64
0.250	0.00	6.333	1.69	12.417	15.86	18.50	1.64
0.333	0.94	6.417	1.69	12.500	15.86	18.58	1.58
0.417	0.94	6.500	1.69	12.583	10.79	18.67	1.58
0.500	0.94	6.583	1.73	12.667	10.79	18.75	1.58
0.583	0.96	6.667	1.73	12.750	10.79	18.83	1.52
0.667	0.96	6.750	1.73	12.833	7.43	18.92	1.52
0.750	0.96	6.833	1.78	12.917	7.42	19.00	1.52
0.833	0.98	6.917	1.78	13.000	7.42	19.08	1.46
0.917	0.98	7.000	1.78	13.083	6.27	19.17	1.46
1.000	0.98	7.083	1.83	13.167	6.27	19.25	1.46
1.083	1.00	7.167	1.83	13.250	6.27	19.33	1.40
1.167	1.00	7.250	1.83	13.333	5.31	19.42	1.40
1.250	1.00	7.333	1.87	13.417	5.31	19.50	1.40
1.333	1.03	7.417	1.87	13.500	5.31	19.58	1.35
1.417	1.03	7.500	1.87	13.583	4.69	19.67	1.35
1.500	1.03	7.583	1.92	13.667	4.69	19.75	1.35
1.583	1.05	7.667	1.92	13.750	4.69	19.83	1.29
1.667	1.05	7.750	1.92	13.833	4.11	19.92	1.29
1.750	1.05	7.833	1.97	13.917	4.11	20.00	1.29
1.833	1.08	7.917	1.97	14.000	4.11	20.08	1.23
1.917	1.08	8.000	1.97	14.083	3.66	20.17	1.23
2.000	1.08	8.083	2.01	14.167	3.66	20.25	1.23
2.083	1.10	8.167	2.01	14.250	3.66	20.33	1.20
2.167	1.10	8.250	2.01	14.333	3.34	20.42	1.20
2.250	1.10	8.333	2.16	14.417	3.34	20.50	1.20
2.333	1.12	8.417	2.16	14.500	3.34	20.58	1.19
2.417	1.12	8.500	2.16	14.583	3.18	20.67	1.19
2.500	1.12	8.583	2.38	14.667	3.18	20.75	1.19
2.583	1.15	8.667	2.38	14.750	3.18	20.83	1.17
2.667	1.15	8.750	2.38	14.833	3.01	20.92	1.17
2.750	1.15	8.833	2.62	14.917	3.01	21.00	1.17
2.833	1.17	8.917	2.62	15.000	3.01	21.08	1.16
2.917	1.17	9.000	2.62	15.083	2.86	21.17	1.16
3.000	1.17	9.083	2.84	15.167	2.86	21.25	1.16
3.083	1.19	9.167	2.84	15.250	2.86	21.33	1.15
3.167	1.19	9.250	2.84	15.333	2.69	21.42	1.15
3.250	1.19	9.333	2.96	15.417	2.69	21.50	1.15
3.333	1.22	9.417	2.96	15.500	2.69	21.58	1.14
3.417	1.22	9.500	2.96	15.583	2.54	21.67	1.14
3.500	1.22	9.583	2.96	15.667	2.54	21.75	1.14
3.583	1.24	9.667	2.96	15.750	2.54	21.83	1.13
3.667	1.24	9.750	2.96	15.833	2.37	21.92	1.13
3.750	1.24	9.833	3.15	15.917	2.37	22.00	1.13
3.833	1.26	9.917	3.15	16.000	2.37	22.08	1.12

3.917	1.26	10.000	3.15	16.083	2.21	22.17	1.12
4.000	1.26	10.083	3.51	16.167	2.21	22.25	1.12
4.083	1.28	10.167	3.51	16.250	2.21	22.33	1.10
4.167	1.28	10.250	3.51	16.333	2.10	22.42	1.10
4.250	1.28	10.333	3.99	16.417	2.10	22.50	1.10
4.333	1.32	10.417	3.99	16.500	2.10	22.58	1.09
4.417	1.32	10.500	3.99	16.583	2.04	22.67	1.09
4.500	1.32	10.583	4.52	16.667	2.04	22.75	1.09
4.583	1.36	10.667	4.52	16.750	2.04	22.83	1.08
4.667	1.36	10.750	4.52	16.833	1.98	22.92	1.08
4.750	1.36	10.833	5.29	16.917	1.98	23.00	1.08
4.833	1.41	10.917	5.29	17.000	1.98	23.08	1.07
4.917	1.41	11.000	5.29	17.083	1.93	23.17	1.07
5.000	1.41	11.083	6.18	17.167	1.93	23.25	1.07
5.083	1.46	11.167	6.18	17.250	1.93	23.33	1.06
5.167	1.46	11.250	6.18	17.333	1.87	23.42	1.06
5.250	1.46	11.333	7.82	17.417	1.87	23.50	1.06
5.333	1.50	11.417	7.82	17.500	1.87	23.58	1.05
5.417	1.50	11.500	7.82	17.583	1.81	23.67	1.05
5.500	1.50	11.583	9.95	17.667	1.81	23.75	1.05
5.583	1.55	11.667	9.95	17.750	1.81	23.83	1.03
5.667	1.55	11.750	9.95	17.833	1.75	23.92	1.03
5.750	1.55	11.833	40.55	17.917	1.75	24.00	1.03
5.833	1.60	11.917	40.56	18.000	1.75	24.08	1.02
5.917	1.60	12.000	40.56	18.083	1.70	24.17	1.02
6.000	1.60	12.083	100.08	18.167	1.70	24.25	1.02
6.083	1.64	12.167	100.09	18.250	1.70		

Max.Eff.Inten.(mm/hr)= 100.09 56.10
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.48 (ii) 3.60 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.29 0.25

TOTALS
 PEAK FLOW (cms)= 0.36 0.00 0.365 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 90.53 42.22 90.05
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.98 0.46 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7662) | Area (ha)= 1.61
 | ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.48	0.13
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.64	12.250	100.09	18.33	1.64
0.167	0.00	6.250	1.64	12.333	15.87	18.42	1.64
0.250	0.00	6.333	1.69	12.417	15.86	18.50	1.64
0.333	0.94	6.417	1.69	12.500	15.86	18.58	1.58
0.417	0.94	6.500	1.69	12.583	10.79	18.67	1.58
0.500	0.94	6.583	1.73	12.667	10.79	18.75	1.58
0.583	0.96	6.667	1.73	12.750	10.79	18.83	1.52
0.667	0.96	6.750	1.73	12.833	7.43	18.92	1.52
0.750	0.96	6.833	1.78	12.917	7.42	19.00	1.52



0.833	0.98	6.917	1.78	13.000	7.42	19.08	1.46
0.917	0.98	7.000	1.78	13.083	6.27	19.17	1.46
1.000	0.98	7.083	1.83	13.167	6.27	19.25	1.46
1.083	1.00	7.167	1.83	13.250	6.27	19.33	1.40
1.167	1.00	7.250	1.83	13.333	5.31	19.42	1.40
1.250	1.00	7.333	1.87	13.417	5.31	19.50	1.40
1.333	1.03	7.417	1.87	13.500	5.31	19.58	1.35
1.417	1.03	7.500	1.87	13.583	4.69	19.67	1.35
1.500	1.03	7.583	1.92	13.667	4.69	19.75	1.35
1.583	1.05	7.667	1.92	13.750	4.69	19.83	1.29
1.667	1.05	7.750	1.92	13.833	4.11	19.92	1.29
1.750	1.05	7.833	1.97	13.917	4.11	20.00	1.29
1.833	1.08	7.917	1.97	14.000	4.11	20.08	1.23
1.917	1.08	8.000	1.97	14.083	3.66	20.17	1.23
2.000	1.08	8.083	2.01	14.167	3.66	20.25	1.23
2.083	1.10	8.167	2.01	14.250	3.66	20.33	1.20
2.167	1.10	8.250	2.01	14.333	3.34	20.42	1.20
2.250	1.10	8.333	2.16	14.417	3.34	20.50	1.20
2.333	1.12	8.417	2.16	14.500	3.34	20.58	1.19
2.417	1.12	8.500	2.16	14.583	3.18	20.67	1.19
2.500	1.12	8.583	2.38	14.667	3.18	20.75	1.19
2.583	1.15	8.667	2.38	14.750	3.18	20.83	1.17
2.667	1.15	8.750	2.38	14.833	3.01	20.92	1.17
2.750	1.15	8.833	2.62	14.917	3.01	21.00	1.17
2.833	1.17	8.917	2.62	15.000	3.01	21.08	1.16
2.917	1.17	9.000	2.62	15.083	2.86	21.17	1.16
3.000	1.17	9.083	2.84	15.167	2.86	21.25	1.16
3.083	1.19	9.167	2.84	15.250	2.86	21.33	1.15
3.167	1.19	9.250	2.84	15.333	2.69	21.42	1.15
3.250	1.19	9.333	2.96	15.417	2.69	21.50	1.15
3.333	1.22	9.417	2.96	15.500	2.69	21.58	1.14
3.417	1.22	9.500	2.96	15.583	2.54	21.67	1.14
3.500	1.22	9.583	2.96	15.667	2.54	21.75	1.14
3.583	1.24	9.667	2.96	15.750	2.54	21.83	1.13
3.667	1.24	9.750	2.96	15.833	2.37	21.92	1.13
3.750	1.24	9.833	3.15	15.917	2.37	22.00	1.13
3.833	1.26	9.917	3.15	16.000	2.37	22.08	1.12
3.917	1.26	10.000	3.15	16.083	2.21	22.17	1.12
4.000	1.26	10.083	3.51	16.167	2.21	22.25	1.12
4.083	1.28	10.167	3.51	16.250	2.21	22.33	1.10
4.167	1.28	10.250	3.51	16.333	2.10	22.42	1.10
4.250	1.28	10.333	3.99	16.417	2.10	22.50	1.10
4.333	1.32	10.417	3.99	16.500	2.10	22.58	1.09
4.417	1.32	10.500	3.99	16.583	2.04	22.67	1.09
4.500	1.32	10.583	4.52	16.667	2.04	22.75	1.09
4.583	1.36	10.667	4.52	16.750	2.04	22.83	1.08
4.667	1.36	10.750	4.52	16.833	1.98	22.92	1.08
4.750	1.36	10.833	5.29	16.917	1.98	23.00	1.08
4.833	1.41	10.917	5.29	17.000	1.98	23.08	1.07
4.917	1.41	11.000	5.29	17.083	1.93	23.17	1.07
5.000	1.41	11.083	6.18	17.167	1.93	23.25	1.07
5.083	1.46	11.167	6.18	17.250	1.93	23.33	1.06
5.167	1.46	11.250	6.18	17.333	1.87	23.42	1.06
5.250	1.46	11.333	7.82	17.417	1.87	23.50	1.06
5.333	1.50	11.417	7.82	17.500	1.87	23.58	1.05
5.417	1.50	11.500	7.82	17.583	1.81	23.67	1.05
5.500	1.50	11.583	9.95	17.667	1.81	23.75	1.05
5.583	1.55	11.667	9.95	17.750	1.81	23.83	1.03
5.667	1.55	11.750	9.95	17.833	1.75	23.92	1.03
5.750	1.55	11.833	40.55	17.917	1.75	24.00	1.03
5.833	1.60	11.917	40.56	18.000	1.75	24.08	1.02
5.917	1.60	12.000	40.56	18.083	1.70	24.17	1.02
6.000	1.60	12.083	100.08	18.167	1.70	24.25	1.02
6.083	1.64	12.167	100.09	18.250	1.70		

Max.Eff.Inten.(mm/hr)= 100.09 38.48
 over (min) 5.00 25.00
 Storage Coeff. (min)= 2.48 (ii) 24.88 (ii)
 Unit Hyd. Tpeak (min)= 5.00 25.00
 Unit Hyd. peak (cms)= 0.29 0.05

TOTALS
 PEAK FLOW (cms)= 0.41 0.01 0.417 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25
 RUNOFF VOLUME (mm)= 90.53 42.22 86.66
 TOTAL RAINFALL (mm)= 92.53 92.53
 RUNOFF COEFFICIENT = 0.98 0.46 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7701)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7654):	1.69	0.467	12.25	90.05
+ ID2= 2 (7655):	1.32	0.365	12.25	90.05
=====				
ID = 3 (7701):	3.01	0.832	12.25	90.05

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7701)				
3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7701):	3.01	0.832	12.25	90.05
+ ID2= 2 (7662):	1.61	0.417	12.25	86.66
=====				
ID = 1 (7701):	4.62	1.249	12.25	88.86

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7707)	Area	(ha)=	1.06
ID= 1 DT= 5.0 min	Total Imp(%)=	95.00	Dir. Conn.(%)= 95.00

Surface Area	(ha)=	1.01	0.05
Dep. Storage	(mm)=	2.00	5.00
Average Slope	(%)=	2.50	2.00
Length	(m)=	60.00	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.64	12.250	100.09	18.33	1.64				
0.167	0.00	6.250	1.64	12.333	15.87	18.42	1.64				
0.250	0.00	6.333	1.69	12.417	15.86	18.50	1.64				
0.333	0.94	6.417	1.69	12.500	15.86	18.58	1.58				
0.417	0.94	6.500	1.69	12.583	10.79	18.67	1.58				
0.500	0.94	6.583	1.73	12.667	10.79	18.75	1.58				
0.583	0.96	6.667	1.73	12.750	10.79	18.83	1.52				
0.667	0.96	6.750	1.73	12.833	7.43	18.92	1.52				
0.750	0.96	6.833	1.78	12.917	7.42	19.00	1.52				
0.833	0.98	6.917	1.78	13.000	7.42	19.08	1.46				
0.917	0.98	7.000	1.78	13.083	6.27	19.17	1.46				
1.000	0.98	7.083	1.83	13.167	6.27	19.25	1.46				
1.083	1.00	7.167	1.83	13.250	6.27	19.33	1.40				
1.167	1.00	7.250	1.83	13.333	5.31	19.42	1.40				
1.250	1.00	7.333	1.87	13.417	5.31	19.50	1.40				
1.333	1.03	7.417	1.87	13.500	5.31	19.58	1.35				
1.417	1.03	7.500	1.87	13.583	4.69	19.67	1.35				
1.500	1.03	7.583	1.92	13.667	4.69	19.75	1.35				
1.583	1.05	7.667	1.92	13.750	4.69	19.83	1.29				
1.667	1.05	7.750	1.92	13.833	4.11	19.92	1.29				
1.750	1.05	7.833	1.97	13.917	4.11	20.00	1.29				
1.833	1.08	7.917	1.97	14.000	4.11	20.08	1.23				
1.917	1.08	8.000	1.97	14.083	3.66	20.17	1.23				
2.000	1.08	8.083	2.01	14.167	3.66	20.25	1.23				



2.083	1.10	8.167	2.01	14.250	3.66	20.33	1.20
2.167	1.10	8.250	2.01	14.333	3.34	20.42	1.20
2.250	1.10	8.333	2.16	14.417	3.34	20.50	1.20
2.333	1.12	8.417	2.16	14.500	3.34	20.58	1.19
2.417	1.12	8.500	2.16	14.583	3.18	20.67	1.19
2.500	1.12	8.583	2.38	14.667	3.18	20.75	1.19
2.583	1.15	8.667	2.38	14.750	3.18	20.83	1.17
2.667	1.15	8.750	2.38	14.833	3.01	20.92	1.17
2.750	1.15	8.833	2.62	14.917	3.01	21.00	1.17
2.833	1.17	8.917	2.62	15.000	3.01	21.08	1.16
2.917	1.17	9.000	2.62	15.083	2.86	21.17	1.16
3.000	1.17	9.083	2.84	15.167	2.86	21.25	1.16
3.083	1.19	9.167	2.84	15.250	2.86	21.33	1.15
3.167	1.19	9.250	2.84	15.333	2.69	21.42	1.15
3.250	1.19	9.333	2.96	15.417	2.69	21.50	1.15
3.333	1.22	9.417	2.96	15.500	2.69	21.58	1.14
3.417	1.22	9.500	2.96	15.583	2.54	21.67	1.14
3.500	1.22	9.583	2.96	15.667	2.54	21.75	1.14
3.583	1.24	9.667	2.96	15.750	2.54	21.83	1.13
3.667	1.24	9.750	2.96	15.833	2.37	21.92	1.13
3.750	1.24	9.833	3.15	15.917	2.37	22.00	1.13
3.833	1.26	9.917	3.15	16.000	2.37	22.08	1.12
3.917	1.26	10.000	3.15	16.083	2.21	22.17	1.12
4.000	1.26	10.083	3.51	16.167	2.21	22.25	1.12
4.083	1.28	10.167	3.51	16.250	2.21	22.33	1.10
4.167	1.28	10.250	3.51	16.333	2.10	22.42	1.10
4.250	1.28	10.333	3.99	16.417	2.10	22.50	1.10
4.333	1.32	10.417	3.99	16.500	2.10	22.58	1.09
4.417	1.32	10.500	3.99	16.583	2.04	22.67	1.09
4.500	1.32	10.583	4.52	16.667	2.04	22.75	1.09
4.583	1.36	10.667	4.52	16.750	2.04	22.83	1.08
4.667	1.36	10.750	4.52	16.833	1.98	22.92	1.08
4.750	1.36	10.833	5.29	16.917	1.98	23.00	1.08
4.833	1.41	10.917	5.29	17.000	1.98	23.08	1.07
4.917	1.41	11.000	5.29	17.083	1.93	23.17	1.07
5.000	1.41	11.083	6.18	17.167	1.93	23.25	1.07
5.083	1.46	11.167	6.18	17.250	1.93	23.33	1.06
5.167	1.46	11.250	6.18	17.333	1.87	23.42	1.06
5.250	1.46	11.333	7.82	17.417	1.87	23.50	1.06
5.333	1.50	11.417	7.82	17.500	1.87	23.58	1.05
5.417	1.50	11.500	7.82	17.583	1.81	23.67	1.05
5.500	1.50	11.583	9.95	17.667	1.81	23.75	1.05
5.583	1.55	11.667	9.95	17.750	1.81	23.83	1.03
5.667	1.55	11.750	9.95	17.833	1.75	23.92	1.03
5.750	1.55	11.833	40.55	17.917	1.75	24.00	1.03
5.833	1.60	11.917	40.56	18.000	1.75	24.08	1.02
5.917	1.60	12.000	40.56	18.083	1.70	24.17	1.02
6.000	1.60	12.083	100.08	18.167	1.70	24.25	1.02
6.083	1.64	12.167	100.09	18.250	1.70		

Max.Eff.Inten.(mm/hr)= 100.09 57.62
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.43 (ii) 3.60 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.26

TOTALS
 PEAK FLOW (cms)= 0.28 0.01 0.289 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 90.53 43.34 88.17
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.98 0.47 0.95

- ***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
 (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7702)				
1 + 2 = 3				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	

ID1= 1 (7623):	1.20	0.327	12.25	88.17
+ ID2= 2 (7700):	4.48	1.230	12.25	89.43

ID = 3 (7702):	5.68	1.557	12.25	89.17

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
3 + 2 = 1				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7702):	5.68	1.557	12.25	89.17
+ ID2= 2 (7701):	4.62	1.249	12.25	88.86

ID = 1 (7702):	10.30	2.805	12.25	89.03

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
1 + 2 = 3				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7702):	10.30	2.805	12.25	89.03
+ ID2= 2 (7707):	1.06	0.289	12.25	88.17

ID = 3 (7702):	11.36	3.094	12.25	88.95

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
3 + 2 = 1				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7702):	11.36	3.094	12.25	88.95
+ ID2= 2 (7714):	14.31	1.734	12.25	91.07

ID = 1 (7702):	25.67	4.828	12.25	90.13

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7705)				
OVERFLOW IS OFF				
IN= 2----> OUT= 1				
DT= 5.0 min				
OUTFLOW	STORAGE	OUTFLOW	STORAGE	
(cms)	(ha.m.)	(cms)	(ha.m.)	
0.0000	0.0000	0.6280	2.3980	
0.0730	0.2080	0.6400	2.4830	
0.0890	0.2770	0.6520	2.5670	
0.1340	0.5530	0.6640	2.6500	
0.2910	0.8290	0.6750	2.7340	
0.3860	1.1060	0.7190	3.0490	
0.4590	1.3820	0.8250	3.3550	
0.5220	1.7210	2.0760	3.4560	
0.5780	2.0600	2.3560	3.7320	

AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 2 (7702)	25.670	4.828	12.25	90.13
OUTFLOW: ID= 1 (7705)	25.670	0.361	14.58	90.10

PEAK FLOW REDUCTION [Qout/Qin] (%) = 7.47
 TIME SHIFT OF PEAK FLOW (min) = 140.00
 MAXIMUM STORAGE USED (ha.m.) = 1.0323

CALIB			
STANDHYD (7716)			
ID= 1 DT= 5.0 min	Area (ha)=	0.19	
	Total Imp (%) =	95.00	Dir. Conn. (%) = 95.00

Surface Area	(ha)=	IMPERVIOUS	PERVIOUS (i)
Dep. Storage	(mm)=	0.18	0.01
		2.00	5.00



Average Slope (%) = 2.50 2.00
 Length (m) = 60.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.64	12.250	100.09	18.33	1.64
0.167	0.00	6.250	1.64	12.333	15.87	18.42	1.64
0.250	0.00	6.333	1.69	12.417	15.86	18.50	1.64
0.333	0.94	6.417	1.69	12.500	15.86	18.58	1.58
0.417	0.94	6.500	1.69	12.583	10.79	18.67	1.58
0.500	0.94	6.583	1.73	12.667	10.79	18.75	1.58
0.583	0.96	6.667	1.73	12.750	10.79	18.83	1.52
0.667	0.96	6.750	1.73	12.833	7.43	18.92	1.52
0.750	0.96	6.833	1.78	12.917	7.42	19.00	1.52
0.833	0.98	6.917	1.78	13.000	7.42	19.08	1.46
0.917	0.98	7.000	1.78	13.083	6.27	19.17	1.46
1.000	0.98	7.083	1.83	13.167	6.27	19.25	1.46
1.083	1.00	7.167	1.83	13.250	6.27	19.33	1.40
1.167	1.00	7.250	1.83	13.333	5.31	19.42	1.40
1.250	1.00	7.333	1.87	13.417	5.31	19.50	1.40
1.333	1.03	7.417	1.87	13.500	5.31	19.58	1.35
1.417	1.03	7.500	1.87	13.583	4.69	19.67	1.35
1.500	1.03	7.583	1.92	13.667	4.69	19.75	1.35
1.583	1.05	7.667	1.92	13.750	4.69	19.83	1.29
1.667	1.05	7.750	1.92	13.833	4.11	19.92	1.29
1.750	1.05	7.833	1.97	13.917	4.11	20.00	1.29
1.833	1.08	7.917	1.97	14.000	4.11	20.08	1.23
1.917	1.08	8.000	1.97	14.083	3.66	20.17	1.23
2.000	1.08	8.083	2.01	14.167	3.66	20.25	1.23
2.083	1.10	8.167	2.01	14.250	3.66	20.33	1.20
2.167	1.10	8.250	2.01	14.333	3.34	20.42	1.20
2.250	1.10	8.333	2.16	14.417	3.34	20.50	1.20
2.333	1.12	8.417	2.16	14.500	3.34	20.58	1.19
2.417	1.12	8.500	2.16	14.583	3.18	20.67	1.19
2.500	1.12	8.583	2.38	14.667	3.18	20.75	1.19
2.583	1.15	8.667	2.38	14.750	3.18	20.83	1.17
2.667	1.15	8.750	2.38	14.833	3.01	20.92	1.17
2.750	1.15	8.833	2.62	14.917	3.01	21.00	1.17
2.833	1.17	8.917	2.62	15.000	3.01	21.08	1.16
2.917	1.17	9.000	2.62	15.083	2.86	21.17	1.16
3.000	1.17	9.083	2.84	15.167	2.86	21.25	1.16
3.083	1.19	9.167	2.84	15.250	2.86	21.33	1.15
3.167	1.19	9.250	2.84	15.333	2.69	21.42	1.15
3.250	1.19	9.333	2.96	15.417	2.69	21.50	1.15
3.333	1.22	9.417	2.96	15.500	2.69	21.58	1.14
3.417	1.22	9.500	2.96	15.583	2.54	21.67	1.14
3.500	1.22	9.583	2.96	15.667	2.54	21.75	1.14
3.583	1.24	9.667	2.96	15.750	2.54	21.83	1.13
3.667	1.24	9.750	2.96	15.833	2.37	21.92	1.13
3.750	1.24	9.833	3.15	15.917	2.37	22.00	1.13
3.833	1.26	9.917	3.15	16.000	2.37	22.08	1.12
3.917	1.26	10.000	3.15	16.083	2.21	22.17	1.12
4.000	1.26	10.083	3.51	16.167	2.21	22.25	1.12
4.083	1.28	10.167	3.51	16.250	2.21	22.33	1.10
4.167	1.28	10.250	3.51	16.333	2.10	22.42	1.10
4.250	1.28	10.333	3.99	16.417	2.10	22.50	1.10
4.333	1.32	10.417	3.99	16.500	2.10	22.58	1.09
4.417	1.32	10.500	3.99	16.583	2.04	22.67	1.09
4.500	1.32	10.583	4.52	16.667	2.04	22.75	1.09
4.583	1.36	10.667	4.52	16.750	2.04	22.83	1.08
4.667	1.36	10.750	4.52	16.833	1.98	22.92	1.08
4.750	1.36	10.833	5.29	16.917	1.98	23.00	1.08
4.833	1.41	10.917	5.29	17.000	1.98	23.08	1.07
4.917	1.41	11.000	5.29	17.083	1.93	23.17	1.07
5.000	1.41	11.083	6.18	17.167	1.93	23.25	1.07
5.083	1.46	11.167	6.18	17.250	1.93	23.33	1.06
5.167	1.46	11.250	6.18	17.333	1.87	23.42	1.06
5.250	1.46	11.333	7.82	17.417	1.87	23.50	1.06
5.333	1.50	11.417	7.82	17.500	1.87	23.58	1.05
5.417	1.50	11.500	7.82	17.583	1.81	23.67	1.05
5.500	1.50	11.583	9.95	17.667	1.81	23.75	1.05

5.583	1.55	11.667	9.95	17.750	1.81	23.83	1.03
5.667	1.55	11.750	9.95	17.833	1.75	23.92	1.03
5.750	1.55	11.833	40.55	17.917	1.75	24.00	1.03
5.833	1.60	11.917	40.56	18.000	1.75	24.08	1.02
5.917	1.60	12.000	40.56	18.083	1.70	24.17	1.02
6.000	1.60	12.083	100.08	18.167	1.70	24.25	1.02
6.083	1.64	12.167	100.09	18.250	1.70		

Max.Eff.Inten.(mm/hr)= 100.09 57.62
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.43 (ii) 3.60 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.26

TOTALS

PEAK FLOW (cms)= 0.05 0.00 0.052 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 90.53 43.34 88.17
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.98 0.47 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7720)	OVERFLOW IS OFF		
IN= 2---> OUT= 1			
DT= 5.0 min			
OUTFLOW	STORAGE	OUTFLOW	STORAGE
(cms)	(ha.m.)	(cms)	(ha.m.)
0.0000	0.0000	0.0100	0.0090
0.0030	0.0010	0.0110	0.0100
0.0050	0.0030	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

INFLOW : ID= 2 (7716)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
0.190	0.052	12.25	88.17	
OUTFLOW: ID= 1 (7720)	0.190	0.009	12.33	87.77

PEAK FLOW REDUCTION [Qout/Qin](%) = 17.40
 TIME SHIFT OF PEAK FLOW (min) = 5.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0066

CALIB	Area (ha)	Total Imp (%)	Dir. Conn. (%)
STANDHYD (7717)	0.20	95.00	95.00
ID= 1 DT= 5.0 min			

Surface Area (ha)	IMPERVIOUS (mm)	PERVIOUS (i)
0.19	0.01	0.01
2.00	5.00	5.00
2.50	2.00	2.00
36.51	40.00	40.00
0.013	0.250	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.64	12.250	100.09	18.33	1.64
0.167	0.00	6.250	1.64	12.333	15.87	18.42	1.64
0.250	0.00	6.333	1.69	12.417	15.86	18.50	1.64
0.333	0.94	6.417	1.69	12.500	15.86	18.58	1.58
0.417	0.94	6.500	1.69	12.583	10.79	18.67	1.58
0.500	0.94	6.583	1.73	12.667	10.79	18.75	1.58



0.583	0.96	6.667	1.73	12.750	10.79	18.83	1.52
0.667	0.96	6.750	1.73	12.833	7.43	18.92	1.52
0.750	0.96	6.833	1.78	12.917	7.42	19.00	1.52
0.833	0.98	6.917	1.78	13.000	7.42	19.08	1.46
0.917	0.98	7.000	1.78	13.083	6.27	19.17	1.46
1.000	0.98	7.083	1.83	13.167	6.27	19.25	1.46
1.083	1.00	7.167	1.83	13.250	6.27	19.33	1.40
1.167	1.00	7.250	1.83	13.333	5.31	19.42	1.40
1.250	1.00	7.333	1.87	13.417	5.31	19.50	1.40
1.333	1.03	7.417	1.87	13.500	5.31	19.58	1.35
1.417	1.03	7.500	1.87	13.583	4.69	19.67	1.35
1.500	1.03	7.583	1.92	13.667	4.69	19.75	1.35
1.583	1.05	7.667	1.92	13.750	4.69	19.83	1.29
1.667	1.05	7.750	1.92	13.833	4.11	19.92	1.29
1.750	1.05	7.833	1.97	13.917	4.11	20.00	1.29
1.833	1.08	7.917	1.97	14.000	4.11	20.08	1.23
1.917	1.08	8.000	1.97	14.083	3.66	20.17	1.23
2.000	1.08	8.083	2.01	14.167	3.66	20.25	1.23
2.083	1.10	8.167	2.01	14.250	3.66	20.33	1.20
2.167	1.10	8.250	2.01	14.333	3.34	20.42	1.20
2.250	1.10	8.333	2.16	14.417	3.34	20.50	1.20
2.333	1.12	8.417	2.16	14.500	3.34	20.58	1.19
2.417	1.12	8.500	2.16	14.583	3.18	20.67	1.19
2.500	1.12	8.583	2.38	14.667	3.18	20.75	1.19
2.583	1.15	8.667	2.38	14.750	3.18	20.83	1.17
2.667	1.15	8.750	2.38	14.833	3.01	20.92	1.17
2.750	1.15	8.833	2.62	14.917	3.01	21.00	1.17
2.833	1.17	8.917	2.62	15.000	3.01	21.08	1.16
2.917	1.17	9.000	2.62	15.083	2.86	21.17	1.16
3.000	1.17	9.083	2.84	15.167	2.86	21.25	1.16
3.083	1.19	9.167	2.84	15.250	2.86	21.33	1.15
3.167	1.19	9.250	2.84	15.333	2.69	21.42	1.15
3.250	1.19	9.333	2.96	15.417	2.69	21.50	1.15
3.333	1.22	9.417	2.96	15.500	2.69	21.58	1.14
3.417	1.22	9.500	2.96	15.583	2.54	21.67	1.14
3.500	1.22	9.583	2.96	15.667	2.54	21.75	1.14
3.583	1.24	9.667	2.96	15.750	2.54	21.83	1.13
3.667	1.24	9.750	2.96	15.833	2.37	21.92	1.13
3.750	1.24	9.833	3.15	15.917	2.37	22.00	1.13
3.833	1.26	9.917	3.15	16.000	2.37	22.08	1.12
3.917	1.26	10.000	3.15	16.083	2.21	22.17	1.12
4.000	1.26	10.083	3.51	16.167	2.21	22.25	1.12
4.083	1.28	10.167	3.51	16.250	2.21	22.33	1.10
4.167	1.28	10.250	3.51	16.333	2.10	22.42	1.10
4.250	1.28	10.333	3.99	16.417	2.10	22.50	1.10
4.333	1.32	10.417	3.99	16.500	2.10	22.58	1.09
4.417	1.32	10.500	3.99	16.583	2.04	22.67	1.09
4.500	1.32	10.583	4.52	16.667	2.04	22.75	1.09
4.583	1.36	10.667	4.52	16.750	2.04	22.83	1.08
4.667	1.36	10.750	4.52	16.833	1.98	22.92	1.08
4.750	1.36	10.833	5.29	16.917	1.98	23.00	1.08
4.833	1.41	10.917	5.29	17.000	1.98	23.08	1.07
4.917	1.41	11.000	5.29	17.083	1.93	23.17	1.07
5.000	1.41	11.083	6.18	17.167	1.93	23.25	1.07
5.083	1.46	11.167	6.18	17.250	1.93	23.33	1.06
5.167	1.46	11.250	6.18	17.333	1.87	23.42	1.06
5.250	1.46	11.333	7.82	17.417	1.87	23.50	1.06
5.333	1.50	11.417	7.82	17.500	1.87	23.58	1.05
5.417	1.50	11.500	7.82	17.583	1.81	23.67	1.05
5.500	1.50	11.583	9.95	17.667	1.81	23.75	1.05
5.583	1.55	11.667	9.95	17.750	1.81	23.83	1.03
5.667	1.55	11.750	9.95	17.833	1.75	23.92	1.03
5.750	1.55	11.833	40.55	17.917	1.75	24.00	1.03
5.833	1.60	11.917	40.56	18.000	1.75	24.08	1.02
5.917	1.60	12.000	40.56	18.083	1.70	24.17	1.02
6.000	1.60	12.083	100.08	18.167	1.70	24.25	1.02
6.083	1.64	12.167	100.09	18.250	1.70		

Max.Eff.Inten.(mm/hr)= 100.09 57.62
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.06 (ii) 3.23 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.27

PEAK FLOW (cms)= 0.05 0.00 0.054 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25

TOTALS

RUNOFF VOLUME (mm)= 90.53 43.34 88.17
 TOTAL RAINFALL (mm)= 92.53 92.53 92.53
 RUNOFF COEFFICIENT = 0.98 0.47 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | RESERVOIR (7719) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
DT= 5.0 min

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.0100	0.0090
0.0030	0.0010	0.0110	0.0100
0.0050	0.0030	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

INFLOW : ID= 2 (7717)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
0.200	0.054	12.25	88.17	

OUTFLOW: ID= 1 (7719)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
0.200	0.009	12.25	87.77	

PEAK FLOW REDUCTION [Qout/Qin](%)= 16.53
 TIME SHIFT OF PEAK FLOW (min)= 0.00
 MAXIMUM STORAGE USED (ha.m.)= 0.0070

 | ADD HYD (7706) |
1 + 2 = 3

ID	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7705):	25.67	0.361	14.58	90.10
+ ID2= 2 (7719):	0.20	0.009	12.25	87.77
ID = 3 (7706):	25.87	0.367	14.08	90.08

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7706) |
3 + 2 = 1

ID	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (7706):	25.87	0.367	14.08	90.08
+ ID2= 2 (7720):	0.19	0.009	12.33	87.77
ID = 1 (7706):	26.06	0.373	13.67	90.07

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |
 | STANDBYD (7595) | Area (ha)= 1.24
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.23	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	91.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----



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=====
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O O
O O T T H H Y Y M M O O O
OOO T T H H Y Y M M OOO

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6.00 1.80 | 12.25 17.40 | 18.50 1.73 |

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| CALIB |
| STANDHYD ( 7640) | Area (ha)= 0.59
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.58 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 62.72 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb1ead57\dc105878-1290-4399-b4b3-86fbc3edc515\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb1ead57\dc105878-1290-4399-b4b3-86fbc3edc515\scen

```

DATE: 11-22-2024 TIME: 12:17:37

USER:

COMMENTS: _____

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*****
** SIMULATION : R - 100yr 24hr 15min SCS Type **
*****

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-----
READ STORM      Filename: C:\Users\mhooper\AppData
                  ata\Local\Temp\
                  23be32ce-1a71-4ae6-a5bf-302738051fdc\f3a89182
Ptotal=101.55 mm Comments: 100yr 24hr 15min SCS Type II
-----

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---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.80	12.250	109.85	18.33	1.80
0.167	0.00	6.250	1.80	12.333	17.41	18.42	1.80
0.250	0.00	6.333	1.85	12.417	17.40	18.50	1.80
0.333	1.03	6.417	1.85	12.500	17.40	18.58	1.73
0.417	1.03	6.500	1.85	12.583	11.85	18.67	1.73
0.500	1.03	6.583	1.90	12.667	11.84	18.75	1.73
0.583	1.05	6.667	1.90	12.750	11.84	18.83	1.67
0.667	1.05	6.750	1.90	12.833	8.15	18.92	1.67
0.750	1.05	6.833	1.96	12.917	8.15	19.00	1.67
0.833	1.08	6.917	1.96	13.000	8.15	19.08	1.61
0.917	1.08	7.000	1.96	13.083	6.88	19.17	1.61
1.000	1.08	7.083	2.00	13.167	6.88	19.25	1.61
1.083	1.10	7.167	2.00	13.250	6.88	19.33	1.54
1.167	1.10	7.250	2.00	13.333	5.83	19.42	1.54
1.250	1.10	7.333	2.06	13.417	5.82	19.50	1.54
1.333	1.13	7.417	2.06	13.500	5.82	19.58	1.48
1.417	1.13	7.500	2.06	13.583	5.14	19.67	1.48
1.500	1.13	7.583	2.11	13.667	5.14	19.75	1.48
1.583	1.16	7.667	2.11	13.750	5.14	19.83	1.41
1.667	1.16	7.750	2.11	13.833	4.51	19.92	1.41
1.750	1.16	7.833	2.16	13.917	4.51	20.00	1.41
1.833	1.18	7.917	2.16	14.000	4.51	20.08	1.35
1.917	1.18	8.000	2.16	14.083	4.02	20.17	1.35
2.000	1.18	8.083	2.21	14.167	4.02	20.25	1.35
2.083	1.20	8.167	2.21	14.250	4.02	20.33	1.31
2.167	1.20	8.250	2.21	14.333	3.67	20.42	1.31
2.250	1.20	8.333	2.37	14.417	3.67	20.50	1.31
2.333	1.23	8.417	2.37	14.500	3.67	20.58	1.30
2.417	1.23	8.500	2.37	14.583	3.50	20.67	1.30
2.500	1.23	8.583	2.61	14.667	3.50	20.75	1.30
2.583	1.26	8.667	2.61	14.750	3.50	20.83	1.29
2.667	1.26	8.750	2.61	14.833	3.31	20.92	1.29
2.750	1.26	8.833	2.87	14.917	3.31	21.00	1.29
2.833	1.28	8.917	2.87	15.000	3.31	21.08	1.28
2.917	1.28	9.000	2.87	15.083	3.14	21.17	1.28
3.000	1.28	9.083	3.12	15.167	3.14	21.25	1.28
3.083	1.31	9.167	3.12	15.250	3.14	21.33	1.26
3.167	1.31	9.250	3.12	15.333	2.96	21.42	1.26
3.250	1.31	9.333	3.25	15.417	2.96	21.50	1.26
3.333	1.33	9.417	3.25	15.500	2.96	21.58	1.25
3.417	1.33	9.500	3.25	15.583	2.78	21.67	1.25
3.500	1.33	9.583	3.25	15.667	2.78	21.75	1.25
3.583	1.36	9.667	3.25	15.750	2.78	21.83	1.24
3.667	1.36	9.750	3.25	15.833	2.60	21.92	1.24
3.750	1.36	9.833	3.46	15.917	2.60	22.00	1.24
3.833	1.38	9.917	3.46	16.000	2.60	22.08	1.22
3.917	1.38	10.000	3.46	16.083	2.43	22.17	1.22
4.000	1.38	10.083	3.85	16.167	2.43	22.25	1.22
4.083	1.41	10.167	3.85	16.250	2.43	22.33	1.21
4.167	1.41	10.250	3.85	16.333	2.30	22.42	1.21
4.250	1.41	10.333	4.38	16.417	2.30	22.50	1.21
4.333	1.45	10.417	4.38	16.500	2.30	22.58	1.20
4.417	1.45	10.500	4.38	16.583	2.24	22.67	1.20
4.500	1.45	10.583	4.96	16.667	2.24	22.75	1.20

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	6.25	1.85	12.50	11.84	18.75	1.67
0.25	1.03	6.50	1.90	12.75	8.15	19.00	1.61
0.50	1.05	6.75	1.96	13.00	6.88	19.25	1.54
0.75	1.08	7.00	2.00	13.25	5.82	19.50	1.48
1.00	1.10	7.25	2.06	13.50	5.14	19.75	1.41
1.25	1.13	7.50	2.11	13.75	4.51	20.00	1.35
1.50	1.16	7.75	2.16	14.00	4.02	20.25	1.31
1.75	1.18	8.00	2.21	14.25	3.67	20.50	1.30
2.00	1.20	8.25	2.37	14.50	3.50	20.75	1.29
2.25	1.23	8.50	2.61	14.75	3.31	21.00	1.28
2.50	1.26	8.75	2.87	15.00	3.14	21.25	1.26
2.75	1.28	9.00	3.12	15.25	2.96	21.50	1.25
3.00	1.31	9.25	3.25	15.50	2.78	21.75	1.24
3.25	1.33	9.50	3.25	15.75	2.60	22.00	1.22
3.50	1.36	9.75	3.46	16.00	2.43	22.25	1.21
3.75	1.38	10.00	3.85	16.25	2.30	22.50	1.20
4.00	1.41	10.25	4.38	16.50	2.24	22.75	1.19
4.25	1.45	10.50	4.96	16.75	2.18	23.00	1.17
4.50	1.50	10.75	5.81	17.00	2.11	23.25	1.16
4.75	1.55	11.00	6.78	17.25	2.05	23.50	1.15
5.00	1.60	11.25	8.58	17.50	1.99	23.75	1.14
5.25	1.65	11.50	10.92	17.75	1.92	24.00	1.12
5.50	1.70	11.75	44.51	18.00	1.86		
5.75	1.75	12.00	109.85	18.25	1.80		



4.583	1.50	10.667	4.96	16.750	2.24	22.83	1.19
4.667	1.50	10.750	4.96	16.833	2.18	22.92	1.19
4.750	1.50	10.833	5.81	16.917	2.18	23.00	1.19
4.833	1.55	10.917	5.81	17.000	2.18	23.08	1.17
4.917	1.55	11.000	5.81	17.083	2.11	23.17	1.17
5.000	1.55	11.083	6.78	17.167	2.11	23.25	1.17
5.083	1.60	11.167	6.78	17.250	2.11	23.33	1.16
5.167	1.60	11.250	6.78	17.333	2.05	23.42	1.16
5.250	1.60	11.333	8.58	17.417	2.05	23.50	1.16
5.333	1.65	11.417	8.58	17.500	2.05	23.58	1.15
5.417	1.65	11.500	8.58	17.583	1.99	23.67	1.15
5.500	1.65	11.583	10.92	17.667	1.99	23.75	1.15
5.583	1.70	11.667	10.92	17.750	1.99	23.83	1.14
5.667	1.70	11.750	10.92	17.833	1.92	23.92	1.14
5.750	1.70	11.833	44.51	17.917	1.92	24.00	1.14
5.833	1.75	11.917	44.51	18.000	1.92	24.08	1.12
5.917	1.75	12.000	44.51	18.083	1.86	24.17	1.12
6.000	1.75	12.083	109.84	18.167	1.86	24.25	1.12
6.083	1.80	12.167	109.85	18.250	1.86		

Max.Eff.Inten.(mm/hr)=	109.85	64.88
over (min)	5.00	5.00
Storage Coeff. (min)=	1.51 (ii)	2.59 (iii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.29
PEAK FLOW (cms)=	0.18	0.00
TIME TO PEAK (hrs)=	12.25	12.25
RUNOFF VOLUME (mm)=	99.55	48.94
TOTAL RAINFALL (mm)=	101.55	101.55
RUNOFF COEFFICIENT =	0.98	0.48

TOTALS

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	0.21	Curve Number (CN)=	73.0
NASHYD (7721)	Ia (mm)=	5.00	# of Linear Res.(N)=	3.00
ID= 1 DT= 5.0 min	U.H. Tp (hrs)=	0.17		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.80	12.250	109.85	18.33	1.80
0.167	0.00	6.250	1.80	12.333	17.41	18.42	1.80
0.250	0.00	6.333	1.85	12.417	17.40	18.50	1.80
0.333	1.03	6.417	1.85	12.500	17.40	18.58	1.73
0.417	1.03	6.500	1.85	12.583	11.85	18.67	1.73
0.500	1.03	6.583	1.90	12.667	11.84	18.75	1.73
0.583	1.05	6.667	1.90	12.750	11.84	18.83	1.67
0.667	1.05	6.750	1.90	12.833	8.15	18.92	1.67
0.750	1.05	6.833	1.96	12.917	8.15	19.00	1.67
0.833	1.08	6.917	1.96	13.000	8.15	19.08	1.61
0.917	1.08	7.000	1.96	13.083	6.88	19.17	1.61
1.000	1.08	7.083	2.00	13.167	6.88	19.25	1.61
1.083	1.10	7.167	2.00	13.250	6.88	19.33	1.54
1.167	1.10	7.250	2.00	13.333	5.83	19.42	1.54
1.250	1.10	7.333	2.06	13.417	5.82	19.50	1.54
1.333	1.13	7.417	2.06	13.500	5.82	19.58	1.48
1.417	1.13	7.500	2.06	13.583	5.14	19.67	1.48
1.500	1.13	7.583	2.11	13.667	5.14	19.75	1.48
1.583	1.16	7.667	2.11	13.750	5.14	19.83	1.41
1.667	1.16	7.750	2.11	13.833	4.51	19.92	1.41
1.750	1.16	7.833	2.16	13.917	4.51	20.00	1.41
1.833	1.18	7.917	2.16	14.000	4.51	20.08	1.35
1.917	1.18	8.000	2.16	14.083	4.02	20.17	1.35

2.000	1.18	8.083	2.21	14.167	4.02	20.25	1.35
2.083	1.20	8.167	2.21	14.250	4.02	20.33	1.31
2.167	1.20	8.250	2.21	14.333	3.67	20.42	1.31
2.250	1.20	8.333	2.37	14.417	3.67	20.50	1.31
2.333	1.23	8.417	2.37	14.500	3.67	20.58	1.30
2.417	1.23	8.500	2.37	14.583	3.50	20.67	1.30
2.500	1.23	8.583	2.61	14.667	3.50	20.75	1.30
2.583	1.26	8.667	2.61	14.750	3.50	20.83	1.29
2.667	1.26	8.750	2.61	14.833	3.31	20.92	1.29
2.750	1.26	8.833	2.87	14.917	3.31	21.00	1.29
2.833	1.28	8.917	2.87	15.000	3.31	21.08	1.28
2.917	1.28	9.000	2.87	15.083	3.14	21.17	1.28
3.000	1.28	9.083	3.12	15.167	3.14	21.25	1.28
3.083	1.31	9.167	3.12	15.250	3.14	21.33	1.26
3.167	1.31	9.250	3.12	15.333	2.96	21.42	1.26
3.250	1.31	9.333	3.25	15.417	2.96	21.50	1.26
3.333	1.33	9.417	3.25	15.500	2.96	21.58	1.25
3.417	1.33	9.500	3.25	15.583	2.78	21.67	1.25
3.500	1.33	9.583	3.25	15.667	2.78	21.75	1.25
3.583	1.36	9.667	3.25	15.750	2.78	21.83	1.24
3.667	1.36	9.750	3.25	15.833	2.60	21.92	1.24
3.750	1.36	9.833	3.46	15.917	2.60	22.00	1.24
3.833	1.38	9.917	3.46	16.000	2.60	22.08	1.22
3.917	1.38	10.000	3.46	16.083	2.43	22.17	1.22
4.000	1.38	10.083	3.85	16.167	2.43	22.25	1.22
4.083	1.41	10.167	3.85	16.250	2.43	22.33	1.21
4.167	1.41	10.250	3.85	16.333	2.30	22.42	1.21
4.250	1.41	10.333	4.38	16.417	2.30	22.50	1.21
4.333	1.45	10.417	4.38	16.500	2.30	22.58	1.20
4.417	1.45	10.500	4.38	16.583	2.24	22.67	1.20
4.500	1.45	10.583	4.96	16.667	2.24	22.75	1.20
4.583	1.50	10.667	4.96	16.750	2.24	22.83	1.19
4.667	1.50	10.750	4.96	16.833	2.18	22.92	1.19
4.750	1.50	10.833	5.81	16.917	2.18	23.00	1.19
4.833	1.55	10.917	5.81	17.000	2.18	23.08	1.17
4.917	1.55	11.000	5.81	17.083	2.11	23.17	1.17
5.000	1.55	11.083	6.78	17.167	2.11	23.25	1.17
5.083	1.60	11.167	6.78	17.250	2.11	23.33	1.16
5.167	1.60	11.250	6.78	17.333	2.05	23.42	1.16
5.250	1.60	11.333	8.58	17.417	2.05	23.50	1.16
5.333	1.65	11.417	8.58	17.500	2.05	23.58	1.15
5.417	1.65	11.500	8.58	17.583	1.99	23.67	1.15
5.500	1.65	11.583	10.92	17.667	1.99	23.75	1.15
5.583	1.70	11.667	10.92	17.750	1.99	23.83	1.14
5.667	1.70	11.750	10.92	17.833	1.92	23.92	1.14
5.750	1.70	11.833	44.51	17.917	1.92	24.00	1.14
5.833	1.75	11.917	44.51	18.000	1.92	24.08	1.12
5.917	1.75	12.000	44.51	18.083	1.86	24.17	1.12
6.000	1.75	12.083	109.84	18.167	1.86	24.25	1.12
6.083	1.80	12.167	109.85	18.250	1.86		

Unit Hyd Qpeak (cms)= 0.047

PEAK FLOW (cms)=	0.027 (i)
TIME TO PEAK (hrs)=	12.250
RUNOFF VOLUME (mm)=	48.759
TOTAL RAINFALL (mm)=	101.550
RUNOFF COEFFICIENT =	0.480

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	10.90
STANDHYD (7599)	Total Imp(%)=	99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	99.00
Surface Area (ha)=	IMPERVIOUS	PERVIOUS (i)
Dep. Storage (mm)=	10.79	0.11
Average Slope (%)=	2.00	5.00
Length (m)=	1.00	2.00
Mannings n =	269.57	40.00
	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.80	12.250	109.85	18.33	1.80
0.167	0.00	6.250	1.80	12.333	17.41	18.42	1.80
0.250	0.00	6.333	1.85	12.417	17.40	18.50	1.80
0.333	1.03	6.417	1.85	12.500	17.40	18.58	1.73
0.417	1.03	6.500	1.85	12.583	11.85	18.67	1.73
0.500	1.03	6.583	1.90	12.667	11.84	18.75	1.73
0.583	1.05	6.667	1.90	12.750	11.84	18.83	1.67
0.667	1.05	6.750	1.90	12.833	8.15	18.92	1.67
0.750	1.05	6.833	1.96	12.917	8.15	19.00	1.67
0.833	1.08	6.917	1.96	13.000	8.15	19.08	1.61
0.917	1.08	7.000	1.96	13.083	6.88	19.17	1.61
1.000	1.08	7.083	2.00	13.167	6.88	19.25	1.61
1.083	1.10	7.167	2.00	13.250	6.88	19.33	1.54
1.167	1.10	7.250	2.00	13.333	5.83	19.42	1.54
1.250	1.10	7.333	2.06	13.417	5.82	19.50	1.54
1.333	1.13	7.417	2.06	13.500	5.82	19.58	1.48
1.417	1.13	7.500	2.06	13.583	5.14	19.67	1.48
1.500	1.13	7.583	2.11	13.667	5.14	19.75	1.48
1.583	1.16	7.667	2.11	13.750	5.14	19.83	1.41
1.667	1.16	7.750	2.11	13.833	4.51	19.92	1.41
1.750	1.16	7.833	2.16	13.917	4.51	20.00	1.41
1.833	1.18	7.917	2.16	14.000	4.51	20.08	1.35
1.917	1.18	8.000	2.16	14.083	4.02	20.17	1.35
2.000	1.18	8.083	2.21	14.167	4.02	20.25	1.35
2.083	1.20	8.167	2.21	14.250	4.02	20.33	1.31
2.167	1.20	8.250	2.21	14.333	3.67	20.42	1.31
2.250	1.20	8.333	2.37	14.417	3.67	20.50	1.31
2.333	1.23	8.417	2.37	14.500	3.67	20.58	1.30
2.417	1.23	8.500	2.37	14.583	3.50	20.67	1.30
2.500	1.23	8.583	2.61	14.667	3.50	20.75	1.30
2.583	1.26	8.667	2.61	14.750	3.50	20.83	1.29
2.667	1.26	8.750	2.61	14.833	3.31	20.92	1.29
2.750	1.26	8.833	2.87	14.917	3.31	21.00	1.29
2.833	1.28	8.917	2.87	15.000	3.31	21.08	1.28
2.917	1.28	9.000	2.87	15.083	3.14	21.17	1.28
3.000	1.28	9.083	3.12	15.167	3.14	21.25	1.28
3.083	1.31	9.167	3.12	15.250	3.14	21.33	1.26
3.167	1.31	9.250	3.12	15.333	2.96	21.42	1.26
3.250	1.31	9.333	3.25	15.417	2.96	21.50	1.26
3.333	1.33	9.417	3.25	15.500	2.96	21.58	1.25
3.417	1.33	9.500	3.25	15.583	2.78	21.67	1.25
3.500	1.33	9.583	3.25	15.667	2.78	21.75	1.25
3.583	1.36	9.667	3.25	15.750	2.78	21.83	1.24
3.667	1.36	9.750	3.25	15.833	2.60	21.92	1.24
3.750	1.36	9.833	3.46	15.917	2.60	22.00	1.24
3.833	1.38	9.917	3.46	16.000	2.60	22.08	1.22
3.917	1.38	10.000	3.46	16.083	2.43	22.17	1.22
4.000	1.38	10.083	3.85	16.167	2.43	22.25	1.22
4.083	1.41	10.167	3.85	16.250	2.43	22.33	1.21
4.167	1.41	10.250	3.85	16.333	2.30	22.42	1.21
4.250	1.41	10.333	4.38	16.417	2.30	22.50	1.21
4.333	1.45	10.417	4.38	16.500	2.30	22.58	1.20
4.417	1.45	10.500	4.38	16.583	2.24	22.67	1.20
4.500	1.45	10.583	4.96	16.667	2.24	22.75	1.20
4.583	1.50	10.667	4.96	16.750	2.24	22.83	1.19
4.667	1.50	10.750	4.96	16.833	2.18	22.92	1.19
4.750	1.50	10.833	5.81	16.917	2.18	23.00	1.19
4.833	1.55	10.917	5.81	17.000	2.18	23.08	1.17
4.917	1.55	11.000	5.81	17.083	2.11	23.17	1.17
5.000	1.55	11.083	6.78	17.167	2.11	23.25	1.17
5.083	1.60	11.167	6.78	17.250	2.11	23.33	1.16
5.167	1.60	11.250	6.78	17.333	2.05	23.42	1.16
5.250	1.60	11.333	8.58	17.417	2.05	23.50	1.16
5.333	1.65	11.417	8.58	17.500	2.05	23.58	1.15
5.417	1.65	11.500	8.58	17.583	1.99	23.67	1.15
5.500	1.65	11.583	10.92	17.667	1.99	23.75	1.15
5.583	1.70	11.667	10.92	17.750	1.99	23.83	1.14
5.667	1.70	11.750	10.92	17.833	1.92	23.92	1.14
5.750	1.70	11.833	44.51	17.917	1.92	24.00	1.14
5.833	1.75	11.917	44.51	18.000	1.92	24.08	1.12
5.917	1.75	12.000	44.51	18.083	1.86	24.17	1.12
6.000	1.75	12.083	109.84	18.167	1.86	24.25	1.12

6.083 1.80 | 12.167 109.85 | 18.250 1.86 |

Max.Eff.Inten.(mm/hr)=	109.85	64.88	
over (min)	5.00	10.00	
Storage Coeff. (min)=	4.46 (ii)	5.54 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.23	0.16	
PEAK FLOW (cms)=	3.22	0.02	*TOTALS*
TIME TO PEAK (hrs)=	12.25	12.25	3.241 (iii)
RUNOFF VOLUME (mm)=	99.55	48.94	12.25
TOTAL RAINFALL (mm)=	101.55	101.55	99.04
RUNOFF COEFFICIENT =	0.98	0.48	101.55
			0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7599):	10.90	3.241	12.25	99.04
+ ID2= 2 (7721):	0.21	0.027	12.25	48.76
ID = 3 (7722):	11.11	3.268	12.25	98.10

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7722)	11.108	3.268	12.25	98.10
OUTFLOW: ID= 1 (7685)	11.108	0.148	13.83	97.97
PEAK FLOW REDUCTION [Qout/Qin] (%) =	4.52			
TIME SHIFT OF PEAK FLOW (min) =	95.00			
MAXIMUM STORAGE USED (ha.m.) =	0.7256			

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
Surface Area	11.27		0.11	
Dep. Storage	2.00		5.00	
Average Slope	1.00		2.00	
Length	275.44		40.00	
Mannings n	0.013		0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.80	12.250	109.85	18.33	1.80
0.167	0.00	6.250	1.80	12.333	17.41	18.42	1.80
0.250	0.00	6.333	1.85	12.417	17.40	18.50	1.80



0.333	1.03	6.417	1.85	12.500	17.40	18.58	1.73
0.417	1.03	6.500	1.85	12.583	11.85	18.67	1.73
0.500	1.03	6.583	1.90	12.667	11.84	18.75	1.73
0.583	1.05	6.667	1.90	12.750	11.84	18.83	1.67
0.667	1.05	6.750	1.90	12.833	8.15	18.92	1.67
0.750	1.05	6.833	1.96	12.917	8.15	19.00	1.67
0.833	1.08	6.917	1.96	13.000	8.15	19.08	1.61
0.917	1.08	7.000	1.96	13.083	6.88	19.17	1.61
1.000	1.08	7.083	2.00	13.167	6.88	19.25	1.61
1.083	1.10	7.167	2.00	13.250	6.88	19.33	1.54
1.167	1.10	7.250	2.00	13.333	5.83	19.42	1.54
1.250	1.10	7.333	2.06	13.417	5.82	19.50	1.54
1.333	1.13	7.417	2.06	13.500	5.82	19.58	1.48
1.417	1.13	7.500	2.06	13.583	5.14	19.67	1.48
1.500	1.13	7.583	2.11	13.667	5.14	19.75	1.48
1.583	1.16	7.667	2.11	13.750	5.14	19.83	1.41
1.667	1.16	7.750	2.11	13.833	4.51	19.92	1.41
1.750	1.16	7.833	2.16	13.917	4.51	20.00	1.41
1.833	1.18	7.917	2.16	14.000	4.51	20.08	1.35
1.917	1.18	8.000	2.16	14.083	4.02	20.17	1.35
2.000	1.18	8.083	2.21	14.167	4.02	20.25	1.35
2.083	1.20	8.167	2.21	14.250	4.02	20.33	1.31
2.167	1.20	8.250	2.21	14.333	3.67	20.42	1.31
2.250	1.20	8.333	2.37	14.417	3.67	20.50	1.31
2.333	1.23	8.417	2.37	14.500	3.67	20.58	1.30
2.417	1.23	8.500	2.37	14.583	3.50	20.67	1.30
2.500	1.23	8.583	2.61	14.667	3.50	20.75	1.30
2.583	1.26	8.667	2.61	14.750	3.50	20.83	1.29
2.667	1.26	8.750	2.61	14.833	3.31	20.92	1.29
2.750	1.26	8.833	2.87	14.917	3.31	21.00	1.29
2.833	1.28	8.917	2.87	15.000	3.31	21.08	1.28
2.917	1.28	9.000	2.87	15.083	3.14	21.17	1.28
3.000	1.28	9.083	3.12	15.167	3.14	21.25	1.28
3.083	1.31	9.167	3.12	15.250	3.14	21.33	1.26
3.167	1.31	9.250	3.12	15.333	2.96	21.42	1.26
3.250	1.31	9.333	3.25	15.417	2.96	21.50	1.26
3.333	1.33	9.417	3.25	15.500	2.96	21.58	1.25
3.417	1.33	9.500	3.25	15.583	2.78	21.67	1.25
3.500	1.33	9.583	3.25	15.667	2.78	21.75	1.25
3.583	1.36	9.667	3.25	15.750	2.78	21.83	1.24
3.667	1.36	9.750	3.25	15.833	2.60	21.92	1.24
3.750	1.36	9.833	3.46	15.917	2.60	22.00	1.24
3.833	1.38	9.917	3.46	16.000	2.60	22.08	1.22
3.917	1.38	10.000	3.46	16.083	2.43	22.17	1.22
4.000	1.38	10.083	3.85	16.167	2.43	22.25	1.22
4.083	1.41	10.167	3.85	16.250	2.43	22.33	1.21
4.167	1.41	10.250	3.85	16.333	2.30	22.42	1.21
4.250	1.41	10.333	4.38	16.417	2.30	22.50	1.21
4.333	1.45	10.417	4.38	16.500	2.30	22.58	1.20
4.417	1.45	10.500	4.38	16.583	2.24	22.67	1.20
4.500	1.45	10.583	4.96	16.667	2.24	22.75	1.20
4.583	1.50	10.667	4.96	16.750	2.24	22.83	1.19
4.667	1.50	10.750	4.96	16.833	2.18	22.92	1.19
4.750	1.50	10.833	5.81	16.917	2.18	23.00	1.19
4.833	1.55	10.917	5.81	17.000	2.18	23.08	1.17
4.917	1.55	11.000	5.81	17.083	2.11	23.17	1.17
5.000	1.55	11.083	6.78	17.167	2.11	23.25	1.17
5.083	1.60	11.167	6.78	17.250	2.11	23.33	1.16
5.167	1.60	11.250	6.78	17.333	2.05	23.42	1.16
5.250	1.60	11.333	8.58	17.417	2.05	23.50	1.16
5.333	1.65	11.417	8.58	17.500	2.05	23.58	1.15
5.417	1.65	11.500	8.58	17.583	1.99	23.67	1.15
5.500	1.65	11.583	10.92	17.667	1.99	23.75	1.15
5.583	1.70	11.667	10.92	17.750	1.99	23.83	1.14
5.667	1.70	11.750	10.92	17.833	1.92	23.92	1.14
5.750	1.70	11.833	44.51	17.917	1.92	24.00	1.14
5.833	1.75	11.917	44.51	18.000	1.92	24.08	1.12
5.917	1.75	12.000	44.51	18.083	1.86	24.17	1.12
6.000	1.75	12.083	109.84	18.167	1.86	24.25	1.12
6.083	1.80	12.167	109.85	18.250	1.86		

Max.Eff.Inten. (mm/hr)= 109.85 64.88
 over (min) 5.00 10.00
 Storage Coeff. (min)= 4.52 (ii) 5.60 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.23 0.15

TOTALS
 PEAK FLOW (cms)= 3.36 0.02 3.380 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 99.55 48.94 99.04
 TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.98 0.48 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | RESERVOIR (7593) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
DT= 5.0 min

	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.1990	0.6950
	0.0830	0.3500	0.2320	0.8000
	0.1280	0.4850	0.2620	0.9000
	0.1580	0.5900	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7591)	11.380	3.380	12.25	99.04
OUTFLOW: ID= 1 (7593)	11.380	0.203	13.33	98.95

	PEAK FLOW REDUCTION [Qout/Qin] (%) =	6.01
TIME SHIFT OF PEAK FLOW (min) =	65.00	
MAXIMUM STORAGE USED (ha.m.) =	0.7088	

 | ADD HYD (7643) |
1 + 2 = 3

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7593):	11.38	0.203	13.33	98.95
+ ID2= 2 (7685):	11.11	0.148	13.83	97.97

ID = 3 (7643):	22.49	0.350	13.50	98.47

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |
 | STANDHYD (7590) | Area (ha)= 2.39
 | ID= 1 DT= 5.0 min | Total Imp (%) = 99.00 Dir. Conn. (%) = 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%) =	1.00	2.00
Length (m) =	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.80	12.250	109.85	18.33	1.80
0.167	0.00	6.250	1.80	12.333	17.41	18.42	1.80
0.250	0.00	6.333	1.85	12.417	17.40	18.50	1.80
0.333	1.03	6.417	1.85	12.500	17.40	18.58	1.73
0.417	1.03	6.500	1.85	12.583	11.85	18.67	1.73
0.500	1.03	6.583	1.90	12.667	11.84	18.75	1.73
0.583	1.05	6.667	1.90	12.750	11.84	18.83	1.67
0.667	1.05	6.750	1.90	12.833	8.15	18.92	1.67
0.750	1.05	6.833	1.96	12.917	8.15	19.00	1.67
0.833	1.08	6.917	1.96	13.000	8.15	19.08	1.61



0.917	1.08	7.000	1.96	13.083	6.88	19.17	1.61
1.000	1.08	7.083	2.00	13.167	6.88	19.25	1.61
1.083	1.10	7.167	2.00	13.250	6.88	19.33	1.54
1.167	1.10	7.250	2.00	13.333	5.83	19.42	1.54
1.250	1.10	7.333	2.06	13.417	5.82	19.50	1.54
1.333	1.13	7.417	2.06	13.500	5.82	19.58	1.48
1.417	1.13	7.500	2.06	13.583	5.14	19.67	1.48
1.500	1.13	7.583	2.11	13.667	5.14	19.75	1.48
1.583	1.16	7.667	2.11	13.750	5.14	19.83	1.41
1.667	1.16	7.750	2.11	13.833	4.51	19.92	1.41
1.750	1.16	7.833	2.16	13.917	4.51	20.00	1.41
1.833	1.18	7.917	2.16	14.000	4.51	20.08	1.35
1.917	1.18	8.000	2.16	14.083	4.02	20.17	1.35
2.000	1.18	8.083	2.21	14.167	4.02	20.25	1.35
2.083	1.20	8.167	2.21	14.250	4.02	20.33	1.31
2.167	1.20	8.250	2.21	14.333	3.67	20.42	1.31
2.250	1.20	8.333	2.37	14.417	3.67	20.50	1.31
2.333	1.23	8.417	2.37	14.500	3.67	20.58	1.30
2.417	1.23	8.500	2.37	14.583	3.50	20.67	1.30
2.500	1.23	8.583	2.61	14.667	3.50	20.75	1.30
2.583	1.26	8.667	2.61	14.750	3.50	20.83	1.29
2.667	1.26	8.750	2.61	14.833	3.31	20.92	1.29
2.750	1.26	8.833	2.87	14.917	3.31	21.00	1.29
2.833	1.28	8.917	2.87	15.000	3.31	21.08	1.28
2.917	1.28	9.000	2.87	15.083	3.14	21.17	1.28
3.000	1.28	9.083	3.12	15.167	3.14	21.25	1.28
3.083	1.31	9.167	3.12	15.250	3.14	21.33	1.26
3.167	1.31	9.250	3.12	15.333	2.96	21.42	1.26
3.250	1.31	9.333	3.25	15.417	2.96	21.50	1.26
3.333	1.33	9.417	3.25	15.500	2.96	21.58	1.25
3.417	1.33	9.500	3.25	15.583	2.78	21.67	1.25
3.500	1.33	9.583	3.25	15.667	2.78	21.75	1.25
3.583	1.36	9.667	3.25	15.750	2.78	21.83	1.24
3.667	1.36	9.750	3.25	15.833	2.60	21.92	1.24
3.750	1.36	9.833	3.46	15.917	2.60	22.00	1.24
3.833	1.38	9.917	3.46	16.000	2.60	22.08	1.22
3.917	1.38	10.000	3.46	16.083	2.43	22.17	1.22
4.000	1.38	10.083	3.85	16.167	2.43	22.25	1.22
4.083	1.41	10.167	3.85	16.250	2.43	22.33	1.21
4.167	1.41	10.250	3.85	16.333	2.30	22.42	1.21
4.250	1.41	10.333	4.38	16.417	2.30	22.50	1.21
4.333	1.45	10.417	4.38	16.500	2.30	22.58	1.20
4.417	1.45	10.500	4.38	16.583	2.24	22.67	1.20
4.500	1.45	10.583	4.96	16.667	2.24	22.75	1.20
4.583	1.50	10.667	4.96	16.750	2.24	22.83	1.19
4.667	1.50	10.750	4.96	16.833	2.18	22.92	1.19
4.750	1.50	10.833	5.81	16.917	2.18	23.00	1.19
4.833	1.55	10.917	5.81	17.000	2.18	23.08	1.17
4.917	1.55	11.000	5.81	17.083	2.11	23.17	1.17
5.000	1.55	11.083	6.78	17.167	2.11	23.25	1.17
5.083	1.60	11.167	6.78	17.250	2.11	23.33	1.16
5.167	1.60	11.250	6.78	17.333	2.05	23.42	1.16
5.250	1.60	11.333	8.58	17.417	2.05	23.50	1.16
5.333	1.65	11.417	8.58	17.500	2.05	23.58	1.15
5.417	1.65	11.500	8.58	17.583	1.99	23.67	1.15
5.500	1.65	11.583	10.92	17.667	1.99	23.75	1.15
5.583	1.70	11.667	10.92	17.750	1.99	23.83	1.14
5.667	1.70	11.750	10.92	17.833	1.92	23.92	1.14
5.750	1.70	11.833	44.51	17.917	1.92	24.00	1.14
5.833	1.75	11.917	44.51	18.000	1.92	24.08	1.12
5.917	1.75	12.000	44.51	18.083	1.86	24.17	1.12
6.000	1.75	12.083	109.84	18.167	1.86	24.25	1.12
6.083	1.80	12.167	109.85	18.250	1.86		

Max.Eff.Inten. (mm/hr)= 109.85 64.88
over (min) = 5.00 5.00
Storage Coeff. (min) = 0.94 (ii) 1.65 (ii)
Unit Hyd. Tpeak (min) = 5.00 5.00
Unit Hyd. peak (cms) = 0.34 0.32

TOTALS
PEAK FLOW (cms) = 0.72 0.00 0.726 (iii)
TIME TO PEAK (hrs) = 12.25 12.25 12.25
RUNOFF VOLUME (mm) = 100.55 48.93 100.03
TOTAL RAINFALL (mm) = 101.55 101.55 101.55
RUNOFF COEFFICIENT = 0.99 0.48 0.99

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CMLIB |
| STANDHYD (7632) | Area (ha)= 2.36
|ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.34	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.80	12.250	109.85	18.33	1.80
0.167	0.00	6.250	1.80	12.333	17.41	18.42	1.80
0.250	0.00	6.333	1.85	12.417	17.40	18.50	1.80
0.333	1.03	6.417	1.85	12.500	17.40	18.58	1.73
0.417	1.03	6.500	1.85	12.583	11.85	18.67	1.73
0.500	1.03	6.583	1.90	12.667	11.84	18.75	1.73
0.583	1.05	6.667	1.90	12.750	11.84	18.83	1.67
0.667	1.05	6.750	1.90	12.833	8.15	18.92	1.67
0.750	1.05	6.833	1.96	12.917	8.15	19.00	1.67
0.833	1.08	6.917	1.96	13.000	8.15	19.08	1.61
0.917	1.08	7.000	1.96	13.083	6.88	19.17	1.61
1.000	1.08	7.083	2.00	13.167	6.88	19.25	1.61
1.083	1.10	7.167	2.00	13.250	6.88	19.33	1.54
1.167	1.10	7.250	2.00	13.333	5.83	19.42	1.54
1.250	1.10	7.333	2.06	13.417	5.82	19.50	1.54
1.333	1.13	7.417	2.06	13.500	5.82	19.58	1.48
1.417	1.13	7.500	2.06	13.583	5.14	19.67	1.48
1.500	1.13	7.583	2.11	13.667	5.14	19.75	1.48
1.583	1.16	7.667	2.11	13.750	5.14	19.83	1.41
1.667	1.16	7.750	2.11	13.833	4.51	19.92	1.41
1.750	1.16	7.833	2.16	13.917	4.51	20.00	1.41
1.833	1.18	7.917	2.16	14.000	4.51	20.08	1.35
1.917	1.18	8.000	2.16	14.083	4.02	20.17	1.35
2.000	1.18	8.083	2.21	14.167	4.02	20.25	1.35
2.083	1.20	8.167	2.21	14.250	4.02	20.33	1.31
2.167	1.20	8.250	2.21	14.333	3.67	20.42	1.31
2.250	1.20	8.333	2.37	14.417	3.67	20.50	1.31
2.333	1.23	8.417	2.37	14.500	3.67	20.58	1.30
2.417	1.23	8.500	2.37	14.583	3.50	20.67	1.30
2.500	1.23	8.583	2.61	14.667	3.50	20.75	1.30
2.583	1.26	8.667	2.61	14.750	3.50	20.83	1.29
2.667	1.26	8.750	2.61	14.833	3.31	20.92	1.29
2.750	1.26	8.833	2.87	14.917	3.31	21.00	1.29
2.833	1.28	8.917	2.87	15.000	3.14	21.08	1.28
2.917	1.28	9.000	2.87	15.083	3.14	21.17	1.28
3.000	1.28	9.083	3.12	15.167	3.14	21.25	1.28
3.083	1.31	9.167	3.12	15.250	3.14	21.33	1.26
3.167	1.31	9.250	3.12	15.333	2.96	21.42	1.26
3.250	1.31	9.333	3.25	15.417	2.96	21.50	1.26
3.333	1.33	9.417	3.25	15.500	2.96	21.58	1.25
3.417	1.33	9.500	3.25	15.583	2.78	21.67	1.25
3.500	1.33	9.583	3.25	15.667	2.78	21.75	1.25
3.583	1.36	9.667	3.25	15.750	2.78	21.83	1.24
3.667	1.36	9.750	3.25	15.833	2.60	21.92	1.24
3.750	1.36	9.833	3.46	15.917	2.60	22.00	1.24
3.833	1.38	9.917	3.46	16.000	2.60	22.08	1.22
3.917	1.38	10.000	3.46	16.083	2.43	22.17	1.22
4.000	1.38	10.083	3.85	16.167	2.43	22.25	1.22
4.083	1.41	10.167	3.85	16.250	2.43	22.33	1.21

4.167	1.41	10.250	3.85	16.333	2.30	22.42	1.21
4.250	1.41	10.333	4.38	16.417	2.30	22.50	1.21
4.333	1.45	10.417	4.38	16.500	2.30	22.58	1.20
4.417	1.45	10.500	4.38	16.583	2.24	22.67	1.20
4.500	1.45	10.583	4.96	16.667	2.24	22.75	1.20
4.583	1.50	10.667	4.96	16.750	2.24	22.83	1.19
4.667	1.50	10.750	4.96	16.833	2.18	22.92	1.19
4.750	1.50	10.833	5.81	16.917	2.18	23.00	1.19
4.833	1.55	10.917	5.81	17.000	2.18	23.08	1.17
4.917	1.55	11.000	5.81	17.083	2.11	23.17	1.17
5.000	1.55	11.083	6.78	17.167	2.11	23.25	1.17
5.083	1.60	11.167	6.78	17.250	2.11	23.33	1.16
5.167	1.60	11.250	6.78	17.333	2.05	23.42	1.16
5.250	1.60	11.333	8.58	17.417	2.05	23.50	1.16
5.333	1.65	11.417	8.58	17.500	2.05	23.58	1.15
5.417	1.65	11.500	8.58	17.583	1.99	23.67	1.15
5.500	1.65	11.583	10.92	17.667	1.99	23.75	1.15
5.583	1.70	11.667	10.92	17.750	1.99	23.83	1.14
5.667	1.70	11.750	10.92	17.833	1.92	23.92	1.14
5.750	1.70	11.833	44.51	17.917	1.92	24.00	1.14
5.833	1.75	11.917	44.51	18.000	1.92	24.08	1.12
5.917	1.75	12.000	44.51	18.083	1.86	24.17	1.12
6.000	1.75	12.083	109.84	18.167	1.86	24.25	1.12
6.083	1.80	12.167	109.85	18.250	1.86		

Max.Eff.Inten. (mm/hr)= 109.85 64.88
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 0.94 (ii) 1.65 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

TOTALS
 PEAK FLOW (cms)= 0.71 0.00 0.717 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25
 RUNOFF VOLUME (mm)= 100.55 48.93 100.03
 TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.99 0.48 0.99

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (7644)	Area (ha)= 2.40
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.80	12.250	109.85	18.33	1.80
0.167	0.00	6.250	1.80	12.333	17.41	18.42	1.80
0.250	0.00	6.333	1.85	12.417	17.40	18.50	1.80
0.333	1.03	6.417	1.85	12.500	17.40	18.58	1.73
0.417	1.03	6.500	1.85	12.583	11.85	18.67	1.73
0.500	1.03	6.583	1.90	12.667	11.84	18.75	1.73
0.583	1.05	6.667	1.90	12.750	11.84	18.83	1.67
0.667	1.05	6.750	1.90	12.833	8.15	18.92	1.67
0.750	1.05	6.833	1.96	12.917	8.15	19.00	1.67
0.833	1.08	6.917	1.96	13.000	8.15	19.08	1.61
0.917	1.08	7.000	1.96	13.083	6.88	19.17	1.61
1.000	1.08	7.083	2.00	13.167	6.88	19.25	1.61

1.083	1.10	7.167	2.00	13.250	6.88	19.33	1.54
1.167	1.10	7.250	2.00	13.333	5.83	19.42	1.54
1.250	1.10	7.333	2.06	13.417	5.82	19.50	1.54
1.333	1.13	7.417	2.06	13.500	5.82	19.58	1.48
1.417	1.13	7.500	2.06	13.583	5.14	19.67	1.48
1.500	1.13	7.583	2.11	13.667	5.14	19.75	1.48
1.583	1.16	7.667	2.11	13.750	5.14	19.83	1.41
1.667	1.16	7.750	2.11	13.833	4.51	19.92	1.41
1.750	1.16	7.833	2.16	13.917	4.51	20.00	1.41
1.833	1.18	7.917	2.16	14.000	4.51	20.08	1.35
1.917	1.18	8.000	2.16	14.083	4.02	20.17	1.35
2.000	1.18	8.083	2.21	14.167	4.02	20.25	1.35
2.083	1.20	8.167	2.21	14.250	4.02	20.33	1.31
2.167	1.20	8.250	2.21	14.333	3.67	20.42	1.31
2.250	1.20	8.333	2.37	14.417	3.67	20.50	1.31
2.333	1.23	8.417	2.37	14.500	3.67	20.58	1.30
2.417	1.23	8.500	2.37	14.583	3.50	20.67	1.30
2.500	1.23	8.583	2.61	14.667	3.50	20.75	1.30
2.583	1.26	8.667	2.61	14.750	3.50	20.83	1.29
2.667	1.26	8.750	2.61	14.833	3.31	20.92	1.29
2.750	1.26	8.833	2.87	14.917	3.31	21.00	1.29
2.833	1.28	8.917	2.87	15.000	3.31	21.08	1.28
2.917	1.28	9.000	2.87	15.083	3.14	21.17	1.28
3.000	1.28	9.083	3.12	15.167	3.14	21.25	1.28
3.083	1.31	9.167	3.12	15.250	3.14	21.33	1.26
3.167	1.31	9.250	3.12	15.333	2.96	21.42	1.26
3.250	1.31	9.333	3.25	15.417	2.96	21.50	1.26
3.333	1.33	9.417	3.25	15.500	2.96	21.58	1.25
3.417	1.33	9.500	3.25	15.583	2.78	21.67	1.25
3.500	1.33	9.583	3.25	15.667	2.78	21.75	1.25
3.583	1.36	9.667	3.25	15.750	2.78	21.83	1.24
3.667	1.36	9.750	3.25	15.833	2.60	21.92	1.24
3.750	1.36	9.833	3.46	15.917	2.60	22.00	1.24
3.833	1.38	9.917	3.46	16.000	2.60	22.08	1.22
3.917	1.38	10.000	3.46	16.083	2.43	22.17	1.22
4.000	1.38	10.083	3.85	16.167	2.43	22.25	1.22
4.083	1.41	10.167	3.85	16.250	2.43	22.33	1.21
4.167	1.41	10.250	3.85	16.333	2.30	22.42	1.21
4.250	1.41	10.333	4.38	16.417	2.30	22.50	1.21
4.333	1.45	10.417	4.38	16.500	2.30	22.58	1.20
4.417	1.45	10.500	4.38	16.583	2.24	22.67	1.20
4.500	1.45	10.583	4.96	16.667	2.24	22.75	1.20
4.583	1.50	10.667	4.96	16.750	2.24	22.83	1.19
4.667	1.50	10.750	4.96	16.833	2.18	22.92	1.19
4.750	1.50	10.833	5.81	16.917	2.18	23.00	1.19
4.833	1.55	10.917	5.81	17.000	2.18	23.08	1.17
4.917	1.55	11.000	5.81	17.083	2.11	23.17	1.17
5.000	1.55	11.083	6.78	17.167	2.11	23.25	1.17
5.083	1.60	11.167	6.78	17.250	2.11	23.33	1.16
5.167	1.60	11.250	6.78	17.333	2.05	23.42	1.16
5.250	1.60	11.333	8.58	17.417	2.05	23.50	1.16
5.333	1.65	11.417	8.58	17.500	2.05	23.58	1.15
5.417	1.65	11.500	8.58	17.583	1.99	23.67	1.15
5.500	1.65	11.583	10.92	17.667	1.99	23.75	1.15
5.583	1.70	11.667	10.92	17.750	1.99	23.83	1.14
5.667	1.70	11.750	10.92	17.833	1.92	23.92	1.14
5.750	1.70	11.833	44.51	17.917	1.92	24.00	1.14
5.833	1.75	11.917	44.51	18.000	1.92	24.08	1.12
5.917	1.75	12.000	44.51	18.083	1.86	24.17	1.12
6.000	1.75	12.083	109.84	18.167	1.86	24.25	1.12
6.083	1.80	12.167	109.85	18.250	1.86		

Max.Eff.Inten. (mm/hr)= 109.85 64.88
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 0.94 (ii) 1.65 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

TOTALS
 PEAK FLOW (cms)= 0.72 0.00 0.729 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 100.55 48.93 100.03
 TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.99 0.48 0.99

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 CALIB |
 | STANDBYD (7652) | Area (ha)= 2.40
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.80	12.250	109.85	18.33	1.80
0.167	0.00	6.250	1.80	12.333	17.41	18.42	1.80
0.250	0.00	6.333	1.85	12.417	17.40	18.50	1.80
0.333	1.03	6.417	1.85	12.500	17.40	18.58	1.73
0.417	1.03	6.500	1.85	12.583	11.85	18.67	1.73
0.500	1.03	6.583	1.90	12.667	11.84	18.75	1.73
0.583	1.05	6.667	1.90	12.750	11.84	18.83	1.67
0.667	1.05	6.750	1.90	12.833	8.15	18.92	1.67
0.750	1.05	6.833	1.96	12.917	8.15	19.00	1.67
0.833	1.08	6.917	1.96	13.000	8.15	19.08	1.61
0.917	1.08	7.000	1.96	13.083	6.88	19.17	1.61
1.000	1.08	7.083	2.00	13.167	6.88	19.25	1.61
1.083	1.10	7.167	2.00	13.250	6.88	19.33	1.54
1.167	1.10	7.250	2.00	13.333	5.83	19.42	1.54
1.250	1.10	7.333	2.06	13.417	5.82	19.50	1.54
1.333	1.13	7.417	2.06	13.500	5.82	19.58	1.48
1.417	1.13	7.500	2.06	13.583	5.14	19.67	1.48
1.500	1.13	7.583	2.11	13.667	5.14	19.75	1.48
1.583	1.16	7.667	2.11	13.750	5.14	19.83	1.41
1.667	1.16	7.750	2.11	13.833	4.51	19.92	1.41
1.750	1.16	7.833	2.16	13.917	4.51	20.00	1.41
1.833	1.18	7.917	2.16	14.000	4.51	20.08	1.35
1.917	1.18	8.000	2.16	14.083	4.02	20.17	1.35
2.000	1.18	8.083	2.21	14.167	4.02	20.25	1.35
2.083	1.20	8.167	2.21	14.250	4.02	20.33	1.31
2.167	1.20	8.250	2.21	14.333	3.67	20.42	1.31
2.250	1.20	8.333	2.37	14.417	3.67	20.50	1.31
2.333	1.23	8.417	2.37	14.500	3.67	20.58	1.30
2.417	1.23	8.500	2.37	14.583	3.50	20.67	1.30
2.500	1.23	8.583	2.61	14.667	3.50	20.75	1.30
2.583	1.26	8.667	2.61	14.750	3.50	20.83	1.29
2.667	1.26	8.750	2.61	14.833	3.31	20.92	1.29
2.750	1.26	8.833	2.87	14.917	3.31	21.00	1.29
2.833	1.28	8.917	2.87	15.000	3.31	21.08	1.28
2.917	1.28	9.000	2.87	15.083	3.14	21.17	1.28
3.000	1.28	9.083	3.12	15.167	3.14	21.25	1.28
3.083	1.31	9.167	3.12	15.250	3.14	21.33	1.26
3.167	1.31	9.250	3.12	15.333	2.96	21.42	1.26
3.250	1.31	9.333	3.25	15.417	2.96	21.50	1.26
3.333	1.33	9.417	3.25	15.500	2.96	21.58	1.25
3.417	1.33	9.500	3.25	15.583	2.78	21.67	1.25
3.500	1.33	9.583	3.25	15.667	2.78	21.75	1.25
3.583	1.36	9.667	3.25	15.750	2.78	21.83	1.24
3.667	1.36	9.750	3.25	15.833	2.60	21.92	1.24
3.750	1.36	9.833	3.46	15.917	2.60	22.00	1.24
3.833	1.38	9.917	3.46	16.000	2.60	22.08	1.22
3.917	1.38	10.000	3.46	16.083	2.43	22.17	1.22
4.000	1.38	10.083	3.85	16.167	2.43	22.25	1.22
4.083	1.41	10.167	3.85	16.250	2.43	22.33	1.21
4.167	1.41	10.250	3.85	16.333	2.30	22.42	1.21
4.250	1.41	10.333	4.38	16.417	2.30	22.50	1.21

4.333	1.45	10.417	4.38	16.500	2.30	22.58	1.20
4.417	1.45	10.500	4.38	16.583	2.24	22.67	1.20
4.500	1.45	10.583	4.96	16.667	2.24	22.75	1.20
4.583	1.50	10.667	4.96	16.750	2.24	22.83	1.19
4.667	1.50	10.750	4.96	16.833	2.18	22.92	1.19
4.750	1.50	10.833	5.81	16.917	2.18	23.00	1.19
4.833	1.55	10.917	5.81	17.000	2.18	23.08	1.17
4.917	1.55	11.000	5.81	17.083	2.11	23.17	1.17
5.000	1.55	11.083	6.78	17.167	2.11	23.25	1.17
5.083	1.60	11.167	6.78	17.250	2.11	23.33	1.16
5.167	1.60	11.250	6.78	17.333	2.05	23.42	1.16
5.250	1.60	11.333	8.58	17.417	2.05	23.50	1.16
5.333	1.65	11.417	8.58	17.500	2.05	23.58	1.15
5.417	1.65	11.500	8.58	17.583	1.99	23.67	1.15
5.500	1.65	11.583	10.92	17.667	1.99	23.75	1.15
5.583	1.70	11.667	10.92	17.750	1.99	23.83	1.14
5.667	1.70	11.750	10.92	17.833	1.92	23.92	1.14
5.750	1.70	11.833	44.51	17.917	1.92	24.00	1.14
5.833	1.75	11.917	44.51	18.000	1.92	24.08	1.12
5.917	1.75	12.000	44.51	18.083	1.86	24.17	1.12
6.000	1.75	12.083	109.84	18.167	1.86	24.25	1.12
6.083	1.80	12.167	109.85	18.250	1.86		

Max.Eff.Inten.(mm/hr)= 109.85 64.88
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 0.94 (ii) 1.65 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32
 TOTALS
 PEAK FLOW (cms)= 0.72 0.00 0.729 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25
 RUNOFF VOLUME (mm)= 100.55 48.93 100.03
 TOTAL RAINFALL (mm)= 101.55 101.55
 RUNOFF COEFFICIENT = 0.99 0.48 0.99

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 CALIB |
 | STANDBYD (7661) | Area (ha)= 2.39
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.80	12.250	109.85	18.33	1.80
0.167	0.00	6.250	1.80	12.333	17.41	18.42	1.80
0.250	0.00	6.333	1.85	12.417	17.40	18.50	1.80
0.333	1.03	6.417	1.85	12.500	17.40	18.58	1.73
0.417	1.03	6.500	1.85	12.583	11.85	18.67	1.73
0.500	1.03	6.583	1.90	12.667	11.84	18.75	1.73
0.583	1.05	6.667	1.90	12.750	11.84	18.83	1.67
0.667	1.05	6.750	1.90	12.833	8.15	18.92	1.67
0.750	1.05	6.833	1.96	12.917	8.15	19.00	1.67
0.833	1.08	6.917	1.96	13.000	8.15	19.08	1.61
0.917	1.08	7.000	1.96	13.083	6.88	19.17	1.61
1.000	1.08	7.083	2.00	13.167	6.88	19.25	1.61
1.083	1.10	7.167	2.00	13.250	6.88	19.33	1.54
1.167	1.10	7.250	2.00	13.333	5.83	19.42	1.54

1.250	1.10	7.333	2.06	13.417	5.82	19.50	1.54
1.333	1.13	7.417	2.06	13.500	5.82	19.58	1.48
1.417	1.13	7.500	2.06	13.583	5.14	19.67	1.48
1.500	1.13	7.583	2.11	13.667	5.14	19.75	1.48
1.583	1.16	7.667	2.11	13.750	5.14	19.83	1.41
1.667	1.16	7.750	2.11	13.833	4.51	19.92	1.41
1.750	1.16	7.833	2.16	13.917	4.51	20.00	1.41
1.833	1.18	7.917	2.16	14.000	4.51	20.08	1.35
1.917	1.18	8.000	2.16	14.083	4.02	20.17	1.35
2.000	1.18	8.083	2.21	14.167	4.02	20.25	1.35
2.083	1.20	8.167	2.21	14.250	4.02	20.33	1.31
2.167	1.20	8.250	2.21	14.333	3.67	20.42	1.31
2.250	1.20	8.333	2.37	14.417	3.67	20.50	1.31
2.333	1.23	8.417	2.37	14.500	3.67	20.58	1.30
2.417	1.23	8.500	2.37	14.583	3.50	20.67	1.30
2.500	1.23	8.583	2.61	14.667	3.50	20.75	1.30
2.583	1.26	8.667	2.61	14.750	3.50	20.83	1.29
2.667	1.26	8.750	2.61	14.833	3.31	20.92	1.29
2.750	1.26	8.833	2.87	14.917	3.31	21.00	1.29
2.833	1.28	8.917	2.87	15.000	3.31	21.08	1.28
2.917	1.28	9.000	2.87	15.083	3.14	21.17	1.28
3.000	1.28	9.083	3.12	15.167	3.14	21.25	1.28
3.083	1.31	9.167	3.12	15.250	3.14	21.33	1.26
3.167	1.31	9.250	3.12	15.333	2.96	21.42	1.26
3.250	1.31	9.333	3.25	15.417	2.96	21.50	1.26
3.333	1.33	9.417	3.25	15.500	2.96	21.58	1.25
3.417	1.33	9.500	3.25	15.583	2.78	21.67	1.25
3.500	1.33	9.583	3.25	15.667	2.78	21.75	1.25
3.583	1.36	9.667	3.25	15.750	2.78	21.83	1.24
3.667	1.36	9.750	3.25	15.833	2.60	21.92	1.24
3.750	1.36	9.833	3.46	15.917	2.60	22.00	1.24
3.833	1.38	9.917	3.46	16.000	2.60	22.08	1.22
3.917	1.38	10.000	3.46	16.083	2.43	22.17	1.22
4.000	1.38	10.083	3.85	16.167	2.43	22.25	1.22
4.083	1.41	10.167	3.85	16.250	2.43	22.33	1.21
4.167	1.41	10.250	3.85	16.333	2.30	22.42	1.21
4.250	1.41	10.333	4.38	16.417	2.30	22.50	1.21
4.333	1.45	10.417	4.38	16.500	2.30	22.58	1.20
4.417	1.45	10.500	4.38	16.583	2.24	22.67	1.20
4.500	1.45	10.583	4.96	16.667	2.24	22.75	1.20
4.583	1.50	10.667	4.96	16.750	2.24	22.83	1.19
4.667	1.50	10.750	4.96	16.833	2.18	22.92	1.19
4.750	1.50	10.833	5.81	16.917	2.18	23.00	1.19
4.833	1.55	10.917	5.81	17.000	2.18	23.08	1.17
4.917	1.55	11.000	5.81	17.083	2.11	23.17	1.17
5.000	1.55	11.083	6.78	17.167	2.11	23.25	1.17
5.083	1.60	11.167	6.78	17.250	2.11	23.33	1.16
5.167	1.60	11.250	6.78	17.333	2.05	23.42	1.16
5.250	1.60	11.333	8.58	17.417	2.05	23.50	1.16
5.333	1.65	11.417	8.58	17.500	2.05	23.58	1.15
5.417	1.65	11.500	8.58	17.583	1.99	23.67	1.15
5.500	1.65	11.583	10.92	17.667	1.99	23.75	1.15
5.583	1.70	11.667	10.92	17.750	1.99	23.83	1.14
5.667	1.70	11.750	10.92	17.833	1.92	23.92	1.14
5.750	1.70	11.833	44.51	17.917	1.92	24.00	1.14
5.833	1.75	11.917	44.51	18.000	1.92	24.08	1.12
5.917	1.75	12.000	44.51	18.083	1.86	24.17	1.12
6.000	1.75	12.083	109.84	18.167	1.86	24.25	1.12
6.083	1.80	12.167	109.85	18.250	1.86		

Max.Eff.Inten. (mm/hr)=	109.85	64.88
over (min)	5.00	5.00
Storage Coeff. (min)=	0.94 (ii)	1.65 (iii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.32
PEAK FLOW (cms)=	0.72	0.00
TIME TO PEAK (hrs)=	12.25	12.25
RUNOFF VOLUME (mm)=	100.55	48.93
TOTAL RAINFALL (mm)=	101.55	101.55
RUNOFF COEFFICIENT =	0.99	0.48

TOTALS		
PEAK FLOW (cms)=	0.726 (iii)	
TIME TO PEAK (hrs)=	12.25	
RUNOFF VOLUME (mm)=	100.03	
TOTAL RAINFALL (mm)=	101.55	
RUNOFF COEFFICIENT =	0.99	

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)

- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7671)	Area (ha)=	2.37	
ID= 1 DT= 5.0 min	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00

Surface Area (ha)=	IMPERVIOUS	PERVIOUS (i)	
Dep. Storage (mm)=	2.35	0.02	
Average Slope (%)=	1.00	5.00	
Length (m)=	1.00	2.00	
Mannings n =	20.00	20.00	
	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.80	12.250	109.85	18.33	1.80
0.167	0.00	6.250	1.80	12.333	17.41	18.42	1.80
0.250	0.00	6.333	1.85	12.417	17.40	18.50	1.80
0.333	1.03	6.417	1.85	12.500	17.40	18.58	1.73
0.417	1.03	6.500	1.85	12.583	11.85	18.67	1.73
0.500	1.03	6.583	1.90	12.667	11.84	18.75	1.73
0.583	1.05	6.667	1.90	12.750	11.84	18.83	1.67
0.667	1.05	6.750	1.90	12.833	8.15	18.92	1.67
0.750	1.05	6.833	1.96	12.917	8.15	19.00	1.67
0.833	1.08	6.917	1.96	13.000	8.15	19.08	1.61
0.917	1.08	7.000	1.96	13.083	6.88	19.17	1.61
1.000	1.08	7.083	2.00	13.167	6.88	19.25	1.61
1.083	1.10	7.167	2.00	13.250	6.88	19.33	1.54
1.167	1.10	7.250	2.00	13.333	5.83	19.42	1.54
1.250	1.10	7.333	2.06	13.417	5.82	19.50	1.54
1.333	1.13	7.417	2.06	13.500	5.82	19.58	1.48
1.417	1.13	7.500	2.06	13.583	5.14	19.67	1.48
1.500	1.13	7.583	2.11	13.667	5.14	19.75	1.48
1.583	1.16	7.667	2.11	13.750	5.14	19.83	1.41
1.667	1.16	7.750	2.11	13.833	4.51	19.92	1.41
1.750	1.16	7.833	2.16	13.917	4.51	20.00	1.41
1.833	1.18	7.917	2.16	14.000	4.51	20.08	1.35
1.917	1.18	8.000	2.16	14.083	4.02	20.17	1.35
2.000	1.18	8.083	2.21	14.167	4.02	20.25	1.35
2.083	1.20	8.167	2.21	14.250	4.02	20.33	1.31
2.167	1.20	8.250	2.21	14.333	3.67	20.42	1.31
2.250	1.20	8.333	2.37	14.417	3.67	20.50	1.31
2.333	1.23	8.417	2.37	14.500	3.67	20.58	1.30
2.417	1.23	8.500	2.37	14.583	3.50	20.67	1.30
2.500	1.23	8.583	2.61	14.667	3.50	20.75	1.30
2.583	1.26	8.667	2.61	14.750	3.50	20.83	1.29
2.667	1.26	8.750	2.61	14.833	3.31	20.92	1.29
2.750	1.26	8.833	2.87	14.917	3.31	21.00	1.29
2.833	1.28	8.917	2.87	15.000	3.31	21.08	1.28
2.917	1.28	9.000	2.87	15.083	3.14	21.17	1.28
3.000	1.28	9.083	3.12	15.167	3.14	21.25	1.28
3.083	1.31	9.167	3.12	15.250	3.14	21.33	1.26
3.167	1.31	9.250	3.12	15.333	2.96	21.42	1.26
3.250	1.31	9.333	3.25	15.417	2.96	21.50	1.26
3.333	1.33	9.417	3.25	15.500	2.96	21.58	1.25
3.417	1.33	9.500	3.25	15.583	2.78	21.67	1.25
3.500	1.33	9.583	3.25	15.667	2.78	21.75	1.25
3.583	1.36	9.667	3.25	15.750	2.78	21.83	1.24
3.667	1.36	9.750	3.25	15.833	2.60	21.92	1.24
3.750	1.36	9.833	3.46	15.917	2.60	22.00	1.24
3.833	1.38	9.917	3.46	16.000	2.60	22.08	1.22
3.917	1.38	10.000	3.46	16.083	2.43	22.17	1.22
4.000	1.38	10.083	3.85	16.167	2.43	22.25	1.22
4.083	1.41	10.167	3.85	16.250	2.43	22.33	1.21
4.167	1.41	10.250	3.85	16.333	2.30	22.42	1.21
4.250	1.41	10.333	4.38	16.417	2.30	22.50	1.21
4.333	1.45	10.417	4.38	16.500	2.30	22.58	1.20
4.417	1.45	10.500	4.38	16.583	2.24	22.67	1.20

4.500	1.45	10.583	4.96	16.667	2.24	22.75	1.20
4.583	1.50	10.667	4.96	16.750	2.24	22.83	1.19
4.667	1.50	10.750	4.96	16.833	2.18	22.92	1.19
4.750	1.50	10.833	5.81	16.917	2.18	23.00	1.19
4.833	1.55	10.917	5.81	17.000	2.18	23.08	1.17
4.917	1.55	11.000	5.81	17.083	2.11	23.17	1.17
5.000	1.55	11.083	6.78	17.167	2.11	23.25	1.17
5.083	1.60	11.167	6.78	17.250	2.11	23.33	1.16
5.167	1.60	11.250	6.78	17.333	2.05	23.42	1.16
5.250	1.60	11.333	8.58	17.417	2.05	23.50	1.16
5.333	1.65	11.417	8.58	17.500	2.05	23.58	1.15
5.417	1.65	11.500	8.58	17.583	1.99	23.67	1.15
5.500	1.65	11.583	10.92	17.667	1.99	23.75	1.15
5.583	1.70	11.667	10.92	17.750	1.99	23.83	1.14
5.667	1.70	11.750	10.92	17.833	1.92	23.92	1.14
5.750	1.70	11.833	44.51	17.917	1.92	24.00	1.14
5.833	1.75	11.917	44.51	18.000	1.92	24.08	1.12
5.917	1.75	12.000	44.51	18.083	1.86	24.17	1.12
6.000	1.75	12.083	109.84	18.167	1.86	24.25	1.12
6.083	1.80	12.167	109.85	18.250	1.86		

Max.Eff.Inten.(mm/hr)= 109.85 64.88
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 0.94 (ii) 1.65 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.32

PEAK FLOW (cms)= 0.72 0.00 0.720 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25
 RUNOFF VOLUME (mm)= 100.55 48.93 100.03
 TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.99 0.48 0.99

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7698)					
1 + 2 = 3					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7590):	2.39	0.726	12.25	100.03	
+ ID2= 2 (7632):	2.36	0.717	12.25	100.03	
=====					
ID = 3 (7698):	4.75	1.444	12.25	100.03	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)					
3 + 2 = 1					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7698):	4.75	1.444	12.25	100.03	
+ ID2= 2 (7644):	2.40	0.729	12.25	100.03	
=====					
ID = 1 (7698):	7.15	2.173	12.25	100.03	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)					
1 + 2 = 3					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7698):	7.15	2.173	12.25	100.03	
+ ID2= 2 (7652):	2.40	0.729	12.25	100.03	
=====					
ID = 3 (7698):	9.55	2.903	12.25	100.03	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)					
3 + 2 = 1					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7698):	9.55	2.903	12.25	100.03	
+ ID2= 2 (7661):	2.39	0.726	12.25	100.03	
=====					
ID = 1 (7698):	11.94	3.629	12.25	100.03	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)					
1 + 2 = 3					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7698):	11.94	3.629	12.25	100.03	
+ ID2= 2 (7671):	2.37	0.720	12.25	100.03	
=====					
ID = 3 (7698):	14.31	4.350	12.25	100.03	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| DIVERTHYD (7713) |
 | IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1 +	Flow 2 +	Flow 3 +	Flow 4 +	Flow 5 =	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
TOTAL HYD. (ID= 1):	14.31	4.35	12.25	100.03	
=====					
ID= 2 (2):	12.46	2.67	12.25	100.03	
ID= 3 (2):	1.85	1.67	12.25	100.03	
ID= 4 (2):	0.00	0.00	0.00	0.00	
ID= 5 (2):	0.00	0.00	0.00	0.00	
ID= 6 (2):	0.00	0.00	0.00	0.00	

RESERVOIR (7699)					
OVERFLOW IS ON					
IN= 2---> OUT= 1					
DT= 5.0 min					
	OUTFLOW	STORAGE	OUTFLOW	STORAGE	
	(cms)	(ha.m.)	(cms)	(ha.m.)	
	0.0000	0.0000	0.2690	0.4589	
	0.1980	0.1112	0.0000	0.0000	

	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 2 (7713)	12.463	2.675	12.25	100.03	
OUTFLOW: ID= 1 (7699)	11.922	0.269	12.42	100.02	
OVERFLOW:ID= 3 (0003)	0.541	0.420	12.42	100.02	

TOTAL NUMBER OF SIMULATION OVERFLOW = 9
 CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.75
 PERCENTAGE OF TIME OVERFLOWING (%) = 2.28

PEAK FLOW REDUCTION [Qout/Qin](%) = 10.06
 TIME SHIFT OF PEAK FLOW (min) = 10.00
 MAXIMUM STORAGE USED (ha.m.) = 0.4589

| Junction Command(7715) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 3 (7699)	0.54	0.42	12.42	100.02
OUTFLOW: ID= 2 (7715)	0.54	0.42	12.42	100.02

ADD HYD (7714)				
1 + 2 = 3				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7699):	11.92	0.269	12.42	100.02
+ ID2= 2 (7713):	1.85	1.675	12.25	100.03
=====				
ID = 3 (7714):	13.77	1.935	12.25	100.03

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7714)				
3 + 2 = 1				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (7714):	13.77	1.935	12.25	100.03
+ ID2= 2 (7715):	0.54	0.420	12.42	100.02
=====				
ID = 1 (7714):	14.31	1.935	12.25	100.03

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB				
STANDHYD (7620)				
ID= 1 DT= 5.0 min				
Area (ha)=	1.45			
Total Imp(%)=	96.00	Dir. Conn.(%)=	96.00	

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.39	0.06
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.80	12.250	109.85	18.33	1.80		
0.167	0.00	6.250	1.80	12.333	17.41	18.42	1.80		
0.250	0.00	6.333	1.85	12.417	17.40	18.50	1.80		
0.333	1.03	6.417	1.85	12.500	17.40	18.58	1.73		
0.417	1.03	6.500	1.85	12.583	11.85	18.67	1.73		
0.500	1.03	6.583	1.90	12.667	11.84	18.75	1.73		
0.583	1.05	6.667	1.90	12.750	11.84	18.83	1.67		
0.667	1.05	6.750	1.90	12.833	8.15	18.92	1.67		
0.750	1.05	6.833	1.96	12.917	8.15	19.00	1.67		
0.833	1.08	6.917	1.96	13.000	8.15	19.08	1.61		
0.917	1.08	7.000	1.96	13.083	6.88	19.17	1.61		
1.000	1.08	7.083	2.00	13.167	6.88	19.25	1.61		
1.083	1.10	7.167	2.00	13.250	6.88	19.33	1.54		
1.167	1.10	7.250	2.00	13.333	5.83	19.42	1.54		
1.250	1.10	7.333	2.06	13.417	5.82	19.50	1.54		
1.333	1.13	7.417	2.06	13.500	5.82	19.58	1.48		
1.417	1.13	7.500	2.06	13.583	5.14	19.67	1.48		
1.500	1.13	7.583	2.11	13.667	5.14	19.75	1.48		
1.583	1.16	7.667	2.11	13.750	5.14	19.83	1.41		
1.667	1.16	7.750	2.11	13.833	4.51	19.92	1.41		
1.750	1.16	7.833	2.16	13.917	4.51	20.00	1.41		
1.833	1.18	7.917	2.16	14.000	4.51	20.08	1.35		
1.917	1.18	8.000	2.16	14.083	4.02	20.17	1.35		
2.000	1.18	8.083	2.21	14.167	4.02	20.25	1.35		
2.083	1.20	8.167	2.21	14.250	4.02	20.33	1.31		
2.167	1.20	8.250	2.21	14.333	3.67	20.42	1.31		
2.250	1.20	8.333	2.37	14.417	3.67	20.50	1.31		

2.333	1.23	8.417	2.37	14.500	3.67	20.58	1.30
2.417	1.23	8.500	2.37	14.583	3.50	20.67	1.30
2.500	1.23	8.583	2.61	14.667	3.50	20.75	1.30
2.583	1.26	8.667	2.61	14.750	3.50	20.83	1.29
2.667	1.26	8.750	2.61	14.833	3.31	20.92	1.29
2.750	1.26	8.833	2.87	14.917	3.31	21.00	1.29
2.833	1.28	8.917	2.87	15.000	3.31	21.08	1.28
2.917	1.28	9.000	2.87	15.083	3.14	21.17	1.28
3.000	1.28	9.083	3.12	15.167	3.14	21.25	1.28
3.083	1.31	9.167	3.12	15.250	3.14	21.33	1.26
3.167	1.31	9.250	3.12	15.333	2.96	21.42	1.26
3.250	1.31	9.333	3.25	15.417	2.96	21.50	1.26
3.333	1.33	9.417	3.25	15.500	2.96	21.58	1.25
3.417	1.33	9.500	3.25	15.583	2.78	21.67	1.25
3.500	1.33	9.583	3.25	15.667	2.78	21.75	1.25
3.583	1.36	9.667	3.25	15.750	2.78	21.83	1.24
3.667	1.36	9.750	3.25	15.833	2.60	21.92	1.24
3.750	1.36	9.833	3.46	15.917	2.60	22.00	1.24
3.833	1.38	9.917	3.46	16.000	2.60	22.08	1.22
3.917	1.38	10.000	3.46	16.083	2.43	22.17	1.22
4.000	1.38	10.083	3.85	16.167	2.43	22.25	1.22
4.083	1.41	10.167	3.85	16.250	2.43	22.33	1.21
4.167	1.41	10.250	3.85	16.333	2.30	22.42	1.21
4.250	1.41	10.333	4.38	16.417	2.30	22.50	1.21
4.333	1.45	10.417	4.38	16.500	2.30	22.58	1.20
4.417	1.45	10.500	4.38	16.583	2.24	22.67	1.20
4.500	1.45	10.583	4.96	16.667	2.24	22.75	1.20
4.583	1.50	10.667	4.96	16.750	2.24	22.83	1.19
4.667	1.50	10.750	4.96	16.833	2.18	22.92	1.19
4.750	1.50	10.833	5.81	16.917	2.18	23.00	1.19
4.833	1.55	10.917	5.81	17.000	2.18	23.08	1.17
4.917	1.55	11.000	5.81	17.083	2.11	23.17	1.17
5.000	1.55	11.083	6.78	17.167	2.11	23.25	1.17
5.083	1.60	11.167	6.78	17.250	2.11	23.33	1.16
5.167	1.60	11.250	6.78	17.333	2.05	23.42	1.16
5.250	1.60	11.333	8.58	17.417	2.05	23.50	1.16
5.333	1.65	11.417	8.58	17.500	2.05	23.58	1.15
5.417	1.65	11.500	8.58	17.583	1.99	23.67	1.15
5.500	1.65	11.583	10.92	17.667	1.99	23.75	1.15
5.583	1.70	11.667	10.92	17.750	1.99	23.83	1.14
5.667	1.70	11.750	10.92	17.833	1.92	23.92	1.14
5.750	1.70	11.833	44.51	17.917	1.92	24.00	1.14
5.833	1.75	11.917	44.51	18.000	1.92	24.08	1.12
5.917	1.75	12.000	44.51	18.083	1.86	24.17	1.12
6.000	1.75	12.083	109.84	18.167	1.86	24.25	1.12
6.083	1.80	12.167	109.85	18.250	1.86		

Max.Eff.Inten.(mm/hr)=	109.85	64.88
over (min)	5.00	10.00
Storage Coeff. (min)=	2.39 (ii)	6.52 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.30	0.14

PEAK FLOW (cms)=	0.42	0.01	0.433 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	99.55	48.94	97.52
TOTAL RAINFALL (mm)=	101.55	101.55	101.55
RUNOFF COEFFICIENT =	0.98	0.48	0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB				
STANDHYD (7629)				
ID= 1 DT= 5.0 min				
Area (ha)=	1.70			
Total Imp(%)=	99.00	Dir. Conn.(%)=	99.00	

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.68	0.02
Dep. Storage (mm)=	2.00	5.00



Average Slope (%) = 1.10 2.00
 Length (m) = 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.80	12.250	109.85	18.33	1.80
0.167	0.00	6.250	1.80	12.333	17.41	18.42	1.80
0.250	0.00	6.333	1.85	12.417	17.40	18.50	1.80
0.333	1.03	6.417	1.85	12.500	17.40	18.58	1.73
0.417	1.03	6.500	1.85	12.583	11.85	18.67	1.73
0.500	1.03	6.583	1.90	12.667	11.84	18.75	1.73
0.583	1.05	6.667	1.90	12.750	11.84	18.83	1.67
0.667	1.05	6.750	1.90	12.833	8.15	18.92	1.67
0.750	1.05	6.833	1.96	12.917	8.15	19.00	1.67
0.833	1.08	6.917	1.96	13.000	8.15	19.08	1.61
0.917	1.08	7.000	1.96	13.083	6.88	19.17	1.61
1.000	1.08	7.083	2.00	13.167	6.88	19.25	1.61
1.083	1.10	7.167	2.00	13.250	6.88	19.33	1.54
1.167	1.10	7.250	2.00	13.333	5.83	19.42	1.54
1.250	1.10	7.333	2.06	13.417	5.82	19.50	1.54
1.333	1.13	7.417	2.06	13.500	5.82	19.58	1.48
1.417	1.13	7.500	2.06	13.583	5.14	19.67	1.48
1.500	1.13	7.583	2.11	13.667	5.14	19.75	1.48
1.583	1.16	7.667	2.11	13.750	5.14	19.83	1.41
1.667	1.16	7.750	2.11	13.833	4.51	19.92	1.41
1.750	1.16	7.833	2.16	13.917	4.51	20.00	1.41
1.833	1.18	7.917	2.16	14.000	4.51	20.08	1.35
1.917	1.18	8.000	2.16	14.083	4.02	20.17	1.35
2.000	1.18	8.083	2.21	14.167	4.02	20.25	1.35
2.083	1.20	8.167	2.21	14.250	4.02	20.33	1.31
2.167	1.20	8.250	2.21	14.333	3.67	20.42	1.31
2.250	1.20	8.333	2.37	14.417	3.67	20.50	1.31
2.333	1.23	8.417	2.37	14.500	3.67	20.58	1.30
2.417	1.23	8.500	2.37	14.583	3.50	20.67	1.30
2.500	1.23	8.583	2.61	14.667	3.50	20.75	1.30
2.583	1.26	8.667	2.61	14.750	3.50	20.83	1.29
2.667	1.26	8.750	2.61	14.833	3.31	20.92	1.29
2.750	1.26	8.833	2.87	14.917	3.31	21.00	1.29
2.833	1.28	8.917	2.87	15.000	3.31	21.08	1.28
2.917	1.28	9.000	2.87	15.083	3.14	21.17	1.28
3.000	1.28	9.083	3.12	15.167	3.14	21.25	1.28
3.083	1.31	9.167	3.12	15.250	3.14	21.33	1.26
3.167	1.31	9.250	3.12	15.333	2.96	21.42	1.26
3.250	1.31	9.333	3.25	15.417	2.96	21.50	1.26
3.333	1.33	9.417	3.25	15.500	2.96	21.58	1.25
3.417	1.33	9.500	3.25	15.583	2.78	21.67	1.25
3.500	1.33	9.583	3.25	15.667	2.78	21.75	1.25
3.583	1.36	9.667	3.25	15.750	2.78	21.83	1.24
3.667	1.36	9.750	3.25	15.833	2.60	21.92	1.24
3.750	1.36	9.833	3.46	15.917	2.60	22.00	1.24
3.833	1.38	9.917	3.46	16.000	2.60	22.08	1.22
3.917	1.38	10.000	3.46	16.083	2.43	22.17	1.22
4.000	1.38	10.083	3.85	16.167	2.43	22.25	1.22
4.083	1.41	10.167	3.85	16.250	2.43	22.33	1.21
4.167	1.41	10.250	3.85	16.333	2.30	22.42	1.21
4.250	1.41	10.333	4.38	16.417	2.30	22.50	1.21
4.333	1.45	10.417	4.38	16.500	2.30	22.58	1.20
4.417	1.45	10.500	4.38	16.583	2.24	22.67	1.20
4.500	1.45	10.583	4.96	16.667	2.24	22.75	1.20
4.583	1.50	10.667	4.96	16.750	2.24	22.83	1.19
4.667	1.50	10.750	4.96	16.833	2.18	22.92	1.19
4.750	1.50	10.833	5.81	16.917	2.18	23.00	1.19
4.833	1.55	10.917	5.81	17.000	2.18	23.08	1.17
4.917	1.55	11.000	5.81	17.083	2.11	23.17	1.17
5.000	1.55	11.083	6.78	17.167	2.11	23.25	1.17
5.083	1.60	11.167	6.78	17.250	2.11	23.33	1.16
5.167	1.60	11.250	6.78	17.333	2.05	23.42	1.16
5.250	1.60	11.333	8.58	17.417	2.05	23.50	1.16
5.333	1.65	11.417	8.58	17.500	2.05	23.58	1.15
5.417	1.65	11.500	8.58	17.583	1.99	23.67	1.15
5.500	1.65	11.583	10.92	17.667	1.99	23.75	1.15

5.583	1.70	11.667	10.92	17.750	1.99	23.83	1.14
5.667	1.70	11.750	10.92	17.833	1.92	23.92	1.14
5.750	1.70	11.833	44.51	17.917	1.92	24.00	1.14
5.833	1.75	11.917	44.51	18.000	1.92	24.08	1.12
5.917	1.75	12.000	44.51	18.083	1.86	24.17	1.12
6.000	1.75	12.083	109.84	18.167	1.86	24.25	1.12
6.083	1.80	12.167	109.85	18.250	1.86		

Max.Eff.Inten.(mm/hr)= 109.85 64.88
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.39 (ii) 3.47 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.30 0.26

TOTALS
 PEAK FLOW (cms)= 0.51 0.00 0.516 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 99.55 48.94 99.04
 TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.98 0.48 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDBYD (7651) | Area (ha)= 1.33
 | ID= 1 DT= 5.0 min | Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.30	0.03
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.80	12.250	109.85	18.33	1.80
0.167	0.00	6.250	1.80	12.333	17.41	18.42	1.80
0.250	0.00	6.333	1.85	12.417	17.40	18.50	1.80
0.333	1.03	6.417	1.85	12.500	17.40	18.58	1.73
0.417	1.03	6.500	1.85	12.583	11.85	18.67	1.73
0.500	1.03	6.583	1.90	12.667	11.84	18.75	1.73
0.583	1.05	6.667	1.90	12.750	11.84	18.83	1.67
0.667	1.05	6.750	1.90	12.833	8.15	18.92	1.67
0.750	1.05	6.833	1.96	12.917	8.15	19.00	1.67
0.833	1.08	6.917	1.96	13.000	8.15	19.08	1.61
0.917	1.08	7.000	1.96	13.083	6.88	19.17	1.61
1.000	1.08	7.083	2.00	13.167	6.88	19.25	1.61
1.083	1.10	7.167	2.00	13.250	6.88	19.33	1.54
1.167	1.10	7.250	2.00	13.333	5.83	19.42	1.54
1.250	1.13	7.333	2.06	13.417	5.82	19.50	1.48
1.333	1.13	7.417	2.06	13.500	5.82	19.58	1.48
1.417	1.13	7.500	2.06	13.583	5.14	19.67	1.48
1.500	1.13	7.583	2.11	13.667	5.14	19.75	1.48
1.583	1.16	7.667	2.11	13.750	5.14	19.83	1.41
1.667	1.16	7.750	2.11	13.833	4.51	19.92	1.41
1.750	1.16	7.833	2.16	13.917	4.51	20.00	1.41
1.833	1.18	7.917	2.16	14.000	4.51	20.08	1.35
1.917	1.18	8.000	2.16	14.083	4.02	20.17	1.35
2.000	1.18	8.083	2.21	14.167	4.02	20.25	1.35
2.083	1.20	8.167	2.21	14.250	4.02	20.33	1.31
2.167	1.20	8.250	2.21	14.333	3.67	20.42	1.31
2.250	1.20	8.333	2.37	14.417	3.67	20.50	1.31
2.333	1.23	8.417	2.37	14.500	3.67	20.58	1.30
2.417	1.23	8.500	2.37	14.583	3.50	20.67	1.30

2.500	1.23	8.583	2.61	14.667	3.50	20.75	1.30
2.583	1.26	8.667	2.61	14.750	3.50	20.83	1.29
2.667	1.26	8.750	2.61	14.833	3.31	20.92	1.29
2.750	1.26	8.833	2.87	14.917	3.31	21.00	1.29
2.833	1.28	8.917	2.87	15.000	3.31	21.08	1.28
2.917	1.28	9.000	2.87	15.083	3.14	21.17	1.28
3.000	1.28	9.083	3.12	15.167	3.14	21.25	1.28
3.083	1.31	9.167	3.12	15.250	3.14	21.33	1.26
3.167	1.31	9.250	3.12	15.333	2.96	21.42	1.26
3.250	1.31	9.333	3.25	15.417	2.96	21.50	1.26
3.333	1.33	9.417	3.25	15.500	2.96	21.58	1.25
3.417	1.33	9.500	3.25	15.583	2.78	21.67	1.25
3.500	1.33	9.583	3.25	15.667	2.78	21.75	1.25
3.583	1.36	9.667	3.25	15.750	2.78	21.83	1.24
3.667	1.36	9.750	3.25	15.833	2.60	21.92	1.24
3.750	1.36	9.833	3.46	15.917	2.60	22.00	1.24
3.833	1.38	9.917	3.46	16.000	2.60	22.08	1.22
3.917	1.38	10.000	3.46	16.083	2.43	22.17	1.22
4.000	1.38	10.083	3.85	16.167	2.43	22.25	1.22
4.083	1.41	10.167	3.85	16.250	2.43	22.33	1.21
4.167	1.41	10.250	3.85	16.333	2.30	22.42	1.21
4.250	1.41	10.333	4.38	16.417	2.30	22.50	1.21
4.333	1.45	10.417	4.38	16.500	2.30	22.58	1.20
4.417	1.45	10.500	4.38	16.583	2.24	22.67	1.20
4.500	1.45	10.583	4.96	16.667	2.24	22.75	1.20
4.583	1.50	10.667	4.96	16.750	2.24	22.83	1.19
4.667	1.50	10.750	4.96	16.833	2.18	22.92	1.19
4.750	1.50	10.833	5.81	16.917	2.18	23.00	1.19
4.833	1.55	10.917	5.81	17.000	2.18	23.08	1.17
4.917	1.55	11.000	5.81	17.083	2.11	23.17	1.17
5.000	1.55	11.083	6.78	17.167	2.11	23.25	1.17
5.083	1.60	11.167	6.78	17.250	2.11	23.33	1.16
5.167	1.60	11.250	6.78	17.333	2.05	23.42	1.16
5.250	1.60	11.333	8.58	17.417	2.05	23.50	1.16
5.333	1.65	11.417	8.58	17.500	2.05	23.58	1.15
5.417	1.65	11.500	8.58	17.583	1.99	23.67	1.15
5.500	1.65	11.583	10.92	17.667	1.99	23.75	1.15
5.583	1.70	11.667	10.92	17.750	1.99	23.83	1.14
5.667	1.70	11.750	10.92	17.833	1.92	23.92	1.14
5.750	1.70	11.833	44.51	17.917	1.92	24.00	1.14
5.833	1.75	11.917	44.51	18.000	1.92	24.08	1.12
5.917	1.75	12.000	44.51	18.083	1.86	24.17	1.12
6.000	1.75	12.083	109.84	18.167	1.86	24.25	1.12
6.083	1.80	12.167	109.85	18.250	1.86		

Max.Eff.Inten. (mm/hr)= 109.85 64.88
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.39 (ii) 3.82 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.30 0.25

TOTALS
 PEAK FLOW (cms)= 0.40 0.00 0.402 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25
 RUNOFF VOLUME (mm)= 99.55 48.94 98.54
 TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.98 0.48 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7700)					
1 + 2 = 3					

	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7620):	1.45	0.433	12.25	97.52	
+ ID2= 2 (7629):	1.70	0.516	12.25	99.04	

ID = 3 (7700):	3.15	0.949	12.25	98.34	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7700)					
3 + 2 = 1					

	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7700):	3.15	0.949	12.25	98.34	
+ ID2= 2 (7651):	1.33	0.402	12.25	98.54	

ID = 1 (7700):	4.48	1.351	12.25	98.40	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7623)			
ID= 1 DT= 5.0 min			

	Area	(ha)=	1.20
	Total Imp(%)=	95.00	Dir. Conn.(%)= 95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)= 1.14	0.06
Dep. Storage	(mm)= 2.00	5.00
Average Slope	(%)= 2.50	2.00
Length	(m)= 60.00	40.00
Mannings n	= 0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TRANSFORMED HYETOGRAPH											
TIME RAIN TIME RAIN TIME RAIN TIME RAIN											
hrs mm/hr hrs mm/hr hrs mm/hr hrs mm/hr											

0.083	0.00	6.167	1.80	12.250	109.85	18.33	1.80				
0.167	0.00	6.250	1.80	12.333	17.41	18.42	1.80				
0.250	0.00	6.333	1.85	12.417	17.40	18.50	1.80				
0.333	1.03	6.417	1.85	12.500	17.40	18.58	1.73				
0.417	1.03	6.500	1.85	12.583	11.85	18.67	1.73				
0.500	1.03	6.583	1.90	12.667	11.84	18.75	1.73				
0.583	1.05	6.667	1.90	12.750	11.84	18.83	1.67				
0.667	1.05	6.750	1.90	12.833	8.15	18.92	1.67				
0.750	1.05	6.833	1.96	12.917	8.15	19.00	1.67				
0.833	1.08	6.917	1.96	13.000	8.15	19.08	1.61				
0.917	1.08	7.000	1.96	13.083	6.88	19.17	1.61				
1.000	1.08	7.083	2.00	13.167	6.88	19.25	1.61				
1.083	1.10	7.167	2.00	13.250	6.88	19.33	1.54				
1.167	1.10	7.250	2.00	13.333	5.83	19.42	1.54				
1.250	1.10	7.333	2.06	13.417	5.82	19.50	1.54				
1.333	1.13	7.417	2.06	13.500	5.82	19.58	1.48				
1.417	1.13	7.500	2.06	13.583	5.14	19.67	1.48				
1.500	1.13	7.583	2.11	13.667	5.14	19.75	1.48				
1.583	1.16	7.667	2.11	13.750	5.14	19.83	1.41				
1.667	1.16	7.750	2.11	13.833	4.51	19.92	1.41				
1.750	1.16	7.833	2.16	13.917	4.51	20.00	1.41				
1.833	1.18	7.917	2.16	14.000	4.51	20.08	1.35				
1.917	1.18	8.000	2.16	14.083	4.02	20.17	1.35				
2.000	1.18	8.083	2.21	14.167	4.02	20.25	1.35				
2.083	1.20	8.167	2.21	14.250	4.02	20.33	1.31				
2.167	1.20	8.250	2.21	14.333	3.67	20.42	1.31				
2.250	1.20	8.333	2.37	14.417	3.67	20.50	1.31				
2.333	1.23	8.417	2.37	14.500	3.67	20.58	1.30				
2.417	1.23	8.500	2.37	14.583	3.50	20.67	1.30				
2.500	1.23	8.583	2.61	14.667	3.50	20.75	1.30				
2.583	1.26	8.667	2.61	14.750	3.50	20.83	1.29				
2.667	1.26	8.750	2.61	14.833	3.31	20.92	1.29				
2.750	1.26	8.833	2.87	14.917	3.31	21.00	1.29				
2.833	1.28	8.917	2.87	15.000	3.31	21.08	1.28				
2.917	1.28	9.000	2.87	15.083	3.14	21.17	1.28				
3.000	1.28	9.083	3.12	15.167	3.14	21.25	1.28				
3.083	1.31	9.167	3.12	15.250	3.14	21.33	1.26				
3.167	1.31	9.250	3.12	15.333	2.96	21.42	1.26				
3.250	1.31	9.333	3.25	15.417	2.96	21.50	1.26				
3.333	1.33	9.417	3.25	15.500	2.96	21.58	1.25				
3.417	1.33	9.500	3.25	15.583	2.78	21.67	1.25				
3.500	1.33	9.583	3.25	15.667	2.78	21.75	1.25				
3.583	1.36	9.667	3.25	15.750	2.78	21.83	1.24				
3.667	1.36	9.750	3.25	15.833	2.60	21.92	1.24				



3.750	1.36	9.833	3.46	15.917	2.60	22.00	1.24
3.833	1.38	9.917	3.46	16.000	2.60	22.08	1.22
3.917	1.38	10.000	3.46	16.083	2.43	22.17	1.22
4.000	1.38	10.083	3.85	16.167	2.43	22.25	1.22
4.083	1.41	10.167	3.85	16.250	2.43	22.33	1.21
4.167	1.41	10.250	3.85	16.333	2.30	22.42	1.21
4.250	1.41	10.333	4.38	16.417	2.30	22.50	1.21
4.333	1.45	10.417	4.38	16.500	2.30	22.58	1.20
4.417	1.45	10.500	4.38	16.583	2.24	22.67	1.20
4.500	1.45	10.583	4.96	16.667	2.24	22.75	1.20
4.583	1.50	10.667	4.96	16.750	2.24	22.83	1.19
4.667	1.50	10.750	4.96	16.833	2.18	22.92	1.19
4.750	1.50	10.833	5.81	16.917	2.18	23.00	1.19
4.833	1.55	10.917	5.81	17.000	2.18	23.08	1.17
4.917	1.55	11.000	5.81	17.083	2.11	23.17	1.17
5.000	1.55	11.083	6.78	17.167	2.11	23.25	1.17
5.083	1.60	11.167	6.78	17.250	2.11	23.33	1.16
5.167	1.60	11.250	6.78	17.333	2.05	23.42	1.16
5.250	1.60	11.333	8.58	17.417	2.05	23.50	1.16
5.333	1.65	11.417	8.58	17.500	2.05	23.58	1.15
5.417	1.65	11.500	8.58	17.583	1.99	23.67	1.15
5.500	1.65	11.583	10.92	17.667	1.99	23.75	1.15
5.583	1.70	11.667	10.92	17.750	1.99	23.83	1.14
5.667	1.70	11.750	10.92	17.833	1.92	23.92	1.14
5.750	1.70	11.833	44.51	17.917	1.92	24.00	1.14
5.833	1.75	11.917	44.51	18.000	1.92	24.08	1.12
5.917	1.75	12.000	44.51	18.083	1.86	24.17	1.12
6.000	1.75	12.083	109.84	18.167	1.86	24.25	1.12
6.083	1.80	12.167	109.85	18.250	1.86		

Max.Eff.Inten.(mm/hr)= 109.85 66.53
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.38 (ii) 3.47 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.26

PEAK FLOW (cms)= 0.35 0.01 *TOTALS*
 TIME TO PEAK (hrs)= 12.25 12.25 0.359 (iii)
 RUNOFF VOLUME (mm)= 99.55 50.17 97.08
 TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.98 0.49 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7654) |
ID= 1 DT= 5.0 min
 Area (ha)= 1.69
 Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.67	0.02
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.80	12.250	109.85	18.33	1.80
0.167	0.00	6.250	1.80	12.333	17.41	18.42	1.80
0.250	0.00	6.333	1.85	12.417	17.40	18.50	1.80
0.333	1.03	6.417	1.85	12.500	17.40	18.58	1.73
0.417	1.03	6.500	1.85	12.583	11.85	18.67	1.73
0.500	1.03	6.583	1.90	12.667	11.84	18.75	1.73
0.583	1.05	6.667	1.90	12.750	11.84	18.83	1.67

0.667	1.05	6.750	1.90	12.833	8.15	18.92	1.67
0.750	1.05	6.833	1.96	12.917	8.15	19.00	1.67
0.833	1.08	6.917	1.96	13.000	8.15	19.08	1.61
0.917	1.08	7.000	1.96	13.083	6.88	19.17	1.61
1.000	1.08	7.083	2.00	13.167	6.88	19.25	1.61
1.083	1.10	7.167	2.00	13.250	6.88	19.33	1.54
1.167	1.10	7.250	2.00	13.333	5.83	19.42	1.54
1.250	1.10	7.333	2.06	13.417	5.82	19.50	1.54
1.333	1.13	7.417	2.06	13.500	5.82	19.58	1.46
1.417	1.13	7.500	2.06	13.583	5.14	19.67	1.48
1.500	1.13	7.583	2.11	13.667	5.14	19.75	1.48
1.583	1.16	7.667	2.11	13.750	5.14	19.83	1.41
1.667	1.16	7.750	2.11	13.833	4.51	19.92	1.41
1.750	1.16	7.833	2.16	13.917	4.51	20.00	1.41
1.833	1.18	7.917	2.16	14.000	4.51	20.08	1.35
1.917	1.18	8.000	2.16	14.083	4.02	20.17	1.35
2.000	1.18	8.083	2.21	14.167	4.02	20.25	1.35
2.083	1.20	8.167	2.21	14.250	4.02	20.33	1.31
2.167	1.20	8.250	2.21	14.333	3.67	20.42	1.31
2.250	1.20	8.333	2.37	14.417	3.67	20.50	1.31
2.333	1.23	8.417	2.37	14.500	3.67	20.58	1.30
2.417	1.23	8.500	2.37	14.583	3.50	20.67	1.30
2.500	1.23	8.583	2.61	14.667	3.50	20.75	1.30
2.583	1.26	8.667	2.61	14.750	3.50	20.83	1.29
2.667	1.26	8.750	2.61	14.833	3.31	20.92	1.29
2.750	1.26	8.833	2.87	14.917	3.31	21.00	1.29
2.833	1.28	8.917	2.87	15.000	3.31	21.08	1.28
2.917	1.28	9.000	2.87	15.083	3.14	21.17	1.28
3.000	1.28	9.083	3.12	15.167	3.14	21.25	1.28
3.083	1.31	9.167	3.12	15.250	3.14	21.33	1.26
3.167	1.31	9.250	3.12	15.333	2.96	21.42	1.26
3.250	1.31	9.333	3.25	15.417	2.96	21.50	1.26
3.333	1.33	9.417	3.25	15.500	2.96	21.58	1.25
3.417	1.33	9.500	3.25	15.583	2.78	21.67	1.25
3.500	1.33	9.583	3.25	15.667	2.78	21.75	1.25
3.583	1.36	9.667	3.25	15.750	2.78	21.83	1.24
3.667	1.36	9.750	3.25	15.833	2.60	21.92	1.24
3.750	1.36	9.833	3.46	15.917	2.60	22.00	1.24
3.833	1.38	9.917	3.46	16.000	2.60	22.08	1.22
3.917	1.38	10.000	3.46	16.083	2.43	22.17	1.22
4.000	1.38	10.083	3.85	16.167	2.43	22.25	1.22
4.083	1.41	10.167	3.85	16.250	2.43	22.33	1.21
4.167	1.41	10.250	3.85	16.333	2.30	22.42	1.21
4.250	1.41	10.333	4.38	16.417	2.30	22.50	1.21
4.333	1.45	10.417	4.38	16.500	2.30	22.58	1.20
4.417	1.45	10.500	4.38	16.583	2.24	22.67	1.20
4.500	1.45	10.583	4.96	16.667	2.24	22.75	1.20
4.583	1.50	10.667	4.96	16.750	2.24	22.83	1.19
4.667	1.50	10.750	4.96	16.833	2.18	22.92	1.19
4.750	1.50	10.833	5.81	16.917	2.18	23.00	1.19
4.833	1.55	10.917	5.81	17.000	2.18	23.08	1.17
4.917	1.55	11.000	5.81	17.083	2.11	23.17	1.17
5.000	1.55	11.083	6.78	17.167	2.11	23.25	1.17
5.083	1.60	11.167	6.78	17.250	2.11	23.33	1.16
5.167	1.60	11.250	6.78	17.333	2.05	23.42	1.16
5.250	1.60	11.333	8.58	17.417	2.05	23.50	1.16
5.333	1.65	11.417	8.58	17.500	2.05	23.58	1.15
5.417	1.65	11.500	8.58	17.583	1.99	23.67	1.15
5.500	1.65	11.583	10.92	17.667	1.99	23.75	1.15
5.583	1.70	11.667	10.92	17.750	1.99	23.83	1.14
5.667	1.70	11.750	10.92	17.833	1.92	23.92	1.14
5.750	1.70	11.833	44.51	17.917	1.92	24.00	1.14
5.833	1.75	11.917	44.51	18.000	1.92	24.08	1.12
5.917	1.75	12.000	44.51	18.083	1.86	24.17	1.12
6.000	1.75	12.083	109.84	18.167	1.86	24.25	1.12
6.083	1.80	12.167	109.85	18.250	1.86		

Max.Eff.Inten.(mm/hr)= 109.85 64.88
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.39 (ii) 3.47 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.30 0.26

PEAK FLOW (cms)= 0.51 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 12.25 12.25
 RUNOFF VOLUME (mm)= 99.55 48.94 99.04

TOTAL RAINFALL (mm) = 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.98 0.48 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7655) | Area (ha) = 1.32
 | ID= 1 DT= 5.0 min | Total Imp(%) = 99.00 Dir. Conn.(%) = 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha) =	1.31	0.01
Dep. Storage (mm) =	2.00	5.00
Average Slope (%) =	1.10	2.00
Length (m) =	100.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.80	12.250	109.85	18.33	1.80
0.167	0.00	6.250	1.80	12.333	17.41	18.42	1.80
0.250	0.00	6.333	1.85	12.417	17.40	18.50	1.80
0.333	1.03	6.417	1.85	12.500	17.40	18.58	1.73
0.417	1.03	6.500	1.85	12.583	11.85	18.67	1.73
0.500	1.03	6.583	1.90	12.667	11.84	18.75	1.73
0.583	1.05	6.667	1.90	12.750	11.84	18.83	1.67
0.667	1.05	6.750	1.90	12.833	8.15	18.92	1.67
0.750	1.05	6.833	1.96	12.917	8.15	19.00	1.67
0.833	1.08	6.917	1.96	13.000	8.15	19.08	1.61
0.917	1.08	7.000	1.96	13.083	6.88	19.17	1.61
1.000	1.08	7.083	2.00	13.167	6.88	19.25	1.61
1.083	1.10	7.167	2.00	13.250	6.88	19.33	1.54
1.167	1.10	7.250	2.00	13.333	5.83	19.42	1.54
1.250	1.10	7.333	2.06	13.417	5.82	19.50	1.54
1.333	1.13	7.417	2.06	13.500	5.82	19.58	1.48
1.417	1.13	7.500	2.06	13.583	5.14	19.67	1.48
1.500	1.13	7.583	2.11	13.667	5.14	19.75	1.48
1.583	1.16	7.667	2.11	13.750	5.14	19.83	1.41
1.667	1.16	7.750	2.11	13.833	4.51	19.92	1.41
1.750	1.16	7.833	2.16	13.917	4.51	20.00	1.41
1.833	1.18	7.917	2.16	14.000	4.51	20.08	1.35
1.917	1.18	8.000	2.16	14.083	4.02	20.17	1.35
2.000	1.18	8.083	2.21	14.167	4.02	20.25	1.35
2.083	1.20	8.167	2.21	14.250	4.02	20.33	1.31
2.167	1.20	8.250	2.21	14.333	3.67	20.42	1.31
2.250	1.20	8.333	2.37	14.417	3.67	20.50	1.31
2.333	1.23	8.417	2.37	14.500	3.67	20.58	1.30
2.417	1.23	8.500	2.37	14.583	3.50	20.67	1.30
2.500	1.23	8.583	2.61	14.667	3.50	20.75	1.30
2.583	1.26	8.667	2.61	14.750	3.50	20.83	1.29
2.667	1.26	8.750	2.61	14.833	3.31	20.92	1.29
2.750	1.26	8.833	2.87	14.917	3.31	21.00	1.29
2.833	1.28	8.917	2.87	15.000	3.31	21.08	1.28
2.917	1.28	9.000	2.87	15.083	3.14	21.17	1.28
3.000	1.28	9.083	3.12	15.167	3.14	21.25	1.28
3.083	1.31	9.167	3.12	15.250	3.14	21.33	1.26
3.167	1.31	9.250	3.12	15.333	2.96	21.42	1.26
3.250	1.31	9.333	3.25	15.417	2.96	21.50	1.26
3.333	1.33	9.417	3.25	15.500	2.96	21.58	1.25
3.417	1.33	9.500	3.25	15.583	2.78	21.67	1.25
3.500	1.33	9.583	3.25	15.667	2.78	21.75	1.25
3.583	1.36	9.667	3.25	15.750	2.78	21.83	1.24
3.667	1.36	9.750	3.25	15.833	2.60	21.92	1.24
3.750	1.36	9.833	3.46	15.917	2.60	22.00	1.24
3.833	1.38	9.917	3.46	16.000	2.60	22.08	1.22

3.917	1.38	10.000	3.46	16.083	2.43	22.17	1.22
4.000	1.38	10.083	3.85	16.167	2.43	22.25	1.22
4.083	1.41	10.167	3.85	16.250	2.43	22.33	1.21
4.167	1.41	10.250	3.85	16.333	2.30	22.42	1.21
4.250	1.41	10.333	4.38	16.417	2.30	22.50	1.21
4.333	1.45	10.417	4.38	16.500	2.30	22.58	1.20
4.417	1.45	10.500	4.38	16.583	2.24	22.67	1.20
4.500	1.45	10.583	4.96	16.667	2.24	22.75	1.20
4.583	1.50	10.667	4.96	16.750	2.24	22.83	1.19
4.667	1.50	10.750	4.96	16.833	2.18	22.92	1.19
4.750	1.50	10.833	5.81	16.917	2.18	23.00	1.19
4.833	1.55	10.917	5.81	17.000	2.18	23.08	1.17
4.917	1.55	11.000	5.81	17.083	2.11	23.17	1.17
5.000	1.55	11.083	6.78	17.167	2.11	23.25	1.17
5.083	1.60	11.167	6.78	17.250	2.11	23.33	1.16
5.167	1.60	11.250	6.78	17.333	2.05	23.42	1.16
5.250	1.60	11.333	8.58	17.417	2.05	23.50	1.16
5.333	1.65	11.417	8.58	17.500	2.05	23.58	1.15
5.417	1.65	11.500	8.58	17.583	1.99	23.67	1.15
5.500	1.65	11.583	10.92	17.667	1.99	23.75	1.15
5.583	1.70	11.667	10.92	17.750	1.99	23.83	1.14
5.667	1.70	11.750	10.92	17.833	1.92	23.92	1.14
5.750	1.70	11.833	44.51	17.917	1.92	24.00	1.14
5.833	1.75	11.917	44.51	18.000	1.92	24.08	1.12
5.917	1.75	12.000	44.51	18.083	1.86	24.17	1.12
6.000	1.75	12.083	109.84	18.167	1.86	24.25	1.12
6.083	1.80	12.167	109.85	18.250	1.86		

Max.Eff.Inten.(mm/hr)= 109.85 64.88
 over (min) = 5.00 5.00
 Storage Coeff. (min) = 2.39 (ii) 3.47 (ii)
 Unit Hyd. Tpeak (min) = 5.00 5.00
 Unit Hyd. peak (cms) = 0.30 0.26

PEAK FLOW (cms) = 0.40 0.00 *TOTALS*
 TIME TO PEAK (hrs) = 12.25 12.25 12.25
 RUNOFF VOLUME (mm) = 99.55 48.94 99.04
 TOTAL RAINFALL (mm) = 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.98 0.48 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7662) | Area (ha) = 1.61
 | ID= 1 DT= 5.0 min | Total Imp(%) = 92.00 Dir. Conn.(%) = 92.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha) =	1.48	0.13
Dep. Storage (mm) =	2.00	5.00
Average Slope (%) =	1.10	2.00
Length (m) =	100.00	145.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.80	12.250	109.85	18.33	1.80
0.167	0.00	6.250	1.80	12.333	17.41	18.42	1.80
0.250	0.00	6.333	1.85	12.417	17.40	18.50	1.80
0.333	1.03	6.417	1.85	12.500	17.40	18.58	1.73
0.417	1.03	6.500	1.85	12.583	11.85	18.67	1.73
0.500	1.03	6.583	1.90	12.667	11.84	18.75	1.73
0.583	1.05	6.667	1.90	12.750	11.84	18.83	1.67
0.667	1.05	6.750	1.90	12.833	8.15	18.92	1.67
0.750	1.05	6.833	1.96	12.917	8.15	19.00	1.67

0.833	1.08	6.917	1.96	13.000	8.15	19.08	1.61
0.917	1.08	7.000	1.96	13.083	6.88	19.17	1.61
1.000	1.08	7.083	2.00	13.167	6.88	19.25	1.61
1.083	1.10	7.167	2.00	13.250	6.88	19.33	1.54
1.167	1.10	7.250	2.00	13.333	5.83	19.42	1.54
1.250	1.10	7.333	2.06	13.417	5.82	19.50	1.54
1.333	1.13	7.417	2.06	13.500	5.82	19.58	1.48
1.417	1.13	7.500	2.06	13.583	5.14	19.67	1.48
1.500	1.13	7.583	2.11	13.667	5.14	19.75	1.48
1.583	1.16	7.667	2.11	13.750	5.14	19.83	1.41
1.667	1.16	7.750	2.11	13.833	4.51	19.92	1.41
1.750	1.16	7.833	2.16	13.917	4.51	20.00	1.41
1.833	1.18	7.917	2.16	14.000	4.51	20.08	1.35
1.917	1.18	8.000	2.16	14.083	4.02	20.17	1.35
2.000	1.18	8.083	2.21	14.167	4.02	20.25	1.35
2.083	1.20	8.167	2.21	14.250	4.02	20.33	1.31
2.167	1.20	8.250	2.21	14.333	3.67	20.42	1.31
2.250	1.20	8.333	2.37	14.417	3.67	20.50	1.31
2.333	1.23	8.417	2.37	14.500	3.67	20.58	1.30
2.417	1.23	8.500	2.37	14.583	3.50	20.67	1.30
2.500	1.23	8.583	2.61	14.667	3.50	20.75	1.30
2.583	1.26	8.667	2.61	14.750	3.50	20.83	1.29
2.667	1.26	8.750	2.61	14.833	3.31	20.92	1.29
2.750	1.26	8.833	2.87	14.917	3.31	21.00	1.29
2.833	1.28	8.917	2.87	15.000	3.31	21.08	1.28
2.917	1.28	9.000	2.87	15.083	3.14	21.17	1.28
3.000	1.28	9.083	3.12	15.167	3.14	21.25	1.28
3.083	1.31	9.167	3.12	15.250	3.14	21.33	1.26
3.167	1.31	9.250	3.12	15.333	2.96	21.42	1.26
3.250	1.31	9.333	3.25	15.417	2.96	21.50	1.26
3.333	1.33	9.417	3.25	15.500	2.96	21.58	1.25
3.417	1.33	9.500	3.25	15.583	2.78	21.67	1.25
3.500	1.33	9.583	3.25	15.667	2.78	21.75	1.25
3.583	1.36	9.667	3.25	15.750	2.78	21.83	1.24
3.667	1.36	9.750	3.25	15.833	2.60	21.92	1.24
3.750	1.36	9.833	3.46	15.917	2.60	22.00	1.24
3.833	1.38	9.917	3.46	16.000	2.60	22.08	1.22
3.917	1.38	10.000	3.46	16.083	2.43	22.17	1.22
4.000	1.38	10.083	3.85	16.167	2.43	22.25	1.22
4.083	1.41	10.167	3.85	16.250	2.43	22.33	1.21
4.167	1.41	10.250	3.85	16.333	2.30	22.42	1.21
4.250	1.41	10.333	4.38	16.417	2.30	22.50	1.21
4.333	1.45	10.417	4.38	16.500	2.30	22.58	1.20
4.417	1.45	10.500	4.38	16.583	2.24	22.67	1.20
4.500	1.45	10.583	4.96	16.667	2.24	22.75	1.20
4.583	1.50	10.667	4.96	16.750	2.24	22.83	1.19
4.667	1.50	10.750	4.96	16.833	2.18	22.92	1.19
4.750	1.50	10.833	5.81	16.917	2.18	23.00	1.19
4.833	1.55	10.917	5.81	17.000	2.18	23.08	1.17
4.917	1.55	11.000	5.81	17.083	2.11	23.17	1.17
5.000	1.55	11.083	6.78	17.167	2.11	23.25	1.17
5.083	1.60	11.167	6.78	17.250	2.11	23.33	1.16
5.167	1.60	11.250	6.78	17.333	2.05	23.42	1.16
5.250	1.60	11.333	8.58	17.417	2.05	23.50	1.16
5.333	1.65	11.417	8.58	17.500	2.05	23.58	1.15
5.417	1.65	11.500	8.58	17.583	1.99	23.67	1.15
5.500	1.65	11.583	10.92	17.667	1.99	23.75	1.15
5.583	1.70	11.667	10.92	17.750	1.99	23.83	1.14
5.667	1.70	11.750	10.92	17.833	1.92	23.92	1.14
5.750	1.70	11.833	44.51	17.917	1.92	24.00	1.14
5.833	1.75	11.917	44.51	18.000	1.92	24.08	1.12
5.917	1.75	12.000	44.51	18.083	1.86	24.17	1.12
6.000	1.75	12.083	109.84	18.167	1.86	24.25	1.12
6.083	1.80	12.167	109.85	18.250	1.86		

Max.Eff.Inten.(mm/hr)= 109.85 51.30
over (min) 5.00 25.00
Storage Coeff. (min)= 2.39 (ii) 22.35 (ii)
Unit Hyd. Tpeak (min)= 5.00 25.00
Unit Hyd. peak (cms)= 0.30 0.05

TOTALS
PEAK FLOW (cms)= 0.45 0.01 0.458 (iii)
TIME TO PEAK (hrs)= 12.25 12.25
RUNOFF VOLUME (mm)= 99.55 48.94 95.49
TOTAL RAINFALL (mm)= 101.55 101.55 101.55
RUNOFF COEFFICIENT = 0.98 0.48 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7701)					
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7654):	1.69	0.513	12.25	99.04	
+ ID2= 2 (7655):	1.32	0.401	12.25	99.04	
=====					
ID = 3 (7701):	3.01	0.914	12.25	99.04	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7701)					
3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7701):	3.01	0.914	12.25	99.04	
+ ID2= 2 (7662):	1.61	0.458	12.25	95.49	
=====					
ID = 1 (7701):	4.62	1.372	12.25	97.81	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7707)	Area	(ha)=	1.06
ID= 1 DT= 5.0 min	Total Imp(%)=	95.00	Dir. Conn.(%)= 95.00

Surface Area	(ha)=	1.01	0.05
Dep. Storage	(mm)=	2.00	5.00
Average Slope	(%)=	2.50	2.00
Length	(m)=	60.00	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.80	12.250	109.85	18.33	1.80				
0.167	0.00	6.250	1.80	12.333	17.41	18.42	1.80				
0.250	0.00	6.333	1.85	12.417	17.40	18.50	1.80				
0.333	1.03	6.417	1.85	12.500	17.40	18.58	1.73				
0.417	1.03	6.500	1.85	12.583	11.85	18.67	1.73				
0.500	1.03	6.583	1.90	12.667	11.84	18.75	1.73				
0.583	1.05	6.667	1.90	12.750	11.84	18.83	1.67				
0.667	1.05	6.750	1.90	12.833	8.15	18.92	1.67				
0.750	1.05	6.833	1.96	12.917	8.15	19.00	1.67				
0.833	1.08	6.917	1.96	13.000	8.15	19.08	1.61				
0.917	1.08	7.000	1.96	13.083	6.88	19.17	1.61				
1.000	1.08	7.083	2.00	13.167	6.88	19.25	1.61				
1.083	1.10	7.167	2.00	13.250	6.88	19.33	1.54				
1.167	1.10	7.250	2.00	13.333	5.83	19.42	1.54				
1.250	1.10	7.333	2.06	13.417	5.82	19.50	1.54				
1.333	1.13	7.417	2.06	13.500	5.82	19.58	1.48				
1.417	1.13	7.500	2.06	13.583	5.14	19.67	1.48				
1.500	1.13	7.583	2.11	13.667	5.14	19.75	1.48				
1.583	1.16	7.667	2.11	13.750	5.14	19.83	1.41				
1.667	1.16	7.750	2.11	13.833	4.51	19.92	1.41				
1.750	1.16	7.833	2.16	13.917	4.51	20.00	1.41				
1.833	1.18	7.917	2.16	14.000	4.51	20.08	1.35				
1.917	1.18	8.000	2.16	14.083	4.02	20.17	1.35				
2.000	1.18	8.083	2.21	14.167	4.02	20.25	1.35				



2.083	1.20	8.167	2.21	14.250	4.02	20.33	1.31
2.167	1.20	8.250	2.21	14.333	3.67	20.42	1.31
2.250	1.20	8.333	2.37	14.417	3.67	20.50	1.31
2.333	1.23	8.417	2.37	14.500	3.67	20.58	1.30
2.417	1.23	8.500	2.37	14.583	3.50	20.67	1.30
2.500	1.23	8.583	2.61	14.667	3.50	20.75	1.30
2.583	1.26	8.667	2.61	14.750	3.50	20.83	1.29
2.667	1.26	8.750	2.61	14.833	3.31	20.92	1.29
2.750	1.26	8.833	2.87	14.917	3.31	21.00	1.29
2.833	1.28	8.917	2.87	15.000	3.31	21.08	1.28
2.917	1.28	9.000	2.87	15.083	3.14	21.17	1.28
3.000	1.28	9.083	3.12	15.167	3.14	21.25	1.28
3.083	1.31	9.167	3.12	15.250	3.14	21.33	1.26
3.167	1.31	9.250	3.12	15.333	2.96	21.42	1.26
3.250	1.31	9.333	3.25	15.417	2.96	21.50	1.26
3.333	1.33	9.417	3.25	15.500	2.96	21.58	1.25
3.417	1.33	9.500	3.25	15.583	2.78	21.67	1.25
3.500	1.33	9.583	3.25	15.667	2.78	21.75	1.25
3.583	1.36	9.667	3.25	15.750	2.78	21.83	1.24
3.667	1.36	9.750	3.25	15.833	2.60	21.92	1.24
3.750	1.36	9.833	3.46	15.917	2.60	22.00	1.24
3.833	1.38	9.917	3.46	16.000	2.60	22.08	1.22
3.917	1.38	10.000	3.46	16.083	2.43	22.17	1.22
4.000	1.38	10.083	3.85	16.167	2.43	22.25	1.22
4.083	1.41	10.167	3.85	16.250	2.43	22.33	1.21
4.167	1.41	10.250	3.85	16.333	2.30	22.42	1.21
4.250	1.41	10.333	4.38	16.417	2.30	22.50	1.21
4.333	1.45	10.417	4.38	16.500	2.30	22.58	1.20
4.417	1.45	10.500	4.38	16.583	2.24	22.67	1.20
4.500	1.45	10.583	4.96	16.667	2.24	22.75	1.20
4.583	1.50	10.667	4.96	16.750	2.24	22.83	1.19
4.667	1.50	10.750	4.96	16.833	2.18	22.92	1.19
4.750	1.50	10.833	5.81	16.917	2.18	23.00	1.19
4.833	1.55	10.917	5.81	17.000	2.18	23.08	1.17
4.917	1.55	11.000	5.81	17.083	2.11	23.17	1.17
5.000	1.55	11.083	6.78	17.167	2.11	23.25	1.17
5.083	1.60	11.167	6.78	17.250	2.11	23.33	1.16
5.167	1.60	11.250	6.78	17.333	2.05	23.42	1.16
5.250	1.60	11.333	8.58	17.417	2.05	23.50	1.16
5.333	1.65	11.417	8.58	17.500	2.05	23.58	1.15
5.417	1.65	11.500	8.58	17.583	1.99	23.67	1.15
5.500	1.65	11.583	10.92	17.667	1.99	23.75	1.15
5.583	1.70	11.667	10.92	17.750	1.99	23.83	1.14
5.667	1.70	11.750	10.92	17.833	1.92	23.92	1.14
5.750	1.70	11.833	44.51	17.917	1.92	24.00	1.14
5.833	1.75	11.917	44.51	18.000	1.92	24.08	1.12
5.917	1.75	12.000	44.51	18.083	1.86	24.17	1.12
6.000	1.75	12.083	109.84	18.167	1.86	24.25	1.12
6.083	1.80	12.167	109.85	18.250	1.86		

Max.Eff.Inten. (mm/hr)=	109.85	66.53
over (min)	5.00	5.00
Storage Coeff. (min)=	1.38 (ii)	3.47 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.26

TOTALS

PEAK FLOW (cms)=	0.31	0.01	0.317 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	
RUNOFF VOLUME (mm)=	99.55	50.17	97.08
TOTAL RAINFALL (mm)=	101.55	101.55	101.55
RUNOFF COEFFICIENT =	0.98	0.49	0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7702)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)

ID1= 1 (7623):	1.20	0.359	12.25	97.08
+ ID2= 2 (7700):	4.48	1.351	12.25	98.40
ID = 3 (7702):	5.68	1.710	12.25	98.12

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7702):	5.68	1.710	12.25	98.12
+ ID2= 2 (7701):	4.62	1.372	12.25	97.81
ID = 1 (7702):	10.30	3.082	12.25	97.98

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7702):	10.30	3.082	12.25	97.98
+ ID2= 2 (7707):	1.06	0.317	12.25	97.08
ID = 3 (7702):	11.36	3.399	12.25	97.90

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)				
3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7702):	11.36	3.399	12.25	97.90
+ ID2= 2 (7714):	14.31	1.935	12.25	100.03
ID = 1 (7702):	25.67	5.334	12.25	99.08

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7705)	OVERFLOW IS OFF			
IN= 2--> OUT= 1				
DT= 5.0 min	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.6280	2.3980
	0.0730	0.2080	0.6400	2.4830
	0.0890	0.2770	0.6520	2.5670
	0.1340	0.5530	0.6640	2.6500
	0.2910	0.8290	0.6750	2.7340
	0.3860	1.1060	0.7190	3.0490
	0.4590	1.3820	0.8250	3.3550
	0.5220	1.7210	2.0760	3.4560
	0.5780	2.0600	2.3560	3.7320

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7702)	25.670	5.334	12.25	99.08
OUTFLOW: ID= 1 (7705)	25.670	0.401	14.00	99.06

PEAK FLOW REDUCTION [Qout/Qin] (%) = 7.52
TIME SHIFT OF PEAK FLOW (min) = 105.00
MAXIMUM STORAGE USED (ha.m.) = 1.1637

CALIB			
STANDHYD (7716)	Area	(ha) = 0.19	
ID= 1 DT= 5.0 min	Total Imp (%) =	95.00	Dir. Conn. (%) = 95.00
	Surface Area	(ha) = 0.18	PERVIOUS (i) 0.01
	Dep. Storage	(mm) = 2.00	PERVIOUS (i) 5.00



Average Slope (%) = 2.50 2.00
 Length (m) = 60.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.80	12.250	109.85	18.33	1.80
0.167	0.00	6.250	1.80	12.333	17.41	18.42	1.80
0.250	0.00	6.333	1.85	12.417	17.40	18.50	1.80
0.333	1.03	6.417	1.85	12.500	17.40	18.58	1.73
0.417	1.03	6.500	1.85	12.583	11.85	18.67	1.73
0.500	1.03	6.583	1.90	12.667	11.84	18.75	1.73
0.583	1.05	6.667	1.90	12.750	11.84	18.83	1.67
0.667	1.05	6.750	1.90	12.833	8.15	18.92	1.67
0.750	1.05	6.833	1.96	12.917	8.15	19.00	1.67
0.833	1.08	6.917	1.96	13.000	8.15	19.08	1.61
0.917	1.08	7.000	1.96	13.083	6.88	19.17	1.61
1.000	1.08	7.083	2.00	13.167	6.88	19.25	1.61
1.083	1.10	7.167	2.00	13.250	6.88	19.33	1.54
1.167	1.10	7.250	2.00	13.333	5.83	19.42	1.54
1.250	1.10	7.333	2.06	13.417	5.82	19.50	1.54
1.333	1.13	7.417	2.06	13.500	5.82	19.58	1.48
1.417	1.13	7.500	2.06	13.583	5.14	19.67	1.48
1.500	1.13	7.583	2.11	13.667	5.14	19.75	1.48
1.583	1.16	7.667	2.11	13.750	5.14	19.83	1.41
1.667	1.16	7.750	2.11	13.833	4.51	19.92	1.41
1.750	1.16	7.833	2.16	13.917	4.51	20.00	1.41
1.833	1.18	7.917	2.16	14.000	4.51	20.08	1.35
1.917	1.18	8.000	2.16	14.083	4.02	20.17	1.35
2.000	1.18	8.083	2.21	14.167	4.02	20.25	1.35
2.083	1.20	8.167	2.21	14.250	4.02	20.33	1.31
2.167	1.20	8.250	2.21	14.333	3.67	20.42	1.31
2.250	1.20	8.333	2.37	14.417	3.67	20.50	1.31
2.333	1.23	8.417	2.37	14.500	3.67	20.58	1.30
2.417	1.23	8.500	2.37	14.583	3.50	20.67	1.30
2.500	1.23	8.583	2.61	14.667	3.50	20.75	1.30
2.583	1.26	8.667	2.61	14.750	3.50	20.83	1.29
2.667	1.26	8.750	2.61	14.833	3.31	20.92	1.29
2.750	1.26	8.833	2.87	14.917	3.31	21.00	1.29
2.833	1.28	8.917	2.87	15.000	3.31	21.08	1.28
2.917	1.28	9.000	2.87	15.083	3.14	21.17	1.28
3.000	1.28	9.083	3.12	15.167	3.14	21.25	1.28
3.083	1.31	9.167	3.12	15.250	3.14	21.33	1.26
3.167	1.31	9.250	3.12	15.333	2.96	21.42	1.26
3.250	1.31	9.333	3.25	15.417	2.96	21.50	1.26
3.333	1.33	9.417	3.25	15.500	2.96	21.58	1.25
3.417	1.33	9.500	3.25	15.583	2.78	21.67	1.25
3.500	1.33	9.583	3.25	15.667	2.78	21.75	1.25
3.583	1.36	9.667	3.25	15.750	2.78	21.83	1.24
3.667	1.36	9.750	3.25	15.833	2.60	21.92	1.24
3.750	1.36	9.833	3.46	15.917	2.60	22.00	1.24
3.833	1.38	9.917	3.46	16.000	2.60	22.08	1.22
3.917	1.38	10.000	3.46	16.083	2.43	22.17	1.22
4.000	1.38	10.083	3.85	16.167	2.43	22.25	1.22
4.083	1.41	10.167	3.85	16.250	2.43	22.33	1.21
4.167	1.41	10.250	3.85	16.333	2.30	22.42	1.21
4.250	1.41	10.333	4.38	16.417	2.30	22.50	1.21
4.333	1.45	10.417	4.38	16.500	2.30	22.58	1.20
4.417	1.45	10.500	4.38	16.583	2.24	22.67	1.20
4.500	1.45	10.583	4.96	16.667	2.24	22.75	1.20
4.583	1.50	10.667	4.96	16.750	2.24	22.83	1.19
4.667	1.50	10.750	4.96	16.833	2.18	22.92	1.19
4.750	1.50	10.833	5.81	16.917	2.18	23.00	1.19
4.833	1.55	10.917	5.81	17.000	2.18	23.08	1.17
4.917	1.55	11.000	5.81	17.083	2.11	23.17	1.17
5.000	1.55	11.083	6.78	17.167	2.11	23.25	1.17
5.083	1.60	11.167	6.78	17.250	2.11	23.33	1.16
5.167	1.60	11.250	6.78	17.333	2.05	23.42	1.16
5.250	1.60	11.333	8.58	17.417	2.05	23.50	1.16
5.333	1.65	11.417	8.58	17.500	2.05	23.58	1.15
5.417	1.65	11.500	8.58	17.583	1.99	23.67	1.15
5.500	1.65	11.583	10.92	17.667	1.99	23.75	1.15

5.583	1.70	11.667	10.92	17.750	1.99	23.83	1.14
5.667	1.70	11.750	10.92	17.833	1.92	23.92	1.14
5.750	1.70	11.833	44.51	17.917	1.92	24.00	1.14
5.833	1.75	11.917	44.51	18.000	1.92	24.08	1.12
5.917	1.75	12.000	44.51	18.083	1.86	24.17	1.12
6.000	1.75	12.083	109.84	18.167	1.86	24.25	1.12
6.083	1.80	12.167	109.85	18.250	1.86		

Max.Eff.Inten. (mm/hr)=	109.85	66.53	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.38 (ii)	3.47 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.33	0.26	
PEAK FLOW (cms)=	0.06	0.00	0.057 (iii)
TIME TO PEAK (hrs)=	12.25	12.25	12.25
RUNOFF VOLUME (mm)=	99.55	50.17	97.08
TOTAL RAINFALL (mm)=	101.55	101.55	101.55
RUNOFF COEFFICIENT =	0.98	0.49	0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7720)	OVERFLOW IS OFF	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
IN= 2---> OUT= 1		0.0000	0.0000	0.0100	0.0090
DT= 5.0 min		0.0030	0.0010	0.0110	0.0100
		0.0050	0.0030	0.0120	0.0110
		0.0060	0.0040	0.0120	0.0130
		0.0080	0.0050	0.0130	0.0140
		0.0090	0.0060	0.0140	0.0150
		0.0090	0.0080	0.0000	0.0000

INFLOW : ID= 2 (7716)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
0.190	0.057	12.25	97.08	
OUTFLOW: ID= 1 (7720)	0.190	0.009	12.25	96.68

PEAK FLOW REDUCTION [Qout/Qin] (%) = 15.83
 TIME SHIFT OF PEAK FLOW (min) = 0.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0073

CALIB	Area (ha)	Total Imp (%)	Dir. Conn. (%)
STANDHYD (7717)	0.20	95.00	95.00
ID= 1 DT= 5.0 min			

Surface Area (ha)	IMPERVIOUS (mm)	PERVIOUS (i)
0.19	0.01	0.01
2.00	5.00	5.00
2.50	2.00	2.00
36.51	40.00	40.00
0.013	0.250	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	6.167	1.80	12.250	109.85	18.33	1.80
0.167	0.00	6.250	1.80	12.333	17.41	18.42	1.80
0.250	0.00	6.333	1.85	12.417	17.40	18.50	1.80
0.333	1.03	6.417	1.85	12.500	17.40	18.58	1.73
0.417	1.03	6.500	1.85	12.583	11.85	18.67	1.73
0.500	1.03	6.583	1.90	12.667	11.84	18.75	1.73

0.583	1.05	6.667	1.90	12.750	11.84	18.83	1.67
0.667	1.05	6.750	1.90	12.833	8.15	18.92	1.67
0.750	1.05	6.833	1.96	12.917	8.15	19.00	1.67
0.833	1.08	6.917	1.96	13.000	8.15	19.08	1.61
0.917	1.08	7.000	1.96	13.083	6.88	19.17	1.61
1.000	1.08	7.083	2.00	13.167	6.88	19.25	1.61
1.083	1.10	7.167	2.00	13.250	6.88	19.33	1.54
1.167	1.10	7.250	2.00	13.333	5.83	19.42	1.54
1.250	1.10	7.333	2.06	13.417	5.82	19.50	1.54
1.333	1.13	7.417	2.06	13.500	5.82	19.58	1.48
1.417	1.13	7.500	2.06	13.583	5.14	19.67	1.48
1.500	1.13	7.583	2.11	13.667	5.14	19.75	1.48
1.583	1.16	7.667	2.11	13.750	5.14	19.83	1.41
1.667	1.16	7.750	2.11	13.833	4.51	19.92	1.41
1.750	1.16	7.833	2.16	13.917	4.51	20.00	1.41
1.833	1.18	7.917	2.16	14.000	4.51	20.08	1.35
1.917	1.18	8.000	2.16	14.083	4.02	20.17	1.35
2.000	1.18	8.083	2.21	14.167	4.02	20.25	1.35
2.083	1.20	8.167	2.21	14.250	4.02	20.33	1.31
2.167	1.20	8.250	2.21	14.333	3.67	20.42	1.31
2.250	1.20	8.333	2.37	14.417	3.67	20.50	1.31
2.333	1.23	8.417	2.37	14.500	3.67	20.58	1.30
2.417	1.23	8.500	2.37	14.583	3.50	20.67	1.30
2.500	1.23	8.583	2.61	14.667	3.50	20.75	1.30
2.583	1.26	8.667	2.61	14.750	3.50	20.83	1.29
2.667	1.26	8.750	2.61	14.833	3.31	20.92	1.29
2.750	1.26	8.833	2.87	14.917	3.31	21.00	1.29
2.833	1.28	8.917	2.87	15.000	3.31	21.08	1.28
2.917	1.28	9.000	2.87	15.083	3.14	21.17	1.28
3.000	1.28	9.083	3.12	15.167	3.14	21.25	1.28
3.083	1.31	9.167	3.12	15.250	3.14	21.33	1.26
3.167	1.31	9.250	3.12	15.333	2.96	21.42	1.26
3.250	1.31	9.333	3.25	15.417	2.96	21.50	1.26
3.333	1.33	9.417	3.25	15.500	2.96	21.58	1.25
3.417	1.33	9.500	3.25	15.583	2.78	21.67	1.25
3.500	1.33	9.583	3.25	15.667	2.78	21.75	1.25
3.583	1.36	9.667	3.25	15.750	2.78	21.83	1.24
3.667	1.36	9.750	3.25	15.833	2.60	21.92	1.24
3.750	1.36	9.833	3.46	15.917	2.60	22.00	1.24
3.833	1.38	9.917	3.46	16.000	2.60	22.08	1.22
3.917	1.38	10.000	3.46	16.083	2.43	22.17	1.22
4.000	1.38	10.083	3.85	16.167	2.43	22.25	1.22
4.083	1.41	10.167	3.85	16.250	2.43	22.33	1.21
4.167	1.41	10.250	3.85	16.333	2.30	22.42	1.21
4.250	1.41	10.333	4.38	16.417	2.30	22.50	1.21
4.333	1.45	10.417	4.38	16.500	2.30	22.58	1.20
4.417	1.45	10.500	4.38	16.583	2.24	22.67	1.20
4.500	1.45	10.583	4.96	16.667	2.24	22.75	1.20
4.583	1.50	10.667	4.96	16.750	2.24	22.83	1.19
4.667	1.50	10.750	4.96	16.833	2.18	22.92	1.19
4.750	1.50	10.833	5.81	16.917	2.18	23.00	1.19
4.833	1.55	10.917	5.81	17.000	2.18	23.08	1.17
4.917	1.55	11.000	5.81	17.083	2.11	23.17	1.17
5.000	1.55	11.083	6.78	17.167	2.11	23.25	1.17
5.083	1.60	11.167	6.78	17.250	2.11	23.33	1.16
5.167	1.60	11.250	6.78	17.333	2.05	23.42	1.16
5.250	1.60	11.333	8.58	17.417	2.05	23.50	1.16
5.333	1.65	11.417	8.58	17.500	2.05	23.58	1.15
5.417	1.65	11.500	8.58	17.583	1.99	23.67	1.15
5.500	1.65	11.583	10.92	17.667	1.99	23.75	1.15
5.583	1.70	11.667	10.92	17.750	1.99	23.83	1.14
5.667	1.70	11.750	10.92	17.833	1.92	23.92	1.14
5.750	1.70	11.833	44.51	17.917	1.92	24.00	1.14
5.833	1.75	11.917	44.51	18.000	1.92	24.08	1.12
5.917	1.75	12.000	44.51	18.083	1.86	24.17	1.12
6.000	1.75	12.083	109.84	18.167	1.86	24.25	1.12
6.083	1.80	12.167	109.85	18.250	1.86		

Max.Eff.Inten.(mm/hr)= 109.85 66.53
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.02 (ii) 3.11 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.27

PEAK FLOW (cms)= 0.06 0.00 0.060 (iii)
 TIME TO PEAK (hrs)= 12.25 12.25 12.25

TOTALS

RUNOFF VOLUME (mm)= 99.55 50.17 97.08
 TOTAL RAINFALL (mm)= 101.55 101.55 101.55
 RUNOFF COEFFICIENT = 0.98 0.49 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | RESERVOIR (7719) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
DT= 5.0 min

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.0100	0.0090
0.0030	0.0010	0.0110	0.0100
0.0050	0.0030	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

INFLOW : ID= 2 (7717)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
0.200	0.200	0.060	12.25	97.08

OUTFLOW: ID= 1 (7719)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
0.200	0.200	0.009	12.25	96.68

PEAK FLOW REDUCTION [Qout/Qin](%)= 15.04
 TIME SHIFT OF PEAK FLOW (min)= 0.00
 MAXIMUM STORAGE USED (ha.m.)= 0.0078

 | ADD HYD (7706) |
1 + 2 = 3

ID	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7705):	25.67	0.401	14.00	99.06
+ ID2= 2 (7719):	0.20	0.009	12.25	96.68
ID = 3 (7706):	25.87	0.410	13.75	99.04

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7706) |
3 + 2 = 1

ID	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (7706):	25.87	0.410	13.75	99.04
+ ID2= 2 (7720):	0.19	0.009	12.25	96.68
ID = 1 (7706):	26.06	0.418	13.58	99.02

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |
 | STANDBYD (7595) | Area (ha)= 1.24
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.23	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	91.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	6.167	1.80	12.250	109.85	18.33	1.80
0.167	0.00	6.250	1.80	12.333	17.41	18.42	1.80
0.250	0.00	6.333	1.85	12.417	17.40	18.50	1.80
0.333	1.03	6.417	1.85	12.500	17.40	18.58	1.73
0.417	1.03	6.500	1.85	12.583	11.85	18.67	1.73
0.500	1.03	6.583	1.90	12.667	11.84	18.75	1.73
0.583	1.05	6.667	1.90	12.750	11.84	18.83	1.67
0.667	1.05	6.750	1.90	12.833	8.15	18.92	1.67
0.750	1.05	6.833	1.96	12.917	8.15	19.00	1.67
0.833	1.08	6.917	1.96	13.000	8.15	19.08	1.61
0.917	1.08	7.000	1.96	13.083	6.88	19.17	1.61
1.000	1.08	7.083	2.00	13.167	6.88	19.25	1.61
1.083	1.10	7.167	2.00	13.250	6.88	19.33	1.54
1.167	1.10	7.250	2.00	13.333	5.83	19.42	1.54
1.250	1.10	7.333	2.06	13.417	5.82	19.50	1.54
1.333	1.13	7.417	2.06	13.500	5.82	19.58	1.48
1.417	1.13	7.500	2.06	13.583	5.14	19.67	1.48
1.500	1.13	7.583	2.11	13.667	5.14	19.75	1.48
1.583	1.16	7.667	2.11	13.750	5.14	19.83	1.41
1.667	1.16	7.750	2.11	13.833	4.51	19.92	1.41
1.750	1.16	7.833	2.16	13.917	4.51	20.00	1.41
1.833	1.18	7.917	2.16	14.000	4.51	20.08	1.35
1.917	1.18	8.000	2.16	14.083	4.02	20.17	1.35
2.000	1.18	8.083	2.21	14.167	4.02	20.25	1.35
2.083	1.20	8.167	2.21	14.250	4.02	20.33	1.31
2.167	1.20	8.250	2.21	14.333	3.67	20.42	1.31
2.250	1.20	8.333	2.37	14.417	3.67	20.50	1.31
2.333	1.23	8.417	2.37	14.500	3.67	20.58	1.30
2.417	1.23	8.500	2.37	14.583	3.50	20.67	1.30
2.500	1.23	8.583	2.61	14.667	3.50	20.75	1.30
2.583	1.26	8.667	2.61	14.750	3.50	20.83	1.29
2.667	1.26	8.750	2.61	14.833	3.31	20.92	1.29
2.750	1.26	8.833	2.87	14.917	3.31	21.00	1.29
2.833	1.28	8.917	2.87	15.000	3.31	21.08	1.28
2.917	1.28	9.000	2.87	15.083	3.14	21.17	1.28
3.000	1.28	9.083	3.12	15.167	3.14	21.25	1.28
3.083	1.31	9.167	3.12	15.250	3.14	21.33	1.26
3.167	1.31	9.250	3.12	15.333	2.96	21.42	1.26
3.250	1.31	9.333	3.25	15.417	2.96	21.50	1.26
3.333	1.33	9.417	3.25	15.500	2.96	21.58	1.25
3.417	1.33	9.500	3.25	15.583	2.78	21.67	1.25
3.500	1.33	9.583	3.25	15.667	2.78	21.75	1.25
3.583	1.36	9.667	3.25	15.750	2.78	21.83	1.24
3.667	1.36	9.750	3.25	15.833	2.60	21.92	1.24
3.750	1.36	9.833	3.46	15.917	2.60	22.00	1.24
3.833	1.38	9.917	3.46	16.000	2.60	22.08	1.22
3.917	1.38	10.000	3.46	16.083	2.43	22.17	1.22
4.000	1.38	10.083	3.85	16.167	2.43	22.25	1.22
4.083	1.41	10.167	3.85	16.250	2.43	22.33	1.21
4.167	1.41	10.250	3.85	16.333	2.30	22.42	1.21
4.250	1.41	10.333	4.38	16.417	2.30	22.50	1.21
4.333	1.45	10.417	4.38	16.500	2.30	22.58	1.20
4.417	1.45	10.500	4.38	16.583	2.24	22.67	1.20
4.500	1.45	10.583	4.96	16.667	2.24	22.75	1.20
4.583	1.50	10.667	4.96	16.750	2.24	22.83	1.19
4.667	1.50	10.750	4.96	16.833	2.18	22.92	1.19
4.750	1.50	10.833	5.81	16.917	2.18	23.00	1.19
4.833	1.55	10.917	5.81	17.000	2.18	23.08	1.17
4.917	1.55	11.000	5.81	17.083	2.11	23.17	1.17
5.000	1.55	11.083	6.78	17.167	2.11	23.25	1.17
5.083	1.60	11.167	6.78	17.250	2.11	23.33	1.16
5.167	1.60	11.250	6.78	17.333	2.05	23.42	1.16
5.250	1.60	11.333	8.58	17.417	2.05	23.50	1.16
5.333	1.65	11.417	8.58	17.500	2.05	23.58	1.15
5.417	1.65	11.500	8.58	17.583	1.99	23.67	1.15
5.500	1.65	11.583	10.92	17.667	1.99	23.75	1.15
5.583	1.70	11.667	10.92	17.750	1.99	23.83	1.14
5.667	1.70	11.750	10.92	17.833	1.92	23.92	1.14
5.750	1.70	11.833	44.51	17.917	1.92	24.00	1.14
5.833	1.75	11.917	44.51	18.000	1.92	24.08	1.12
5.917	1.75	12.000	44.51	18.083	1.86	24.17	1.12
6.000	1.75	12.083	109.84	18.167	1.86	24.25	1.12
6.083	1.80	12.167	109.85	18.250	1.86		

Max.Eff.Inten.(mm/hr)=	109.85	64.88
over (min)	5.00	5.00
Storage Coeff. (min)=	1.89 (ii)	2.97 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.32	0.28
PEAK FLOW (cms)=	0.38	0.00
TIME TO PEAK (hrs)=	12.25	12.25
RUNOFF VOLUME (mm)=	99.55	48.94
TOTAL RAINFALL (mm)=	101.55	101.55
RUNOFF COEFFICIENT =	0.98	0.48

TOTALS

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7718)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7595):	1.24	0.377	12.25	99.04
+ ID2= 2 (7706):	26.06	0.418	13.58	99.02
ID = 3 (7718):	27.30	0.721	12.25	99.02

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7711)	OVERFLOW IS OFF	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
IN= 2---> OUT= 1					
DT= 5.0 min					
0.0000	0.0000	1.0810	1.6220		
0.0010	0.1670	1.3950	1.8170		
0.0340	0.3380	2.0990	2.2130		
0.0510	0.5110	2.8950	2.6150		
0.0630	0.6880	3.7730	3.0250		
0.1610	0.8670	4.7260	3.4420		
0.3300	1.0500	5.5670	3.8670		
0.5440	1.2370	8.5800	4.3000		
0.7970	1.4290	10.9450	4.5210		
AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)		
INFLOW : ID= 2 (7718)	27.302	0.721	12.25	99.02	
OUTFLOW: ID= 1 (7711)	27.302	0.320	22.17	93.50	

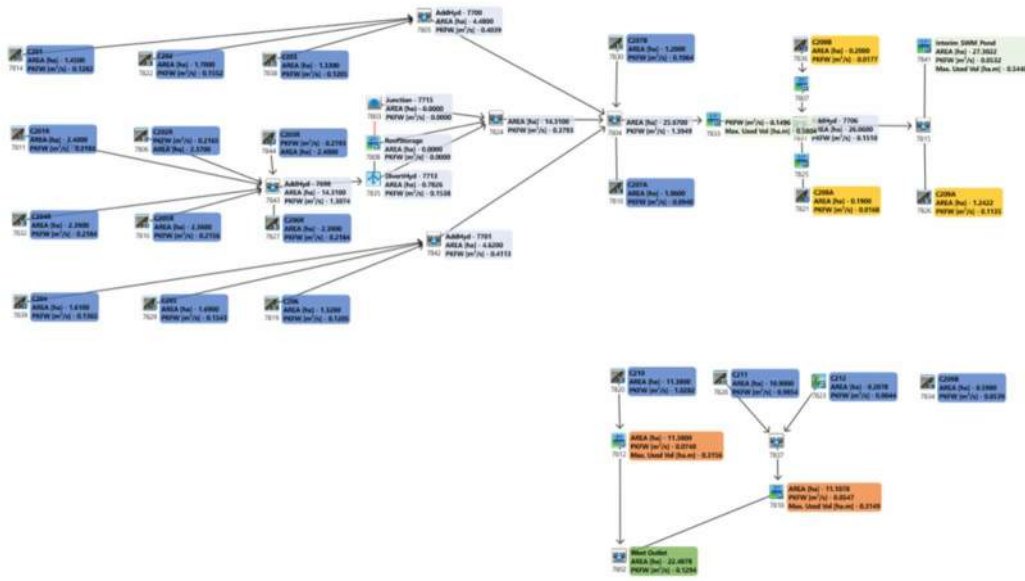
PEAK FLOW REDUCTION [Qout/Qin] (%) = 44.35
 TIME SHIFT OF PEAK FLOW (min) = 595.00
 MAXIMUM STORAGE USED (ha.m.) = 1.0390

Project #: 0624-6777
Project Name: Humber Station

Proposed Conditions (Detailed, TRCA Storm)
 2-, 5-, 10-, 25-, 50-, and 100-Year, 6-Hour AES Design Storms
 2-, 5-, 10-, 25-, 50-, and 100-Year, 12-Hour AES Design Storms

November 22, 2024

VO Model Schematic





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*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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```

0.250	0.00	1.833	12.24	3.417	5.04	5.00	0.72
0.333	0.72	1.917	12.24	3.500	5.04	5.08	0.72
0.417	0.72	2.000	12.24	3.583	5.04	5.17	0.72
0.500	0.72	2.083	12.24	3.667	5.04	5.25	0.72
0.583	0.72	2.167	12.24	3.750	5.04	5.33	0.72
0.667	0.72	2.250	12.24	3.833	2.88	5.42	0.72
0.750	0.72	2.333	33.12	3.917	2.88	5.50	0.72
0.833	0.72	2.417	33.12	4.000	2.88	5.58	0.72
0.917	0.72	2.500	33.12	4.083	2.88	5.67	0.72
1.000	0.72	2.583	33.12	4.167	2.88	5.75	0.72
1.083	0.72	2.667	33.12	4.250	2.88	5.83	0.72
1.167	0.72	2.750	33.12	4.333	1.44	5.92	0.72
1.250	0.72	2.833	9.36	4.417	1.44	6.00	0.72
1.333	4.32	2.917	9.36	4.500	1.44	6.08	0.72
1.417	4.32	3.000	9.36	4.583	1.44	6.17	0.72
1.500	4.32	3.083	9.36	4.667	1.44	6.25	0.72
1.583	4.32	3.167	9.36	4.750	1.44		

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat
Output filename: C:\Users\mhooper\AppData\Local\Civica\VH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\3498c7e2-e07c-48c6-a8f2-883cd6f5afb3\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\VH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\3498c7e2-e07c-48c6-a8f2-883cd6f5afb3\scen

```

DATE: 11-22-2024 TIME: 01:45:36

USER:

COMMENTS:

 ** SIMULATION : A 2 Year 6 Hour AES (Bloor, T **

```

-----
| READ STORM | Filename: C:\Users\mhooper\AppData
|             |   ata\Local\Temp\
|             |   bac52abb-b775-4ad0-a17a-4b6fd89712ba\23958b8e
| Ptotal= 36.00 mm | Comments: 2 Year 6 Hour AES (Bloor, TRCA)
-----
| TIME | RAIN | TIME | RAIN | TIME | RAIN | TIME | RAIN |
| hrs  | mm/hr | hrs  | mm/hr | hrs  | mm/hr | hrs  | mm/hr |
| 0.00 | 0.00 | 1.75 | 12.24 | 3.50 | 5.04 | 5.25 | 0.72 |
| 0.25 | 0.72 | 2.00 | 12.24 | 3.75 | 2.88 | 5.50 | 0.72 |
| 0.50 | 0.72 | 2.25 | 33.12 | 4.00 | 2.88 | 5.75 | 0.72 |
| 0.75 | 0.72 | 2.50 | 33.12 | 4.25 | 1.44 | 6.00 | 0.72 |
| 1.00 | 0.72 | 2.75 | 9.36 | 4.50 | 1.44 | | |
| 1.25 | 4.32 | 3.00 | 9.36 | 4.75 | 0.72 | | |
| 1.50 | 4.32 | 3.25 | 5.04 | 5.00 | 0.72 | | |
-----

```

```

-----
| CALIB |
| NASHYD ( 7823) | Area (ha)= 0.21 Curve Number (CN)= 73.0
| ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 0.17
-----

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
| TIME | RAIN | TIME | RAIN | TIME | RAIN | TIME | RAIN |
| hrs  | mm/hr | hrs  | mm/hr | hrs  | mm/hr | hrs  | mm/hr |
| 0.083 | 0.00 | 1.667 | 4.32 | 3.250 | 4.83 | 0.72 |
| 0.167 | 0.00 | 1.750 | 4.32 | 3.333 | 5.04 | 0.72 |

```

Unit Hyd Qpeak (cms)= 0.047

```

PEAK FLOW (cms)= 0.004 (i)
TIME TO PEAK (hrs)= 2.750
RUNOFF VOLUME (mm)= 7.661
TOTAL RAINFALL (mm)= 36.000
RUNOFF COEFFICIENT = 0.213

```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7828) | Area (ha)= 10.90
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----

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```

-----
| IMPERVIOUS | PERVIOUS (i) |
| Surface Area (ha)= 10.79 | 0.11 |
| Dep. Storage (mm)= 2.00 | 5.00 |
| Average Slope (%)= 1.00 | 2.00 |
| Length (m)= 269.57 | 40.00 |
| Mannings n = 0.013 | 0.250 |
-----

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
| TIME | RAIN | TIME | RAIN | TIME | RAIN | TIME | RAIN |
| hrs  | mm/hr | hrs  | mm/hr | hrs  | mm/hr | hrs  | mm/hr |
| 0.083 | 0.00 | 1.667 | 4.32 | 3.250 | 9.36 | 4.83 | 0.72 |
| 0.167 | 0.00 | 1.750 | 4.32 | 3.333 | 5.04 | 4.92 | 0.72 |
| 0.250 | 0.00 | 1.833 | 12.24 | 3.417 | 5.04 | 5.00 | 0.72 |
| 0.333 | 0.72 | 1.917 | 12.24 | 3.500 | 5.04 | 5.08 | 0.72 |
| 0.417 | 0.72 | 2.000 | 12.24 | 3.583 | 5.04 | 5.17 | 0.72 |
| 0.500 | 0.72 | 2.083 | 12.24 | 3.667 | 5.04 | 5.25 | 0.72 |
| 0.583 | 0.72 | 2.167 | 12.24 | 3.750 | 5.04 | 5.33 | 0.72 |
| 0.667 | 0.72 | 2.250 | 12.24 | 3.833 | 2.88 | 5.42 | 0.72 |
| 0.750 | 0.72 | 2.333 | 33.12 | 3.917 | 2.88 | 5.50 | 0.72 |
| 0.833 | 0.72 | 2.417 | 33.12 | 4.000 | 2.88 | 5.58 | 0.72 |
| 0.917 | 0.72 | 2.500 | 33.12 | 4.083 | 2.88 | 5.67 | 0.72 |
| 1.000 | 0.72 | 2.583 | 33.12 | 4.167 | 2.88 | 5.75 | 0.72 |
| 1.083 | 0.72 | 2.667 | 33.12 | 4.250 | 2.88 | 5.83 | 0.72 |
| 1.167 | 0.72 | 2.750 | 33.12 | 4.333 | 1.44 | 5.92 | 0.72 |
| 1.250 | 0.72 | 2.833 | 9.36 | 4.417 | 1.44 | 6.00 | 0.72 |
| 1.333 | 4.32 | 2.917 | 9.36 | 4.500 | 1.44 | 6.08 | 0.72 |
| 1.417 | 4.32 | 3.000 | 9.36 | 4.583 | 1.44 | 6.17 | 0.72 |
| 1.500 | 4.32 | 3.083 | 9.36 | 4.667 | 1.44 | 6.25 | 0.72 |
| 1.583 | 4.32 | 3.167 | 9.36 | 4.750 | 1.44 | | |
-----

```

```

Max.Eff.Inten.(mm/hr)= 33.12 9.70
over (min) 5.00 10.00
Storage Coeff. (min)= 7.21 (ii) 8.95 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.17 0.12

```

```

*TOTALS*
PEAK FLOW (cms)= 0.98 0.00 0.985 (iii)
TIME TO PEAK (hrs)= 2.75 2.75
RUNOFF VOLUME (mm)= 34.00 7.69 33.74

```



TOTAL RAINFALL (mm) = 36.00 36.00 36.00
 RUNOFF COEFFICIENT = 0.94 0.21 0.94

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7837)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7823):	0.21	0.004	2.75	7.66
+ ID2= 2 (7828):	10.90	0.985	2.75	33.74

ID = 3 (7837):	11.11	0.990	2.75	33.25

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7818)	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
IN= 2---> OUT= 1				
DT= 5.0 min				
	0.0000	0.0000	0.1390	0.6960
	0.0590	0.3400	0.1630	0.7780
	0.0900	0.4907	0.1840	0.8800
	0.1110	0.5760	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7837)	11.108	0.990	2.75	33.25
OUTFLOW: ID= 1 (7818)	11.108	0.055	4.42	33.12

PEAK FLOW REDUCTION [Qout/Qin] (%) = 5.52
 TIME SHIFT OF PEAK FLOW (min) = 100.00
 MAXIMUM STORAGE USED (ha.m.) = 0.3149

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7820)	11.38	
ID= 1 DT= 5.0 min	Total Imp (%) = 99.00	Dir. Conn. (%) = 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	11.27	0.11
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	1.00	2.00
Length (m)	275.44	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	4.32	3.250	9.36	4.83	0.72
0.167	0.00	1.750	4.32	3.333	5.04	4.92	0.72
0.250	0.00	1.833	12.24	3.417	5.04	5.00	0.72
0.333	0.72	1.917	12.24	3.500	5.04	5.08	0.72
0.417	0.72	2.000	12.24	3.583	5.04	5.17	0.72
0.500	0.72	2.083	12.24	3.667	5.04	5.25	0.72
0.583	0.72	2.167	12.24	3.750	5.04	5.33	0.72
0.667	0.72	2.250	12.24	3.833	2.88	5.42	0.72
0.750	0.72	2.333	33.12	3.917	2.88	5.50	0.72
0.833	0.72	2.417	33.12	4.000	2.88	5.58	0.72
0.917	0.72	2.500	33.12	4.083	2.88	5.67	0.72
1.000	0.72	2.583	33.12	4.167	2.88	5.75	0.72
1.083	0.72	2.667	33.12	4.250	2.88	5.83	0.72
1.167	0.72	2.750	33.12	4.333	1.44	5.92	0.72
1.250	0.72	2.833	9.36	4.417	1.44	6.00	0.72

1.333 4.32 | 2.917 9.36 | 4.500 1.44 | 6.08 0.72
 1.417 4.32 | 3.000 9.36 | 4.583 1.44 | 6.17 0.72
 1.500 4.32 | 3.083 9.36 | 4.667 1.44 | 6.25 0.72
 1.583 4.32 | 3.167 9.36 | 4.750 1.44 |

Max.Eff.Inten.(mm/hr)= 33.12 9.70
 over (min) = 5.00 10.00
 Storage Coeff. (min) = 7.30 (ii) 9.05 (ii)
 Unit Hyd. Tpeak (min) = 5.00 10.00
 Unit Hyd. peak (cms) = 0.17 0.12

PEAK FLOW (cms) = 1.03 0.00 *TOTALS*
 TIME TO PEAK (hrs) = 2.75 2.75 1.028 (iii)
 RUNOFF VOLUME (mm) = 34.00 7.69 33.74
 TOTAL RAINFALL (mm) = 36.00 36.00 36.00
 RUNOFF COEFFICIENT = 0.94 0.21 0.94

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7812)	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
IN= 2---> OUT= 1				
DT= 5.0 min				
	0.0000	0.0000	0.1990	0.6950
	0.0830	0.3500	0.2320	0.8000
	0.1280	0.4850	0.2620	0.9000
	0.1580	0.5900	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7820)	11.380	1.028	2.75	33.74
OUTFLOW: ID= 1 (7812)	11.380	0.075	4.33	33.64

PEAK FLOW REDUCTION [Qout/Qin] (%) = 7.28
 TIME SHIFT OF PEAK FLOW (min) = 95.00
 MAXIMUM STORAGE USED (ha.m.) = 0.3156

ADD HYD (7802)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7812):	11.38	0.075	4.33	33.64
+ ID2= 2 (7818):	11.11	0.055	4.42	33.12

ID = 3 (7802):	22.49	0.129	4.33	33.38

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7834)	0.59	
ID= 1 DT= 5.0 min	Total Imp (%) = 99.00	Dir. Conn. (%) = 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	0.58	0.01
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	2.00	2.00
Length (m)	62.72	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	4.32	3.250	9.36	4.83	0.72

0.167	0.00	1.750	4.32	3.333	5.04	4.92	0.72
0.250	0.00	1.833	12.24	3.417	5.04	5.00	0.72
0.333	0.72	1.917	12.24	3.500	5.04	5.08	0.72
0.417	0.72	2.000	12.24	3.583	5.04	5.17	0.72
0.500	0.72	2.083	12.24	3.667	5.04	5.25	0.72
0.583	0.72	2.167	12.24	3.750	5.04	5.33	0.72
0.667	0.72	2.250	12.24	3.833	2.88	5.42	0.72
0.750	0.72	2.333	33.12	3.917	2.88	5.50	0.72
0.833	0.72	2.417	33.12	4.000	2.88	5.58	0.72
0.917	0.72	2.500	33.12	4.083	2.88	5.67	0.72
1.000	0.72	2.583	33.12	4.167	2.88	5.75	0.72
1.083	0.72	2.667	33.12	4.250	2.88	5.83	0.72
1.167	0.72	2.750	33.12	4.333	1.44	5.92	0.72
1.250	0.72	2.833	9.36	4.417	1.44	6.00	0.72
1.333	4.32	2.917	9.36	4.500	1.44	6.08	0.72
1.417	4.32	3.000	9.36	4.583	1.44	6.17	0.72
1.500	4.32	3.083	9.36	4.667	1.44	6.25	0.72
1.583	4.32	3.167	9.36	4.750	1.44		

Max.Eff.Inten.(mm/hr)= 33.12 9.70
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.44 (ii) 4.19 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.30 0.24

PEAK FLOW (cms)= 0.05 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 2.75 2.75 0.054 (iii)
 RUNOFF VOLUME (mm)= 34.00 7.69 33.74
 TOTAL RAINFALL (mm)= 36.00 36.00 36.00
 RUNOFF COEFFICIENT = 0.94 0.21 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7806) | Area (ha)= 2.37
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

Surface Area (ha)= 2.35 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	4.32	3.250	9.36	4.83	0.72
0.167	0.00	1.750	4.32	3.333	5.04	4.92	0.72
0.250	0.00	1.833	12.24	3.417	5.04	5.00	0.72
0.333	0.72	1.917	12.24	3.500	5.04	5.08	0.72
0.417	0.72	2.000	12.24	3.583	5.04	5.17	0.72
0.500	0.72	2.083	12.24	3.667	5.04	5.25	0.72
0.583	0.72	2.167	12.24	3.750	5.04	5.33	0.72
0.667	0.72	2.250	12.24	3.833	2.88	5.42	0.72
0.750	0.72	2.333	33.12	3.917	2.88	5.50	0.72
0.833	0.72	2.417	33.12	4.000	2.88	5.58	0.72
0.917	0.72	2.500	33.12	4.083	2.88	5.67	0.72
1.000	0.72	2.583	33.12	4.167	2.88	5.75	0.72
1.083	0.72	2.667	33.12	4.250	2.88	5.83	0.72
1.167	0.72	2.750	33.12	4.333	1.44	5.92	0.72
1.250	0.72	2.833	9.36	4.417	1.44	6.00	0.72
1.333	4.32	2.917	9.36	4.500	1.44	6.08	0.72
1.417	4.32	3.000	9.36	4.583	1.44	6.17	0.72
1.500	4.32	3.083	9.36	4.667	1.44	6.25	0.72

1.583 4.32 | 3.167 9.36 | 4.750 1.44 |

Max.Eff.Inten.(mm/hr)= 33.12 9.70
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.51 (ii) 2.67 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.29

PEAK FLOW (cms)= 0.22 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 2.67 2.75 0.217 (iii)
 RUNOFF VOLUME (mm)= 35.00 7.69 2.75
 TOTAL RAINFALL (mm)= 36.00 36.00 34.73
 RUNOFF COEFFICIENT = 0.97 0.21 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7811) | Area (ha)= 2.40
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

Surface Area (ha)= 2.38 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	4.32	3.250	9.36	4.83	0.72
0.167	0.00	1.750	4.32	3.333	5.04	4.92	0.72
0.250	0.00	1.833	12.24	3.417	5.04	5.00	0.72
0.333	0.72	1.917	12.24	3.500	5.04	5.08	0.72
0.417	0.72	2.000	12.24	3.583	5.04	5.17	0.72
0.500	0.72	2.083	12.24	3.667	5.04	5.25	0.72
0.583	0.72	2.167	12.24	3.750	5.04	5.33	0.72
0.667	0.72	2.250	12.24	3.833	2.88	5.42	0.72
0.750	0.72	2.333	33.12	3.917	2.88	5.50	0.72
0.833	0.72	2.417	33.12	4.000	2.88	5.58	0.72
0.917	0.72	2.500	33.12	4.083	2.88	5.67	0.72
1.000	0.72	2.583	33.12	4.167	2.88	5.75	0.72
1.083	0.72	2.667	33.12	4.250	2.88	5.83	0.72
1.167	0.72	2.750	33.12	4.333	1.44	5.92	0.72
1.250	0.72	2.833	9.36	4.417	1.44	6.00	0.72
1.333	4.32	2.917	9.36	4.500	1.44	6.08	0.72
1.417	4.32	3.000	9.36	4.583	1.44	6.17	0.72
1.500	4.32	3.083	9.36	4.667	1.44	6.25	0.72
1.583	4.32	3.167	9.36	4.750	1.44		

Max.Eff.Inten.(mm/hr)= 33.12 9.70
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.51 (ii) 2.67 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.29

PEAK FLOW (cms)= 0.22 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 2.67 2.75 0.219 (iii)
 RUNOFF VOLUME (mm)= 35.00 7.69 2.75
 TOTAL RAINFALL (mm)= 36.00 36.00 34.73
 RUNOFF COEFFICIENT = 0.97 0.21 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:

0.917	0.72	2.500	33.12	4.083	2.88	5.67	0.72
1.000	0.72	2.583	33.12	4.167	2.88	5.75	0.72
1.083	0.72	2.667	33.12	4.250	2.88	5.83	0.72
1.167	0.72	2.750	33.12	4.333	1.44	5.92	0.72
1.250	0.72	2.833	9.36	4.417	1.44	6.00	0.72
1.333	4.32	2.917	9.36	4.500	1.44	6.08	0.72
1.417	4.32	3.000	9.36	4.583	1.44	6.17	0.72
1.500	4.32	3.083	9.36	4.667	1.44	6.25	0.72
1.583	4.32	3.167	9.36	4.750	1.44		

Max.Eff.Inten.(mm/hr)= 33.12 9.70
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.51 (ii) 2.67 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.29

TOTALS
 PEAK FLOW (cms)= 0.22 0.00 0.218 (iii)
 TIME TO PEAK (hrs)= 2.75 2.75
 RUNOFF VOLUME (mm)= 35.00 7.69 34.73
 TOTAL RAINFALL (mm)= 36.00 36.00 36.00
 RUNOFF COEFFICIENT = 0.97 0.21 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7844) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	4.32	3.250	9.36
0.167	0.00	1.750	4.32	3.333	5.04
0.250	0.00	1.833	12.24	3.417	5.04
0.333	0.72	1.917	12.24	3.500	5.04
0.417	0.72	2.000	12.24	3.583	5.04
0.500	0.72	2.083	12.24	3.667	5.04
0.583	0.72	2.167	12.24	3.750	5.04
0.667	0.72	2.250	12.24	3.833	2.88
0.750	0.72	2.333	33.12	3.917	2.88
0.833	0.72	2.417	33.12	4.000	2.88
0.917	0.72	2.500	33.12	4.083	2.88
1.000	0.72	2.583	33.12	4.167	2.88
1.083	0.72	2.667	33.12	4.250	2.88
1.167	0.72	2.750	33.12	4.333	1.44
1.250	0.72	2.833	9.36	4.417	1.44
1.333	4.32	2.917	9.36	4.500	1.44
1.417	4.32	3.000	9.36	4.583	1.44
1.500	4.32	3.083	9.36	4.667	1.44
1.583	4.32	3.167	9.36	4.750	1.44

Max.Eff.Inten.(mm/hr)= 33.12 9.70
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.51 (ii) 2.67 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.29

TOTALS
 PEAK FLOW (cms)= 0.22 0.00 0.219 (iii)

TIME TO PEAK (hrs)= 2.75 2.75 2.75
 RUNOFF VOLUME (mm)= 35.00 7.69 34.73
 TOTAL RAINFALL (mm)= 36.00 36.00 36.00
 RUNOFF COEFFICIENT = 0.97 0.21 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7806): 2.37 0.217 2.75 34.73
 + ID2= 2 (7811): 2.40 0.219 2.75 34.73

 ID = 3 (7843): 4.77 0.436 2.75 34.73

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7843): 4.77 0.436 2.75 34.73
 + ID2= 2 (7816): 2.36 0.216 2.75 34.73

 ID = 1 (7843): 7.13 0.651 2.75 34.73

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7843): 7.13 0.651 2.75 34.73
 + ID2= 2 (7827): 2.39 0.218 2.75 34.73

 ID = 3 (7843): 9.52 0.870 2.75 34.73

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7843): 9.52 0.870 2.75 34.73
 + ID2= 2 (7832): 2.39 0.218 2.75 34.73

 ID = 1 (7843): 11.91 1.088 2.75 34.73

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7843): 11.91 1.088 2.75 34.73
 + ID2= 2 (7844): 2.40 0.219 2.75 34.73

 ID = 3 (7843): 14.31 1.307 2.75 34.73

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | DIVERTHYD (7835) |



| IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1	Flow 2	Flow 3	Flow 4	Flow 5	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD. (ID= 1):	14.31	1.31	2.75	34.73
ID= 2 (2) :	13.53	1.15	2.75	34.73
ID= 3 (2) :	0.78	0.15	2.75	34.73
ID= 4 (2) :	0.00	0.00	0.00	0.00
ID= 5 (2) :	0.00	0.00	0.00	0.00
ID= 6 (2) :	0.00	0.00	0.00	0.00

| RESERVOIR (7808) |
| IN= 2---> OUT= 1 |
| DT= 5.0 min |

OVERFLOW IS ON

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.2690	0.4589
0.1980	0.1112	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7835)	13.527	1.154	2.75	34.73
OUTFLOW: ID= 1 (7808)	13.527	0.234	3.33	34.72
OVERFLOW: ID= 3 (0003)	0.000	0.000	0.00	0.00

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

PEAK FLOW REDUCTION [Qout/Qin] (%) = 20.25
TIME SHIFT OF PEAK FLOW (min) = 35.00
MAXIMUM STORAGE USED (ha.m.) = 0.2860

| Junction Command(7803) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 3 (7808)	0.00	0.00	0.00	0.00
OUTFLOW: ID= 2 (7803)	0.00	0.00	0.00	0.00

| ADD HYD (7824) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
*** W A R N I N G : HYDROGRAPH 7803 <ID= 1> IS DRY.				
*** W A R N I N G : HYDROGRAPH 7824 = HYDROGRAPH 7808				
ID1= 1 (7803):	0.00	0.000	0.00	0.00
+ ID2= 2 (7808):	13.53	0.234	3.33	34.72
ID = 3 (7824):	13.53	0.234	3.33	34.72

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (7824) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7824):	13.53	0.234	3.33	34.72
+ ID2= 2 (7835):	0.78	0.154	2.75	34.73

ID = 1 (7824): 14.31 0.379 2.75 34.72

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

	Area (ha)=	Total Imp(%)=	Dir. Conn.(%)=
CALIB	1.06	95.00	95.00
STANDHYD (7810)			
ID= 1 DT= 5.0 min			

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.01	0.05
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	4.32	3.250	9.36	4.83	0.72
0.167	0.00	1.750	4.32	3.333	5.04	4.92	0.72
0.250	0.00	1.833	12.24	3.417	5.04	5.00	0.72
0.333	0.72	1.917	12.24	3.500	5.04	5.08	0.72
0.417	0.72	2.000	12.24	3.583	5.04	5.17	0.72
0.500	0.72	2.083	12.24	3.667	5.04	5.25	0.72
0.583	0.72	2.167	12.24	3.750	5.04	5.33	0.72
0.667	0.72	2.250	12.24	3.833	2.88	5.42	0.72
0.750	0.72	2.333	33.12	3.917	2.88	5.50	0.72
0.833	0.72	2.417	33.12	4.000	2.88	5.58	0.72
0.917	0.72	2.500	33.12	4.083	2.88	5.67	0.72
1.000	0.72	2.583	33.12	4.167	2.88	5.75	0.72
1.083	0.72	2.667	33.12	4.250	2.88	5.83	0.72
1.167	0.72	2.750	33.12	4.333	1.44	5.92	0.72
1.250	0.72	2.833	9.36	4.417	1.44	6.00	0.72
1.333	4.32	2.917	9.36	4.500	1.44	6.08	0.72
1.417	4.32	3.000	9.36	4.583	1.44	6.17	0.72
1.500	4.32	3.083	9.36	4.667	1.44	6.25	0.72
1.583	4.32	3.167	9.36	4.750	1.44		0.72

Max.Eff.Inten.(mm/hr)= 33.12 10.08
over (min) 5.00 10.00
Storage Coeff. (min)= 2.22 (ii) 5.60 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.30 0.15

PEAK FLOW (cms)= 0.09 0.00 *TOTALS*
TIME TO PEAK (hrs)= 2.75 2.75 0.094 (iii)
RUNOFF VOLUME (mm)= 34.00 7.99 32.70
TOTAL RAINFALL (mm)= 36.00 36.00 36.00
RUNOFF COEFFICIENT = 0.94 0.22 0.91

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB

	Area (ha)=	Total Imp(%)=	Dir. Conn.(%)=
STANDHYD (7814)	1.45	96.00	96.00
ID= 1 DT= 5.0 min			

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.39	0.06
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250



NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	4.32	3.250	9.36	4.83	0.72
0.167	0.00	1.750	4.32	3.333	5.04	4.92	0.72
0.250	0.00	1.833	12.24	3.417	5.04	5.00	0.72
0.333	0.72	1.917	12.24	3.500	5.04	5.08	0.72
0.417	0.72	2.000	12.24	3.583	5.04	5.17	0.72
0.500	0.72	2.083	12.24	3.667	5.04	5.25	0.72
0.583	0.72	2.167	12.24	3.750	5.04	5.33	0.72
0.667	0.72	2.250	12.24	3.833	2.88	5.42	0.72
0.750	0.72	2.333	33.12	3.917	2.88	5.50	0.72
0.833	0.72	2.417	33.12	4.000	2.88	5.58	0.72
0.917	0.72	2.500	33.12	4.083	2.88	5.67	0.72
1.000	0.72	2.583	33.12	4.167	2.88	5.75	0.72
1.083	0.72	2.667	33.12	4.250	2.88	5.83	0.72
1.167	0.72	2.750	33.12	4.333	1.44	5.92	0.72
1.250	0.72	2.833	9.36	4.417	1.44	6.00	0.72
1.333	4.32	2.917	9.36	4.500	1.44	6.08	0.72
1.417	4.32	3.000	9.36	4.583	1.44	6.17	0.72
1.500	4.32	3.083	9.36	4.667	1.44	6.25	0.72
1.583	4.32	3.167	9.36	4.750	1.44		

Max.Eff.Inten. (mm/hr)=	33.12	5.52	
over (min)	5.00	55.00	
Storage Coeff. (min)=	3.86 (ii)	52.54 (ii)	
Unit Hyd. Tpeak (min)=	5.00	55.00	
Unit Hyd. peak (cms)=	0.25	0.02	
			TOTALS
PEAK FLOW (cms)=	0.13	0.00	0.128 (iii)
TIME TO PEAK (hrs)=	2.75	3.58	2.75
RUNOFF VOLUME (mm)=	34.00	7.69	32.93
TOTAL RAINFALL (mm)=	36.00	36.00	36.00
RUNOFF COEFFICIENT =	0.94	0.21	0.91

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		STANDHYD (7822)		ID= 1 DT= 5.0 min	
Area (ha)=	1.70	Total Imp(%)=	99.00	Dir. Conn.(%)=	99.00
IMPERVIOUS		PERVIOUS (i)			
Surface Area (ha)=	1.68	0.02			
Dep. Storage (mm)=	2.00	5.00			
Average Slope (%)=	1.10	2.00			
Length (m)=	100.00	40.00			
Mannings n =	0.013	0.250			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	4.32	3.250	9.36	4.83	0.72
0.167	0.00	1.750	4.32	3.333	5.04	4.92	0.72
0.250	0.00	1.833	12.24	3.417	5.04	5.00	0.72
0.333	0.72	1.917	12.24	3.500	5.04	5.08	0.72
0.417	0.72	2.000	12.24	3.583	5.04	5.17	0.72
0.500	0.72	2.083	12.24	3.667	5.04	5.25	0.72
0.583	0.72	2.167	12.24	3.750	5.04	5.33	0.72
0.667	0.72	2.250	12.24	3.833	2.88	5.42	0.72
0.750	0.72	2.333	33.12	3.917	2.88	5.50	0.72
0.833	0.72	2.417	33.12	4.000	2.88	5.58	0.72
0.917	0.72	2.500	33.12	4.083	2.88	5.67	0.72

1.000	0.72	2.583	33.12	4.167	2.88	5.75	0.72
1.083	0.72	2.667	33.12	4.250	2.88	5.83	0.72
1.167	0.72	2.750	33.12	4.333	1.44	5.92	0.72
1.250	0.72	2.833	9.36	4.417	1.44	6.00	0.72
1.333	4.32	2.917	9.36	4.500	1.44	6.08	0.72
1.417	4.32	3.000	9.36	4.583	1.44	6.17	0.72
1.500	4.32	3.083	9.36	4.667	1.44	6.25	0.72
1.583	4.32	3.167	9.36	4.750	1.44		

Max.Eff.Inten. (mm/hr)=	33.12	9.70
over (min)	5.00	10.00
Storage Coeff. (min)=	3.86 (ii)	5.61 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.25	0.15
		TOTALS
PEAK FLOW (cms)=	0.15	0.00
TIME TO PEAK (hrs)=	2.75	2.75
RUNOFF VOLUME (mm)=	34.00	7.69
TOTAL RAINFALL (mm)=	36.00	36.00
RUNOFF COEFFICIENT =	0.94	0.21

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		STANDHYD (7838)		ID= 1 DT= 5.0 min	
Area (ha)=	1.33	Total Imp(%)=	98.00	Dir. Conn.(%)=	98.00
IMPERVIOUS		PERVIOUS (i)			
Surface Area (ha)=	1.30	0.03			
Dep. Storage (mm)=	2.00	5.00			
Average Slope (%)=	1.10	2.00			
Length (m)=	100.00	40.00			
Mannings n =	0.013	0.250			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	4.32	3.250	9.36	4.83	0.72
0.167	0.00	1.750	4.32	3.333	5.04	4.92	0.72
0.250	0.00	1.833	12.24	3.417	5.04	5.00	0.72
0.333	0.72	1.917	12.24	3.500	5.04	5.08	0.72
0.417	0.72	2.000	12.24	3.583	5.04	5.17	0.72
0.500	0.72	2.083	12.24	3.667	5.04	5.25	0.72
0.583	0.72	2.167	12.24	3.750	5.04	5.33	0.72
0.667	0.72	2.250	12.24	3.833	2.88	5.42	0.72
0.750	0.72	2.333	33.12	3.917	2.88	5.50	0.72
0.833	0.72	2.417	33.12	4.000	2.88	5.58	0.72
0.917	0.72	2.500	33.12	4.083	2.88	5.67	0.72
1.000	0.72	2.583	33.12	4.167	2.88	5.75	0.72
1.083	0.72	2.667	33.12	4.250	2.88	5.83	0.72
1.167	0.72	2.750	33.12	4.333	1.44	5.92	0.72
1.250	0.72	2.833	9.36	4.417	1.44	6.00	0.72
1.333	4.32	2.917	9.36	4.500	1.44	6.08	0.72
1.417	4.32	3.000	9.36	4.583	1.44	6.17	0.72
1.500	4.32	3.083	9.36	4.667	1.44	6.25	0.72
1.583	4.32	3.167	9.36	4.750	1.44		

Max.Eff.Inten. (mm/hr)=	33.12	9.70
over (min)	5.00	10.00
Storage Coeff. (min)=	3.86 (ii)	6.18 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.25	0.15
		TOTALS
PEAK FLOW (cms)=	0.12	0.00
TIME TO PEAK (hrs)=	2.75	2.75



RUNOFF VOLUME (mm)= 34.00 7.69 33.47
 TOTAL RAINFALL (mm)= 36.00 36.00 36.00
 RUNOFF COEFFICIENT = 0.94 0.21 0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7805)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7814):	1.45	0.128	2.75	32.93
+ ID2= 2 (7822):	1.70	0.155	2.75	33.74
ID = 3 (7805):	3.15	0.283	2.75	33.36

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7805)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7805):	3.15	0.283	2.75	33.36
+ ID2= 2 (7838):	1.33	0.121	2.75	33.47
ID = 1 (7805):	4.48	0.404	2.75	33.40

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	Total Imp (%)	Dir. Conn. (%)
STANDHYD (7819)	1.32	99.00	99.00
ID= 1 DT= 5.0 min			

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	1.31	0.01
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	1.10	2.00
Length (m)	100.00	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	4.32	3.250	9.36	4.83	0.72
0.167	0.00	1.750	4.32	3.333	5.04	4.92	0.72
0.250	0.00	1.833	12.24	3.417	5.04	5.00	0.72
0.333	0.72	1.917	12.24	3.500	5.04	5.08	0.72
0.417	0.72	2.000	12.24	3.583	5.04	5.17	0.72
0.500	0.72	2.083	12.24	3.667	5.04	5.25	0.72
0.583	0.72	2.167	12.24	3.750	5.04	5.33	0.72
0.667	0.72	2.250	12.24	3.833	2.88	5.42	0.72
0.750	0.72	2.333	33.12	3.917	2.88	5.50	0.72
0.833	0.72	2.417	33.12	4.000	2.88	5.58	0.72
0.917	0.72	2.500	33.12	4.083	2.88	5.67	0.72
1.000	0.72	2.583	33.12	4.167	2.88	5.75	0.72
1.083	0.72	2.667	33.12	4.250	2.88	5.83	0.72
1.167	0.72	2.750	33.12	4.333	1.44	5.92	0.72
1.250	0.72	2.833	9.36	4.417	1.44	6.00	0.72
1.333	4.32	2.917	9.36	4.500	1.44	6.08	0.72
1.417	4.32	3.000	9.36	4.583	1.44	6.17	0.72
1.500	4.32	3.083	9.36	4.667	1.44	6.25	0.72
1.583	4.32	3.167	9.36	4.750	1.44		

Max.Eff. Inten. (mm/hr)= 33.12 9.70

over (min) = 5.00 10.00
 Storage Coeff. (min)= 3.86 (ii) 5.61 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.25 0.15

TOTALS

PEAK FLOW (cms)= 0.12 0.00 0.121 (iii)
 TIME TO PEAK (hrs)= 2.75 2.75 2.75
 RUNOFF VOLUME (mm)= 34.00 7.69 33.74
 TOTAL RAINFALL (mm)= 36.00 36.00 36.00
 RUNOFF COEFFICIENT = 0.94 0.21 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	Total Imp (%)	Dir. Conn. (%)
STANDHYD (7829)	1.69	99.00	99.00
ID= 1 DT= 5.0 min			

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	1.67	0.02
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	1.10	2.00
Length (m)	100.00	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	4.32	3.250	9.36	4.83	0.72
0.167	0.00	1.750	4.32	3.333	5.04	4.92	0.72
0.250	0.00	1.833	12.24	3.417	5.04	5.00	0.72
0.333	0.72	1.917	12.24	3.500	5.04	5.08	0.72
0.417	0.72	2.000	12.24	3.583	5.04	5.17	0.72
0.500	0.72	2.083	12.24	3.667	5.04	5.25	0.72
0.583	0.72	2.167	12.24	3.750	5.04	5.33	0.72
0.667	0.72	2.250	12.24	3.833	2.88	5.42	0.72
0.750	0.72	2.333	33.12	3.917	2.88	5.50	0.72
0.833	0.72	2.417	33.12	4.000	2.88	5.58	0.72
0.917	0.72	2.500	33.12	4.083	2.88	5.67	0.72
1.000	0.72	2.583	33.12	4.167	2.88	5.75	0.72
1.083	0.72	2.667	33.12	4.250	2.88	5.83	0.72
1.167	0.72	2.750	33.12	4.333	1.44	5.92	0.72
1.250	0.72	2.833	9.36	4.417	1.44	6.00	0.72
1.333	4.32	2.917	9.36	4.500	1.44	6.08	0.72
1.417	4.32	3.000	9.36	4.583	1.44	6.17	0.72
1.500	4.32	3.083	9.36	4.667	1.44	6.25	0.72
1.583	4.32	3.167	9.36	4.750	1.44		

Max.Eff. Inten. (mm/hr)= 33.12 9.70
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 3.86 (ii) 5.61 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.25 0.15

TOTALS

PEAK FLOW (cms)= 0.15 0.00 0.154 (iii)
 TIME TO PEAK (hrs)= 2.75 2.75 2.75
 RUNOFF VOLUME (mm)= 34.00 7.69 33.74
 TOTAL RAINFALL (mm)= 36.00 36.00 36.00
 RUNOFF COEFFICIENT = 0.94 0.21 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.



(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (7839) | Area (ha)= 1.61
ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.48 0.13
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.10 2.00
Length (m)= 100.00 145.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	4.32	3.250	9.36	4.83	0.72
0.167	0.00	1.750	4.32	3.333	5.04	4.92	0.72
0.250	0.00	1.833	12.24	3.417	5.04	5.00	0.72
0.333	0.72	1.917	12.24	3.500	5.04	5.08	0.72
0.417	0.72	2.000	12.24	3.583	5.04	5.17	0.72
0.500	0.72	2.083	12.24	3.667	5.04	5.25	0.72
0.583	0.72	2.167	12.24	3.750	5.04	5.33	0.72
0.667	0.72	2.250	12.24	3.833	2.88	5.42	0.72
0.750	0.72	2.333	33.12	3.917	2.88	5.50	0.72
0.833	0.72	2.417	33.12	4.000	2.88	5.58	0.72
0.917	0.72	2.500	33.12	4.083	2.88	5.67	0.72
1.000	0.72	2.583	33.12	4.167	2.88	5.75	0.72
1.083	0.72	2.667	33.12	4.250	2.88	5.83	0.72
1.167	0.72	2.750	33.12	4.333	1.44	5.92	0.72
1.250	0.72	2.833	9.36	4.417	1.44	6.00	0.72
1.333	4.32	2.917	9.36	4.500	1.44	6.08	0.72
1.417	4.32	3.000	9.36	4.583	1.44	6.17	0.72
1.500	4.32	3.083	9.36	4.667	1.44	6.25	0.72
1.583	4.32	3.167	9.36	4.750	1.44		

Max.Eff.Inten.(mm/hr)= 33.12 5.52
over (min)= 5.00 55.00
Storage Coeff. (min)= 3.86 (ii) 52.54 (ii)
Unit Hyd. Tpeak (min)= 5.00 55.00
Unit Hyd. peak (cms)= 0.25 0.02

PEAK FLOW (cms)= 0.14 0.00 *TOTALS*
TIME TO PEAK (hrs)= 2.75 3.58 0.137 (iii)
RUNOFF VOLUME (mm)= 34.00 7.69 31.88
TOTAL RAINFALL (mm)= 36.00 36.00 36.00
RUNOFF COEFFICIENT = 0.94 0.21 0.89

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7842) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (7819): 1.32 0.121 2.75 33.74
+ ID2= 2 (7829): 1.69 0.154 2.75 33.74
ID = 3 (7842): 3.01 0.275 2.75 33.74

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7842) |
| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 3 (7842): 3.01 0.275 2.75 33.74
+ ID2= 2 (7839): 1.61 0.137 2.75 31.88
ID = 1 (7842): 4.62 0.411 2.75 33.09

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
STANDHYD (7830) | Area (ha)= 1.20
ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.14 0.06
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.50 2.00
Length (m)= 60.00 40.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	4.32	3.250	9.36	4.83	0.72
0.167	0.00	1.750	4.32	3.333	5.04	4.92	0.72
0.250	0.00	1.833	12.24	3.417	5.04	5.00	0.72
0.333	0.72	1.917	12.24	3.500	5.04	5.08	0.72
0.417	0.72	2.000	12.24	3.583	5.04	5.17	0.72
0.500	0.72	2.083	12.24	3.667	5.04	5.25	0.72
0.583	0.72	2.167	12.24	3.750	5.04	5.33	0.72
0.667	0.72	2.250	12.24	3.833	2.88	5.42	0.72
0.750	0.72	2.333	33.12	3.917	2.88	5.50	0.72
0.833	0.72	2.417	33.12	4.000	2.88	5.58	0.72
0.917	0.72	2.500	33.12	4.083	2.88	5.67	0.72
1.000	0.72	2.583	33.12	4.167	2.88	5.75	0.72
1.083	0.72	2.667	33.12	4.250	2.88	5.83	0.72
1.167	0.72	2.750	33.12	4.333	1.44	5.92	0.72
1.250	0.72	2.833	9.36	4.417	1.44	6.00	0.72
1.333	4.32	2.917	9.36	4.500	1.44	6.08	0.72
1.417	4.32	3.000	9.36	4.583	1.44	6.17	0.72
1.500	4.32	3.083	9.36	4.667	1.44	6.25	0.72
1.583	4.32	3.167	9.36	4.750	1.44		

Max.Eff.Inten.(mm/hr)= 33.12 10.08
over (min)= 5.00 10.00
Storage Coeff. (min)= 2.22 (ii) 5.60 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.30 0.15

PEAK FLOW (cms)= 0.10 0.00 0.106 (iii)
TIME TO PEAK (hrs)= 2.75 2.75 2.75
RUNOFF VOLUME (mm)= 34.00 7.99 32.70
TOTAL RAINFALL (mm)= 36.00 36.00 36.00
RUNOFF COEFFICIENT = 0.94 0.22 0.91

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7804) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (7805): 4.48 0.404 2.75 33.40
+ ID2= 2 (7810): 1.06 0.094 2.75 32.70



 ID = 3 (7804): 5.54 0.498 2.75 33.26

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7804) |
3 + 2 = 1
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7804): 5.54 0.498 2.75 33.26
 + ID2= 2 (7824): 14.31 0.379 2.75 34.72

 ID = 1 (7804): 19.85 0.877 2.75 34.31

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7804) |
1 + 2 = 3
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7804): 19.85 0.877 2.75 34.31
 + ID2= 2 (7830): 1.20 0.106 2.75 32.70

 ID = 3 (7804): 21.05 0.984 2.75 34.22

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7804) |
3 + 2 = 1
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7804): 21.05 0.984 2.75 34.22
 + ID2= 2 (7842): 4.62 0.411 2.75 33.09

 ID = 1 (7804): 25.67 1.395 2.75 34.02

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | RESERVOIR(7833) | OVERFLOW IS OFF
 | IN= 2----> OUT= 1 |
DT= 5.0 min
 OUTFLOW STORAGE | OUTFLOW STORAGE
 (cms) (ha.m.) | (cms) (ha.m.)
 0.0000 0.0000 | 0.6280 2.3980
 0.0730 0.2080 | 0.6400 2.4830
 0.0890 0.2770 | 0.6520 2.5670
 0.1340 0.5530 | 0.6640 2.6500
 0.2910 0.8290 | 0.6750 2.7340
 0.3860 1.1060 | 0.7190 3.0490
 0.4590 1.3820 | 0.8250 3.3550
 0.5220 1.7210 | 2.0760 3.4560
 0.5780 2.0600 | 2.3560 3.7320

AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW : ID= 2 (7804) 25.670 1.395 2.75 34.02
 OUTFLOW: ID= 1 (7833) 25.670 0.150 7.00 33.99

PEAK FLOW REDUCTION [Qout/Qin] (%) = 10.72
 TIME SHIFT OF PEAK FLOW (min) = 255.00
 MAXIMUM STORAGE USED (ha.m.) = 0.5804

 | CALIB |
 | STANDHYD (7821) |
ID= 1 DT= 5.0 min
 Area (ha) = 0.19
 Total Imp (%) = 95.00 Dir. Conn. (%) = 95.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha) = 0.18 0.01
 Dep. Storage (mm) = 2.00 5.00
 Average Slope (%) = 2.50 2.00
 Length (m) = 60.00 40.00

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----
 TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
 hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
 0.083 0.00 | 1.667 4.32 | 3.250 9.36 | 4.83 0.72
 0.167 0.00 | 1.750 4.32 | 3.333 5.04 | 4.92 0.72
 0.250 0.00 | 1.833 12.24 | 3.417 5.04 | 5.00 0.72
 0.333 0.72 | 1.917 12.24 | 3.500 5.04 | 5.08 0.72
 0.417 0.72 | 2.000 12.24 | 3.583 5.04 | 5.17 0.72
 0.500 0.72 | 2.083 12.24 | 3.667 5.04 | 5.25 0.72
 0.583 0.72 | 2.167 12.24 | 3.750 5.04 | 5.33 0.72
 0.667 0.72 | 2.250 12.24 | 3.833 2.88 | 5.42 0.72
 0.750 0.72 | 2.333 33.12 | 3.917 2.88 | 5.50 0.72
 0.833 0.72 | 2.417 33.12 | 4.000 2.88 | 5.58 0.72
 0.917 0.72 | 2.500 33.12 | 4.083 2.88 | 5.67 0.72
 1.000 0.72 | 2.583 33.12 | 4.167 2.88 | 5.75 0.72
 1.083 0.72 | 2.667 33.12 | 4.250 2.88 | 5.83 0.72
 1.167 0.72 | 2.750 33.12 | 4.333 1.44 | 5.92 0.72
 1.250 0.72 | 2.833 9.36 | 4.417 1.44 | 6.00 0.72
 1.333 4.32 | 2.917 9.36 | 4.500 1.44 | 6.08 0.72
 1.417 4.32 | 3.000 9.36 | 4.583 1.44 | 6.17 0.72
 1.500 4.32 | 3.083 9.36 | 4.667 1.44 | 6.25 0.72
 1.583 4.32 | 3.167 9.36 | 4.750 1.44 |

Max.Eff.Inten.(mm/hr) = 33.12 10.08
 over (min) = 5.00 10.00
 Storage Coeff. (min) = 2.22 (ii) 5.60 (ii)
 Unit Hyd. Tpeak (min) = 5.00 10.00
 Unit Hyd. peak (cms) = 0.30 0.15

PEAK FLOW (cms) = 0.02 0.00 *TOTALS*
 TIME TO PEAK (hrs) = 2.75 2.75 0.017 (iii)
 RUNOFF VOLUME (mm) = 34.00 7.99 32.69
 TOTAL RAINFALL (mm) = 36.00 36.00 36.00
 RUNOFF COEFFICIENT = 0.94 0.22 0.91

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | RESERVOIR(7825) | OVERFLOW IS OFF
 | IN= 2----> OUT= 1 |
DT= 5.0 min
 OUTFLOW STORAGE | OUTFLOW STORAGE
 (cms) (ha.m.) | (cms) (ha.m.)
 0.0000 0.0000 | 0.0100 0.0090
 0.0030 0.0010 | 0.0110 0.0100
 0.0050 0.0030 | 0.0120 0.0110
 0.0060 0.0040 | 0.0120 0.0130
 0.0080 0.0050 | 0.0130 0.0140
 0.0090 0.0060 | 0.0140 0.0150
 0.0090 0.0080 | 0.0000 0.0000

AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW : ID= 2 (7821) 0.190 0.017 2.75 32.69
 OUTFLOW: ID= 1 (7825) 0.190 0.005 2.92 32.30

PEAK FLOW REDUCTION [Qout/Qin] (%) = 30.85
 TIME SHIFT OF PEAK FLOW (min) = 10.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0032

 | CALIB |
 | STANDHYD (7836) |
ID= 1 DT= 5.0 min
 Area (ha) = 0.20
 Total Imp (%) = 95.00 Dir. Conn. (%) = 95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.19	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	36.51	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	4.32	3.250	9.36	4.83	0.72
0.167	0.00	1.750	4.32	3.333	5.04	4.92	0.72
0.250	0.00	1.833	12.24	3.417	5.04	5.00	0.72
0.333	0.72	1.917	12.24	3.500	5.04	5.08	0.72
0.417	0.72	2.000	12.24	3.583	5.04	5.17	0.72
0.500	0.72	2.083	12.24	3.667	5.04	5.25	0.72
0.583	0.72	2.167	12.24	3.750	5.04	5.33	0.72
0.667	0.72	2.250	12.24	3.833	2.88	5.42	0.72
0.750	0.72	2.333	33.12	3.917	2.88	5.50	0.72
0.833	0.72	2.417	33.12	4.000	2.88	5.58	0.72
0.917	0.72	2.500	33.12	4.083	2.88	5.67	0.72
1.000	0.72	2.583	33.12	4.167	2.88	5.75	0.72
1.083	0.72	2.667	33.12	4.250	2.88	5.83	0.72
1.167	0.72	2.750	33.12	4.333	1.44	5.92	0.72
1.250	0.72	2.833	9.36	4.417	1.44	6.00	0.72
1.333	4.32	2.917	9.36	4.500	1.44	6.08	0.72
1.417	4.32	3.000	9.36	4.583	1.44	6.17	0.72
1.500	4.32	3.083	9.36	4.667	1.44	6.25	0.72
1.583	4.32	3.167	9.36	4.750	1.44		

Max.Eff.Inten.(mm/hr)=	33.12	10.08
over (min)	5.00	10.00
Storage Coeff. (min)=	1.65 (ii)	5.03 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.32	0.16

TOTALS			
PEAK FLOW (cms)=	0.02	0.00	0.018 (iii)
TIME TO PEAK (hrs)=	2.75	2.75	2.75
RUNOFF VOLUME (mm)=	34.00	7.99	32.70
TOTAL RAINFALL (mm)=	36.00	36.00	36.00
RUNOFF COEFFICIENT =	0.94	0.22	0.91

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR(7807) OVERFLOW IS OFF				
IN= 2---> OUT= 1				
DT= 5.0 min				
OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)	
0.0000	0.0000	0.0100	0.0090	
0.0030	0.0010	0.0110	0.0100	
0.0050	0.0030	0.0120	0.0110	
0.0060	0.0040	0.0120	0.0130	
0.0080	0.0050	0.0130	0.0140	
0.0090	0.0060	0.0140	0.0150	
0.0090	0.0080	0.0000	0.0000	
AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
INFLOW : ID= 2 (7836)	0.200	0.018	2.75	32.70
OUTFLOW: ID= 1 (7807)	0.200	0.005	2.92	32.31

PEAK FLOW REDUCTION [Qout/Qin](%) = 30.39
 TIME SHIFT OF PEAK FLOW (min) = 10.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0034

ADD HYD (7831)				
1 + 2 = 3				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7807):	0.20	0.005	2.92	32.31
+ ID2= 2 (7825):	0.19	0.005	2.92	32.30
ID = 3 (7831):	0.39	0.011	2.92	32.31

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7831)				
3 + 2 = 1				
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (7831):	0.39	0.011	2.92	32.31
+ ID2= 2 (7833):	25.67	0.150	7.00	33.99
ID = 1 (7831):	26.06	0.151	6.92	33.96

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALLB			
STRANDHYD (7826)			
ID= 1 DT= 5.0 min	Area (ha)=	1.24	
	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.23	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	91.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	4.32	3.250	9.36	4.83	0.72
0.167	0.00	1.750	4.32	3.333	5.04	4.92	0.72
0.250	0.00	1.833	12.24	3.417	5.04	5.00	0.72
0.333	0.72	1.917	12.24	3.500	5.04	5.08	0.72
0.417	0.72	2.000	12.24	3.583	5.04	5.17	0.72
0.500	0.72	2.083	12.24	3.667	5.04	5.25	0.72
0.583	0.72	2.167	12.24	3.750	5.04	5.33	0.72
0.667	0.72	2.250	12.24	3.833	2.88	5.42	0.72
0.750	0.72	2.333	33.12	3.917	2.88	5.50	0.72
0.833	0.72	2.417	33.12	4.000	2.88	5.58	0.72
0.917	0.72	2.500	33.12	4.083	2.88	5.67	0.72
1.000	0.72	2.583	33.12	4.167	2.88	5.75	0.72
1.083	0.72	2.667	33.12	4.250	2.88	5.83	0.72
1.167	0.72	2.750	33.12	4.333	1.44	5.92	0.72
1.250	0.72	2.833	9.36	4.417	1.44	6.00	0.72
1.333	4.32	2.917	9.36	4.500	1.44	6.08	0.72
1.417	4.32	3.000	9.36	4.583	1.44	6.17	0.72
1.500	4.32	3.083	9.36	4.667	1.44	6.25	0.72
1.583	4.32	3.167	9.36	4.750	1.44		

Max.Eff.Inten.(mm/hr)=	33.12	9.70
over (min)	5.00	5.00
Storage Coeff. (min)=	3.05 (ii)	4.80 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.27	0.22

TOTALS			
PEAK FLOW (cms)=	0.11	0.00	0.113 (iii)
TIME TO PEAK (hrs)=	2.75	2.75	2.75
RUNOFF VOLUME (mm)=	34.00	7.69	33.73
TOTAL RAINFALL (mm)=	36.00	36.00	36.00
RUNOFF COEFFICIENT =	0.94	0.21	0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| ADD HYD ( 7815) |
| 1 + 2 = 3 |
-----

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	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7826):	1.24	0.113	2.75	33.73
+ ID2= 2 (7831):	26.06	0.151	6.92	33.96

ID = 3 (7815):	27.30	0.217	2.75	33.95

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-----
| RESERVOIR( 7841) | OVERFLOW IS OFF
| IN= 2----> OUT= 1 |
| DT= 5.0 min |
-----

```

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	1.0810	1.6220
0.0010	0.1670	1.3950	1.8170
0.0340	0.3380	2.0990	2.2130
0.0510	0.5110	2.8950	2.6150
0.0630	0.6880	3.7730	3.0250
0.1610	0.8670	4.7260	3.4420
0.3300	1.0500	5.5670	3.8670
0.5440	1.2370	8.5800	4.3000
0.7970	1.4290	10.9450	4.5210

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7815)	27.302	0.217	2.75	33.95
OUTFLOW: ID= 1 (7841)	27.302	0.053	21.08	28.72


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PEAK FLOW REDUCTION [Qout/Qin] (%) = 24.58
TIME SHIFT OF PEAK FLOW (min) = *****
MAXIMUM STORAGE USED (ha.m.) = 0.5440
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*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y M M O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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0.250	0.00	1.833	16.25	3.417	6.69	5.00	0.96
0.333	0.96	1.917	16.25	3.500	6.69	5.08	0.96
0.417	0.96	2.000	16.25	3.583	6.69	5.17	0.96
0.500	0.96	2.083	16.25	3.667	6.69	5.25	0.96
0.583	0.96	2.167	16.25	3.750	6.69	5.33	0.96
0.667	0.96	2.250	16.25	3.833	3.82	5.42	0.96
0.750	0.96	2.333	43.98	3.917	3.82	5.50	0.96
0.833	0.96	2.417	43.98	4.000	3.82	5.58	0.96
0.917	0.96	2.500	43.98	4.083	3.82	5.67	0.96
1.000	0.96	2.583	43.98	4.167	3.82	5.75	0.96
1.083	0.96	2.667	43.98	4.250	3.82	5.83	0.96
1.167	0.96	2.750	43.98	4.333	1.91	5.92	0.96
1.250	0.96	2.833	12.43	4.417	1.91	6.00	0.96
1.333	5.74	2.917	12.43	4.500	1.91	6.08	0.96
1.417	5.74	3.000	12.43	4.583	1.91	6.17	0.96
1.500	5.74	3.083	12.43	4.667	1.91	6.25	0.96
1.583	5.74	3.167	12.43	4.750	1.91		

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat
Output filename: C:\Users\mhooper\AppData\Local\Civica\VH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\acc4d631-30ca-4e5c-93cc-f760f6731826\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\VH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\acc4d631-30ca-4e5c-93cc-f760f6731826\scen

```

DATE: 11-22-2024 TIME: 01:45:34

USER:

COMMENTS:

```

*****
** SIMULATION : B 5 Year 6 Hour AES (Bloor, T **
*****

```

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-----
| READ STORM | Filename: C:\Users\mhooper\AppData
|             |   ata\Local\Temp\
|             |   bac52abb-b775-4ad0-a17a-4b6fd89712ba\b829b195
| Ptotal= 47.81 mm | Comments: 5 Year 6 Hour AES (Bloor, TRCA)
-----

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	1.75	16.25	3.50	6.69	5.25	0.96
0.25	0.96	2.00	16.25	3.75	3.82	5.50	0.96
0.50	0.96	2.25	43.98	4.00	3.82	5.75	0.96
0.75	0.96	2.50	43.98	4.25	1.91	6.00	0.96
1.00	0.96	2.75	12.43	4.50	1.91		
1.25	5.74	3.00	12.43	4.75	0.96		
1.50	5.74	3.25	6.69	5.00	0.96		

```

-----
| CALIB |
| NASHYD ( 7823) | Area (ha)= 0.21 Curve Number (CN)= 73.0
| ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 0.17
-----

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	5.74	3.250	12.43	4.83	0.96
0.167	0.00	1.750	5.74	3.333	6.69	4.92	0.96

Unit Hyd Qpeak (cms)= 0.047

```

PEAK FLOW (cms)= 0.008 (i)
TIME TO PEAK (hrs)= 2.750
RUNOFF VOLUME (mm)= 13.352
TOTAL RAINFALL (mm)= 47.810
RUNOFF COEFFICIENT = 0.279

```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| CALIB |
| STANDHYD ( 7828) | Area (ha)= 10.90
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----

```

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	10.79	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	269.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	5.74	3.250	12.43	4.83	0.96
0.167	0.00	1.750	5.74	3.333	6.69	4.92	0.96
0.250	0.00	1.833	16.25	3.417	6.69	5.00	0.96
0.333	0.96	1.917	16.25	3.500	6.69	5.08	0.96
0.417	0.96	2.000	16.25	3.583	6.69	5.17	0.96
0.500	0.96	2.083	16.25	3.667	6.69	5.25	0.96
0.583	0.96	2.167	16.25	3.750	6.69	5.33	0.96
0.667	0.96	2.250	16.25	3.833	3.82	5.42	0.96
0.750	0.96	2.333	43.98	3.917	3.82	5.50	0.96
0.833	0.96	2.417	43.98	4.000	3.82	5.58	0.96
0.917	0.96	2.500	43.98	4.083	3.82	5.67	0.96
1.000	0.96	2.583	43.98	4.167	3.82	5.75	0.96
1.083	0.96	2.667	43.98	4.250	3.82	5.83	0.96
1.167	0.96	2.750	43.98	4.333	1.91	5.92	0.96
1.250	0.96	2.833	12.43	4.417	1.91	6.00	0.96
1.333	5.74	2.917	12.43	4.500	1.91	6.08	0.96
1.417	5.74	3.000	12.43	4.583	1.91	6.17	0.96
1.500	5.74	3.083	12.43	4.667	1.91	6.25	0.96
1.583	5.74	3.167	12.43	4.750	1.91		

```

Max.Eff.Inten.(mm/hr)= 43.98 16.65
over (min) 5.00 10.00
Storage Coeff. (min)= 6.43 (ii) 7.99 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.18 0.13

```

```

*TOTALS*
PEAK FLOW (cms)= 1.31 0.00 1.315 (iii)
TIME TO PEAK (hrs)= 2.75 2.75 2.75
RUNOFF VOLUME (mm)= 45.81 13.40 45.49

```



TOTAL RAINFALL (mm) = 47.81 47.81 47.81
 RUNOFF COEFFICIENT = 0.96 0.28 0.95

1.333 5.74 | 2.917 12.43 | 4.500 1.91 | 6.08 0.96
 1.417 5.74 | 3.000 12.43 | 4.583 1.91 | 6.17 0.96
 1.500 5.74 | 3.083 12.43 | 4.667 1.91 | 6.25 0.96
 1.583 5.74 | 3.167 12.43 | 4.750 1.91 |

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

Max.Eff.Inten.(mm/hr)= 43.98 16.65
 over (min) = 5.00 10.00
 Storage Coeff. (min) = 6.52 (ii) 8.08 (ii)
 Unit Hyd. Tpeak (min) = 5.00 10.00
 Unit Hyd. peak (cms) = 0.18 0.13

PEAK FLOW (cms) = 1.37 0.00 *TOTALS*
 TIME TO PEAK (hrs) = 2.75 2.75 1.372 (iii)
 RUNOFF VOLUME (mm) = 45.81 13.40 2.75
 TOTAL RAINFALL (mm) = 47.81 47.81 45.49
 RUNOFF COEFFICIENT = 0.96 0.28 47.81 0.95

ADD HYD (7837)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7823):	0.21	0.008	2.75	13.35
+ ID2= 2 (7828):	10.90	1.315	2.75	45.49
ID = 3 (7837):	11.11	1.323	2.75	44.88

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7818)	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
IN= 2---> OUT= 1				
DT= 5.0 min				
	0.0000	0.0000	0.1390	0.6960
	0.0590	0.3400	0.1630	0.7780
	0.0900	0.4907	0.1840	0.8800
	0.1110	0.5760	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7837)	11.108	1.323	2.75	44.88
OUTFLOW: ID= 1 (7818)	11.108	0.076	4.42	44.75

PEAK FLOW REDUCTION [Qout/Qin] (%) = 5.77
 TIME SHIFT OF PEAK FLOW (min) = 100.00
 MAXIMUM STORAGE USED (ha.m.) = 0.4242

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7820)	11.38	
ID= 1 DT= 5.0 min	99.00	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	11.27	0.11
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	1.00	2.00
Length (m)	275.44	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	5.74	3.250	12.43	4.83	0.96
0.167	0.00	1.750	5.74	3.333	6.69	4.92	0.96
0.250	0.00	1.833	16.25	3.417	6.69	5.00	0.96
0.333	0.96	1.917	16.25	3.500	6.69	5.08	0.96
0.417	0.96	2.000	16.25	3.583	6.69	5.17	0.96
0.500	0.96	2.083	16.25	3.667	6.69	5.25	0.96
0.583	0.96	2.167	16.25	3.750	6.69	5.33	0.96
0.667	0.96	2.250	16.25	3.833	3.82	5.42	0.96
0.750	0.96	2.333	43.98	3.917	3.82	5.50	0.96
0.833	0.96	2.417	43.98	4.000	3.82	5.58	0.96
0.917	0.96	2.500	43.98	4.083	3.82	5.67	0.96
1.000	0.96	2.583	43.98	4.167	3.82	5.75	0.96
1.083	0.96	2.667	43.98	4.250	3.82	5.83	0.96
1.167	0.96	2.750	43.98	4.333	1.91	5.92	0.96
1.250	0.96	2.833	12.43	4.417	1.91	6.00	0.96

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7812)	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
IN= 2---> OUT= 1				
DT= 5.0 min				
	0.0000	0.0000	0.1990	0.6950
	0.0830	0.3500	0.2320	0.8000
	0.1280	0.4850	0.2620	0.9000
	0.1580	0.5900	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7820)	11.380	1.372	2.75	45.49
OUTFLOW: ID= 1 (7812)	11.380	0.107	4.25	45.39

PEAK FLOW REDUCTION [Qout/Qin] (%) = 7.82
 TIME SHIFT OF PEAK FLOW (min) = 90.00
 MAXIMUM STORAGE USED (ha.m.) = 0.4230

ADD HYD (7802)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7812):	11.38	0.107	4.25	45.39
+ ID2= 2 (7818):	11.11	0.076	4.42	44.75
ID = 3 (7802):	22.49	0.184	4.33	45.08

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7834)	0.59	
ID= 1 DT= 5.0 min	99.00	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	0.58	0.01
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	2.00	2.00
Length (m)	62.72	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	5.74	3.250	12.43	4.83	0.96

0.167	0.00	1.750	5.74	3.333	6.69	4.92	0.96
0.250	0.00	1.833	16.25	3.417	6.69	5.00	0.96
0.333	0.96	1.917	16.25	3.500	6.69	5.08	0.96
0.417	0.96	2.000	16.25	3.583	6.69	5.17	0.96
0.500	0.96	2.083	16.25	3.667	6.69	5.25	0.96
0.583	0.96	2.167	16.25	3.750	6.69	5.33	0.96
0.667	0.96	2.250	16.25	3.833	3.82	5.42	0.96
0.750	0.96	2.333	43.98	3.917	3.82	5.50	0.96
0.833	0.96	2.417	43.98	4.000	3.82	5.58	0.96
0.917	0.96	2.500	43.98	4.083	3.82	5.67	0.96
1.000	0.96	2.583	43.98	4.167	3.82	5.75	0.96
1.083	0.96	2.667	43.98	4.250	3.82	5.83	0.96
1.167	0.96	2.750	43.98	4.333	1.91	5.92	0.96
1.250	0.96	2.833	12.43	4.417	1.91	6.00	0.96
1.333	5.74	2.917	12.43	4.500	1.91	6.08	0.96
1.417	5.74	3.000	12.43	4.583	1.91	6.17	0.96
1.500	5.74	3.083	12.43	4.667	1.91	6.25	0.96
1.583	5.74	3.167	12.43	4.750	1.91		

Max.Eff.Inten.(mm/hr)= 43.98 16.65
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.18 (ii) 3.74 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.31 0.25

PEAK FLOW (cms)= 0.07 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 2.75 2.75 0.072 (iii)
 RUNOFF VOLUME (mm)= 45.81 13.40 45.48
 TOTAL RAINFALL (mm)= 47.81 47.81 47.81
 RUNOFF COEFFICIENT = 0.96 0.28 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7806) | Area (ha)= 2.37
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.35 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	5.74	3.250	12.43	4.83	0.96
0.167	0.00	1.750	5.74	3.333	6.69	4.92	0.96
0.250	0.00	1.833	16.25	3.417	6.69	5.00	0.96
0.333	0.96	1.917	16.25	3.500	6.69	5.08	0.96
0.417	0.96	2.000	16.25	3.583	6.69	5.17	0.96
0.500	0.96	2.083	16.25	3.667	6.69	5.25	0.96
0.583	0.96	2.167	16.25	3.750	6.69	5.33	0.96
0.667	0.96	2.250	16.25	3.833	3.82	5.42	0.96
0.750	0.96	2.333	43.98	3.917	3.82	5.50	0.96
0.833	0.96	2.417	43.98	4.000	3.82	5.58	0.96
0.917	0.96	2.500	43.98	4.083	3.82	5.67	0.96
1.000	0.96	2.583	43.98	4.167	3.82	5.75	0.96
1.083	0.96	2.667	43.98	4.250	3.82	5.83	0.96
1.167	0.96	2.750	43.98	4.333	1.91	5.92	0.96
1.250	0.96	2.833	12.43	4.417	1.91	6.00	0.96
1.333	5.74	2.917	12.43	4.500	1.91	6.08	0.96
1.417	5.74	3.000	12.43	4.583	1.91	6.17	0.96
1.500	5.74	3.083	12.43	4.667	1.91	6.25	0.96

1.583 5.74 | 3.167 12.43 | 4.750 1.91 |

Max.Eff.Inten.(mm/hr)= 43.98 16.65
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.35 (ii) 2.38 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.30

PEAK FLOW (cms)= 0.29 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 2.67 2.75 0.288 (iii)
 RUNOFF VOLUME (mm)= 46.81 13.40 46.48
 TOTAL RAINFALL (mm)= 47.81 47.81 47.81
 RUNOFF COEFFICIENT = 0.98 0.28 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7811) | Area (ha)= 2.40
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.38 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	5.74	3.250	12.43	4.83	0.96
0.167	0.00	1.750	5.74	3.333	6.69	4.92	0.96
0.250	0.00	1.833	16.25	3.417	6.69	5.00	0.96
0.333	0.96	1.917	16.25	3.500	6.69	5.08	0.96
0.417	0.96	2.000	16.25	3.583	6.69	5.17	0.96
0.500	0.96	2.083	16.25	3.667	6.69	5.25	0.96
0.583	0.96	2.167	16.25	3.750	6.69	5.33	0.96
0.667	0.96	2.250	16.25	3.833	3.82	5.42	0.96
0.750	0.96	2.333	43.98	3.917	3.82	5.50	0.96
0.833	0.96	2.417	43.98	4.000	3.82	5.58	0.96
0.917	0.96	2.500	43.98	4.083	3.82	5.67	0.96
1.000	0.96	2.583	43.98	4.167	3.82	5.75	0.96
1.083	0.96	2.667	43.98	4.250	3.82	5.83	0.96
1.167	0.96	2.750	43.98	4.333	1.91	5.92	0.96
1.250	0.96	2.833	12.43	4.417	1.91	6.00	0.96
1.333	5.74	2.917	12.43	4.500	1.91	6.08	0.96
1.417	5.74	3.000	12.43	4.583	1.91	6.17	0.96
1.500	5.74	3.083	12.43	4.667	1.91	6.25	0.96
1.583	5.74	3.167	12.43	4.750	1.91		

Max.Eff.Inten.(mm/hr)= 43.98 16.65
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.35 (ii) 2.38 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.30

PEAK FLOW (cms)= 0.29 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 2.67 2.75 0.291 (iii)
 RUNOFF VOLUME (mm)= 46.81 13.40 46.48
 TOTAL RAINFALL (mm)= 47.81 47.81 47.81
 RUNOFF COEFFICIENT = 0.98 0.28 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:



CN* = 73.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

CALIB			
STANDHYD (7816)			
ID= 1 DT= 5.0 min			

Area (ha)=	2.36	Dir. Conn.(%)=	99.00
Total Imp(%)=	99.00		

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	2.34	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

CALIB											
STANDHYD (7827)											
ID= 1 DT= 5.0 min											

Area (ha)=	2.39	Dir. Conn.(%)=	99.00								
Total Imp(%)=	99.00										

	IMPERVIOUS	PERVIOUS (i)									
Surface Area (ha)=	2.37	0.02									
Dep. Storage (mm)=	1.00	5.00									
Average Slope (%)=	1.00	2.00									
Length (m)=	20.00	20.00									
Mannings n =	0.013	0.250									

Max.Eff.Inten.(mm/hr)=	43.98	16.65									
over (min)=	5.00	5.00									
Storage Coeff. (min)=	1.35 (ii)	2.38 (ii)									
Unit Hyd. Tpeak (min)=	5.00	5.00									
Unit Hyd. peak (cms)=	0.33	0.30									

PEAK FLOW (cms)=	0.29	0.00	0.287 (iii)								
TIME TO PEAK (hrs)=	2.75	2.75									
RUNOFF VOLUME (mm)=	46.81	13.40	46.48								
TOTAL RAINFALL (mm)=	47.81	47.81	47.81								
RUNOFF COEFFICIENT =	0.98	0.28	0.97								

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB											
STANDHYD (7832)											
ID= 1 DT= 5.0 min											

Area (ha)=	2.39	Dir. Conn.(%)=	99.00								
Total Imp(%)=	99.00										

	IMPERVIOUS	PERVIOUS (i)									
Surface Area (ha)=	2.37	0.02									
Dep. Storage (mm)=	1.00	5.00									
Average Slope (%)=	1.00	2.00									
Length (m)=	20.00	20.00									
Mannings n =	0.013	0.250									

Max.Eff.Inten.(mm/hr)=	43.98	16.65									
over (min)=	5.00	5.00									
Storage Coeff. (min)=	1.35 (ii)	2.38 (ii)									
Unit Hyd. Tpeak (min)=	5.00	5.00									
Unit Hyd. peak (cms)=	0.33	0.30									

PEAK FLOW (cms)=	0.29	0.00	0.290 (iii)								
TIME TO PEAK (hrs)=	2.67	2.75									
RUNOFF VOLUME (mm)=	46.81	13.40	46.48								
TOTAL RAINFALL (mm)=	47.81	47.81	47.81								
RUNOFF COEFFICIENT =	0.98	0.28	0.97								

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB											
STANDHYD (7832)											
ID= 1 DT= 5.0 min											

Area (ha)=	2.39	Dir. Conn.(%)=	99.00								
Total Imp(%)=	99.00										

	IMPERVIOUS	PERVIOUS (i)									
Surface Area (ha)=	2.37	0.02									
Dep. Storage (mm)=	1.00	5.00									
Average Slope (%)=	1.00	2.00									
Length (m)=	20.00	20.00									
Mannings n =	0.013	0.250									

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

CALIB											
STANDHYD (7827)											
ID= 1 DT= 5.0 min											

Area (ha)=	2.39	Dir. Conn.(%)=	99.00								
Total Imp(%)=	99.00										

	IMPERVIOUS	PERVIOUS (i)									
Surface Area (ha)=	2.37	0.02									
Dep. Storage (mm)=	1.00	5.00									
Average Slope (%)=	1.00	2.00									
Length (m)=	20.00	20.00									
Mannings n =	0.013	0.250									

Max.Eff.Inten.(mm/hr)=	43.98	16.65									
over (min)=	5.00	5.00									
Storage Coeff. (min)=	1.35 (ii)	2.38 (ii)									
Unit Hyd. Tpeak (min)=	5.00	5.00									
Unit Hyd. peak (cms)=	0.33	0.30									

PEAK FLOW (cms)=	0.29	0.00	0.290 (iii)								
TIME TO PEAK (hrs)=	2.67	2.75									
RUNOFF VOLUME (mm)=	46.81	13.40	46.48								
TOTAL RAINFALL (mm)=	47.81	47.81	47.81								
RUNOFF COEFFICIENT =	0.98	0.28	0.97								

0.917	0.96	2.500	43.98	4.083	3.82	5.67	0.96
1.000	0.96	2.583	43.98	4.167	3.82	5.75	0.96
1.083	0.96	2.667	43.98	4.250	3.82	5.83	0.96
1.167	0.96	2.750	43.98	4.333	1.91	5.92	0.96
1.250	0.96	2.833	12.43	4.417	1.91	6.00	0.96
1.333	5.74	2.917	12.43	4.500	1.91	6.08	0.96
1.417	5.74	3.000	12.43	4.583	1.91	6.17	0.96
1.500	5.74	3.083	12.43	4.667	1.91	6.25	0.96
1.583	5.74	3.167	12.43	4.750	1.91		

Max.Eff.Inten.(mm/hr)= 43.98 16.65
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.35 (ii) 2.38 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.30

TOTALS
 PEAK FLOW (cms)= 0.29 0.00 0.290 (iii)
 TIME TO PEAK (hrs)= 2.67 2.75
 RUNOFF VOLUME (mm)= 46.81 13.40 46.48
 TOTAL RAINFALL (mm)= 47.81 47.81 47.81
 RUNOFF COEFFICIENT = 0.98 0.28 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7844) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	5.74	3.250	12.43	4.83	0.96
0.167	0.00	1.750	5.74	3.333	6.69	4.92	0.96
0.250	0.00	1.833	16.25	3.417	6.69	5.00	0.96
0.333	0.96	1.917	16.25	3.500	6.69	5.08	0.96
0.417	0.96	2.000	16.25	3.583	6.69	5.17	0.96
0.500	0.96	2.083	16.25	3.667	6.69	5.25	0.96
0.583	0.96	2.167	16.25	3.750	6.69	5.33	0.96
0.667	0.96	2.250	16.25	3.833	3.82	5.42	0.96
0.750	0.96	2.333	43.98	3.917	3.82	5.50	0.96
0.833	0.96	2.417	43.98	4.000	3.82	5.58	0.96
0.917	0.96	2.500	43.98	4.083	3.82	5.67	0.96
1.000	0.96	2.583	43.98	4.167	3.82	5.75	0.96
1.083	0.96	2.667	43.98	4.250	3.82	5.83	0.96
1.167	0.96	2.750	43.98	4.333	1.91	5.92	0.96
1.250	0.96	2.833	12.43	4.417	1.91	6.00	0.96
1.333	5.74	2.917	12.43	4.500	1.91	6.08	0.96
1.417	5.74	3.000	12.43	4.583	1.91	6.17	0.96
1.500	5.74	3.083	12.43	4.667	1.91	6.25	0.96
1.583	5.74	3.167	12.43	4.750	1.91		

Max.Eff.Inten.(mm/hr)= 43.98 16.65
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.35 (ii) 2.38 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.30

TOTALS
 PEAK FLOW (cms)= 0.29 0.00 0.291 (iii)

TIME TO PEAK (hrs)=	2.67	2.75	2.75
RUNOFF VOLUME (mm)=	46.81	13.40	46.48
TOTAL RAINFALL (mm)=	47.81	47.81	47.81
RUNOFF COEFFICIENT =	0.98	0.28	0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7806): 2.37 0.288 2.75 46.48
 + ID2= 2 (7811): 2.40 0.291 2.75 46.48

 ID = 3 (7843): 4.77 0.579 2.75 46.48

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7843): 4.77 0.579 2.75 46.48
 + ID2= 2 (7816): 2.36 0.287 2.75 46.48

 ID = 1 (7843): 7.13 0.866 2.75 46.48

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7843): 7.13 0.866 2.75 46.48
 + ID2= 2 (7827): 2.39 0.290 2.75 46.48

 ID = 3 (7843): 9.52 1.156 2.75 46.48

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7843): 9.52 1.156 2.75 46.48
 + ID2= 2 (7832): 2.39 0.290 2.75 46.48

 ID = 1 (7843): 11.91 1.446 2.75 46.48

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7843): 11.91 1.446 2.75 46.48
 + ID2= 2 (7844): 2.40 0.291 2.75 46.48

 ID = 3 (7843): 14.31 1.738 2.75 46.48

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | DIVERTHYD (7835) |



| IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1	Flow 2	Flow 3	Flow 4	Flow 5	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD. (ID= 1):	14.31	1.74	2.75	46.48
ID= 2 (2) :	12.89	1.37	2.75	46.48
ID= 3 (2) :	1.42	0.37	2.75	46.48
ID= 4 (2) :	0.00	0.00	0.00	0.00
ID= 5 (2) :	0.00	0.00	0.00	0.00
ID= 6 (2) :	0.00	0.00	0.00	0.00

| RESERVOIR (7808) |
| IN= 2---> OUT= 1 |
| DT= 5.0 min |

OVERFLOW IS ON

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.2690	0.4589
0.1980	0.1112	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7835)	12.892	1.369	2.75	46.48
OUTFLOW: ID= 1 (7808)	12.892	0.252	3.75	46.47
OVERFLOW: ID= 3 (0003)	0.000	0.000	0.00	0.00

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

PEAK FLOW REDUCTION [Qout/Qin] (%) = 18.42
TIME SHIFT OF PEAK FLOW (min) = 60.00
MAXIMUM STORAGE USED (ha.m.) = 0.3766

| Junction Command(7803) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 3 (7808)	0.00	0.00	0.00	0.00
OUTFLOW: ID= 2 (7803)	0.00	0.00	0.00	0.00

| ADD HYD (7824) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
*** W A R N I N G : HYDROGRAPH 7803 <ID= 1> IS DRY.				
*** W A R N I N G : HYDROGRAPH 7824 = HYDROGRAPH 7808				
ID1= 1 (7803):	0.00	0.000	0.00	0.00
+ ID2= 2 (7808):	12.89	0.252	3.75	46.47
ID = 3 (7824):	12.89	0.252	3.75	46.47

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (7824) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7824):	12.89	0.252	3.75	46.47
+ ID2= 2 (7835):	1.42	0.369	2.75	46.48

ID = 1 (7824): 14.31 0.608 2.75 46.47

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

	Area (ha)=	Total Imp(%)=	Dir. Conn.(%)=
CALIB	1.06	95.00	95.00
STANDHYD (7810)			
ID= 1 DT= 5.0 min			

	IMPERVIOUS (ha)=	PERVIOUS (i) (i)
Surface Area	1.01	0.05
Dep. Storage	2.00	5.00
Average Slope	2.50	2.00
Length	60.00	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	5.74	3.250	12.43	4.83	0.96
0.167	0.00	1.750	5.74	3.333	6.69	4.92	0.96
0.250	0.00	1.833	16.25	3.417	6.69	5.00	0.96
0.333	0.96	1.917	16.25	3.500	6.69	5.08	0.96
0.417	0.96	2.000	16.25	3.583	6.69	5.17	0.96
0.500	0.96	2.083	16.25	3.667	6.69	5.25	0.96
0.583	0.96	2.167	16.25	3.750	6.69	5.33	0.96
0.667	0.96	2.250	16.25	3.833	3.82	5.42	0.96
0.750	0.96	2.333	43.98	3.917	3.82	5.50	0.96
0.833	0.96	2.417	43.98	4.000	3.82	5.58	0.96
0.917	0.96	2.500	43.98	4.083	3.82	5.67	0.96
1.000	0.96	2.583	43.98	4.167	3.82	5.75	0.96
1.083	0.96	2.667	43.98	4.250	3.82	5.83	0.96
1.167	0.96	2.750	43.98	4.333	1.91	5.92	0.96
1.250	0.96	2.833	12.43	4.417	1.91	6.00	0.96
1.333	5.74	2.917	12.43	4.500	1.91	6.08	0.96
1.417	5.74	3.000	12.43	4.583	1.91	6.17	0.96
1.500	5.74	3.083	12.43	4.667	1.91	6.25	0.96
1.583	5.74	3.167	12.43	4.750	1.91		0.96

Max.Eff.Inten.(mm/hr)= 43.98
over (min)= 5.00
Storage Coeff. (min)= 1.98 (ii)
Unit Hyd. Tpeak (min)= 5.00
Unit Hyd. peak (cms)= 0.31

PEAK FLOW (cms)= 0.12
TIME TO PEAK (hrs)= 2.75
RUNOFF VOLUME (mm)= 45.81
TOTAL RAINFALL (mm)= 47.81
RUNOFF COEFFICIENT = 0.96

TOTALS
0.125 (iii)
2.75
44.21
47.81
0.92

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB

	Area (ha)=	Total Imp(%)=	Dir. Conn.(%)=
STANDHYD (7814)	1.45	96.00	96.00
ID= 1 DT= 5.0 min			

	IMPERVIOUS (ha)=	PERVIOUS (i) (i)
Surface Area	1.39	0.06
Dep. Storage	2.00	5.00
Average Slope	1.10	2.00
Length	100.00	145.00
Mannings n	0.013	0.250



NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	5.74	3.250	12.43	4.83	0.96
0.167	0.00	1.750	5.74	3.333	6.69	4.92	0.96
0.250	0.00	1.833	16.25	3.417	6.69	5.00	0.96
0.333	0.96	1.917	16.25	3.500	6.69	5.08	0.96
0.417	0.96	2.000	16.25	3.583	6.69	5.17	0.96
0.500	0.96	2.083	16.25	3.667	6.69	5.25	0.96
0.583	0.96	2.167	16.25	3.750	6.69	5.33	0.96
0.667	0.96	2.250	16.25	3.833	3.82	5.42	0.96
0.750	0.96	2.333	43.98	3.917	3.82	5.50	0.96
0.833	0.96	2.417	43.98	4.000	3.82	5.58	0.96
0.917	0.96	2.500	43.98	4.083	3.82	5.67	0.96
1.000	0.96	2.583	43.98	4.167	3.82	5.75	0.96
1.083	0.96	2.667	43.98	4.250	3.82	5.83	0.96
1.167	0.96	2.750	43.98	4.333	1.91	5.92	0.96
1.250	0.96	2.833	12.43	4.417	1.91	6.00	0.96
1.333	5.74	2.917	12.43	4.500	1.91	6.08	0.96
1.417	5.74	3.000	12.43	4.583	1.91	6.17	0.96
1.500	5.74	3.083	12.43	4.667	1.91	6.25	0.96
1.583	5.74	3.167	12.43	4.750	1.91		

Max.Eff.Inten. (mm/hr)= 43.98 10.83
 over (min)= 5.00 45.00
 Storage Coeff. (min)= 3.45 (ii) 40.64 (ii)
 Unit Hyd. Tpeak (min)= 5.00 45.00
 Unit Hyd. peak (cms)= 0.26 0.03

TOTALS
 PEAK FLOW (cms)= 0.17 0.00 0.170 (iii)
 TIME TO PEAK (hrs)= 2.75 3.42 2.75
 RUNOFF VOLUME (mm)= 45.81 13.40 44.50
 TOTAL RAINFALL (mm)= 47.81 47.81 47.81
 RUNOFF COEFFICIENT = 0.96 0.28 0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7822) | Area (ha)= 1.70
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.68 0.02
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	5.74	3.250	12.43	4.83	0.96
0.167	0.00	1.750	5.74	3.333	6.69	4.92	0.96
0.250	0.00	1.833	16.25	3.417	6.69	5.00	0.96
0.333	0.96	1.917	16.25	3.500	6.69	5.08	0.96
0.417	0.96	2.000	16.25	3.583	6.69	5.17	0.96
0.500	0.96	2.083	16.25	3.667	6.69	5.25	0.96
0.583	0.96	2.167	16.25	3.750	6.69	5.33	0.96
0.667	0.96	2.250	16.25	3.833	3.82	5.42	0.96
0.750	0.96	2.333	43.98	3.917	3.82	5.50	0.96
0.833	0.96	2.417	43.98	4.000	3.82	5.58	0.96
0.917	0.96	2.500	43.98	4.083	3.82	5.67	0.96

1.000	0.96	2.583	43.98	4.167	3.82	5.75	0.96
1.083	0.96	2.667	43.98	4.250	3.82	5.83	0.96
1.167	0.96	2.750	43.98	4.333	1.91	5.92	0.96
1.250	0.96	2.833	12.43	4.417	1.91	6.00	0.96
1.333	5.74	2.917	12.43	4.500	1.91	6.08	0.96
1.417	5.74	3.000	12.43	4.583	1.91	6.17	0.96
1.500	5.74	3.083	12.43	4.667	1.91	6.25	0.96
1.583	5.74	3.167	12.43	4.750	1.91		

Max.Eff.Inten. (mm/hr)= 43.98 16.65
 over (min)= 5.00 10.00
 Storage Coeff. (min)= 3.45 (ii) 5.01 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.26 0.16

TOTALS
 PEAK FLOW (cms)= 0.21 0.00 0.206 (iii)
 TIME TO PEAK (hrs)= 2.75 2.75 2.75
 RUNOFF VOLUME (mm)= 45.81 13.40 45.48
 TOTAL RAINFALL (mm)= 47.81 47.81 47.81
 RUNOFF COEFFICIENT = 0.96 0.28 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7838) | Area (ha)= 1.33
 |ID= 1 DT= 5.0 min | Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.30 0.03
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	5.74	3.250	12.43	4.83	0.96
0.167	0.00	1.750	5.74	3.333	6.69	4.92	0.96
0.250	0.00	1.833	16.25	3.417	6.69	5.00	0.96
0.333	0.96	1.917	16.25	3.500	6.69	5.08	0.96
0.417	0.96	2.000	16.25	3.583	6.69	5.17	0.96
0.500	0.96	2.083	16.25	3.667	6.69	5.25	0.96
0.583	0.96	2.167	16.25	3.750	6.69	5.33	0.96
0.667	0.96	2.250	16.25	3.833	3.82	5.42	0.96
0.750	0.96	2.333	43.98	3.917	3.82	5.50	0.96
0.833	0.96	2.417	43.98	4.000	3.82	5.58	0.96
0.917	0.96	2.500	43.98	4.083	3.82	5.67	0.96
1.000	0.96	2.583	43.98	4.167	3.82	5.75	0.96
1.083	0.96	2.667	43.98	4.250	3.82	5.83	0.96
1.167	0.96	2.750	43.98	4.333	1.91	5.92	0.96
1.250	0.96	2.833	12.43	4.417	1.91	6.00	0.96
1.333	5.74	2.917	12.43	4.500	1.91	6.08	0.96
1.417	5.74	3.000	12.43	4.583	1.91	6.17	0.96
1.500	5.74	3.083	12.43	4.667	1.91	6.25	0.96
1.583	5.74	3.167	12.43	4.750	1.91		

Max.Eff.Inten. (mm/hr)= 43.98 16.65
 over (min)= 5.00 10.00
 Storage Coeff. (min)= 3.45 (ii) 5.52 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.26 0.16

TOTALS
 PEAK FLOW (cms)= 0.16 0.00 0.160 (iii)
 TIME TO PEAK (hrs)= 2.75 2.75 2.75



RUNOFF VOLUME (mm)= 45.81 13.40 45.16
 TOTAL RAINFALL (mm)= 47.81 47.81 47.81
 RUNOFF COEFFICIENT = 0.96 0.28 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7805)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7814):	1.45	0.170	2.75	44.50
+ ID2= 2 (7822):	1.70	0.206	2.75	45.48
ID = 3 (7805):	3.15	0.377	2.75	45.03

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7805)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7805):	3.15	0.377	2.75	45.03
+ ID2= 2 (7838):	1.33	0.160	2.75	45.16
ID = 1 (7805):	4.48	0.537	2.75	45.07

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	Total Imp (%)	Dir. Conn. (%)
STANDHYD (7819)	1.32	99.00	99.00
ID= 1 DT= 5.0 min			

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	1.31	0.01
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	1.10	2.00
Length (m)	100.00	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	5.74	3.250	12.43	4.83	0.96
0.167	0.00	1.750	5.74	3.333	6.69	4.92	0.96
0.250	0.00	1.833	16.25	3.417	6.69	5.00	0.96
0.333	0.96	1.917	16.25	3.500	6.69	5.08	0.96
0.417	0.96	2.000	16.25	3.583	6.69	5.17	0.96
0.500	0.96	2.083	16.25	3.667	6.69	5.25	0.96
0.583	0.96	2.167	16.25	3.750	6.69	5.33	0.96
0.667	0.96	2.250	16.25	3.833	3.82	5.42	0.96
0.750	0.96	2.333	43.98	3.917	3.82	5.50	0.96
0.833	0.96	2.417	43.98	4.000	3.82	5.58	0.96
0.917	0.96	2.500	43.98	4.083	3.82	5.67	0.96
1.000	0.96	2.583	43.98	4.167	3.82	5.75	0.96
1.083	0.96	2.667	43.98	4.250	3.82	5.83	0.96
1.167	0.96	2.750	43.98	4.333	1.91	5.92	0.96
1.250	0.96	2.833	12.43	4.417	1.91	6.00	0.96
1.333	5.74	2.917	12.43	4.500	1.91	6.08	0.96
1.417	5.74	3.000	12.43	4.583	1.91	6.17	0.96
1.500	5.74	3.083	12.43	4.667	1.91	6.25	0.96
1.583	5.74	3.167	12.43	4.750	1.91		

Max.Eff. Inten. (mm/hr)= 43.98 16.65

over (min) = 5.00 10.00
 Storage Coeff. (min)= 3.45 (ii) 5.01 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.26 0.16

TOTALS

PEAK FLOW (cms)= 0.16 0.00 0.160 (iii)
 TIME TO PEAK (hrs)= 2.75 2.75 2.75
 RUNOFF VOLUME (mm)= 45.81 13.40 45.48
 TOTAL RAINFALL (mm)= 47.81 47.81 47.81
 RUNOFF COEFFICIENT = 0.96 0.28 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	Total Imp (%)	Dir. Conn. (%)
STANDHYD (7829)	1.69	99.00	99.00
ID= 1 DT= 5.0 min			

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	1.67	0.02
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	1.10	2.00
Length (m)	100.00	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	5.74	3.250	12.43	4.83	0.96
0.167	0.00	1.750	5.74	3.333	6.69	4.92	0.96
0.250	0.00	1.833	16.25	3.417	6.69	5.00	0.96
0.333	0.96	1.917	16.25	3.500	6.69	5.08	0.96
0.417	0.96	2.000	16.25	3.583	6.69	5.17	0.96
0.500	0.96	2.083	16.25	3.667	6.69	5.25	0.96
0.583	0.96	2.167	16.25	3.750	6.69	5.33	0.96
0.667	0.96	2.250	16.25	3.833	3.82	5.42	0.96
0.750	0.96	2.333	43.98	3.917	3.82	5.50	0.96
0.833	0.96	2.417	43.98	4.000	3.82	5.58	0.96
0.917	0.96	2.500	43.98	4.083	3.82	5.67	0.96
1.000	0.96	2.583	43.98	4.167	3.82	5.75	0.96
1.083	0.96	2.667	43.98	4.250	3.82	5.83	0.96
1.167	0.96	2.750	43.98	4.333	1.91	5.92	0.96
1.250	0.96	2.833	12.43	4.417	1.91	6.00	0.96
1.333	5.74	2.917	12.43	4.500	1.91	6.08	0.96
1.417	5.74	3.000	12.43	4.583	1.91	6.17	0.96
1.500	5.74	3.083	12.43	4.667	1.91	6.25	0.96
1.583	5.74	3.167	12.43	4.750	1.91		

Max.Eff. Inten. (mm/hr)= 43.98 16.65
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 3.45 (ii) 5.01 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.26 0.16

TOTALS

PEAK FLOW (cms)= 0.20 0.00 0.205 (iii)
 TIME TO PEAK (hrs)= 2.75 2.75 2.75
 RUNOFF VOLUME (mm)= 45.81 13.40 45.48
 TOTAL RAINFALL (mm)= 47.81 47.81 47.81
 RUNOFF COEFFICIENT = 0.96 0.28 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.



(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
STANDHYD (7839) | Area (ha)= 1.61
ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.48 0.13
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.10 2.00
Length (m)= 100.00 145.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	5.74	3.250	12.43	4.83	0.96
0.167	0.00	1.750	5.74	3.333	6.69	4.92	0.96
0.250	0.00	1.833	16.25	3.417	6.69	5.00	0.96
0.333	0.96	1.917	16.25	3.500	6.69	5.08	0.96
0.417	0.96	2.000	16.25	3.583	6.69	5.17	0.96
0.500	0.96	2.083	16.25	3.667	6.69	5.25	0.96
0.583	0.96	2.167	16.25	3.750	6.69	5.33	0.96
0.667	0.96	2.250	16.25	3.833	3.82	5.42	0.96
0.750	0.96	2.333	43.98	3.917	3.82	5.50	0.96
0.833	0.96	2.417	43.98	4.000	3.82	5.58	0.96
0.917	0.96	2.500	43.98	4.083	3.82	5.67	0.96
1.000	0.96	2.583	43.98	4.167	3.82	5.75	0.96
1.083	0.96	2.667	43.98	4.250	3.82	5.83	0.96
1.167	0.96	2.750	43.98	4.333	1.91	5.92	0.96
1.250	0.96	2.833	12.43	4.417	1.91	6.00	0.96
1.333	5.74	2.917	12.43	4.500	1.91	6.08	0.96
1.417	5.74	3.000	12.43	4.583	1.91	6.17	0.96
1.500	5.74	3.083	12.43	4.667	1.91	6.25	0.96
1.583	5.74	3.167	12.43	4.750	1.91		

Max.Eff.Inten.(mm/hr)= 43.98 10.83
over (min)= 5.00 45.00
Storage Coeff. (min)= 3.45 (ii) 40.64 (ii)
Unit Hyd. Tpeak (min)= 5.00 45.00
Unit Hyd. peak (cms)= 0.26 0.03

PEAK FLOW (cms)= 0.18 0.00
TIME TO PEAK (hrs)= 2.75 3.42
RUNOFF VOLUME (mm)= 45.81 13.40
TOTAL RAINFALL (mm)= 47.81 47.81
RUNOFF COEFFICIENT = 0.96 0.28

TOTALS
0.182 (iii)
2.75
43.20
47.81
0.90

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7842) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (7819): 1.32 0.160 2.75 45.48
+ ID2= 2 (7829): 1.69 0.205 2.75 45.48
ID = 3 (7842): 3.01 0.365 2.75 45.48

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7842) |
| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 3 (7842): 3.01 0.365 2.75 45.48
+ ID2= 2 (7839): 1.61 0.182 2.75 43.20
ID = 1 (7842): 4.62 0.547 2.75 44.69

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
STANDHYD (7830) | Area (ha)= 1.20
ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.14 0.06
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.50 2.00
Length (m)= 60.00 40.00
Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	5.74	3.250	12.43	4.83	0.96
0.167	0.00	1.750	5.74	3.333	6.69	4.92	0.96
0.250	0.00	1.833	16.25	3.417	6.69	5.00	0.96
0.333	0.96	1.917	16.25	3.500	6.69	5.08	0.96
0.417	0.96	2.000	16.25	3.583	6.69	5.17	0.96
0.500	0.96	2.083	16.25	3.667	6.69	5.25	0.96
0.583	0.96	2.167	16.25	3.750	6.69	5.33	0.96
0.667	0.96	2.250	16.25	3.833	3.82	5.42	0.96
0.750	0.96	2.333	43.98	3.917	3.82	5.50	0.96
0.833	0.96	2.417	43.98	4.000	3.82	5.58	0.96
0.917	0.96	2.500	43.98	4.083	3.82	5.67	0.96
1.000	0.96	2.583	43.98	4.167	3.82	5.75	0.96
1.083	0.96	2.667	43.98	4.250	3.82	5.83	0.96
1.167	0.96	2.750	43.98	4.333	1.91	5.92	0.96
1.250	0.96	2.833	12.43	4.417	1.91	6.00	0.96
1.333	5.74	2.917	12.43	4.500	1.91	6.08	0.96
1.417	5.74	3.000	12.43	4.583	1.91	6.17	0.96
1.500	5.74	3.083	12.43	4.667	1.91	6.25	0.96
1.583	5.74	3.167	12.43	4.750	1.91		

Max.Eff.Inten.(mm/hr)= 43.98 17.25
over (min)= 5.00 10.00
Storage Coeff. (min)= 1.98 (ii) 5.00 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.31 0.16

PEAK FLOW (cms)= 0.14 0.00
TIME TO PEAK (hrs)= 2.75 2.75
RUNOFF VOLUME (mm)= 45.81 13.88
TOTAL RAINFALL (mm)= 47.81 47.81
RUNOFF COEFFICIENT = 0.96 0.29

TOTALS

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7804) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 (7805): 4.48 0.537 2.75 45.07
+ ID2= 2 (7810): 1.06 0.125 2.75 44.21

 ID = 3 (7804): 5.54 0.662 2.75 44.90

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7804) |
3 + 2 = 1
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7804): 5.54 0.662 2.75 44.90
 + ID2= 2 (7824): 14.31 0.608 2.75 46.47

 ID = 1 (7804): 19.85 1.270 2.75 46.03

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7804) |
1 + 2 = 3
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7804): 19.85 1.270 2.75 46.03
 + ID2= 2 (7830): 1.20 0.142 2.75 44.21

 ID = 3 (7804): 21.05 1.412 2.75 45.93

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7804) |
3 + 2 = 1
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7804): 21.05 1.412 2.75 45.93
 + ID2= 2 (7842): 4.62 0.547 2.75 44.69

 ID = 1 (7804): 25.67 1.959 2.75 45.70

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | RESERVOIR(7833) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
DT= 5.0 min
 OUTFLOW STORAGE | OUTFLOW STORAGE
 (cms) (ha.m.) | (cms) (ha.m.)
 0.0000 0.0000 | 0.6280 2.3980
 0.0730 0.2080 | 0.6400 2.4830
 0.0890 0.2770 | 0.6520 2.5670
 0.1340 0.5530 | 0.6640 2.6500
 0.2910 0.8290 | 0.6750 2.7340
 0.3860 1.1060 | 0.7190 3.0490
 0.4590 1.3820 | 0.8250 3.3550
 0.5220 1.7210 | 2.0760 3.4560
 0.5780 2.0600 | 2.3560 3.7320

AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW : ID= 2 (7804) 25.670 1.959 2.75 45.70
 OUTFLOW: ID= 1 (7833) 25.670 0.217 6.58 45.68

PEAK FLOW REDUCTION [Qout/Qin] (%) = 11.05
 TIME SHIFT OF PEAK FLOW (min) = 230.00
 MAXIMUM STORAGE USED (ha.m.) = 0.6982

 | CALIB |
 | STANDHYD (7821) |
ID= 1 DT= 5.0 min
 Area (ha) = 0.19
 Total Imp (%) = 95.00 Dir. Conn. (%) = 95.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha) = 0.18 0.01
 Dep. Storage (mm) = 2.00 5.00
 Average Slope (%) = 2.50 2.00
 Length (m) = 60.00 40.00

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----
 TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
 hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
 0.083 0.00 | 1.667 5.74 | 3.250 12.43 | 4.83 0.96
 0.167 0.00 | 1.750 5.74 | 3.333 6.69 | 4.92 0.96
 0.250 0.00 | 1.833 16.25 | 3.417 6.69 | 5.00 0.96
 0.333 0.96 | 1.917 16.25 | 3.500 6.69 | 5.08 0.96
 0.417 0.96 | 2.000 16.25 | 3.583 6.69 | 5.17 0.96
 0.500 0.96 | 2.083 16.25 | 3.667 6.69 | 5.25 0.96
 0.583 0.96 | 2.167 16.25 | 3.750 6.69 | 5.33 0.96
 0.667 0.96 | 2.250 16.25 | 3.833 3.82 | 5.42 0.96
 0.750 0.96 | 2.333 43.98 | 3.917 3.82 | 5.50 0.96
 0.833 0.96 | 2.417 43.98 | 4.000 3.82 | 5.58 0.96
 0.917 0.96 | 2.500 43.98 | 4.083 3.82 | 5.67 0.96
 1.000 0.96 | 2.583 43.98 | 4.167 3.82 | 5.75 0.96
 1.083 0.96 | 2.667 43.98 | 4.250 3.82 | 5.83 0.96
 1.167 0.96 | 2.750 43.98 | 4.333 1.91 | 5.92 0.96
 1.250 0.96 | 2.833 12.43 | 4.417 1.91 | 6.00 0.96
 1.333 5.74 | 2.917 12.43 | 4.500 1.91 | 6.08 0.96
 1.417 5.74 | 3.000 12.43 | 4.583 1.91 | 6.17 0.96
 1.500 5.74 | 3.083 12.43 | 4.667 1.91 | 6.25 0.96
 1.583 5.74 | 3.167 12.43 | 4.750 1.91 |

Max.Eff.Inten.(mm/hr) = 43.98 17.25
 over (min) = 5.00 10.00
 Storage Coeff. (min) = 1.98 (ii) 5.00 (ii)
 Unit Hyd. Tpeak (min) = 5.00 10.00
 Unit Hyd. peak (cms) = 0.31 0.16

PEAK FLOW (cms) = 0.02 0.00 *TOTALS*
 TIME TO PEAK (hrs) = 2.75 2.75
 RUNOFF VOLUME (mm) = 45.81 13.88 44.20
 TOTAL RAINFALL (mm) = 47.81 47.81 47.81
 RUNOFF COEFFICIENT = 0.96 0.29 0.92

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | RESERVOIR(7825) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
DT= 5.0 min
 OUTFLOW STORAGE | OUTFLOW STORAGE
 (cms) (ha.m.) | (cms) (ha.m.)
 0.0000 0.0000 | 0.0100 0.0090
 0.0030 0.0010 | 0.0110 0.0100
 0.0050 0.0030 | 0.0120 0.0110
 0.0060 0.0040 | 0.0120 0.0130
 0.0080 0.0050 | 0.0130 0.0140
 0.0090 0.0060 | 0.0140 0.0150
 0.0090 0.0080 | 0.0000 0.0000

AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW : ID= 2 (7821) 0.190 0.022 2.75 44.20
 OUTFLOW: ID= 1 (7825) 0.190 0.007 2.92 43.81

PEAK FLOW REDUCTION [Qout/Qin] (%) = 30.52
 TIME SHIFT OF PEAK FLOW (min) = 10.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0044

 | CALIB |
 | STANDHYD (7836) |
ID= 1 DT= 5.0 min
 Area (ha) = 0.20
 Total Imp (%) = 95.00 Dir. Conn. (%) = 95.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 0.19 0.01
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 2.50 2.00
 Length (m)= 36.51 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	5.74	3.250	12.43	4.83	0.96
0.167	0.00	1.750	5.74	3.333	6.69	4.92	0.96
0.250	0.00	1.833	16.25	3.417	6.69	5.00	0.96
0.333	0.96	1.917	16.25	3.500	6.69	5.08	0.96
0.417	0.96	2.000	16.25	3.583	6.69	5.17	0.96
0.500	0.96	2.083	16.25	3.667	6.69	5.25	0.96
0.583	0.96	2.167	16.25	3.750	6.69	5.33	0.96
0.667	0.96	2.250	16.25	3.833	3.82	5.42	0.96
0.750	0.96	2.333	43.98	3.917	3.82	5.50	0.96
0.833	0.96	2.417	43.98	4.000	3.82	5.58	0.96
0.917	0.96	2.500	43.98	4.083	3.82	5.67	0.96
1.000	0.96	2.583	43.98	4.167	3.82	5.75	0.96
1.083	0.96	2.667	43.98	4.250	3.82	5.83	0.96
1.167	0.96	2.750	43.98	4.333	1.91	5.92	0.96
1.250	0.96	2.833	12.43	4.417	1.91	6.00	0.96
1.333	5.74	2.917	12.43	4.500	1.91	6.08	0.96
1.417	5.74	3.000	12.43	4.583	1.91	6.17	0.96
1.500	5.74	3.083	12.43	4.667	1.91	6.25	0.96
1.583	5.74	3.167	12.43	4.750	1.91		

Max.Eff.Inten.(mm/hr)= 43.98 17.25
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.47 (ii) 4.49 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.23

TOTALS
 PEAK FLOW (cms)= 0.02 0.00 0.024 (iii)
 TIME TO PEAK (hrs)= 2.75 2.75 2.75
 RUNOFF VOLUME (mm)= 45.81 13.88 44.21
 TOTAL RAINFALL (mm)= 47.81 47.81 47.81
 RUNOFF COEFFICIENT = 0.96 0.29 0.92

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7807)		OVERFLOW IS OFF			
IN= 2-->	OUT= 1	DT= 5.0 min			
OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.0100	0.0090	0.0100	0.0090
0.0030	0.0010	0.0110	0.0100	0.0110	0.0100
0.0050	0.0030	0.0120	0.0110	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000	0.0000	0.0000
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
INFLOW : ID= 2 (7836)	0.200	0.024	2.75	44.21	
OUTFLOW: ID= 1 (7807)	0.200	0.007	2.83	43.83	
PEAK FLOW REDUCTION [Qout/Qin](%)=	31.11				
TIME SHIFT OF PEAK FLOW (min)=	5.00				
MAXIMUM STORAGE USED (ha.m.)=	0.0047				

ADD HYD (7831)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7807):	0.20	0.007	2.83	43.83
+ ID2= 2 (7825):	0.19	0.007	2.92	43.81
ID= 3 (7831):	0.39	0.014	2.92	43.82

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7831)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7831):	0.39	0.014	2.92	43.82
+ ID2= 2 (7833):	25.67	0.217	6.58	45.68
ID= 1 (7831):	26.06	0.222	6.25	45.65

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALLB	Area (ha)=	STANDHYD (7826)	Total Imp(%)=	Dir. Conn.(%)=
ID= 1 DT= 5.0 min	1.24	99.00	99.00	99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.23 0.01
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 2.00 2.00
 Length (m)= 91.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	5.74	3.250	12.43	4.83	0.96
0.167	0.00	1.750	5.74	3.333	6.69	4.92	0.96
0.250	0.00	1.833	16.25	3.417	6.69	5.00	0.96
0.333	0.96	1.917	16.25	3.500	6.69	5.08	0.96
0.417	0.96	2.000	16.25	3.583	6.69	5.17	0.96
0.500	0.96	2.083	16.25	3.667	6.69	5.25	0.96
0.583	0.96	2.167	16.25	3.750	6.69	5.33	0.96
0.667	0.96	2.250	16.25	3.833	3.82	5.42	0.96
0.750	0.96	2.333	43.98	3.917	3.82	5.50	0.96
0.833	0.96	2.417	43.98	4.000	3.82	5.58	0.96
0.917	0.96	2.500	43.98	4.083	3.82	5.67	0.96
1.000	0.96	2.583	43.98	4.167	3.82	5.75	0.96
1.083	0.96	2.667	43.98	4.250	3.82	5.83	0.96
1.167	0.96	2.750	43.98	4.333	1.91	5.92	0.96
1.250	0.96	2.833	12.43	4.417	1.91	6.00	0.96
1.333	5.74	2.917	12.43	4.500	1.91	6.08	0.96
1.417	5.74	3.000	12.43	4.583	1.91	6.17	0.96
1.500	5.74	3.083	12.43	4.667	1.91	6.25	0.96
1.583	5.74	3.167	12.43	4.750	1.91		

Max.Eff.Inten.(mm/hr)= 43.98 16.65
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.72 (ii) 4.28 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.29 0.23

TOTALS
 PEAK FLOW (cms)= 0.15 0.00 0.151 (iii)
 TIME TO PEAK (hrs)= 2.75 2.75 2.75
 RUNOFF VOLUME (mm)= 45.81 13.40 45.48
 TOTAL RAINFALL (mm)= 47.81 47.81 47.81
 RUNOFF COEFFICIENT = 0.96 0.28 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| ADD HYD ( 7815) |
| 1 + 2 = 3 |
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	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7826):	1.24	0.151	2.75	45.48
+ ID2= 2 (7831):	26.06	0.222	6.25	45.65

ID = 3 (7815):	27.30	0.278	2.75	45.64

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| RESERVOIR( 7841) | OVERFLOW IS OFF
| IN= 2----> OUT= 1 |
| DT= 5.0 min |
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OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	1.0810	1.6220
0.0010	0.1670	1.3950	1.8170
0.0340	0.3380	2.0990	2.2130
0.0510	0.5110	2.8950	2.6150
0.0630	0.6880	3.7730	3.0250
0.1610	0.8670	4.7260	3.4420
0.3300	1.0500	5.5670	3.8670
0.5440	1.2370	8.5800	4.3000
0.7970	1.4290	10.9450	4.5210

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7815)	27.302	0.278	2.75	45.64
OUTFLOW: ID= 1 (7841)	27.302	0.077	20.50	40.31

PEAK FLOW REDUCTION [Qout/Qin] (%) = 27.56
TIME SHIFT OF PEAK FLOW (min) = *****
MAXIMUM STORAGE USED (ha.m.) = 0.7128



```

=====
*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U A A A A L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y M M O O O
O O T T H H Y Y M M O O O
OOO T T H H Y Y M M OOO

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```

0.250	0.00	1.833	18.94	3.417	7.80	5.00	1.11
0.333	1.11	1.917	18.94	3.500	7.80	5.08	1.11
0.417	1.11	2.000	18.94	3.583	7.80	5.17	1.11
0.500	1.11	2.083	18.94	3.667	7.80	5.25	1.11
0.583	1.11	2.167	18.94	3.750	7.80	5.33	1.11
0.667	1.11	2.250	18.94	3.833	4.46	5.42	1.11
0.750	1.11	2.333	51.24	3.917	4.46	5.50	1.11
0.833	1.11	2.417	51.24	4.000	4.46	5.58	1.11
0.917	1.11	2.500	51.24	4.083	4.46	5.67	1.11
1.000	1.11	2.583	51.24	4.167	4.46	5.75	1.11
1.083	1.11	2.667	51.24	4.250	4.46	5.83	1.11
1.167	1.11	2.750	51.24	4.333	2.23	5.92	1.11
1.250	1.11	2.833	14.48	4.417	2.23	6.00	1.11
1.333	6.68	2.917	14.48	4.500	2.23	6.08	1.11
1.417	6.68	3.000	14.48	4.583	2.23	6.17	1.11
1.500	6.68	3.083	14.48	4.667	2.23	6.25	1.11
1.583	6.68	3.167	14.48	4.750	2.23		

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat
Output filename: C:\Users\mhooper\AppData\Local\Civica\VH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\64670ade-16c1-47ea-8668-f94a60507b78\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\VH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\64670ade-16c1-47ea-8668-f94a60507b78\scen

```

DATE: 11-22-2024 TIME: 01:45:33

USER:

COMMENTS:

```

*****
** SIMULATION : C 10 Year 6 Hour AES (Bloor, **
*****

```

```

-----
| READ STORM | Filename: C:\Users\mhooper\AppData
|             |   ata\Local\Temp\
|             |   bac52abb-b775-4ad0-a17a-4b6fd89712ba\b552df0a
| Ptotal= 55.69 mm | Comments: 10 Year 6 Hour AES (Bloor, TRCA)
-----

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	1.75	18.94	3.50	7.80	5.25	1.11
0.25	1.11	2.00	18.94	3.75	4.46	5.50	1.11
0.50	1.11	2.25	51.24	4.00	4.46	5.75	1.11
0.75	1.11	2.50	51.24	4.25	2.23	6.00	1.11
1.00	1.11	2.75	14.48	4.50	2.23		
1.25	6.68	3.00	14.48	4.75	1.11		
1.50	6.68	3.25	7.80	5.00	1.11		

```

-----
| CALIB |
| NASHYD ( 7823) | Area (ha)= 0.21 Curve Number (CN)= 73.0
| ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 0.17
-----

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 1.667 6.68 | 3.250 14.48 | 4.83 1.11
0.167 0.00 | 1.750 6.68 | 3.333 7.80 | 4.92 1.11

```

Unit Hyd Qpeak (cms)= 0.047

```

PEAK FLOW (cms)= 0.010 (i)
TIME TO PEAK (hrs)= 2.750
RUNOFF VOLUME (mm)= 17.699
TOTAL RAINFALL (mm)= 55.690
RUNOFF COEFFICIENT = 0.318

```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7828) | Area (ha)= 10.90
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----

```

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	10.79	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	269.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 1.667 6.68 | 3.250 14.48 | 4.83 1.11
0.167 0.00 | 1.750 6.68 | 3.333 7.80 | 4.92 1.11
0.250 0.00 | 1.833 18.94 | 3.417 7.80 | 5.00 1.11
0.333 1.11 | 1.917 18.94 | 3.500 7.80 | 5.08 1.11
0.417 1.11 | 2.000 18.94 | 3.583 7.80 | 5.17 1.11
0.500 1.11 | 2.083 18.94 | 3.667 7.80 | 5.25 1.11
0.583 1.11 | 2.167 18.94 | 3.750 7.80 | 5.33 1.11
0.667 1.11 | 2.250 18.94 | 3.833 4.46 | 5.42 1.11
0.750 1.11 | 2.333 51.24 | 3.917 4.46 | 5.50 1.11
0.833 1.11 | 2.417 51.24 | 4.000 4.46 | 5.58 1.11
0.917 1.11 | 2.500 51.24 | 4.083 4.46 | 5.67 1.11
1.000 1.11 | 2.583 51.24 | 4.167 4.46 | 5.75 1.11
1.083 1.11 | 2.667 51.24 | 4.250 4.46 | 5.83 1.11
1.167 1.11 | 2.750 51.24 | 4.333 2.23 | 5.92 1.11
1.250 1.11 | 2.833 14.48 | 4.417 2.23 | 6.00 1.11
1.333 6.68 | 2.917 14.48 | 4.500 2.23 | 6.08 1.11
1.417 6.68 | 3.000 14.48 | 4.583 2.23 | 6.17 1.11
1.500 6.68 | 3.083 14.48 | 4.667 2.23 | 6.25 1.11
1.583 6.68 | 3.167 14.48 | 4.750 2.23 |

```

```

Max.Eff.Inten.(mm/hr)= 51.24 21.90
over (min) 5.00 10.00
Storage Coeff. (min)= 6.05 (ii) 7.52 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.19 0.13

```

```

*TOTALS*
PEAK FLOW (cms)= 1.53 0.01 1.535 (iii)
TIME TO PEAK (hrs)= 2.75 2.75
RUNOFF VOLUME (mm)= 53.69 17.77 53.33

```



TOTAL RAINFALL (mm) = 55.69 55.69 55.69
 RUNOFF COEFFICIENT = 0.96 0.32 0.96

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7837)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7823):	0.21	0.010	2.75	17.70
+ ID2= 2 (7828):	10.90	1.535	2.75	53.33

ID = 3 (7837):	11.11	1.545	2.75	52.66

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7818)	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
IN= 2---> OUT= 1				
DT= 5.0 min				
	0.0000	0.0000	0.1390	0.6960
	0.0590	0.3400	0.1630	0.7780
	0.0900	0.4907	0.1840	0.8800
	0.1110	0.5760	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7837)	11.108	1.545	2.75	52.66
OUTFLOW: ID= 1 (7818)	11.108	0.091	4.33	52.53

PEAK FLOW REDUCTION [Qout/Qin] (%) = 5.92
 TIME SHIFT OF PEAK FLOW (min) = 95.00
 MAXIMUM STORAGE USED (ha.m.) = 0.4968

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7820)	11.38	99.00
ID= 1 DT= 5.0 min		

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	11.27	0.11
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	1.00	2.00
Length (m)	275.44	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	6.68	3.250	14.48	4.83	1.11
0.167	0.00	1.750	6.68	3.333	7.80	4.92	1.11
0.250	0.00	1.833	18.94	3.417	7.80	5.00	1.11
0.333	1.11	1.917	18.94	3.500	7.80	5.08	1.11
0.417	1.11	2.000	18.94	3.583	7.80	5.17	1.11
0.500	1.11	2.083	18.94	3.667	7.80	5.25	1.11
0.583	1.11	2.167	18.94	3.750	7.80	5.33	1.11
0.667	1.11	2.250	18.94	3.833	4.46	5.42	1.11
0.750	1.11	2.333	51.24	3.917	4.46	5.50	1.11
0.833	1.11	2.417	51.24	4.000	4.46	5.58	1.11
0.917	1.11	2.500	51.24	4.083	4.46	5.67	1.11
1.000	1.11	2.583	51.24	4.167	4.46	5.75	1.11
1.083	1.11	2.667	51.24	4.250	4.46	5.83	1.11
1.167	1.11	2.750	51.24	4.333	2.23	5.92	1.11
1.250	1.11	2.833	14.48	4.417	2.23	6.00	1.11

1.333 6.68 | 2.917 14.48 | 4.500 2.23 | 6.08 1.11
 1.417 6.68 | 3.000 14.48 | 4.583 2.23 | 6.17 1.11
 1.500 6.68 | 3.083 14.48 | 4.667 2.23 | 6.25 1.11
 1.583 6.68 | 3.167 14.48 | 4.750 2.23 |

Max.Eff.Inten.(mm/hr)= 51.24 21.90
 over (min) = 5.00 10.00
 Storage Coeff. (min) = 6.13 (ii) 7.60 (ii)
 Unit Hyd. Tpeak (min) = 5.00 10.00
 Unit Hyd. peak (cms) = 0.19 0.13

PEAK FLOW (cms) = 1.60 0.01 *TOTALS*
 TIME TO PEAK (hrs) = 2.75 2.75 1.602 (iii)
 RUNOFF VOLUME (mm) = 53.69 17.77 2.75
 TOTAL RAINFALL (mm) = 55.69 55.69 53.33
 RUNOFF COEFFICIENT = 0.96 0.32 0.96

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7812)	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
IN= 2---> OUT= 1				
DT= 5.0 min				
	0.0000	0.0000	0.1990	0.6950
	0.0830	0.3500	0.2320	0.8000
	0.1280	0.4850	0.2620	0.9000
	0.1580	0.5900	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7820)	11.380	1.602	2.75	53.33
OUTFLOW: ID= 1 (7812)	11.380	0.130	4.25	53.24

PEAK FLOW REDUCTION [Qout/Qin] (%) = 8.13
 TIME SHIFT OF PEAK FLOW (min) = 90.00
 MAXIMUM STORAGE USED (ha.m.) = 0.4932

ADD HYD (7802)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7812):	11.38	0.130	4.25	53.24
+ ID2= 2 (7818):	11.11	0.091	4.33	52.53

ID = 3 (7802):	22.49	0.222	4.33	52.89

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7834)	0.59	99.00
ID= 1 DT= 5.0 min		

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	0.58	0.01
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	2.00	2.00
Length (m)	62.72	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	6.68	3.250	14.48	4.83	1.11

0.167	0.00	1.750	6.68	3.333	7.80	4.92	1.11
0.250	0.00	1.833	18.94	3.417	7.80	5.00	1.11
0.333	1.11	1.917	18.94	3.500	7.80	5.08	1.11
0.417	1.11	2.000	18.94	3.583	7.80	5.17	1.11
0.500	1.11	2.083	18.94	3.667	7.80	5.25	1.11
0.583	1.11	2.167	18.94	3.750	7.80	5.33	1.11
0.667	1.11	2.250	18.94	3.833	4.46	5.42	1.11
0.750	1.11	2.333	51.24	3.917	4.46	5.50	1.11
0.833	1.11	2.417	51.24	4.000	4.46	5.58	1.11
0.917	1.11	2.500	51.24	4.083	4.46	5.67	1.11
1.000	1.11	2.583	51.24	4.167	4.46	5.75	1.11
1.083	1.11	2.667	51.24	4.250	4.46	5.83	1.11
1.167	1.11	2.750	51.24	4.333	2.23	5.92	1.11
1.250	1.11	2.833	14.48	4.417	2.23	6.00	1.11
1.333	6.68	2.917	14.48	4.500	2.23	6.08	1.11
1.417	6.68	3.000	14.48	4.583	2.23	6.17	1.11
1.500	6.68	3.083	14.48	4.667	2.23	6.25	1.11
1.583	6.68	3.167	14.48	4.750	2.23		

Max.Eff.Inten.(mm/hr)= 51.24 21.90
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.05 (ii) 3.52 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.31 0.26

PEAK FLOW (cms)= 0.08 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 2.75 2.75 0.084 (iii)
 RUNOFF VOLUME (mm)= 53.69 17.77 53.33
 TOTAL RAINFALL (mm)= 55.69 55.69 55.69
 RUNOFF COEFFICIENT = 0.96 0.32 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7806) | Area (ha)= 2.37
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.35 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	6.68	3.250	14.48	4.83	1.11
0.167	0.00	1.750	6.68	3.333	7.80	4.92	1.11
0.250	0.00	1.833	18.94	3.417	7.80	5.00	1.11
0.333	1.11	1.917	18.94	3.500	7.80	5.08	1.11
0.417	1.11	2.000	18.94	3.583	7.80	5.17	1.11
0.500	1.11	2.083	18.94	3.667	7.80	5.25	1.11
0.583	1.11	2.167	18.94	3.750	7.80	5.33	1.11
0.667	1.11	2.250	18.94	3.833	4.46	5.42	1.11
0.750	1.11	2.333	51.24	3.917	4.46	5.50	1.11
0.833	1.11	2.417	51.24	4.000	4.46	5.58	1.11
0.917	1.11	2.500	51.24	4.083	4.46	5.67	1.11
1.000	1.11	2.583	51.24	4.167	4.46	5.75	1.11
1.083	1.11	2.667	51.24	4.250	4.46	5.83	1.11
1.167	1.11	2.750	51.24	4.333	2.23	5.92	1.11
1.250	1.11	2.833	14.48	4.417	2.23	6.00	1.11
1.333	6.68	2.917	14.48	4.500	2.23	6.08	1.11
1.417	6.68	3.000	14.48	4.583	2.23	6.17	1.11
1.500	6.68	3.083	14.48	4.667	2.23	6.25	1.11

1.583 6.68 | 3.167 14.48 | 4.750 2.23 |

Max.Eff.Inten.(mm/hr)= 51.24 21.90
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.27 (ii) 2.24 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.30

PEAK FLOW (cms)= 0.33 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 2.75 2.75 0.335 (iii)
 RUNOFF VOLUME (mm)= 54.69 17.77 54.32
 TOTAL RAINFALL (mm)= 55.69 55.69 55.69
 RUNOFF COEFFICIENT = 0.98 0.32 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7811) | Area (ha)= 2.40
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.38 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	6.68	3.250	14.48	4.83	1.11
0.167	0.00	1.750	6.68	3.333	7.80	4.92	1.11
0.250	0.00	1.833	18.94	3.417	7.80	5.00	1.11
0.333	1.11	1.917	18.94	3.500	7.80	5.08	1.11
0.417	1.11	2.000	18.94	3.583	7.80	5.17	1.11
0.500	1.11	2.083	18.94	3.667	7.80	5.25	1.11
0.583	1.11	2.167	18.94	3.750	7.80	5.33	1.11
0.667	1.11	2.250	18.94	3.833	4.46	5.42	1.11
0.750	1.11	2.333	51.24	3.917	4.46	5.50	1.11
0.833	1.11	2.417	51.24	4.000	4.46	5.58	1.11
0.917	1.11	2.500	51.24	4.083	4.46	5.67	1.11
1.000	1.11	2.583	51.24	4.167	4.46	5.75	1.11
1.083	1.11	2.667	51.24	4.250	4.46	5.83	1.11
1.167	1.11	2.750	51.24	4.333	2.23	5.92	1.11
1.250	1.11	2.833	14.48	4.417	2.23	6.00	1.11
1.333	6.68	2.917	14.48	4.500	2.23	6.08	1.11
1.417	6.68	3.000	14.48	4.583	2.23	6.17	1.11
1.500	6.68	3.083	14.48	4.667	2.23	6.25	1.11
1.583	6.68	3.167	14.48	4.750	2.23		

Max.Eff.Inten.(mm/hr)= 51.24 21.90
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.27 (ii) 2.24 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.30

PEAK FLOW (cms)= 0.34 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 2.75 2.75 0.340 (iii)
 RUNOFF VOLUME (mm)= 54.69 17.77 54.32
 TOTAL RAINFALL (mm)= 55.69 55.69 55.69
 RUNOFF COEFFICIENT = 0.98 0.32 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:



CN* = 73.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

| CALIB |
| STANDHYD (7816) | Area (ha)= 2.36
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.34	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	6.68	3.250	14.48	4.83	1.11
0.167	0.00	1.750	6.68	3.333	7.80	4.92	1.11
0.250	0.00	1.833	18.94	3.417	7.80	5.00	1.11
0.333	1.11	1.917	18.94	3.500	7.80	5.08	1.11
0.417	1.11	2.000	18.94	3.583	7.80	5.17	1.11
0.500	1.11	2.083	18.94	3.667	7.80	5.25	1.11
0.583	1.11	2.167	18.94	3.750	7.80	5.33	1.11
0.667	1.11	2.250	18.94	3.833	4.46	5.42	1.11
0.750	1.11	2.333	51.24	3.917	4.46	5.50	1.11
0.833	1.11	2.417	51.24	4.000	4.46	5.58	1.11
0.917	1.11	2.500	51.24	4.083	4.46	5.67	1.11
1.000	1.11	2.583	51.24	4.167	4.46	5.75	1.11
1.083	1.11	2.667	51.24	4.250	4.46	5.83	1.11
1.167	1.11	2.750	51.24	4.333	2.23	5.92	1.11
1.250	1.11	2.833	14.48	4.417	2.23	6.00	1.11
1.333	6.68	2.917	14.48	4.500	2.23	6.08	1.11
1.417	6.68	3.000	14.48	4.583	2.23	6.17	1.11
1.500	6.68	3.083	14.48	4.667	2.23	6.25	1.11
1.583	6.68	3.167	14.48	4.750	2.23		

Max.Eff.Inten.(mm/hr)=	51.24	21.90
over (min)=	5.00	5.00
Storage Coeff. (min)=	1.27 (ii)	2.24 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.30
TOTALS		
PEAK FLOW (cms)=	0.33	0.00 0.334 (iii)
TIME TO PEAK (hrs)=	2.67	2.75
RUNOFF VOLUME (mm)=	54.69	17.77 54.32
TOTAL RAINFALL (mm)=	55.69	55.69
RUNOFF COEFFICIENT =	0.98	0.32 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (7827) | Area (ha)= 2.39
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	6.68	3.250	14.48	4.83	1.11
0.167	0.00	1.750	6.68	3.333	7.80	4.92	1.11
0.250	0.00	1.833	18.94	3.417	7.80	5.00	1.11
0.333	1.11	1.917	18.94	3.500	7.80	5.08	1.11
0.417	1.11	2.000	18.94	3.583	7.80	5.17	1.11
0.500	1.11	2.083	18.94	3.667	7.80	5.25	1.11
0.583	1.11	2.167	18.94	3.750	7.80	5.33	1.11
0.667	1.11	2.250	18.94	3.833	4.46	5.42	1.11
0.750	1.11	2.333	51.24	3.917	4.46	5.50	1.11
0.833	1.11	2.417	51.24	4.000	4.46	5.58	1.11
0.917	1.11	2.500	51.24	4.083	4.46	5.67	1.11
1.000	1.11	2.583	51.24	4.167	4.46	5.75	1.11
1.083	1.11	2.667	51.24	4.250	4.46	5.83	1.11
1.167	1.11	2.750	51.24	4.333	2.23	5.92	1.11
1.250	1.11	2.833	14.48	4.417	2.23	6.00	1.11
1.333	6.68	2.917	14.48	4.500	2.23	6.08	1.11
1.417	6.68	3.000	14.48	4.583	2.23	6.17	1.11
1.500	6.68	3.083	14.48	4.667	2.23	6.25	1.11
1.583	6.68	3.167	14.48	4.750	2.23		

Max.Eff.Inten.(mm/hr)=	51.24	21.90
over (min)=	5.00	5.00
Storage Coeff. (min)=	1.27 (ii)	2.24 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.30

TOTALS		
PEAK FLOW (cms)=	0.34	0.00 0.338 (iii)
TIME TO PEAK (hrs)=	2.67	2.75
RUNOFF VOLUME (mm)=	54.69	17.77 54.32
TOTAL RAINFALL (mm)=	55.69	55.69
RUNOFF COEFFICIENT =	0.98	0.32 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |
| STANDHYD (7832) | Area (ha)= 2.39
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	6.68	3.250	14.48	4.83	1.11
0.167	0.00	1.750	6.68	3.333	7.80	4.92	1.11
0.250	0.00	1.833	18.94	3.417	7.80	5.00	1.11
0.333	1.11	1.917	18.94	3.500	7.80	5.08	1.11
0.417	1.11	2.000	18.94	3.583	7.80	5.17	1.11
0.500	1.11	2.083	18.94	3.667	7.80	5.25	1.11
0.583	1.11	2.167	18.94	3.750	7.80	5.33	1.11
0.667	1.11	2.250	18.94	3.833	4.46	5.42	1.11
0.750	1.11	2.333	51.24	3.917	4.46	5.50	1.11
0.833	1.11	2.417	51.24	4.000	4.46	5.58	1.11

0.917	1.11	2.500	51.24	4.083	4.46	5.67	1.11
1.000	1.11	2.583	51.24	4.167	4.46	5.75	1.11
1.083	1.11	2.667	51.24	4.250	4.46	5.83	1.11
1.167	1.11	2.750	51.24	4.333	2.23	5.92	1.11
1.250	1.11	2.833	14.48	4.417	2.23	6.00	1.11
1.333	6.68	2.917	14.48	4.500	2.23	6.08	1.11
1.417	6.68	3.000	14.48	4.583	2.23	6.17	1.11
1.500	6.68	3.083	14.48	4.667	2.23	6.25	1.11
1.583	6.68	3.167	14.48	4.750	2.23		

Max.Eff.Inten.(mm/hr)= 51.24 21.90
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.27 (ii) 2.24 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.30

TOTALS
 PEAK FLOW (cms)= 0.34 0.00 0.338 (iii)
 TIME TO PEAK (hrs)= 2.67 2.75
 RUNOFF VOLUME (mm)= 54.69 17.77 54.32
 TOTAL RAINFALL (mm)= 55.69 55.69 55.69
 RUNOFF COEFFICIENT = 0.98 0.32 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7844) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN		
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr		
0.083	0.00	1.667	6.68	3.250	14.48	4.83	1.11
0.167	0.00	1.750	6.68	3.333	7.80	4.92	1.11
0.250	0.00	1.833	18.94	3.417	7.80	5.00	1.11
0.333	1.11	1.917	18.94	3.500	7.80	5.08	1.11
0.417	1.11	2.000	18.94	3.583	7.80	5.17	1.11
0.500	1.11	2.083	18.94	3.667	7.80	5.25	1.11
0.583	1.11	2.167	18.94	3.750	7.80	5.33	1.11
0.667	1.11	2.250	18.94	3.833	4.46	5.42	1.11
0.750	1.11	2.333	51.24	3.917	4.46	5.50	1.11
0.833	1.11	2.417	51.24	4.000	4.46	5.58	1.11
0.917	1.11	2.500	51.24	4.083	4.46	5.67	1.11
1.000	1.11	2.583	51.24	4.167	4.46	5.75	1.11
1.083	1.11	2.667	51.24	4.250	4.46	5.83	1.11
1.167	1.11	2.750	51.24	4.333	2.23	5.92	1.11
1.250	1.11	2.833	14.48	4.417	2.23	6.00	1.11
1.333	6.68	2.917	14.48	4.500	2.23	6.08	1.11
1.417	6.68	3.000	14.48	4.583	2.23	6.17	1.11
1.500	6.68	3.083	14.48	4.667	2.23	6.25	1.11
1.583	6.68	3.167	14.48	4.750	2.23		

Max.Eff.Inten.(mm/hr)= 51.24 21.90
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.27 (ii) 2.24 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.30

TOTALS
 PEAK FLOW (cms)= 0.34 0.00 0.340 (iii)

TIME TO PEAK (hrs)= 2.75 2.75 2.75
 RUNOFF VOLUME (mm)= 54.69 17.77 54.32
 TOTAL RAINFALL (mm)= 55.69 55.69 55.69
 RUNOFF COEFFICIENT = 0.98 0.32 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7806): 2.37 0.335 2.75 54.32
 + ID2= 2 (7811): 2.40 0.340 2.75 54.32

 ID = 3 (7843): 4.77 0.675 2.75 54.32

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7843): 4.77 0.675 2.75 54.32
 + ID2= 2 (7816): 2.36 0.334 2.75 54.32

 ID = 1 (7843): 7.13 1.009 2.75 54.32

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7843): 7.13 1.009 2.75 54.32
 + ID2= 2 (7827): 2.39 0.338 2.75 54.32

 ID = 3 (7843): 9.52 1.347 2.75 54.32

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7843): 9.52 1.347 2.75 54.32
 + ID2= 2 (7832): 2.39 0.338 2.75 54.32

 ID = 1 (7843): 11.91 1.686 2.75 54.32

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7843): 11.91 1.686 2.75 54.32
 + ID2= 2 (7844): 2.40 0.340 2.75 54.32

 ID = 3 (7843): 14.31 2.025 2.75 54.32

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | DIVERTHYD (7835) |

| IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1	Flow 2	Flow 3	Flow 4	Flow 5	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD. (ID= 1):	14.31	2.03	2.75	54.32
ID= 2 (2) :	12.62	1.51	2.75	54.32
ID= 3 (2) :	1.69	0.51	2.75	54.32
ID= 4 (2) :	0.00	0.00	0.00	0.00
ID= 5 (2) :	0.00	0.00	0.00	0.00
ID= 6 (2) :	0.00	0.00	0.00	0.00

| RESERVOIR (7808) |
| IN= 2---> OUT= 1 |
| DT= 5.0 min |

OVERFLOW IS ON

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.2690	0.4589
0.1980	0.1112	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7835)	12.620	1.513	2.75	54.32
OUTFLOW: ID= 1 (7808)	12.620	0.266	3.75	54.31
OVERFLOW: ID= 3 (0003)	0.000	0.000	0.00	0.00

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

PEAK FLOW REDUCTION [Qout/Qin] (%) = 17.55
TIME SHIFT OF PEAK FLOW (min) = 60.00
MAXIMUM STORAGE USED (ha.m.) = 0.4424

| Junction Command(7803) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 3 (7808)	0.00	0.00	0.00	0.00
OUTFLOW: ID= 2 (7803)	0.00	0.00	0.00	0.00

| ADD HYD (7824) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
*** WARNING : HYDROGRAPH 7803 <ID= 1> IS DRY.				
*** WARNING : HYDROGRAPH 7824 = HYDROGRAPH 7808				
ID1= 1 (7803):	0.00	0.000	0.00	0.00
+ ID2= 2 (7808):	12.62	0.266	3.75	54.31
ID = 3 (7824):	12.62	0.266	3.75	54.31

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (7824) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7824):	12.62	0.266	3.75	54.31
+ ID2= 2 (7835):	1.69	0.513	2.75	54.32

ID = 1 (7824): 14.31 0.761 2.75 54.31

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

	Area (ha)=	Total Imp(%)=	Dir. Conn.(%)=
CALIB	1.06	95.00	95.00
STANDHYD (7810)			
ID= 1 DT= 5.0 min			

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.01	0.05
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	6.68	3.250	14.48	4.83	1.11
0.167	0.00	1.750	6.68	3.333	7.80	4.92	1.11
0.250	0.00	1.833	18.94	3.417	7.80	5.00	1.11
0.333	1.11	1.917	18.94	3.500	7.80	5.08	1.11
0.417	1.11	2.000	18.94	3.583	7.80	5.17	1.11
0.500	1.11	2.083	18.94	3.667	7.80	5.25	1.11
0.583	1.11	2.167	18.94	3.750	7.80	5.33	1.11
0.667	1.11	2.250	18.94	3.833	4.46	5.42	1.11
0.750	1.11	2.333	51.24	3.917	4.46	5.50	1.11
0.833	1.11	2.417	51.24	4.000	4.46	5.58	1.11
0.917	1.11	2.500	51.24	4.083	4.46	5.67	1.11
1.000	1.11	2.583	51.24	4.167	4.46	5.75	1.11
1.083	1.11	2.667	51.24	4.250	4.46	5.83	1.11
1.167	1.11	2.750	51.24	4.333	2.23	5.92	1.11
1.250	1.11	2.833	14.48	4.417	2.23	6.00	1.11
1.333	6.68	2.917	14.48	4.500	2.23	6.08	1.11
1.417	6.68	3.000	14.48	4.583	2.23	6.17	1.11
1.500	6.68	3.083	14.48	4.667	2.23	6.25	1.11
1.583	6.68	3.167	14.48	4.750	2.23		1.11

Max.Eff.Inten.(mm/hr)=	51.24	22.63
over (min)	5.00	5.00
Storage Coeff. (min)=	1.87 (ii)	4.71 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.32	0.22

PEAK FLOW (cms)=	0.14	0.00	0.147 (iii)
TIME TO PEAK (hrs)=	2.75	2.75	2.75
RUNOFF VOLUME (mm)=	53.69	18.36	51.92
TOTAL RAINFALL (mm)=	55.69	55.69	55.69
RUNOFF COEFFICIENT =	0.96	0.33	0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB

	Area (ha)=	Total Imp(%)=	Dir. Conn.(%)=
STANDHYD (7814)	1.45	96.00	96.00
ID= 1 DT= 5.0 min			

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.39	0.06
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250



NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	6.68	3.250	14.48	4.83	1.11
0.167	0.00	1.750	6.68	3.333	7.80	4.92	1.11
0.250	0.00	1.833	18.94	3.417	7.80	5.00	1.11
0.333	1.11	1.917	18.94	3.500	7.80	5.08	1.11
0.417	1.11	2.000	18.94	3.583	7.80	5.17	1.11
0.500	1.11	2.083	18.94	3.667	7.80	5.25	1.11
0.583	1.11	2.167	18.94	3.750	7.80	5.33	1.11
0.667	1.11	2.250	18.94	3.833	4.46	5.42	1.11
0.750	1.11	2.333	51.24	3.917	4.46	5.50	1.11
0.833	1.11	2.417	51.24	4.000	4.46	5.58	1.11
0.917	1.11	2.500	51.24	4.083	4.46	5.67	1.11
1.000	1.11	2.583	51.24	4.167	4.46	5.75	1.11
1.083	1.11	2.667	51.24	4.250	4.46	5.83	1.11
1.167	1.11	2.750	51.24	4.333	2.23	5.92	1.11
1.250	1.11	2.833	14.48	4.417	2.23	6.00	1.11
1.333	6.68	2.917	14.48	4.500	2.23	6.08	1.11
1.417	6.68	3.000	14.48	4.583	2.23	6.17	1.11
1.500	6.68	3.083	14.48	4.667	2.23	6.25	1.11
1.583	6.68	3.167	14.48	4.750	2.23	1.11	

Max.Eff.Inten. (mm/hr)= 51.24 15.56
 over (min)= 5.00 40.00
 Storage Coeff. (min)= 3.24 (ii) 35.41 (ii)
 Unit Hyd. Tpeak (min)= 5.00 40.00
 Unit Hyd. peak (cms)= 0.27 0.03

TOTALS
 PEAK FLOW (cms)= 0.20 0.00 0.199 (iii)
 TIME TO PEAK (hrs)= 2.75 3.25 2.75
 RUNOFF VOLUME (mm)= 53.69 17.77 52.24
 TOTAL RAINFALL (mm)= 55.69 55.69 55.69
 RUNOFF COEFFICIENT = 0.96 0.32 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7822) | Area (ha)= 1.70
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.68 0.02
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	6.68	3.250	14.48	4.83	1.11
0.167	0.00	1.750	6.68	3.333	7.80	4.92	1.11
0.250	0.00	1.833	18.94	3.417	7.80	5.00	1.11
0.333	1.11	1.917	18.94	3.500	7.80	5.08	1.11
0.417	1.11	2.000	18.94	3.583	7.80	5.17	1.11
0.500	1.11	2.083	18.94	3.667	7.80	5.25	1.11
0.583	1.11	2.167	18.94	3.750	7.80	5.33	1.11
0.667	1.11	2.250	18.94	3.833	4.46	5.42	1.11
0.750	1.11	2.333	51.24	3.917	4.46	5.50	1.11
0.833	1.11	2.417	51.24	4.000	4.46	5.58	1.11
0.917	1.11	2.500	51.24	4.083	4.46	5.67	1.11

1.000	1.11	2.583	51.24	4.167	4.46	5.75	1.11
1.083	1.11	2.667	51.24	4.250	4.46	5.83	1.11
1.167	1.11	2.750	51.24	4.333	2.23	5.92	1.11
1.250	1.11	2.833	14.48	4.417	2.23	6.00	1.11
1.333	6.68	2.917	14.48	4.500	2.23	6.08	1.11
1.417	6.68	3.000	14.48	4.583	2.23	6.17	1.11
1.500	6.68	3.083	14.48	4.667	2.23	6.25	1.11
1.583	6.68	3.167	14.48	4.750	2.23	1.11	

Max.Eff.Inten. (mm/hr)= 51.24 21.90
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 3.24 (ii) 4.71 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.27 0.22

TOTALS
 PEAK FLOW (cms)= 0.24 0.00 0.241 (iii)
 TIME TO PEAK (hrs)= 2.75 2.75 2.75
 RUNOFF VOLUME (mm)= 53.69 17.77 53.33
 TOTAL RAINFALL (mm)= 55.69 55.69 55.69
 RUNOFF COEFFICIENT = 0.96 0.32 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7838) | Area (ha)= 1.33
 |ID= 1 DT= 5.0 min | Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.30 0.03
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	6.68	3.250	14.48	4.83	1.11
0.167	0.00	1.750	6.68	3.333	7.80	4.92	1.11
0.250	0.00	1.833	18.94	3.417	7.80	5.00	1.11
0.333	1.11	1.917	18.94	3.500	7.80	5.08	1.11
0.417	1.11	2.000	18.94	3.583	7.80	5.17	1.11
0.500	1.11	2.083	18.94	3.667	7.80	5.25	1.11
0.583	1.11	2.167	18.94	3.750	7.80	5.33	1.11
0.667	1.11	2.250	18.94	3.833	4.46	5.42	1.11
0.750	1.11	2.333	51.24	3.917	4.46	5.50	1.11
0.833	1.11	2.417	51.24	4.000	4.46	5.58	1.11
0.917	1.11	2.500	51.24	4.083	4.46	5.67	1.11
1.000	1.11	2.583	51.24	4.167	4.46	5.75	1.11
1.083	1.11	2.667	51.24	4.250	4.46	5.83	1.11
1.167	1.11	2.750	51.24	4.333	2.23	5.92	1.11
1.250	1.11	2.833	14.48	4.417	2.23	6.00	1.11
1.333	6.68	2.917	14.48	4.500	2.23	6.08	1.11
1.417	6.68	3.000	14.48	4.583	2.23	6.17	1.11
1.500	6.68	3.083	14.48	4.667	2.23	6.25	1.11
1.583	6.68	3.167	14.48	4.750	2.23	1.11	

Max.Eff.Inten. (mm/hr)= 51.24 21.90
 over (min)= 5.00 10.00
 Storage Coeff. (min)= 3.24 (ii) 5.19 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.27 0.16

TOTALS
 PEAK FLOW (cms)= 0.19 0.00 0.187 (iii)
 TIME TO PEAK (hrs)= 2.75 2.75 2.75



RUNOFF VOLUME (mm) = 53.69 17.77 52.97
 TOTAL RAINFALL (mm) = 55.69 55.69 55.69
 RUNOFF COEFFICIENT = 0.96 0.32 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7805)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7814):	1.45	0.199	2.75	52.24
+ ID2= 2 (7822):	1.70	0.241	2.75	53.33
ID = 3 (7805):	3.15	0.439	2.75	52.83

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7805)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (7805):	3.15	0.439	2.75	52.83
+ ID2= 2 (7838):	1.33	0.187	2.75	52.97
ID = 1 (7805):	4.48	0.626	2.75	52.87

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	Total Imp (%)	Dir. Conn. (%)
STANDHYD (7819)	1.32	99.00	99.00
ID= 1 DT= 5.0 min			

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha) = 1.31 0.01
 Dep. Storage (mm) = 2.00 5.00
 Average Slope (%) = 1.10 2.00
 Length (m) = 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	6.68	3.250	14.48
0.167	0.00	1.750	6.68	3.333	7.80
0.250	0.00	1.833	18.94	3.417	7.80
0.333	1.11	1.917	18.94	3.500	7.80
0.417	1.11	2.000	18.94	3.583	7.80
0.500	1.11	2.083	18.94	3.667	7.80
0.583	1.11	2.167	18.94	3.750	7.80
0.667	1.11	2.250	18.94	3.833	4.46
0.750	1.11	2.333	51.24	3.917	4.46
0.833	1.11	2.417	51.24	4.000	4.46
0.917	1.11	2.500	51.24	4.083	4.46
1.000	1.11	2.583	51.24	4.167	4.46
1.083	1.11	2.667	51.24	4.250	4.46
1.167	1.11	2.750	51.24	4.333	2.23
1.250	1.11	2.833	14.48	4.417	2.23
1.333	6.68	2.917	14.48	4.500	2.23
1.417	6.68	3.000	14.48	4.583	2.23
1.500	6.68	3.083	14.48	4.667	2.23
1.583	6.68	3.167	14.48	4.750	2.23

Max.Eff. Inten. (mm/hr) = 51.24 21.90

over (min) = 5.00 5.00
 Storage Coeff. (min) = 3.24 (ii) 4.71 (ii)
 Unit Hyd. Tpeak (min) = 5.00 5.00
 Unit Hyd. peak (cms) = 0.27 0.22

TOTALS

PEAK FLOW (cms) = 0.19 0.00 0.187 (iii)
 TIME TO PEAK (hrs) = 2.75 2.75 2.75
 RUNOFF VOLUME (mm) = 53.69 17.77 53.33
 TOTAL RAINFALL (mm) = 55.69 55.69 55.69
 RUNOFF COEFFICIENT = 0.96 0.32 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	Total Imp (%)	Dir. Conn. (%)
STANDHYD (7829)	1.69	99.00	99.00
ID= 1 DT= 5.0 min			

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha) = 1.67 0.02
 Dep. Storage (mm) = 2.00 5.00
 Average Slope (%) = 1.10 2.00
 Length (m) = 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	6.68	3.250	14.48
0.167	0.00	1.750	6.68	3.333	7.80
0.250	0.00	1.833	18.94	3.417	7.80
0.333	1.11	1.917	18.94	3.500	7.80
0.417	1.11	2.000	18.94	3.583	7.80
0.500	1.11	2.083	18.94	3.667	7.80
0.583	1.11	2.167	18.94	3.750	7.80
0.667	1.11	2.250	18.94	3.833	4.46
0.750	1.11	2.333	51.24	3.917	4.46
0.833	1.11	2.417	51.24	4.000	4.46
0.917	1.11	2.500	51.24	4.083	4.46
1.000	1.11	2.583	51.24	4.167	4.46
1.083	1.11	2.667	51.24	4.250	4.46
1.167	1.11	2.750	51.24	4.333	2.23
1.250	1.11	2.833	14.48	4.417	2.23
1.333	6.68	2.917	14.48	4.500	2.23
1.417	6.68	3.000	14.48	4.583	2.23
1.500	6.68	3.083	14.48	4.667	2.23
1.583	6.68	3.167	14.48	4.750	2.23

Max.Eff. Inten. (mm/hr) = 51.24 21.90
 over (min) = 5.00 5.00
 Storage Coeff. (min) = 3.24 (ii) 4.71 (ii)
 Unit Hyd. Tpeak (min) = 5.00 5.00
 Unit Hyd. peak (cms) = 0.27 0.22

TOTALS

PEAK FLOW (cms) = 0.24 0.00 0.239 (iii)
 TIME TO PEAK (hrs) = 2.75 2.75 2.75
 RUNOFF VOLUME (mm) = 53.69 17.77 53.33
 TOTAL RAINFALL (mm) = 55.69 55.69 55.69
 RUNOFF COEFFICIENT = 0.96 0.32 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.



(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| CALIB |
| STANDHYD ( 7839) | Area (ha)= 1.61
| ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00
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IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.48 0.13
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.10 2.00
Length (m)= 100.00 145.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	6.68	3.250	14.48	4.83	1.11
0.167	0.00	1.750	6.68	3.333	7.80	4.92	1.11
0.250	0.00	1.833	18.94	3.417	7.80	5.00	1.11
0.333	1.11	1.917	18.94	3.500	7.80	5.08	1.11
0.417	1.11	2.000	18.94	3.583	7.80	5.17	1.11
0.500	1.11	2.083	18.94	3.667	7.80	5.25	1.11
0.583	1.11	2.167	18.94	3.750	7.80	5.33	1.11
0.667	1.11	2.250	18.94	3.833	4.46	5.42	1.11
0.750	1.11	2.333	51.24	3.917	4.46	5.50	1.11
0.833	1.11	2.417	51.24	4.000	4.46	5.58	1.11
0.917	1.11	2.500	51.24	4.083	4.46	5.67	1.11
1.000	1.11	2.583	51.24	4.167	4.46	5.75	1.11
1.083	1.11	2.667	51.24	4.250	4.46	5.83	1.11
1.167	1.11	2.750	51.24	4.333	2.23	5.92	1.11
1.250	1.11	2.833	14.48	4.417	2.23	6.00	1.11
1.333	6.68	2.917	14.48	4.500	2.23	6.08	1.11
1.417	6.68	3.000	14.48	4.583	2.23	6.17	1.11
1.500	6.68	3.083	14.48	4.667	2.23	6.25	1.11
1.583	6.68	3.167	14.48	4.750	2.23	1.11	1.11

```

Max.Eff.Inten.(mm/hr)= 51.24 15.56
over (min)= 5.00 40.00
Storage Coeff. (min)= 3.24 (ii) 35.41 (iii)
Unit Hyd. Tpeak (min)= 5.00 40.00
Unit Hyd. peak (cms)= 0.27 0.03

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```

*TOTALS*
PEAK FLOW (cms)= 0.21 0.00 0.212 (iii)
TIME TO PEAK (hrs)= 2.75 3.25 2.75
RUNOFF VOLUME (mm)= 53.69 17.77 50.80
TOTAL RAINFALL (mm)= 55.69 55.69 55.69
RUNOFF COEFFICIENT = 0.96 0.32 0.91

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```
-----
| ADD HYD ( 7842) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
| (ha) (cms) (hrs) (mm)
ID1= 1 ( 7819): 1.32 0.187 2.75 53.33
+ ID2= 2 ( 7829): 1.69 0.239 2.75 53.33
-----
ID = 3 ( 7842): 3.01 0.426 2.75 53.33
-----
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
-----
| ADD HYD ( 7842) |
| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
| (ha) (cms) (hrs) (mm)
ID1= 3 ( 7842): 3.01 0.426 2.75 53.33
+ ID2= 2 ( 7839): 1.61 0.212 2.75 50.80
-----
ID = 1 ( 7842): 4.62 0.638 2.75 52.45
-----
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```
-----
| CALIB |
| STANDHYD ( 7830) | Area (ha)= 1.20
| ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00
-----
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IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.14 0.06
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.50 2.00
Length (m)= 60.00 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	6.68	3.250	14.48	4.83	1.11
0.167	0.00	1.750	6.68	3.333	7.80	4.92	1.11
0.250	0.00	1.833	18.94	3.417	7.80	5.00	1.11
0.333	1.11	1.917	18.94	3.500	7.80	5.08	1.11
0.417	1.11	2.000	18.94	3.583	7.80	5.17	1.11
0.500	1.11	2.083	18.94	3.667	7.80	5.25	1.11
0.583	1.11	2.167	18.94	3.750	7.80	5.33	1.11
0.667	1.11	2.250	18.94	3.833	4.46	5.42	1.11
0.750	1.11	2.333	51.24	3.917	4.46	5.50	1.11
0.833	1.11	2.417	51.24	4.000	4.46	5.58	1.11
0.917	1.11	2.500	51.24	4.083	4.46	5.67	1.11
1.000	1.11	2.583	51.24	4.167	4.46	5.75	1.11
1.083	1.11	2.667	51.24	4.250	4.46	5.83	1.11
1.167	1.11	2.750	51.24	4.333	2.23	5.92	1.11
1.250	1.11	2.833	14.48	4.417	2.23	6.00	1.11
1.333	6.68	2.917	14.48	4.500	2.23	6.08	1.11
1.417	6.68	3.000	14.48	4.583	2.23	6.17	1.11
1.500	6.68	3.083	14.48	4.667	2.23	6.25	1.11
1.583	6.68	3.167	14.48	4.750	2.23	1.11	1.11

```

Max.Eff.Inten.(mm/hr)= 51.24 22.63
over (min)= 5.00 5.00
Storage Coeff. (min)= 1.87 (ii) 4.71 (iii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.32 0.22

```

```

*TOTALS*
PEAK FLOW (cms)= 0.16 0.00 0.166 (iii)
TIME TO PEAK (hrs)= 2.75 2.75 2.75
RUNOFF VOLUME (mm)= 53.69 18.36 51.92
TOTAL RAINFALL (mm)= 55.69 55.69 55.69
RUNOFF COEFFICIENT = 0.96 0.33 0.93

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| ADD HYD ( 7804) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
| (ha) (cms) (hrs) (mm)
ID1= 1 ( 7805): 4.48 0.626 2.75 52.87
+ ID2= 2 ( 7810): 1.06 0.147 2.75 51.92
-----
```

 ID = 3 (7804): 5.54 0.773 2.75 52.69

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7804) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
 ID1= 3 (7804): 5.54 0.773 2.75 52.69
 + ID2= 2 (7824): 14.31 0.761 2.75 54.31

 ID = 1 (7804): 19.85 1.534 2.75 53.86

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7804) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
 ID1= 1 (7804): 19.85 1.534 2.75 53.86
 + ID2= 2 (7830): 1.20 0.166 2.75 51.92

 ID = 3 (7804): 21.05 1.700 2.75 53.75

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7804) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
 ID1= 3 (7804): 21.05 1.700 2.75 53.75
 + ID2= 2 (7842): 4.62 0.638 2.75 52.45

 ID = 1 (7804): 25.67 2.339 2.75 53.51

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | RESERVOIR(7833) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
DT= 5.0 min

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.6280	2.3980
0.0730	0.2080	0.6400	2.4830
0.0890	0.2770	0.6520	2.5670
0.1340	0.5530	0.6640	2.6500
0.2910	0.8290	0.6750	2.7340
0.3860	1.1060	0.7190	3.0490
0.4590	1.3820	0.8250	3.3550
0.5220	1.7210	2.0760	3.4560
0.5780	2.0600	2.3560	3.7320

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7804)	25.670	2.339	2.75	53.51
OUTFLOW: ID= 1 (7833)	25.670	0.258	6.25	53.49

PEAK FLOW REDUCTION [Qout/Qin] (%) = 11.03
 TIME SHIFT OF PEAK FLOW (min) = 210.00
 MAXIMUM STORAGE USED (ha.m.) = 0.7710

 | CALIB |
 | STANDHYD (7821) | Area (ha) = 0.19
 | ID= 1 DT= 5.0 min | Total Imp (%) = 95.00 Dir. Conn. (%) = 95.00

	IMPERVIOUS (ha)	PERVIOUS (i)
Surface Area	0.18	0.01
Dep. Storage	2.00	5.00
Average Slope	2.50	2.00
Length	60.00	40.00

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)
0.083	0.00	1.667	6.68	3.250	14.48	4.83	1.11
0.167	0.00	1.750	6.68	3.333	7.80	4.92	1.11
0.250	0.00	1.833	18.94	3.417	7.80	5.00	1.11
0.333	1.11	1.917	18.94	3.500	7.80	5.08	1.11
0.417	1.11	2.000	18.94	3.583	7.80	5.17	1.11
0.500	1.11	2.083	18.94	3.667	7.80	5.25	1.11
0.583	1.11	2.167	18.94	3.750	7.80	5.33	1.11
0.667	1.11	2.250	18.94	3.833	4.46	5.42	1.11
0.750	1.11	2.333	51.24	3.917	4.46	5.50	1.11
0.833	1.11	2.417	51.24	4.000	4.46	5.58	1.11
0.917	1.11	2.500	51.24	4.083	4.46	5.67	1.11
1.000	1.11	2.583	51.24	4.167	4.46	5.75	1.11
1.083	1.11	2.667	51.24	4.250	4.46	5.83	1.11
1.167	1.11	2.750	51.24	4.333	2.23	5.92	1.11
1.250	1.11	2.833	14.48	4.417	2.23	6.00	1.11
1.333	6.68	2.917	14.48	4.500	2.23	6.08	1.11
1.417	6.68	3.000	14.48	4.583	2.23	6.17	1.11
1.500	6.68	3.083	14.48	4.667	2.23	6.25	1.11
1.583	6.68	3.167	14.48	4.750	2.23		

Max.Eff.Inten. (mm/hr) = 51.24 22.63
 over (min) = 5.00 5.00
 Storage Coeff. (min) = 1.87 (ii) 4.71 (ii)
 Unit Hyd. Tpeak (min) = 5.00 5.00
 Unit Hyd. peak (cms) = 0.32 0.22

PEAK FLOW (cms) = 0.03 0.00 *TOTALS*
 TIME TO PEAK (hrs) = 2.67 2.75 2.75
 RUNOFF VOLUME (mm) = 53.69 18.36 51.92
 TOTAL RAINFALL (mm) = 55.69 55.69 55.69
 RUNOFF COEFFICIENT = 0.96 0.33 0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | RESERVOIR(7825) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
DT= 5.0 min

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.0100	0.0090
0.0030	0.0010	0.0110	0.0100
0.0050	0.0030	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7821)	0.190	0.026	2.75	51.92
OUTFLOW: ID= 1 (7825)	0.190	0.008	2.83	51.50

PEAK FLOW REDUCTION [Qout/Qin] (%) = 31.31
 TIME SHIFT OF PEAK FLOW (min) = 5.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0052

 | CALIB |
 | STANDHYD (7836) | Area (ha) = 0.20
 | ID= 1 DT= 5.0 min | Total Imp (%) = 95.00 Dir. Conn. (%) = 95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.19	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	36.51	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	6.68	3.250	14.48	4.83	1.11
0.167	0.00	1.750	6.68	3.333	7.80	4.92	1.11
0.250	0.00	1.833	18.94	3.417	7.80	5.00	1.11
0.333	1.11	1.917	18.94	3.500	7.80	5.08	1.11
0.417	1.11	2.000	18.94	3.583	7.80	5.17	1.11
0.500	1.11	2.083	18.94	3.667	7.80	5.25	1.11
0.583	1.11	2.167	18.94	3.750	7.80	5.33	1.11
0.667	1.11	2.250	18.94	3.833	4.46	5.42	1.11
0.750	1.11	2.333	51.24	3.917	4.46	5.50	1.11
0.833	1.11	2.417	51.24	4.000	4.46	5.58	1.11
0.917	1.11	2.500	51.24	4.083	4.46	5.67	1.11
1.000	1.11	2.583	51.24	4.167	4.46	5.75	1.11
1.083	1.11	2.667	51.24	4.250	4.46	5.83	1.11
1.167	1.11	2.750	51.24	4.333	2.23	5.92	1.11
1.250	1.11	2.833	14.48	4.417	2.23	6.00	1.11
1.333	6.68	2.917	14.48	4.500	2.23	6.08	1.11
1.417	6.68	3.000	14.48	4.583	2.23	6.17	1.11
1.500	6.68	3.083	14.48	4.667	2.23	6.25	1.11
1.583	6.68	3.167	14.48	4.750	2.23		

Max.Eff.Inten.(mm/hr)=	51.24	22.63
over (min)	5.00	5.00
Storage Coeff. (min)=	1.39 (ii)	4.23 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.24

TOTALS			
PEAK FLOW (cms)=	0.03	0.00	0.028 (iii)
TIME TO PEAK (hrs)=	2.67	2.75	2.75
RUNOFF VOLUME (mm)=	53.69	18.36	51.92
TOTAL RAINFALL (mm)=	55.69	55.69	55.69
RUNOFF COEFFICIENT =	0.96	0.33	0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7807)				
OVERFLOW IS OFF				
IN= 2---> OUT= 1				
DT= 5.0 min				
OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)	
0.0000	0.0000	0.0100	0.0090	
0.0030	0.0010	0.0110	0.0100	
0.0050	0.0030	0.0120	0.0110	
0.0060	0.0040	0.0120	0.0130	
0.0080	0.0050	0.0130	0.0140	
0.0090	0.0060	0.0140	0.0150	
0.0090	0.0080	0.0000	0.0000	
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7836)	0.200	0.028	2.75	51.92
OUTFLOW: ID= 1 (7807)	0.200	0.009	2.83	51.52

PEAK FLOW REDUCTION [Qout/Qin](%) = 30.86
 TIME SHIFT OF PEAK FLOW (min) = 5.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0055

ADD HYD (7831)				
ID	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7807):	0.20	0.009	2.83	51.52
+ ID2= 2 (7825):	0.19	0.008	2.83	51.50
ID = 3 (7831):	0.39	0.017	2.83	51.51

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7831)				
ID	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7831):	0.39	0.017	2.83	51.51
+ ID2= 2 (7833):	25.67	0.258	6.25	53.49
ID = 1 (7831):	26.06	0.264	6.25	53.46

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALLB		
STANDHYD (7826)	Area (ha)=	Dir. Conn.(%)=
ID= 1 DT= 5.0 min	1.24	99.00
	Total Imp(%)=	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.23	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	91.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	6.68	3.250	14.48	4.83	1.11
0.167	0.00	1.750	6.68	3.333	7.80	4.92	1.11
0.250	0.00	1.833	18.94	3.417	7.80	5.00	1.11
0.333	1.11	1.917	18.94	3.500	7.80	5.08	1.11
0.417	1.11	2.000	18.94	3.583	7.80	5.17	1.11
0.500	1.11	2.083	18.94	3.667	7.80	5.25	1.11
0.583	1.11	2.167	18.94	3.750	7.80	5.33	1.11
0.667	1.11	2.250	18.94	3.833	4.46	5.42	1.11
0.750	1.11	2.333	51.24	3.917	4.46	5.50	1.11
0.833	1.11	2.417	51.24	4.000	4.46	5.58	1.11
0.917	1.11	2.500	51.24	4.083	4.46	5.67	1.11
1.000	1.11	2.583	51.24	4.167	4.46	5.75	1.11
1.083	1.11	2.667	51.24	4.250	4.46	5.83	1.11
1.167	1.11	2.750	51.24	4.333	2.23	5.92	1.11
1.250	1.11	2.833	14.48	4.417	2.23	6.00	1.11
1.333	6.68	2.917	14.48	4.500	2.23	6.08	1.11
1.417	6.68	3.000	14.48	4.583	2.23	6.17	1.11
1.500	6.68	3.083	14.48	4.667	2.23	6.25	1.11
1.583	6.68	3.167	14.48	4.750	2.23		

Max.Eff.Inten.(mm/hr)=	51.24	21.90
over (min)	5.00	5.00
Storage Coeff. (min)=	2.56 (ii)	4.03 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.29	0.24

TOTALS			
PEAK FLOW (cms)=	0.18	0.00	0.176 (iii)
TIME TO PEAK (hrs)=	2.75	2.75	2.75
RUNOFF VOLUME (mm)=	53.69	17.77	53.33
TOTAL RAINFALL (mm)=	55.69	55.69	55.69
RUNOFF COEFFICIENT =	0.96	0.32	0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| ADD HYD ( 7815) |
| 1 + 2 = 3 |
-----

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	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7826):	1.24	0.176	2.75	53.33
+ ID2= 2 (7831):	26.06	0.264	6.25	53.46

ID = 3 (7815):	27.30	0.320	2.75	53.45

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-----
| RESERVOIR( 7841) | OVERFLOW IS OFF
| IN= 2----> OUT= 1 |
| DT= 5.0 min |
-----

```

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	1.0810	1.6220
0.0010	0.1670	1.3950	1.8170
0.0340	0.3380	2.0990	2.2130
0.0510	0.5110	2.8950	2.6150
0.0630	0.6880	3.7730	3.0250
0.1610	0.8670	4.7260	3.4420
0.3300	1.0500	5.5670	3.8670
0.5440	1.2370	8.5800	4.3000
0.7970	1.4290	10.9450	4.5210

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7815)	27.302	0.320	2.75	53.45
OUTFLOW: ID= 1 (7841)	27.302	0.106	17.00	48.10

PEAK FLOW REDUCTION [Qout/Qin] (%)	= 33.15
TIME SHIFT OF PEAK FLOW (min)	= 855.00
MAXIMUM STORAGE USED (ha.m.)	= 0.7665

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*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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0.250	0.00	1.833	22.30	3.417	9.18	5.00	1.31
0.333	1.31	1.917	22.30	3.500	9.18	5.08	1.31
0.417	1.31	2.000	22.30	3.583	9.18	5.17	1.31
0.500	1.31	2.083	22.30	3.667	9.18	5.25	1.31
0.583	1.31	2.167	22.30	3.750	9.18	5.33	1.31
0.667	1.31	2.250	22.30	3.833	5.25	5.42	1.31
0.750	1.31	2.333	60.35	3.917	5.25	5.50	1.31
0.833	1.31	2.417	60.35	4.000	5.25	5.58	1.31
0.917	1.31	2.500	60.35	4.083	5.25	5.67	1.31
1.000	1.31	2.583	60.35	4.167	5.25	5.75	1.31
1.083	1.31	2.667	60.35	4.250	5.25	5.83	1.31
1.167	1.31	2.750	60.35	4.333	2.62	5.92	1.31
1.250	1.31	2.833	17.06	4.417	2.62	6.00	1.31
1.333	7.87	2.917	17.06	4.500	2.62	6.08	1.31
1.417	7.87	3.000	17.06	4.583	2.62	6.17	1.31
1.500	7.87	3.083	17.06	4.667	2.62	6.25	1.31
1.583	7.87	3.167	17.06	4.750	2.62		

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
Output filename: C:\Users\mhoooper\AppData\Local\Civica\VH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\8e62eb6b-165b-42f1-9766-1402d8483c16\scen
Summary filename: C:\Users\mhoooper\AppData\Local\Civica\VH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\8e62eb6b-165b-42f1-9766-1402d8483c16\scen

```

DATE: 11-22-2024 TIME: 01:45:37

USER:

COMMENTS:

 ** SIMULATION : D 25 Year 6 Hour AES (Bloor, **

```

-----
| READ STORM | Filename: C:\Users\mhoooper\AppData
|             |   ata\Local\Temp\
|             |   bac52abb-b775-4ad0-a17a-4b6fd89712ba\fla3f0a7
| Ptotal= 65.59 mm | Comments: 25 Year 6 Hour AES (Bloor, TRCA)
-----

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	1.75	22.30	3.50	9.18	5.25	1.31
0.25	1.31	2.00	22.30	3.75	5.25	5.50	1.31
0.50	1.31	2.25	60.35	4.00	5.25	5.75	1.31
0.75	1.31	2.50	60.35	4.25	2.62	6.00	1.31
1.00	1.31	2.75	17.06	4.50	2.62		
1.25	7.87	3.00	17.06	4.75	1.31		
1.50	7.87	3.25	9.18	5.00	1.31		

```

-----
| CALIB |
| NASHYD ( 7823) | Area (ha)= 0.21 Curve Number (CN)= 73.0
| ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 0.17
-----

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	7.87	3.250	17.06	4.83	1.31
0.167	0.00	1.750	7.87	3.333	9.18	4.92	1.31

Unit Hyd Qpeak (cms)= 0.047

```

PEAK FLOW (cms)= 0.014 (i)
TIME TO PEAK (hrs)= 2.750
RUNOFF VOLUME (mm)= 23.670
TOTAL RAINFALL (mm)= 65.590
RUNOFF COEFFICIENT = 0.361

```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| CALIB |
| STANDHYD ( 7828) | Area (ha)= 10.90
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----

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	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	10.79	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	269.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	7.87	3.250	17.06	4.83	1.31
0.167	0.00	1.750	7.87	3.333	9.18	4.92	1.31
0.250	0.00	1.833	22.30	3.417	9.18	5.00	1.31
0.333	1.31	1.917	22.30	3.500	9.18	5.08	1.31
0.417	1.31	2.000	22.30	3.583	9.18	5.17	1.31
0.500	1.31	2.083	22.30	3.667	9.18	5.25	1.31
0.583	1.31	2.167	22.30	3.750	9.18	5.33	1.31
0.667	1.31	2.250	22.30	3.833	5.25	5.42	1.31
0.750	1.31	2.333	60.35	3.917	5.25	5.50	1.31
0.833	1.31	2.417	60.35	4.000	5.25	5.58	1.31
0.917	1.31	2.500	60.35	4.083	5.25	5.67	1.31
1.000	1.31	2.583	60.35	4.167	5.25	5.75	1.31
1.083	1.31	2.667	60.35	4.250	5.25	5.83	1.31
1.167	1.31	2.750	60.35	4.333	2.62	5.92	1.31
1.250	1.31	2.833	17.06	4.417	2.62	6.00	1.31
1.333	7.87	2.917	17.06	4.500	2.62	6.08	1.31
1.417	7.87	3.000	17.06	4.583	2.62	6.17	1.31
1.500	7.87	3.083	17.06	4.667	2.62	6.25	1.31
1.583	7.87	3.167	17.06	4.750	2.62		

```

Max.Eff.Inten.(mm/hr)= 60.35 29.02
over (min) 5.00 10.00
Storage Coeff. (min)= 5.67 (ii) 7.04 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.20 0.14

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*TOTALS*
PEAK FLOW (cms)= 1.80 0.01 1.811 (iii)
TIME TO PEAK (hrs)= 2.75 2.75 2.75
RUNOFF VOLUME (mm)= 63.59 23.76 63.19

```



TOTAL RAINFALL (mm) = 65.59 65.59 65.59
 RUNOFF COEFFICIENT = 0.97 0.36 0.96

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7837)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7823):	0.21	0.014	2.75	23.67
+ ID2= 2 (7828):	10.90	1.811	2.75	63.19

ID = 3 (7837):	11.11	1.825	2.75	62.45

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7818)	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
IN= 2---> OUT= 1				
DT= 5.0 min				
	0.0000	0.0000	0.1390	0.6960
	0.0590	0.3400	0.1630	0.7780
	0.0900	0.4907	0.1840	0.8800
	0.1110	0.5760	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7837)	11.108	1.825	2.75	62.45
OUTFLOW: ID= 1 (7818)	11.108	0.113	4.33	62.32

PEAK FLOW REDUCTION [Qout/Qin] (%) = 6.22
 TIME SHIFT OF PEAK FLOW (min) = 95.00
 MAXIMUM STORAGE USED (ha.m.) = 0.5866

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7820)	11.38	
ID= 1 DT= 5.0 min	Total Imp (%) = 99.00	Dir. Conn. (%) = 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	11.27	0.11
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	1.00	2.00
Length (m)	275.44	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	7.87	3.250	17.06	4.83	1.31
0.167	0.00	1.750	7.87	3.333	9.18	4.92	1.31
0.250	0.00	1.833	22.30	3.417	9.18	5.00	1.31
0.333	1.31	1.917	22.30	3.500	9.18	5.08	1.31
0.417	1.31	2.000	22.30	3.583	9.18	5.17	1.31
0.500	1.31	2.083	22.30	3.667	9.18	5.25	1.31
0.583	1.31	2.167	22.30	3.750	9.18	5.33	1.31
0.667	1.31	2.250	22.30	3.833	5.25	5.42	1.31
0.750	1.31	2.333	60.35	3.917	5.25	5.50	1.31
0.833	1.31	2.417	60.35	4.000	5.25	5.58	1.31
0.917	1.31	2.500	60.35	4.083	5.25	5.67	1.31
1.000	1.31	2.583	60.35	4.167	5.25	5.75	1.31
1.083	1.31	2.667	60.35	4.250	5.25	5.83	1.31
1.167	1.31	2.750	60.35	4.333	2.62	5.92	1.31
1.250	1.31	2.833	17.06	4.417	2.62	6.00	1.31

1.333 7.87 | 2.917 17.06 | 4.500 2.62 | 6.08 1.31
 1.417 7.87 | 3.000 17.06 | 4.583 2.62 | 6.17 1.31
 1.500 7.87 | 3.083 17.06 | 4.667 2.62 | 6.25 1.31
 1.583 7.87 | 3.167 17.06 | 4.750 2.62 |

Max.Eff.Inten.(mm/hr)= 60.35 29.02
 over (min) = 5.00 10.00
 Storage Coeff. (min) = 5.74 (ii) 7.12 (ii)
 Unit Hyd. Tpeak (min) = 5.00 10.00
 Unit Hyd. peak (cms) = 0.20 0.14

PEAK FLOW (cms) = 1.88 0.01 *TOTALS*
 TIME TO PEAK (hrs) = 2.75 2.75 1.890 (iii)
 RUNOFF VOLUME (mm) = 63.59 23.76 2.75
 TOTAL RAINFALL (mm) = 65.59 65.59 63.19
 RUNOFF COEFFICIENT = 0.97 0.36 0.96

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7812)	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
IN= 2---> OUT= 1				
DT= 5.0 min				
	0.0000	0.0000	0.1990	0.6950
	0.0830	0.3500	0.2320	0.8000
	0.1280	0.4850	0.2620	0.9000
	0.1580	0.5900	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7820)	11.380	1.890	2.75	63.19
OUTFLOW: ID= 1 (7812)	11.380	0.156	4.25	63.10

PEAK FLOW REDUCTION [Qout/Qin] (%) = 8.24
 TIME SHIFT OF PEAK FLOW (min) = 90.00
 MAXIMUM STORAGE USED (ha.m.) = 0.5825

ADD HYD (7802)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7812):	11.38	0.156	4.25	63.10
+ ID2= 2 (7818):	11.11	0.113	4.33	62.32

ID = 3 (7802):	22.49	0.269	4.33	62.71

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7834)	0.59	
ID= 1 DT= 5.0 min	Total Imp (%) = 99.00	Dir. Conn. (%) = 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	0.58	0.01
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	2.00	2.00
Length (m)	62.72	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	7.87	3.250	17.06	4.83	1.31

0.167	0.00	1.750	7.87	3.333	9.18	4.92	1.31
0.250	0.00	1.833	22.30	3.417	9.18	5.00	1.31
0.333	1.31	1.917	22.30	3.500	9.18	5.08	1.31
0.417	1.31	2.000	22.30	3.583	9.18	5.17	1.31
0.500	1.31	2.083	22.30	3.667	9.18	5.25	1.31
0.583	1.31	2.167	22.30	3.750	9.18	5.33	1.31
0.667	1.31	2.250	22.30	3.833	5.25	5.42	1.31
0.750	1.31	2.333	60.35	3.917	5.25	5.50	1.31
0.833	1.31	2.417	60.35	4.000	5.25	5.58	1.31
0.917	1.31	2.500	60.35	4.083	5.25	5.67	1.31
1.000	1.31	2.583	60.35	4.167	5.25	5.75	1.31
1.083	1.31	2.667	60.35	4.250	5.25	5.83	1.31
1.167	1.31	2.750	60.35	4.333	2.62	5.92	1.31
1.250	1.31	2.833	17.06	4.417	2.62	6.00	1.31
1.333	7.87	2.917	17.06	4.500	2.62	6.08	1.31
1.417	7.87	3.000	17.06	4.583	2.62	6.17	1.31
1.500	7.87	3.083	17.06	4.667	2.62	6.25	1.31
1.583	7.87	3.167	17.06	4.750	2.62		

Max.Eff.Inten.(mm/hr)= 60.35 29.02
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.92 (ii) 3.29 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.31 0.27

PEAK FLOW (cms)= 0.10 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 2.75 2.75 0.098 (iii)
 RUNOFF VOLUME (mm)= 63.59 23.76 63.19
 TOTAL RAINFALL (mm)= 65.59 65.59 65.59
 RUNOFF COEFFICIENT = 0.97 0.36 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7806) | Area (ha)= 2.37
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

Surface Area (ha)= 2.35 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	7.87	3.250	17.06	4.83	1.31
0.167	0.00	1.750	7.87	3.333	9.18	4.92	1.31
0.250	0.00	1.833	22.30	3.417	9.18	5.00	1.31
0.333	1.31	1.917	22.30	3.500	9.18	5.08	1.31
0.417	1.31	2.000	22.30	3.583	9.18	5.17	1.31
0.500	1.31	2.083	22.30	3.667	9.18	5.25	1.31
0.583	1.31	2.167	22.30	3.750	9.18	5.33	1.31
0.667	1.31	2.250	22.30	3.833	5.25	5.42	1.31
0.750	1.31	2.333	60.35	3.917	5.25	5.50	1.31
0.833	1.31	2.417	60.35	4.000	5.25	5.58	1.31
0.917	1.31	2.500	60.35	4.083	5.25	5.67	1.31
1.000	1.31	2.583	60.35	4.167	5.25	5.75	1.31
1.083	1.31	2.667	60.35	4.250	5.25	5.83	1.31
1.167	1.31	2.750	60.35	4.333	2.62	5.92	1.31
1.250	1.31	2.833	17.06	4.417	2.62	6.00	1.31
1.333	7.87	2.917	17.06	4.500	2.62	6.08	1.31
1.417	7.87	3.000	17.06	4.583	2.62	6.17	1.31
1.500	7.87	3.083	17.06	4.667	2.62	6.25	1.31

1.583 7.87 | 3.167 17.06 | 4.750 2.62 |

Max.Eff.Inten.(mm/hr)= 60.35 29.02
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.19 (ii) 2.10 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.31

PEAK FLOW (cms)= 0.39 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 2.67 2.75 0.395 (iii)
 RUNOFF VOLUME (mm)= 64.59 23.76 64.18
 TOTAL RAINFALL (mm)= 65.59 65.59 65.59
 RUNOFF COEFFICIENT = 0.98 0.36 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7811) | Area (ha)= 2.40
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

Surface Area (ha)= 2.38 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	7.87	3.250	17.06	4.83	1.31
0.167	0.00	1.750	7.87	3.333	9.18	4.92	1.31
0.250	0.00	1.833	22.30	3.417	9.18	5.00	1.31
0.333	1.31	1.917	22.30	3.500	9.18	5.08	1.31
0.417	1.31	2.000	22.30	3.583	9.18	5.17	1.31
0.500	1.31	2.083	22.30	3.667	9.18	5.25	1.31
0.583	1.31	2.167	22.30	3.750	9.18	5.33	1.31
0.667	1.31	2.250	22.30	3.833	5.25	5.42	1.31
0.750	1.31	2.333	60.35	3.917	5.25	5.50	1.31
0.833	1.31	2.417	60.35	4.000	5.25	5.58	1.31
0.917	1.31	2.500	60.35	4.083	5.25	5.67	1.31
1.000	1.31	2.583	60.35	4.167	5.25	5.75	1.31
1.083	1.31	2.667	60.35	4.250	5.25	5.83	1.31
1.167	1.31	2.750	60.35	4.333	2.62	5.92	1.31
1.250	1.31	2.833	17.06	4.417	2.62	6.00	1.31
1.333	7.87	2.917	17.06	4.500	2.62	6.08	1.31
1.417	7.87	3.000	17.06	4.583	2.62	6.17	1.31
1.500	7.87	3.083	17.06	4.667	2.62	6.25	1.31
1.583	7.87	3.167	17.06	4.750	2.62		

Max.Eff.Inten.(mm/hr)= 60.35 29.02
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.19 (ii) 2.10 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.31

PEAK FLOW (cms)= 0.40 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 2.67 2.75 0.400 (iii)
 RUNOFF VOLUME (mm)= 64.59 23.76 64.18
 TOTAL RAINFALL (mm)= 65.59 65.59 65.59
 RUNOFF COEFFICIENT = 0.98 0.36 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:



CN* = 73.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

CALIB			
STANDHYD (7816) Area (ha)= 2.36			
ID= 1 DT= 5.0 min Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00			

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	2.34	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

CALIB											
STANDHYD (7827) Area (ha)= 2.39											
ID= 1 DT= 5.0 min Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00											

	IMPERVIOUS	PERVIOUS (i)									
Surface Area (ha)=	2.37	0.02									
Dep. Storage (mm)=	1.00	5.00									
Average Slope (%)=	1.00	2.00									
Length (m)=	20.00	20.00									
Mannings n =	0.013	0.250									

Max.Eff.Inten.(mm/hr)=	60.35	29.02									
over (min)=	5.00	5.00									
Storage Coeff. (min)=	1.19 (ii)	2.10 (ii)									
Unit Hyd. Tpeak (min)=	5.00	5.00									
Unit Hyd. peak (cms)=	0.33	0.31									
			TOTALS								
PEAK FLOW (cms)=	0.39	0.00	0.394 (iii)								
TIME TO PEAK (hrs)=	2.67	2.75									
RUNOFF VOLUME (mm)=	64.59	23.76	64.18								
TOTAL RAINFALL (mm)=	65.59	65.59	65.59								
RUNOFF COEFFICIENT =	0.98	0.36	0.98								

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB											
STANDHYD (7832) Area (ha)= 2.39											
ID= 1 DT= 5.0 min Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00											

	IMPERVIOUS	PERVIOUS (i)									
Surface Area (ha)=	2.37	0.02									
Dep. Storage (mm)=	1.00	5.00									
Average Slope (%)=	1.00	2.00									
Length (m)=	20.00	20.00									
Mannings n =	0.013	0.250									

Max.Eff.Inten.(mm/hr)=	60.35	29.02									
over (min)=	5.00	5.00									
Storage Coeff. (min)=	1.19 (ii)	2.10 (ii)									
Unit Hyd. Tpeak (min)=	5.00	5.00									
Unit Hyd. peak (cms)=	0.33	0.31									
			TOTALS								
PEAK FLOW (cms)=	0.40	0.00	0.399 (iii)								
TIME TO PEAK (hrs)=	2.75	2.75									
RUNOFF VOLUME (mm)=	64.59	23.76	64.18								
TOTAL RAINFALL (mm)=	65.59	65.59	65.59								
RUNOFF COEFFICIENT =	0.98	0.36	0.98								

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7832) Area (ha)= 2.39			
ID= 1 DT= 5.0 min Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00			

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	2.37	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

CALIB											
STANDHYD (7827) Area (ha)= 2.39											
ID= 1 DT= 5.0 min Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00											

	IMPERVIOUS	PERVIOUS (i)									
Surface Area (ha)=	2.37	0.02									
Dep. Storage (mm)=	1.00	5.00									
Average Slope (%)=	1.00	2.00									
Length (m)=	20.00	20.00									
Mannings n =	0.013	0.250									

Max.Eff.Inten.(mm/hr)=	60.35	29.02									
over (min)=	5.00	5.00									
Storage Coeff. (min)=	1.19 (ii)	2.10 (ii)									
Unit Hyd. Tpeak (min)=	5.00	5.00									
Unit Hyd. peak (cms)=	0.33	0.31									
			TOTALS								
PEAK FLOW (cms)=	0.39	0.00	0.394 (iii)								
TIME TO PEAK (hrs)=	2.67	2.75									
RUNOFF VOLUME (mm)=	64.59	23.76	64.18								
TOTAL RAINFALL (mm)=	65.59	65.59	65.59								
RUNOFF COEFFICIENT =	0.98	0.36	0.98								

0.917	1.31	2.500	60.35	4.083	5.25	5.67	1.31
1.000	1.31	2.583	60.35	4.167	5.25	5.75	1.31
1.083	1.31	2.667	60.35	4.250	5.25	5.83	1.31
1.167	1.31	2.750	60.35	4.333	2.62	5.92	1.31
1.250	1.31	2.833	17.06	4.417	2.62	6.00	1.31
1.333	7.87	2.917	17.06	4.500	2.62	6.08	1.31
1.417	7.87	3.000	17.06	4.583	2.62	6.17	1.31
1.500	7.87	3.083	17.06	4.667	2.62	6.25	1.31
1.583	7.87	3.167	17.06	4.750	2.62		

Max.Eff.Inten.(mm/hr)= 60.35 29.02
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.19 (ii) 2.10 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.31

TOTALS
 PEAK FLOW (cms)= 0.40 0.00 0.399 (iii)
 TIME TO PEAK (hrs)= 2.75 2.75
 RUNOFF VOLUME (mm)= 64.59 23.76 64.18
 TOTAL RAINFALL (mm)= 65.59 65.59 65.59
 RUNOFF COEFFICIENT = 0.98 0.36 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7844) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN		
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr		
0.083	0.00	1.667	7.87	3.250	17.06	4.83	1.31
0.167	0.00	1.750	7.87	3.333	9.18	4.92	1.31
0.250	0.00	1.833	22.30	3.417	9.18	5.00	1.31
0.333	1.31	1.917	22.30	3.500	9.18	5.08	1.31
0.417	1.31	2.000	22.30	3.583	9.18	5.17	1.31
0.500	1.31	2.083	22.30	3.667	9.18	5.25	1.31
0.583	1.31	2.167	22.30	3.750	9.18	5.33	1.31
0.667	1.31	2.250	22.30	3.833	5.25	5.42	1.31
0.750	1.31	2.333	60.35	3.917	5.25	5.50	1.31
0.833	1.31	2.417	60.35	4.000	5.25	5.58	1.31
0.917	1.31	2.500	60.35	4.083	5.25	5.67	1.31
1.000	1.31	2.583	60.35	4.167	5.25	5.75	1.31
1.083	1.31	2.667	60.35	4.250	5.25	5.83	1.31
1.167	1.31	2.750	60.35	4.333	2.62	5.92	1.31
1.250	1.31	2.833	17.06	4.417	2.62	6.00	1.31
1.333	7.87	2.917	17.06	4.500	2.62	6.08	1.31
1.417	7.87	3.000	17.06	4.583	2.62	6.17	1.31
1.500	7.87	3.083	17.06	4.667	2.62	6.25	1.31
1.583	7.87	3.167	17.06	4.750	2.62		

Max.Eff.Inten.(mm/hr)= 60.35 29.02
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.19 (ii) 2.10 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.31

TOTALS
 PEAK FLOW (cms)= 0.40 0.00 0.400 (iii)

TIME TO PEAK (hrs)=	2.67	2.75	2.75
RUNOFF VOLUME (mm)=	64.59	23.76	64.18
TOTAL RAINFALL (mm)=	65.59	65.59	65.59
RUNOFF COEFFICIENT =	0.98	0.36	0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7806): 2.37 0.395 2.75 64.18
 + ID2= 2 (7811): 2.40 0.400 2.75 64.18

 ID = 3 (7843): 4.77 0.796 2.75 64.18

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7843): 4.77 0.796 2.75 64.18
 + ID2= 2 (7816): 2.36 0.394 2.75 64.18

 ID = 1 (7843): 7.13 1.189 2.75 64.18

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7843): 7.13 1.189 2.75 64.18
 + ID2= 2 (7827): 2.39 0.399 2.75 64.18

 ID = 3 (7843): 9.52 1.588 2.75 64.18

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7843): 9.52 1.588 2.75 64.18
 + ID2= 2 (7832): 2.39 0.399 2.75 64.18

 ID = 1 (7843): 11.91 1.987 2.75 64.18

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7843): 11.91 1.987 2.75 64.18
 + ID2= 2 (7844): 2.40 0.400 2.75 64.18

 ID = 3 (7843): 14.31 2.387 2.75 64.18

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | DIVERTHYD (7835) |

| IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1	Flow 2	Flow 3	Flow 4	Flow 5	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD. (ID= 1):	14.31	2.39	2.75	64.18
ID= 2 (2) :	12.37	1.69	2.75	64.18
ID= 3 (2) :	1.94	0.69	2.75	64.18
ID= 4 (2) :	0.00	0.00	0.00	0.00
ID= 5 (2) :	0.00	0.00	0.00	0.00
ID= 6 (2) :	0.00	0.00	0.00	0.00

| RESERVOIR (7808) |
| IN= 2---> OUT= 1 |
| DT= 5.0 min |

OVERFLOW IS ON

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.2690	0.4589
0.1980	0.1112	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7835)	12.372	1.693	2.75	64.18
OUTFLOW: ID= 1 (7808)	11.283	0.269	3.00	64.23
OVERFLOW: ID= 3 (0003)	1.090	0.406	3.25	64.23

TOTAL NUMBER OF SIMULATION OVERFLOW = 10
CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.83
PERCENTAGE OF TIME OVERFLOWING (%) = 4.31

PEAK FLOW REDUCTION [Qout/Qin] (%) = 15.89
TIME SHIFT OF PEAK FLOW (min) = 15.00
MAXIMUM STORAGE USED (ha.m.) = 0.4589

| Junction Command(7803) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 3 (7808)	1.09	0.41	3.25	64.23
OUTFLOW: ID= 2 (7803)	1.09	0.41	3.25	64.23

| ADD HYD (7824) |
| 1 + 2 = 3 |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7803):	1.09	0.406	3.25	64.23
+ ID2= 2 (7808):	11.28	0.269	3.00	64.23
ID = 3 (7824):	12.37	0.675	3.25	64.23

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (7824) |
| 3 + 2 = 1 |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (7824):	12.37	0.675	3.25	64.23
+ ID2= 2 (7835):	1.94	0.694	2.75	64.18
ID = 1 (7824):	14.31	0.954	2.75	64.23

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)=	Dir. Conn.(%)=
STANDHYD (7810)	1.06	95.00
ID= 1 DT= 5.0 min	Total Imp(%)= 95.00	Dir. Conn.(%)= 95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.01	0.05
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	7.87	3.250	17.06	4.83	1.31
0.167	0.00	1.750	7.87	3.333	9.18	4.92	1.31
0.250	0.00	1.833	22.30	3.417	9.18	5.00	1.31
0.333	1.31	1.917	22.30	3.500	9.18	5.08	1.31
0.417	1.31	2.000	22.30	3.583	9.18	5.17	1.31
0.500	1.31	2.083	22.30	3.667	9.18	5.25	1.31
0.583	1.31	2.167	22.30	3.750	9.18	5.33	1.31
0.667	1.31	2.250	22.30	3.833	5.25	5.42	1.31
0.750	1.31	2.333	60.35	3.917	5.25	5.50	1.31
0.833	1.31	2.417	60.35	4.000	5.25	5.58	1.31
0.917	1.31	2.500	60.35	4.083	5.25	5.67	1.31
1.000	1.31	2.583	60.35	4.167	5.25	5.75	1.31
1.083	1.31	2.667	60.35	4.250	5.25	5.83	1.31
1.167	1.31	2.750	60.35	4.333	2.62	5.92	1.31
1.250	1.31	2.833	17.06	4.417	2.62	6.00	1.31
1.333	7.87	2.917	17.06	4.500	2.62	6.08	1.31
1.417	7.87	3.000	17.06	4.583	2.62	6.17	1.31
1.500	7.87	3.083	17.06	4.667	2.62	6.25	1.31
1.583	7.87	3.167	17.06	4.750	2.62		

Max.Eff.Inten.(mm/hr)=	60.35	29.92
over (min)	5.00	
Storage Coeff. (min)=	1.75 (ii)	4.41 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.32	0.23

PEAK FLOW (cms)=	0.17	0.00	*TOTALS*
TIME TO PEAK (hrs)=	2.75	2.75	0.173 (iii)
RUNOFF VOLUME (mm)=	63.59	24.50	61.63
TOTAL RAINFALL (mm)=	65.59	65.59	65.59
RUNOFF COEFFICIENT =	0.97	0.37	0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	Dir. Conn.(%)=
STANDHYD (7814)	1.45	96.00
ID= 1 DT= 5.0 min	Total Imp(%)= 96.00	Dir. Conn.(%)= 96.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.39	0.06
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	7.87	3.250	17.06	4.83	1.31
0.167	0.00	1.750	7.87	3.333	9.18	4.92	1.31
0.250	0.00	1.833	22.30	3.417	9.18	5.00	1.31
0.333	1.31	1.917	22.30	3.500	9.18	5.08	1.31
0.417	1.31	2.000	22.30	3.583	9.18	5.17	1.31
0.500	1.31	2.083	22.30	3.667	9.18	5.25	1.31
0.583	1.31	2.167	22.30	3.750	9.18	5.33	1.31
0.667	1.31	2.250	22.30	3.833	5.25	5.42	1.31
0.750	1.31	2.333	60.35	3.917	5.25	5.50	1.31
0.833	1.31	2.417	60.35	4.000	5.25	5.58	1.31
0.917	1.31	2.500	60.35	4.083	5.25	5.67	1.31
1.000	1.31	2.583	60.35	4.167	5.25	5.75	1.31
1.083	1.31	2.667	60.35	4.250	5.25	5.83	1.31
1.167	1.31	2.750	60.35	4.333	2.62	5.92	1.31
1.250	1.31	2.833	17.06	4.417	2.62	6.00	1.31
1.333	7.87	2.917	17.06	4.500	2.62	6.08	1.31
1.417	7.87	3.000	17.06	4.583	2.62	6.17	1.31
1.500	7.87	3.083	17.06	4.667	2.62	6.25	1.31
1.583	7.87	3.167	17.06	4.750	2.62		

Max.Eff.Inten. (mm/hr)= 60.35 23.04
 over (min) = 5.00 35.00
 Storage Coeff. (min)= 3.04 (ii) 30.53 (ii)
 Unit Hyd. Tpeak (min)= 5.00 35.00
 Unit Hyd. peak (cms)= 0.27 0.04

PEAK FLOW (cms) = 0.23 0.00
 TIME TO PEAK (hrs) = 2.75 3.17
 RUNOFF VOLUME (mm) = 63.59 23.76
 TOTAL RAINFALL (mm) = 65.59 65.59
 RUNOFF COEFFICIENT = 0.97 0.36

TOTALS
 PEAK FLOW (cms) = 0.235 (iii)
 TIME TO PEAK (hrs) = 2.75
 RUNOFF VOLUME (mm) = 61.99
 TOTAL RAINFALL (mm) = 65.59
 RUNOFF COEFFICIENT = 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		STANDHYD (7822)	
Area (ha)	= 1.70	Total Imp(%)	= 99.00
Dir. Conn.(%)	= 99.00		

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha) = 1.68 0.02
 Dep. Storage (mm) = 2.00 5.00
 Average Slope (%) = 1.10 2.00
 Length (m) = 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	7.87	3.250	17.06	4.83	1.31
0.167	0.00	1.750	7.87	3.333	9.18	4.92	1.31
0.250	0.00	1.833	22.30	3.417	9.18	5.00	1.31
0.333	1.31	1.917	22.30	3.500	9.18	5.08	1.31
0.417	1.31	2.000	22.30	3.583	9.18	5.17	1.31
0.500	1.31	2.083	22.30	3.667	9.18	5.25	1.31
0.583	1.31	2.167	22.30	3.750	9.18	5.33	1.31
0.667	1.31	2.250	22.30	3.833	5.25	5.42	1.31
0.750	1.31	2.333	60.35	3.917	5.25	5.50	1.31
0.833	1.31	2.417	60.35	4.000	5.25	5.58	1.31
0.917	1.31	2.500	60.35	4.083	5.25	5.67	1.31
1.000	1.31	2.583	60.35	4.167	5.25	5.75	1.31
1.083	1.31	2.667	60.35	4.250	5.25	5.83	1.31

1.167	1.31	2.750	60.35	4.333	2.62	5.92	1.31
1.250	1.31	2.833	17.06	4.417	2.62	6.00	1.31
1.333	7.87	2.917	17.06	4.500	2.62	6.08	1.31
1.417	7.87	3.000	17.06	4.583	2.62	6.17	1.31
1.500	7.87	3.083	17.06	4.667	2.62	6.25	1.31
1.583	7.87	3.167	17.06	4.750	2.62		

Max.Eff.Inten. (mm/hr)= 60.35 29.02
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 3.04 (ii) 4.41 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.27 0.23

TOTALS
 PEAK FLOW (cms) = 0.28 0.00
 TIME TO PEAK (hrs) = 2.75 2.75
 RUNOFF VOLUME (mm) = 63.59 23.76
 TOTAL RAINFALL (mm) = 65.59 65.59
 RUNOFF COEFFICIENT = 0.97 0.36

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		STANDHYD (7838)	
Area (ha)	= 1.33	Total Imp(%)	= 98.00
Dir. Conn.(%)	= 98.00		

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha) = 1.30 0.03
 Dep. Storage (mm) = 2.00 5.00
 Average Slope (%) = 1.10 2.00
 Length (m) = 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	7.87	3.250	17.06	4.83	1.31
0.167	0.00	1.750	7.87	3.333	9.18	4.92	1.31
0.250	0.00	1.833	22.30	3.417	9.18	5.00	1.31
0.333	1.31	1.917	22.30	3.500	9.18	5.08	1.31
0.417	1.31	2.000	22.30	3.583	9.18	5.17	1.31
0.500	1.31	2.083	22.30	3.667	9.18	5.25	1.31
0.583	1.31	2.167	22.30	3.750	9.18	5.33	1.31
0.667	1.31	2.250	22.30	3.833	5.25	5.42	1.31
0.750	1.31	2.333	60.35	3.917	5.25	5.50	1.31
0.833	1.31	2.417	60.35	4.000	5.25	5.58	1.31
0.917	1.31	2.500	60.35	4.083	5.25	5.67	1.31
1.000	1.31	2.583	60.35	4.167	5.25	5.75	1.31
1.083	1.31	2.667	60.35	4.250	5.25	5.83	1.31
1.167	1.31	2.750	60.35	4.333	2.62	5.92	1.31
1.250	1.31	2.833	17.06	4.417	2.62	6.00	1.31
1.333	7.87	2.917	17.06	4.500	2.62	6.08	1.31
1.417	7.87	3.000	17.06	4.583	2.62	6.17	1.31
1.500	7.87	3.083	17.06	4.667	2.62	6.25	1.31
1.583	7.87	3.167	17.06	4.750	2.62		

Max.Eff.Inten. (mm/hr)= 60.35 29.02
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 3.04 (ii) 4.86 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.27 0.22

TOTALS
 PEAK FLOW (cms) = 0.22 0.00
 TIME TO PEAK (hrs) = 2.75 2.75
 RUNOFF VOLUME (mm) = 63.59 23.76
 TOTAL RAINFALL (mm) = 65.59 65.59



RUNOFF COEFFICIENT = 0.97 0.36 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7805)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7814):	1.45	0.235	2.75	61.99
+ ID2= 2 (7822):	1.70	0.283	2.75	63.19
ID = 3 (7805):	3.15	0.518	2.75	62.64

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7805)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7805):	3.15	0.518	2.75	62.64
+ ID2= 2 (7838):	1.33	0.221	2.75	62.79
ID = 1 (7805):	4.48	0.739	2.75	62.68

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	Total Imp (%)	Dir. Conn. (%)
STANDHYD (7819)	1.32	99.00	99.00
ID= 1 DT= 5.0 min			

	IMPERVIOUS (ha)	PERVIOUS (i)
Surface Area	1.31	0.01
Dep. Storage	2.00	5.00
Average Slope	1.10	2.00
Length	100.00	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	7.87	3.250	17.06	4.83	1.31
0.167	0.00	1.750	7.87	3.333	9.18	4.92	1.31
0.250	0.00	1.833	22.30	3.417	9.18	5.00	1.31
0.333	1.31	1.917	22.30	3.500	9.18	5.08	1.31
0.417	1.31	2.000	22.30	3.583	9.18	5.17	1.31
0.500	1.31	2.083	22.30	3.667	9.18	5.25	1.31
0.583	1.31	2.167	22.30	3.750	9.18	5.33	1.31
0.667	1.31	2.250	22.30	3.833	5.25	5.42	1.31
0.750	1.31	2.333	60.35	3.917	5.25	5.50	1.31
0.833	1.31	2.417	60.35	4.000	5.25	5.58	1.31
0.917	1.31	2.500	60.35	4.083	5.25	5.67	1.31
1.000	1.31	2.583	60.35	4.167	5.25	5.75	1.31
1.083	1.31	2.667	60.35	4.250	5.25	5.83	1.31
1.167	1.31	2.750	60.35	4.333	2.62	5.92	1.31
1.250	1.31	2.833	17.06	4.417	2.62	6.00	1.31
1.333	7.87	2.917	17.06	4.500	2.62	6.08	1.31
1.417	7.87	3.000	17.06	4.583	2.62	6.17	1.31
1.500	7.87	3.083	17.06	4.667	2.62	6.25	1.31
1.583	7.87	3.167	17.06	4.750	2.62		1.31

Max.Eff.Inten. (mm/hr)=	60.35	29.02
over (min)	5.00	5.00
Storage Coeff. (min)=	3.04 (ii)	4.41 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.27 0.23

TOTALS

PEAK FLOW (cms)=	0.22	0.00	0.220 (iii)
TIME TO PEAK (hrs)=	2.75	2.75	2.75
RUNOFF VOLUME (mm)=	63.59	23.76	63.19
TOTAL RAINFALL (mm)=	65.59	65.59	65.59
RUNOFF COEFFICIENT =	0.97	0.36	0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	Total Imp (%)	Dir. Conn. (%)
STANDHYD (7829)	1.69	99.00	99.00
ID= 1 DT= 5.0 min			

	IMPERVIOUS (ha)	PERVIOUS (i)
Surface Area	1.67	0.02
Dep. Storage	2.00	5.00
Average Slope	1.10	2.00
Length	100.00	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	7.87	3.250	17.06	4.83	1.31
0.167	0.00	1.750	7.87	3.333	9.18	4.92	1.31
0.250	0.00	1.833	22.30	3.417	9.18	5.00	1.31
0.333	1.31	1.917	22.30	3.500	9.18	5.08	1.31
0.417	1.31	2.000	22.30	3.583	9.18	5.17	1.31
0.500	1.31	2.083	22.30	3.667	9.18	5.25	1.31
0.583	1.31	2.167	22.30	3.750	9.18	5.33	1.31
0.667	1.31	2.250	22.30	3.833	5.25	5.42	1.31
0.750	1.31	2.333	60.35	3.917	5.25	5.50	1.31
0.833	1.31	2.417	60.35	4.000	5.25	5.58	1.31
0.917	1.31	2.500	60.35	4.083	5.25	5.67	1.31
1.000	1.31	2.583	60.35	4.167	5.25	5.75	1.31
1.083	1.31	2.667	60.35	4.250	5.25	5.83	1.31
1.167	1.31	2.750	60.35	4.333	2.62	5.92	1.31
1.250	1.31	2.833	17.06	4.417	2.62	6.00	1.31
1.333	7.87	2.917	17.06	4.500	2.62	6.08	1.31
1.417	7.87	3.000	17.06	4.583	2.62	6.17	1.31
1.500	7.87	3.083	17.06	4.667	2.62	6.25	1.31
1.583	7.87	3.167	17.06	4.750	2.62		1.31

Max.Eff.Inten. (mm/hr)=	60.35	29.02
over (min)	5.00	5.00
Storage Coeff. (min)=	3.04 (ii)	4.41 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.27	0.23

TOTALS

PEAK FLOW (cms)=	0.28	0.00	0.282 (iii)
TIME TO PEAK (hrs)=	2.75	2.75	2.75
RUNOFF VOLUME (mm)=	63.59	23.76	63.19
TOTAL RAINFALL (mm)=	65.59	65.59	65.59
RUNOFF COEFFICIENT =	0.97	0.36	0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.



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-----
| CALIB |
| STANDHYD ( 7839) | Area (ha)= 1.61
| ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00
-----
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.48 0.13
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.10 2.00
Length (m)= 100.00 145.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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-----
--- TRANSFORMED HYETOGRAPH ---
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 1.667 7.87 | 3.250 17.06 | 4.83 1.31
0.167 0.00 | 1.750 7.87 | 3.333 9.18 | 4.92 1.31
0.250 0.00 | 1.833 22.30 | 3.417 9.18 | 5.00 1.31
0.333 1.31 | 1.917 22.30 | 3.500 9.18 | 5.08 1.31
0.417 1.31 | 2.000 22.30 | 3.583 9.18 | 5.17 1.31
0.500 1.31 | 2.083 22.30 | 3.667 9.18 | 5.25 1.31
0.583 1.31 | 2.167 22.30 | 3.750 9.18 | 5.33 1.31
0.667 1.31 | 2.250 22.30 | 3.833 5.25 | 5.42 1.31
0.750 1.31 | 2.333 60.35 | 3.917 5.25 | 5.50 1.31
0.833 1.31 | 2.417 60.35 | 4.000 5.25 | 5.58 1.31
0.917 1.31 | 2.500 60.35 | 4.083 5.25 | 5.67 1.31
1.000 1.31 | 2.583 60.35 | 4.167 5.25 | 5.75 1.31
1.083 1.31 | 2.667 60.35 | 4.250 5.25 | 5.83 1.31
1.167 1.31 | 2.750 60.35 | 4.333 2.62 | 5.92 1.31
1.250 1.31 | 2.833 17.06 | 4.417 2.62 | 6.00 1.31
1.333 7.87 | 2.917 17.06 | 4.500 2.62 | 6.08 1.31
1.417 7.87 | 3.000 17.06 | 4.583 2.62 | 6.17 1.31
1.500 7.87 | 3.083 17.06 | 4.667 2.62 | 6.25 1.31
1.583 7.87 | 3.167 17.06 | 4.750 2.62 |

```

```

Max.Eff.Inten.(mm/hr)= 60.35 23.04
over (min) = 5.00 35.00
Storage Coeff. (min)= 3.04 (ii) 30.53 (iii)
Unit Hyd. Tpeak (min)= 5.00 35.00
Unit Hyd. peak (cms)= 0.27 0.04

```

```

*TOTALS*
PEAK FLOW (cms)= 0.25 0.01 0.251 (iii)
TIME TO PEAK (hrs)= 2.75 3.17 2.75
RUNOFF VOLUME (mm)= 63.59 23.76 60.39
TOTAL RAINFALL (mm)= 65.59 65.59 65.59
RUNOFF COEFFICIENT = 0.97 0.36 0.92

```

- ***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
 - (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
 - (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| ADD HYD ( 7842) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7819): 1.32 0.220 2.75 63.19
+ ID2= 2 ( 7829): 1.69 0.282 2.75 63.19
-----
ID = 3 ( 7842): 3.01 0.502 2.75 63.19

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7842) |
| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.

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-----
(ha) (cms) (hrs) (mm)
ID1= 3 ( 7842): 3.01 0.502 2.75 63.19
+ ID2= 2 ( 7839): 1.61 0.251 2.75 60.39
-----
ID = 1 ( 7842): 4.62 0.753 2.75 62.22

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7830) | Area (ha)= 1.20
| ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00
-----

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IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.14 0.06
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.50 2.00
Length (m)= 60.00 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

-----
--- TRANSFORMED HYETOGRAPH ---
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 1.667 7.87 | 3.250 17.06 | 4.83 1.31
0.167 0.00 | 1.750 7.87 | 3.333 9.18 | 4.92 1.31
0.250 0.00 | 1.833 22.30 | 3.417 9.18 | 5.00 1.31
0.333 1.31 | 1.917 22.30 | 3.500 9.18 | 5.08 1.31
0.417 1.31 | 2.000 22.30 | 3.583 9.18 | 5.17 1.31
0.500 1.31 | 2.083 22.30 | 3.667 9.18 | 5.25 1.31
0.583 1.31 | 2.167 22.30 | 3.750 9.18 | 5.33 1.31
0.667 1.31 | 2.250 22.30 | 3.833 5.25 | 5.42 1.31
0.750 1.31 | 2.333 60.35 | 3.917 5.25 | 5.50 1.31
0.833 1.31 | 2.417 60.35 | 4.000 5.25 | 5.58 1.31
0.917 1.31 | 2.500 60.35 | 4.083 5.25 | 5.67 1.31
1.000 1.31 | 2.583 60.35 | 4.167 5.25 | 5.75 1.31
1.083 1.31 | 2.667 60.35 | 4.250 5.25 | 5.83 1.31
1.167 1.31 | 2.750 60.35 | 4.333 2.62 | 5.92 1.31
1.250 1.31 | 2.833 17.06 | 4.417 2.62 | 6.00 1.31
1.333 7.87 | 2.917 17.06 | 4.500 2.62 | 6.08 1.31
1.417 7.87 | 3.000 17.06 | 4.583 2.62 | 6.17 1.31
1.500 7.87 | 3.083 17.06 | 4.667 2.62 | 6.25 1.31
1.583 7.87 | 3.167 17.06 | 4.750 2.62 |

```

```

Max.Eff.Inten.(mm/hr)= 60.35 29.92
over (min) = 5.00 5.00
Storage Coeff. (min)= 1.75 (ii) 4.41 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.32 0.23

```

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*TOTALS*
PEAK FLOW (cms)= 0.19 0.00 0.196 (iii)
TIME TO PEAK (hrs)= 2.75 2.75 2.75
RUNOFF VOLUME (mm)= 63.59 24.50 61.63
TOTAL RAINFALL (mm)= 65.59 65.59 65.59
RUNOFF COEFFICIENT = 0.97 0.37 0.94

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| ADD HYD ( 7804) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7805): 4.48 0.739 2.75 62.68
+ ID2= 2 ( 7810): 1.06 0.173 2.75 61.63
-----
ID = 3 ( 7804): 5.54 0.912 2.75 62.48

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7804)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7804):	5.54	0.912	2.75	62.48
+ ID2= 2 (7824):	14.31	0.954	2.75	64.23
ID = 1 (7804):	19.85	1.866	2.75	63.74

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7804)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7804):	19.85	1.866	2.75	63.74
+ ID2= 2 (7830):	1.20	0.196	2.75	61.63
ID = 3 (7804):	21.05	2.062	2.75	63.62

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7804)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7804):	21.05	2.062	2.75	63.62
+ ID2= 2 (7842):	4.62	0.753	2.75	62.22
ID = 1 (7804):	25.67	2.815	2.75	63.37

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7833)	OVERFLOW IS OFF			
IN= 2--> OUT= 1 DT= 5.0 min	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.6280	2.3980
	0.0730	0.2080	0.6400	2.4830
	0.0890	0.2770	0.6520	2.5670
	0.1340	0.5530	0.6640	2.6500
	0.2910	0.8290	0.6750	2.7340
	0.3860	1.1060	0.7190	3.0490
	0.4590	1.3820	0.8250	3.3550
	0.5220	1.7210	2.0760	3.4560
	0.5780	2.0600	2.3560	3.7320

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7804)	25.670	2.815	2.75	63.37
OUTFLOW: ID= 1 (7833)	25.670	0.320	4.83	63.34

PEAK FLOW REDUCTION [Qout/Qin] (%) = 11.39
 TIME SHIFT OF PEAK FLOW (min) = 125.00
 MAXIMUM STORAGE USED (ha.m.) = 0.9151

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7821)	0.19	95.00
ID= 1 DT= 5.0 min		

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	0.18	0.01
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	2.50	2.00
Length (m)	60.00	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	7.87	3.250	17.06	4.83	1.31
0.167	0.00	1.750	7.87	3.333	9.18	4.92	1.31
0.250	0.00	1.833	22.30	3.417	9.18	5.00	1.31
0.333	1.31	1.917	22.30	3.500	9.18	5.08	1.31
0.417	1.31	2.000	22.30	3.583	9.18	5.17	1.31
0.500	1.31	2.083	22.30	3.667	9.18	5.25	1.31
0.583	1.31	2.167	22.30	3.750	9.18	5.33	1.31
0.667	1.31	2.250	22.30	3.833	5.25	5.42	1.31
0.750	1.31	2.333	60.35	3.917	5.25	5.50	1.31
0.833	1.31	2.417	60.35	4.000	5.25	5.58	1.31
0.917	1.31	2.500	60.35	4.083	5.25	5.67	1.31
1.000	1.31	2.583	60.35	4.167	5.25	5.75	1.31
1.083	1.31	2.667	60.35	4.250	5.25	5.83	1.31
1.167	1.31	2.750	60.35	4.333	2.62	5.92	1.31
1.250	1.31	2.833	17.06	4.417	2.62	6.00	1.31
1.333	7.87	2.917	17.06	4.500	2.62	6.08	1.31
1.417	7.87	3.000	17.06	4.583	2.62	6.17	1.31
1.500	7.87	3.083	17.06	4.667	2.62	6.25	1.31
1.583	7.87	3.167	17.06	4.750	2.62		

Max.Eff.Inten. (mm/hr) = 60.35
 over (min) = 5.00
 Storage Coeff. (min) = 1.75 (ii)
 Unit Hyd. Tpeak (min) = 5.00
 Unit Hyd. peak (cms) = 0.32

PEAK FLOW (cms) = 0.03
 TIME TO PEAK (hrs) = 2.75
 RUNOFF VOLUME (mm) = 63.59
 TOTAL RAINFALL (mm) = 65.59
 RUNOFF COEFFICIENT = 0.97

TOTALS
 0.031 (iii)
 2.75
 61.63
 65.59
 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7825)	OVERFLOW IS OFF			
IN= 2--> OUT= 1 DT= 5.0 min	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.0100	0.0090
	0.0030	0.0010	0.0110	0.0100
	0.0050	0.0030	0.0120	0.0110
	0.0060	0.0040	0.0120	0.0130
	0.0080	0.0050	0.0130	0.0140
	0.0090	0.0060	0.0140	0.0150
	0.0090	0.0080	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7821)	0.190	0.031	2.75	61.63
OUTFLOW: ID= 1 (7825)	0.190	0.009	2.83	61.23

PEAK FLOW REDUCTION [Qout/Qin] (%) = 28.99
 TIME SHIFT OF PEAK FLOW (min) = 5.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0063

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7836)	0.20	95.00
ID= 1 DT= 5.0 min		

	IMPERVIOUS	PERVIOUS (i)
--	------------	--------------



Surface Area (ha)= 0.19 0.01
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 2.50 2.00
 Length (m)= 36.51 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	7.87	3.250	17.06	4.83	1.31
0.167	0.00	1.750	7.87	3.333	9.18	4.92	1.31
0.250	0.00	1.833	22.30	3.417	9.18	5.00	1.31
0.333	1.31	1.917	22.30	3.500	9.18	5.08	1.31
0.417	1.31	2.000	22.30	3.583	9.18	5.17	1.31
0.500	1.31	2.083	22.30	3.667	9.18	5.25	1.31
0.583	1.31	2.167	22.30	3.750	9.18	5.33	1.31
0.667	1.31	2.250	22.30	3.833	5.25	5.42	1.31
0.750	1.31	2.333	60.35	3.917	5.25	5.50	1.31
0.833	1.31	2.417	60.35	4.000	5.25	5.58	1.31
0.917	1.31	2.500	60.35	4.083	5.25	5.67	1.31
1.000	1.31	2.583	60.35	4.167	5.25	5.75	1.31
1.083	1.31	2.667	60.35	4.250	5.25	5.83	1.31
1.167	1.31	2.750	60.35	4.333	2.62	5.92	1.31
1.250	1.31	2.833	17.06	4.417	2.62	6.00	1.31
1.333	7.87	2.917	17.06	4.500	2.62	6.08	1.31
1.417	7.87	3.000	17.06	4.583	2.62	6.17	1.31
1.500	7.87	3.083	17.06	4.667	2.62	6.25	1.31
1.583	7.87	3.167	17.06	4.750	2.62		

Max.Eff.Inten.(mm/hr)= 60.35 29.92
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.30 (ii) 3.96 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.24

TOTALS
 PEAK FLOW (cms)= 0.03 0.00 0.033 (iii)
 TIME TO PEAK (hrs)= 2.75 2.75 2.75
 RUNOFF VOLUME (mm)= 63.59 24.50 61.63
 TOTAL RAINFALL (mm)= 65.59 65.59 65.59
 RUNOFF COEFFICIENT = 0.97 0.37 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7807)		OVERFLOW IS OFF	
IN= 2-->	OUT= 1	OUTFLOW	STORAGE
DT= 5.0 min		(cms)	(ha.m.)
		0.0000	0.0000
		0.0030	0.0010
		0.0050	0.0030
		0.0060	0.0040
		0.0080	0.0050
		0.0090	0.0060
		0.0090	0.0080
		0.0090	0.0000

INFLOW : ID= 2 (7836)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
OUTFLOW: ID= 1 (7807)	0.200	0.033	2.75	61.63
	0.200	0.009	2.75	61.24

PEAK FLOW REDUCTION [Qout/Qin](%) = 27.53
 TIME SHIFT OF PEAK FLOW (min) = 0.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0067

ADD HYD (7831)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7807):	0.20	0.009	2.75	61.24
+ ID2= 2 (7825):	0.19	0.009	2.83	61.23
ID = 3 (7831):	0.39	0.018	2.83	61.24

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7831)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7831):	0.39	0.018	2.83	61.24
+ ID2= 2 (7833):	25.67	0.320	4.83	63.34
ID = 1 (7831):	26.06	0.334	4.33	63.31

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

GALIB	Area (ha)	PERVIOUS (i)
STANDHYD (7826)	1.24	0.01
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00	Dir. Conn.(%)= 99.00

Surface Area (ha)	IMPERVIOUS	PERVIOUS (i)
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	2.00	2.00
Length (m)	91.00	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	7.87	3.250	17.06	4.83	1.31
0.167	0.00	1.750	7.87	3.333	9.18	4.92	1.31
0.250	0.00	1.833	22.30	3.417	9.18	5.00	1.31
0.333	1.31	1.917	22.30	3.500	9.18	5.08	1.31
0.417	1.31	2.000	22.30	3.583	9.18	5.17	1.31
0.500	1.31	2.083	22.30	3.667	9.18	5.25	1.31
0.583	1.31	2.167	22.30	3.750	9.18	5.33	1.31
0.667	1.31	2.250	22.30	3.833	5.25	5.42	1.31
0.750	1.31	2.333	60.35	3.917	5.25	5.50	1.31
0.833	1.31	2.417	60.35	4.000	5.25	5.58	1.31
0.917	1.31	2.500	60.35	4.083	5.25	5.67	1.31
1.000	1.31	2.583	60.35	4.167	5.25	5.75	1.31
1.083	1.31	2.667	60.35	4.250	5.25	5.83	1.31
1.167	1.31	2.750	60.35	4.333	2.62	5.92	1.31
1.250	1.31	2.833	17.06	4.417	2.62	6.00	1.31
1.333	7.87	2.917	17.06	4.500	2.62	6.08	1.31
1.417	7.87	3.000	17.06	4.583	2.62	6.17	1.31
1.500	7.87	3.083	17.06	4.667	2.62	6.25	1.31
1.583	7.87	3.167	17.06	4.750	2.62		

Max.Eff.Inten.(mm/hr)= 60.35 29.02
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.40 (ii) 3.77 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.30 0.25

TOTALS
 PEAK FLOW (cms)= 0.21 0.00 0.207 (iii)
 TIME TO PEAK (hrs)= 2.75 2.75 2.75
 RUNOFF VOLUME (mm)= 63.59 23.76 63.19
 TOTAL RAINFALL (mm)= 65.59 65.59 65.59
 RUNOFF COEFFICIENT = 0.97 0.36 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7815) |
| 1 + 2 = 3 |
-----
|          AREA   QPEAK   TPEAK   R.V.
|          (ha)   (cms)   (hrs)   (mm)
-----
ID1= 1 ( 7826):   1.24  0.207   2.75  63.19
+ ID2= 2 ( 7831):  26.06  0.334   4.33  63.31
-----
ID = 3 ( 7815):  27.30  0.398   2.75  63.30
-----

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| RESERVOIR( 7841) | OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT= 5.0 min |
-----
|          OUTFLOW   STORAGE   OUTFLOW   STORAGE
|          (cms)   (ha.m.) | (cms)   (ha.m.)
-----
0.0000   0.0000 | 1.0810   1.6220
0.0010   0.1670 | 1.3950   1.8170
0.0340   0.3380 | 2.0990   2.2130
0.0510   0.5110 | 2.8950   2.6150
0.0630   0.6880 | 3.7730   3.0250
0.1610   0.8670 | 4.7260   3.4420
0.3300   1.0500 | 5.5670   3.8670
0.5440   1.2370 | 8.5800   4.3000
0.7970   1.4290 | 10.9450  4.5210
-----
|          AREA   QPEAK   TPEAK   R.V.
|          (ha)   (cms)   (hrs)   (mm)
-----
INFLOW : ID= 2 ( 7815)  27.302  0.398   2.75  63.30
OUTFLOW: ID= 1 ( 7841)  27.302  0.153  13.08  57.94
-----

```

PEAK FLOW REDUCTION [Qout/Qin] (%) = 38.59
TIME SHIFT OF PEAK FLOW (min) = 620.00
MAXIMUM STORAGE USED (ha.m.) = 0.8531

FINISH



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*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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```

0.250	0.00	1.833	24.82	3.417	10.22	5.00	1.46
0.333	1.46	1.917	24.82	3.500	10.22	5.08	1.46
0.417	1.46	2.000	24.82	3.583	10.22	5.17	1.46
0.500	1.46	2.083	24.82	3.667	10.22	5.25	1.46
0.583	1.46	2.167	24.82	3.750	10.22	5.33	1.46
0.667	1.46	2.250	24.82	3.833	5.84	5.42	1.46
0.750	1.46	2.333	67.16	3.917	5.84	5.50	1.46
0.833	1.46	2.417	67.16	4.000	5.84	5.58	1.46
0.917	1.46	2.500	67.16	4.083	5.84	5.67	1.46
1.000	1.46	2.583	67.16	4.167	5.84	5.75	1.46
1.083	1.46	2.667	67.16	4.250	5.84	5.83	1.46
1.167	1.46	2.750	67.16	4.333	2.92	5.92	1.46
1.250	1.46	2.833	18.98	4.417	2.92	6.00	1.46
1.333	8.76	2.917	18.98	4.500	2.92	6.08	1.46
1.417	8.76	3.000	18.98	4.583	2.92	6.17	1.46
1.500	8.76	3.083	18.98	4.667	2.92	6.25	1.46
1.583	8.76	3.167	18.98	4.750	2.92		

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat
Output filename: C:\Users\mhooper\AppData\Local\Civica\VH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\75d6e2a-fb86-42fc-8117-f7e071e44548\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\VH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\75d6e2a-fb86-42fc-8117-f7e071e44548\scen

```

DATE: 11-22-2024 TIME: 01:45:36

USER:

COMMENTS:

```

*****
** SIMULATION : E 50 Year 6 Hour AES (Bloor, **
*****

```

```

-----
| READ STORM | Filename: C:\Users\mhooper\AppData
|             |   ata\Local\Temp\
|             |   bac52abb-b775-4ad0-a17a-4b6fd89712ba\d6fa0e63
| Ptotal= 73.00 mm | Comments: 50 Year 6 Hour AES (Bloor, TRCA)
-----

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	1.75	24.82	3.50	10.22	5.25	1.46
0.25	1.46	2.00	24.82	3.75	5.84	5.50	1.46
0.50	1.46	2.25	67.16	4.00	5.84	5.75	1.46
0.75	1.46	2.50	67.16	4.25	2.92	6.00	1.46
1.00	1.46	2.75	18.98	4.50	2.92		
1.25	8.76	3.00	18.98	4.75	1.46		
1.50	8.76	3.25	10.22	5.00	1.46		

```

-----
| CALIB |
| NASHYD ( 7823) | Area (ha)= 0.21 Curve Number (CN)= 73.0
| ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 0.17
-----

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	8.76	3.250	18.98	4.83	1.46
0.167	0.00	1.750	8.76	3.333	10.22	4.92	1.46

Unit Hyd Qpeak (cms)= 0.047

```

PEAK FLOW (cms)= 0.017 (i)
TIME TO PEAK (hrs)= 2.750
RUNOFF VOLUME (mm)= 28.449
TOTAL RAINFALL (mm)= 73.000
RUNOFF COEFFICIENT = 0.390

```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7828) | Area (ha)= 10.90
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----

```

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	10.79	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	269.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	8.76	3.250	18.98	4.83	1.46
0.167	0.00	1.750	8.76	3.333	10.22	4.92	1.46
0.250	0.00	1.833	24.82	3.417	10.22	5.00	1.46
0.333	1.46	1.917	24.82	3.500	10.22	5.08	1.46
0.417	1.46	2.000	24.82	3.583	10.22	5.17	1.46
0.500	1.46	2.083	24.82	3.667	10.22	5.25	1.46
0.583	1.46	2.167	24.82	3.750	10.22	5.33	1.46
0.667	1.46	2.250	24.82	3.833	5.84	5.42	1.46
0.750	1.46	2.333	67.16	3.917	5.84	5.50	1.46
0.833	1.46	2.417	67.16	4.000	5.84	5.58	1.46
0.917	1.46	2.500	67.16	4.083	5.84	5.67	1.46
1.000	1.46	2.583	67.16	4.167	5.84	5.75	1.46
1.083	1.46	2.667	67.16	4.250	5.84	5.83	1.46
1.167	1.46	2.750	67.16	4.333	2.92	5.92	1.46
1.250	1.46	2.833	18.98	4.417	2.92	6.00	1.46
1.333	8.76	2.917	18.98	4.500	2.92	6.08	1.46
1.417	8.76	3.000	18.98	4.583	2.92	6.17	1.46
1.500	8.76	3.083	18.98	4.667	2.92	6.25	1.46
1.583	8.76	3.167	18.98	4.750	2.92		

```

Max.Eff.Inten.(mm/hr)= 67.16 34.67
over (min) 5.00 10.00
Storage Coeff. (min)= 5.43 (ii) 6.75 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.20 0.14

```

```

*TOTALS*
PEAK FLOW (cms)= 2.01 0.01 2.018 (iii)
TIME TO PEAK (hrs)= 2.75 2.75 2.75
RUNOFF VOLUME (mm)= 71.00 28.55 70.58

```



TOTAL RAINFALL (mm) = 73.00 73.00 73.00
 RUNOFF COEFFICIENT = 0.97 0.39 0.97

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7837)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7823):	0.21	0.017	2.75	28.45
+ ID2= 2 (7828):	10.90	2.018	2.75	70.58

ID = 3 (7837):	11.11	2.034	2.75	69.79

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7818)	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
IN= 2---> OUT= 1				
DT= 5.0 min				
	0.0000	0.0000	0.1390	0.6960
	0.0590	0.3400	0.1630	0.7780
	0.0900	0.4907	0.1840	0.8800
	0.1110	0.5760	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7837)	11.108	2.034	2.75	69.79
OUTFLOW: ID= 1 (7818)	11.108	0.129	4.33	69.66

PEAK FLOW REDUCTION [Qout/Qin] (%) = 6.35
 TIME SHIFT OF PEAK FLOW (min) = 95.00
 MAXIMUM STORAGE USED (ha.m.) = 0.6539

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7820)	11.38	
ID= 1 DT= 5.0 min	Total Imp (%) = 99.00	Dir. Conn. (%) = 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	11.27	0.11
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	1.00	2.00
Length (m)	275.44	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	8.76	3.250	18.98	4.83	1.46
0.167	0.00	1.750	8.76	3.333	10.22	4.92	1.46
0.250	0.00	1.833	24.82	3.417	10.22	5.00	1.46
0.333	1.46	1.917	24.82	3.500	10.22	5.08	1.46
0.417	1.46	2.000	24.82	3.583	10.22	5.17	1.46
0.500	1.46	2.083	24.82	3.667	10.22	5.25	1.46
0.583	1.46	2.167	24.82	3.750	10.22	5.33	1.46
0.667	1.46	2.250	24.82	3.833	5.84	5.42	1.46
0.750	1.46	2.333	67.16	3.917	5.84	5.50	1.46
0.833	1.46	2.417	67.16	4.000	5.84	5.58	1.46
0.917	1.46	2.500	67.16	4.083	5.84	5.67	1.46
1.000	1.46	2.583	67.16	4.167	5.84	5.75	1.46
1.083	1.46	2.667	67.16	4.250	5.84	5.83	1.46
1.167	1.46	2.750	67.16	4.333	2.92	5.92	1.46
1.250	1.46	2.833	18.98	4.417	2.92	6.00	1.46

1.333	8.76	2.917	18.98	4.500	2.92	6.08	1.46
1.417	8.76	3.000	18.98	4.583	2.92	6.17	1.46
1.500	8.76	3.083	18.98	4.667	2.92	6.25	1.46
1.583	8.76	3.167	18.98	4.750	2.92		

Max.Eff.Inten. (mm/hr)	67.16	34.67
over (min)	5.00	10.00
Storage Coeff. (min)	5.50 (ii)	6.82 (ii)
Unit Hyd. Tpeak (min)	5.00	10.00
Unit Hyd. peak (cms)	0.20	0.14

PEAK FLOW (cms)	2.10	0.01	*TOTALS*
TIME TO PEAK (hrs)	2.75	2.75	2.106 (iii)
RUNOFF VOLUME (mm)	71.00	28.55	2.75
TOTAL RAINFALL (mm)	73.00	73.00	70.58
RUNOFF COEFFICIENT	0.97	0.39	73.00
			0.97

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7812)	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
IN= 2---> OUT= 1				
DT= 5.0 min				
	0.0000	0.0000	0.1990	0.6950
	0.0830	0.3500	0.2320	0.8000
	0.1280	0.4850	0.2620	0.9000
	0.1580	0.5900	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7820)	11.380	2.106	2.75	70.58
OUTFLOW: ID= 1 (7812)	11.380	0.181	4.25	70.48

PEAK FLOW REDUCTION [Qout/Qin] (%) = 8.57
 TIME SHIFT OF PEAK FLOW (min) = 90.00
 MAXIMUM STORAGE USED (ha.m.) = 0.6478

ADD HYD (7802)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7812):	11.38	0.181	4.25	70.48
+ ID2= 2 (7818):	11.11	0.129	4.33	69.66

ID = 3 (7802):	22.49	0.310	4.25	70.07

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7834)	0.59	
ID= 1 DT= 5.0 min	Total Imp (%) = 99.00	Dir. Conn. (%) = 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	0.58	0.01
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	2.00	2.00
Length (m)	62.72	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	8.76	3.250	18.98	4.83	1.46

0.167	0.00	1.750	8.76	3.333	10.22	4.92	1.46
0.250	0.00	1.833	24.82	3.417	10.22	5.00	1.46
0.333	1.46	1.917	24.82	3.500	10.22	5.08	1.46
0.417	1.46	2.000	24.82	3.583	10.22	5.17	1.46
0.500	1.46	2.083	24.82	3.667	10.22	5.25	1.46
0.583	1.46	2.167	24.82	3.750	10.22	5.33	1.46
0.667	1.46	2.250	24.82	3.833	5.84	5.42	1.46
0.750	1.46	2.333	67.16	3.917	5.84	5.50	1.46
0.833	1.46	2.417	67.16	4.000	5.84	5.58	1.46
0.917	1.46	2.500	67.16	4.083	5.84	5.67	1.46
1.000	1.46	2.583	67.16	4.167	5.84	5.75	1.46
1.083	1.46	2.667	67.16	4.250	5.84	5.83	1.46
1.167	1.46	2.750	67.16	4.333	2.92	5.92	1.46
1.250	1.46	2.833	18.98	4.417	2.92	6.00	1.46
1.333	8.76	2.917	18.98	4.500	2.92	6.08	1.46
1.417	8.76	3.000	18.98	4.583	2.92	6.17	1.46
1.500	8.76	3.083	18.98	4.667	2.92	6.25	1.46
1.583	8.76	3.167	18.98	4.750	2.92		

Max.Eff.Inten.(mm/hr)= 67.16 34.67
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.84 (ii) 3.16 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.27

PEAK FLOW (cms)= 0.11 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 2.75 2.75 0.110 (iii)
 RUNOFF VOLUME (mm)= 71.00 28.55 70.57
 TOTAL RAINFALL (mm)= 73.00 73.00 73.00
 RUNOFF COEFFICIENT = 0.97 0.39 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7806) | Area (ha)= 2.37
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.35 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	8.76	3.250	18.98	4.83	1.46
0.167	0.00	1.750	8.76	3.333	10.22	4.92	1.46
0.250	0.00	1.833	24.82	3.417	10.22	5.00	1.46
0.333	1.46	1.917	24.82	3.500	10.22	5.08	1.46
0.417	1.46	2.000	24.82	3.583	10.22	5.17	1.46
0.500	1.46	2.083	24.82	3.667	10.22	5.25	1.46
0.583	1.46	2.167	24.82	3.750	10.22	5.33	1.46
0.667	1.46	2.250	24.82	3.833	5.84	5.42	1.46
0.750	1.46	2.333	67.16	3.917	5.84	5.50	1.46
0.833	1.46	2.417	67.16	4.000	5.84	5.58	1.46
0.917	1.46	2.500	67.16	4.083	5.84	5.67	1.46
1.000	1.46	2.583	67.16	4.167	5.84	5.75	1.46
1.083	1.46	2.667	67.16	4.250	5.84	5.83	1.46
1.167	1.46	2.750	67.16	4.333	2.92	5.92	1.46
1.250	1.46	2.833	18.98	4.417	2.92	6.00	1.46
1.333	8.76	2.917	18.98	4.500	2.92	6.08	1.46
1.417	8.76	3.000	18.98	4.583	2.92	6.17	1.46
1.500	8.76	3.083	18.98	4.667	2.92	6.25	1.46

1.583 8.76 | 3.167 18.98 | 4.750 2.92 |

Max.Eff.Inten.(mm/hr)= 67.16 34.67
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.14 (ii) 2.01 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.31

PEAK FLOW (cms)= 0.44 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 2.67 2.75 0.440 (iii)
 RUNOFF VOLUME (mm)= 72.00 28.55 71.57
 TOTAL RAINFALL (mm)= 73.00 73.00 73.00
 RUNOFF COEFFICIENT = 0.99 0.39 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7811) | Area (ha)= 2.40
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.38 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	8.76	3.250	18.98	4.83	1.46
0.167	0.00	1.750	8.76	3.333	10.22	4.92	1.46
0.250	0.00	1.833	24.82	3.417	10.22	5.00	1.46
0.333	1.46	1.917	24.82	3.500	10.22	5.08	1.46
0.417	1.46	2.000	24.82	3.583	10.22	5.17	1.46
0.500	1.46	2.083	24.82	3.667	10.22	5.25	1.46
0.583	1.46	2.167	24.82	3.750	10.22	5.33	1.46
0.667	1.46	2.250	24.82	3.833	5.84	5.42	1.46
0.750	1.46	2.333	67.16	3.917	5.84	5.50	1.46
0.833	1.46	2.417	67.16	4.000	5.84	5.58	1.46
0.917	1.46	2.500	67.16	4.083	5.84	5.67	1.46
1.000	1.46	2.583	67.16	4.167	5.84	5.75	1.46
1.083	1.46	2.667	67.16	4.250	5.84	5.83	1.46
1.167	1.46	2.750	67.16	4.333	2.92	5.92	1.46
1.250	1.46	2.833	18.98	4.417	2.92	6.00	1.46
1.333	8.76	2.917	18.98	4.500	2.92	6.08	1.46
1.417	8.76	3.000	18.98	4.583	2.92	6.17	1.46
1.500	8.76	3.083	18.98	4.667	2.92	6.25	1.46
1.583	8.76	3.167	18.98	4.750	2.92		

Max.Eff.Inten.(mm/hr)= 67.16 34.67
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.14 (ii) 2.01 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.31

PEAK FLOW (cms)= 0.44 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 2.67 2.75 0.440 (iii)
 RUNOFF VOLUME (mm)= 72.00 28.55 71.57
 TOTAL RAINFALL (mm)= 73.00 73.00 73.00
 RUNOFF COEFFICIENT = 0.99 0.39 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:



CN* = 73.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

CALIB		STANDHYD (7816)	
Area (ha)=	2.36	Total Imp(%)=	99.00
Dir. Conn.(%)= 99.00			

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	2.34	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	8.76	3.250	18.98	4.83	1.46
0.167	0.00	1.750	8.76	3.333	10.22	4.92	1.46
0.250	0.00	1.833	24.82	3.417	10.22	5.00	1.46
0.333	1.46	1.917	24.82	3.500	10.22	5.08	1.46
0.417	1.46	2.000	24.82	3.583	10.22	5.17	1.46
0.500	1.46	2.083	24.82	3.667	10.22	5.25	1.46
0.583	1.46	2.167	24.82	3.750	10.22	5.33	1.46
0.667	1.46	2.250	24.82	3.833	5.84	5.42	1.46
0.750	1.46	2.333	67.16	3.917	5.84	5.50	1.46
0.833	1.46	2.417	67.16	4.000	5.84	5.58	1.46
0.917	1.46	2.500	67.16	4.083	5.84	5.67	1.46
1.000	1.46	2.583	67.16	4.167	5.84	5.75	1.46
1.083	1.46	2.667	67.16	4.250	5.84	5.83	1.46
1.167	1.46	2.750	67.16	4.333	2.92	5.92	1.46
1.250	1.46	2.833	18.98	4.417	2.92	6.00	1.46
1.333	8.76	2.917	18.98	4.500	2.92	6.08	1.46
1.417	8.76	3.000	18.98	4.583	2.92	6.17	1.46
1.500	8.76	3.083	18.98	4.667	2.92	6.25	1.46
1.583	8.76	3.167	18.98	4.750	2.92		

Max.Eff.Inten.(mm/hr)=	67.16	34.67					
over (min)=	5.00	5.00					
Storage Coeff. (min)=	1.14 (ii)	2.01 (ii)					
Unit Hyd. Tpeak (min)=	5.00	5.00					
Unit Hyd. peak (cms)=	0.34	0.31					

PEAK FLOW (cms)=	0.44	0.00	0.438 (iii)				
TIME TO PEAK (hrs)=	2.67	2.75					
RUNOFF VOLUME (mm)=	72.00	28.55	71.57				
TOTAL RAINFALL (mm)=	73.00	73.00	73.00				
RUNOFF COEFFICIENT =	0.99	0.39	0.98				

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		STANDHYD (7827)	
Area (ha)=	2.39	Total Imp(%)=	99.00
Dir. Conn.(%)= 99.00			

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	2.37	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	

----- TRANSFORMED HYETOGRAPH -----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	8.76	3.250	18.98	4.83	1.46
0.167	0.00	1.750	8.76	3.333	10.22	4.92	1.46
0.250	0.00	1.833	24.82	3.417	10.22	5.00	1.46
0.333	1.46	1.917	24.82	3.500	10.22	5.08	1.46
0.417	1.46	2.000	24.82	3.583	10.22	5.17	1.46
0.500	1.46	2.083	24.82	3.667	10.22	5.25	1.46
0.583	1.46	2.167	24.82	3.750	10.22	5.33	1.46
0.667	1.46	2.250	24.82	3.833	5.84	5.42	1.46
0.750	1.46	2.333	67.16	3.917	5.84	5.50	1.46
0.833	1.46	2.417	67.16	4.000	5.84	5.58	1.46
0.917	1.46	2.500	67.16	4.083	5.84	5.67	1.46
1.000	1.46	2.583	67.16	4.167	5.84	5.75	1.46
1.083	1.46	2.667	67.16	4.250	5.84	5.83	1.46
1.167	1.46	2.750	67.16	4.333	2.92	5.92	1.46
1.250	1.46	2.833	18.98	4.417	2.92	6.00	1.46
1.333	8.76	2.917	18.98	4.500	2.92	6.08	1.46
1.417	8.76	3.000	18.98	4.583	2.92	6.17	1.46
1.500	8.76	3.083	18.98	4.667	2.92	6.25	1.46
1.583	8.76	3.167	18.98	4.750	2.92		

Max.Eff.Inten.(mm/hr)=	67.16	34.67					
over (min)=	5.00	5.00					
Storage Coeff. (min)=	1.14 (ii)	2.01 (ii)					
Unit Hyd. Tpeak (min)=	5.00	5.00					
Unit Hyd. peak (cms)=	0.34	0.31					

PEAK FLOW (cms)=	0.44	0.00	0.444 (iii)				
TIME TO PEAK (hrs)=	2.67	2.75					
RUNOFF VOLUME (mm)=	72.00	28.55	71.57				
TOTAL RAINFALL (mm)=	73.00	73.00	73.00				
RUNOFF COEFFICIENT =	0.99	0.39	0.98				

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		STANDHYD (7832)	
Area (ha)=	2.39	Total Imp(%)=	99.00
Dir. Conn.(%)= 99.00			

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	2.37	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	8.76	3.250	18.98	4.83	1.46
0.167	0.00	1.750	8.76	3.333	10.22	4.92	1.46
0.250	0.00	1.833	24.82	3.417	10.22	5.00	1.46
0.333	1.46	1.917	24.82	3.500	10.22	5.08	1.46
0.417	1.46	2.000	24.82	3.583	10.22	5.17	1.46
0.500	1.46	2.083	24.82	3.667	10.22	5.25	1.46
0.583	1.46	2.167	24.82	3.750	10.22	5.33	1.46
0.667	1.46	2.250	24.82	3.833	5.84	5.42	1.46
0.750	1.46	2.333	67.16	3.917	5.84	5.50	1.46
0.833	1.46	2.417	67.16	4.000	5.84	5.58	1.46

0.917	1.46	2.500	67.16	4.083	5.84	5.67	1.46
1.000	1.46	2.583	67.16	4.167	5.84	5.75	1.46
1.083	1.46	2.667	67.16	4.250	5.84	5.83	1.46
1.167	1.46	2.750	67.16	4.333	2.92	5.92	1.46
1.250	1.46	2.833	18.98	4.417	2.92	6.00	1.46
1.333	8.76	2.917	18.98	4.500	2.92	6.08	1.46
1.417	8.76	3.000	18.98	4.583	2.92	6.17	1.46
1.500	8.76	3.083	18.98	4.667	2.92	6.25	1.46
1.583	8.76	3.167	18.98	4.750	2.92		

Max.Eff.Inten.(mm/hr)= 67.16 34.67
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.14 (ii) 2.01 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.31

TOTALS
 PEAK FLOW (cms)= 0.44 0.00 0.444 (iii)
 TIME TO PEAK (hrs)= 2.67 2.75
 RUNOFF VOLUME (mm)= 72.00 28.55 71.57
 TOTAL RAINFALL (mm)= 73.00 73.00 73.00
 RUNOFF COEFFICIENT = 0.99 0.39 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7844) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	8.76	3.250	18.98	4.83	1.46
0.167	0.00	1.750	8.76	3.333	10.22	4.92	1.46
0.250	0.00	1.833	24.82	3.417	10.22	5.00	1.46
0.333	1.46	1.917	24.82	3.500	10.22	5.08	1.46
0.417	1.46	2.000	24.82	3.583	10.22	5.17	1.46
0.500	1.46	2.083	24.82	3.667	10.22	5.25	1.46
0.583	1.46	2.167	24.82	3.750	10.22	5.33	1.46
0.667	1.46	2.250	24.82	3.833	5.84	5.42	1.46
0.750	1.46	2.333	67.16	3.917	5.84	5.50	1.46
0.833	1.46	2.417	67.16	4.000	5.84	5.58	1.46
0.917	1.46	2.500	67.16	4.083	5.84	5.67	1.46
1.000	1.46	2.583	67.16	4.167	5.84	5.75	1.46
1.083	1.46	2.667	67.16	4.250	5.84	5.83	1.46
1.167	1.46	2.750	67.16	4.333	2.92	5.92	1.46
1.250	1.46	2.833	18.98	4.417	2.92	6.00	1.46
1.333	8.76	2.917	18.98	4.500	2.92	6.08	1.46
1.417	8.76	3.000	18.98	4.583	2.92	6.17	1.46
1.500	8.76	3.083	18.98	4.667	2.92	6.25	1.46
1.583	8.76	3.167	18.98	4.750	2.92		

Max.Eff.Inten.(mm/hr)= 67.16 34.67
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.14 (ii) 2.01 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.31

TOTALS
 PEAK FLOW (cms)= 0.44 0.00 0.446 (iii)

TIME TO PEAK (hrs)=	2.67	2.75	2.75
RUNOFF VOLUME (mm)=	72.00	28.55	71.57
TOTAL RAINFALL (mm)=	73.00	73.00	73.00
RUNOFF COEFFICIENT =	0.99	0.39	0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7806): 2.37 0.440 2.75 71.57
 + ID2= 2 (7811): 2.40 0.446 2.75 71.57

 ID = 3 (7843): 4.77 0.886 2.75 71.57

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7843): 4.77 0.886 2.75 71.57
 + ID2= 2 (7816): 2.36 0.438 2.75 71.57

 ID = 1 (7843): 7.13 1.324 2.75 71.57

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7843): 7.13 1.324 2.75 71.57
 + ID2= 2 (7827): 2.39 0.444 2.75 71.57

 ID = 3 (7843): 9.52 1.768 2.75 71.57

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7843): 9.52 1.768 2.75 71.57
 + ID2= 2 (7832): 2.39 0.444 2.75 71.57

 ID = 1 (7843): 11.91 2.212 2.75 71.57

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7843): 11.91 2.212 2.75 71.57
 + ID2= 2 (7844): 2.40 0.446 2.75 71.57

 ID = 3 (7843): 14.31 2.657 2.75 71.57

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | DIVERTHYD (7835) |



| IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1	Flow 2	Flow 3	Flow 4	Flow 5	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD. (ID= 1):	14.31	2.66	2.75	71.57
ID= 2 (2) :	12.23	1.83	2.75	71.57
ID= 3 (2) :	2.08	0.83	2.75	71.57
ID= 4 (2) :	0.00	0.00	0.00	0.00
ID= 5 (2) :	0.00	0.00	0.00	0.00
ID= 6 (2) :	0.00	0.00	0.00	0.00

| RESERVOIR (7808) |
| IN= 2---> OUT= 1 |
| DT= 5.0 min |

OVERFLOW IS ON

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.2690	0.4589
0.1980	0.1112	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7835)	12.232	1.829	2.75	71.57
OUTFLOW: ID= 1 (7808)	9.836	0.269	2.75	75.09
OVERFLOW: ID= 3 (0003)	2.396	2.261	2.75	75.09

TOTAL NUMBER OF SIMULATION OVERFLOW = 13
CUMULATIVE TIME OF OVERFLOW (HOURS) = 1.08
PERCENTAGE OF TIME OVERFLOWING (%) = 5.56

PEAK FLOW REDUCTION [Qout/Qin] (%) = 14.71
TIME SHIFT OF PEAK FLOW (min) = 0.00
MAXIMUM STORAGE USED (ha.m.) = 0.4589

| Junction Command(7803) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 3 (7808)	2.40	2.26	2.75	75.09
OUTFLOW: ID= 2 (7803)	2.40	2.26	2.75	75.09

| ADD HYD (7824) |
| 1 + 2 = 3 |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7803):	2.40	2.261	2.75	75.09
+ ID2= 2 (7808):	9.84	0.269	2.75	75.09
ID = 3 (7824):	12.23	2.530	2.75	75.09

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (7824) |
| 3 + 2 = 1 |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (7824):	12.23	2.530	2.75	75.09
+ ID2= 2 (7835):	2.08	0.829	2.75	71.57
ID = 1 (7824):	14.31	3.359	2.75	74.58

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)=	Dir. Conn.(%)=
STANDHYD (7810)	1.06	95.00
ID= 1 DT= 5.0 min	Total Imp(%)= 95.00	95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.01	0.05
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	8.76	3.250	18.98	4.83	1.46
0.167	0.00	1.750	8.76	3.333	10.22	4.92	1.46
0.250	0.00	1.833	24.82	3.417	10.22	5.00	1.46
0.333	1.46	1.917	24.82	3.500	10.22	5.08	1.46
0.417	1.46	2.000	24.82	3.583	10.22	5.17	1.46
0.500	1.46	2.083	24.82	3.667	10.22	5.25	1.46
0.583	1.46	2.167	24.82	3.750	10.22	5.33	1.46
0.667	1.46	2.250	24.82	3.833	5.84	5.42	1.46
0.750	1.46	2.333	67.16	3.917	5.84	5.50	1.46
0.833	1.46	2.417	67.16	4.000	5.84	5.58	1.46
0.917	1.46	2.500	67.16	4.083	5.84	5.67	1.46
1.000	1.46	2.583	67.16	4.167	5.84	5.75	1.46
1.083	1.46	2.667	67.16	4.250	5.84	5.83	1.46
1.167	1.46	2.750	67.16	4.333	2.92	5.92	1.46
1.250	1.46	2.833	18.98	4.417	2.92	6.00	1.46
1.333	8.76	2.917	18.98	4.500	2.92	6.08	1.46
1.417	8.76	3.000	18.98	4.583	2.92	6.17	1.46
1.500	8.76	3.083	18.98	4.667	2.92	6.25	1.46
1.583	8.76	3.167	18.98	4.750	2.92		1.46

Max.Eff.Inten.(mm/hr)=	67.16	35.68
over (min)	5.00	
Storage Coeff. (min)=	1.67	4.22 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.32	0.24

PEAK FLOW (cms)=	0.19	0.01	*TOTALS*
TIME TO PEAK (hrs)=	2.75	2.75	0.193 (iii)
RUNOFF VOLUME (mm)=	71.00	29.41	68.92
TOTAL RAINFALL (mm)=	73.00	73.00	73.00
RUNOFF COEFFICIENT =	0.97	0.40	0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	Dir. Conn.(%)=
STANDHYD (7814)	1.45	96.00
ID= 1 DT= 5.0 min	Total Imp(%)= 96.00	96.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.39	0.06
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	8.76	3.250	18.98	4.83	1.46
0.167	0.00	1.750	8.76	3.333	10.22	4.92	1.46
0.250	0.00	1.833	24.82	3.417	10.22	5.00	1.46
0.333	1.46	1.917	24.82	3.500	10.22	5.08	1.46
0.417	1.46	2.000	24.82	3.583	10.22	5.17	1.46
0.500	1.46	2.083	24.82	3.667	10.22	5.25	1.46
0.583	1.46	2.167	24.82	3.750	10.22	5.33	1.46
0.667	1.46	2.250	24.82	3.833	5.84	5.42	1.46
0.750	1.46	2.333	67.16	3.917	5.84	5.50	1.46
0.833	1.46	2.417	67.16	4.000	5.84	5.58	1.46
0.917	1.46	2.500	67.16	4.083	5.84	5.67	1.46
1.000	1.46	2.583	67.16	4.167	5.84	5.75	1.46
1.083	1.46	2.667	67.16	4.250	5.84	5.83	1.46
1.167	1.46	2.750	67.16	4.333	2.92	5.92	1.46
1.250	1.46	2.833	18.98	4.417	2.92	6.00	1.46
1.333	8.76	2.917	18.98	4.500	2.92	6.08	1.46
1.417	8.76	3.000	18.98	4.583	2.92	6.17	1.46
1.500	8.76	3.083	18.98	4.667	2.92	6.25	1.46
1.583	8.76	3.167	18.98	4.750	2.92		

Max.Eff.Inten. (mm/hr)= 67.16 29.83
 over (min) = 5.00 30.00
 Storage Coeff. (min)= 2.91 (ii) 27.71 (ii)
 Unit Hyd. Tpeak (min)= 5.00 30.00
 Unit Hyd. peak (cms)= 0.28 0.04

TOTALS

PEAK FLOW (cms)= 0.26 0.00 0.262 (iii)
 TIME TO PEAK (hrs)= 2.75 3.08 2.75
 RUNOFF VOLUME (mm)= 71.00 28.55 69.29
 TOTAL RAINFALL (mm)= 73.00 73.00 73.00
 RUNOFF COEFFICIENT = 0.97 0.39 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7822) | Area (ha)= 1.70
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.68 0.02
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	8.76	3.250	18.98	4.83	1.46
0.167	0.00	1.750	8.76	3.333	10.22	4.92	1.46
0.250	0.00	1.833	24.82	3.417	10.22	5.00	1.46
0.333	1.46	1.917	24.82	3.500	10.22	5.08	1.46
0.417	1.46	2.000	24.82	3.583	10.22	5.17	1.46
0.500	1.46	2.083	24.82	3.667	10.22	5.25	1.46
0.583	1.46	2.167	24.82	3.750	10.22	5.33	1.46
0.667	1.46	2.250	24.82	3.833	5.84	5.42	1.46
0.750	1.46	2.333	67.16	3.917	5.84	5.50	1.46
0.833	1.46	2.417	67.16	4.000	5.84	5.58	1.46
0.917	1.46	2.500	67.16	4.083	5.84	5.67	1.46
1.000	1.46	2.583	67.16	4.167	5.84	5.75	1.46
1.083	1.46	2.667	67.16	4.250	5.84	5.83	1.46

1.167	1.46	2.750	67.16	4.333	2.92	5.92	1.46
1.250	1.46	2.833	18.98	4.417	2.92	6.00	1.46
1.333	8.76	2.917	18.98	4.500	2.92	6.08	1.46
1.417	8.76	3.000	18.98	4.583	2.92	6.17	1.46
1.500	8.76	3.083	18.98	4.667	2.92	6.25	1.46
1.583	8.76	3.167	18.98	4.750	2.92		

Max.Eff.Inten. (mm/hr)= 67.16 34.67
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.91 (ii) 4.23 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.28 0.24

TOTALS

PEAK FLOW (cms)= 0.31 0.00 0.316 (iii)
 TIME TO PEAK (hrs)= 2.75 2.75 2.75
 RUNOFF VOLUME (mm)= 71.00 28.55 70.57
 TOTAL RAINFALL (mm)= 73.00 73.00 73.00
 RUNOFF COEFFICIENT = 0.97 0.39 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7838) | Area (ha)= 1.33
 | ID= 1 DT= 5.0 min | Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.30 0.03
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	8.76	3.250	18.98	4.83	1.46
0.167	0.00	1.750	8.76	3.333	10.22	4.92	1.46
0.250	0.00	1.833	24.82	3.417	10.22	5.00	1.46
0.333	1.46	1.917	24.82	3.500	10.22	5.08	1.46
0.417	1.46	2.000	24.82	3.583	10.22	5.17	1.46
0.500	1.46	2.083	24.82	3.667	10.22	5.25	1.46
0.583	1.46	2.167	24.82	3.750	10.22	5.33	1.46
0.667	1.46	2.250	24.82	3.833	5.84	5.42	1.46
0.750	1.46	2.333	67.16	3.917	5.84	5.50	1.46
0.833	1.46	2.417	67.16	4.000	5.84	5.58	1.46
0.917	1.46	2.500	67.16	4.083	5.84	5.67	1.46
1.000	1.46	2.583	67.16	4.167	5.84	5.75	1.46
1.083	1.46	2.667	67.16	4.250	5.84	5.83	1.46
1.167	1.46	2.750	67.16	4.333	2.92	5.92	1.46
1.250	1.46	2.833	18.98	4.417	2.92	6.00	1.46
1.333	8.76	2.917	18.98	4.500	2.92	6.08	1.46
1.417	8.76	3.000	18.98	4.583	2.92	6.17	1.46
1.500	8.76	3.083	18.98	4.667	2.92	6.25	1.46
1.583	8.76	3.167	18.98	4.750	2.92		

Max.Eff.Inten. (mm/hr)= 67.16 34.67
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.91 (ii) 4.66 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.28 0.22

TOTALS

PEAK FLOW (cms)= 0.24 0.00 0.246 (iii)
 TIME TO PEAK (hrs)= 2.75 2.75 2.75
 RUNOFF VOLUME (mm)= 71.00 28.55 70.15
 TOTAL RAINFALL (mm)= 73.00 73.00 73.00



RUNOFF COEFFICIENT = 0.97 0.39 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7805)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7814):	1.45	0.262	2.75	69.29
+ ID2= 2 (7822):	1.70	0.316	2.75	70.57
ID = 3 (7805):	3.15	0.577	2.75	69.98

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7805)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7805):	3.15	0.577	2.75	69.98
+ ID2= 2 (7838):	1.33	0.246	2.75	70.15
ID = 1 (7805):	4.48	0.823	2.75	70.03

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	Total Imp (%)	Dir. Conn. (%)
STANDHYD (7819)	1.32	99.00	99.00
ID= 1 DT= 5.0 min			

	IMPERVIOUS (ha)	PERVIOUS (i)
Surface Area	1.31	0.01
Dep. Storage	2.00	5.00
Average Slope	1.10	2.00
Length	100.00	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	8.76	3.250	18.98	4.83	1.46		
0.167	0.00	1.750	8.76	3.333	10.22	4.92	1.46		
0.250	0.00	1.833	24.82	3.417	10.22	5.00	1.46		
0.333	1.46	1.917	24.82	3.500	10.22	5.08	1.46		
0.417	1.46	2.000	24.82	3.583	10.22	5.17	1.46		
0.500	1.46	2.083	24.82	3.667	10.22	5.25	1.46		
0.583	1.46	2.167	24.82	3.750	10.22	5.33	1.46		
0.667	1.46	2.250	24.82	3.833	5.84	5.42	1.46		
0.750	1.46	2.333	67.16	3.917	5.84	5.50	1.46		
0.833	1.46	2.417	67.16	4.000	5.84	5.58	1.46		
0.917	1.46	2.500	67.16	4.083	5.84	5.67	1.46		
1.000	1.46	2.583	67.16	4.167	5.84	5.75	1.46		
1.083	1.46	2.667	67.16	4.250	5.84	5.83	1.46		
1.167	1.46	2.750	67.16	4.333	2.92	5.92	1.46		
1.250	1.46	2.833	18.98	4.417	2.92	6.00	1.46		
1.333	8.76	2.917	18.98	4.500	2.92	6.08	1.46		
1.417	8.76	3.000	18.98	4.583	2.92	6.17	1.46		
1.500	8.76	3.083	18.98	4.667	2.92	6.25	1.46		
1.583	8.76	3.167	18.98	4.750	2.92				

Max.Eff.Inten. (mm/hr)=	67.16	34.67
over (min)	5.00	5.00
Storage Coeff. (min)=	2.91 (ii)	4.23 (ii)

Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.28	0.24	
PEAK FLOW (cms)=	0.24	0.00	0.245 (iii)
TIME TO PEAK (hrs)=	2.75	2.75	2.75
RUNOFF VOLUME (mm)=	71.00	28.55	70.57
TOTAL RAINFALL (mm)=	73.00	73.00	73.00
RUNOFF COEFFICIENT =	0.97	0.39	0.97

TOTALS

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	Total Imp (%)	Dir. Conn. (%)
STANDHYD (7829)	1.69	99.00	99.00
ID= 1 DT= 5.0 min			

	IMPERVIOUS (ha)	PERVIOUS (i)
Surface Area	1.67	0.02
Dep. Storage	2.00	5.00
Average Slope	1.10	2.00
Length	100.00	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	8.76	3.250	18.98	4.83	1.46		
0.167	0.00	1.750	8.76	3.333	10.22	4.92	1.46		
0.250	0.00	1.833	24.82	3.417	10.22	5.00	1.46		
0.333	1.46	1.917	24.82	3.500	10.22	5.08	1.46		
0.417	1.46	2.000	24.82	3.583	10.22	5.17	1.46		
0.500	1.46	2.083	24.82	3.667	10.22	5.25	1.46		
0.583	1.46	2.167	24.82	3.750	10.22	5.33	1.46		
0.667	1.46	2.250	24.82	3.833	5.84	5.42	1.46		
0.750	1.46	2.333	67.16	3.917	5.84	5.50	1.46		
0.833	1.46	2.417	67.16	4.000	5.84	5.58	1.46		
0.917	1.46	2.500	67.16	4.083	5.84	5.67	1.46		
1.000	1.46	2.583	67.16	4.167	5.84	5.75	1.46		
1.083	1.46	2.667	67.16	4.250	5.84	5.83	1.46		
1.167	1.46	2.750	67.16	4.333	2.92	5.92	1.46		
1.250	1.46	2.833	18.98	4.417	2.92	6.00	1.46		
1.333	8.76	2.917	18.98	4.500	2.92	6.08	1.46		
1.417	8.76	3.000	18.98	4.583	2.92	6.17	1.46		
1.500	8.76	3.083	18.98	4.667	2.92	6.25	1.46		
1.583	8.76	3.167	18.98	4.750	2.92				

Max.Eff.Inten. (mm/hr)=	67.16	34.67
over (min)	5.00	5.00
Storage Coeff. (min)=	2.91 (ii)	4.23 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.28	0.24

TOTALS

PEAK FLOW (cms)=	0.31	0.00	0.314 (iii)
TIME TO PEAK (hrs)=	2.75	2.75	2.75
RUNOFF VOLUME (mm)=	71.00	28.55	70.57
TOTAL RAINFALL (mm)=	73.00	73.00	73.00
RUNOFF COEFFICIENT =	0.97	0.39	0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.



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| CALIB |
| STANDHYD ( 7839) | Area (ha)= 1.61
| ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00
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	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.48	0.13
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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-----
---- TRANSFORMED HYETOGRAPH ----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | ' hrs mm/hr | hrs mm/hr
0.083 0.00 | 1.667 8.76 | 3.250 18.98 | 4.83 1.46
0.167 0.00 | 1.750 8.76 | 3.333 10.22 | 4.92 1.46
0.250 0.00 | 1.833 24.82 | 3.417 10.22 | 5.00 1.46
0.333 1.46 | 1.917 24.82 | 3.500 10.22 | 5.08 1.46
0.417 1.46 | 2.000 24.82 | 3.583 10.22 | 5.17 1.46
0.500 1.46 | 2.083 24.82 | 3.667 10.22 | 5.25 1.46
0.583 1.46 | 2.167 24.82 | 3.750 10.22 | 5.33 1.46
0.667 1.46 | 2.250 24.82 | 3.833 5.84 | 5.42 1.46
0.750 1.46 | 2.333 67.16 | 3.917 5.84 | 5.50 1.46
0.833 1.46 | 2.417 67.16 | 4.000 5.84 | 5.58 1.46
0.917 1.46 | 2.500 67.16 | 4.083 5.84 | 5.67 1.46
1.000 1.46 | 2.583 67.16 | 4.167 5.84 | 5.75 1.46
1.083 1.46 | 2.667 67.16 | 4.250 5.84 | 5.83 1.46
1.167 1.46 | 2.750 67.16 | 4.333 2.92 | 5.92 1.46
1.250 1.46 | 2.833 18.98 | 4.417 2.92 | 6.00 1.46
1.333 8.76 | 2.917 18.98 | 4.500 2.92 | 6.08 1.46
1.417 8.76 | 3.000 18.98 | 4.583 2.92 | 6.17 1.46
1.500 8.76 | 3.083 18.98 | 4.667 2.92 | 6.25 1.46
1.583 8.76 | 3.167 18.98 | 4.750 2.92 |
-----

```

Max.Eff.Inten.(mm/hr)=	67.16	29.83
over (min)	5.00	30.00
Storage Coeff. (min)=	2.91 (ii)	27.71 (ii)
Unit Hyd. Tpeak (min)=	5.00	30.00
Unit Hyd. peak (cms)=	0.28	0.04

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-----
*TOTALS*
PEAK FLOW (cms)= 0.28 0.01 0.280 (iii)
TIME TO PEAK (hrs)= 2.75 3.08 2.75
RUNOFF VOLUME (mm)= 71.00 28.55 67.59
TOTAL RAINFALL (mm)= 73.00 73.00 73.00
RUNOFF COEFFICIENT = 0.97 0.39 0.93
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***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| ADD HYD ( 7842) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7819): 1.32 0.245 2.75 70.57
+ ID2= 2 ( 7829): 1.69 0.314 2.75 70.57
-----
ID = 3 ( 7842): 3.01 0.559 2.75 70.57
-----

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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-----
| ADD HYD ( 7842) |
| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
-----

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-----
(ha) (cms) (hrs) (mm)
ID1= 3 ( 7842): 3.01 0.559 2.75 70.57
+ ID2= 2 ( 7839): 1.61 0.280 2.75 67.59
-----
ID = 1 ( 7842): 4.62 0.839 2.75 69.54
-----

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-----
| CALIB |
| STANDHYD ( 7830) | Area (ha)= 1.20
| ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00
-----

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	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.14	0.06
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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-----
---- TRANSFORMED HYETOGRAPH ----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | ' hrs mm/hr | hrs mm/hr
0.083 0.00 | 1.667 8.76 | 3.250 18.98 | 4.83 1.46
0.167 0.00 | 1.750 8.76 | 3.333 10.22 | 4.92 1.46
0.250 0.00 | 1.833 24.82 | 3.417 10.22 | 5.00 1.46
0.333 1.46 | 1.917 24.82 | 3.500 10.22 | 5.08 1.46
0.417 1.46 | 2.000 24.82 | 3.583 10.22 | 5.17 1.46
0.500 1.46 | 2.083 24.82 | 3.667 10.22 | 5.25 1.46
0.583 1.46 | 2.167 24.82 | 3.750 10.22 | 5.33 1.46
0.667 1.46 | 2.250 24.82 | 3.833 5.84 | 5.42 1.46
0.750 1.46 | 2.333 67.16 | 3.917 5.84 | 5.50 1.46
0.833 1.46 | 2.417 67.16 | 4.000 5.84 | 5.58 1.46
0.917 1.46 | 2.500 67.16 | 4.083 5.84 | 5.67 1.46
1.000 1.46 | 2.583 67.16 | 4.167 5.84 | 5.75 1.46
1.083 1.46 | 2.667 67.16 | 4.250 5.84 | 5.83 1.46
1.167 1.46 | 2.750 67.16 | 4.333 2.92 | 5.92 1.46
1.250 1.46 | 2.833 18.98 | 4.417 2.92 | 6.00 1.46
1.333 8.76 | 2.917 18.98 | 4.500 2.92 | 6.08 1.46
1.417 8.76 | 3.000 18.98 | 4.583 2.92 | 6.17 1.46
1.500 8.76 | 3.083 18.98 | 4.667 2.92 | 6.25 1.46
1.583 8.76 | 3.167 18.98 | 4.750 2.92 |
-----

```

Max.Eff.Inten.(mm/hr)=	67.16	35.68
over (min)	5.00	5.00
Storage Coeff. (min)=	1.67 (ii)	4.22 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.32	0.24

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-----
*TOTALS*
PEAK FLOW (cms)= 0.21 0.01 0.219 (iii)
TIME TO PEAK (hrs)= 2.75 2.75 2.75
RUNOFF VOLUME (mm)= 71.00 29.41 68.92
TOTAL RAINFALL (mm)= 73.00 73.00 73.00
RUNOFF COEFFICIENT = 0.97 0.40 0.94
-----

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| ADD HYD ( 7804) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7805): 4.48 0.823 2.75 70.03
+ ID2= 2 ( 7810): 1.06 0.193 2.75 68.92
-----
ID = 3 ( 7804): 5.54 1.016 2.75 69.82
-----

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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7804)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7804):	5.54	1.016	2.75	69.82
+ ID2= 2 (7824):	14.31	3.359	2.75	74.58
ID = 1 (7804):	19.85	4.375	2.75	73.25

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7804)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7804):	19.85	4.375	2.75	73.25
+ ID2= 2 (7830):	1.20	0.219	2.75	68.92
ID = 3 (7804):	21.05	4.594	2.75	73.00

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7804)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7804):	21.05	4.594	2.75	73.00
+ ID2= 2 (7842):	4.62	0.839	2.75	69.54
ID = 1 (7804):	25.67	5.433	2.75	72.38

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7833)	OVERFLOW IS OFF			
IN= 2--> OUT= 1	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
DT= 5.0 min	0.0000	0.0000	0.6280	2.3980
	0.0730	0.2080	0.6400	2.4830
	0.0890	0.2770	0.6520	2.5670
	0.1340	0.5530	0.6640	2.6500
	0.2910	0.8290	0.6750	2.7340
	0.3860	1.1060	0.7190	3.0490
	0.4590	1.3820	0.8250	3.3550
	0.5220	1.7210	2.0760	3.4560
	0.5780	2.0600	2.3560	3.7320
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7804)	25.670	5.433	2.75	72.38
OUTFLOW: ID= 1 (7833)	25.670	0.379	4.33	72.35

PEAK FLOW REDUCTION [Qout/Qin] (%) = 6.98
 TIME SHIFT OF PEAK FLOW (min) = 95.00
 MAXIMUM STORAGE USED (ha.m.) = 1.0858

CALIB	STANDHYD (7821)	Area (ha)	Total Imp (%)	Dir. Conn. (%)
ID= 1 DT= 5.0 min		0.19	95.00	95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	0.18	0.01
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	2.50	2.00
Length (m)	60.00	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	8.76	3.250	18.98	4.83	1.46
0.167	0.00	1.750	8.76	3.333	10.22	4.92	1.46
0.250	0.00	1.833	24.82	3.417	10.22	5.00	1.46
0.333	1.46	1.917	24.82	3.500	10.22	5.08	1.46
0.417	1.46	2.000	24.82	3.583	10.22	5.17	1.46
0.500	1.46	2.083	24.82	3.667	10.22	5.25	1.46
0.583	1.46	2.167	24.82	3.750	10.22	5.33	1.46
0.667	1.46	2.250	24.82	3.833	5.84	5.42	1.46
0.750	1.46	2.333	67.16	3.917	5.84	5.50	1.46
0.833	1.46	2.417	67.16	4.000	5.84	5.58	1.46
0.917	1.46	2.500	67.16	4.083	5.84	5.67	1.46
1.000	1.46	2.583	67.16	4.167	5.84	5.75	1.46
1.083	1.46	2.667	67.16	4.250	5.84	5.83	1.46
1.167	1.46	2.750	67.16	4.333	2.92	5.92	1.46
1.250	1.46	2.833	18.98	4.417	2.92	6.00	1.46
1.333	8.76	2.917	18.98	4.500	2.92	6.08	1.46
1.417	8.76	3.000	18.98	4.583	2.92	6.17	1.46
1.500	8.76	3.083	18.98	4.667	2.92	6.25	1.46
1.583	8.76	3.167	18.98	4.750	2.92		

Max.Eff.Inten. (mm/hr) = 67.16
 over (min) = 5.00
 Storage Coeff. (min) = 1.67 (ii)
 Unit Hyd. Tpeak (min) = 5.00
 Unit Hyd. peak (cms) = 0.32

PEAK FLOW (cms) = 0.03
 TIME TO PEAK (hrs) = 2.75
 RUNOFF VOLUME (mm) = 71.00
 TOTAL RAINFALL (mm) = 73.00
 RUNOFF COEFFICIENT = 0.97

TOTALS

0.035 (iii)
 2.75
 68.91
 73.00
 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7825)	OVERFLOW IS OFF			
IN= 2--> OUT= 1	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
DT= 5.0 min	0.0000	0.0000	0.0100	0.0090
	0.0030	0.0010	0.0110	0.0100
	0.0050	0.0030	0.0120	0.0110
	0.0060	0.0040	0.0120	0.0130
	0.0080	0.0050	0.0130	0.0140
	0.0090	0.0060	0.0140	0.0150
	0.0090	0.0080	0.0000	0.0000
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7821)	0.190	0.035	2.75	68.91
OUTFLOW: ID= 1 (7825)	0.190	0.009	2.75	68.49

PEAK FLOW REDUCTION [Qout/Qin] (%) = 26.00
 TIME SHIFT OF PEAK FLOW (min) = 0.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0073

CALIB	STANDHYD (7836)	Area (ha)	Total Imp (%)	Dir. Conn. (%)
ID= 1 DT= 5.0 min		0.20	95.00	95.00

IMPERVIOUS PERVIOUS (i)



Surface Area (ha)= 0.19 0.01
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 2.50 2.00
 Length (m)= 36.51 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	8.76	3.250	18.98	4.83	1.46
0.167	0.00	1.750	8.76	3.333	10.22	4.92	1.46
0.250	0.00	1.833	24.82	3.417	10.22	5.00	1.46
0.333	1.46	1.917	24.82	3.500	10.22	5.08	1.46
0.417	1.46	2.000	24.82	3.583	10.22	5.17	1.46
0.500	1.46	2.083	24.82	3.667	10.22	5.25	1.46
0.583	1.46	2.167	24.82	3.750	10.22	5.33	1.46
0.667	1.46	2.250	24.82	3.833	5.84	5.42	1.46
0.750	1.46	2.333	67.16	3.917	5.84	5.50	1.46
0.833	1.46	2.417	67.16	4.000	5.84	5.58	1.46
0.917	1.46	2.500	67.16	4.083	5.84	5.67	1.46
1.000	1.46	2.583	67.16	4.167	5.84	5.75	1.46
1.083	1.46	2.667	67.16	4.250	5.84	5.83	1.46
1.167	1.46	2.750	67.16	4.333	2.92	5.92	1.46
1.250	1.46	2.833	18.98	4.417	2.92	6.00	1.46
1.333	8.76	2.917	18.98	4.500	2.92	6.08	1.46
1.417	8.76	3.000	18.98	4.583	2.92	6.17	1.46
1.500	8.76	3.083	18.98	4.667	2.92	6.25	1.46
1.583	8.76	3.167	18.98	4.750	2.92		

Max.Eff.Inten.(mm/hr)= 67.16 35.68
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.24 (ii) 3.79 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.25

TOTALS
 PEAK FLOW (cms)= 0.04 0.00 0.036 (iii)
 TIME TO PEAK (hrs)= 2.67 2.75 2.75
 RUNOFF VOLUME (mm)= 71.00 29.41 68.92
 TOTAL RAINFALL (mm)= 73.00 73.00 73.00
 RUNOFF COEFFICIENT = 0.97 0.40 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7807)		OVERFLOW IS OFF	
IN= 2-->	OUT= 1	OUTFLOW	STORAGE
DT= 5.0 min		(cms)	(ha.m.)
		0.0000	0.0000
		0.0030	0.0010
		0.0050	0.0030
		0.0060	0.0040
		0.0080	0.0050
		0.0090	0.0060
		0.0090	0.0080
		0.0090	0.0000

INFLOW : ID= 2 (7836)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
OUTFLOW: ID= 1 (7807)	0.200	0.036	2.75	68.92
	0.200	0.009	2.67	68.51

PEAK FLOW REDUCTION [Qout/Qin] (%) = 24.69
 TIME SHIFT OF PEAK FLOW (min) = -5.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0078

ADD HYD (7831)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7807):	0.20	0.009	2.67	68.51
+ ID2= 2 (7825):	0.19	0.009	2.75	68.49
ID = 3 (7831):	0.39	0.018	2.75	68.50

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7831)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7831):	0.39	0.018	2.75	68.50
+ ID2= 2 (7833):	25.67	0.379	4.33	72.35
ID = 1 (7831):	26.06	0.396	4.33	72.29

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

GALIB	Area (ha)	PERVIOUS (i)
STANDHYD (7826)	1.24	
ID= 1 DT= 5.0 min	Total Imp (%) = 99.00	Dir. Conn. (%) = 99.00

Surface Area (ha)	IMPERVIOUS	PERVIOUS (i)
Dep. Storage (mm)	1.23	0.01
Average Slope (%)	2.00	5.00
Length (m)	2.00	2.00
Mannings n	91.00	40.00
	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	8.76	3.250	18.98	4.83	1.46
0.167	0.00	1.750	8.76	3.333	10.22	4.92	1.46
0.250	0.00	1.833	24.82	3.417	10.22	5.00	1.46
0.333	1.46	1.917	24.82	3.500	10.22	5.08	1.46
0.417	1.46	2.000	24.82	3.583	10.22	5.17	1.46
0.500	1.46	2.083	24.82	3.667	10.22	5.25	1.46
0.583	1.46	2.167	24.82	3.750	10.22	5.33	1.46
0.667	1.46	2.250	24.82	3.833	5.84	5.42	1.46
0.750	1.46	2.333	67.16	3.917	5.84	5.50	1.46
0.833	1.46	2.417	67.16	4.000	5.84	5.58	1.46
0.917	1.46	2.500	67.16	4.083	5.84	5.67	1.46
1.000	1.46	2.583	67.16	4.167	5.84	5.75	1.46
1.083	1.46	2.667	67.16	4.250	5.84	5.83	1.46
1.167	1.46	2.750	67.16	4.333	2.92	5.92	1.46
1.250	1.46	2.833	18.98	4.417	2.92	6.00	1.46
1.333	8.76	2.917	18.98	4.500	2.92	6.08	1.46
1.417	8.76	3.000	18.98	4.583	2.92	6.17	1.46
1.500	8.76	3.083	18.98	4.667	2.92	6.25	1.46
1.583	8.76	3.167	18.98	4.750	2.92		

Max.Eff.Inten.(mm/hr)= 67.16 34.67
 over (min) 5.00 5.00
 Storage Coeff. (min)= 2.30 (ii) 3.62 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.30 0.25

TOTALS
 PEAK FLOW (cms)= 0.23 0.00 0.231 (iii)
 TIME TO PEAK (hrs)= 2.75 2.75 2.75
 RUNOFF VOLUME (mm)= 71.00 28.55 70.57
 TOTAL RAINFALL (mm)= 73.00 73.00 73.00
 RUNOFF COEFFICIENT = 0.97 0.39 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7815) |
| 1 + 2 = 3 |
-----
| AREA   QPEAK   TPEAK   R.V. |
| (ha)   (cms)   (hrs)   (mm) |
-----
ID1= 1 ( 7826):  1.24  0.231  2.75  70.57
+ ID2= 2 ( 7831):  26.06  0.396  4.33  72.29
-----
ID = 3 ( 7815):  27.30  0.485  2.75  72.22

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| RESERVOIR( 7841) | OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT= 5.0 min |
-----
| OUTFLOW   STORAGE   OUTFLOW   STORAGE |
| (cms)     (ha.m.)   (cms)     (ha.m.) |
-----
0.0000  0.0000 | 1.0810  1.6220
0.0010  0.1670 | 1.3950  1.8170
0.0340  0.3380 | 2.0990  2.2130
0.0510  0.5110 | 2.8950  2.6150
0.0630  0.6880 | 3.7730  3.0250
0.1610  0.8670 | 4.7260  3.4420
0.3300  1.0500 | 5.5670  3.8670
0.5440  1.2370 | 8.5800  4.3000
0.7970  1.4290 | 10.9450 4.5210
-----
| AREA   QPEAK   TPEAK   R.V. |
| (ha)   (cms)   (hrs)   (mm) |
-----
INFLOW : ID= 2 ( 7815)  27.302  0.485  2.75  72.22
OUTFLOW: ID= 1 ( 7841)  27.302  0.216  12.17  66.85

```

```

PEAK FLOW REDUCTION [Qout/Qin] (%) = 44.50
TIME SHIFT OF PEAK FLOW (min)=565.00
MAXIMUM STORAGE USED (ha.m.)= 0.9262

```



```

=====
*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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```

0.250	0.00	1.833	27.30	3.417	11.24	5.00	1.61
0.333	1.61	1.917	27.30	3.500	11.24	5.08	1.61
0.417	1.61	2.000	27.30	3.583	11.24	5.17	1.61
0.500	1.61	2.083	27.30	3.667	11.24	5.25	1.61
0.583	1.61	2.167	27.30	3.750	11.24	5.33	1.61
0.667	1.61	2.250	27.30	3.833	6.42	5.42	1.61
0.750	1.61	2.333	73.88	3.917	6.42	5.50	1.61
0.833	1.61	2.417	73.88	4.000	6.42	5.58	1.61
0.917	1.61	2.500	73.88	4.083	6.42	5.67	1.61
1.000	1.61	2.583	73.88	4.167	6.42	5.75	1.61
1.083	1.61	2.667	73.88	4.250	6.42	5.83	1.61
1.167	1.61	2.750	73.88	4.333	3.21	5.92	1.61
1.250	1.61	2.833	20.88	4.417	3.21	6.00	1.61
1.333	9.64	2.917	20.88	4.500	3.21	6.08	1.61
1.417	9.64	3.000	20.88	4.583	3.21	6.17	1.61
1.500	9.64	3.083	20.88	4.667	3.21	6.25	1.61
1.583	9.64	3.167	20.88	4.750	3.21		

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat
Output filename: C:\Users\mhooper\AppData\Local\Civica\VH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\64fad1c-2936-4f3b-bbbd-a6550c2407eb\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\VH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\64fad1c-2936-4f3b-bbbd-a6550c2407eb\scen

```

DATE: 11-22-2024 TIME: 01:45:36

USER:

COMMENTS:

 ** SIMULATION : F 100 Year 6 Hour AES (Bloor, **

```

-----
| READ STORM | Filename: C:\Users\mhooper\AppData
|             |   ata\Local\Temp\
|             |   bac52abb-b775-4ad0-a17a-4b6fd89712ba\0dff70fd
| Ptotal= 80.31 mm | Comments: 100 Year 6 Hour AES (Bloor, TRCA)
-----

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	1.75	27.30	3.50	11.24	5.25	1.61
0.25	1.61	2.00	27.30	3.75	6.42	5.50	1.61
0.50	1.61	2.25	73.88	4.00	6.42	5.75	1.61
0.75	1.61	2.50	73.88	4.25	3.21	6.00	1.61
1.00	1.61	2.75	20.88	4.50	3.21		
1.25	9.64	3.00	20.88	4.75	1.61		
1.50	9.64	3.25	11.24	5.00	1.61		

```

-----
| CALIB |
| NASHYD ( 7823) | Area (ha)= 0.21 Curve Number (CN)= 73.0
| ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res.(N)= 3.00
| U.H. Tp(hrs)= 0.17
-----

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 1.667 9.64 | 3.250 20.88 | 4.83 1.61
0.167 0.00 | 1.750 9.64 | 3.333 11.24 | 4.92 1.61

```

Unit Hyd Qpeak (cms)= 0.047

```

PEAK FLOW (cms)= 0.020 (i)
TIME TO PEAK (hrs)= 2.750
RUNOFF VOLUME (mm)= 33.388
TOTAL RAINFALL (mm)= 80.310
RUNOFF COEFFICIENT = 0.416

```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7828) | Area (ha)= 10.90
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----

```

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	10.79	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	269.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 1.667 9.64 | 3.250 20.88 | 4.83 1.61
0.167 0.00 | 1.750 9.64 | 3.333 11.24 | 4.92 1.61
0.250 0.00 | 1.833 27.30 | 3.417 11.24 | 5.00 1.61
0.333 1.61 | 1.917 27.30 | 3.500 11.24 | 5.08 1.61
0.417 1.61 | 2.000 27.30 | 3.583 11.24 | 5.17 1.61
0.500 1.61 | 2.083 27.30 | 3.667 11.24 | 5.25 1.61
0.583 1.61 | 2.167 27.30 | 3.750 11.24 | 5.33 1.61
0.667 1.61 | 2.250 27.30 | 3.833 6.42 | 5.42 1.61
0.750 1.61 | 2.333 73.88 | 3.917 6.42 | 5.50 1.61
0.833 1.61 | 2.417 73.88 | 4.000 6.42 | 5.58 1.61
0.917 1.61 | 2.500 73.88 | 4.083 6.42 | 5.67 1.61
1.000 1.61 | 2.583 73.88 | 4.167 6.42 | 5.75 1.61
1.083 1.61 | 2.667 73.88 | 4.250 6.42 | 5.83 1.61
1.167 1.61 | 2.750 73.88 | 4.333 3.21 | 5.92 1.61
1.250 1.61 | 2.833 20.88 | 4.417 3.21 | 6.00 1.61
1.333 9.64 | 2.917 20.88 | 4.500 3.21 | 6.08 1.61
1.417 9.64 | 3.000 20.88 | 4.583 3.21 | 6.17 1.61
1.500 9.64 | 3.083 20.88 | 4.667 3.21 | 6.25 1.61
1.583 9.64 | 3.167 20.88 | 4.750 3.21 |

```

```

Max.Eff.Inten.(mm/hr)= 73.88 40.46
over (min) 5.00 10.00
Storage Coeff. (min)= 5.23 (ii) 6.50 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.21 0.14

```

```

*TOTALS*
PEAK FLOW (cms)= 2.21 0.01 2.221 (iii)
TIME TO PEAK (hrs)= 2.75 2.75 2.75
RUNOFF VOLUME (mm)= 78.31 33.51 77.86

```



TOTAL RAINFALL (mm) = 80.31 80.31 80.31
 RUNOFF COEFFICIENT = 0.98 0.42 0.97

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7837)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7823):	0.21	0.020	2.75	33.39
+ ID2= 2 (7828):	10.90	2.221	2.75	77.86

ID = 3 (7837):	11.11	2.241	2.75	77.03

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7818)	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
IN= 2---> OUT= 1				
DT= 5.0 min				
	0.0000	0.0000	0.1390	0.6960
	0.0590	0.3400	0.1630	0.7780
	0.0900	0.4907	0.1840	0.8800
	0.1110	0.5760	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7837)	11.108	2.241	2.75	77.03
OUTFLOW: ID= 1 (7818)	11.108	0.146	4.33	76.90

PEAK FLOW REDUCTION [Qout/Qin] (%) = 6.52
 TIME SHIFT OF PEAK FLOW (min) = 95.00
 MAXIMUM STORAGE USED (ha.m.) = 0.7201

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7820)	11.38	
ID= 1 DT= 5.0 min	Total Imp (%) = 99.00	Dir. Conn. (%) = 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	11.27	0.11
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	1.00	2.00
Length (m)	275.44	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	9.64	3.250	20.88	4.83	1.61
0.167	0.00	1.750	9.64	3.333	11.24	4.92	1.61
0.250	0.00	1.833	27.30	3.417	11.24	5.00	1.61
0.333	1.61	1.917	27.30	3.500	11.24	5.08	1.61
0.417	1.61	2.000	27.30	3.583	11.24	5.17	1.61
0.500	1.61	2.083	27.30	3.667	11.24	5.25	1.61
0.583	1.61	2.167	27.30	3.750	11.24	5.33	1.61
0.667	1.61	2.250	27.30	3.833	6.42	5.42	1.61
0.750	1.61	2.333	73.88	3.917	6.42	5.50	1.61
0.833	1.61	2.417	73.88	4.000	6.42	5.58	1.61
0.917	1.61	2.500	73.88	4.083	6.42	5.67	1.61
1.000	1.61	2.583	73.88	4.167	6.42	5.75	1.61
1.083	1.61	2.667	73.88	4.250	6.42	5.83	1.61
1.167	1.61	2.750	73.88	4.333	3.21	5.92	1.61
1.250	1.61	2.833	20.88	4.417	3.21	6.00	1.61

1.333 9.64 | 2.917 20.88 | 4.500 3.21 | 6.08 1.61
 1.417 9.64 | 3.000 20.88 | 4.583 3.21 | 6.17 1.61
 1.500 9.64 | 3.083 20.88 | 4.667 3.21 | 6.25 1.61
 1.583 9.64 | 3.167 20.88 | 4.750 3.21 |

Max.Eff.Inten.(mm/hr)= 73.88 40.46
 over (min) = 5.00 10.00
 Storage Coeff. (min) = 5.30 (ii) 6.56 (ii)
 Unit Hyd. Tpeak (min) = 5.00 10.00
 Unit Hyd. peak (cms) = 0.21 0.14

TOTALS
 PEAK FLOW (cms) = 2.31 0.01 2.319 (iii)
 TIME TO PEAK (hrs) = 2.75 2.75 2.75
 RUNOFF VOLUME (mm) = 78.31 33.51 77.86
 TOTAL RAINFALL (mm) = 80.31 80.31 80.31
 RUNOFF COEFFICIENT = 0.98 0.42 0.97

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7812)	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
IN= 2---> OUT= 1				
DT= 5.0 min				
	0.0000	0.0000	0.1990	0.6950
	0.0830	0.3500	0.2320	0.8000
	0.1280	0.4850	0.2620	0.9000
	0.1580	0.5900	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7820)	11.380	2.319	2.75	77.86
OUTFLOW: ID= 1 (7812)	11.380	0.204	4.17	77.77

PEAK FLOW REDUCTION [Qout/Qin] (%) = 8.80
 TIME SHIFT OF PEAK FLOW (min) = 85.00
 MAXIMUM STORAGE USED (ha.m.) = 0.7114

ADD HYD (7802)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7812):	11.38	0.204	4.17	77.77
+ ID2= 2 (7818):	11.11	0.146	4.33	76.90

ID = 3 (7802):	22.49	0.350	4.25	77.34

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7834)	0.59	
ID= 1 DT= 5.0 min	Total Imp (%) = 99.00	Dir. Conn. (%) = 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	0.58	0.01
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	2.00	2.00
Length (m)	62.72	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	9.64	3.250	20.88	4.83	1.61

0.167	0.00	1.750	9.64	3.333	11.24	4.92	1.61
0.250	0.00	1.833	27.30	3.417	11.24	5.00	1.61
0.333	1.61	1.917	27.30	3.500	11.24	5.08	1.61
0.417	1.61	2.000	27.30	3.583	11.24	5.17	1.61
0.500	1.61	2.083	27.30	3.667	11.24	5.25	1.61
0.583	1.61	2.167	27.30	3.750	11.24	5.33	1.61
0.667	1.61	2.250	27.30	3.833	6.42	5.42	1.61
0.750	1.61	2.333	73.88	3.917	6.42	5.50	1.61
0.833	1.61	2.417	73.88	4.000	6.42	5.58	1.61
0.917	1.61	2.500	73.88	4.083	6.42	5.67	1.61
1.000	1.61	2.583	73.88	4.167	6.42	5.75	1.61
1.083	1.61	2.667	73.88	4.250	6.42	5.83	1.61
1.167	1.61	2.750	73.88	4.333	3.21	5.92	1.61
1.250	1.61	2.833	20.88	4.417	3.21	6.00	1.61
1.333	9.64	2.917	20.88	4.500	3.21	6.08	1.61
1.417	9.64	3.000	20.88	4.583	3.21	6.17	1.61
1.500	9.64	3.083	20.88	4.667	3.21	6.25	1.61
1.583	9.64	3.167	20.88	4.750	3.21		

Max.Eff.Inten.(mm/hr)= 73.88 40.46
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.77 (ii) 3.04 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.27

PEAK FLOW (cms)= 0.12 0.00 *TOTALS* 0.121 (iii)
 TIME TO PEAK (hrs)= 2.75 2.75
 RUNOFF VOLUME (mm)= 78.31 33.51 77.86
 TOTAL RAINFALL (mm)= 80.31 80.31 80.31
 RUNOFF COEFFICIENT = 0.98 0.42 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7806) | Area (ha)= 2.37
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.35 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	9.64	3.250	20.88	4.83	1.61
0.167	0.00	1.750	9.64	3.333	11.24	4.92	1.61
0.250	0.00	1.833	27.30	3.417	11.24	5.00	1.61
0.333	1.61	1.917	27.30	3.500	11.24	5.08	1.61
0.417	1.61	2.000	27.30	3.583	11.24	5.17	1.61
0.500	1.61	2.083	27.30	3.667	11.24	5.25	1.61
0.583	1.61	2.167	27.30	3.750	11.24	5.33	1.61
0.667	1.61	2.250	27.30	3.833	6.42	5.42	1.61
0.750	1.61	2.333	73.88	3.917	6.42	5.50	1.61
0.833	1.61	2.417	73.88	4.000	6.42	5.58	1.61
0.917	1.61	2.500	73.88	4.083	6.42	5.67	1.61
1.000	1.61	2.583	73.88	4.167	6.42	5.75	1.61
1.083	1.61	2.667	73.88	4.250	6.42	5.83	1.61
1.167	1.61	2.750	73.88	4.333	3.21	5.92	1.61
1.250	1.61	2.833	20.88	4.417	3.21	6.00	1.61
1.333	9.64	2.917	20.88	4.500	3.21	6.08	1.61
1.417	9.64	3.000	20.88	4.583	3.21	6.17	1.61
1.500	9.64	3.083	20.88	4.667	3.21	6.25	1.61

1.583 9.64 | 3.167 20.88 | 4.750 3.21 |

Max.Eff.Inten.(mm/hr)= 73.88 40.46
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.10 (ii) 1.93 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.31

PEAK FLOW (cms)= 0.48 0.00 *TOTALS* 0.484 (iii)
 TIME TO PEAK (hrs)= 2.67 2.75
 RUNOFF VOLUME (mm)= 79.31 33.51 78.85
 TOTAL RAINFALL (mm)= 80.31 80.31 80.31
 RUNOFF COEFFICIENT = 0.99 0.42 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7811) | Area (ha)= 2.40
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.38 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	9.64	3.250	20.88	4.83	1.61
0.167	0.00	1.750	9.64	3.333	11.24	4.92	1.61
0.250	0.00	1.833	27.30	3.417	11.24	5.00	1.61
0.333	1.61	1.917	27.30	3.500	11.24	5.08	1.61
0.417	1.61	2.000	27.30	3.583	11.24	5.17	1.61
0.500	1.61	2.083	27.30	3.667	11.24	5.25	1.61
0.583	1.61	2.167	27.30	3.750	11.24	5.33	1.61
0.667	1.61	2.250	27.30	3.833	6.42	5.42	1.61
0.750	1.61	2.333	73.88	3.917	6.42	5.50	1.61
0.833	1.61	2.417	73.88	4.000	6.42	5.58	1.61
0.917	1.61	2.500	73.88	4.083	6.42	5.67	1.61
1.000	1.61	2.583	73.88	4.167	6.42	5.75	1.61
1.083	1.61	2.667	73.88	4.250	6.42	5.83	1.61
1.167	1.61	2.750	73.88	4.333	3.21	5.92	1.61
1.250	1.61	2.833	20.88	4.417	3.21	6.00	1.61
1.333	9.64	2.917	20.88	4.500	3.21	6.08	1.61
1.417	9.64	3.000	20.88	4.583	3.21	6.17	1.61
1.500	9.64	3.083	20.88	4.667	3.21	6.25	1.61
1.583	9.64	3.167	20.88	4.750	3.21		

Max.Eff.Inten.(mm/hr)= 73.88 40.46
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.10 (ii) 1.93 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.31

PEAK FLOW (cms)= 0.49 0.00 *TOTALS* 0.490 (iii)
 TIME TO PEAK (hrs)= 2.67 2.75
 RUNOFF VOLUME (mm)= 79.31 33.51 78.85
 TOTAL RAINFALL (mm)= 80.31 80.31 80.31
 RUNOFF COEFFICIENT = 0.99 0.42 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:



CN* = 73.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

CALIB		Area (ha)= 2.36	
STANDHYD (7816)		Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00	
ID= 1 DT= 5.0 min			
	IMPERVIOUS	PERVIOUS (i)	
Surface Area	(ha)= 2.34	0.02	
Dep. Storage	(mm)= 1.00	5.00	
Average Slope	(%)= 1.00	2.00	
Length	(m)= 20.00	20.00	
Mannings n	= 0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	9.64	3.250	20.88	4.83	1.61
0.167	0.00	1.750	9.64	3.333	11.24	4.92	1.61
0.250	0.00	1.833	27.30	3.417	11.24	5.00	1.61
0.333	1.61	1.917	27.30	3.500	11.24	5.08	1.61
0.417	1.61	2.000	27.30	3.583	11.24	5.17	1.61
0.500	1.61	2.083	27.30	3.667	11.24	5.25	1.61
0.583	1.61	2.167	27.30	3.750	11.24	5.33	1.61
0.667	1.61	2.250	27.30	3.833	6.42	5.42	1.61
0.750	1.61	2.333	73.88	3.917	6.42	5.50	1.61
0.833	1.61	2.417	73.88	4.000	6.42	5.58	1.61
0.917	1.61	2.500	73.88	4.083	6.42	5.67	1.61
1.000	1.61	2.583	73.88	4.167	6.42	5.75	1.61
1.083	1.61	2.667	73.88	4.250	6.42	5.83	1.61
1.167	1.61	2.750	73.88	4.333	3.21	5.92	1.61
1.250	1.61	2.833	20.88	4.417	3.21	6.00	1.61
1.333	9.64	2.917	20.88	4.500	3.21	6.08	1.61
1.417	9.64	3.000	20.88	4.583	3.21	6.17	1.61
1.500	9.64	3.083	20.88	4.667	3.21	6.25	1.61
1.583	9.64	3.167	20.88	4.750	3.21		

Max.Eff.Inten.(mm/hr)=	73.88	40.46
over (min)	5.00	5.00
Storage Coeff. (min)=	1.10 (ii)	1.93 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.31
TOTALS		
PEAK FLOW (cms)=	0.48	0.00
TIME TO PEAK (hrs)=	2.67	2.75
RUNOFF VOLUME (mm)=	79.31	33.51
TOTAL RAINFALL (mm)=	80.31	80.31
RUNOFF COEFFICIENT =	0.99	0.42

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	9.64	3.250	20.88	4.83	1.61
0.167	0.00	1.750	9.64	3.333	11.24	4.92	1.61
0.250	0.00	1.833	27.30	3.417	11.24	5.00	1.61
0.333	1.61	1.917	27.30	3.500	11.24	5.08	1.61
0.417	1.61	2.000	27.30	3.583	11.24	5.17	1.61
0.500	1.61	2.083	27.30	3.667	11.24	5.25	1.61
0.583	1.61	2.167	27.30	3.750	11.24	5.33	1.61
0.667	1.61	2.250	27.30	3.833	6.42	5.42	1.61
0.750	1.61	2.333	73.88	3.917	6.42	5.50	1.61
0.833	1.61	2.417	73.88	4.000	6.42	5.58	1.61
0.917	1.61	2.500	73.88	4.083	6.42	5.67	1.61
1.000	1.61	2.583	73.88	4.167	6.42	5.75	1.61
1.083	1.61	2.667	73.88	4.250	6.42	5.83	1.61
1.167	1.61	2.750	73.88	4.333	3.21	5.92	1.61
1.250	1.61	2.833	20.88	4.417	3.21	6.00	1.61
1.333	9.64	2.917	20.88	4.500	3.21	6.08	1.61
1.417	9.64	3.000	20.88	4.583	3.21	6.17	1.61
1.500	9.64	3.083	20.88	4.667	3.21	6.25	1.61
1.583	9.64	3.167	20.88	4.750	3.21		

Max.Eff.Inten.(mm/hr)=	73.88	40.46
over (min)	5.00	5.00
Storage Coeff. (min)=	1.10 (ii)	1.93 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.34	0.31

TOTALS		
PEAK FLOW (cms)=	0.49	0.00
TIME TO PEAK (hrs)=	2.67	2.75
RUNOFF VOLUME (mm)=	79.31	33.51
TOTAL RAINFALL (mm)=	80.31	80.31
RUNOFF COEFFICIENT =	0.99	0.42

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		Area (ha)= 2.39	
STANDHYD (7832)		Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00	
ID= 1 DT= 5.0 min			
	IMPERVIOUS	PERVIOUS (i)	
Surface Area	(ha)= 2.37	0.02	
Dep. Storage	(mm)= 1.00	5.00	
Average Slope	(%)= 1.00	2.00	
Length	(m)= 20.00	20.00	
Mannings n	= 0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

CALIB		Area (ha)= 2.39	
STANDHYD (7827)		Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00	
ID= 1 DT= 5.0 min			
	IMPERVIOUS	PERVIOUS (i)	
Surface Area	(ha)= 2.37	0.02	
Dep. Storage	(mm)= 1.00	5.00	
Average Slope	(%)= 1.00	2.00	
Length	(m)= 20.00	20.00	
Mannings n	= 0.013	0.250	

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	9.64	3.250	20.88	4.83	1.61
0.167	0.00	1.750	9.64	3.333	11.24	4.92	1.61
0.250	0.00	1.833	27.30	3.417	11.24	5.00	1.61
0.333	1.61	1.917	27.30	3.500	11.24	5.08	1.61
0.417	1.61	2.000	27.30	3.583	11.24	5.17	1.61
0.500	1.61	2.083	27.30	3.667	11.24	5.25	1.61
0.583	1.61	2.167	27.30	3.750	11.24	5.33	1.61
0.667	1.61	2.250	27.30	3.833	6.42	5.42	1.61
0.750	1.61	2.333	73.88	3.917	6.42	5.50	1.61
0.833	1.61	2.417	73.88	4.000	6.42	5.58	1.61

0.917	1.61	2.500	73.88	4.083	6.42	5.67	1.61
1.000	1.61	2.583	73.88	4.167	6.42	5.75	1.61
1.083	1.61	2.667	73.88	4.250	6.42	5.83	1.61
1.167	1.61	2.750	73.88	4.333	3.21	5.92	1.61
1.250	1.61	2.833	20.88	4.417	3.21	6.00	1.61
1.333	9.64	2.917	20.88	4.500	3.21	6.08	1.61
1.417	9.64	3.000	20.88	4.583	3.21	6.17	1.61
1.500	9.64	3.083	20.88	4.667	3.21	6.25	1.61
1.583	9.64	3.167	20.88	4.750	3.21		

Max.Eff.Inten.(mm/hr)= 73.88 40.46
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.10 (ii) 1.93 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.31

TOTALS
 PEAK FLOW (cms)= 0.49 0.00 0.488 (iii)
 TIME TO PEAK (hrs)= 2.67 2.75
 RUNOFF VOLUME (mm)= 79.31 33.51 78.85
 TOTAL RAINFALL (mm)= 80.31 80.31 80.31
 RUNOFF COEFFICIENT = 0.99 0.42 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7844) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN		
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr		
0.083	0.00	1.667	9.64	3.250	20.88	4.83	1.61
0.167	0.00	1.750	9.64	3.333	11.24	4.92	1.61
0.250	0.00	1.833	27.30	3.417	11.24	5.00	1.61
0.333	1.61	1.917	27.30	3.500	11.24	5.08	1.61
0.417	1.61	2.000	27.30	3.583	11.24	5.17	1.61
0.500	1.61	2.083	27.30	3.667	11.24	5.25	1.61
0.583	1.61	2.167	27.30	3.750	11.24	5.33	1.61
0.667	1.61	2.250	27.30	3.833	6.42	5.42	1.61
0.750	1.61	2.333	73.88	3.917	6.42	5.50	1.61
0.833	1.61	2.417	73.88	4.000	6.42	5.58	1.61
0.917	1.61	2.500	73.88	4.083	6.42	5.67	1.61
1.000	1.61	2.583	73.88	4.167	6.42	5.75	1.61
1.083	1.61	2.667	73.88	4.250	6.42	5.83	1.61
1.167	1.61	2.750	73.88	4.333	3.21	5.92	1.61
1.250	1.61	2.833	20.88	4.417	3.21	6.00	1.61
1.333	9.64	2.917	20.88	4.500	3.21	6.08	1.61
1.417	9.64	3.000	20.88	4.583	3.21	6.17	1.61
1.500	9.64	3.083	20.88	4.667	3.21	6.25	1.61
1.583	9.64	3.167	20.88	4.750	3.21		

Max.Eff.Inten.(mm/hr)= 73.88 40.46
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.10 (ii) 1.93 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.34 0.31

TOTALS
 PEAK FLOW (cms)= 0.49 0.00 0.490 (iii)

TIME TO PEAK (hrs)=	2.67	2.75	2.75
RUNOFF VOLUME (mm)=	79.31	33.51	78.85
TOTAL RAINFALL (mm)=	80.31	80.31	80.31
RUNOFF COEFFICIENT =	0.99	0.42	0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7806): 2.37 0.484 2.75 78.85
 + ID2= 2 (7811): 2.40 0.490 2.75 78.85

 ID = 3 (7843): 4.77 0.975 2.75 78.85

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7843): 4.77 0.975 2.75 78.85
 + ID2= 2 (7816): 2.36 0.482 2.75 78.85

 ID = 1 (7843): 7.13 1.457 2.75 78.85

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7843): 7.13 1.457 2.75 78.85
 + ID2= 2 (7827): 2.39 0.488 2.75 78.85

 ID = 3 (7843): 9.52 1.945 2.75 78.85

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7843): 9.52 1.945 2.75 78.85
 + ID2= 2 (7832): 2.39 0.488 2.75 78.85

 ID = 1 (7843): 11.91 2.434 2.75 78.85

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7843): 11.91 2.434 2.75 78.85
 + ID2= 2 (7844): 2.40 0.490 2.75 78.85

 ID = 3 (7843): 14.31 2.924 2.75 78.85

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | DIVERTHYD (7835) |



| IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1	Flow 2	Flow 3	Flow 4	Flow 5	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD. (ID= 1):	14.31	2.92	2.75	78.85
ID= 2 (2) :	12.03	1.96	2.75	78.85
ID= 3 (2) :	2.28	0.96	2.75	78.85
ID= 4 (2) :	0.00	0.00	0.00	0.00
ID= 5 (2) :	0.00	0.00	0.00	0.00
ID= 6 (2) :	0.00	0.00	0.00	0.00

| RESERVOIR (7808) |
| IN= 2---> OUT= 1 |
| DT= 5.0 min |

OVERFLOW IS ON

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.0000	0.4589
0.1980	0.1112	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7835)	12.035	1.962	2.75	78.85
OUTFLOW: ID= 1 (7808)	9.531	0.269	2.75	78.84
OVERFLOW: ID= 3 (0003)	2.504	1.693	2.75	78.84

TOTAL NUMBER OF SIMULATION OVERFLOW = 13
CUMULATIVE TIME OF OVERFLOW (HOURS) = 1.08
PERCENTAGE OF TIME OVERFLOWING (%) = 5.53

PEAK FLOW REDUCTION [Qout/Qin] (%) = 13.71
TIME SHIFT OF PEAK FLOW (min) = 0.00
MAXIMUM STORAGE USED (ha.m.) = 0.4589

| Junction Command(7803) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 3 (7808)	2.50	1.69	2.75	78.84
OUTFLOW: ID= 2 (7803)	2.50	1.69	2.75	78.84

| ADD HYD (7824) |
| 1 + 2 = 3 |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7803):	2.50	1.693	2.75	78.84
+ ID2= 2 (7808):	9.53	0.269	2.75	78.84
ID = 3 (7824):	12.03	1.962	2.75	78.84

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (7824) |
| 3 + 2 = 1 |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (7824):	12.03	1.962	2.75	78.84
+ ID2= 2 (7835):	2.28	0.962	2.75	78.85
ID = 1 (7824):	14.31	2.924	2.75	78.84

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)=	Dir. Conn.(%)=
STANDHYD (7810)	1.06	95.00
ID= 1 DT= 5.0 min	Total Imp(%)= 95.00	95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.01	0.05
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	9.64	3.250	20.88	4.83	1.61
0.167	0.00	1.750	9.64	3.333	11.24	4.92	1.61
0.250	0.00	1.833	27.30	3.417	11.24	5.00	1.61
0.333	1.61	1.917	27.30	3.500	11.24	5.08	1.61
0.417	1.61	2.000	27.30	3.583	11.24	5.17	1.61
0.500	1.61	2.083	27.30	3.667	11.24	5.25	1.61
0.583	1.61	2.167	27.30	3.750	11.24	5.33	1.61
0.667	1.61	2.250	27.30	3.833	6.42	5.42	1.61
0.750	1.61	2.333	73.88	3.917	6.42	5.50	1.61
0.833	1.61	2.417	73.88	4.000	6.42	5.58	1.61
0.917	1.61	2.500	73.88	4.083	6.42	5.67	1.61
1.000	1.61	2.583	73.88	4.167	6.42	5.75	1.61
1.083	1.61	2.667	73.88	4.250	6.42	5.83	1.61
1.167	1.61	2.750	73.88	4.333	3.21	5.92	1.61
1.250	1.61	2.833	20.88	4.417	3.21	6.00	1.61
1.333	9.64	2.917	20.88	4.500	3.21	6.08	1.61
1.417	9.64	3.000	20.88	4.583	3.21	6.17	1.61
1.500	9.64	3.083	20.88	4.667	3.21	6.25	1.61
1.583	9.64	3.167	20.88	4.750	3.21		1.61

Max.Eff.Inten.(mm/hr)=	73.88	41.58
over (min)	5.00	
Storage Coeff. (min)=	1.61 (ii)	4.07 (ii)
Unit Hyd. Tpeak (min)=	5.00	
Unit Hyd. peak (cms)=	0.32	0.24

PEAK FLOW (cms)=	0.21	0.01	*TOTALS*
TIME TO PEAK (hrs)=	2.75	2.75	0.213 (iii)
RUNOFF VOLUME (mm)=	78.31	34.47	76.12
TOTAL RAINFALL (mm)=	80.31	80.31	80.31
RUNOFF COEFFICIENT =	0.98	0.43	0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	Dir. Conn.(%)=
STANDHYD (7814)	1.45	96.00
ID= 1 DT= 5.0 min	Total Imp(%)= 96.00	96.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.39	0.06
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	9.64	3.250	20.88	4.83	1.61
0.167	0.00	1.750	9.64	3.333	11.24	4.92	1.61
0.250	0.00	1.833	27.30	3.417	11.24	5.00	1.61
0.333	1.61	1.917	27.30	3.500	11.24	5.08	1.61
0.417	1.61	2.000	27.30	3.583	11.24	5.17	1.61
0.500	1.61	2.083	27.30	3.667	11.24	5.25	1.61
0.583	1.61	2.167	27.30	3.750	11.24	5.33	1.61
0.667	1.61	2.250	27.30	3.833	6.42	5.42	1.61
0.750	1.61	2.333	73.88	3.917	6.42	5.50	1.61
0.833	1.61	2.417	73.88	4.000	6.42	5.58	1.61
0.917	1.61	2.500	73.88	4.083	6.42	5.67	1.61
1.000	1.61	2.583	73.88	4.167	6.42	5.75	1.61
1.083	1.61	2.667	73.88	4.250	6.42	5.83	1.61
1.167	1.61	2.750	73.88	4.333	3.21	5.92	1.61
1.250	1.61	2.833	20.88	4.417	3.21	6.00	1.61
1.333	9.64	2.917	20.88	4.500	3.21	6.08	1.61
1.417	9.64	3.000	20.88	4.583	3.21	6.17	1.61
1.500	9.64	3.083	20.88	4.667	3.21	6.25	1.61
1.583	9.64	3.167	20.88	4.750	3.21		1.61

Max.Eff.Inten. (mm/hr)= 73.88 40.46
 over (min)= 5.00 10.00
 Storage Coeff. (min)= 2.80 (ii) 7.64 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.28 0.13

PEAK FLOW (cms)= 0.29 0.01
 TIME TO PEAK (hrs)= 2.75 2.75
 RUNOFF VOLUME (mm)= 78.31 33.51
 TOTAL RAINFALL (mm)= 80.31 80.31
 RUNOFF COEFFICIENT = 0.98 0.42

TOTALS
 0.291 (iii)

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
 (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7822) | Area (ha)= 1.70
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.68 0.02
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	9.64	3.250	20.88	4.83	1.61
0.167	0.00	1.750	9.64	3.333	11.24	4.92	1.61
0.250	0.00	1.833	27.30	3.417	11.24	5.00	1.61
0.333	1.61	1.917	27.30	3.500	11.24	5.08	1.61
0.417	1.61	2.000	27.30	3.583	11.24	5.17	1.61
0.500	1.61	2.083	27.30	3.667	11.24	5.25	1.61
0.583	1.61	2.167	27.30	3.750	11.24	5.33	1.61
0.667	1.61	2.250	27.30	3.833	6.42	5.42	1.61
0.750	1.61	2.333	73.88	3.917	6.42	5.50	1.61
0.833	1.61	2.417	73.88	4.000	6.42	5.58	1.61
0.917	1.61	2.500	73.88	4.083	6.42	5.67	1.61
1.000	1.61	2.583	73.88	4.167	6.42	5.75	1.61
1.083	1.61	2.667	73.88	4.250	6.42	5.83	1.61

1.167	1.61	2.750	73.88	4.333	3.21	5.92	1.61
1.250	1.61	2.833	20.88	4.417	3.21	6.00	1.61
1.333	9.64	2.917	20.88	4.500	3.21	6.08	1.61
1.417	9.64	3.000	20.88	4.583	3.21	6.17	1.61
1.500	9.64	3.083	20.88	4.667	3.21	6.25	1.61
1.583	9.64	3.167	20.88	4.750	3.21		1.61

Max.Eff.Inten. (mm/hr)= 73.88 40.46
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 2.80 (ii) 4.07 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.28 0.24

TOTALS
 PEAK FLOW (cms)= 0.35 0.00 0.347 (iii)
 TIME TO PEAK (hrs)= 2.75 2.75 2.75
 RUNOFF VOLUME (mm)= 78.31 33.51 77.86
 TOTAL RAINFALL (mm)= 80.31 80.31 80.31
 RUNOFF COEFFICIENT = 0.98 0.42 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
 (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
 (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7838) | Area (ha)= 1.33
 | ID= 1 DT= 5.0 min | Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.30 0.03
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	9.64	3.250	20.88	4.83	1.61
0.167	0.00	1.750	9.64	3.333	11.24	4.92	1.61
0.250	0.00	1.833	27.30	3.417	11.24	5.00	1.61
0.333	1.61	1.917	27.30	3.500	11.24	5.08	1.61
0.417	1.61	2.000	27.30	3.583	11.24	5.17	1.61
0.500	1.61	2.083	27.30	3.667	11.24	5.25	1.61
0.583	1.61	2.167	27.30	3.750	11.24	5.33	1.61
0.667	1.61	2.250	27.30	3.833	6.42	5.42	1.61
0.750	1.61	2.333	73.88	3.917	6.42	5.50	1.61
0.833	1.61	2.417	73.88	4.000	6.42	5.58	1.61
0.917	1.61	2.500	73.88	4.083	6.42	5.67	1.61
1.000	1.61	2.583	73.88	4.167	6.42	5.75	1.61
1.083	1.61	2.667	73.88	4.250	6.42	5.83	1.61
1.167	1.61	2.750	73.88	4.333	3.21	5.92	1.61
1.250	1.61	2.833	20.88	4.417	3.21	6.00	1.61
1.333	9.64	2.917	20.88	4.500	3.21	6.08	1.61
1.417	9.64	3.000	20.88	4.583	3.21	6.17	1.61
1.500	9.64	3.083	20.88	4.667	3.21	6.25	1.61
1.583	9.64	3.167	20.88	4.750	3.21		1.61

Max.Eff.Inten. (mm/hr)= 73.88 40.46
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 2.80 (ii) 4.48 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.28 0.23

TOTALS
 PEAK FLOW (cms)= 0.27 0.00 0.270 (iii)
 TIME TO PEAK (hrs)= 2.75 2.75 2.75
 RUNOFF VOLUME (mm)= 78.31 33.51 77.41
 TOTAL RAINFALL (mm)= 80.31 80.31 80.31



RUNOFF COEFFICIENT = 0.98 0.42 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7805)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7814):	1.45	0.291	2.75	76.52
+ ID2= 2 (7822):	1.70	0.347	2.75	77.86
ID = 3 (7805):	3.15	0.639	2.75	77.24

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7805)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7805):	3.15	0.639	2.75	77.24
+ ID2= 2 (7838):	1.33	0.270	2.75	77.41
ID = 1 (7805):	4.48	0.909	2.75	77.29

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)	Total Imp (%)	Dir. Conn. (%)
STANDHYD (7819)	1.32	99.00	99.00
ID= 1 DT= 5.0 min			

	IMPERVIOUS (ha)	PERVIOUS (i)
Surface Area	1.31	0.01
Dep. Storage	2.00	5.00
Average Slope	1.10	2.00
Length	100.00	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	9.64	3.250	20.88	4.83	1.61
0.167	0.00	1.750	9.64	3.333	11.24	4.92	1.61
0.250	0.00	1.833	27.30	3.417	11.24	5.00	1.61
0.333	1.61	1.917	27.30	3.500	11.24	5.08	1.61
0.417	1.61	2.000	27.30	3.583	11.24	5.17	1.61
0.500	1.61	2.083	27.30	3.667	11.24	5.25	1.61
0.583	1.61	2.167	27.30	3.750	11.24	5.33	1.61
0.667	1.61	2.250	27.30	3.833	6.42	5.42	1.61
0.750	1.61	2.333	73.88	3.917	6.42	5.50	1.61
0.833	1.61	2.417	73.88	4.000	6.42	5.58	1.61
0.917	1.61	2.500	73.88	4.083	6.42	5.67	1.61
1.000	1.61	2.583	73.88	4.167	6.42	5.75	1.61
1.083	1.61	2.667	73.88	4.250	6.42	5.83	1.61
1.167	1.61	2.750	73.88	4.333	3.21	5.92	1.61
1.250	1.61	2.833	20.88	4.417	3.21	6.00	1.61
1.333	9.64	2.917	20.88	4.500	3.21	6.08	1.61
1.417	9.64	3.000	20.88	4.583	3.21	6.17	1.61
1.500	9.64	3.083	20.88	4.667	3.21	6.25	1.61
1.583	9.64	3.167	20.88	4.750	3.21		

Max.Eff.Inten. (mm/hr)=	73.88	40.46
over (min)	5.00	5.00
Storage Coeff. (min)=	2.80 (ii)	4.07 (ii)

Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.28 0.24

TOTALS

PEAK FLOW (cms)=	0.27	0.00	0.270 (iii)
TIME TO PEAK (hrs)=	2.75	2.75	2.75
RUNOFF VOLUME (mm)=	78.31	33.51	77.86
TOTAL RAINFALL (mm)=	80.31	80.31	80.31
RUNOFF COEFFICIENT =	0.98	0.42	0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	Total Imp (%)	Dir. Conn. (%)
STANDHYD (7829)	1.69	99.00	99.00
ID= 1 DT= 5.0 min			

	IMPERVIOUS (ha)	PERVIOUS (i)
Surface Area	1.67	0.02
Dep. Storage	2.00	5.00
Average Slope	1.10	2.00
Length	100.00	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	9.64	3.250	20.88	4.83	1.61
0.167	0.00	1.750	9.64	3.333	11.24	4.92	1.61
0.250	0.00	1.833	27.30	3.417	11.24	5.00	1.61
0.333	1.61	1.917	27.30	3.500	11.24	5.08	1.61
0.417	1.61	2.000	27.30	3.583	11.24	5.17	1.61
0.500	1.61	2.083	27.30	3.667	11.24	5.25	1.61
0.583	1.61	2.167	27.30	3.750	11.24	5.33	1.61
0.667	1.61	2.250	27.30	3.833	6.42	5.42	1.61
0.750	1.61	2.333	73.88	3.917	6.42	5.50	1.61
0.833	1.61	2.417	73.88	4.000	6.42	5.58	1.61
0.917	1.61	2.500	73.88	4.083	6.42	5.67	1.61
1.000	1.61	2.583	73.88	4.167	6.42	5.75	1.61
1.083	1.61	2.667	73.88	4.250	6.42	5.83	1.61
1.167	1.61	2.750	73.88	4.333	3.21	5.92	1.61
1.250	1.61	2.833	20.88	4.417	3.21	6.00	1.61
1.333	9.64	2.917	20.88	4.500	3.21	6.08	1.61
1.417	9.64	3.000	20.88	4.583	3.21	6.17	1.61
1.500	9.64	3.083	20.88	4.667	3.21	6.25	1.61
1.583	9.64	3.167	20.88	4.750	3.21		

Max.Eff.Inten. (mm/hr)=	73.88	40.46
over (min)	5.00	5.00
Storage Coeff. (min)=	2.80 (ii)	4.07 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.28	0.24

TOTALS

PEAK FLOW (cms)=	0.34	0.00	0.345 (iii)
TIME TO PEAK (hrs)=	2.75	2.75	2.75
RUNOFF VOLUME (mm)=	78.31	33.51	77.86
TOTAL RAINFALL (mm)=	80.31	80.31	80.31
RUNOFF COEFFICIENT =	0.98	0.42	0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB |
| STANDHYD ( 7839) | Area (ha)= 1.61
| ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00
-----
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.48 0.13
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.10 2.00
Length (m)= 100.00 145.00
Mannings n = 0.013 0.250

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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-----
--- TRANSFORMED HYETOGRAPH ---
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 1.667 9.64 | 3.250 20.88 | 4.83 1.61
0.167 0.00 | 1.750 9.64 | 3.333 11.24 | 4.92 1.61
0.250 0.00 | 1.833 27.30 | 3.417 11.24 | 5.00 1.61
0.333 1.61 | 1.917 27.30 | 3.500 11.24 | 5.08 1.61
0.417 1.61 | 2.000 27.30 | 3.583 11.24 | 5.17 1.61
0.500 1.61 | 2.083 27.30 | 3.667 11.24 | 5.25 1.61
0.583 1.61 | 2.167 27.30 | 3.750 11.24 | 5.33 1.61
0.667 1.61 | 2.250 27.30 | 3.833 6.42 | 5.42 1.61
0.750 1.61 | 2.333 73.88 | 3.917 6.42 | 5.50 1.61
0.833 1.61 | 2.417 73.88 | 4.000 6.42 | 5.58 1.61
0.917 1.61 | 2.500 73.88 | 4.083 6.42 | 5.67 1.61
1.000 1.61 | 2.583 73.88 | 4.167 6.42 | 5.75 1.61
1.083 1.61 | 2.667 73.88 | 4.250 6.42 | 5.83 1.61
1.167 1.61 | 2.750 73.88 | 4.333 3.21 | 5.92 1.61
1.250 1.61 | 2.833 20.88 | 4.417 3.21 | 6.00 1.61
1.333 9.64 | 2.917 20.88 | 4.500 3.21 | 6.08 1.61
1.417 9.64 | 3.000 20.88 | 4.583 3.21 | 6.17 1.61
1.500 9.64 | 3.083 20.88 | 4.667 3.21 | 6.25 1.61
1.583 9.64 | 3.167 20.88 | 4.750 3.21 |

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Max.Eff.Inten.(mm/hr)= 73.88 35.10
over (min) = 5.00 30.00
Storage Coeff. (min)= 2.80 (ii) 26.04 (ii)
Unit Hyd. Tpeak (min)= 5.00 30.00
Unit Hyd. peak (cms)= 0.28 0.04

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*TOTALS*
PEAK FLOW (cms)= 0.30 0.01 0.309 (iii)
TIME TO PEAK (hrs)= 2.75 3.08 2.75
RUNOFF VOLUME (mm)= 78.31 33.51 74.72
TOTAL RAINFALL (mm)= 80.31 80.31 80.31
RUNOFF COEFFICIENT = 0.98 0.42 0.93

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- ***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
 - (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
 - (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| ADD HYD ( 7842) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7819): 1.32 0.270 2.75 77.86
+ ID2= 2 ( 7829): 1.69 0.345 2.75 77.86
-----
ID = 3 ( 7842): 3.01 0.615 2.75 77.86

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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-----
| ADD HYD ( 7842) |
| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.

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-----
(ha) (cms) (hrs) (mm)
ID1= 3 ( 7842): 3.01 0.615 2.75 77.86
+ ID2= 2 ( 7839): 1.61 0.309 2.75 74.72
-----
ID = 1 ( 7842): 4.62 0.924 2.75 76.77

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7830) | Area (ha)= 1.20
| ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00
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IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.14 0.06
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.50 2.00
Length (m)= 60.00 40.00
Mannings n = 0.013 0.250

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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-----
--- TRANSFORMED HYETOGRAPH ---
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 1.667 9.64 | 3.250 20.88 | 4.83 1.61
0.167 0.00 | 1.750 9.64 | 3.333 11.24 | 4.92 1.61
0.250 0.00 | 1.833 27.30 | 3.417 11.24 | 5.00 1.61
0.333 1.61 | 1.917 27.30 | 3.500 11.24 | 5.08 1.61
0.417 1.61 | 2.000 27.30 | 3.583 11.24 | 5.17 1.61
0.500 1.61 | 2.083 27.30 | 3.667 11.24 | 5.25 1.61
0.583 1.61 | 2.167 27.30 | 3.750 11.24 | 5.33 1.61
0.667 1.61 | 2.250 27.30 | 3.833 6.42 | 5.42 1.61
0.750 1.61 | 2.333 73.88 | 3.917 6.42 | 5.50 1.61
0.833 1.61 | 2.417 73.88 | 4.000 6.42 | 5.58 1.61
0.917 1.61 | 2.500 73.88 | 4.083 6.42 | 5.67 1.61
1.000 1.61 | 2.583 73.88 | 4.167 6.42 | 5.75 1.61
1.083 1.61 | 2.667 73.88 | 4.250 6.42 | 5.83 1.61
1.167 1.61 | 2.750 73.88 | 4.333 3.21 | 5.92 1.61
1.250 1.61 | 2.833 20.88 | 4.417 3.21 | 6.00 1.61
1.333 9.64 | 2.917 20.88 | 4.500 3.21 | 6.08 1.61
1.417 9.64 | 3.000 20.88 | 4.583 3.21 | 6.17 1.61
1.500 9.64 | 3.083 20.88 | 4.667 3.21 | 6.25 1.61
1.583 9.64 | 3.167 20.88 | 4.750 3.21 |

```

```

Max.Eff.Inten.(mm/hr)= 73.88 41.58
over (min) = 5.00 5.00
Storage Coeff. (min)= 1.61 (ii) 4.07 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.32 0.24

```

```

*TOTALS*
PEAK FLOW (cms)= 0.23 0.01 0.241 (iii)
TIME TO PEAK (hrs)= 2.75 2.75 2.75
RUNOFF VOLUME (mm)= 78.31 34.47 76.12
TOTAL RAINFALL (mm)= 80.31 80.31 80.31
RUNOFF COEFFICIENT = 0.98 0.43 0.95

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7804) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7805): 4.48 0.909 2.75 77.29
+ ID2= 2 ( 7810): 1.06 0.213 2.75 76.12
-----
ID = 3 ( 7804): 5.54 1.122 2.75 77.07

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7804)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7804):	5.54	1.122	2.75	77.07
+ ID2= 2 (7824):	14.31	2.924	2.75	78.84
ID = 1 (7804):	19.85	4.046	2.75	78.35

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7804)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7804):	19.85	4.046	2.75	78.35
+ ID2= 2 (7830):	1.20	0.241	2.75	76.12
ID = 3 (7804):	21.05	4.287	2.75	78.22

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7804)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7804):	21.05	4.287	2.75	78.22
+ ID2= 2 (7842):	4.62	0.924	2.75	76.77
ID = 1 (7804):	25.67	5.211	2.75	77.96

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7833)	OVERFLOW IS OFF			
IN= 2--> OUT= 1 DT= 5.0 min	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.6280	2.3980
	0.0730	0.2080	0.6400	2.4830
	0.0890	0.2770	0.6520	2.5670
	0.1340	0.5530	0.6640	2.6500
	0.2910	0.8290	0.6750	2.7340
	0.3860	1.1060	0.7190	3.0490
	0.4590	1.3820	0.8250	3.3550
	0.5220	1.7210	2.0760	3.4560
	0.5780	2.0600	2.3560	3.7320

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7804)	25.670	5.211	2.75	77.96
OUTFLOW: ID= 1 (7833)	25.670	0.409	4.33	77.93

PEAK FLOW REDUCTION [Qout/Qin] (%) = 7.85
 TIME SHIFT OF PEAK FLOW (min) = 95.00
 MAXIMUM STORAGE USED (ha.m.) = 1.1929

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7821)	0.19	95.00
ID= 1 DT= 5.0 min		

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	0.18	0.01
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	2.50	2.00
Length (m)	60.00	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	1.667	9.64	3.250	20.88	4.83	1.61
0.167	0.00	1.750	9.64	3.333	11.24	4.92	1.61
0.250	0.00	1.833	27.30	3.417	11.24	5.00	1.61
0.333	1.61	1.917	27.30	3.500	11.24	5.08	1.61
0.417	1.61	2.000	27.30	3.583	11.24	5.17	1.61
0.500	1.61	2.083	27.30	3.667	11.24	5.25	1.61
0.583	1.61	2.167	27.30	3.750	11.24	5.33	1.61
0.667	1.61	2.250	27.30	3.833	6.42	5.42	1.61
0.750	1.61	2.333	73.88	3.917	6.42	5.50	1.61
0.833	1.61	2.417	73.88	4.000	6.42	5.58	1.61
0.917	1.61	2.500	73.88	4.083	6.42	5.67	1.61
1.000	1.61	2.583	73.88	4.167	6.42	5.75	1.61
1.083	1.61	2.667	73.88	4.250	6.42	5.83	1.61
1.167	1.61	2.750	73.88	4.333	3.21	5.92	1.61
1.250	1.61	2.833	20.88	4.417	3.21	6.00	1.61
1.333	9.64	2.917	20.88	4.500	3.21	6.08	1.61
1.417	9.64	3.000	20.88	4.583	3.21	6.17	1.61
1.500	9.64	3.083	20.88	4.667	3.21	6.25	1.61
1.583	9.64	3.167	20.88	4.750	3.21		

Max.Eff.Inten. (mm/hr) = 73.88 41.58
 over (min) = 5.00 5.00
 Storage Coeff. (min) = 1.61 (ii) 4.07 (ii)
 Unit Hyd. Tpeak (min) = 5.00 5.00
 Unit Hyd. peak (cms) = 0.32 0.24

PEAK FLOW (cms) = 0.04 0.00 *TOTALS*
 TIME TO PEAK (hrs) = 2.75 2.75 0.038 (iii)
 RUNOFF VOLUME (mm) = 78.31 34.47 76.11
 TOTAL RAINFALL (mm) = 80.31 80.31 80.31
 RUNOFF COEFFICIENT = 0.98 0.43 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7825)	OVERFLOW IS OFF			
IN= 2--> OUT= 1 DT= 5.0 min	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
	0.0000	0.0000	0.0100	0.0090
	0.0030	0.0010	0.0110	0.0100
	0.0050	0.0030	0.0120	0.0110
	0.0060	0.0040	0.0120	0.0130
	0.0080	0.0050	0.0130	0.0140
	0.0090	0.0060	0.0140	0.0150
	0.0090	0.0080	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7821)	0.190	0.038	2.75	76.11
OUTFLOW: ID= 1 (7825)	0.190	0.009	3.25	75.69

PEAK FLOW REDUCTION [Qout/Qin] (%) = 24.19
 TIME SHIFT OF PEAK FLOW (min) = 30.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0082

CALIB	Area (ha)	Dir. Conn. (%)
STANDHYD (7836)	0.20	95.00
ID= 1 DT= 5.0 min		

	IMPERVIOUS	PERVIOUS (i)
--	------------	--------------



Surface Area (ha)= 0.19 0.01
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 2.50 2.00
 Length (m)= 36.51 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	9.64	3.250	20.88	4.83	1.61
0.167	0.00	1.750	9.64	3.333	11.24	4.92	1.61
0.250	0.00	1.833	27.30	3.417	11.24	5.00	1.61
0.333	1.61	1.917	27.30	3.500	11.24	5.08	1.61
0.417	1.61	2.000	27.30	3.583	11.24	5.17	1.61
0.500	1.61	2.083	27.30	3.667	11.24	5.25	1.61
0.583	1.61	2.167	27.30	3.750	11.24	5.33	1.61
0.667	1.61	2.250	27.30	3.833	6.42	5.42	1.61
0.750	1.61	2.333	73.88	3.917	6.42	5.50	1.61
0.833	1.61	2.417	73.88	4.000	6.42	5.58	1.61
0.917	1.61	2.500	73.88	4.083	6.42	5.67	1.61
1.000	1.61	2.583	73.88	4.167	6.42	5.75	1.61
1.083	1.61	2.667	73.88	4.250	6.42	5.83	1.61
1.167	1.61	2.750	73.88	4.333	3.21	5.92	1.61
1.250	1.61	2.833	20.88	4.417	3.21	6.00	1.61
1.333	9.64	2.917	20.88	4.500	3.21	6.08	1.61
1.417	9.64	3.000	20.88	4.583	3.21	6.17	1.61
1.500	9.64	3.083	20.88	4.667	3.21	6.25	1.61
1.583	9.64	3.167	20.88	4.750	3.21		

Max.Eff.Inten.(mm/hr)= 73.88 41.58
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.20 (ii) 3.65 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.25

TOTALS
 PEAK FLOW (cms)= 0.04 0.00 0.040 (iii)
 TIME TO PEAK (hrs)= 2.67 2.75 2.75
 RUNOFF VOLUME (mm)= 78.31 34.47 76.11
 TOTAL RAINFALL (mm)= 80.31 80.31 80.31
 RUNOFF COEFFICIENT = 0.98 0.43 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7807)		OVERFLOW IS OFF	
IN= 2-->	OUT= 1	OUTFLOW	STORAGE
DT= 5.0 min		(cms)	(ha.m.)
		0.0000	0.0000
		0.0030	0.0010
		0.0050	0.0030
		0.0060	0.0040
		0.0080	0.0050
		0.0090	0.0060
		0.0090	0.0080
			0.0000

INFLOW : ID= 2 (7836)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
OUTFLOW: ID= 1 (7807)	0.200	0.040	2.75	76.11
	0.200	0.010	3.25	75.72

PEAK FLOW REDUCTION [Qout/Qin] (%)	TIME SHIFT OF PEAK FLOW (min)	MAXIMUM STORAGE USED (ha.m.)
24.18	30.00	0.0087

ADD HYD (7831)

ID	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7807)	0.20	0.010	3.25	75.72
+ ID2= 2 (7825)	0.19	0.009	3.25	75.69
ID = 3 (7831)	0.39	0.019	3.25	75.70

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7831)

ID	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7831)	0.39	0.019	3.25	75.70
+ ID2= 2 (7833)	25.67	0.409	4.33	77.93
ID = 1 (7831)	26.06	0.427	4.33	77.90

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALLIB
 STANDHYD (7826) Area (ha)= 1.24
 ID= 1 DT= 5.0 min Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PVIOUS (i)
 Surface Area (ha)= 1.23 0.01
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 2.00 2.00
 Length (m)= 91.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	1.667	9.64	3.250	20.88	4.83	1.61
0.167	0.00	1.750	9.64	3.333	11.24	4.92	1.61
0.250	0.00	1.833	27.30	3.417	11.24	5.00	1.61
0.333	1.61	1.917	27.30	3.500	11.24	5.08	1.61
0.417	1.61	2.000	27.30	3.583	11.24	5.17	1.61
0.500	1.61	2.083	27.30	3.667	11.24	5.25	1.61
0.583	1.61	2.167	27.30	3.750	11.24	5.33	1.61
0.667	1.61	2.250	27.30	3.833	6.42	5.42	1.61
0.750	1.61	2.333	73.88	3.917	6.42	5.50	1.61
0.833	1.61	2.417	73.88	4.000	6.42	5.58	1.61
0.917	1.61	2.500	73.88	4.083	6.42	5.67	1.61
1.000	1.61	2.583	73.88	4.167	6.42	5.75	1.61
1.083	1.61	2.667	73.88	4.250	6.42	5.83	1.61
1.167	1.61	2.750	73.88	4.333	3.21	5.92	1.61
1.250	1.61	2.833	20.88	4.417	3.21	6.00	1.61
1.333	9.64	2.917	20.88	4.500	3.21	6.08	1.61
1.417	9.64	3.000	20.88	4.583	3.21	6.17	1.61
1.500	9.64	3.083	20.88	4.667	3.21	6.25	1.61
1.583	9.64	3.167	20.88	4.750	3.21		

Max.Eff.Inten.(mm/hr)= 73.88 40.46
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.21 (ii) 3.48 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.30 0.26

TOTALS
 PEAK FLOW (cms)= 0.25 0.00 0.254 (iii)
 TIME TO PEAK (hrs)= 2.75 2.75 2.75
 RUNOFF VOLUME (mm)= 78.31 33.51 77.86
 TOTAL RAINFALL (mm)= 80.31 80.31 80.31
 RUNOFF COEFFICIENT = 0.98 0.42 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7815) |
| 1 + 2 = 3 |
-----
| AREA QPEAK TPEAK R.V. |
| (ha) (cms) (hrs) (mm) |
-----
ID1= 1 ( 7826): 1.24 0.254 2.75 77.86
+ ID2= 2 ( 7831): 26.06 0.427 4.33 77.90
-----
ID = 3 ( 7815): 27.30 0.558 2.75 77.90

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| RESERVOIR( 7841) | OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT= 5.0 min |
-----
| OUTFLOW STORAGE OUTFLOW STORAGE |
| (cms) (ha.m.) | (cms) (ha.m.) |
-----
0.0000 0.0000 | 1.0810 1.6220
0.0010 0.1670 | 1.3950 1.8170
0.0340 0.3380 | 2.0990 2.2130
0.0510 0.5110 | 2.8950 2.6150
0.0630 0.6880 | 3.7730 3.0250
0.1610 0.8670 | 4.7260 3.4420
0.3300 1.0500 | 5.5670 3.8670
0.5440 1.2370 | 8.5800 4.3000
0.7970 1.4290 | 10.9450 4.5210
-----
| AREA QPEAK TPEAK R.V. |
| (ha) (cms) (hrs) (mm) |
-----
INFLOW : ID= 2 ( 7815) 27.302 0.558 2.75 77.90
OUTFLOW: ID= 1 ( 7841) 27.302 0.251 12.00 72.52

```

PEAK FLOW REDUCTION [Qout/Qin] (%) = 45.01
TIME SHIFT OF PEAK FLOW (min) = 555.00
MAXIMUM STORAGE USED (ha.m.) = 0.9645

 =====

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V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U A A A A L
V V I SSSSS U U A A L
VV I SSSSS UUUUU A A LLLLL
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OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO
```

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OP\THYMO 6.2\VO2\voindat
 Output filename: C:\Users\mhooper\AppData\Local\Civica\540fcb7f5-f544-4d5a-b245-a4eb17ead57\7724977c-ecaa-4cdb-a20d-ce023ae96b9d\scen
 Summary filename: C:\Users\mhooper\AppData\Local\Civica\540fcb7f5-f544-4d5a-b245-a4eb17ead57\7724977c-ecaa-4cdb-a20d-ce023ae96b9d\scen

DATE: 11-22-2024 TIME: 01:45:33

USER:

COMMENTS: _____

 ** SIMULATION : G 2 Year 12 Hour AES (Bloor, TRCA)

```
-----
| READ STORM | Filename: C:\Users\mhooper\AppData\Local\Temp\
| Ptotal= 42.00 mm | Comments: 2 Year 12 Hour AES (Bloor, TRCA)
-----
```

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.00	0.00	3.25	7.14	6.50	2.94	9.75	0.42
0.25	0.42	3.50	7.14	6.75	2.94	10.00	0.42
0.50	0.42	3.75	7.14	7.00	2.94	10.25	0.42
0.75	0.42	4.00	7.14	7.25	1.68	10.50	0.42
1.00	0.42	4.25	19.32	7.50	1.68	10.75	0.42
1.25	0.42	4.50	19.32	7.75	1.68	11.00	0.42
1.50	0.42	4.75	19.32	8.00	1.68	11.25	0.42
1.75	0.42	5.00	19.32	8.25	0.84	11.50	0.42
2.00	0.42	5.25	5.46	8.50	0.84	11.75	0.42
2.25	2.52	5.50	5.46	8.75	0.84	12.00	0.42
2.50	2.52	5.75	5.46	9.00	0.84		
2.75	2.52	6.00	5.46	9.25	0.42		
3.00	2.52	6.25	2.94	9.50	0.42		

----- TRANSFORMED HYETOGRAPH -----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	3.167	2.52	6.250	5.46	9.33	0.42
0.167	0.00	3.250	2.52	6.333	2.94	9.42	0.42
0.250	0.00	3.333	7.14	6.417	2.94	9.50	0.42
0.333	0.42	3.417	7.14	6.500	2.94	9.58	0.42
0.417	0.42	3.500	7.14	6.583	2.94	9.67	0.42
0.500	0.42	3.583	7.14	6.667	2.94	9.75	0.42
0.583	0.42	3.667	7.14	6.750	2.94	9.83	0.42
0.667	0.42	3.750	7.14	6.833	2.94	9.92	0.42
0.750	0.42	3.833	7.14	6.917	2.94	10.00	0.42
0.833	0.42	3.917	7.14	7.000	2.94	10.08	0.42
0.917	0.42	4.000	7.14	7.083	2.94	10.17	0.42
1.000	0.42	4.083	7.14	7.167	2.94	10.25	0.42
1.083	0.42	4.167	7.14	7.250	2.94	10.33	0.42
1.167	0.42	4.250	7.14	7.333	1.68	10.42	0.42
1.250	0.42	4.333	19.32	7.417	1.68	10.50	0.42
1.333	0.42	4.417	19.32	7.500	1.68	10.58	0.42
1.417	0.42	4.500	19.32	7.583	1.68	10.67	0.42
1.500	0.42	4.583	19.32	7.667	1.68	10.75	0.42
1.583	0.42	4.667	19.32	7.750	1.68	10.83	0.42
1.667	0.42	4.750	19.32	7.833	1.68	10.92	0.42
1.750	0.42	4.833	19.32	7.917	1.68	11.00	0.42
1.833	0.42	4.917	19.32	8.000	1.68	11.08	0.42
1.917	0.42	5.000	19.32	8.083	1.68	11.17	0.42
2.000	0.42	5.083	19.32	8.167	1.68	11.25	0.42
2.083	0.42	5.167	19.32	8.250	1.68	11.33	0.42
2.167	0.42	5.250	19.32	8.333	0.84	11.42	0.42
2.250	0.42	5.333	5.46	8.417	0.84	11.50	0.42
2.333	2.52	5.417	5.46	8.500	0.84	11.58	0.42
2.417	2.52	5.500	5.46	8.583	0.84	11.67	0.42
2.500	2.52	5.583	5.46	8.667	0.84	11.75	0.42
2.583	2.52	5.667	5.46	8.750	0.84	11.83	0.42
2.667	2.52	5.750	5.46	8.833	0.84	11.92	0.42
2.750	2.52	5.833	5.46	8.917	0.84	12.00	0.42
2.833	2.52	5.917	5.46	9.000	0.84	12.08	0.42
2.917	2.52	6.000	5.46	9.083	0.84	12.17	0.42
3.000	2.52	6.083	5.46	9.167	0.84	12.25	0.42
3.083	2.52	6.167	5.46	9.250	0.84		

Unit Hyd Qpeak (cms) = 0.047

PEAK FLOW (cms) = 0.004 (i)
 TIME TO PEAK (hrs) = 5.250
 RUNOFF VOLUME (mm) = 10.416
 TOTAL RAINFALL (mm) = 42.000
 RUNOFF COEFFICIENT = 0.248

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB | Area (ha) = 10.90
| STANDHYD ( 7828) | Total Imp (%) = 99.00 Dir. Conn. (%) = 99.00
| ID= 1 DT= 5.0 min |
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	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	10.79	0.11
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	1.00	2.00
Length (m)	269.57	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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-----
| CALIB | Area (ha) = 0.21 Curve Number (CN) = 73.0
| NASHYD ( 7823) | Ia (mm) = 5.00 # of Linear Res. (N) = 3.00
| ID= 1 DT= 5.0 min | U.H. Tp (hrs) = 0.17
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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	3.167	2.52	6.250	5.46	9.33	0.42
0.167	0.00	3.250	2.52	6.333	2.94	9.42	0.42
0.250	0.00	3.333	7.14	6.417	2.94	9.50	0.42
0.333	0.42	3.417	7.14	6.500	2.94	9.58	0.42

0.417	0.42	3.500	7.14	6.583	2.94	9.67	0.42
0.500	0.42	3.583	7.14	6.667	2.94	9.75	0.42
0.583	0.42	3.667	7.14	6.750	2.94	9.83	0.42
0.667	0.42	3.750	7.14	6.833	2.94	9.92	0.42
0.750	0.42	3.833	7.14	6.917	2.94	10.00	0.42
0.833	0.42	3.917	7.14	7.000	2.94	10.08	0.42
0.917	0.42	4.000	7.14	7.083	2.94	10.17	0.42
1.000	0.42	4.083	7.14	7.167	2.94	10.25	0.42
1.083	0.42	4.167	7.14	7.250	2.94	10.33	0.42
1.167	0.42	4.250	7.14	7.333	1.68	10.42	0.42
1.250	0.42	4.333	19.32	7.417	1.68	10.50	0.42
1.333	0.42	4.417	19.32	7.500	1.68	10.58	0.42
1.417	0.42	4.500	19.32	7.583	1.68	10.67	0.42
1.500	0.42	4.583	19.32	7.667	1.68	10.75	0.42
1.583	0.42	4.667	19.32	7.750	1.68	10.83	0.42
1.667	0.42	4.750	19.32	7.833	1.68	10.92	0.42
1.750	0.42	4.833	19.32	7.917	1.68	11.00	0.42
1.833	0.42	4.917	19.32	8.000	1.68	11.08	0.42
1.917	0.42	5.000	19.32	8.083	1.68	11.17	0.42
2.000	0.42	5.083	19.32	8.167	1.68	11.25	0.42
2.083	0.42	5.167	19.32	8.250	1.68	11.33	0.42
2.167	0.42	5.250	19.32	8.333	0.84	11.42	0.42
2.250	0.42	5.333	5.46	8.417	0.84	11.50	0.42
2.333	2.52	5.417	5.46	8.500	0.84	11.58	0.42
2.417	2.52	5.500	5.46	8.583	0.84	11.67	0.42
2.500	2.52	5.583	5.46	8.667	0.84	11.75	0.42
2.583	2.52	5.667	5.46	8.750	0.84	11.83	0.42
2.667	2.52	5.750	5.46	8.833	0.84	11.92	0.42
2.750	2.52	5.833	5.46	8.917	0.84	12.00	0.42
2.833	2.52	5.917	5.46	9.000	0.84	12.08	0.42
2.917	2.52	6.000	5.46	9.083	0.84	12.17	0.42
3.000	2.52	6.083	5.46	9.167	0.84	12.25	0.42
3.083	2.52	6.167	5.46	9.250	0.84		

Max.Eff.Inten.(mm/hr)= 19.32 6.89
 over (min) 10.00 15.00
 Storage Coeff. (min)= 8.94 (ii) 11.11 (ii)
 Unit Hyd. Tpeak (min)= 10.00 15.00
 Unit Hyd. peak (cms)= 0.12 0.09

TOTALS
 PEAK FLOW (cms)= 0.58 0.00 0.580 (iii)
 TIME TO PEAK (hrs)= 5.25 5.25 5.25
 RUNOFF VOLUME (mm)= 40.00 10.45 39.70
 TOTAL RAINFALL (mm)= 42.00 42.00 42.00
 RUNOFF COEFFICIENT = 0.95 0.25 0.95

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7837)				
1	2	3		

ID1= 1 (7823):	0.21	0.004	5.25	10.42
+ ID2= 2 (7828):	10.90	0.580	5.25	39.70
=====				
ID = 3 (7837):	11.11	0.584	5.25	39.16

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7818)				
OVERFLOW IS OFF				
IN= 2---> OUT= 1				
DT= 5.0 min				

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)	
0.0000	0.0000	0.1390	0.6960	
0.0590	0.3400	0.1630	0.7780	
0.0900	0.4907	0.1840	0.8800	
0.1110	0.5760	0.0000	0.0000	

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7837)	11.108	0.584	5.25	39.16
OUTFLOW: ID= 1 (7818)	11.108	0.059	7.58	39.02

PEAK FLOW REDUCTION [Qout/Qin] (%) = 10.04
 TIME SHIFT OF PEAK FLOW (min)=140.00
 MAXIMUM STORAGE USED (ha.m.)= 0.3377

CALIB | Area (ha)= 11.38
 STANDHYD (7820) | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
 ID= 1 DT= 5.0 min |

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	11.27	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	275.44	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----															
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN				
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr				
0.083	0.00	3.167	2.52	6.250	5.46	9.33	0.42	0.167	0.00	3.250	2.52	6.333	2.94	9.42	0.42
0.250	0.00	3.333	7.14	6.417	2.94	9.50	0.42	0.333	0.42	3.417	7.14	6.500	2.94	9.58	0.42
0.417	0.42	3.500	7.14	6.583	2.94	9.67	0.42	0.500	0.42	3.583	7.14	6.667	2.94	9.75	0.42
0.583	0.42	3.667	7.14	6.750	2.94	9.83	0.42	0.667	0.42	3.750	7.14	6.833	2.94	9.92	0.42
0.750	0.42	3.833	7.14	6.917	2.94	10.00	0.42	0.833	0.42	3.917	7.14	7.000	2.94	10.08	0.42
0.917	0.42	4.000	7.14	7.083	2.94	10.17	0.42	1.000	0.42	4.083	7.14	7.167	2.94	10.25	0.42
1.083	0.42	4.167	7.14	7.250	2.94	10.33	0.42	1.167	0.42	4.250	7.14	7.333	1.68	10.42	0.42
1.250	0.42	4.333	19.32	7.417	1.68	10.50	0.42	1.333	0.42	4.417	19.32	7.500	1.68	10.58	0.42
1.417	0.42	4.500	19.32	7.583	1.68	10.67	0.42	1.500	0.42	4.583	19.32	7.667	1.68	10.75	0.42
1.583	0.42	4.667	19.32	7.750	1.68	10.83	0.42	1.667	0.42	4.750	19.32	7.833	1.68	10.92	0.42
1.750	0.42	4.833	19.32	7.917	1.68	11.00	0.42	1.833	0.42	4.917	19.32	8.000	1.68	11.08	0.42
1.917	0.42	5.000	19.32	8.083	1.68	11.17	0.42	2.000	0.42	5.083	19.32	8.167	1.68	11.25	0.42
2.000	0.42	5.083	19.32	8.167	1.68	11.25	0.42	2.083	0.42	5.167	19.32	8.250	1.68	11.33	0.42
2.167	0.42	5.250	19.32	8.333	0.84	11.42	0.42	2.250	0.42	5.333	5.46	8.417	0.84	11.50	0.42
2.333	2.52	5.417	5.46	8.500	0.84	11.58	0.42	2.417	2.52	5.500	5.46	8.583	0.84	11.67	0.42
2.500	2.52	5.583	5.46	8.667	0.84	11.75	0.42	2.583	2.52	5.667	5.46	8.750	0.84	11.83	0.42
2.667	2.52	5.750	5.46	8.833	0.84	11.92	0.42	2.750	2.52	5.833	5.46	8.917	0.84	12.00	0.42
2.833	2.52	5.917	5.46	9.000	0.84	12.08	0.42	2.917	2.52	6.000	5.46	9.083	0.84	12.17	0.42
3.000	2.52	6.083	5.46	9.167	0.84	12.25	0.42	3.083	2.52	6.167	5.46	9.250	0.84		

Max.Eff.Inten.(mm/hr)= 19.32 6.89
 over (min) 10.00 15.00
 Storage Coeff. (min)= 9.06 (ii) 11.22 (ii)
 Unit Hyd. Tpeak (min)= 10.00 15.00
 Unit Hyd. peak (cms)= 0.12 0.09

TOTALS
 PEAK FLOW (cms)= 0.60 0.00 0.606 (iii)
 TIME TO PEAK (hrs)= 5.25 5.25 5.25
 RUNOFF VOLUME (mm)= 40.00 10.45 39.70
 TOTAL RAINFALL (mm)= 42.00 42.00 42.00



RUNOFF COEFFICIENT = 0.95 0.25 0.95

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7812) OVERFLOW IS OFF				
IN= 2--> OUT= 1				
DT= 5.0 min				
	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.1990	0.6950
	0.0830	0.3500	0.2320	0.8000
	0.1280	0.4850	0.2620	0.9000
	0.1580	0.5900	0.0000	0.0000

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7820)	11.380	0.606	5.25	39.70
OUTFLOW: ID= 1 (7812)	11.380	0.079	7.33	39.61

PEAK FLOW REDUCTION [Qout/Qin] (%) = 13.01
 TIME SHIFT OF PEAK FLOW (min) = 125.00
 MAXIMUM STORAGE USED (ha.m.) = 0.3323

ADD HYD (7802)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7812):	11.38	0.079	7.33	39.61
+ ID2= 2 (7818):	11.11	0.059	7.58	39.02
ID = 3 (7802):	22.49	0.137	7.42	39.32

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7834)			
ID= 1 DT= 5.0 min	Area (ha)=	0.59	Total Imp(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.58	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	62.72	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	2.52	6.250	5.46	9.333	0.42
0.167	0.00	3.250	2.52	6.333	2.94	9.42	0.42
0.250	0.00	3.333	7.14	6.417	2.94	9.50	0.42
0.333	0.42	3.417	7.14	6.500	2.94	9.58	0.42
0.417	0.42	3.500	7.14	6.583	2.94	9.67	0.42
0.500	0.42	3.583	7.14	6.667	2.94	9.75	0.42
0.583	0.42	3.667	7.14	6.750	2.94	9.83	0.42
0.667	0.42	3.750	7.14	6.833	2.94	9.92	0.42
0.750	0.42	3.833	7.14	6.917	2.94	10.00	0.42
0.833	0.42	3.917	7.14	7.000	2.94	10.08	0.42
0.917	0.42	4.000	7.14	7.083	2.94	10.17	0.42
1.000	0.42	4.083	7.14	7.167	2.94	10.25	0.42
1.083	0.42	4.167	7.14	7.250	2.94	10.33	0.42
1.167	0.42	4.250	7.14	7.333	1.68	10.42	0.42
1.250	0.42	4.333	19.32	7.417	1.68	10.50	0.42
1.333	0.42	4.417	19.32	7.500	1.68	10.58	0.42

1.417	0.42	4.500	19.32	7.583	1.68	10.67	0.42
1.500	0.42	4.583	19.32	7.667	1.68	10.75	0.42
1.583	0.42	4.667	19.32	7.750	1.68	10.83	0.42
1.667	0.42	4.750	19.32	7.833	1.68	10.92	0.42
1.750	0.42	4.833	19.32	7.917	1.68	11.00	0.42
1.833	0.42	4.917	19.32	8.000	1.68	11.08	0.42
1.917	0.42	5.000	19.32	8.083	1.68	11.17	0.42
2.000	0.42	5.083	19.32	8.167	1.68	11.25	0.42
2.083	0.42	5.167	19.32	8.250	1.68	11.33	0.42
2.167	0.42	5.250	19.32	8.333	0.84	11.42	0.42
2.250	0.42	5.333	5.46	8.417	0.84	11.50	0.42
2.333	2.52	5.417	5.46	8.500	0.84	11.58	0.42
2.417	2.52	5.500	5.46	8.583	0.84	11.67	0.42
2.500	2.52	5.583	5.46	8.667	0.84	11.75	0.42
2.583	2.52	5.667	5.46	8.750	0.84	11.83	0.42
2.667	2.52	5.750	5.46	8.833	0.84	11.92	0.42
2.750	2.52	5.833	5.46	8.917	0.84	12.00	0.42
2.833	2.52	5.917	5.46	9.000	0.84	12.08	0.42
2.917	2.52	6.000	5.46	9.083	0.84	12.17	0.42
3.000	2.52	6.083	5.46	9.167	0.84	12.25	0.42
3.083	2.52	6.167	5.46	9.250	0.84		

Max.Eff.Inten.(mm/hr)=	19.32	6.89
over (min)	5.00	10.00
Storage Coeff. (min)=	3.03 (ii)	5.20 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.27	0.16
PEAK FLOW (cms)=	0.03	0.00
TIME TO PEAK (hrs)=	5.08	5.25
RUNOFF VOLUME (mm)=	40.00	10.45
TOTAL RAINFALL (mm)=	42.00	42.00
RUNOFF COEFFICIENT =	0.95	0.25

TOTALS
 0.031 (iii)
 5.25
 39.70
 42.00
 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7806)			
ID= 1 DT= 5.0 min	Area (ha)=	2.37	Total Imp(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.35	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	2.52	6.250	5.46	9.333	0.42
0.167	0.00	3.250	2.52	6.333	2.94	9.42	0.42
0.250	0.00	3.333	7.14	6.417	2.94	9.50	0.42
0.333	0.42	3.417	7.14	6.500	2.94	9.58	0.42
0.417	0.42	3.500	7.14	6.583	2.94	9.67	0.42
0.500	0.42	3.583	7.14	6.667	2.94	9.75	0.42
0.583	0.42	3.667	7.14	6.750	2.94	9.83	0.42
0.667	0.42	3.750	7.14	6.833	2.94	9.92	0.42
0.750	0.42	3.833	7.14	6.917	2.94	10.00	0.42
0.833	0.42	3.917	7.14	7.000	2.94	10.08	0.42
0.917	0.42	4.000	7.14	7.083	2.94	10.17	0.42
1.000	0.42	4.083	7.14	7.167	2.94	10.25	0.42
1.083	0.42	4.167	7.14	7.250	2.94	10.33	0.42
1.167	0.42	4.250	7.14	7.333	1.68	10.42	0.42
1.250	0.42	4.333	19.32	7.417	1.68	10.50	0.42
1.333	0.42	4.417	19.32	7.500	1.68	10.58	0.42

1.333	0.42	4.417	19.32	7.500	1.68	10.58	0.42
1.417	0.42	4.500	19.32	7.583	1.68	10.67	0.42
1.500	0.42	4.583	19.32	7.667	1.68	10.75	0.42
1.583	0.42	4.667	19.32	7.750	1.68	10.83	0.42
1.667	0.42	4.750	19.32	7.833	1.68	10.92	0.42
1.750	0.42	4.833	19.32	7.917	1.68	11.00	0.42
1.833	0.42	4.917	19.32	8.000	1.68	11.08	0.42
1.917	0.42	5.000	19.32	8.083	1.68	11.17	0.42
2.000	0.42	5.083	19.32	8.167	1.68	11.25	0.42
2.083	0.42	5.167	19.32	8.250	1.68	11.33	0.42
2.167	0.42	5.250	19.32	8.333	0.84	11.42	0.42
2.250	0.42	5.333	5.46	8.417	0.84	11.50	0.42
2.333	2.52	5.417	5.46	8.500	0.84	11.58	0.42
2.417	2.52	5.500	5.46	8.583	0.84	11.67	0.42
2.500	2.52	5.583	5.46	8.667	0.84	11.75	0.42
2.583	2.52	5.667	5.46	8.750	0.84	11.83	0.42
2.667	2.52	5.750	5.46	8.833	0.84	11.92	0.42
2.750	2.52	5.833	5.46	8.917	0.84	12.00	0.42
2.833	2.52	5.917	5.46	9.000	0.84	12.08	0.42
2.917	2.52	6.000	5.46	9.083	0.84	12.17	0.42
3.000	2.52	6.083	5.46	9.167	0.84	12.25	0.42
3.083	2.52	6.167	5.46	9.250	0.84		

Max.Eff.Inten.(mm/hr)=	19.32	6.89	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.88 (ii)	3.31 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.32	0.26	
TOTALS			
PEAK FLOW (cms)=	0.13	0.00	0.126 (iii)
TIME TO PEAK (hrs)=	4.83	5.25	5.25
RUNOFF VOLUME (mm)=	41.00	10.45	40.69
TOTAL RAINFALL (mm)=	42.00	42.00	42.00
RUNOFF COEFFICIENT =	0.98	0.25	0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	2.40
STANDHYD (7811)	Total Imp(%)=	99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	2.52	6.250	5.46	9.33	0.42
0.167	0.00	3.250	2.52	6.333	2.94	9.42	0.42
0.250	0.00	3.333	7.14	6.417	2.94	9.50	0.42
0.333	0.42	3.417	7.14	6.500	2.94	9.58	0.42
0.417	0.42	3.500	7.14	6.583	2.94	9.67	0.42
0.500	0.42	3.583	7.14	6.667	2.94	9.75	0.42
0.583	0.42	3.667	7.14	6.750	2.94	9.83	0.42
0.667	0.42	3.750	7.14	6.833	2.94	9.92	0.42
0.750	0.42	3.833	7.14	6.917	2.94	10.00	0.42
0.833	0.42	3.917	7.14	7.000	2.94	10.08	0.42
0.917	0.42	4.000	7.14	7.083	2.94	10.17	0.42
1.000	0.42	4.083	7.14	7.167	2.94	10.25	0.42
1.083	0.42	4.167	7.14	7.250	2.94	10.33	0.42
1.167	0.42	4.250	7.14	7.333	1.68	10.42	0.42

1.250	0.42	4.333	19.32	7.417	1.68	10.50	0.42
1.333	0.42	4.417	19.32	7.500	1.68	10.58	0.42
1.417	0.42	4.500	19.32	7.583	1.68	10.67	0.42
1.500	0.42	4.583	19.32	7.667	1.68	10.75	0.42
1.583	0.42	4.667	19.32	7.750	1.68	10.83	0.42
1.667	0.42	4.750	19.32	7.833	1.68	10.92	0.42
1.750	0.42	4.833	19.32	7.917	1.68	11.00	0.42
1.833	0.42	4.917	19.32	8.000	1.68	11.08	0.42
1.917	0.42	5.000	19.32	8.083	1.68	11.17	0.42
2.000	0.42	5.083	19.32	8.167	1.68	11.25	0.42
2.083	0.42	5.167	19.32	8.250	1.68	11.33	0.42
2.167	0.42	5.250	19.32	8.333	0.84	11.42	0.42
2.250	0.42	5.333	5.46	8.417	0.84	11.50	0.42
2.333	2.52	5.417	5.46	8.500	0.84	11.58	0.42
2.417	2.52	5.500	5.46	8.583	0.84	11.67	0.42
2.500	2.52	5.583	5.46	8.667	0.84	11.75	0.42
2.583	2.52	5.667	5.46	8.750	0.84	11.83	0.42
2.667	2.52	5.750	5.46	8.833	0.84	11.92	0.42
2.750	2.52	5.833	5.46	8.917	0.84	12.00	0.42
2.833	2.52	5.917	5.46	9.000	0.84	12.08	0.42
2.917	2.52	6.000	5.46	9.083	0.84	12.17	0.42
3.000	2.52	6.083	5.46	9.167	0.84	12.25	0.42
3.083	2.52	6.167	5.46	9.250	0.84		

Max.Eff.Inten.(mm/hr)=	19.32	6.89	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.88 (ii)	3.31 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.32	0.26	
TOTALS			
PEAK FLOW (cms)=	0.13	0.00	0.128 (iii)
TIME TO PEAK (hrs)=	4.83	5.25	5.25
RUNOFF VOLUME (mm)=	41.00	10.45	40.69
TOTAL RAINFALL (mm)=	42.00	42.00	42.00
RUNOFF COEFFICIENT =	0.98	0.25	0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	2.36
STANDHYD (7816)	Total Imp(%)=	99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.34	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	2.52	6.250	5.46	9.33	0.42
0.167	0.00	3.250	2.52	6.333	2.94	9.42	0.42
0.250	0.00	3.333	7.14	6.417	2.94	9.50	0.42
0.333	0.42	3.417	7.14	6.500	2.94	9.58	0.42
0.417	0.42	3.500	7.14	6.583	2.94	9.67	0.42
0.500	0.42	3.583	7.14	6.667	2.94	9.75	0.42
0.583	0.42	3.667	7.14	6.750	2.94	9.83	0.42
0.667	0.42	3.750	7.14	6.833	2.94	9.92	0.42
0.750	0.42	3.833	7.14	6.917	2.94	10.00	0.42
0.833	0.42	3.917	7.14	7.000	2.94	10.08	0.42
0.917	0.42	4.000	7.14	7.083	2.94	10.17	0.42
1.000	0.42	4.083	7.14	7.167	2.94	10.25	0.42
1.083	0.42	4.167	7.14	7.250	2.94	10.33	0.42

1.167	0.42	4.250	7.14	7.333	1.68	10.42	0.42
1.250	0.42	4.333	19.32	7.417	1.68	10.50	0.42
1.333	0.42	4.417	19.32	7.500	1.68	10.58	0.42
1.417	0.42	4.500	19.32	7.583	1.68	10.67	0.42
1.500	0.42	4.583	19.32	7.667	1.68	10.75	0.42
1.583	0.42	4.667	19.32	7.750	1.68	10.83	0.42
1.667	0.42	4.750	19.32	7.833	1.68	10.92	0.42
1.750	0.42	4.833	19.32	7.917	1.68	11.00	0.42
1.833	0.42	4.917	19.32	8.000	1.68	11.08	0.42
1.917	0.42	5.000	19.32	8.083	1.68	11.17	0.42
2.000	0.42	5.083	19.32	8.167	1.68	11.25	0.42
2.083	0.42	5.167	19.32	8.250	1.68	11.33	0.42
2.167	0.42	5.250	19.32	8.333	0.84	11.42	0.42
2.250	0.42	5.333	5.46	8.417	0.84	11.50	0.42
2.333	2.52	5.417	5.46	8.500	0.84	11.58	0.42
2.417	2.52	5.500	5.46	8.583	0.84	11.67	0.42
2.500	2.52	5.583	5.46	8.667	0.84	11.75	0.42
2.583	2.52	5.667	5.46	8.750	0.84	11.83	0.42
2.667	2.52	5.750	5.46	8.833	0.84	11.92	0.42
2.750	2.52	5.833	5.46	8.917	0.84	12.00	0.42
2.833	2.52	5.917	5.46	9.000	0.84	12.08	0.42
2.917	2.52	6.000	5.46	9.083	0.84	12.17	0.42
3.000	2.52	6.083	5.46	9.167	0.84	12.25	0.42
3.083	2.52	6.167	5.46	9.250	0.84		

Max.Eff.Inten. (mm/hr)= 19.32 6.89
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.88 (ii) 3.31 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.26

TOTALS
 PEAK FLOW (cms)= 0.13 0.00 0.126 (iii)
 TIME TO PEAK (hrs)= 4.83 5.25 5.25
 RUNOFF VOLUME (mm)= 41.00 10.45 40.69
 TOTAL RAINFALL (mm)= 42.00 42.00 42.00
 RUNOFF COEFFICIENT = 0.98 0.25 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7827) | Area (ha)= 2.39
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	2.52	6.250	5.46	9.33	0.42
0.167	0.00	3.250	2.52	6.333	2.94	9.42	0.42
0.250	0.00	3.333	7.14	6.417	2.94	9.50	0.42
0.333	0.42	3.417	7.14	6.500	2.94	9.58	0.42
0.417	0.42	3.500	7.14	6.583	2.94	9.67	0.42
0.500	0.42	3.583	7.14	6.667	2.94	9.75	0.42
0.583	0.42	3.667	7.14	6.750	2.94	9.83	0.42
0.667	0.42	3.750	7.14	6.833	2.94	9.92	0.42
0.750	0.42	3.833	7.14	6.917	2.94	10.00	0.42
0.833	0.42	3.917	7.14	7.000	2.94	10.08	0.42
0.917	0.42	4.000	7.14	7.083	2.94	10.17	0.42
1.000	0.42	4.083	7.14	7.167	2.94	10.25	0.42

1.083	0.42	4.167	7.14	7.250	2.94	10.33	0.42
1.167	0.42	4.250	7.14	7.333	1.68	10.42	0.42
1.250	0.42	4.333	19.32	7.417	1.68	10.50	0.42
1.333	0.42	4.417	19.32	7.500	1.68	10.58	0.42
1.417	0.42	4.500	19.32	7.583	1.68	10.67	0.42
1.500	0.42	4.583	19.32	7.667	1.68	10.75	0.42
1.583	0.42	4.667	19.32	7.750	1.68	10.83	0.42
1.667	0.42	4.750	19.32	7.833	1.68	10.92	0.42
1.750	0.42	4.833	19.32	7.917	1.68	11.00	0.42
1.833	0.42	4.917	19.32	8.000	1.68	11.08	0.42
1.917	0.42	5.000	19.32	8.083	1.68	11.17	0.42
2.000	0.42	5.083	19.32	8.167	1.68	11.25	0.42
2.083	0.42	5.167	19.32	8.250	1.68	11.33	0.42
2.167	0.42	5.250	19.32	8.333	0.84	11.42	0.42
2.250	0.42	5.333	5.46	8.417	0.84	11.50	0.42
2.333	2.52	5.417	5.46	8.500	0.84	11.58	0.42
2.417	2.52	5.500	5.46	8.583	0.84	11.67	0.42
2.500	2.52	5.583	5.46	8.667	0.84	11.75	0.42
2.583	2.52	5.667	5.46	8.750	0.84	11.83	0.42
2.667	2.52	5.750	5.46	8.833	0.84	11.92	0.42
2.750	2.52	5.833	5.46	8.917	0.84	12.00	0.42
2.833	2.52	5.917	5.46	9.000	0.84	12.08	0.42
2.917	2.52	6.000	5.46	9.083	0.84	12.17	0.42
3.000	2.52	6.083	5.46	9.167	0.84	12.25	0.42
3.083	2.52	6.167	5.46	9.250	0.84		

Max.Eff.Inten. (mm/hr)= 19.32 6.89
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.88 (ii) 3.31 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.26

TOTALS
 PEAK FLOW (cms)= 0.13 0.00 0.127 (iii)
 TIME TO PEAK (hrs)= 4.83 5.25 5.25
 RUNOFF VOLUME (mm)= 41.00 10.45 40.69
 TOTAL RAINFALL (mm)= 42.00 42.00 42.00
 RUNOFF COEFFICIENT = 0.98 0.25 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7832) | Area (ha)= 2.39
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	2.52	6.250	5.46	9.33	0.42
0.167	0.00	3.250	2.52	6.333	2.94	9.42	0.42
0.250	0.00	3.333	7.14	6.417	2.94	9.50	0.42
0.333	0.42	3.417	7.14	6.500	2.94	9.58	0.42
0.417	0.42	3.500	7.14	6.583	2.94	9.67	0.42
0.500	0.42	3.583	7.14	6.667	2.94	9.75	0.42
0.583	0.42	3.667	7.14	6.750	2.94	9.83	0.42
0.667	0.42	3.750	7.14	6.833	2.94	9.92	0.42
0.750	0.42	3.833	7.14	6.917	2.94	10.00	0.42
0.833	0.42	3.917	7.14	7.000	2.94	10.08	0.42
0.917	0.42	4.000	7.14	7.083	2.94	10.17	0.42

1.000	0.42	4.083	7.14	7.167	2.94	10.25	0.42
1.083	0.42	4.167	7.14	7.250	2.94	10.33	0.42
1.167	0.42	4.250	7.14	7.333	1.68	10.42	0.42
1.250	0.42	4.333	19.32	7.417	1.68	10.50	0.42
1.333	0.42	4.417	19.32	7.500	1.68	10.58	0.42
1.417	0.42	4.500	19.32	7.583	1.68	10.67	0.42
1.500	0.42	4.583	19.32	7.667	1.68	10.75	0.42
1.583	0.42	4.667	19.32	7.750	1.68	10.83	0.42
1.667	0.42	4.750	19.32	7.833	1.68	10.92	0.42
1.750	0.42	4.833	19.32	7.917	1.68	11.00	0.42
1.833	0.42	4.917	19.32	8.000	1.68	11.08	0.42
1.917	0.42	5.000	19.32	8.083	1.68	11.17	0.42
2.000	0.42	5.083	19.32	8.167	1.68	11.25	0.42
2.083	0.42	5.167	19.32	8.250	1.68	11.33	0.42
2.167	0.42	5.250	19.32	8.333	0.84	11.42	0.42
2.250	0.42	5.333	5.46	8.417	0.84	11.50	0.42
2.333	2.52	5.417	5.46	8.500	0.84	11.58	0.42
2.417	2.52	5.500	5.46	8.583	0.84	11.67	0.42
2.500	2.52	5.583	5.46	8.667	0.84	11.75	0.42
2.583	2.52	5.667	5.46	8.750	0.84	11.83	0.42
2.667	2.52	5.750	5.46	8.833	0.84	11.92	0.42
2.750	2.52	5.833	5.46	8.917	0.84	12.00	0.42
2.833	2.52	5.917	5.46	9.000	0.84	12.08	0.42
2.917	2.52	6.000	5.46	9.083	0.84	12.17	0.42
3.000	2.52	6.083	5.46	9.167	0.84	12.25	0.42
3.083	2.52	6.167	5.46	9.250	0.84		

Max.Eff.Inten.(mm/hr)= 19.32 6.89
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.88 (ii) 3.31 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.26

TOTALS
 PEAK FLOW (cms)= 0.13 0.00 0.127 (iii)
 TIME TO PEAK (hrs)= 4.83 5.25 5.25
 RUNOFF VOLUME (mm)= 41.00 10.45 40.69
 TOTAL RAINFALL (mm)= 42.00 42.00 42.00
 RUNOFF COEFFICIENT = 0.98 0.25 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7844) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	2.52	6.250	5.46	9.333	0.42
0.167	0.00	3.250	2.52	6.333	2.94	9.42	0.42
0.250	0.00	3.333	7.14	6.417	2.94	9.50	0.42
0.333	0.42	3.417	7.14	6.500	2.94	9.58	0.42
0.417	0.42	3.500	7.14	6.583	2.94	9.67	0.42
0.500	0.42	3.583	7.14	6.667	2.94	9.75	0.42
0.583	0.42	3.667	7.14	6.750	2.94	9.83	0.42
0.667	0.42	3.750	7.14	6.833	2.94	9.92	0.42
0.750	0.42	3.833	7.14	6.917	2.94	10.00	0.42
0.833	0.42	3.917	7.14	7.000	2.94	10.08	0.42

0.917	0.42	4.000	7.14	7.083	2.94	10.17	0.42
1.000	0.42	4.083	7.14	7.167	2.94	10.25	0.42
1.083	0.42	4.167	7.14	7.250	2.94	10.33	0.42
1.167	0.42	4.250	7.14	7.333	1.68	10.42	0.42
1.250	0.42	4.333	19.32	7.417	1.68	10.50	0.42
1.333	0.42	4.417	19.32	7.500	1.68	10.58	0.42
1.417	0.42	4.500	19.32	7.583	1.68	10.67	0.42
1.500	0.42	4.583	19.32	7.667	1.68	10.75	0.42
1.583	0.42	4.667	19.32	7.750	1.68	10.83	0.42
1.667	0.42	4.750	19.32	7.833	1.68	10.92	0.42
1.750	0.42	4.833	19.32	7.917	1.68	11.00	0.42
1.833	0.42	4.917	19.32	8.000	1.68	11.08	0.42
1.917	0.42	5.000	19.32	8.083	1.68	11.17	0.42
2.000	0.42	5.083	19.32	8.167	1.68	11.25	0.42
2.083	0.42	5.167	19.32	8.250	1.68	11.33	0.42
2.167	0.42	5.250	19.32	8.333	0.84	11.42	0.42
2.250	0.42	5.333	5.46	8.417	0.84	11.50	0.42
2.333	2.52	5.417	5.46	8.500	0.84	11.58	0.42
2.417	2.52	5.500	5.46	8.583	0.84	11.67	0.42
2.500	2.52	5.583	5.46	8.667	0.84	11.75	0.42
2.583	2.52	5.667	5.46	8.750	0.84	11.83	0.42
2.667	2.52	5.750	5.46	8.833	0.84	11.92	0.42
2.750	2.52	5.833	5.46	8.917	0.84	12.00	0.42
2.833	2.52	5.917	5.46	9.000	0.84	12.08	0.42
2.917	2.52	6.000	5.46	9.083	0.84	12.17	0.42
3.000	2.52	6.083	5.46	9.167	0.84	12.25	0.42
3.083	2.52	6.167	5.46	9.250	0.84		

Max.Eff.Inten.(mm/hr)= 19.32 6.89
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.88 (ii) 3.31 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.26

TOTALS
 PEAK FLOW (cms)= 0.13 0.00 0.128 (iii)
 TIME TO PEAK (hrs)= 4.83 5.25 5.25
 RUNOFF VOLUME (mm)= 41.00 10.45 40.69
 TOTAL RAINFALL (mm)= 42.00 42.00 42.00
 RUNOFF COEFFICIENT = 0.98 0.25 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 | (ha) (cms) (hrs) (mm)
 ID1= 1 (7806): 2.37 0.126 5.25 40.69
 + ID2= 2 (7811): 2.40 0.128 5.25 40.69
 ID = 3 (7843): 4.77 0.254 5.25 40.69

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 | (ha) (cms) (hrs) (mm)
 ID1= 3 (7843): 4.77 0.254 5.25 40.69
 + ID2= 2 (7816): 2.36 0.126 5.25 40.69
 ID = 1 (7843): 7.13 0.380 5.25 40.69

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |



1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7843):	7.13	0.380	5.25	40.69
+ ID2= 2 (7827):	2.39	0.127	5.25	40.69

ID = 3 (7843):	9.52	0.508	5.25	40.69

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (7843):	9.52	0.508	5.25	40.69
+ ID2= 2 (7832):	2.39	0.127	5.25	40.69

ID = 1 (7843):	11.91	0.635	5.25	40.69

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7843):	11.91	0.635	5.25	40.69
+ ID2= 2 (7844):	2.40	0.128	5.25	40.69

ID = 3 (7843):	14.31	0.763	5.25	40.69

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| DIVERTHYD (7835) |
| IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1	Flow 2	Flow 3	Flow 4	Flow 5	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
TOTAL HYD. (ID= 1):	14.31	0.76	5.25	40.69

ID= 2 (2):	14.31	0.76	5.25	40.69
ID= 3 (2):	0.00	0.00	5.25	40.69
ID= 4 (2):	0.00	0.00	0.00	0.00
ID= 5 (2):	0.00	0.00	0.00	0.00
ID= 6 (2):	0.00	0.00	0.00	0.00

| RESERVOIR (7808) |
| IN= 2---> OUT= 1 |
| DT= 5.0 min |

OVERFLOW IS ON

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.2690	0.4589
0.1980	0.1112	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7835):	14.306	0.763	5.25	40.69
OUTFLOW: ID= 1 (7808):	14.306	0.234	5.42	40.68
OVERFLOW: ID= 3 (0003):	0.000	0.000	0.00	0.00

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

PEAK FLOW REDUCTION [Qout/Qin] (%) = 30.61
TIME SHIFT OF PEAK FLOW (min) = 10.00

MAXIMUM STORAGE USED (ha.m.) = 0.2854

| Junction Command(7803) |

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 3 (7808):	0.00	0.00	0.00	0.00
OUTFLOW: ID= 2 (7803):	0.00	0.00	0.00	0.00

1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7803):	0.00	0.000	0.00	0.00
+ ID2= 2 (7808):	14.31	0.234	5.42	40.68

ID = 3 (7824):	14.31	0.234	5.42	40.68

*** W A R N I N G : HYDROGRAPH 7803 <ID= 1> IS DRY.
*** W A R N I N G : HYDROGRAPH 7824 = HYDROGRAPH 7808

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (7824):	14.31	0.234	5.42	40.68
+ ID2= 2 (7835):	0.00	0.000	5.25	40.69

ID = 1 (7824):	14.31	0.234	5.42	40.68

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |
| STANDHYD (7810) | Area (ha)= 1.06
| ID= 1 DT= 5.0 min | Total Imp (%) = 95.00 Dir. Conn. (%) = 95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.01	0.05
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	2.52	6.250	5.46	9.33	0.42				
0.167	0.00	3.250	2.52	6.333	2.94	9.42	0.42				
0.250	0.00	3.333	7.14	6.417	2.94	9.50	0.42				
0.333	0.42	3.417	7.14	6.500	2.94	9.58	0.42				
0.417	0.42	3.500	7.14	6.583	2.94	9.67	0.42				
0.500	0.42	3.583	7.14	6.667	2.94	9.75	0.42				
0.583	0.42	3.667	7.14	6.750	2.94	9.83	0.42				
0.667	0.42	3.750	7.14	6.833	2.94	9.92	0.42				
0.750	0.42	3.833	7.14	6.917	2.94	10.00	0.42				
0.833	0.42	3.917	7.14	7.000	2.94	10.08	0.42				
0.917	0.42	4.000	7.14	7.083	2.94	10.17	0.42				
1.000	0.42	4.083	7.14	7.167	2.94	10.25	0.42				
1.083	0.42	4.167	7.14	7.250	2.94	10.33	0.42				
1.167	0.42	4.250	7.14	7.333	1.68	10.42	0.42				
1.250	0.42	4.333	19.32	7.417	1.68	10.50	0.42				
1.333	0.42	4.417	19.32	7.500	1.68	10.58	0.42				
1.417	0.42	4.500	19.32	7.583	1.68	10.67	0.42				
1.500	0.42	4.583	19.32	7.667	1.68	10.75	0.42				



1.583	0.42	4.667	19.32	7.750	1.68	10.83	0.42
1.667	0.42	4.750	19.32	7.833	1.68	10.92	0.42
1.750	0.42	4.833	19.32	7.917	1.68	11.00	0.42
1.833	0.42	4.917	19.32	8.000	1.68	11.08	0.42
1.917	0.42	5.000	19.32	8.083	1.68	11.17	0.42
2.000	0.42	5.083	19.32	8.167	1.68	11.25	0.42
2.083	0.42	5.167	19.32	8.250	1.68	11.33	0.42
2.167	0.42	5.250	19.32	8.333	0.84	11.42	0.42
2.250	0.42	5.333	5.46	8.417	0.84	11.50	0.42
2.333	2.52	5.417	5.46	8.500	0.84	11.58	0.42
2.417	2.52	5.500	5.46	8.583	0.84	11.67	0.42
2.500	2.52	5.583	5.46	8.667	0.84	11.75	0.42
2.583	2.52	5.667	5.46	8.750	0.84	11.83	0.42
2.667	2.52	5.750	5.46	8.833	0.84	11.92	0.42
2.750	2.52	5.833	5.46	8.917	0.84	12.00	0.42
2.833	2.52	5.917	5.46	9.000	0.84	12.08	0.42
2.917	2.52	6.000	5.46	9.083	0.84	12.17	0.42
3.000	2.52	6.083	5.46	9.167	0.84	12.25	0.42
3.083	2.52	6.167	5.46	9.250	0.84		

Max.Eff.Inten.(mm/hr)=	19.32	7.15
over (min)	5.00	10.00
Storage Coeff. (min)=	2.76 (ii)	6.95 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.28	0.14
PEAK FLOW (cms)=	0.05	0.00
TIME TO PEAK (hrs)=	5.08	5.25
RUNOFF VOLUME (mm)=	40.00	10.84
TOTAL RAINFALL (mm)=	42.00	42.00
RUNOFF COEFFICIENT =	0.95	0.26

TOTALS	0.055 (iii)
PEAK FLOW (cms)=	0.055 (iii)
TIME TO PEAK (hrs)=	5.25
RUNOFF VOLUME (mm)=	38.54
TOTAL RAINFALL (mm)=	42.00
RUNOFF COEFFICIENT =	0.92

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	1.45
STANDHYD (7814)	Total Imp(%)=	96.00 Dir. Conn.(%)= 96.00
ID= 1 DT= 5.0 min		

Surface Area (ha)=	1.39	0.06
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	2.52	6.250	5.46	9.33	0.42
0.167	0.00	3.250	2.52	6.333	2.94	9.42	0.42
0.250	0.00	3.333	7.14	6.417	2.94	9.50	0.42
0.333	0.42	3.417	7.14	6.500	2.94	9.58	0.42
0.417	0.42	3.500	7.14	6.583	2.94	9.67	0.42
0.500	0.42	3.583	7.14	6.667	2.94	9.75	0.42
0.583	0.42	3.667	7.14	6.750	2.94	9.83	0.42
0.667	0.42	3.750	7.14	6.833	2.94	9.92	0.42
0.750	0.42	3.833	7.14	6.917	2.94	10.00	0.42
0.833	0.42	3.917	7.14	7.000	2.94	10.08	0.42
0.917	0.42	4.000	7.14	7.083	2.94	10.17	0.42
1.000	0.42	4.083	7.14	7.167	2.94	10.25	0.42
1.083	0.42	4.167	7.14	7.250	2.94	10.33	0.42
1.167	0.42	4.250	7.14	7.333	1.68	10.42	0.42
1.250	0.42	4.333	19.32	7.417	1.68	10.50	0.42
1.333	0.42	4.417	19.32	7.500	1.68	10.58	0.42
1.417	0.42	4.500	19.32	7.583	1.68	10.67	0.42

1.500	0.42	4.583	19.32	7.667	1.68	10.75	0.42
1.583	0.42	4.667	19.32	7.750	1.68	10.83	0.42
1.667	0.42	4.750	19.32	7.833	1.68	10.92	0.42
1.750	0.42	4.833	19.32	7.917	1.68	11.00	0.42
1.833	0.42	4.917	19.32	8.000	1.68	11.08	0.42
1.917	0.42	5.000	19.32	8.083	1.68	11.17	0.42
2.000	0.42	5.083	19.32	8.167	1.68	11.25	0.42
2.083	0.42	5.167	19.32	8.250	1.68	11.33	0.42
2.167	0.42	5.250	19.32	8.333	0.84	11.42	0.42
2.250	0.42	5.333	5.46	8.417	0.84	11.50	0.42
2.333	2.52	5.417	5.46	8.500	0.84	11.58	0.42
2.417	2.52	5.500	5.46	8.583	0.84	11.67	0.42
2.500	2.52	5.583	5.46	8.667	0.84	11.75	0.42
2.583	2.52	5.667	5.46	8.750	0.84	11.83	0.42
2.667	2.52	5.750	5.46	8.833	0.84	11.92	0.42
2.750	2.52	5.833	5.46	8.917	0.84	12.00	0.42
2.833	2.52	5.917	5.46	9.000	0.84	12.08	0.42
2.917	2.52	6.000	5.46	9.083	0.84	12.17	0.42
3.000	2.52	6.083	5.46	9.167	0.84	12.25	0.42
3.083	2.52	6.167	5.46	9.250	0.84		

Max.Eff.Inten.(mm/hr)=	19.32	5.34
over (min)	5.00	55.00
Storage Coeff. (min)=	4.79 (ii)	54.15 (ii)
Unit Hyd. Tpeak (min)=	5.00	55.00
Unit Hyd. peak (cms)=	0.22	0.02
PEAK FLOW (cms)=	0.07	0.00
TIME TO PEAK (hrs)=	5.25	6.00
RUNOFF VOLUME (mm)=	40.00	10.45
TOTAL RAINFALL (mm)=	42.00	42.00
RUNOFF COEFFICIENT =	0.95	0.25

TOTALS	0.075 (iii)
PEAK FLOW (cms)=	0.075 (iii)
TIME TO PEAK (hrs)=	6.00
RUNOFF VOLUME (mm)=	38.81
TOTAL RAINFALL (mm)=	42.00
RUNOFF COEFFICIENT =	0.92

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	1.70
STANDHYD (7822)	Total Imp(%)=	99.00 Dir. Conn.(%)= 99.00
ID= 1 DT= 5.0 min		

Surface Area (ha)=	1.68	0.02
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	2.52	6.250	5.46	9.33	0.42
0.167	0.00	3.250	2.52	6.333	2.94	9.42	0.42
0.250	0.00	3.333	7.14	6.417	2.94	9.50	0.42
0.333	0.42	3.417	7.14	6.500	2.94	9.58	0.42
0.417	0.42	3.500	7.14	6.583	2.94	9.67	0.42
0.500	0.42	3.583	7.14	6.667	2.94	9.75	0.42
0.583	0.42	3.667	7.14	6.750	2.94	9.83	0.42
0.667	0.42	3.750	7.14	6.833	2.94	9.92	0.42
0.750	0.42	3.833	7.14	6.917	2.94	10.00	0.42
0.833	0.42	3.917	7.14	7.000	2.94	10.08	0.42
0.917	0.42	4.000	7.14	7.083	2.94	10.17	0.42
1.000	0.42	4.083	7.14	7.167	2.94	10.25	0.42
1.083	0.42	4.167	7.14	7.250	2.94	10.33	0.42
1.167	0.42	4.250	7.14	7.333	1.68	10.42	0.42
1.250	0.42	4.333	19.32	7.417	1.68	10.50	0.42
1.333	0.42	4.417	19.32	7.500	1.68	10.58	0.42

1.417	0.42	4.500	19.32	7.583	1.68	10.67	0.42
1.500	0.42	4.583	19.32	7.667	1.68	10.75	0.42
1.583	0.42	4.667	19.32	7.750	1.68	10.83	0.42
1.667	0.42	4.750	19.32	7.833	1.68	10.92	0.42
1.750	0.42	4.833	19.32	7.917	1.68	11.00	0.42
1.833	0.42	4.917	19.32	8.000	1.68	11.08	0.42
1.917	0.42	5.000	19.32	8.083	1.68	11.17	0.42
2.000	0.42	5.083	19.32	8.167	1.68	11.25	0.42
2.083	0.42	5.167	19.32	8.250	1.68	11.33	0.42
2.167	0.42	5.250	19.32	8.333	0.84	11.42	0.42
2.250	0.42	5.333	5.46	8.417	0.84	11.50	0.42
2.333	2.52	5.417	5.46	8.500	0.84	11.58	0.42
2.417	2.52	5.500	5.46	8.583	0.84	11.67	0.42
2.500	2.52	5.583	5.46	8.667	0.84	11.75	0.42
2.583	2.52	5.667	5.46	8.750	0.84	11.83	0.42
2.667	2.52	5.750	5.46	8.833	0.84	11.92	0.42
2.750	2.52	5.833	5.46	8.917	0.84	12.00	0.42
2.833	2.52	5.917	5.46	9.000	0.84	12.08	0.42
2.917	2.52	6.000	5.46	9.083	0.84	12.17	0.42
3.000	2.52	6.083	5.46	9.167	0.84	12.25	0.42
3.083	2.52	6.167	5.46	9.250	0.84		

Max.Eff.Inten.(mm/hr)= 19.32 6.89
 over (min)= 5.00 10.00
 Storage Coeff. (min)= 4.79 (ii) 6.96 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.22 0.14

PEAK FLOW (cms)= 0.09 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 5.25 5.25 5.25 (iii)
 RUNOFF VOLUME (mm)= 40.00 10.45 39.70
 TOTAL RAINFALL (mm)= 42.00 42.00 42.00
 RUNOFF COEFFICIENT = 0.95 0.25 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7838) | Area (ha)= 1.33
 | ID= 1 DT= 5.0 min | Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

IMPERVIOUS		PERVIOUS (i)	
Surface Area (ha)=	1.30	0.03	
Dep. Storage (mm)=	2.00	5.00	
Average Slope (%)=	1.10	2.00	
Length (m)=	100.00	40.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	2.52	6.250	5.46	9.333	0.42
0.167	0.00	3.250	2.52	6.333	2.94	9.42	0.42
0.250	0.00	3.333	7.14	6.417	2.94	9.50	0.42
0.333	0.42	3.417	7.14	6.500	2.94	9.58	0.42
0.417	0.42	3.500	7.14	6.583	2.94	9.67	0.42
0.500	0.42	3.583	7.14	6.667	2.94	9.75	0.42
0.583	0.42	3.667	7.14	6.750	2.94	9.83	0.42
0.667	0.42	3.750	7.14	6.833	2.94	9.92	0.42
0.750	0.42	3.833	7.14	6.917	2.94	10.00	0.42
0.833	0.42	3.917	7.14	7.000	2.94	10.08	0.42
0.917	0.42	4.000	7.14	7.083	2.94	10.17	0.42
1.000	0.42	4.083	7.14	7.167	2.94	10.25	0.42
1.083	0.42	4.167	7.14	7.250	2.94	10.33	0.42
1.167	0.42	4.250	7.14	7.333	1.68	10.42	0.42
1.250	0.42	4.333	19.32	7.417	1.68	10.50	0.42

1.333	0.42	4.417	19.32	7.500	1.68	10.58	0.42
1.417	0.42	4.500	19.32	7.583	1.68	10.67	0.42
1.500	0.42	4.583	19.32	7.667	1.68	10.75	0.42
1.583	0.42	4.667	19.32	7.750	1.68	10.83	0.42
1.667	0.42	4.750	19.32	7.833	1.68	10.92	0.42
1.750	0.42	4.833	19.32	7.917	1.68	11.00	0.42
1.833	0.42	4.917	19.32	8.000	1.68	11.08	0.42
1.917	0.42	5.000	19.32	8.083	1.68	11.17	0.42
2.000	0.42	5.083	19.32	8.167	1.68	11.25	0.42
2.083	0.42	5.167	19.32	8.250	1.68	11.33	0.42
2.167	0.42	5.250	19.32	8.333	0.84	11.42	0.42
2.250	0.42	5.333	5.46	8.417	0.84	11.50	0.42
2.333	2.52	5.417	5.46	8.500	0.84	11.58	0.42
2.417	2.52	5.500	5.46	8.583	0.84	11.67	0.42
2.500	2.52	5.583	5.46	8.667	0.84	11.75	0.42
2.583	2.52	5.667	5.46	8.750	0.84	11.83	0.42
2.667	2.52	5.750	5.46	8.833	0.84	11.92	0.42
2.750	2.52	5.833	5.46	8.917	0.84	12.00	0.42
2.833	2.52	5.917	5.46	9.000	0.84	12.08	0.42
2.917	2.52	6.000	5.46	9.083	0.84	12.17	0.42
3.000	2.52	6.083	5.46	9.167	0.84	12.25	0.42
3.083	2.52	6.167	5.46	9.250	0.84		

Max.Eff.Inten.(mm/hr)= 19.32 6.89
 over (min)= 5.00 10.00
 Storage Coeff. (min)= 4.79 (ii) 7.66 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.22 0.13

PEAK FLOW (cms)= 0.07 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 5.25 5.25 5.25 (iii)
 RUNOFF VOLUME (mm)= 40.00 10.45 39.41
 TOTAL RAINFALL (mm)= 42.00 42.00 42.00
 RUNOFF COEFFICIENT = 0.95 0.25 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | ADD HYD (7805) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)

ID1= 1 (7814):	1.45	0.075	5.25	38.81
+ ID2= 2 (7822):	1.70	0.091	5.25	39.70

ID = 3 (7805):	3.15	0.166	5.25	39.29

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7805) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)

ID1= 3 (7805):	3.15	0.166	5.25	39.29
+ ID2= 2 (7838):	1.33	0.070	5.25	39.41

ID = 1 (7805):	4.48	0.236	5.25	39.33

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |
 | STANDHYD (7819) | Area (ha)= 1.32
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS		PERVIOUS (i)	
Surface Area (ha)=	1.31	0.01	
Dep. Storage (mm)=	2.00	5.00	



Average Slope (%) = 1.10 2.00
 Length (m) = 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	2.52	6.250	5.46	9.33	0.42
0.167	0.00	3.250	2.52	6.333	2.94	9.42	0.42
0.250	0.00	3.333	7.14	6.417	2.94	9.50	0.42
0.333	0.42	3.417	7.14	6.500	2.94	9.58	0.42
0.417	0.42	3.500	7.14	6.583	2.94	9.67	0.42
0.500	0.42	3.583	7.14	6.667	2.94	9.75	0.42
0.583	0.42	3.667	7.14	6.750	2.94	9.83	0.42
0.667	0.42	3.750	7.14	6.833	2.94	9.92	0.42
0.750	0.42	3.833	7.14	6.917	2.94	10.00	0.42
0.833	0.42	3.917	7.14	7.000	2.94	10.08	0.42
0.917	0.42	4.000	7.14	7.083	2.94	10.17	0.42
1.000	0.42	4.083	7.14	7.167	2.94	10.25	0.42
1.083	0.42	4.167	7.14	7.250	2.94	10.33	0.42
1.167	0.42	4.250	7.14	7.333	1.68	10.42	0.42
1.250	0.42	4.333	19.32	7.417	1.68	10.50	0.42
1.333	0.42	4.417	19.32	7.500	1.68	10.58	0.42
1.417	0.42	4.500	19.32	7.583	1.68	10.67	0.42
1.500	0.42	4.583	19.32	7.667	1.68	10.75	0.42
1.583	0.42	4.667	19.32	7.750	1.68	10.83	0.42
1.667	0.42	4.750	19.32	7.833	1.68	10.92	0.42
1.750	0.42	4.833	19.32	7.917	1.68	11.00	0.42
1.833	0.42	4.917	19.32	8.000	1.68	11.08	0.42
1.917	0.42	5.000	19.32	8.083	1.68	11.17	0.42
2.000	0.42	5.083	19.32	8.167	1.68	11.25	0.42
2.083	0.42	5.167	19.32	8.250	1.68	11.33	0.42
2.167	0.42	5.250	19.32	8.333	0.84	11.42	0.42
2.250	0.42	5.333	5.46	8.417	0.84	11.50	0.42
2.333	2.52	5.417	5.46	8.500	0.84	11.58	0.42
2.417	2.52	5.500	5.46	8.583	0.84	11.67	0.42
2.500	2.52	5.583	5.46	8.667	0.84	11.75	0.42
2.583	2.52	5.667	5.46	8.750	0.84	11.83	0.42
2.667	2.52	5.750	5.46	8.833	0.84	11.92	0.42
2.750	2.52	5.833	5.46	8.917	0.84	12.00	0.42
2.833	2.52	5.917	5.46	9.000	0.84	12.08	0.42
2.917	2.52	6.000	5.46	9.083	0.84	12.17	0.42
3.000	2.52	6.083	5.46	9.167	0.84	12.25	0.42
3.083	2.52	6.167	5.46	9.250	0.84		

Max.Eff.Inten.(mm/hr)= 19.32 6.89
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 4.79 (ii) 6.96 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.22 0.14

TOTALS
 PEAK FLOW (cms)= 0.07 0.00 0.070 (iii)
 TIME TO PEAK (hrs)= 5.25 5.25 5.25
 RUNOFF VOLUME (mm)= 40.00 10.45 39.70
 TOTAL RAINFALL (mm)= 42.00 42.00 42.00
 RUNOFF COEFFICIENT = 0.95 0.25 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7829) | Area (ha)= 1.69
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

Surface Area (ha)= IMPERVIOUS 1.67 PERVIOUS (i) 0.02

Dep. Storage (mm)= 2.00 5.00
 Average Slope (%) = 1.10 2.00
 Length (m) = 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	2.52	6.250	5.46	9.33	0.42
0.167	0.00	3.250	2.52	6.333	2.94	9.42	0.42
0.250	0.00	3.333	7.14	6.417	2.94	9.50	0.42
0.333	0.42	3.417	7.14	6.500	2.94	9.58	0.42
0.417	0.42	3.500	7.14	6.583	2.94	9.67	0.42
0.500	0.42	3.583	7.14	6.667	2.94	9.75	0.42
0.583	0.42	3.667	7.14	6.750	2.94	9.83	0.42
0.667	0.42	3.750	7.14	6.833	2.94	9.92	0.42
0.750	0.42	3.833	7.14	6.917	2.94	10.00	0.42
0.833	0.42	3.917	7.14	7.000	2.94	10.08	0.42
0.917	0.42	4.000	7.14	7.083	2.94	10.17	0.42
1.000	0.42	4.083	7.14	7.167	2.94	10.25	0.42
1.083	0.42	4.167	7.14	7.250	2.94	10.33	0.42
1.167	0.42	4.250	7.14	7.333	1.68	10.42	0.42
1.250	0.42	4.333	19.32	7.417	1.68	10.50	0.42
1.333	0.42	4.417	19.32	7.500	1.68	10.58	0.42
1.417	0.42	4.500	19.32	7.583	1.68	10.67	0.42
1.500	0.42	4.583	19.32	7.667	1.68	10.75	0.42
1.583	0.42	4.667	19.32	7.750	1.68	10.83	0.42
1.667	0.42	4.750	19.32	7.833	1.68	10.92	0.42
1.750	0.42	4.833	19.32	7.917	1.68	11.00	0.42
1.833	0.42	4.917	19.32	8.000	1.68	11.08	0.42
1.917	0.42	5.000	19.32	8.083	1.68	11.17	0.42
2.000	0.42	5.083	19.32	8.167	1.68	11.25	0.42
2.083	0.42	5.167	19.32	8.250	1.68	11.33	0.42
2.167	0.42	5.250	19.32	8.333	0.84	11.42	0.42
2.250	0.42	5.333	5.46	8.417	0.84	11.50	0.42
2.333	2.52	5.417	5.46	8.500	0.84	11.58	0.42
2.417	2.52	5.500	5.46	8.583	0.84	11.67	0.42
2.500	2.52	5.583	5.46	8.667	0.84	11.75	0.42
2.583	2.52	5.667	5.46	8.750	0.84	11.83	0.42
2.667	2.52	5.750	5.46	8.833	0.84	11.92	0.42
2.750	2.52	5.833	5.46	8.917	0.84	12.00	0.42
2.833	2.52	5.917	5.46	9.000	0.84	12.08	0.42
2.917	2.52	6.000	5.46	9.083	0.84	12.17	0.42
3.000	2.52	6.083	5.46	9.167	0.84	12.25	0.42
3.083	2.52	6.167	5.46	9.250	0.84		

Max.Eff.Inten.(mm/hr)= 19.32 6.89
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 4.79 (ii) 6.96 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.22 0.14

TOTALS
 PEAK FLOW (cms)= 0.09 0.00 0.090 (iii)
 TIME TO PEAK (hrs)= 5.25 5.25 5.25
 RUNOFF VOLUME (mm)= 40.00 10.45 39.70
 TOTAL RAINFALL (mm)= 42.00 42.00 42.00
 RUNOFF COEFFICIENT = 0.95 0.25 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7839) | Area (ha)= 1.61
 | ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00

IMPERVIOUS PERVIOUS (i)



Surface Area (ha)= 1.48 0.13
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 145.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	2.52	6.250	5.46	9.33	0.42
0.167	0.00	3.250	2.52	6.333	2.94	9.42	0.42
0.250	0.00	3.333	7.14	6.417	2.94	9.50	0.42
0.333	0.42	3.417	7.14	6.500	2.94	9.58	0.42
0.417	0.42	3.500	7.14	6.583	2.94	9.67	0.42
0.500	0.42	3.583	7.14	6.667	2.94	9.75	0.42
0.583	0.42	3.667	7.14	6.750	2.94	9.83	0.42
0.667	0.42	3.750	7.14	6.833	2.94	9.92	0.42
0.750	0.42	3.833	7.14	6.917	2.94	10.00	0.42
0.833	0.42	3.917	7.14	7.000	2.94	10.08	0.42
0.917	0.42	4.000	7.14	7.083	2.94	10.17	0.42
1.000	0.42	4.083	7.14	7.167	2.94	10.25	0.42
1.083	0.42	4.167	7.14	7.250	2.94	10.33	0.42
1.167	0.42	4.250	7.14	7.333	1.68	10.42	0.42
1.250	0.42	4.333	19.32	7.417	1.68	10.50	0.42
1.333	0.42	4.417	19.32	7.500	1.68	10.58	0.42
1.417	0.42	4.500	19.32	7.583	1.68	10.67	0.42
1.500	0.42	4.583	19.32	7.667	1.68	10.75	0.42
1.583	0.42	4.667	19.32	7.750	1.68	10.83	0.42
1.667	0.42	4.750	19.32	7.833	1.68	10.92	0.42
1.750	0.42	4.833	19.32	7.917	1.68	11.00	0.42
1.833	0.42	4.917	19.32	8.000	1.68	11.08	0.42
1.917	0.42	5.000	19.32	8.083	1.68	11.17	0.42
2.000	0.42	5.083	19.32	8.167	1.68	11.25	0.42
2.083	0.42	5.167	19.32	8.250	1.68	11.33	0.42
2.167	0.42	5.250	19.32	8.333	0.84	11.42	0.42
2.250	0.42	5.333	5.46	8.417	0.84	11.50	0.42
2.333	2.52	5.417	5.46	8.500	0.84	11.58	0.42
2.417	2.52	5.500	5.46	8.583	0.84	11.67	0.42
2.500	2.52	5.583	5.46	8.667	0.84	11.75	0.42
2.583	2.52	5.667	5.46	8.750	0.84	11.83	0.42
2.667	2.52	5.750	5.46	8.833	0.84	11.92	0.42
2.750	2.52	5.833	5.46	8.917	0.84	12.00	0.42
2.833	2.52	5.917	5.46	9.000	0.84	12.08	0.42
2.917	2.52	6.000	5.46	9.083	0.84	12.17	0.42
3.000	2.52	6.083	5.46	9.167	0.84	12.25	0.42
3.083	2.52	6.167	5.46	9.250	0.84		

Max.Eff.Inten.(mm/hr)= 19.32 5.34
 over (min) 5.00 55.00
 Storage Coeff. (min)= 4.79 (ii) 54.15 (ii)
 Unit Hyd. Tpeak (min)= 5.00 55.00
 Unit Hyd. peak (cms)= 0.22 0.02

PEAK FLOW (cms)= 0.08 0.00 0.080 (iii)
 TIME TO PEAK (hrs)= 5.25 6.00 5.25
 RUNOFF VOLUME (mm)= 40.00 10.45 37.62
 TOTAL RAINFALL (mm)= 42.00 42.00 42.00
 RUNOFF COEFFICIENT = 0.95 0.25 0.90

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7842)				
1 + 2 = 3				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
3.01	0.160	5.25	39.70	
1.69	0.090	5.25	39.70	
3.01	0.160	5.25	39.70	

ID1= 1 (7819): 1.32 0.070 5.25 39.70
 + ID2= 2 (7829): 1.69 0.090 5.25 39.70

 ID = 3 (7842): 3.01 0.160 5.25 39.70

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7842)				
3 + 2 = 1				
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
3.01	0.160	5.25	39.70	
1.61	0.080	5.25	37.62	
4.62	0.241	5.25	38.98	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7830)			
ID= 1	DT= 5.0 min	Area (ha)=	1.20
		Total Imp(%)=	95.00
		Dir. Conn.(%)=	95.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.14 0.06
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 2.50 2.00
 Length (m)= 60.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	2.52	6.250	5.46	9.33	0.42
0.167	0.00	3.250	2.52	6.333	2.94	9.42	0.42
0.250	0.00	3.333	7.14	6.417	2.94	9.50	0.42
0.333	0.42	3.417	7.14	6.500	2.94	9.58	0.42
0.417	0.42	3.500	7.14	6.583	2.94	9.67	0.42
0.500	0.42	3.583	7.14	6.667	2.94	9.75	0.42
0.583	0.42	3.667	7.14	6.750	2.94	9.83	0.42
0.667	0.42	3.750	7.14	6.833	2.94	9.92	0.42
0.750	0.42	3.833	7.14	6.917	2.94	10.00	0.42
0.833	0.42	3.917	7.14	7.000	2.94	10.08	0.42
0.917	0.42	4.000	7.14	7.083	2.94	10.17	0.42
1.000	0.42	4.083	7.14	7.167	2.94	10.25	0.42
1.083	0.42	4.167	7.14	7.250	2.94	10.33	0.42
1.167	0.42	4.250	7.14	7.333	1.68	10.42	0.42
1.250	0.42	4.333	19.32	7.417	1.68	10.50	0.42
1.333	0.42	4.417	19.32	7.500	1.68	10.58	0.42
1.417	0.42	4.500	19.32	7.583	1.68	10.67	0.42
1.500	0.42	4.583	19.32	7.667	1.68	10.75	0.42
1.583	0.42	4.667	19.32	7.750	1.68	10.83	0.42
1.667	0.42	4.750	19.32	7.833	1.68	10.92	0.42
1.750	0.42	4.833	19.32	7.917	1.68	11.00	0.42
1.833	0.42	4.917	19.32	8.000	1.68	11.08	0.42
1.917	0.42	5.000	19.32	8.083	1.68	11.17	0.42
2.000	0.42	5.083	19.32	8.167	1.68	11.25	0.42
2.083	0.42	5.167	19.32	8.250	1.68	11.33	0.42
2.167	0.42	5.250	19.32	8.333	0.84	11.42	0.42
2.250	0.42	5.333	5.46	8.417	0.84	11.50	0.42
2.333	2.52	5.417	5.46	8.500	0.84	11.58	0.42
2.417	2.52	5.500	5.46	8.583	0.84	11.67	0.42
2.500	2.52	5.583	5.46	8.667	0.84	11.75	0.42
2.583	2.52	5.667	5.46	8.750	0.84	11.83	0.42
2.667	2.52	5.750	5.46	8.833	0.84	11.92	0.42
2.750	2.52	5.833	5.46	8.917	0.84	12.00	0.42
2.833	2.52	5.917	5.46	9.000	0.84	12.08	0.42
2.917	2.52	6.000	5.46	9.083	0.84	12.17	0.42
3.000	2.52	6.083	5.46	9.167	0.84	12.25	0.42
3.083	2.52	6.167	5.46	9.250	0.84		

Max.Eff.Inten.(mm/hr)= 19.32 7.15



over (min)	5.00	10.00	
Storage Coeff. (min)=	2.76 (ii)	6.95 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.28	0.14	
TOTALS			
PEAK FLOW (cms)=	0.06	0.00	0.062 (iii)
TIME TO PEAK (hrs)=	5.08	5.25	5.25
RUNOFF VOLUME (mm)=	40.00	10.84	38.54
TOTAL RAINFALL (mm)=	42.00	42.00	42.00
RUNOFF COEFFICIENT =	0.95	0.26	0.92

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

	0.1340	0.5530	0.6640	2.6500	
	0.2910	0.8290	0.6750	2.7340	
	0.3860	1.1060	0.7190	3.0490	
	0.4590	1.3820	0.8250	3.3550	
	0.5220	1.7210	2.0760	3.4560	
	0.5780	2.0600	2.3560	3.7320	
		AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7804)		25.670	0.826	5.25	39.95
OUTFLOW: ID= 1 (7833)		25.670	0.179	9.75	39.92

PEAK FLOW REDUCTION [Qout/Qin] (%) = 21.64
 TIME SHIFT OF PEAK FLOW (min) = 270.00
 MAXIMUM STORAGE USED (ha.m.) = 0.6317

ADD HYD (7804)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (7805):	4.48	0.236	5.25	39.33	
+ ID2= 2 (7810):	1.06	0.055	5.25	38.54	
ID = 3 (7804):	5.54	0.291	5.25	39.17	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7804)					
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 3 (7804):	5.54	0.291	5.25	39.17	
+ ID2= 2 (7824):	14.31	0.234	5.42	40.68	
ID = 1 (7804):	19.85	0.523	5.25	40.26	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7804)					
1 + 2 = 3	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (7804):	19.85	0.523	5.25	40.26	
+ ID2= 2 (7830):	1.20	0.062	5.25	38.54	
ID = 3 (7804):	21.05	0.585	5.25	40.17	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7804)					
3 + 2 = 1	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 3 (7804):	21.05	0.585	5.25	40.17	
+ ID2= 2 (7842):	4.62	0.241	5.25	38.98	
ID = 1 (7804):	25.67	0.826	5.25	39.95	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7833) OVERFLOW IS OFF					
IN= 2--> OUT= 1	DT= 5.0 min	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
		0.0000	0.0000	0.6280	2.3980
		0.0730	0.2080	0.6400	2.4830
		0.0890	0.2770	0.6520	2.5670

CALIB	Area (ha) = 0.19	
STANDHYD (7821)	Total Imp (%) = 95.00	Dir. Conn. (%) = 95.00
ID= 1 DT= 5.0 min		

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	0.18	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr				
0.083	0.00	3.167	2.52	6.250	5.46	9.33	0.42				
0.167	0.00	3.250	2.52	6.333	2.94	9.42	0.42				
0.250	0.00	3.333	7.14	6.417	2.94	9.50	0.42				
0.333	0.42	3.417	7.14	6.500	2.94	9.58	0.42				
0.417	0.42	3.500	7.14	6.583	2.94	9.67	0.42				
0.500	0.42	3.583	7.14	6.667	2.94	9.75	0.42				
0.583	0.42	3.667	7.14	6.750	2.94	9.83	0.42				
0.667	0.42	3.750	7.14	6.833	2.94	9.92	0.42				
0.750	0.42	3.833	7.14	6.917	2.94	10.00	0.42				
0.833	0.42	3.917	7.14	7.000	2.94	10.08	0.42				
0.917	0.42	4.000	7.14	7.083	2.94	10.17	0.42				
1.000	0.42	4.083	7.14	7.167	2.94	10.25	0.42				
1.083	0.42	4.167	7.14	7.250	2.94	10.33	0.42				
1.167	0.42	4.250	7.14	7.333	1.68	10.42	0.42				
1.250	0.42	4.333	19.32	7.417	1.68	10.50	0.42				
1.333	0.42	4.417	19.32	7.500	1.68	10.58	0.42				
1.417	0.42	4.500	19.32	7.583	1.68	10.67	0.42				
1.500	0.42	4.583	19.32	7.667	1.68	10.75	0.42				
1.583	0.42	4.667	19.32	7.750	1.68	10.83	0.42				
1.667	0.42	4.750	19.32	7.833	1.68	10.92	0.42				
1.750	0.42	4.833	19.32	7.917	1.68	11.00	0.42				
1.833	0.42	4.917	19.32	8.000	1.68	11.08	0.42				
1.917	0.42	5.000	19.32	8.083	1.68	11.17	0.42				
2.000	0.42	5.083	19.32	8.167	1.68	11.25	0.42				
2.083	0.42	5.167	19.32	8.250	1.68	11.33	0.42				
2.167	0.42	5.250	19.32	8.333	0.84	11.42	0.42				
2.250	0.42	5.333	5.46	8.417	0.84	11.50	0.42				
2.333	2.52	5.417	5.46	8.500	0.84	11.58	0.42				
2.417	2.52	5.500	5.46	8.583	0.84	11.67	0.42				
2.500	2.52	5.583	5.46	8.667	0.84	11.75	0.42				
2.583	2.52	5.667	5.46	8.750	0.84	11.83	0.42				
2.667	2.52	5.750	5.46	8.833	0.84	11.92	0.42				
2.750	2.52	5.833	5.46	8.917	0.84	12.00	0.42				
2.833	2.52	5.917	5.46	9.000	0.84	12.08	0.42				
2.917	2.52	6.000	5.46	9.083	0.84	12.17	0.42				
3.000	2.52	6.083	5.46	9.167	0.84	12.25	0.42				
3.083	2.52	6.167	5.46	9.250	0.84						

Max.Eff.Inten. (mm/hr)=	19.32	7.15
over (min)	5.00	10.00
Storage Coeff. (min)=	2.76 (ii)	6.95 (ii)

Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.28 0.14

PEAK FLOW (cms)= 0.01 0.00
 TIME TO PEAK (hrs)= 4.83 5.25
 RUNOFF VOLUME (mm)= 40.00 10.84
 TOTAL RAINFALL (mm)= 42.00 42.00
 RUNOFF COEFFICIENT = 0.95 0.26

TOTALS
 0.010 (iii)
 5.25
 38.53
 42.00
 0.92

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | RESERVOIR (7825) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
 | DT= 5.0 min |

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.0100	0.0090
0.0030	0.0010	0.0110	0.0100
0.0050	0.0030	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
0.190	0.010	5.25	38.53
0.190	0.005	5.33	38.14

INFLOW : ID= 2 (7821)
 OUTFLOW: ID= 1 (7825)

PEAK FLOW REDUCTION [Qout/Qin] (%) = 49.81
 TIME SHIFT OF PEAK FLOW (min) = 5.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0029

 | CALIB |
 | STANDHYD (7836) |
 | ID= 1 DT= 5.0 min |

Area (ha)	Imp (%)	Dir. Conn. (%)
0.20	95.00	95.00

IMPERVIOUS (ha)	PERVIOUS (i)
0.19	0.01
2.00	5.00
2.50	2.00
36.51	40.00
0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	3.167	2.52	6.250	5.46	9.333	0.42
0.167	0.00	3.250	2.52	6.333	2.94	9.422	0.42
0.250	0.00	3.333	7.14	6.417	2.94	9.500	0.42
0.333	0.42	3.417	7.14	6.500	2.94	9.583	0.42
0.417	0.42	3.500	7.14	6.583	2.94	9.667	0.42
0.500	0.42	3.583	7.14	6.667	2.94	9.750	0.42
0.583	0.42	3.667	7.14	6.750	2.94	9.833	0.42
0.667	0.42	3.750	7.14	6.833	2.94	9.922	0.42
0.750	0.42	3.833	7.14	6.917	2.94	10.000	0.42
0.833	0.42	3.917	7.14	7.000	2.94	10.083	0.42
0.917	0.42	4.000	7.14	7.083	2.94	10.167	0.42
1.000	0.42	4.083	7.14	7.167	2.94	10.250	0.42
1.083	0.42	4.167	7.14	7.250	2.94	10.333	0.42
1.167	0.42	4.250	7.14	7.333	1.68	10.422	0.42
1.250	0.42	4.333	19.32	7.417	1.68	10.500	0.42
1.333	0.42	4.417	19.32	7.500	1.68	10.583	0.42
1.417	0.42	4.500	19.32	7.583	1.68	10.667	0.42

1.500	0.42	4.583	19.32	7.667	1.68	10.750	0.42
1.583	0.42	4.667	19.32	7.750	1.68	10.833	0.42
1.667	0.42	4.750	19.32	7.833	1.68	10.922	0.42
1.750	0.42	4.833	19.32	7.917	1.68	11.000	0.42
1.833	0.42	4.917	19.32	8.000	1.68	11.083	0.42
1.917	0.42	5.000	19.32	8.083	1.68	11.167	0.42
2.000	0.42	5.083	19.32	8.167	1.68	11.250	0.42
2.083	0.42	5.167	19.32	8.250	1.68	11.333	0.42
2.167	0.42	5.250	19.32	8.333	0.84	11.422	0.42
2.250	0.42	5.333	5.46	8.417	0.84	11.500	0.42
2.333	2.52	5.417	5.46	8.500	0.84	11.583	0.42
2.417	2.52	5.500	5.46	8.583	0.84	11.667	0.42
2.500	2.52	5.583	5.46	8.667	0.84	11.750	0.42
2.583	2.52	5.667	5.46	8.750	0.84	11.833	0.42
2.667	2.52	5.750	5.46	8.833	0.84	11.922	0.42
2.750	2.52	5.833	5.46	8.917	0.84	12.000	0.42
2.833	2.52	5.917	5.46	9.000	0.84	12.083	0.42
2.917	2.52	6.000	5.46	9.083	0.84	12.167	0.42
3.000	2.52	6.083	5.46	9.167	0.84	12.250	0.42
3.083	2.52	6.167	5.46	9.250	0.84		

Max.Eff.Inten.(mm/hr)= 19.32 7.15
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 2.05 (ii) 6.24 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.31 0.15

 | RESERVOIR (7807) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
 | DT= 5.0 min |

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.0100	0.0090
0.0030	0.0010	0.0110	0.0100
0.0050	0.0030	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
0.200	0.010	5.25	38.54
0.200	0.005	5.33	38.14

INFLOW : ID= 2 (7836)
 OUTFLOW: ID= 1 (7807)

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | RESERVOIR (7831) | OVERFLOW IS OFF
 | IN= 2---> OUT= 1 |
 | DT= 5.0 min |

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.0100	0.0090
0.0030	0.0010	0.0110	0.0100
0.0050	0.0030	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
0.200	0.010	5.25	38.54
0.200	0.005	5.33	38.14

INFLOW : ID= 2 (7836)
 OUTFLOW: ID= 1 (7807)

PEAK FLOW REDUCTION [Qout/Qin] (%) = 49.16
 TIME SHIFT OF PEAK FLOW (min) = 5.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0031

 | ADD HYD (7831) |
 | 1 + 2 = 3 |

ID	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7807):	0.20	0.005	5.33	38.14
+ ID2= 2 (7825):	0.19	0.005	5.33	38.14

ID = 3 (7831):	0.39	0.010	5.33	38.14

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-----
| ADD HYD ( 7831) |
| 3 + 2 = 1 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 3 ( 7831): 0.39 0.010 5.33 38.14
+ ID2= 2 ( 7833): 25.67 0.179 9.75 39.92
-----
ID = 1 ( 7831): 26.06 0.180 9.75 39.90

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NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-----
| CALIB |
| STANDHYD ( 7826) |
| ID= 1 DT= 5.0 min |
-----
Area (ha)= 1.24
Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.23 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 91.00 40.00
Mannings n = 0.013 0.250

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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| RESERVOIR ( 7841) |
| IN= 2---> OUT= 1 |
| DT= 5.0 min |
-----
OUTFLOW STORAGE | OUTFLOW STORAGE
(cms) (ha.m.) | (cms) (ha.m.)
0.0000 0.0000 | 1.0810 1.6220
0.0010 0.1670 | 1.3950 1.8170
0.0340 0.3380 | 2.0990 2.2130
0.0510 0.5110 | 2.8950 2.6150
0.0630 0.6880 | 3.7730 3.0250
0.1610 0.8670 | 4.7260 3.4420
0.3300 1.0500 | 5.5670 3.8670
0.5440 1.2370 | 8.5800 4.3000
0.7970 1.4290 | 10.9450 4.5210
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 2 ( 7815) 27.302 0.182 9.75 39.89
OUTFLOW: ID= 1 ( 7841) 27.302 0.059 24.25 34.57
-----
PEAK FLOW REDUCTION [Qout/Qin](%)= 32.65
TIME SHIFT OF PEAK FLOW (min)=870.00
MAXIMUM STORAGE USED (ha.m.)= 0.6339
-----

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	2.52	6.250	5.46	9.33	0.42
0.167	0.00	3.250	2.52	6.333	2.94	9.42	0.42
0.250	0.00	3.333	7.14	6.417	2.94	9.50	0.42
0.333	0.42	3.417	7.14	6.500	2.94	9.58	0.42
0.417	0.42	3.500	7.14	6.583	2.94	9.67	0.42
0.500	0.42	3.583	7.14	6.667	2.94	9.75	0.42
0.583	0.42	3.667	7.14	6.750	2.94	9.83	0.42
0.667	0.42	3.750	7.14	6.833	2.94	9.92	0.42
0.750	0.42	3.833	7.14	6.917	2.94	10.00	0.42
0.833	0.42	3.917	7.14	7.000	2.94	10.08	0.42
0.917	0.42	4.000	7.14	7.083	2.94	10.17	0.42
1.000	0.42	4.083	7.14	7.167	2.94	10.25	0.42
1.083	0.42	4.167	7.14	7.250	2.94	10.33	0.42
1.167	0.42	4.250	7.14	7.333	1.68	10.42	0.42
1.250	0.42	4.333	19.32	7.417	1.68	10.50	0.42
1.333	0.42	4.417	19.32	7.500	1.68	10.58	0.42
1.417	0.42	4.500	19.32	7.583	1.68	10.67	0.42
1.500	0.42	4.583	19.32	7.667	1.68	10.75	0.42
1.583	0.42	4.667	19.32	7.750	1.68	10.83	0.42
1.667	0.42	4.750	19.32	7.833	1.68	10.92	0.42
1.750	0.42	4.833	19.32	7.917	1.68	11.00	0.42
1.833	0.42	4.917	19.32	8.000	1.68	11.08	0.42
1.917	0.42	5.000	19.32	8.083	1.68	11.17	0.42
2.000	0.42	5.083	19.32	8.167	1.68	11.25	0.42
2.083	0.42	5.167	19.32	8.250	1.68	11.33	0.42
2.167	0.42	5.250	19.32	8.333	0.84	11.42	0.42
2.250	0.42	5.333	5.46	8.417	0.84	11.50	0.42
2.333	2.52	5.417	5.46	8.500	0.84	11.58	0.42
2.417	2.52	5.500	5.46	8.583	0.84	11.67	0.42
2.500	2.52	5.583	5.46	8.667	0.84	11.75	0.42
2.583	2.52	5.667	5.46	8.750	0.84	11.83	0.42
2.667	2.52	5.750	5.46	8.833	0.84	11.92	0.42
2.750	2.52	5.833	5.46	8.917	0.84	12.00	0.42
2.833	2.52	5.917	5.46	9.000	0.84	12.08	0.42
2.917	2.52	6.000	5.46	9.083	0.84	12.17	0.42
3.000	2.52	6.083	5.46	9.167	0.84	12.25	0.42
3.083	2.52	6.167	5.46	9.250	0.84		

```

Max.Eff.Inten.(mm/hr)= 19.32 6.89
over (min) 5.00 10.00
Storage Coeff. (min)= 3.78 (ii) 5.95 (iii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.25 0.15
-----
*TOTALS*
PEAK FLOW (cms)= 0.07 0.00 0.066 (iii)

```

```

TIME TO PEAK (hrs)= 5.08 5.25 5.25
RUNOFF VOLUME (mm)= 40.00 10.45 39.70
TOTAL RAINFALL (mm)= 42.00 42.00 42.00
RUNOFF COEFFICIENT = 0.95 0.25 0.95

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7815) |
| 1 + 2 = 3 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7826): 1.24 0.066 5.25 39.70
+ ID2= 2 ( 7831): 26.06 0.180 9.75 39.90
-----
ID = 3 ( 7815): 27.30 0.182 9.75 39.89

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| RESERVOIR ( 7841) |
| IN= 2---> OUT= 1 |
| DT= 5.0 min |
-----
OUTFLOW STORAGE | OUTFLOW STORAGE
(cms) (ha.m.) | (cms) (ha.m.)
0.0000 0.0000 | 1.0810 1.6220
0.0010 0.1670 | 1.3950 1.8170
0.0340 0.3380 | 2.0990 2.2130
0.0510 0.5110 | 2.8950 2.6150
0.0630 0.6880 | 3.7730 3.0250
0.1610 0.8670 | 4.7260 3.4420
0.3300 1.0500 | 5.5670 3.8670
0.5440 1.2370 | 8.5800 4.3000
0.7970 1.4290 | 10.9450 4.5210
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 2 ( 7815) 27.302 0.182 9.75 39.89
OUTFLOW: ID= 1 ( 7841) 27.302 0.059 24.25 34.57
-----
PEAK FLOW REDUCTION [Qout/Qin](%)= 32.65
TIME SHIFT OF PEAK FLOW (min)=870.00
MAXIMUM STORAGE USED (ha.m.)= 0.6339
-----

```

```

-----
*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

```

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
 Output filename: C:\Users\mhooper\AppData\Local\Civica\540fcb7f5-f544-4d5a-b245-a4eb17ead57\1a20fblb-d33a-4cd2-942d-9c58c8022946\scen
 Summary filename: C:\Users\mhooper\AppData\Local\Civica\540fcb7f5-f544-4d5a-b245-a4eb17ead57\1a20fblb-d33a-4cd2-942d-9c58c8022946\scen

DATE: 11-22-2024 TIME: 01:45:33

USER:

COMMENTS: _____

 ** SIMULATION : H 5 Year 12 Hour AES (Bloor, **

```

-----
| READ STORM | Filename: C:\Users\mhooper\AppData
| | | | | ata\Local\Temp\
| | | | | bac52abb-b775-4ad0-a17a-4b6fd89712ba\9a2bdde0
| Ptotal= 54.38 mm | Comments: 5 Year 12 Hour AES (Bloor, TRCA)

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	3.25	9.25	6.50	3.81	9.75	0.54
0.25	0.54	3.50	9.25	6.75	3.81	10.00	0.54
0.50	0.54	3.75	9.25	7.00	3.81	10.25	0.54
0.75	0.54	4.00	9.25	7.25	2.18	10.50	0.54
1.00	0.54	4.25	25.02	7.50	2.18	10.75	0.54
1.25	0.54	4.50	25.02	7.75	2.18	11.00	0.54
1.50	0.54	4.75	25.02	8.00	2.18	11.25	0.54
1.75	0.54	5.00	25.02	8.25	1.09	11.50	0.54
2.00	0.54	5.25	7.07	8.50	1.09	11.75	0.54
2.25	3.26	5.50	7.07	8.75	1.09	12.00	0.54
2.50	3.26	5.75	7.07	9.00	1.09		
2.75	3.26	6.00	7.07	9.25	0.54		
3.00	3.26	6.25	3.81	9.50	0.54		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | ' hrs mm/hr | hrs mm/hr
0.083 0.00 | 3.167 3.26 | 6.250 7.07 | 9.33 0.54
0.167 0.00 | 3.250 3.26 | 6.333 3.81 | 9.42 0.54
0.250 0.00 | 3.333 9.25 | 6.417 3.81 | 9.50 0.54
0.333 0.54 | 3.417 9.25 | 6.500 3.81 | 9.58 0.54
0.417 0.54 | 3.500 9.25 | 6.583 3.81 | 9.67 0.54
0.500 0.54 | 3.583 9.25 | 6.667 3.81 | 9.75 0.54
0.583 0.54 | 3.667 9.25 | 6.750 3.81 | 9.83 0.54
0.667 0.54 | 3.750 9.25 | 6.833 3.81 | 9.92 0.54
0.750 0.54 | 3.833 9.25 | 6.917 3.81 | 10.00 0.54
0.833 0.54 | 3.917 9.25 | 7.000 3.81 | 10.08 0.54
0.917 0.54 | 4.000 9.25 | 7.083 3.81 | 10.17 0.54
1.000 0.54 | 4.083 9.25 | 7.167 3.81 | 10.25 0.54
1.083 0.54 | 4.167 9.25 | 7.250 3.81 | 10.33 0.54
1.167 0.54 | 4.250 9.25 | 7.333 2.18 | 10.42 0.54
1.250 0.54 | 4.333 25.02 | 7.417 2.18 | 10.50 0.54
1.333 0.54 | 4.417 25.02 | 7.500 2.18 | 10.58 0.54
1.417 0.54 | 4.500 25.02 | 7.583 2.18 | 10.67 0.54
1.500 0.54 | 4.583 25.02 | 7.667 2.18 | 10.75 0.54
1.583 0.54 | 4.667 25.02 | 7.750 2.18 | 10.83 0.54
1.667 0.54 | 4.750 25.02 | 7.833 2.18 | 10.92 0.54
1.750 0.54 | 4.833 25.02 | 7.917 2.18 | 11.00 0.54
1.833 0.54 | 4.917 25.02 | 8.000 2.18 | 11.08 0.54
1.917 0.54 | 5.000 25.02 | 8.083 2.18 | 11.17 0.54
2.000 0.54 | 5.083 25.02 | 8.167 2.18 | 11.25 0.54
2.083 0.54 | 5.167 25.02 | 8.250 2.18 | 11.33 0.54
2.167 0.54 | 5.250 25.02 | 8.333 1.09 | 11.42 0.54
2.250 0.54 | 5.333 7.07 | 8.417 1.09 | 11.50 0.54
2.333 3.26 | 5.417 7.07 | 8.500 1.09 | 11.58 0.54
2.417 3.26 | 5.500 7.07 | 8.583 1.09 | 11.67 0.54
2.500 3.26 | 5.583 7.07 | 8.667 1.09 | 11.75 0.54
2.583 3.26 | 5.667 7.07 | 8.750 1.09 | 11.83 0.54
2.667 3.26 | 5.750 7.07 | 8.833 1.09 | 11.92 0.54
2.750 3.26 | 5.833 7.07 | 8.917 1.09 | 12.00 0.54
2.833 3.26 | 5.917 7.07 | 9.000 1.09 | 12.08 0.54
2.917 3.26 | 6.000 7.07 | 9.083 1.09 | 12.17 0.54
3.000 3.26 | 6.083 7.07 | 9.167 1.09 | 12.25 0.54
3.083 3.26 | 6.167 7.07 | 9.250 1.09 |

```

Unit Hyd Qpeak (cms) = 0.047

PEAK FLOW (cms) = 0.006 (i)
 TIME TO PEAK (hrs) = 5.250
 RUNOFF VOLUME (mm) = 16.950
 TOTAL RAINFALL (mm) = 54.380
 RUNOFF COEFFICIENT = 0.312

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7828) | Area (ha) = 10.90
| ID= 1 DT= 5.0 min | Total Imp (%) = 99.00 Dir. Conn. (%) = 99.00

```

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	10.79	0.11
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	1.00	2.00
Length (m)	269.57	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

-----
| CALIB |
| NASHYD ( 7823) | Area (ha) = 0.21 Curve Number (CN) = 73.0
| ID= 1 DT= 5.0 min | Ia (mm) = 5.00 # of Linear Res. (N) = 3.00
| U.H. Tp (hrs) = 0.17

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | ' hrs mm/hr | hrs mm/hr
0.083 0.00 | 3.167 3.26 | 6.250 7.07 | 9.33 0.54
0.167 0.00 | 3.250 3.26 | 6.333 3.81 | 9.42 0.54
0.250 0.00 | 3.333 9.25 | 6.417 3.81 | 9.50 0.54
0.333 0.54 | 3.417 9.25 | 6.500 3.81 | 9.58 0.54
0.417 0.54 | 3.500 9.25 | 6.583 3.81 | 9.67 0.54

```




0.500	0.54	3.583	9.25	6.667	3.81	9.75	0.54
0.583	0.54	3.667	9.25	6.750	3.81	9.83	0.54
0.667	0.54	3.750	9.25	6.833	3.81	9.92	0.54
0.750	0.54	3.833	9.25	6.917	3.81	10.00	0.54
0.833	0.54	3.917	9.25	7.000	3.81	10.08	0.54
0.917	0.54	4.000	9.25	7.083	3.81	10.17	0.54
1.000	0.54	4.083	9.25	7.167	3.81	10.25	0.54
1.083	0.54	4.167	9.25	7.250	3.81	10.33	0.54
1.167	0.54	4.250	9.25	7.333	2.18	10.42	0.54
1.250	0.54	4.333	25.02	7.417	2.18	10.50	0.54
1.333	0.54	4.417	25.02	7.500	2.18	10.58	0.54
1.417	0.54	4.500	25.02	7.583	2.18	10.67	0.54
1.500	0.54	4.583	25.02	7.667	2.18	10.75	0.54
1.583	0.54	4.667	25.02	7.750	2.18	10.83	0.54
1.667	0.54	4.750	25.02	7.833	2.18	10.92	0.54
1.750	0.54	4.833	25.02	7.917	2.18	11.00	0.54
1.833	0.54	4.917	25.02	8.000	2.18	11.08	0.54
1.917	0.54	5.000	25.02	8.083	2.18	11.17	0.54
2.000	0.54	5.083	25.02	8.167	2.18	11.25	0.54
2.083	0.54	5.167	25.02	8.250	2.18	11.33	0.54
2.167	0.54	5.250	25.02	8.333	1.09	11.42	0.54
2.250	0.54	5.333	7.07	8.417	1.09	11.50	0.54
2.333	3.26	5.417	7.07	8.500	1.09	11.58	0.54
2.417	3.26	5.500	7.07	8.583	1.09	11.67	0.54
2.500	3.26	5.583	7.07	8.667	1.09	11.75	0.54
2.583	3.26	5.667	7.07	8.750	1.09	11.83	0.54
2.667	3.26	5.750	7.07	8.833	1.09	11.92	0.54
2.750	3.26	5.833	7.07	8.917	1.09	12.00	0.54
2.833	3.26	5.917	7.07	9.000	1.09	12.08	0.54
2.917	3.26	6.000	7.07	9.083	1.09	12.17	0.54
3.000	3.26	6.083	7.07	9.167	1.09	12.25	0.54
3.083	3.26	6.167	7.07	9.250	1.09		

Max.Eff.Inten.(mm/hr)= 25.02 10.99
 over (min) 10.00 15.00
 Storage Coeff. (min)= 8.06 (ii) 10.02 (ii)
 Unit Hyd. Tpeak (min)= 10.00 15.00
 Unit Hyd. peak (cms)= 0.13 0.10

TOTALS
 PEAK FLOW (cms)= 0.75 0.00 0.753 (iii)
 TIME TO PEAK (hrs)= 5.25 5.25
 RUNOFF VOLUME (mm)= 52.38 17.01 52.03
 TOTAL RAINFALL (mm)= 54.38 54.38 54.38
 RUNOFF COEFFICIENT = 0.96 0.31 0.96

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7837)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7823):	0.21	0.006	5.25	16.95
+ ID2= 2 (7828):	10.90	0.753	5.25	52.03
ID = 3 (7837):	11.11	0.758	5.25	51.37

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7818)	OUTFLOW	STORAGE	OUTFLOW	STORAGE
IN= 2--> OUT= 1	(cms)	(ha.m.)	(cms)	(ha.m.)
DT= 5.0 min				
	0.0000	0.0000	0.1390	0.6960
	0.0590	0.3400	0.1630	0.7780
	0.0900	0.4907	0.1840	0.8800
	0.1110	0.5760	0.0000	0.0000
	AREA	QPEAK	TPEAK	R.V.

(ha) (cms) (hrs) (mm)
 INFLOW : ID= 2 (7837) 11.108 0.758 5.25 51.37
 OUTFLOW: ID= 1 (7818) 11.108 0.080 7.50 51.24

PEAK FLOW REDUCTION [Qout/Qin] (%) = 10.52
 TIME SHIFT OF PEAK FLOW (min)=135.00
 MAXIMUM STORAGE USED (ha.m.)= 0.4412

CMLIB
 STANDHYD (7820) Area (ha)= 11.38
 ID= 1 DT= 5.0 min Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PVIOUS (i)
 Surface Area (ha)= 11.27 0.11
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 275.44 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.26	6.250	7.07	9.33	0.54
0.167	0.00	3.250	3.26	6.333	3.81	9.42	0.54
0.250	0.00	3.333	9.25	6.417	3.81	9.50	0.54
0.333	0.54	3.417	9.25	6.500	3.81	9.58	0.54
0.417	0.54	3.500	9.25	6.583	3.81	9.67	0.54
0.500	0.54	3.583	9.25	6.667	3.81	9.75	0.54
0.583	0.54	3.667	9.25	6.750	3.81	9.83	0.54
0.667	0.54	3.750	9.25	6.833	3.81	9.92	0.54
0.750	0.54	3.833	9.25	6.917	3.81	10.00	0.54
0.833	0.54	3.917	9.25	7.000	3.81	10.08	0.54
0.917	0.54	4.000	9.25	7.083	3.81	10.17	0.54
1.000	0.54	4.083	9.25	7.167	3.81	10.25	0.54
1.083	0.54	4.167	9.25	7.250	3.81	10.33	0.54
1.167	0.54	4.250	9.25	7.333	2.18	10.42	0.54
1.250	0.54	4.333	25.02	7.417	2.18	10.50	0.54
1.333	0.54	4.417	25.02	7.500	2.18	10.58	0.54
1.417	0.54	4.500	25.02	7.583	2.18	10.67	0.54
1.500	0.54	4.583	25.02	7.667	2.18	10.75	0.54
1.583	0.54	4.667	25.02	7.750	2.18	10.83	0.54
1.667	0.54	4.750	25.02	7.833	2.18	10.92	0.54
1.750	0.54	4.833	25.02	7.917	2.18	11.00	0.54
1.833	0.54	4.917	25.02	8.000	2.18	11.08	0.54
1.917	0.54	5.000	25.02	8.083	2.18	11.17	0.54
2.000	0.54	5.083	25.02	8.167	2.18	11.25	0.54
2.083	0.54	5.167	25.02	8.250	2.18	11.33	0.54
2.167	0.54	5.250	25.02	8.333	1.09	11.42	0.54
2.250	0.54	5.333	7.07	8.417	1.09	11.50	0.54
2.333	3.26	5.417	7.07	8.500	1.09	11.58	0.54
2.417	3.26	5.500	7.07	8.583	1.09	11.67	0.54
2.500	3.26	5.583	7.07	8.667	1.09	11.75	0.54
2.583	3.26	5.667	7.07	8.750	1.09	11.83	0.54
2.667	3.26	5.750	7.07	8.833	1.09	11.92	0.54
2.750	3.26	5.833	7.07	8.917	1.09	12.00	0.54
2.833	3.26	5.917	7.07	9.000	1.09	12.08	0.54
2.917	3.26	6.000	7.07	9.083	1.09	12.17	0.54
3.000	3.26	6.083	7.07	9.167	1.09	12.25	0.54
3.083	3.26	6.167	7.07	9.250	1.09		

Max.Eff.Inten.(mm/hr)= 25.02 10.99
 over (min) 10.00 15.00
 Storage Coeff. (min)= 8.17 (ii) 10.12 (ii)
 Unit Hyd. Tpeak (min)= 10.00 15.00
 Unit Hyd. peak (cms)= 0.13 0.10

TOTALS
 PEAK FLOW (cms)= 0.78 0.00 0.786 (iii)
 TIME TO PEAK (hrs)= 5.25 5.25
 RUNOFF VOLUME (mm)= 52.38 17.01 52.03
 TOTAL RAINFALL (mm)= 54.38 54.38 54.38
 RUNOFF COEFFICIENT = 0.96 0.31 0.96

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7812)				
OVERFLOW IS OFF				
IN= 2--> OUT= 1				
DT= 5.0 min				
OUTFLOW	STORAGE	OUTFLOW	STORAGE	
(cms)	(ha.m.)	(cms)	(ha.m.)	
0.0000	0.0000	0.1990	0.6950	
0.0830	0.3500	0.2320	0.8000	
0.1280	0.4850	0.2620	0.9000	
0.1580	0.5900	0.0000	0.0000	
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 2 (7820)	11.380	0.786	5.25	52.03
OUTFLOW: ID= 1 (7812)	11.380	0.110	7.33	51.93
PEAK FLOW REDUCTION [Qout/Qin] (%) = 14.00				
TIME SHIFT OF PEAK FLOW (min)=125.00				
MAXIMUM STORAGE USED (ha.m.) = 0.4310				

ADD HYD (7802)				
1 + 2 = 3				
ID	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7812):	11.38	0.110	7.33	51.93
+ ID2= 2 (7818):	11.11	0.080	7.50	51.24
ID = 3 (7802):	22.49	0.190	7.42	51.59

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB (7834)			
STANDHYD (7834)			
ID= 1 DT= 5.0 min			
Area	(ha)	Total Imp (%)	Dir. Conn. (%)
	0.59	99.00	99.00
IMPERVIOUS PERVIOUS (i)			
Surface Area	(ha)=	0.58	0.01
Dep. Storage	(mm)=	2.00	5.00
Average Slope	(%)=	2.00	2.00
Length	(m)=	62.72	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.26	6.250	7.07	9.33	0.54
0.167	0.00	3.250	3.26	6.333	3.81	9.42	0.54
0.250	0.00	3.333	9.25	6.417	3.81	9.50	0.54
0.333	0.54	3.417	9.25	6.500	3.81	9.58	0.54
0.417	0.54	3.500	9.25	6.583	3.81	9.67	0.54
0.500	0.54	3.583	9.25	6.667	3.81	9.75	0.54
0.583	0.54	3.667	9.25	6.750	3.81	9.83	0.54
0.667	0.54	3.750	9.25	6.833	3.81	9.92	0.54
0.750	0.54	3.833	9.25	6.917	3.81	10.00	0.54
0.833	0.54	3.917	9.25	7.000	3.81	10.08	0.54
0.917	0.54	4.000	9.25	7.083	3.81	10.17	0.54
1.000	0.54	4.083	9.25	7.167	3.81	10.25	0.54
1.083	0.54	4.167	9.25	7.250	3.81	10.33	0.54
1.167	0.54	4.250	9.25	7.333	2.18	10.42	0.54
1.250	0.54	4.333	25.02	7.417	2.18	10.50	0.54
1.333	0.54	4.417	25.02	7.500	2.18	10.58	0.54
1.417	0.54	4.500	25.02	7.583	2.18	10.67	0.54

1.500	0.54	4.583	25.02	7.667	2.18	10.75	0.54
1.583	0.54	4.667	25.02	7.750	2.18	10.83	0.54
1.667	0.54	4.750	25.02	7.833	2.18	10.92	0.54
1.750	0.54	4.833	25.02	7.917	2.18	11.00	0.54
1.833	0.54	4.917	25.02	8.000	2.18	11.08	0.54
1.917	0.54	5.000	25.02	8.083	2.18	11.17	0.54
2.000	0.54	5.083	25.02	8.167	2.18	11.25	0.54
2.083	0.54	5.167	25.02	8.250	2.18	11.33	0.54
2.167	0.54	5.250	25.02	8.333	1.09	11.42	0.54
2.250	0.54	5.333	7.07	8.417	1.09	11.50	0.54
2.333	3.26	5.417	7.07	8.500	1.09	11.58	0.54
2.417	3.26	5.500	7.07	8.583	1.09	11.67	0.54
2.500	3.26	5.583	7.07	8.667	1.09	11.75	0.54
2.583	3.26	5.667	7.07	8.750	1.09	11.83	0.54
2.667	3.26	5.750	7.07	8.833	1.09	11.92	0.54
2.750	3.26	5.833	7.07	8.917	1.09	12.00	0.54
2.833	3.26	5.917	7.07	9.000	1.09	12.08	0.54
2.917	3.26	6.000	7.07	9.083	1.09	12.17	0.54
3.000	3.26	6.083	7.07	9.167	1.09	12.25	0.54
3.083	3.26	6.167	7.07	9.250	1.09		

Max.Eff.Inten.(mm/hr)=	25.02	10.99
over (min)=	5.00	5.00
Storage Coeff. (min)=	2.73 (ii)	4.68 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.29	0.22
PEAK FLOW (cms)=	0.04	0.00
TIME TO PEAK (hrs)=	5.08	5.25
RUNOFF VOLUME (mm)=	52.38	17.01
TOTAL RAINFALL (mm)=	54.38	54.38
RUNOFF COEFFICIENT =	0.96	0.31

TOTALS

0.041 (iii)
5.25
52.02
54.38
0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB (7806)			
STANDHYD (7806)			
ID= 1 DT= 5.0 min			
Area	(ha)	Total Imp (%)	Dir. Conn. (%)
	2.37	99.00	99.00
IMPERVIOUS PERVIOUS (i)			
Surface Area	(ha)=	2.35	0.02
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	1.00	2.00
Length	(m)=	20.00	20.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.26	6.250	7.07	9.33	0.54
0.167	0.00	3.250	3.26	6.333	3.81	9.42	0.54
0.250	0.00	3.333	9.25	6.417	3.81	9.50	0.54
0.333	0.54	3.417	9.25	6.500	3.81	9.58	0.54
0.417	0.54	3.500	9.25	6.583	3.81	9.67	0.54
0.500	0.54	3.583	9.25	6.667	3.81	9.75	0.54
0.583	0.54	3.667	9.25	6.750	3.81	9.83	0.54
0.667	0.54	3.750	9.25	6.833	3.81	9.92	0.54
0.750	0.54	3.833	9.25	6.917	3.81	10.00	0.54
0.833	0.54	3.917	9.25	7.000	3.81	10.08	0.54
0.917	0.54	4.000	9.25	7.083	3.81	10.17	0.54
1.000	0.54	4.083	9.25	7.167	3.81	10.25	0.54
1.083	0.54	4.167	9.25	7.250	3.81	10.33	0.54
1.167	0.54	4.250	9.25	7.333	2.18	10.42	0.54
1.250	0.54	4.333	25.02	7.417	2.18	10.50	0.54
1.333	0.54	4.417	25.02	7.500	2.18	10.58	0.54
1.417	0.54	4.500	25.02	7.583	2.18	10.67	0.54

1.417	0.54	4.500	25.02	7.583	2.18	10.67	0.54
1.500	0.54	4.583	25.02	7.667	2.18	10.75	0.54
1.583	0.54	4.667	25.02	7.750	2.18	10.83	0.54
1.667	0.54	4.750	25.02	7.833	2.18	10.92	0.54
1.750	0.54	4.833	25.02	7.917	2.18	11.00	0.54
1.833	0.54	4.917	25.02	8.000	2.18	11.08	0.54
1.917	0.54	5.000	25.02	8.083	2.18	11.17	0.54
2.000	0.54	5.083	25.02	8.167	2.18	11.25	0.54
2.083	0.54	5.167	25.02	8.250	2.18	11.33	0.54
2.167	0.54	5.250	25.02	8.333	1.09	11.42	0.54
2.250	0.54	5.333	7.07	8.417	1.09	11.50	0.54
2.333	3.26	5.417	7.07	8.500	1.09	11.58	0.54
2.417	3.26	5.500	7.07	8.583	1.09	11.67	0.54
2.500	3.26	5.583	7.07	8.667	1.09	11.75	0.54
2.583	3.26	5.667	7.07	8.750	1.09	11.83	0.54
2.667	3.26	5.750	7.07	8.833	1.09	11.92	0.54
2.750	3.26	5.833	7.07	8.917	1.09	12.00	0.54
2.833	3.26	5.917	7.07	9.000	1.09	12.08	0.54
2.917	3.26	6.000	7.07	9.083	1.09	12.17	0.54
3.000	3.26	6.083	7.07	9.167	1.09	12.25	0.54
3.083	3.26	6.167	7.07	9.250	1.09		

Max.Eff.Inten.(mm/hr)= 25.02 10.99
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 1.69 (ii) 2.98 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.28

PEAK FLOW (cms)= 0.16 0.00
 TIME TO PEAK (hrs)= 4.83 5.25
 RUNOFF VOLUME (mm)= 53.38 17.01
 TOTAL RAINFALL (mm)= 54.38 54.38
 RUNOFF COEFFICIENT = 0.98 0.31

TOTALS
 0.164 (iii)
 5.25
 53.02
 54.38
 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7811) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

Surface Area	(ha)=	2.38	0.02
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	1.00	2.00
Length	(m)=	20.00	20.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.26	6.250	7.07	9.33	0.54
0.167	0.00	3.250	3.26	6.333	3.81	9.42	0.54
0.250	0.00	3.333	9.25	6.417	3.81	9.50	0.54
0.333	0.54	3.417	9.25	6.500	3.81	9.58	0.54
0.417	0.54	3.500	9.25	6.583	3.81	9.67	0.54
0.500	0.54	3.583	9.25	6.667	3.81	9.75	0.54
0.583	0.54	3.667	9.25	6.750	3.81	9.83	0.54
0.667	0.54	3.750	9.25	6.833	3.81	9.92	0.54
0.750	0.54	3.833	9.25	6.917	3.81	10.00	0.54
0.833	0.54	3.917	9.25	7.000	3.81	10.08	0.54
0.917	0.54	4.000	9.25	7.083	3.81	10.17	0.54
1.000	0.54	4.083	9.25	7.167	3.81	10.25	0.54
1.083	0.54	4.167	9.25	7.250	3.81	10.33	0.54
1.167	0.54	4.250	9.25	7.333	2.18	10.42	0.54
1.250	0.54	4.333	25.02	7.417	2.18	10.50	0.54

1.333	0.54	4.417	25.02	7.500	2.18	10.58	0.54
1.417	0.54	4.500	25.02	7.583	2.18	10.67	0.54
1.500	0.54	4.583	25.02	7.667	2.18	10.75	0.54
1.583	0.54	4.667	25.02	7.750	2.18	10.83	0.54
1.667	0.54	4.750	25.02	7.833	2.18	10.92	0.54
1.750	0.54	4.833	25.02	7.917	2.18	11.00	0.54
1.833	0.54	4.917	25.02	8.000	2.18	11.08	0.54
1.917	0.54	5.000	25.02	8.083	2.18	11.17	0.54
2.000	0.54	5.083	25.02	8.167	2.18	11.25	0.54
2.083	0.54	5.167	25.02	8.250	2.18	11.33	0.54
2.167	0.54	5.250	25.02	8.333	1.09	11.42	0.54
2.250	0.54	5.333	7.07	8.417	1.09	11.50	0.54
2.333	3.26	5.417	7.07	8.500	1.09	11.58	0.54
2.417	3.26	5.500	7.07	8.583	1.09	11.67	0.54
2.500	3.26	5.583	7.07	8.667	1.09	11.75	0.54
2.583	3.26	5.667	7.07	8.750	1.09	11.83	0.54
2.667	3.26	5.750	7.07	8.833	1.09	11.92	0.54
2.750	3.26	5.833	7.07	8.917	1.09	12.00	0.54
2.833	3.26	5.917	7.07	9.000	1.09	12.08	0.54
2.917	3.26	6.000	7.07	9.083	1.09	12.17	0.54
3.000	3.26	6.083	7.07	9.167	1.09	12.25	0.54
3.083	3.26	6.167	7.07	9.250	1.09		

Max.Eff.Inten.(mm/hr)= 25.02 10.99
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 1.69 (ii) 2.98 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.28

PEAK FLOW (cms)= 0.17 0.00
 TIME TO PEAK (hrs)= 4.83 5.25
 RUNOFF VOLUME (mm)= 53.38 17.01
 TOTAL RAINFALL (mm)= 54.38 54.38
 RUNOFF COEFFICIENT = 0.98 0.31

TOTALS
 0.166 (iii)
 5.25
 53.02
 54.38
 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7816) | Area (ha)= 2.36
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

Surface Area	(ha)=	2.34	0.02
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	1.00	2.00
Length	(m)=	20.00	20.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.26	6.250	7.07	9.33	0.54
0.167	0.00	3.250	3.26	6.333	3.81	9.42	0.54
0.250	0.00	3.333	9.25	6.417	3.81	9.50	0.54
0.333	0.54	3.417	9.25	6.500	3.81	9.58	0.54
0.417	0.54	3.500	9.25	6.583	3.81	9.67	0.54
0.500	0.54	3.583	9.25	6.667	3.81	9.75	0.54
0.583	0.54	3.667	9.25	6.750	3.81	9.83	0.54
0.667	0.54	3.750	9.25	6.833	3.81	9.92	0.54
0.750	0.54	3.833	9.25	6.917	3.81	10.00	0.54
0.833	0.54	3.917	9.25	7.000	3.81	10.08	0.54
0.917	0.54	4.000	9.25	7.083	3.81	10.17	0.54
1.000	0.54	4.083	9.25	7.167	3.81	10.25	0.54
1.083	0.54	4.167	9.25	7.250	3.81	10.33	0.54
1.167	0.54	4.250	9.25	7.333	2.18	10.42	0.54

1.250	0.54	4.333	25.02	7.417	2.18	10.50	0.54
1.333	0.54	4.417	25.02	7.500	2.18	10.58	0.54
1.417	0.54	4.500	25.02	7.583	2.18	10.67	0.54
1.500	0.54	4.583	25.02	7.667	2.18	10.75	0.54
1.583	0.54	4.667	25.02	7.750	2.18	10.83	0.54
1.667	0.54	4.750	25.02	7.833	2.18	10.92	0.54
1.750	0.54	4.833	25.02	7.917	2.18	11.00	0.54
1.833	0.54	4.917	25.02	8.000	2.18	11.08	0.54
1.917	0.54	5.000	25.02	8.083	2.18	11.17	0.54
2.000	0.54	5.083	25.02	8.167	2.18	11.25	0.54
2.083	0.54	5.167	25.02	8.250	2.18	11.33	0.54
2.167	0.54	5.250	25.02	8.333	1.09	11.42	0.54
2.250	0.54	5.333	7.07	8.417	1.09	11.50	0.54
2.333	3.26	5.417	7.07	8.500	1.09	11.58	0.54
2.417	3.26	5.500	7.07	8.583	1.09	11.67	0.54
2.500	3.26	5.583	7.07	8.667	1.09	11.75	0.54
2.583	3.26	5.667	7.07	8.750	1.09	11.83	0.54
2.667	3.26	5.750	7.07	8.833	1.09	11.92	0.54
2.750	3.26	5.833	7.07	8.917	1.09	12.00	0.54
2.833	3.26	5.917	7.07	9.000	1.09	12.08	0.54
2.917	3.26	6.000	7.07	9.083	1.09	12.17	0.54
3.000	3.26	6.083	7.07	9.167	1.09	12.25	0.54
3.083	3.26	6.167	7.07	9.250	1.09		

Max.Eff.Inten. (mm/hr)=	25.02	10.99
over (min)	5.00	5.00
Storage Coeff. (min)=	1.69 (ii)	2.98 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.32	0.28
TOTALS		
PEAK FLOW (cms)=	0.16	0.00
TIME TO PEAK (hrs)=	4.83	5.25
RUNOFF VOLUME (mm)=	53.38	17.01
TOTAL RAINFALL (mm)=	54.38	54.38
RUNOFF COEFFICIENT =	0.98	0.31

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	2.39
STANDHYD (7827)	Total Imp(%)=	99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	99.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.26	6.250	7.07	9.33	0.54
0.167	0.00	3.250	3.26	6.333	3.81	9.42	0.54
0.250	0.00	3.333	9.25	6.417	3.81	9.50	0.54
0.333	0.54	3.417	9.25	6.500	3.81	9.58	0.54
0.417	0.54	3.500	9.25	6.583	3.81	9.67	0.54
0.500	0.54	3.583	9.25	6.667	3.81	9.75	0.54
0.583	0.54	3.667	9.25	6.750	3.81	9.83	0.54
0.667	0.54	3.750	9.25	6.833	3.81	9.92	0.54
0.750	0.54	3.833	9.25	6.917	3.81	10.00	0.54
0.833	0.54	3.917	9.25	7.000	3.81	10.08	0.54
0.917	0.54	4.000	9.25	7.083	3.81	10.17	0.54
1.000	0.54	4.083	9.25	7.167	3.81	10.25	0.54
1.083	0.54	4.167	9.25	7.250	3.81	10.33	0.54

1.167	0.54	4.250	9.25	7.333	2.18	10.42	0.54
1.250	0.54	4.333	25.02	7.417	2.18	10.50	0.54
1.333	0.54	4.417	25.02	7.500	2.18	10.58	0.54
1.417	0.54	4.500	25.02	7.583	2.18	10.67	0.54
1.500	0.54	4.583	25.02	7.667	2.18	10.75	0.54
1.583	0.54	4.667	25.02	7.750	2.18	10.83	0.54
1.667	0.54	4.750	25.02	7.833	2.18	10.92	0.54
1.750	0.54	4.833	25.02	7.917	2.18	11.00	0.54
1.833	0.54	4.917	25.02	8.000	2.18	11.08	0.54
1.917	0.54	5.000	25.02	8.083	2.18	11.17	0.54
2.000	0.54	5.083	25.02	8.167	2.18	11.25	0.54
2.083	0.54	5.167	25.02	8.250	2.18	11.33	0.54
2.167	0.54	5.250	25.02	8.333	1.09	11.42	0.54
2.250	0.54	5.333	7.07	8.417	1.09	11.50	0.54
2.333	3.26	5.417	7.07	8.500	1.09	11.58	0.54
2.417	3.26	5.500	7.07	8.583	1.09	11.67	0.54
2.500	3.26	5.583	7.07	8.667	1.09	11.75	0.54
2.583	3.26	5.667	7.07	8.750	1.09	11.83	0.54
2.667	3.26	5.750	7.07	8.833	1.09	11.92	0.54
2.750	3.26	5.833	7.07	8.917	1.09	12.00	0.54
2.833	3.26	5.917	7.07	9.000	1.09	12.08	0.54
2.917	3.26	6.000	7.07	9.083	1.09	12.17	0.54
3.000	3.26	6.083	7.07	9.167	1.09	12.25	0.54
3.083	3.26	6.167	7.07	9.250	1.09		

Max.Eff.Inten. (mm/hr)=	25.02	10.99
over (min)	5.00	5.00
Storage Coeff. (min)=	1.69 (ii)	2.98 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.32	0.28
TOTALS		
PEAK FLOW (cms)=	0.16	0.00
TIME TO PEAK (hrs)=	4.83	5.25
RUNOFF VOLUME (mm)=	53.38	17.01
TOTAL RAINFALL (mm)=	54.38	54.38
RUNOFF COEFFICIENT =	0.98	0.31

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	2.39
STANDHYD (7832)	Total Imp(%)=	99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	99.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.26	6.250	7.07	9.33	0.54
0.167	0.00	3.250	3.26	6.333	3.81	9.42	0.54
0.250	0.00	3.333	9.25	6.417	3.81	9.50	0.54
0.333	0.54	3.417	9.25	6.500	3.81	9.58	0.54
0.417	0.54	3.500	9.25	6.583	3.81	9.67	0.54
0.500	0.54	3.583	9.25	6.667	3.81	9.75	0.54
0.583	0.54	3.667	9.25	6.750	3.81	9.83	0.54
0.667	0.54	3.750	9.25	6.833	3.81	9.92	0.54
0.750	0.54	3.833	9.25	6.917	3.81	10.00	0.54
0.833	0.54	3.917	9.25	7.000	3.81	10.08	0.54
0.917	0.54	4.000	9.25	7.083	3.81	10.17	0.54
1.000	0.54	4.083	9.25	7.167	3.81	10.25	0.54

1.083	0.54	4.167	9.25	7.250	3.81	10.33	0.54
1.167	0.54	4.250	9.25	7.333	2.18	10.42	0.54
1.250	0.54	4.333	25.02	7.417	2.18	10.50	0.54
1.333	0.54	4.417	25.02	7.500	2.18	10.58	0.54
1.417	0.54	4.500	25.02	7.583	2.18	10.67	0.54
1.500	0.54	4.583	25.02	7.667	2.18	10.75	0.54
1.583	0.54	4.667	25.02	7.750	2.18	10.83	0.54
1.667	0.54	4.750	25.02	7.833	2.18	10.92	0.54
1.750	0.54	4.833	25.02	7.917	2.18	11.00	0.54
1.833	0.54	4.917	25.02	8.000	2.18	11.08	0.54
1.917	0.54	5.000	25.02	8.083	2.18	11.17	0.54
2.000	0.54	5.083	25.02	8.167	2.18	11.25	0.54
2.083	0.54	5.167	25.02	8.250	2.18	11.33	0.54
2.167	0.54	5.250	25.02	8.333	1.09	11.42	0.54
2.250	0.54	5.333	7.07	8.417	1.09	11.50	0.54
2.333	3.26	5.417	7.07	8.500	1.09	11.58	0.54
2.417	3.26	5.500	7.07	8.583	1.09	11.67	0.54
2.500	3.26	5.583	7.07	8.667	1.09	11.75	0.54
2.583	3.26	5.667	7.07	8.750	1.09	11.83	0.54
2.667	3.26	5.750	7.07	8.833	1.09	11.92	0.54
2.750	3.26	5.833	7.07	8.917	1.09	12.00	0.54
2.833	3.26	5.917	7.07	9.000	1.09	12.08	0.54
2.917	3.26	6.000	7.07	9.083	1.09	12.17	0.54
3.000	3.26	6.083	7.07	9.167	1.09	12.25	0.54
3.083	3.26	6.167	7.07	9.250	1.09		

Max.Eff.Inten. (mm/hr)= 25.02 10.99
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.69 (ii) 2.98 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.28

TOTALS

PEAK FLOW (cms)= 0.16 0.00 0.165 (iii)
 TIME TO PEAK (hrs)= 4.83 5.25 5.25
 RUNOFF VOLUME (mm)= 53.38 17.01 53.02
 TOTAL RAINFALL (mm)= 54.38 54.38 54.38
 RUNOFF COEFFICIENT = 0.98 0.31 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7844) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	2.38	0.02
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	1.00	2.00
Length	(m)=	20.00	20.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.26	6.250	7.07	9.33	0.54
0.167	0.00	3.250	3.26	6.333	3.81	9.42	0.54
0.250	0.00	3.333	9.25	6.417	3.81	9.50	0.54
0.333	0.54	3.417	9.25	6.500	3.81	9.58	0.54
0.417	0.54	3.500	9.25	6.583	3.81	9.67	0.54
0.500	0.54	3.583	9.25	6.667	3.81	9.75	0.54
0.583	0.54	3.667	9.25	6.750	3.81	9.83	0.54
0.667	0.54	3.750	9.25	6.833	3.81	9.92	0.54
0.750	0.54	3.833	9.25	6.917	3.81	10.00	0.54
0.833	0.54	3.917	9.25	7.000	3.81	10.08	0.54
0.917	0.54	4.000	9.25	7.083	3.81	10.17	0.54

1.000	0.54	4.083	9.25	7.167	3.81	10.25	0.54
1.083	0.54	4.167	9.25	7.250	3.81	10.33	0.54
1.167	0.54	4.250	9.25	7.333	2.18	10.42	0.54
1.250	0.54	4.333	25.02	7.417	2.18	10.50	0.54
1.333	0.54	4.417	25.02	7.500	2.18	10.58	0.54
1.417	0.54	4.500	25.02	7.583	2.18	10.67	0.54
1.500	0.54	4.583	25.02	7.667	2.18	10.75	0.54
1.583	0.54	4.667	25.02	7.750	2.18	10.83	0.54
1.667	0.54	4.750	25.02	7.833	2.18	10.92	0.54
1.750	0.54	4.833	25.02	7.917	2.18	11.00	0.54
1.833	0.54	4.917	25.02	8.000	2.18	11.08	0.54
1.917	0.54	5.000	25.02	8.083	2.18	11.17	0.54
2.000	0.54	5.083	25.02	8.167	2.18	11.25	0.54
2.083	0.54	5.167	25.02	8.250	2.18	11.33	0.54
2.167	0.54	5.250	25.02	8.333	1.09	11.42	0.54
2.250	0.54	5.333	7.07	8.417	1.09	11.50	0.54
2.333	3.26	5.417	7.07	8.500	1.09	11.58	0.54
2.417	3.26	5.500	7.07	8.583	1.09	11.67	0.54
2.500	3.26	5.583	7.07	8.667	1.09	11.75	0.54
2.583	3.26	5.667	7.07	8.750	1.09	11.83	0.54
2.667	3.26	5.750	7.07	8.833	1.09	11.92	0.54
2.750	3.26	5.833	7.07	8.917	1.09	12.00	0.54
2.833	3.26	5.917	7.07	9.000	1.09	12.08	0.54
2.917	3.26	6.000	7.07	9.083	1.09	12.17	0.54
3.000	3.26	6.083	7.07	9.167	1.09	12.25	0.54
3.083	3.26	6.167	7.07	9.250	1.09		

Max.Eff.Inten. (mm/hr)= 25.02 10.99
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.69 (ii) 2.98 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.28

TOTALS

PEAK FLOW (cms)= 0.17 0.00 0.166 (iii)
 TIME TO PEAK (hrs)= 4.83 5.25 5.25
 RUNOFF VOLUME (mm)= 53.38 17.01 53.02
 TOTAL RAINFALL (mm)= 54.38 54.38 54.38
 RUNOFF COEFFICIENT = 0.98 0.31 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)

ID1= 1 (7806):	2.37	0.164	5.25	53.02
+ ID2= 2 (7811):	2.40	0.166	5.25	53.02

ID = 3 (7843):	4.77	0.330	5.25	53.02

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)

ID1= 3 (7843):	4.77	0.330	5.25	53.02
+ ID2= 2 (7816):	2.36	0.163	5.25	53.02

ID = 1 (7843):	7.13	0.493	5.25	53.02

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7843):	7.13	0.493	5.25	53.02
+ ID2= 2 (7827):	2.39	0.165	5.25	53.02

ID = 3 (7843):	9.52	0.658	5.25	53.02

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7843)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7843):	9.52	0.658	5.25	53.02
+ ID2= 2 (7832):	2.39	0.165	5.25	53.02

ID = 1 (7843):	11.91	0.823	5.25	53.02

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7843)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7843):	11.91	0.823	5.25	53.02
+ ID2= 2 (7844):	2.40	0.166	5.25	53.02

ID = 3 (7843):	14.31	0.989	5.25	53.02

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| DIVERTHYD(7835) |
| IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1 +	Flow 2 +	Flow 3 +	Flow 4 +	Flow 5 =	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
TOTAL HYD. (ID= 1):	14.31	0.99	5.25	53.02
ID= 2 (2) :	14.31	0.99	5.25	53.02
ID= 3 (2) :	0.00	0.00	5.25	53.02
ID= 4 (2) :	0.00	0.00	0.00	0.00
ID= 5 (2) :	0.00	0.00	0.00	0.00
ID= 6 (2) :	0.00	0.00	0.00	0.00

| RESERVOIR(7808) |
| IN= 2---> OUT= 1 |
| DT= 5.0 min |

OVERFLOW IS ON

OUTFLOW	STORAGE	OUTFLOW	STORAGE
(cms)	(ha.m.)	(cms)	(ha.m.)
0.0000	0.0000	0.2690	0.4589
0.1980	0.1112	0.0000	0.0000

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7835):	14.306	0.989	5.25	53.02
OUTFLOW: ID= 1 (7808):	14.306	0.256	6.25	53.01
OVERFLOW: ID= 3 (0003):	0.000	0.000	0.00	0.00

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

PEAK FLOW REDUCTION [Qout/Qin](%) = 25.93
TIME SHIFT OF PEAK FLOW (min) = 60.00
MAXIMUM STORAGE USED (ha.m.) = 0.3975

| Junction Command(7803) |

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 3 (7808):	0.00	0.00	0.00	0.00
OUTFLOW: ID= 2 (7803):	0.00	0.00	0.00	0.00

ADD HYD (7824)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
*** W A R N I N G : HYDROGRAPH 7803 <ID= 1> IS DRY.				
*** W A R N I N G : HYDROGRAPH 7824 = HYDROGRAPH 7808				
ID1= 1 (7803):	0.00	0.000	0.00	0.00
+ ID2= 2 (7808):	14.31	0.256	6.25	53.01

ID = 3 (7824):	14.31	0.256	6.25	53.01

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7824)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7824):	14.31	0.256	6.25	53.01
+ ID2= 2 (7835):	0.00	0.000	5.25	53.02

ID = 1 (7824):	14.31	0.256	6.25	53.01

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |
| STANDHYD (7810) | Area (ha)= 1.06
| ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.01	0.05
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN				
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr				
0.083	0.00	3.167	3.26	6.250	7.07	9.33	0.54				
0.167	0.00	3.250	3.26	6.333	3.81	9.42	0.54				
0.250	0.00	3.333	9.25	6.417	3.81	9.50	0.54				
0.333	0.54	3.417	9.25	6.500	3.81	9.58	0.54				
0.417	0.54	3.500	9.25	6.583	3.81	9.67	0.54				
0.500	0.54	3.583	9.25	6.667	3.81	9.75	0.54				
0.583	0.54	3.667	9.25	6.750	3.81	9.83	0.54				
0.667	0.54	3.750	9.25	6.833	3.81	9.92	0.54				
0.750	0.54	3.833	9.25	6.917	3.81	10.00	0.54				
0.833	0.54	3.917	9.25	7.000	3.81	10.08	0.54				
0.917	0.54	4.000	9.25	7.083	3.81	10.17	0.54				
1.000	0.54	4.083	9.25	7.167	3.81	10.25	0.54				
1.083	0.54	4.167	9.25	7.250	3.81	10.33	0.54				
1.167	0.54	4.250	9.25	7.333	2.18	10.42	0.54				
1.250	0.54	4.333	25.02	7.417	2.18	10.50	0.54				
1.333	0.54	4.417	25.02	7.500	2.18	10.58	0.54				
1.417	0.54	4.500	25.02	7.583	2.18	10.67	0.54				
1.500	0.54	4.583	25.02	7.667	2.18	10.75	0.54				
1.583	0.54	4.667	25.02	7.750	2.18	10.83	0.54				



1.667	0.54	4.750	25.02	7.833	2.18	10.92	0.54
1.750	0.54	4.833	25.02	7.917	2.18	11.00	0.54
1.833	0.54	4.917	25.02	8.000	2.18	11.08	0.54
1.917	0.54	5.000	25.02	8.083	2.18	11.17	0.54
2.000	0.54	5.083	25.02	8.167	2.18	11.25	0.54
2.083	0.54	5.167	25.02	8.250	2.18	11.33	0.54
2.167	0.54	5.250	25.02	8.333	1.09	11.42	0.54
2.250	0.54	5.333	7.07	8.417	1.09	11.50	0.54
2.333	3.26	5.417	7.07	8.500	1.09	11.58	0.54
2.417	3.26	5.500	7.07	8.583	1.09	11.67	0.54
2.500	3.26	5.583	7.07	8.667	1.09	11.75	0.54
2.583	3.26	5.667	7.07	8.750	1.09	11.83	0.54
2.667	3.26	5.750	7.07	8.833	1.09	11.92	0.54
2.750	3.26	5.833	7.07	8.917	1.09	12.00	0.54
2.833	3.26	5.917	7.07	9.000	1.09	12.08	0.54
2.917	3.26	6.000	7.07	9.083	1.09	12.17	0.54
3.000	3.26	6.083	7.07	9.167	1.09	12.25	0.54
3.083	3.26	6.167	7.07	9.250	1.09		

Max.Eff.Inten.(mm/hr)= 25.02 11.35
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 2.49 (ii) 6.27 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.29 0.15

PEAK FLOW (cms)= 0.07 0.00
 TIME TO PEAK (hrs)= 4.83 5.25
 RUNOFF VOLUME (mm)= 52.38 17.59 50.64
 TOTAL RAINFALL (mm)= 54.38 54.38 54.38
 RUNOFF COEFFICIENT = 0.96 0.32 0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7814) |
ID= 1 DT= 5.0 min
 Area (ha)= 1.45
 Total Imp(%)= 96.00 Dir. Conn.(%)= 96.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	1.39	0.06
Dep. Storage	(mm)=	2.00	5.00
Average Slope	(%)=	1.10	2.00
Length	(m)=	100.00	145.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	hrs
0.083	0.00	3.167	3.26	6.250	7.07	9.33	0.54
0.167	0.00	3.250	3.26	6.333	3.81	9.42	0.54
0.250	0.00	3.333	9.25	6.417	3.81	9.50	0.54
0.333	0.54	3.417	9.25	6.500	3.81	9.58	0.54
0.417	0.54	3.500	9.25	6.583	3.81	9.67	0.54
0.500	0.54	3.583	9.25	6.667	3.81	9.75	0.54
0.583	0.54	3.667	9.25	6.750	3.81	9.83	0.54
0.667	0.54	3.750	9.25	6.833	3.81	9.92	0.54
0.750	0.54	3.833	9.25	6.917	3.81	10.00	0.54
0.833	0.54	3.917	9.25	7.000	3.81	10.08	0.54
0.917	0.54	4.000	9.25	7.083	3.81	10.17	0.54
1.000	0.54	4.083	9.25	7.167	3.81	10.25	0.54
1.083	0.54	4.167	9.25	7.250	3.81	10.33	0.54
1.167	0.54	4.250	9.25	7.333	2.18	10.42	0.54
1.250	0.54	4.333	25.02	7.417	2.18	10.50	0.54
1.333	0.54	4.417	25.02	7.500	2.18	10.58	0.54
1.417	0.54	4.500	25.02	7.583	2.18	10.67	0.54
1.500	0.54	4.583	25.02	7.667	2.18	10.75	0.54

1.583	0.54	4.667	25.02	7.750	2.18	10.83	0.54
1.667	0.54	4.750	25.02	7.833	2.18	10.92	0.54
1.750	0.54	4.833	25.02	7.917	2.18	11.00	0.54
1.833	0.54	4.917	25.02	8.000	2.18	11.08	0.54
1.917	0.54	5.000	25.02	8.083	2.18	11.17	0.54
2.000	0.54	5.083	25.02	8.167	2.18	11.25	0.54
2.083	0.54	5.167	25.02	8.250	2.18	11.33	0.54
2.167	0.54	5.250	25.02	8.333	1.09	11.42	0.54
2.250	0.54	5.333	7.07	8.417	1.09	11.50	0.54
2.333	3.26	5.417	7.07	8.500	1.09	11.58	0.54
2.417	3.26	5.500	7.07	8.583	1.09	11.67	0.54
2.500	3.26	5.583	7.07	8.667	1.09	11.75	0.54
2.583	3.26	5.667	7.07	8.750	1.09	11.83	0.54
2.667	3.26	5.750	7.07	8.833	1.09	11.92	0.54
2.750	3.26	5.833	7.07	8.917	1.09	12.00	0.54
2.833	3.26	5.917	7.07	9.000	1.09	12.08	0.54
2.917	3.26	6.000	7.07	9.083	1.09	12.17	0.54
3.000	3.26	6.083	7.07	9.167	1.09	12.25	0.54
3.083	3.26	6.167	7.07	9.250	1.09		

Max.Eff.Inten.(mm/hr)= 25.02 9.41
 over (min) = 5.00 45.00
 Storage Coeff. (min)= 4.32 (ii) 43.67 (ii)
 Unit Hyd. Tpeak (min)= 5.00 45.00
 Unit Hyd. peak (cms)= 0.23 0.03

PEAK FLOW (cms)= 0.10 0.00
 TIME TO PEAK (hrs)= 5.17 5.75 5.25
 RUNOFF VOLUME (mm)= 52.38 17.01 50.95
 TOTAL RAINFALL (mm)= 54.38 54.38 54.38
 RUNOFF COEFFICIENT = 0.96 0.31 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7822) |
ID= 1 DT= 5.0 min
 Area (ha)= 1.70
 Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	1.68	0.02
Dep. Storage	(mm)=	2.00	5.00
Average Slope	(%)=	1.10	2.00
Length	(m)=	100.00	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	hrs
0.083	0.00	3.167	3.26	6.250	7.07	9.33	0.54
0.167	0.00	3.250	3.26	6.333	3.81	9.42	0.54
0.250	0.00	3.333	9.25	6.417	3.81	9.50	0.54
0.333	0.54	3.417	9.25	6.500	3.81	9.58	0.54
0.417	0.54	3.500	9.25	6.583	3.81	9.67	0.54
0.500	0.54	3.583	9.25	6.667	3.81	9.75	0.54
0.583	0.54	3.667	9.25	6.750	3.81	9.83	0.54
0.667	0.54	3.750	9.25	6.833	3.81	9.92	0.54
0.750	0.54	3.833	9.25	6.917	3.81	10.00	0.54
0.833	0.54	3.917	9.25	7.000	3.81	10.08	0.54
0.917	0.54	4.000	9.25	7.083	3.81	10.17	0.54
1.000	0.54	4.083	9.25	7.167	3.81	10.25	0.54
1.083	0.54	4.167	9.25	7.250	3.81	10.33	0.54
1.167	0.54	4.250	9.25	7.333	2.18	10.42	0.54
1.250	0.54	4.333	25.02	7.417	2.18	10.50	0.54
1.333	0.54	4.417	25.02	7.500	2.18	10.58	0.54
1.417	0.54	4.500	25.02	7.583	2.18	10.67	0.54
1.500	0.54	4.583	25.02	7.667	2.18	10.75	0.54



1.500	0.54	4.583	25.02	7.667	2.18	10.75	0.54
1.583	0.54	4.667	25.02	7.750	2.18	10.83	0.54
1.667	0.54	4.750	25.02	7.833	2.18	10.92	0.54
1.750	0.54	4.833	25.02	7.917	2.18	11.00	0.54
1.833	0.54	4.917	25.02	8.000	2.18	11.08	0.54
1.917	0.54	5.000	25.02	8.083	2.18	11.17	0.54
2.000	0.54	5.083	25.02	8.167	2.18	11.25	0.54
2.083	0.54	5.167	25.02	8.250	2.18	11.33	0.54
2.167	0.54	5.250	25.02	8.333	1.09	11.42	0.54
2.250	0.54	5.333	7.07	8.417	1.09	11.50	0.54
2.333	3.26	5.417	7.07	8.500	1.09	11.58	0.54
2.417	3.26	5.500	7.07	8.583	1.09	11.67	0.54
2.500	3.26	5.583	7.07	8.667	1.09	11.75	0.54
2.583	3.26	5.667	7.07	8.750	1.09	11.83	0.54
2.667	3.26	5.750	7.07	8.833	1.09	11.92	0.54
2.750	3.26	5.833	7.07	8.917	1.09	12.00	0.54
2.833	3.26	5.917	7.07	9.000	1.09	12.08	0.54
2.917	3.26	6.000	7.07	9.083	1.09	12.17	0.54
3.000	3.26	6.083	7.07	9.167	1.09	12.25	0.54
3.083	3.26	6.167	7.07	9.250	1.09		

Max.Eff.Inten.(mm/hr)= 25.02 10.99
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 4.32 (ii) 6.28 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.23 0.15

PEAK FLOW (cms)= 0.12 0.00
 TIME TO PEAK (hrs)= 5.17 5.25
 RUNOFF VOLUME (mm)= 52.38 17.01
 TOTAL RAINFALL (mm)= 54.38 54.38
 RUNOFF COEFFICIENT = 0.96 0.31

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7838) | Area (ha)= 1.33
 | ID= 1 DT= 5.0 min | Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.30	0.03
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.26	6.250	7.07
0.167	0.00	3.250	3.26	6.333	3.81
0.250	0.00	3.333	9.25	6.417	3.81
0.333	0.54	3.417	9.25	6.500	3.81
0.417	0.54	3.500	9.25	6.583	3.81
0.500	0.54	3.583	9.25	6.667	3.81
0.583	0.54	3.667	9.25	6.750	3.81
0.667	0.54	3.750	9.25	6.833	3.81
0.750	0.54	3.833	9.25	6.917	3.81
0.833	0.54	3.917	9.25	7.000	3.81
0.917	0.54	4.000	9.25	7.083	3.81
1.000	0.54	4.083	9.25	7.167	3.81
1.083	0.54	4.167	9.25	7.250	3.81
1.167	0.54	4.250	9.25	7.333	2.18
1.250	0.54	4.333	25.02	7.417	2.18
1.333	0.54	4.417	25.02	7.500	2.18

1.417	0.54	4.500	25.02	7.583	2.18	10.67	0.54
1.500	0.54	4.583	25.02	7.667	2.18	10.75	0.54
1.583	0.54	4.667	25.02	7.750	2.18	10.83	0.54
1.667	0.54	4.750	25.02	7.833	2.18	10.92	0.54
1.750	0.54	4.833	25.02	7.917	2.18	11.00	0.54
1.833	0.54	4.917	25.02	8.000	2.18	11.08	0.54
1.917	0.54	5.000	25.02	8.083	2.18	11.17	0.54
2.000	0.54	5.083	25.02	8.167	2.18	11.25	0.54
2.083	0.54	5.167	25.02	8.250	2.18	11.33	0.54
2.167	0.54	5.250	25.02	8.333	1.09	11.42	0.54
2.250	0.54	5.333	7.07	8.417	1.09	11.50	0.54
2.333	3.26	5.417	7.07	8.500	1.09	11.58	0.54
2.417	3.26	5.500	7.07	8.583	1.09	11.67	0.54
2.500	3.26	5.583	7.07	8.667	1.09	11.75	0.54
2.583	3.26	5.667	7.07	8.750	1.09	11.83	0.54
2.667	3.26	5.750	7.07	8.833	1.09	11.92	0.54
2.750	3.26	5.833	7.07	8.917	1.09	12.00	0.54
2.833	3.26	5.917	7.07	9.000	1.09	12.08	0.54
2.917	3.26	6.000	7.07	9.083	1.09	12.17	0.54
3.000	3.26	6.083	7.07	9.167	1.09	12.25	0.54
3.083	3.26	6.167	7.07	9.250	1.09		

Max.Eff.Inten.(mm/hr)= 25.02 10.99
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 4.32 (ii) 6.91 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.23 0.14

PEAK FLOW (cms)= 0.09 0.00
 TIME TO PEAK (hrs)= 5.17 5.25
 RUNOFF VOLUME (mm)= 52.38 17.01
 TOTAL RAINFALL (mm)= 54.38 54.38
 RUNOFF COEFFICIENT = 0.96 0.31

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | ADD HYD (7805) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 | (ha) (cms) (hrs) (mm)
 ID1= 1 (7814): 1.45 0.097 5.25 50.95
 + ID2= 2 (7822): 1.70 0.117 5.25 52.02
 =====
 ID = 3 (7805): 3.15 0.215 5.25 51.53

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7805) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 | (ha) (cms) (hrs) (mm)
 ID1= 3 (7805): 3.15 0.215 5.25 51.53
 + ID2= 2 (7838): 1.33 0.091 5.25 51.67
 =====
 ID = 1 (7805): 4.48 0.306 5.25 51.57

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |
 | STANDHYD (7819) | Area (ha)= 1.32
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.31	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00



Length (m) = 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.26	6.250	7.07	9.33	0.54
0.167	0.00	3.250	3.26	6.333	3.81	9.42	0.54
0.250	0.00	3.333	9.25	6.417	3.81	9.50	0.54
0.333	0.54	3.417	9.25	6.500	3.81	9.58	0.54
0.417	0.54	3.500	9.25	6.583	3.81	9.67	0.54
0.500	0.54	3.583	9.25	6.667	3.81	9.75	0.54
0.583	0.54	3.667	9.25	6.750	3.81	9.83	0.54
0.667	0.54	3.750	9.25	6.833	3.81	9.92	0.54
0.750	0.54	3.833	9.25	6.917	3.81	10.00	0.54
0.833	0.54	3.917	9.25	7.000	3.81	10.08	0.54
0.917	0.54	4.000	9.25	7.083	3.81	10.17	0.54
1.000	0.54	4.083	9.25	7.167	3.81	10.25	0.54
1.083	0.54	4.167	9.25	7.250	3.81	10.33	0.54
1.167	0.54	4.250	9.25	7.333	2.18	10.42	0.54
1.250	0.54	4.333	25.02	7.417	2.18	10.50	0.54
1.333	0.54	4.417	25.02	7.500	2.18	10.58	0.54
1.417	0.54	4.500	25.02	7.583	2.18	10.67	0.54
1.500	0.54	4.583	25.02	7.667	2.18	10.75	0.54
1.583	0.54	4.667	25.02	7.750	2.18	10.83	0.54
1.667	0.54	4.750	25.02	7.833	2.18	10.92	0.54
1.750	0.54	4.833	25.02	7.917	2.18	11.00	0.54
1.833	0.54	4.917	25.02	8.000	2.18	11.08	0.54
1.917	0.54	5.000	25.02	8.083	2.18	11.17	0.54
2.000	0.54	5.083	25.02	8.167	2.18	11.25	0.54
2.083	0.54	5.167	25.02	8.250	2.18	11.33	0.54
2.167	0.54	5.250	25.02	8.333	1.09	11.42	0.54
2.250	0.54	5.333	7.07	8.417	1.09	11.50	0.54
2.333	3.26	5.417	7.07	8.500	1.09	11.58	0.54
2.417	3.26	5.500	7.07	8.583	1.09	11.67	0.54
2.500	3.26	5.583	7.07	8.667	1.09	11.75	0.54
2.583	3.26	5.667	7.07	8.750	1.09	11.83	0.54
2.667	3.26	5.750	7.07	8.833	1.09	11.92	0.54
2.750	3.26	5.833	7.07	8.917	1.09	12.00	0.54
2.833	3.26	5.917	7.07	9.000	1.09	12.08	0.54
2.917	3.26	6.000	7.07	9.083	1.09	12.17	0.54
3.000	3.26	6.083	7.07	9.167	1.09	12.25	0.54
3.083	3.26	6.167	7.07	9.250	1.09		

Max.Eff.Inten.(mm/hr)= 25.02 10.99
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 4.32 (ii) 6.28 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.23 0.15

TOTALS
 PEAK FLOW (cms)= 0.09 0.00 0.091 (iii)
 TIME TO PEAK (hrs)= 5.17 5.25 5.25
 RUNOFF VOLUME (mm)= 52.38 17.01 52.02
 TOTAL RAINFALL (mm)= 54.38 54.38 54.38
 RUNOFF COEFFICIENT = 0.96 0.31 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7829) | Area (ha)= 1.69
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.67 0.02
 Dep. Storage (mm)= 2.00 5.00

Average Slope (%) = 1.10 2.00
 Length (m) = 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.26	6.250	7.07	9.33	0.54
0.167	0.00	3.250	3.26	6.333	3.81	9.42	0.54
0.250	0.00	3.333	9.25	6.417	3.81	9.50	0.54
0.333	0.54	3.417	9.25	6.500	3.81	9.58	0.54
0.417	0.54	3.500	9.25	6.583	3.81	9.67	0.54
0.500	0.54	3.583	9.25	6.667	3.81	9.75	0.54
0.583	0.54	3.667	9.25	6.750	3.81	9.83	0.54
0.667	0.54	3.750	9.25	6.833	3.81	9.92	0.54
0.750	0.54	3.833	9.25	6.917	3.81	10.00	0.54
0.833	0.54	3.917	9.25	7.000	3.81	10.08	0.54
0.917	0.54	4.000	9.25	7.083	3.81	10.17	0.54
1.000	0.54	4.083	9.25	7.167	3.81	10.25	0.54
1.083	0.54	4.167	9.25	7.250	3.81	10.33	0.54
1.167	0.54	4.250	9.25	7.333	2.18	10.42	0.54
1.250	0.54	4.333	25.02	7.417	2.18	10.50	0.54
1.333	0.54	4.417	25.02	7.500	2.18	10.58	0.54
1.417	0.54	4.500	25.02	7.583	2.18	10.67	0.54
1.500	0.54	4.583	25.02	7.667	2.18	10.75	0.54
1.583	0.54	4.667	25.02	7.750	2.18	10.83	0.54
1.667	0.54	4.750	25.02	7.833	2.18	10.92	0.54
1.750	0.54	4.833	25.02	7.917	2.18	11.00	0.54
1.833	0.54	4.917	25.02	8.000	2.18	11.08	0.54
1.917	0.54	5.000	25.02	8.083	2.18	11.17	0.54
2.000	0.54	5.083	25.02	8.167	2.18	11.25	0.54
2.083	0.54	5.167	25.02	8.250	2.18	11.33	0.54
2.167	0.54	5.250	25.02	8.333	1.09	11.42	0.54
2.250	0.54	5.333	7.07	8.417	1.09	11.50	0.54
2.333	3.26	5.417	7.07	8.500	1.09	11.58	0.54
2.417	3.26	5.500	7.07	8.583	1.09	11.67	0.54
2.500	3.26	5.583	7.07	8.667	1.09	11.75	0.54
2.583	3.26	5.667	7.07	8.750	1.09	11.83	0.54
2.667	3.26	5.750	7.07	8.833	1.09	11.92	0.54
2.750	3.26	5.833	7.07	8.917	1.09	12.00	0.54
2.833	3.26	5.917	7.07	9.000	1.09	12.08	0.54
2.917	3.26	6.000	7.07	9.083	1.09	12.17	0.54
3.000	3.26	6.083	7.07	9.167	1.09	12.25	0.54
3.083	3.26	6.167	7.07	9.250	1.09		

Max.Eff.Inten.(mm/hr)= 25.02 10.99
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 4.32 (ii) 6.28 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.23 0.15

TOTALS
 PEAK FLOW (cms)= 0.12 0.00 0.117 (iii)
 TIME TO PEAK (hrs)= 5.17 5.25 5.25
 RUNOFF VOLUME (mm)= 52.38 17.01 52.02
 TOTAL RAINFALL (mm)= 54.38 54.38 54.38
 RUNOFF COEFFICIENT = 0.96 0.31 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7839) | Area (ha)= 1.61
 | ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.48 0.13



Dep. Storage (mm) = 2.00 5.00
 Average Slope (%) = 1.10 2.00
 Length (m) = 100.00 145.00
 Mannings n = 0.013 0.250

+ ID2= 2 (7829): 1.69 0.117 5.25 52.02
 ID = 3 (7842): 3.01 0.208 5.25 52.02

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.26	6.250	7.07
0.167	0.00	3.250	3.26	6.333	3.81
0.250	0.00	3.333	9.25	6.417	3.81
0.333	0.54	3.417	9.25	6.500	3.81
0.417	0.54	3.500	9.25	6.583	3.81
0.500	0.54	3.583	9.25	6.667	3.81
0.583	0.54	3.667	9.25	6.750	3.81
0.667	0.54	3.750	9.25	6.833	3.81
0.750	0.54	3.833	9.25	6.917	3.81
0.833	0.54	3.917	9.25	7.000	3.81
0.917	0.54	4.000	9.25	7.083	3.81
1.000	0.54	4.083	9.25	7.167	3.81
1.083	0.54	4.167	9.25	7.250	3.81
1.167	0.54	4.250	9.25	7.333	2.18
1.250	0.54	4.333	25.02	7.417	2.18
1.333	0.54	4.417	25.02	7.500	2.18
1.417	0.54	4.500	25.02	7.583	2.18
1.500	0.54	4.583	25.02	7.667	2.18
1.583	0.54	4.667	25.02	7.750	2.18
1.667	0.54	4.750	25.02	7.833	2.18
1.750	0.54	4.833	25.02	7.917	2.18
1.833	0.54	4.917	25.02	8.000	2.18
1.917	0.54	5.000	25.02	8.083	2.18
2.000	0.54	5.083	25.02	8.167	2.18
2.083	0.54	5.167	25.02	8.250	2.18
2.167	0.54	5.250	25.02	8.333	1.09
2.250	0.54	5.333	7.07	8.417	1.09
2.333	3.26	5.417	7.07	8.500	1.09
2.417	3.26	5.500	7.07	8.583	1.09
2.500	3.26	5.583	7.07	8.667	1.09
2.583	3.26	5.667	7.07	8.750	1.09
2.667	3.26	5.750	7.07	8.833	1.09
2.750	3.26	5.833	7.07	8.917	1.09
2.833	3.26	5.917	7.07	9.000	1.09
2.917	3.26	6.000	7.07	9.083	1.09
3.000	3.26	6.083	7.07	9.167	1.09
3.083	3.26	6.167	7.07	9.250	1.09

ADD HYD (7842) |
 | 3 + 2 = 1 |

AREA	QPEAK	TPEAK	R.V.
(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7842):	3.01	0.208	5.25
+ ID2= 2 (7839):	1.61	0.105	5.25
ID = 1 (7842):	4.62	0.313	5.25

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB |
 | STANDHYD (7830) |

Area (ha) =	1.20
Total Imp (%) =	95.00
Dir. Conn. (%) =	95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha) =	1.14	0.06
Dep. Storage (mm) =	2.00	5.00
Average Slope (%) =	2.50	2.00
Length (m) =	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

Max.Eff.Inten.(mm/hr) = 25.02 9.41
 over (min) = 5.00 45.00
 Storage Coeff. (min) = 4.32 (ii) 43.67 (ii)
 Unit Hyd. Tpeak (min) = 5.00 45.00
 Unit Hyd. peak (cms) = 0.23 0.03

TOTALS
 PEAK FLOW (cms) = 0.10 0.00 0.105 (iii)
 TIME TO PEAK (hrs) = 5.17 5.75 5.25
 RUNOFF VOLUME (mm) = 52.38 17.01 49.53
 TOTAL RAINFALL (mm) = 54.38 54.38 54.38
 RUNOFF COEFFICIENT = 0.96 0.31 0.91

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7842) |
 | 1 + 2 = 3 |

AREA	QPEAK	TPEAK	R.V.
(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7819):	1.32	0.091	5.25

Max.Eff.Inten.(mm/hr) = 25.02 11.35
 over (min) = 5.00 10.00



Storage Coeff. (min)= 2.49 (ii) 6.27 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.29 0.15

TOTALS

PEAK FLOW (cms)= 0.08 0.00 0.081 (iii)
 TIME TO PEAK (hrs)= 5.08 5.25 5.25
 RUNOFF VOLUME (mm)= 52.38 17.59 50.64
 TOTAL RAINFALL (mm)= 54.38 54.38 54.38
 RUNOFF COEFFICIENT = 0.96 0.32 0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | ADD HYD (7804) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7805): 4.48 0.306 5.25 51.57
 + ID2= 2 (7810): 1.06 0.072 5.25 50.64

 ID = 3 (7804): 5.54 0.378 5.25 51.39

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7804) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7804): 5.54 0.378 5.25 51.39
 + ID2= 2 (7824): 14.31 0.256 6.25 53.01

 ID = 1 (7804): 19.85 0.630 5.25 52.56

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7804) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7804): 19.85 0.630 5.25 52.56
 + ID2= 2 (7830): 1.20 0.081 5.25 50.64

 ID = 3 (7804): 21.05 0.711 5.25 52.45

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7804) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7804): 21.05 0.711 5.25 52.45
 + ID2= 2 (7842): 4.62 0.313 5.25 51.16

 ID = 1 (7804): 25.67 1.024 5.25 52.22

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | RESERVOIR (7833) | OVERFLOW IS OFF
 | IN= 2--> OUT= 1 |
DT= 5.0 min

OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.6280	2.3980
0.0730	0.2080	0.6400	2.4830
0.0890	0.2770	0.6520	2.5670
0.1340	0.5530	0.6640	2.6500

0.2910	0.8290	0.6750	2.7340
0.3860	1.1060	0.7190	3.0490
0.4590	1.3820	0.8250	3.3550
0.5220	1.7210	2.0760	3.4560
0.5780	2.0600	2.3560	3.7320

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7804)	25.670	1.024	5.25	52.22
OUTFLOW: ID= 1 (7833)	25.670	0.235	9.67	52.19

PEAK FLOW REDUCTION [Qout/Qin] (%) = 22.98
 TIME SHIFT OF PEAK FLOW (min) = 265.00
 MAXIMUM STORAGE USED (ha.m.) = 0.7310

 | CALIB |
 | STANDHYD (7821) | Area (ha) = 0.19
 | ID= 1 DT= 5.0 min | Total Imp (%) = 95.00 Dir. Conn. (%) = 95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	0.18	0.01
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	2.50	2.00
Length (m)	60.00	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	3.167	3.26	6.250	7.07	9.33	0.54
0.167	0.00	3.250	3.26	6.333	3.81	9.42	0.54
0.250	0.00	3.333	9.25	6.417	3.81	9.50	0.54
0.333	0.54	3.417	9.25	6.500	3.81	9.58	0.54
0.417	0.54	3.500	9.25	6.583	3.81	9.67	0.54
0.500	0.54	3.583	9.25	6.667	3.81	9.75	0.54
0.583	0.54	3.667	9.25	6.750	3.81	9.83	0.54
0.667	0.54	3.750	9.25	6.833	3.81	9.92	0.54
0.750	0.54	3.833	9.25	6.917	3.81	10.00	0.54
0.833	0.54	3.917	9.25	7.000	3.81	10.08	0.54
0.917	0.54	4.000	9.25	7.083	3.81	10.17	0.54
1.000	0.54	4.083	9.25	7.167	3.81	10.25	0.54
1.083	0.54	4.167	9.25	7.250	3.81	10.33	0.54
1.167	0.54	4.250	9.25	7.333	2.18	10.42	0.54
1.250	0.54	4.333	25.02	7.417	2.18	10.50	0.54
1.333	0.54	4.417	25.02	7.500	2.18	10.58	0.54
1.417	0.54	4.500	25.02	7.583	2.18	10.67	0.54
1.500	0.54	4.583	25.02	7.667	2.18	10.75	0.54
1.583	0.54	4.667	25.02	7.750	2.18	10.83	0.54
1.667	0.54	4.750	25.02	7.833	2.18	10.92	0.54
1.750	0.54	4.833	25.02	7.917	2.18	11.00	0.54
1.833	0.54	4.917	25.02	8.000	2.18	11.08	0.54
1.917	0.54	5.000	25.02	8.083	2.18	11.17	0.54
2.000	0.54	5.083	25.02	8.167	2.18	11.25	0.54
2.083	0.54	5.167	25.02	8.250	2.18	11.33	0.54
2.167	0.54	5.250	25.02	8.333	1.09	11.42	0.54
2.250	0.54	5.333	7.07	8.417	1.09	11.50	0.54
2.333	3.26	5.417	7.07	8.500	1.09	11.58	0.54
2.417	3.26	5.500	7.07	8.583	1.09	11.67	0.54
2.500	3.26	5.583	7.07	8.667	1.09	11.75	0.54
2.583	3.26	5.667	7.07	8.750	1.09	11.83	0.54
2.667	3.26	5.750	7.07	8.833	1.09	11.92	0.54
2.750	3.26	5.833	7.07	8.917	1.09	12.00	0.54
2.833	3.26	5.917	7.07	9.000	1.09	12.08	0.54
2.917	3.26	6.000	7.07	9.083	1.09	12.17	0.54
3.000	3.26	6.083	7.07	9.167	1.09	12.25	0.54
3.083	3.26	6.167	7.07	9.250	1.09		

Max.Eff.Inten.(mm/hr)= 25.02 11.35
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 2.49 (ii) 6.27 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00

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Unit Hyd. peak (cms)=      0.29      0.15
PEAK FLOW (cms)=          0.01      0.00
TIME TO PEAK (hrs)=       4.83      5.25
RUNOFF VOLUME (mm)=      52.38     17.59
TOTAL RAINFALL (mm)=     54.38     54.38
RUNOFF COEFFICIENT =      0.96      0.32
  
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*TOTALS*
0.013 (iii)
5.25
50.63
54.38
0.93
  
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- ***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
 - (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
 - (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| RESERVOIR ( 7825) | OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT= 5.0 min      |
-----
| OUTFLOW | STORAGE | OUTFLOW | STORAGE
| (cms)   | (ha.m.) | (cms)   | (ha.m.)
|-----|-----|-----|-----|
| 0.0000 | 0.0000 | 0.0100 | 0.0090
| 0.0030 | 0.0010 | 0.0110 | 0.0100
| 0.0050 | 0.0030 | 0.0120 | 0.0110
| 0.0060 | 0.0040 | 0.0120 | 0.0130
| 0.0080 | 0.0050 | 0.0130 | 0.0140
| 0.0090 | 0.0060 | 0.0140 | 0.0150
| 0.0090 | 0.0080 | 0.0000 | 0.0000
|-----|-----|-----|-----|
| AREA   | QPEAK | TPEAK | R.V.
| (ha)   | (cms) | (hrs) | (mm)
|-----|-----|-----|-----|
| INFLOW : ID= 2 ( 7821) | 0.190 | 0.013 | 5.25 | 50.63
| OUTFLOW: ID= 1 ( 7825) | 0.190 | 0.006 | 5.33 | 50.22
  
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PEAK FLOW REDUCTION [Qout/Qin] (%) = 46.72
TIME SHIFT OF PEAK FLOW (min) = 5.00
MAXIMUM STORAGE USED (ha.m.) = 0.0040
  
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-----
| CALIB |
| STANDHYD ( 7836) |
| ID= 1 DT= 5.0 min |
-----
| Area (ha) = 0.20
| Total Imp (%) = 95.00 Dir. Conn. (%) = 95.00
-----
| IMPERVIOUS | PERVIOUS (i)
|-----|-----|
| Surface Area (ha) = 0.19 | 0.01
| Dep. Storage (mm) = 2.00 | 5.00
| Average Slope (%) = 2.50 | 2.00
| Length (m) = 36.51 | 40.00
| Mannings n = 0.013 | 0.250
  
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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 3.167 3.26 | 6.250 7.07 | 9.33 0.54
0.167 0.00 | 3.250 3.26 | 6.333 3.81 | 9.42 0.54
0.250 0.00 | 3.333 9.25 | 6.417 3.81 | 9.50 0.54
0.333 0.54 | 3.417 9.25 | 6.500 3.81 | 9.58 0.54
0.417 0.54 | 3.500 9.25 | 6.583 3.81 | 9.67 0.54
0.500 0.54 | 3.583 9.25 | 6.667 3.81 | 9.75 0.54
0.583 0.54 | 3.667 9.25 | 6.750 3.81 | 9.83 0.54
0.667 0.54 | 3.750 9.25 | 6.833 3.81 | 9.92 0.54
0.750 0.54 | 3.833 9.25 | 6.917 3.81 | 10.00 0.54
0.833 0.54 | 3.917 9.25 | 7.000 3.81 | 10.08 0.54
0.917 0.54 | 4.000 9.25 | 7.083 3.81 | 10.17 0.54
1.000 0.54 | 4.083 9.25 | 7.167 3.81 | 10.25 0.54
1.083 0.54 | 4.167 9.25 | 7.250 3.81 | 10.33 0.54
1.167 0.54 | 4.250 9.25 | 7.333 2.18 | 10.42 0.54
1.250 0.54 | 4.333 25.02 | 7.417 2.18 | 10.50 0.54
1.333 0.54 | 4.417 25.02 | 7.500 2.18 | 10.58 0.54
1.417 0.54 | 4.500 25.02 | 7.583 2.18 | 10.67 0.54
1.500 0.54 | 4.583 25.02 | 7.667 2.18 | 10.75 0.54
  
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1.583 0.54 | 4.667 25.02 | 7.750 2.18 | 10.83 0.54
1.667 0.54 | 4.750 25.02 | 7.833 2.18 | 10.92 0.54
1.750 0.54 | 4.833 25.02 | 7.917 2.18 | 11.00 0.54
1.833 0.54 | 4.917 25.02 | 8.000 2.18 | 11.08 0.54
1.917 0.54 | 5.000 25.02 | 8.083 2.18 | 11.17 0.54
2.000 0.54 | 5.083 25.02 | 8.167 2.18 | 11.25 0.54
2.083 0.54 | 5.167 25.02 | 8.250 2.18 | 11.33 0.54
2.167 0.54 | 5.250 25.02 | 8.333 1.09 | 11.42 0.54
2.250 0.54 | 5.333 7.07 | 8.417 1.09 | 11.50 0.54
2.333 3.26 | 5.417 7.07 | 8.500 1.09 | 11.58 0.54
2.417 3.26 | 5.500 7.07 | 8.583 1.09 | 11.67 0.54
2.500 3.26 | 5.583 7.07 | 8.667 1.09 | 11.75 0.54
2.583 3.26 | 5.667 7.07 | 8.750 1.09 | 11.83 0.54
2.667 3.26 | 5.750 7.07 | 8.833 1.09 | 11.92 0.54
2.750 3.26 | 5.833 7.07 | 8.917 1.09 | 12.00 0.54
2.833 3.26 | 5.917 7.07 | 9.000 1.09 | 12.08 0.54
2.917 3.26 | 6.000 7.07 | 9.083 1.09 | 12.17 0.54
3.000 3.26 | 6.083 7.07 | 9.167 1.09 | 12.25 0.54
3.083 3.26 | 6.167 7.07 | 9.250 1.09 |
  
```

```

Max.Eff.Inten.(mm/hr)= 25.02 11.35
over (min) = 5.00 10.00
Storage Coeff. (min)= 1.85 (ii) 5.63 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.32 0.15
PEAK FLOW (cms)= 0.01 0.00
TIME TO PEAK (hrs)= 4.83 5.25
RUNOFF VOLUME (mm)= 52.38 17.59
TOTAL RAINFALL (mm)= 54.38 54.38
RUNOFF COEFFICIENT = 0.96 0.32
  
```

```

*TOTALS*
0.014 (iii)
5.25
50.64
54.38
0.93
  
```

- ***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
 - (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
 - (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| RESERVOIR ( 7807) | OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT= 5.0 min      |
-----
| OUTFLOW | STORAGE | OUTFLOW | STORAGE
| (cms)   | (ha.m.) | (cms)   | (ha.m.)
|-----|-----|-----|-----|
| 0.0000 | 0.0000 | 0.0100 | 0.0090
| 0.0030 | 0.0010 | 0.0110 | 0.0100
| 0.0050 | 0.0030 | 0.0120 | 0.0110
| 0.0060 | 0.0040 | 0.0120 | 0.0130
| 0.0080 | 0.0050 | 0.0130 | 0.0140
| 0.0090 | 0.0060 | 0.0140 | 0.0150
| 0.0090 | 0.0080 | 0.0000 | 0.0000
|-----|-----|-----|-----|
| AREA   | QPEAK | TPEAK | R.V.
| (ha)   | (cms) | (hrs) | (mm)
|-----|-----|-----|-----|
| INFLOW : ID= 2 ( 7836) | 0.200 | 0.014 | 5.25 | 50.64
| OUTFLOW: ID= 1 ( 7807) | 0.200 | 0.006 | 5.33 | 50.25
  
```

```

PEAK FLOW REDUCTION [Qout/Qin] (%) = 48.04
TIME SHIFT OF PEAK FLOW (min) = 5.00
MAXIMUM STORAGE USED (ha.m.) = 0.0043
  
```

```

-----
| ADD HYD ( 7831) |
| 1 + 2 = 3 |
-----
| AREA | QPEAK | TPEAK | R.V.
| (ha) | (cms) | (hrs) | (mm)
|-----|-----|-----|-----|
| ID1= 1 ( 7807): | 0.20 | 0.006 | 5.33 | 50.25
| + ID2= 2 ( 7825): | 0.19 | 0.006 | 5.33 | 50.22
|=====|=====|=====|=====|
| ID = 3 ( 7831): | 0.39 | 0.012 | 5.33 | 50.23
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.



```

-----
| ADD HYD ( 7831) |
| 3 + 2 = 1 |
-----
| AREA QPEAK TPEAK R.V. |
| (ha) (cms) (hrs) (mm) |
ID1= 3 ( 7831): 0.39 0.012 5.33 50.23
+ ID2= 2 ( 7833): 25.67 0.235 9.67 52.19
-----
ID = 1 ( 7831): 26.06 0.239 9.33 52.16

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7826) | Area (ha)= 1.24
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----
| IMPERVIOUS PERVIOUS (i) |
Surface Area (ha)= 1.23 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 91.00 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

-----
| TRANSFORMED HYETOGRAPH |
| TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN |
| hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr |
0.083 0.00 | 3.167 3.26 | 6.250 7.07 | 9.33 0.54
0.167 0.00 | 3.250 3.26 | 6.333 3.81 | 9.42 0.54
0.250 0.00 | 3.333 9.25 | 6.417 3.81 | 9.50 0.54
0.333 0.54 | 3.417 9.25 | 6.500 3.81 | 9.58 0.54
0.417 0.54 | 3.500 9.25 | 6.583 3.81 | 9.67 0.54
0.500 0.54 | 3.583 9.25 | 6.667 3.81 | 9.75 0.54
0.583 0.54 | 3.667 9.25 | 6.750 3.81 | 9.83 0.54
0.667 0.54 | 3.750 9.25 | 6.833 3.81 | 9.92 0.54
0.750 0.54 | 3.833 9.25 | 6.917 3.81 | 10.00 0.54
0.833 0.54 | 3.917 9.25 | 7.000 3.81 | 10.08 0.54
0.917 0.54 | 4.000 9.25 | 7.083 3.81 | 10.17 0.54
1.000 0.54 | 4.083 9.25 | 7.167 3.81 | 10.25 0.54
1.083 0.54 | 4.167 9.25 | 7.250 3.81 | 10.33 0.54
1.167 0.54 | 4.250 9.25 | 7.333 2.18 | 10.42 0.54
1.250 0.54 | 4.333 25.02 | 7.417 2.18 | 10.50 0.54
1.333 0.54 | 4.417 25.02 | 7.500 2.18 | 10.58 0.54
1.417 0.54 | 4.500 25.02 | 7.583 2.18 | 10.67 0.54
1.500 0.54 | 4.583 25.02 | 7.667 2.18 | 10.75 0.54
1.583 0.54 | 4.667 25.02 | 7.750 2.18 | 10.83 0.54
1.667 0.54 | 4.750 25.02 | 7.833 2.18 | 10.92 0.54
1.750 0.54 | 4.833 25.02 | 7.917 2.18 | 11.00 0.54
1.833 0.54 | 4.917 25.02 | 8.000 2.18 | 11.08 0.54
1.917 0.54 | 5.000 25.02 | 8.083 2.18 | 11.17 0.54
2.000 0.54 | 5.083 25.02 | 8.167 2.18 | 11.25 0.54
2.083 0.54 | 5.167 25.02 | 8.250 2.18 | 11.33 0.54
2.167 0.54 | 5.250 25.02 | 8.333 1.09 | 11.42 0.54
2.250 0.54 | 5.333 7.07 | 8.417 1.09 | 11.50 0.54
2.333 3.26 | 5.417 7.07 | 8.500 1.09 | 11.58 0.54
2.417 3.26 | 5.500 7.07 | 8.583 1.09 | 11.67 0.54
2.500 3.26 | 5.583 7.07 | 8.667 1.09 | 11.75 0.54
2.583 3.26 | 5.667 7.07 | 8.750 1.09 | 11.83 0.54
2.667 3.26 | 5.750 7.07 | 8.833 1.09 | 11.92 0.54
2.750 3.26 | 5.833 7.07 | 8.917 1.09 | 12.00 0.54
2.833 3.26 | 5.917 7.07 | 9.000 1.09 | 12.08 0.54
2.917 3.26 | 6.000 7.07 | 9.083 1.09 | 12.17 0.54
3.000 3.26 | 6.083 7.07 | 9.167 1.09 | 12.25 0.54
3.083 3.26 | 6.167 7.07 | 9.250 1.09 |

```

```

Max.Eff.Inten.(mm/hr)= 25.02 10.99
over (min) = 5.00 10.00
Storage Coeff. (min)= 3.41 (ii) 5.37 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.26 0.16

```

```

-----
| *TOTALS* |
PEAK FLOW (cms)= 0.09 0.00 0.086 (iii)
TIME TO PEAK (hrs)= 5.08 5.25 5.25

```

```

RUNOFF VOLUME (mm)= 52.38 17.01 52.03
TOTAL RAINFALL (mm)= 54.38 54.38 54.38
RUNOFF COEFFICIENT = 0.96 0.31 0.96

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7815) |
| 1 + 2 = 3 |
-----
| AREA QPEAK TPEAK R.V. |
| (ha) (cms) (hrs) (mm) |
ID1= 1 ( 7826): 1.24 0.086 5.25 52.03
+ ID2= 2 ( 7831): 26.06 0.239 9.33 52.16
-----
ID = 3 ( 7815): 27.30 0.242 9.25 52.15

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| RESERVOIR( 7841) | OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT= 5.0 min |
-----
| OUTFLOW STORAGE | OUTFLOW STORAGE |
| (cms) (ha.m.) | (cms) (ha.m.) |
0.0000 0.0000 | 1.0810 1.6220
0.0010 0.1670 | 1.3950 1.8170
0.0340 0.3380 | 2.0990 2.2130
0.0510 0.5110 | 2.8950 2.6150
0.0630 0.6880 | 3.7730 3.0250
0.1610 0.8670 | 4.7260 3.4420
0.3300 1.0500 | 5.5670 3.8670
0.5440 1.2370 | 6.5800 4.3000
0.7970 1.4290 | 10.9450 4.5210
-----
| AREA QPEAK TPEAK R.V. |
| (ha) (cms) (hrs) (mm) |
INFLOW : ID= 2 ( 7815) 27.302 0.242 9.25 52.15
OUTFLOW: ID= 1 ( 7841) 27.302 0.101 20.42 46.78
-----
| PEAK FLOW REDUCTION [Qout/Qin](%)= 41.59 |
| TIME SHIFT OF PEAK FLOW (min)=670.00 |
| MAXIMUM STORAGE USED (ha.m.)= 0.7571 |

```


0.500	0.63	3.583	10.66	6.667	4.39	9.75	0.63
0.583	0.63	3.667	10.66	6.750	4.39	9.83	0.63
0.667	0.63	3.750	10.66	6.833	4.39	9.92	0.63
0.750	0.63	3.833	10.66	6.917	4.39	10.00	0.63
0.833	0.63	3.917	10.66	7.000	4.39	10.08	0.63
0.917	0.63	4.000	10.66	7.083	4.39	10.17	0.63
1.000	0.63	4.083	10.66	7.167	4.39	10.25	0.63
1.083	0.63	4.167	10.66	7.250	4.39	10.33	0.63
1.167	0.63	4.250	10.66	7.333	2.51	10.42	0.63
1.250	0.63	4.333	28.84	7.417	2.51	10.50	0.63
1.333	0.63	4.417	28.84	7.500	2.51	10.58	0.63
1.417	0.63	4.500	28.84	7.583	2.51	10.67	0.63
1.500	0.63	4.583	28.84	7.667	2.51	10.75	0.63
1.583	0.63	4.667	28.84	7.750	2.51	10.83	0.63
1.667	0.63	4.750	28.84	7.833	2.51	10.92	0.63
1.750	0.63	4.833	28.84	7.917	2.51	11.00	0.63
1.833	0.63	4.917	28.84	8.000	2.51	11.08	0.63
1.917	0.63	5.000	28.84	8.083	2.51	11.17	0.63
2.000	0.63	5.083	28.84	8.167	2.51	11.25	0.63
2.083	0.63	5.167	28.84	8.250	2.51	11.33	0.63
2.167	0.63	5.250	28.84	8.333	1.25	11.42	0.63
2.250	0.63	5.333	8.15	8.417	1.25	11.50	0.63
2.333	3.76	5.417	8.15	8.500	1.25	11.58	0.63
2.417	3.76	5.500	8.15	8.583	1.25	11.67	0.63
2.500	3.76	5.583	8.15	8.667	1.25	11.75	0.63
2.583	3.76	5.667	8.15	8.750	1.25	11.83	0.63
2.667	3.76	5.750	8.15	8.833	1.25	11.92	0.63
2.750	3.76	5.833	8.15	8.917	1.25	12.00	0.63
2.833	3.76	5.917	8.15	9.000	1.25	12.08	0.63
2.917	3.76	6.000	8.15	9.083	1.25	12.17	0.63
3.000	3.76	6.083	8.15	9.167	1.25	12.25	0.63
3.083	3.76	6.167	8.15	9.250	1.25		

Max.Eff.Inten. (mm/hr)= 28.84 14.02
 over (min) 10.00 10.00
 Storage Coeff. (min)= 7.62 (ii) 9.46 (ii)
 Unit Hyd. Tpeak (min)= 10.00 10.00
 Unit Hyd. peak (cms)= 0.13 0.12

TOTALS
 PEAK FLOW (cms)= 0.86 0.00 0.868 (iii)
 TIME TO PEAK (hrs)= 5.25 5.25
 RUNOFF VOLUME (mm)= 60.71 21.96 60.32
 TOTAL RAINFALL (mm)= 62.71 62.71 62.71
 RUNOFF COEFFICIENT = 0.97 0.35 0.96

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7837)	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7823)	0.21	0.008	5.25	21.88
+ ID2= 2 (7828)	10.90	0.868	5.25	60.32
ID = 3 (7837)	11.11	0.876	5.25	59.60

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7818)	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
IN= 2--> OUT= 1	0.0000	0.0000	0.1390	0.6960
DT= 5.0 min	0.0590	0.3400	0.1630	0.7780
	0.0900	0.4907	0.1840	0.8800
	0.1110	0.5760	0.0000	0.0000

AREA QPEAK TPEAK R.V.

(ha) (cms) (hrs) (mm)
 INFLOW : ID= 2 (7837) 11.108 0.876 5.25 59.60
 OUTFLOW: ID= 1 (7818) 11.108 0.095 7.50 59.47

PEAK FLOW REDUCTION [Qout/Qin] (%) = 10.82
 TIME SHIFT OF PEAK FLOW (min) = 135.00
 MAXIMUM STORAGE USED (ha.m.) = 0.5102

CMLIB
 STANDHYD (7820) Area (ha) = 11.38
 ID= 1 DT= 5.0 min Total Imp(%) = 99.00 Dir. Conn.(%) = 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha) = 11.27 0.11
 Dep. Storage (mm) = 2.00 5.00
 Average Slope (%) = 1.00 2.00
 Length (m) = 275.44 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)	TIME (hrs)	RAIN (mm/hr)
0.083	0.00	3.167	3.76	6.250	8.15	9.33	0.63
0.167	0.00	3.250	3.76	6.333	4.39	9.42	0.63
0.250	0.00	3.333	10.66	6.417	4.39	9.50	0.63
0.333	0.63	3.417	10.66	6.500	4.39	9.58	0.63
0.417	0.63	3.500	10.66	6.583	4.39	9.67	0.63
0.500	0.63	3.583	10.66	6.667	4.39	9.75	0.63
0.583	0.63	3.667	10.66	6.750	4.39	9.83	0.63
0.667	0.63	3.750	10.66	6.833	4.39	9.92	0.63
0.750	0.63	3.833	10.66	6.917	4.39	10.00	0.63
0.833	0.63	3.917	10.66	7.000	4.39	10.08	0.63
0.917	0.63	4.000	10.66	7.083	4.39	10.17	0.63
1.000	0.63	4.083	10.66	7.167	4.39	10.25	0.63
1.083	0.63	4.167	10.66	7.250	4.39	10.33	0.63
1.167	0.63	4.250	10.66	7.333	2.51	10.42	0.63
1.250	0.63	4.333	28.84	7.417	2.51	10.50	0.63
1.333	0.63	4.417	28.84	7.500	2.51	10.58	0.63
1.417	0.63	4.500	28.84	7.583	2.51	10.67	0.63
1.500	0.63	4.583	28.84	7.667	2.51	10.75	0.63
1.583	0.63	4.667	28.84	7.750	2.51	10.83	0.63
1.667	0.63	4.750	28.84	7.833	2.51	10.92	0.63
1.750	0.63	4.833	28.84	7.917	2.51	11.00	0.63
1.833	0.63	4.917	28.84	8.000	2.51	11.08	0.63
1.917	0.63	5.000	28.84	8.083	2.51	11.17	0.63
2.000	0.63	5.083	28.84	8.167	2.51	11.25	0.63
2.083	0.63	5.167	28.84	8.250	2.51	11.33	0.63
2.167	0.63	5.250	28.84	8.333	1.25	11.42	0.63
2.250	0.63	5.333	8.15	8.417	1.25	11.50	0.63
2.333	3.76	5.417	8.15	8.500	1.25	11.58	0.63
2.417	3.76	5.500	8.15	8.583	1.25	11.67	0.63
2.500	3.76	5.583	8.15	8.667	1.25	11.75	0.63
2.583	3.76	5.667	8.15	8.750	1.25	11.83	0.63
2.667	3.76	5.750	8.15	8.833	1.25	11.92	0.63
2.750	3.76	5.833	8.15	8.917	1.25	12.00	0.63
2.833	3.76	5.917	8.15	9.000	1.25	12.08	0.63
2.917	3.76	6.000	8.15	9.083	1.25	12.17	0.63
3.000	3.76	6.083	8.15	9.167	1.25	12.25	0.63
3.083	3.76	6.167	8.15	9.250	1.25		

Max.Eff.Inten. (mm/hr)= 28.84 14.02
 over (min) 10.00 10.00
 Storage Coeff. (min)= 7.72 (ii) 9.56 (ii)
 Unit Hyd. Tpeak (min)= 10.00 10.00
 Unit Hyd. peak (cms)= 0.13 0.11

TOTALS
 PEAK FLOW (cms)= 0.90 0.00 0.906 (iii)
 TIME TO PEAK (hrs)= 5.25 5.25
 RUNOFF VOLUME (mm)= 60.71 21.96 60.32
 TOTAL RAINFALL (mm)= 62.71 62.71 62.71
 RUNOFF COEFFICIENT = 0.97 0.35 0.96

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7812) OVERFLOW IS OFF				
IN= 2--> OUT= 1				
DT= 5.0 min				
	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.1990	0.6950
	0.0830	0.3500	0.2320	0.8000
	0.1280	0.4850	0.2620	0.9000
	0.1580	0.5900	0.0000	0.0000

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7820)	11.380	0.906	5.25	60.32
OUTFLOW: ID= 1 (7812)	11.380	0.131	7.33	60.23

PEAK FLOW REDUCTION [Qout/Qin] (%) = 14.47
TIME SHIFT OF PEAK FLOW (min)=125.00
MAXIMUM STORAGE USED (ha.m.)= 0.4960

ADD HYD (7802)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7812) :	11.38	0.131	7.33	60.23
+ ID2= 2 (7818) :	11.11	0.095	7.50	59.47
ID = 3 (7802) :	22.49	0.226	7.33	59.85

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7834)			
ID= 1 DT= 5.0 min			
	Area	(ha)=	0.59
	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00
Surface Area	(ha)=	0.58	0.01
Dep. Storage	(mm)=	2.00	5.00
Average Slope	(%)=	2.00	2.00
Length	(m)=	62.72	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.76	6.250	8.15	9.33	0.63
0.167	0.00	3.250	3.76	6.333	4.39	9.42	0.63
0.250	0.00	3.333	10.66	6.417	4.39	9.50	0.63
0.333	0.63	3.417	10.66	6.500	4.39	9.58	0.63
0.417	0.63	3.500	10.66	6.583	4.39	9.67	0.63
0.500	0.63	3.583	10.66	6.667	4.39	9.75	0.63
0.583	0.63	3.667	10.66	6.750	4.39	9.83	0.63
0.667	0.63	3.750	10.66	6.833	4.39	9.92	0.63
0.750	0.63	3.833	10.66	6.917	4.39	10.00	0.63
0.833	0.63	3.917	10.66	7.000	4.39	10.08	0.63
0.917	0.63	4.000	10.66	7.083	4.39	10.17	0.63
1.000	0.63	4.083	10.66	7.167	4.39	10.25	0.63
1.083	0.63	4.167	10.66	7.250	4.39	10.33	0.63
1.167	0.63	4.250	10.66	7.333	2.51	10.42	0.63
1.250	0.63	4.333	28.84	7.417	2.51	10.50	0.63
1.333	0.63	4.417	28.84	7.500	2.51	10.58	0.63
1.417	0.63	4.500	28.84	7.583	2.51	10.67	0.63

1.500	0.63	4.583	28.84	7.667	2.51	10.75	0.63
1.583	0.63	4.667	28.84	7.750	2.51	10.83	0.63
1.667	0.63	4.750	28.84	7.833	2.51	10.92	0.63
1.750	0.63	4.833	28.84	7.917	2.51	11.00	0.63
1.833	0.63	4.917	28.84	8.000	2.51	11.08	0.63
1.917	0.63	5.000	28.84	8.083	2.51	11.17	0.63
2.000	0.63	5.083	28.84	8.167	2.51	11.25	0.63
2.083	0.63	5.167	28.84	8.250	2.51	11.33	0.63
2.167	0.63	5.250	28.84	8.333	1.25	11.42	0.63
2.250	0.63	5.333	8.15	8.417	1.25	11.50	0.63
2.333	3.76	5.417	8.15	8.500	1.25	11.58	0.63
2.417	3.76	5.500	8.15	8.583	1.25	11.67	0.63
2.500	3.76	5.583	8.15	8.667	1.25	11.75	0.63
2.583	3.76	5.667	8.15	8.750	1.25	11.83	0.63
2.667	3.76	5.750	8.15	8.833	1.25	11.92	0.63
2.750	3.76	5.833	8.15	8.917	1.25	12.00	0.63
2.833	3.76	5.917	8.15	9.000	1.25	12.08	0.63
2.917	3.76	6.000	8.15	9.083	1.25	12.17	0.63
3.000	3.76	6.083	8.15	9.167	1.25	12.25	0.63
3.083	3.76	6.167	8.15	9.250	1.25		

Max.Eff.Inten.(mm/hr)=	28.84	14.02
over (min)=	5.00	5.00
Storage Coeff. (min)=	2.58 (ii)	4.43 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.29	0.23
PEAK FLOW (cms)=	0.05	0.00
TIME TO PEAK (hrs)=	4.83	5.25
RUNOFF VOLUME (mm)=	60.71	21.96
TOTAL RAINFALL (mm)=	62.71	62.71
RUNOFF COEFFICIENT =	0.97	0.35

TOTALS

0.047 (iii)
5.25
60.32
62.71
0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7806)			
ID= 1 DT= 5.0 min			
	Area	(ha)=	2.37
	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00
Surface Area	(ha)=	2.35	0.02
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	1.00	2.00
Length	(m)=	20.00	20.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.76	6.250	8.15	9.33	0.63
0.167	0.00	3.250	3.76	6.333	4.39	9.42	0.63
0.250	0.00	3.333	10.66	6.417	4.39	9.50	0.63
0.333	0.63	3.417	10.66	6.500	4.39	9.58	0.63
0.417	0.63	3.500	10.66	6.583	4.39	9.67	0.63
0.500	0.63	3.583	10.66	6.667	4.39	9.75	0.63
0.583	0.63	3.667	10.66	6.750	4.39	9.83	0.63
0.667	0.63	3.750	10.66	6.833	4.39	9.92	0.63
0.750	0.63	3.833	10.66	6.917	4.39	10.00	0.63
0.833	0.63	3.917	10.66	7.000	4.39	10.08	0.63
0.917	0.63	4.000	10.66	7.083	4.39	10.17	0.63
1.000	0.63	4.083	10.66	7.167	4.39	10.25	0.63
1.083	0.63	4.167	10.66	7.250	4.39	10.33	0.63
1.167	0.63	4.250	10.66	7.333	2.51	10.42	0.63
1.250	0.63	4.333	28.84	7.417	2.51	10.50	0.63
1.333	0.63	4.417	28.84	7.500	2.51	10.58	0.63
1.417	0.63	4.500	28.84	7.583	2.51	10.67	0.63

1.417	0.63	4.500	28.84	7.583	2.51	10.67	0.63
1.500	0.63	4.583	28.84	7.667	2.51	10.75	0.63
1.583	0.63	4.667	28.84	7.750	2.51	10.83	0.63
1.667	0.63	4.750	28.84	7.833	2.51	10.92	0.63
1.750	0.63	4.833	28.84	7.917	2.51	11.00	0.63
1.833	0.63	4.917	28.84	8.000	2.51	11.08	0.63
1.917	0.63	5.000	28.84	8.083	2.51	11.17	0.63
2.000	0.63	5.083	28.84	8.167	2.51	11.25	0.63
2.083	0.63	5.167	28.84	8.250	2.51	11.33	0.63
2.167	0.63	5.250	28.84	8.333	1.25	11.42	0.63
2.250	0.63	5.333	8.15	8.417	1.25	11.50	0.63
2.333	3.76	5.417	8.15	8.500	1.25	11.58	0.63
2.417	3.76	5.500	8.15	8.583	1.25	11.67	0.63
2.500	3.76	5.583	8.15	8.667	1.25	11.75	0.63
2.583	3.76	5.667	8.15	8.750	1.25	11.83	0.63
2.667	3.76	5.750	8.15	8.833	1.25	11.92	0.63
2.750	3.76	5.833	8.15	8.917	1.25	12.00	0.63
2.833	3.76	5.917	8.15	9.000	1.25	12.08	0.63
2.917	3.76	6.000	8.15	9.083	1.25	12.17	0.63
3.000	3.76	6.083	8.15	9.167	1.25	12.25	0.63
3.083	3.76	6.167	8.15	9.250	1.25		

Max.Eff.Inten. (mm/hr)=	28.84	14.02
over (min)	5.00	5.00
Storage Coeff. (min)=	1.60 (ii)	2.82 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.32	0.28
PEAK FLOW (cms)=	0.19	0.00
TIME TO PEAK (hrs)=	4.83	5.25
RUNOFF VOLUME (mm)=	61.71	21.96
TOTAL RAINFALL (mm)=	62.71	62.71
RUNOFF COEFFICIENT =	0.98	0.35

TOTALS	0.189 (iii)
PEAK FLOW (cms)=	0.19
TIME TO PEAK (hrs)=	4.83
RUNOFF VOLUME (mm)=	61.71
TOTAL RAINFALL (mm)=	62.71
RUNOFF COEFFICIENT =	0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (7811)	Area (ha)= 2.40
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.76	6.250	8.15	9.33	0.63
0.167	0.00	3.250	3.76	6.333	4.39	9.42	0.63
0.250	0.00	3.333	10.66	6.417	4.39	9.50	0.63
0.333	0.63	3.417	10.66	6.500	4.39	9.58	0.63
0.417	0.63	3.500	10.66	6.583	4.39	9.67	0.63
0.500	0.63	3.583	10.66	6.667	4.39	9.75	0.63
0.583	0.63	3.667	10.66	6.750	4.39	9.83	0.63
0.667	0.63	3.750	10.66	6.833	4.39	9.92	0.63
0.750	0.63	3.833	10.66	6.917	4.39	10.00	0.63
0.833	0.63	3.917	10.66	7.000	4.39	10.08	0.63
0.917	0.63	4.000	10.66	7.083	4.39	10.17	0.63
1.000	0.63	4.083	10.66	7.167	4.39	10.25	0.63
1.083	0.63	4.167	10.66	7.250	4.39	10.33	0.63
1.167	0.63	4.250	10.66	7.333	2.51	10.42	0.63
1.250	0.63	4.333	28.84	7.417	2.51	10.50	0.63

1.333	0.63	4.417	28.84	7.500	2.51	10.58	0.63
1.417	0.63	4.500	28.84	7.583	2.51	10.67	0.63
1.500	0.63	4.583	28.84	7.667	2.51	10.75	0.63
1.583	0.63	4.667	28.84	7.750	2.51	10.83	0.63
1.667	0.63	4.750	28.84	7.833	2.51	10.92	0.63
1.750	0.63	4.833	28.84	7.917	2.51	11.00	0.63
1.833	0.63	4.917	28.84	8.000	2.51	11.08	0.63
1.917	0.63	5.000	28.84	8.083	2.51	11.17	0.63
2.000	0.63	5.083	28.84	8.167	2.51	11.25	0.63
2.083	0.63	5.167	28.84	8.250	2.51	11.33	0.63
2.167	0.63	5.250	28.84	8.333	1.25	11.42	0.63
2.250	0.63	5.333	8.15	8.417	1.25	11.50	0.63
2.333	3.76	5.417	8.15	8.500	1.25	11.58	0.63
2.417	3.76	5.500	8.15	8.583	1.25	11.67	0.63
2.500	3.76	5.583	8.15	8.667	1.25	11.75	0.63
2.583	3.76	5.667	8.15	8.750	1.25	11.83	0.63
2.667	3.76	5.750	8.15	8.833	1.25	11.92	0.63
2.750	3.76	5.833	8.15	8.917	1.25	12.00	0.63
2.833	3.76	5.917	8.15	9.000	1.25	12.08	0.63
2.917	3.76	6.000	8.15	9.083	1.25	12.17	0.63
3.000	3.76	6.083	8.15	9.167	1.25	12.25	0.63
3.083	3.76	6.167	8.15	9.250	1.25		

Max.Eff.Inten. (mm/hr)=	28.84	14.02
over (min)	5.00	5.00
Storage Coeff. (min)=	1.60 (ii)	2.82 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.32	0.28
PEAK FLOW (cms)=	0.19	0.00
TIME TO PEAK (hrs)=	4.83	5.25
RUNOFF VOLUME (mm)=	61.71	21.96
TOTAL RAINFALL (mm)=	62.71	62.71
RUNOFF COEFFICIENT =	0.98	0.35

TOTALS	0.191 (iii)
PEAK FLOW (cms)=	0.19
TIME TO PEAK (hrs)=	4.83
RUNOFF VOLUME (mm)=	61.71
TOTAL RAINFALL (mm)=	62.71
RUNOFF COEFFICIENT =	0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (7816)	Area (ha)= 2.36
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.34	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.76	6.250	8.15	9.33	0.63
0.167	0.00	3.250	3.76	6.333	4.39	9.42	0.63
0.250	0.00	3.333	10.66	6.417	4.39	9.50	0.63
0.333	0.63	3.417	10.66	6.500	4.39	9.58	0.63
0.417	0.63	3.500	10.66	6.583	4.39	9.67	0.63
0.500	0.63	3.583	10.66	6.667	4.39	9.75	0.63
0.583	0.63	3.667	10.66	6.750	4.39	9.83	0.63
0.667	0.63	3.750	10.66	6.833	4.39	9.92	0.63
0.750	0.63	3.833	10.66	6.917	4.39	10.00	0.63
0.833	0.63	3.917	10.66	7.000	4.39	10.08	0.63
0.917	0.63	4.000	10.66	7.083	4.39	10.17	0.63
1.000	0.63	4.083	10.66	7.167	4.39	10.25	0.63
1.083	0.63	4.167	10.66	7.250	4.39	10.33	0.63
1.167	0.63	4.250	10.66	7.333	2.51	10.42	0.63

1.250	0.63	4.333	28.84	7.417	2.51	10.50	0.63
1.333	0.63	4.417	28.84	7.500	2.51	10.58	0.63
1.417	0.63	4.500	28.84	7.583	2.51	10.67	0.63
1.500	0.63	4.583	28.84	7.667	2.51	10.75	0.63
1.583	0.63	4.667	28.84	7.750	2.51	10.83	0.63
1.667	0.63	4.750	28.84	7.833	2.51	10.92	0.63
1.750	0.63	4.833	28.84	7.917	2.51	11.00	0.63
1.833	0.63	4.917	28.84	8.000	2.51	11.08	0.63
1.917	0.63	5.000	28.84	8.083	2.51	11.17	0.63
2.000	0.63	5.083	28.84	8.167	2.51	11.25	0.63
2.083	0.63	5.167	28.84	8.250	2.51	11.33	0.63
2.167	0.63	5.250	28.84	8.333	1.25	11.42	0.63
2.250	0.63	5.333	8.15	8.417	1.25	11.50	0.63
2.333	3.76	5.417	8.15	8.500	1.25	11.58	0.63
2.417	3.76	5.500	8.15	8.583	1.25	11.67	0.63
2.500	3.76	5.583	8.15	8.667	1.25	11.75	0.63
2.583	3.76	5.667	8.15	8.750	1.25	11.83	0.63
2.667	3.76	5.750	8.15	8.833	1.25	11.92	0.63
2.750	3.76	5.833	8.15	8.917	1.25	12.00	0.63
2.833	3.76	5.917	8.15	9.000	1.25	12.08	0.63
2.917	3.76	6.000	8.15	9.083	1.25	12.17	0.63
3.000	3.76	6.083	8.15	9.167	1.25	12.25	0.63
3.083	3.76	6.167	8.15	9.250	1.25		

Max.Eff.Inten. (mm/hr)=	28.84	14.02
over (min)	5.00	5.00
Storage Coeff. (min)=	1.60 (ii)	2.82 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.32	0.28
TOTALS		
PEAK FLOW (cms)=	0.19	0.00
TIME TO PEAK (hrs)=	4.83	5.25
RUNOFF VOLUME (mm)=	61.71	21.96
TOTAL RAINFALL (mm)=	62.71	62.71
RUNOFF COEFFICIENT =	0.98	0.35

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	2.39	
STANDHYD (7827)	Total Imp(%)=	99.00 Dir. Conn.(%)= 99.00	
ID= 1 DT= 5.0 min	-----		

IMPERVIOUS			
Surface Area (ha)=	2.37	PERVIOUS (i)	
Dep. Storage (mm)=	1.00	0.02	
Average Slope (%)=	1.00	5.00	
Length (m)=	20.00	2.00	
Mannings n =	0.013	20.00	
		0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.76	6.250	8.15	9.33	0.63				
0.167	0.00	3.250	3.76	6.333	4.39	9.42	0.63				
0.250	0.00	3.333	10.66	6.417	4.39	9.50	0.63				
0.333	0.63	3.417	10.66	6.500	4.39	9.58	0.63				
0.417	0.63	3.500	10.66	6.583	4.39	9.67	0.63				
0.500	0.63	3.583	10.66	6.667	4.39	9.75	0.63				
0.583	0.63	3.667	10.66	6.750	4.39	9.83	0.63				
0.667	0.63	3.750	10.66	6.833	4.39	9.92	0.63				
0.750	0.63	3.833	10.66	6.917	4.39	10.00	0.63				
0.833	0.63	3.917	10.66	7.000	4.39	10.08	0.63				
0.917	0.63	4.000	10.66	7.083	4.39	10.17	0.63				
1.000	0.63	4.083	10.66	7.167	4.39	10.25	0.63				
1.083	0.63	4.167	10.66	7.250	4.39	10.33	0.63				

1.167	0.63	4.250	10.66	7.333	2.51	10.42	0.63
1.250	0.63	4.333	28.84	7.417	2.51	10.50	0.63
1.333	0.63	4.417	28.84	7.500	2.51	10.58	0.63
1.417	0.63	4.500	28.84	7.583	2.51	10.67	0.63
1.500	0.63	4.583	28.84	7.667	2.51	10.75	0.63
1.583	0.63	4.667	28.84	7.750	2.51	10.83	0.63
1.667	0.63	4.750	28.84	7.833	2.51	10.92	0.63
1.750	0.63	4.833	28.84	7.917	2.51	11.00	0.63
1.833	0.63	4.917	28.84	8.000	2.51	11.08	0.63
1.917	0.63	5.000	28.84	8.083	2.51	11.17	0.63
2.000	0.63	5.083	28.84	8.167	2.51	11.25	0.63
2.083	0.63	5.167	28.84	8.250	2.51	11.33	0.63
2.167	0.63	5.250	28.84	8.333	1.25	11.42	0.63
2.250	0.63	5.333	8.15	8.417	1.25	11.50	0.63
2.333	3.76	5.417	8.15	8.500	1.25	11.58	0.63
2.417	3.76	5.500	8.15	8.583	1.25	11.67	0.63
2.500	3.76	5.583	8.15	8.667	1.25	11.75	0.63
2.583	3.76	5.667	8.15	8.750	1.25	11.83	0.63
2.667	3.76	5.750	8.15	8.833	1.25	11.92	0.63
2.750	3.76	5.833	8.15	8.917	1.25	12.00	0.63
2.833	3.76	5.917	8.15	9.000	1.25	12.08	0.63
2.917	3.76	6.000	8.15	9.083	1.25	12.17	0.63
3.000	3.76	6.083	8.15	9.167	1.25	12.25	0.63
3.083	3.76	6.167	8.15	9.250	1.25		

Max.Eff.Inten. (mm/hr)=	28.84	14.02
over (min)	5.00	5.00
Storage Coeff. (min)=	1.60 (ii)	2.82 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.32	0.28
TOTALS		
PEAK FLOW (cms)=	0.19	0.00
TIME TO PEAK (hrs)=	4.83	5.25
RUNOFF VOLUME (mm)=	61.71	21.96
TOTAL RAINFALL (mm)=	62.71	62.71
RUNOFF COEFFICIENT =	0.98	0.35

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	2.39	
STANDHYD (7832)	Total Imp(%)=	99.00 Dir. Conn.(%)= 99.00	
ID= 1 DT= 5.0 min	-----		

IMPERVIOUS			
Surface Area (ha)=	2.37	PERVIOUS (i)	
Dep. Storage (mm)=	1.00	0.02	
Average Slope (%)=	1.00	5.00	
Length (m)=	20.00	2.00	
Mannings n =	0.013	20.00	
		0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.76	6.250	8.15	9.33	0.63				
0.167	0.00	3.250	3.76	6.333	4.39	9.42	0.63				
0.250	0.00	3.333	10.66	6.417	4.39	9.50	0.63				
0.333	0.63	3.417	10.66	6.500	4.39	9.58	0.63				
0.417	0.63	3.500	10.66	6.583	4.39	9.67	0.63				
0.500	0.63	3.583	10.66	6.667	4.39	9.75	0.63				
0.583	0.63	3.667	10.66	6.750	4.39	9.83	0.63				
0.667	0.63	3.750	10.66	6.833	4.39	9.92	0.63				
0.750	0.63	3.833	10.66	6.917	4.39	10.00	0.63				
0.833	0.63	3.917	10.66	7.000	4.39	10.08	0.63				
0.917	0.63	4.000	10.66	7.083	4.39	10.17	0.63				
1.000	0.63	4.083	10.66	7.167	4.39	10.25	0.63				
1.083	0.63	4.167	10.66	7.250	4.39	10.33	0.63				



1.083	0.63	4.167	10.66	7.250	4.39	10.33	0.63
1.167	0.63	4.250	10.66	7.333	2.51	10.42	0.63
1.250	0.63	4.333	28.84	7.417	2.51	10.50	0.63
1.333	0.63	4.417	28.84	7.500	2.51	10.58	0.63
1.417	0.63	4.500	28.84	7.583	2.51	10.67	0.63
1.500	0.63	4.583	28.84	7.667	2.51	10.75	0.63
1.583	0.63	4.667	28.84	7.750	2.51	10.83	0.63
1.667	0.63	4.750	28.84	7.833	2.51	10.92	0.63
1.750	0.63	4.833	28.84	7.917	2.51	11.00	0.63
1.833	0.63	4.917	28.84	8.000	2.51	11.08	0.63
1.917	0.63	5.000	28.84	8.083	2.51	11.17	0.63
2.000	0.63	5.083	28.84	8.167	2.51	11.25	0.63
2.083	0.63	5.167	28.84	8.250	2.51	11.33	0.63
2.167	0.63	5.250	28.84	8.333	1.25	11.42	0.63
2.250	0.63	5.333	8.15	8.417	1.25	11.50	0.63
2.333	3.76	5.417	8.15	8.500	1.25	11.58	0.63
2.417	3.76	5.500	8.15	8.583	1.25	11.67	0.63
2.500	3.76	5.583	8.15	8.667	1.25	11.75	0.63
2.583	3.76	5.667	8.15	8.750	1.25	11.83	0.63
2.667	3.76	5.750	8.15	8.833	1.25	11.92	0.63
2.750	3.76	5.833	8.15	8.917	1.25	12.00	0.63
2.833	3.76	5.917	8.15	9.000	1.25	12.08	0.63
2.917	3.76	6.000	8.15	9.083	1.25	12.17	0.63
3.000	3.76	6.083	8.15	9.167	1.25	12.25	0.63
3.083	3.76	6.167	8.15	9.250	1.25	12.25	0.63

Max.Eff.Inten. (mm/hr)= 28.84 14.02
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.60 (ii) 2.82 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.28

TOTALS

PEAK FLOW (cms)= 0.19 0.00 0.190 (iii)
 TIME TO PEAK (hrs)= 4.83 5.25 5.25
 RUNOFF VOLUME (mm)= 61.71 21.96 61.31
 TOTAL RAINFALL (mm)= 62.71 62.71 62.71
 RUNOFF COEFFICIENT = 0.98 0.35 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7844) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.76	6.250	8.15	9.33	0.63
0.167	0.00	3.250	3.76	6.333	4.39	9.42	0.63
0.250	0.00	3.333	10.66	6.417	4.39	9.50	0.63
0.333	0.63	3.417	10.66	6.500	4.39	9.58	0.63
0.417	0.63	3.500	10.66	6.583	4.39	9.67	0.63
0.500	0.63	3.583	10.66	6.667	4.39	9.75	0.63
0.583	0.63	3.667	10.66	6.750	4.39	9.83	0.63
0.667	0.63	3.750	10.66	6.833	4.39	9.92	0.63
0.750	0.63	3.833	10.66	6.917	4.39	10.00	0.63
0.833	0.63	3.917	10.66	7.000	4.39	10.08	0.63
0.917	0.63	4.000	10.66	7.083	4.39	10.17	0.63

1.000	0.63	4.083	10.66	7.167	4.39	10.25	0.63
1.083	0.63	4.167	10.66	7.250	4.39	10.33	0.63
1.167	0.63	4.250	10.66	7.333	2.51	10.42	0.63
1.250	0.63	4.333	28.84	7.417	2.51	10.50	0.63
1.333	0.63	4.417	28.84	7.500	2.51	10.58	0.63
1.417	0.63	4.500	28.84	7.583	2.51	10.67	0.63
1.500	0.63	4.583	28.84	7.667	2.51	10.75	0.63
1.583	0.63	4.667	28.84	7.750	2.51	10.83	0.63
1.667	0.63	4.750	28.84	7.833	2.51	10.92	0.63
1.750	0.63	4.833	28.84	7.917	2.51	11.00	0.63
1.833	0.63	4.917	28.84	8.000	2.51	11.08	0.63
1.917	0.63	5.000	28.84	8.083	2.51	11.17	0.63
2.000	0.63	5.083	28.84	8.167	2.51	11.25	0.63
2.083	0.63	5.167	28.84	8.250	2.51	11.33	0.63
2.167	0.63	5.250	28.84	8.333	1.25	11.42	0.63
2.250	0.63	5.333	8.15	8.417	1.25	11.50	0.63
2.333	3.76	5.417	8.15	8.500	1.25	11.58	0.63
2.417	3.76	5.500	8.15	8.583	1.25	11.67	0.63
2.500	3.76	5.583	8.15	8.667	1.25	11.75	0.63
2.583	3.76	5.667	8.15	8.750	1.25	11.83	0.63
2.667	3.76	5.750	8.15	8.833	1.25	11.92	0.63
2.750	3.76	5.833	8.15	8.917	1.25	12.00	0.63
2.833	3.76	5.917	8.15	9.000	1.25	12.08	0.63
2.917	3.76	6.000	8.15	9.083	1.25	12.17	0.63
3.000	3.76	6.083	8.15	9.167	1.25	12.25	0.63
3.083	3.76	6.167	8.15	9.250	1.25	12.25	0.63

Max.Eff.Inten. (mm/hr)= 28.84 14.02
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.60 (ii) 2.82 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.28

TOTALS

PEAK FLOW (cms)= 0.19 0.00 0.191 (iii)
 TIME TO PEAK (hrs)= 4.83 5.25 5.25
 RUNOFF VOLUME (mm)= 61.71 21.96 61.31
 TOTAL RAINFALL (mm)= 62.71 62.71 62.71
 RUNOFF COEFFICIENT = 0.98 0.35 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)

ID1= 1 (7806):	2.37	0.189	5.25	61.31
+ ID2= 2 (7811):	2.40	0.191	5.25	61.31

ID = 3 (7843):	4.77	0.380	5.25	61.31

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)

ID1= 3 (7843):	4.77	0.380	5.25	61.31
+ ID2= 2 (7816):	2.36	0.188	5.25	61.31

ID = 1 (7843):	7.13	0.568	5.25	61.31

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7843) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.

	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7843):	7.13	0.568	5.25	61.31
+ ID2= 2 (7827):	2.39	0.190	5.25	61.31

ID = 3 (7843):	9.52	0.759	5.25	61.31

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7843)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7843):	9.52	0.759	5.25	61.31
+ ID2= 2 (7832):	2.39	0.190	5.25	61.31

ID = 1 (7843):	11.91	0.949	5.25	61.31

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7843)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7843):	11.91	0.949	5.25	61.31
+ ID2= 2 (7844):	2.40	0.191	5.25	61.31

ID = 3 (7843):	14.31	1.141	5.25	61.31

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| DIVERTHYD (7835) |
| IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1 +	Flow 2 +	Flow 3 +	Flow 4 +	Flow 5 =	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
TOTAL HYD. (ID= 1):	14.31	1.14	5.25	61.31
ID= 2 (2) :	13.91	1.07	5.25	61.31
ID= 3 (2) :	0.40	0.07	5.25	61.31
ID= 4 (2) :	0.00	0.00	0.00	0.00
ID= 5 (2) :	0.00	0.00	0.00	0.00
ID= 6 (2) :	0.00	0.00	0.00	0.00

| RESERVOIR (7808) |
| IN= 2---> OUT= 1 |
| DT= 5.0 min |

OVERFLOW IS ON

OUTFLOW	STORAGE	OUTFLOW	STORAGE
(cms)	(ha.m.)	(cms)	(ha.m.)
0.0000	0.0000	0.2690	0.4589
0.1980	0.1112	0.0000	0.0000

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7835)	13.907	1.070	5.25	61.31
OUTFLOW: ID= 1 (7808)	13.907	0.268	6.25	61.30
OVERFLOW: ID= 3 (0003)	0.000	0.000	0.00	0.00

TOTAL NUMBER OF SIMULATION OVERFLOW = 0
CUMULATIVE TIME OF OVERFLOW (HOURS) = 0.00
PERCENTAGE OF TIME OVERFLOWING (%) = 0.00

PEAK FLOW REDUCTION [Qout/Qin](%) = 25.07
TIME SHIFT OF PEAK FLOW (min) = 60.00
MAXIMUM STORAGE USED (ha.m.) = 0.4564

| Junction Command(7803) |

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 3 (7808)	0.00	0.00	0.00	0.00
OUTFLOW: ID= 2 (7803)	0.00	0.00	0.00	0.00

| ADD HYD (7824) |

1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
*** W A R N I N G : HYDROGRAPH 7803 <ID= 1> IS DRY.				
*** W A R N I N G : HYDROGRAPH 7824 = HYDROGRAPH 7808				
ID1= 1 (7803):	0.00	0.000	0.00	0.00
+ ID2= 2 (7808):	13.91	0.268	6.25	61.30

ID = 3 (7824):	13.91	0.268	6.25	61.30

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| ADD HYD (7824) |

3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7824):	13.91	0.268	6.25	61.30
+ ID2= 2 (7835):	0.40	0.070	5.25	61.31

ID = 1 (7824):	14.31	0.332	5.25	61.30

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |

| STANDHYD (7810) | Area (ha)= 1.06
| ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.01	0.05
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.76	6.250	8.15	9.33	0.63				
0.167	0.00	3.250	3.76	6.333	4.39	9.42	0.63				
0.250	0.00	3.333	10.66	6.417	4.39	9.50	0.63				
0.333	0.63	3.417	10.66	6.500	4.39	9.58	0.63				
0.417	0.63	3.500	10.66	6.583	4.39	9.67	0.63				
0.500	0.63	3.583	10.66	6.667	4.39	9.75	0.63				
0.583	0.63	3.667	10.66	6.750	4.39	9.83	0.63				
0.667	0.63	3.750	10.66	6.833	4.39	9.92	0.63				
0.750	0.63	3.833	10.66	6.917	4.39	10.00	0.63				
0.833	0.63	3.917	10.66	7.000	4.39	10.08	0.63				
0.917	0.63	4.000	10.66	7.083	4.39	10.17	0.63				
1.000	0.63	4.083	10.66	7.167	4.39	10.25	0.63				
1.083	0.63	4.167	10.66	7.250	4.39	10.33	0.63				
1.167	0.63	4.250	10.66	7.333	2.51	10.42	0.63				
1.250	0.63	4.333	28.84	7.417	2.51	10.50	0.63				
1.333	0.63	4.417	28.84	7.500	2.51	10.58	0.63				
1.417	0.63	4.500	28.84	7.583	2.51	10.67	0.63				
1.500	0.63	4.583	28.84	7.667	2.51	10.75	0.63				
1.583	0.63	4.667	28.84	7.750	2.51	10.83	0.63				



1.667	0.63	4.750	28.84	7.833	2.51	10.92	0.63
1.750	0.63	4.833	28.84	7.917	2.51	11.00	0.63
1.833	0.63	4.917	28.84	8.000	2.51	11.08	0.63
1.917	0.63	5.000	28.84	8.083	2.51	11.17	0.63
2.000	0.63	5.083	28.84	8.167	2.51	11.25	0.63
2.083	0.63	5.167	28.84	8.250	2.51	11.33	0.63
2.167	0.63	5.250	28.84	8.333	1.25	11.42	0.63
2.250	0.63	5.333	8.15	8.417	1.25	11.50	0.63
2.333	3.76	5.417	8.15	8.500	1.25	11.58	0.63
2.417	3.76	5.500	8.15	8.583	1.25	11.67	0.63
2.500	3.76	5.583	8.15	8.667	1.25	11.75	0.63
2.583	3.76	5.667	8.15	8.750	1.25	11.83	0.63
2.667	3.76	5.750	8.15	8.833	1.25	11.92	0.63
2.750	3.76	5.833	8.15	8.917	1.25	12.00	0.63
2.833	3.76	5.917	8.15	9.000	1.25	12.08	0.63
2.917	3.76	6.000	8.15	9.083	1.25	12.17	0.63
3.000	3.76	6.083	8.15	9.167	1.25	12.25	0.63
3.083	3.76	6.167	8.15	9.250	1.25		

Max.Eff.Inten.(mm/hr)= 28.84 14.45
 over (min) 5.00 10.00
 Storage Coeff. (min)= 2.35 (ii) 5.92 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.30 0.15

PEAK FLOW (cms)= 0.08 0.00
 TIME TO PEAK (hrs)= 4.83 5.25
 RUNOFF VOLUME (mm)= 60.71 22.66 58.81
 TOTAL RAINFALL (mm)= 62.71 62.71 62.71
 RUNOFF COEFFICIENT = 0.97 0.36 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7814) |
ID= 1 DT= 5.0 min
 Area (ha)= 1.45
 Total Imp(%)= 96.00 Dir. Conn.(%)= 96.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	1.39	0.06
Dep. Storage	(mm)=	2.00	5.00
Average Slope	(%)=	1.10	2.00
Length	(m)=	100.00	145.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	hrs
0.083	0.00	3.167	3.76	6.250	8.15	9.33	0.63
0.167	0.00	3.250	3.76	6.333	4.39	9.42	0.63
0.250	0.00	3.333	10.66	6.417	4.39	9.50	0.63
0.333	0.63	3.417	10.66	6.500	4.39	9.58	0.63
0.417	0.63	3.500	10.66	6.583	4.39	9.67	0.63
0.500	0.63	3.583	10.66	6.667	4.39	9.75	0.63
0.583	0.63	3.667	10.66	6.750	4.39	9.83	0.63
0.667	0.63	3.750	10.66	6.833	4.39	9.92	0.63
0.750	0.63	3.833	10.66	6.917	4.39	10.00	0.63
0.833	0.63	3.917	10.66	7.000	4.39	10.08	0.63
0.917	0.63	4.000	10.66	7.083	4.39	10.17	0.63
1.000	0.63	4.083	10.66	7.167	4.39	10.25	0.63
1.083	0.63	4.167	10.66	7.250	4.39	10.33	0.63
1.167	0.63	4.250	10.66	7.333	2.51	10.42	0.63
1.250	0.63	4.333	28.84	7.417	2.51	10.50	0.63
1.333	0.63	4.417	28.84	7.500	2.51	10.58	0.63
1.417	0.63	4.500	28.84	7.583	2.51	10.67	0.63
1.500	0.63	4.583	28.84	7.667	2.51	10.75	0.63

1.583	0.63	4.667	28.84	7.750	2.51	10.83	0.63
1.667	0.63	4.750	28.84	7.833	2.51	10.92	0.63
1.750	0.63	4.833	28.84	7.917	2.51	11.00	0.63
1.833	0.63	4.917	28.84	8.000	2.51	11.08	0.63
1.917	0.63	5.000	28.84	8.083	2.51	11.17	0.63
2.000	0.63	5.083	28.84	8.167	2.51	11.25	0.63
2.083	0.63	5.167	28.84	8.250	2.51	11.33	0.63
2.167	0.63	5.250	28.84	8.333	1.25	11.42	0.63
2.250	0.63	5.333	8.15	8.417	1.25	11.50	0.63
2.333	3.76	5.417	8.15	8.500	1.25	11.58	0.63
2.417	3.76	5.500	8.15	8.583	1.25	11.67	0.63
2.500	3.76	5.583	8.15	8.667	1.25	11.75	0.63
2.583	3.76	5.667	8.15	8.750	1.25	11.83	0.63
2.667	3.76	5.750	8.15	8.833	1.25	11.92	0.63
2.750	3.76	5.833	8.15	8.917	1.25	12.00	0.63
2.833	3.76	5.917	8.15	9.000	1.25	12.08	0.63
2.917	3.76	6.000	8.15	9.083	1.25	12.17	0.63
3.000	3.76	6.083	8.15	9.167	1.25	12.25	0.63
3.083	3.76	6.167	8.15	9.250	1.25		

Max.Eff.Inten.(mm/hr)= 28.84 12.15
 over (min) 5.00 40.00
 Storage Coeff. (min)= 4.08 (ii) 39.60 (ii)
 Unit Hyd. Tpeak (min)= 5.00 40.00
 Unit Hyd. peak (cms)= 0.24 0.03

PEAK FLOW (cms)= 0.11 0.00
 TIME TO PEAK (hrs)= 5.17 5.67
 RUNOFF VOLUME (mm)= 60.71 21.96 59.15
 TOTAL RAINFALL (mm)= 62.71 62.71 62.71
 RUNOFF COEFFICIENT = 0.97 0.35 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7822) |
ID= 1 DT= 5.0 min
 Area (ha)= 1.70
 Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	1.68	0.02
Dep. Storage	(mm)=	2.00	5.00
Average Slope	(%)=	1.10	2.00
Length	(m)=	100.00	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	'	hrs	mm/hr	hrs
0.083	0.00	3.167	3.76	6.250	8.15	9.33	0.63
0.167	0.00	3.250	3.76	6.333	4.39	9.42	0.63
0.250	0.00	3.333	10.66	6.417	4.39	9.50	0.63
0.333	0.63	3.417	10.66	6.500	4.39	9.58	0.63
0.417	0.63	3.500	10.66	6.583	4.39	9.67	0.63
0.500	0.63	3.583	10.66	6.667	4.39	9.75	0.63
0.583	0.63	3.667	10.66	6.750	4.39	9.83	0.63
0.667	0.63	3.750	10.66	6.833	4.39	9.92	0.63
0.750	0.63	3.833	10.66	6.917	4.39	10.00	0.63
0.833	0.63	3.917	10.66	7.000	4.39	10.08	0.63
0.917	0.63	4.000	10.66	7.083	4.39	10.17	0.63
1.000	0.63	4.083	10.66	7.167	4.39	10.25	0.63
1.083	0.63	4.167	10.66	7.250	4.39	10.33	0.63
1.167	0.63	4.250	10.66	7.333	2.51	10.42	0.63
1.250	0.63	4.333	28.84	7.417	2.51	10.50	0.63
1.333	0.63	4.417	28.84	7.500	2.51	10.58	0.63
1.417	0.63	4.500	28.84	7.583	2.51	10.67	0.63
1.500	0.63	4.583	28.84	7.667	2.51	10.75	0.63



1.500	0.63	4.583	28.84	7.667	2.51	10.75	0.63
1.583	0.63	4.667	28.84	7.750	2.51	10.83	0.63
1.667	0.63	4.750	28.84	7.833	2.51	10.92	0.63
1.750	0.63	4.833	28.84	7.917	2.51	11.00	0.63
1.833	0.63	4.917	28.84	8.000	2.51	11.08	0.63
1.917	0.63	5.000	28.84	8.083	2.51	11.17	0.63
2.000	0.63	5.083	28.84	8.167	2.51	11.25	0.63
2.083	0.63	5.167	28.84	8.250	2.51	11.33	0.63
2.167	0.63	5.250	28.84	8.333	1.25	11.42	0.63
2.250	0.63	5.333	8.15	8.417	1.25	11.50	0.63
2.333	3.76	5.417	8.15	8.500	1.25	11.58	0.63
2.417	3.76	5.500	8.15	8.583	1.25	11.67	0.63
2.500	3.76	5.583	8.15	8.667	1.25	11.75	0.63
2.583	3.76	5.667	8.15	8.750	1.25	11.83	0.63
2.667	3.76	5.750	8.15	8.833	1.25	11.92	0.63
2.750	3.76	5.833	8.15	8.917	1.25	12.00	0.63
2.833	3.76	5.917	8.15	9.000	1.25	12.08	0.63
2.917	3.76	6.000	8.15	9.083	1.25	12.17	0.63
3.000	3.76	6.083	8.15	9.167	1.25	12.25	0.63
3.083	3.76	6.167	8.15	9.250	1.25		

Max.Eff.Inten.(mm/hr)= 28.84 14.02
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 4.08 (ii) 5.93 (iii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.24 0.15

PEAK FLOW (cms)= 0.13 0.00
 TIME TO PEAK (hrs)= 5.17 5.25
 RUNOFF VOLUME (mm)= 60.71 21.96
 TOTAL RAINFALL (mm)= 62.71 62.71
 RUNOFF COEFFICIENT = 0.97 0.35

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB
 STANDHYD (7838) | Area (ha)= 1.33
 ID= 1 DT= 5.0 min | Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.30	0.03
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	3.167	3.76	6.250	8.15	9.33	0.63
0.167	0.00	3.250	3.76	6.333	4.39	9.42	0.63
0.250	0.00	3.333	10.66	6.417	4.39	9.50	0.63
0.333	0.63	3.417	10.66	6.500	4.39	9.58	0.63
0.417	0.63	3.500	10.66	6.583	4.39	9.67	0.63
0.500	0.63	3.583	10.66	6.667	4.39	9.75	0.63
0.583	0.63	3.667	10.66	6.750	4.39	9.83	0.63
0.667	0.63	3.750	10.66	6.833	4.39	9.92	0.63
0.750	0.63	3.833	10.66	6.917	4.39	10.00	0.63
0.833	0.63	3.917	10.66	7.000	4.39	10.08	0.63
0.917	0.63	4.000	10.66	7.083	4.39	10.17	0.63
1.000	0.63	4.083	10.66	7.167	4.39	10.25	0.63
1.083	0.63	4.167	10.66	7.250	4.39	10.33	0.63
1.167	0.63	4.250	10.66	7.333	2.51	10.42	0.63
1.250	0.63	4.333	28.84	7.417	2.51	10.50	0.63
1.333	0.63	4.417	28.84	7.500	2.51	10.58	0.63

1.417	0.63	4.500	28.84	7.583	2.51	10.67	0.63
1.500	0.63	4.583	28.84	7.667	2.51	10.75	0.63
1.583	0.63	4.667	28.84	7.750	2.51	10.83	0.63
1.667	0.63	4.750	28.84	7.833	2.51	10.92	0.63
1.750	0.63	4.833	28.84	7.917	2.51	11.00	0.63
1.833	0.63	4.917	28.84	8.000	2.51	11.08	0.63
1.917	0.63	5.000	28.84	8.083	2.51	11.17	0.63
2.000	0.63	5.083	28.84	8.167	2.51	11.25	0.63
2.083	0.63	5.167	28.84	8.250	2.51	11.33	0.63
2.167	0.63	5.250	28.84	8.333	1.25	11.42	0.63
2.250	0.63	5.333	8.15	8.417	1.25	11.50	0.63
2.333	3.76	5.417	8.15	8.500	1.25	11.58	0.63
2.417	3.76	5.500	8.15	8.583	1.25	11.67	0.63
2.500	3.76	5.583	8.15	8.667	1.25	11.75	0.63
2.583	3.76	5.667	8.15	8.750	1.25	11.83	0.63
2.667	3.76	5.750	8.15	8.833	1.25	11.92	0.63
2.750	3.76	5.833	8.15	8.917	1.25	12.00	0.63
2.833	3.76	5.917	8.15	9.000	1.25	12.08	0.63
2.917	3.76	6.000	8.15	9.083	1.25	12.17	0.63
3.000	3.76	6.083	8.15	9.167	1.25	12.25	0.63
3.083	3.76	6.167	8.15	9.250	1.25		

Max.Eff.Inten.(mm/hr)= 28.84 14.02
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 4.08 (ii) 6.53 (iii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.24 0.14

PEAK FLOW (cms)= 0.10 0.00
 TIME TO PEAK (hrs)= 5.17 5.25
 RUNOFF VOLUME (mm)= 60.71 21.96
 TOTAL RAINFALL (mm)= 62.71 62.71
 RUNOFF COEFFICIENT = 0.97 0.35

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7805) | AREA QPEAK TPEAK R.V.
 | 1 + 2 = 3 | (ha) (cms) (hrs) (mm)
 ID1= 1 (7814): 1.45 0.113 5.25 59.15
 + ID2= 2 (7822): 1.70 0.135 5.25 60.32
 ID = 3 (7805): 3.15 0.248 5.25 59.78

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7805) | AREA QPEAK TPEAK R.V.
 | 3 + 2 = 1 | (ha) (cms) (hrs) (mm)
 ID1= 3 (7805): 3.15 0.248 5.25 59.78
 + ID2= 2 (7838): 1.33 0.105 5.25 59.93
 ID = 1 (7805): 4.48 0.353 5.25 59.83

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB
 STANDHYD (7819) | Area (ha)= 1.32
 ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.31	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00



Length (m) = 100.00 40.00
 Mannings n = 0.013 0.250

Average Slope (%) = 1.10 2.00
 Length (m) = 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.76	6.250	8.15	9.33	0.63
0.167	0.00	3.250	3.76	6.333	4.39	9.42	0.63
0.250	0.00	3.333	10.66	6.417	4.39	9.50	0.63
0.333	0.63	3.417	10.66	6.500	4.39	9.58	0.63
0.417	0.63	3.500	10.66	6.583	4.39	9.67	0.63
0.500	0.63	3.583	10.66	6.667	4.39	9.75	0.63
0.583	0.63	3.667	10.66	6.750	4.39	9.83	0.63
0.667	0.63	3.750	10.66	6.833	4.39	9.92	0.63
0.750	0.63	3.833	10.66	6.917	4.39	10.00	0.63
0.833	0.63	3.917	10.66	7.000	4.39	10.08	0.63
0.917	0.63	4.000	10.66	7.083	4.39	10.17	0.63
1.000	0.63	4.083	10.66	7.167	4.39	10.25	0.63
1.083	0.63	4.167	10.66	7.250	4.39	10.33	0.63
1.167	0.63	4.250	10.66	7.333	2.51	10.42	0.63
1.250	0.63	4.333	28.84	7.417	2.51	10.50	0.63
1.333	0.63	4.417	28.84	7.500	2.51	10.58	0.63
1.417	0.63	4.500	28.84	7.583	2.51	10.67	0.63
1.500	0.63	4.583	28.84	7.667	2.51	10.75	0.63
1.583	0.63	4.667	28.84	7.750	2.51	10.83	0.63
1.667	0.63	4.750	28.84	7.833	2.51	10.92	0.63
1.750	0.63	4.833	28.84	7.917	2.51	11.00	0.63
1.833	0.63	4.917	28.84	8.000	2.51	11.08	0.63
1.917	0.63	5.000	28.84	8.083	2.51	11.17	0.63
2.000	0.63	5.083	28.84	8.167	2.51	11.25	0.63
2.083	0.63	5.167	28.84	8.250	2.51	11.33	0.63
2.167	0.63	5.250	28.84	8.333	1.25	11.42	0.63
2.250	0.63	5.333	8.15	8.417	1.25	11.50	0.63
2.333	3.76	5.417	8.15	8.500	1.25	11.58	0.63
2.417	3.76	5.500	8.15	8.583	1.25	11.67	0.63
2.500	3.76	5.583	8.15	8.667	1.25	11.75	0.63
2.583	3.76	5.667	8.15	8.750	1.25	11.83	0.63
2.667	3.76	5.750	8.15	8.833	1.25	11.92	0.63
2.750	3.76	5.833	8.15	8.917	1.25	12.00	0.63
2.833	3.76	5.917	8.15	9.000	1.25	12.08	0.63
2.917	3.76	6.000	8.15	9.083	1.25	12.17	0.63
3.000	3.76	6.083	8.15	9.167	1.25	12.25	0.63
3.083	3.76	6.167	8.15	9.250	1.25		

Max.Eff.Inten.(mm/hr)= 28.84 14.02
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 4.08 (ii) 5.93 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.24 0.15

TOTALS
 PEAK FLOW (cms)= 0.10 0.00 0.105 (iii)
 TIME TO PEAK (hrs)= 5.17 5.25 5.25
 RUNOFF VOLUME (mm)= 60.71 21.96 60.32
 TOTAL RAINFALL (mm)= 62.71 62.71 62.71
 RUNOFF COEFFICIENT = 0.97 0.35 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7829) | Area (ha)= 1.69
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.67 0.02
 Dep. Storage (mm)= 2.00 5.00

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.76	6.250	8.15	9.33	0.63
0.167	0.00	3.250	3.76	6.333	4.39	9.42	0.63
0.250	0.00	3.333	10.66	6.417	4.39	9.50	0.63
0.333	0.63	3.417	10.66	6.500	4.39	9.58	0.63
0.417	0.63	3.500	10.66	6.583	4.39	9.67	0.63
0.500	0.63	3.583	10.66	6.667	4.39	9.75	0.63
0.583	0.63	3.667	10.66	6.750	4.39	9.83	0.63
0.667	0.63	3.750	10.66	6.833	4.39	9.92	0.63
0.750	0.63	3.833	10.66	6.917	4.39	10.00	0.63
0.833	0.63	3.917	10.66	7.000	4.39	10.08	0.63
0.917	0.63	4.000	10.66	7.083	4.39	10.17	0.63
1.000	0.63	4.083	10.66	7.167	4.39	10.25	0.63
1.083	0.63	4.167	10.66	7.250	4.39	10.33	0.63
1.167	0.63	4.250	10.66	7.333	2.51	10.42	0.63
1.250	0.63	4.333	28.84	7.417	2.51	10.50	0.63
1.333	0.63	4.417	28.84	7.500	2.51	10.58	0.63
1.417	0.63	4.500	28.84	7.583	2.51	10.67	0.63
1.500	0.63	4.583	28.84	7.667	2.51	10.75	0.63
1.583	0.63	4.667	28.84	7.750	2.51	10.83	0.63
1.667	0.63	4.750	28.84	7.833	2.51	10.92	0.63
1.750	0.63	4.833	28.84	7.917	2.51	11.00	0.63
1.833	0.63	4.917	28.84	8.000	2.51	11.08	0.63
1.917	0.63	5.000	28.84	8.083	2.51	11.17	0.63
2.000	0.63	5.083	28.84	8.167	2.51	11.25	0.63
2.083	0.63	5.167	28.84	8.250	2.51	11.33	0.63
2.167	0.63	5.250	28.84	8.333	1.25	11.42	0.63
2.250	0.63	5.333	8.15	8.417	1.25	11.50	0.63
2.333	3.76	5.417	8.15	8.500	1.25	11.58	0.63
2.417	3.76	5.500	8.15	8.583	1.25	11.67	0.63
2.500	3.76	5.583	8.15	8.667	1.25	11.75	0.63
2.583	3.76	5.667	8.15	8.750	1.25	11.83	0.63
2.667	3.76	5.750	8.15	8.833	1.25	11.92	0.63
2.750	3.76	5.833	8.15	8.917	1.25	12.00	0.63
2.833	3.76	5.917	8.15	9.000	1.25	12.08	0.63
2.917	3.76	6.000	8.15	9.083	1.25	12.17	0.63
3.000	3.76	6.083	8.15	9.167	1.25	12.25	0.63
3.083	3.76	6.167	8.15	9.250	1.25		

Max.Eff.Inten.(mm/hr)= 28.84 14.02
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 4.08 (ii) 5.93 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.24 0.15

TOTALS
 PEAK FLOW (cms)= 0.13 0.00 0.135 (iii)
 TIME TO PEAK (hrs)= 5.17 5.25 5.25
 RUNOFF VOLUME (mm)= 60.71 21.96 60.32
 TOTAL RAINFALL (mm)= 62.71 62.71 62.71
 RUNOFF COEFFICIENT = 0.97 0.35 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7839) | Area (ha)= 1.61
 | ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.48 0.13



Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 145.00
 Mannings n = 0.013 0.250

+ ID2= 2 (7829): 1.69 0.135 5.25 60.32
 ID = 3 (7842): 3.01 0.240 5.25 60.32

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7842) |
| 3 + 2 = 1 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 3 ( 7842): 3.01 0.240 5.25 60.32
+ ID2= 2 ( 7839): 1.61 0.121 5.25 57.59
-----
ID = 1 ( 7842): 4.62 0.361 5.25 59.37
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7830) | Area (ha)= 1.20
| ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00
-----
IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 1.14 0.06
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.50 2.00
Length (m)= 60.00 40.00
Mannings n = 0.013 0.250
  
```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.76	6.250	8.15
0.167	0.00	3.250	3.76	6.333	4.39
0.250	0.00	3.333	10.66	6.417	4.39
0.333	0.63	3.417	10.66	6.500	4.39
0.417	0.63	3.500	10.66	6.583	4.39
0.500	0.63	3.583	10.66	6.667	4.39
0.583	0.63	3.667	10.66	6.750	4.39
0.667	0.63	3.750	10.66	6.833	4.39
0.750	0.63	3.833	10.66	6.917	4.39
0.833	0.63	3.917	10.66	7.000	4.39
0.917	0.63	4.000	10.66	7.083	4.39
1.000	0.63	4.083	10.66	7.167	4.39
1.083	0.63	4.167	10.66	7.250	4.39
1.167	0.63	4.250	10.66	7.333	2.51
1.250	0.63	4.333	28.84	7.417	2.51
1.333	0.63	4.417	28.84	7.500	2.51
1.417	0.63	4.500	28.84	7.583	2.51
1.500	0.63	4.583	28.84	7.667	2.51
1.583	0.63	4.667	28.84	7.750	2.51
1.667	0.63	4.750	28.84	7.833	2.51
1.750	0.63	4.833	28.84	7.917	2.51
1.833	0.63	4.917	28.84	8.000	2.51
1.917	0.63	5.000	28.84	8.083	2.51
2.000	0.63	5.083	28.84	8.167	2.51
2.083	0.63	5.167	28.84	8.250	2.51
2.167	0.63	5.250	28.84	8.333	1.25
2.250	0.63	5.333	8.15	8.417	1.25
2.333	3.76	5.417	8.15	8.500	1.25
2.417	3.76	5.500	8.15	8.583	1.25
2.500	3.76	5.583	8.15	8.667	1.25
2.583	3.76	5.667	8.15	8.750	1.25
2.667	3.76	5.750	8.15	8.833	1.25
2.750	3.76	5.833	8.15	8.917	1.25
2.833	3.76	5.917	8.15	9.000	1.25
2.917	3.76	6.000	8.15	9.083	1.25
3.000	3.76	6.083	8.15	9.167	1.25
3.083	3.76	6.167	8.15	9.250	1.25

Max.Eff.Inten.(mm/hr)= 28.84 12.15
 over (min) = 5.00 40.00
 Storage Coeff. (min)= 4.08 (ii) 39.60 (ii)
 Unit Hyd. Tpeak (min)= 5.00 40.00
 Unit Hyd. peak (cms)= 0.24 0.03

TOTALS
 PEAK FLOW (cms)= 0.12 0.00 0.121 (iii)
 TIME TO PEAK (hrs)= 5.17 5.67 5.25
 RUNOFF VOLUME (mm)= 60.71 21.96 57.59
 TOTAL RAINFALL (mm)= 62.71 62.71 62.71
 RUNOFF COEFFICIENT = 0.97 0.35 0.92

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| ADD HYD ( 7842) |
| 1 + 2 = 3 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7819): 1.32 0.105 5.25 60.32
  
```

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.76	6.250	8.15
0.167	0.00	3.250	3.76	6.333	4.39
0.250	0.00	3.333	10.66	6.417	4.39
0.333	0.63	3.417	10.66	6.500	4.39
0.417	0.63	3.500	10.66	6.583	4.39
0.500	0.63	3.583	10.66	6.667	4.39
0.583	0.63	3.667	10.66	6.750	4.39
0.667	0.63	3.750	10.66	6.833	4.39
0.750	0.63	3.833	10.66	6.917	4.39
0.833	0.63	3.917	10.66	7.000	4.39
0.917	0.63	4.000	10.66	7.083	4.39
1.000	0.63	4.083	10.66	7.167	4.39
1.083	0.63	4.167	10.66	7.250	4.39
1.167	0.63	4.250	10.66	7.333	2.51
1.250	0.63	4.333	28.84	7.417	2.51
1.333	0.63	4.417	28.84	7.500	2.51
1.417	0.63	4.500	28.84	7.583	2.51
1.500	0.63	4.583	28.84	7.667	2.51
1.583	0.63	4.667	28.84	7.750	2.51
1.667	0.63	4.750	28.84	7.833	2.51
1.750	0.63	4.833	28.84	7.917	2.51
1.833	0.63	4.917	28.84	8.000	2.51
1.917	0.63	5.000	28.84	8.083	2.51
2.000	0.63	5.083	28.84	8.167	2.51
2.083	0.63	5.167	28.84	8.250	2.51
2.167	0.63	5.250	28.84	8.333	1.25
2.250	0.63	5.333	8.15	8.417	1.25
2.333	3.76	5.417	8.15	8.500	1.25
2.417	3.76	5.500	8.15	8.583	1.25
2.500	3.76	5.583	8.15	8.667	1.25
2.583	3.76	5.667	8.15	8.750	1.25
2.667	3.76	5.750	8.15	8.833	1.25
2.750	3.76	5.833	8.15	8.917	1.25
2.833	3.76	5.917	8.15	9.000	1.25
2.917	3.76	6.000	8.15	9.083	1.25
3.000	3.76	6.083	8.15	9.167	1.25
3.083	3.76	6.167	8.15	9.250	1.25

Max.Eff.Inten.(mm/hr)= 28.84 14.45
 over (min) = 5.00 10.00



Storage Coeff. (min)=	2.35 (ii)	5.92 (ii)	
Unit Hyd. Tpeak (min)=	5.00	10.00	
Unit Hyd. peak (cms)=	0.30	0.15	
			**TOTALS*
PEAK FLOW (cms)=	0.09	0.00	0.094 (iii)
TIME TO PEAK (hrs)=	4.83	5.25	5.25
RUNOFF VOLUME (mm)=	60.71	22.66	58.81
TOTAL RAINFALL (mm)=	62.71	62.71	62.71
RUNOFF COEFFICIENT =	0.97	0.36	0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7804)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7805):	4.48	0.353	5.25	59.83
+ ID2= 2 (7810):	1.06	0.083	5.25	58.81
=====				
ID = 3 (7804):	5.54	0.436	5.25	59.63

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7804)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7804):	5.54	0.436	5.25	59.63
+ ID2= 2 (7824):	14.31	0.332	5.25	61.30
=====				
ID = 1 (7804):	19.85	0.768	5.25	60.84

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7804)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7804):	19.85	0.768	5.25	60.84
+ ID2= 2 (7830):	1.20	0.094	5.25	58.81
=====				
ID = 3 (7804):	21.05	0.862	5.25	60.72

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7804)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7804):	21.05	0.862	5.25	60.72
+ ID2= 2 (7842):	4.62	0.361	5.25	59.37
=====				
ID = 1 (7804):	25.67	1.223	5.25	60.48

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7833)				
OVERFLOW IS OFF				
IN= 2--> OUT= 1				
DT= 5.0 min				
	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.6280	2.3980
	0.0730	0.2080	0.6400	2.4830
	0.0890	0.2770	0.6520	2.5670
	0.1340	0.5530	0.6640	2.6500

0.2910	0.8290	0.6750	2.7340
0.3860	1.1060	0.7190	3.0490
0.4590	1.3820	0.8250	3.3550
0.5220	1.7210	2.0760	3.4560
0.5780	2.0600	2.3560	3.7320

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7804)	25.670	1.223	5.25	60.48
OUTFLOW: ID= 1 (7833)	25.670	0.274	9.25	60.45

PEAK FLOW REDUCTION [Qout/Qin] (%) = 22.44
 TIME SHIFT OF PEAK FLOW (min) = 240.00
 MAXIMUM STORAGE USED (ha.m.) = 0.7998

CALIB			
STANDHYD (7821)			
ID= 1 DT= 5.0 min			
	Area	(ha) =	0.19
	Total Imp (%) =	95.00	Dir. Conn. (%) = 95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha) =	0.18	0.01
Dep. Storage (mm) =	2.00	5.00
Average Slope (%) =	2.50	2.00
Length (m) =	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	3.76	6.250	8.15	9.33	0.63		
0.167	0.00	3.250	3.76	6.333	4.39	9.42	0.63		
0.250	0.00	3.333	10.66	6.417	4.39	9.50	0.63		
0.333	0.63	3.417	10.66	6.500	4.39	9.58	0.63		
0.417	0.63	3.500	10.66	6.583	4.39	9.67	0.63		
0.500	0.63	3.583	10.66	6.667	4.39	9.75	0.63		
0.583	0.63	3.667	10.66	6.750	4.39	9.83	0.63		
0.667	0.63	3.750	10.66	6.833	4.39	9.92	0.63		
0.750	0.63	3.833	10.66	6.917	4.39	10.00	0.63		
0.833	0.63	3.917	10.66	7.000	4.39	10.08	0.63		
0.917	0.63	4.000	10.66	7.083	4.39	10.17	0.63		
1.000	0.63	4.083	10.66	7.167	4.39	10.25	0.63		
1.083	0.63	4.167	10.66	7.250	4.39	10.33	0.63		
1.167	0.63	4.250	10.66	7.333	2.51	10.42	0.63		
1.250	0.63	4.333	28.84	7.417	2.51	10.50	0.63		
1.333	0.63	4.417	28.84	7.500	2.51	10.58	0.63		
1.417	0.63	4.500	28.84	7.583	2.51	10.67	0.63		
1.500	0.63	4.583	28.84	7.667	2.51	10.75	0.63		
1.583	0.63	4.667	28.84	7.750	2.51	10.83	0.63		
1.667	0.63	4.750	28.84	7.833	2.51	10.92	0.63		
1.750	0.63	4.833	28.84	7.917	2.51	11.00	0.63		
1.833	0.63	4.917	28.84	8.000	2.51	11.08	0.63		
1.917	0.63	5.000	28.84	8.083	2.51	11.17	0.63		
2.000	0.63	5.083	28.84	8.167	2.51	11.25	0.63		
2.083	0.63	5.167	28.84	8.250	2.51	11.33	0.63		
2.167	0.63	5.250	28.84	8.333	1.25	11.42	0.63		
2.250	0.63	5.333	8.15	8.417	1.25	11.50	0.63		
2.333	3.76	5.417	8.15	8.500	1.25	11.58	0.63		
2.417	3.76	5.500	8.15	8.583	1.25	11.67	0.63		
2.500	3.76	5.583	8.15	8.667	1.25	11.75	0.63		
2.583	3.76	5.667	8.15	8.750	1.25	11.83	0.63		
2.667	3.76	5.750	8.15	8.833	1.25	11.92	0.63		
2.750	3.76	5.833	8.15	8.917	1.25	12.00	0.63		
2.833	3.76	5.917	8.15	9.000	1.25	12.08	0.63		
2.917	3.76	6.000	8.15	9.083	1.25	12.17	0.63		
3.000	3.76	6.083	8.15	9.167	1.25	12.25	0.63		
3.083	3.76	6.167	8.15	9.250	1.25				

Max. Eff. Inten. (mm/hr) = 28.84 14.45
 over (min) = 5.00 10.00
 Storage Coeff. (min) = 2.35 (ii) 5.92 (ii)
 Unit Hyd. Tpeak (min) = 5.00 10.00

```

Unit Hyd. peak (cms)= 0.30 0.15
PEAK FLOW (cms)= 0.01 0.00
TIME TO PEAK (hrs)= 4.83 5.25
RUNOFF VOLUME (mm)= 60.71 22.66
TOTAL RAINFALL (mm)= 62.71 62.71
RUNOFF COEFFICIENT = 0.97 0.36
  
```

```

*TOTALS*
0.015 (iii)
5.25
58.80
62.71
0.94
  
```

- ***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
 - (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
 - (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| RESERVOIR ( 7825) | OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT= 5.0 min |
-----
| OUTFLOW | STORAGE | OUTFLOW | STORAGE
| (cms) | (ha.m.) | (cms) | (ha.m.)
|-----|-----|-----|-----|
| 0.0000 | 0.0000 | 0.0100 | 0.0090
| 0.0030 | 0.0010 | 0.0110 | 0.0100
| 0.0050 | 0.0030 | 0.0120 | 0.0110
| 0.0060 | 0.0040 | 0.0120 | 0.0130
| 0.0080 | 0.0050 | 0.0130 | 0.0140
| 0.0090 | 0.0060 | 0.0140 | 0.0150
| 0.0090 | 0.0080 | 0.0000 | 0.0000
|-----|-----|-----|-----|
| AREA | QPEAK | TPEAK | R.V.
| (ha) | (cms) | (hrs) | (mm)
|-----|-----|-----|-----|
| INFLOW : ID= 2 ( 7821) | 0.190 | 0.015 | 5.25 | 58.80
| OUTFLOW: ID= 1 ( 7825) | 0.190 | 0.007 | 5.33 | 58.38
  
```

```

PEAK FLOW REDUCTION [Qout/Qin] (%) = 49.93
TIME SHIFT OF PEAK FLOW (min) = 5.00
MAXIMUM STORAGE USED (ha.m.) = 0.0047
  
```

```

-----
| CALIB |
| STANDHYD ( 7836) |
| ID= 1 DT= 5.0 min |
-----
| Area (ha) = 0.20
| Total Imp (%) = 95.00 Dir. Conn. (%) = 95.00
-----
| IMPERVIOUS | PERVIOUS (i)
|-----|-----|
| Surface Area (ha) = 0.19 | 0.01
| Dep. Storage (mm) = 2.00 | 5.00
| Average Slope (%) = 2.50 | 2.00
| Length (m) = 36.51 | 40.00
| Mannings n = 0.013 | 0.250
  
```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | ' hrs mm/hr | hrs mm/hr
0.083 0.00 | 3.167 3.76 | 6.250 8.15 | 9.33 0.63
0.167 0.00 | 3.250 3.76 | 6.333 4.39 | 9.42 0.63
0.250 0.00 | 3.333 10.66 | 6.417 4.39 | 9.50 0.63
0.333 0.63 | 3.417 10.66 | 6.500 4.39 | 9.58 0.63
0.417 0.63 | 3.500 10.66 | 6.583 4.39 | 9.67 0.63
0.500 0.63 | 3.583 10.66 | 6.667 4.39 | 9.75 0.63
0.583 0.63 | 3.667 10.66 | 6.750 4.39 | 9.83 0.63
0.667 0.63 | 3.750 10.66 | 6.833 4.39 | 9.92 0.63
0.750 0.63 | 3.833 10.66 | 6.917 4.39 | 10.00 0.63
0.833 0.63 | 3.917 10.66 | 7.000 4.39 | 10.08 0.63
0.917 0.63 | 4.000 10.66 | 7.083 4.39 | 10.17 0.63
1.000 0.63 | 4.083 10.66 | 7.167 4.39 | 10.25 0.63
1.083 0.63 | 4.167 10.66 | 7.250 4.39 | 10.33 0.63
1.167 0.63 | 4.250 10.66 | 7.333 2.51 | 10.42 0.63
1.250 0.63 | 4.333 28.84 | 7.417 2.51 | 10.50 0.63
1.333 0.63 | 4.417 28.84 | 7.500 2.51 | 10.58 0.63
1.417 0.63 | 4.500 28.84 | 7.583 2.51 | 10.67 0.63
1.500 0.63 | 4.583 28.84 | 7.667 2.51 | 10.75 0.63
  
```

```

1.583 0.63 | 4.667 28.84 | 7.750 2.51 | 10.83 0.63
1.667 0.63 | 4.750 28.84 | 7.833 2.51 | 10.92 0.63
1.750 0.63 | 4.833 28.84 | 7.917 2.51 | 11.00 0.63
1.833 0.63 | 4.917 28.84 | 8.000 2.51 | 11.08 0.63
1.917 0.63 | 5.000 28.84 | 8.083 2.51 | 11.17 0.63
2.000 0.63 | 5.083 28.84 | 8.167 2.51 | 11.25 0.63
2.083 0.63 | 5.167 28.84 | 8.250 2.51 | 11.33 0.63
2.167 0.63 | 5.250 28.84 | 8.333 1.25 | 11.42 0.63
2.250 0.63 | 5.333 8.15 | 8.417 1.25 | 11.50 0.63
2.333 3.76 | 5.417 8.15 | 8.500 1.25 | 11.58 0.63
2.417 3.76 | 5.500 8.15 | 8.583 1.25 | 11.67 0.63
2.500 3.76 | 5.583 8.15 | 8.667 1.25 | 11.75 0.63
2.583 3.76 | 5.667 8.15 | 8.750 1.25 | 11.83 0.63
2.667 3.76 | 5.750 8.15 | 8.833 1.25 | 11.92 0.63
2.750 3.76 | 5.833 8.15 | 8.917 1.25 | 12.00 0.63
2.833 3.76 | 5.917 8.15 | 9.000 1.25 | 12.08 0.63
2.917 3.76 | 6.000 8.15 | 9.083 1.25 | 12.17 0.63
3.000 3.76 | 6.083 8.15 | 9.167 1.25 | 12.25 0.63
3.083 3.76 | 6.167 8.15 | 9.250 1.25 |
  
```

```

Max.Eff.Inten.(mm/hr)= 28.84 14.45
over (min) = 5.00 10.00
Storage Coeff. (min)= 1.74 (ii) 5.32 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.32 0.16
  
```

```

*TOTALS*
PEAK FLOW (cms) = 0.02 0.00
TIME TO PEAK (hrs) = 4.83 5.25
RUNOFF VOLUME (mm) = 60.71 22.66
TOTAL RAINFALL (mm) = 62.71 62.71
RUNOFF COEFFICIENT = 0.97 0.36
  
```

- ***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
 - (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
 - (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| RESERVOIR ( 7807) | OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT= 5.0 min |
-----
| OUTFLOW | STORAGE | OUTFLOW | STORAGE
| (cms) | (ha.m.) | (cms) | (ha.m.)
|-----|-----|-----|-----|
| 0.0000 | 0.0000 | 0.0100 | 0.0090
| 0.0030 | 0.0010 | 0.0110 | 0.0100
| 0.0050 | 0.0030 | 0.0120 | 0.0110
| 0.0060 | 0.0040 | 0.0120 | 0.0130
| 0.0080 | 0.0050 | 0.0130 | 0.0140
| 0.0090 | 0.0060 | 0.0140 | 0.0150
| 0.0090 | 0.0080 | 0.0000 | 0.0000
|-----|-----|-----|-----|
| AREA | QPEAK | TPEAK | R.V.
| (ha) | (cms) | (hrs) | (mm)
|-----|-----|-----|-----|
| INFLOW : ID= 2 ( 7836) | 0.200 | 0.016 | 5.25 | 58.80
| OUTFLOW: ID= 1 ( 7807) | 0.200 | 0.008 | 5.33 | 58.41
  
```

```

PEAK FLOW REDUCTION [Qout/Qin] (%) = 50.92
TIME SHIFT OF PEAK FLOW (min) = 5.00
MAXIMUM STORAGE USED (ha.m.) = 0.0050
  
```

```

-----
| ADD HYD ( 7831) |
| 1 + 2 = 3 |
-----
| AREA | QPEAK | TPEAK | R.V.
| (ha) | (cms) | (hrs) | (mm)
|-----|-----|-----|-----|
| ID1= 1 ( 7807): | 0.20 | 0.008 | 5.33 | 58.41
| + ID2= 2 ( 7825): | 0.19 | 0.007 | 5.33 | 58.38
|-----|-----|-----|-----|
| ID = 3 ( 7831): | 0.39 | 0.015 | 5.33 | 58.40
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7831) |
| 3 + 2 = 1 |
-----
| AREA QPEAK TPEAK R.V. |
| (ha) (cms) (hrs) (mm) |
ID1= 3 ( 7831): 0.39 0.015 5.33 58.40
+ ID2= 2 ( 7833): 25.67 0.274 9.25 60.45
-----
ID = 1 ( 7831): 26.06 0.281 8.75 60.42

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7826) | Area (ha)= 1.24
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
-----

```

```

-----
| IMPERVIOUS PERVIOUS (i) |
| (ha) (mm) (m) |
Surface Area (ha)= 1.23 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.00 2.00
Length (m)= 91.00 40.00
Mannings n = 0.013 0.250
-----

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

-----
| TRANSFORMED HYETOGRAPH |
| TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN |
| hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr |
0.083 0.00 | 3.167 3.76 | 6.250 8.15 | 9.33 0.63
0.167 0.00 | 3.250 3.76 | 6.333 4.39 | 9.42 0.63
0.250 0.00 | 3.333 10.66 | 6.417 4.39 | 9.50 0.63
0.333 0.63 | 3.417 10.66 | 6.500 4.39 | 9.58 0.63
0.417 0.63 | 3.500 10.66 | 6.583 4.39 | 9.67 0.63
0.500 0.63 | 3.583 10.66 | 6.667 4.39 | 9.75 0.63
0.583 0.63 | 3.667 10.66 | 6.750 4.39 | 9.83 0.63
0.667 0.63 | 3.750 10.66 | 6.833 4.39 | 9.92 0.63
0.750 0.63 | 3.833 10.66 | 6.917 4.39 | 10.00 0.63
0.833 0.63 | 3.917 10.66 | 7.000 4.39 | 10.08 0.63
0.917 0.63 | 4.000 10.66 | 7.083 4.39 | 10.17 0.63
1.000 0.63 | 4.083 10.66 | 7.167 4.39 | 10.25 0.63
1.083 0.63 | 4.167 10.66 | 7.250 4.39 | 10.33 0.63
1.167 0.63 | 4.250 10.66 | 7.333 2.51 | 10.42 0.63
1.250 0.63 | 4.333 28.84 | 7.417 2.51 | 10.50 0.63
1.333 0.63 | 4.417 28.84 | 7.500 2.51 | 10.58 0.63
1.417 0.63 | 4.500 28.84 | 7.583 2.51 | 10.67 0.63
1.500 0.63 | 4.583 28.84 | 7.667 2.51 | 10.75 0.63
1.583 0.63 | 4.667 28.84 | 7.750 2.51 | 10.83 0.63
1.667 0.63 | 4.750 28.84 | 7.833 2.51 | 10.92 0.63
1.750 0.63 | 4.833 28.84 | 7.917 2.51 | 11.00 0.63
1.833 0.63 | 4.917 28.84 | 8.000 2.51 | 11.08 0.63
1.917 0.63 | 5.000 28.84 | 8.083 2.51 | 11.17 0.63
2.000 0.63 | 5.083 28.84 | 8.167 2.51 | 11.25 0.63
2.083 0.63 | 5.167 28.84 | 8.250 2.51 | 11.33 0.63
2.167 0.63 | 5.250 28.84 | 8.333 1.25 | 11.42 0.63
2.250 0.63 | 5.333 8.15 | 8.417 1.25 | 11.50 0.63
2.333 3.76 | 5.417 8.15 | 8.500 1.25 | 11.58 0.63
2.417 3.76 | 5.500 8.15 | 8.583 1.25 | 11.67 0.63
2.500 3.76 | 5.583 8.15 | 8.667 1.25 | 11.75 0.63
2.583 3.76 | 5.667 8.15 | 8.750 1.25 | 11.83 0.63
2.667 3.76 | 5.750 8.15 | 8.833 1.25 | 11.92 0.63
2.750 3.76 | 5.833 8.15 | 8.917 1.25 | 12.00 0.63
2.833 3.76 | 5.917 8.15 | 9.000 1.25 | 12.08 0.63
2.917 3.76 | 6.000 8.15 | 9.083 1.25 | 12.17 0.63
3.000 3.76 | 6.083 8.15 | 9.167 1.25 | 12.25 0.63
3.083 3.76 | 6.167 8.15 | 9.250 1.25 |
-----

```

```

Max.Eff.Inten.(mm/hr)= 28.84 14.02
over (min) 5.00 10.00
Storage Coeff. (min)= 3.22 (ii) 5.07 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.27 0.16
-----

```

```

*TOTALS*
PEAK FLOW (cms)= 0.10 0.00 0.099 (iii)
TIME TO PEAK (hrs)= 5.08 5.25 5.25
-----

```

```

RUNOFF VOLUME (mm)= 60.71 21.96 60.32
TOTAL RAINFALL (mm)= 62.71 62.71 62.71
RUNOFF COEFFICIENT = 0.97 0.35 0.96
-----

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| ADD HYD ( 7815) |
| 1 + 2 = 3 |
-----
| AREA QPEAK TPEAK R.V. |
| (ha) (cms) (hrs) (mm) |
ID1= 1 ( 7826): 1.24 0.099 5.25 60.32
+ ID2= 2 ( 7831): 26.06 0.281 8.75 60.42
-----
ID = 3 ( 7815): 27.30 0.288 8.25 60.41
-----

```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| RESERVOIR( 7841) | OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT= 5.0 min |
-----
| OUTFLOW STORAGE | OUTFLOW STORAGE |
| (cms) (ha.m.) | (cms) (ha.m.) |
0.0000 0.0000 | 1.0810 1.6220
0.0010 0.1670 | 1.3950 1.8170
0.0340 0.3380 | 2.0990 2.2130
0.0510 0.5110 | 2.8950 2.6150
0.0630 0.6880 | 3.7730 3.0250
0.1610 0.8670 | 4.7260 3.4420
0.3300 1.0500 | 5.5670 3.8670
0.5440 1.2370 | 6.5800 4.3000
0.7970 1.4290 | 10.9450 4.5210
-----

```

```

-----
| AREA QPEAK TPEAK R.V. |
| (ha) (cms) (hrs) (mm) |
INFLOW : ID= 2 ( 7815) 27.302 0.288 8.25 60.41
OUTFLOW: ID= 1 ( 7841) 27.302 0.135 16.50 55.02
-----

```

PEAK FLOW REDUCTION [Qout/Qin] (%) = 47.01
TIME SHIFT OF PEAK FLOW (min) = 495.00
MAXIMUM STORAGE USED (ha.m.) = 0.8204



```

=====
*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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```

***** DETAILED OUTPUT *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat
Output filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\c475e159-6120-429c-ba36-36ff7beb02b0\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\c475e159-6120-429c-ba36-36ff7beb02b0\scen

```

DATE: 11-22-2024 TIME: 01:45:34

USER:

COMMENTS: _____

```

*****
** SIMULATION : J 25 Year 12 Hour AES (Bloor, **
*****

```

```

-----
| READ STORM | Filename: C:\Users\mhooper\AppData
| | | ata\Local\Temp\
| | | bac52abb-b775-4ad0-a17a-4b6fd89712ba\69e6cc5d
| Ptotal= 73.10 mm | Comments: 25 Year 12 Hour AES (Bloor, TRCA)
-----

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	3.25	12.43	6.50	5.12	9.75	0.73
0.25	0.73	3.50	12.43	6.75	5.12	10.00	0.73
0.50	0.73	3.75	12.43	7.00	5.12	10.25	0.73
0.75	0.73	4.00	12.43	7.25	2.92	10.50	0.73
1.00	0.73	4.25	33.63	7.50	2.92	10.75	0.73
1.25	0.73	4.50	33.63	7.75	2.92	11.00	0.73
1.50	0.73	4.75	33.63	8.00	2.92	11.25	0.73
1.75	0.73	5.00	33.63	8.25	1.46	11.50	0.73
2.00	0.73	5.25	9.50	8.50	1.46	11.75	0.73
2.25	4.39	5.50	9.50	8.75	1.46	12.00	0.73
2.50	4.39	5.75	9.50	9.00	1.46		
2.75	4.39	6.00	9.50	9.25	0.73		
3.00	4.39	6.25	5.12	9.50	0.73		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

-----
| CALIB |
| NASHYD ( 7823) | Area (ha)= 0.21 Curve Number (CN)= 73.0
| ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res. (N)= 3.00
| | U.H. Tp(hrs)= 0.17
-----

```

```

----- TRANSFORMED HYETOGRAPH -----

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.39	6.250	9.50	9.33	0.73
0.167	0.00	3.250	4.39	6.333	5.12	9.42	0.73
0.250	0.00	3.333	12.43	6.417	5.12	9.50	0.73
0.333	0.73	3.417	12.43	6.500	5.12	9.58	0.73
0.417	0.73	3.500	12.43	6.583	5.12	9.67	0.73
0.500	0.73	3.583	12.43	6.667	5.12	9.75	0.73
0.583	0.73	3.667	12.43	6.750	5.12	9.83	0.73
0.667	0.73	3.750	12.43	6.833	5.12	9.92	0.73
0.750	0.73	3.833	12.43	6.917	5.12	10.00	0.73
0.833	0.73	3.917	12.43	7.000	5.12	10.08	0.73
0.917	0.73	4.000	12.43	7.083	5.12	10.17	0.73
1.000	0.73	4.083	12.43	7.167	5.12	10.25	0.73
1.083	0.73	4.167	12.43	7.250	5.12	10.33	0.73
1.167	0.73	4.250	12.43	7.333	2.92	10.42	0.73
1.250	0.73	4.333	33.63	7.417	2.92	10.50	0.73
1.333	0.73	4.417	33.63	7.500	2.92	10.58	0.73
1.417	0.73	4.500	33.63	7.583	2.92	10.67	0.73
1.500	0.73	4.583	33.63	7.667	2.92	10.75	0.73
1.583	0.73	4.667	33.63	7.750	2.92	10.83	0.73
1.667	0.73	4.750	33.63	7.833	2.92	10.92	0.73
1.750	0.73	4.833	33.63	7.917	2.92	11.00	0.73
1.833	0.73	4.917	33.63	8.000	2.92	11.08	0.73
1.917	0.73	5.000	33.63	8.083	2.92	11.17	0.73
2.000	0.73	5.083	33.63	8.167	2.92	11.25	0.73
2.083	0.73	5.167	33.63	8.250	2.92	11.33	0.73
2.167	0.73	5.250	33.63	8.333	1.46	11.42	0.73
2.250	0.73	5.333	9.50	8.417	1.46	11.50	0.73
2.333	4.39	5.417	9.50	8.500	1.46	11.58	0.73
2.417	4.39	5.500	9.50	8.583	1.46	11.67	0.73
2.500	4.39	5.583	9.50	8.667	1.46	11.75	0.73
2.583	4.39	5.667	9.50	8.750	1.46	11.83	0.73
2.667	4.39	5.750	9.50	8.833	1.46	11.92	0.73
2.750	4.39	5.833	9.50	8.917	1.46	12.00	0.73
2.833	4.39	5.917	9.50	9.000	1.46	12.08	0.73
2.917	4.39	6.000	9.50	9.083	1.46	12.17	0.73
3.000	4.39	6.083	9.50	9.167	1.46	12.25	0.73
3.083	4.39	6.167	9.50	9.250	1.46		

Unit Hyd Qpeak (cms) = 0.047

```

PEAK FLOW (cms) = 0.010 (i)
TIME TO PEAK (hrs) = 5.250
RUNOFF VOLUME (mm) = 28.515
TOTAL RAINFALL (mm) = 73.100
RUNOFF COEFFICIENT = 0.390

```

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

-----
| CALIB |
| STANDHYD ( 7828) | Area (ha) = 10.90
| ID= 1 DT= 5.0 min | Total Imp (%) = 99.00 Dir. Conn. (%) = 99.00
-----

```

```

IMPERVIOUS PERVIOUS (i)
Surface Area (ha) = 10.79 0.11
Dep. Storage (mm) = 2.00 5.00
Average Slope (%) = 1.00 2.00
Length (m) = 269.57 40.00
Mannings n = 0.013 0.250

```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.39	6.250	9.50	9.33	0.73
0.167	0.00	3.250	4.39	6.333	5.12	9.42	0.73
0.250	0.00	3.333	12.43	6.417	5.12	9.50	0.73
0.333	0.73	3.417	12.43	6.500	5.12	9.58	0.73
0.417	0.73	3.500	12.43	6.583	5.12	9.67	0.73



0.500	0.73	3.583	12.43	6.667	5.12	9.75	0.73
0.583	0.73	3.667	12.43	6.750	5.12	9.83	0.73
0.667	0.73	3.750	12.43	6.833	5.12	9.92	0.73
0.750	0.73	3.833	12.43	6.917	5.12	10.00	0.73
0.833	0.73	3.917	12.43	7.000	5.12	10.08	0.73
0.917	0.73	4.000	12.43	7.083	5.12	10.17	0.73
1.000	0.73	4.083	12.43	7.167	5.12	10.25	0.73
1.083	0.73	4.167	12.43	7.250	5.12	10.33	0.73
1.167	0.73	4.250	12.43	7.333	2.92	10.42	0.73
1.250	0.73	4.333	33.63	7.417	2.92	10.50	0.73
1.333	0.73	4.417	33.63	7.500	2.92	10.58	0.73
1.417	0.73	4.500	33.63	7.583	2.92	10.67	0.73
1.500	0.73	4.583	33.63	7.667	2.92	10.75	0.73
1.583	0.73	4.667	33.63	7.750	2.92	10.83	0.73
1.667	0.73	4.750	33.63	7.833	2.92	10.92	0.73
1.750	0.73	4.833	33.63	7.917	2.92	11.00	0.73
1.833	0.73	4.917	33.63	8.000	2.92	11.08	0.73
1.917	0.73	5.000	33.63	8.083	2.92	11.17	0.73
2.000	0.73	5.083	33.63	8.167	2.92	11.25	0.73
2.083	0.73	5.167	33.63	8.250	2.92	11.33	0.73
2.167	0.73	5.250	33.63	8.333	1.46	11.42	0.73
2.250	0.73	5.333	9.50	8.417	1.46	11.50	0.73
2.333	4.39	5.417	9.50	8.500	1.46	11.58	0.73
2.417	4.39	5.500	9.50	8.583	1.46	11.67	0.73
2.500	4.39	5.583	9.50	8.667	1.46	11.75	0.73
2.583	4.39	5.667	9.50	8.750	1.46	11.83	0.73
2.667	4.39	5.750	9.50	8.833	1.46	11.92	0.73
2.750	4.39	5.833	9.50	8.917	1.46	12.00	0.73
2.833	4.39	5.917	9.50	9.000	1.46	12.08	0.73
2.917	4.39	6.000	9.50	9.083	1.46	12.17	0.73
3.000	4.39	6.083	9.50	9.167	1.46	12.25	0.73
3.083	4.39	6.167	9.50	9.250	1.46		

Max.Eff.Inten.(mm/hr)= 33.63 18.05
 over (min) 5.00 10.00
 Storage Coeff. (min)= 7.16 (ii) 8.90 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.17 0.12

TOTALS
 PEAK FLOW (cms)= 1.01 0.01 1.013 (iii)
 TIME TO PEAK (hrs)= 5.25 5.25
 RUNOFF VOLUME (mm)= 71.10 28.62 70.67
 TOTAL RAINFALL (mm)= 73.10 73.10 73.10
 RUNOFF COEFFICIENT = 0.97 0.39 0.97

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7837)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7823):	0.21	0.010	5.25	28.52
+ ID2= 2 (7828):	10.90	1.013	5.25	70.67
ID = 3 (7837):	11.11	1.023	5.25	69.89

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7818)	OUTFLOW	STORAGE	OUTFLOW	STORAGE
IN= 2--> OUT= 1	(cms)	(ha.m.)	(cms)	(ha.m.)
DT= 5.0 min				
	0.0000	0.0000	0.1390	0.6960
	0.0590	0.3400	0.1630	0.7780
	0.0900	0.4907	0.1840	0.8800
	0.1110	0.5760	0.0000	0.0000
	AREA	QPEAK	TPEAK	R.V.

(ha) (cms) (hrs) (mm)
 INFLOW : ID= 2 (7837) 11.108 1.023 5.25 69.89
 OUTFLOW: ID= 1 (7818) 11.108 0.115 7.33 69.75

PEAK FLOW REDUCTION [Qout/Qin] (%) = 11.28
 TIME SHIFT OF PEAK FLOW (min)=125.00
 MAXIMUM STORAGE USED (ha.m.)= 0.5950

CMLIB
 STANDHYD (7820) Area (ha)= 11.38
 ID= 1 DT= 5.0 min Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 11.27 0.11
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 275.44 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.39	6.250	9.50	9.33	0.73
0.167	0.00	3.250	4.39	6.333	5.12	9.42	0.73
0.250	0.00	3.333	12.43	6.417	5.12	9.50	0.73
0.333	0.73	3.417	12.43	6.500	5.12	9.58	0.73
0.417	0.73	3.500	12.43	6.583	5.12	9.67	0.73
0.500	0.73	3.583	12.43	6.667	5.12	9.75	0.73
0.583	0.73	3.667	12.43	6.750	5.12	9.83	0.73
0.667	0.73	3.750	12.43	6.833	5.12	9.92	0.73
0.750	0.73	3.833	12.43	6.917	5.12	10.00	0.73
0.833	0.73	3.917	12.43	7.000	5.12	10.08	0.73
0.917	0.73	4.000	12.43	7.083	5.12	10.17	0.73
1.000	0.73	4.083	12.43	7.167	5.12	10.25	0.73
1.083	0.73	4.167	12.43	7.250	5.12	10.33	0.73
1.167	0.73	4.250	12.43	7.333	2.92	10.42	0.73
1.250	0.73	4.333	33.63	7.417	2.92	10.50	0.73
1.333	0.73	4.417	33.63	7.500	2.92	10.58	0.73
1.417	0.73	4.500	33.63	7.583	2.92	10.67	0.73
1.500	0.73	4.583	33.63	7.667	2.92	10.75	0.73
1.583	0.73	4.667	33.63	7.750	2.92	10.83	0.73
1.667	0.73	4.750	33.63	7.833	2.92	10.92	0.73
1.750	0.73	4.833	33.63	7.917	2.92	11.00	0.73
1.833	0.73	4.917	33.63	8.000	2.92	11.08	0.73
1.917	0.73	5.000	33.63	8.083	2.92	11.17	0.73
2.000	0.73	5.083	33.63	8.167	2.92	11.25	0.73
2.083	0.73	5.167	33.63	8.250	2.92	11.33	0.73
2.167	0.73	5.250	33.63	8.333	1.46	11.42	0.73
2.250	0.73	5.333	9.50	8.417	1.46	11.50	0.73
2.333	4.39	5.417	9.50	8.500	1.46	11.58	0.73
2.417	4.39	5.500	9.50	8.583	1.46	11.67	0.73
2.500	4.39	5.583	9.50	8.667	1.46	11.75	0.73
2.583	4.39	5.667	9.50	8.750	1.46	11.83	0.73
2.667	4.39	5.750	9.50	8.833	1.46	11.92	0.73
2.750	4.39	5.833	9.50	8.917	1.46	12.00	0.73
2.833	4.39	5.917	9.50	9.000	1.46	12.08	0.73
2.917	4.39	6.000	9.50	9.083	1.46	12.17	0.73
3.000	4.39	6.083	9.50	9.167	1.46	12.25	0.73
3.083	4.39	6.167	9.50	9.250	1.46		

Max.Eff.Inten.(mm/hr)= 33.63 18.05
 over (min) 5.00 10.00
 Storage Coeff. (min)= 7.26 (ii) 8.99 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.17 0.12

TOTALS
 PEAK FLOW (cms)= 1.05 0.01 1.058 (iii)
 TIME TO PEAK (hrs)= 5.25 5.25
 RUNOFF VOLUME (mm)= 71.10 28.62 70.67
 TOTAL RAINFALL (mm)= 73.10 73.10 73.10
 RUNOFF COEFFICIENT = 0.97 0.39 0.97

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7812) OVERFLOW IS OFF				
IN= 2--> OUT= 1				
DT= 5.0 min				
	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.1990	0.6950
	0.0830	0.3500	0.2320	0.8000
	0.1280	0.4850	0.2620	0.9000
	0.1580	0.5900	0.0000	0.0000
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 2 (7820)	11.380	1.058	5.25	70.67
OUTFLOW: ID= 1 (7812)	11.380	0.155	7.25	70.58
PEAK FLOW REDUCTION [Qout/Qin] (%) = 14.64				
TIME SHIFT OF PEAK FLOW (min)=120.00				
MAXIMUM STORAGE USED (ha.m.)= 0.5790				

ADD HYD (7802)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7812):	11.38	0.155	7.25	70.58
+ ID2= 2 (7818):	11.11	0.115	7.33	69.75
ID = 3 (7802):	22.49	0.270	7.33	70.17

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7834)			
ID= 1 DT= 5.0 min			
	Area	(ha)=	0.59
	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00
Surface Area	(ha)=	0.58	0.01
Dep. Storage	(mm)=	2.00	5.00
Average Slope	(%)=	2.00	2.00
Length	(m)=	62.72	40.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.39	6.250	9.50	9.33	0.73
0.167	0.00	3.250	4.39	6.333	5.12	9.42	0.73
0.250	0.00	3.333	12.43	6.417	5.12	9.50	0.73
0.333	0.73	3.417	12.43	6.500	5.12	9.58	0.73
0.417	0.73	3.500	12.43	6.583	5.12	9.67	0.73
0.500	0.73	3.583	12.43	6.667	5.12	9.75	0.73
0.583	0.73	3.667	12.43	6.750	5.12	9.83	0.73
0.667	0.73	3.750	12.43	6.833	5.12	9.92	0.73
0.750	0.73	3.833	12.43	6.917	5.12	10.00	0.73
0.833	0.73	3.917	12.43	7.000	5.12	10.08	0.73
0.917	0.73	4.000	12.43	7.083	5.12	10.17	0.73
1.000	0.73	4.083	12.43	7.167	5.12	10.25	0.73
1.083	0.73	4.167	12.43	7.250	5.12	10.33	0.73
1.167	0.73	4.250	12.43	7.333	2.92	10.42	0.73
1.250	0.73	4.333	33.63	7.417	2.92	10.50	0.73
1.333	0.73	4.417	33.63	7.500	2.92	10.58	0.73
1.417	0.73	4.500	33.63	7.583	2.92	10.67	0.73

1.500	0.73	4.583	33.63	7.667	2.92	10.75	0.73
1.583	0.73	4.667	33.63	7.750	2.92	10.83	0.73
1.667	0.73	4.750	33.63	7.833	2.92	10.92	0.73
1.750	0.73	4.833	33.63	7.917	2.92	11.00	0.73
1.833	0.73	4.917	33.63	8.000	2.92	11.08	0.73
1.917	0.73	5.000	33.63	8.083	2.92	11.17	0.73
2.000	0.73	5.083	33.63	8.167	2.92	11.25	0.73
2.083	0.73	5.167	33.63	8.250	2.92	11.33	0.73
2.167	0.73	5.250	33.63	8.333	1.46	11.42	0.73
2.250	0.73	5.333	9.50	8.417	1.46	11.50	0.73
2.333	4.39	5.417	9.50	8.500	1.46	11.58	0.73
2.417	4.39	5.500	9.50	8.583	1.46	11.67	0.73
2.500	4.39	5.583	9.50	8.667	1.46	11.75	0.73
2.583	4.39	5.667	9.50	8.750	1.46	11.83	0.73
2.667	4.39	5.750	9.50	8.833	1.46	11.92	0.73
2.750	4.39	5.833	9.50	8.917	1.46	12.00	0.73
2.833	4.39	5.917	9.50	9.000	1.46	12.08	0.73
2.917	4.39	6.000	9.50	9.083	1.46	12.17	0.73
3.000	4.39	6.083	9.50	9.167	1.46	12.25	0.73
3.083	4.39	6.167	9.50	9.250	1.46		

Max.Eff.Inten.(mm/hr)=	33.63	18.05
over (min)=	5.00	5.00
Storage Coeff. (min)=	2.43 (ii)	4.16 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.30	0.24
PEAK FLOW (cms)=	0.05	0.00
TIME TO PEAK (hrs)=	4.83	5.25
RUNOFF VOLUME (mm)=	71.10	28.62
TOTAL RAINFALL (mm)=	73.10	73.10
RUNOFF COEFFICIENT =	0.97	0.39

TOTALS

0.055 (iii)
5.25
70.67
73.10
0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7806)			
ID= 1 DT= 5.0 min			
	Area	(ha)=	2.37
	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00
Surface Area	(ha)=	2.35	0.02
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	1.00	2.00
Length	(m)=	20.00	20.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.39	6.250	9.50	9.33	0.73
0.167	0.00	3.250	4.39	6.333	5.12	9.42	0.73
0.250	0.00	3.333	12.43	6.417	5.12	9.50	0.73
0.333	0.73	3.417	12.43	6.500	5.12	9.58	0.73
0.417	0.73	3.500	12.43	6.583	5.12	9.67	0.73
0.500	0.73	3.583	12.43	6.667	5.12	9.75	0.73
0.583	0.73	3.667	12.43	6.750	5.12	9.83	0.73
0.667	0.73	3.750	12.43	6.833	5.12	9.92	0.73
0.750	0.73	3.833	12.43	6.917	5.12	10.00	0.73
0.833	0.73	3.917	12.43	7.000	5.12	10.08	0.73
0.917	0.73	4.000	12.43	7.083	5.12	10.17	0.73
1.000	0.73	4.083	12.43	7.167	5.12	10.25	0.73
1.083	0.73	4.167	12.43	7.250	5.12	10.33	0.73
1.167	0.73	4.250	12.43	7.333	2.92	10.42	0.73
1.250	0.73	4.333	33.63	7.417	2.92	10.50	0.73
1.333	0.73	4.417	33.63	7.500	2.92	10.58	0.73
1.417	0.73	4.417	33.63	7.500	2.92	10.58	0.73



1.417	0.73	4.500	33.63	7.583	2.92	10.67	0.73
1.500	0.73	4.583	33.63	7.667	2.92	10.75	0.73
1.583	0.73	4.667	33.63	7.750	2.92	10.83	0.73
1.667	0.73	4.750	33.63	7.833	2.92	10.92	0.73
1.750	0.73	4.833	33.63	7.917	2.92	11.00	0.73
1.833	0.73	4.917	33.63	8.000	2.92	11.08	0.73
1.917	0.73	5.000	33.63	8.083	2.92	11.17	0.73
2.000	0.73	5.083	33.63	8.167	2.92	11.25	0.73
2.083	0.73	5.167	33.63	8.250	2.92	11.33	0.73
2.167	0.73	5.250	33.63	8.333	1.46	11.42	0.73
2.250	0.73	5.333	9.50	8.417	1.46	11.50	0.73
2.333	4.39	5.417	9.50	8.500	1.46	11.58	0.73
2.417	4.39	5.500	9.50	8.583	1.46	11.67	0.73
2.500	4.39	5.583	9.50	8.667	1.46	11.75	0.73
2.583	4.39	5.667	9.50	8.750	1.46	11.83	0.73
2.667	4.39	5.750	9.50	8.833	1.46	11.92	0.73
2.750	4.39	5.833	9.50	8.917	1.46	12.00	0.73
2.833	4.39	5.917	9.50	9.000	1.46	12.08	0.73
2.917	4.39	6.000	9.50	9.083	1.46	12.17	0.73
3.000	4.39	6.083	9.50	9.167	1.46	12.25	0.73
3.083	4.39	6.167	9.50	9.250	1.46		

Max.Eff.Inten.(mm/hr)= 33.63 18.05
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 1.50 (ii) 2.65 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.29

PEAK FLOW (cms)= 0.22 0.00
 TIME TO PEAK (hrs)= 4.83 5.25
 RUNOFF VOLUME (mm)= 72.10 28.62
 TOTAL RAINFALL (mm)= 73.10 73.10
 RUNOFF COEFFICIENT = 0.99 0.39

TOTALS
 0.220 (iii)
 5.25
 71.67
 73.10
 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 CALIB
 STANDHYD (7811) Area (ha)= 2.40
 ID= 1 DT= 5.0 min Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

Surface Area	(ha)=	2.38	0.02
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	1.00	2.00
Length	(m)=	20.00	20.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.39	6.250	9.50	9.33	0.73
0.167	0.00	3.250	4.39	6.333	5.12	9.42	0.73
0.250	0.00	3.333	12.43	6.417	5.12	9.50	0.73
0.333	0.73	3.417	12.43	6.500	5.12	9.58	0.73
0.417	0.73	3.500	12.43	6.583	5.12	9.67	0.73
0.500	0.73	3.583	12.43	6.667	5.12	9.75	0.73
0.583	0.73	3.667	12.43	6.750	5.12	9.83	0.73
0.667	0.73	3.750	12.43	6.833	5.12	9.92	0.73
0.750	0.73	3.833	12.43	6.917	5.12	10.00	0.73
0.833	0.73	3.917	12.43	7.000	5.12	10.08	0.73
0.917	0.73	4.000	12.43	7.083	5.12	10.17	0.73
1.000	0.73	4.083	12.43	7.167	5.12	10.25	0.73
1.083	0.73	4.167	12.43	7.250	5.12	10.33	0.73
1.167	0.73	4.250	12.43	7.333	2.92	10.42	0.73
1.250	0.73	4.333	33.63	7.417	2.92	10.50	0.73

1.333	0.73	4.417	33.63	7.500	2.92	10.58	0.73
1.417	0.73	4.500	33.63	7.583	2.92	10.67	0.73
1.500	0.73	4.583	33.63	7.667	2.92	10.75	0.73
1.583	0.73	4.667	33.63	7.750	2.92	10.83	0.73
1.667	0.73	4.750	33.63	7.833	2.92	10.92	0.73
1.750	0.73	4.833	33.63	7.917	2.92	11.00	0.73
1.833	0.73	4.917	33.63	8.000	2.92	11.08	0.73
1.917	0.73	5.000	33.63	8.083	2.92	11.17	0.73
2.000	0.73	5.083	33.63	8.167	2.92	11.25	0.73
2.083	0.73	5.167	33.63	8.250	2.92	11.33	0.73
2.167	0.73	5.250	33.63	8.333	1.46	11.42	0.73
2.250	0.73	5.333	9.50	8.417	1.46	11.50	0.73
2.333	4.39	5.417	9.50	8.500	1.46	11.58	0.73
2.417	4.39	5.500	9.50	8.583	1.46	11.67	0.73
2.500	4.39	5.583	9.50	8.667	1.46	11.75	0.73
2.583	4.39	5.667	9.50	8.750	1.46	11.83	0.73
2.667	4.39	5.750	9.50	8.833	1.46	11.92	0.73
2.750	4.39	5.833	9.50	8.917	1.46	12.00	0.73
2.833	4.39	5.917	9.50	9.000	1.46	12.08	0.73
2.917	4.39	6.000	9.50	9.083	1.46	12.17	0.73
3.000	4.39	6.083	9.50	9.167	1.46	12.25	0.73
3.083	4.39	6.167	9.50	9.250	1.46		

Max.Eff.Inten.(mm/hr)= 33.63 18.05
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 1.50 (ii) 2.65 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.29

PEAK FLOW (cms)= 0.22 0.00
 TIME TO PEAK (hrs)= 4.83 5.25
 RUNOFF VOLUME (mm)= 72.10 28.62
 TOTAL RAINFALL (mm)= 73.10 73.10
 RUNOFF COEFFICIENT = 0.99 0.39

TOTALS
 0.223 (iii)
 5.25
 71.67
 73.10
 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 CALIB
 STANDHYD (7816) Area (ha)= 2.36
 ID= 1 DT= 5.0 min Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

Surface Area	(ha)=	2.34	0.02
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	1.00	2.00
Length	(m)=	20.00	20.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.39	6.250	9.50	9.33	0.73
0.167	0.00	3.250	4.39	6.333	5.12	9.42	0.73
0.250	0.00	3.333	12.43	6.417	5.12	9.50	0.73
0.333	0.73	3.417	12.43	6.500	5.12	9.58	0.73
0.417	0.73	3.500	12.43	6.583	5.12	9.67	0.73
0.500	0.73	3.583	12.43	6.667	5.12	9.75	0.73
0.583	0.73	3.667	12.43	6.750	5.12	9.83	0.73
0.667	0.73	3.750	12.43	6.833	5.12	9.92	0.73
0.750	0.73	3.833	12.43	6.917	5.12	10.00	0.73
0.833	0.73	3.917	12.43	7.000	5.12	10.08	0.73
0.917	0.73	4.000	12.43	7.083	5.12	10.17	0.73
1.000	0.73	4.083	12.43	7.167	5.12	10.25	0.73
1.083	0.73	4.167	12.43	7.250	5.12	10.33	0.73
1.167	0.73	4.250	12.43	7.333	2.92	10.42	0.73

1.250	0.73	4.333	33.63	7.417	2.92	10.50	0.73
1.333	0.73	4.417	33.63	7.500	2.92	10.58	0.73
1.417	0.73	4.500	33.63	7.583	2.92	10.67	0.73
1.500	0.73	4.583	33.63	7.667	2.92	10.75	0.73
1.583	0.73	4.667	33.63	7.750	2.92	10.83	0.73
1.667	0.73	4.750	33.63	7.833	2.92	10.92	0.73
1.750	0.73	4.833	33.63	7.917	2.92	11.00	0.73
1.833	0.73	4.917	33.63	8.000	2.92	11.08	0.73
1.917	0.73	5.000	33.63	8.083	2.92	11.17	0.73
2.000	0.73	5.083	33.63	8.167	2.92	11.25	0.73
2.083	0.73	5.167	33.63	8.250	2.92	11.33	0.73
2.167	0.73	5.250	33.63	8.333	1.46	11.42	0.73
2.250	0.73	5.333	9.50	8.417	1.46	11.50	0.73
2.333	4.39	5.417	9.50	8.500	1.46	11.58	0.73
2.417	4.39	5.500	9.50	8.583	1.46	11.67	0.73
2.500	4.39	5.583	9.50	8.667	1.46	11.75	0.73
2.583	4.39	5.667	9.50	8.750	1.46	11.83	0.73
2.667	4.39	5.750	9.50	8.833	1.46	11.92	0.73
2.750	4.39	5.833	9.50	8.917	1.46	12.00	0.73
2.833	4.39	5.917	9.50	9.000	1.46	12.08	0.73
2.917	4.39	6.000	9.50	9.083	1.46	12.17	0.73
3.000	4.39	6.083	9.50	9.167	1.46	12.25	0.73
3.083	4.39	6.167	9.50	9.250	1.46		

Max.Eff.Inten. (mm/hr)=	33.63	18.05
over (min)	5.00	5.00
Storage Coeff. (min)=	1.50 (ii)	2.65 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.29
TOTALS		
PEAK FLOW (cms)=	0.22	0.00
TIME TO PEAK (hrs)=	4.83	5.25
RUNOFF VOLUME (mm)=	72.10	28.62
TOTAL RAINFALL (mm)=	73.10	73.10
RUNOFF COEFFICIENT =	0.99	0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	2.39	
STANDHYD (7827)	Total Imp(%)=	99.00 Dir. Conn.(%)= 99.00	
ID= 1 DT= 5.0 min	-----		

IMPERVIOUS			
Surface Area (ha)=	2.37	PERVIOUS (i)	
Dep. Storage (mm)=	1.00	0.02	
Average Slope (%)=	1.00	5.00	
Length (m)=	20.00	2.00	
Mannings n =	0.013	20.00	
		0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.39	6.250	9.50	9.33	0.73		
0.167	0.00	3.250	4.39	6.333	5.12	9.42	0.73		
0.250	0.00	3.333	12.43	6.417	5.12	9.50	0.73		
0.333	0.73	3.417	12.43	6.500	5.12	9.58	0.73		
0.417	0.73	3.500	12.43	6.583	5.12	9.67	0.73		
0.500	0.73	3.583	12.43	6.667	5.12	9.75	0.73		
0.583	0.73	3.667	12.43	6.750	5.12	9.83	0.73		
0.667	0.73	3.750	12.43	6.833	5.12	9.92	0.73		
0.750	0.73	3.833	12.43	6.917	5.12	10.00	0.73		
0.833	0.73	3.917	12.43	7.000	5.12	10.08	0.73		
0.917	0.73	4.000	12.43	7.083	5.12	10.17	0.73		
1.000	0.73	4.083	12.43	7.167	5.12	10.25	0.73		
1.083	0.73	4.167	12.43	7.250	5.12	10.33	0.73		

1.167	0.73	4.250	12.43	7.333	2.92	10.42	0.73
1.250	0.73	4.333	33.63	7.417	2.92	10.50	0.73
1.333	0.73	4.417	33.63	7.500	2.92	10.58	0.73
1.417	0.73	4.500	33.63	7.583	2.92	10.67	0.73
1.500	0.73	4.583	33.63	7.667	2.92	10.75	0.73
1.583	0.73	4.667	33.63	7.750	2.92	10.83	0.73
1.667	0.73	4.750	33.63	7.833	2.92	10.92	0.73
1.750	0.73	4.833	33.63	7.917	2.92	11.00	0.73
1.833	0.73	4.917	33.63	8.000	2.92	11.08	0.73
1.917	0.73	5.000	33.63	8.083	2.92	11.17	0.73
2.000	0.73	5.083	33.63	8.167	2.92	11.25	0.73
2.083	0.73	5.167	33.63	8.250	2.92	11.33	0.73
2.167	0.73	5.250	33.63	8.333	1.46	11.42	0.73
2.250	0.73	5.333	9.50	8.417	1.46	11.50	0.73
2.333	4.39	5.417	9.50	8.500	1.46	11.58	0.73
2.417	4.39	5.500	9.50	8.583	1.46	11.67	0.73
2.500	4.39	5.583	9.50	8.667	1.46	11.75	0.73
2.583	4.39	5.667	9.50	8.750	1.46	11.83	0.73
2.667	4.39	5.750	9.50	8.833	1.46	11.92	0.73
2.750	4.39	5.833	9.50	8.917	1.46	12.00	0.73
2.833	4.39	5.917	9.50	9.000	1.46	12.08	0.73
2.917	4.39	6.000	9.50	9.083	1.46	12.17	0.73
3.000	4.39	6.083	9.50	9.167	1.46	12.25	0.73
3.083	4.39	6.167	9.50	9.250	1.46		

Max.Eff.Inten. (mm/hr)=	33.63	18.05
over (min)	5.00	5.00
Storage Coeff. (min)=	1.50 (ii)	2.65 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.29
TOTALS		
PEAK FLOW (cms)=	0.22	0.00
TIME TO PEAK (hrs)=	4.83	5.25
RUNOFF VOLUME (mm)=	72.10	28.62
TOTAL RAINFALL (mm)=	73.10	73.10
RUNOFF COEFFICIENT =	0.99	0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	2.39	
STANDHYD (7832)	Total Imp(%)=	99.00 Dir. Conn.(%)= 99.00	
ID= 1 DT= 5.0 min	-----		

IMPERVIOUS			
Surface Area (ha)=	2.37	PERVIOUS (i)	
Dep. Storage (mm)=	1.00	0.02	
Average Slope (%)=	1.00	5.00	
Length (m)=	20.00	2.00	
Mannings n =	0.013	20.00	
		0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.39	6.250	9.50	9.33	0.73		
0.167	0.00	3.250	4.39	6.333	5.12	9.42	0.73		
0.250	0.00	3.333	12.43	6.417	5.12	9.50	0.73		
0.333	0.73	3.417	12.43	6.500	5.12	9.58	0.73		
0.417	0.73	3.500	12.43	6.583	5.12	9.67	0.73		
0.500	0.73	3.583	12.43	6.667	5.12	9.75	0.73		
0.583	0.73	3.667	12.43	6.750	5.12	9.83	0.73		
0.667	0.73	3.750	12.43	6.833	5.12	9.92	0.73		
0.750	0.73	3.833	12.43	6.917	5.12	10.00	0.73		
0.833	0.73	3.917	12.43	7.000	5.12	10.08	0.73		
0.917	0.73	4.000	12.43	7.083	5.12	10.17	0.73		
1.000	0.73	4.083	12.43	7.167	5.12	10.25	0.73		
1.083	0.73	4.167	12.43	7.250	5.12	10.33	0.73		

1.083	0.73	4.167	12.43	7.250	5.12	10.33	0.73
1.167	0.73	4.250	12.43	7.333	2.92	10.42	0.73
1.250	0.73	4.333	33.63	7.417	2.92	10.50	0.73
1.333	0.73	4.417	33.63	7.500	2.92	10.58	0.73
1.417	0.73	4.500	33.63	7.583	2.92	10.67	0.73
1.500	0.73	4.583	33.63	7.667	2.92	10.75	0.73
1.583	0.73	4.667	33.63	7.750	2.92	10.83	0.73
1.667	0.73	4.750	33.63	7.833	2.92	10.92	0.73
1.750	0.73	4.833	33.63	7.917	2.92	11.00	0.73
1.833	0.73	4.917	33.63	8.000	2.92	11.08	0.73
1.917	0.73	5.000	33.63	8.083	2.92	11.17	0.73
2.000	0.73	5.083	33.63	8.167	2.92	11.25	0.73
2.083	0.73	5.167	33.63	8.250	2.92	11.33	0.73
2.167	0.73	5.250	33.63	8.333	1.46	11.42	0.73
2.250	0.73	5.333	9.50	8.417	1.46	11.50	0.73
2.333	4.39	5.417	9.50	8.500	1.46	11.58	0.73
2.417	4.39	5.500	9.50	8.583	1.46	11.67	0.73
2.500	4.39	5.583	9.50	8.667	1.46	11.75	0.73
2.583	4.39	5.667	9.50	8.750	1.46	11.83	0.73
2.667	4.39	5.750	9.50	8.833	1.46	11.92	0.73
2.750	4.39	5.833	9.50	8.917	1.46	12.00	0.73
2.833	4.39	5.917	9.50	9.000	1.46	12.08	0.73
2.917	4.39	6.000	9.50	9.083	1.46	12.17	0.73
3.000	4.39	6.083	9.50	9.167	1.46	12.25	0.73
3.083	4.39	6.167	9.50	9.250	1.46	12.25	0.73

Max.Eff.Inten. (mm/hr)= 33.63 18.05
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.50 (ii) 2.65 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.29

TOTALS

PEAK FLOW (cms)= 0.22 0.00 0.222 (iii)
 TIME TO PEAK (hrs)= 4.83 5.25 5.25
 RUNOFF VOLUME (mm)= 72.10 28.62 71.67
 TOTAL RAINFALL (mm)= 73.10 73.10 73.10
 RUNOFF COEFFICIENT = 0.99 0.39 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7844) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area	(ha)=	2.38	0.02
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	1.00	2.00
Length	(m)=	20.00	20.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.39	6.250	9.50	9.33	0.73
0.167	0.00	3.250	4.39	6.333	5.12	9.42	0.73
0.250	0.00	3.333	12.43	6.417	5.12	9.50	0.73
0.333	0.73	3.417	12.43	6.500	5.12	9.58	0.73
0.417	0.73	3.500	12.43	6.583	5.12	9.67	0.73
0.500	0.73	3.583	12.43	6.667	5.12	9.75	0.73
0.583	0.73	3.667	12.43	6.750	5.12	9.83	0.73
0.667	0.73	3.750	12.43	6.833	5.12	9.92	0.73
0.750	0.73	3.833	12.43	6.917	5.12	10.00	0.73
0.833	0.73	3.917	12.43	7.000	5.12	10.08	0.73
0.917	0.73	4.000	12.43	7.083	5.12	10.17	0.73

1.000	0.73	4.083	12.43	7.167	5.12	10.25	0.73
1.083	0.73	4.167	12.43	7.250	5.12	10.33	0.73
1.167	0.73	4.250	12.43	7.333	2.92	10.42	0.73
1.250	0.73	4.333	33.63	7.417	2.92	10.50	0.73
1.333	0.73	4.417	33.63	7.500	2.92	10.58	0.73
1.417	0.73	4.500	33.63	7.583	2.92	10.67	0.73
1.500	0.73	4.583	33.63	7.667	2.92	10.75	0.73
1.583	0.73	4.667	33.63	7.750	2.92	10.83	0.73
1.667	0.73	4.750	33.63	7.833	2.92	10.92	0.73
1.750	0.73	4.833	33.63	7.917	2.92	11.00	0.73
1.833	0.73	4.917	33.63	8.000	2.92	11.08	0.73
1.917	0.73	5.000	33.63	8.083	2.92	11.17	0.73
2.000	0.73	5.083	33.63	8.167	2.92	11.25	0.73
2.083	0.73	5.167	33.63	8.250	2.92	11.33	0.73
2.167	0.73	5.250	33.63	8.333	1.46	11.42	0.73
2.250	0.73	5.333	9.50	8.417	1.46	11.50	0.73
2.333	4.39	5.417	9.50	8.500	1.46	11.58	0.73
2.417	4.39	5.500	9.50	8.583	1.46	11.67	0.73
2.500	4.39	5.583	9.50	8.667	1.46	11.75	0.73
2.583	4.39	5.667	9.50	8.750	1.46	11.83	0.73
2.667	4.39	5.750	9.50	8.833	1.46	11.92	0.73
2.750	4.39	5.833	9.50	8.917	1.46	12.00	0.73
2.833	4.39	5.917	9.50	9.000	1.46	12.08	0.73
2.917	4.39	6.000	9.50	9.083	1.46	12.17	0.73
3.000	4.39	6.083	9.50	9.167	1.46	12.25	0.73
3.083	4.39	6.167	9.50	9.250	1.46	12.25	0.73

Max.Eff.Inten. (mm/hr)= 33.63 18.05
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.50 (ii) 2.65 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.29

TOTALS

PEAK FLOW (cms)= 0.22 0.00 0.223 (iii)
 TIME TO PEAK (hrs)= 4.83 5.25 5.25
 RUNOFF VOLUME (mm)= 72.10 28.62 71.67
 TOTAL RAINFALL (mm)= 73.10 73.10 73.10
 RUNOFF COEFFICIENT = 0.99 0.39 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7843)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7806):	2.37	0.220	5.25	71.67
+ ID2= 2 (7811):	2.40	0.223	5.25	71.67

ID = 3 (7843):	4.77	0.444	5.25	71.67

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7843)				
3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7843):	4.77	0.444	5.25	71.67
+ ID2= 2 (7816):	2.36	0.219	5.25	71.67

ID = 1 (7843):	7.13	0.663	5.25	71.67

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7843)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.

	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7843):	7.13	0.663	5.25	71.67
+ ID2= 2 (7827):	2.39	0.222	5.25	71.67

ID = 3 (7843):	9.52	0.885	5.25	71.67

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7843)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7843):	9.52	0.885	5.25	71.67
+ ID2= 2 (7832):	2.39	0.222	5.25	71.67

ID = 1 (7843):	11.91	1.108	5.25	71.67

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7843)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7843):	11.91	1.108	5.25	71.67
+ ID2= 2 (7844):	2.40	0.223	5.25	71.67

ID = 3 (7843):	14.31	1.331	5.25	71.67

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| DIVERTHYD (7835) |
| IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1	Flow 2	Flow 3	Flow 4	Flow 5	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
TOTAL HYD. (ID= 1):	14.31	1.33	5.25	71.67
ID= 2 (2) :	13.49	1.17	5.25	71.67
ID= 3 (2) :	0.82	0.17	5.25	71.67
ID= 4 (2) :	0.00	0.00	0.00	0.00
ID= 5 (2) :	0.00	0.00	0.00	0.00
ID= 6 (2) :	0.00	0.00	0.00	0.00

| RESERVOIR (7808) |
| IN= 2---> OUT= 1 |
| DT= 5.0 min |

OVERFLOW IS ON

OUTFLOW	STORAGE	OUTFLOW	STORAGE
(cms)	(ha.m.)	(cms)	(ha.m.)
0.0000	0.0000	0.2690	0.4589
0.1980	0.1112	0.0000	0.0000

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7835)	13.488	1.165	5.25	71.67
OUTFLOW: ID= 1 (7808)	12.452	0.269	5.25	71.71
OVERFLOW: ID= 3 (0003)	1.035	0.896	5.25	71.71

TOTAL NUMBER OF SIMULATION OVERFLOW = 13
CUMULATIVE TIME OF OVERFLOW (HOURS) = 1.08
PERCENTAGE OF TIME OVERFLOWING (%) = 4.74

PEAK FLOW REDUCTION [Qout/Qin](%) = 23.09
TIME SHIFT OF PEAK FLOW (min) = 0.00
MAXIMUM STORAGE USED (ha.m.) = 0.4589

| Junction Command(7803) |

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 3 (7808)	1.04	0.90	5.25	71.71
OUTFLOW: ID= 2 (7803)	1.04	0.90	5.25	71.71

ADD HYD (7824)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7803):	1.04	0.896	5.25	71.71
+ ID2= 2 (7808):	12.45	0.269	5.25	71.71

ID = 3 (7824):	13.49	1.165	5.25	71.71

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7824)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7824):	13.49	1.165	5.25	71.71
+ ID2= 2 (7835):	0.82	0.165	5.25	71.67

ID = 1 (7824):	14.31	1.331	5.25	71.70

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |
| STANDHYD (7810) | Area (ha)= 1.06
| ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	1.01	0.05
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	2.50	2.00
Length (m)	60.00	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.39	6.250	9.50	9.33	0.73
0.167	0.00	3.250	4.39	6.333	5.12	9.42	0.73
0.250	0.00	3.333	12.43	6.417	5.12	9.50	0.73
0.333	0.73	3.417	12.43	6.500	5.12	9.58	0.73
0.417	0.73	3.500	12.43	6.583	5.12	9.67	0.73
0.500	0.73	3.583	12.43	6.667	5.12	9.75	0.73
0.583	0.73	3.667	12.43	6.750	5.12	9.83	0.73
0.667	0.73	3.750	12.43	6.833	5.12	9.92	0.73
0.750	0.73	3.833	12.43	6.917	5.12	10.00	0.73
0.833	0.73	3.917	12.43	7.000	5.12	10.08	0.73
0.917	0.73	4.000	12.43	7.083	5.12	10.17	0.73
1.000	0.73	4.083	12.43	7.167	5.12	10.25	0.73
1.083	0.73	4.167	12.43	7.250	5.12	10.33	0.73
1.167	0.73	4.250	12.43	7.333	2.92	10.42	0.73
1.250	0.73	4.333	33.63	7.417	2.92	10.50	0.73
1.333	0.73	4.417	33.63	7.500	2.92	10.58	0.73
1.417	0.73	4.500	33.63	7.583	2.92	10.67	0.73
1.500	0.73	4.583	33.63	7.667	2.92	10.75	0.73
1.583	0.73	4.667	33.63	7.750	2.92	10.83	0.73
1.667	0.73	4.750	33.63	7.833	2.92	10.92	0.73
1.750	0.73	4.833	33.63	7.917	2.92	11.00	0.73

1.833	0.73	4.917	33.63	8.000	2.92	11.08	0.73
1.917	0.73	5.000	33.63	8.083	2.92	11.17	0.73
2.000	0.73	5.083	33.63	8.167	2.92	11.25	0.73
2.083	0.73	5.167	33.63	8.250	2.92	11.33	0.73
2.167	0.73	5.250	33.63	8.333	1.46	11.42	0.73
2.250	0.73	5.333	9.50	8.417	1.46	11.50	0.73
2.333	4.39	5.417	9.50	8.500	1.46	11.58	0.73
2.417	4.39	5.500	9.50	8.583	1.46	11.67	0.73
2.500	4.39	5.583	9.50	8.667	1.46	11.75	0.73
2.583	4.39	5.667	9.50	8.750	1.46	11.83	0.73
2.667	4.39	5.750	9.50	8.833	1.46	11.92	0.73
2.750	4.39	5.833	9.50	8.917	1.46	12.00	0.73
2.833	4.39	5.917	9.50	9.000	1.46	12.08	0.73
2.917	4.39	6.000	9.50	9.083	1.46	12.17	0.73
3.000	4.39	6.083	9.50	9.167	1.46	12.25	0.73
3.083	4.39	6.167	9.50	9.250	1.46		

Max.Eff.Inten.(mm/hr)= 33.63 18.56
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 2.21 (ii) 5.57 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.30 0.16

PEAK FLOW (cms)= 0.09 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 4.83 5.25 5.25 0.097 (iii)
 RUNOFF VOLUME (mm)= 71.10 29.47 69.02
 TOTAL RAINFALL (mm)= 73.10 73.10 73.10
 RUNOFF COEFFICIENT = 0.97 0.40 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7814)	Area (ha)= 1.45		
ID= 1 DT= 5.0 min	Total Imp(%)= 96.00	Dir. Conn.(%)= 96.00	
IMPERVIOUS PERVIOUS (i)			
Surface Area (ha)= 1.39	0.06		
Dep. Storage (mm)= 2.00	5.00		
Average Slope (%)= 1.10	2.00		
Length (m)= 100.00	145.00		
Mannings n = 0.013	0.250		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.39	6.250	9.50	9.33	0.73
0.167	0.00	3.250	4.39	6.333	5.12	9.42	0.73
0.250	0.00	3.333	12.43	6.417	5.12	9.50	0.73
0.333	0.73	3.417	12.43	6.500	5.12	9.58	0.73
0.417	0.73	3.500	12.43	6.583	5.12	9.67	0.73
0.500	0.73	3.583	12.43	6.667	5.12	9.75	0.73
0.583	0.73	3.667	12.43	6.750	5.12	9.83	0.73
0.667	0.73	3.750	12.43	6.833	5.12	9.92	0.73
0.750	0.73	3.833	12.43	6.917	5.12	10.00	0.73
0.833	0.73	3.917	12.43	7.000	5.12	10.08	0.73
0.917	0.73	4.000	12.43	7.083	5.12	10.17	0.73
1.000	0.73	4.083	12.43	7.167	5.12	10.25	0.73
1.083	0.73	4.167	12.43	7.250	5.12	10.33	0.73
1.167	0.73	4.250	12.43	7.333	2.92	10.42	0.73
1.250	0.73	4.333	33.63	7.417	2.92	10.50	0.73
1.333	0.73	4.417	33.63	7.500	2.92	10.58	0.73
1.417	0.73	4.500	33.63	7.583	2.92	10.67	0.73
1.500	0.73	4.583	33.63	7.667	2.92	10.75	0.73
1.583	0.73	4.667	33.63	7.750	2.92	10.83	0.73
1.667	0.73	4.750	33.63	7.833	2.92	10.92	0.73

1.750	0.73	4.833	33.63	7.917	2.92	11.00	0.73
1.833	0.73	4.917	33.63	8.000	2.92	11.08	0.73
1.917	0.73	5.000	33.63	8.083	2.92	11.17	0.73
2.000	0.73	5.083	33.63	8.167	2.92	11.25	0.73
2.083	0.73	5.167	33.63	8.250	2.92	11.33	0.73
2.167	0.73	5.250	33.63	8.333	1.46	11.42	0.73
2.250	0.73	5.333	9.50	8.417	1.46	11.50	0.73
2.333	4.39	5.417	9.50	8.500	1.46	11.58	0.73
2.417	4.39	5.500	9.50	8.583	1.46	11.67	0.73
2.500	4.39	5.583	9.50	8.667	1.46	11.75	0.73
2.583	4.39	5.667	9.50	8.750	1.46	11.83	0.73
2.667	4.39	5.750	9.50	8.833	1.46	11.92	0.73
2.750	4.39	5.833	9.50	8.917	1.46	12.00	0.73
2.833	4.39	5.917	9.50	9.000	1.46	12.08	0.73
2.917	4.39	6.000	9.50	9.083	1.46	12.17	0.73
3.000	4.39	6.083	9.50	9.167	1.46	12.25	0.73
3.083	4.39	6.167	9.50	9.250	1.46		

Max.Eff.Inten.(mm/hr)= 33.63 16.25
 over (min) = 5.00 40.00
 Storage Coeff. (min)= 3.84 (ii) 35.46 (ii)
 Unit Hyd. Tpeak (min)= 5.00 40.00
 Unit Hyd. peak (cms)= 0.25 0.03

PEAK FLOW (cms)= 0.13 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 5.08 5.58 5.25 0.132 (iii)
 RUNOFF VOLUME (mm)= 71.10 28.62 69.39
 TOTAL RAINFALL (mm)= 73.10 73.10 73.10
 RUNOFF COEFFICIENT = 0.97 0.39 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7822)	Area (ha)= 1.70		
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00	Dir. Conn.(%)= 99.00	
IMPERVIOUS PERVIOUS (i)			
Surface Area (ha)= 1.68	0.02		
Dep. Storage (mm)= 2.00	5.00		
Average Slope (%)= 1.10	2.00		
Length (m)= 100.00	40.00		
Mannings n = 0.013	0.250		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.39	6.250	9.50	9.33	0.73
0.167	0.00	3.250	4.39	6.333	5.12	9.42	0.73
0.250	0.00	3.333	12.43	6.417	5.12	9.50	0.73
0.333	0.73	3.417	12.43	6.500	5.12	9.58	0.73
0.417	0.73	3.500	12.43	6.583	5.12	9.67	0.73
0.500	0.73	3.583	12.43	6.667	5.12	9.75	0.73
0.583	0.73	3.667	12.43	6.750	5.12	9.83	0.73
0.667	0.73	3.750	12.43	6.833	5.12	9.92	0.73
0.750	0.73	3.833	12.43	6.917	5.12	10.00	0.73
0.833	0.73	3.917	12.43	7.000	5.12	10.08	0.73
0.917	0.73	4.000	12.43	7.083	5.12	10.17	0.73
1.000	0.73	4.083	12.43	7.167	5.12	10.25	0.73
1.083	0.73	4.167	12.43	7.250	5.12	10.33	0.73
1.167	0.73	4.250	12.43	7.333	2.92	10.42	0.73
1.250	0.73	4.333	33.63	7.417	2.92	10.50	0.73
1.333	0.73	4.417	33.63	7.500	2.92	10.58	0.73
1.417	0.73	4.500	33.63	7.583	2.92	10.67	0.73
1.500	0.73	4.583	33.63	7.667	2.92	10.75	0.73
1.583	0.73	4.667	33.63	7.750	2.92	10.83	0.73



1.667	0.73	4.750	33.63	7.833	2.92	10.92	0.73
1.750	0.73	4.833	33.63	7.917	2.92	11.00	0.73
1.833	0.73	4.917	33.63	8.000	2.92	11.08	0.73
1.917	0.73	5.000	33.63	8.083	2.92	11.17	0.73
2.000	0.73	5.083	33.63	8.167	2.92	11.25	0.73
2.083	0.73	5.167	33.63	8.250	2.92	11.33	0.73
2.167	0.73	5.250	33.63	8.333	1.46	11.42	0.73
2.250	0.73	5.333	9.50	8.417	1.46	11.50	0.73
2.333	4.39	5.417	9.50	8.500	1.46	11.58	0.73
2.417	4.39	5.500	9.50	8.583	1.46	11.67	0.73
2.500	4.39	5.583	9.50	8.667	1.46	11.75	0.73
2.583	4.39	5.667	9.50	8.750	1.46	11.83	0.73
2.667	4.39	5.750	9.50	8.833	1.46	11.92	0.73
2.750	4.39	5.833	9.50	8.917	1.46	12.00	0.73
2.833	4.39	5.917	9.50	9.000	1.46	12.08	0.73
2.917	4.39	6.000	9.50	9.083	1.46	12.17	0.73
3.000	4.39	6.083	9.50	9.167	1.46	12.25	0.73
3.083	4.39	6.167	9.50	9.250	1.46		

Max.Eff.Inten.(mm/hr)= 33.63 18.05
 over (min) 5.00 10.00
 Storage Coeff. (min)= 3.84 (ii) 5.58 (iii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.25 0.16

PEAK FLOW (cms)= 0.16 0.00
 TIME TO PEAK (hrs)= 5.08 5.25
 RUNOFF VOLUME (mm)= 71.10 28.62 70.67
 TOTAL RAINFALL (mm)= 73.10 73.10 73.10
 RUNOFF COEFFICIENT = 0.97 0.39 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7838)			
ID= 1 DT= 5.0 min	Area (ha)= 1.33	Dir. Conn.(%)= 98.00	

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	1.30	0.03	
Dep. Storage (mm)=	2.00	5.00	
Average Slope (%)=	1.10	2.00	
Length (m)=	100.00	40.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.39	6.250	9.50	9.33	0.73		
0.167	0.00	3.250	4.39	6.333	5.12	9.42	0.73		
0.250	0.00	3.333	12.43	6.417	5.12	9.50	0.73		
0.333	0.73	3.417	12.43	6.500	5.12	9.58	0.73		
0.417	0.73	3.500	12.43	6.583	5.12	9.67	0.73		
0.500	0.73	3.583	12.43	6.667	5.12	9.75	0.73		
0.583	0.73	3.667	12.43	6.750	5.12	9.83	0.73		
0.667	0.73	3.750	12.43	6.833	5.12	9.92	0.73		
0.750	0.73	3.833	12.43	6.917	5.12	10.00	0.73		
0.833	0.73	3.917	12.43	7.000	5.12	10.08	0.73		
0.917	0.73	4.000	12.43	7.083	5.12	10.17	0.73		
1.000	0.73	4.083	12.43	7.167	5.12	10.25	0.73		
1.083	0.73	4.167	12.43	7.250	5.12	10.33	0.73		
1.167	0.73	4.250	12.43	7.333	2.92	10.42	0.73		
1.250	0.73	4.333	33.63	7.417	2.92	10.50	0.73		
1.333	0.73	4.417	33.63	7.500	2.92	10.58	0.73		
1.417	0.73	4.500	33.63	7.583	2.92	10.67	0.73		
1.500	0.73	4.583	33.63	7.667	2.92	10.75	0.73		

1.583	0.73	4.667	33.63	7.750	2.92	10.83	0.73
1.667	0.73	4.750	33.63	7.833	2.92	10.92	0.73
1.750	0.73	4.833	33.63	7.917	2.92	11.00	0.73
1.833	0.73	4.917	33.63	8.000	2.92	11.08	0.73
1.917	0.73	5.000	33.63	8.083	2.92	11.17	0.73
2.000	0.73	5.083	33.63	8.167	2.92	11.25	0.73
2.083	0.73	5.167	33.63	8.250	2.92	11.33	0.73
2.167	0.73	5.250	33.63	8.333	1.46	11.42	0.73
2.250	0.73	5.333	9.50	8.417	1.46	11.50	0.73
2.333	4.39	5.417	9.50	8.500	1.46	11.58	0.73
2.417	4.39	5.500	9.50	8.583	1.46	11.67	0.73
2.500	4.39	5.583	9.50	8.667	1.46	11.75	0.73
2.583	4.39	5.667	9.50	8.750	1.46	11.83	0.73
2.667	4.39	5.750	9.50	8.833	1.46	11.92	0.73
2.750	4.39	5.833	9.50	8.917	1.46	12.00	0.73
2.833	4.39	5.917	9.50	9.000	1.46	12.08	0.73
2.917	4.39	6.000	9.50	9.083	1.46	12.17	0.73
3.000	4.39	6.083	9.50	9.167	1.46	12.25	0.73
3.083	4.39	6.167	9.50	9.250	1.46		

Max.Eff.Inten.(mm/hr)= 33.63 18.05
 over (min) 5.00 10.00
 Storage Coeff. (min)= 3.84 (ii) 6.14 (iii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.25 0.15

PEAK FLOW (cms)= 0.12 0.00
 TIME TO PEAK (hrs)= 5.08 5.25
 RUNOFF VOLUME (mm)= 71.10 28.62 70.25
 TOTAL RAINFALL (mm)= 73.10 73.10 73.10
 RUNOFF COEFFICIENT = 0.97 0.39 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7805)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7814):	1.45	0.132	5.25	69.39
+ ID2= 2 (7822):	1.70	0.158	5.25	70.67
=====				
ID = 3 (7805):	3.15	0.290	5.25	70.08

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7805)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7805):	3.15	0.290	5.25	70.08
+ ID2= 2 (7838):	1.33	0.123	5.25	70.25
=====				
ID = 1 (7805):	4.48	0.413	5.25	70.13

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7819)			
ID= 1 DT= 5.0 min	Area (ha)= 1.32	Dir. Conn.(%)= 99.00	

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	1.31	0.01	
Dep. Storage (mm)=	2.00	5.00	
Average Slope (%)=	1.10	2.00	
Length (m)=	100.00	40.00	
Mannings n =	0.013	0.250	



NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.39	6.250	9.50	9.33	0.73
0.167	0.00	3.250	4.39	6.333	5.12	9.42	0.73
0.250	0.00	3.333	12.43	6.417	5.12	9.50	0.73
0.333	0.73	3.417	12.43	6.500	5.12	9.58	0.73
0.417	0.73	3.500	12.43	6.583	5.12	9.67	0.73
0.500	0.73	3.583	12.43	6.667	5.12	9.75	0.73
0.583	0.73	3.667	12.43	6.750	5.12	9.83	0.73
0.667	0.73	3.750	12.43	6.833	5.12	9.92	0.73
0.750	0.73	3.833	12.43	6.917	5.12	10.00	0.73
0.833	0.73	3.917	12.43	7.000	5.12	10.08	0.73
0.917	0.73	4.000	12.43	7.083	5.12	10.17	0.73
1.000	0.73	4.083	12.43	7.167	5.12	10.25	0.73
1.083	0.73	4.167	12.43	7.250	5.12	10.33	0.73
1.167	0.73	4.250	12.43	7.333	2.92	10.42	0.73
1.250	0.73	4.333	33.63	7.417	2.92	10.50	0.73
1.333	0.73	4.417	33.63	7.500	2.92	10.58	0.73
1.417	0.73	4.500	33.63	7.583	2.92	10.67	0.73
1.500	0.73	4.583	33.63	7.667	2.92	10.75	0.73
1.583	0.73	4.667	33.63	7.750	2.92	10.83	0.73
1.667	0.73	4.750	33.63	7.833	2.92	10.92	0.73
1.750	0.73	4.833	33.63	7.917	2.92	11.00	0.73
1.833	0.73	4.917	33.63	8.000	2.92	11.08	0.73
1.917	0.73	5.000	33.63	8.083	2.92	11.17	0.73
2.000	0.73	5.083	33.63	8.167	2.92	11.25	0.73
2.083	0.73	5.167	33.63	8.250	2.92	11.33	0.73
2.167	0.73	5.250	33.63	8.333	1.46	11.42	0.73
2.250	0.73	5.333	9.50	8.417	1.46	11.50	0.73
2.333	4.39	5.417	9.50	8.500	1.46	11.58	0.73
2.417	4.39	5.500	9.50	8.583	1.46	11.67	0.73
2.500	4.39	5.583	9.50	8.667	1.46	11.75	0.73
2.583	4.39	5.667	9.50	8.750	1.46	11.83	0.73
2.667	4.39	5.750	9.50	8.833	1.46	11.92	0.73
2.750	4.39	5.833	9.50	8.917	1.46	12.00	0.73
2.833	4.39	5.917	9.50	9.000	1.46	12.08	0.73
2.917	4.39	6.000	9.50	9.083	1.46	12.17	0.73
3.000	4.39	6.083	9.50	9.167	1.46	12.25	0.73
3.083	4.39	6.167	9.50	9.250	1.46		

Max.Eff.Inten. (mm/hr)=	33.63	18.05
over (min)	5.00	10.00
Storage Coeff. (min)=	3.84 (ii)	5.58 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.25	0.16

TOTALS			
PEAK FLOW (cms)=	0.12	0.00	0.123 (iii)
TIME TO PEAK (hrs)=	5.08	5.25	5.25
RUNOFF VOLUME (mm)=	71.10	28.62	70.67
TOTAL RAINFALL (mm)=	73.10	73.10	73.10
RUNOFF COEFFICIENT =	0.97	0.39	0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7829)	Area (ha)=	1.69	
ID= 1 DT= 5.0 min	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	1.67	0.02	
Dep. Storage (mm)=	2.00	5.00	
Average Slope (%)=	1.10	2.00	
Length (m)=	100.00	40.00	

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.39	6.250	9.50	9.33	0.73
0.167	0.00	3.250	4.39	6.333	5.12	9.42	0.73
0.250	0.00	3.333	12.43	6.417	5.12	9.50	0.73
0.333	0.73	3.417	12.43	6.500	5.12	9.58	0.73
0.417	0.73	3.500	12.43	6.583	5.12	9.67	0.73
0.500	0.73	3.583	12.43	6.667	5.12	9.75	0.73
0.583	0.73	3.667	12.43	6.750	5.12	9.83	0.73
0.667	0.73	3.750	12.43	6.833	5.12	9.92	0.73
0.750	0.73	3.833	12.43	6.917	5.12	10.00	0.73
0.833	0.73	3.917	12.43	7.000	5.12	10.08	0.73
0.917	0.73	4.000	12.43	7.083	5.12	10.17	0.73
1.000	0.73	4.083	12.43	7.167	5.12	10.25	0.73
1.083	0.73	4.167	12.43	7.250	5.12	10.33	0.73
1.167	0.73	4.250	12.43	7.333	2.92	10.42	0.73
1.250	0.73	4.333	33.63	7.417	2.92	10.50	0.73
1.333	0.73	4.417	33.63	7.500	2.92	10.58	0.73
1.417	0.73	4.500	33.63	7.583	2.92	10.67	0.73
1.500	0.73	4.583	33.63	7.667	2.92	10.75	0.73
1.583	0.73	4.667	33.63	7.750	2.92	10.83	0.73
1.667	0.73	4.750	33.63	7.833	2.92	10.92	0.73
1.750	0.73	4.833	33.63	7.917	2.92	11.00	0.73
1.833	0.73	4.917	33.63	8.000	2.92	11.08	0.73
1.917	0.73	5.000	33.63	8.083	2.92	11.17	0.73
2.000	0.73	5.083	33.63	8.167	2.92	11.25	0.73
2.083	0.73	5.167	33.63	8.250	2.92	11.33	0.73
2.167	0.73	5.250	33.63	8.333	1.46	11.42	0.73
2.250	0.73	5.333	9.50	8.417	1.46	11.50	0.73
2.333	4.39	5.417	9.50	8.500	1.46	11.58	0.73
2.417	4.39	5.500	9.50	8.583	1.46	11.67	0.73
2.500	4.39	5.583	9.50	8.667	1.46	11.75	0.73
2.583	4.39	5.667	9.50	8.750	1.46	11.83	0.73
2.667	4.39	5.750	9.50	8.833	1.46	11.92	0.73
2.750	4.39	5.833	9.50	8.917	1.46	12.00	0.73
2.833	4.39	5.917	9.50	9.000	1.46	12.08	0.73
2.917	4.39	6.000	9.50	9.083	1.46	12.17	0.73
3.000	4.39	6.083	9.50	9.167	1.46	12.25	0.73
3.083	4.39	6.167	9.50	9.250	1.46		

Max.Eff.Inten. (mm/hr)=	33.63	18.05
over (min)	5.00	10.00
Storage Coeff. (min)=	3.84 (ii)	5.58 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.25	0.16

TOTALS			
PEAK FLOW (cms)=	0.16	0.00	0.157 (iii)
TIME TO PEAK (hrs)=	5.17	5.25	5.25
RUNOFF VOLUME (mm)=	71.10	28.62	70.67
TOTAL RAINFALL (mm)=	73.10	73.10	73.10
RUNOFF COEFFICIENT =	0.97	0.39	0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7839)	Area (ha)=	1.61	
ID= 1 DT= 5.0 min	Total Imp(%)=	92.00	Dir. Conn.(%)= 92.00

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	1.48	0.13	
Dep. Storage (mm)=	2.00	5.00	
Average Slope (%)=	1.10	2.00	



Length (m) = 100.00 145.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.39	6.250	9.50	9.33	0.73
0.167	0.00	3.250	4.39	6.333	5.12	9.42	0.73
0.250	0.00	3.333	12.43	6.417	5.12	9.50	0.73
0.333	0.73	3.417	12.43	6.500	5.12	9.58	0.73
0.417	0.73	3.500	12.43	6.583	5.12	9.67	0.73
0.500	0.73	3.583	12.43	6.667	5.12	9.75	0.73
0.583	0.73	3.667	12.43	6.750	5.12	9.83	0.73
0.667	0.73	3.750	12.43	6.833	5.12	9.92	0.73
0.750	0.73	3.833	12.43	6.917	5.12	10.00	0.73
0.833	0.73	3.917	12.43	7.000	5.12	10.08	0.73
0.917	0.73	4.000	12.43	7.083	5.12	10.17	0.73
1.000	0.73	4.083	12.43	7.167	5.12	10.25	0.73
1.083	0.73	4.167	12.43	7.250	5.12	10.33	0.73
1.167	0.73	4.250	12.43	7.333	2.92	10.42	0.73
1.250	0.73	4.333	33.63	7.417	2.92	10.50	0.73
1.333	0.73	4.417	33.63	7.500	2.92	10.58	0.73
1.417	0.73	4.500	33.63	7.583	2.92	10.67	0.73
1.500	0.73	4.583	33.63	7.667	2.92	10.75	0.73
1.583	0.73	4.667	33.63	7.750	2.92	10.83	0.73
1.667	0.73	4.750	33.63	7.833	2.92	10.92	0.73
1.750	0.73	4.833	33.63	7.917	2.92	11.00	0.73
1.833	0.73	4.917	33.63	8.000	2.92	11.08	0.73
1.917	0.73	5.000	33.63	8.083	2.92	11.17	0.73
2.000	0.73	5.083	33.63	8.167	2.92	11.25	0.73
2.083	0.73	5.167	33.63	8.250	2.92	11.33	0.73
2.167	0.73	5.250	33.63	8.333	1.46	11.42	0.73
2.250	0.73	5.333	9.50	8.417	1.46	11.50	0.73
2.333	4.39	5.417	9.50	8.500	1.46	11.58	0.73
2.417	4.39	5.500	9.50	8.583	1.46	11.67	0.73
2.500	4.39	5.583	9.50	8.667	1.46	11.75	0.73
2.583	4.39	5.667	9.50	8.750	1.46	11.83	0.73
2.667	4.39	5.750	9.50	8.833	1.46	11.92	0.73
2.750	4.39	5.833	9.50	8.917	1.46	12.00	0.73
2.833	4.39	5.917	9.50	9.000	1.46	12.08	0.73
2.917	4.39	6.000	9.50	9.083	1.46	12.17	0.73
3.000	4.39	6.083	9.50	9.167	1.46	12.25	0.73
3.083	4.39	6.167	9.50	9.250	1.46		

Max.Eff.Inten.(mm/hr)= 33.63 16.25
 over (min) = 5.00 40.00
 Storage Coeff. (min)= 3.84 (ii) 35.46 (ii)
 Unit Hyd. Tpeak (min)= 5.00 40.00
 Unit Hyd. peak (cms)= 0.25 0.03

TOTALS
 PEAK FLOW (cms)= 0.14 0.00 0.142 (iii)
 TIME TO PEAK (hrs)= 5.08 5.58 5.25
 RUNOFF VOLUME (mm)= 71.10 28.62 67.69
 TOTAL RAINFALL (mm)= 73.10 73.10 73.10
 RUNOFF COEFFICIENT = 0.97 0.39 0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7842)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7819):	1.32	0.123	5.25	70.67
+ ID2= 2 (7829):	1.69	0.157	5.25	70.67

ID = 3 (7842): 3.01 0.280 5.25 70.67

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7842)				
3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7842):	3.01	0.280	5.25	70.67
+ ID2= 2 (7839):	1.61	0.142	5.25	67.69
ID = 1 (7842):	4.62	0.422	5.25	69.63

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7830)	Area	(ha)=	1.20
ID= 1 DT= 5.0 min	Total Imp(%)=	95.00	Dir. Conn.(%)= 95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.14	0.06
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.39	6.250	9.50	9.33	0.73
0.167	0.00	3.250	4.39	6.333	5.12	9.42	0.73
0.250	0.00	3.333	12.43	6.417	5.12	9.50	0.73
0.333	0.73	3.417	12.43	6.500	5.12	9.58	0.73
0.417	0.73	3.500	12.43	6.583	5.12	9.67	0.73
0.500	0.73	3.583	12.43	6.667	5.12	9.75	0.73
0.583	0.73	3.667	12.43	6.750	5.12	9.83	0.73
0.667	0.73	3.750	12.43	6.833	5.12	9.92	0.73
0.750	0.73	3.833	12.43	6.917	5.12	10.00	0.73
0.833	0.73	3.917	12.43	7.000	5.12	10.08	0.73
0.917	0.73	4.000	12.43	7.083	5.12	10.17	0.73
1.000	0.73	4.083	12.43	7.167	5.12	10.25	0.73
1.083	0.73	4.167	12.43	7.250	5.12	10.33	0.73
1.167	0.73	4.250	12.43	7.333	2.92	10.42	0.73
1.250	0.73	4.333	33.63	7.417	2.92	10.50	0.73
1.333	0.73	4.417	33.63	7.500	2.92	10.58	0.73
1.417	0.73	4.500	33.63	7.583	2.92	10.67	0.73
1.500	0.73	4.583	33.63	7.667	2.92	10.75	0.73
1.583	0.73	4.667	33.63	7.750	2.92	10.83	0.73
1.667	0.73	4.750	33.63	7.833	2.92	10.92	0.73
1.750	0.73	4.833	33.63	7.917	2.92	11.00	0.73
1.833	0.73	4.917	33.63	8.000	2.92	11.08	0.73
1.917	0.73	5.000	33.63	8.083	2.92	11.17	0.73
2.000	0.73	5.083	33.63	8.167	2.92	11.25	0.73
2.083	0.73	5.167	33.63	8.250	2.92	11.33	0.73
2.167	0.73	5.250	33.63	8.333	1.46	11.42	0.73
2.250	0.73	5.333	9.50	8.417	1.46	11.50	0.73
2.333	4.39	5.417	9.50	8.500	1.46	11.58	0.73
2.417	4.39	5.500	9.50	8.583	1.46	11.67	0.73
2.500	4.39	5.583	9.50	8.667	1.46	11.75	0.73
2.583	4.39	5.667	9.50	8.750	1.46	11.83	0.73
2.667	4.39	5.750	9.50	8.833	1.46	11.92	0.73
2.750	4.39	5.833	9.50	8.917	1.46	12.00	0.73
2.833	4.39	5.917	9.50	9.000	1.46	12.08	0.73
2.917	4.39	6.000	9.50	9.083	1.46	12.17	0.73
3.000	4.39	6.083	9.50	9.167	1.46	12.25	0.73
3.083	4.39	6.167	9.50	9.250	1.46		

Max.Eff.Inten.(mm/hr)= 33.63 18.56
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 2.21 (ii) 5.57 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00

```

Unit Hyd. peak (cms)= 0.30 0.16
PEAK FLOW (cms)= 0.11 0.00
TIME TO PEAK (hrs)= 4.83 5.25
RUNOFF VOLUME (mm)= 71.10 29.47
TOTAL RAINFALL (mm)= 73.10 73.10
RUNOFF COEFFICIENT = 0.97 0.40
  
```

```

*TOTALS*
0.109 (iii)
5.25
69.02
73.10
0.94
  
```

```

0.4590 1.3820 | 0.8250 3.3550
0.5220 1.7210 | 2.0760 3.4560
0.5780 2.0600 | 2.3560 3.7320
  
```

```

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 2 ( 7804) 25.670 2.371 5.25 70.82
OUTFLOW: ID= 1 ( 7833) 25.670 0.328 8.33 70.79
  
```

```

PEAK FLOW REDUCTION [Qout/Qin] (%) = 13.83
TIME SHIFT OF PEAK FLOW (min) = 185.00
MAXIMUM STORAGE USED (ha.m.) = 0.9367
  
```

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
  
```

```

-----
| ADD HYD ( 7804) |
| 1 + 2 = 3 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7805): 4.48 0.413 5.25 70.13
+ ID2= 2 ( 7810): 1.06 0.097 5.25 69.02
-----
ID = 3 ( 7804): 5.54 0.509 5.25 69.92
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7804) |
| 3 + 2 = 1 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 3 ( 7804): 5.54 0.509 5.25 69.92
+ ID2= 2 ( 7824): 14.31 1.331 5.25 71.70
-----
ID = 1 ( 7804): 19.85 1.840 5.25 71.21
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7804) |
| 1 + 2 = 3 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7804): 19.85 1.840 5.25 71.21
+ ID2= 2 ( 7830): 1.20 0.109 5.25 69.02
-----
ID = 3 ( 7804): 21.05 1.950 5.25 71.08
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7804) |
| 3 + 2 = 1 |
-----
AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 3 ( 7804): 21.05 1.950 5.25 71.08
+ ID2= 2 ( 7842): 4.62 0.422 5.25 69.63
-----
ID = 1 ( 7804): 25.67 2.371 5.25 70.82
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| RESERVOIR ( 7833) | OVERFLOW IS OFF
| IN= 2--> OUT= 1 |
| DT= 5.0 min |
-----
OUTFLOW STORAGE | OUTFLOW STORAGE
(cms) (ha.m.) | (cms) (ha.m.)
0.0000 0.0000 | 0.6280 2.3980
0.0730 0.2080 | 0.6400 2.4830
0.0890 0.2770 | 0.6520 2.5670
0.1340 0.5530 | 0.6640 2.6500
0.2910 0.8290 | 0.6750 2.7340
0.3860 1.1060 | 0.7190 3.0490
  
```

```

-----
| CALIB |
| STANDHYD ( 7821) | Area (ha)= 0.19
| ID= 1 DT= 5.0 min | Total Imp (%) = 95.00 Dir. Conn. (%) = 95.00
-----
  
```

```

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.18 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%) = 2.50 2.00
Length (m) = 60.00 40.00
Mannings n = 0.013 0.250
  
```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 3.167 4.39 | 6.250 9.50 | 9.33 0.73
0.167 0.00 | 3.250 4.39 | 6.333 5.12 | 9.42 0.73
0.250 0.00 | 3.333 12.43 | 6.417 5.12 | 9.50 0.73
0.333 0.73 | 3.417 12.43 | 6.500 5.12 | 9.58 0.73
0.417 0.73 | 3.500 12.43 | 6.583 5.12 | 9.67 0.73
0.500 0.73 | 3.583 12.43 | 6.667 5.12 | 9.75 0.73
0.583 0.73 | 3.667 12.43 | 6.750 5.12 | 9.83 0.73
0.667 0.73 | 3.750 12.43 | 6.833 5.12 | 9.92 0.73
0.750 0.73 | 3.833 12.43 | 6.917 5.12 | 10.00 0.73
0.833 0.73 | 3.917 12.43 | 7.000 5.12 | 10.08 0.73
0.917 0.73 | 4.000 12.43 | 7.083 5.12 | 10.17 0.73
1.000 0.73 | 4.083 12.43 | 7.167 5.12 | 10.25 0.73
1.083 0.73 | 4.167 12.43 | 7.250 5.12 | 10.33 0.73
1.167 0.73 | 4.250 12.43 | 7.333 2.92 | 10.42 0.73
1.250 0.73 | 4.333 33.63 | 7.417 2.92 | 10.50 0.73
1.333 0.73 | 4.417 33.63 | 7.500 2.92 | 10.58 0.73
1.417 0.73 | 4.500 33.63 | 7.583 2.92 | 10.67 0.73
1.500 0.73 | 4.583 33.63 | 7.667 2.92 | 10.75 0.73
1.583 0.73 | 4.667 33.63 | 7.750 2.92 | 10.83 0.73
1.667 0.73 | 4.750 33.63 | 7.833 2.92 | 10.92 0.73
1.750 0.73 | 4.833 33.63 | 7.917 2.92 | 11.00 0.73
1.833 0.73 | 4.917 33.63 | 8.000 2.92 | 11.08 0.73
1.917 0.73 | 5.000 33.63 | 8.083 2.92 | 11.17 0.73
2.000 0.73 | 5.083 33.63 | 8.167 2.92 | 11.25 0.73
2.083 0.73 | 5.167 33.63 | 8.250 2.92 | 11.33 0.73
2.167 0.73 | 5.250 33.63 | 8.333 1.46 | 11.42 0.73
2.250 0.73 | 5.333 9.50 | 8.417 1.46 | 11.50 0.73
2.333 4.39 | 5.417 9.50 | 8.500 1.46 | 11.58 0.73
2.417 4.39 | 5.500 9.50 | 8.583 1.46 | 11.67 0.73
2.500 4.39 | 5.583 9.50 | 8.667 1.46 | 11.75 0.73
2.583 4.39 | 5.667 9.50 | 8.750 1.46 | 11.83 0.73
2.667 4.39 | 5.750 9.50 | 8.833 1.46 | 11.92 0.73
2.750 4.39 | 5.833 9.50 | 8.917 1.46 | 12.00 0.73
2.833 4.39 | 5.917 9.50 | 9.000 1.46 | 12.08 0.73
2.917 4.39 | 6.000 9.50 | 9.083 1.46 | 12.17 0.73
3.000 4.39 | 6.083 9.50 | 9.167 1.46 | 12.25 0.73
3.083 4.39 | 6.167 9.50 | 9.250 1.46 |
  
```

```

Max.Eff.Inten.(mm/hr)= 33.63 18.56
over (min) = 5.00 10.00
Storage Coeff. (min)= 2.21 (ii) 5.57 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.30 0.16
  
```

TOTALS



PEAK FLOW (cms)= 0.02 0.00 0.017 (iii)
 TIME TO PEAK (hrs)= 4.83 5.25 5.25
 RUNOFF VOLUME (mm)= 71.10 29.47 69.01
 TOTAL RAINFALL (mm)= 73.10 73.10 73.10
 RUNOFF COEFFICIENT = 0.97 0.40 0.94

1.750 0.73 | 4.833 33.63 | 7.917 2.92 | 11.00 0.73
 1.833 0.73 | 4.917 33.63 | 8.000 2.92 | 11.08 0.73
 1.917 0.73 | 5.000 33.63 | 8.083 2.92 | 11.17 0.73
 2.000 0.73 | 5.083 33.63 | 8.167 2.92 | 11.25 0.73
 2.083 0.73 | 5.167 33.63 | 8.250 2.92 | 11.33 0.73
 2.167 0.73 | 5.250 33.63 | 8.333 1.46 | 11.42 0.73
 2.250 0.73 | 5.333 9.50 | 8.417 1.46 | 11.50 0.73
 2.333 4.39 | 5.417 9.50 | 8.500 1.46 | 11.58 0.73
 2.417 4.39 | 5.500 9.50 | 8.583 1.46 | 11.67 0.73
 2.500 4.39 | 5.583 9.50 | 8.667 1.46 | 11.75 0.73
 2.583 4.39 | 5.667 9.50 | 8.750 1.46 | 11.83 0.73
 2.667 4.39 | 5.750 9.50 | 8.833 1.46 | 11.92 0.73
 2.750 4.39 | 5.833 9.50 | 8.917 1.46 | 12.00 0.73
 2.833 4.39 | 5.917 9.50 | 9.000 1.46 | 12.08 0.73
 2.917 4.39 | 6.000 9.50 | 9.083 1.46 | 12.17 0.73
 3.000 4.39 | 6.083 9.50 | 9.167 1.46 | 12.25 0.73
 3.083 4.39 | 6.167 9.50 | 9.250 1.46 |

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7825)		OVERFLOW IS OFF			
IN= 2--> OUT= 1		DT= 5.0 min			
	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)	
	0.0000	0.0000	0.0100	0.0090	
	0.0030	0.0010	0.0110	0.0100	
	0.0050	0.0030	0.0120	0.0110	
	0.0060	0.0040	0.0120	0.0130	
	0.0080	0.0050	0.0130	0.0140	
	0.0090	0.0060	0.0140	0.0150	
	0.0090	0.0080	0.0000	0.0000	
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
INFLOW : ID= 2 (7821)	0.190	0.017	5.25	69.01	
OUTFLOW: ID= 1 (7825)	0.190	0.009	5.33	68.62	

PEAK FLOW REDUCTION [Qout/Qin] (%) = 49.48
 TIME SHIFT OF PEAK FLOW (min) = 5.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0056

Max.Eff.Inten.(mm/hr)= 33.63 18.56
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 1.64 (ii) 5.00 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.32 0.16

TOTALS

PEAK FLOW (cms)= 0.02 0.00 0.018 (iii)
 TIME TO PEAK (hrs)= 4.83 5.25 5.25
 RUNOFF VOLUME (mm)= 71.10 29.47 69.01
 TOTAL RAINFALL (mm)= 73.10 73.10 73.10
 RUNOFF COEFFICIENT = 0.97 0.40 0.94

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB		STANDHYD (7836)		ID= 1 DT= 5.0 min	
Area (ha)	Imp (%)	Dir. Conn. (%)	Area (ha)	Imp (%)	Dir. Conn. (%)
0.20	95.00	95.00	0.20	95.00	95.00
IMPERVIOUS PERVIOUS (i)					
Surface Area (ha)	0.19	0.01			
Dep. Storage (mm)	2.00	5.00			
Average Slope (%)	2.50	2.00			
Length (m)	36.51	40.00			
Mannings n	0.013	0.250			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	3.167	4.39	6.250	9.50	9.33	0.73				
0.167	0.00	3.250	4.39	6.333	5.12	9.42	0.73				
0.250	0.00	3.333	12.43	6.417	5.12	9.50	0.73				
0.333	0.73	3.417	12.43	6.500	5.12	9.58	0.73				
0.417	0.73	3.500	12.43	6.583	5.12	9.67	0.73				
0.500	0.73	3.583	12.43	6.667	5.12	9.75	0.73				
0.583	0.73	3.667	12.43	6.750	5.12	9.83	0.73				
0.667	0.73	3.750	12.43	6.833	5.12	9.92	0.73				
0.750	0.73	3.833	12.43	6.917	5.12	10.00	0.73				
0.833	0.73	3.917	12.43	7.000	5.12	10.08	0.73				
0.917	0.73	4.000	12.43	7.083	5.12	10.17	0.73				
1.000	0.73	4.083	12.43	7.167	5.12	10.25	0.73				
1.083	0.73	4.167	12.43	7.250	5.12	10.33	0.73				
1.167	0.73	4.250	12.43	7.333	2.92	10.42	0.73				
1.250	0.73	4.333	33.63	7.417	2.92	10.50	0.73				
1.333	0.73	4.417	33.63	7.500	2.92	10.58	0.73				
1.417	0.73	4.500	33.63	7.583	2.92	10.67	0.73				
1.500	0.73	4.583	33.63	7.667	2.92	10.75	0.73				
1.583	0.73	4.667	33.63	7.750	2.92	10.83	0.73				
1.667	0.73	4.750	33.63	7.833	2.92	10.92	0.73				

RESERVOIR (7807)		OVERFLOW IS OFF			
IN= 2--> OUT= 1		DT= 5.0 min			
	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)	
	0.0000	0.0000	0.0100	0.0090	
	0.0030	0.0010	0.0110	0.0100	
	0.0050	0.0030	0.0120	0.0110	
	0.0060	0.0040	0.0120	0.0130	
	0.0080	0.0050	0.0130	0.0140	
	0.0090	0.0060	0.0140	0.0150	
	0.0090	0.0080	0.0000	0.0000	
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
INFLOW : ID= 2 (7836)	0.200	0.018	5.25	69.01	
OUTFLOW: ID= 1 (7807)	0.200	0.009	5.33	68.61	

PEAK FLOW REDUCTION [Qout/Qin] (%) = 48.83
 TIME SHIFT OF PEAK FLOW (min) = 5.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0060

ADD HYD (7831)		AREA QPEAK TPEAK R.V.			
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7807):	0.20	0.009	5.33	68.61	
+ ID2= 2 (7825):	0.19	0.009	5.33	68.62	
ID = 3 (7831):	0.39	0.017	5.33	68.62	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.



ADD HYD (7831)	AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7831):	0.39	0.017	5.33	68.62
+ ID2= 2 (7833):	25.67	0.328	8.33	70.79

ID = 1 (7831):	26.06	0.336	8.25	70.76

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)=	1.24
STANDHYD (7826)	Total Imp(%)=	99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.23	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	91.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.39	6.250	9.50	9.33	0.73
0.167	0.00	3.250	4.39	6.333	5.12	9.42	0.73
0.250	0.00	3.333	12.43	6.417	5.12	9.50	0.73
0.333	0.73	3.417	12.43	6.500	5.12	9.58	0.73
0.417	0.73	3.500	12.43	6.583	5.12	9.67	0.73
0.500	0.73	3.583	12.43	6.667	5.12	9.75	0.73
0.583	0.73	3.667	12.43	6.750	5.12	9.83	0.73
0.667	0.73	3.750	12.43	6.833	5.12	9.92	0.73
0.750	0.73	3.833	12.43	6.917	5.12	10.00	0.73
0.833	0.73	3.917	12.43	7.000	5.12	10.08	0.73
0.917	0.73	4.000	12.43	7.083	5.12	10.17	0.73
1.000	0.73	4.083	12.43	7.167	5.12	10.25	0.73
1.083	0.73	4.167	12.43	7.250	5.12	10.33	0.73
1.167	0.73	4.250	12.43	7.333	2.92	10.42	0.73
1.250	0.73	4.333	33.63	7.417	2.92	10.50	0.73
1.333	0.73	4.417	33.63	7.500	2.92	10.58	0.73
1.417	0.73	4.500	33.63	7.583	2.92	10.67	0.73
1.500	0.73	4.583	33.63	7.667	2.92	10.75	0.73
1.583	0.73	4.667	33.63	7.750	2.92	10.83	0.73
1.667	0.73	4.750	33.63	7.833	2.92	10.92	0.73
1.750	0.73	4.833	33.63	7.917	2.92	11.00	0.73
1.833	0.73	4.917	33.63	8.000	2.92	11.08	0.73
1.917	0.73	5.000	33.63	8.083	2.92	11.17	0.73
2.000	0.73	5.083	33.63	8.167	2.92	11.25	0.73
2.083	0.73	5.167	33.63	8.250	2.92	11.33	0.73
2.167	0.73	5.250	33.63	8.333	1.46	11.42	0.73
2.250	0.73	5.333	9.50	8.417	1.46	11.50	0.73
2.333	4.39	5.417	9.50	8.500	1.46	11.58	0.73
2.417	4.39	5.500	9.50	8.583	1.46	11.67	0.73
2.500	4.39	5.583	9.50	8.667	1.46	11.75	0.73
2.583	4.39	5.667	9.50	8.750	1.46	11.83	0.73
2.667	4.39	5.750	9.50	8.833	1.46	11.92	0.73
2.750	4.39	5.833	9.50	8.917	1.46	12.00	0.73
2.833	4.39	5.917	9.50	9.000	1.46	12.08	0.73
2.917	4.39	6.000	9.50	9.083	1.46	12.17	0.73
3.000	4.39	6.083	9.50	9.167	1.46	12.25	0.73
3.083	4.39	6.167	9.50	9.250	1.46		

Max.Eff.Inten. (mm/hr)=	33.63	18.05
over (min)	5.00	5.00
Storage Coeff. (min)=	3.03 (ii)	4.77 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.27	0.22

TOTALS			
PEAK FLOW (cms)=	0.11	0.00	0.116 (iii)
TIME TO PEAK (hrs)=	5.08	5.25	5.25
RUNOFF VOLUME (mm)=	71.10	28.62	70.67
TOTAL RAINFALL (mm)=	73.10	73.10	73.10

RUNOFF COEFFICIENT = 0.97 0.39 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7815)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7826):	1.24	0.116	5.25	70.67
+ ID2= 2 (7831):	26.06	0.336	8.25	70.76

ID = 3 (7815):	27.30	0.356	6.25	70.76

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(7841)	OVERFLOW IS OFF			
IN= 2----> OUT= 1	OUTFLOW	STORAGE	OUTFLOW	STORAGE
DT= 5.0 min	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	1.0810	1.6220
	0.0010	0.1670	1.3950	1.8170
	0.0340	0.3380	2.0990	2.2130
	0.0510	0.5110	2.8950	2.6150
	0.0630	0.6880	3.7730	3.0250
	0.1610	0.8670	4.7260	3.4420
	0.3300	1.0500	5.5670	3.8670
	0.5440	1.2370	8.5800	4.3000
	0.7970	1.4290	10.9450	4.5210

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7815)	27.302	0.356	6.25	70.76
OUTFLOW: ID= 1 (7841)	27.302	0.201	15.33	65.35

PEAK FLOW REDUCTION [Qout/Qin] (%)=	56.37
TIME SHIFT OF PEAK FLOW (min)=	545.00
MAXIMUM STORAGE USED (ha.m.)=	0.9102

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*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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***** D E T A I L E D O U T P U T *****

```

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat
Output filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\84bc3c46-c3ee-49cf-a848-e2752a2948cb\scen
Summary filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-
a4eb17ead57\84bc3c46-c3ee-49cf-a848-e2752a2948cb\scen

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DATE: 11-22-2024 TIME: 01:45:34

USER:

COMMENTS: _____

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*****
** SIMULATION : K 50 Year 12 Hour AES (Bloor, **
*****

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READ STORM      Filename: C:\Users\mhooper\AppData
                 ata\Local\Temp\
                 bac52abb-b775-4ad0-a17a-4b6fd89712ba\afc06053
| Ptotal= 80.82 mm | Comments: 50 Year 12 Hour AES (Bloor, TRCA)
-----

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	3.25	13.74	6.50	5.66	9.75	0.81
0.25	0.81	3.50	13.74	6.75	5.66	10.00	0.81
0.50	0.81	3.75	13.74	7.00	5.66	10.25	0.81
0.75	0.81	4.00	13.74	7.25	3.23	10.50	0.81
1.00	0.81	4.25	37.17	7.50	3.23	10.75	0.81
1.25	0.81	4.50	37.17	7.75	3.23	11.00	0.81
1.50	0.81	4.75	37.17	8.00	3.23	11.25	0.81
1.75	0.81	5.00	37.17	8.25	1.62	11.50	0.81
2.00	0.81	5.25	10.50	8.50	1.62	11.75	0.81
2.25	4.85	5.50	10.50	8.75	1.62	12.00	0.81
2.50	4.85	5.75	10.50	9.00	1.62		
2.75	4.85	6.00	10.50	9.25	0.81		
3.00	4.85	6.25	5.66	9.50	0.81		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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-----
| CALIB |
| NASHYD ( 7823) | Area (ha)= 0.21 Curve Number (CN)= 73.0
| ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res. (N)= 3.00
| U.H. Tp(hrs)= 0.17
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----- TRANSFORMED HYETOGRAPH -----

```

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.85	6.250	10.50	9.33	0.81
0.167	0.00	3.250	4.85	6.333	5.66	9.42	0.81
0.250	0.00	3.333	13.74	6.417	5.66	9.50	0.81
0.333	0.81	3.417	13.74	6.500	5.66	9.58	0.81
0.417	0.81	3.500	13.74	6.583	5.66	9.67	0.81
0.500	0.81	3.583	13.74	6.667	5.66	9.75	0.81
0.583	0.81	3.667	13.74	6.750	5.66	9.83	0.81
0.667	0.81	3.750	13.74	6.833	5.66	9.92	0.81
0.750	0.81	3.833	13.74	6.917	5.66	10.00	0.81
0.833	0.81	3.917	13.74	7.000	5.66	10.08	0.81
0.917	0.81	4.000	13.74	7.083	5.66	10.17	0.81
1.000	0.81	4.083	13.74	7.167	5.66	10.25	0.81
1.083	0.81	4.167	13.74	7.250	5.66	10.33	0.81
1.167	0.81	4.250	13.74	7.333	3.23	10.42	0.81
1.250	0.81	4.333	37.17	7.417	3.23	10.50	0.81
1.333	0.81	4.417	37.17	7.500	3.23	10.58	0.81
1.417	0.81	4.500	37.17	7.583	3.23	10.67	0.81
1.500	0.81	4.583	37.17	7.667	3.23	10.75	0.81
1.583	0.81	4.667	37.17	7.750	3.23	10.83	0.81
1.667	0.81	4.750	37.17	7.833	3.23	10.92	0.81
1.750	0.81	4.833	37.17	7.917	3.23	11.00	0.81
1.833	0.81	4.917	37.17	8.000	3.23	11.08	0.81
1.917	0.81	5.000	37.17	8.083	3.23	11.17	0.81
2.000	0.81	5.083	37.17	8.167	3.23	11.25	0.81
2.083	0.81	5.167	37.17	8.250	3.23	11.33	0.81
2.167	0.81	5.250	37.17	8.333	1.62	11.42	0.81
2.250	0.81	5.333	10.50	8.417	1.62	11.50	0.81
2.333	4.85	5.417	10.50	8.500	1.62	11.58	0.81
2.417	4.85	5.500	10.50	8.583	1.62	11.67	0.81
2.500	4.85	5.583	10.50	8.667	1.62	11.75	0.81
2.583	4.85	5.667	10.50	8.750	1.62	11.83	0.81
2.667	4.85	5.750	10.50	8.833	1.62	11.92	0.81
2.750	4.85	5.833	10.50	8.917	1.62	12.00	0.81
2.833	4.85	5.917	10.50	9.000	1.62	12.08	0.81
2.917	4.85	6.000	10.50	9.083	1.62	12.17	0.81
3.000	4.85	6.083	10.50	9.167	1.62	12.25	0.81
3.083	4.85	6.167	10.50	9.250	1.62		

Unit Hyd Qpeak (cms)= 0.047

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PEAK FLOW (cms)= 0.011 (i)
TIME TO PEAK (hrs)= 5.250
RUNOFF VOLUME (mm)= 33.739
TOTAL RAINFALL (mm)= 80.820
RUNOFF COEFFICIENT = 0.417

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(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB |
| STANDHYD ( 7828) | Area (ha)= 10.90
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
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IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 10.79 0.11
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 1.00 2.00
Length (m)= 269.57 40.00
Mannings n = 0.013 0.250

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NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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----- TRANSFORMED HYETOGRAPH -----

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TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.85	6.250	10.50	9.33	0.81
0.167	0.00	3.250	4.85	6.333	5.66	9.42	0.81
0.250	0.00	3.333	13.74	6.417	5.66	9.50	0.81
0.333	0.81	3.417	13.74	6.500	5.66	9.58	0.81
0.417	0.81	3.500	13.74	6.583	5.66	9.67	0.81



0.500	0.81	3.583	13.74	6.667	5.66	9.75	0.81
0.583	0.81	3.667	13.74	6.750	5.66	9.83	0.81
0.667	0.81	3.750	13.74	6.833	5.66	9.92	0.81
0.750	0.81	3.833	13.74	6.917	5.66	10.00	0.81
0.833	0.81	3.917	13.74	7.000	5.66	10.08	0.81
0.917	0.81	4.000	13.74	7.083	5.66	10.17	0.81
1.000	0.81	4.083	13.74	7.167	5.66	10.25	0.81
1.083	0.81	4.167	13.74	7.250	5.66	10.33	0.81
1.167	0.81	4.250	13.74	7.333	3.23	10.42	0.81
1.250	0.81	4.333	37.17	7.417	3.23	10.50	0.81
1.333	0.81	4.417	37.17	7.500	3.23	10.58	0.81
1.417	0.81	4.500	37.17	7.583	3.23	10.67	0.81
1.500	0.81	4.583	37.17	7.667	3.23	10.75	0.81
1.583	0.81	4.667	37.17	7.750	3.23	10.83	0.81
1.667	0.81	4.750	37.17	7.833	3.23	10.92	0.81
1.750	0.81	4.833	37.17	7.917	3.23	11.00	0.81
1.833	0.81	4.917	37.17	8.000	3.23	11.08	0.81
1.917	0.81	5.000	37.17	8.083	3.23	11.17	0.81
2.000	0.81	5.083	37.17	8.167	3.23	11.25	0.81
2.083	0.81	5.167	37.17	8.250	3.23	11.33	0.81
2.167	0.81	5.250	37.17	8.333	1.62	11.42	0.81
2.250	0.81	5.333	10.50	8.417	1.62	11.50	0.81
2.333	4.85	5.417	10.50	8.500	1.62	11.58	0.81
2.417	4.85	5.500	10.50	8.583	1.62	11.67	0.81
2.500	4.85	5.583	10.50	8.667	1.62	11.75	0.81
2.583	4.85	5.667	10.50	8.750	1.62	11.83	0.81
2.667	4.85	5.750	10.50	8.833	1.62	11.92	0.81
2.750	4.85	5.833	10.50	8.917	1.62	12.00	0.81
2.833	4.85	5.917	10.50	9.000	1.62	12.08	0.81
2.917	4.85	6.000	10.50	9.083	1.62	12.17	0.81
3.000	4.85	6.083	10.50	9.167	1.62	12.25	0.81
3.083	4.85	6.167	10.50	9.250	1.62		

Max.Eff.Inten. (mm/hr)= 37.17 21.17
 over (min) 5.00 10.00
 Storage Coeff. (min)= 6.88 (ii) 8.55 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.18 0.12

TOTALS
 PEAK FLOW (cms)= 1.11 0.01 1.120 (iii)
 TIME TO PEAK (hrs)= 5.25 5.25
 RUNOFF VOLUME (mm)= 78.82 33.86 78.37
 TOTAL RAINFALL (mm)= 80.82 80.82
 RUNOFF COEFFICIENT = 0.98 0.42 0.97

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7837)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7823):	0.21	0.011	5.25	33.74
+ ID2= 2 (7828):	10.90	1.120	5.25	78.37
ID = 3 (7837):	11.11	1.132	5.25	77.54

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7818)	OUTFLOW	STORAGE	OUTFLOW	STORAGE
IN= 2--> OUT= 1	(cms)	(ha.m.)	(cms)	(ha.m.)
DT= 5.0 min				
	0.0000	0.0000	0.1390	0.6960
	0.0590	0.3400	0.1630	0.7780
	0.0900	0.4907	0.1840	0.8800
	0.1110	0.5760	0.0000	0.0000
	AREA	QPEAK	TPEAK	R.V.

(ha) (cms) (hrs) (mm)
 INFLOW : ID= 2 (7837) 11.108 1.132 5.25 77.54
 OUTFLOW: ID= 1 (7818) 11.108 0.130 7.33 77.40

PEAK FLOW REDUCTION [Qout/Qin] (%) = 11.49
 TIME SHIFT OF PEAK FLOW (min) = 125.00
 MAXIMUM STORAGE USED (ha.m.) = 0.6578

CMLIB
 STANDHYD (7820) Area (ha) = 11.38
 ID= 1 DT= 5.0 min Total Imp(%) = 99.00 Dir. Conn.(%) = 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha) = 11.27 0.11
 Dep. Storage (mm) = 2.00 5.00
 Average Slope (%) = 1.00 2.00
 Length (m) = 275.44 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.85	6.250	10.50	9.33	0.81
0.167	0.00	3.250	4.85	6.333	5.66	9.42	0.81
0.250	0.00	3.333	13.74	6.417	5.66	9.50	0.81
0.333	0.81	3.417	13.74	6.500	5.66	9.58	0.81
0.417	0.81	3.500	13.74	6.583	5.66	9.67	0.81
0.500	0.81	3.583	13.74	6.667	5.66	9.75	0.81
0.583	0.81	3.667	13.74	6.750	5.66	9.83	0.81
0.667	0.81	3.750	13.74	6.833	5.66	9.92	0.81
0.750	0.81	3.833	13.74	6.917	5.66	10.00	0.81
0.833	0.81	3.917	13.74	7.000	5.66	10.08	0.81
0.917	0.81	4.000	13.74	7.083	5.66	10.17	0.81
1.000	0.81	4.083	13.74	7.167	5.66	10.25	0.81
1.083	0.81	4.167	13.74	7.250	5.66	10.33	0.81
1.167	0.81	4.250	13.74	7.333	3.23	10.42	0.81
1.250	0.81	4.333	37.17	7.417	3.23	10.50	0.81
1.333	0.81	4.417	37.17	7.500	3.23	10.58	0.81
1.417	0.81	4.500	37.17	7.583	3.23	10.67	0.81
1.500	0.81	4.583	37.17	7.667	3.23	10.75	0.81
1.583	0.81	4.667	37.17	7.750	3.23	10.83	0.81
1.667	0.81	4.750	37.17	7.833	3.23	10.92	0.81
1.750	0.81	4.833	37.17	7.917	3.23	11.00	0.81
1.833	0.81	4.917	37.17	8.000	3.23	11.08	0.81
1.917	0.81	5.000	37.17	8.083	3.23	11.17	0.81
2.000	0.81	5.083	37.17	8.167	3.23	11.25	0.81
2.083	0.81	5.167	37.17	8.250	3.23	11.33	0.81
2.167	0.81	5.250	37.17	8.333	1.62	11.42	0.81
2.250	0.81	5.333	10.50	8.417	1.62	11.50	0.81
2.333	4.85	5.417	10.50	8.500	1.62	11.58	0.81
2.417	4.85	5.500	10.50	8.583	1.62	11.67	0.81
2.500	4.85	5.583	10.50	8.667	1.62	11.75	0.81
2.583	4.85	5.667	10.50	8.750	1.62	11.83	0.81
2.667	4.85	5.750	10.50	8.833	1.62	11.92	0.81
2.750	4.85	5.833	10.50	8.917	1.62	12.00	0.81
2.833	4.85	5.917	10.50	9.000	1.62	12.08	0.81
2.917	4.85	6.000	10.50	9.083	1.62	12.17	0.81
3.000	4.85	6.083	10.50	9.167	1.62	12.25	0.81
3.083	4.85	6.167	10.50	9.250	1.62		

Max.Eff.Inten. (mm/hr)= 37.17 21.17
 over (min) 5.00 10.00
 Storage Coeff. (min)= 6.97 (ii) 8.64 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.17 0.12

TOTALS
 PEAK FLOW (cms)= 1.16 0.01 1.169 (iii)
 TIME TO PEAK (hrs)= 5.25 5.25
 RUNOFF VOLUME (mm)= 78.82 33.86 78.37
 TOTAL RAINFALL (mm)= 80.82 80.82
 RUNOFF COEFFICIENT = 0.98 0.42 0.97

1.417	0.81	4.500	37.17	7.583	3.23	10.67	0.81
1.500	0.81	4.583	37.17	7.667	3.23	10.75	0.81
1.583	0.81	4.667	37.17	7.750	3.23	10.83	0.81
1.667	0.81	4.750	37.17	7.833	3.23	10.92	0.81
1.750	0.81	4.833	37.17	7.917	3.23	11.00	0.81
1.833	0.81	4.917	37.17	8.000	3.23	11.08	0.81
1.917	0.81	5.000	37.17	8.083	3.23	11.17	0.81
2.000	0.81	5.083	37.17	8.167	3.23	11.25	0.81
2.083	0.81	5.167	37.17	8.250	3.23	11.33	0.81
2.167	0.81	5.250	37.17	8.333	1.62	11.42	0.81
2.250	0.81	5.333	10.50	8.417	1.62	11.50	0.81
2.333	4.85	5.417	10.50	8.500	1.62	11.58	0.81
2.417	4.85	5.500	10.50	8.583	1.62	11.67	0.81
2.500	4.85	5.583	10.50	8.667	1.62	11.75	0.81
2.583	4.85	5.667	10.50	8.750	1.62	11.83	0.81
2.667	4.85	5.750	10.50	8.833	1.62	11.92	0.81
2.750	4.85	5.833	10.50	8.917	1.62	12.00	0.81
2.833	4.85	5.917	10.50	9.000	1.62	12.08	0.81
2.917	4.85	6.000	10.50	9.083	1.62	12.17	0.81
3.000	4.85	6.083	10.50	9.167	1.62	12.25	0.81
3.083	4.85	6.167	10.50	9.250	1.62		

Max.Eff.Inten. (mm/hr)=	37.17	21.17
over (min)=	5.00	5.00
Storage Coeff. (min)=	1.45 (ii)	2.55 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.29
PEAK FLOW (cms)=	0.24	0.00
TIME TO PEAK (hrs)=	4.83	5.25
RUNOFF VOLUME (mm)=	79.82	33.86
TOTAL RAINFALL (mm)=	80.82	80.82
RUNOFF COEFFICIENT =	0.99	0.42

TOTALS	0.244 (iii)
PEAK FLOW (cms)=	0.24
TIME TO PEAK (hrs)=	4.83
RUNOFF VOLUME (mm)=	79.82
TOTAL RAINFALL (mm)=	80.82
RUNOFF COEFFICIENT =	0.99

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (7811)	Area (ha)= 2.40
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	3.167	4.85	6.250	10.50	9.33	0.81
0.167	0.00	3.250	4.85	6.333	5.66	9.42	0.81
0.250	0.00	3.333	13.74	6.417	5.66	9.50	0.81
0.333	0.81	3.417	13.74	6.500	5.66	9.58	0.81
0.417	0.81	3.500	13.74	6.583	5.66	9.67	0.81
0.500	0.81	3.583	13.74	6.667	5.66	9.75	0.81
0.583	0.81	3.667	13.74	6.750	5.66	9.83	0.81
0.667	0.81	3.750	13.74	6.833	5.66	9.92	0.81
0.750	0.81	3.833	13.74	6.917	5.66	10.00	0.81
0.833	0.81	3.917	13.74	7.000	5.66	10.08	0.81
0.917	0.81	4.000	13.74	7.083	5.66	10.17	0.81
1.000	0.81	4.083	13.74	7.167	5.66	10.25	0.81
1.083	0.81	4.167	13.74	7.250	5.66	10.33	0.81
1.167	0.81	4.250	13.74	7.333	3.23	10.42	0.81
1.250	0.81	4.333	37.17	7.417	3.23	10.50	0.81

1.333	0.81	4.417	37.17	7.500	3.23	10.58	0.81
1.417	0.81	4.500	37.17	7.583	3.23	10.67	0.81
1.500	0.81	4.583	37.17	7.667	3.23	10.75	0.81
1.583	0.81	4.667	37.17	7.750	3.23	10.83	0.81
1.667	0.81	4.750	37.17	7.833	3.23	10.92	0.81
1.750	0.81	4.833	37.17	7.917	3.23	11.00	0.81
1.833	0.81	4.917	37.17	8.000	3.23	11.08	0.81
1.917	0.81	5.000	37.17	8.083	3.23	11.17	0.81
2.000	0.81	5.083	37.17	8.167	3.23	11.25	0.81
2.083	0.81	5.167	37.17	8.250	3.23	11.33	0.81
2.167	0.81	5.250	37.17	8.333	1.62	11.42	0.81
2.250	0.81	5.333	10.50	8.417	1.62	11.50	0.81
2.333	4.85	5.417	10.50	8.500	1.62	11.58	0.81
2.417	4.85	5.500	10.50	8.583	1.62	11.67	0.81
2.500	4.85	5.583	10.50	8.667	1.62	11.75	0.81
2.583	4.85	5.667	10.50	8.750	1.62	11.83	0.81
2.667	4.85	5.750	10.50	8.833	1.62	11.92	0.81
2.750	4.85	5.833	10.50	8.917	1.62	12.00	0.81
2.833	4.85	5.917	10.50	9.000	1.62	12.08	0.81
2.917	4.85	6.000	10.50	9.083	1.62	12.17	0.81
3.000	4.85	6.083	10.50	9.167	1.62	12.25	0.81
3.083	4.85	6.167	10.50	9.250	1.62		

Max.Eff.Inten. (mm/hr)=	37.17	21.17
over (min)=	5.00	5.00
Storage Coeff. (min)=	1.45 (ii)	2.55 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.29
PEAK FLOW (cms)=	0.25	0.00
TIME TO PEAK (hrs)=	4.83	5.25
RUNOFF VOLUME (mm)=	79.82	33.86
TOTAL RAINFALL (mm)=	80.82	80.82
RUNOFF COEFFICIENT =	0.99	0.42

TOTALS	0.247 (iii)
PEAK FLOW (cms)=	0.25
TIME TO PEAK (hrs)=	4.83
RUNOFF VOLUME (mm)=	79.82
TOTAL RAINFALL (mm)=	80.82
RUNOFF COEFFICIENT =	0.99

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	
STANDHYD (7816)	Area (ha)= 2.36
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.34	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	3.167	4.85	6.250	10.50	9.33	0.81
0.167	0.00	3.250	4.85	6.333	5.66	9.42	0.81
0.250	0.00	3.333	13.74	6.417	5.66	9.50	0.81
0.333	0.81	3.417	13.74	6.500	5.66	9.58	0.81
0.417	0.81	3.500	13.74	6.583	5.66	9.67	0.81
0.500	0.81	3.583	13.74	6.667	5.66	9.75	0.81
0.583	0.81	3.667	13.74	6.750	5.66	9.83	0.81
0.667	0.81	3.750	13.74	6.833	5.66	9.92	0.81
0.750	0.81	3.833	13.74	6.917	5.66	10.00	0.81
0.833	0.81	3.917	13.74	7.000	5.66	10.08	0.81
0.917	0.81	4.000	13.74	7.083	5.66	10.17	0.81
1.000	0.81	4.083	13.74	7.167	5.66	10.25	0.81
1.083	0.81	4.167	13.74	7.250	5.66	10.33	0.81
1.167	0.81	4.250	13.74	7.333	3.23	10.42	0.81



1.250	0.81	4.333	37.17	7.417	3.23	10.50	0.81
1.333	0.81	4.417	37.17	7.500	3.23	10.58	0.81
1.417	0.81	4.500	37.17	7.583	3.23	10.67	0.81
1.500	0.81	4.583	37.17	7.667	3.23	10.75	0.81
1.583	0.81	4.667	37.17	7.750	3.23	10.83	0.81
1.667	0.81	4.750	37.17	7.833	3.23	10.92	0.81
1.750	0.81	4.833	37.17	7.917	3.23	11.00	0.81
1.833	0.81	4.917	37.17	8.000	3.23	11.08	0.81
1.917	0.81	5.000	37.17	8.083	3.23	11.17	0.81
2.000	0.81	5.083	37.17	8.167	3.23	11.25	0.81
2.083	0.81	5.167	37.17	8.250	3.23	11.33	0.81
2.167	0.81	5.250	37.17	8.333	1.62	11.42	0.81
2.250	0.81	5.333	10.50	8.417	1.62	11.50	0.81
2.333	4.85	5.417	10.50	8.500	1.62	11.58	0.81
2.417	4.85	5.500	10.50	8.583	1.62	11.67	0.81
2.500	4.85	5.583	10.50	8.667	1.62	11.75	0.81
2.583	4.85	5.667	10.50	8.750	1.62	11.83	0.81
2.667	4.85	5.750	10.50	8.833	1.62	11.92	0.81
2.750	4.85	5.833	10.50	8.917	1.62	12.00	0.81
2.833	4.85	5.917	10.50	9.000	1.62	12.08	0.81
2.917	4.85	6.000	10.50	9.083	1.62	12.17	0.81
3.000	4.85	6.083	10.50	9.167	1.62	12.25	0.81
3.083	4.85	6.167	10.50	9.250	1.62		

Max.Eff.Inten. (mm/hr)=	37.17	21.17
over (min)	5.00	5.00
Storage Coeff. (min)=	1.45 (ii)	2.55 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.29
TOTALS		
PEAK FLOW (cms)=	0.24	0.00
TIME TO PEAK (hrs)=	4.83	5.25
RUNOFF VOLUME (mm)=	79.82	33.86
TOTAL RAINFALL (mm)=	80.82	80.82
RUNOFF COEFFICIENT =	0.99	0.42

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	2.39
STANDHYD (7827)	Total Imp(%)=	99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	99.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.85	6.250	10.50	9.33	0.81
0.167	0.00	3.250	4.85	6.333	5.66	9.42	0.81
0.250	0.00	3.333	13.74	6.417	5.66	9.50	0.81
0.333	0.81	3.417	13.74	6.500	5.66	9.58	0.81
0.417	0.81	3.500	13.74	6.583	5.66	9.67	0.81
0.500	0.81	3.583	13.74	6.667	5.66	9.75	0.81
0.583	0.81	3.667	13.74	6.750	5.66	9.83	0.81
0.667	0.81	3.750	13.74	6.833	5.66	9.92	0.81
0.750	0.81	3.833	13.74	6.917	5.66	10.00	0.81
0.833	0.81	3.917	13.74	7.000	5.66	10.08	0.81
0.917	0.81	4.000	13.74	7.083	5.66	10.17	0.81
1.000	0.81	4.083	13.74	7.167	5.66	10.25	0.81
1.083	0.81	4.167	13.74	7.250	5.66	10.33	0.81

1.167	0.81	4.250	13.74	7.333	3.23	10.42	0.81
1.250	0.81	4.333	37.17	7.417	3.23	10.50	0.81
1.333	0.81	4.417	37.17	7.500	3.23	10.58	0.81
1.417	0.81	4.500	37.17	7.583	3.23	10.67	0.81
1.500	0.81	4.583	37.17	7.667	3.23	10.75	0.81
1.583	0.81	4.667	37.17	7.750	3.23	10.83	0.81
1.667	0.81	4.750	37.17	7.833	3.23	10.92	0.81
1.750	0.81	4.833	37.17	7.917	3.23	11.00	0.81
1.833	0.81	4.917	37.17	8.000	3.23	11.08	0.81
1.917	0.81	5.000	37.17	8.083	3.23	11.17	0.81
2.000	0.81	5.083	37.17	8.167	3.23	11.25	0.81
2.083	0.81	5.167	37.17	8.250	3.23	11.33	0.81
2.167	0.81	5.250	37.17	8.333	1.62	11.42	0.81
2.250	0.81	5.333	10.50	8.417	1.62	11.50	0.81
2.333	4.85	5.417	10.50	8.500	1.62	11.58	0.81
2.417	4.85	5.500	10.50	8.583	1.62	11.67	0.81
2.500	4.85	5.583	10.50	8.667	1.62	11.75	0.81
2.583	4.85	5.667	10.50	8.750	1.62	11.83	0.81
2.667	4.85	5.750	10.50	8.833	1.62	11.92	0.81
2.750	4.85	5.833	10.50	8.917	1.62	12.00	0.81
2.833	4.85	5.917	10.50	9.000	1.62	12.08	0.81
2.917	4.85	6.000	10.50	9.083	1.62	12.17	0.81
3.000	4.85	6.083	10.50	9.167	1.62	12.25	0.81
3.083	4.85	6.167	10.50	9.250	1.62		

Max.Eff.Inten. (mm/hr)=	37.17	21.17
over (min)	5.00	5.00
Storage Coeff. (min)=	1.45 (ii)	2.55 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.29
TOTALS		
PEAK FLOW (cms)=	0.24	0.00
TIME TO PEAK (hrs)=	4.83	5.25
RUNOFF VOLUME (mm)=	79.82	33.86
TOTAL RAINFALL (mm)=	80.82	80.82
RUNOFF COEFFICIENT =	0.99	0.42

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	2.39
STANDHYD (7832)	Total Imp(%)=	99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	99.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.85	6.250	10.50	9.33	0.81
0.167	0.00	3.250	4.85	6.333	5.66	9.42	0.81
0.250	0.00	3.333	13.74	6.417	5.66	9.50	0.81
0.333	0.81	3.417	13.74	6.500	5.66	9.58	0.81
0.417	0.81	3.500	13.74	6.583	5.66	9.67	0.81
0.500	0.81	3.583	13.74	6.667	5.66	9.75	0.81
0.583	0.81	3.667	13.74	6.750	5.66	9.83	0.81
0.667	0.81	3.750	13.74	6.833	5.66	9.92	0.81
0.750	0.81	3.833	13.74	6.917	5.66	10.00	0.81
0.833	0.81	3.917	13.74	7.000	5.66	10.08	0.81
0.917	0.81	4.000	13.74	7.083	5.66	10.17	0.81
1.000	0.81	4.083	13.74	7.167	5.66	10.25	0.81

1.083	0.81	4.167	13.74	7.250	5.66	10.33	0.81
1.167	0.81	4.250	13.74	7.333	3.23	10.42	0.81
1.250	0.81	4.333	37.17	7.417	3.23	10.50	0.81
1.333	0.81	4.417	37.17	7.500	3.23	10.58	0.81
1.417	0.81	4.500	37.17	7.583	3.23	10.67	0.81
1.500	0.81	4.583	37.17	7.667	3.23	10.75	0.81
1.583	0.81	4.667	37.17	7.750	3.23	10.83	0.81
1.667	0.81	4.750	37.17	7.833	3.23	10.92	0.81
1.750	0.81	4.833	37.17	7.917	3.23	11.00	0.81
1.833	0.81	4.917	37.17	8.000	3.23	11.08	0.81
1.917	0.81	5.000	37.17	8.083	3.23	11.17	0.81
2.000	0.81	5.083	37.17	8.167	3.23	11.25	0.81
2.083	0.81	5.167	37.17	8.250	3.23	11.33	0.81
2.167	0.81	5.250	37.17	8.333	1.62	11.42	0.81
2.250	0.81	5.333	10.50	8.417	1.62	11.50	0.81
2.333	4.85	5.417	10.50	8.500	1.62	11.58	0.81
2.417	4.85	5.500	10.50	8.583	1.62	11.67	0.81
2.500	4.85	5.583	10.50	8.667	1.62	11.75	0.81
2.583	4.85	5.667	10.50	8.750	1.62	11.83	0.81
2.667	4.85	5.750	10.50	8.833	1.62	11.92	0.81
2.750	4.85	5.833	10.50	8.917	1.62	12.00	0.81
2.833	4.85	5.917	10.50	9.000	1.62	12.08	0.81
2.917	4.85	6.000	10.50	9.083	1.62	12.17	0.81
3.000	4.85	6.083	10.50	9.167	1.62	12.25	0.81
3.083	4.85	6.167	10.50	9.250	1.62		

Max.Eff.Inten. (mm/hr)=	37.17	21.17
over (min)	5.00	5.00
Storage Coeff. (min)=	1.45 (ii)	2.55 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.29
TOTALS		
PEAK FLOW (cms)=	0.24	0.00
TIME TO PEAK (hrs)=	4.83	5.25
RUNOFF VOLUME (mm)=	79.82	33.86
TOTAL RAINFALL (mm)=	80.82	80.82
RUNOFF COEFFICIENT =	0.99	0.42

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7844)	Area (ha)=	2.40	
ID= 1 DT= 5.0 min	Total Imp(%)=	99.00 Dir. Conn.(%)= 99.00	
IMPERVIOUS PERVIOUS (i)			
Surface Area (ha)=	2.38	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.85	6.250	10.50	9.33	0.81		
0.167	0.00	3.250	4.85	6.333	5.66	9.42	0.81		
0.250	0.00	3.333	13.74	6.417	5.66	9.50	0.81		
0.333	0.81	3.417	13.74	6.500	5.66	9.58	0.81		
0.417	0.81	3.500	13.74	6.583	5.66	9.67	0.81		
0.500	0.81	3.583	13.74	6.667	5.66	9.75	0.81		
0.583	0.81	3.667	13.74	6.750	5.66	9.83	0.81		
0.667	0.81	3.750	13.74	6.833	5.66	9.92	0.81		
0.750	0.81	3.833	13.74	6.917	5.66	10.00	0.81		
0.833	0.81	3.917	13.74	7.000	5.66	10.08	0.81		
0.917	0.81	4.000	13.74	7.083	5.66	10.17	0.81		

1.000	0.81	4.083	13.74	7.167	5.66	10.25	0.81
1.083	0.81	4.167	13.74	7.250	5.66	10.33	0.81
1.167	0.81	4.250	13.74	7.333	3.23	10.42	0.81
1.250	0.81	4.333	37.17	7.417	3.23	10.50	0.81
1.333	0.81	4.417	37.17	7.500	3.23	10.58	0.81
1.417	0.81	4.500	37.17	7.583	3.23	10.67	0.81
1.500	0.81	4.583	37.17	7.667	3.23	10.75	0.81
1.583	0.81	4.667	37.17	7.750	3.23	10.83	0.81
1.667	0.81	4.750	37.17	7.833	3.23	10.92	0.81
1.750	0.81	4.833	37.17	7.917	3.23	11.00	0.81
1.833	0.81	4.917	37.17	8.000	3.23	11.08	0.81
1.917	0.81	5.000	37.17	8.083	3.23	11.17	0.81
2.000	0.81	5.083	37.17	8.167	3.23	11.25	0.81
2.083	0.81	5.167	37.17	8.250	3.23	11.33	0.81
2.167	0.81	5.250	37.17	8.333	1.62	11.42	0.81
2.250	0.81	5.333	10.50	8.417	1.62	11.50	0.81
2.333	4.85	5.417	10.50	8.500	1.62	11.58	0.81
2.417	4.85	5.500	10.50	8.583	1.62	11.67	0.81
2.500	4.85	5.583	10.50	8.667	1.62	11.75	0.81
2.583	4.85	5.667	10.50	8.750	1.62	11.83	0.81
2.667	4.85	5.750	10.50	8.833	1.62	11.92	0.81
2.750	4.85	5.833	10.50	8.917	1.62	12.00	0.81
2.833	4.85	5.917	10.50	9.000	1.62	12.08	0.81
2.917	4.85	6.000	10.50	9.083	1.62	12.17	0.81
3.000	4.85	6.083	10.50	9.167	1.62	12.25	0.81
3.083	4.85	6.167	10.50	9.250	1.62		

Max.Eff.Inten. (mm/hr)=	37.17	21.17
over (min)	5.00	5.00
Storage Coeff. (min)=	1.45 (ii)	2.55 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.29

TOTALS		
PEAK FLOW (cms)=	0.25	0.00
TIME TO PEAK (hrs)=	4.83	5.25
RUNOFF VOLUME (mm)=	79.82	33.86
TOTAL RAINFALL (mm)=	80.82	80.82
RUNOFF COEFFICIENT =	0.99	0.42

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7843)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7806):	2.37	0.244	5.25	79.36
+ ID2= 2 (7811):	2.40	0.247	5.25	79.36
=====				
ID = 3 (7843):	4.77	0.490	5.25	79.36

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7843)				
3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7843):	4.77	0.490	5.25	79.36
+ ID2= 2 (7816):	2.36	0.243	5.25	79.36
=====				
ID = 1 (7843):	7.13	0.733	5.25	79.36

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7843)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.

	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7843):	7.13	0.733	5.25	79.36
+ ID2= 2 (7827):	2.39	0.246	5.25	79.36
=====				
ID = 3 (7843):	9.52	0.979	5.25	79.36

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7843)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7843):	9.52	0.979	5.25	79.36
+ ID2= 2 (7832):	2.39	0.246	5.25	79.36
=====				
ID = 1 (7843):	11.91	1.225	5.25	79.36

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7843)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7843):	11.91	1.225	5.25	79.36
+ ID2= 2 (7844):	2.40	0.247	5.25	79.36
=====				
ID = 3 (7843):	14.31	1.471	5.25	79.36

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| DIVERTHYD(7835) |
| IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1	Flow 2	Flow 3	Flow 4	Flow 5	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
TOTAL HYD. (ID= 1):	14.31	1.47	5.25	79.36
ID= 2 (2) :	13.25	1.24	5.25	79.36
ID= 3 (2) :	1.06	0.24	5.25	79.36
ID= 4 (2) :	0.00	0.00	0.00	0.00
ID= 5 (2) :	0.00	0.00	0.00	0.00
ID= 6 (2) :	0.00	0.00	0.00	0.00

| RESERVOIR(7808) |
| IN= 2---> OUT= 1 |
| DT= 5.0 min |

OVERFLOW IS ON

OUTFLOW	STORAGE	OUTFLOW	STORAGE
(cms)	(ha.m.)	(cms)	(ha.m.)
0.0000	0.0000	0.2690	0.4589
0.1980	0.1112	0.0000	0.0000

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7835):	13.248	1.236	5.25	79.36
OUTFLOW: ID= 1 (7808):	11.412	0.269	5.08	80.49
OVERFLOW: ID= 3 (0003):	1.837	1.200	5.08	80.49

TOTAL NUMBER OF SIMULATION OVERFLOW = 15
CUMULATIVE TIME OF OVERFLOW (HOURS) = 1.25
PERCENTAGE OF TIME OVERFLOWING (%) = 5.43

PEAK FLOW REDUCTION [Qout/Qin](%) = 21.77
TIME SHIFT OF PEAK FLOW (min) = -10.00
MAXIMUM STORAGE USED (ha.m.) = 0.4589

| Junction Command(7803) |

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 3 (7808):	1.84	1.20	5.08	80.49
OUTFLOW: ID= 2 (7803):	1.84	1.20	5.08	80.49

ADD HYD (7824)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7803):	1.84	1.200	5.08	80.49
+ ID2= 2 (7808):	11.41	0.269	5.08	80.49
=====				
ID = 3 (7824):	13.25	1.469	5.08	80.49

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7824)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7824):	13.25	1.469	5.08	80.49
+ ID2= 2 (7835):	1.06	0.236	5.25	79.36
=====				
ID = 1 (7824):	14.31	1.704	5.08	80.41

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7810)			
ID= 1 DT= 5.0 min	Area	(ha)=	1.06
	Total Imp (%)=	95.00	Dir. Conn. (%)= 95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.01	0.05
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.85	6.250	10.50	9.33	0.81				
0.167	0.00	3.250	4.85	6.333	5.66	9.42	0.81				
0.250	0.00	3.333	13.74	6.417	5.66	9.50	0.81				
0.333	0.81	3.417	13.74	6.500	5.66	9.58	0.81				
0.417	0.81	3.500	13.74	6.583	5.66	9.67	0.81				
0.500	0.81	3.583	13.74	6.667	5.66	9.75	0.81				
0.583	0.81	3.667	13.74	6.750	5.66	9.83	0.81				
0.667	0.81	3.750	13.74	6.833	5.66	9.92	0.81				
0.750	0.81	3.833	13.74	6.917	5.66	10.00	0.81				
0.833	0.81	3.917	13.74	7.000	5.66	10.08	0.81				
0.917	0.81	4.000	13.74	7.083	5.66	10.17	0.81				
1.000	0.81	4.083	13.74	7.167	5.66	10.25	0.81				
1.083	0.81	4.167	13.74	7.250	5.66	10.33	0.81				
1.167	0.81	4.250	13.74	7.333	3.23	10.42	0.81				
1.250	0.81	4.333	37.17	7.417	3.23	10.50	0.81				
1.333	0.81	4.417	37.17	7.500	3.23	10.58	0.81				
1.417	0.81	4.500	37.17	7.583	3.23	10.67	0.81				
1.500	0.81	4.583	37.17	7.667	3.23	10.75	0.81				
1.583	0.81	4.667	37.17	7.750	3.23	10.83	0.81				
1.667	0.81	4.750	37.17	7.833	3.23	10.92	0.81				
1.750	0.81	4.833	37.17	7.917	3.23	11.00	0.81				



1.833	0.81	4.917	37.17	8.000	3.23	11.08	0.81
1.917	0.81	5.000	37.17	8.083	3.23	11.17	0.81
2.000	0.81	5.083	37.17	8.167	3.23	11.25	0.81
2.083	0.81	5.167	37.17	8.250	3.23	11.33	0.81
2.167	0.81	5.250	37.17	8.333	1.62	11.42	0.81
2.250	0.81	5.333	10.50	8.417	1.62	11.50	0.81
2.333	4.85	5.417	10.50	8.500	1.62	11.58	0.81
2.417	4.85	5.500	10.50	8.583	1.62	11.67	0.81
2.500	4.85	5.583	10.50	8.667	1.62	11.75	0.81
2.583	4.85	5.667	10.50	8.750	1.62	11.83	0.81
2.667	4.85	5.750	10.50	8.833	1.62	11.92	0.81
2.750	4.85	5.833	10.50	8.917	1.62	12.00	0.81
2.833	4.85	5.917	10.50	9.000	1.62	12.08	0.81
2.917	4.85	6.000	10.50	9.083	1.62	12.17	0.81
3.000	4.85	6.083	10.50	9.167	1.62	12.25	0.81
3.083	4.85	6.167	10.50	9.250	1.62		

Max.Eff.Inten.(mm/hr)= 37.17 21.74
 over (min) 5.00 10.00
 Storage Coeff. (min)= 2.12 (ii) 5.35 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.31 0.16

PEAK FLOW (cms)= 0.10 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 4.83 5.25 5.25 0.107 (iii)
 RUNOFF VOLUME (mm)= 78.82 34.83 76.62
 TOTAL RAINFALL (mm)= 80.82 80.82 80.82
 RUNOFF COEFFICIENT = 0.98 0.43 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7814)	Area (ha)= 1.45		
ID= 1 DT= 5.0 min	Total Imp(%)= 96.00	Dir. Conn.(%)= 96.00	
IMPERVIOUS PERVIOUS (i)			
Surface Area (ha)= 1.39	0.06		
Dep. Storage (mm)= 2.00	5.00		
Average Slope (%)= 1.10	2.00		
Length (m)= 100.00	145.00		
Mannings n = 0.013	0.250		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.85	6.250	10.50	9.33	0.81
0.167	0.00	3.250	4.85	6.333	5.66	9.42	0.81
0.250	0.00	3.333	13.74	6.417	5.66	9.50	0.81
0.333	0.81	3.417	13.74	6.500	5.66	9.58	0.81
0.417	0.81	3.500	13.74	6.583	5.66	9.67	0.81
0.500	0.81	3.583	13.74	6.667	5.66	9.75	0.81
0.583	0.81	3.667	13.74	6.750	5.66	9.83	0.81
0.667	0.81	3.750	13.74	6.833	5.66	9.92	0.81
0.750	0.81	3.833	13.74	6.917	5.66	10.00	0.81
0.833	0.81	3.917	13.74	7.000	5.66	10.08	0.81
0.917	0.81	4.000	13.74	7.083	5.66	10.17	0.81
1.000	0.81	4.083	13.74	7.167	5.66	10.25	0.81
1.083	0.81	4.167	13.74	7.250	5.66	10.33	0.81
1.167	0.81	4.250	13.74	7.333	3.23	10.42	0.81
1.250	0.81	4.333	37.17	7.417	3.23	10.50	0.81
1.333	0.81	4.417	37.17	7.500	3.23	10.58	0.81
1.417	0.81	4.500	37.17	7.583	3.23	10.67	0.81
1.500	0.81	4.583	37.17	7.667	3.23	10.75	0.81
1.583	0.81	4.667	37.17	7.750	3.23	10.83	0.81
1.667	0.81	4.750	37.17	7.833	3.23	10.92	0.81

1.750	0.81	4.833	37.17	7.917	3.23	11.00	0.81
1.833	0.81	4.917	37.17	8.000	3.23	11.08	0.81
1.917	0.81	5.000	37.17	8.083	3.23	11.17	0.81
2.000	0.81	5.083	37.17	8.167	3.23	11.25	0.81
2.083	0.81	5.167	37.17	8.250	3.23	11.33	0.81
2.167	0.81	5.250	37.17	8.333	1.62	11.42	0.81
2.250	0.81	5.333	10.50	8.417	1.62	11.50	0.81
2.333	4.85	5.417	10.50	8.500	1.62	11.58	0.81
2.417	4.85	5.500	10.50	8.583	1.62	11.67	0.81
2.500	4.85	5.583	10.50	8.667	1.62	11.75	0.81
2.583	4.85	5.667	10.50	8.750	1.62	11.83	0.81
2.667	4.85	5.750	10.50	8.833	1.62	11.92	0.81
2.750	4.85	5.833	10.50	8.917	1.62	12.00	0.81
2.833	4.85	5.917	10.50	9.000	1.62	12.08	0.81
2.917	4.85	6.000	10.50	9.083	1.62	12.17	0.81
3.000	4.85	6.083	10.50	9.167	1.62	12.25	0.81
3.083	4.85	6.167	10.50	9.250	1.62		

Max.Eff.Inten.(mm/hr)= 37.17 19.62
 over (min) 5.00 35.00
 Storage Coeff. (min)= 3.69 (ii) 33.01 (ii)
 Unit Hyd. Tpeak (min)= 5.00 35.00
 Unit Hyd. peak (cms)= 0.25 0.03

PEAK FLOW (cms)= 0.14 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 5.08 5.50 5.25 0.146 (iii)
 RUNOFF VOLUME (mm)= 78.82 33.86 77.01
 TOTAL RAINFALL (mm)= 80.82 80.82 80.82
 RUNOFF COEFFICIENT = 0.98 0.42 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7822)	Area (ha)= 1.70		
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00	Dir. Conn.(%)= 99.00	
IMPERVIOUS PERVIOUS (i)			
Surface Area (ha)= 1.68	0.02		
Dep. Storage (mm)= 2.00	5.00		
Average Slope (%)= 1.10	2.00		
Length (m)= 100.00	40.00		
Mannings n = 0.013	0.250		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.85	6.250	10.50	9.33	0.81
0.167	0.00	3.250	4.85	6.333	5.66	9.42	0.81
0.250	0.00	3.333	13.74	6.417	5.66	9.50	0.81
0.333	0.81	3.417	13.74	6.500	5.66	9.58	0.81
0.417	0.81	3.500	13.74	6.583	5.66	9.67	0.81
0.500	0.81	3.583	13.74	6.667	5.66	9.75	0.81
0.583	0.81	3.667	13.74	6.750	5.66	9.83	0.81
0.667	0.81	3.750	13.74	6.833	5.66	9.92	0.81
0.750	0.81	3.833	13.74	6.917	5.66	10.00	0.81
0.833	0.81	3.917	13.74	7.000	5.66	10.08	0.81
0.917	0.81	4.000	13.74	7.083	5.66	10.17	0.81
1.000	0.81	4.083	13.74	7.167	5.66	10.25	0.81
1.083	0.81	4.167	13.74	7.250	5.66	10.33	0.81
1.167	0.81	4.250	13.74	7.333	3.23	10.42	0.81
1.250	0.81	4.333	37.17	7.417	3.23	10.50	0.81
1.333	0.81	4.417	37.17	7.500	3.23	10.58	0.81
1.417	0.81	4.500	37.17	7.583	3.23	10.67	0.81
1.500	0.81	4.583	37.17	7.667	3.23	10.75	0.81
1.583	0.81	4.667	37.17	7.750	3.23	10.83	0.81



1.667	0.81	4.750	37.17	7.833	3.23	10.92	0.81
1.750	0.81	4.833	37.17	7.917	3.23	11.00	0.81
1.833	0.81	4.917	37.17	8.000	3.23	11.08	0.81
1.917	0.81	5.000	37.17	8.083	3.23	11.17	0.81
2.000	0.81	5.083	37.17	8.167	3.23	11.25	0.81
2.083	0.81	5.167	37.17	8.250	3.23	11.33	0.81
2.167	0.81	5.250	37.17	8.333	1.62	11.42	0.81
2.250	0.81	5.333	10.50	8.417	1.62	11.50	0.81
2.333	4.85	5.417	10.50	8.500	1.62	11.58	0.81
2.417	4.85	5.500	10.50	8.583	1.62	11.67	0.81
2.500	4.85	5.583	10.50	8.667	1.62	11.75	0.81
2.583	4.85	5.667	10.50	8.750	1.62	11.83	0.81
2.667	4.85	5.750	10.50	8.833	1.62	11.92	0.81
2.750	4.85	5.833	10.50	8.917	1.62	12.00	0.81
2.833	4.85	5.917	10.50	9.000	1.62	12.08	0.81
2.917	4.85	6.000	10.50	9.083	1.62	12.17	0.81
3.000	4.85	6.083	10.50	9.167	1.62	12.25	0.81
3.083	4.85	6.167	10.50	9.250	1.62		

Max.Eff.Inten.(mm/hr)= 37.17 21.17
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 3.69 (ii) 5.36 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.25 0.16

PEAK FLOW (cms)= 0.17 0.00
 TIME TO PEAK (hrs)= 5.08 5.25
 RUNOFF VOLUME (mm)= 78.82 33.86
 TOTAL RAINFALL (mm)= 80.82 80.82
 RUNOFF COEFFICIENT = 0.98 0.42

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7838)			
ID= 1 DT= 5.0 min	Area (ha)= 1.33	Dir. Conn.(%)= 98.00	

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	1.30	0.03	
Dep. Storage (mm)=	2.00	5.00	
Average Slope (%)=	1.10	2.00	
Length (m)=	100.00	40.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.85	6.250	10.50	9.333	0.81
0.167	0.00	3.250	4.85	6.333	5.66	9.42	0.81
0.250	0.00	3.333	13.74	6.417	5.66	9.50	0.81
0.333	0.81	3.417	13.74	6.500	5.66	9.58	0.81
0.417	0.81	3.500	13.74	6.583	5.66	9.67	0.81
0.500	0.81	3.583	13.74	6.667	5.66	9.75	0.81
0.583	0.81	3.667	13.74	6.750	5.66	9.83	0.81
0.667	0.81	3.750	13.74	6.833	5.66	9.92	0.81
0.750	0.81	3.833	13.74	6.917	5.66	10.00	0.81
0.833	0.81	3.917	13.74	7.000	5.66	10.08	0.81
0.917	0.81	4.000	13.74	7.083	5.66	10.17	0.81
1.000	0.81	4.083	13.74	7.167	5.66	10.25	0.81
1.083	0.81	4.167	13.74	7.250	5.66	10.33	0.81
1.167	0.81	4.250	13.74	7.333	3.23	10.42	0.81
1.250	0.81	4.333	37.17	7.417	3.23	10.50	0.81
1.333	0.81	4.417	37.17	7.500	3.23	10.58	0.81
1.417	0.81	4.500	37.17	7.583	3.23	10.67	0.81
1.500	0.81	4.583	37.17	7.667	3.23	10.75	0.81

1.583	0.81	4.667	37.17	7.750	3.23	10.83	0.81
1.667	0.81	4.750	37.17	7.833	3.23	10.92	0.81
1.750	0.81	4.833	37.17	7.917	3.23	11.00	0.81
1.833	0.81	4.917	37.17	8.000	3.23	11.08	0.81
1.917	0.81	5.000	37.17	8.083	3.23	11.17	0.81
2.000	0.81	5.083	37.17	8.167	3.23	11.25	0.81
2.083	0.81	5.167	37.17	8.250	3.23	11.33	0.81
2.167	0.81	5.250	37.17	8.333	1.62	11.42	0.81
2.250	0.81	5.333	10.50	8.417	1.62	11.50	0.81
2.333	4.85	5.417	10.50	8.500	1.62	11.58	0.81
2.417	4.85	5.500	10.50	8.583	1.62	11.67	0.81
2.500	4.85	5.583	10.50	8.667	1.62	11.75	0.81
2.583	4.85	5.667	10.50	8.750	1.62	11.83	0.81
2.667	4.85	5.750	10.50	8.833	1.62	11.92	0.81
2.750	4.85	5.833	10.50	8.917	1.62	12.00	0.81
2.833	4.85	5.917	10.50	9.000	1.62	12.08	0.81
2.917	4.85	6.000	10.50	9.083	1.62	12.17	0.81
3.000	4.85	6.083	10.50	9.167	1.62	12.25	0.81
3.083	4.85	6.167	10.50	9.250	1.62		

Max.Eff.Inten.(mm/hr)= 37.17 21.17
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 3.69 (ii) 5.90 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.25 0.15

PEAK FLOW (cms)= 0.13 0.00
 TIME TO PEAK (hrs)= 5.08 5.25
 RUNOFF VOLUME (mm)= 78.82 33.86
 TOTAL RAINFALL (mm)= 80.82 80.82
 RUNOFF COEFFICIENT = 0.98 0.42

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7805)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7814):	1.45	0.146	5.25	77.01
+ ID2= 2 (7822):	1.70	0.175	5.25	78.37

ID = 3 (7805):	3.15	0.320	5.25	77.74

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7805)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7805):	3.15	0.320	5.25	77.74
+ ID2= 2 (7838):	1.33	0.136	5.25	77.92

ID = 1 (7805):	4.48	0.457	5.25	77.80

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7819)			
ID= 1 DT= 5.0 min	Area (ha)= 1.32	Dir. Conn.(%)= 99.00	

	IMPERVIOUS	PERVIOUS (i)	
Surface Area (ha)=	1.31	0.01	
Dep. Storage (mm)=	2.00	5.00	
Average Slope (%)=	1.10	2.00	
Length (m)=	100.00	40.00	
Mannings n =	0.013	0.250	



NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.85	6.250	10.50	9.33	0.81
0.167	0.00	3.250	4.85	6.333	5.66	9.42	0.81
0.250	0.00	3.333	13.74	6.417	5.66	9.50	0.81
0.333	0.81	3.417	13.74	6.500	5.66	9.58	0.81
0.417	0.81	3.500	13.74	6.583	5.66	9.67	0.81
0.500	0.81	3.583	13.74	6.667	5.66	9.75	0.81
0.583	0.81	3.667	13.74	6.750	5.66	9.83	0.81
0.667	0.81	3.750	13.74	6.833	5.66	9.92	0.81
0.750	0.81	3.833	13.74	6.917	5.66	10.00	0.81
0.833	0.81	3.917	13.74	7.000	5.66	10.08	0.81
0.917	0.81	4.000	13.74	7.083	5.66	10.17	0.81
1.000	0.81	4.083	13.74	7.167	5.66	10.25	0.81
1.083	0.81	4.167	13.74	7.250	5.66	10.33	0.81
1.167	0.81	4.250	13.74	7.333	3.23	10.42	0.81
1.250	0.81	4.333	37.17	7.417	3.23	10.50	0.81
1.333	0.81	4.417	37.17	7.500	3.23	10.58	0.81
1.417	0.81	4.500	37.17	7.583	3.23	10.67	0.81
1.500	0.81	4.583	37.17	7.667	3.23	10.75	0.81
1.583	0.81	4.667	37.17	7.750	3.23	10.83	0.81
1.667	0.81	4.750	37.17	7.833	3.23	10.92	0.81
1.750	0.81	4.833	37.17	7.917	3.23	11.00	0.81
1.833	0.81	4.917	37.17	8.000	3.23	11.08	0.81
1.917	0.81	5.000	37.17	8.083	3.23	11.17	0.81
2.000	0.81	5.083	37.17	8.167	3.23	11.25	0.81
2.083	0.81	5.167	37.17	8.250	3.23	11.33	0.81
2.167	0.81	5.250	37.17	8.333	1.62	11.42	0.81
2.250	0.81	5.333	10.50	8.417	1.62	11.50	0.81
2.333	4.85	5.417	10.50	8.500	1.62	11.58	0.81
2.417	4.85	5.500	10.50	8.583	1.62	11.67	0.81
2.500	4.85	5.583	10.50	8.667	1.62	11.75	0.81
2.583	4.85	5.667	10.50	8.750	1.62	11.83	0.81
2.667	4.85	5.750	10.50	8.833	1.62	11.92	0.81
2.750	4.85	5.833	10.50	8.917	1.62	12.00	0.81
2.833	4.85	5.917	10.50	9.000	1.62	12.08	0.81
2.917	4.85	6.000	10.50	9.083	1.62	12.17	0.81
3.000	4.85	6.083	10.50	9.167	1.62	12.25	0.81
3.083	4.85	6.167	10.50	9.250	1.62		

Max.Eff.Inten. (mm/hr)=	37.17	21.17
over (min)	5.00	10.00
Storage Coeff. (min)=	3.69 (ii)	5.36 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.25	0.16

		TOTALS
PEAK FLOW (cms)=	0.13	0.00
TIME TO PEAK (hrs)=	5.08	5.25
RUNOFF VOLUME (mm)=	78.82	33.86
TOTAL RAINFALL (mm)=	80.82	80.82
RUNOFF COEFFICIENT =	0.98	0.42

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	PERVIOUS	PERVIOUS (i)
STANDHYD (7829)	1.69		
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00	Dir. Conn.(%)= 99.00	
Surface Area (ha)=	1.67	0.02	
Dep. Storage (mm)=	2.00	5.00	
Average Slope (%)=	1.10	2.00	
Length (m)=	100.00	40.00	

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.85	6.250	10.50	9.33	0.81
0.167	0.00	3.250	4.85	6.333	5.66	9.42	0.81
0.250	0.00	3.333	13.74	6.417	5.66	9.50	0.81
0.333	0.81	3.417	13.74	6.500	5.66	9.58	0.81
0.417	0.81	3.500	13.74	6.583	5.66	9.67	0.81
0.500	0.81	3.583	13.74	6.667	5.66	9.75	0.81
0.583	0.81	3.667	13.74	6.750	5.66	9.83	0.81
0.667	0.81	3.750	13.74	6.833	5.66	9.92	0.81
0.750	0.81	3.833	13.74	6.917	5.66	10.00	0.81
0.833	0.81	3.917	13.74	7.000	5.66	10.08	0.81
0.917	0.81	4.000	13.74	7.083	5.66	10.17	0.81
1.000	0.81	4.083	13.74	7.167	5.66	10.25	0.81
1.083	0.81	4.167	13.74	7.250	5.66	10.33	0.81
1.167	0.81	4.250	13.74	7.333	3.23	10.42	0.81
1.250	0.81	4.333	37.17	7.417	3.23	10.50	0.81
1.333	0.81	4.417	37.17	7.500	3.23	10.58	0.81
1.417	0.81	4.500	37.17	7.583	3.23	10.67	0.81
1.500	0.81	4.583	37.17	7.667	3.23	10.75	0.81
1.583	0.81	4.667	37.17	7.750	3.23	10.83	0.81
1.667	0.81	4.750	37.17	7.833	3.23	10.92	0.81
1.750	0.81	4.833	37.17	7.917	3.23	11.00	0.81
1.833	0.81	4.917	37.17	8.000	3.23	11.08	0.81
1.917	0.81	5.000	37.17	8.083	3.23	11.17	0.81
2.000	0.81	5.083	37.17	8.167	3.23	11.25	0.81
2.083	0.81	5.167	37.17	8.250	3.23	11.33	0.81
2.167	0.81	5.250	37.17	8.333	1.62	11.42	0.81
2.250	0.81	5.333	10.50	8.417	1.62	11.50	0.81
2.333	4.85	5.417	10.50	8.500	1.62	11.58	0.81
2.417	4.85	5.500	10.50	8.583	1.62	11.67	0.81
2.500	4.85	5.583	10.50	8.667	1.62	11.75	0.81
2.583	4.85	5.667	10.50	8.750	1.62	11.83	0.81
2.667	4.85	5.750	10.50	8.833	1.62	11.92	0.81
2.750	4.85	5.833	10.50	8.917	1.62	12.00	0.81
2.833	4.85	5.917	10.50	9.000	1.62	12.08	0.81
2.917	4.85	6.000	10.50	9.083	1.62	12.17	0.81
3.000	4.85	6.083	10.50	9.167	1.62	12.25	0.81
3.083	4.85	6.167	10.50	9.250	1.62		

Max.Eff.Inten. (mm/hr)=	37.17	21.17
over (min)	5.00	10.00
Storage Coeff. (min)=	3.69 (ii)	5.36 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.25	0.16

		TOTALS
PEAK FLOW (cms)=	0.17	0.00
TIME TO PEAK (hrs)=	5.08	5.25
RUNOFF VOLUME (mm)=	78.82	33.86
TOTAL RAINFALL (mm)=	80.82	80.82
RUNOFF COEFFICIENT =	0.98	0.42

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	PERVIOUS	PERVIOUS (i)
STANDHYD (7839)	1.61		
ID= 1 DT= 5.0 min	Total Imp(%)= 92.00	Dir. Conn.(%)= 92.00	
Surface Area (ha)=	1.48	0.13	
Dep. Storage (mm)=	2.00	5.00	
Average Slope (%)=	1.10	2.00	



Length (m) = 100.00 145.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.85	6.250	10.50	9.33	0.81
0.167	0.00	3.250	4.85	6.333	5.66	9.42	0.81
0.250	0.00	3.333	13.74	6.417	5.66	9.50	0.81
0.333	0.81	3.417	13.74	6.500	5.66	9.58	0.81
0.417	0.81	3.500	13.74	6.583	5.66	9.67	0.81
0.500	0.81	3.583	13.74	6.667	5.66	9.75	0.81
0.583	0.81	3.667	13.74	6.750	5.66	9.83	0.81
0.667	0.81	3.750	13.74	6.833	5.66	9.92	0.81
0.750	0.81	3.833	13.74	6.917	5.66	10.00	0.81
0.833	0.81	3.917	13.74	7.000	5.66	10.08	0.81
0.917	0.81	4.000	13.74	7.083	5.66	10.17	0.81
1.000	0.81	4.083	13.74	7.167	5.66	10.25	0.81
1.083	0.81	4.167	13.74	7.250	5.66	10.33	0.81
1.167	0.81	4.250	13.74	7.333	3.23	10.42	0.81
1.250	0.81	4.333	37.17	7.417	3.23	10.50	0.81
1.333	0.81	4.417	37.17	7.500	3.23	10.58	0.81
1.417	0.81	4.500	37.17	7.583	3.23	10.67	0.81
1.500	0.81	4.583	37.17	7.667	3.23	10.75	0.81
1.583	0.81	4.667	37.17	7.750	3.23	10.83	0.81
1.667	0.81	4.750	37.17	7.833	3.23	10.92	0.81
1.750	0.81	4.833	37.17	7.917	3.23	11.00	0.81
1.833	0.81	4.917	37.17	8.000	3.23	11.08	0.81
1.917	0.81	5.000	37.17	8.083	3.23	11.17	0.81
2.000	0.81	5.083	37.17	8.167	3.23	11.25	0.81
2.083	0.81	5.167	37.17	8.250	3.23	11.33	0.81
2.167	0.81	5.250	37.17	8.333	1.62	11.42	0.81
2.250	0.81	5.333	10.50	8.417	1.62	11.50	0.81
2.333	4.85	5.417	10.50	8.500	1.62	11.58	0.81
2.417	4.85	5.500	10.50	8.583	1.62	11.67	0.81
2.500	4.85	5.583	10.50	8.667	1.62	11.75	0.81
2.583	4.85	5.667	10.50	8.750	1.62	11.83	0.81
2.667	4.85	5.750	10.50	8.833	1.62	11.92	0.81
2.750	4.85	5.833	10.50	8.917	1.62	12.00	0.81
2.833	4.85	5.917	10.50	9.000	1.62	12.08	0.81
2.917	4.85	6.000	10.50	9.083	1.62	12.17	0.81
3.000	4.85	6.083	10.50	9.167	1.62	12.25	0.81
3.083	4.85	6.167	10.50	9.250	1.62		

Max.Eff.Inten.(mm/hr)= 37.17 19.62
 over (min) = 5.00 35.00
 Storage Coeff. (min)= 3.69 (ii) 33.01 (ii)
 Unit Hyd. Tpeak (min)= 5.00 35.00
 Unit Hyd. peak (cms)= 0.25 0.03

TOTALS
 PEAK FLOW (cms)= 0.15 0.00 0.157 (iii)
 TIME TO PEAK (hrs)= 5.08 5.50 5.25
 RUNOFF VOLUME (mm)= 78.82 33.86 75.21
 TOTAL RAINFALL (mm)= 80.82 80.82 80.82
 RUNOFF COEFFICIENT = 0.98 0.42 0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7842)				
1 + 2 = 3	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7819):	1.32	0.136	5.25	78.37
+ ID2= 2 (7829):	1.69	0.174	5.25	78.37

ID = 3 (7842): 3.01 0.309 5.25 78.37

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7842)				
3 + 2 = 1	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7842):	3.01	0.309	5.25	78.37
+ ID2= 2 (7839):	1.61	0.157	5.25	75.21
ID = 1 (7842):	4.62	0.467	5.25	77.27

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7830)	Area	(ha)=	1.20
ID= 1 DT= 5.0 min	Total Imp(%)=	95.00	Dir. Conn.(%)= 95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.14	0.06
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.85	6.250	10.50	9.33	0.81
0.167	0.00	3.250	4.85	6.333	5.66	9.42	0.81
0.250	0.00	3.333	13.74	6.417	5.66	9.50	0.81
0.333	0.81	3.417	13.74	6.500	5.66	9.58	0.81
0.417	0.81	3.500	13.74	6.583	5.66	9.67	0.81
0.500	0.81	3.583	13.74	6.667	5.66	9.75	0.81
0.583	0.81	3.667	13.74	6.750	5.66	9.83	0.81
0.667	0.81	3.750	13.74	6.833	5.66	9.92	0.81
0.750	0.81	3.833	13.74	6.917	5.66	10.00	0.81
0.833	0.81	3.917	13.74	7.000	5.66	10.08	0.81
0.917	0.81	4.000	13.74	7.083	5.66	10.17	0.81
1.000	0.81	4.083	13.74	7.167	5.66	10.25	0.81
1.083	0.81	4.167	13.74	7.250	5.66	10.33	0.81
1.167	0.81	4.250	13.74	7.333	3.23	10.42	0.81
1.250	0.81	4.333	37.17	7.417	3.23	10.50	0.81
1.333	0.81	4.417	37.17	7.500	3.23	10.58	0.81
1.417	0.81	4.500	37.17	7.583	3.23	10.67	0.81
1.500	0.81	4.583	37.17	7.667	3.23	10.75	0.81
1.583	0.81	4.667	37.17	7.750	3.23	10.83	0.81
1.667	0.81	4.750	37.17	7.833	3.23	10.92	0.81
1.750	0.81	4.833	37.17	7.917	3.23	11.00	0.81
1.833	0.81	4.917	37.17	8.000	3.23	11.08	0.81
1.917	0.81	5.000	37.17	8.083	3.23	11.17	0.81
2.000	0.81	5.083	37.17	8.167	3.23	11.25	0.81
2.083	0.81	5.167	37.17	8.250	3.23	11.33	0.81
2.167	0.81	5.250	37.17	8.333	1.62	11.42	0.81
2.250	0.81	5.333	10.50	8.417	1.62	11.50	0.81
2.333	4.85	5.417	10.50	8.500	1.62	11.58	0.81
2.417	4.85	5.500	10.50	8.583	1.62	11.67	0.81
2.500	4.85	5.583	10.50	8.667	1.62	11.75	0.81
2.583	4.85	5.667	10.50	8.750	1.62	11.83	0.81
2.667	4.85	5.750	10.50	8.833	1.62	11.92	0.81
2.750	4.85	5.833	10.50	8.917	1.62	12.00	0.81
2.833	4.85	5.917	10.50	9.000	1.62	12.08	0.81
2.917	4.85	6.000	10.50	9.083	1.62	12.17	0.81
3.000	4.85	6.083	10.50	9.167	1.62	12.25	0.81
3.083	4.85	6.167	10.50	9.250	1.62		

Max.Eff.Inten.(mm/hr)= 37.17 21.74
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 2.12 (ii) 5.35 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00



```

Unit Hyd. peak (cms)=      0.31      0.16

PEAK FLOW (cms)=          0.12      0.00
TIME TO PEAK (hrs)=        4.83      5.25
RUNOFF VOLUME (mm)=       78.82     34.83
TOTAL RAINFALL (mm)=     80.82     80.82
RUNOFF COEFFICIENT =      0.98      0.43
  
```

```

*TOTALS*
0.121 (iii)
5.25
76.62
80.82
0.95
  
```

```

                                0.4590  1.3820 | 0.8250  3.3550
                                0.5220  1.7210 | 2.0760  3.4560
                                0.5780  2.0600 | 2.3560  3.7320

                                AREA      QPEAK      TPEAK      R.V.
                                (ha)      (cms)      (hrs)      (mm)
INFLOW : ID= 2 ( 7804)         25.670    2.854      5.08      79.05
OUTFLOW: ID= 1 ( 7833)         25.670    0.372      7.42      79.03
  
```

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
    CN* = 74.0      Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
    THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
  
```

```

PEAK FLOW REDUCTION [Qout/Qin] (%) = 13.02
TIME SHIFT OF PEAK FLOW (min) = 140.00
MAXIMUM STORAGE USED (ha.m.) = 1.0642
  
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```

-----
| ADD HYD ( 7804) |
| 1 + 2 = 3 |
-----
          AREA      QPEAK      TPEAK      R.V.
          (ha)      (cms)      (hrs)      (mm)
ID1= 1 ( 7805):    4.48    0.457    5.25    77.80
+ ID2= 2 ( 7810):  1.06    0.107    5.25    76.62
-----
ID = 3 ( 7804):    5.54    0.564    5.25    77.57
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7804) |
| 3 + 2 = 1 |
-----
          AREA      QPEAK      TPEAK      R.V.
          (ha)      (cms)      (hrs)      (mm)
ID1= 3 ( 7804):    5.54    0.564    5.25    77.57
+ ID2= 2 ( 7824):  14.31    1.704    5.08    80.41
-----
ID = 1 ( 7804):   19.85    2.267    5.08    79.62
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7804) |
| 1 + 2 = 3 |
-----
          AREA      QPEAK      TPEAK      R.V.
          (ha)      (cms)      (hrs)      (mm)
ID1= 1 ( 7804):   19.85    2.267    5.08    79.62
+ ID2= 2 ( 7830):  1.20    0.121    5.25    76.62
-----
ID = 3 ( 7804):   21.05    2.388    5.08    79.45
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7804) |
| 3 + 2 = 1 |
-----
          AREA      QPEAK      TPEAK      R.V.
          (ha)      (cms)      (hrs)      (mm)
ID1= 3 ( 7804):   21.05    2.388    5.08    79.45
+ ID2= 2 ( 7842):  4.62    0.467    5.25    77.27
-----
ID = 1 ( 7804):   25.67    2.854    5.08    79.05
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

| RESERVOIR( 7833) | OVERFLOW IS OFF
| IN= 2--> OUT= 1 |
| DT= 5.0 min |
-----
          OUTFLOW      STORAGE      OUTFLOW      STORAGE
          (cms)      (ha.m.) | (cms)      (ha.m.)
0.0000  0.0000 | 0.6280    2.3980
0.0730  0.2080 | 0.6400    2.4830
0.0890  0.2770 | 0.6520    2.5670
0.1340  0.5530 | 0.6640    2.6500
0.2910  0.8290 | 0.6750    2.7340
0.3860  1.1060 | 0.7190    3.0490
  
```

```

-----
| CALIB |
| STANDHYD ( 7821) | Area (ha)= 0.19
| ID= 1 DT= 5.0 min | Total Imp (%) = 95.00 Dir. Conn. (%) = 95.00
-----
  
```

```

                                IMPERVIOUS      PERVIOUS (i)
Surface Area (ha)= 0.18      0.01
Dep. Storage (mm)= 2.00      5.00
Average Slope (%)= 2.50      2.00
Length (m)= 60.00      40.00
Mannings n = 0.013      0.250
  
```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 3.167 4.85 | 6.250 10.50 | 9.33 0.81
0.167 0.00 | 3.250 4.85 | 6.333 5.66 | 9.42 0.81
0.250 0.00 | 3.333 13.74 | 6.417 5.66 | 9.50 0.81
0.333 0.81 | 3.417 13.74 | 6.500 5.66 | 9.58 0.81
0.417 0.81 | 3.500 13.74 | 6.583 5.66 | 9.67 0.81
0.500 0.81 | 3.583 13.74 | 6.667 5.66 | 9.75 0.81
0.583 0.81 | 3.667 13.74 | 6.750 5.66 | 9.83 0.81
0.667 0.81 | 3.750 13.74 | 6.833 5.66 | 9.92 0.81
0.750 0.81 | 3.833 13.74 | 6.917 5.66 | 10.00 0.81
0.833 0.81 | 3.917 13.74 | 7.000 5.66 | 10.08 0.81
0.917 0.81 | 4.000 13.74 | 7.083 5.66 | 10.17 0.81
1.000 0.81 | 4.083 13.74 | 7.167 5.66 | 10.25 0.81
1.083 0.81 | 4.167 13.74 | 7.250 5.66 | 10.33 0.81
1.167 0.81 | 4.250 13.74 | 7.333 3.23 | 10.42 0.81
1.250 0.81 | 4.333 37.17 | 7.417 3.23 | 10.50 0.81
1.333 0.81 | 4.417 37.17 | 7.500 3.23 | 10.58 0.81
1.417 0.81 | 4.500 37.17 | 7.583 3.23 | 10.67 0.81
1.500 0.81 | 4.583 37.17 | 7.667 3.23 | 10.75 0.81
1.583 0.81 | 4.667 37.17 | 7.750 3.23 | 10.83 0.81
1.667 0.81 | 4.750 37.17 | 7.833 3.23 | 10.92 0.81
1.750 0.81 | 4.833 37.17 | 7.917 3.23 | 11.00 0.81
1.833 0.81 | 4.917 37.17 | 8.000 3.23 | 11.08 0.81
1.917 0.81 | 5.000 37.17 | 8.083 3.23 | 11.17 0.81
2.000 0.81 | 5.083 37.17 | 8.167 3.23 | 11.25 0.81
2.083 0.81 | 5.167 37.17 | 8.250 3.23 | 11.33 0.81
2.167 0.81 | 5.250 37.17 | 8.333 1.62 | 11.42 0.81
2.250 0.81 | 5.333 10.50 | 8.417 1.62 | 11.50 0.81
2.333 4.85 | 5.417 10.50 | 8.500 1.62 | 11.58 0.81
2.417 4.85 | 5.500 10.50 | 8.583 1.62 | 11.67 0.81
2.500 4.85 | 5.583 10.50 | 8.667 1.62 | 11.75 0.81
2.583 4.85 | 5.667 10.50 | 8.750 1.62 | 11.83 0.81
2.667 4.85 | 5.750 10.50 | 8.833 1.62 | 11.92 0.81
2.750 4.85 | 5.833 10.50 | 8.917 1.62 | 12.00 0.81
2.833 4.85 | 5.917 10.50 | 9.000 1.62 | 12.08 0.81
2.917 4.85 | 6.000 10.50 | 9.083 1.62 | 12.17 0.81
3.000 4.85 | 6.083 10.50 | 9.167 1.62 | 12.25 0.81
3.083 4.85 | 6.167 10.50 | 9.250 1.62 |
  
```

```

Max.Eff.Inten.(mm/hr)= 37.17      21.74
over (min) = 5.00      10.00
Storage Coeff. (min)= 2.12 (ii) 5.35 (ii)
Unit Hyd. Tpeak (min)= 5.00      10.00
Unit Hyd. peak (cms)= 0.31      0.16
  
```

TOTALS



PEAK FLOW (cms)= 0.02 0.00 0.019 (iii)
 TIME TO PEAK (hrs)= 4.83 5.25 5.25
 RUNOFF VOLUME (mm)= 78.82 34.83 76.61
 TOTAL RAINFALL (mm)= 80.82 80.82 80.82
 RUNOFF COEFFICIENT = 0.98 0.43 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7825)		OVERFLOW IS OFF			
IN= 2---> OUT= 1		DT= 5.0 min			
	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)	
	0.0000	0.0000	0.0100	0.0090	
	0.0030	0.0010	0.0110	0.0100	
	0.0050	0.0030	0.0120	0.0110	
	0.0060	0.0040	0.0120	0.0130	
	0.0080	0.0050	0.0130	0.0140	
	0.0090	0.0060	0.0140	0.0150	
	0.0090	0.0080	0.0000	0.0000	
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
INFLOW : ID= 2 (7821)	0.190	0.019	5.25	76.61	
OUTFLOW: ID= 1 (7825)	0.190	0.009	5.25	76.20	
PEAK FLOW REDUCTION [Qout/Qin] (%) = 46.89					
TIME SHIFT OF PEAK FLOW (min) = 0.00					
MAXIMUM STORAGE USED (ha.m.) = 0.0063					

CALIB		STANDHYD (7836)		ID= 1 DT= 5.0 min	
Area (ha)	Imp (%)	Dir. Conn. (%)			
0.20	95.00	95.00			
IMPERVIOUS		PERVIOUS (i)			
Surface Area (ha)	0.19	0.01			
Dep. Storage (mm)	2.00	5.00			
Average Slope (%)	2.50	2.00			
Length (m)	36.51	40.00			
Mannings n	0.013	0.250			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	3.167	4.85	6.250	10.50	9.33	0.81
0.167	0.00	3.250	4.85	6.333	5.66	9.42	0.81
0.250	0.00	3.333	13.74	6.417	5.66	9.50	0.81
0.333	0.81	3.417	13.74	6.500	5.66	9.58	0.81
0.417	0.81	3.500	13.74	6.583	5.66	9.67	0.81
0.500	0.81	3.583	13.74	6.667	5.66	9.75	0.81
0.583	0.81	3.667	13.74	6.750	5.66	9.83	0.81
0.667	0.81	3.750	13.74	6.833	5.66	9.92	0.81
0.750	0.81	3.833	13.74	6.917	5.66	10.00	0.81
0.833	0.81	3.917	13.74	7.000	5.66	10.08	0.81
0.917	0.81	4.000	13.74	7.083	5.66	10.17	0.81
1.000	0.81	4.083	13.74	7.167	5.66	10.25	0.81
1.083	0.81	4.167	13.74	7.250	5.66	10.33	0.81
1.167	0.81	4.250	13.74	7.333	3.23	10.42	0.81
1.250	0.81	4.333	37.17	7.417	3.23	10.50	0.81
1.333	0.81	4.417	37.17	7.500	3.23	10.58	0.81
1.417	0.81	4.500	37.17	7.583	3.23	10.67	0.81
1.500	0.81	4.583	37.17	7.667	3.23	10.75	0.81
1.583	0.81	4.667	37.17	7.750	3.23	10.83	0.81
1.667	0.81	4.750	37.17	7.833	3.23	10.92	0.81

1.750 0.81 | 4.833 37.17 | 7.917 3.23 | 11.00 0.81
 1.833 0.81 | 4.917 37.17 | 8.000 3.23 | 11.08 0.81
 1.917 0.81 | 5.000 37.17 | 8.083 3.23 | 11.17 0.81
 2.000 0.81 | 5.083 37.17 | 8.167 3.23 | 11.25 0.81
 2.083 0.81 | 5.167 37.17 | 8.250 3.23 | 11.33 0.81
 2.167 0.81 | 5.250 37.17 | 8.333 1.62 | 11.42 0.81
 2.250 0.81 | 5.333 10.50 | 8.417 1.62 | 11.50 0.81
 2.333 4.85 | 5.417 10.50 | 8.500 1.62 | 11.58 0.81
 2.417 4.85 | 5.500 10.50 | 8.583 1.62 | 11.67 0.81
 2.500 4.85 | 5.583 10.50 | 8.667 1.62 | 11.75 0.81
 2.583 4.85 | 5.667 10.50 | 8.750 1.62 | 11.83 0.81
 2.667 4.85 | 5.750 10.50 | 8.833 1.62 | 11.92 0.81
 2.750 4.85 | 5.833 10.50 | 8.917 1.62 | 12.00 0.81
 2.833 4.85 | 5.917 10.50 | 9.000 1.62 | 12.08 0.81
 2.917 4.85 | 6.000 10.50 | 9.083 1.62 | 12.17 0.81
 3.000 4.85 | 6.083 10.50 | 9.167 1.62 | 12.25 0.81
 3.083 4.85 | 6.167 10.50 | 9.250 1.62 |

Max.Eff.Inten.(mm/hr)= 37.17 21.74
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.58 (ii) 4.80 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.22

TOTALS

PEAK FLOW (cms)= 0.02 0.00 0.020 (iii)
 TIME TO PEAK (hrs)= 4.83 5.25 5.25
 RUNOFF VOLUME (mm)= 78.82 34.83 76.62
 TOTAL RAINFALL (mm)= 80.82 80.82 80.82
 RUNOFF COEFFICIENT = 0.98 0.43 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7807)		OVERFLOW IS OFF			
IN= 2---> OUT= 1		DT= 5.0 min			
	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)	
	0.0000	0.0000	0.0100	0.0090	
	0.0030	0.0010	0.0110	0.0100	
	0.0050	0.0030	0.0120	0.0110	
	0.0060	0.0040	0.0120	0.0130	
	0.0080	0.0050	0.0130	0.0140	
	0.0090	0.0060	0.0140	0.0150	
	0.0090	0.0080	0.0000	0.0000	
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
INFLOW : ID= 2 (7836)	0.200	0.020	5.25	76.62	
OUTFLOW: ID= 1 (7807)	0.200	0.009	5.17	76.23	
PEAK FLOW REDUCTION [Qout/Qin] (%) = 44.51					
TIME SHIFT OF PEAK FLOW (min) = -5.00					
MAXIMUM STORAGE USED (ha.m.) = 0.0067					

ADD HYD (7831)					
1 + 2 = 3					
	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)	
ID1= 1 (7807):	0.20	0.009	5.17	76.23	
+ ID2= 2 (7825):	0.19	0.009	5.25	76.20	
ID = 3 (7831):	0.39	0.018	5.25	76.21	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.



ADD HYD (7831)	AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7831):	0.39	0.018	5.25	76.21
+ ID2= 2 (7833):	25.67	0.372	7.42	79.03

ID = 1 (7831):	26.06	0.383	7.33	78.98

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)=	1.24
STANDHYD (7826)	Total Imp(%)=	99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.23	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	91.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	4.85	6.250	10.50	9.33	0.81
0.167	0.00	3.250	4.85	6.333	5.66	9.42	0.81
0.250	0.00	3.333	13.74	6.417	5.66	9.50	0.81
0.333	0.81	3.417	13.74	6.500	5.66	9.58	0.81
0.417	0.81	3.500	13.74	6.583	5.66	9.67	0.81
0.500	0.81	3.583	13.74	6.667	5.66	9.75	0.81
0.583	0.81	3.667	13.74	6.750	5.66	9.83	0.81
0.667	0.81	3.750	13.74	6.833	5.66	9.92	0.81
0.750	0.81	3.833	13.74	6.917	5.66	10.00	0.81
0.833	0.81	3.917	13.74	7.000	5.66	10.08	0.81
0.917	0.81	4.000	13.74	7.083	5.66	10.17	0.81
1.000	0.81	4.083	13.74	7.167	5.66	10.25	0.81
1.083	0.81	4.167	13.74	7.250	5.66	10.33	0.81
1.167	0.81	4.250	13.74	7.333	3.23	10.42	0.81
1.250	0.81	4.333	37.17	7.417	3.23	10.50	0.81
1.333	0.81	4.417	37.17	7.500	3.23	10.58	0.81
1.417	0.81	4.500	37.17	7.583	3.23	10.67	0.81
1.500	0.81	4.583	37.17	7.667	3.23	10.75	0.81
1.583	0.81	4.667	37.17	7.750	3.23	10.83	0.81
1.667	0.81	4.750	37.17	7.833	3.23	10.92	0.81
1.750	0.81	4.833	37.17	7.917	3.23	11.00	0.81
1.833	0.81	4.917	37.17	8.000	3.23	11.08	0.81
1.917	0.81	5.000	37.17	8.083	3.23	11.17	0.81
2.000	0.81	5.083	37.17	8.167	3.23	11.25	0.81
2.083	0.81	5.167	37.17	8.250	3.23	11.33	0.81
2.167	0.81	5.250	37.17	8.333	1.62	11.42	0.81
2.250	0.81	5.333	10.50	8.417	1.62	11.50	0.81
2.333	4.85	5.417	10.50	8.500	1.62	11.58	0.81
2.417	4.85	5.500	10.50	8.583	1.62	11.67	0.81
2.500	4.85	5.583	10.50	8.667	1.62	11.75	0.81
2.583	4.85	5.667	10.50	8.750	1.62	11.83	0.81
2.667	4.85	5.750	10.50	8.833	1.62	11.92	0.81
2.750	4.85	5.833	10.50	8.917	1.62	12.00	0.81
2.833	4.85	5.917	10.50	9.000	1.62	12.08	0.81
2.917	4.85	6.000	10.50	9.083	1.62	12.17	0.81
3.000	4.85	6.083	10.50	9.167	1.62	12.25	0.81
3.083	4.85	6.167	10.50	9.250	1.62		

Max.Eff.Inten. (mm/hr)=	37.17	21.17
over (min)	5.00	5.00
Storage Coeff. (min)=	2.91 (ii)	4.58 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.28	0.23

TOTALS			
PEAK FLOW (cms)=	0.13	0.00	0.128 (iii)
TIME TO PEAK (hrs)=	5.08	5.25	5.25
RUNOFF VOLUME (mm)=	78.82	33.86	78.37
TOTAL RAINFALL (mm)=	80.82	80.82	80.82

RUNOFF COEFFICIENT = 0.98 0.42 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7815)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7826):	1.24	0.128	5.25	78.37
+ ID2= 2 (7831):	26.06	0.383	7.33	78.98

ID = 3 (7815):	27.30	0.442	5.25	78.96

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(7841)	OVERFLOW IS OFF			
IN= 2----> OUT= 1	OUTFLOW	STORAGE	OUTFLOW	STORAGE
DT= 5.0 min	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	1.0810	1.6220
	0.0010	0.1670	1.3950	1.8170
	0.0340	0.3380	2.0990	2.2130
	0.0510	0.5110	2.8950	2.6150
	0.0630	0.6880	3.7730	3.0250
	0.1610	0.8670	4.7260	3.4420
	0.3300	1.0500	5.5670	3.8670
	0.5440	1.2370	8.5800	4.3000
	0.7970	1.4290	10.9450	4.5210

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7815)	27.302	0.442	5.25	78.96
OUTFLOW: ID= 1 (7841)	27.302	0.251	14.83	73.54

PEAK FLOW REDUCTION [Qout/Qin](%)=	56.87
TIME SHIFT OF PEAK FLOW (min)=	575.00
MAXIMUM STORAGE USED (ha.m.)=	0.9646



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*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U A A A A L
V V I SS U U A A L
VV I SSSSS UUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y M M O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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***** DETAILED OUTPUT *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voin.dat
 Output filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-a4eb17ead57\cdf86aeF-7163-4fe6-9863-113775262e1f\scen
 Summary filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-f544-4d5a-b245-a4eb17ead57\cdf86aeF-7163-4fe6-9863-113775262e1f\scen

DATE: 11-22-2024 TIME: 01:45:35

USER:

COMMENTS: _____

 ** SIMULATION : L100 Year 12 Hour AES (Bloor) **

```

-----
| READ STORM | Filename: C:\Users\mhooper\AppData
| | | | | ata\Local\Temp\
| | | | | bac52abb-b775-4ad0-a17a-4b6fd89712ba\52278e53
| Ptotal= 88.54 mm | Comments: 100 Year 12 Hour AES (Bloor, TRCA)

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TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	3.25	15.05	6.50	6.20	9.75	0.89
0.25	0.89	3.50	15.05	6.75	6.20	10.00	0.89
0.50	0.89	3.75	15.05	7.00	6.20	10.25	0.89
0.75	0.89	4.00	15.05	7.25	3.54	10.50	0.89
1.00	0.89	4.25	40.71	7.50	3.54	10.75	0.89
1.25	0.89	4.50	40.71	7.75	3.54	11.00	0.89
1.50	0.89	4.75	40.71	8.00	3.54	11.25	0.89
1.75	0.89	5.00	40.71	8.25	1.77	11.50	0.89
2.00	0.89	5.25	11.51	8.50	1.77	11.75	0.89
2.25	5.31	5.50	11.51	8.75	1.77	12.00	0.89
2.50	5.31	5.75	11.51	9.00	1.77		
2.75	5.31	6.00	11.51	9.25	0.89		
3.00	5.31	6.25	6.20	9.50	0.89		

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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| CALIB |
| NASHYD ( 7823) | Area (ha)= 0.21 Curve Number (CN)= 73.0
| ID= 1 DT= 5.0 min | Ia (mm)= 5.00 # of Linear Res. (N)= 3.00
| | | | | U.H. Tp(hrs)= 0.17

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----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | ' hrs mm/hr | hrs mm/hr
0.083 0.00 | 3.167 5.31 | 6.250 11.51 | 9.33 0.89
0.167 0.00 | 3.250 5.31 | 6.333 6.20 | 9.42 0.89
0.250 0.00 | 3.333 15.05 | 6.417 6.20 | 9.50 0.89
0.333 0.89 | 3.417 15.05 | 6.500 6.20 | 9.58 0.89
0.417 0.89 | 3.500 15.05 | 6.583 6.20 | 9.67 0.89
0.500 0.89 | 3.583 15.05 | 6.667 6.20 | 9.75 0.89
0.583 0.89 | 3.667 15.05 | 6.750 6.20 | 9.83 0.89
0.667 0.89 | 3.750 15.05 | 6.833 6.20 | 9.92 0.89
0.750 0.89 | 3.833 15.05 | 6.917 6.20 | 10.00 0.89
0.833 0.89 | 3.917 15.05 | 7.000 6.20 | 10.08 0.89
0.917 0.89 | 4.000 15.05 | 7.083 6.20 | 10.17 0.89
1.000 0.89 | 4.083 15.05 | 7.167 6.20 | 10.25 0.89
1.083 0.89 | 4.167 15.05 | 7.250 6.20 | 10.33 0.89
1.167 0.89 | 4.250 15.05 | 7.333 3.54 | 10.42 0.89
1.250 0.89 | 4.333 40.71 | 7.417 3.54 | 10.50 0.89
1.333 0.89 | 4.417 40.71 | 7.500 3.54 | 10.58 0.89
1.417 0.89 | 4.500 40.71 | 7.583 3.54 | 10.67 0.89
1.500 0.89 | 4.583 40.71 | 7.667 3.54 | 10.75 0.89
1.583 0.89 | 4.667 40.71 | 7.750 3.54 | 10.83 0.89
1.667 0.89 | 4.750 40.71 | 7.833 3.54 | 10.92 0.89
1.750 0.89 | 4.833 40.71 | 7.917 3.54 | 11.00 0.89
1.833 0.89 | 4.917 40.71 | 8.000 3.54 | 11.08 0.89
1.917 0.89 | 5.000 40.71 | 8.083 3.54 | 11.17 0.89
2.000 0.89 | 5.083 40.71 | 8.167 3.54 | 11.25 0.89
2.083 0.89 | 5.167 40.71 | 8.250 3.54 | 11.33 0.89
2.167 0.89 | 5.250 40.71 | 8.333 1.77 | 11.42 0.89
2.250 0.89 | 5.333 11.51 | 8.417 1.77 | 11.50 0.89
2.333 5.31 | 5.417 11.51 | 8.500 1.77 | 11.58 0.89
2.417 5.31 | 5.500 11.51 | 8.583 1.77 | 11.67 0.89
2.500 5.31 | 5.583 11.51 | 8.667 1.77 | 11.75 0.89
2.583 5.31 | 5.667 11.51 | 8.750 1.77 | 11.83 0.89
2.667 5.31 | 5.750 11.51 | 8.833 1.77 | 11.92 0.89
2.750 5.31 | 5.833 11.51 | 8.917 1.77 | 12.00 0.89
2.833 5.31 | 5.917 11.51 | 9.000 1.77 | 12.08 0.89
2.917 5.31 | 6.000 11.51 | 9.083 1.77 | 12.17 0.89
3.000 5.31 | 6.083 11.51 | 9.167 1.77 | 12.25 0.89
3.083 5.31 | 6.167 11.51 | 9.250 1.77 |

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Unit Hyd Qpeak (cms)= 0.047

PEAK FLOW (cms)= 0.013 (i)
 TIME TO PEAK (hrs)= 5.250
 RUNOFF VOLUME (mm)= 39.178
 TOTAL RAINFALL (mm)= 88.540
 RUNOFF COEFFICIENT = 0.442

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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| CALIB |
| STANDHYD ( 7828) | Area (ha)= 10.90
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

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	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	10.79	0.11
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	269.57	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | ' hrs mm/hr | hrs mm/hr
0.083 0.00 | 3.167 5.31 | 6.250 11.51 | 9.33 0.89
0.167 0.00 | 3.250 5.31 | 6.333 6.20 | 9.42 0.89
0.250 0.00 | 3.333 15.05 | 6.417 6.20 | 9.50 0.89
0.333 0.89 | 3.417 15.05 | 6.500 6.20 | 9.58 0.89
0.417 0.89 | 3.500 15.05 | 6.583 6.20 | 9.67 0.89

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0.500	0.89	3.583	15.05	6.667	6.20	9.75	0.89
0.583	0.89	3.667	15.05	6.750	6.20	9.83	0.89
0.667	0.89	3.750	15.05	6.833	6.20	9.92	0.89
0.750	0.89	3.833	15.05	6.917	6.20	10.00	0.89
0.833	0.89	3.917	15.05	7.000	6.20	10.08	0.89
0.917	0.89	4.000	15.05	7.083	6.20	10.17	0.89
1.000	0.89	4.083	15.05	7.167	6.20	10.25	0.89
1.083	0.89	4.167	15.05	7.250	6.20	10.33	0.89
1.167	0.89	4.250	15.05	7.333	3.54	10.42	0.89
1.250	0.89	4.333	40.71	7.417	3.54	10.50	0.89
1.333	0.89	4.417	40.71	7.500	3.54	10.58	0.89
1.417	0.89	4.500	40.71	7.583	3.54	10.67	0.89
1.500	0.89	4.583	40.71	7.667	3.54	10.75	0.89
1.583	0.89	4.667	40.71	7.750	3.54	10.83	0.89
1.667	0.89	4.750	40.71	7.833	3.54	10.92	0.89
1.750	0.89	4.833	40.71	7.917	3.54	11.00	0.89
1.833	0.89	4.917	40.71	8.000	3.54	11.08	0.89
1.917	0.89	5.000	40.71	8.083	3.54	11.17	0.89
2.000	0.89	5.083	40.71	8.167	3.54	11.25	0.89
2.083	0.89	5.167	40.71	8.250	3.54	11.33	0.89
2.167	0.89	5.250	40.71	8.333	1.77	11.42	0.89
2.250	0.89	5.333	11.51	8.417	1.77	11.50	0.89
2.333	5.31	5.417	11.51	8.500	1.77	11.58	0.89
2.417	5.31	5.500	11.51	8.583	1.77	11.67	0.89
2.500	5.31	5.583	11.51	8.667	1.77	11.75	0.89
2.583	5.31	5.667	11.51	8.750	1.77	11.83	0.89
2.667	5.31	5.750	11.51	8.833	1.77	11.92	0.89
2.750	5.31	5.833	11.51	8.917	1.77	12.00	0.89
2.833	5.31	5.917	11.51	9.000	1.77	12.08	0.89
2.917	5.31	6.000	11.51	9.083	1.77	12.17	0.89
3.000	5.31	6.083	11.51	9.167	1.77	12.25	0.89
3.083	5.31	6.167	11.51	9.250	1.77		

Max.Eff.Inten. (mm/hr)= 40.71 24.39
 over (min) 5.00 10.00
 Storage Coeff. (min)= 6.64 (ii) 8.24 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.18 0.13

TOTALS
 PEAK FLOW (cms)= 1.22 0.01 1.227 (iii)
 TIME TO PEAK (hrs)= 5.25 5.25
 RUNOFF VOLUME (mm)= 86.54 39.32 86.07
 TOTAL RAINFALL (mm)= 88.54 88.54
 RUNOFF COEFFICIENT = 0.98 0.44 0.97

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7837)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7823):	0.21	0.013	5.25	39.18
+ ID2= 2 (7828):	10.90	1.227	5.25	86.07
ID = 3 (7837):	11.11	1.241	5.25	85.19

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7818)	OUTFLOW	STORAGE	OUTFLOW	STORAGE
IN= 2--> OUT= 1	(cms)	(ha.m.)	(cms)	(ha.m.)
DT= 5.0 min				
	0.0000	0.0000	0.1390	0.6960
	0.0590	0.3400	0.1630	0.7780
	0.0900	0.4907	0.1840	0.8800
	0.1110	0.5760	0.0000	0.0000
	AREA	QPEAK	TPEAK	R.V.

(ha) (cms) (hrs) (mm)
 INFLOW : ID= 2 (7837) 11.108 1.241 5.25 85.19
 OUTFLOW: ID= 1 (7818) 11.108 0.146 7.33 85.06

PEAK FLOW REDUCTION [Qout/Qin] (%) = 11.78
 TIME SHIFT OF PEAK FLOW (min) = 125.00
 MAXIMUM STORAGE USED (ha.m.) = 0.7203

CMLIB
 STANDHYD (7820) Area (ha) = 11.38
 ID= 1 DT= 5.0 min Total Imp(%) = 99.00 Dir. Conn.(%) = 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha) = 11.27 0.11
 Dep. Storage (mm) = 2.00 5.00
 Average Slope (%) = 1.00 2.00
 Length (m) = 275.44 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	5.31	6.250	11.51	9.33	0.89
0.167	0.00	3.250	5.31	6.333	6.20	9.42	0.89
0.250	0.00	3.333	15.05	6.417	6.20	9.50	0.89
0.333	0.89	3.417	15.05	6.500	6.20	9.58	0.89
0.417	0.89	3.500	15.05	6.583	6.20	9.67	0.89
0.500	0.89	3.583	15.05	6.667	6.20	9.75	0.89
0.583	0.89	3.667	15.05	6.750	6.20	9.83	0.89
0.667	0.89	3.750	15.05	6.833	6.20	9.92	0.89
0.750	0.89	3.833	15.05	6.917	6.20	10.00	0.89
0.833	0.89	3.917	15.05	7.000	6.20	10.08	0.89
0.917	0.89	4.000	15.05	7.083	6.20	10.17	0.89
1.000	0.89	4.083	15.05	7.167	6.20	10.25	0.89
1.083	0.89	4.167	15.05	7.250	6.20	10.33	0.89
1.167	0.89	4.250	15.05	7.333	3.54	10.42	0.89
1.250	0.89	4.333	40.71	7.417	3.54	10.50	0.89
1.333	0.89	4.417	40.71	7.500	3.54	10.58	0.89
1.417	0.89	4.500	40.71	7.583	3.54	10.67	0.89
1.500	0.89	4.583	40.71	7.667	3.54	10.75	0.89
1.583	0.89	4.667	40.71	7.750	3.54	10.83	0.89
1.667	0.89	4.750	40.71	7.833	3.54	10.92	0.89
1.750	0.89	4.833	40.71	7.917	3.54	11.00	0.89
1.833	0.89	4.917	40.71	8.000	3.54	11.08	0.89
1.917	0.89	5.000	40.71	8.083	3.54	11.17	0.89
2.000	0.89	5.083	40.71	8.167	3.54	11.25	0.89
2.083	0.89	5.167	40.71	8.250	3.54	11.33	0.89
2.167	0.89	5.250	40.71	8.333	1.77	11.42	0.89
2.250	0.89	5.333	11.51	8.417	1.77	11.50	0.89
2.333	5.31	5.417	11.51	8.500	1.77	11.58	0.89
2.417	5.31	5.500	11.51	8.583	1.77	11.67	0.89
2.500	5.31	5.583	11.51	8.667	1.77	11.75	0.89
2.583	5.31	5.667	11.51	8.750	1.77	11.83	0.89
2.667	5.31	5.750	11.51	8.833	1.77	11.92	0.89
2.750	5.31	5.833	11.51	8.917	1.77	12.00	0.89
2.833	5.31	5.917	11.51	9.000	1.77	12.08	0.89
2.917	5.31	6.000	11.51	9.083	1.77	12.17	0.89
3.000	5.31	6.083	11.51	9.167	1.77	12.25	0.89
3.083	5.31	6.167	11.51	9.250	1.77		

Max.Eff.Inten. (mm/hr)= 40.71 24.39
 over (min) 5.00 10.00
 Storage Coeff. (min)= 6.72 (ii) 8.33 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.18 0.13

TOTALS
 PEAK FLOW (cms)= 1.27 0.01 1.281 (iii)
 TIME TO PEAK (hrs)= 5.25 5.25
 RUNOFF VOLUME (mm)= 86.54 39.32 86.07
 TOTAL RAINFALL (mm)= 88.54 88.54
 RUNOFF COEFFICIENT = 0.98 0.44 0.97

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7812)				
OVERFLOW IS OFF				
IN= 2--> OUT= 1				
DT= 5.0 min				
	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.1990	0.6950
	0.0830	0.3500	0.2320	0.8000
	0.1280	0.4850	0.2620	0.9000
	0.1580	0.5900	0.0000	0.0000
AREA	QPEAK	TPEAK	R.V.	
(ha)	(cms)	(hrs)	(mm)	
INFLOW : ID= 2 (7820)	11.380	1.281	5.25	86.07
OUTFLOW: ID= 1 (7812)	11.380	0.200	6.67	85.97
PEAK FLOW REDUCTION [Qout/Qin] (%) = 15.58				
TIME SHIFT OF PEAK FLOW (min) = 85.00				
MAXIMUM STORAGE USED (ha.m.) = 0.6970				

ADD HYD (7802)				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7812):	11.38	0.200	6.67	85.97
+ ID2= 2 (7818):	11.11	0.146	7.33	85.06
ID = 3 (7802):	22.49	0.345	7.25	85.52

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7834)			
ID= 1 DT= 5.0 min			
Area	(ha)	Total Imp (%) = 99.00 Dir. Conn. (%) = 99.00	
Surface Area	(ha) = 0.58	PERVIOUS (i)	
Dep. Storage	(mm) = 2.00	0.01	
Average Slope	(%) = 2.00	5.00	
Length	(m) = 62.72	2.00	
Mannings n	= 0.013	40.00	
		0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	5.31	6.250	11.51	9.33	0.89
0.167	0.00	3.250	5.31	6.333	6.20	9.42	0.89
0.250	0.00	3.333	15.05	6.417	6.20	9.50	0.89
0.333	0.89	3.417	15.05	6.500	6.20	9.58	0.89
0.417	0.89	3.500	15.05	6.583	6.20	9.67	0.89
0.500	0.89	3.583	15.05	6.667	6.20	9.75	0.89
0.583	0.89	3.667	15.05	6.750	6.20	9.83	0.89
0.667	0.89	3.750	15.05	6.833	6.20	9.92	0.89
0.750	0.89	3.833	15.05	6.917	6.20	10.00	0.89
0.833	0.89	3.917	15.05	7.000	6.20	10.08	0.89
0.917	0.89	4.000	15.05	7.083	6.20	10.17	0.89
1.000	0.89	4.083	15.05	7.167	6.20	10.25	0.89
1.083	0.89	4.167	15.05	7.250	6.20	10.33	0.89
1.167	0.89	4.250	15.05	7.333	3.54	10.42	0.89
1.250	0.89	4.333	40.71	7.417	3.54	10.50	0.89
1.333	0.89	4.417	40.71	7.500	3.54	10.58	0.89
1.417	0.89	4.500	40.71	7.583	3.54	10.67	0.89

1.500	0.89	4.583	40.71	7.667	3.54	10.75	0.89
1.583	0.89	4.667	40.71	7.750	3.54	10.83	0.89
1.667	0.89	4.750	40.71	7.833	3.54	10.92	0.89
1.750	0.89	4.833	40.71	7.917	3.54	11.00	0.89
1.833	0.89	4.917	40.71	8.000	3.54	11.08	0.89
1.917	0.89	5.000	40.71	8.083	3.54	11.17	0.89
2.000	0.89	5.083	40.71	8.167	3.54	11.25	0.89
2.083	0.89	5.167	40.71	8.250	3.54	11.33	0.89
2.167	0.89	5.250	40.71	8.333	1.77	11.42	0.89
2.250	0.89	5.333	11.51	8.417	1.77	11.50	0.89
2.333	5.31	5.417	11.51	8.500	1.77	11.58	0.89
2.417	5.31	5.500	11.51	8.583	1.77	11.67	0.89
2.500	5.31	5.583	11.51	8.667	1.77	11.75	0.89
2.583	5.31	5.667	11.51	8.750	1.77	11.83	0.89
2.667	5.31	5.750	11.51	8.833	1.77	11.92	0.89
2.750	5.31	5.833	11.51	8.917	1.77	12.00	0.89
2.833	5.31	5.917	11.51	9.000	1.77	12.08	0.89
2.917	5.31	6.000	11.51	9.083	1.77	12.17	0.89
3.000	5.31	6.083	11.51	9.167	1.77	12.25	0.89
3.083	5.31	6.167	11.51	9.250	1.77		

Max.Eff.Inten.(mm/hr)=	40.71	24.39
over (min)=	5.00	5.00
Storage Coeff. (min)=	2.25 (ii)	3.86 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.30	0.25
PEAK FLOW (cms)=	0.07	0.00
TIME TO PEAK (hrs)=	4.83	5.25
RUNOFF VOLUME (mm)=	86.54	39.32
TOTAL RAINFALL (mm)=	88.54	88.54
RUNOFF COEFFICIENT =	0.98	0.44
		0.97

TOTALS

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7806)			
ID= 1 DT= 5.0 min			
Area	(ha)	Total Imp (%) = 99.00 Dir. Conn. (%) = 99.00	
Surface Area	(ha) = 2.35	PERVIOUS (i)	
Dep. Storage	(mm) = 1.00	0.02	
Average Slope	(%) = 1.00	5.00	
Length	(m) = 20.00	2.00	
Mannings n	= 0.013	20.00	
		0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

--- TRANSFORMED HYETOGRAPH ---							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	5.31	6.250	11.51	9.33	0.89
0.167	0.00	3.250	5.31	6.333	6.20	9.42	0.89
0.250	0.00	3.333	15.05	6.417	6.20	9.50	0.89
0.333	0.89	3.417	15.05	6.500	6.20	9.58	0.89
0.417	0.89	3.500	15.05	6.583	6.20	9.67	0.89
0.500	0.89	3.583	15.05	6.667	6.20	9.75	0.89
0.583	0.89	3.667	15.05	6.750	6.20	9.83	0.89
0.667	0.89	3.750	15.05	6.833	6.20	9.92	0.89
0.750	0.89	3.833	15.05	6.917	6.20	10.00	0.89
0.833	0.89	3.917	15.05	7.000	6.20	10.08	0.89
0.917	0.89	4.000	15.05	7.083	6.20	10.17	0.89
1.000	0.89	4.083	15.05	7.167	6.20	10.25	0.89
1.083	0.89	4.167	15.05	7.250	6.20	10.33	0.89
1.167	0.89	4.250	15.05	7.333	3.54	10.42	0.89
1.250	0.89	4.333	40.71	7.417	3.54	10.50	0.89
1.333	0.89	4.417	40.71	7.500	3.54	10.58	0.89
1.417	0.89	4.417	40.71	7.500	3.54	10.58	0.89

1.417	0.89	4.500	40.71	7.583	3.54	10.67	0.89
1.500	0.89	4.583	40.71	7.667	3.54	10.75	0.89
1.583	0.89	4.667	40.71	7.750	3.54	10.83	0.89
1.667	0.89	4.750	40.71	7.833	3.54	10.92	0.89
1.750	0.89	4.833	40.71	7.917	3.54	11.00	0.89
1.833	0.89	4.917	40.71	8.000	3.54	11.08	0.89
1.917	0.89	5.000	40.71	8.083	3.54	11.17	0.89
2.000	0.89	5.083	40.71	8.167	3.54	11.25	0.89
2.083	0.89	5.167	40.71	8.250	3.54	11.33	0.89
2.167	0.89	5.250	40.71	8.333	1.77	11.42	0.89
2.250	0.89	5.333	11.51	8.417	1.77	11.50	0.89
2.333	5.31	5.417	11.51	8.500	1.77	11.58	0.89
2.417	5.31	5.500	11.51	8.583	1.77	11.67	0.89
2.500	5.31	5.583	11.51	8.667	1.77	11.75	0.89
2.583	5.31	5.667	11.51	8.750	1.77	11.83	0.89
2.667	5.31	5.750	11.51	8.833	1.77	11.92	0.89
2.750	5.31	5.833	11.51	8.917	1.77	12.00	0.89
2.833	5.31	5.917	11.51	9.000	1.77	12.08	0.89
2.917	5.31	6.000	11.51	9.083	1.77	12.17	0.89
3.000	5.31	6.083	11.51	9.167	1.77	12.25	0.89
3.083	5.31	6.167	11.51	9.250	1.77		

Max.Eff.Inten.(mm/hr)= 40.71 24.39
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 1.39 (ii) 2.45 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.30

PEAK FLOW (cms)= 0.27 0.00
 TIME TO PEAK (hrs)= 5.08 5.25
 RUNOFF VOLUME (mm)= 87.54 39.32
 TOTAL RAINFALL (mm)= 88.54 88.54
 RUNOFF COEFFICIENT = 0.99 0.44

TOTALS
 PEAK FLOW (cms)= 0.27 0.00 0.267 (iii)
 TIME TO PEAK (hrs)= 5.08 5.25 5.25
 RUNOFF VOLUME (mm)= 87.54 39.32 87.06
 TOTAL RAINFALL (mm)= 88.54 88.54 88.54
 RUNOFF COEFFICIENT = 0.99 0.44 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 CALIB
 STANDHYD (7811) Area (ha)= 2.40
 ID= 1 DT= 5.0 min Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

Surface Area	(ha)=	2.38	0.02
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	1.00	2.00
Length	(m)=	20.00	20.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	5.31	6.250	11.51	9.33	0.89
0.167	0.00	3.250	5.31	6.333	6.20	9.42	0.89
0.250	0.00	3.333	15.05	6.417	6.20	9.50	0.89
0.333	0.89	3.417	15.05	6.500	6.20	9.58	0.89
0.417	0.89	3.500	15.05	6.583	6.20	9.67	0.89
0.500	0.89	3.583	15.05	6.667	6.20	9.75	0.89
0.583	0.89	3.667	15.05	6.750	6.20	9.83	0.89
0.667	0.89	3.750	15.05	6.833	6.20	9.92	0.89
0.750	0.89	3.833	15.05	6.917	6.20	10.00	0.89
0.833	0.89	3.917	15.05	7.000	6.20	10.08	0.89
0.917	0.89	4.000	15.05	7.083	6.20	10.17	0.89
1.000	0.89	4.083	15.05	7.167	6.20	10.25	0.89
1.083	0.89	4.167	15.05	7.250	6.20	10.33	0.89
1.167	0.89	4.250	15.05	7.333	3.54	10.42	0.89
1.250	0.89	4.333	40.71	7.417	3.54	10.50	0.89

1.333	0.89	4.417	40.71	7.500	3.54	10.58	0.89
1.417	0.89	4.500	40.71	7.583	3.54	10.67	0.89
1.500	0.89	4.583	40.71	7.667	3.54	10.75	0.89
1.583	0.89	4.667	40.71	7.750	3.54	10.83	0.89
1.667	0.89	4.750	40.71	7.833	3.54	10.92	0.89
1.750	0.89	4.833	40.71	7.917	3.54	11.00	0.89
1.833	0.89	4.917	40.71	8.000	3.54	11.08	0.89
1.917	0.89	5.000	40.71	8.083	3.54	11.17	0.89
2.000	0.89	5.083	40.71	8.167	3.54	11.25	0.89
2.083	0.89	5.167	40.71	8.250	3.54	11.33	0.89
2.167	0.89	5.250	40.71	8.333	1.77	11.42	0.89
2.250	0.89	5.333	11.51	8.417	1.77	11.50	0.89
2.333	5.31	5.417	11.51	8.500	1.77	11.58	0.89
2.417	5.31	5.500	11.51	8.583	1.77	11.67	0.89
2.500	5.31	5.583	11.51	8.667	1.77	11.75	0.89
2.583	5.31	5.667	11.51	8.750	1.77	11.83	0.89
2.667	5.31	5.750	11.51	8.833	1.77	11.92	0.89
2.750	5.31	5.833	11.51	8.917	1.77	12.00	0.89
2.833	5.31	5.917	11.51	9.000	1.77	12.08	0.89
2.917	5.31	6.000	11.51	9.083	1.77	12.17	0.89
3.000	5.31	6.083	11.51	9.167	1.77	12.25	0.89
3.083	5.31	6.167	11.51	9.250	1.77		

Max.Eff.Inten.(mm/hr)= 40.71 24.39
 over (min)= 5.00 5.00
 Storage Coeff. (min)= 1.39 (ii) 2.45 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.30

PEAK FLOW (cms)= 0.27 0.00 0.270 (iii)
 TIME TO PEAK (hrs)= 5.08 5.25 5.25
 RUNOFF VOLUME (mm)= 87.54 39.32 87.06
 TOTAL RAINFALL (mm)= 88.54 88.54 88.54
 RUNOFF COEFFICIENT = 0.99 0.44 0.98

TOTALS
 PEAK FLOW (cms)= 0.27 0.00 0.270 (iii)
 TIME TO PEAK (hrs)= 5.08 5.25 5.25
 RUNOFF VOLUME (mm)= 87.54 39.32 87.06
 TOTAL RAINFALL (mm)= 88.54 88.54 88.54
 RUNOFF COEFFICIENT = 0.99 0.44 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 CALIB
 STANDHYD (7816) Area (ha)= 2.36
 ID= 1 DT= 5.0 min Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

Surface Area	(ha)=	2.34	0.02
Dep. Storage	(mm)=	1.00	5.00
Average Slope	(%)=	1.00	2.00
Length	(m)=	20.00	20.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	5.31	6.250	11.51	9.33	0.89
0.167	0.00	3.250	5.31	6.333	6.20	9.42	0.89
0.250	0.00	3.333	15.05	6.417	6.20	9.50	0.89
0.333	0.89	3.417	15.05	6.500	6.20	9.58	0.89
0.417	0.89	3.500	15.05	6.583	6.20	9.67	0.89
0.500	0.89	3.583	15.05	6.667	6.20	9.75	0.89
0.583	0.89	3.667	15.05	6.750	6.20	9.83	0.89
0.667	0.89	3.750	15.05	6.833	6.20	9.92	0.89
0.750	0.89	3.833	15.05	6.917	6.20	10.00	0.89
0.833	0.89	3.917	15.05	7.000	6.20	10.08	0.89
0.917	0.89	4.000	15.05	7.083	6.20	10.17	0.89
1.000	0.89	4.083	15.05	7.167	6.20	10.25	0.89
1.083	0.89	4.167	15.05	7.250	6.20	10.33	0.89
1.167	0.89	4.250	15.05	7.333	3.54	10.42	0.89

1.250	0.89	4.333	40.71	7.417	3.54	10.50	0.89
1.333	0.89	4.417	40.71	7.500	3.54	10.58	0.89
1.417	0.89	4.500	40.71	7.583	3.54	10.67	0.89
1.500	0.89	4.583	40.71	7.667	3.54	10.75	0.89
1.583	0.89	4.667	40.71	7.750	3.54	10.83	0.89
1.667	0.89	4.750	40.71	7.833	3.54	10.92	0.89
1.750	0.89	4.833	40.71	7.917	3.54	11.00	0.89
1.833	0.89	4.917	40.71	8.000	3.54	11.08	0.89
1.917	0.89	5.000	40.71	8.083	3.54	11.17	0.89
2.000	0.89	5.083	40.71	8.167	3.54	11.25	0.89
2.083	0.89	5.167	40.71	8.250	3.54	11.33	0.89
2.167	0.89	5.250	40.71	8.333	1.77	11.42	0.89
2.250	0.89	5.333	11.51	8.417	1.77	11.50	0.89
2.333	5.31	5.417	11.51	8.500	1.77	11.58	0.89
2.417	5.31	5.500	11.51	8.583	1.77	11.67	0.89
2.500	5.31	5.583	11.51	8.667	1.77	11.75	0.89
2.583	5.31	5.667	11.51	8.750	1.77	11.83	0.89
2.667	5.31	5.750	11.51	8.833	1.77	11.92	0.89
2.750	5.31	5.833	11.51	8.917	1.77	12.00	0.89
2.833	5.31	5.917	11.51	9.000	1.77	12.08	0.89
2.917	5.31	6.000	11.51	9.083	1.77	12.17	0.89
3.000	5.31	6.083	11.51	9.167	1.77	12.25	0.89
3.083	5.31	6.167	11.51	9.250	1.77		

Max.Eff.Inten. (mm/hr)=	40.71	24.39	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.39 (ii)	2.45 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.33	0.30	
		TOTALS	
PEAK FLOW (cms)=	0.26	0.00	0.266 (iii)
TIME TO PEAK (hrs)=	5.08	5.25	5.25
RUNOFF VOLUME (mm)=	87.54	39.32	87.06
TOTAL RAINFALL (mm)=	88.54	88.54	88.54
RUNOFF COEFFICIENT =	0.99	0.44	0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7827)	Area (ha)=	2.39	
ID= 1 DT= 5.0 min	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	5.31	6.250	11.51	9.33	0.89
0.167	0.00	3.250	5.31	6.333	6.20	9.42	0.89
0.250	0.00	3.333	15.05	6.417	6.20	9.50	0.89
0.333	0.89	3.417	15.05	6.500	6.20	9.58	0.89
0.417	0.89	3.500	15.05	6.583	6.20	9.67	0.89
0.500	0.89	3.583	15.05	6.667	6.20	9.75	0.89
0.583	0.89	3.667	15.05	6.750	6.20	9.83	0.89
0.667	0.89	3.750	15.05	6.833	6.20	9.92	0.89
0.750	0.89	3.833	15.05	6.917	6.20	10.00	0.89
0.833	0.89	3.917	15.05	7.000	6.20	10.08	0.89
0.917	0.89	4.000	15.05	7.083	6.20	10.17	0.89
1.000	0.89	4.083	15.05	7.167	6.20	10.25	0.89
1.083	0.89	4.167	15.05	7.250	6.20	10.33	0.89

1.167	0.89	4.250	15.05	7.333	3.54	10.42	0.89
1.250	0.89	4.333	40.71	7.417	3.54	10.50	0.89
1.333	0.89	4.417	40.71	7.500	3.54	10.58	0.89
1.417	0.89	4.500	40.71	7.583	3.54	10.67	0.89
1.500	0.89	4.583	40.71	7.667	3.54	10.75	0.89
1.583	0.89	4.667	40.71	7.750	3.54	10.83	0.89
1.667	0.89	4.750	40.71	7.833	3.54	10.92	0.89
1.750	0.89	4.833	40.71	7.917	3.54	11.00	0.89
1.833	0.89	4.917	40.71	8.000	3.54	11.08	0.89
1.917	0.89	5.000	40.71	8.083	3.54	11.17	0.89
2.000	0.89	5.083	40.71	8.167	3.54	11.25	0.89
2.083	0.89	5.167	40.71	8.250	3.54	11.33	0.89
2.167	0.89	5.250	40.71	8.333	1.77	11.42	0.89
2.250	0.89	5.333	11.51	8.417	1.77	11.50	0.89
2.333	5.31	5.417	11.51	8.500	1.77	11.58	0.89
2.417	5.31	5.500	11.51	8.583	1.77	11.67	0.89
2.500	5.31	5.583	11.51	8.667	1.77	11.75	0.89
2.583	5.31	5.667	11.51	8.750	1.77	11.83	0.89
2.667	5.31	5.750	11.51	8.833	1.77	11.92	0.89
2.750	5.31	5.833	11.51	8.917	1.77	12.00	0.89
2.833	5.31	5.917	11.51	9.000	1.77	12.08	0.89
2.917	5.31	6.000	11.51	9.083	1.77	12.17	0.89
3.000	5.31	6.083	11.51	9.167	1.77	12.25	0.89
3.083	5.31	6.167	11.51	9.250	1.77		

Max.Eff.Inten. (mm/hr)=	40.71	24.39	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.39 (ii)	2.45 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.33	0.30	
		TOTALS	
PEAK FLOW (cms)=	0.27	0.00	0.269 (iii)
TIME TO PEAK (hrs)=	5.08	5.25	5.25
RUNOFF VOLUME (mm)=	87.54	39.32	87.06
TOTAL RAINFALL (mm)=	88.54	88.54	88.54
RUNOFF COEFFICIENT =	0.99	0.44	0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7832)	Area (ha)=	2.39	
ID= 1 DT= 5.0 min	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.37	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	5.31	6.250	11.51	9.33	0.89
0.167	0.00	3.250	5.31	6.333	6.20	9.42	0.89
0.250	0.00	3.333	15.05	6.417	6.20	9.50	0.89
0.333	0.89	3.417	15.05	6.500	6.20	9.58	0.89
0.417	0.89	3.500	15.05	6.583	6.20	9.67	0.89
0.500	0.89	3.583	15.05	6.667	6.20	9.75	0.89
0.583	0.89	3.667	15.05	6.750	6.20	9.83	0.89
0.667	0.89	3.750	15.05	6.833	6.20	9.92	0.89
0.750	0.89	3.833	15.05	6.917	6.20	10.00	0.89
0.833	0.89	3.917	15.05	7.000	6.20	10.08	0.89
0.917	0.89	4.000	15.05	7.083	6.20	10.17	0.89
1.000	0.89	4.083	15.05	7.167	6.20	10.25	0.89

1.083	0.89	4.167	15.05	7.250	6.20	10.33	0.89
1.167	0.89	4.250	15.05	7.333	3.54	10.42	0.89
1.250	0.89	4.333	40.71	7.417	3.54	10.50	0.89
1.333	0.89	4.417	40.71	7.500	3.54	10.58	0.89
1.417	0.89	4.500	40.71	7.583	3.54	10.67	0.89
1.500	0.89	4.583	40.71	7.667	3.54	10.75	0.89
1.583	0.89	4.667	40.71	7.750	3.54	10.83	0.89
1.667	0.89	4.750	40.71	7.833	3.54	10.92	0.89
1.750	0.89	4.833	40.71	7.917	3.54	11.00	0.89
1.833	0.89	4.917	40.71	8.000	3.54	11.08	0.89
1.917	0.89	5.000	40.71	8.083	3.54	11.17	0.89
2.000	0.89	5.083	40.71	8.167	3.54	11.25	0.89
2.083	0.89	5.167	40.71	8.250	3.54	11.33	0.89
2.167	0.89	5.250	40.71	8.333	1.77	11.42	0.89
2.250	0.89	5.333	11.51	8.417	1.77	11.50	0.89
2.333	5.31	5.417	11.51	8.500	1.77	11.58	0.89
2.417	5.31	5.500	11.51	8.583	1.77	11.67	0.89
2.500	5.31	5.583	11.51	8.667	1.77	11.75	0.89
2.583	5.31	5.667	11.51	8.750	1.77	11.83	0.89
2.667	5.31	5.750	11.51	8.833	1.77	11.92	0.89
2.750	5.31	5.833	11.51	8.917	1.77	12.00	0.89
2.833	5.31	5.917	11.51	9.000	1.77	12.08	0.89
2.917	5.31	6.000	11.51	9.083	1.77	12.17	0.89
3.000	5.31	6.083	11.51	9.167	1.77	12.25	0.89
3.083	5.31	6.167	11.51	9.250	1.77	12.25	0.89

Max.Eff.Inten. (mm/hr)=	40.71	24.39
over (min)	5.00	5.00
Storage Coeff. (min)=	1.39 (ii)	2.45 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.30
TOTALS		
PEAK FLOW (cms)=	0.27	0.00
TIME TO PEAK (hrs)=	5.08	5.25
RUNOFF VOLUME (mm)=	87.54	39.32
TOTAL RAINFALL (mm)=	88.54	88.54
RUNOFF COEFFICIENT =	0.99	0.44

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7844)			
ID= 1 DT= 5.0 min	Area (ha)= 2.40	Total Imp(%)= 99.00	Dir. Conn.(%)= 99.00
IMPERVIOUS PERVIOUS (i)			
Surface Area (ha)=	2.38	0.02	
Dep. Storage (mm)=	1.00	5.00	
Average Slope (%)=	1.00	2.00	
Length (m)=	20.00	20.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	5.31	6.250	11.51	9.33	0.89				
0.167	0.00	3.250	5.31	6.333	6.20	9.42	0.89				
0.250	0.00	3.333	15.05	6.417	6.20	9.50	0.89				
0.333	0.89	3.417	15.05	6.500	6.20	9.58	0.89				
0.417	0.89	3.500	15.05	6.583	6.20	9.67	0.89				
0.500	0.89	3.583	15.05	6.667	6.20	9.75	0.89				
0.583	0.89	3.667	15.05	6.750	6.20	9.83	0.89				
0.667	0.89	3.750	15.05	6.833	6.20	9.92	0.89				
0.750	0.89	3.833	15.05	6.917	6.20	10.00	0.89				
0.833	0.89	3.917	15.05	7.000	6.20	10.08	0.89				
0.917	0.89	4.000	15.05	7.083	6.20	10.17	0.89				

1.000	0.89	4.083	15.05	7.167	6.20	10.25	0.89
1.083	0.89	4.167	15.05	7.250	6.20	10.33	0.89
1.167	0.89	4.250	15.05	7.333	3.54	10.42	0.89
1.250	0.89	4.333	40.71	7.417	3.54	10.50	0.89
1.333	0.89	4.417	40.71	7.500	3.54	10.58	0.89
1.417	0.89	4.500	40.71	7.583	3.54	10.67	0.89
1.500	0.89	4.583	40.71	7.667	3.54	10.75	0.89
1.583	0.89	4.667	40.71	7.750	3.54	10.83	0.89
1.667	0.89	4.750	40.71	7.833	3.54	10.92	0.89
1.750	0.89	4.833	40.71	7.917	3.54	11.00	0.89
1.833	0.89	4.917	40.71	8.000	3.54	11.08	0.89
1.917	0.89	5.000	40.71	8.083	3.54	11.17	0.89
2.000	0.89	5.083	40.71	8.167	3.54	11.25	0.89
2.083	0.89	5.167	40.71	8.250	3.54	11.33	0.89
2.167	0.89	5.250	40.71	8.333	1.77	11.42	0.89
2.250	0.89	5.333	11.51	8.417	1.77	11.50	0.89
2.333	5.31	5.417	11.51	8.500	1.77	11.58	0.89
2.417	5.31	5.500	11.51	8.583	1.77	11.67	0.89
2.500	5.31	5.583	11.51	8.667	1.77	11.75	0.89
2.583	5.31	5.667	11.51	8.750	1.77	11.83	0.89
2.667	5.31	5.750	11.51	8.833	1.77	11.92	0.89
2.750	5.31	5.833	11.51	8.917	1.77	12.00	0.89
2.833	5.31	5.917	11.51	9.000	1.77	12.08	0.89
2.917	5.31	6.000	11.51	9.083	1.77	12.17	0.89
3.000	5.31	6.083	11.51	9.167	1.77	12.25	0.89
3.083	5.31	6.167	11.51	9.250	1.77	12.25	0.89

Max.Eff.Inten. (mm/hr)=	40.71	24.39
over (min)	5.00	5.00
Storage Coeff. (min)=	1.39 (ii)	2.45 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.33	0.30

TOTALS		
PEAK FLOW (cms)=	0.27	0.00
TIME TO PEAK (hrs)=	5.08	5.25
RUNOFF VOLUME (mm)=	87.54	39.32
TOTAL RAINFALL (mm)=	88.54	88.54
RUNOFF COEFFICIENT =	0.99	0.44

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7843)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7806):	2.37	0.267	5.25	87.06
+ ID2= 2 (7811):	2.40	0.270	5.25	87.06
=====				
ID = 3 (7843):	4.77	0.537	5.25	87.06

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7843)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7843):	4.77	0.537	5.25	87.06
+ ID2= 2 (7816):	2.36	0.266	5.25	87.06
=====				
ID = 1 (7843):	7.13	0.803	5.25	87.06

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7843)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.

	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7843):	7.13	0.803	5.25	87.06
+ ID2= 2 (7827):	2.39	0.269	5.25	87.06

ID = 3 (7843):	9.52	1.072	5.25	87.06

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7843)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7843):	9.52	1.072	5.25	87.06
+ ID2= 2 (7832):	2.39	0.269	5.25	87.06

ID = 1 (7843):	11.91	1.342	5.25	87.06

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7843)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7843):	11.91	1.342	5.25	87.06
+ ID2= 2 (7844):	2.40	0.270	5.25	87.06

ID = 3 (7843):	14.31	1.612	5.25	87.06

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| DIVERTHYD (7835) |
| IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1	Flow 2	Flow 3	Flow 4	Flow 5	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
TOTAL HYD. (ID= 1):	14.31	1.61	5.25	87.06
ID= 2 (2) :	13.05	1.31	5.25	87.06
ID= 3 (2) :	1.26	0.31	5.25	87.06
ID= 4 (2) :	0.00	0.00	0.00	0.00
ID= 5 (2) :	0.00	0.00	0.00	0.00
ID= 6 (2) :	0.00	0.00	0.00	0.00

| RESERVOIR (7808) |
| IN= 2---> OUT= 1 |
| DT= 5.0 min |

OVERFLOW IS ON

OUTFLOW	STORAGE	OUTFLOW	STORAGE
(cms)	(ha.m.)	(cms)	(ha.m.)
0.0000	0.0000	0.2630	0.4589
0.1980	0.1112	0.0000	0.0000

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7835)	13.052	1.306	5.25	87.06
OUTFLOW: ID= 1 (7808)	10.838	0.269	5.00	87.05
OVERFLOW: ID= 3 (0003)	2.213	1.037	5.25	87.05

TOTAL NUMBER OF SIMULATION OVERFLOW = 16
CUMULATIVE TIME OF OVERFLOW (HOURS) = 1.33
PERCENTAGE OF TIME OVERFLOWING (%) = 5.76

PEAK FLOW REDUCTION [Qout/Qin](%) = 20.60
TIME SHIFT OF PEAK FLOW (min) = -15.00
MAXIMUM STORAGE USED (ha.m.) = 0.4589

| Junction Command(7803) |

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 3 (7808)	2.21	1.04	5.25	87.05
OUTFLOW: ID= 2 (7803)	2.21	1.04	5.25	87.05

ADD HYD (7824)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7803):	2.21	1.037	5.25	87.05
+ ID2= 2 (7808):	10.84	0.269	5.00	87.05

ID = 3 (7824):	13.05	1.306	5.25	87.05

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7824)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7824):	13.05	1.306	5.25	87.05
+ ID2= 2 (7835):	1.26	0.306	5.25	87.06

ID = 1 (7824):	14.31	1.612	5.25	87.05

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7810)			
ID= 1 DT= 5.0 min	Area	(ha)=	1.06
	Total Imp (%)=	95.00	Dir. Conn. (%)= 95.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.01	0.05
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.50	2.00
Length (m)=	60.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	5.31	6.250	11.51
0.167	0.00	3.250	5.31	6.333	6.20
0.250	0.00	3.333	15.05	6.417	6.20
0.333	0.89	3.417	15.05	6.500	6.20
0.417	0.89	3.500	15.05	6.583	6.20
0.500	0.89	3.583	15.05	6.667	6.20
0.583	0.89	3.667	15.05	6.750	6.20
0.667	0.89	3.750	15.05	6.833	6.20
0.750	0.89	3.833	15.05	6.917	6.20
0.833	0.89	3.917	15.05	7.000	6.20
0.917	0.89	4.000	15.05	7.083	6.20
1.000	0.89	4.083	15.05	7.167	6.20
1.083	0.89	4.167	15.05	7.250	6.20
1.167	0.89	4.250	15.05	7.333	3.54
1.250	0.89	4.333	40.71	7.417	3.54
1.333	0.89	4.417	40.71	7.500	3.54
1.417	0.89	4.500	40.71	7.583	3.54
1.500	0.89	4.583	40.71	7.667	3.54
1.583	0.89	4.667	40.71	7.750	3.54
1.667	0.89	4.750	40.71	7.833	3.54
1.750	0.89	4.833	40.71	7.917	3.54



1.833	0.89	4.917	40.71	8.000	3.54	11.08	0.89
1.917	0.89	5.000	40.71	8.083	3.54	11.17	0.89
2.000	0.89	5.083	40.71	8.167	3.54	11.25	0.89
2.083	0.89	5.167	40.71	8.250	3.54	11.33	0.89
2.167	0.89	5.250	40.71	8.333	1.77	11.42	0.89
2.250	0.89	5.333	11.51	8.417	1.77	11.50	0.89
2.333	5.31	5.417	11.51	8.500	1.77	11.58	0.89
2.417	5.31	5.500	11.51	8.583	1.77	11.67	0.89
2.500	5.31	5.583	11.51	8.667	1.77	11.75	0.89
2.583	5.31	5.667	11.51	8.750	1.77	11.83	0.89
2.667	5.31	5.750	11.51	8.833	1.77	11.92	0.89
2.750	5.31	5.833	11.51	8.917	1.77	12.00	0.89
2.833	5.31	5.917	11.51	9.000	1.77	12.08	0.89
2.917	5.31	6.000	11.51	9.083	1.77	12.17	0.89
3.000	5.31	6.083	11.51	9.167	1.77	12.25	0.89
3.083	5.31	6.167	11.51	9.250	1.77		

Max.Eff.Inten.(mm/hr)= 40.71 25.00
 over (min) 5.00 10.00
 Storage Coeff. (min)= 2.05 (ii) 5.16 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.31 0.16

PEAK FLOW (cms)= 0.11 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 4.83 5.25 5.25 0.117 (iii)
 RUNOFF VOLUME (mm)= 86.54 40.39 84.23
 TOTAL RAINFALL (mm)= 88.54 88.54 88.54
 RUNOFF COEFFICIENT = 0.98 0.46 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7814)	Area (ha)= 1.45		
ID= 1 DT= 5.0 min	Total Imp(%)= 96.00	Dir. Conn.(%)= 96.00	
IMPERVIOUS PERVIOUS (i)			
Surface Area (ha)=	1.39	0.06	
Dep. Storage (mm)=	2.00	5.00	
Average Slope (%)=	1.10	2.00	
Length (m)=	100.00	145.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	5.31	6.250	11.51	9.33	0.89
0.167	0.00	3.250	5.31	6.333	6.20	9.42	0.89
0.250	0.00	3.333	15.05	6.417	6.20	9.50	0.89
0.333	0.89	3.417	15.05	6.500	6.20	9.58	0.89
0.417	0.89	3.500	15.05	6.583	6.20	9.67	0.89
0.500	0.89	3.583	15.05	6.667	6.20	9.75	0.89
0.583	0.89	3.667	15.05	6.750	6.20	9.83	0.89
0.667	0.89	3.750	15.05	6.833	6.20	9.92	0.89
0.750	0.89	3.833	15.05	6.917	6.20	10.00	0.89
0.833	0.89	3.917	15.05	7.000	6.20	10.08	0.89
0.917	0.89	4.000	15.05	7.083	6.20	10.17	0.89
1.000	0.89	4.083	15.05	7.167	6.20	10.25	0.89
1.083	0.89	4.167	15.05	7.250	6.20	10.33	0.89
1.167	0.89	4.250	15.05	7.333	3.54	10.42	0.89
1.250	0.89	4.333	40.71	7.417	3.54	10.50	0.89
1.333	0.89	4.417	40.71	7.500	3.54	10.58	0.89
1.417	0.89	4.500	40.71	7.583	3.54	10.67	0.89
1.500	0.89	4.583	40.71	7.667	3.54	10.75	0.89
1.583	0.89	4.667	40.71	7.750	3.54	10.83	0.89
1.667	0.89	4.750	40.71	7.833	3.54	10.92	0.89

1.750	0.89	4.833	40.71	7.917	3.54	11.00	0.89
1.833	0.89	4.917	40.71	8.000	3.54	11.08	0.89
1.917	0.89	5.000	40.71	8.083	3.54	11.17	0.89
2.000	0.89	5.083	40.71	8.167	3.54	11.25	0.89
2.083	0.89	5.167	40.71	8.250	3.54	11.33	0.89
2.167	0.89	5.250	40.71	8.333	1.77	11.42	0.89
2.250	0.89	5.333	11.51	8.417	1.77	11.50	0.89
2.333	5.31	5.417	11.51	8.500	1.77	11.58	0.89
2.417	5.31	5.500	11.51	8.583	1.77	11.67	0.89
2.500	5.31	5.583	11.51	8.667	1.77	11.75	0.89
2.583	5.31	5.667	11.51	8.750	1.77	11.83	0.89
2.667	5.31	5.750	11.51	8.833	1.77	11.92	0.89
2.750	5.31	5.833	11.51	8.917	1.77	12.00	0.89
2.833	5.31	5.917	11.51	9.000	1.77	12.08	0.89
2.917	5.31	6.000	11.51	9.083	1.77	12.17	0.89
3.000	5.31	6.083	11.51	9.167	1.77	12.25	0.89
3.083	5.31	6.167	11.51	9.250	1.77		

Max.Eff.Inten.(mm/hr)= 40.71 22.70
 over (min) 5.00 35.00
 Storage Coeff. (min)= 3.56 (ii) 31.21 (ii)
 Unit Hyd. Tpeak (min)= 5.00 35.00
 Unit Hyd. peak (cms)= 0.26 0.03

PEAK FLOW (cms)= 0.16 0.00 *TOTALS*
 TIME TO PEAK (hrs)= 5.08 5.50 5.25
 RUNOFF VOLUME (mm)= 86.54 39.32 84.64
 TOTAL RAINFALL (mm)= 88.54 88.54 88.54
 RUNOFF COEFFICIENT = 0.98 0.44 0.96

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB			
STANDHYD (7822)	Area (ha)= 1.70		
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00	Dir. Conn.(%)= 99.00	
IMPERVIOUS PERVIOUS (i)			
Surface Area (ha)=	1.68	0.02	
Dep. Storage (mm)=	2.00	5.00	
Average Slope (%)=	1.10	2.00	
Length (m)=	100.00	40.00	
Mannings n =	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	5.31	6.250	11.51	9.33	0.89
0.167	0.00	3.250	5.31	6.333	6.20	9.42	0.89
0.250	0.00	3.333	15.05	6.417	6.20	9.50	0.89
0.333	0.89	3.417	15.05	6.500	6.20	9.58	0.89
0.417	0.89	3.500	15.05	6.583	6.20	9.67	0.89
0.500	0.89	3.583	15.05	6.667	6.20	9.75	0.89
0.583	0.89	3.667	15.05	6.750	6.20	9.83	0.89
0.667	0.89	3.750	15.05	6.833	6.20	9.92	0.89
0.750	0.89	3.833	15.05	6.917	6.20	10.00	0.89
0.833	0.89	3.917	15.05	7.000	6.20	10.08	0.89
0.917	0.89	4.000	15.05	7.083	6.20	10.17	0.89
1.000	0.89	4.083	15.05	7.167	6.20	10.25	0.89
1.083	0.89	4.167	15.05	7.250	6.20	10.33	0.89
1.167	0.89	4.250	15.05	7.333	3.54	10.42	0.89
1.250	0.89	4.333	40.71	7.417	3.54	10.50	0.89
1.333	0.89	4.417	40.71	7.500	3.54	10.58	0.89
1.417	0.89	4.500	40.71	7.583	3.54	10.67	0.89
1.500	0.89	4.583	40.71	7.667	3.54	10.75	0.89
1.583	0.89	4.667	40.71	7.750	3.54	10.83	0.89



1.667	0.89	4.750	40.71	7.833	3.54	10.92	0.89
1.750	0.89	4.833	40.71	7.917	3.54	11.00	0.89
1.833	0.89	4.917	40.71	8.000	3.54	11.08	0.89
1.917	0.89	5.000	40.71	8.083	3.54	11.17	0.89
2.000	0.89	5.083	40.71	8.167	3.54	11.25	0.89
2.083	0.89	5.167	40.71	8.250	3.54	11.33	0.89
2.167	0.89	5.250	40.71	8.333	1.77	11.42	0.89
2.250	0.89	5.333	11.51	8.417	1.77	11.50	0.89
2.333	5.31	5.417	11.51	8.500	1.77	11.58	0.89
2.417	5.31	5.500	11.51	8.583	1.77	11.67	0.89
2.500	5.31	5.583	11.51	8.667	1.77	11.75	0.89
2.583	5.31	5.667	11.51	8.750	1.77	11.83	0.89
2.667	5.31	5.750	11.51	8.833	1.77	11.92	0.89
2.750	5.31	5.833	11.51	8.917	1.77	12.00	0.89
2.833	5.31	5.917	11.51	9.000	1.77	12.08	0.89
2.917	5.31	6.000	11.51	9.083	1.77	12.17	0.89
3.000	5.31	6.083	11.51	9.167	1.77	12.25	0.89
3.083	5.31	6.167	11.51	9.250	1.77		

Max.Eff.Inten.(mm/hr)= 40.71 24.39
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 3.56 (ii) 5.17 (iii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.26 0.16

PEAK FLOW (cms)= 0.19 0.00
 TIME TO PEAK (hrs)= 5.08 5.25
 RUNOFF VOLUME (mm)= 86.54 39.32
 TOTAL RAINFALL (mm)= 88.54 88.54
 RUNOFF COEFFICIENT = 0.98 0.44

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7838) |
ID= 1 DT= 5.0 min
 Area (ha)= 1.33
 Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

 IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.30 0.03
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	5.31	6.250	11.51	9.33	0.89
0.167	0.00	3.250	5.31	6.333	6.20	9.42	0.89
0.250	0.00	3.333	15.05	6.417	6.20	9.50	0.89
0.333	0.89	3.417	15.05	6.500	6.20	9.58	0.89
0.417	0.89	3.500	15.05	6.583	6.20	9.67	0.89
0.500	0.89	3.583	15.05	6.667	6.20	9.75	0.89
0.583	0.89	3.667	15.05	6.750	6.20	9.83	0.89
0.667	0.89	3.750	15.05	6.833	6.20	9.92	0.89
0.750	0.89	3.833	15.05	6.917	6.20	10.00	0.89
0.833	0.89	3.917	15.05	7.000	6.20	10.08	0.89
0.917	0.89	4.000	15.05	7.083	6.20	10.17	0.89
1.000	0.89	4.083	15.05	7.167	6.20	10.25	0.89
1.083	0.89	4.167	15.05	7.250	6.20	10.33	0.89
1.167	0.89	4.250	15.05	7.333	3.54	10.42	0.89
1.250	0.89	4.333	40.71	7.417	3.54	10.50	0.89
1.333	0.89	4.417	40.71	7.500	3.54	10.58	0.89
1.417	0.89	4.500	40.71	7.583	3.54	10.67	0.89
1.500	0.89	4.583	40.71	7.667	3.54	10.75	0.89

1.583	0.89	4.667	40.71	7.750	3.54	10.83	0.89
1.667	0.89	4.750	40.71	7.833	3.54	10.92	0.89
1.750	0.89	4.833	40.71	7.917	3.54	11.00	0.89
1.833	0.89	4.917	40.71	8.000	3.54	11.08	0.89
1.917	0.89	5.000	40.71	8.083	3.54	11.17	0.89
2.000	0.89	5.083	40.71	8.167	3.54	11.25	0.89
2.083	0.89	5.167	40.71	8.250	3.54	11.33	0.89
2.167	0.89	5.250	40.71	8.333	1.77	11.42	0.89
2.250	0.89	5.333	11.51	8.417	1.77	11.50	0.89
2.333	5.31	5.417	11.51	8.500	1.77	11.58	0.89
2.417	5.31	5.500	11.51	8.583	1.77	11.67	0.89
2.500	5.31	5.583	11.51	8.667	1.77	11.75	0.89
2.583	5.31	5.667	11.51	8.750	1.77	11.83	0.89
2.667	5.31	5.750	11.51	8.833	1.77	11.92	0.89
2.750	5.31	5.833	11.51	8.917	1.77	12.00	0.89
2.833	5.31	5.917	11.51	9.000	1.77	12.08	0.89
2.917	5.31	6.000	11.51	9.083	1.77	12.17	0.89
3.000	5.31	6.083	11.51	9.167	1.77	12.25	0.89
3.083	5.31	6.167	11.51	9.250	1.77		

Max.Eff.Inten.(mm/hr)= 40.71 24.39
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 3.56 (ii) 5.69 (iii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.26 0.15

PEAK FLOW (cms)= 0.15 0.00
 TIME TO PEAK (hrs)= 5.08 5.25
 RUNOFF VOLUME (mm)= 86.54 39.32
 TOTAL RAINFALL (mm)= 88.54 88.54
 RUNOFF COEFFICIENT = 0.98 0.44

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | ADD HYD (7805) |
1 + 2 = 3
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7814): 1.45 0.160 5.25 84.64
 + ID2= 2 (7822): 1.70 0.191 5.25 86.07
 =====
 ID = 3 (7805): 3.15 0.351 5.25 85.41

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7805) |
3 + 2 = 1
 AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7805): 3.15 0.351 5.25 85.41
 + ID2= 2 (7838): 1.33 0.149 5.25 85.59
 =====
 ID = 1 (7805): 4.48 0.500 5.25 85.46

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | CALIB |
 | STANDHYD (7819) |
ID= 1 DT= 5.0 min
 Area (ha)= 1.32
 Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

 IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.31 0.01
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250



NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	5.31	6.250	11.51	9.33	0.89
0.167	0.00	3.250	5.31	6.333	6.20	9.42	0.89
0.250	0.00	3.333	15.05	6.417	6.20	9.50	0.89
0.333	0.89	3.417	15.05	6.500	6.20	9.58	0.89
0.417	0.89	3.500	15.05	6.583	6.20	9.67	0.89
0.500	0.89	3.583	15.05	6.667	6.20	9.75	0.89
0.583	0.89	3.667	15.05	6.750	6.20	9.83	0.89
0.667	0.89	3.750	15.05	6.833	6.20	9.92	0.89
0.750	0.89	3.833	15.05	6.917	6.20	10.00	0.89
0.833	0.89	3.917	15.05	7.000	6.20	10.08	0.89
0.917	0.89	4.000	15.05	7.083	6.20	10.17	0.89
1.000	0.89	4.083	15.05	7.167	6.20	10.25	0.89
1.083	0.89	4.167	15.05	7.250	6.20	10.33	0.89
1.167	0.89	4.250	15.05	7.333	3.54	10.42	0.89
1.250	0.89	4.333	40.71	7.417	3.54	10.50	0.89
1.333	0.89	4.417	40.71	7.500	3.54	10.58	0.89
1.417	0.89	4.500	40.71	7.583	3.54	10.67	0.89
1.500	0.89	4.583	40.71	7.667	3.54	10.75	0.89
1.583	0.89	4.667	40.71	7.750	3.54	10.83	0.89
1.667	0.89	4.750	40.71	7.833	3.54	10.92	0.89
1.750	0.89	4.833	40.71	7.917	3.54	11.00	0.89
1.833	0.89	4.917	40.71	8.000	3.54	11.08	0.89
1.917	0.89	5.000	40.71	8.083	3.54	11.17	0.89
2.000	0.89	5.083	40.71	8.167	3.54	11.25	0.89
2.083	0.89	5.167	40.71	8.250	3.54	11.33	0.89
2.167	0.89	5.250	40.71	8.333	1.77	11.42	0.89
2.250	0.89	5.333	11.51	8.417	1.77	11.50	0.89
2.333	5.31	5.417	11.51	8.500	1.77	11.58	0.89
2.417	5.31	5.500	11.51	8.583	1.77	11.67	0.89
2.500	5.31	5.583	11.51	8.667	1.77	11.75	0.89
2.583	5.31	5.667	11.51	8.750	1.77	11.83	0.89
2.667	5.31	5.750	11.51	8.833	1.77	11.92	0.89
2.750	5.31	5.833	11.51	8.917	1.77	12.00	0.89
2.833	5.31	5.917	11.51	9.000	1.77	12.08	0.89
2.917	5.31	6.000	11.51	9.083	1.77	12.17	0.89
3.000	5.31	6.083	11.51	9.167	1.77	12.25	0.89
3.083	5.31	6.167	11.51	9.250	1.77		

Max.Eff.Inten. (mm/hr)=	40.71	24.39
over (min)	5.00	10.00
Storage Coeff. (min)=	3.56 (ii)	5.17 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.26	0.16

		TOTALS
PEAK FLOW (cms)=	0.15	0.00
TIME TO PEAK (hrs)=	5.08	5.25
RUNOFF VOLUME (mm)=	86.54	86.07
TOTAL RAINFALL (mm)=	88.54	88.54
RUNOFF COEFFICIENT =	0.98	0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	PERVIOUS (i)	PERVIOUS (i)
STANDHYD (7829)	1.69		
ID= 1 DT= 5.0 min	Total Imp(%)= 99.00	Dir. Conn.(%)= 99.00	
Surface Area (ha)=	1.67	0.02	
Dep. Storage (mm)=	2.00	5.00	
Average Slope (%)=	1.10	2.00	
Length (m)=	100.00	40.00	

Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	5.31	6.250	11.51	9.33	0.89
0.167	0.00	3.250	5.31	6.333	6.20	9.42	0.89
0.250	0.00	3.333	15.05	6.417	6.20	9.50	0.89
0.333	0.89	3.417	15.05	6.500	6.20	9.58	0.89
0.417	0.89	3.500	15.05	6.583	6.20	9.67	0.89
0.500	0.89	3.583	15.05	6.667	6.20	9.75	0.89
0.583	0.89	3.667	15.05	6.750	6.20	9.83	0.89
0.667	0.89	3.750	15.05	6.833	6.20	9.92	0.89
0.750	0.89	3.833	15.05	6.917	6.20	10.00	0.89
0.833	0.89	3.917	15.05	7.000	6.20	10.08	0.89
0.917	0.89	4.000	15.05	7.083	6.20	10.17	0.89
1.000	0.89	4.083	15.05	7.167	6.20	10.25	0.89
1.083	0.89	4.167	15.05	7.250	6.20	10.33	0.89
1.167	0.89	4.250	15.05	7.333	3.54	10.42	0.89
1.250	0.89	4.333	40.71	7.417	3.54	10.50	0.89
1.333	0.89	4.417	40.71	7.500	3.54	10.58	0.89
1.417	0.89	4.500	40.71	7.583	3.54	10.67	0.89
1.500	0.89	4.583	40.71	7.667	3.54	10.75	0.89
1.583	0.89	4.667	40.71	7.750	3.54	10.83	0.89
1.667	0.89	4.750	40.71	7.833	3.54	10.92	0.89
1.750	0.89	4.833	40.71	7.917	3.54	11.00	0.89
1.833	0.89	4.917	40.71	8.000	3.54	11.08	0.89
1.917	0.89	5.000	40.71	8.083	3.54	11.17	0.89
2.000	0.89	5.083	40.71	8.167	3.54	11.25	0.89
2.083	0.89	5.167	40.71	8.250	3.54	11.33	0.89
2.167	0.89	5.250	40.71	8.333	1.77	11.42	0.89
2.250	0.89	5.333	11.51	8.417	1.77	11.50	0.89
2.333	5.31	5.417	11.51	8.500	1.77	11.58	0.89
2.417	5.31	5.500	11.51	8.583	1.77	11.67	0.89
2.500	5.31	5.583	11.51	8.667	1.77	11.75	0.89
2.583	5.31	5.667	11.51	8.750	1.77	11.83	0.89
2.667	5.31	5.750	11.51	8.833	1.77	11.92	0.89
2.750	5.31	5.833	11.51	8.917	1.77	12.00	0.89
2.833	5.31	5.917	11.51	9.000	1.77	12.08	0.89
2.917	5.31	6.000	11.51	9.083	1.77	12.17	0.89
3.000	5.31	6.083	11.51	9.167	1.77	12.25	0.89
3.083	5.31	6.167	11.51	9.250	1.77		

Max.Eff.Inten. (mm/hr)=	40.71	24.39
over (min)	5.00	10.00
Storage Coeff. (min)=	3.56 (ii)	5.17 (ii)
Unit Hyd. Tpeak (min)=	5.00	10.00
Unit Hyd. peak (cms)=	0.26	0.16

		TOTALS
PEAK FLOW (cms)=	0.19	0.00
TIME TO PEAK (hrs)=	5.08	5.25
RUNOFF VOLUME (mm)=	86.54	86.07
TOTAL RAINFALL (mm)=	88.54	88.54
RUNOFF COEFFICIENT =	0.98	0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)	PERVIOUS (i)	PERVIOUS (i)
STANDHYD (7839)	1.61		
ID= 1 DT= 5.0 min	Total Imp(%)= 92.00	Dir. Conn.(%)= 92.00	
Surface Area (ha)=	1.48	0.13	
Dep. Storage (mm)=	2.00	5.00	
Average Slope (%)=	1.10	2.00	



Length (m) = 100.00 145.00
 Mannings n = 0.013 0.250

ID = 3 (7842): 3.01 0.339 5.25 86.07

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	5.31	6.250	11.51	9.33	0.89
0.167	0.00	3.250	5.31	6.333	6.20	9.42	0.89
0.250	0.00	3.333	15.05	6.417	6.20	9.50	0.89
0.333	0.89	3.417	15.05	6.500	6.20	9.58	0.89
0.417	0.89	3.500	15.05	6.583	6.20	9.67	0.89
0.500	0.89	3.583	15.05	6.667	6.20	9.75	0.89
0.583	0.89	3.667	15.05	6.750	6.20	9.83	0.89
0.667	0.89	3.750	15.05	6.833	6.20	9.92	0.89
0.750	0.89	3.833	15.05	6.917	6.20	10.00	0.89
0.833	0.89	3.917	15.05	7.000	6.20	10.08	0.89
0.917	0.89	4.000	15.05	7.083	6.20	10.17	0.89
1.000	0.89	4.083	15.05	7.167	6.20	10.25	0.89
1.083	0.89	4.167	15.05	7.250	6.20	10.33	0.89
1.167	0.89	4.250	15.05	7.333	3.54	10.42	0.89
1.250	0.89	4.333	40.71	7.417	3.54	10.50	0.89
1.333	0.89	4.417	40.71	7.500	3.54	10.58	0.89
1.417	0.89	4.500	40.71	7.583	3.54	10.67	0.89
1.500	0.89	4.583	40.71	7.667	3.54	10.75	0.89
1.583	0.89	4.667	40.71	7.750	3.54	10.83	0.89
1.667	0.89	4.750	40.71	7.833	3.54	10.92	0.89
1.750	0.89	4.833	40.71	7.917	3.54	11.00	0.89
1.833	0.89	4.917	40.71	8.000	3.54	11.08	0.89
1.917	0.89	5.000	40.71	8.083	3.54	11.17	0.89
2.000	0.89	5.083	40.71	8.167	3.54	11.25	0.89
2.083	0.89	5.167	40.71	8.250	3.54	11.33	0.89
2.167	0.89	5.250	40.71	8.333	1.77	11.42	0.89
2.250	0.89	5.333	11.51	8.417	1.77	11.50	0.89
2.333	5.31	5.417	11.51	8.500	1.77	11.58	0.89
2.417	5.31	5.500	11.51	8.583	1.77	11.67	0.89
2.500	5.31	5.583	11.51	8.667	1.77	11.75	0.89
2.583	5.31	5.667	11.51	8.750	1.77	11.83	0.89
2.667	5.31	5.750	11.51	8.833	1.77	11.92	0.89
2.750	5.31	5.833	11.51	8.917	1.77	12.00	0.89
2.833	5.31	5.917	11.51	9.000	1.77	12.08	0.89
2.917	5.31	6.000	11.51	9.083	1.77	12.17	0.89
3.000	5.31	6.083	11.51	9.167	1.77	12.25	0.89
3.083	5.31	6.167	11.51	9.250	1.77		

ADD HYD (7842)				
ID	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
3 + 2 = 1				
ID1= 3 (7842):	3.01	0.339	5.25	86.07
+ ID2= 2 (7839):	1.61	0.173	5.25	82.75
ID = 1 (7842):	4.62	0.512	5.25	84.91

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7830)	Area (ha)	Imp (%)	Dir. Conn. (%)
ID= 1 DT= 5.0 min	1.20	95.00	95.00
IMPERVIOUS PERVIOUS (i)			
Surface Area (ha)	1.14	0.06	
Dep. Storage (mm)	2.00	5.00	
Average Slope (%)	2.50	2.00	
Length (m)	60.00	40.00	
Mannings n	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

Max.Eff.Inten. (mm/hr)= 40.71 22.70
 over (min) = 5.00 35.00
 Storage Coeff. (min)= 3.56 (ii) 31.21 (ii)
 Unit Hyd. Tpeak (min)= 5.00 35.00
 Unit Hyd. peak (cms)= 0.26 0.03

TOTALS
 PEAK FLOW (cms)= 0.17 0.01 0.173 (iii)
 TIME TO PEAK (hrs)= 5.08 5.50 5.25
 RUNOFF VOLUME (mm)= 86.54 39.32 82.75
 TOTAL RAINFALL (mm)= 88.54 88.54 88.54
 RUNOFF COEFFICIENT = 0.98 0.44 0.93

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES: CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7842)				
ID	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
1 + 2 = 3				
ID1= 1 (7819):	1.32	0.149	5.25	86.07
+ ID2= 2 (7829):	1.69	0.190	5.25	86.07

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	5.31	6.250	11.51	9.33	0.89
0.167	0.00	3.250	5.31	6.333	6.20	9.42	0.89
0.250	0.00	3.333	15.05	6.417	6.20	9.50	0.89
0.333	0.89	3.417	15.05	6.500	6.20	9.58	0.89
0.417	0.89	3.500	15.05	6.583	6.20	9.67	0.89
0.500	0.89	3.583	15.05	6.667	6.20	9.75	0.89
0.583	0.89	3.667	15.05	6.750	6.20	9.83	0.89
0.667	0.89	3.750	15.05	6.833	6.20	9.92	0.89
0.750	0.89	3.833	15.05	6.917	6.20	10.00	0.89
0.833	0.89	3.917	15.05	7.000	6.20	10.08	0.89
0.917	0.89	4.000	15.05	7.083	6.20	10.17	0.89
1.000	0.89	4.083	15.05	7.167	6.20	10.25	0.89
1.083	0.89	4.167	15.05	7.250	6.20	10.33	0.89
1.167	0.89	4.250	15.05	7.333	3.54	10.42	0.89
1.250	0.89	4.333	40.71	7.417	3.54	10.50	0.89
1.333	0.89	4.417	40.71	7.500	3.54	10.58	0.89
1.417	0.89	4.500	40.71	7.583	3.54	10.67	0.89
1.500	0.89	4.583	40.71	7.667	3.54	10.75	0.89
1.583	0.89	4.667	40.71	7.750	3.54	10.83	0.89
1.667	0.89	4.750	40.71	7.833	3.54	10.92	0.89
1.750	0.89	4.833	40.71	7.917	3.54	11.00	0.89
1.833	0.89	4.917	40.71	8.000	3.54	11.08	0.89
1.917	0.89	5.000	40.71	8.083	3.54	11.17	0.89
2.000	0.89	5.083	40.71	8.167	3.54	11.25	0.89
2.083	0.89	5.167	40.71	8.250	3.54	11.33	0.89
2.167	0.89	5.250	40.71	8.333	1.77	11.42	0.89
2.250	0.89	5.333	11.51	8.417	1.77	11.50	0.89
2.333	5.31	5.417	11.51	8.500	1.77	11.58	0.89
2.417	5.31	5.500	11.51	8.583	1.77	11.67	0.89
2.500	5.31	5.583	11.51	8.667	1.77	11.75	0.89
2.583	5.31	5.667	11.51	8.750	1.77	11.83	0.89
2.667	5.31	5.750	11.51	8.833	1.77	11.92	0.89
2.750	5.31	5.833	11.51	8.917	1.77	12.00	0.89
2.833	5.31	5.917	11.51	9.000	1.77	12.08	0.89
2.917	5.31	6.000	11.51	9.083	1.77	12.17	0.89
3.000	5.31	6.083	11.51	9.167	1.77	12.25	0.89
3.083	5.31	6.167	11.51	9.250	1.77		

Max.Eff.Inten. (mm/hr)= 40.71 25.00
 over (min) = 5.00 10.00
 Storage Coeff. (min)= 2.05 (ii) 5.16 (ii)
 Unit Hyd. Tpeak (min)= 5.00 10.00



```

Unit Hyd. peak (cms)= 0.31 0.16
PEAK FLOW (cms)= 0.13 0.00
TIME TO PEAK (hrs)= 4.83 5.25
RUNOFF VOLUME (mm)= 86.54 40.39
TOTAL RAINFALL (mm)= 88.54 88.54
RUNOFF COEFFICIENT = 0.98 0.46
  
```

```

*TOTALS*
0.133 (iii)
5.25
84.23
88.54
0.95
  
```

```

0.4590 1.3820 | 0.8250 3.3550
0.5220 1.7210 | 2.0760 3.4560
0.5780 2.0600 | 2.3560 3.7320
  
```

```

AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
INFLOW : ID= 2 ( 7804) 25.670 2.874 5.25 86.14
OUTFLOW: ID= 1 ( 7833) 25.670 0.406 7.33 86.11
  
```

```

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!
(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.
  
```

```

PEAK FLOW REDUCTION [Qout/Qin](%)= 14.12
TIME SHIFT OF PEAK FLOW (min)=125.00
MAXIMUM STORAGE USED (ha.m.)= 1.1814
  
```

```

-----
| ADD HYD ( 7804) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7805): 4.48 0.500 5.25 85.46
+ ID2= 2 ( 7810): 1.06 0.117 5.25 84.23
-----
ID = 3 ( 7804): 5.54 0.618 5.25 85.23
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7804) |
| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 3 ( 7804): 5.54 0.618 5.25 85.23
+ ID2= 2 ( 7824): 14.31 1.612 5.25 87.05
-----
ID = 1 ( 7804): 19.85 2.230 5.25 86.54
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7804) |
| 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 1 ( 7804): 19.85 2.230 5.25 86.54
+ ID2= 2 ( 7830): 1.20 0.133 5.25 84.23
-----
ID = 3 ( 7804): 21.05 2.363 5.25 86.41
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| ADD HYD ( 7804) |
| 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
(ha) (cms) (hrs) (mm)
ID1= 3 ( 7804): 21.05 2.363 5.25 86.41
+ ID2= 2 ( 7842): 4.62 0.512 5.25 84.91
-----
ID = 1 ( 7804): 25.67 2.874 5.25 86.14
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

```

-----
| RESERVOIR( 7833) | OVERFLOW IS OFF
| IN= 2--> OUT= 1 |
| DT= 5.0 min |
-----
OUTFLOW STORAGE | OUTFLOW STORAGE
(cms) (ha.m.) | (cms) (ha.m.)
0.0000 0.0000 | 0.6280 2.3980
0.0730 0.2080 | 0.6400 2.4830
0.0890 0.2770 | 0.6520 2.5670
0.1340 0.5530 | 0.6640 2.6500
0.2910 0.8290 | 0.6750 2.7340
0.3860 1.1060 | 0.7190 3.0490
  
```

```

-----
| CALIB |
| STANDHYD ( 7821) | Area (ha)= 0.19
| ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00
-----
  
```

```

IMPERVIOUS PERVIOUS (i)
Surface Area (ha)= 0.18 0.01
Dep. Storage (mm)= 2.00 5.00
Average Slope (%)= 2.50 2.00
Length (m)= 60.00 40.00
Mannings n = 0.013 0.250
  
```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

----- TRANSFORMED HYETOGRAPH -----
TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
0.083 0.00 | 3.167 5.31 | 6.250 11.51 | 9.33 0.89
0.167 0.00 | 3.250 5.31 | 6.333 6.20 | 9.42 0.89
0.250 0.00 | 3.333 15.05 | 6.417 6.20 | 9.50 0.89
0.333 0.89 | 3.417 15.05 | 6.500 6.20 | 9.58 0.89
0.417 0.89 | 3.500 15.05 | 6.583 6.20 | 9.67 0.89
0.500 0.89 | 3.583 15.05 | 6.667 6.20 | 9.75 0.89
0.583 0.89 | 3.667 15.05 | 6.750 6.20 | 9.83 0.89
0.667 0.89 | 3.750 15.05 | 6.833 6.20 | 9.92 0.89
0.750 0.89 | 3.833 15.05 | 6.917 6.20 | 10.00 0.89
0.833 0.89 | 3.917 15.05 | 7.000 6.20 | 10.08 0.89
0.917 0.89 | 4.000 15.05 | 7.083 6.20 | 10.17 0.89
1.000 0.89 | 4.083 15.05 | 7.167 6.20 | 10.25 0.89
1.083 0.89 | 4.167 15.05 | 7.250 6.20 | 10.33 0.89
1.167 0.89 | 4.250 15.05 | 7.333 3.54 | 10.42 0.89
1.250 0.89 | 4.333 40.71 | 7.417 3.54 | 10.50 0.89
1.333 0.89 | 4.417 40.71 | 7.500 3.54 | 10.58 0.89
1.417 0.89 | 4.500 40.71 | 7.583 3.54 | 10.67 0.89
1.500 0.89 | 4.583 40.71 | 7.667 3.54 | 10.75 0.89
1.583 0.89 | 4.667 40.71 | 7.750 3.54 | 10.83 0.89
1.667 0.89 | 4.750 40.71 | 7.833 3.54 | 10.92 0.89
1.750 0.89 | 4.833 40.71 | 7.917 3.54 | 11.00 0.89
1.833 0.89 | 4.917 40.71 | 8.000 3.54 | 11.08 0.89
1.917 0.89 | 5.000 40.71 | 8.083 3.54 | 11.17 0.89
2.000 0.89 | 5.083 40.71 | 8.167 3.54 | 11.25 0.89
2.083 0.89 | 5.167 40.71 | 8.250 3.54 | 11.33 0.89
2.167 0.89 | 5.250 40.71 | 8.333 1.77 | 11.42 0.89
2.250 0.89 | 5.333 11.51 | 8.417 1.77 | 11.50 0.89
2.333 5.31 | 5.417 11.51 | 8.500 1.77 | 11.58 0.89
2.417 5.31 | 5.500 11.51 | 8.583 1.77 | 11.67 0.89
2.500 5.31 | 5.583 11.51 | 8.667 1.77 | 11.75 0.89
2.583 5.31 | 5.667 11.51 | 8.750 1.77 | 11.83 0.89
2.667 5.31 | 5.750 11.51 | 8.833 1.77 | 11.92 0.89
2.750 5.31 | 5.833 11.51 | 8.917 1.77 | 12.00 0.89
2.833 5.31 | 5.917 11.51 | 9.000 1.77 | 12.08 0.89
2.917 5.31 | 6.000 11.51 | 9.083 1.77 | 12.17 0.89
3.000 5.31 | 6.083 11.51 | 9.167 1.77 | 12.25 0.89
3.083 5.31 | 6.167 11.51 | 9.250 1.77 |
  
```

```

Max.Eff.Inten.(mm/hr)= 40.71 25.00
over (min) = 5.00 10.00
Storage Coeff. (min)= 2.05 (ii) 5.16 (ii)
Unit Hyd. Tpeak (min)= 5.00 10.00
Unit Hyd. peak (cms)= 0.31 0.16
  
```

TOTALS

PEAK FLOW (cms)= 0.02 0.00 0.021 (iii)
 TIME TO PEAK (hrs)= 4.83 5.25 5.25
 RUNOFF VOLUME (mm)= 86.54 40.39 84.22
 TOTAL RAINFALL (mm)= 88.54 88.54 88.54
 RUNOFF COEFFICIENT = 0.98 0.46 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7825)		OVERFLOW IS OFF			
IN= 2--> OUT= 1		DT= 5.0 min			
	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)	
0.0000	0.0000	0.0100	0.0090		
0.0030	0.0010	0.0110	0.0100		
0.0050	0.0030	0.0120	0.0110		
0.0060	0.0040	0.0120	0.0130		
0.0080	0.0050	0.0130	0.0140		
0.0090	0.0060	0.0140	0.0150		
0.0090	0.0080	0.0000	0.0000		
AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)		
INFLOW : ID= 2 (7821)	0.190	0.021	5.25	84.22	
OUTFLOW: ID= 1 (7825)	0.190	0.009	5.08	83.82	
PEAK FLOW REDUCTION [Qout/Qin] (%) = 42.74					
TIME SHIFT OF PEAK FLOW (min) = -10.00					
MAXIMUM STORAGE USED (ha.m.) = 0.0070					

CALIB		STANDHYD (7836)		ID= 1 DT= 5.0 min	
Area (ha)	Imp (%)	Dir. Conn. (%)			
0.20	95.00	95.00			
IMPERVIOUS		PERVIOUS (i)			
Surface Area (ha)	0.19	0.01			
Dep. Storage (mm)	2.00	5.00			
Average Slope (%)	2.50	2.00			
Length (m)	36.51	40.00			
Mannings n	0.013	0.250			

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	3.167	5.31	6.250	11.51	9.33	0.89
0.167	0.00	3.250	5.31	6.333	6.20	9.42	0.89
0.250	0.00	3.333	15.05	6.417	6.20	9.50	0.89
0.333	0.89	3.417	15.05	6.500	6.20	9.58	0.89
0.417	0.89	3.500	15.05	6.583	6.20	9.67	0.89
0.500	0.89	3.583	15.05	6.667	6.20	9.75	0.89
0.583	0.89	3.667	15.05	6.750	6.20	9.83	0.89
0.667	0.89	3.750	15.05	6.833	6.20	9.92	0.89
0.750	0.89	3.833	15.05	6.917	6.20	10.00	0.89
0.833	0.89	3.917	15.05	7.000	6.20	10.08	0.89
0.917	0.89	4.000	15.05	7.083	6.20	10.17	0.89
1.000	0.89	4.083	15.05	7.167	6.20	10.25	0.89
1.083	0.89	4.167	15.05	7.250	6.20	10.33	0.89
1.167	0.89	4.250	15.05	7.333	3.54	10.42	0.89
1.250	0.89	4.333	40.71	7.417	3.54	10.50	0.89
1.333	0.89	4.417	40.71	7.500	3.54	10.58	0.89
1.417	0.89	4.500	40.71	7.583	3.54	10.67	0.89
1.500	0.89	4.583	40.71	7.667	3.54	10.75	0.89
1.583	0.89	4.667	40.71	7.750	3.54	10.83	0.89
1.667	0.89	4.750	40.71	7.833	3.54	10.92	0.89

1.750 0.89 | 4.833 40.71 | 7.917 3.54 | 11.00 0.89
 1.833 0.89 | 4.917 40.71 | 8.000 3.54 | 11.08 0.89
 1.917 0.89 | 5.000 40.71 | 8.083 3.54 | 11.17 0.89
 2.000 0.89 | 5.083 40.71 | 8.167 3.54 | 11.25 0.89
 2.083 0.89 | 5.167 40.71 | 8.250 3.54 | 11.33 0.89
 2.167 0.89 | 5.250 40.71 | 8.333 1.77 | 11.42 0.89
 2.250 0.89 | 5.333 11.51 | 8.417 1.77 | 11.50 0.89
 2.333 5.31 | 5.417 11.51 | 8.500 1.77 | 11.58 0.89
 2.417 5.31 | 5.500 11.51 | 8.583 1.77 | 11.67 0.89
 2.500 5.31 | 5.583 11.51 | 8.667 1.77 | 11.75 0.89
 2.583 5.31 | 5.667 11.51 | 8.750 1.77 | 11.83 0.89
 2.667 5.31 | 5.750 11.51 | 8.833 1.77 | 11.92 0.89
 2.750 5.31 | 5.833 11.51 | 8.917 1.77 | 12.00 0.89
 2.833 5.31 | 5.917 11.51 | 9.000 1.77 | 12.08 0.89
 2.917 5.31 | 6.000 11.51 | 9.083 1.77 | 12.17 0.89
 3.000 5.31 | 6.083 11.51 | 9.167 1.77 | 12.25 0.89
 3.083 5.31 | 6.167 11.51 | 9.250 1.77 |

Max.Eff.Inten.(mm/hr)= 40.71 25.00
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.52 (ii) 4.63 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.22

TOTALS

PEAK FLOW (cms)= 0.02 0.00 0.022 (iii)
 TIME TO PEAK (hrs)= 4.83 5.25 5.25
 RUNOFF VOLUME (mm)= 86.54 40.39 84.23
 TOTAL RAINFALL (mm)= 88.54 88.54 88.54
 RUNOFF COEFFICIENT = 0.98 0.46 0.95

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PVIOUS LOSSES:
CN* = 74.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7807)		OVERFLOW IS OFF			
IN= 2--> OUT= 1		DT= 5.0 min			
	OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)	
0.0000	0.0000	0.0100	0.0090		
0.0030	0.0010	0.0110	0.0100		
0.0050	0.0030	0.0120	0.0110		
0.0060	0.0040	0.0120	0.0130		
0.0080	0.0050	0.0130	0.0140		
0.0090	0.0060	0.0140	0.0150		
0.0090	0.0080	0.0000	0.0000		
AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)		
INFLOW : ID= 2 (7836)	0.200	0.022	5.25	84.23	
OUTFLOW: ID= 1 (7807)	0.200	0.009	5.00	83.84	
PEAK FLOW REDUCTION [Qout/Qin] (%) = 40.58					
TIME SHIFT OF PEAK FLOW (min) = -15.00					
MAXIMUM STORAGE USED (ha.m.) = 0.0075					

AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 INFLOW : ID= 2 (7836) 0.200 0.022 5.25 84.23
 OUTFLOW: ID= 1 (7807) 0.200 0.009 5.00 83.84

PEAK FLOW REDUCTION [Qout/Qin] (%) = 40.58
 TIME SHIFT OF PEAK FLOW (min) = -15.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0075

ADD HYD (7831)		AREA QPEAK TPEAK R.V.			
1 + 2 = 3		(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7807):	0.20	0.009	5.00	83.84	
+ ID2= 2 (7825):	0.19	0.009	5.08	83.82	
ID = 3 (7831):	0.39	0.018	5.08	83.83	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.



ADD HYD (7831)	AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7831):	0.39	0.018	5.08	83.83
+ ID2= 2 (7833):	25.67	0.406	7.33	86.11

ID = 1 (7831):	26.06	0.420	7.08	86.08

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area (ha)=	1.24
STANDHYD (7826)	Total Imp(%)=	99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.23	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	2.00	2.00
Length (m)=	91.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	3.167	5.31	6.250	11.51	9.33	0.89
0.167	0.00	3.250	5.31	6.333	6.20	9.42	0.89
0.250	0.00	3.333	15.05	6.417	6.20	9.50	0.89
0.333	0.89	3.417	15.05	6.500	6.20	9.58	0.89
0.417	0.89	3.500	15.05	6.583	6.20	9.67	0.89
0.500	0.89	3.583	15.05	6.667	6.20	9.75	0.89
0.583	0.89	3.667	15.05	6.750	6.20	9.83	0.89
0.667	0.89	3.750	15.05	6.833	6.20	9.92	0.89
0.750	0.89	3.833	15.05	6.917	6.20	10.00	0.89
0.833	0.89	3.917	15.05	7.000	6.20	10.08	0.89
0.917	0.89	4.000	15.05	7.083	6.20	10.17	0.89
1.000	0.89	4.083	15.05	7.167	6.20	10.25	0.89
1.083	0.89	4.167	15.05	7.250	6.20	10.33	0.89
1.167	0.89	4.250	15.05	7.333	3.54	10.42	0.89
1.250	0.89	4.333	40.71	7.417	3.54	10.50	0.89
1.333	0.89	4.417	40.71	7.500	3.54	10.58	0.89
1.417	0.89	4.500	40.71	7.583	3.54	10.67	0.89
1.500	0.89	4.583	40.71	7.667	3.54	10.75	0.89
1.583	0.89	4.667	40.71	7.750	3.54	10.83	0.89
1.667	0.89	4.750	40.71	7.833	3.54	10.92	0.89
1.750	0.89	4.833	40.71	7.917	3.54	11.00	0.89
1.833	0.89	4.917	40.71	8.000	3.54	11.08	0.89
1.917	0.89	5.000	40.71	8.083	3.54	11.17	0.89
2.000	0.89	5.083	40.71	8.167	3.54	11.25	0.89
2.083	0.89	5.167	40.71	8.250	3.54	11.33	0.89
2.167	0.89	5.250	40.71	8.333	1.77	11.42	0.89
2.250	0.89	5.333	11.51	8.417	1.77	11.50	0.89
2.333	5.31	5.417	11.51	8.500	1.77	11.58	0.89
2.417	5.31	5.500	11.51	8.583	1.77	11.67	0.89
2.500	5.31	5.583	11.51	8.667	1.77	11.75	0.89
2.583	5.31	5.667	11.51	8.750	1.77	11.83	0.89
2.667	5.31	5.750	11.51	8.833	1.77	11.92	0.89
2.750	5.31	5.833	11.51	8.917	1.77	12.00	0.89
2.833	5.31	5.917	11.51	9.000	1.77	12.08	0.89
2.917	5.31	6.000	11.51	9.083	1.77	12.17	0.89
3.000	5.31	6.083	11.51	9.167	1.77	12.25	0.89
3.083	5.31	6.167	11.51	9.250	1.77		

Max.Eff.Inten. (mm/hr)=	40.71	24.39
over (min)	5.00	5.00
Storage Coeff. (min)=	2.81 (ii)	4.42 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.28	0.23

	TOTALS		
PEAK FLOW (cms)=	0.14	0.00	0.140 (iii)
TIME TO PEAK (hrs)=	5.08	5.25	5.25
RUNOFF VOLUME (mm)=	86.54	39.32	86.07
TOTAL RAINFALL (mm)=	88.54	88.54	88.54

RUNOFF COEFFICIENT = 0.98 0.44 0.97

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 73.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7815)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7826):	1.24	0.140	5.25	86.07
+ ID2= 2 (7831):	26.06	0.420	7.08	86.08

ID = 3 (7815):	27.30	0.491	5.25	86.08

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR(7841)	OVERFLOW IS OFF			
IN= 2----> OUT= 1	OUTFLOW	STORAGE	OUTFLOW	STORAGE
DT= 5.0 min	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	1.0810	1.6220
	0.0010	0.1670	1.3950	1.8170
	0.0340	0.3380	2.0990	2.2130
	0.0510	0.5110	2.8950	2.6150
	0.0630	0.6880	3.7730	3.0250
	0.1610	0.8670	4.7260	3.4420
	0.3300	1.0500	5.5670	3.8670
	0.5440	1.2370	8.5800	4.3000
	0.7970	1.4290	10.9450	4.5210

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7815)	27.302	0.491	5.25	86.08
OUTFLOW: ID= 1 (7841)	27.302	0.288	14.83	86.66

PEAK FLOW REDUCTION [Qout/Qin] (%) = 58.55
 TIME SHIFT OF PEAK FLOW (min) = 575.00
 MAXIMUM STORAGE USED (ha.m.) = 1.0041



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*****
V V I SSSSS U U A L (v 6.2.2015)
V V I SS U U A A L
V V I SS U U AAAAA L
V V I SS U U A A L
VV I SSSSS UUUUU A A LLLLL

OOO TTTT TTTT H H Y Y M M OOO TM
O O T T H H Y Y MM MM O O
O O T T H H Y Y M M O O
OOO T T H H Y Y M M OOO

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***** D E T A I L E D O U T P U T *****

Input filename: C:\Program Files (x86)\Visual OTTHYMO 6.2\VO2\voindat
 Output filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-F544-4d5a-b245-a4eb17ead57\66fb2f9a-9fcd-471a-a023-8b1f7797bea5\scen
 Summary filename: C:\Users\mhooper\AppData\Local\Civica\XH5\40fcb7f5-F544-4d5a-b245-a4eb17ead57\66fb2f9a-9fcd-471a-a023-8b1f7797bea5\scen

DATE: 11-22-2024 TIME: 12:28:54

USER:

COMMENTS: _____

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*****
** SIMULATION : 48 hour Hazel **
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| READ STORM | Filename: C:\Users\mhooper\AppData
| | | ata\Local\Temp\
| | | b68c6b64-e34f-452b-8ca1-fcdea55b6984\4c8e6934
| Ptotal=285.00 mm | Comments: 48 hour Hazel
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TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.00	0.00	13.00	2.00	26.00	2.00	39.00	6.00
1.00	2.00	14.00	2.00	27.00	2.00	40.00	13.00
2.00	2.00	15.00	2.00	28.00	2.00	41.00	17.00
3.00	2.00	16.00	2.00	29.00	2.00	42.00	13.00
4.00	2.00	17.00	2.00	30.00	2.00	43.00	23.00
5.00	2.00	18.00	2.00	31.00	2.00	44.00	13.00
6.00	2.00	19.00	2.00	32.00	2.00	45.00	13.00
7.00	2.00	20.00	2.00	33.00	2.00	46.00	53.00
8.00	2.00	21.00	2.00	34.00	2.00	47.00	38.00
9.00	2.00	22.00	2.00	35.00	2.00	48.00	13.00
10.00	2.00	23.00	2.00	36.00	3.00		
11.00	2.00	24.00	2.00	37.00	6.00		
12.00	2.00	25.00	2.00	38.00	4.00		

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| CALIB |
| STANDHYD ( 7652) | Area (ha)= 2.40
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
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	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00

Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	12.333	2.00	24.583	2.00	36.83	3.00
0.167	0.00	12.417	2.00	24.667	2.00	36.92	3.00
0.250	0.00	12.500	2.00	24.750	2.00	37.00	3.00
0.333	0.00	12.583	2.00	24.833	2.00	37.08	6.00
0.417	0.00	12.667	2.00	24.917	2.00	37.17	6.00
0.500	0.00	12.750	2.00	25.000	2.00	37.25	6.00
0.583	0.00	12.833	2.00	25.083	2.00	37.33	6.00
0.667	0.00	12.917	2.00	25.167	2.00	37.42	6.00
0.750	0.00	13.000	2.00	25.250	2.00	37.50	6.00
0.833	0.00	13.083	2.00	25.333	2.00	37.58	6.00
0.917	0.00	13.167	2.00	25.417	2.00	37.67	6.00
1.000	0.00	13.250	2.00	25.500	2.00	37.75	6.00
1.083	2.00	13.333	2.00	25.583	2.00	37.83	6.00
1.167	2.00	13.417	2.00	25.667	2.00	37.92	6.00
1.250	2.00	13.500	2.00	25.750	2.00	38.00	6.00
1.333	2.00	13.583	2.00	25.833	2.00	38.08	4.00
1.417	2.00	13.667	2.00	25.917	2.00	38.17	4.00
1.500	2.00	13.750	2.00	26.000	2.00	38.25	4.00
1.583	2.00	13.833	2.00	26.083	2.00	38.33	4.00
1.667	2.00	13.917	2.00	26.167	2.00	38.42	4.00
1.750	2.00	14.000	2.00	26.250	2.00	38.50	4.00
1.833	2.00	14.083	2.00	26.333	2.00	38.58	4.00
1.917	2.00	14.167	2.00	26.417	2.00	38.67	4.00
2.000	2.00	14.250	2.00	26.500	2.00	38.75	4.00
2.083	2.00	14.333	2.00	26.583	2.00	38.83	4.00
2.167	2.00	14.417	2.00	26.667	2.00	38.92	4.00
2.250	2.00	14.500	2.00	26.750	2.00	39.00	4.00
2.333	2.00	14.583	2.00	26.833	2.00	39.08	6.00
2.417	2.00	14.667	2.00	26.917	2.00	39.17	6.00
2.500	2.00	14.750	2.00	27.000	2.00	39.25	6.00
2.583	2.00	14.833	2.00	27.083	2.00	39.33	6.00
2.667	2.00	14.917	2.00	27.167	2.00	39.42	6.00
2.750	2.00	15.000	2.00	27.250	2.00	39.50	6.00
2.833	2.00	15.083	2.00	27.333	2.00	39.58	6.00
2.917	2.00	15.167	2.00	27.417	2.00	39.67	6.00
3.000	2.00	15.250	2.00	27.500	2.00	39.75	6.00
3.083	2.00	15.333	2.00	27.583	2.00	39.83	6.00
3.167	2.00	15.417	2.00	27.667	2.00	39.92	6.00
3.250	2.00	15.500	2.00	27.750	2.00	40.00	6.00
3.333	2.00	15.583	2.00	27.833	2.00	40.08	13.00
3.417	2.00	15.667	2.00	27.917	2.00	40.17	13.00
3.500	2.00	15.750	2.00	28.000	2.00	40.25	13.00
3.583	2.00	15.833	2.00	28.083	2.00	40.33	13.00
3.667	2.00	15.917	2.00	28.167	2.00	40.42	13.00
3.750	2.00	16.000	2.00	28.250	2.00	40.50	13.00
3.833	2.00	16.083	2.00	28.333	2.00	40.58	13.00
3.917	2.00	16.167	2.00	28.417	2.00	40.67	13.00
4.000	2.00	16.250	2.00	28.500	2.00	40.75	13.00
4.083	2.00	16.333	2.00	28.583	2.00	40.83	13.00
4.167	2.00	16.417	2.00	28.667	2.00	40.92	13.00
4.250	2.00	16.500	2.00	28.750	2.00	41.00	13.00
4.333	2.00	16.583	2.00	28.833	2.00	41.08	17.00
4.417	2.00	16.667	2.00	28.917	2.00	41.17	17.00
4.500	2.00	16.750	2.00	29.000	2.00	41.25	17.00
4.583	2.00	16.833	2.00	29.083	2.00	41.33	17.00
4.667	2.00	16.917	2.00	29.167	2.00	41.42	17.00
4.750	2.00	17.000	2.00	29.250	2.00	41.50	17.00
4.833	2.00	17.083	2.00	29.333	2.00	41.58	17.00
4.917	2.00	17.167	2.00	29.417	2.00	41.67	17.00
5.000	2.00	17.250	2.00	29.500	2.00	41.75	17.00
5.083	2.00	17.333	2.00	29.583	2.00	41.83	17.00
5.167	2.00	17.417	2.00	29.667	2.00	41.92	17.00
5.250	2.00	17.500	2.00	29.750	2.00	42.00	17.00
5.333	2.00	17.583	2.00	29.833	2.00	42.08	13.00
5.417	2.00	17.667	2.00	29.917	2.00	42.17	13.00
5.500	2.00	17.750	2.00	30.000	2.00	42.25	13.00



5.583	2.00	17.833	2.00	30.083	2.00	42.33	13.00
5.667	2.00	17.917	2.00	30.167	2.00	42.42	13.00
5.750	2.00	18.000	2.00	30.250	2.00	42.50	13.00
5.833	2.00	18.083	2.00	30.333	2.00	42.58	13.00
5.917	2.00	18.167	2.00	30.417	2.00	42.67	13.00
6.000	2.00	18.250	2.00	30.500	2.00	42.75	13.00
6.083	2.00	18.333	2.00	30.583	2.00	42.83	13.00
6.167	2.00	18.417	2.00	30.667	2.00	42.92	13.00
6.250	2.00	18.500	2.00	30.750	2.00	43.00	13.00
6.333	2.00	18.583	2.00	30.833	2.00	43.08	22.99
6.417	2.00	18.667	2.00	30.917	2.00	43.17	23.00
6.500	2.00	18.750	2.00	31.000	2.00	43.25	23.00
6.583	2.00	18.833	2.00	31.083	2.00	43.33	23.00
6.667	2.00	18.917	2.00	31.167	2.00	43.42	23.00
6.750	2.00	19.000	2.00	31.250	2.00	43.50	23.00
6.833	2.00	19.083	2.00	31.333	2.00	43.58	23.00
6.917	2.00	19.167	2.00	31.417	2.00	43.67	23.00
7.000	2.00	19.250	2.00	31.500	2.00	43.75	23.00
7.083	2.00	19.333	2.00	31.583	2.00	43.83	23.00
7.167	2.00	19.417	2.00	31.667	2.00	43.92	23.00
7.250	2.00	19.500	2.00	31.750	2.00	44.00	23.00
7.333	2.00	19.583	2.00	31.833	2.00	44.08	13.01
7.417	2.00	19.667	2.00	31.917	2.00	44.17	13.00
7.500	2.00	19.750	2.00	32.000	2.00	44.25	13.00
7.583	2.00	19.833	2.00	32.083	2.00	44.33	13.00
7.667	2.00	19.917	2.00	32.167	2.00	44.42	13.00
7.750	2.00	20.000	2.00	32.250	2.00	44.50	13.00
7.833	2.00	20.083	2.00	32.333	2.00	44.58	13.00
7.917	2.00	20.167	2.00	32.417	2.00	44.67	13.00
8.000	2.00	20.250	2.00	32.500	2.00	44.75	13.00
8.083	2.00	20.333	2.00	32.583	2.00	44.83	13.00
8.167	2.00	20.417	2.00	32.667	2.00	44.92	13.00
8.250	2.00	20.500	2.00	32.750	2.00	45.00	13.00
8.333	2.00	20.583	2.00	32.833	2.00	45.08	13.00
8.417	2.00	20.667	2.00	32.917	2.00	45.17	13.00
8.500	2.00	20.750	2.00	33.000	2.00	45.25	13.00
8.583	2.00	20.833	2.00	33.083	2.00	45.33	13.00
8.667	2.00	20.917	2.00	33.167	2.00	45.42	13.00
8.750	2.00	21.000	2.00	33.250	2.00	45.50	13.00
8.833	2.00	21.083	2.00	33.333	2.00	45.58	13.00
8.917	2.00	21.167	2.00	33.417	2.00	45.67	13.00
9.000	2.00	21.250	2.00	33.500	2.00	45.75	13.00
9.083	2.00	21.333	2.00	33.583	2.00	45.83	13.00
9.167	2.00	21.417	2.00	33.667	2.00	45.92	13.00
9.250	2.00	21.500	2.00	33.750	2.00	46.00	13.00
9.333	2.00	21.583	2.00	33.833	2.00	46.08	52.94
9.417	2.00	21.667	2.00	33.917	2.00	46.17	53.00
9.500	2.00	21.750	2.00	34.000	2.00	46.25	53.00
9.583	2.00	21.833	2.00	34.083	2.00	46.33	53.00
9.667	2.00	21.917	2.00	34.167	2.00	46.42	53.00
9.750	2.00	22.000	2.00	34.250	2.00	46.50	53.00
9.833	2.00	22.083	2.00	34.333	2.00	46.58	53.00
9.917	2.00	22.167	2.00	34.417	2.00	46.67	53.00
10.000	2.00	22.250	2.00	34.500	2.00	46.75	53.00
10.083	2.00	22.333	2.00	34.583	2.00	46.83	53.00
10.167	2.00	22.417	2.00	34.667	2.00	46.92	53.00
10.250	2.00	22.500	2.00	34.750	2.00	47.00	53.00
10.333	2.00	22.583	2.00	34.833	2.00	47.08	38.02
10.417	2.00	22.667	2.00	34.917	2.00	47.17	38.00
10.500	2.00	22.750	2.00	35.000	2.00	47.25	38.00
10.583	2.00	22.833	2.00	35.083	2.00	47.33	38.00
10.667	2.00	22.917	2.00	35.167	2.00	47.42	38.00
10.750	2.00	23.000	2.00	35.250	2.00	47.50	38.00
10.833	2.00	23.083	2.00	35.333	2.00	47.58	38.00
10.917	2.00	23.167	2.00	35.417	2.00	47.67	38.00
11.000	2.00	23.250	2.00	35.500	2.00	47.75	38.00
11.083	2.00	23.333	2.00	35.583	2.00	47.83	38.00
11.167	2.00	23.417	2.00	35.667	2.00	47.92	38.00
11.250	2.00	23.500	2.00	35.750	2.00	48.00	38.00
11.333	2.00	23.583	2.00	35.833	2.00	48.08	13.04
11.417	2.00	23.667	2.00	35.917	2.00	48.17	13.00
11.500	2.00	23.750	2.00	36.000	2.00	48.25	13.00
11.583	2.00	23.833	2.00	36.083	3.00	48.33	13.00
11.667	2.00	23.917	2.00	36.167	3.00	48.42	13.00
11.750	2.00	24.000	2.00	36.250	3.00	48.50	13.00
11.833	2.00	24.083	2.00	36.333	3.00	48.58	13.00

11.917	2.00	24.167	2.00	36.417	3.00	48.67	13.00
12.000	2.00	24.250	2.00	36.500	3.00	48.75	13.00
12.083	2.00	24.333	2.00	36.583	3.00	48.83	13.00
12.167	2.00	24.417	2.00	36.667	3.00	48.92	13.00
12.250	2.00	24.500	2.00	36.750	3.00	49.00	13.00
Max.Eff.Inten.(mm/hr)=	53.00	51.72					
over (min)	5.00	5.00					
Storage Coeff. (min)=	1.25 (ii)	2.21 (ii)					
Unit Hyd. Tpeak (min)=	5.00	5.00					
Unit Hyd. peak (cms)=	0.33	0.30					
PEAK FLOW (cms)=	0.35	0.00	0.353 (iii)				
TIME TO PEAK (hrs)=	46.42	47.00	47.00				
RUNOFF VOLUME (mm)=	284.00	243.97	283.60				
TOTAL RAINFALL (mm)=	285.00	285.00	285.00				
RUNOFF COEFFICIENT =	1.00	0.86	1.00				

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 86.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CNLIB |
 | STANDHYD (7644) | Area (ha)= 2.40
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	2.38	0.02
Dep. Storage (mm)=	1.00	5.00
Average Slope (%)=	1.00	2.00
Length (m)=	20.00	20.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	12.333	2.00	24.583	2.00	36.83	3.00
0.167	0.00	12.417	2.00	24.667	2.00	36.92	3.00
0.250	0.00	12.500	2.00	24.750	2.00	37.00	3.00
0.333	0.00	12.583	2.00	24.833	2.00	37.08	6.00
0.417	0.00	12.667	2.00	24.917	2.00	37.17	6.00
0.500	0.00	12.750	2.00	25.000	2.00	37.25	6.00
0.583	0.00	12.833	2.00	25.083	2.00	37.33	6.00
0.667	0.00	12.917	2.00	25.167	2.00	37.42	6.00
0.750	0.00	13.000	2.00	25.250	2.00	37.50	6.00
0.833	0.00	13.083	2.00	25.333	2.00	37.58	6.00
0.917	0.00	13.167	2.00	25.417	2.00	37.67	6.00
1.000	0.00	13.250	2.00	25.500	2.00	37.75	6.00
1.083	2.00	13.333	2.00	25.583	2.00	37.83	6.00
1.167	2.00	13.417	2.00	25.667	2.00	37.92	6.00
1.250	2.00	13.500	2.00	25.750	2.00	38.00	6.00
1.333	2.00	13.583	2.00	25.833	2.00	38.08	4.00
1.417	2.00	13.667	2.00	25.917	2.00	38.17	4.00
1.500	2.00	13.750	2.00	26.000	2.00	38.25	4.00
1.583	2.00	13.833	2.00	26.083	2.00	38.33	4.00
1.667	2.00	13.917	2.00	26.167	2.00	38.42	4.00
1.750	2.00	14.000	2.00	26.250	2.00	38.50	4.00
1.833	2.00	14.083	2.00	26.333	2.00	38.58	4.00
1.917	2.00	14.167	2.00	26.417	2.00	38.67	4.00
2.000	2.00	14.250	2.00	26.500	2.00	38.75	4.00
2.083	2.00	14.333	2.00	26.583	2.00	38.83	4.00
2.167	2.00	14.417	2.00	26.667	2.00	38.92	4.00
2.250	2.00	14.500	2.00	26.750	2.00	39.00	4.00
2.333	2.00	14.583	2.00	26.833	2.00	39.08	6.00
2.417	2.00	14.667	2.00	26.917	2.00	39.17	6.00
2.500	2.00	14.750	2.00	27.000	2.00	39.25	6.00
2.583	2.00	14.833	2.00	27.083	2.00	39.33	6.00



2.667	2.00	14.917	2.00	27.167	2.00	39.42	6.00	9.000	2.00	21.250	2.00	33.500	2.00	45.75	13.00
2.750	2.00	15.000	2.00	27.250	2.00	39.50	6.00	9.083	2.00	21.333	2.00	33.583	2.00	45.83	13.00
2.833	2.00	15.083	2.00	27.333	2.00	39.58	6.00	9.167	2.00	21.417	2.00	33.667	2.00	45.92	13.00
2.917	2.00	15.167	2.00	27.417	2.00	39.67	6.00	9.250	2.00	21.500	2.00	33.750	2.00	46.00	13.00
3.000	2.00	15.250	2.00	27.500	2.00	39.75	6.00	9.333	2.00	21.583	2.00	33.833	2.00	46.08	52.94
3.083	2.00	15.333	2.00	27.583	2.00	39.83	6.00	9.417	2.00	21.667	2.00	33.917	2.00	46.17	53.00
3.167	2.00	15.417	2.00	27.667	2.00	39.92	6.00	9.500	2.00	21.750	2.00	34.000	2.00	46.25	53.00
3.250	2.00	15.500	2.00	27.750	2.00	40.00	6.00	9.583	2.00	21.833	2.00	34.083	2.00	46.33	53.00
3.333	2.00	15.583	2.00	27.833	2.00	40.08	13.00	9.667	2.00	21.917	2.00	34.167	2.00	46.42	53.00
3.417	2.00	15.667	2.00	27.917	2.00	40.17	13.00	9.750	2.00	22.000	2.00	34.250	2.00	46.50	53.00
3.500	2.00	15.750	2.00	28.000	2.00	40.25	13.00	9.833	2.00	22.083	2.00	34.333	2.00	46.58	53.00
3.583	2.00	15.833	2.00	28.083	2.00	40.33	13.00	9.917	2.00	22.167	2.00	34.417	2.00	46.67	53.00
3.667	2.00	15.917	2.00	28.167	2.00	40.42	13.00	10.000	2.00	22.250	2.00	34.500	2.00	46.75	53.00
3.750	2.00	16.000	2.00	28.250	2.00	40.50	13.00	10.083	2.00	22.333	2.00	34.583	2.00	46.83	53.00
3.833	2.00	16.083	2.00	28.333	2.00	40.58	13.00	10.167	2.00	22.417	2.00	34.667	2.00	46.92	53.00
3.917	2.00	16.167	2.00	28.417	2.00	40.67	13.00	10.250	2.00	22.500	2.00	34.750	2.00	47.00	53.00
4.000	2.00	16.250	2.00	28.500	2.00	40.75	13.00	10.333	2.00	22.583	2.00	34.833	2.00	47.08	38.02
4.083	2.00	16.333	2.00	28.583	2.00	40.83	13.00	10.417	2.00	22.667	2.00	34.917	2.00	47.17	38.00
4.167	2.00	16.417	2.00	28.667	2.00	40.92	13.00	10.500	2.00	22.750	2.00	35.000	2.00	47.25	38.00
4.250	2.00	16.500	2.00	28.750	2.00	41.00	13.00	10.583	2.00	22.833	2.00	35.083	2.00	47.33	38.00
4.333	2.00	16.583	2.00	28.833	2.00	41.08	17.00	10.667	2.00	22.917	2.00	35.167	2.00	47.42	38.00
4.417	2.00	16.667	2.00	28.917	2.00	41.17	17.00	10.750	2.00	23.000	2.00	35.250	2.00	47.50	38.00
4.500	2.00	16.750	2.00	29.000	2.00	41.25	17.00	10.833	2.00	23.083	2.00	35.333	2.00	47.58	38.00
4.583	2.00	16.833	2.00	29.083	2.00	41.33	17.00	10.917	2.00	23.167	2.00	35.417	2.00	47.67	38.00
4.667	2.00	16.917	2.00	29.167	2.00	41.42	17.00	11.000	2.00	23.250	2.00	35.500	2.00	47.75	38.00
4.750	2.00	17.000	2.00	29.250	2.00	41.50	17.00	11.083	2.00	23.333	2.00	35.583	2.00	47.83	38.00
4.833	2.00	17.083	2.00	29.333	2.00	41.58	17.00	11.167	2.00	23.417	2.00	35.667	2.00	47.92	38.00
4.917	2.00	17.167	2.00	29.417	2.00	41.67	17.00	11.250	2.00	23.500	2.00	35.750	2.00	48.00	38.00
5.000	2.00	17.250	2.00	29.500	2.00	41.75	17.00	11.333	2.00	23.583	2.00	35.833	2.00	48.08	13.04
5.083	2.00	17.333	2.00	29.583	2.00	41.83	17.00	11.417	2.00	23.667	2.00	35.917	2.00	48.17	13.00
5.167	2.00	17.417	2.00	29.667	2.00	41.92	17.00	11.500	2.00	23.750	2.00	36.000	2.00	48.25	13.00
5.250	2.00	17.500	2.00	29.750	2.00	42.00	17.00	11.583	2.00	23.833	2.00	36.083	3.00	48.33	13.00
5.333	2.00	17.583	2.00	29.833	2.00	42.08	13.00	11.667	2.00	23.917	2.00	36.167	3.00	48.42	13.00
5.417	2.00	17.667	2.00	29.917	2.00	42.17	13.00	11.750	2.00	24.000	2.00	36.250	3.00	48.50	13.00
5.500	2.00	17.750	2.00	30.000	2.00	42.25	13.00	11.833	2.00	24.083	2.00	36.333	3.00	48.58	13.00
5.583	2.00	17.833	2.00	30.083	2.00	42.33	13.00	11.917	2.00	24.167	2.00	36.417	3.00	48.67	13.00
5.667	2.00	17.917	2.00	30.167	2.00	42.42	13.00	12.000	2.00	24.250	2.00	36.500	3.00	48.75	13.00
5.750	2.00	18.000	2.00	30.250	2.00	42.50	13.00	12.083	2.00	24.333	2.00	36.583	3.00	48.83	13.00
5.833	2.00	18.083	2.00	30.333	2.00	42.58	13.00	12.167	2.00	24.417	2.00	36.667	3.00	48.92	13.00
5.917	2.00	18.167	2.00	30.417	2.00	42.67	13.00	12.250	2.00	24.500	2.00	36.750	3.00	49.00	13.00
6.000	2.00	18.250	2.00	30.500	2.00	42.75	13.00								
6.083	2.00	18.333	2.00	30.583	2.00	42.83	13.00	Max.Eff.Inten.(mm/hr)=	53.00	51.72					
6.167	2.00	18.417	2.00	30.667	2.00	42.92	13.00	over (min)	5.00	5.00					
6.250	2.00	18.500	2.00	30.750	2.00	43.00	13.00	Storage Coeff. (min)	1.25 (ii)	2.21 (ii)					
6.333	2.00	18.583	2.00	30.833	2.00	43.08	22.99	Unit Hyd. Tpeak (min)	5.00	5.00					
6.417	2.00	18.667	2.00	30.917	2.00	43.17	23.00	Unit Hyd. peak (cms)	0.33	0.30					
6.500	2.00	18.750	2.00	31.000	2.00	43.25	23.00								
6.583	2.00	18.833	2.00	31.083	2.00	43.33	23.00	PEAK FLOW (cms)	0.35	0.00	*TOTALS*				
6.667	2.00	18.917	2.00	31.167	2.00	43.42	23.00	TIME TO PEAK (hrs)	46.42	47.00	0.353 (iii)				
6.750	2.00	19.000	2.00	31.250	2.00	43.50	23.00	RUNOFF VOLUME (mm)	284.00	243.97	283.60				
6.833	2.00	19.083	2.00	31.333	2.00	43.58	23.00	TOTAL RAINFALL (mm)	285.00	285.00	285.00				
6.917	2.00	19.167	2.00	31.417	2.00	43.67	23.00	RUNOFF COEFFICIENT	1.00	0.86	1.00				
7.000	2.00	19.250	2.00	31.500	2.00	43.75	23.00								
7.083	2.00	19.333	2.00	31.583	2.00	43.83	23.00	***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!							
7.167	2.00	19.417	2.00	31.667	2.00	43.92	23.00	(i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:							
7.250	2.00	19.500	2.00	31.750	2.00	44.00	23.00	CN* = 86.0 Ia = Dep. Storage (Above)							
7.333	2.00	19.583	2.00	31.833	2.00	44.08	13.01	(ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL							
7.417	2.00	19.667	2.00	31.917	2.00	44.17	13.00	THAN THE STORAGE COEFFICIENT.							
7.500	2.00	19.750	2.00	32.000	2.00	44.25	13.00	(iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.							
7.583	2.00	19.833	2.00	32.083	2.00	44.33	13.00								
7.667	2.00	19.917	2.00	32.167	2.00	44.42	13.00								
7.750	2.00	20.000	2.00	32.250	2.00	44.50	13.00								
7.833	2.00	20.083	2.00	32.333	2.00	44.58	13.00								
7.917	2.00	20.167	2.00	32.417	2.00	44.67	13.00								
8.000	2.00	20.250	2.00	32.500	2.00	44.75	13.00								
8.083	2.00	20.333	2.00	32.583	2.00	44.83	13.00								
8.167	2.00	20.417	2.00	32.667	2.00	44.92	13.00								
8.250	2.00	20.500	2.00	32.750	2.00	45.00	13.00								
8.333	2.00	20.583	2.00	32.833	2.00	45.08	13.00								
8.417	2.00	20.667	2.00	32.917	2.00	45.17	13.00								
8.500	2.00	20.750	2.00	33.000	2.00	45.25	13.00								
8.583	2.00	20.833	2.00	33.083	2.00	45.33	13.00								
8.667	2.00	20.917	2.00	33.167	2.00	45.42	13.00								
8.750	2.00	21.000	2.00	33.250	2.00	45.50	13.00								
8.833	2.00	21.083	2.00	33.333	2.00	45.58	13.00								
8.917	2.00	21.167	2.00	33.417	2.00	45.67	13.00								

CNL1B			
STANDHYD (7661)	Area (ha)=	2.39	
ID= 1 DT= 5.0 min	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00

		IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=		2.37	0.02
Dep. Storage (mm)=		1.00	5.00
Average Slope (%)=		1.00	2.00
Length (m)=		20.00	20.00
Mannings n	=	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.



---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	12.333	2.00	24.583	2.00	36.83	3.00
0.167	0.00	12.417	2.00	24.667	2.00	36.92	3.00
0.250	0.00	12.500	2.00	24.750	2.00	37.00	3.00
0.333	0.00	12.583	2.00	24.833	2.00	37.08	6.00
0.417	0.00	12.667	2.00	24.917	2.00	37.17	6.00
0.500	0.00	12.750	2.00	25.000	2.00	37.25	6.00
0.583	0.00	12.833	2.00	25.083	2.00	37.33	6.00
0.667	0.00	12.917	2.00	25.167	2.00	37.42	6.00
0.750	0.00	13.000	2.00	25.250	2.00	37.50	6.00
0.833	0.00	13.083	2.00	25.333	2.00	37.58	6.00
0.917	0.00	13.167	2.00	25.417	2.00	37.67	6.00
1.000	0.00	13.250	2.00	25.500	2.00	37.75	6.00
1.083	2.00	13.333	2.00	25.583	2.00	37.83	6.00
1.167	2.00	13.417	2.00	25.667	2.00	37.92	6.00
1.250	2.00	13.500	2.00	25.750	2.00	38.00	6.00
1.333	2.00	13.583	2.00	25.833	2.00	38.08	4.00
1.417	2.00	13.667	2.00	25.917	2.00	38.17	4.00
1.500	2.00	13.750	2.00	26.000	2.00	38.25	4.00
1.583	2.00	13.833	2.00	26.083	2.00	38.33	4.00
1.667	2.00	13.917	2.00	26.167	2.00	38.42	4.00
1.750	2.00	14.000	2.00	26.250	2.00	38.50	4.00
1.833	2.00	14.083	2.00	26.333	2.00	38.58	4.00
1.917	2.00	14.167	2.00	26.417	2.00	38.67	4.00
2.000	2.00	14.250	2.00	26.500	2.00	38.75	4.00
2.083	2.00	14.333	2.00	26.583	2.00	38.83	4.00
2.167	2.00	14.417	2.00	26.667	2.00	38.92	4.00
2.250	2.00	14.500	2.00	26.750	2.00	39.00	4.00
2.333	2.00	14.583	2.00	26.833	2.00	39.08	6.00
2.417	2.00	14.667	2.00	26.917	2.00	39.17	6.00
2.500	2.00	14.750	2.00	27.000	2.00	39.25	6.00
2.583	2.00	14.833	2.00	27.083	2.00	39.33	6.00
2.667	2.00	14.917	2.00	27.167	2.00	39.42	6.00
2.750	2.00	15.000	2.00	27.250	2.00	39.50	6.00
2.833	2.00	15.083	2.00	27.333	2.00	39.58	6.00
2.917	2.00	15.167	2.00	27.417	2.00	39.67	6.00
3.000	2.00	15.250	2.00	27.500	2.00	39.75	6.00
3.083	2.00	15.333	2.00	27.583	2.00	39.83	6.00
3.167	2.00	15.417	2.00	27.667	2.00	39.92	6.00
3.250	2.00	15.500	2.00	27.750	2.00	40.00	6.00
3.333	2.00	15.583	2.00	27.833	2.00	40.08	13.00
3.417	2.00	15.667	2.00	27.917	2.00	40.17	13.00
3.500	2.00	15.750	2.00	28.000	2.00	40.25	13.00
3.583	2.00	15.833	2.00	28.083	2.00	40.33	13.00
3.667	2.00	15.917	2.00	28.167	2.00	40.42	13.00
3.750	2.00	16.000	2.00	28.250	2.00	40.50	13.00
3.833	2.00	16.083	2.00	28.333	2.00	40.58	13.00
3.917	2.00	16.167	2.00	28.417	2.00	40.67	13.00
4.000	2.00	16.250	2.00	28.500	2.00	40.75	13.00
4.083	2.00	16.333	2.00	28.583	2.00	40.83	13.00
4.167	2.00	16.417	2.00	28.667	2.00	40.92	13.00
4.250	2.00	16.500	2.00	28.750	2.00	41.00	13.00
4.333	2.00	16.583	2.00	28.833	2.00	41.08	17.00
4.417	2.00	16.667	2.00	28.917	2.00	41.17	17.00
4.500	2.00	16.750	2.00	29.000	2.00	41.25	17.00
4.583	2.00	16.833	2.00	29.083	2.00	41.33	17.00
4.667	2.00	16.917	2.00	29.167	2.00	41.42	17.00
4.750	2.00	17.000	2.00	29.250	2.00	41.50	17.00
4.833	2.00	17.083	2.00	29.333	2.00	41.58	17.00
4.917	2.00	17.167	2.00	29.417	2.00	41.67	17.00
5.000	2.00	17.250	2.00	29.500	2.00	41.75	17.00
5.083	2.00	17.333	2.00	29.583	2.00	41.83	17.00
5.167	2.00	17.417	2.00	29.667	2.00	41.92	17.00
5.250	2.00	17.500	2.00	29.750	2.00	42.00	17.00
5.333	2.00	17.583	2.00	29.833	2.00	42.08	13.00
5.417	2.00	17.667	2.00	29.917	2.00	42.17	13.00
5.500	2.00	17.750	2.00	30.000	2.00	42.25	13.00
5.583	2.00	17.833	2.00	30.083	2.00	42.33	13.00
5.667	2.00	17.917	2.00	30.167	2.00	42.42	13.00
5.750	2.00	18.000	2.00	30.250	2.00	42.50	13.00
5.833	2.00	18.083	2.00	30.333	2.00	42.58	13.00
5.917	2.00	18.167	2.00	30.417	2.00	42.67	13.00
6.000	2.00	18.250	2.00	30.500	2.00	42.75	13.00

6.083	2.00	18.333	2.00	30.583	2.00	42.83	13.00
6.167	2.00	18.417	2.00	30.667	2.00	42.92	13.00
6.250	2.00	18.500	2.00	30.750	2.00	43.00	13.00
6.333	2.00	18.583	2.00	30.833	2.00	43.08	22.99
6.417	2.00	18.667	2.00	30.917	2.00	43.17	23.00
6.500	2.00	18.750	2.00	31.000	2.00	43.25	23.00
6.583	2.00	18.833	2.00	31.083	2.00	43.33	23.00
6.667	2.00	18.917	2.00	31.167	2.00	43.42	23.00
6.750	2.00	19.000	2.00	31.250	2.00	43.50	23.00
6.833	2.00	19.083	2.00	31.333	2.00	43.58	23.00
6.917	2.00	19.167	2.00	31.417	2.00	43.67	23.00
7.000	2.00	19.250	2.00	31.500	2.00	43.75	23.00
7.083	2.00	19.333	2.00	31.583	2.00	43.83	23.00
7.167	2.00	19.417	2.00	31.667	2.00	43.92	23.00
7.250	2.00	19.500	2.00	31.750	2.00	44.00	23.00
7.333	2.00	19.583	2.00	31.833	2.00	44.08	13.01
7.417	2.00	19.667	2.00	31.917	2.00	44.17	13.00
7.500	2.00	19.750	2.00	32.000	2.00	44.25	13.00
7.583	2.00	19.833	2.00	32.083	2.00	44.33	13.00
7.667	2.00	19.917	2.00	32.167	2.00	44.42	13.00
7.750	2.00	20.000	2.00	32.250	2.00	44.50	13.00
7.833	2.00	20.083	2.00	32.333	2.00	44.58	13.00
7.917	2.00	20.167	2.00	32.417	2.00	44.67	13.00
8.000	2.00	20.250	2.00	32.500	2.00	44.75	13.00
8.083	2.00	20.333	2.00	32.583	2.00	44.83	13.00
8.167	2.00	20.417	2.00	32.667	2.00	44.92	13.00
8.250	2.00	20.500	2.00	32.750	2.00	45.00	13.00
8.333	2.00	20.583	2.00	32.833	2.00	45.08	13.00
8.417	2.00	20.667	2.00	32.917	2.00	45.17	13.00
8.500	2.00	20.750	2.00	33.000	2.00	45.25	13.00
8.583	2.00	20.833	2.00	33.083	2.00	45.33	13.00
8.667	2.00	20.917	2.00	33.167	2.00	45.42	13.00
8.750	2.00	21.000	2.00	33.250	2.00	45.50	13.00
8.833	2.00	21.083	2.00	33.333	2.00	45.58	13.00
8.917	2.00	21.167	2.00	33.417	2.00	45.67	13.00
9.000	2.00	21.250	2.00	33.500	2.00	45.75	13.00
9.083	2.00	21.333	2.00	33.583	2.00	45.83	13.00
9.167	2.00	21.417	2.00	33.667	2.00	45.92	13.00
9.250	2.00	21.500	2.00	33.750	2.00	46.00	13.00
9.333	2.00	21.583	2.00	33.833	2.00	46.08	52.94
9.417	2.00	21.667	2.00	33.917	2.00	46.17	53.00
9.500	2.00	21.750	2.00	34.000	2.00	46.25	53.00
9.583	2.00	21.833	2.00	34.083	2.00	46.33	53.00
9.667	2.00	21.917	2.00	34.167	2.00	46.42	53.00
9.750	2.00	22.000	2.00	34.250	2.00	46.50	53.00
9.833	2.00	22.083	2.00	34.333	2.00	46.58	53.00
9.917	2.00	22.167	2.00	34.417	2.00	46.67	53.00
10.000	2.00	22.250	2.00	34.500	2.00	46.75	53.00
10.083	2.00	22.333	2.00	34.583	2.00	46.83	53.00
10.167	2.00	22.417	2.00	34.667	2.00	46.92	53.00
10.250	2.00	22.500	2.00	34.750	2.00	47.00	53.00
10.333	2.00	22.583	2.00	34.833	2.00	47.08	38.02
10.417	2.00	22.667	2.00	34.917	2.00	47.17	38.00
10.500	2.00	22.750	2.00	35.000	2.00	47.25	38.00
10.583	2.00	22.833	2.00	35.083	2.00	47.33	38.00
10.667	2.00	22.917	2.00	35.167	2.00	47.42	38.00
10.750	2.00	23.000	2.00	35.250	2.00	47.50	38.00
10.833	2.00	23.083	2.00	35.333	2.00	47.58	38.00
10.917	2.00	23.167	2.00	35.417	2.00	47.67	38.00
11.000	2.00	23.250	2.00	35.500	2.00	47.75	38.00
11.083	2.00	23.333	2.00	35.583	2.00	47.83	38.00
11.167	2.00	23.417	2.00	35.667	2.00	47.92	38.00
11.250	2.00	23.500	2.00	35.750	2.00	48.00	38.00
11.333	2.00	23.583	2.00	35.833	2.00	48.08	13.04
11.417	2.00	23.667	2.00	35.917	2.00	48.17	13.00
11.500	2.00	23.750	2.00	36.000	2.00	48.25	13.00
11.583	2.00	23.833	2.00	36.083	3.00	48.33	13.00
11.667	2.00	23.917	2.00	36.167	3.00	48.42	13.00
11.750	2.00	24.000	2.00	36.250	3.00	48.50	13.00
11.833	2.00	24.083	2.00	36.333	3.00	48.58	13.00
11.917	2.00	24.167	2.00	36.417	3.00	48.67	13.00
12.000	2.00	24.250	2.00	36.500	3.00	48.75	13.00
12.083	2.00	24.333	2.00	36.583			



Max.Eff.Inten.(mm/hr)= 53.00 51.72
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.25 (ii) 2.21 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.30

PEAK FLOW (cms)= 0.35 0.00 0.352 (iii)
 TIME TO PEAK (hrs)= 46.42 47.00 47.00
 RUNOFF VOLUME (mm)= 284.00 243.97 283.60
 TOTAL RAINFALL (mm)= 285.00 285.00 285.00
 RUNOFF COEFFICIENT = 1.00 0.86 1.00

TOTALS

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 86.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7590) |
ID= 1 DT= 5.0 min
 IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.37 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	12.333	2.00	24.583	2.00	36.83	3.00
0.167	0.00	12.417	2.00	24.667	2.00	36.92	3.00
0.250	0.00	12.500	2.00	24.750	2.00	37.00	3.00
0.333	0.00	12.583	2.00	24.833	2.00	37.08	6.00
0.417	0.00	12.667	2.00	24.917	2.00	37.17	6.00
0.500	0.00	12.750	2.00	25.000	2.00	37.25	6.00
0.583	0.00	12.833	2.00	25.083	2.00	37.33	6.00
0.667	0.00	12.917	2.00	25.167	2.00	37.42	6.00
0.750	0.00	13.000	2.00	25.250	2.00	37.50	6.00
0.833	0.00	13.083	2.00	25.333	2.00	37.58	6.00
0.917	0.00	13.167	2.00	25.417	2.00	37.67	6.00
1.000	0.00	13.250	2.00	25.500	2.00	37.75	6.00
1.083	2.00	13.333	2.00	25.583	2.00	37.83	6.00
1.167	2.00	13.417	2.00	25.667	2.00	37.92	6.00
1.250	2.00	13.500	2.00	25.750	2.00	38.00	6.00
1.333	2.00	13.583	2.00	25.833	2.00	38.08	4.00
1.417	2.00	13.667	2.00	25.917	2.00	38.17	4.00
1.500	2.00	13.750	2.00	26.000	2.00	38.25	4.00
1.583	2.00	13.833	2.00	26.083	2.00	38.33	4.00
1.667	2.00	13.917	2.00	26.167	2.00	38.42	4.00
1.750	2.00	14.000	2.00	26.250	2.00	38.50	4.00
1.833	2.00	14.083	2.00	26.333	2.00	38.58	4.00
1.917	2.00	14.167	2.00	26.417	2.00	38.67	4.00
2.000	2.00	14.250	2.00	26.500	2.00	38.75	4.00
2.083	2.00	14.333	2.00	26.583	2.00	38.83	4.00
2.167	2.00	14.417	2.00	26.667	2.00	38.92	4.00
2.250	2.00	14.500	2.00	26.750	2.00	39.00	4.00
2.333	2.00	14.583	2.00	26.833	2.00	39.08	6.00
2.417	2.00	14.667	2.00	26.917	2.00	39.17	6.00
2.500	2.00	14.750	2.00	27.000	2.00	39.25	6.00
2.583	2.00	14.833	2.00	27.083	2.00	39.33	6.00
2.667	2.00	14.917	2.00	27.167	2.00	39.42	6.00
2.750	2.00	15.000	2.00	27.250	2.00	39.50	6.00
2.833	2.00	15.083	2.00	27.333	2.00	39.58	6.00
2.917	2.00	15.167	2.00	27.417	2.00	39.67	6.00
3.000	2.00	15.250	2.00	27.500	2.00	39.75	6.00
3.083	2.00	15.333	2.00	27.583	2.00	39.83	6.00

3.167	2.00	15.417	2.00	27.667	2.00	39.92	6.00
3.250	2.00	15.500	2.00	27.750	2.00	40.00	6.00
3.333	2.00	15.583	2.00	27.833	2.00	40.08	13.00
3.417	2.00	15.667	2.00	27.917	2.00	40.17	13.00
3.500	2.00	15.750	2.00	28.000	2.00	40.25	13.00
3.583	2.00	15.833	2.00	28.083	2.00	40.33	13.00
3.667	2.00	15.917	2.00	28.167	2.00	40.42	13.00
3.750	2.00	16.000	2.00	28.250	2.00	40.50	13.00
3.833	2.00	16.083	2.00	28.333	2.00	40.58	13.00
3.917	2.00	16.167	2.00	28.417	2.00	40.67	13.00
4.000	2.00	16.250	2.00	28.500	2.00	40.75	13.00
4.083	2.00	16.333	2.00	28.583	2.00	40.83	13.00
4.167	2.00	16.417	2.00	28.667	2.00	40.92	13.00
4.250	2.00	16.500	2.00	28.750	2.00	41.00	13.00
4.333	2.00	16.583	2.00	28.833	2.00	41.08	17.00
4.417	2.00	16.667	2.00	28.917	2.00	41.17	17.00
4.500	2.00	16.750	2.00	29.000	2.00	41.25	17.00
4.583	2.00	16.833	2.00	29.083	2.00	41.33	17.00
4.667	2.00	16.917	2.00	29.167	2.00	41.42	17.00
4.750	2.00	17.000	2.00	29.250	2.00	41.50	17.00
4.833	2.00	17.083	2.00	29.333	2.00	41.58	17.00
4.917	2.00	17.167	2.00	29.417	2.00	41.67	17.00
5.000	2.00	17.250	2.00	29.500	2.00	41.75	17.00
5.083	2.00	17.333	2.00	29.583	2.00	41.83	17.00
5.167	2.00	17.417	2.00	29.667	2.00	41.92	17.00
5.250	2.00	17.500	2.00	29.750	2.00	42.00	17.00
5.333	2.00	17.583	2.00	29.833	2.00	42.08	13.00
5.417	2.00	17.667	2.00	29.917	2.00	42.17	13.00
5.500	2.00	17.750	2.00	30.000	2.00	42.25	13.00
5.583	2.00	17.833	2.00	30.083	2.00	42.33	13.00
5.667	2.00	17.917	2.00	30.167	2.00	42.42	13.00
5.750	2.00	18.000	2.00	30.250	2.00	42.50	13.00
5.833	2.00	18.083	2.00	30.333	2.00	42.58	13.00
5.917	2.00	18.167	2.00	30.417	2.00	42.67	13.00
6.000	2.00	18.250	2.00	30.500	2.00	42.75	13.00
6.083	2.00	18.333	2.00	30.583	2.00	42.83	13.00
6.167	2.00	18.417	2.00	30.667	2.00	42.92	13.00
6.250	2.00	18.500	2.00	30.750	2.00	43.00	13.00
6.333	2.00	18.583	2.00	30.833	2.00	43.08	22.99
6.417	2.00	18.667	2.00	30.917	2.00	43.17	23.00
6.500	2.00	18.750	2.00	31.000	2.00	43.25	23.00
6.583	2.00	18.833	2.00	31.083	2.00	43.33	23.00
6.667	2.00	18.917	2.00	31.167	2.00	43.42	23.00
6.750	2.00	19.000	2.00	31.250	2.00	43.50	23.00
6.833	2.00	19.083	2.00	31.333	2.00	43.58	23.00
6.917	2.00	19.167	2.00	31.417	2.00	43.67	23.00
7.000	2.00	19.250	2.00	31.500	2.00	43.75	23.00
7.083	2.00	19.333	2.00	31.583	2.00	43.83	23.00
7.167	2.00	19.417	2.00	31.667	2.00	43.92	23.00
7.250	2.00	19.500	2.00	31.750	2.00	44.00	23.00
7.333	2.00	19.583	2.00	31.833	2.00	44.08	13.01
7.417	2.00	19.667	2.00	31.917	2.00	44.17	13.00
7.500	2.00	19.750	2.00	32.000	2.00	44.25	13.00
7.583	2.00	19.833	2.00	32.083	2.00	44.33	13.00
7.667	2.00	19.917	2.00	32.167	2.00	44.42	13.00
7.750	2.00	20.000	2.00	32.250	2.00	44.50	13.00
7.833	2.00	20.083	2.00	32.333	2.00	44.58	13.00
7.917	2.00	20.167	2.00	32.417	2.00	44.67	13.00
8.000	2.00	20.250	2.00	32.500	2.00	44.75	13.00
8.083	2.00	20.333	2.00	32.583	2.00	44.83	13.00
8.167	2.00	20.417	2.00	32.667	2.00	44.92	13.00
8.250	2.00	20.500	2.00	32.750	2.00	45.00	13.00
8.333	2.00	20.583	2.00	32.833	2.00	45.08	13.00
8.417	2.00	20.667	2.00	32.917	2.00	45.17	13.00
8.500	2.00	20.750	2.00	33.000	2.00	45.25	13.00
8.583	2.00	20.833	2.00	33.083	2.00	45.33	13.00
8.667	2.00	20.917	2.00	33.167	2.00	45.42	13.00
8.750	2.00	21.000	2.00	33.250	2.00	45.50	13.00
8.833	2.00	21.083	2.00	33.333	2.00	45.58	13.00
8.917	2.00	21.167	2.00	33.417	2.00	45.67	13.00
9.000	2.00	21.250	2.00	33.500	2.00	45.75	13.00
9.083	2.00	21.333	2.00	33.583	2.00	45.83	13.00
9.167	2.00	21.417	2.00	33.667	2.00	45.92	13.00
9.250	2.00	21.500	2.00	33.750	2.00	46.00	13.00
9.333	2.00	21.583	2.00	33.833	2.00	46.08	52.94
9.417	2.00	21.667	2.00	33.917	2.00	46.17	53.00



9.500	2.00	121.750	2.00	134.000	2.00	146.25	53.00
9.583	2.00	121.833	2.00	134.083	2.00	146.33	53.00
9.667	2.00	121.917	2.00	134.167	2.00	146.42	53.00
9.750	2.00	122.000	2.00	134.250	2.00	146.50	53.00
9.833	2.00	122.083	2.00	134.333	2.00	146.58	53.00
9.917	2.00	122.167	2.00	134.417	2.00	146.67	53.00
10.000	2.00	122.250	2.00	134.500	2.00	146.75	53.00
10.083	2.00	122.333	2.00	134.583	2.00	146.83	53.00
10.167	2.00	122.417	2.00	134.667	2.00	146.92	53.00
10.250	2.00	122.500	2.00	134.750	2.00	147.00	53.00
10.333	2.00	122.583	2.00	134.833	2.00	147.08	38.02
10.417	2.00	122.667	2.00	134.917	2.00	147.17	38.00
10.500	2.00	122.750	2.00	135.000	2.00	147.25	38.00
10.583	2.00	122.833	2.00	135.083	2.00	147.33	38.00
10.667	2.00	122.917	2.00	135.167	2.00	147.42	38.00
10.750	2.00	123.000	2.00	135.250	2.00	147.50	38.00
10.833	2.00	123.083	2.00	135.333	2.00	147.58	38.00
10.917	2.00	123.167	2.00	135.417	2.00	147.67	38.00
11.000	2.00	123.250	2.00	135.500	2.00	147.75	38.00
11.083	2.00	123.333	2.00	135.583	2.00	147.83	38.00
11.167	2.00	123.417	2.00	135.667	2.00	147.92	38.00
11.250	2.00	123.500	2.00	135.750	2.00	148.00	38.00
11.333	2.00	123.583	2.00	135.833	2.00	148.08	13.04
11.417	2.00	123.667	2.00	135.917	2.00	148.17	13.00
11.500	2.00	123.750	2.00	136.000	2.00	148.25	13.00
11.583	2.00	123.833	2.00	136.083	3.00	148.33	13.00
11.667	2.00	123.917	2.00	136.167	3.00	148.42	13.00
11.750	2.00	124.000	2.00	136.250	3.00	148.50	13.00
11.833	2.00	124.083	2.00	136.333	3.00	148.58	13.00
11.917	2.00	124.167	2.00	136.417	3.00	148.67	13.00
12.000	2.00	124.250	2.00	136.500	3.00	148.75	13.00
12.083	2.00	124.333	2.00	136.583	3.00	148.83	13.00
12.167	2.00	124.417	2.00	136.667	3.00	148.92	13.00
12.250	2.00	124.500	2.00	136.750	3.00	149.00	13.00

Max.Eff.Inten. (mm/hr)= 53.00 51.72
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.25 (ii) 2.21 (iii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.30

TOTALS

PEAK FLOW (cms)= 0.35 0.00 0.352 (iii)
 TIME TO PEAK (hrs)= 46.42 47.00 47.00
 RUNOFF VOLUME (mm)= 284.00 243.97 283.60
 TOTAL RAINFALL (mm)= 285.00 285.00 285.00
 RUNOFF COEFFICIENT = 1.00 0.86 1.00

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 86.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7671) | Area (ha)= 2.37
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.35 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	12.333	2.00	124.583	2.00	136.83	3.00
0.167	0.00	12.417	2.00	124.667	2.00	136.92	3.00

0.250	0.00	12.500	2.00	124.750	2.00	137.00	3.00
0.333	0.00	12.583	2.00	124.833	2.00	137.08	6.00
0.417	0.00	12.667	2.00	124.917	2.00	137.17	6.00
0.500	0.00	12.750	2.00	125.000	2.00	137.25	6.00
0.583	0.00	12.833	2.00	125.083	2.00	137.33	6.00
0.667	0.00	12.917	2.00	125.167	2.00	137.42	6.00
0.750	0.00	13.000	2.00	125.250	2.00	137.50	6.00
0.833	0.00	13.083	2.00	125.333	2.00	137.58	6.00
0.917	0.00	13.167	2.00	125.417	2.00	137.67	6.00
1.000	0.00	13.250	2.00	125.500	2.00	137.75	6.00
1.083	2.00	13.333	2.00	125.583	2.00	137.83	6.00
1.167	2.00	13.417	2.00	125.667	2.00	137.92	6.00
1.250	2.00	13.500	2.00	125.750	2.00	138.00	6.00
1.333	2.00	13.583	2.00	125.833	2.00	138.08	4.00
1.417	2.00	13.667	2.00	125.917	2.00	138.17	4.00
1.500	2.00	13.750	2.00	126.000	2.00	138.25	4.00
1.583	2.00	13.833	2.00	126.083	2.00	138.33	4.00
1.667	2.00	13.917	2.00	126.167	2.00	138.42	4.00
1.750	2.00	14.000	2.00	126.250	2.00	138.50	4.00
1.833	2.00	14.083	2.00	126.333	2.00	138.58	4.00
1.917	2.00	14.167	2.00	126.417	2.00	138.67	4.00
2.000	2.00	14.250	2.00	126.500	2.00	138.75	4.00
2.083	2.00	14.333	2.00	126.583	2.00	138.83	4.00
2.167	2.00	14.417	2.00	126.667	2.00	138.92	4.00
2.250	2.00	14.500	2.00	126.750	2.00	139.00	4.00
2.333	2.00	14.583	2.00	126.833	2.00	139.08	6.00
2.417	2.00	14.667	2.00	126.917	2.00	139.17	6.00
2.500	2.00	14.750	2.00	127.000	2.00	139.25	6.00
2.583	2.00	14.833	2.00	127.083	2.00	139.33	6.00
2.667	2.00	14.917	2.00	127.167	2.00	139.42	6.00
2.750	2.00	15.000	2.00	127.250	2.00	139.50	6.00
2.833	2.00	15.083	2.00	127.333	2.00	139.58	6.00
2.917	2.00	15.167	2.00	127.417	2.00	139.67	6.00
3.000	2.00	15.250	2.00	127.500	2.00	139.75	6.00
3.083	2.00	15.333	2.00	127.583	2.00	139.83	6.00
3.167	2.00	15.417	2.00	127.667	2.00	139.92	6.00
3.250	2.00	15.500	2.00	127.750	2.00	140.00	6.00
3.333	2.00	15.583	2.00	127.833	2.00	140.08	13.00
3.417	2.00	15.667	2.00	127.917	2.00	140.17	13.00
3.500	2.00	15.750	2.00	128.000	2.00	140.25	13.00
3.583	2.00	15.833	2.00	128.083	2.00	140.33	13.00
3.667	2.00	15.917	2.00	128.167	2.00	140.42	13.00
3.750	2.00	16.000	2.00	128.250	2.00	140.50	13.00
3.833	2.00	16.083	2.00	128.333	2.00	140.58	13.00
3.917	2.00	16.167	2.00	128.417	2.00	140.67	13.00
4.000	2.00	16.250	2.00	128.500	2.00	140.75	13.00
4.083	2.00	16.333	2.00	128.583	2.00	140.83	13.00
4.167	2.00	16.417	2.00	128.667	2.00	140.92	13.00
4.250	2.00	16.500	2.00	128.750	2.00	141.00	13.00
4.333	2.00	16.583	2.00	128.833	2.00	141.08	17.00
4.417	2.00	16.667	2.00	128.917	2.00	141.17	17.00
4.500	2.00	16.750	2.00	129.000	2.00	141.25	17.00
4.583	2.00	16.833	2.00	129.083	2.00	141.33	17.00
4.667	2.00	16.917	2.00	129.167	2.00	141.42	17.00
4.750	2.00	17.000	2.00	129.250	2.00	141.50	17.00
4.833	2.00	17.083	2.00	129.333	2.00	141.58	17.00
4.917	2.00	17.167	2.00	129.417	2.00	141.67	17.00
5.000	2.00	17.250	2.00	129.500	2.00	141.75	17.00
5.083	2.00	17.333	2.00	129.583	2.00	141.83	17.00
5.167	2.00	17.417	2.00	129.667	2.00	141.92	17.00
5.250	2.00	17.500	2.00	129.750	2.00	142.00	17.00
5.333	2.00	17.583	2.00	129.833	2.00	142.08	13.00
5.417	2.00	17.667	2.00	129.917	2.00	142.17	13.00
5.500	2.00	17.750	2.00	130.000	2.00	142.25	13.00
5.583	2.00	17.833	2.00	130.083	2.00	142.33	13.00
5.667	2.00	17.917	2.00	130.167	2.00	142.42	13.00
5.750	2.00	18.000	2.00	130.250	2.00	142.50	13.00
5.833	2.00	18.083	2.00	130.333	2.00	142.58	13.00
5.917	2.00	18.167	2.00	130.417	2.00	142.67	13.00
6.000	2.00	18.250	2.00	130.500	2.00	142.75	13.00
6.083	2.00	18.333	2.00	130.583	2.00	142.83	13.00
6.167	2.00	18.417	2.00	130.667	2.00	142.92	13.00
6.250	2.00	18.500	2.00	130.750	2.00	143.00	13.00
6.333	2.00	18.583	2.00	130.833	2.00	143.08	22.99
6.417	2.00	18.667	2.00	130.917	2.00	143.17	23.00
6.500	2.00	18.750	2.00	131.000	2.00	143.25	23.00



6.583	2.00	18.833	2.00	31.083	2.00	43.33	23.00
6.667	2.00	18.917	2.00	31.167	2.00	43.42	23.00
6.750	2.00	19.000	2.00	31.250	2.00	43.50	23.00
6.833	2.00	19.083	2.00	31.333	2.00	43.58	23.00
6.917	2.00	19.167	2.00	31.417	2.00	43.67	23.00
7.000	2.00	19.250	2.00	31.500	2.00	43.75	23.00
7.083	2.00	19.333	2.00	31.583	2.00	43.83	23.00
7.167	2.00	19.417	2.00	31.667	2.00	43.92	23.00
7.250	2.00	19.500	2.00	31.750	2.00	44.00	23.00
7.333	2.00	19.583	2.00	31.833	2.00	44.08	13.01
7.417	2.00	19.667	2.00	31.917	2.00	44.17	13.00
7.500	2.00	19.750	2.00	32.000	2.00	44.25	13.00
7.583	2.00	19.833	2.00	32.083	2.00	44.33	13.00
7.667	2.00	19.917	2.00	32.167	2.00	44.42	13.00
7.750	2.00	20.000	2.00	32.250	2.00	44.50	13.00
7.833	2.00	20.083	2.00	32.333	2.00	44.58	13.00
7.917	2.00	20.167	2.00	32.417	2.00	44.67	13.00
8.000	2.00	20.250	2.00	32.500	2.00	44.75	13.00
8.083	2.00	20.333	2.00	32.583	2.00	44.83	13.00
8.167	2.00	20.417	2.00	32.667	2.00	44.92	13.00
8.250	2.00	20.500	2.00	32.750	2.00	45.00	13.00
8.333	2.00	20.583	2.00	32.833	2.00	45.08	13.00
8.417	2.00	20.667	2.00	32.917	2.00	45.17	13.00
8.500	2.00	20.750	2.00	33.000	2.00	45.25	13.00
8.583	2.00	20.833	2.00	33.083	2.00	45.33	13.00
8.667	2.00	20.917	2.00	33.167	2.00	45.42	13.00
8.750	2.00	21.000	2.00	33.250	2.00	45.50	13.00
8.833	2.00	21.083	2.00	33.333	2.00	45.58	13.00
8.917	2.00	21.167	2.00	33.417	2.00	45.67	13.00
9.000	2.00	21.250	2.00	33.500	2.00	45.75	13.00
9.083	2.00	21.333	2.00	33.583	2.00	45.83	13.00
9.167	2.00	21.417	2.00	33.667	2.00	45.92	13.00
9.250	2.00	21.500	2.00	33.750	2.00	46.00	13.00
9.333	2.00	21.583	2.00	33.833	2.00	46.08	52.94
9.417	2.00	21.667	2.00	33.917	2.00	46.17	53.00
9.500	2.00	21.750	2.00	34.000	2.00	46.25	53.00
9.583	2.00	21.833	2.00	34.083	2.00	46.33	53.00
9.667	2.00	21.917	2.00	34.167	2.00	46.42	53.00
9.750	2.00	22.000	2.00	34.250	2.00	46.50	53.00
9.833	2.00	22.083	2.00	34.333	2.00	46.58	53.00
9.917	2.00	22.167	2.00	34.417	2.00	46.67	53.00
10.000	2.00	22.250	2.00	34.500	2.00	46.75	53.00
10.083	2.00	22.333	2.00	34.583	2.00	46.83	53.00
10.167	2.00	22.417	2.00	34.667	2.00	46.92	53.00
10.250	2.00	22.500	2.00	34.750	2.00	47.00	53.00
10.333	2.00	22.583	2.00	34.833	2.00	47.08	38.02
10.417	2.00	22.667	2.00	34.917	2.00	47.17	38.00
10.500	2.00	22.750	2.00	35.000	2.00	47.25	38.00
10.583	2.00	22.833	2.00	35.083	2.00	47.33	38.00
10.667	2.00	22.917	2.00	35.167	2.00	47.42	38.00
10.750	2.00	23.000	2.00	35.250	2.00	47.50	38.00
10.833	2.00	23.083	2.00	35.333	2.00	47.58	38.00
10.917	2.00	23.167	2.00	35.417	2.00	47.67	38.00
11.000	2.00	23.250	2.00	35.500	2.00	47.75	38.00
11.083	2.00	23.333	2.00	35.583	2.00	47.83	38.00
11.167	2.00	23.417	2.00	35.667	2.00	47.92	38.00
11.250	2.00	23.500	2.00	35.750	2.00	48.00	38.00
11.333	2.00	23.583	2.00	35.833	2.00	48.08	13.04
11.417	2.00	23.667	2.00	35.917	2.00	48.17	13.00
11.500	2.00	23.750	2.00	36.000	2.00	48.25	13.00
11.583	2.00	23.833	2.00	36.083	3.00	48.33	13.00
11.667	2.00	23.917	2.00	36.167	3.00	48.42	13.00
11.750	2.00	24.000	2.00	36.250	3.00	48.50	13.00
11.833	2.00	24.083	2.00	36.333	3.00	48.58	13.00
11.917	2.00	24.167	2.00	36.417	3.00	48.67	13.00
12.000	2.00	24.250	2.00	36.500	3.00	48.75	13.00
12.083	2.00	24.333	2.00	36.583	3.00	48.83	13.00
12.167	2.00	24.417	2.00	36.667	3.00	48.92	13.00
12.250	2.00	24.500	2.00	36.750	3.00	49.00	13.00

Max.Eff.Inten.(mm/hr)= 53.00 51.72
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.25 (ii) 2.21 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.30

TOTALS

PEAK FLOW (cms)= 0.35 0.00 0.349 (iii)
 TIME TO PEAK (hrs)= 46.42 47.00 47.00
 RUNOFF VOLUME (mm)= 284.00 243.97 283.60
 TOTAL RAINFALL (mm)= 285.00 285.00 285.00
 RUNOFF COEFFICIENT = 1.00 0.86 1.00

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 86.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7632) | Area (ha)= 2.36
 |ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 2.34 0.02
 Dep. Storage (mm)= 1.00 5.00
 Average Slope (%)= 1.00 2.00
 Length (m)= 20.00 20.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	12.333	2.00	24.583	2.00	36.83	3.00
0.167	0.00	12.417	2.00	24.667	2.00	36.92	3.00
0.250	0.00	12.500	2.00	24.750	2.00	37.00	3.00
0.333	0.00	12.583	2.00	24.833	2.00	37.08	6.00
0.417	0.00	12.667	2.00	24.917	2.00	37.17	6.00
0.500	0.00	12.750	2.00	25.000	2.00	37.25	6.00
0.583	0.00	12.833	2.00	25.083	2.00	37.33	6.00
0.667	0.00	12.917	2.00	25.167	2.00	37.42	6.00
0.750	0.00	13.000	2.00	25.250	2.00	37.50	6.00
0.833	0.00	13.083	2.00	25.333	2.00	37.58	6.00
0.917	0.00	13.167	2.00	25.417	2.00	37.67	6.00
1.000	0.00	13.250	2.00	25.500	2.00	37.75	6.00
1.083	2.00	13.333	2.00	25.583	2.00	37.83	6.00
1.167	2.00	13.417	2.00	25.667	2.00	37.92	6.00
1.250	2.00	13.500	2.00	25.750	2.00	38.00	6.00
1.333	2.00	13.583	2.00	25.833	2.00	38.08	4.00
1.417	2.00	13.667	2.00	25.917	2.00	38.17	4.00
1.500	2.00	13.750	2.00	26.000	2.00	38.25	4.00
1.583	2.00	13.833	2.00	26.083	2.00	38.33	4.00
1.667	2.00	13.917	2.00	26.167	2.00	38.42	4.00
1.750	2.00	14.000	2.00	26.250	2.00	38.50	4.00
1.833	2.00	14.083	2.00	26.333	2.00	38.58	4.00
1.917	2.00	14.167	2.00	26.417	2.00	38.67	4.00
2.000	2.00	14.250	2.00	26.500	2.00	38.75	4.00
2.083	2.00	14.333	2.00	26.583	2.00	38.83	4.00
2.167	2.00	14.417	2.00	26.667	2.00	38.92	4.00
2.250	2.00	14.500	2.00	26.750	2.00	39.00	4.00
2.333	2.00	14.583	2.00	26.833	2.00	39.08	6.00
2.417	2.00	14.667	2.00	26.917	2.00	39.17	6.00
2.500	2.00	14.750	2.00	27.000	2.00	39.25	6.00
2.583	2.00	14.833	2.00	27.083	2.00	39.33	6.00
2.667	2.00	14.917	2.00	27.167	2.00	39.42	6.00
2.750	2.00	15.000	2.00	27.250	2.00	39.50	6.00
2.833	2.00	15.083	2.00	27.333	2.00	39.58	6.00
2.917	2.00	15.167	2.00	27.417	2.00	39.67	6.00
3.000	2.00	15.250	2.00	27.500	2.00	39.75	6.00
3.083	2.00	15.333	2.00	27.583	2.00	39.83	6.00
3.167	2.00	15.417	2.00	27.667	2.00	39.92	6.00
3.250	2.00	15.500	2.00	27.750	2.00	40.00	6.00
3.333	2.00	15.583	2.00	27.833	2.00	40.08	13.00
3.417	2.00	15.667	2.00	27.917	2.00	40.17	13.00
3.500	2.00	15.750	2.00	28.000	2.00	40.25	13.00
3.583	2.00	15.833	2.00	28.083	2.00	40.33	13.00

3.667	2.00	15.917	2.00	28.167	2.00	40.42	13.00	10.000	2.00	22.250	2.00	34.500	2.00	46.75	53.00
3.750	2.00	16.000	2.00	28.250	2.00	40.50	13.00	10.083	2.00	22.333	2.00	34.583	2.00	46.83	53.00
3.833	2.00	16.083	2.00	28.333	2.00	40.58	13.00	10.167	2.00	22.417	2.00	34.667	2.00	46.92	53.00
3.917	2.00	16.167	2.00	28.417	2.00	40.67	13.00	10.250	2.00	22.500	2.00	34.750	2.00	47.00	53.00
4.000	2.00	16.250	2.00	28.500	2.00	40.75	13.00	10.333	2.00	22.583	2.00	34.833	2.00	47.08	38.02
4.083	2.00	16.333	2.00	28.583	2.00	40.83	13.00	10.417	2.00	22.667	2.00	34.917	2.00	47.17	38.00
4.167	2.00	16.417	2.00	28.667	2.00	40.92	13.00	10.500	2.00	22.750	2.00	35.000	2.00	47.25	38.00
4.250	2.00	16.500	2.00	28.750	2.00	41.00	13.00	10.583	2.00	22.833	2.00	35.083	2.00	47.33	38.00
4.333	2.00	16.583	2.00	28.833	2.00	41.08	17.00	10.667	2.00	22.917	2.00	35.167	2.00	47.42	38.00
4.417	2.00	16.667	2.00	28.917	2.00	41.17	17.00	10.750	2.00	23.000	2.00	35.250	2.00	47.50	38.00
4.500	2.00	16.750	2.00	29.000	2.00	41.25	17.00	10.833	2.00	23.083	2.00	35.333	2.00	47.58	38.00
4.583	2.00	16.833	2.00	29.083	2.00	41.33	17.00	10.917	2.00	23.167	2.00	35.417	2.00	47.67	38.00
4.667	2.00	16.917	2.00	29.167	2.00	41.42	17.00	11.000	2.00	23.250	2.00	35.500	2.00	47.75	38.00
4.750	2.00	17.000	2.00	29.250	2.00	41.50	17.00	11.083	2.00	23.333	2.00	35.583	2.00	47.83	38.00
4.833	2.00	17.083	2.00	29.333	2.00	41.58	17.00	11.167	2.00	23.417	2.00	35.667	2.00	47.92	38.00
4.917	2.00	17.167	2.00	29.417	2.00	41.67	17.00	11.250	2.00	23.500	2.00	35.750	2.00	48.00	38.00
5.000	2.00	17.250	2.00	29.500	2.00	41.75	17.00	11.333	2.00	23.583	2.00	35.833	2.00	48.08	13.04
5.083	2.00	17.333	2.00	29.583	2.00	41.83	17.00	11.417	2.00	23.667	2.00	35.917	2.00	48.17	13.00
5.167	2.00	17.417	2.00	29.667	2.00	41.92	17.00	11.500	2.00	23.750	2.00	36.000	2.00	48.25	13.00
5.250	2.00	17.500	2.00	29.750	2.00	42.00	17.00	11.583	2.00	23.833	2.00	36.083	3.00	48.33	13.00
5.333	2.00	17.583	2.00	29.833	2.00	42.08	13.00	11.667	2.00	23.917	2.00	36.167	3.00	48.42	13.00
5.417	2.00	17.667	2.00	29.917	2.00	42.17	13.00	11.750	2.00	24.000	2.00	36.250	3.00	48.50	13.00
5.500	2.00	17.750	2.00	30.000	2.00	42.25	13.00	11.833	2.00	24.083	2.00	36.333	3.00	48.58	13.00
5.583	2.00	17.833	2.00	30.083	2.00	42.33	13.00	11.917	2.00	24.167	2.00	36.417	3.00	48.67	13.00
5.667	2.00	17.917	2.00	30.167	2.00	42.42	13.00	12.000	2.00	24.250	2.00	36.500	3.00	48.75	13.00
5.750	2.00	18.000	2.00	30.250	2.00	42.50	13.00	12.083	2.00	24.333	2.00	36.583	3.00	48.83	13.00
5.833	2.00	18.083	2.00	30.333	2.00	42.58	13.00	12.167	2.00	24.417	2.00	36.667	3.00	48.92	13.00
5.917	2.00	18.167	2.00	30.417	2.00	42.67	13.00	12.250	2.00	24.500	2.00	36.750	3.00	49.00	13.00
6.000	2.00	18.250	2.00	30.500	2.00	42.75	13.00								
6.083	2.00	18.333	2.00	30.583	2.00	42.83	13.00								
6.167	2.00	18.417	2.00	30.667	2.00	42.92	13.00								
6.250	2.00	18.500	2.00	30.750	2.00	43.00	13.00								
6.333	2.00	18.583	2.00	30.833	2.00	43.08	22.99								
6.417	2.00	18.667	2.00	30.917	2.00	43.17	23.00								
6.500	2.00	18.750	2.00	31.000	2.00	43.25	23.00								
6.583	2.00	18.833	2.00	31.083	2.00	43.33	23.00								
6.667	2.00	18.917	2.00	31.167	2.00	43.42	23.00								
6.750	2.00	19.000	2.00	31.250	2.00	43.50	23.00								
6.833	2.00	19.083	2.00	31.333	2.00	43.58	23.00								
6.917	2.00	19.167	2.00	31.417	2.00	43.67	23.00								
7.000	2.00	19.250	2.00	31.500	2.00	43.75	23.00								
7.083	2.00	19.333	2.00	31.583	2.00	43.83	23.00								
7.167	2.00	19.417	2.00	31.667	2.00	43.92	23.00								
7.250	2.00	19.500	2.00	31.750	2.00	44.00	23.00								
7.333	2.00	19.583	2.00	31.833	2.00	44.08	13.01								
7.417	2.00	19.667	2.00	31.917	2.00	44.17	13.00								
7.500	2.00	19.750	2.00	32.000	2.00	44.25	13.00								
7.583	2.00	19.833	2.00	32.083	2.00	44.33	13.00								
7.667	2.00	19.917	2.00	32.167	2.00	44.42	13.00								
7.750	2.00	20.000	2.00	32.250	2.00	44.50	13.00								
7.833	2.00	20.083	2.00	32.333	2.00	44.58	13.00								
7.917	2.00	20.167	2.00	32.417	2.00	44.67	13.00								
8.000	2.00	20.250	2.00	32.500	2.00	44.75	13.00								
8.083	2.00	20.333	2.00	32.583	2.00	44.83	13.00								
8.167	2.00	20.417	2.00	32.667	2.00	44.92	13.00								
8.250	2.00	20.500	2.00	32.750	2.00	45.00	13.00								
8.333	2.00	20.583	2.00	32.833	2.00	45.08	13.00								
8.417	2.00	20.667	2.00	32.917	2.00	45.17	13.00								
8.500	2.00	20.750	2.00	33.000	2.00	45.25	13.00								
8.583	2.00	20.833	2.00	33.083	2.00	45.33	13.00								
8.667	2.00	20.917	2.00	33.167	2.00	45.42	13.00								
8.750	2.00	21.000	2.00	33.250	2.00	45.50	13.00								
8.833	2.00	21.083	2.00	33.333	2.00	45.58	13.00								
8.917	2.00	21.167	2.00	33.417	2.00	45.67	13.00								
9.000	2.00	21.250	2.00	33.500	2.00	45.75	13.00								
9.083	2.00	21.333	2.00	33.583	2.00	45.83	13.00								
9.167	2.00	21.417	2.00	33.667	2.00	45.92	13.00								
9.250	2.00	21.500	2.00	33.750	2.00	46.00	13.00								
9.333	2.00	21.583	2.00	33.833	2.00	46.08	52.94								
9.417	2.00	21.667	2.00	33.917	2.00	46.17	53.00								
9.500	2.00	21.750	2.00	34.000	2.00	46.25	53.00								
9.583	2.00	21.833	2.00	34.083	2.00	46.33	53.00								
9.667	2.00	21.917	2.00	34.167	2.00	46.42	53.00								
9.750	2.00	22.000	2.00	34.250	2.00	46.50	53.00								
9.833	2.00	22.083	2.00	34.333	2.00	46.58	53.00								
9.917	2.00	22.167	2.00	34.417	2.00	46.67	53.00								

Max.Eff.Inten.(mm/hr)= 53.00 51.72
 over (min) 5.00 5.00
 Storage Coeff. (min)= 1.25 (ii) 2.21 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.33 0.30

TOTALS

PEAK FLOW (cms)= 0.34 0.00 0.347 (iii)
 TIME TO PEAK (hrs)= 46.42 47.00 47.00
 RUNOFF VOLUME (mm)= 284.00 243.97 283.60
 TOTAL RAINFALL (mm)= 285.00 285.00 285.00
 RUNOFF COEFFICIENT = 1.00 0.86 1.00

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 86.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | ADD HYD (7698) |
 | 1 + 2 = 3 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 1 (7590): 2.39 0.352 47.00 283.60
 + ID2= 2 (7632): 2.36 0.347 47.00 283.60

 ID = 3 (7698): 4.75 0.699 47.00 283.60

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

 | ADD HYD (7698) |
 | 3 + 2 = 1 | AREA QPEAK TPEAK R.V.
 (ha) (cms) (hrs) (mm)
 ID1= 3 (7698): 4.75 0.699 47.00 283.60
 + ID2= 2 (7644): 2.40 0.353 47.00 283.60

 ID = 1 (7698): 7.15 1.052 47.00 283.60

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.



ADD HYD (7698)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7698) :	7.15	1.052	47.00	283.60
+ ID2= 2 (7652) :	2.40	0.353	47.00	283.60

ID = 3 (7698) :	9.55	1.406	47.00	283.60

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7698) :	9.55	1.406	47.00	283.60
+ ID2= 2 (7661) :	2.39	0.352	47.00	283.60

ID = 1 (7698) :	11.94	1.757	47.00	283.60

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7698)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7698) :	11.94	1.757	47.00	283.60
+ ID2= 2 (7671) :	2.37	0.349	47.00	283.60

ID = 3 (7698) :	14.31	2.106	47.00	283.60

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| DIVERTHYD (7713) |
| IN= 1 # OUT= 5 |

Outflow / Inflow Relationships

Flow 1	Flow 2	Flow 3	Flow 4	Flow 5	Total
(cms)	(cms)	(cms)	(cms)	(cms)	(cms)
0.00	0.00	0.00	0.00	0.00	0.00
0.27	0.00	0.00	0.00	0.00	0.27
1.00	0.00	0.00	0.00	0.00	1.00
4.00	3.00	0.00	0.00	0.00	7.00

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
TOTAL HYD. (ID= 1) :	14.31	2.11	47.00	283.60

ID= 2 (2) :	13.28	1.55	47.00	283.60
ID= 3 (2) :	1.03	0.55	47.00	283.60
ID= 4 (2) :	0.00	0.00	0.00	0.00
ID= 5 (2) :	0.00	0.00	0.00	0.00
ID= 6 (2) :	0.00	0.00	0.00	0.00

| RESERVOIR (7699) |
| IN= 2---> OUT= 1 |
| DT= 5.0 min |

OVERFLOW IS ON

OUTFLOW	STORAGE	OUTFLOW	STORAGE
(cms)	(ha.m.)	(cms)	(ha.m.)
0.0000	0.0000	0.2690	0.4589
0.1980	0.1112	0.0000	0.0000

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7713)	13.282	1.553	47.00	283.60
OUTFLOW : ID= 1 (7699)	8.586	0.269	42.92	284.38
OVERFLOW : ID= 3 (0003)	4.696	1.284	47.00	284.38

TOTAL NUMBER OF SIMULATION OVERFLOW = 74
CUMULATIVE TIME OF OVERFLOW (HOURS) = 6.17
PERCENTAGE OF TIME OVERFLOWING (%) = 9.67

PEAK FLOW REDUCTION [Qout/Qin] (%) = 17.32

TIME SHIFT OF PEAK FLOW (min)=*****
MAXIMUM STORAGE USED (ha.m.)= 0.4589

| Junction Command(7715) |

	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 3(7699)	4.70	1.28	47.00	284.38
OUTFLOW : ID= 2(7715)	4.70	1.28	47.00	284.38

ADD HYD (7714)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7699) :	8.59	0.269	42.92	284.38
+ ID2= 2 (7713) :	1.03	0.553	47.00	283.60

ID = 3 (7714) :	9.61	0.822	47.00	284.30

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7714)				
3 + 2 = 1				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7714) :	9.61	0.822	47.00	284.30
+ ID2= 2 (7715) :	4.70	1.284	47.00	284.38

ID = 1 (7714) :	14.31	2.106	47.00	284.33

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

| CALIB |
| STANDHYD (7620) | Area (ha)= 1.45
| ID= 1 DT= 5.0 min | Total Imp(%)= 96.00 Dir. Conn.(%)= 96.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.39	0.06
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	12.333	2.00	24.583	2.00	36.83	3.00	0.167	0.00	12.417	2.00
0.250	0.00	12.417	2.00	24.667	2.00	36.92	3.00	0.333	0.00	12.500	2.00
0.500	0.00	12.583	2.00	24.833	2.00	37.08	6.00	0.417	0.00	12.667	2.00
0.500	0.00	12.750	2.00	25.000	2.00	37.25	6.00	0.583	0.00	12.833	2.00
0.667	0.00	12.917	2.00	25.167	2.00	37.42	6.00	0.750	0.00	13.000	2.00
0.833	0.00	13.083	2.00	25.333	2.00	37.58	6.00	0.917	0.00	13.167	2.00
1.000	0.00	13.250	2.00	25.500	2.00	37.75	6.00	1.083	2.00	13.333	2.00
1.167	2.00	13.417	2.00	25.667	2.00	37.92	6.00	1.250	2.00	13.500	2.00
1.333	2.00	13.583	2.00	25.833	2.00	38.08	4.00	1.417	2.00	13.667	2.00
1.500	2.00	13.750	2.00	26.000	2.00	38.25	4.00	1.583	2.00	13.833	2.00
1.583	2.00	13.833	2.00	26.083	2.00	38.33	4.00				



1.667	2.00	13.917	2.00	126.167	2.00	38.42	4.00	8.000	2.00	120.250	2.00	32.500	2.00	44.75	13.00
1.750	2.00	14.000	2.00	126.250	2.00	38.50	4.00	8.083	2.00	120.333	2.00	32.583	2.00	44.83	13.00
1.833	2.00	14.083	2.00	126.333	2.00	38.58	4.00	8.167	2.00	120.417	2.00	32.667	2.00	44.92	13.00
1.917	2.00	14.167	2.00	126.417	2.00	38.67	4.00	8.250	2.00	120.500	2.00	32.750	2.00	45.00	13.00
2.000	2.00	14.250	2.00	126.500	2.00	38.75	4.00	8.333	2.00	120.583	2.00	32.833	2.00	45.08	13.00
2.083	2.00	14.333	2.00	126.583	2.00	38.83	4.00	8.417	2.00	120.667	2.00	32.917	2.00	45.17	13.00
2.167	2.00	14.417	2.00	126.667	2.00	38.92	4.00	8.500	2.00	120.750	2.00	33.000	2.00	45.25	13.00
2.250	2.00	14.500	2.00	126.750	2.00	39.00	4.00	8.583	2.00	120.833	2.00	33.083	2.00	45.33	13.00
2.333	2.00	14.583	2.00	126.833	2.00	39.08	6.00	8.667	2.00	120.917	2.00	33.167	2.00	45.42	13.00
2.417	2.00	14.667	2.00	126.917	2.00	39.17	6.00	8.750	2.00	121.000	2.00	33.250	2.00	45.50	13.00
2.500	2.00	14.750	2.00	127.000	2.00	39.25	6.00	8.833	2.00	121.083	2.00	33.333	2.00	45.58	13.00
2.583	2.00	14.833	2.00	127.083	2.00	39.33	6.00	8.917	2.00	121.167	2.00	33.417	2.00	45.67	13.00
2.667	2.00	14.917	2.00	127.167	2.00	39.42	6.00	9.000	2.00	121.250	2.00	33.500	2.00	45.75	13.00
2.750	2.00	15.000	2.00	127.250	2.00	39.50	6.00	9.083	2.00	121.333	2.00	33.583	2.00	45.83	13.00
2.833	2.00	15.083	2.00	127.333	2.00	39.58	6.00	9.167	2.00	121.417	2.00	33.667	2.00	45.92	13.00
2.917	2.00	15.167	2.00	127.417	2.00	39.67	6.00	9.250	2.00	121.500	2.00	33.750	2.00	46.00	13.00
3.000	2.00	15.250	2.00	127.500	2.00	39.75	6.00	9.333	2.00	121.583	2.00	33.833	2.00	46.08	52.94
3.083	2.00	15.333	2.00	127.583	2.00	39.83	6.00	9.417	2.00	121.667	2.00	33.917	2.00	46.17	53.00
3.167	2.00	15.417	2.00	127.667	2.00	39.92	6.00	9.500	2.00	121.750	2.00	34.000	2.00	46.25	53.00
3.250	2.00	15.500	2.00	127.750	2.00	40.00	6.00	9.583	2.00	121.833	2.00	34.083	2.00	46.33	53.00
3.333	2.00	15.583	2.00	127.833	2.00	40.08	13.00	9.667	2.00	121.917	2.00	34.167	2.00	46.42	53.00
3.417	2.00	15.667	2.00	127.917	2.00	40.17	13.00	9.750	2.00	122.000	2.00	34.250	2.00	46.50	53.00
3.500	2.00	15.750	2.00	128.000	2.00	40.25	13.00	9.833	2.00	122.083	2.00	34.333	2.00	46.58	53.00
3.583	2.00	15.833	2.00	128.083	2.00	40.33	13.00	9.917	2.00	122.167	2.00	34.417	2.00	46.67	53.00
3.667	2.00	15.917	2.00	128.167	2.00	40.42	13.00	10.000	2.00	122.250	2.00	34.500	2.00	46.75	53.00
3.750	2.00	16.000	2.00	128.250	2.00	40.50	13.00	10.083	2.00	122.333	2.00	34.583	2.00	46.83	53.00
3.833	2.00	16.083	2.00	128.333	2.00	40.58	13.00	10.167	2.00	122.417	2.00	34.667	2.00	46.92	53.00
3.917	2.00	16.167	2.00	128.417	2.00	40.67	13.00	10.250	2.00	122.500	2.00	34.750	2.00	47.00	53.00
4.000	2.00	16.250	2.00	128.500	2.00	40.75	13.00	10.333	2.00	122.583	2.00	34.833	2.00	47.08	38.02
4.083	2.00	16.333	2.00	128.583	2.00	40.83	13.00	10.417	2.00	122.667	2.00	34.917	2.00	47.17	38.00
4.167	2.00	16.417	2.00	128.667	2.00	40.92	13.00	10.500	2.00	122.750	2.00	35.000	2.00	47.25	38.00
4.250	2.00	16.500	2.00	128.750	2.00	41.00	13.00	10.583	2.00	122.833	2.00	35.083	2.00	47.33	38.00
4.333	2.00	16.583	2.00	128.833	2.00	41.08	17.00	10.667	2.00	122.917	2.00	35.167	2.00	47.42	38.00
4.417	2.00	16.667	2.00	128.917	2.00	41.17	17.00	10.750	2.00	123.000	2.00	35.250	2.00	47.50	38.00
4.500	2.00	16.750	2.00	129.000	2.00	41.25	17.00	10.833	2.00	123.083	2.00	35.333	2.00	47.58	38.00
4.583	2.00	16.833	2.00	129.083	2.00	41.33	17.00	10.917	2.00	123.167	2.00	35.417	2.00	47.67	38.00
4.667	2.00	16.917	2.00	129.167	2.00	41.42	17.00	11.000	2.00	123.250	2.00	35.500	2.00	47.75	38.00
4.750	2.00	17.000	2.00	129.250	2.00	41.50	17.00	11.083	2.00	123.333	2.00	35.583	2.00	47.83	38.00
4.833	2.00	17.083	2.00	129.333	2.00	41.58	17.00	11.167	2.00	123.417	2.00	35.667	2.00	47.92	38.00
4.917	2.00	17.167	2.00	129.417	2.00	41.67	17.00	11.250	2.00	123.500	2.00	35.750	2.00	48.00	38.00
5.000	2.00	17.250	2.00	129.500	2.00	41.75	17.00	11.333	2.00	123.583	2.00	35.833	2.00	48.08	13.04
5.083	2.00	17.333	2.00	129.583	2.00	41.83	17.00	11.417	2.00	123.667	2.00	35.917	2.00	48.17	13.00
5.167	2.00	17.417	2.00	129.667	2.00	41.92	17.00	11.500	2.00	123.750	2.00	36.000	2.00	48.25	13.00
5.250	2.00	17.500	2.00	129.750	2.00	42.00	17.00	11.583	2.00	123.833	2.00	36.083	3.00	48.33	13.00
5.333	2.00	17.583	2.00	129.833	2.00	42.08	13.00	11.667	2.00	123.917	2.00	36.167	3.00	48.42	13.00
5.417	2.00	17.667	2.00	129.917	2.00	42.17	13.00	11.750	2.00	124.000	2.00	36.250	3.00	48.50	13.00
5.500	2.00	17.750	2.00	130.000	2.00	42.25	13.00	11.833	2.00	124.083	2.00	36.333	3.00	48.58	13.00
5.583	2.00	17.833	2.00	130.083	2.00	42.33	13.00	11.917	2.00	124.167	2.00	36.417	3.00	48.67	13.00
5.667	2.00	17.917	2.00	130.167	2.00	42.42	13.00	12.000	2.00	124.250	2.00	36.500	3.00	48.75	13.00
5.750	2.00	18.000	2.00	130.250	2.00	42.50	13.00	12.083	2.00	124.333	2.00	36.583	3.00	48.83	13.00
5.833	2.00	18.083	2.00	130.333	2.00	42.58	13.00	12.167	2.00	124.417	2.00	36.667	3.00	48.92	13.00
5.917	2.00	18.167	2.00	130.417	2.00	42.67	13.00	12.250	2.00	124.500	2.00	36.750	3.00	49.00	13.00
6.000	2.00	18.250	2.00	130.500	2.00	42.75	13.00								
6.083	2.00	18.333	2.00	130.583	2.00	42.83	13.00								
6.167	2.00	18.417	2.00	130.667	2.00	42.92	13.00								
6.250	2.00	18.500	2.00	130.750	2.00	43.00	13.00								
6.333	2.00	18.583	2.00	130.833	2.00	43.08	22.99								
6.417	2.00	18.667	2.00	130.917	2.00	43.17	23.00								
6.500	2.00	18.750	2.00	131.000	2.00	43.25	23.00								
6.583	2.00	18.833	2.00	131.083	2.00	43.33	23.00								
6.667	2.00	18.917	2.00	131.167	2.00	43.42	23.00								
6.750	2.00	19.000	2.00	131.250	2.00	43.50	23.00								
6.833	2.00	19.083	2.00	131.333	2.00	43.58	23.00								
6.917	2.00	19.167	2.00	131.417	2.00	43.67	23.00								
7.000	2.00	19.250	2.00	131.500	2.00	43.75	23.00								
7.083	2.00	19.333	2.00	131.583	2.00	43.83	23.00								
7.167	2.00	19.417	2.00	131.667	2.00	43.92	23.00								
7.250	2.00	19.500	2.00	131.750	2.00	44.00	23.00								
7.333	2.00	19.583	2.00	131.833	2.00	44.08	13.01								
7.417	2.00	19.667	2.00	131.917	2.00	44.17	13.00								
7.500	2.00	19.750	2.00	132.000	2.00	44.25	13.00								
7.583	2.00	19.833	2.00	132.083	2.00	44.33	13.00								
7.667	2.00	19.917	2.00	132.167	2.00	44.42	13.00								
7.750	2.00	20.000	2.00	132.250	2.00	44.50	13.00								
7.833	2.00	20.083	2.00	132.333	2.00	44.58	13.00								
7.917	2.00	20.167	2.00	132.417	2.00	44.67	13.00								

Max.Eff.Inten. (mm/hr)=	53.00	51.67
over (min)	5.00	25.00
Storage Coeff. (min)=	3.20 (ii)	23.10 (ii)
Unit Hyd. Tpeak (min)=	5.00	25.00
Unit Hyd. peak (cms)=	0.27	0.05

PEAK FLOW (cms)=	0.20	0.01	*TOTALS*	0.212 (iii)
TIME TO PEAK (hrs)=	46.92	47.08		
RUNOFF VOLUME (mm)=	283.00	243.97		281.43
TOTAL RAINFALL (mm)=	285.00	285.00		285.00
RUNOFF COEFFICIENT =	0.99	0.86		0.99

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 86.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

| CALIB |



| STANDHYD (7651) | Area (ha)= 1.33
 | ID= 1 DT= 5.0 min | Total Imp(%)= 98.00 Dir. Conn.(%)= 98.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.30	0.03
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	12.333	2.00	24.583	2.00	36.83	3.00
0.167	0.00	12.417	2.00	24.667	2.00	36.92	3.00
0.250	0.00	12.500	2.00	24.750	2.00	37.00	3.00
0.333	0.00	12.583	2.00	24.833	2.00	37.08	6.00
0.417	0.00	12.667	2.00	24.917	2.00	37.17	6.00
0.500	0.00	12.750	2.00	25.000	2.00	37.25	6.00
0.583	0.00	12.833	2.00	25.083	2.00	37.33	6.00
0.667	0.00	12.917	2.00	25.167	2.00	37.42	6.00
0.750	0.00	13.000	2.00	25.250	2.00	37.50	6.00
0.833	0.00	13.083	2.00	25.333	2.00	37.58	6.00
0.917	0.00	13.167	2.00	25.417	2.00	37.67	6.00
1.000	0.00	13.250	2.00	25.500	2.00	37.75	6.00
1.083	2.00	13.333	2.00	25.583	2.00	37.83	6.00
1.167	2.00	13.417	2.00	25.667	2.00	37.92	6.00
1.250	2.00	13.500	2.00	25.750	2.00	38.00	6.00
1.333	2.00	13.583	2.00	25.833	2.00	38.08	4.00
1.417	2.00	13.667	2.00	25.917	2.00	38.17	4.00
1.500	2.00	13.750	2.00	26.000	2.00	38.25	4.00
1.583	2.00	13.833	2.00	26.083	2.00	38.33	4.00
1.667	2.00	13.917	2.00	26.167	2.00	38.42	4.00
1.750	2.00	14.000	2.00	26.250	2.00	38.50	4.00
1.833	2.00	14.083	2.00	26.333	2.00	38.58	4.00
1.917	2.00	14.167	2.00	26.417	2.00	38.67	4.00
2.000	2.00	14.250	2.00	26.500	2.00	38.75	4.00
2.083	2.00	14.333	2.00	26.583	2.00	38.83	4.00
2.167	2.00	14.417	2.00	26.667	2.00	38.92	4.00
2.250	2.00	14.500	2.00	26.750	2.00	39.00	4.00
2.333	2.00	14.583	2.00	26.833	2.00	39.08	6.00
2.417	2.00	14.667	2.00	26.917	2.00	39.17	6.00
2.500	2.00	14.750	2.00	27.000	2.00	39.25	6.00
2.583	2.00	14.833	2.00	27.083	2.00	39.33	6.00
2.667	2.00	14.917	2.00	27.167	2.00	39.42	6.00
2.750	2.00	15.000	2.00	27.250	2.00	39.50	6.00
2.833	2.00	15.083	2.00	27.333	2.00	39.58	6.00
2.917	2.00	15.167	2.00	27.417	2.00	39.67	6.00
3.000	2.00	15.250	2.00	27.500	2.00	39.75	6.00
3.083	2.00	15.333	2.00	27.583	2.00	39.83	6.00
3.167	2.00	15.417	2.00	27.667	2.00	39.92	6.00
3.250	2.00	15.500	2.00	27.750	2.00	40.00	6.00
3.333	2.00	15.583	2.00	27.833	2.00	40.08	13.00
3.417	2.00	15.667	2.00	27.917	2.00	40.17	13.00
3.500	2.00	15.750	2.00	28.000	2.00	40.25	13.00
3.583	2.00	15.833	2.00	28.083	2.00	40.33	13.00
3.667	2.00	15.917	2.00	28.167	2.00	40.42	13.00
3.750	2.00	16.000	2.00	28.250	2.00	40.50	13.00
3.833	2.00	16.083	2.00	28.333	2.00	40.58	13.00
3.917	2.00	16.167	2.00	28.417	2.00	40.67	13.00
4.000	2.00	16.250	2.00	28.500	2.00	40.75	13.00
4.083	2.00	16.333	2.00	28.583	2.00	40.83	13.00
4.167	2.00	16.417	2.00	28.667	2.00	40.92	13.00
4.250	2.00	16.500	2.00	28.750	2.00	41.00	13.00
4.333	2.00	16.583	2.00	28.833	2.00	41.08	17.00
4.417	2.00	16.667	2.00	28.917	2.00	41.17	17.00
4.500	2.00	16.750	2.00	29.000	2.00	41.25	17.00
4.583	2.00	16.833	2.00	29.083	2.00	41.33	17.00
4.667	2.00	16.917	2.00	29.167	2.00	41.42	17.00
4.750	2.00	17.000	2.00	29.250	2.00	41.50	17.00
4.833	2.00	17.083	2.00	29.333	2.00	41.58	17.00
4.917	2.00	17.167	2.00	29.417	2.00	41.67	17.00
5.000	2.00	17.250	2.00	29.500	2.00	41.75	17.00

5.083	2.00	17.333	2.00	29.583	2.00	41.83	17.00
5.167	2.00	17.417	2.00	29.667	2.00	41.92	17.00
5.250	2.00	17.500	2.00	29.750	2.00	42.00	17.00
5.333	2.00	17.583	2.00	29.833	2.00	42.08	13.00
5.417	2.00	17.667	2.00	29.917	2.00	42.17	13.00
5.500	2.00	17.750	2.00	30.000	2.00	42.25	13.00
5.583	2.00	17.833	2.00	30.083	2.00	42.33	13.00
5.667	2.00	17.917	2.00	30.167	2.00	42.42	13.00
5.750	2.00	18.000	2.00	30.250	2.00	42.50	13.00
5.833	2.00	18.083	2.00	30.333	2.00	42.58	13.00
5.917	2.00	18.167	2.00	30.417	2.00	42.67	13.00
6.000	2.00	18.250	2.00	30.500	2.00	42.75	13.00
6.083	2.00	18.333	2.00	30.583	2.00	42.83	13.00
6.167	2.00	18.417	2.00	30.667	2.00	42.92	13.00
6.250	2.00	18.500	2.00	30.750	2.00	43.00	13.00
6.333	2.00	18.583	2.00	30.833	2.00	43.08	22.99
6.417	2.00	18.667	2.00	30.917	2.00	43.17	23.00
6.500	2.00	18.750	2.00	31.000	2.00	43.25	23.00
6.583	2.00	18.833	2.00	31.083	2.00	43.33	23.00
6.667	2.00	18.917	2.00	31.167	2.00	43.42	23.00
6.750	2.00	19.000	2.00	31.250	2.00	43.50	23.00
6.833	2.00	19.083	2.00	31.333	2.00	43.58	23.00
6.917	2.00	19.167	2.00	31.417	2.00	43.67	23.00
7.000	2.00	19.250	2.00	31.500	2.00	43.75	23.00
7.083	2.00	19.333	2.00	31.583	2.00	43.83	23.00
7.167	2.00	19.417	2.00	31.667	2.00	43.92	23.00
7.250	2.00	19.500	2.00	31.750	2.00	44.00	23.00
7.333	2.00	19.583	2.00	31.833	2.00	44.08	13.01
7.417	2.00	19.667	2.00	31.917	2.00	44.17	13.00
7.500	2.00	19.750	2.00	32.000	2.00	44.25	13.00
7.583	2.00	19.833	2.00	32.083	2.00	44.33	13.00
7.667	2.00	19.917	2.00	32.167	2.00	44.42	13.00
7.750	2.00	20.000	2.00	32.250	2.00	44.50	13.00
7.833	2.00	20.083	2.00	32.333	2.00	44.58	13.00
7.917	2.00	20.167	2.00	32.417	2.00	44.67	13.00
8.000	2.00	20.250	2.00	32.500	2.00	44.75	13.00
8.083	2.00	20.333	2.00	32.583	2.00	44.83	13.00
8.167	2.00	20.417	2.00	32.667	2.00	44.92	13.00
8.250	2.00	20.500	2.00	32.750	2.00	45.00	13.00
8.333	2.00	20.583	2.00	32.833	2.00	45.08	13.00
8.417	2.00	20.667	2.00	32.917	2.00	45.17	13.00
8.500	2.00	20.750	2.00	33.000	2.00	45.25	13.00
8.583	2.00	20.833	2.00	33.083	2.00	45.33	13.00
8.667	2.00	20.917	2.00	33.167	2.00	45.42	13.00
8.750	2.00	21.000	2.00	33.250	2.00	45.50	13.00
8.833	2.00	21.083	2.00	33.333	2.00	45.58	13.00
8.917	2.00	21.167	2.00	33.417	2.00	45.67	13.00
9.000	2.00	21.250	2.00	33.500	2.00	45.75	13.00
9.083	2.00	21.333	2.00	33.583	2.00	45.83	13.00
9.167	2.00	21.417	2.00	33.667	2.00	45.92	13.00
9.250	2.00	21.500	2.00	33.750	2.00	46.00	13.00
9.333	2.00	21.583	2.00	33.833	2.00	46.08	52.94
9.417	2.00	21.667	2.00	33.917	2.00	46.17	53.00
9.500	2.00	21.750	2.00	34.000	2.00	46.25	53.00
9.583	2.00	21.833	2.00	34.083	2.00	46.33	53.00
9.667	2.00	21.917	2.00	34.167	2.00	46.42	53.00
9.750	2.00	22.000	2.00	34.250	2.00	46.50	53.00
9.833	2.00	22.083	2.00	34.333	2.00	46.58	53.00
9.917	2.00	22.167	2.00	34.417	2.00	46.67	53.00
10.000	2.00	22.250	2.00	34.500	2.00	46.75	53.00
10.083	2.00	22.333	2.00	34.583	2.00	46.83	53.00
10.167	2.00	22.417	2.00	34.667	2.00	46.92	53.00
10.250	2.00	22.500	2.00	34.750	2.00	47.00	53.00
10.333	2.00	22.583	2.00	34.833	2.00	47.08	38.02
10.417	2.00	22.667	2.00	34.917	2.00	47.17	38.00
10.500	2.00	22.750	2.00	35.000	2.00	47.25	38.00
10.583	2.00	22.833	2.00	35.083	2.00	47.33	38.00
10.667	2.00	22.917	2.00	35.167	2.00	47.42	38.00
10.750	2.00	23.000	2.00	35.250	2.00	47.50	38.00
10.833	2.00	23.083	2.00	35.333	2.00	47.58	38.00
10.917	2.00	23.167	2.00	35.417	2.00	47.67	38.00
11.000	2.00	23.250	2.00	35.500	2.00	47.75	38.00
11.083	2.00	23.333	2.00	35.583	2.00	47.83	38.00
11.167	2.00	23.417	2.00	35.667	2.00	47.92	38.00
11.250	2.00	23.500	2.00	35.750	2.00	48.00	38.00
11.333	2.00	23.583	2.00	35.833	2.00	48.08	13.04

11.417	2.00	23.667	2.00	35.917	2.00	48.17	13.00
11.500	2.00	23.750	2.00	36.000	2.00	48.25	13.00
11.583	2.00	23.833	2.00	36.083	3.00	48.33	13.00
11.667	2.00	23.917	2.00	36.167	3.00	48.42	13.00
11.750	2.00	24.000	2.00	36.250	3.00	48.50	13.00
11.833	2.00	24.083	2.00	36.333	3.00	48.58	13.00
11.917	2.00	24.167	2.00	36.417	3.00	48.67	13.00
12.000	2.00	24.250	2.00	36.500	3.00	48.75	13.00
12.083	2.00	24.333	2.00	36.583	3.00	48.83	13.00
12.167	2.00	24.417	2.00	36.667	3.00	48.92	13.00
12.250	2.00	24.500	2.00	36.750	3.00	49.00	13.00
Max.Eff.Inten.(mm/hr)=	53.00		51.72				
over (min)	5.00		10.00				
Storage Coeff. (min)=	3.20 (ii)		5.12 (ii)				
Unit Hyd. Tpeak (min)=	5.00		10.00				
Unit Hyd. peak (cms)=	0.27		0.16				
PEAK FLOW (cms)=	0.19		0.00		0.196 (iii)		
TIME TO PEAK (hrs)=	46.83		47.00				
RUNOFF VOLUME (mm)=	283.00		243.97		282.22		
TOTAL RAINFALL (mm)=	285.00		285.00		285.00		
RUNOFF COEFFICIENT =	0.99		0.86		0.99		

TOTALS

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 86.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

CALIB	Area (ha)=	1.70
STANDHYD (7629)	Total Imp(%)=	99.00
ID= 1 DT= 5.0 min	Dir. Conn.(%)=	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.68	0.02
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	12.333	2.00	24.583	2.00	36.83	3.00		
0.167	0.00	12.417	2.00	24.667	2.00	36.92	3.00		
0.250	0.00	12.500	2.00	24.750	2.00	37.00	3.00		
0.333	0.00	12.583	2.00	24.833	2.00	37.08	6.00		
0.417	0.00	12.667	2.00	24.917	2.00	37.17	6.00		
0.500	0.00	12.750	2.00	25.000	2.00	37.25	6.00		
0.583	0.00	12.833	2.00	25.083	2.00	37.33	6.00		
0.667	0.00	12.917	2.00	25.167	2.00	37.42	6.00		
0.750	0.00	13.000	2.00	25.250	2.00	37.50	6.00		
0.833	0.00	13.083	2.00	25.333	2.00	37.58	6.00		
0.917	0.00	13.167	2.00	25.417	2.00	37.67	6.00		
1.000	0.00	13.250	2.00	25.500	2.00	37.75	6.00		
1.083	2.00	13.333	2.00	25.583	2.00	37.83	6.00		
1.167	2.00	13.417	2.00	25.667	2.00	37.92	6.00		
1.250	2.00	13.500	2.00	25.750	2.00	38.00	6.00		
1.333	2.00	13.583	2.00	25.833	2.00	38.08	4.00		
1.417	2.00	13.667	2.00	25.917	2.00	38.17	4.00		
1.500	2.00	13.750	2.00	26.000	2.00	38.25	4.00		
1.583	2.00	13.833	2.00	26.083	2.00	38.33	4.00		
1.667	2.00	13.917	2.00	26.167	2.00	38.42	4.00		
1.750	2.00	14.000	2.00	26.250	2.00	38.50	4.00		
1.833	2.00	14.083	2.00	26.333	2.00	38.58	4.00		
1.917	2.00	14.167	2.00	26.417	2.00	38.67	4.00		
2.000	2.00	14.250	2.00	26.500	2.00	38.75	4.00		
2.083	2.00	14.333	2.00	26.583	2.00	38.83	4.00		

2.167	2.00	14.417	2.00	26.667	2.00	38.92	4.00
2.250	2.00	14.500	2.00	26.750	2.00	39.00	4.00
2.333	2.00	14.583	2.00	26.833	2.00	39.08	6.00
2.417	2.00	14.667	2.00	26.917	2.00	39.17	6.00
2.500	2.00	14.750	2.00	27.000	2.00	39.25	6.00
2.583	2.00	14.833	2.00	27.083	2.00	39.33	6.00
2.667	2.00	14.917	2.00	27.167	2.00	39.42	6.00
2.750	2.00	15.000	2.00	27.250	2.00	39.50	6.00
2.833	2.00	15.083	2.00	27.333	2.00	39.58	6.00
2.917	2.00	15.167	2.00	27.417	2.00	39.67	6.00
3.000	2.00	15.250	2.00	27.500	2.00	39.75	6.00
3.083	2.00	15.333	2.00	27.583	2.00	39.83	6.00
3.167	2.00	15.417	2.00	27.667	2.00	39.92	6.00
3.250	2.00	15.500	2.00	27.750	2.00	40.00	6.00
3.333	2.00	15.583	2.00	27.833	2.00	40.08	13.00
3.417	2.00	15.667	2.00	27.917	2.00	40.17	13.00
3.500	2.00	15.750	2.00	28.000	2.00	40.25	13.00
3.583	2.00	15.833	2.00	28.083	2.00	40.33	13.00
3.667	2.00	15.917	2.00	28.167	2.00	40.42	13.00
3.750	2.00	16.000	2.00	28.250	2.00	40.50	13.00
3.833	2.00	16.083	2.00	28.333	2.00	40.58	13.00
3.917	2.00	16.167	2.00	28.417	2.00	40.67	13.00
4.000	2.00	16.250	2.00	28.500	2.00	40.75	13.00
4.083	2.00	16.333	2.00	28.583	2.00	40.83	13.00
4.167	2.00	16.417	2.00	28.667	2.00	40.92	13.00
4.250	2.00	16.500	2.00	28.750	2.00	41.00	13.00
4.333	2.00	16.583	2.00	28.833	2.00	41.08	17.00
4.417	2.00	16.667	2.00	28.917	2.00	41.17	17.00
4.500	2.00	16.750	2.00	29.000	2.00	41.25	17.00
4.583	2.00	16.833	2.00	29.083	2.00	41.33	17.00
4.667	2.00	16.917	2.00	29.167	2.00	41.42	17.00
4.750	2.00	17.000	2.00	29.250	2.00	41.50	17.00
4.833	2.00	17.083	2.00	29.333	2.00	41.58	17.00
4.917	2.00	17.167	2.00	29.417	2.00	41.67	17.00
5.000	2.00	17.250	2.00	29.500	2.00	41.75	17.00
5.083	2.00	17.333	2.00	29.583	2.00	41.83	17.00
5.167	2.00	17.417	2.00	29.667	2.00	41.92	17.00
5.250	2.00	17.500	2.00	29.750	2.00	42.00	17.00
5.333	2.00	17.583	2.00	29.833	2.00	42.08	13.00
5.417	2.00	17.667	2.00	29.917	2.00	42.17	13.00
5.500	2.00	17.750	2.00	30.000	2.00	42.25	13.00
5.583	2.00	17.833	2.00	30.083	2.00	42.33	13.00
5.667	2.00	17.917	2.00	30.167	2.00	42.42	13.00
5.750	2.00	18.000	2.00	30.250	2.00	42.50	13.00
5.833	2.00	18.083	2.00	30.333	2.00	42.58	13.00
5.917	2.00	18.167	2.00	30.417	2.00	42.67	13.00
6.000	2.00	18.250	2.00	30.500	2.00	42.75	13.00
6.083	2.00	18.333	2.00	30.583	2.00	42.83	13.00
6.167	2.00	18.417	2.00	30.667	2.00	42.92	13.00
6.250	2.00	18.500	2.00	30.750	2.00	43.00	13.00
6.333	2.00	18.583	2.00	30.833	2.00	43.08	22.99
6.417	2.00	18.667	2.00	30.917	2.00	43.17	23.00
6.500	2.00	18.750	2.00	31.000	2.00	43.25	23.00
6.583	2.00	18.833	2.00	31.083	2.00	43.33	23.00
6.667	2.00	18.917	2.00	31.167	2.00	43.42	23.00
6.750	2.00	19.000	2.00	31.250	2.00	43.50	23.00
6.833	2.00	19.083	2.00	31.333	2.00	43.58	23.00
6.917	2.00	19.167	2.00	31.417	2.00	43.67	23.00
7.000	2.00	19.250	2.00	31.500	2.00	43.75	23.00
7.083	2.00	19.333	2.00	31.583	2.00	43.83	23.00
7.167	2.00	19.417	2.00	31.667	2.00	43.92	23.00
7.250	2.00	19.500	2.00	31.750	2.00	44.00	23.00
7.333	2.00	19.583	2.00	31.833	2.00	44.08	13.01
7.417	2.00	19.667	2.00	31.917	2.00	44.17	13.00
7.500	2.00	19.750	2.00	32.000	2.00	44.25	13.00
7.583	2.00	19.833	2.00	32.083	2.00	44.33	13.00
7.667	2.00	19.917	2.00	32.167	2.00	44.42	13.00
7.750	2.00	20.000	2.00	32.250	2.00	44.50	13.00
7.833	2.00	20.083	2.00	32.333	2.00	44.58	13.00
7.917	2.00	20.167	2.00	32.417	2.00	44.67	13.00
8.000	2.00	20.250	2.00	32.500	2.00	44.75	13.00
8.083	2.00	20.333	2.00	32.583	2.00	44.83	13.00
8.167	2.00	20.417	2.00	32.667	2.00	44.92	13.00
8.250	2.00	20.500	2.00	32.750	2.00	45.00	13.00
8.333	2.00	20.583	2.00	32.833	2.00	45.08	13.00
8.417	2.00	20.667	2.00	32.917	2.00	45.17	13.00



8.500	2.00	120.750	2.00	133.000	2.00	45.25	13.00
8.583	2.00	120.833	2.00	133.083	2.00	45.33	13.00
8.667	2.00	120.917	2.00	133.167	2.00	45.42	13.00
8.750	2.00	121.000	2.00	133.250	2.00	45.50	13.00
8.833	2.00	121.083	2.00	133.333	2.00	45.58	13.00
8.917	2.00	121.167	2.00	133.417	2.00	45.67	13.00
9.000	2.00	121.250	2.00	133.500	2.00	45.75	13.00
9.083	2.00	121.333	2.00	133.583	2.00	45.83	13.00
9.167	2.00	121.417	2.00	133.667	2.00	45.92	13.00
9.250	2.00	121.500	2.00	133.750	2.00	46.00	13.00
9.333	2.00	121.583	2.00	133.833	2.00	46.08	52.94
9.417	2.00	121.667	2.00	133.917	2.00	46.17	53.00
9.500	2.00	121.750	2.00	134.000	2.00	46.25	53.00
9.583	2.00	121.833	2.00	134.083	2.00	46.33	53.00
9.667	2.00	121.917	2.00	134.167	2.00	46.42	53.00
9.750	2.00	122.000	2.00	134.250	2.00	46.50	53.00
9.833	2.00	122.083	2.00	134.333	2.00	46.58	53.00
9.917	2.00	122.167	2.00	134.417	2.00	46.67	53.00
10.000	2.00	122.250	2.00	134.500	2.00	46.75	53.00
10.083	2.00	122.333	2.00	134.583	2.00	46.83	53.00
10.167	2.00	122.417	2.00	134.667	2.00	46.92	53.00
10.250	2.00	122.500	2.00	134.750	2.00	47.00	53.00
10.333	2.00	122.583	2.00	134.833	2.00	47.08	38.02
10.417	2.00	122.667	2.00	134.917	2.00	47.17	38.00
10.500	2.00	122.750	2.00	135.000	2.00	47.25	38.00
10.583	2.00	122.833	2.00	135.083	2.00	47.33	38.00
10.667	2.00	122.917	2.00	135.167	2.00	47.42	38.00
10.750	2.00	123.000	2.00	135.250	2.00	47.50	38.00
10.833	2.00	123.083	2.00	135.333	2.00	47.58	38.00
10.917	2.00	123.167	2.00	135.417	2.00	47.67	38.00
11.000	2.00	123.250	2.00	135.500	2.00	47.75	38.00
11.083	2.00	123.333	2.00	135.583	2.00	47.83	38.00
11.167	2.00	123.417	2.00	135.667	2.00	47.92	38.00
11.250	2.00	123.500	2.00	135.750	2.00	48.00	38.00
11.333	2.00	123.583	2.00	135.833	2.00	48.08	13.04
11.417	2.00	123.667	2.00	135.917	2.00	48.17	13.00
11.500	2.00	123.750	2.00	136.000	2.00	48.25	13.00
11.583	2.00	123.833	2.00	136.083	3.00	48.33	13.00
11.667	2.00	123.917	2.00	136.167	3.00	48.42	13.00
11.750	2.00	124.000	2.00	136.250	3.00	48.50	13.00
11.833	2.00	124.083	2.00	136.333	3.00	48.58	13.00
11.917	2.00	124.167	2.00	136.417	3.00	48.67	13.00
12.000	2.00	124.250	2.00	136.500	3.00	48.75	13.00
12.083	2.00	124.333	2.00	136.583	3.00	48.83	13.00
12.167	2.00	124.417	2.00	136.667	3.00	48.92	13.00
12.250	2.00	124.500	2.00	136.750	3.00	49.00	13.00

Max.Eff.Inten.(mm/hr)= 53.00 51.72
 over (min) 5.00 5.00
 Storage Coeff. (min)= 3.20 (ii) 4.65 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.27 0.22

TOTALS
 PEAK FLOW (cms)= 0.25 0.00 0.250 (iii)
 TIME TO PEAK (hrs)= 46.83 47.00 47.00
 RUNOFF VOLUME (mm)= 283.00 243.97 282.61
 TOTAL RAINFALL (mm)= 285.00 285.00 285.00
 RUNOFF COEFFICIENT = 0.99 0.86 0.99

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 86.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7700)					
1 + 2 = 3					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 1 (7620):	1.45	0.212	47.00	281.43	
+ ID2= 2 (7629):	1.70	0.250	47.00	282.61	

ID = 3 (7700): 3.15 0.463 47.00 282.07

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7700)					
3 + 2 = 1					
	AREA	QPEAK	TPEAK	R.V.	
	(ha)	(cms)	(hrs)	(mm)	
ID1= 3 (7700):	3.15	0.463	47.00	282.07	
+ ID2= 2 (7651):	1.33	0.196	47.00	282.22	
ID = 1 (7700):	4.48	0.658	47.00	282.11	

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB			
STANDHYD (7654)			
ID= 1 DT= 5.0 min	Area (ha)=	1.69	
	Total Imp(%)=	99.00	Dir. Conn.(%)= 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.67	0.02
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----											
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	12.333	2.00	124.583	2.00	136.83	3.00				
0.167	0.00	12.417	2.00	124.667	2.00	136.92	3.00				
0.250	0.00	12.500	2.00	124.750	2.00	137.00	3.00				
0.333	0.00	12.583	2.00	124.833	2.00	137.08	6.00				
0.417	0.00	12.667	2.00	124.917	2.00	137.17	6.00				
0.500	0.00	12.750	2.00	125.000	2.00	137.25	6.00				
0.583	0.00	12.833	2.00	125.083	2.00	137.33	6.00				
0.667	0.00	12.917	2.00	125.167	2.00	137.42	6.00				
0.750	0.00	13.000	2.00	125.250	2.00	137.50	6.00				
0.833	0.00	13.083	2.00	125.333	2.00	137.58	6.00				
0.917	0.00	13.167	2.00	125.417	2.00	137.67	6.00				
1.000	0.00	13.250	2.00	125.500	2.00	137.75	6.00				
1.083	2.00	13.333	2.00	125.583	2.00	137.83	6.00				
1.167	2.00	13.417	2.00	125.667	2.00	137.92	6.00				
1.250	2.00	13.500	2.00	125.750	2.00	138.00	6.00				
1.333	2.00	13.583	2.00	125.833	2.00	138.08	4.00				
1.417	2.00	13.667	2.00	125.917	2.00	138.17	4.00				
1.500	2.00	13.750	2.00	126.000	2.00	138.25	4.00				
1.583	2.00	13.833	2.00	126.083	2.00	138.33	4.00				
1.667	2.00	13.917	2.00	126.167	2.00	138.42	4.00				
1.750	2.00	14.000	2.00	126.250	2.00	138.50	4.00				
1.833	2.00	14.083	2.00	126.333	2.00	138.58	4.00				
1.917	2.00	14.167	2.00	126.417	2.00	138.67	4.00				
2.000	2.00	14.250	2.00	126.500	2.00	138.75	4.00				
2.083	2.00	14.333	2.00	126.583	2.00	138.83	4.00				
2.167	2.00	14.417	2.00	126.667	2.00	138.92	4.00				
2.250	2.00	14.500	2.00	126.750	2.00	139.00	4.00				
2.333	2.00	14.583	2.00	126.833	2.00	139.08	6.00				
2.417	2.00	14.667	2.00	126.917	2.00	139.17	6.00				
2.500	2.00	14.750	2.00	127.000	2.00	139.25	6.00				
2.583	2.00	14.833	2.00	127.083	2.00	139.33	6.00				
2.667	2.00	14.917	2.00	127.167	2.00	139.42	6.00				
2.750	2.00	15.000	2.00	127.250	2.00	139.50	6.00				
2.833	2.00	15.083	2.00	127.333	2.00	139.58	6.00				
2.917	2.00	15.167	2.00	127.417	2.00	139.67	6.00				
3.000	2.00	15.250	2.00	127.500	2.00	139.75	6.00				
3.083	2.00	15.333	2.00	127.583	2.00	139.83	6.00				
3.167	2.00	15.417	2.00	127.667	2.00	139.92	6.00				
3.250	2.00	15.500	2.00	127.750	2.00	140.00	6.00				
3.333	2.00	15.583	2.00	127.833	2.00	140.08	13.00				
3.417	2.00	15.667	2.00	127.917	2.00	140.17	13.00				
3.500	2.00	15.750	2.00	128.000	2.00	140.25	13.00				

3.583	2.00	115.833	2.00	128.083	2.00	140.33	13.00	9.917	2.00	122.167	2.00	134.417	2.00	146.67	53.00
3.667	2.00	115.917	2.00	128.167	2.00	140.42	13.00	10.000	2.00	122.250	2.00	134.500	2.00	146.75	53.00
3.750	2.00	116.000	2.00	128.250	2.00	140.50	13.00	10.083	2.00	122.333	2.00	134.583	2.00	146.83	53.00
3.833	2.00	116.083	2.00	128.333	2.00	140.58	13.00	10.167	2.00	122.417	2.00	134.667	2.00	146.92	53.00
3.917	2.00	116.167	2.00	128.417	2.00	140.67	13.00	10.250	2.00	122.500	2.00	134.750	2.00	147.00	53.00
4.000	2.00	116.250	2.00	128.500	2.00	140.75	13.00	10.333	2.00	122.583	2.00	134.833	2.00	147.08	38.02
4.083	2.00	116.333	2.00	128.583	2.00	140.83	13.00	10.417	2.00	122.667	2.00	134.917	2.00	147.17	38.00
4.167	2.00	116.417	2.00	128.667	2.00	140.92	13.00	10.500	2.00	122.750	2.00	135.000	2.00	147.25	38.00
4.250	2.00	116.500	2.00	128.750	2.00	141.00	13.00	10.583	2.00	122.833	2.00	135.083	2.00	147.33	38.00
4.333	2.00	116.583	2.00	128.833	2.00	141.08	17.00	10.667	2.00	122.917	2.00	135.167	2.00	147.42	38.00
4.417	2.00	116.667	2.00	128.917	2.00	141.17	17.00	10.750	2.00	123.000	2.00	135.250	2.00	147.50	38.00
4.500	2.00	116.750	2.00	129.000	2.00	141.25	17.00	10.833	2.00	123.083	2.00	135.333	2.00	147.58	38.00
4.583	2.00	116.833	2.00	129.083	2.00	141.33	17.00	10.917	2.00	123.167	2.00	135.417	2.00	147.67	38.00
4.667	2.00	116.917	2.00	129.167	2.00	141.42	17.00	11.000	2.00	123.250	2.00	135.500	2.00	147.75	38.00
4.750	2.00	117.000	2.00	129.250	2.00	141.50	17.00	11.083	2.00	123.333	2.00	135.583	2.00	147.83	38.00
4.833	2.00	117.083	2.00	129.333	2.00	141.58	17.00	11.167	2.00	123.417	2.00	135.667	2.00	147.92	38.00
4.917	2.00	117.167	2.00	129.417	2.00	141.67	17.00	11.250	2.00	123.500	2.00	135.750	2.00	148.00	38.00
5.000	2.00	117.250	2.00	129.500	2.00	141.75	17.00	11.333	2.00	123.583	2.00	135.833	2.00	148.08	13.04
5.083	2.00	117.333	2.00	129.583	2.00	141.83	17.00	11.417	2.00	123.667	2.00	135.917	2.00	148.17	13.00
5.167	2.00	117.417	2.00	129.667	2.00	141.92	17.00	11.500	2.00	123.750	2.00	136.000	2.00	148.25	13.00
5.250	2.00	117.500	2.00	129.750	2.00	142.00	17.00	11.583	2.00	123.833	2.00	136.083	3.00	148.33	13.00
5.333	2.00	117.583	2.00	129.833	2.00	142.08	13.00	11.667	2.00	123.917	2.00	136.167	3.00	148.42	13.00
5.417	2.00	117.667	2.00	129.917	2.00	142.17	13.00	11.750	2.00	124.000	2.00	136.250	3.00	148.50	13.00
5.500	2.00	117.750	2.00	130.000	2.00	142.25	13.00	11.833	2.00	124.083	2.00	136.333	3.00	148.58	13.00
5.583	2.00	117.833	2.00	130.083	2.00	142.33	13.00	11.917	2.00	124.167	2.00	136.417	3.00	148.67	13.00
5.667	2.00	117.917	2.00	130.167	2.00	142.42	13.00	12.000	2.00	124.250	2.00	136.500	3.00	148.75	13.00
5.750	2.00	118.000	2.00	130.250	2.00	142.50	13.00	12.083	2.00	124.333	2.00	136.583	3.00	148.83	13.00
5.833	2.00	118.083	2.00	130.333	2.00	142.58	13.00	12.167	2.00	124.417	2.00	136.667	3.00	148.92	13.00
5.917	2.00	118.167	2.00	130.417	2.00	142.67	13.00	12.250	2.00	124.500	2.00	136.750	3.00	149.00	13.00
6.000	2.00	118.250	2.00	130.500	2.00	142.75	13.00								
6.083	2.00	118.333	2.00	130.583	2.00	142.83	13.00								
6.167	2.00	118.417	2.00	130.667	2.00	142.92	13.00								
6.250	2.00	118.500	2.00	130.750	2.00	143.00	13.00								
6.333	2.00	118.583	2.00	130.833	2.00	143.08	22.99								
6.417	2.00	118.667	2.00	130.917	2.00	143.17	23.00								
6.500	2.00	118.750	2.00	131.000	2.00	143.25	23.00								
6.583	2.00	118.833	2.00	131.083	2.00	143.33	23.00								
6.667	2.00	118.917	2.00	131.167	2.00	143.42	23.00								
6.750	2.00	119.000	2.00	131.250	2.00	143.50	23.00								
6.833	2.00	119.083	2.00	131.333	2.00	143.58	23.00								
6.917	2.00	119.167	2.00	131.417	2.00	143.67	23.00								
7.000	2.00	119.250	2.00	131.500	2.00	143.75	23.00								
7.083	2.00	119.333	2.00	131.583	2.00	143.83	23.00								
7.167	2.00	119.417	2.00	131.667	2.00	143.92	23.00								
7.250	2.00	119.500	2.00	131.750	2.00	144.00	23.00								
7.333	2.00	119.583	2.00	131.833	2.00	144.08	13.01								
7.417	2.00	119.667	2.00	131.917	2.00	144.17	13.00								
7.500	2.00	119.750	2.00	132.000	2.00	144.25	13.00								
7.583	2.00	119.833	2.00	132.083	2.00	144.33	13.00								
7.667	2.00	119.917	2.00	132.167	2.00	144.42	13.00								
7.750	2.00	120.000	2.00	132.250	2.00	144.50	13.00								
7.833	2.00	120.083	2.00	132.333	2.00	144.58	13.00								
7.917	2.00	120.167	2.00	132.417	2.00	144.67	13.00								
8.000	2.00	120.250	2.00	132.500	2.00	144.75	13.00								
8.083	2.00	120.333	2.00	132.583	2.00	144.83	13.00								
8.167	2.00	120.417	2.00	132.667	2.00	144.92	13.00								
8.250	2.00	120.500	2.00	132.750	2.00	145.00	13.00								
8.333	2.00	120.583	2.00	132.833	2.00	145.08	13.00								
8.417	2.00	120.667	2.00	132.917	2.00	145.17	13.00								
8.500	2.00	120.750	2.00	133.000	2.00	145.25	13.00								
8.583	2.00	120.833	2.00	133.083	2.00	145.33	13.00								
8.667	2.00	120.917	2.00	133.167	2.00	145.42	13.00								
8.750	2.00	121.000	2.00	133.250	2.00	145.50	13.00								
8.833	2.00	121.083	2.00	133.333	2.00	145.58	13.00								
8.917	2.00	121.167	2.00	133.417	2.00	145.67	13.00								
9.000	2.00	121.250	2.00	133.500	2.00	145.75	13.00								
9.083	2.00	121.333	2.00	133.583	2.00	145.83	13.00								
9.167	2.00	121.417	2.00	133.667	2.00	145.92	13.00								
9.250	2.00	121.500	2.00	133.750	2.00	146.00	13.00								
9.333	2.00	121.583	2.00	133.833	2.00	146.08	52.94								
9.417	2.00	121.667	2.00	133.917	2.00	146.17	53.00								
9.500	2.00	121.750	2.00	134.000	2.00	146.25	53.00								
9.583	2.00	121.833	2.00	134.083	2.00	146.33	53.00								
9.667	2.00	121.917	2.00	134.167	2.00	146.42	53.00								
9.750	2.00	122.000	2.00	134.250	2.00	146.50	53.00								
9.833	2.00	122.083	2.00	134.333	2.00	146.58	53.00								

Max.Eff.Inten.(mm/hr)= 53.00 51.72
 over (min) 5.00 5.00
 Storage Coeff. (min)= 3.20 (ii) 4.65 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.27 0.22

TOTALS
 PEAK FLOW (cms)= 0.25 0.00 0.249 (iii)
 TIME TO PEAK (hrs)= 46.83 47.00 47.00
 RUNOFF VOLUME (mm)= 283.00 243.97 282.61
 TOTAL RAINFALL (mm)= 285.00 285.00 285.00
 RUNOFF COEFFICIENT = 0.99 0.86 0.99

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 86.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7655) | Area (ha)= 1.32
 | ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.31 0.01
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 1.10 2.00
 Length (m)= 100.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	12.333	2.00	124.583	2.00	136.83	3.00
0.167	0.00	12.417	2.00	124.667	2.00	136.92	3.00
0.250	0.00	12.500	2.00	124.750	2.00	137.00	3.00
0.333	0.00	12.583	2.00	124.833	2.00	137.08	6.00
0.417	0.00	12.667	2.00	124.917	2.00	137.17	6.00
0.500	0.00	12.750	2.00	125.000	2.00	137.25	6.00
0.583	0.00	12.833	2.00	125.083	2.00	137.33	6.00



0.667	0.00	12.917	2.00	125.167	2.00	37.42	6.00	7.000	2.00	19.250	2.00	31.500	2.00	43.75	23.00
0.750	0.00	13.000	2.00	125.250	2.00	37.50	6.00	7.083	2.00	19.333	2.00	31.583	2.00	43.83	23.00
0.833	0.00	13.083	2.00	125.333	2.00	37.58	6.00	7.167	2.00	19.417	2.00	31.667	2.00	43.92	23.00
0.917	0.00	13.167	2.00	125.417	2.00	37.67	6.00	7.250	2.00	19.500	2.00	31.750	2.00	44.00	23.00
1.000	0.00	13.250	2.00	125.500	2.00	37.75	6.00	7.333	2.00	19.583	2.00	31.833	2.00	44.08	13.01
1.083	2.00	13.333	2.00	125.583	2.00	37.83	6.00	7.417	2.00	19.667	2.00	31.917	2.00	44.17	13.00
1.167	2.00	13.417	2.00	125.667	2.00	37.92	6.00	7.500	2.00	19.750	2.00	32.000	2.00	44.25	13.00
1.250	2.00	13.500	2.00	125.750	2.00	38.00	6.00	7.583	2.00	19.833	2.00	32.083	2.00	44.33	13.00
1.333	2.00	13.583	2.00	125.833	2.00	38.08	4.00	7.667	2.00	19.917	2.00	32.167	2.00	44.42	13.00
1.417	2.00	13.667	2.00	125.917	2.00	38.17	4.00	7.750	2.00	20.000	2.00	32.250	2.00	44.50	13.00
1.500	2.00	13.750	2.00	126.000	2.00	38.25	4.00	7.833	2.00	20.083	2.00	32.333	2.00	44.58	13.00
1.583	2.00	13.833	2.00	126.083	2.00	38.33	4.00	7.917	2.00	20.167	2.00	32.417	2.00	44.67	13.00
1.667	2.00	13.917	2.00	126.167	2.00	38.42	4.00	8.000	2.00	20.250	2.00	32.500	2.00	44.75	13.00
1.750	2.00	14.000	2.00	126.250	2.00	38.50	4.00	8.083	2.00	20.333	2.00	32.583	2.00	44.83	13.00
1.833	2.00	14.083	2.00	126.333	2.00	38.58	4.00	8.167	2.00	20.417	2.00	32.667	2.00	44.92	13.00
1.917	2.00	14.167	2.00	126.417	2.00	38.67	4.00	8.250	2.00	20.500	2.00	32.750	2.00	45.00	13.00
2.000	2.00	14.250	2.00	126.500	2.00	38.75	4.00	8.333	2.00	20.583	2.00	32.833	2.00	45.08	13.00
2.083	2.00	14.333	2.00	126.583	2.00	38.83	4.00	8.417	2.00	20.667	2.00	32.917	2.00	45.17	13.00
2.167	2.00	14.417	2.00	126.667	2.00	38.92	4.00	8.500	2.00	20.750	2.00	33.000	2.00	45.25	13.00
2.250	2.00	14.500	2.00	126.750	2.00	39.00	4.00	8.583	2.00	20.833	2.00	33.083	2.00	45.33	13.00
2.333	2.00	14.583	2.00	126.833	2.00	39.08	6.00	8.667	2.00	20.917	2.00	33.167	2.00	45.42	13.00
2.417	2.00	14.667	2.00	126.917	2.00	39.17	6.00	8.750	2.00	21.000	2.00	33.250	2.00	45.50	13.00
2.500	2.00	14.750	2.00	127.000	2.00	39.25	6.00	8.833	2.00	21.083	2.00	33.333	2.00	45.58	13.00
2.583	2.00	14.833	2.00	127.083	2.00	39.33	6.00	8.917	2.00	21.167	2.00	33.417	2.00	45.67	13.00
2.667	2.00	14.917	2.00	127.167	2.00	39.42	6.00	9.000	2.00	21.250	2.00	33.500	2.00	45.75	13.00
2.750	2.00	15.000	2.00	127.250	2.00	39.50	6.00	9.083	2.00	21.333	2.00	33.583	2.00	45.83	13.00
2.833	2.00	15.083	2.00	127.333	2.00	39.58	6.00	9.167	2.00	21.417	2.00	33.667	2.00	45.92	13.00
2.917	2.00	15.167	2.00	127.417	2.00	39.67	6.00	9.250	2.00	21.500	2.00	33.750	2.00	46.00	13.00
3.000	2.00	15.250	2.00	127.500	2.00	39.75	6.00	9.333	2.00	21.583	2.00	33.833	2.00	46.08	52.94
3.083	2.00	15.333	2.00	127.583	2.00	39.83	6.00	9.417	2.00	21.667	2.00	33.917	2.00	46.17	53.00
3.167	2.00	15.417	2.00	127.667	2.00	39.92	6.00	9.500	2.00	21.750	2.00	34.000	2.00	46.25	53.00
3.250	2.00	15.500	2.00	127.750	2.00	40.00	6.00	9.583	2.00	21.833	2.00	34.083	2.00	46.33	53.00
3.333	2.00	15.583	2.00	127.833	2.00	40.08	13.00	9.667	2.00	21.917	2.00	34.167	2.00	46.42	53.00
3.417	2.00	15.667	2.00	127.917	2.00	40.17	13.00	9.750	2.00	22.000	2.00	34.250	2.00	46.50	53.00
3.500	2.00	15.750	2.00	128.000	2.00	40.25	13.00	9.833	2.00	22.083	2.00	34.333	2.00	46.58	53.00
3.583	2.00	15.833	2.00	128.083	2.00	40.33	13.00	9.917	2.00	22.167	2.00	34.417	2.00	46.67	53.00
3.667	2.00	15.917	2.00	128.167	2.00	40.42	13.00	10.000	2.00	22.250	2.00	34.500	2.00	46.75	53.00
3.750	2.00	16.000	2.00	128.250	2.00	40.50	13.00	10.083	2.00	22.333	2.00	34.583	2.00	46.83	53.00
3.833	2.00	16.083	2.00	128.333	2.00	40.58	13.00	10.167	2.00	22.417	2.00	34.667	2.00	46.92	53.00
3.917	2.00	16.167	2.00	128.417	2.00	40.67	13.00	10.250	2.00	22.500	2.00	34.750	2.00	47.00	53.00
4.000	2.00	16.250	2.00	128.500	2.00	40.75	13.00	10.333	2.00	22.583	2.00	34.833	2.00	47.08	38.02
4.083	2.00	16.333	2.00	128.583	2.00	40.83	13.00	10.417	2.00	22.667	2.00	34.917	2.00	47.17	38.00
4.167	2.00	16.417	2.00	128.667	2.00	40.92	13.00	10.500	2.00	22.750	2.00	35.000	2.00	47.25	38.00
4.250	2.00	16.500	2.00	128.750	2.00	41.00	13.00	10.583	2.00	22.833	2.00	35.083	2.00	47.33	38.00
4.333	2.00	16.583	2.00	128.833	2.00	41.08	17.00	10.667	2.00	22.917	2.00	35.167	2.00	47.42	38.00
4.417	2.00	16.667	2.00	128.917	2.00	41.17	17.00	10.750	2.00	23.000	2.00	35.250	2.00	47.50	38.00
4.500	2.00	16.750	2.00	129.000	2.00	41.25	17.00	10.833	2.00	23.083	2.00	35.333	2.00	47.58	38.00
4.583	2.00	16.833	2.00	129.083	2.00	41.33	17.00	10.917	2.00	23.167	2.00	35.417	2.00	47.67	38.00
4.667	2.00	16.917	2.00	129.167	2.00	41.42	17.00	11.000	2.00	23.250	2.00	35.500	2.00	47.75	38.00
4.750	2.00	17.000	2.00	129.250	2.00	41.50	17.00	11.083	2.00	23.333	2.00	35.583	2.00	47.83	38.00
4.833	2.00	17.083	2.00	129.333	2.00	41.58	17.00	11.167	2.00	23.417	2.00	35.667	2.00	47.92	38.00
4.917	2.00	17.167	2.00	129.417	2.00	41.67	17.00	11.250	2.00	23.500	2.00	35.750	2.00	48.00	38.00
5.000	2.00	17.250	2.00	129.500	2.00	41.75	17.00	11.333	2.00	23.583	2.00	35.833	2.00	48.08	13.04
5.083	2.00	17.333	2.00	129.583	2.00	41.83	17.00	11.417	2.00	23.667	2.00	35.917	2.00	48.17	13.00
5.167	2.00	17.417	2.00	129.667	2.00	41.92	17.00	11.500	2.00	23.750	2.00	36.000	2.00	48.25	13.00
5.250	2.00	17.500	2.00	129.750	2.00	42.00	17.00	11.583	2.00	23.833	2.00	36.083	3.00	48.33	13.00
5.333	2.00	17.583	2.00	129.833	2.00	42.08	13.00	11.667	2.00	23.917	2.00	36.167	3.00	48.42	13.00
5.417	2.00	17.667	2.00	129.917	2.00	42.17	13.00	11.750	2.00	24.000	2.00	36.250	3.00	48.50	13.00
5.500	2.00	17.750	2.00	130.000	2.00	42.25	13.00	11.833	2.00	24.083	2.00	36.333	3.00	48.58	13.00
5.583	2.00	17.833	2.00	130.083	2.00	42.33	13.00	11.917	2.00	24.167	2.00	36.417	3.00	48.67	13.00
5.667	2.00	17.917	2.00	130.167	2.00	42.42	13.00	12.000	2.00	24.250	2.00	36.500	3.00	48.75	13.00
5.750	2.00	18.000	2.00	130.250	2.00	42.50	13.00	12.083	2.00	24.333	2.00	36.583	3.00	48.83	13.00
5.833	2.00	18.083	2.00	130.333	2.00	42.58	13.00	12.167	2.00	24.417	2.00	36.667	3.00	48.92	13.00
5.917	2.00	18.167	2.00	130.417	2.00	42.67	13.00	12.250	2.00	24.500	2.00	36.750	3.00	49.00	13.00
6.000	2.00	18.250	2.00	130.500	2.00	42.75	13.00								
6.083	2.00	18.333	2.00	130.583	2.00	42.83	13.00								
6.167	2.00	18.417	2.00	130.667	2.00	42.92	13.00								
6.250	2.00	18.500	2.00	130.750	2.00	43.00	13.00								
6.333	2.00	18.583	2.00	130.833	2.00	43.08	22.99								
6.417	2.00	18.667	2.00	130.917	2.00	43.17	23.00								
6.500	2.00	18.750	2.00	131.000	2.00	43.25	23.00								
6.583	2.00	18.833	2.00	131.083	2.00	43.33	23.00								
6.667	2.00	18.917	2.00	131.167	2.00	43.42	23.00								
6.750	2.00	19.000	2.00	131.250	2.00	43.50	23.00								
6.833	2.00	19.083	2.00	131.333	2.00	43.58	23.00								
6.917	2.00	19.167	2.00	131.417	2.00	43.67	23.00								

Max.Eff.Inten.(mm/hr)=	53.00	51.72
over (min)	5.00	5.00
Storage Coeff. (min)=	3.20 (ii)	4.65 (ii)
Unit Hyd. Tpeak (min)=	5.00	5.00
Unit Hyd. peak (cms)=	0.27	0.22

TOTALS

PEAK FLOW (cms)=	0.19	0.00	0.194 (iii)
TIME TO PEAK (hrs)=	46.83	47.00	47.00



***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 86.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7662) | Area (ha)= 1.61
 | ID= 1 DT= 5.0 min | Total Imp(%)= 92.00 Dir. Conn.(%)= 92.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.48	0.13
Dep. Storage (mm)=	2.00	5.00
Average Slope (%)=	1.10	2.00
Length (m)=	100.00	145.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----							
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	12.333	2.00	24.583	2.00	36.83	3.00
0.167	0.00	12.417	2.00	24.667	2.00	36.92	3.00
0.250	0.00	12.500	2.00	24.750	2.00	37.00	3.00
0.333	0.00	12.583	2.00	24.833	2.00	37.08	6.00
0.417	0.00	12.667	2.00	24.917	2.00	37.17	6.00
0.500	0.00	12.750	2.00	25.000	2.00	37.25	6.00
0.583	0.00	12.833	2.00	25.083	2.00	37.33	6.00
0.667	0.00	12.917	2.00	25.167	2.00	37.42	6.00
0.750	0.00	13.000	2.00	25.250	2.00	37.50	6.00
0.833	0.00	13.083	2.00	25.333	2.00	37.58	6.00
0.917	0.00	13.167	2.00	25.417	2.00	37.67	6.00
1.000	0.00	13.250	2.00	25.500	2.00	37.75	6.00
1.083	2.00	13.333	2.00	25.583	2.00	37.83	6.00
1.167	2.00	13.417	2.00	25.667	2.00	37.92	6.00
1.250	2.00	13.500	2.00	25.750	2.00	38.00	6.00
1.333	2.00	13.583	2.00	25.833	2.00	38.08	4.00
1.417	2.00	13.667	2.00	25.917	2.00	38.17	4.00
1.500	2.00	13.750	2.00	26.000	2.00	38.25	4.00
1.583	2.00	13.833	2.00	26.083	2.00	38.33	4.00
1.667	2.00	13.917	2.00	26.167	2.00	38.42	4.00
1.750	2.00	14.000	2.00	26.250	2.00	38.50	4.00
1.833	2.00	14.083	2.00	26.333	2.00	38.58	4.00
1.917	2.00	14.167	2.00	26.417	2.00	38.67	4.00
2.000	2.00	14.250	2.00	26.500	2.00	38.75	4.00
2.083	2.00	14.333	2.00	26.583	2.00	38.83	4.00
2.167	2.00	14.417	2.00	26.667	2.00	38.92	4.00
2.250	2.00	14.500	2.00	26.750	2.00	39.00	4.00
2.333	2.00	14.583	2.00	26.833	2.00	39.08	6.00
2.417	2.00	14.667	2.00	26.917	2.00	39.17	6.00
2.500	2.00	14.750	2.00	27.000	2.00	39.25	6.00
2.583	2.00	14.833	2.00	27.083	2.00	39.33	6.00
2.667	2.00	14.917	2.00	27.167	2.00	39.42	6.00
2.750	2.00	15.000	2.00	27.250	2.00	39.50	6.00
2.833	2.00	15.083	2.00	27.333	2.00	39.58	6.00
2.917	2.00	15.167	2.00	27.417	2.00	39.67	6.00
3.000	2.00	15.250	2.00	27.500	2.00	39.75	6.00
3.083	2.00	15.333	2.00	27.583	2.00	39.83	6.00
3.167	2.00	15.417	2.00	27.667	2.00	39.92	6.00
3.250	2.00	15.500	2.00	27.750	2.00	40.00	6.00
3.333	2.00	15.583	2.00	27.833	2.00	40.08	13.00
3.417	2.00	15.667	2.00	27.917	2.00	40.17	13.00
3.500	2.00	15.750	2.00	28.000	2.00	40.25	13.00
3.583	2.00	15.833	2.00	28.083	2.00	40.33	13.00
3.667	2.00	15.917	2.00	28.167	2.00	40.42	13.00
3.750	2.00	16.000	2.00	28.250	2.00	40.50	13.00
3.833	2.00	16.083	2.00	28.333	2.00	40.58	13.00
3.917	2.00	16.167	2.00	28.417	2.00	40.67	13.00
4.000	2.00	16.250	2.00	28.500	2.00	40.75	13.00

4.083	2.00	16.333	2.00	28.583	2.00	40.83	13.00
4.167	2.00	16.417	2.00	28.667	2.00	40.92	13.00
4.250	2.00	16.500	2.00	28.750	2.00	41.00	13.00
4.333	2.00	16.583	2.00	28.833	2.00	41.08	17.00
4.417	2.00	16.667	2.00	28.917	2.00	41.17	17.00
4.500	2.00	16.750	2.00	29.000	2.00	41.25	17.00
4.583	2.00	16.833	2.00	29.083	2.00	41.33	17.00
4.667	2.00	16.917	2.00	29.167	2.00	41.42	17.00
4.750	2.00	17.000	2.00	29.250	2.00	41.50	17.00
4.833	2.00	17.083	2.00	29.333	2.00	41.58	17.00
4.917	2.00	17.167	2.00	29.417	2.00	41.67	17.00
5.000	2.00	17.250	2.00	29.500	2.00	41.75	17.00
5.083	2.00	17.333	2.00	29.583	2.00	41.83	17.00
5.167	2.00	17.417	2.00	29.667	2.00	41.92	17.00
5.250	2.00	17.500	2.00	29.750	2.00	42.00	17.00
5.333	2.00	17.583	2.00	29.833	2.00	42.08	13.00
5.417	2.00	17.667	2.00	29.917	2.00	42.17	13.00
5.500	2.00	17.750	2.00	30.000	2.00	42.25	13.00
5.583	2.00	17.833	2.00	30.083	2.00	42.33	13.00
5.667	2.00	17.917	2.00	30.167	2.00	42.42	13.00
5.750	2.00	18.000	2.00	30.250	2.00	42.50	13.00
5.833	2.00	18.083	2.00	30.333	2.00	42.58	13.00
5.917	2.00	18.167	2.00	30.417	2.00	42.67	13.00
6.000	2.00	18.250	2.00	30.500	2.00	42.75	13.00
6.083	2.00	18.333	2.00	30.583	2.00	42.83	13.00
6.167	2.00	18.417	2.00	30.667	2.00	42.92	13.00
6.250	2.00	18.500	2.00	30.750	2.00	43.00	13.00
6.333	2.00	18.583	2.00	30.833	2.00	43.08	22.99
6.417	2.00	18.667	2.00	30.917	2.00	43.17	23.00
6.500	2.00	18.750	2.00	31.000	2.00	43.25	23.00
6.583	2.00	18.833	2.00	31.083	2.00	43.33	23.00
6.667	2.00	18.917	2.00	31.167	2.00	43.42	23.00
6.750	2.00	19.000	2.00	31.250	2.00	43.50	23.00
6.833	2.00	19.083	2.00	31.333	2.00	43.58	23.00
6.917	2.00	19.167	2.00	31.417	2.00	43.67	23.00
7.000	2.00	19.250	2.00	31.500	2.00	43.75	23.00
7.083	2.00	19.333	2.00	31.583	2.00	43.83	23.00
7.167	2.00	19.417	2.00	31.667	2.00	43.92	23.00
7.250	2.00	19.500	2.00	31.750	2.00	44.00	23.00
7.333	2.00	19.583	2.00	31.833	2.00	44.08	13.01
7.417	2.00	19.667	2.00	31.917	2.00	44.17	13.00
7.500	2.00	19.750	2.00	32.000	2.00	44.25	13.00
7.583	2.00	19.833	2.00	32.083	2.00	44.33	13.00
7.667	2.00	19.917	2.00	32.167	2.00	44.42	13.00
7.750	2.00	20.000	2.00	32.250	2.00	44.50	13.00
7.833	2.00	20.083	2.00	32.333	2.00	44.58	13.00
7.917	2.00	20.167	2.00	32.417	2.00	44.67	13.00
8.000	2.00	20.250	2.00	32.500	2.00	44.75	13.00
8.083	2.00	20.333	2.00	32.583	2.00	44.83	13.00
8.167	2.00	20.417	2.00	32.667	2.00	44.92	13.00
8.250	2.00	20.500	2.00	32.750	2.00	45.00	13.00
8.333	2.00	20.583	2.00	32.833	2.00	45.08	13.00
8.417	2.00	20.667	2.00	32.917	2.00	45.17	13.00
8.500	2.00	20.750	2.00	33.000	2.00	45.25	13.00
8.583	2.00	20.833	2.00	33.083	2.00	45.33	13.00
8.667	2.00	20.917	2.00	33.167	2.00	45.42	13.00
8.750	2.00	21.000	2.00	33.250	2.00	45.50	13.00
8.833	2.00	21.083	2.00	33.333	2.00	45.58	13.00
8.917	2.00	21.167	2.00	33.417	2.00	45.67	13.00
9.000	2.00	21.250	2.00	33.500	2.00	45.75	13.00
9.083	2.00	21.333	2.00	33.583	2.00	45.83	13.00
9.167	2.00	21.417	2.00	33.667	2.00	45.92	13.00
9.250	2.00	21.500	2.00	33.750	2.00	46.00	13.00
9.333	2.00	21.583	2.00	33.833	2.00	46.08	52.94
9.417	2.00	21.667	2.00	33.917	2.00	46.17	53.00
9.500	2.00	21.750	2.00	34.000	2.00	46.25	53.00
9.583	2.00	21.833	2.00	34.083	2.00	46.33	53.00
9.667	2.00	21.917	2.00	34.167	2.00	46.42	53.00
9.750	2.00	22.000	2.00	34.250	2.00	46.50	53.00
9.833	2.00	22.083	2.00	34.333	2.00	46.58	53.00
9.917	2.00	22.167	2.00	34.417	2.00	46.67	53.00
10.000	2.00	22.250	2.00	34.500	2.00	46.75	53.00
10.083	2.00	22.333	2.00	34.583	2.00	46.83	53.00
10.167	2.00	22.417	2.00	34.667	2.00	46.92	53.00
10.250	2.00	22.500	2.00	34.750	2.00	47.00	53.00
10.333	2.00	22.583	2.00	34.833	2.00	47.08	38.02



10.417	2.00	122.667	2.00	134.917	2.00	47.17	38.00
10.500	2.00	122.750	2.00	135.000	2.00	47.25	38.00
10.583	2.00	122.833	2.00	135.083	2.00	47.33	38.00
10.667	2.00	122.917	2.00	135.167	2.00	47.42	38.00
10.750	2.00	123.000	2.00	135.250	2.00	47.50	38.00
10.833	2.00	123.083	2.00	135.333	2.00	47.58	38.00
10.917	2.00	123.167	2.00	135.417	2.00	47.67	38.00
11.000	2.00	123.250	2.00	135.500	2.00	47.75	38.00
11.083	2.00	123.333	2.00	135.583	2.00	47.83	38.00
11.167	2.00	123.417	2.00	135.667	2.00	47.92	38.00
11.250	2.00	123.500	2.00	135.750	2.00	48.00	38.00
11.333	2.00	123.583	2.00	135.833	2.00	48.08	13.04
11.417	2.00	123.667	2.00	135.917	2.00	48.17	13.00
11.500	2.00	123.750	2.00	136.000	2.00	48.25	13.00
11.583	2.00	123.833	2.00	136.083	3.00	48.33	13.00
11.667	2.00	123.917	2.00	136.167	3.00	48.42	13.00
11.750	2.00	124.000	2.00	136.250	3.00	48.50	13.00
11.833	2.00	124.083	2.00	136.333	3.00	48.58	13.00
11.917	2.00	124.167	2.00	136.417	3.00	48.67	13.00
12.000	2.00	124.250	2.00	136.500	3.00	48.75	13.00
12.083	2.00	124.333	2.00	136.583	3.00	48.83	13.00
12.167	2.00	124.417	2.00	136.667	3.00	48.92	13.00
12.250	2.00	124.500	2.00	136.750	3.00	49.00	13.00

Dep. Storage (mm) = 2.00 5.00
 Average Slope (%) = 2.50 2.00
 Length (m) = 60.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	112.333	2.00	124.583	2.00	136.83	3.00
0.167	0.00	112.417	2.00	124.667	2.00	136.92	3.00
0.250	0.00	112.500	2.00	124.750	2.00	137.00	3.00
0.333	0.00	112.583	2.00	124.833	2.00	137.08	6.00
0.417	0.00	112.667	2.00	124.917	2.00	137.17	6.00
0.500	0.00	112.750	2.00	125.000	2.00	137.25	6.00
0.583	0.00	112.833	2.00	125.083	2.00	137.33	6.00
0.667	0.00	112.917	2.00	125.167	2.00	137.42	6.00
0.750	0.00	113.000	2.00	125.250	2.00	137.50	6.00
0.833	0.00	113.083	2.00	125.333	2.00	137.58	6.00
0.917	0.00	113.167	2.00	125.417	2.00	137.67	6.00
1.000	0.00	113.250	2.00	125.500	2.00	137.75	6.00
1.083	2.00	113.333	2.00	125.583	2.00	137.83	6.00
1.167	2.00	113.417	2.00	125.667	2.00	137.92	6.00
1.250	2.00	113.500	2.00	125.750	2.00	138.00	6.00
1.333	2.00	113.583	2.00	125.833	2.00	138.08	4.00
1.417	2.00	113.667	2.00	125.917	2.00	138.17	4.00
1.500	2.00	113.750	2.00	126.000	2.00	138.25	4.00
1.583	2.00	113.833	2.00	126.083	2.00	138.33	4.00
1.667	2.00	113.917	2.00	126.167	2.00	138.42	4.00
1.750	2.00	114.000	2.00	126.250	2.00	138.50	4.00
1.833	2.00	114.083	2.00	126.333	2.00	138.58	4.00
1.917	2.00	114.167	2.00	126.417	2.00	138.67	4.00
2.000	2.00	114.250	2.00	126.500	2.00	138.75	4.00
2.083	2.00	114.333	2.00	126.583	2.00	138.83	4.00
2.167	2.00	114.417	2.00	126.667	2.00	138.92	4.00
2.250	2.00	114.500	2.00	126.750	2.00	139.00	4.00
2.333	2.00	114.583	2.00	126.833	2.00	139.08	6.00
2.417	2.00	114.667	2.00	126.917	2.00	139.17	6.00
2.500	2.00	114.750	2.00	127.000	2.00	139.25	6.00
2.583	2.00	114.833	2.00	127.083	2.00	139.33	6.00
2.667	2.00	114.917	2.00	127.167	2.00	139.42	6.00
2.750	2.00	115.000	2.00	127.250	2.00	139.50	6.00
2.833	2.00	115.083	2.00	127.333	2.00	139.58	6.00
2.917	2.00	115.167	2.00	127.417	2.00	139.67	6.00
3.000	2.00	115.250	2.00	127.500	2.00	139.75	6.00
3.083	2.00	115.333	2.00	127.583	2.00	139.83	6.00
3.167	2.00	115.417	2.00	127.667	2.00	139.92	6.00
3.250	2.00	115.500	2.00	127.750	2.00	140.00	6.00
3.333	2.00	115.583	2.00	127.833	2.00	140.08	13.00
3.417	2.00	115.667	2.00	127.917	2.00	140.17	13.00
3.500	2.00	115.750	2.00	128.000	2.00	140.25	13.00
3.583	2.00	115.833	2.00	128.083	2.00	140.33	13.00
3.667	2.00	115.917	2.00	128.167	2.00	140.42	13.00
3.750	2.00	116.000	2.00	128.250	2.00	140.50	13.00
3.833	2.00	116.083	2.00	128.333	2.00	140.58	13.00
3.917	2.00	116.167	2.00	128.417	2.00	140.67	13.00
4.000	2.00	116.250	2.00	128.500	2.00	140.75	13.00
4.083	2.00	116.333	2.00	128.583	2.00	140.83	13.00
4.167	2.00	116.417	2.00	128.667	2.00	140.92	13.00
4.250	2.00	116.500	2.00	128.750	2.00	141.00	13.00
4.333	2.00	116.583	2.00	128.833	2.00	141.08	17.00
4.417	2.00	116.667	2.00	128.917	2.00	141.17	17.00
4.500	2.00	116.750	2.00	129.000	2.00	141.25	17.00
4.583	2.00	116.833	2.00	129.083	2.00	141.33	17.00
4.667	2.00	116.917	2.00	129.167	2.00	141.42	17.00
4.750	2.00	117.000	2.00	129.250	2.00	141.50	17.00
4.833	2.00	117.083	2.00	129.333	2.00	141.58	17.00
4.917	2.00	117.167	2.00	129.417	2.00	141.67	17.00
5.000	2.00	117.250	2.00	129.500	2.00	141.75	17.00
5.083	2.00	117.333	2.00	129.583	2.00	141.83	17.00
5.167	2.00	117.417	2.00	129.667	2.00	141.92	17.00
5.250	2.00	117.500	2.00	129.750	2.00	142.00	17.00
5.333	2.00	117.583	2.00	129.833	2.00	142.08	13.00
5.417	2.00	117.667	2.00	129.917	2.00	142.17	13.00

Max.Eff.Inten.(mm/hr)= 53.00 51.67
 over (min) 5.00 25.00
 Storage Coeff. (min)= 3.20 (ii) 23.10 (ii)
 Unit Hyd. Tpeak (min)= 5.00 25.00
 Unit Hyd. peak (cms)= 0.27 0.05
 TOTALS
 PEAK FLOW (cms)= 0.22 0.02 0.235 (iii)
 TIME TO PEAK (hrs)= 46.83 47.08 47.00
 RUNOFF VOLUME (mm)= 283.00 243.97 279.87
 TOTAL RAINFALL (mm)= 285.00 285.00 285.00
 RUNOFF COEFFICIENT = 0.99 0.86 0.98

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 86.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7701)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7654):	1.69	0.249	47.00	282.61
+ ID2= 2 (7655):	1.32	0.194	47.00	282.61

ID = 3 (7701):	3.01	0.443	47.00	282.61

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7701)	AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7701):	3.01	0.443	47.00	282.61
+ ID2= 2 (7662):	1.61	0.235	47.00	279.87

ID = 1 (7701):	4.62	0.678	47.00	281.65

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB	Area	(ha)=	1.20
STANDHYD (7623)	Total Imp(%)=	95.00	Dir. Conn.(%)= 95.00

Surface Area	(ha)=	1.14	0.06
	IMPERVIOUS		PERVIOUS (i)



5.500	2.00	17.750	2.00	30.000	2.00	42.25	13.00	11.833	2.00	24.083	2.00	36.333	3.00	48.58	13.00
5.583	2.00	17.833	2.00	30.083	2.00	42.33	13.00	11.917	2.00	24.167	2.00	36.417	3.00	48.67	13.00
5.667	2.00	17.917	2.00	30.167	2.00	42.42	13.00	12.000	2.00	24.250	2.00	36.500	3.00	48.75	13.00
5.750	2.00	18.000	2.00	30.250	2.00	42.50	13.00	12.083	2.00	24.333	2.00	36.583	3.00	48.83	13.00
5.833	2.00	18.083	2.00	30.333	2.00	42.58	13.00	12.167	2.00	24.417	2.00	36.667	3.00	48.92	13.00
5.917	2.00	18.167	2.00	30.417	2.00	42.67	13.00	12.250	2.00	24.500	2.00	36.750	3.00	49.00	13.00
6.000	2.00	18.250	2.00	30.500	2.00	42.75	13.00								
6.083	2.00	18.333	2.00	30.583	2.00	42.83	13.00								
6.167	2.00	18.417	2.00	30.667	2.00	42.92	13.00								
6.250	2.00	18.500	2.00	30.750	2.00	43.00	13.00								
6.333	2.00	18.583	2.00	30.833	2.00	43.08	22.99								
6.417	2.00	18.667	2.00	30.917	2.00	43.17	23.00								
6.500	2.00	18.750	2.00	31.000	2.00	43.25	23.00								
6.583	2.00	18.833	2.00	31.083	2.00	43.33	23.00								
6.667	2.00	18.917	2.00	31.167	2.00	43.42	23.00								
6.750	2.00	19.000	2.00	31.250	2.00	43.50	23.00								
6.833	2.00	19.083	2.00	31.333	2.00	43.58	23.00								
6.917	2.00	19.167	2.00	31.417	2.00	43.67	23.00								
7.000	2.00	19.250	2.00	31.500	2.00	43.75	23.00								
7.083	2.00	19.333	2.00	31.583	2.00	43.83	23.00								
7.167	2.00	19.417	2.00	31.667	2.00	43.92	23.00								
7.250	2.00	19.500	2.00	31.750	2.00	44.00	23.00								
7.333	2.00	19.583	2.00	31.833	2.00	44.08	13.01								
7.417	2.00	19.667	2.00	31.917	2.00	44.17	13.00								
7.500	2.00	19.750	2.00	32.000	2.00	44.25	13.00								
7.583	2.00	19.833	2.00	32.083	2.00	44.33	13.00								
7.667	2.00	19.917	2.00	32.167	2.00	44.42	13.00								
7.750	2.00	20.000	2.00	32.250	2.00	44.50	13.00								
7.833	2.00	20.083	2.00	32.333	2.00	44.58	13.00								
7.917	2.00	20.167	2.00	32.417	2.00	44.67	13.00								
8.000	2.00	20.250	2.00	32.500	2.00	44.75	13.00								
8.083	2.00	20.333	2.00	32.583	2.00	44.83	13.00								
8.167	2.00	20.417	2.00	32.667	2.00	44.92	13.00								
8.250	2.00	20.500	2.00	32.750	2.00	45.00	13.00								
8.333	2.00	20.583	2.00	32.833	2.00	45.08	13.00								
8.417	2.00	20.667	2.00	32.917	2.00	45.17	13.00								
8.500	2.00	20.750	2.00	33.000	2.00	45.25	13.00								
8.583	2.00	20.833	2.00	33.083	2.00	45.33	13.00								
8.667	2.00	20.917	2.00	33.167	2.00	45.42	13.00								
8.750	2.00	21.000	2.00	33.250	2.00	45.50	13.00								
8.833	2.00	21.083	2.00	33.333	2.00	45.58	13.00								
8.917	2.00	21.167	2.00	33.417	2.00	45.67	13.00								
9.000	2.00	21.250	2.00	33.500	2.00	45.75	13.00								
9.083	2.00	21.333	2.00	33.583	2.00	45.83	13.00								
9.167	2.00	21.417	2.00	33.667	2.00	45.92	13.00								
9.250	2.00	21.500	2.00	33.750	2.00	46.00	13.00								
9.333	2.00	21.583	2.00	33.833	2.00	46.08	52.94								
9.417	2.00	21.667	2.00	33.917	2.00	46.17	53.00								
9.500	2.00	21.750	2.00	34.000	2.00	46.25	53.00								
9.583	2.00	21.833	2.00	34.083	2.00	46.33	53.00								
9.667	2.00	21.917	2.00	34.167	2.00	46.42	53.00								
9.750	2.00	22.000	2.00	34.250	2.00	46.50	53.00								
9.833	2.00	22.083	2.00	34.333	2.00	46.58	53.00								
9.917	2.00	22.167	2.00	34.417	2.00	46.67	53.00								
10.000	2.00	22.250	2.00	34.500	2.00	46.75	53.00								
10.083	2.00	22.333	2.00	34.583	2.00	46.83	53.00								
10.167	2.00	22.417	2.00	34.667	2.00	46.92	53.00								
10.250	2.00	22.500	2.00	34.750	2.00	47.00	53.00								
10.333	2.00	22.583	2.00	34.833	2.00	47.08	38.02								
10.417	2.00	22.667	2.00	34.917	2.00	47.17	38.00								
10.500	2.00	22.750	2.00	35.000	2.00	47.25	38.00								
10.583	2.00	22.833	2.00	35.083	2.00	47.33	38.00								
10.667	2.00	22.917	2.00	35.167	2.00	47.42	38.00								
10.750	2.00	23.000	2.00	35.250	2.00	47.50	38.00								
10.833	2.00	23.083	2.00	35.333	2.00	47.58	38.00								
10.917	2.00	23.167	2.00	35.417	2.00	47.67	38.00								
11.000	2.00	23.250	2.00	35.500	2.00	47.75	38.00								
11.083	2.00	23.333	2.00	35.583	2.00	47.83	38.00								
11.167	2.00	23.417	2.00	35.667	2.00	47.92	38.00								
11.250	2.00	23.500	2.00	35.750	2.00	48.00	38.00								
11.333	2.00	23.583	2.00	35.833	2.00	48.08	13.04								
11.417	2.00	23.667	2.00	35.917	2.00	48.17	13.00								
11.500	2.00	23.750	2.00	36.000	2.00	48.25	13.00								
11.583	2.00	23.833	2.00	36.083	3.00	48.33	13.00								
11.667	2.00	23.917	2.00	36.167	3.00	48.42	13.00								
11.750	2.00	24.000	2.00	36.250	3.00	48.50	13.00								

Max.Eff.Inten. (mm/hr)= 53.00 51.89
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 1.84 (ii) 4.64 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.32 0.22

TOTALS
 PEAK FLOW (cms)= 0.17 0.01 0.176 (iii)
 TIME TO PEAK (hrs)= 46.58 47.00 47.00
 RUNOFF VOLUME (mm)= 283.00 246.58 281.18
 TOTAL RAINFALL (mm)= 285.00 285.00 285.00
 RUNOFF COEFFICIENT = 0.99 0.87 0.99

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 87.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CALIB |
 | STANDHYD (7707) | Area (ha)= 1.06
 |ID= 1 DT= 5.0 min | Total Imp(%)= 95.00 Dir. Conn.(%)= 95.00

IMPERVIOUS PERVIOUS (i)
 Surface Area (ha)= 1.01 0.05
 Dep. Storage (mm)= 2.00 5.00
 Average Slope (%)= 2.50 2.00
 Length (m)= 60.00 40.00
 Mannings n = 0.013 0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	12.333	2.00	24.583	2.00	36.83	3.00
0.167	0.00	12.417	2.00	24.667	2.00	36.92	3.00
0.250	0.00	12.500	2.00	24.750	2.00	37.00	3.00
0.333	0.00	12.583	2.00	24.833	2.00	37.08	6.00
0.417	0.00	12.667	2.00	24.917	2.00	37.17	6.00
0.500	0.00	12.750	2.00	25.000	2.00	37.25	6.00
0.583	0.00	12.833	2.00	25.083	2.00	37.33	6.00
0.667	0.00	12.917	2.00	25.167	2.00	37.42	6.00
0.750	0.00	13.000	2.00	25.250	2.00	37.50	6.00
0.833	0.00	13.083	2.00	25.333	2.00	37.58	6.00
0.917	0.00	13.167	2.00	25.417	2.00	37.67	6.00
1.000	0.00	13.250	2.00	25.500	2.00	37.75	6.00
1.083	2.00	13.333	2.00	25.583	2.00	37.83	6.00
1.167	2.00	13.417	2.00	25.667	2.00	37.92	6.00
1.250	2.00	13.500	2.00	25.750	2.00	38.00	6.00
1.333	2.00	13.583	2.00	25.833	2.00	38.08	4.00
1.417	2.00	13.667	2.00	25.917	2.00	38.17	4.00
1.500	2.00	13.750	2.00	26.000	2.00	38.25	4.00
1.583	2.00	13.833	2.00	26.083	2.00	38.33	4.00
1.667	2.00	13.917	2.00	26.167	2.00	38.42	4.00
1.750	2.00	14.000	2.00	26.250	2.00	38.50	4.00
1.833	2.00	14.083	2.00	26.333	2.00	38.58	4.00
1.917	2.00	14.167	2.00	26.417	2.00	38.67	4.00
2.000	2.00	14.250	2.00	26.500	2.00	38.75	4.00
2.083	2.00	14.333	2.00	26.583	2.00	38.83	4.00
2.167	2.00	14.417	2.00	26.667	2.00	38.92	4



2.583	2.00	14.833	2.00	27.083	2.00	39.33	6.00	8.917	2.00	21.167	2.00	33.417	2.00	45.67	13.00
2.667	2.00	14.917	2.00	27.167	2.00	39.42	6.00	9.000	2.00	21.250	2.00	33.500	2.00	45.75	13.00
2.750	2.00	15.000	2.00	27.250	2.00	39.50	6.00	9.083	2.00	21.333	2.00	33.583	2.00	45.83	13.00
2.833	2.00	15.083	2.00	27.333	2.00	39.58	6.00	9.167	2.00	21.417	2.00	33.667	2.00	45.92	13.00
2.917	2.00	15.167	2.00	27.417	2.00	39.67	6.00	9.250	2.00	21.500	2.00	33.750	2.00	46.00	13.00
3.000	2.00	15.250	2.00	27.500	2.00	39.75	6.00	9.333	2.00	21.583	2.00	33.833	2.00	46.08	52.94
3.083	2.00	15.333	2.00	27.583	2.00	39.83	6.00	9.417	2.00	21.667	2.00	33.917	2.00	46.17	53.00
3.167	2.00	15.417	2.00	27.667	2.00	39.92	6.00	9.500	2.00	21.750	2.00	34.000	2.00	46.25	53.00
3.250	2.00	15.500	2.00	27.750	2.00	40.00	6.00	9.583	2.00	21.833	2.00	34.083	2.00	46.33	53.00
3.333	2.00	15.583	2.00	27.833	2.00	40.08	13.00	9.667	2.00	21.917	2.00	34.167	2.00	46.42	53.00
3.417	2.00	15.667	2.00	27.917	2.00	40.17	13.00	9.750	2.00	22.000	2.00	34.250	2.00	46.50	53.00
3.500	2.00	15.750	2.00	28.000	2.00	40.25	13.00	9.833	2.00	22.083	2.00	34.333	2.00	46.58	53.00
3.583	2.00	15.833	2.00	28.083	2.00	40.33	13.00	9.917	2.00	22.167	2.00	34.417	2.00	46.67	53.00
3.667	2.00	15.917	2.00	28.167	2.00	40.42	13.00	10.000	2.00	22.250	2.00	34.500	2.00	46.75	53.00
3.750	2.00	16.000	2.00	28.250	2.00	40.50	13.00	10.083	2.00	22.333	2.00	34.583	2.00	46.83	53.00
3.833	2.00	16.083	2.00	28.333	2.00	40.58	13.00	10.167	2.00	22.417	2.00	34.667	2.00	46.92	53.00
3.917	2.00	16.167	2.00	28.417	2.00	40.67	13.00	10.250	2.00	22.500	2.00	34.750	2.00	47.00	53.00
4.000	2.00	16.250	2.00	28.500	2.00	40.75	13.00	10.333	2.00	22.583	2.00	34.833	2.00	47.08	38.02
4.083	2.00	16.333	2.00	28.583	2.00	40.83	13.00	10.417	2.00	22.667	2.00	34.917	2.00	47.17	38.00
4.167	2.00	16.417	2.00	28.667	2.00	40.92	13.00	10.500	2.00	22.750	2.00	35.000	2.00	47.25	38.00
4.250	2.00	16.500	2.00	28.750	2.00	41.00	13.00	10.583	2.00	22.833	2.00	35.083	2.00	47.33	38.00
4.333	2.00	16.583	2.00	28.833	2.00	41.08	17.00	10.667	2.00	22.917	2.00	35.167	2.00	47.42	38.00
4.417	2.00	16.667	2.00	28.917	2.00	41.17	17.00	10.750	2.00	23.000	2.00	35.250	2.00	47.50	38.00
4.500	2.00	16.750	2.00	29.000	2.00	41.25	17.00	10.833	2.00	23.083	2.00	35.333	2.00	47.58	38.00
4.583	2.00	16.833	2.00	29.083	2.00	41.33	17.00	10.917	2.00	23.167	2.00	35.417	2.00	47.67	38.00
4.667	2.00	16.917	2.00	29.167	2.00	41.42	17.00	11.000	2.00	23.250	2.00	35.500	2.00	47.75	38.00
4.750	2.00	17.000	2.00	29.250	2.00	41.50	17.00	11.083	2.00	23.333	2.00	35.583	2.00	47.83	38.00
4.833	2.00	17.083	2.00	29.333	2.00	41.58	17.00	11.167	2.00	23.417	2.00	35.667	2.00	47.92	38.00
4.917	2.00	17.167	2.00	29.417	2.00	41.67	17.00	11.250	2.00	23.500	2.00	35.750	2.00	48.00	38.00
5.000	2.00	17.250	2.00	29.500	2.00	41.75	17.00	11.333	2.00	23.583	2.00	35.833	2.00	48.08	13.04
5.083	2.00	17.333	2.00	29.583	2.00	41.83	17.00	11.417	2.00	23.667	2.00	35.917	2.00	48.17	13.00
5.167	2.00	17.417	2.00	29.667	2.00	41.92	17.00	11.500	2.00	23.750	2.00	36.000	2.00	48.25	13.00
5.250	2.00	17.500	2.00	29.750	2.00	42.00	17.00	11.583	2.00	23.833	2.00	36.083	3.00	48.33	13.00
5.333	2.00	17.583	2.00	29.833	2.00	42.08	13.00	11.667	2.00	23.917	2.00	36.167	3.00	48.42	13.00
5.417	2.00	17.667	2.00	29.917	2.00	42.17	13.00	11.750	2.00	24.000	2.00	36.250	3.00	48.50	13.00
5.500	2.00	17.750	2.00	30.000	2.00	42.25	13.00	11.833	2.00	24.083	2.00	36.333	3.00	48.58	13.00
5.583	2.00	17.833	2.00	30.083	2.00	42.33	13.00	11.917	2.00	24.167	2.00	36.417	3.00	48.67	13.00
5.667	2.00	17.917	2.00	30.167	2.00	42.42	13.00	12.000	2.00	24.250	2.00	36.500	3.00	48.75	13.00
5.750	2.00	18.000	2.00	30.250	2.00	42.50	13.00	12.083	2.00	24.333	2.00	36.583	3.00	48.83	13.00
5.833	2.00	18.083	2.00	30.333	2.00	42.58	13.00	12.167	2.00	24.417	2.00	36.667	3.00	48.92	13.00
5.917	2.00	18.167	2.00	30.417	2.00	42.67	13.00	12.250	2.00	24.500	2.00	36.750	3.00	49.00	13.00
6.000	2.00	18.250	2.00	30.500	2.00	42.75	13.00								
6.083	2.00	18.333	2.00	30.583	2.00	42.83	13.00								
6.167	2.00	18.417	2.00	30.667	2.00	42.92	13.00								
6.250	2.00	18.500	2.00	30.750	2.00	43.00	13.00								
6.333	2.00	18.583	2.00	30.833	2.00	43.08	22.99								
6.417	2.00	18.667	2.00	30.917	2.00	43.17	23.00								
6.500	2.00	18.750	2.00	31.000	2.00	43.25	23.00								
6.583	2.00	18.833	2.00	31.083	2.00	43.33	23.00								
6.667	2.00	18.917	2.00	31.167	2.00	43.42	23.00								
6.750	2.00	19.000	2.00	31.250	2.00	43.50	23.00								
6.833	2.00	19.083	2.00	31.333	2.00	43.58	23.00								
6.917	2.00	19.167	2.00	31.417	2.00	43.67	23.00								
7.000	2.00	19.250	2.00	31.500	2.00	43.75	23.00								
7.083	2.00	19.333	2.00	31.583	2.00	43.83	23.00								
7.167	2.00	19.417	2.00	31.667	2.00	43.92	23.00								
7.250	2.00	19.500	2.00	31.750	2.00	44.00	23.00								
7.333	2.00	19.583	2.00	31.833	2.00	44.08	13.01								
7.417	2.00	19.667	2.00	31.917	2.00	44.17	13.00								
7.500	2.00	19.750	2.00	32.000	2.00	44.25	13.00								
7.583	2.00	19.833	2.00	32.083	2.00	44.33	13.00								
7.667	2.00	19.917	2.00	32.167	2.00	44.42	13.00								
7.750	2.00	20.000	2.00	32.250	2.00	44.50	13.00								
7.833	2.00	20.083	2.00	32.333	2.00	44.58	13.00								
7.917	2.00	20.167	2.00	32.417	2.00	44.67	13.00								
8.000	2.00	20.250	2.00	32.500	2.00	44.75	13.00								
8.083	2.00	20.333	2.00	32.583	2.00	44.83	13.00								
8.167	2.00	20.417	2.00	32.667	2.00	44.92	13.00								
8.250	2.00	20.500	2.00	32.750	2.00	45.00	13.00								
8.333	2.00	20.583	2.00	32.833	2.00	45.08	13.00								
8.417	2.00	20.667	2.00	32.917	2.00	45.17	13.00								
8.500	2.00	20.750	2.00	33.000	2.00	45.25	13.00								
8.583	2.00	20.833	2.00	33.083	2.00	45.33	13.00								
8.667	2.00	20.917	2.00	33.167	2.00	45.42	13.00								
8.750	2.00	21.000	2.00	33.250	2.00	45.50	13.00								
8.833	2.00	21.083	2.00	33.333	2.00	45.58	13.00								

Max.Eff.Inten. (mm/hr)=	53.00	51.89	
over (min)	5.00	5.00	
Storage Coeff. (min)=	1.84 (ii)	4.64 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.32	0.22	
			TOTALS
PEAK FLOW (cms)=	0.15	0.01	0.156 (iii)
TIME TO PEAK (hrs)=	46.58	47.00	47.00
RUNOFF VOLUME (mm)=	283.00	246.58	281.18
TOTAL RAINFALL (mm)=	285.00	285.00	285.00
RUNOFF COEFFICIENT =	0.99	0.87	0.99

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 87.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7702)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7623):	1.20	0.176	47.00	281.18
+ ID2= 2 (7700):	4.48	0.658	47.00	282.11
=====				
ID = 3 (7702):	5.68	0.835	47.00	281.91

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)	AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7702):	5.68	0.835	47.00	281.91
+ ID2= 2 (7701):	4.62	0.678	47.00	281.65

ID = 1 (7702):	10.30	1.513	47.00	281.80

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)	AREA	QPEAK	TPEAK	R.V.
1 + 2 = 3	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7702):	10.30	1.513	47.00	281.80
+ ID2= 2 (7707):	1.06	0.156	47.00	281.18

ID = 3 (7702):	11.36	1.668	47.00	281.74

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

ADD HYD (7702)	AREA	QPEAK	TPEAK	R.V.
3 + 2 = 1	(ha)	(cms)	(hrs)	(mm)
ID1= 3 (7702):	11.36	1.668	47.00	281.74
+ ID2= 2 (7714):	14.31	2.106	47.00	284.33

ID = 1 (7702):	25.67	3.775	47.00	283.18

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7705)	OVERFLOW IS OFF			
IN= 2--> OUT= 1	OUTFLOW	STORAGE	OUTFLOW	STORAGE
DT= 5.0 min	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.6280	2.3980
	0.0730	0.2080	0.6400	2.4830
	0.0890	0.2770	0.6520	2.5670
	0.1340	0.5530	0.6640	2.6500
	0.2910	0.8290	0.6750	2.7340
	0.3860	1.1060	0.7190	3.0490
	0.4590	1.3820	0.8250	3.3550
	0.5220	1.7210	2.0760	3.4560
	0.5780	2.0600	2.3560	3.7320
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7702)	25.670	3.775	47.00	283.18
OUTFLOW: ID= 1 (7705)	25.670	2.114	48.00	283.15

PEAK FLOW REDUCTION [Qout/Qin] (%) = 56.01
 TIME SHIFT OF PEAK FLOW (min) = 60.00
 MAXIMUM STORAGE USED (ha.m.) = 3.5027

CALIB	Area	(ha)	=	0.20
STANDHYD (7717)	Total Imp (%) =	95.00	Dir. Conn. (%) =	95.00
ID= 1 DT= 5.0 min				
	IMPERVIOUS	PERVIOUS (i)		
Surface Area	(ha) =	0.19	0.01	
Dep. Storage	(mm) =	2.00	5.00	
Average Slope	(%) =	2.50	2.00	
Length	(m) =	36.51	40.00	
Mannings n	=	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	12.333	2.00	24.583	2.00	36.83	3.00
0.167	0.00	12.417	2.00	24.667	2.00	36.92	3.00
0.250	0.00	12.500	2.00	24.750	2.00	37.00	3.00
0.333	0.00	12.583	2.00	24.833	2.00	37.08	6.00
0.417	0.00	12.667	2.00	24.917	2.00	37.17	6.00
0.500	0.00	12.750	2.00	25.000	2.00	37.25	6.00
0.583	0.00	12.833	2.00	25.083	2.00	37.33	6.00
0.667	0.00	12.917	2.00	25.167	2.00	37.42	6.00
0.750	0.00	13.000	2.00	25.250	2.00	37.50	6.00
0.833	0.00	13.083	2.00	25.333	2.00	37.58	6.00
0.917	0.00	13.167	2.00	25.417	2.00	37.67	6.00
1.000	0.00	13.250	2.00	25.500	2.00	37.75	6.00
1.083	2.00	13.333	2.00	25.583	2.00	37.83	6.00
1.167	2.00	13.417	2.00	25.667	2.00	37.92	6.00
1.250	2.00	13.500	2.00	25.750	2.00	38.00	6.00
1.333	2.00	13.583	2.00	25.833	2.00	38.08	4.00
1.417	2.00	13.667	2.00	25.917	2.00	38.17	4.00
1.500	2.00	13.750	2.00	26.000	2.00	38.25	4.00
1.583	2.00	13.833	2.00	26.083	2.00	38.33	4.00
1.667	2.00	13.917	2.00	26.167	2.00	38.42	4.00
1.750	2.00	14.000	2.00	26.250	2.00	38.50	4.00
1.833	2.00	14.083	2.00	26.333	2.00	38.58	4.00
1.917	2.00	14.167	2.00	26.417	2.00	38.67	4.00
2.000	2.00	14.250	2.00	26.500	2.00	38.75	4.00
2.083	2.00	14.333	2.00	26.583	2.00	38.83	4.00
2.167	2.00	14.417	2.00	26.667	2.00	38.92	4.00
2.250	2.00	14.500	2.00	26.750	2.00	39.00	4.00
2.333	2.00	14.583	2.00	26.833	2.00	39.08	6.00
2.417	2.00	14.667	2.00	26.917	2.00	39.17	6.00
2.500	2.00	14.750	2.00	27.000	2.00	39.25	6.00
2.583	2.00	14.833	2.00	27.083	2.00	39.33	6.00
2.667	2.00	14.917	2.00	27.167	2.00	39.42	6.00
2.750	2.00	15.000	2.00	27.250	2.00	39.50	6.00
2.833	2.00	15.083	2.00	27.333	2.00	39.58	6.00
2.917	2.00	15.167	2.00	27.417	2.00	39.67	6.00
3.000	2.00	15.250	2.00	27.500	2.00	39.75	6.00
3.083	2.00	15.333	2.00	27.583	2.00	39.83	6.00
3.167	2.00	15.417	2.00	27.667	2.00	39.92	6.00
3.250	2.00	15.500	2.00	27.750	2.00	40.00	6.00
3.333	2.00	15.583	2.00	27.833	2.00	40.08	13.00
3.417	2.00	15.667	2.00	27.917	2.00	40.17	13.00
3.500	2.00	15.750	2.00	28.000	2.00	40.25	13.00
3.583	2.00	15.833	2.00	28.083	2.00	40.33	13.00
3.667	2.00	15.917	2.00	28.167	2.00	40.42	13.00
3.750	2.00	16.000	2.00	28.250	2.00	40.50	13.00
3.833	2.00	16.083	2.00	28.333	2.00	40.58	13.00
3.917	2.00	16.167	2.00	28.417	2.00	40.67	13.00
4.000	2.00	16.250	2.00	28.500	2.00	40.75	13.00
4.083	2.00	16.333	2.00	28.583	2.00	40.83	13.00
4.167	2.00	16.417	2.00	28.667	2.00	40.92	13.00
4.250	2.00	16.500	2.00	28.750	2.00	41.00	13.00
4.333	2.00	16.583	2.00	28.833	2.00	41.08	17.00
4.417	2.00	16.667	2.00	28.917	2.00	41.17	17.00
4.500	2.00	16.750	2.00	29.000	2.00	41.25	17.00
4.583	2.00	16.833	2.00	29.083	2.00	41.33	17.00
4.667	2.00	16.917	2.00	29.167	2.00	41.42	17.00
4.750	2.00	17.000	2.00	29.250	2.00	41.50	17.00
4.833	2.00	17.083	2.00	29.333	2.00	41.58	17.00
4.917	2.00	17.167	2.00	29.417	2.00	41.67	17.00
5.000	2.00	17.250	2.00	29.500	2.00	41.75	17.00
5.083	2.00	17.333	2.00	29.583	2.00	41.83	17.00
5.167	2.00	17.417	2.00	29.667	2.00	41.92	17.00
5.250	2.00	17.500	2.00	29.750	2.00	42.00	17.00
5.333	2.00	17.583	2.00	29.833	2.00	42.08	13.00
5.417	2.00	17.667	2.00	29.917	2.00	42.17	13.00
5.500	2.00	17.750	2.00	30.000	2.00	42.25	13.00
5.583	2.00	17.833	2.00	30.083	2.00	42.33	13.00
5.667	2.00	17.917	2.00	30.167	2.00	42.42	13.00
5.750	2.00	18.000	2.00	30.250	2.00	42.50	13.00
5.833	2.00	18.083	2.00	30.333	2.00	42.58	13.00
5.917	2.00	18.167	2.00	30.417	2.00	42.67	13.00
6.000	2.00	18.250	2.00	30.500	2.00	42.75	13.00
6.083	2.00	18.333	2.00	30.583	2.00	42.83	13.00
6.167	2.00	18.417	2.00	30.667	2.00	42.92	13.00



1.417	2.00	113.667	2.00	125.917	2.00	138.17	4.00	7.750	2.00	120.000	2.00	132.250	2.00	144.50	13.00
1.500	2.00	113.750	2.00	126.000	2.00	138.25	4.00	7.833	2.00	120.083	2.00	132.333	2.00	144.58	13.00
1.583	2.00	113.833	2.00	126.083	2.00	138.33	4.00	7.917	2.00	120.167	2.00	132.417	2.00	144.67	13.00
1.667	2.00	113.917	2.00	126.167	2.00	138.42	4.00	8.000	2.00	120.250	2.00	132.500	2.00	144.75	13.00
1.750	2.00	114.000	2.00	126.250	2.00	138.50	4.00	8.083	2.00	120.333	2.00	132.583	2.00	144.83	13.00
1.833	2.00	114.083	2.00	126.333	2.00	138.58	4.00	8.167	2.00	120.417	2.00	132.667	2.00	144.92	13.00
1.917	2.00	114.167	2.00	126.417	2.00	138.67	4.00	8.250	2.00	120.500	2.00	132.750	2.00	145.00	13.00
2.000	2.00	114.250	2.00	126.500	2.00	138.75	4.00	8.333	2.00	120.583	2.00	132.833	2.00	145.08	13.00
2.083	2.00	114.333	2.00	126.583	2.00	138.83	4.00	8.417	2.00	120.667	2.00	132.917	2.00	145.17	13.00
2.167	2.00	114.417	2.00	126.667	2.00	138.92	4.00	8.500	2.00	120.750	2.00	133.000	2.00	145.25	13.00
2.250	2.00	114.500	2.00	126.750	2.00	139.00	4.00	8.583	2.00	120.833	2.00	133.083	2.00	145.33	13.00
2.333	2.00	114.583	2.00	126.833	2.00	139.08	6.00	8.667	2.00	120.917	2.00	133.167	2.00	145.42	13.00
2.417	2.00	114.667	2.00	126.917	2.00	139.17	6.00	8.750	2.00	121.000	2.00	133.250	2.00	145.50	13.00
2.500	2.00	114.750	2.00	127.000	2.00	139.25	6.00	8.833	2.00	121.083	2.00	133.333	2.00	145.58	13.00
2.583	2.00	114.833	2.00	127.083	2.00	139.33	6.00	8.917	2.00	121.167	2.00	133.417	2.00	145.67	13.00
2.667	2.00	114.917	2.00	127.167	2.00	139.42	6.00	9.000	2.00	121.250	2.00	133.500	2.00	145.75	13.00
2.750	2.00	115.000	2.00	127.250	2.00	139.50	6.00	9.083	2.00	121.333	2.00	133.583	2.00	145.83	13.00
2.833	2.00	115.083	2.00	127.333	2.00	139.58	6.00	9.167	2.00	121.417	2.00	133.667	2.00	145.92	13.00
2.917	2.00	115.167	2.00	127.417	2.00	139.67	6.00	9.250	2.00	121.500	2.00	133.750	2.00	146.00	13.00
3.000	2.00	115.250	2.00	127.500	2.00	139.75	6.00	9.333	2.00	121.583	2.00	133.833	2.00	146.08	52.94
3.083	2.00	115.333	2.00	127.583	2.00	139.83	6.00	9.417	2.00	121.667	2.00	133.917	2.00	146.17	53.00
3.167	2.00	115.417	2.00	127.667	2.00	139.92	6.00	9.500	2.00	121.750	2.00	134.000	2.00	146.25	53.00
3.250	2.00	115.500	2.00	127.750	2.00	140.00	6.00	9.583	2.00	121.833	2.00	134.083	2.00	146.33	53.00
3.333	2.00	115.583	2.00	127.833	2.00	140.08	13.00	9.667	2.00	121.917	2.00	134.167	2.00	146.42	53.00
3.417	2.00	115.667	2.00	127.917	2.00	140.17	13.00	9.750	2.00	122.000	2.00	134.250	2.00	146.50	53.00
3.500	2.00	115.750	2.00	128.000	2.00	140.25	13.00	9.833	2.00	122.083	2.00	134.333	2.00	146.58	53.00
3.583	2.00	115.833	2.00	128.083	2.00	140.33	13.00	9.917	2.00	122.167	2.00	134.417	2.00	146.67	53.00
3.667	2.00	115.917	2.00	128.167	2.00	140.42	13.00	10.000	2.00	122.250	2.00	134.500	2.00	146.75	53.00
3.750	2.00	116.000	2.00	128.250	2.00	140.50	13.00	10.083	2.00	122.333	2.00	134.583	2.00	146.83	53.00
3.833	2.00	116.083	2.00	128.333	2.00	140.58	13.00	10.167	2.00	122.417	2.00	134.667	2.00	146.92	53.00
3.917	2.00	116.167	2.00	128.417	2.00	140.67	13.00	10.250	2.00	122.500	2.00	134.750	2.00	147.00	53.00
4.000	2.00	116.250	2.00	128.500	2.00	140.75	13.00	10.333	2.00	122.583	2.00	134.833	2.00	147.08	38.02
4.083	2.00	116.333	2.00	128.583	2.00	140.83	13.00	10.417	2.00	122.667	2.00	134.917	2.00	147.17	38.00
4.167	2.00	116.417	2.00	128.667	2.00	140.92	13.00	10.500	2.00	122.750	2.00	135.000	2.00	147.25	38.00
4.250	2.00	116.500	2.00	128.750	2.00	141.00	13.00	10.583	2.00	122.833	2.00	135.083	2.00	147.33	38.00
4.333	2.00	116.583	2.00	128.833	2.00	141.08	17.00	10.667	2.00	122.917	2.00	135.167	2.00	147.42	38.00
4.417	2.00	116.667	2.00	128.917	2.00	141.17	17.00	10.750	2.00	123.000	2.00	135.250	2.00	147.50	38.00
4.500	2.00	116.750	2.00	129.000	2.00	141.25	17.00	10.833	2.00	123.083	2.00	135.333	2.00	147.58	38.00
4.583	2.00	116.833	2.00	129.083	2.00	141.33	17.00	10.917	2.00	123.167	2.00	135.417	2.00	147.67	38.00
4.667	2.00	116.917	2.00	129.167	2.00	141.42	17.00	11.000	2.00	123.250	2.00	135.500	2.00	147.75	38.00
4.750	2.00	117.000	2.00	129.250	2.00	141.50	17.00	11.083	2.00	123.333	2.00	135.583	2.00	147.83	38.00
4.833	2.00	117.083	2.00	129.333	2.00	141.58	17.00	11.167	2.00	123.417	2.00	135.667	2.00	147.92	38.00
4.917	2.00	117.167	2.00	129.417	2.00	141.67	17.00	11.250	2.00	123.500	2.00	135.750	2.00	148.00	38.00
5.000	2.00	117.250	2.00	129.500	2.00	141.75	17.00	11.333	2.00	123.583	2.00	135.833	2.00	148.08	13.04
5.083	2.00	117.333	2.00	129.583	2.00	141.83	17.00	11.417	2.00	123.667	2.00	135.917	2.00	148.17	13.00
5.167	2.00	117.417	2.00	129.667	2.00	141.92	17.00	11.500	2.00	123.750	2.00	136.000	2.00	148.25	13.00
5.250	2.00	117.500	2.00	129.750	2.00	142.00	17.00	11.583	2.00	123.833	2.00	136.083	3.00	148.33	13.00
5.333	2.00	117.583	2.00	129.833	2.00	142.08	13.00	11.667	2.00	123.917	2.00	136.167	3.00	148.42	13.00
5.417	2.00	117.667	2.00	129.917	2.00	142.17	13.00	11.750	2.00	124.000	2.00	136.250	3.00	148.50	13.00
5.500	2.00	117.750	2.00	130.000	2.00	142.25	13.00	11.833	2.00	124.083	2.00	136.333	3.00	148.58	13.00
5.583	2.00	117.833	2.00	130.083	2.00	142.33	13.00	11.917	2.00	124.167	2.00	136.417	3.00	148.67	13.00
5.667	2.00	117.917	2.00	130.167	2.00	142.42	13.00	12.000	2.00	124.250	2.00	136.500	3.00	148.75	13.00
5.750	2.00	118.000	2.00	130.250	2.00	142.50	13.00	12.083	2.00	124.333	2.00	136.583	3.00	148.83	13.00
5.833	2.00	118.083	2.00	130.333	2.00	142.58	13.00	12.167	2.00	124.417	2.00	136.667	3.00	148.92	13.00
5.917	2.00	118.167	2.00	130.417	2.00	142.67	13.00	12.250	2.00	124.500	2.00	136.750	3.00	149.00	13.00
6.000	2.00	118.250	2.00	130.500	2.00	142.75	13.00								
6.083	2.00	118.333	2.00	130.583	2.00	142.83	13.00								
6.167	2.00	118.417	2.00	130.667	2.00	142.92	13.00								
6.250	2.00	118.500	2.00	130.750	2.00	143.00	13.00								
6.333	2.00	118.583	2.00	130.833	2.00	143.08	22.99								
6.417	2.00	118.667	2.00	130.917	2.00	143.17	23.00								
6.500	2.00	118.750	2.00	131.000	2.00	143.25	23.00								
6.583	2.00	118.833	2.00	131.083	2.00	143.33	23.00								
6.667	2.00	118.917	2.00	131.167	2.00	143.42	23.00								
6.750	2.00	119.000	2.00	131.250	2.00	143.50	23.00								
6.833	2.00	119.083	2.00	131.333	2.00	143.58	23.00								
6.917	2.00	119.167	2.00	131.417	2.00	143.67	23.00								
7.000	2.00	119.250	2.00	131.500	2.00	143.75	23.00								
7.083	2.00	119.333	2.00	131.583	2.00	143.83	23.00								
7.167	2.00	119.417	2.00	131.667	2.00	143.92	23.00								
7.250	2.00	119.500	2.00	131.750	2.00	144.00	23.00								
7.333	2.00	119.583	2.00	131.833	2.00	144.08	13.01								
7.417	2.00	119.667	2.00	131.917	2.00	144.17	13.00								
7.500	2.00	119.750	2.00	132.000	2.00	144.25	13.00								
7.583	2.00	119.833	2.00	132.083	2.00	144.33	13.00								
7.667	2.00	119.917	2.00	132.167	2.00	144.42	13.00								

Max.Eff.Inten.(mm/hr)= 53.00 51.89
over (min) = 5.00 5.00
Storage Coeff. (min)= 1.84 (ii) 4.64 (ii)
Unit Hyd. Tpeak (min)= 5.00 5.00
Unit Hyd. peak (cms)= 0.32 0.22

TOTALS
PEAK FLOW (cms)= 0.03 0.00
TIME TO PEAK (hrs)= 46.50 47.00
RUNOFF VOLUME (mm)= 283.00 246.58
TOTAL RAINFALL (mm)= 285.00 285.00
RUNOFF COEFFICIENT = 0.99 0.87

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 87.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

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-----
| RESERVOIR ( 7720) | OVERFLOW IS OFF
| IN= 2---> OUT= 1 |
| DT= 5.0 min |
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OUTFLOW (cms)	STORAGE (ha.m.)	OUTFLOW (cms)	STORAGE (ha.m.)
0.0000	0.0000	0.0100	0.0090
0.0030	0.0010	0.0110	0.0100
0.0050	0.0030	0.0120	0.0110
0.0060	0.0040	0.0120	0.0130
0.0080	0.0050	0.0130	0.0140
0.0090	0.0060	0.0140	0.0150
0.0090	0.0080	0.0000	0.0000

	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
INFLOW : ID= 2 (7716)	0.190	0.028	47.00	281.17
OUTFLOW: ID= 1 (7720)	0.190	0.013	48.08	280.74

PEAK FLOW REDUCTION [Qout/Qin] (%) = 46.49
 TIME SHIFT OF PEAK FLOW (min) = 65.00
 MAXIMUM STORAGE USED (ha.m.) = 0.0141

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-----
| ADD HYD ( 7706) |
| 1 + 2 = 3 |
-----

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	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 1 (7705):	25.67	2.114	48.00	283.15
+ ID2= 2 (7719):	0.20	0.014	48.08	280.80
=====				
ID = 3 (7706):	25.87	2.128	48.00	283.14

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-----
| ADD HYD ( 7706) |
| 3 + 2 = 1 |
-----

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	AREA (ha)	QPEAK (cms)	TPEAK (hrs)	R.V. (mm)
ID1= 3 (7706):	25.87	2.128	48.00	283.14
+ ID2= 2 (7720):	0.19	0.013	48.08	280.74
=====				
ID = 1 (7706):	26.06	2.141	48.00	283.12

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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-----
| CALIB |
| STANDHYD ( 7595) |
| ID= 1 DT= 5.0 min |
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Area (ha)=	1.24
Total Imp (%) =	99.00
Dir. Conn. (%) =	99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)=	1.23	0.01
Dep. Storage (mm)=	2.00	5.00
Average Slope (%) =	2.00	2.00
Length (m) =	91.00	40.00
Mannings n =	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

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| TRANSFORMED HYETOGRAPH ----
| TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN |
| hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr |
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TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	12.333	2.00	124.583	2.00	36.83	3.00
0.167	0.00	12.417	2.00	124.667	2.00	36.92	3.00
0.250	0.00	12.500	2.00	124.750	2.00	37.00	3.00
0.333	0.00	12.583	2.00	124.833	2.00	37.08	6.00
0.417	0.00	12.667	2.00	124.917	2.00	37.17	6.00
0.500	0.00	12.750	2.00	125.000	2.00	37.25	6.00
0.583	0.00	12.833	2.00	125.083	2.00	37.33	6.00
0.667	0.00	12.917	2.00	125.167	2.00	37.42	6.00
0.750	0.00	13.000	2.00	125.250	2.00	37.50	6.00
0.833	0.00	13.083	2.00	125.333	2.00	37.58	6.00

0.917	0.00	13.167	2.00	125.417	2.00	37.67	6.00
1.000	0.00	13.250	2.00	125.500	2.00	37.75	6.00
1.083	2.00	13.333	2.00	125.583	2.00	37.83	6.00
1.167	2.00	13.417	2.00	125.667	2.00	37.92	6.00
1.250	2.00	13.500	2.00	125.750	2.00	38.00	6.00
1.333	2.00	13.583	2.00	125.833	2.00	38.08	4.00
1.417	2.00	13.667	2.00	125.917	2.00	38.17	4.00
1.500	2.00	13.750	2.00	126.000	2.00	38.25	4.00
1.583	2.00	13.833	2.00	126.083	2.00	38.33	4.00
1.667	2.00	13.917	2.00	126.167	2.00	38.42	4.00
1.750	2.00	14.000	2.00	126.250	2.00	38.50	4.00
1.833	2.00	14.083	2.00	126.333	2.00	38.58	4.00
1.917	2.00	14.167	2.00	126.417	2.00	38.67	4.00
2.000	2.00	14.250	2.00	126.500	2.00	38.75	4.00
2.083	2.00	14.333	2.00	126.583	2.00	38.83	4.00
2.167	2.00	14.417	2.00	126.667	2.00	38.92	4.00
2.250	2.00	14.500	2.00	126.750	2.00	39.00	4.00
2.333	2.00	14.583	2.00	126.833	2.00	39.08	6.00
2.417	2.00	14.667	2.00	126.917	2.00	39.17	6.00
2.500	2.00	14.750	2.00	127.000	2.00	39.25	6.00
2.583	2.00	14.833	2.00	127.083	2.00	39.33	6.00
2.667	2.00	14.917	2.00	127.167	2.00	39.42	6.00
2.750	2.00	15.000	2.00	127.250	2.00	39.50	6.00
2.833	2.00	15.083	2.00	127.333	2.00	39.58	6.00
2.917	2.00	15.167	2.00	127.417	2.00	39.67	6.00
3.000	2.00	15.250	2.00	127.500	2.00	39.75	6.00
3.083	2.00	15.333	2.00	127.583	2.00	39.83	6.00
3.167	2.00	15.417	2.00	127.667	2.00	39.92	6.00
3.250	2.00	15.500	2.00	127.750	2.00	40.00	6.00
3.333	2.00	15.583	2.00	127.833	2.00	40.08	13.00
3.417	2.00	15.667	2.00	127.917	2.00	40.17	13.00
3.500	2.00	15.750	2.00	128.000	2.00	40.25	13.00
3.583	2.00	15.833	2.00	128.083	2.00	40.33	13.00
3.667	2.00	15.917	2.00	128.167	2.00	40.42	13.00
3.750	2.00	16.000	2.00	128.250	2.00	40.50	13.00
3.833	2.00	16.083	2.00	128.333	2.00	40.58	13.00
3.917	2.00	16.167	2.00	128.417	2.00	40.67	13.00
4.000	2.00	16.250	2.00	128.500	2.00	40.75	13.00
4.083	2.00	16.333	2.00	128.583	2.00	40.83	13.00
4.167	2.00	16.417	2.00	128.667	2.00	40.92	13.00
4.250	2.00	16.500	2.00	128.750	2.00	41.00	13.00
4.333	2.00	16.583	2.00	128.833	2.00	41.08	17.00
4.417	2.00	16.667	2.00	128.917	2.00	41.17	17.00
4.500	2.00	16.750	2.00	129.000	2.00	41.25	17.00
4.583	2.00	16.833	2.00	129.083	2.00	41.33	17.00
4.667	2.00	16.917	2.00	129.167	2.00	41.42	17.00
4.750	2.00	17.000	2.00	129.250	2.00	41.50	17.00
4.833	2.00	17.083	2.00	129.333	2.00	41.58	17.00
4.917	2.00	17.167	2.00	129.417	2.00	41.67	17.00
5.000	2.00	17.250	2.00	129.500	2.00	41.75	17.00
5.083	2.00	17.333	2.00	129.583	2.00	41.83	17.00
5.167	2.00	17.417	2.00	129.667	2.00	41.92	17.00
5.250	2.00	17.500	2.00	129.750	2.00	42.00	17.00
5.333	2.00	17.583	2.00	129.833	2.00	42.08	13.00
5.417	2.00	17.667	2.00	129.917	2.00	42.17	13.00
5.500	2.00	17.750	2.00	130.000	2.00	42.25	13.00
5.583	2.00	17.833	2.00	130.083	2.00	42.33	13.00
5.667	2.00	17.917	2.00	130.167	2.00	42.42	13.00
5.750	2.00	18.000	2.00	130.250	2.00	42.50	13.00
5.833	2.00	18.083	2.00	130.333	2.00	42.58	13.00
5.917	2.00	18.167	2.00	130.417	2.00	42.67	13.00
6.000	2.00	18.250	2.00	130.500	2.00	42.75	13.00
6.083	2.00	18.333	2.00	130.583	2.00	42.83	13.00
6.167	2.00	18.417	2.00	130.667	2.00	42.92	13.00
6.250	2.00	18.500	2.00	130.750	2.00	43.00	13.00
6.333	2.00	18.583	2.00	130.833	2.00	43.08	22.99
6.417	2.00	18.667	2.00	130.917	2.00	43.17	23.00
6.500	2.00	18.750	2.00	131.000	2.00	43.25	23.00
6.583	2.00	18.833	2.00	131.083	2.00	43.33	23.00
6.667	2.00	18.917	2.00	131.167	2.00	43.42	23.00
6.750	2.00	19.000	2.00	131.250	2.00	43.50	23.00
6.833	2.00	19.083	2.00	131.333	2.00	43.58	23.00
6.917	2.00	19.167	2.00	131.417	2.00	43.67	23.00
7.000	2.00	19.250	2.00	131.500	2.00	43.75	23.00
7.083	2.00	19.333	2.00	131.583	2.00	43.83	23.00
7.167	2.00	19.417	2.00	131.667	2.00	43.92	23.00



7.250	2.00	19.500	2.00	31.750	2.00	44.00	23.00
7.333	2.00	19.583	2.00	31.833	2.00	44.08	13.01
7.417	2.00	19.667	2.00	31.917	2.00	44.17	13.00
7.500	2.00	19.750	2.00	32.000	2.00	44.25	13.00
7.583	2.00	19.833	2.00	32.083	2.00	44.33	13.00
7.667	2.00	19.917	2.00	32.167	2.00	44.42	13.00
7.750	2.00	20.000	2.00	32.250	2.00	44.50	13.00
7.833	2.00	20.083	2.00	32.333	2.00	44.58	13.00
7.917	2.00	20.167	2.00	32.417	2.00	44.67	13.00
8.000	2.00	20.250	2.00	32.500	2.00	44.75	13.00
8.083	2.00	20.333	2.00	32.583	2.00	44.83	13.00
8.167	2.00	20.417	2.00	32.667	2.00	44.92	13.00
8.250	2.00	20.500	2.00	32.750	2.00	45.00	13.00
8.333	2.00	20.583	2.00	32.833	2.00	45.08	13.00
8.417	2.00	20.667	2.00	32.917	2.00	45.17	13.00
8.500	2.00	20.750	2.00	33.000	2.00	45.25	13.00
8.583	2.00	20.833	2.00	33.083	2.00	45.33	13.00
8.667	2.00	20.917	2.00	33.167	2.00	45.42	13.00
8.750	2.00	21.000	2.00	33.250	2.00	45.50	13.00
8.833	2.00	21.083	2.00	33.333	2.00	45.58	13.00
8.917	2.00	21.167	2.00	33.417	2.00	45.67	13.00
9.000	2.00	21.250	2.00	33.500	2.00	45.75	13.00
9.083	2.00	21.333	2.00	33.583	2.00	45.83	13.00
9.167	2.00	21.417	2.00	33.667	2.00	45.92	13.00
9.250	2.00	21.500	2.00	33.750	2.00	46.00	13.00
9.333	2.00	21.583	2.00	33.833	2.00	46.08	52.94
9.417	2.00	21.667	2.00	33.917	2.00	46.17	53.00
9.500	2.00	21.750	2.00	34.000	2.00	46.25	53.00
9.583	2.00	21.833	2.00	34.083	2.00	46.33	53.00
9.667	2.00	21.917	2.00	34.167	2.00	46.42	53.00
9.750	2.00	22.000	2.00	34.250	2.00	46.50	53.00
9.833	2.00	22.083	2.00	34.333	2.00	46.58	53.00
9.917	2.00	22.167	2.00	34.417	2.00	46.67	53.00
10.000	2.00	22.250	2.00	34.500	2.00	46.75	53.00
10.083	2.00	22.333	2.00	34.583	2.00	46.83	53.00
10.167	2.00	22.417	2.00	34.667	2.00	46.92	53.00
10.250	2.00	22.500	2.00	34.750	2.00	47.00	53.00
10.333	2.00	22.583	2.00	34.833	2.00	47.08	38.02
10.417	2.00	22.667	2.00	34.917	2.00	47.17	38.00
10.500	2.00	22.750	2.00	35.000	2.00	47.25	38.00
10.583	2.00	22.833	2.00	35.083	2.00	47.33	38.00
10.667	2.00	22.917	2.00	35.167	2.00	47.42	38.00
10.750	2.00	23.000	2.00	35.250	2.00	47.50	38.00
10.833	2.00	23.083	2.00	35.333	2.00	47.58	38.00
10.917	2.00	23.167	2.00	35.417	2.00	47.67	38.00
11.000	2.00	23.250	2.00	35.500	2.00	47.75	38.00
11.083	2.00	23.333	2.00	35.583	2.00	47.83	38.00
11.167	2.00	23.417	2.00	35.667	2.00	47.92	38.00
11.250	2.00	23.500	2.00	35.750	2.00	48.00	38.00
11.333	2.00	23.583	2.00	35.833	2.00	48.08	13.04
11.417	2.00	23.667	2.00	35.917	2.00	48.17	13.00
11.500	2.00	23.750	2.00	36.000	2.00	48.25	13.00
11.583	2.00	23.833	2.00	36.083	3.00	48.33	13.00
11.667	2.00	23.917	2.00	36.167	3.00	48.42	13.00
11.750	2.00	24.000	2.00	36.250	3.00	48.50	13.00
11.833	2.00	24.083	2.00	36.333	3.00	48.58	13.00
11.917	2.00	24.167	2.00	36.417	3.00	48.67	13.00
12.000	2.00	24.250	2.00	36.500	3.00	48.75	13.00
12.083	2.00	24.333	2.00	36.583	3.00	48.83	13.00
12.167	2.00	24.417	2.00	36.667	3.00	48.92	13.00
12.250	2.00	24.500	2.00	36.750	3.00	49.00	13.00

Max.Eff.Inten. (mm/hr)= 53.00 51.72
 over (min) = 5.00 5.00
 Storage Coeff. (min)= 2.53 (ii) 3.98 (ii)
 Unit Hyd. Tpeak (min)= 5.00 5.00
 Unit Hyd. peak (cms)= 0.29 0.24

PEAK FLOW (cms)= 0.18 0.00
 TIME TO PEAK (hrs)= 46.67 47.00
 RUNOFF VOLUME (mm)= 283.00 243.97
 TOTAL RAINFALL (mm)= 285.00 285.00
 RUNOFF COEFFICIENT = 0.99 0.86

TOTALS
 0.183 (iii)
 47.00
 282.61
 285.00
 0.99

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 86.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

ADD HYD (7718)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7595):	1.24	0.183	47.00	282.61
+ ID2= 2 (7706):	26.06	2.141	48.00	283.12
=====				
ID = 3 (7718):	27.30	2.272	48.00	283.10

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

RESERVOIR (7711)				
OVERFLOW IS OFF				
IN= 2---> OUT= 1				
DT= 5.0 min				
	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	1.0810	1.6220
	0.0010	0.1670	1.3950	1.8170
	0.0340	0.3380	2.0990	2.2130
	0.0510	0.5110	2.8950	2.6150
	0.0630	0.6880	3.7730	3.0250
	0.1610	0.8670	4.7260	3.4420
	0.3300	1.0500	5.5670	3.8670
	0.5440	1.2370	6.5800	4.3000
	0.7970	1.4290	10.9450	4.5210
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7718)	27.302	2.272	48.00	283.10
OUTFLOW: ID= 1 (7711)	27.302	1.132	48.67	277.07

PEAK FLOW REDUCTION [Qout/Qin] (%) = 49.83
 TIME SHIFT OF PEAK FLOW (min) = 40.00
 MAXIMUM STORAGE USED (ha.m.) = 1.6540

CALIB				
NASHYD (7721)				
Area (ha)=	0.21	Curve Number (CN)=	86.0	
Ia (mm)=	5.00	# of Linear Res.(N)=	3.00	
U.H. Tp(hrs)= 0.17				

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----									
TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	12.333	2.00	24.583	2.00	36.83	3.00		
0.167	0.00	12.417	2.00	24.667	2.00	36.92	3.00		
0.250	0.00	12.500	2.00	24.750	2.00	37.00	3.00		
0.333	0.00	12.583	2.00	24.833	2.00	37.08	6.00		
0.417	0.00	12.667	2.00	24.917	2.00	37.17	6.00		
0.500	0.00	12.750	2.00	25.000	2.00	37.25	6.00		
0.583	0.00	12.833	2.00	25.083	2.00	37.33	6.00		
0.667	0.00	12.917	2.00	25.167	2.00	37.42	6.00		
0.750	0.00	13.000	2.00	25.250	2.00	37.50	6.00		
0.833	0.00	13.083	2.00	25.333	2.00	37.58	6.00		
0.917	0.00	13.167	2.00	25.417	2.00	37.67	6.00		
1.000	0.00	13.250	2.00	25.500	2.00	37.75	6.00		
1.083	2.00	13.333	2.00	25.583	2.00	37.83	6.00		
1.167	2.00	13.417	2.00	25.667	2.00	37.92	6.00		
1.250	2.00	13.500	2.00	25.750	2.00	38.00	6.00		
1.333	2.00	13.583	2.00	25.833	2.00	38.08	4.00		
1.417	2.00	13.667	2.00	25.917	2.00	38.17	4.00		
1.500	2.00	13.750	2.00	26.000	2.00	38.25	4.00		
1.583	2.00	13.833	2.00	26.083	2.00	38.33	4.00		
1.667	2.00	13.917	2.00	26.167	2.00	38.42	4.00		



1.750	2.00	14.000	2.00	126.250	2.00	38.50	4.00	8.083	2.00	120.333	2.00	32.583	2.00	44.83	13.00
1.833	2.00	14.083	2.00	126.333	2.00	38.58	4.00	8.167	2.00	120.417	2.00	32.667	2.00	44.92	13.00
1.917	2.00	14.167	2.00	126.417	2.00	38.67	4.00	8.250	2.00	120.500	2.00	32.750	2.00	45.00	13.00
2.000	2.00	14.250	2.00	126.500	2.00	38.75	4.00	8.333	2.00	120.583	2.00	32.833	2.00	45.08	13.00
2.083	2.00	14.333	2.00	126.583	2.00	38.83	4.00	8.417	2.00	120.667	2.00	32.917	2.00	45.17	13.00
2.167	2.00	14.417	2.00	126.667	2.00	38.92	4.00	8.500	2.00	120.750	2.00	33.000	2.00	45.25	13.00
2.250	2.00	14.500	2.00	126.750	2.00	39.00	4.00	8.583	2.00	120.833	2.00	33.083	2.00	45.33	13.00
2.333	2.00	14.583	2.00	126.833	2.00	39.08	6.00	8.667	2.00	120.917	2.00	33.167	2.00	45.42	13.00
2.417	2.00	14.667	2.00	126.917	2.00	39.17	6.00	8.750	2.00	121.000	2.00	33.250	2.00	45.50	13.00
2.500	2.00	14.750	2.00	127.000	2.00	39.25	6.00	8.833	2.00	121.083	2.00	33.333	2.00	45.58	13.00
2.583	2.00	14.833	2.00	127.083	2.00	39.33	6.00	8.917	2.00	121.167	2.00	33.417	2.00	45.67	13.00
2.667	2.00	14.917	2.00	127.167	2.00	39.42	6.00	9.000	2.00	121.250	2.00	33.500	2.00	45.75	13.00
2.750	2.00	15.000	2.00	127.250	2.00	39.50	6.00	9.083	2.00	121.333	2.00	33.583	2.00	45.83	13.00
2.833	2.00	15.083	2.00	127.333	2.00	39.58	6.00	9.167	2.00	121.417	2.00	33.667	2.00	45.92	13.00
2.917	2.00	15.167	2.00	127.417	2.00	39.67	6.00	9.250	2.00	121.500	2.00	33.750	2.00	46.00	13.00
3.000	2.00	15.250	2.00	127.500	2.00	39.75	6.00	9.333	2.00	121.583	2.00	33.833	2.00	46.08	52.94
3.083	2.00	15.333	2.00	127.583	2.00	39.83	6.00	9.417	2.00	121.667	2.00	33.917	2.00	46.17	53.00
3.167	2.00	15.417	2.00	127.667	2.00	39.92	6.00	9.500	2.00	121.750	2.00	34.000	2.00	46.25	53.00
3.250	2.00	15.500	2.00	127.750	2.00	40.00	6.00	9.583	2.00	121.833	2.00	34.083	2.00	46.33	53.00
3.333	2.00	15.583	2.00	127.833	2.00	40.08	13.00	9.667	2.00	121.917	2.00	34.167	2.00	46.42	53.00
3.417	2.00	15.667	2.00	127.917	2.00	40.17	13.00	9.750	2.00	122.000	2.00	34.250	2.00	46.50	53.00
3.500	2.00	15.750	2.00	128.000	2.00	40.25	13.00	9.833	2.00	122.083	2.00	34.333	2.00	46.58	53.00
3.583	2.00	15.833	2.00	128.083	2.00	40.33	13.00	9.917	2.00	122.167	2.00	34.417	2.00	46.67	53.00
3.667	2.00	15.917	2.00	128.167	2.00	40.42	13.00	10.000	2.00	122.250	2.00	34.500	2.00	46.75	53.00
3.750	2.00	16.000	2.00	128.250	2.00	40.50	13.00	10.083	2.00	122.333	2.00	34.583	2.00	46.83	53.00
3.833	2.00	16.083	2.00	128.333	2.00	40.58	13.00	10.167	2.00	122.417	2.00	34.667	2.00	46.92	53.00
3.917	2.00	16.167	2.00	128.417	2.00	40.67	13.00	10.250	2.00	122.500	2.00	34.750	2.00	47.00	53.00
4.000	2.00	16.250	2.00	128.500	2.00	40.75	13.00	10.333	2.00	122.583	2.00	34.833	2.00	47.08	38.02
4.083	2.00	16.333	2.00	128.583	2.00	40.83	13.00	10.417	2.00	122.667	2.00	34.917	2.00	47.17	38.00
4.167	2.00	16.417	2.00	128.667	2.00	40.92	13.00	10.500	2.00	122.750	2.00	35.000	2.00	47.25	38.00
4.250	2.00	16.500	2.00	128.750	2.00	41.00	13.00	10.583	2.00	122.833	2.00	35.083	2.00	47.33	38.00
4.333	2.00	16.583	2.00	128.833	2.00	41.08	17.00	10.667	2.00	122.917	2.00	35.167	2.00	47.42	38.00
4.417	2.00	16.667	2.00	128.917	2.00	41.17	17.00	10.750	2.00	123.000	2.00	35.250	2.00	47.50	38.00
4.500	2.00	16.750	2.00	129.000	2.00	41.25	17.00	10.833	2.00	123.083	2.00	35.333	2.00	47.58	38.00
4.583	2.00	16.833	2.00	129.083	2.00	41.33	17.00	10.917	2.00	123.167	2.00	35.417	2.00	47.67	38.00
4.667	2.00	16.917	2.00	129.167	2.00	41.42	17.00	11.000	2.00	123.250	2.00	35.500	2.00	47.75	38.00
4.750	2.00	17.000	2.00	129.250	2.00	41.50	17.00	11.083	2.00	123.333	2.00	35.583	2.00	47.83	38.00
4.833	2.00	17.083	2.00	129.333	2.00	41.58	17.00	11.167	2.00	123.417	2.00	35.667	2.00	47.92	38.00
4.917	2.00	17.167	2.00	129.417	2.00	41.67	17.00	11.250	2.00	123.500	2.00	35.750	2.00	48.00	38.00
5.000	2.00	17.250	2.00	129.500	2.00	41.75	17.00	11.333	2.00	123.583	2.00	35.833	2.00	48.08	13.04
5.083	2.00	17.333	2.00	129.583	2.00	41.83	17.00	11.417	2.00	123.667	2.00	35.917	2.00	48.17	13.00
5.167	2.00	17.417	2.00	129.667	2.00	41.92	17.00	11.500	2.00	123.750	2.00	36.000	2.00	48.25	13.00
5.250	2.00	17.500	2.00	129.750	2.00	42.00	17.00	11.583	2.00	123.833	2.00	36.083	3.00	48.33	13.00
5.333	2.00	17.583	2.00	129.833	2.00	42.08	13.00	11.667	2.00	123.917	2.00	36.167	3.00	48.42	13.00
5.417	2.00	17.667	2.00	129.917	2.00	42.17	13.00	11.750	2.00	124.000	2.00	36.250	3.00	48.50	13.00
5.500	2.00	17.750	2.00	130.000	2.00	42.25	13.00	11.833	2.00	124.083	2.00	36.333	3.00	48.58	13.00
5.583	2.00	17.833	2.00	130.083	2.00	42.33	13.00	11.917	2.00	124.167	2.00	36.417	3.00	48.67	13.00
5.667	2.00	17.917	2.00	130.167	2.00	42.42	13.00	12.000	2.00	124.250	2.00	36.500	3.00	48.75	13.00
5.750	2.00	18.000	2.00	130.250	2.00	42.50	13.00	12.083	2.00	124.333	2.00	36.583	3.00	48.83	13.00
5.833	2.00	18.083	2.00	130.333	2.00	42.58	13.00	12.167	2.00	124.417	2.00	36.667	3.00	48.92	13.00
5.917	2.00	18.167	2.00	130.417	2.00	42.67	13.00	12.250	2.00	124.500	2.00	36.750	3.00	49.00	13.00
6.000	2.00	18.250	2.00	130.500	2.00	42.75	13.00								
6.083	2.00	18.333	2.00	130.583	2.00	42.83	13.00								
6.167	2.00	18.417	2.00	130.667	2.00	42.92	13.00								
6.250	2.00	18.500	2.00	130.750	2.00	43.00	13.00								
6.333	2.00	18.583	2.00	130.833	2.00	43.08	22.99								
6.417	2.00	18.667	2.00	130.917	2.00	43.17	23.00								
6.500	2.00	18.750	2.00	131.000	2.00	43.25	23.00								
6.583	2.00	18.833	2.00	131.083	2.00	43.33	23.00								
6.667	2.00	18.917	2.00	131.167	2.00	43.42	23.00								
6.750	2.00	19.000	2.00	131.250	2.00	43.50	23.00								
6.833	2.00	19.083	2.00	131.333	2.00	43.58	23.00								
6.917	2.00	19.167	2.00	131.417	2.00	43.67	23.00								
7.000	2.00	19.250	2.00	131.500	2.00	43.75	23.00								
7.083	2.00	19.333	2.00	131.583	2.00	43.83	23.00								
7.167	2.00	19.417	2.00	131.667	2.00	43.92	23.00								
7.250	2.00	19.500	2.00	131.750	2.00	44.00	23.00								
7.333	2.00	19.583	2.00	131.833	2.00	44.08	13.01								
7.417	2.00	19.667	2.00	131.917	2.00	44.17	13.00								
7.500	2.00	19.750	2.00	132.000	2.00	44.25	13.00								
7.583	2.00	19.833	2.00	132.083	2.00	44.33	13.00								
7.667	2.00	19.917	2.00	132.167	2.00	44.42	13.00								
7.750	2.00	20.000	2.00	132.250	2.00	44.50	13.00								
7.833	2.00	20.083	2.00	132.333	2.00	44.58	13.00								
7.917	2.00	20.167	2.00	132.417	2.00	44.67	13.00								
8.000	2.00	20.250	2.00	132.500	2.00	44.75	13.00								

Unit Hyd Qpeak (cms) = 0.047

PEAK FLOW (cms) = 0.030 (i)
 TIME TO PEAK (hrs) = 47.000
 RUNOFF VOLUME (mm) = 243.100
 TOTAL RAINFALL (mm) = 285.001
 RUNOFF COEFFICIENT = 0.853

(i) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

 | CMLIB |
 | STANDHYD (7599) | Area (ha) = 10.90
 | ID= 1 DT= 5.0 min | Total Imp(%) = 99.00 Dir. Conn.(%) = 99.00

	IMPERVIOUS	PERVIOUS (i)
Surface Area (ha)	10.79	0.11
Dep. Storage (mm)	2.00	5.00
Average Slope (%)	1.00	2.00
Length (m)	269.57	40.00
Mannings n	0.013	0.250

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

---- TRANSFORMED HYETOGRAPH ----

TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr	TIME hrs	RAIN mm/hr
0.083	0.00	12.333	2.00	24.583	2.00	36.83	3.00
0.167	0.00	12.417	2.00	24.667	2.00	36.92	3.00
0.250	0.00	12.500	2.00	24.750	2.00	37.00	3.00
0.333	0.00	12.583	2.00	24.833	2.00	37.08	6.00
0.417	0.00	12.667	2.00	24.917	2.00	37.17	6.00
0.500	0.00	12.750	2.00	25.000	2.00	37.25	6.00
0.583	0.00	12.833	2.00	25.083	2.00	37.33	6.00
0.667	0.00	12.917	2.00	25.167	2.00	37.42	6.00
0.750	0.00	13.000	2.00	25.250	2.00	37.50	6.00
0.833	0.00	13.083	2.00	25.333	2.00	37.58	6.00
0.917	0.00	13.167	2.00	25.417	2.00	37.67	6.00
1.000	0.00	13.250	2.00	25.500	2.00	37.75	6.00
1.083	2.00	13.333	2.00	25.583	2.00	37.83	6.00
1.167	2.00	13.417	2.00	25.667	2.00	37.92	6.00
1.250	2.00	13.500	2.00	25.750	2.00	38.00	6.00
1.333	2.00	13.583	2.00	25.833	2.00	38.08	4.00
1.417	2.00	13.667	2.00	25.917	2.00	38.17	4.00
1.500	2.00	13.750	2.00	26.000	2.00	38.25	4.00
1.583	2.00	13.833	2.00	26.083	2.00	38.33	4.00
1.667	2.00	13.917	2.00	26.167	2.00	38.42	4.00
1.750	2.00	14.000	2.00	26.250	2.00	38.50	4.00
1.833	2.00	14.083	2.00	26.333	2.00	38.58	4.00
1.917	2.00	14.167	2.00	26.417	2.00	38.67	4.00
2.000	2.00	14.250	2.00	26.500	2.00	38.75	4.00
2.083	2.00	14.333	2.00	26.583	2.00	38.83	4.00
2.167	2.00	14.417	2.00	26.667	2.00	38.92	4.00
2.250	2.00	14.500	2.00	26.750	2.00	39.00	4.00
2.333	2.00	14.583	2.00	26.833	2.00	39.08	6.00
2.417	2.00	14.667	2.00	26.917	2.00	39.17	6.00
2.500	2.00	14.750	2.00	27.000	2.00	39.25	6.00
2.583	2.00	14.833	2.00	27.083	2.00	39.33	6.00
2.667	2.00	14.917	2.00	27.167	2.00	39.42	6.00
2.750	2.00	15.000	2.00	27.250	2.00	39.50	6.00
2.833	2.00	15.083	2.00	27.333	2.00	39.58	6.00
2.917	2.00	15.167	2.00	27.417	2.00	39.67	6.00
3.000	2.00	15.250	2.00	27.500	2.00	39.75	6.00
3.083	2.00	15.333	2.00	27.583	2.00	39.83	6.00
3.167	2.00	15.417	2.00	27.667	2.00	39.92	6.00
3.250	2.00	15.500	2.00	27.750	2.00	40.00	6.00
3.333	2.00	15.583	2.00	27.833	2.00	40.08	13.00
3.417	2.00	15.667	2.00	27.917	2.00	40.17	13.00
3.500	2.00	15.750	2.00	28.000	2.00	40.25	13.00
3.583	2.00	15.833	2.00	28.083	2.00	40.33	13.00
3.667	2.00	15.917	2.00	28.167	2.00	40.42	13.00
3.750	2.00	16.000	2.00	28.250	2.00	40.50	13.00
3.833	2.00	16.083	2.00	28.333	2.00	40.58	13.00
3.917	2.00	16.167	2.00	28.417	2.00	40.67	13.00
4.000	2.00	16.250	2.00	28.500	2.00	40.75	13.00
4.083	2.00	16.333	2.00	28.583	2.00	40.83	13.00
4.167	2.00	16.417	2.00	28.667	2.00	40.92	13.00
4.250	2.00	16.500	2.00	28.750	2.00	41.00	13.00
4.333	2.00	16.583	2.00	28.833	2.00	41.08	17.00
4.417	2.00	16.667	2.00	28.917	2.00	41.17	17.00
4.500	2.00	16.750	2.00	29.000	2.00	41.25	17.00
4.583	2.00	16.833	2.00	29.083	2.00	41.33	17.00
4.667	2.00	16.917	2.00	29.167	2.00	41.42	17.00
4.750	2.00	17.000	2.00	29.250	2.00	41.50	17.00
4.833	2.00	17.083	2.00	29.333	2.00	41.58	17.00
4.917	2.00	17.167	2.00	29.417	2.00	41.67	17.00
5.000	2.00	17.250	2.00	29.500	2.00	41.75	17.00
5.083	2.00	17.333	2.00	29.583	2.00	41.83	17.00
5.167	2.00	17.417	2.00	29.667	2.00	41.92	17.00
5.250	2.00	17.500	2.00	29.750	2.00	42.00	17.00
5.333	2.00	17.583	2.00	29.833	2.00	42.08	13.00
5.417	2.00	17.667	2.00	29.917	2.00	42.17	13.00
5.500	2.00	17.750	2.00	30.000	2.00	42.25	13.00
5.583	2.00	17.833	2.00	30.083	2.00	42.33	13.00
5.667	2.00	17.917	2.00	30.167	2.00	42.42	13.00
5.750	2.00	18.000	2.00	30.250	2.00	42.50	13.00
5.833	2.00	18.083	2.00	30.333	2.00	42.58	13.00
5.917	2.00	18.167	2.00	30.417	2.00	42.67	13.00
6.000	2.00	18.250	2.00	30.500	2.00	42.75	13.00
6.083	2.00	18.333	2.00	30.583	2.00	42.83	13.00
6.167	2.00	18.417	2.00	30.667	2.00	42.92	13.00
6.250	2.00	18.500	2.00	30.750	2.00	43.00	13.00
6.333	2.00	18.583	2.00	30.833	2.00	43.08	22.99
6.417	2.00	18.667	2.00	30.917	2.00	43.17	23.00
6.500	2.00	18.750	2.00	31.000	2.00	43.25	23.00
6.583	2.00	18.833	2.00	31.083	2.00	43.33	23.00
6.667	2.00	18.917	2.00	31.167	2.00	43.42	23.00
6.750	2.00	19.000	2.00	31.250	2.00	43.50	23.00
6.833	2.00	19.083	2.00	31.333	2.00	43.58	23.00
6.917	2.00	19.167	2.00	31.417	2.00	43.67	23.00
7.000	2.00	19.250	2.00	31.500	2.00	43.75	23.00
7.083	2.00	19.333	2.00	31.583	2.00	43.83	23.00
7.167	2.00	19.417	2.00	31.667	2.00	43.92	23.00
7.250	2.00	19.500	2.00	31.750	2.00	44.00	23.00
7.333	2.00	19.583	2.00	31.833	2.00	44.08	13.01
7.417	2.00	19.667	2.00	31.917	2.00	44.17	13.00
7.500	2.00	19.750	2.00	32.000	2.00	44.25	13.00
7.583	2.00	19.833	2.00	32.083	2.00	44.33	13.00
7.667	2.00	19.917	2.00	32.167	2.00	44.42	13.00
7.750	2.00	20.000	2.00	32.250	2.00	44.50	13.00
7.833	2.00	20.083	2.00	32.333	2.00	44.58	13.00
7.917	2.00	20.167	2.00	32.417	2.00	44.67	13.00
8.000	2.00	20.250	2.00	32.500	2.00	44.75	13.00
8.083	2.00	20.333	2.00	32.583	2.00	44.83	13.00
8.167	2.00	20.417	2.00	32.667	2.00	44.92	13.00
8.250	2.00	20.500	2.00	32.750	2.00	45.00	13.00
8.333	2.00	20.583	2.00	32.833	2.00	45.08	13.00
8.417	2.00	20.667	2.00	32.917	2.00	45.17	13.00
8.500	2.00	20.750	2.00	33.000	2.00	45.25	13.00
8.583	2.00	20.833	2.00	33.083	2.00	45.33	13.00
8.667	2.00	20.917	2.00	33.167	2.00	45.42	13.00
8.750	2.00	21.000	2.00	33.250	2.00	45.50	13.00
8.833	2.00	21.083	2.00	33.333	2.00	45.58	13.00
8.917	2.00	21.167	2.00	33.417	2.00	45.67	13.00
9.000	2.00	21.250	2.00	33.500	2.00	45.75	13.00
9.083	2.00	21.333	2.00	33.583	2.00	45.83	13.00
9.167	2.00	21.417	2.00	33.667	2.00	45.92	13.00
9.250	2.00	21.500	2.00	33.750	2.00	46.00	13.00
9.333	2.00	21.583	2.00	33.833	2.00	46.08	52.94
9.417	2.00	21.667	2.00	33.917	2.00	46.17	53.00
9.500	2.00	21.750	2.00	34.000	2.00	46.25	53.00
9.583	2.00	21.833	2.00	34.083	2.00	46.33	53.00
9.667	2.00	21.917	2.00	34.167	2.00	46.42	53.00
9.750	2.00	22.000	2.00	34.250	2.00	46.50	53.00
9.833	2.00	22.083	2.00	34.333	2.00	46.58	53.00
9.917	2.00	22.167	2.00	34.417	2.00	46.67	53.00
10.000	2.00	22.250	2.00	34.500	2.00	46.75	53.00
10.083	2.00	22.333	2.00	34.583	2.00	46.83	53.00
10.167	2.00	22.417	2.00	34.667	2.00	46.92	53.00
10.250	2.00	22.500	2.00	34.750	2.00	47.00	53.00
10.333	2.00	22.583	2.00	34.833	2.00	47.08	38.02
10.417	2.00	22.667	2.00	34.917	2.00	47.17	38.00
10.500	2.00	22.750	2.00	35.000	2.00	47.25	38.00
10.583	2.00	22.833	2.00	35.083	2.00	47.33	38.00
10.667	2.00	22.917	2.00	35.167	2.00	47.42	38.00
10.750	2.00	23.000	2.00	35.250	2.00	47.50	38.00
10.833	2.00	23.083	2.00	35.333	2.00	47.58	38.00
10.917	2.00	23.167	2.00	35.417	2.00	47.67	38.00
11.000	2.00	23.250	2.00	35.500	2.00	47.75	38.00
11.083	2.00	23.333	2.00	35.583	2.00	47.83	38.00
11.167	2.00	23.417	2.00	35.667	2.00	47.92	38.00
11.250	2.00	23.500	2.00	35.750	2.00	48.00	38.00
11.333	2.00	23.583	2.00	35.833	2.00	48.08	13.04
11.417	2.00	23.667	2.00	35.917	2.00	48.17	13.00
11.500	2.00	23.750	2.00	36.000	2.00	48.25	13.00
11.583	2.00	23.833	2.00	36.083	3.00	48.33	13.00
11.667	2.00	23.917	2.00	36.167	3.00	48.42	13.00
11.750	2.00	24.000	2.00	36.250	3.00	48.50	13.00
11.833	2.00	24.083	2.00	36.333	3.00	48.58	13.00
11.917	2.00	24.167	2.00	36.417	3.00	48.67	13.00
12.000	2.00	24.250	2.00	36.500	3.00	48.75	13.00
12.083	2.00	24.333	2.00	36.583	3.00	48.83	13.00



Max.Eff.Inten.(mm/hr)= 53.00 51.72
 over (min) 5.00 10.00
 Storage Coeff. (min)= 5.97 (ii) 7.42 (iii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.19 0.13

PEAK FLOW (cms)= 1.59 0.02
 TIME TO PEAK (hrs)= 47.00 47.00
 RUNOFF VOLUME (mm)= 283.00 243.97
 TOTAL RAINFALL (mm)= 285.00 285.00
 RUNOFF COEFFICIENT = 0.99 0.86

**TOTALS*
 1.604 (iii)
 47.00
 282.61
 285.00
 0.99

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 86.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL
 THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

```

| ADD HYD ( 7722) |
| 1 + 2 = 3 |
-----
| ID1= 1 ( 7599): | AREA QPEAK TPEAK R.V.
| + ID2= 2 ( 7721): | (ha) (cms) (hrs) (mm)
|-----|-----|-----|-----|
| ID = 3 ( 7722): | 11.11 1.634 47.00 281.87
  
```

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

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| RESERVOIR ( 7685) | OVERFLOW IS OFF
| IN= 2--> OUT= 1 |
| DT= 5.0 min |
-----
| OUTFLOW STORAGE | OUTFLOW STORAGE
| (cms) (ha.m.) | (cms) (ha.m.)
|-----|-----|-----|-----|
| 0.0000 0.0000 | 0.1390 0.6960
| 0.0590 0.3400 | 0.1630 0.7780
| 0.0900 0.4910 | 0.1840 0.8800
| 0.1110 0.5760 | 0.0000 0.0000
|-----|-----|-----|-----|
| AREA QPEAK TPEAK R.V.
| (ha) (cms) (hrs) (mm)
|-----|-----|-----|-----|
| INFLOW : ID= 2 ( 7722) | 11.108 1.634 47.00 281.87
| OUTFLOW: ID= 1 ( 7685) | 11.108 0.390 49.00 281.74
  
```

PEAK FLOW REDUCTION [Qout/Qin] (%) = 23.89
 TIME SHIFT OF PEAK FLOW (min)=120.00
 MAXIMUM STORAGE USED (ha.m.)= 1.8821

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| CALIB |
| STANDHYD ( 7591) | Area (ha)= 11.38
| ID= 1 DT= 5.0 min | Total Imp(%)= 99.00 Dir. Conn.(%)= 99.00
  
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| IMPERVIOUS PERVIOUS (i)
| Surface Area (ha)= 11.27 0.11
| Dep. Storage (mm)= 2.00 5.00
| Average Slope (%)= 1.00 2.00
| Length (m)= 275.44 40.00
| Mannings n = 0.013 0.250
  
```

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

```

---- TRANSFORMED HYETOGRAPH ----
| TIME RAIN | TIME RAIN | TIME RAIN | TIME RAIN
| hrs mm/hr | hrs mm/hr | hrs mm/hr | hrs mm/hr
|-----|-----|-----|-----|
| 0.083 0.00 | 12.333 2.00 | 24.583 2.00 | 36.83 3.00
| 0.167 0.00 | 12.417 2.00 | 24.667 2.00 | 36.92 3.00
| 0.250 0.00 | 12.500 2.00 | 24.750 2.00 | 37.00 3.00
| 0.333 0.00 | 12.583 2.00 | 24.833 2.00 | 37.08 6.00
| 0.417 0.00 | 12.667 2.00 | 24.917 2.00 | 37.17 6.00
  
```

0.500	0.00	12.750	2.00	25.000	2.00	37.25	6.00
0.583	0.00	12.833	2.00	25.083	2.00	37.33	6.00
0.667	0.00	12.917	2.00	25.167	2.00	37.42	6.00
0.750	0.00	13.000	2.00	25.250	2.00	37.50	6.00
0.833	0.00	13.083	2.00	25.333	2.00	37.58	6.00
0.917	0.00	13.167	2.00	25.417	2.00	37.67	6.00
1.000	0.00	13.250	2.00	25.500	2.00	37.75	6.00
1.083	2.00	13.333	2.00	25.583	2.00	37.83	6.00
1.167	2.00	13.417	2.00	25.667	2.00	37.92	6.00
1.250	2.00	13.500	2.00	25.750	2.00	38.00	6.00
1.333	2.00	13.583	2.00	25.833	2.00	38.08	4.00
1.417	2.00	13.667	2.00	25.917	2.00	38.17	4.00
1.500	2.00	13.750	2.00	26.000	2.00	38.25	4.00
1.583	2.00	13.833	2.00	26.083	2.00	38.33	4.00
1.667	2.00	13.917	2.00	26.167	2.00	38.42	4.00
1.750	2.00	14.000	2.00	26.250	2.00	38.50	4.00
1.833	2.00	14.083	2.00	26.333	2.00	38.58	4.00
1.917	2.00	14.167	2.00	26.417	2.00	38.67	4.00
2.000	2.00	14.250	2.00	26.500	2.00	38.75	4.00
2.083	2.00	14.333	2.00	26.583	2.00	38.83	4.00
2.167	2.00	14.417	2.00	26.667	2.00	38.92	4.00
2.250	2.00	14.500	2.00	26.750	2.00	39.00	4.00
2.333	2.00	14.583	2.00	26.833	2.00	39.08	6.00
2.417	2.00	14.667	2.00	26.917	2.00	39.17	6.00
2.500	2.00	14.750	2.00	27.000	2.00	39.25	6.00
2.583	2.00	14.833	2.00	27.083	2.00	39.33	6.00
2.667	2.00	14.917	2.00	27.167	2.00	39.42	6.00
2.750	2.00	15.000	2.00	27.250	2.00	39.50	6.00
2.833	2.00	15.083	2.00	27.333	2.00	39.58	6.00
2.917	2.00	15.167	2.00	27.417	2.00	39.67	6.00
3.000	2.00	15.250	2.00	27.500	2.00	39.75	6.00
3.083	2.00	15.333	2.00	27.583	2.00	39.83	6.00
3.167	2.00	15.417	2.00	27.667	2.00	39.92	6.00
3.250	2.00	15.500	2.00	27.750	2.00	40.00	6.00
3.333	2.00	15.583	2.00	27.833	2.00	40.08	13.00
3.417	2.00	15.667	2.00	27.917	2.00	40.17	13.00
3.500	2.00	15.750	2.00	28.000	2.00	40.25	13.00
3.583	2.00	15.833	2.00	28.083	2.00	40.33	13.00
3.667	2.00	15.917	2.00	28.167	2.00	40.42	13.00
3.750	2.00	16.000	2.00	28.250	2.00	40.50	13.00
3.833	2.00	16.083	2.00	28.333	2.00	40.58	13.00
3.917	2.00	16.167	2.00	28.417	2.00	40.67	13.00
4.000	2.00	16.250	2.00	28.500	2.00	40.75	13.00
4.083	2.00	16.333	2.00	28.583	2.00	40.83	13.00
4.167	2.00	16.417	2.00	28.667	2.00	40.92	13.00
4.250	2.00	16.500	2.00	28.750	2.00	41.00	13.00
4.333	2.00	16.583	2.00	28.833	2.00	41.08	17.00
4.417	2.00	16.667	2.00	28.917	2.00	41.17	17.00
4.500	2.00	16.750	2.00	29.000	2.00	41.25	17.00
4.583	2.00	16.833	2.00	29.083	2.00	41.33	17.00
4.667	2.00	16.917	2.00	29.167	2.00	41.42	17.00
4.750	2.00	17.000	2.00	29.250	2.00	41.50	17.00
4.833	2.00	17.083	2.00	29.333	2.00	41.58	17.00
4.917	2.00	17.167	2.00	29.417	2.00	41.67	17.00
5.000	2.00	17.250	2.00	29.500	2.00	41.75	17.00
5.083	2.00	17.333	2.00	29.583	2.00	41.83	17.00
5.167	2.00	17.417	2.00	29.667	2.00	41.92	17.00
5.250	2.00	17.500	2.00	29.750	2.00	42.00	17.00
5.333	2.00	17.583	2.00	29.833	2.00	42.08	13.00
5.417	2.00	17.667	2.00	29.917	2.00	42.17	13.00
5.500	2.00	17.750	2.00	30.000	2.00	42.25	13.00
5.583	2.00	17.833	2.00	30.083	2.00	42.33	13.00
5.667	2.00	17.917	2.00	30.167	2.00	42.42	13.00
5.750	2.00	18.000	2.00	30.250	2.00	42.50	13.00
5.833	2.00	18.083	2.00	30.333	2.00	42.58	13.00
5.917	2.00	18.167	2.00	30.417	2.00	42.67	13.00
6.000	2.00	18.250	2.00	30.500	2.00	42.75	13.00
6.083	2.00	18.333	2.00	30.583	2.00	42.83	13.00
6.167	2.00	18.417	2.00	30.667	2.00	42.92	13.00
6.250	2.00	18.500	2.00	30.750	2.00	43.00	13.00
6.333	2.00	18.583	2.00	30.833	2.00	43.08	22.99
6.417	2.00	18.667	2.00	30.917	2.00	43.17	23.00
6.500	2.00	18.750	2.00	31.000	2.00	43.25	23.00
6.583	2.00	18.833	2.00	31.083	2.00	43.33	23.00
6.667	2.00	18.917	2.00	31.167	2.00	43.42	23.00
6.750	2.00	19.000	2.00	31.250	2.00	43.50	23.00

6.833	2.00	19.083	2.00	31.333	2.00	43.58	23.00
6.917	2.00	19.167	2.00	31.417	2.00	43.67	23.00
7.000	2.00	19.250	2.00	31.500	2.00	43.75	23.00
7.083	2.00	19.333	2.00	31.583	2.00	43.83	23.00
7.167	2.00	19.417	2.00	31.667	2.00	43.92	23.00
7.250	2.00	19.500	2.00	31.750	2.00	44.00	23.00
7.333	2.00	19.583	2.00	31.833	2.00	44.08	13.01
7.417	2.00	19.667	2.00	31.917	2.00	44.17	13.00
7.500	2.00	19.750	2.00	32.000	2.00	44.25	13.00
7.583	2.00	19.833	2.00	32.083	2.00	44.33	13.00
7.667	2.00	19.917	2.00	32.167	2.00	44.42	13.00
7.750	2.00	20.000	2.00	32.250	2.00	44.50	13.00
7.833	2.00	20.083	2.00	32.333	2.00	44.58	13.00
7.917	2.00	20.167	2.00	32.417	2.00	44.67	13.00
8.000	2.00	20.250	2.00	32.500	2.00	44.75	13.00
8.083	2.00	20.333	2.00	32.583	2.00	44.83	13.00
8.167	2.00	20.417	2.00	32.667	2.00	44.92	13.00
8.250	2.00	20.500	2.00	32.750	2.00	45.00	13.00
8.333	2.00	20.583	2.00	32.833	2.00	45.08	13.00
8.417	2.00	20.667	2.00	32.917	2.00	45.17	13.00
8.500	2.00	20.750	2.00	33.000	2.00	45.25	13.00
8.583	2.00	20.833	2.00	33.083	2.00	45.33	13.00
8.667	2.00	20.917	2.00	33.167	2.00	45.42	13.00
8.750	2.00	21.000	2.00	33.250	2.00	45.50	13.00
8.833	2.00	21.083	2.00	33.333	2.00	45.58	13.00
8.917	2.00	21.167	2.00	33.417	2.00	45.67	13.00
9.000	2.00	21.250	2.00	33.500	2.00	45.75	13.00
9.083	2.00	21.333	2.00	33.583	2.00	45.83	13.00
9.167	2.00	21.417	2.00	33.667	2.00	45.92	13.00
9.250	2.00	21.500	2.00	33.750	2.00	46.00	13.00
9.333	2.00	21.583	2.00	33.833	2.00	46.08	52.94
9.417	2.00	21.667	2.00	33.917	2.00	46.17	53.00
9.500	2.00	21.750	2.00	34.000	2.00	46.25	53.00
9.583	2.00	21.833	2.00	34.083	2.00	46.33	53.00
9.667	2.00	21.917	2.00	34.167	2.00	46.42	53.00
9.750	2.00	22.000	2.00	34.250	2.00	46.50	53.00
9.833	2.00	22.083	2.00	34.333	2.00	46.58	53.00
9.917	2.00	22.167	2.00	34.417	2.00	46.67	53.00
10.000	2.00	22.250	2.00	34.500	2.00	46.75	53.00
10.083	2.00	22.333	2.00	34.583	2.00	46.83	53.00
10.167	2.00	22.417	2.00	34.667	2.00	46.92	53.00
10.250	2.00	22.500	2.00	34.750	2.00	47.00	53.00
10.333	2.00	22.583	2.00	34.833	2.00	47.08	38.02
10.417	2.00	22.667	2.00	34.917	2.00	47.17	38.00
10.500	2.00	22.750	2.00	35.000	2.00	47.25	38.00
10.583	2.00	22.833	2.00	35.083	2.00	47.33	38.00
10.667	2.00	22.917	2.00	35.167	2.00	47.42	38.00
10.750	2.00	23.000	2.00	35.250	2.00	47.50	38.00
10.833	2.00	23.083	2.00	35.333	2.00	47.58	38.00
10.917	2.00	23.167	2.00	35.417	2.00	47.67	38.00
11.000	2.00	23.250	2.00	35.500	2.00	47.75	38.00
11.083	2.00	23.333	2.00	35.583	2.00	47.83	38.00
11.167	2.00	23.417	2.00	35.667	2.00	47.92	38.00
11.250	2.00	23.500	2.00	35.750	2.00	48.00	38.00
11.333	2.00	23.583	2.00	35.833	2.00	48.08	13.04
11.417	2.00	23.667	2.00	35.917	2.00	48.17	13.00
11.500	2.00	23.750	2.00	36.000	2.00	48.25	13.00
11.583	2.00	23.833	2.00	36.083	3.00	48.33	13.00
11.667	2.00	23.917	2.00	36.167	3.00	48.42	13.00
11.750	2.00	24.000	2.00	36.250	3.00	48.50	13.00
11.833	2.00	24.083	2.00	36.333	3.00	48.58	13.00
11.917	2.00	24.167	2.00	36.417	3.00	48.67	13.00
12.000	2.00	24.250	2.00	36.500	3.00	48.75	13.00
12.083	2.00	24.333	2.00	36.583	3.00	48.83	13.00
12.167	2.00	24.417	2.00	36.667	3.00	48.92	13.00
12.250	2.00	24.500	2.00	36.750	3.00	49.00	13.00

Max.Eff.Inten.(mm/hr)= 53.00 51.72
 over (min) 5.00 10.00
 Storage Coeff. (min)= 6.05 (ii) 7.50 (iii)
 Unit Hyd. Tpeak (min)= 5.00 10.00
 Unit Hyd. peak (cms)= 0.19 0.13

TOTALS

PEAK FLOW (cms)= 1.66 0.02 1.675 (iii)
 TIME TO PEAK (hrs)= 47.00 47.00 47.00
 RUNOFF VOLUME (mm)= 283.00 243.97 282.61

TOTAL RAINFALL (mm)= 285.00 285.00 285.00
 RUNOFF COEFFICIENT = 0.99 0.86 0.99

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
 CN* = 86.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

RESERVOIR (7593) OVERFLOW IS OFF				
IN= 2---> OUT= 1				
DT= 5.0 min				
	OUTFLOW	STORAGE	OUTFLOW	STORAGE
	(cms)	(ha.m.)	(cms)	(ha.m.)
	0.0000	0.0000	0.1990	0.6950
	0.0830	0.3500	0.2320	0.8000
	0.1280	0.4850	0.2620	0.9000
	0.1580	0.5900	0.0000	0.0000
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
INFLOW : ID= 2 (7591)	11.380	1.675	47.00	282.61
OUTFLOW: ID= 1 (7593)	11.380	0.504	48.25	282.52
	PEAK FLOW REDUCTION [Qout/Qin] (%)	= 30.11		
	TIME SHIFT OF PEAK FLOW (min)	= 75.00		
	MAXIMUM STORAGE USED (ha.m.)	= 1.7081		

ADD HYD (7643)				
1 + 2 = 3				
	AREA	QPEAK	TPEAK	R.V.
	(ha)	(cms)	(hrs)	(mm)
ID1= 1 (7593):	11.38	0.504	48.25	282.52
+ ID2= 2 (7685):	11.11	0.390	49.00	281.74
ID= 3 (7643):	22.49	0.893	48.25	282.13

NOTE: PEAK FLOWS DO NOT INCLUDE BASEFLOWS IF ANY.

CALIB				
STANDHYD (7640)				
	Area	(ha)=	0.59	
ID= 1 DT= 5.0 min	Total Imp (%)	=	99.00	Dir. Conn. (%) = 99.00
	IMPERVIOUS	PERVIOUS (i)		
Surface Area	(ha)=	0.58	0.01	
Dep. Storage	(mm)=	2.00	5.00	
Average Slope	(%)=	2.00	2.00	
Length	(m)=	62.72	40.00	
Mannings n	=	0.013	0.250	

NOTE: RAINFALL WAS TRANSFORMED TO 5.0 MIN. TIME STEP.

----- TRANSFORMED HYETOGRAPH -----

TIME	RAIN	TIME	RAIN	TIME	RAIN	TIME	RAIN
hrs	mm/hr	hrs	mm/hr	hrs	mm/hr	hrs	mm/hr
0.083	0.00	12.333	2.00	24.583	2.00	36.83	3.00
0.167	0.00	12.417	2.00	24.667	2.00	36.92	3.00
0.250	0.00	12.500	2.00	24.750	2.00	37.00	3.00
0.333	0.00	12.583	2.00	24.833	2.00	37.08	6.00
0.417	0.00	12.667	2.00	24.917	2.00	37.17	6.00
0.500	0.00	12.750	2.00	25.000	2.00	37.25	6.00
0.583	0.00	12.833	2.00	25.083	2.00	37.33	6.00
0.667	0.00	12.917	2.00	25.167	2.00	37.42	6.00
0.750	0.00	13.000	2.00	25.250	2.00	37.50	6.00
0.833	0.00	13.083	2.00	25.333	2.00	37.58	6.00
0.917	0.00	13.167	2.00	25.417	2.00	37.67	6.00
1.000	0.00	13.250	2.00	25.500	2.00	37.75	6.00
1.083	2.00	13.333	2.00	25.583	2.00	37.83	6.00
1.167	2.00	13.417	2.00	25.667	2.00	37.92	6.00
1.250	2.00	13.500	2.00	25.750	2.00	38.00	6.00



1.333	2.00	13.583	2.00	125.833	2.00	38.08	4.00	7.667	2.00	19.917	2.00	32.167	2.00	44.42	13.00
1.417	2.00	13.667	2.00	125.917	2.00	38.17	4.00	7.750	2.00	20.000	2.00	32.250	2.00	44.50	13.00
1.500	2.00	13.750	2.00	126.000	2.00	38.25	4.00	7.833	2.00	20.083	2.00	32.333	2.00	44.58	13.00
1.583	2.00	13.833	2.00	126.083	2.00	38.33	4.00	7.917	2.00	20.167	2.00	32.417	2.00	44.67	13.00
1.667	2.00	13.917	2.00	126.167	2.00	38.42	4.00	8.000	2.00	20.250	2.00	32.500	2.00	44.75	13.00
1.750	2.00	14.000	2.00	126.250	2.00	38.50	4.00	8.083	2.00	20.333	2.00	32.583	2.00	44.83	13.00
1.833	2.00	14.083	2.00	126.333	2.00	38.58	4.00	8.167	2.00	20.417	2.00	32.667	2.00	44.92	13.00
1.917	2.00	14.167	2.00	126.417	2.00	38.67	4.00	8.250	2.00	20.500	2.00	32.750	2.00	45.00	13.00
2.000	2.00	14.250	2.00	126.500	2.00	38.75	4.00	8.333	2.00	20.583	2.00	32.833	2.00	45.08	13.00
2.083	2.00	14.333	2.00	126.583	2.00	38.83	4.00	8.417	2.00	20.667	2.00	32.917	2.00	45.17	13.00
2.167	2.00	14.417	2.00	126.667	2.00	38.92	4.00	8.500	2.00	20.750	2.00	33.000	2.00	45.25	13.00
2.250	2.00	14.500	2.00	126.750	2.00	39.00	4.00	8.583	2.00	20.833	2.00	33.083	2.00	45.33	13.00
2.333	2.00	14.583	2.00	126.833	2.00	39.08	6.00	8.667	2.00	20.917	2.00	33.167	2.00	45.42	13.00
2.417	2.00	14.667	2.00	126.917	2.00	39.17	6.00	8.750	2.00	21.000	2.00	33.250	2.00	45.50	13.00
2.500	2.00	14.750	2.00	127.000	2.00	39.25	6.00	8.833	2.00	21.083	2.00	33.333	2.00	45.58	13.00
2.583	2.00	14.833	2.00	127.083	2.00	39.33	6.00	8.917	2.00	21.167	2.00	33.417	2.00	45.67	13.00
2.667	2.00	14.917	2.00	127.167	2.00	39.42	6.00	9.000	2.00	21.250	2.00	33.500	2.00	45.75	13.00
2.750	2.00	15.000	2.00	127.250	2.00	39.50	6.00	9.083	2.00	21.333	2.00	33.583	2.00	45.83	13.00
2.833	2.00	15.083	2.00	127.333	2.00	39.58	6.00	9.167	2.00	21.417	2.00	33.667	2.00	45.92	13.00
2.917	2.00	15.167	2.00	127.417	2.00	39.67	6.00	9.250	2.00	21.500	2.00	33.750	2.00	46.00	13.00
3.000	2.00	15.250	2.00	127.500	2.00	39.75	6.00	9.333	2.00	21.583	2.00	33.833	2.00	46.08	52.94
3.083	2.00	15.333	2.00	127.583	2.00	39.83	6.00	9.417	2.00	21.667	2.00	33.917	2.00	46.17	53.00
3.167	2.00	15.417	2.00	127.667	2.00	39.92	6.00	9.500	2.00	21.750	2.00	34.000	2.00	46.25	53.00
3.250	2.00	15.500	2.00	127.750	2.00	40.00	6.00	9.583	2.00	21.833	2.00	34.083	2.00	46.33	53.00
3.333	2.00	15.583	2.00	127.833	2.00	40.08	13.00	9.667	2.00	21.917	2.00	34.167	2.00	46.42	53.00
3.417	2.00	15.667	2.00	127.917	2.00	40.17	13.00	9.750	2.00	22.000	2.00	34.250	2.00	46.50	53.00
3.500	2.00	15.750	2.00	128.000	2.00	40.25	13.00	9.833	2.00	22.083	2.00	34.333	2.00	46.58	53.00
3.583	2.00	15.833	2.00	128.083	2.00	40.33	13.00	9.917	2.00	22.167	2.00	34.417	2.00	46.67	53.00
3.667	2.00	15.917	2.00	128.167	2.00	40.42	13.00	10.000	2.00	22.250	2.00	34.500	2.00	46.75	53.00
3.750	2.00	16.000	2.00	128.250	2.00	40.50	13.00	10.083	2.00	22.333	2.00	34.583	2.00	46.83	53.00
3.833	2.00	16.083	2.00	128.333	2.00	40.58	13.00	10.167	2.00	22.417	2.00	34.667	2.00	46.92	53.00
3.917	2.00	16.167	2.00	128.417	2.00	40.67	13.00	10.250	2.00	22.500	2.00	34.750	2.00	47.00	53.00
4.000	2.00	16.250	2.00	128.500	2.00	40.75	13.00	10.333	2.00	22.583	2.00	34.833	2.00	47.08	38.02
4.083	2.00	16.333	2.00	128.583	2.00	40.83	13.00	10.417	2.00	22.667	2.00	34.917	2.00	47.17	38.00
4.167	2.00	16.417	2.00	128.667	2.00	40.92	13.00	10.500	2.00	22.750	2.00	35.000	2.00	47.25	38.00
4.250	2.00	16.500	2.00	128.750	2.00	41.00	13.00	10.583	2.00	22.833	2.00	35.083	2.00	47.33	38.00
4.333	2.00	16.583	2.00	128.833	2.00	41.08	17.00	10.667	2.00	22.917	2.00	35.167	2.00	47.42	38.00
4.417	2.00	16.667	2.00	128.917	2.00	41.17	17.00	10.750	2.00	23.000	2.00	35.250	2.00	47.50	38.00
4.500	2.00	16.750	2.00	129.000	2.00	41.25	17.00	10.833	2.00	23.083	2.00	35.333	2.00	47.58	38.00
4.583	2.00	16.833	2.00	129.083	2.00	41.33	17.00	10.917	2.00	23.167	2.00	35.417	2.00	47.67	38.00
4.667	2.00	16.917	2.00	129.167	2.00	41.42	17.00	11.000	2.00	23.250	2.00	35.500	2.00	47.75	38.00
4.750	2.00	17.000	2.00	129.250	2.00	41.50	17.00	11.083	2.00	23.333	2.00	35.583	2.00	47.83	38.00
4.833	2.00	17.083	2.00	129.333	2.00	41.58	17.00	11.167	2.00	23.417	2.00	35.667	2.00	47.92	38.00
4.917	2.00	17.167	2.00	129.417	2.00	41.67	17.00	11.250	2.00	23.500	2.00	35.750	2.00	48.00	38.00
5.000	2.00	17.250	2.00	129.500	2.00	41.75	17.00	11.333	2.00	23.583	2.00	35.833	2.00	48.08	13.04
5.083	2.00	17.333	2.00	129.583	2.00	41.83	17.00	11.417	2.00	23.667	2.00	35.917	2.00	48.17	13.00
5.167	2.00	17.417	2.00	129.667	2.00	41.92	17.00	11.500	2.00	23.750	2.00	36.000	2.00	48.25	13.00
5.250	2.00	17.500	2.00	129.750	2.00	42.00	17.00	11.583	2.00	23.833	2.00	36.083	3.00	48.33	13.00
5.333	2.00	17.583	2.00	129.833	2.00	42.08	13.00	11.667	2.00	23.917	2.00	36.167	3.00	48.42	13.00
5.417	2.00	17.667	2.00	129.917	2.00	42.17	13.00	11.750	2.00	24.000	2.00	36.250	3.00	48.50	13.00
5.500	2.00	17.750	2.00	130.000	2.00	42.25	13.00	11.833	2.00	24.083	2.00	36.333	3.00	48.58	13.00
5.583	2.00	17.833	2.00	130.083	2.00	42.33	13.00	11.917	2.00	24.167	2.00	36.417	3.00	48.67	13.00
5.667	2.00	17.917	2.00	130.167	2.00	42.42	13.00	12.000	2.00	24.250	2.00	36.500	3.00	48.75	13.00
5.750	2.00	18.000	2.00	130.250	2.00	42.50	13.00	12.083	2.00	24.333	2.00	36.583	3.00	48.83	13.00
5.833	2.00	18.083	2.00	130.333	2.00	42.58	13.00	12.167	2.00	24.417	2.00	36.667	3.00	48.92	13.00
5.917	2.00	18.167	2.00	130.417	2.00	42.67	13.00	12.250	2.00	24.500	2.00	36.750	3.00	49.00	13.00
6.000	2.00	18.250	2.00	130.500	2.00	42.75	13.00								
6.083	2.00	18.333	2.00	130.583	2.00	42.83	13.00								
6.167	2.00	18.417	2.00	130.667	2.00	42.92	13.00								
6.250	2.00	18.500	2.00	130.750	2.00	43.00	13.00								
6.333	2.00	18.583	2.00	130.833	2.00	43.08	22.99								
6.417	2.00	18.667	2.00	130.917	2.00	43.17	23.00								
6.500	2.00	18.750	2.00	131.000	2.00	43.25	23.00								
6.583	2.00	18.833	2.00	131.083	2.00	43.33	23.00								
6.667	2.00	18.917	2.00	131.167	2.00	43.42	23.00								
6.750	2.00	19.000	2.00	131.250	2.00	43.50	23.00								
6.833	2.00	19.083	2.00	131.333	2.00	43.58	23.00								
6.917	2.00	19.167	2.00	131.417	2.00	43.67	23.00								
7.000	2.00	19.250	2.00	131.500	2.00	43.75	23.00								
7.083	2.00	19.333	2.00	131.583	2.00	43.83	23.00								
7.167	2.00	19.417	2.00	131.667	2.00	43.92	23.00								
7.250	2.00	19.500	2.00	131.750	2.00	44.00	23.00								
7.333	2.00	19.583	2.00	131.833	2.00	44.08	13.01								
7.417	2.00	19.667	2.00	131.917	2.00	44.17	13.00								
7.500	2.00	19.750	2.00	132.000	2.00	44.25	13.00								
7.583	2.00	19.833	2.00	132.083	2.00	44.33	13.00								

Max.Eff. Inten. (mm/hr)=	53.00	51.72	
over (min)	5.00	5.00	
Storage Coeff. (min)=	2.02 (ii)	3.47 (ii)	
Unit Hyd. Tpeak (min)=	5.00	5.00	
Unit Hyd. peak (cms)=	0.31	0.26	
PEAK FLOW (cms)=	0.09	0.00	0.087 (iii)
TIME TO PEAK (hrs)=	46.58	47.00	
RUNOFF VOLUME (mm)=	283.00	243.97	282.61
TOTAL RAINFALL (mm)=	285.00	285.00	285.00
RUNOFF COEFFICIENT =	0.99	0.86	0.99

***** WARNING: STORAGE COEFF. IS SMALLER THAN TIME STEP!

- (i) CN PROCEDURE SELECTED FOR PERVIOUS LOSSES:
CN* = 86.0 Ia = Dep. Storage (Above)
- (ii) TIME STEP (DT) SHOULD BE SMALLER OR EQUAL THAN THE STORAGE COEFFICIENT.
- (iii) PEAK FLOW DOES NOT INCLUDE BASEFLOW IF ANY.

FINISH

APPENDIX E

Water Balance and Infiltration



Project Name: Prologis Humber Station
 Project No: 0624-6777
 Designed by: HL
 Reviewed by: RA
 Date: 2024.11.18

Climatic Water Budget - Thornthwaite Method
Project Name: Prologis Humber Station
ALBION FIELD CENTRE-Climate Normals 1981-2010 Station Data

Insert Latitude: **Degrees** **Minutes** **Seconds**
 43 **83** **95** *Only Applicable Between Latitudes 40° - 50°

Month	Mean Temperature (-C)	Heat index	" a "	PET - Potential Evapotranspiration (mm)	Daily Correction Value	Adjusted PET - Potential Evapotranspiration (mm)	Total Precipitation (mm)	Surplus (mm)	Deficit (mm)
January	3.1	0.5	0.50	58.4	0.76	44.4	51.8	7.4	0.0
February	2.5	0.4	0.50	52.0	0.87	45.1	47.7	2.6	0.0
March	2.2	0.3	0.50	48.5	0.99	47.8	49.8	2.0	0.0
April	1.6	0.2	0.50	40.8	1.12	45.6	68.5	22.9	0.0
May	2.0	0.2	0.50	46.0	1.24	56.9	74.3	17.4	0.0
June	1.3	0.1	0.49	36.4	1.30	47.3	71.5	24.2	0.0
July	1.4	0.1	0.49	37.9	1.27	48.3	75.7	27.4	0.0
August	1.5	0.2	0.50	39.4	1.18	46.3	78.1	31.8	0.0
September	1.0	0.1	0.49	31.6	1.05	33.1	74.5	41.4	0.0
October	1.6	0.2	0.50	40.8	0.92	37.4	61.1	23.7	0.0
November	1.2	0.1	0.49	34.9	0.80	27.9	75.1	47.2	0.0
December	3.1	0.5	0.50	58.4	0.74	43.0	57.9	14.9	0.0
Totals		2.9	0.54			523.2	786.0	262.8	0.0

TOTAL WATER DEFICIT = 0.0 mm
 TOTAL WATER SURPLUS (SURPLUS - DEFICIT) = 262.8 mm
 Precipitation Adjustment Factor : none

NOTES:

1. Water budget adjusted for latitude and daylight.
2. (-C) - Represents calculated mean of daily temperatures for the month.
3. Precipitation and Temperature data from the *TORONTO LESTER B. PEARSON INT'L A (Station No.6158733) Environment Canada Station Data
4. Total Water Surplus (Thornthwaite, 1948) is calculated as total precipitation minus adjusted potential evapostranspiration.



Project Name: Prologis Humber Station
Project No: 0624-6777
Designed by: HL
Reviewed by: RA
Date: 2024.11.18

Design Storm Determination

ALBION FIELD CENTRE-Climate Normals 1981-2010 Station Data

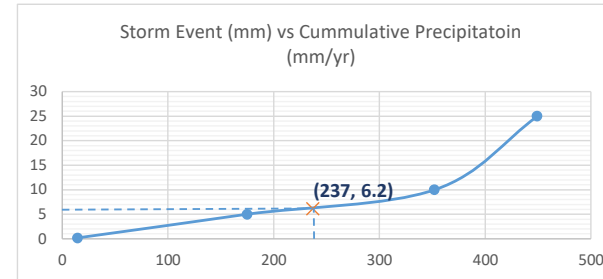
Water Balance/Water Budget Assessment

Days with Precipitation (From Climate Data)

	Apr	May	Jun	Jul	Aug	Sep	Oct	Total
>= 0.2 mm	10.8	10.3	10.2	9.0	9.8	10.8	11.3	72
>= 5 mm	4.5	5.0	4.4	4.9	4.5	4.5	4.3	32
>= 10 mm	2.1	2.3	2.9	2.6	2.8	2.5	2.5	18
>= 25 mm	0.4	0.5	0.6	0.7	0.6	0.7	0.4	4

Available Precipitation

Storm Event (mm)	Total Days Per Year	Incremental Precipitation (mm/yr)	Cummulative Precipitation (mm/yr)
0.2	72	14.4	14.4
5	32	160.5	174.9
10	18	177.0	351.9
25	4	97.3	449.2
Total	126	449.2	



Infiltration Deficit Target: 25,476 m³/yr

Infiltration deficiet from Hydrogeological Assessment (Palmer, November 2024)

Area contributing to mitigation (PH1A rooftop): 119,352 m²
 Infiltration Deficit Target: 213 mm/yr

(Roof 1, 2, 3, 5, 6 of the entire Phase 1A Roof Area)

Runoff Coefficient for Impervious Area: 0.90

Design Precipitation: 237 mm/yr

(Design Infiltration / Contributing RC)

Therefore Design Storm: 6.2 mm



Project: Prologis Humber Station
Project No: 0624-6777
Designed by: HL
Reviewed by: RA
Date: 2024.11.18

Design Storm Determination

ALBION FIELD CENTRE-Climate Normals 1981-2010 Station Data

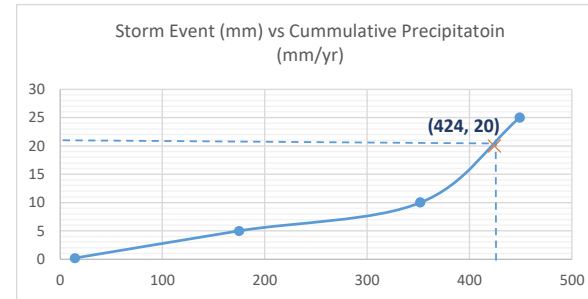
5 mm On-Site Retention - TRCA Erosion Criteria

Days with Precipitation (From Climate Data)

	Apr	May	Jun	Jul	Aug	Sep	Oct	Total
>= 0.2 mm	10.8	10.3	10.2	9.0	9.8	10.8	11.3	72
>= 5 mm	4.5	5.0	4.4	4.9	4.5	4.5	4.3	32
>= 10 mm	2.1	2.3	2.9	2.6	2.8	2.5	2.5	18
>= 25 mm	0.4	0.5	0.6	0.7	0.6	0.7	0.4	4

Available Precipitation

Storm Event (mm)	Total Days Per Year	Incremental Precipitation (mm/yr)	Cummulative Precipitation (mm/yr)
0.2	72	14.4	14.4
5	32	160.5	174.9
10	18	177.0	351.9
25	4	97.3	449.2
Total	126	449.2	



Phase 1A area: 26.06 ha
 TRCA Erosion Criteria: 5 mm
 Equivalent Cummulative Precipitation: 175 mm/yr
 Equivalent Cummulative Precipitation: 45589 m³/yr

Area contributing to mitigation (PH1A): 119,352 m²
 Infiltration Deficit Target: 382 mm/yr

Runoff Coefficient for Impervious Area: 0.90

Design Precipitation: 424 mm/yr

Therefore Design Storm: **20.0** mm

Total Volume: 2,387 m³

(Roof 1, 2, 3, 5, 6 of the entire Phase 1A Roof Area)

(Design Infiltration / Contributing RC)



Project Name: Prologis Humber Station
Project No: 0624-4711
Created By: HL
Checked By: RA
Date: 2024.11.18

Infiltration Calculations - Tank 1 & 2

Infiltration Gallery - Phase 1A - Tank 1 & Tank 2

A. Maximum Infiltration Depth

P = Percolation Rate (native soils)	15	mm/hr	
T = Drawdown Time	72	hours	
d = Maximum allowable depth of infiltration	1.08	m	MECP SWMP Manual, Equation 4.2

$$d = \frac{PT}{1000}$$

B. Minimum Footprint Surface Area

Roof Area:	35806	m ²	25% of the Phase 1A Roof (143,222 sq.m)
Required Runoff Depth:	20	mm	Reference water balance spreadsheet (Crozier, November 2024)
V = Runoff Volume to be Infiltrated	716	m ³	
P = Percolation Rate (native soils)	15	mm/hr	Conservative assumption for Engineered Fill
n = Porosity of Storage Media	0.62		
T = Drawdown Time	72	hours	
Minimum footprint area	1073	m ²	MECP SWMP Manual, Equation 4.3

$$A = \frac{1000V}{PnT}$$

C. Design Sizing (Open Bottom Tank)

Footprint Area:	1108	m ²	Measured to scale on CAD Drawing
Infiltration Tank Depth	1.06	m	
Void Ratio:	0.62		ADS DC-780 or approved equivalent
Storage Volume Provided:	725	m ³	

D. Provided Design and Detention Time

Detention Time	70.7	hr	$A = \frac{1000V}{PnT}$
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Project Name: Prologis Humber Station
Project No: 0624-4711
Created By: HL
Checked By: RA
Date: 2024.11.18

Infiltration Calculations - Tank 3

Infiltration Gallery - Phase 1A - Tank 1 & Tank 2

A. Maximum Infiltration Depth

P = Percolation Rate (native soils)	15	mm/hr	
T = Drawdown Time	72	hours	
d = Maximum allowable depth of infiltration	1.08	m	MECP SWMP Manual, Equation 4.2

$$d = \frac{PT}{1000}$$

B. Minimum Footprint Surface Area

Roof Area:	47741	m ²	25% of the Phase 1A Roof (143,222 sq.m)
Required Runoff Depth:	20	mm	Reference water balance spreadsheet (Crozier, November 2024)
V = Runoff Volume to be Infiltrated	955	m ³	
P = Percolation Rate (native soils)	15	mm/hr	Conservative assumption for Engineered Fill
n = Porosity of Storage Media	0.62		
T = Drawdown Time	72	hours	
Minimum footprint area	1426	m ²	MECP SWMP Manual, Equation 4.3

$$A = \frac{1000V}{PnT}$$

C. Design Sizing (Open Bottom Tank)

Footprint Area:	1811	m ²	Measured to scale on CAD Drawing
Infiltration Tank Depth	1.06	m	
Void Ratio:	0.62		ADS DC-780 or approved equivalent
Storage Volume Provided:	1190	m ³	

D. Provided Design and Detention Time

Detention Time	70.7	hr	$A = \frac{1000V}{PnT}$
----------------	------	----	-------------------------

User Inputs

Chamber Model:	DC-780
Outlet Control Structure:	Yes
Project Name:	Prologis Humber Station_Infiltration Tank 1&2
Engineer:	N/A
Project Location:	
Measurement Type:	Metric
Required Storage Volume:	716.11 cubic meters.
Stone Porosity:	40%
Stone Foundation Depth:	229 mm.
Stone Above Chambers:	300 mm.
Design Constraint Dimensions:	(14.65 m. x 102.01 m.)

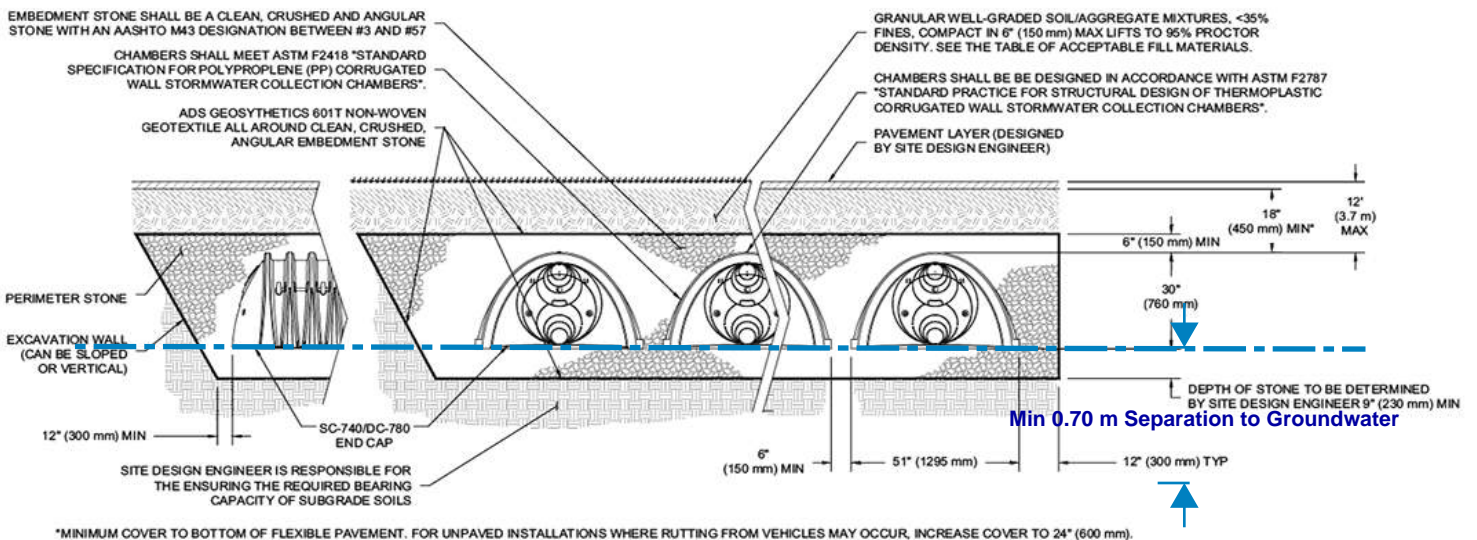
Available Storage Exclude Bottom Stone
 $826.80 - 1107.59 \times 0.229 \times 0.4 = 725.34 \text{ m}^3$

System Volume and Bed Size

Installed Storage Volume:	826.80 cubic meters.
Storage Volume Per Chamber:	1.31 cubic meters.
Number Of Chambers Required:	324
Number Of End Caps Required:	16
Chamber Rows:	8
Maximum Length:	91.41 m.
Maximum Width:	12.23 m.
Approx. Bed Size Required:	1107.59 square meters.
Average Cover Over Chambers:	N/A .

System Components

Amount Of Stone Required:	1005 cubic meters
Volume Of Excavation (Not Including Fill):	1430 cubic meters
Total Non-woven Geotextile Required:	2983 square meters
Woven Geotextile Required (excluding Isolator Row):	61 square meters
Woven Geotextile Required (Isolator Row):	164 square meters
Total Woven Geotextile Required:	225 square meters
Impervious Liner Required:	0 square meters



User Inputs

Chamber Model:	DC-780
Outlet Control Structure:	Yes
Project Name:	Prologis Humber Station_Infiltration_Tank 3
Engineer:	N/A
Project Location:	
Measurement Type:	Metric
Required Storage Volume:	955.00 cubic meters.
Stone Porosity:	40%
Stone Foundation Depth:	229 mm.
Stone Above Chambers:	300 mm.
Design Constraint Dimensions:	(13.50 m. x 152.40 m.)

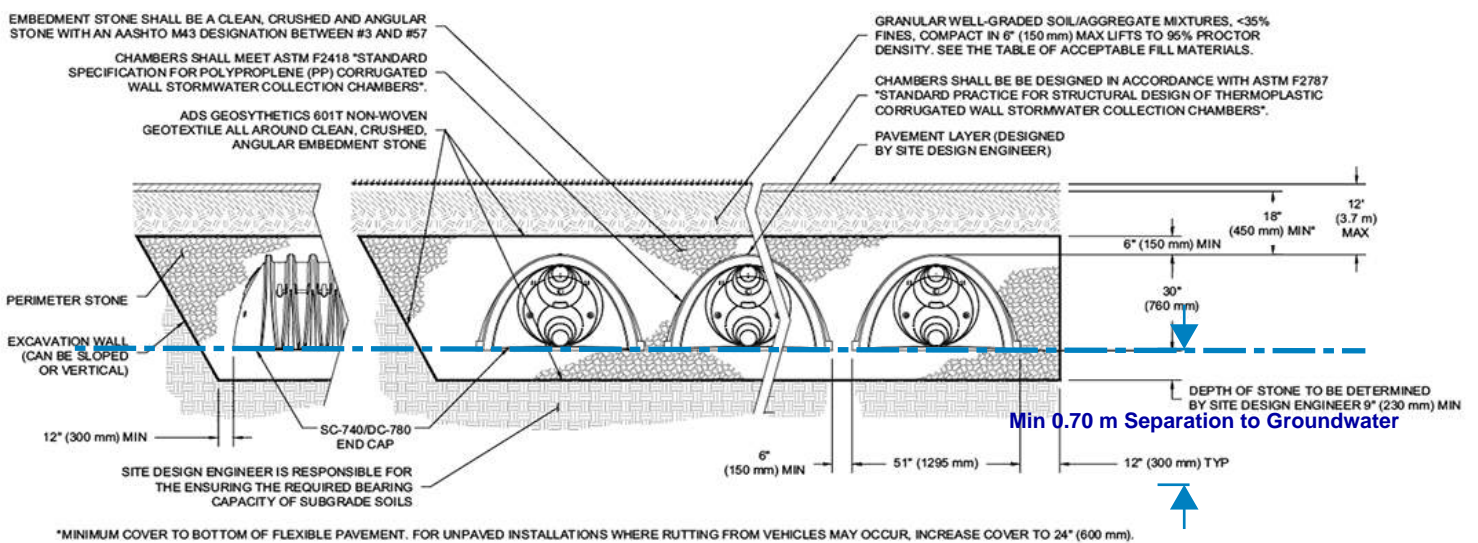
Available Storage Exclude Bottom Stone
 $1356.23 - 1810.82 \times 0.229 \times 0.4 = 1190.41 \text{ m}^3$

System Volume and Bed Size

Installed Storage Volume:	1356.23 cubic meters.
Storage Volume Per Chamber:	1.31 cubic meters.
Number Of Chambers Required:	536
Number Of End Caps Required:	16
Chamber Rows:	8
Maximum Length:	149.17 m.
Maximum Width:	12.23 m.
Approx. Bed Size Required:	1810.82 square meters.
Average Cover Over Chambers:	N/A .

System Components

Amount Of Stone Required:	1635 cubic meters
Volume Of Excavation (Not Including Fill):	2337 cubic meters
Total Non-woven Geotextile Required:	4846 square meters
Woven Geotextile Required (excluding Isolator Row):	61 square meters
Woven Geotextile Required (Isolator Row):	267 square meters
Total Woven Geotextile Required:	328 square meters
Impervious Liner Required:	0 square meters





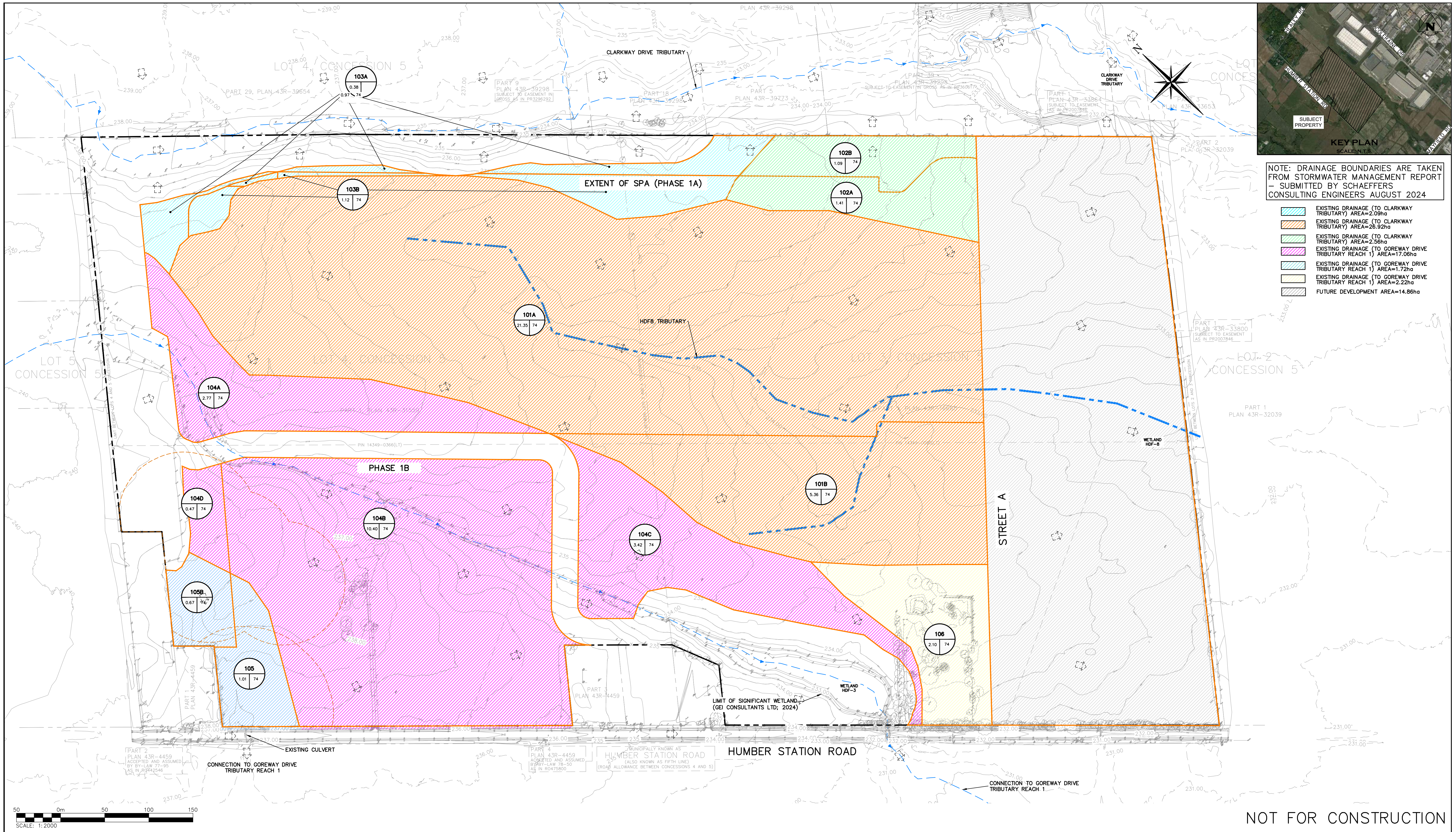
PROJECT: Prologis Humber Station
 PROJECT No.: 0624-6777
 DATE: 2024-11-22
 Updated By: MF
 Reviewed By: R.S.A.

Storm Plug Design Sheet

MANNINGS "n"		0.013												
FROM MH	TO MH	Catchment ID	AREA (A) Ha	Q m3/sec	TOTAL Q m3/s	LENGTH m	SLOPE %	PIPE DIA. mm	Area m ²	VEL. m/sec	Q/A m/s	CAPACITY m3/s	% Capacity	
BUILDING 1 - Phase 1A														
STM PLUG1	STM PLUG1	MH1R	A	1.18	0.022	0.022	21.1	1.00	300	0.07	1.37	0.32	0.10	23%
	MH1R	MH2	-	0.00	0.000	0.022	65.4	0.50	300	0.07	0.97	0.00	0.07	33%
STM PLUG2	STM PLUG2	MH2	A	1.18	0.022	0.022	21.1	1.00	300	0.07	1.37	0.32	0.10	23%
	MH2	TANK 1	-	0.00	0.000	0.045	41.6	0.50	300	0.07	0.97	0.00	0.07	65%
STM PLUG3	STM PLUG3	MH3R	B	1.17	0.022	0.022	21.1	1.00	300	0.07	1.37	0.31	0.10	23%
	MH3R	TANK1	-	0.00	0.000	0.022	43.9	0.50	300	0.07	0.97	0.00	0.07	32%
STM PLUG4	STM PLUG4	MH4R	B	1.17	0.022	0.022	21.1	0.90	300	0.07	1.30	0.31	0.09	24%
	MH4R	MH5R	-	0.00	0.000	0.022	93.8	0.50	300	0.07	0.97	0.00	0.07	32%
STM PLUG5	STM PLUG5	MH5R	C	0.97	0.018	0.018	21.1	1.50	300	0.07	1.68	0.26	0.12	15%
STM PLUG6	STM PLUG6	MH6R	C	0.97	0.018	0.018	21.1	1.00	300	0.07	1.37	0.26	0.10	19%
	MH6R	MH5R	-	0.00	0.000	0.018	85.4	0.50	300	0.07	0.97	0.00	0.07	27%
	MH5R	TANK 2	-	0.00	0.000	0.059	17.5	0.47	300	0.07	0.94	0.00	0.07	88%
STM PLUG7	STM PLUG7	MH7R	D	1.33	0.025	0.025	21.2	2.00	300	0.07	1.93	0.35	0.14	18%
	MH7R	TANKB	-	0.00	0.000	0.025	14.9	0.50	300	0.07	0.97	0.00	0.07	37%
STM PLUG8	STM PLUG8	MH8R	D	1.33	0.025	0.025	21.2	1.00	300	0.07	1.37	0.35	0.10	26%
	MH8R	TANKB	-	0.00	0.000	0.025	15.0	0.50	300	0.07	0.97	0.00	0.07	37%
STM PLUG9	STM PLUG9	MH9R	E	1.37	0.026	0.026	21.1	1.00	300	0.07	1.37	0.37	0.10	27%
	MH9R	MH10R	-	0.00	0.000	0.026	91.9	0.50	300	0.07	0.97	0.00	0.07	38%
STM PLUG10	STM PLUG10	MH10R	E	1.37	0.026	0.026	21.1	2.19	300	0.07	2.02	0.37	0.14	18%
	MH10R	TANK B	-	0.00	0.000	0.052	18.9	0.50	300	0.07	0.97	0.00	0.07	76%
STM PLUG 11	STM PLUG11	MH11R	F	1.14	0.021	0.021	21.1	2.02	300	0.07	1.94	0.30	0.14	16%
STM PLUG12	STM PLUG12	MH12R	F	1.14	0.021	0.021	21.1	1.00	300	0.07	1.37	0.30	0.10	22%
	MH12R	MH11R	-	0.00	0.000	0.021	85.1	0.50	300	0.07	0.97	0.00	0.07	31%
	MH11R	TANK B	-	0.00	0.000	0.043	19.1	0.50	300	0.07	0.97	0.00	0.07	63%

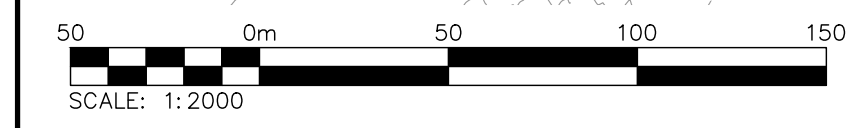
Notes: 1. A, B, and C coefficients and Runoff Coefficient as per Town of Halton Hills Design Requirements
 2. For PVC Sewers, Manning's "n" of 0.009 was used to determine the velocity and time of concentration. Manning's "n" of 0.013 was used to determine the capacity.

DRAWINGS & FIGURES



NOTE: DRAINAGE BOUNDARIES ARE TAKEN FROM STORMWATER MANAGEMENT REPORT - SUBMITTED BY SCHAEFFERS CONSULTING ENGINEERS AUGUST 2024

- EXISTING DRAINAGE (TO CLARKWAY TRIBUTARY) AREA=2.09ha
- EXISTING DRAINAGE (TO CLARKWAY TRIBUTARY) AREA=26.92ha
- EXISTING DRAINAGE (TO CLARKWAY TRIBUTARY) AREA=2.56ha
- EXISTING DRAINAGE (TO GOREWAY DRIVE TRIBUTARY REACH 1) AREA=17.06ha
- EXISTING DRAINAGE (TO GOREWAY DRIVE TRIBUTARY REACH 1) AREA=1.72ha
- EXISTING DRAINAGE (TO GOREWAY DRIVE TRIBUTARY REACH 1) AREA=2.22ha
- FUTURE DEVELOPMENT AREA=14.86ha



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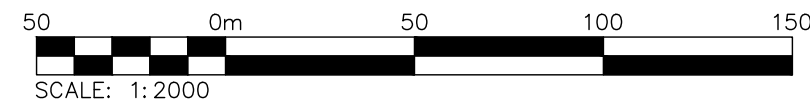
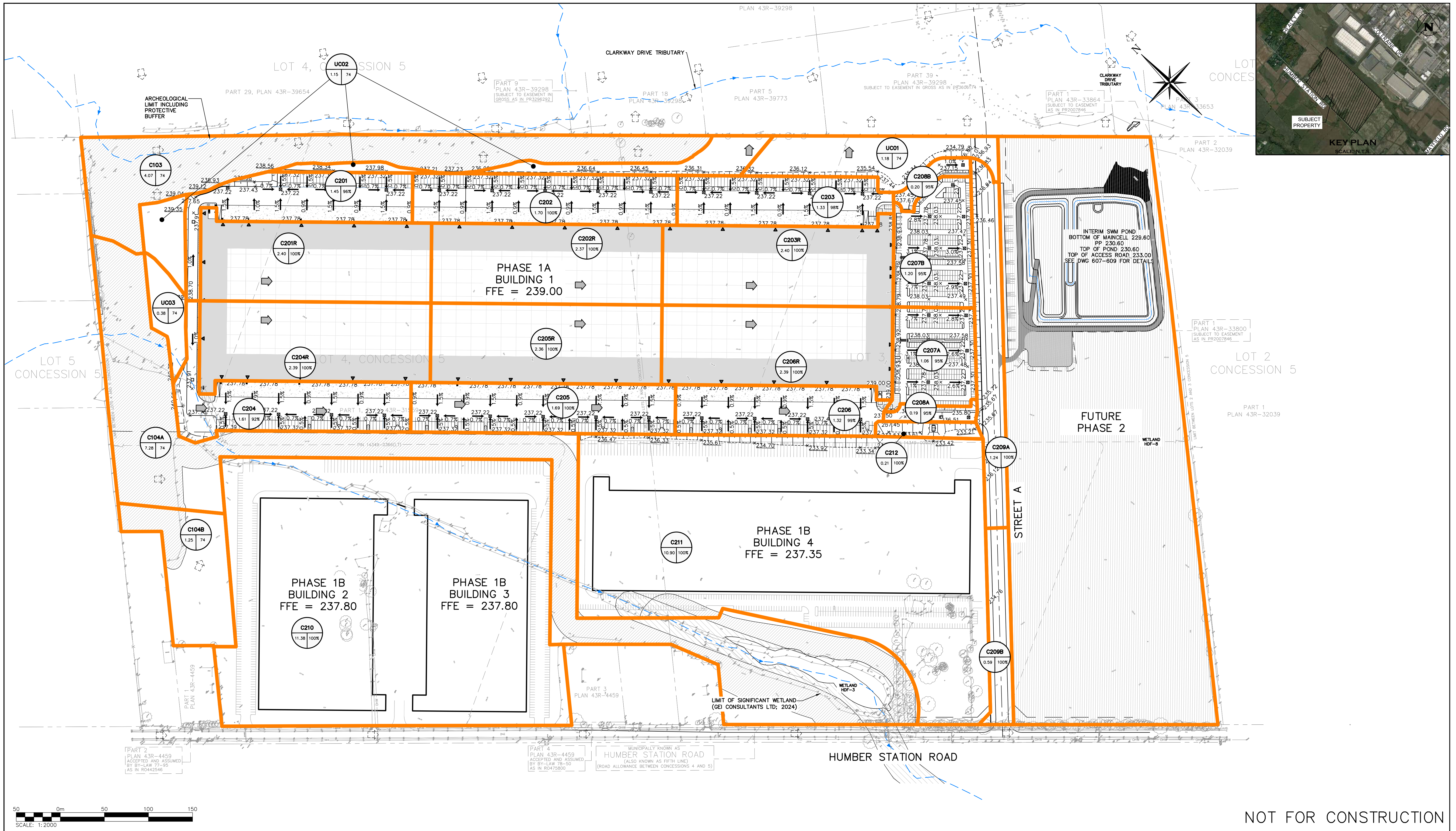
No.	ISSUE	DATE: MMM/DD/YYYY	Engineer

**HUMBER STATION DISTRIBUTION CENTRE
 TOWN OF CALEDON**

Project: Humber Station Distribution Centre
 Drawing: PRE-DEVELOPMENT DRAINAGE PLAN

CROZIER
CONSULTING ENGINEERS

Drawn By: S.C./D.G.	Design By: S.C./H.L.	Project: 624-6777	
Check By: M.I./R.A.	Check By: M.I./R.A.	Drawing: C120	



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PROJECT No.: 22095.00

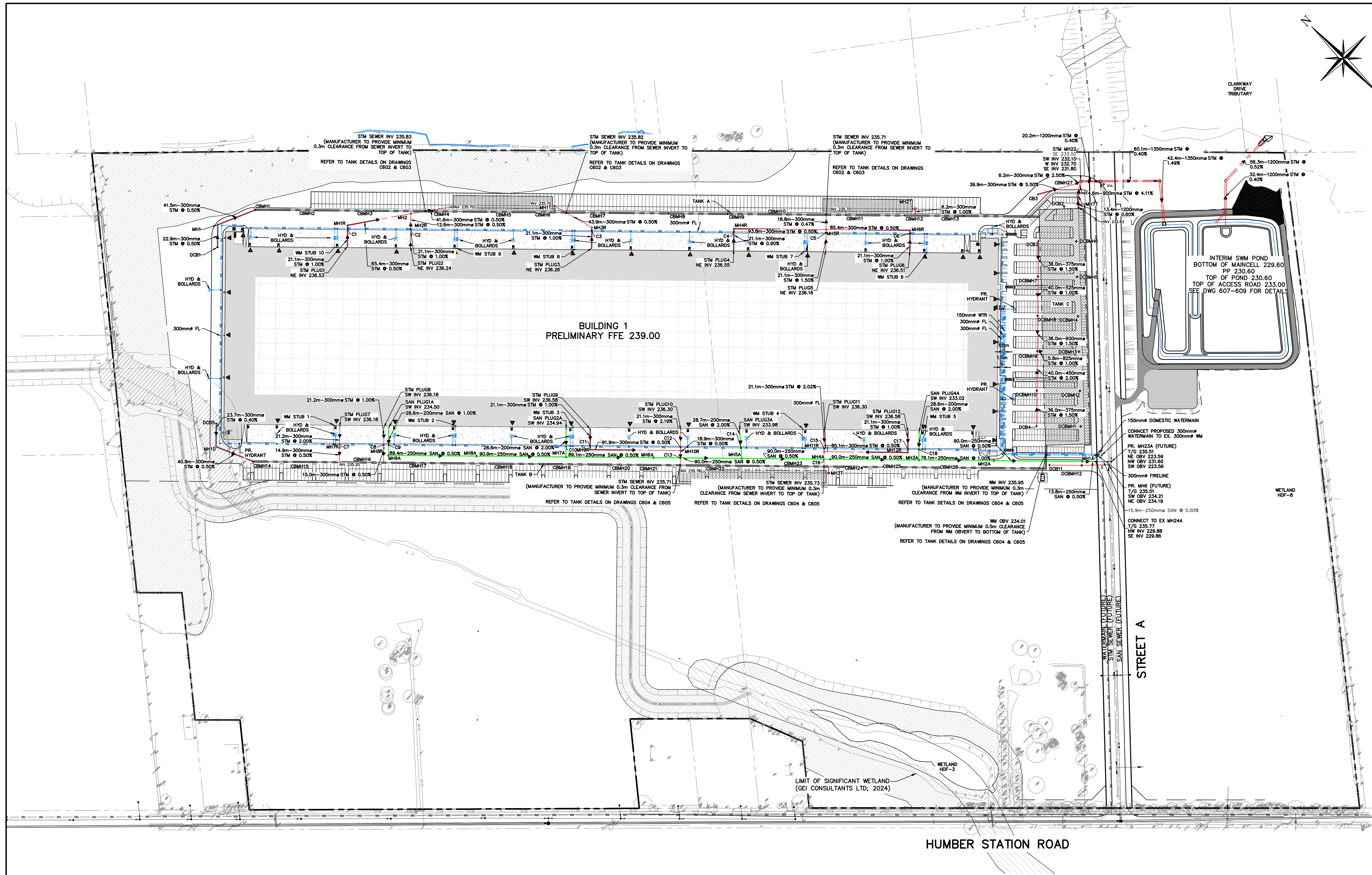
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No.	ISSUE	DATE: MM/DD/YYYY	Engineer

Project
HUMBER STATION DISTRIBUTION CENTRE TOWN OF CALEDON
Drawing
POST-DEVELOPMENT DRAINAGE PLAN

Drawn By	S.C./D.G.	Design By	S.C./H.L.	Project	624-6777
Check By	M.I./R.A.	Check By	M.I./R.A.	Drawing	C121

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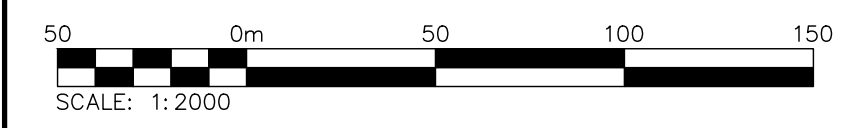
CROSSING TABLE		
CROSSING I.D.	UPPER	LOWER
C1	STM INV 236.35	WAT OBV 235.85
C2	STM INV 236.06	WAT OBV 235.56
C3	STM INV 236.08	WAT OBV 235.58
C4	STM INV 236.37	WAT OBV 235.87
C5	STM INV 235.89	WAT OBV 235.39
C6	STM INV 236.33	WAT OBV 235.83
C7	STM INV 235.82	WAT OBV 235.32
C8	STM INV 236.00	WAT OBV 235.50
C9	SAN OBV 234.32	WAT OBV 233.82
C10	SAN OBV 234.58	WAT OBV 234.08
C11	STM INV 236.40	WAT OBV 235.88
C12	STM INV 235.90	WAT OBV 235.40
C13	STM INV 235.80	SAN OBV 232.80
C14	SAN OBV 233.82	WAT OBV 233.32
C15	STM INV 235.92	WAT OBV 235.42
C16	STM INV 235.76	SAN OBV 231.81
C17	STM INV 236.37	WAT OBV 235.87
C18	WAT INV 235.58	SAN OBV 232.86

NOTE: WHERE SEWER AND WATERMAIN CROSSINGS DO NOT ACHIEVE MINIMUM 0.50m VERTICAL SEPARATION, WATERMAIN SHALL BE LOWERED TO MEET MINIMUM 0.50m CLEARANCE REFER TO TANK DETAILS ON SHEET C703 FOR WATERMAIN LOWERING DETAIL.

NOTE: WHERE SITE SEWERS OR WATERMAIN DO NOT MEET MINIMUM FROST COVER REQUIREMENTS (1.7m FOR WATERMAIN, 1.5m FOR SANITARY SEWER, AND 1.2m FOR STORM SEWER) FROST PROTECTION SHALL BE PROVIDED PER OPSD 1109.030 (INSULATION FOR SEWERS AND WATERMAIN IN SHALLOW TRENCHES). REFER TO TANK DETAILS ON SHEET C703 FOR DETAILS.

NOTE: WHERE ELEVATION BETWEEN INLET AND OUTLET INVERT EXCEEDS 0.60m A DROP STRUCTURE SHALL BE INSTALLED PER 1003.010.

NOTE: ENGINEERED SOIL TO HAVE A MINIMUM PERCOLATION RATE OF 15 mm/HOUR WITH A SAFETY FACTOR OF 2.5 FOR INFILTRATION PURPOSES. PROPOSED ENGINEERED SOIL MAKE UP AND DEPTH PER GEOTECHNICAL'S RECOMMENDATION.



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No.	ISSUE	DATE: MM/DD/YYYY

Project	Engineer
HUMBER STATION DISTRIBUTION CENTRE TOWN OF CALEDON	

Project	Engineer
HUMBER STATION DISTRIBUTION CENTRE TOWN OF CALEDON	

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Drawn By: S.C./D.G. Design By: S.C./H.L. Project: 624-6777
 Check By: M.I./R.A. Check By: M.I./R.A. Drawing: C200

GOREWAY ROAD TRIBUTARY REACH 1

HUMBER STATION ROAD

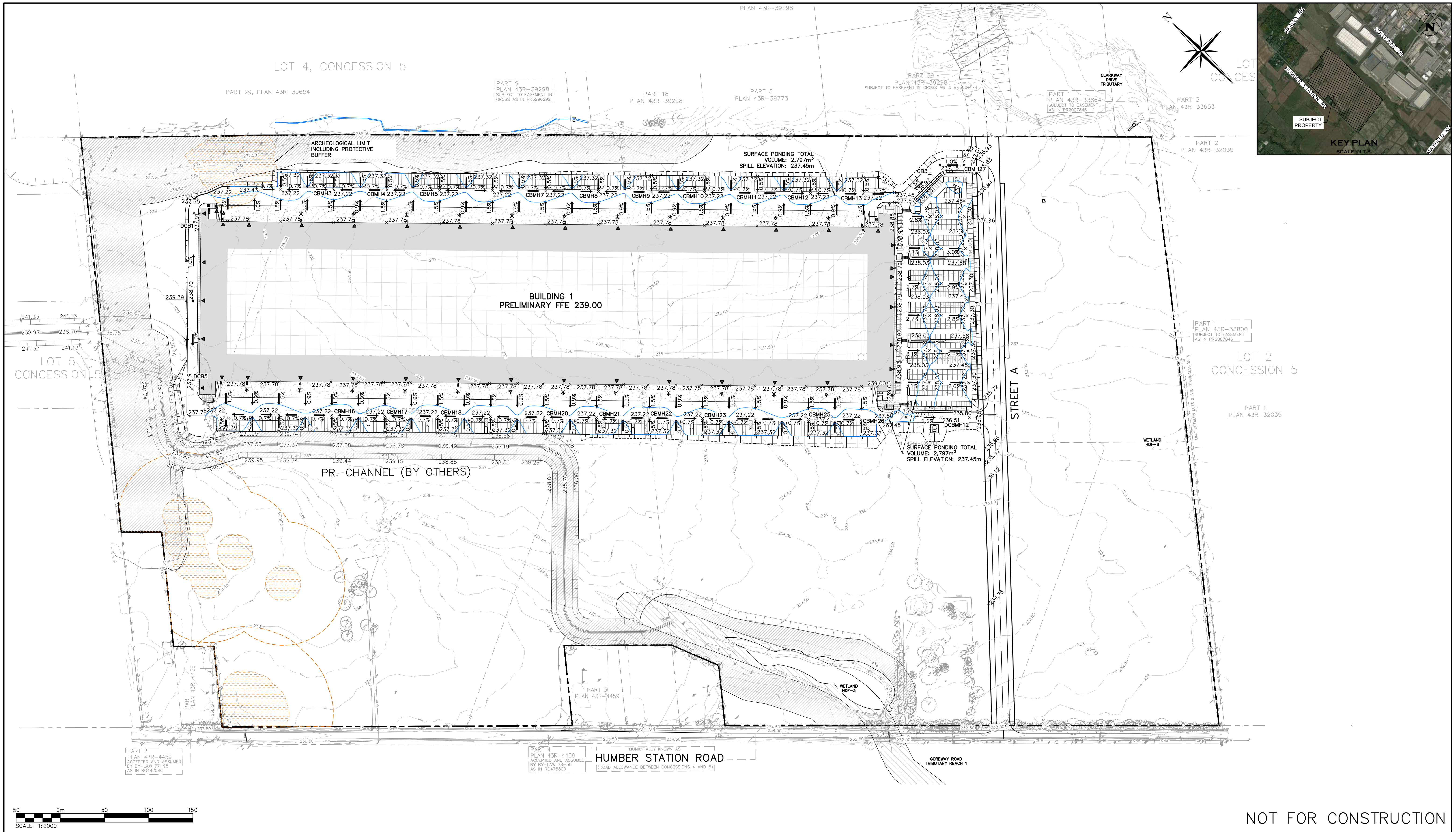
STREET A

CLARKWAY DRIVE TRIBUTARY

LIMIT OF SIGNIFICANT WETLAND (GEI CONSULTANTS LTD; 2024)

WETLAND HDP-9

WETLAND HDP-3



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Project	Engineer
HUMBER STATION DISTRIBUTION CENTRE TOWN OF CALEDON	

Project	Engineer
HUMBER STATION DISTRIBUTION CENTRE TOWN OF CALEDON	

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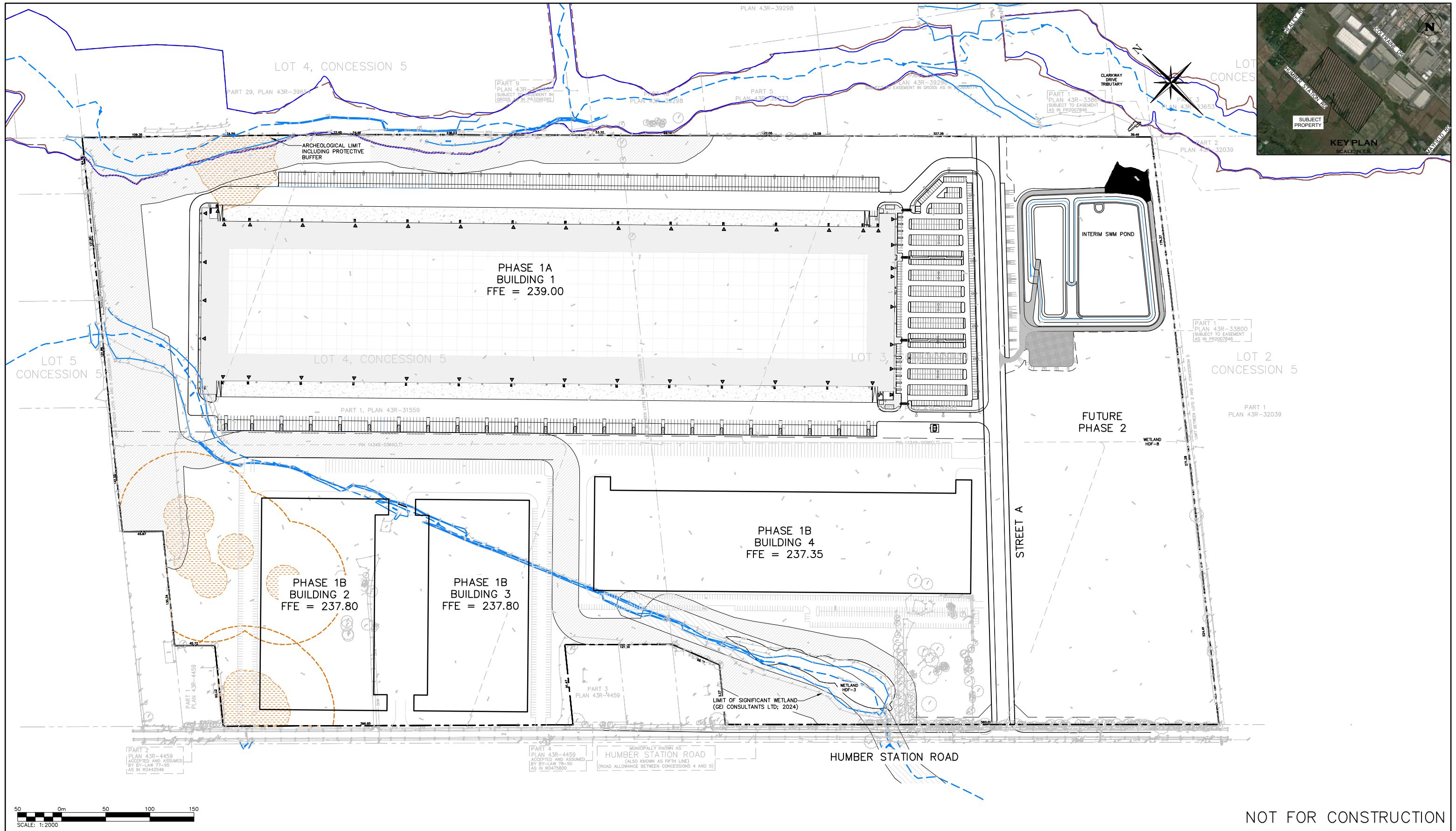


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CONSULTING ENGINEERS

Drawn By	S.C./D.G.	Design By	S.C./H.L.	Project	624-6777
Check By	M.I./R.A.	Check By	M.I./R.A.	Drawing	C300

OVERALL GRADING PLAN

C:\Users\mhooper\Documents\Crozier Consulting Engineers\0624-6777 Humber Station Distribution Centre\Project Files\Civil\Sheets\6777_C001.dwg, 2024-11-22 11:01:04 AM, DWG To PDF.pc3



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1B	ISSUED FOR SPA SUBMISSION 1B	NOV/22/2024

Town		Engineer

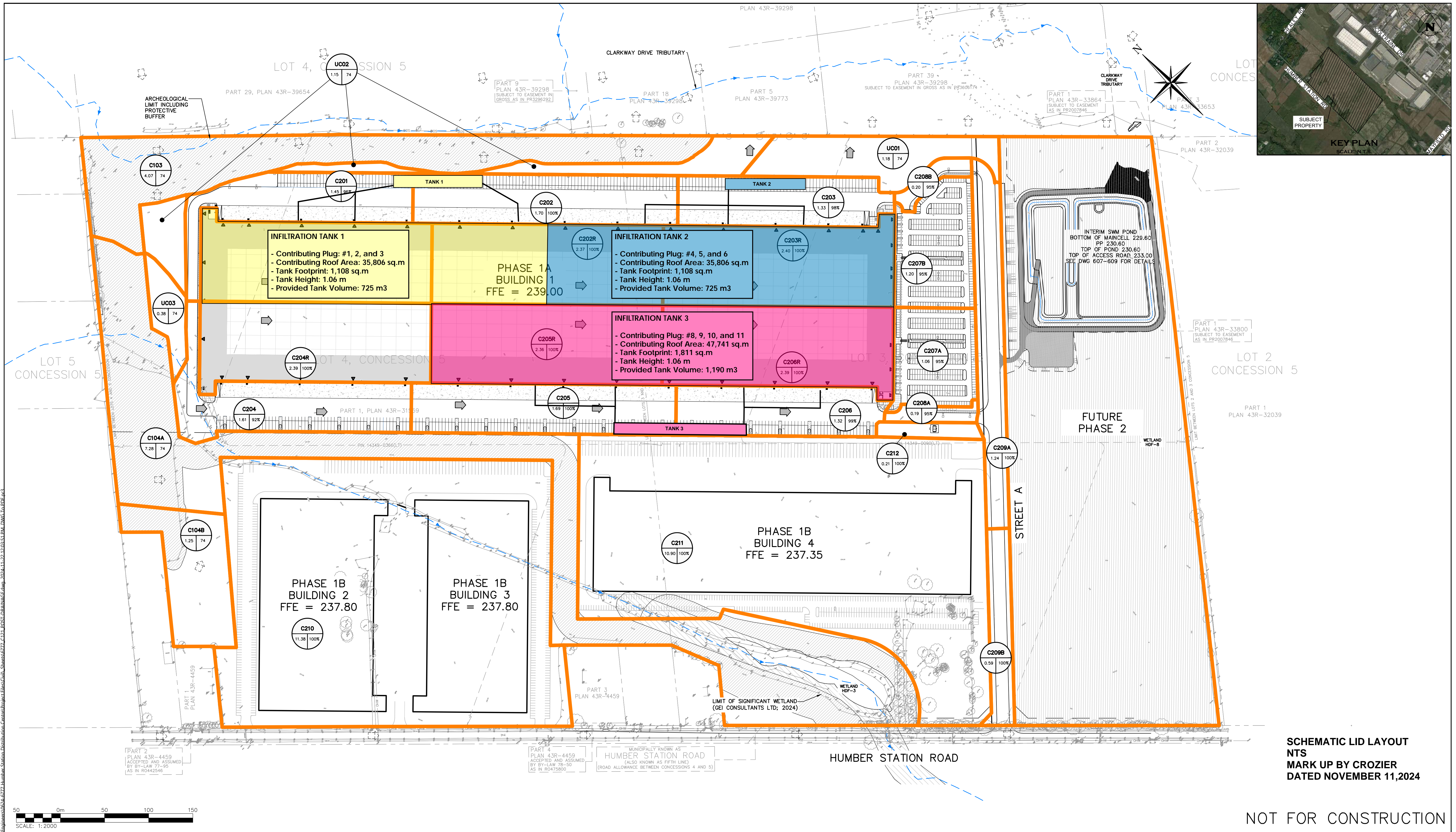
Project	

HUMBER STATION DISTRIBUTION CENTRE
 TOWN OF CALEDON

Drawing: SITE LAYOUT

CROZIER CONSULTING ENGINEERS

Drawn By	S.C./D.G.	Design By	S.C./H.L.	Project	624-6777
Check By	M.I./R.A.	Check By	M.I./R.A.	Drawing	FIG.1



**SCHEMATIC LID LAYOUT
NTS
MARK UP BY CROZIER
DATED NOVEMBER 11, 2024**

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TEMPORARY BENCHMARKS:
ELEVATION ARE REFERRED TO THE REGION OF PEEL BENCHMARK NO. 40 LOCATED ON THE SOUTH FACE AT THE WEST CORNER OF SOUTH END OF A CONCRETE BOX CULVERT ACROSS MAYFIELD ROAD APPROXIMATELY 0.56 km EAST OF CLARKWAY DRIVE, HAVING AN ELEVATION OF 222.165 m. VERTICAL DATUM: CANADIAN GEODETIC DATUM, 1928 (1978 SOUTHERN ONTARIO READJUSTMENT)

SITE PLAN NOTES:
DESIGN ELEMENTS ARE BASED ON SITE PLAN PETROFF.
DRAWING No.: A100.0, DATED: 19/APR/2024
PROJECT No.: 22095.00

No.	ISSUE	DATE: MM/DD/YYYY	Engineer
1B	ISSUED FOR SPA SUBMISSION 1B	NOV/22/2024	

Project: **HUMBER STATION DISTRIBUTION CENTRE
TOWN OF CALEDON**

Drawing: **LID LAYOUT**

CROZIER CONSULTING ENGINEERS

Drawn By: S.C./D.G. Design By: S.C./H.L. Project: **624-6777**

Check By: M.I./R.A. Check By: M.I./R.A. Drawing: **FIG 2**