

TAB 11a

- Stormwater Calculation Results for 2-, 10-, and 100-Year Storm Events, Pre- and Post- Development, Basins

(These files are very large; to save resources and paper, the files may be accessed via the electronic submittal)

Preliminary Stormwater Drainage Report

Meadow View Homes

For
Meadowview Partners, LLC

Located in the E. Half of S6, T12N, R19W,
Missoula, Missoula County, Montana

Prepared by:



Professional Consultants Inc.
Unmatched Experience. Uncompromising Standards.

3115 Russell Street

P.O. Box 1750

Missoula, MT 59806

(406) 728-1880

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PCI Project No. 9153-21

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1.0 INTRODUCTION

This report is being submitted for review by the City of Missoula for the proposed stormwater facilities for Meadow View Homes, located in the East half of S6, T12N, R19W, Geocode: 04-2093-06-4-03-01-0000. Meadow View Homes is a proposed 96- lot single family residential development. The lots are within the city limits of the City of Missoula. The increased runoff will be addressed through the proposed stormwater facilities shown on the plans.

This report addresses the stormwater runoff for this development and the stormwater management system needed to meet the Missoula City Public Works Standards and the Department of Environmental Quality stormwater requirements.

1.1 LOCATION

The site is located within the city limits of Missoula, in the East half of S6, T12N, R19W, Geocode: 04-2093-06-4-03-01-0000.

1.2 DESCRIPTION OF PROPERTY

The existing site encompasses 31.47 acres and is covered entirely by native prairie grasses except for a single residential dwelling with a lawn encompassing 1.3 acres. The site is moderately steep sloping from the southeast to the northwest. The slopes start at ~20%, then to ~15%, evens out to 6-8%, then steepens back to ~11%. The existing site's current land use is private residential with only one house existing on the site. Due to zoning, no other uses other than residential could be used for the site. There are no existing drainage swales or channels on the site. Runoff is currently captured by an 18" pipe to the north of the site. No part of the site is in any flood zone, nor are there any irrigation ditches.

1.3 PREVIOUS STUDIES

There are no previous studies done on this site.

1.4 PROJECT DESCRIPTION

The proposed project is a 96- lot single family residential subdivision. The development will include 5760lf of new roadway, including 6ft of sidewalk on either side all within in a 50' ROW. The development will also include 7.61 ac of common area. The stormwater design includes 3 total ponds to retain and slow the water being released to the offsite 18" drainage pipe.

1.5 REGULATIONS

The design criteria for the site are governed by Missoula City Public Works Standards and DEQ-8. Furthermore, runoff leaving the site must not overwhelm the existing downstream infrastructure.

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2.0 EXISTING CONDITIONS

The existing site is moderately steep. The site slopes from the southeast to the northwest starting at ~20%, then to ~15%, evens out to 6-8%, then steepens back to ~11%. According to the NRCS, the underlying soils in this area are classified as Minesinger-Bigarm complex and Bigarm gravelly loam with the complex having a very slight majority of the site. The complex is classified as Group C and the Bigarm is classified as Group B. A geologic survey was also conducted on the site. The findings correlated with the NRCS soil survey data.

3.0 DRAINAGE DESIGN CRITERIA AND DESIGN METHODOLOGY

Missoula City Public Works Standards and DEQ-8 were used for the design with the former being the ruling document for this drainage plan. All DEQ-8 requirements have been met. The rest of this report is to address the Missoula City Public Works Standards and the specialty requirements for the site due to the existing infrastructure.

This report is proposed as a Standard Plan per Missoula City Public Works Standards and DEQ-8. The requirements for both state that the post-development discharge rate for the 2, 10, and 100-year 24-hour storm events cannot exceed the pre-development discharge rate. Also, the 10-year 24-hour storm cannot flood any roadways, and the 100-year 24-hour storm cannot inundate any house on site or off site.

On top of these generalized conditions, the site has restrictions due to the existing infrastructure. While the general requirement states that the post-development flow must be less than the pre-existing flow, there is an 18" downstream pipe that takes in this site and flows from offsite. Therefore, it must be shown how the post-development flows affect the 18" pipe.

Furthermore, there is also concern of flooding of the down slope homes from water that infiltrates into the ground from the site. A geological survey was then conducted on the site to map the soil profiles. Following the closest test pit to each proposed detention facility and all soil layers above the invert of the ponds being removed, the infiltration rates can be seen below:

Ponds	Test Pit	Limiting Layer from Closest Test Pit	Infiltration Rate
Upper Pond	7	Lean Clay with Gravel	0.0
Common Area 1 Pond	4	Clayey Gravel	0.07
West Pond	3	Sand with Gravel	2.6

These infiltration rates were then used to decide if the ponds should be lined and at what elevations.

The results and design may be demonstrated through either narrative descriptions or calculations. Storm and Sanitary Analysis for AutoCAD® Civil 3D® by Autodesk was chosen to estimate both pre-development and post-development storm flows and volumes. Hydrodynamic was elected for the link routing method, Hazen-Williams was elected for the force main equation, the Hydrology Method and Time of Concentration methods were elected to use SCS TR-55 methods, and the

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minimum Time of Concentration was set to 5 minutes. Using this computer program/model, the United States Department of Agriculture's Soil Conservation Service [SCS] curve numbers were used. The rainfall distribution curves were acquired through the Storm and Sanitary Analysis program for the Missoula, Montana, 2, 10, and 100-year 24-hour distributions.

4.0 PROPOSED DEVELOPMENT

The proposed development includes 6,000' of 36' roadway (curb face and face of curb being included). The site is divided into subbasins which will drain to either a curb inlet or detention pond. All runoff, other than one small area on the western side of the project, will be completely routed to the detention pond in the northwest corner of the project. It will then be released through an inlet structure in the pond and piped to the swale that flows to the existing 18" culvert.

There are three detention ponds, two underground storage facilities, and as many Class V injection wells as needed to meet flow requirements are proposed for the site. The names for the ponds are upper pond, common area 1 pond, and west pond. The common area 1 pond will be lined to not allow infiltration at any elevation. The upper pond will continuously flow freely into a 1' diameter drain during every storm. The common area 1 pond will also continuously drain into a 24" diameter drain but the 12" pipe coming out of the drain will have an 8" diameter limiting orifice. Due to the small tributary area that drains into the west pond, all runoff that flows into the pond will be infiltrated. The middle storage facility will hold 30,000 gallons (4,008 ft³) of water and the northwest storage facility will hold 56,000 gallons of water (7,519 ft³). All water will then be sent to the injection wells except for during the 10 and 100 year storms.

The injection wells will be in vaults that will further catch sediment and filter the runoff before being gravity drained into the ground. The wells will be 12" in diameter and will be drilled to the elevation of the valley floor. Currently, they are all proposed to be located in the northwest corner of the site. Upon sufficiency approval, drilling will begin to determine the flowrate of each injection well and in turn, how many injection wells are needed. Flowrate testing will be done for each injection well and done before drilling the next well. DNRC will also be closely worked with for design of the wells.

Additionally, there will be underground storage facilities placed in Common Area 1 to retain stormwater for irrigation purposes. The facility is currently planned to retain 10,000 gallons of stormwater.

The basins for the site were created using perpendicular lining to the contours of the designed site. These basins were built with the design of the sidewalks being sloped at a 2%. The dimensions for each basin are an estimation, and not exact. However, these estimations were done with an educated approach and are accurate to the rough dimensions of each actual subbasin.

4.1 Time of Concentration

The SCS TR-55 methodology uses a Time of Concentration (TOC) parameter, defined as the amount of time it takes stormwater runoff to travel from the most distant point on a drainage basin site to a specific point of interest. For each drainage basin, the TOC was estimated for each pre-development and post-development site condition using their respective programs. The TOC 's

were modelled with Manning's roughness number (n), slopes, and lengths of flow. The maximum flow lengths used for the basins' sheet flow was 300'.

A summation of the TOC's for each basin was utilized to give an accurate time the water took to reach the outlet for basin. For example, if a subbasin has a region with relatively uniform steep slopes that sloped to an area with relatively uniform flatter slopes, then sloped to the roadway, the concentration will depend on each area within the subbasin, rather than one generalized, average, or maximum TOC from each of the areas.

As identified above, the post-development will add impervious area making the time of concentration less than that for pre-development, which results in more runoff being generated.

4.2 Curve Number

SCS Runoff Curve Numbers [CN] are estimated for the development based on the soil types identified in each drainage basin for the pre-development and post-development site conditions, individually. The SCS TR-55 methodology uses a table of CN values from which to select. The post-development lots can be classified as ¼ and 1/8 acre. The CN for each basin was chosen based on their classification and from the test pits from the geological survey of the site.

4.3 Pre-Development Runoff

Existing Site

Year Storm	Peak Flow (CFS)
2-year	0.28
10-year	2.36
100-year	7.52

Existing and Off Site Flowing Through Existing Culvert

Year Storm	Peak Flow (CFS)	Total Outflow Volume (ac-ft)
2-year	0.28	0.197
10-year	3.44	0.953
100-year	13.45	2.530

5.0 PROPOSED STORMWATER FACILITIES

Curb inlets will be utilized to capture the water from each basin, with water that is not captured being diverted to the downstream inlets. No water will be infiltrated from the inlets and will all be sent to the detention ponds and storage facilities. The upper pond will capture water that might otherwise flood the houses downstream of the swale feeding into the pond. The water

from the uphill side of the development, and including the upper pond, will be routed to the common area 1 pond. This pond will drain into a 7" drain at the bottom of the pond. The water will then be routed to the middle storage facility. The middle storage facility will also have runoff coming in from a swale running along the walking trail that captures the runoff from the adjacent lots. The middle storage facility will then drain from an 8" pipe. The stormwater from the middle pond, and stormwater from the remaining inlets, is then routed to the northwest storage facility. This facility will route the water to the injection wells. The required total peak flow from the injection wells is roughly 5 cfs. During the 10 and 100-year storm event, stormwater will drain out of a 12" pipe to the downhill swale, and further the existing 18" culvert.

The west pond will fully capture all runoff and will infiltrate at a rate of 2.6in/hr. The pond will fully drain within 72 hours of the storm. Should the pond flood, overflow will drain to the roadway, down Garland Dr, and into the existing stormwater infrastructure.

6.0 POST-DEVELOPMENT STORM ANALYSIS

The results of the analysis can be seen below, including the Storm and Sanitary Analysis Reports. The results show that no roadway will be flooded at any time during the three storm events, nor will any pond flood and cause flooding in downstream houses on or off site.

Post-Development

Year Storm	Peak Outflow (CFS)
2-year	0.00
10-year	0.00
100-year	6.82

Post-Development and Offsite Flows Through Existing Culvert

Year Storm	Peak Outflow (CFS)	Total Outflow Volume (ac-ft)
2-year	0.08	0.060
10-year	1.25	0.444
100-year	10.73	1.562

The maximum water elevations for the storm event and the top elevations for the ponds can be seen as follows:

Pond Elevations

	Pond Top Elev.	2-Year Storm Peak Water Elev.	10-Year Storm Peak Water Elev.	100-Year Storm Peak Water Elev.
Upper Pond	3346	3343.03	3343.14	3343.28
Common Area 1 Pond	3333.75	3330.81	3330.65	3331.51
West Pond	3292.5	3290.52	3291.24	3291.68

Storage Tank Volumes

	Volume (ft ³)	2-Year Max. Volume (ft ³)	10-Year Max. Volume (ft ³)	100-Year Max. Volume (ft ³)
Middle Storage	4008	490	790	3623
Northwest Storage	7519	1728	5770	7146

An analysis report, which includes time series plots, from Storm and Sanitary Analysis can be found attached to give further insight into the analysis. The report gives basin TOC calculations (including Manning's (n), slope, flow distance), outflows, elevations, and timings for the SCS Curves and the flow of water throughout the site. The time series plots give intensity of flow as a function of time, showing when peak flows are present for basins, inlets, ponds, and pipes.

7.0 OFFSITE FLOWS

There are a couple locations in which offsite runoff comes onto and affects the proposed development. Runoff from the Elk Hills subdivision to the direct south comes onto the site which equates to roughly 0.64 acres and the entirety of Block 1, Lot 23 comes onto the site which is roughly 1.32 acres. Both of these areas were included in the basins of the proposed development in the model instead of being treated as separate basins.

8.0 CONCLUSION

This report details the existing conditions and proposed improvements for Meadow View Homes in the City of Missoula, Montana. The preceding report shows how the proposed stormwater facilities shall handle 2-, 10-, and 100-year 24-hour storm event. Based upon these results found in this analysis, the facilities are adequately designed using the methods discussed in the City of Missoula's Public Works Standards manual and DEQ-8.

Prepared by:

Professional Consultants, Inc.



Matt Shaffer, PE

Date: June 14, 2024



Andy Mefford, PE

Date: June 14, 2024

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Hydrodynamic
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	YES

Analysis Options

Start Analysis On	00:00:00	0:00:00
End Analysis On	00:00:00	0:00:00
Start Reporting On	00:00:00	0:00:00
Antecedent Dry Days	10	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:00:01	days hh:mm:ss
Routing Time Step	1	seconds

Number of Elements

	Qty
Rain Gages	4
Subbasins.....	2
Nodes.....	2
<i>Junctions</i>	0
<i>Outfalls</i>	1
<i>Flow Diversions</i>	0
<i>Inlets</i>	0
<i>Storage Nodes</i>	1
Links.....	1
<i>Channels</i>	0
<i>Pipes</i>	1
<i>Pumps</i>	0
<i>Orifices</i>	0
<i>Weirs</i>	0
<i>Outlets</i>	0
Pollutants	1
Land Uses	1

Subbasin Summary

SN	Subbasin ID	Area	Peak Rate	Weighted Curve Number	Total Rainfall	Total Runoff	Total Runoff Volume	Peak Runoff	Time of Concentration
		(ac)			(in)	(in)	(ac-in)	(cfs)	(days hh:mm:ss)
1	OFFSITE-FLOWS	48.14	484.00	69.00	1.17	0.02	0.72	0.08	0 00:54:51
2	PREDEVELOPMENT-SITE	31.46	484.00	74.00	1.17	0.06	1.73	0.28	0 00:52:13

Node Summary

SN	Element ID	Element Type	Invert Elevation	Ground/Rim (Max) Elevation	Initial Water Elevation	Surcharge Elevation	Ponded Area	Peak Inflow	Max HGL Elevation Attained	Max Surcharge Depth Attained	Min Time of Freeboard Peak Attained Flooding Occurrence	Total Flooded Volume	Total Time Flooded
			(ft)	(ft)	(ft)	(ft)	(ft²)	(cfs)	(ft)	(ft)	(ft) (days hh:mm)	(ac-in)	(min)
1	PREDEVELOPMENT-OUTFALL	Outfall	3159.50					0.28	3159.59				
2	15-Jun	Storage Node	3190.00	3193.00	3190.00		0.00	0.28	3190.09			0.00	0.00

Link Summary

SN	Element	Element	From	To (Outlet)	Length	Inlet	Outlet	Average	Diameter or	Manning's	Peak	Design Flow	Peak Flow/	Peak Flow	Peak Flow	Total Time	Reported
ID	Type	(Inlet)	Node			Invert	Invert	Slope	Height	Roughness	Flow	Capacity	Design Flow	Velocity	Depth/	Surcharged	Condition
		Node				Elevation	Elevation						Ratio		Total Depth		
					(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)		(ft/sec)		(min)	
1	Link-84	Pipe	15-Jun	PREDEVELOPMENT-OUTFALL	167.52	3190.00	3159.50	18.2100	18.000	0.0150	0.28	38.85	0.01	6.35	0.06	0.00	Calculated

Subbasin : OFFSITE-FLOWS

Input Data

Area (ac)	48.14
Peak Rate Factor	484
Weighted Curve Number	69
Rain Gage ID	MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
Pasture, grassland, or range, Fair	48.14	B	69
Composite Area & Weighted CN	48.14		69

Time of Concentration

TOC Method : SCS TR-55

Sheet Flow Equation :

$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (S_f^{0.4}))$

Where :

- Tc = Time of Concentration (hr)
- n = Manning's roughness
- Lf = Flow Length (ft)
- P = 2 yr, 24 hr Rainfall (inches)
- Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation :

- V = 16.1345 * (Sf^0.5) (unpaved surface)
- V = 20.3282 * (Sf^0.5) (paved surface)
- V = 15.0 * (Sf^0.5) (grassed waterway surface)
- V = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
- V = 9.0 * (Sf^0.5) (cultivated straight rows surface)
- V = 7.0 * (Sf^0.5) (short grass pasture surface)
- V = 5.0 * (Sf^0.5) (woodland surface)
- V = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
- Tc = (Lf / V) / (3600 sec/hr)

Where:

- Tc = Time of Concentration (hr)
- Lf = Flow Length (ft)
- V = Velocity (ft/sec)
- Sf = Slope (ft/ft)

Channel Flow Equation :

- $V = (1.49 * (R^{(2/3)}) * (S_f^{0.5})) / n$
- $R = A_q / W_p$
- $T_c = (L_f / V) / (3600 \text{ sec/hr})$

Where :

- Tc = Time of Concentration (hr)
- Lf = Flow Length (ft)
- R = Hydraulic Radius (ft)
- Aq = Flow Area (ft²)
- Wp = Wetted Perimeter (ft)
- V = Velocity (ft/sec)
- Sf = Slope (ft/ft)
- n = Manning's roughness

2-Year Storm
Pre-Development Results

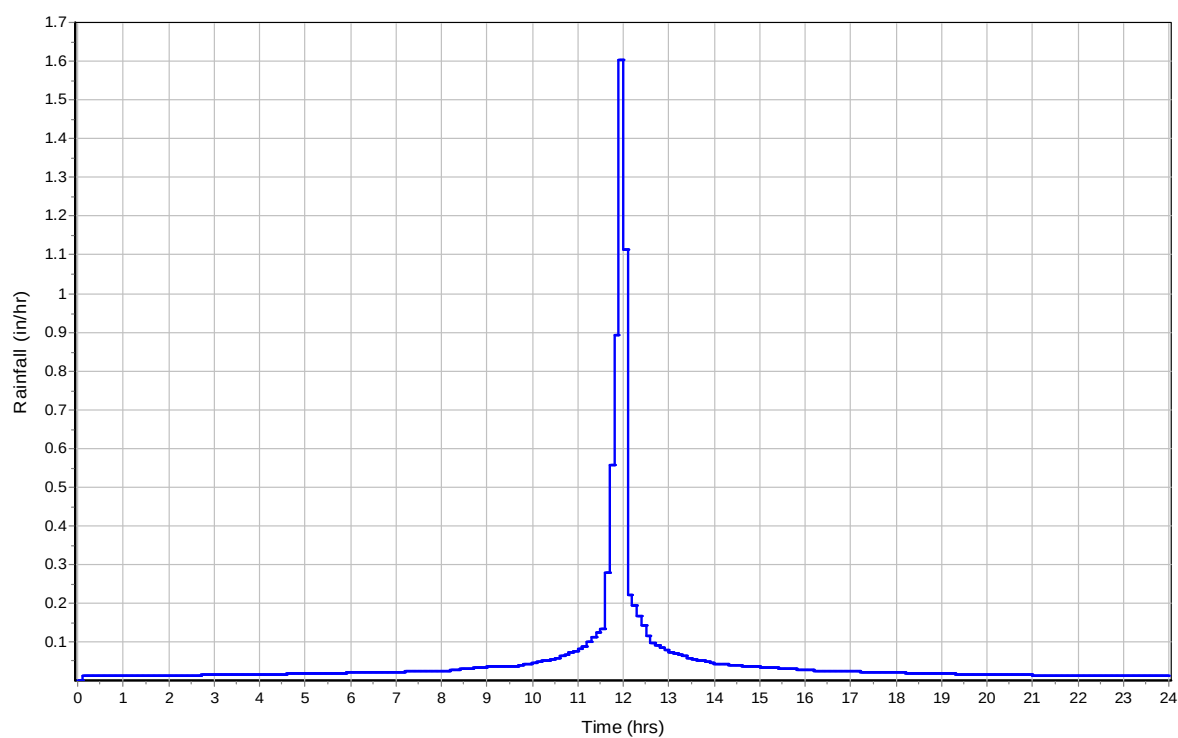
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.15	0.15	0.15
Flow Length (ft) :	300	300	300
Slope (%) :	20	15	25
2 yr, 24 hr Rainfall (in) :	1.2	1.2	1.2
Velocity (ft/sec) :	0.33	0.29	0.36
Computed Flow Time (min) :	15.34	17.21	14.03
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	1000	500	0
Slope (%) :	5	2	0
Surface Type :	Unpaved	Unpaved	Unpaved
Velocity (ft/sec) :	3.61	2.28	0
Computed Flow Time (min) :	4.62	3.65	0
Total TOC (min)54.85			

Subbasin Runoff Results

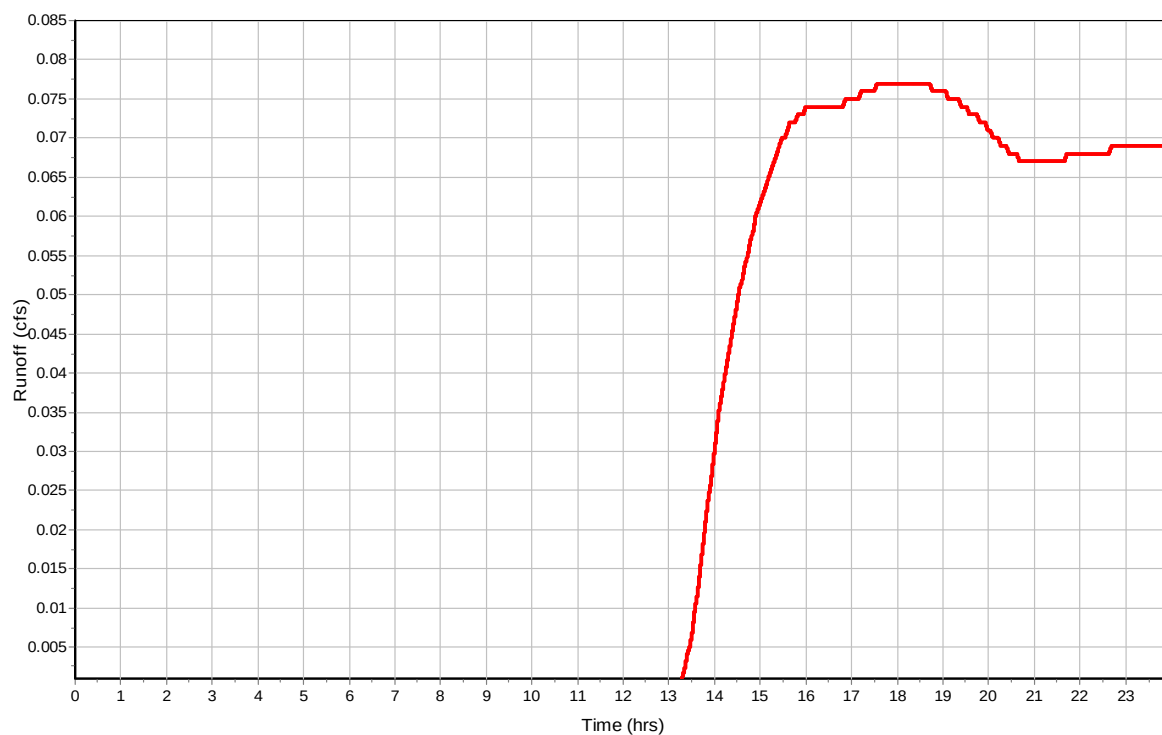
Total Rainfall (in)	1.17
Total Runoff (in)	0.02
Peak Runoff (cfs)	0.08
Weighted Curve Number	69
Time of Concentration (days hh:mm:ss)	0 00:54:51

Subbasin : OFFSITE-FLOWS

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : PREDEVELOPMENT-SITE

Input Data

Area (ac) 31.46
Peak Rate Factor 484
Weighted Curve Number 74
Rain Gage ID MC-2Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
Pasture, grassland, or range, Fair	15.73	B	69
Pasture, grassland, or range, Fair	15.73	C	79
Composite Area & Weighted CN	31.46		74

Time of Concentration

	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.15	0.15	0.15
Flow Length (ft) :	300	300	300
Slope (%) :	20	15	25
2 yr, 24 hr Rainfall (in) :	1.2	1.2	1.2
Velocity (ft/sec) :	0.33	0.29	0.36
Computed Flow Time (min) :	15.34	17.21	14.03

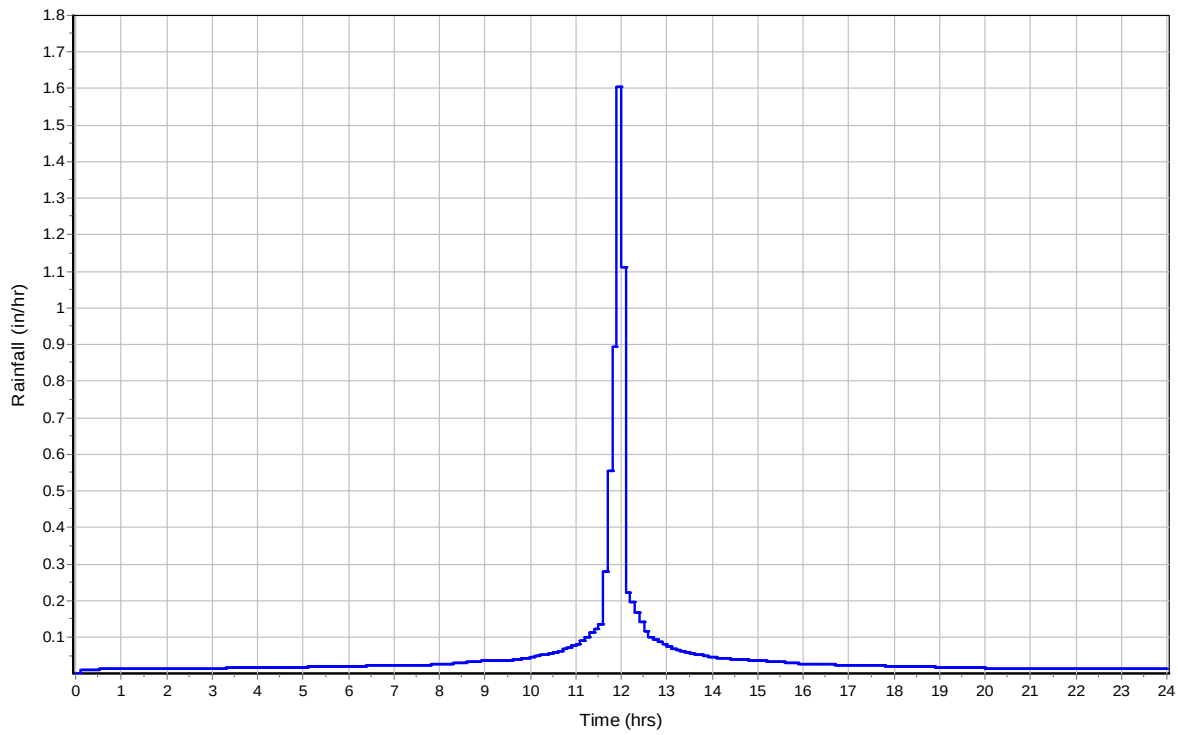
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	500	1000	0
Slope (%) :	25	5	0
Surface Type :	Unpaved	Unpaved	Unpaved
Velocity (ft/sec) :	8.07	3.61	0
Computed Flow Time (min) :	1.03	4.62	0
Total TOC (min)	52.23		

Subbasin Runoff Results

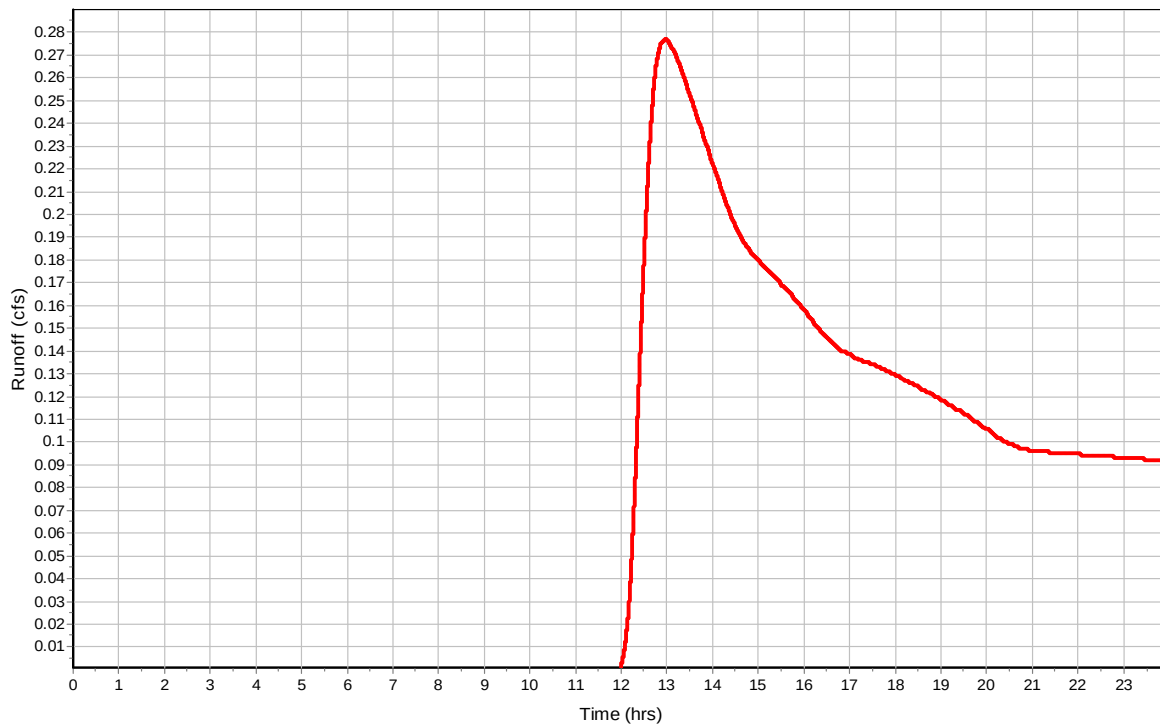
Total Rainfall (in) 1.17
Total Runoff (in) 0.06
Peak Runoff (cfs) 0.28
Weighted Curve Number 74
Time of Concentration (days hh:mm:ss) 0 00:52:14

Subbasin : PREDEVELOPMENT-SITE

Rainfall Intensity Graph



Runoff Hydrograph



Pipe Input

SN	Element	Length	Inlet Invert Elevation	Inlet Invert Offset	Outlet Invert Elevation	Outlet Invert Offset	Total Drop	Average Slope	Pipe Shape	Pipe Diameter or Height	Pipe Width	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow
	ID	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(%)		(in)	(in)					(cfs)
1	Link-84	167.52	3190.00	0.00	3159.50	0.00	30.50	18.2100	CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00

Pipe Results

SN	Element	Peak Flow	Time of Peak Flow Occurrence	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Travel Time	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
	ID	(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)		(min)		
1	Link-84	0.28	0 12:58	38.85	0.01	6.35	0.44	0.06	0.00		Calculated

Storage Nodes

Storage Node : Jun-15

Input Data

Invert Elevation (ft)	3190.00
Max (Rim) Elevation (ft)	3193.00
Max (Rim) Offset (ft)	3.00
Initial Water Elevation (ft)	3190.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

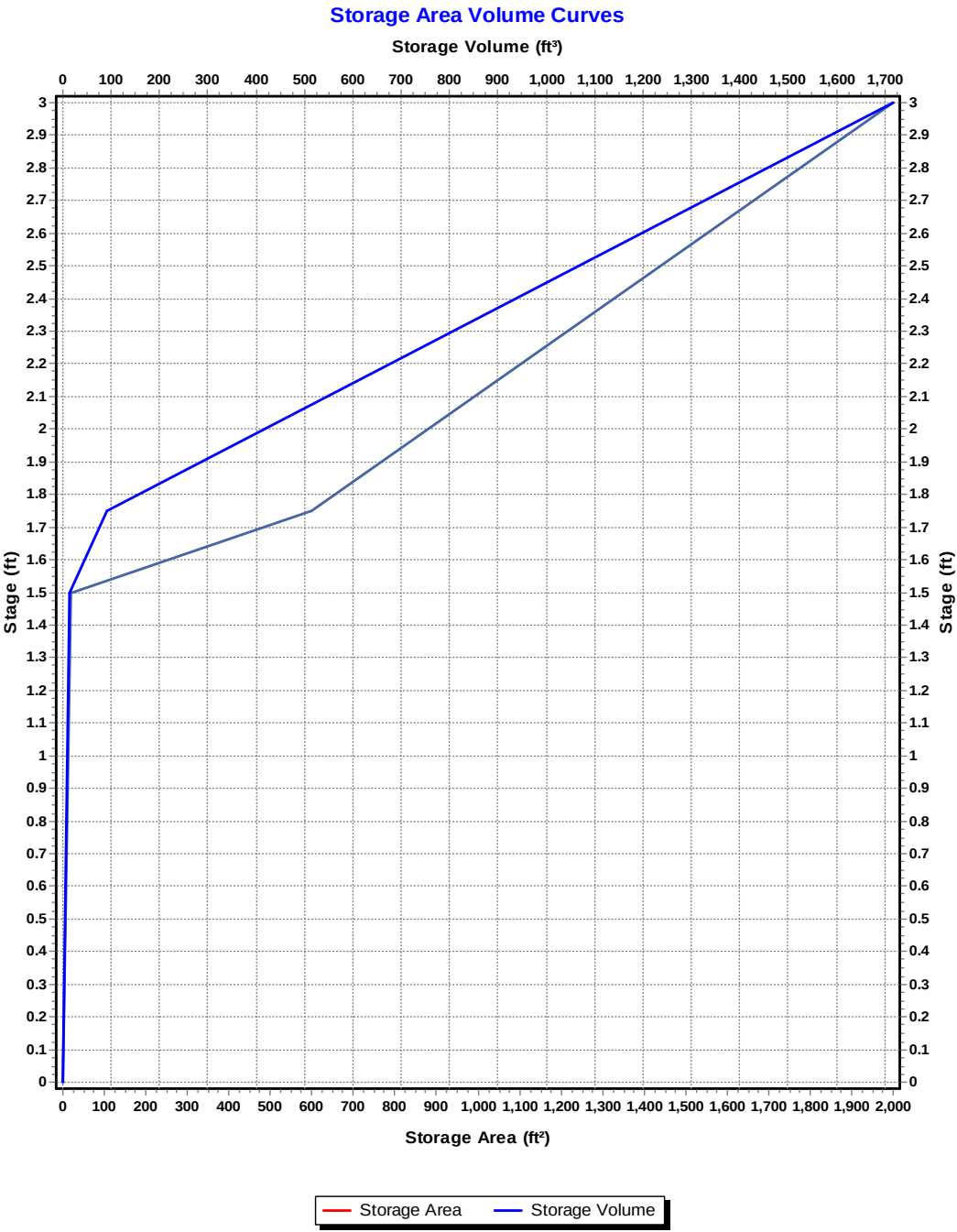
Infiltration/Exfiltration

Exfiltration Rate (in/hr)	0.1
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Storage Area Volume Curves

Storage Curve : BEFORE 12IN CULVERT

Stage (ft)	Storage Area (ft²)	Storage Volume (ft³)
0	0	0
1.5	20	15
1.75	600	92.5
3	2000	1717.5



Storage Node : Jun-15 (continued)

Output Summary Results

Peak Inflow (cfs)	0.28
Peak Lateral Inflow (cfs)	0.28
Peak Outflow (cfs)	0.28
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	3190.09
Max HGL Depth Attained (ft)	0.09
Average HGL Elevation Attained (ft)	3190.04
Average HGL Depth Attained (ft)	0.04
Time of Max HGL Occurrence (days hh:mm)	0 12:58
Total Exfiltration Volume (1000-ft³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.2

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Hydrodynamic
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	YES

Analysis Options

Start Analysis On	00:00:00	0:00:00
End Analysis On	00:00:00	0:00:00
Start Reporting On	00:00:00	0:00:00
Antecedent Dry Days	10	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:00:01	days hh:mm:ss
Routing Time Step	1	seconds

Number of Elements

	Qty
Rain Gages	4
Subbasins.....	2
Nodes.....	2
<i>Junctions</i>	0
<i>Outfalls</i>	1
<i>Flow Diversions</i>	0
<i>Inlets</i>	0
<i>Storage Nodes</i>	1
Links.....	1
<i>Channels</i>	0
<i>Pipes</i>	1
<i>Pumps</i>	0
<i>Orifices</i>	0
<i>Weirs</i>	0
<i>Outlets</i>	0
Pollutants	1
Land Uses	1

Subbasin Summary

SN	Subbasin ID	Area	Peak Rate	Weighted Curve Number	Total Rainfall	Total Runoff	Total Runoff Volume	Peak Runoff	Time of Concentration
		(ac)			(in)	(in)	(ac-in)	(cfs)	(days hh:mm:ss)
1	OFFSITE-FLOWS	48.14	484.00	69.00	1.66	0.11	5.30	1.17	0 00:54:51
2	PREDEVELOPMENT-SITE	31.46	484.00	74.00	1.66	0.21	6.45	2.36	0 00:52:13

Node Summary

SN	Element ID	Element Type	Invert Elevation	Ground/Rim (Max) Elevation	Initial Water Elevation	Surcharge Elevation	Ponded Area	Peak Inflow	Max HGL Elevation Attained	Max Surcharge Depth Attained	Min Time of Freeboard Peak Attained Flooding Occurrence	Total Flooded Volume	Total Time Flooded
			(ft)	(ft)	(ft)	(ft)	(ft²)	(cfs)	(ft)	(ft)	(ft) (days hh:mm)	(ac-in)	(min)
1	PREDEVELOPMENT-OUTFALL	Outfall	3159.50					3.44	3159.80				
2	15-Jun	Storage Node	3190.00	3193.00	3190.00		0.00	3.44	3190.31			0.00	0.00

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Average Slope	Diameter or Height	Manning's Roughness	Peak Flow	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Reported Condition
					(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)		(ft/sec)		(min)	
1	Link-84	Pipe	15-Jun	PREDEVELOPMENT-OUTFALL	167.52	3190.00	3159.50	18.2100	18.000	0.0150	3.44	38.85	0.09	13.30	0.20	0.00	Calculated

Subbasin Hydrology

Subbasin : OFFSITE-FLOWS

Input Data

Area (ac)	48.14
Peak Rate Factor	484
Weighted Curve Number	69
Rain Gage ID	MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
Pasture, grassland, or range, Fair	48.14	B	69
Composite Area & Weighted CN	48.14		69

Time of Concentration

TOC Method : SCS TR-55

Sheet Flow Equation :

$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (S_f^{0.4}))$

Where :

- Tc = Time of Concentration (hr)
- n = Manning's roughness
- Lf = Flow Length (ft)
- P = 2 yr, 24 hr Rainfall (inches)
- Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation :

- V = 16.1345 * (Sf^0.5) (unpaved surface)
- V = 20.3282 * (Sf^0.5) (paved surface)
- V = 15.0 * (Sf^0.5) (grassed waterway surface)
- V = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
- V = 9.0 * (Sf^0.5) (cultivated straight rows surface)
- V = 7.0 * (Sf^0.5) (short grass pasture surface)
- V = 5.0 * (Sf^0.5) (woodland surface)
- V = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
- Tc = (Lf / V) / (3600 sec/hr)

Where:

- Tc = Time of Concentration (hr)
- Lf = Flow Length (ft)
- V = Velocity (ft/sec)
- Sf = Slope (ft/ft)

Channel Flow Equation :

- $V = (1.49 * (R^{(2/3)}) * (S_f^{0.5})) / n$
- $R = A_q / W_p$
- $T_c = (L_f / V) / (3600 \text{ sec/hr})$

Where :

- Tc = Time of Concentration (hr)
- Lf = Flow Length (ft)
- R = Hydraulic Radius (ft)
- Aq = Flow Area (ft²)
- Wp = Wetted Perimeter (ft)
- V = Velocity (ft/sec)
- Sf = Slope (ft/ft)
- n = Manning's roughness

10-Year Storm
Pre-Development Results

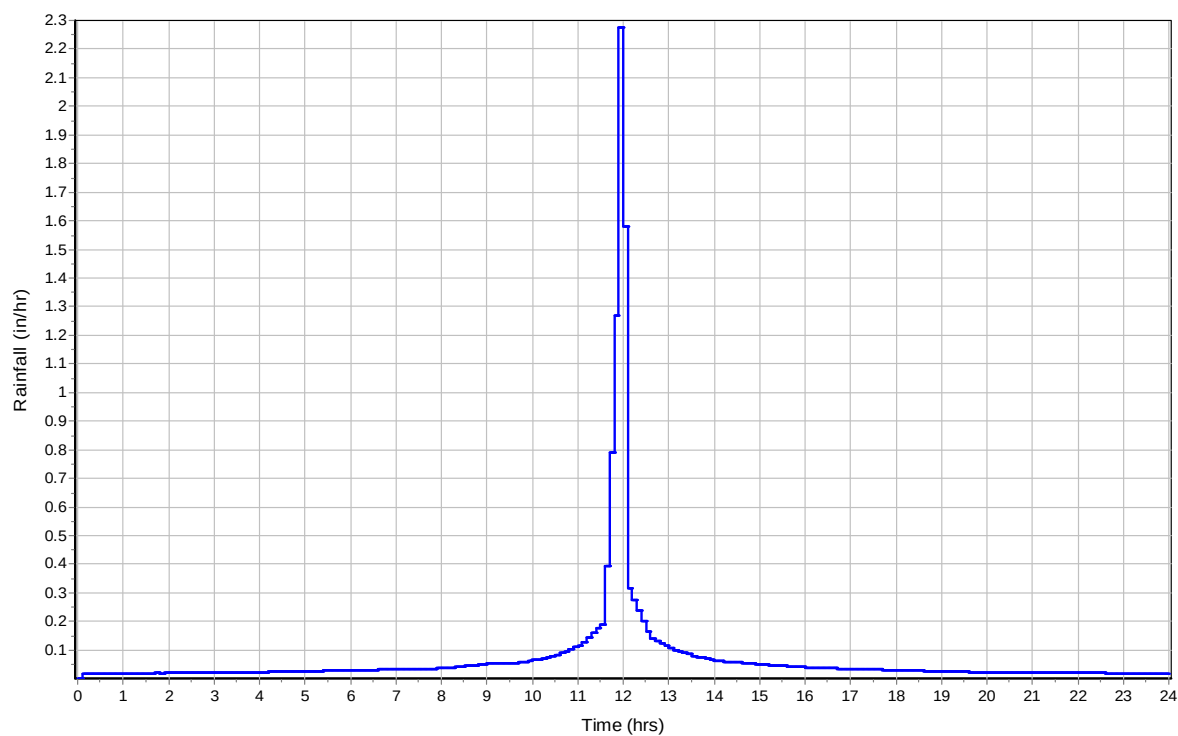
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.15	0.15	0.15
Flow Length (ft) :	300	300	300
Slope (%) :	20	15	25
2 yr, 24 hr Rainfall (in) :	1.2	1.2	1.2
Velocity (ft/sec) :	0.33	0.29	0.36
Computed Flow Time (min) :	15.34	17.21	14.03
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	1000	500	0
Slope (%) :	5	2	0
Surface Type :	Unpaved	Unpaved	Unpaved
Velocity (ft/sec) :	3.61	2.28	0
Computed Flow Time (min) :	4.62	3.65	0
Total TOC (min)54.85			

Subbasin Runoff Results

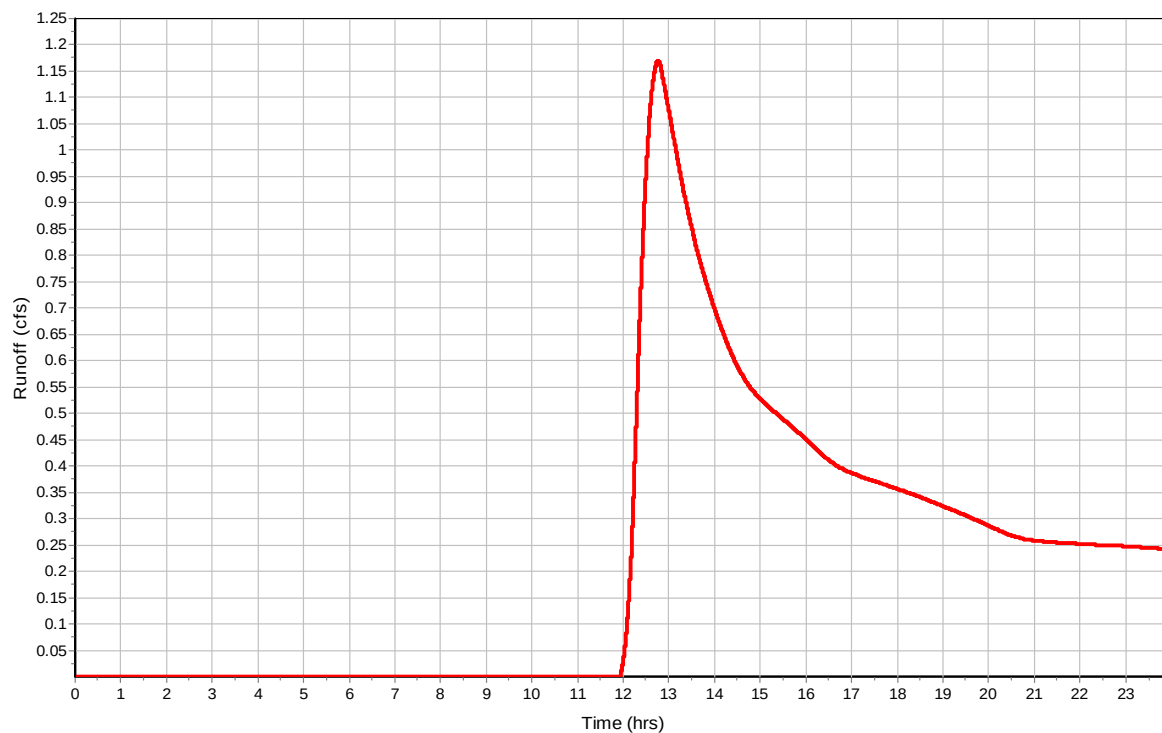
Total Rainfall (in)	1.66
Total Runoff (in)	0.11
Peak Runoff (cfs)	1.17
Weighted Curve Number	69
Time of Concentration (days hh:mm:ss)	0 00:54:51

Subbasin : OFFSITE-FLOWS

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : PREDEVELOPMENT-SITE

Input Data

Area (ac) 31.46
 Peak Rate Factor 484
 Weighted Curve Number 74
 Rain Gage ID MC-2Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
Pasture, grassland, or range, Fair	15.73	B	69
Pasture, grassland, or range, Fair	15.73	C	79
Composite Area & Weighted CN	31.46		74

Time of Concentration

	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.15	0.15	0.15
Flow Length (ft) :	300	300	300
Slope (%) :	20	15	25
2 yr, 24 hr Rainfall (in) :	1.2	1.2	1.2
Velocity (ft/sec) :	0.33	0.29	0.36
Computed Flow Time (min) :	15.34	17.21	14.03

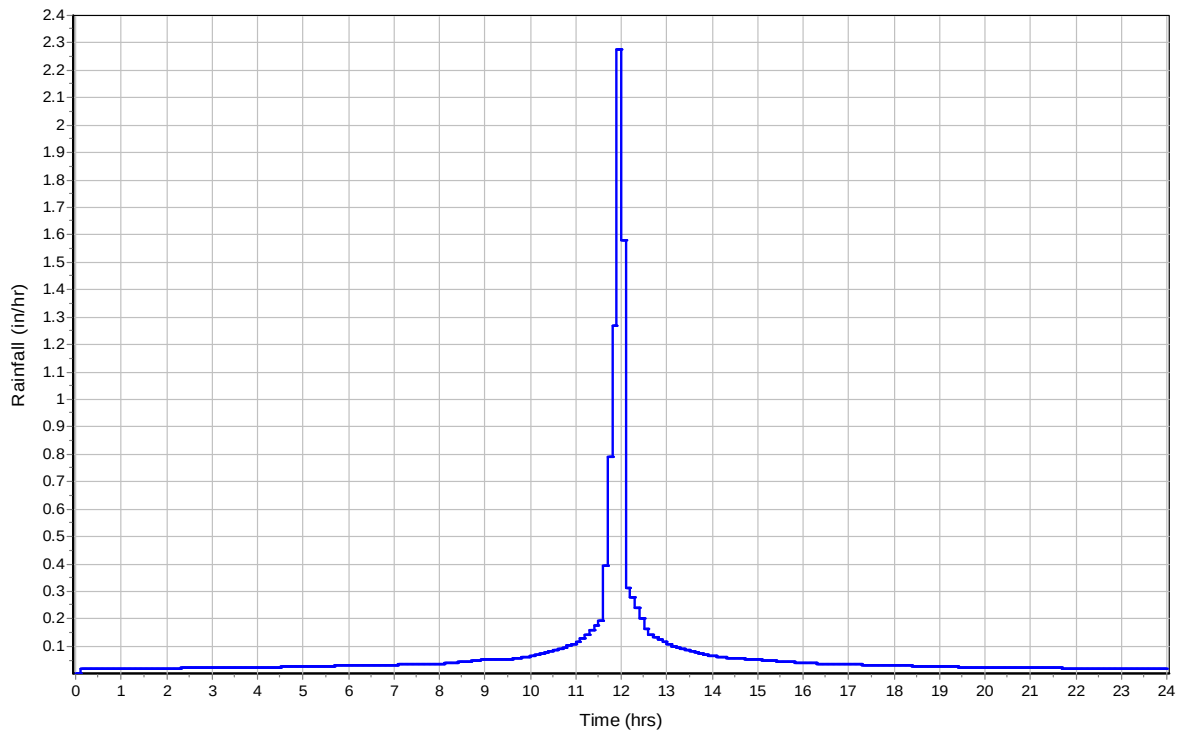
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	500	1000	0
Slope (%) :	25	5	0
Surface Type :	Unpaved	Unpaved	Unpaved
Velocity (ft/sec) :	8.07	3.61	0
Computed Flow Time (min) :	1.03	4.62	0
Total TOC (min)52.23			

Subbasin Runoff Results

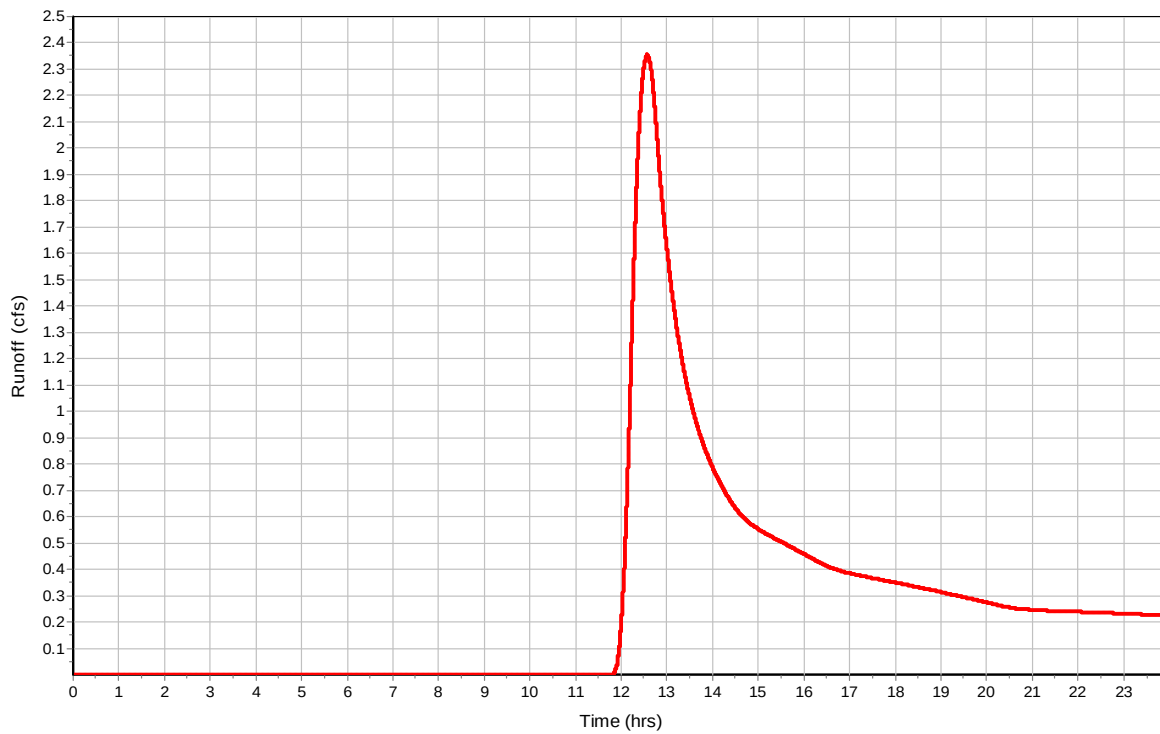
Total Rainfall (in) 1.66
 Total Runoff (in) 0.21
 Peak Runoff (cfs) 2.36
 Weighted Curve Number 74
 Time of Concentration (days hh:mm:ss) 0 00:52:14

Subbasin : PREDEVELOPMENT-SITE

Rainfall Intensity Graph



Runoff Hydrograph



Pipe Input

SN	Element ID	Length	Inlet Invert Elevation	Inlet Invert Offset	Outlet Invert Elevation	Outlet Invert Offset	Total Drop	Average Slope	Pipe Shape	Pipe Diameter or Height	Pipe Width	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(%)		(in)	(in)					(cfs)
1	Link-84	167.52	3190.00	0.00	3159.50	0.00	30.50	18.2100	CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00

Pipe Results

SN	Element ID	Peak Flow	Time of Peak Flow Occurrence	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Travel Time	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
		(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)		(min)		
1	Link-84	3.44	0 12:37	38.85	0.09	13.30	0.21	0.20	0.00		Calculated

Storage Nodes

Storage Node : Jun-15

Input Data

Invert Elevation (ft)	3190.00
Max (Rim) Elevation (ft)	3193.00
Max (Rim) Offset (ft)	3.00
Initial Water Elevation (ft)	3190.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Infiltration/Exfiltration

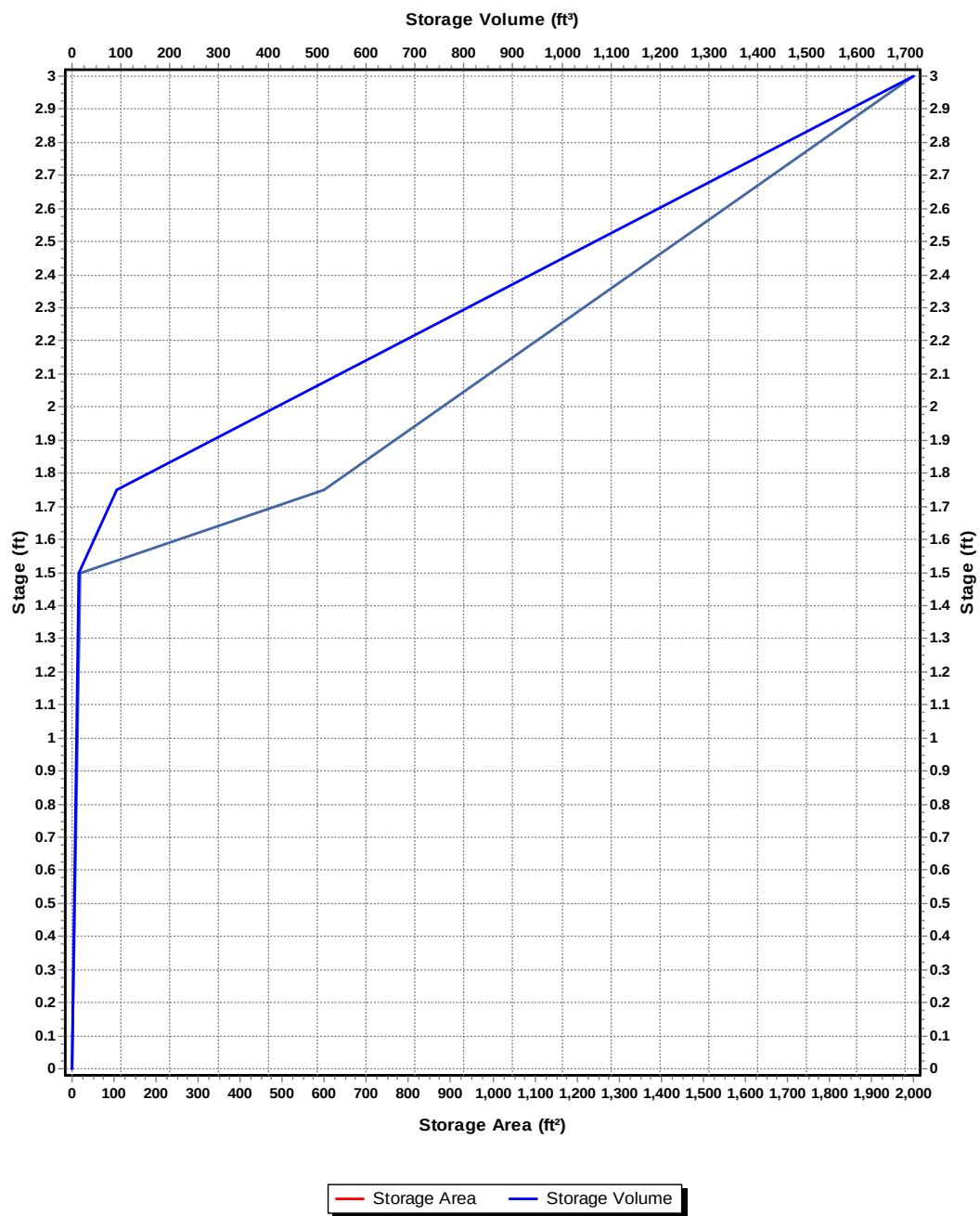
Exfiltration Rate (in/hr)	0.1
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Storage Area Volume Curves

Storage Curve : BEFORE 12IN CULVERT

Stage (ft)	Storage Area (ft²)	Storage Volume (ft³)
0	0	0
1.5	20	15
1.75	600	92.5
3	2000	1717.5

Storage Area Volume Curves



Storage Node : Jun-15 (continued)

Output Summary Results

Peak Inflow (cfs)	3.44
Peak Lateral Inflow (cfs)	3.44
Peak Outflow (cfs)	3.44
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	3190.31
Max HGL Depth Attained (ft)	0.31
Average HGL Elevation Attained (ft)	3190.08
Average HGL Depth Attained (ft)	0.08
Time of Max HGL Occurrence (days hh:mm)	0 12:37
Total Exfiltration Volume (1000-ft³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.19

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Hydrodynamic
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	YES

Analysis Options

Start Analysis On	00:00:00	0:00:00
End Analysis On	00:00:00	0:00:00
Start Reporting On	00:00:00	0:00:00
Antecedent Dry Days	10	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:00:01	days hh:mm:ss
Routing Time Step	1	seconds

Number of Elements

	Qty
Rain Gages	4
Subbasins.....	2
Nodes.....	2
<i>Junctions</i>	0
<i>Outfalls</i>	1
<i>Flow Diversions</i>	0
<i>Inlets</i>	0
<i>Storage Nodes</i>	1
Links.....	1
<i>Channels</i>	0
<i>Pipes</i>	1
<i>Pumps</i>	0
<i>Orifices</i>	0
<i>Weirs</i>	0
<i>Outlets</i>	0
Pollutants	1
Land Uses	1

Subbasin Summary

SN	Subbasin ID	Area	Peak Rate	Weighted Curve Number	Total Rainfall	Total Runoff	Total Runoff Volume	Peak Runoff	Time of Concentration
		(ac)			(in)	(in)	(ac-in)	(cfs)	(days hh:mm:ss)
1	OFFSITE-FLOWS	48.14	484.00	69.00	2.28	0.33	15.65	6.03	0 00:54:51
2	PREDEVELOPMENT-SITE	31.46	484.00	74.00	2.28	0.49	15.39	7.52	0 00:52:13

Node Summary

SN	Element ID	Element Type	Invert Elevation	Ground/Rim (Max) Elevation	Initial Water Elevation	Surcharge Elevation	Ponded Area	Peak Inflow	Max HGL Elevation Attained	Max Surcharge Depth Attained	Min Time of Freeboard Peak Attained Flooding Occurrence	Total Flooded Volume	Total Time Flooded
			(ft)	(ft)	(ft)	(ft)	(ft²)	(cfs)	(ft)	(ft)	(ft) (days hh:mm)	(ac-in)	(min)
1	PREDEVELOPMENT-OUTFALL	Outfall	3159.50					13.45	3160.11				
2	15-Jun	Storage Node	3190.00	3193.00	3190.00		0.00	13.45	3190.65			0.00	0.00

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Average Slope	Diameter or Height	Manning's Roughness	Peak Flow	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Reported Condition
					(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)		(ft/sec)		(min)	
1	Link-84	Pipe	15-Jun	PREDEVELOPMENT-OUTFALL	167.52	3190.00	3159.50	18.2100	18.000	0.0150	13.45	38.85	0.35	19.10	0.42	0.00	Calculated

Subbasin Hydrology

Subbasin : OFFSITE-FLOWS

Input Data

Area (ac)	48.14
Peak Rate Factor	484
Weighted Curve Number	69
Rain Gage ID	MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
Pasture, grassland, or range, Fair	48.14	B	69
Composite Area & Weighted CN	48.14		69

Time of Concentration

TOC Method : SCS TR-55

Sheet Flow Equation :

$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (S_f^{0.4}))$

Where :

- Tc = Time of Concentration (hr)
- n = Manning's roughness
- Lf = Flow Length (ft)
- P = 2 yr, 24 hr Rainfall (inches)
- Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation :

- V = 16.1345 * (Sf^0.5) (unpaved surface)
- V = 20.3282 * (Sf^0.5) (paved surface)
- V = 15.0 * (Sf^0.5) (grassed waterway surface)
- V = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
- V = 9.0 * (Sf^0.5) (cultivated straight rows surface)
- V = 7.0 * (Sf^0.5) (short grass pasture surface)
- V = 5.0 * (Sf^0.5) (woodland surface)
- V = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
- Tc = (Lf / V) / (3600 sec/hr)

Where:

- Tc = Time of Concentration (hr)
- Lf = Flow Length (ft)
- V = Velocity (ft/sec)
- Sf = Slope (ft/ft)

Channel Flow Equation :

- $V = (1.49 * (R^{(2/3)}) * (S_f^{0.5})) / n$
- $R = A_q / W_p$
- $T_c = (L_f / V) / (3600 \text{ sec/hr})$

Where :

- Tc = Time of Concentration (hr)
- Lf = Flow Length (ft)
- R = Hydraulic Radius (ft)
- Aq = Flow Area (ft²)
- Wp = Wetted Perimeter (ft)
- V = Velocity (ft/sec)
- Sf = Slope (ft/ft)
- n = Manning's roughness

100-Year Storm
Pre-Development Results

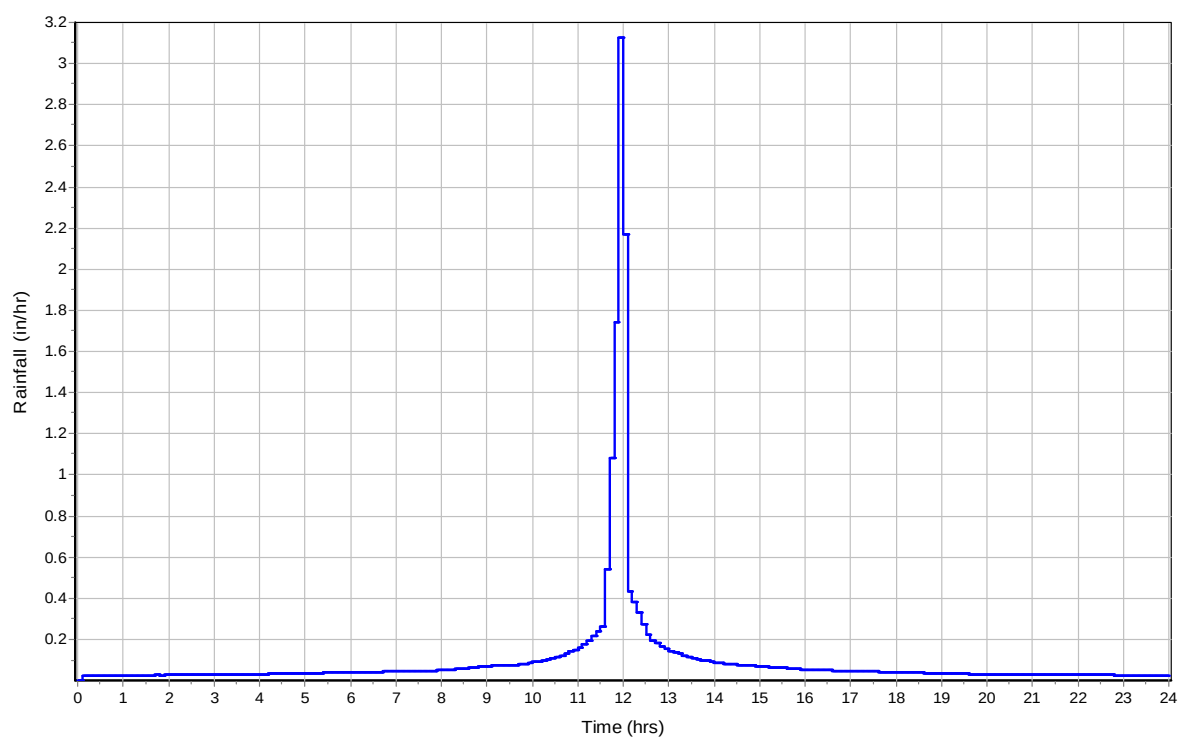
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.15	0.15	0.15
Flow Length (ft) :	300	300	300
Slope (%) :	20	15	25
2 yr, 24 hr Rainfall (in) :	1.2	1.2	1.2
Velocity (ft/sec) :	0.33	0.29	0.36
Computed Flow Time (min) :	15.34	17.21	14.03
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	1000	500	0
Slope (%) :	5	2	0
Surface Type :	Unpaved	Unpaved	Unpaved
Velocity (ft/sec) :	3.61	2.28	0
Computed Flow Time (min) :	4.62	3.65	0
Total TOC (min)54.85			

Subbasin Runoff Results

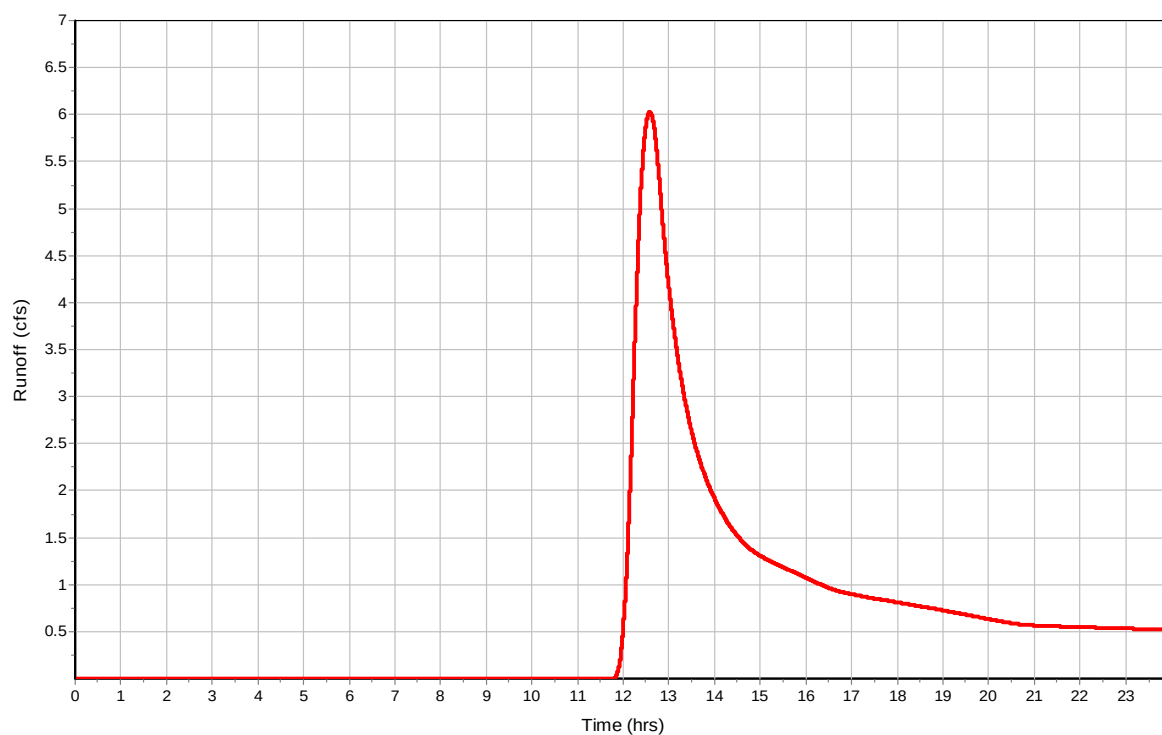
Total Rainfall (in)	2.28
Total Runoff (in)	0.33
Peak Runoff (cfs)	6.03
Weighted Curve Number	69
Time of Concentration (days hh:mm:ss)	0 00:54:51

Subbasin : OFFSITE-FLOWS

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : PREDEVELOPMENT-SITE

Input Data

Area (ac) 31.46
Peak Rate Factor 484
Weighted Curve Number 74
Rain Gage ID MC-2Y-24H

Composite Curve Number

32 Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Pasture, grassland, or range, Fair	15.73	B	69
Pasture, grassland, or range, Fair	15.73	C	79
Composite Area & Weighted CN	31.46		74

Time of Concentration

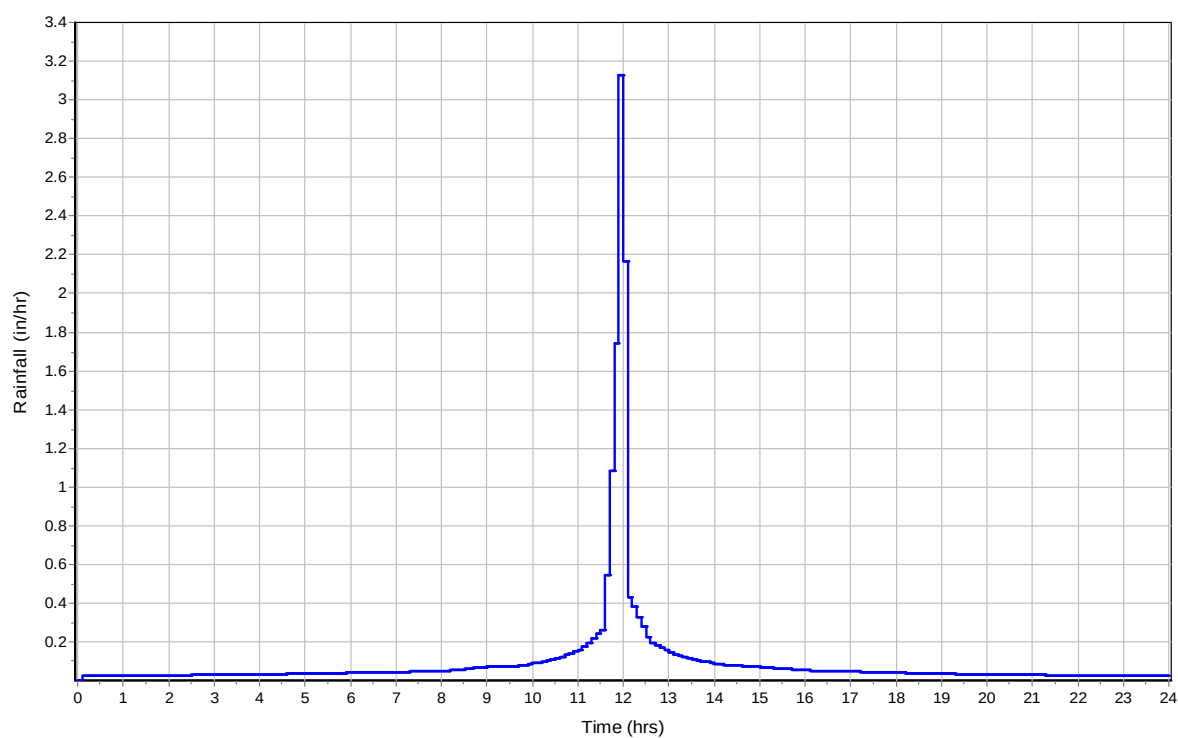
	Subarea A	Subarea B	Subarea C
Sheet Flow Computations			
Manning's Roughness :	0.15	0.15	0.15
Flow Length (ft) :	300	300	300
Slope (%) :	20	15	25
2 yr, 24 hr Rainfall (in) :	1.2	1.2	1.2
Velocity (ft/sec) :	0.33	0.29	0.36
Computed Flow Time (min) :	15.34	17.21	14.03
Shallow Concentrated Flow Computations			
Flow Length (ft) :	500	1000	0
Slope (%) :	25	5	0
Surface Type :	Unpaved	Unpaved	Unpaved
Velocity (ft/sec) :	8.07	3.61	0
Computed Flow Time (min) :	1.03	4.62	0
Total TOC (min)	52.23		

Subbasin Runoff Results

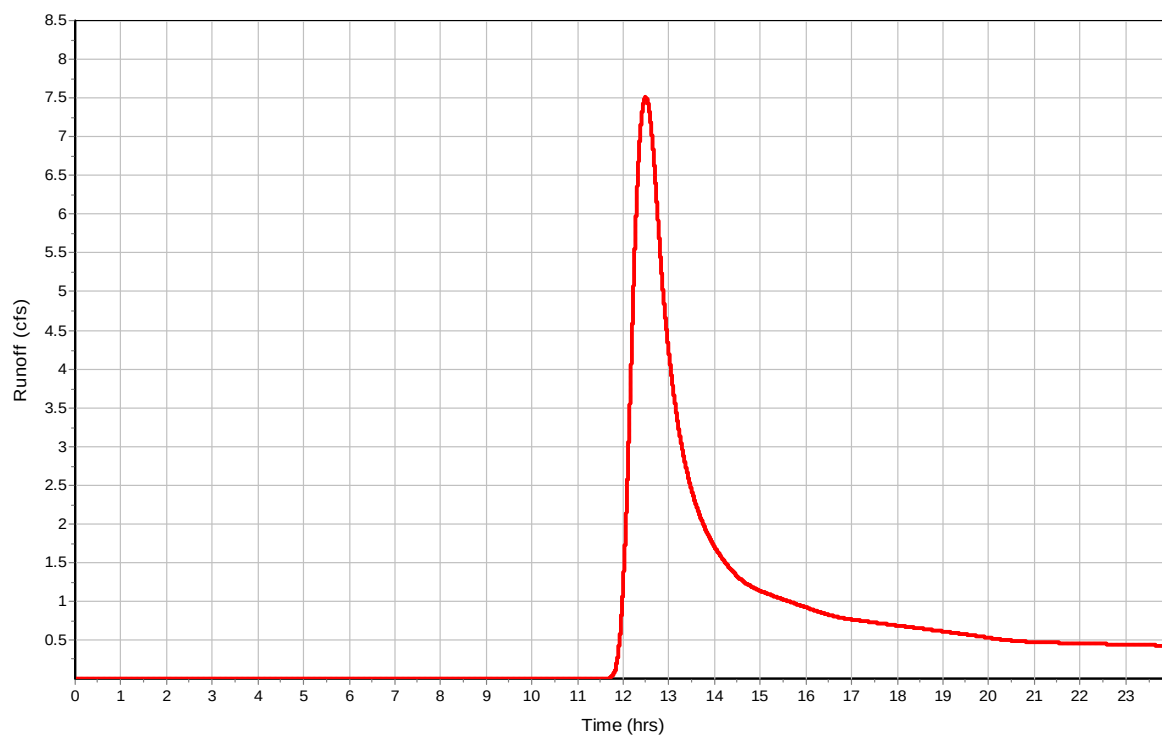
Total Rainfall (in) 2.28
Total Runoff (in) 0.49
Peak Runoff (cfs) 7.52
Weighted Curve Number 74
Time of Concentration (days hh:mm:ss) 0 00:52:14

Subbasin : PREDEVELOPMENT-SITE

Rainfall Intensity Graph



Runoff Hydrograph



Pipe Input

SN	Element	Length	Inlet Invert Elevation	Inlet Invert Offset	Outlet Invert Elevation	Outlet Invert Offset	Total Drop	Average Slope	Pipe Shape	Pipe Diameter or Height	Pipe Width	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow
	ID	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(%)		(in)	(in)					(cfs)
1	Link-84	167.52	3190.00	0.00	3159.50	0.00	30.50	18.2100	CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00

Pipe Results

SN	Element	Peak	Time of	Design Flow	Peak Flow/	Peak Flow	Travel	Peak Flow	Total Time	Froude	Reported
	ID	Flow	Peak Flow	Capacity	Design Flow	Velocity	Time	Depth/	Surcharged	Number	Condition
			Occurrence		Ratio			Total Depth			
		(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	Ratio	(min)		
1	Link-84	13.45	0 12:32	38.85	0.35	19.10	0.15	0.42	0.00		Calculated

Storage Nodes

Storage Node : Jun-15

Input Data

Invert Elevation (ft)	3190.00
Max (Rim) Elevation (ft)	3193.00
Max (Rim) Offset (ft)	3.00
Initial Water Elevation (ft)	3190.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Infiltration/Exfiltration

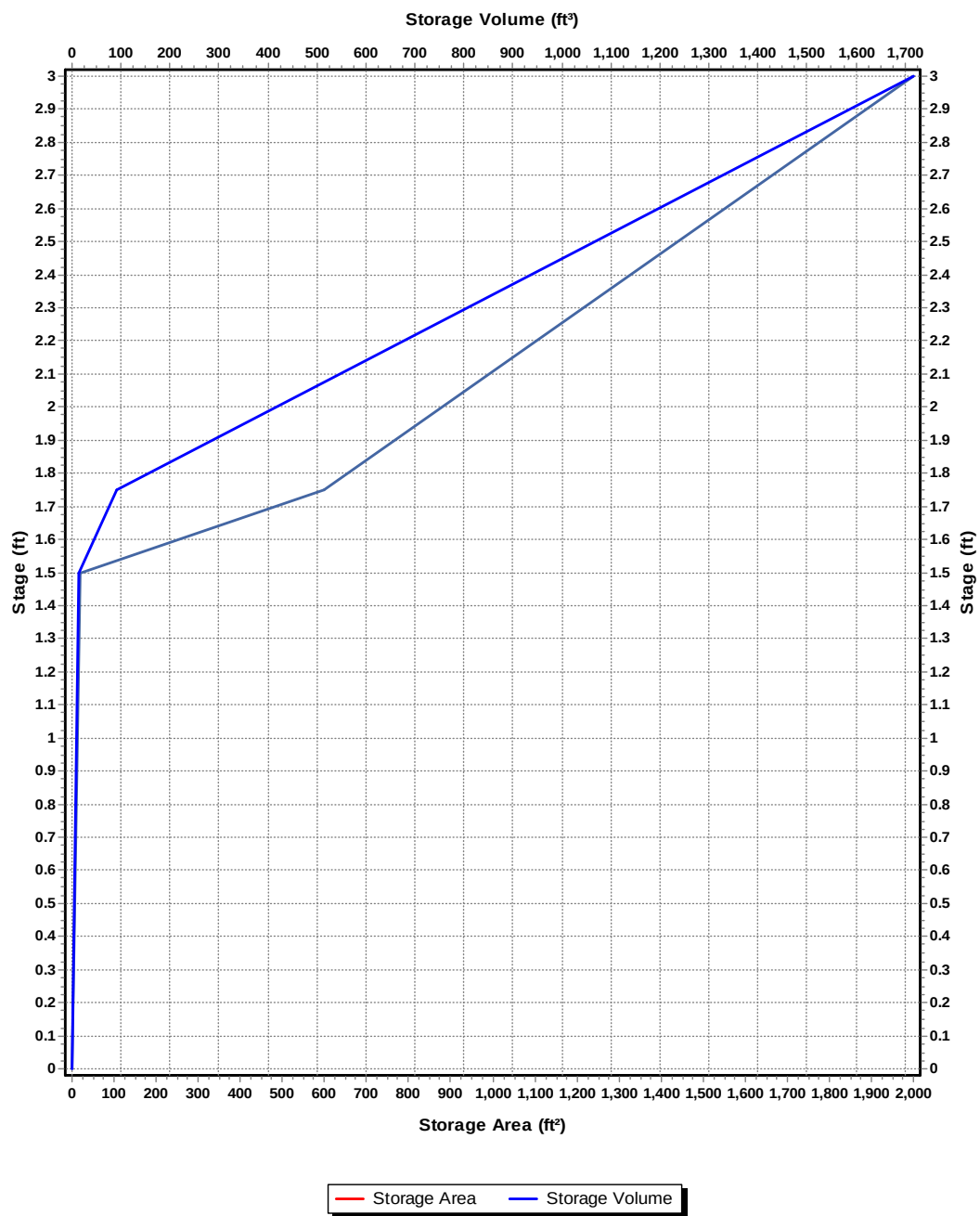
Exfiltration Rate (in/hr)	0.1
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Storage Area Volume Curves

Storage Curve : BEFORE 12IN CULVERT

Stage (ft)	Storage Area (ft²)	Storage Volume (ft³)
0	0	0
1.5	20	15
1.75	600	92.5
3	2000	1717.5

Storage Area Volume Curves



Storage Node : Jun-15 (continued)

Output Summary Results

Peak Inflow (cfs)	13.45
Peak Lateral Inflow (cfs)	13.45
Peak Outflow (cfs)	13.45
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	3190.65
Max HGL Depth Attained (ft)	0.65
Average HGL Elevation Attained (ft)	3190.12
Average HGL Depth Attained (ft)	0.12
Time of Max HGL Occurrence (days hh:mm)	0 12:32
Total Exfiltration Volume (1000-ft³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.18

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Hydrodynamic
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	YES

Analysis Options

Start Analysis On	00:00:00	0:00:00
End Analysis On	00:00:00	0:00:00
Start Reporting On	00:00:00	0:00:00
Antecedent Dry Days	10	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:01:00	days hh:mm:ss
Routing Time Step	1	seconds

Number of Elements

	Qty
Rain Gages	3
Subbasins.....	41
Nodes.....	61
<i>Junctions</i>	18
<i>Outfalls</i>	2
<i>Flow Diversions</i>	0
<i>Inlets</i>	34
<i>Storage Nodes</i>	7
Links.....	93
<i>Channels</i>	34
<i>Pipes</i>	51
<i>Pumps</i>	0
<i>Orifices</i>	7
<i>Weirs</i>	1
<i>Outlets</i>	0
Pollutants	1
Land Uses	1

Subbasin Summary

SN	Subbasin ID	Area	Peak Rate	Weighted Curve	Total Rainfall	Total Runoff	Total Runoff	Peak Runoff	Time of Concentration
		(ac)	Factor	Number	(in)	(in)	(ac-in)	(cfs)	(days hh:mm:ss)
1	OFFSITE-FLOWS	49.81	484.00	69.00	1.17	0.02	0.75	0.08	0 00:51:12
2	Sub-01	1.24	484.00	75.00	1.17	0.07	0.08	0.03	0 00:14:37
3	Sub-02	0.78	484.00	75.00	1.17	0.07	0.05	0.02	0 00:14:01
4	Sub-03	0.87	484.00	75.00	1.17	0.07	0.06	0.02	0 00:14:57
5	Sub-04	1.46	484.00	83.00	1.17	0.21	0.30	0.31	0 00:14:06
6	Sub-05	0.79	484.00	83.00	1.17	0.21	0.16	0.18	0 00:12:30
7	Sub-07	0.14	484.00	98.00	1.17	0.95	0.13	0.19	0 00:05:00
8	Sub-08	0.17	484.00	98.00	1.17	0.95	0.16	0.25	0 00:05:00
9	Sub-09	0.17	484.00	98.00	1.17	0.95	0.16	0.24	0 00:05:00
10	Sub-10	0.85	484.00	75.00	1.17	0.07	0.06	0.02	0 00:14:37
11	Sub-11	0.74	484.00	75.00	1.17	0.07	0.05	0.02	0 00:10:49
12	Sub-13	2.41	484.00	75.00	1.17	0.07	0.16	0.06	0 00:11:43
13	Sub-14	0.59	484.00	75.00	1.17	0.07	0.04	0.01	0 00:13:54
14	Sub-15	0.48	484.00	75.00	1.17	0.07	0.03	0.01	0 00:12:27
15	Sub-16	1.16	484.00	83.00	1.17	0.21	0.24	0.26	0 00:12:47
16	Sub-18	1.44	484.00	83.00	1.17	0.21	0.30	0.30	0 00:14:54
17	Sub-19	0.17	484.00	98.00	1.17	0.95	0.16	0.25	0 00:05:00
18	Sub-20	1.39	484.00	75.00	1.17	0.07	0.09	0.03	0 00:14:46
19	Sub-21	0.11	484.00	98.00	1.17	0.94	0.10	0.16	0 00:05:00
20	Sub-22	0.07	484.00	98.00	1.17	0.89	0.06	0.10	0 00:05:00
21	Sub-23	0.07	484.00	98.00	1.17	0.86	0.06	0.09	0 00:05:00
22	Sub-24	0.08	484.00	98.00	1.17	0.92	0.07	0.11	0 00:05:00
23	Sub-25	2.33	484.00	75.00	1.17	0.07	0.15	0.05	0 00:16:22
24	Sub-26	0.48	484.00	75.00	1.17	0.07	0.03	0.01	0 00:15:02
25	Sub-27	0.45	484.00	88.80	1.17	0.39	0.17	0.23	0 00:12:13
26	Sub-29	0.06	484.00	98.00	1.17	0.85	0.05	0.08	0 00:05:00
27	Sub-32	1.78	484.00	89.65	1.17	0.42	0.75	1.03	0 00:09:43
28	Sub-33	0.08	484.00	98.00	1.17	0.92	0.07	0.11	0 00:05:00
29	Sub-34	0.16	484.00	98.00	1.17	0.95	0.15	0.22	0 00:05:00
30	Sub-35	1.12	484.00	74.00	1.17	0.06	0.06	0.01	0 00:16:25
31	Sub-37	1.28	484.00	80.75	1.17	0.16	0.20	0.17	0 00:16:09
32	Sub-38	1.77	484.00	75.00	1.17	0.07	0.12	0.03	0 00:16:41
33	Sub-39	0.10	484.00	98.00	1.17	0.94	0.09	0.15	0 00:05:00
34	Sub-40	0.12	484.00	98.00	1.17	0.94	0.11	0.16	0 00:05:00
35	Sub-41	0.18	484.00	75.00	1.17	0.03	0.01	0.00	0 00:14:36
36	Sub-43	0.77	484.00	75.00	1.17	0.07	0.05	0.02	0 00:12:32
37	Sub-44	0.13	484.00	98.00	1.17	0.95	0.12	0.18	0 00:05:00
38	Sub-45	1.35	484.00	75.00	1.17	0.07	0.09	0.03	0 00:14:18
39	Sub-46	0.33	484.00	75.00	1.17	0.07	0.02	0.01	0 00:12:34
40	Sub-47	2.99	484.00	75.00	1.17	0.07	0.20	0.07	0 00:12:57
41	Sub-48	1.66	484.00	75.00	1.17	0.07	0.11	0.06	0 00:06:23

Node Summary

SN	Element ID	Element Type	Invert Elevation	Ground/Rim (Max) Elevation	Initial Water Elevation	Surcharge Elevation	Ponded Area	Peak Inflow	Max HGL Elevation Attained	Max Surcharge Depth Attained	Min Freeboard Attained	Time of Peak Flooding Occurrence	Total Flooded Volume	Total Time Flooded
			(ft)	(ft)	(ft)	(ft)	(ft ²)	(cfs)	(ft)	(ft)	(ft)	(days hh:mm)	(ac-in)	(min)
1	18-Jun	Junction	3232.80	3238.00	3232.80	3238.00	0.00	0.00	3232.80	0.00	5.20	0 00:00	0.00	0.00
2	19-Jun	Junction	3195.00	3196.00	3195.00	3196.00	0.00	0.00	3195.00	0.00	1.50	0 00:00	0.00	0.00
3	28-Jun	Junction	3325.00	3327.25	3325.00	3327.25	0.00	1.20	3325.40	0.00	1.85	0 00:00	0.00	0.00
4	29-Jun	Junction	3390.00	3394.00	3390.00	3394.00	0.00	0.13	3390.09	0.00	3.91	0 00:00	0.00	0.00
5	MH-1	Junction	3354.80	3358.02	3354.80	3358.02	0.00	0.35	3354.96	0.00	3.06	0 00:00	0.00	0.00
6	MH-2	Junction	3352.99	3356.22	3352.99	3356.22	0.00	0.35	3353.14	0.00	3.08	0 00:00	0.00	0.00
7	MH-4	Junction	3344.55	3348.54	3344.55	3348.54	0.00	0.58	3344.72	0.00	3.82	0 00:00	0.00	0.00
8	MH-5	Junction	3339.44	3345.44	3339.44	3345.44	0.00	0.58	3339.66	0.00	5.78	0 00:00	0.00	0.00
9	MH-6	Junction	3312.20	3315.82	3312.20	3315.82	0.00	0.21	3312.31	0.00	3.51	0 00:00	0.00	0.00
10	MH-7	Junction	3307.05	3310.51	3307.05	3310.51	0.00	0.44	3307.24	0.00	3.27	0 00:00	0.00	0.00
11	MH-8	Junction	3295.62	3298.85	3295.62	3298.85	0.00	0.59	3295.77	0.00	3.08	0 00:00	0.00	0.00
12	MH-9	Junction	3271.80	3278.39	3271.80	3278.39	0.00	3.43	3273.11	0.00	5.28	0 00:00	0.00	0.00
13	NULL-JUNCTION-2	Junction	3357.00	3357.50	3357.00	3357.50	0.00	0.31	3357.16	0.00	0.34	0 00:00	0.00	0.00
14	NULL-JUNCTION-4	Junction	3334.55	3335.55	3334.55	3335.55	0.00	0.52	3334.80	0.00	0.75	0 00:00	0.00	0.00
15	NULL-JUNCTION-6	Junction	3318.00	3319.00	3318.00	3319.00	0.00	0.52	3318.27	0.00	0.73	0 00:00	0.00	0.00
16	NULL-JUNCTION-7	Junction	3310.00	3312.00	3310.00	3311.00	0.00	1.51	3310.01	0.00	2.99	0 00:00	0.00	0.00
17	NULL-JUNCTION-8	Junction	3263.60	3265.80	3263.60	3265.80	0.00	3.50	3263.97	0.00	3.83	0 00:00	0.00	0.00
18	UPPERPOND-DRAIN	Junction	3338.72	3343.00	3338.72	3343.00	0.00	0.06	3339.83	0.00	3.17	0 00:00	0.00	0.00
19	EX-18IN-PIPE-OUTFALL	Outfall	3159.50					0.08	3159.55					
20	WESTERN-RUNOFF	Outfall	3291.00					0.00	3291.00					
21	BEFORE 12IN CULVERT	Storage Node	3190.00	3193.00	3190.00		0.00	0.08	3190.05				0.00	0.00
22	COMMON-AREA-1-POND	Storage Node	3327.50	3333.75	3327.50		0.00	1.33	3329.04				0.00	0.00
23	INJECTED-STORMWATER	Storage Node	3100.00	3255.00	3100.00		0.00	2.28	3103.53				0.00	0.00
24	MIDDLE-STORAGE	Storage Node	3306.00	3309.00	3306.00		0.00	2.85	3306.35				0.00	0.00
25	NORTHWEST-STORAGE	Storage Node	3255.00	3260.00	3255.00		0.00	3.55	3256.02				0.00	0.00
26	UPPERPOND	Storage Node	3343.00	3346.00	3343.00		0.00	0.06	3343.03				0.00	0.00
27	WESTPOND	Storage Node	3290.00	3292.50	3290.00		0.00	0.06	3290.52				0.00	0.00

Link Summary

SN Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Average Slope	Diameter or Height	Manning's Roughness	Peak Flow	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Peak Flow Depth/ Total Depth Ratio	Total Time Reported Surcharged Condition
				(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)		(ft/sec)		(min)
1 Link-06	Pipe	NULL-JUNCTION-7	MIDDLE-STORAGE	15.01	3308.18	3296.00	81.1400	0.000	0.0320	1.51	0.00	0.00	0.00	0.00	0.00
2 Link-105	Pipe	28-Jun	CI-15	110.53	3325.00	3323.20	1.6300	12.000	0.0150	1.20	3.94	0.30	4.25	0.39	0.00 Calculated
3 Link-106	Pipe	CI-21	CI-20	44.74	3335.80	3335.30	1.1200	18.000	0.0150	0.50	9.62	0.05	1.69	0.23	0.00 Calculated
4 Link-107	Pipe	29-Jun	CI-8	304.03	3390.00	3367.20	7.5000	12.000	0.0150	0.13	8.46	0.02	3.93	0.09	0.00 Calculated
5 Link-108	Pipe	CI-1	29-Jun	77.38	3398.00	3390.20	10.0800	12.000	0.0150	0.13	9.80	0.01	4.37	0.08	0.00 Calculated
6 Link-109	Pipe	CI-2	CI-1	50.48	3398.28	3398.00	0.5500	18.000	0.0150	0.02	6.78	0.00	0.88	0.03	0.00 Calculated
7 Link-110	Pipe	CI-33	CI-34	35.71	3316.15	3313.20	8.2600	18.000	0.0150	0.12	26.17	0.00	2.18	0.40	0.00 Calculated
8 Link-111	Pipe	CI-34	NULL-JUNCTION-7	92.73	3313.00	3310.00	3.2400	36.000	0.0150	1.51	103.97	0.01	3.06	0.23	0.00 Calculated
9 Link-85	Pipe	BEFORE 12IN CULVERT	EX-18IN-PIPE-OUTFALL	204.93	3190.00	3159.50	14.8800	18.000	0.0150	0.08	35.12	0.00	4.06	0.04	0.00 Calculated
10 Link-89	Pipe	18-Jun	19-Jun	308.93	3232.80	3195.00	12.2400	18.000	0.0150	0.00	31.84	0.00	0.00	0.00	0.00 Calculated
11 Link-91	Pipe	NORTHWEST-STORAGE	18-Jun	494.91	3258.50	3233.00	5.1500	12.000	0.0150	0.00	7.01	0.00	0.00	0.00	0.00 Calculated
12 Link-93	Pipe	CI-19	COMMON-AREA-1-POND	91.99	3334.80	3331.50	3.5900	18.000	0.0150	1.33	17.24	0.08	5.60	0.19	0.00 Calculated
13 OUTFALL-TO-LOWERPOND	Pipe	NULL-JUNCTION-8	NORTHWEST-STORAGE	150.00	3263.60	3255.00	5.7300	24.000	0.0150	3.50	46.95	0.07	8.31	0.33	0.00 Calculated
14 Pipe -10	Pipe	CI-10	MH-1	90.35	3357.77	3355.00	3.0700	12.000	0.0130	0.35	6.24	0.06	4.18	0.16	0.00 Calculated
15 Pipe -11	Pipe	MH-1	MH-2	45.95	3354.80	3353.19	3.5000	12.000	0.0130	0.35	6.67	0.05	4.30	0.16	0.00 Calculated
16 Pipe -12	Pipe	MH-2	CI-11	91.80	3352.99	3349.20	4.1300	12.000	0.0130	0.35	7.24	0.05	4.65	0.15	0.00 Calculated
17 Pipe -13	Pipe	CI-12	CI-11	55.49	3349.40	3349.20	0.3600	12.000	0.0130	0.11	2.14	0.05	1.49	0.15	0.00 Calculated
18 Pipe -14	Pipe	CI-11	CI-18	57.59	3349.00	3346.92	3.6100	12.000	0.0130	0.50	6.77	0.07	4.84	0.19	0.00 Calculated
19 Pipe -15	Pipe	CI-13	CI-22	326.25	3337.50	3319.38	5.5500	12.000	0.0130	0.17	8.40	0.02	4.17	0.10	0.00 Calculated
20 Pipe -16	Pipe	CI-14	CI-13	36.89	3337.70	3337.50	0.5400	12.000	0.0130	0.08	2.62	0.03	1.62	0.11	0.00 Calculated
21 Pipe -18	Pipe	CI-15	CI-16	34.58	3323.00	3322.81	0.5500	12.000	0.0130	1.21	2.64	0.46	3.00	0.51	0.00 Calculated
22 Pipe -19	Pipe	CI-16	CI-34	169.84	3322.61	3313.20	5.5400	12.000	0.0130	1.33	8.39	0.16	5.36	0.63	0.00 Calculated
23 Pipe -20	Pipe	CI-17	CI-18	37.00	3347.10	3346.92	0.4900	12.000	0.0130	0.07	2.49	0.03	1.42	0.11	0.00 Calculated
24 Pipe -21	Pipe	CI-18	MH-4	53.71	3346.72	3344.75	3.6700	12.000	0.0130	0.58	6.82	0.09	5.07	0.20	0.00 Calculated
25 Pipe -22	Pipe	MH-4	MH-5	53.77	3344.55	3339.64	9.1300	12.000	0.0130	0.58	10.77	0.05	7.06	0.16	0.00 Calculated
26 Pipe -23	Pipe	MH-5	CI-20	102.45	3339.44	3336.46	2.9100	12.000	0.0130	0.58	6.08	0.10	4.76	0.21	0.00 Calculated
27 Pipe -24	Pipe	CI-20	CI-19	53.10	3335.30	3335.00	0.5600	18.000	0.0130	1.22	7.90	0.15	3.00	0.28	0.00 Calculated
28 Pipe -27	Pipe	CI-22	CI-23	51.84	3319.18	3318.96	0.4200	12.000	0.0130	0.20	2.32	0.09	1.83	0.20	0.00 Calculated
29 Pipe -28	Pipe	CI-23	MH-6	144.87	3318.76	3312.40	4.3900	12.000	0.0130	0.21	7.47	0.03	4.11	0.11	0.00 Calculated
30 Pipe -29	Pipe	MH-6	CI-25	72.32	3312.20	3307.75	6.1500	12.000	0.0130	0.21	8.84	0.02	4.47	0.11	0.00 Calculated
31 Pipe -3	Pipe	CI-3	CI-4	255.29	3396.90	3385.20	4.5800	12.000	0.0130	0.02	7.63	0.00	1.94	0.03	0.00 Calculated
32 Pipe -30	Pipe	CI-24	CI-25	30.26	3307.91	3307.75	0.5300	12.000	0.0130	0.25	2.59	0.10	1.98	0.22	0.00 Calculated
33 Pipe -31	Pipe	CI-25	MH-7	59.75	3307.55	3307.25	0.5000	12.000	0.0130	0.44	2.52	0.18	2.34	0.29	0.00 Calculated
34 Pipe -32	Pipe	MH-7	CI-26	70.60	3307.05	3305.14	2.7100	12.000	0.0130	0.44	5.86	0.08	4.26	0.19	0.00 Calculated
35 Pipe -33	Pipe	CI-26	CI-27	51.47	3304.68	3304.42	0.5100	18.000	0.0130	0.44	7.47	0.06	2.21	0.17	0.00 Calculated
36 Pipe -34	Pipe	CI-27	CI-28	52.12	3304.22	3303.96	0.5000	18.000	0.0130	0.48	7.42	0.07	2.26	0.18	0.00 Calculated
37 Pipe -35	Pipe	CI-28	MH-8	115.12	3303.76	3295.82	6.9000	12.000	0.0130	0.59	9.36	0.06	6.50	0.17	0.00 Calculated
38 Pipe -36	Pipe	MH-8	CI-30	164.11	3295.62	3277.08	11.3000	12.000	0.0130	0.59	11.98	0.05	7.82	0.15	0.00 Calculated
39 Pipe -37	Pipe	CI-29	CI-30	37.41	3278.55	3277.08	3.9300	12.000	0.0130	0.13	7.06	0.02	3.33	0.10	0.00 Calculated
40 Pipe -38	Pipe	CI-30	MH-9	62.14	3275.88	3272.00	6.2400	24.000	0.0130	3.43	56.53	0.06	3.34	0.36	0.00 Calculated
41 Pipe -39	Pipe	MH-9	CI-31	63.48	3271.80	3269.00	4.4100	24.000	0.0130	3.43	15.55	0.22	2.91	0.40	0.00 Calculated
42 Pipe -4	Pipe	CI-4	CI-5	37.54	3385.00	3384.44	1.4900	12.000	0.0130	0.03	4.35	0.01	1.63	0.06	0.00 Calculated
43 Pipe -40	Pipe	CI-31	CI-32	34.01	3269.00	3267.00	5.8800	24.000	0.0130	3.46	87.60	0.04	10.15	0.17	0.00 Calculated
44 Pipe -41	Pipe	CI-32	NULL-JUNCTION-8	92.30	3266.80	3265.80	1.0800	24.000	0.0130	3.50	23.55	0.15	4.97	0.28	0.00 Calculated
45 Pipe -44	Pipe	MIDDLE-STORAGE	CI-30	142.82	3306.00	3276.08	20.9500	8.000	0.0130	2.79	5.53	0.50	15.40	0.51	0.00 Calculated

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Average Slope	Diameter or Height	Manning's Roughness	Peak Flow	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Reported Condition
					(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)		(ft/sec)		(min)	
46	Pipe -5	Pipe	CI-5	CI-6	97.73	3382.44	3369.20	13.5500	12.000	0.0130	0.17	13.11	0.01	5.76	0.08	0.00	Calculated
47	Pipe -6	Pipe	CI-6	CI-7	37.16	3369.00	3368.82	0.4800	18.000	0.0130	0.28	7.31	0.04	1.92	0.14	0.00	Calculated
48	Pipe -7	Pipe	CI-7	CI-21	465.28	3368.62	3336.00	7.0100	18.000	0.0130	0.33	27.81	0.01	5.33	0.08	0.00	Calculated
49	Pipe -8	Pipe	CI-8	CI-9	118.46	3367.00	3358.39	7.2700	12.000	0.0130	0.17	9.61	0.02	4.59	0.09	0.00	Calculated
50	Pipe -9	Pipe	CI-9	CI-10	41.44	3358.19	3357.97	0.5300	12.000	0.0130	0.18	2.60	0.07	1.86	0.18	0.00	Calculated
51	UPPERPOND-DRAIN-PIPE	Pipe	UPPERPOND-DRAIN	MH-5	13.36	3339.72	3339.64	0.6000	12.000	0.0130	0.06	2.76	0.02	1.36	0.10	0.00	Calculated
52	Link-08	Channel	CI-1	CI-8	371.10	3402.20	3372.89	7.9000	9.000	0.0110	0.06	80.09	0.00	4.40	0.05	0.00	
53	Link-09	Channel	CI-8	CI-9	124.79	3372.89	3366.79	4.8800	6.000	0.0110	0.02	89.87	0.00	2.15	0.03	0.00	
54	Link-10	Channel	CI-2	CI-3	180.90	3403.00	3400.12	1.5900	9.000	0.0110	0.01	34.91	0.00	1.19	0.04	0.00	
55	Link-11	Channel	CI-3	CI-4	255.89	3400.12	3388.50	4.5400	9.000	0.0110	0.01	58.96	0.00	1.48	0.04	0.00	
56	Link-12	Channel	CI-5	CI-6	118.17	3388.16	3373.31	12.5700	9.000	0.0110	0.08	98.09	0.00	4.78	0.06	0.00	
57	Link-13	Channel	CI-4	CI-7	200.58	3388.50	3372.80	7.8300	9.000	0.0110	0.01	77.41	0.00	1.65	0.04	0.00	
58	Link-14	Channel	CI-6	CI-20	472.63	3373.31	3341.74	6.6800	6.000	0.0110	0.05	87.67	0.00	3.26	0.08	0.00	
59	Link-15	Channel	CI-7	CI-21	466.28	3372.80	3342.11	6.5800	6.000	0.0110	0.05	86.97	0.00	2.27	0.06	0.00	
60	Link-17	Channel	CI-9	CI-23	487.39	3366.79	3329.23	7.7100	6.000	0.0110	0.01	96.32	0.00	1.62	0.03	0.00	
61	Link-18	Channel	CI-10	CI-11	235.85	3365.50	3353.43	5.1200	6.000	0.0110	0.07	65.30	0.00	1.96	0.07	0.00	
62	Link-19	Channel	CI-11	CI-18	179.99	3353.26	3350.66	1.4400	6.000	0.0110	0.03	40.77	0.00	1.50	0.05	0.00	
63	Link-20	Channel	CI-12	CI-13	164.38	3352.62	3340.53	7.3500	6.000	0.0110	0.05	91.72	0.00	0.92	0.09	0.00	
64	Link-21	Channel	CI-13	CI-22	339.32	3340.53	3329.21	3.3400	9.000	0.0110	0.04	64.75	0.00	4.21	0.04	0.00	
65	Link-22	Channel	CI-14	CI-24	514.74	3340.32	3319.20	4.1000	6.000	0.0110	0.03	81.13	0.00	4.00	0.03	0.00	
66	Link-24	Channel	CI-17	CI-19	190.92	3350.53	3340.27	5.3700	6.000	0.0110	0.03	77.86	0.00	1.95	0.05	0.00	
67	Link-25	Channel	CI-18	CI-20	217.66	3350.66	3341.74	4.1000	6.000	0.0110	0.01	68.67	0.00	1.21	0.07	0.00	
68	Link-26	Channel	CI-19	CI-15	336.59	3340.27	3326.57	4.0700	6.000	0.0110	0.01	68.98	0.00	1.71	0.03	0.00	
69	Link-27	Channel	CI-21	CI-16	385.36	3342.11	3326.40	4.0800	6.000	0.0110	0.07	68.62	0.00	1.82	0.08	0.00	
70	Link-28	Channel	CI-15	CI-33	173.32	3326.57	3319.82	3.8900	6.000	0.0110	0.00	67.53	0.00	0.75	0.05	0.00	
71	Link-29	Channel	CI-16	CI-34	169.99	3326.40	3319.92	3.8100	6.000	0.0110	0.09	66.12	0.00	2.10	0.08	0.00	
72	Link-30	Channel	CI-33	CI-27	262.89	3319.82	3311.08	3.3200	6.000	0.0110	0.05	67.14	0.00	2.95	0.05	0.00	
73	Link-31	Channel	CI-34	CI-28	266.64	3320.05	3308.85	4.2000	6.000	0.0110	0.07	68.71	0.00	2.07	0.07	0.00	
74	Link-32	Channel	CI-23	CI-25	216.58	3329.23	3319.24	4.6100	6.000	0.0110	0.01	78.37	0.00	1.39	0.03	0.00	
75	Link-33	Channel	CI-25	CI-26	130.77	3319.24	3309.21	7.6700	6.000	0.0110	0.01	54.05	0.00	1.23	0.03	0.00	
76	Link-34	Channel	CI-24	CI-27	132.41	3319.20	3311.08	6.1300	6.000	0.0110	0.00	42.21	0.00	0.00	0.02	0.00	
77	Link-35	Channel	CI-28	CI-30	297.09	3308.85	3281.51	9.2000	6.000	0.0110	0.07	102.24	0.00	2.84	0.06	0.00	
78	Link-36	Channel	CI-26	WESTPOND	249.29	3309.21	3291.00	7.3000	6.000	0.0110	0.00	89.02	0.00	0.00	0.02	0.00	
79	Link-38	Channel	CI-29	CI-32	138.92	3281.55	3275.53	4.3400	6.000	0.0110	0.06	72.12	0.00	3.33	0.05	0.00	
80	Link-39	Channel	CI-30	CI-31	127.19	3281.51	3276.79	3.7100	6.000	0.0110	0.02	74.83	0.00	2.89	0.03	0.00	
81	Link-74	Channel	NULL-JUNCTION-2	NULL-JUNCTION-4	464.71	3357.00	3335.00	4.7300	6.000	0.0320	0.28	5.96	0.05	1.85	0.32	0.00	
82	Link-77	Channel	NULL-JUNCTION-4	NULL-JUNCTION-6	256.93	3330.00	3315.00	5.8400	12.000	0.0320	0.52	21.50	0.02	2.74	0.26	0.00	
83	Link-79	Channel	NULL-JUNCTION-6	MIDDLE-STORAGE	217.18	3315.00	3309.00	2.7600	12.000	0.0320	0.50	17.25	0.03	2.36	0.26	0.00	
84	Link-82	Channel	UPPERPOND	CI-20	135.46	3345.00	3341.74	2.4100	9.000	0.0320	0.00	42.93	0.00	0.00	0.00	0.00	
85	Link-90	Channel	19-Jun	BEFORE 12IN CULVERT	143.54	3195.00	3190.00	3.4800	18.000	0.0320	0.00	29.89	0.00	0.00	0.02	0.00	
86	.87*5	Orifice	NORTHWEST-STORAGE	INJECTED-STORMWATER			3100.00		4.100		0.46						
87	Orifice-80	Orifice	NORTHWEST-STORAGE	INJECTED-STORMWATER			3100.00		4.100		0.46						
88	Orifice-83	Orifice	NORTHWEST-STORAGE	INJECTED-STORMWATER			3100.00		4.100		0.46						
89	Orifice-84	Orifice	NORTHWEST-STORAGE	INJECTED-STORMWATER			3100.00		4.100		0.46						
90	Orifice-85	Orifice	NORTHWEST-STORAGE	INJECTED-STORMWATER			3100.00		4.100		0.46						

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth/ Total Depth Ratio	Total Time Reported Surcharged (min)	Reported Condition
91	Orifice-89	Orifice	COMMON-AREA-1-POND	28-Jun		3327.50	3325.00		6.000		1.20						
92	UPPERPOND-OUTLET	Orifice	UPPERPOND	UPPERPOND-DRAIN		3343.00	3338.72		12.000		0.06						
93	Weir-01	Weir	WESTPOND	WESTERN-RUNOFF		3290.00	3291.00				0.00						

Inlet Summary

SN	Element	Inlet	Manufacturer	Inlet	Number of	Catchbasin	Max (Rim)	Initial	Ponded	Peak	Peak Flow	Peak Flow	Inlet	Allowable	Max Gutter	Max Gutter
ID		Manufacturer	Part	Location	Inlets	Invert	Elevation	Water	Area	Flow	Intercepted	Bypassing	Efficiency	Spread	Spread	Water Elev.
			Number			Elevation		Elevation			by	Inlet	during Peak		during Peak	during Peak
						(ft)	(ft)	(ft)	(ft²)	(cfs)	(cfs)	(cfs)	(%)	(ft)	(ft)	(ft)
1	CI-1	FHWA HEC-22 GENERIC	N/A	On Grade	1	3398.00	3402.20	3398.00	N/A	0.19	0.17	0.02	90.47	12.50	2.58	3402.25
2	CI-10	FHWA HEC-22 GENERIC	N/A	On Grade	1	3357.77	3362.00	3357.77	N/A	0.24	0.20	0.03	86.08	12.50	2.89	3362.06
3	CI-11	FHWA HEC-22 GENERIC	N/A	On Grade	1	3349.00	3353.26	3349.00	N/A	0.07	0.07	0.00	93.57	12.50	2.38	3353.31
4	CI-12	FHWA HEC-22 GENERIC	N/A	On Grade	1	3349.40	3353.27	3349.40	N/A	0.15	0.14	0.01	90.55	12.50	2.58	3353.32
5	CI-13	FHWA HEC-22 GENERIC	N/A	On Grade	1	3337.50	3341.25	3337.50	N/A	0.14	0.13	0.01	95.08	12.50	2.23	3341.29
6	CI-14	FHWA HEC-22 GENERIC	N/A	On Grade	1	3337.41	3340.88	3337.41	N/A	0.11	0.11	0.00	96.55	12.50	2.10	3340.92
7	CI-15	FHWA HEC-22 GENERIC	N/A	On Grade	1	3323.00	3326.55	3323.00	N/A	0.01	0.00	0.00	0.00	12.50	1.07	3326.57
8	CI-16	FHWA HEC-22 GENERIC	N/A	On Grade	1	3322.61	3326.38	3322.61	N/A	0.29	0.24	0.06	80.78	12.50	3.29	3326.45
9	CI-17	FHWA HEC-22 GENERIC	N/A	On Grade	1	3347.10	3350.53	3347.10	N/A	0.10	0.10	0.00	97.21	12.50	2.04	3350.57
10	CI-18	FHWA HEC-22 GENERIC	N/A	On Grade	1	3346.72	3350.66	3346.72	N/A	0.03	0.00	0.00	0.00	12.50	1.26	3350.69
11	CI-19	FHWA HEC-22 GENERIC	N/A	On Grade	1	3333.00	3340.47	3333.00	N/A	0.14	0.00	0.00	0.00	12.50	1.26	3340.55
12	CI-2	FHWA HEC-22 GENERIC	N/A	On Grade	1	3398.28	3403.00	3398.28	N/A	0.03	0.03	0.00	99.99	12.50	1.56	3403.03
13	CI-20	FHWA HEC-22 GENERIC	N/A	On Sag	1	3335.00	3341.74	3335.00	500.00	0.33	N/A	N/A	N/A	12.50	4.65	3341.81
14	CI-21	FHWA HEC-22 GENERIC	N/A	On Grade	1	3335.80	3342.15	3335.80	N/A	0.25	0.21	0.04	83.74	12.50	3.07	3342.21
15	CI-22	FHWA HEC-22 GENERIC	N/A	On Sag	1	3319.18	3322.67	3319.18	500.00	0.06	N/A	N/A	N/A	12.50	1.95	3322.69
16	CI-23	FHWA HEC-22 GENERIC	N/A	On Grade	1	3318.76	3323.05	3318.76	N/A	0.04	0.00	0.00	0.00	12.50	1.49	3323.08
17	CI-24	FHWA HEC-22 GENERIC	N/A	On Grade	1	3307.91	3311.43	3307.91	N/A	0.25	0.00	0.00	0.00	12.50	0.63	3311.56
18	CI-25	FHWA HEC-22 GENERIC	N/A	On Grade	1	3307.55	3311.49	3307.55	N/A	0.02	0.00	0.00	0.00	12.50	1.06	3311.51
19	CI-26	FHWA HEC-22 GENERIC	N/A	On Grade	1	3304.68	3308.17	3304.68	N/A	0.01	0.00	0.00	0.00	12.50	0.82	3308.19
20	CI-27	FHWA HEC-22 GENERIC	N/A	On Sag	1	3304.22	3309.38	3304.22	500.00	0.08	N/A	N/A	N/A	12.50	2.27	3309.41
21	CI-28	FHWA HEC-22 GENERIC	N/A	On Grade	1	3303.76	3308.98	3303.76	N/A	0.23	0.21	0.02	89.21	12.50	2.66	3309.03
22	CI-29	FHWA HEC-22 GENERIC	N/A	On Grade	1	3278.55	3282.08	3278.55	N/A	0.18	0.17	0.01	92.62	12.50	2.42	3282.13
23	CI-3	FHWA HEC-22 GENERIC	N/A	On Grade	1	3396.90	3400.12	3396.90	N/A	0.03	0.03	0.00	99.97	12.50	1.58	3400.15
24	CI-30	FHWA HEC-22 GENERIC	N/A	On Grade	1	3275.88	3281.99	3275.88	N/A	0.07	0.07	0.00	99.78	12.50	1.67	3282.02
25	CI-31	FHWA HEC-22 GENERIC	N/A	On Sag	1	3272.10	3275.80	3272.10	1000.00	0.04	N/A	N/A	N/A	12.50	1.69	3275.81
26	CI-32	FHWA HEC-22 GENERIC	N/A	On Sag	1	3266.80	3275.80	3266.80	1000.00	0.06	N/A	N/A	N/A	12.50	1.94	3275.82
27	CI-33	FHWA HEC-22 GENERIC	N/A	On Grade	1	3316.15	3319.68	3316.15	N/A	0.17	0.15	0.02	89.56	12.50	2.65	3319.73
28	CI-34	FHWA HEC-22 GENERIC	N/A	On Grade	1	3313.00	3319.92	3313.00	N/A	0.23	0.20	0.04	84.33	12.50	3.03	3319.98
29	CI-4	FHWA HEC-22 GENERIC	N/A	On Grade	1	3385.00	3388.50	3385.00	N/A	0.03	0.00	0.00	0.00	12.50	1.13	3388.52
30	CI-5	FHWA HEC-22 GENERIC	N/A	On Grade	1	3382.44	3388.16	3382.44	N/A	0.25	0.22	0.03	89.79	12.50	2.62	3388.21
31	CI-6	FHWA HEC-22 GENERIC	N/A	On Grade	1	3369.00	3373.31	3369.00	N/A	0.16	0.15	0.01	96.46	12.50	2.11	3373.35
32	CI-7	FHWA HEC-22 GENERIC	N/A	On Grade	1	3368.62	3372.80	3368.62	N/A	0.18	0.17	0.01	93.07	12.50	2.38	3372.85
33	CI-8	FHWA HEC-22 GENERIC	N/A	On Grade	1	3367.00	3371.11	3367.00	N/A	0.06	0.06	0.00	99.99	12.50	1.54	3371.14
34	CI-9	FHWA HEC-22 GENERIC	N/A	On Grade	1	3358.19	3362.35	3358.19	N/A	0.03	0.00	0.00	0.00	12.50	1.31	3362.38

Subbasin Hydrology

Subbasin : OFFSITE-FLOWS

Input Data

Area (ac)	49.81
Peak Rate Factor	484
Weighted Curve Number	69
Rain Gage ID	MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
Pasture, grassland, or range, Fair	50.33	B	69
Composite Area & Weighted CN	50.33		69

Time of Concentration

TOC Method : SCS TR-55

Sheet Flow Equation :

$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (S_f^{0.4}))$

Where :

- Tc = Time of Concentration (hr)
- n = Manning's roughness
- Lf = Flow Length (ft)
- P = 2 yr, 24 hr Rainfall (inches)
- Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation :

- V = 16.1345 * (Sf^0.5) (unpaved surface)
- V = 20.3282 * (Sf^0.5) (paved surface)
- V = 15.0 * (Sf^0.5) (grassed waterway surface)
- V = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
- V = 9.0 * (Sf^0.5) (cultivated straight rows surface)
- V = 7.0 * (Sf^0.5) (short grass pasture surface)
- V = 5.0 * (Sf^0.5) (woodland surface)
- V = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
- Tc = (Lf / V) / (3600 sec/hr)

Where:

- Tc = Time of Concentration (hr)
- Lf = Flow Length (ft)
- V = Velocity (ft/sec)
- Sf = Slope (ft/ft)

Channel Flow Equation :

- $V = (1.49 * (R^{(2/3)}) * (S_f^{0.5})) / n$
- $R = A_q / W_p$
- $T_c = (L_f / V) / (3600 \text{ sec/hr})$

Where :

- Tc = Time of Concentration (hr)
- Lf = Flow Length (ft)
- R = Hydraulic Radius (ft)
- Aq = Flow Area (ft²)
- Wp = Wetted Perimeter (ft)
- V = Velocity (ft/sec)
- Sf = Slope (ft/ft)
- n = Manning's roughness

2-Year Storm
Post-Development Results

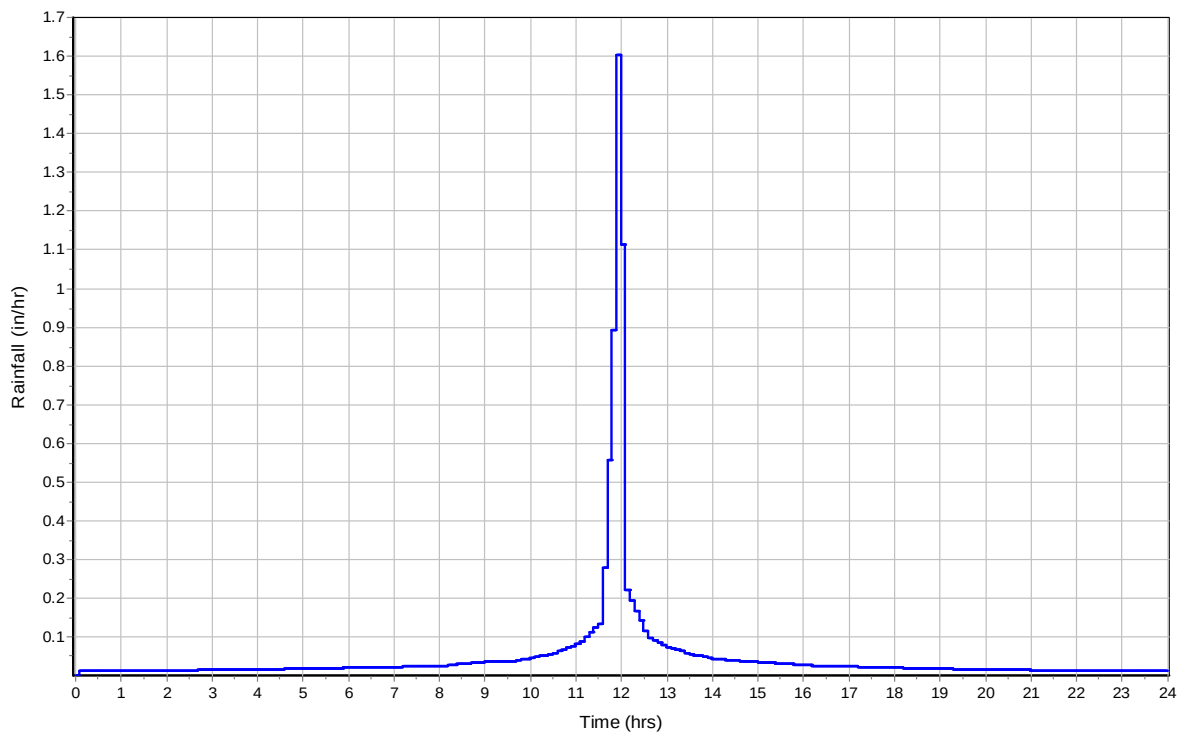
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.15	0.15	0.15
Flow Length (ft) :	300	300	300
Slope (%) :	20	15	25
2 yr, 24 hr Rainfall (in) :	1.2	1.2	1.2
Velocity (ft/sec) :	0.33	0.29	0.36
Computed Flow Time (min) :	15.34	17.21	14.03
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	1000	0	0
Slope (%) :	5	0	0
Surface Type :	Unpaved	Unpaved	Unpaved
Velocity (ft/sec) :	3.61	0	0
Computed Flow Time (min) :	4.62	0	0
Total TOC (min)	51.20		

Subbasin Runoff Results

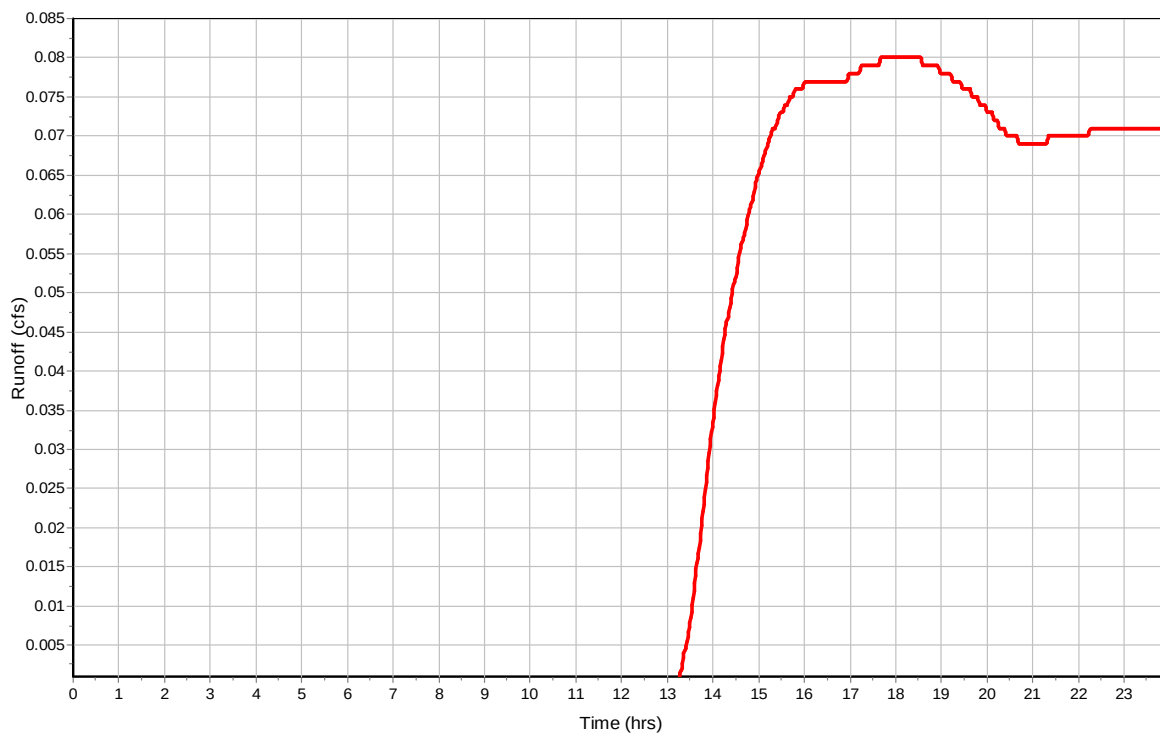
Total Rainfall (in)	1.17
Total Runoff (in)	0.02
Peak Runoff (cfs)	0.08
Weighted Curve Number	69
Time of Concentration (days hh:mm:ss)	0 00:51:12

Subbasin : OFFSITE-FLOWS

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-01

Input Data

Area (ac)	1.24
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
1/4 acre lots, 38% impervious	1.24	B	75
Composite Area & Weighted CN	1.24		75

Time of Concentration

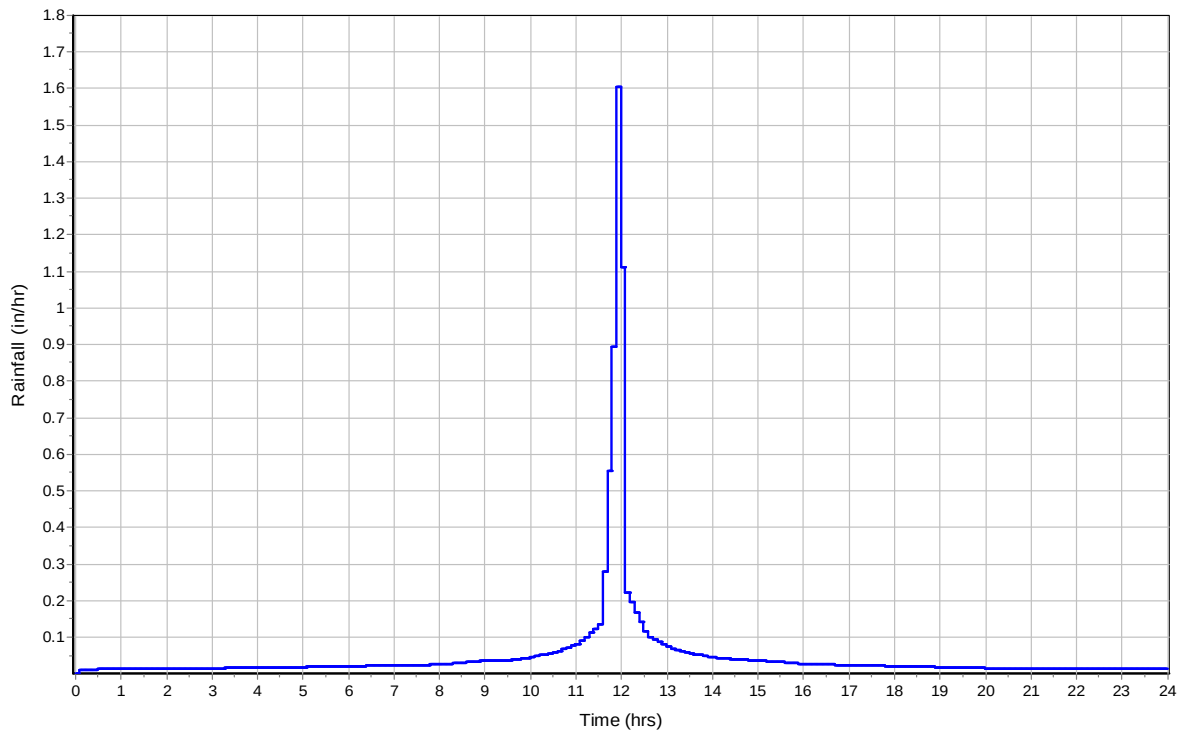
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0	0	0.2
Flow Length (ft) :	0	0	150
Slope (%) :	0	0	10
2 yr, 24 hr Rainfall (in) :	0	0	1.2
Velocity (ft/sec) :	0	0	0.17
Computed Flow Time (min) :	0	0	14.63
Total TOC (min)	14.63		

Subbasin Runoff Results

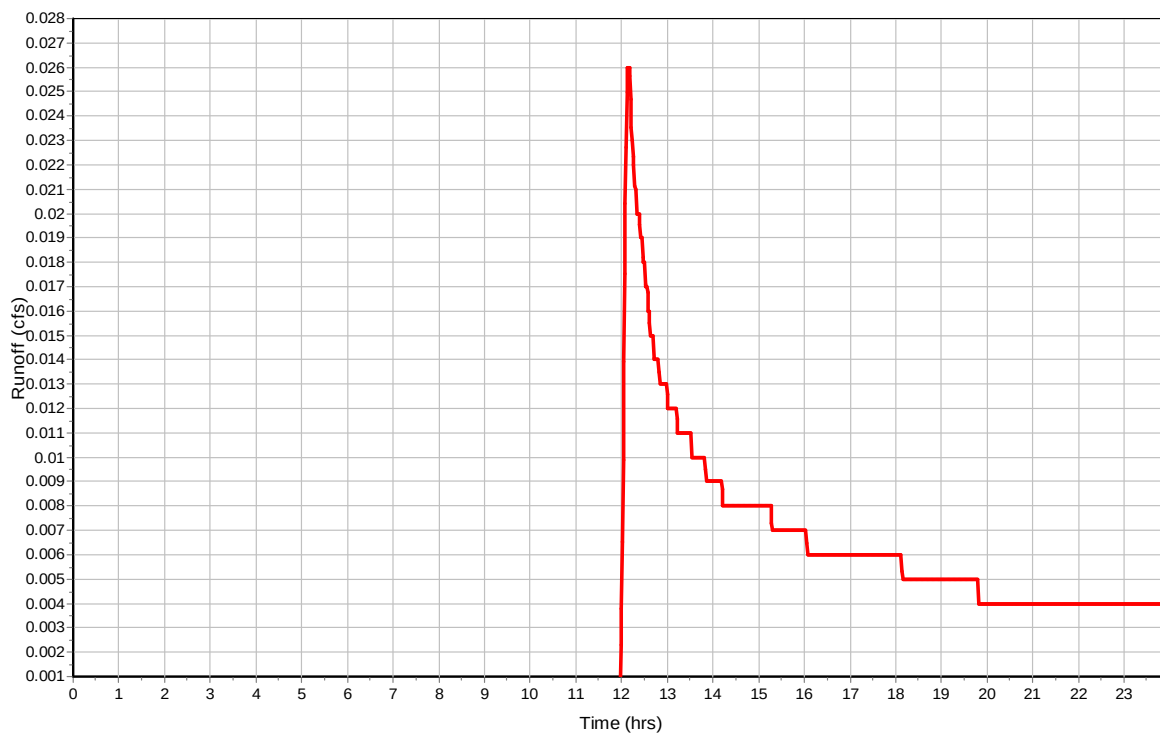
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.03
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:14:38

Subbasin : Sub-01

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-02

Input Data

Area (ac)	0.78
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
1/4 acre lots, 38% impervious	0.78	B	75
Composite Area & Weighted CN	0.78		75

Time of Concentration

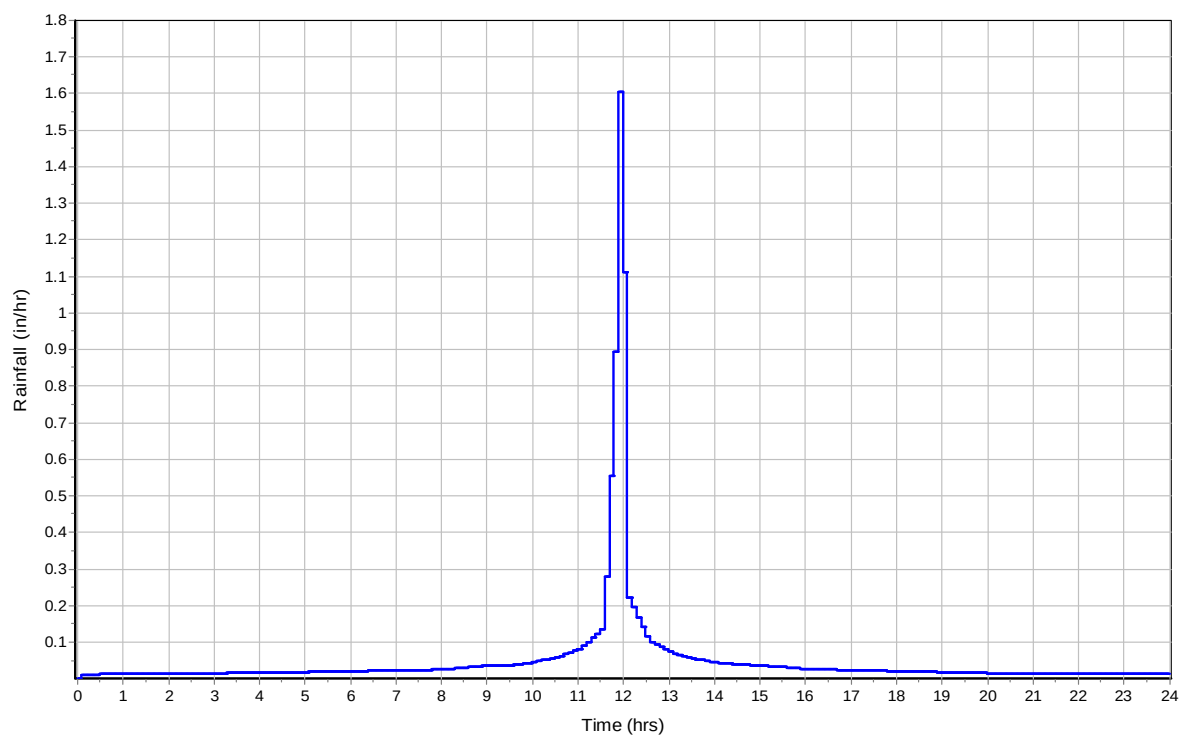
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0	0.2	0.05
Flow Length (ft) :	0	130	100
Slope (%) :	0	12.7	33.3
2 yr, 24 hr Rainfall (in) :	0	1.2	1.2
Velocity (ft/sec) :	0	0.18	0.77
Computed Flow Time (min) :	0	11.86	2.16
Total TOC (min)	14.02		

Subbasin Runoff Results

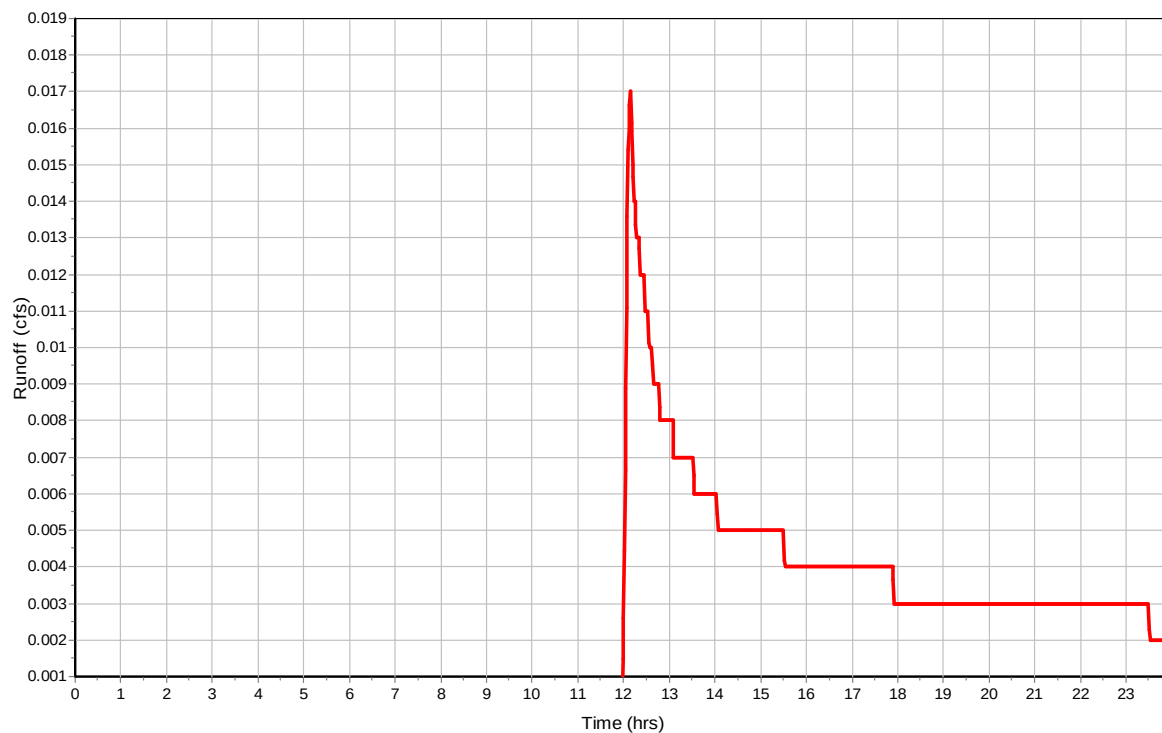
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.02
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:14:01

Subbasin : Sub-02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-03

Input Data

Area (ac) 0.87
 Peak Rate Factor 484
 Weighted Curve Number 75
 Rain Gage ID MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
1/4 acre lots, 38% impervious	0.87	B	75
Composite Area & Weighted CN	0.87		75

Time of Concentration

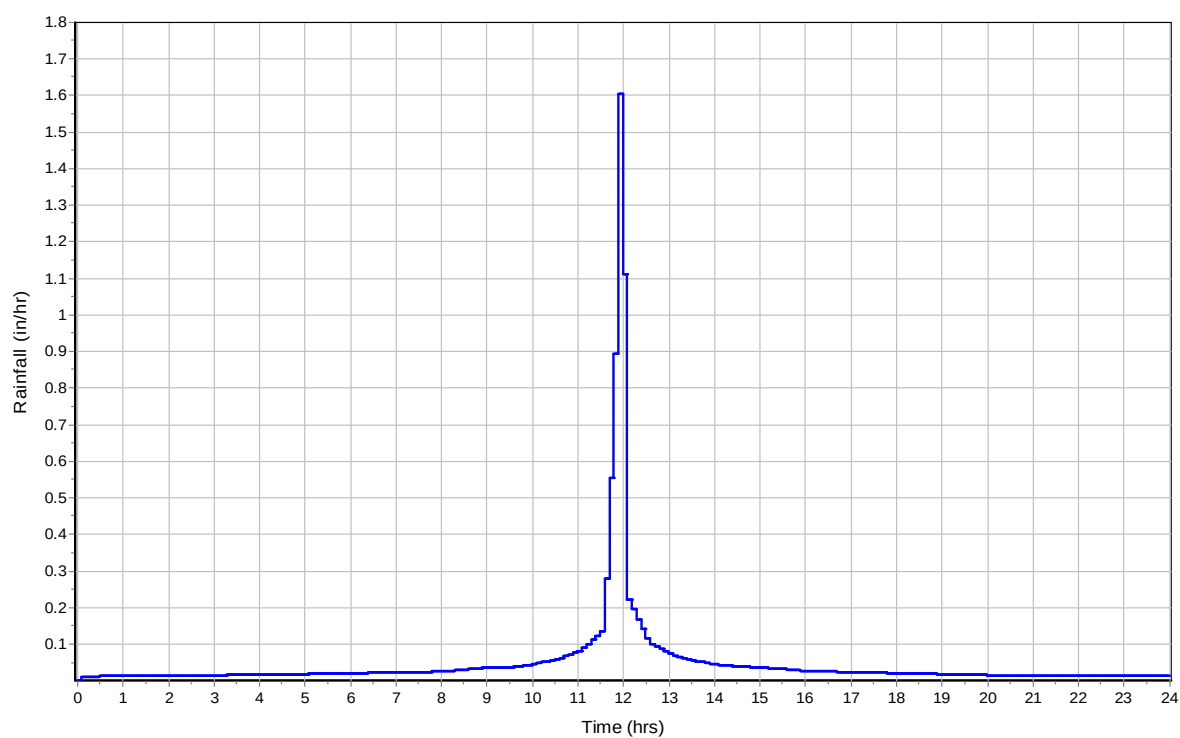
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0	0.2	0.05
Flow Length (ft) :	0	120	80
Slope (%) :	0	10	33.3
2 yr, 24 hr Rainfall (in) :	0	1.2	1.2
Velocity (ft/sec) :	0	0.16	0.74
Computed Flow Time (min) :	0	12.24	1.8
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	250	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	0.92	0	0
Total TOC (min)	14.96		

Subbasin Runoff Results

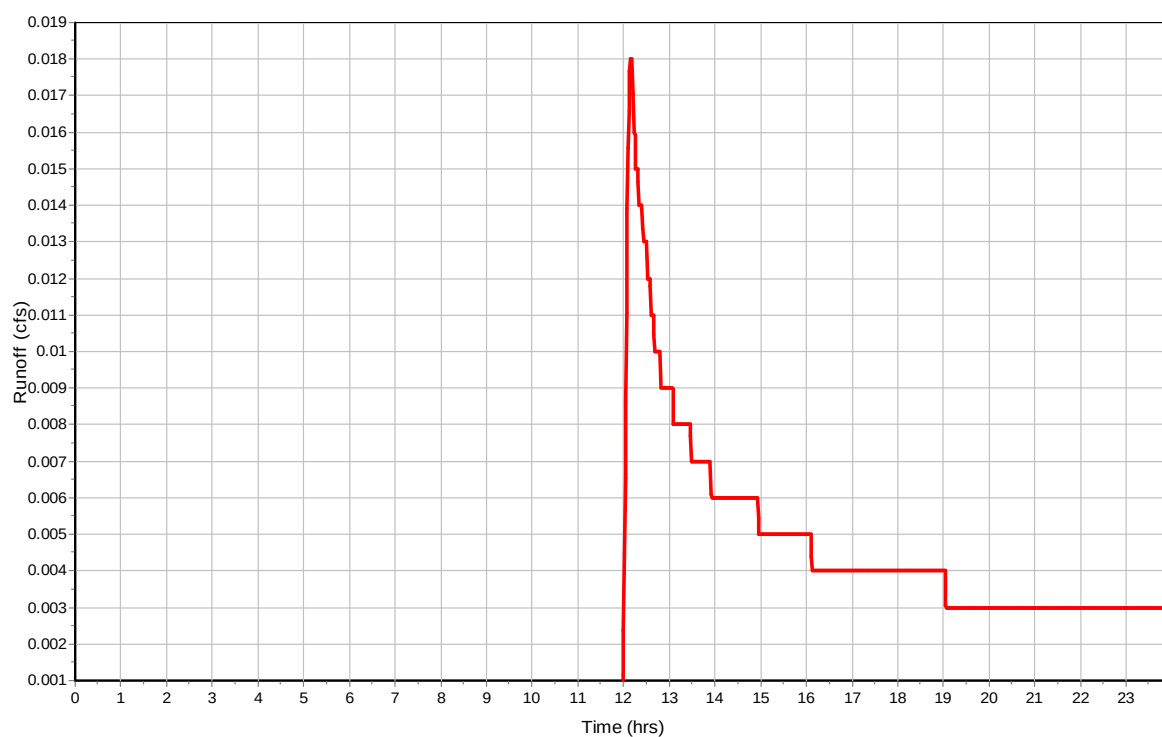
Total Rainfall (in) 1.17
 Total Runoff (in) 0.07
 Peak Runoff (cfs) 0.02
 Weighted Curve Number 75
 Time of Concentration (days hh:mm:ss) 0 00:14:58

Subbasin : Sub-03

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-04

Input Data

Area (ac) 1.46
 Peak Rate Factor 484
 Weighted Curve Number 83
 Rain Gage ID MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
1/4 acre lots, 38% impervious	1.46	C	83
Composite Area & Weighted CN	1.46		83

Time of Concentration

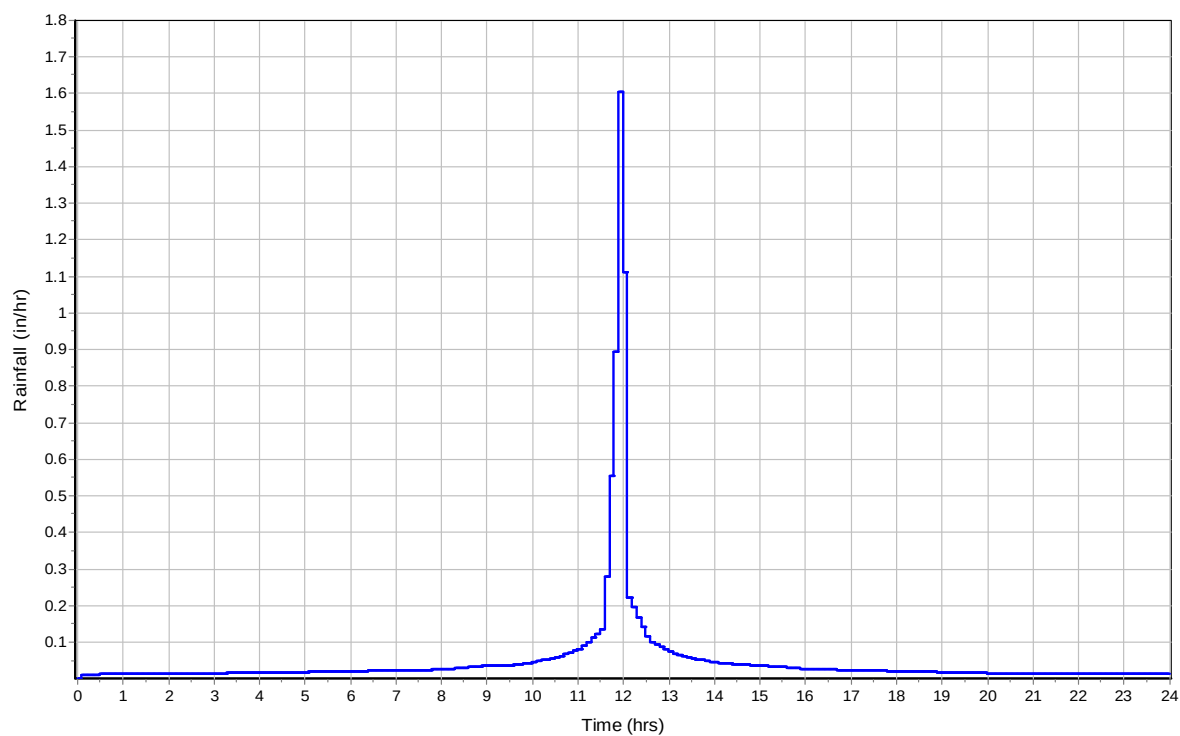
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0	0.2	0
Flow Length (ft) :	0	200	0
Slope (%) :	0	19.5	0
2 yr, 24 hr Rainfall (in) :	0	1.2	0
Velocity (ft/sec) :	0	0.24	0
Computed Flow Time (min) :	0	14.1	0
Total TOC (min)14.10			

Subbasin Runoff Results

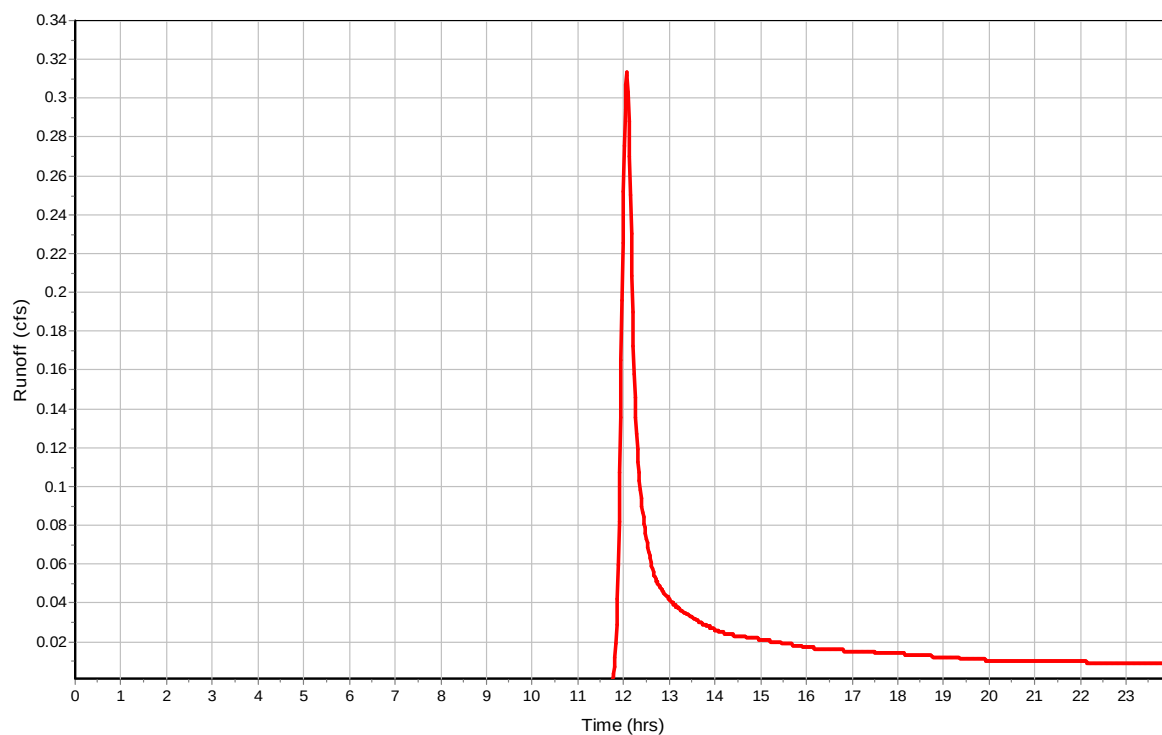
Total Rainfall (in) 1.17
 Total Runoff (in) 0.21
 Peak Runoff (cfs) 0.31
 Weighted Curve Number 83
 Time of Concentration (days hh:mm:ss) 0 00:14:06

Subbasin : Sub-04

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-05

Input Data

Area (ac) 0.79
Peak Rate Factor 484
Weighted Curve Number 83
Rain Gage ID MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
1/4 acre lots, 38% impervious	0.79	C	83
Composite Area & Weighted CN	0.79		83

Time of Concentration

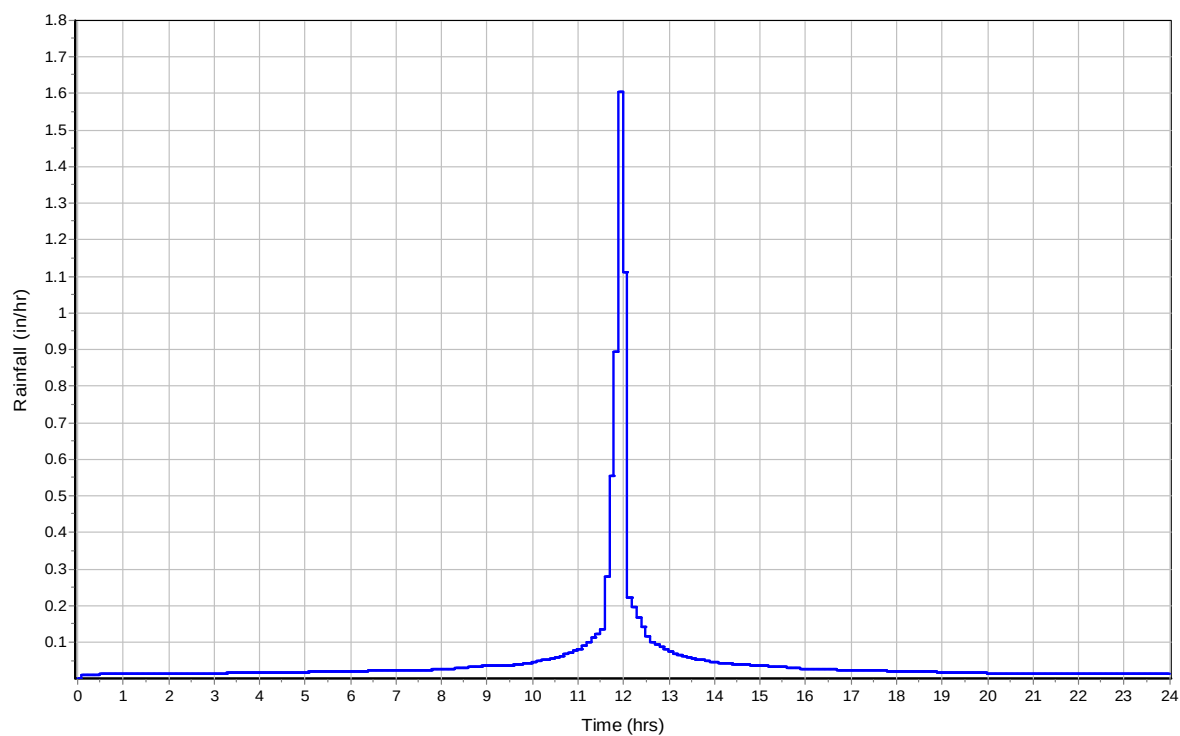
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0	0.2	0.05
Flow Length (ft) :	0	110	75
Slope (%) :	0	13	33.3
2 yr, 24 hr Rainfall (in) :	0	1.2	1.2
Velocity (ft/sec) :	0	0.18	0.73
Computed Flow Time (min) :	0	10.28	1.71
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	175	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	0.51	0	0
Total TOC (min)	12.50		

Subbasin Runoff Results

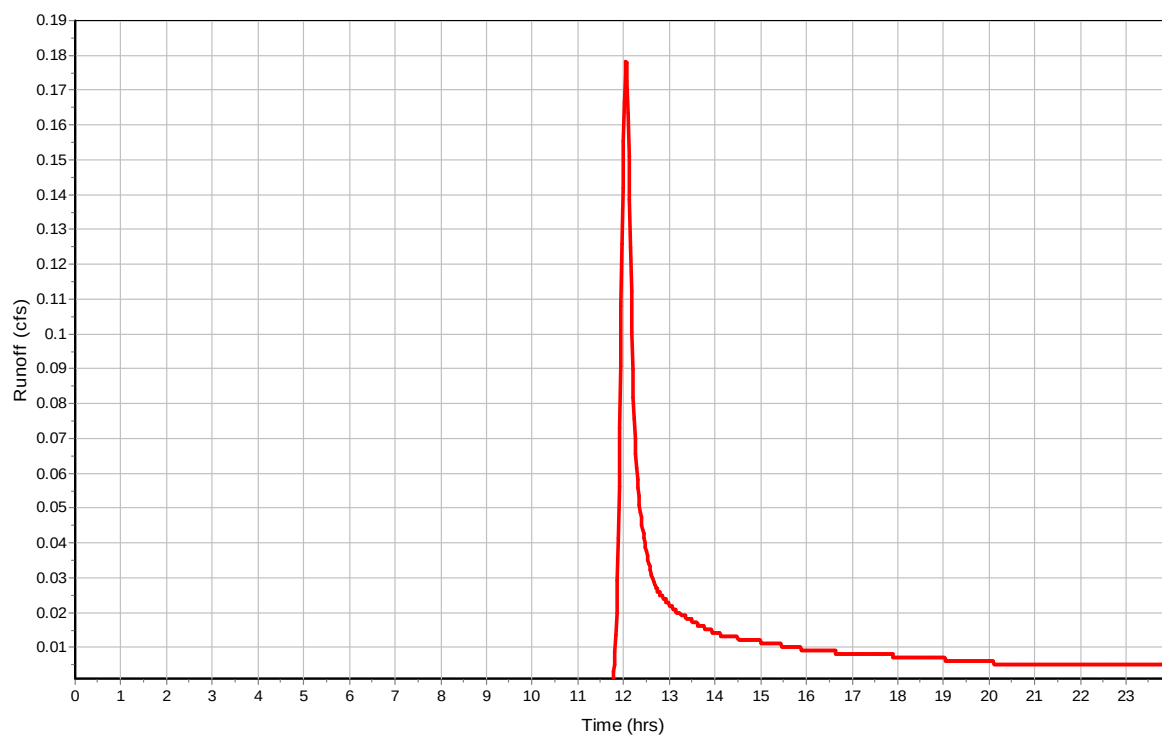
Total Rainfall (in) 1.17
Total Runoff (in) 0.21
Peak Runoff (cfs) 0.18
Weighted Curve Number 83
Time of Concentration (days hh:mm:ss) 0 00:12:30

Subbasin : Sub-05

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-07

Input Data

Area (ac) 0.14
 Peak Rate Factor 484
 Weighted Curve Number 98
 Rain Gage ID MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
Paved parking & roofs	0.14	B	98
Composite Area & Weighted CN	0.14		98

Time of Concentration

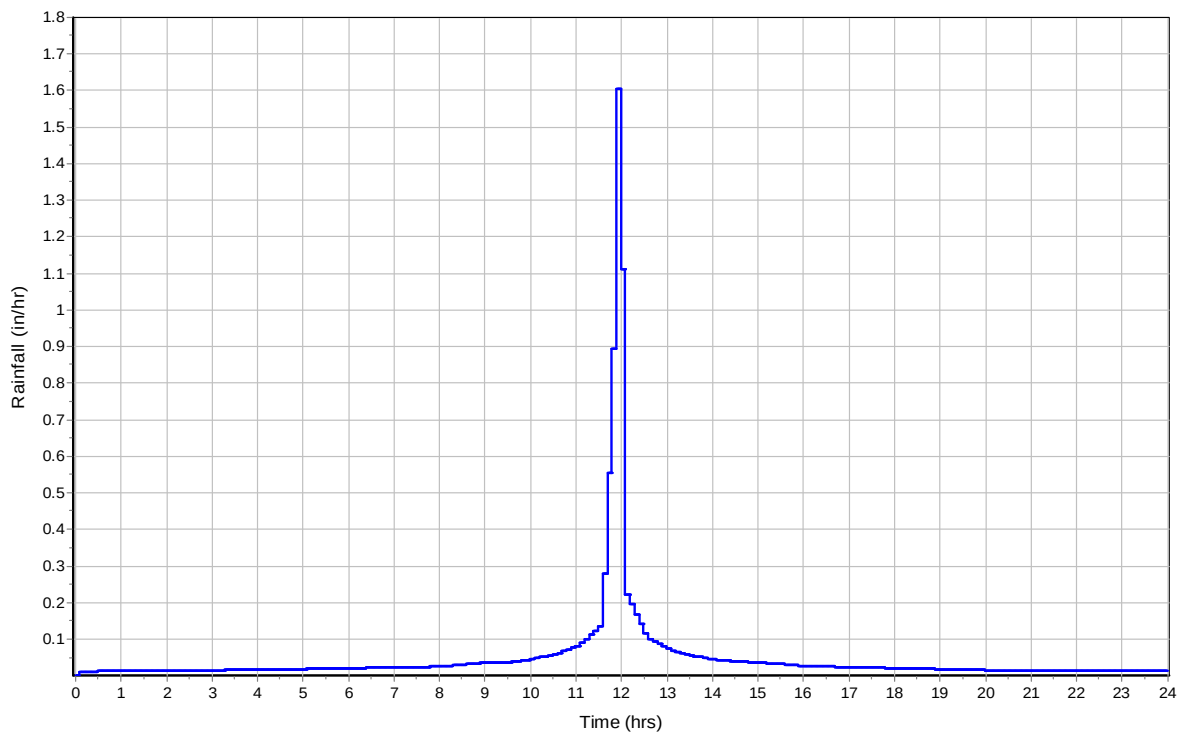
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	300	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	0.87	0	0
Total TOC (min)	1.52		

Subbasin Runoff Results

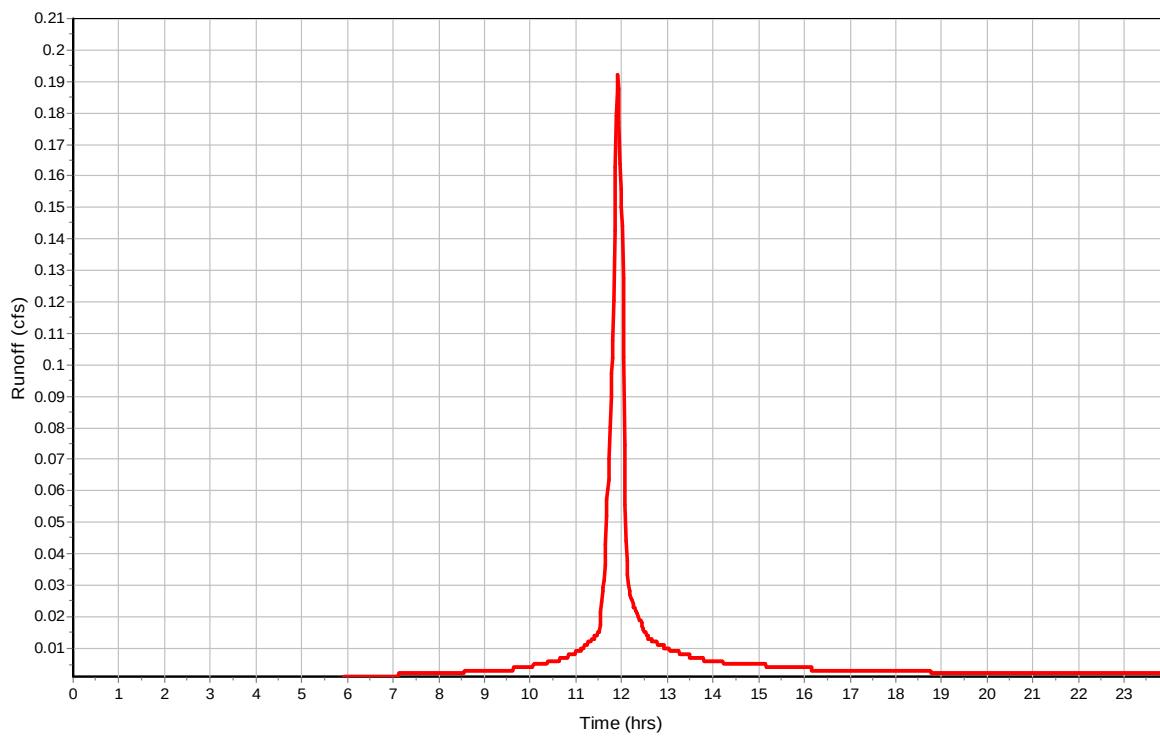
Total Rainfall (in) 1.17
 Total Runoff (in) 0.95
 Peak Runoff (cfs) 0.19
 Weighted Curve Number 98
 Time of Concentration (days hh:mm:ss) 0 00:01:31

Subbasin : Sub-07

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-08

Input Data

Area (ac) 0.17
 Peak Rate Factor 484
 Weighted Curve Number 98
 Rain Gage ID MC-100Y-24H

Composite Curve Number

32 Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.17	B	98
Composite Area & Weighted CN	0.17		98

Time of Concentration

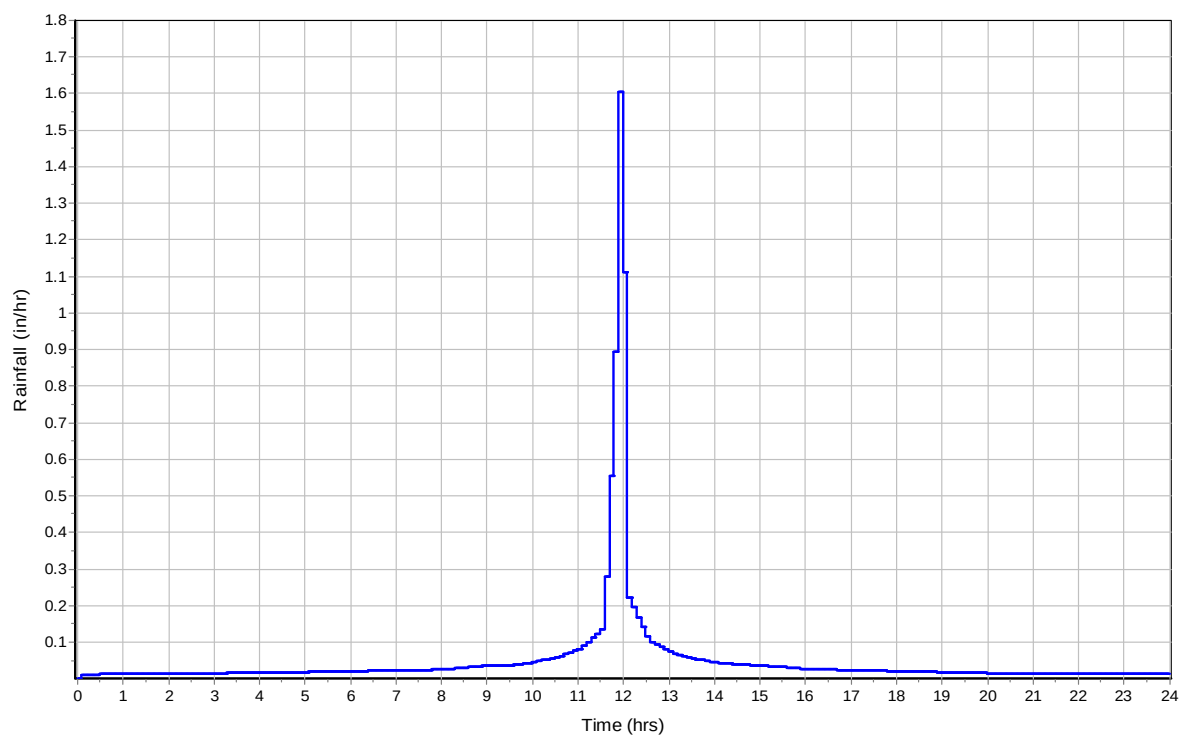
	Subarea A	Subarea B	Subarea C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
Shallow Concentrated Flow Computations			
Flow Length (ft) :	400	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	1.47	0	0
Total TOC (min)2.12			

Subbasin Runoff Results

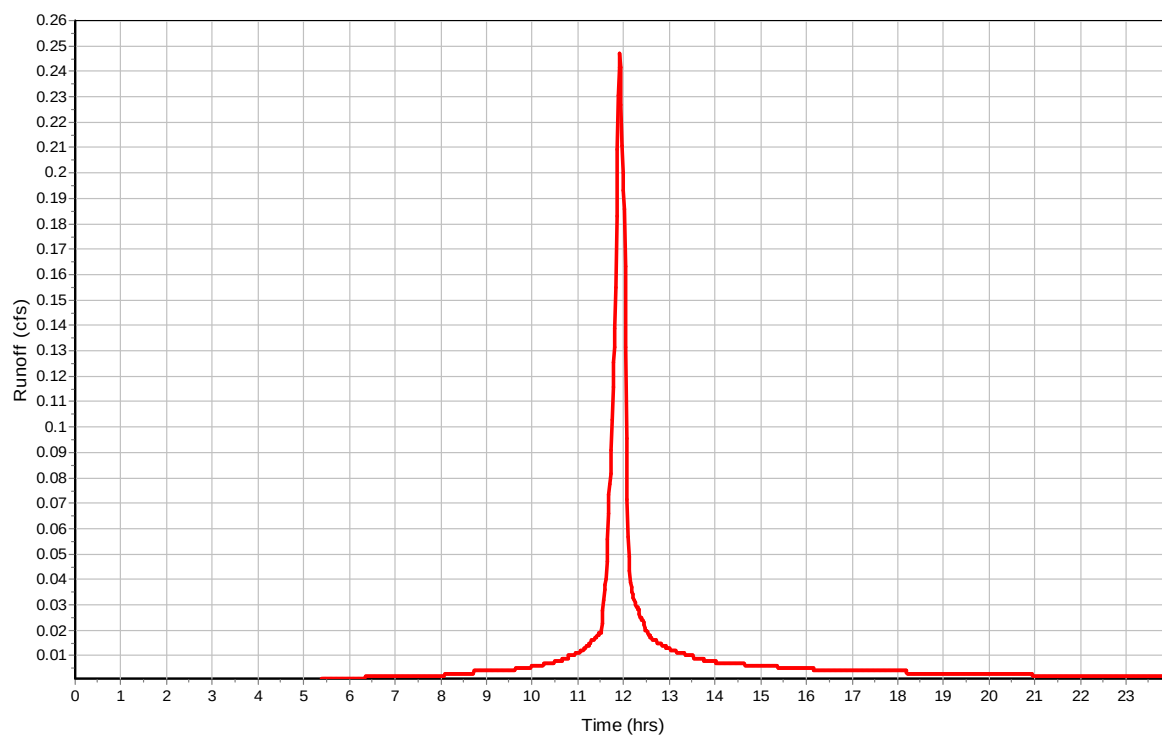
Total Rainfall (in) 1.17
 Total Runoff (in) 0.95
 Peak Runoff (cfs) 0.25
 Weighted Curve Number 98
 Time of Concentration (days hh:mm:ss) 0 00:02:07

Subbasin : Sub-08

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-09

Input Data

Area (ac) 0.17
 Peak Rate Factor 484
 Weighted Curve Number 98
 Rain Gage ID MC-100Y-24H

Composite Curve Number

32 Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.17	B	98
Composite Area & Weighted CN	0.17		98

Time of Concentration

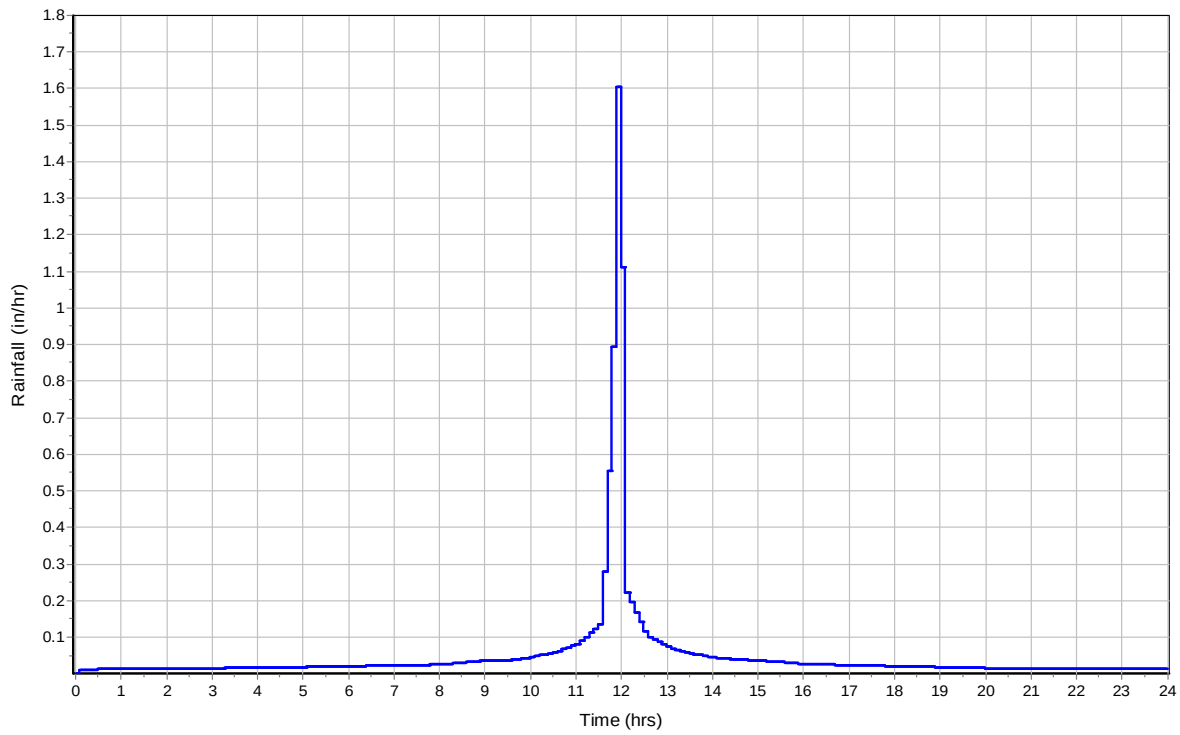
	Subarea A	Subarea B	Subarea C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
Shallow Concentrated Flow Computations			
Flow Length (ft) :	500	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	1.45	0	0
Total TOC (min)	2.10		

Subbasin Runoff Results

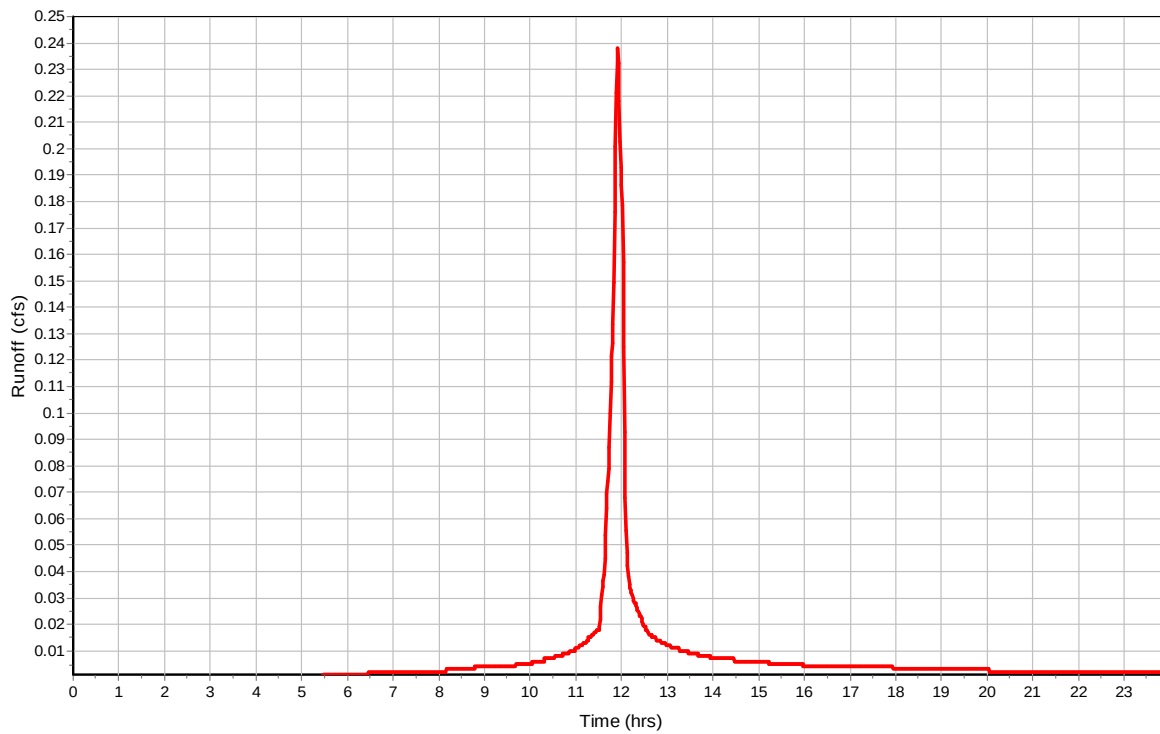
Total Rainfall (in) 1.17
 Total Runoff (in) 0.95
 Peak Runoff (cfs) 0.24
 Weighted Curve Number 98
 Time of Concentration (days hh:mm:ss) 0 00:02:06

Subbasin : Sub-09

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-10

Input Data

Area (ac)	0.85
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		1.05	B	75
Composite Area & Weighted CN		1.05		75

Time of Concentration

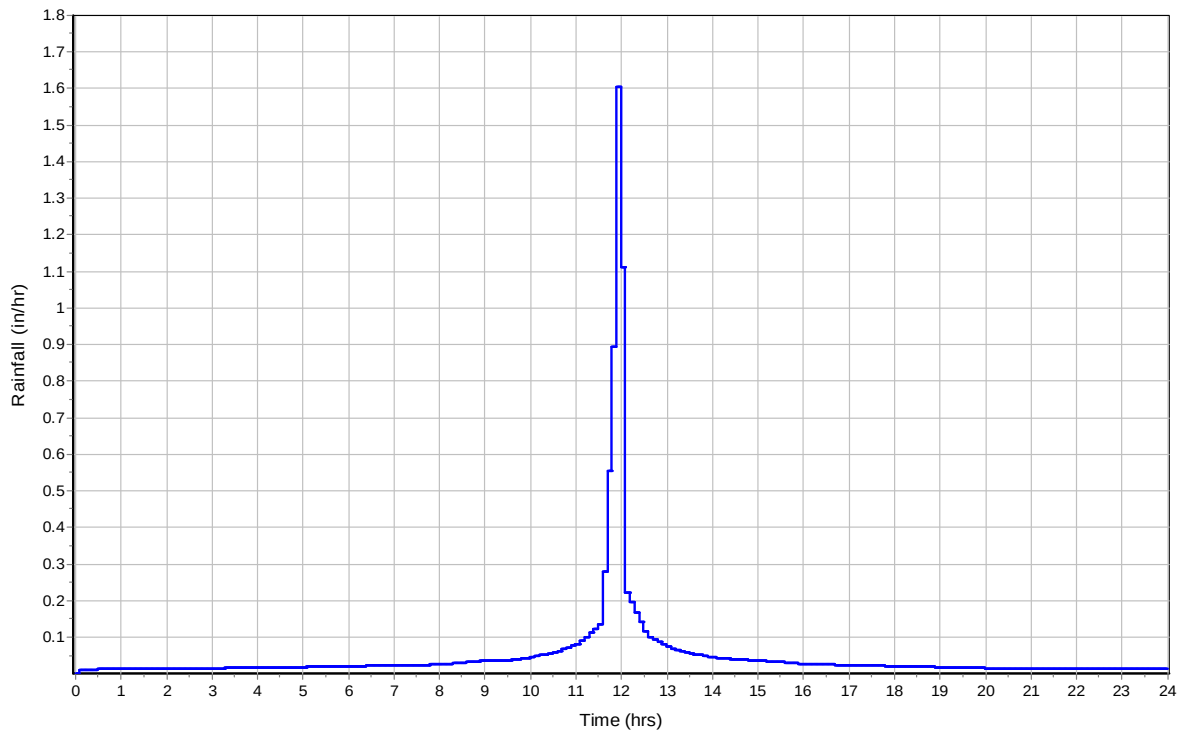
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0	0
Flow Length (ft) :	150	0	0
Slope (%) :	12	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.18	0	0
Computed Flow Time (min) :	13.6	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	350	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	1.01	0	0
Total TOC (min)	14.62		

Subbasin Runoff Results

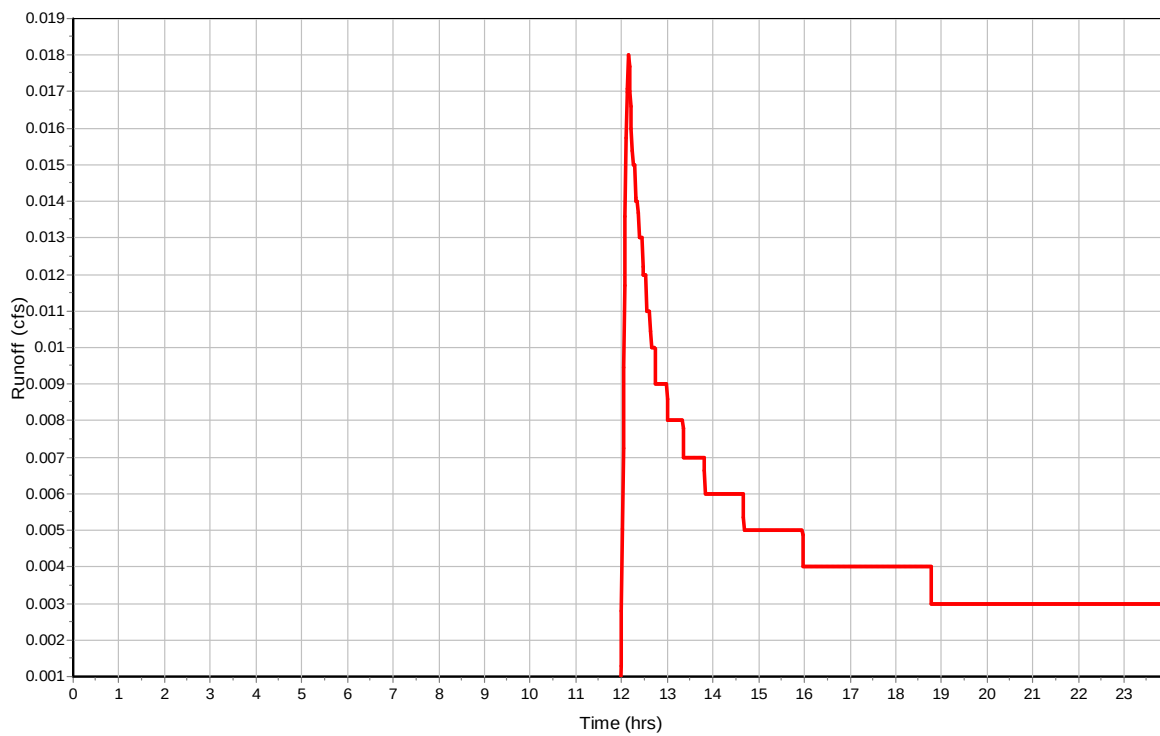
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.02
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:14:37

Subbasin : Sub-10

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-11

Input Data

Area (ac) 0.74
Peak Rate Factor 484
Weighted Curve Number 75
Rain Gage ID MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.5	B	75
Composite Area & Weighted CN		0.5		75

Time of Concentration

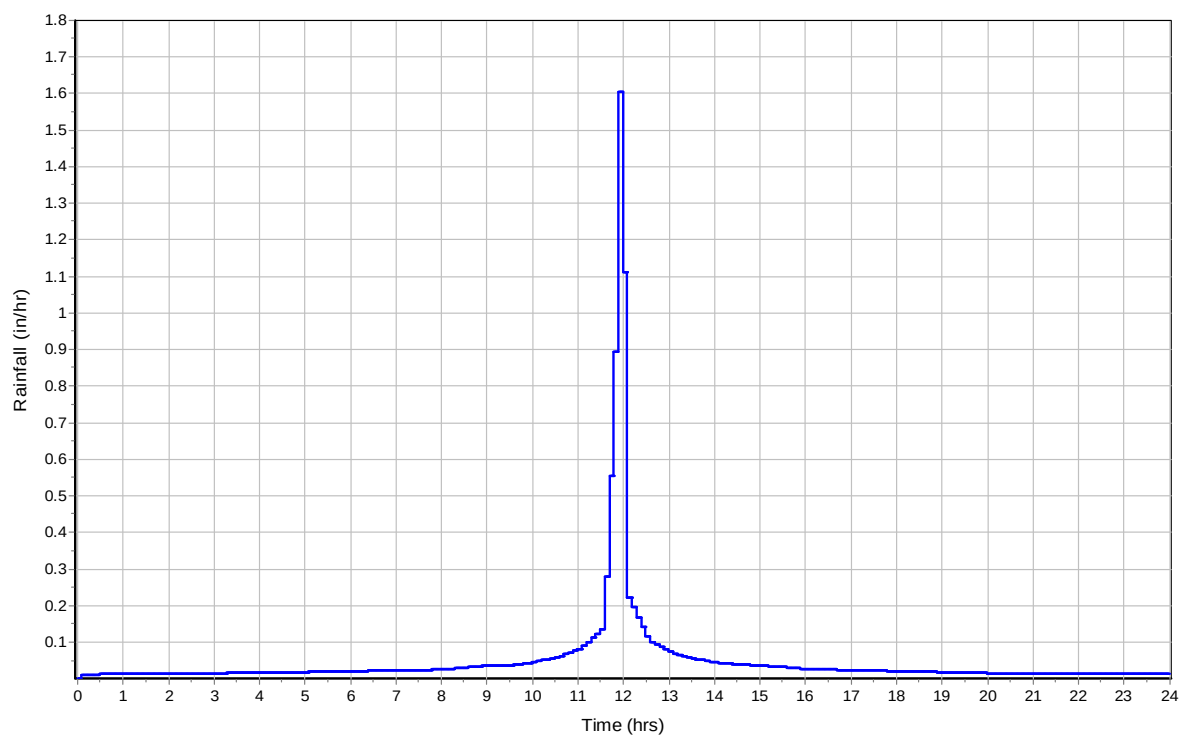
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0	0
Flow Length (ft) :	150	0	0
Slope (%) :	23	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.24	0	0
Computed Flow Time (min) :	10.49	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	100	0	0
Slope (%) :	6	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.98	0	0
Computed Flow Time (min) :	0.33	0	0
Total TOC (min)10.82			

Subbasin Runoff Results

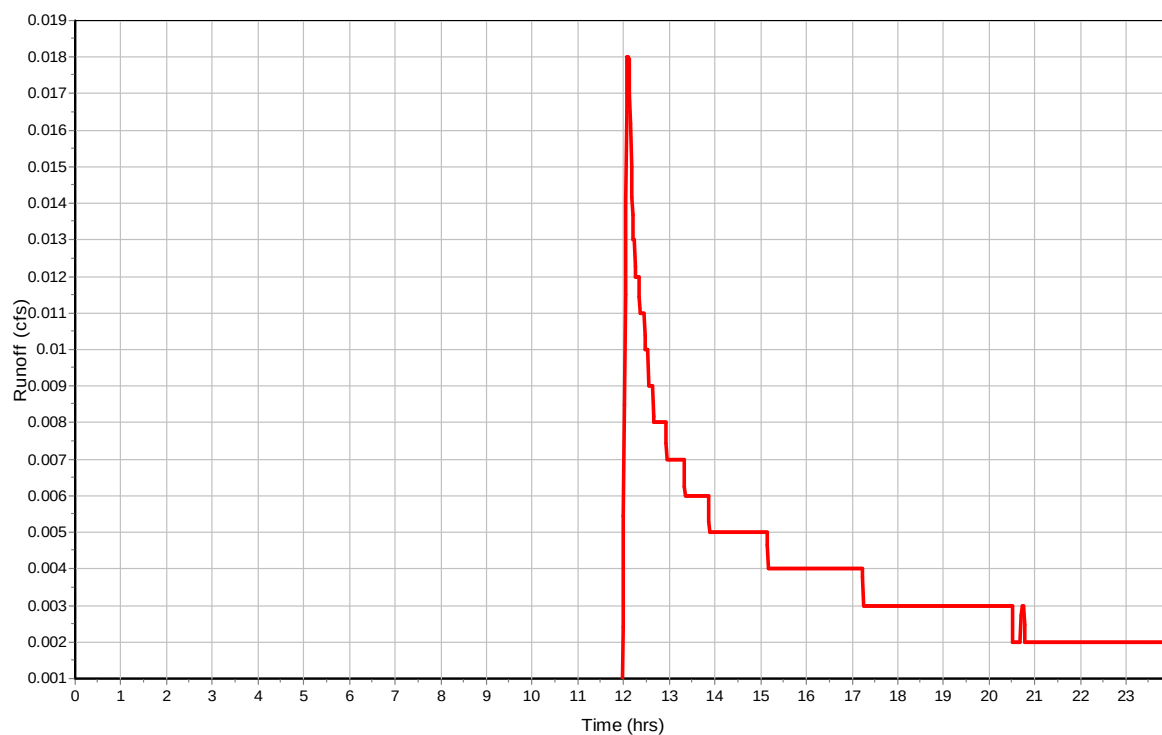
Total Rainfall (in) 1.17
Total Runoff (in) 0.07
Peak Runoff (cfs) 0.02
Weighted Curve Number 75
Time of Concentration (days hh:mm:ss) 0 00:10:49

Subbasin : Sub-11

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-13

Input Data

Area (ac)	2.41
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		1.62	B	75
Composite Area & Weighted CN		1.62		75

Time of Concentration

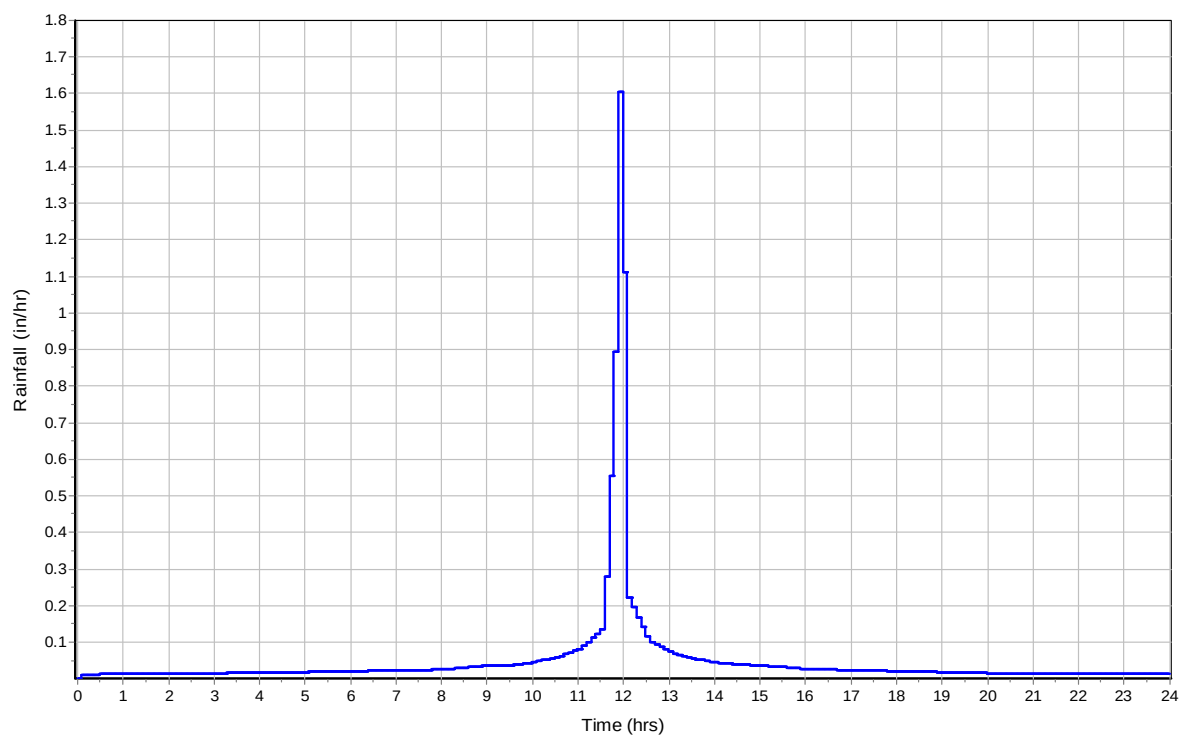
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.05	0
Flow Length (ft) :	80	50	0
Slope (%) :	10	50	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.15	0.79	0
Computed Flow Time (min) :	8.85	1.05	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	400	0	0
Slope (%) :	6	0	0
Surface Type :	Grassed waterway	Unpaved	Unpaved
Velocity (ft/sec) :	3.67	0	0
Computed Flow Time (min) :	1.82	0	0
Total TOC (min)	11.72		

Subbasin Runoff Results

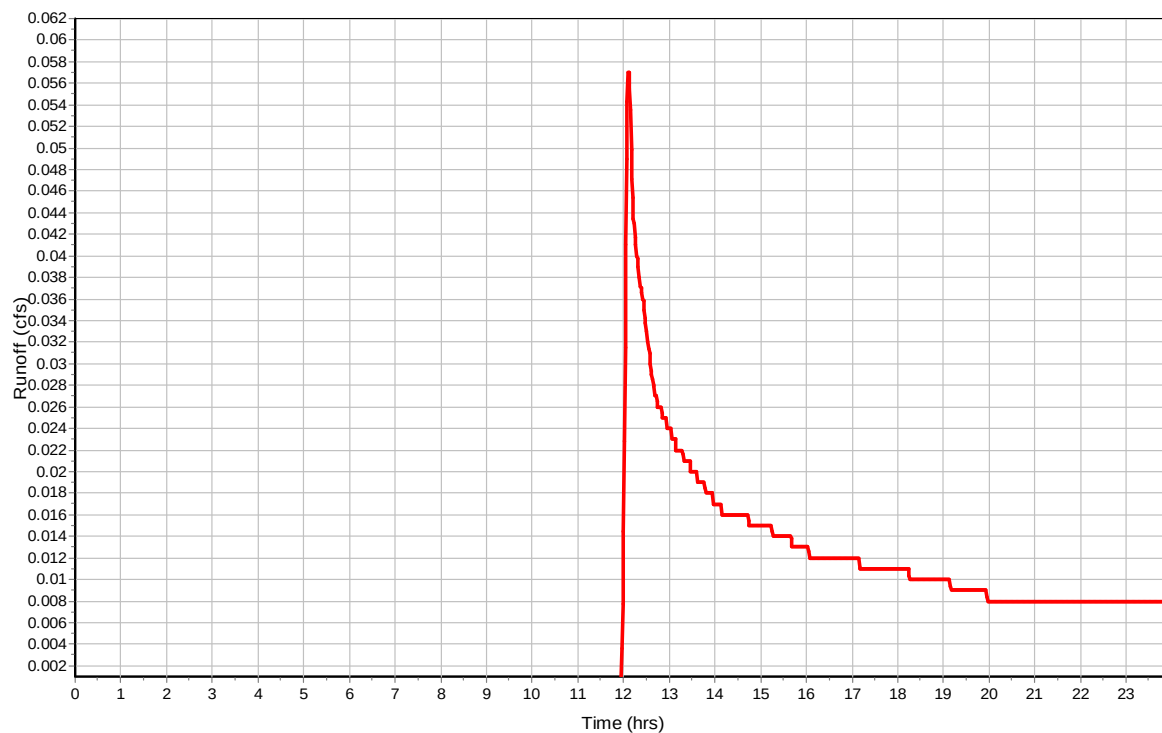
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.06
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:11:43

Subbasin : Sub-13

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-14

Input Data

Area (ac)	0.59
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.57	B	75
Composite Area & Weighted CN		0.57		75

Time of Concentration

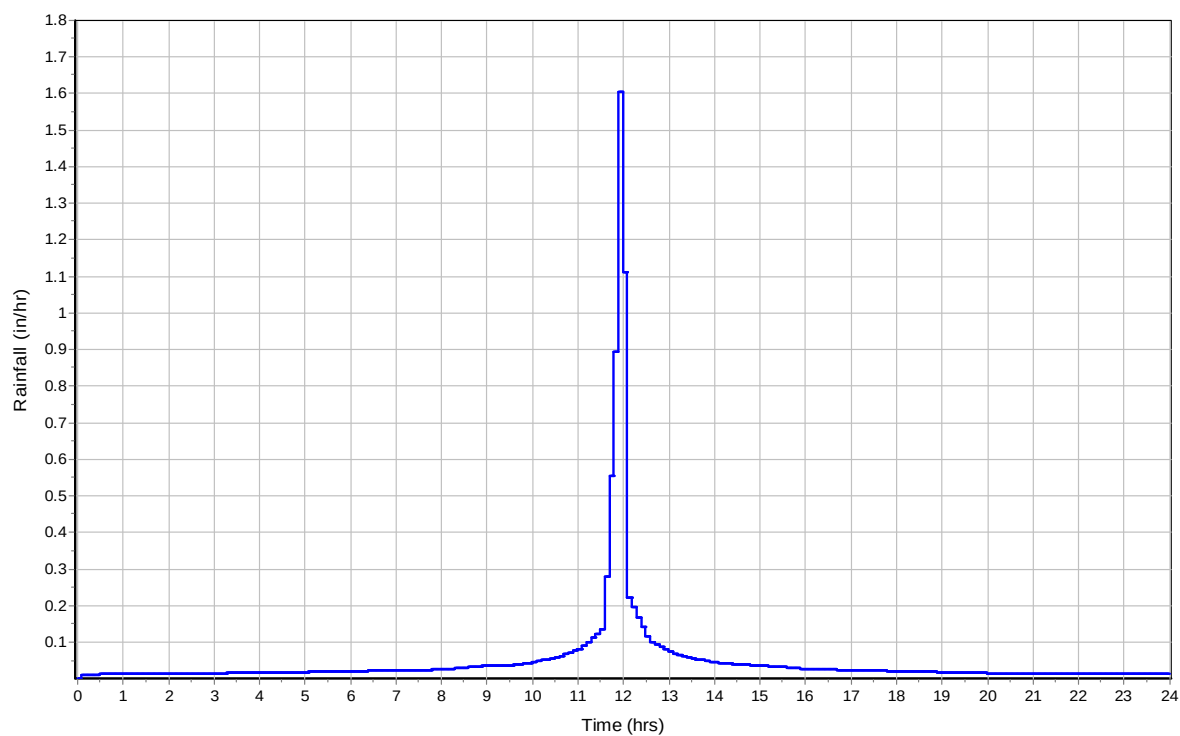
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0.2	0
Flow Length (ft) :	25	150	0
Slope (%) :	2	15	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.64	0.2	0
Computed Flow Time (min) :	0.65	12.44	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	220	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	0.81	0	0
Total TOC (min)	13.90		

Subbasin Runoff Results

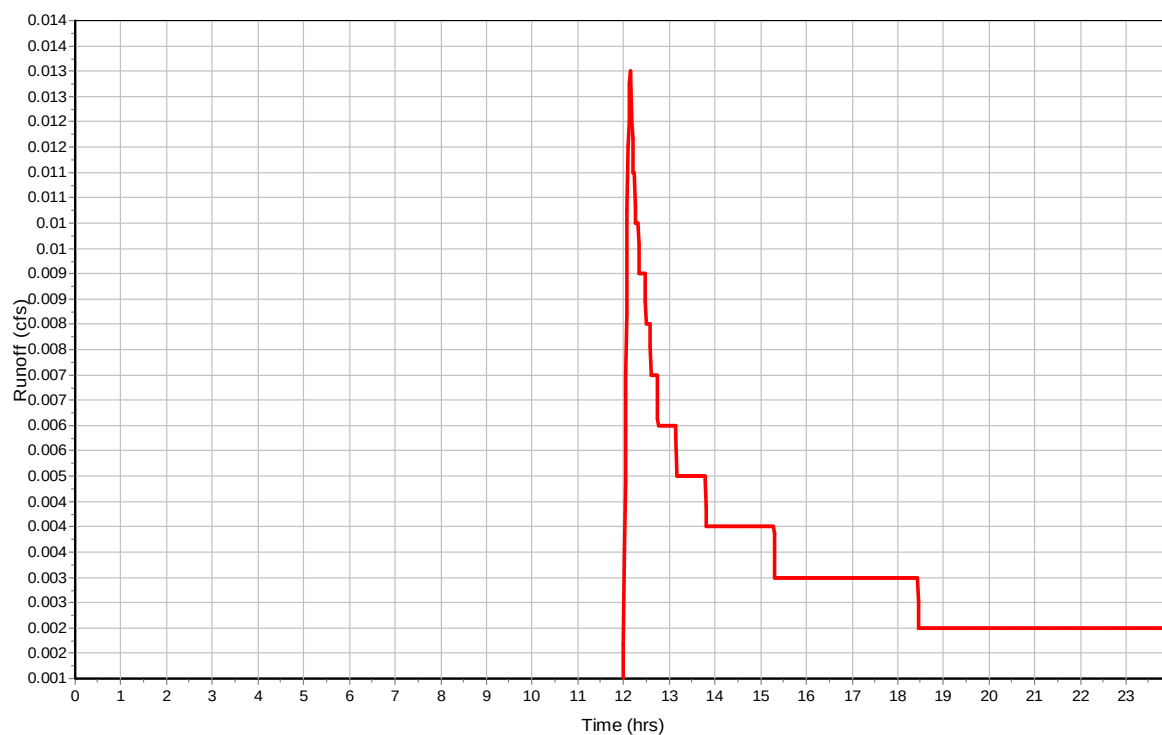
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.01
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:13:54

Subbasin : Sub-14

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-15

Input Data

Area (ac)	0.48
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.78	B	75
Composite Area & Weighted CN		0.78		75

Time of Concentration

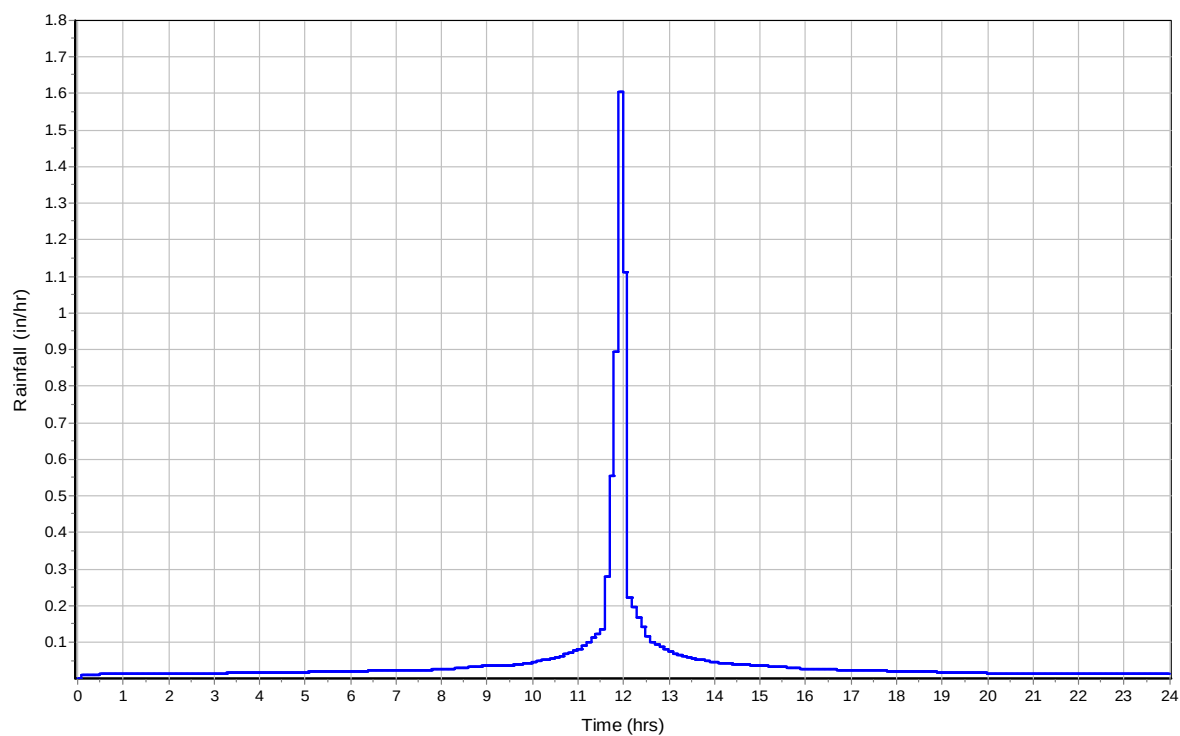
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0.05
Flow Length (ft) :	150	25	50
Slope (%) :	30	2	50
2 yr, 24 hr Rainfall (in) :	1.2	1.2	1.2
Velocity (ft/sec) :	0.27	0.64	0.79
Computed Flow Time (min) :	9.43	0.65	1.05
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	160	0	0
Slope (%) :	1	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	2.03	0	0
Computed Flow Time (min) :	1.31	0	0
Total TOC (min)	12.45		

Subbasin Runoff Results

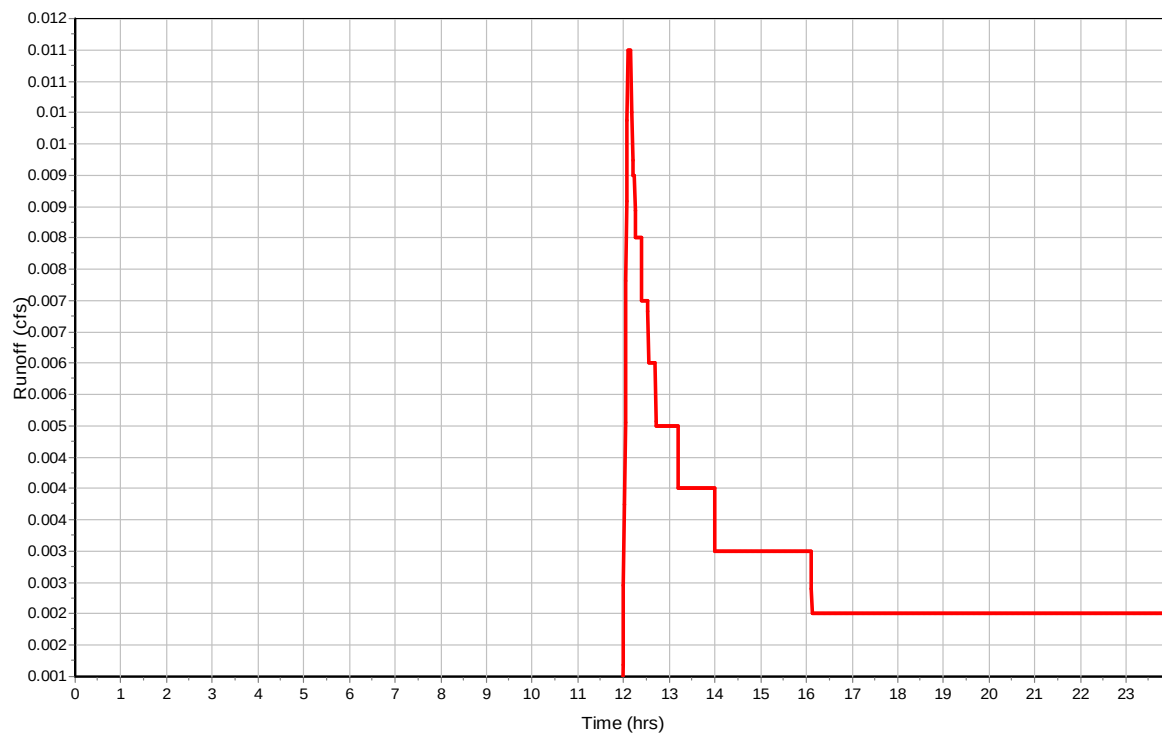
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.01
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:12:27

Subbasin : Sub-15

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-16

Input Data

Area (ac)	1.16
Peak Rate Factor	484
Weighted Curve Number	83
Rain Gage ID	MC-100Y-24H

Composite Curve Number

Soil/Surface Description	32	Area (acres)	Soil Group	Curve Number
1/4 acre lots, 38% impervious		1.16	C	83
Composite Area & Weighted CN		1.16		83

Time of Concentration

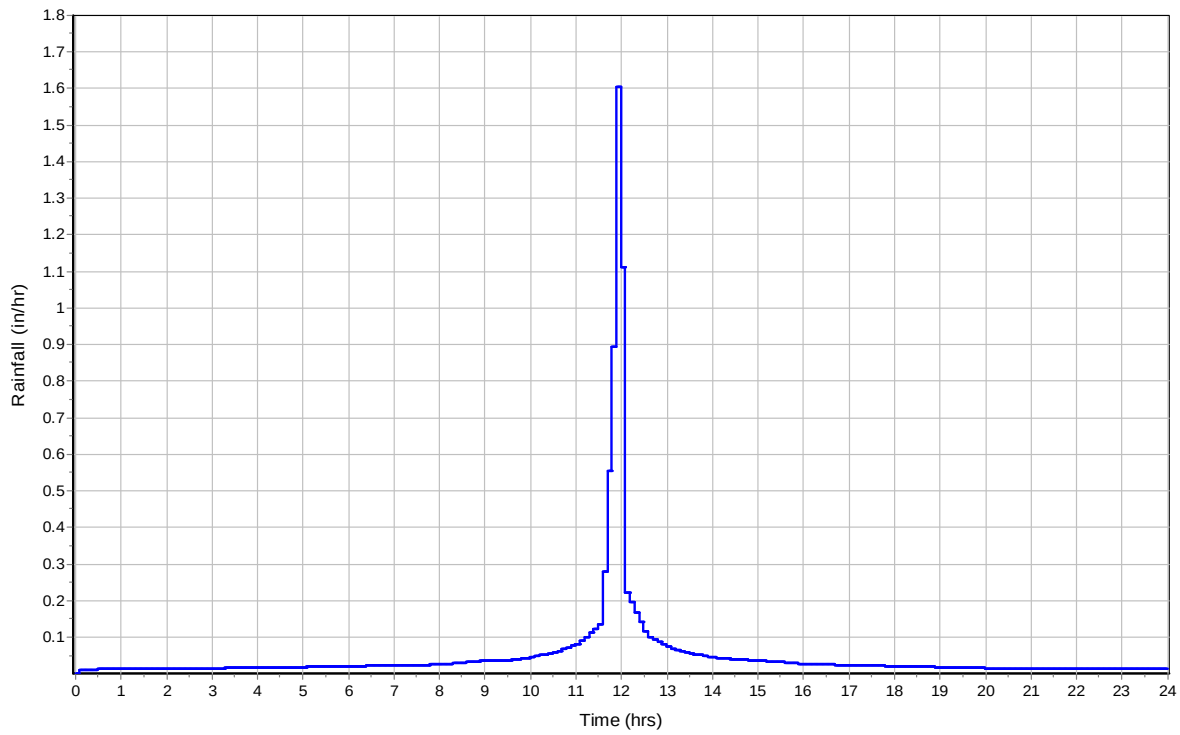
Sheet Flow Computations	Subarea A	Subarea B	Subarea C
Manning's Roughness :	0.2	0	0
Flow Length (ft) :	150	0	0
Slope (%) :	14	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.2	0	0
Computed Flow Time (min) :	12.79	0	0
Total TOC (min)	12.79		

Subbasin Runoff Results

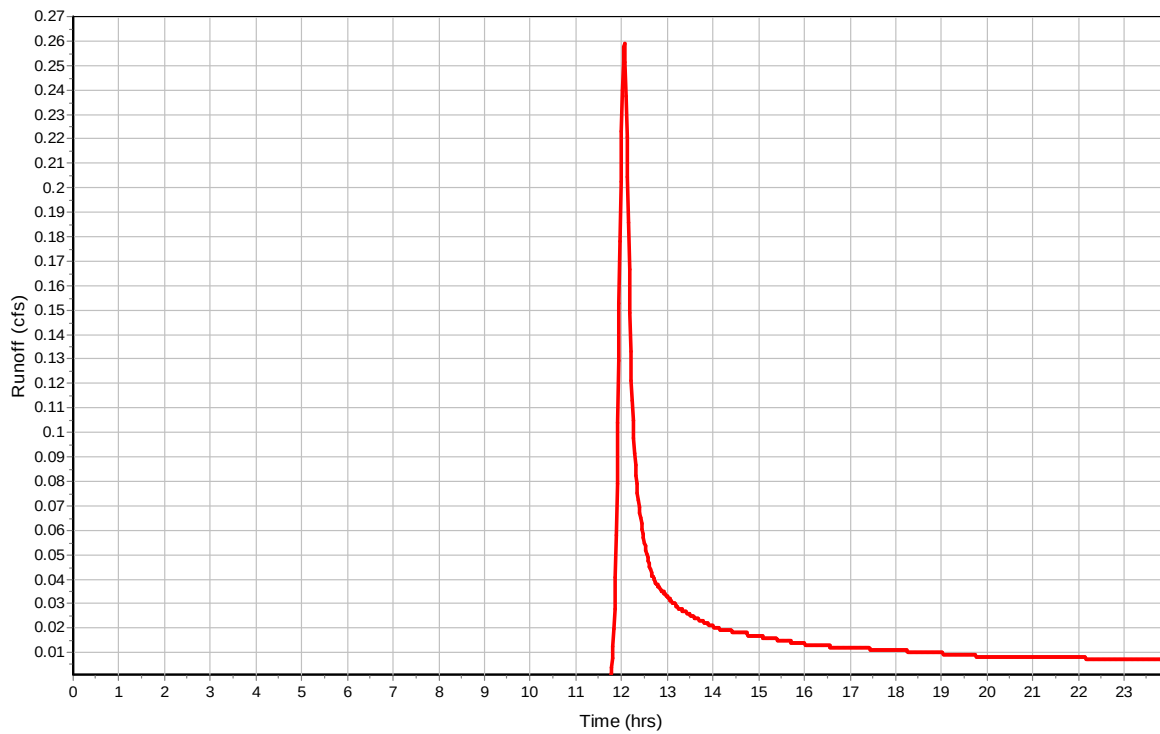
Total Rainfall (in)	1.17
Total Runoff (in)	0.21
Peak Runoff (cfs)	0.26
Weighted Curve Number	83
Time of Concentration (days hh:mm:ss)	0 00:12:47

Subbasin : Sub-16

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-18

Input Data

Area (ac)	1.44
Peak Rate Factor	484
Weighted Curve Number	83
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		1.89	C	83
Composite Area & Weighted CN		1.89		83

Time of Concentration

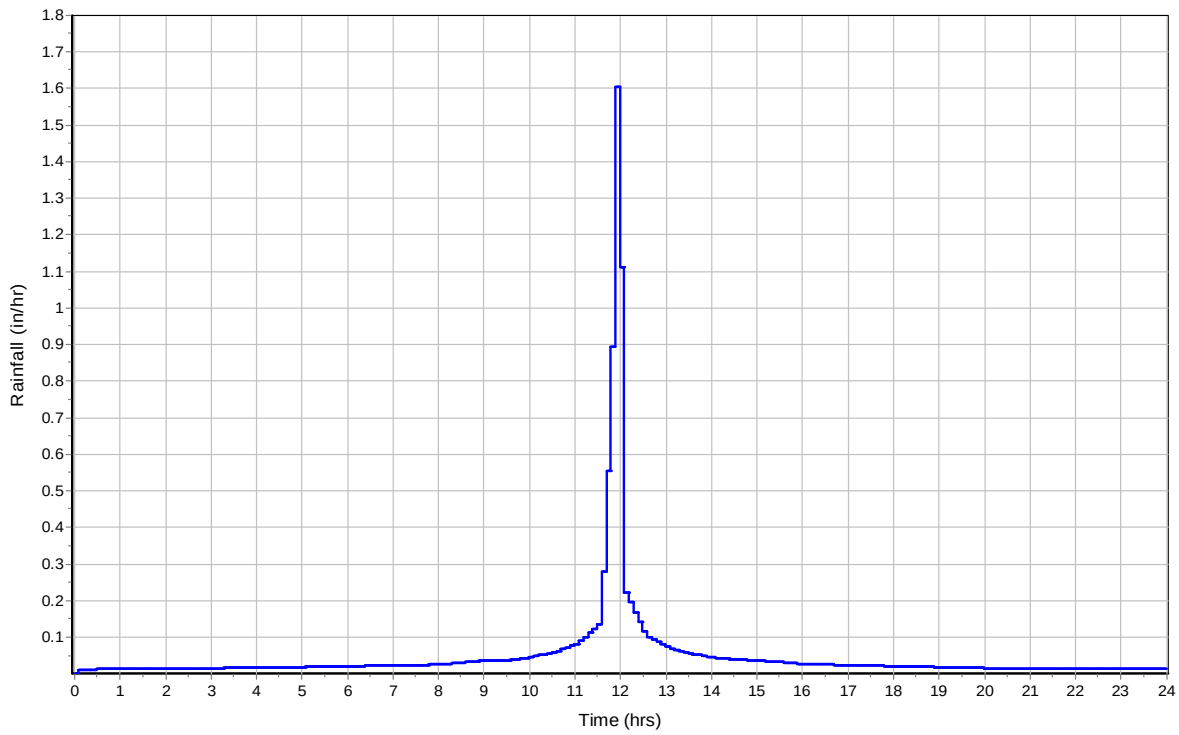
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0.05
Flow Length (ft) :	150	25	20
Slope (%) :	13	2	50
2 yr, 24 hr Rainfall (in) :	1.2	1.2	1.2
Velocity (ft/sec) :	0.19	0.64	0.66
Computed Flow Time (min) :	13.18	0.65	0.51
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	200	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Paved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	0.58	0	0
Total TOC (min)	14.91		

Subbasin Runoff Results

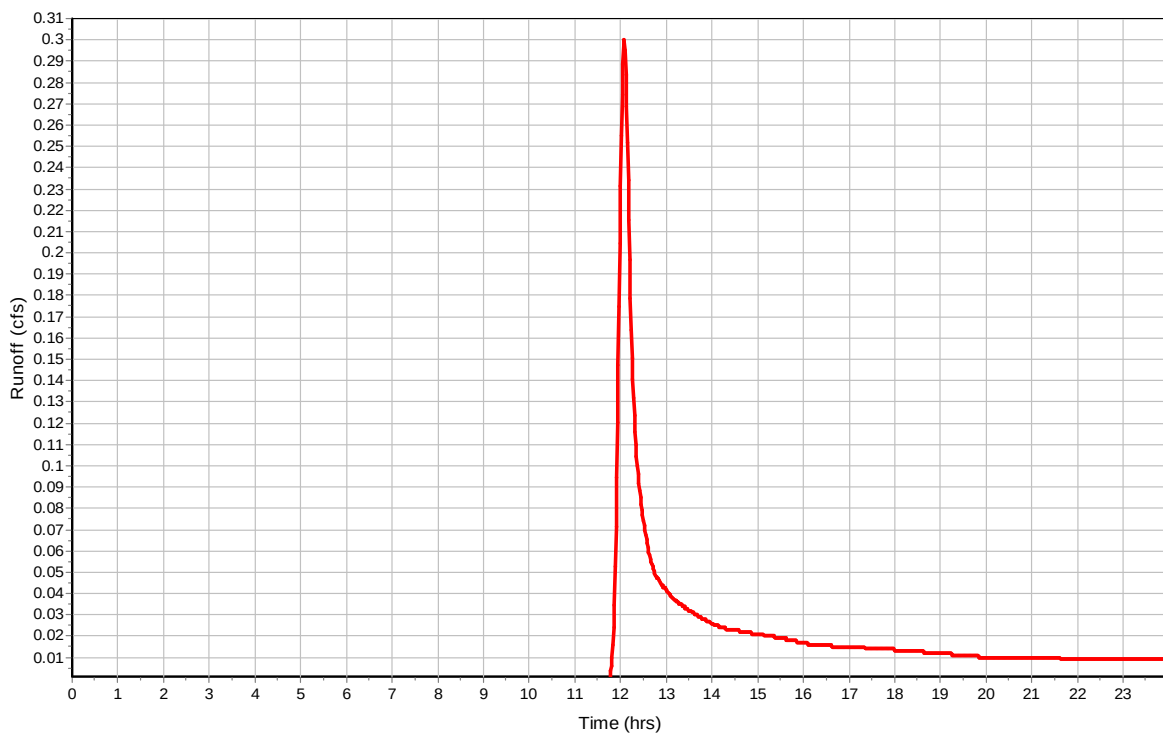
Total Rainfall (in)	1.17
Total Runoff (in)	0.21
Peak Runoff (cfs)	0.3
Weighted Curve Number	83
Time of Concentration (days hh:mm:ss)	0 00:14:55

Subbasin : Sub-18

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-19

Input Data

Area (ac)	0.17
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.17	C	98
Composite Area & Weighted CN		0.17		98

Time of Concentration

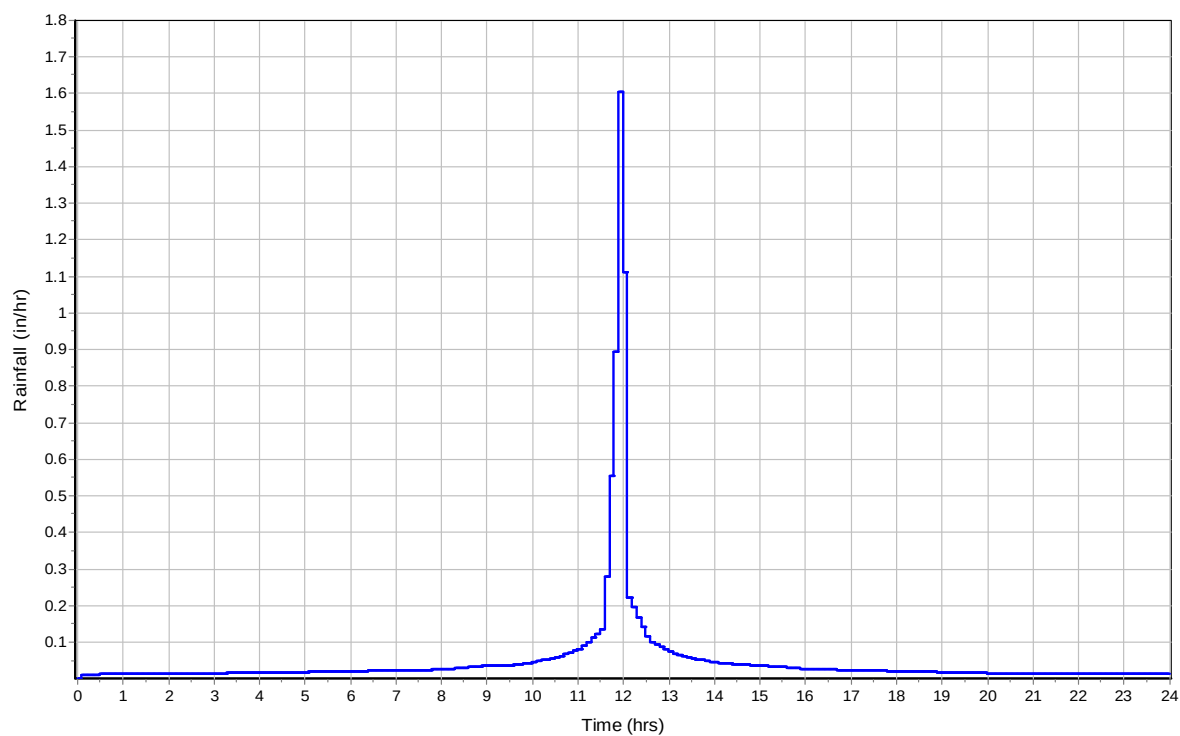
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	450	0	0
Slope (%) :	7	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.38	0	0
Computed Flow Time (min) :	1.39	0	0
Total TOC (min)	2.05		

Subbasin Runoff Results

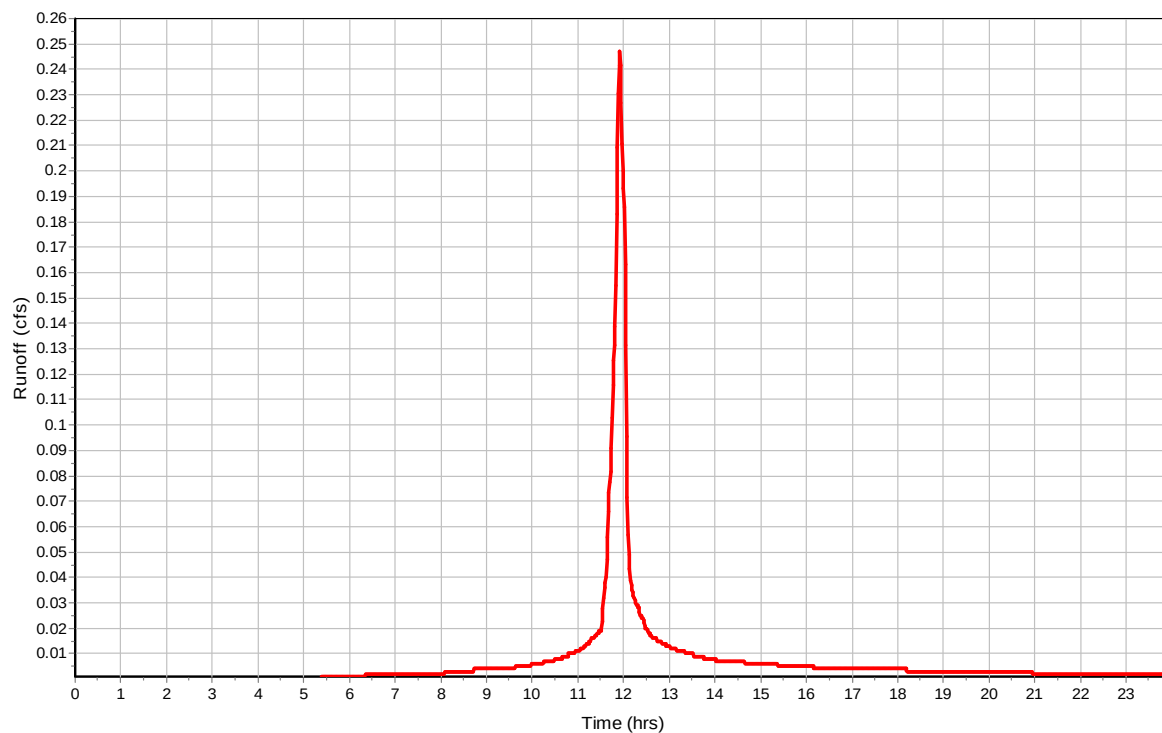
Total Rainfall (in)	1.17
Total Runoff (in)	0.95
Peak Runoff (cfs)	0.25
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:02:03

Subbasin : Sub-19

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-20

Input Data

Area (ac)	1.39
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		1.42	B	75
Composite Area & Weighted CN		1.42		75

Time of Concentration

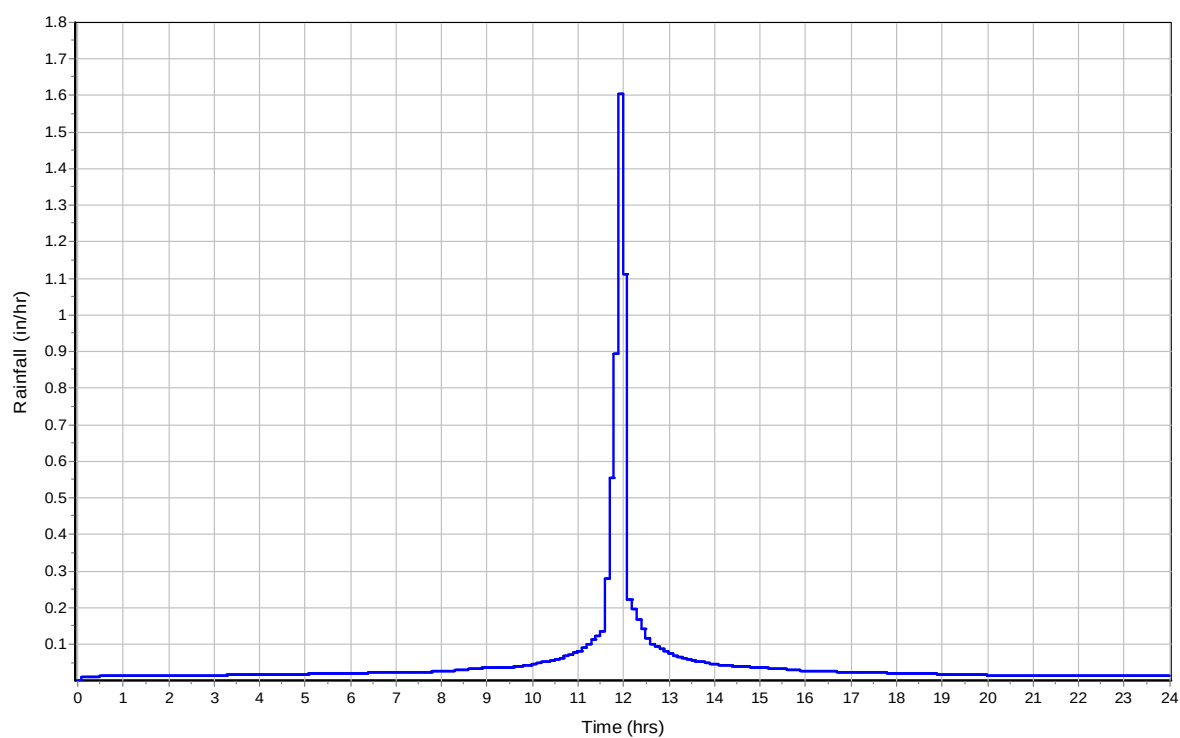
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0	0
Flow Length (ft) :	150	0	0
Slope (%) :	12	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.18	0	0
Computed Flow Time (min) :	13.6	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	415	0	0
Slope (%) :	8.5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.93	0	0
Computed Flow Time (min) :	1.17	0	0
Total TOC (min)	14.77		

Subbasin Runoff Results

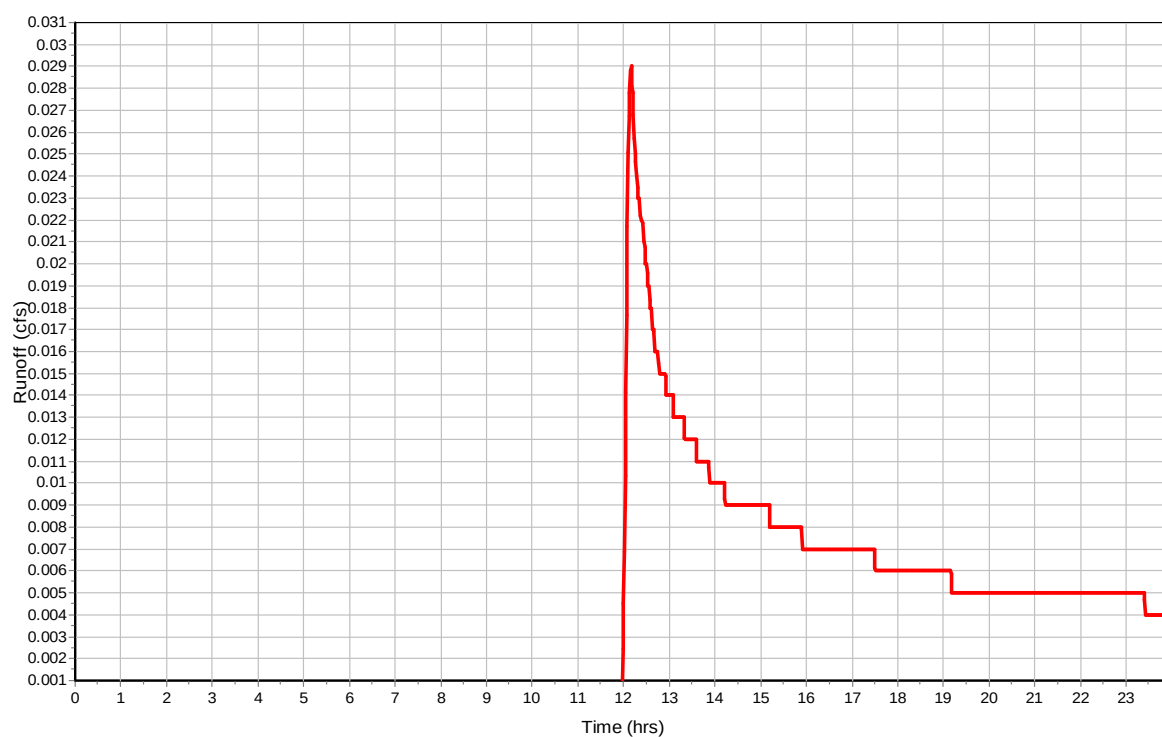
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.03
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:14:46

Subbasin : Sub-20

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-21

Input Data

Area (ac)	0.11
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.11	B	98
Composite Area & Weighted CN		0.11		98

Time of Concentration

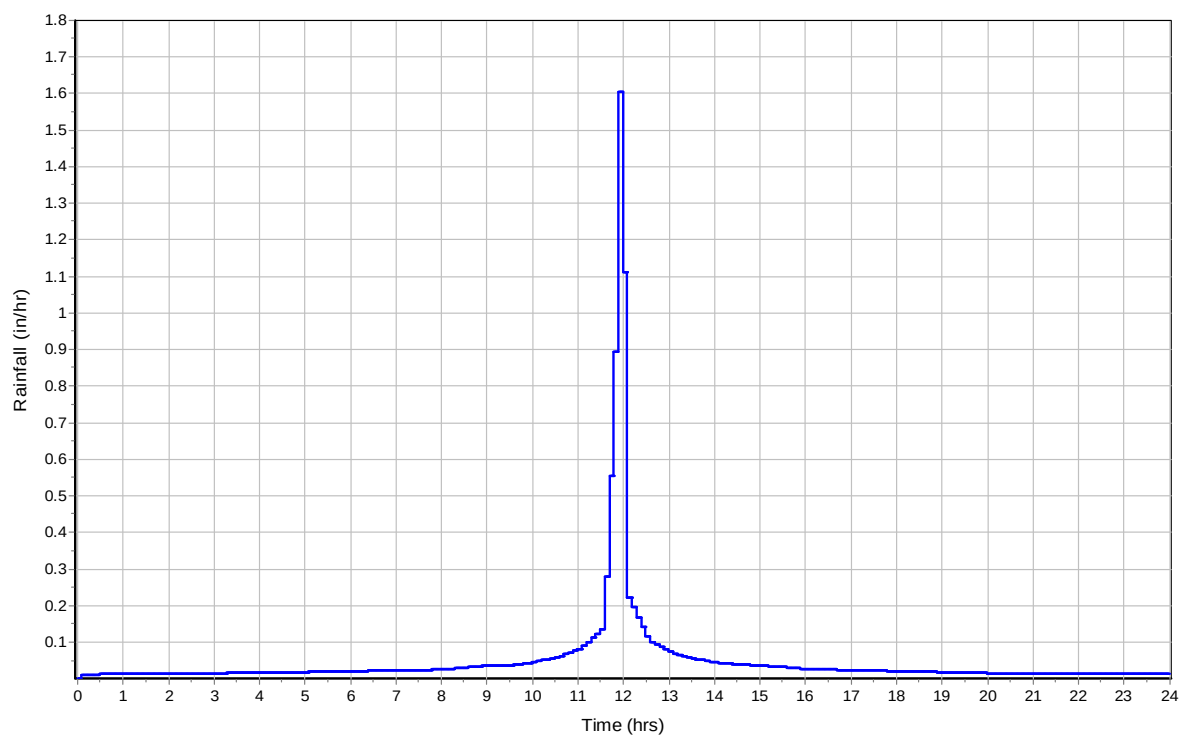
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	240	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	0.88	0	0
Total TOC (min)	1.53		

Subbasin Runoff Results

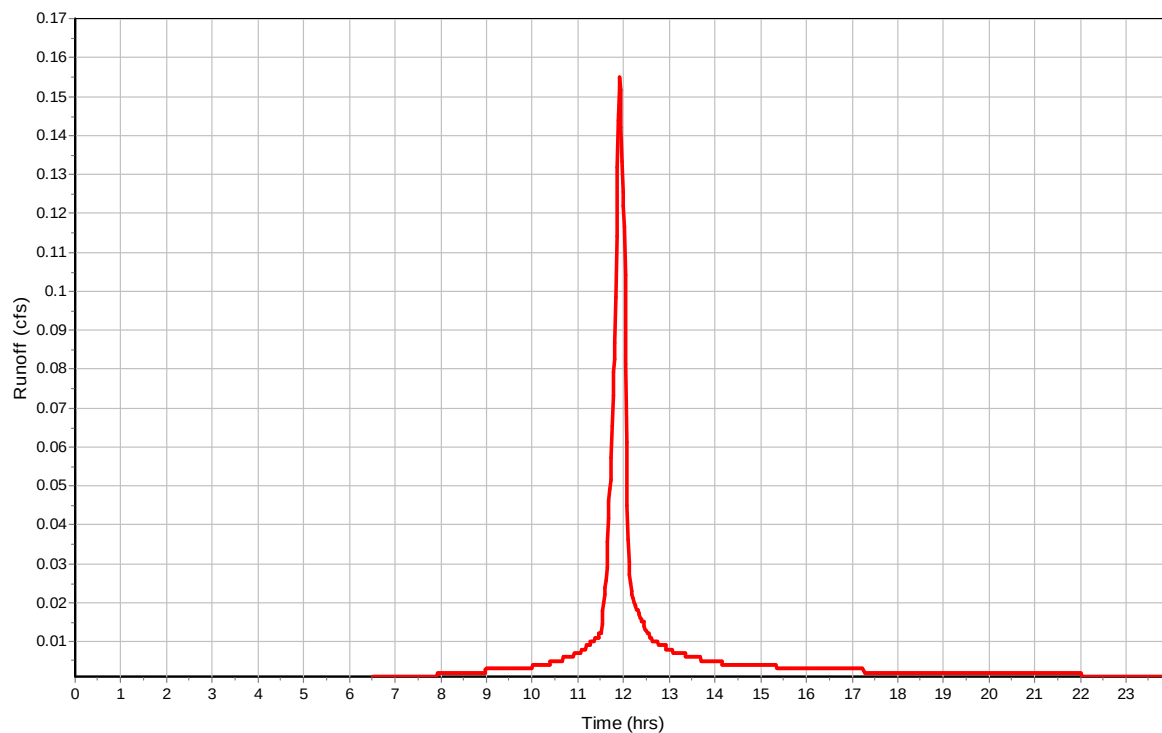
Total Rainfall (in)	1.17
Total Runoff (in)	0.94
Peak Runoff (cfs)	0.16
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:32

Subbasin : Sub-21

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-22

Input Data

Area (ac)	0.07
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.07	B	98
Composite Area & Weighted CN		0.07		98

Time of Concentration

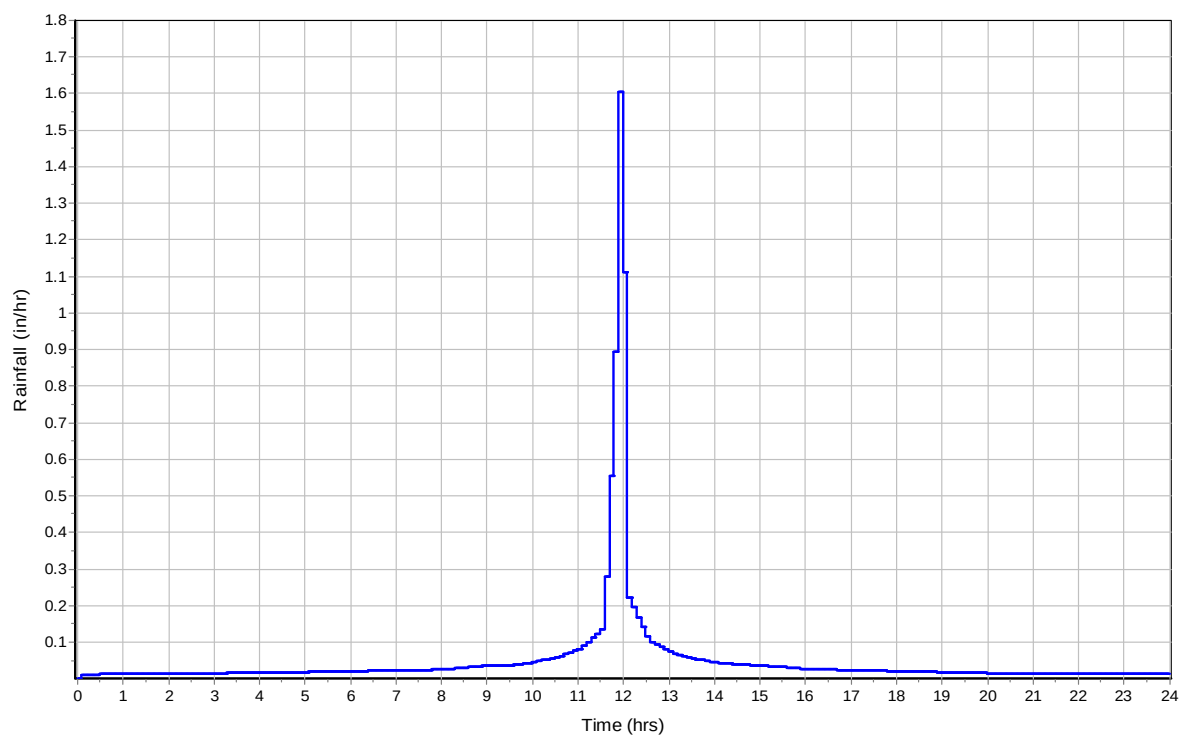
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	155	0	0
Slope (%) :	1	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	2.03	0	0
Computed Flow Time (min) :	1.27	0	0
Total TOC (min)	1.93		

Subbasin Runoff Results

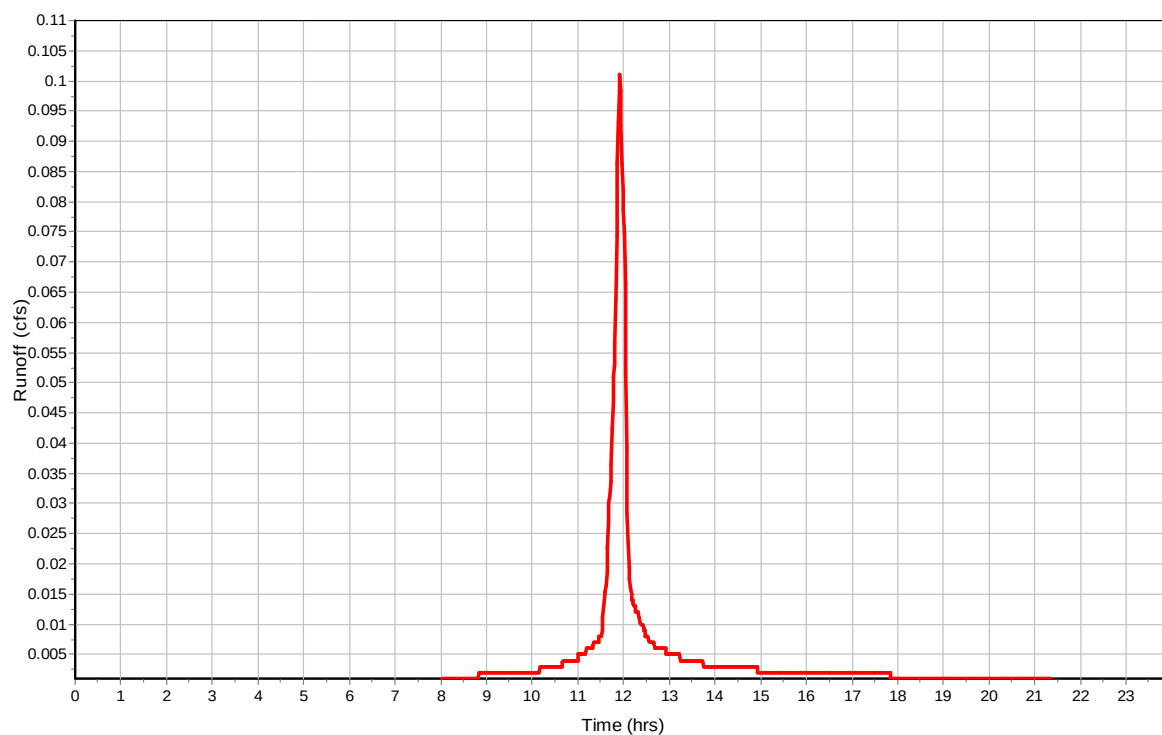
Total Rainfall (in)	1.17
Total Runoff (in)	0.89
Peak Runoff (cfs)	0.1
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:56

Subbasin : Sub-22

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-23

Input Data

Area (ac)	0.07
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.07	B	98
Composite Area & Weighted CN		0.07		98

Time of Concentration

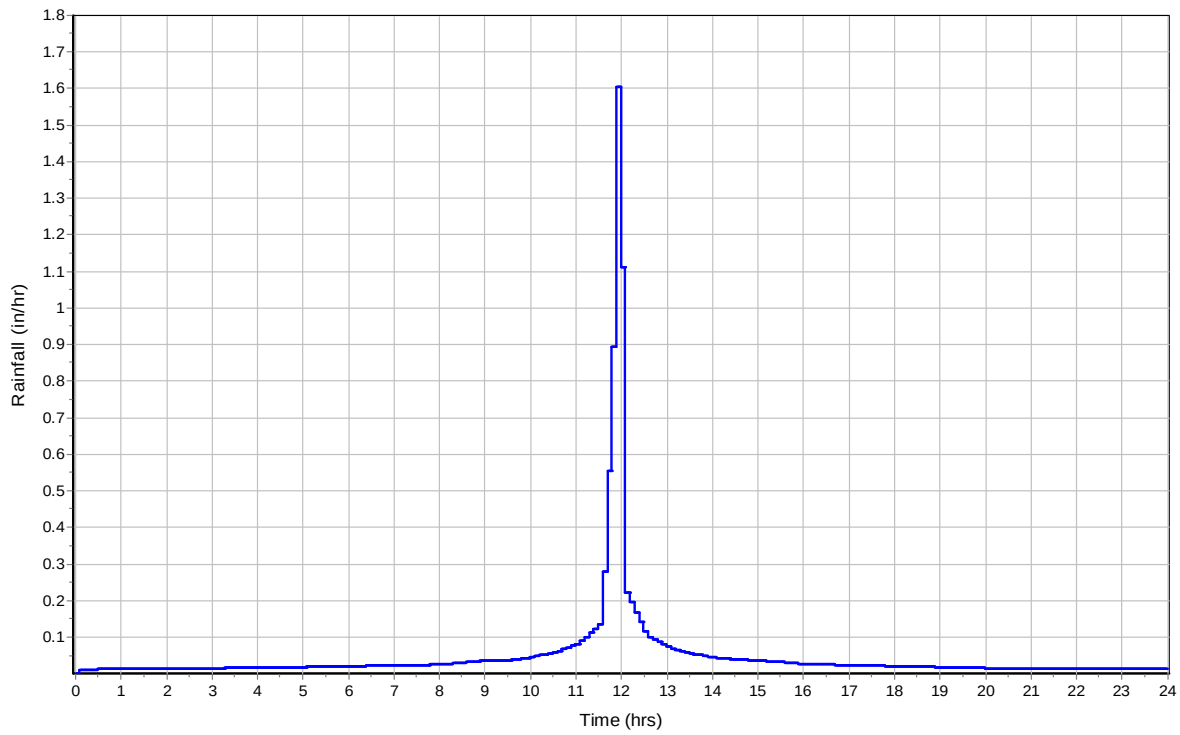
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	160	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	0.59	0	0
Total TOC (min)	1.24		

Subbasin Runoff Results

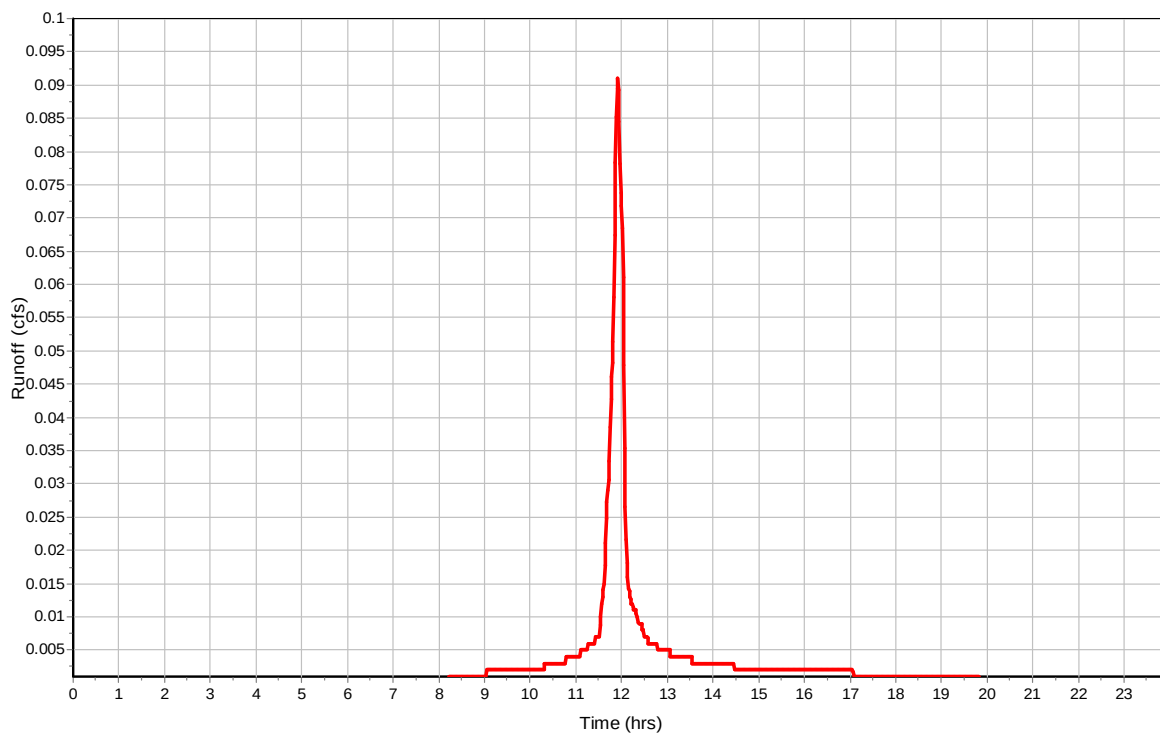
Total Rainfall (in)	1.17
Total Runoff (in)	0.86
Peak Runoff (cfs)	0.09
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:14

Subbasin : Sub-23

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-24

Input Data

Area (ac)	0.08
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.08	B	98
Composite Area & Weighted CN		0.08		98

Time of Concentration

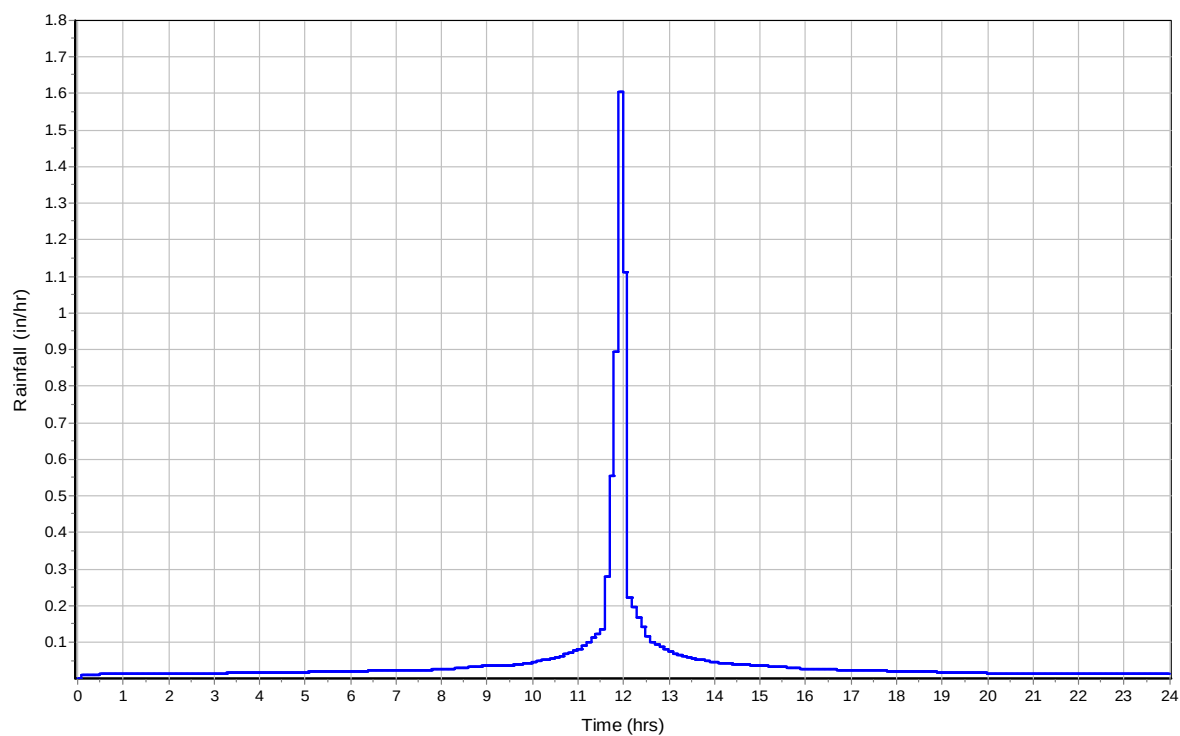
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	170	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	0.62	0	0
Total TOC (min)	1.28		

Subbasin Runoff Results

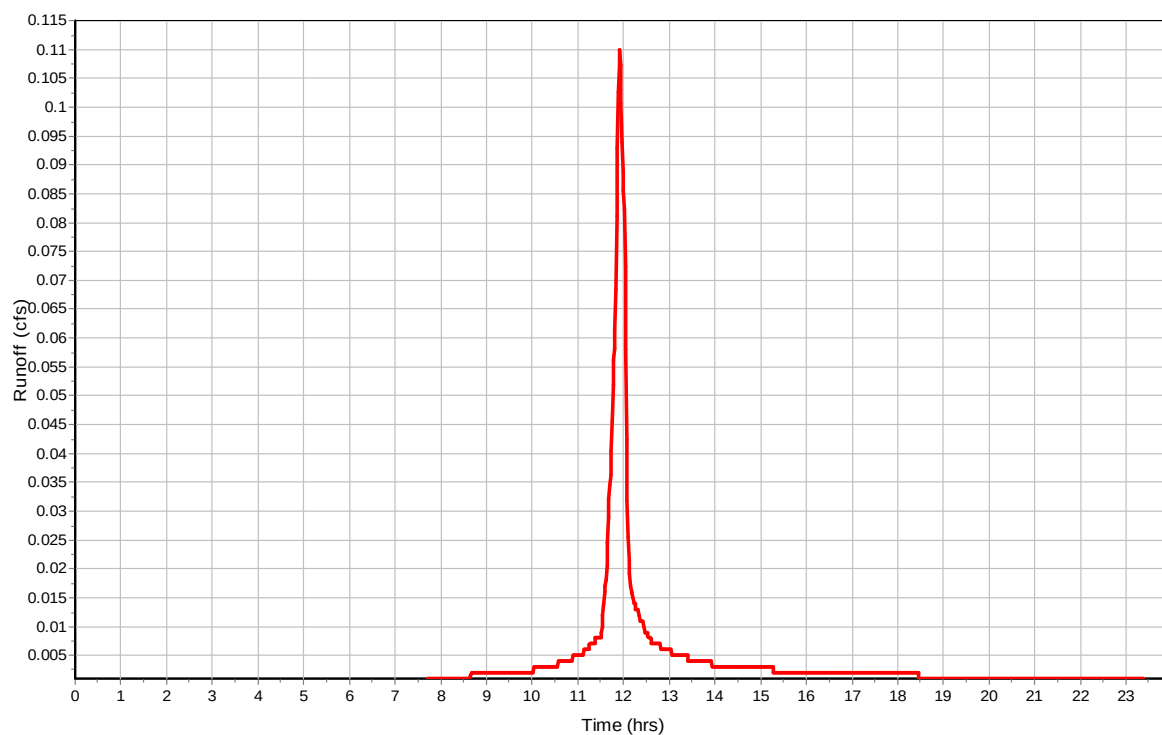
Total Rainfall (in)	1.17
Total Runoff (in)	0.92
Peak Runoff (cfs)	0.11
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:17

Subbasin : Sub-24

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-25

Input Data

Area (ac)	2.33
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		2.33	B	75
Composite Area & Weighted CN		2.33		75

Time of Concentration

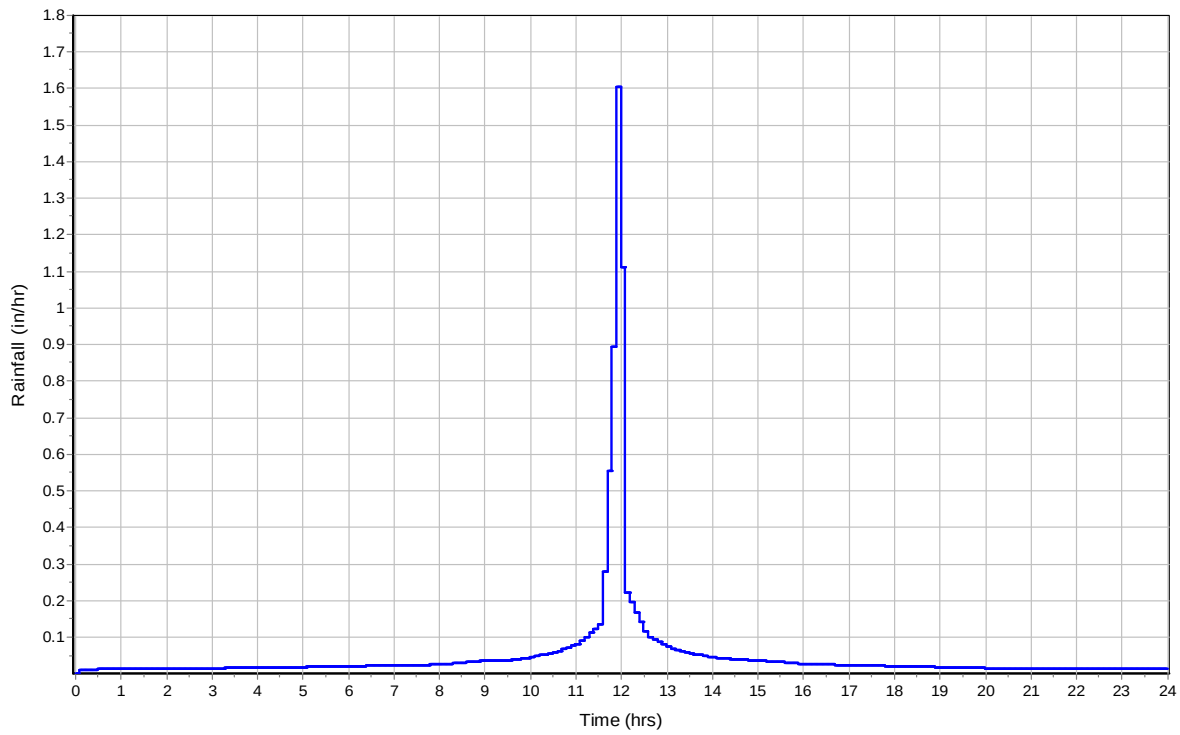
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0	0.011
Flow Length (ft) :	150	0	25
Slope (%) :	12	0	2
2 yr, 24 hr Rainfall (in) :	1.2	0	1.2
Velocity (ft/sec) :	0.18	0	0.64
Computed Flow Time (min) :	13.6	0	0.65
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	400	350	0
Slope (%) :	10	7	0
Surface Type :	Paved	Paved	Unpaved
Velocity (ft/sec) :	6.43	5.38	0
Computed Flow Time (min) :	1.04	1.08	0
Total TOC (min)	16.38		

Subbasin Runoff Results

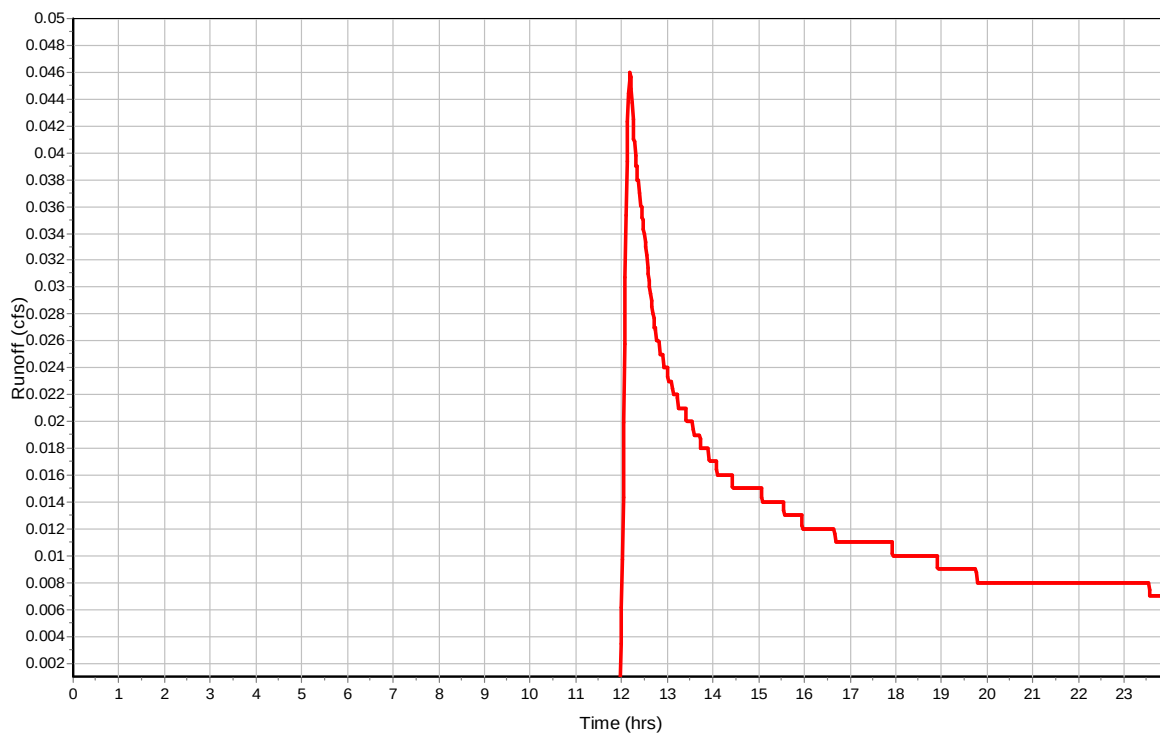
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.05
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:16:23

Subbasin : Sub-25

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-26

Input Data

Area (ac) 0.48
 Peak Rate Factor 484
 Weighted Curve Number 75
 Rain Gage ID MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.23	B	75
Composite Area & Weighted CN		0.23		75

Time of Concentration

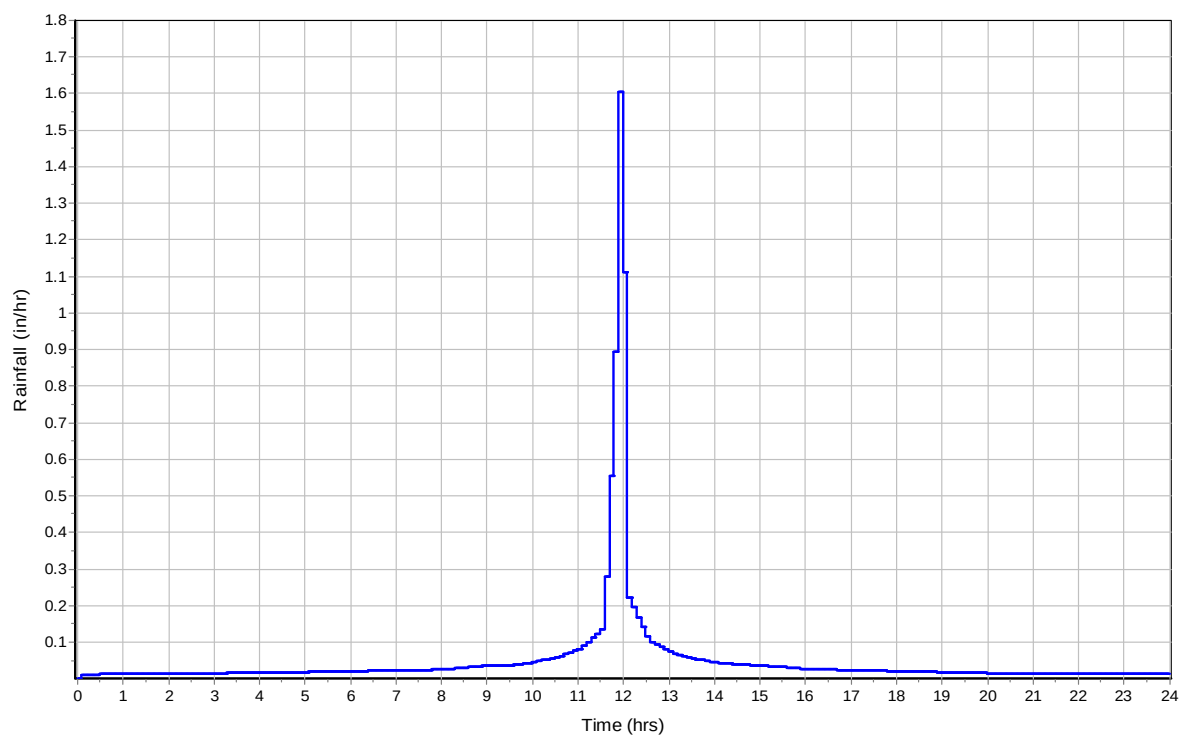
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0.05
Flow Length (ft) :	125	25	25
Slope (%) :	10	2	50
2 yr, 24 hr Rainfall (in) :	1.2	1.2	1.2
Velocity (ft/sec) :	0.16	0.64	0.69
Computed Flow Time (min) :	12.65	0.65	0.6
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	220	0	0
Slope (%) :	4	0	0
Surface Type :	Unpaved	Unpaved	Unpaved
Velocity (ft/sec) :	3.23	0	0
Computed Flow Time (min) :	1.14	0	0
Total TOC (min)	15.04		

Subbasin Runoff Results

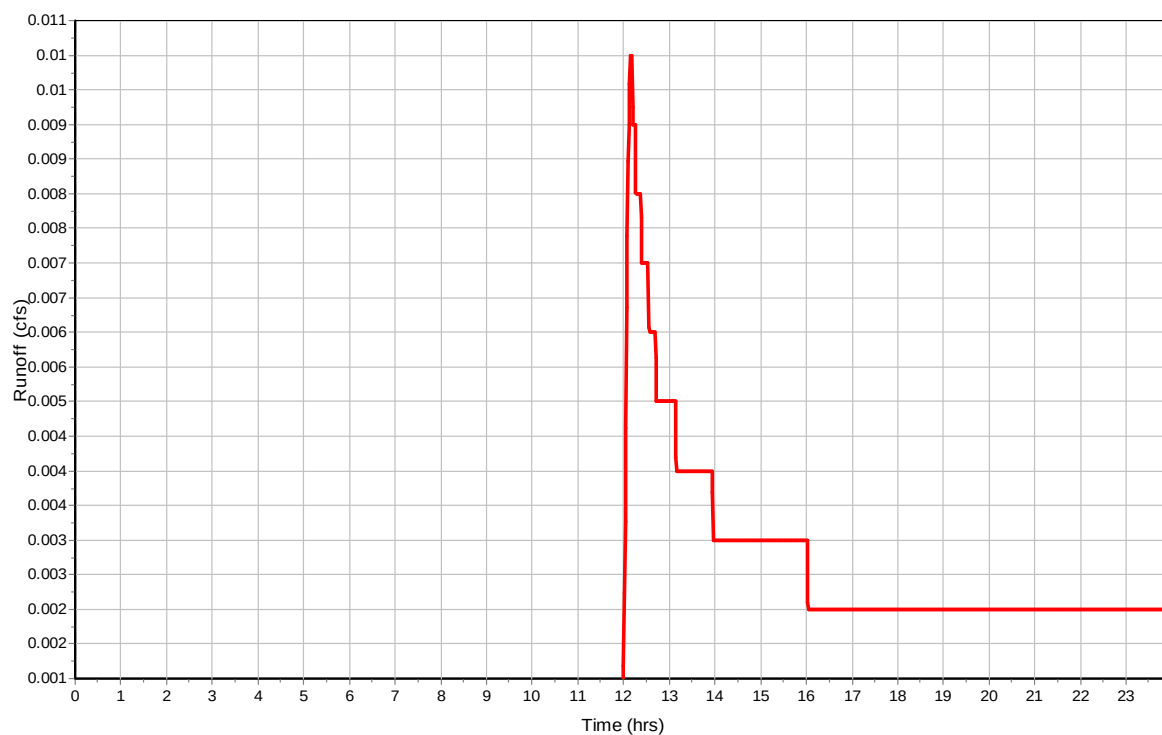
Total Rainfall (in) 1.17
 Total Runoff (in) 0.07
 Peak Runoff (cfs) 0.01
 Weighted Curve Number 75
 Time of Concentration (days hh:mm:ss) 0 00:15:02

Subbasin : Sub-26

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-27

Input Data

Area (ac) 0.45
Peak Rate Factor 484
Weighted Curve Number 88.8
Rain Gage ID MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.15	B	75
Paved parking & roofs		0.23	B	98
Composite Area & Weighted CN		0.38		88.8

Time of Concentration

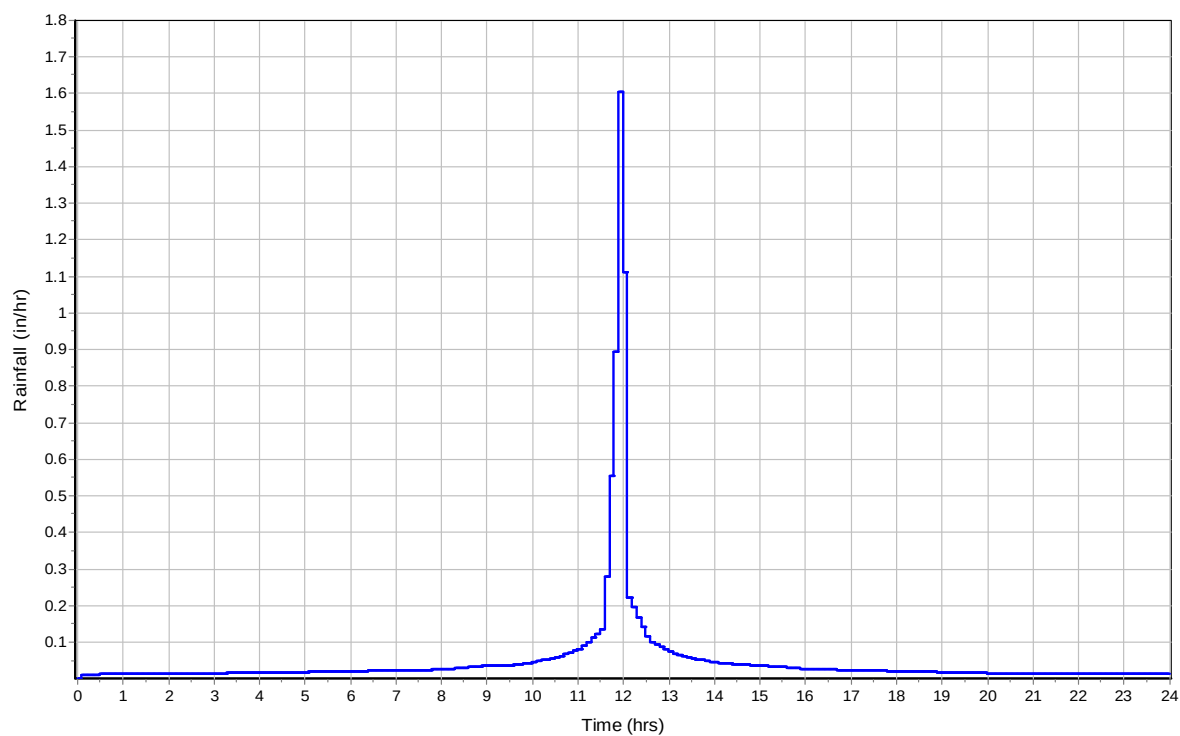
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0.2	0
Flow Length (ft) :	25	80	0
Slope (%) :	2	8	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.64	0.14	0
Computed Flow Time (min) :	0.65	9.68	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	520	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	1.9	0	0
Total TOC (min)	12.23		

Subbasin Runoff Results

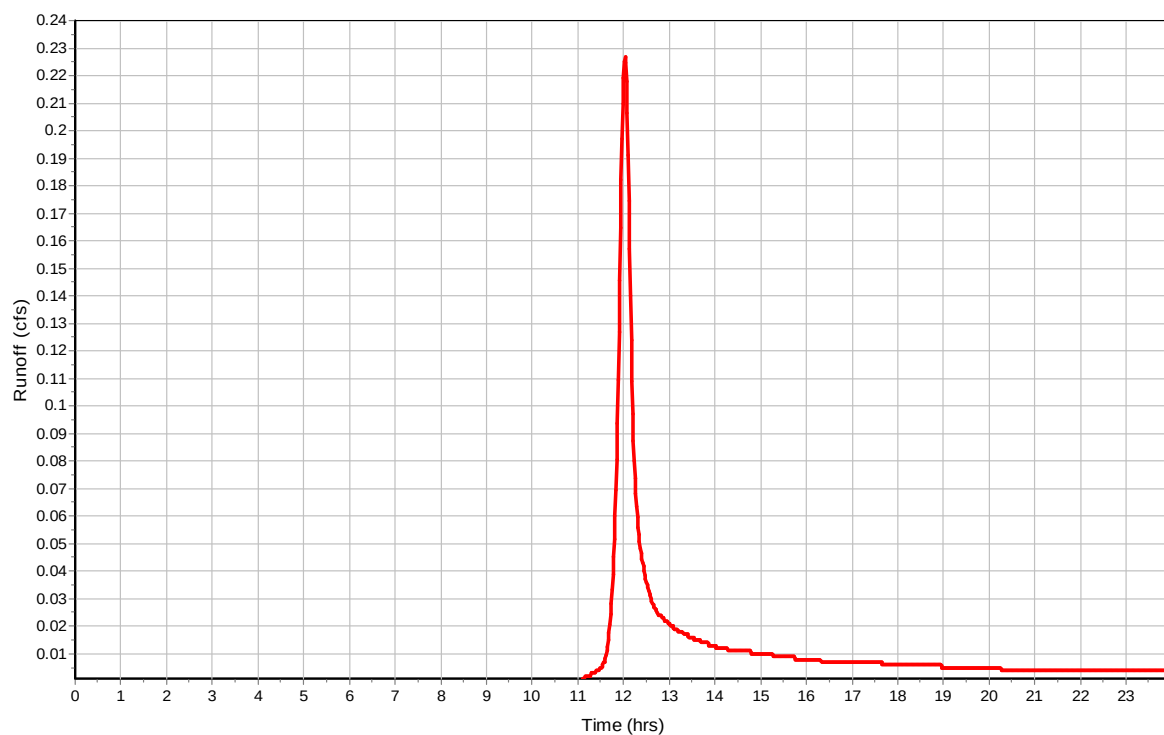
Total Rainfall (in) 1.17
Total Runoff (in) 0.39
Peak Runoff (cfs) 0.23
Weighted Curve Number 88.8
Time of Concentration (days hh:mm:ss) 0 00:12:14

Subbasin : Sub-27

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-29

Input Data

Area (ac)	0.06
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.06	C	98
Composite Area & Weighted CN		0.06		98

Time of Concentration

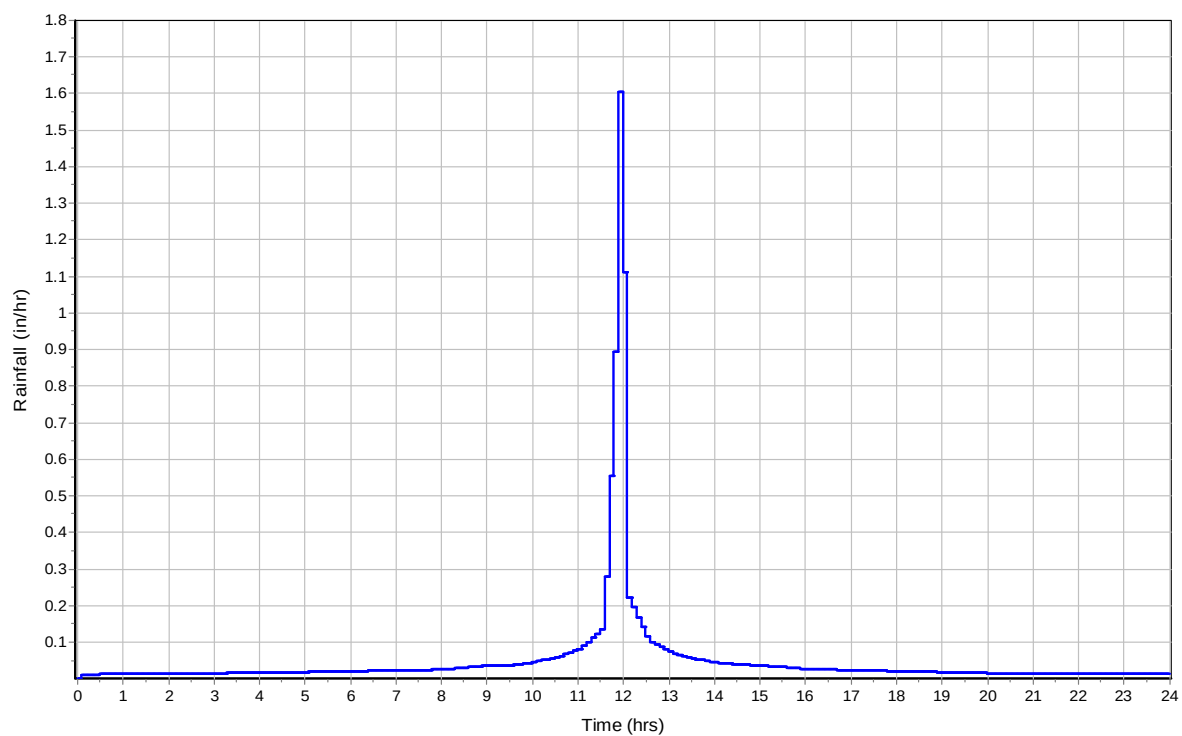
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	120	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	0.35	0	0
Total TOC (min)	1.00		

Subbasin Runoff Results

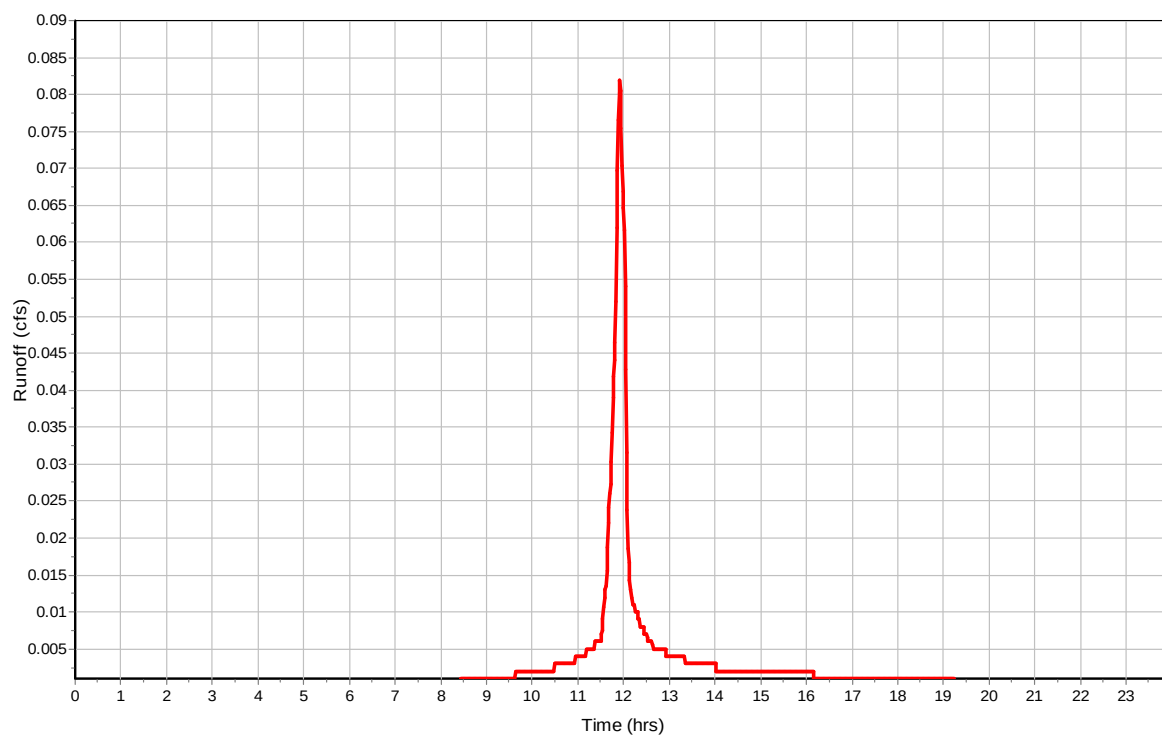
Total Rainfall (in)	1.17
Total Runoff (in)	0.85
Peak Runoff (cfs)	0.08
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:00

Subbasin : Sub-29

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-32

Input Data

Area (ac)	1.78
Peak Rate Factor	484
Weighted Curve Number	89.65
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.09	C	83
1/8 acre lots, 65% impervious		1.69	C	90
Composite Area & Weighted CN		1.78		89.65

Time of Concentration

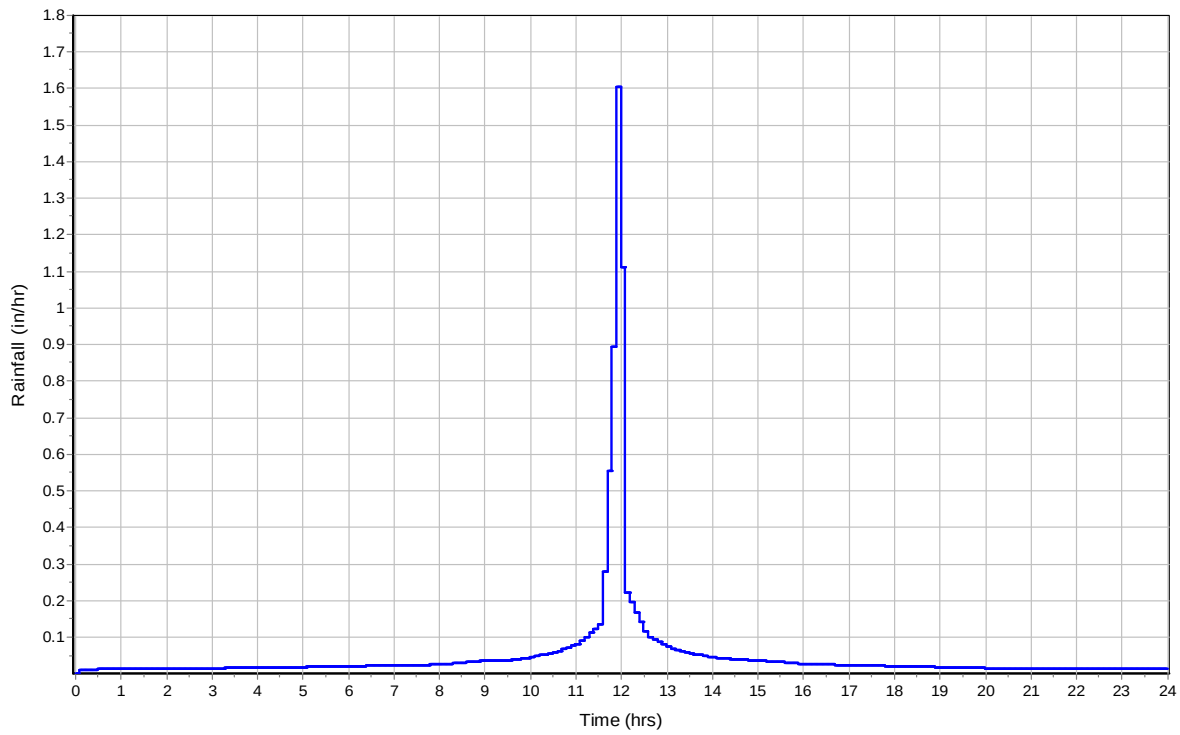
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0	0
Flow Length (ft) :	90	0	0
Slope (%) :	10	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.15	0	0
Computed Flow Time (min) :	9.72	0	0
Total TOC (min)	9.72		

Subbasin Runoff Results

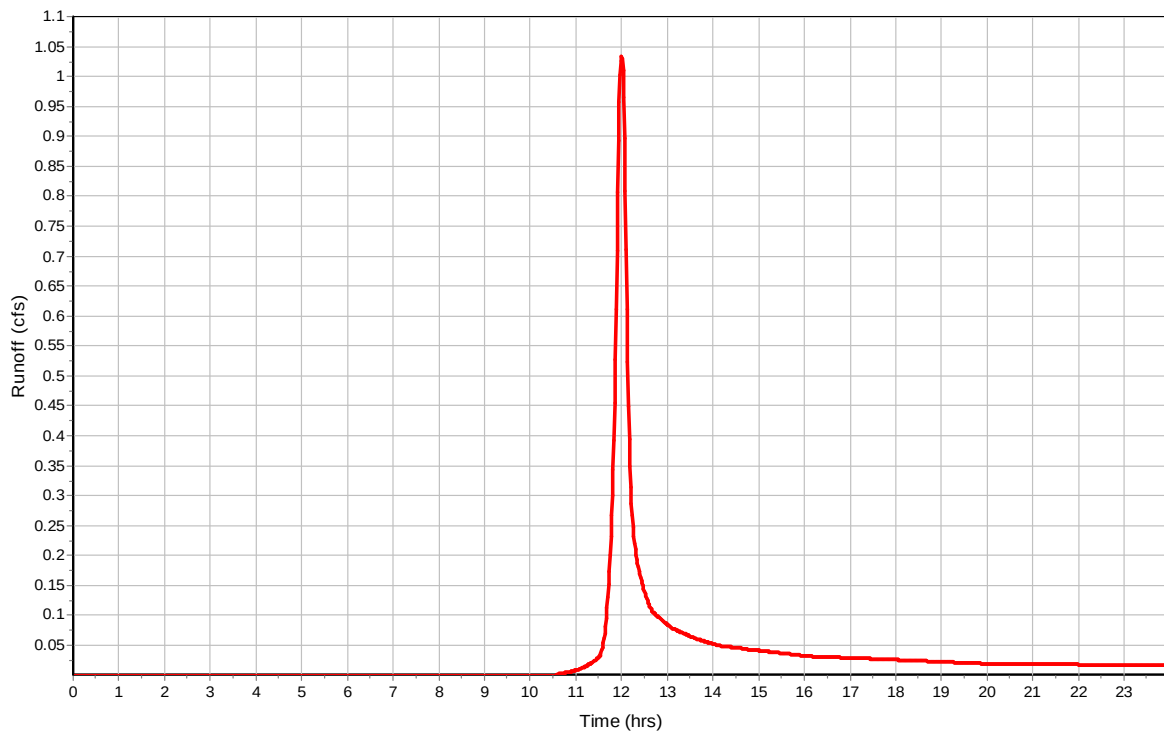
Total Rainfall (in)	1.17
Total Runoff (in)	0.42
Peak Runoff (cfs)	1.03
Weighted Curve Number	89.65
Time of Concentration (days hh:mm:ss)	0 00:09:43

Subbasin : Sub-32

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-33

Input Data

Area (ac)	0.08
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.08	B	98
Composite Area & Weighted CN		0.08		98

Time of Concentration

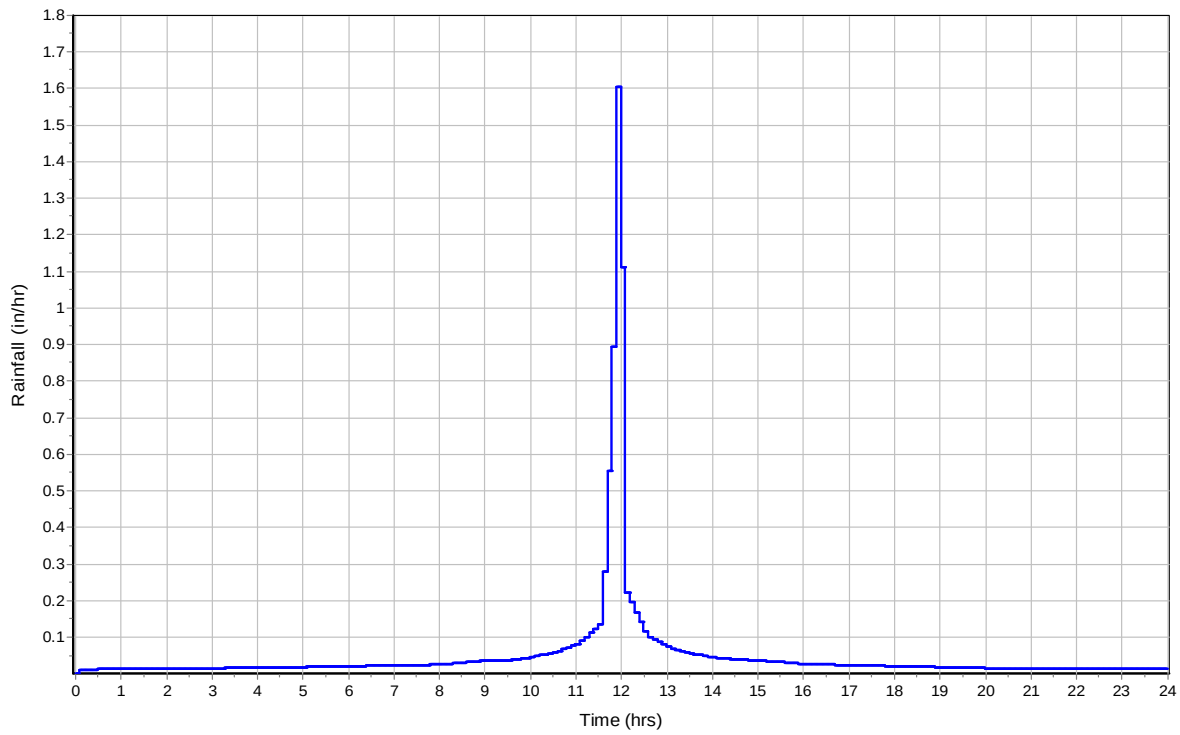
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	190	0	0
Slope (%) :	4	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.07	0	0
Computed Flow Time (min) :	0.78	0	0
Total TOC (min)	1.43		

Subbasin Runoff Results

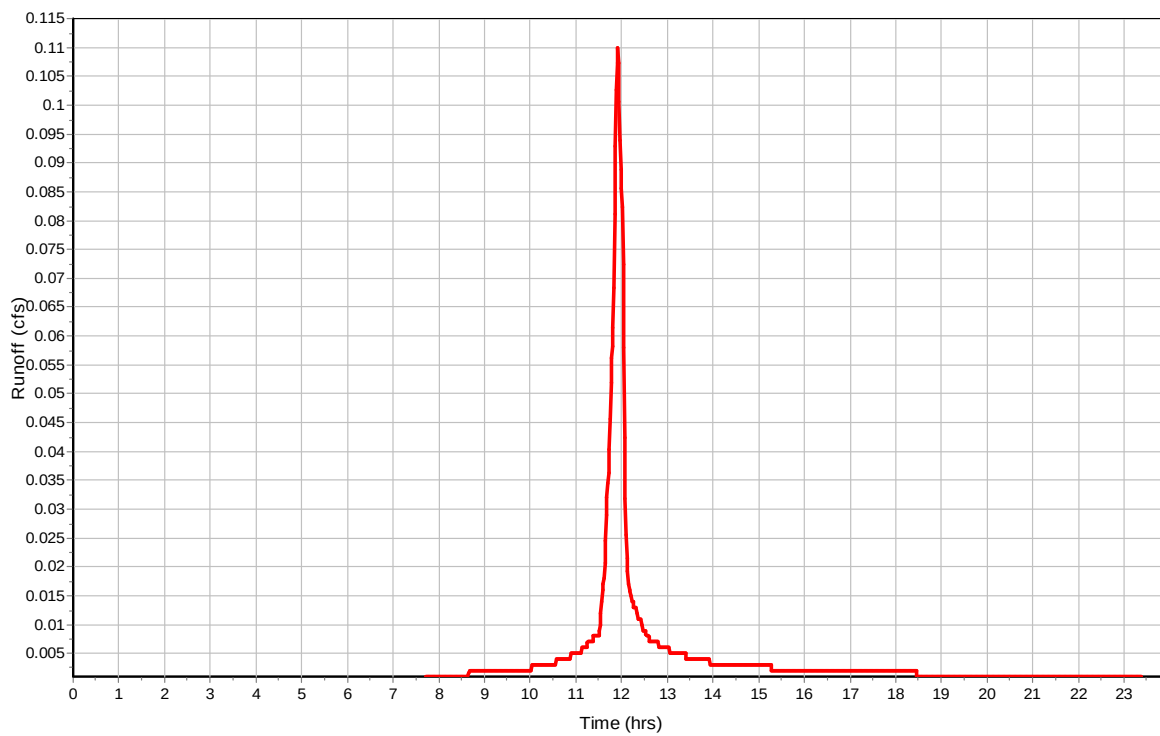
Total Rainfall (in)	1.17
Total Runoff (in)	0.92
Peak Runoff (cfs)	0.11
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:26

Subbasin : Sub-33

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-34

Input Data

Area (ac)	0.16
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.16	B	98
Composite Area & Weighted CN		0.16		98

Time of Concentration

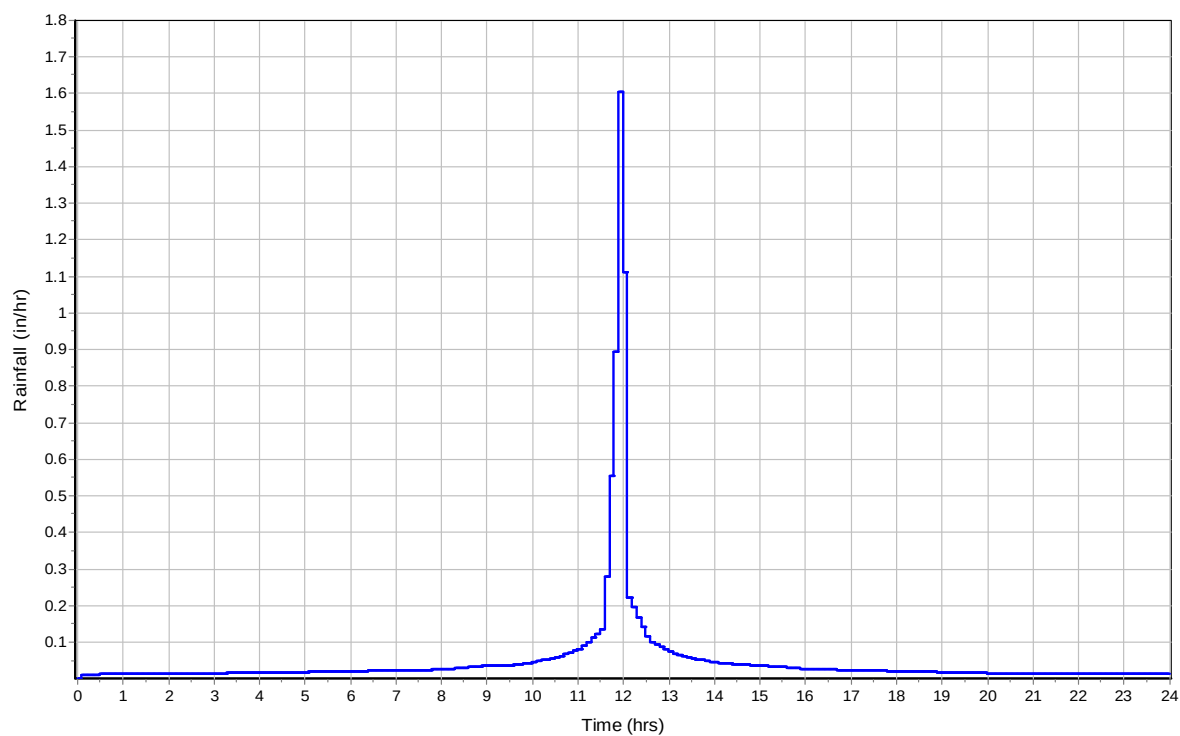
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	300	0	0
Slope (%) :	3.5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	3.8	0	0
Computed Flow Time (min) :	1.32	0	0
Total TOC (min)	1.97		

Subbasin Runoff Results

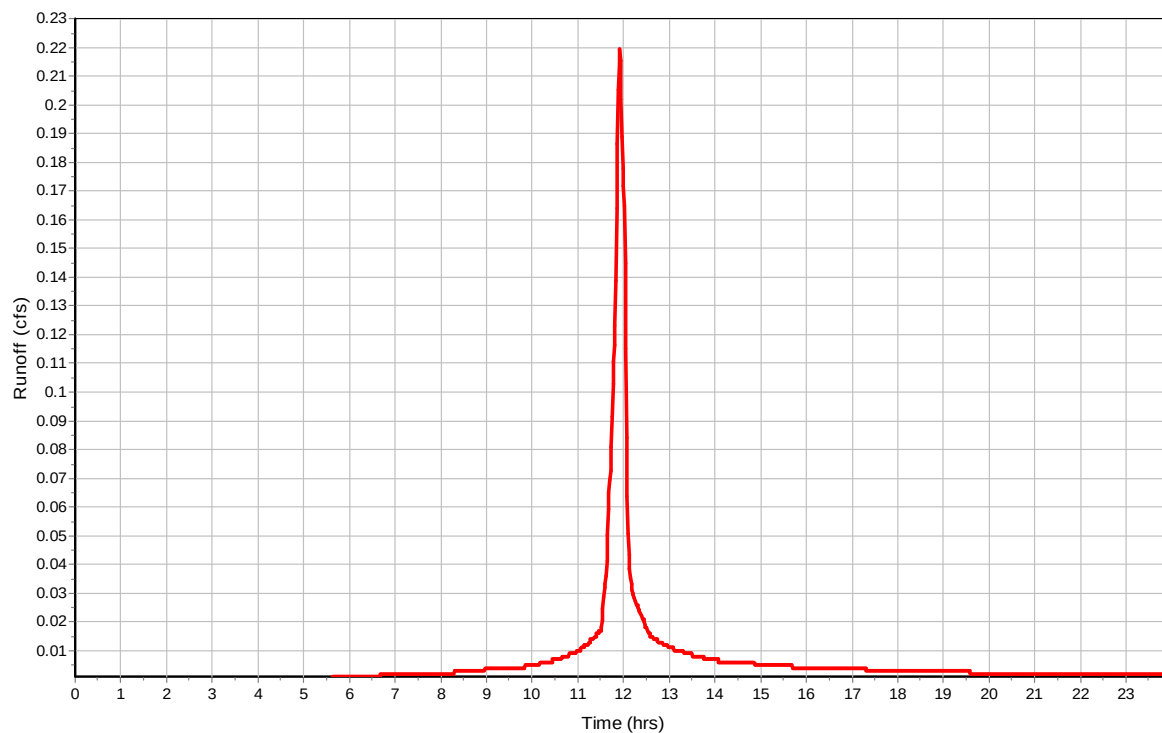
Total Rainfall (in)	1.17
Total Runoff (in)	0.95
Peak Runoff (cfs)	0.22
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:58

Subbasin : Sub-34

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-35

Input Data

Area (ac)	1.12
Peak Rate Factor	484
Weighted Curve Number	74
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
> 75% grass cover, Good		1.35	C	74
Composite Area & Weighted CN		1.35		74

Time of Concentration

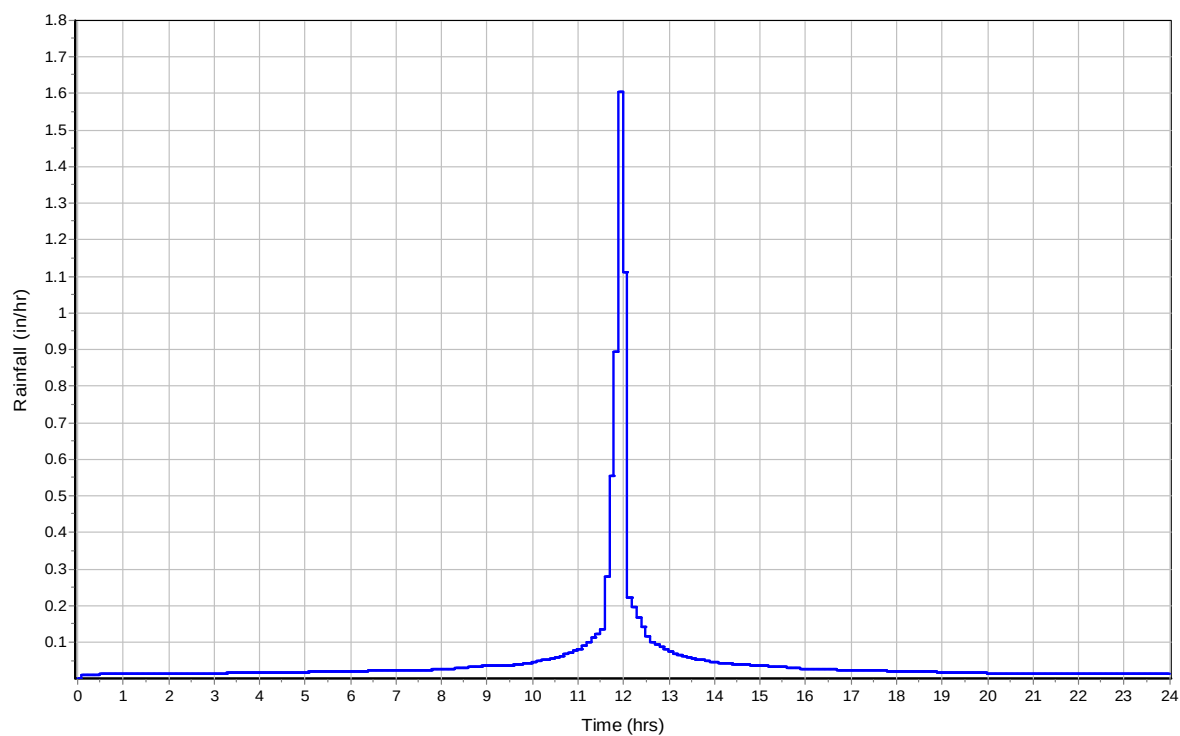
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0
Flow Length (ft) :	150	25	0
Slope (%) :	10	2	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.17	0.64	0
Computed Flow Time (min) :	14.63	0.65	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	260	0	0
Slope (%) :	3.5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	3.8	0	0
Computed Flow Time (min) :	1.14	0	0
Total TOC (min)	16.43		

Subbasin Runoff Results

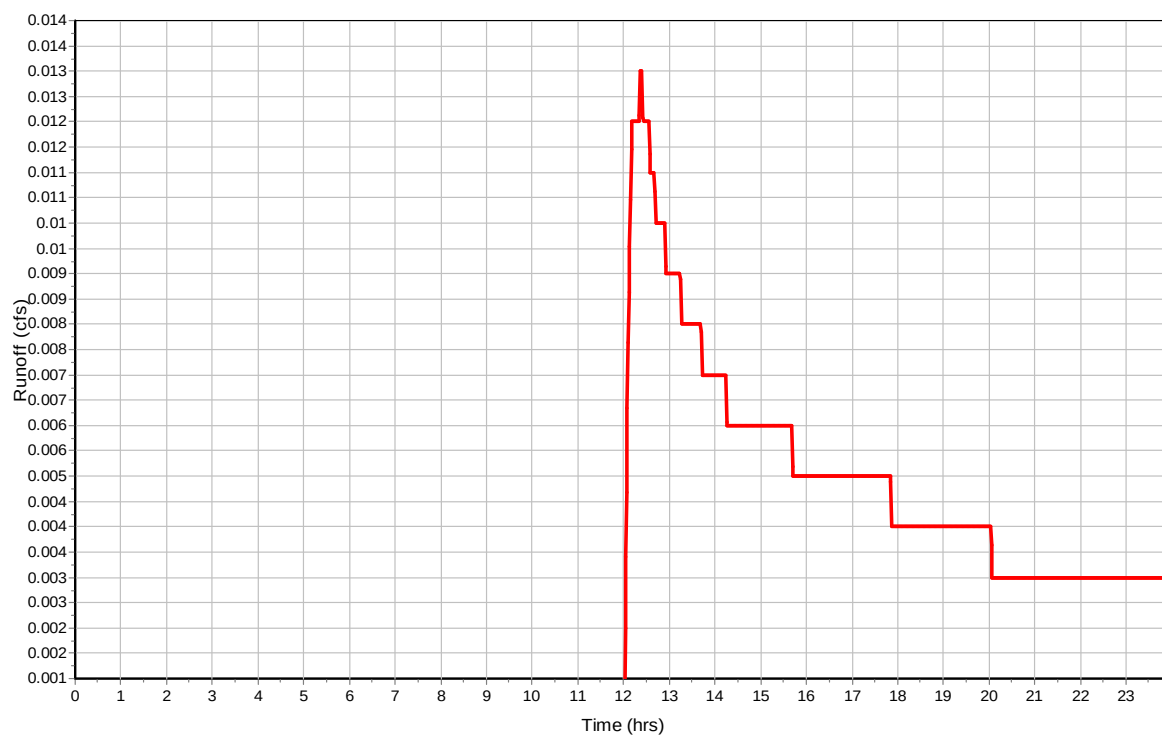
Total Rainfall (in)	1.17
Total Runoff (in)	0.06
Peak Runoff (cfs)	0.01
Weighted Curve Number	74
Time of Concentration (days hh:mm:ss)	0 00:16:26

Subbasin : Sub-35

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-37

Input Data

Area (ac) 1.28
Peak Rate Factor 484
Weighted Curve Number 80.75
Rain Gage ID MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
> 75% grass cover, Good		0.26	C	74
1/4 acre lots, 38% impervious		0.77	C	83
Composite Area & Weighted CN		1.03		80.75

Time of Concentration

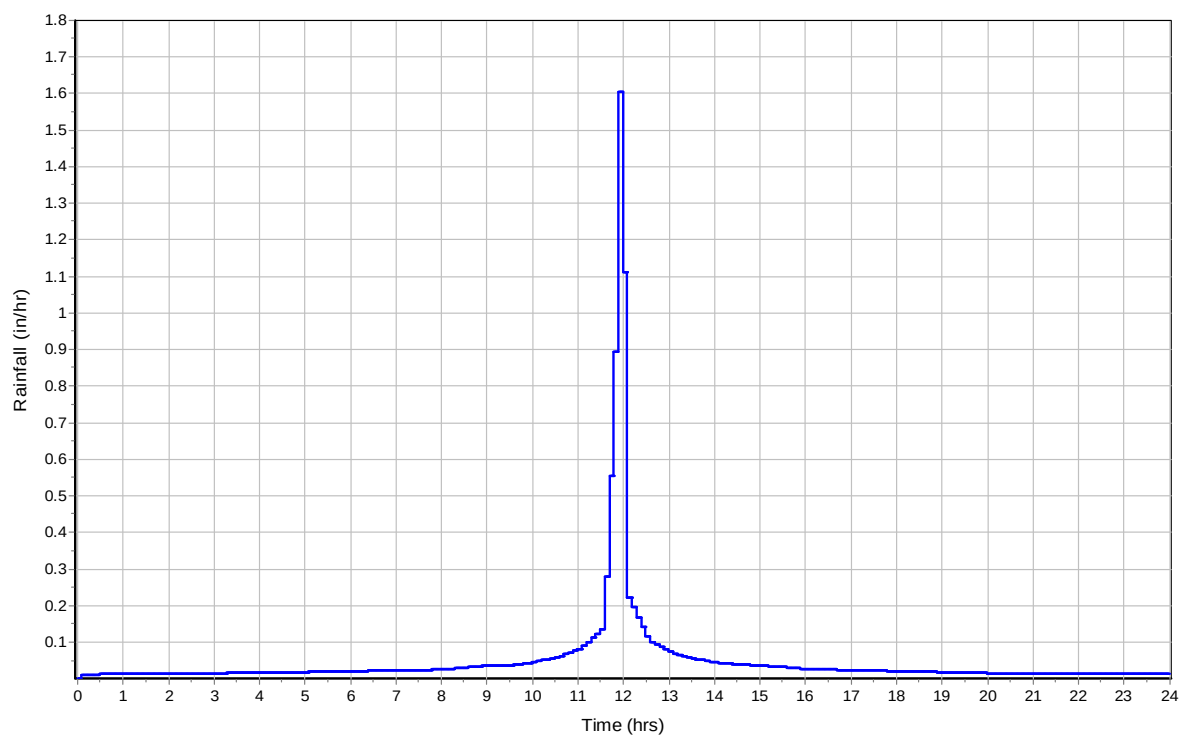
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0
Flow Length (ft) :	150	25	0
Slope (%) :	10	2	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.17	0.64	0
Computed Flow Time (min) :	14.63	0.65	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	225	0	0
Slope (%) :	4.5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.31	0	0
Computed Flow Time (min) :	0.87	0	0
Total TOC (min)16.16			

Subbasin Runoff Results

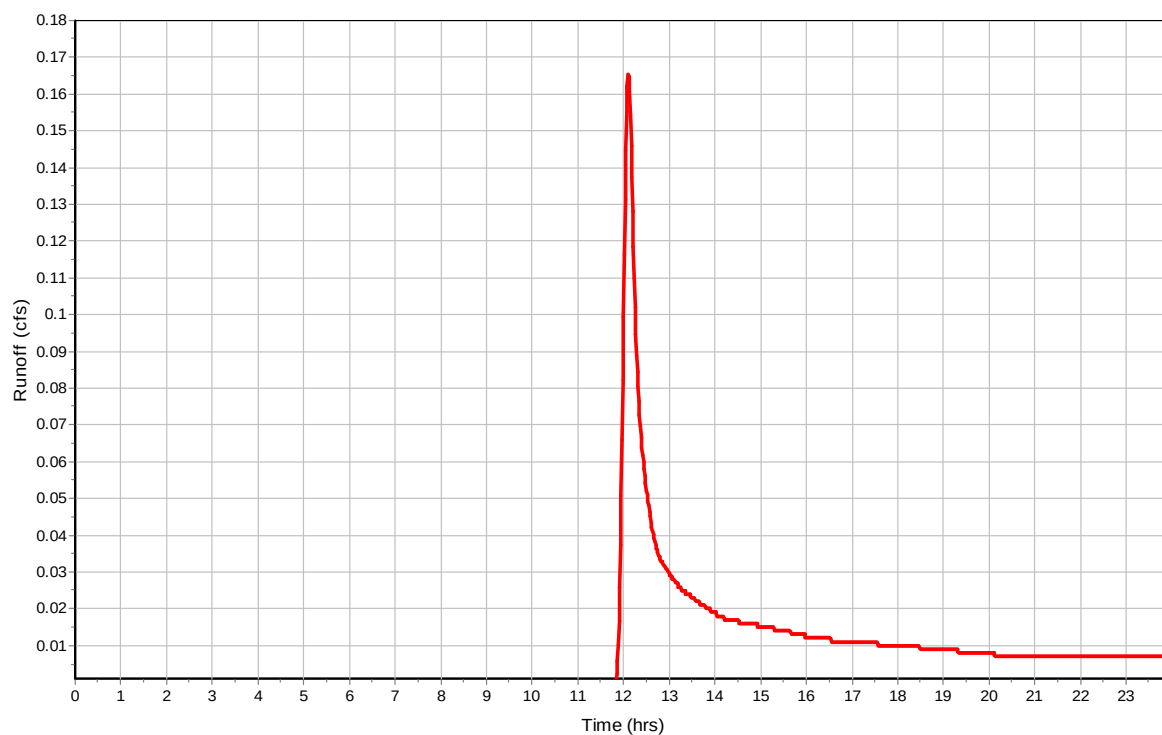
Total Rainfall (in) 1.17
Total Runoff (in) 0.16
Peak Runoff (cfs) 0.17
Weighted Curve Number 80.75
Time of Concentration (days hh:mm:ss) 0 00:16:10

Subbasin : Sub-37

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-38

Input Data

Area (ac)	1.77
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		1.83	B	75
Composite Area & Weighted CN		1.83		75

Time of Concentration

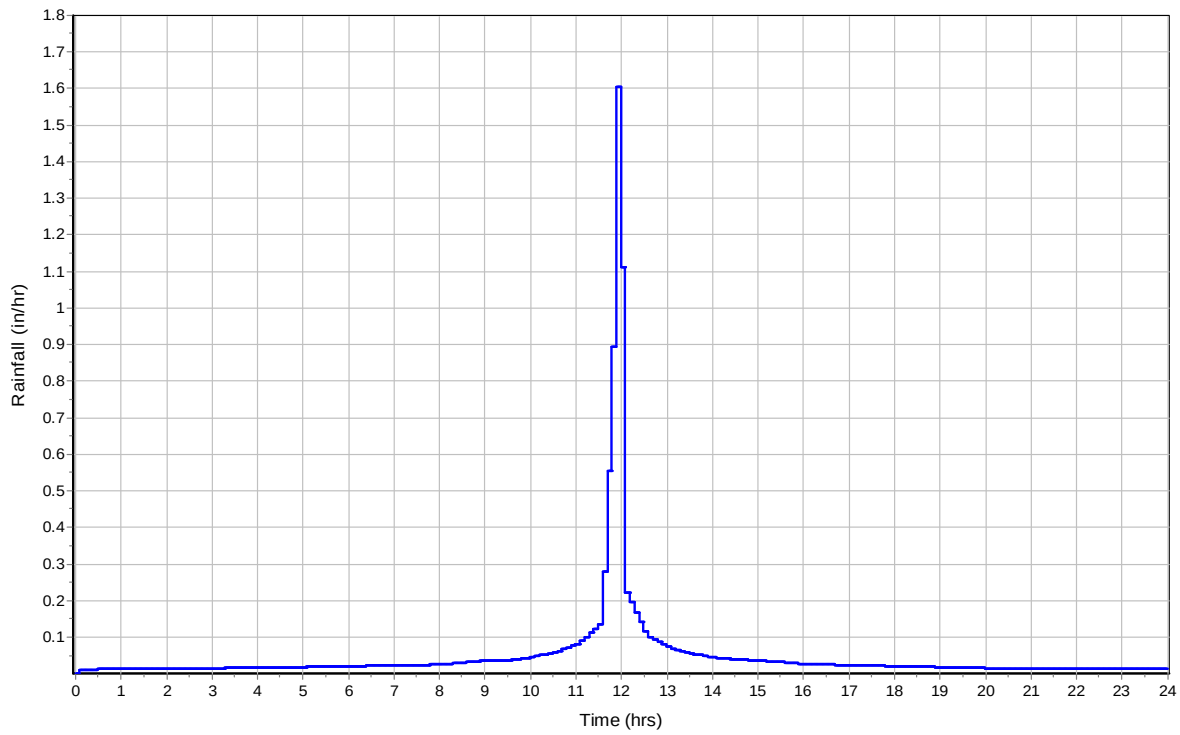
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0
Flow Length (ft) :	150	25	0
Slope (%) :	10	2	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.17	0.64	0
Computed Flow Time (min) :	14.63	0.65	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	130	260	0
Slope (%) :	8	4.3	0
Surface Type :	Paved	Paved	Unpaved
Velocity (ft/sec) :	5.75	4.22	0
Computed Flow Time (min) :	0.38	1.03	0
Total TOC (min)	16.69		

Subbasin Runoff Results

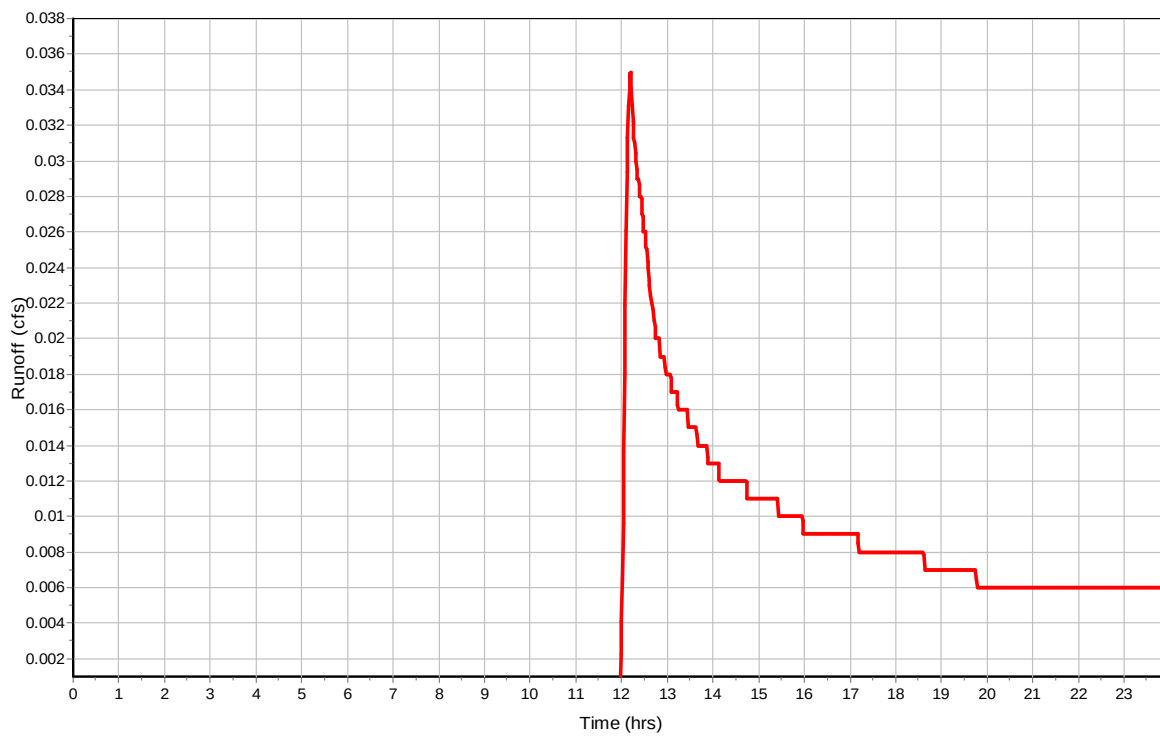
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.03
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:16:41

Subbasin : Sub-38

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-39

Input Data

Area (ac)	0.1
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.1	B	98
Composite Area & Weighted CN		0.1		98

Time of Concentration

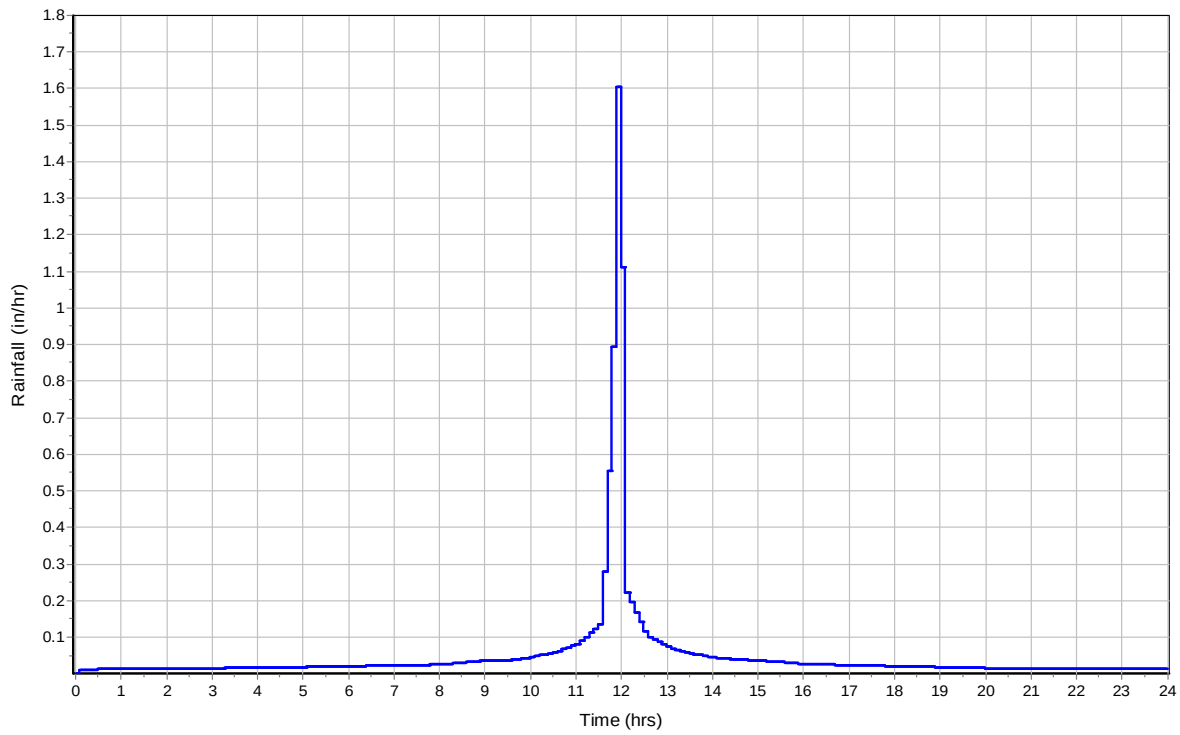
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	235	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	0.68	0	0
Total TOC (min)	1.33		

Subbasin Runoff Results

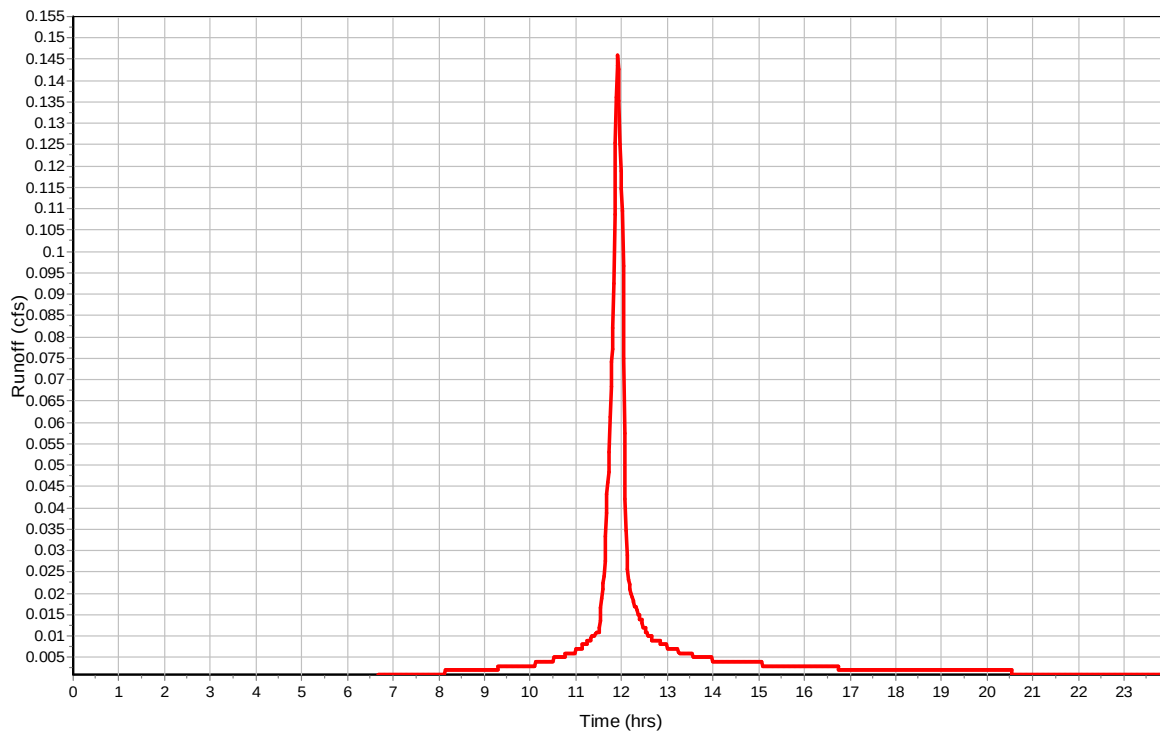
Total Rainfall (in)	1.17
Total Runoff (in)	0.94
Peak Runoff (cfs)	0.15
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:20

Subbasin : Sub-39

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-40

Input Data

Area (ac)	0.12
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.12	B	98
Composite Area & Weighted CN		0.12		98

Time of Concentration

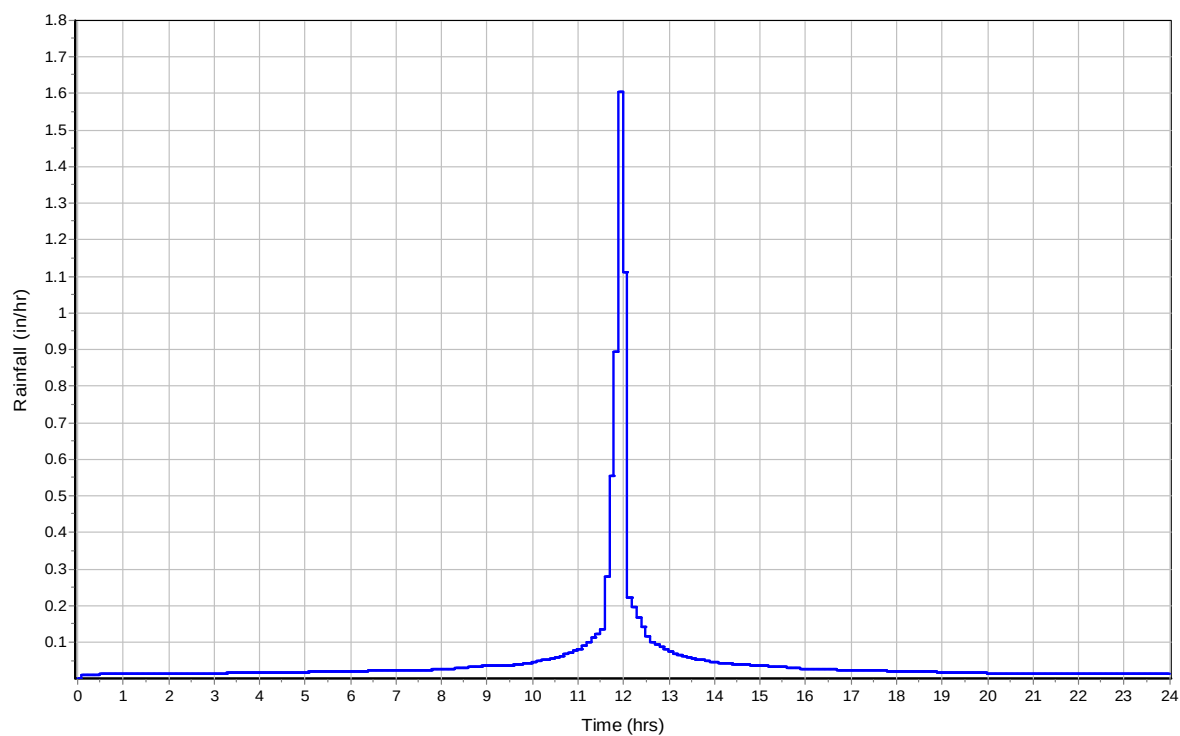
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	270	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	0.78	0	0
Total TOC (min)	1.44		

Subbasin Runoff Results

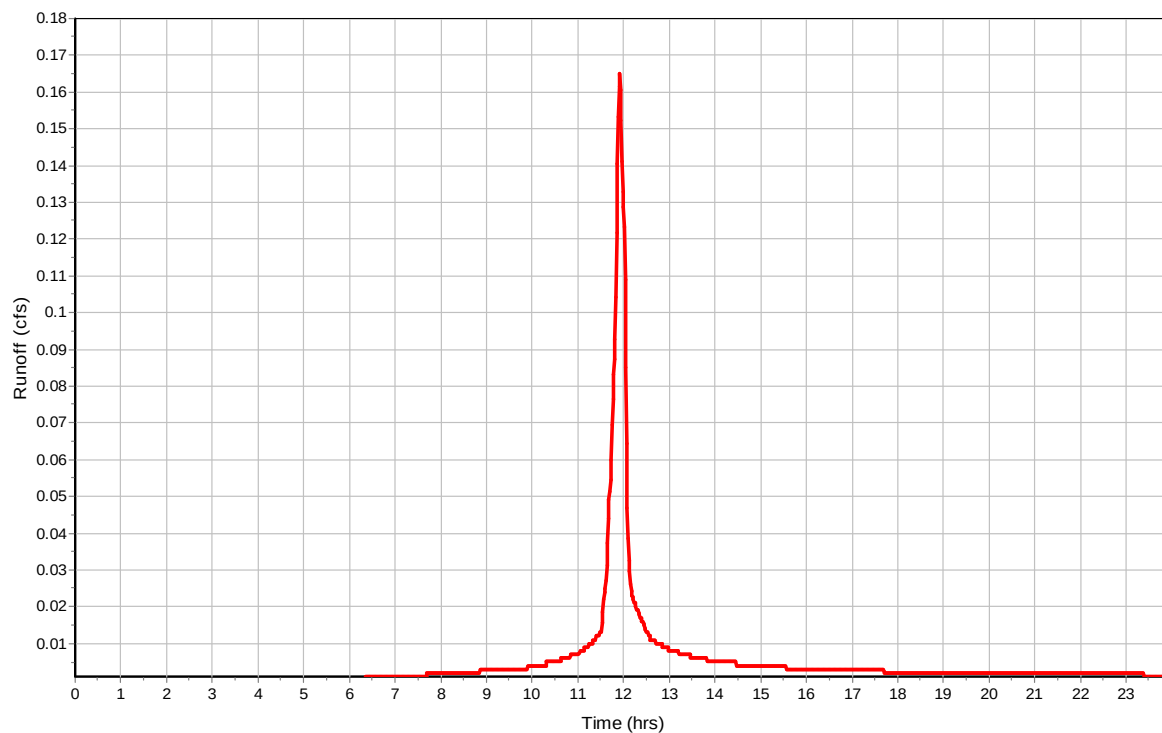
Total Rainfall (in)	1.17
Total Runoff (in)	0.94
Peak Runoff (cfs)	0.16
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:26

Subbasin : Sub-40

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-41

Input Data

Area (ac)	0.18
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.36	B	75
Composite Area & Weighted CN		0.36		75

Time of Concentration

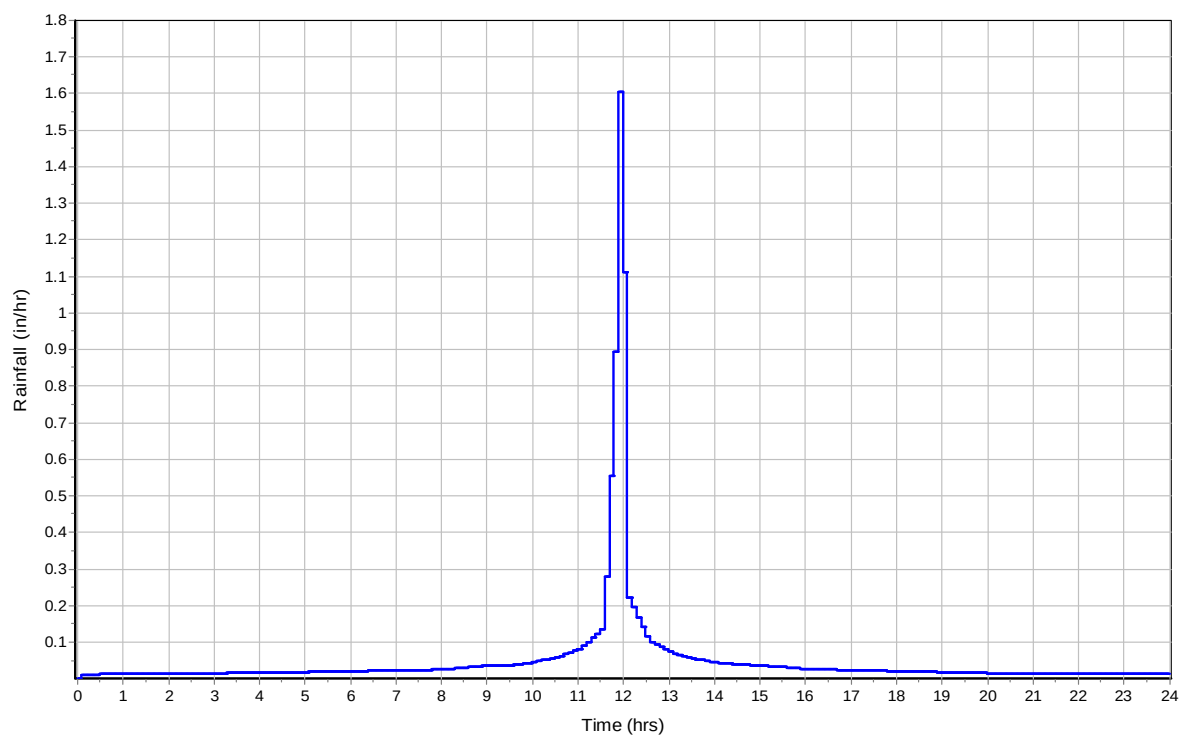
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0
Flow Length (ft) :	150	25	0
Slope (%) :	12	2	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.18	0.64	0
Computed Flow Time (min) :	13.6	0.65	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	115	0	0
Slope (%) :	7.5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.57	0	0
Computed Flow Time (min) :	0.34	0	0
Total TOC (min)	14.60		

Subbasin Runoff Results

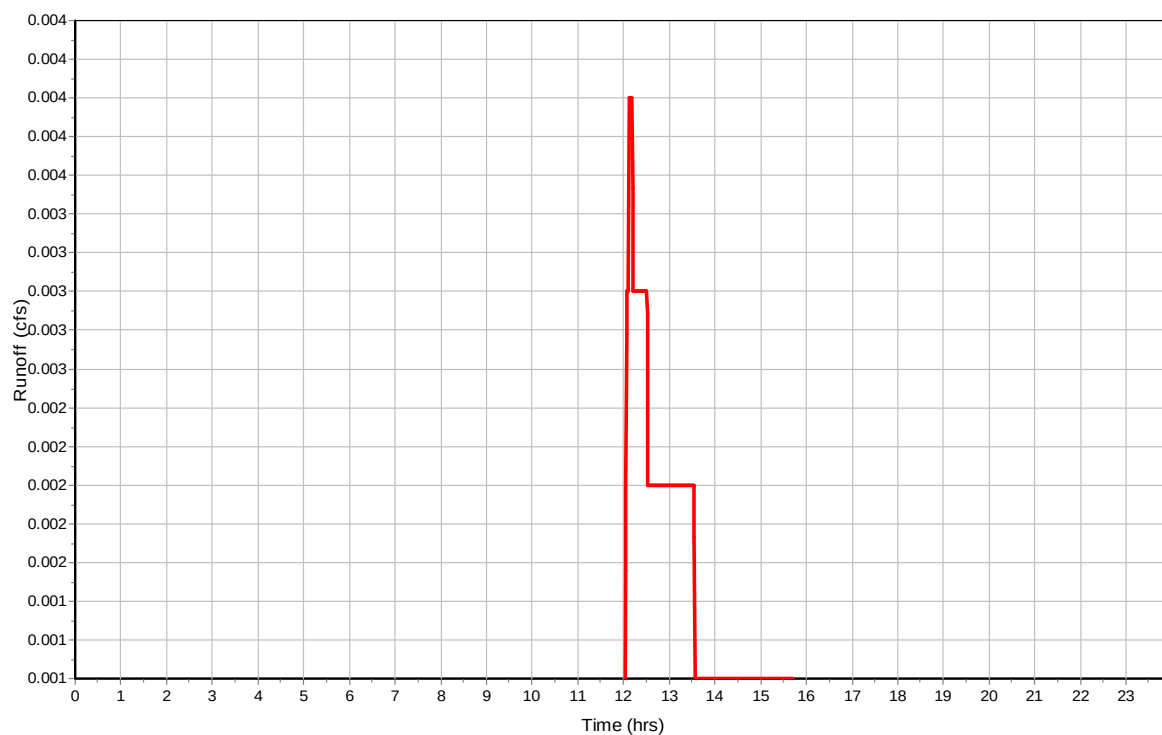
Total Rainfall (in)	1.17
Total Runoff (in)	0.03
Peak Runoff (cfs)	0
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:14:36

Subbasin : Sub-41

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-43

Input Data

Area (ac)	0.77
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.77	B	75
Composite Area & Weighted CN		0.77		75

Time of Concentration

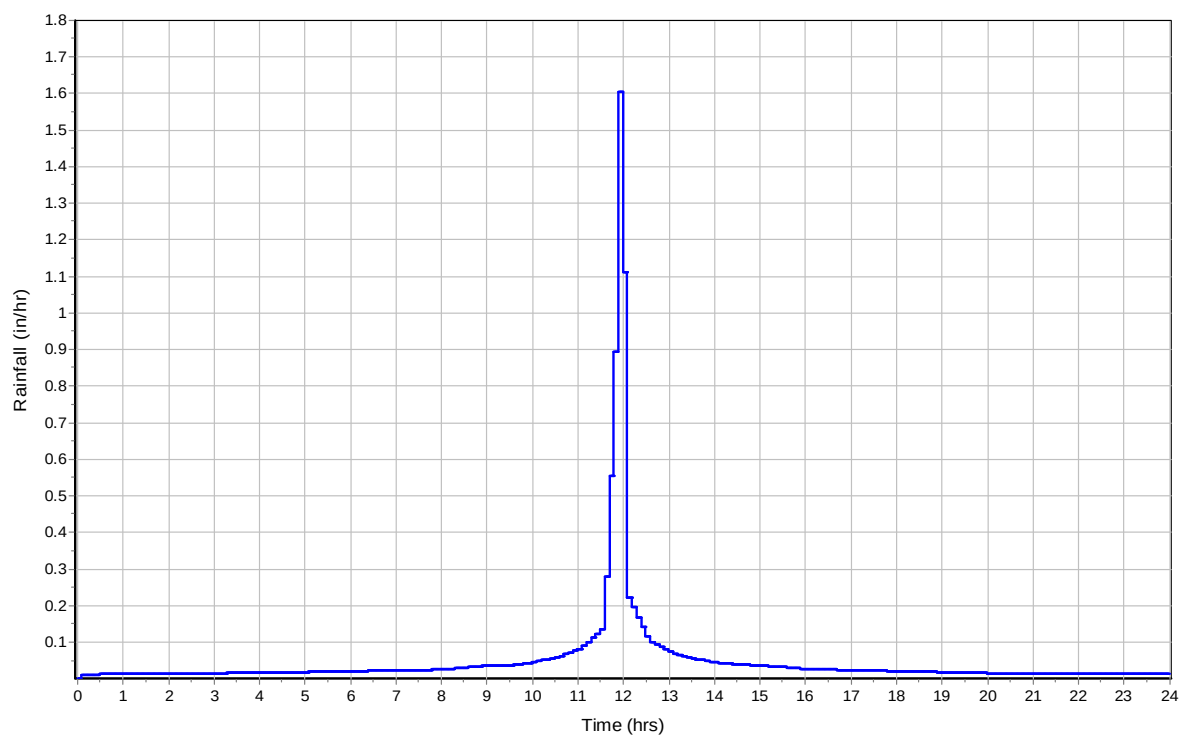
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0
Flow Length (ft) :	150	25	0
Slope (%) :	20	2	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.23	0.64	0
Computed Flow Time (min) :	11.09	0.65	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	300	0	0
Slope (%) :	9.5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	6.27	0	0
Computed Flow Time (min) :	0.8	0	0
Total TOC (min)	12.54		

Subbasin Runoff Results

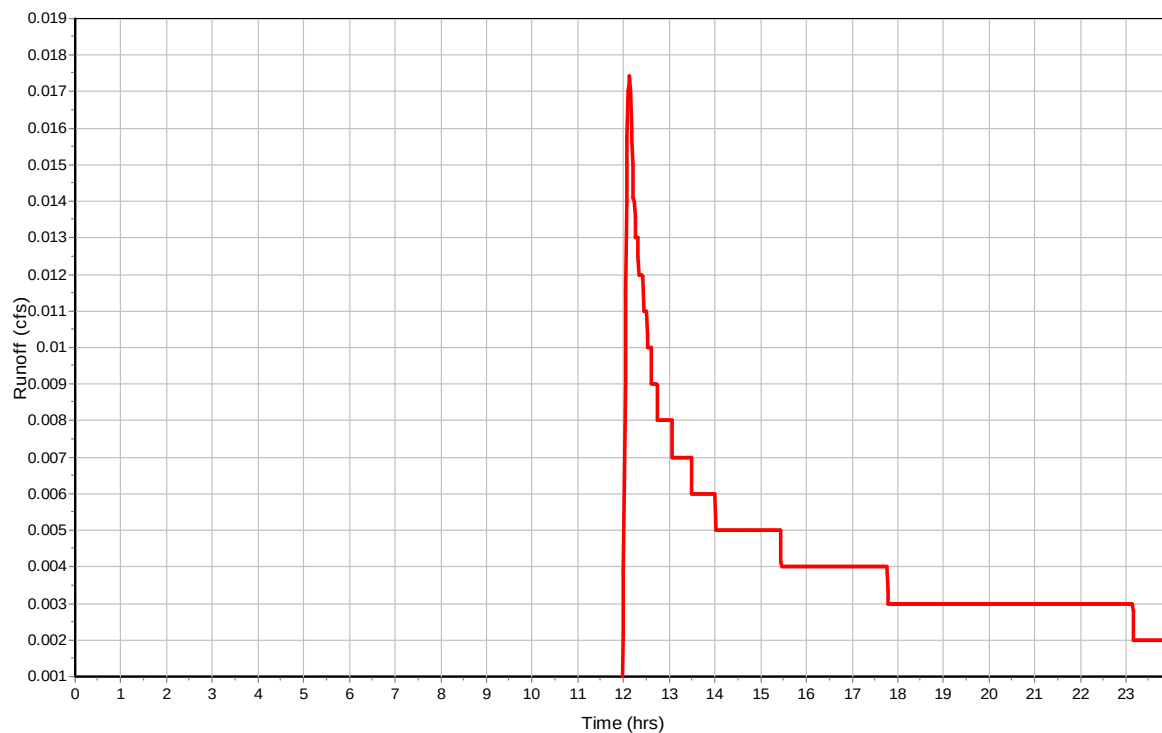
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.02
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:12:32

Subbasin : Sub-43

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-44

Input Data

Area (ac)	0.13
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.13	B	98
Composite Area & Weighted CN		0.13		98

Time of Concentration

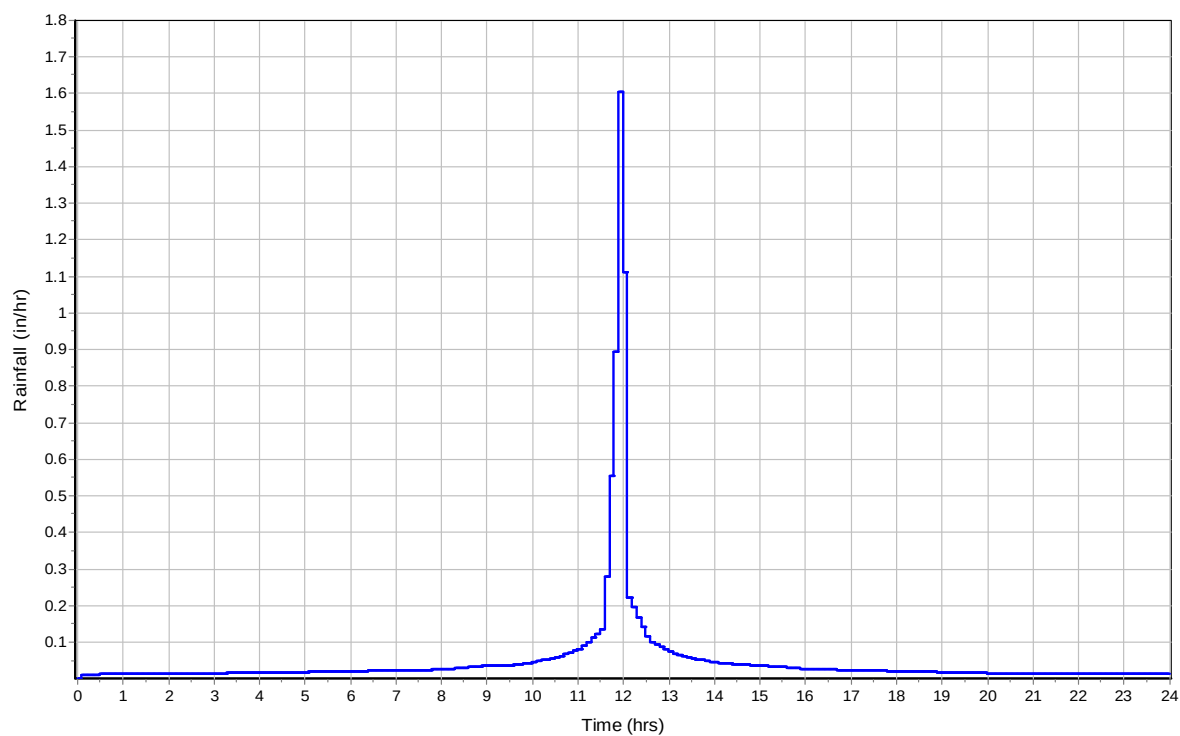
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	325	0	0
Slope (%) :	9.5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	6.27	0	0
Computed Flow Time (min) :	0.86	0	0
Total TOC (min)	1.52		

Subbasin Runoff Results

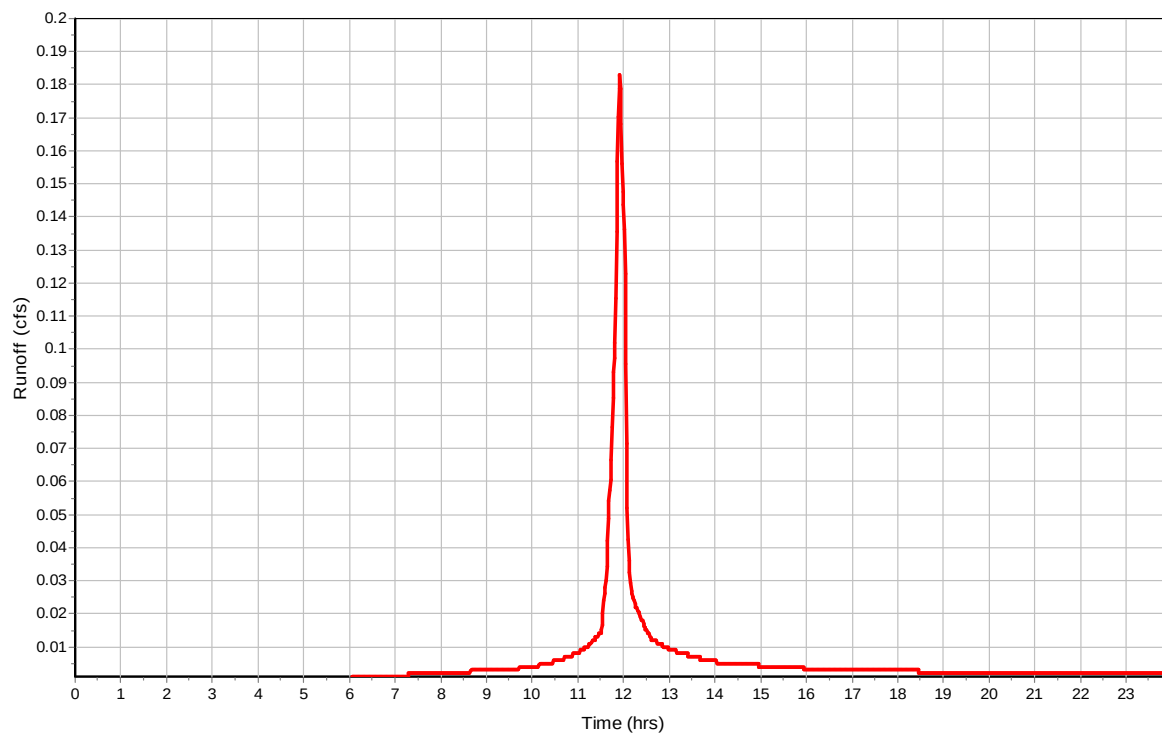
Total Rainfall (in)	1.17
Total Runoff (in)	0.95
Peak Runoff (cfs)	0.18
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:31

Subbasin : Sub-44

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-45

Input Data

Area (ac)	1.35
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		1.35	B	75
Composite Area & Weighted CN		1.35		75

Time of Concentration

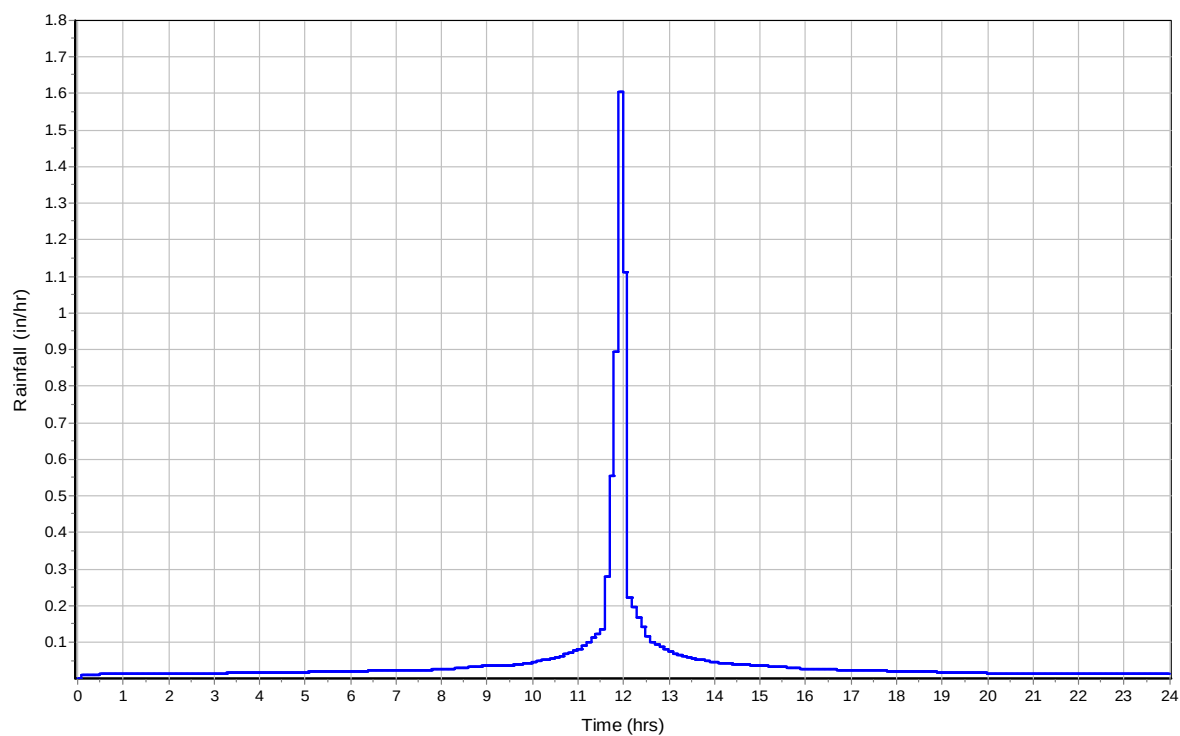
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.05	0.011
Flow Length (ft) :	150	100	25
Slope (%) :	20	50	2
2 yr, 24 hr Rainfall (in) :	1.2	1.2	1.2
Velocity (ft/sec) :	0.23	0.91	0.64
Computed Flow Time (min) :	11.09	1.83	0.65
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	200	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	0.73	0	0
Total TOC (min)	14.31		

Subbasin Runoff Results

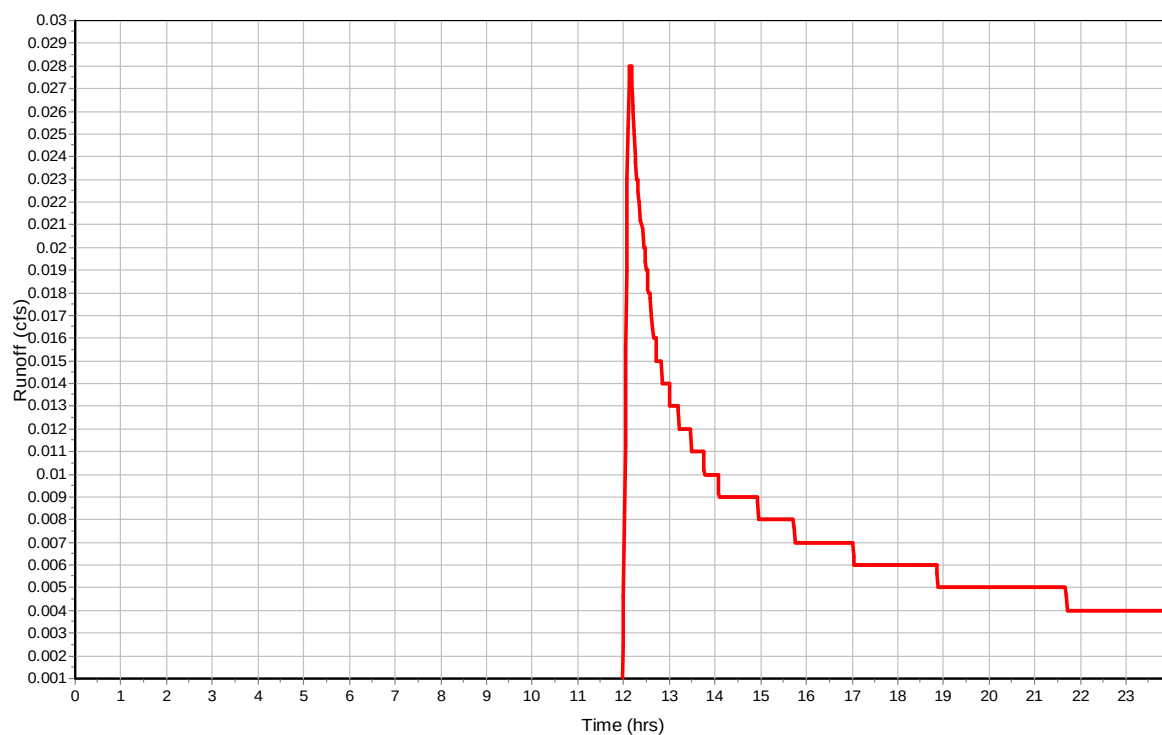
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.03
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:14:19

Subbasin : Sub-45

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-46

Input Data

Area (ac)	0.33
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.33	B	75
Composite Area & Weighted CN		0.33		75

Time of Concentration

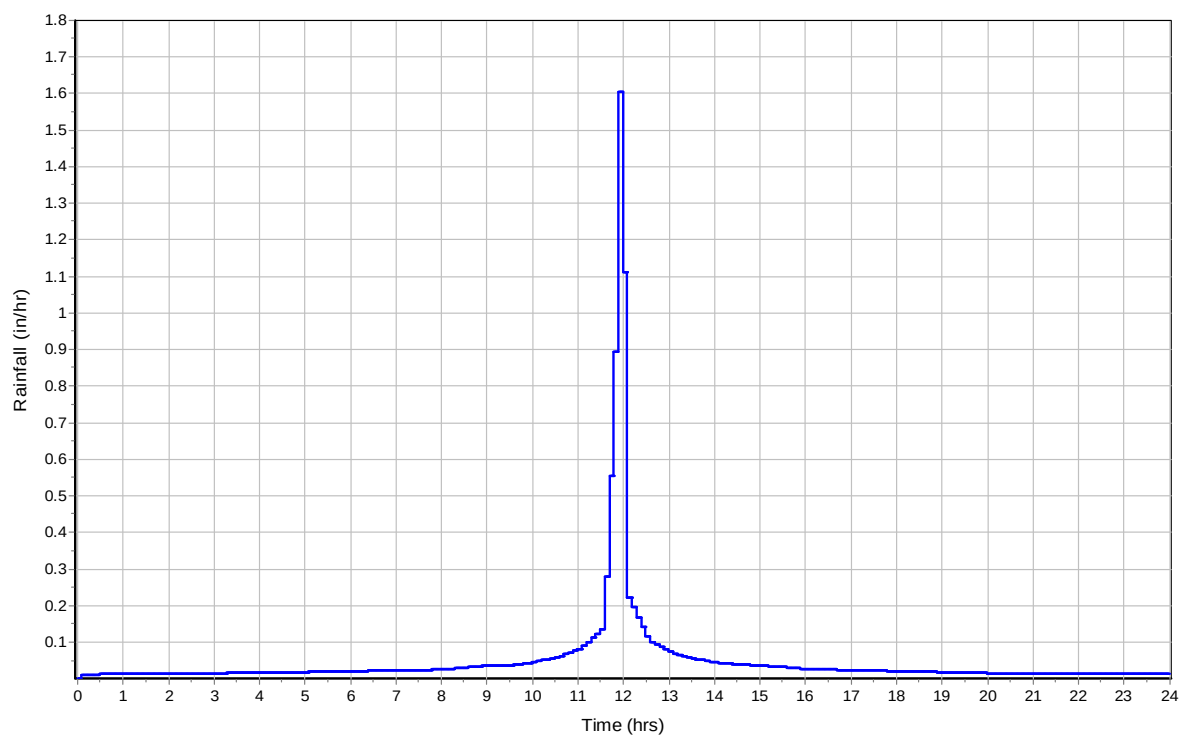
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0
Flow Length (ft) :	150	25	0
Slope (%) :	20	2	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.23	0.64	0
Computed Flow Time (min) :	11.09	0.65	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	225	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	0.82	0	0
Total TOC (min)	12.57		

Subbasin Runoff Results

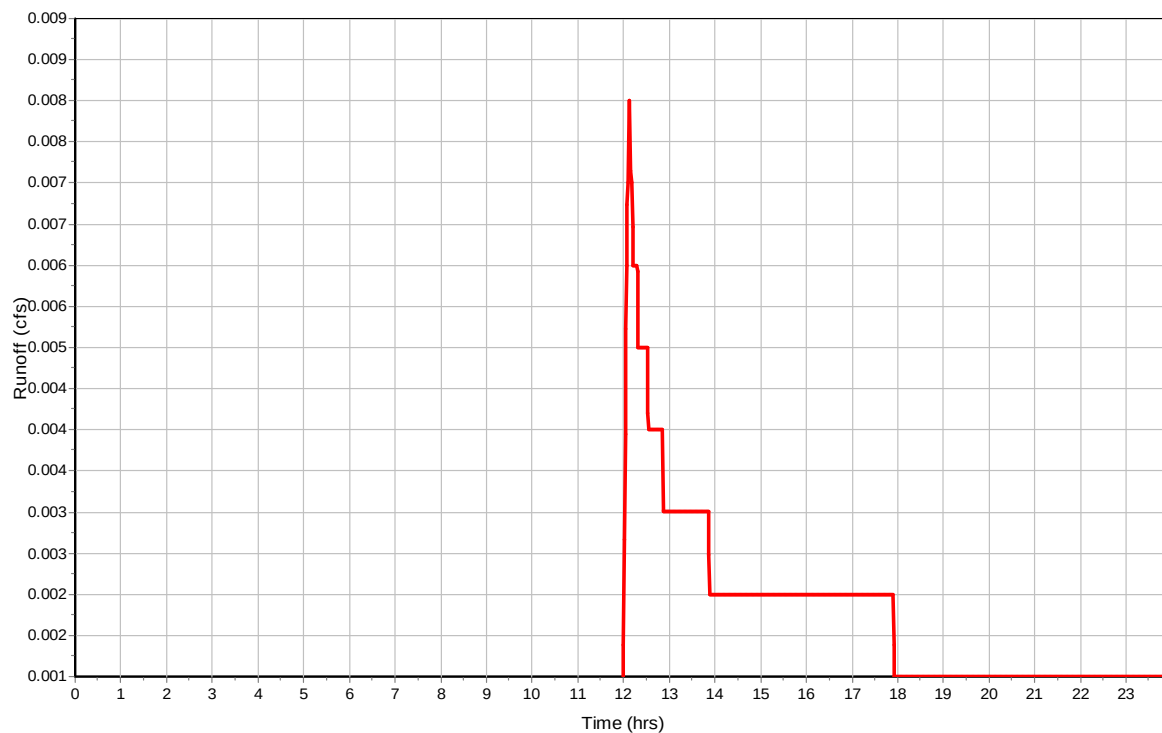
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.01
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:12:34

Subbasin : Sub-46

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-47

Input Data

Area (ac)	2.99
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		2.99	B	75
Composite Area & Weighted CN		2.99		75

Time of Concentration

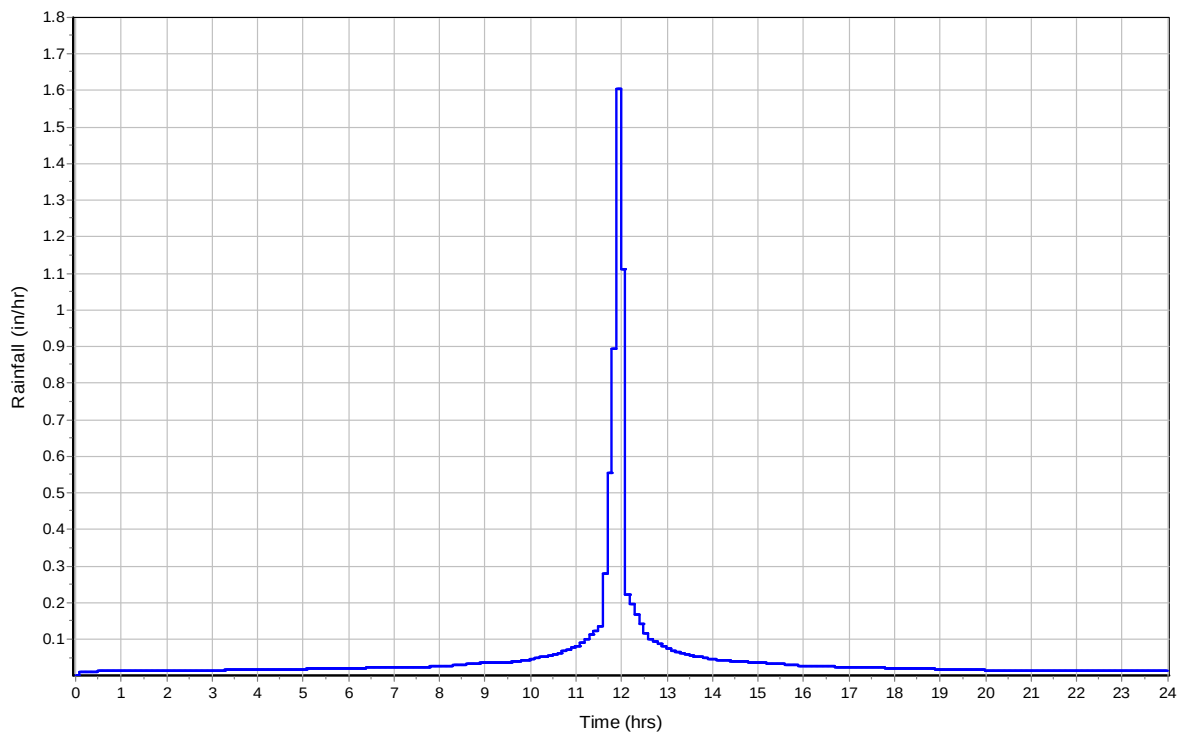
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0	0
Flow Length (ft) :	150	0	0
Slope (%) :	16	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.21	0	0
Computed Flow Time (min) :	12.13	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	450	0	0
Slope (%) :	20	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	9.09	0	0
Computed Flow Time (min) :	0.83	0	0
Total TOC (min)	12.95		

Subbasin Runoff Results

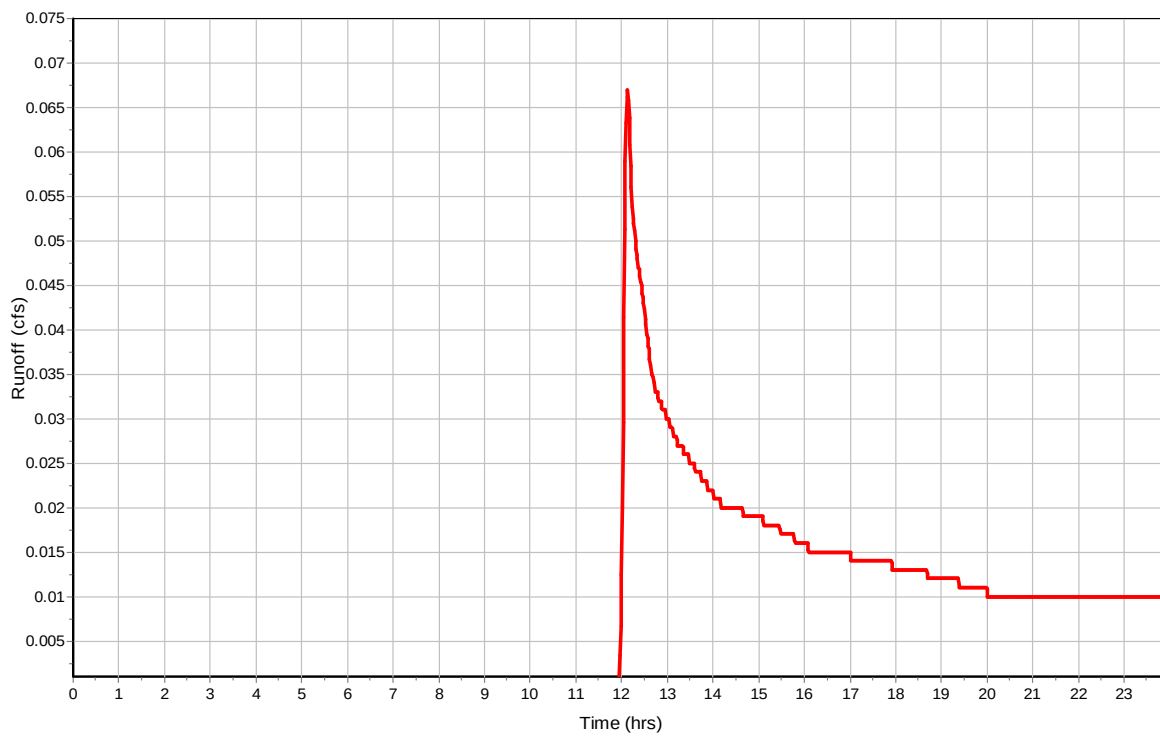
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.07
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:12:57

Subbasin : Sub-47

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-48

Input Data

Area (ac)	1.66
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.97	B	75
Composite Area & Weighted CN		0.97		75

Time of Concentration

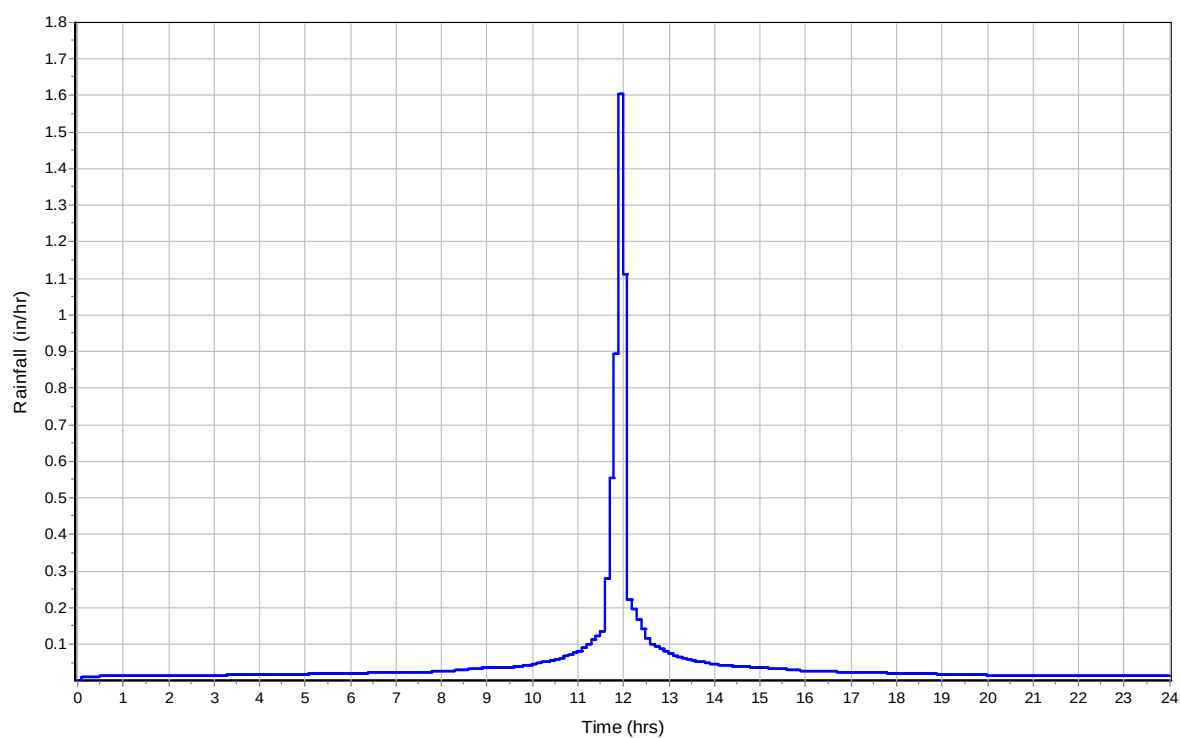
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.1	0	0
Flow Length (ft) :	60	0	0
Slope (%) :	13	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.28	0	0
Computed Flow Time (min) :	3.64	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	800	0	0
Slope (%) :	9	0	0
Surface Type :	Unpaved	Unpaved	Unpaved
Velocity (ft/sec) :	4.84	0	0
Computed Flow Time (min) :	2.75	0	0
Total TOC (min)	6.39		

Subbasin Runoff Results

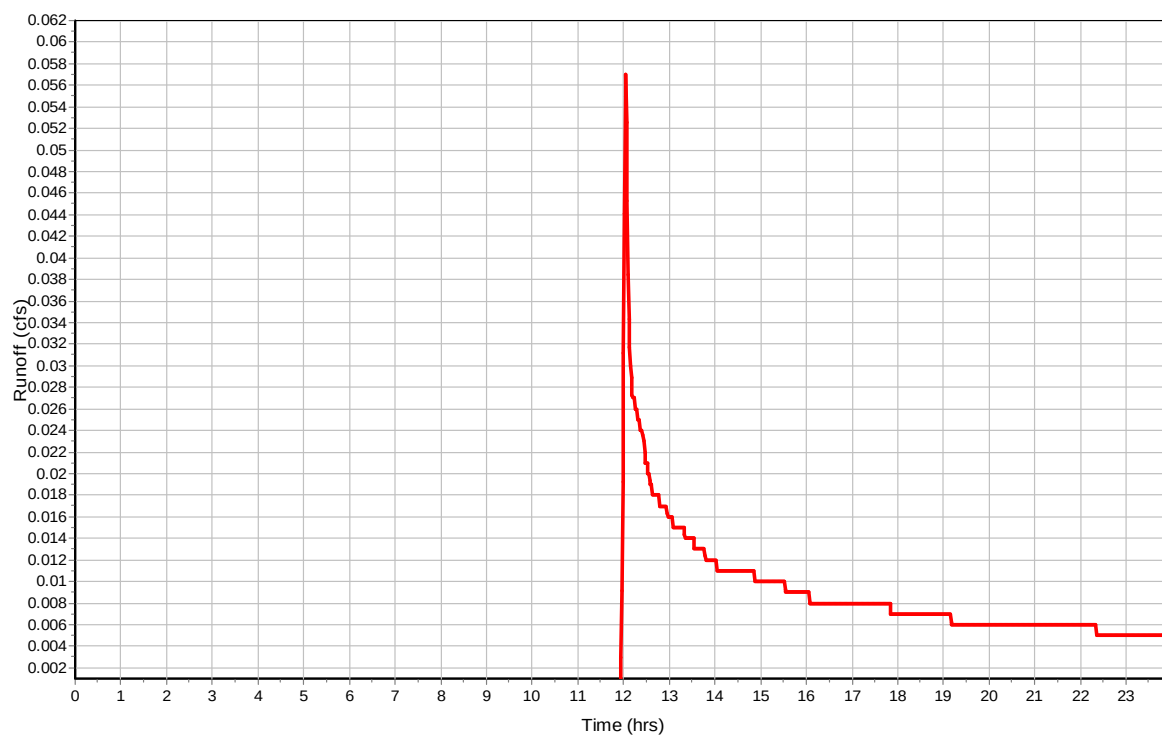
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.06
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:06:23

Subbasin : Sub-48

Rainfall Intensity Graph



Runoff Hydrograph



Junction Input

SN Element ID	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Ground/Rim (Max) Offset (ft)	Initial Water Elevation (ft)	Initial Water Depth (ft)	Surcharge Elevation (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Minimum Pipe Cover (in)
1 18-Jun	3232.80	3238.00	5.20	3232.80	0.00	3238.00	0.00	0.00	0.00
2 19-Jun	3195.00	3196.00	1.00	3195.00	0.00	3196.00	0.00	0.00	0.00
3 28-Jun	3325.00	3327.25	2.25	3325.00	0.00	3327.25	0.00	0.00	0.00
4 29-Jun	3390.00	3394.00	4.00	3390.00	0.00	3394.00	0.00	0.00	0.00
5 MH-1	3354.80	3358.02	3.22	3354.80	0.00	3358.02	0.00	0.00	0.00
6 MH-2	3352.99	3356.22	3.23	3352.99	0.00	3356.22	0.00	0.00	0.00
7 MH-4	3344.55	3348.54	3.99	3344.55	0.00	3348.54	0.00	0.00	0.00
8 MH-5	3339.44	3345.44	6.00	3339.44	0.00	3345.44	0.00	0.00	0.00
9 MH-6	3312.20	3315.82	3.62	3312.20	0.00	3315.82	0.00	0.00	0.00
10 MH-7	3307.05	3310.51	3.46	3307.05	0.00	3310.51	0.00	0.00	0.00
11 MH-8	3295.62	3298.85	3.23	3295.62	0.00	3298.85	0.00	0.00	0.00
12 MH-9	3271.80	3278.39	6.59	3271.80	0.00	3278.39	0.00	0.00	0.00
13 NULL-JUNCTION-2	3357.00	3357.50	0.50	3357.00	0.00	3357.50	0.00	0.00	0.00
14 NULL-JUNCTION-4	3334.55	3335.55	1.00	3334.55	0.00	3335.55	0.00	0.00	0.00
15 NULL-JUNCTION-6	3318.00	3319.00	1.00	3318.00	0.00	3319.00	0.00	0.00	0.00
16 NULL-JUNCTION-7	3310.00	3312.00	2.00	3310.00	0.00	3311.00	-1.00	0.00	0.00
17 NULL-JUNCTION-8	3263.60	3265.80	2.20	3263.60	0.00	3265.80	0.00	0.00	0.00
18 UPPERPOND-DRAIN	3338.72	3343.00	4.28	3338.72	0.00	3343.00	0.00	0.00	0.00

Junction Results

SN	Element ID	Peak Inflow	Peak Lateral Inflow	Max HGL Elevation Attained	Max HGL Depth Attained	Max Surcharge Depth Attained	Min Freeboard Attained	Average HGL Elevation Attained	Average HGL Depth Attained	Time of Max HGL Occurrence	Time of Peak Flooding Occurrence	Total Flooded Volume	Total Time Flooded
		(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(days hh:mm)	(days hh:mm)	(ac-in)	(min)
1	18-Jun	0.00	0.00	3232.80	0.00	0.00	5.20	3232.80	0.00	0 00:00	0 00:00	0.00	0.00
2	19-Jun	0.00	0.00	3195.00	0.00	0.00	1.50	3195.00	0.00	0 00:00	0 00:00	0.00	0.00
3	28-Jun	1.20	0.00	3325.40	0.40	0.00	1.85	3325.07	0.07	0 12:05	0 00:00	0.00	0.00
4	29-Jun	0.13	0.00	3390.09	0.09	0.00	3.91	3390.02	0.02	0 11:57	0 00:00	0.00	0.00
5	MH-1	0.35	0.00	3354.96	0.16	0.00	3.06	3354.83	0.03	0 11:57	0 00:00	0.00	0.00
6	MH-2	0.35	0.00	3353.14	0.15	0.00	3.08	3353.02	0.03	0 11:57	0 00:00	0.00	0.00
7	MH-4	0.58	0.00	3344.72	0.17	0.00	3.82	3344.58	0.03	0 11:57	0 00:00	0.00	0.00
8	MH-5	0.58	0.00	3339.66	0.22	0.00	5.78	3339.48	0.04	0 11:57	0 00:00	0.00	0.00
9	MH-6	0.21	0.00	3312.31	0.11	0.00	3.51	3312.22	0.02	0 11:58	0 00:00	0.00	0.00
10	MH-7	0.44	0.00	3307.24	0.19	0.00	3.27	3307.08	0.03	0 12:02	0 00:00	0.00	0.00
11	MH-8	0.59	0.00	3295.77	0.15	0.00	3.08	3295.65	0.03	0 12:02	0 00:00	0.00	0.00
12	MH-9	3.43	0.00	3273.11	1.31	0.00	5.28	3272.15	0.35	0 12:04	0 00:00	0.00	0.00
13	NULL-JUNCTION-2	0.31	0.31	3357.16	0.16	0.00	0.34	3357.03	0.03	0 12:08	0 00:00	0.00	0.00
14	NULL-JUNCTION-4	0.52	0.26	3334.80	0.25	0.00	0.75	3334.59	0.04	0 12:06	0 00:00	0.00	0.00
15	NULL-JUNCTION-6	0.52	0.00	3318.27	0.27	0.00	0.73	3318.05	0.05	0 12:08	0 00:00	0.00	0.00
16	NULL-JUNCTION-7	1.51	0.00	3310.01	0.01	0.00	2.99	3310.00	0.00	0 12:04	0 00:00	0.00	0.00
17	NULL-JUNCTION-8	3.50	0.00	3263.97	0.37	0.00	3.83	3263.67	0.07	0 12:05	0 00:00	0.00	0.00
18	UPPERPOND-DRAIN	0.06	0.00	3339.83	1.11	0.00	3.17	3339.25	0.53	0 12:08	0 00:00	0.00	0.00

Channel Input

SN Element ID	Length	Inlet Invert Elevation	Inlet Invert Offset	Outlet Invert Elevation	Outlet Invert Offset	Total Drop	Average Shape Slope	Height	Width	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flap Flow Gate
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(%)	(ft)	(ft)					(cfs)
1 Link-08	371.10	3402.20	4.20	3372.89	5.89	29.31	7.9000 User-Defined	0.750	6.800	0.0110	0.5000	0.5000	0.0000	0.00 No
2 Link-09	124.79	3372.89	5.89	3366.79	8.60	6.09	4.8800 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
3 Link-10	180.90	3403.00	4.72	3400.12	3.22	2.88	1.5900 User-Defined	0.750	6.800	0.0110	0.5000	0.5000	0.0000	0.00 No
4 Link-11	255.89	3400.12	3.22	3388.50	3.50	11.62	4.5400 User-Defined	0.750	6.800	0.0110	0.5000	0.5000	0.0000	0.00 No
5 Link-12	118.17	3388.16	5.72	3373.31	4.31	14.85	12.5700 User-Defined	0.750	6.800	0.0110	0.5000	0.5000	0.0000	0.00 No
6 Link-13	200.58	3388.50	3.50	3372.80	4.18	15.70	7.8300 User-Defined	0.750	6.800	0.0110	0.5000	0.5000	0.0000	0.00 No
7 Link-14	472.63	3373.31	4.31	3341.74	6.74	31.57	6.6800 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
8 Link-15	466.28	3372.80	4.18	3342.11	6.31	30.69	6.5800 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
9 Link-17	487.39	3366.79	8.60	3329.23	10.47	37.56	7.7100 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
10 Link-18	235.85	3365.50	7.73	3353.43	4.43	12.07	5.1200 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
11 Link-19	179.99	3353.26	4.26	3350.66	3.94	2.60	1.4400 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
12 Link-20	164.38	3352.62	3.22	3340.53	3.03	12.09	7.3500 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
13 Link-21	339.32	3340.53	3.03	3329.21	10.03	11.32	3.3400 User-Defined	0.750	6.800	0.0110	0.5000	0.5000	0.0000	0.00 No
14 Link-22	514.74	3340.32	2.91	3319.20	11.29	21.11	4.1000 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
15 Link-24	190.92	3350.53	3.43	3340.27	7.27	10.26	5.3700 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
16 Link-25	217.66	3350.66	3.94	3341.74	6.74	8.92	4.1000 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
17 Link-26	336.59	3340.27	7.27	3326.57	3.57	13.70	4.0700 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
18 Link-27	385.36	3342.11	6.31	3326.40	3.79	15.71	4.0800 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
19 Link-28	173.32	3326.57	3.57	3319.82	3.67	6.75	3.8900 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
20 Link-29	169.99	3326.40	3.79	3319.92	6.92	6.48	3.8100 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
21 Link-30	262.89	3319.82	3.67	3311.08	6.86	8.74	3.3200 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
22 Link-31	266.64	3320.05	7.05	3308.85	5.09	11.20	4.2000 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
23 Link-32	216.58	3329.23	10.47	3319.24	11.69	9.99	4.6100 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
24 Link-33	130.77	3319.24	11.69	3309.21	4.53	10.03	7.6700 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
25 Link-34	132.41	3319.20	11.29	3311.08	6.86	8.12	6.1300 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
26 Link-35	297.09	3308.85	5.09	3281.51	5.63	27.34	9.2000 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
27 Link-36	249.29	3309.21	4.53	3291.00	1.00	18.21	7.3000 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
28 Link-38	138.92	3281.55	3.00	3275.53	8.73	6.02	4.3400 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
29 Link-39	127.19	3281.51	5.63	3276.79	4.69	4.72	3.7100 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
30 Link-74	464.71	3357.00	0.00	3335.00	0.45	22.00	4.7300 Triangular	0.500	6.000	0.0320	0.5000	0.5000	0.0000	0.00 No
31 Link-77	256.93	3330.00	-4.55	3315.00	-3.00	15.00	5.8400 Triangular	1.000	6.000	0.0320	0.5000	0.5000	0.0000	0.00 No
32 Link-79	217.18	3315.00	-3.00	3309.00	3.00	6.00	2.7600 Triangular	1.000	6.000	0.0320	0.5000	0.5000	0.0000	0.00 No
33 Link-82	135.46	3345.00	2.00	3341.74	6.74	3.26	2.4100 User-Defined	0.750	6.800	0.0320	0.5000	0.5000	0.0000	0.00 No
34 Link-90	143.54	3195.00	0.00	3190.00	0.00	5.00	3.4800 Triangular	1.500	6.000	0.0320	0.5000	0.5000	0.0000	0.00 No

Channel Results

SN	Element ID	Peak Flow	Time of Peak Flow Occurrence	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Travel Time	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
		(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)		(min)		
1	Link-08	0.06	0 11:56	80.09	0.00	4.40	1.41	0.05	0.00		
2	Link-09	0.02	0 11:56	89.87	0.00	2.15	0.97	0.03	0.00		
3	Link-10	0.01	0 12:10	34.91	0.00	1.19	2.53	0.04	0.00		
4	Link-11	0.01	0 12:12	58.96	0.00	1.48	2.88	0.04	0.00		
5	Link-12	0.08	0 11:56	98.09	0.00	4.78	0.41	0.06	0.00		
6	Link-13	0.01	0 12:12	77.41	0.00	1.65	2.03	0.04	0.00		
7	Link-14	0.05	0 11:56	87.67	0.00	3.26	2.42	0.08	0.00		
8	Link-15	0.05	0 12:05	86.97	0.00	2.27	3.42	0.06	0.00		
9	Link-17	0.01	0 12:05	96.32	0.00	1.62	5.01	0.03	0.00		
10	Link-18	0.07	0 11:56	65.30	0.00	1.96	2.01	0.07	0.00		
11	Link-19	0.03	0 11:56	40.77	0.00	1.50	2.00	0.05	0.00		
12	Link-20	0.05	0 11:56	91.72	0.00	0.92	2.98	0.09	0.00		
13	Link-21	0.04	0 11:57	64.75	0.00	4.21	1.34	0.04	0.00		
14	Link-22	0.03	0 11:56	81.13	0.00	4.00	2.14	0.03	0.00		
15	Link-24	0.03	0 11:56	77.86	0.00	1.95	1.63	0.05	0.00		
16	Link-25	0.01	0 12:04	68.67	0.00	1.21	3.00	0.07	0.00		
17	Link-26	0.01	0 11:57	68.98	0.00	1.71	3.28	0.03	0.00		
18	Link-27	0.07	0 11:56	68.62	0.00	1.82	3.53	0.08	0.00		
19	Link-28	0.00	0 12:24	67.53	0.00	0.75	3.85	0.05	0.00		
20	Link-29	0.09	0 11:56	66.12	0.00	2.10	1.35	0.08	0.00		
21	Link-30	0.05	0 12:07	67.14	0.00	2.95	1.49	0.05	0.00		
22	Link-31	0.07	0 11:56	68.71	0.00	2.07	2.15	0.07	0.00		
23	Link-32	0.01	0 12:11	78.37	0.00	1.39	2.60	0.03	0.00		
24	Link-33	0.01	0 12:11	54.05	0.00	1.23	1.77	0.03	0.00		
25	Link-34	0.00	0 00:00	42.21	0.00	0.00		0.02	0.00		
26	Link-35	0.07	0 11:56	102.24	0.00	2.84	1.74	0.06	0.00		
27	Link-36	0.00	0 12:11	89.02	0.00	0.00		0.02	0.00		
28	Link-38	0.06	0 11:56	72.12	0.00	3.33	0.70	0.05	0.00		
29	Link-39	0.02	0 11:56	74.83	0.00	2.89	0.73	0.03	0.00		
30	Link-74	0.28	0 12:08	5.96	0.05	1.85	4.19	0.32	0.00		
31	Link-77	0.52	0 12:06	21.50	0.02	2.74	1.56	0.26	0.00		
32	Link-79	0.50	0 12:08	17.25	0.03	2.36	1.53	0.26	0.00		
33	Link-82	0.00	0 00:00	42.93	0.00	0.00		0.00	0.00		
34	Link-90	0.00	0 00:00	29.89	0.00	0.00		0.02	0.00		

Pipe Input

SN Element ID	Length	Inlet Invert Elevation	Inlet Invert Offset	Outlet Invert Elevation	Outlet Invert Offset	Total Drop	Average Pipe Slope Shape	Pipe Diameter or Height	Pipe Width	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(%)	(in)	(in)					(cfs)
1 Link-06	15.01	3308.18	-1.82	3296.00	-10.00	12.18	81.1400 DUMMY	0.000	0.000	0.0320	0.5000	0.5000	0.0000	0.00
2 Link-105	110.53	3325.00	0.00	3323.20	0.20	1.80	1.6300 CIRCULAR	12.000	12.000	0.0150	0.5000	0.5000	0.0000	0.00
3 Link-106	44.74	3335.80	0.00	3335.30	0.30	0.50	1.1200 CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00
4 Link-107	304.03	3390.00	0.00	3367.20	0.20	22.80	7.5000 CIRCULAR	12.000	12.000	0.0150	0.5000	0.5000	0.0000	0.00
5 Link-108	77.38	3398.00	0.00	3390.20	0.20	7.80	10.0800 CIRCULAR	12.000	12.000	0.0150	0.5000	0.5000	0.0000	0.00
6 Link-109	50.48	3398.28	0.00	3398.00	0.00	0.28	0.5500 CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00
7 Link-110	35.71	3316.15	0.00	3313.20	0.20	2.95	8.2600 CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00
8 Link-111	92.73	3313.00	0.00	3310.00	0.00	3.00	3.2400 CIRCULAR	36.000	36.000	0.0150	0.5000	0.5000	0.0000	0.00
9 Link-85	204.93	3190.00	0.00	3159.50	0.00	30.50	14.8800 CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00
10 Link-89	308.93	3232.80	0.00	3195.00	0.00	37.80	12.2400 CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00
11 Link-91	494.91	3258.50	3.50	3233.00	0.20	25.50	5.1500 CIRCULAR	12.000	12.000	0.0150	0.5000	0.5000	0.0000	0.00
12 Link-93	91.99	3334.80	1.80	3331.50	4.00	3.30	3.5900 CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00
13 OUTFALL-TO-LOWERPOND	150.00	3263.60	0.00	3255.00	0.00	8.60	5.7300 CIRCULAR	24.000	24.000	0.0150	0.5000	0.5000	0.0000	0.00
14 Pipe -10	90.35	3357.77	0.00	3355.00	0.20	2.77	3.0700 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
15 Pipe -11	45.95	3354.80	0.00	3353.19	0.20	1.61	3.5000 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
16 Pipe -12	91.80	3352.99	0.00	3349.20	0.20	3.79	4.1300 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
17 Pipe -13	55.49	3349.40	0.00	3349.20	0.20	0.20	0.3600 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
18 Pipe -14	57.59	3349.00	0.00	3346.92	0.20	2.08	3.6100 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
19 Pipe -15	326.25	3337.50	0.00	3319.38	0.20	18.12	5.5500 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
20 Pipe -16	36.89	3337.70	0.29	3337.50	0.00	0.20	0.5400 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
21 Pipe -18	34.58	3323.00	0.00	3322.81	0.20	0.19	0.5500 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
22 Pipe -19	169.84	3322.61	0.00	3313.20	0.20	9.41	5.5400 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
23 Pipe -20	37.00	3347.10	0.00	3346.92	0.20	0.18	0.4900 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
24 Pipe -21	53.71	3346.72	0.00	3344.75	0.20	1.97	3.6700 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
25 Pipe -22	53.77	3344.55	0.00	3339.64	0.20	4.91	9.1300 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
26 Pipe -23	102.45	3339.44	0.00	3336.46	1.46	2.98	2.9100 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
27 Pipe -24	53.10	3335.30	0.30	3335.00	2.00	0.30	0.5600 CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00
28 Pipe -27	51.84	3319.18	0.00	3318.96	0.20	0.22	0.4200 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
29 Pipe -28	144.87	3318.76	0.00	3312.40	0.20	6.36	4.3900 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
30 Pipe -29	72.32	3312.20	0.00	3307.75	0.20	4.45	6.1500 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
31 Pipe -3	255.29	3396.90	0.00	3385.20	0.20	11.70	4.5800 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
32 Pipe -30	30.26	3307.91	0.00	3307.75	0.20	0.16	0.5300 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
33 Pipe -31	59.75	3307.55	0.00	3307.25	0.20	0.30	0.5000 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
34 Pipe -32	70.60	3307.05	0.00	3305.14	0.46	1.91	2.7100 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
35 Pipe -33	51.47	3304.68	0.00	3304.42	0.20	0.26	0.5100 CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00
36 Pipe -34	52.12	3304.22	0.00	3303.96	0.20	0.26	0.5000 CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00
37 Pipe -35	115.12	3303.76	0.00	3295.82	0.20	7.94	6.9000 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
38 Pipe -36	164.11	3295.62	0.00	3277.08	1.20	18.54	11.3000 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
39 Pipe -37	37.41	3278.55	0.00	3277.08	1.20	1.47	3.9300 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
40 Pipe -38	62.14	3275.88	0.00	3272.00	0.20	3.88	6.2400 CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00
41 Pipe -39	63.48	3271.80	0.00	3269.00	-3.10	2.80	4.4100 CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00
42 Pipe -4	37.54	3385.00	0.00	3384.44	2.00	0.56	1.4900 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
43 Pipe -40	34.01	3269.00	-3.10	3267.00	0.20	2.00	5.8800 CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00
44 Pipe -41	92.30	3266.80	0.00	3265.80	2.20	1.00	1.0800 CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00
45 Pipe -44	142.82	3306.00	0.00	3276.08	0.20	29.92	20.9500 CIRCULAR	8.040	8.040	0.0130	0.5000	0.5000	0.0000	0.00
46 Pipe -5	97.73	3382.44	0.00	3369.20	0.20	13.24	13.5500 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
47 Pipe -6	37.16	3369.00	0.00	3368.82	0.20	0.18	0.4800 CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00
48 Pipe -7	465.28	3368.62	0.00	3336.00	0.20	32.62	7.0100 CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00
49 Pipe -8	118.46	3367.00	0.00	3358.39	0.20	8.61	7.2700 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
50 Pipe -9	41.44	3358.19	0.00	3357.97	0.20	0.22	0.5300 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
51 UPPERPOND-DRAIN-PIPE	13.36	3339.72	1.00	3339.64	0.20	0.08	0.6000 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00

Pipe Results

SN Element ID	Peak Flow	Time of Peak Flow Occurrence	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Travel Time	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
	(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)		(min)		
1 Link-06	1.51	0 12:04	0.00	0.00	0.00		0.00	0.00		
2 Link-105	1.20	0 12:05	3.94	0.30	4.25	0.43	0.39	0.00		Calculated
3 Link-106	0.50	0 11:58	9.62	0.05	1.69	0.44	0.23	0.00		Calculated
4 Link-107	0.13	0 11:57	8.46	0.02	3.93	1.29	0.09	0.00		Calculated
5 Link-108	0.13	0 11:56	9.80	0.01	4.37	0.30	0.08	0.00		Calculated
6 Link-109	0.02	0 12:11	6.78	0.00	0.88	0.96	0.03	0.00		Calculated
7 Link-110	0.12	0 12:07	26.17	0.00	2.18	0.27	0.40	0.00		Calculated
8 Link-111	1.51	0 12:04	103.97	0.01	3.06	0.51	0.23	0.00		Calculated
9 Link-85	0.08	0 17:51	35.12	0.00	4.06	0.84	0.04	0.00		Calculated
10 Link-89	0.00	0 00:00	31.84	0.00	0.00		0.00	0.00		Calculated
11 Link-91	0.00	0 00:00	7.01	0.00	0.00		0.00	0.00		Calculated
12 Link-93	1.33	0 11:58	17.24	0.08	5.60	0.27	0.19	0.00		Calculated
13 OUTFALL-TO-LOWERPOND	3.50	0 12:05	46.95	0.07	8.31	0.30	0.33	0.00		Calculated
14 Pipe -10	0.35	0 11:57	6.24	0.06	4.18	0.36	0.16	0.00		Calculated
15 Pipe -11	0.35	0 11:57	6.67	0.05	4.30	0.18	0.16	0.00		Calculated
16 Pipe -12	0.35	0 11:57	7.24	0.05	4.65	0.33	0.15	0.00		Calculated
17 Pipe -13	0.11	0 11:56	2.14	0.05	1.49	0.62	0.15	0.00		Calculated
18 Pipe -14	0.50	0 11:57	6.77	0.07	4.84	0.20	0.19	0.00		Calculated
19 Pipe -15	0.17	0 11:57	8.40	0.02	4.17	1.30	0.10	0.00		Calculated
20 Pipe -16	0.08	0 11:56	2.62	0.03	1.62	0.38	0.11	0.00		Calculated
21 Pipe -18	1.21	0 12:05	2.64	0.46	3.00	0.19	0.51	0.00		Calculated
22 Pipe -19	1.33	0 12:02	8.39	0.16	5.36	0.53	0.63	0.00		Calculated
23 Pipe -20	0.07	0 11:56	2.49	0.03	1.42	0.43	0.11	0.00		Calculated
24 Pipe -21	0.58	0 11:57	6.82	0.09	5.07	0.18	0.20	0.00		Calculated
25 Pipe -22	0.58	0 11:57	10.77	0.05	7.06	0.13	0.16	0.00		Calculated
26 Pipe -23	0.58	0 11:57	6.08	0.10	4.76	0.36	0.21	0.00		Calculated
27 Pipe -24	1.22	0 11:58	7.90	0.15	3.00	0.30	0.28	0.00		Calculated
28 Pipe -27	0.20	0 11:57	2.32	0.09	1.83	0.47	0.20	0.00		Calculated
29 Pipe -28	0.21	0 11:58	7.47	0.03	4.11	0.59	0.11	0.00		Calculated
30 Pipe -29	0.21	0 11:58	8.84	0.02	4.47	0.27	0.11	0.00		Calculated
31 Pipe -3	0.02	0 12:11	7.63	0.00	1.94	2.19	0.03	0.00		Calculated
32 Pipe -30	0.25	0 12:02	2.59	0.10	1.98	0.25	0.22	0.00		Calculated
33 Pipe -31	0.44	0 12:02	2.52	0.18	2.34	0.43	0.29	0.00		Calculated
34 Pipe -32	0.44	0 12:02	5.86	0.08	4.26	0.28	0.19	0.00		Calculated
35 Pipe -33	0.44	0 12:03	7.47	0.06	2.21	0.39	0.17	0.00		Calculated
36 Pipe -34	0.48	0 12:04	7.42	0.07	2.26	0.38	0.18	0.00		Calculated
37 Pipe -35	0.59	0 12:02	9.36	0.06	6.50	0.30	0.17	0.00		Calculated
38 Pipe -36	0.59	0 12:02	11.98	0.05	7.82	0.35	0.15	0.00		Calculated
39 Pipe -37	0.13	0 11:56	7.06	0.02	3.33	0.19	0.10	0.00		Calculated
40 Pipe -38	3.43	0 12:04	56.53	0.06	3.34	0.31	0.36	0.00		Calculated
41 Pipe -39	3.43	0 12:05	15.55	0.22	2.91	0.36	0.40	0.00		Calculated
42 Pipe -4	0.03	0 12:12	4.35	0.01	1.63	0.38	0.06	0.00		Calculated
43 Pipe -40	3.46	0 12:05	87.60	0.04	10.15	0.06	0.17	0.00		Calculated
44 Pipe -41	3.50	0 12:05	23.55	0.15	4.97	0.31	0.28	0.00		Calculated
45 Pipe -44	2.79	0 12:05	5.53	0.50	15.40	0.15	0.51	0.00		Calculated
46 Pipe -5	0.17	0 11:56	13.11	0.01	5.76	0.28	0.08	0.00		Calculated
47 Pipe -6	0.28	0 11:56	7.31	0.04	1.92	0.32	0.14	0.00		Calculated
48 Pipe -7	0.33	0 11:58	27.81	0.01	5.33	1.45	0.08	0.00		Calculated
49 Pipe -8	0.17	0 11:57	9.61	0.02	4.59	0.43	0.09	0.00		Calculated
50 Pipe -9	0.18	0 11:57	2.60	0.07	1.86	0.37	0.18	0.00		Calculated
51 UPPERPOND-DRAIN-PIPE	0.06	0 12:08	2.76	0.02	1.36	0.16	0.10	0.00		Calculated

Inlet Input

SN Element ID	Inlet Manufacturer	Manufacturer Part Number	Inlet Location	Number of Inlets	Catchbasin Invert Elevation (ft)	Max (Rim) Elevation (ft)	Inlet Depth (ft)	Initial Water Elevation (ft)	Initial Water Depth (ft)	Ponded Area (ft²)	Grate Clogging Factor (%)
1 CI-1	FHWA HEC-22 GENERIC	N/A	On Grade	1	3398.00	3402.20	4.20	3398.00	0.00	N/A	50.00
2 CI-10	FHWA HEC-22 GENERIC	N/A	On Grade	1	3357.77	3362.00	4.23	3357.77	0.00	N/A	50.00
3 CI-11	FHWA HEC-22 GENERIC	N/A	On Grade	1	3349.00	3353.26	4.26	3349.00	0.00	N/A	50.00
4 CI-12	FHWA HEC-22 GENERIC	N/A	On Grade	1	3349.40	3353.27	3.87	3349.40	0.00	N/A	50.00
5 CI-13	FHWA HEC-22 GENERIC	N/A	On Grade	1	3337.50	3341.25	3.75	3337.50	0.00	N/A	50.00
6 CI-14	FHWA HEC-22 GENERIC	N/A	On Grade	1	3337.41	3340.88	3.47	3337.41	0.00	N/A	50.00
7 CI-15	FHWA HEC-22 GENERIC	N/A	On Grade	1	3323.00	3326.55	3.55	3323.00	0.00	N/A	50.00
8 CI-16	FHWA HEC-22 GENERIC	N/A	On Grade	1	3322.61	3326.38	3.77	3322.61	0.00	N/A	50.00
9 CI-17	FHWA HEC-22 GENERIC	N/A	On Grade	1	3347.10	3350.53	3.43	3347.10	0.00	N/A	50.00
10 CI-18	FHWA HEC-22 GENERIC	N/A	On Grade	1	3346.72	3350.66	3.94	3346.72	0.00	N/A	50.00
11 CI-19	FHWA HEC-22 GENERIC	N/A	On Grade	1	3333.00	3340.47	7.47	3333.00	0.00	N/A	50.00
12 CI-2	FHWA HEC-22 GENERIC	N/A	On Grade	1	3398.28	3403.00	4.72	3398.28	0.00	N/A	50.00
13 CI-20	FHWA HEC-22 GENERIC	N/A	On Sag	1	3335.00	3341.74	6.74	3335.00	0.00	500.00	50.00
14 CI-21	FHWA HEC-22 GENERIC	N/A	On Grade	1	3335.80	3342.15	6.35	3335.80	0.00	N/A	50.00
15 CI-22	FHWA HEC-22 GENERIC	N/A	On Sag	1	3319.18	3322.67	3.49	3319.18	0.00	500.00	50.00
16 CI-23	FHWA HEC-22 GENERIC	N/A	On Grade	1	3318.76	3323.05	4.29	3318.76	0.00	N/A	50.00
17 CI-24	FHWA HEC-22 GENERIC	N/A	On Grade	1	3307.91	3311.43	3.52	3307.91	0.00	N/A	50.00
18 CI-25	FHWA HEC-22 GENERIC	N/A	On Grade	1	3307.55	3311.49	3.94	3307.55	0.00	N/A	50.00
19 CI-26	FHWA HEC-22 GENERIC	N/A	On Grade	1	3304.68	3308.17	3.49	3304.68	0.00	N/A	50.00
20 CI-27	FHWA HEC-22 GENERIC	N/A	On Sag	1	3304.22	3309.38	5.16	3304.22	0.00	500.00	50.00
21 CI-28	FHWA HEC-22 GENERIC	N/A	On Grade	1	3303.76	3308.98	5.22	3303.76	0.00	N/A	50.00
22 CI-29	FHWA HEC-22 GENERIC	N/A	On Grade	1	3278.55	3282.08	3.53	3278.55	0.00	N/A	50.00
23 CI-3	FHWA HEC-22 GENERIC	N/A	On Grade	1	3396.90	3400.12	3.22	3396.90	0.00	N/A	50.00
24 CI-30	FHWA HEC-22 GENERIC	N/A	On Grade	1	3275.88	3281.99	6.11	3275.88	0.00	N/A	50.00
25 CI-31	FHWA HEC-22 GENERIC	N/A	On Sag	1	3272.10	3275.80	3.70	3272.10	0.00	1000.00	50.00
26 CI-32	FHWA HEC-22 GENERIC	N/A	On Sag	1	3266.80	3275.80	9.00	3266.80	0.00	1000.00	50.00
27 CI-33	FHWA HEC-22 GENERIC	N/A	On Grade	1	3316.15	3319.68	3.53	3316.15	0.00	N/A	50.00
28 CI-34	FHWA HEC-22 GENERIC	N/A	On Grade	1	3313.00	3319.92	6.92	3313.00	0.00	N/A	50.00
29 CI-4	FHWA HEC-22 GENERIC	N/A	On Grade	1	3385.00	3388.50	3.50	3385.00	0.00	N/A	50.00
30 CI-5	FHWA HEC-22 GENERIC	N/A	On Grade	1	3382.44	3388.16	5.72	3382.44	0.00	N/A	50.00
31 CI-6	FHWA HEC-22 GENERIC	N/A	On Grade	1	3369.00	3373.31	4.31	3369.00	0.00	N/A	50.00
32 CI-7	FHWA HEC-22 GENERIC	N/A	On Grade	1	3368.62	3372.80	4.18	3368.62	0.00	N/A	50.00
33 CI-8	FHWA HEC-22 GENERIC	N/A	On Grade	1	3367.00	3371.11	4.11	3367.00	0.00	N/A	50.00
34 CI-9	FHWA HEC-22 GENERIC	N/A	On Grade	1	3358.19	3362.35	4.16	3358.19	0.00	N/A	50.00

Roadway & Gutter Input

SN Element ID	Roadway Longitudinal Slope (ft/ft)	Roadway Cross Slope (ft/ft)	Roadway Manning's Roughness	Gutter Cross Slope (ft/ft)	Gutter Width (ft)	Gutter Depression (in)	Allowable Spread (ft)
1 CI-1	0.0600	0.0200	0.0130	0.0200	2.00	0.0000	12.50
2 CI-10	0.0490	0.0200	0.0130	0.0200	2.00	0.0000	12.50
3 CI-11	0.0120	0.0200	0.0130	0.0200	2.00	0.0000	12.50
4 CI-12	0.0390	0.0200	0.0130	0.0200	2.00	0.0000	12.50
5 CI-13	0.0670	0.0200	0.0130	0.0200	2.00	0.0000	12.50
6 CI-14	0.0580	0.0200	0.0130	0.0200	2.00	0.0000	12.50
7 CI-15	0.0380	0.0200	0.0130	0.0200	2.00	0.0000	12.50
8 CI-16	0.0380	0.0200	0.0130	0.0200	2.00	0.0000	12.50
9 CI-17	0.0570	0.0200	0.0130	0.0200	2.00	0.0000	12.50
10 CI-18	0.0490	0.0200	0.0130	0.0200	2.00	0.0000	12.50
11 CI-19	0.0330	0.0200	0.0130	0.0620	2.00	0.0000	12.50
12 CI-2	0.0160	0.0200	0.0130	0.0200	2.00	0.0000	12.50
13 CI-20	N/A	0.0200	0.0130	0.0200	2.00	0.0000	12.50
14 CI-21	0.0410	0.0200	0.0130	0.0200	2.00	0.0000	12.50
15 CI-22	N/A	0.0200	0.0130	0.0200	2.00	0.0000	12.50
16 CI-23	0.0400	0.0200	0.0130	0.0200	2.00	0.0000	12.50
17 CI-24	0.0850	0.2000	0.0130	0.2000	2.00	0.0000	12.50
18 CI-25	0.0780	0.0200	0.0130	0.0200	2.00	0.0000	12.50
19 CI-26	0.0750	0.0200	0.0130	0.0200	2.00	0.0000	12.50
20 CI-27	N/A	0.0200	0.0130	0.0200	2.00	0.0000	12.50
21 CI-28	0.0720	0.0200	0.0130	0.0200	2.00	0.0000	12.50
22 CI-29	0.0770	0.0200	0.0130	0.0200	2.00	0.0000	12.50
23 CI-3	0.0150	0.0200	0.0130	0.0200	2.00	0.0000	12.50
24 CI-30	0.0780	0.0200	0.0130	0.0200	2.00	0.0000	12.50
25 CI-31	N/A	0.0200	0.0130	0.0200	2.00	0.0000	12.50
26 CI-32	N/A	0.0200	0.0130	0.0200	2.00	0.0000	12.50
27 CI-33	0.0410	0.0200	0.0130	0.0200	2.00	0.0000	12.50
28 CI-34	0.0370	0.0200	0.0130	0.0200	2.00	0.0000	12.50
29 CI-4	0.0920	0.0200	0.0130	0.0200	2.00	0.0000	12.50
30 CI-5	0.0900	0.0200	0.0130	0.0200	2.00	0.0000	12.50
31 CI-6	0.1160	0.0200	0.0130	0.0200	2.00	0.0000	12.50
32 CI-7	0.0810	0.0200	0.0130	0.0200	2.00	0.0000	12.50
33 CI-8	0.0800	0.0200	0.0130	0.0200	2.00	0.0000	12.50
34 CI-9	0.0500	0.0200	0.0130	0.0200	2.00	0.0000	12.50

Inlet Results

SN Element ID	Peak Flow	Peak Lateral Inflow	Peak Flow Intercepted	Peak Flow Bypassing Inlet	Inlet Efficiency during Peak	Max Gutter Spread during Peak	Max Gutter Water Elev. during Peak	Max Gutter Water Depth during Peak	Time of Max Depth Occurrence	Total Flooded Volume	Total Time Flooded
	(cfs)	(cfs)	(cfs)	(cfs)	(%)	(ft)	(ft)	(ft)	(days hh:mm)	(ac-in)	(min)
1 CI-1	0.19	0.19	0.17	0.02	90.47	2.58	3402.25	0.05	0 11:56	0.00	0.00
2 CI-10	0.24	0.24	0.20	0.03	86.08	2.89	3362.06	0.06	0 11:57	0.00	0.00
3 CI-11	0.07	0.01	0.07	0.00	93.57	2.38	3353.31	0.05	0 11:57	0.00	0.00
4 CI-12	0.15	0.15	0.14	0.01	90.55	2.58	3353.32	0.05	0 11:56	0.00	0.00
5 CI-13	0.14	0.09	0.13	0.01	95.08	2.23	3341.29	0.04	0 11:57	0.00	0.00
6 CI-14	0.11	0.11	0.11	0.00	96.55	2.10	3340.92	0.04	0 11:56	0.00	0.00
7 CI-15	0.01	0.01	0.00	0.00	0.00	1.07	3326.57	0.02	0 12:05	0.00	0.00
8 CI-16	0.29	0.22	0.24	0.06	80.78	3.29	3326.45	0.07	0 12:02	0.00	0.00
9 CI-17	0.10	0.10	0.10	0.00	97.21	2.04	3350.57	0.04	0 11:56	0.00	0.00
10 CI-18	0.03	0.01	0.00	0.00	0.00	1.26	3350.69	0.03	0 11:57	0.00	0.00
11 CI-19	0.14	0.11	0.00	0.00	0.00	1.26	3340.55	0.08	0 11:58	0.00	0.00
12 CI-2	0.03	0.03	0.03	0.00	99.99	1.56	3403.03	0.03	0 12:11	0.00	0.00
13 CI-20	0.33	0.30	N/A	N/A	N/A	4.65	3341.81	0.07	0 11:58	0.00	0.00
14 CI-21	0.25	0.25	0.21	0.04	83.74	3.07	3342.21	0.06	0 11:58	0.00	0.00
15 CI-22	0.06	0.05	N/A	N/A	N/A	1.95	3322.69	0.02	0 11:57	0.00	0.00
16 CI-23	0.04	0.03	0.00	0.00	0.00	1.49	3323.08	0.03	0 11:58	0.00	0.00
17 CI-24	0.25	0.23	0.00	0.00	0.00	0.63	3311.56	0.13	0 12:02	0.00	0.00
18 CI-25	0.02	0.01	0.00	0.00	0.00	1.06	3311.51	0.02	0 12:02	0.00	0.00
19 CI-26	0.01	0.00	0.00	0.00	0.00	0.82	3308.19	0.02	0 12:03	0.00	0.00
20 CI-27	0.08	0.03	N/A	N/A	N/A	2.27	3309.41	0.03	0 12:04	0.00	0.00
21 CI-28	0.23	0.16	0.21	0.02	89.21	2.66	3309.03	0.05	0 12:02	0.00	0.00
22 CI-29	0.18	0.18	0.17	0.01	92.62	2.42	3282.13	0.05	0 11:56	0.00	0.00
23 CI-3	0.03	0.02	0.03	0.00	99.97	1.58	3400.15	0.03	0 12:11	0.00	0.00
24 CI-30	0.07	0.02	0.07	0.00	99.78	1.67	3282.02	0.03	0 12:04	0.00	0.00
25 CI-31	0.04	0.03	N/A	N/A	N/A	1.69	3275.81	0.01	0 12:05	0.00	0.00
26 CI-32	0.06	0.01	N/A	N/A	N/A	1.94	3275.82	0.02	0 12:05	0.00	0.00
27 CI-33	0.17	0.17	0.15	0.02	89.56	2.65	3319.73	0.05	0 12:07	0.00	0.00
28 CI-34	0.23	0.15	0.20	0.04	84.33	3.03	3319.98	0.06	0 12:04	0.00	0.00
29 CI-4	0.03	0.02	0.00	0.00	0.00	1.13	3388.52	0.02	0 12:12	0.00	0.00
30 CI-5	0.25	0.25	0.22	0.03	89.79	2.62	3388.21	0.05	0 11:56	0.00	0.00
31 CI-6	0.16	0.08	0.15	0.01	96.46	2.11	3373.35	0.04	0 11:56	0.00	0.00
32 CI-7	0.18	0.18	0.17	0.01	93.07	2.38	3372.85	0.05	0 11:58	0.00	0.00
33 CI-8	0.06	0.02	0.06	0.00	99.99	1.54	3371.14	0.03	0 11:57	0.00	0.00
34 CI-9	0.03	0.02	0.00	0.00	0.00	1.31	3362.38	0.03	0 11:57	0.00	0.00

Storage Nodes

Storage Node : BEFORE 12IN CULVERT

Input Data

Invert Elevation (ft)	3190.00
Max (Rim) Elevation (ft)	3193.00
Max (Rim) Offset (ft)	3.00
Initial Water Elevation (ft)	3190.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

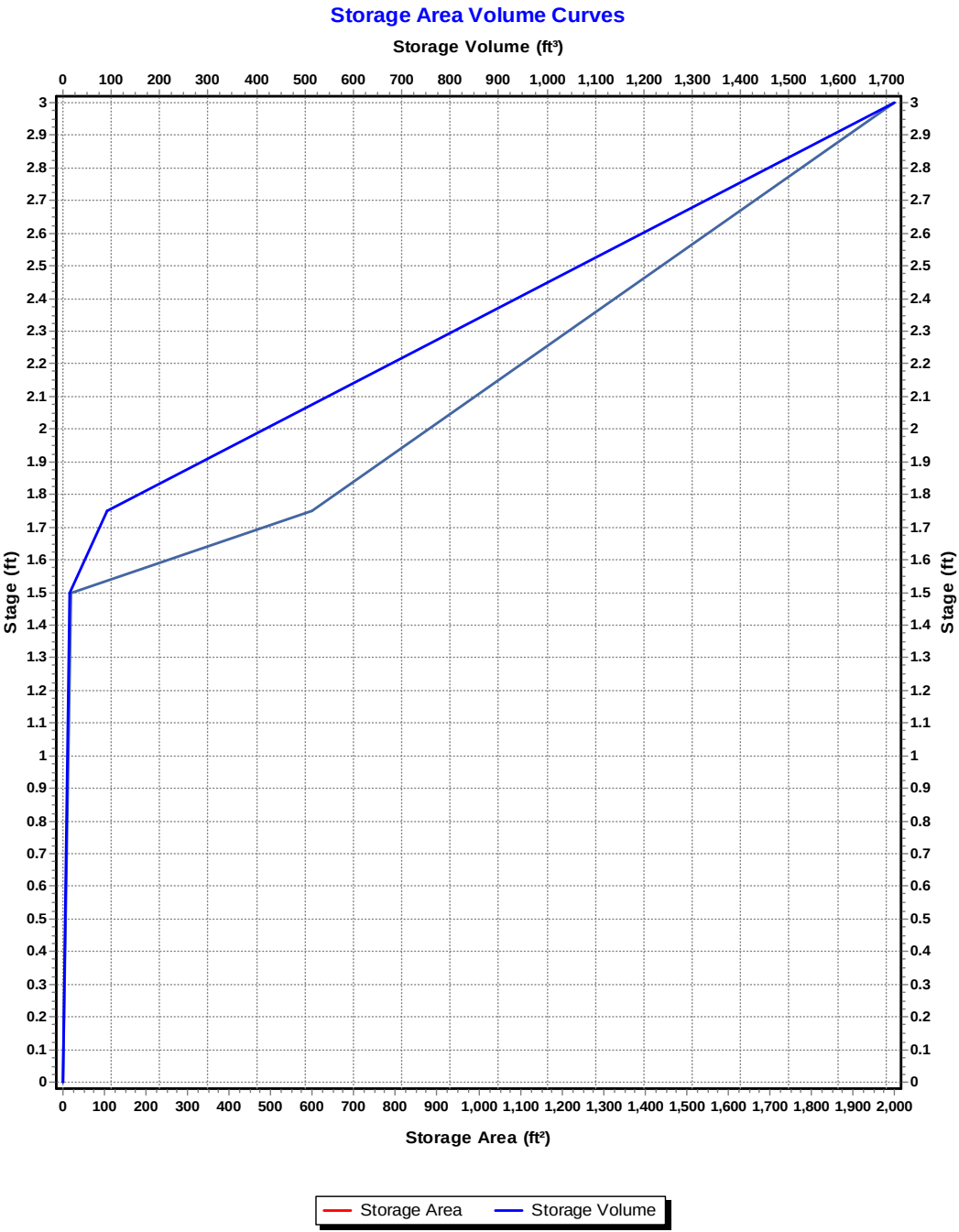
Infiltration/Exfiltration

Exfiltration Rate (in/hr)	0.1
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Storage Area Volume Curves

Storage Curve : BEFORE 12IN CULVERT

Stage (ft)	Storage Area (ft²)	Storage Volume (ft³)
0	0	0
1.5	20	15
1.75	600	92.5
3	2000	1717.5



Storage Node : BEFORE 12IN CULVERT (continued)

Output Summary Results

Peak Inflow (cfs)	0.08
Peak Lateral Inflow (cfs)	0.08
Peak Outflow (cfs)	0.08
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	3190.05
Max HGL Depth Attained (ft)	0.05
Average HGL Elevation Attained (ft)	3190.02
Average HGL Depth Attained (ft)	0.02
Time of Max HGL Occurrence (days hh:mm)	0 17:51
Total Exfiltration Volume (1000-ft ³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.24

Storage Node : COMMON-AREA-1-POND

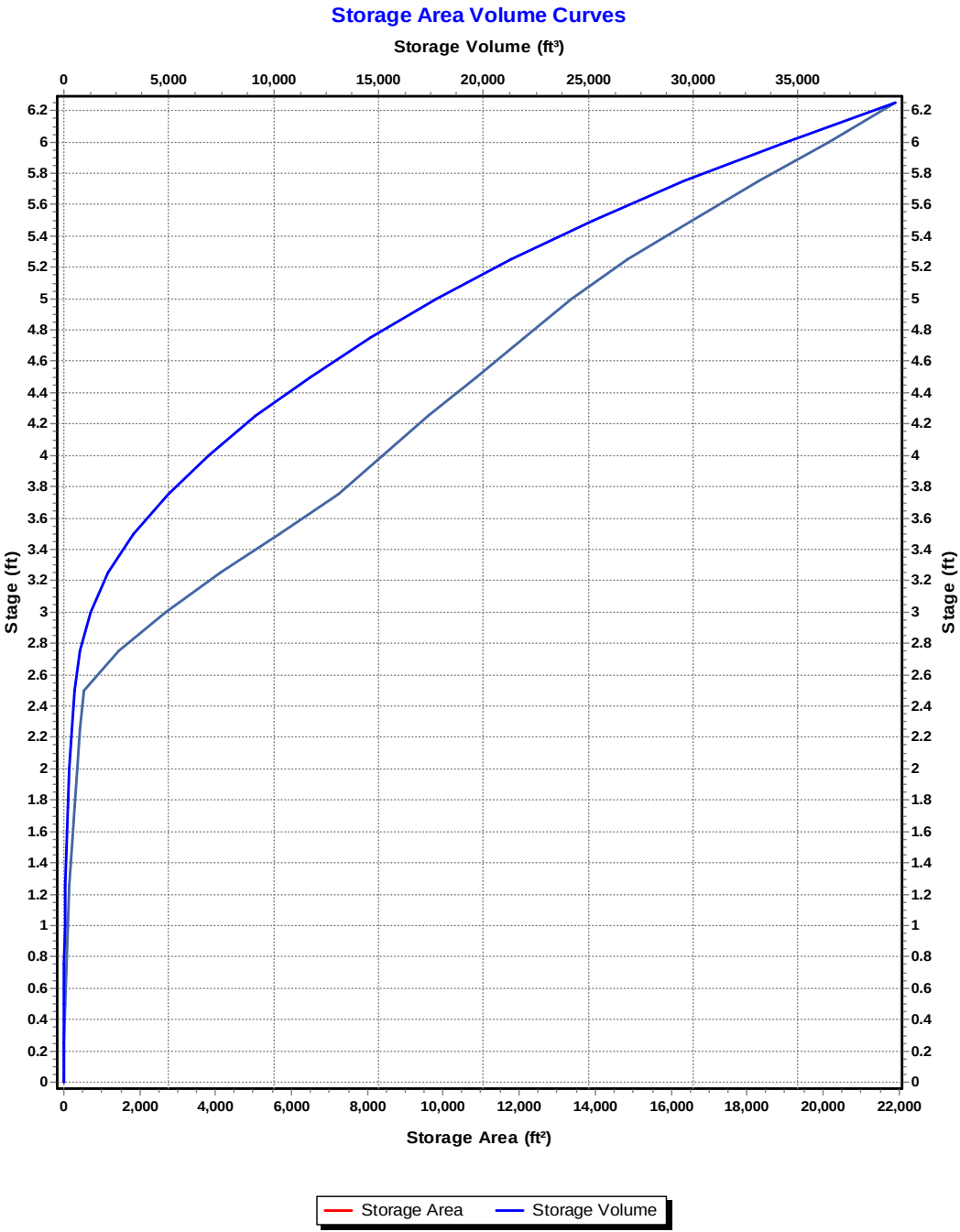
Input Data

Invert Elevation (ft)	3327.50
Max (Rim) Elevation (ft)	3333.75
Max (Rim) Offset (ft)	6.25
Initial Water Elevation (ft)	3327.50
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : PARK STORAGE

Stage (ft)	Storage Area (ft²)	Storage Volume (ft³)
0	4.7	0
0.25	18	2.84
0.5	40.5	10.15
0.75	71.9	24.2
1	112	47.19
1.25	160	81.19
1.5	218	128.44
1.75	284	191.19
2	360	271.69
2.25	443	372.07
2.5	536	494.45
2.75	1440	741.45
3	2696	1258.45
3.25	4126	2111.2
3.5	5694	3338.7
3.75	7228	4953.95
4	8410	6908.7
4.25	9593	9159.08
4.5	10873	11717.33
4.75	12127	14592.33
5	13354	17777.46
5.25	14857	21303.84
5.5	16548	25229.47
5.75	18316	29587.47
6	20128	34392.97
6.25	21902	39646.72



Storage Node : COMMON-AREA-1-POND (continued)

Outflow Orifices

SN Element ID	Orifice Type	Orifice Shape	Flap Gate	Circular Orifice Diameter (in)	Rectangular Orifice Height (in)	Rectangular Orifice Width (in)	Orifice Invert Elevation (ft)	Orifice Coefficient
1 Orifice-89	Bottom	CIRCULAR	No	6.00			3327.25	0.61

Output Summary Results

Peak Inflow (cfs)	1.33
Peak Lateral Inflow (cfs)	0
Peak Outflow (cfs)	1.2
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	3329.04
Max HGL Depth Attained (ft)	1.54
Average HGL Elevation Attained (ft)	3327.56
Average HGL Depth Attained (ft)	0.06
Time of Max HGL Occurrence (days hh:mm)	0 12:05
Total Exfiltration Volume (1000-ft³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	5.4

Storage Node : INJECTED-STORMWATER

Input Data

Invert Elevation (ft)	3100.00
Max (Rim) Elevation (ft)	3255.00
Max (Rim) Offset (ft)	155.00
Initial Water Elevation (ft)	3100.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	2.28
Peak Lateral Inflow (cfs)	0
Peak Outflow (cfs)	0
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	3103.53
Max HGL Depth Attained (ft)	3.53
Average HGL Elevation Attained (ft)	3101.34
Average HGL Depth Attained (ft)	1.34
Time of Max HGL Occurrence (days hh:mm)	1 00:00
Total Exfiltration Volume (1000-ft³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	32723.47

Storage Node : MIDDLE-STORAGE

Input Data

Invert Elevation (ft)	3306.00
Max (Rim) Elevation (ft)	3309.00
Max (Rim) Offset (ft)	3.00
Initial Water Elevation (ft)	3306.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	2.85
Peak Lateral Inflow (cfs)	1.03
Peak Outflow (cfs)	2.79
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	3306.35
Max HGL Depth Attained (ft)	0.35
Average HGL Elevation Attained (ft)	3306.05
Average HGL Depth Attained (ft)	0.05
Time of Max HGL Occurrence (days hh:mm)	0 12:05
Total Exfiltration Volume (1000-ft³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	880.72

Storage Node : NORTHWEST-STORAGE

Input Data

Invert Elevation (ft)	3255.00
Max (Rim) Elevation (ft)	3260.00
Max (Rim) Offset (ft)	5.00
Initial Water Elevation (ft)	3255.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Infiltration/Exfiltration

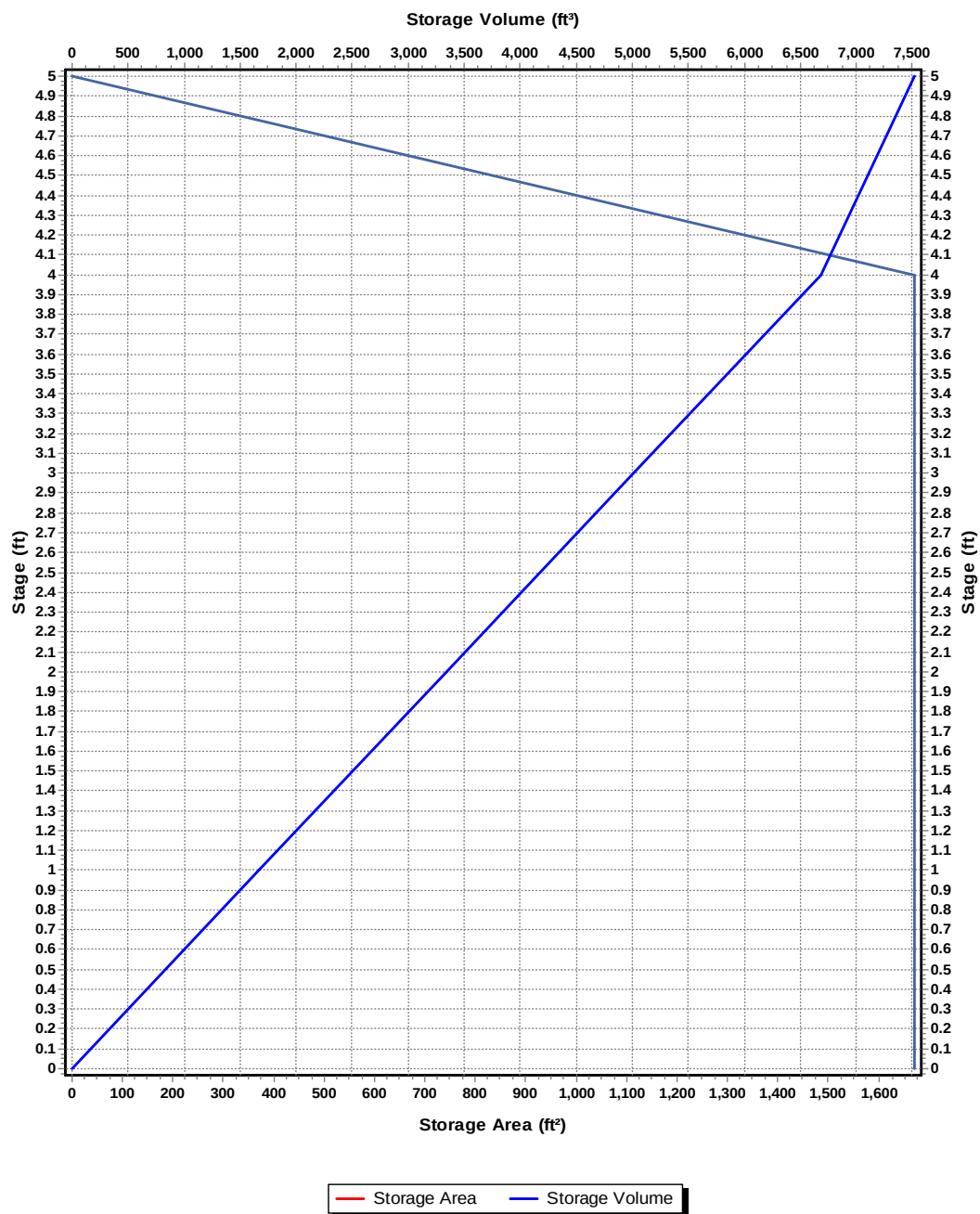
Exfiltration Rate (in/hr)	0
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Storage Area Volume Curves

Storage Curve : LOWER POND

Stage	Storage Area	Storage Volume
(ft)	(ft²)	(ft³)
0	1671	0
1	1671	1671
2	1671	3342
3	1671	5013
4	1671	6684
5	0	7519.5

Storage Area Volume Curves



Storage Node : NORTHWEST-STORAGE (continued)

Outflow Orifices

SN Element ID	Orifice Type	Orifice Shape	Flap Gate	Circular Orifice Diameter (in)	Rectangular Orifice Height (in)	Rectangular Orifice Width (in)	Orifice Invert Elevation (ft)	Orifice Coefficient
1 .87*5	Bottom	CIRCULAR	No	4.10			3255.00	0.61
2 Orifice-80	Bottom	CIRCULAR	No	4.10			3255.00	0.61
3 Orifice-83	Bottom	CIRCULAR	No	4.10			3255.00	0.61
4 Orifice-84	Bottom	CIRCULAR	No	4.10			3255.00	0.61
5 Orifice-85	Bottom	CIRCULAR	No	4.10			3255.00	0.61

Output Summary Results

Peak Inflow (cfs)	3.55
Peak Lateral Inflow (cfs)	0.07
Peak Outflow (cfs)	2.28
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	3256.02
Max HGL Depth Attained (ft)	1.02
Average HGL Elevation Attained (ft)	3255.06
Average HGL Depth Attained (ft)	0.06
Time of Max HGL Occurrence (days hh:mm)	0 12:17
Total Exfiltration Volume (1000-ft³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	475.95

Storage Node : UPPERPOND

Input Data

Invert Elevation (ft)	3343.00
Max (Rim) Elevation (ft)	3346.00
Max (Rim) Offset (ft)	3.00
Initial Water Elevation (ft)	3343.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Infiltration/Exfiltration

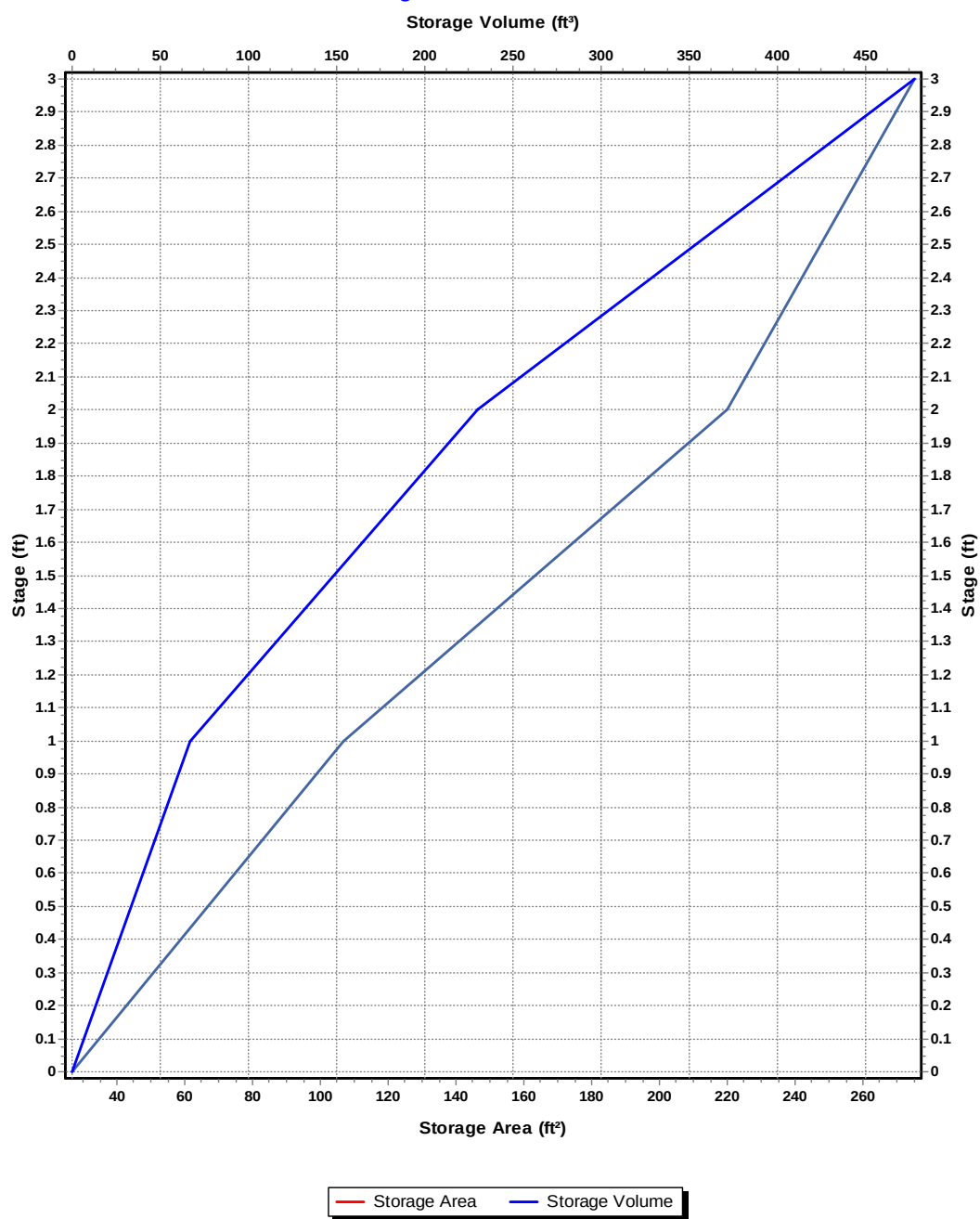
Exfiltration Rate (in/hr)	0
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Storage Area Volume Curves

Storage Curve : Storage-09

Stage	Storage Area	Storage Volume
(ft)	(ft²)	(ft³)
0	27	0
1	107	67
2	220	230.5
3	275	478

Storage Area Volume Curves



Storage Node : UPPERPOND (continued)

Outflow Orifices

SN	Element ID	Orifice Type	Orifice Shape	Flap Gate	Circular Orifice Diameter (in)	Rectangular Orifice Height (in)	Rectangular Orifice Width (in)	Orifice Invert Elevation (ft)	Orifice Coefficient
1	UPPERPOND-OUTLET	Bottom	CIRCULAR	No	12.00			3343.00	0.61

Output Summary Results

Peak Inflow (cfs)	0.06
Peak Lateral Inflow (cfs)	0.06
Peak Outflow (cfs)	0.06
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	3343.03
Max HGL Depth Attained (ft)	0.03
Average HGL Elevation Attained (ft)	3343.01
Average HGL Depth Attained (ft)	0.01
Time of Max HGL Occurrence (days hh:mm)	0 12:07
Total Exfiltration Volume (1000-ft³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	28.62

Storage Node : WESTPOND

Input Data

Invert Elevation (ft)	3290.00
Max (Rim) Elevation (ft)	3292.50
Max (Rim) Offset (ft)	2.50
Initial Water Elevation (ft)	3290.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

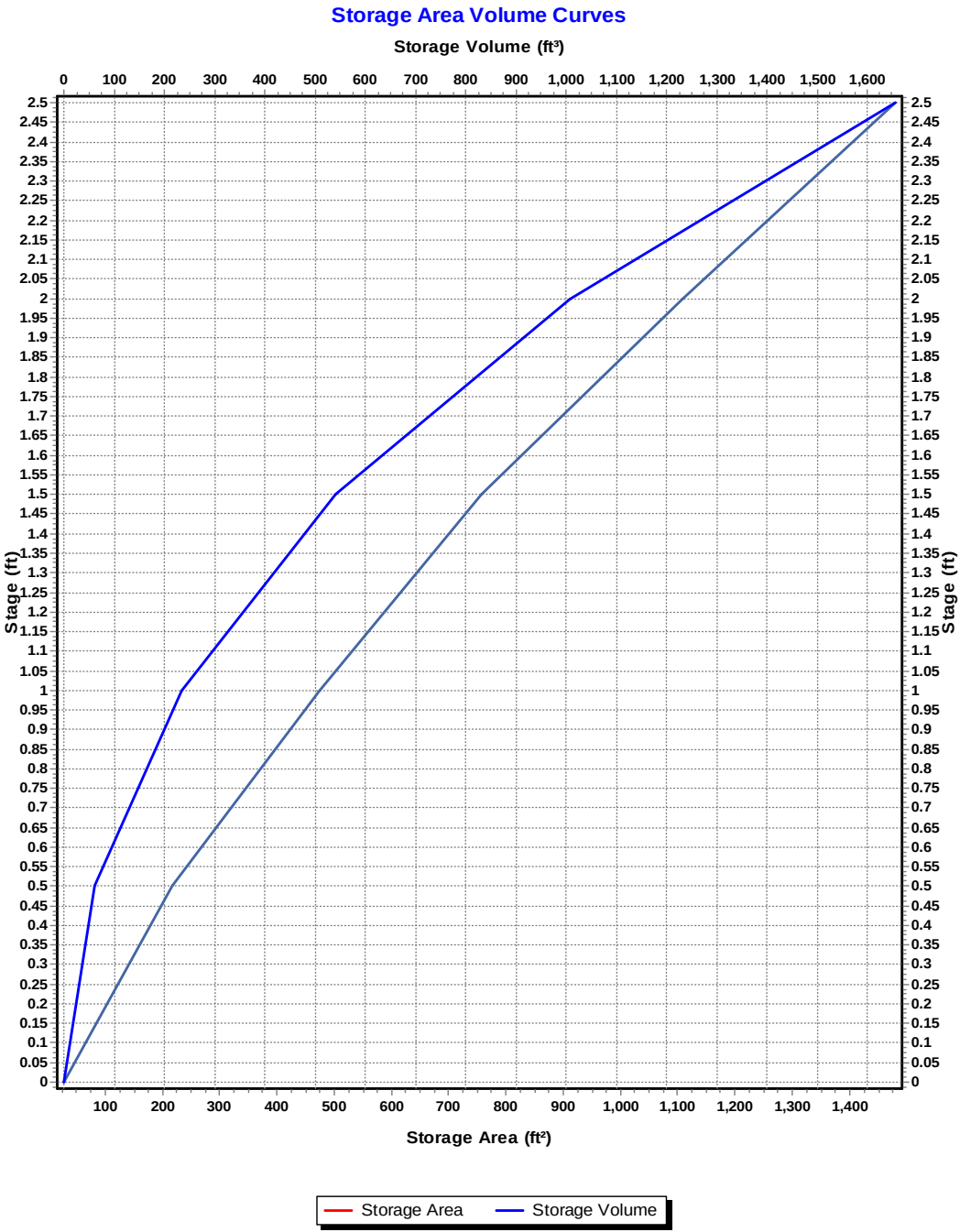
Infiltration/Exfiltration

Exfiltration Rate (in/hr)	2.6
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Storage Area Volume Curves

Storage Curve : WEST SMALL POND

Stage	Storage Area	Storage Volume
(ft)	(ft²)	(ft³)
0	28	0
0.5	217	61.25
1	475	234.25
1.5	757	542.25
2	1109	1008.75
2.5	1480	1656



Storage Node : WESTPOND (continued)

Outflow Weirs

SN	Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1	Weir-01	Rectangular	No	3292.40	2.40	1.00	1.00	3.33

Output Summary Results

Peak Inflow (cfs)	0.06
Peak Lateral Inflow (cfs)	0.06
Peak Outflow (cfs)	0
Peak Exfiltration Flow Rate (cfm)	0.82
Max HGL Elevation Attained (ft)	3290.52
Max HGL Depth Attained (ft)	0.52
Average HGL Elevation Attained (ft)	3290.17
Average HGL Depth Attained (ft)	0.17
Time of Max HGL Occurrence (days hh:mm)	0 13:47
Total Exfiltration Volume (1000-ft³)	0.415
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	2175.5

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Hydrodynamic
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	YES

Analysis Options

Start Analysis On	00:00:00	0:00:00
End Analysis On	00:00:00	0:00:00
Start Reporting On	00:00:00	0:00:00
Antecedent Dry Days	10	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:01:00	days hh:mm:ss
Routing Time Step	1	seconds

Number of Elements

	Qty
Rain Gages	3
Subbasins.....	41
Nodes.....	61
<i>Junctions</i>	18
<i>Outfalls</i>	2
<i>Flow Diversions</i>	0
<i>Inlets</i>	34
<i>Storage Nodes</i>	7
Links.....	93
<i>Channels</i>	34
<i>Pipes</i>	51
<i>Pumps</i>	0
<i>Orifices</i>	7
<i>Weirs</i>	1
<i>Outlets</i>	0
Pollutants	1
Land Uses	1

Subbasin Summary

SN	Subbasin ID	Area	Peak Rate	Weighted Curve	Total Rainfall	Total Runoff	Total Runoff	Peak Runoff	Time of Concentration
		(ac)	Factor	Number	(in)	(in)	(ac-in)	(cfs)	(days hh:mm:ss)
1	OFFSITE-FLOWS	49.81	484.00	69.00	1.66	0.11	5.48	1.25	0 00:51:12
2	Sub-01	1.24	484.00	75.00	1.66	0.23	0.28	0.25	0 00:14:37
3	Sub-02	0.78	484.00	75.00	1.66	0.23	0.18	0.16	0 00:14:01
4	Sub-03	0.87	484.00	75.00	1.66	0.23	0.20	0.18	0 00:14:57
5	Sub-04	1.46	484.00	83.00	1.66	0.47	0.69	0.84	0 00:14:06
6	Sub-05	0.79	484.00	83.00	1.66	0.47	0.38	0.47	0 00:12:30
7	Sub-07	0.14	484.00	98.00	1.66	1.43	0.19	0.28	0 00:05:00
8	Sub-08	0.17	484.00	98.00	1.66	1.43	0.24	0.36	0 00:05:00
9	Sub-09	0.17	484.00	98.00	1.66	1.43	0.24	0.35	0 00:05:00
10	Sub-10	0.85	484.00	75.00	1.66	0.23	0.19	0.17	0 00:14:37
11	Sub-11	0.74	484.00	75.00	1.66	0.23	0.17	0.17	0 00:10:49
12	Sub-13	2.41	484.00	75.00	1.66	0.23	0.55	0.55	0 00:11:43
13	Sub-14	0.59	484.00	75.00	1.66	0.23	0.13	0.12	0 00:13:54
14	Sub-15	0.48	484.00	75.00	1.66	0.23	0.11	0.11	0 00:12:27
15	Sub-16	1.16	484.00	83.00	1.66	0.47	0.55	0.68	0 00:12:47
16	Sub-18	1.44	484.00	83.00	1.66	0.47	0.68	0.80	0 00:14:54
17	Sub-19	0.17	484.00	98.00	1.66	1.43	0.25	0.36	0 00:05:00
18	Sub-20	1.39	484.00	75.00	1.66	0.23	0.32	0.28	0 00:14:46
19	Sub-21	0.11	484.00	98.00	1.66	1.43	0.16	0.23	0 00:05:00
20	Sub-22	0.07	484.00	98.00	1.66	1.41	0.10	0.15	0 00:05:00
21	Sub-23	0.07	484.00	98.00	1.66	1.41	0.09	0.13	0 00:05:00
22	Sub-24	0.08	484.00	98.00	1.66	1.42	0.11	0.16	0 00:05:00
23	Sub-25	2.33	484.00	75.00	1.66	0.23	0.53	0.45	0 00:16:22
24	Sub-26	0.48	484.00	75.00	1.66	0.23	0.11	0.10	0 00:15:02
25	Sub-27	0.45	484.00	88.80	1.66	0.74	0.34	0.45	0 00:12:13
26	Sub-29	0.06	484.00	98.00	1.66	1.40	0.08	0.12	0 00:05:00
27	Sub-32	1.78	484.00	89.65	1.66	0.79	1.41	1.97	0 00:09:43
28	Sub-33	0.08	484.00	98.00	1.66	1.42	0.11	0.16	0 00:05:00
29	Sub-34	0.16	484.00	98.00	1.66	1.43	0.22	0.32	0 00:05:00
30	Sub-35	1.12	484.00	74.00	1.66	0.21	0.23	0.18	0 00:16:25
31	Sub-37	1.28	484.00	80.75	1.66	0.39	0.50	0.54	0 00:16:09
32	Sub-38	1.77	484.00	75.00	1.66	0.23	0.40	0.34	0 00:16:41
33	Sub-39	0.10	484.00	98.00	1.66	1.43	0.14	0.21	0 00:05:00
34	Sub-40	0.12	484.00	98.00	1.66	1.43	0.17	0.24	0 00:05:00
35	Sub-41	0.18	484.00	75.00	1.66	0.23	0.04	0.04	0 00:14:36
36	Sub-43	0.77	484.00	75.00	1.66	0.23	0.18	0.17	0 00:12:32
37	Sub-44	0.13	484.00	98.00	1.66	1.43	0.18	0.27	0 00:05:00
38	Sub-45	1.35	484.00	75.00	1.66	0.23	0.31	0.28	0 00:14:18
39	Sub-46	0.33	484.00	75.00	1.66	0.23	0.08	0.07	0 00:12:34
40	Sub-47	2.99	484.00	75.00	1.66	0.23	0.68	0.65	0 00:12:57
41	Sub-48	1.66	484.00	75.00	1.66	0.23	0.38	0.46	0 00:06:23

Node Summary

SN	Element ID	Element Type	Invert Elevation	Ground/Rim (Max) Elevation	Initial Water Elevation	Surcharge Elevation	Ponded Area	Peak Inflow	Max HGL Elevation Attained	Max Surcharge Depth Attained	Min Freeboard Attained	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	18-Jun	Junction	3232.80	3238.00	3232.80	3238.00	0.00	0.00	3232.80	0.00	5.20	0 00:00	0.00	0.00
2	19-Jun	Junction	3195.00	3196.00	3195.00	3196.00	0.00	0.00	3195.00	0.00	1.50	0 00:00	0.00	0.00
3	28-Jun	Junction	3325.00	3327.25	3325.00	3327.25	0.00	1.72	3325.48	0.00	1.77	0 00:00	0.00	0.00
4	29-Jun	Junction	3390.00	3394.00	3390.00	3394.00	0.00	0.28	3390.12	0.00	3.88	0 00:00	0.00	0.00
5	MH-1	Junction	3354.80	3358.02	3354.80	3358.02	0.00	0.73	3355.04	0.00	2.98	0 00:00	0.00	0.00
6	MH-2	Junction	3352.99	3356.22	3352.99	3356.22	0.00	0.73	3353.21	0.00	3.01	0 00:00	0.00	0.00
7	MH-4	Junction	3344.55	3348.54	3344.55	3348.54	0.00	1.15	3344.79	0.00	3.75	0 00:00	0.00	0.00
8	MH-5	Junction	3339.44	3345.44	3339.44	3345.44	0.00	1.67	3339.82	0.00	5.62	0 00:00	0.00	0.00
9	MH-6	Junction	3312.20	3315.82	3312.20	3315.82	0.00	0.75	3312.40	0.00	3.42	0 00:00	0.00	0.00
10	MH-7	Junction	3307.05	3310.51	3307.05	3310.51	0.00	1.32	3307.40	0.00	3.11	0 00:00	0.00	0.00
11	MH-8	Junction	3295.62	3298.85	3295.62	3298.85	0.00	1.85	3295.89	0.00	2.96	0 00:00	0.00	0.00
12	MH-9	Junction	3271.80	3278.39	3271.80	3278.39	0.00	7.34	3273.60	0.00	4.79	0 00:00	0.00	0.00
13	NULL-JUNCTION-2	Junction	3357.00	3357.50	3357.00	3357.50	0.00	0.83	3357.23	0.00	0.27	0 00:00	0.00	0.00
14	NULL-JUNCTION-4	Junction	3334.55	3335.55	3334.55	3335.55	0.00	1.44	3334.91	0.00	0.64	0 00:00	0.00	0.00
15	NULL-JUNCTION-6	Junction	3318.00	3319.00	3318.00	3319.00	0.00	1.44	3318.39	0.00	0.61	0 00:00	0.00	0.00
16	NULL-JUNCTION-7	Junction	3310.00	3312.00	3310.00	3311.00	0.00	2.45	3310.01	0.00	2.99	0 00:00	0.00	0.00
17	NULL-JUNCTION-8	Junction	3263.60	3265.80	3263.60	3265.80	0.00	7.73	3264.15	0.00	3.65	0 00:00	0.00	0.00
18	UPPERPOND-DRAIN	Junction	3338.72	3343.00	3338.72	3343.00	0.00	0.55	3340.08	0.00	2.92	0 00:00	0.00	0.00
19	EX-18IN-PIPE-OUTFALL	Outfall	3159.50					1.25	3159.69					
20	WESTERN-RUNOFF	Outfall	3291.00					0.00	3291.00					
21	BEFORE 12IN CULVERT	Storage Node	3190.00	3193.00	3190.00		0.00	1.25	3190.20				0.00	0.00
22	COMMON-AREA-1-POND	Storage Node	3327.50	3333.75	3327.50		0.00	3.56	3330.65				0.00	0.00
23	INJECTED-STORMWATER	Storage Node	3100.00	3255.00	3100.00		0.00	4.20	3108.22				0.00	0.00
24	MIDDLE-STORAGE	Storage Node	3306.00	3309.00	3306.00		0.00	5.55	3306.59				0.00	0.00
25	NORTHWEST-STORAGE	Storage Node	3255.00	3260.00	3255.00		0.00	8.36	3258.45				0.00	0.00
26	UPPERPOND	Storage Node	3343.00	3346.00	3343.00		0.00	0.55	3343.14				0.00	0.00
27	WESTPOND	Storage Node	3290.00	3292.50	3290.00		0.00	0.48	3291.24				0.00	0.00

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Average Slope	Diameter or Height	Manning's Roughness	Peak Flow	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Peak Flow Depth/ Total Depth Ratio	Total Time Reported Surcharged Condition
					(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)		(ft/sec)		(min)
1	Link-06	Pipe	NULL-JUNCTION-7	MIDDLE-STORAGE	15.01	3308.18	3296.00	81.1400	0.000	0.0320	2.45	0.00	0.00	0.00	0.00	0.00
2	Link-105	Pipe	28-Jun	CI-15	110.53	3325.00	3323.20	1.6300	12.000	0.0150	1.72	3.94	0.44	4.39	0.51	0.00 Calculated
3	Link-106	Pipe	CI-21	CI-20	44.74	3335.80	3335.30	1.1200	18.000	0.0150	1.18	9.62	0.12	1.91	0.39	0.00 Calculated
4	Link-107	Pipe	29-Jun	CI-8	304.03	3390.00	3367.20	7.5000	12.000	0.0150	0.27	8.46	0.03	4.91	0.12	0.00 Calculated
5	Link-108	Pipe	CI-1	29-Jun	77.38	3398.00	3390.20	10.0800	12.000	0.0150	0.28	9.80	0.03	5.41	0.12	0.00 Calculated
6	Link-109	Pipe	CI-2	CI-1	50.48	3398.28	3398.00	0.5500	18.000	0.0150	0.16	6.78	0.02	2.03	0.09	0.00 Calculated
7	Link-110	Pipe	CI-33	CI-34	35.71	3316.15	3313.20	8.2600	18.000	0.0150	0.41	26.17	0.02	2.19	0.54	0.00 Calculated
8	Link-111	Pipe	CI-34	NULL-JUNCTION-7	92.73	3313.00	3310.00	3.2400	36.000	0.0150	2.45	103.97	0.02	3.06	0.31	0.00 Calculated
9	Link-85	Pipe	BEFORE 12IN CULVERT	EX-18IN-PIPE-OUTFALL	204.93	3190.00	3159.50	14.8800	18.000	0.0150	1.25	35.12	0.04	9.27	0.13	0.00 Calculated
10	Link-89	Pipe	18-Jun	19-Jun	308.93	3232.80	3195.00	12.2400	18.000	0.0150	0.00	31.84	0.00	0.00	0.00	0.00 Calculated
11	Link-91	Pipe	NORTHWEST-STORAGE	18-Jun	494.91	3258.50	3233.00	5.1500	12.000	0.0150	0.00	7.01	0.00	0.00	0.00	0.00 Calculated
12	Link-93	Pipe	CI-19	COMMON-AREA-1-POND	91.99	3334.80	3331.50	3.5900	18.000	0.0150	3.56	17.24	0.21	7.26	0.32	0.00 Calculated
13	OUTFALL-TO-LOWERPOND	Pipe	NULL-JUNCTION-8	NORTHWEST-STORAGE	150.00	3263.60	3255.00	5.7300	24.000	0.0150	7.73	46.95	0.16	8.28	0.64	0.00 Calculated
14	Pipe -10	Pipe	CI-10	MH-1	90.35	3357.77	3355.00	3.0700	12.000	0.0130	0.73	6.24	0.12	5.14	0.24	0.00 Calculated
15	Pipe -11	Pipe	MH-1	MH-2	45.95	3354.80	3353.19	3.5000	12.000	0.0130	0.73	6.67	0.11	5.25	0.23	0.00 Calculated
16	Pipe -12	Pipe	MH-2	CI-11	91.80	3352.99	3349.20	4.1300	12.000	0.0130	0.73	7.24	0.10	5.74	0.22	0.00 Calculated
17	Pipe -13	Pipe	CI-12	CI-11	55.49	3349.40	3349.20	0.3600	12.000	0.0130	0.16	2.14	0.07	1.66	0.18	0.00 Calculated
18	Pipe -14	Pipe	CI-11	CI-18	57.59	3349.00	3346.92	3.6100	12.000	0.0130	0.96	6.77	0.14	5.76	0.26	0.00 Calculated
19	Pipe -15	Pipe	CI-13	CI-22	326.25	3337.50	3319.38	5.5500	12.000	0.0130	0.25	8.40	0.03	4.76	0.12	0.00 Calculated
20	Pipe -16	Pipe	CI-14	CI-13	36.89	3337.70	3337.50	0.5400	12.000	0.0130	0.11	2.62	0.04	1.81	0.13	0.00 Calculated
21	Pipe -18	Pipe	CI-15	CI-16	34.58	3323.00	3322.81	0.5500	12.000	0.0130	1.82	2.64	0.69	3.36	0.65	0.00 Calculated
22	Pipe -19	Pipe	CI-16	CI-34	169.84	3322.61	3313.20	5.5400	12.000	0.0130	1.95	8.39	0.23	5.38	0.66	0.00 Calculated
23	Pipe -20	Pipe	CI-17	CI-18	37.00	3347.10	3346.92	0.4900	12.000	0.0130	0.10	2.49	0.04	1.57	0.14	0.00 Calculated
24	Pipe -21	Pipe	CI-18	MH-4	53.71	3346.72	3344.75	3.6700	12.000	0.0130	1.15	6.82	0.17	6.04	0.29	0.00 Calculated
25	Pipe -22	Pipe	MH-4	MH-5	53.77	3344.55	3339.64	9.1300	12.000	0.0130	1.15	10.77	0.11	8.47	0.23	0.00 Calculated
26	Pipe -23	Pipe	MH-5	CI-20	102.45	3339.44	3336.46	2.9100	12.000	0.0130	1.67	6.08	0.28	6.30	0.37	0.00 Calculated
27	Pipe -24	Pipe	CI-20	CI-19	53.10	3335.30	3335.00	0.5600	18.000	0.0130	3.46	7.90	0.44	3.85	0.51	0.00 Calculated
28	Pipe -27	Pipe	CI-22	CI-23	51.84	3319.18	3318.96	0.4200	12.000	0.0130	0.51	2.32	0.22	2.33	0.32	0.00 Calculated
29	Pipe -28	Pipe	CI-23	MH-6	144.87	3318.76	3312.40	4.3900	12.000	0.0130	0.75	7.47	0.10	5.97	0.22	0.00 Calculated
30	Pipe -29	Pipe	MH-6	CI-25	72.32	3312.20	3307.75	6.1500	12.000	0.0130	0.75	8.84	0.08	5.44	0.29	0.00 Calculated
31	Pipe -3	Pipe	CI-3	CI-4	255.29	3396.90	3385.20	4.5800	12.000	0.0130	0.16	7.63	0.02	3.81	0.10	0.00 Calculated
32	Pipe -30	Pipe	CI-24	CI-25	30.26	3307.91	3307.75	0.5300	12.000	0.0130	0.48	2.59	0.19	2.27	0.35	0.00 Calculated
33	Pipe -31	Pipe	CI-25	MH-7	59.75	3307.55	3307.25	0.5000	12.000	0.0130	1.32	2.52	0.52	3.10	0.53	0.00 Calculated
34	Pipe -32	Pipe	MH-7	CI-26	70.60	3307.05	3305.14	2.7100	12.000	0.0130	1.32	5.86	0.23	5.68	0.34	0.00 Calculated
35	Pipe -33	Pipe	CI-26	CI-27	51.47	3304.68	3304.42	0.5100	18.000	0.0130	1.39	7.47	0.19	2.96	0.31	0.00 Calculated
36	Pipe -34	Pipe	CI-27	CI-28	52.12	3304.22	3303.96	0.5000	18.000	0.0130	1.78	7.42	0.24	3.13	0.36	0.00 Calculated
37	Pipe -35	Pipe	CI-28	MH-8	115.12	3303.76	3295.82	6.9000	12.000	0.0130	1.85	9.36	0.20	8.95	0.31	0.00 Calculated
38	Pipe -36	Pipe	MH-8	CI-30	164.11	3295.62	3277.08	11.3000	12.000	0.0130	1.85	11.98	0.15	10.82	0.27	0.00 Calculated
39	Pipe -37	Pipe	CI-29	CI-30	37.41	3278.55	3277.08	3.9300	12.000	0.0130	0.19	7.06	0.03	3.75	0.12	0.00 Calculated
40	Pipe -38	Pipe	CI-30	MH-9	62.14	3275.88	3272.00	6.2400	24.000	0.0130	7.34	56.53	0.13	4.43	0.52	0.00 Calculated
41	Pipe -39	Pipe	MH-9	CI-31	63.48	3271.80	3269.00	4.4100	24.000	0.0130	7.34	15.55	0.47	4.05	0.56	0.00 Calculated
42	Pipe -4	Pipe	CI-4	CI-5	37.54	3385.00	3384.44	1.4900	12.000	0.0130	0.34	4.35	0.08	3.12	0.20	0.00 Calculated
43	Pipe -40	Pipe	CI-31	CI-32	34.01	3269.00	3267.00	5.8800	24.000	0.0130	7.62	87.60	0.09	10.17	0.29	0.00 Calculated
44	Pipe -41	Pipe	CI-32	NULL-JUNCTION-8	92.30	3266.80	3265.80	1.0800	24.000	0.0130	7.73	23.55	0.33	6.01	0.43	0.00 Calculated
45	Pipe -44	Pipe	MIDDLE-STORAGE	CI-30	142.82	3306.00	3276.08	20.9500	8.000	0.0130	5.29	5.53	0.96	17.09	0.84	0.00 Calculated

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Average Slope	Diameter or Height	Manning's Roughness	Peak Flow	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Peak Flow Depth/ Total Depth Ratio	Total Time Reported Surcharged	Condition
					(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)		(ft/sec)		(min)	
46	Pipe -5	Pipe	CI-5	CI-6	97.73	3382.44	3369.20	13.5500	12.000	0.0130	0.44	13.11	0.03	7.62	0.13	0.00	Calculated
47	Pipe -6	Pipe	CI-6	CI-7	37.16	3369.00	3368.82	0.4800	18.000	0.0130	0.55	7.31	0.07	2.28	0.19	0.00	Calculated
48	Pipe -7	Pipe	CI-7	CI-21	465.28	3368.62	3336.00	7.0100	18.000	0.0130	0.91	27.81	0.03	7.21	0.12	0.00	Calculated
49	Pipe -8	Pipe	CI-8	CI-9	118.46	3367.00	3358.39	7.2700	12.000	0.0130	0.42	9.61	0.04	5.87	0.15	0.00	Calculated
50	Pipe -9	Pipe	CI-9	CI-10	41.44	3358.19	3357.97	0.5300	12.000	0.0130	0.58	2.60	0.22	2.50	0.34	0.00	Calculated
51	UPPERPOND-DRAIN-PIPE	Pipe	UPPERPOND-DRAIN	MH-5	13.36	3339.72	3339.64	0.6000	12.000	0.0130	0.55	2.76	0.20	2.39	0.33	0.00	Calculated
52	Link-08	Channel	CI-1	CI-8	371.10	3402.20	3372.89	7.9000	9.000	0.0110	0.08	80.09	0.00	4.83	0.06	0.00	
53	Link-09	Channel	CI-8	CI-9	124.79	3372.89	3366.79	4.8800	6.000	0.0110	0.06	89.87	0.00	2.29	0.06	0.00	
54	Link-10	Channel	CI-2	CI-3	180.90	3403.00	3400.12	1.5900	9.000	0.0110	0.09	34.91	0.00	1.85	0.10	0.00	
55	Link-11	Channel	CI-3	CI-4	255.89	3400.12	3388.50	4.5400	9.000	0.0110	0.09	58.96	0.00	2.65	0.09	0.00	
56	Link-12	Channel	CI-5	CI-6	118.17	3388.16	3373.31	12.5700	9.000	0.0110	0.11	98.09	0.00	5.32	0.07	0.00	
57	Link-13	Channel	CI-4	CI-7	200.58	3388.50	3372.80	7.8300	9.000	0.0110	0.08	77.41	0.00	2.91	0.08	0.00	
58	Link-14	Channel	CI-6	CI-20	472.63	3373.31	3341.74	6.6800	6.000	0.0110	0.07	87.67	0.00	2.66	0.16	0.00	
59	Link-15	Channel	CI-7	CI-21	466.28	3372.80	3342.11	6.5800	6.000	0.0110	0.16	86.97	0.00	3.17	0.09	0.00	
60	Link-17	Channel	CI-9	CI-23	487.39	3366.79	3329.23	7.7100	6.000	0.0110	0.07	96.32	0.00	2.07	0.07	0.00	
61	Link-18	Channel	CI-10	CI-11	235.85	3365.50	3353.43	5.1200	6.000	0.0110	0.10	65.30	0.00	2.09	0.09	0.00	
62	Link-19	Channel	CI-11	CI-18	179.99	3353.26	3350.66	1.4400	6.000	0.0110	0.07	40.77	0.00	1.61	0.08	0.00	
63	Link-20	Channel	CI-12	CI-13	164.38	3352.62	3340.53	7.3500	6.000	0.0110	0.07	91.72	0.00	1.15	0.10	0.00	
64	Link-21	Channel	CI-13	CI-22	339.32	3340.53	3329.21	3.3400	9.000	0.0110	0.06	64.75	0.00	4.21	0.08	0.00	
65	Link-22	Channel	CI-14	CI-24	514.74	3340.32	3319.20	4.1000	6.000	0.0110	0.05	81.13	0.00	4.44	0.04	0.00	
66	Link-24	Channel	CI-17	CI-19	190.92	3350.53	3340.27	5.3700	6.000	0.0110	0.04	77.86	0.00	2.18	0.05	0.00	
67	Link-25	Channel	CI-18	CI-20	217.66	3350.66	3341.74	4.1000	6.000	0.0110	0.05	68.67	0.00	1.02	0.18	0.00	
68	Link-26	Channel	CI-19	CI-15	336.59	3340.27	3326.57	4.0700	6.000	0.0110	0.02	68.98	0.00	1.71	0.05	0.00	
69	Link-27	Channel	CI-21	CI-16	385.36	3342.11	3326.40	4.0800	6.000	0.0110	0.13	68.62	0.00	2.25	0.09	0.00	
70	Link-28	Channel	CI-15	CI-33	173.32	3326.57	3319.82	3.8900	6.000	0.0110	0.05	67.53	0.00	1.13	0.09	0.00	
71	Link-29	Channel	CI-16	CI-34	169.99	3326.40	3319.92	3.8100	6.000	0.0110	0.13	66.12	0.00	2.33	0.09	0.00	
72	Link-30	Channel	CI-33	CI-27	262.89	3319.82	3311.08	3.3200	6.000	0.0110	0.19	67.14	0.00	3.02	0.14	0.00	
73	Link-31	Channel	CI-34	CI-28	266.64	3320.05	3308.85	4.2000	6.000	0.0110	0.10	68.71	0.00	2.33	0.08	0.00	
74	Link-32	Channel	CI-23	CI-25	216.58	3329.23	3319.24	4.6100	6.000	0.0110	0.10	78.37	0.00	2.28	0.08	0.00	
75	Link-33	Channel	CI-25	CI-26	130.77	3319.24	3309.21	7.6700	6.000	0.0110	0.06	54.05	0.00	2.07	0.06	0.00	
76	Link-34	Channel	CI-24	CI-27	132.41	3319.20	3311.08	6.1300	6.000	0.0110	0.00	42.21	0.00	0.00	0.09	0.00	
77	Link-35	Channel	CI-28	CI-30	297.09	3308.85	3281.51	9.2000	6.000	0.0110	0.10	102.24	0.00	2.98	0.07	0.00	
78	Link-36	Channel	CI-26	WESTPOND	249.29	3309.21	3291.00	7.3000	6.000	0.0110	0.03	89.02	0.00	2.28	0.25	0.00	
79	Link-38	Channel	CI-29	CI-32	138.92	3281.55	3275.53	4.3400	6.000	0.0110	0.08	72.12	0.00	3.46	0.06	0.00	
80	Link-39	Channel	CI-30	CI-31	127.19	3281.51	3276.79	3.7100	6.000	0.0110	0.07	74.83	0.00	3.08	0.09	0.00	
81	Link-74	Channel	NULL-JUNCTION-2	NULL-JUNCTION-4	464.71	3357.00	3335.00	4.7300	6.000	0.0320	0.79	5.96	0.13	2.40	0.47	0.00	
82	Link-77	Channel	NULL-JUNCTION-4	NULL-JUNCTION-6	256.93	3330.00	3315.00	5.8400	12.000	0.0320	1.44	21.50	0.07	3.42	0.38	0.00	
83	Link-79	Channel	NULL-JUNCTION-6	MIDDLE-STORAGE	217.18	3315.00	3309.00	2.7600	12.000	0.0320	1.41	17.25	0.08	3.06	0.39	0.00	
84	Link-82	Channel	UPPERPOND	CI-20	135.46	3345.00	3341.74	2.4100	9.000	0.0320	0.00	42.93	0.00	0.00	0.00	0.00	
85	Link-90	Channel	19-Jun	BEFORE 12IN CULVERT	143.54	3195.00	3190.00	3.4800	18.000	0.0320	0.00	29.89	0.00	0.00	0.07	0.00	
86	.87*5	Orifice	NORTHWEST-STORAGE	INJECTED-STORMWATER			3255.00	3100.00	4.100		0.84						
87	Orifice-80	Orifice	NORTHWEST-STORAGE	INJECTED-STORMWATER			3255.00	3100.00	4.100		0.84						
88	Orifice-83	Orifice	NORTHWEST-STORAGE	INJECTED-STORMWATER			3255.00	3100.00	4.100		0.84						
89	Orifice-84	Orifice	NORTHWEST-STORAGE	INJECTED-STORMWATER			3255.00	3100.00	4.100		0.84						
90	Orifice-85	Orifice	NORTHWEST-STORAGE	INJECTED-STORMWATER			3255.00	3100.00	4.100		0.84						

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth/ Total Depth Ratio	Total Time Reported Surcharged (min)	Reported Condition
91	Orifice-89	Orifice	COMMON-AREA-1-POND	28-Jun		3327.50	3325.00		6.000		1.72						
92	UPPERPOND-OUTLET	Orifice	UPPERPOND	UPPERPOND-DRAIN		3343.00	3338.72		12.000		0.55						
93	Weir-01	Weir	WESTPOND	WESTERN-RUNOFF		3290.00	3291.00				0.00						

Inlet Summary

SN	Element	Inlet	Manufacturer	Inlet	Number of	Catchbasin	Max (Rim)	Initial	Ponded	Peak	Peak Flow	Peak Flow	Inlet	Allowable	Max Gutter	Max Gutter
ID		Manufacturer	Part	Location	Inlets	Invert	Elevation	Water	Area	Flow	Intercepted	Bypassing	Efficiency	Spread	Spread	Water Elev.
			Number			Elevation		Elevation			by	Inlet	during Peak		during Peak	during Peak
						(ft)	(ft)	(ft)	(ft²)	(cfs)	(cfs)	(cfs)	(%)	(ft)	(ft)	(ft)
1	CI-1	FHWA HEC-22 GENERIC	N/A	On Grade	1	3398.00	3402.20	3398.00	N/A	0.28	0.24	0.04	84.88	12.50	2.98	3402.26
2	CI-10	FHWA HEC-22 GENERIC	N/A	On Grade	1	3357.77	3362.00	3357.77	N/A	0.35	0.28	0.07	79.93	12.50	3.34	3362.07
3	CI-11	FHWA HEC-22 GENERIC	N/A	On Grade	1	3349.00	3353.26	3349.00	N/A	0.18	0.14	0.04	80.20	12.50	3.39	3353.33
4	CI-12	FHWA HEC-22 GENERIC	N/A	On Grade	1	3349.40	3353.27	3349.40	N/A	0.23	0.19	0.03	84.97	12.50	2.98	3353.33
5	CI-13	FHWA HEC-22 GENERIC	N/A	On Grade	1	3337.50	3341.25	3337.50	N/A	0.20	0.18	0.02	90.54	12.50	2.57	3341.30
6	CI-14	FHWA HEC-22 GENERIC	N/A	On Grade	1	3337.41	3340.88	3337.41	N/A	0.16	0.15	0.01	92.57	12.50	2.42	3340.93
7	CI-15	FHWA HEC-22 GENERIC	N/A	On Grade	1	3323.00	3326.55	3323.00	N/A	0.19	0.16	0.02	87.74	12.50	2.78	3326.61
8	CI-16	FHWA HEC-22 GENERIC	N/A	On Grade	1	3322.61	3326.38	3322.61	N/A	0.45	0.33	0.12	73.74	12.50	3.85	3326.46
9	CI-17	FHWA HEC-22 GENERIC	N/A	On Grade	1	3347.10	3350.53	3347.10	N/A	0.15	0.14	0.01	93.51	12.50	2.35	3350.58
10	CI-18	FHWA HEC-22 GENERIC	N/A	On Grade	1	3346.72	3350.66	3346.72	N/A	0.17	0.15	0.02	90.63	12.50	2.57	3350.71
11	CI-19	FHWA HEC-22 GENERIC	N/A	On Grade	1	3333.00	3340.47	3333.00	N/A	0.20	0.00	0.00	0.00	12.50	1.45	3340.56
12	CI-2	FHWA HEC-22 GENERIC	N/A	On Grade	1	3398.28	3403.00	3398.28	N/A	0.25	0.19	0.06	76.35	12.50	3.68	3403.07
13	CI-20	FHWA HEC-22 GENERIC	N/A	On Sag	1	3335.00	3341.74	3335.00	500.00	0.89	N/A	N/A	N/A	12.50	8.35	3341.89
14	CI-21	FHWA HEC-22 GENERIC	N/A	On Grade	1	3335.80	3342.15	3335.80	N/A	0.44	0.33	0.11	74.66	12.50	3.77	3342.23
15	CI-22	FHWA HEC-22 GENERIC	N/A	On Sag	1	3319.18	3322.67	3319.18	500.00	0.46	N/A	N/A	N/A	12.50	5.68	3322.76
16	CI-23	FHWA HEC-22 GENERIC	N/A	On Grade	1	3318.76	3323.05	3318.76	N/A	0.35	0.27	0.08	78.40	12.50	3.47	3323.12
17	CI-24	FHWA HEC-22 GENERIC	N/A	On Grade	1	3307.91	3311.43	3307.91	N/A	0.48	0.00	0.00	0.00	12.50	0.81	3311.59
18	CI-25	FHWA HEC-22 GENERIC	N/A	On Grade	1	3307.55	3311.49	3307.55	N/A	0.20	0.18	0.02	91.69	12.50	2.48	3311.54
19	CI-26	FHWA HEC-22 GENERIC	N/A	On Grade	1	3304.68	3308.17	3304.68	N/A	0.10	0.09	0.00	98.41	12.50	1.91	3308.21
20	CI-27	FHWA HEC-22 GENERIC	N/A	On Sag	1	3304.22	3309.38	3304.22	500.00	0.52	N/A	N/A	N/A	12.50	6.05	3309.48
21	CI-28	FHWA HEC-22 GENERIC	N/A	On Grade	1	3303.76	3308.98	3303.76	N/A	0.34	0.28	0.06	83.36	12.50	3.08	3309.04
22	CI-29	FHWA HEC-22 GENERIC	N/A	On Grade	1	3278.55	3282.08	3278.55	N/A	0.27	0.23	0.03	87.47	12.50	2.79	3282.14
23	CI-3	FHWA HEC-22 GENERIC	N/A	On Grade	1	3396.90	3400.12	3396.90	N/A	0.25	0.19	0.06	76.19	12.50	3.69	3400.19
24	CI-30	FHWA HEC-22 GENERIC	N/A	On Grade	1	3275.88	3281.99	3275.88	N/A	0.23	0.21	0.02	89.75	12.50	2.62	3282.04
25	CI-31	FHWA HEC-22 GENERIC	N/A	On Sag	1	3272.10	3275.80	3272.10	1000.00	0.34	N/A	N/A	N/A	12.50	4.76	3275.88
26	CI-32	FHWA HEC-22 GENERIC	N/A	On Sag	1	3266.80	3275.80	3266.80	1000.00	0.13	N/A	N/A	N/A	12.50	2.80	3275.84
27	CI-33	FHWA HEC-22 GENERIC	N/A	On Grade	1	3316.15	3319.68	3316.15	N/A	0.59	0.41	0.18	69.34	12.50	4.24	3319.76
28	CI-34	FHWA HEC-22 GENERIC	N/A	On Grade	1	3313.00	3319.92	3313.00	N/A	0.35	0.27	0.08	77.82	12.50	3.52	3319.99
29	CI-4	FHWA HEC-22 GENERIC	N/A	On Grade	1	3385.00	3388.50	3385.00	N/A	0.26	0.23	0.03	89.11	12.50	2.67	3388.55
30	CI-5	FHWA HEC-22 GENERIC	N/A	On Grade	1	3382.44	3388.16	3382.44	N/A	0.36	0.30	0.06	84.09	12.50	3.03	3388.22
31	CI-6	FHWA HEC-22 GENERIC	N/A	On Grade	1	3369.00	3373.31	3369.00	N/A	0.23	0.21	0.02	92.13	12.50	2.45	3373.36
32	CI-7	FHWA HEC-22 GENERIC	N/A	On Grade	1	3368.62	3372.80	3368.62	N/A	0.54	0.42	0.13	76.67	12.50	3.59	3372.87
33	CI-8	FHWA HEC-22 GENERIC	N/A	On Grade	1	3367.00	3371.11	3367.00	N/A	0.21	0.19	0.02	91.05	12.50	2.53	3371.16
34	CI-9	FHWA HEC-22 GENERIC	N/A	On Grade	1	3358.19	3362.35	3358.19	N/A	0.24	0.21	0.03	86.17	12.50	2.89	3362.41

Subbasin Hydrology

Subbasin : OFFSITE-FLOWS

Input Data

Area (ac)	49.81
Peak Rate Factor	484
Weighted Curve Number	69
Rain Gage ID	MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
Pasture, grassland, or range, Fair	50.33	B	69
Composite Area & Weighted CN	50.33		69

Time of Concentration

TOC Method : SCS TR-55

Sheet Flow Equation :

$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (S_f^{0.4}))$

Where :

Tc = Time of Concentration (hr)
n = Manning's roughness
Lf = Flow Length (ft)
P = 2 yr, 24 hr Rainfall (inches)
Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation :

V = 16.1345 * (Sf^0.5) (unpaved surface)
V = 20.3282 * (Sf^0.5) (paved surface)
V = 15.0 * (Sf^0.5) (grassed waterway surface)
V = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
V = 9.0 * (Sf^0.5) (cultivated straight rows surface)
V = 7.0 * (Sf^0.5) (short grass pasture surface)
V = 5.0 * (Sf^0.5) (woodland surface)
V = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
 $T_c = (L_f / V) / (3600 \text{ sec/hr})$

Where:

Tc = Time of Concentration (hr)
Lf = Flow Length (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)

Channel Flow Equation :

$V = (1.49 * (R^{(2/3)}) * (S_f^{0.5})) / n$
 $R = A_q / W_p$
 $T_c = (L_f / V) / (3600 \text{ sec/hr})$

Where :

Tc = Time of Concentration (hr)
Lf = Flow Length (ft)
R = Hydraulic Radius (ft)
Aq = Flow Area (ft²)
Wp = Wetted Perimeter (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)
n = Manning's roughness

10-Year Storm
Post-Development Results

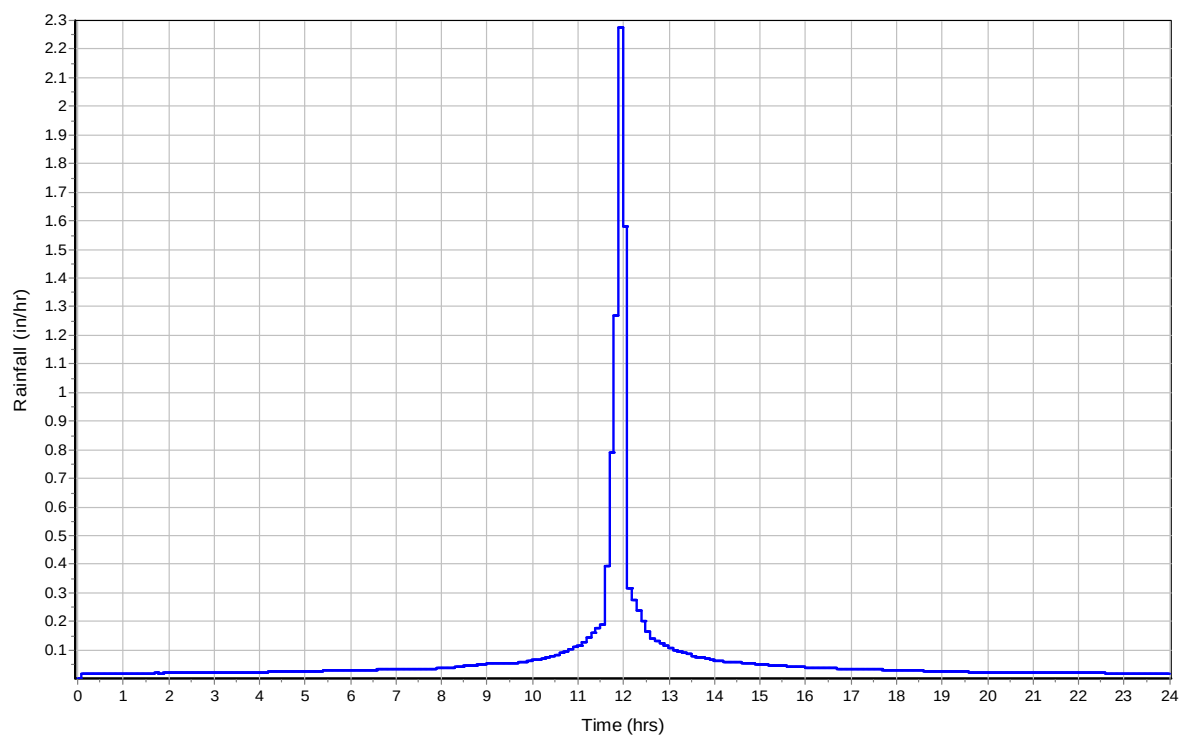
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.15	0.15	0.15
Flow Length (ft) :	300	300	300
Slope (%) :	20	15	25
2 yr, 24 hr Rainfall (in) :	1.2	1.2	1.2
Velocity (ft/sec) :	0.33	0.29	0.36
Computed Flow Time (min) :	15.34	17.21	14.03
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	1000	0	0
Slope (%) :	5	0	0
Surface Type :	Unpaved	Unpaved	Unpaved
Velocity (ft/sec) :	3.61	0	0
Computed Flow Time (min) :	4.62	0	0
Total TOC (min)	51.20		

Subbasin Runoff Results

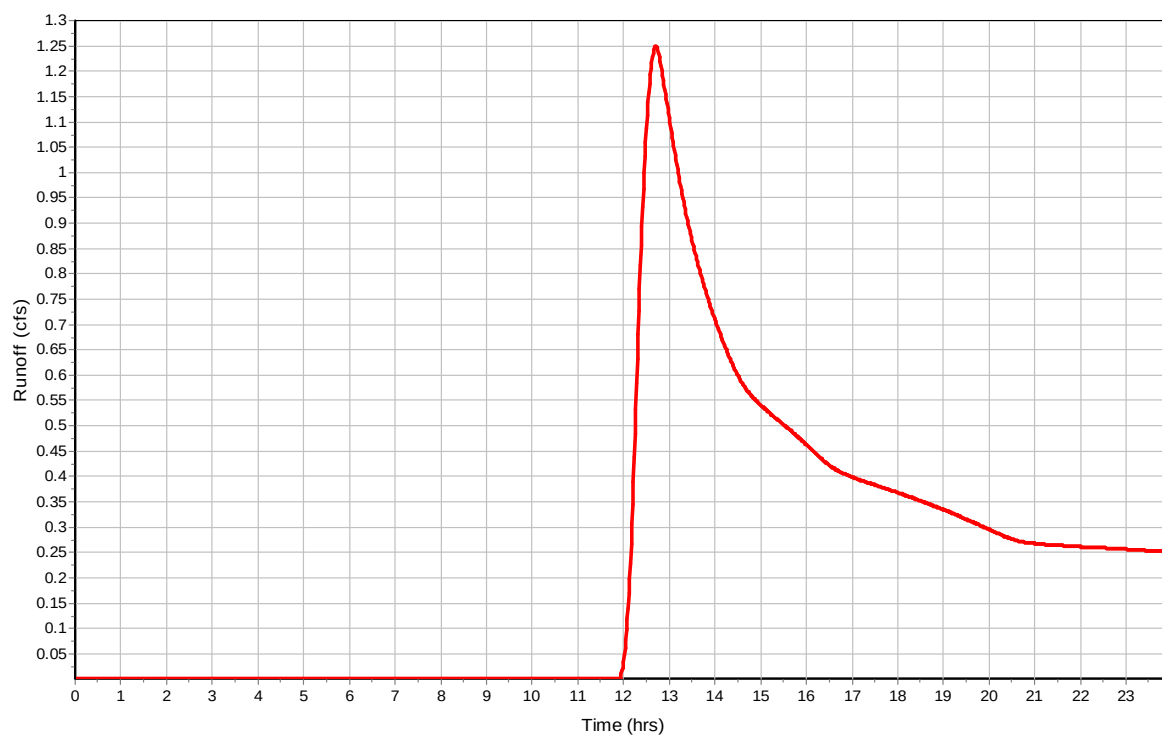
Total Rainfall (in)	1.66
Total Runoff (in)	0.11
Peak Runoff (cfs)	1.25
Weighted Curve Number	69
Time of Concentration (days hh:mm:ss)	0 00:51:12

Subbasin : OFFSITE-FLOWS

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-01

Input Data

Area (ac)	1.24
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
1/4 acre lots, 38% impervious	1.24	B	75
Composite Area & Weighted CN	1.24		75

Time of Concentration

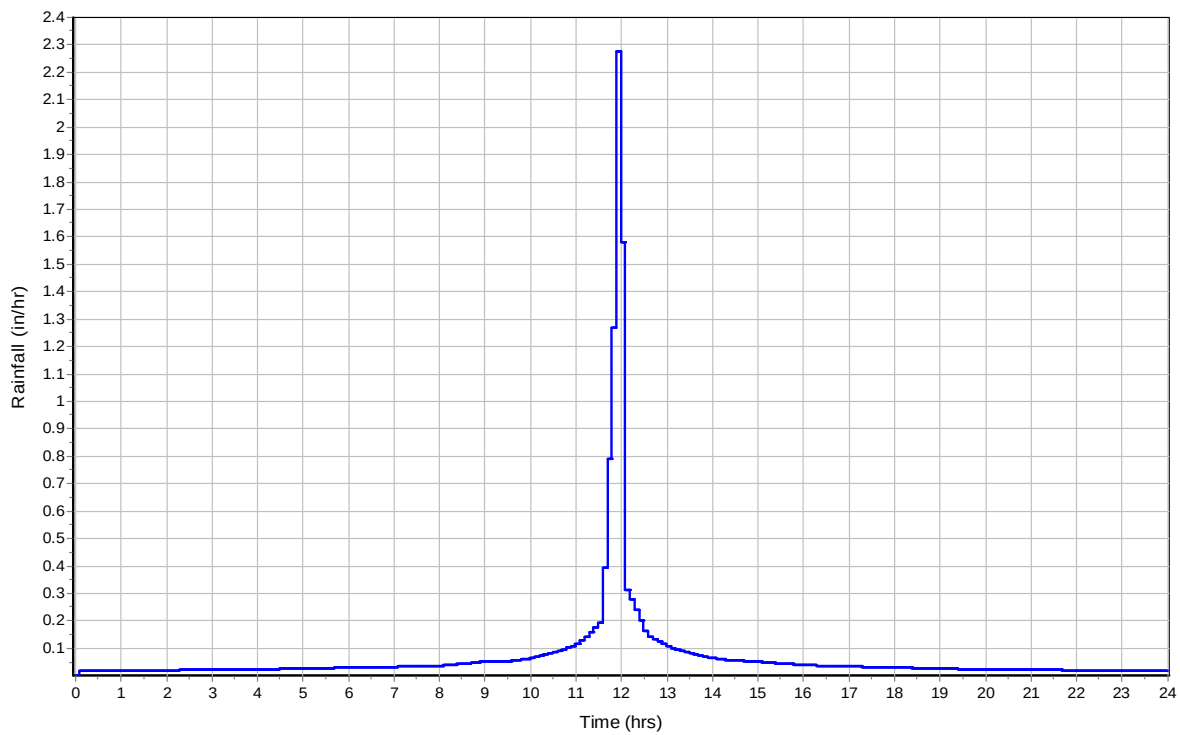
	Subarea	Subarea	Subarea
Sheet Flow Computations	A	B	C
Manning's Roughness :	0	0	0.2
Flow Length (ft) :	0	0	150
Slope (%) :	0	0	10
2 yr, 24 hr Rainfall (in) :	0	0	1.2
Velocity (ft/sec) :	0	0	0.17
Computed Flow Time (min) :	0	0	14.63
Total TOC (min)	14.63		

Subbasin Runoff Results

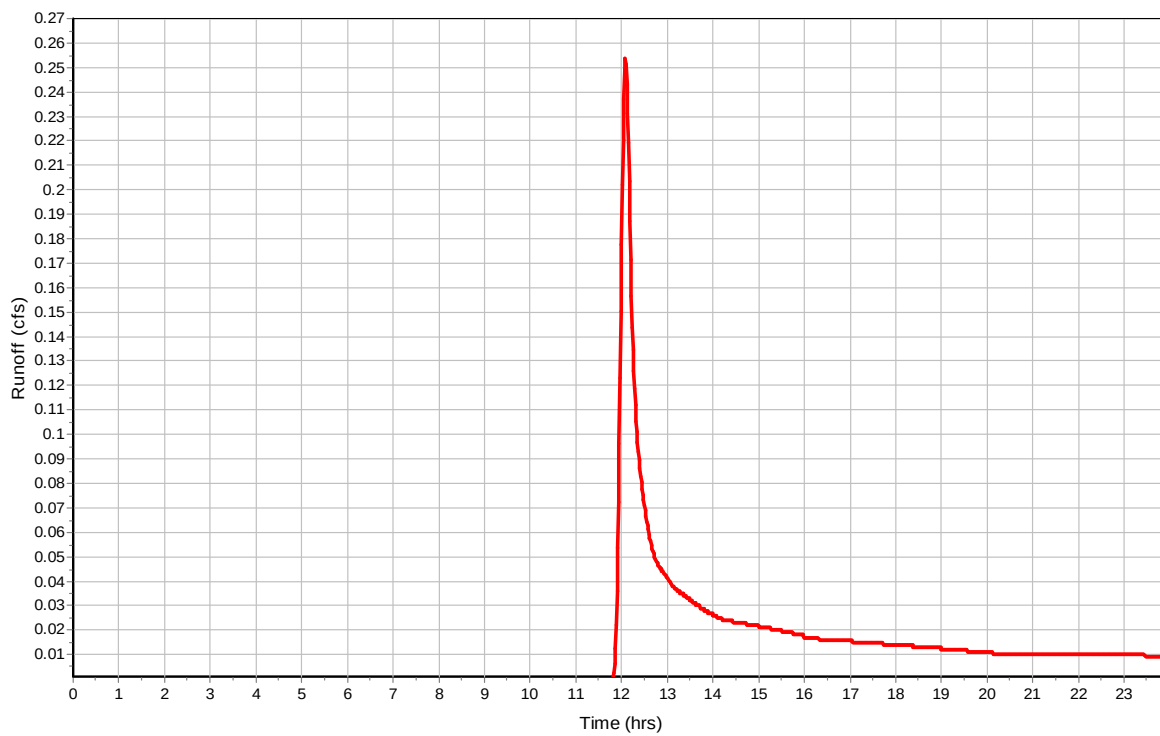
Total Rainfall (in)	1.66
Total Runoff (in)	0.23
Peak Runoff (cfs)	0.25
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:14:38

Subbasin : Sub-01

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-02

Input Data

Area (ac) 0.78
Peak Rate Factor 484
Weighted Curve Number 75
Rain Gage ID MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
1/4 acre lots, 38% impervious	0.78	B	75
Composite Area & Weighted CN	0.78		75

Time of Concentration

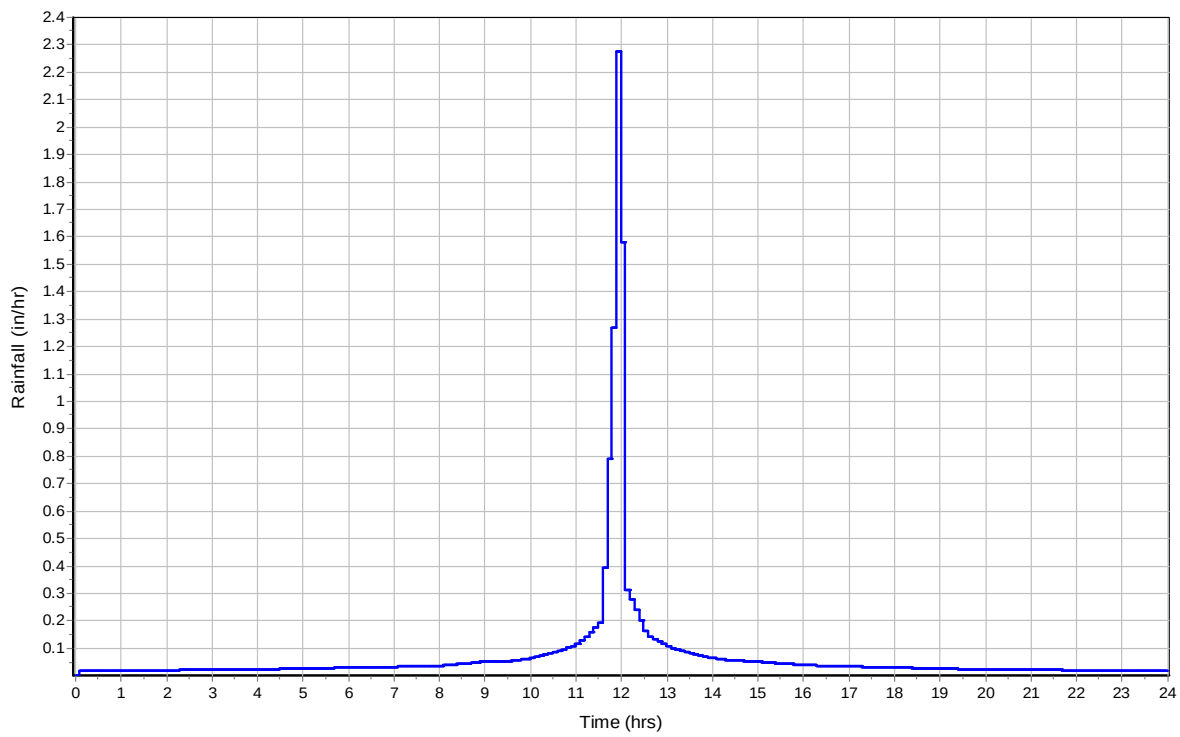
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0	0.2	0.05
Flow Length (ft) :	0	130	100
Slope (%) :	0	12.7	33.3
2 yr, 24 hr Rainfall (in) :	0	1.2	1.2
Velocity (ft/sec) :	0	0.18	0.77
Computed Flow Time (min) :	0	11.86	2.16
Total TOC (min)14.02			

Subbasin Runoff Results

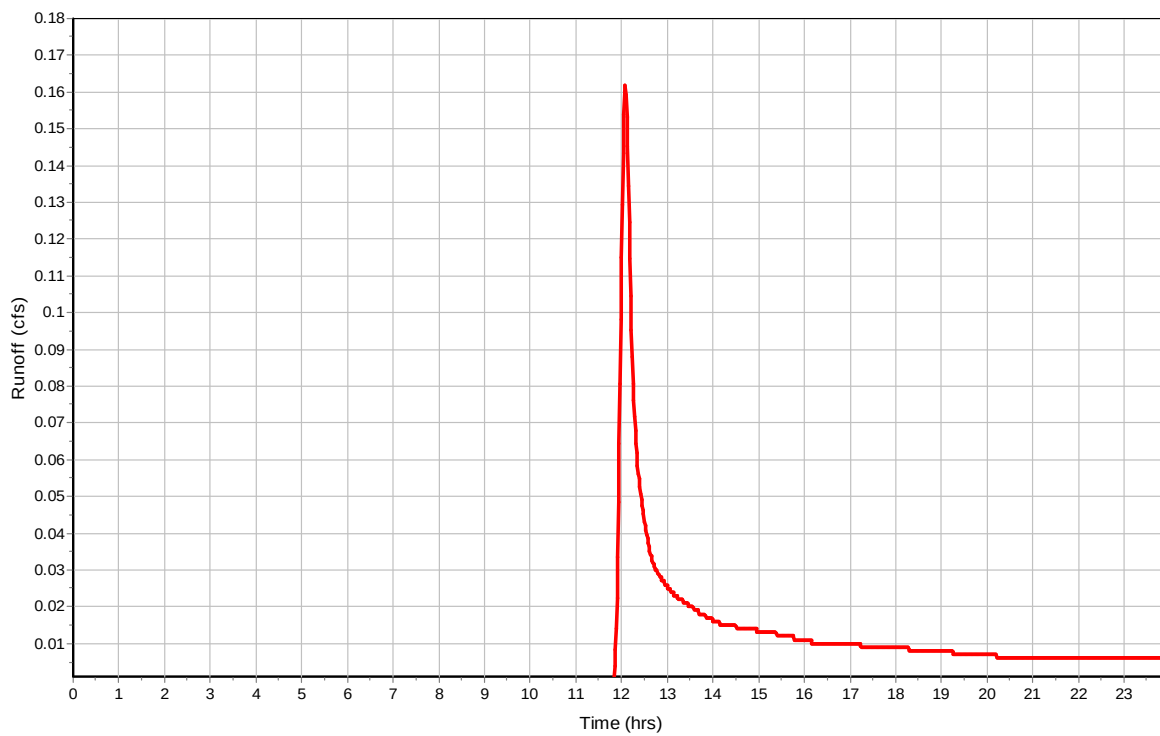
Total Rainfall (in) 1.66
Total Runoff (in) 0.23
Peak Runoff (cfs) 0.16
Weighted Curve Number 75
Time of Concentration (days hh:mm:ss) 0 00:14:01

Subbasin : Sub-02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-03

Input Data

Area (ac) 0.87
 Peak Rate Factor 484
 Weighted Curve Number 75
 Rain Gage ID MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
1/4 acre lots, 38% impervious	0.87	B	75
Composite Area & Weighted CN	0.87		75

Time of Concentration

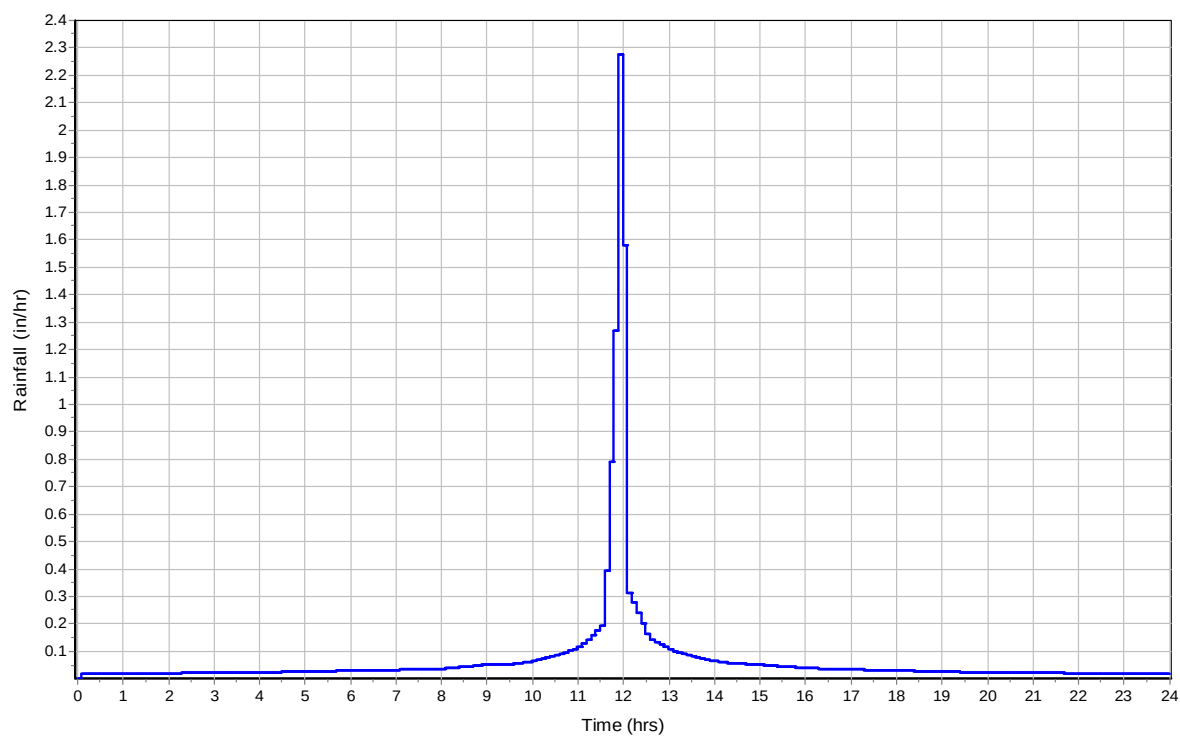
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0	0.2	0.05
Flow Length (ft) :	0	120	80
Slope (%) :	0	10	33.3
2 yr, 24 hr Rainfall (in) :	0	1.2	1.2
Velocity (ft/sec) :	0	0.16	0.74
Computed Flow Time (min) :	0	12.24	1.8
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	250	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	0.92	0	0
Total TOC (min)	14.96		

Subbasin Runoff Results

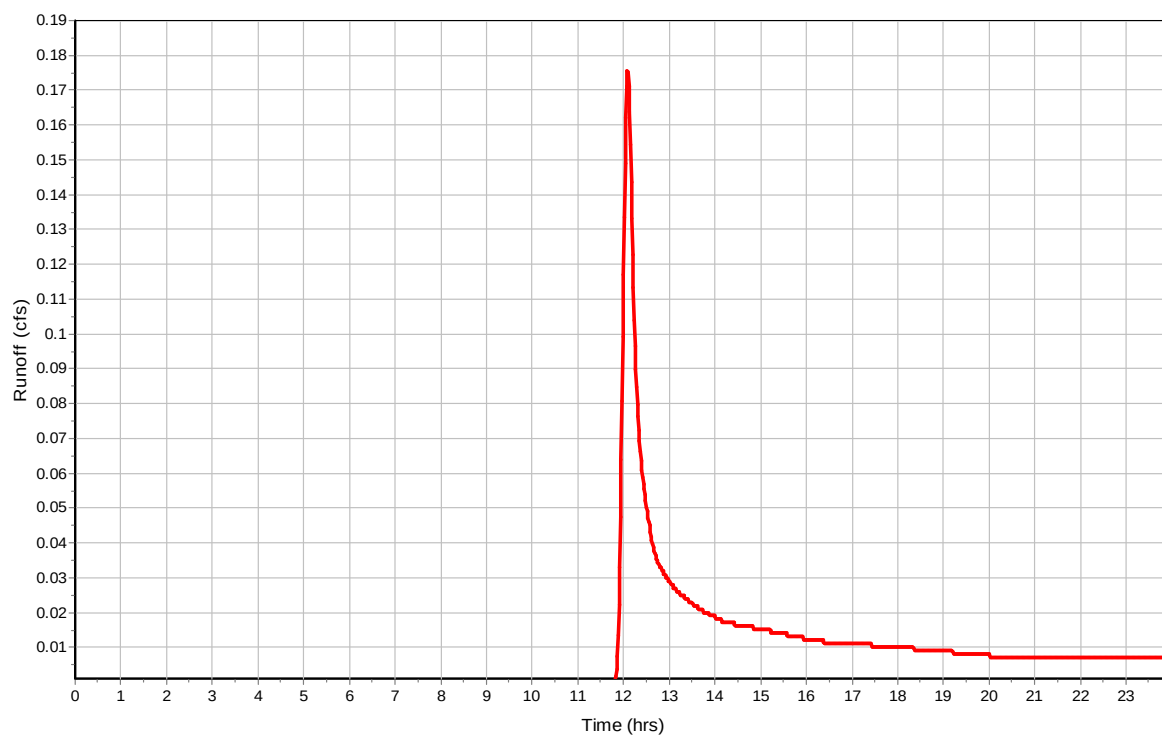
Total Rainfall (in) 1.66
 Total Runoff (in) 0.23
 Peak Runoff (cfs) 0.18
 Weighted Curve Number 75
 Time of Concentration (days hh:mm:ss) 0 00:14:58

Subbasin : Sub-03

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-04

Input Data

Area (ac)	1.46
Peak Rate Factor	484
Weighted Curve Number	83
Rain Gage ID	MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
1/4 acre lots, 38% impervious	1.46	C	83
Composite Area & Weighted CN	1.46		83

Time of Concentration

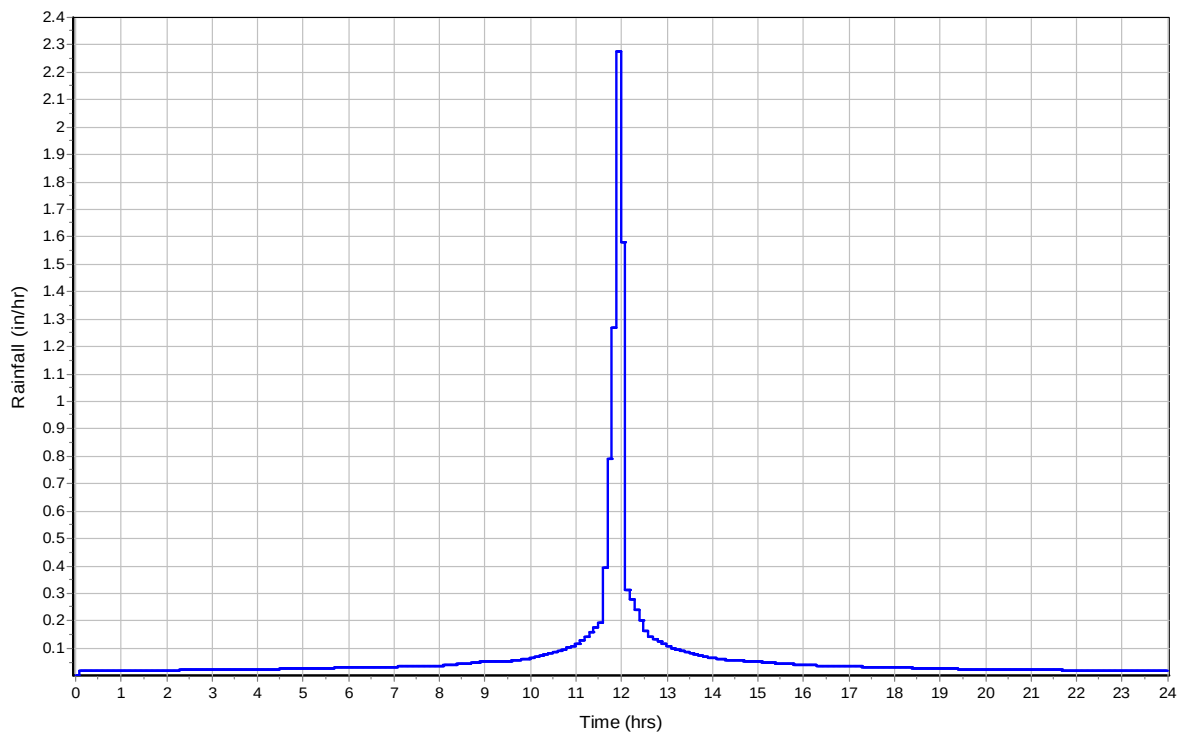
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0	0.2	0
Flow Length (ft) :	0	200	0
Slope (%) :	0	19.5	0
2 yr, 24 hr Rainfall (in) :	0	1.2	0
Velocity (ft/sec) :	0	0.24	0
Computed Flow Time (min) :	0	14.1	0
Total TOC (min)	14.10		

Subbasin Runoff Results

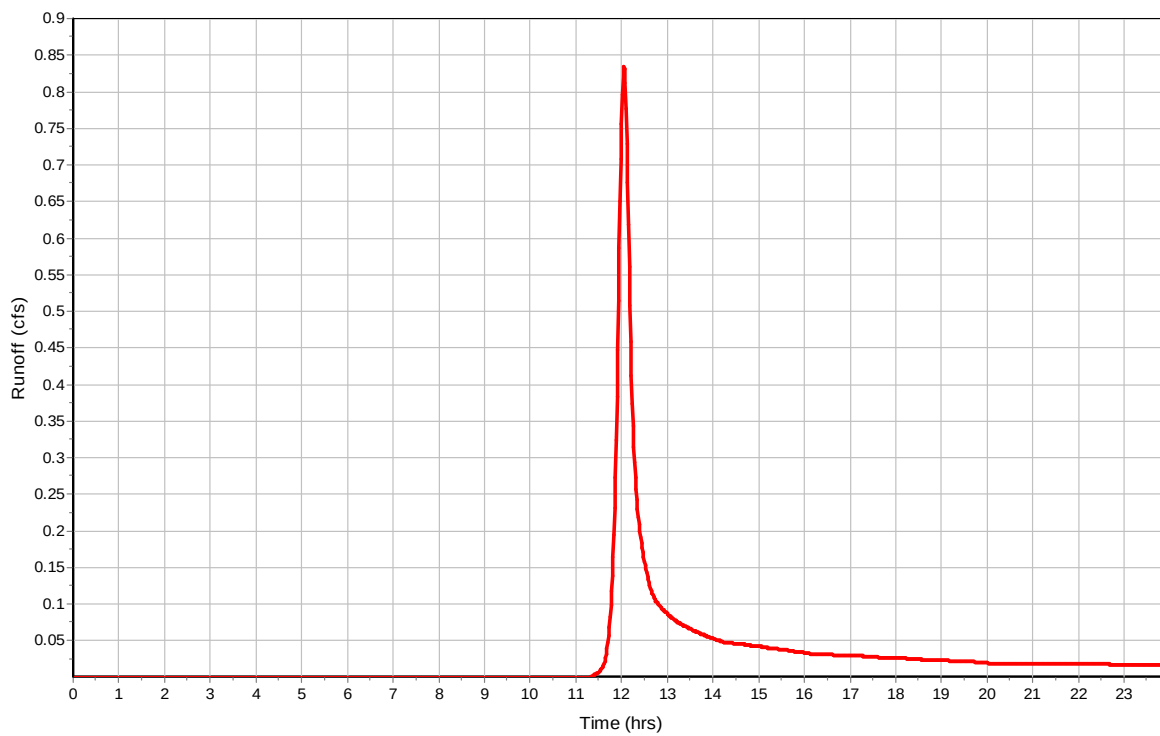
Total Rainfall (in)	1.66
Total Runoff (in)	0.47
Peak Runoff (cfs)	0.84
Weighted Curve Number	83
Time of Concentration (days hh:mm:ss)	0 00:14:06

Subbasin : Sub-04

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-05

Input Data

Area (ac) 0.79
 Peak Rate Factor 484
 Weighted Curve Number 83
 Rain Gage ID MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
1/4 acre lots, 38% impervious	0.79	C	83
Composite Area & Weighted CN	0.79		83

Time of Concentration

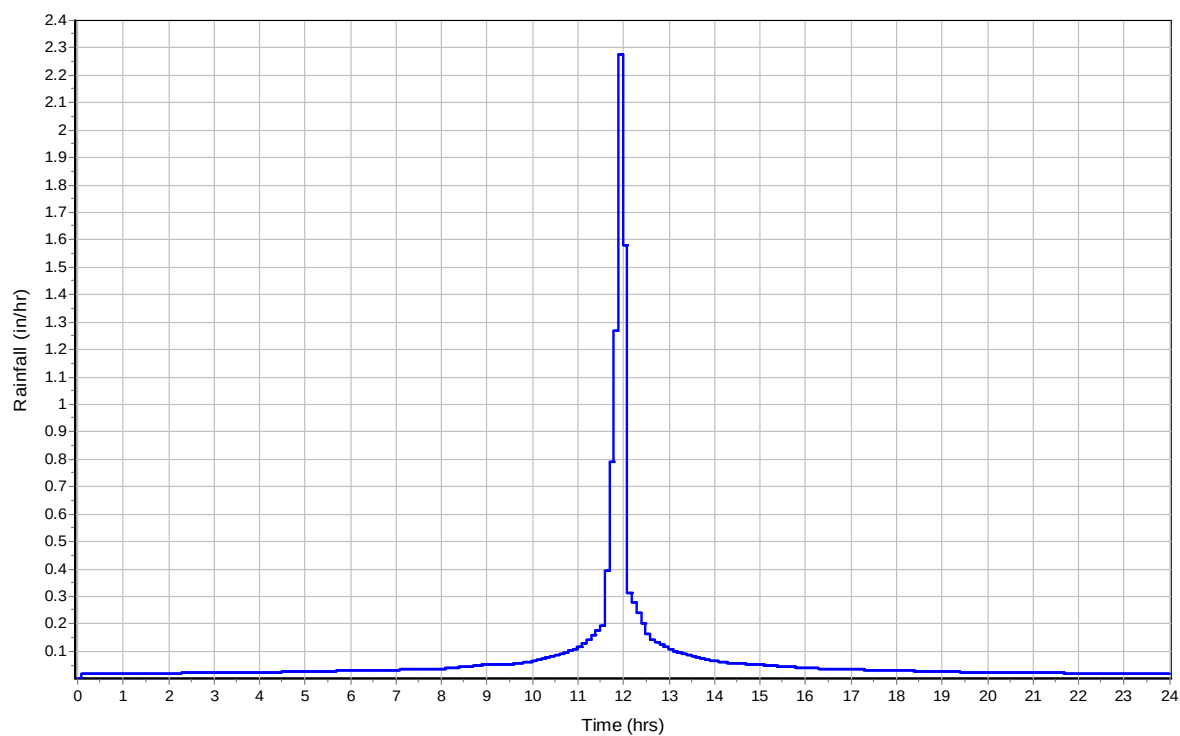
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0	0.2	0.05
Flow Length (ft) :	0	110	75
Slope (%) :	0	13	33.3
2 yr, 24 hr Rainfall (in) :	0	1.2	1.2
Velocity (ft/sec) :	0	0.18	0.73
Computed Flow Time (min) :	0	10.28	1.71
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	175	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	0.51	0	0
Total TOC (min)	12.50		

Subbasin Runoff Results

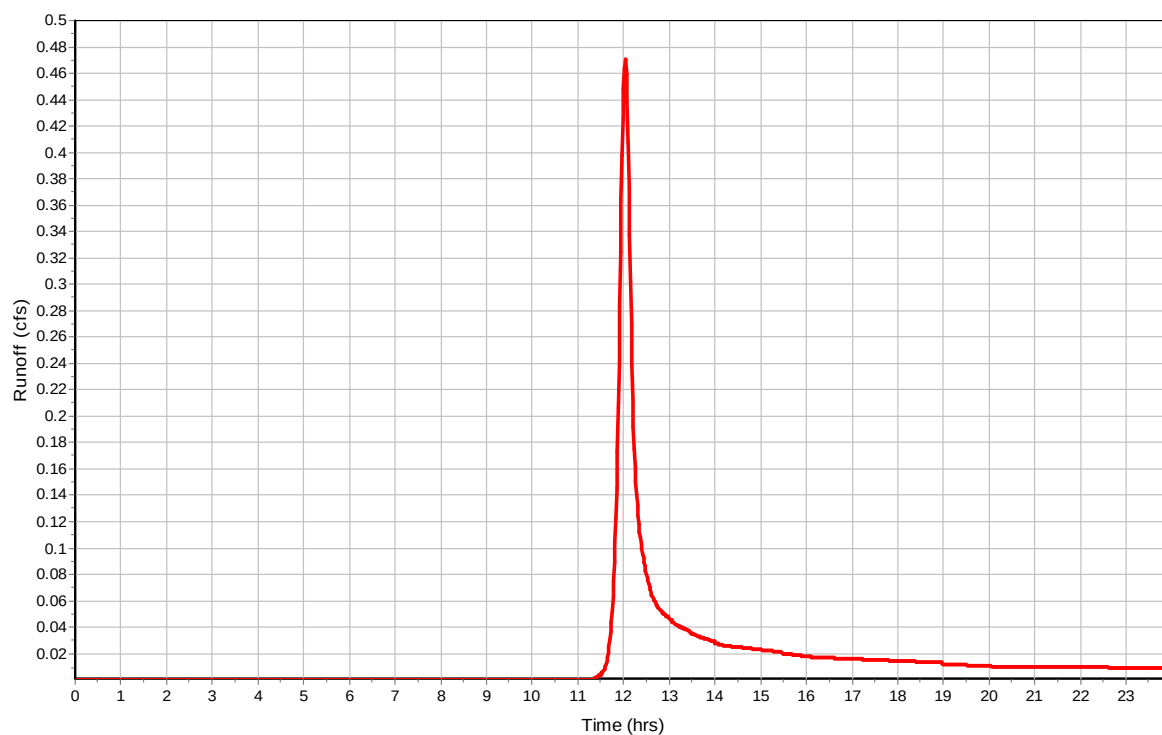
Total Rainfall (in) 1.66
 Total Runoff (in) 0.47
 Peak Runoff (cfs) 0.47
 Weighted Curve Number 83
 Time of Concentration (days hh:mm:ss) 0 00:12:30

Subbasin : Sub-05

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-07

Input Data

Area (ac) 0.14
Peak Rate Factor 484
Weighted Curve Number 98
Rain Gage ID MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
Paved parking & roofs	0.14	B	98
Composite Area & Weighted CN	0.14		98

Time of Concentration

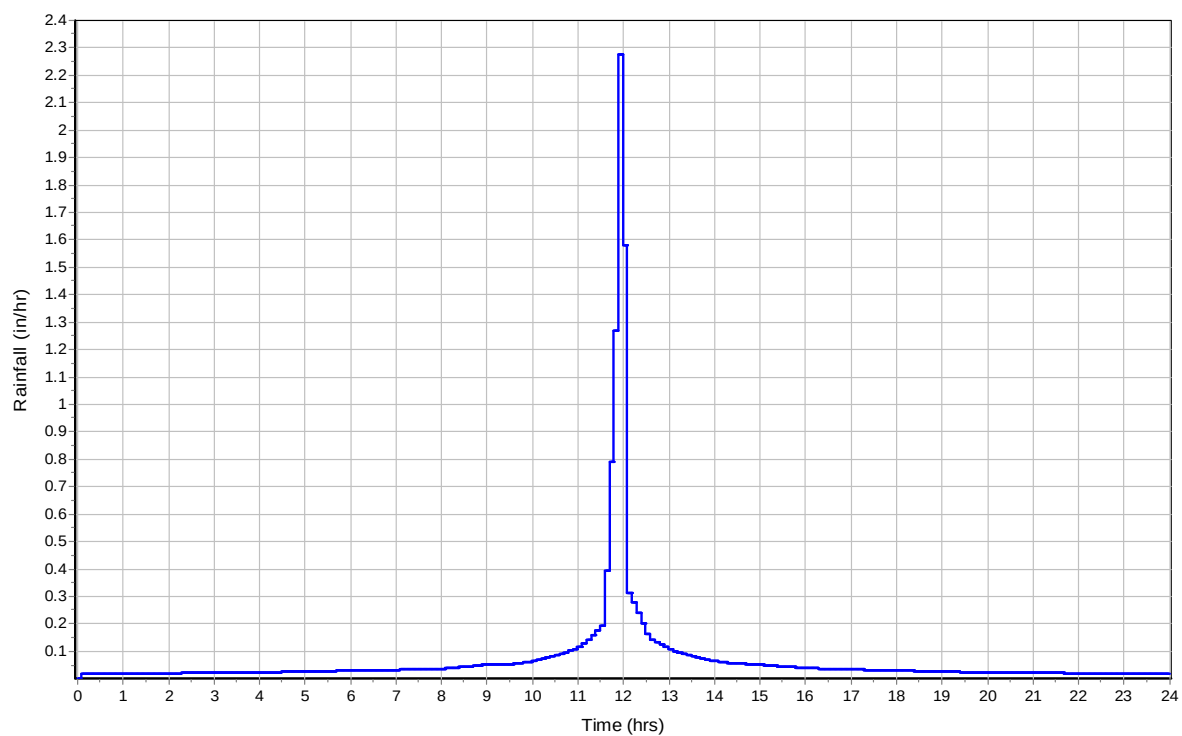
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	300	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	0.87	0	0
Total TOC (min)	1.52		

Subbasin Runoff Results

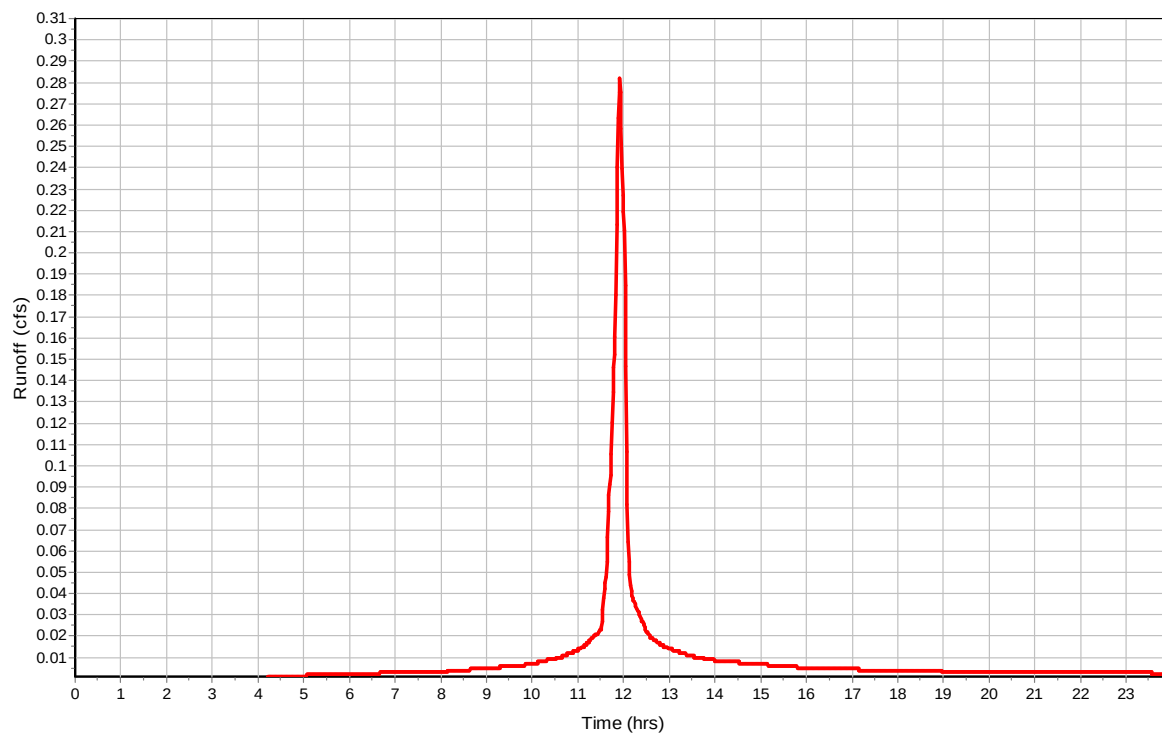
Total Rainfall (in) 1.66
Total Runoff (in) 1.43
Peak Runoff (cfs) 0.28
Weighted Curve Number 98
Time of Concentration (days hh:mm:ss) 0 00:01:31

Subbasin : Sub-07

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-08

Input Data

Area (ac) 0.17
Peak Rate Factor 484
Weighted Curve Number 98
Rain Gage ID MC-100Y-24H

Composite Curve Number

32 Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.17	B	98
Composite Area & Weighted CN	0.17		98

Time of Concentration

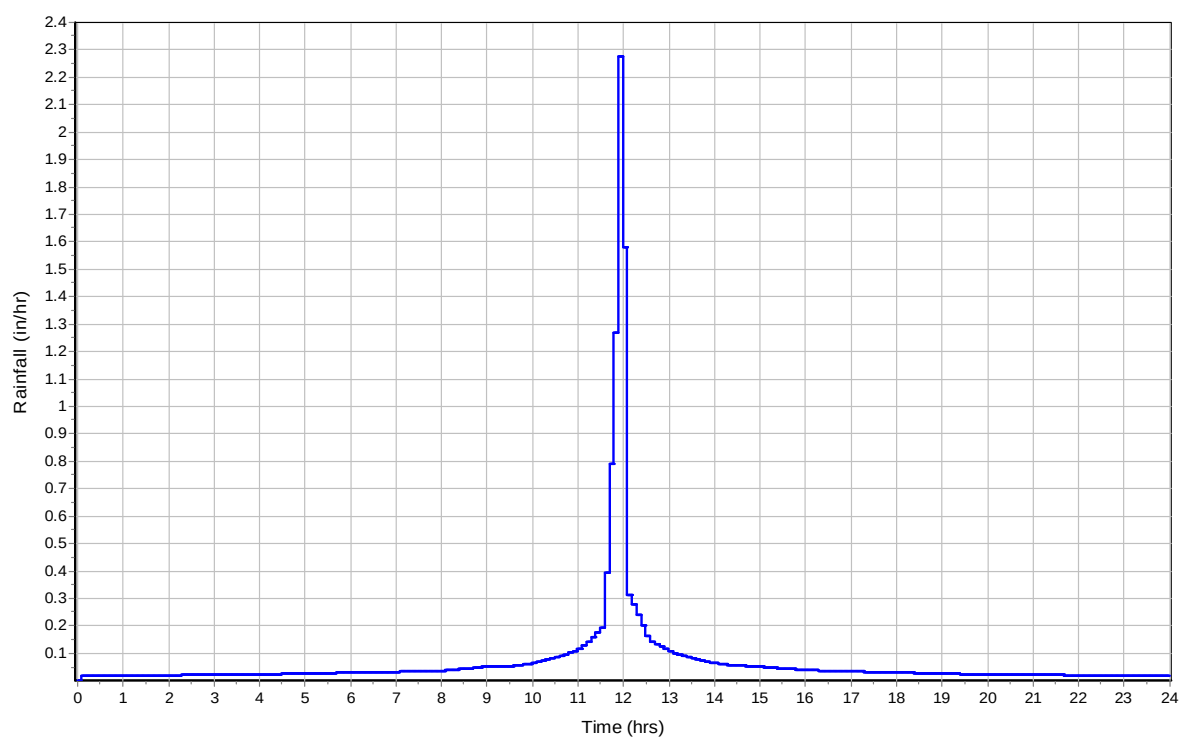
	Subarea A	Subarea B	Subarea C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
Shallow Concentrated Flow Computations			
Flow Length (ft) :	400	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	1.47	0	0
Total TOC (min)2.12			

Subbasin Runoff Results

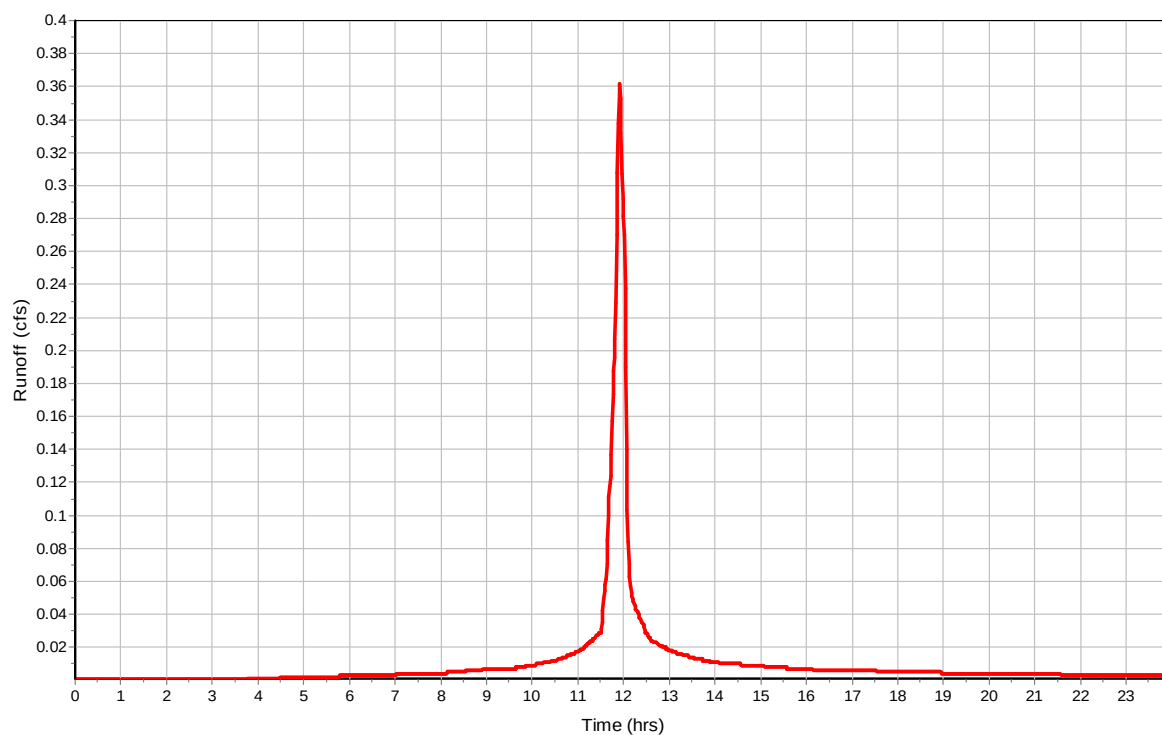
Total Rainfall (in) 1.66
Total Runoff (in) 1.43
Peak Runoff (cfs) 0.36
Weighted Curve Number 98
Time of Concentration (days hh:mm:ss) 0 00:02:07

Subbasin : Sub-08

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-09

Input Data

Area (ac) 0.17
 Peak Rate Factor 484
 Weighted Curve Number 98
 Rain Gage ID MC-100Y-24H

Composite Curve Number

32 Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.17	B	98
Composite Area & Weighted CN	0.17		98

Time of Concentration

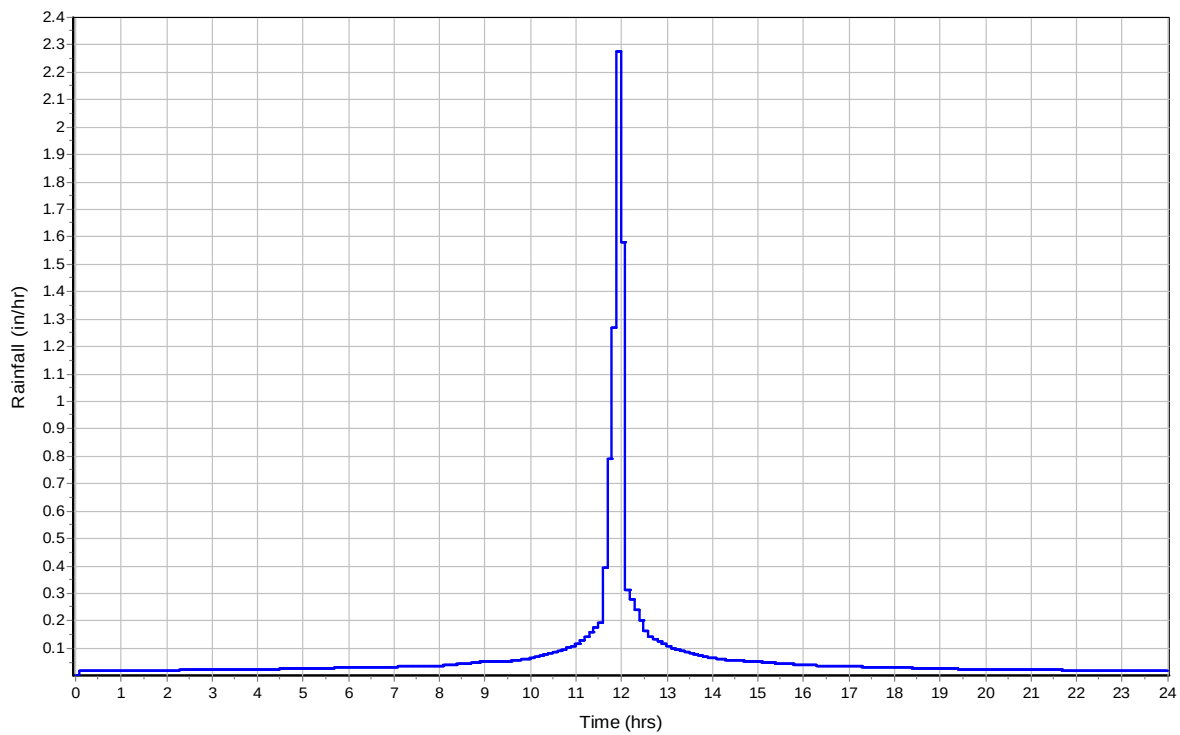
	Subarea A	Subarea B	Subarea C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
Shallow Concentrated Flow Computations			
Flow Length (ft) :	500	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	1.45	0	0
Total TOC (min)2.10			

Subbasin Runoff Results

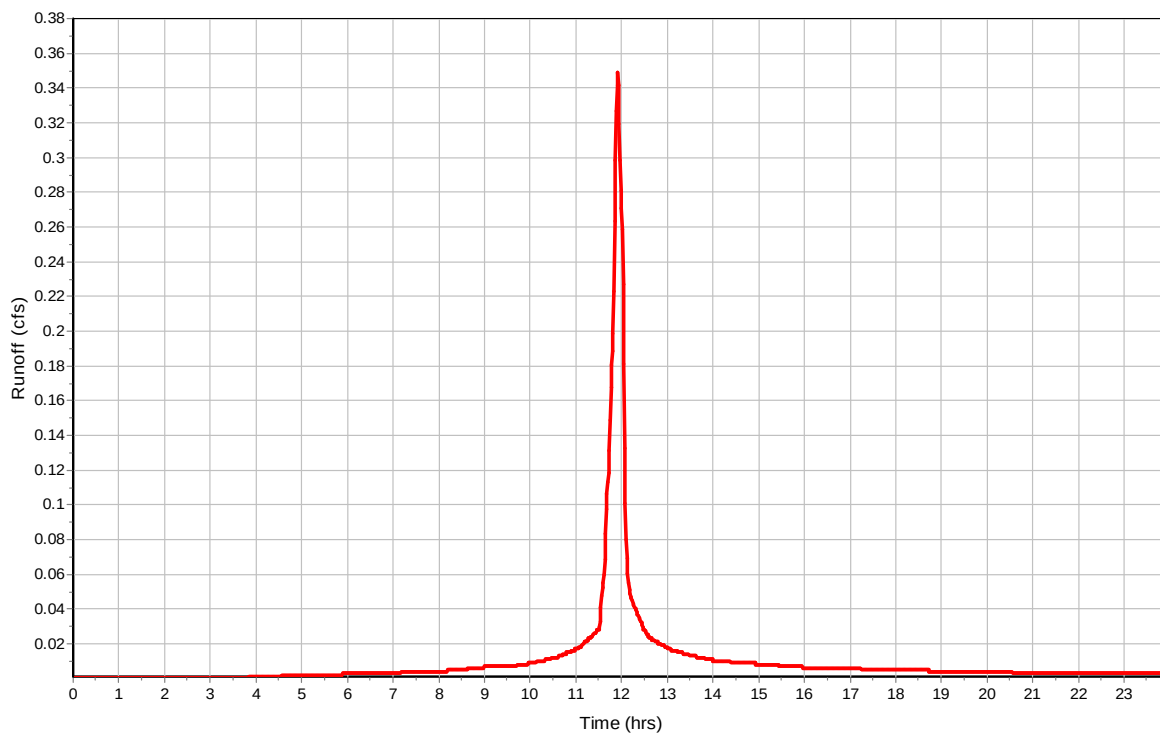
Total Rainfall (in) 1.66
 Total Runoff (in) 1.43
 Peak Runoff (cfs) 0.35
 Weighted Curve Number 98
 Time of Concentration (days hh:mm:ss) 0 00:02:06

Subbasin : Sub-09

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-10

Input Data

Area (ac) 0.85
 Peak Rate Factor 484
 Weighted Curve Number 75
 Rain Gage ID MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		1.05	B	75
Composite Area & Weighted CN		1.05		75

Time of Concentration

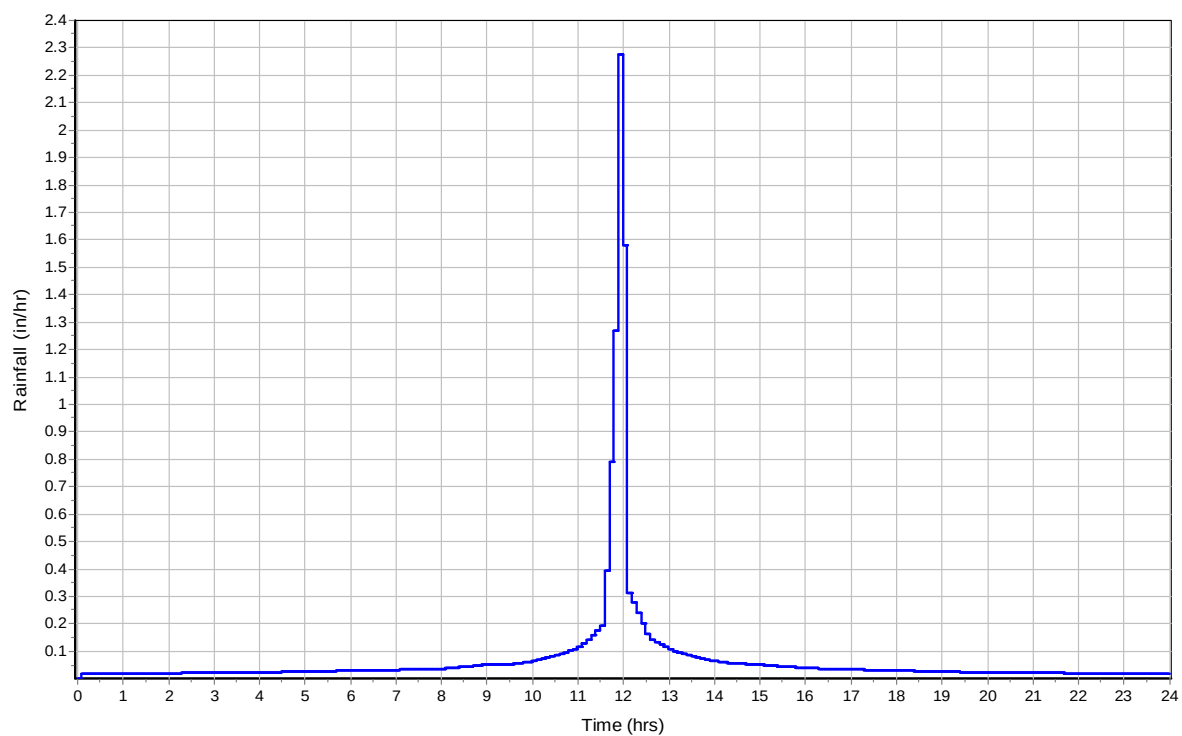
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0	0
Flow Length (ft) :	150	0	0
Slope (%) :	12	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.18	0	0
Computed Flow Time (min) :	13.6	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	350	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	1.01	0	0
Total TOC (min)	14.62		

Subbasin Runoff Results

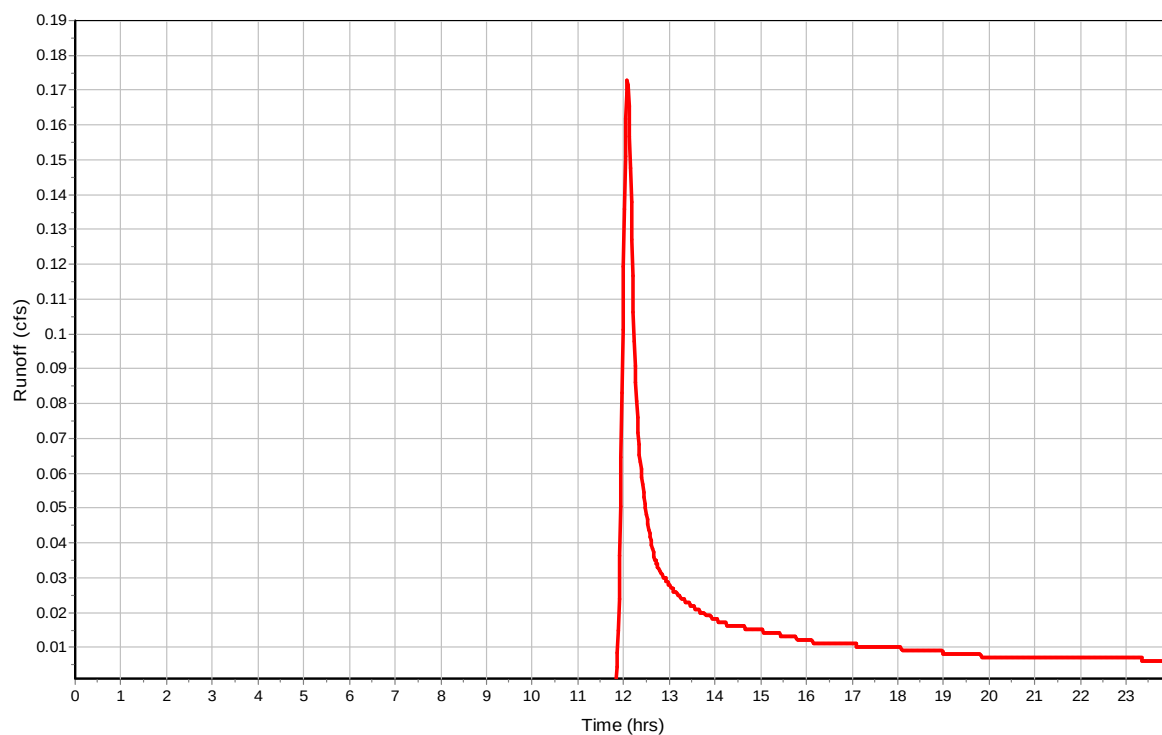
Total Rainfall (in) 1.66
 Total Runoff (in) 0.23
 Peak Runoff (cfs) 0.17
 Weighted Curve Number 75
 Time of Concentration (days hh:mm:ss) 0 00:14:37

Subbasin : Sub-10

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-11

Input Data

Area (ac)	0.74
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.5	B	75
Composite Area & Weighted CN		0.5		75

Time of Concentration

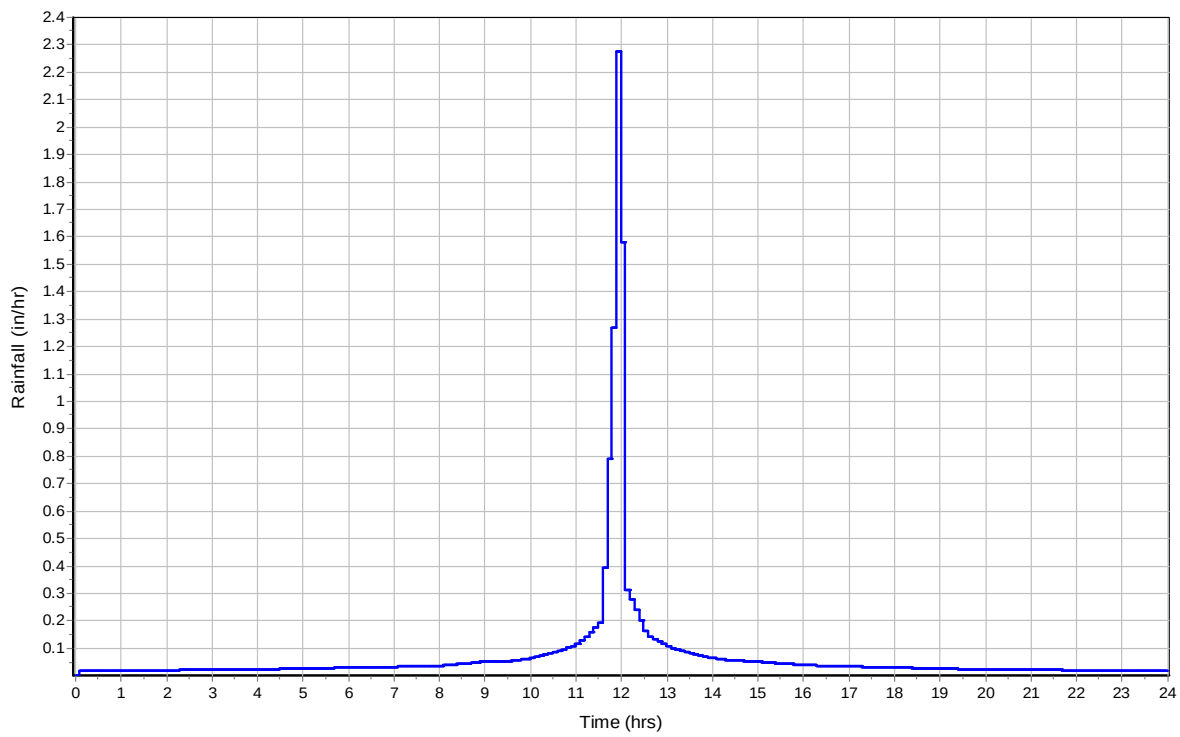
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0	0
Flow Length (ft) :	150	0	0
Slope (%) :	23	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.24	0	0
Computed Flow Time (min) :	10.49	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	100	0	0
Slope (%) :	6	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.98	0	0
Computed Flow Time (min) :	0.33	0	0
Total TOC (min)	10.82		

Subbasin Runoff Results

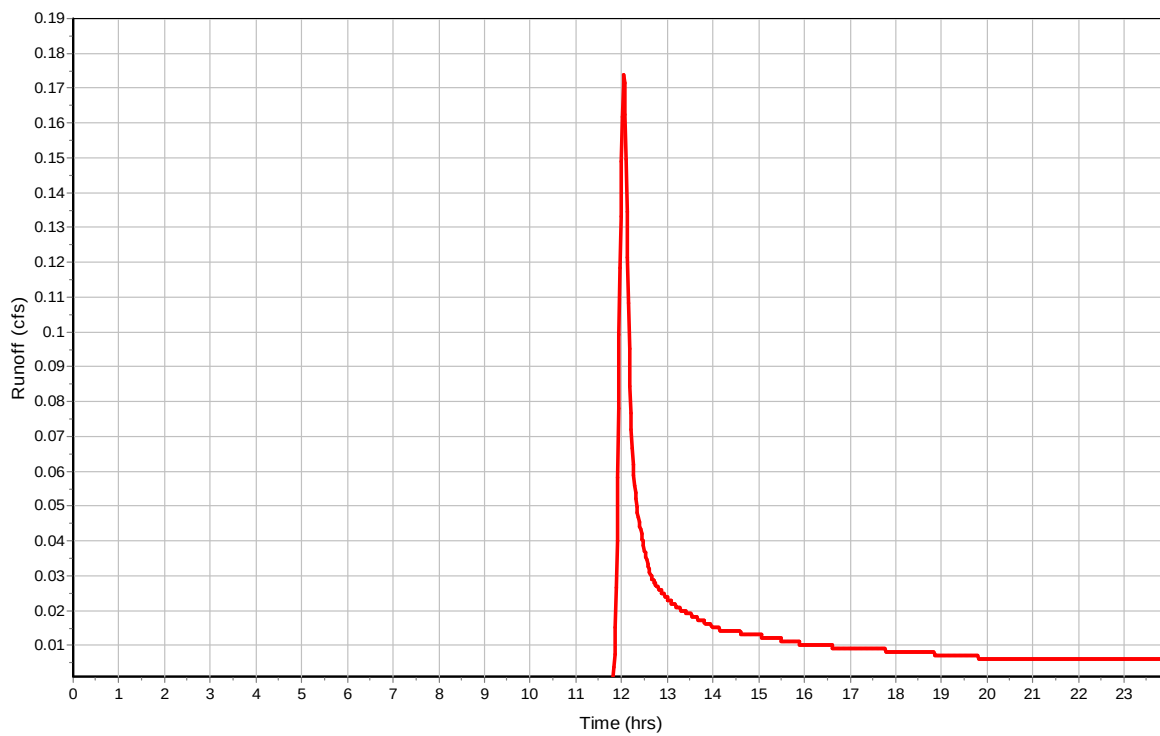
Total Rainfall (in)	1.66
Total Runoff (in)	0.23
Peak Runoff (cfs)	0.17
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:10:49

Subbasin : Sub-11

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-13

Input Data

Area (ac)	2.41
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		1.62	B	75
Composite Area & Weighted CN		1.62		75

Time of Concentration

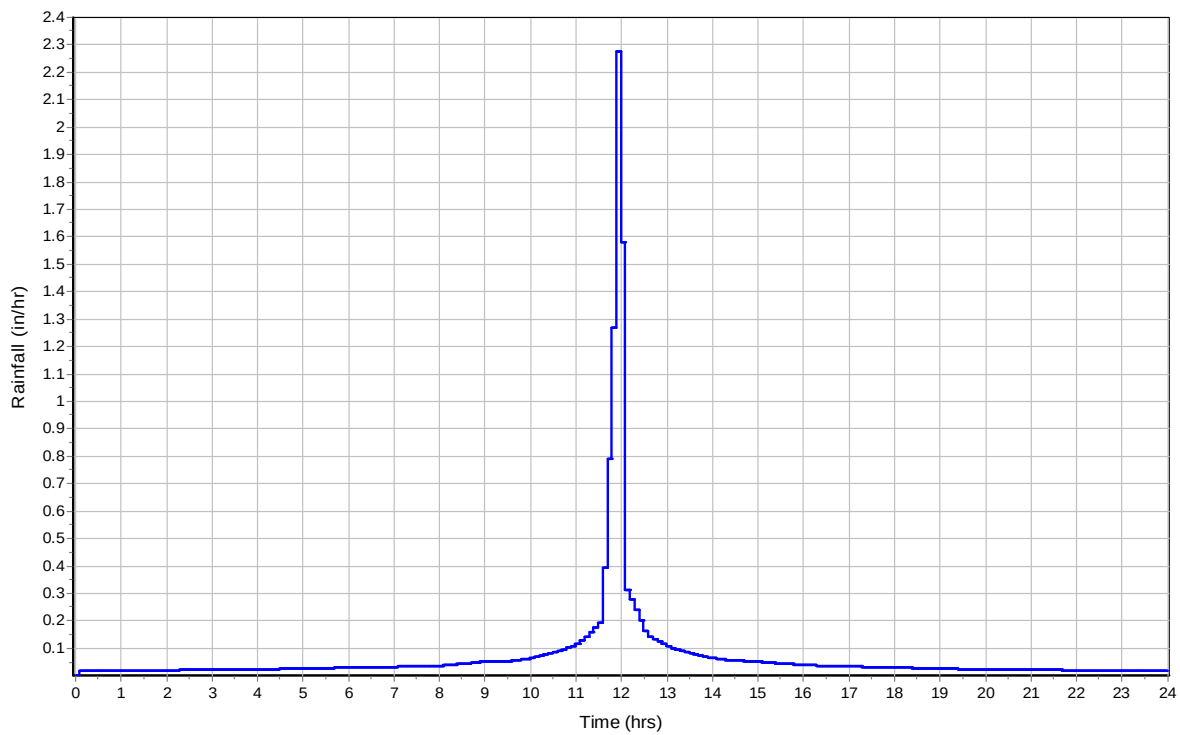
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.05	0
Flow Length (ft) :	80	50	0
Slope (%) :	10	50	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.15	0.79	0
Computed Flow Time (min) :	8.85	1.05	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	400	0	0
Slope (%) :	6	0	0
Surface Type :	Grassed waterway	Unpaved	Unpaved
Velocity (ft/sec) :	3.67	0	0
Computed Flow Time (min) :	1.82	0	0
Total TOC (min)	11.72		

Subbasin Runoff Results

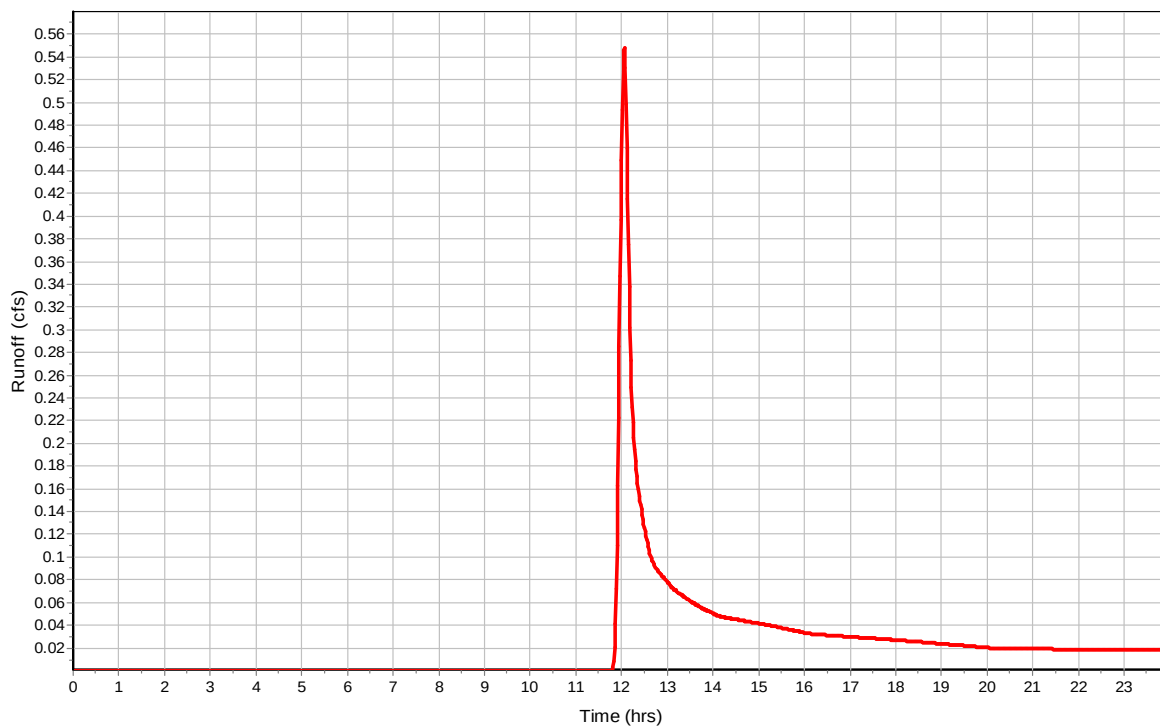
Total Rainfall (in)	1.66
Total Runoff (in)	0.23
Peak Runoff (cfs)	0.55
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:11:43

Subbasin : Sub-13

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-14

Input Data

Area (ac)	0.59
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.57	B	75
Composite Area & Weighted CN		0.57		75

Time of Concentration

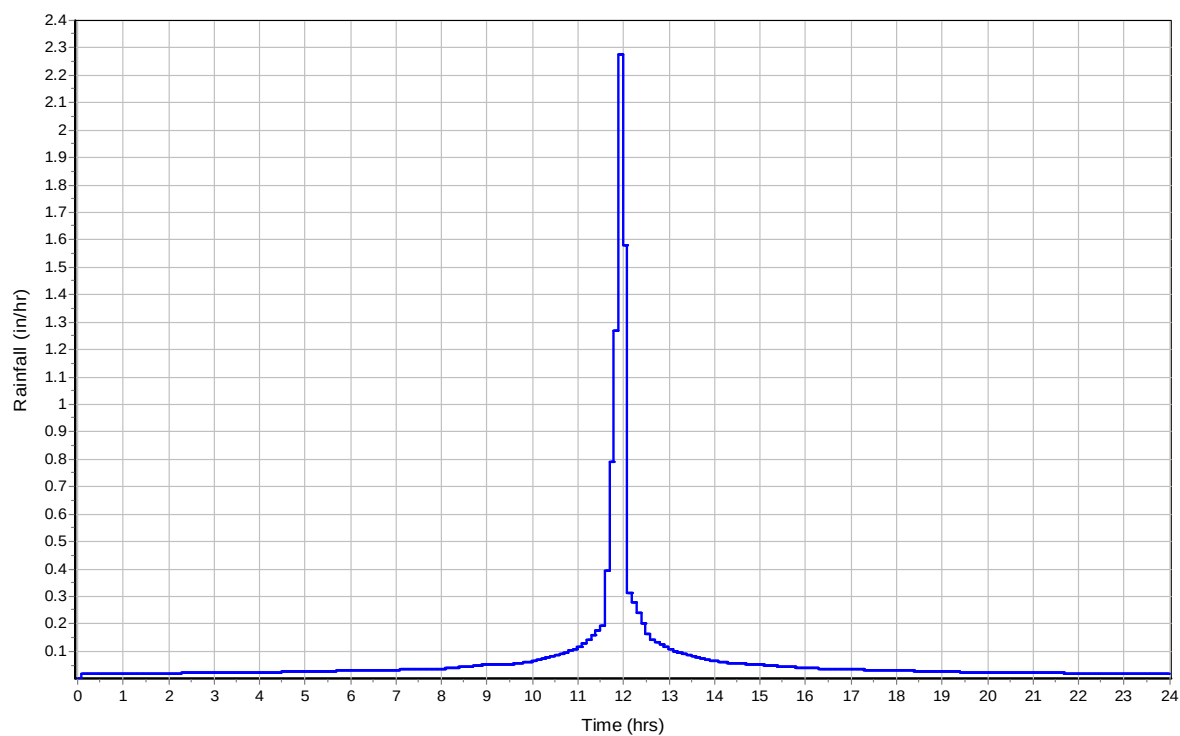
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0.2	0
Flow Length (ft) :	25	150	0
Slope (%) :	2	15	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.64	0.2	0
Computed Flow Time (min) :	0.65	12.44	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	220	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	0.81	0	0
Total TOC (min)	13.90		

Subbasin Runoff Results

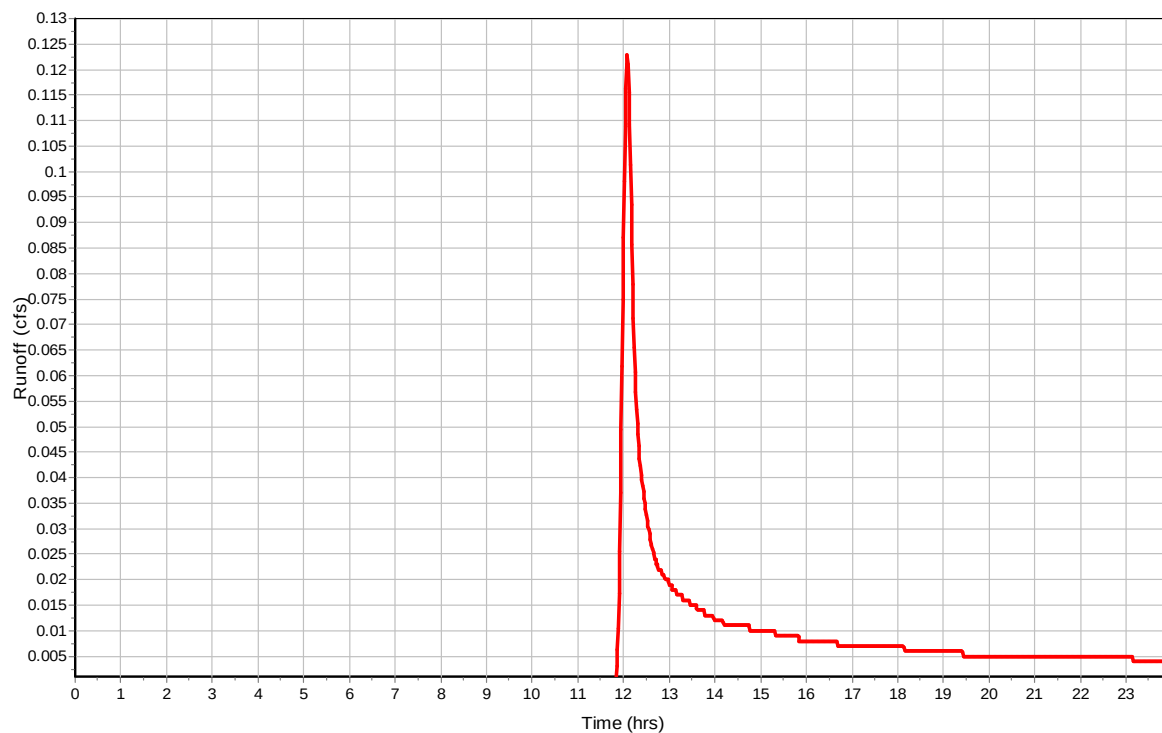
Total Rainfall (in)	1.66
Total Runoff (in)	0.23
Peak Runoff (cfs)	0.12
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:13:54

Subbasin : Sub-14

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-15

Input Data

Area (ac) 0.48
 Peak Rate Factor 484
 Weighted Curve Number 75
 Rain Gage ID MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.78	B	75
Composite Area & Weighted CN		0.78		75

Time of Concentration

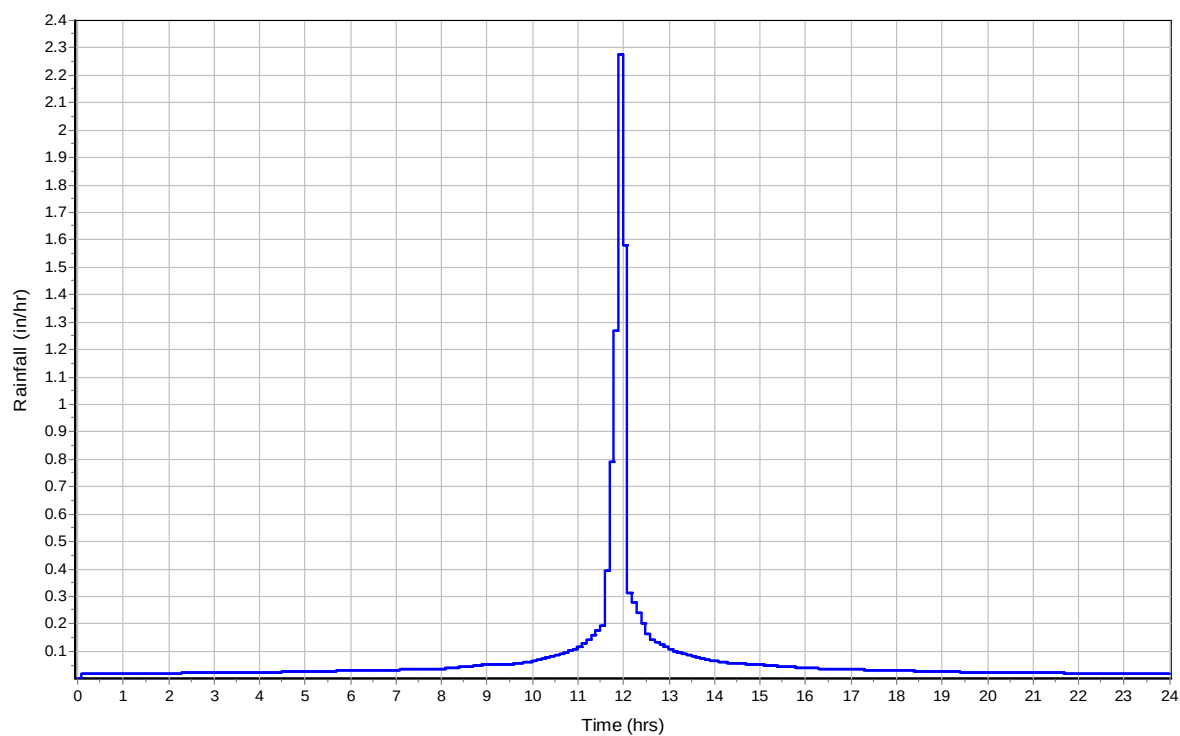
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0.05
Flow Length (ft) :	150	25	50
Slope (%) :	30	2	50
2 yr, 24 hr Rainfall (in) :	1.2	1.2	1.2
Velocity (ft/sec) :	0.27	0.64	0.79
Computed Flow Time (min) :	9.43	0.65	1.05
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	160	0	0
Slope (%) :	1	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	2.03	0	0
Computed Flow Time (min) :	1.31	0	0
Total TOC (min)	12.45		

Subbasin Runoff Results

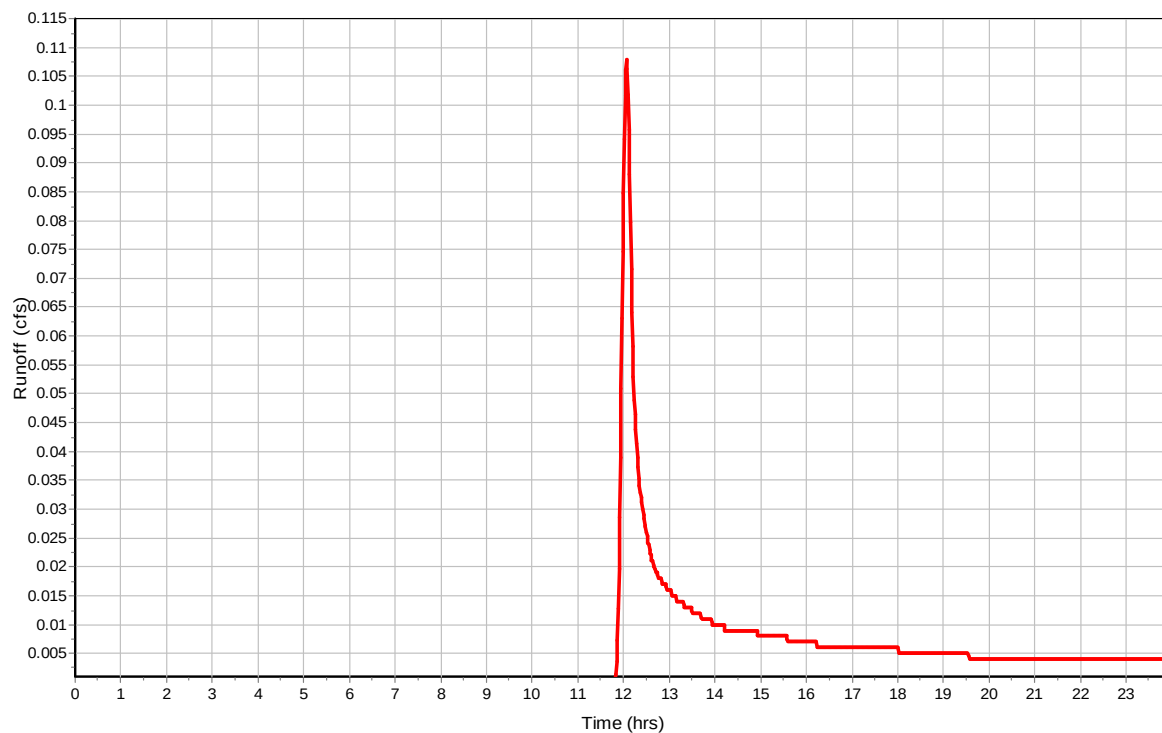
Total Rainfall (in) 1.66
 Total Runoff (in) 0.23
 Peak Runoff (cfs) 0.11
 Weighted Curve Number 75
 Time of Concentration (days hh:mm:ss) 0 00:12:27

Subbasin : Sub-15

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-16

Input Data

Area (ac)	1.16
Peak Rate Factor	484
Weighted Curve Number	83
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		1.16	C	83
Composite Area & Weighted CN		1.16		83

Time of Concentration

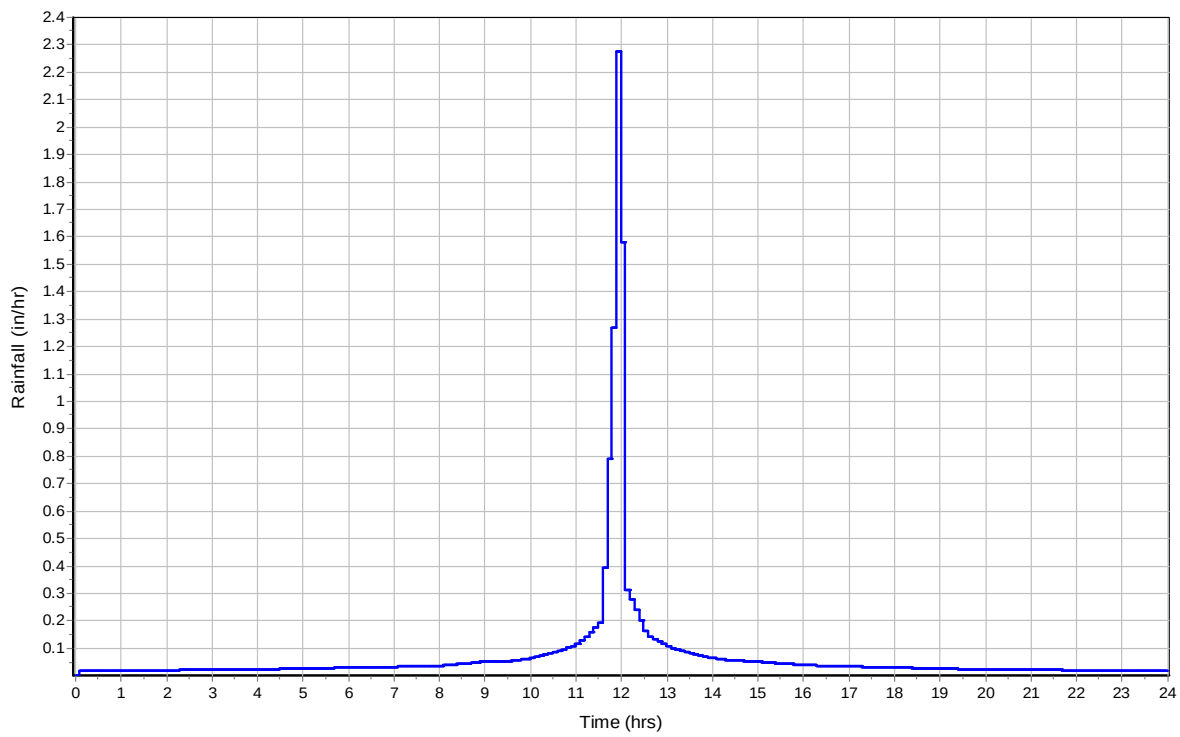
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0	0
Flow Length (ft) :	150	0	0
Slope (%) :	14	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.2	0	0
Computed Flow Time (min) :	12.79	0	0
Total TOC (min)	12.79		

Subbasin Runoff Results

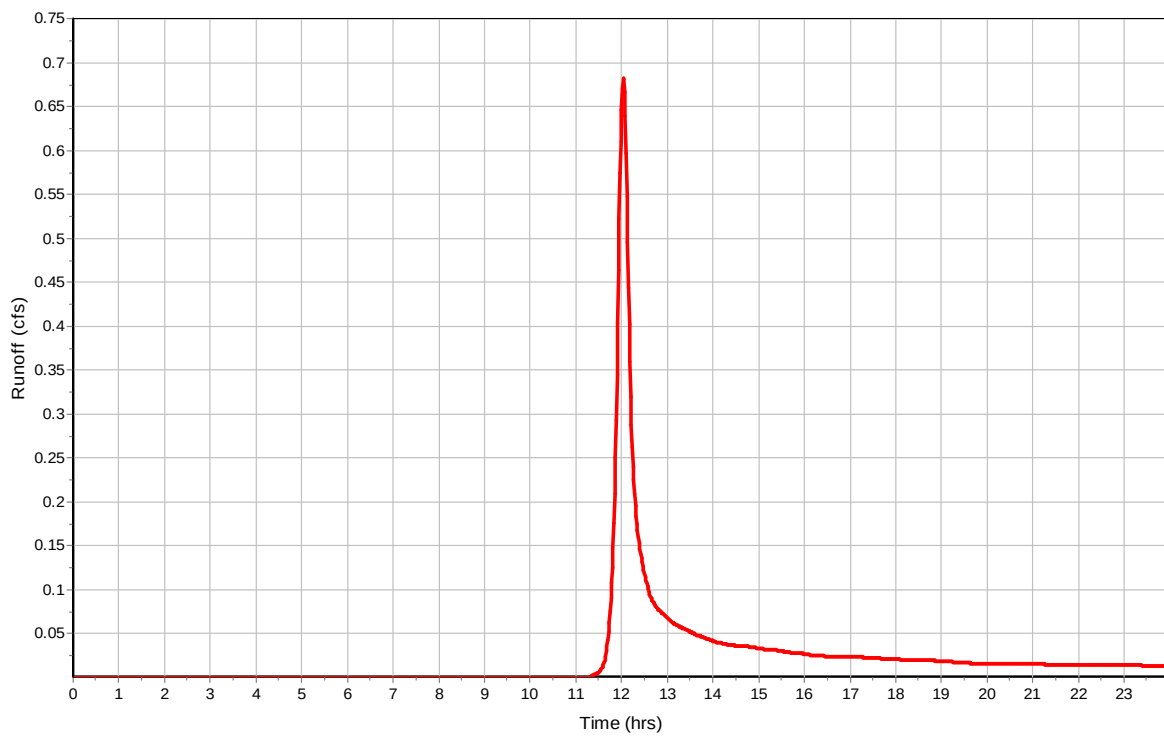
Total Rainfall (in)	1.66
Total Runoff (in)	0.47
Peak Runoff (cfs)	0.68
Weighted Curve Number	83
Time of Concentration (days hh:mm:ss)	0 00:12:47

Subbasin : Sub-16

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-18

Input Data

Area (ac)	1.44
Peak Rate Factor	484
Weighted Curve Number	83
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		1.89	C	83
Composite Area & Weighted CN		1.89		83

Time of Concentration

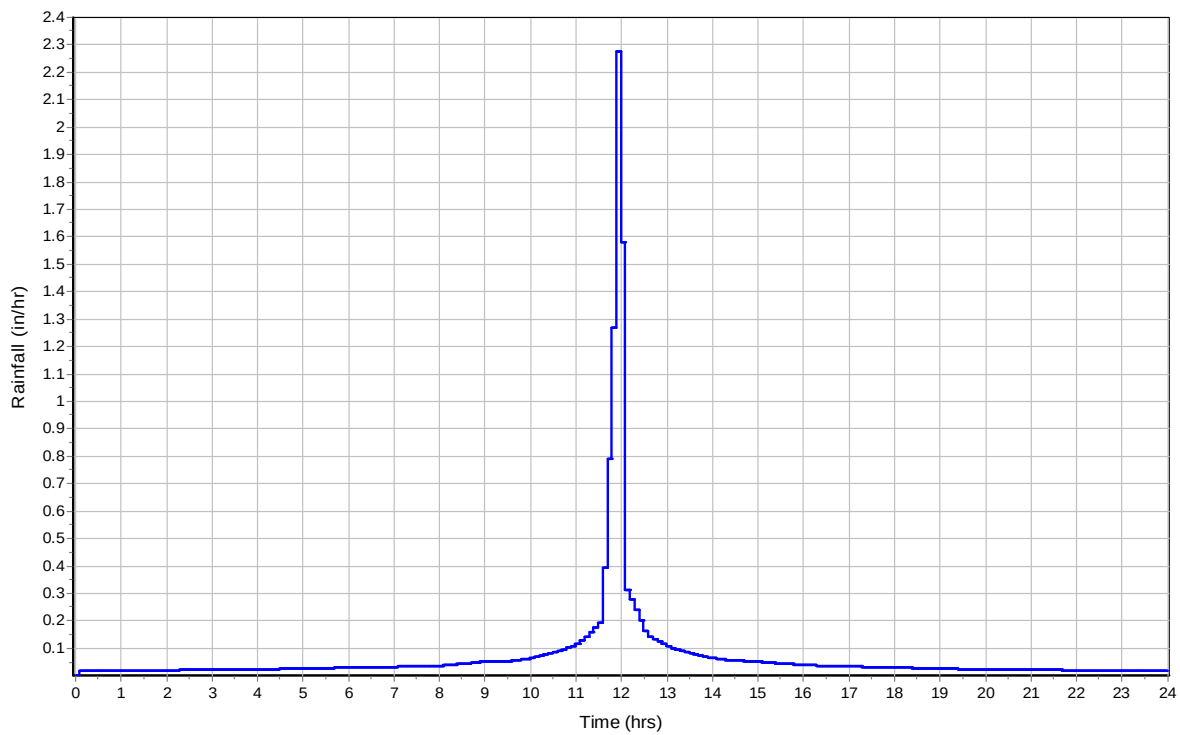
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0.05
Flow Length (ft) :	150	25	20
Slope (%) :	13	2	50
2 yr, 24 hr Rainfall (in) :	1.2	1.2	1.2
Velocity (ft/sec) :	0.19	0.64	0.66
Computed Flow Time (min) :	13.18	0.65	0.51
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	200	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Paved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	0.58	0	0
Total TOC (min)	14.91		

Subbasin Runoff Results

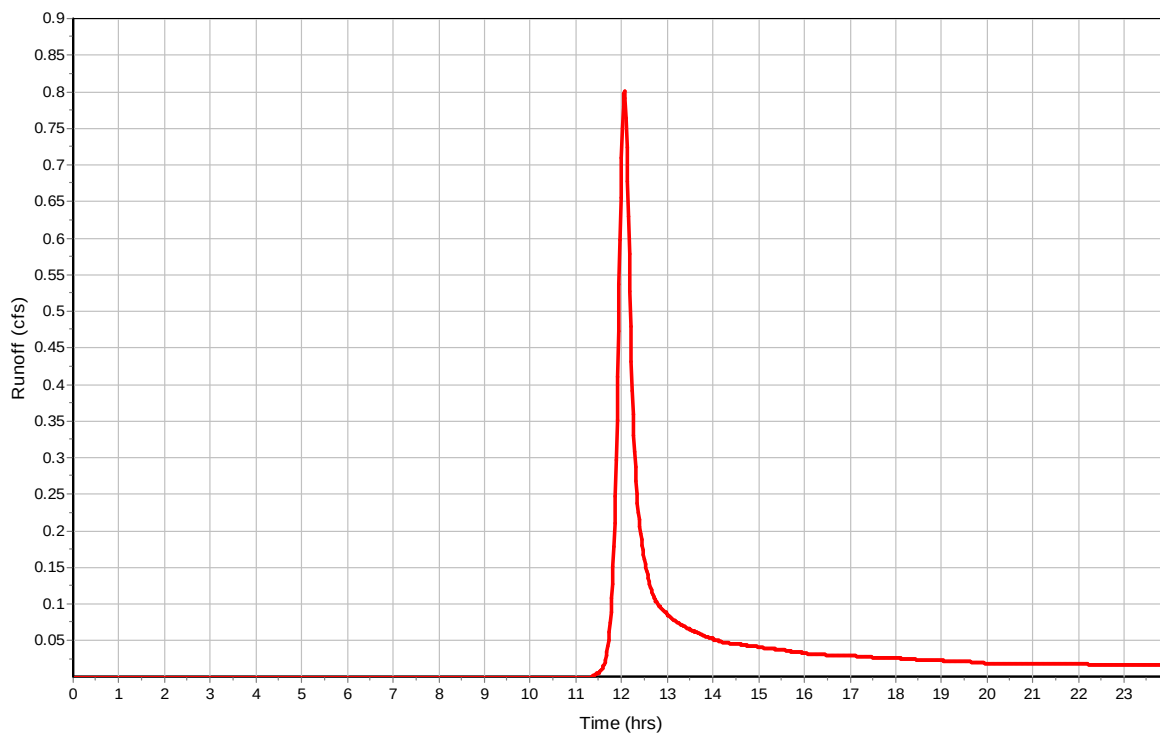
Total Rainfall (in)	1.66
Total Runoff (in)	0.47
Peak Runoff (cfs)	0.8
Weighted Curve Number	83
Time of Concentration (days hh:mm:ss)	0 00:14:55

Subbasin : Sub-18

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-19

Input Data

Area (ac)	0.17
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.17	C	98
Composite Area & Weighted CN		0.17		98

Time of Concentration

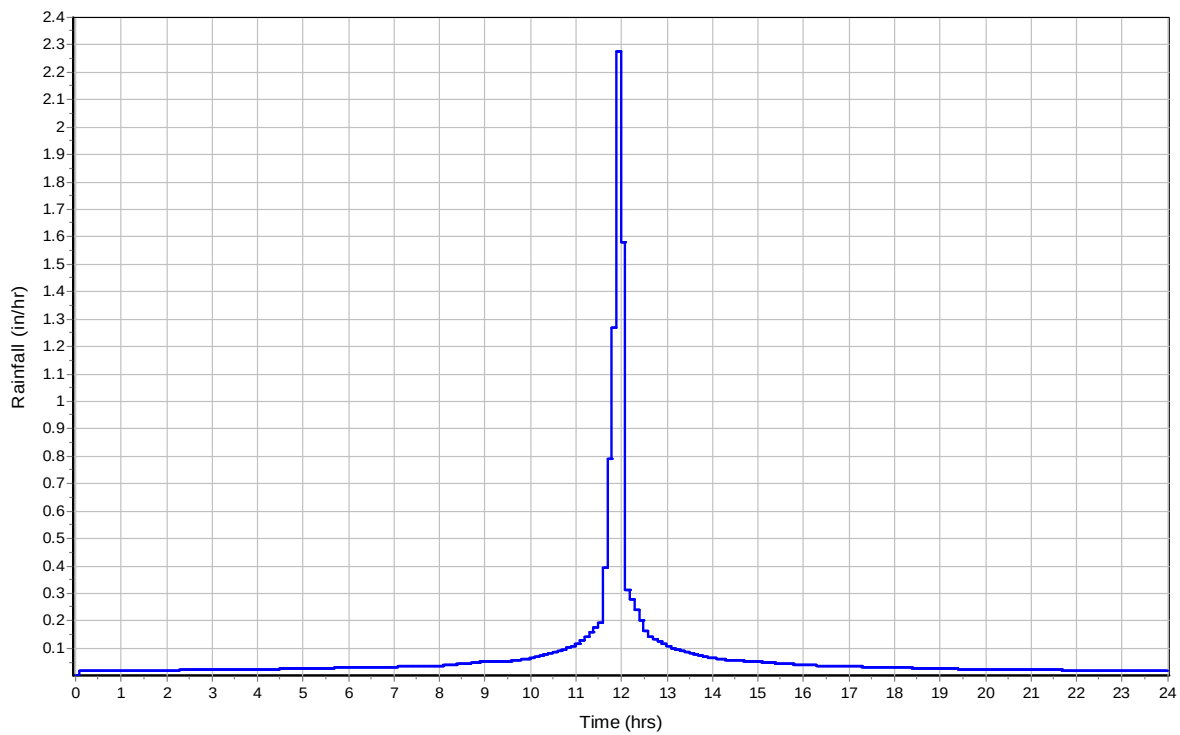
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	450	0	0
Slope (%) :	7	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.38	0	0
Computed Flow Time (min) :	1.39	0	0
Total TOC (min)	2.05		

Subbasin Runoff Results

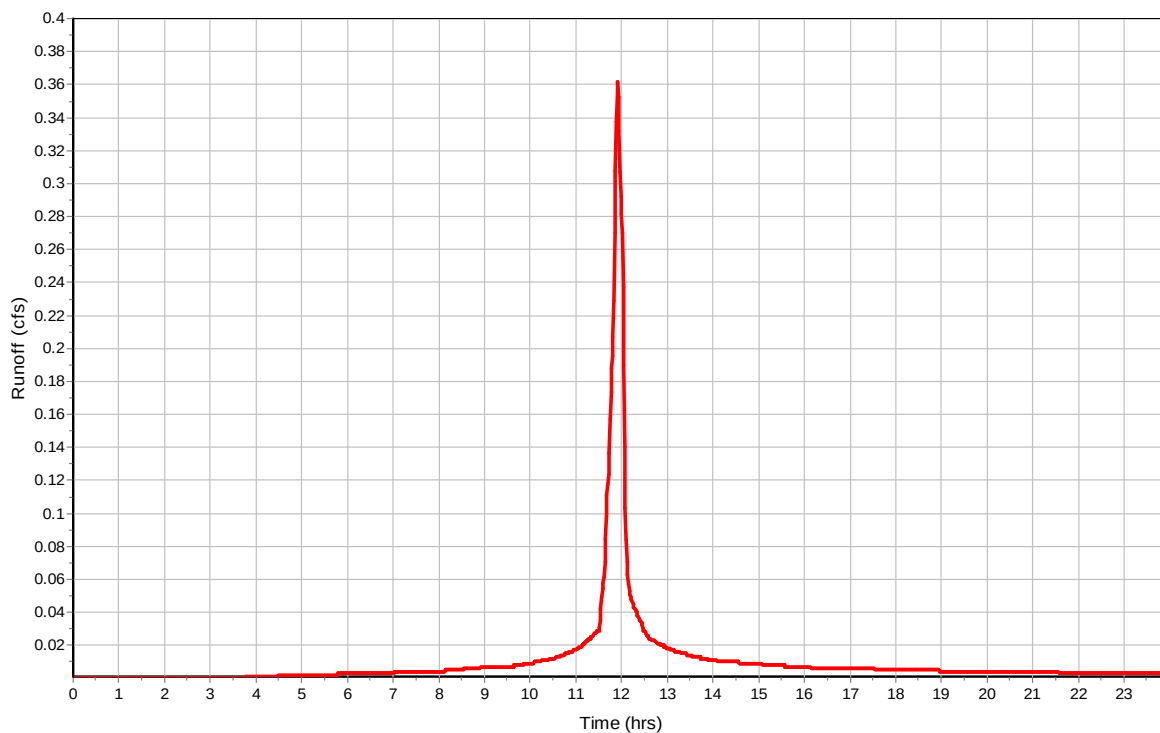
Total Rainfall (in)	1.66
Total Runoff (in)	1.43
Peak Runoff (cfs)	0.36
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:02:03

Subbasin : Sub-19

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-20

Input Data

Area (ac)	1.39
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		1.42	B	75
Composite Area & Weighted CN		1.42		75

Time of Concentration

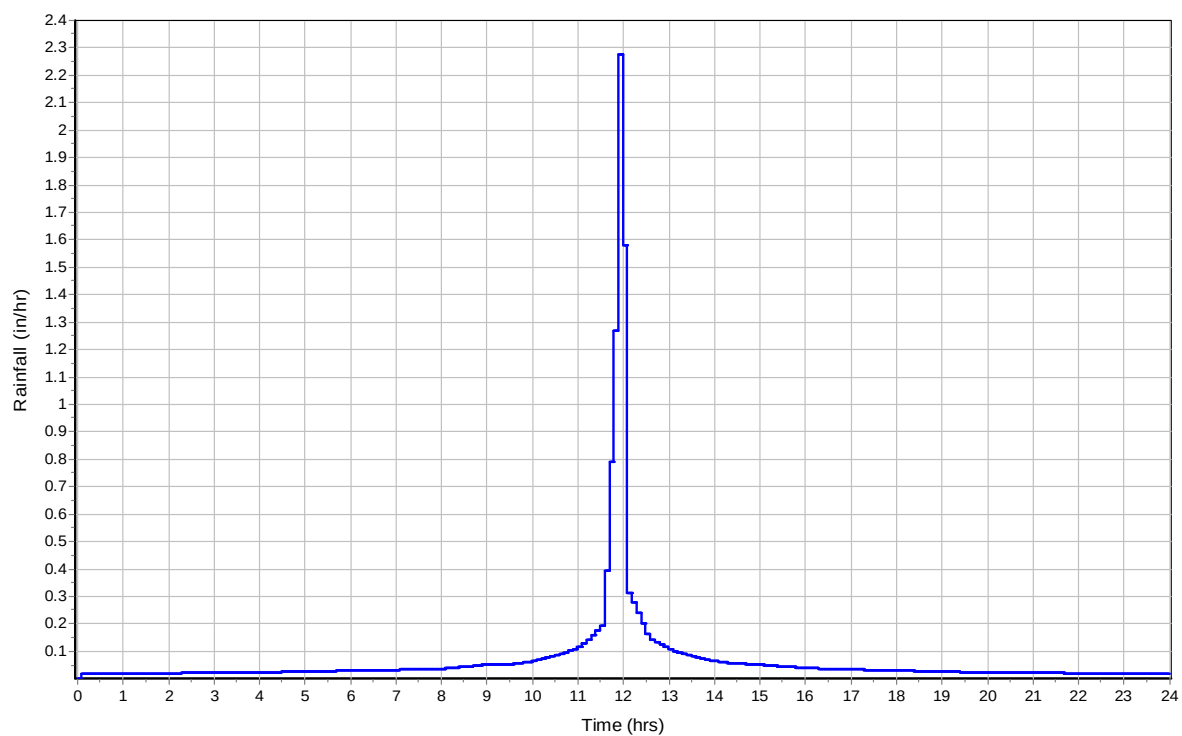
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0	0
Flow Length (ft) :	150	0	0
Slope (%) :	12	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.18	0	0
Computed Flow Time (min) :	13.6	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	415	0	0
Slope (%) :	8.5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.93	0	0
Computed Flow Time (min) :	1.17	0	0
Total TOC (min)	14.77		

Subbasin Runoff Results

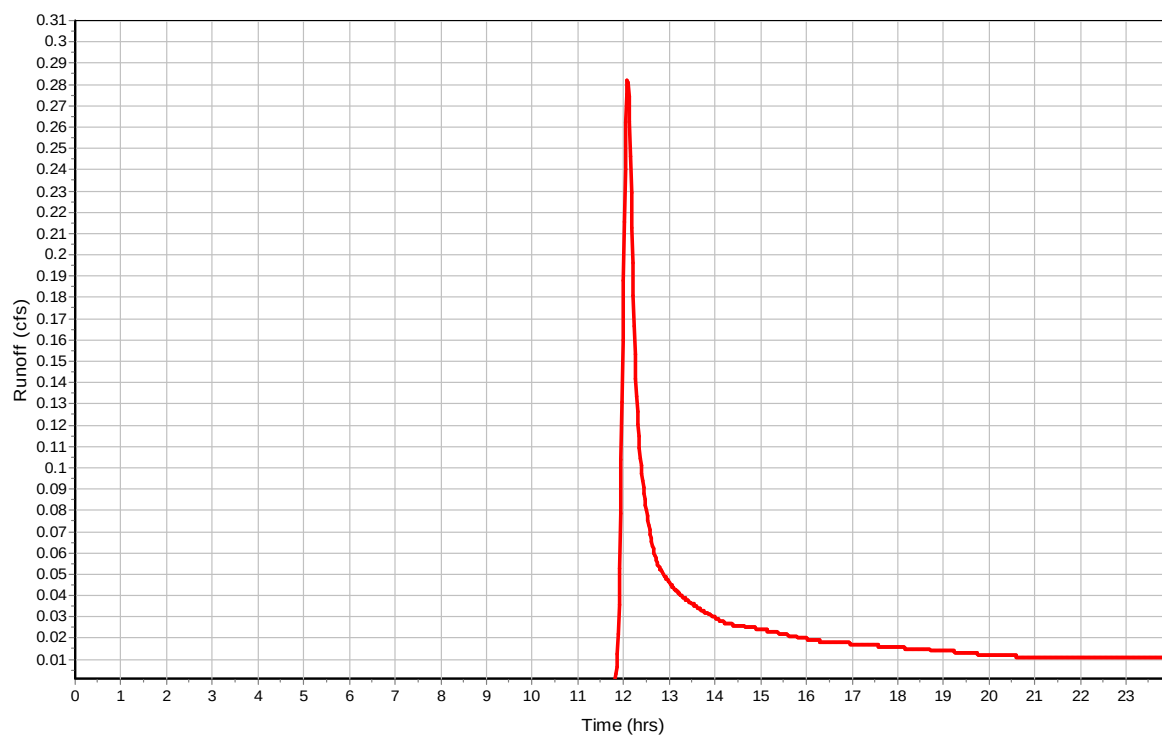
Total Rainfall (in)	1.66
Total Runoff (in)	0.23
Peak Runoff (cfs)	0.28
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:14:46

Subbasin : Sub-20

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-21

Input Data

Area (ac)	0.11
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.11	B	98
Composite Area & Weighted CN		0.11		98

Time of Concentration

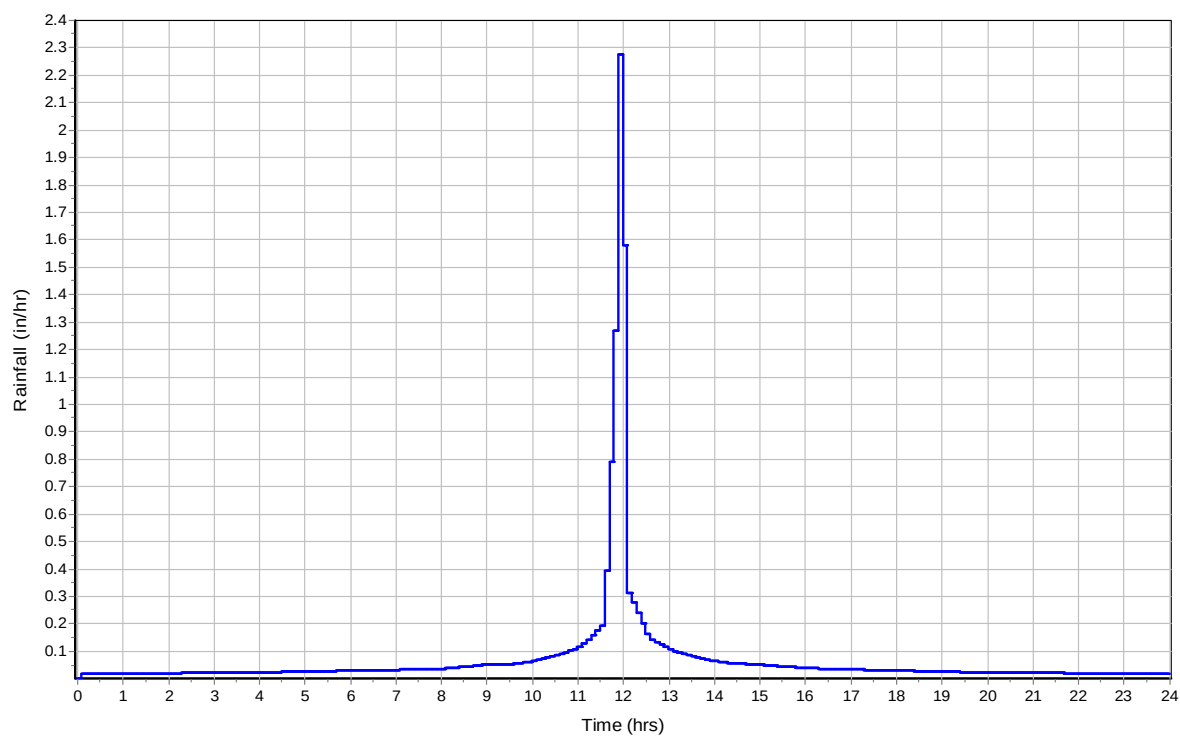
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	240	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	0.88	0	0
Total TOC (min)	1.53		

Subbasin Runoff Results

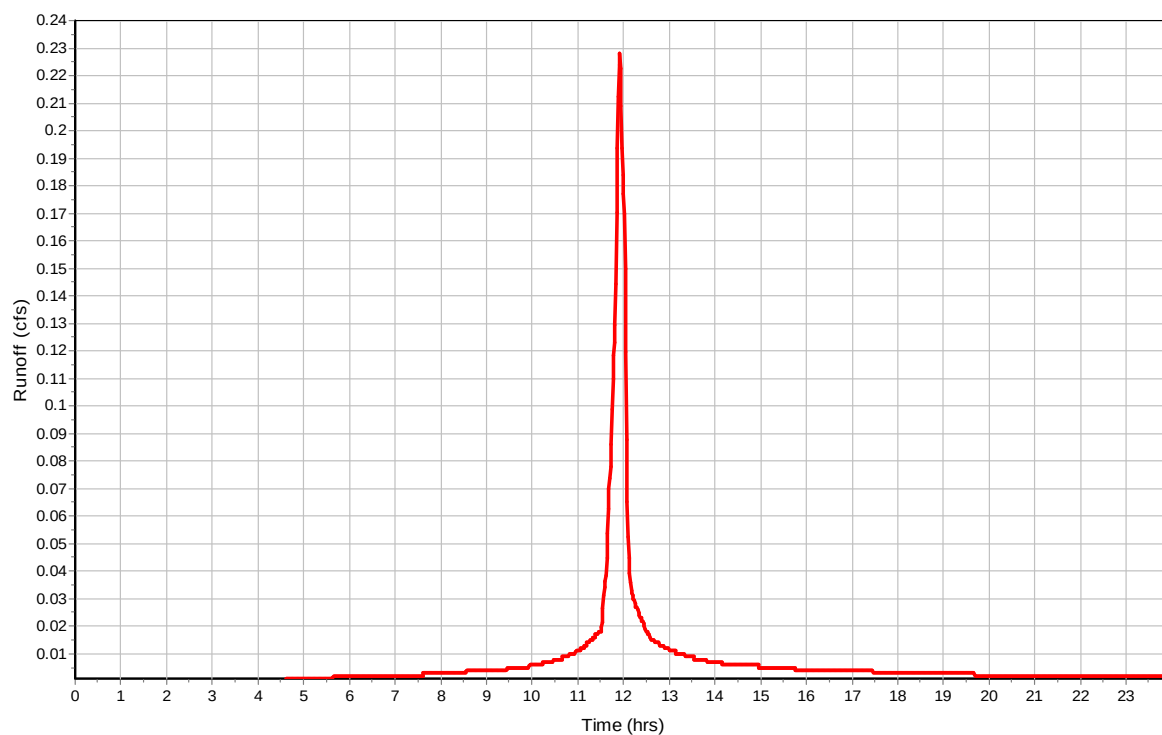
Total Rainfall (in)	1.66
Total Runoff (in)	1.43
Peak Runoff (cfs)	0.23
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:32

Subbasin : Sub-21

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-22

Input Data

Area (ac)	0.07
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.07	B	98
Composite Area & Weighted CN		0.07		98

Time of Concentration

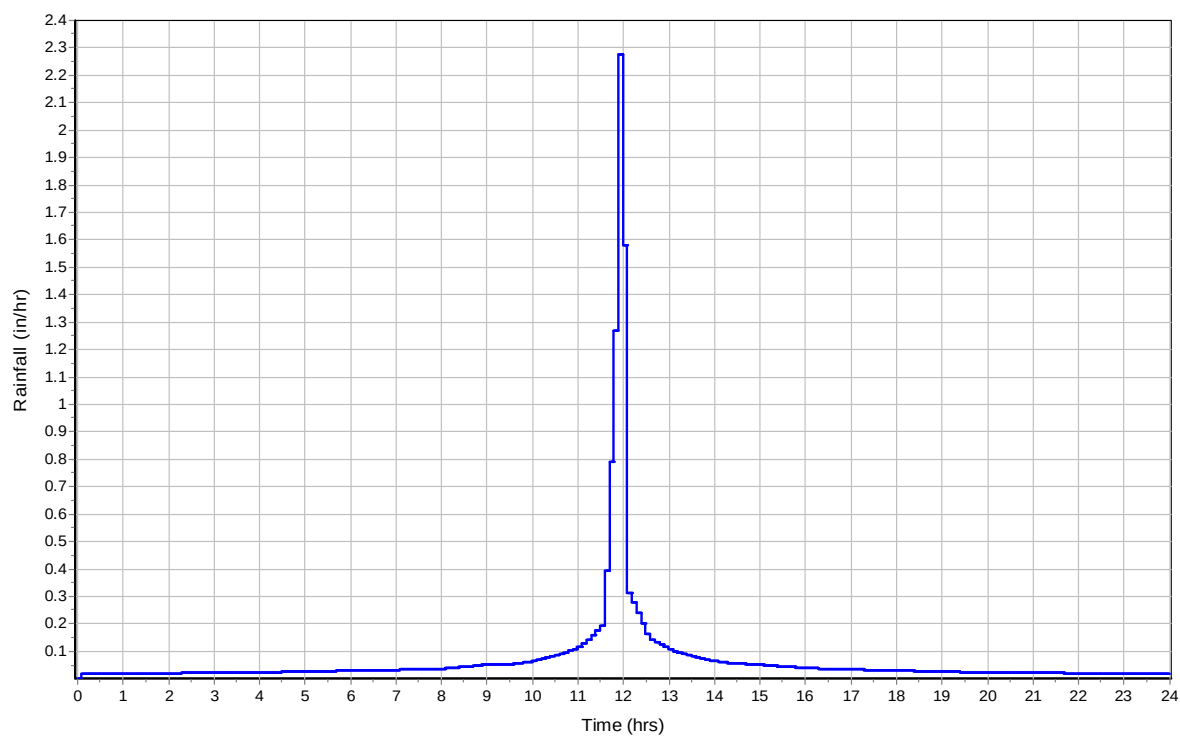
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	155	0	0
Slope (%) :	1	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	2.03	0	0
Computed Flow Time (min) :	1.27	0	0
Total TOC (min)	1.93		

Subbasin Runoff Results

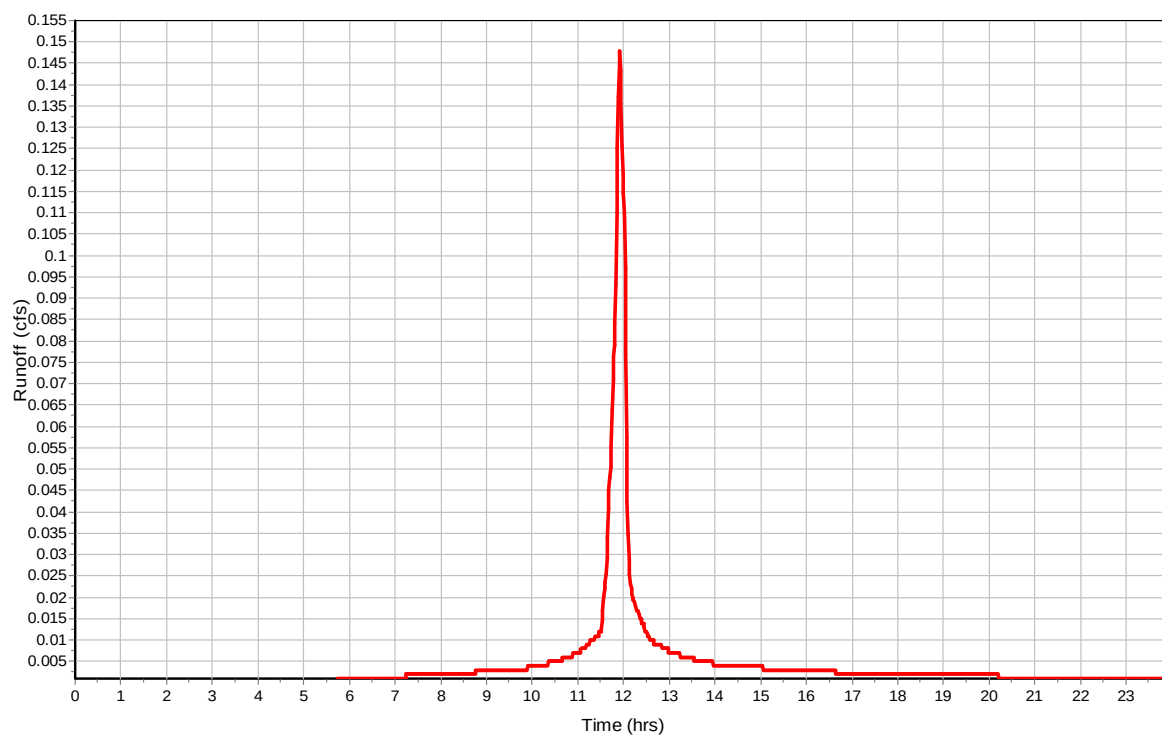
Total Rainfall (in)	1.66
Total Runoff (in)	1.41
Peak Runoff (cfs)	0.15
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:56

Subbasin : Sub-22

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-23

Input Data

Area (ac)	0.07
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.07	B	98
Composite Area & Weighted CN		0.07		98

Time of Concentration

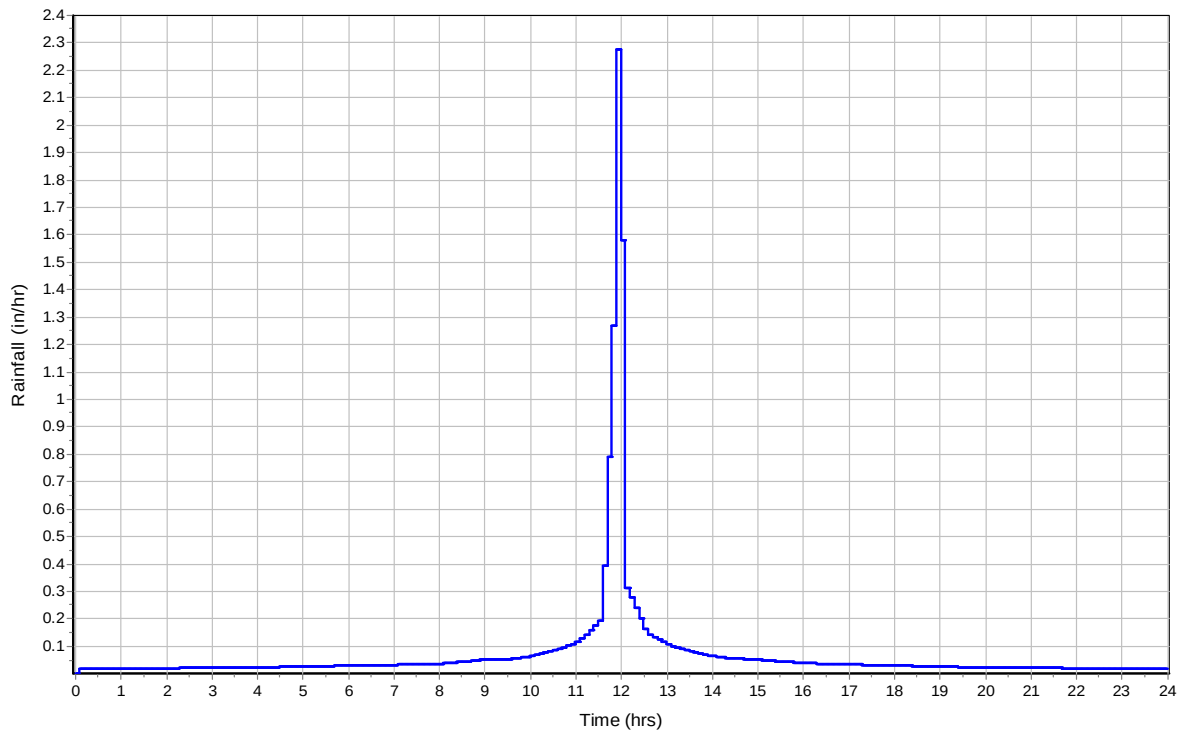
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	160	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	0.59	0	0
Total TOC (min)	1.24		

Subbasin Runoff Results

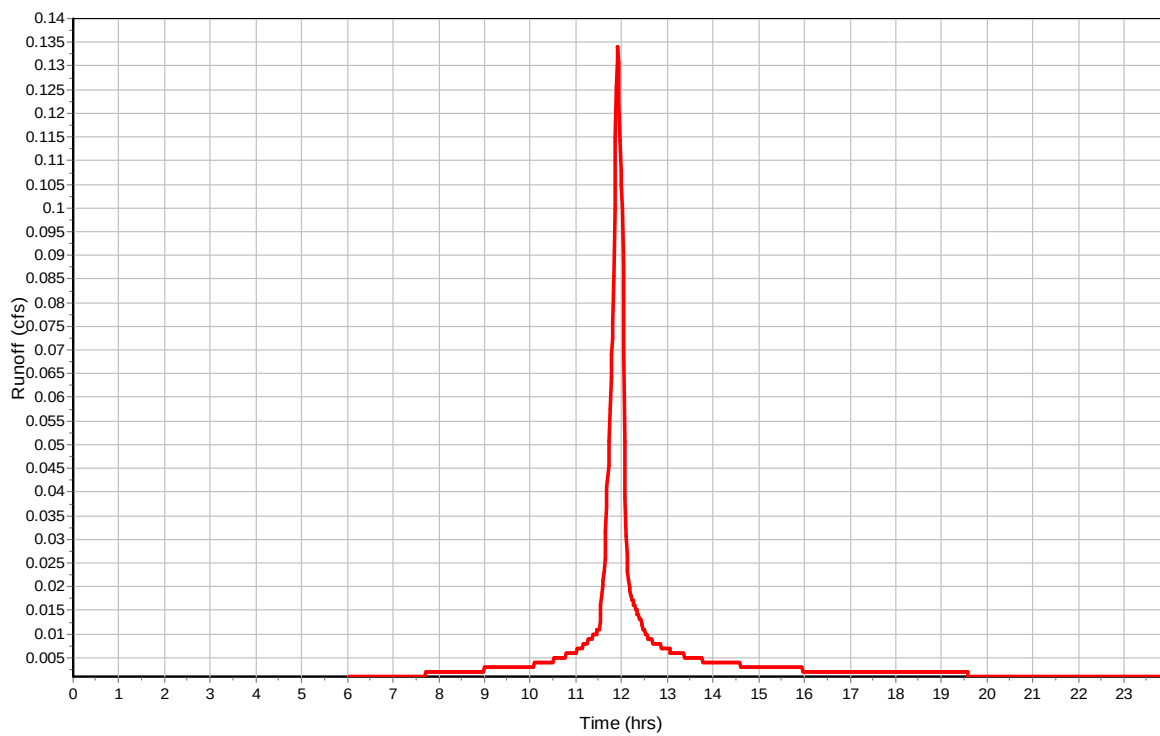
Total Rainfall (in)	1.66
Total Runoff (in)	1.41
Peak Runoff (cfs)	0.13
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:14

Subbasin : Sub-23

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-24

Input Data

Area (ac)	0.08
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.08	B	98
Composite Area & Weighted CN		0.08		98

Time of Concentration

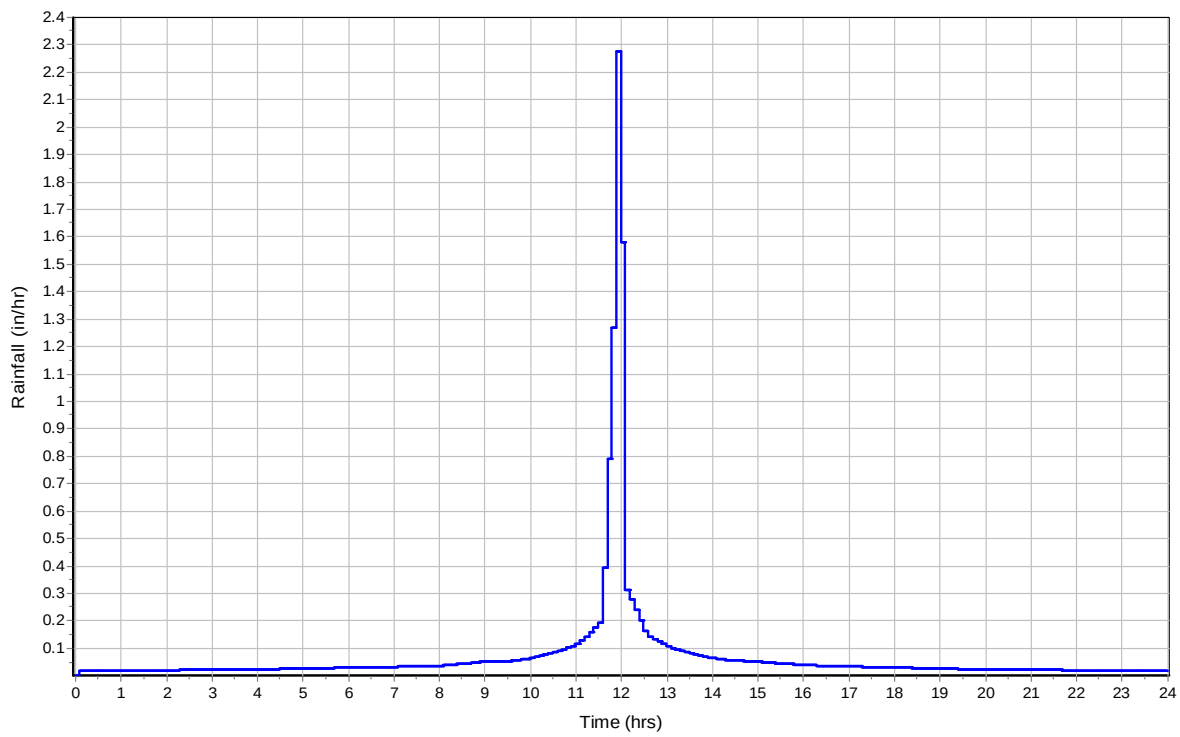
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	170	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	0.62	0	0
Total TOC (min)	1.28		

Subbasin Runoff Results

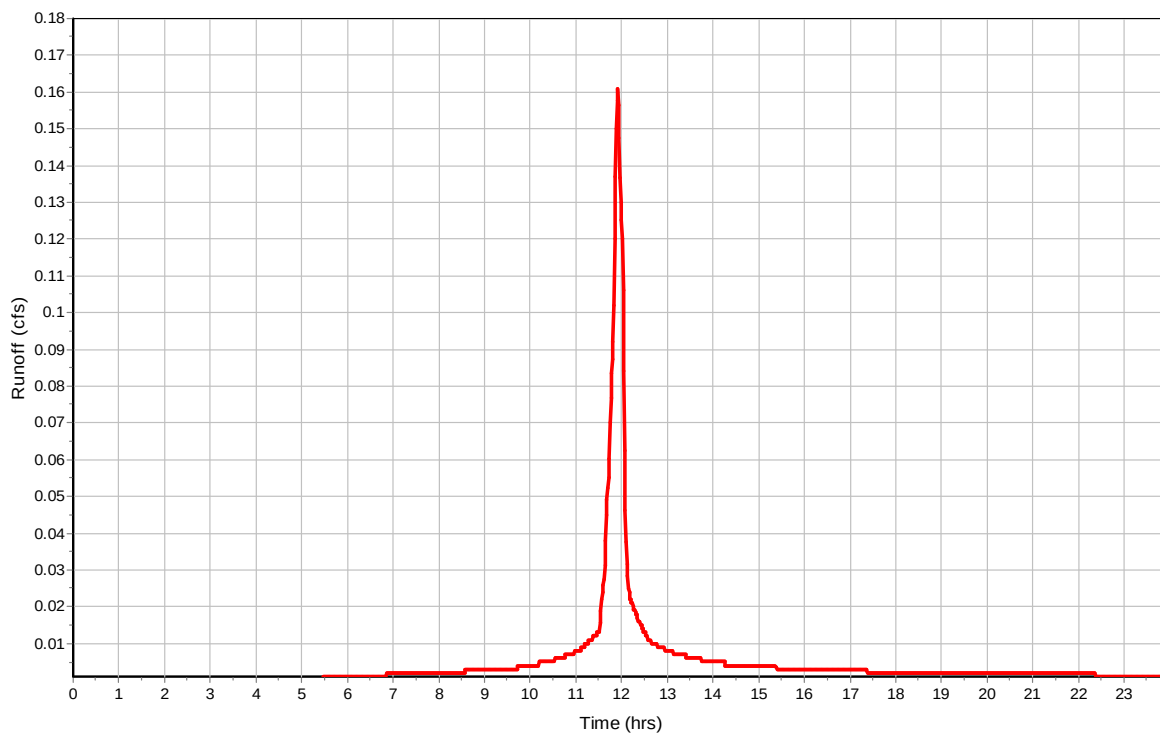
Total Rainfall (in)	1.66
Total Runoff (in)	1.42
Peak Runoff (cfs)	0.16
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:17

Subbasin : Sub-24

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-25

Input Data

Area (ac)	2.33
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		2.33	B	75
Composite Area & Weighted CN		2.33		75

Time of Concentration

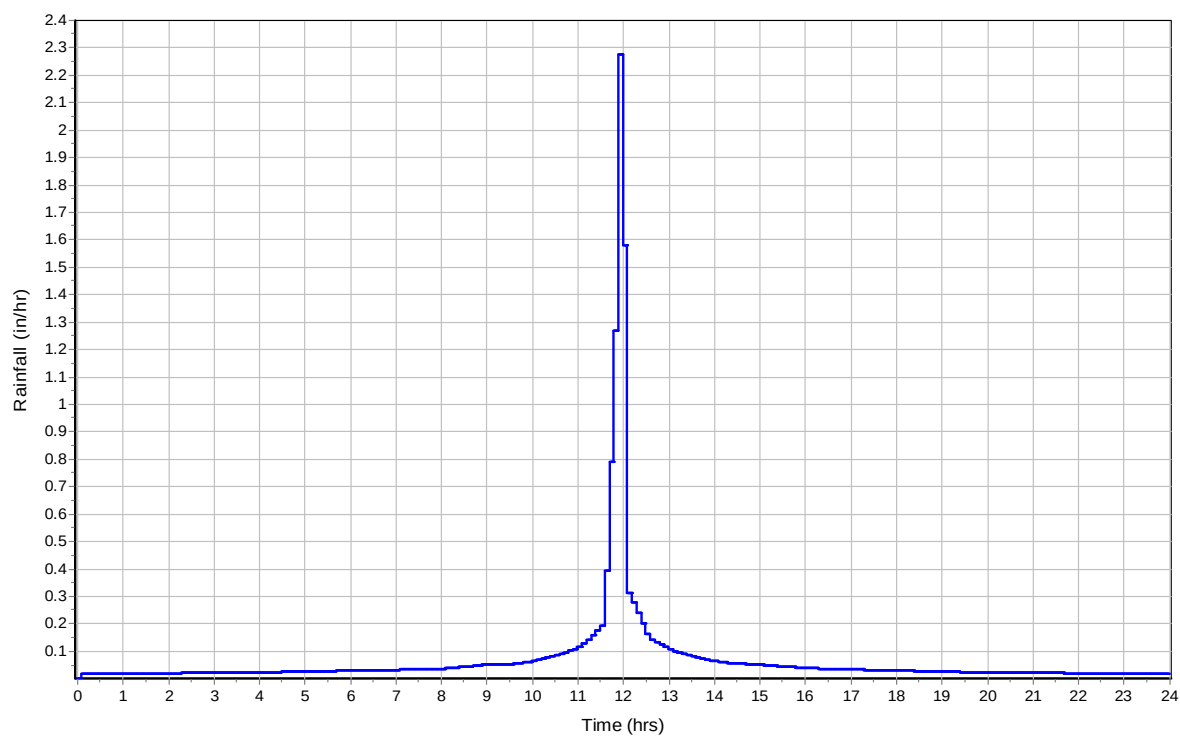
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0	0.011
Flow Length (ft) :	150	0	25
Slope (%) :	12	0	2
2 yr, 24 hr Rainfall (in) :	1.2	0	1.2
Velocity (ft/sec) :	0.18	0	0.64
Computed Flow Time (min) :	13.6	0	0.65
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	400	350	0
Slope (%) :	10	7	0
Surface Type :	Paved	Paved	Unpaved
Velocity (ft/sec) :	6.43	5.38	0
Computed Flow Time (min) :	1.04	1.08	0
Total TOC (min)	16.38		

Subbasin Runoff Results

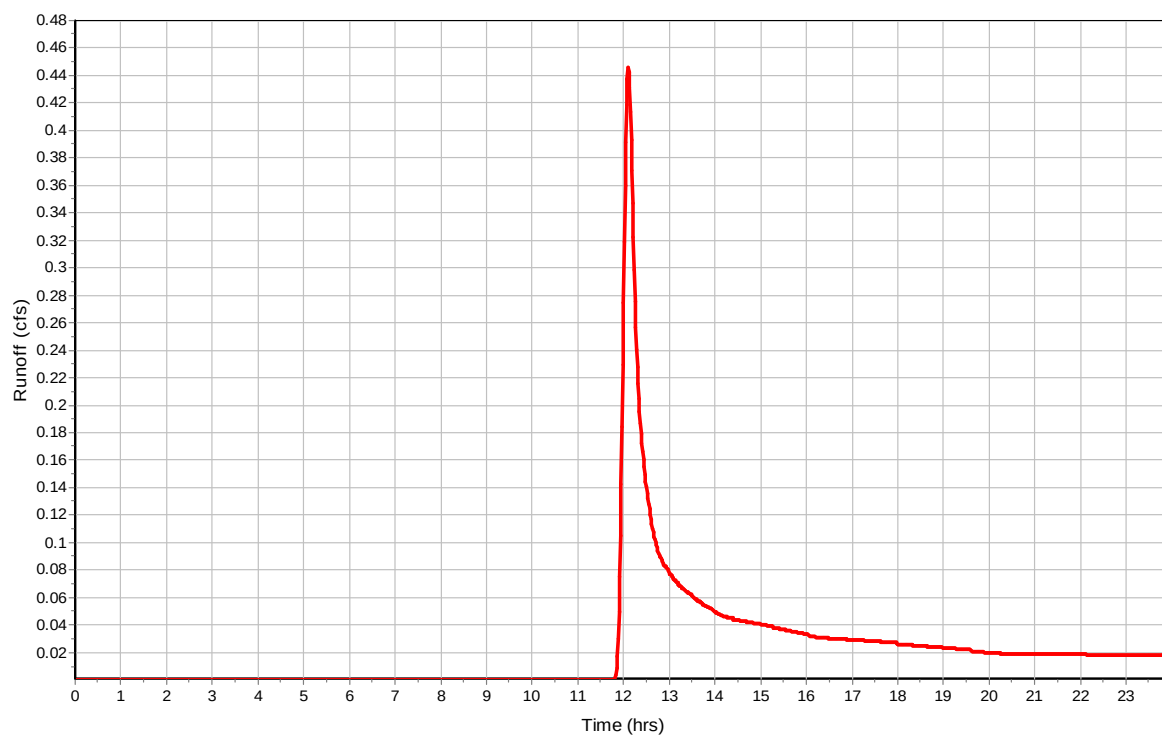
Total Rainfall (in)	1.66
Total Runoff (in)	0.23
Peak Runoff (cfs)	0.45
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:16:23

Subbasin : Sub-25

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-26

Input Data

Area (ac)	0.48
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.23	B	75
Composite Area & Weighted CN		0.23		75

Time of Concentration

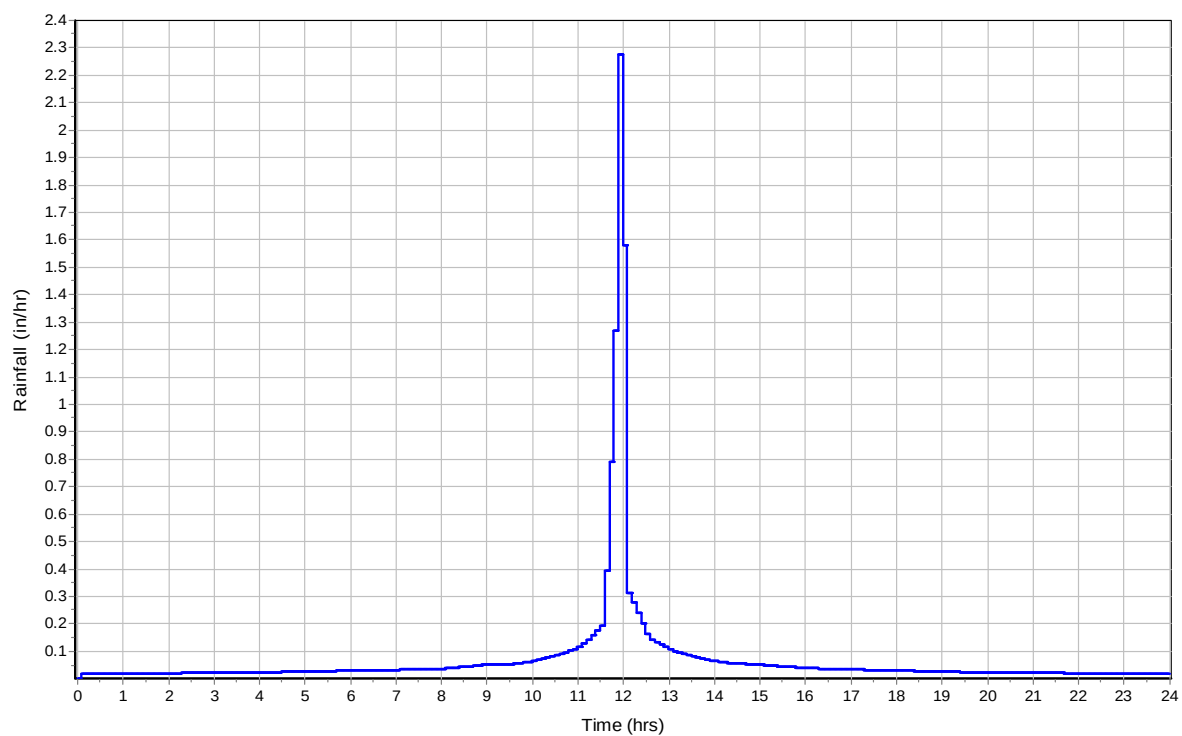
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0.05
Flow Length (ft) :	125	25	25
Slope (%) :	10	2	50
2 yr, 24 hr Rainfall (in) :	1.2	1.2	1.2
Velocity (ft/sec) :	0.16	0.64	0.69
Computed Flow Time (min) :	12.65	0.65	0.6
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	220	0	0
Slope (%) :	4	0	0
Surface Type :	Unpaved	Unpaved	Unpaved
Velocity (ft/sec) :	3.23	0	0
Computed Flow Time (min) :	1.14	0	0
Total TOC (min)	15.04		

Subbasin Runoff Results

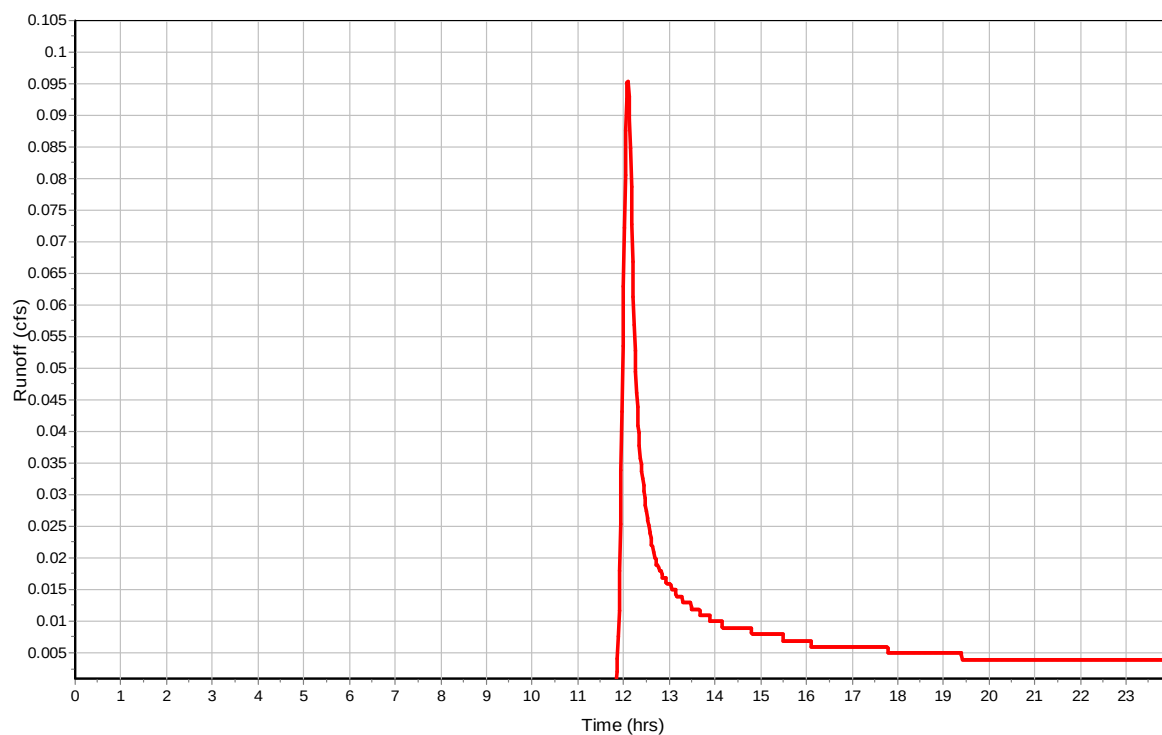
Total Rainfall (in)	1.66
Total Runoff (in)	0.23
Peak Runoff (cfs)	0.1
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:15:02

Subbasin : Sub-26

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-27

Input Data

Area (ac)	0.45
Peak Rate Factor	484
Weighted Curve Number	88.8
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.15	B	75
Paved parking & roofs		0.23	B	98
Composite Area & Weighted CN		0.38		88.8

Time of Concentration

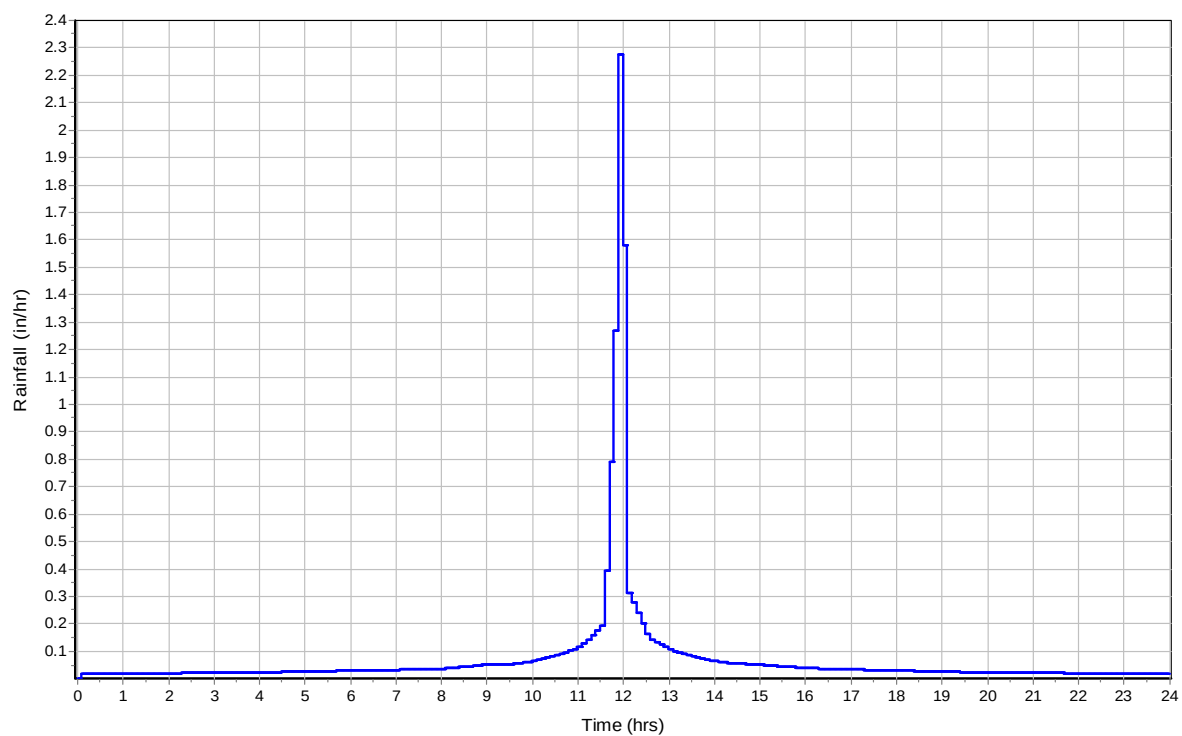
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0.2	0
Flow Length (ft) :	25	80	0
Slope (%) :	2	8	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.64	0.14	0
Computed Flow Time (min) :	0.65	9.68	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	520	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	1.9	0	0
Total TOC (min)	12.23		

Subbasin Runoff Results

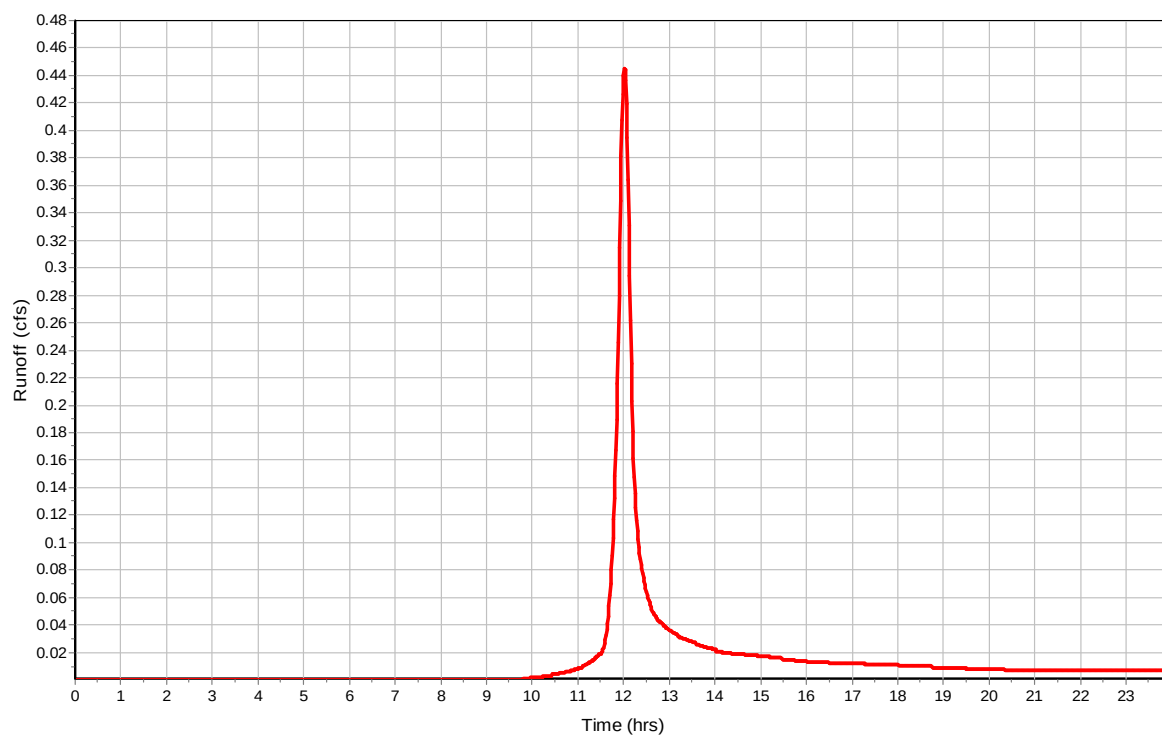
Total Rainfall (in)	1.66
Total Runoff (in)	0.74
Peak Runoff (cfs)	0.45
Weighted Curve Number	88.8
Time of Concentration (days hh:mm:ss)	0 00:12:14

Subbasin : Sub-27

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-29

Input Data

Area (ac)	0.06
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.06	C	98
Composite Area & Weighted CN		0.06		98

Time of Concentration

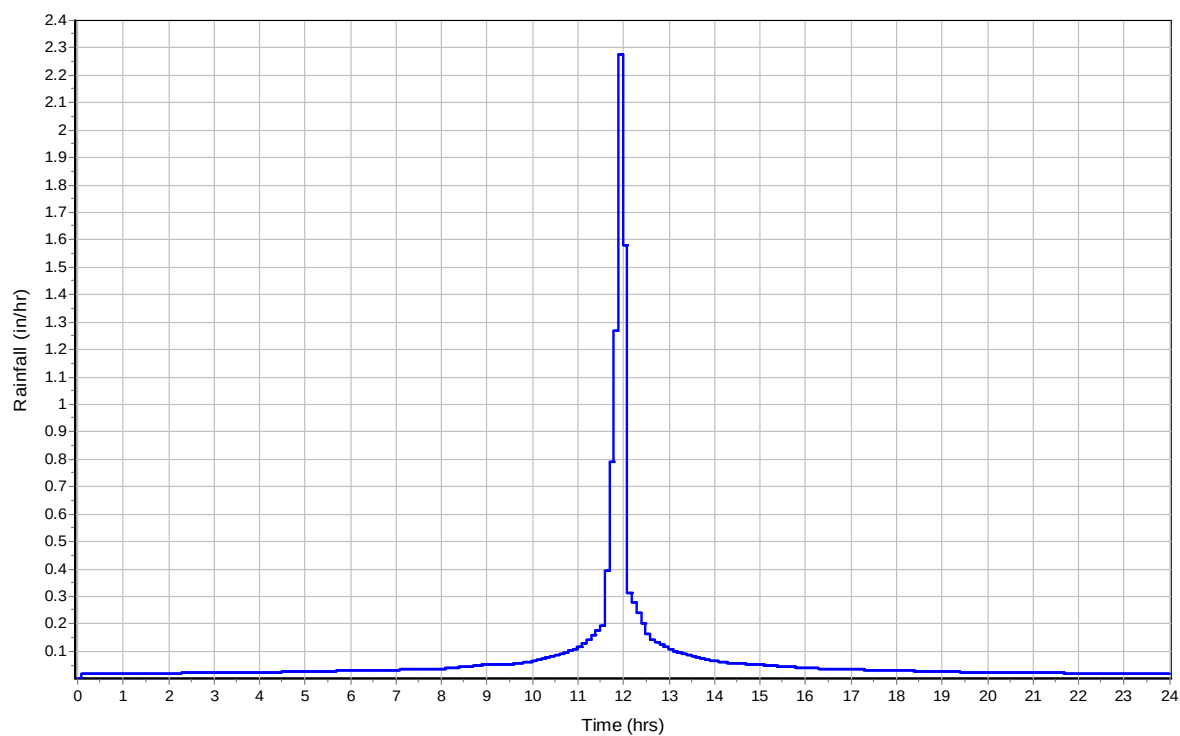
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	120	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	0.35	0	0
Total TOC (min)	1.00		

Subbasin Runoff Results

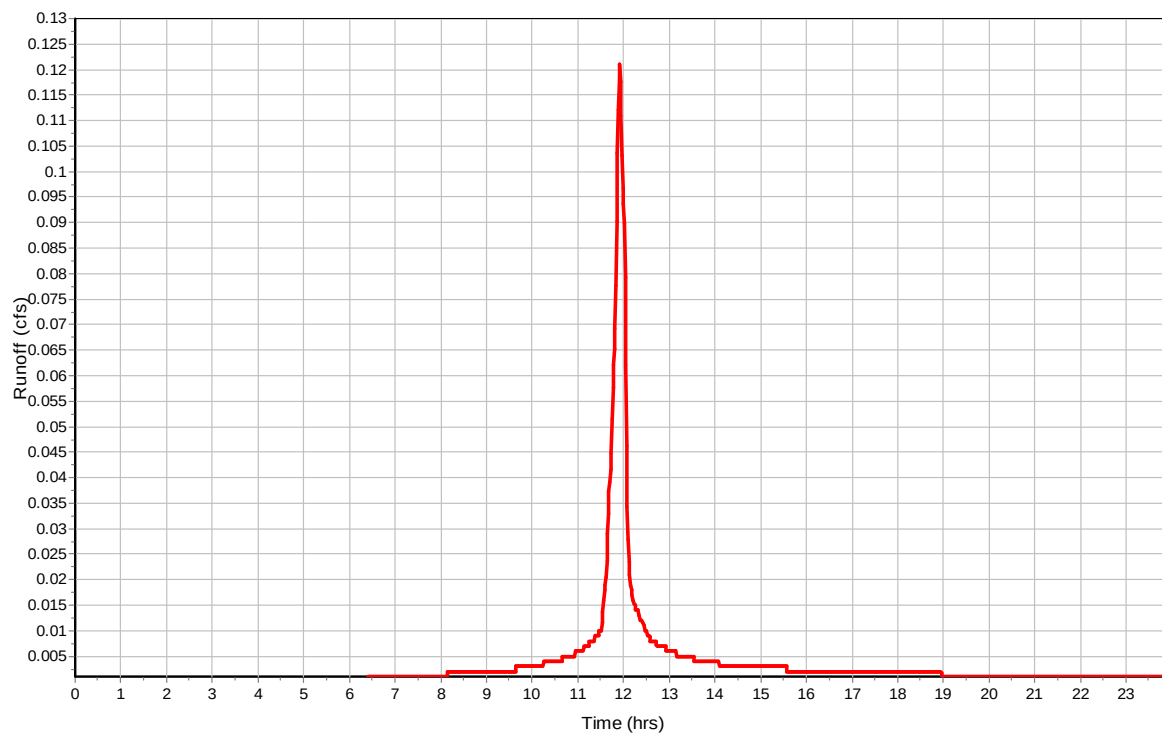
Total Rainfall (in)	1.66
Total Runoff (in)	1.4
Peak Runoff (cfs)	0.12
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:00

Subbasin : Sub-29

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-32

Input Data

Area (ac) 1.78
Peak Rate Factor 484
Weighted Curve Number 89.65
Rain Gage ID MC-100Y-24H

Composite Curve Number

Soil/Surface Description	32	Area (acres)	Soil Group	Curve Number
1/4 acre lots, 38% impervious		0.09	C	83
1/8 acre lots, 65% impervious		1.69	C	90
Composite Area & Weighted CN		1.78		89.65

Time of Concentration

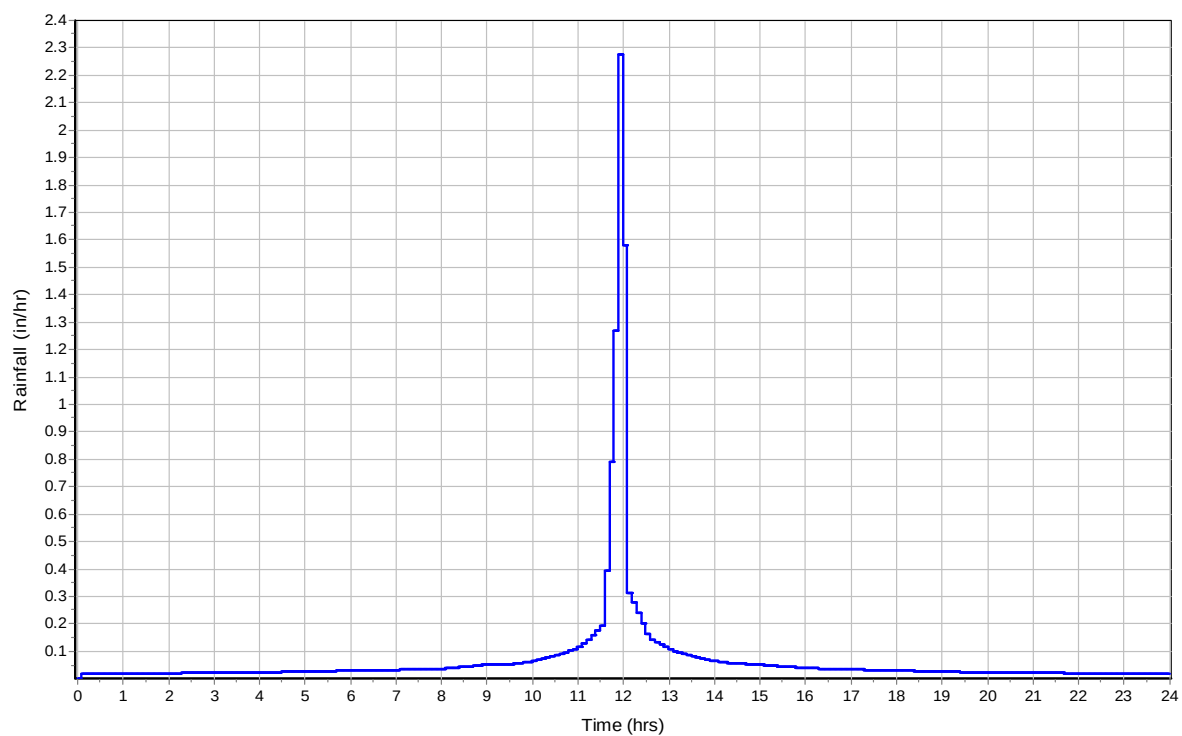
	Subarea A	Subarea B	Subarea C
Sheet Flow Computations			
Manning's Roughness :	0.2	0	0
Flow Length (ft) :	90	0	0
Slope (%) :	10	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.15	0	0
Computed Flow Time (min) :	9.72	0	0
Total TOC (min)9.72			

Subbasin Runoff Results

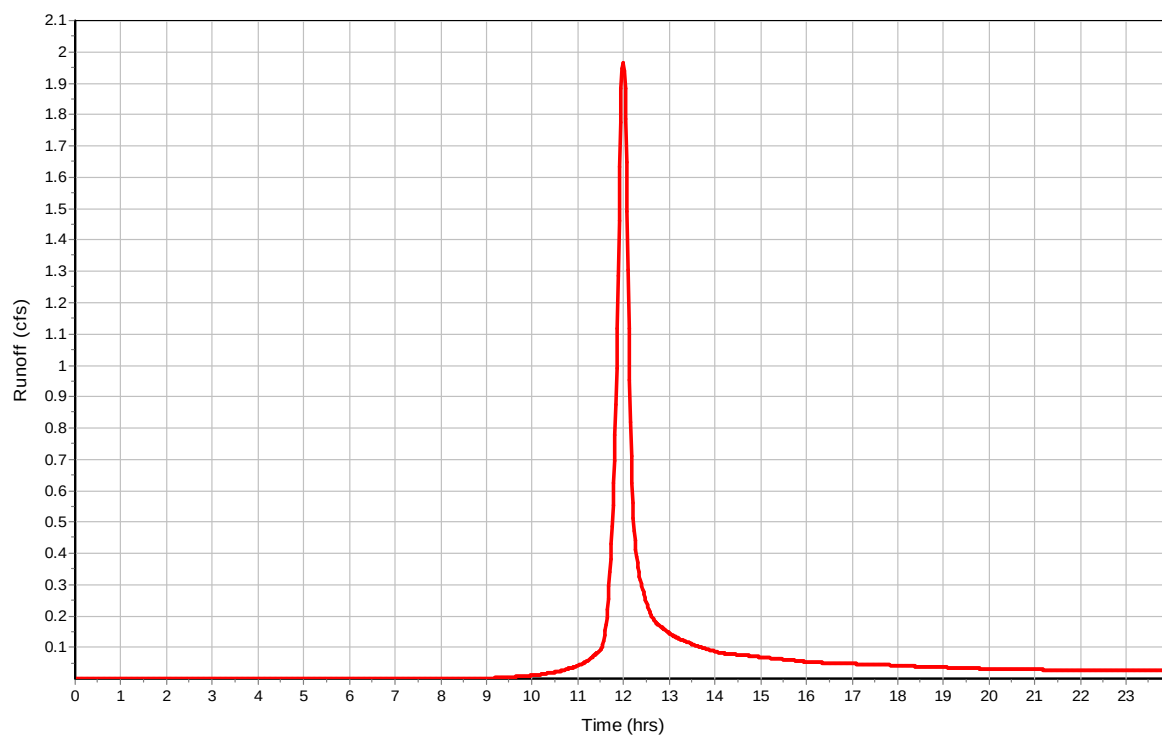
Total Rainfall (in) 1.66
Total Runoff (in) 0.79
Peak Runoff (cfs) 1.97
Weighted Curve Number 89.65
Time of Concentration (days hh:mm:ss) 0 00:09:43

Subbasin : Sub-32

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-33

Input Data

Area (ac)	0.08
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.08	B	98
Composite Area & Weighted CN		0.08		98

Time of Concentration

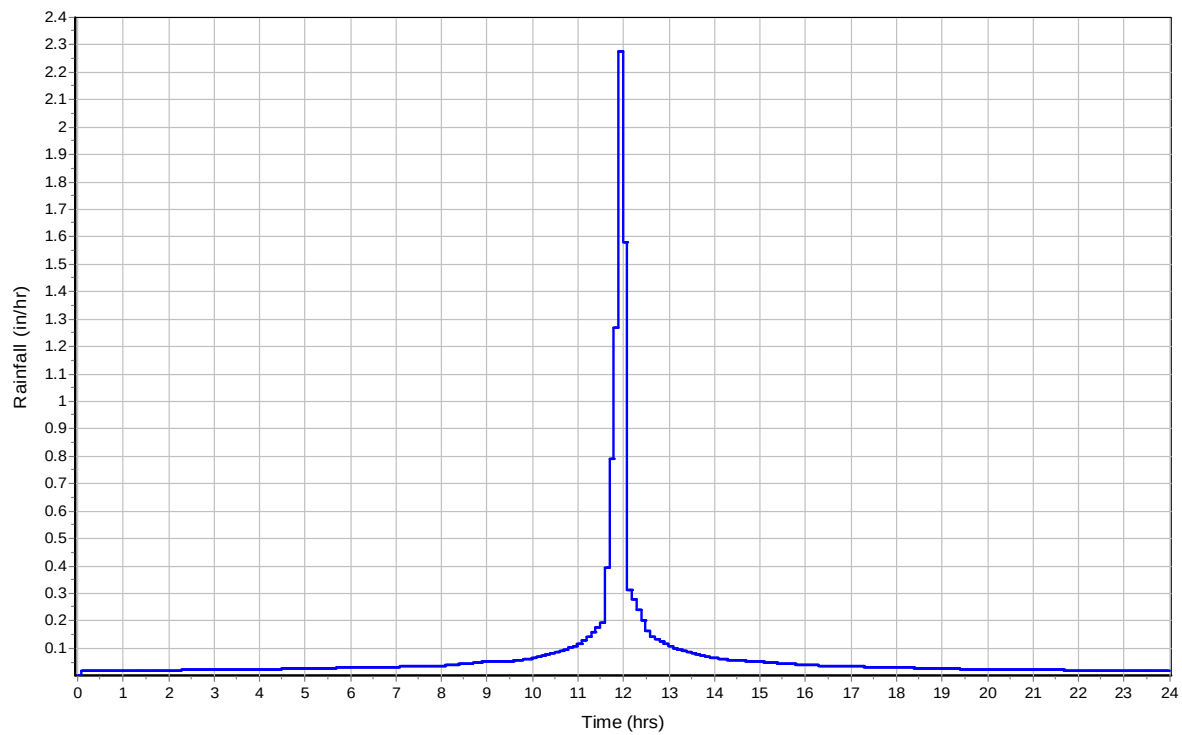
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	190	0	0
Slope (%) :	4	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.07	0	0
Computed Flow Time (min) :	0.78	0	0
Total TOC (min)	1.43		

Subbasin Runoff Results

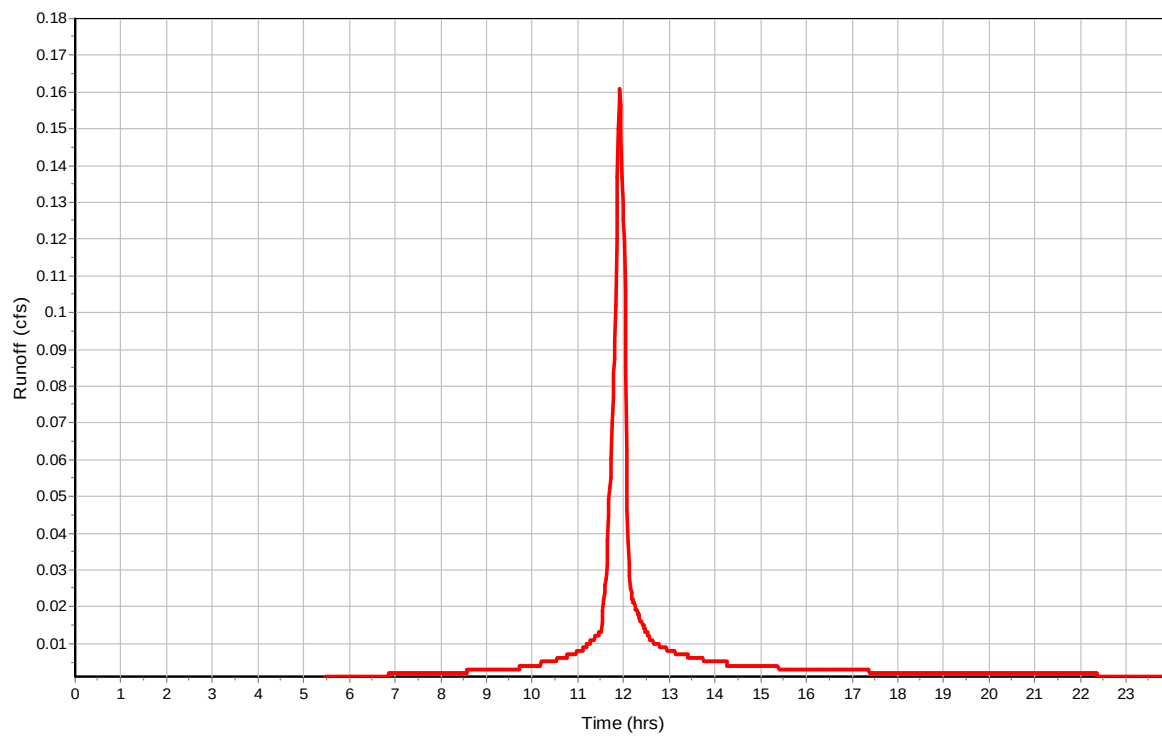
Total Rainfall (in)	1.66
Total Runoff (in)	1.42
Peak Runoff (cfs)	0.16
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:26

Subbasin : Sub-33

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-34

Input Data

Area (ac)	0.16
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.16	B	98
Composite Area & Weighted CN		0.16		98

Time of Concentration

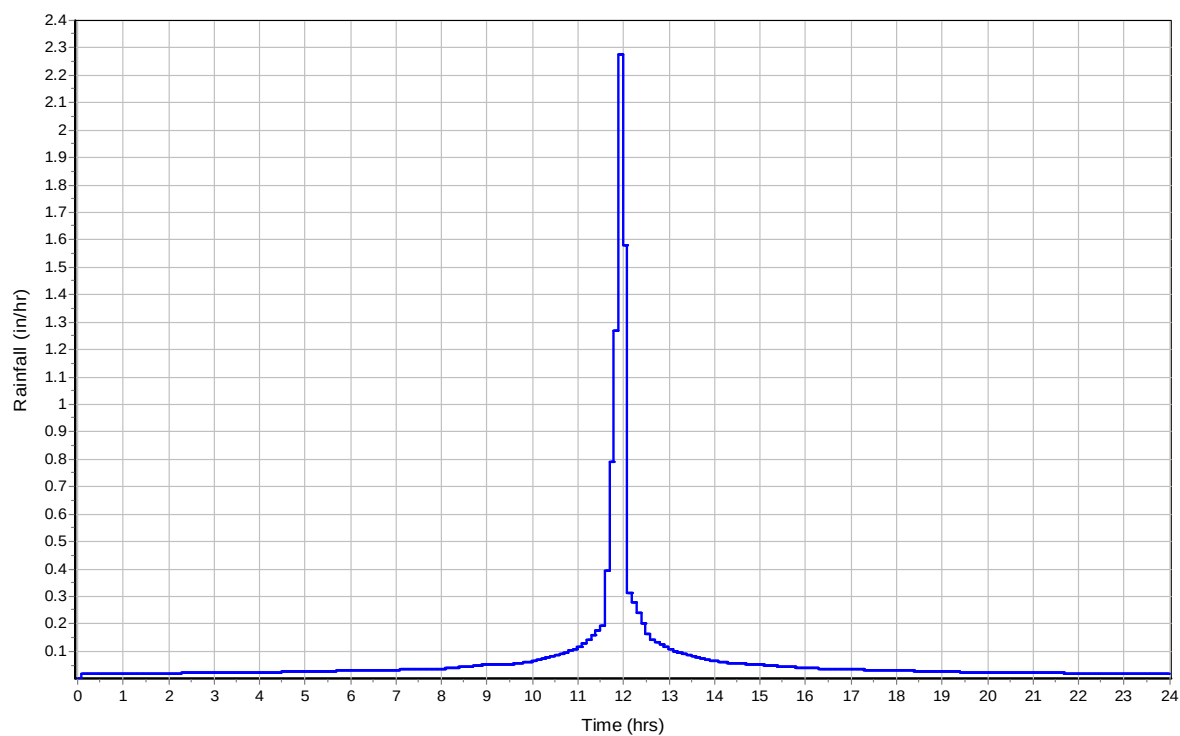
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	300	0	0
Slope (%) :	3.5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	3.8	0	0
Computed Flow Time (min) :	1.32	0	0
Total TOC (min)	1.97		

Subbasin Runoff Results

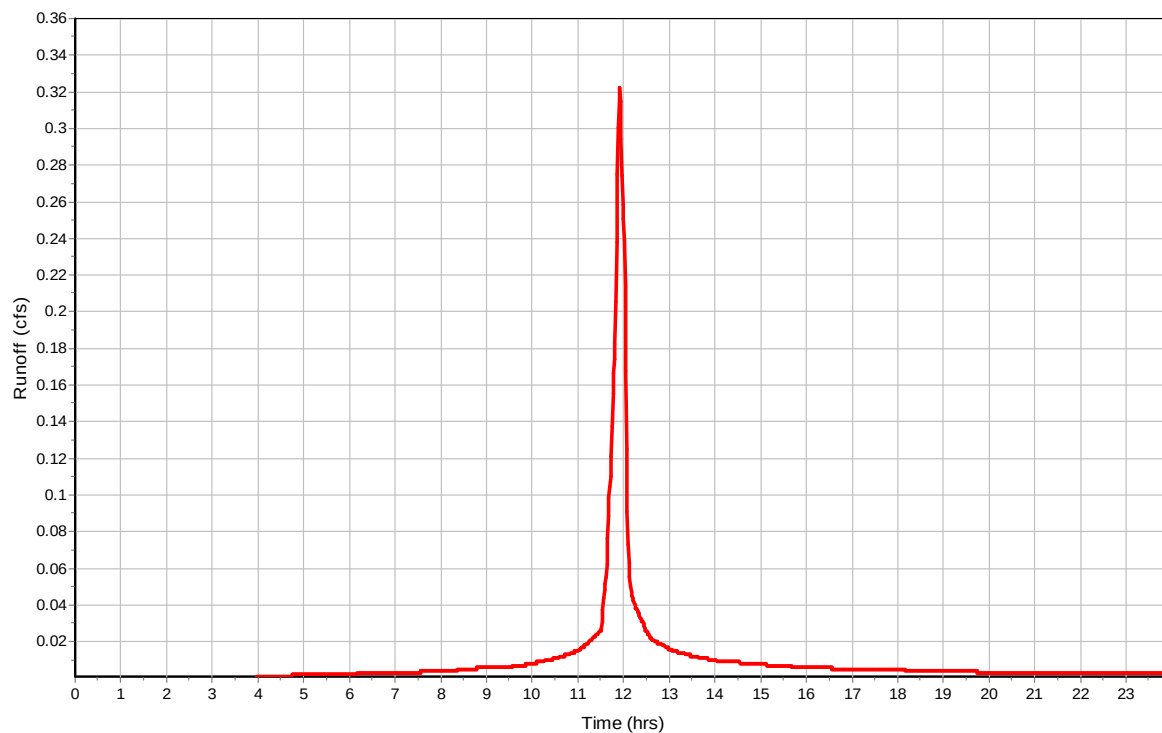
Total Rainfall (in)	1.66
Total Runoff (in)	1.43
Peak Runoff (cfs)	0.32
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:58

Subbasin : Sub-34

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-35

Input Data

Area (ac)	1.12
Peak Rate Factor	484
Weighted Curve Number	74
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
> 75% grass cover, Good		1.35	C	74
Composite Area & Weighted CN		1.35		74

Time of Concentration

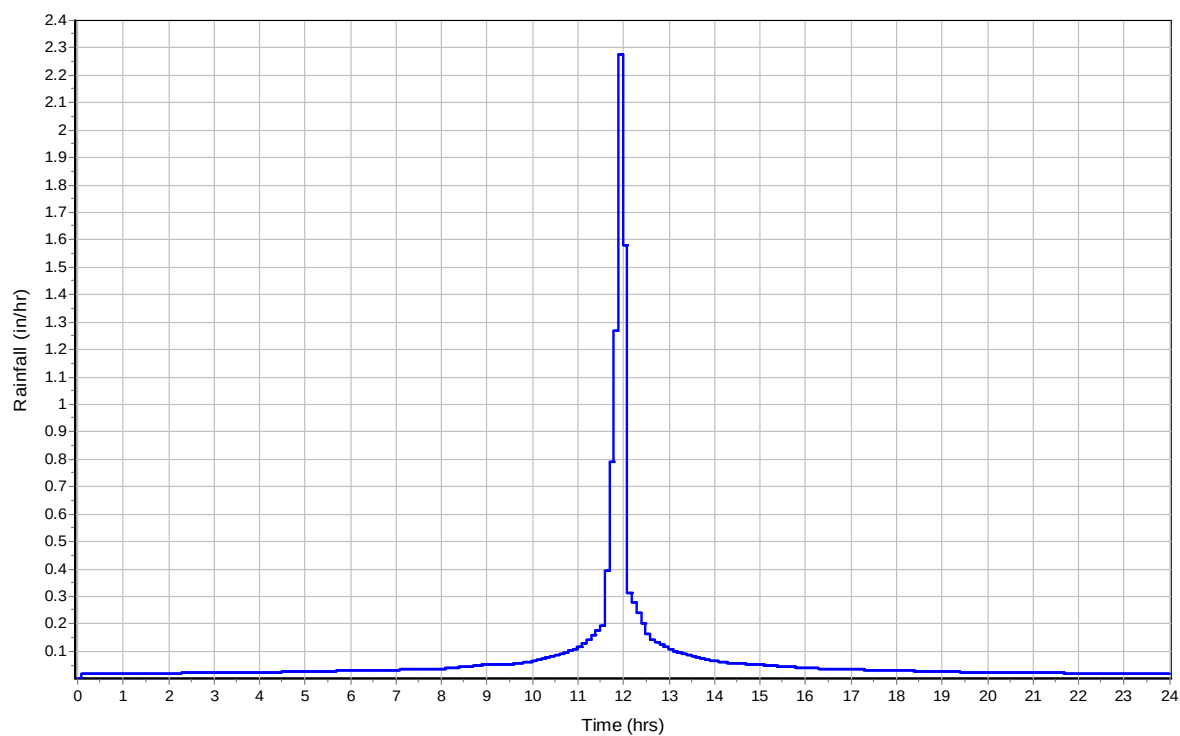
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0
Flow Length (ft) :	150	25	0
Slope (%) :	10	2	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.17	0.64	0
Computed Flow Time (min) :	14.63	0.65	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	260	0	0
Slope (%) :	3.5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	3.8	0	0
Computed Flow Time (min) :	1.14	0	0
Total TOC (min)	16.43		

Subbasin Runoff Results

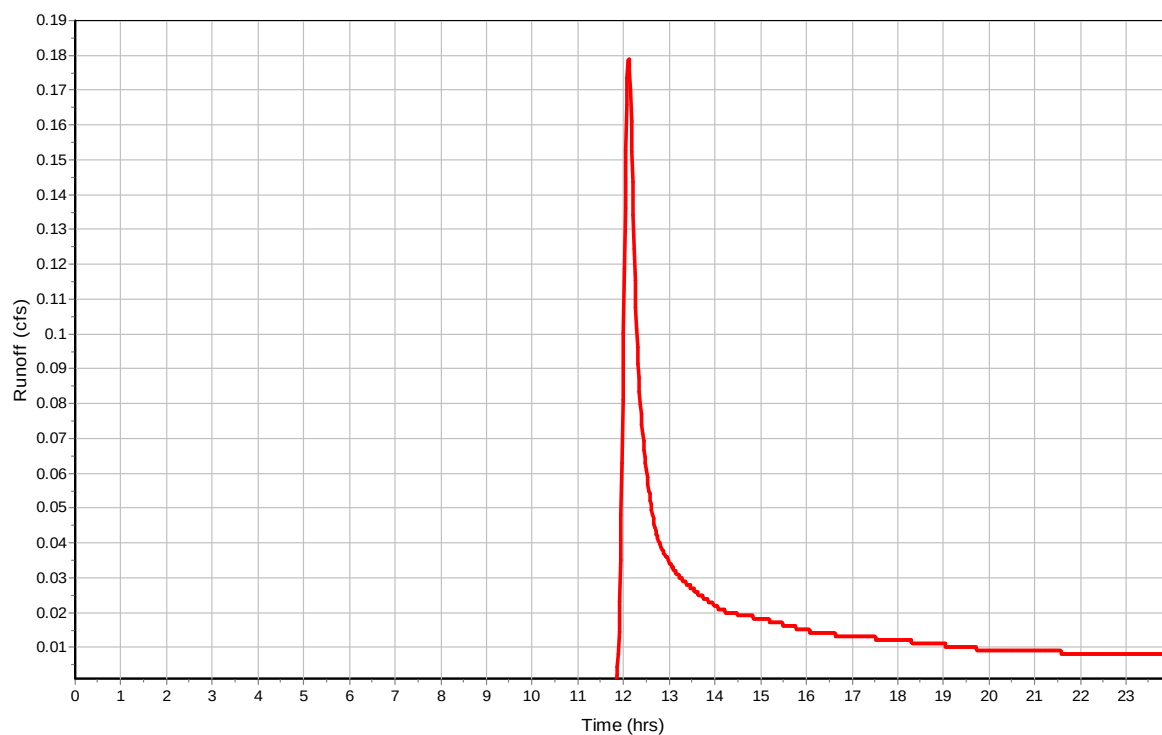
Total Rainfall (in)	1.66
Total Runoff (in)	0.21
Peak Runoff (cfs)	0.18
Weighted Curve Number	74
Time of Concentration (days hh:mm:ss)	0 00:16:26

Subbasin : Sub-35

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-37

Input Data

Area (ac) 1.28
 Peak Rate Factor 484
 Weighted Curve Number 80.75
 Rain Gage ID MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
> 75% grass cover, Good		0.26	C	74
1/4 acre lots, 38% impervious		0.77	C	83
Composite Area & Weighted CN		1.03		80.75

Time of Concentration

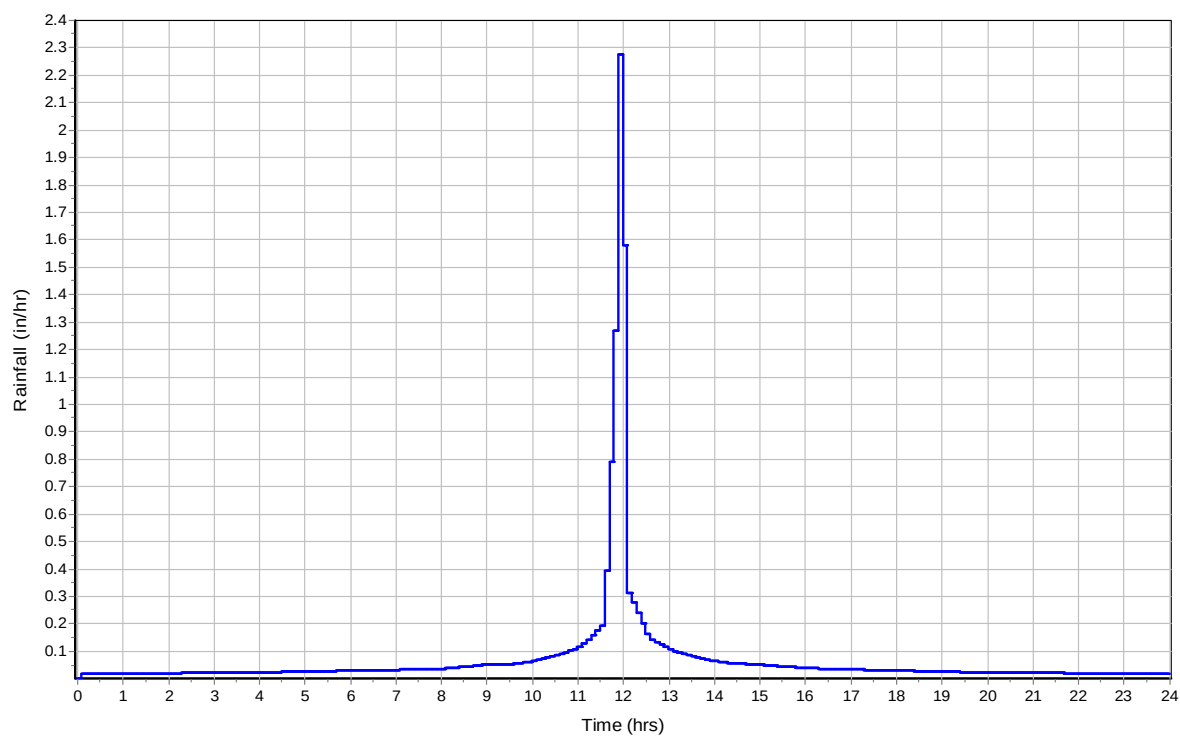
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0
Flow Length (ft) :	150	25	0
Slope (%) :	10	2	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.17	0.64	0
Computed Flow Time (min) :	14.63	0.65	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	225	0	0
Slope (%) :	4.5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.31	0	0
Computed Flow Time (min) :	0.87	0	0
Total TOC (min)16.16			

Subbasin Runoff Results

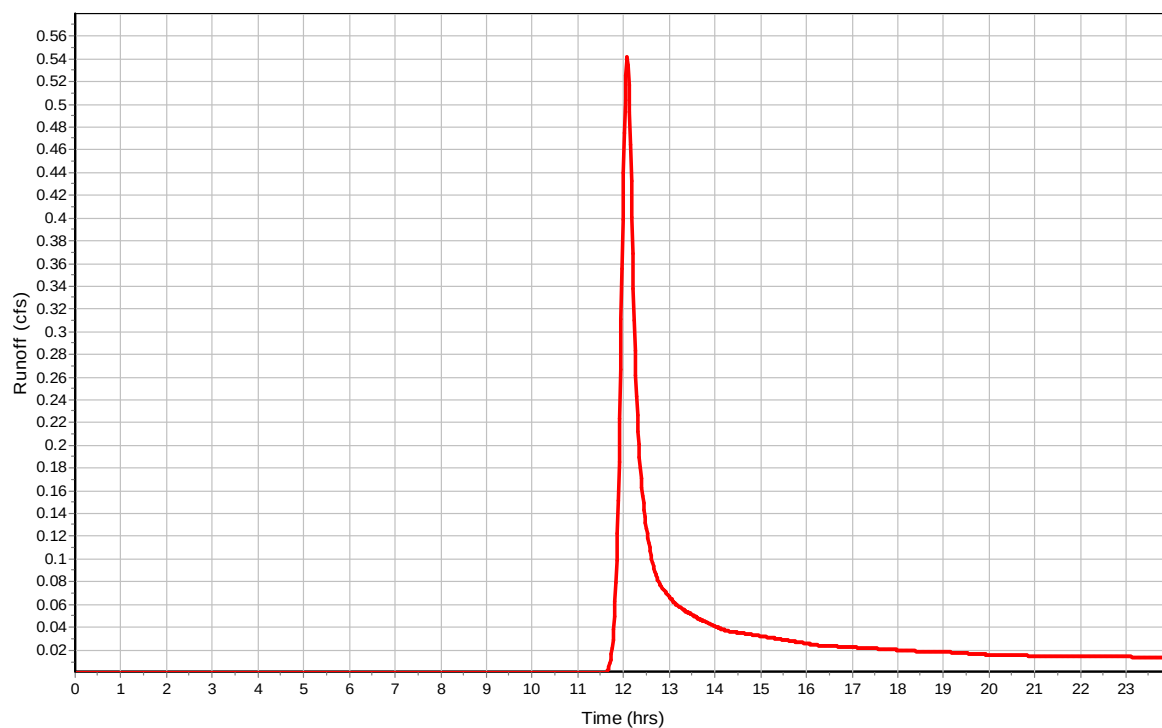
Total Rainfall (in) 1.66
 Total Runoff (in) 0.39
 Peak Runoff (cfs) 0.54
 Weighted Curve Number 80.75
 Time of Concentration (days hh:mm:ss) 0 00:16:10

Subbasin : Sub-37

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-38

Input Data

Area (ac)	1.77
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		1.83	B	75
Composite Area & Weighted CN		1.83		75

Time of Concentration

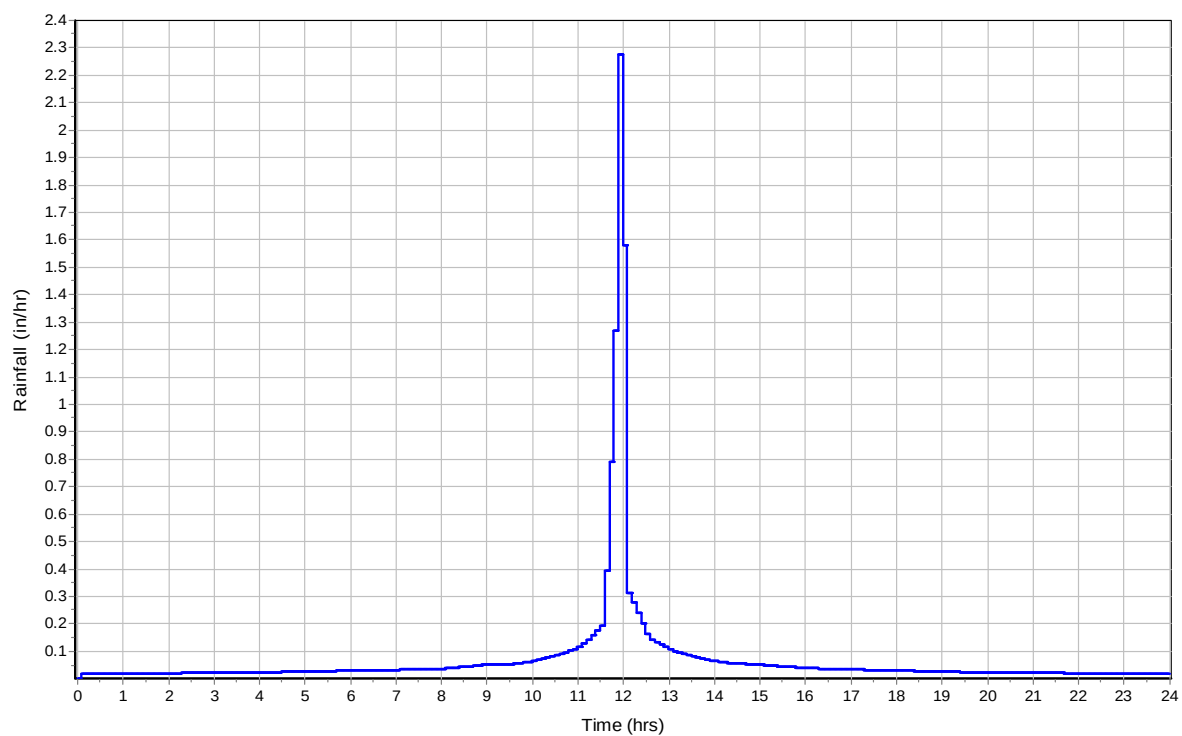
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0
Flow Length (ft) :	150	25	0
Slope (%) :	10	2	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.17	0.64	0
Computed Flow Time (min) :	14.63	0.65	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	130	260	0
Slope (%) :	8	4.3	0
Surface Type :	Paved	Paved	Unpaved
Velocity (ft/sec) :	5.75	4.22	0
Computed Flow Time (min) :	0.38	1.03	0
Total TOC (min)	16.69		

Subbasin Runoff Results

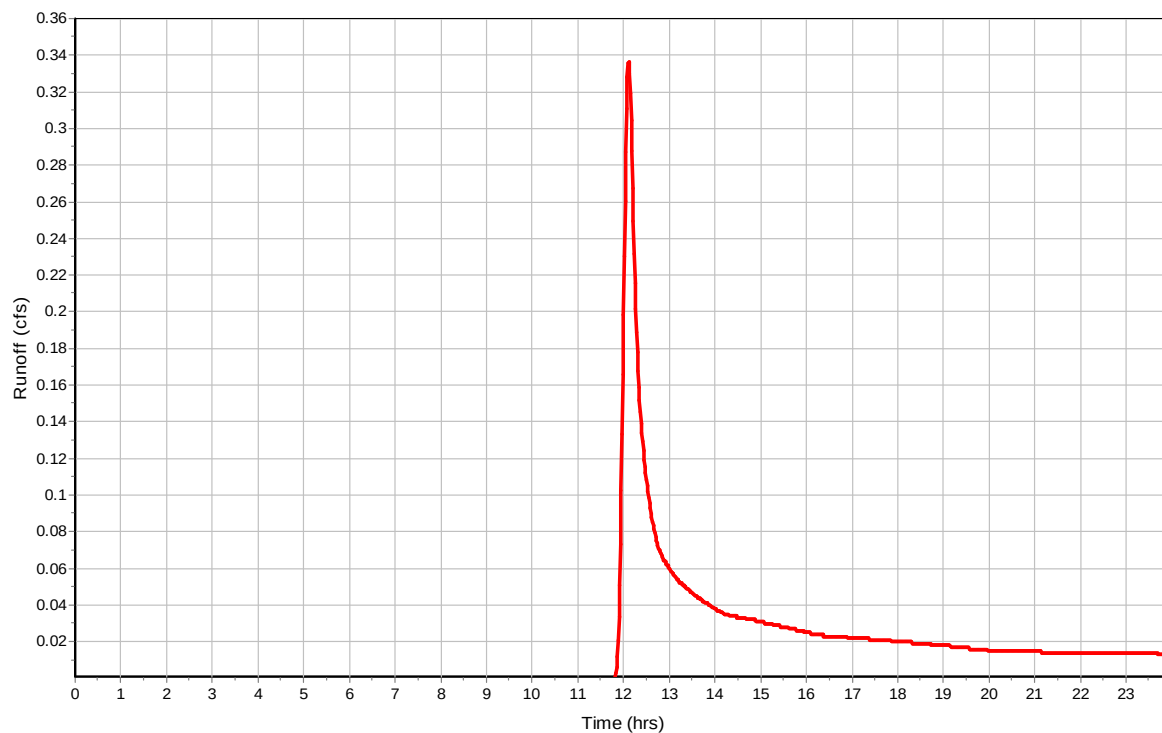
Total Rainfall (in)	1.66
Total Runoff (in)	0.23
Peak Runoff (cfs)	0.34
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:16:41

Subbasin : Sub-38

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-39

Input Data

Area (ac)	0.1
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.1	B	98
Composite Area & Weighted CN		0.1		98

Time of Concentration

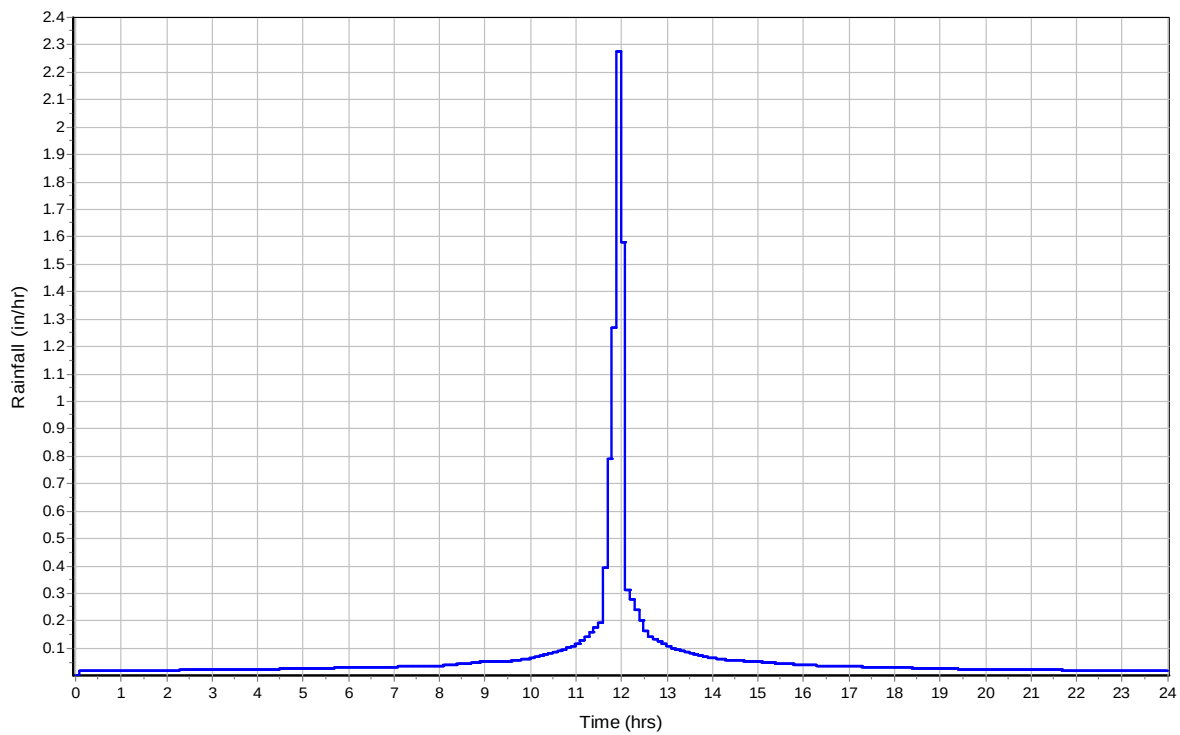
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	235	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	0.68	0	0
Total TOC (min)	1.33		

Subbasin Runoff Results

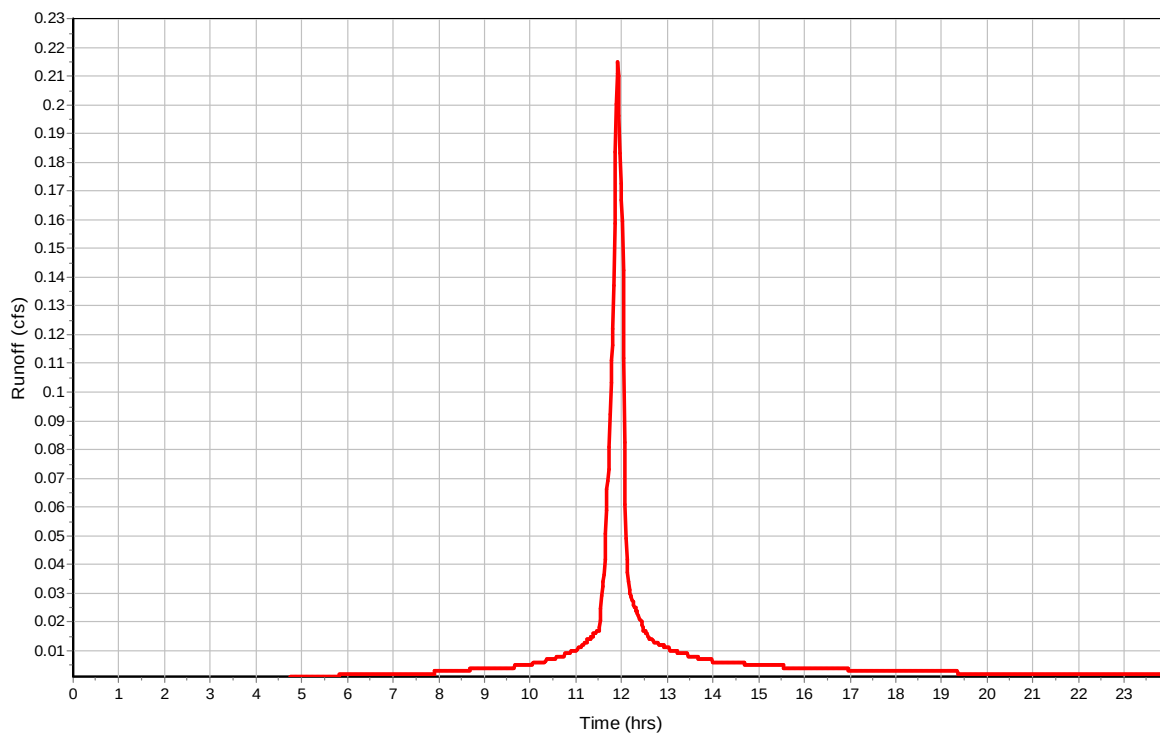
Total Rainfall (in)	1.66
Total Runoff (in)	1.43
Peak Runoff (cfs)	0.21
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:20

Subbasin : Sub-39

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-40

Input Data

Area (ac)	0.12
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.12	B	98
Composite Area & Weighted CN		0.12		98

Time of Concentration

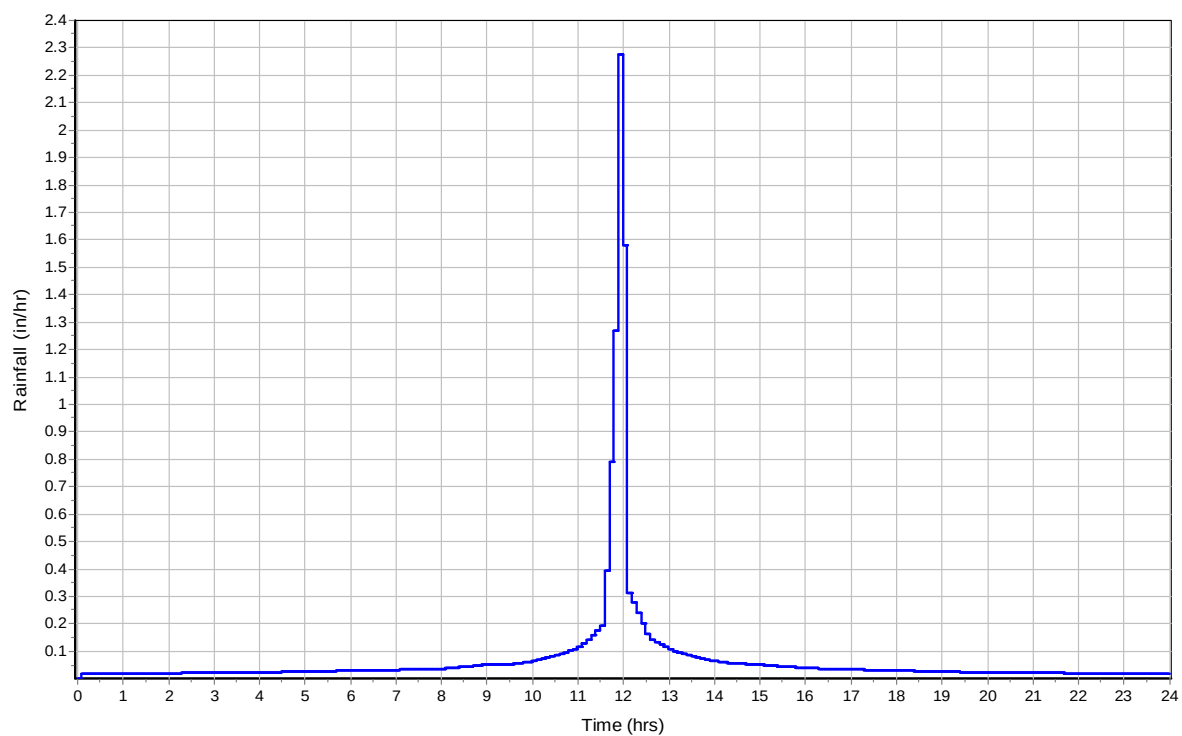
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	270	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	0.78	0	0
Total TOC (min)	1.44		

Subbasin Runoff Results

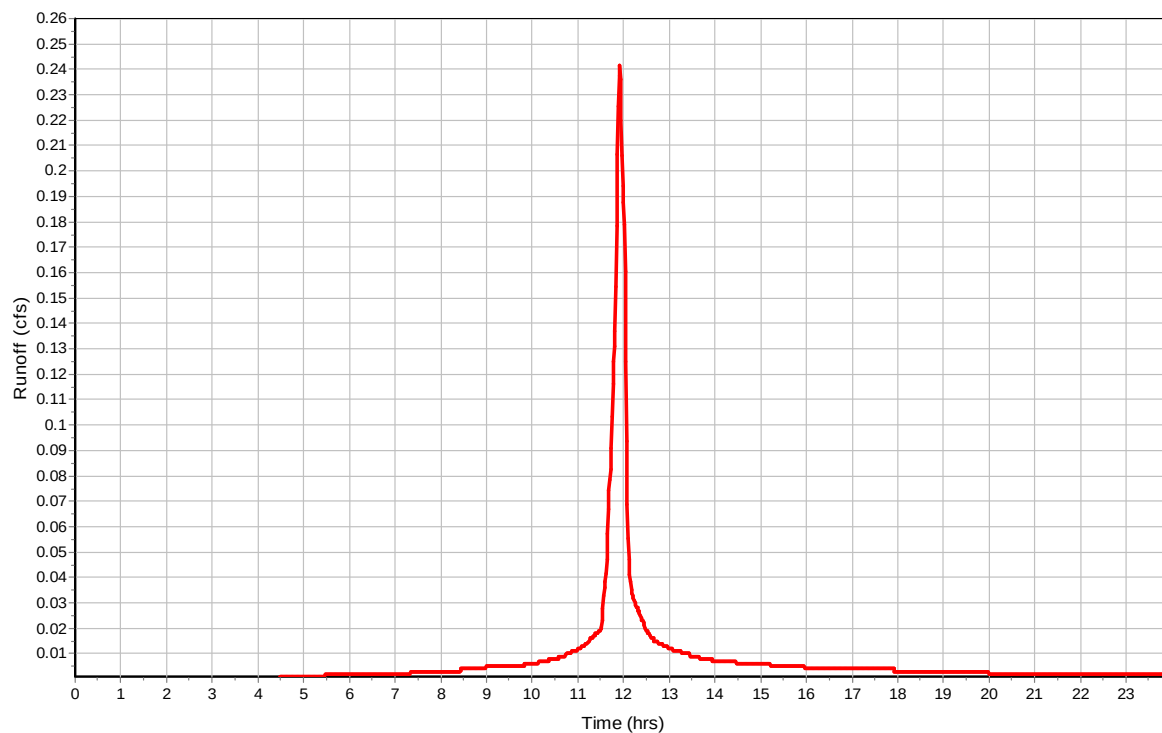
Total Rainfall (in)	1.66
Total Runoff (in)	1.43
Peak Runoff (cfs)	0.24
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:26

Subbasin : Sub-40

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-41

Input Data

Area (ac)	0.18
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.36	B	75
Composite Area & Weighted CN		0.36		75

Time of Concentration

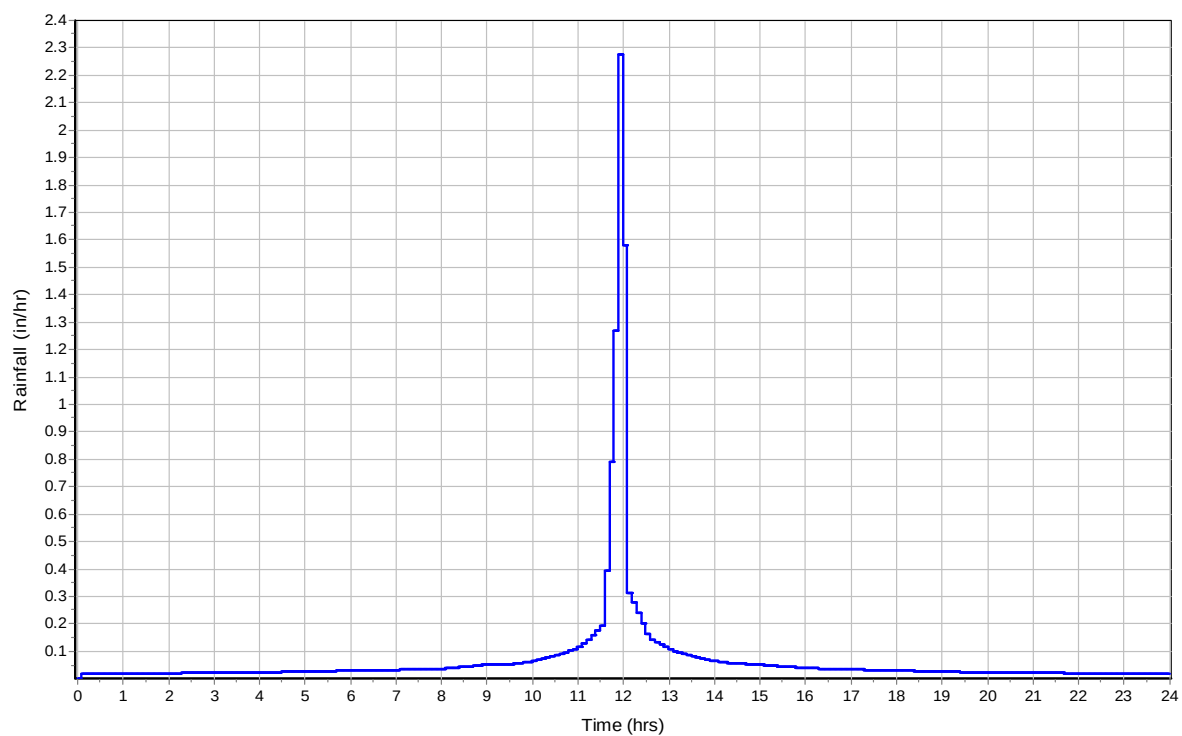
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0
Flow Length (ft) :	150	25	0
Slope (%) :	12	2	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.18	0.64	0
Computed Flow Time (min) :	13.6	0.65	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	115	0	0
Slope (%) :	7.5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.57	0	0
Computed Flow Time (min) :	0.34	0	0
Total TOC (min)	14.60		

Subbasin Runoff Results

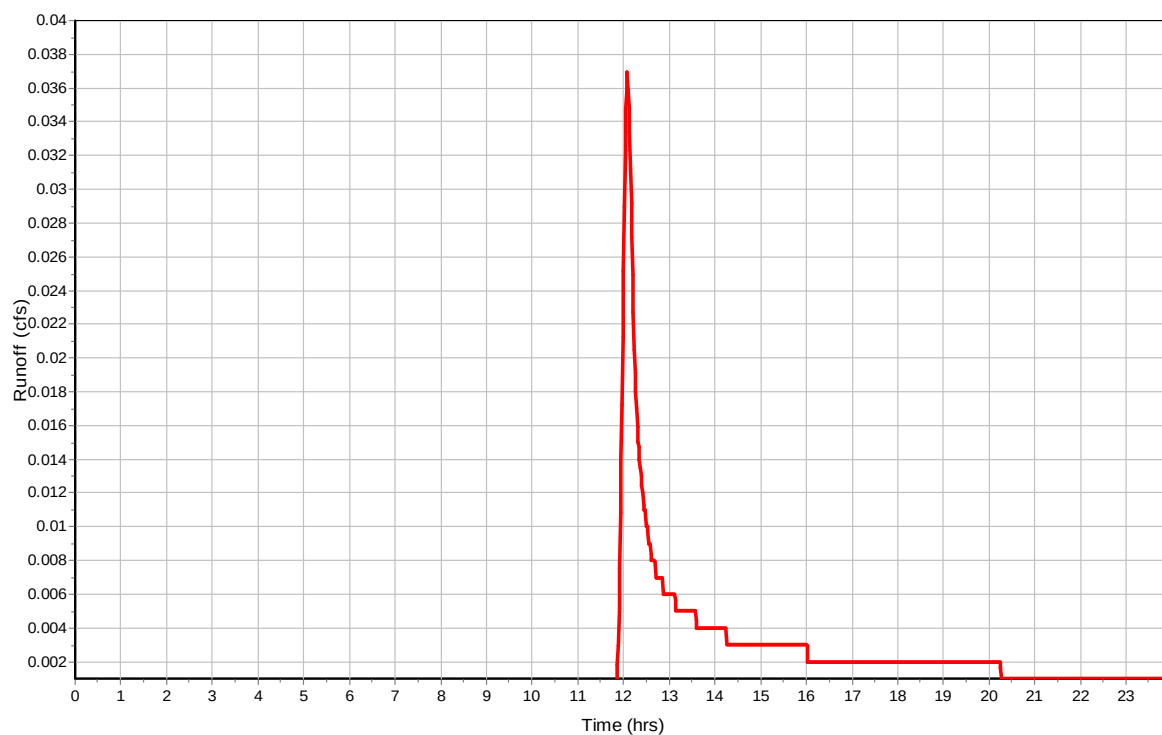
Total Rainfall (in)	1.66
Total Runoff (in)	0.23
Peak Runoff (cfs)	0.04
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:14:36

Subbasin : Sub-41

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-43

Input Data

Area (ac)	0.77
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.77	B	75
Composite Area & Weighted CN		0.77		75

Time of Concentration

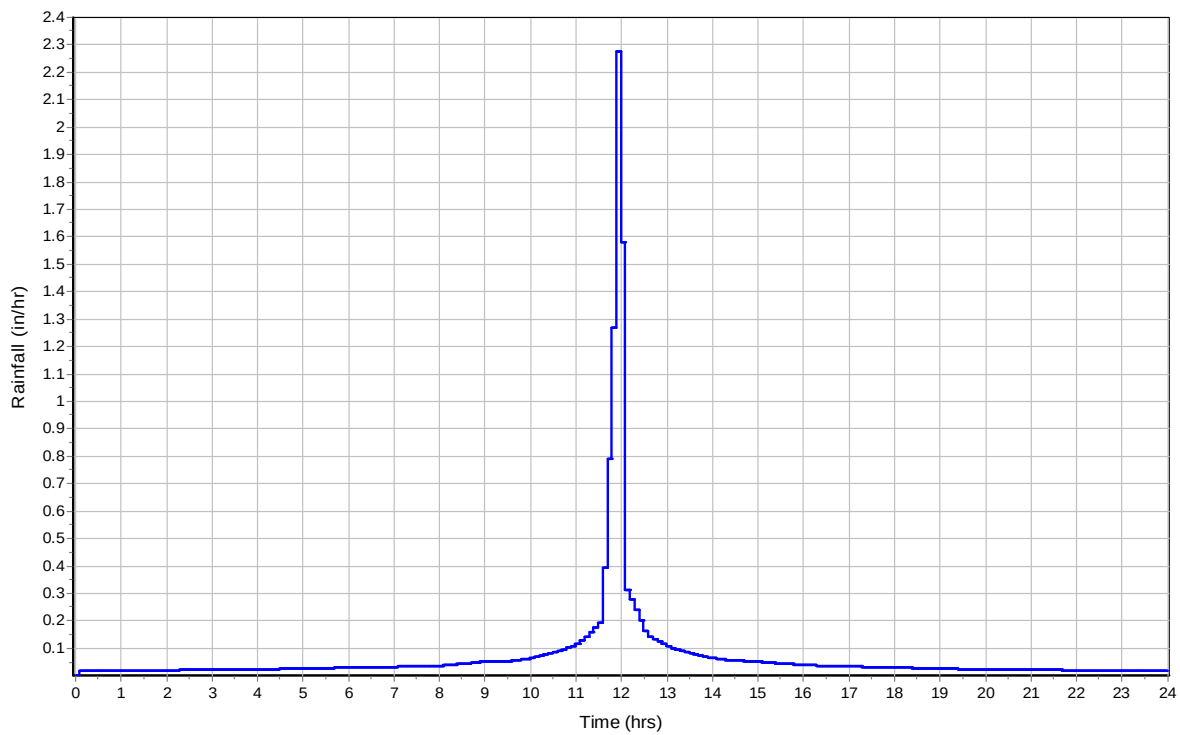
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0
Flow Length (ft) :	150	25	0
Slope (%) :	20	2	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.23	0.64	0
Computed Flow Time (min) :	11.09	0.65	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	300	0	0
Slope (%) :	9.5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	6.27	0	0
Computed Flow Time (min) :	0.8	0	0
Total TOC (min)	12.54		

Subbasin Runoff Results

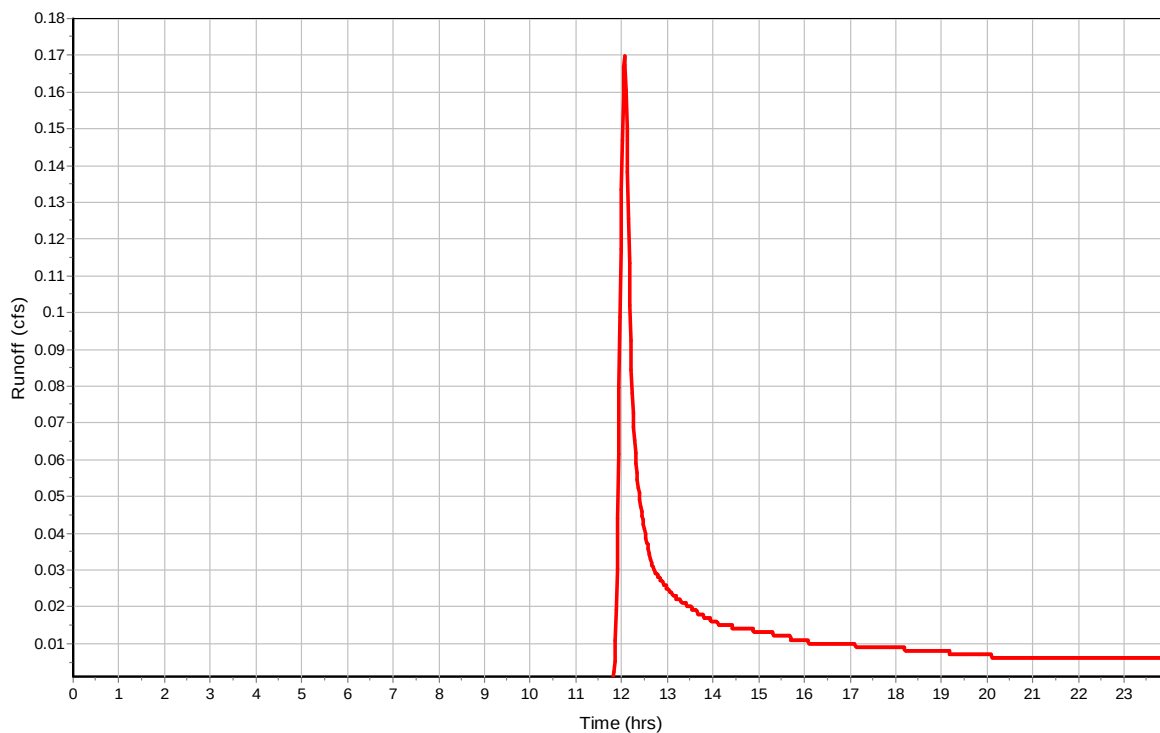
Total Rainfall (in)	1.66
Total Runoff (in)	0.23
Peak Runoff (cfs)	0.17
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:12:32

Subbasin : Sub-43

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-44

Input Data

Area (ac)	0.13
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.13	B	98
Composite Area & Weighted CN		0.13		98

Time of Concentration

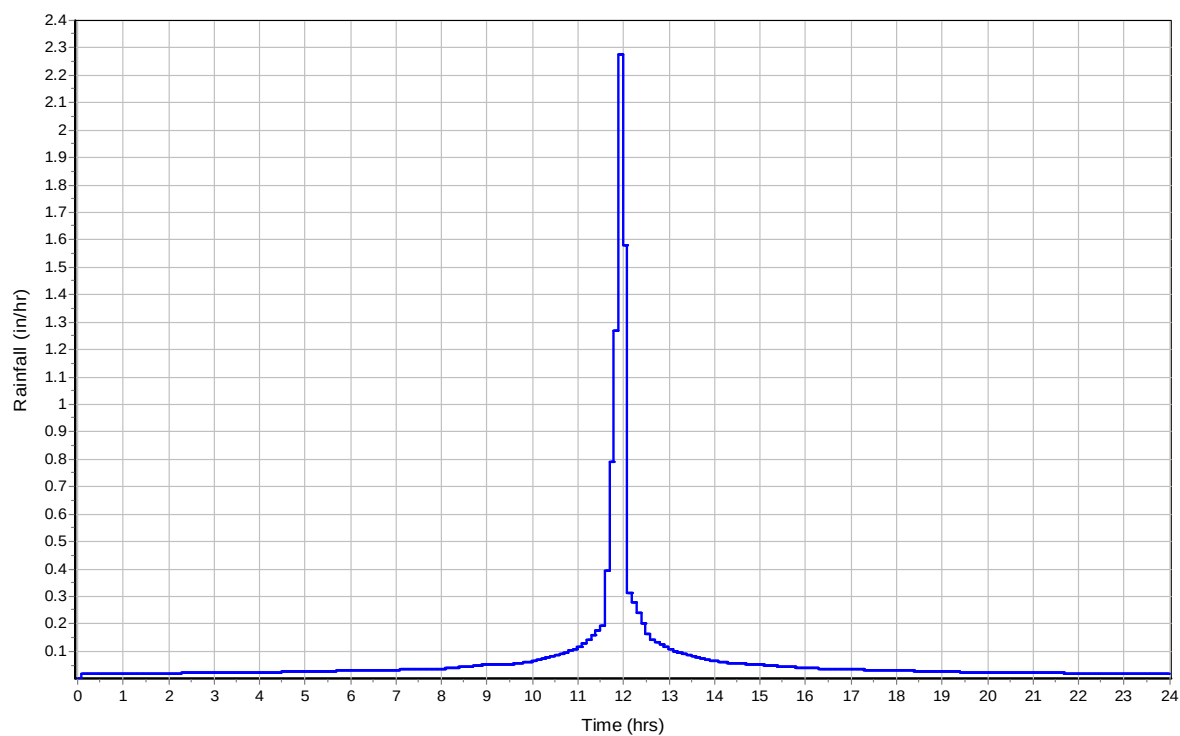
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	325	0	0
Slope (%) :	9.5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	6.27	0	0
Computed Flow Time (min) :	0.86	0	0
Total TOC (min)	1.52		

Subbasin Runoff Results

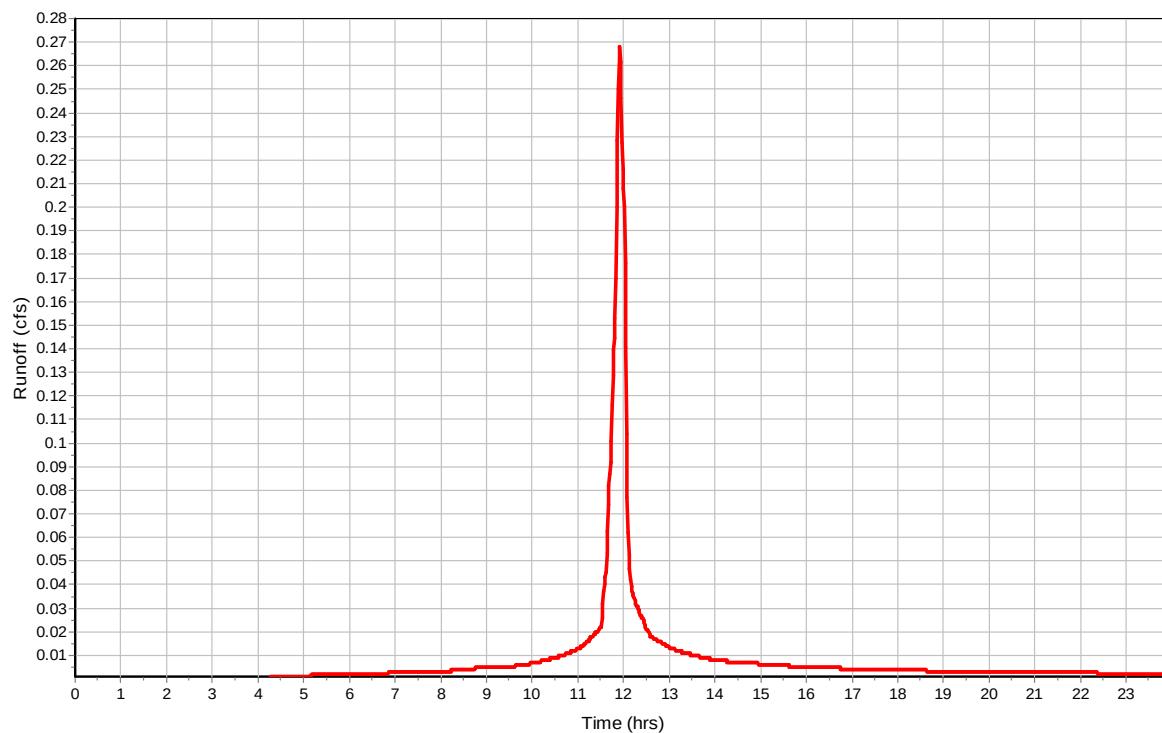
Total Rainfall (in)	1.66
Total Runoff (in)	1.43
Peak Runoff (cfs)	0.27
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:31

Subbasin : Sub-44

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-45

Input Data

Area (ac)	1.35
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		1.35	B	75
Composite Area & Weighted CN		1.35		75

Time of Concentration

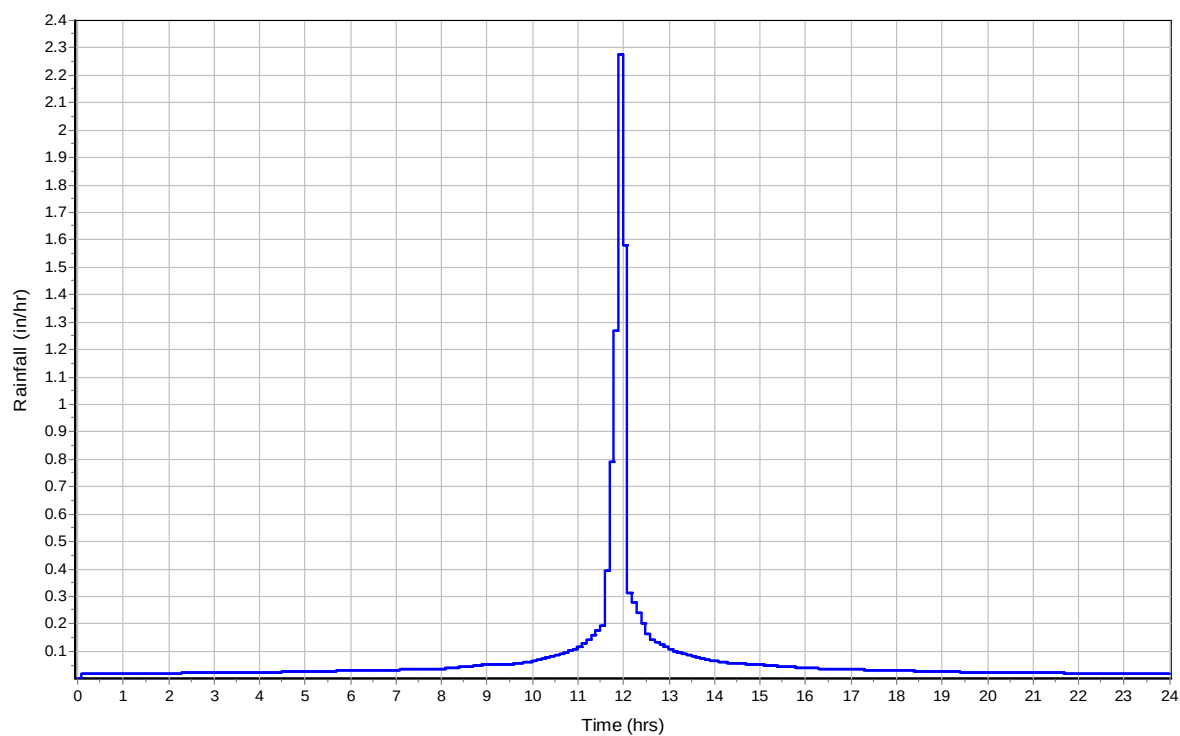
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.05	0.011
Flow Length (ft) :	150	100	25
Slope (%) :	20	50	2
2 yr, 24 hr Rainfall (in) :	1.2	1.2	1.2
Velocity (ft/sec) :	0.23	0.91	0.64
Computed Flow Time (min) :	11.09	1.83	0.65
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	200	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	0.73	0	0
Total TOC (min)	14.31		

Subbasin Runoff Results

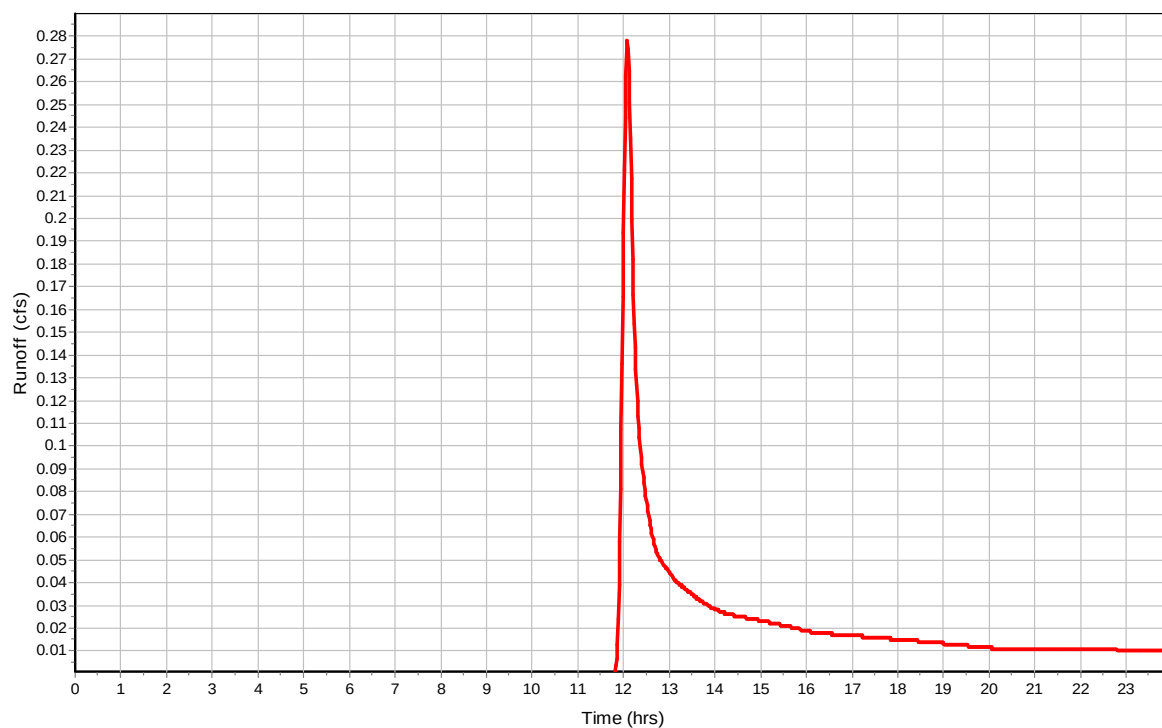
Total Rainfall (in)	1.66
Total Runoff (in)	0.23
Peak Runoff (cfs)	0.28
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:14:19

Subbasin : Sub-45

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-46

Input Data

Area (ac)	0.33
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.33	B	75
Composite Area & Weighted CN		0.33		75

Time of Concentration

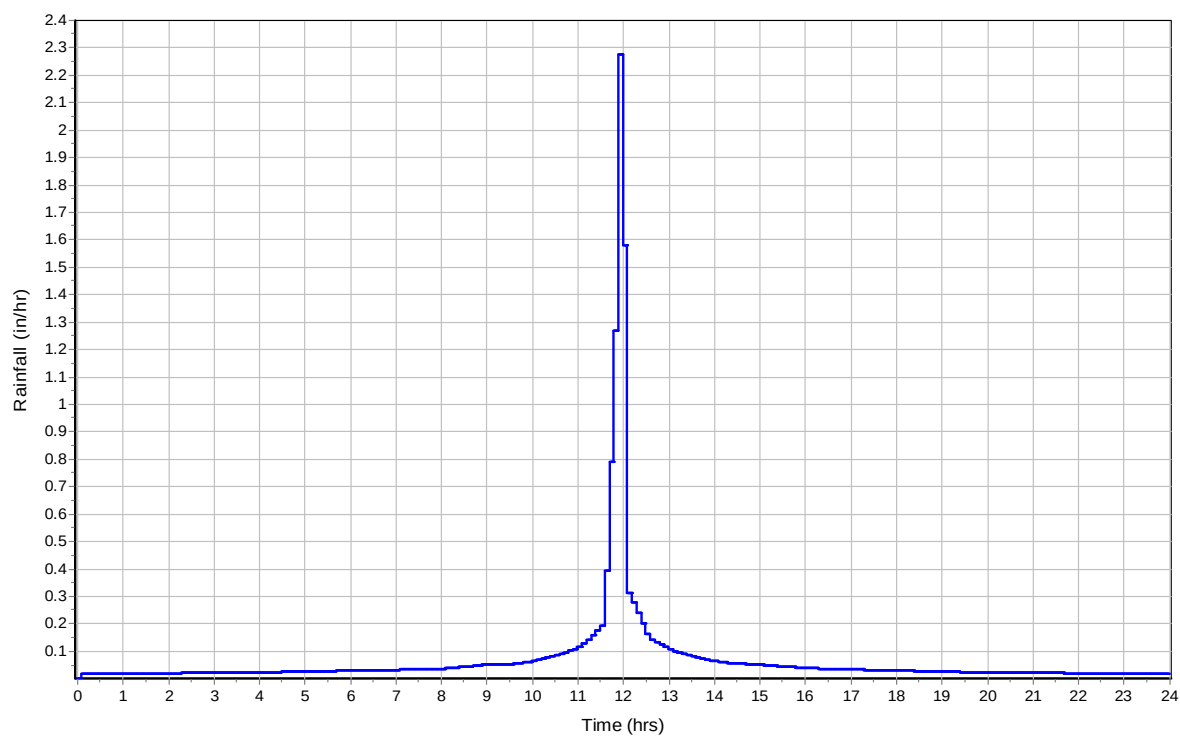
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0
Flow Length (ft) :	150	25	0
Slope (%) :	20	2	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.23	0.64	0
Computed Flow Time (min) :	11.09	0.65	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	225	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	0.82	0	0
Total TOC (min)	12.57		

Subbasin Runoff Results

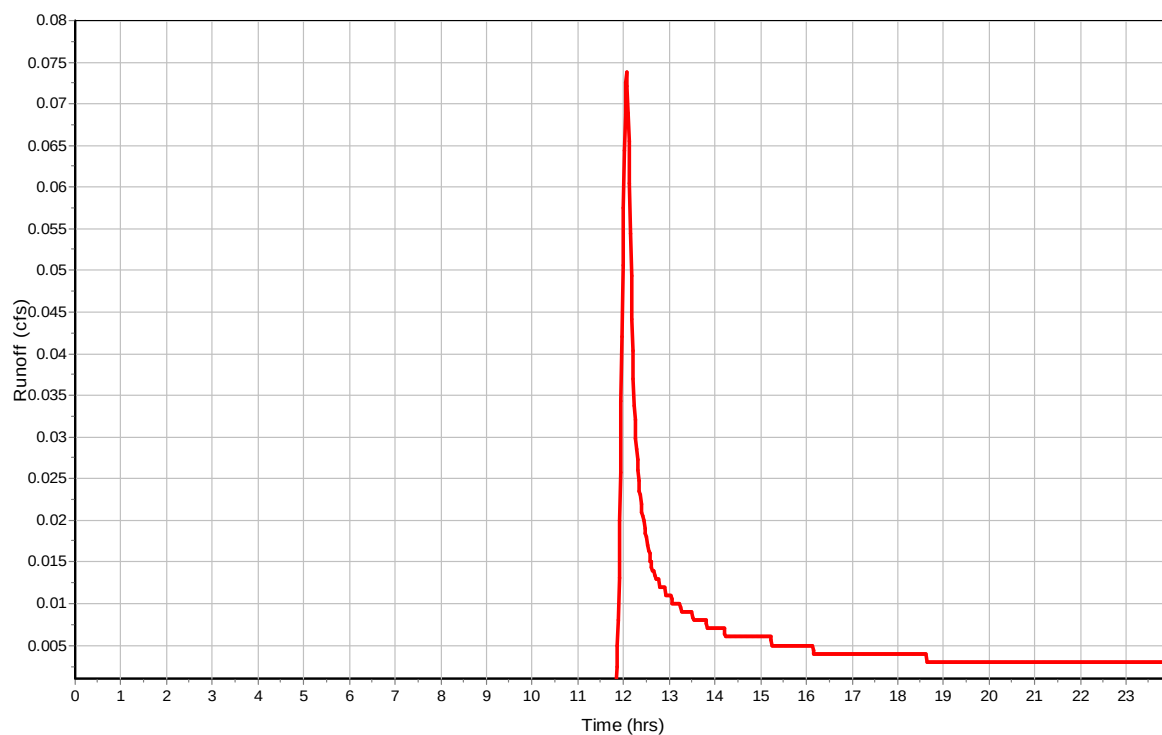
Total Rainfall (in)	1.66
Total Runoff (in)	0.23
Peak Runoff (cfs)	0.07
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:12:34

Subbasin : Sub-46

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-47

Input Data

Area (ac)	2.99
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		2.99	B	75
Composite Area & Weighted CN		2.99		75

Time of Concentration

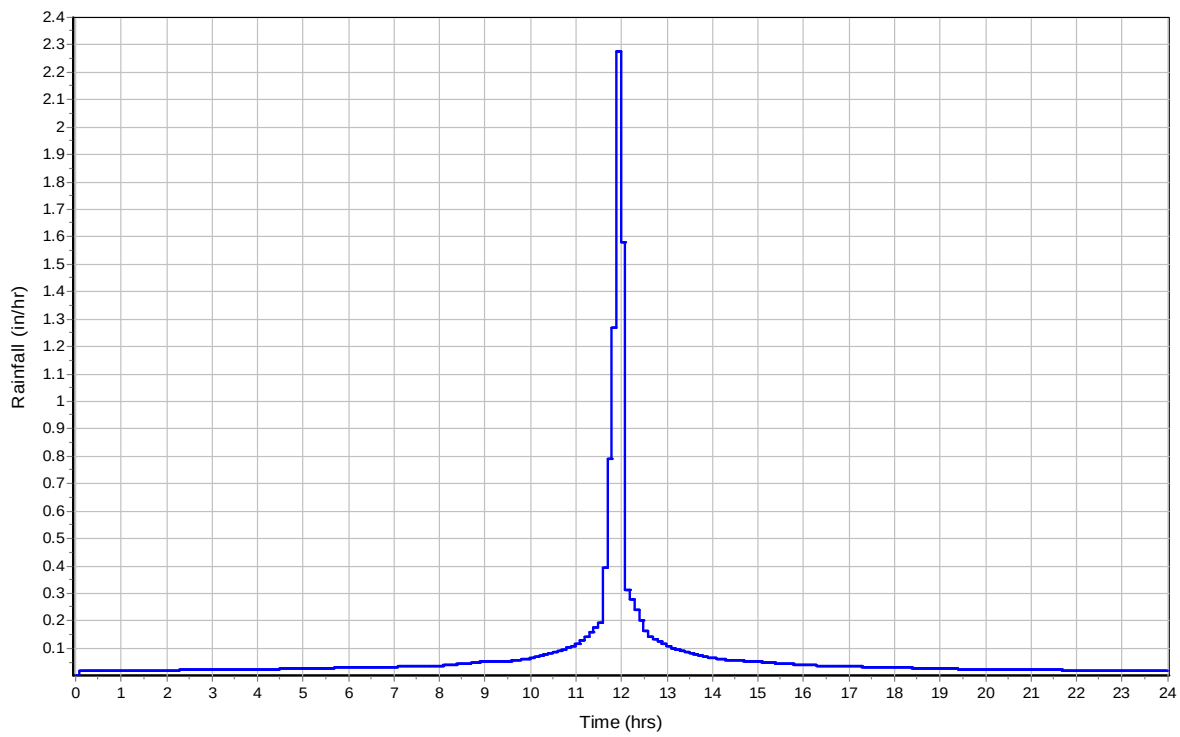
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0	0
Flow Length (ft) :	150	0	0
Slope (%) :	16	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.21	0	0
Computed Flow Time (min) :	12.13	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	450	0	0
Slope (%) :	20	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	9.09	0	0
Computed Flow Time (min) :	0.83	0	0
Total TOC (min)	12.95		

Subbasin Runoff Results

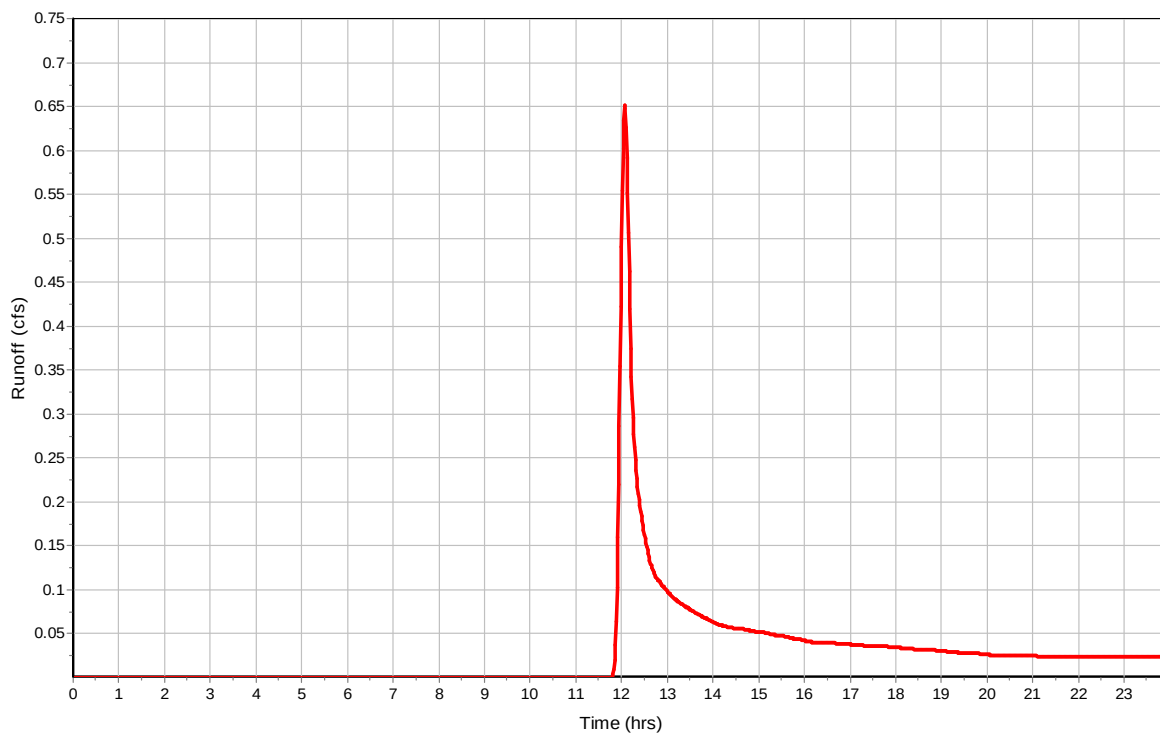
Total Rainfall (in)	1.66
Total Runoff (in)	0.23
Peak Runoff (cfs)	0.65
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:12:57

Subbasin : Sub-47

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-48

Input Data

Area (ac)	1.66
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.97	B	75
Composite Area & Weighted CN		0.97		75

Time of Concentration

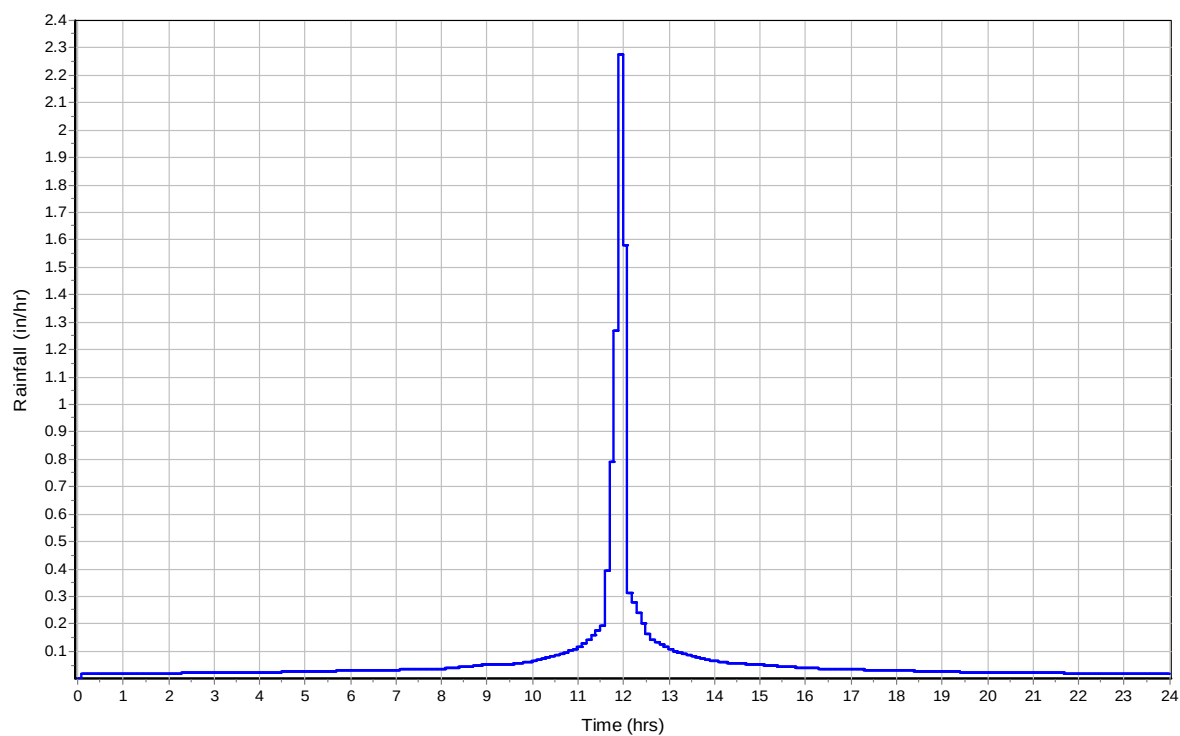
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.1	0	0
Flow Length (ft) :	60	0	0
Slope (%) :	13	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.28	0	0
Computed Flow Time (min) :	3.64	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	800	0	0
Slope (%) :	9	0	0
Surface Type :	Unpaved	Unpaved	Unpaved
Velocity (ft/sec) :	4.84	0	0
Computed Flow Time (min) :	2.75	0	0
Total TOC (min)	6.39		

Subbasin Runoff Results

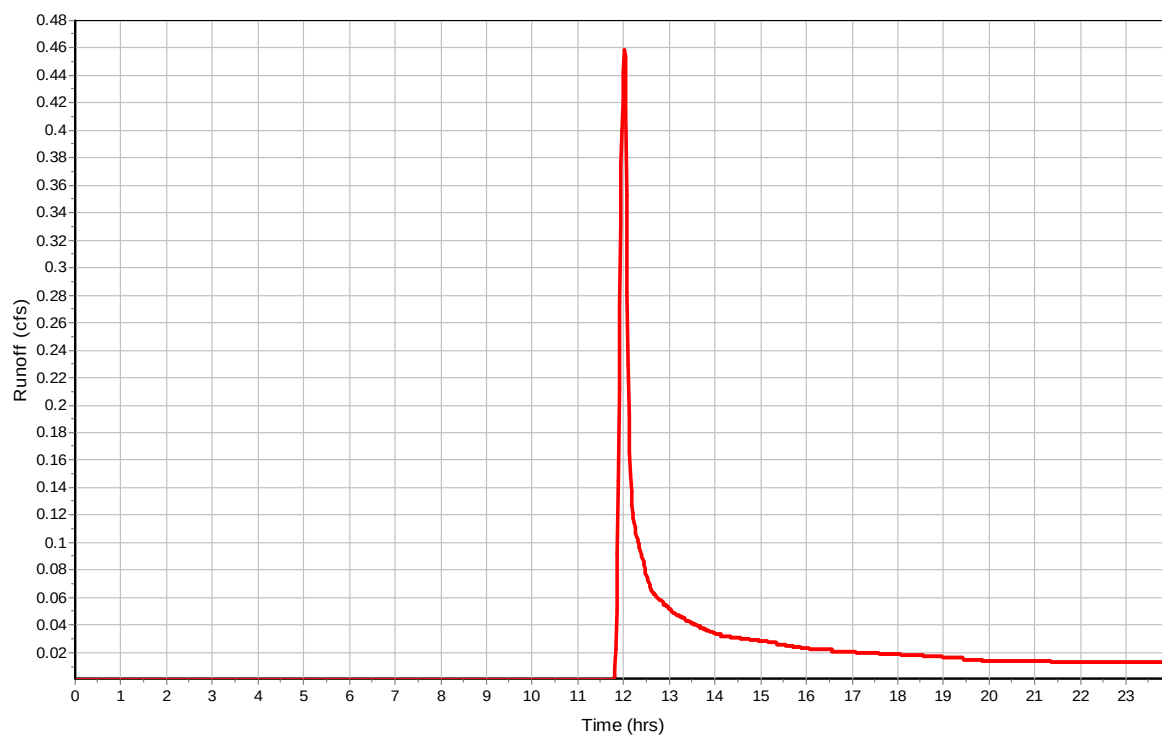
Total Rainfall (in)	1.66
Total Runoff (in)	0.23
Peak Runoff (cfs)	0.46
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:06:23

Subbasin : Sub-48

Rainfall Intensity Graph



Runoff Hydrograph



Junction Input

SN Element ID	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Ground/Rim (Max) Offset (ft)	Initial Water Elevation (ft)	Initial Water Depth (ft)	Surcharge Elevation (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Minimum Pipe Cover (in)
1 18-Jun	3232.80	3238.00	5.20	3232.80	0.00	3238.00	0.00	0.00	0.00
2 19-Jun	3195.00	3196.00	1.00	3195.00	0.00	3196.00	0.00	0.00	0.00
3 28-Jun	3325.00	3327.25	2.25	3325.00	0.00	3327.25	0.00	0.00	0.00
4 29-Jun	3390.00	3394.00	4.00	3390.00	0.00	3394.00	0.00	0.00	0.00
5 MH-1	3354.80	3358.02	3.22	3354.80	0.00	3358.02	0.00	0.00	0.00
6 MH-2	3352.99	3356.22	3.23	3352.99	0.00	3356.22	0.00	0.00	0.00
7 MH-4	3344.55	3348.54	3.99	3344.55	0.00	3348.54	0.00	0.00	0.00
8 MH-5	3339.44	3345.44	6.00	3339.44	0.00	3345.44	0.00	0.00	0.00
9 MH-6	3312.20	3315.82	3.62	3312.20	0.00	3315.82	0.00	0.00	0.00
10 MH-7	3307.05	3310.51	3.46	3307.05	0.00	3310.51	0.00	0.00	0.00
11 MH-8	3295.62	3298.85	3.23	3295.62	0.00	3298.85	0.00	0.00	0.00
12 MH-9	3271.80	3278.39	6.59	3271.80	0.00	3278.39	0.00	0.00	0.00
13 NULL-JUNCTION-2	3357.00	3357.50	0.50	3357.00	0.00	3357.50	0.00	0.00	0.00
14 NULL-JUNCTION-4	3334.55	3335.55	1.00	3334.55	0.00	3335.55	0.00	0.00	0.00
15 NULL-JUNCTION-6	3318.00	3319.00	1.00	3318.00	0.00	3319.00	0.00	0.00	0.00
16 NULL-JUNCTION-7	3310.00	3312.00	2.00	3310.00	0.00	3311.00	-1.00	0.00	0.00
17 NULL-JUNCTION-8	3263.60	3265.80	2.20	3263.60	0.00	3265.80	0.00	0.00	0.00
18 UPPERPOND-DRAIN	3338.72	3343.00	4.28	3338.72	0.00	3343.00	0.00	0.00	0.00

Junction Results

SN	Element ID	Peak Inflow	Peak Lateral Inflow	Max HGL Elevation Attained	Max HGL Depth Attained	Max Surcharge Depth Attained	Min Freeboard Attained	Average HGL Elevation Attained	Average HGL Depth Attained	Time of Max HGL Occurrence	Time of Peak Flooding Occurrence	Total Flooded Volume	Total Time Flooded
		(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(days hh:mm)	(days hh:mm)	(ac-in)	(min)
1	18-Jun	0.00	0.00	3232.80	0.00	0.00	5.20	3232.80	0.00	0 00:00	0 00:00	0.00	0.00
2	19-Jun	0.00	0.00	3195.00	0.00	0.00	1.50	3195.00	0.00	0 00:00	0 00:00	0.00	0.00
3	28-Jun	1.72	0.00	3325.48	0.48	0.00	1.77	3325.11	0.11	0 12:19	0 00:00	0.00	0.00
4	29-Jun	0.28	0.00	3390.12	0.12	0.00	3.88	3390.02	0.02	0 12:03	0 00:00	0.00	0.00
5	MH-1	0.73	0.00	3355.04	0.24	0.00	2.98	3354.84	0.04	0 12:03	0 00:00	0.00	0.00
6	MH-2	0.73	0.00	3353.21	0.22	0.00	3.01	3353.03	0.04	0 12:03	0 00:00	0.00	0.00
7	MH-4	1.15	0.00	3344.79	0.24	0.00	3.75	3344.59	0.04	0 12:03	0 00:00	0.00	0.00
8	MH-5	1.67	0.00	3339.82	0.38	0.00	5.62	3339.50	0.06	0 12:03	0 00:00	0.00	0.00
9	MH-6	0.75	0.00	3312.40	0.20	0.00	3.42	3312.24	0.04	0 12:05	0 00:00	0.00	0.00
10	MH-7	1.32	0.00	3307.40	0.35	0.00	3.11	3307.10	0.05	0 12:05	0 00:00	0.00	0.00
11	MH-8	1.85	0.00	3295.89	0.27	0.00	2.96	3295.67	0.05	0 12:06	0 00:00	0.00	0.00
12	MH-9	7.34	0.00	3273.60	1.80	0.00	4.79	3272.25	0.45	0 12:06	0 00:00	0.00	0.00
13	NULL-JUNCTION-2	0.83	0.83	3357.23	0.23	0.00	0.27	3357.04	0.04	0 12:06	0 00:00	0.00	0.00
14	NULL-JUNCTION-4	1.44	0.68	3334.91	0.36	0.00	0.64	3334.61	0.06	0 12:05	0 00:00	0.00	0.00
15	NULL-JUNCTION-6	1.44	0.00	3318.39	0.39	0.00	0.61	3318.07	0.07	0 12:06	0 00:00	0.00	0.00
16	NULL-JUNCTION-7	2.45	0.00	3310.01	0.01	0.00	2.99	3310.00	0.00	0 12:04	0 00:00	0.00	0.00
17	NULL-JUNCTION-8	7.73	0.00	3264.15	0.55	0.00	3.65	3263.71	0.11	0 12:06	0 00:00	0.00	0.00
18	UPPERPOND-DRAIN	0.55	0.00	3340.08	1.36	0.00	2.92	3339.27	0.55	0 12:05	0 00:00	0.00	0.00

Channel Input

SN Element ID	Length	Inlet Invert Elevation	Inlet Invert Offset	Outlet Invert Elevation	Outlet Invert Offset	Total Drop	Average Shape Slope	Height	Width	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flap Flow Gate
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(%)	(ft)	(ft)					(cfs)
1 Link-08	371.10	3402.20	4.20	3372.89	5.89	29.31	7.9000 User-Defined	0.750	6.800	0.0110	0.5000	0.5000	0.0000	0.00 No
2 Link-09	124.79	3372.89	5.89	3366.79	8.60	6.09	4.8800 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
3 Link-10	180.90	3403.00	4.72	3400.12	3.22	2.88	1.5900 User-Defined	0.750	6.800	0.0110	0.5000	0.5000	0.0000	0.00 No
4 Link-11	255.89	3400.12	3.22	3388.50	3.50	11.62	4.5400 User-Defined	0.750	6.800	0.0110	0.5000	0.5000	0.0000	0.00 No
5 Link-12	118.17	3388.16	5.72	3373.31	4.31	14.85	12.5700 User-Defined	0.750	6.800	0.0110	0.5000	0.5000	0.0000	0.00 No
6 Link-13	200.58	3388.50	3.50	3372.80	4.18	15.70	7.8300 User-Defined	0.750	6.800	0.0110	0.5000	0.5000	0.0000	0.00 No
7 Link-14	472.63	3373.31	4.31	3341.74	6.74	31.57	6.6800 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
8 Link-15	466.28	3372.80	4.18	3342.11	6.31	30.69	6.5800 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
9 Link-17	487.39	3366.79	8.60	3329.23	10.47	37.56	7.7100 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
10 Link-18	235.85	3365.50	7.73	3353.43	4.43	12.07	5.1200 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
11 Link-19	179.99	3353.26	4.26	3350.66	3.94	2.60	1.4400 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
12 Link-20	164.38	3352.62	3.22	3340.53	3.03	12.09	7.3500 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
13 Link-21	339.32	3340.53	3.03	3329.21	10.03	11.32	3.3400 User-Defined	0.750	6.800	0.0110	0.5000	0.5000	0.0000	0.00 No
14 Link-22	514.74	3340.32	2.91	3319.20	11.29	21.11	4.1000 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
15 Link-24	190.92	3350.53	3.43	3340.27	7.27	10.26	5.3700 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
16 Link-25	217.66	3350.66	3.94	3341.74	6.74	8.92	4.1000 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
17 Link-26	336.59	3340.27	7.27	3326.57	3.57	13.70	4.0700 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
18 Link-27	385.36	3342.11	6.31	3326.40	3.79	15.71	4.0800 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
19 Link-28	173.32	3326.57	3.57	3319.82	3.67	6.75	3.8900 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
20 Link-29	169.99	3326.40	3.79	3319.92	6.92	6.48	3.8100 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
21 Link-30	262.89	3319.82	3.67	3311.08	6.86	8.74	3.3200 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
22 Link-31	266.64	3320.05	7.05	3308.85	5.09	11.20	4.2000 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
23 Link-32	216.58	3329.23	10.47	3319.24	11.69	9.99	4.6100 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
24 Link-33	130.77	3319.24	11.69	3309.21	4.53	10.03	7.6700 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
25 Link-34	132.41	3319.20	11.29	3311.08	6.86	8.12	6.1300 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
26 Link-35	297.09	3308.85	5.09	3281.51	5.63	27.34	9.2000 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
27 Link-36	249.29	3309.21	4.53	3291.00	1.00	18.21	7.3000 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
28 Link-38	138.92	3281.55	3.00	3275.53	8.73	6.02	4.3400 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
29 Link-39	127.19	3281.51	5.63	3276.79	4.69	4.72	3.7100 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
30 Link-74	464.71	3357.00	0.00	3335.00	0.45	22.00	4.7300 Triangular	0.500	6.000	0.0320	0.5000	0.5000	0.0000	0.00 No
31 Link-77	256.93	3330.00	-4.55	3315.00	-3.00	15.00	5.8400 Triangular	1.000	6.000	0.0320	0.5000	0.5000	0.0000	0.00 No
32 Link-79	217.18	3315.00	-3.00	3309.00	3.00	6.00	2.7600 Triangular	1.000	6.000	0.0320	0.5000	0.5000	0.0000	0.00 No
33 Link-82	135.46	3345.00	2.00	3341.74	6.74	3.26	2.4100 User-Defined	0.750	6.800	0.0320	0.5000	0.5000	0.0000	0.00 No
34 Link-90	143.54	3195.00	0.00	3190.00	0.00	5.00	3.4800 Triangular	1.500	6.000	0.0320	0.5000	0.5000	0.0000	0.00 No

Channel Results

SN	Element ID	Peak Flow	Time of Peak Flow Occurrence	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Travel Time	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
		(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)		(min)		
1	Link-08	0.08	0 11:56	80.09	0.00	4.83	1.28	0.06	0.00		
2	Link-09	0.06	0 12:04	89.87	0.00	2.29	0.91	0.06	0.00		
3	Link-10	0.09	0 12:06	34.91	0.00	1.85	1.63	0.10	0.00		
4	Link-11	0.09	0 12:06	58.96	0.00	2.65	1.61	0.09	0.00		
5	Link-12	0.11	0 11:56	98.09	0.00	5.32	0.37	0.07	0.00		
6	Link-13	0.08	0 12:06	77.41	0.00	2.91	1.15	0.08	0.00		
7	Link-14	0.07	0 11:56	87.67	0.00	2.66	2.96	0.16	0.00		
8	Link-15	0.16	0 12:04	86.97	0.00	3.17	2.45	0.09	0.00		
9	Link-17	0.07	0 12:04	96.32	0.00	2.07	3.92	0.07	0.00		
10	Link-18	0.10	0 11:56	65.30	0.00	2.09	1.88	0.09	0.00		
11	Link-19	0.07	0 12:03	40.77	0.00	1.61	1.86	0.08	0.00		
12	Link-20	0.07	0 11:56	91.72	0.00	1.15	2.38	0.10	0.00		
13	Link-21	0.06	0 11:58	64.75	0.00	4.21	1.34	0.08	0.00		
14	Link-22	0.05	0 11:56	81.13	0.00	4.44	1.93	0.04	0.00		
15	Link-24	0.04	0 11:56	77.86	0.00	2.18	1.46	0.05	0.00		
16	Link-25	0.05	0 12:04	68.67	0.00	1.02	3.56	0.18	0.00		
17	Link-26	0.02	0 11:56	68.98	0.00	1.71	3.28	0.05	0.00		
18	Link-27	0.13	0 11:57	68.62	0.00	2.25	2.85	0.09	0.00		
19	Link-28	0.05	0 12:07	67.53	0.00	1.13	2.56	0.09	0.00		
20	Link-29	0.13	0 11:56	66.12	0.00	2.33	1.22	0.09	0.00		
21	Link-30	0.19	0 12:06	67.14	0.00	3.02	1.45	0.14	0.00		
22	Link-31	0.10	0 11:56	68.71	0.00	2.33	1.91	0.08	0.00		
23	Link-32	0.10	0 12:06	78.37	0.00	2.28	1.58	0.08	0.00		
24	Link-33	0.06	0 12:06	54.05	0.00	2.07	1.05	0.06	0.00		
25	Link-34	0.00	0 00:00	42.21	0.00	0.00		0.09	0.00		
26	Link-35	0.10	0 11:56	102.24	0.00	2.98	1.66	0.07	0.00		
27	Link-36	0.03	0 12:06	89.02	0.00	2.28	1.82	0.25	0.00		
28	Link-38	0.08	0 11:56	72.12	0.00	3.46	0.67	0.06	0.00		
29	Link-39	0.07	0 12:03	74.83	0.00	3.08	0.69	0.09	0.00		
30	Link-74	0.79	0 12:06	5.96	0.13	2.40	3.23	0.47	0.00		
31	Link-77	1.44	0 12:05	21.50	0.07	3.42	1.25	0.38	0.00		
32	Link-79	1.41	0 12:06	17.25	0.08	3.06	1.18	0.39	0.00		
33	Link-82	0.00	0 00:00	42.93	0.00	0.00		0.00	0.00		
34	Link-90	0.00	0 00:00	29.89	0.00	0.00		0.07	0.00		

Pipe Input

SN Element ID	Length	Inlet Invert Elevation	Inlet Invert Offset	Outlet Invert Elevation	Outlet Invert Offset	Total Drop	Average Pipe Slope Shape	Pipe Diameter or Height	Pipe Width	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(%)	(in)	(in)					(cfs)
1 Link-06	15.01	3308.18	-1.82	3296.00	-10.00	12.18	81.1400 DUMMY	0.000	0.000	0.0320	0.5000	0.5000	0.0000	0.00
2 Link-105	110.53	3325.00	0.00	3323.20	0.20	1.80	1.6300 CIRCULAR	12.000	12.000	0.0150	0.5000	0.5000	0.0000	0.00
3 Link-106	44.74	3335.80	0.00	3335.30	0.30	0.50	1.1200 CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00
4 Link-107	304.03	3390.00	0.00	3367.20	0.20	22.80	7.5000 CIRCULAR	12.000	12.000	0.0150	0.5000	0.5000	0.0000	0.00
5 Link-108	77.38	3398.00	0.00	3390.20	0.20	7.80	10.0800 CIRCULAR	12.000	12.000	0.0150	0.5000	0.5000	0.0000	0.00
6 Link-109	50.48	3398.28	0.00	3398.00	0.00	0.28	0.5500 CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00
7 Link-110	35.71	3316.15	0.00	3313.20	0.20	2.95	8.2600 CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00
8 Link-111	92.73	3313.00	0.00	3310.00	0.00	3.00	3.2400 CIRCULAR	36.000	36.000	0.0150	0.5000	0.5000	0.0000	0.00
9 Link-85	204.93	3190.00	0.00	3159.50	0.00	30.50	14.8800 CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00
10 Link-89	308.93	3232.80	0.00	3195.00	0.00	37.80	12.2400 CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00
11 Link-91	494.91	3258.50	3.50	3233.00	0.20	25.50	5.1500 CIRCULAR	12.000	12.000	0.0150	0.5000	0.5000	0.0000	0.00
12 Link-93	91.99	3334.80	1.80	3331.50	4.00	3.30	3.5900 CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00
13 OUTFALL-TO-LOWERPOND	150.00	3263.60	0.00	3255.00	0.00	8.60	5.7300 CIRCULAR	24.000	24.000	0.0150	0.5000	0.5000	0.0000	0.00
14 Pipe -10	90.35	3357.77	0.00	3355.00	0.20	2.77	3.0700 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
15 Pipe -11	45.95	3354.80	0.00	3353.19	0.20	1.61	3.5000 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
16 Pipe -12	91.80	3352.99	0.00	3349.20	0.20	3.79	4.1300 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
17 Pipe -13	55.49	3349.40	0.00	3349.20	0.20	0.20	0.3600 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
18 Pipe -14	57.59	3349.00	0.00	3346.92	0.20	2.08	3.6100 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
19 Pipe -15	326.25	3337.50	0.00	3319.38	0.20	18.12	5.5500 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
20 Pipe -16	36.89	3337.70	0.29	3337.50	0.00	0.20	0.5400 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
21 Pipe -18	34.58	3323.00	0.00	3322.81	0.20	0.19	0.5500 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
22 Pipe -19	169.84	3322.61	0.00	3313.20	0.20	9.41	5.5400 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
23 Pipe -20	37.00	3347.10	0.00	3346.92	0.20	0.18	0.4900 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
24 Pipe -21	53.71	3346.72	0.00	3344.75	0.20	1.97	3.6700 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
25 Pipe -22	53.77	3344.55	0.00	3339.64	0.20	4.91	9.1300 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
26 Pipe -23	102.45	3339.44	0.00	3336.46	1.46	2.98	2.9100 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
27 Pipe -24	53.10	3335.30	0.30	3335.00	2.00	0.30	0.5600 CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00
28 Pipe -27	51.84	3319.18	0.00	3318.96	0.20	0.22	0.4200 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
29 Pipe -28	144.87	3318.76	0.00	3312.40	0.20	6.36	4.3900 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
30 Pipe -29	72.32	3312.20	0.00	3307.75	0.20	4.45	6.1500 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
31 Pipe -3	255.29	3396.90	0.00	3385.20	0.20	11.70	4.5800 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
32 Pipe -30	30.26	3307.91	0.00	3307.75	0.20	0.16	0.5300 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
33 Pipe -31	59.75	3307.55	0.00	3307.25	0.20	0.30	0.5000 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
34 Pipe -32	70.60	3307.05	0.00	3305.14	0.46	1.91	2.7100 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
35 Pipe -33	51.47	3304.68	0.00	3304.42	0.20	0.26	0.5100 CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00
36 Pipe -34	52.12	3304.22	0.00	3303.96	0.20	0.26	0.5000 CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00
37 Pipe -35	115.12	3303.76	0.00	3295.82	0.20	7.94	6.9000 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
38 Pipe -36	164.11	3295.62	0.00	3277.08	1.20	18.54	11.3000 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
39 Pipe -37	37.41	3278.55	0.00	3277.08	1.20	1.47	3.9300 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
40 Pipe -38	62.14	3275.88	0.00	3272.00	0.20	3.88	6.2400 CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00
41 Pipe -39	63.48	3271.80	0.00	3269.00	-3.10	2.80	4.4100 CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00
42 Pipe -4	37.54	3385.00	0.00	3384.44	2.00	0.56	1.4900 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
43 Pipe -40	34.01	3269.00	-3.10	3267.00	0.20	2.00	5.8800 CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00
44 Pipe -41	92.30	3266.80	0.00	3265.80	2.20	1.00	1.0800 CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00
45 Pipe -44	142.82	3306.00	0.00	3276.08	0.20	29.92	20.9500 CIRCULAR	8.040	8.040	0.0130	0.5000	0.5000	0.0000	0.00
46 Pipe -5	97.73	3382.44	0.00	3369.20	0.20	13.24	13.5500 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
47 Pipe -6	37.16	3369.00	0.00	3368.82	0.20	0.18	0.4800 CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00
48 Pipe -7	465.28	3368.62	0.00	3336.00	0.20	32.62	7.0100 CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00
49 Pipe -8	118.46	3367.00	0.00	3358.39	0.20	8.61	7.2700 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
50 Pipe -9	41.44	3358.19	0.00	3357.97	0.20	0.22	0.5300 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
51 UPPERPOND-DRAIN-PIPE	13.36	3339.72	1.00	3339.64	0.20	0.08	0.6000 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00

Pipe Results

SN Element ID	Peak Flow	Time of Peak Flow Occurrence	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Travel Time	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
	(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)		(min)		
1 Link-06	2.45	0 12:04	0.00	0.00	0.00		0.00	0.00		
2 Link-105	1.72	0 12:17	3.94	0.44	4.39	0.42	0.51	0.00		Calculated
3 Link-106	1.18	0 12:03	9.62	0.12	1.91	0.39	0.39	0.00		Calculated
4 Link-107	0.27	0 12:03	8.46	0.03	4.91	1.03	0.12	0.00		Calculated
5 Link-108	0.28	0 12:02	9.80	0.03	5.41	0.24	0.12	0.00		Calculated
6 Link-109	0.16	0 12:06	6.78	0.02	2.03	0.41	0.09	0.00		Calculated
7 Link-110	0.41	0 12:06	26.17	0.02	2.19	0.27	0.54	0.00		Calculated
8 Link-111	2.45	0 12:04	103.97	0.02	3.06	0.51	0.31	0.00		Calculated
9 Link-85	1.25	0 12:43	35.12	0.04	9.27	0.37	0.13	0.00		Calculated
10 Link-89	0.00	0 00:00	31.84	0.00	0.00		0.00	0.00		Calculated
11 Link-91	0.00	0 00:00	7.01	0.00	0.00		0.00	0.00		Calculated
12 Link-93	3.56	0 12:03	17.24	0.21	7.26	0.21	0.32	0.00		Calculated
13 OUTFALL-TO-LOWERPOND	7.73	0 12:06	46.95	0.16	8.28	0.30	0.64	0.00		Calculated
14 Pipe -10	0.73	0 12:03	6.24	0.12	5.14	0.29	0.24	0.00		Calculated
15 Pipe -11	0.73	0 12:03	6.67	0.11	5.25	0.15	0.23	0.00		Calculated
16 Pipe -12	0.73	0 12:03	7.24	0.10	5.74	0.27	0.22	0.00		Calculated
17 Pipe -13	0.16	0 11:56	2.14	0.07	1.66	0.56	0.18	0.00		Calculated
18 Pipe -14	0.96	0 12:02	6.77	0.14	5.76	0.17	0.26	0.00		Calculated
19 Pipe -15	0.25	0 11:56	8.40	0.03	4.76	1.14	0.12	0.00		Calculated
20 Pipe -16	0.11	0 11:56	2.62	0.04	1.81	0.34	0.13	0.00		Calculated
21 Pipe -18	1.82	0 12:10	2.64	0.69	3.36	0.17	0.65	0.00		Calculated
22 Pipe -19	1.95	0 12:03	8.39	0.23	5.38	0.53	0.66	0.00		Calculated
23 Pipe -20	0.10	0 11:56	2.49	0.04	1.57	0.39	0.14	0.00		Calculated
24 Pipe -21	1.15	0 12:02	6.82	0.17	6.04	0.15	0.29	0.00		Calculated
25 Pipe -22	1.15	0 12:03	10.77	0.11	8.47	0.11	0.23	0.00		Calculated
26 Pipe -23	1.67	0 12:03	6.08	0.28	6.30	0.27	0.37	0.00		Calculated
27 Pipe -24	3.46	0 12:04	7.90	0.44	3.85	0.23	0.51	0.00		Calculated
28 Pipe -27	0.51	0 12:04	2.32	0.22	2.33	0.37	0.32	0.00		Calculated
29 Pipe -28	0.75	0 12:05	7.47	0.10	5.97	0.40	0.22	0.00		Calculated
30 Pipe -29	0.75	0 12:05	8.84	0.08	5.44	0.22	0.29	0.00		Calculated
31 Pipe -3	0.16	0 12:06	7.63	0.02	3.81	1.12	0.10	0.00		Calculated
32 Pipe -30	0.48	0 12:02	2.59	0.19	2.27	0.22	0.35	0.00		Calculated
33 Pipe -31	1.32	0 12:05	2.52	0.52	3.10	0.32	0.53	0.00		Calculated
34 Pipe -32	1.32	0 12:05	5.86	0.23	5.68	0.21	0.34	0.00		Calculated
35 Pipe -33	1.39	0 12:05	7.47	0.19	2.96	0.29	0.31	0.00		Calculated
36 Pipe -34	1.78	0 12:06	7.42	0.24	3.13	0.28	0.36	0.00		Calculated
37 Pipe -35	1.85	0 12:06	9.36	0.20	8.95	0.21	0.31	0.00		Calculated
38 Pipe -36	1.85	0 12:06	11.98	0.15	10.82	0.25	0.27	0.00		Calculated
39 Pipe -37	0.19	0 11:56	7.06	0.03	3.75	0.17	0.12	0.00		Calculated
40 Pipe -38	7.34	0 12:06	56.53	0.13	4.43	0.23	0.52	0.00		Calculated
41 Pipe -39	7.34	0 12:06	15.55	0.47	4.05	0.26	0.56	0.00		Calculated
42 Pipe -4	0.34	0 12:06	4.35	0.08	3.12	0.20	0.20	0.00		Calculated
43 Pipe -40	7.62	0 12:06	87.60	0.09	10.17	0.06	0.29	0.00		Calculated
44 Pipe -41	7.73	0 12:06	23.55	0.33	6.01	0.26	0.43	0.00		Calculated
45 Pipe -44	5.29	0 12:06	5.53	0.96	17.09	0.14	0.84	0.00		Calculated
46 Pipe -5	0.44	0 12:03	13.11	0.03	7.62	0.21	0.13	0.00		Calculated
47 Pipe -6	0.55	0 12:02	7.31	0.07	2.28	0.27	0.19	0.00		Calculated
48 Pipe -7	0.91	0 12:03	27.81	0.03	7.21	1.08	0.12	0.00		Calculated
49 Pipe -8	0.42	0 12:03	9.61	0.04	5.87	0.34	0.15	0.00		Calculated
50 Pipe -9	0.58	0 12:03	2.60	0.22	2.50	0.28	0.34	0.00		Calculated
51 UPPERPOND-DRAIN-PIPE	0.55	0 12:05	2.76	0.20	2.39	0.09	0.33	0.00		Calculated

Inlet Input

SN Element ID	Inlet Manufacturer	Manufacturer Part Number	Inlet Location	Number of Inlets	Catchbasin Invert Elevation	Max (Rim) Elevation	Inlet Depth	Initial Water Elevation	Initial Water Depth	Ponded Area	Grate Clogging Factor
					(ft)	(ft)	(ft)	(ft)	(ft)	(ft²)	(%)
1 CI-1	FHWA HEC-22 GENERIC	N/A	On Grade	1	3398.00	3402.20	4.20	3398.00	0.00	N/A	50.00
2 CI-10	FHWA HEC-22 GENERIC	N/A	On Grade	1	3357.77	3362.00	4.23	3357.77	0.00	N/A	50.00
3 CI-11	FHWA HEC-22 GENERIC	N/A	On Grade	1	3349.00	3353.26	4.26	3349.00	0.00	N/A	50.00
4 CI-12	FHWA HEC-22 GENERIC	N/A	On Grade	1	3349.40	3353.27	3.87	3349.40	0.00	N/A	50.00
5 CI-13	FHWA HEC-22 GENERIC	N/A	On Grade	1	3337.50	3341.25	3.75	3337.50	0.00	N/A	50.00
6 CI-14	FHWA HEC-22 GENERIC	N/A	On Grade	1	3337.41	3340.88	3.47	3337.41	0.00	N/A	50.00
7 CI-15	FHWA HEC-22 GENERIC	N/A	On Grade	1	3323.00	3326.55	3.55	3323.00	0.00	N/A	50.00
8 CI-16	FHWA HEC-22 GENERIC	N/A	On Grade	1	3322.61	3326.38	3.77	3322.61	0.00	N/A	50.00
9 CI-17	FHWA HEC-22 GENERIC	N/A	On Grade	1	3347.10	3350.53	3.43	3347.10	0.00	N/A	50.00
10 CI-18	FHWA HEC-22 GENERIC	N/A	On Grade	1	3346.72	3350.66	3.94	3346.72	0.00	N/A	50.00
11 CI-19	FHWA HEC-22 GENERIC	N/A	On Grade	1	3333.00	3340.47	7.47	3333.00	0.00	N/A	50.00
12 CI-2	FHWA HEC-22 GENERIC	N/A	On Grade	1	3398.28	3403.00	4.72	3398.28	0.00	N/A	50.00
13 CI-20	FHWA HEC-22 GENERIC	N/A	On Sag	1	3335.00	3341.74	6.74	3335.00	0.00	500.00	50.00
14 CI-21	FHWA HEC-22 GENERIC	N/A	On Grade	1	3335.80	3342.15	6.35	3335.80	0.00	N/A	50.00
15 CI-22	FHWA HEC-22 GENERIC	N/A	On Sag	1	3319.18	3322.67	3.49	3319.18	0.00	500.00	50.00
16 CI-23	FHWA HEC-22 GENERIC	N/A	On Grade	1	3318.76	3323.05	4.29	3318.76	0.00	N/A	50.00
17 CI-24	FHWA HEC-22 GENERIC	N/A	On Grade	1	3307.91	3311.43	3.52	3307.91	0.00	N/A	50.00
18 CI-25	FHWA HEC-22 GENERIC	N/A	On Grade	1	3307.55	3311.49	3.94	3307.55	0.00	N/A	50.00
19 CI-26	FHWA HEC-22 GENERIC	N/A	On Grade	1	3304.68	3308.17	3.49	3304.68	0.00	N/A	50.00
20 CI-27	FHWA HEC-22 GENERIC	N/A	On Sag	1	3304.22	3309.38	5.16	3304.22	0.00	500.00	50.00
21 CI-28	FHWA HEC-22 GENERIC	N/A	On Grade	1	3303.76	3308.98	5.22	3303.76	0.00	N/A	50.00
22 CI-29	FHWA HEC-22 GENERIC	N/A	On Grade	1	3278.55	3282.08	3.53	3278.55	0.00	N/A	50.00
23 CI-3	FHWA HEC-22 GENERIC	N/A	On Grade	1	3396.90	3400.12	3.22	3396.90	0.00	N/A	50.00
24 CI-30	FHWA HEC-22 GENERIC	N/A	On Grade	1	3275.88	3281.99	6.11	3275.88	0.00	N/A	50.00
25 CI-31	FHWA HEC-22 GENERIC	N/A	On Sag	1	3272.10	3275.80	3.70	3272.10	0.00	1000.00	50.00
26 CI-32	FHWA HEC-22 GENERIC	N/A	On Sag	1	3266.80	3275.80	9.00	3266.80	0.00	1000.00	50.00
27 CI-33	FHWA HEC-22 GENERIC	N/A	On Grade	1	3316.15	3319.68	3.53	3316.15	0.00	N/A	50.00
28 CI-34	FHWA HEC-22 GENERIC	N/A	On Grade	1	3313.00	3319.92	6.92	3313.00	0.00	N/A	50.00
29 CI-4	FHWA HEC-22 GENERIC	N/A	On Grade	1	3385.00	3388.50	3.50	3385.00	0.00	N/A	50.00
30 CI-5	FHWA HEC-22 GENERIC	N/A	On Grade	1	3382.44	3388.16	5.72	3382.44	0.00	N/A	50.00
31 CI-6	FHWA HEC-22 GENERIC	N/A	On Grade	1	3369.00	3373.31	4.31	3369.00	0.00	N/A	50.00
32 CI-7	FHWA HEC-22 GENERIC	N/A	On Grade	1	3368.62	3372.80	4.18	3368.62	0.00	N/A	50.00
33 CI-8	FHWA HEC-22 GENERIC	N/A	On Grade	1	3367.00	3371.11	4.11	3367.00	0.00	N/A	50.00
34 CI-9	FHWA HEC-22 GENERIC	N/A	On Grade	1	3358.19	3362.35	4.16	3358.19	0.00	N/A	50.00

Roadway & Gutter Input

SN Element ID	Roadway Longitudinal Slope (ft/ft)	Roadway Cross Slope (ft/ft)	Roadway Manning's Roughness	Gutter Cross Slope (ft/ft)	Gutter Width (ft)	Gutter Depression (in)	Allowable Spread (ft)
1 CI-1	0.0600	0.0200	0.0130	0.0200	2.00	0.0000	12.50
2 CI-10	0.0490	0.0200	0.0130	0.0200	2.00	0.0000	12.50
3 CI-11	0.0120	0.0200	0.0130	0.0200	2.00	0.0000	12.50
4 CI-12	0.0390	0.0200	0.0130	0.0200	2.00	0.0000	12.50
5 CI-13	0.0670	0.0200	0.0130	0.0200	2.00	0.0000	12.50
6 CI-14	0.0580	0.0200	0.0130	0.0200	2.00	0.0000	12.50
7 CI-15	0.0380	0.0200	0.0130	0.0200	2.00	0.0000	12.50
8 CI-16	0.0380	0.0200	0.0130	0.0200	2.00	0.0000	12.50
9 CI-17	0.0570	0.0200	0.0130	0.0200	2.00	0.0000	12.50
10 CI-18	0.0490	0.0200	0.0130	0.0200	2.00	0.0000	12.50
11 CI-19	0.0330	0.0200	0.0130	0.0620	2.00	0.0000	12.50
12 CI-2	0.0160	0.0200	0.0130	0.0200	2.00	0.0000	12.50
13 CI-20	N/A	0.0200	0.0130	0.0200	2.00	0.0000	12.50
14 CI-21	0.0410	0.0200	0.0130	0.0200	2.00	0.0000	12.50
15 CI-22	N/A	0.0200	0.0130	0.0200	2.00	0.0000	12.50
16 CI-23	0.0400	0.0200	0.0130	0.0200	2.00	0.0000	12.50
17 CI-24	0.0850	0.2000	0.0130	0.2000	2.00	0.0000	12.50
18 CI-25	0.0780	0.0200	0.0130	0.0200	2.00	0.0000	12.50
19 CI-26	0.0750	0.0200	0.0130	0.0200	2.00	0.0000	12.50
20 CI-27	N/A	0.0200	0.0130	0.0200	2.00	0.0000	12.50
21 CI-28	0.0720	0.0200	0.0130	0.0200	2.00	0.0000	12.50
22 CI-29	0.0770	0.0200	0.0130	0.0200	2.00	0.0000	12.50
23 CI-3	0.0150	0.0200	0.0130	0.0200	2.00	0.0000	12.50
24 CI-30	0.0780	0.0200	0.0130	0.0200	2.00	0.0000	12.50
25 CI-31	N/A	0.0200	0.0130	0.0200	2.00	0.0000	12.50
26 CI-32	N/A	0.0200	0.0130	0.0200	2.00	0.0000	12.50
27 CI-33	0.0410	0.0200	0.0130	0.0200	2.00	0.0000	12.50
28 CI-34	0.0370	0.0200	0.0130	0.0200	2.00	0.0000	12.50
29 CI-4	0.0920	0.0200	0.0130	0.0200	2.00	0.0000	12.50
30 CI-5	0.0900	0.0200	0.0130	0.0200	2.00	0.0000	12.50
31 CI-6	0.1160	0.0200	0.0130	0.0200	2.00	0.0000	12.50
32 CI-7	0.0810	0.0200	0.0130	0.0200	2.00	0.0000	12.50
33 CI-8	0.0800	0.0200	0.0130	0.0200	2.00	0.0000	12.50
34 CI-9	0.0500	0.0200	0.0130	0.0200	2.00	0.0000	12.50

Inlet Results

SN Element ID	Peak Flow	Peak Lateral Inflow	Peak Flow Intercepted by Inlet	Peak Flow Bypassing Inlet	Inlet Efficiency during Peak	Max Gutter Spread during Peak	Max Gutter Water Elev. during Peak	Max Gutter Water Depth during Peak	Time of Max Depth Occurrence	Total Flooded Volume	Total Time Flooded
	(cfs)	(cfs)	(cfs)	(cfs)	Flow (%)	Flow (ft)	Flow (ft)	Flow (ft)	(days hh:mm)	(ac-in)	(min)
1 CI-1	0.28	0.28	0.24	0.04	84.88	2.98	3402.26	0.06	0 12:02	0.00	0.00
2 CI-10	0.35	0.35	0.28	0.07	79.93	3.34	3362.07	0.07	0 12:03	0.00	0.00
3 CI-11	0.18	0.12	0.14	0.04	80.20	3.39	3353.33	0.07	0 12:02	0.00	0.00
4 CI-12	0.23	0.23	0.19	0.03	84.97	2.98	3353.33	0.06	0 11:56	0.00	0.00
5 CI-13	0.20	0.13	0.18	0.02	90.54	2.57	3341.30	0.05	0 11:56	0.00	0.00
6 CI-14	0.16	0.16	0.15	0.01	92.57	2.42	3340.93	0.05	0 11:56	0.00	0.00
7 CI-15	0.19	0.18	0.16	0.02	87.74	2.78	3326.61	0.06	0 12:10	0.00	0.00
8 CI-16	0.45	0.32	0.33	0.12	73.74	3.85	3326.46	0.08	0 12:03	0.00	0.00
9 CI-17	0.15	0.15	0.14	0.01	93.51	2.35	3350.58	0.05	0 11:56	0.00	0.00
10 CI-18	0.17	0.11	0.15	0.02	90.63	2.57	3350.71	0.05	0 12:02	0.00	0.00
11 CI-19	0.20	0.16	0.00	0.00	0.00	1.45	3340.56	0.09	0 12:03	0.00	0.00
12 CI-2	0.25	0.25	0.19	0.06	76.35	3.68	3403.07	0.07	0 12:06	0.00	0.00
13 CI-20	0.89	0.80	N/A	N/A	N/A	8.35	3341.89	0.15	0 12:04	0.00	0.00
14 CI-21	0.44	0.36	0.33	0.11	74.66	3.77	3342.23	0.08	0 12:03	0.00	0.00
15 CI-22	0.46	0.45	N/A	N/A	N/A	5.68	3322.76	0.09	0 12:04	0.00	0.00
16 CI-23	0.35	0.28	0.27	0.08	78.40	3.47	3323.12	0.07	0 12:05	0.00	0.00
17 CI-24	0.48	0.45	0.00	0.00	0.00	0.81	3311.59	0.16	0 12:02	0.00	0.00
18 CI-25	0.20	0.10	0.18	0.02	91.69	2.48	3311.54	0.05	0 12:05	0.00	0.00
19 CI-26	0.10	0.04	0.09	0.00	98.41	1.91	3308.21	0.04	0 12:05	0.00	0.00
20 CI-27	0.52	0.34	N/A	N/A	N/A	6.05	3309.48	0.10	0 12:06	0.00	0.00
21 CI-28	0.34	0.24	0.28	0.06	83.36	3.08	3309.04	0.06	0 12:06	0.00	0.00
22 CI-29	0.27	0.27	0.23	0.03	87.47	2.79	3282.14	0.06	0 11:56	0.00	0.00
23 CI-3	0.25	0.16	0.19	0.06	76.19	3.69	3400.19	0.07	0 12:06	0.00	0.00
24 CI-30	0.23	0.17	0.21	0.02	89.75	2.62	3282.04	0.05	0 12:06	0.00	0.00
25 CI-31	0.34	0.28	N/A	N/A	N/A	4.76	3275.88	0.08	0 12:06	0.00	0.00
26 CI-32	0.13	0.07	N/A	N/A	N/A	2.80	3275.84	0.04	0 12:06	0.00	0.00
27 CI-33	0.59	0.54	0.41	0.18	69.34	4.24	3319.76	0.08	0 12:06	0.00	0.00
28 CI-34	0.35	0.21	0.27	0.08	77.82	3.52	3319.99	0.07	0 12:04	0.00	0.00
29 CI-4	0.26	0.18	0.23	0.03	89.11	2.67	3388.55	0.05	0 12:06	0.00	0.00
30 CI-5	0.36	0.36	0.30	0.06	84.09	3.03	3388.22	0.06	0 12:03	0.00	0.00
31 CI-6	0.23	0.12	0.21	0.02	92.13	2.45	3373.36	0.05	0 12:02	0.00	0.00
32 CI-7	0.54	0.47	0.42	0.13	76.67	3.59	3372.87	0.07	0 12:03	0.00	0.00
33 CI-8	0.21	0.17	0.19	0.02	91.05	2.53	3371.16	0.05	0 12:03	0.00	0.00
34 CI-9	0.24	0.17	0.21	0.03	86.17	2.89	3362.41	0.06	0 12:03	0.00	0.00

Storage Nodes

Storage Node : BEFORE 12IN CULVERT

Input Data

Invert Elevation (ft)	3190.00
Max (Rim) Elevation (ft)	3193.00
Max (Rim) Offset (ft)	3.00
Initial Water Elevation (ft)	3190.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Infiltration/Exfiltration

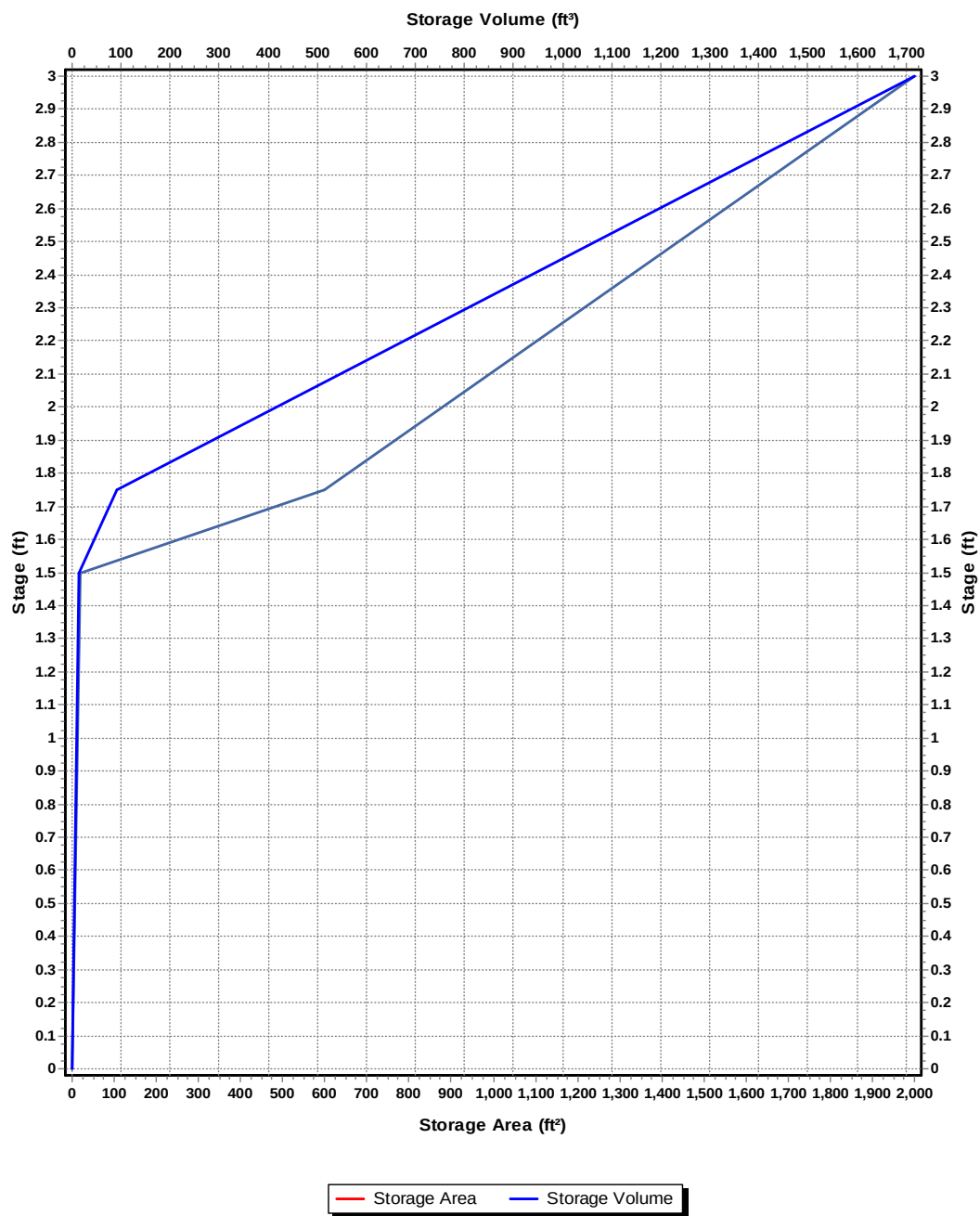
Exfiltration Rate (in/hr)	0.1
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Storage Area Volume Curves

Storage Curve : BEFORE 12IN CULVERT

Stage (ft)	Storage Area (ft²)	Storage Volume (ft³)
0	0	0
1.5	20	15
1.75	600	92.5
3	2000	1717.5

Storage Area Volume Curves



Storage Node : BEFORE 12IN CULVERT (continued)

Output Summary Results

Peak Inflow (cfs)	1.25
Peak Lateral Inflow (cfs)	1.25
Peak Outflow (cfs)	1.25
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	3190.2
Max HGL Depth Attained (ft)	0.2
Average HGL Elevation Attained (ft)	3190.06
Average HGL Depth Attained (ft)	0.06
Time of Max HGL Occurrence (days hh:mm)	0 12:43
Total Exfiltration Volume (1000-ft ³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.22

Storage Node : COMMON-AREA-1-POND

Input Data

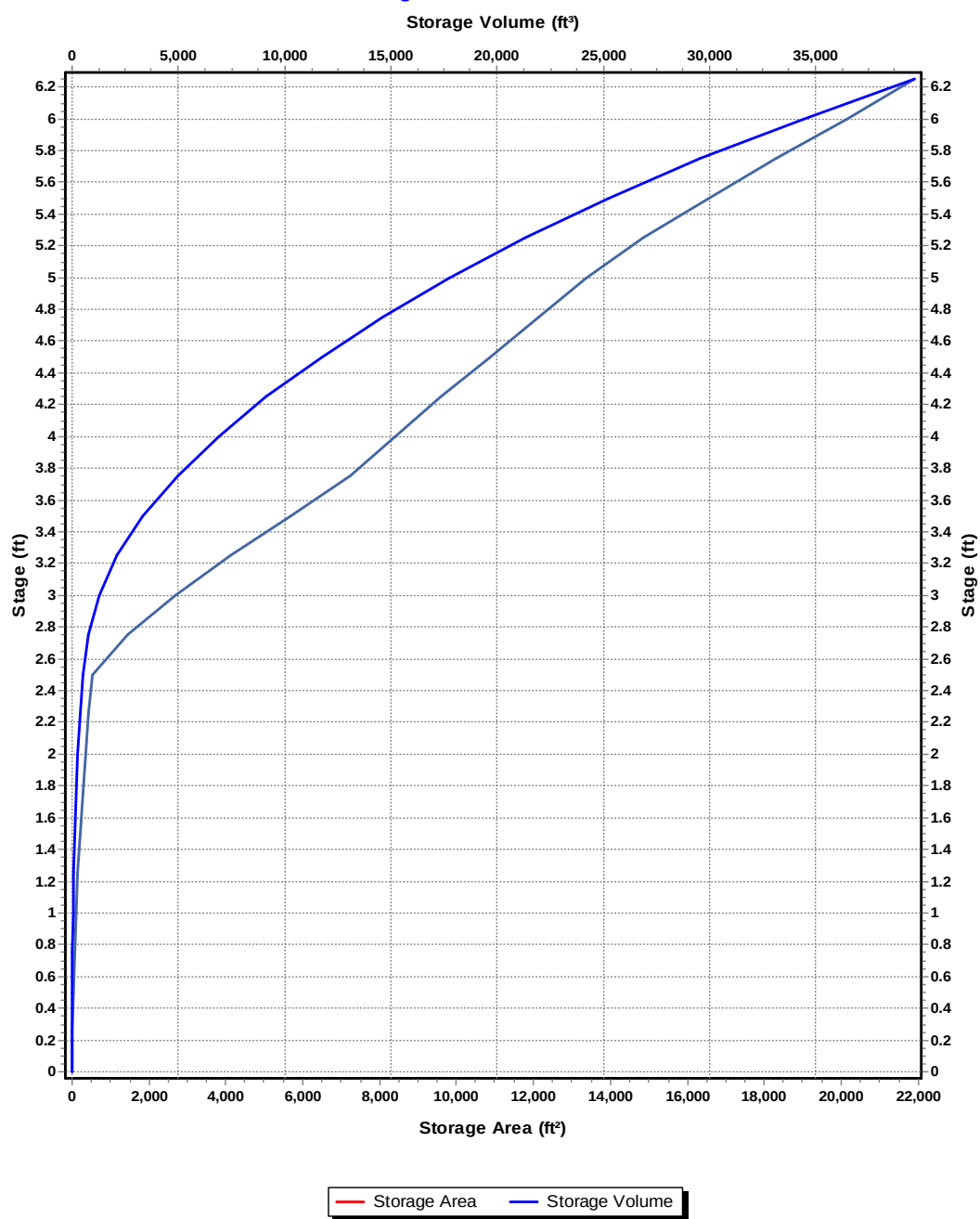
Invert Elevation (ft)	3327.50
Max (Rim) Elevation (ft)	3333.75
Max (Rim) Offset (ft)	6.25
Initial Water Elevation (ft)	3327.50
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : PARK STORAGE

Stage (ft)	Storage Area (ft²)	Storage Volume (ft³)
0	4.7	0
0.25	18	2.84
0.5	40.5	10.15
0.75	71.9	24.2
1	112	47.19
1.25	160	81.19
1.5	218	128.44
1.75	284	191.19
2	360	271.69
2.25	443	372.07
2.5	536	494.45
2.75	1440	741.45
3	2696	1258.45
3.25	4126	2111.2
3.5	5694	3338.7
3.75	7228	4953.95
4	8410	6908.7
4.25	9593	9159.08
4.5	10873	11717.33
4.75	12127	14592.33
5	13354	17777.46
5.25	14857	21303.84
5.5	16548	25229.47
5.75	18316	29587.47
6	20128	34392.97
6.25	21902	39646.72

Storage Area Volume Curves



Storage Node : COMMON-AREA-1-POND (continued)

Outflow Orifices

SN Element ID	Orifice Type	Orifice Shape	Flap Gate	Circular Orifice Diameter (in)	Rectangular Orifice Height (in)	Rectangular Orifice Width (in)	Orifice Invert Elevation (ft)	Orifice Coefficient
1 Orifice-89	Bottom	CIRCULAR	No	6.00			3327.25	0.61

Output Summary Results

Peak Inflow (cfs)	3.56
Peak Lateral Inflow (cfs)	0
Peak Outflow (cfs)	1.72
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	3330.65
Max HGL Depth Attained (ft)	3.15
Average HGL Elevation Attained (ft)	3327.68
Average HGL Depth Attained (ft)	0.18
Time of Max HGL Occurrence (days hh:mm)	0 12:17
Total Exfiltration Volume (1000-ft³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	4.76

Storage Node : INJECTED-STORMWATER

Input Data

Invert Elevation (ft)	3100.00
Max (Rim) Elevation (ft)	3255.00
Max (Rim) Offset (ft)	155.00
Initial Water Elevation (ft)	3100.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	4.2
Peak Lateral Inflow (cfs)	0
Peak Outflow (cfs)	0
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	3108.22
Max HGL Depth Attained (ft)	8.22
Average HGL Elevation Attained (ft)	3103.17
Average HGL Depth Attained (ft)	3.17
Time of Max HGL Occurrence (days hh:mm)	1 00:00
Total Exfiltration Volume (1000-ft³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	33303.24

Storage Node : MIDDLE-STORAGE

Input Data

Invert Elevation (ft)	3306.00
Max (Rim) Elevation (ft)	3309.00
Max (Rim) Offset (ft)	3.00
Initial Water Elevation (ft)	3306.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	5.55
Peak Lateral Inflow (cfs)	1.97
Peak Outflow (cfs)	5.29
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	3306.59
Max HGL Depth Attained (ft)	0.59
Average HGL Elevation Attained (ft)	3306.08
Average HGL Depth Attained (ft)	0.08
Time of Max HGL Occurrence (days hh:mm)	0 12:06
Total Exfiltration Volume (1000-ft³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	624.58

Storage Node : NORTHWEST-STORAGE

Input Data

Invert Elevation (ft)	3255.00
Max (Rim) Elevation (ft)	3260.00
Max (Rim) Offset (ft)	5.00
Initial Water Elevation (ft)	3255.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Infiltration/Exfiltration

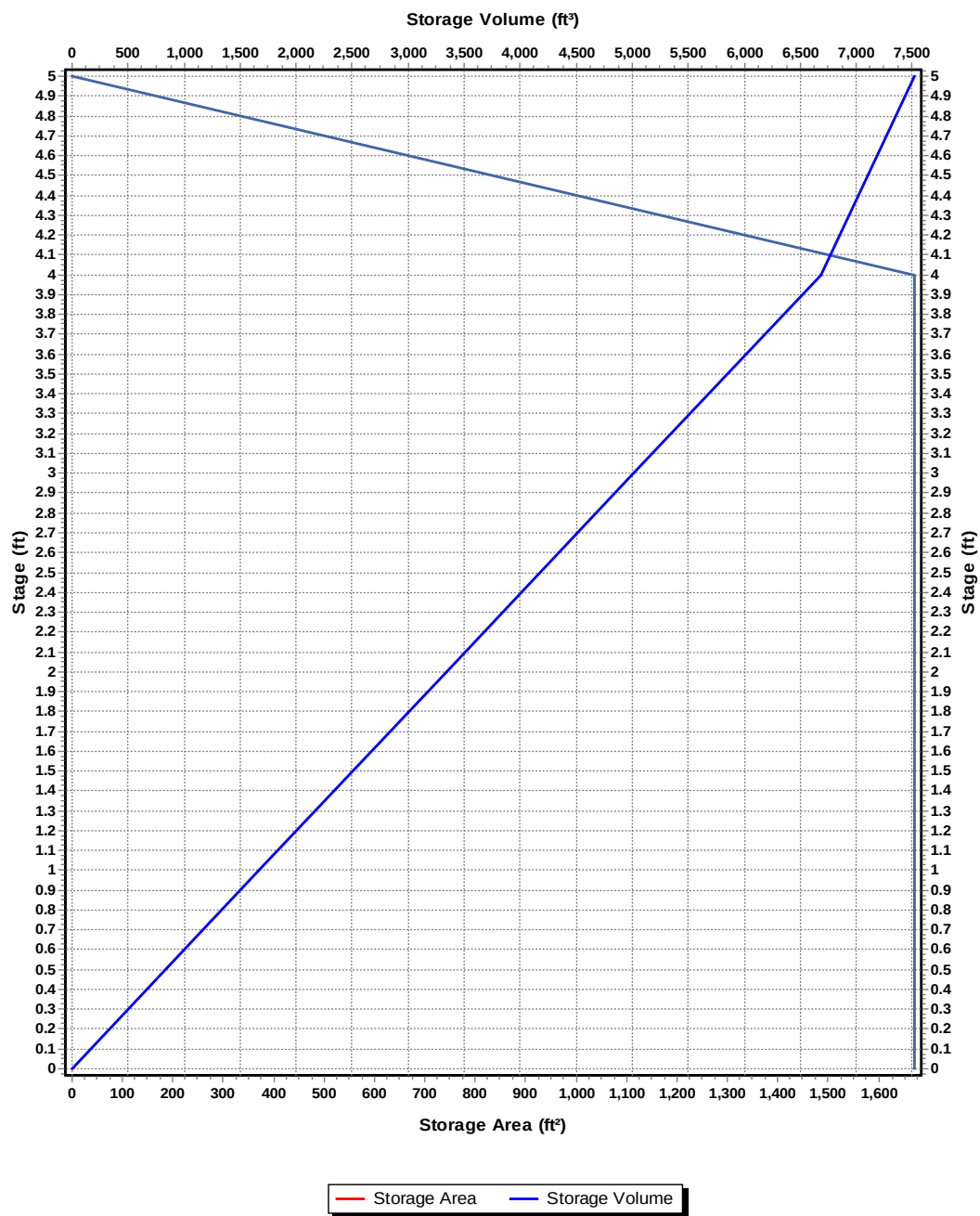
Exfiltration Rate (in/hr)	0
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Storage Area Volume Curves

Storage Curve : LOWER POND

Stage	Storage Area	Storage Volume
(ft)	(ft²)	(ft³)
0	1671	0
1	1671	1671
2	1671	3342
3	1671	5013
4	1671	6684
5	0	7519.5

Storage Area Volume Curves



Storage Node : NORTHWEST-STORAGE (continued)

Outflow Orifices

SN Element ID	Orifice Type	Orifice Shape	Flap Gate	Circular Orifice Diameter (in)	Rectangular Orifice Height (in)	Rectangular Orifice Width (in)	Orifice Invert Elevation (ft)	Orifice Coefficient
1 .87*5	Bottom	CIRCULAR	No	4.10			3255.00	0.61
2 Orifice-80	Bottom	CIRCULAR	No	4.10			3255.00	0.61
3 Orifice-83	Bottom	CIRCULAR	No	4.10			3255.00	0.61
4 Orifice-84	Bottom	CIRCULAR	No	4.10			3255.00	0.61
5 Orifice-85	Bottom	CIRCULAR	No	4.10			3255.00	0.61

Output Summary Results

Peak Inflow (cfs)	8.36
Peak Lateral Inflow (cfs)	0.65
Peak Outflow (cfs)	4.2
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	3258.45
Max HGL Depth Attained (ft)	3.45
Average HGL Elevation Attained (ft)	3255.21
Average HGL Depth Attained (ft)	0.21
Time of Max HGL Occurrence (days hh:mm)	0 12:24
Total Exfiltration Volume (1000-ft³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	372.08

Storage Node : UPPERPOND

Input Data

Invert Elevation (ft)	3343.00
Max (Rim) Elevation (ft)	3346.00
Max (Rim) Offset (ft)	3.00
Initial Water Elevation (ft)	3343.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Infiltration/Exfiltration

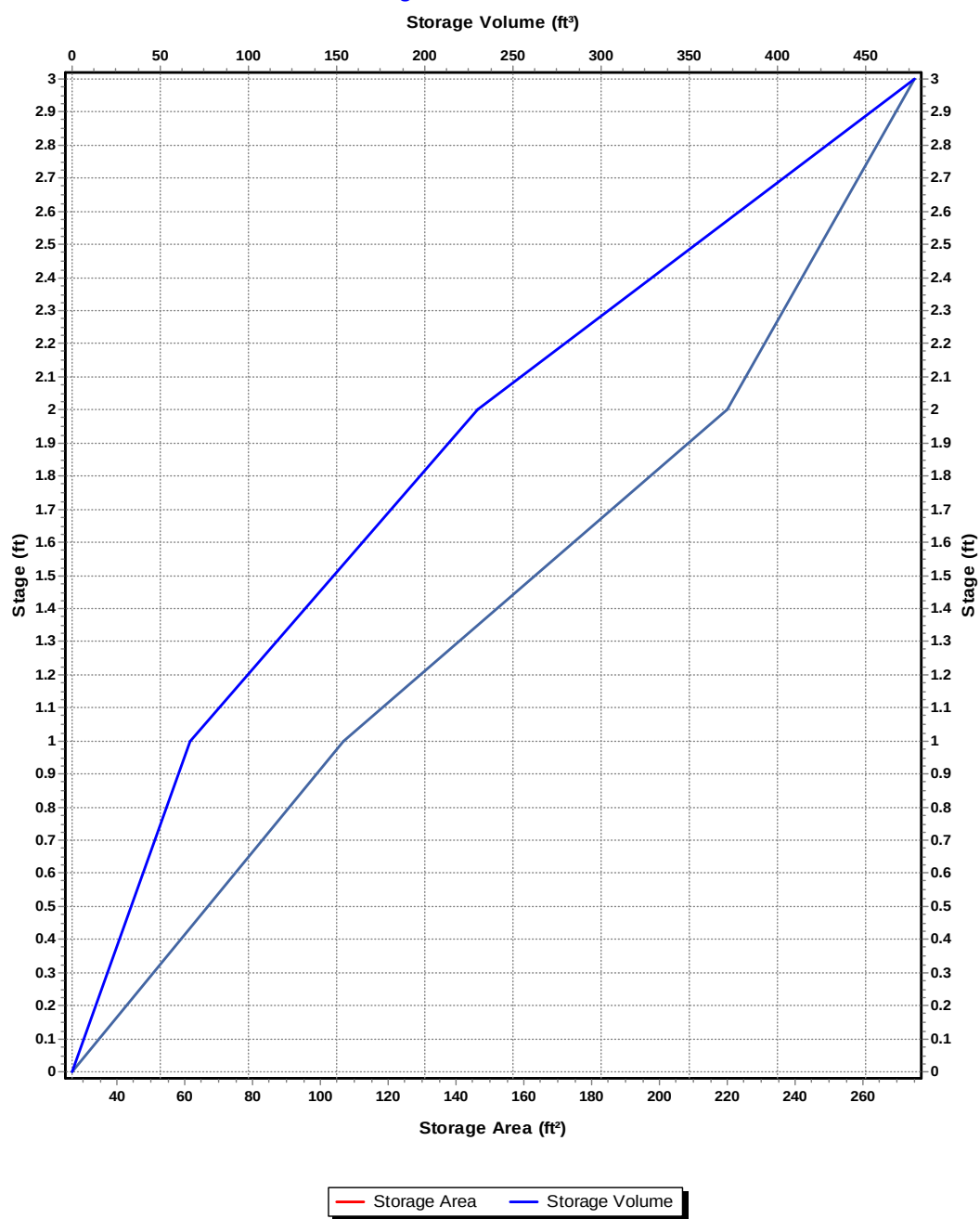
Exfiltration Rate (in/hr)	0
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Storage Area Volume Curves

Storage Curve : Storage-09

Stage	Storage Area	Storage Volume
(ft)	(ft²)	(ft³)
0	27	0
1	107	67
2	220	230.5
3	275	478

Storage Area Volume Curves



Storage Node : UPPERPOND (continued)

Outflow Orifices

SN	Element ID	Orifice Type	Orifice Shape	Flap Gate	Circular Orifice Diameter (in)	Rectangular Orifice Height (in)	Rectangular Orifice Width (in)	Orifice Invert Elevation (ft)	Orifice Coefficient
1	UPPERPOND-OUTLET	Bottom	CIRCULAR	No	12.00			3343.00	0.61

Output Summary Results

Peak Inflow (cfs)	0.55
Peak Lateral Inflow (cfs)	0.55
Peak Outflow (cfs)	0.55
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	3343.14
Max HGL Depth Attained (ft)	0.14
Average HGL Elevation Attained (ft)	3343.01
Average HGL Depth Attained (ft)	0.01
Time of Max HGL Occurrence (days hh:mm)	0 12:05
Total Exfiltration Volume (1000-ft³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	22.03

Storage Node : WESTPOND

Input Data

Invert Elevation (ft)	3290.00
Max (Rim) Elevation (ft)	3292.50
Max (Rim) Offset (ft)	2.50
Initial Water Elevation (ft)	3290.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Infiltration/Exfiltration

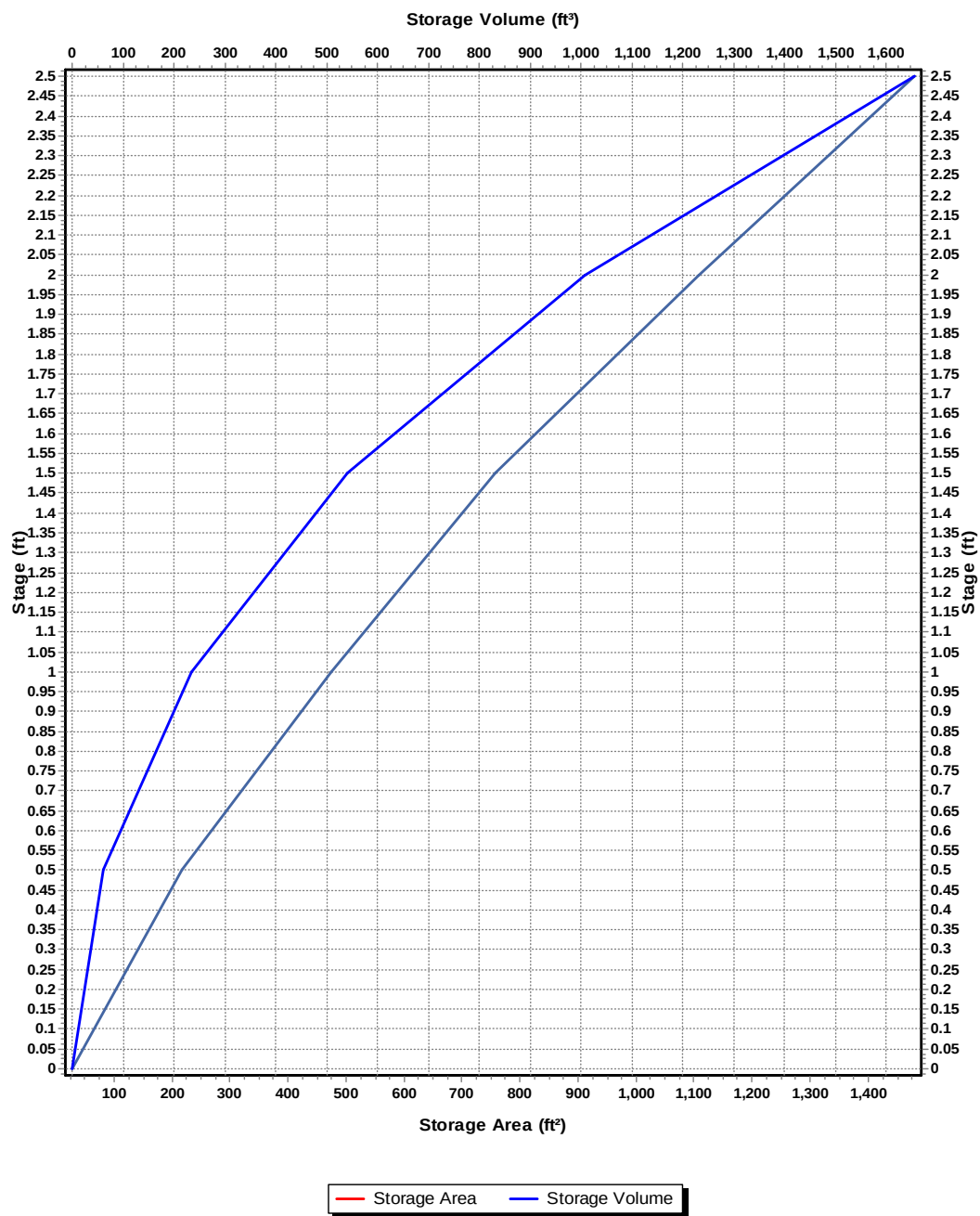
Exfiltration Rate (in/hr)	2.6
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Storage Area Volume Curves

Storage Curve : WEST SMALL POND

Stage	Storage Area	Storage Volume
(ft)	(ft²)	(ft³)
0	28	0
0.5	217	61.25
1	475	234.25
1.5	757	542.25
2	1109	1008.75
2.5	1480	1656

Storage Area Volume Curves



Storage Node : WESTPOND (continued)

Outflow Weirs

SN	Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1	Weir-01	Rectangular	No	3292.40	2.40	1.00	1.00	3.33

Output Summary Results

Peak Inflow (cfs)	0.48
Peak Lateral Inflow (cfs)	0.46
Peak Outflow (cfs)	0
Peak Exfiltration Flow Rate (cfm)	2.22
Max HGL Elevation Attained (ft)	3291.24
Max HGL Depth Attained (ft)	1.24
Average HGL Elevation Attained (ft)	3290.54
Average HGL Depth Attained (ft)	0.54
Time of Max HGL Occurrence (days hh:mm)	0 14:01
Total Exfiltration Volume (1000-ft³)	1.371
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	11571.62

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Hydrodynamic
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	YES

Analysis Options

Start Analysis On	00:00:00	0:00:00
End Analysis On	00:00:00	0:00:00
Start Reporting On	00:00:00	0:00:00
Antecedent Dry Days	10	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:01:00	days hh:mm:ss
Routing Time Step	1	seconds

Number of Elements

	Qty
Rain Gages	3
Subbasins.....	41
Nodes.....	61
<i>Junctions</i>	18
<i>Outfalls</i>	2
<i>Flow Diversions</i>	0
<i>Inlets</i>	34
<i>Storage Nodes</i>	7
Links.....	93
<i>Channels</i>	34
<i>Pipes</i>	51
<i>Pumps</i>	0
<i>Orifices</i>	7
<i>Weirs</i>	1
<i>Outlets</i>	0
Pollutants	1
Land Uses	1

Subbasin Summary

SN	Subbasin ID	Area	Peak Rate	Weighted Curve	Total Rainfall	Total Runoff	Total Runoff	Peak Runoff	Time of Concentration
		(ac)	Factor	Number	(in)	(in)	(ac-in)	(cfs)	(days hh:mm:ss)
1	OFFSITE-FLOWS	49.81	484.00	69.00	1.17	0.02	0.75	0.08	0 00:51:12
2	Sub-01	1.24	484.00	75.00	1.17	0.07	0.08	0.03	0 00:14:37
3	Sub-02	0.78	484.00	75.00	1.17	0.07	0.05	0.02	0 00:14:01
4	Sub-03	0.87	484.00	75.00	1.17	0.07	0.06	0.02	0 00:14:57
5	Sub-04	1.46	484.00	83.00	1.17	0.21	0.30	0.31	0 00:14:06
6	Sub-05	0.79	484.00	83.00	1.17	0.21	0.16	0.18	0 00:12:30
7	Sub-07	0.14	484.00	98.00	1.17	0.95	0.13	0.19	0 00:05:00
8	Sub-08	0.17	484.00	98.00	1.17	0.95	0.16	0.25	0 00:05:00
9	Sub-09	0.17	484.00	98.00	1.17	0.95	0.16	0.24	0 00:05:00
10	Sub-10	0.85	484.00	75.00	1.17	0.07	0.06	0.02	0 00:14:37
11	Sub-11	0.74	484.00	75.00	1.17	0.07	0.05	0.02	0 00:10:49
12	Sub-13	2.41	484.00	75.00	1.17	0.07	0.16	0.06	0 00:11:43
13	Sub-14	0.59	484.00	75.00	1.17	0.07	0.04	0.01	0 00:13:54
14	Sub-15	0.48	484.00	75.00	1.17	0.07	0.03	0.01	0 00:12:27
15	Sub-16	1.16	484.00	83.00	1.17	0.21	0.24	0.26	0 00:12:47
16	Sub-18	1.44	484.00	83.00	1.17	0.21	0.30	0.30	0 00:14:54
17	Sub-19	0.17	484.00	98.00	1.17	0.95	0.16	0.25	0 00:05:00
18	Sub-20	1.39	484.00	75.00	1.17	0.07	0.09	0.03	0 00:14:46
19	Sub-21	0.11	484.00	98.00	1.17	0.94	0.10	0.16	0 00:05:00
20	Sub-22	0.07	484.00	98.00	1.17	0.89	0.06	0.10	0 00:05:00
21	Sub-23	0.07	484.00	98.00	1.17	0.86	0.06	0.09	0 00:05:00
22	Sub-24	0.08	484.00	98.00	1.17	0.92	0.07	0.11	0 00:05:00
23	Sub-25	2.33	484.00	75.00	1.17	0.07	0.15	0.05	0 00:16:22
24	Sub-26	0.48	484.00	75.00	1.17	0.07	0.03	0.01	0 00:15:02
25	Sub-27	0.45	484.00	88.80	1.17	0.39	0.17	0.23	0 00:12:13
26	Sub-29	0.06	484.00	98.00	1.17	0.85	0.05	0.08	0 00:05:00
27	Sub-32	1.78	484.00	89.65	1.17	0.42	0.75	1.03	0 00:09:43
28	Sub-33	0.08	484.00	98.00	1.17	0.92	0.07	0.11	0 00:05:00
29	Sub-34	0.16	484.00	98.00	1.17	0.95	0.15	0.22	0 00:05:00
30	Sub-35	1.12	484.00	74.00	1.17	0.06	0.06	0.01	0 00:16:25
31	Sub-37	1.28	484.00	80.75	1.17	0.16	0.20	0.17	0 00:16:09
32	Sub-38	1.77	484.00	75.00	1.17	0.07	0.12	0.03	0 00:16:41
33	Sub-39	0.10	484.00	98.00	1.17	0.94	0.09	0.15	0 00:05:00
34	Sub-40	0.12	484.00	98.00	1.17	0.94	0.11	0.16	0 00:05:00
35	Sub-41	0.18	484.00	75.00	1.17	0.03	0.01	0.00	0 00:14:36
36	Sub-43	0.77	484.00	75.00	1.17	0.07	0.05	0.02	0 00:12:32
37	Sub-44	0.13	484.00	98.00	1.17	0.95	0.12	0.18	0 00:05:00
38	Sub-45	1.35	484.00	75.00	1.17	0.07	0.09	0.03	0 00:14:18
39	Sub-46	0.33	484.00	75.00	1.17	0.07	0.02	0.01	0 00:12:34
40	Sub-47	2.99	484.00	75.00	1.17	0.07	0.20	0.07	0 00:12:57
41	Sub-48	1.66	484.00	75.00	1.17	0.07	0.11	0.06	0 00:06:23

Node Summary

SN	Element ID	Element Type	Invert Elevation	Ground/Rim (Max) Elevation	Initial Water Elevation	Surcharge Elevation	Ponded Area	Peak Inflow	Max HGL Elevation Attained	Max Surcharge Depth Attained	Min Freeboard Attained	Time of Peak Flooding Occurrence	Total Flooded Volume	Total Time Flooded
			(ft)	(ft)	(ft)	(ft)	(ft ²)	(cfs)	(ft)	(ft)	(ft)	(days hh:mm)	(ac-in)	(min)
1	18-Jun	Junction	3232.80	3238.00	3232.80	3238.00	0.00	0.00	3232.80	0.00	5.20	0 00:00	0.00	0.00
2	19-Jun	Junction	3195.00	3196.00	3195.00	3196.00	0.00	0.00	3195.00	0.00	1.50	0 00:00	0.00	0.00
3	28-Jun	Junction	3325.00	3327.25	3325.00	3327.25	0.00	1.20	3325.40	0.00	1.85	0 00:00	0.00	0.00
4	29-Jun	Junction	3390.00	3394.00	3390.00	3394.00	0.00	0.13	3390.09	0.00	3.91	0 00:00	0.00	0.00
5	MH-1	Junction	3354.80	3358.02	3354.80	3358.02	0.00	0.35	3354.96	0.00	3.06	0 00:00	0.00	0.00
6	MH-2	Junction	3352.99	3356.22	3352.99	3356.22	0.00	0.35	3353.14	0.00	3.08	0 00:00	0.00	0.00
7	MH-4	Junction	3344.55	3348.54	3344.55	3348.54	0.00	0.58	3344.72	0.00	3.82	0 00:00	0.00	0.00
8	MH-5	Junction	3339.44	3345.44	3339.44	3345.44	0.00	0.58	3339.66	0.00	5.78	0 00:00	0.00	0.00
9	MH-6	Junction	3312.20	3315.82	3312.20	3315.82	0.00	0.21	3312.31	0.00	3.51	0 00:00	0.00	0.00
10	MH-7	Junction	3307.05	3310.51	3307.05	3310.51	0.00	0.44	3307.24	0.00	3.27	0 00:00	0.00	0.00
11	MH-8	Junction	3295.62	3298.85	3295.62	3298.85	0.00	0.59	3295.77	0.00	3.08	0 00:00	0.00	0.00
12	MH-9	Junction	3271.80	3278.39	3271.80	3278.39	0.00	3.43	3273.11	0.00	5.28	0 00:00	0.00	0.00
13	NULL-JUNCTION-2	Junction	3357.00	3357.50	3357.00	3357.50	0.00	0.31	3357.16	0.00	0.34	0 00:00	0.00	0.00
14	NULL-JUNCTION-4	Junction	3334.55	3335.55	3334.55	3335.55	0.00	0.52	3334.80	0.00	0.75	0 00:00	0.00	0.00
15	NULL-JUNCTION-6	Junction	3318.00	3319.00	3318.00	3319.00	0.00	0.52	3318.27	0.00	0.73	0 00:00	0.00	0.00
16	NULL-JUNCTION-7	Junction	3310.00	3312.00	3310.00	3311.00	0.00	1.51	3310.01	0.00	2.99	0 00:00	0.00	0.00
17	NULL-JUNCTION-8	Junction	3263.60	3265.80	3263.60	3265.80	0.00	3.50	3263.97	0.00	3.83	0 00:00	0.00	0.00
18	UPPERPOND-DRAIN	Junction	3338.72	3343.00	3338.72	3343.00	0.00	0.06	3339.83	0.00	3.17	0 00:00	0.00	0.00
19	EX-18IN-PIPE-OUTFALL	Outfall	3159.50					0.08	3159.55					
20	WESTERN-RUNOFF	Outfall	3291.00					0.00	3291.00					
21	BEFORE 12IN CULVERT	Storage Node	3190.00	3193.00	3190.00		0.00	0.08	3190.05				0.00	0.00
22	COMMON-AREA-1-POND	Storage Node	3327.50	3333.75	3327.50		0.00	1.33	3329.04				0.00	0.00
23	INJECTED-STORMWATER	Storage Node	3100.00	3255.00	3100.00		0.00	2.28	3103.53				0.00	0.00
24	MIDDLE-STORAGE	Storage Node	3306.00	3309.00	3306.00		0.00	2.85	3306.35				0.00	0.00
25	NORTHWEST-STORAGE	Storage Node	3255.00	3260.00	3255.00		0.00	3.55	3256.02				0.00	0.00
26	UPPERPOND	Storage Node	3343.00	3346.00	3343.00		0.00	0.06	3343.03				0.00	0.00
27	WESTPOND	Storage Node	3290.00	3292.50	3290.00		0.00	0.06	3290.52				0.00	0.00

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Average Slope	Diameter or Height	Manning's Roughness	Peak Flow	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Peak Flow Depth/ Total Depth Ratio	Total Time Reported Surcharged Condition
					(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)		(ft/sec)		(min)
1	Link-06	Pipe	NULL-JUNCTION-7	MIDDLE-STORAGE	15.01	3308.18	3296.00	81.1400	0.000	0.0320	1.51	0.00	0.00	0.00	0.00	0.00
2	Link-105	Pipe	28-Jun	CI-15	110.53	3325.00	3323.20	1.6300	12.000	0.0150	1.20	3.94	0.30	4.25	0.39	0.00 Calculated
3	Link-106	Pipe	CI-21	CI-20	44.74	3335.80	3335.30	1.1200	18.000	0.0150	0.50	9.62	0.05	1.69	0.23	0.00 Calculated
4	Link-107	Pipe	29-Jun	CI-8	304.03	3390.00	3367.20	7.5000	12.000	0.0150	0.13	8.46	0.02	3.93	0.09	0.00 Calculated
5	Link-108	Pipe	CI-1	29-Jun	77.38	3398.00	3390.20	10.0800	12.000	0.0150	0.13	9.80	0.01	4.37	0.08	0.00 Calculated
6	Link-109	Pipe	CI-2	CI-1	50.48	3398.28	3398.00	0.5500	18.000	0.0150	0.02	6.78	0.00	0.88	0.03	0.00 Calculated
7	Link-110	Pipe	CI-33	CI-34	35.71	3316.15	3313.20	8.2600	18.000	0.0150	0.12	26.17	0.00	2.18	0.40	0.00 Calculated
8	Link-111	Pipe	CI-34	NULL-JUNCTION-7	92.73	3313.00	3310.00	3.2400	36.000	0.0150	1.51	103.97	0.01	3.06	0.23	0.00 Calculated
9	Link-85	Pipe	BEFORE 12IN CULVERT	EX-18IN-PIPE-OUTFALL	204.93	3190.00	3159.50	14.8800	18.000	0.0150	0.08	35.12	0.00	4.06	0.04	0.00 Calculated
10	Link-89	Pipe	18-Jun	19-Jun	308.93	3232.80	3195.00	12.2400	18.000	0.0150	0.00	31.84	0.00	0.00	0.00	0.00 Calculated
11	Link-91	Pipe	NORTHWEST-STORAGE	18-Jun	494.91	3258.50	3233.00	5.1500	12.000	0.0150	0.00	7.01	0.00	0.00	0.00	0.00 Calculated
12	Link-93	Pipe	CI-19	COMMON-AREA-1-POND	91.99	3334.80	3331.50	3.5900	18.000	0.0150	1.33	17.24	0.08	5.60	0.19	0.00 Calculated
13	OUTFALL-TO-LOWERPOND	Pipe	NULL-JUNCTION-8	NORTHWEST-STORAGE	150.00	3263.60	3255.00	5.7300	24.000	0.0150	3.50	46.95	0.07	8.31	0.33	0.00 Calculated
14	Pipe -10	Pipe	CI-10	MH-1	90.35	3357.77	3355.00	3.0700	12.000	0.0130	0.35	6.24	0.06	4.18	0.16	0.00 Calculated
15	Pipe -11	Pipe	MH-1	MH-2	45.95	3354.80	3353.19	3.5000	12.000	0.0130	0.35	6.67	0.05	4.30	0.16	0.00 Calculated
16	Pipe -12	Pipe	MH-2	CI-11	91.80	3352.99	3349.20	4.1300	12.000	0.0130	0.35	7.24	0.05	4.65	0.15	0.00 Calculated
17	Pipe -13	Pipe	CI-12	CI-11	55.49	3349.40	3349.20	0.3600	12.000	0.0130	0.11	2.14	0.05	1.49	0.15	0.00 Calculated
18	Pipe -14	Pipe	CI-11	CI-18	57.59	3349.00	3346.92	3.6100	12.000	0.0130	0.50	6.77	0.07	4.84	0.19	0.00 Calculated
19	Pipe -15	Pipe	CI-13	CI-22	326.25	3337.50	3319.38	5.5500	12.000	0.0130	0.17	8.40	0.02	4.17	0.10	0.00 Calculated
20	Pipe -16	Pipe	CI-14	CI-13	36.89	3337.70	3337.50	0.5400	12.000	0.0130	0.08	2.62	0.03	1.62	0.11	0.00 Calculated
21	Pipe -18	Pipe	CI-15	CI-16	34.58	3323.00	3322.81	0.5500	12.000	0.0130	1.21	2.64	0.46	3.00	0.51	0.00 Calculated
22	Pipe -19	Pipe	CI-16	CI-34	169.84	3322.61	3313.20	5.5400	12.000	0.0130	1.33	8.39	0.16	5.36	0.63	0.00 Calculated
23	Pipe -20	Pipe	CI-17	CI-18	37.00	3347.10	3346.92	0.4900	12.000	0.0130	0.07	2.49	0.03	1.42	0.11	0.00 Calculated
24	Pipe -21	Pipe	CI-18	MH-4	53.71	3346.72	3344.75	3.6700	12.000	0.0130	0.58	6.82	0.09	5.07	0.20	0.00 Calculated
25	Pipe -22	Pipe	MH-4	MH-5	53.77	3344.55	3339.64	9.1300	12.000	0.0130	0.58	10.77	0.05	7.06	0.16	0.00 Calculated
26	Pipe -23	Pipe	MH-5	CI-20	102.45	3339.44	3336.46	2.9100	12.000	0.0130	0.58	6.08	0.10	4.76	0.21	0.00 Calculated
27	Pipe -24	Pipe	CI-20	CI-19	53.10	3335.30	3335.00	0.5600	18.000	0.0130	1.22	7.90	0.15	3.00	0.28	0.00 Calculated
28	Pipe -27	Pipe	CI-22	CI-23	51.84	3319.18	3318.96	0.4200	12.000	0.0130	0.20	2.32	0.09	1.83	0.20	0.00 Calculated
29	Pipe -28	Pipe	CI-23	MH-6	144.87	3318.76	3312.40	4.3900	12.000	0.0130	0.21	7.47	0.03	4.11	0.11	0.00 Calculated
30	Pipe -29	Pipe	MH-6	CI-25	72.32	3312.20	3307.75	6.1500	12.000	0.0130	0.21	8.84	0.02	4.47	0.11	0.00 Calculated
31	Pipe -3	Pipe	CI-3	CI-4	255.29	3396.90	3385.20	4.5800	12.000	0.0130	0.02	7.63	0.00	1.94	0.03	0.00 Calculated
32	Pipe -30	Pipe	CI-24	CI-25	30.26	3307.91	3307.75	0.5300	12.000	0.0130	0.25	2.59	0.10	1.98	0.22	0.00 Calculated
33	Pipe -31	Pipe	CI-25	MH-7	59.75	3307.55	3307.25	0.5000	12.000	0.0130	0.44	2.52	0.18	2.34	0.29	0.00 Calculated
34	Pipe -32	Pipe	MH-7	CI-26	70.60	3307.05	3305.14	2.7100	12.000	0.0130	0.44	5.86	0.08	4.26	0.19	0.00 Calculated
35	Pipe -33	Pipe	CI-26	CI-27	51.47	3304.68	3304.42	0.5100	18.000	0.0130	0.44	7.47	0.06	2.21	0.17	0.00 Calculated
36	Pipe -34	Pipe	CI-27	CI-28	52.12	3304.22	3303.96	0.5000	18.000	0.0130	0.48	7.42	0.07	2.26	0.18	0.00 Calculated
37	Pipe -35	Pipe	CI-28	MH-8	115.12	3303.76	3295.82	6.9000	12.000	0.0130	0.59	9.36	0.06	6.50	0.17	0.00 Calculated
38	Pipe -36	Pipe	MH-8	CI-30	164.11	3295.62	3277.08	11.3000	12.000	0.0130	0.59	11.98	0.05	7.82	0.15	0.00 Calculated
39	Pipe -37	Pipe	CI-29	CI-30	37.41	3278.55	3277.08	3.9300	12.000	0.0130	0.13	7.06	0.02	3.33	0.10	0.00 Calculated
40	Pipe -38	Pipe	CI-30	MH-9	62.14	3275.88	3272.00	6.2400	24.000	0.0130	3.43	56.53	0.06	3.34	0.36	0.00 Calculated
41	Pipe -39	Pipe	MH-9	CI-31	63.48	3271.80	3269.00	4.4100	24.000	0.0130	3.43	15.55	0.22	2.91	0.40	0.00 Calculated
42	Pipe -4	Pipe	CI-4	CI-5	37.54	3385.00	3384.44	1.4900	12.000	0.0130	0.03	4.35	0.01	1.63	0.06	0.00 Calculated
43	Pipe -40	Pipe	CI-31	CI-32	34.01	3269.00	3267.00	5.8800	24.000	0.0130	3.46	87.60	0.04	10.15	0.17	0.00 Calculated
44	Pipe -41	Pipe	CI-32	NULL-JUNCTION-8	92.30	3266.80	3265.80	1.0800	24.000	0.0130	3.50	23.55	0.15	4.97	0.28	0.00 Calculated
45	Pipe -44	Pipe	MIDDLE-STORAGE	CI-30	142.82	3306.00	3276.08	20.9500	8.000	0.0130	2.79	5.53	0.50	15.40	0.51	0.00 Calculated

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Average Slope	Diameter or Height	Manning's Roughness	Peak Flow	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Reported Condition
					(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)		(ft/sec)		(min)	
46	Pipe -5	Pipe	CI-5	CI-6	97.73	3382.44	3369.20	13.5500	12.000	0.0130	0.17	13.11	0.01	5.76	0.08	0.00	Calculated
47	Pipe -6	Pipe	CI-6	CI-7	37.16	3369.00	3368.82	0.4800	18.000	0.0130	0.28	7.31	0.04	1.92	0.14	0.00	Calculated
48	Pipe -7	Pipe	CI-7	CI-21	465.28	3368.62	3336.00	7.0100	18.000	0.0130	0.33	27.81	0.01	5.33	0.08	0.00	Calculated
49	Pipe -8	Pipe	CI-8	CI-9	118.46	3367.00	3358.39	7.2700	12.000	0.0130	0.17	9.61	0.02	4.59	0.09	0.00	Calculated
50	Pipe -9	Pipe	CI-9	CI-10	41.44	3358.19	3357.97	0.5300	12.000	0.0130	0.18	2.60	0.07	1.86	0.18	0.00	Calculated
51	UPPERPOND-DRAIN-PIPE	Pipe	UPPERPOND-DRAIN	MH-5	13.36	3339.72	3339.64	0.6000	12.000	0.0130	0.06	2.76	0.02	1.36	0.10	0.00	Calculated
52	Link-08	Channel	CI-1	CI-8	371.10	3402.20	3372.89	7.9000	9.000	0.0110	0.06	80.09	0.00	4.40	0.05	0.00	
53	Link-09	Channel	CI-8	CI-9	124.79	3372.89	3366.79	4.8800	6.000	0.0110	0.02	89.87	0.00	2.15	0.03	0.00	
54	Link-10	Channel	CI-2	CI-3	180.90	3403.00	3400.12	1.5900	9.000	0.0110	0.01	34.91	0.00	1.19	0.04	0.00	
55	Link-11	Channel	CI-3	CI-4	255.89	3400.12	3388.50	4.5400	9.000	0.0110	0.01	58.96	0.00	1.48	0.04	0.00	
56	Link-12	Channel	CI-5	CI-6	118.17	3388.16	3373.31	12.5700	9.000	0.0110	0.08	98.09	0.00	4.78	0.06	0.00	
57	Link-13	Channel	CI-4	CI-7	200.58	3388.50	3372.80	7.8300	9.000	0.0110	0.01	77.41	0.00	1.65	0.04	0.00	
58	Link-14	Channel	CI-6	CI-20	472.63	3373.31	3341.74	6.6800	6.000	0.0110	0.05	87.67	0.00	3.26	0.08	0.00	
59	Link-15	Channel	CI-7	CI-21	466.28	3372.80	3342.11	6.5800	6.000	0.0110	0.05	86.97	0.00	2.27	0.06	0.00	
60	Link-17	Channel	CI-9	CI-23	487.39	3366.79	3329.23	7.7100	6.000	0.0110	0.01	96.32	0.00	1.62	0.03	0.00	
61	Link-18	Channel	CI-10	CI-11	235.85	3365.50	3353.43	5.1200	6.000	0.0110	0.07	65.30	0.00	1.96	0.07	0.00	
62	Link-19	Channel	CI-11	CI-18	179.99	3353.26	3350.66	1.4400	6.000	0.0110	0.03	40.77	0.00	1.50	0.05	0.00	
63	Link-20	Channel	CI-12	CI-13	164.38	3352.62	3340.53	7.3500	6.000	0.0110	0.05	91.72	0.00	0.92	0.09	0.00	
64	Link-21	Channel	CI-13	CI-22	339.32	3340.53	3329.21	3.3400	9.000	0.0110	0.04	64.75	0.00	4.21	0.04	0.00	
65	Link-22	Channel	CI-14	CI-24	514.74	3340.32	3319.20	4.1000	6.000	0.0110	0.03	81.13	0.00	4.00	0.03	0.00	
66	Link-24	Channel	CI-17	CI-19	190.92	3350.53	3340.27	5.3700	6.000	0.0110	0.03	77.86	0.00	1.95	0.05	0.00	
67	Link-25	Channel	CI-18	CI-20	217.66	3350.66	3341.74	4.1000	6.000	0.0110	0.01	68.67	0.00	1.21	0.07	0.00	
68	Link-26	Channel	CI-19	CI-15	336.59	3340.27	3326.57	4.0700	6.000	0.0110	0.01	68.98	0.00	1.71	0.03	0.00	
69	Link-27	Channel	CI-21	CI-16	385.36	3342.11	3326.40	4.0800	6.000	0.0110	0.07	68.62	0.00	1.82	0.08	0.00	
70	Link-28	Channel	CI-15	CI-33	173.32	3326.57	3319.82	3.8900	6.000	0.0110	0.00	67.53	0.00	0.75	0.05	0.00	
71	Link-29	Channel	CI-16	CI-34	169.99	3326.40	3319.92	3.8100	6.000	0.0110	0.09	66.12	0.00	2.10	0.08	0.00	
72	Link-30	Channel	CI-33	CI-27	262.89	3319.82	3311.08	3.3200	6.000	0.0110	0.05	67.14	0.00	2.95	0.05	0.00	
73	Link-31	Channel	CI-34	CI-28	266.64	3320.05	3308.85	4.2000	6.000	0.0110	0.07	68.71	0.00	2.07	0.07	0.00	
74	Link-32	Channel	CI-23	CI-25	216.58	3329.23	3319.24	4.6100	6.000	0.0110	0.01	78.37	0.00	1.39	0.03	0.00	
75	Link-33	Channel	CI-25	CI-26	130.77	3319.24	3309.21	7.6700	6.000	0.0110	0.01	54.05	0.00	1.23	0.03	0.00	
76	Link-34	Channel	CI-24	CI-27	132.41	3319.20	3311.08	6.1300	6.000	0.0110	0.00	42.21	0.00	0.00	0.02	0.00	
77	Link-35	Channel	CI-28	CI-30	297.09	3308.85	3281.51	9.2000	6.000	0.0110	0.07	102.24	0.00	2.84	0.06	0.00	
78	Link-36	Channel	CI-26	WESTPOND	249.29	3309.21	3291.00	7.3000	6.000	0.0110	0.00	89.02	0.00	0.00	0.02	0.00	
79	Link-38	Channel	CI-29	CI-32	138.92	3281.55	3275.53	4.3400	6.000	0.0110	0.06	72.12	0.00	3.33	0.05	0.00	
80	Link-39	Channel	CI-30	CI-31	127.19	3281.51	3276.79	3.7100	6.000	0.0110	0.02	74.83	0.00	2.89	0.03	0.00	
81	Link-74	Channel	NULL-JUNCTION-2	NULL-JUNCTION-4	464.71	3357.00	3335.00	4.7300	6.000	0.0320	0.28	5.96	0.05	1.85	0.32	0.00	
82	Link-77	Channel	NULL-JUNCTION-4	NULL-JUNCTION-6	256.93	3330.00	3315.00	5.8400	12.000	0.0320	0.52	21.50	0.02	2.74	0.26	0.00	
83	Link-79	Channel	NULL-JUNCTION-6	MIDDLE-STORAGE	217.18	3315.00	3309.00	2.7600	12.000	0.0320	0.50	17.25	0.03	2.36	0.26	0.00	
84	Link-82	Channel	UPPERPOND	CI-20	135.46	3345.00	3341.74	2.4100	9.000	0.0320	0.00	42.93	0.00	0.00	0.00	0.00	
85	Link-90	Channel	19-Jun	BEFORE 12IN CULVERT	143.54	3195.00	3190.00	3.4800	18.000	0.0320	0.00	29.89	0.00	0.00	0.02	0.00	
86	.87*5	Orifice	NORTHWEST-STORAGE	INJECTED-STORMWATER			3100.00		4.100		0.46						
87	Orifice-80	Orifice	NORTHWEST-STORAGE	INJECTED-STORMWATER		3255.00	3100.00		4.100		0.46						
88	Orifice-83	Orifice	NORTHWEST-STORAGE	INJECTED-STORMWATER		3255.00	3100.00		4.100		0.46						
89	Orifice-84	Orifice	NORTHWEST-STORAGE	INJECTED-STORMWATER		3255.00	3100.00		4.100		0.46						
90	Orifice-85	Orifice	NORTHWEST-STORAGE	INJECTED-STORMWATER		3255.00	3100.00		4.100		0.46						

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth/ Total Depth Ratio	Total Time Reported Surcharged Condition (min)
91	Orifice-89	Orifice	COMMON-AREA-1-POND	28-Jun		3327.50	3325.00		6.000		1.20					
92	UPPERPOND-OUTLET	Orifice	UPPERPOND	UPPERPOND-DRAIN		3343.00	3338.72		12.000		0.06					
93	Weir-01	Weir	WESTPOND	WESTERN-RUNOFF		3290.00	3291.00				0.00					

Inlet Summary

SN	Element	Inlet	Manufacturer	Inlet	Number of	Catchbasin	Max (Rim)	Initial	Ponded	Peak	Peak Flow	Peak Flow	Inlet	Allowable	Max Gutter	Max Gutter
ID		Manufacturer	Part	Location	Inlets	Invert	Elevation	Water	Area	Flow	Intercepted	Bypassing	Efficiency	Spread	Spread	Water Elev.
			Number			Elevation		Elevation			by	Inlet	during Peak		during Peak	during Peak
						(ft)	(ft)	(ft)	(ft²)	(cfs)	(cfs)	(cfs)	(%)	(ft)	(ft)	(ft)
1	CI-1	FHWA HEC-22 GENERIC	N/A	On Grade	1	3398.00	3402.20	3398.00	N/A	0.19	0.17	0.02	90.47	12.50	2.58	3402.25
2	CI-10	FHWA HEC-22 GENERIC	N/A	On Grade	1	3357.77	3362.00	3357.77	N/A	0.24	0.20	0.03	86.08	12.50	2.89	3362.06
3	CI-11	FHWA HEC-22 GENERIC	N/A	On Grade	1	3349.00	3353.26	3349.00	N/A	0.07	0.07	0.00	93.57	12.50	2.38	3353.31
4	CI-12	FHWA HEC-22 GENERIC	N/A	On Grade	1	3349.40	3353.27	3349.40	N/A	0.15	0.14	0.01	90.55	12.50	2.58	3353.32
5	CI-13	FHWA HEC-22 GENERIC	N/A	On Grade	1	3337.50	3341.25	3337.50	N/A	0.14	0.13	0.01	95.08	12.50	2.23	3341.29
6	CI-14	FHWA HEC-22 GENERIC	N/A	On Grade	1	3337.41	3340.88	3337.41	N/A	0.11	0.11	0.00	96.55	12.50	2.10	3340.92
7	CI-15	FHWA HEC-22 GENERIC	N/A	On Grade	1	3323.00	3326.55	3323.00	N/A	0.01	0.00	0.00	0.00	12.50	1.07	3326.57
8	CI-16	FHWA HEC-22 GENERIC	N/A	On Grade	1	3322.61	3326.38	3322.61	N/A	0.29	0.24	0.06	80.78	12.50	3.29	3326.45
9	CI-17	FHWA HEC-22 GENERIC	N/A	On Grade	1	3347.10	3350.53	3347.10	N/A	0.10	0.10	0.00	97.21	12.50	2.04	3350.57
10	CI-18	FHWA HEC-22 GENERIC	N/A	On Grade	1	3346.72	3350.66	3346.72	N/A	0.03	0.00	0.00	0.00	12.50	1.26	3350.69
11	CI-19	FHWA HEC-22 GENERIC	N/A	On Grade	1	3333.00	3340.47	3333.00	N/A	0.14	0.00	0.00	0.00	12.50	1.26	3340.55
12	CI-2	FHWA HEC-22 GENERIC	N/A	On Grade	1	3398.28	3403.00	3398.28	N/A	0.03	0.03	0.00	99.99	12.50	1.56	3403.03
13	CI-20	FHWA HEC-22 GENERIC	N/A	On Sag	1	3335.00	3341.74	3335.00	500.00	0.33	N/A	N/A	N/A	12.50	4.65	3341.81
14	CI-21	FHWA HEC-22 GENERIC	N/A	On Grade	1	3335.80	3342.15	3335.80	N/A	0.25	0.21	0.04	83.74	12.50	3.07	3342.21
15	CI-22	FHWA HEC-22 GENERIC	N/A	On Sag	1	3319.18	3322.67	3319.18	500.00	0.06	N/A	N/A	N/A	12.50	1.95	3322.69
16	CI-23	FHWA HEC-22 GENERIC	N/A	On Grade	1	3318.76	3323.05	3318.76	N/A	0.04	0.00	0.00	0.00	12.50	1.49	3323.08
17	CI-24	FHWA HEC-22 GENERIC	N/A	On Grade	1	3307.91	3311.43	3307.91	N/A	0.25	0.00	0.00	0.00	12.50	0.63	3311.56
18	CI-25	FHWA HEC-22 GENERIC	N/A	On Grade	1	3307.55	3311.49	3307.55	N/A	0.02	0.00	0.00	0.00	12.50	1.06	3311.51
19	CI-26	FHWA HEC-22 GENERIC	N/A	On Grade	1	3304.68	3308.17	3304.68	N/A	0.01	0.00	0.00	0.00	12.50	0.82	3308.19
20	CI-27	FHWA HEC-22 GENERIC	N/A	On Sag	1	3304.22	3309.38	3304.22	500.00	0.08	N/A	N/A	N/A	12.50	2.27	3309.41
21	CI-28	FHWA HEC-22 GENERIC	N/A	On Grade	1	3303.76	3308.98	3303.76	N/A	0.23	0.21	0.02	89.21	12.50	2.66	3309.03
22	CI-29	FHWA HEC-22 GENERIC	N/A	On Grade	1	3278.55	3282.08	3278.55	N/A	0.18	0.17	0.01	92.62	12.50	2.42	3282.13
23	CI-3	FHWA HEC-22 GENERIC	N/A	On Grade	1	3396.90	3400.12	3396.90	N/A	0.03	0.03	0.00	99.97	12.50	1.58	3400.15
24	CI-30	FHWA HEC-22 GENERIC	N/A	On Grade	1	3275.88	3281.99	3275.88	N/A	0.07	0.07	0.00	99.78	12.50	1.67	3282.02
25	CI-31	FHWA HEC-22 GENERIC	N/A	On Sag	1	3272.10	3275.80	3272.10	1000.00	0.04	N/A	N/A	N/A	12.50	1.69	3275.81
26	CI-32	FHWA HEC-22 GENERIC	N/A	On Sag	1	3266.80	3275.80	3266.80	1000.00	0.06	N/A	N/A	N/A	12.50	1.94	3275.82
27	CI-33	FHWA HEC-22 GENERIC	N/A	On Grade	1	3316.15	3319.68	3316.15	N/A	0.17	0.15	0.02	89.56	12.50	2.65	3319.73
28	CI-34	FHWA HEC-22 GENERIC	N/A	On Grade	1	3313.00	3319.92	3313.00	N/A	0.23	0.20	0.04	84.33	12.50	3.03	3319.98
29	CI-4	FHWA HEC-22 GENERIC	N/A	On Grade	1	3385.00	3388.50	3385.00	N/A	0.03	0.00	0.00	0.00	12.50	1.13	3388.52
30	CI-5	FHWA HEC-22 GENERIC	N/A	On Grade	1	3382.44	3388.16	3382.44	N/A	0.25	0.22	0.03	89.79	12.50	2.62	3388.21
31	CI-6	FHWA HEC-22 GENERIC	N/A	On Grade	1	3369.00	3373.31	3369.00	N/A	0.16	0.15	0.01	96.46	12.50	2.11	3373.35
32	CI-7	FHWA HEC-22 GENERIC	N/A	On Grade	1	3368.62	3372.80	3368.62	N/A	0.18	0.17	0.01	93.07	12.50	2.38	3372.85
33	CI-8	FHWA HEC-22 GENERIC	N/A	On Grade	1	3367.00	3371.11	3367.00	N/A	0.06	0.06	0.00	99.99	12.50	1.54	3371.14
34	CI-9	FHWA HEC-22 GENERIC	N/A	On Grade	1	3358.19	3362.35	3358.19	N/A	0.03	0.00	0.00	0.00	12.50	1.31	3362.38

Subbasin Hydrology

Subbasin : OFFSITE-FLOWS

Input Data

Area (ac)	49.81
Peak Rate Factor	484
Weighted Curve Number	69
Rain Gage ID	MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
Pasture, grassland, or range, Fair	50.33	B	69
Composite Area & Weighted CN	50.33		69

Time of Concentration

TOC Method : SCS TR-55

Sheet Flow Equation :

$T_c = (0.007 * ((n * L_f)^{0.8})) / ((P^{0.5}) * (S_f^{0.4}))$

Where :

- Tc = Time of Concentration (hr)
- n = Manning's roughness
- Lf = Flow Length (ft)
- P = 2 yr, 24 hr Rainfall (inches)
- Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation :

- V = 16.1345 * (Sf^0.5) (unpaved surface)
- V = 20.3282 * (Sf^0.5) (paved surface)
- V = 15.0 * (Sf^0.5) (grassed waterway surface)
- V = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
- V = 9.0 * (Sf^0.5) (cultivated straight rows surface)
- V = 7.0 * (Sf^0.5) (short grass pasture surface)
- V = 5.0 * (Sf^0.5) (woodland surface)
- V = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
- Tc = (Lf / V) / (3600 sec/hr)

Where:

- Tc = Time of Concentration (hr)
- Lf = Flow Length (ft)
- V = Velocity (ft/sec)
- Sf = Slope (ft/ft)

Channel Flow Equation :

- $V = (1.49 * (R^{(2/3)}) * (S_f^{0.5})) / n$
- $R = A_q / W_p$
- $T_c = (L_f / V) / (3600 \text{ sec/hr})$

Where :

- Tc = Time of Concentration (hr)
- Lf = Flow Length (ft)
- R = Hydraulic Radius (ft)
- Aq = Flow Area (ft²)
- Wp = Wetted Perimeter (ft)
- V = Velocity (ft/sec)
- Sf = Slope (ft/ft)
- n = Manning's roughness

2-Year Storm
Post-Development Results

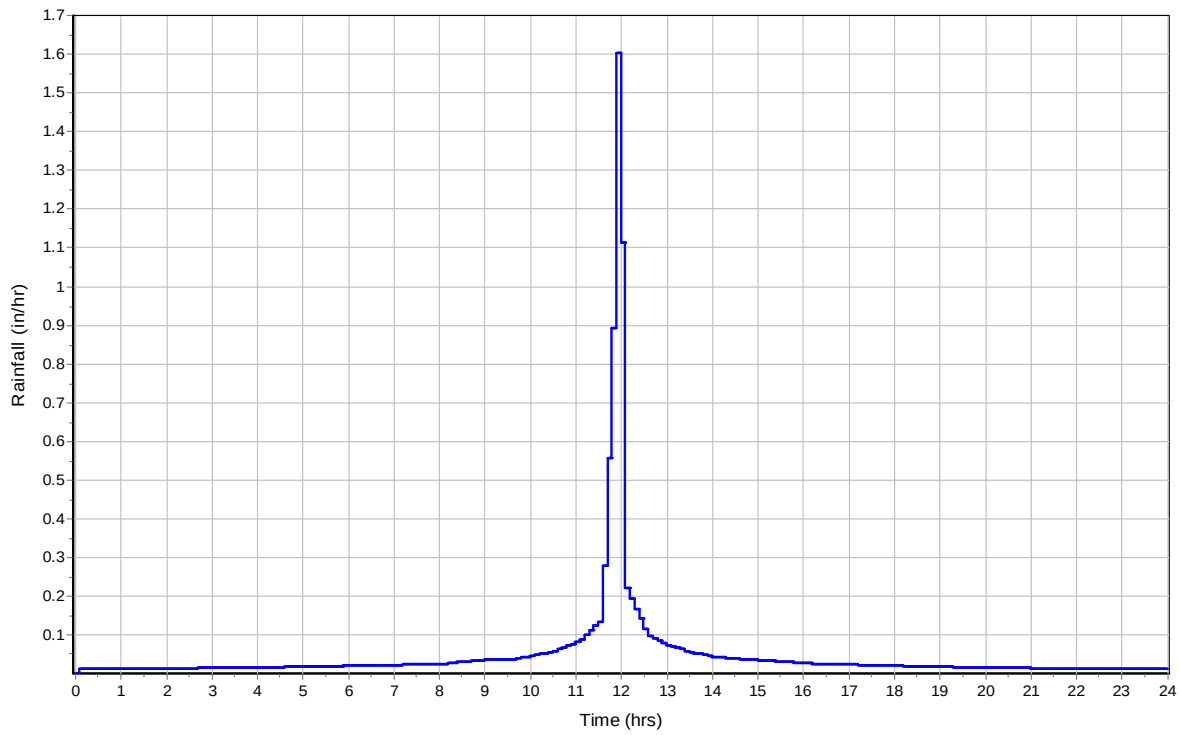
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.15	0.15	0.15
Flow Length (ft) :	300	300	300
Slope (%) :	20	15	25
2 yr, 24 hr Rainfall (in) :	1.2	1.2	1.2
Velocity (ft/sec) :	0.33	0.29	0.36
Computed Flow Time (min) :	15.34	17.21	14.03
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	1000	0	0
Slope (%) :	5	0	0
Surface Type :	Unpaved	Unpaved	Unpaved
Velocity (ft/sec) :	3.61	0	0
Computed Flow Time (min) :	4.62	0	0
Total TOC (min)	51.20		

Subbasin Runoff Results

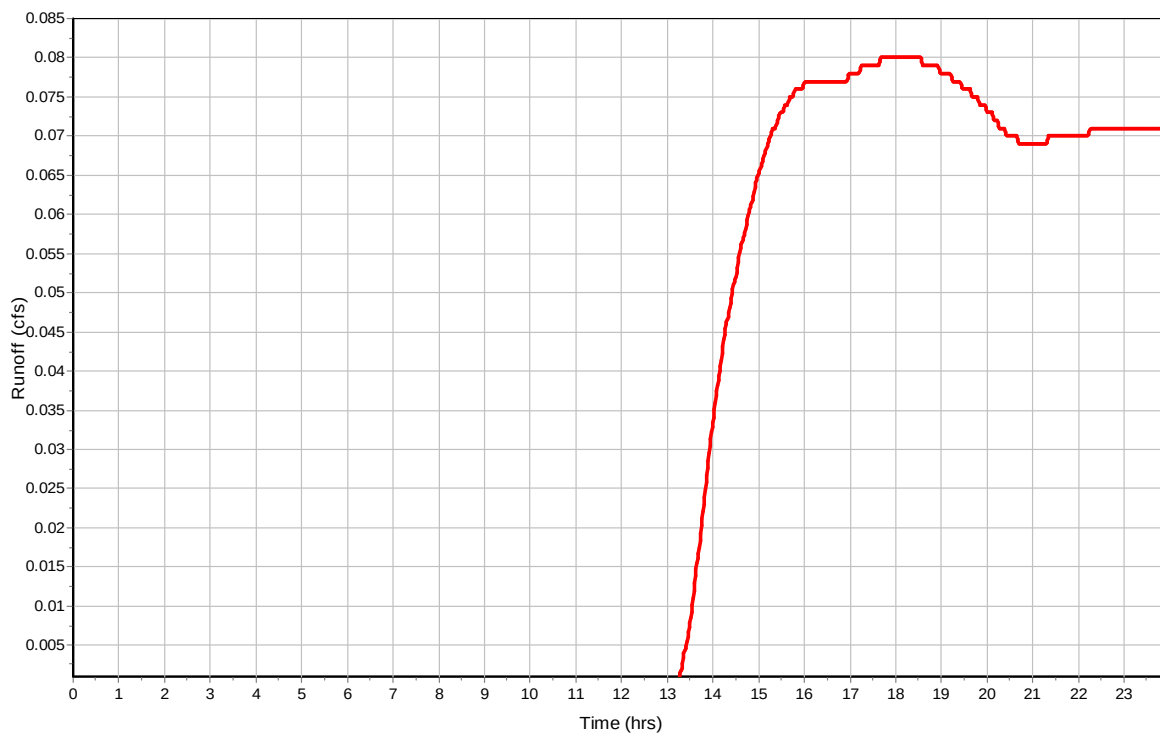
Total Rainfall (in)	1.17
Total Runoff (in)	0.02
Peak Runoff (cfs)	0.08
Weighted Curve Number	69
Time of Concentration (days hh:mm:ss)	0 00:51:12

Subbasin : OFFSITE-FLOWS

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-01

Input Data

Area (ac)	1.24
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
1/4 acre lots, 38% impervious	1.24	B	75
Composite Area & Weighted CN	1.24		75

Time of Concentration

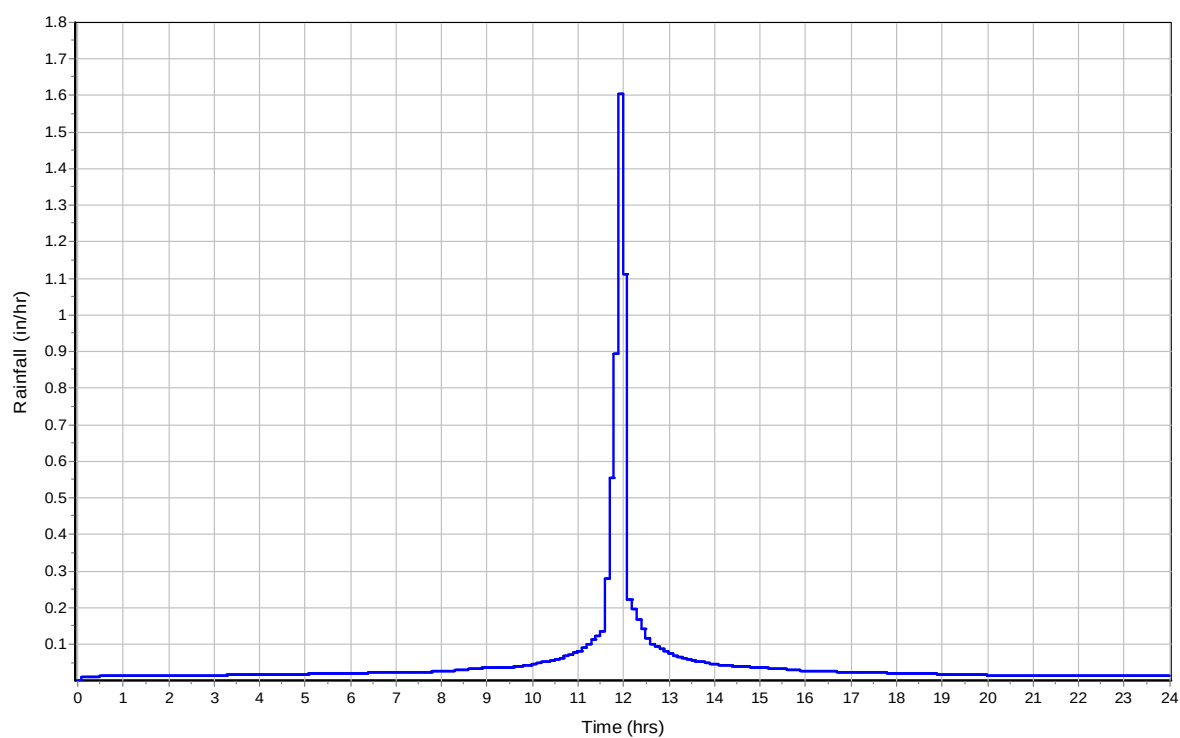
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0	0	0.2
Flow Length (ft) :	0	0	150
Slope (%) :	0	0	10
2 yr, 24 hr Rainfall (in) :	0	0	1.2
Velocity (ft/sec) :	0	0	0.17
Computed Flow Time (min) :	0	0	14.63
Total TOC (min)	14.63		

Subbasin Runoff Results

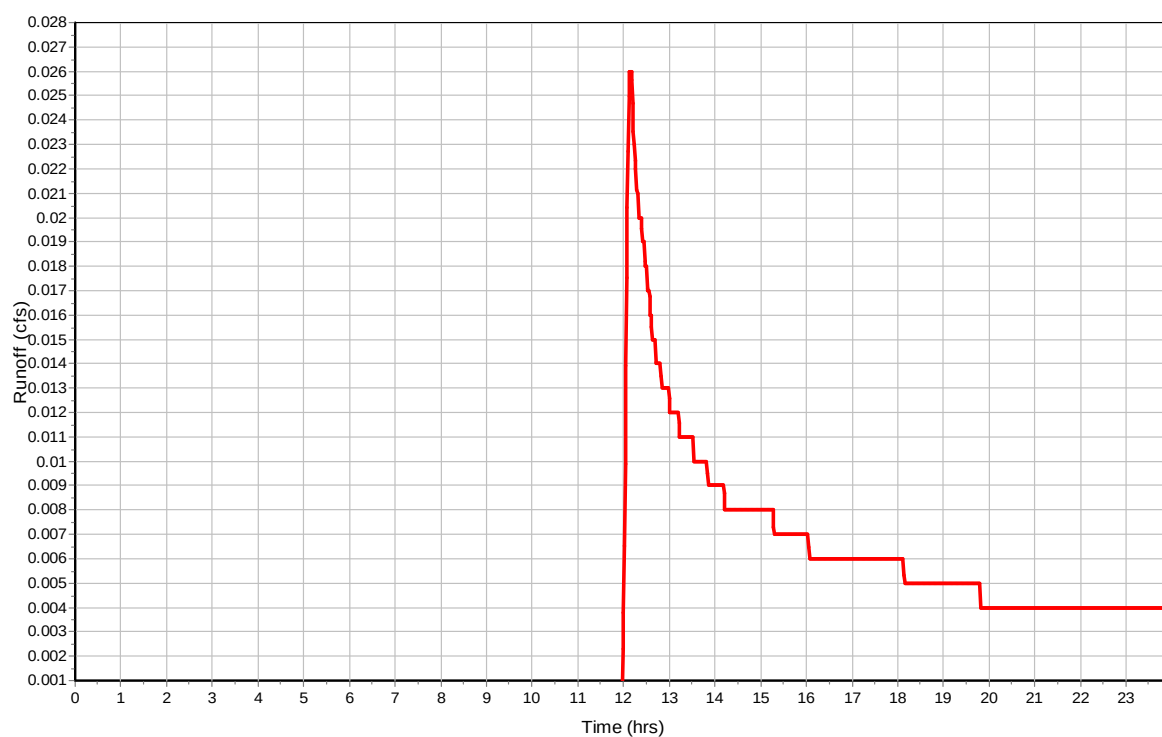
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.03
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:14:38

Subbasin : Sub-01

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-02

Input Data

Area (ac)	0.78
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
1/4 acre lots, 38% impervious	0.78	B	75
Composite Area & Weighted CN	0.78		75

Time of Concentration

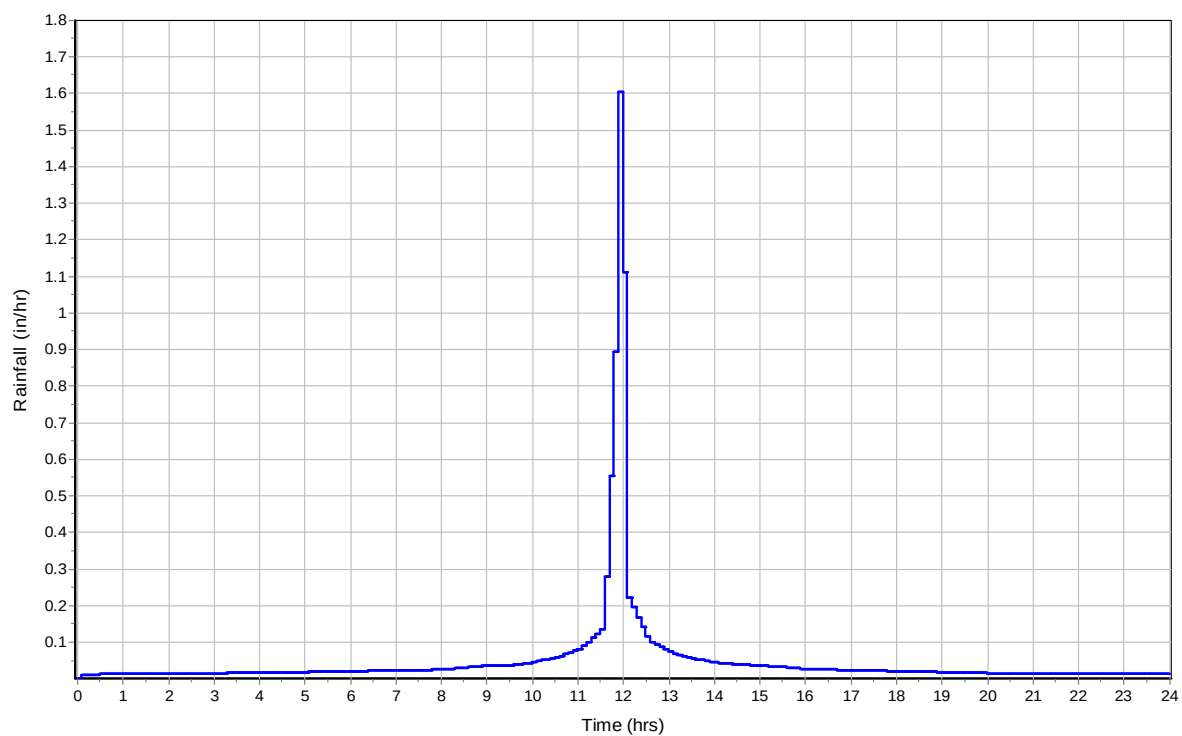
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0	0.2	0.05
Flow Length (ft) :	0	130	100
Slope (%) :	0	12.7	33.3
2 yr, 24 hr Rainfall (in) :	0	1.2	1.2
Velocity (ft/sec) :	0	0.18	0.77
Computed Flow Time (min) :	0	11.86	2.16
Total TOC (min)	14.02		

Subbasin Runoff Results

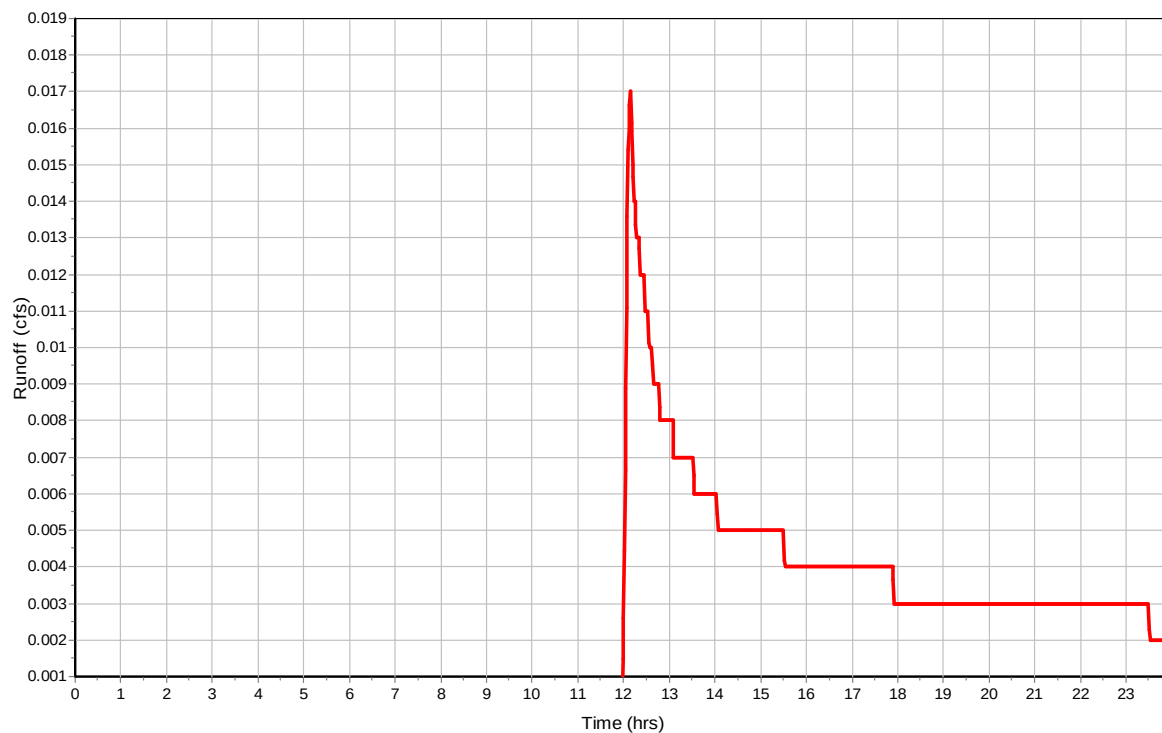
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.02
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:14:01

Subbasin : Sub-02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-03

Input Data

Area (ac) 0.87
 Peak Rate Factor 484
 Weighted Curve Number 75
 Rain Gage ID MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
1/4 acre lots, 38% impervious	0.87	B	75
Composite Area & Weighted CN	0.87		75

Time of Concentration

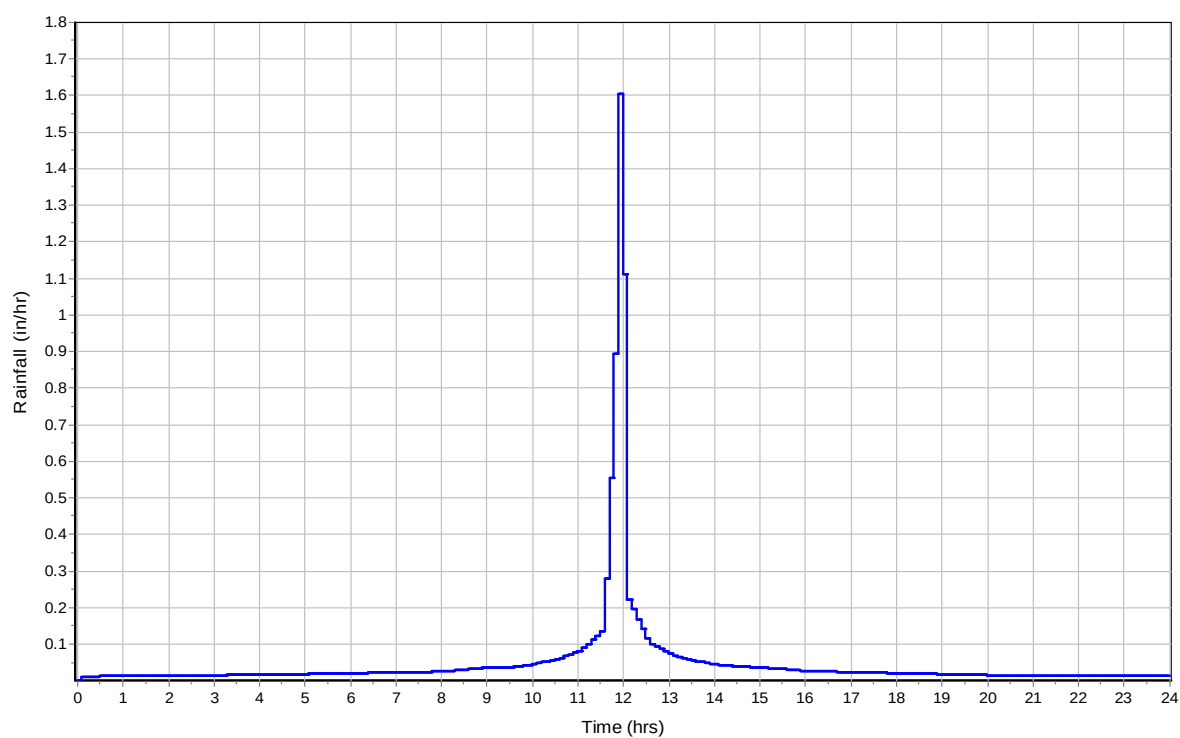
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0	0.2	0.05
Flow Length (ft) :	0	120	80
Slope (%) :	0	10	33.3
2 yr, 24 hr Rainfall (in) :	0	1.2	1.2
Velocity (ft/sec) :	0	0.16	0.74
Computed Flow Time (min) :	0	12.24	1.8
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	250	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	0.92	0	0
Total TOC (min)	14.96		

Subbasin Runoff Results

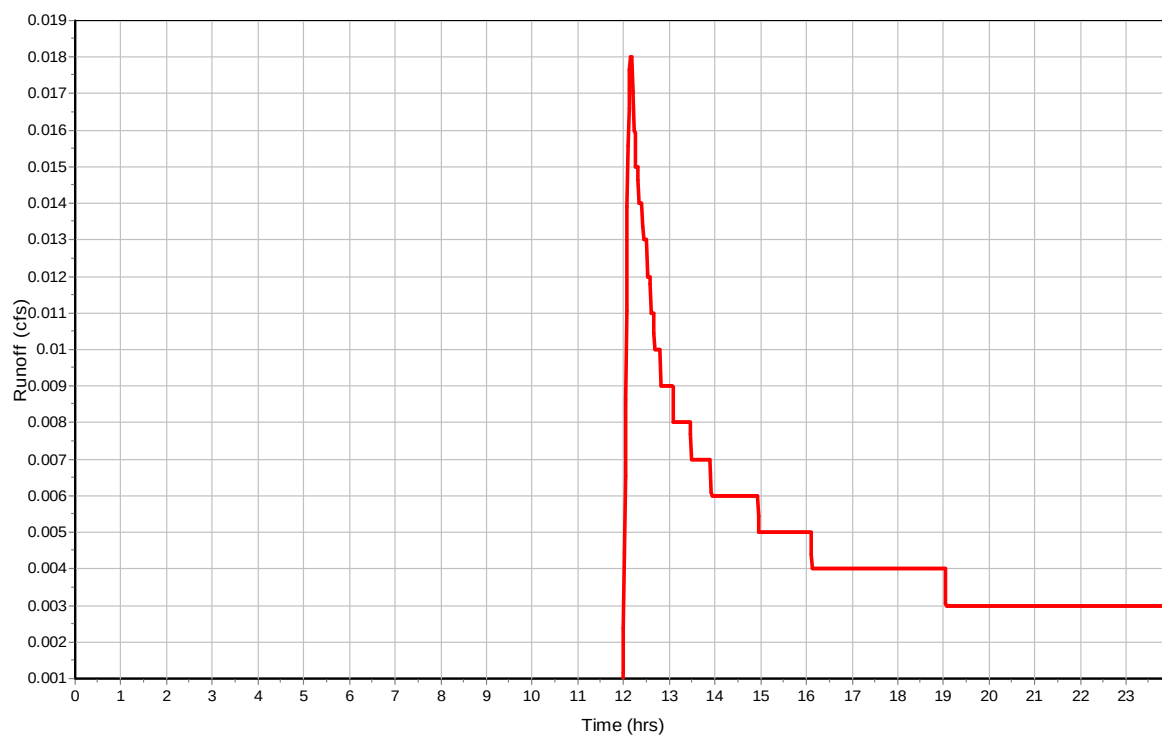
Total Rainfall (in) 1.17
 Total Runoff (in) 0.07
 Peak Runoff (cfs) 0.02
 Weighted Curve Number 75
 Time of Concentration (days hh:mm:ss) 0 00:14:58

Subbasin : Sub-03

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-04

Input Data

Area (ac) 1.46
Peak Rate Factor 484
Weighted Curve Number 83
Rain Gage ID MC-100Y-24H

Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
1/4 acre lots, 38% impervious	1.46	C	83
Composite Area & Weighted CN	1.46		83

Time of Concentration

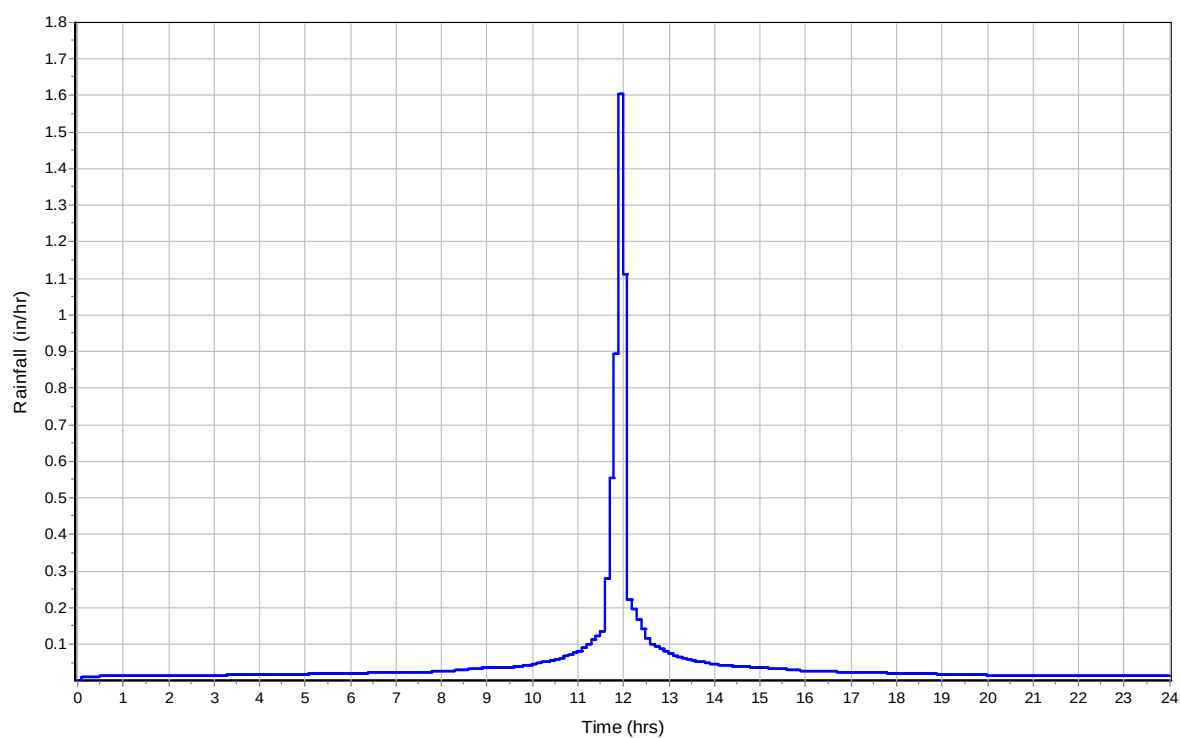
	Subarea A	Subarea B	Subarea C
Sheet Flow Computations			
Manning's Roughness :	0	0.2	0
Flow Length (ft) :	0	200	0
Slope (%) :	0	19.5	0
2 yr, 24 hr Rainfall (in) :	0	1.2	0
Velocity (ft/sec) :	0	0.24	0
Computed Flow Time (min) :	0	14.1	0
Total TOC (min)14.10			

Subbasin Runoff Results

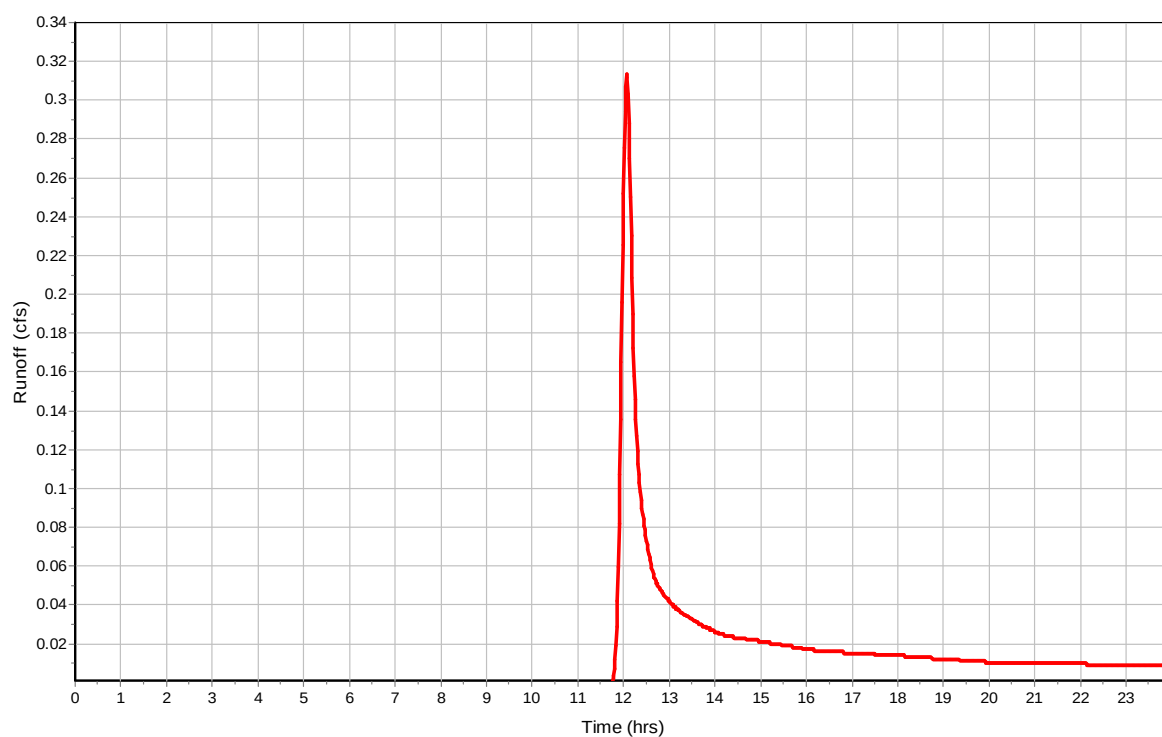
Total Rainfall (in) 1.17
Total Runoff (in) 0.21
Peak Runoff (cfs) 0.31
Weighted Curve Number 83
Time of Concentration (days hh:mm:ss) 0 00:14:06

Subbasin : Sub-04

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-05

Input Data

Area (ac) 0.79
 Peak Rate Factor 484
 Weighted Curve Number 83
 Rain Gage ID MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
1/4 acre lots, 38% impervious	0.79	C	83
Composite Area & Weighted CN	0.79		83

Time of Concentration

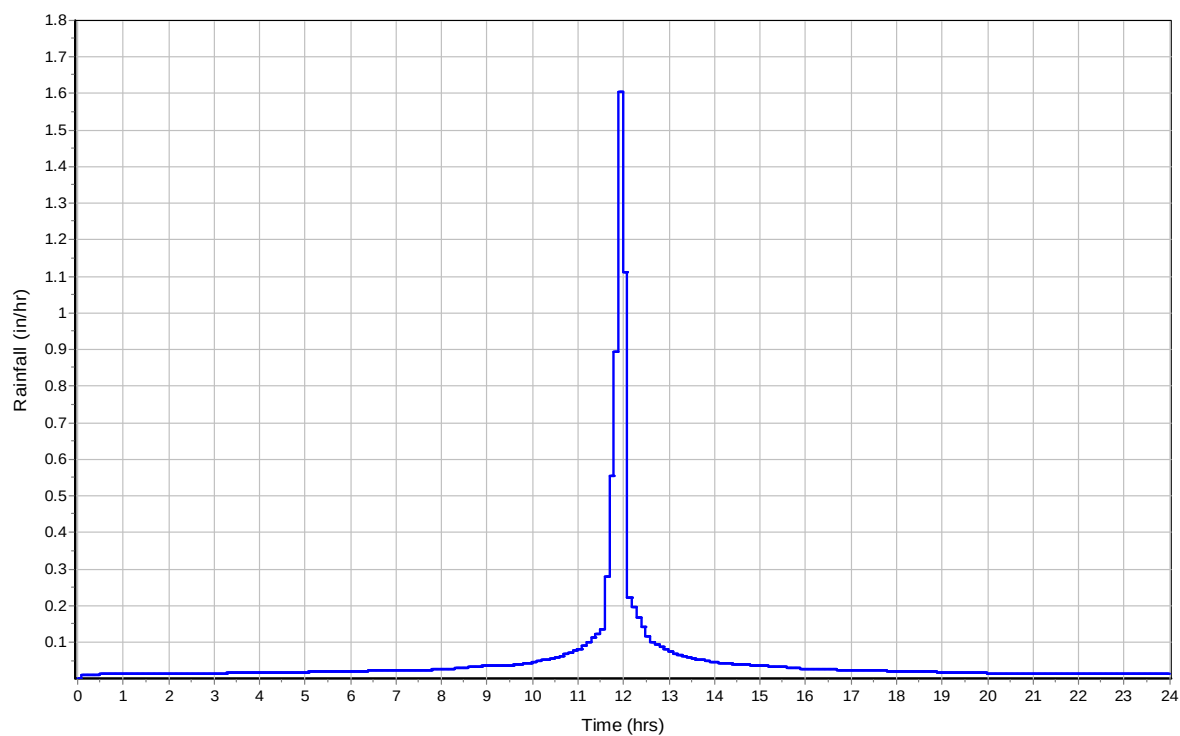
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0	0.2	0.05
Flow Length (ft) :	0	110	75
Slope (%) :	0	13	33.3
2 yr, 24 hr Rainfall (in) :	0	1.2	1.2
Velocity (ft/sec) :	0	0.18	0.73
Computed Flow Time (min) :	0	10.28	1.71
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	175	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	0.51	0	0
Total TOC (min)	12.50		

Subbasin Runoff Results

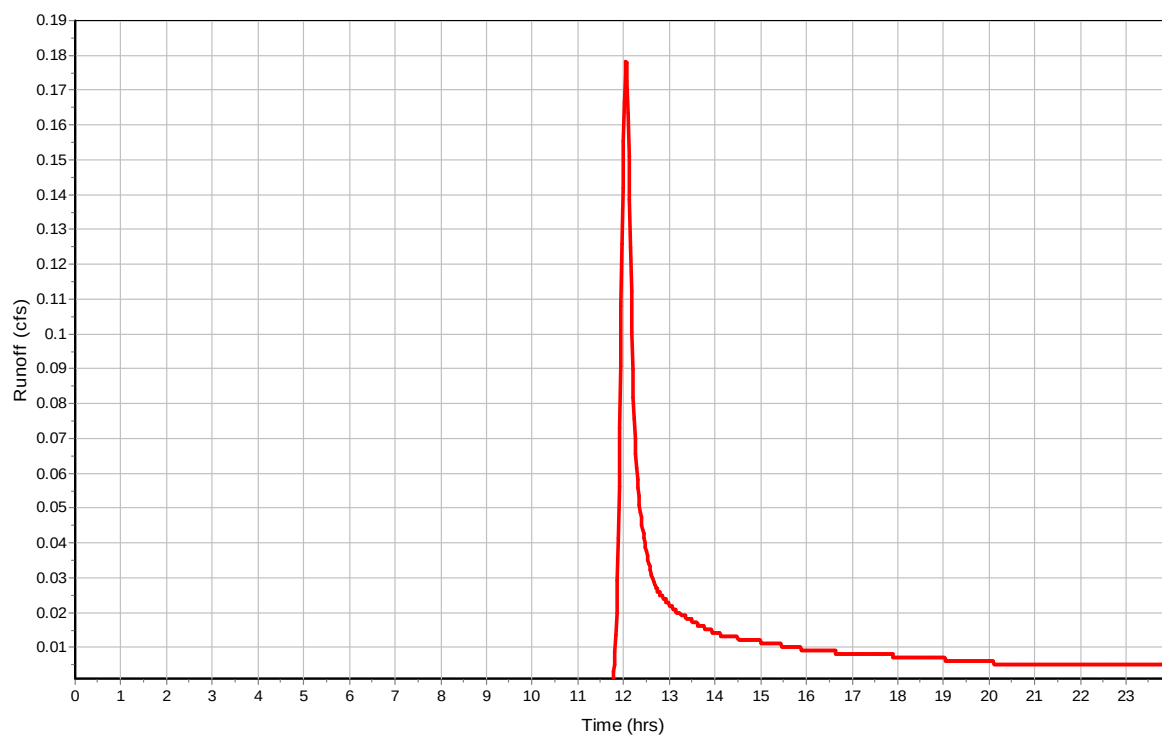
Total Rainfall (in) 1.17
 Total Runoff (in) 0.21
 Peak Runoff (cfs) 0.18
 Weighted Curve Number 83
 Time of Concentration (days hh:mm:ss) 0 00:12:30

Subbasin : Sub-05

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-07

Input Data

Area (ac) 0.14
 Peak Rate Factor 484
 Weighted Curve Number 98
 Rain Gage ID MC-100Y-24H

Composite Curve Number

32 Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.14	B	98
Composite Area & Weighted CN	0.14		98

Time of Concentration

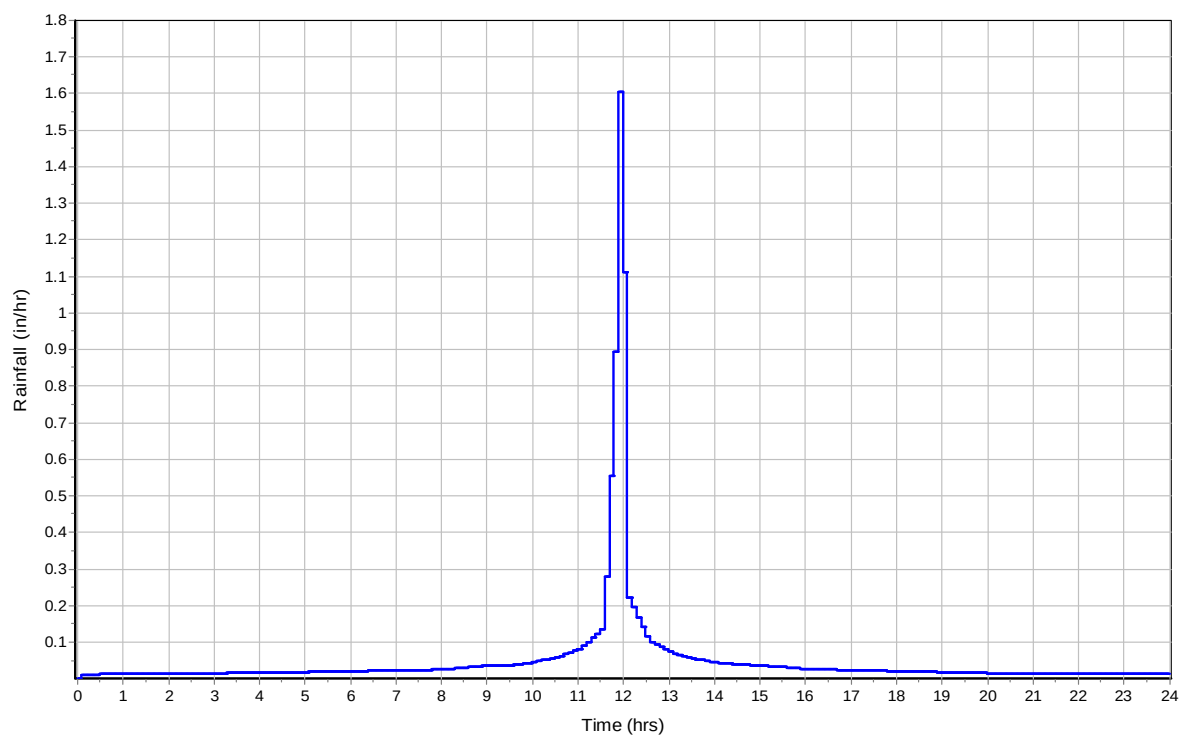
	Subarea A	Subarea B	Subarea C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
Shallow Concentrated Flow Computations			
Flow Length (ft) :	300	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	0.87	0	0
Total TOC (min)	1.52		

Subbasin Runoff Results

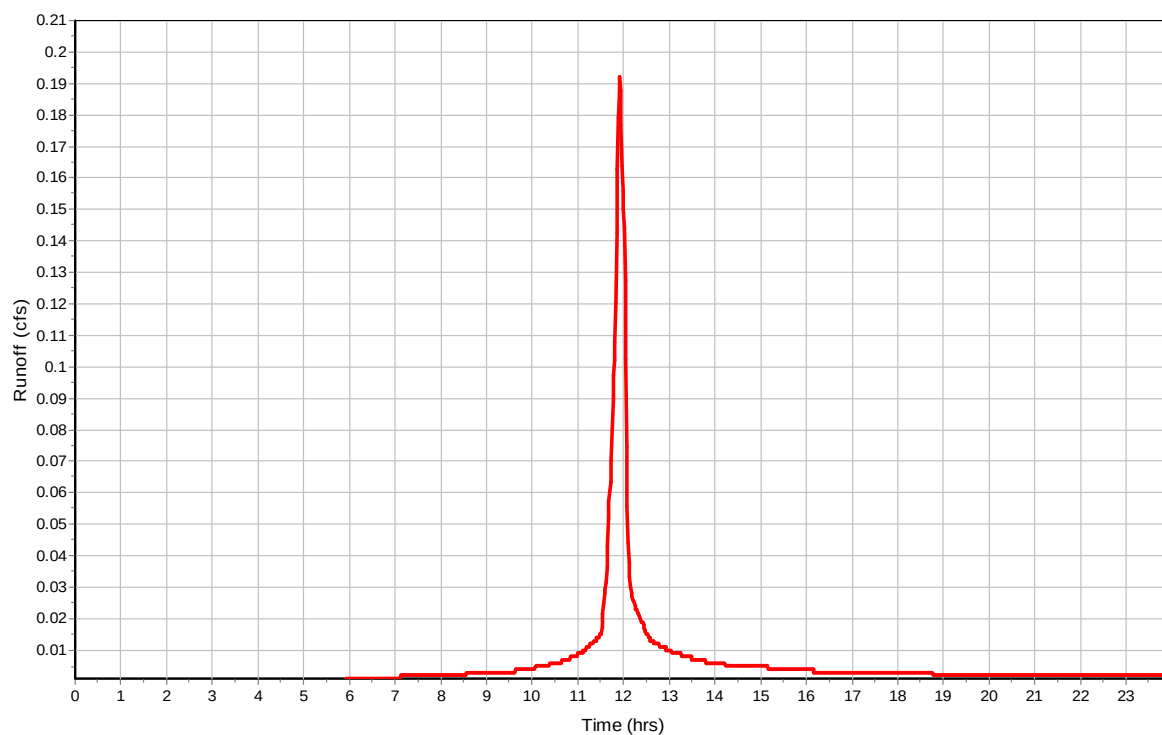
Total Rainfall (in) 1.17
 Total Runoff (in) 0.95
 Peak Runoff (cfs) 0.19
 Weighted Curve Number 98
 Time of Concentration (days hh:mm:ss) 0 00:01:31

Subbasin : Sub-07

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-08

Input Data

Area (ac) 0.17
 Peak Rate Factor 484
 Weighted Curve Number 98
 Rain Gage ID MC-100Y-24H

Composite Curve Number

32 Soil/Surface Description	Area (acres)	Soil Group	Curve Number
Paved parking & roofs	0.17	B	98
Composite Area & Weighted CN	0.17		98

Time of Concentration

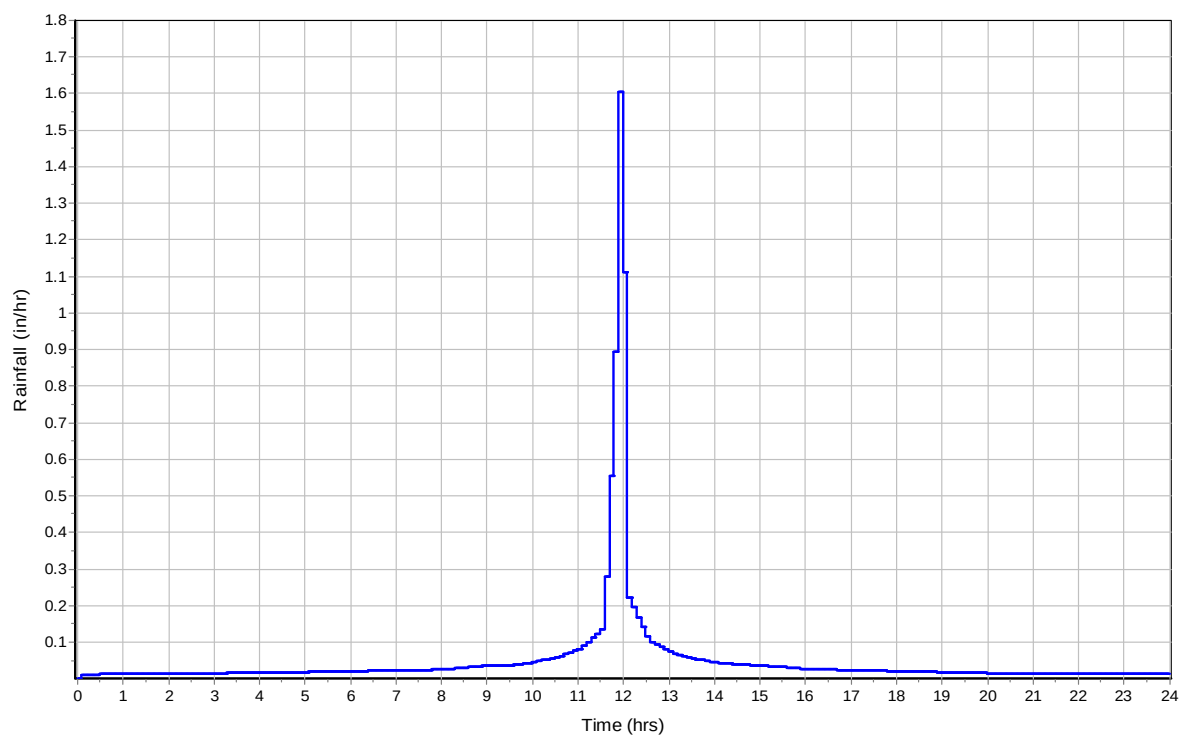
	Subarea A	Subarea B	Subarea C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
Shallow Concentrated Flow Computations			
Flow Length (ft) :	400	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	1.47	0	0
Total TOC (min)2.12			

Subbasin Runoff Results

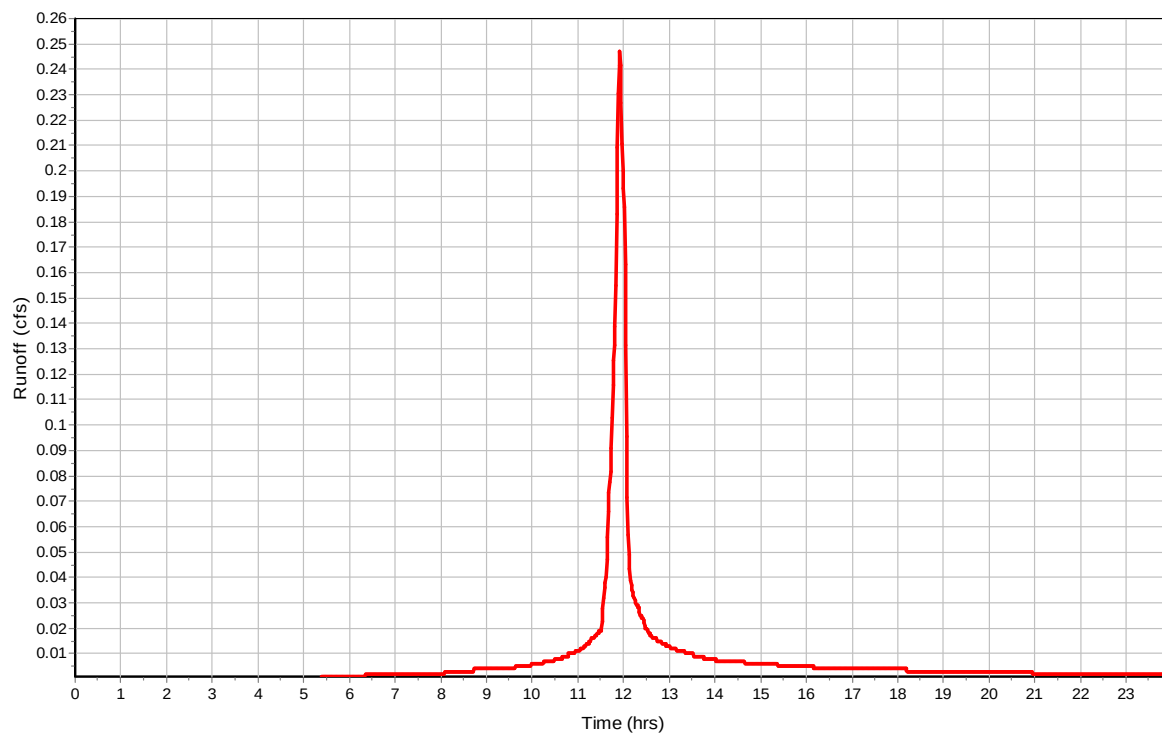
Total Rainfall (in) 1.17
 Total Runoff (in) 0.95
 Peak Runoff (cfs) 0.25
 Weighted Curve Number 98
 Time of Concentration (days hh:mm:ss) 0 00:02:07

Subbasin : Sub-08

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-09

Input Data

Area (ac) 0.17
 Peak Rate Factor 484
 Weighted Curve Number 98
 Rain Gage ID MC-100Y-24H

Composite Curve Number

32	Area	Soil	Curve
Soil/Surface Description	(acres)	Group	Number
Paved parking & roofs	0.17	B	98
Composite Area & Weighted CN	0.17		98

Time of Concentration

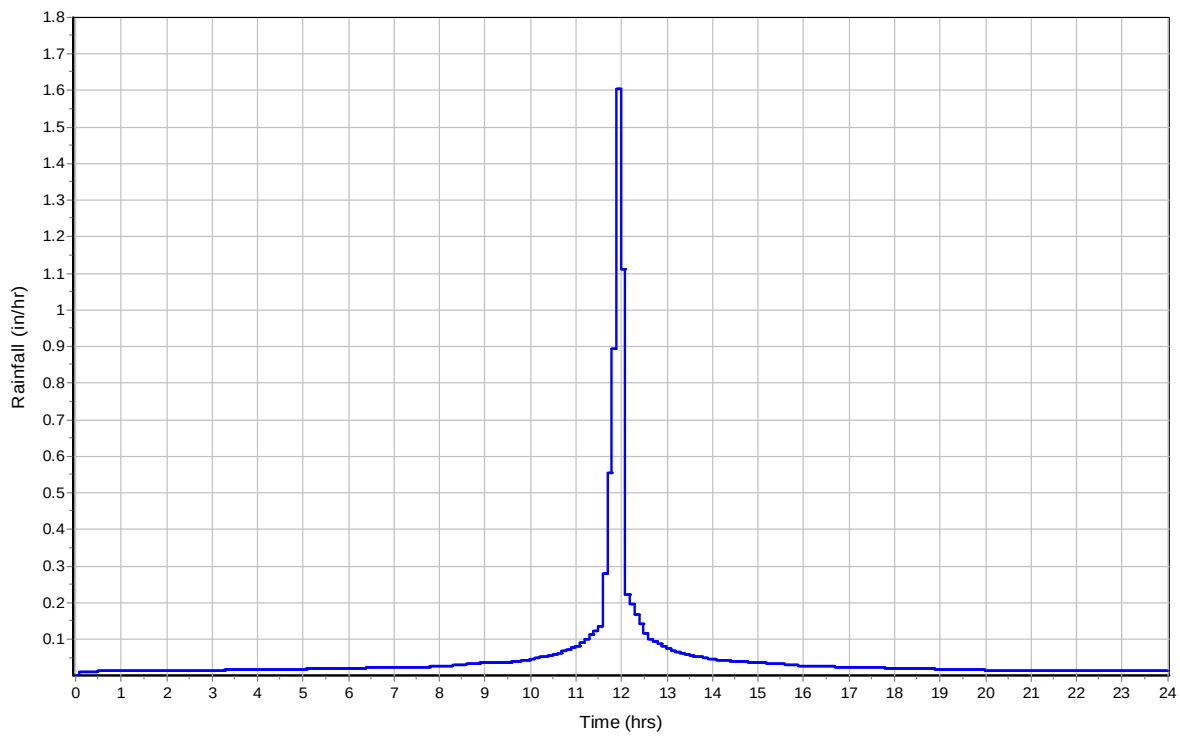
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
Shallow Concentrated Flow Computations			
Flow Length (ft) :	500	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	1.45	0	0
Total TOC (min)2.10			

Subbasin Runoff Results

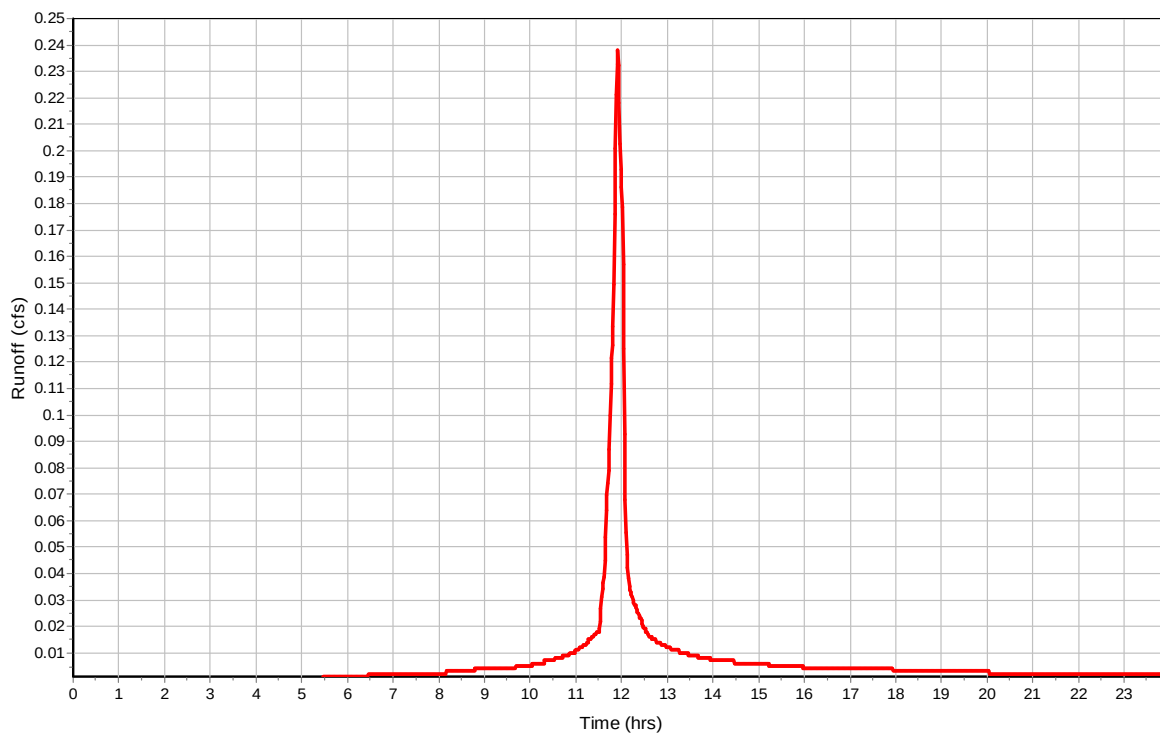
Total Rainfall (in) 1.17
 Total Runoff (in) 0.95
 Peak Runoff (cfs) 0.24
 Weighted Curve Number 98
 Time of Concentration (days hh:mm:ss) 0 00:02:06

Subbasin : Sub-09

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-10

Input Data

Area (ac) 0.85
 Peak Rate Factor 484
 Weighted Curve Number 75
 Rain Gage ID MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		1.05	B	75
Composite Area & Weighted CN		1.05		75

Time of Concentration

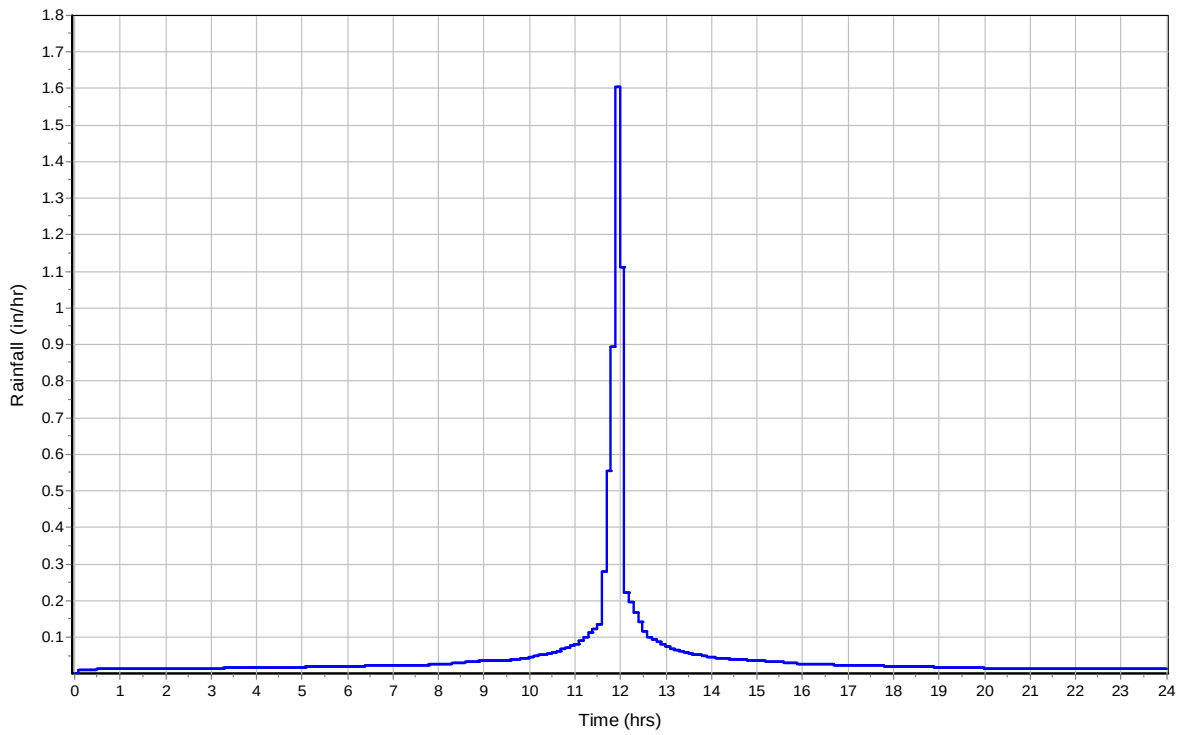
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0	0
Flow Length (ft) :	150	0	0
Slope (%) :	12	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.18	0	0
Computed Flow Time (min) :	13.6	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	350	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	1.01	0	0
Total TOC (min)	14.62		

Subbasin Runoff Results

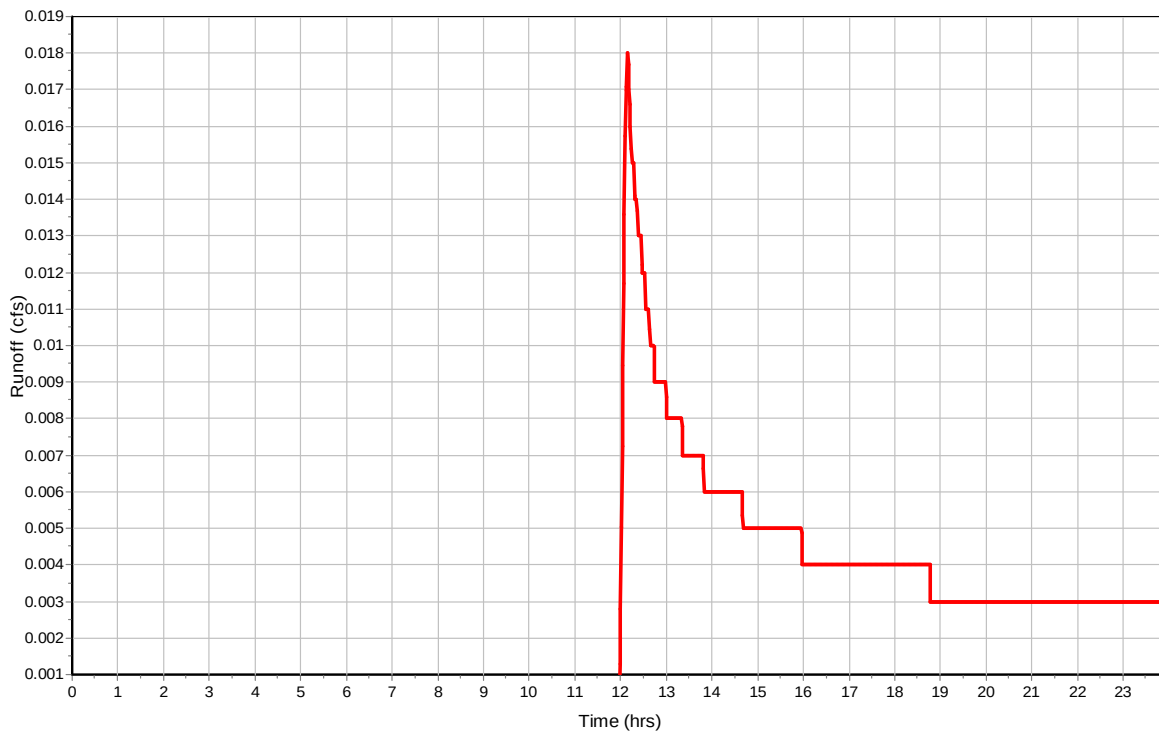
Total Rainfall (in) 1.17
 Total Runoff (in) 0.07
 Peak Runoff (cfs) 0.02
 Weighted Curve Number 75
 Time of Concentration (days hh:mm:ss) 0 00:14:37

Subbasin : Sub-10

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-11

Input Data

Area (ac) 0.74
 Peak Rate Factor 484
 Weighted Curve Number 75
 Rain Gage ID MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.5	B	75
Composite Area & Weighted CN		0.5		75

Time of Concentration

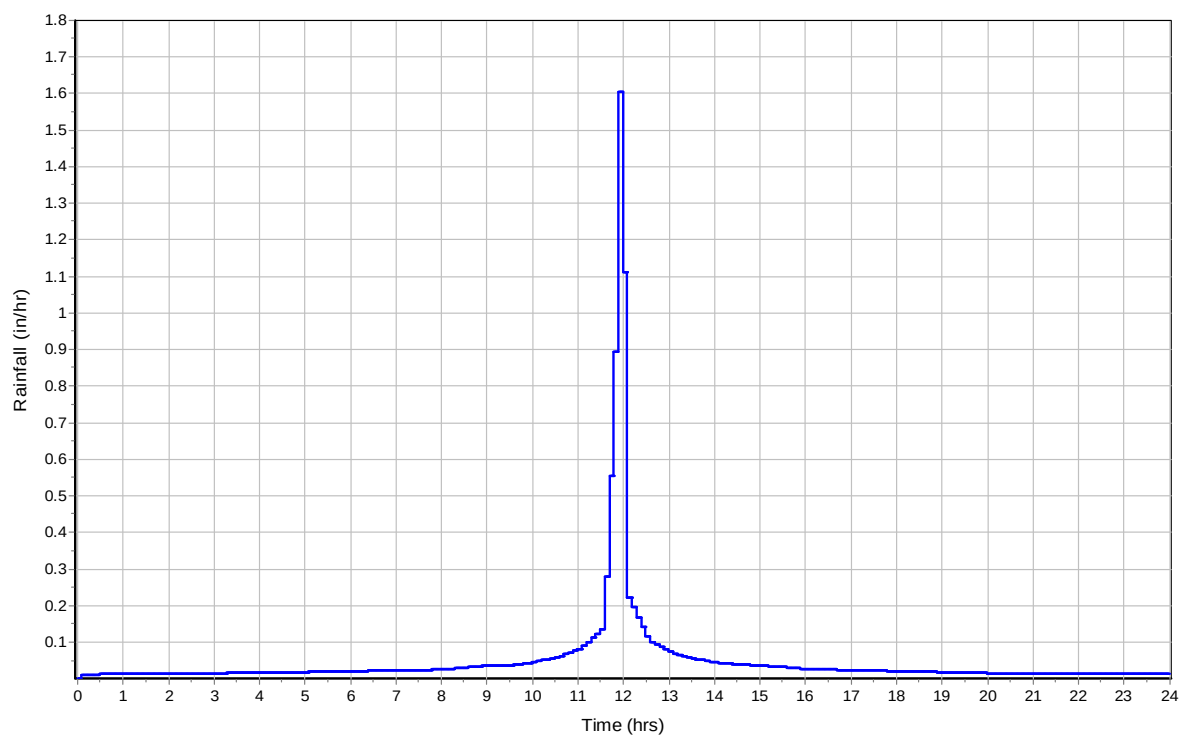
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0	0
Flow Length (ft) :	150	0	0
Slope (%) :	23	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.24	0	0
Computed Flow Time (min) :	10.49	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	100	0	0
Slope (%) :	6	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.98	0	0
Computed Flow Time (min) :	0.33	0	0
Total TOC (min)10.82			

Subbasin Runoff Results

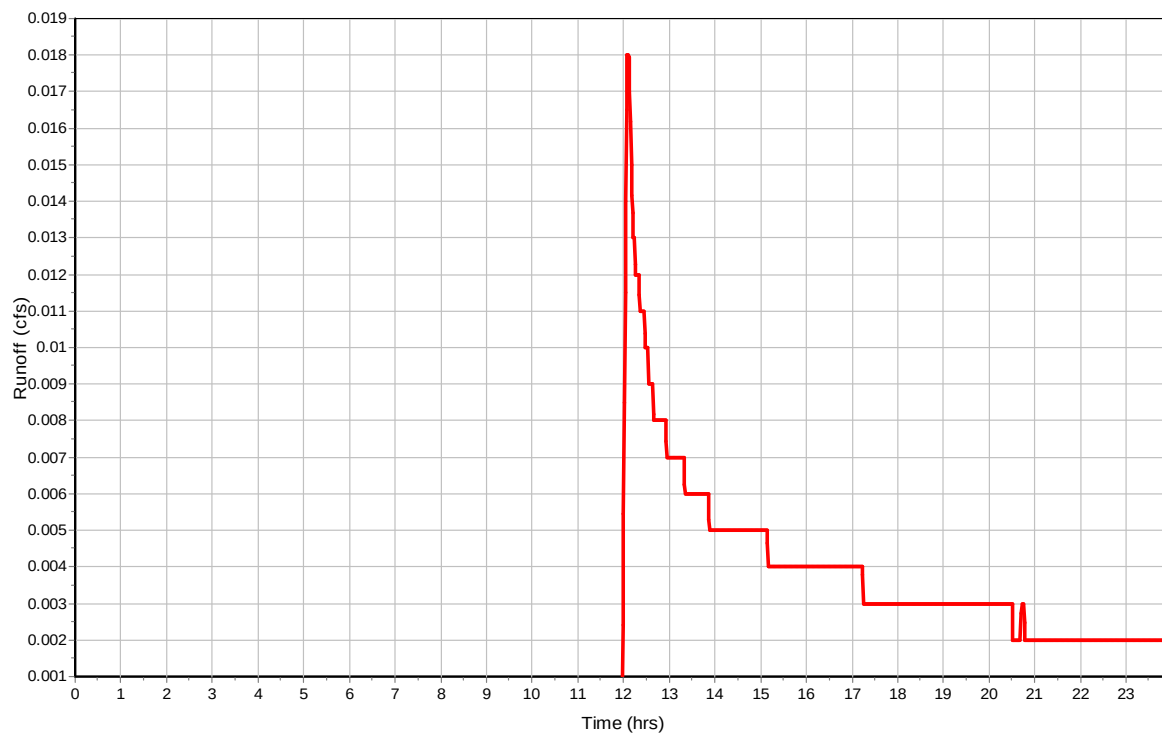
Total Rainfall (in) 1.17
 Total Runoff (in) 0.07
 Peak Runoff (cfs) 0.02
 Weighted Curve Number 75
 Time of Concentration (days hh:mm:ss) 0 00:10:49

Subbasin : Sub-11

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-13

Input Data

Area (ac)	2.41
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		1.62	B	75
Composite Area & Weighted CN		1.62		75

Time of Concentration

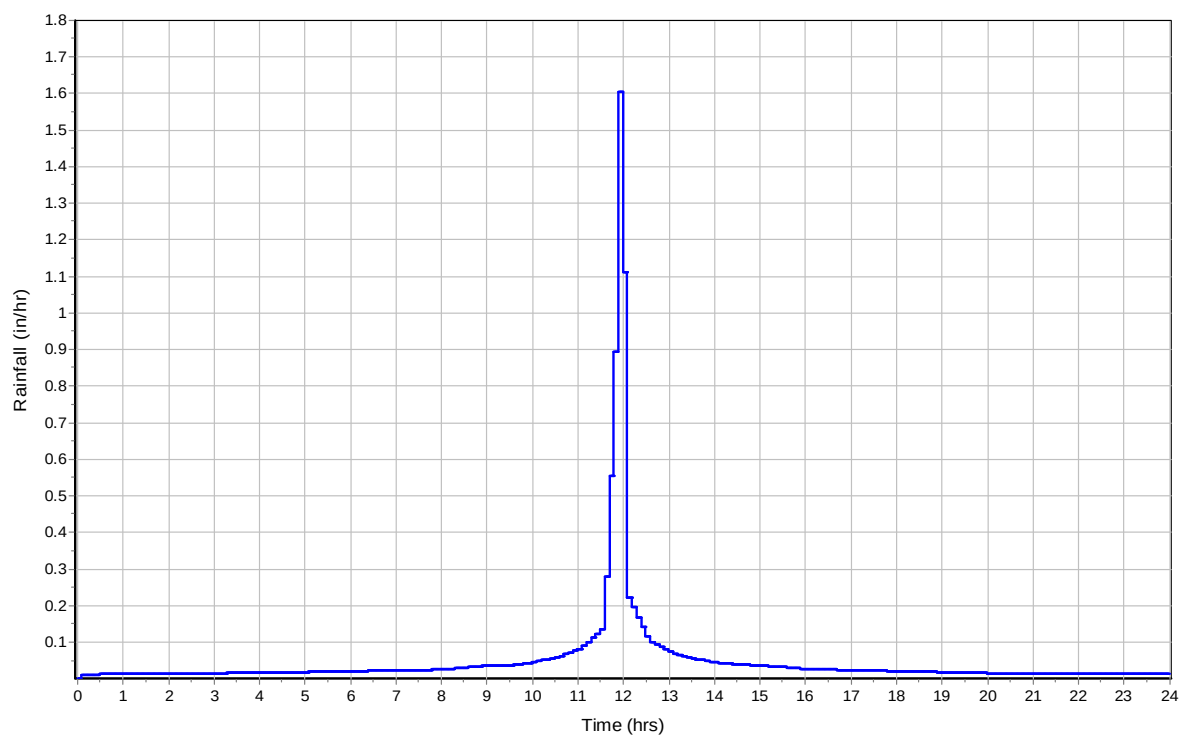
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.05	0
Flow Length (ft) :	80	50	0
Slope (%) :	10	50	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.15	0.79	0
Computed Flow Time (min) :	8.85	1.05	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	400	0	0
Slope (%) :	6	0	0
Surface Type :	Grassed waterway	Unpaved	Unpaved
Velocity (ft/sec) :	3.67	0	0
Computed Flow Time (min) :	1.82	0	0
Total TOC (min)	11.72		

Subbasin Runoff Results

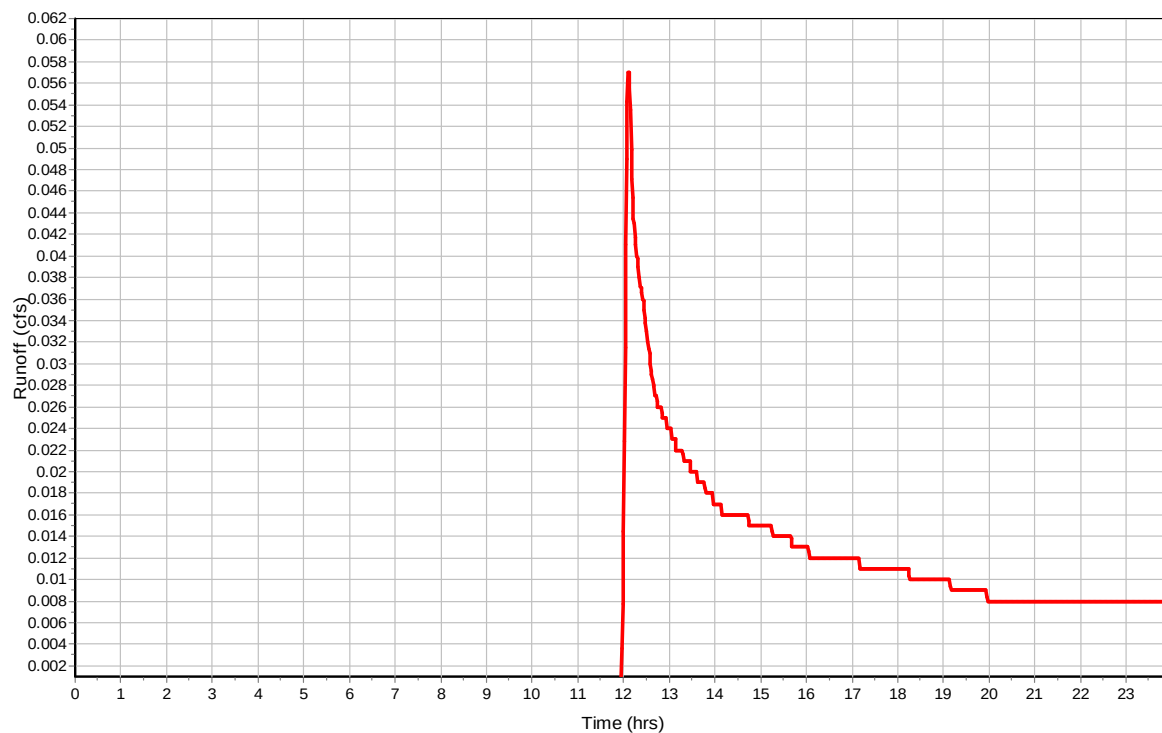
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.06
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:11:43

Subbasin : Sub-13

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-14

Input Data

Area (ac) 0.59
 Peak Rate Factor 484
 Weighted Curve Number 75
 Rain Gage ID MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.57	B	75
Composite Area & Weighted CN		0.57		75

Time of Concentration

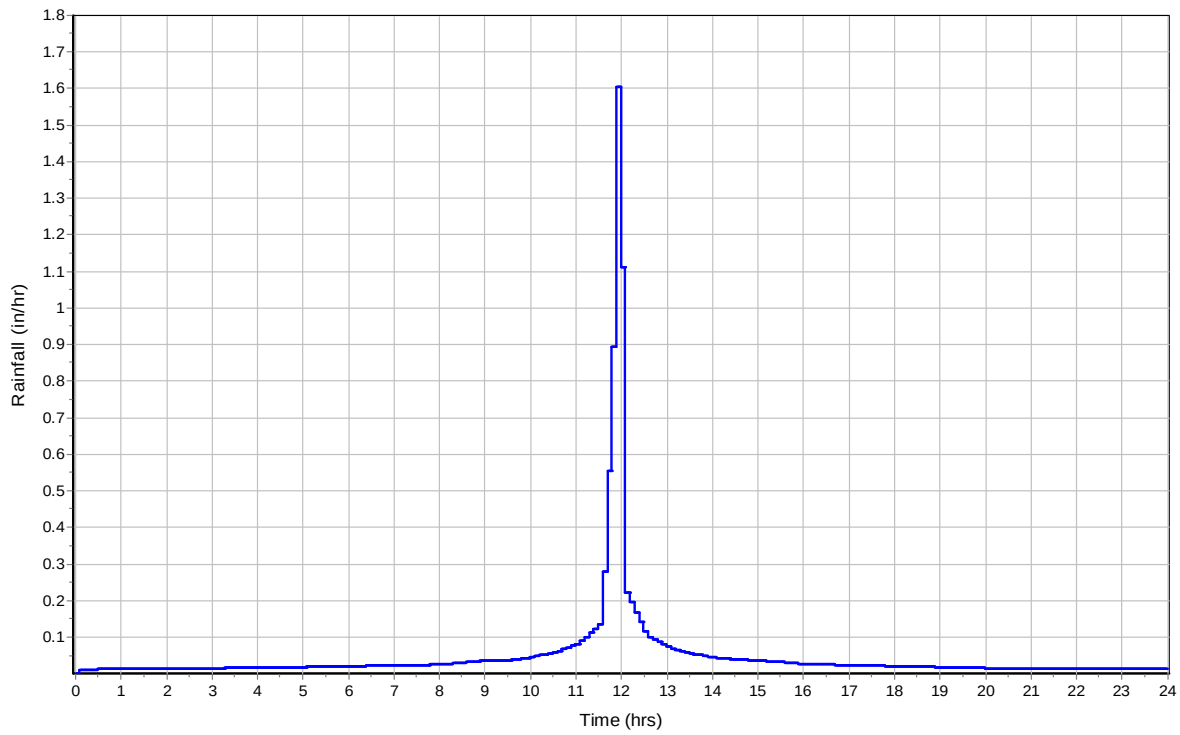
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0.2	0
Flow Length (ft) :	25	150	0
Slope (%) :	2	15	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.64	0.2	0
Computed Flow Time (min) :	0.65	12.44	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	220	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	0.81	0	0
Total TOC (min)	13.90		

Subbasin Runoff Results

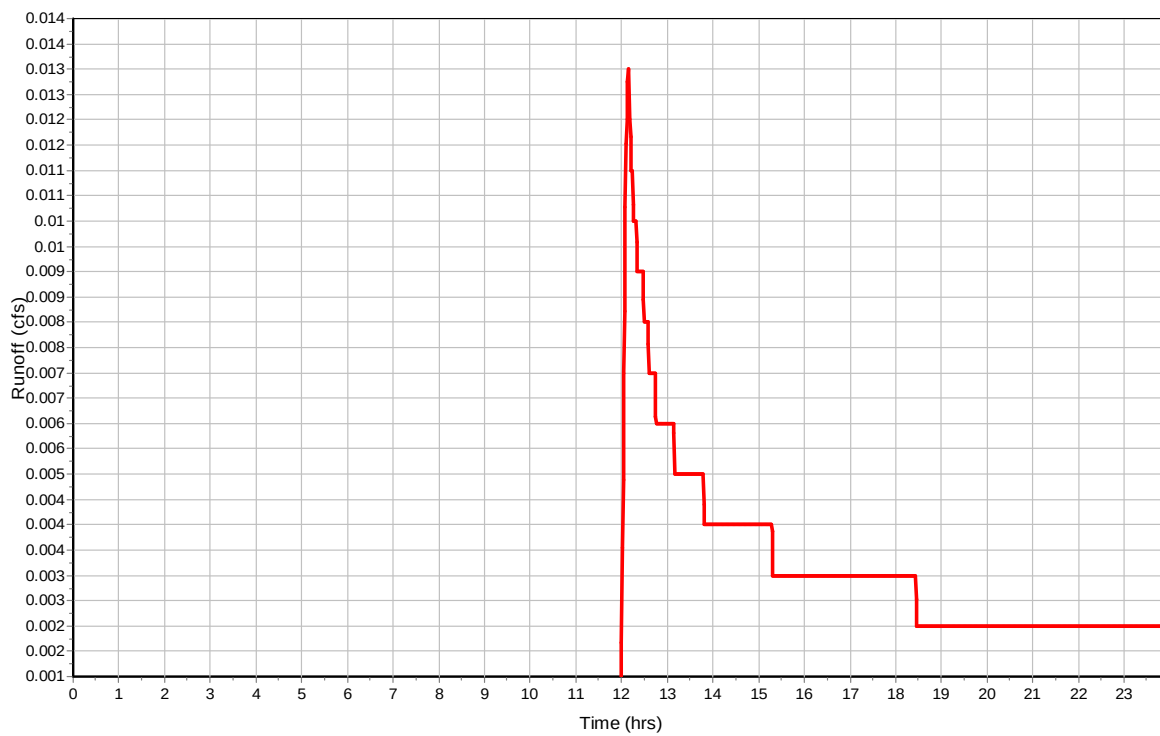
Total Rainfall (in) 1.17
 Total Runoff (in) 0.07
 Peak Runoff (cfs) 0.01
 Weighted Curve Number 75
 Time of Concentration (days hh:mm:ss) 0 00:13:54

Subbasin : Sub-14

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-15

Input Data

Area (ac)	0.48
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.78	B	75
Composite Area & Weighted CN		0.78		75

Time of Concentration

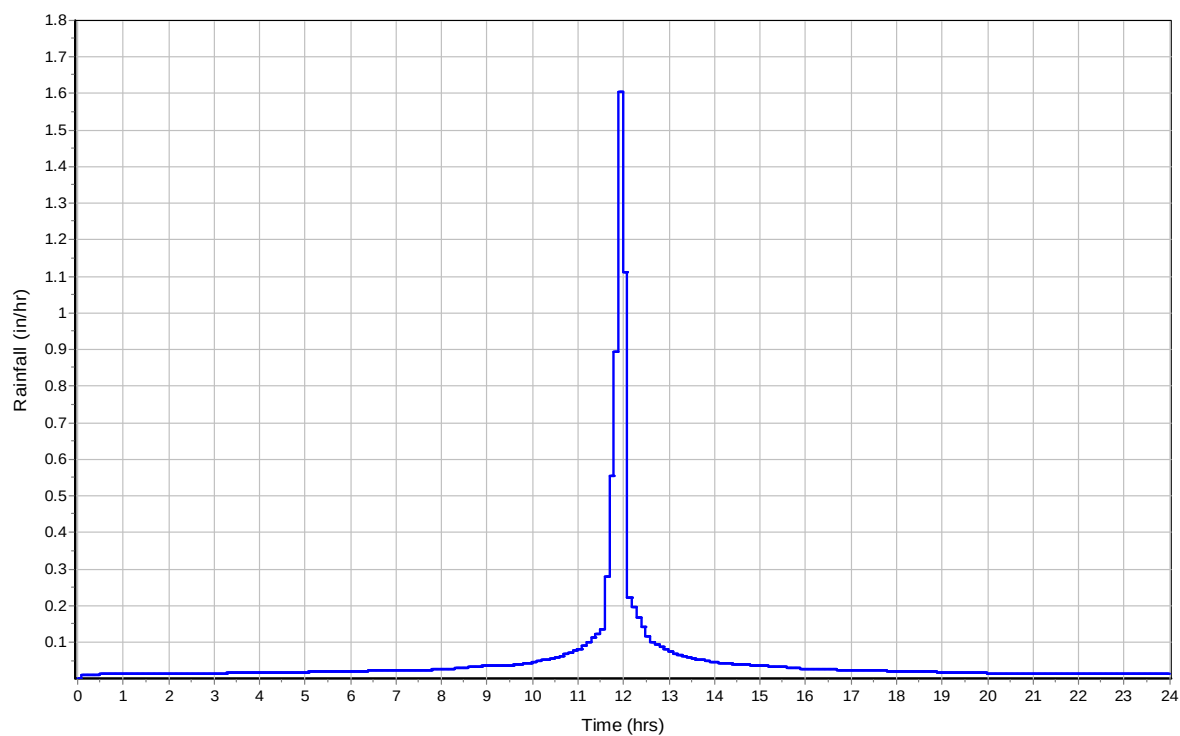
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0.05
Flow Length (ft) :	150	25	50
Slope (%) :	30	2	50
2 yr, 24 hr Rainfall (in) :	1.2	1.2	1.2
Velocity (ft/sec) :	0.27	0.64	0.79
Computed Flow Time (min) :	9.43	0.65	1.05
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	160	0	0
Slope (%) :	1	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	2.03	0	0
Computed Flow Time (min) :	1.31	0	0
Total TOC (min)	12.45		

Subbasin Runoff Results

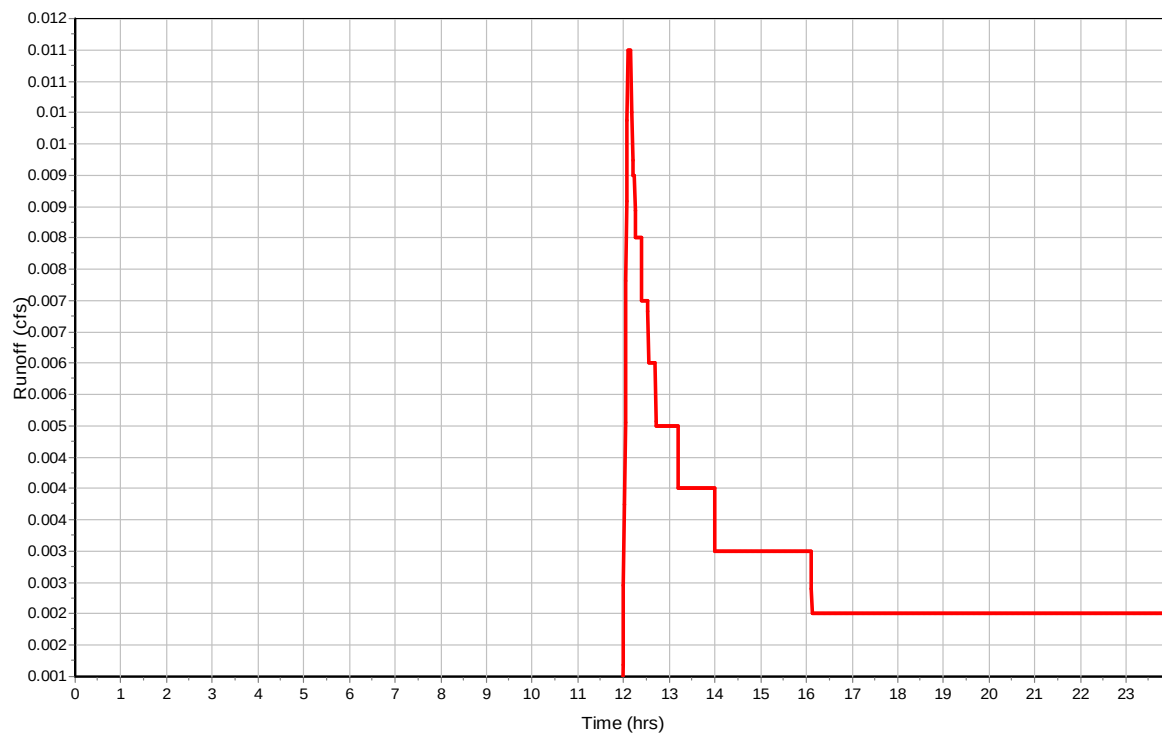
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.01
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:12:27

Subbasin : Sub-15

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-16

Input Data

Area (ac)	1.16
Peak Rate Factor	484
Weighted Curve Number	83
Rain Gage ID	MC-100Y-24H

Composite Curve Number

Soil/Surface Description	32	Area (acres)	Soil Group	Curve Number
1/4 acre lots, 38% impervious		1.16	C	83
Composite Area & Weighted CN		1.16		83

Time of Concentration

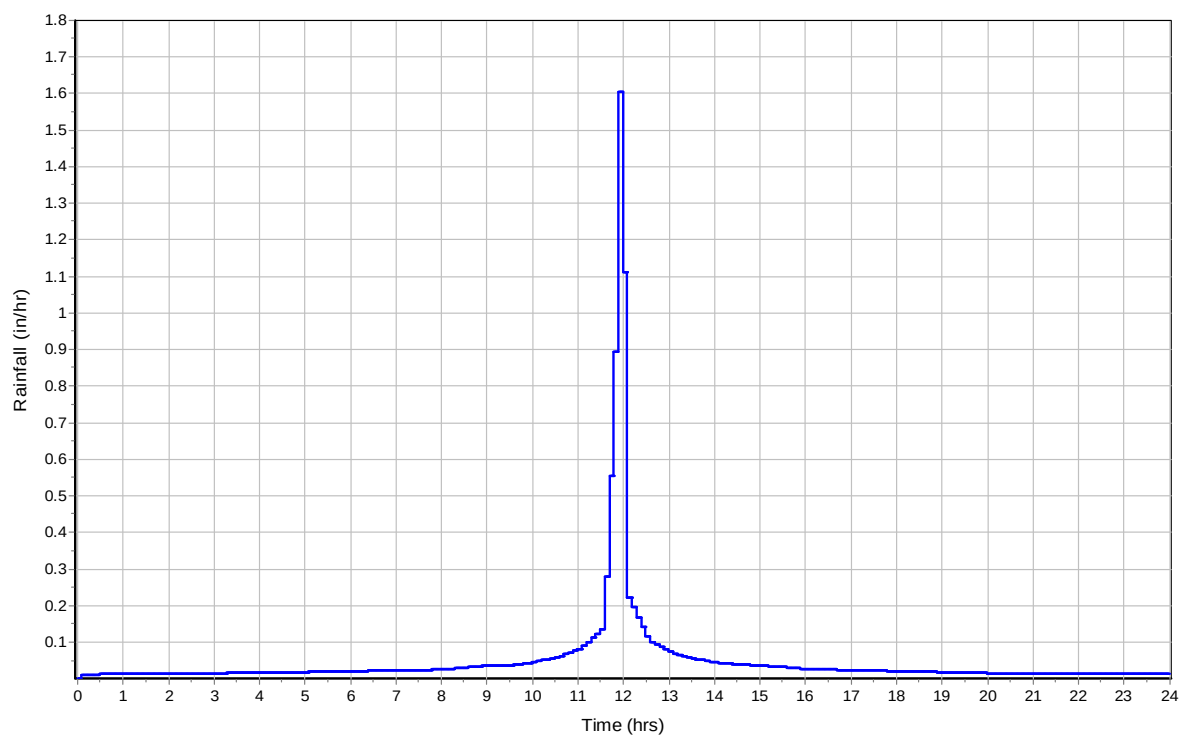
	Subarea A	Subarea B	Subarea C
Sheet Flow Computations			
Manning's Roughness :	0.2	0	0
Flow Length (ft) :	150	0	0
Slope (%) :	14	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.2	0	0
Computed Flow Time (min) :	12.79	0	0
Total TOC (min)	12.79		

Subbasin Runoff Results

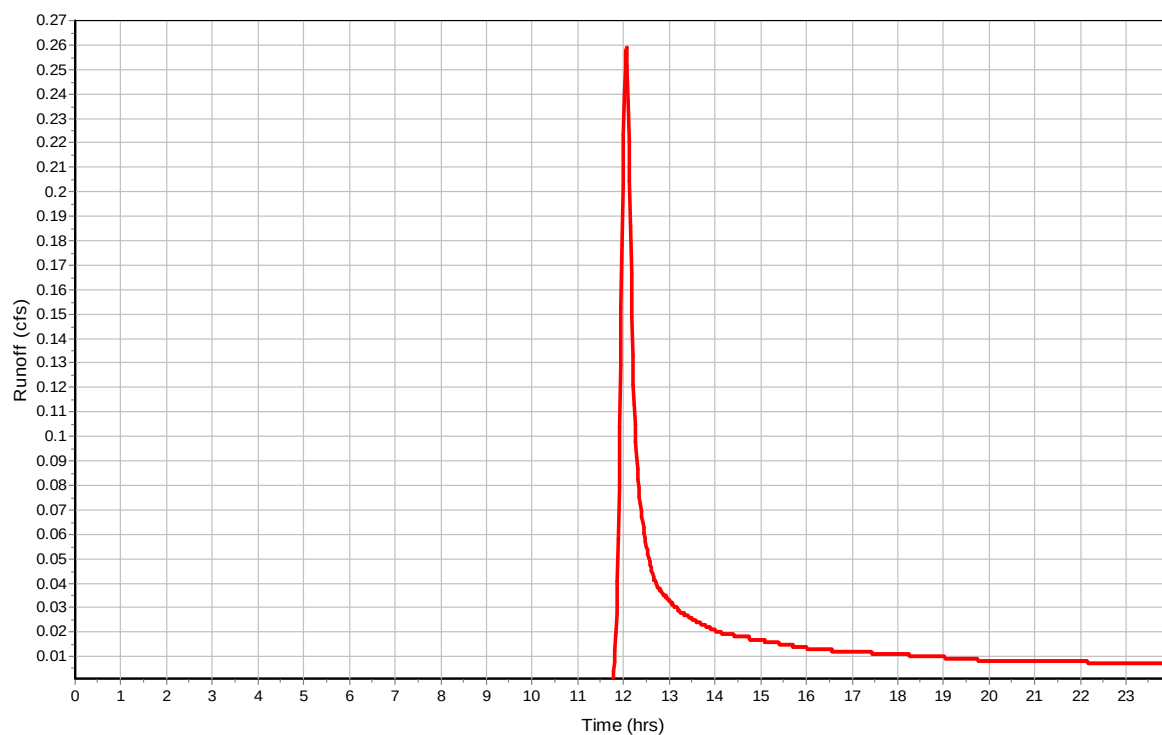
Total Rainfall (in)	1.17
Total Runoff (in)	0.21
Peak Runoff (cfs)	0.26
Weighted Curve Number	83
Time of Concentration (days hh:mm:ss)	0 00:12:47

Subbasin : Sub-16

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-18

Input Data

Area (ac)	1.44
Peak Rate Factor	484
Weighted Curve Number	83
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		1.89	C	83
Composite Area & Weighted CN		1.89		83

Time of Concentration

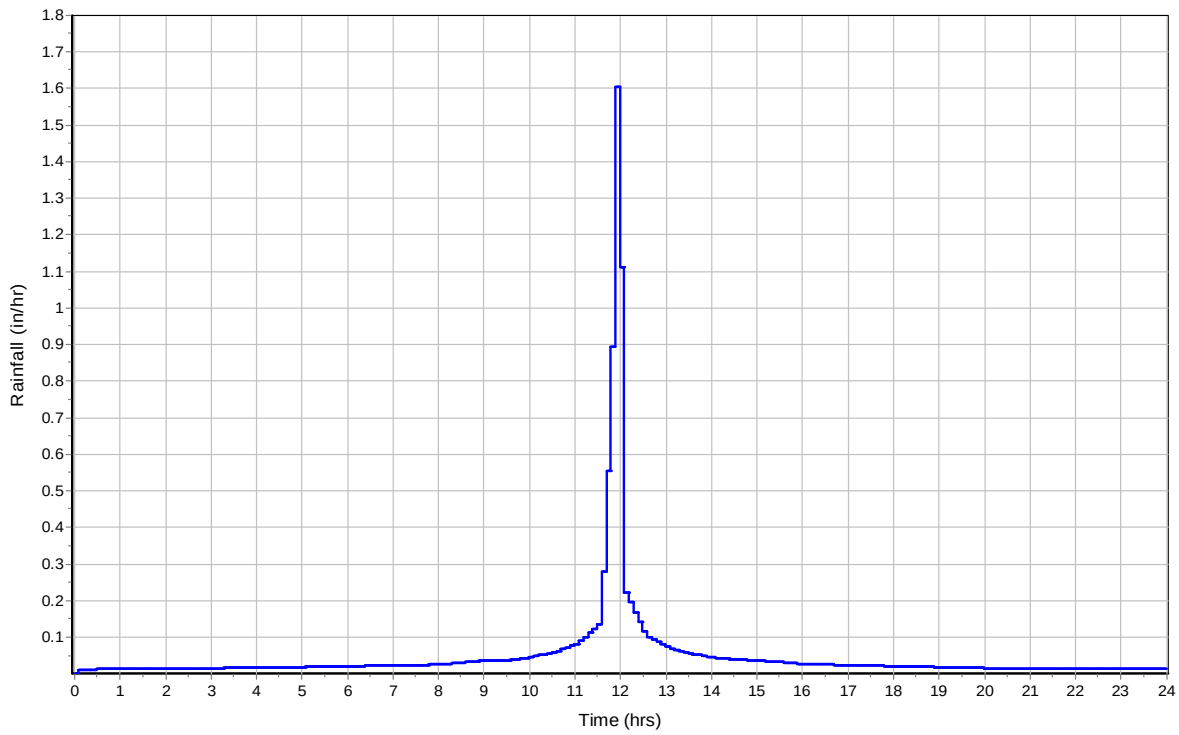
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0.05
Flow Length (ft) :	150	25	20
Slope (%) :	13	2	50
2 yr, 24 hr Rainfall (in) :	1.2	1.2	1.2
Velocity (ft/sec) :	0.19	0.64	0.66
Computed Flow Time (min) :	13.18	0.65	0.51
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	200	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Paved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	0.58	0	0
Total TOC (min)	14.91		

Subbasin Runoff Results

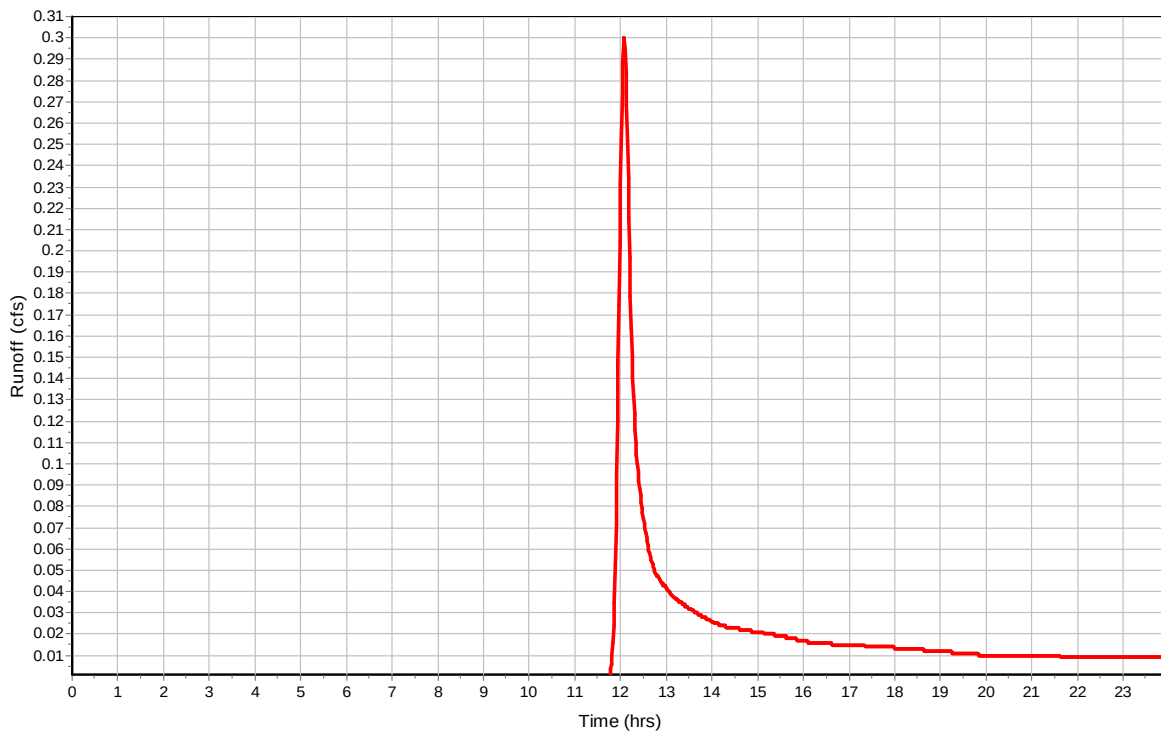
Total Rainfall (in)	1.17
Total Runoff (in)	0.21
Peak Runoff (cfs)	0.3
Weighted Curve Number	83
Time of Concentration (days hh:mm:ss)	0 00:14:55

Subbasin : Sub-18

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-19

Input Data

Area (ac)	0.17
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.17	C	98
Composite Area & Weighted CN		0.17		98

Time of Concentration

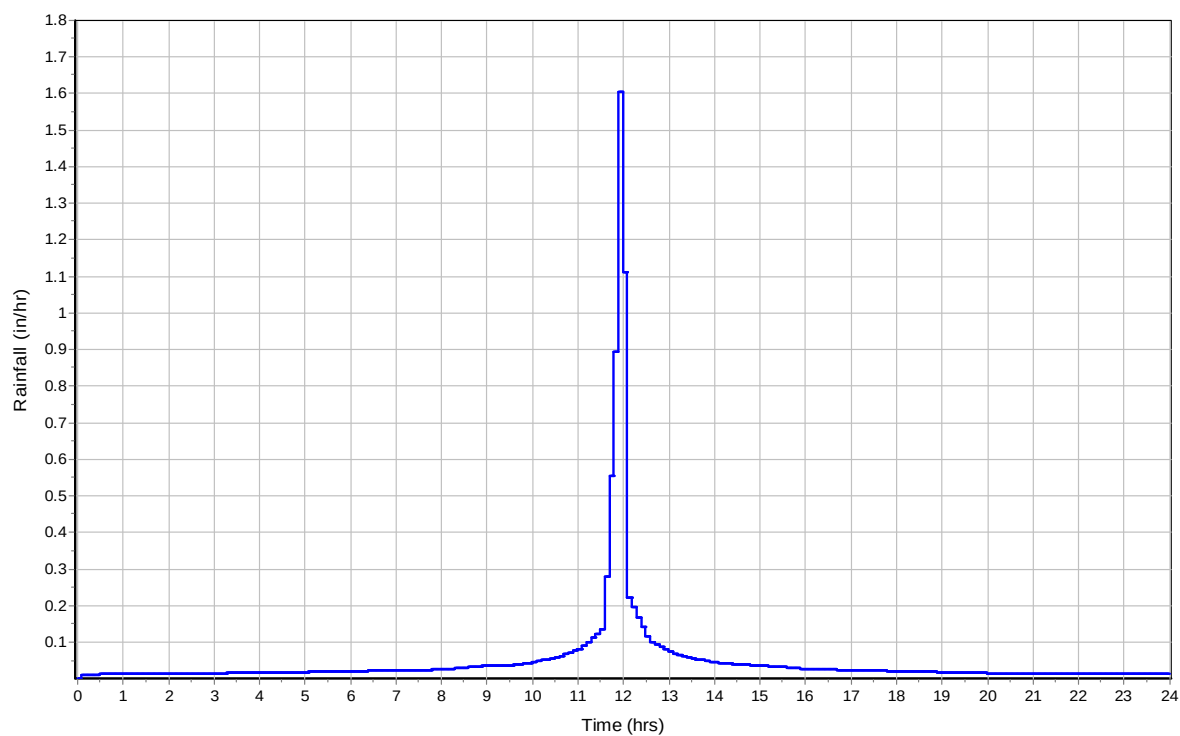
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	450	0	0
Slope (%) :	7	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.38	0	0
Computed Flow Time (min) :	1.39	0	0
Total TOC (min)	2.05		

Subbasin Runoff Results

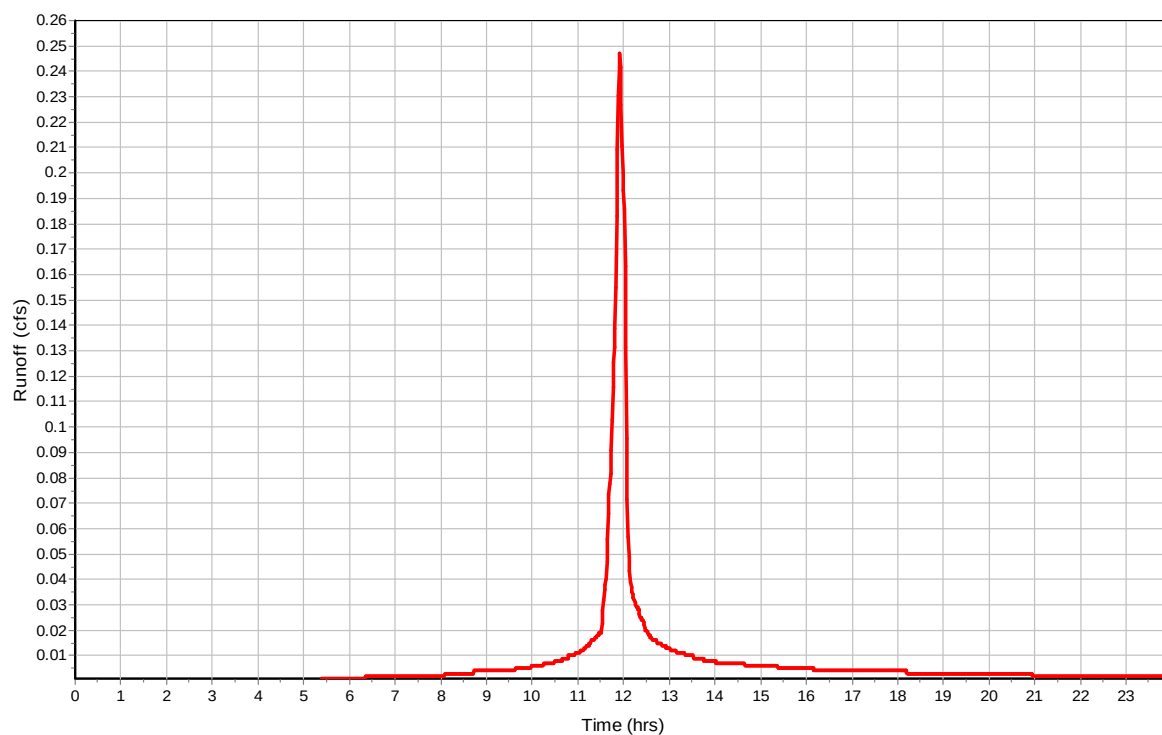
Total Rainfall (in)	1.17
Total Runoff (in)	0.95
Peak Runoff (cfs)	0.25
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:02:03

Subbasin : Sub-19

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-20

Input Data

Area (ac)	1.39
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		1.42	B	75
Composite Area & Weighted CN		1.42		75

Time of Concentration

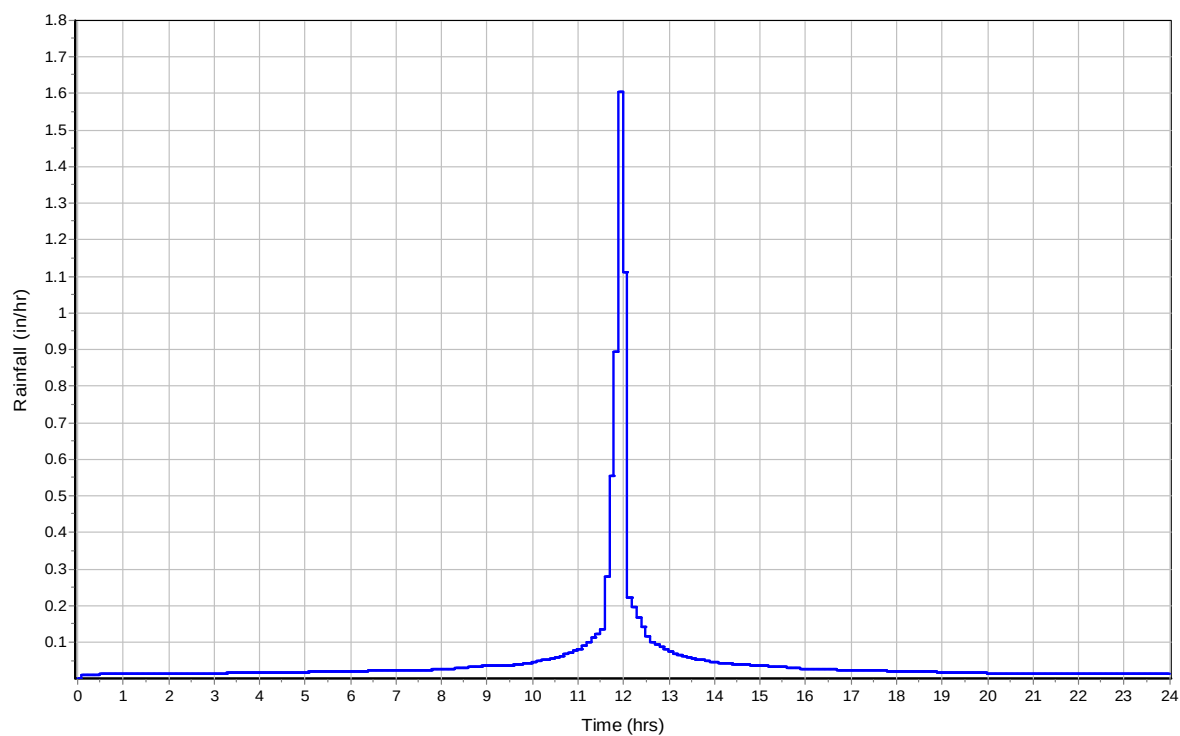
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0	0
Flow Length (ft) :	150	0	0
Slope (%) :	12	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.18	0	0
Computed Flow Time (min) :	13.6	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	415	0	0
Slope (%) :	8.5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.93	0	0
Computed Flow Time (min) :	1.17	0	0
Total TOC (min)	14.77		

Subbasin Runoff Results

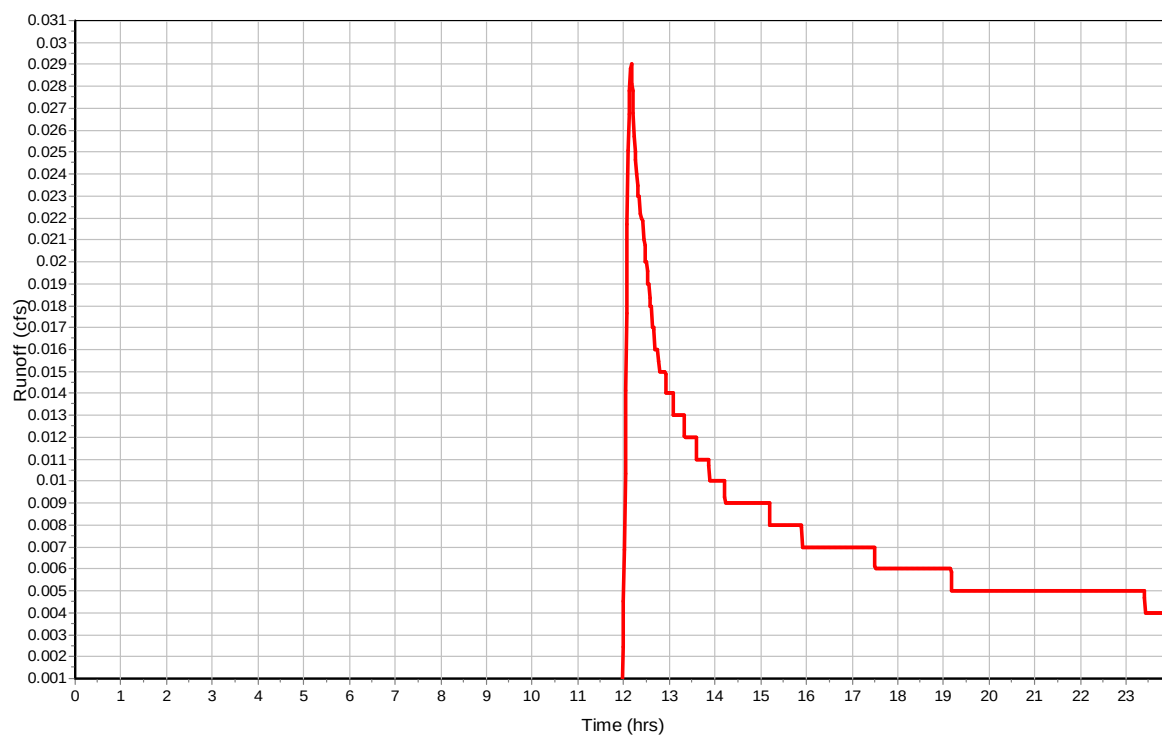
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.03
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:14:46

Subbasin : Sub-20

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-21

Input Data

Area (ac)	0.11
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.11	B	98
Composite Area & Weighted CN		0.11		98

Time of Concentration

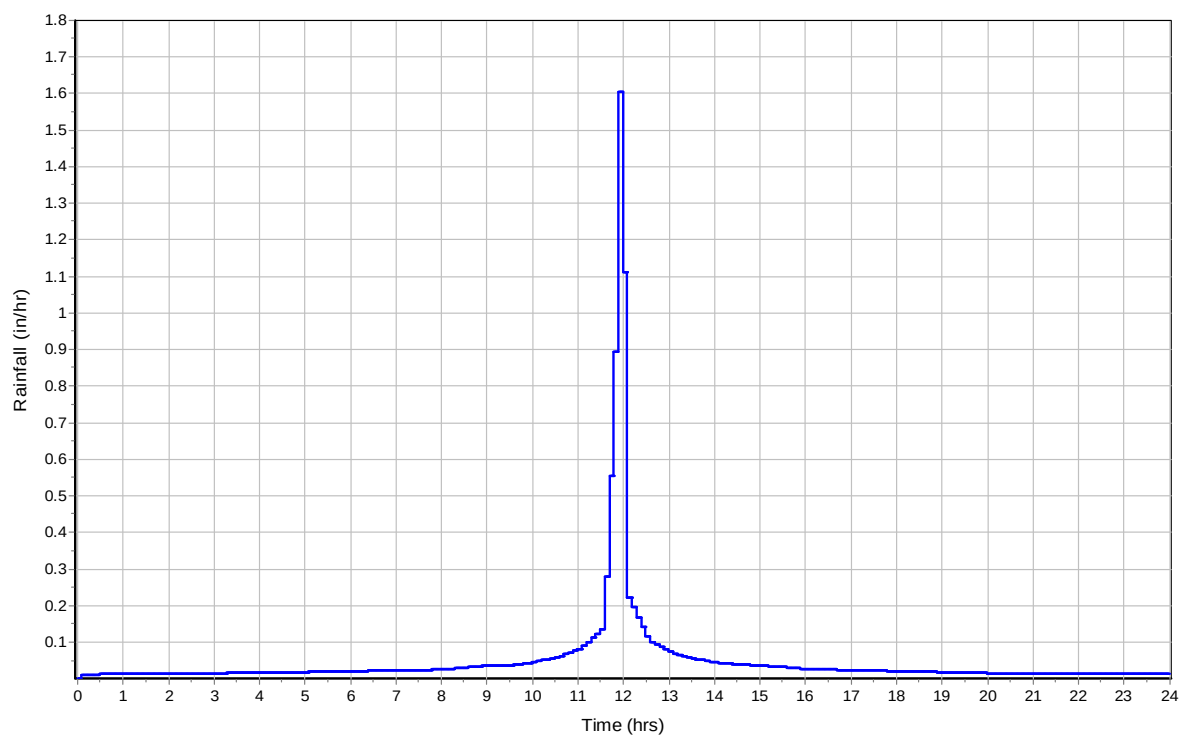
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	240	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	0.88	0	0
Total TOC (min)	1.53		

Subbasin Runoff Results

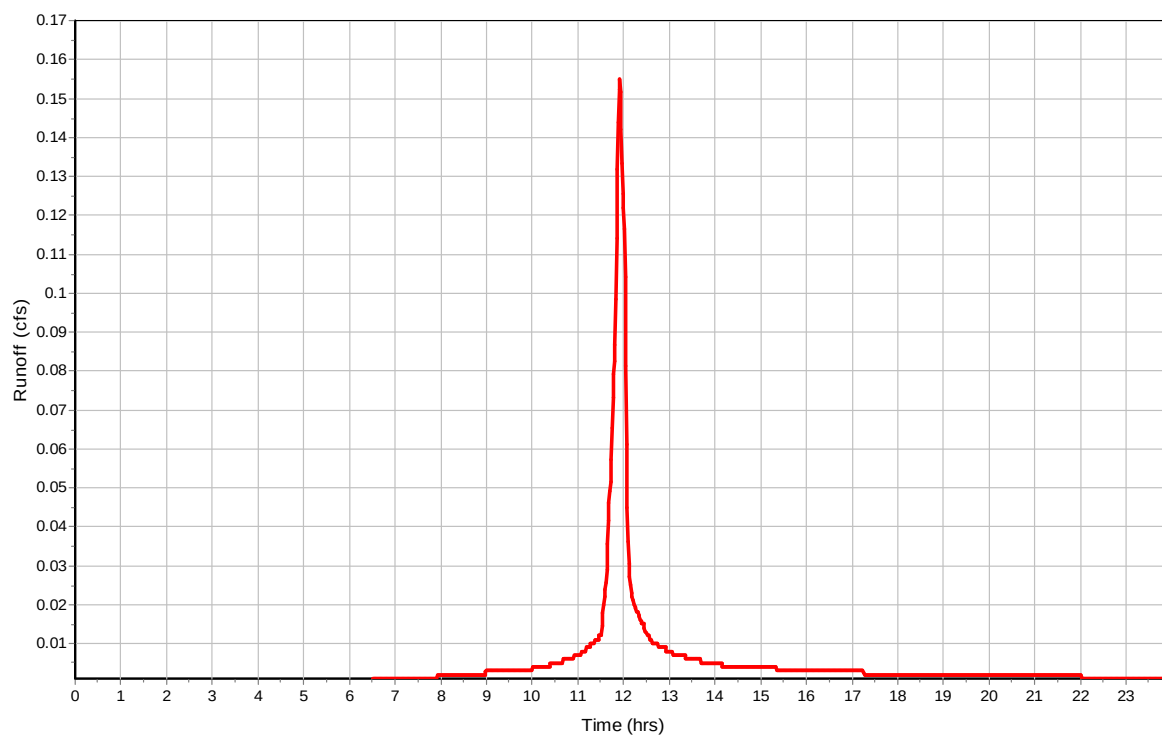
Total Rainfall (in)	1.17
Total Runoff (in)	0.94
Peak Runoff (cfs)	0.16
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:32

Subbasin : Sub-21

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-22

Input Data

Area (ac)	0.07
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.07	B	98
Composite Area & Weighted CN		0.07		98

Time of Concentration

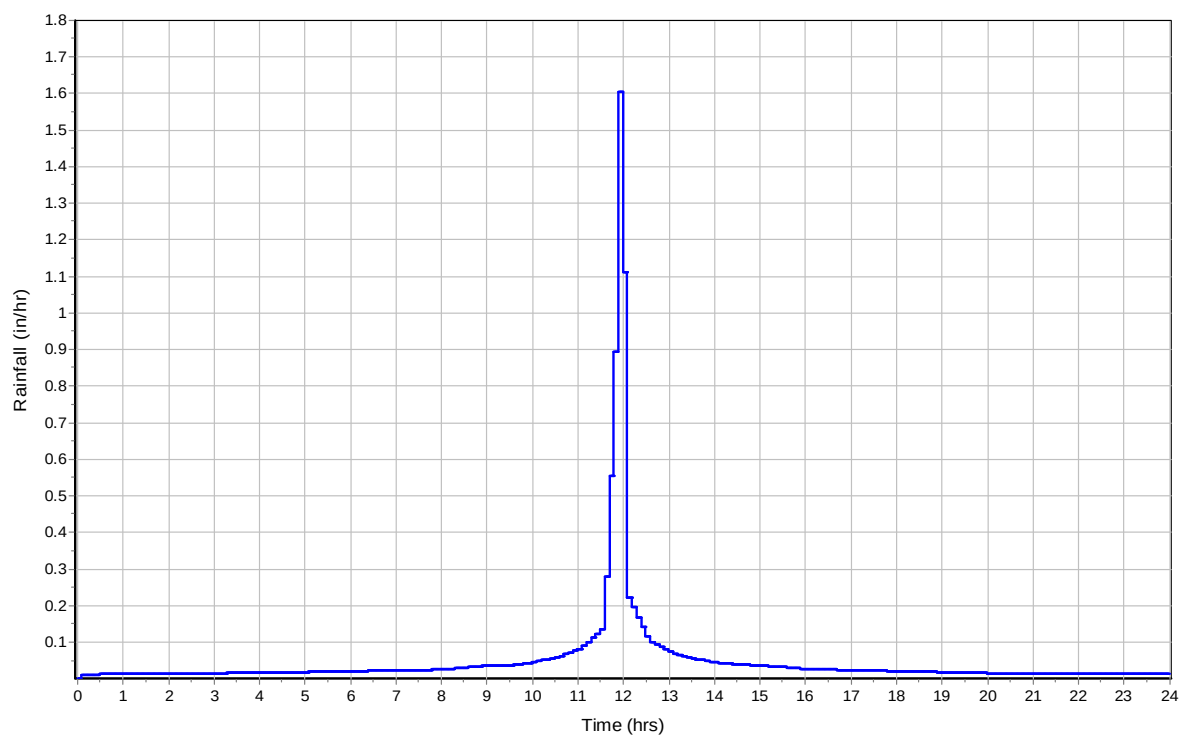
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	155	0	0
Slope (%) :	1	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	2.03	0	0
Computed Flow Time (min) :	1.27	0	0
Total TOC (min)	1.93		

Subbasin Runoff Results

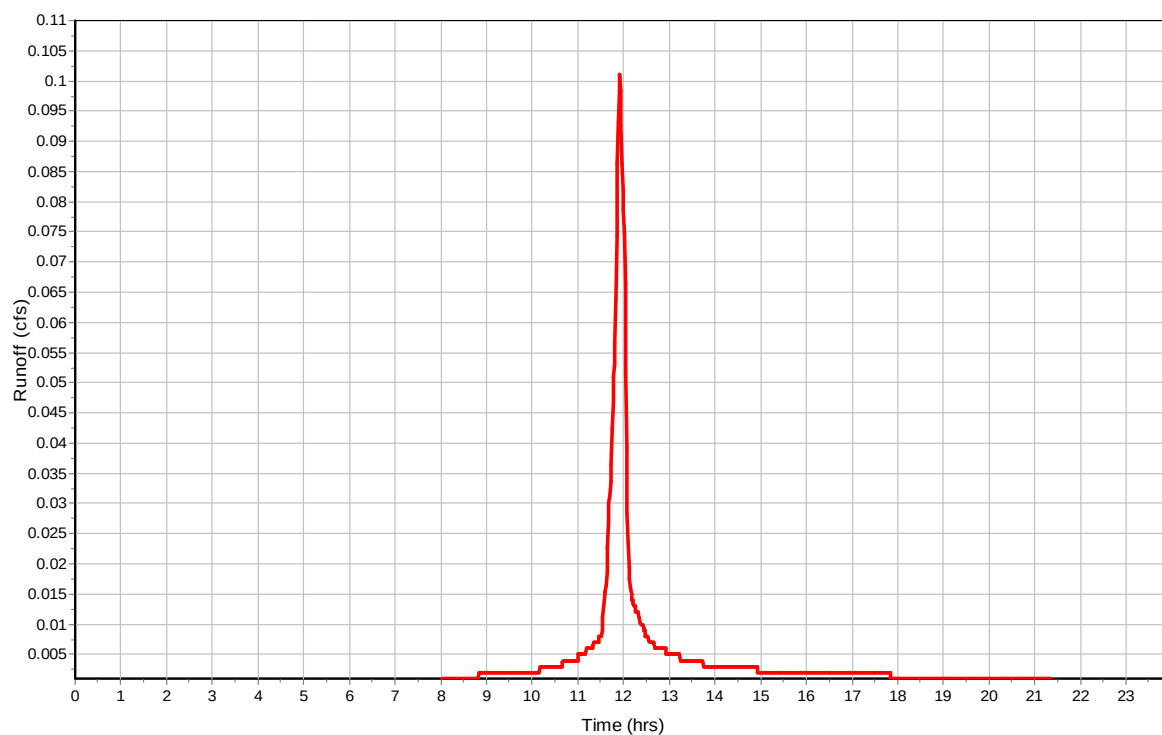
Total Rainfall (in)	1.17
Total Runoff (in)	0.89
Peak Runoff (cfs)	0.1
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:56

Subbasin : Sub-22

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-23

Input Data

Area (ac)	0.07
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.07	B	98
Composite Area & Weighted CN		0.07		98

Time of Concentration

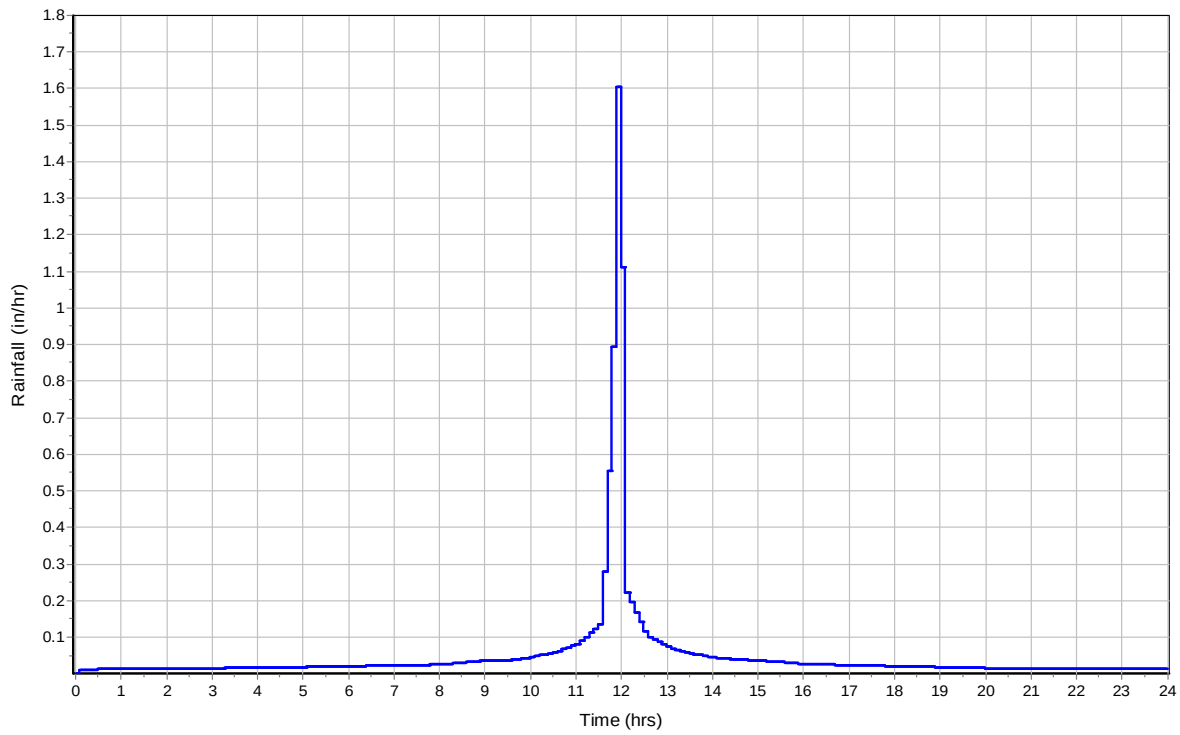
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	160	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	0.59	0	0
Total TOC (min)	1.24		

Subbasin Runoff Results

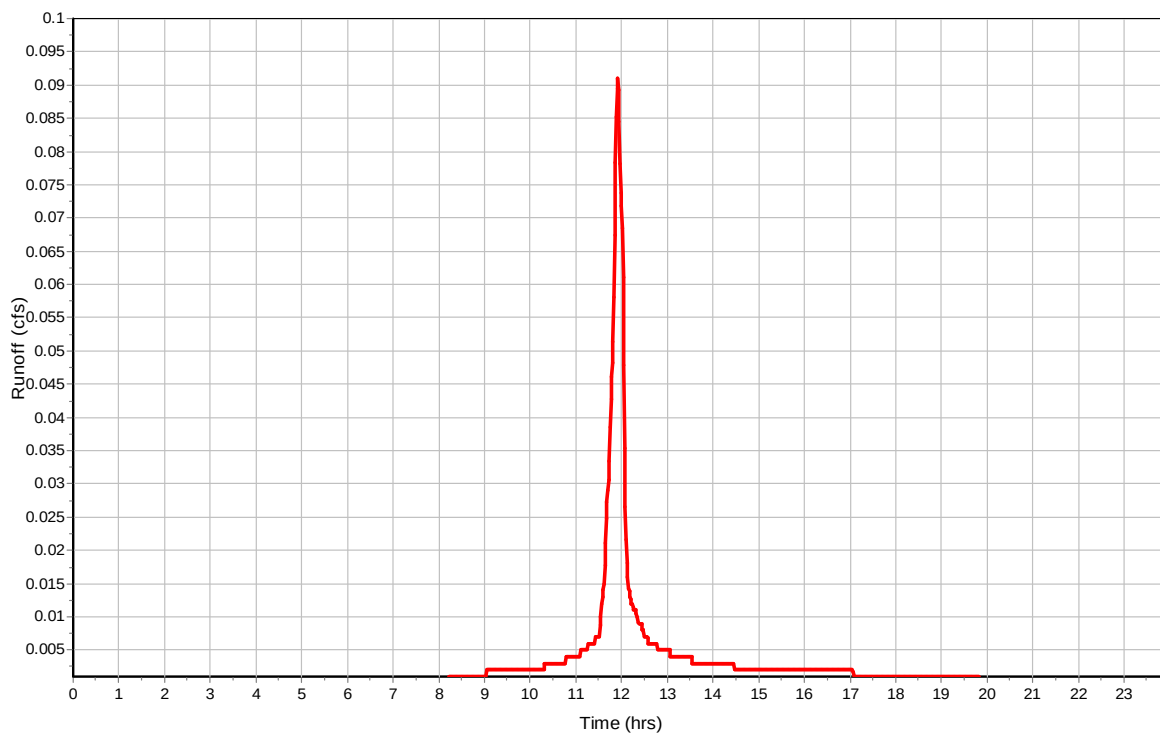
Total Rainfall (in)	1.17
Total Runoff (in)	0.86
Peak Runoff (cfs)	0.09
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:14

Subbasin : Sub-23

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-24

Input Data

Area (ac)	0.08
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.08	B	98
Composite Area & Weighted CN		0.08		98

Time of Concentration

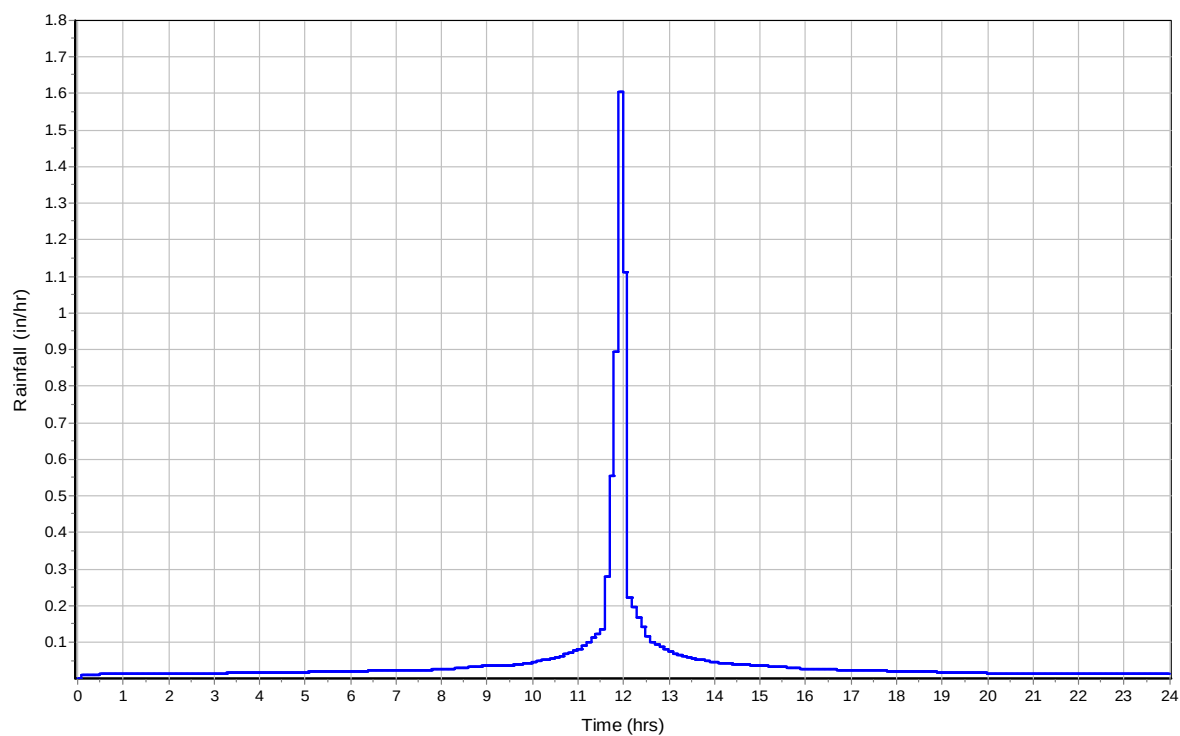
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	170	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	0.62	0	0
Total TOC (min)	1.28		

Subbasin Runoff Results

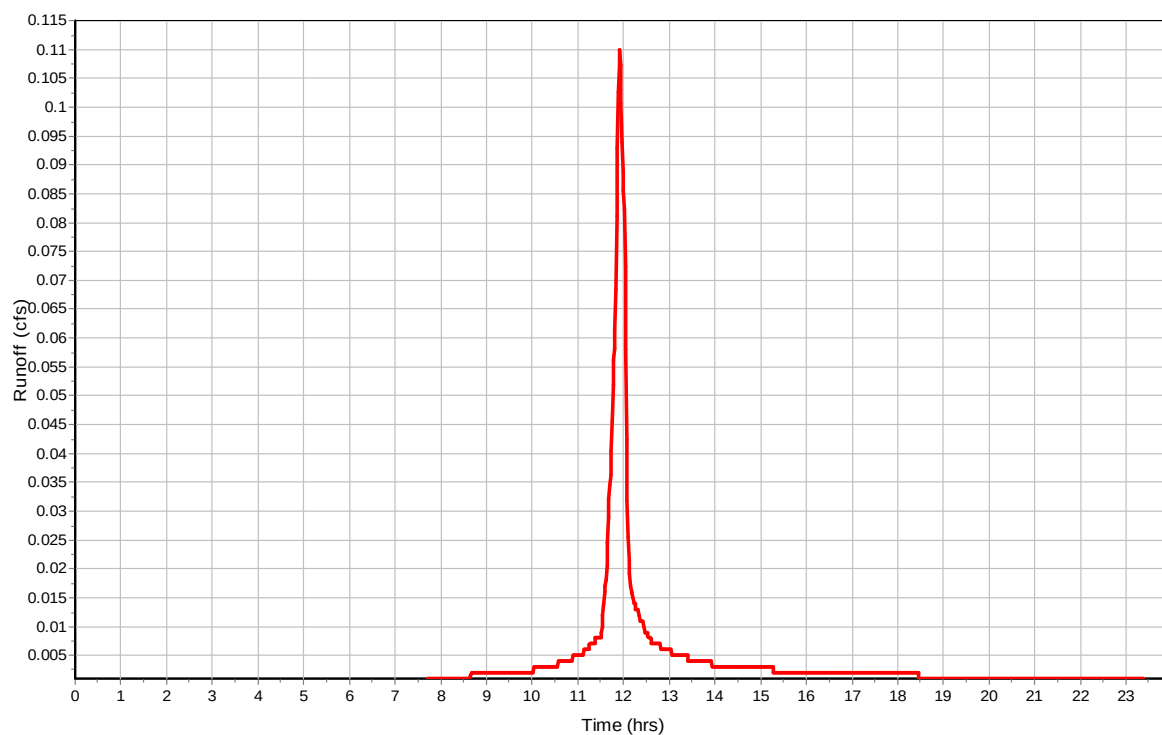
Total Rainfall (in)	1.17
Total Runoff (in)	0.92
Peak Runoff (cfs)	0.11
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:17

Subbasin : Sub-24

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-25

Input Data

Area (ac)	2.33
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		2.33	B	75
Composite Area & Weighted CN		2.33		75

Time of Concentration

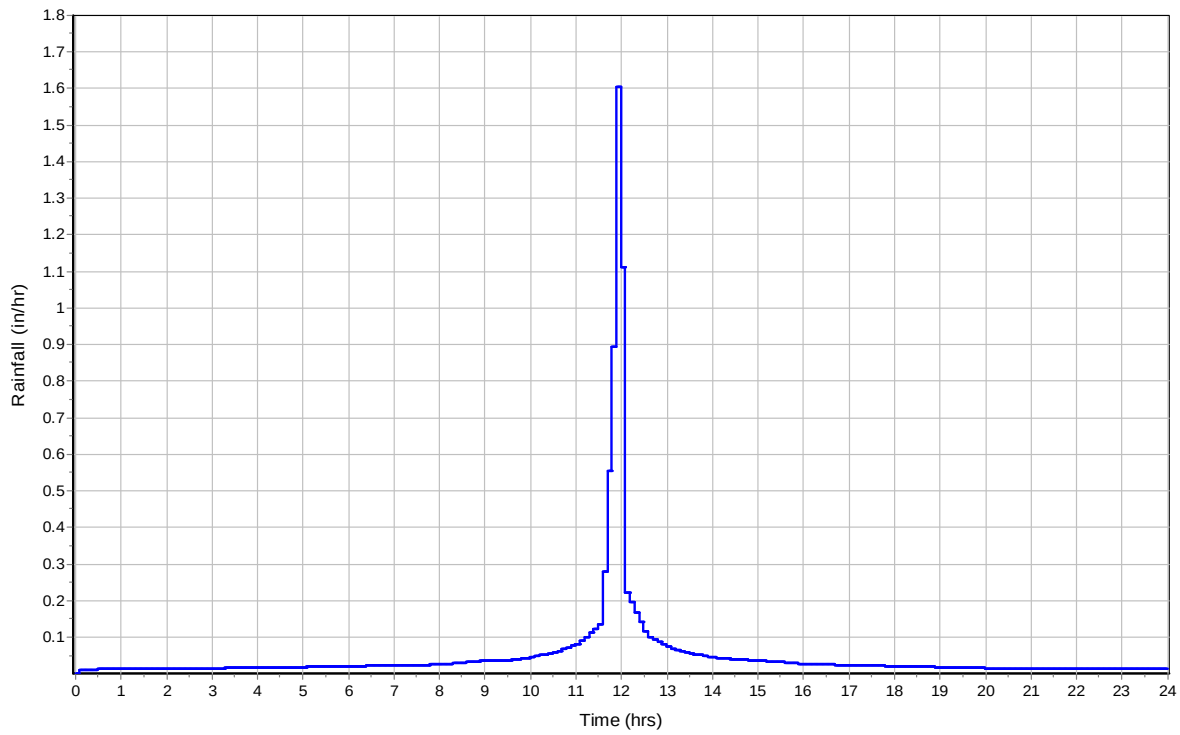
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0	0.011
Flow Length (ft) :	150	0	25
Slope (%) :	12	0	2
2 yr, 24 hr Rainfall (in) :	1.2	0	1.2
Velocity (ft/sec) :	0.18	0	0.64
Computed Flow Time (min) :	13.6	0	0.65
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	400	350	0
Slope (%) :	10	7	0
Surface Type :	Paved	Paved	Unpaved
Velocity (ft/sec) :	6.43	5.38	0
Computed Flow Time (min) :	1.04	1.08	0
Total TOC (min)	16.38		

Subbasin Runoff Results

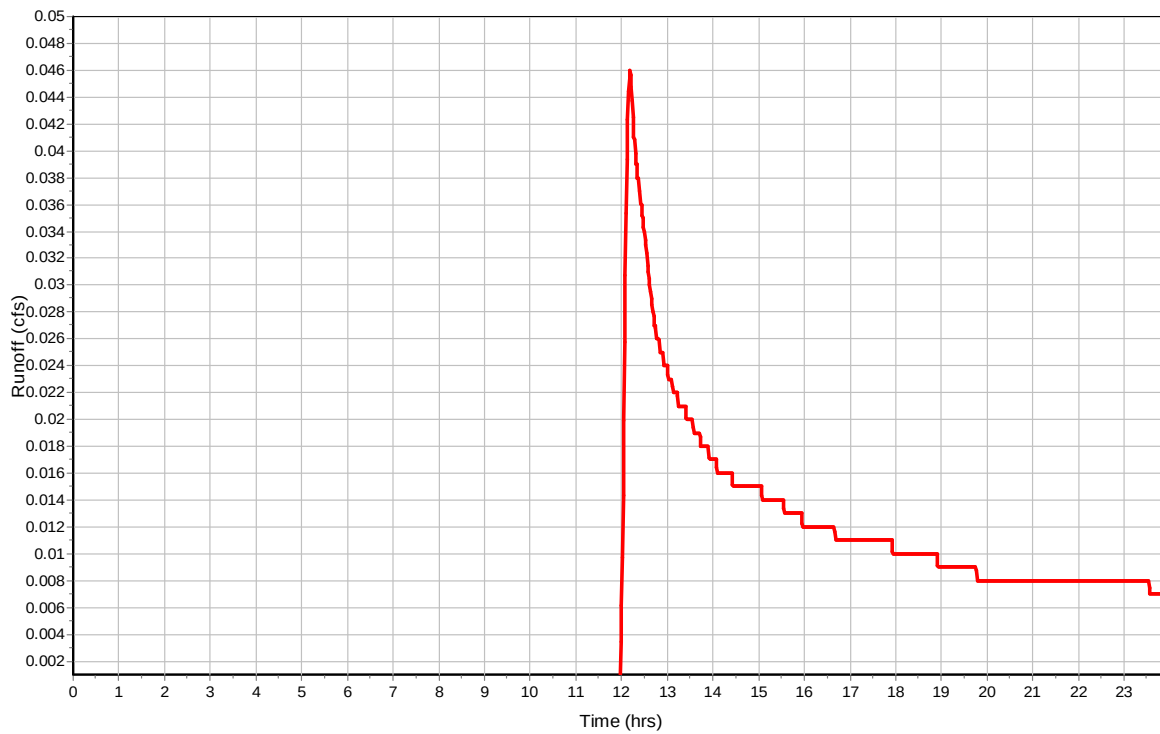
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.05
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:16:23

Subbasin : Sub-25

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-26

Input Data

Area (ac)	0.48
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.23	B	75
Composite Area & Weighted CN		0.23		75

Time of Concentration

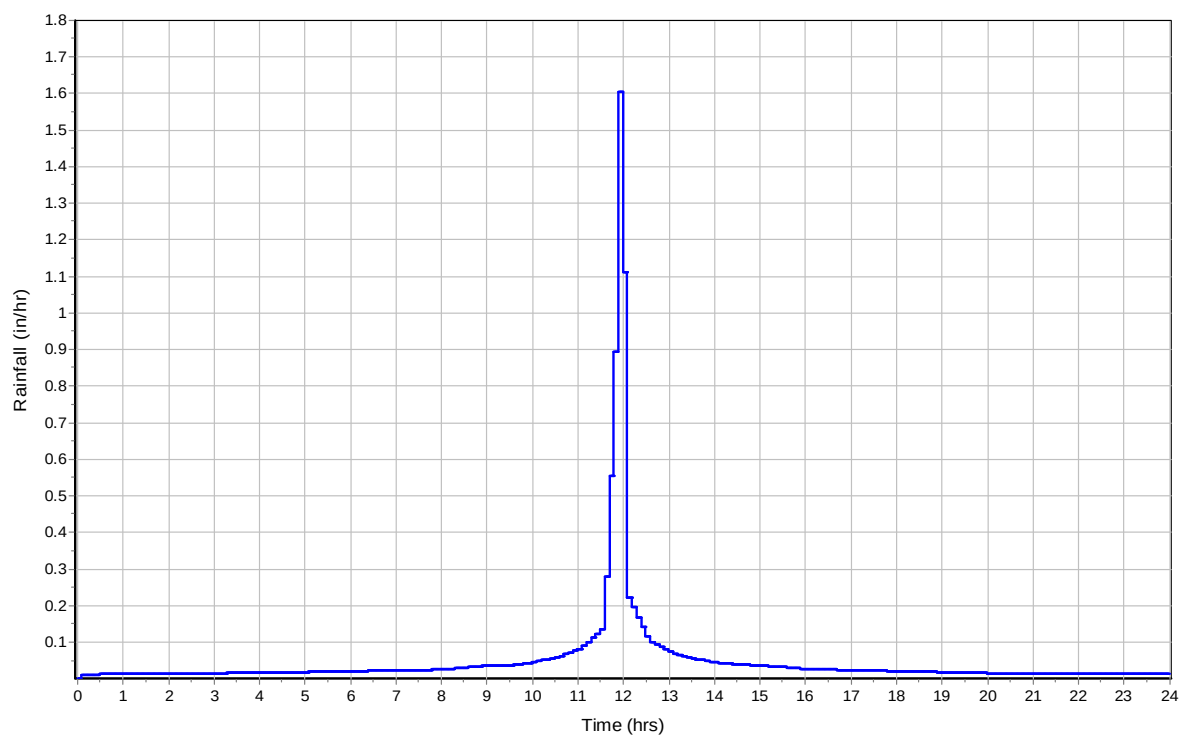
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0.05
Flow Length (ft) :	125	25	25
Slope (%) :	10	2	50
2 yr, 24 hr Rainfall (in) :	1.2	1.2	1.2
Velocity (ft/sec) :	0.16	0.64	0.69
Computed Flow Time (min) :	12.65	0.65	0.6
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	220	0	0
Slope (%) :	4	0	0
Surface Type :	Unpaved	Unpaved	Unpaved
Velocity (ft/sec) :	3.23	0	0
Computed Flow Time (min) :	1.14	0	0
Total TOC (min)	15.04		

Subbasin Runoff Results

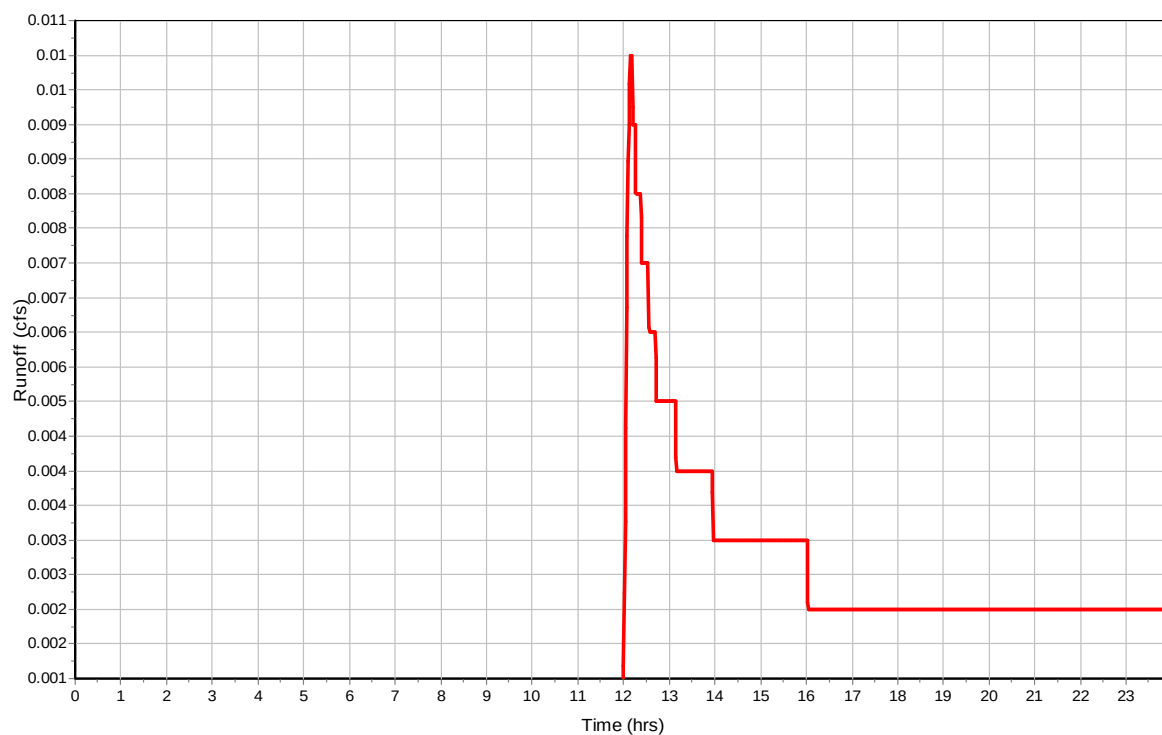
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.01
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:15:02

Subbasin : Sub-26

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-27

Input Data

Area (ac)	0.45
Peak Rate Factor	484
Weighted Curve Number	88.8
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.15	B	75
Paved parking & roofs		0.23	B	98
Composite Area & Weighted CN		0.38		88.8

Time of Concentration

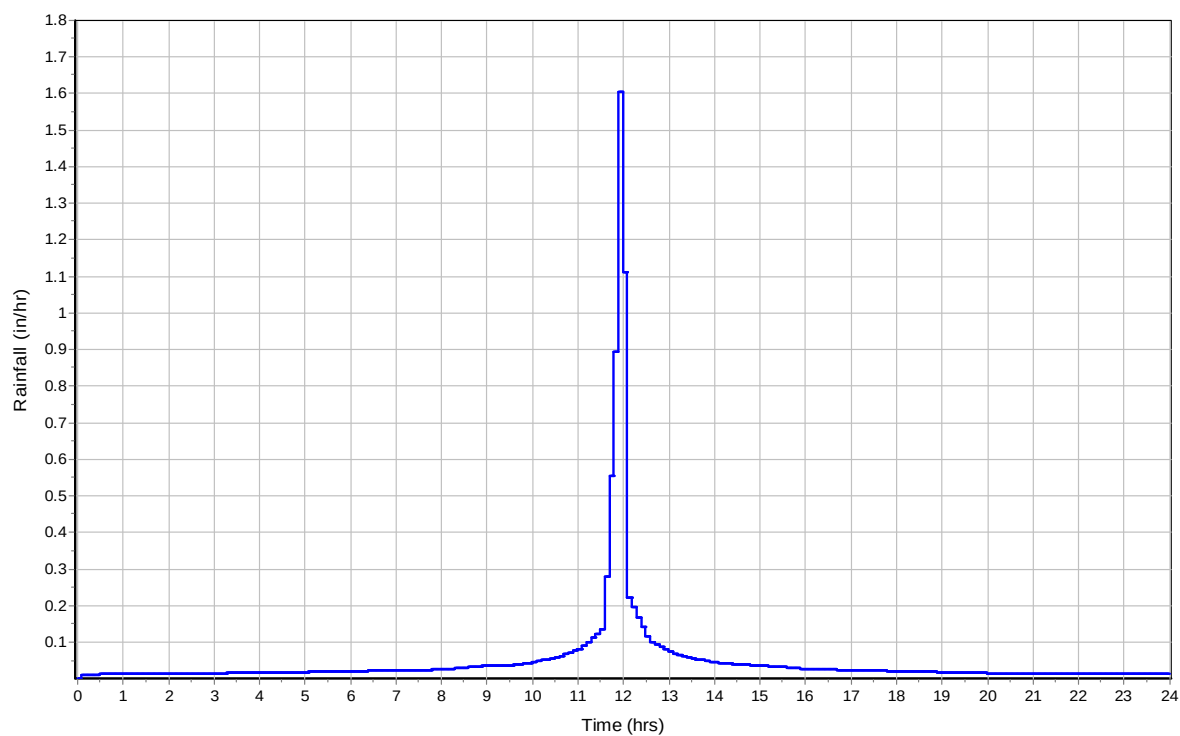
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0.2	0
Flow Length (ft) :	25	80	0
Slope (%) :	2	8	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.64	0.14	0
Computed Flow Time (min) :	0.65	9.68	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	520	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	1.9	0	0
Total TOC (min)	12.23		

Subbasin Runoff Results

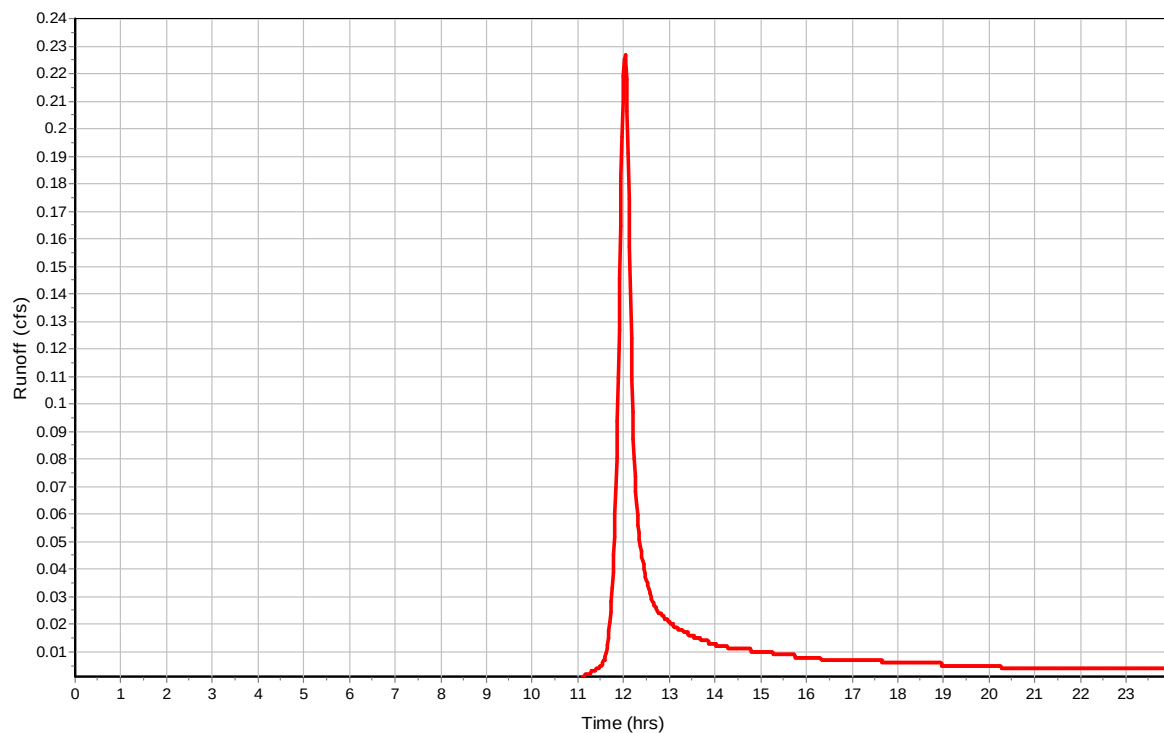
Total Rainfall (in)	1.17
Total Runoff (in)	0.39
Peak Runoff (cfs)	0.23
Weighted Curve Number	88.8
Time of Concentration (days hh:mm:ss)	0 00:12:14

Subbasin : Sub-27

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-29

Input Data

Area (ac)	0.06
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.06	C	98
Composite Area & Weighted CN		0.06		98

Time of Concentration

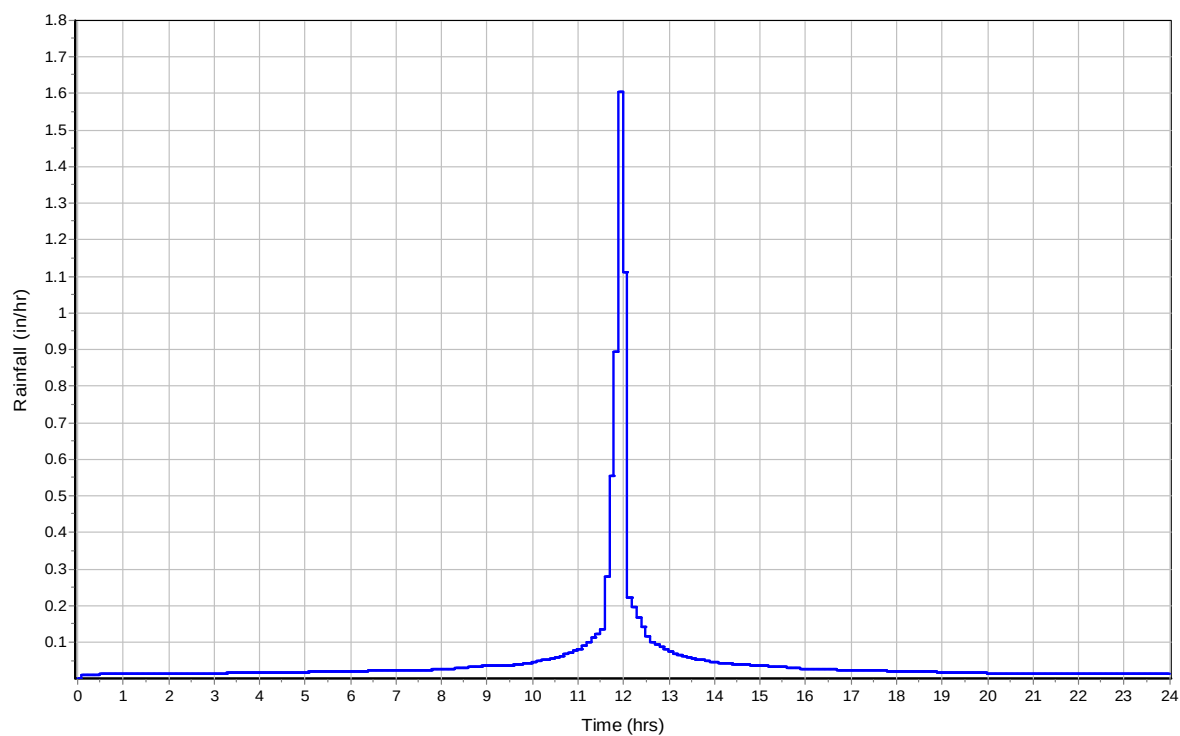
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	120	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	0.35	0	0
Total TOC (min)	1.00		

Subbasin Runoff Results

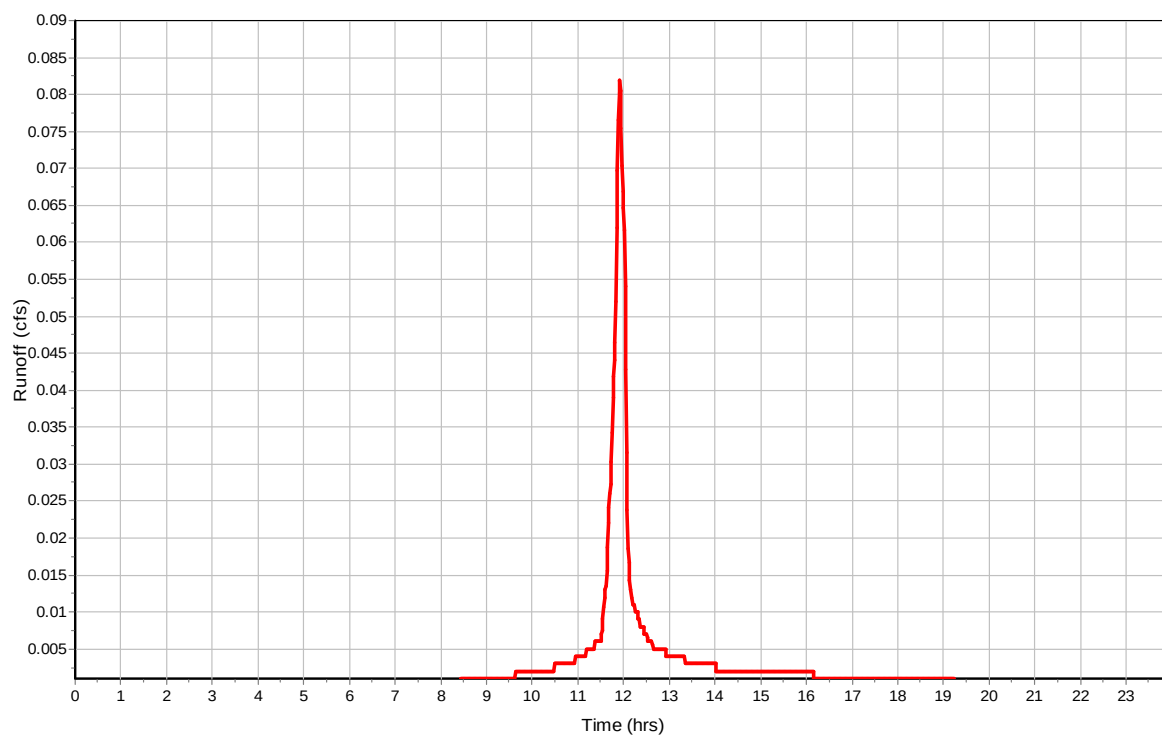
Total Rainfall (in)	1.17
Total Runoff (in)	0.85
Peak Runoff (cfs)	0.08
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:00

Subbasin : Sub-29

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-32

Input Data

Area (ac)	1.78
Peak Rate Factor	484
Weighted Curve Number	89.65
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.09	C	83
1/8 acre lots, 65% impervious		1.69	C	90
Composite Area & Weighted CN		1.78		89.65

Time of Concentration

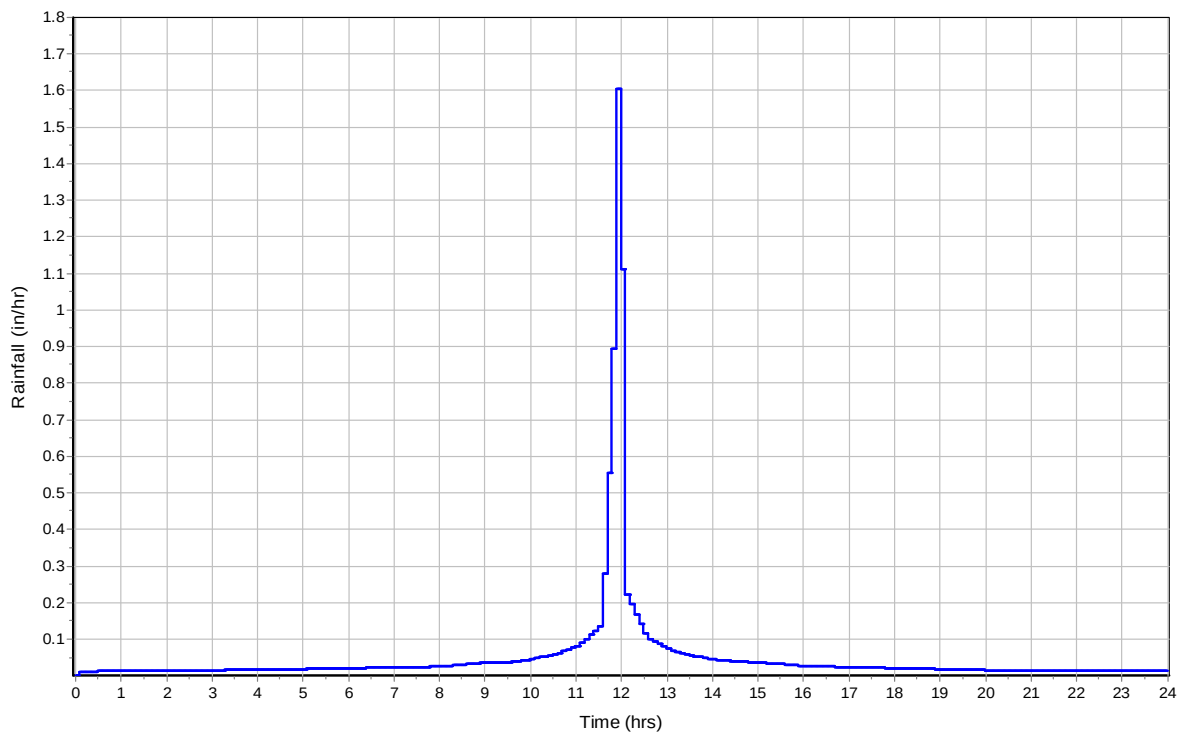
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0	0
Flow Length (ft) :	90	0	0
Slope (%) :	10	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.15	0	0
Computed Flow Time (min) :	9.72	0	0
Total TOC (min)	9.72		

Subbasin Runoff Results

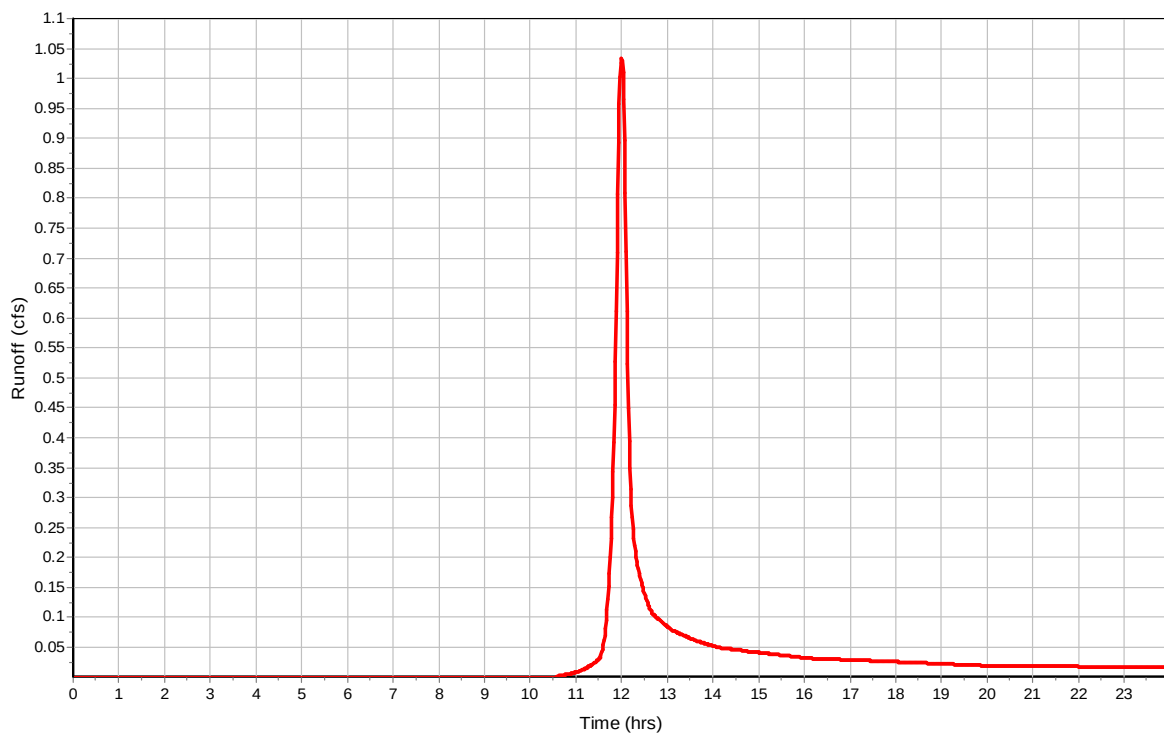
Total Rainfall (in)	1.17
Total Runoff (in)	0.42
Peak Runoff (cfs)	1.03
Weighted Curve Number	89.65
Time of Concentration (days hh:mm:ss)	0 00:09:43

Subbasin : Sub-32

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-33

Input Data

Area (ac)	0.08
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.08	B	98
Composite Area & Weighted CN		0.08		98

Time of Concentration

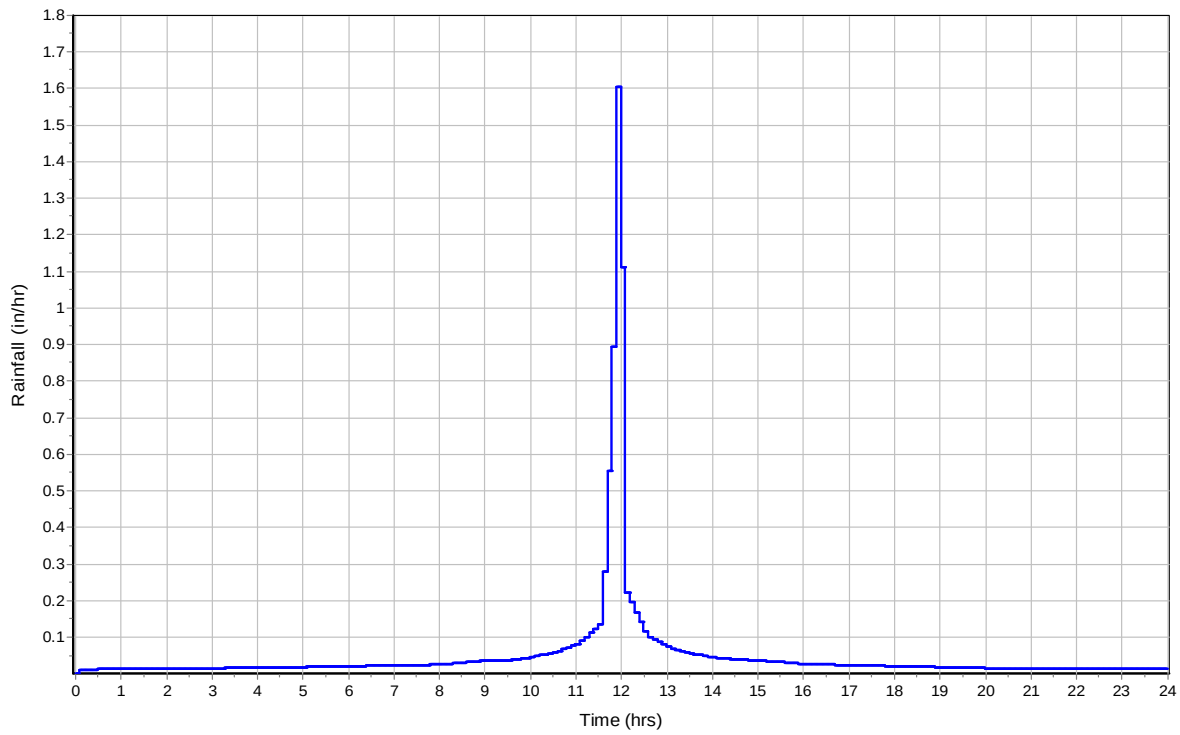
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	190	0	0
Slope (%) :	4	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.07	0	0
Computed Flow Time (min) :	0.78	0	0
Total TOC (min)	1.43		

Subbasin Runoff Results

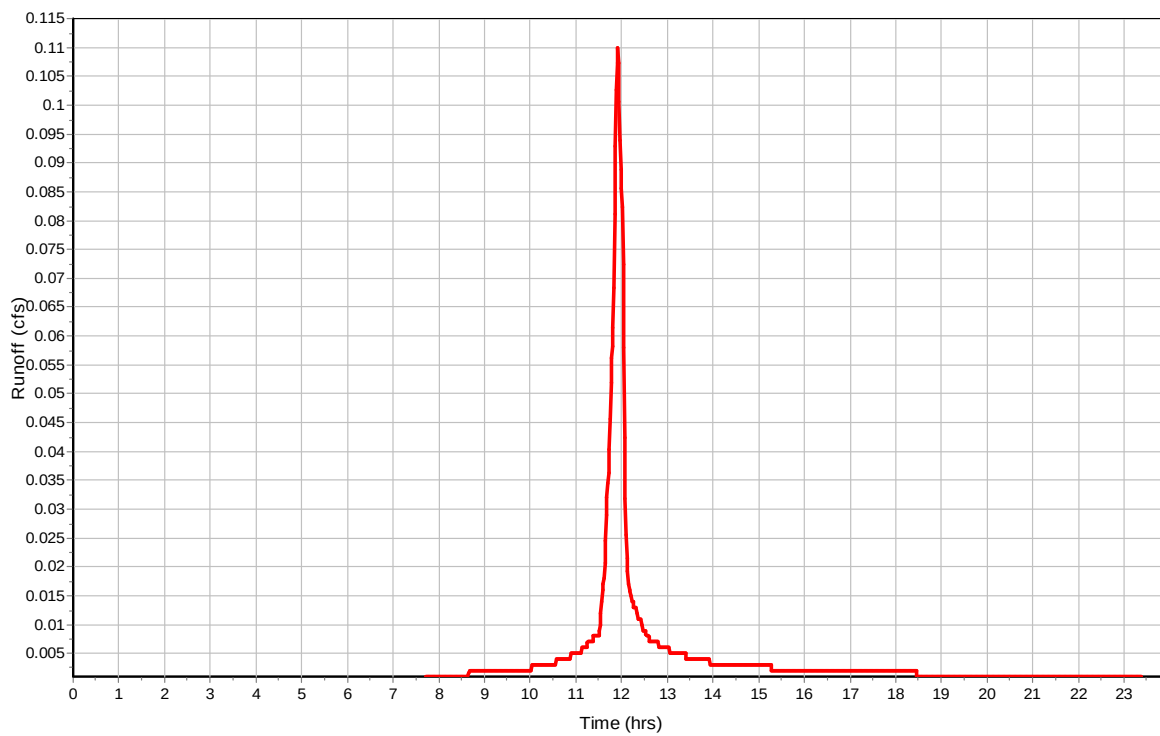
Total Rainfall (in)	1.17
Total Runoff (in)	0.92
Peak Runoff (cfs)	0.11
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:26

Subbasin : Sub-33

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-34

Input Data

Area (ac)	0.16
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.16	B	98
Composite Area & Weighted CN		0.16		98

Time of Concentration

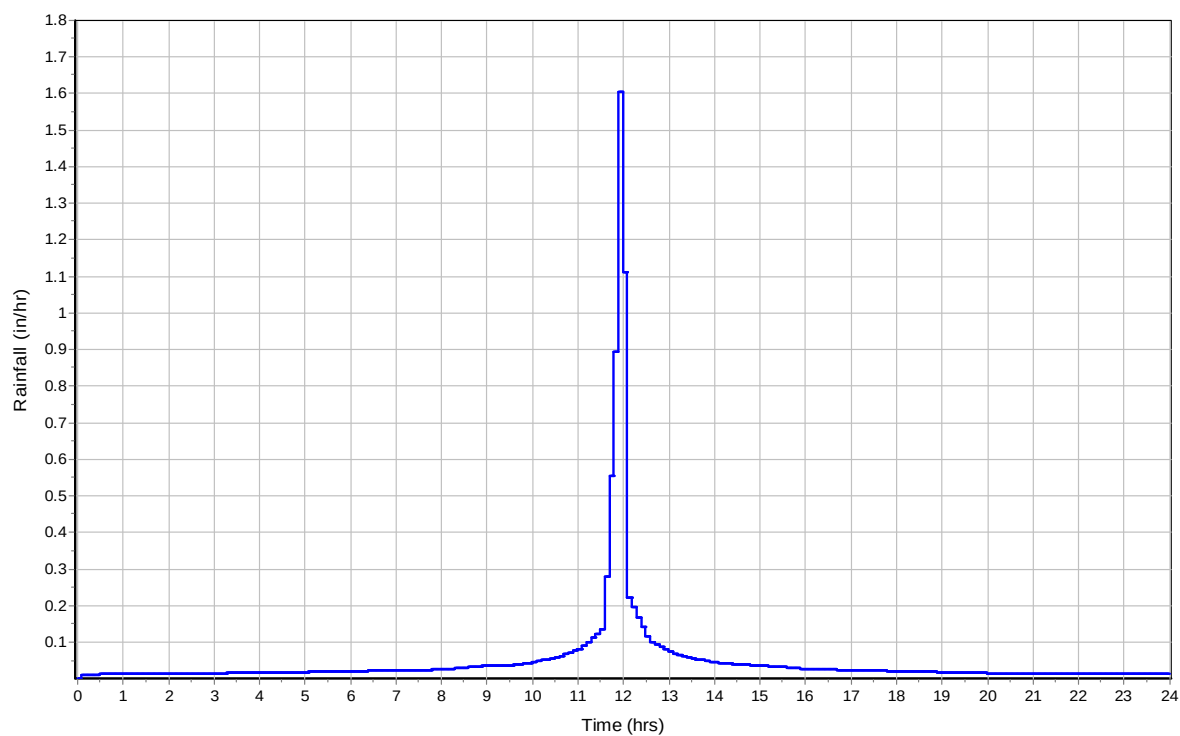
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	300	0	0
Slope (%) :	3.5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	3.8	0	0
Computed Flow Time (min) :	1.32	0	0
Total TOC (min)	1.97		

Subbasin Runoff Results

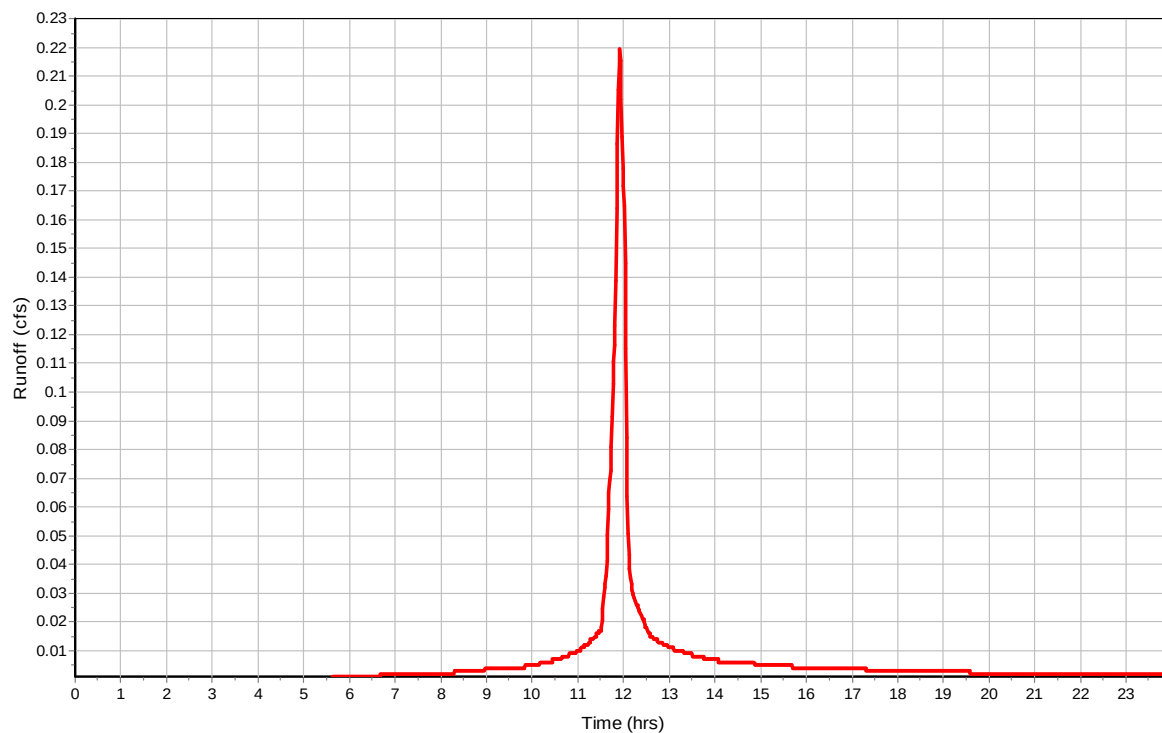
Total Rainfall (in)	1.17
Total Runoff (in)	0.95
Peak Runoff (cfs)	0.22
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:58

Subbasin : Sub-34

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-35

Input Data

Area (ac)	1.12
Peak Rate Factor	484
Weighted Curve Number	74
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
> 75% grass cover, Good		1.35	C	74
Composite Area & Weighted CN		1.35		74

Time of Concentration

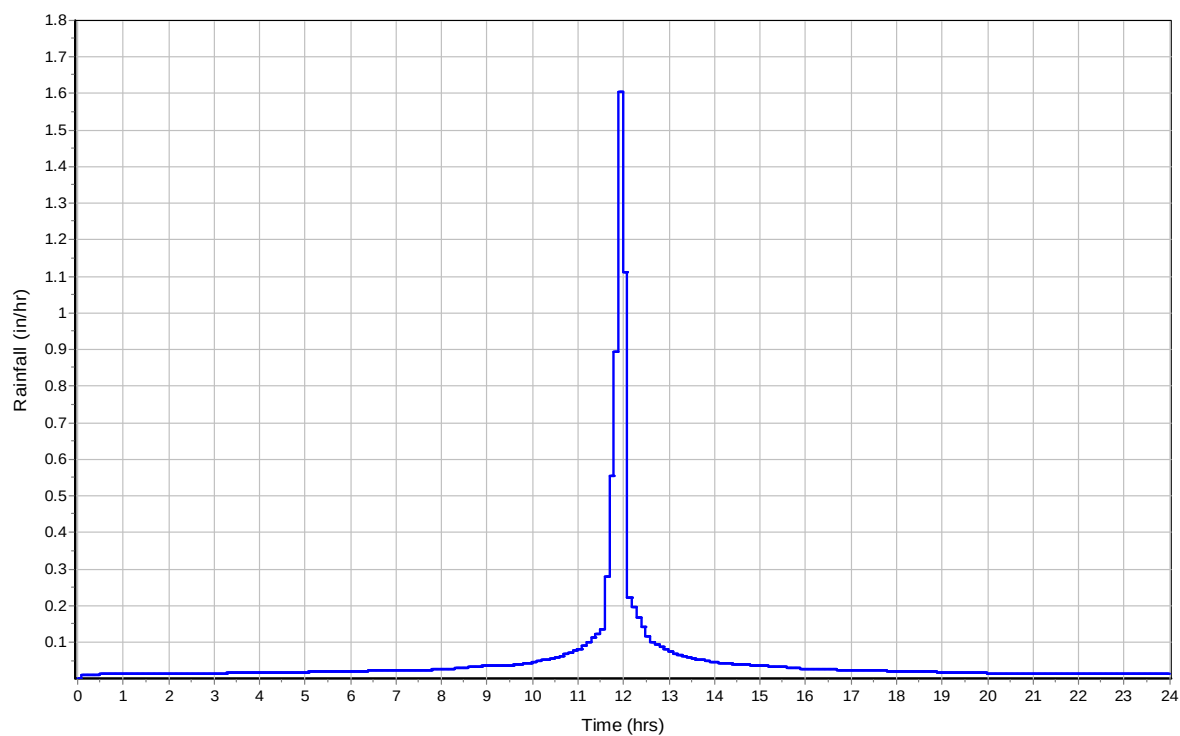
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0
Flow Length (ft) :	150	25	0
Slope (%) :	10	2	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.17	0.64	0
Computed Flow Time (min) :	14.63	0.65	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	260	0	0
Slope (%) :	3.5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	3.8	0	0
Computed Flow Time (min) :	1.14	0	0
Total TOC (min)	16.43		

Subbasin Runoff Results

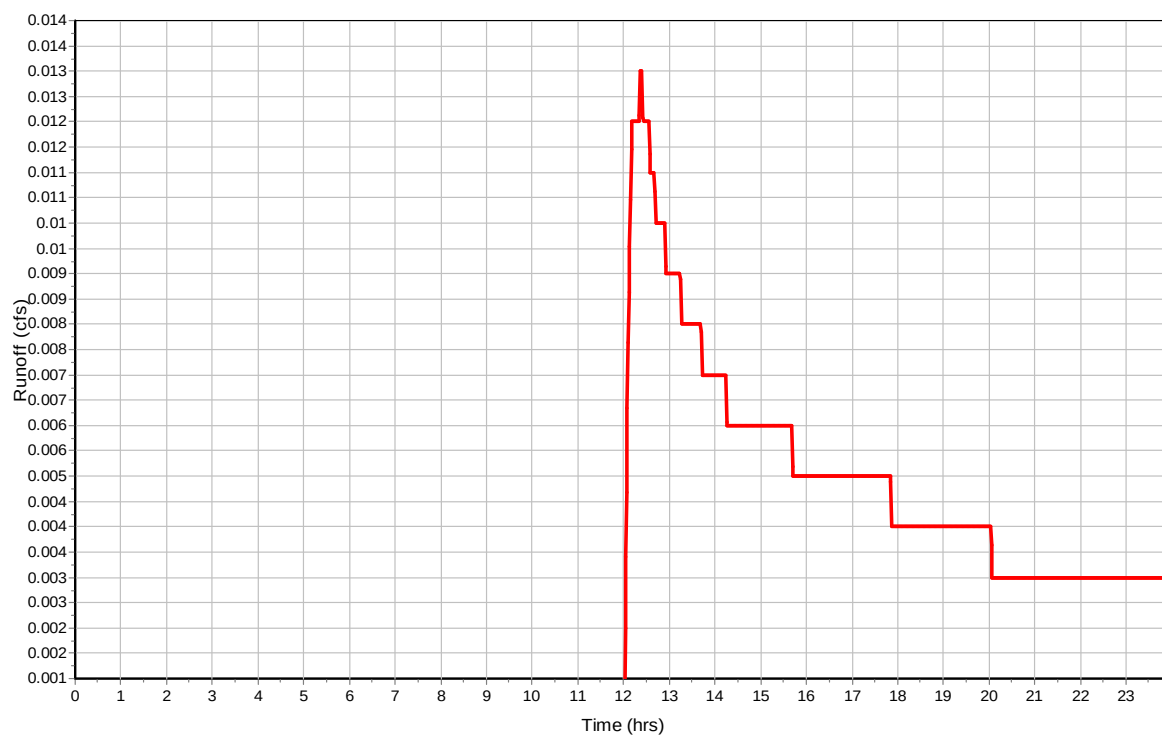
Total Rainfall (in)	1.17
Total Runoff (in)	0.06
Peak Runoff (cfs)	0.01
Weighted Curve Number	74
Time of Concentration (days hh:mm:ss)	0 00:16:26

Subbasin : Sub-35

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-37

Input Data

Area (ac) 1.28
Peak Rate Factor 484
Weighted Curve Number 80.75
Rain Gage ID MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
> 75% grass cover, Good		0.26	C	74
1/4 acre lots, 38% impervious		0.77	C	83
Composite Area & Weighted CN		1.03		80.75

Time of Concentration

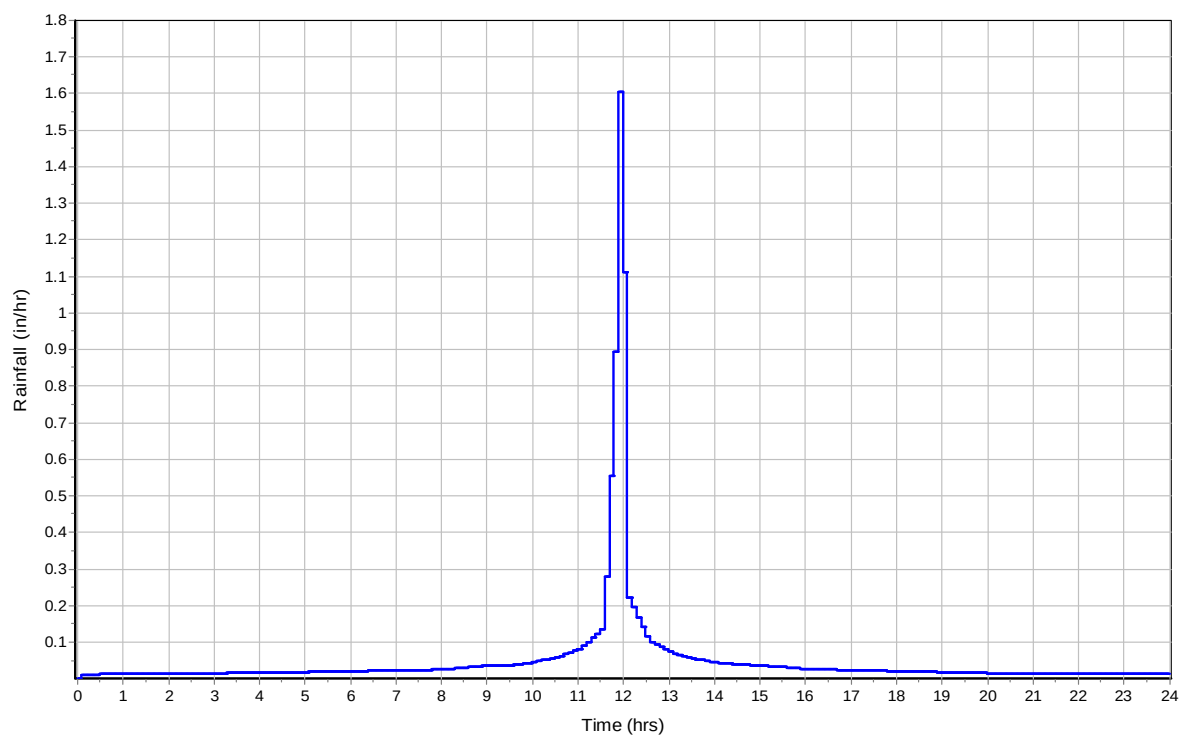
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0
Flow Length (ft) :	150	25	0
Slope (%) :	10	2	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.17	0.64	0
Computed Flow Time (min) :	14.63	0.65	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	225	0	0
Slope (%) :	4.5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.31	0	0
Computed Flow Time (min) :	0.87	0	0
Total TOC (min)16.16			

Subbasin Runoff Results

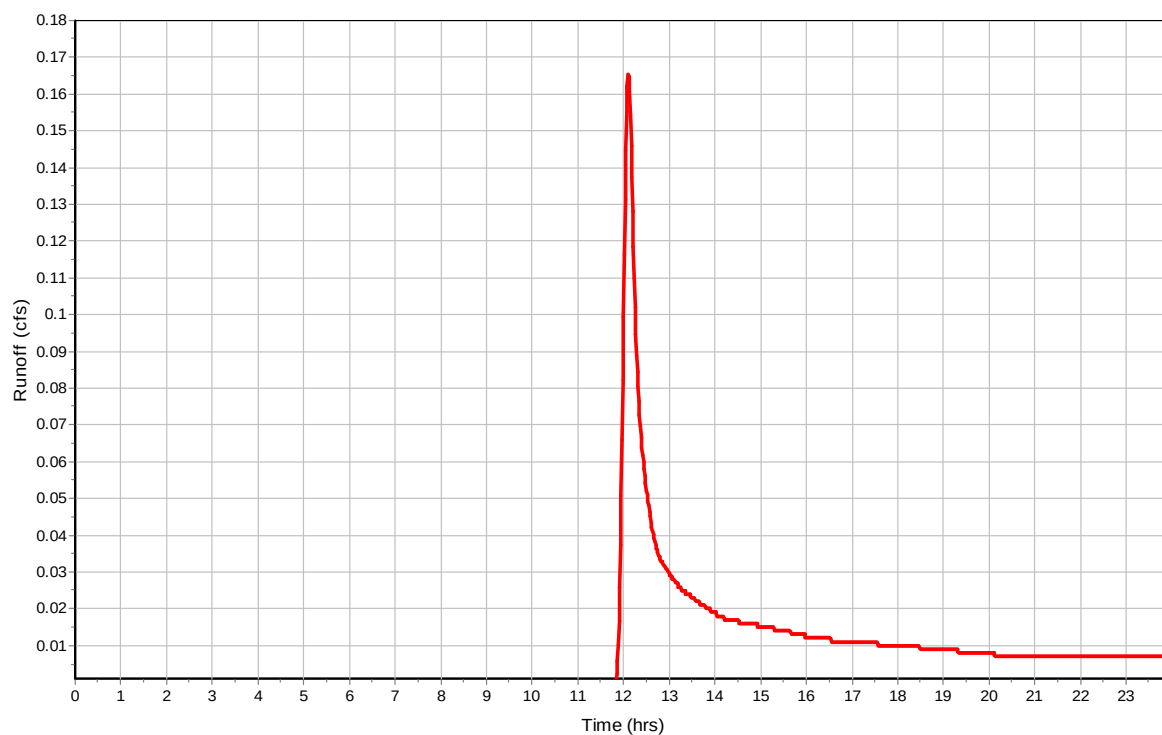
Total Rainfall (in) 1.17
Total Runoff (in) 0.16
Peak Runoff (cfs) 0.17
Weighted Curve Number 80.75
Time of Concentration (days hh:mm:ss) 0 00:16:10

Subbasin : Sub-37

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-38

Input Data

Area (ac)	1.77
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		1.83	B	75
Composite Area & Weighted CN		1.83		75

Time of Concentration

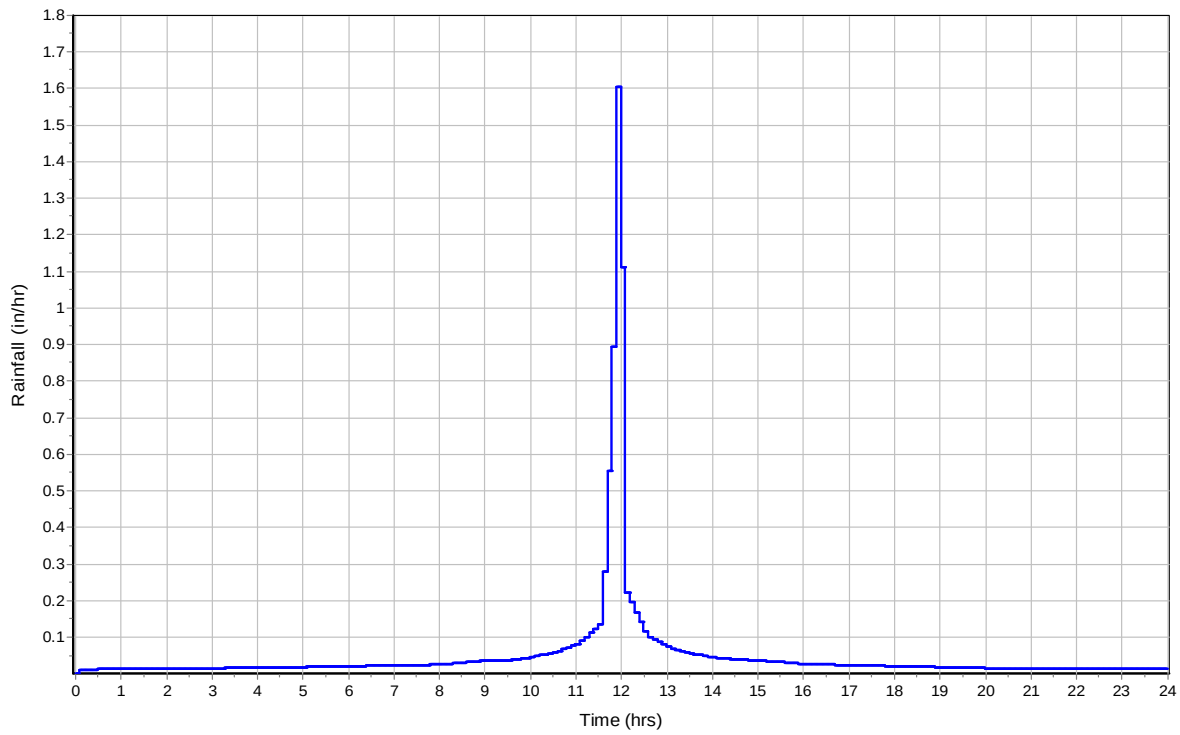
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0
Flow Length (ft) :	150	25	0
Slope (%) :	10	2	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.17	0.64	0
Computed Flow Time (min) :	14.63	0.65	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	130	260	0
Slope (%) :	8	4.3	0
Surface Type :	Paved	Paved	Unpaved
Velocity (ft/sec) :	5.75	4.22	0
Computed Flow Time (min) :	0.38	1.03	0
Total TOC (min)	16.69		

Subbasin Runoff Results

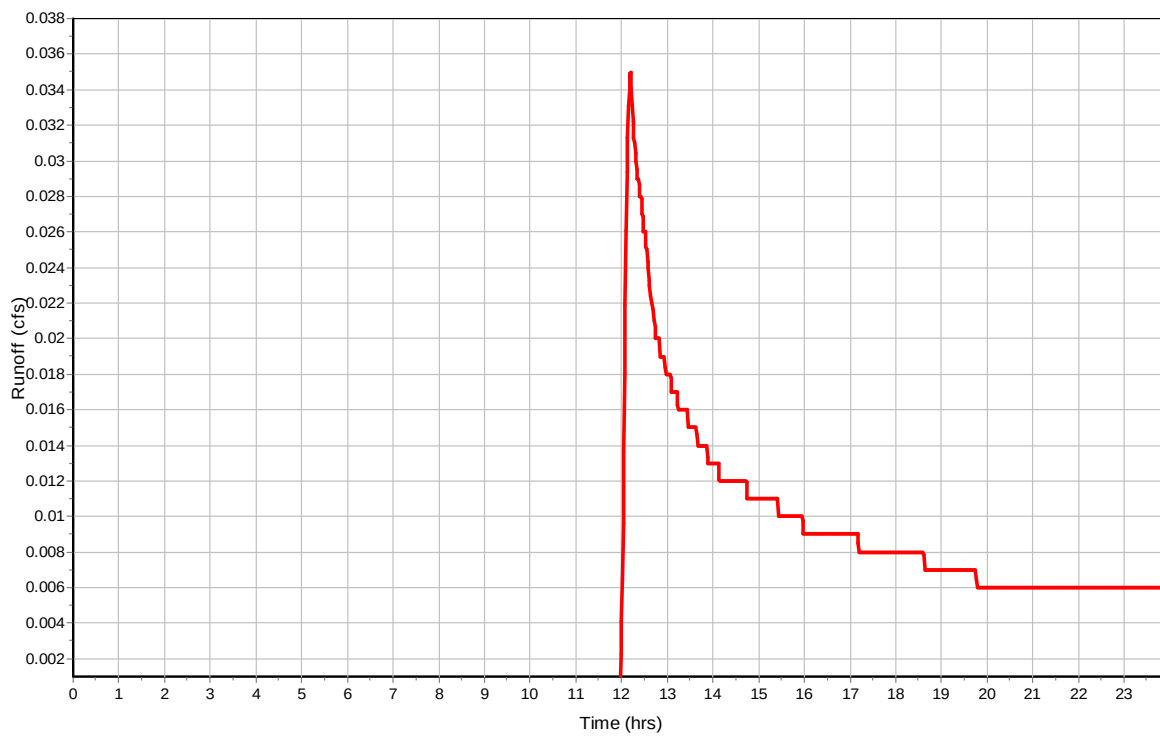
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.03
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:16:41

Subbasin : Sub-38

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-39

Input Data

Area (ac)	0.1
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.1	B	98
Composite Area & Weighted CN		0.1		98

Time of Concentration

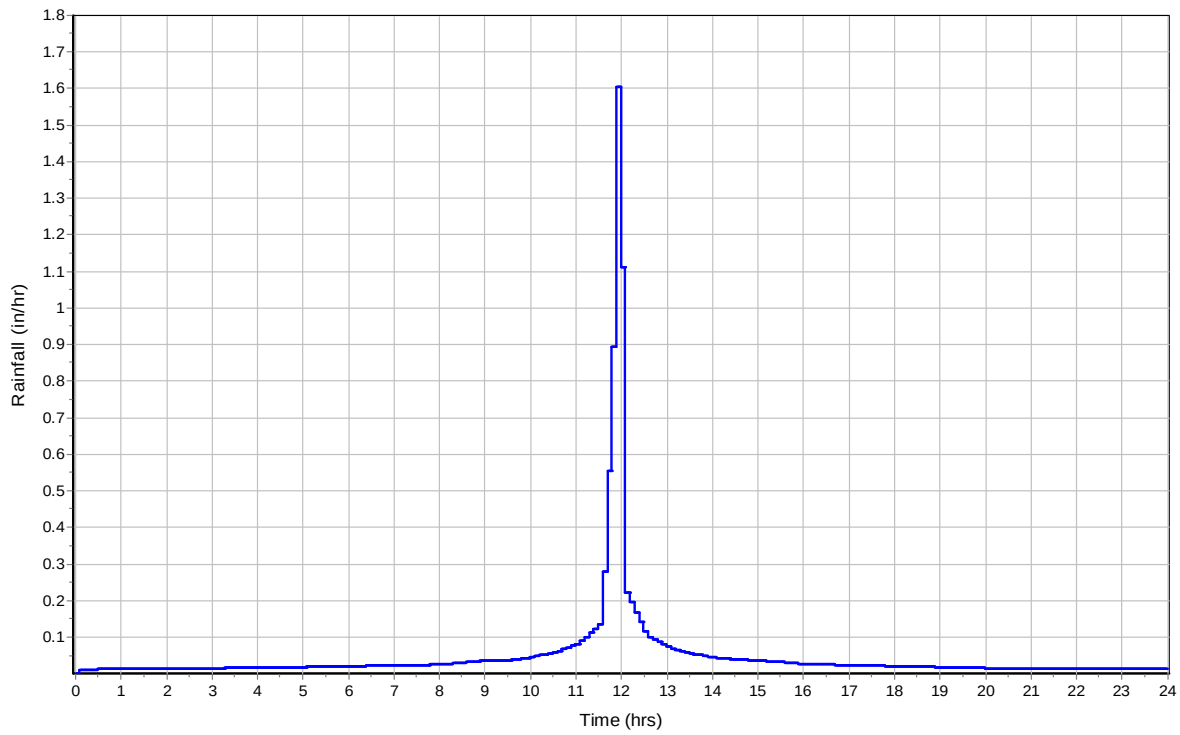
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	235	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	0.68	0	0
Total TOC (min)	1.33		

Subbasin Runoff Results

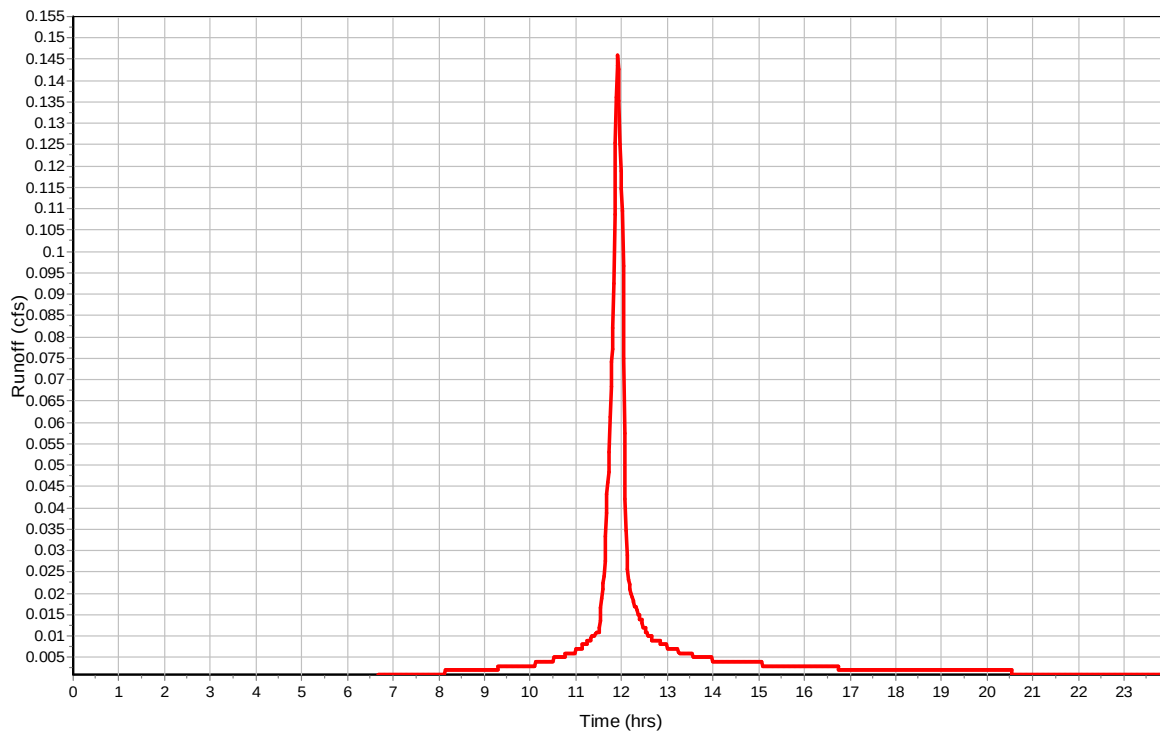
Total Rainfall (in)	1.17
Total Runoff (in)	0.94
Peak Runoff (cfs)	0.15
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:20

Subbasin : Sub-39

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-40

Input Data

Area (ac)	0.12
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.12	B	98
Composite Area & Weighted CN		0.12		98

Time of Concentration

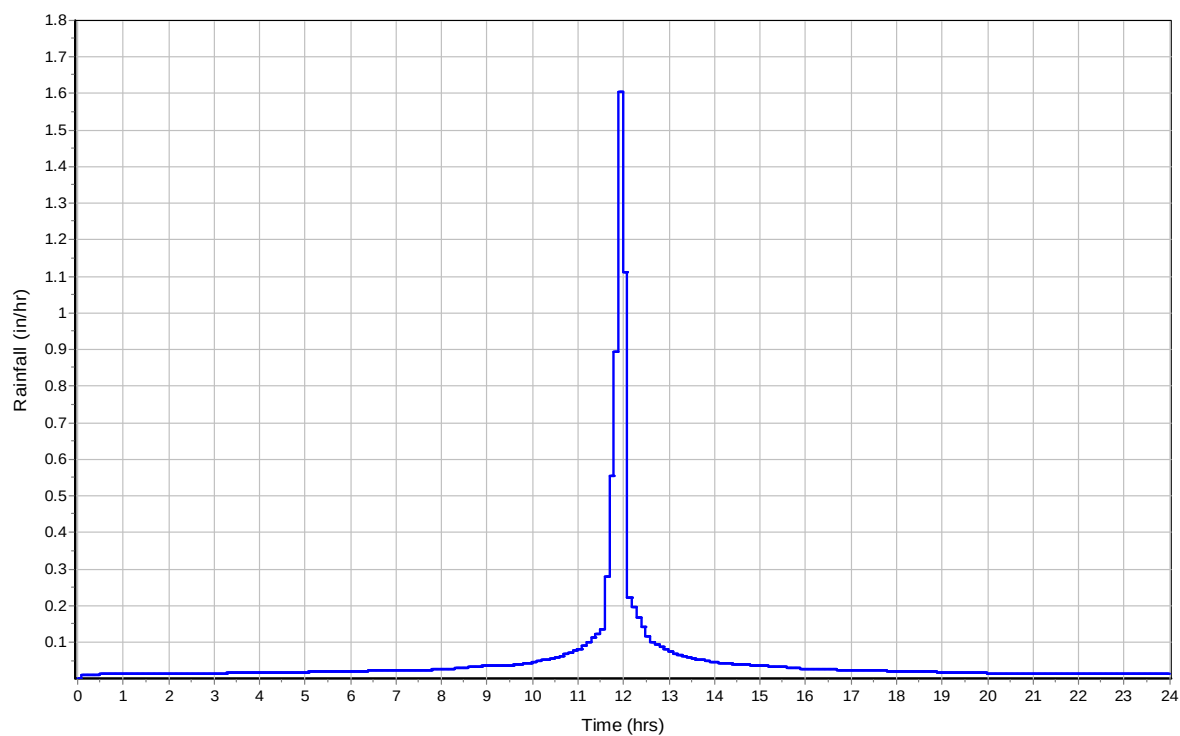
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	270	0	0
Slope (%) :	8	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.75	0	0
Computed Flow Time (min) :	0.78	0	0
Total TOC (min)	1.44		

Subbasin Runoff Results

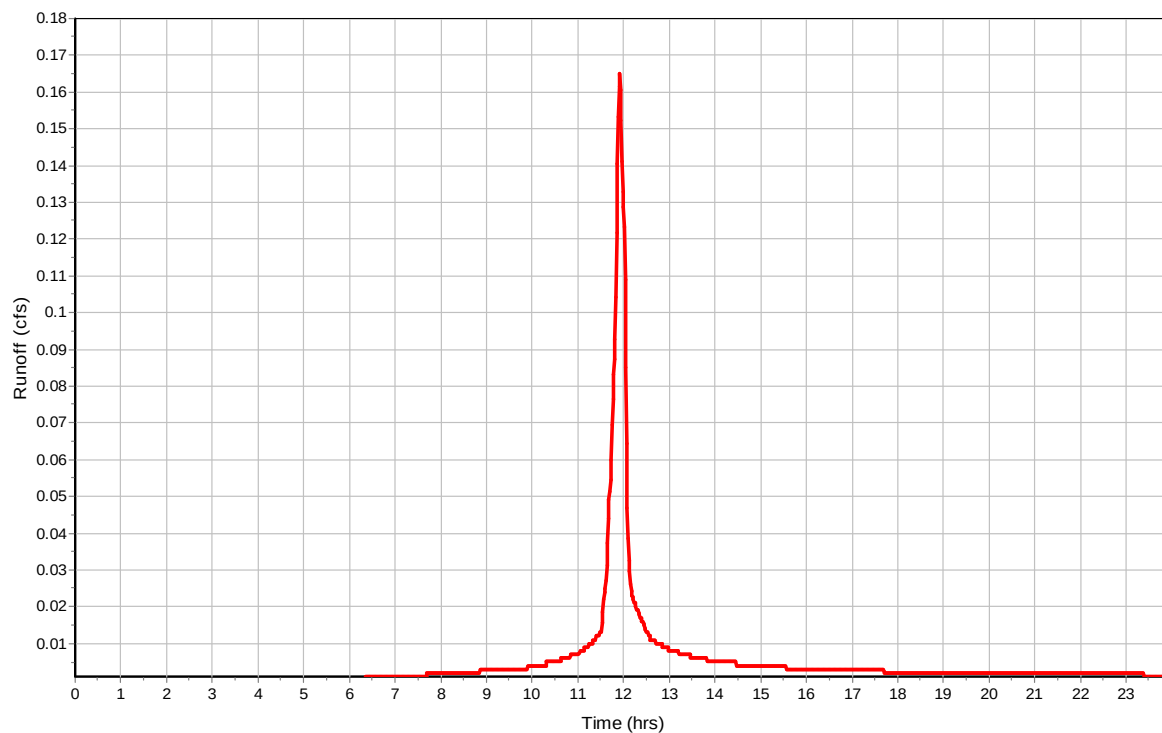
Total Rainfall (in)	1.17
Total Runoff (in)	0.94
Peak Runoff (cfs)	0.16
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:26

Subbasin : Sub-40

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-41

Input Data

Area (ac)	0.18
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.36	B	75
Composite Area & Weighted CN		0.36		75

Time of Concentration

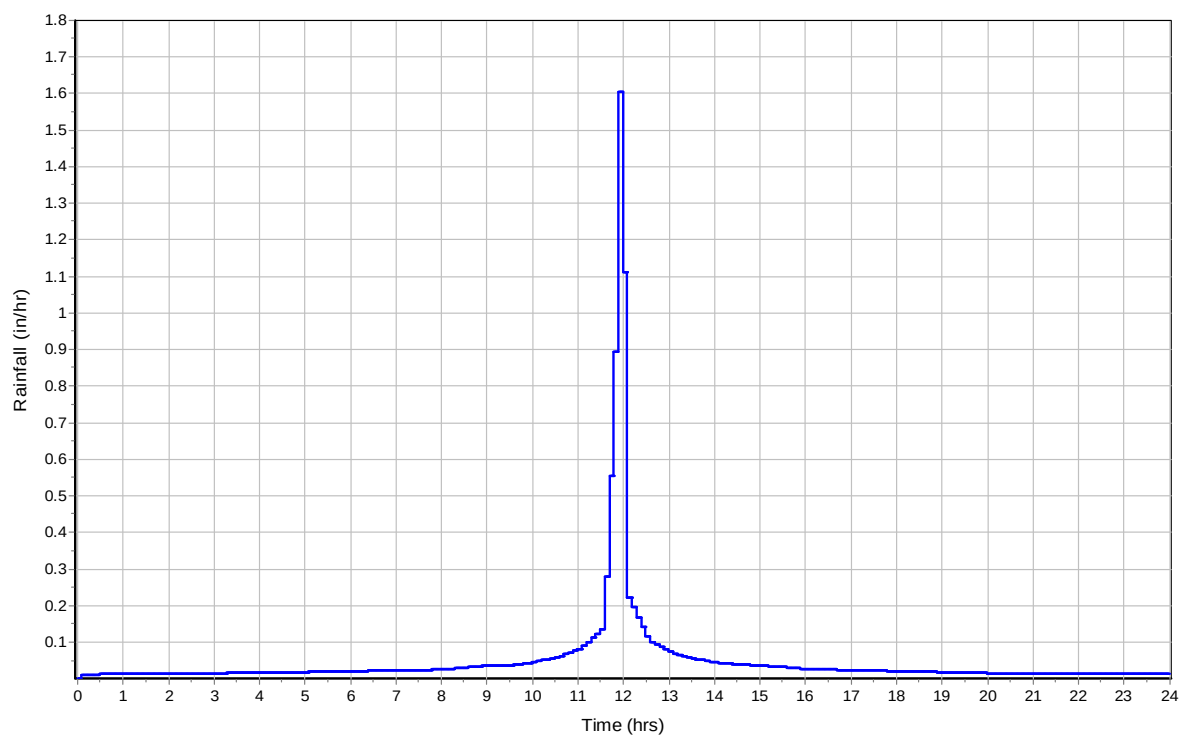
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0
Flow Length (ft) :	150	25	0
Slope (%) :	12	2	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.18	0.64	0
Computed Flow Time (min) :	13.6	0.65	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	115	0	0
Slope (%) :	7.5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	5.57	0	0
Computed Flow Time (min) :	0.34	0	0
Total TOC (min)	14.60		

Subbasin Runoff Results

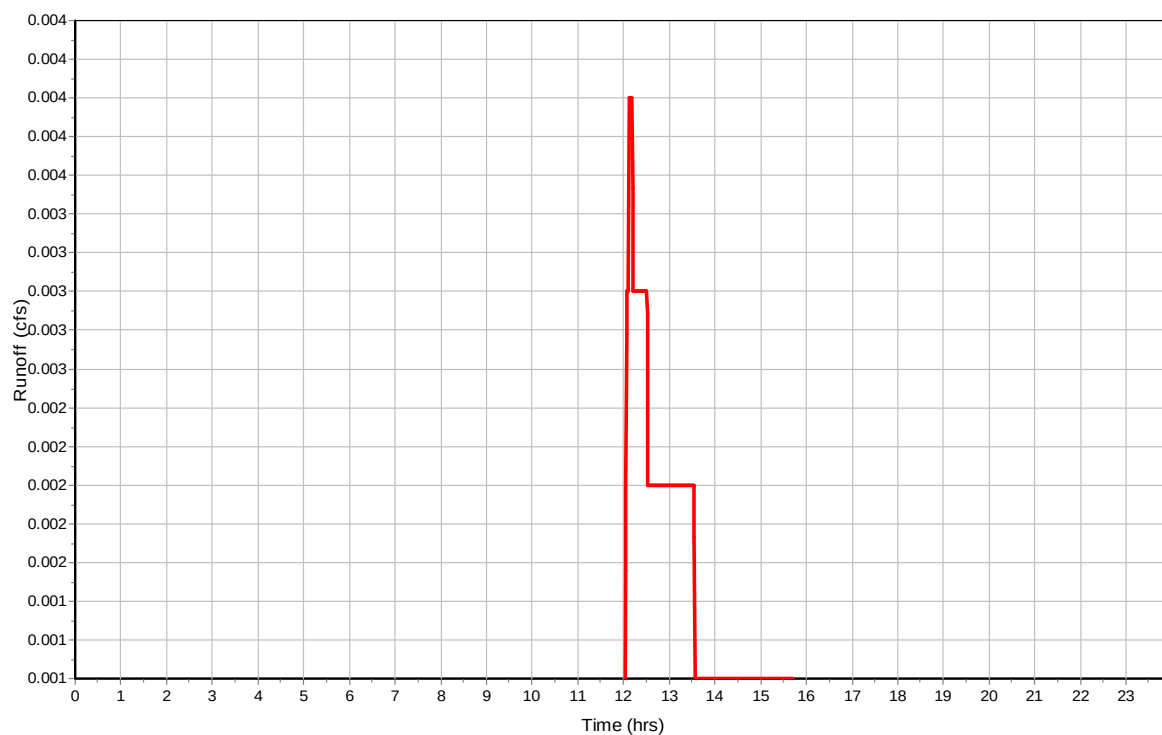
Total Rainfall (in)	1.17
Total Runoff (in)	0.03
Peak Runoff (cfs)	0
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:14:36

Subbasin : Sub-41

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-43

Input Data

Area (ac)	0.77
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.77	B	75
Composite Area & Weighted CN		0.77		75

Time of Concentration

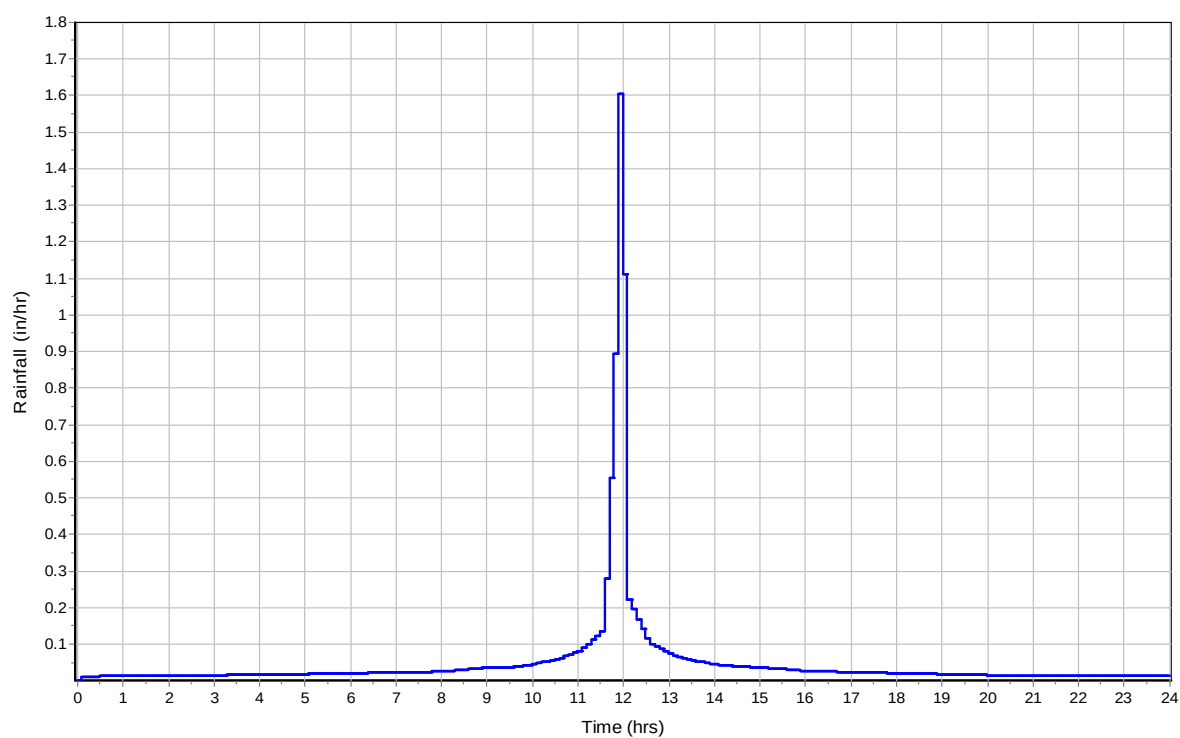
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0
Flow Length (ft) :	150	25	0
Slope (%) :	20	2	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.23	0.64	0
Computed Flow Time (min) :	11.09	0.65	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	300	0	0
Slope (%) :	9.5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	6.27	0	0
Computed Flow Time (min) :	0.8	0	0
Total TOC (min)	12.54		

Subbasin Runoff Results

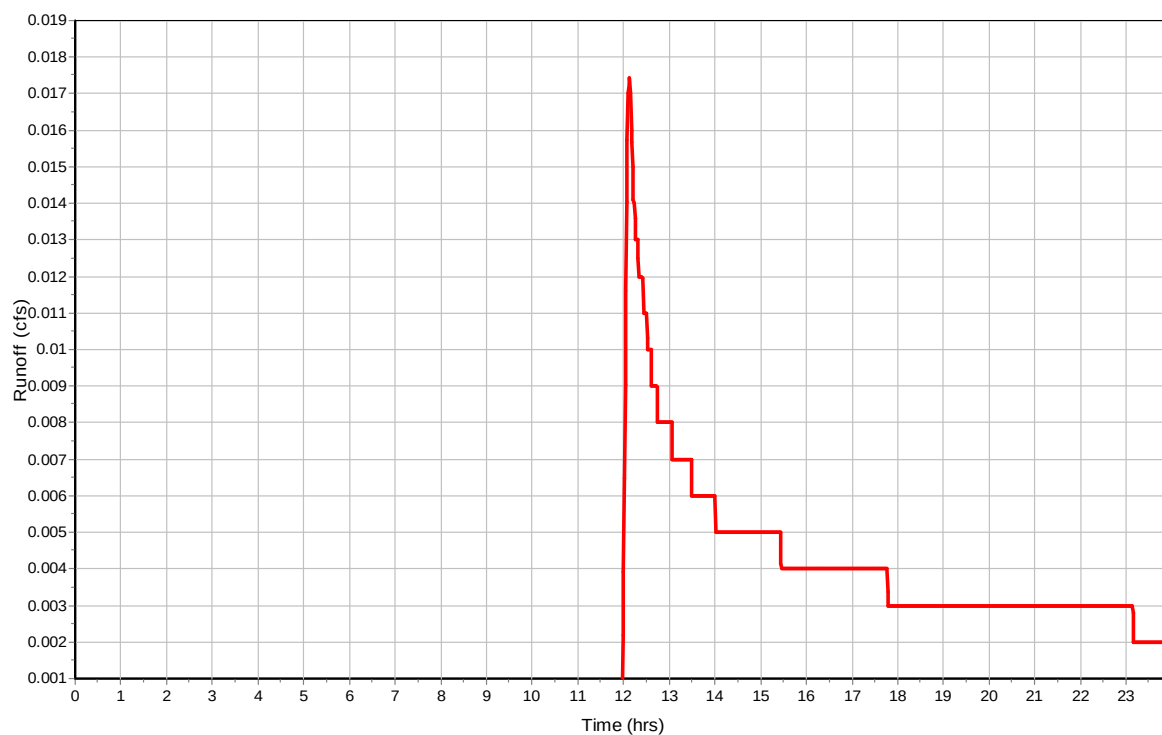
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.02
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:12:32

Subbasin : Sub-43

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-44

Input Data

Area (ac)	0.13
Peak Rate Factor	484
Weighted Curve Number	98
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
Paved parking & roofs		0.13	B	98
Composite Area & Weighted CN		0.13		98

Time of Concentration

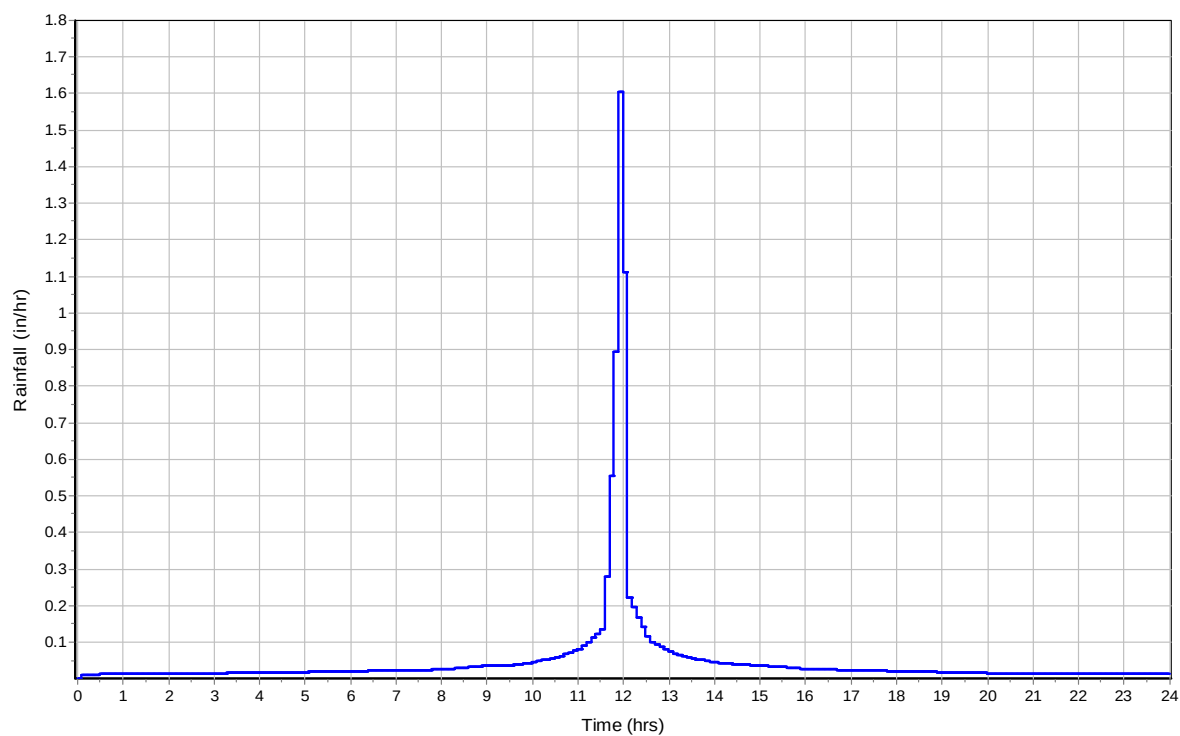
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.011	0	0
Flow Length (ft) :	25	0	0
Slope (%) :	2	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.64	0	0
Computed Flow Time (min) :	0.65	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	325	0	0
Slope (%) :	9.5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	6.27	0	0
Computed Flow Time (min) :	0.86	0	0
Total TOC (min)	1.52		

Subbasin Runoff Results

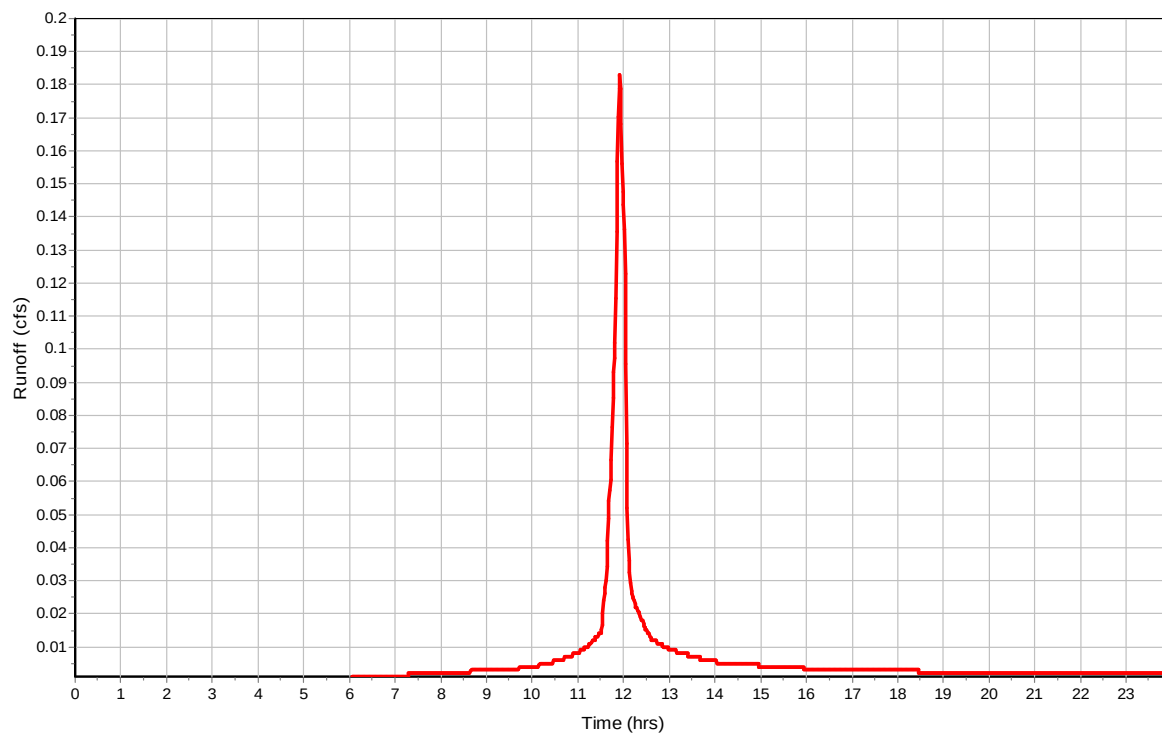
Total Rainfall (in)	1.17
Total Runoff (in)	0.95
Peak Runoff (cfs)	0.18
Weighted Curve Number	98
Time of Concentration (days hh:mm:ss)	0 00:01:31

Subbasin : Sub-44

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-45

Input Data

Area (ac)	1.35
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		1.35	B	75
Composite Area & Weighted CN		1.35		75

Time of Concentration

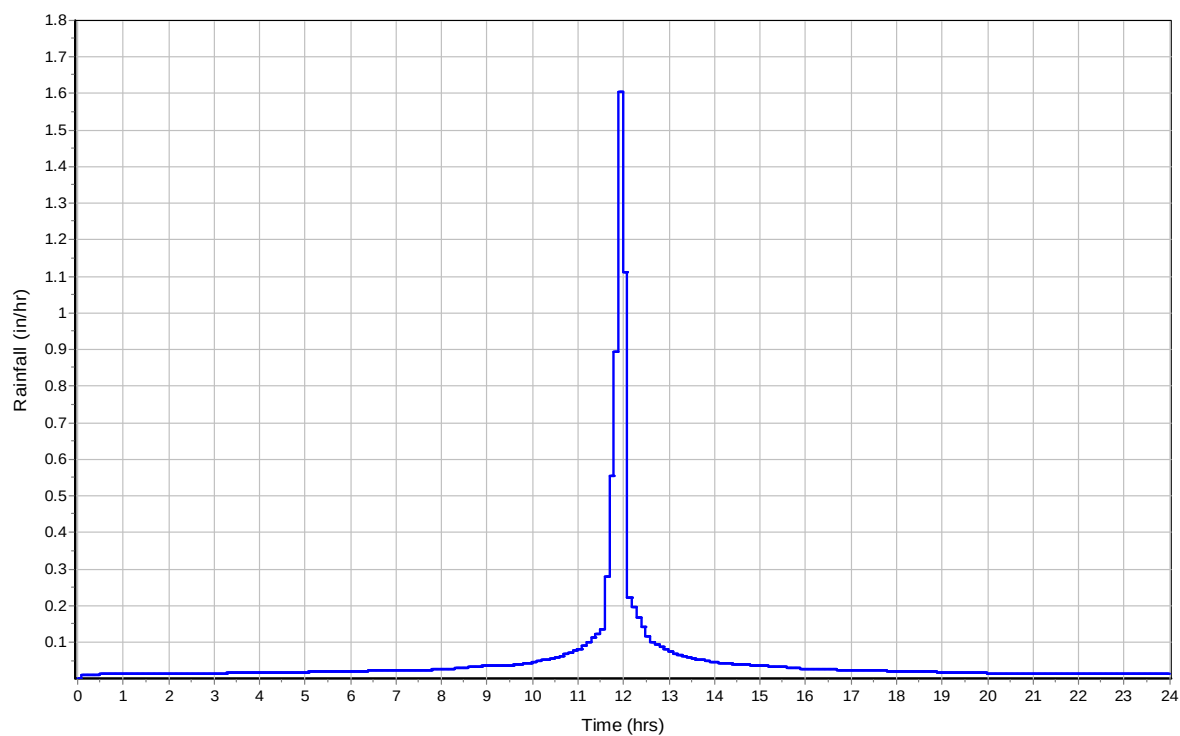
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.05	0.011
Flow Length (ft) :	150	100	25
Slope (%) :	20	50	2
2 yr, 24 hr Rainfall (in) :	1.2	1.2	1.2
Velocity (ft/sec) :	0.23	0.91	0.64
Computed Flow Time (min) :	11.09	1.83	0.65
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	200	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	0.73	0	0
Total TOC (min)	14.31		

Subbasin Runoff Results

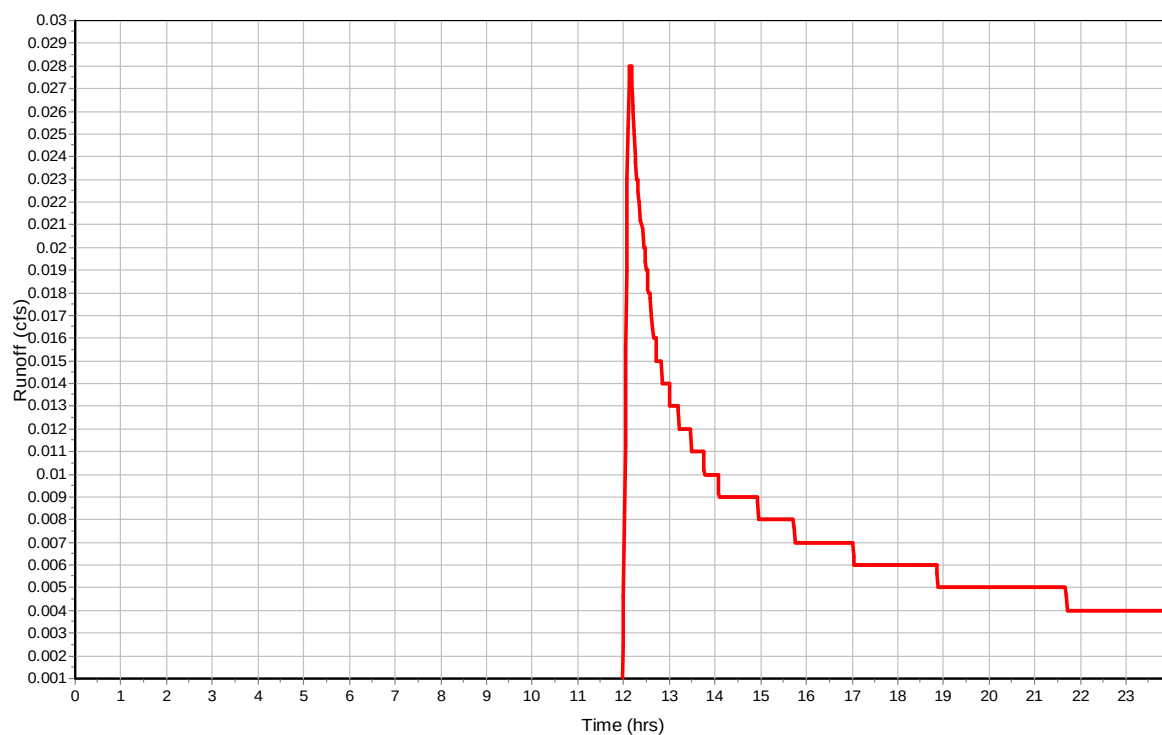
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.03
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:14:19

Subbasin : Sub-45

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-46

Input Data

Area (ac) 0.33
 Peak Rate Factor 484
 Weighted Curve Number 75
 Rain Gage ID MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.33	B	75
Composite Area & Weighted CN		0.33		75

Time of Concentration

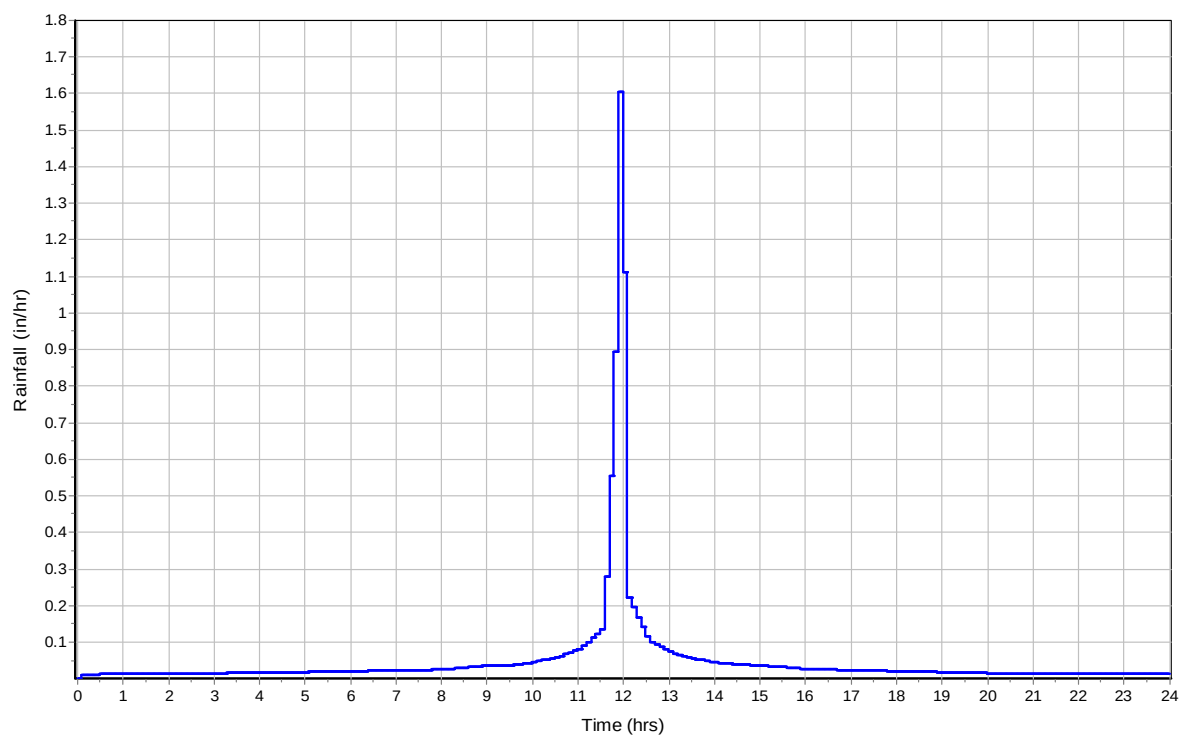
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0.011	0
Flow Length (ft) :	150	25	0
Slope (%) :	20	2	0
2 yr, 24 hr Rainfall (in) :	1.2	1.2	0
Velocity (ft/sec) :	0.23	0.64	0
Computed Flow Time (min) :	11.09	0.65	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	225	0	0
Slope (%) :	5	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	4.55	0	0
Computed Flow Time (min) :	0.82	0	0
Total TOC (min)	12.57		

Subbasin Runoff Results

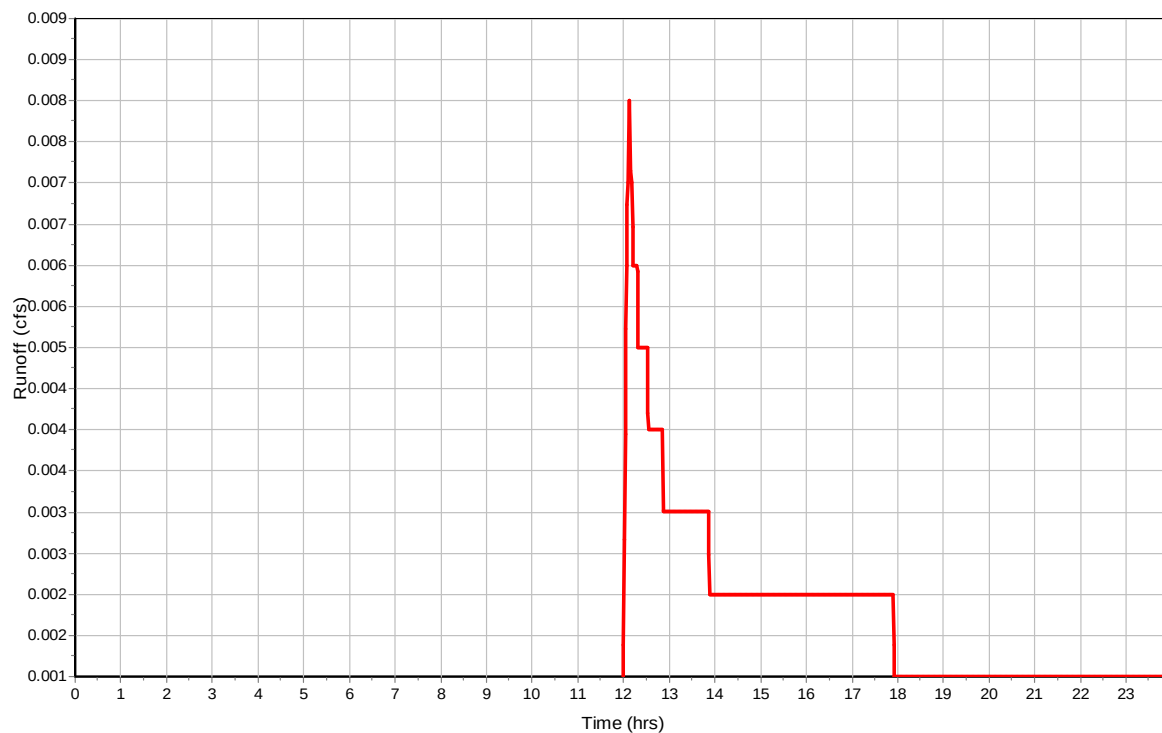
Total Rainfall (in) 1.17
 Total Runoff (in) 0.07
 Peak Runoff (cfs) 0.01
 Weighted Curve Number 75
 Time of Concentration (days hh:mm:ss) 0 00:12:34

Subbasin : Sub-46

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-47

Input Data

Area (ac)	2.99
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		2.99	B	75
Composite Area & Weighted CN		2.99		75

Time of Concentration

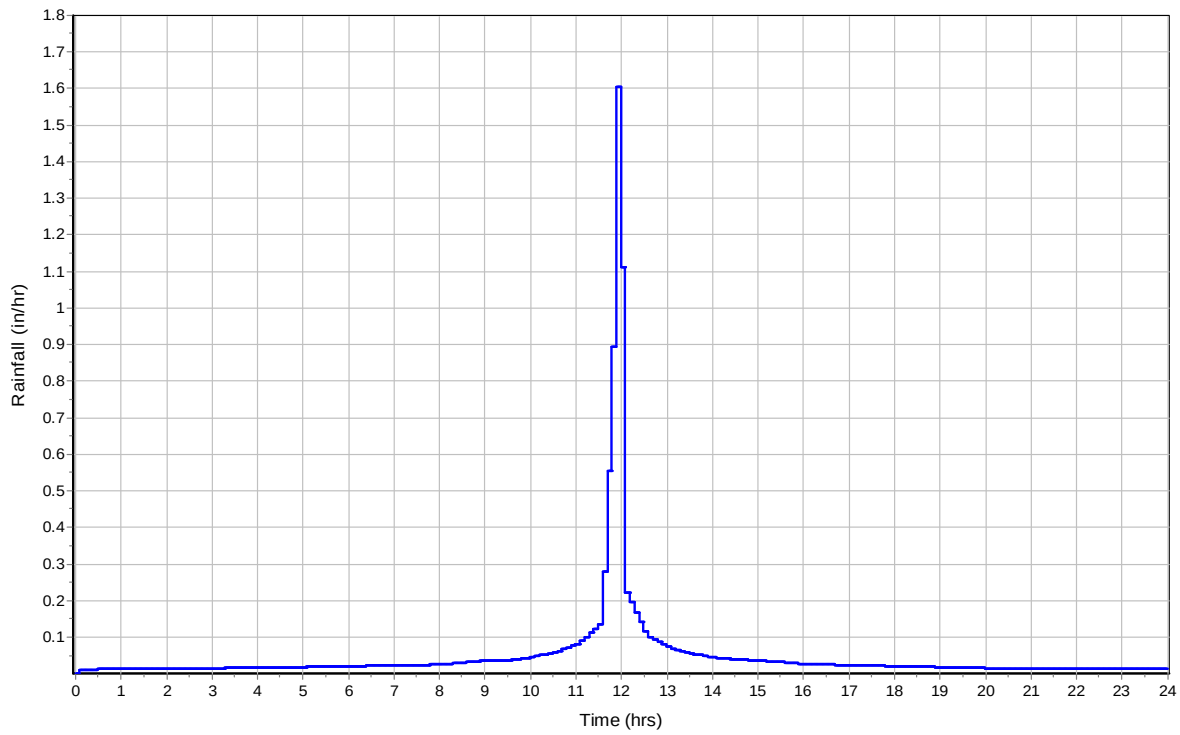
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.2	0	0
Flow Length (ft) :	150	0	0
Slope (%) :	16	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.21	0	0
Computed Flow Time (min) :	12.13	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	450	0	0
Slope (%) :	20	0	0
Surface Type :	Paved	Unpaved	Unpaved
Velocity (ft/sec) :	9.09	0	0
Computed Flow Time (min) :	0.83	0	0
Total TOC (min)	12.95		

Subbasin Runoff Results

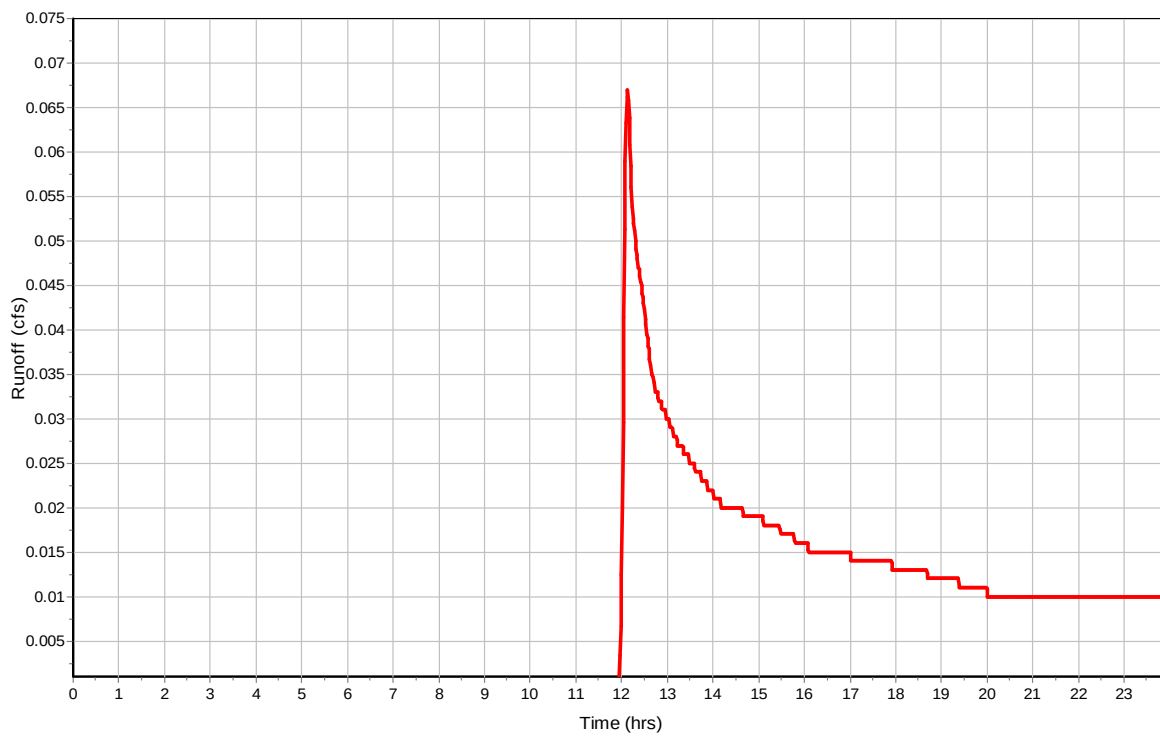
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.07
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:12:57

Subbasin : Sub-47

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Sub-48

Input Data

Area (ac)	1.66
Peak Rate Factor	484
Weighted Curve Number	75
Rain Gage ID	MC-100Y-24H

Composite Curve Number

	32	Area	Soil	Curve
Soil/Surface Description		(acres)	Group	Number
1/4 acre lots, 38% impervious		0.97	B	75
Composite Area & Weighted CN		0.97		75

Time of Concentration

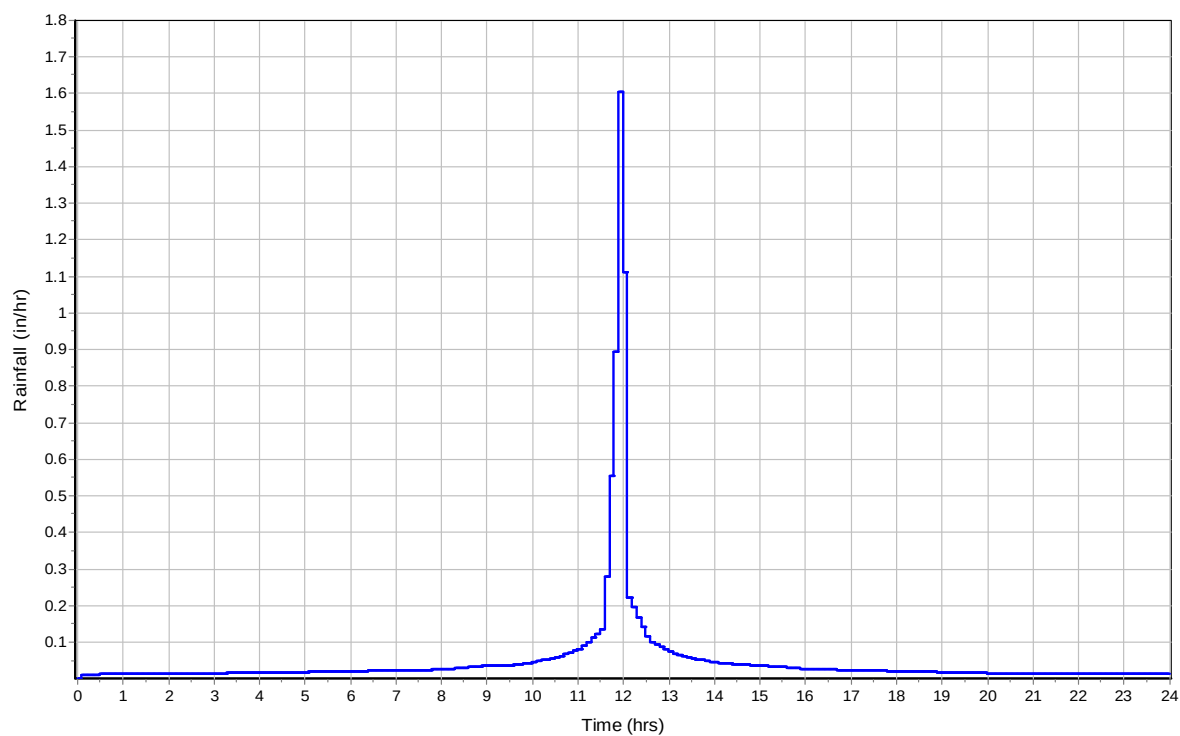
	Subarea	Subarea	Subarea
	A	B	C
Sheet Flow Computations			
Manning's Roughness :	0.1	0	0
Flow Length (ft) :	60	0	0
Slope (%) :	13	0	0
2 yr, 24 hr Rainfall (in) :	1.2	0	0
Velocity (ft/sec) :	0.28	0	0
Computed Flow Time (min) :	3.64	0	0
	Subarea	Subarea	Subarea
	A	B	C
Shallow Concentrated Flow Computations			
Flow Length (ft) :	800	0	0
Slope (%) :	9	0	0
Surface Type :	Unpaved	Unpaved	Unpaved
Velocity (ft/sec) :	4.84	0	0
Computed Flow Time (min) :	2.75	0	0
Total TOC (min)	6.39		

Subbasin Runoff Results

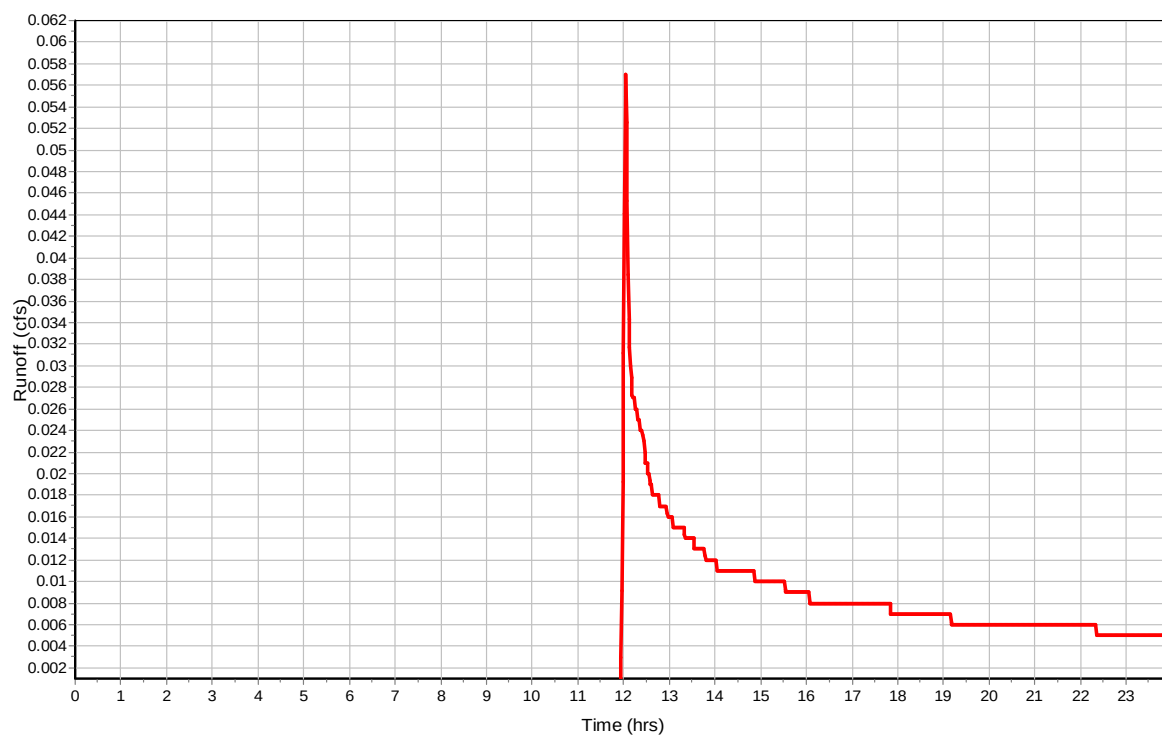
Total Rainfall (in)	1.17
Total Runoff (in)	0.07
Peak Runoff (cfs)	0.06
Weighted Curve Number	75
Time of Concentration (days hh:mm:ss)	0 00:06:23

Subbasin : Sub-48

Rainfall Intensity Graph



Runoff Hydrograph



Junction Input

SN Element ID	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Ground/Rim (Max) Offset (ft)	Initial Water Elevation (ft)	Initial Water Depth (ft)	Surcharge Elevation (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Minimum Pipe Cover (in)
1 18-Jun	3232.80	3238.00	5.20	3232.80	0.00	3238.00	0.00	0.00	0.00
2 19-Jun	3195.00	3196.00	1.00	3195.00	0.00	3196.00	0.00	0.00	0.00
3 28-Jun	3325.00	3327.25	2.25	3325.00	0.00	3327.25	0.00	0.00	0.00
4 29-Jun	3390.00	3394.00	4.00	3390.00	0.00	3394.00	0.00	0.00	0.00
5 MH-1	3354.80	3358.02	3.22	3354.80	0.00	3358.02	0.00	0.00	0.00
6 MH-2	3352.99	3356.22	3.23	3352.99	0.00	3356.22	0.00	0.00	0.00
7 MH-4	3344.55	3348.54	3.99	3344.55	0.00	3348.54	0.00	0.00	0.00
8 MH-5	3339.44	3345.44	6.00	3339.44	0.00	3345.44	0.00	0.00	0.00
9 MH-6	3312.20	3315.82	3.62	3312.20	0.00	3315.82	0.00	0.00	0.00
10 MH-7	3307.05	3310.51	3.46	3307.05	0.00	3310.51	0.00	0.00	0.00
11 MH-8	3295.62	3298.85	3.23	3295.62	0.00	3298.85	0.00	0.00	0.00
12 MH-9	3271.80	3278.39	6.59	3271.80	0.00	3278.39	0.00	0.00	0.00
13 NULL-JUNCTION-2	3357.00	3357.50	0.50	3357.00	0.00	3357.50	0.00	0.00	0.00
14 NULL-JUNCTION-4	3334.55	3335.55	1.00	3334.55	0.00	3335.55	0.00	0.00	0.00
15 NULL-JUNCTION-6	3318.00	3319.00	1.00	3318.00	0.00	3319.00	0.00	0.00	0.00
16 NULL-JUNCTION-7	3310.00	3312.00	2.00	3310.00	0.00	3311.00	-1.00	0.00	0.00
17 NULL-JUNCTION-8	3263.60	3265.80	2.20	3263.60	0.00	3265.80	0.00	0.00	0.00
18 UPPERPOND-DRAIN	3338.72	3343.00	4.28	3338.72	0.00	3343.00	0.00	0.00	0.00

Junction Results

SN	Element ID	Peak Inflow	Peak Lateral Inflow	Max HGL Elevation Attained	Max HGL Depth Attained	Max Surcharge Depth Attained	Min Freeboard Attained	Average HGL Elevation Attained	Average HGL Depth Attained	Time of Max HGL Occurrence	Time of Peak Flooding Occurrence	Total Flooded Volume	Total Time Flooded
		(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(days hh:mm)	(days hh:mm)	(ac-in)	(min)
1	18-Jun	0.00	0.00	3232.80	0.00	0.00	5.20	3232.80	0.00	0 00:00	0 00:00	0.00	0.00
2	19-Jun	0.00	0.00	3195.00	0.00	0.00	1.50	3195.00	0.00	0 00:00	0 00:00	0.00	0.00
3	28-Jun	1.20	0.00	3325.40	0.40	0.00	1.85	3325.07	0.07	0 12:05	0 00:00	0.00	0.00
4	29-Jun	0.13	0.00	3390.09	0.09	0.00	3.91	3390.02	0.02	0 11:57	0 00:00	0.00	0.00
5	MH-1	0.35	0.00	3354.96	0.16	0.00	3.06	3354.83	0.03	0 11:57	0 00:00	0.00	0.00
6	MH-2	0.35	0.00	3353.14	0.15	0.00	3.08	3353.02	0.03	0 11:57	0 00:00	0.00	0.00
7	MH-4	0.58	0.00	3344.72	0.17	0.00	3.82	3344.58	0.03	0 11:57	0 00:00	0.00	0.00
8	MH-5	0.58	0.00	3339.66	0.22	0.00	5.78	3339.48	0.04	0 11:57	0 00:00	0.00	0.00
9	MH-6	0.21	0.00	3312.31	0.11	0.00	3.51	3312.22	0.02	0 11:58	0 00:00	0.00	0.00
10	MH-7	0.44	0.00	3307.24	0.19	0.00	3.27	3307.08	0.03	0 12:02	0 00:00	0.00	0.00
11	MH-8	0.59	0.00	3295.77	0.15	0.00	3.08	3295.65	0.03	0 12:02	0 00:00	0.00	0.00
12	MH-9	3.43	0.00	3273.11	1.31	0.00	5.28	3272.15	0.35	0 12:04	0 00:00	0.00	0.00
13	NULL-JUNCTION-2	0.31	0.31	3357.16	0.16	0.00	0.34	3357.03	0.03	0 12:08	0 00:00	0.00	0.00
14	NULL-JUNCTION-4	0.52	0.26	3334.80	0.25	0.00	0.75	3334.59	0.04	0 12:06	0 00:00	0.00	0.00
15	NULL-JUNCTION-6	0.52	0.00	3318.27	0.27	0.00	0.73	3318.05	0.05	0 12:08	0 00:00	0.00	0.00
16	NULL-JUNCTION-7	1.51	0.00	3310.01	0.01	0.00	2.99	3310.00	0.00	0 12:04	0 00:00	0.00	0.00
17	NULL-JUNCTION-8	3.50	0.00	3263.97	0.37	0.00	3.83	3263.67	0.07	0 12:05	0 00:00	0.00	0.00
18	UPPERPOND-DRAIN	0.06	0.00	3339.83	1.11	0.00	3.17	3339.25	0.53	0 12:08	0 00:00	0.00	0.00

Channel Input

SN Element ID	Length	Inlet Invert Elevation	Inlet Invert Offset	Outlet Invert Elevation	Outlet Invert Offset	Total Drop	Average Shape Slope	Height	Width	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flap Flow Gate
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(%)	(ft)	(ft)					(cfs)
1 Link-08	371.10	3402.20	4.20	3372.89	5.89	29.31	7.9000 User-Defined	0.750	6.800	0.0110	0.5000	0.5000	0.0000	0.00 No
2 Link-09	124.79	3372.89	5.89	3366.79	8.60	6.09	4.8800 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
3 Link-10	180.90	3403.00	4.72	3400.12	3.22	2.88	1.5900 User-Defined	0.750	6.800	0.0110	0.5000	0.5000	0.0000	0.00 No
4 Link-11	255.89	3400.12	3.22	3388.50	3.50	11.62	4.5400 User-Defined	0.750	6.800	0.0110	0.5000	0.5000	0.0000	0.00 No
5 Link-12	118.17	3388.16	5.72	3373.31	4.31	14.85	12.5700 User-Defined	0.750	6.800	0.0110	0.5000	0.5000	0.0000	0.00 No
6 Link-13	200.58	3388.50	3.50	3372.80	4.18	15.70	7.8300 User-Defined	0.750	6.800	0.0110	0.5000	0.5000	0.0000	0.00 No
7 Link-14	472.63	3373.31	4.31	3341.74	6.74	31.57	6.6800 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
8 Link-15	466.28	3372.80	4.18	3342.11	6.31	30.69	6.5800 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
9 Link-17	487.39	3366.79	8.60	3329.23	10.47	37.56	7.7100 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
10 Link-18	235.85	3365.50	7.73	3353.43	4.43	12.07	5.1200 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
11 Link-19	179.99	3353.26	4.26	3350.66	3.94	2.60	1.4400 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
12 Link-20	164.38	3352.62	3.22	3340.53	3.03	12.09	7.3500 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
13 Link-21	339.32	3340.53	3.03	3329.21	10.03	11.32	3.3400 User-Defined	0.750	6.800	0.0110	0.5000	0.5000	0.0000	0.00 No
14 Link-22	514.74	3340.32	2.91	3319.20	11.29	21.11	4.1000 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
15 Link-24	190.92	3350.53	3.43	3340.27	7.27	10.26	5.3700 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
16 Link-25	217.66	3350.66	3.94	3341.74	6.74	8.92	4.1000 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
17 Link-26	336.59	3340.27	7.27	3326.57	3.57	13.70	4.0700 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
18 Link-27	385.36	3342.11	6.31	3326.40	3.79	15.71	4.0800 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
19 Link-28	173.32	3326.57	3.57	3319.82	3.67	6.75	3.8900 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
20 Link-29	169.99	3326.40	3.79	3319.92	6.92	6.48	3.8100 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
21 Link-30	262.89	3319.82	3.67	3311.08	6.86	8.74	3.3200 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
22 Link-31	266.64	3320.05	7.05	3308.85	5.09	11.20	4.2000 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
23 Link-32	216.58	3329.23	10.47	3319.24	11.69	9.99	4.6100 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
24 Link-33	130.77	3319.24	11.69	3309.21	4.53	10.03	7.6700 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
25 Link-34	132.41	3319.20	11.29	3311.08	6.86	8.12	6.1300 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
26 Link-35	297.09	3308.85	5.09	3281.51	5.63	27.34	9.2000 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
27 Link-36	249.29	3309.21	4.53	3291.00	1.00	18.21	7.3000 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
28 Link-38	138.92	3281.55	3.00	3275.53	8.73	6.02	4.3400 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
29 Link-39	127.19	3281.51	5.63	3276.79	4.69	4.72	3.7100 Trapezoidal	0.500	25.350	0.0110	0.5000	0.5000	0.0000	0.00 No
30 Link-74	464.71	3357.00	0.00	3335.00	0.45	22.00	4.7300 Triangular	0.500	6.000	0.0320	0.5000	0.5000	0.0000	0.00 No
31 Link-77	256.93	3330.00	-4.55	3315.00	-3.00	15.00	5.8400 Triangular	1.000	6.000	0.0320	0.5000	0.5000	0.0000	0.00 No
32 Link-79	217.18	3315.00	-3.00	3309.00	3.00	6.00	2.7600 Triangular	1.000	6.000	0.0320	0.5000	0.5000	0.0000	0.00 No
33 Link-82	135.46	3345.00	2.00	3341.74	6.74	3.26	2.4100 User-Defined	0.750	6.800	0.0320	0.5000	0.5000	0.0000	0.00 No
34 Link-90	143.54	3195.00	0.00	3190.00	0.00	5.00	3.4800 Triangular	1.500	6.000	0.0320	0.5000	0.5000	0.0000	0.00 No

Channel Results

SN	Element ID	Peak Flow	Time of Peak Flow Occurrence	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Travel Time	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
		(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)		(min)		
1	Link-08	0.06	0 11:56	80.09	0.00	4.40	1.41	0.05	0.00		
2	Link-09	0.02	0 11:56	89.87	0.00	2.15	0.97	0.03	0.00		
3	Link-10	0.01	0 12:10	34.91	0.00	1.19	2.53	0.04	0.00		
4	Link-11	0.01	0 12:12	58.96	0.00	1.48	2.88	0.04	0.00		
5	Link-12	0.08	0 11:56	98.09	0.00	4.78	0.41	0.06	0.00		
6	Link-13	0.01	0 12:12	77.41	0.00	1.65	2.03	0.04	0.00		
7	Link-14	0.05	0 11:56	87.67	0.00	3.26	2.42	0.08	0.00		
8	Link-15	0.05	0 12:05	86.97	0.00	2.27	3.42	0.06	0.00		
9	Link-17	0.01	0 12:05	96.32	0.00	1.62	5.01	0.03	0.00		
10	Link-18	0.07	0 11:56	65.30	0.00	1.96	2.01	0.07	0.00		
11	Link-19	0.03	0 11:56	40.77	0.00	1.50	2.00	0.05	0.00		
12	Link-20	0.05	0 11:56	91.72	0.00	0.92	2.98	0.09	0.00		
13	Link-21	0.04	0 11:57	64.75	0.00	4.21	1.34	0.04	0.00		
14	Link-22	0.03	0 11:56	81.13	0.00	4.00	2.14	0.03	0.00		
15	Link-24	0.03	0 11:56	77.86	0.00	1.95	1.63	0.05	0.00		
16	Link-25	0.01	0 12:04	68.67	0.00	1.21	3.00	0.07	0.00		
17	Link-26	0.01	0 11:57	68.98	0.00	1.71	3.28	0.03	0.00		
18	Link-27	0.07	0 11:56	68.62	0.00	1.82	3.53	0.08	0.00		
19	Link-28	0.00	0 12:24	67.53	0.00	0.75	3.85	0.05	0.00		
20	Link-29	0.09	0 11:56	66.12	0.00	2.10	1.35	0.08	0.00		
21	Link-30	0.05	0 12:07	67.14	0.00	2.95	1.49	0.05	0.00		
22	Link-31	0.07	0 11:56	68.71	0.00	2.07	2.15	0.07	0.00		
23	Link-32	0.01	0 12:11	78.37	0.00	1.39	2.60	0.03	0.00		
24	Link-33	0.01	0 12:11	54.05	0.00	1.23	1.77	0.03	0.00		
25	Link-34	0.00	0 00:00	42.21	0.00	0.00		0.02	0.00		
26	Link-35	0.07	0 11:56	102.24	0.00	2.84	1.74	0.06	0.00		
27	Link-36	0.00	0 12:11	89.02	0.00	0.00		0.02	0.00		
28	Link-38	0.06	0 11:56	72.12	0.00	3.33	0.70	0.05	0.00		
29	Link-39	0.02	0 11:56	74.83	0.00	2.89	0.73	0.03	0.00		
30	Link-74	0.28	0 12:08	5.96	0.05	1.85	4.19	0.32	0.00		
31	Link-77	0.52	0 12:06	21.50	0.02	2.74	1.56	0.26	0.00		
32	Link-79	0.50	0 12:08	17.25	0.03	2.36	1.53	0.26	0.00		
33	Link-82	0.00	0 00:00	42.93	0.00	0.00		0.00	0.00		
34	Link-90	0.00	0 00:00	29.89	0.00	0.00		0.02	0.00		

Pipe Input

SN Element ID	Length	Inlet Invert Elevation	Inlet Invert Offset	Outlet Invert Elevation	Outlet Invert Offset	Total Drop	Average Pipe Slope Shape	Pipe Diameter or Height	Pipe Width	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(%)	(in)	(in)					(cfs)
1 Link-06	15.01	3308.18	-1.82	3296.00	-10.00	12.18	81.1400 DUMMY	0.000	0.000	0.0320	0.5000	0.5000	0.0000	0.00
2 Link-105	110.53	3325.00	0.00	3323.20	0.20	1.80	1.6300 CIRCULAR	12.000	12.000	0.0150	0.5000	0.5000	0.0000	0.00
3 Link-106	44.74	3335.80	0.00	3335.30	0.30	0.50	1.1200 CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00
4 Link-107	304.03	3390.00	0.00	3367.20	0.20	22.80	7.5000 CIRCULAR	12.000	12.000	0.0150	0.5000	0.5000	0.0000	0.00
5 Link-108	77.38	3398.00	0.00	3390.20	0.20	7.80	10.0800 CIRCULAR	12.000	12.000	0.0150	0.5000	0.5000	0.0000	0.00
6 Link-109	50.48	3398.28	0.00	3398.00	0.00	0.28	0.5500 CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00
7 Link-110	35.71	3316.15	0.00	3313.20	0.20	2.95	8.2600 CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00
8 Link-111	92.73	3313.00	0.00	3310.00	0.00	3.00	3.2400 CIRCULAR	36.000	36.000	0.0150	0.5000	0.5000	0.0000	0.00
9 Link-85	204.93	3190.00	0.00	3159.50	0.00	30.50	14.8800 CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00
10 Link-89	308.93	3232.80	0.00	3195.00	0.00	37.80	12.2400 CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00
11 Link-91	494.91	3258.50	3.50	3233.00	0.20	25.50	5.1500 CIRCULAR	12.000	12.000	0.0150	0.5000	0.5000	0.0000	0.00
12 Link-93	91.99	3334.80	1.80	3331.50	4.00	3.30	3.5900 CIRCULAR	18.000	18.000	0.0150	0.5000	0.5000	0.0000	0.00
13 OUTFALL-TO-LOWERPOND	150.00	3263.60	0.00	3255.00	0.00	8.60	5.7300 CIRCULAR	24.000	24.000	0.0150	0.5000	0.5000	0.0000	0.00
14 Pipe -10	90.35	3357.77	0.00	3355.00	0.20	2.77	3.0700 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
15 Pipe -11	45.95	3354.80	0.00	3353.19	0.20	1.61	3.5000 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
16 Pipe -12	91.80	3352.99	0.00	3349.20	0.20	3.79	4.1300 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
17 Pipe -13	55.49	3349.40	0.00	3349.20	0.20	0.20	0.3600 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
18 Pipe -14	57.59	3349.00	0.00	3346.92	0.20	2.08	3.6100 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
19 Pipe -15	326.25	3337.50	0.00	3319.38	0.20	18.12	5.5500 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
20 Pipe -16	36.89	3337.70	0.29	3337.50	0.00	0.20	0.5400 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
21 Pipe -18	34.58	3323.00	0.00	3322.81	0.20	0.19	0.5500 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
22 Pipe -19	169.84	3322.61	0.00	3313.20	0.20	9.41	5.5400 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
23 Pipe -20	37.00	3347.10	0.00	3346.92	0.20	0.18	0.4900 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
24 Pipe -21	53.71	3346.72	0.00	3344.75	0.20	1.97	3.6700 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
25 Pipe -22	53.77	3344.55	0.00	3339.64	0.20	4.91	9.1300 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
26 Pipe -23	102.45	3339.44	0.00	3336.46	1.46	2.98	2.9100 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
27 Pipe -24	53.10	3335.30	0.30	3335.00	2.00	0.30	0.5600 CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00
28 Pipe -27	51.84	3319.18	0.00	3318.96	0.20	0.22	0.4200 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
29 Pipe -28	144.87	3318.76	0.00	3312.40	0.20	6.36	4.3900 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
30 Pipe -29	72.32	3312.20	0.00	3307.75	0.20	4.45	6.1500 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
31 Pipe -3	255.29	3396.90	0.00	3385.20	0.20	11.70	4.5800 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
32 Pipe -30	30.26	3307.91	0.00	3307.75	0.20	0.16	0.5300 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
33 Pipe -31	59.75	3307.55	0.00	3307.25	0.20	0.30	0.5000 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
34 Pipe -32	70.60	3307.05	0.00	3305.14	0.46	1.91	2.7100 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
35 Pipe -33	51.47	3304.68	0.00	3304.42	0.20	0.26	0.5100 CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00
36 Pipe -34	52.12	3304.22	0.00	3303.96	0.20	0.26	0.5000 CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00
37 Pipe -35	115.12	3303.76	0.00	3295.82	0.20	7.94	6.9000 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
38 Pipe -36	164.11	3295.62	0.00	3277.08	1.20	18.54	11.3000 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
39 Pipe -37	37.41	3278.55	0.00	3277.08	1.20	1.47	3.9300 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
40 Pipe -38	62.14	3275.88	0.00	3272.00	0.20	3.88	6.2400 CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00
41 Pipe -39	63.48	3271.80	0.00	3269.00	-3.10	2.80	4.4100 CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00
42 Pipe -4	37.54	3385.00	0.00	3384.44	2.00	0.56	1.4900 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
43 Pipe -40	34.01	3269.00	-3.10	3267.00	0.20	2.00	5.8800 CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00
44 Pipe -41	92.30	3266.80	0.00	3265.80	2.20	1.00	1.0800 CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00
45 Pipe -44	142.82	3306.00	0.00	3276.08	0.20	29.92	20.9500 CIRCULAR	8.040	8.040	0.0130	0.5000	0.5000	0.0000	0.00
46 Pipe -5	97.73	3382.44	0.00	3369.20	0.20	13.24	13.5500 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
47 Pipe -6	37.16	3369.00	0.00	3368.82	0.20	0.18	0.4800 CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00
48 Pipe -7	465.28	3368.62	0.00	3336.00	0.20	32.62	7.0100 CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00
49 Pipe -8	118.46	3367.00	0.00	3358.39	0.20	8.61	7.2700 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
50 Pipe -9	41.44	3358.19	0.00	3357.97	0.20	0.22	0.5300 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00
51 UPPERPOND-DRAIN-PIPE	13.36	3339.72	1.00	3339.64	0.20	0.08	0.6000 CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00

Pipe Results

SN Element ID	Peak Flow	Time of Peak Flow Occurrence	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Travel Time	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
	(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)		(min)		
1 Link-06	1.51	0 12:04	0.00	0.00	0.00		0.00	0.00		
2 Link-105	1.20	0 12:05	3.94	0.30	4.25	0.43	0.39	0.00		Calculated
3 Link-106	0.50	0 11:58	9.62	0.05	1.69	0.44	0.23	0.00		Calculated
4 Link-107	0.13	0 11:57	8.46	0.02	3.93	1.29	0.09	0.00		Calculated
5 Link-108	0.13	0 11:56	9.80	0.01	4.37	0.30	0.08	0.00		Calculated
6 Link-109	0.02	0 12:11	6.78	0.00	0.88	0.96	0.03	0.00		Calculated
7 Link-110	0.12	0 12:07	26.17	0.00	2.18	0.27	0.40	0.00		Calculated
8 Link-111	1.51	0 12:04	103.97	0.01	3.06	0.51	0.23	0.00		Calculated
9 Link-85	0.08	0 17:51	35.12	0.00	4.06	0.84	0.04	0.00		Calculated
10 Link-89	0.00	0 00:00	31.84	0.00	0.00		0.00	0.00		Calculated
11 Link-91	0.00	0 00:00	7.01	0.00	0.00		0.00	0.00		Calculated
12 Link-93	1.33	0 11:58	17.24	0.08	5.60	0.27	0.19	0.00		Calculated
13 OUTFALL-TO-LOWERPOND	3.50	0 12:05	46.95	0.07	8.31	0.30	0.33	0.00		Calculated
14 Pipe -10	0.35	0 11:57	6.24	0.06	4.18	0.36	0.16	0.00		Calculated
15 Pipe -11	0.35	0 11:57	6.67	0.05	4.30	0.18	0.16	0.00		Calculated
16 Pipe -12	0.35	0 11:57	7.24	0.05	4.65	0.33	0.15	0.00		Calculated
17 Pipe -13	0.11	0 11:56	2.14	0.05	1.49	0.62	0.15	0.00		Calculated
18 Pipe -14	0.50	0 11:57	6.77	0.07	4.84	0.20	0.19	0.00		Calculated
19 Pipe -15	0.17	0 11:57	8.40	0.02	4.17	1.30	0.10	0.00		Calculated
20 Pipe -16	0.08	0 11:56	2.62	0.03	1.62	0.38	0.11	0.00		Calculated
21 Pipe -18	1.21	0 12:05	2.64	0.46	3.00	0.19	0.51	0.00		Calculated
22 Pipe -19	1.33	0 12:02	8.39	0.16	5.36	0.53	0.63	0.00		Calculated
23 Pipe -20	0.07	0 11:56	2.49	0.03	1.42	0.43	0.11	0.00		Calculated
24 Pipe -21	0.58	0 11:57	6.82	0.09	5.07	0.18	0.20	0.00		Calculated
25 Pipe -22	0.58	0 11:57	10.77	0.05	7.06	0.13	0.16	0.00		Calculated
26 Pipe -23	0.58	0 11:57	6.08	0.10	4.76	0.36	0.21	0.00		Calculated
27 Pipe -24	1.22	0 11:58	7.90	0.15	3.00	0.30	0.28	0.00		Calculated
28 Pipe -27	0.20	0 11:57	2.32	0.09	1.83	0.47	0.20	0.00		Calculated
29 Pipe -28	0.21	0 11:58	7.47	0.03	4.11	0.59	0.11	0.00		Calculated
30 Pipe -29	0.21	0 11:58	8.84	0.02	4.47	0.27	0.11	0.00		Calculated
31 Pipe -3	0.02	0 12:11	7.63	0.00	1.94	2.19	0.03	0.00		Calculated
32 Pipe -30	0.25	0 12:02	2.59	0.10	1.98	0.25	0.22	0.00		Calculated
33 Pipe -31	0.44	0 12:02	2.52	0.18	2.34	0.43	0.29	0.00		Calculated
34 Pipe -32	0.44	0 12:02	5.86	0.08	4.26	0.28	0.19	0.00		Calculated
35 Pipe -33	0.44	0 12:03	7.47	0.06	2.21	0.39	0.17	0.00		Calculated
36 Pipe -34	0.48	0 12:04	7.42	0.07	2.26	0.38	0.18	0.00		Calculated
37 Pipe -35	0.59	0 12:02	9.36	0.06	6.50	0.30	0.17	0.00		Calculated
38 Pipe -36	0.59	0 12:02	11.98	0.05	7.82	0.35	0.15	0.00		Calculated
39 Pipe -37	0.13	0 11:56	7.06	0.02	3.33	0.19	0.10	0.00		Calculated
40 Pipe -38	3.43	0 12:04	56.53	0.06	3.34	0.31	0.36	0.00		Calculated
41 Pipe -39	3.43	0 12:05	15.55	0.22	2.91	0.36	0.40	0.00		Calculated
42 Pipe -4	0.03	0 12:12	4.35	0.01	1.63	0.38	0.06	0.00		Calculated
43 Pipe -40	3.46	0 12:05	87.60	0.04	10.15	0.06	0.17	0.00		Calculated
44 Pipe -41	3.50	0 12:05	23.55	0.15	4.97	0.31	0.28	0.00		Calculated
45 Pipe -44	2.79	0 12:05	5.53	0.50	15.40	0.15	0.51	0.00		Calculated
46 Pipe -5	0.17	0 11:56	13.11	0.01	5.76	0.28	0.08	0.00		Calculated
47 Pipe -6	0.28	0 11:56	7.31	0.04	1.92	0.32	0.14	0.00		Calculated
48 Pipe -7	0.33	0 11:58	27.81	0.01	5.33	1.45	0.08	0.00		Calculated
49 Pipe -8	0.17	0 11:57	9.61	0.02	4.59	0.43	0.09	0.00		Calculated
50 Pipe -9	0.18	0 11:57	2.60	0.07	1.86	0.37	0.18	0.00		Calculated
51 UPPERPOND-DRAIN-PIPE	0.06	0 12:08	2.76	0.02	1.36	0.16	0.10	0.00		Calculated

Inlet Input

SN Element ID	Inlet Manufacturer	Manufacturer Part Number	Inlet Location	Number of Inlets	Catchbasin Invert Elevation (ft)	Max (Rim) Elevation (ft)	Inlet Depth (ft)	Initial Water Elevation (ft)	Initial Water Depth (ft)	Ponded Area (ft²)	Grate Clogging Factor (%)
1 CI-1	FHWA HEC-22 GENERIC	N/A	On Grade	1	3398.00	3402.20	4.20	3398.00	0.00	N/A	50.00
2 CI-10	FHWA HEC-22 GENERIC	N/A	On Grade	1	3357.77	3362.00	4.23	3357.77	0.00	N/A	50.00
3 CI-11	FHWA HEC-22 GENERIC	N/A	On Grade	1	3349.00	3353.26	4.26	3349.00	0.00	N/A	50.00
4 CI-12	FHWA HEC-22 GENERIC	N/A	On Grade	1	3349.40	3353.27	3.87	3349.40	0.00	N/A	50.00
5 CI-13	FHWA HEC-22 GENERIC	N/A	On Grade	1	3337.50	3341.25	3.75	3337.50	0.00	N/A	50.00
6 CI-14	FHWA HEC-22 GENERIC	N/A	On Grade	1	3337.41	3340.88	3.47	3337.41	0.00	N/A	50.00
7 CI-15	FHWA HEC-22 GENERIC	N/A	On Grade	1	3323.00	3326.55	3.55	3323.00	0.00	N/A	50.00
8 CI-16	FHWA HEC-22 GENERIC	N/A	On Grade	1	3322.61	3326.38	3.77	3322.61	0.00	N/A	50.00
9 CI-17	FHWA HEC-22 GENERIC	N/A	On Grade	1	3347.10	3350.53	3.43	3347.10	0.00	N/A	50.00
10 CI-18	FHWA HEC-22 GENERIC	N/A	On Grade	1	3346.72	3350.66	3.94	3346.72	0.00	N/A	50.00
11 CI-19	FHWA HEC-22 GENERIC	N/A	On Grade	1	3333.00	3340.47	7.47	3333.00	0.00	N/A	50.00
12 CI-2	FHWA HEC-22 GENERIC	N/A	On Grade	1	3398.28	3403.00	4.72	3398.28	0.00	N/A	50.00
13 CI-20	FHWA HEC-22 GENERIC	N/A	On Sag	1	3335.00	3341.74	6.74	3335.00	0.00	500.00	50.00
14 CI-21	FHWA HEC-22 GENERIC	N/A	On Grade	1	3335.80	3342.15	6.35	3335.80	0.00	N/A	50.00
15 CI-22	FHWA HEC-22 GENERIC	N/A	On Sag	1	3319.18	3322.67	3.49	3319.18	0.00	500.00	50.00
16 CI-23	FHWA HEC-22 GENERIC	N/A	On Grade	1	3318.76	3323.05	4.29	3318.76	0.00	N/A	50.00
17 CI-24	FHWA HEC-22 GENERIC	N/A	On Grade	1	3307.91	3311.43	3.52	3307.91	0.00	N/A	50.00
18 CI-25	FHWA HEC-22 GENERIC	N/A	On Grade	1	3307.55	3311.49	3.94	3307.55	0.00	N/A	50.00
19 CI-26	FHWA HEC-22 GENERIC	N/A	On Grade	1	3304.68	3308.17	3.49	3304.68	0.00	N/A	50.00
20 CI-27	FHWA HEC-22 GENERIC	N/A	On Sag	1	3304.22	3309.38	5.16	3304.22	0.00	500.00	50.00
21 CI-28	FHWA HEC-22 GENERIC	N/A	On Grade	1	3303.76	3308.98	5.22	3303.76	0.00	N/A	50.00
22 CI-29	FHWA HEC-22 GENERIC	N/A	On Grade	1	3278.55	3282.08	3.53	3278.55	0.00	N/A	50.00
23 CI-3	FHWA HEC-22 GENERIC	N/A	On Grade	1	3396.90	3400.12	3.22	3396.90	0.00	N/A	50.00
24 CI-30	FHWA HEC-22 GENERIC	N/A	On Grade	1	3275.88	3281.99	6.11	3275.88	0.00	N/A	50.00
25 CI-31	FHWA HEC-22 GENERIC	N/A	On Sag	1	3272.10	3275.80	3.70	3272.10	0.00	1000.00	50.00
26 CI-32	FHWA HEC-22 GENERIC	N/A	On Sag	1	3266.80	3275.80	9.00	3266.80	0.00	1000.00	50.00
27 CI-33	FHWA HEC-22 GENERIC	N/A	On Grade	1	3316.15	3319.68	3.53	3316.15	0.00	N/A	50.00
28 CI-34	FHWA HEC-22 GENERIC	N/A	On Grade	1	3313.00	3319.92	6.92	3313.00	0.00	N/A	50.00
29 CI-4	FHWA HEC-22 GENERIC	N/A	On Grade	1	3385.00	3388.50	3.50	3385.00	0.00	N/A	50.00
30 CI-5	FHWA HEC-22 GENERIC	N/A	On Grade	1	3382.44	3388.16	5.72	3382.44	0.00	N/A	50.00
31 CI-6	FHWA HEC-22 GENERIC	N/A	On Grade	1	3369.00	3373.31	4.31	3369.00	0.00	N/A	50.00
32 CI-7	FHWA HEC-22 GENERIC	N/A	On Grade	1	3368.62	3372.80	4.18	3368.62	0.00	N/A	50.00
33 CI-8	FHWA HEC-22 GENERIC	N/A	On Grade	1	3367.00	3371.11	4.11	3367.00	0.00	N/A	50.00
34 CI-9	FHWA HEC-22 GENERIC	N/A	On Grade	1	3358.19	3362.35	4.16	3358.19	0.00	N/A	50.00

Roadway & Gutter Input

SN Element ID	Roadway Longitudinal Slope (ft/ft)	Roadway Cross Slope (ft/ft)	Roadway Manning's Roughness	Gutter Cross Slope (ft/ft)	Gutter Width (ft)	Gutter Depression (in)	Allowable Spread (ft)
1 CI-1	0.0600	0.0200	0.0130	0.0200	2.00	0.0000	12.50
2 CI-10	0.0490	0.0200	0.0130	0.0200	2.00	0.0000	12.50
3 CI-11	0.0120	0.0200	0.0130	0.0200	2.00	0.0000	12.50
4 CI-12	0.0390	0.0200	0.0130	0.0200	2.00	0.0000	12.50
5 CI-13	0.0670	0.0200	0.0130	0.0200	2.00	0.0000	12.50
6 CI-14	0.0580	0.0200	0.0130	0.0200	2.00	0.0000	12.50
7 CI-15	0.0380	0.0200	0.0130	0.0200	2.00	0.0000	12.50
8 CI-16	0.0380	0.0200	0.0130	0.0200	2.00	0.0000	12.50
9 CI-17	0.0570	0.0200	0.0130	0.0200	2.00	0.0000	12.50
10 CI-18	0.0490	0.0200	0.0130	0.0200	2.00	0.0000	12.50
11 CI-19	0.0330	0.0200	0.0130	0.0620	2.00	0.0000	12.50
12 CI-2	0.0160	0.0200	0.0130	0.0200	2.00	0.0000	12.50
13 CI-20	N/A	0.0200	0.0130	0.0200	2.00	0.0000	12.50
14 CI-21	0.0410	0.0200	0.0130	0.0200	2.00	0.0000	12.50
15 CI-22	N/A	0.0200	0.0130	0.0200	2.00	0.0000	12.50
16 CI-23	0.0400	0.0200	0.0130	0.0200	2.00	0.0000	12.50
17 CI-24	0.0850	0.2000	0.0130	0.2000	2.00	0.0000	12.50
18 CI-25	0.0780	0.0200	0.0130	0.0200	2.00	0.0000	12.50
19 CI-26	0.0750	0.0200	0.0130	0.0200	2.00	0.0000	12.50
20 CI-27	N/A	0.0200	0.0130	0.0200	2.00	0.0000	12.50
21 CI-28	0.0720	0.0200	0.0130	0.0200	2.00	0.0000	12.50
22 CI-29	0.0770	0.0200	0.0130	0.0200	2.00	0.0000	12.50
23 CI-3	0.0150	0.0200	0.0130	0.0200	2.00	0.0000	12.50
24 CI-30	0.0780	0.0200	0.0130	0.0200	2.00	0.0000	12.50
25 CI-31	N/A	0.0200	0.0130	0.0200	2.00	0.0000	12.50
26 CI-32	N/A	0.0200	0.0130	0.0200	2.00	0.0000	12.50
27 CI-33	0.0410	0.0200	0.0130	0.0200	2.00	0.0000	12.50
28 CI-34	0.0370	0.0200	0.0130	0.0200	2.00	0.0000	12.50
29 CI-4	0.0920	0.0200	0.0130	0.0200	2.00	0.0000	12.50
30 CI-5	0.0900	0.0200	0.0130	0.0200	2.00	0.0000	12.50
31 CI-6	0.1160	0.0200	0.0130	0.0200	2.00	0.0000	12.50
32 CI-7	0.0810	0.0200	0.0130	0.0200	2.00	0.0000	12.50
33 CI-8	0.0800	0.0200	0.0130	0.0200	2.00	0.0000	12.50
34 CI-9	0.0500	0.0200	0.0130	0.0200	2.00	0.0000	12.50

Inlet Results

SN Element ID	Peak Flow	Peak Lateral Inflow	Peak Flow Intercepted	Peak Flow Bypassing Inlet	Inlet Efficiency during Peak	Max Gutter Spread during Peak	Max Gutter Water Elev. during Peak	Max Gutter Water Depth during Peak	Time of Max Depth Occurrence	Total Flooded Volume	Total Time Flooded
	(cfs)	(cfs)	(cfs)	(cfs)	Flow (%)	Flow (ft)	Flow (ft)	Flow (ft)	(days hh:mm)	(ac-in)	(min)
1 CI-1	0.19	0.19	0.17	0.02	90.47	2.58	3402.25	0.05	0 11:56	0.00	0.00
2 CI-10	0.24	0.24	0.20	0.03	86.08	2.89	3362.06	0.06	0 11:57	0.00	0.00
3 CI-11	0.07	0.01	0.07	0.00	93.57	2.38	3353.31	0.05	0 11:57	0.00	0.00
4 CI-12	0.15	0.15	0.14	0.01	90.55	2.58	3353.32	0.05	0 11:56	0.00	0.00
5 CI-13	0.14	0.09	0.13	0.01	95.08	2.23	3341.29	0.04	0 11:57	0.00	0.00
6 CI-14	0.11	0.11	0.11	0.00	96.55	2.10	3340.92	0.04	0 11:56	0.00	0.00
7 CI-15	0.01	0.01	0.00	0.00	0.00	1.07	3326.57	0.02	0 12:05	0.00	0.00
8 CI-16	0.29	0.22	0.24	0.06	80.78	3.29	3326.45	0.07	0 12:02	0.00	0.00
9 CI-17	0.10	0.10	0.10	0.00	97.21	2.04	3350.57	0.04	0 11:56	0.00	0.00
10 CI-18	0.03	0.01	0.00	0.00	0.00	1.26	3350.69	0.03	0 11:57	0.00	0.00
11 CI-19	0.14	0.11	0.00	0.00	0.00	1.26	3340.55	0.08	0 11:58	0.00	0.00
12 CI-2	0.03	0.03	0.03	0.00	99.99	1.56	3403.03	0.03	0 12:11	0.00	0.00
13 CI-20	0.33	0.30	N/A	N/A	N/A	4.65	3341.81	0.07	0 11:58	0.00	0.00
14 CI-21	0.25	0.25	0.21	0.04	83.74	3.07	3342.21	0.06	0 11:58	0.00	0.00
15 CI-22	0.06	0.05	N/A	N/A	N/A	1.95	3322.69	0.02	0 11:57	0.00	0.00
16 CI-23	0.04	0.03	0.00	0.00	0.00	1.49	3323.08	0.03	0 11:58	0.00	0.00
17 CI-24	0.25	0.23	0.00	0.00	0.00	0.63	3311.56	0.13	0 12:02	0.00	0.00
18 CI-25	0.02	0.01	0.00	0.00	0.00	1.06	3311.51	0.02	0 12:02	0.00	0.00
19 CI-26	0.01	0.00	0.00	0.00	0.00	0.82	3308.19	0.02	0 12:03	0.00	0.00
20 CI-27	0.08	0.03	N/A	N/A	N/A	2.27	3309.41	0.03	0 12:04	0.00	0.00
21 CI-28	0.23	0.16	0.21	0.02	89.21	2.66	3309.03	0.05	0 12:02	0.00	0.00
22 CI-29	0.18	0.18	0.17	0.01	92.62	2.42	3282.13	0.05	0 11:56	0.00	0.00
23 CI-3	0.03	0.02	0.03	0.00	99.97	1.58	3400.15	0.03	0 12:11	0.00	0.00
24 CI-30	0.07	0.02	0.07	0.00	99.78	1.67	3282.02	0.03	0 12:04	0.00	0.00
25 CI-31	0.04	0.03	N/A	N/A	N/A	1.69	3275.81	0.01	0 12:05	0.00	0.00
26 CI-32	0.06	0.01	N/A	N/A	N/A	1.94	3275.82	0.02	0 12:05	0.00	0.00
27 CI-33	0.17	0.17	0.15	0.02	89.56	2.65	3319.73	0.05	0 12:07	0.00	0.00
28 CI-34	0.23	0.15	0.20	0.04	84.33	3.03	3319.98	0.06	0 12:04	0.00	0.00
29 CI-4	0.03	0.02	0.00	0.00	0.00	1.13	3388.52	0.02	0 12:12	0.00	0.00
30 CI-5	0.25	0.25	0.22	0.03	89.79	2.62	3388.21	0.05	0 11:56	0.00	0.00
31 CI-6	0.16	0.08	0.15	0.01	96.46	2.11	3373.35	0.04	0 11:56	0.00	0.00
32 CI-7	0.18	0.18	0.17	0.01	93.07	2.38	3372.85	0.05	0 11:58	0.00	0.00
33 CI-8	0.06	0.02	0.06	0.00	99.99	1.54	3371.14	0.03	0 11:57	0.00	0.00
34 CI-9	0.03	0.02	0.00	0.00	0.00	1.31	3362.38	0.03	0 11:57	0.00	0.00

Storage Nodes

Storage Node : BEFORE 12IN CULVERT

Input Data

Invert Elevation (ft)	3190.00
Max (Rim) Elevation (ft)	3193.00
Max (Rim) Offset (ft)	3.00
Initial Water Elevation (ft)	3190.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

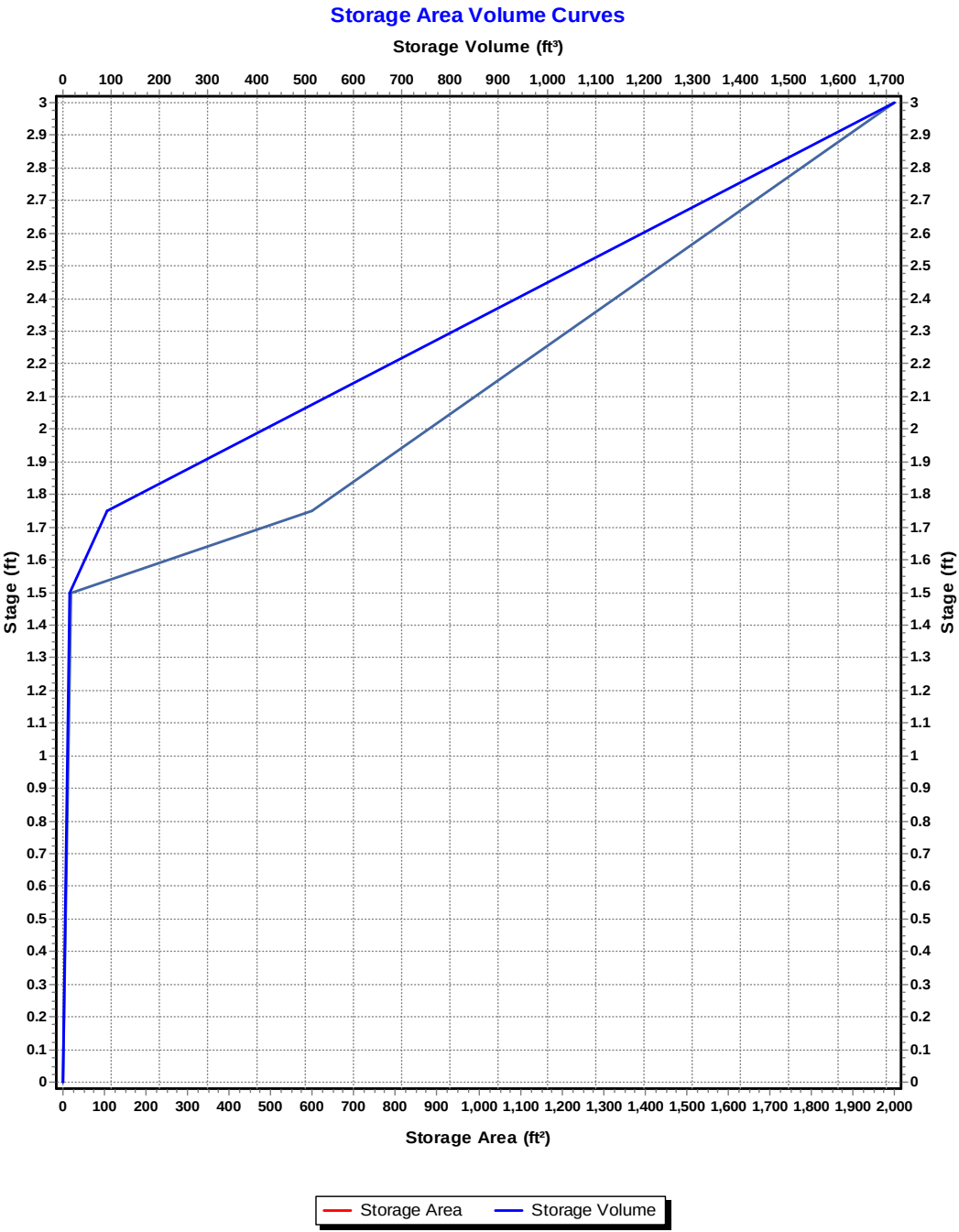
Infiltration/Exfiltration

Exfiltration Rate (in/hr)	0.1
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Storage Area Volume Curves

Storage Curve : BEFORE 12IN CULVERT

Stage (ft)	Storage Area (ft²)	Storage Volume (ft³)
0	0	0
1.5	20	15
1.75	600	92.5
3	2000	1717.5



Storage Node : BEFORE 12IN CULVERT (continued)

Output Summary Results

Peak Inflow (cfs)	0.08
Peak Lateral Inflow (cfs)	0.08
Peak Outflow (cfs)	0.08
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	3190.05
Max HGL Depth Attained (ft)	0.05
Average HGL Elevation Attained (ft)	3190.02
Average HGL Depth Attained (ft)	0.02
Time of Max HGL Occurrence (days hh:mm)	0 17:51
Total Exfiltration Volume (1000-ft ³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.24

Storage Node : COMMON-AREA-1-POND

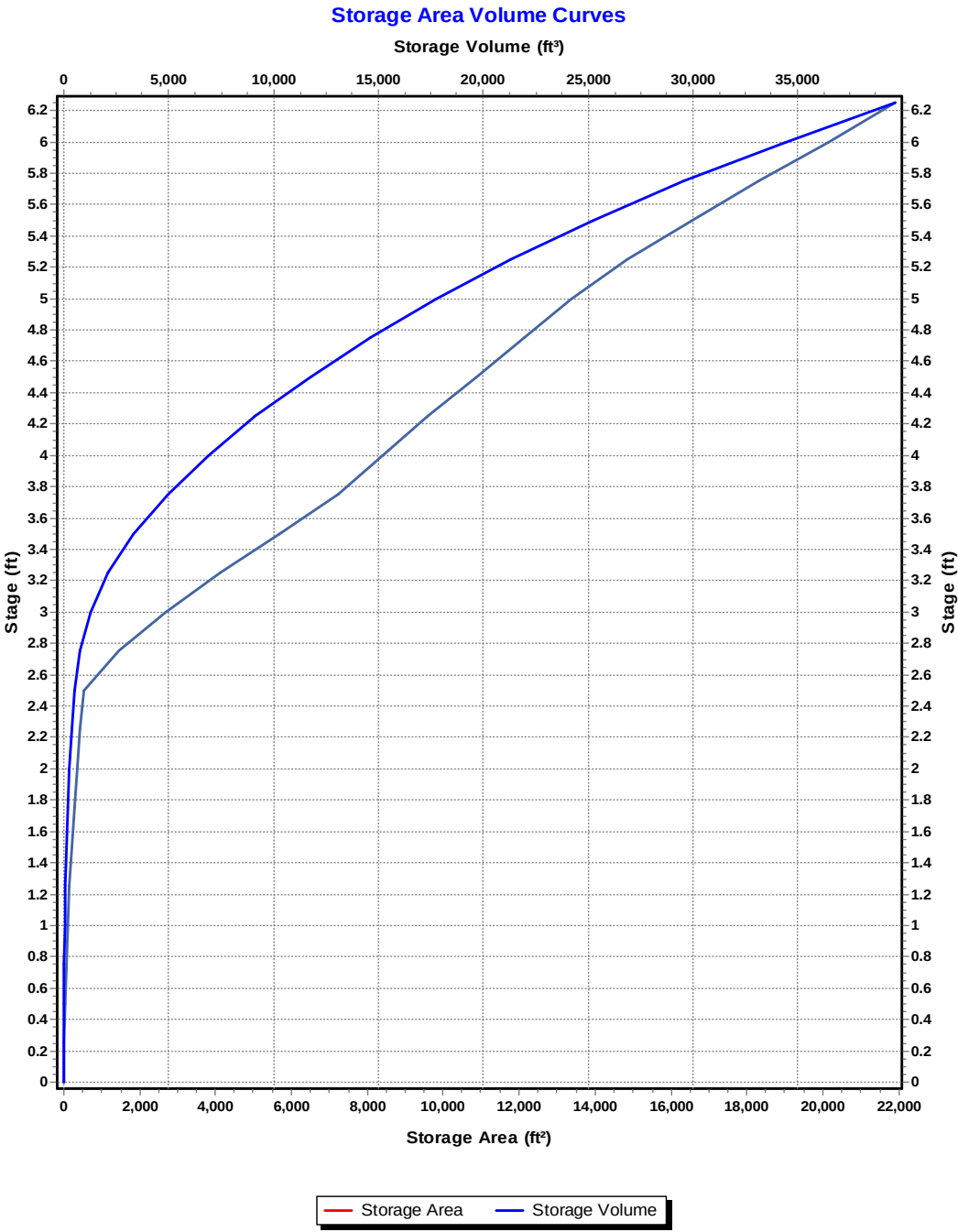
Input Data

Invert Elevation (ft)	3327.50
Max (Rim) Elevation (ft)	3333.75
Max (Rim) Offset (ft)	6.25
Initial Water Elevation (ft)	3327.50
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : PARK STORAGE

Stage (ft)	Storage Area (ft²)	Storage Volume (ft³)
0	4.7	0
0.25	18	2.84
0.5	40.5	10.15
0.75	71.9	24.2
1	112	47.19
1.25	160	81.19
1.5	218	128.44
1.75	284	191.19
2	360	271.69
2.25	443	372.07
2.5	536	494.45
2.75	1440	741.45
3	2696	1258.45
3.25	4126	2111.2
3.5	5694	3338.7
3.75	7228	4953.95
4	8410	6908.7
4.25	9593	9159.08
4.5	10873	11717.33
4.75	12127	14592.33
5	13354	17777.46
5.25	14857	21303.84
5.5	16548	25229.47
5.75	18316	29587.47
6	20128	34392.97
6.25	21902	39646.72



Storage Node : COMMON-AREA-1-POND (continued)

Outflow Orifices

SN Element ID	Orifice Type	Orifice Shape	Flap Gate	Circular Orifice Diameter (in)	Rectangular Orifice Height (in)	Rectangular Orifice Width (in)	Orifice Invert Elevation (ft)	Orifice Coefficient
1 Orifice-89	Bottom	CIRCULAR	No	6.00			3327.25	0.61

Output Summary Results

Peak Inflow (cfs)	1.33
Peak Lateral Inflow (cfs)	0
Peak Outflow (cfs)	1.2
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	3329.04
Max HGL Depth Attained (ft)	1.54
Average HGL Elevation Attained (ft)	3327.56
Average HGL Depth Attained (ft)	0.06
Time of Max HGL Occurrence (days hh:mm)	0 12:05
Total Exfiltration Volume (1000-ft³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	5.4

Storage Node : INJECTED-STORMWATER

Input Data

Invert Elevation (ft)	3100.00
Max (Rim) Elevation (ft)	3255.00
Max (Rim) Offset (ft)	155.00
Initial Water Elevation (ft)	3100.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	2.28
Peak Lateral Inflow (cfs)	0
Peak Outflow (cfs)	0
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	3103.53
Max HGL Depth Attained (ft)	3.53
Average HGL Elevation Attained (ft)	3101.34
Average HGL Depth Attained (ft)	1.34
Time of Max HGL Occurrence (days hh:mm)	1 00:00
Total Exfiltration Volume (1000-ft³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	32723.47

Storage Node : MIDDLE-STORAGE

Input Data

Invert Elevation (ft)	3306.00
Max (Rim) Elevation (ft)	3309.00
Max (Rim) Offset (ft)	3.00
Initial Water Elevation (ft)	3306.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	2.85
Peak Lateral Inflow (cfs)	1.03
Peak Outflow (cfs)	2.79
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	3306.35
Max HGL Depth Attained (ft)	0.35
Average HGL Elevation Attained (ft)	3306.05
Average HGL Depth Attained (ft)	0.05
Time of Max HGL Occurrence (days hh:mm)	0 12:05
Total Exfiltration Volume (1000-ft³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	880.72

Storage Node : NORTHWEST-STORAGE

Input Data

Invert Elevation (ft)	3255.00
Max (Rim) Elevation (ft)	3260.00
Max (Rim) Offset (ft)	5.00
Initial Water Elevation (ft)	3255.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

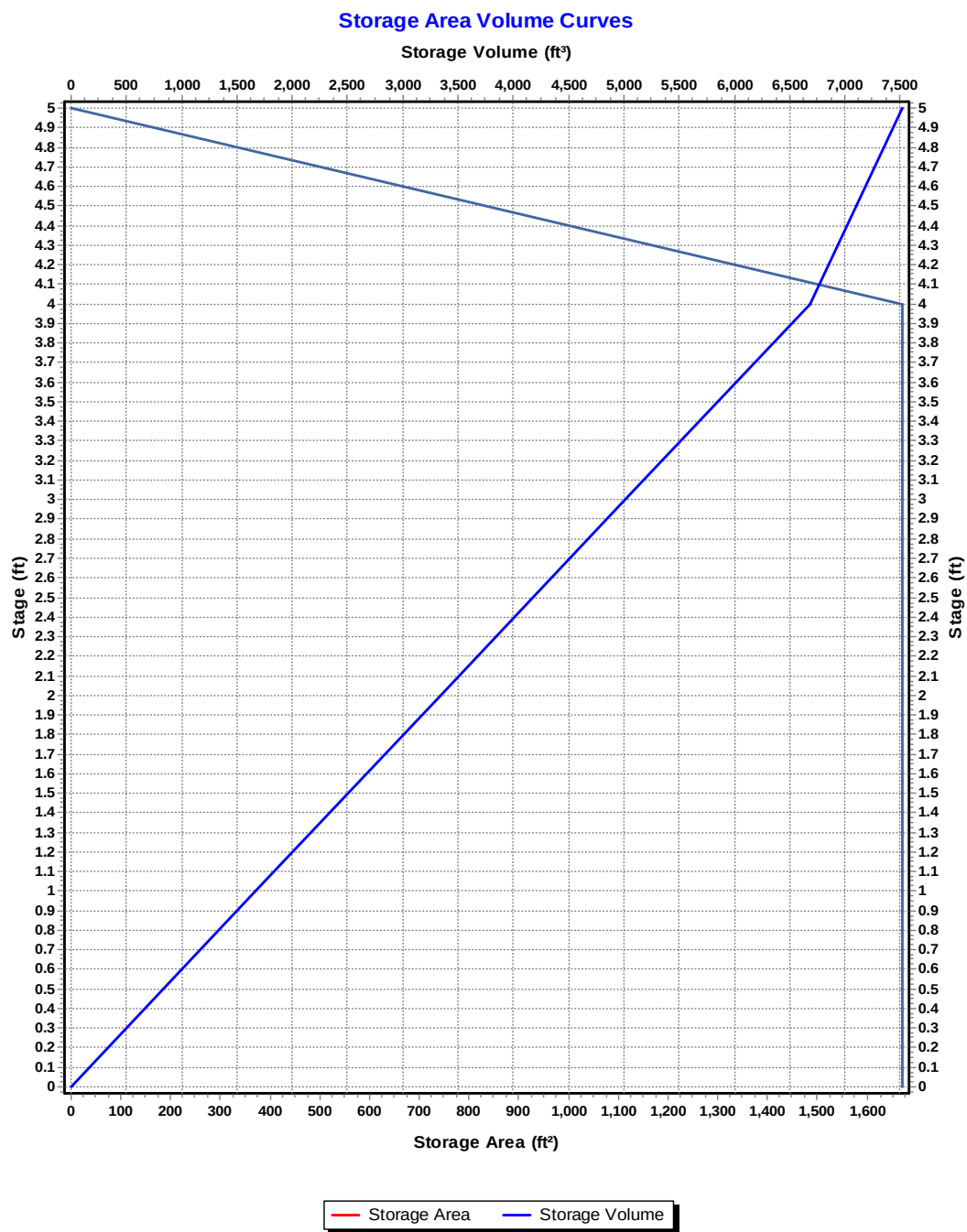
Infiltration/Exfiltration

Exfiltration Rate (in/hr)	0
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Storage Area Volume Curves

Storage Curve : LOWER POND

Stage	Storage Area	Storage Volume
(ft)	(ft²)	(ft³)
0	1671	0
1	1671	1671
2	1671	3342
3	1671	5013
4	1671	6684
5	0	7519.5



Storage Node : NORTHWEST-STORAGE (continued)

Outflow Orifices

SN Element ID	Orifice Type	Orifice Shape	Flap Gate	Circular Orifice Diameter (in)	Rectangular Orifice Height (in)	Rectangular Orifice Width (in)	Orifice Invert Elevation (ft)	Orifice Coefficient
1 .87*5	Bottom	CIRCULAR	No	4.10			3255.00	0.61
2 Orifice-80	Bottom	CIRCULAR	No	4.10			3255.00	0.61
3 Orifice-83	Bottom	CIRCULAR	No	4.10			3255.00	0.61
4 Orifice-84	Bottom	CIRCULAR	No	4.10			3255.00	0.61
5 Orifice-85	Bottom	CIRCULAR	No	4.10			3255.00	0.61

Output Summary Results

Peak Inflow (cfs)	3.55
Peak Lateral Inflow (cfs)	0.07
Peak Outflow (cfs)	2.28
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	3256.02
Max HGL Depth Attained (ft)	1.02
Average HGL Elevation Attained (ft)	3255.06
Average HGL Depth Attained (ft)	0.06
Time of Max HGL Occurrence (days hh:mm)	0 12:17
Total Exfiltration Volume (1000-ft³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	475.95

Storage Node : UPPERPOND

Input Data

Invert Elevation (ft)	3343.00
Max (Rim) Elevation (ft)	3346.00
Max (Rim) Offset (ft)	3.00
Initial Water Elevation (ft)	3343.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Infiltration/Exfiltration

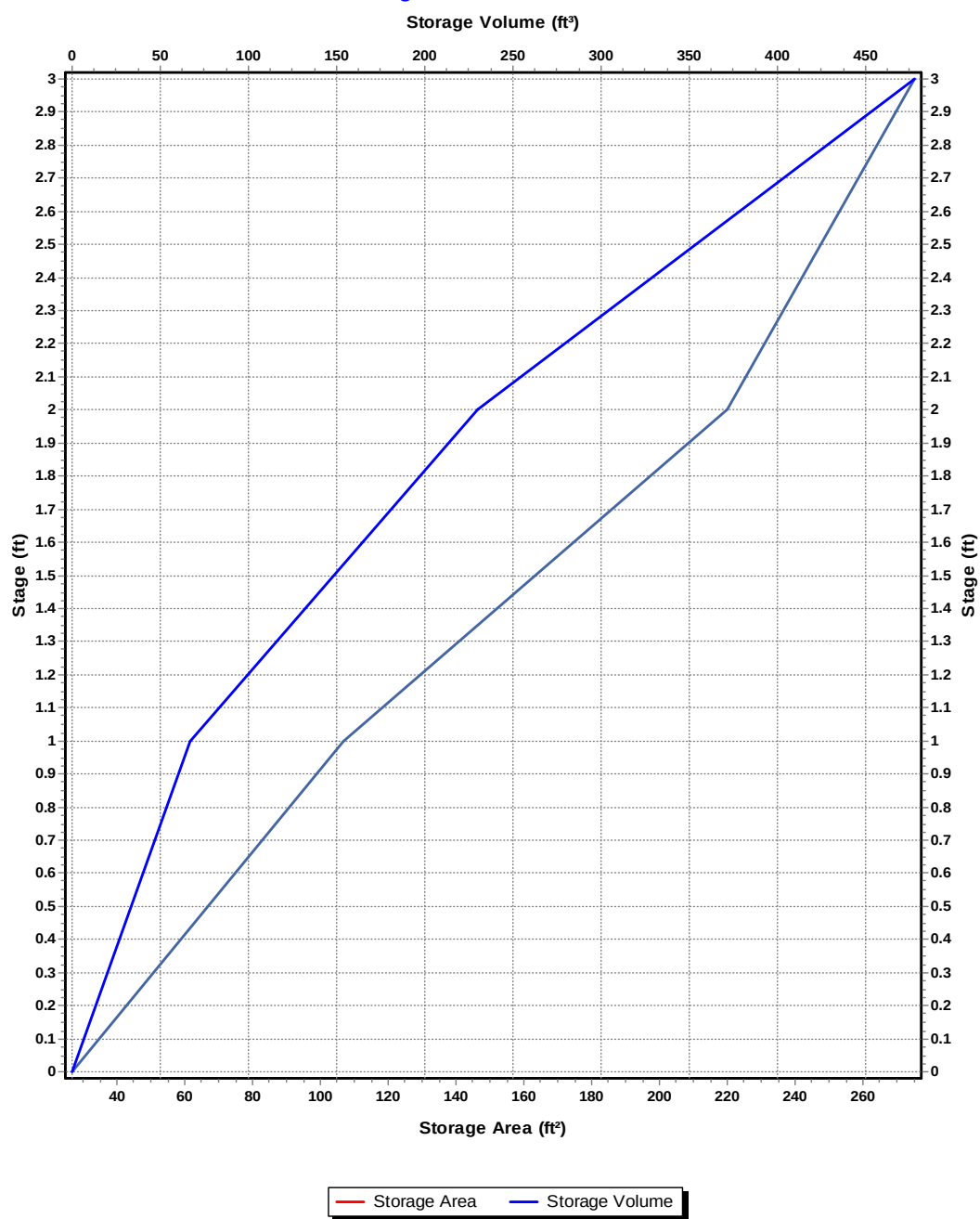
Exfiltration Rate (in/hr)	0
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Storage Area Volume Curves

Storage Curve : Storage-09

Stage	Storage Area	Storage Volume
(ft)	(ft²)	(ft³)
0	27	0
1	107	67
2	220	230.5
3	275	478

Storage Area Volume Curves



Storage Node : UPPERPOND (continued)

Outflow Orifices

SN	Element ID	Orifice Type	Orifice Shape	Flap Gate	Circular Orifice Diameter (in)	Rectangular Orifice Height (in)	Rectangular Orifice Width (in)	Orifice Invert Elevation (ft)	Orifice Coefficient
1	UPPERPOND-OUTLET	Bottom	CIRCULAR	No	12.00			3343.00	0.61

Output Summary Results

Peak Inflow (cfs)	0.06
Peak Lateral Inflow (cfs)	0.06
Peak Outflow (cfs)	0.06
Peak Exfiltration Flow Rate (cfm)	0
Max HGL Elevation Attained (ft)	3343.03
Max HGL Depth Attained (ft)	0.03
Average HGL Elevation Attained (ft)	3343.01
Average HGL Depth Attained (ft)	0.01
Time of Max HGL Occurrence (days hh:mm)	0 12:07
Total Exfiltration Volume (1000-ft³)	0
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	28.62

Storage Node : WESTPOND

Input Data

Invert Elevation (ft)	3290.00
Max (Rim) Elevation (ft)	3292.50
Max (Rim) Offset (ft)	2.50
Initial Water Elevation (ft)	3290.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

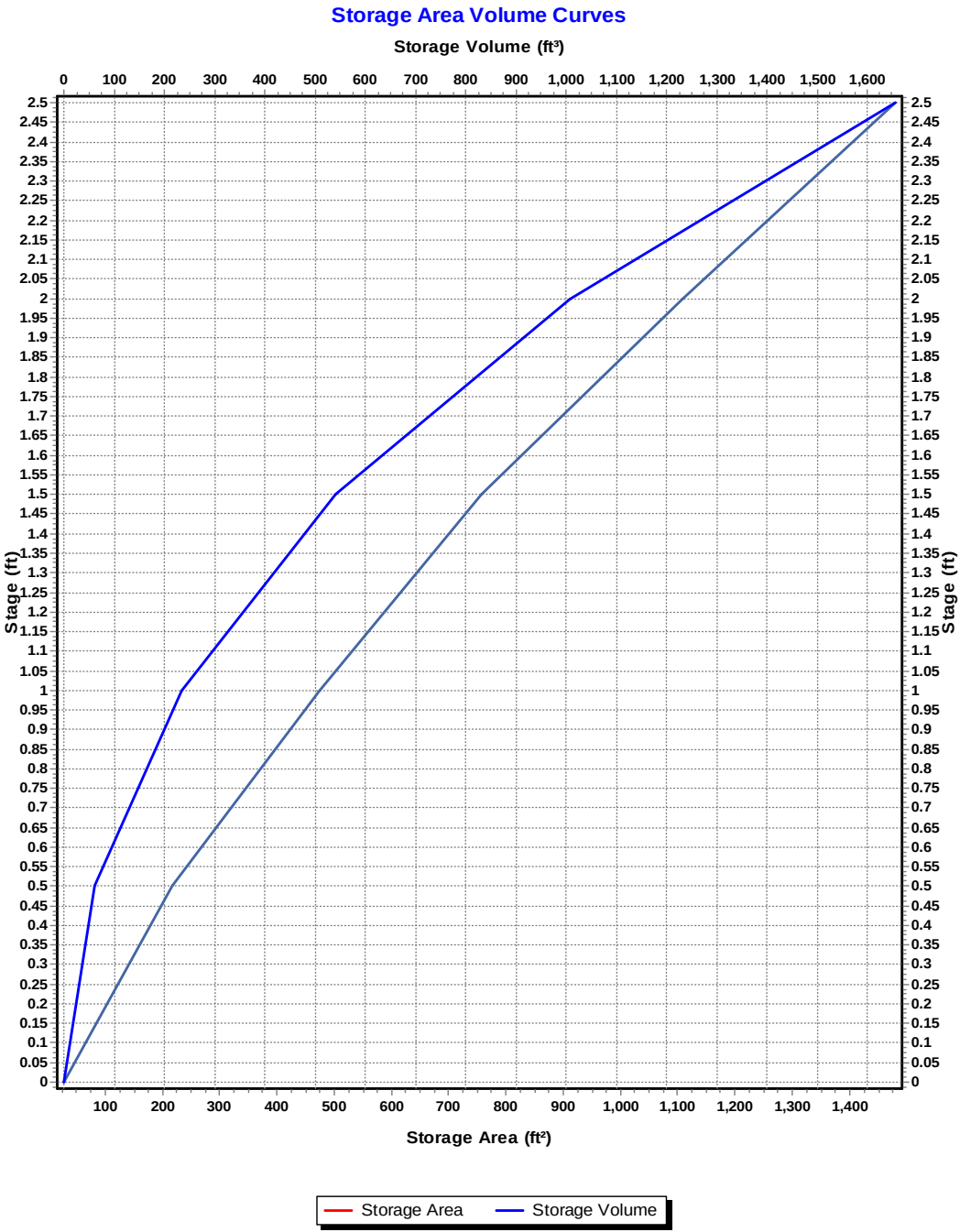
Infiltration/Exfiltration

Exfiltration Rate (in/hr)	2.6
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Storage Area Volume Curves

Storage Curve : WEST SMALL POND

Stage	Storage Area	Storage Volume
(ft)	(ft²)	(ft³)
0	28	0
0.5	217	61.25
1	475	234.25
1.5	757	542.25
2	1109	1008.75
2.5	1480	1656



Storage Node : WESTPOND (continued)

Outflow Weirs

SN	Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1	Weir-01	Rectangular	No	3292.40	2.40	1.00	1.00	3.33

Output Summary Results

Peak Inflow (cfs)	0.06
Peak Lateral Inflow (cfs)	0.06
Peak Outflow (cfs)	0
Peak Exfiltration Flow Rate (cfm)	0.82
Max HGL Elevation Attained (ft)	3290.52
Max HGL Depth Attained (ft)	0.52
Average HGL Elevation Attained (ft)	3290.17
Average HGL Depth Attained (ft)	0.17
Time of Max HGL Occurrence (days hh:mm)	0 13:47
Total Exfiltration Volume (1000-ft³)	0.415
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	2175.5



