



Engineers, Surveyors, Planners, Scientists

EMO

Date: May 20, 2020

To: City of Dublin

From: Matt Stechschulte, PE

Subject: The Corners Stormwater Management Plan

Copies:

This memo summarizes the stormwater management approach for the Corners project located at the northwest corner of Rings Road and Frantz Road. The proposed project was analyzed under the Dublin Smart Parking Lot Stormwater Management Plan (SWMP) dated May 19, 2017. The Dublin Smart Parking Lot report accounted for the Corners project area within Subarea 03 which discharges to Wet Basin 01. Wet Basin 01 is interconnected with Wet Basin 02 before discharging east across Frantz Road. Subarea 03 was to be developed at 75% impervious cover per the Smart Parking Lot SWMP. The proposed project was calculated to be 66.8% impervious which is less than what was assumed. Due to the proposed project containing less impervious cover than what was assumed in the Dublin Smart Parking Lot SWMP the existing BMPs (Wet Basins 01 & 02) are able to adequately proposed quantity and quality control for the proposed development without the need for any modifications. Below Table 1 & 2 summarize the differences between the Dublin Smart Parking Lot proposed release rates and basin elevations and what the actual release rates and elevations will be based on The Corners project actual impervious cover.

Table 1
Planned vs. Actual Release Rates

Storm Event (yr.)	Subarea 01 and 03 Allowable Release Rates (cfs.)	Subarea 02 Allowable Release Rates (cfs.)	Offsite Release Rates (cfs.)	Total Allowable Release Rates (cfs.)	Proposed Release Rates (cfs.)
1	16.70	4.97	10.74	32.42	10.17 9.56
2	16.70	4.97	11.88	33.56	13.30 12.85
5	16.70	4.97	13.65	35.33	16.62 16.41
10	16.70	4.97	15.14	36.82	18.18 18.00
25	16.70	4.97	17.23	38.91	20.12 19.98
50	63.37	4.97	19.73	88.07	21.37 21.27
100	81.46	24.87	23.25	129.59	22.54 22.44

**Table 2
Planned vs. Actual Basin Performance Summary**

Storm Event (yr.)	Wet Basins 01 and 02 Inflow Rates (cfs.)	Maximum W.S.E., T.O.B. = 867.00 (feet)	Storage Volume Utilized (ac-ft)
1	73.67 71.57	863.76 863.73	2.742 2.690
2	91.18 88.93	863.95 863.91	3.078 3.002
5	115.62 113.48	864.38 864.32	3.863 3.737
10	135.13 133.11	864.86 864.81	4.778 4.658
25	162.21 160.43	865.52 865.47	6.098 5.975
50	185.00 183.27	866.04 866.00	7.209 7.095
100	209.66 207.87	866.55 866.52	8.352 8.255

Wet Basins 01 & 02 Detention Storage Utilized: ~~8.352~~ 8.255 ac-ft (100-year storm event)

Wet Basins 01 & 02 Detention Storage Provided: 9.388 ac-ft

Due to the reduction to impervious cover the water quality volume also reduces from what was previously assumed in the Dublin Smart Parking Lot SWMP. Table 3 below summarizes the difference between the previously planned water quality calculations and actual water quality calculations based on The Corners proposed site conditions.

**Table 3
Planned vs. Actual Water Quality Calculations**

Basin Identifier	Tributary area (acres)	Water Quality Volume (ac-ft)	Water Quality Elevation (feet)
Wet Basins 01 & 02	55.502	1.354 1.323	862.92 862.90

Due to The Corners project proposing a reduction to impervious cover from what was previously accounted for in the Dublin Smart Parking Lot SWMP that existing wet basins (Wet Basin 01 & Wet Basin 02) are able to provide adequate quantity and quality control for the proposed site.

Project Name: Dublin Smart Parking Lot

Water Quality Volume Calculation

Wet Basins 01 & 02

Area = 26.159 acres
% imp = 0.69
C = 0.49
WQv = 0.799 ac-ft

Offsite

Area = 29.343 acres
% imp = 0.73
C = 0.53
WQv = 0.965 ac-ft

75% of WQv = 1.323 ac-ft
(for wet basins)

WQv Elevation = 862.90 feet

Water quality volume calculated using the Ohio EPA formula

Ohio EPA formula

$$WQv = \frac{C \times P \times A}{12}$$

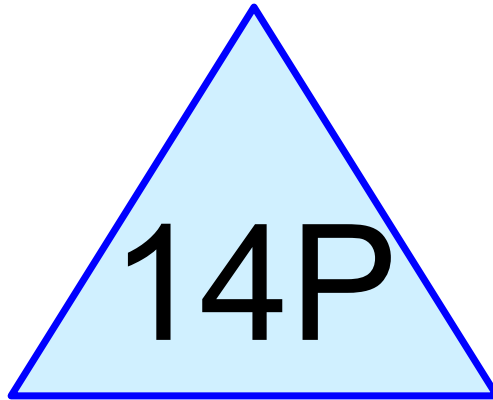
A = area (acres)

P = 0.75"

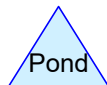
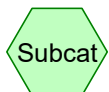
C = runoff coefficient (calculated using the ASCE method)

$$C = 0.858i^3 - 0.78i^2 + 0.774i + 0.04$$

Where i = fraction of post-construction impervious surface



Wet Basins 01 & 02 WQ @ 862.92'



Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-year	Type II 24-hr		Default	24.00	1	2.20	2
2	2-year	Type II 24-hr		Default	24.00	1	2.63	2
3	5-year	Type II 24-hr		Default	24.00	1	3.24	2
4	10-year	Type II 24-hr		Default	24.00	1	3.74	2
5	25-year	Type II 24-hr		Default	24.00	1	4.44	2
6	50-year	Type II 24-hr		Default	24.00	1	5.02	2
7	100-year	Type II 24-hr		Default	24.00	1	5.63	2

Summary for Pond 14P: Wet Basins 01 & 02 WQ @ 862.92'

Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Outflow = 1.09 cfs @ 0.00 hrs, Volume= 1.252 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.09 cfs @ 0.00 hrs, Volume= 1.252 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Starting Elev= 862.90' Surf.Area= 1.560 ac Storage= 1.329 af
 Peak Elev= 862.90' @ 0.00 hrs Surf.Area= 1.560 ac Storage= 1.329 af

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	862.00'	5.548 af	Wet Basin 01 (Prismatic) Listed below (Recalc)
#2	862.00'	3.834 af	Wet Basin 02 (Prismatic) Listed below (Recalc)
		9.382 af	Total Available Storage

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
862.00	0.827	0.000	0.000
863.00	0.937	0.882	0.882
864.00	1.050	0.993	1.875
865.00	1.165	1.107	2.983
866.00	1.282	1.224	4.207
866.50	1.342	0.656	4.862
867.00	1.401	0.686	5.548

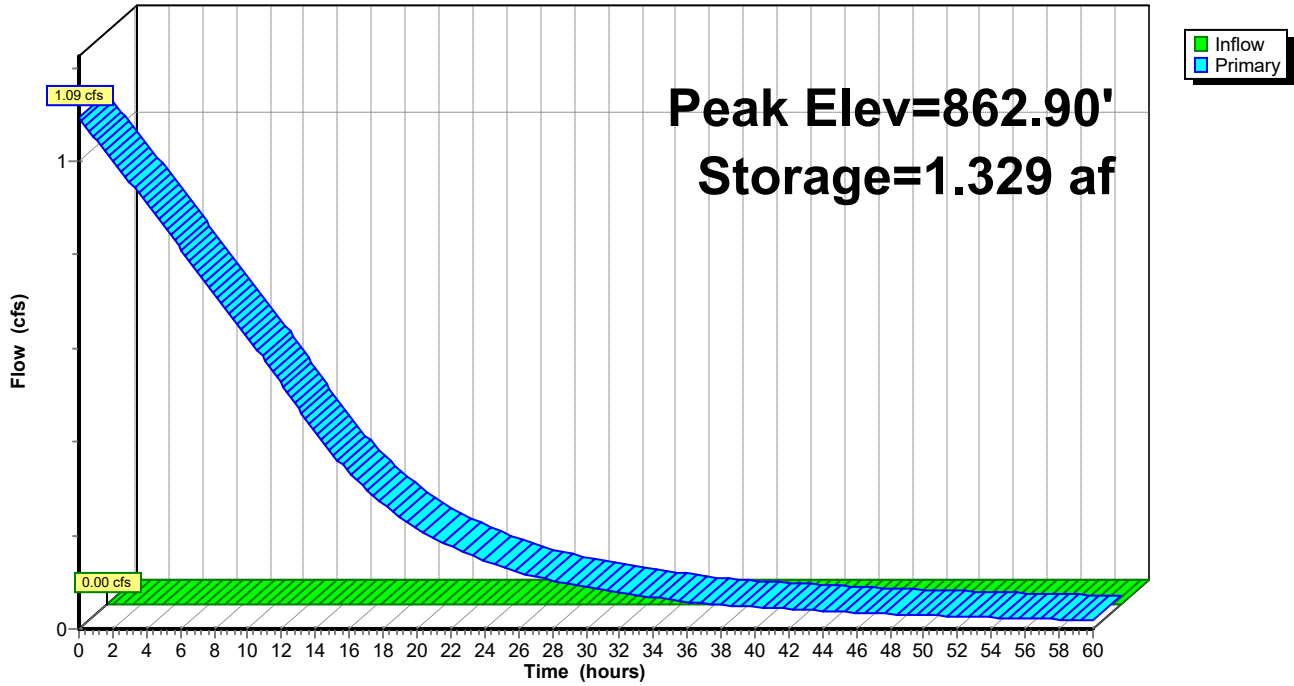
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
862.00	0.566	0.000	0.000
863.00	0.642	0.604	0.604
864.00	0.720	0.681	1.285
865.00	0.801	0.760	2.045
866.00	0.884	0.843	2.888
866.50	0.950	0.459	3.347
867.00	0.998	0.487	3.834

Device	Routing	Invert	Outlet Devices
#1	Primary	862.00'	5.0" Vert. WQ orifice X 2.00 C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.09 cfs @ 0.00 hrs HW=862.90' (Free Discharge)
 ←1=WQ orifice (Orifice Controls 1.09 cfs @ 4.00 fps)

Pond 14P: Wet Basins 01 & 02 WQ @ 862.92'

Hydrograph



Hydrograph for Pond 14P: Wet Basins 01 & 02 WQ @ 862.92'

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	1.329	862.90	1.09
2.00	0.00	1.156	862.79	1.00
4.00	0.00	0.999	862.69	0.91
6.00	0.00	0.856	862.59	0.81
8.00	0.00	0.730	862.51	0.72
10.00	0.00	0.619	862.43	0.62
12.00	0.00	0.524	862.37	0.52
14.00	0.00	0.447	862.31	0.42
16.00	0.00	0.385	862.27	0.33
18.00	0.00	0.335	862.24	0.27
20.00	0.00	0.296	862.21	0.21
22.00	0.00	0.264	862.19	0.18
24.00	0.00	0.237	862.17	0.15
26.00	0.00	0.215	862.15	0.12
28.00	0.00	0.197	862.14	0.10
30.00	0.00	0.181	862.13	0.09
32.00	0.00	0.167	862.12	0.08
34.00	0.00	0.155	862.11	0.07
36.00	0.00	0.145	862.10	0.06
38.00	0.00	0.136	862.10	0.05
40.00	0.00	0.127	862.09	0.05
42.00	0.00	0.120	862.09	0.04
44.00	0.00	0.113	862.08	0.04
46.00	0.00	0.107	862.08	0.04
48.00	0.00	0.102	862.07	0.03
50.00	0.00	0.097	862.07	0.03
52.00	0.00	0.092	862.07	0.03
54.00	0.00	0.088	862.06	0.02
56.00	0.00	0.084	862.06	0.02
58.00	0.00	0.080	862.06	0.02
60.00	0.00	0.077	862.06	0.02

Events for Pond 14P: Wet Basins 01 & 02 WQ @ 862.92'

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)	Storage (acre-feet)
1-year	0.00	1.09	862.90	1.329

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Project Reports

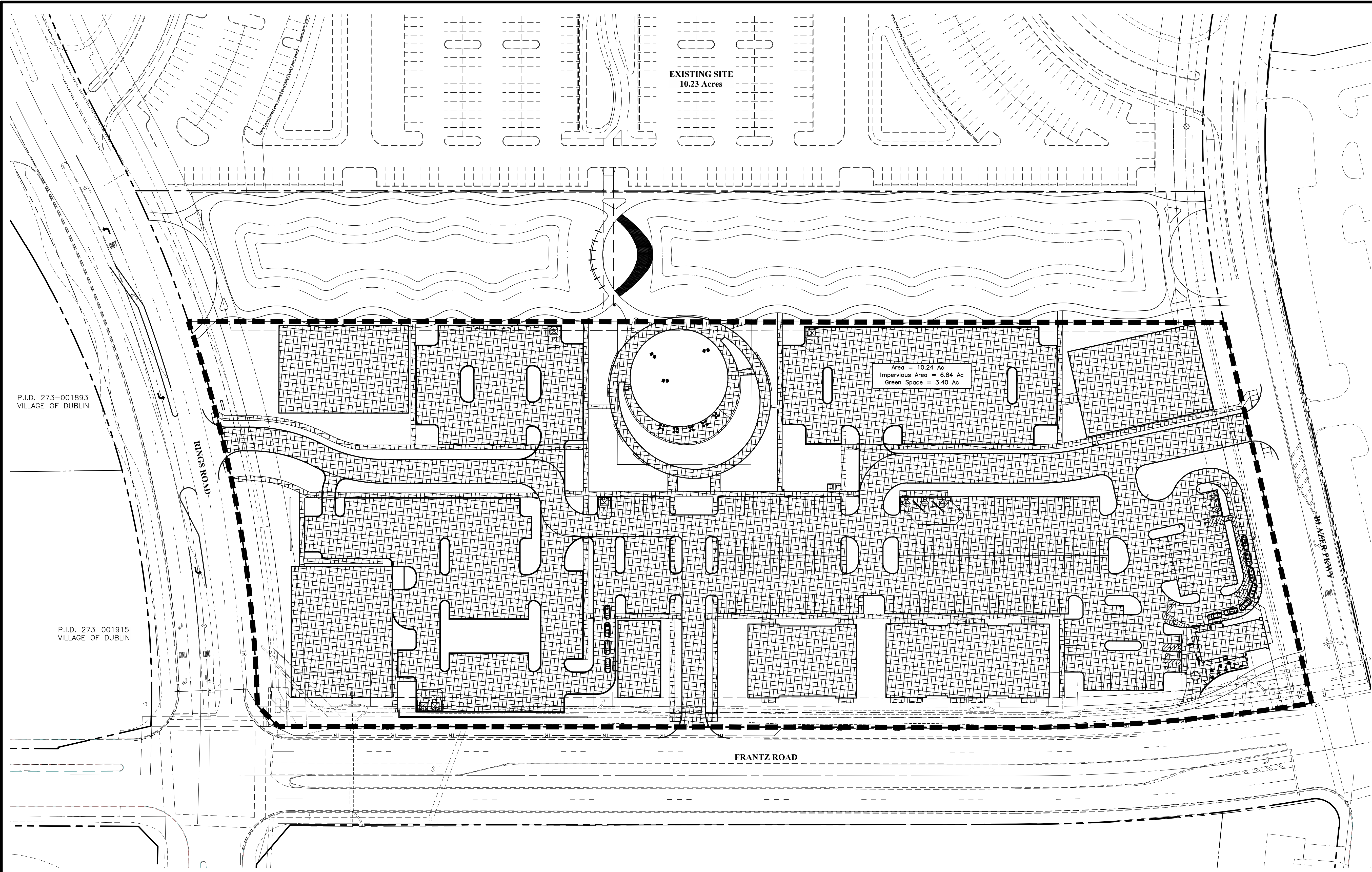
- 1 Routing Diagram
- 2 Rainfall Events Listing

1-year Event

- 3 Pond 14P: Wet Basins 01 & 02 WQ @ 862.92'

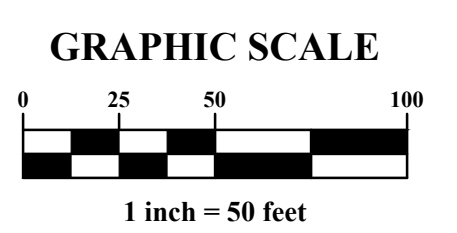
Multi-Event Tables

- 6 Pond 14P: Wet Basins 01 & 02 WQ @ 862.92'



EXISTING SITE
10.23 Acres

Area = 10.24 Ac
Impervious Area = 6.84 Ac
Green Space = 3.40 Ac



P.I.D. 273-001893
VILLAGE OF DUBLIN

P.I.D. 273-001915
VILLAGE OF DUBLIN

RINGS ROAD

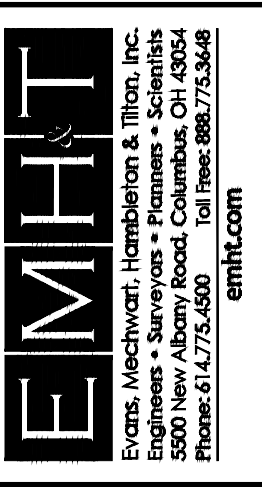
FRANTZ ROAD

BAKER HOME AVENUE

MARK	DATE	DESCRIPTION

CLIENT NAME

CITY OF COLUMBUS, FRANKLIN COUNTY, OHIO
PRELIMINARY DEVELOPMENT PLAN
FOR
THE CORNERS
SITE PLAN



DATE
September 3, 2019

SCALE
1" = 50'

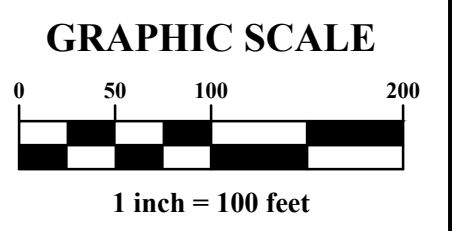
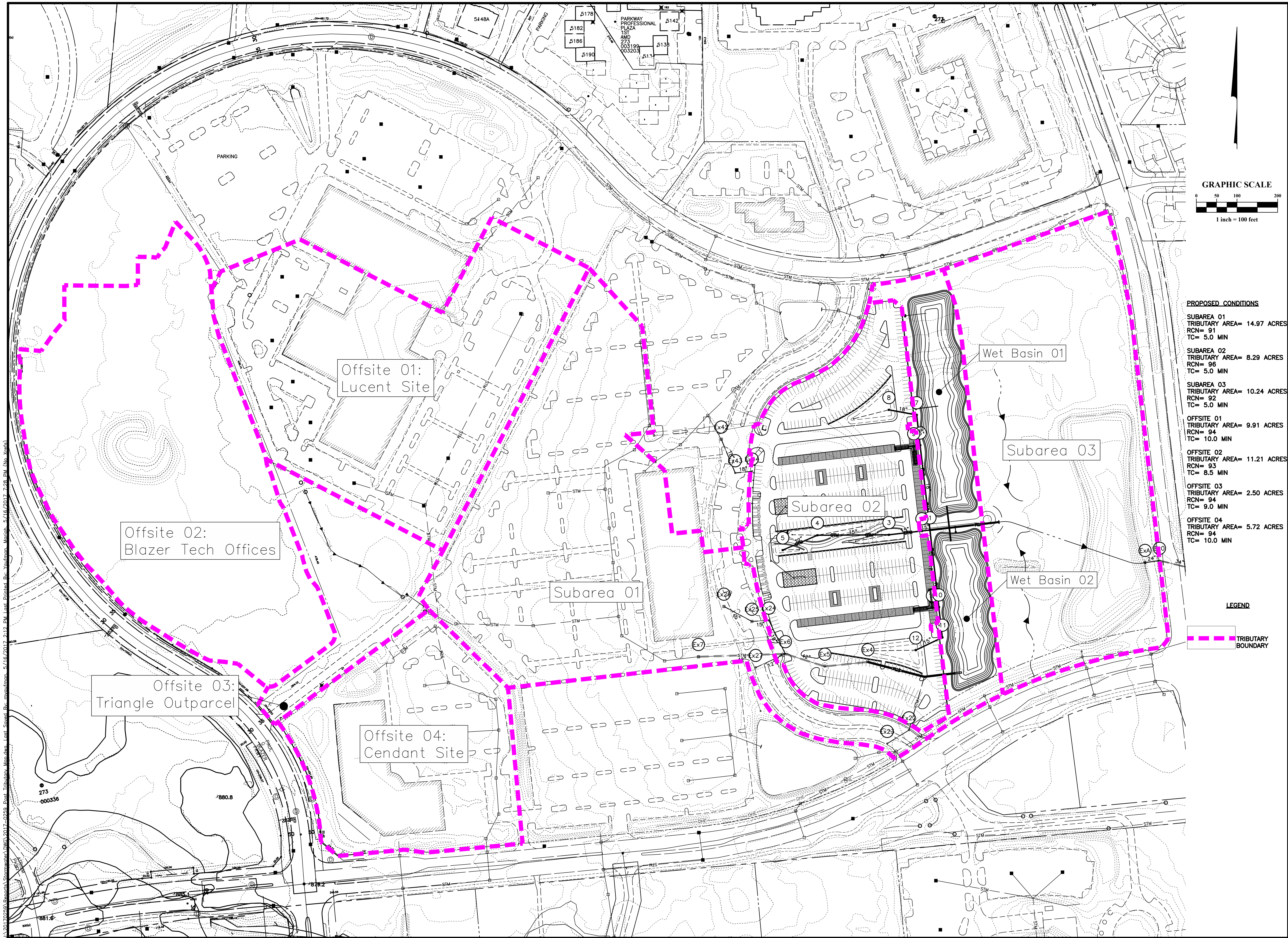
JOB NO.
2019-0873

SHEET
4/6

PRELIMINARY
NOT TO BE USED FOR
CONSTRUCTION

PLAN SET DATE
September 3, 2019

\\emhda01\project01\20190873\Draw\04Sheets\Exhibits\Stormwater\Impervious Exhibit.dwg, Last Saved By: materschulte, 5/20/2020 2:24 PM, Last Printed By: Stebeschulte, Matthew, 5/20/2020 2:25 PM (No Xrefs)



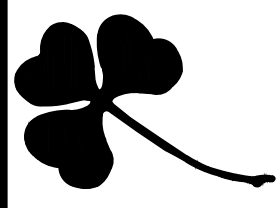
PROPOSED CONDITIONS

SUBAREA 01	TRIBUTARY AREA= 14.97 ACRES
RCN= 91	TC= 5.0 MIN
SUBAREA 02	TRIBUTARY AREA= 8.29 ACRES
RCN= 98	TC= 5.0 MIN
SUBAREA 03	TRIBUTARY AREA= 10.24 ACRES
RCN= 92	TC= 5.0 MIN
OFFSITE 01	TRIBUTARY AREA= 9.91 ACRES
RCN= 94	TC= 10.0 MIN
OFFSITE 02	TRIBUTARY AREA= 11.21 ACRES
RCN= 93	TC= 8.5 MIN
OFFSITE 03	TRIBUTARY AREA= 2.50 ACRES
RCN= 94	TC= 9.0 MIN
OFFSITE 04	TRIBUTARY AREA= 5.72 ACRES
RCN= 94	TC= 10.0 MIN

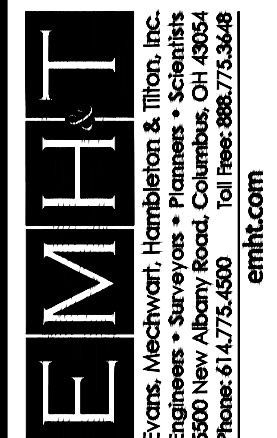
LEGEND

--- TRIBUTARY BOUNDARY

MARK	DATE	DESCRIPTION



CITY OF DUBLIN, FRANKLIN COUNTY, OHIO
 STORMWATER MANAGEMENT PLAN
 FOR
DUBLIN SMART PARKING LOT
 POST-TRIBUTARY MAP



DATE	M 16, 2017
SCALE	1" = 100'
JOB NO.	2017-0259
SHEET	Exhibit 2

A:\2017\0259\Present\A\Stormwater\DWG\2017_0259_Post_Tributary_Map.dwg, Last Saved: Tue, 06/13/2017 10:46:27 AM, User: jmcneil, Plot Date: 6/16/2017 2:12 PM, Plot Scale: 1"=100', Plot Path: E:\16\2017_0259_Post_Tributary_Map.dwg

Project Description

File Name 2017-0259 Dublin Smart Park 2017-5-15.SPF

Project Options

Flow Units CFS
 Elevation Type Elevation
 Hydrology Method SCS TR-55
 Time of Concentration (TOC) Method User-Defined
 Link Routing Method Hydrodynamic
 Enable Overflow Ponding at Nodes YES
 Skip Steady State Analysis Time Periods NO

Analysis Options

Start Analysis On Apr 11, 2017 00:00:00
 End Analysis On Apr 12, 2017 00:00:00
 Start Reporting On Apr 11, 2017 00:00:00
 Antecedent Dry Days 0 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 00:05:00 days hh:mm:ss
 Routing Time Step 1 seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins.....	16
Nodes.....	35
<i>Junctions</i>	21
<i>Outfalls</i>	1
<i>Flow Diversions</i>	0
<i>Inlets</i>	0
<i>Storage Nodes</i>	13
Links.....	49
<i>Channels</i>	1
<i>Pipes</i>	21
<i>Pumps</i>	0
<i>Orifices</i>	20
<i>Weirs</i>	2
<i>Outlets</i>	5
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1		Time Series	1-year	Cumulative	inches	Ohio	Franklin	1	2.20	SCS Type II 24-hr

Subbasin Summary

SN Subbasin ID	Area (ac)	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1 Offsite 01: Lucent site	9.91	94.00	2.20	1.58	15.70	21.20	0 00:10:00
2 Offsite 02 - 01	3.38	92.00	2.20	1.42	4.79	7.11	0 00:07:00
3 Offsite 02 - 02	7.84	93.00	2.20	1.50	11.75	16.61	0 00:08:30
4 Offsite 03: Triangle outparcel	2.50	74.00	2.20	0.45	1.12	1.43	0 00:09:00
5 Offsite 04: Cendant Site	5.72	94.00	2.20	1.58	9.06	12.24	0 00:10:00
6 Subarea 02 - to wb 02	0.43	95.60	2.20	1.73	0.74	1.12	0 00:05:00
7 Subarea 02 -to wb1	0.52	95.60	2.20	1.73	0.90	1.37	0 00:05:00
8 Subarea 03	10.24	89.68	2.20	1.24	12.73	20.23	0 00:05:00
9 Subarea01	14.97	90.80	2.20	1.33	19.83	31.39	0 00:05:00
10 ToBiobasin01	1.39	95.60	2.20	1.73	2.41	3.64	0 00:05:00
11 ToBiobasin02	0.52	95.60	2.20	1.73	0.90	1.36	0 00:05:00
12 ToBiobasin03	1.35	95.60	2.20	1.73	2.34	3.54	0 00:05:00
13 ToBiobasin04	0.81	95.60	2.20	1.73	1.40	2.11	0 00:05:00
14 ToBiobasin05	1.44	95.60	2.20	1.73	2.48	3.75	0 00:05:00
15 ToPP01-02	0.91	95.60	2.20	1.73	1.58	2.38	0 00:05:00
16 ToPP03-04	0.93	95.60	2.20	1.73	1.60	2.43	0 00:05:00

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	Biobasin02dummysnode	Junction	862.67	867.17	862.67	867.17	0.00	0.66	863.15	0.00	4.02	0 00:00	0.00	0.00
2	CatchBasin03	Junction	862.00	866.50	862.00	866.50	2879.24	1.26	863.04	0.00	3.46	0 00:00	0.00	0.00
3	CatchBasin04	Junction	862.44	866.94	862.44	866.94	4642.88	1.14	863.04	0.00	3.90	0 00:00	0.00	0.00
4	CatchBasin05	Junction	862.67	867.17	862.67	867.17	1566.12	0.61	863.04	0.00	4.13	0 00:00	0.00	0.00
5	CatchBasin12	Junction	862.60	867.10	862.60	867.10	6347.63	0.32	863.04	0.00	4.06	0 00:00	0.00	0.00
6	CatchBasin8	Junction	862.64	867.14	862.64	867.14	6037.65	0.30	863.04	0.00	4.10	0 00:00	0.00	0.00
7	Dummy1	Junction	861.69	867.00	861.69	867.00	0.00	8.82	863.15	0.00	3.85	0 00:00	0.00	0.00
8	Ex0	Junction	860.13	865.00	860.13	865.00	0.00	9.56	860.97	0.00	4.03	0 00:00	0.00	0.00
9	ExA	Junction	860.81	865.00	860.81	865.00	0.00	9.62	862.05	0.00	4.76	0 00:00	0.00	0.00
10	Existing 36-inch outlet pipe	Junction	870.00	875.50	870.00	875.50	0.00	10.74	870.87	0.00	5.53	0 00:00	0.00	0.00
11	Manhole 7	Junction	862.47	868.00	862.47	868.00	0.00	0.30	863.04	0.00	4.96	0 00:00	0.00	0.00
12	Manhole1	Junction	861.75	868.00	861.75	868.00	0.00	1.47	863.03	0.00	4.97	0 00:00	0.00	0.00
13	Manhole10	Junction	862.23	868.00	862.23	868.00	0.00	0.35	863.04	0.00	4.96	0 00:00	0.00	0.00
14	Manhole11	Junction	862.42	868.00	862.42	868.00	0.00	0.31	863.04	0.00	4.96	0 00:00	0.00	0.00
15	Manhole13	Junction	863.79	868.00	863.79	868.00	0.00	0.05	863.90	0.00	4.10	0 00:00	0.00	0.00
16	Manhole2	Junction	861.80	868.00	861.80	868.00	0.00	1.18	863.03	0.00	4.97	0 00:00	0.00	0.00
17	Manhole6	Junction	862.28	868.00	862.28	868.00	0.00	0.33	863.04	0.00	4.96	0 00:00	0.00	0.00
18	Manhole9	Junction	863.79	868.00	863.79	868.00	0.00	0.05	863.90	0.00	4.10	0 00:00	0.00	0.00
19	Offsite 02 outlet	Junction	877.50	881.50	877.50	881.50	0.00	0.47	877.70	0.00	4.50	0 00:00	0.00	0.00
20	OutToDitch	Junction	861.58	863.00	861.58	863.00	0.00	9.64	862.50	0.00	5.08	0 00:00	0.00	0.00
21	Structure1	Junction	861.69	868.00	861.69	868.00	0.00	9.65	863.03	0.00	4.97	0 00:00	0.00	0.00
22	Ex00 Outlet	Outfall	859.65					9.56	860.39					
23	Biobasin 01	Storage Node	862.64	867.14	865.14		0.00	3.63	866.17				0.00	0.00
24	Biobasin02	Storage Node	862.67	867.17	865.17		0.00	1.36	866.26				0.00	0.00
25	Biobasin03	Storage Node	862.44	867.10	865.00		0.00	3.53	866.08				0.00	0.00
26	Biobasin04	Storage Node	862.00	867.00	864.50		0.00	2.11	865.34				0.00	0.00
27	Biobasin05	Storage Node	862.60	867.10	865.10		0.00	3.75	866.13				0.00	0.00
28	Offsite 01 Parking lot ponding	Storage Node	871.00	879.00	877.50		0.00	20.95	877.87				0.00	0.00
29	Offsite 02 Wet basin 02	Storage Node	878.00	882.00	878.00		0.00	15.87	879.43				0.00	0.00
30	Offsite 02-wet basin 1	Storage Node	875.00	881.50	877.50		0.00	12.12	878.94				0.00	0.00
31	Offsite 04	Storage Node	871.65	878.00	871.65		0.00	12.09	875.76				0.00	0.00
32	Pavers01-02	Storage Node	863.79	867.24	863.79		0.00	2.38	864.78				0.00	0.00
33	Pavers03-04	Storage Node	863.79	867.24	863.79		0.00	2.43	864.81				0.00	0.00
34	Wet Basin 02	Storage Node	859.00	867.00	862.00		0.00	41.84	863.73				0.00	0.00
35	WetBasin 01	Storage Node	859.00	867.00	862.00		0.00	29.73	863.73				0.00	0.00

Subbasin Hydrology

Subbasin : Offsite 01: Lucent site

Input Data

Area (ac) 9.91
Weighted Curve Number 94.00
Rain Gage ID DublinRain

Composite Curve Number

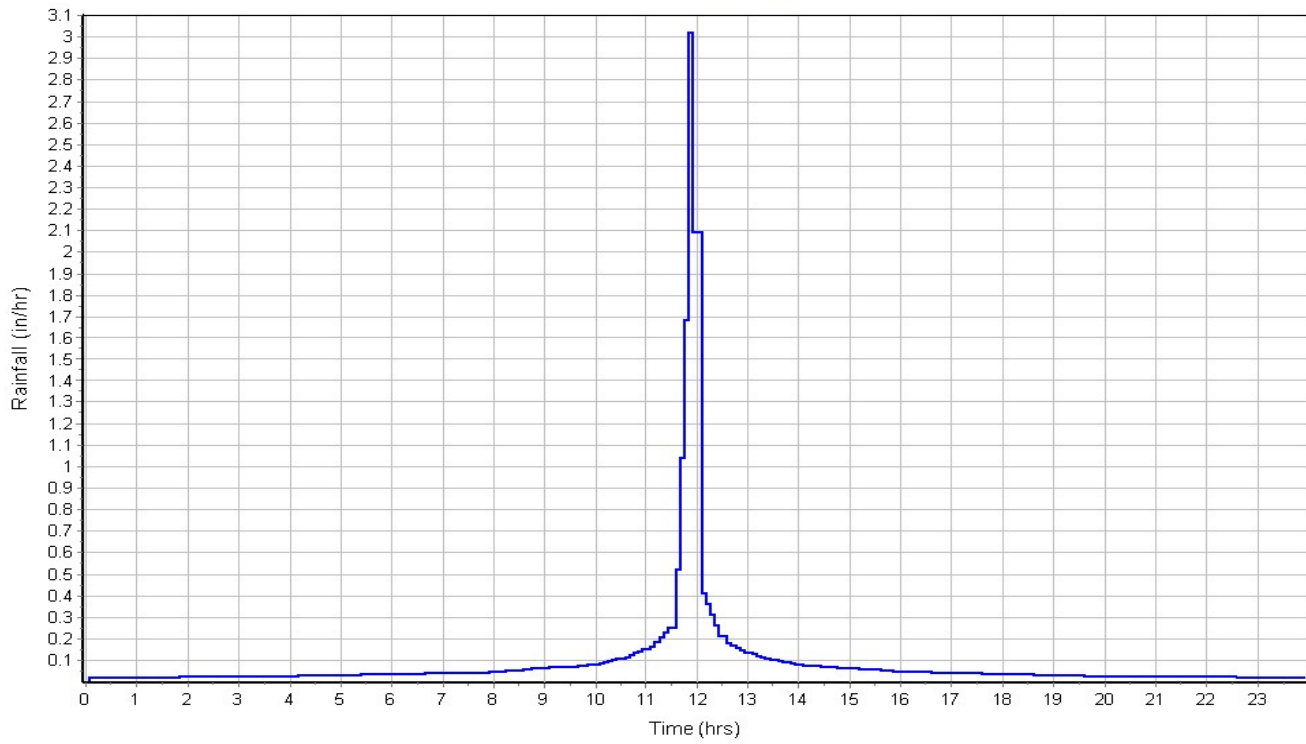
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	9.91	-	94.00
Composite Area & Weighted CN	9.91		94.00

Subbasin Runoff Results

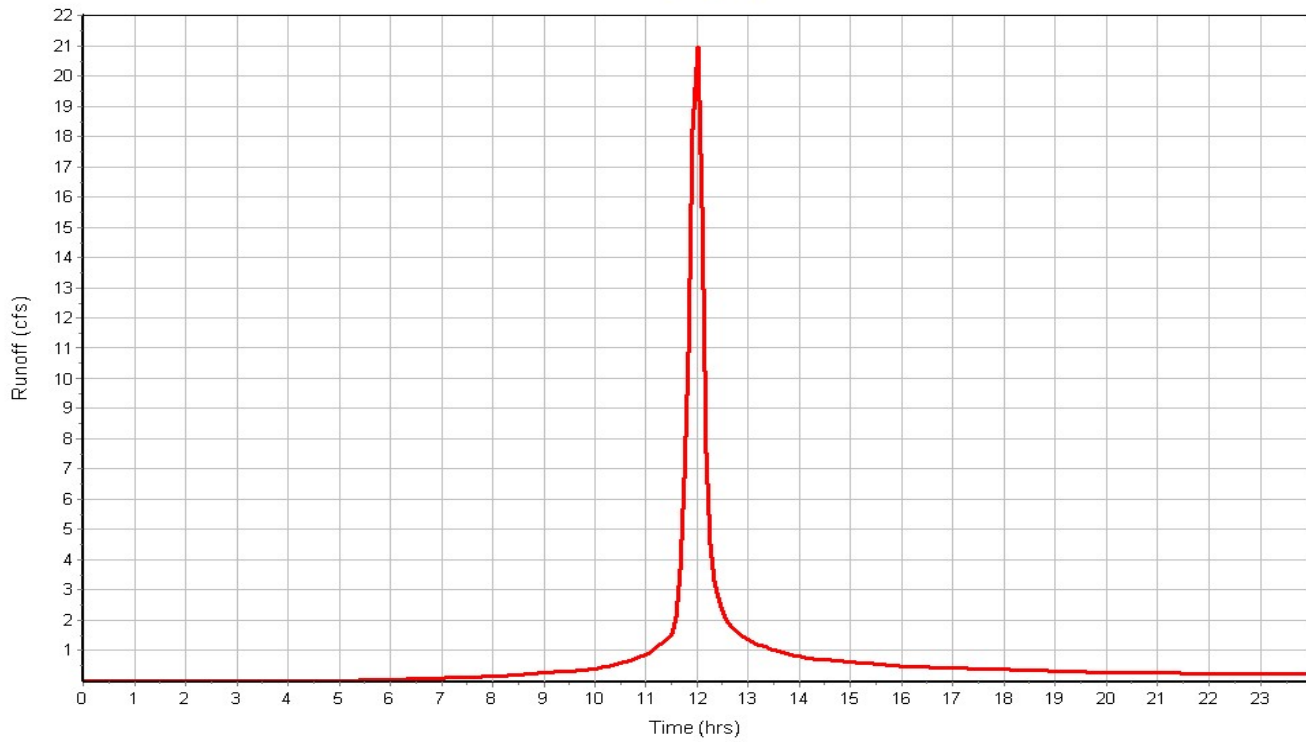
Total Rainfall (in) 2.20
Total Runoff (in) 1.58
Peak Runoff (cfs) 21.20
Weighted Curve Number 94.00
Time of Concentration (days hh:mm:ss) 0 00:10:00

Subbasin : Offsite 01: Lucent site

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 02 - 01

Input Data

Area (ac) 3.38
Weighted Curve Number 92.00
Rain Gage ID DublinRain

Composite Curve Number

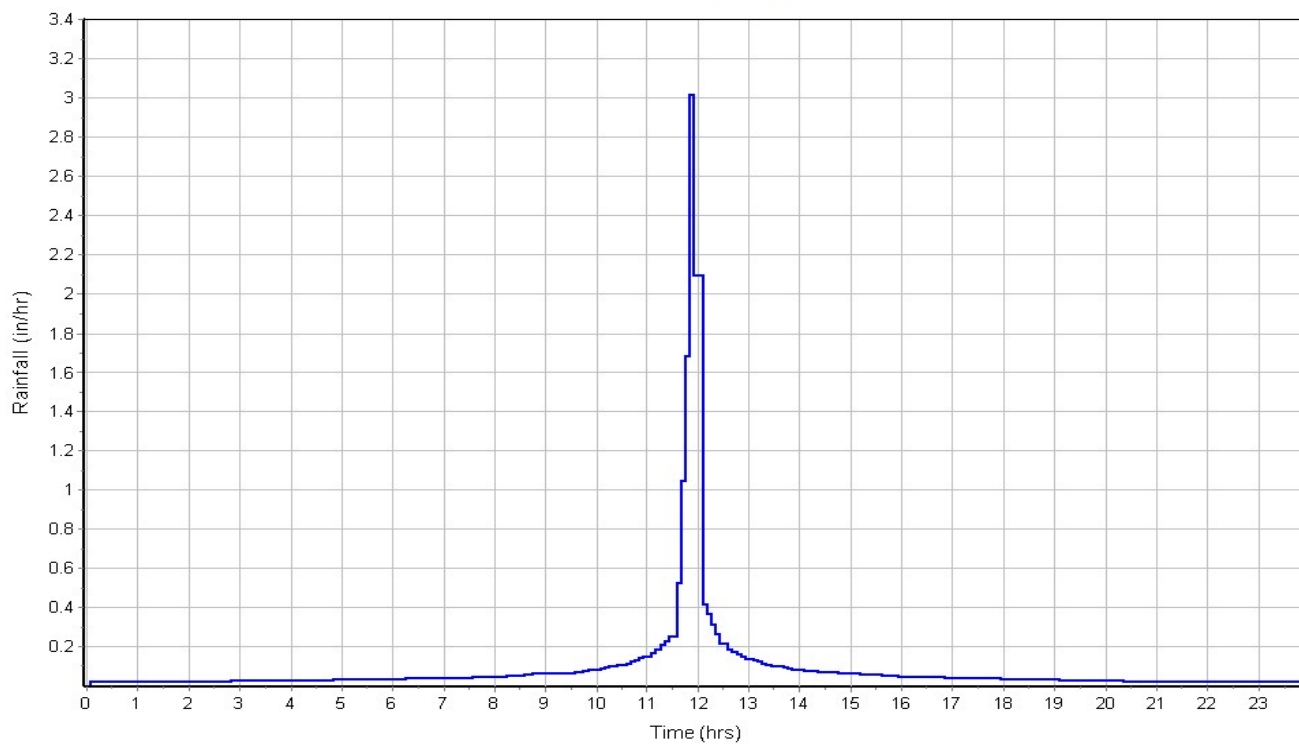
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	3.38	-	92.00
Composite Area & Weighted CN	3.38		92.00

Subbasin Runoff Results

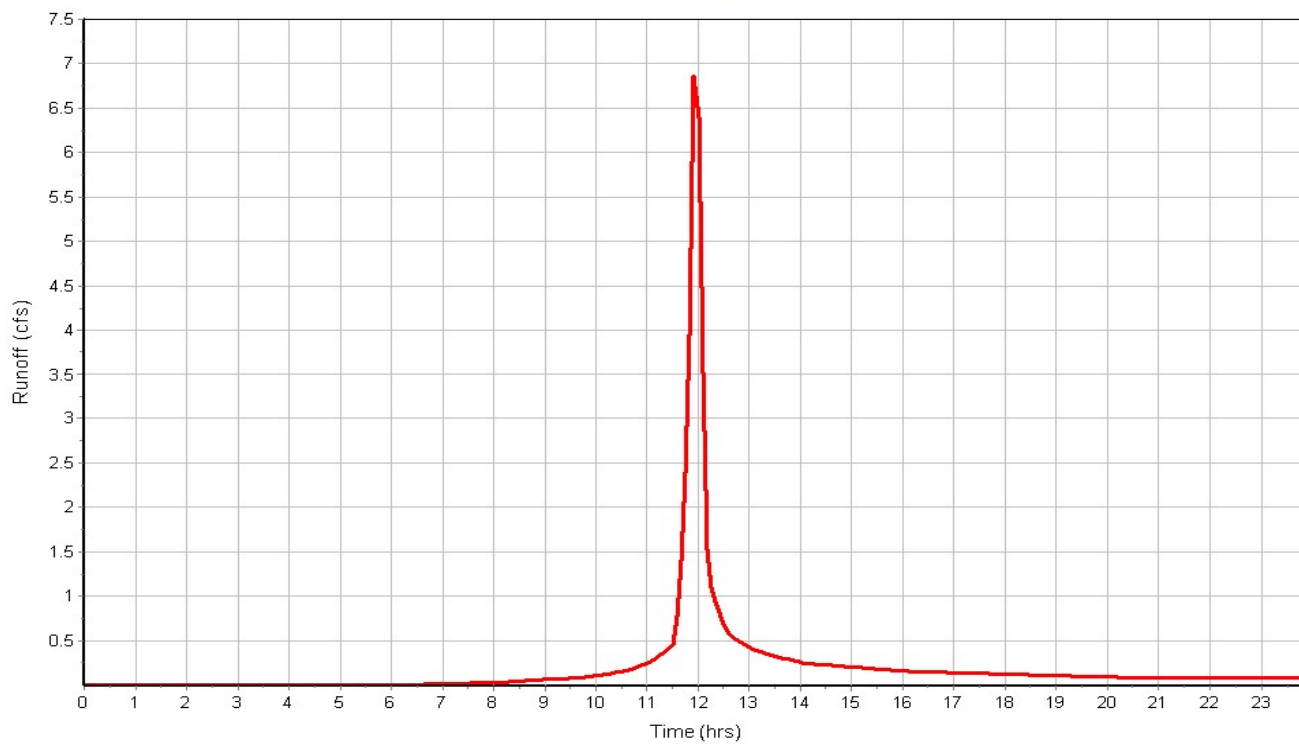
Total Rainfall (in) 2.20
Total Runoff (in) 1.42
Peak Runoff (cfs) 7.11
Weighted Curve Number 92.00
Time of Concentration (days hh:mm:ss) 0 00:07:00

Subbasin : Offsite 02 - 01

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 02 - 02

Input Data

Area (ac) 7.84
Weighted Curve Number 93.00
Rain Gage ID DublinRain

Composite Curve Number

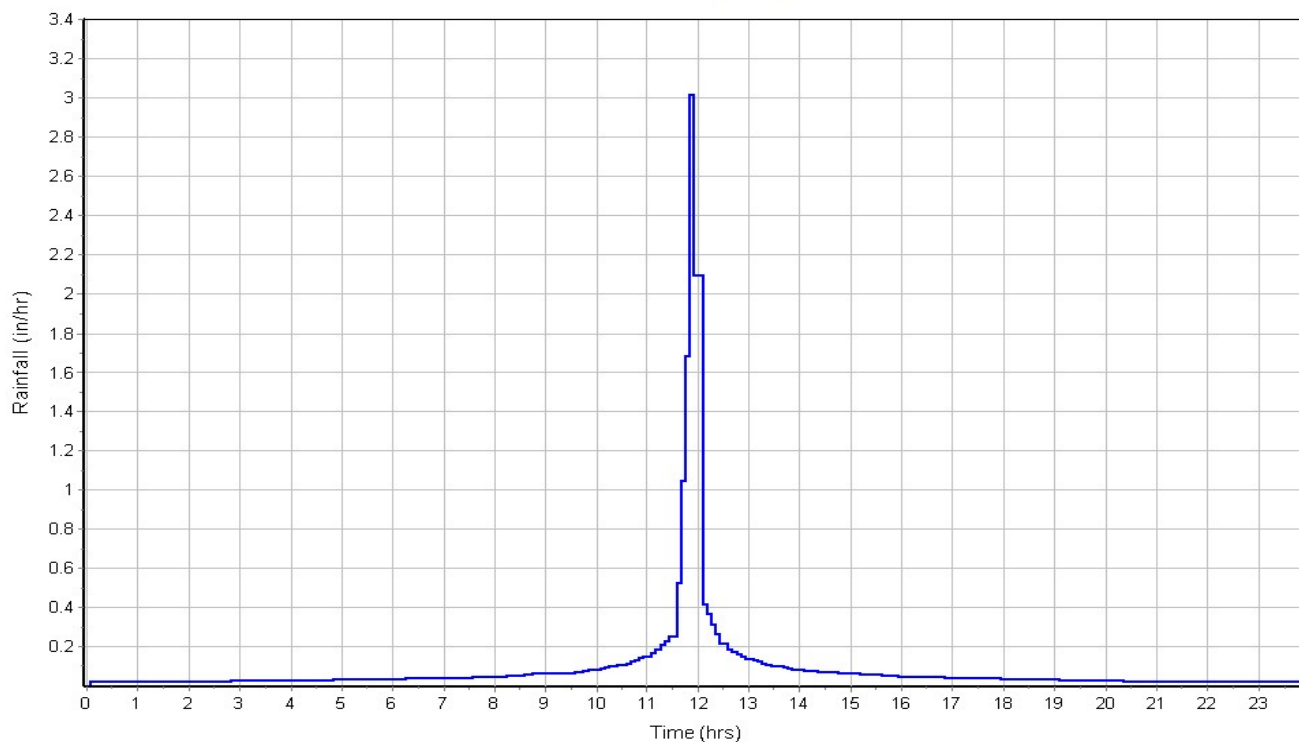
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	7.84	-	93.00
Composite Area & Weighted CN	7.84		93.00

Subbasin Runoff Results

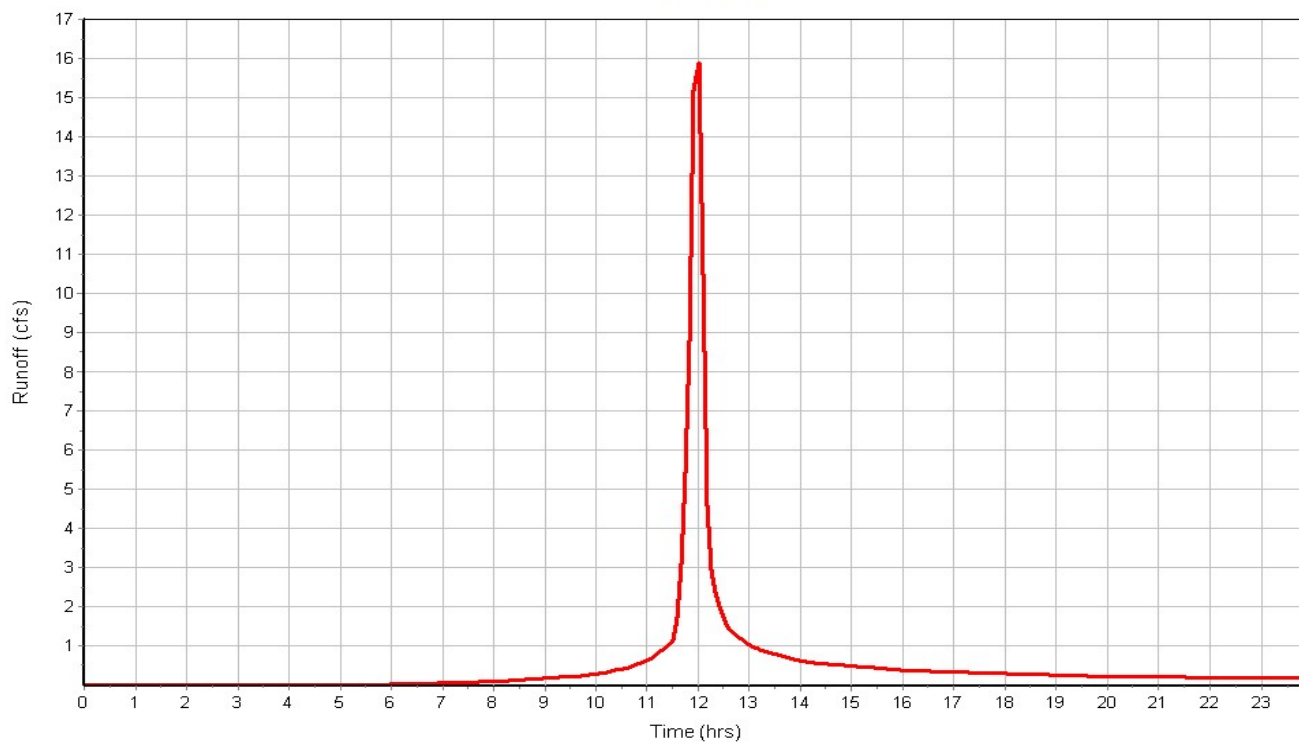
Total Rainfall (in) 2.20
Total Runoff (in) 1.50
Peak Runoff (cfs) 16.61
Weighted Curve Number 93.00
Time of Concentration (days hh:mm:ss) 0 00:08:30

Subbasin : Offsite 02 - 02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 03: Triangle outparcel

Input Data

Area (ac) 2.50
Weighted Curve Number 74.00
Rain Gage ID DublinRain

Composite Curve Number

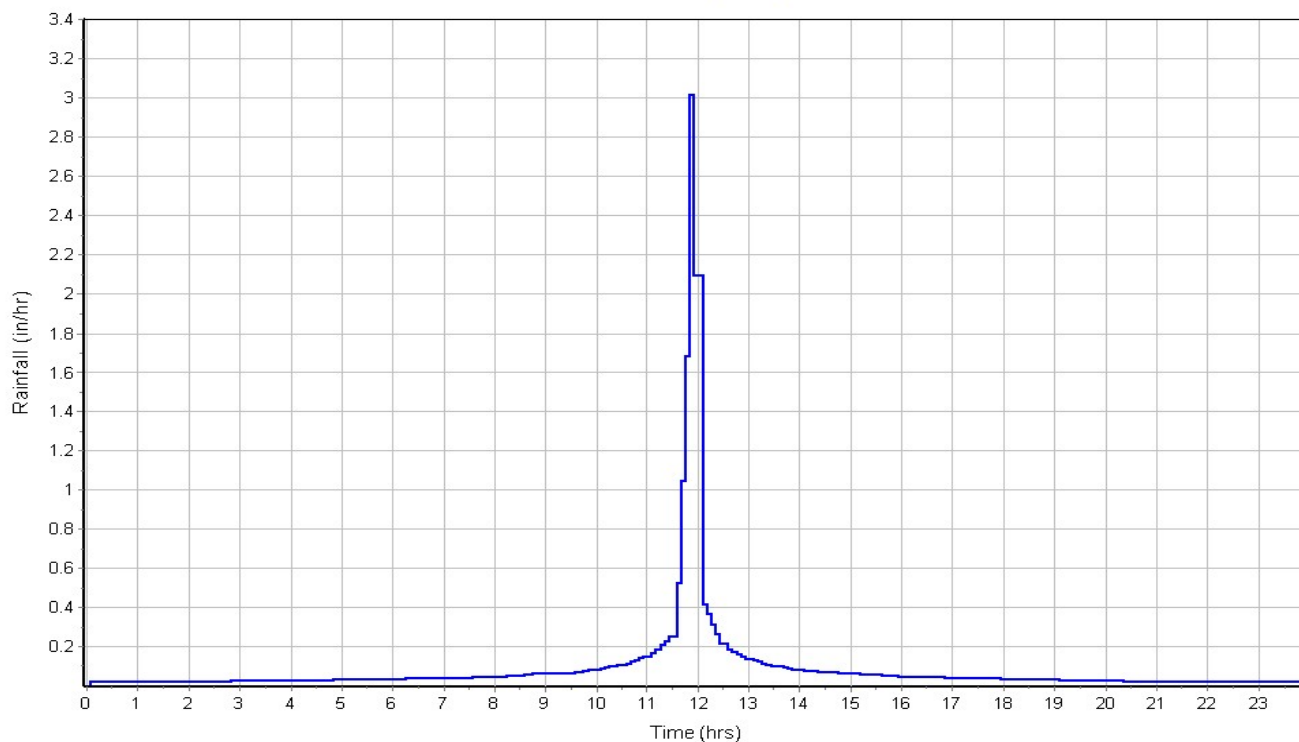
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	2.50	-	74.00
Composite Area & Weighted CN	2.50		74.00

Subbasin Runoff Results

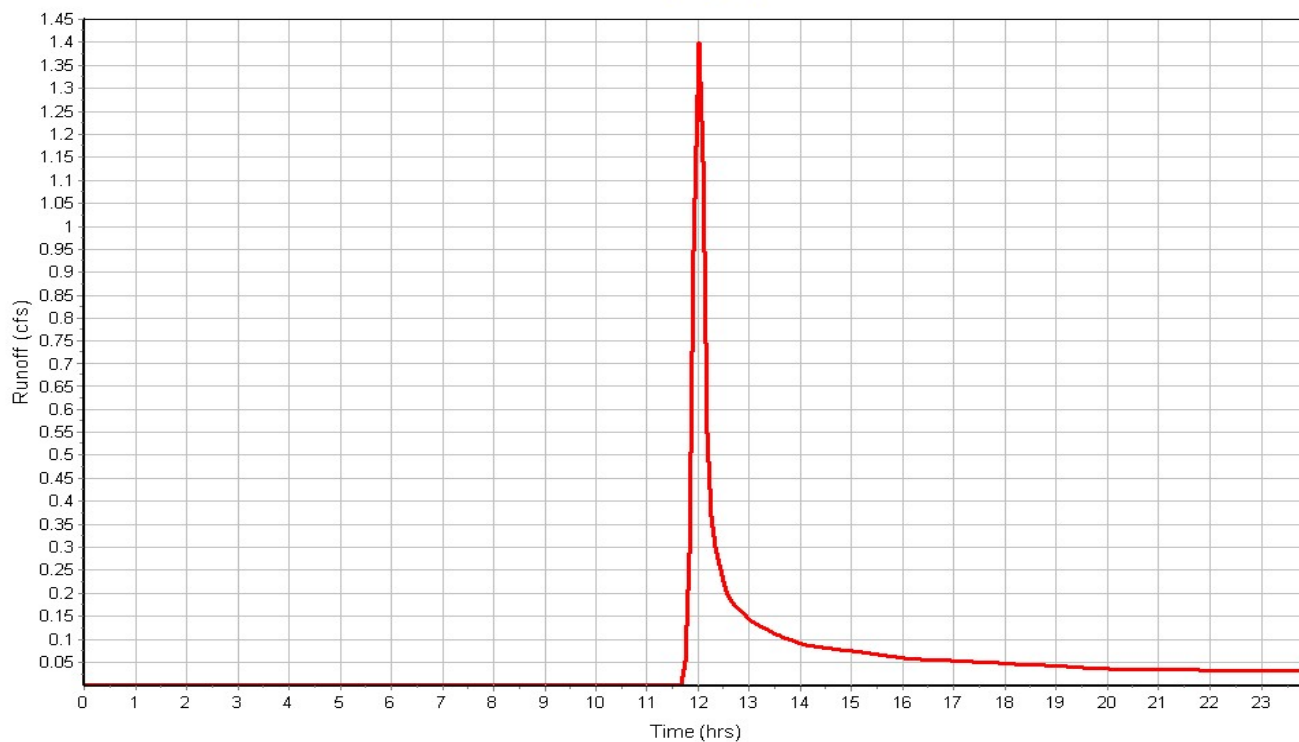
Total Rainfall (in) 2.20
Total Runoff (in) 0.45
Peak Runoff (cfs) 1.43
Weighted Curve Number 74.00
Time of Concentration (days hh:mm:ss) 0 00:09:00

Subbasin : Offsite 03: Triangle outparcel

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 04: Cendant Site

Input Data

Area (ac) 5.72
Weighted Curve Number 94.00
Rain Gage ID DublinRain

Composite Curve Number

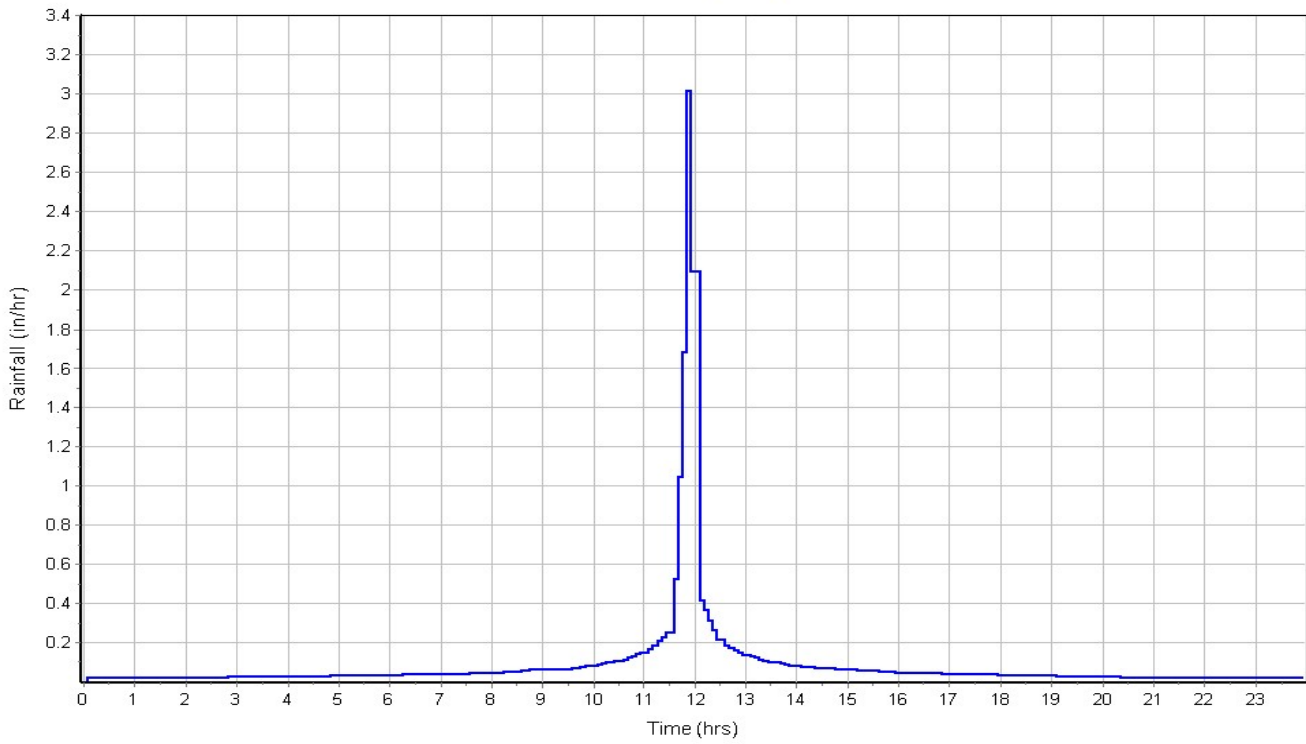
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	5.72	-	94.00
Composite Area & Weighted CN	5.72		94.00

Subbasin Runoff Results

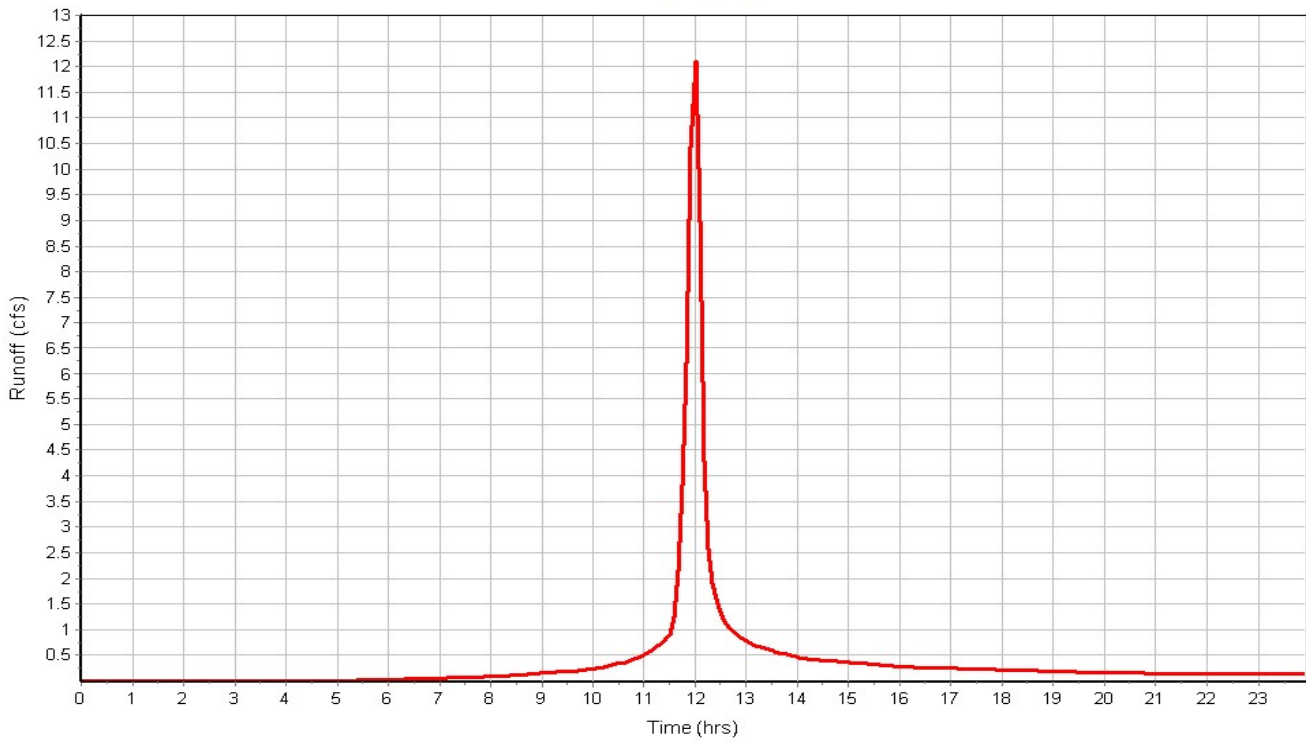
Total Rainfall (in) 2.20
Total Runoff (in) 1.58
Peak Runoff (cfs) 12.24
Weighted Curve Number 94.00
Time of Concentration (days hh:mm:ss) 0 00:10:00

Subbasin : Offsite 04: Cendant Site

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea 02 - to wb 02

Input Data

Area (ac) 0.43
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

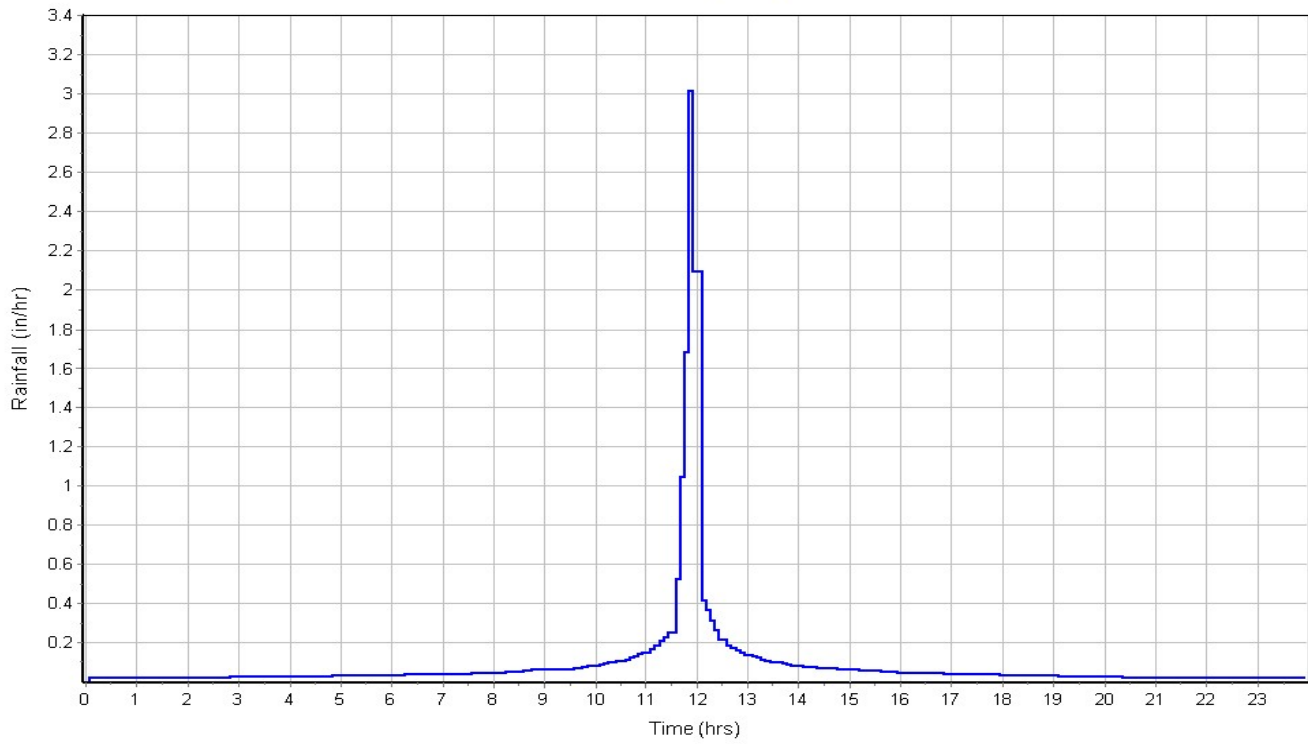
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.39	-	98.00
-	0.04	-	74.00
Composite Area & Weighted CN	0.43		95.60

Subbasin Runoff Results

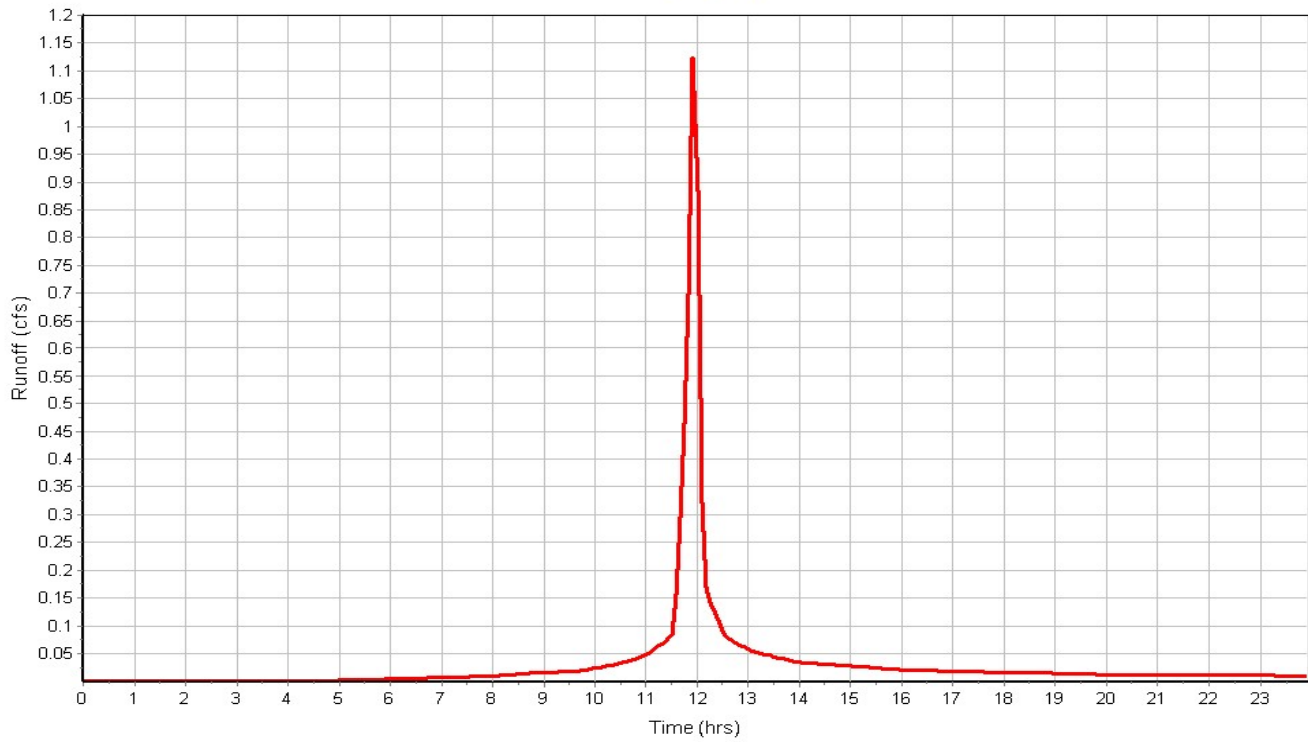
Total Rainfall (in) 2.20
Total Runoff (in) 1.73
Peak Runoff (cfs) 1.12
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea 02 - to wb 02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea 02 -to wb1

Input Data

Area (ac) 0.52
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

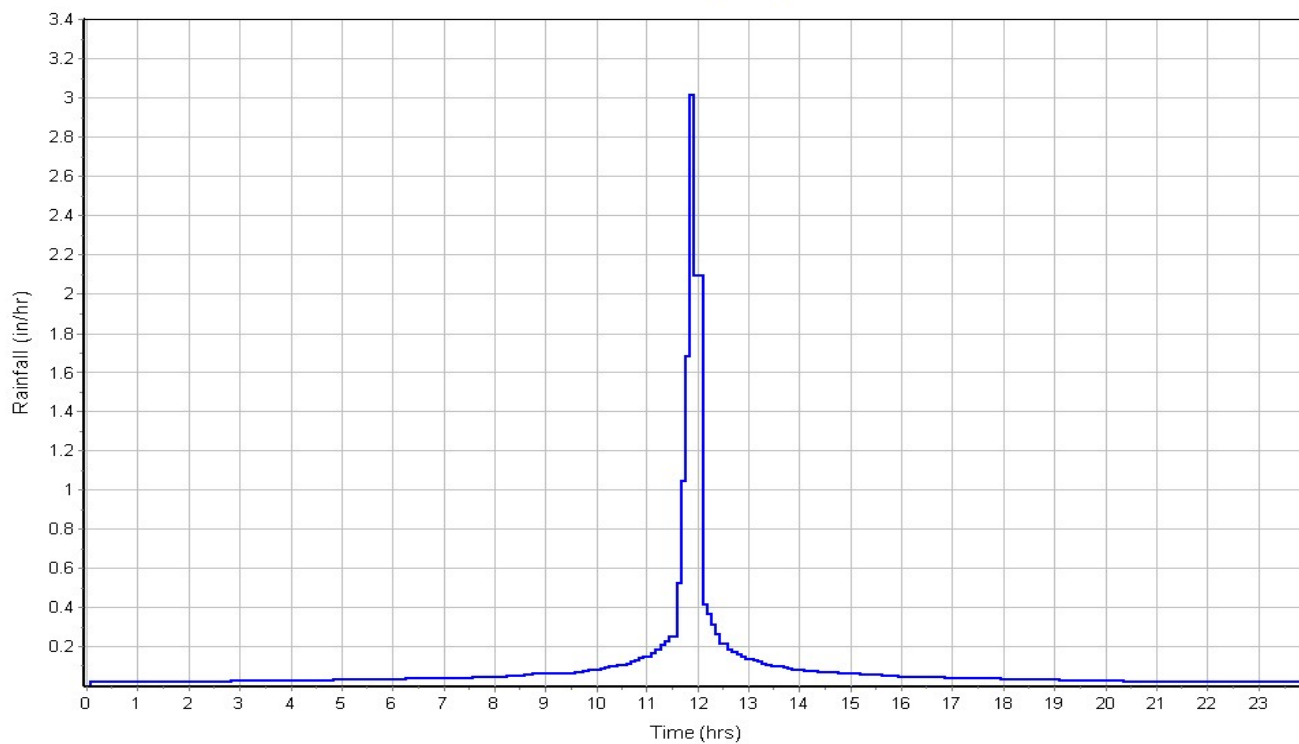
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.05	-	74.00
-	0.47	-	98.00
Composite Area & Weighted CN	0.52		95.60

Subbasin Runoff Results

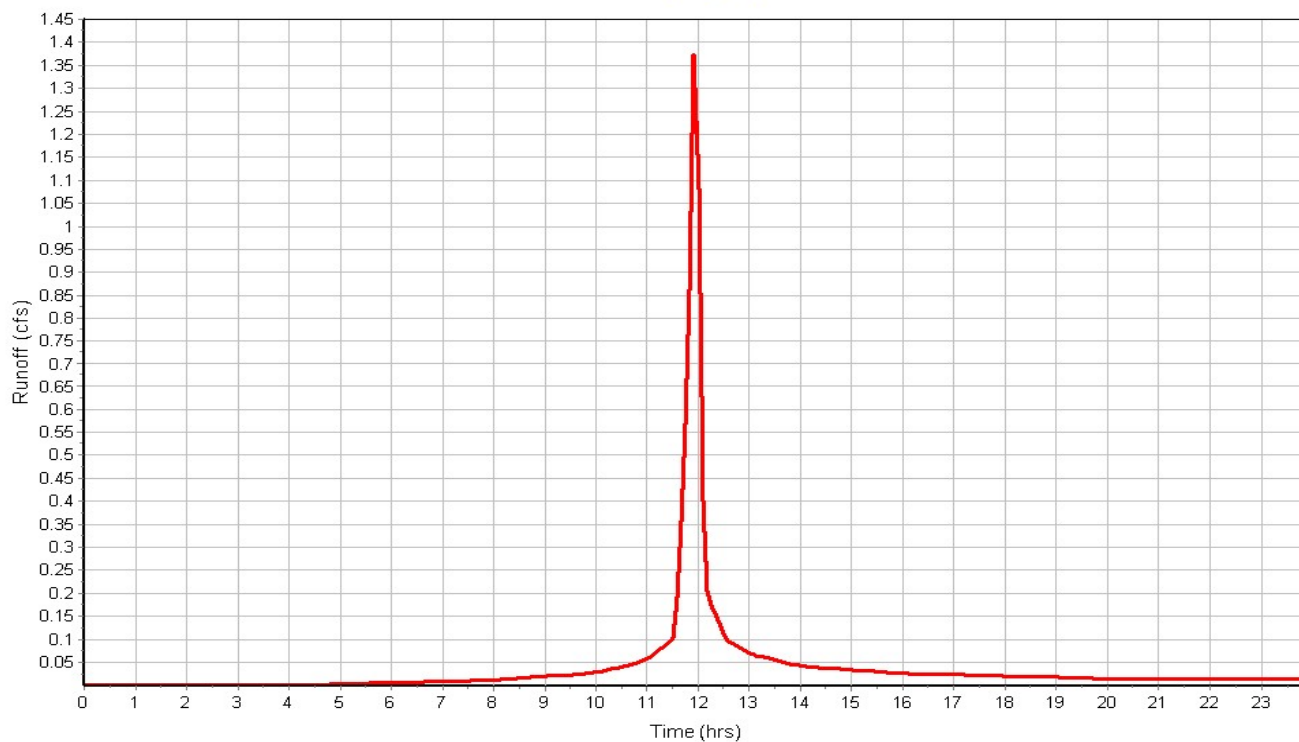
Total Rainfall (in) 2.20
Total Runoff (in) 1.73
Peak Runoff (cfs) 1.37
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea 02 -to wb1

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea 03

Input Data

Area (ac) 10.24
Weighted Curve Number 89.68
Rain Gage ID DublinRain

Composite Curve Number

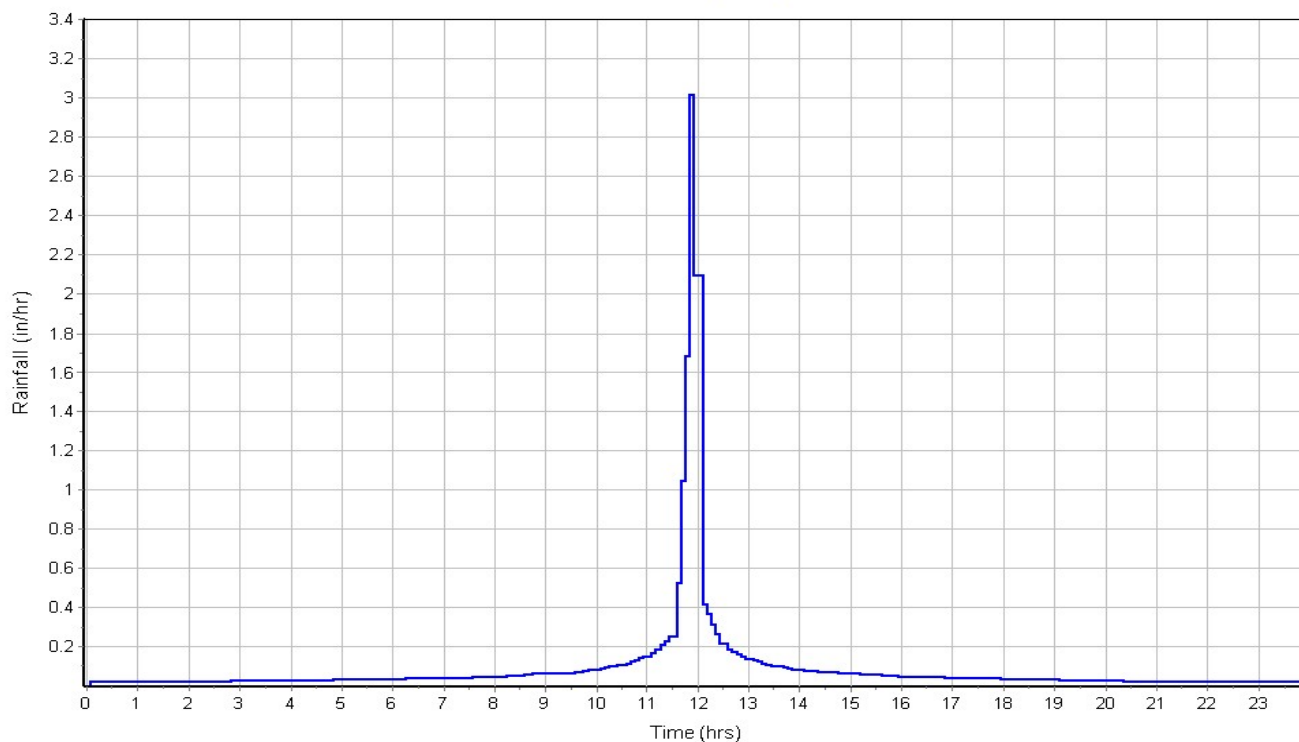
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	6.69	-	98.00
-	3.55	-	74.00
Composite Area & Weighted CN	10.24		89.68

Subbasin Runoff Results

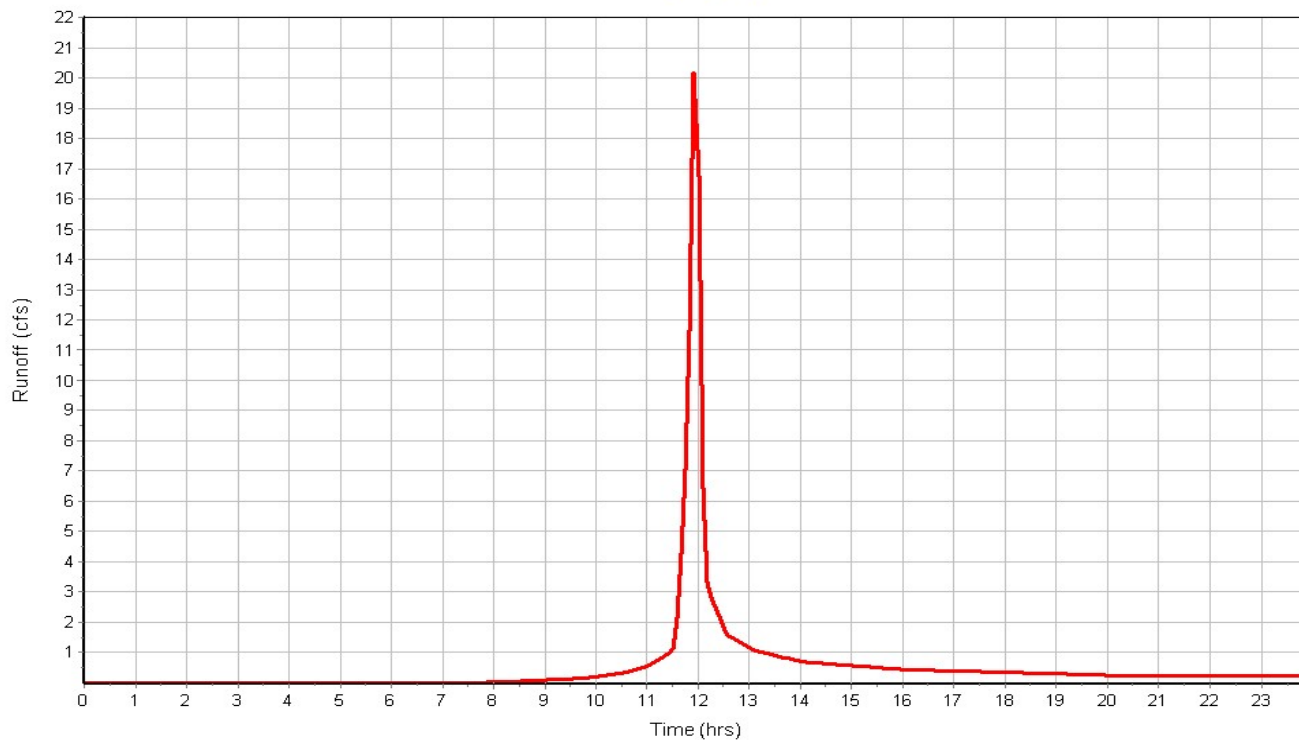
Total Rainfall (in) 2.20
Total Runoff (in) 1.24
Peak Runoff (cfs) 20.23
Weighted Curve Number 89.68
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea 03

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea01

Input Data

Area (ac) 14.97
Weighted Curve Number 90.80
Rain Gage ID DublinRain

Composite Curve Number

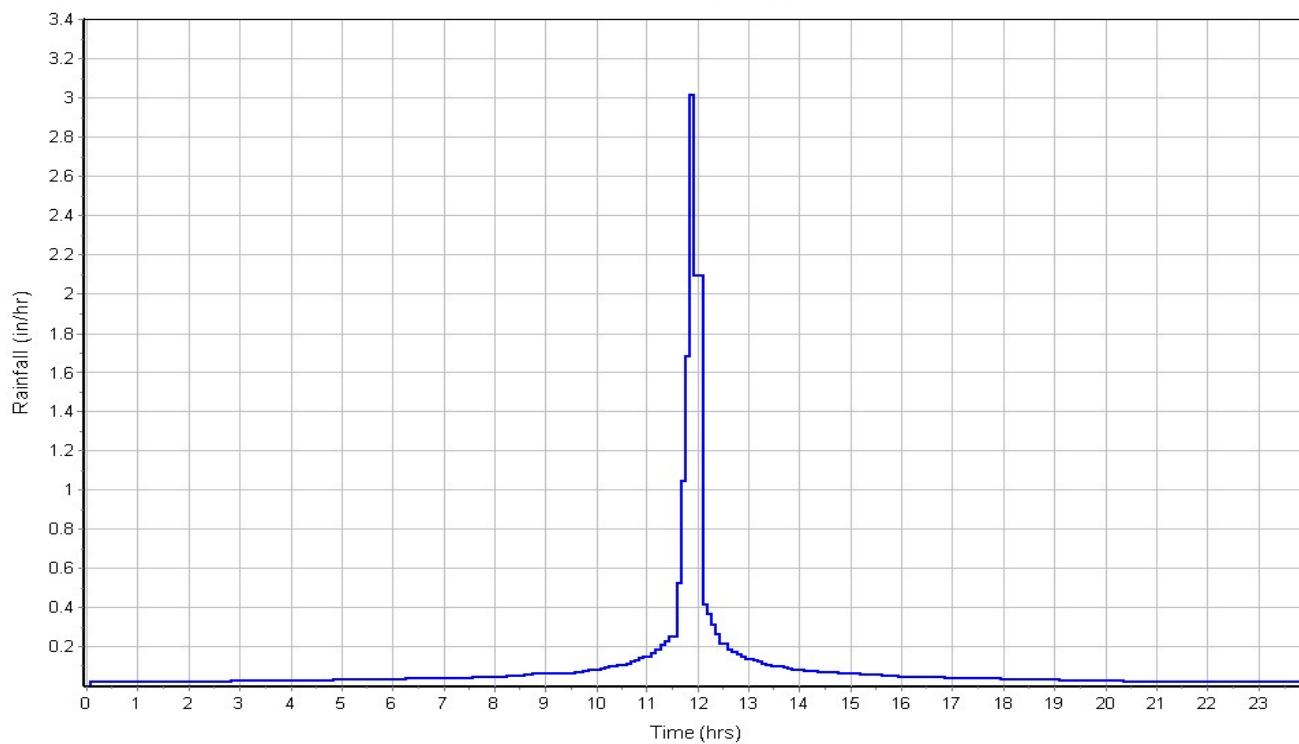
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	10.48	-	98.00
-	4.49	-	74.00
Composite Area & Weighted CN	14.97		90.80

Subbasin Runoff Results

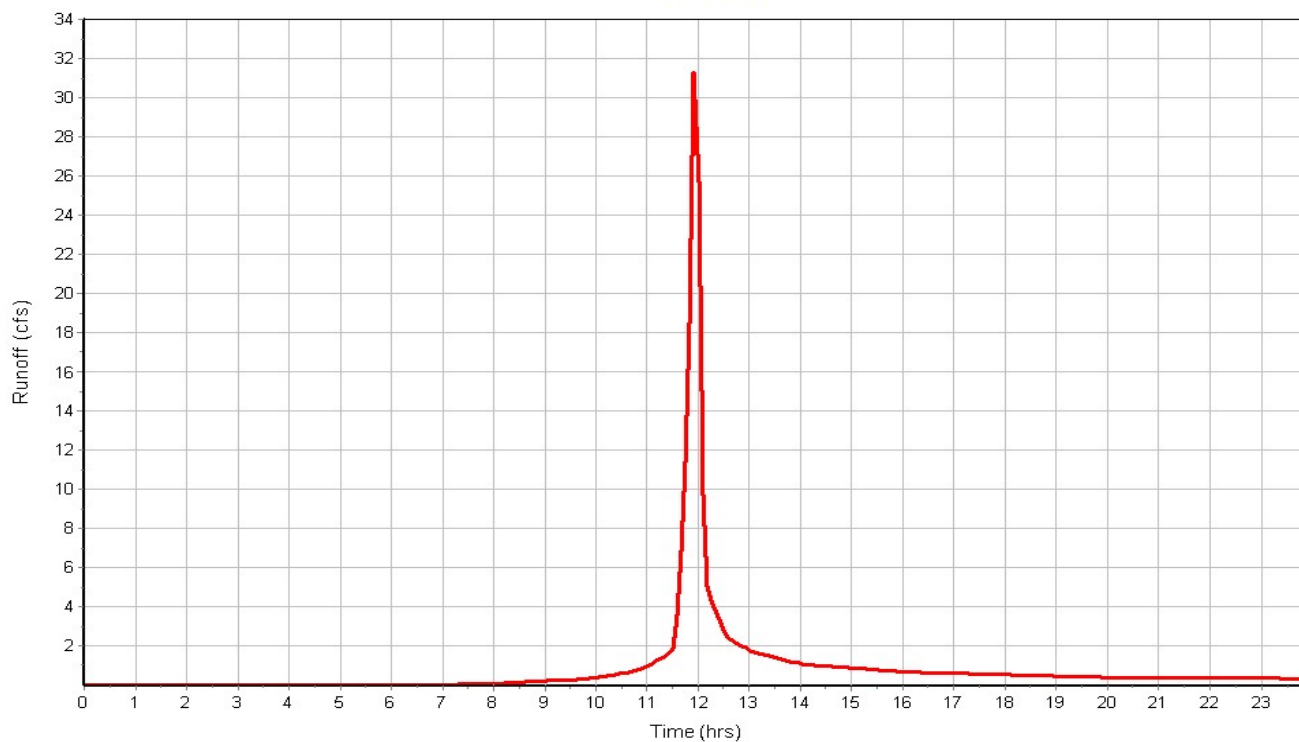
Total Rainfall (in) 2.20
Total Runoff (in) 1.33
Peak Runoff (cfs) 31.39
Weighted Curve Number 90.80
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea01

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin01

Input Data

Area (ac) 1.39
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

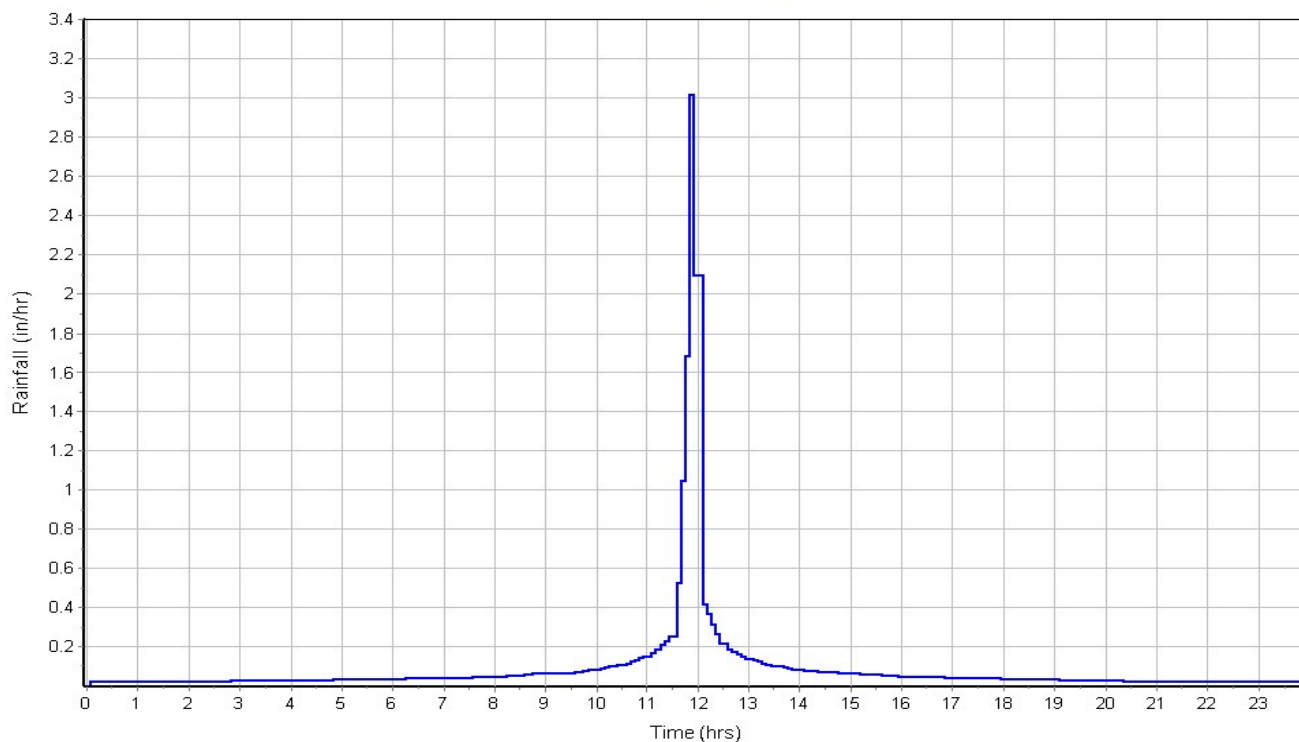
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	1.25	-	98.00
-	0.14	-	74.00
Composite Area & Weighted CN	1.39		95.60

Subbasin Runoff Results

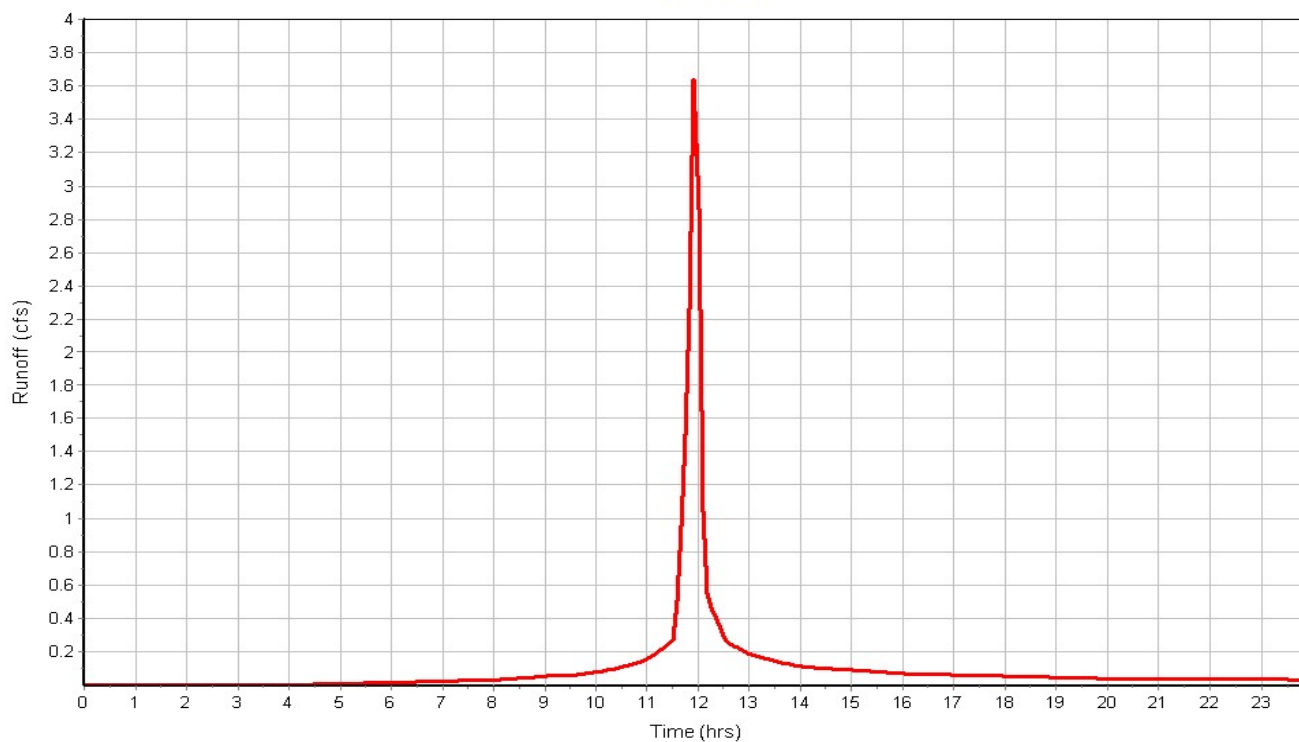
Total Rainfall (in) 2.20
Total Runoff (in) 1.73
Peak Runoff (cfs) 3.64
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin01

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin02

Input Data

Area (ac) 0.52
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

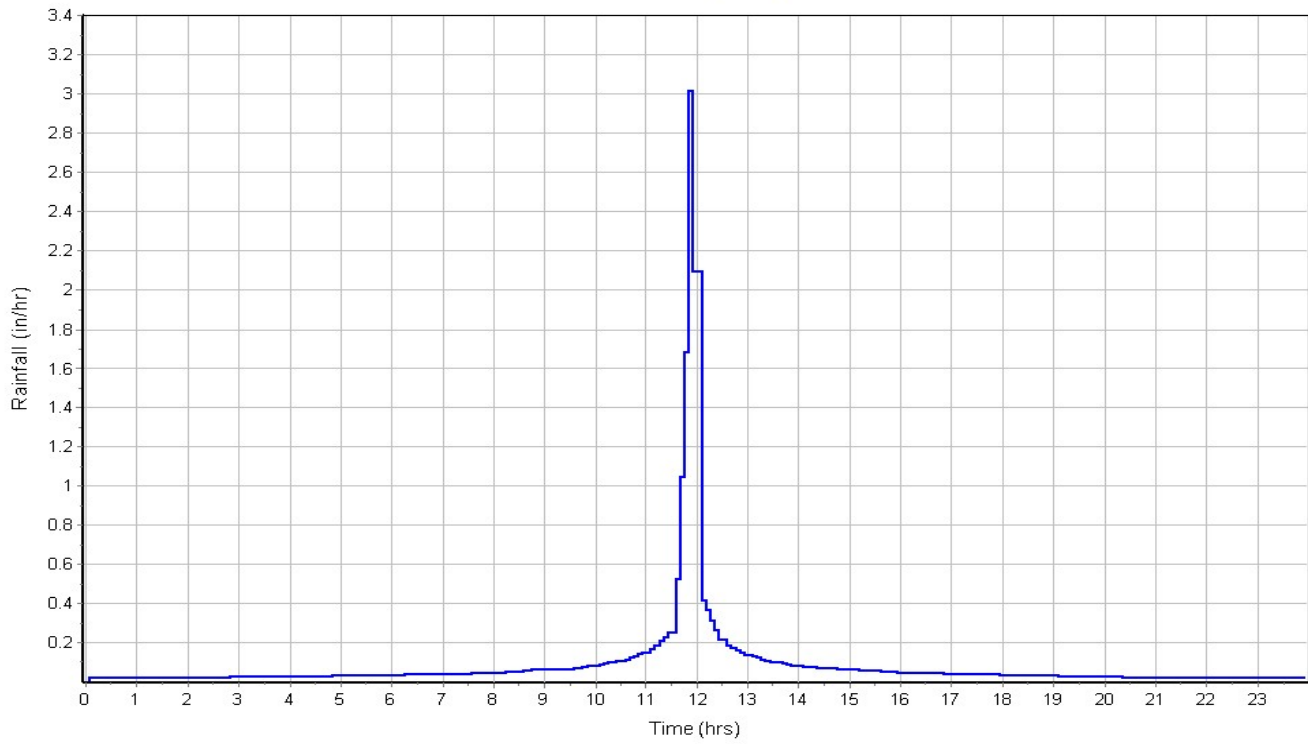
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.47	-	98.00
-	0.05	-	74.00
Composite Area & Weighted CN	0.52		95.60

Subbasin Runoff Results

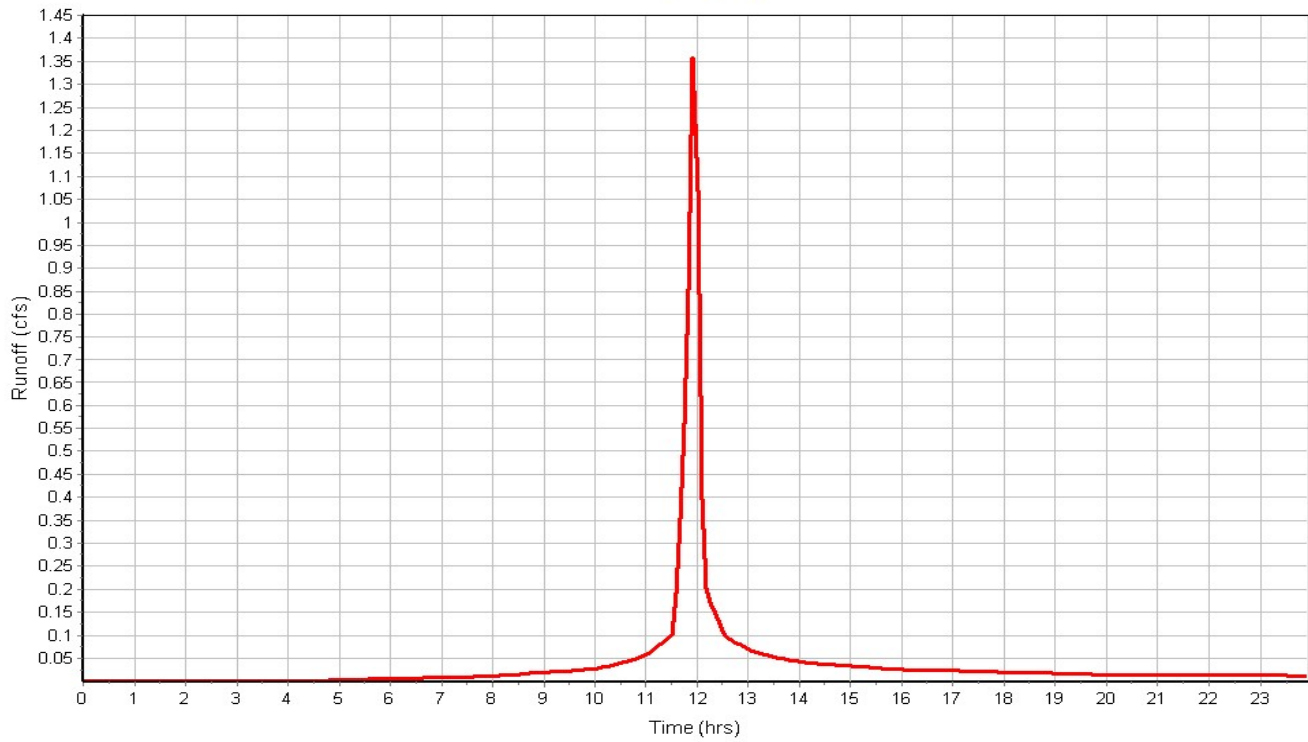
Total Rainfall (in) 2.20
Total Runoff (in) 1.73
Peak Runoff (cfs) 1.36
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin03

Input Data

Area (ac) 1.35
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

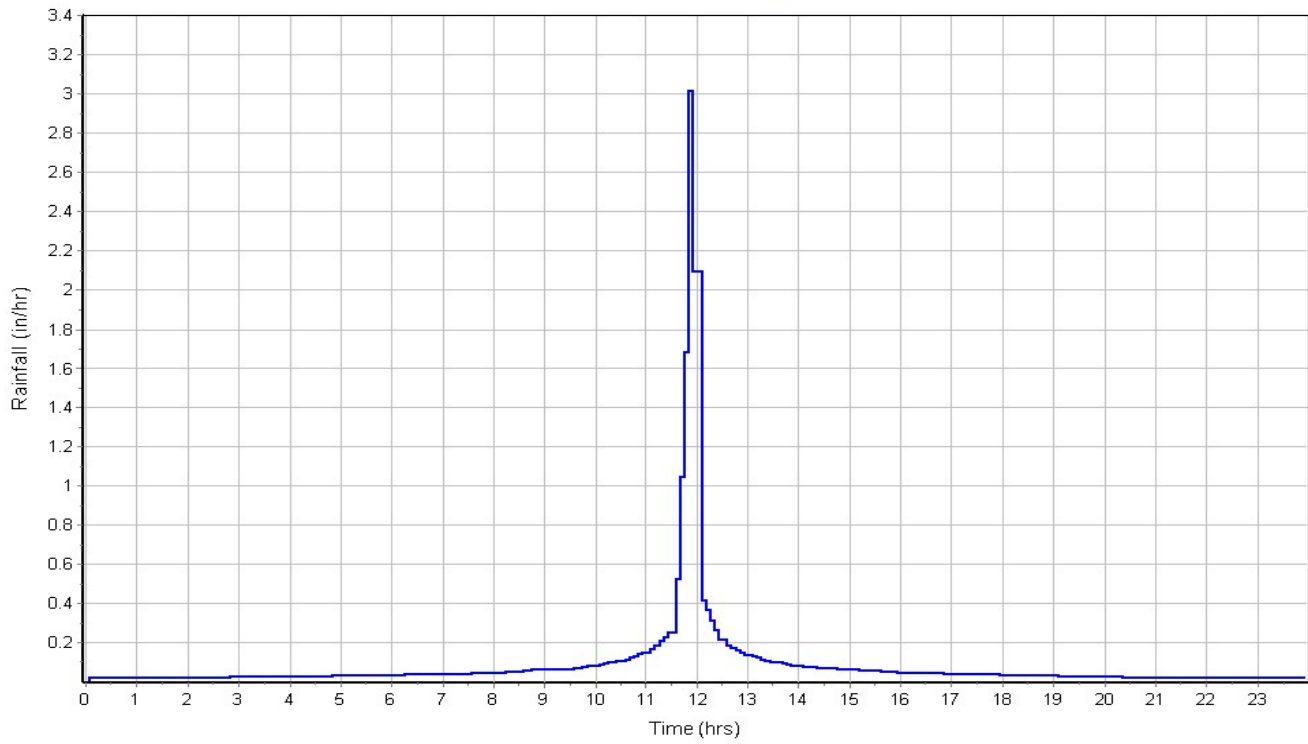
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	1.22	-	98.00
-	0.14	-	74.00
Composite Area & Weighted CN	1.36		95.60

Subbasin Runoff Results

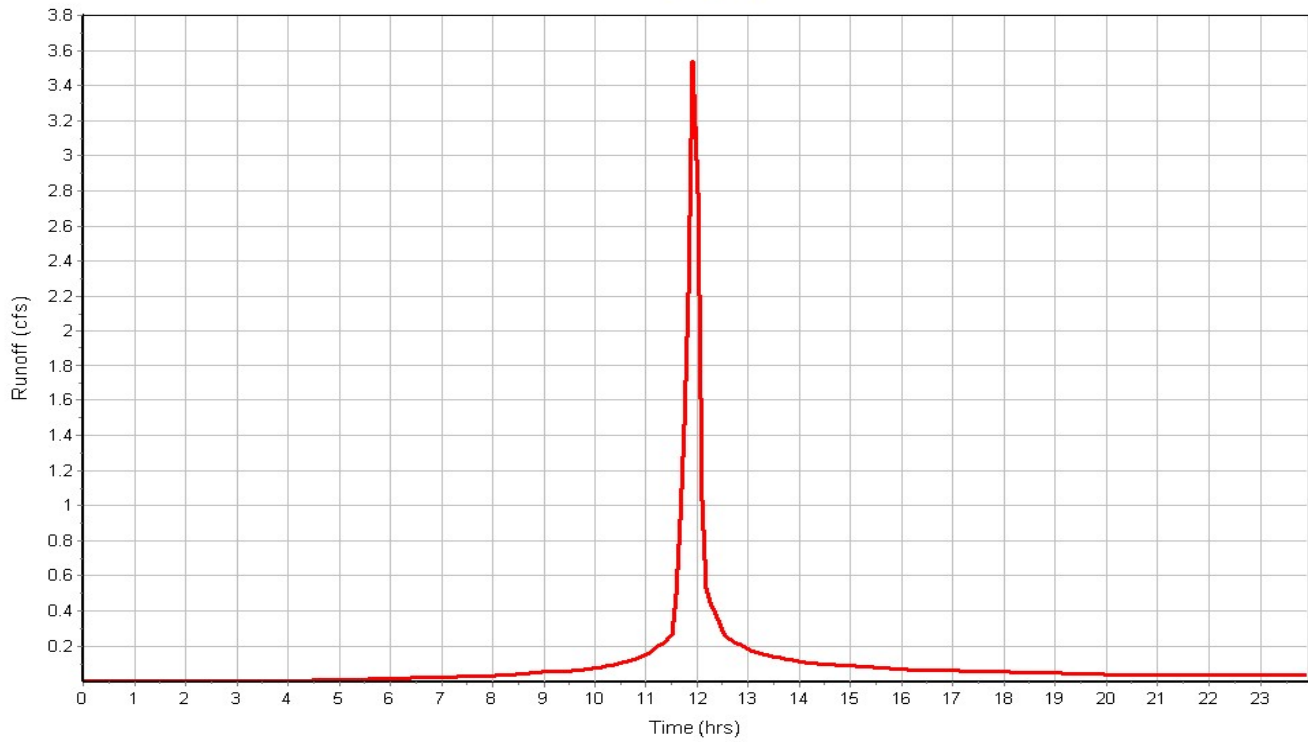
Total Rainfall (in) 2.20
Total Runoff (in) 1.73
Peak Runoff (cfs) 3.54
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin03

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin04

Input Data

Area (ac) 0.81
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

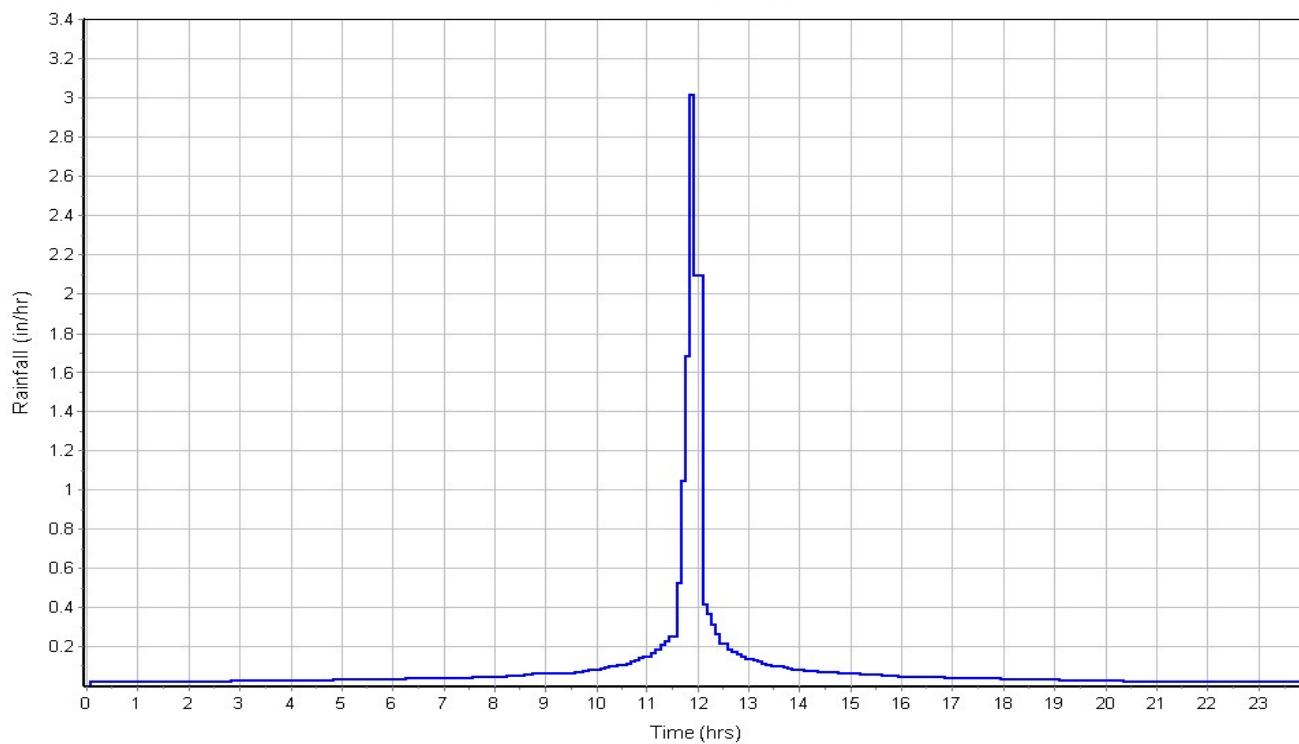
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.73	-	98.00
-	0.08	-	74.00
Composite Area & Weighted CN	0.81		95.60

Subbasin Runoff Results

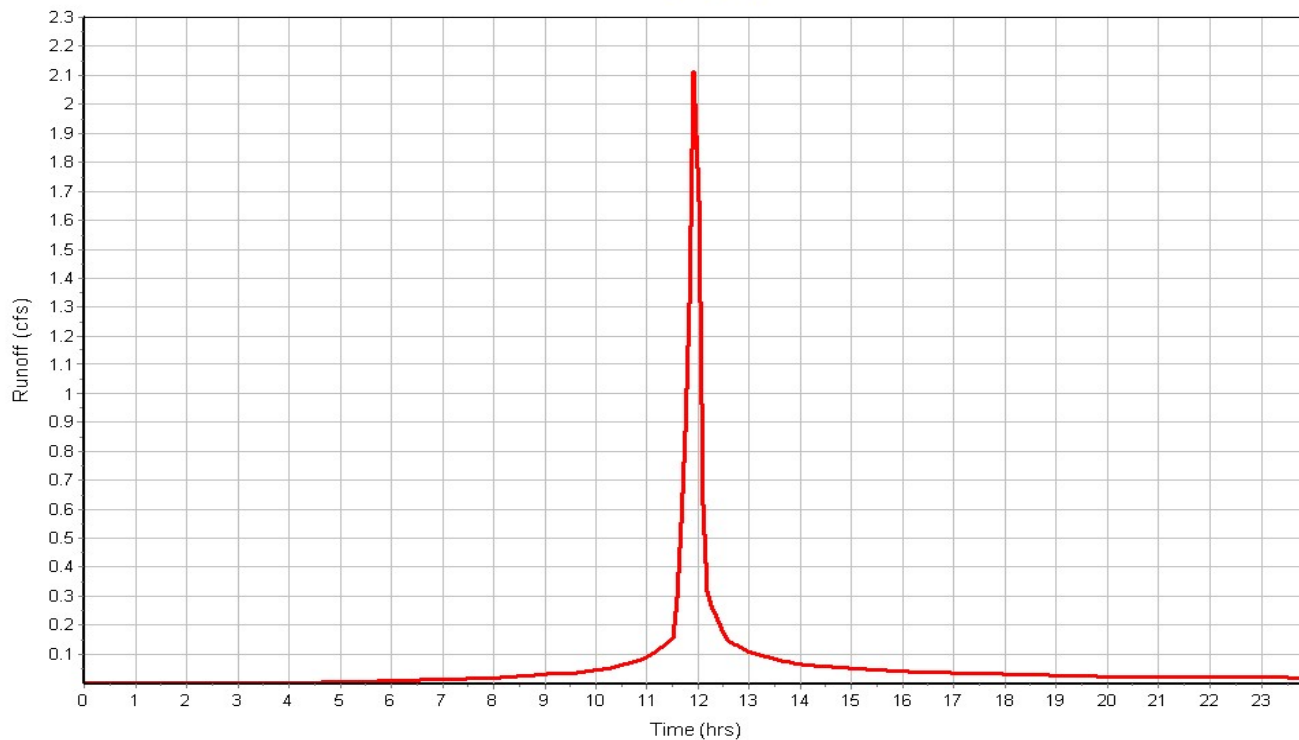
Total Rainfall (in) 2.20
Total Runoff (in) 1.73
Peak Runoff (cfs) 2.11
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin04

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin05

Input Data

Area (ac) 1.44
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

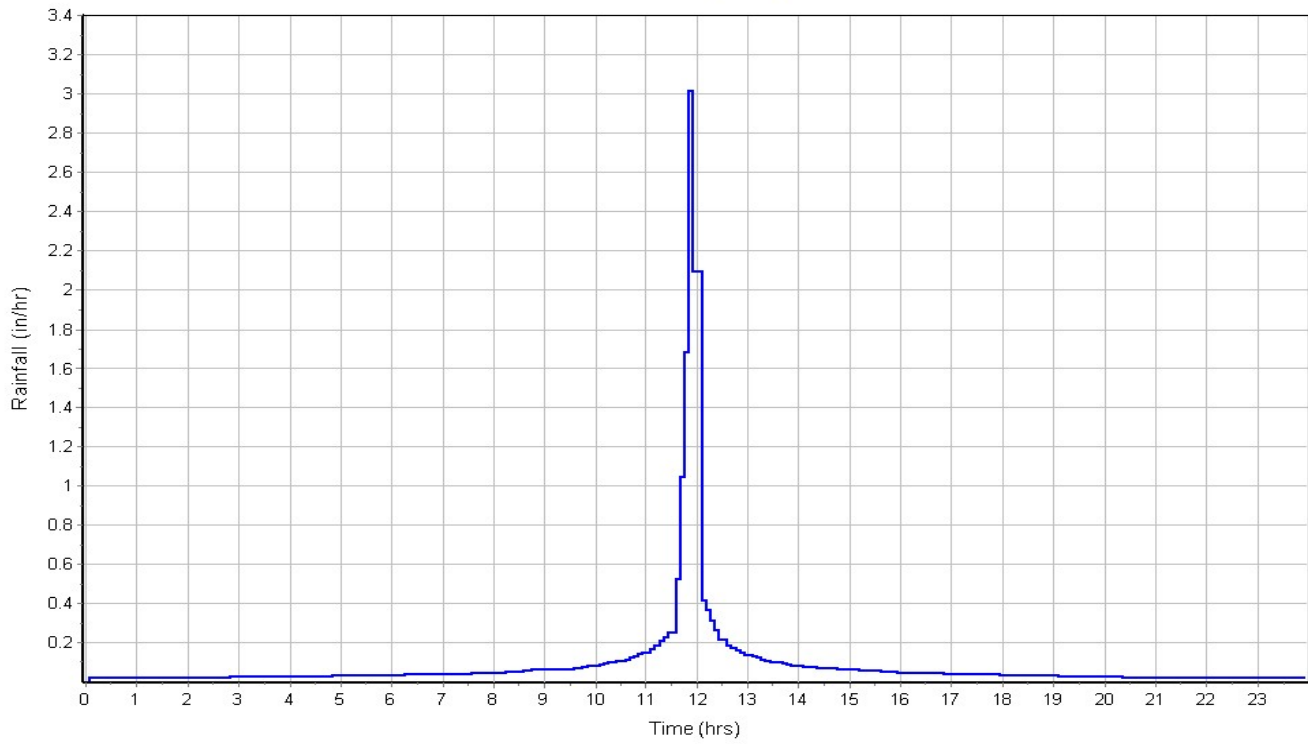
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	1.29	-	98.00
-	0.14	-	74.00
Composite Area & Weighted CN	1.43		95.60

Subbasin Runoff Results

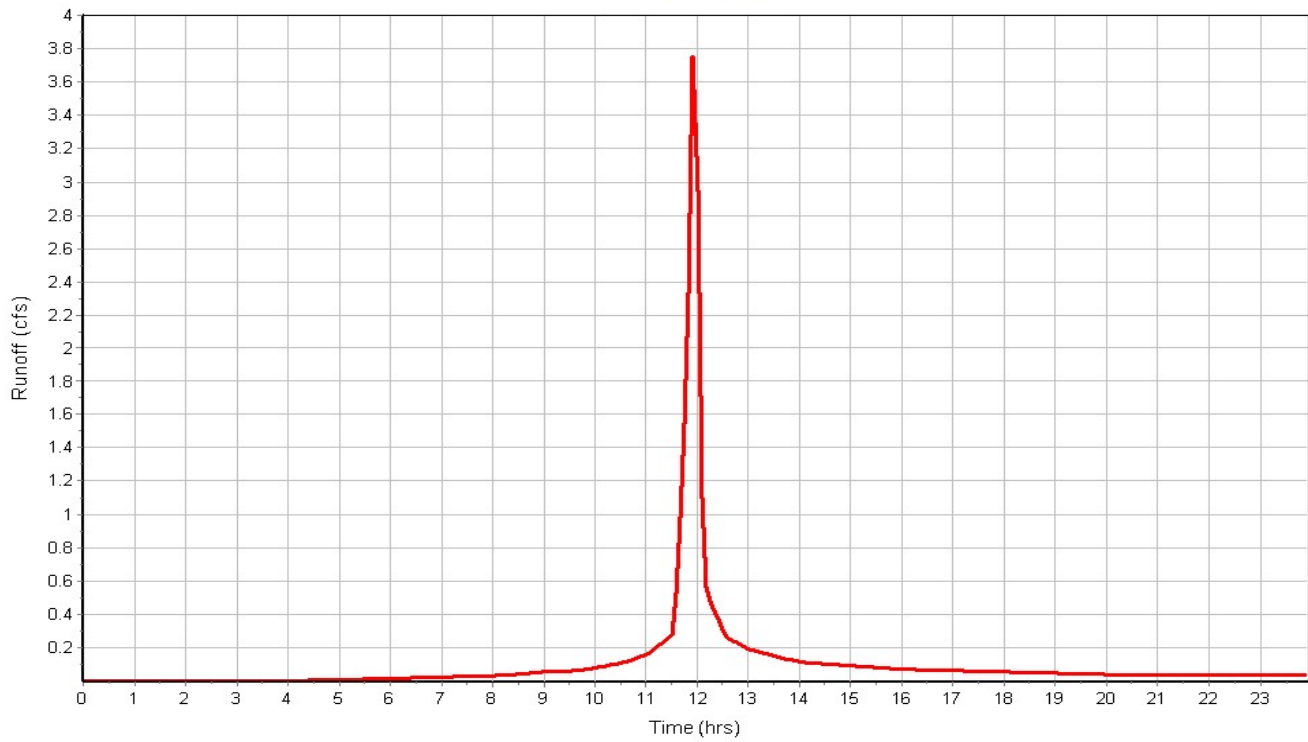
Total Rainfall (in) 2.20
Total Runoff (in) 1.73
Peak Runoff (cfs) 3.75
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin05

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToPP01-02

Input Data

Area (ac) 0.91
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

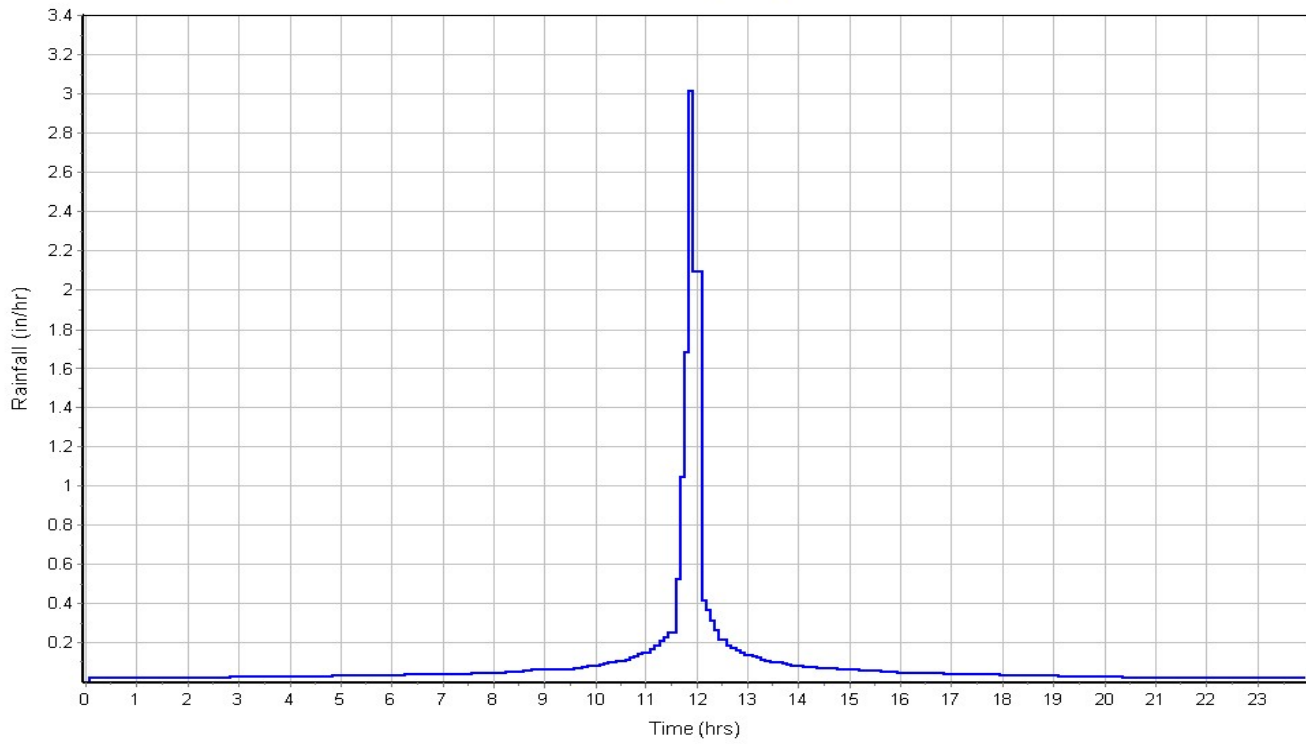
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.82	-	98.00
-	0.09	-	74.00
Composite Area & Weighted CN	0.91		95.60

Subbasin Runoff Results

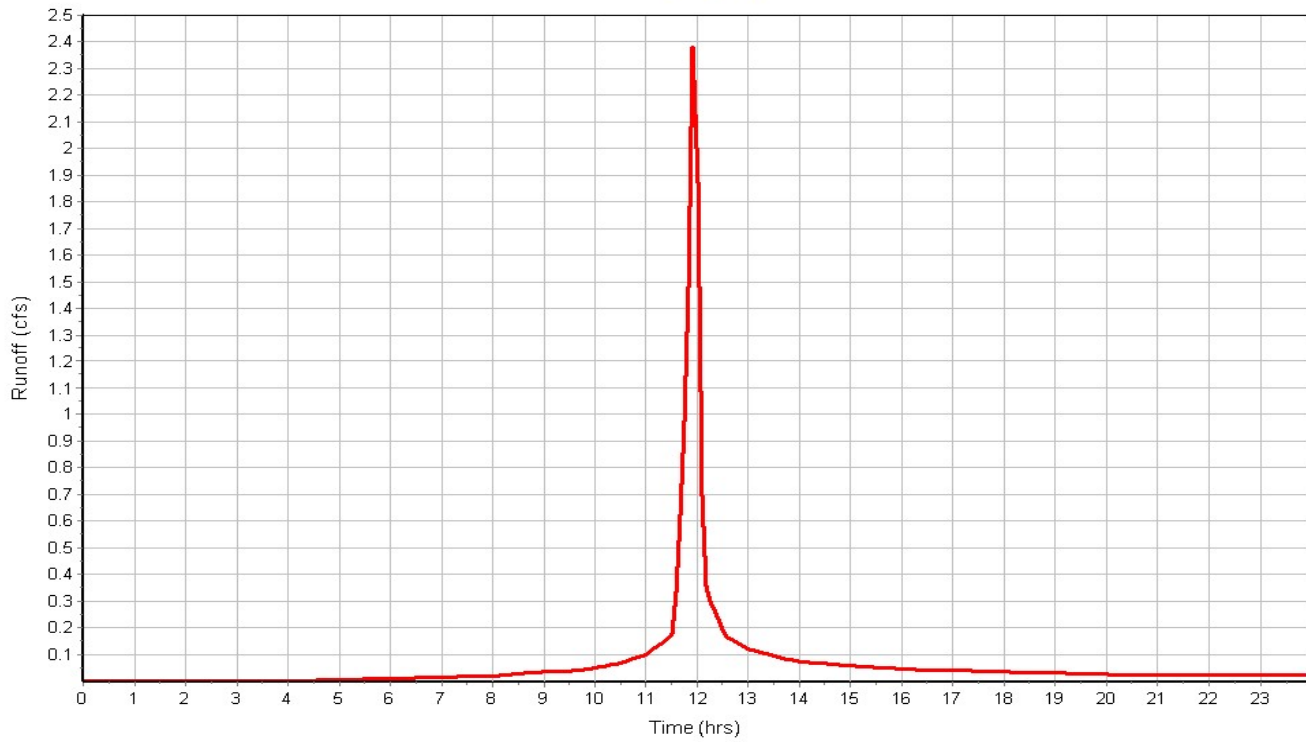
Total Rainfall (in) 2.20
Total Runoff (in) 1.73
Peak Runoff (cfs) 2.38
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToPP01-02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToPP03-04

Input Data

Area (ac) 0.93
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

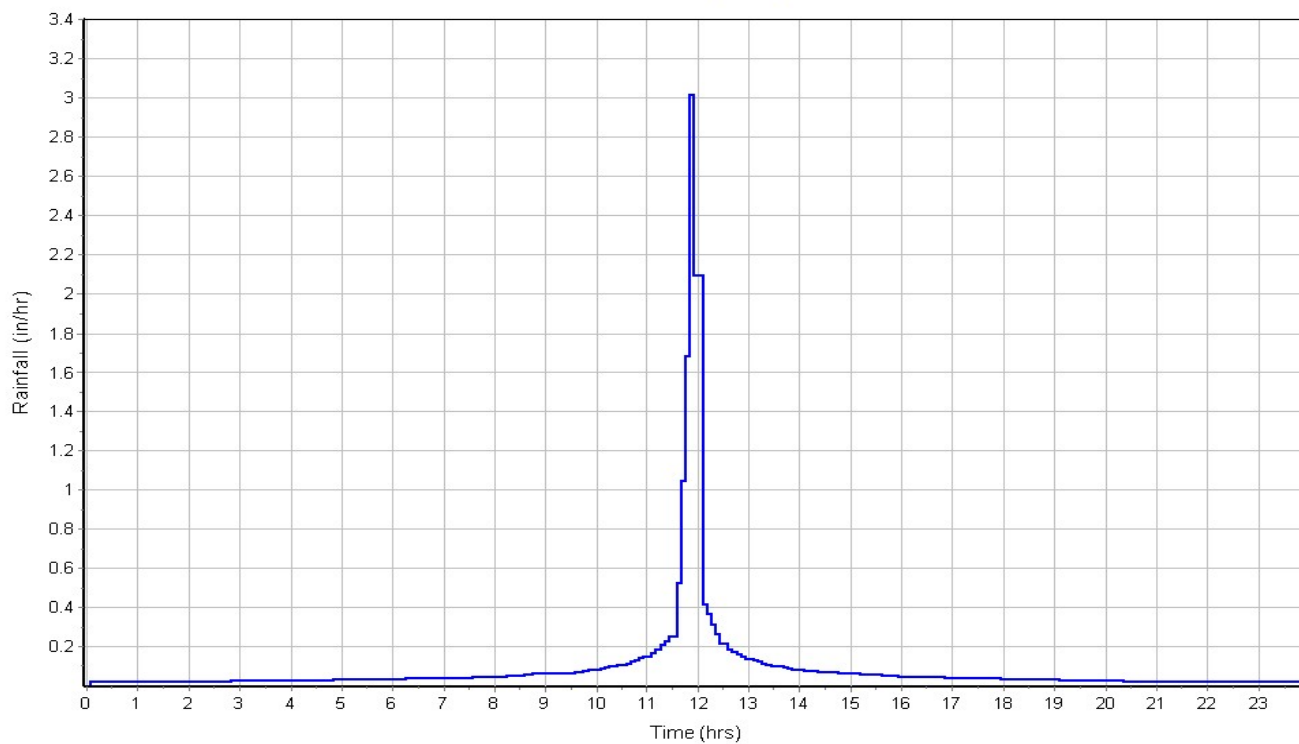
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.83	-	98.00
-	0.09	-	74.00
Composite Area & Weighted CN	0.92		95.60

Subbasin Runoff Results

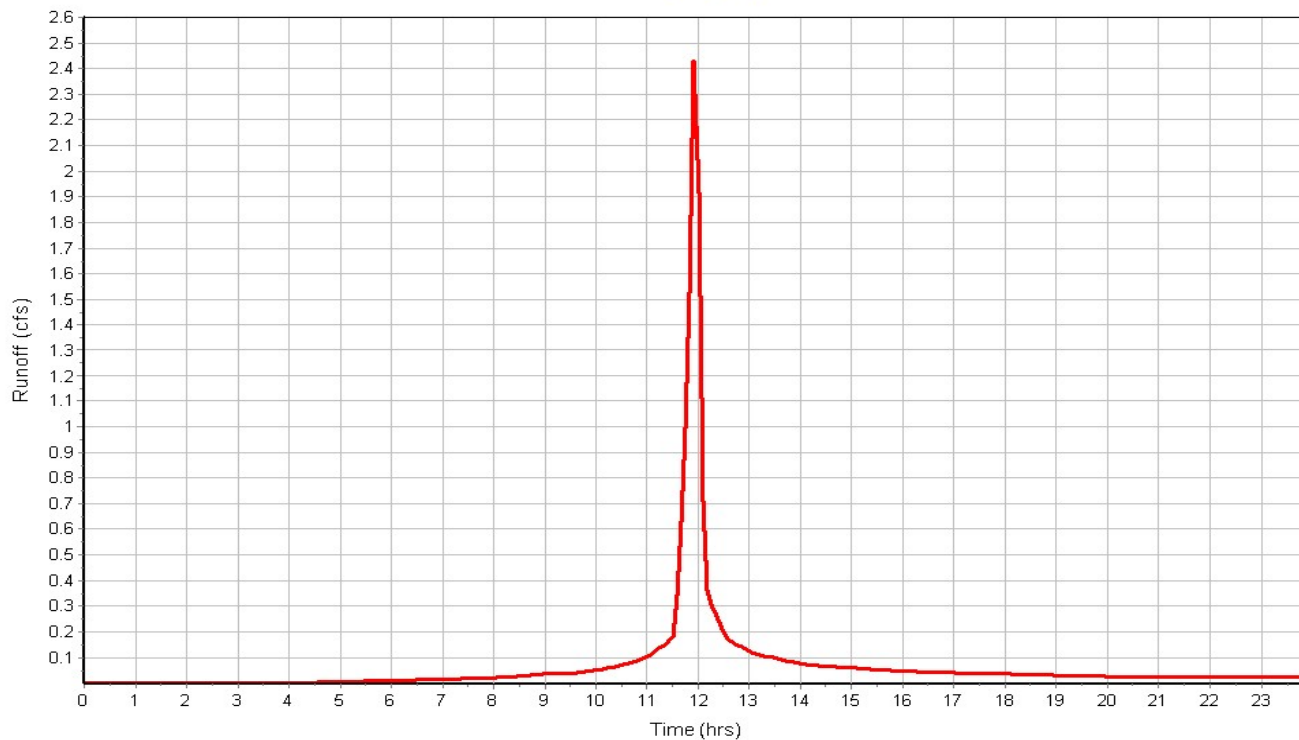
Total Rainfall (in) 2.20
Total Runoff (in) 1.73
Peak Runoff (cfs) 2.43
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToPP03-04

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 (ft ²)	Minimum Pipe Cover (in)
1 Biobasin02dummysnode	862.67	867.17	4.50	862.67	0.00	867.17	0.00	0.00	0.00
2 CatchBasin03	862.00	866.50	4.50	862.00	0.00	866.50	0.00	2879.24	0.00
3 CatchBasin04	862.44	866.94	4.50	862.44	0.00	866.94	0.00	4642.88	0.00
4 CatchBasin05	862.67	867.17	4.50	862.67	0.00	867.17	0.00	1566.12	0.00
5 CatchBasin12	862.60	867.10	4.50	862.60	0.00	867.10	0.00	6347.63	0.00
6 CatchBasin8	862.64	867.14	4.50	862.64	0.00	867.14	0.00	6037.65	0.00
7 Dummy1	861.69	867.00	5.31	861.69	0.00	867.00	0.00	0.00	0.00
8 Ex0	860.13	865.00	4.87	860.13	0.00	865.00	0.00	0.00	0.00
9 ExA	860.81	865.00	4.19	860.81	0.00	865.00	0.00	0.00	0.00
10 Existing 36-inch outlet pipe	870.00	875.50	5.50	870.00	0.00	875.50	0.00	0.00	0.00
11 Manhole 7	862.47	868.00	5.53	862.47	0.00	868.00	0.00	0.00	0.00
12 Manhole1	861.75	868.00	6.25	861.75	0.00	868.00	0.00	0.00	0.00
13 Manhole10	862.23	868.00	5.77	862.23	0.00	868.00	0.00	0.00	0.00
14 Manhole11	862.42	868.00	5.58	862.42	0.00	868.00	0.00	0.00	0.00
15 Manhole13	863.79	868.00	4.21	863.79	0.00	868.00	0.00	0.00	0.00
16 Manhole2	861.80	868.00	6.20	861.80	0.00	868.00	0.00	0.00	0.00
17 Manhole6	862.28	868.00	5.72	862.28	0.00	868.00	0.00	0.00	0.00
18 Manhole9	863.79	868.00	4.21	863.79	0.00	868.00	0.00	0.00	0.00
19 Offsite 02 outlet	877.50	881.50	4.00	877.50	0.00	881.50	0.00	0.00	0.00
20 OutToDitch	861.58	863.00	1.42	861.58	0.00	863.00	0.00	0.00	0.00
21 Structure1	861.69	868.00	6.31	861.69	0.00	868.00	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 Surge 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 Biobasin02dummynode	0.66	0.00	863.15	0.48	0.00	4.02	862.76	0.09	0 12:09	0 00:00	0.00	0.00
2 CatchBasin03	1.26	0.00	863.04	1.04	0.00	3.46	862.33	0.33	0 13:22	0 00:00	0.00	0.00
3 CatchBasin04	1.14	0.00	863.04	0.60	0.00	3.90	862.60	0.16	0 13:23	0 00:00	0.00	0.00
4 CatchBasin05	0.61	0.00	863.04	0.37	0.00	4.13	862.76	0.09	0 13:23	0 00:00	0.00	0.00
5 CatchBasin12	0.32	0.00	863.04	0.44	0.00	4.06	862.74	0.14	0 13:22	0 00:00	0.00	0.00
6 CatchBasin8	0.30	0.00	863.04	0.40	0.00	4.10	862.77	0.13	0 13:23	0 00:00	0.00	0.00
7 Dummy1	8.82	0.00	863.15	1.46	0.00	3.85	862.25	0.56	0 13:21	0 00:00	0.00	0.00
8 Ex0	9.56	0.00	860.97	0.84	0.00	4.03	860.42	0.29	0 13:27	0 00:00	0.00	0.00
9 ExA	9.62	0.00	862.05	1.24	0.00	4.76	861.20	0.39	0 13:26	0 00:00	0.00	0.00
10 Existing 36-inch outlet pipe	10.74	1.40	870.87	0.87	0.00	5.53	870.24	0.24	0 12:10	0 00:00	0.00	0.00
11 Manhole 7	0.30	0.00	863.04	0.57	0.00	4.96	862.62	0.15	0 13:22	0 00:00	0.00	0.00
12 Manhole1	1.47	0.00	863.03	1.28	0.00	4.97	862.22	0.47	0 13:22	0 00:00	0.00	0.00
13 Manhole10	0.35	0.00	863.04	0.81	0.00	4.96	862.44	0.21	0 13:22	0 00:00	0.00	0.00
14 Manhole11	0.31	0.00	863.04	0.62	0.00	4.96	862.58	0.16	0 13:22	0 00:00	0.00	0.00
15 Manhole13	0.05	0.00	863.90	0.11	0.00	4.10	863.85	0.06	0 15:49	0 00:00	0.00	0.00
16 Manhole2	1.18	0.00	863.03	1.23	0.00	4.97	862.24	0.44	0 13:22	0 00:00	0.00	0.00
17 Manhole6	0.33	0.00	863.04	0.76	0.00	4.96	862.47	0.19	0 13:22	0 00:00	0.00	0.00
18 Manhole9	0.05	0.00	863.90	0.11	0.00	4.10	863.85	0.06	0 15:48	0 00:00	0.00	0.00
19 Offsite 02 outlet	0.47	0.00	877.70	0.20	0.00	4.50	877.60	0.10	0 17:07	0 00:00	0.00	0.00
20 OutToDitch	9.64	0.00	862.50	0.92	0.00	5.08	861.90	0.32	0 13:23	0 00:00	0.00	0.00
21 Stucture1	9.65	0.00	863.03	1.34	0.00	4.97	862.20	0.51	0 13:22	0 00:00	0.00	0.00

Channel Input

SN Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Shape	Height (ft)	Width (ft)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate
1 Ditch	375.41	861.58	0.00	860.81	0.00	0.77	0.2100	Trapezoidal	6.000	40.000	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	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
	(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)		
1 Ditch	9.62	0 13:23	596.14	0.02	1.25	5.01	1.08	0.18	0.00		

Pipe Input

SN Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow	Flap Gate	No. of Barrels
1 1->basins	62.54	861.75	0.00	861.69	0.00	0.06	0.1000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
2 10->11	190.96	862.23	0.00	861.75	0.00	0.48	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
3 11->10	75.00	862.42	0.00	862.23	0.00	0.19	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
4 12->11	72.47	862.60	0.00	862.42	0.00	0.18	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
5 13->10	16.00	863.79	0.00	863.72	1.49	0.07	0.4400	CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
6 2->1	20.00	861.80	0.00	861.75	0.00	0.05	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
7 3->2	81.60	862.00	0.00	861.80	0.00	0.20	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
8 4->3	175.98	862.44	0.00	862.00	0.00	0.44	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
9 5->4	92.80	862.67	0.00	862.44	0.00	0.23	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
10 6->1	210.04	862.28	0.00	861.75	0.00	0.53	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
11 7->6	75.00	862.47	0.00	862.28	0.00	0.19	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
12 8->7	69.56	862.64	0.00	862.47	0.00	0.17	0.2400	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
13 9->8	16.00	863.79	0.00	863.73	1.45	0.06	0.3700	CIRCULAR	15.000	15.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
14 Basin connector	85.00	859.00	0.00	858.90	-0.10	0.10	0.1200	CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
15 Basins->outlet	109.09	861.69	0.00	861.58	0.00	0.11	0.1000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
16 Dual 18 inch pipes	35.92	860.81	0.00	860.13	0.00	0.68	1.9000	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
17 Elliptical pipe under roadway	98.05	860.07	-0.06	859.65	0.00	0.42	0.4300	Horizontal Ellipse	36.000	54.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
18 Offsite 02->outfall	84.10	877.50	0.00	875.40	5.40	2.10	2.5000	CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
19 offsite basin2 -> offsite basin 1	201.70	878.00	0.00	877.70	2.70	0.30	0.1500	CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
20 Offsite->basin	1296.34	870.00	0.00	862.00	3.00	8.00	0.6200	CIRCULAR	42.000	42.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
21 OutletPipe	10.82	862.00	0.31	861.69	0.00	0.31	2.8700	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1

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	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
	(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)		
1 1->basins	1.39	0 12:16	20.66	0.07	0.97	1.07	1.31	0.44	0.00		Calculated
2 10->11	0.33	0 12:36	5.27	0.06	0.67	4.75	1.04	0.70	0.00		Calculated
3 11->10	0.30	0 12:34	5.29	0.06	1.30	0.96	0.71	0.47	0.00		Calculated
4 12->11	0.31	0 12:34	5.24	0.06	1.37	0.88	0.53	0.35	0.00		Calculated
5 13->10	0.05	0 15:49	2.36	0.02	1.24	0.22	0.10	0.10	0.00		Calculated
6 2->1	1.15	0 12:14	5.25	0.22	1.05	0.32	1.26	0.84	0.00		Calculated
7 3->2	1.18	0 12:13	5.20	0.23	1.29	1.05	1.13	0.76	0.00		Calculated
8 4->3	1.13	0 12:12	5.25	0.21	1.81	1.62	0.82	0.55	0.00		Calculated
9 5->4	0.60	0 12:10	5.23	0.11	1.66	0.93	0.48	0.32	0.00		Calculated
10 6->1	0.32	0 12:36	5.28	0.06	0.66	5.30	1.02	0.68	0.00		Calculated
11 7->6	0.29	0 12:35	5.29	0.05	1.30	0.96	0.66	0.44	0.00		Calculated
12 8->7	0.30	0 12:35	5.19	0.06	1.35	0.86	0.48	0.32	0.00		Calculated
13 9->8	0.05	0 15:49	3.96	0.01	1.18	0.23	0.09	0.07	0.00		Calculated
14 Basin connector	9.74	0 12:07	0.78	12.56	3.10	0.46	2.00	1.00	1440.00		SURCHARGED
15 Basins->outlet	9.64	0 13:21	21.18	0.46	3.96	0.46	1.13	0.38	0.00		Calculated
16 Dual 18 inch pipes	9.56	0 13:27	14.48	0.66	7.29	0.08	1.04	0.69	0.00		Calculated
17 Elliptical pipe under roadway	9.56	0 13:27	86.04	0.11	4.44	0.37	0.79	0.26	0.00		Calculated
18 Offsite 02->outfall	0.47	0 17:07	5.63	0.08	4.22	0.33	0.20	0.20	0.00		Calculated
19 offsite basin2 -> offsite basin 1	7.29	0 12:12	8.72	0.84	3.73	0.90	1.18	0.60	0.00		Calculated
20 Offsite->basin	10.73	0 12:10	79.04	0.14	5.19	4.16	1.25	0.36	0.00		Calculated
21 OutletPipe	8.82	0 13:21	112.90	0.08	3.18	0.06	1.24	0.42	0.00		Calculated

Storage Nodes

Storage Node : Biobasin 01

Input Data

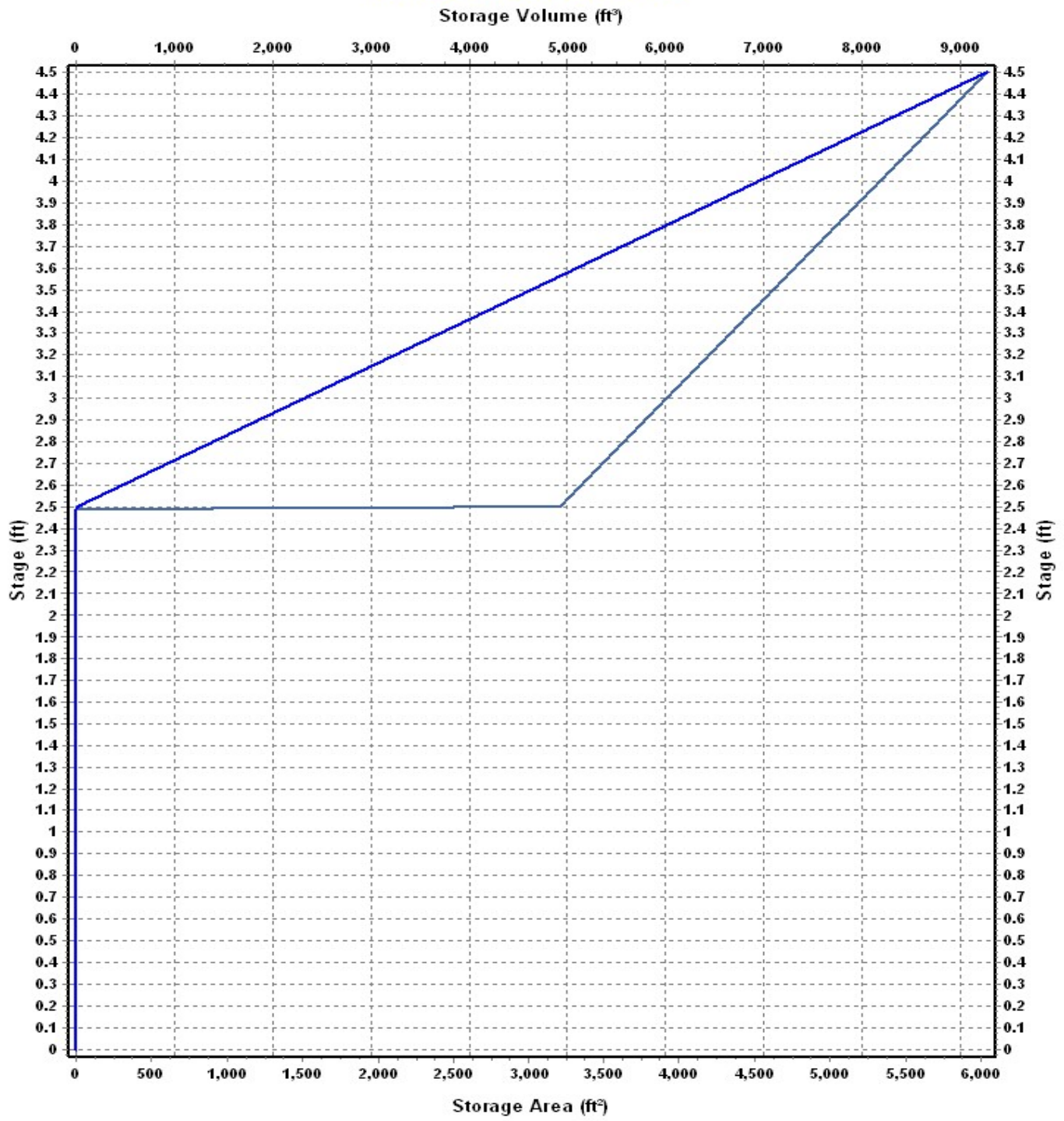
Invert Elevation (ft)	862.64
Max (Rim) Elevation (ft)	867.14
Max (Rim) Offset (ft)	4.50
Initial Water Elevation (ft)	865.14
Initial Water Depth (ft)	2.50
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin01

Stage (ft)	Storage Area (ft²)	Storage Volume (ft³)
0	1	0.000
2.49	1	2.49
2.5	3205.91	18.52
4.5	6037.65	9262.08

Storage Area Volume Curves



Storage Area Storage Volume

Storage Node : Biobasin 01 (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 Biobasin01grate	Bottom	Rectangular	No		19.60	19.60	866.14	0.60

Output Summary Results

Peak Inflow (cfs)	3.63
Peak Lateral Inflow (cfs)	3.63
Peak Outflow (cfs)	0.30
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.17
Max HGL Depth Attained (ft)	3.53
Average HGL Elevation Attained (ft)	865.44
Average HGL Depth Attained (ft)	2.8
Time of Max HGL Occurrence (days hh:mm)	0 12:34
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin02

Input Data

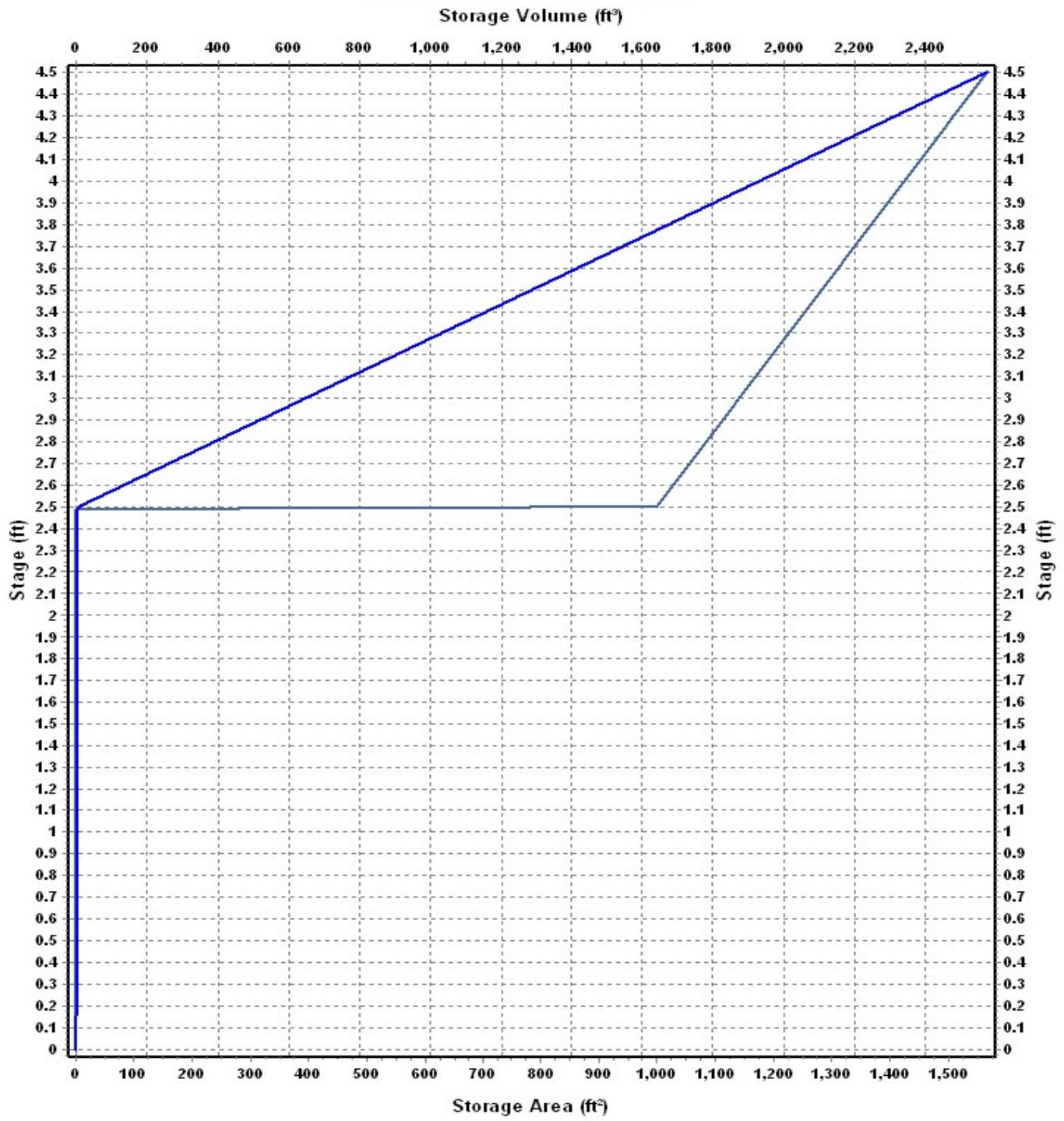
Invert Elevation (ft)	862.67
Max (Rim) Elevation (ft)	867.17
Max (Rim) Offset (ft)	4.50
Initial Water Elevation (ft)	865.17
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	999.15	7.49
4.5	1566.12	2572.76

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Biobasin02 (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 Biobasin02grate	Bottom	Rectangular	No		19.60	19.60	866.17	0.60

Output Summary Results

Peak Inflow (cfs)	1.36
Peak Lateral Inflow (cfs)	1.36
Peak Outflow (cfs)	0.66
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.26
Max HGL Depth Attained (ft)	3.59
Average HGL Elevation Attained (ft)	865.49
Average HGL Depth Attained (ft)	2.82
Time of Max HGL Occurrence (days hh:mm)	0 12:08
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin03

Input Data

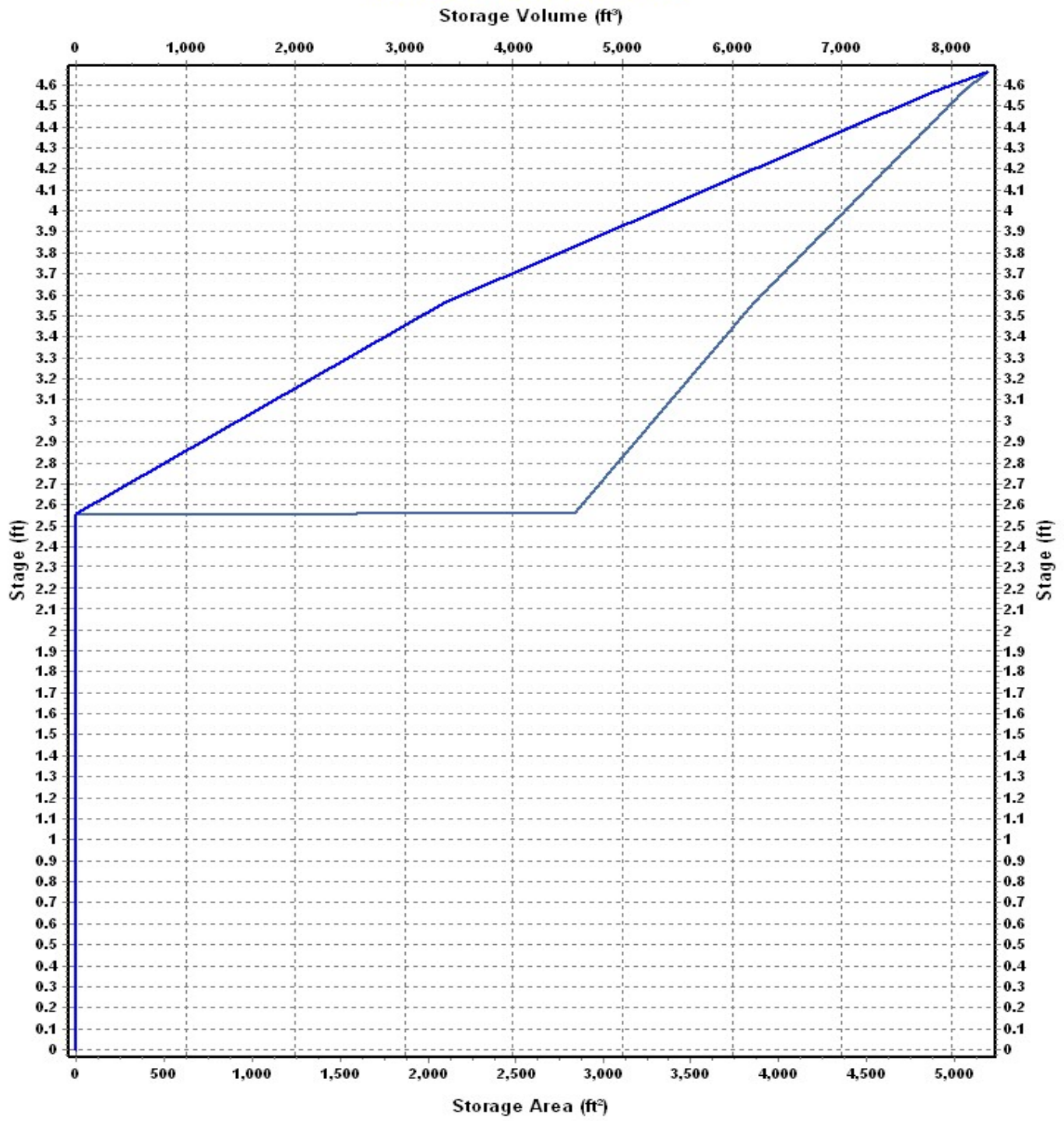
Invert Elevation (ft)	862.44
Max (Rim) Elevation (ft)	867.10
Max (Rim) Offset (ft)	4.66
Initial Water Elevation (ft)	865.00
Initial Water Depth (ft)	2.56
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin03

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.55	1	2.55
2.56	2836.20	16.74
3.56	3856.90	3363.29
4.56	5038.71	7811.10
4.66	5181	8322.09

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Biobasin03 (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 Biobasin03grate	Bottom	Rectangular	No		19.60	19.60	866.00	0.60

Output Summary Results

Peak Inflow (cfs)	3.53
Peak Lateral Inflow (cfs)	3.53
Peak Outflow (cfs)	0.63
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.08
Max HGL Depth Attained (ft)	3.64
Average HGL Elevation Attained (ft)	865.31
Average HGL Depth Attained (ft)	2.87
Time of Max HGL Occurrence (days hh:mm)	0 12:13
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin04

Input Data

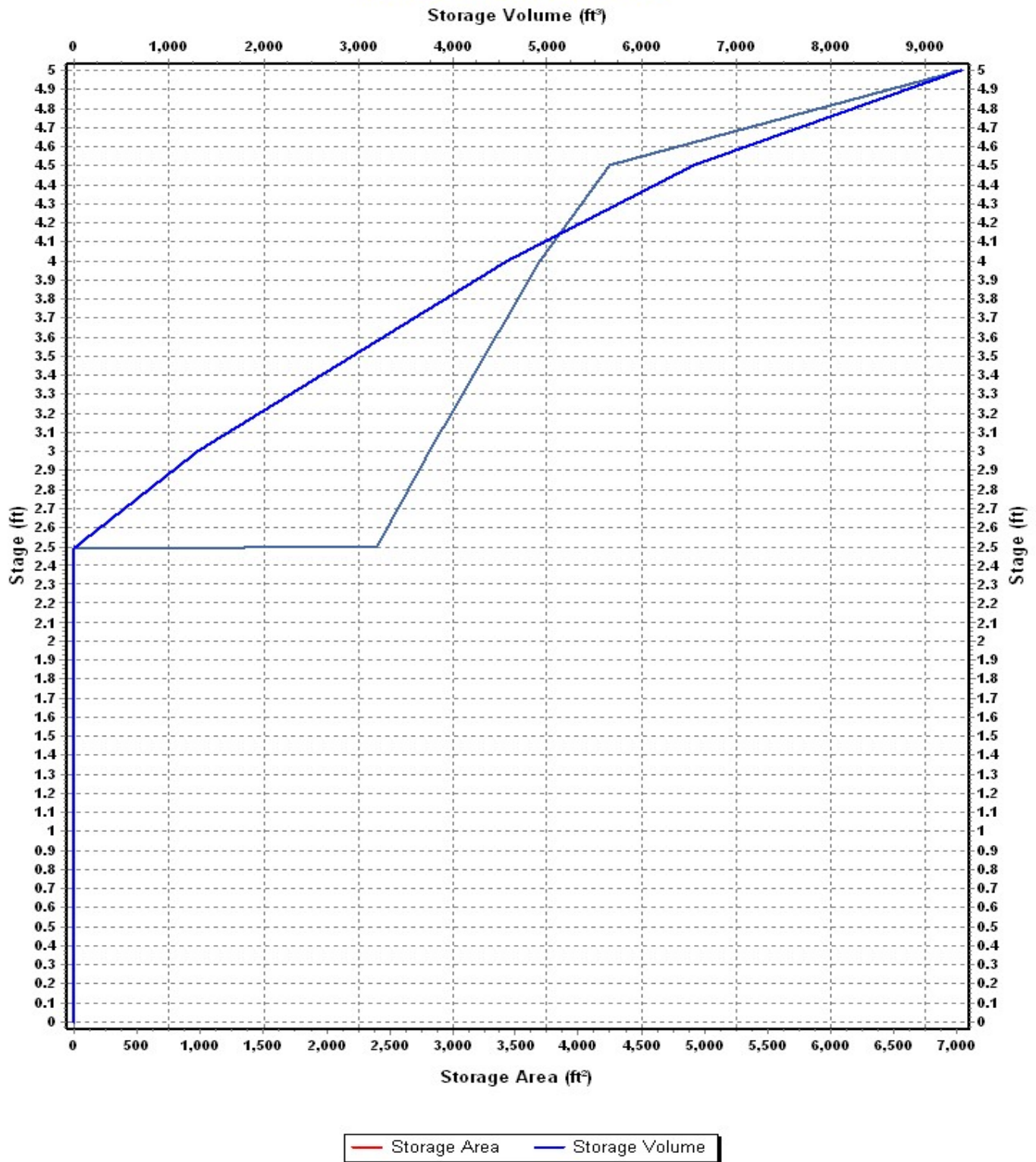
Invert Elevation (ft)	862.00
Max (Rim) Elevation (ft)	867.00
Max (Rim) Offset (ft)	5.00
Initial Water Elevation (ft)	864.50
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin04

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	2398.60	14.49
3	2813.60	1317.54
4	3690.90	4569.79
4.5	4246.20	6554.07
5	7028.50	9372.75

Storage Area Volume Curves



Storage Node : Biobasin04 (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 Biobasin04grate	Bottom	Rectangular	No		19.60	19.60	865.50	0.60

Output Summary Results

Peak Inflow (cfs)	2.11
Peak Lateral Inflow (cfs)	2.11
Peak Outflow (cfs)	0.14
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	865.34
Max HGL Depth Attained (ft)	3.34
Average HGL Elevation Attained (ft)	864.70
Average HGL Depth Attained (ft)	2.7
Time of Max HGL Occurrence (days hh:mm)	0 12:44
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin05

Input Data

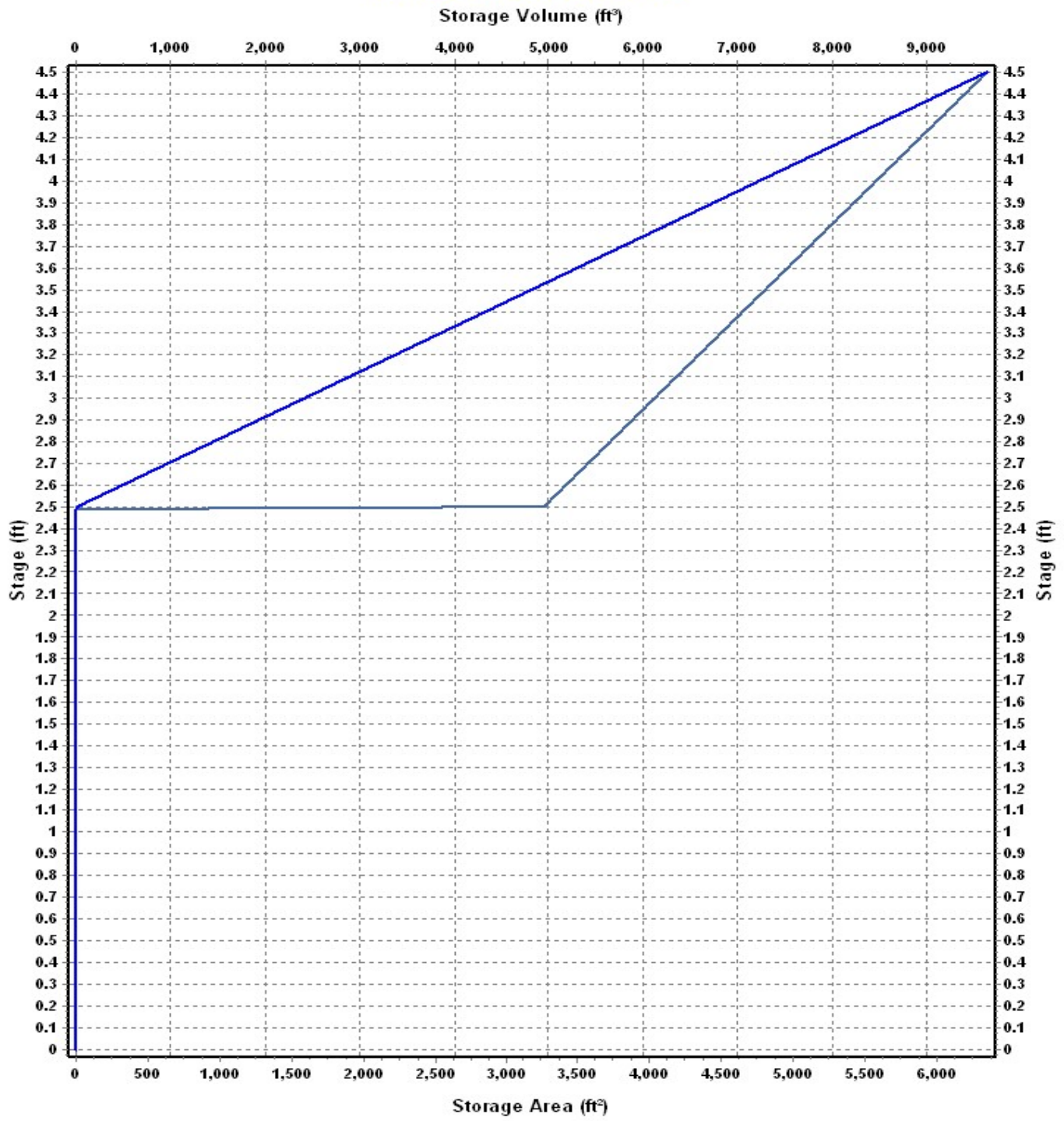
Invert Elevation (ft)	862.60
Max (Rim) Elevation (ft)	867.10
Max (Rim) Offset (ft)	4.50
Initial Water Elevation (ft)	865.10
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin05

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	3264.52	18.82
4.5	6347.63	9630.97

Storage Area Volume Curves



Storage Area Storage Volume

Storage Node : Biobasin05 (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 Biobasin05grate	Bottom	Rectangular	No		19.60	19.60	866.10	0.60

Output Summary Results

Peak Inflow (cfs)	3.75
Peak Lateral Inflow (cfs)	3.75
Peak Outflow (cfs)	0.32
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.13
Max HGL Depth Attained (ft)	3.53
Average HGL Elevation Attained (ft)	865.41
Average HGL Depth Attained (ft)	2.81
Time of Max HGL Occurrence (days hh:mm)	0 12:34
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 01 Parking lot ponding

Input Data

Invert Elevation (ft)	871.00
Max (Rim) Elevation (ft)	879.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	877.50
Initial Water Depth (ft)	6.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

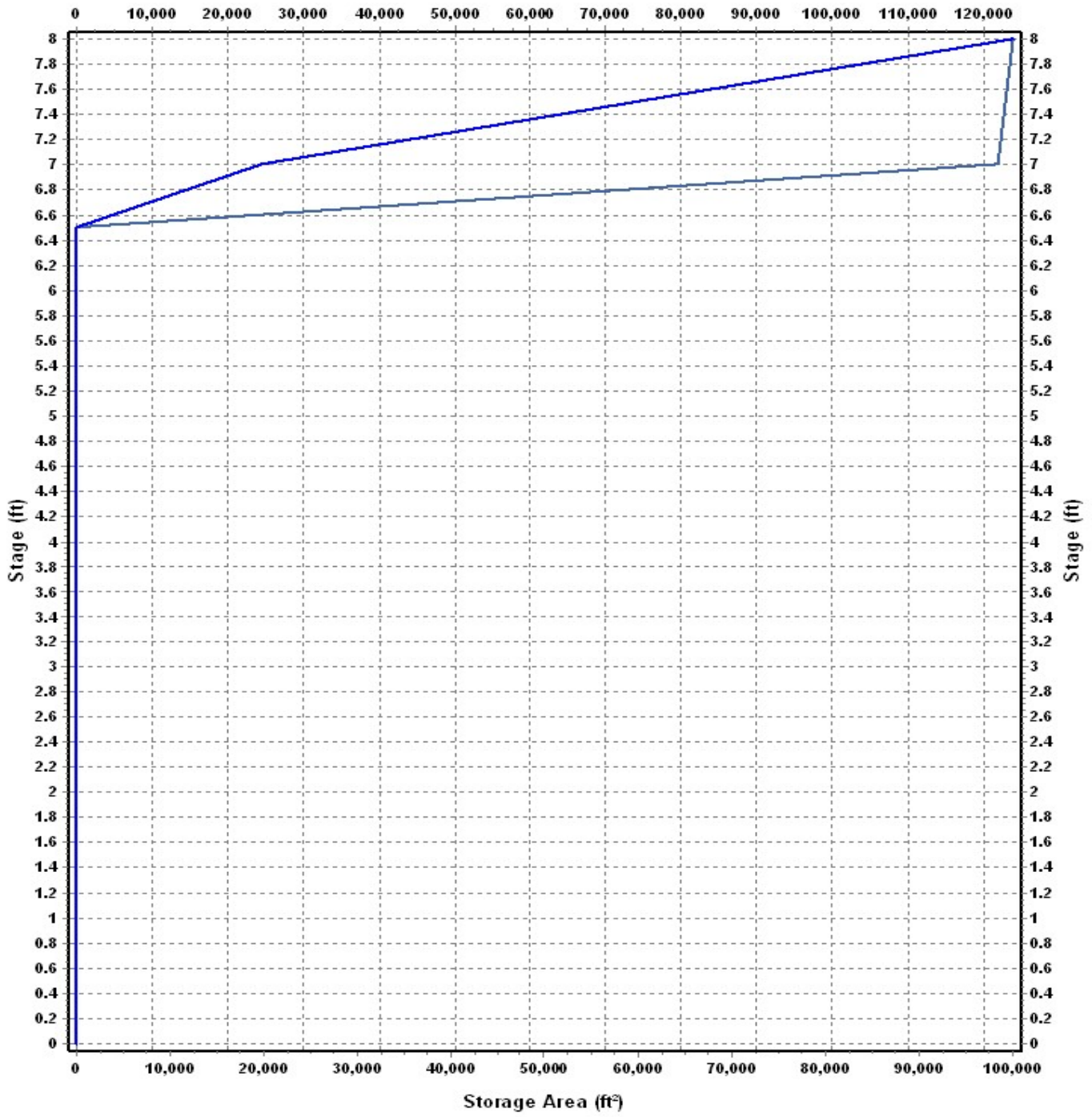
Storage Area Volume Curves

Storage Curve : Offsite 01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
6.5	1	6.50
7	98432	24614.75
8	100000	123830.75

Storage Area Volume Curves

Storage Volume (ft³)



Storage Area Storage Volume

Storage Node : Offsite 01 Parking lot ponding (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 Offsite 01 orifice	Side	CIRCULAR	No	9.25			871.00	0.60

Output Summary Results

Peak Inflow (cfs)	20.95
Peak Lateral Inflow (cfs)	20.95
Peak Outflow (cfs)	5.72
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	877.87
Max HGL Depth Attained (ft)	6.87
Average HGL Elevation Attained (ft)	871.68
Average HGL Depth Attained (ft)	0.68
Time of Max HGL Occurrence (days hh:mm)	0 12:17
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 02 Wet basin 02

Input Data

Invert Elevation (ft)	878.00
Max (Rim) Elevation (ft)	882.00
Max (Rim) Offset (ft)	4.00
Initial Water Elevation (ft)	878.00
Initial Water Depth (ft)	0.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

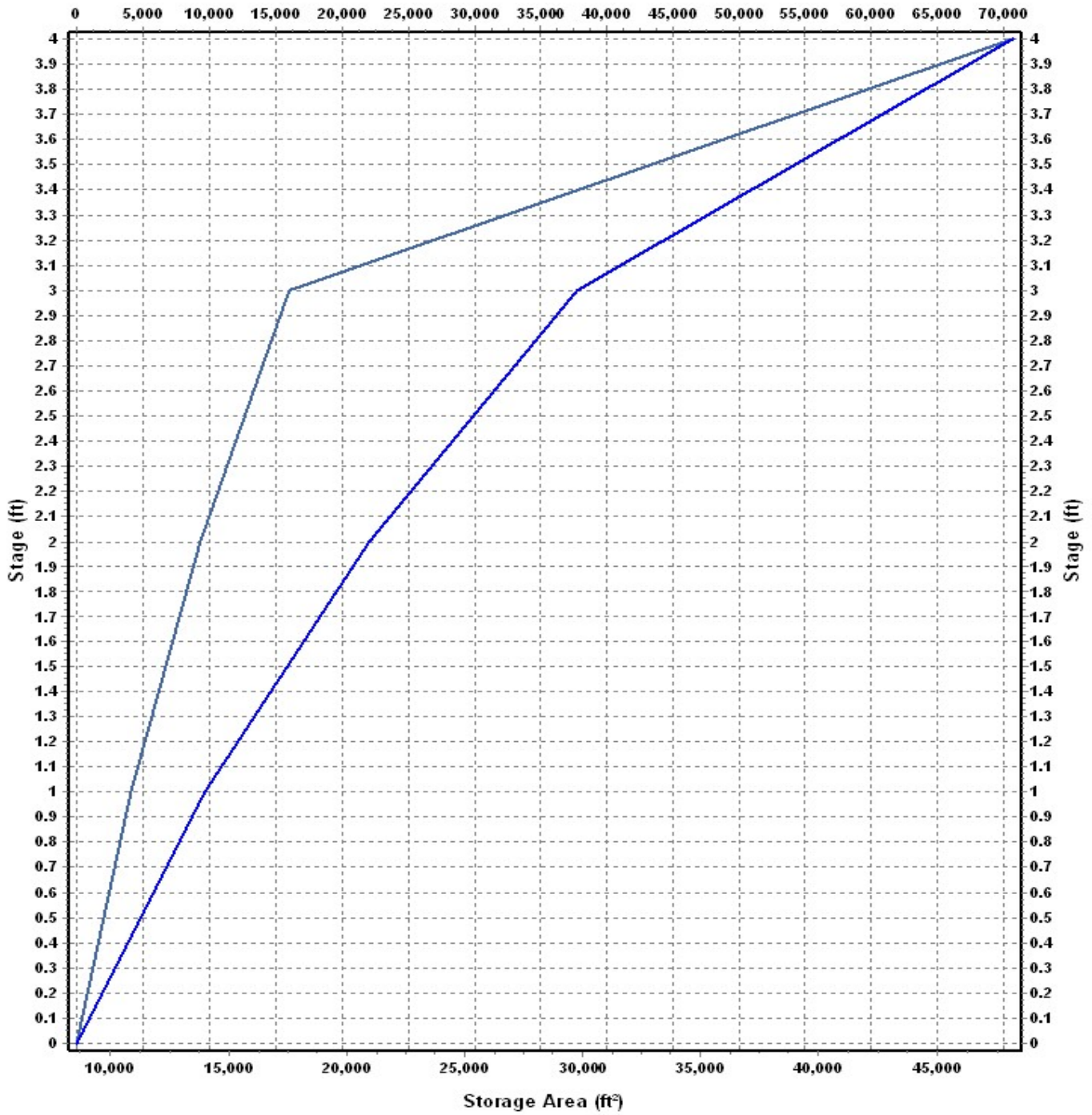
Storage Area Volume Curves

Storage Curve : Offsite 02 wet basin 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	8571	0.000
1	10862	9716.50
2	13819	22057.00
3	17571	37752.00
4	48211	70643.00

Storage Area Volume Curves

Storage Volume (ft³)



Storage Area Storage Volume

Storage Node : Offsite 02 Wet basin 02 (continued)

Output Summary Results

Peak Inflow (cfs)	15.87
Peak Lateral Inflow (cfs)	15.87
Peak Outflow (cfs)	7.29
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	879.43
Max HGL Depth Attained (ft)	1.43
Average HGL Elevation Attained (ft)	878.50
Average HGL Depth Attained (ft)	0.5
Time of Max HGL Occurrence (days hh:mm)	0 12:12
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 02-wet basin 1

Input Data

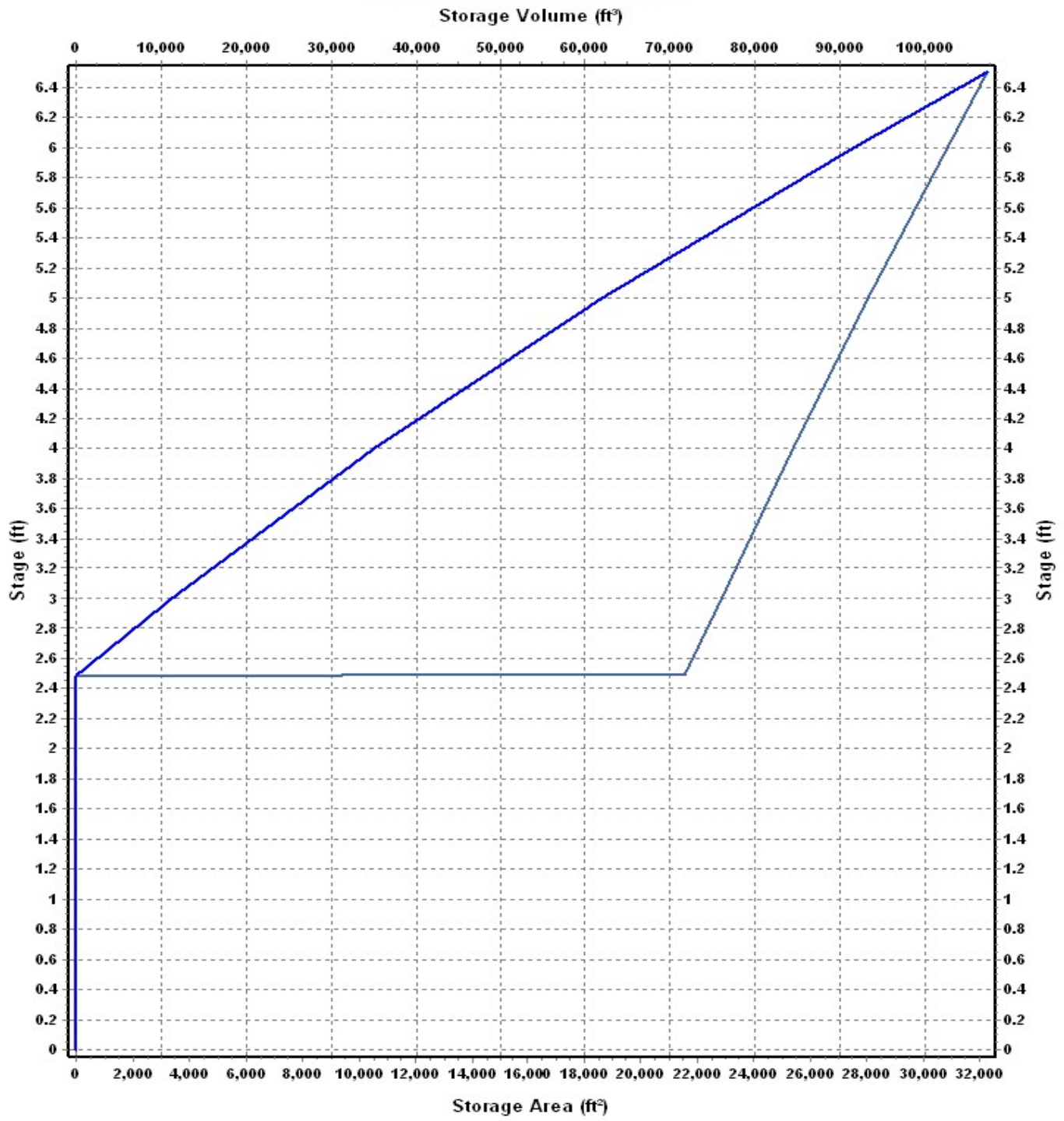
Invert Elevation (ft)	875.00
Max (Rim) Elevation (ft)	881.50
Max (Rim) Offset (ft)	6.50
Initial Water Elevation (ft)	877.50
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : blazer wet basin 01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	21562	110.30
3	22825	11207.05
4	25395	35317.05
5	28053	62041.05
6	30840	91487.55
6.5	32234	107256.05

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Offsite 02-wet basin 1 (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 Offsite 02 grate	Bottom	Rectangular	No		19.60	19.60	880.50	0.60
2 offsite 02 window	Side	Rectangular	No		6.00	24.00	879.20	0.60
3 Offsite 02 wq	Side	CIRCULAR	No	4.00			877.50	0.60

Output Summary Results

Peak Inflow (cfs)	12.12
Peak Lateral Inflow (cfs)	6.86
Peak Outflow (cfs)	0.47
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	878.94
Max HGL Depth Attained (ft)	3.94
Average HGL Elevation Attained (ft)	878.20
Average HGL Depth Attained (ft)	3.2
Time of Max HGL Occurrence (days hh:mm)	0 17:07
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 04

Input Data

Invert Elevation (ft)	871.65
Max (Rim) Elevation (ft)	878.00
Max (Rim) Offset (ft)	6.35
Initial Water Elevation (ft)	871.65
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

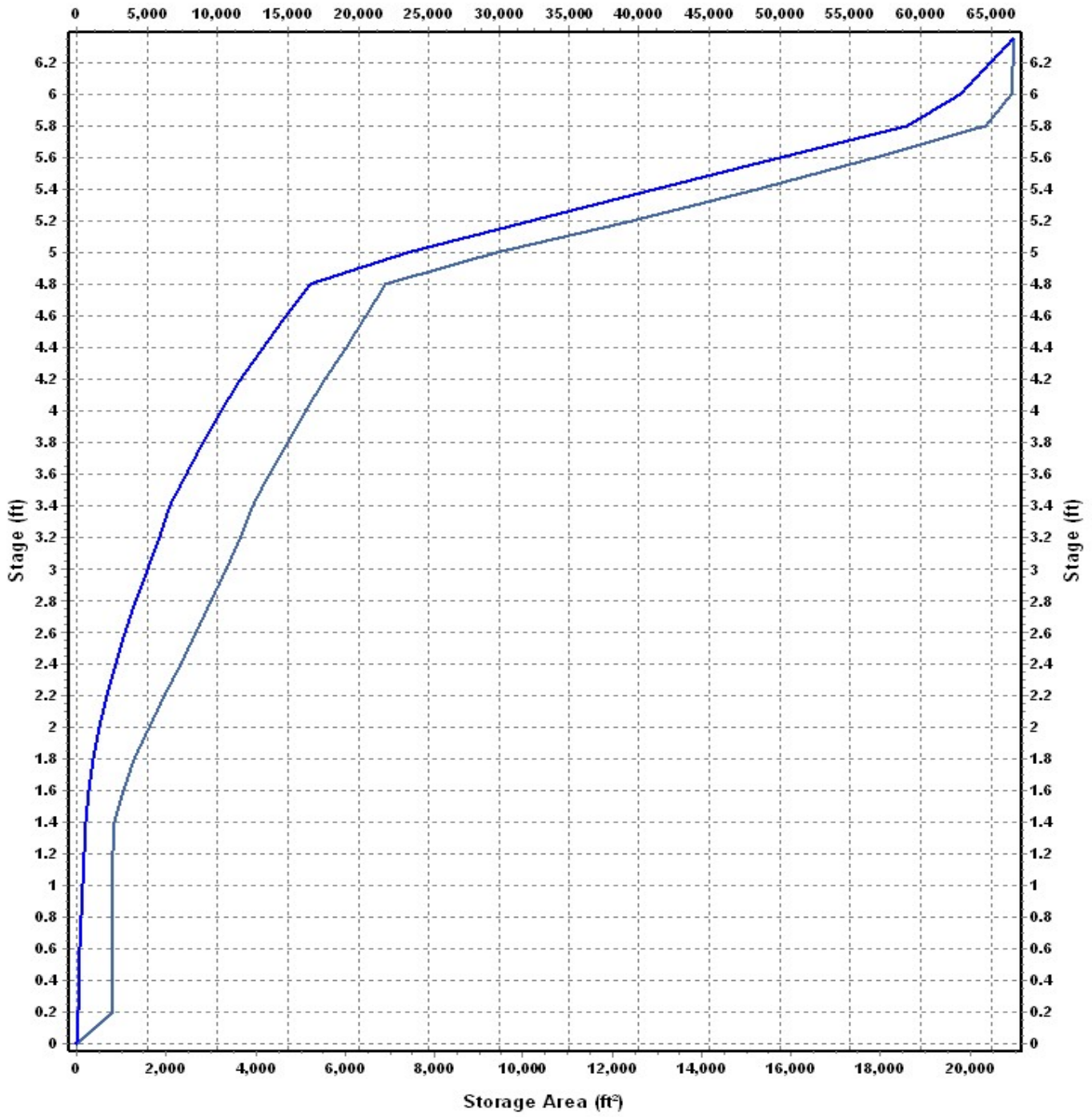
Storage Area Volume Curves

Storage Curve : Offsite 02

Stage (ft)	Storage Area (ft²)	Storage Volume (ft³)
0	0	0
.2	820.00	82
.4	815.00	163
.6	816.67	245
.8	817.50	327
1	818.00	409
1.2	816.67	490
1.4	850.00	595
1.6	1038.75	831
1.8	1297.78	1168
2	1606.00	1606
2.2	1950.00	2145
2.4	2319.17	2783
2.6	2676.15	3479
2.8	3010.71	4215
3	3326.67	4990
3.2	3691.25	5906
3.4	3938.24	6695
3.6	4318.89	7774
3.8	4721.58	8971
4	5142.00	10284
4.2	5578.57	11715
4.4	6028.18	13262
4.6	6478.26	14900
4.8	6925.42	16621
5	9432.00	23580
5.2	12438.08	32339
5.4	15251.85	41180
5.6	17886.43	50082
5.8	20357.93	59038
6	20943.33	62830
6.2	20946.77	64935
6.35	20960.63	66550

Storage Area Volume Curves

Storage Volume (ft³)



— Storage Area — Storage Volume

Storage Node : Offsite 04 (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 Offsite 04 orifice	Side	CIRCULAR	No	8.50			871.65	0.60

Output Summary Results

Peak Inflow (cfs)	12.09
Peak Lateral Inflow (cfs)	12.09
Peak Outflow (cfs)	3.68
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	875.76
Max HGL Depth Attained (ft)	4.11
Average HGL Elevation Attained (ft)	872.03
Average HGL Depth Attained (ft)	0.38
Time of Max HGL Occurrence (days hh:mm)	0 12:16
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Pavers01-02

Input Data

Invert Elevation (ft)	863.79
Max (Rim) Elevation (ft)	867.24
Max (Rim) Offset (ft)	3.45
Initial Water Elevation (ft)	863.79
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Outflow Weirs

SN Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1 Paver01-02 weir	Rectangular	No	865.70	1.91	4.00	1.00	3.33

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 Paver01-02 wq orifice 2	Side	CIRCULAR	No	1.00			863.79	0.60
2 Pavers01-02 WQ orifice 1	Side	CIRCULAR	No	1.00			863.79	0.60

Output Summary Results

Peak Inflow (cfs)	2.38
Peak Lateral Inflow (cfs)	2.38
Peak Outflow (cfs)	0.05
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	864.78
Max HGL Depth Attained (ft)	0.99
Average HGL Elevation Attained (ft)	864.28
Average HGL Depth Attained (ft)	0.49
Time of Max HGL Occurrence (days hh:mm)	0 15:48
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Pavers03-04

Input Data

Invert Elevation (ft)	863.79
Max (Rim) Elevation (ft)	867.24
Max (Rim) Offset (ft)	3.45
Initial Water Elevation (ft)	863.79
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Outflow Weirs

SN Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1 Paver04-06 weir	Rectangular	No	866.80	3.01	4.00	1.00	3.33

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 Paver03-04 WQ orifice 1	Side	CIRCULAR	No	1.00			863.79	0.60
2 Paver03-04 WQ orifice 2	Side	CIRCULAR	No	1.00			863.79	0.60

Output Summary Results

Peak Inflow (cfs)	2.43
Peak Lateral Inflow (cfs)	2.43
Peak Outflow (cfs)	0.05
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	864.81
Max HGL Depth Attained (ft)	1.02
Average HGL Elevation Attained (ft)	864.30
Average HGL Depth Attained (ft)	0.51
Time of Max HGL Occurrence (days hh:mm)	0 15:49
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Wet Basin 02

Input Data

Invert Elevation (ft)	859.00
Max (Rim) Elevation (ft)	867.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	862.00
Initial Water Depth (ft)	3.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

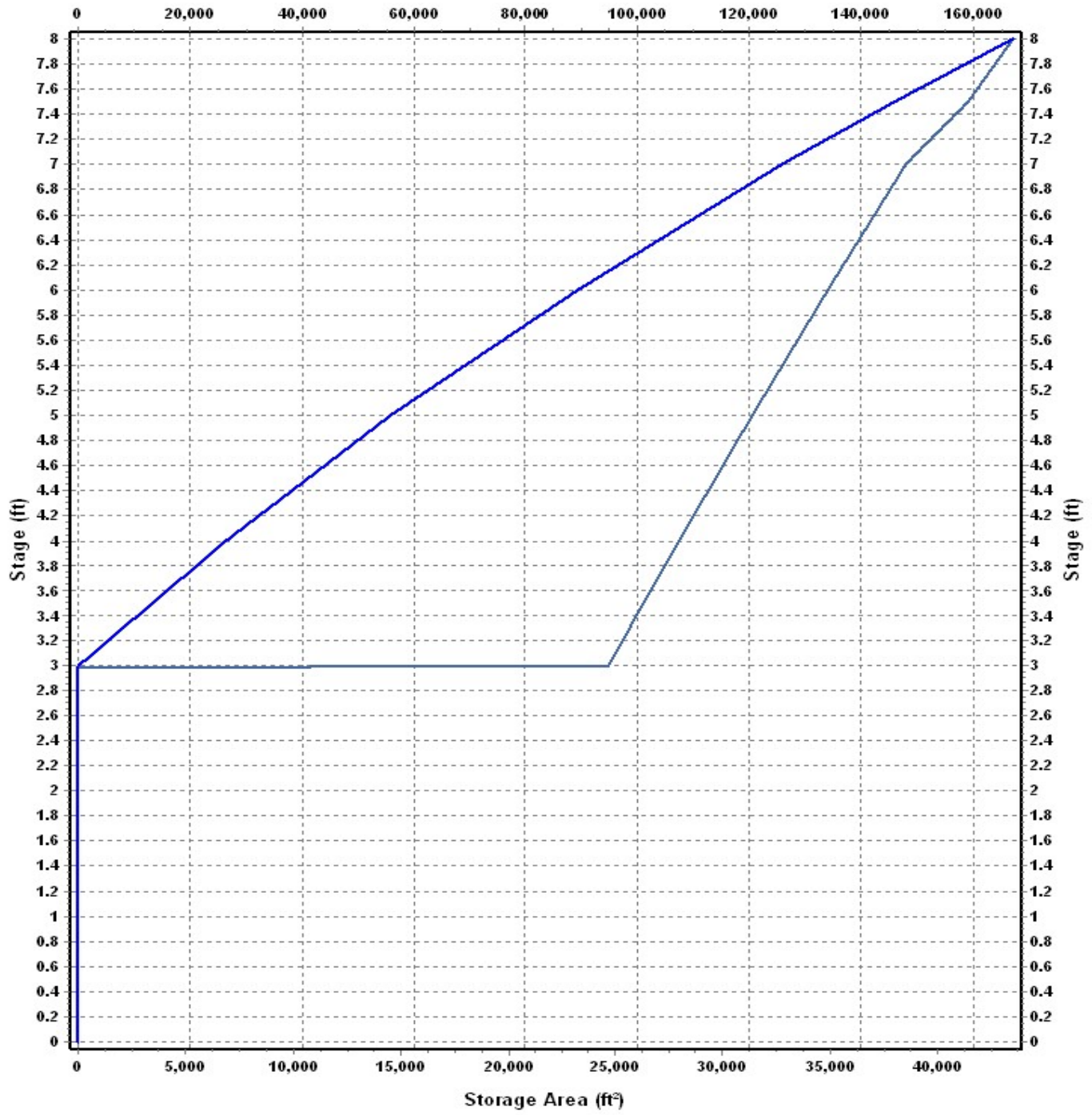
Storage Area Volume Curves

Storage Curve : Wet Basin 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.99	1	2.99
3	24635.51	126.17
4	27948.90	26418.38
5	31362.79	56074.23
6	34877.21	89194.23
7	38492.15	125878.91
7.5	41380.21	145847.00
8	43477.39	167061.40

Storage Area Volume Curves

Storage Volume (ft³)



Storage Area Storage Volume

Storage Node : Wet Basin 02 (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 Wet basin grate	Bottom	Rectangular	No		19.60	19.60	865.00	0.60
2 Wet basin window 1	Side	Rectangular	No		12.00	36.00	863.20	0.60
3 Wet Basin wq 2	Side	CIRCULAR	No	5.00			862.00	0.60
4 WetBasin WQ 1	Side	CIRCULAR	No	5.00			862.00	0.60
5 WetBasinWindow2	Side	Rectangular	No		12.00	36.00	863.20	0.60

Output Summary Results

Peak Inflow (cfs)	41.84
Peak Lateral Inflow (cfs)	32.42
Peak Outflow (cfs)	13.17
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	863.73
Max HGL Depth Attained (ft)	4.73
Average HGL Elevation Attained (ft)	862.73
Average HGL Depth Attained (ft)	3.73
Time of Max HGL Occurrence (days hh:mm)	0 13:21
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : WetBasin 01

Input Data

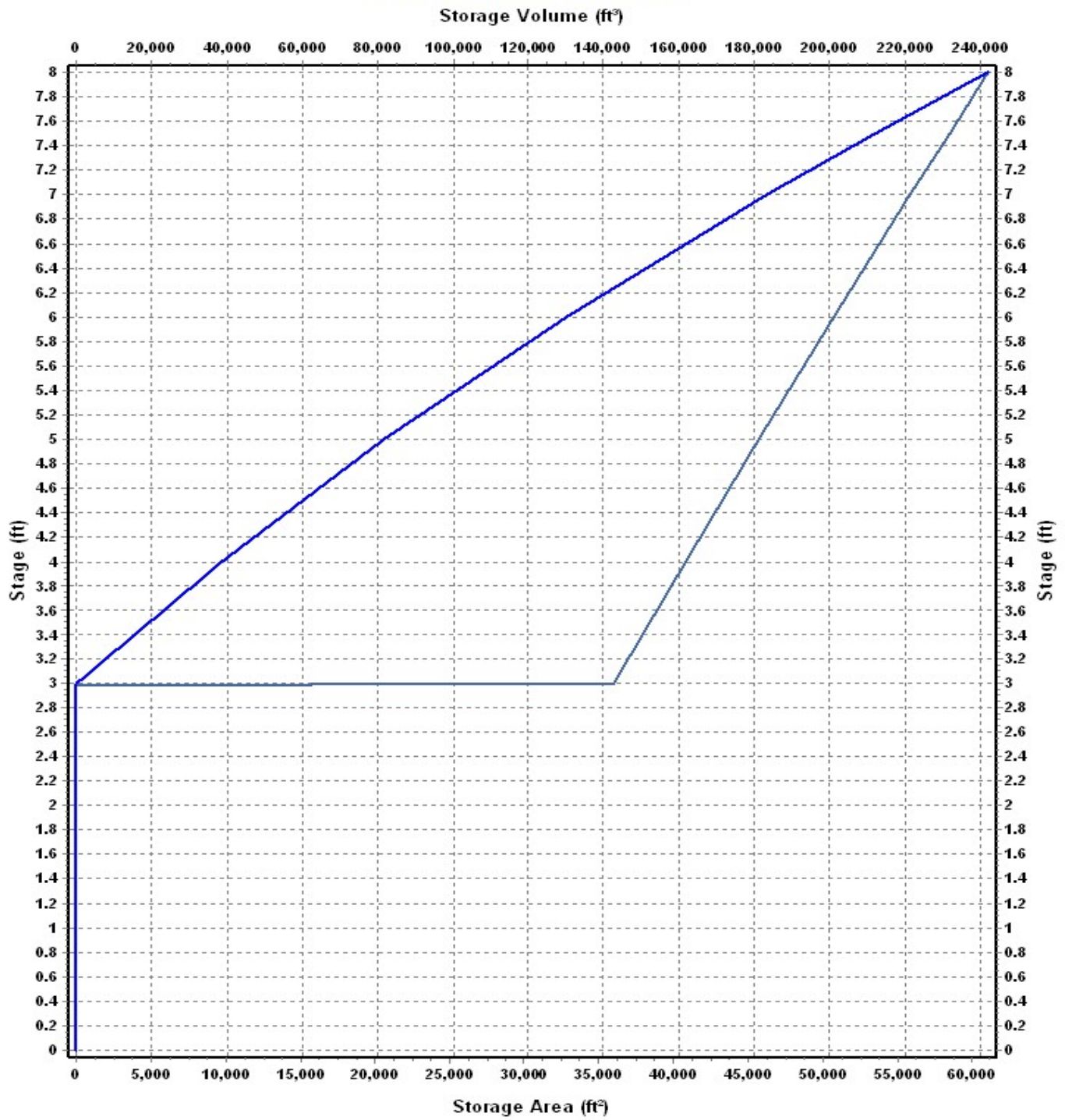
Invert Elevation (ft)	859.00
Max (Rim) Elevation (ft)	867.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	862.00
Initial Water Depth (ft)	3.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Wet Basin 01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.99	1	2.99
3	36012.49	183.06
4	40827.72	38603.17
5	45735.45	81884.76
6	50745.52	130125.25
7	55856.11	183426.07
7.5	58448.67	212002.27
8	61040.22	241874.49

Storage Area Volume Curves



Storage Area Storage Volume

Storage Node : WetBasin 01 (continued)

Output Summary Results

Peak Inflow (cfs)	29.73
Peak Lateral Inflow (cfs)	21.54
Peak Outflow (cfs)	2.67
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	863.73
Max HGL Depth Attained (ft)	4.73
Average HGL Elevation Attained (ft)	862.73
Average HGL Depth Attained (ft)	3.73
Time of Max HGL Occurrence (days hh:mm)	0 13:24
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Project Description

File Name 2017-0259 Dublin Smart Park 2017-5-15.SPF

Project Options

Flow Units CFS
 Elevation Type Elevation
 Hydrology Method SCS TR-55
 Time of Concentration (TOC) Method User-Defined
 Link Routing Method Hydrodynamic
 Enable Overflow Ponding at Nodes YES
 Skip Steady State Analysis Time Periods NO

Analysis Options

Start Analysis On Apr 11, 2017 00:00:00
 End Analysis On Apr 12, 2017 00:00:00
 Start Reporting On Apr 11, 2017 00:00:00
 Antecedent Dry Days 0 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 00:05:00 days hh:mm:ss
 Routing Time Step 1 seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins.....	16
Nodes.....	35
<i>Junctions</i>	21
<i>Outfalls</i>	1
<i>Flow Diversions</i>	0
<i>Inlets</i>	0
<i>Storage Nodes</i>	13
Links.....	49
<i>Channels</i>	1
<i>Pipes</i>	21
<i>Pumps</i>	0
<i>Orifices</i>	20
<i>Weirs</i>	2
<i>Outlets</i>	5
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1		Time Series	2-year	Cumulative	inches	Ohio	Franklin	2	2.63	SCS Type II 24-hr

Subbasin Summary

SN Subbasin ID	Area (ac)	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1 Offsite 01: Lucent site	9.91	94.00	2.63	1.99	19.76	26.39	0 00:10:00
2 Offsite 02 - 01	3.38	92.00	2.63	1.81	6.13	9.02	0 00:07:00
3 Offsite 02 - 02	7.84	93.00	2.63	1.90	14.90	20.87	0 00:08:30
4 Offsite 03: Triangle outparcel	2.50	74.00	2.63	0.68	1.71	2.29	0 00:09:00
5 Offsite 04: Cendant Site	5.72	94.00	2.63	1.99	11.41	15.24	0 00:10:00
6 Subarea 02 - to wb 02	0.43	95.60	2.63	2.15	0.92	1.38	0 00:05:00
7 Subarea 02 -to wb1	0.52	95.60	2.63	2.15	1.12	1.68	0 00:05:00
8 Subarea 03	10.24	89.68	2.63	1.62	16.61	26.26	0 00:05:00
9 Subarea01	14.97	90.80	2.63	1.71	25.64	40.28	0 00:05:00
10 ToBiobasin01	1.39	95.60	2.63	2.15	2.99	4.46	0 00:05:00
11 ToBiobasin02	0.52	95.60	2.63	2.15	1.12	1.66	0 00:05:00
12 ToBiobasin03	1.35	95.60	2.63	2.15	2.90	4.34	0 00:05:00
13 ToBiobasin04	0.81	95.60	2.63	2.15	1.74	2.59	0 00:05:00
14 ToBiobasin05	1.44	95.60	2.63	2.15	3.08	4.60	0 00:05:00
15 ToPP01-02	0.91	95.60	2.63	2.15	1.96	2.92	0 00:05:00
16 ToPP03-04	0.93	95.60	2.63	2.15	1.99	2.98	0 00:05:00

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	Biobasin02dummysnode	Junction	862.67	867.17	862.67	867.17	0.00	1.26	863.50	0.00	3.67	0 00:00	0.00	0.00
2	CatchBasin03	Junction	862.00	866.50	862.00	866.50	2879.24	2.72	863.40	0.00	3.10	0 00:00	0.00	0.00
3	CatchBasin04	Junction	862.44	866.94	862.44	866.94	4642.88	2.79	863.47	0.00	3.47	0 00:00	0.00	0.00
4	CatchBasin05	Junction	862.67	867.17	862.67	867.17	1566.12	1.18	863.48	0.00	3.69	0 00:00	0.00	0.00
5	CatchBasin12	Junction	862.60	867.10	862.60	867.10	6347.63	1.19	863.40	0.00	3.70	0 00:00	0.00	0.00
6	CatchBasin8	Junction	862.64	867.14	862.64	867.14	6037.65	1.14	863.40	0.00	3.74	0 00:00	0.00	0.00
7	Dummy1	Junction	861.69	867.00	861.69	867.00	0.00	11.97	863.47	0.00	3.53	0 00:00	0.00	0.00
8	Ex0	Junction	860.13	865.00	860.13	865.00	0.00	12.85	861.11	0.00	3.89	0 00:00	0.00	0.00
9	ExA	Junction	860.81	865.00	860.81	865.00	0.00	13.59	862.72	0.00	4.09	0 00:00	0.00	0.00
10	Existing 36-inch outlet pipe	Junction	870.00	875.50	870.00	875.50	0.00	11.88	870.91	0.00	5.49	0 00:00	0.00	0.00
11	Manhole 7	Junction	862.47	868.00	862.47	868.00	0.00	1.12	863.37	0.00	4.63	0 00:00	0.00	0.00
12	Manhole1	Junction	861.75	868.00	861.75	868.00	0.00	4.42	863.35	0.00	4.65	0 00:00	0.00	0.00
13	Manhole10	Junction	862.23	868.00	862.23	868.00	0.00	1.18	863.35	0.00	4.65	0 00:00	0.00	0.00
14	Manhole11	Junction	862.42	868.00	862.42	868.00	0.00	1.16	863.37	0.00	4.63	0 00:00	0.00	0.00
15	Manhole13	Junction	863.79	868.00	863.79	868.00	0.00	0.06	863.91	0.00	4.09	0 00:00	0.00	0.00
16	Manhole2	Junction	861.80	868.00	861.80	868.00	0.00	2.46	863.35	0.00	4.65	0 00:00	0.00	0.00
17	Manhole6	Junction	862.28	868.00	862.28	868.00	0.00	1.14	863.35	0.00	4.65	0 00:00	0.00	0.00
18	Manhole9	Junction	863.79	868.00	863.79	868.00	0.00	0.06	863.90	0.00	4.10	0 00:00	0.00	0.00
19	Offsite 02 outlet	Junction	877.50	881.50	877.50	881.50	0.00	0.65	877.74	0.00	4.46	0 00:00	0.00	0.00
20	OutToDitch	Junction	861.58	863.00	861.58	863.00	0.00	13.79	862.86	0.00	4.72	0 00:00	0.00	0.00
21	Structure1	Junction	861.69	868.00	861.69	868.00	0.00	13.82	863.35	0.00	4.65	0 00:00	0.00	0.00
22	Ex00 Outlet	Outfall	859.65					12.85	860.50					
23	Biobasin 01	Storage Node	862.64	867.14	865.14		0.00	4.45	866.26				0.00	0.00
24	Biobasin02	Storage Node	862.67	867.17	865.17		0.00	1.66	866.31				0.00	0.00
25	Biobasin03	Storage Node	862.44	867.10	865.00		0.00	4.33	866.18				0.00	0.00
26	Biobasin04	Storage Node	862.00	867.00	864.50		0.00	2.59	865.52				0.00	0.00
27	Biobasin05	Storage Node	862.60	867.10	865.10		0.00	4.60	866.23				0.00	0.00
28	Offsite 01 Parking lot ponding	Storage Node	871.00	879.00	877.50		0.00	26.02	877.95				0.00	0.00
29	Offsite 02 Wet basin 02	Storage Node	878.00	882.00	878.00		0.00	19.84	879.69				0.00	0.00
30	Offsite 02-wet basin 1	Storage Node	875.00	881.50	877.50		0.00	15.69	879.27				0.00	0.00
31	Offsite 04	Storage Node	871.65	878.00	871.65		0.00	15.05	876.30				0.00	0.00
32	Pavers01-02	Storage Node	863.79	867.24	863.79		0.00	2.92	865.03				0.00	0.00
33	Pavers03-04	Storage Node	863.79	867.24	863.79		0.00	2.98	865.08				0.00	0.00
34	Wet Basin 02	Storage Node	859.00	867.00	862.00		0.00	51.91	863.91				0.00	0.00
35	WetBasin 01	Storage Node	859.00	867.00	862.00		0.00	37.02	863.92				0.00	0.00

Subbasin Hydrology

Subbasin : Offsite 01: Lucent site

Input Data

Area (ac) 9.91
Weighted Curve Number 94.00
Rain Gage ID DublinRain

Composite Curve Number

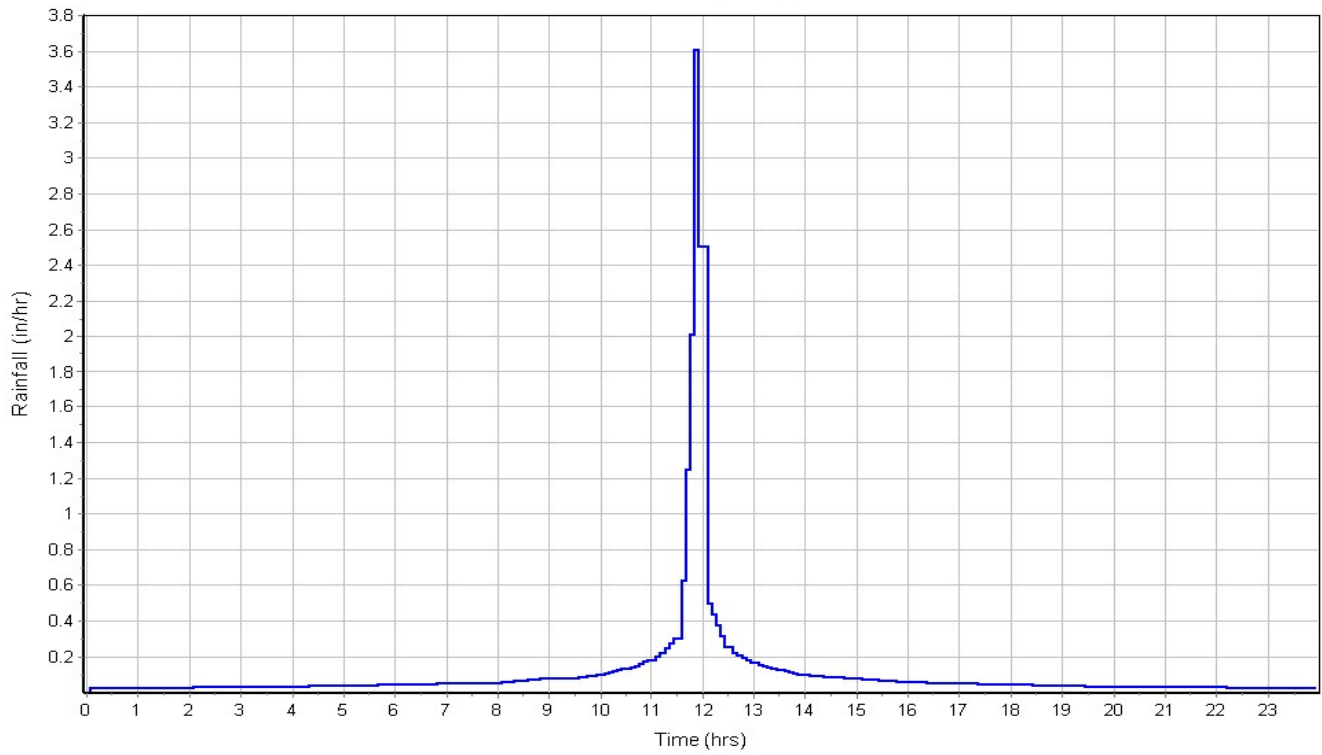
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	9.91	-	94.00
Composite Area & Weighted CN	9.91		94.00

Subbasin Runoff Results

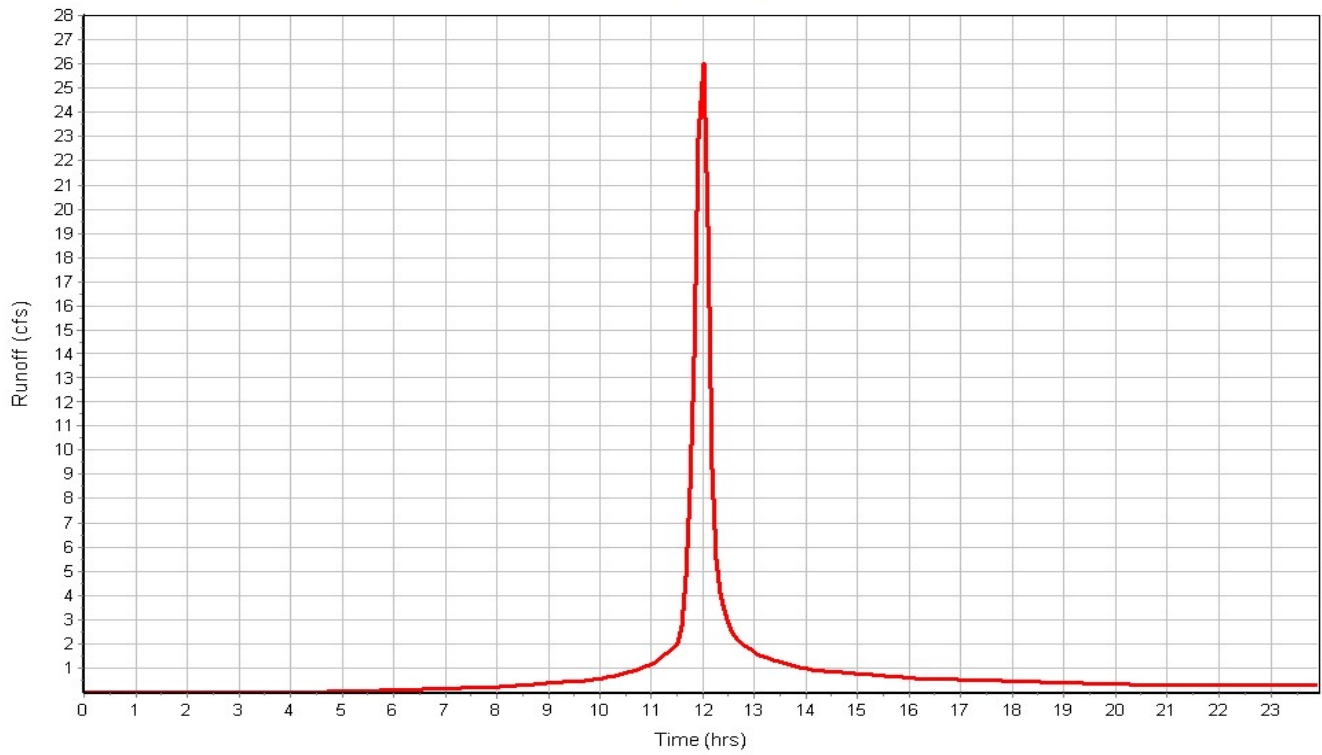
Total Rainfall (in) 2.63
Total Runoff (in) 1.99
Peak Runoff (cfs) 26.39
Weighted Curve Number 94.00
Time of Concentration (days hh:mm:ss) 0 00:10:00

Subbasin : Offsite 01: Lucent site

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 02 - 01

Input Data

Area (ac) 3.38
Weighted Curve Number 92.00
Rain Gage ID DublinRain

Composite Curve Number

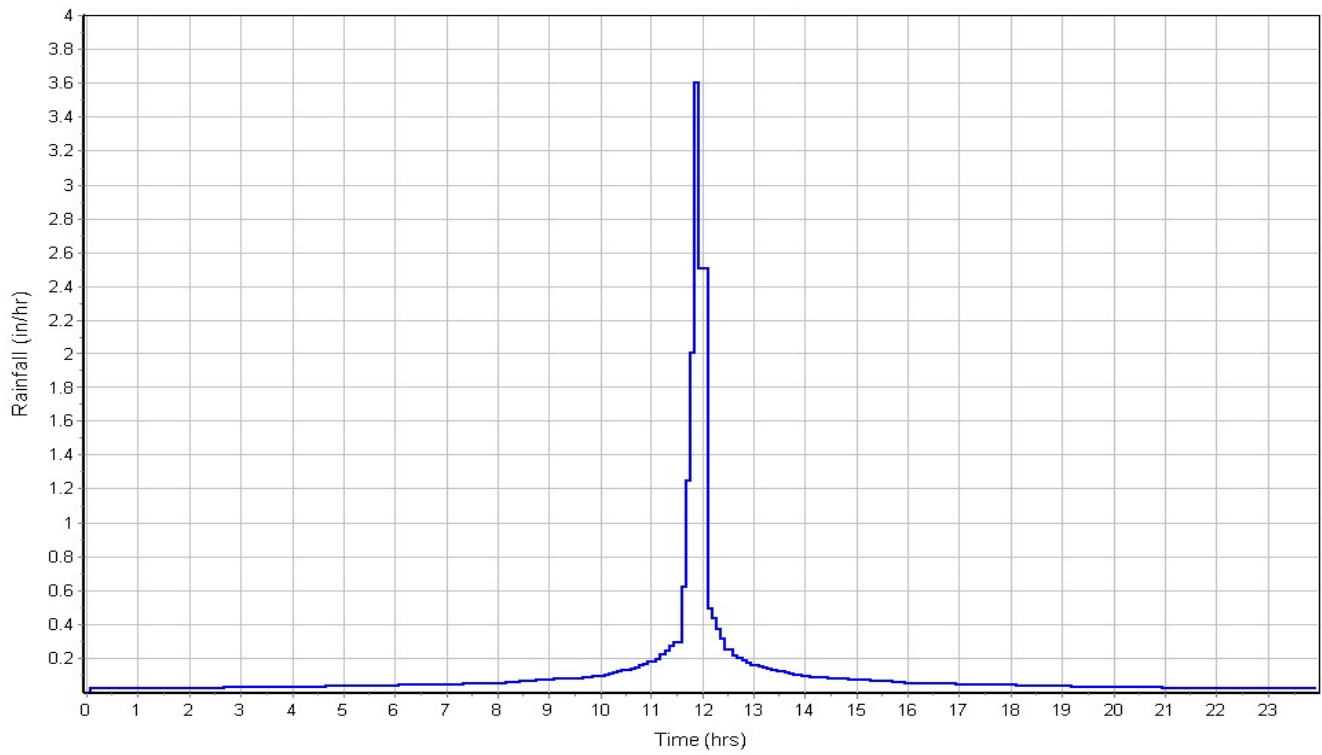
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	3.38	-	92.00
Composite Area & Weighted CN	3.38		92.00

Subbasin Runoff Results

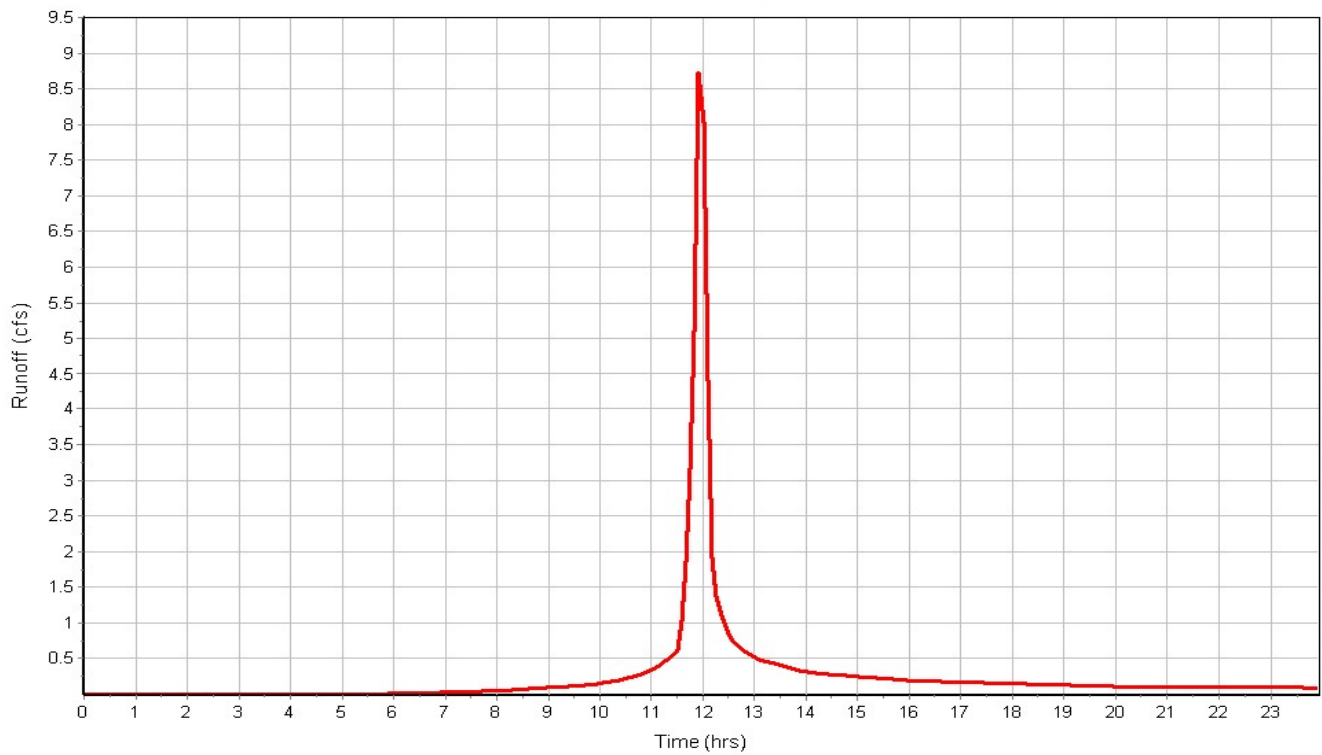
Total Rainfall (in) 2.63
Total Runoff (in) 1.81
Peak Runoff (cfs) 9.02
Weighted Curve Number 92.00
Time of Concentration (days hh:mm:ss) 0 00:07:00

Subbasin : Offsite 02 - 01

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 02 - 02

Input Data

Area (ac) 7.84
Weighted Curve Number 93.00
Rain Gage ID DublinRain

Composite Curve Number

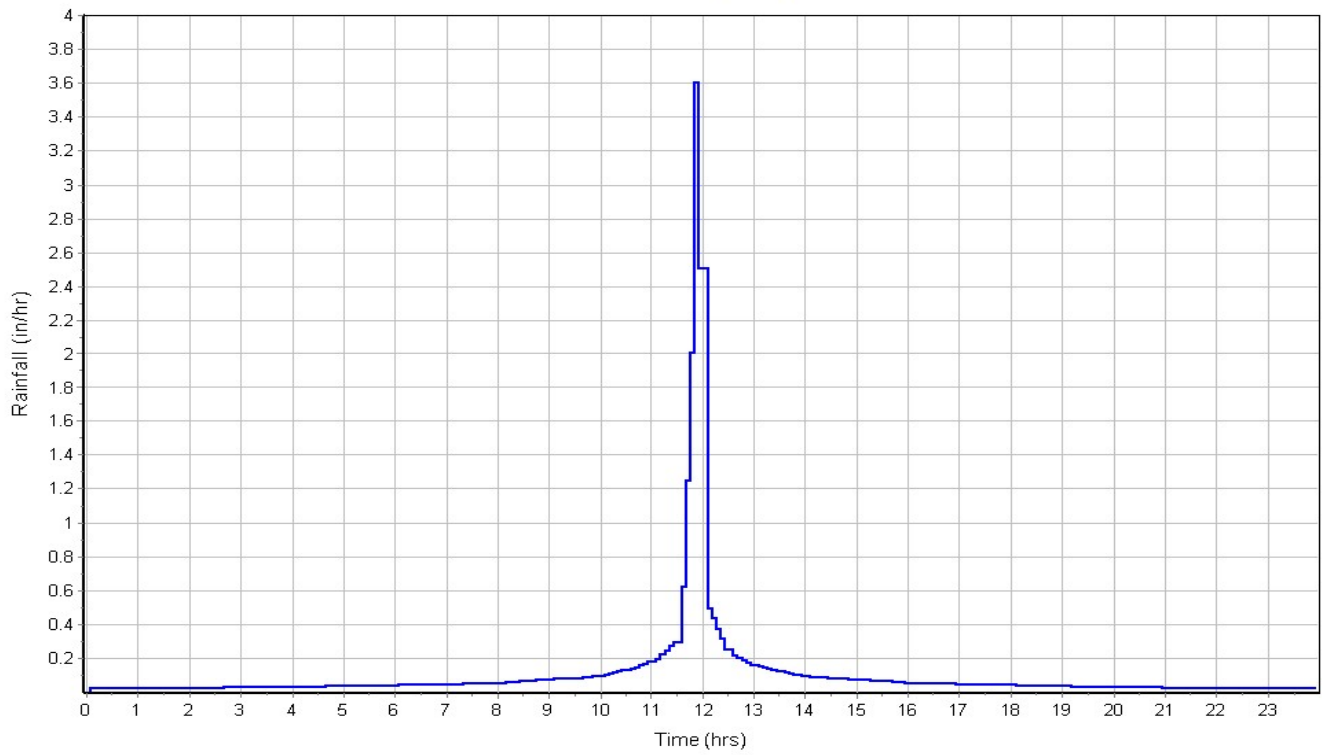
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	7.84	-	93.00
Composite Area & Weighted CN	7.84		93.00

Subbasin Runoff Results

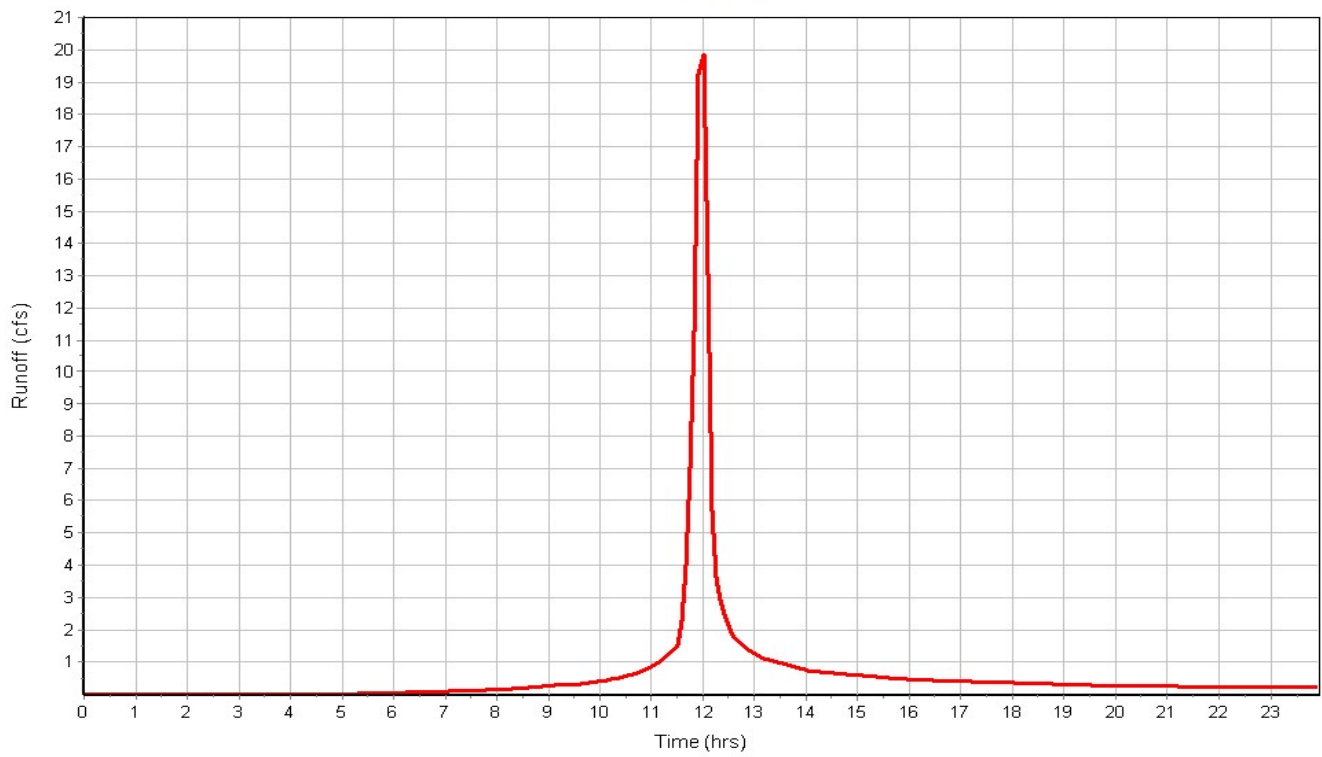
Total Rainfall (in) 2.63
Total Runoff (in) 1.90
Peak Runoff (cfs) 20.87
Weighted Curve Number 93.00
Time of Concentration (days hh:mm:ss) 0 00:08:30

Subbasin : Offsite 02 - 02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 03: Triangle outparcel

Input Data

Area (ac) 2.50
Weighted Curve Number 74.00
Rain Gage ID DublinRain

Composite Curve Number

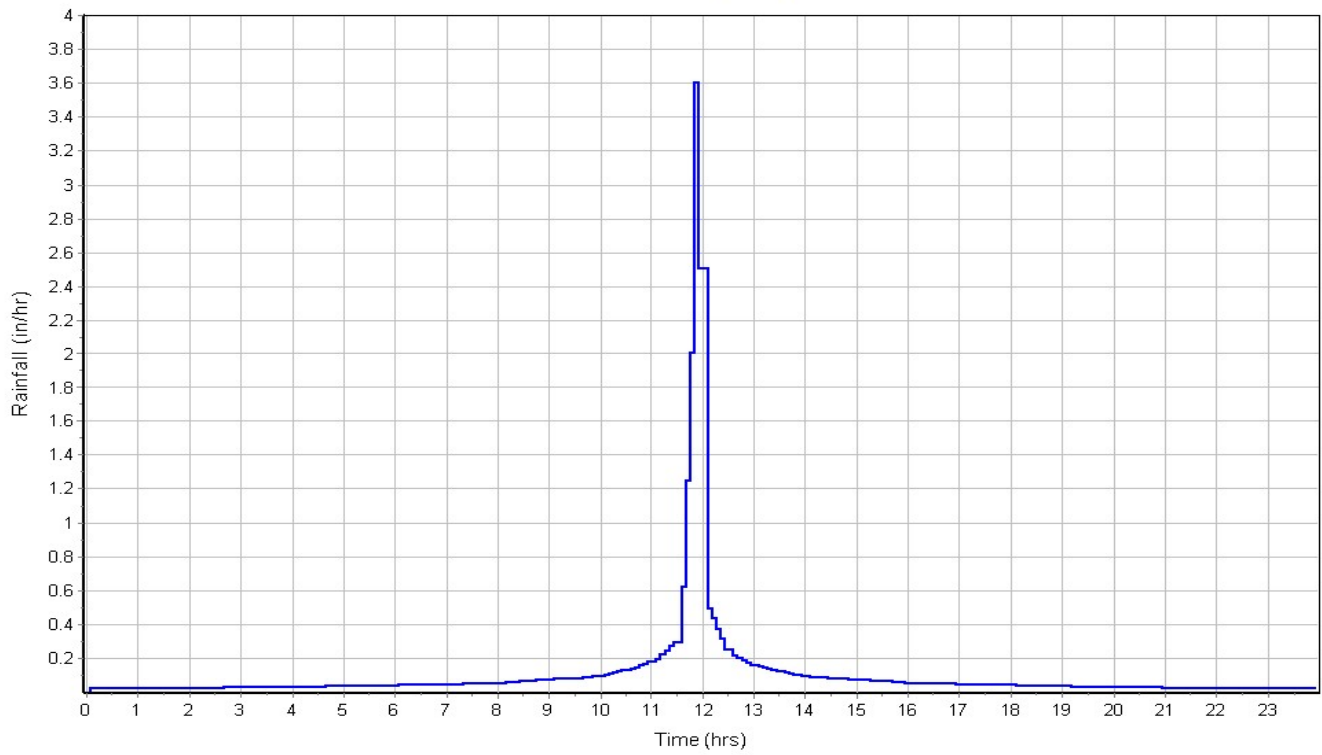
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	2.50	-	74.00
Composite Area & Weighted CN	2.50		74.00

Subbasin Runoff Results

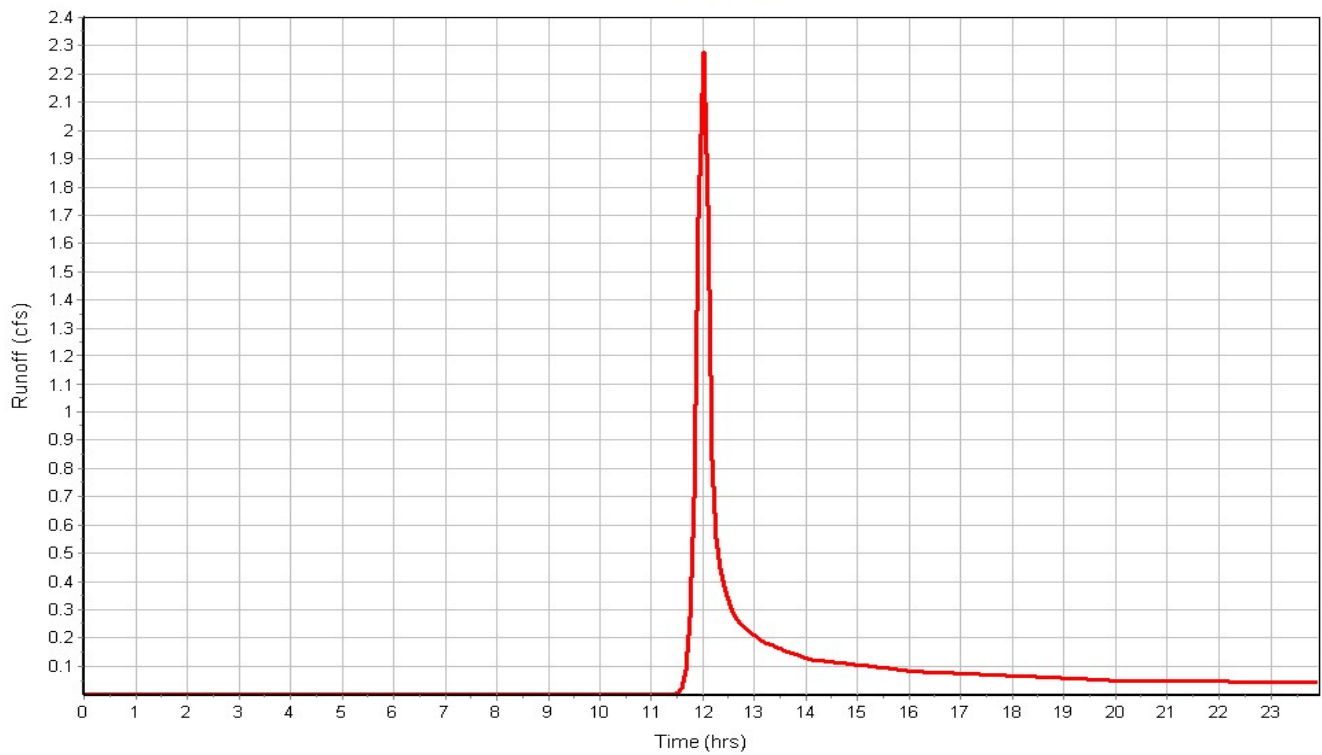
Total Rainfall (in) 2.63
Total Runoff (in) 0.68
Peak Runoff (cfs) 2.29
Weighted Curve Number 74.00
Time of Concentration (days hh:mm:ss) 0 00:09:00

Subbasin : Offsite 03: Triangle outparcel

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 04: Cendant Site

Input Data

Area (ac) 5.72
Weighted Curve Number 94.00
Rain Gage ID DublinRain

Composite Curve Number

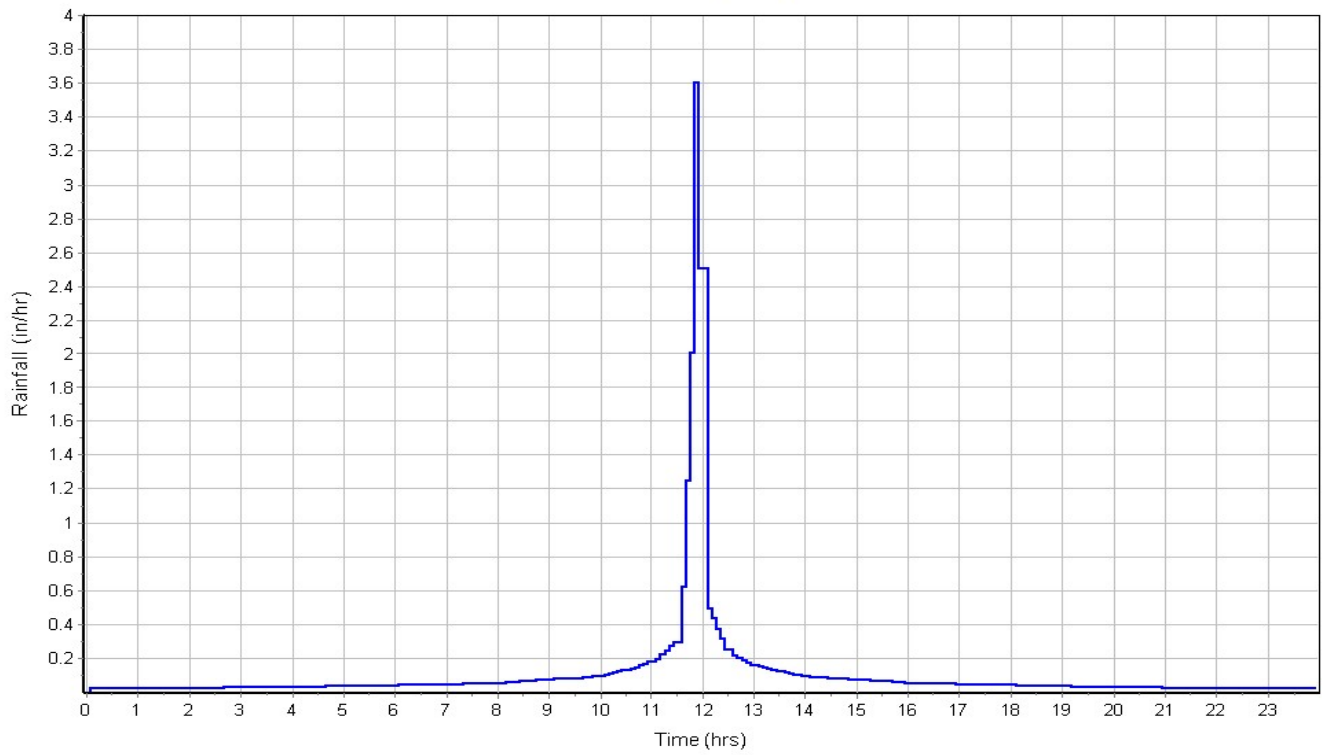
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	5.72	-	94.00
Composite Area & Weighted CN	5.72		94.00

Subbasin Runoff Results

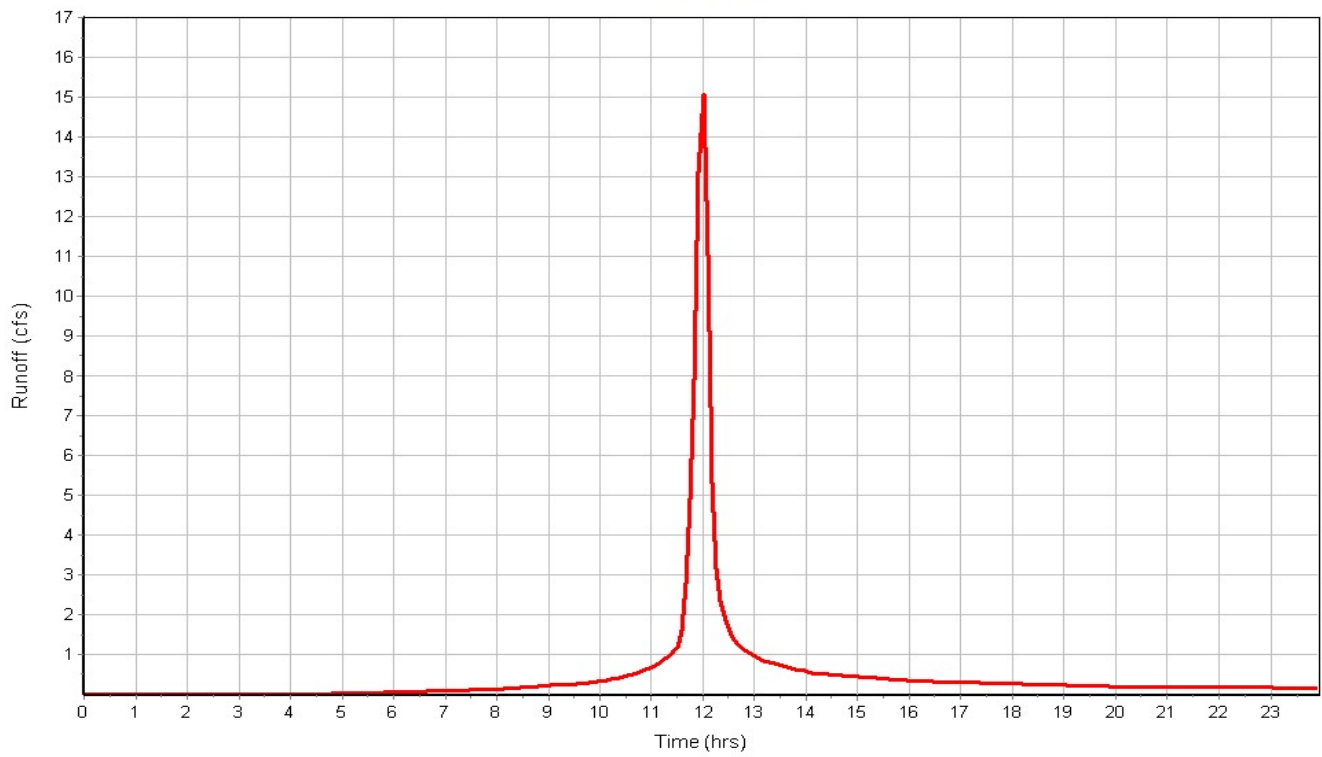
Total Rainfall (in) 2.63
Total Runoff (in) 1.99
Peak Runoff (cfs) 15.24
Weighted Curve Number 94.00
Time of Concentration (days hh:mm:ss) 0 00:10:00

Subbasin : Offsite 04: Cendant Site

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea 02 - to wb 02

Input Data

Area (ac) 0.43
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

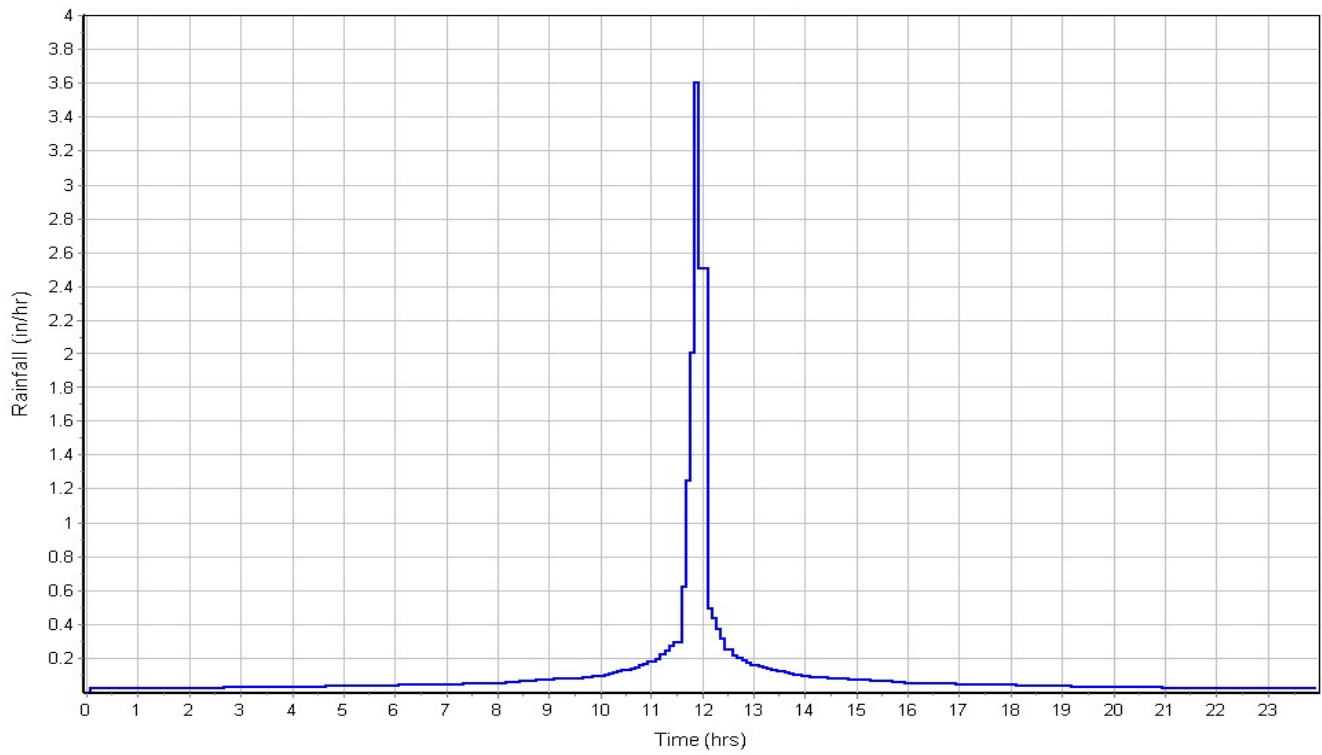
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	0.39	-	98.00
-	0.04	-	74.00
Composite Area & Weighted CN	0.43		95.60

Subbasin Runoff Results

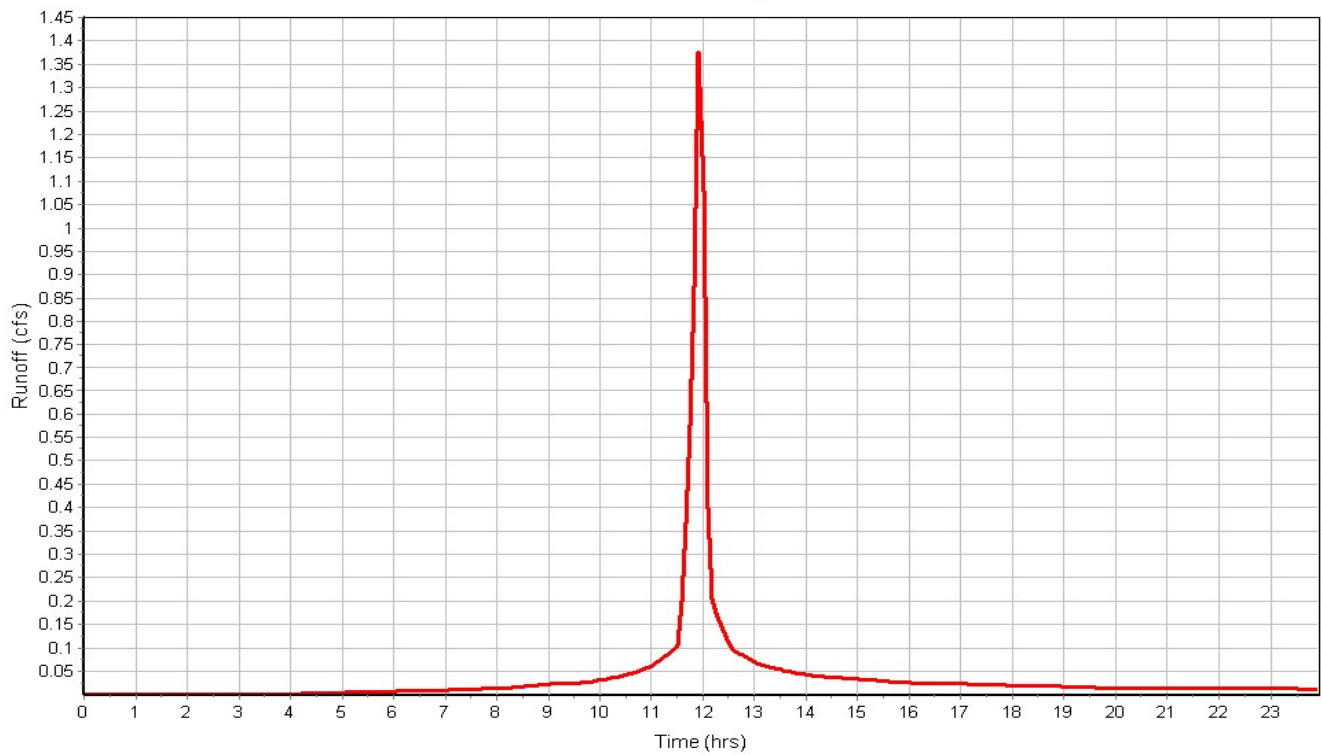
Total Rainfall (in) 2.63
Total Runoff (in) 2.15
Peak Runoff (cfs) 1.38
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea 02 - to wb 02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea 02 -to wb1

Input Data

Area (ac) 0.52
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

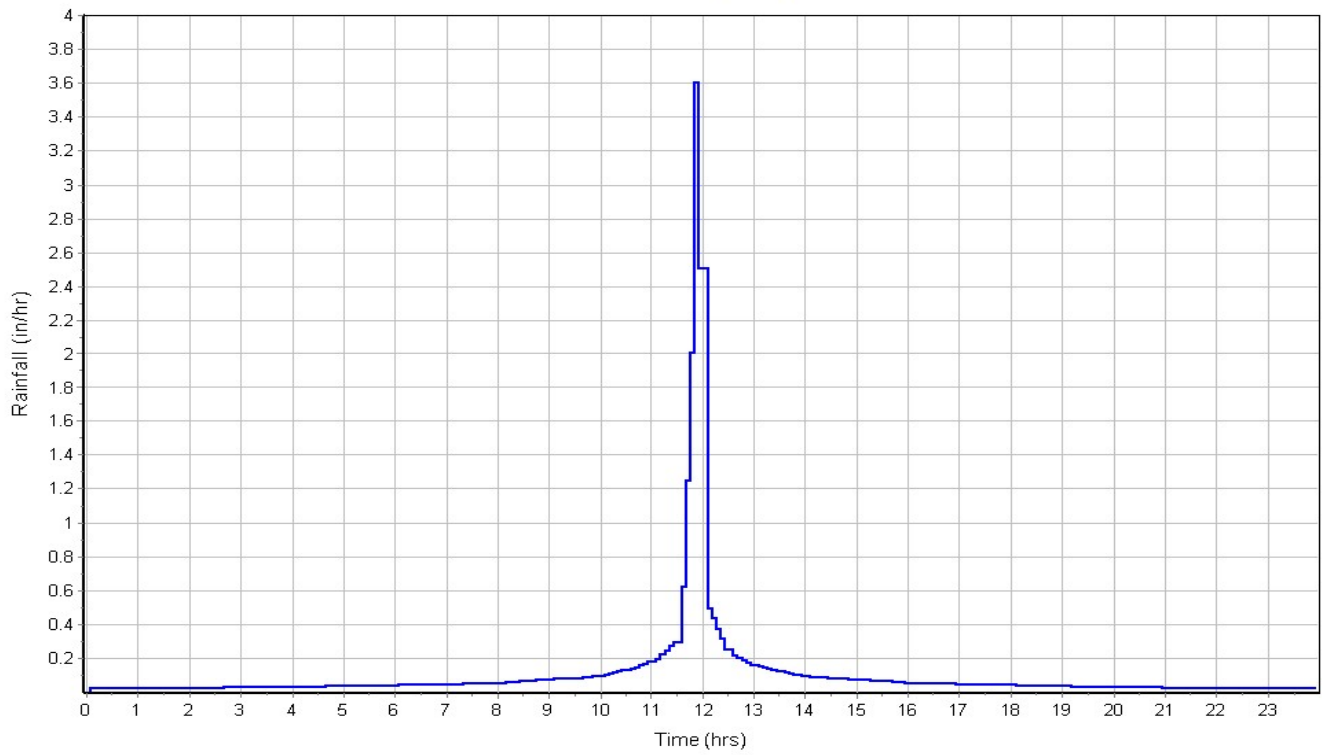
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	0.05	-	74.00
-	0.47	-	98.00
Composite Area & Weighted CN	0.52		95.60

Subbasin Runoff Results

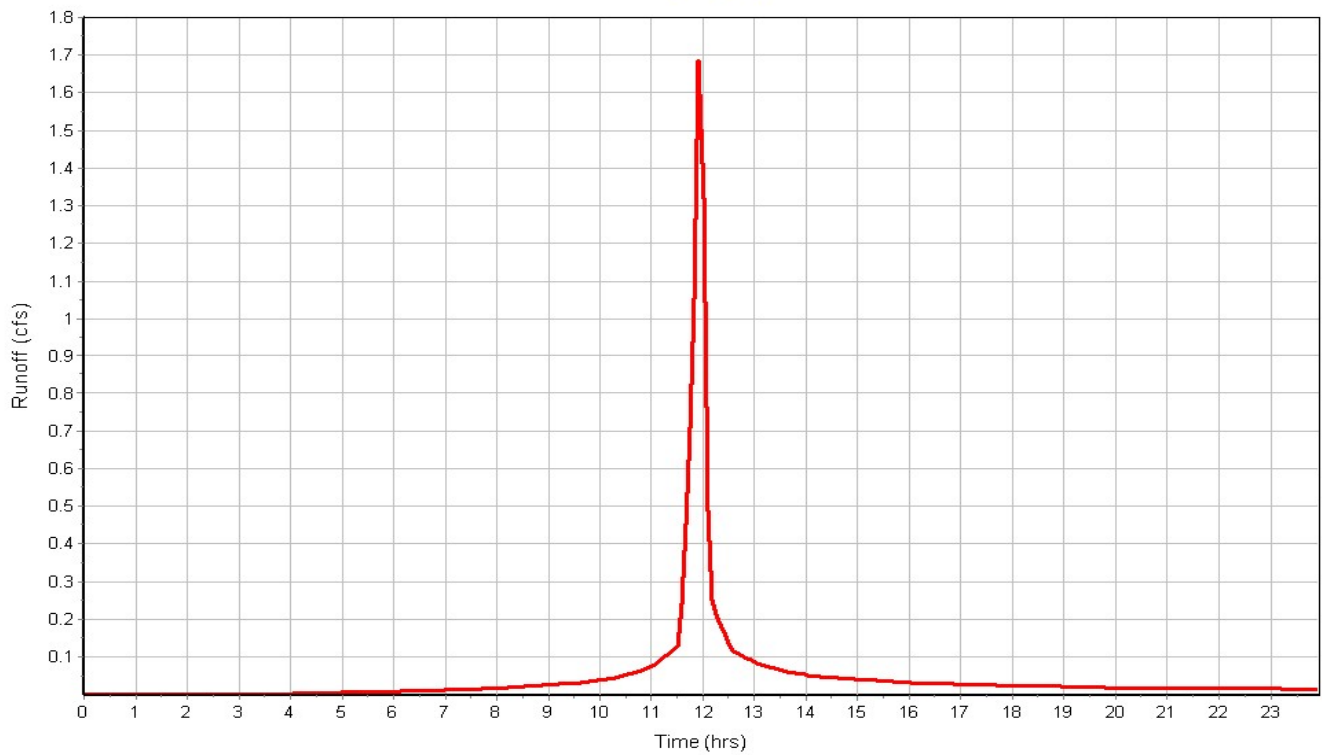
Total Rainfall (in) 2.63
Total Runoff (in) 2.15
Peak Runoff (cfs) 1.68
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea 02 -to wb1

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea 03

Input Data

Area (ac) 10.24
Weighted Curve Number 89.68
Rain Gage ID DublinRain

Composite Curve Number

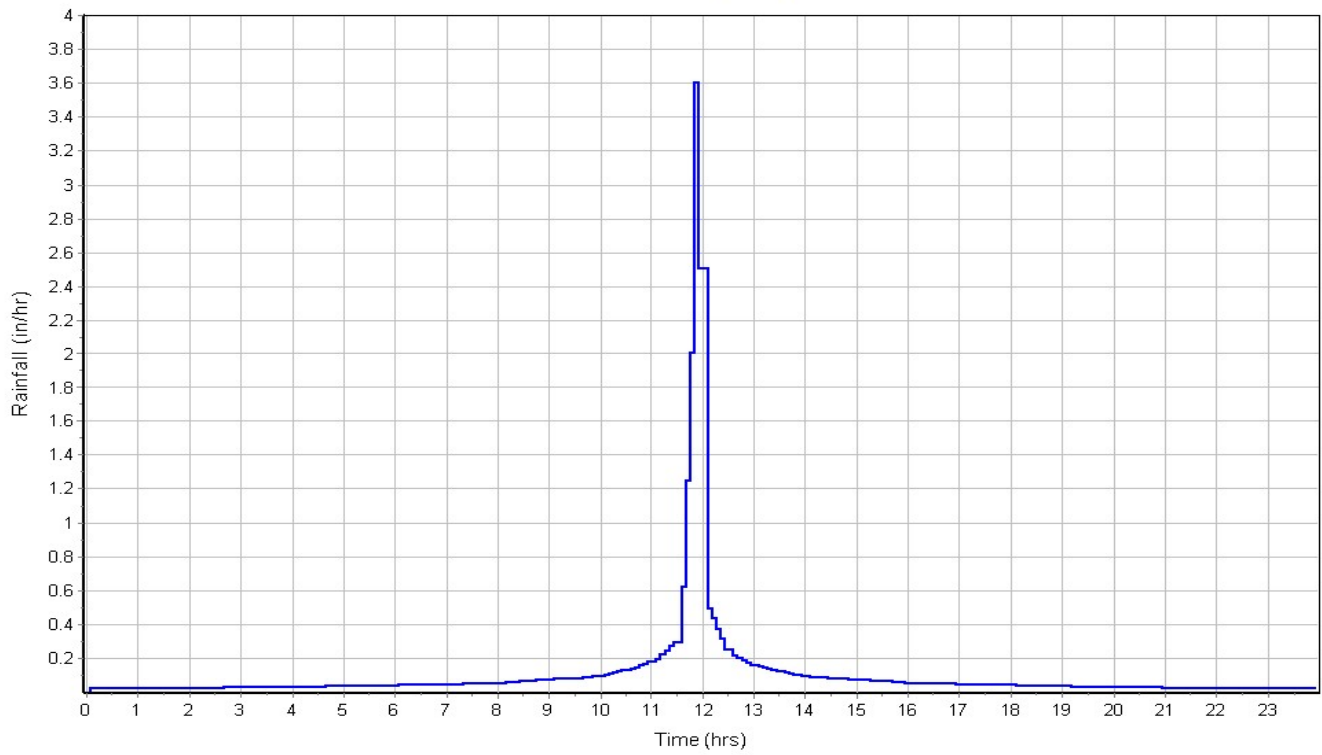
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	6.69	-	98.00
-	3.55	-	74.00
Composite Area & Weighted CN	10.24		89.68

Subbasin Runoff Results

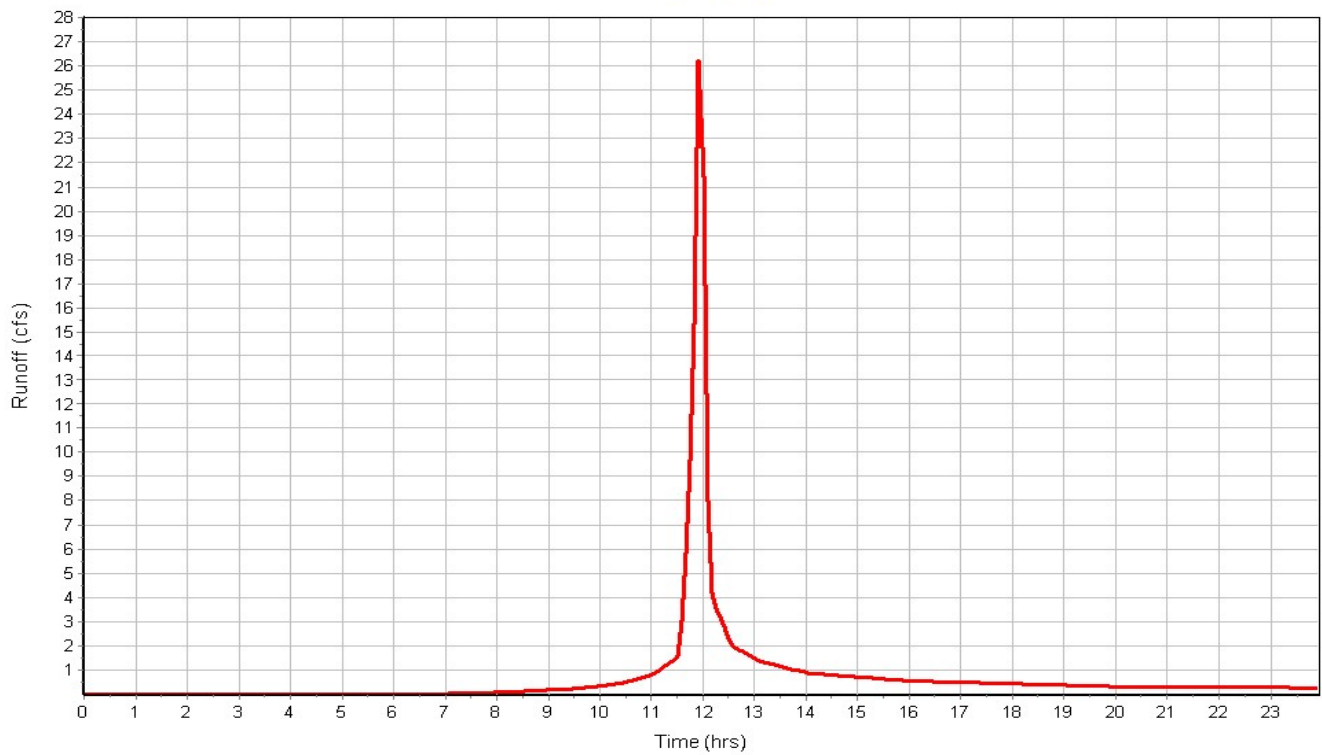
Total Rainfall (in) 2.63
Total Runoff (in) 1.62
Peak Runoff (cfs) 26.26
Weighted Curve Number 89.68
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea 03

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea01

Input Data

Area (ac) 14.97
Weighted Curve Number 90.80
Rain Gage ID DublinRain

Composite Curve Number

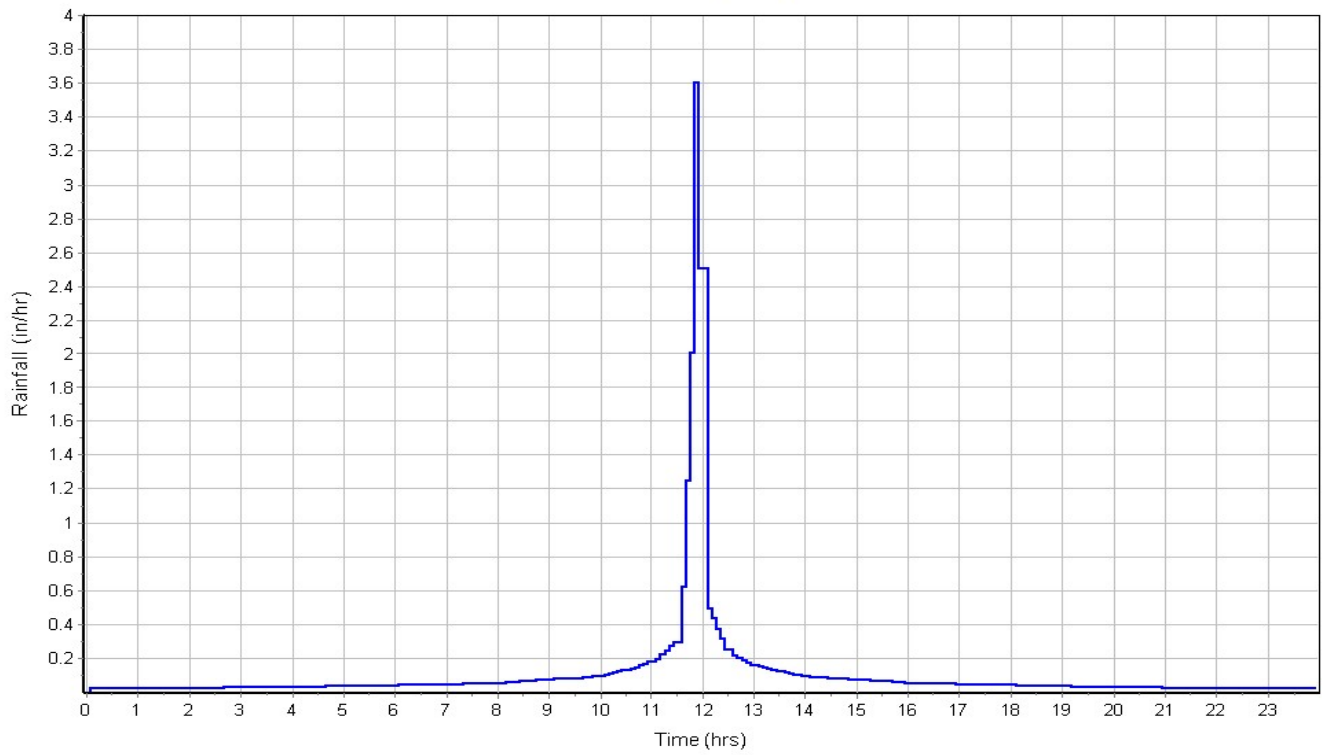
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	10.48	-	98.00
-	4.49	-	74.00
Composite Area & Weighted CN	14.97		90.80

Subbasin Runoff Results

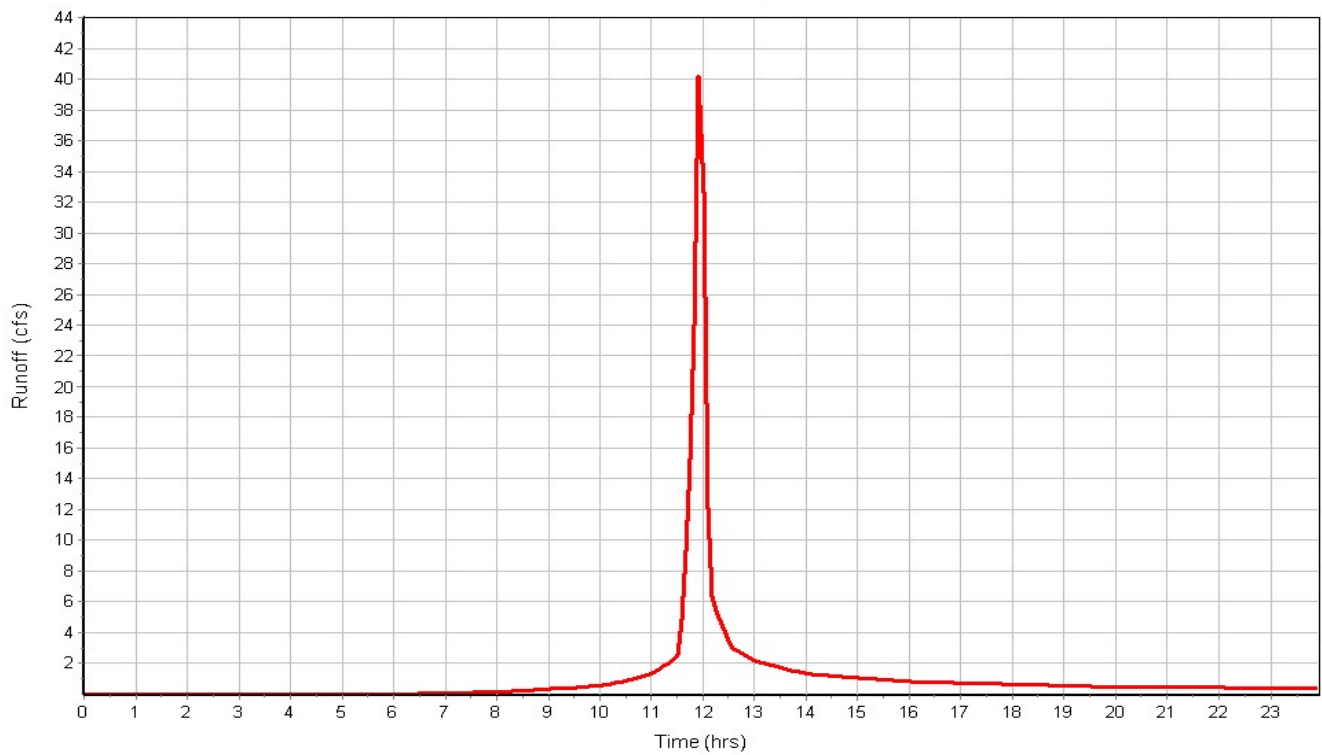
Total Rainfall (in) 2.63
Total Runoff (in) 1.71
Peak Runoff (cfs) 40.28
Weighted Curve Number 90.80
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea01

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin01

Input Data

Area (ac) 1.39
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

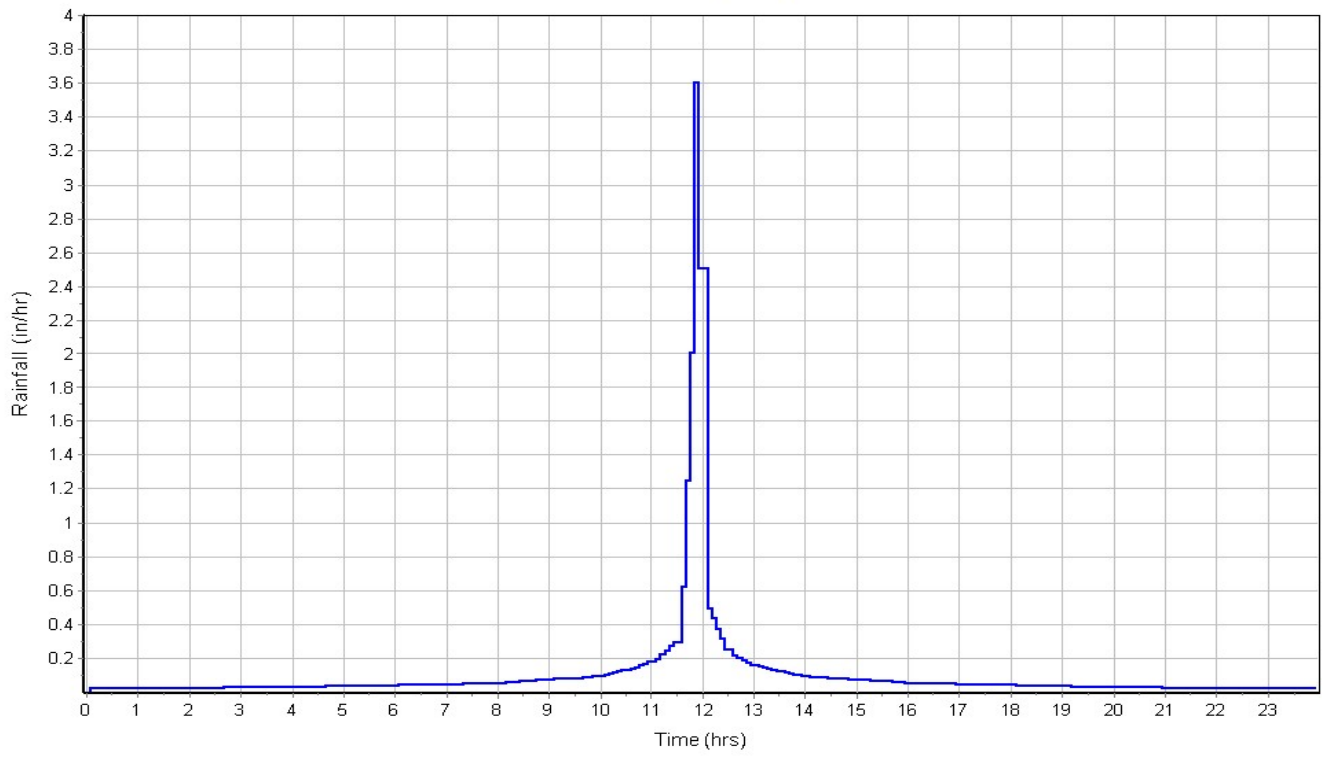
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	1.25	-	98.00
-	0.14	-	74.00
Composite Area & Weighted CN	1.39		95.60

Subbasin Runoff Results

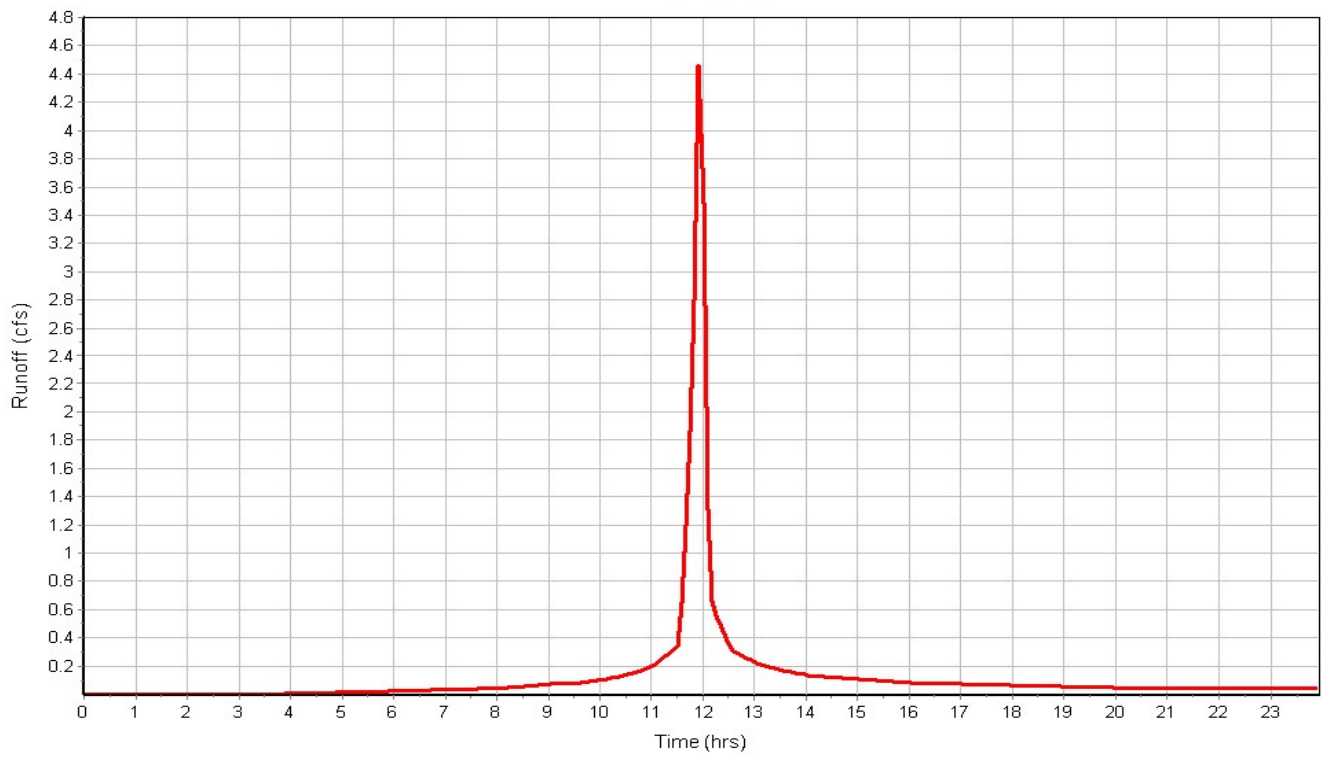
Total Rainfall (in) 2.63
Total Runoff (in) 2.15
Peak Runoff (cfs) 4.46
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin01

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin02

Input Data

Area (ac) 0.52
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

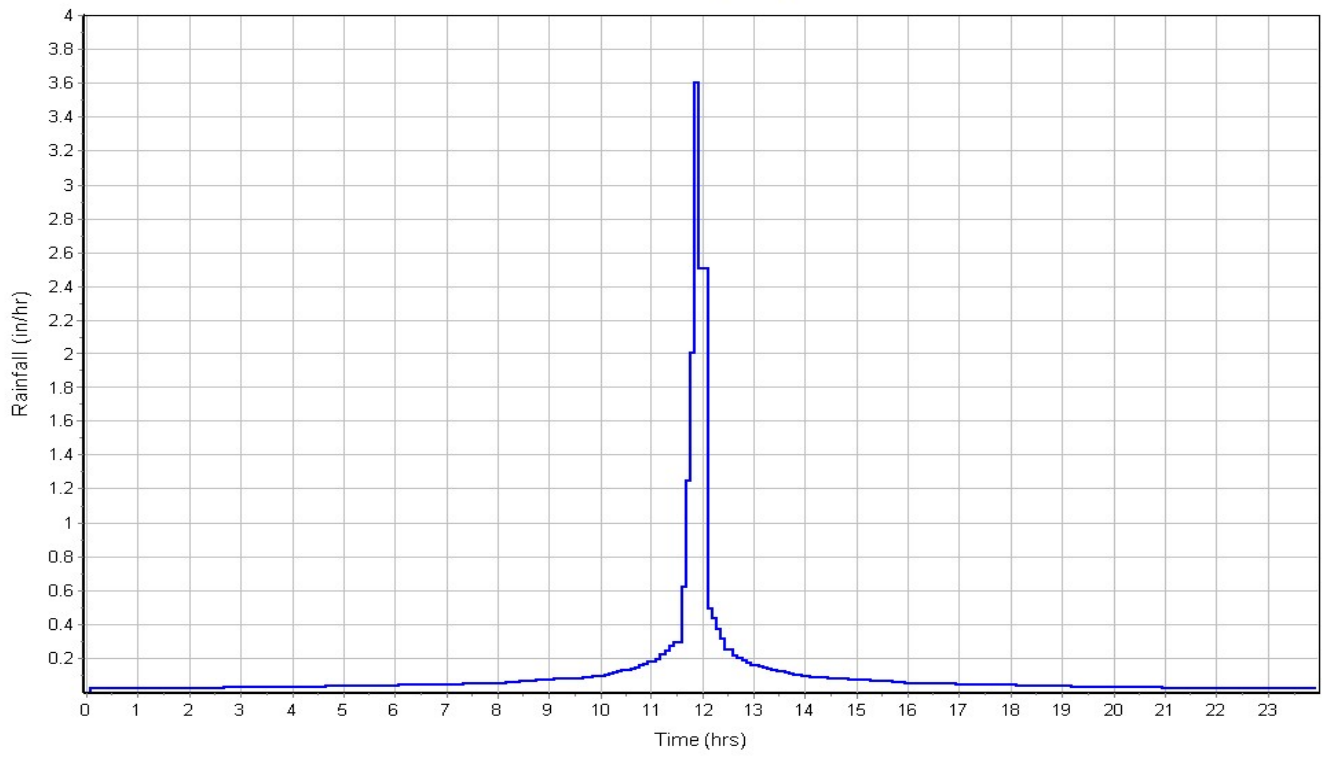
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	0.47	-	98.00
-	0.05	-	74.00
Composite Area & Weighted CN	0.52		95.60

Subbasin Runoff Results

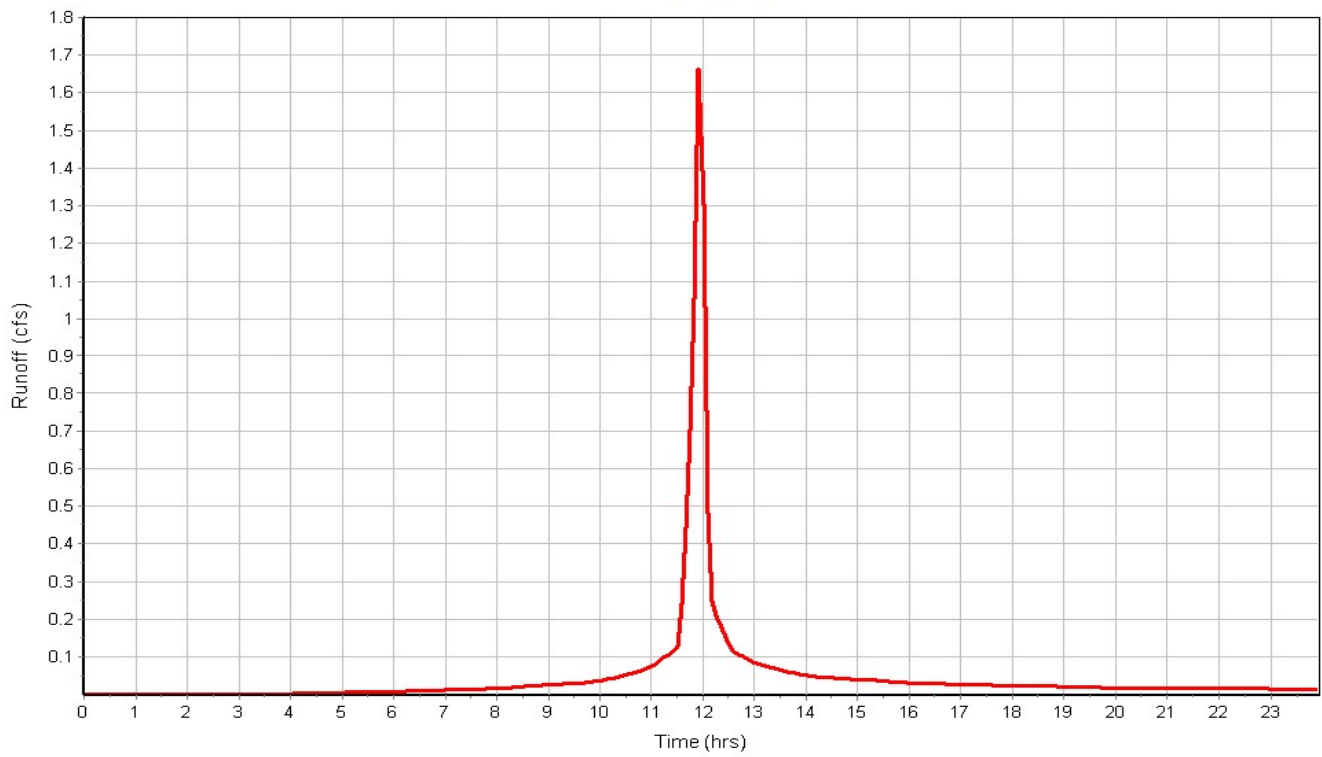
Total Rainfall (in) 2.63
Total Runoff (in) 2.15
Peak Runoff (cfs) 1.66
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin03

Input Data

Area (ac) 1.35
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

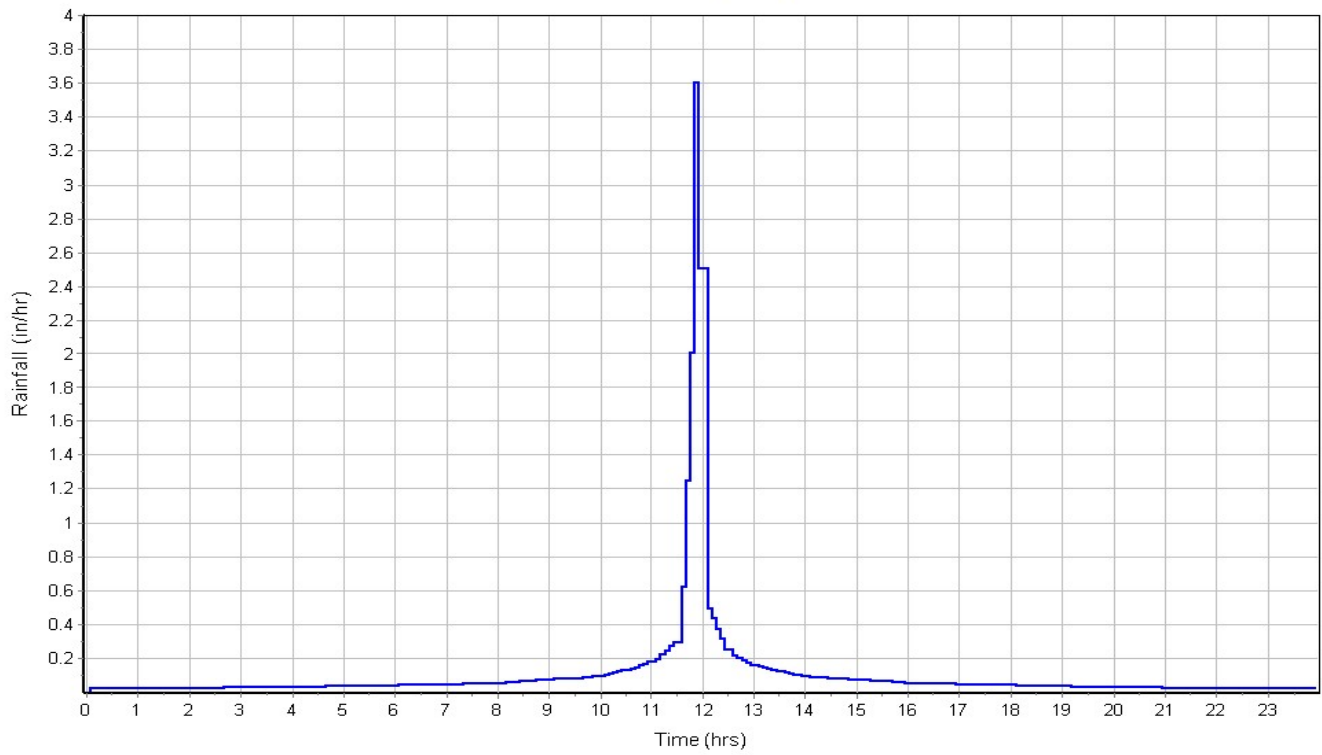
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	1.22	-	98.00
-	0.14	-	74.00
Composite Area & Weighted CN	1.36		95.60

Subbasin Runoff Results

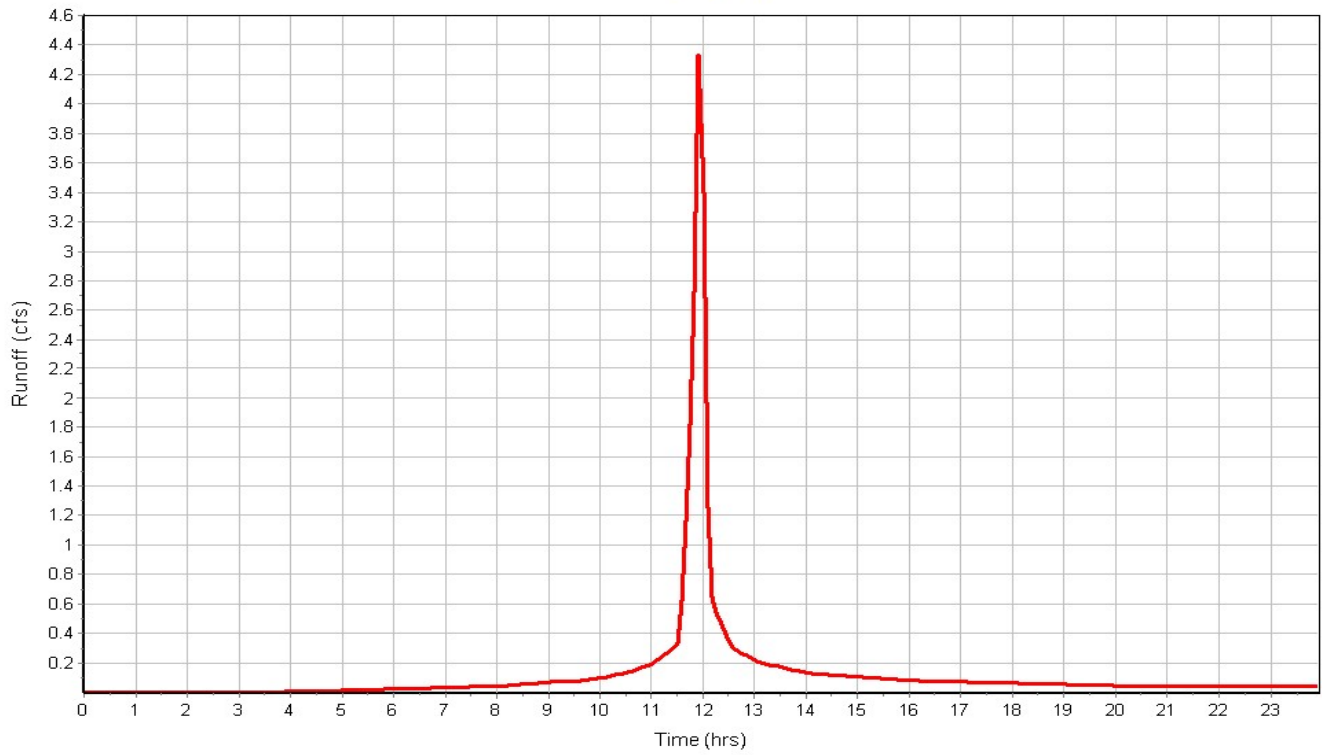
Total Rainfall (in) 2.63
Total Runoff (in) 2.15
Peak Runoff (cfs) 4.34
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin03

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin04

Input Data

Area (ac) 0.81
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

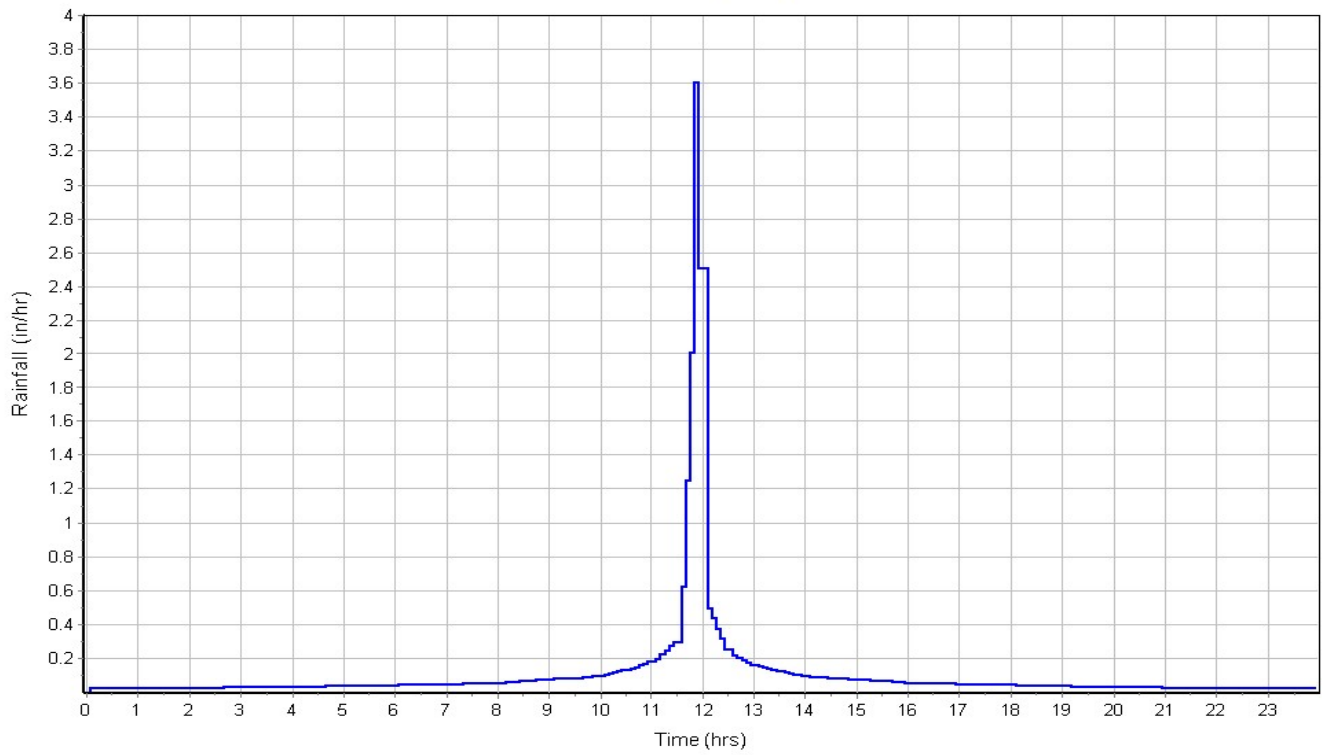
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	0.73	-	98.00
-	0.08	-	74.00
Composite Area & Weighted CN	0.81		95.60

Subbasin Runoff Results

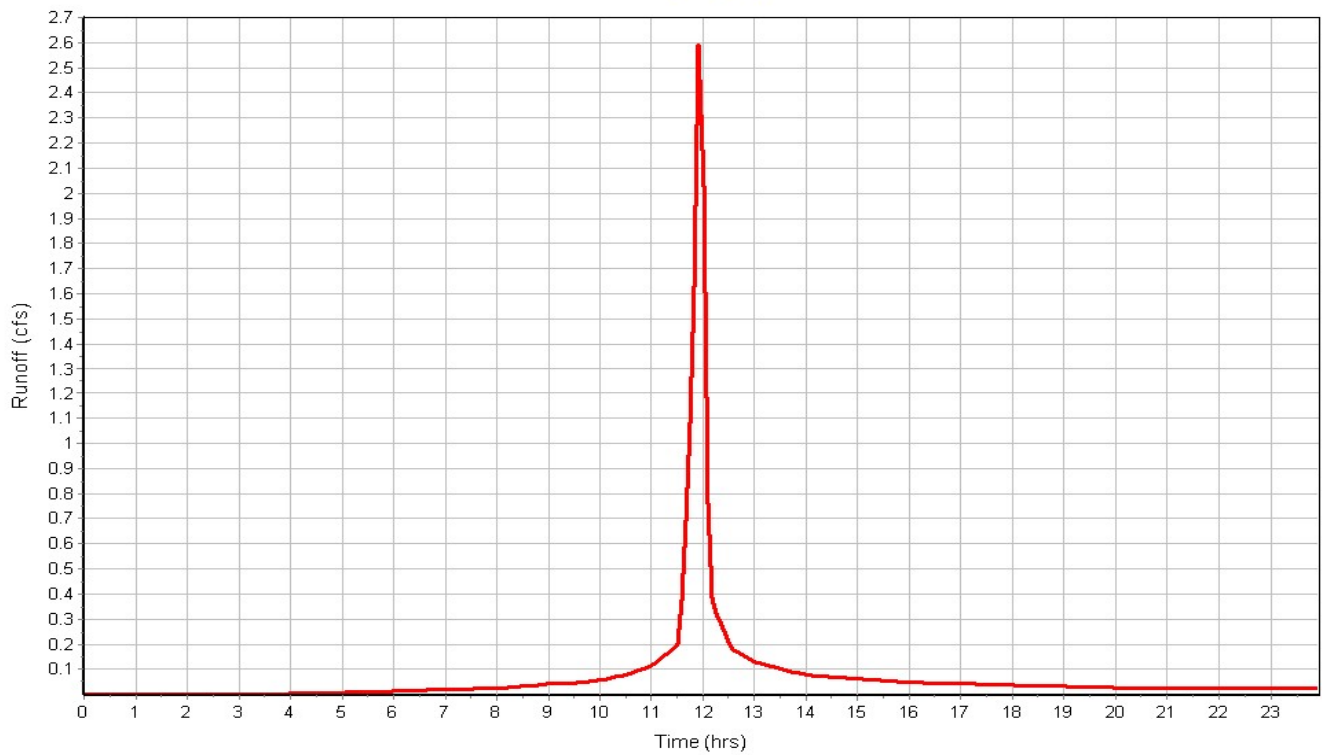
Total Rainfall (in) 2.63
Total Runoff (in) 2.15
Peak Runoff (cfs) 2.59
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin04

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin05

Input Data

Area (ac) 1.44
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

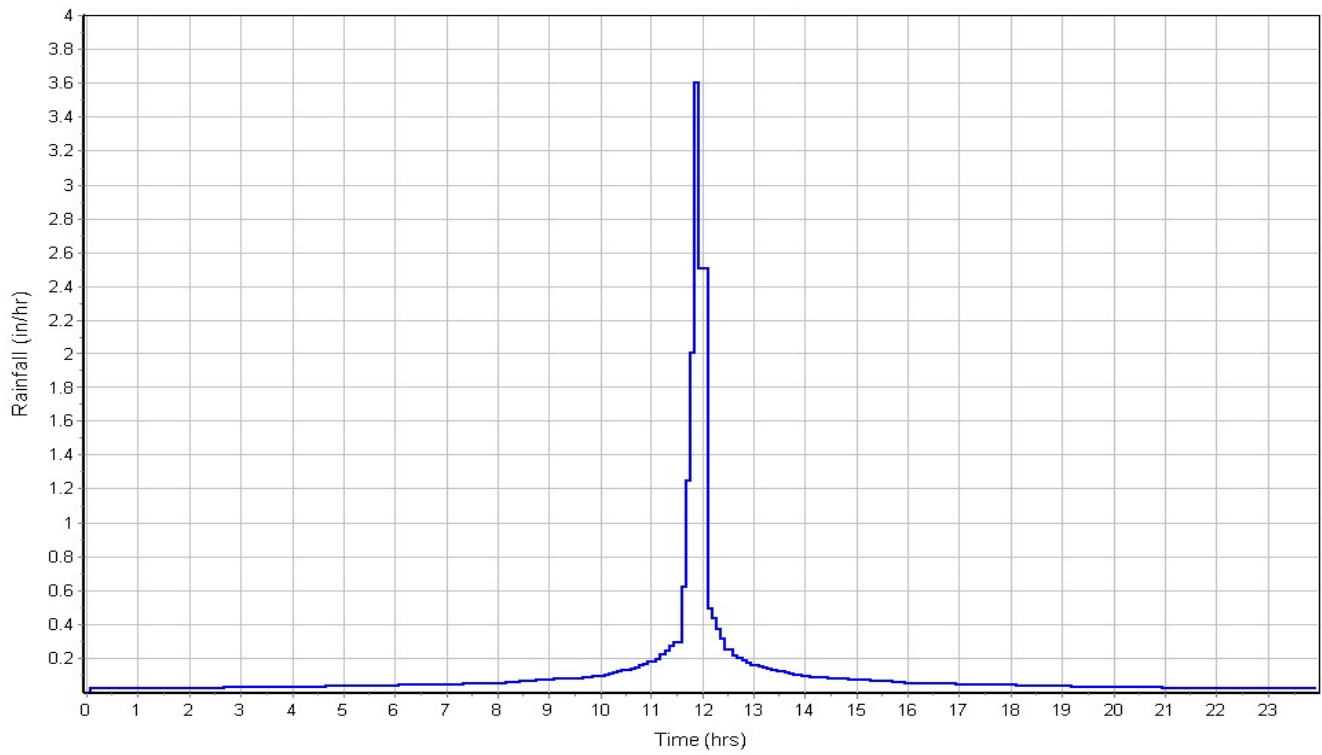
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	1.29	-	98.00
-	0.14	-	74.00
Composite Area & Weighted CN	1.43		95.60

Subbasin Runoff Results

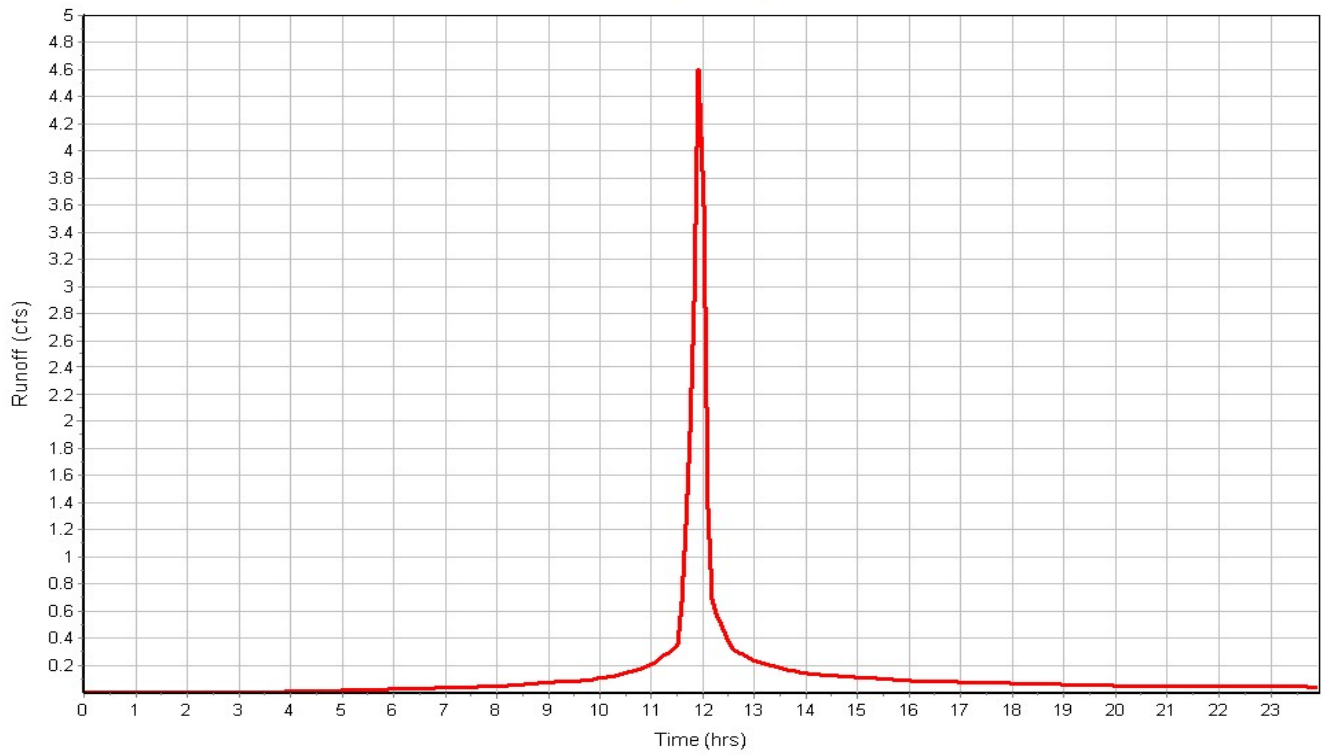
Total Rainfall (in) 2.63
Total Runoff (in) 2.15
Peak Runoff (cfs) 4.60
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin05

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToPP01-02

Input Data

Area (ac) 0.91
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

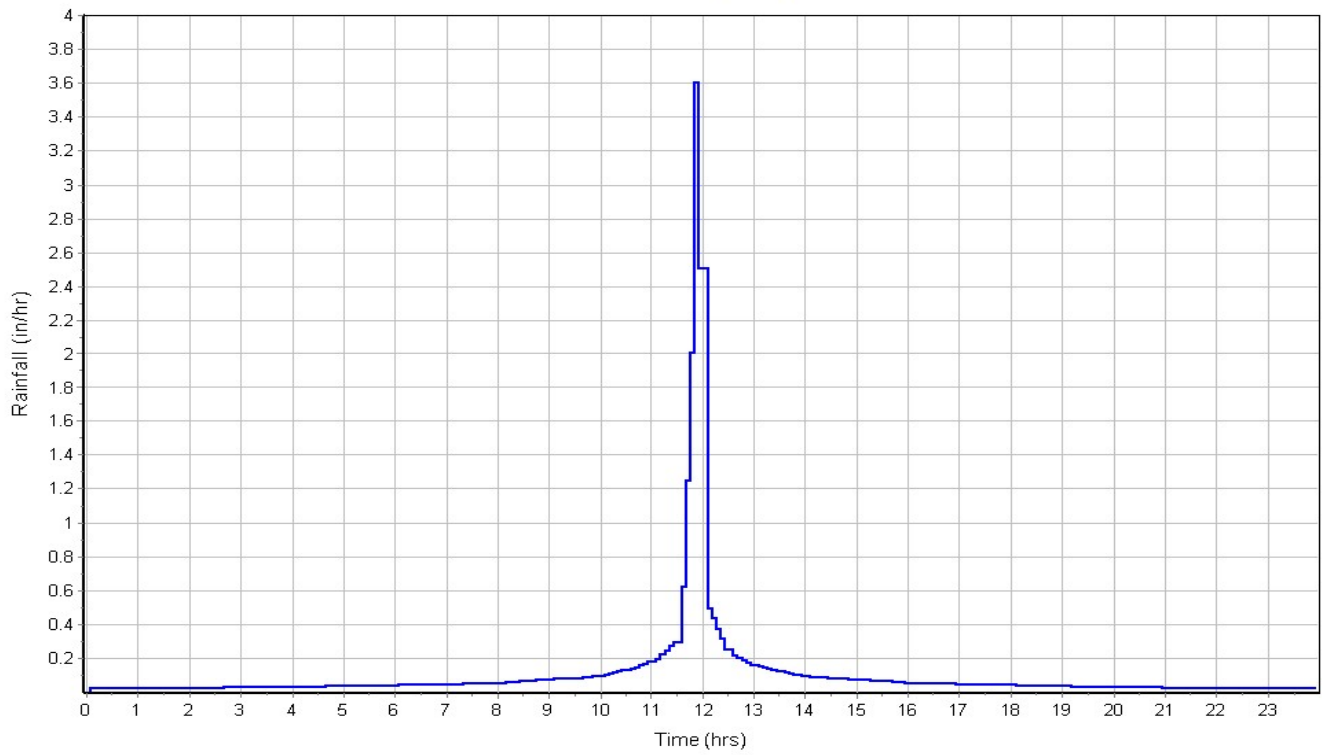
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	0.82	-	98.00
-	0.09	-	74.00
Composite Area & Weighted CN	0.91		95.60

Subbasin Runoff Results

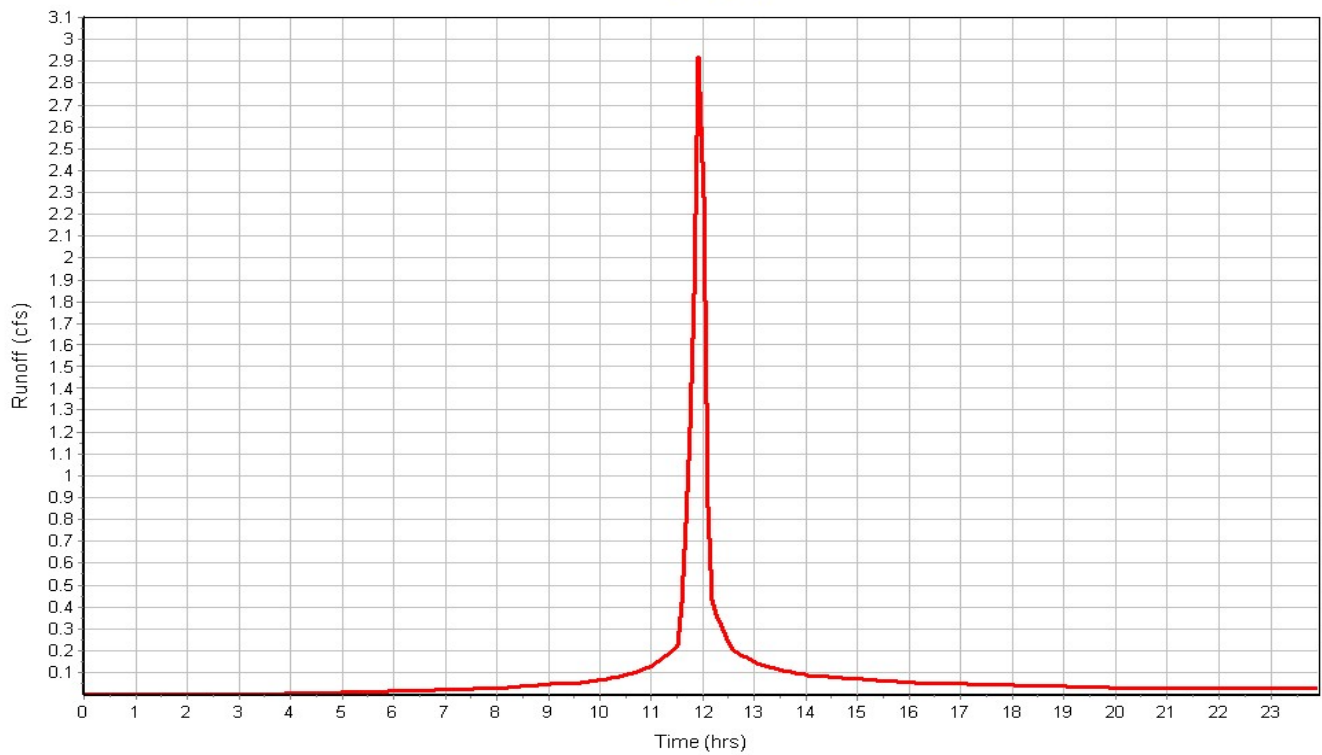
Total Rainfall (in) 2.63
Total Runoff (in) 2.15
Peak Runoff (cfs) 2.92
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToPP01-02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToPP03-04

Input Data

Area (ac) 0.93
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

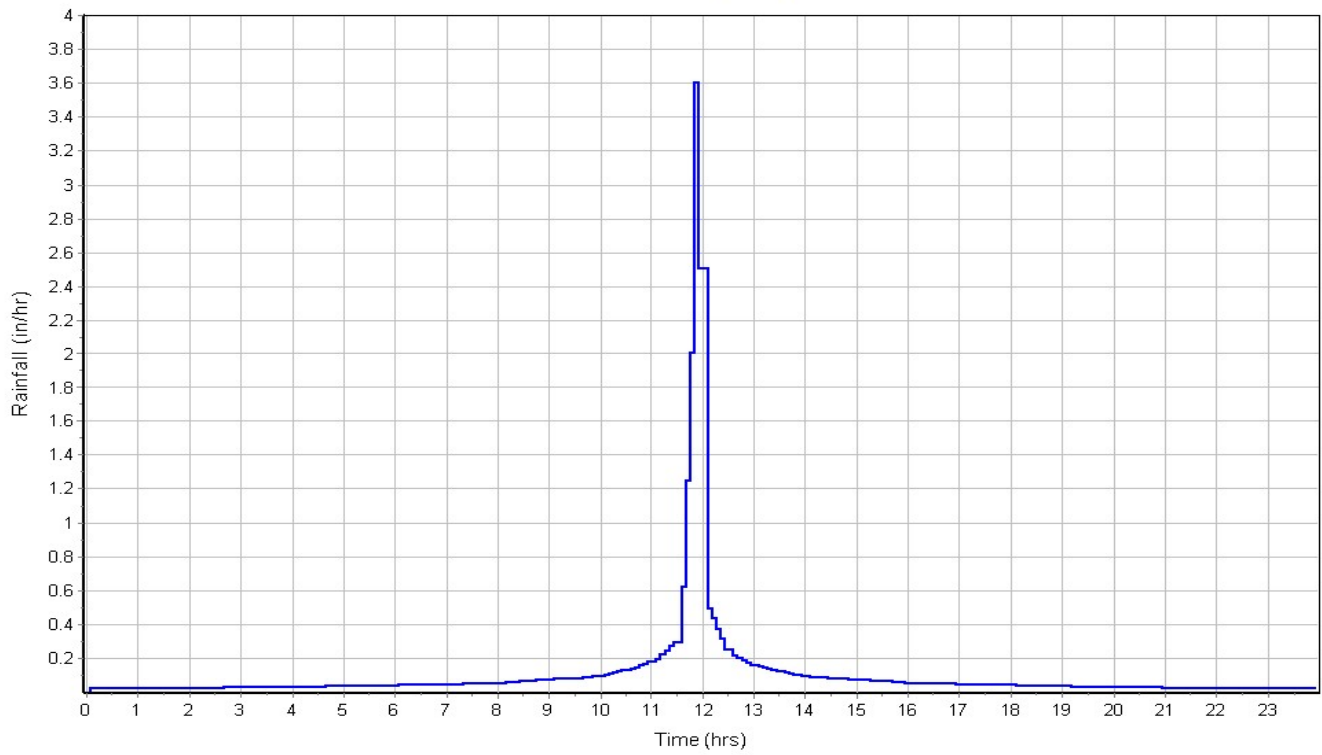
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	0.83	-	98.00
-	0.09	-	74.00
Composite Area & Weighted CN	0.92		95.60

Subbasin Runoff Results

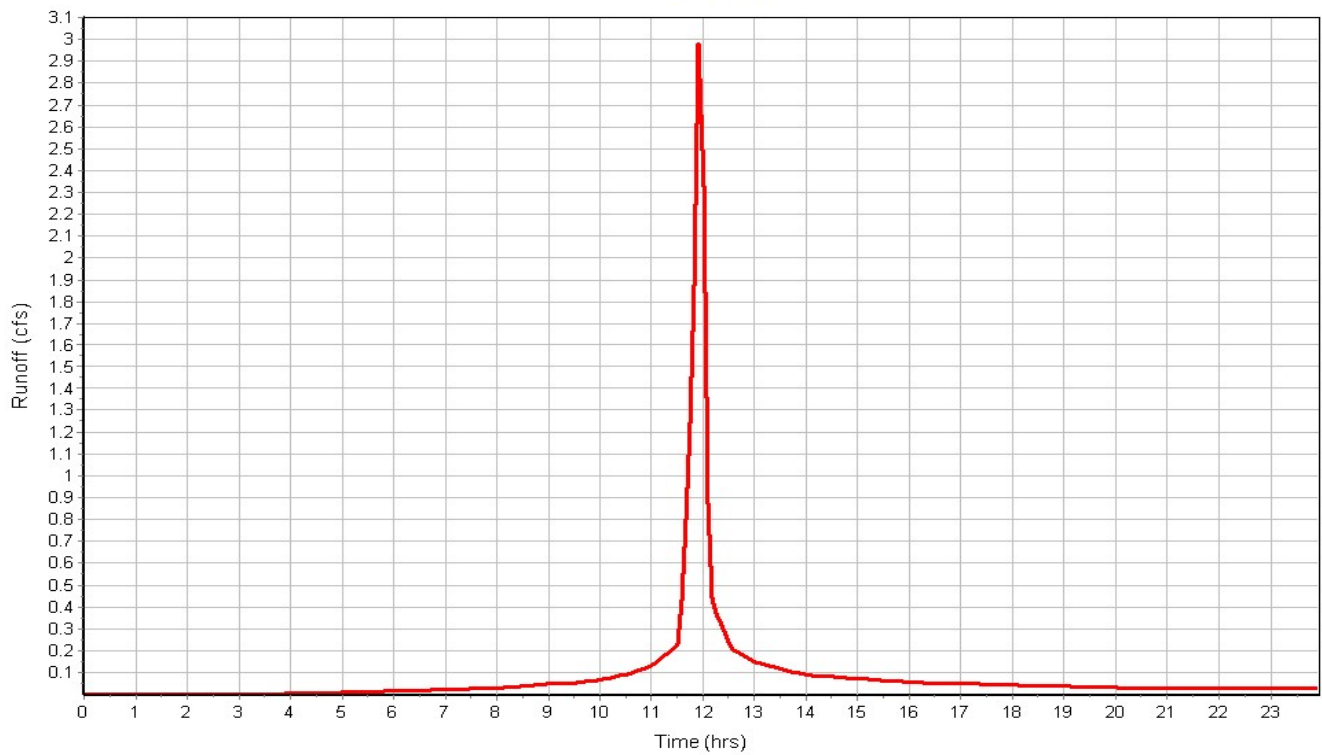
Total Rainfall (in) 2.63
Total Runoff (in) 2.15
Peak Runoff (cfs) 2.98
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToPP03-04

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 (ft ²)	Minimum Pipe Cover (in)
1 Biobasin02dummysnode	862.67	867.17	4.50	862.67	0.00	867.17	0.00	0.00	0.00
2 CatchBasin03	862.00	866.50	4.50	862.00	0.00	866.50	0.00	2879.24	0.00
3 CatchBasin04	862.44	866.94	4.50	862.44	0.00	866.94	0.00	4642.88	0.00
4 CatchBasin05	862.67	867.17	4.50	862.67	0.00	867.17	0.00	1566.12	0.00
5 CatchBasin12	862.60	867.10	4.50	862.60	0.00	867.10	0.00	6347.63	0.00
6 CatchBasin8	862.64	867.14	4.50	862.64	0.00	867.14	0.00	6037.65	0.00
7 Dummy1	861.69	867.00	5.31	861.69	0.00	867.00	0.00	0.00	0.00
8 Ex0	860.13	865.00	4.87	860.13	0.00	865.00	0.00	0.00	0.00
9 ExA	860.81	865.00	4.19	860.81	0.00	865.00	0.00	0.00	0.00
10 Existing 36-inch outlet pipe	870.00	875.50	5.50	870.00	0.00	875.50	0.00	0.00	0.00
11 Manhole 7	862.47	868.00	5.53	862.47	0.00	868.00	0.00	0.00	0.00
12 Manhole1	861.75	868.00	6.25	861.75	0.00	868.00	0.00	0.00	0.00
13 Manhole10	862.23	868.00	5.77	862.23	0.00	868.00	0.00	0.00	0.00
14 Manhole11	862.42	868.00	5.58	862.42	0.00	868.00	0.00	0.00	0.00
15 Manhole13	863.79	868.00	4.21	863.79	0.00	868.00	0.00	0.00	0.00
16 Manhole2	861.80	868.00	6.20	861.80	0.00	868.00	0.00	0.00	0.00
17 Manhole6	862.28	868.00	5.72	862.28	0.00	868.00	0.00	0.00	0.00
18 Manhole9	863.79	868.00	4.21	863.79	0.00	868.00	0.00	0.00	0.00
19 Offsite 02 outlet	877.50	881.50	4.00	877.50	0.00	881.50	0.00	0.00	0.00
20 OutToDitch	861.58	863.00	1.42	861.58	0.00	863.00	0.00	0.00	0.00
21 Stucture1	861.69	868.00	6.31	861.69	0.00	868.00	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 Biobasin02dummynode	1.26	0.00	863.50	0.83	0.00	3.67	862.82	0.15	0 12:11	0 00:00	0.00	0.00
2 CatchBasin03	2.72	0.00	863.40	1.40	0.00	3.10	862.43	0.43	0 12:13	0 00:00	0.00	0.00
3 CatchBasin04	2.79	0.00	863.47	1.03	0.00	3.47	862.68	0.24	0 12:12	0 00:00	0.00	0.00
4 CatchBasin05	1.18	0.00	863.48	0.81	0.00	3.69	862.82	0.15	0 12:12	0 00:00	0.00	0.00
5 CatchBasin12	1.19	0.00	863.40	0.80	0.00	3.70	862.80	0.20	0 12:13	0 00:00	0.00	0.00
6 CatchBasin8	1.14	0.00	863.40	0.76	0.00	3.74	862.83	0.19	0 12:13	0 00:00	0.00	0.00
7 Dummy1	11.97	0.00	863.47	1.78	0.00	3.53	862.37	0.68	0 13:35	0 00:00	0.00	0.00
8 Ex0	12.85	0.00	861.11	0.98	0.00	3.89	860.49	0.36	0 13:44	0 00:00	0.00	0.00
9 ExA	13.59	0.00	862.72	1.91	0.00	4.09	861.34	0.53	0 13:44	0 00:00	0.00	0.00
10 Existing 36-inch outlet pipe	11.88	2.28	870.91	0.91	0.00	5.49	870.28	0.28	0 12:07	0 00:00	0.00	0.00
11 Manhole 7	1.12	0.00	863.37	0.90	0.00	4.63	862.69	0.22	0 12:14	0 00:00	0.00	0.00
12 Manhole1	4.42	0.00	863.35	1.60	0.00	4.65	862.33	0.58	0 13:36	0 00:00	0.00	0.00
13 Manhole10	1.18	0.00	863.35	1.12	0.00	4.65	862.53	0.30	0 12:14	0 00:00	0.00	0.00
14 Manhole11	1.16	0.00	863.37	0.95	0.00	4.63	862.65	0.23	0 12:14	0 00:00	0.00	0.00
15 Manhole13	0.06	0.00	863.91	0.12	0.00	4.09	863.86	0.07	0 16:03	0 00:00	0.00	0.00
16 Manhole2	2.46	0.00	863.35	1.55	0.00	4.65	862.34	0.54	0 12:14	0 00:00	0.00	0.00
17 Manhole6	1.14	0.00	863.35	1.07	0.00	4.65	862.56	0.28	0 12:14	0 00:00	0.00	0.00
18 Manhole9	0.06	0.00	863.90	0.11	0.00	4.10	863.86	0.07	0 16:00	0 00:00	0.00	0.00
19 Offsite 02 outlet	0.65	0.00	877.74	0.24	0.00	4.46	877.62	0.12	0 16:07	0 00:00	0.00	0.00
20 OutToDitch	13.79	0.00	862.86	1.28	0.00	4.72	861.99	0.41	0 13:43	0 00:00	0.00	0.00
21 Stucture1	13.82	0.00	863.35	1.66	0.00	4.65	862.31	0.62	0 13:36	0 00:00	0.00	0.00

Channel Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Shape	Height (ft)	Width (ft)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate
1	Ditch	375.41	861.58	0.00	860.81	0.00	0.77	0.2100	Trapezoidal	6.000	40.000	0.0320	0.5000	0.5000	0.0000	0.00	No

Channel Results

SN Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1 Ditch	13.59	0 12:14	596.14	0.02	1.57	3.99	1.60	0.27	0.00		

Pipe Input

SN Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow	Flap Gate	No. of Barrels
1 1->basins	62.54	861.75	0.00	861.69	0.00	0.06	0.1000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
2 10->11	190.96	862.23	0.00	861.75	0.00	0.48	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
3 11->10	75.00	862.42	0.00	862.23	0.00	0.19	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
4 12->11	72.47	862.60	0.00	862.42	0.00	0.18	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
5 13->10	16.00	863.79	0.00	863.72	1.49	0.07	0.4400	CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
6 2->1	20.00	861.80	0.00	861.75	0.00	0.05	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
7 3->2	81.60	862.00	0.00	861.80	0.00	0.20	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
8 4->3	175.98	862.44	0.00	862.00	0.00	0.44	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
9 5->4	92.80	862.67	0.00	862.44	0.00	0.23	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
10 6->1	210.04	862.28	0.00	861.75	0.00	0.53	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
11 7->6	75.00	862.47	0.00	862.28	0.00	0.19	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
12 8->7	69.56	862.64	0.00	862.47	0.00	0.17	0.2400	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
13 9->8	16.00	863.79	0.00	863.73	1.45	0.06	0.3700	CIRCULAR	15.000	15.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
14 Basin connector	85.00	859.00	0.00	858.90	-0.10	0.10	0.1200	CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
15 Basins->outlet	109.09	861.69	0.00	861.58	0.00	0.11	0.1000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
16 Dual 18 inch pipes	35.92	860.81	0.00	860.13	0.00	0.68	1.9000	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
17 Elliptical pipe under roadway	98.05	860.07	-0.06	859.65	0.00	0.42	0.4300	Horizontal Ellipse	36.000	54.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
18 Offsite 02->outfall	84.10	877.50	0.00	875.40	5.40	2.10	2.5000	CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
19 offsite basin2 -> offsite basin 1	201.70	878.00	0.00	877.70	2.70	0.30	0.1500	CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
20 Offsite->basin	1296.34	870.00	0.00	862.00	3.00	8.00	0.6200	CIRCULAR	42.000	42.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
21 OutletPipe	10.82	862.00	0.31	861.69	0.00	0.31	2.8700	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1

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	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
	(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)		
1 1->basins	4.37	0 12:13	20.66	0.21	1.15	0.91	1.63	0.54	0.00		Calculated
2 10->11	1.16	0 12:14	5.27	0.22	0.71	4.48	1.31	0.87	0.00		Calculated
3 11->10	1.13	0 12:12	5.29	0.21	1.29	0.97	1.04	0.69	0.00		Calculated
4 12->11	1.16	0 12:12	5.24	0.22	1.37	0.88	0.87	0.58	0.00		Calculated
5 13->10	0.06	0 16:03	2.36	0.02	1.29	0.21	0.11	0.11	0.00		Calculated
6 2->1	2.40	0 12:09	5.25	0.46	1.41	0.24	1.50	1.00	75.00		SURCHARGED
7 3->2	2.46	0 12:09	5.20	0.47	1.61	0.84	1.45	0.97	0.00		Calculated
8 4->3	2.58	0 12:07	5.25	0.49	2.16	1.36	1.20	0.81	0.00		Calculated
9 5->4	0.97	0 12:05	5.23	0.19	1.77	0.87	0.90	0.61	0.00		Calculated
10 6->1	1.13	0 12:14	5.28	0.21	0.70	5.00	1.29	0.86	0.00		Calculated
11 7->6	1.09	0 12:13	5.29	0.21	1.29	0.97	0.99	0.66	0.00		Calculated
12 8->7	1.12	0 12:11	5.19	0.22	1.51	0.77	0.83	0.56	0.00		Calculated
13 9->8	0.06	0 16:00	3.96	0.01	1.22	0.22	0.10	0.08	0.00		Calculated
14 Basin connector	10.42	0 12:06	0.78	13.42	3.32	0.43	2.00	1.00	1440.00		SURCHARGED
15 Basins->outlet	13.79	0 12:14	21.18	0.65	4.53	0.40	1.47	0.49	0.00		Calculated
16 Dual 18 inch pipes	12.85	0 13:44	14.48	0.89	8.21	0.07	1.24	0.83	0.00		Calculated
17 Elliptical pipe under roadway	12.85	0 13:44	86.04	0.15	4.81	0.34	0.92	0.31	0.00		Calculated
18 Offsite 02->outfall	0.65	0 16:08	5.63	0.12	4.61	0.30	0.24	0.24	0.00		Calculated
19 offsite basin2 -> offsite basin 1	9.39	0 12:12	8.72	1.08	4.03	0.83	1.42	0.71	0.00		> CAPACITY
20 Offsite->basin	11.79	0 12:07	79.04	0.15	5.10	4.24	1.36	0.39	0.00		Calculated
21 OutletPipe	11.97	0 13:32	112.90	0.11	3.49	0.05	1.57	0.52	0.00		Calculated

Storage Nodes

Storage Node : Biobasin 01

Input Data

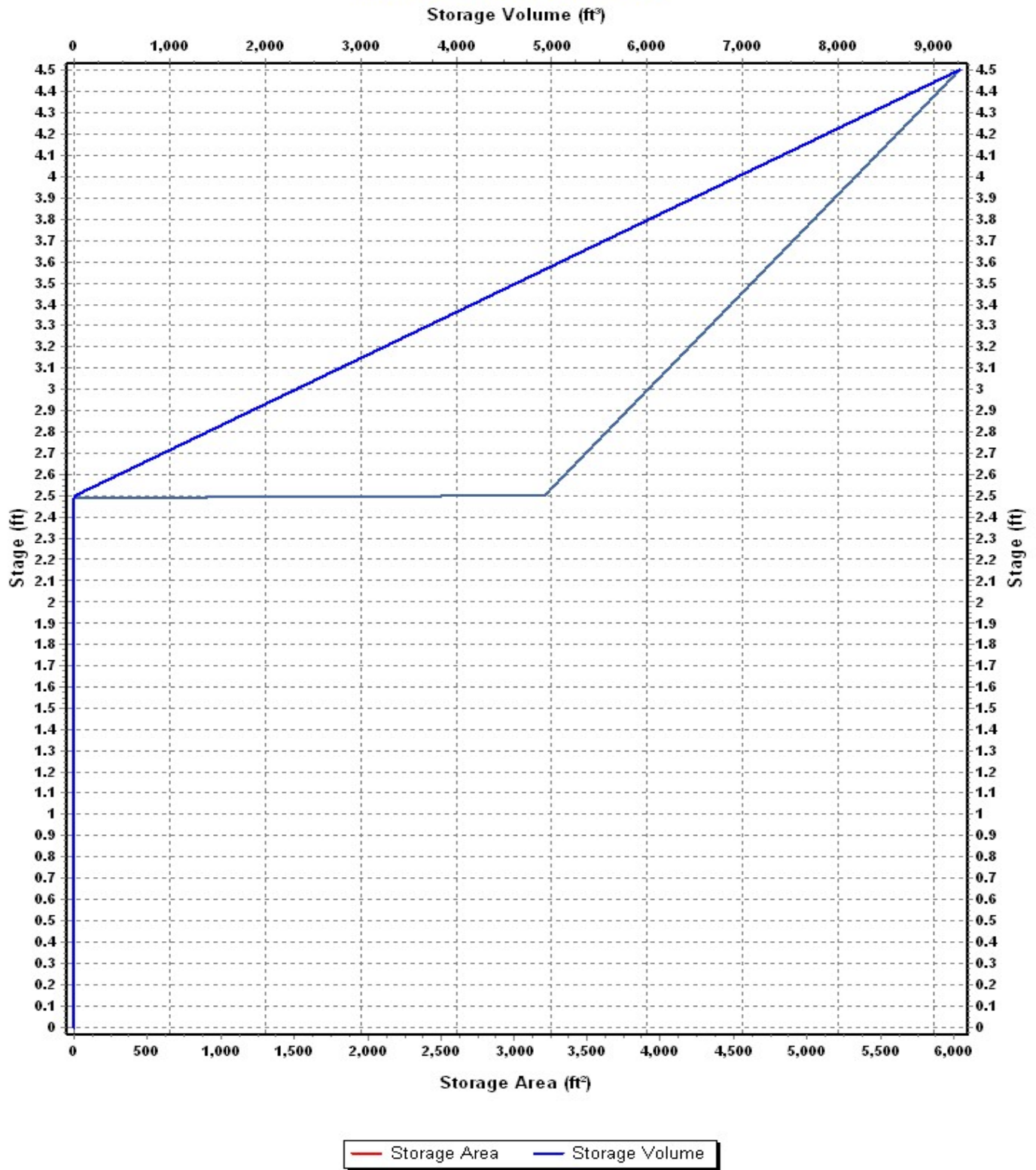
Invert Elevation (ft)	862.64
Max (Rim) Elevation (ft)	867.14
Max (Rim) Offset (ft)	4.50
Initial Water Elevation (ft)	865.14
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	3205.91	18.52
4.5	6037.65	9262.08

Storage Area Volume Curves



Storage Node : Biobasin 01 (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 Biobasin01grate	Bottom	Rectangular	No		19.60	19.60	866.14	0.60

Output Summary Results

Peak Inflow (cfs)	4.45
Peak Lateral Inflow (cfs)	4.45
Peak Outflow (cfs)	1.14
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.26
Max HGL Depth Attained (ft)	3.62
Average HGL Elevation Attained (ft)	865.49
Average HGL Depth Attained (ft)	2.85
Time of Max HGL Occurrence (days hh:mm)	0 12:11
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin02

Input Data

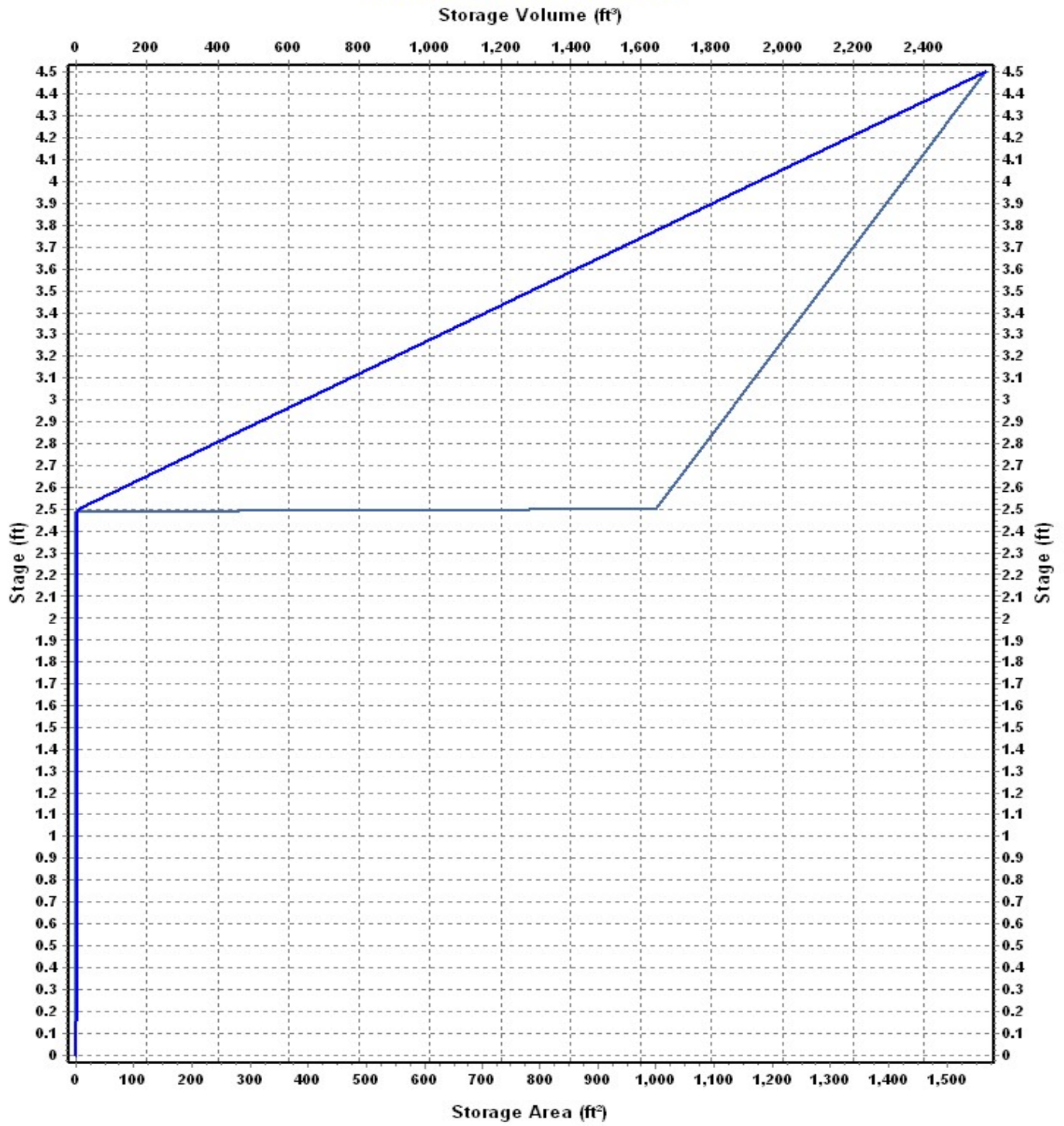
Invert Elevation (ft)	862.67
Max (Rim) Elevation (ft)	867.17
Max (Rim) Offset (ft)	4.50
Initial Water Elevation (ft)	865.17
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	999.15	7.49
4.5	1566.12	2572.76

Storage Area Volume Curves



Storage Area Storage Volume

Storage Node : Biobasin02 (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 Biobasin02grate	Bottom	Rectangular	No		19.60	19.60	866.17	0.60

Output Summary Results

Peak Inflow (cfs)	1.66
Peak Lateral Inflow (cfs)	1.66
Peak Outflow (cfs)	1.26
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.31
Max HGL Depth Attained (ft)	3.64
Average HGL Elevation Attained (ft)	865.54
Average HGL Depth Attained (ft)	2.87
Time of Max HGL Occurrence (days hh:mm)	0 12:05
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin03

Input Data

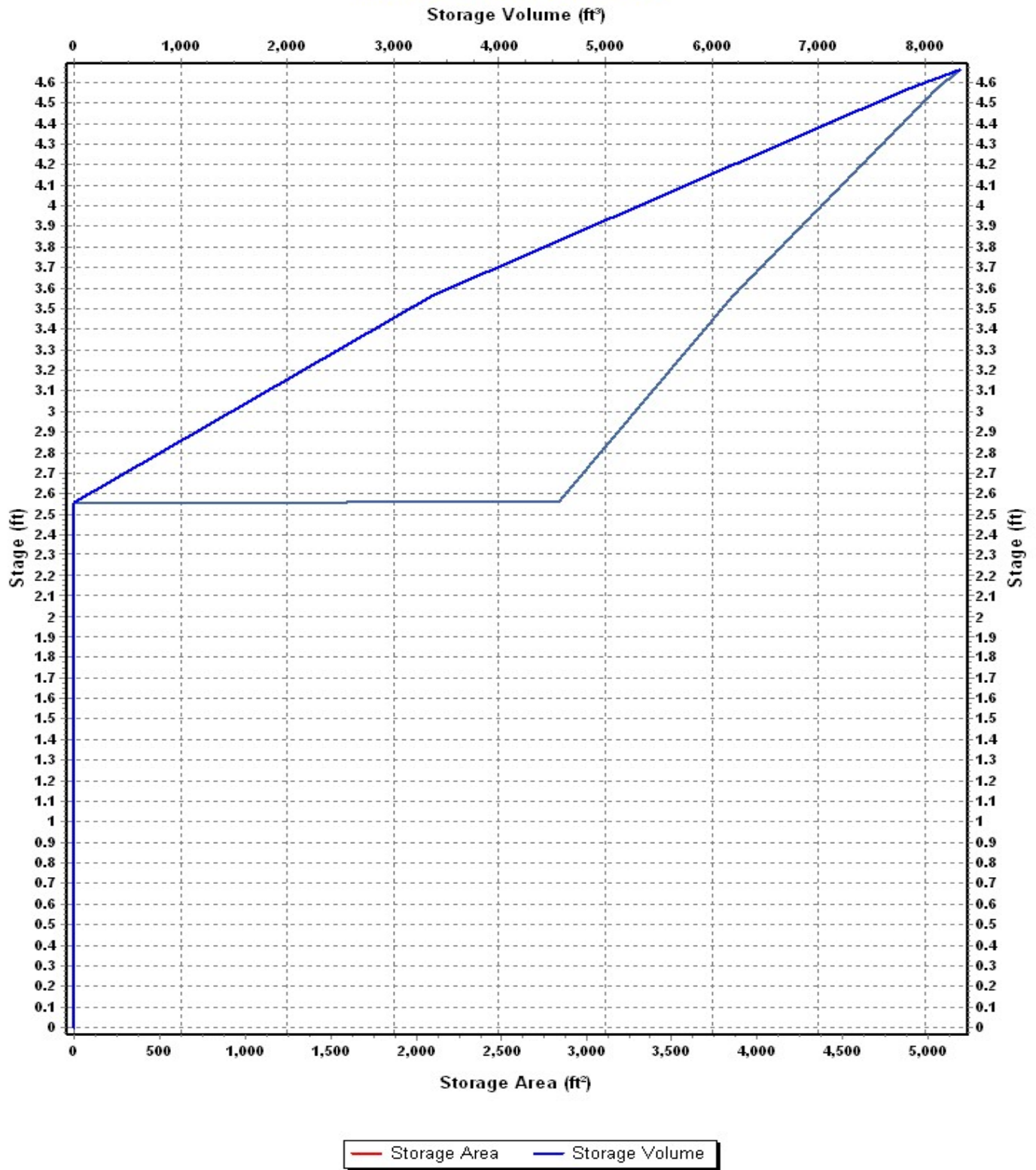
Invert Elevation (ft)	862.44
Max (Rim) Elevation (ft)	867.10
Max (Rim) Offset (ft)	4.66
Initial Water Elevation (ft)	865.00
Initial Water Depth (ft)	2.56
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin03

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.55	1	2.55
2.56	2836.20	16.74
3.56	3856.90	3363.29
4.56	5038.71	7811.10
4.66	5181	8322.09

Storage Area Volume Curves



Storage Node : Biobasin03 (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 Biobasin03grate	Bottom	Rectangular	No		19.60	19.60	866.00	0.60

Output Summary Results

Peak Inflow (cfs)	4.33
Peak Lateral Inflow (cfs)	4.33
Peak Outflow (cfs)	1.90
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.18
Max HGL Depth Attained (ft)	3.74
Average HGL Elevation Attained (ft)	865.36
Average HGL Depth Attained (ft)	2.92
Time of Max HGL Occurrence (days hh:mm)	0 12:08
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin04

Input Data

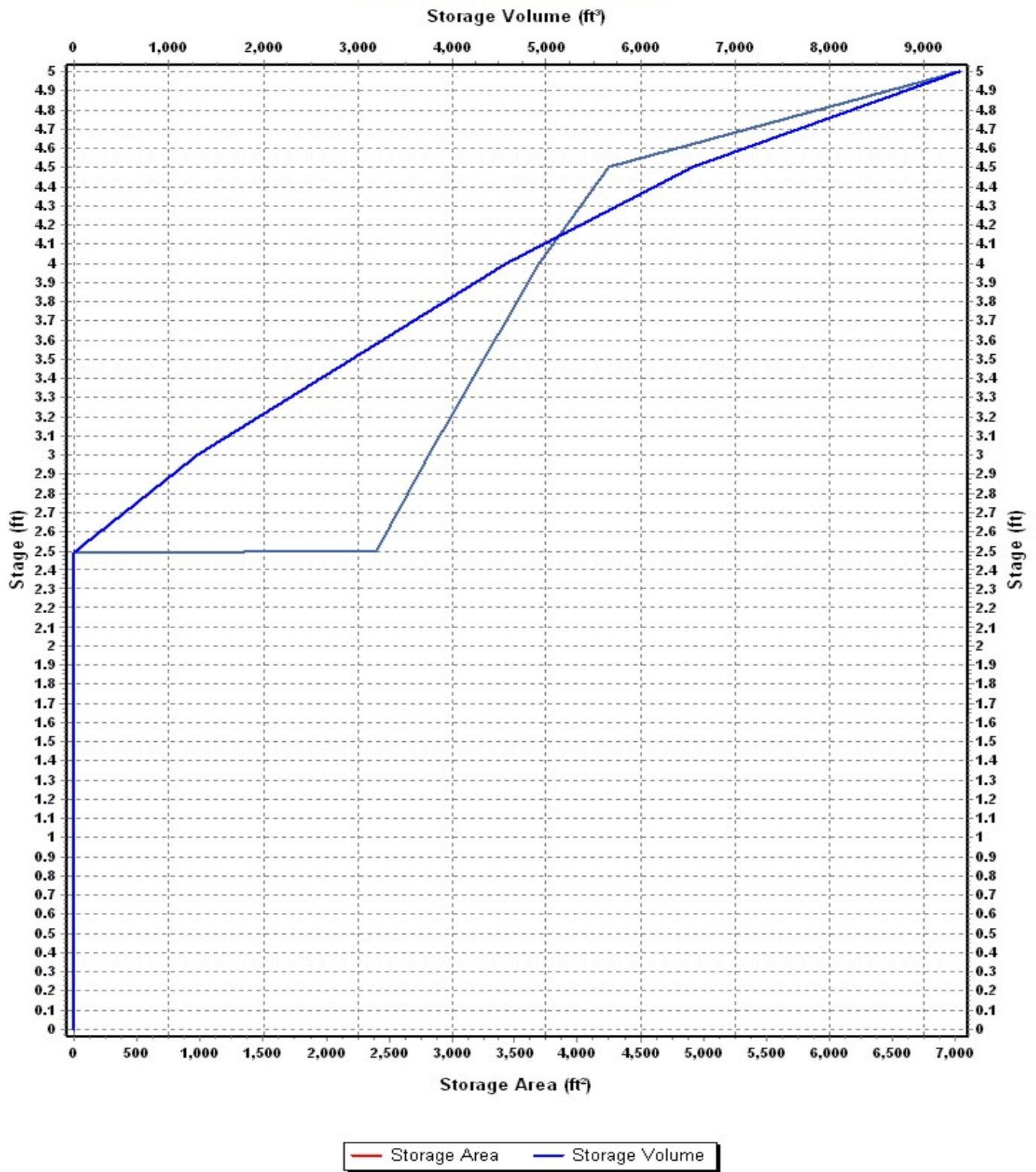
Invert Elevation (ft)	862.00
Max (Rim) Elevation (ft)	867.00
Max (Rim) Offset (ft)	5.00
Initial Water Elevation (ft)	864.50
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin04

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	2398.60	14.49
3	2813.60	1317.54
4	3690.90	4569.79
4.5	4246.20	6554.07
5	7028.50	9372.75

Storage Area Volume Curves



Storage Node : Biobasin04 (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 Biobasin04grate	Bottom	Rectangular	No		19.60	19.60	865.50	0.60

Output Summary Results

Peak Inflow (cfs)	2.59
Peak Lateral Inflow (cfs)	2.59
Peak Outflow (cfs)	0.22
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	865.52
Max HGL Depth Attained (ft)	3.52
Average HGL Elevation Attained (ft)	864.80
Average HGL Depth Attained (ft)	2.8
Time of Max HGL Occurrence (days hh:mm)	0 12:34
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin05

Input Data

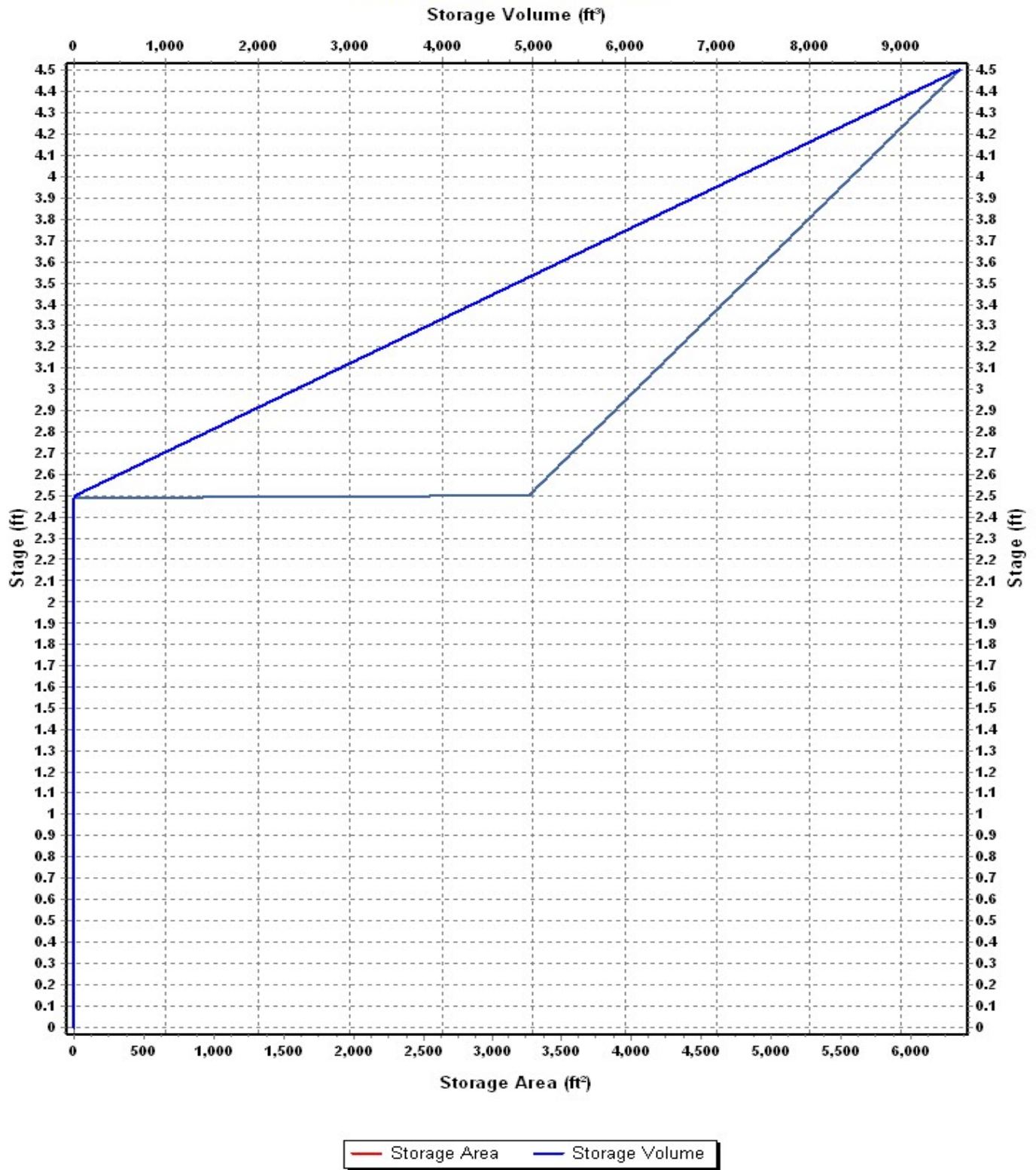
Invert Elevation (ft)	862.60
Max (Rim) Elevation (ft)	867.10
Max (Rim) Offset (ft)	4.50
Initial Water Elevation (ft)	865.10
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin05

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	3264.52	18.82
4.5	6347.63	9630.97

Storage Area Volume Curves



Storage Node : Biobasin05 (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 Biobasin05grate	Bottom	Rectangular	No		19.60	19.60	866.10	0.60

Output Summary Results

Peak Inflow (cfs)	4.60
Peak Lateral Inflow (cfs)	4.60
Peak Outflow (cfs)	1.19
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.23
Max HGL Depth Attained (ft)	3.63
Average HGL Elevation Attained (ft)	865.46
Average HGL Depth Attained (ft)	2.86
Time of Max HGL Occurrence (days hh:mm)	0 12:11
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 01 Parking lot ponding

Input Data

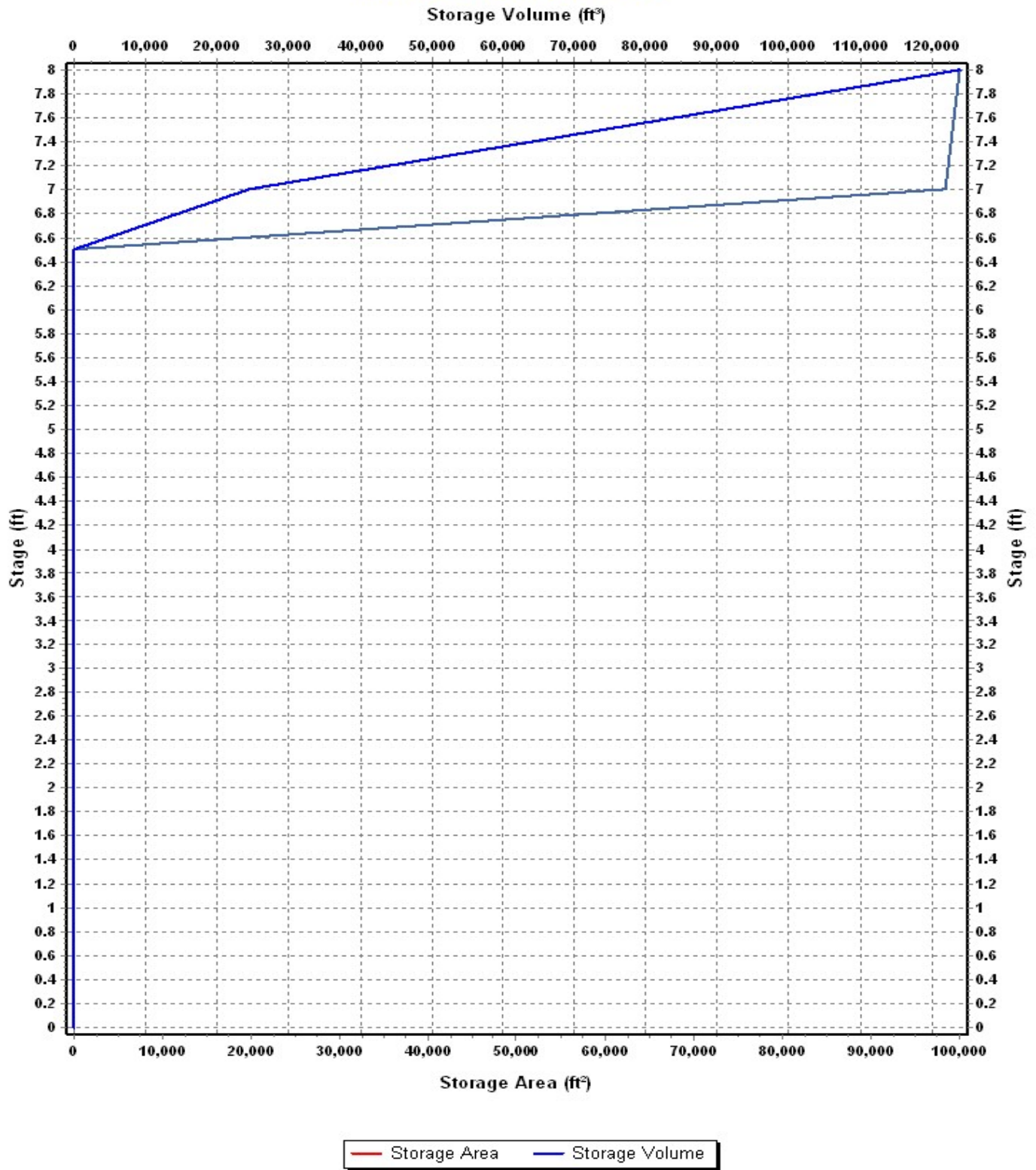
Invert Elevation (ft)	871.00
Max (Rim) Elevation (ft)	879.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	877.50
Initial Water Depth (ft)	6.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Offsite 01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
6.5	1	6.50
7	98432	24614.75
8	100000	123830.75

Storage Area Volume Curves



Storage Node : Offsite 01 Parking lot ponding (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 Offsite 01 orifice	Side	CIRCULAR	No	9.25			871.00	0.60

Output Summary Results

Peak Inflow (cfs)	26.02
Peak Lateral Inflow (cfs)	26.02
Peak Outflow (cfs)	5.76
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	877.95
Max HGL Depth Attained (ft)	6.95
Average HGL Elevation Attained (ft)	871.95
Average HGL Depth Attained (ft)	0.95
Time of Max HGL Occurrence (days hh:mm)	0 12:19
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 02 Wet basin 02

Input Data

Invert Elevation (ft)	878.00
Max (Rim) Elevation (ft)	882.00
Max (Rim) Offset (ft)	4.00
Initial Water Elevation (ft)	878.00
Initial Water Depth (ft)	0.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

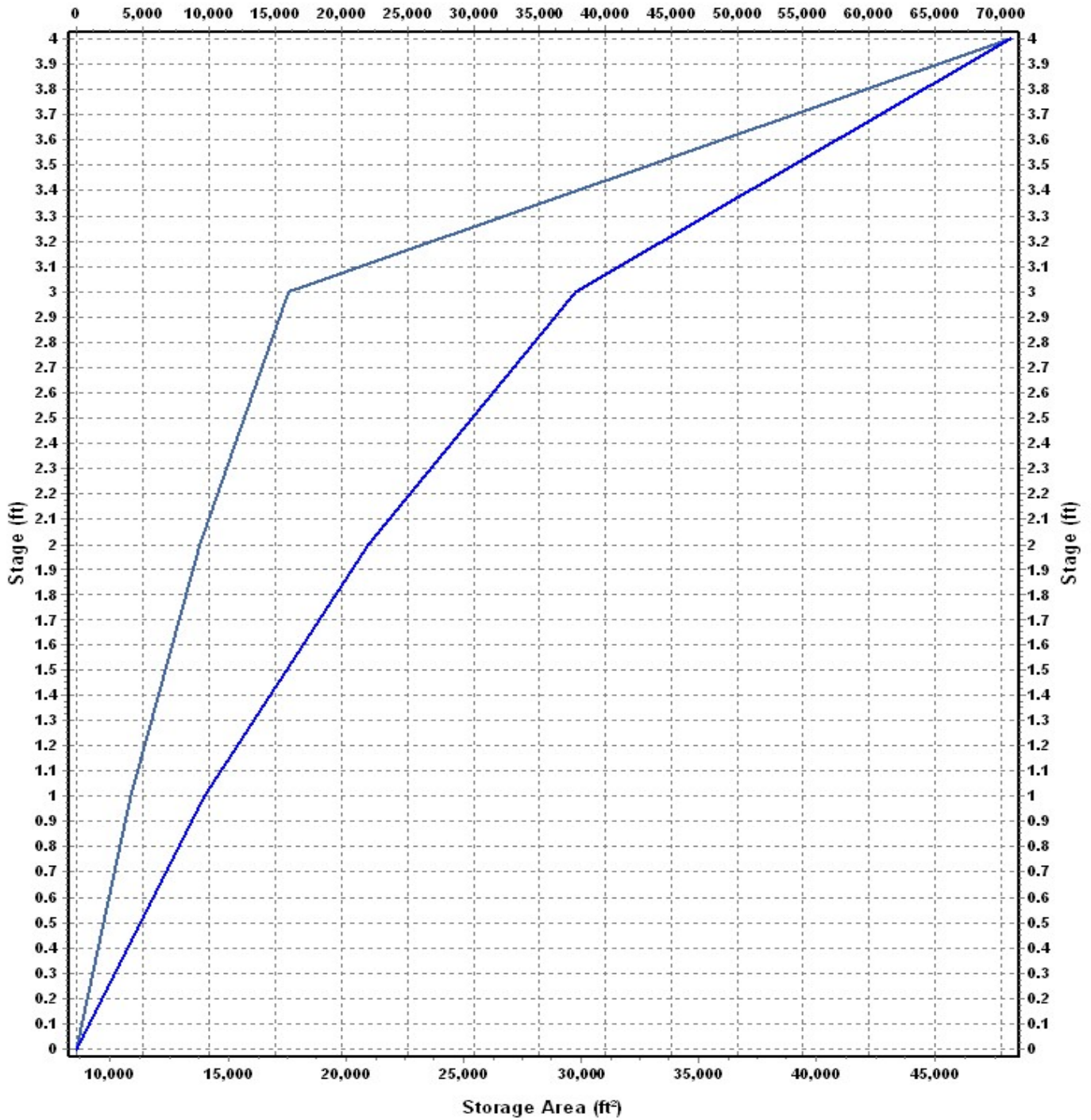
Storage Area Volume Curves

Storage Curve : Offsite 02 wet basin 02

Stage	Storage Area	Storage Volume
(ft)	(ft ²)	(ft ³)
0	8571	0.000
1	10862	9716.50
2	13819	22057.00
3	17571	37752.00
4	48211	70643.00

Storage Area Volume Curves

Storage Volume (ft³)



Storage Area Storage Volume

Storage Node : Offsite 02 Wet basin 02 (continued)

Output Summary Results

Peak Inflow (cfs)	19.84
Peak Lateral Inflow (cfs)	19.84
Peak Outflow (cfs)	9.39
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	879.69
Max HGL Depth Attained (ft)	1.69
Average HGL Elevation Attained (ft)	878.68
Average HGL Depth Attained (ft)	0.68
Time of Max HGL Occurrence (days hh:mm)	0 12:12
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 02-wet basin 1

Input Data

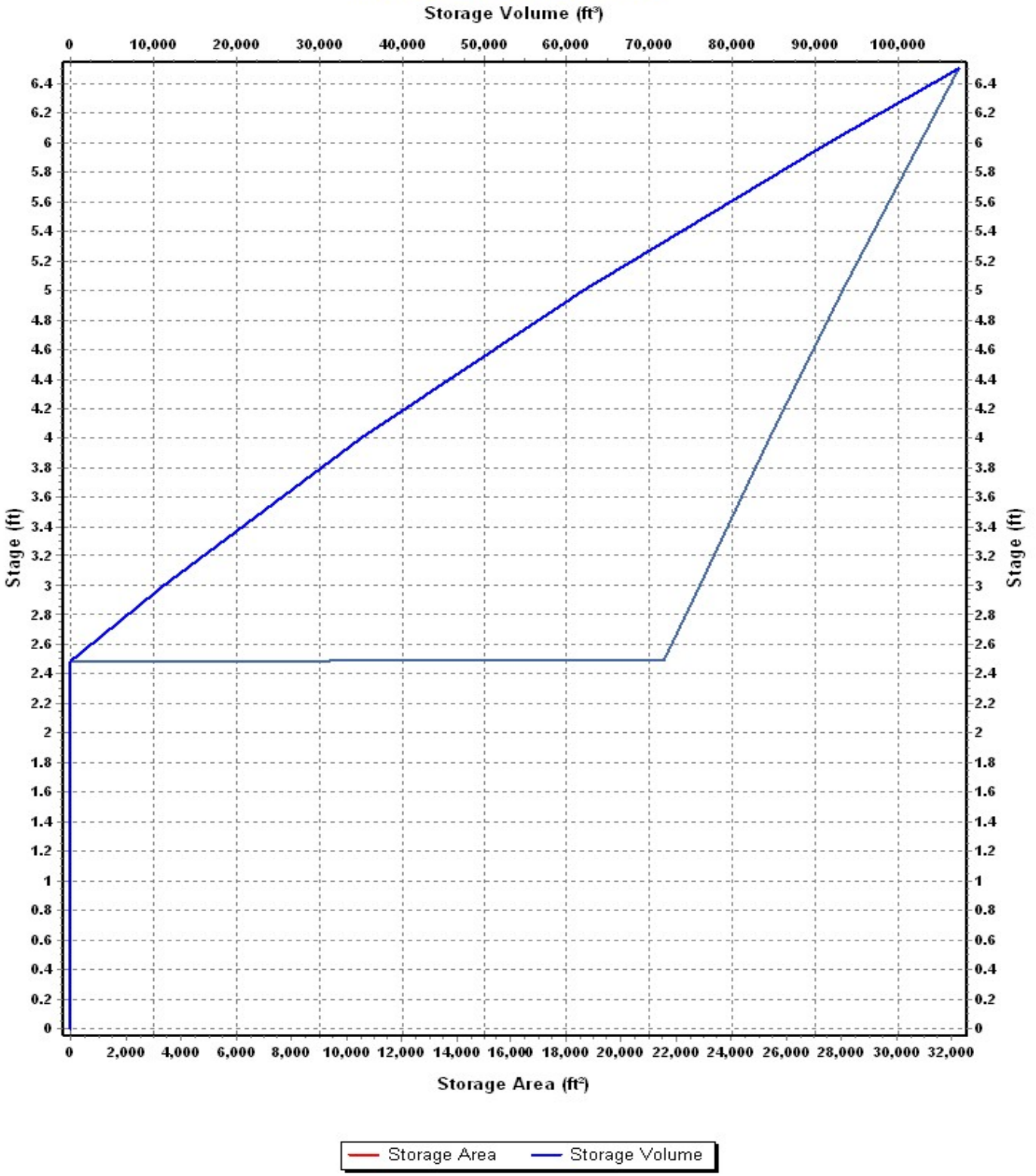
Invert Elevation (ft)	875.00
Max (Rim) Elevation (ft)	881.50
Max (Rim) Offset (ft)	6.50
Initial Water Elevation (ft)	877.50
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : blazer wet basin 01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	21562	110.30
3	22825	11207.05
4	25395	35317.05
5	28053	62041.05
6	30840	91487.55
6.5	32234	107256.05

Storage Area Volume Curves



Storage Node : Offsite 02-wet basin 1 (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 Offsite 02 grate	Bottom	Rectangular	No		19.60	19.60	880.50	0.60
2 offsite 02 window	Side	Rectangular	No		6.00	24.00	879.20	0.60
3 Offsite 02 wq	Side	CIRCULAR	No	4.00			877.50	0.60

Output Summary Results

Peak Inflow (cfs)	15.69
Peak Lateral Inflow (cfs)	8.71
Peak Outflow (cfs)	0.65
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	879.27
Max HGL Depth Attained (ft)	4.27
Average HGL Elevation Attained (ft)	878.38
Average HGL Depth Attained (ft)	3.38
Time of Max HGL Occurrence (days hh:mm)	0 16:07
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 04

Input Data

Invert Elevation (ft)	871.65
Max (Rim) Elevation (ft)	878.00
Max (Rim) Offset (ft)	6.35
Initial Water Elevation (ft)	871.65
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

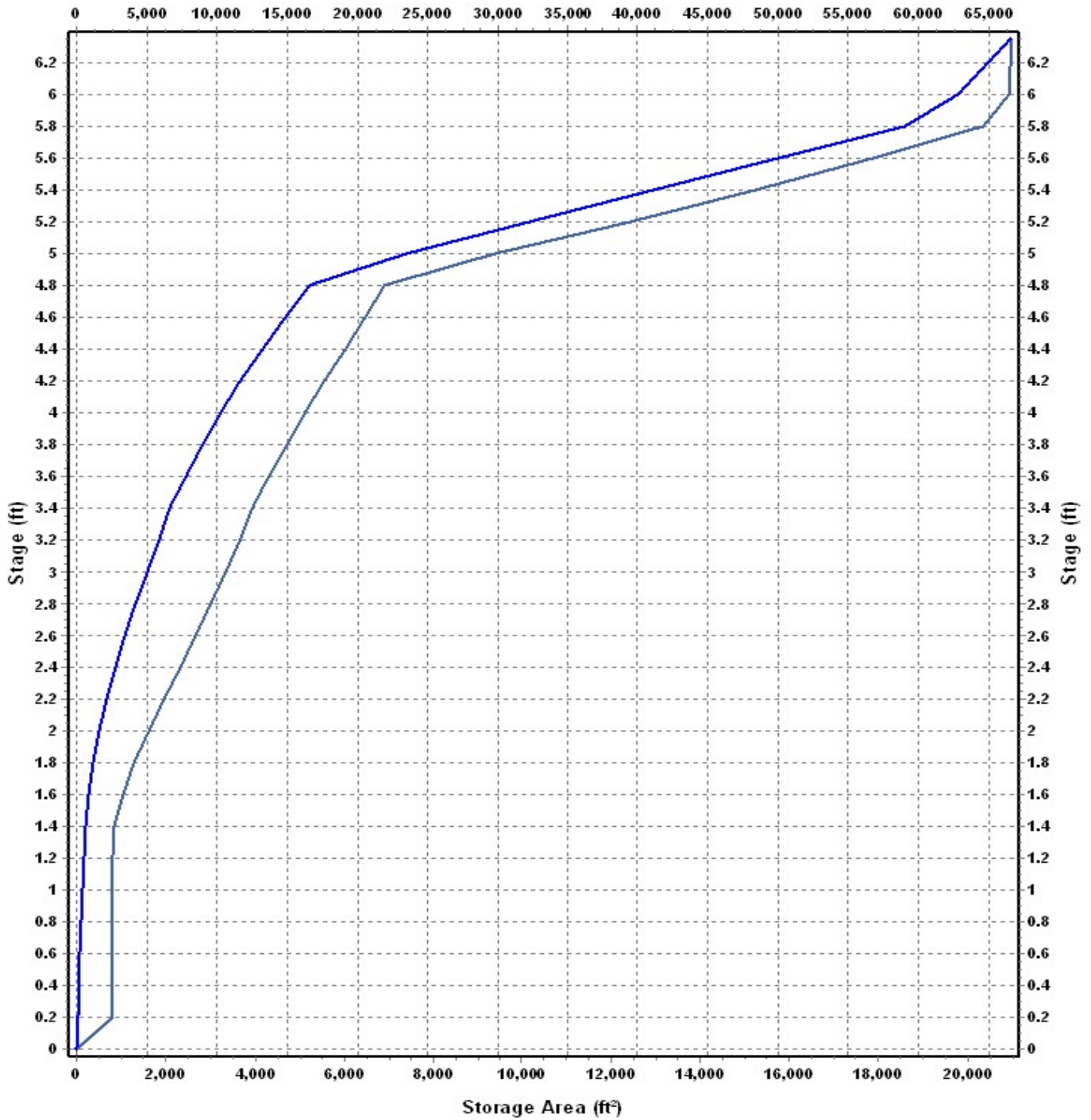
Storage Area Volume Curves

Storage Curve : Offsite 02

Stage (ft)	Storage Area (ft²)	Storage Volume (ft³)
0	0	0
.2	820.00	82
.4	815.00	163
.6	816.67	245
.8	817.50	327
1	818.00	409
1.2	816.67	490
1.4	850.00	595
1.6	1038.75	831
1.8	1297.78	1168
2	1606.00	1606
2.2	1950.00	2145
2.4	2319.17	2783
2.6	2676.15	3479
2.8	3010.71	4215
3	3326.67	4990
3.2	3691.25	5906
3.4	3938.24	6695
3.6	4318.89	7774
3.8	4721.58	8971
4	5142.00	10284
4.2	5578.57	11715
4.4	6028.18	13262
4.6	6478.26	14900
4.8	6925.42	16621
5	9432.00	23580
5.2	12438.08	32339
5.4	15251.85	41180
5.6	17886.43	50082
5.8	20357.93	59038
6	20943.33	62830
6.2	20946.77	64935
6.35	20960.63	66550

Storage Area Volume Curves

Storage Volume (ft³)



Storage Area Storage Volume

Storage Node : Offsite 04 (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 Offsite 04 orifice	Side	CIRCULAR	No	8.50			871.65	0.60

Output Summary Results

Peak Inflow (cfs)	15.05
Peak Lateral Inflow (cfs)	15.05
Peak Outflow (cfs)	3.93
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	876.30
Max HGL Depth Attained (ft)	4.65
Average HGL Elevation Attained (ft)	872.19
Average HGL Depth Attained (ft)	0.54
Time of Max HGL Occurrence (days hh:mm)	0 12:18
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Pavers01-02

Input Data

Invert Elevation (ft)	863.79
Max (Rim) Elevation (ft)	867.24
Max (Rim) Offset (ft)	3.45
Initial Water Elevation (ft)	863.79
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Outflow Weirs

SN Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1 Paver01-02 weir	Rectangular	No	865.70	1.91	4.00	1.00	3.33

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 Paver01-02 wq orifice 2	Side	CIRCULAR	No	1.00			863.79	0.60
2 Pavers01-02 WQ orifice 1	Side	CIRCULAR	No	1.00			863.79	0.60

Output Summary Results

Peak Inflow (cfs)	2.92
Peak Lateral Inflow (cfs)	2.92
Peak Outflow (cfs)	0.06
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	865.03
Max HGL Depth Attained (ft)	1.24
Average HGL Elevation Attained (ft)	864.42
Average HGL Depth Attained (ft)	0.63
Time of Max HGL Occurrence (days hh:mm)	0 16:00
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Pavers03-04

Input Data

Invert Elevation (ft)	863.79
Max (Rim) Elevation (ft)	867.24
Max (Rim) Offset (ft)	3.45
Initial Water Elevation (ft)	863.79
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Outflow Weirs

SN Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1 Paver04-06 weir	Rectangular	No	866.80	3.01	4.00	1.00	3.33

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 Paver03-04 WQ orifice 1	Side	CIRCULAR	No	1.00			863.79	0.60
2 Paver03-04 WQ orifice 2	Side	CIRCULAR	No	1.00			863.79	0.60

Output Summary Results

Peak Inflow (cfs)	2.98
Peak Lateral Inflow (cfs)	2.98
Peak Outflow (cfs)	0.06
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	865.08
Max HGL Depth Attained (ft)	1.29
Average HGL Elevation Attained (ft)	864.45
Average HGL Depth Attained (ft)	0.66
Time of Max HGL Occurrence (days hh:mm)	0 16:02
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Wet Basin 02

Input Data

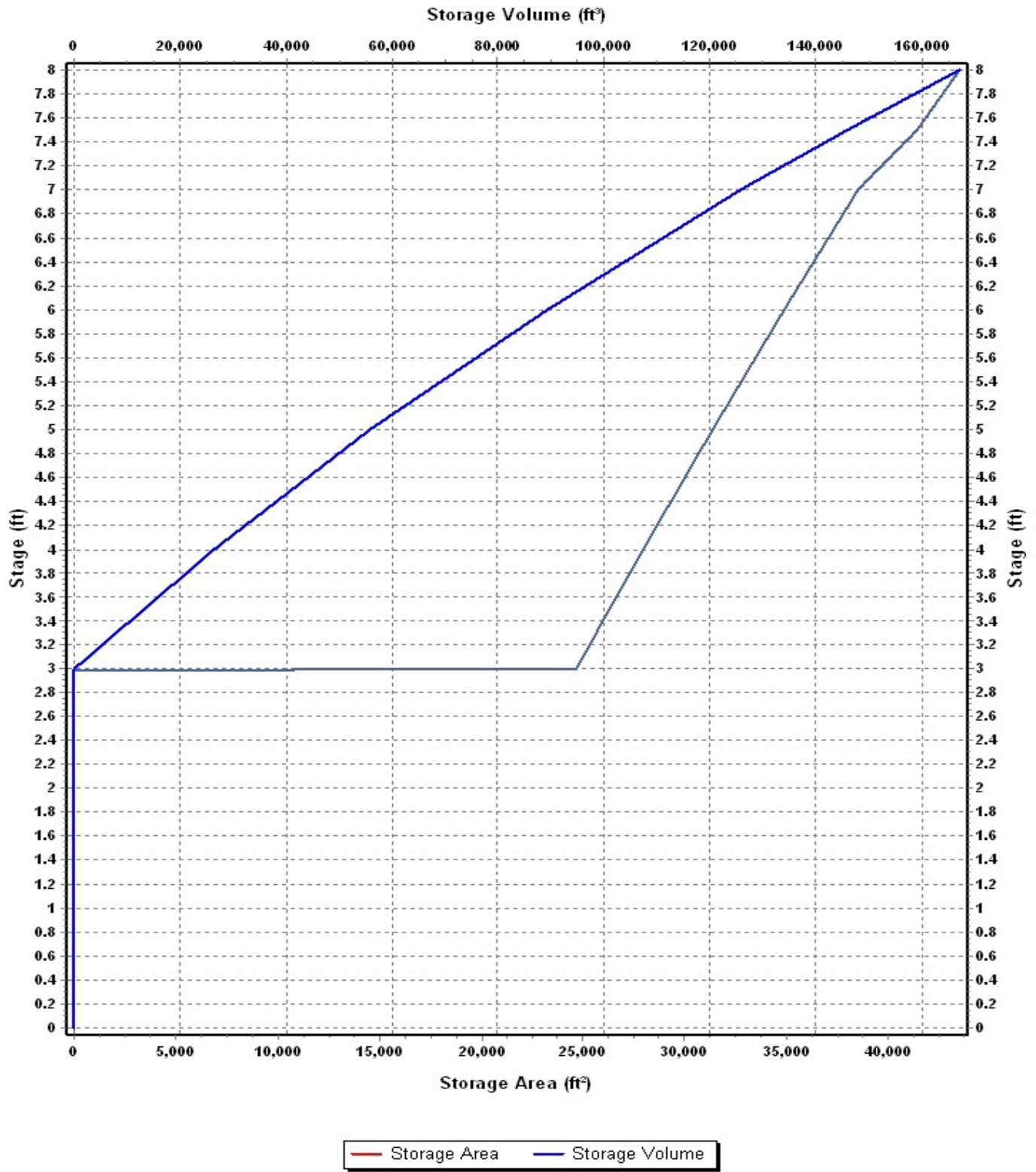
Invert Elevation (ft)	859.00
Max (Rim) Elevation (ft)	867.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	862.00
Initial Water Depth (ft)	3.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Wet Basin 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.99	1	2.99
3	24635.51	126.17
4	27948.90	26418.38
5	31362.79	56074.23
6	34877.21	89194.23
7	38492.15	125878.91
7.5	41380.21	145847.00
8	43477.39	167061.40

Storage Area Volume Curves



Storage Node : Wet Basin 02 (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 Wet basin grate	Bottom	Rectangular	No		19.60	19.60	865.00	0.60
2 Wet basin window 1	Side	Rectangular	No		12.00	36.00	863.20	0.60
3 Wet Basin wq 2	Side	CIRCULAR	No	5.00			862.00	0.60
4 WetBasin WQ 1	Side	CIRCULAR	No	5.00			862.00	0.60
5 WetBasinWindow2	Side	Rectangular	No		12.00	36.00	863.20	0.60

Output Summary Results

Peak Inflow (cfs)	51.91
Peak Lateral Inflow (cfs)	41.55
Peak Outflow (cfs)	19.62
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	863.91
Max HGL Depth Attained (ft)	4.91
Average HGL Elevation Attained (ft)	862.82
Average HGL Depth Attained (ft)	3.82
Time of Max HGL Occurrence (days hh:mm)	0 13:33
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : WetBasin 01

Input Data

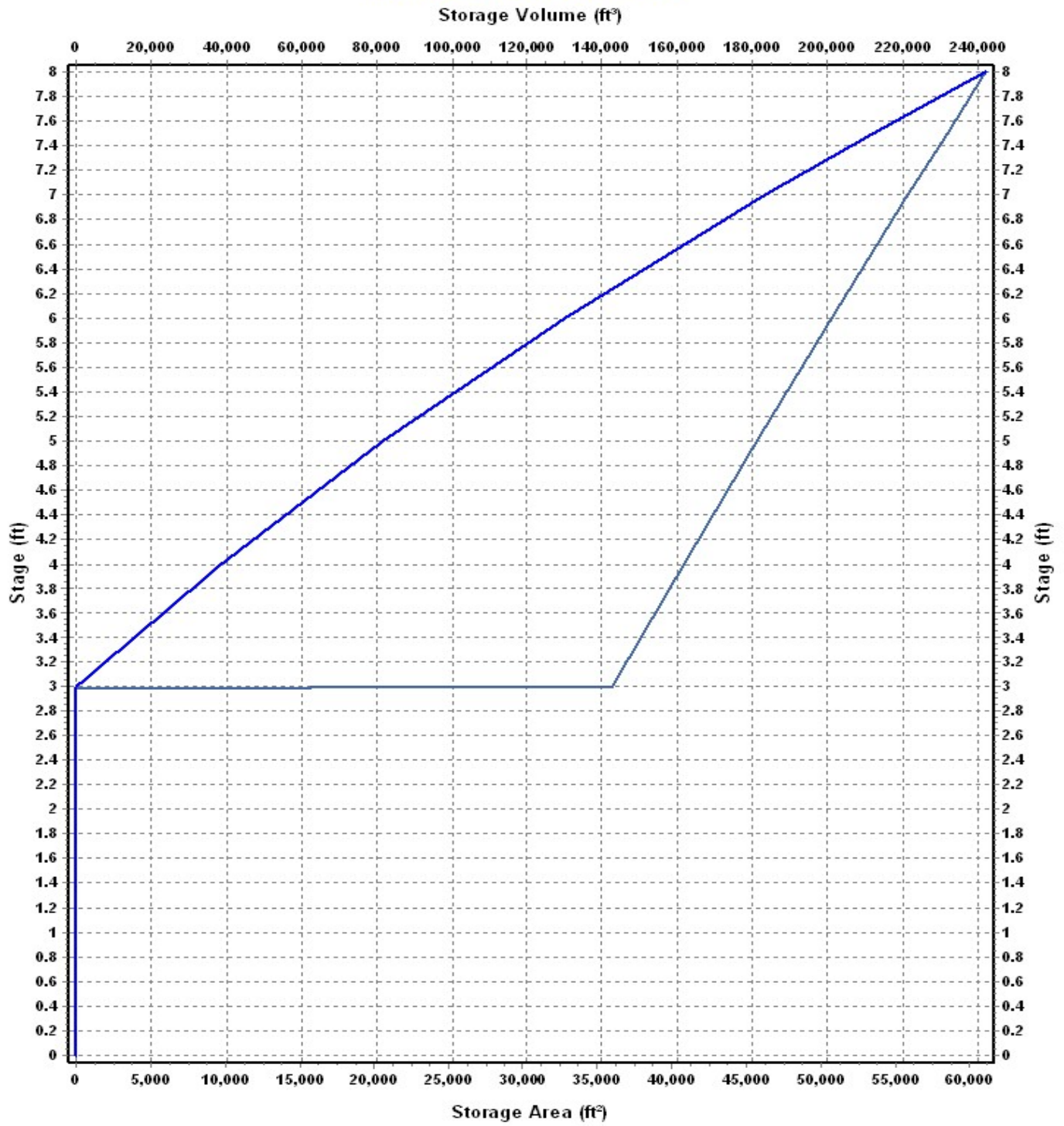
Invert Elevation (ft)	859.00
Max (Rim) Elevation (ft)	867.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	862.00
Initial Water Depth (ft)	3.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Wet Basin 01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.99	1	2.99
3	36012.49	183.06
4	40827.72	38603.17
5	45735.45	81884.76
6	50745.52	130125.25
7	55856.11	183426.07
7.5	58448.67	212002.27
8	61040.22	241874.49

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : WetBasin 01 (continued)

Output Summary Results

Peak Inflow (cfs)	37.02
Peak Lateral Inflow (cfs)	27.86
Peak Outflow (cfs)	4.01
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	863.92
Max HGL Depth Attained (ft)	4.92
Average HGL Elevation Attained (ft)	862.81
Average HGL Depth Attained (ft)	3.81
Time of Max HGL Occurrence (days hh:mm)	0 13:36
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Project Description

File Name 2017-0259 Dublin Smart Park 2017-5-15.SPF

Project Options

Flow Units CFS
 Elevation Type Elevation
 Hydrology Method SCS TR-55
 Time of Concentration (TOC) Method User-Defined
 Link Routing Method Hydrodynamic
 Enable Overflow Ponding at Nodes YES
 Skip Steady State Analysis Time Periods NO

Analysis Options

Start Analysis On Apr 11, 2017 00:00:00
 End Analysis On Apr 12, 2017 00:00:00
 Start Reporting On Apr 11, 2017 00:00:00
 Antecedent Dry Days 0 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 00:05:00 days hh:mm:ss
 Routing Time Step 1 seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins.....	16
Nodes.....	35
<i>Junctions</i>	21
<i>Outfalls</i>	1
<i>Flow Diversions</i>	0
<i>Inlets</i>	0
<i>Storage Nodes</i>	13
Links.....	49
<i>Channels</i>	1
<i>Pipes</i>	21
<i>Pumps</i>	0
<i>Orifices</i>	20
<i>Weirs</i>	2
<i>Outlets</i>	5
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1		Time Series	5-year	Cumulative	inches	Ohio	Franklin	5	3.24	SCS Type II 24-hr

Subbasin Summary

SN Subbasin ID	Area (ac)	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1 Offsite 01: Lucent site	9.91	94.00	3.24	2.58	25.60	33.74	0 00:10:00
2 Offsite 02 - 01	3.38	92.00	3.24	2.39	8.07	11.73	0 00:07:00
3 Offsite 02 - 02	7.84	93.00	3.24	2.48	19.46	26.93	0 00:08:30
4 Offsite 03: Triangle outparcel	2.50	74.00	3.24	1.06	2.66	3.67	0 00:09:00
5 Offsite 04: Cendant Site	5.72	94.00	3.24	2.58	14.77	19.48	0 00:10:00
6 Subarea 02 - to wb 02	0.43	95.60	3.24	2.75	1.17	1.73	0 00:05:00
7 Subarea 02 -to wb1	0.52	95.60	3.24	2.75	1.43	2.12	0 00:05:00
8 Subarea 03	10.24	89.68	3.24	2.18	22.30	34.93	0 00:05:00
9 Subarea01	14.97	90.80	3.24	2.28	34.09	52.98	0 00:05:00
10 ToBiobasin01	1.39	95.60	3.24	2.75	3.82	5.62	0 00:05:00
11 ToBiobasin02	0.52	95.60	3.24	2.75	1.43	2.10	0 00:05:00
12 ToBiobasin03	1.35	95.60	3.24	2.75	3.71	5.46	0 00:05:00
13 ToBiobasin04	0.81	95.60	3.24	2.75	2.22	3.26	0 00:05:00
14 ToBiobasin05	1.44	95.60	3.24	2.75	3.94	5.80	0 00:05:00
15 ToPP01-02	0.91	95.60	3.24	2.75	2.50	3.68	0 00:05:00
16 ToPP03-04	0.93	95.60	3.24	2.75	2.54	3.75	0 00:05:00

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
			(ft)	(ft)	(ft)	(ft)	(ft ²)	(cfs)	(ft)	(ft)	(ft)	(days hh:mm)
1	Biobasin02dummysnode	Junction	862.67	867.17	862.67	867.17	0.00	1.86	865.20	0.00	1.97	0 00:00
2	CatchBasin03	Junction	862.00	866.50	862.00	866.50	2879.24	5.79	864.61	0.00	1.89	0 00:00
3	CatchBasin04	Junction	862.44	866.94	862.44	866.94	4642.88	5.23	865.05	0.00	1.89	0 00:00
4	CatchBasin05	Junction	862.67	867.17	862.67	867.17	1566.12	1.83	865.07	0.00	2.10	0 00:00
5	CatchBasin12	Junction	862.60	867.10	862.60	867.10	6347.63	3.00	864.39	0.00	2.71	0 00:00
6	CatchBasin8	Junction	862.64	867.14	862.64	867.14	6037.65	2.92	864.38	0.00	2.76	0 00:00
7	Dummy1	Junction	861.69	867.00	861.69	867.00	0.00	15.26	864.07	0.00	2.93	0 00:00
8	Ex0	Junction	860.13	865.00	860.13	865.00	0.00	16.41	861.24	0.00	3.76	0 00:00
9	ExA	Junction	860.81	865.00	860.81	865.00	0.00	21.78	863.70	0.00	3.11	0 00:00
10	Existing 36-inch outlet pipe	Junction	870.00	875.50	870.00	875.50	0.00	13.65	870.98	0.00	5.42	0 00:00
11	Manhole 7	Junction	862.47	868.00	862.47	868.00	0.00	2.89	864.30	0.00	3.70	0 00:00
12	Manhole1	Junction	861.75	868.00	861.75	868.00	0.00	11.47	864.03	0.00	3.97	0 00:00
13	Manhole10	Junction	862.23	868.00	862.23	868.00	0.00	3.03	864.21	0.00	3.79	0 00:00
14	Manhole11	Junction	862.42	868.00	862.42	868.00	0.00	2.97	864.30	0.00	3.70	0 00:00
15	Manhole13	Junction	863.79	868.00	863.79	868.00	0.00	0.12	864.21	0.00	3.79	0 00:00
16	Manhole2	Junction	861.80	868.00	861.80	868.00	0.00	5.70	864.22	0.00	3.78	0 00:00
17	Manhole6	Junction	862.28	868.00	862.28	868.00	0.00	2.96	864.21	0.00	3.79	0 00:00
18	Manhole9	Junction	863.79	868.00	863.79	868.00	0.00	0.13	864.21	0.00	3.79	0 00:00
19	Offsite 02 outlet	Junction	877.50	881.50	877.50	881.50	0.00	1.82	877.93	0.00	4.27	0 00:00
20	OutToDitch	Junction	861.58	863.00	861.58	863.00	0.00	24.66	863.73	0.00	3.85	0 00:00
21	Structure1	Junction	861.69	868.00	861.69	868.00	0.00	24.83	863.97	0.00	4.03	0 00:00
22	Ex00_Outlet	Outfall	859.65					16.41	860.61			
23	Biobasin 01	Storage Node	862.64	867.14	865.14		0.00	5.61	866.39			
24	Biobasin02	Storage Node	862.67	867.17	865.17		0.00	2.10	866.36			
25	Biobasin03	Storage Node	862.44	867.10	865.00		0.00	5.46	866.29			
26	Biobasin04	Storage Node	862.00	867.00	864.50		0.00	3.26	865.62			
27	Biobasin05	Storage Node	862.60	867.10	865.10		0.00	5.80	866.35			
28	Offsite 01 Parking lot ponding	Storage Node	871.00	879.00	877.50		0.00	33.19	878.04			
29	Offsite 02 Wet basin 02	Storage Node	878.00	882.00	878.00		0.00	25.48	880.03			
30	Offsite 02-wet basin 1	Storage Node	875.00	881.50	877.50		0.00	20.54	879.53			
31	Offsite 04	Storage Node	871.65	878.00	871.65		0.00	19.15	876.85			
32	Pavers01-02	Storage Node	863.79	867.24	863.79		0.00	3.67	865.41			
33	Pavers03-04	Storage Node	863.79	867.24	863.79		0.00	3.75	865.47			
34	Wet Basin 02	Storage Node	859.00	867.00	862.00		0.00	66.46	864.32			
35	WetBasin 01	Storage Node	859.00	867.00	862.00		0.00	47.02	864.33			

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 (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio
1	1->basins	Pipe	Manhole1	Structure1	62.54	861.75	861.69	0.1000	36.000	0.0130	11.31	20.66	0.55	2.02	2.27	0.76
2	10->11	Pipe	Manhole10	Manhole1	190.96	862.23	861.75	0.2500	18.000	0.0130	2.93	5.27	0.56	1.66	1.50	1.00
3	11->10	Pipe	Manhole11	Manhole10	75.00	862.42	862.23	0.2500	18.000	0.0130	2.97	5.29	0.56	1.68	1.50	1.00
4	12->11	Pipe	CatchBasin12	Manhole11	72.47	862.60	862.42	0.2500	18.000	0.0130	2.97	5.24	0.57	1.68	1.50	1.00
5	13->10	Pipe	Manhole13	Manhole10	16.00	863.79	863.72	0.4400	12.000	0.0130	0.07	2.36	0.03	1.33	0.44	0.45
6	2->1	Pipe	Manhole2	Manhole1	20.00	861.80	861.75	0.2500	18.000	0.0130	5.70	5.25	1.09	3.23	1.50	1.00
7	3->2	Pipe	CatchBasin03	Manhole2	81.60	862.00	861.80	0.2500	18.000	0.0130	5.70	5.20	1.10	3.23	1.50	1.00
8	4->3	Pipe	CatchBasin04	CatchBasin03	175.98	862.44	862.00	0.2500	18.000	0.0130	4.90	5.25	0.93	2.77	1.50	1.00
9	5->4	Pipe	CatchBasin05	CatchBasin04	92.80	862.67	862.44	0.2500	18.000	0.0130	1.73	5.23	0.33	1.76	1.50	1.00
10	6->1	Pipe	Manhole6	Manhole1	210.04	862.28	861.75	0.2500	18.000	0.0130	2.85	5.28	0.54	1.61	1.50	1.00
11	7->6	Pipe	Manhole 7	Manhole6	75.00	862.47	862.28	0.2500	18.000	0.0130	2.89	5.29	0.55	1.64	1.50	1.00
12	8->7	Pipe	CatchBasin8	Manhole 7	69.56	862.64	862.47	0.2400	18.000	0.0130	2.89	5.19	0.56	1.64	1.50	1.00
13	9->8	Pipe	Manhole9	Manhole6	16.00	863.79	863.73	0.3700	15.000	0.0130	0.08	3.96	0.02	1.24	0.44	0.36
14	Basin connector	Pipe	WetBasin 01	Wet Basin 02	85.00	859.00	858.90	0.1200	24.000	0.0130	10.81	0.78	13.93	3.44	2.00	1.00
15	Basins->outlet	Pipe	Structure1	OutToDitch	109.09	861.69	861.58	0.1000	36.000	0.0130	24.66	21.18	1.16	5.51	2.22	0.74
16	Dual 18 inch pipes	Pipe	ExA	Ex0	35.92	860.81	860.13	1.9000	18.000	0.0130	16.41	14.48	1.13	10.04	1.31	0.87
17	Elliptical pipe under roadway	Pipe	Ex0	Ex00_Outlet	98.05	860.07	859.65	0.4300	36.000	0.0130	16.41	86.04	0.19	5.11	1.04	0.35
18	Offsite 02->outfall	Pipe	Offsite 02 outlet	Existing 36-inch outlet pipe	84.10	877.50	875.40	2.5000	12.000	0.0130	1.82	5.63	0.32	6.01	0.41	0.41
19	offsite basin2 -> offsite basin 1	Pipe	Offsite 02 Wet basin 02	Offsite 02-wet basin 1	201.70	878.00	877.70	0.1500	24.000	0.0130	11.92	8.72	1.37	4.37	1.68	0.84
20	Offsite->basin	Pipe	Existing 36-inch outlet pi	Wet Basin 02	1296.34	870.00	862.00	0.6200	42.000	0.0130	13.48	79.04	0.17	4.53	1.61	0.46
21	OutletPipe	Pipe	Dummy1	Structure1	10.82	862.00	861.69	2.8700	36.000	0.0130	15.26	112.90	0.14	4.02	2.17	0.72
22	Ditch	Channel	OutToDitch	ExA	375.41	861.58	860.81	0.2100	72.000	0.0320	21.78	596.14	0.04	1.75	2.52	0.42
23	Biobasin01grate	Orifice	Biobasin 01	CatchBasin8		862.64	862.64		19.600		2.71					
24	Biobasin02grate	Orifice	Biobasin02	Biobasin02dummysnode		862.67	862.67		19.600		1.80					
25	Biobasin02orifice	Orifice	Biobasin02dummysnode	CatchBasin05		862.67	862.67		12.000		1.83					
26	Biobasin03grate	Orifice	Biobasin03	CatchBasin04		862.44	862.44		19.600		3.43					
27	Biobasin04grate	Orifice	Biobasin04	CatchBasin03		862.00	862.00		19.600		0.95					
28	Biobasin05grate	Orifice	Biobasin05	CatchBasin12		862.60	862.60		19.600		2.78					
29	Offsite 01 orifice	Orifice	Offsite 01 Parking lot por	Existing 36-inch outlet pipe		871.00	870.00		9.250		5.80					
30	Offsite 02 grate	Orifice	Offsite 02-wet basin 1	Offsite 02 outlet		875.00	877.50		19.600		0.00					
31	offsite 02 window	Orifice	Offsite 02-wet basin 1	Offsite 02 outlet		875.00	877.50		6.000		1.28					
32	Offsite 02 wq	Orifice	Offsite 02-wet basin 1	Offsite 02 outlet		875.00	877.50		4.000		0.53					
33	Offsite 04 orifice	Orifice	Offsite 04	Existing 36-inch outlet pipe		871.65	870.00		8.500		4.18					
34	Paver01-02 wq orifice 2	Orifice	Pavers01-02	Manhole9		863.79	863.79		1.000		0.03					
35	Paver03-04 WQ orifice 1	Orifice	Pavers03-04	Manhole13		863.79	863.79		1.000		0.03					
36	Paver03-04 WQ orifice 2	Orifice	Pavers03-04	Manhole13		863.79	863.79		1.000		0.03					
37	Pavers01-02 WQ orifice 1	Orifice	Pavers01-02	Manhole9		863.79	863.79		1.000		0.03					
38	Wet basin grate	Orifice	Wet Basin 02	Dummy1		859.00	861.69		19.600		0.00					
39	Wet basin window 1	Orifice	Wet Basin 02	Dummy1		859.00	861.69		12.000		7.30					
40	Wet Basin wq 2	Orifice	Wet Basin 02	Dummy1		859.00	861.69		5.000		0.63					
41	WetBasin WQ 1	Orifice	Wet Basin 02	Dummy1		859.00	861.69		5.000		0.63					
42	WetBasinWindow2	Orifice	Wet Basin 02	Dummy1		859.00	861.69		12.000		7.30					
43	Biomedia01	Outlet	Biobasin 01	CatchBasin8		862.64	862.64				0.21					
44	Biomedia02	Outlet	Biobasin02	Biobasin02dummysnode		862.67	862.67				0.06					
45	Biomedia03	Outlet	Biobasin03	CatchBasin04		862.44	862.44				0.19					
46	Biomedia04	Outlet	Biobasin04	CatchBasin03		862.00	862.00				0.15					
47	Biomedia05	Outlet	Biobasin05	CatchBasin12		862.60	862.60				0.21					
48	Paver01-02 weir	Weir	Pavers01-02	Manhole9		863.79	863.79				0.00					
49	Paver04-06 weir	Weir	Pavers03-04	Manhole13		863.79	863.79				0.00					

Total Time Reported
Surcharged Condition

(min)	
0.00	Calculated
167.00	SURCHARGED
133.00	SURCHARGED
10.00	SURCHARGED
0.00	Calculated
223.00	SURCHARGED
197.00	SURCHARGED
124.00	SURCHARGED
13.00	SURCHARGED
161.00	SURCHARGED
40.00	SURCHARGED
9.00	SURCHARGED
0.00	Calculated
1440.00	SURCHARGED
0.00	> CAPACITY
0.00	> CAPACITY
0.00	Calculated
0.00	Calculated
0.00	> CAPACITY
0.00	Calculated
0.00	Calculated
0.00	

Subbasin Hydrology

Subbasin : Offsite 01: Lucent site

Input Data

Area (ac) 9.91
Weighted Curve Number 94.00
Rain Gage ID DublinRain

Composite Curve Number

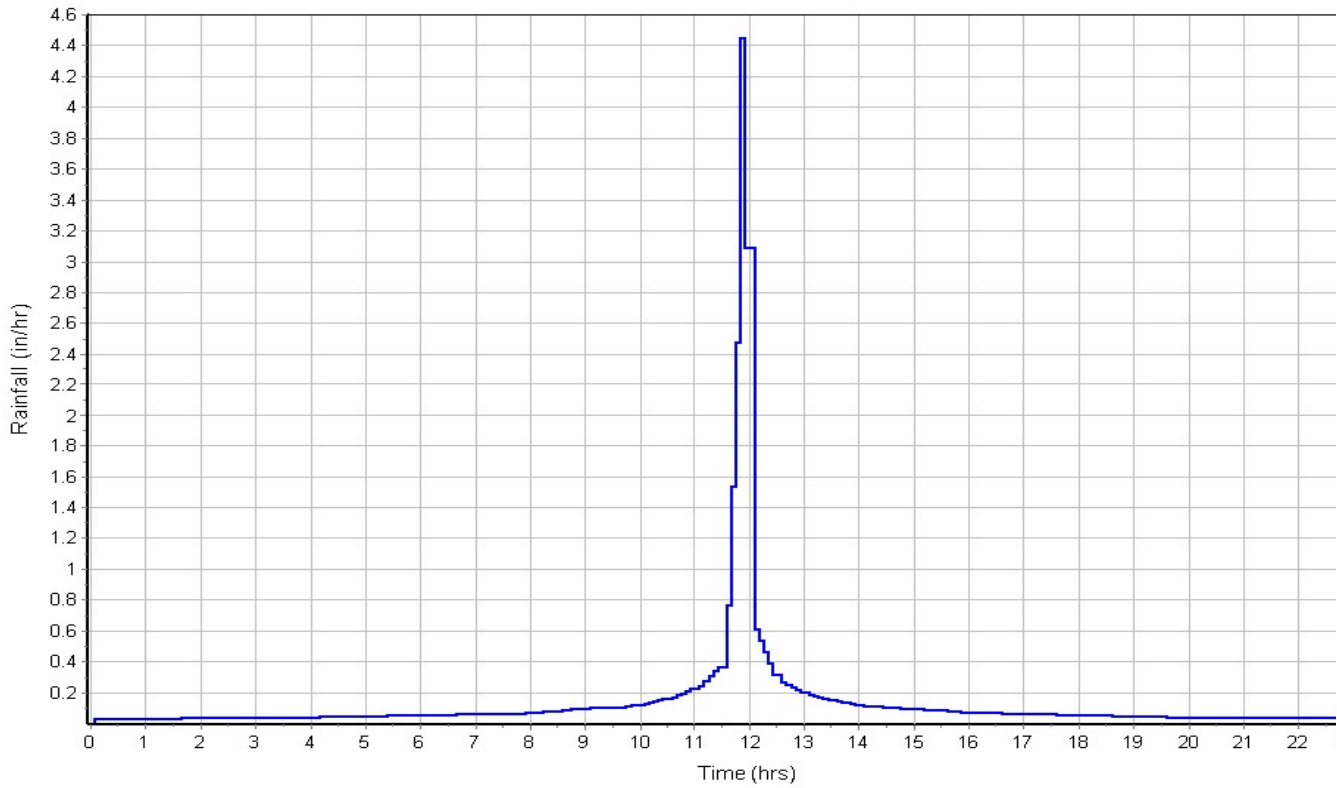
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	9.91	-	94.00
Composite Area & Weighted CN	9.91		94.00

Subbasin Runoff Results

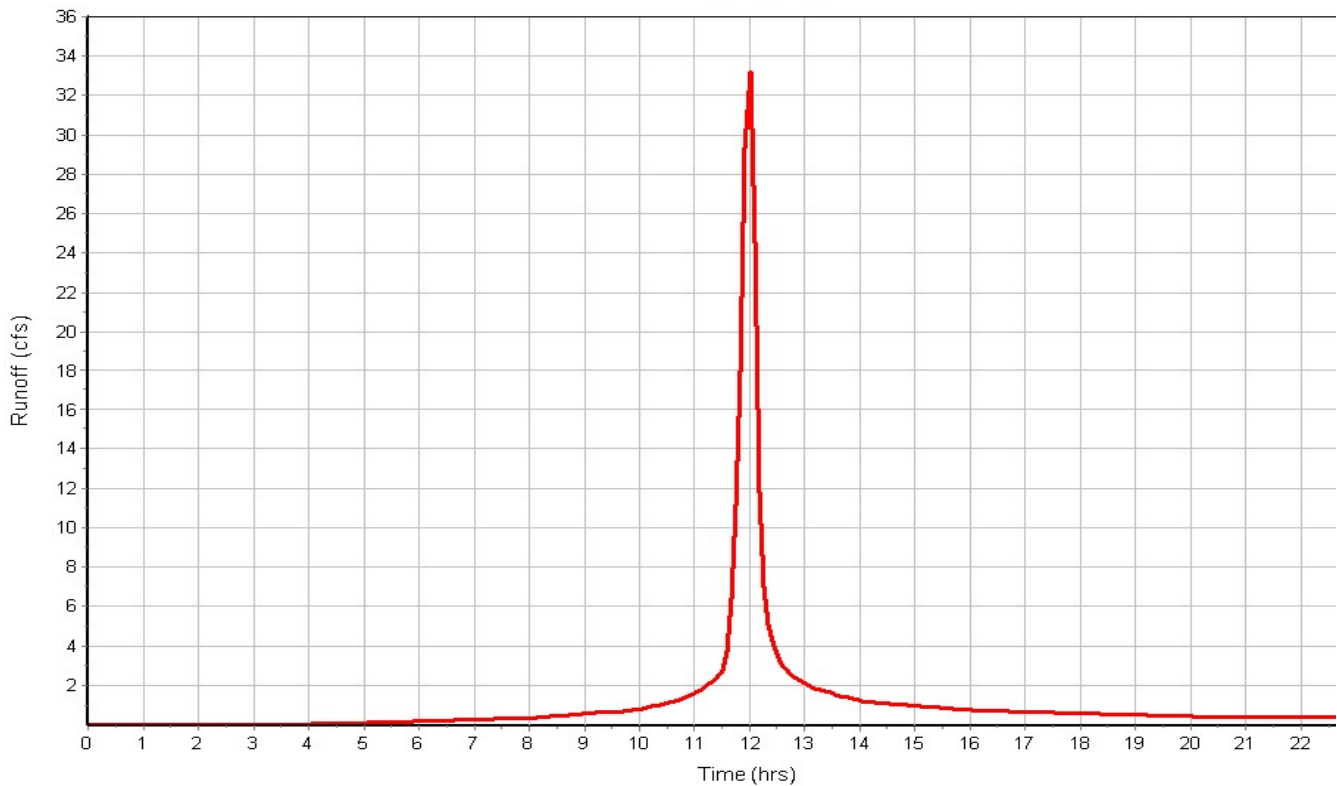
Total Rainfall (in) 3.24
Total Runoff (in) 2.58
Peak Runoff (cfs) 33.74
Weighted Curve Number 94.00
Time of Concentration (days hh:mm:ss) 0 00:10:00

Subbasin : Offsite 01: Lucent site

Rainfall Intensity Graph



Runoff Hydrograph





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Subbasin : Offsite 02 - 01

Input Data

Area (ac) 3.38
Weighted Curve Number 92.00
Rain Gage ID DublinRain

Composite Curve Number

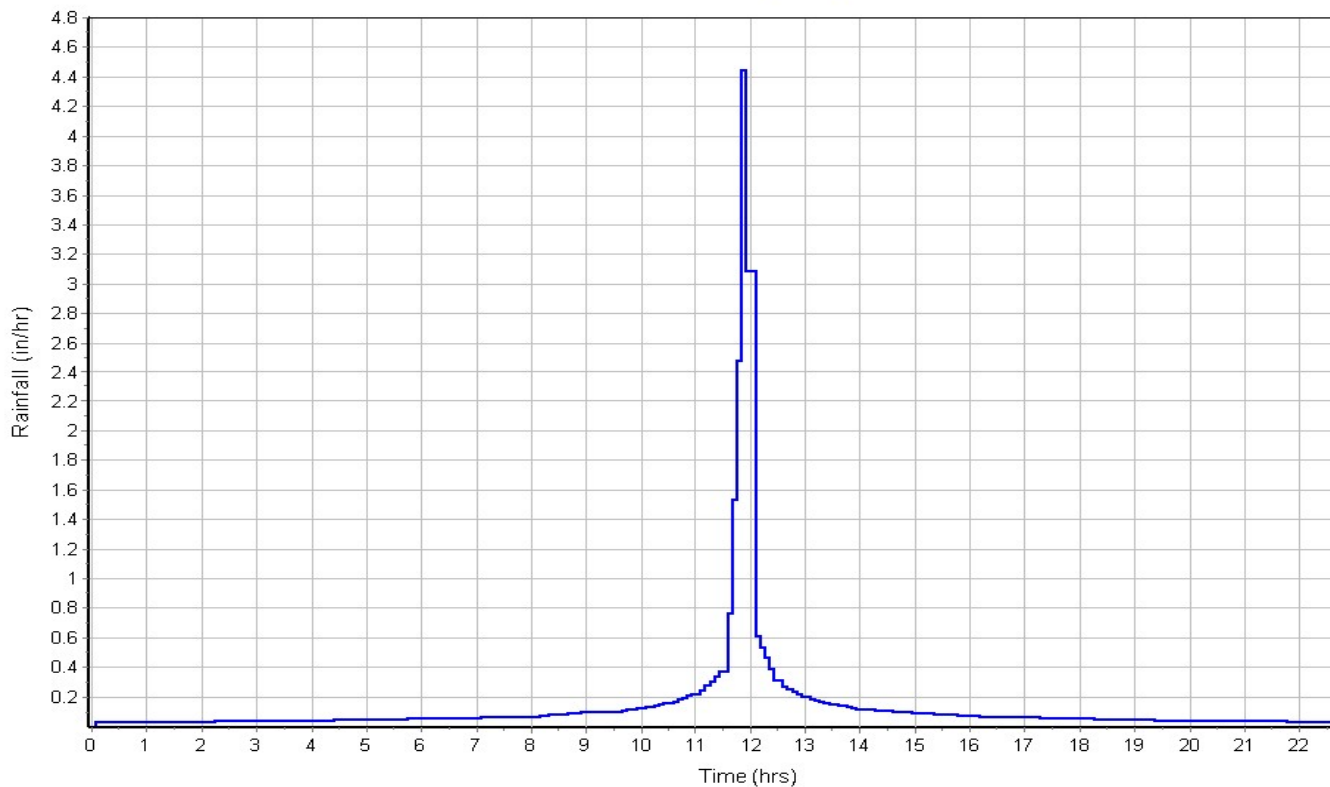
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	3.38	-	92.00
Composite Area & Weighted CN	3.38		92.00

Subbasin Runoff Results

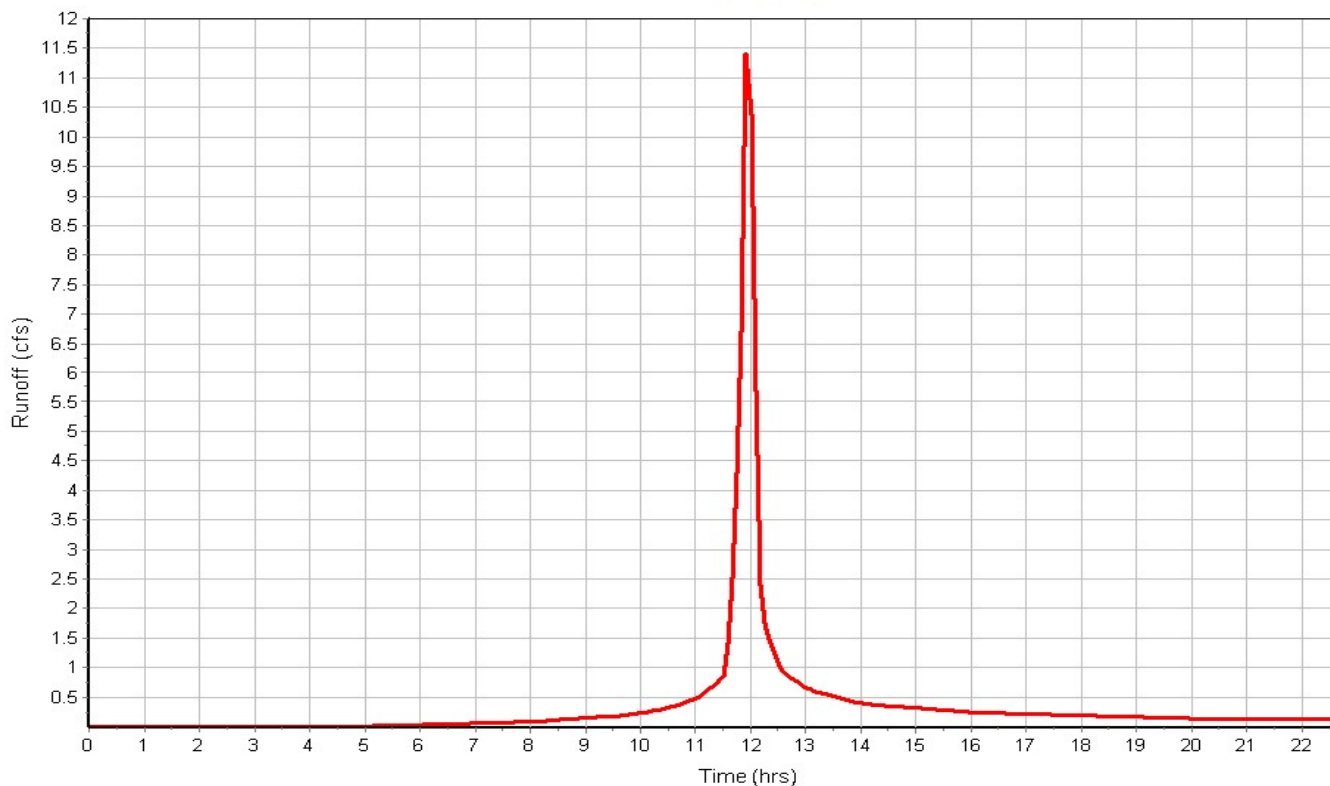
Total Rainfall (in) 3.24
Total Runoff (in) 2.39
Peak Runoff (cfs) 11.73
Weighted Curve Number 92.00
Time of Concentration (days hh:mm:ss) 0 00:07:00

Subbasin : Offsite 02 - 01

Rainfall Intensity Graph



Runoff Hydrograph





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Subbasin : Offsite 02 - 02

Input Data

Area (ac) 7.84
Weighted Curve Number 93.00
Rain Gage ID DublinRain

Composite Curve Number

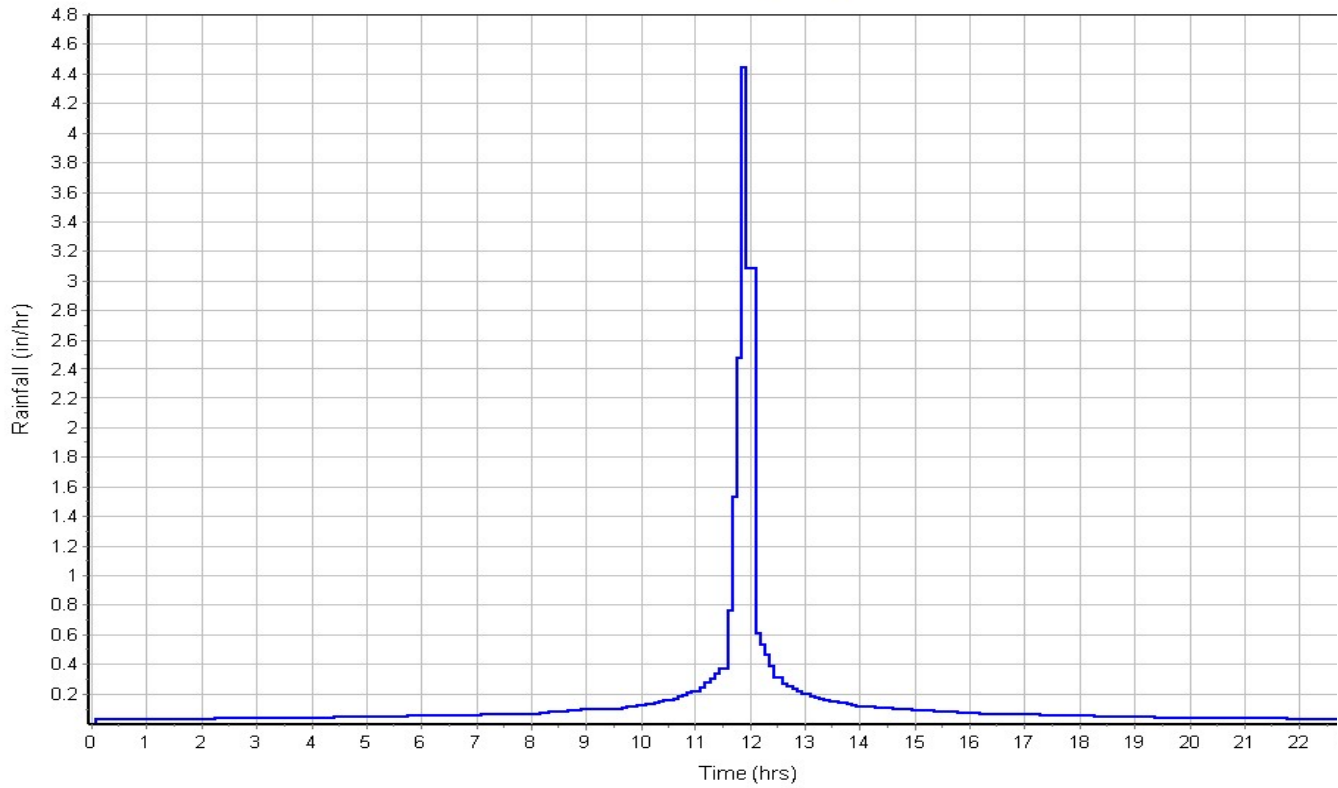
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	7.84	-	93.00
Composite Area & Weighted CN	7.84		93.00

Subbasin Runoff Results

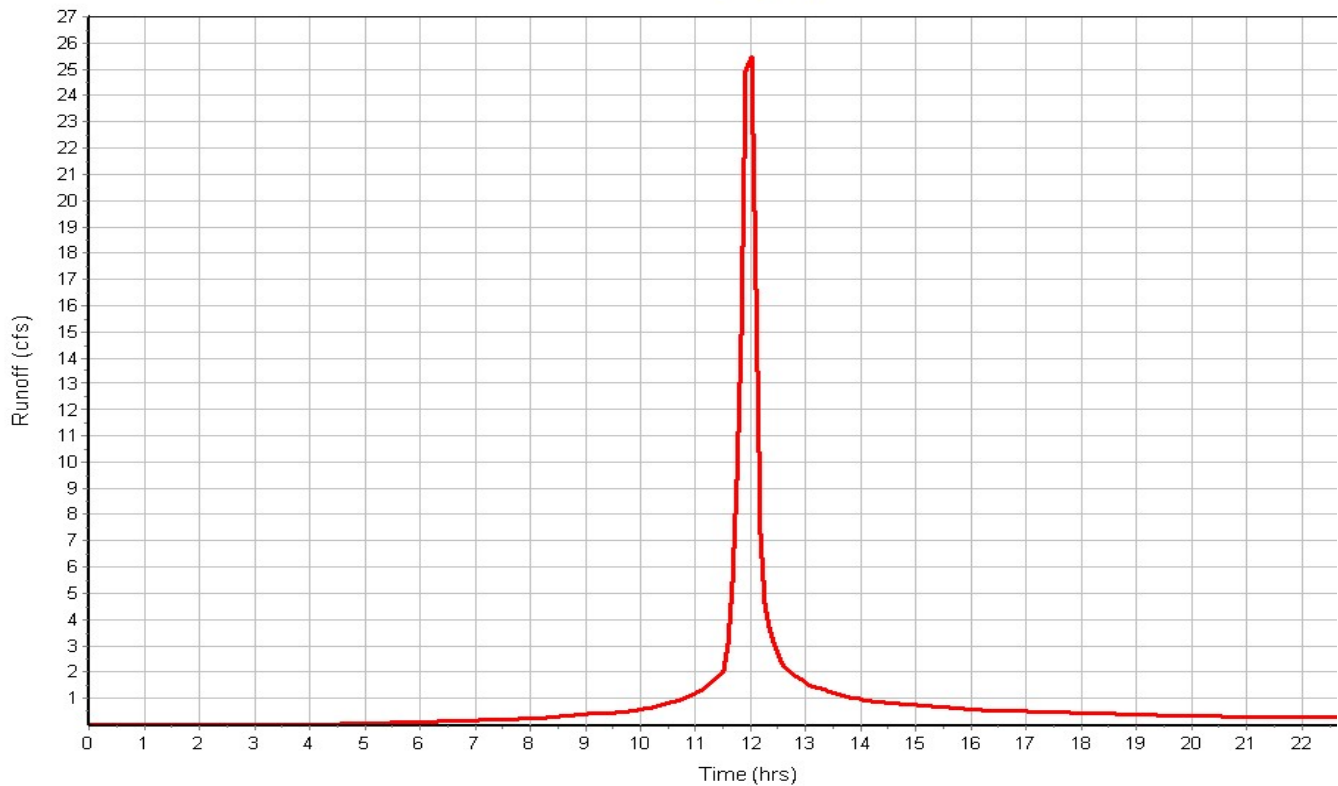
Total Rainfall (in) 3.24
Total Runoff (in) 2.48
Peak Runoff (cfs) 26.93
Weighted Curve Number 93.00
Time of Concentration (days hh:mm:ss) 0 00:08:30

Subbasin : Offsite 02 - 02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 03: Triangle outparcel

Input Data

Area (ac) 2.50
Weighted Curve Number 74.00
Rain Gage ID DublinRain

Composite Curve Number

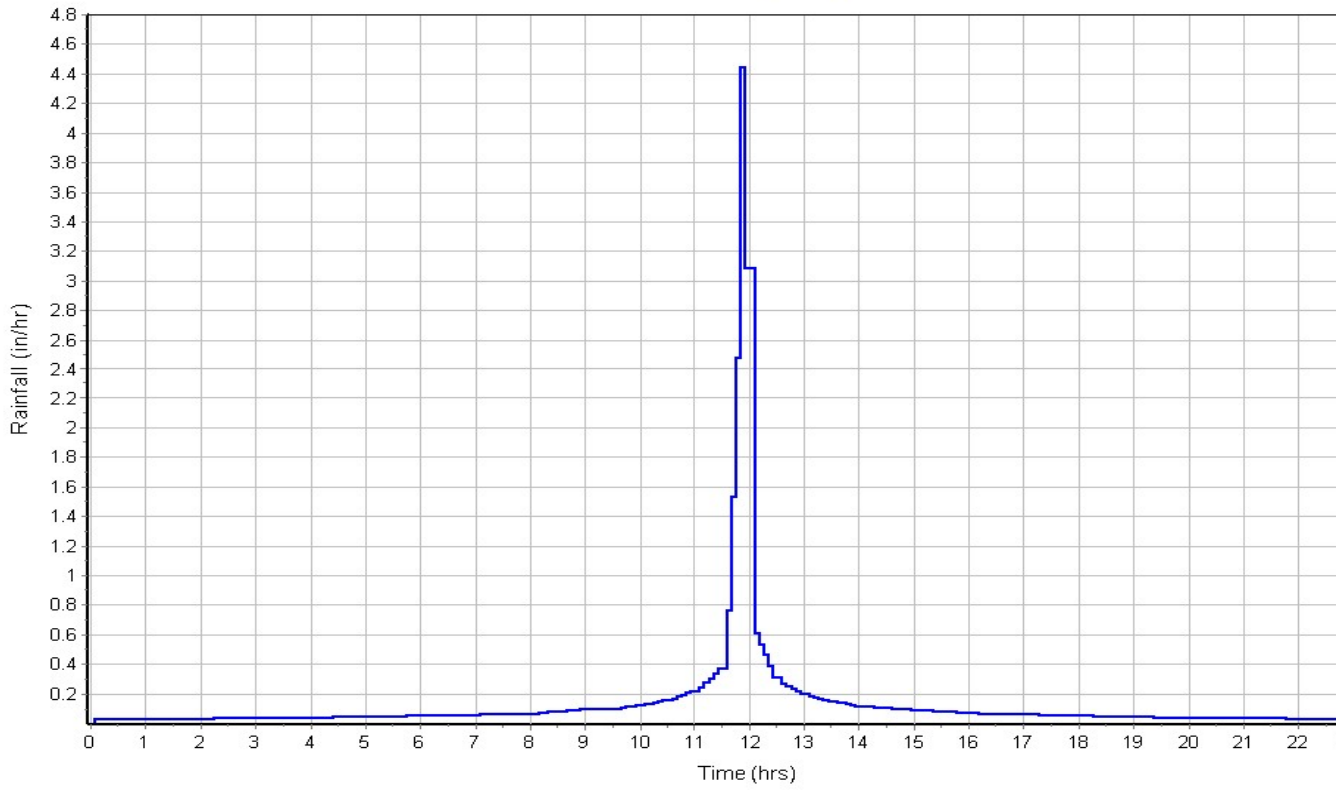
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	2.50	-	74.00
Composite Area & Weighted CN	2.50		74.00

Subbasin Runoff Results

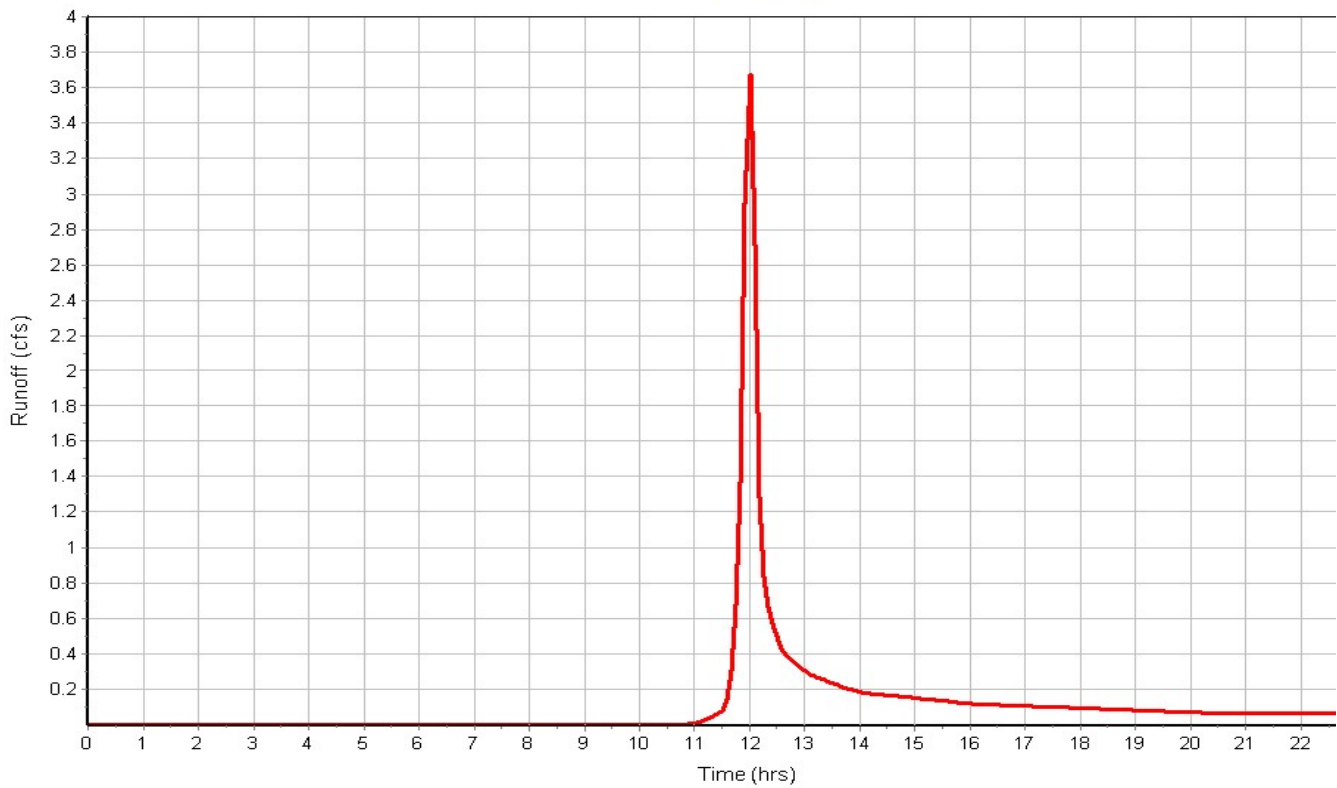
Total Rainfall (in) 3.24
Total Runoff (in) 1.06
Peak Runoff (cfs) 3.67
Weighted Curve Number 74.00
Time of Concentration (days hh:mm:ss) 0 00:09:00

Subbasin : Offsite 03: Triangle outparcel

Rainfall Intensity Graph



Runoff Hydrograph





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Subbasin : Offsite 04: Cendant Site

Input Data

Area (ac) 5.72
Weighted Curve Number 94.00
Rain Gage ID DublinRain

Composite Curve Number

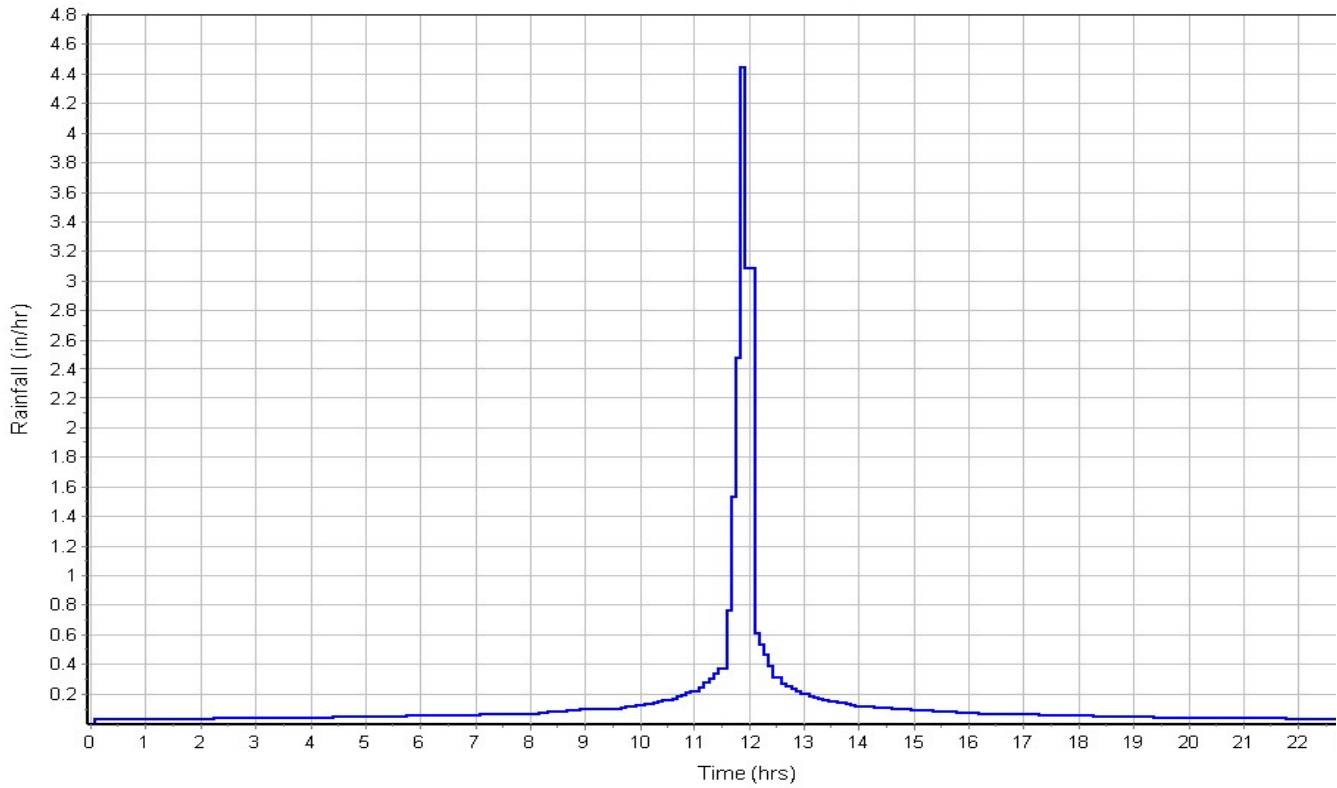
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	5.72	-	94.00
Composite Area & Weighted CN	5.72		94.00

Subbasin Runoff Results

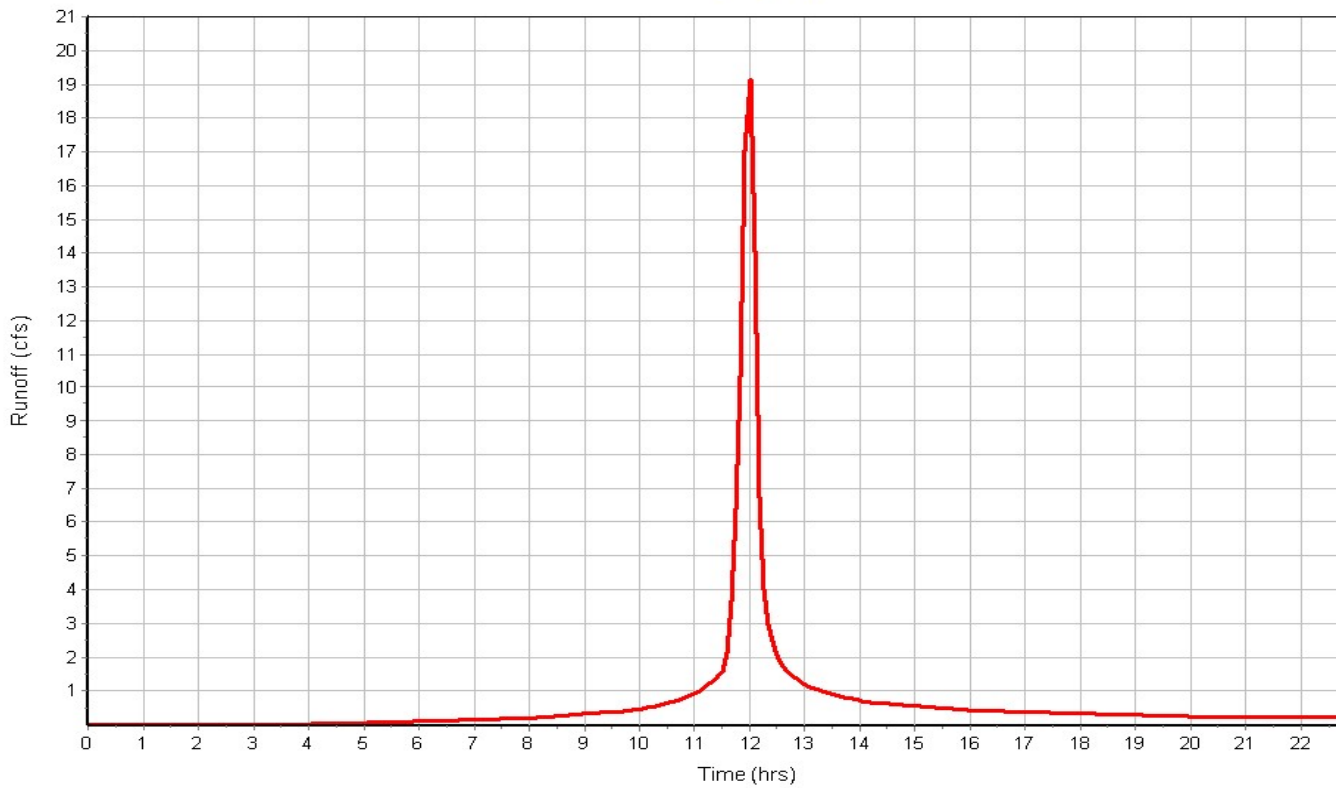
Total Rainfall (in) 3.24
Total Runoff (in) 2.58
Peak Runoff (cfs) 19.48
Weighted Curve Number 94.00
Time of Concentration (days hh:mm:ss) 0 00:10:00

Subbasin : Offsite 04: Cendant Site

Rainfall Intensity Graph

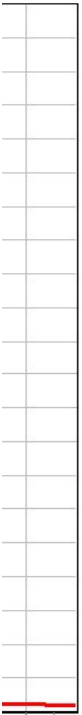


Runoff Hydrograph





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Subbasin : Subarea 02 - to wb 02

Input Data

Area (ac) 0.43
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

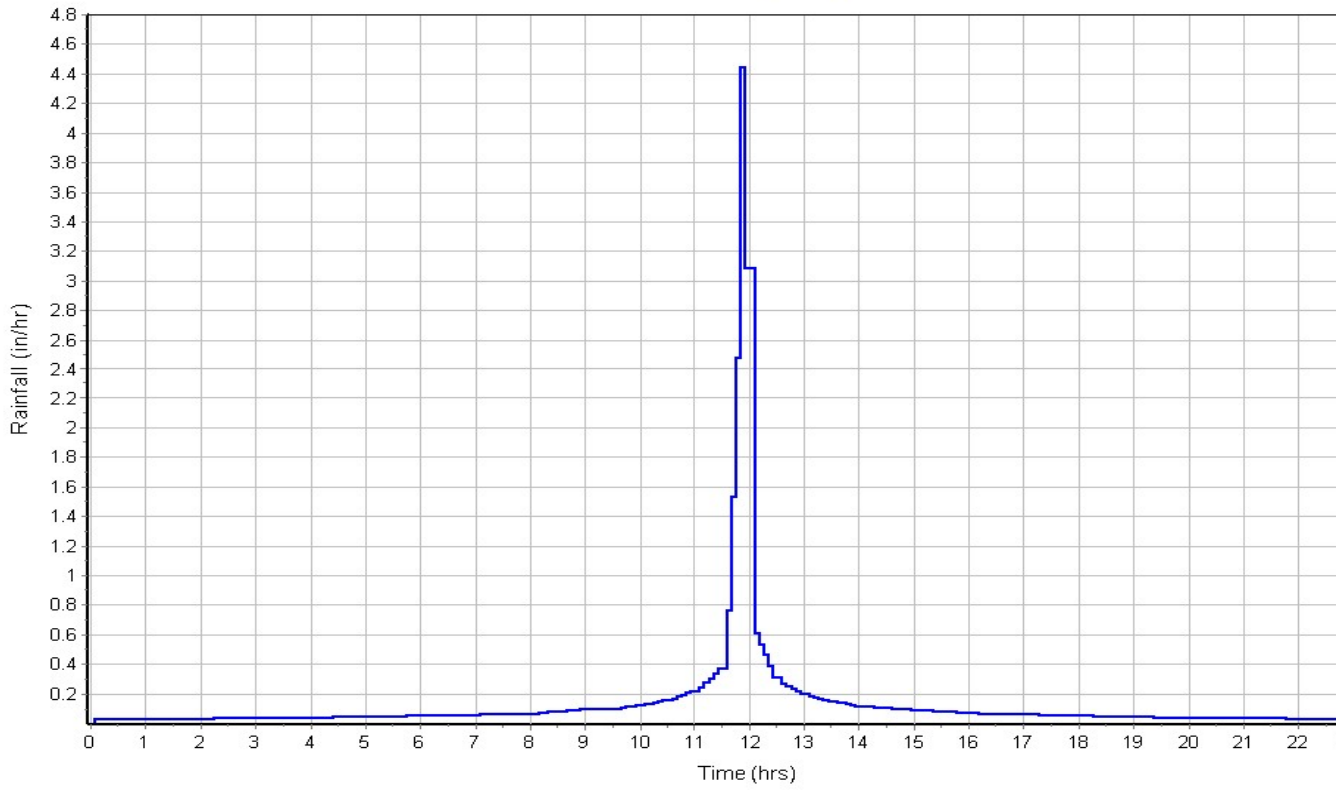
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.39	-	98.00
-	0.04	-	74.00
Composite Area & Weighted CN	0.43		95.60

Subbasin Runoff Results

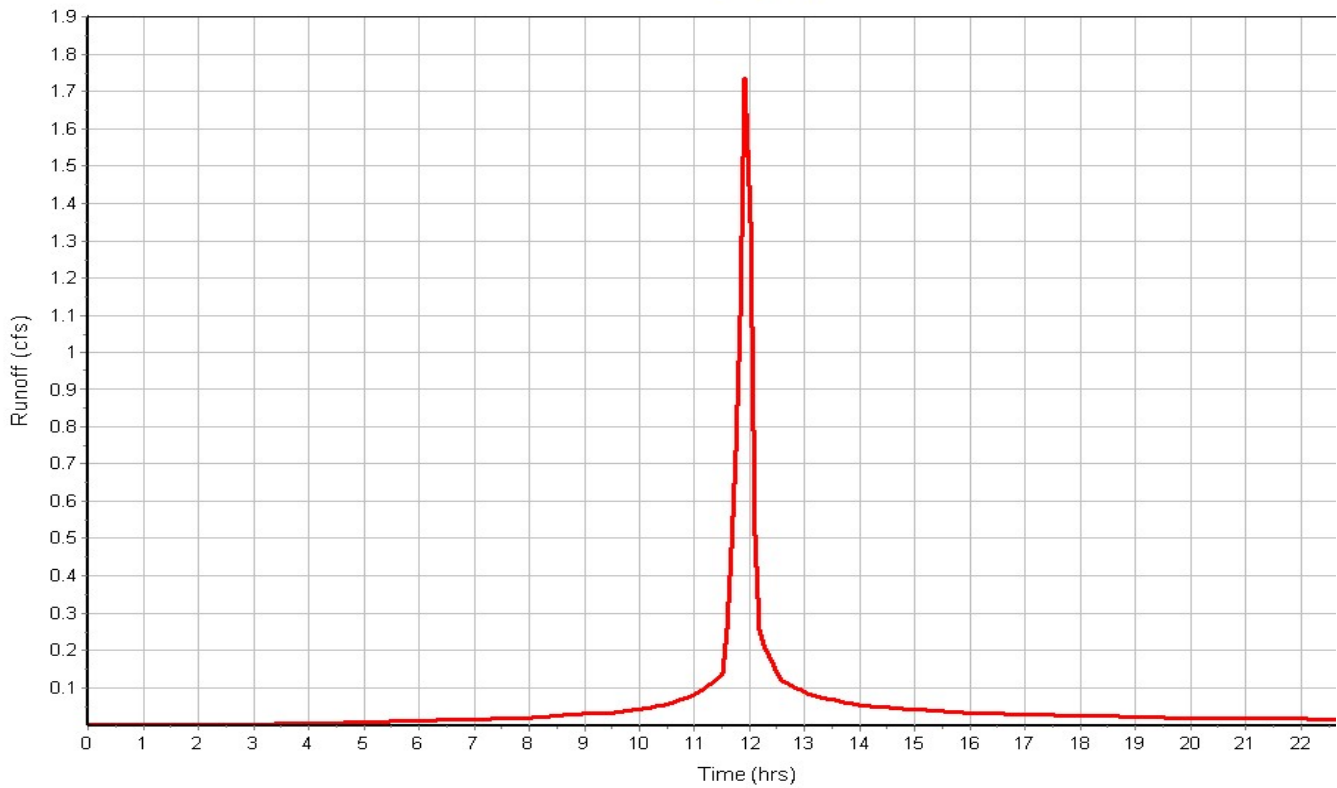
Total Rainfall (in) 3.24
Total Runoff (in) 2.75
Peak Runoff (cfs) 1.73
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea 02 - to wb 02

Rainfall Intensity Graph



Runoff Hydrograph



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Subbasin : Subarea 02 -to wb1

Input Data

Area (ac) 0.52
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

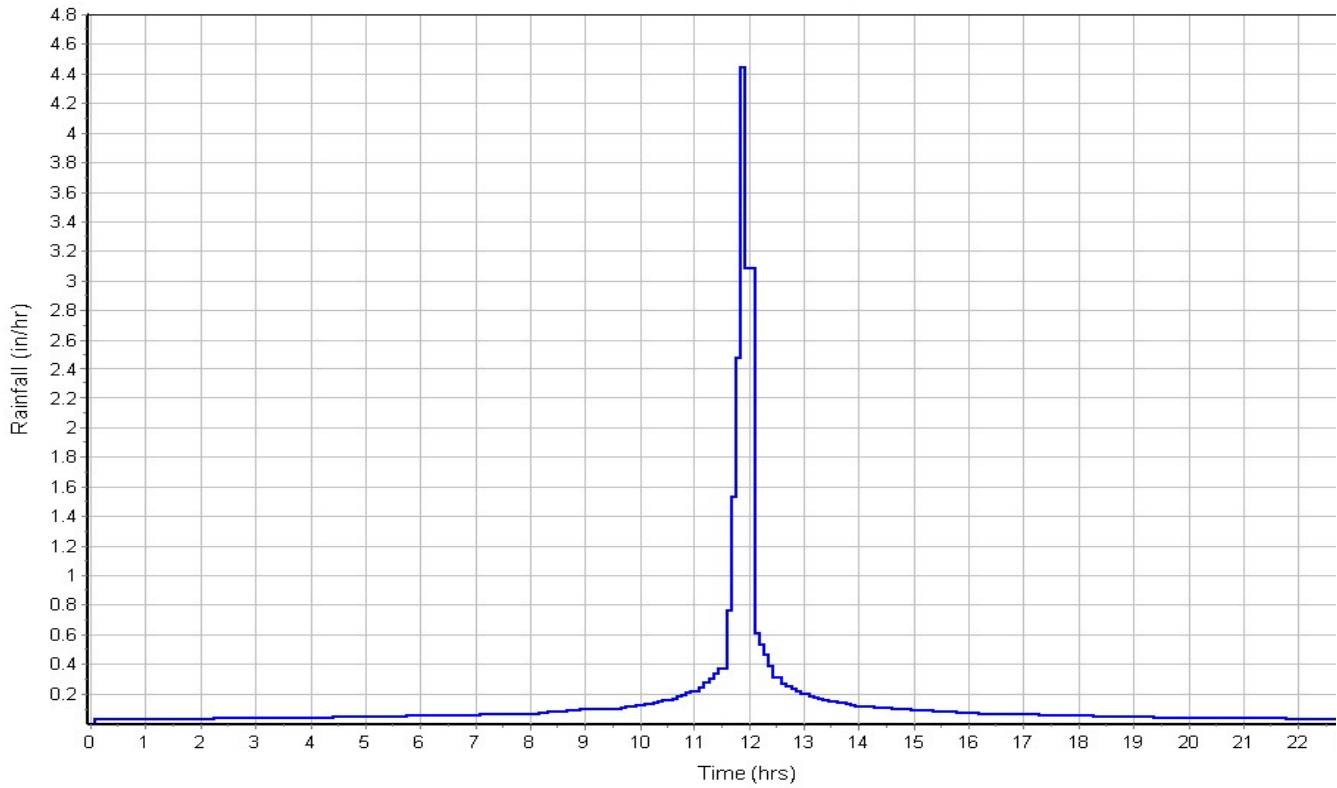
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.05	-	74.00
-	0.47	-	98.00
Composite Area & Weighted CN	0.52		95.60

Subbasin Runoff Results

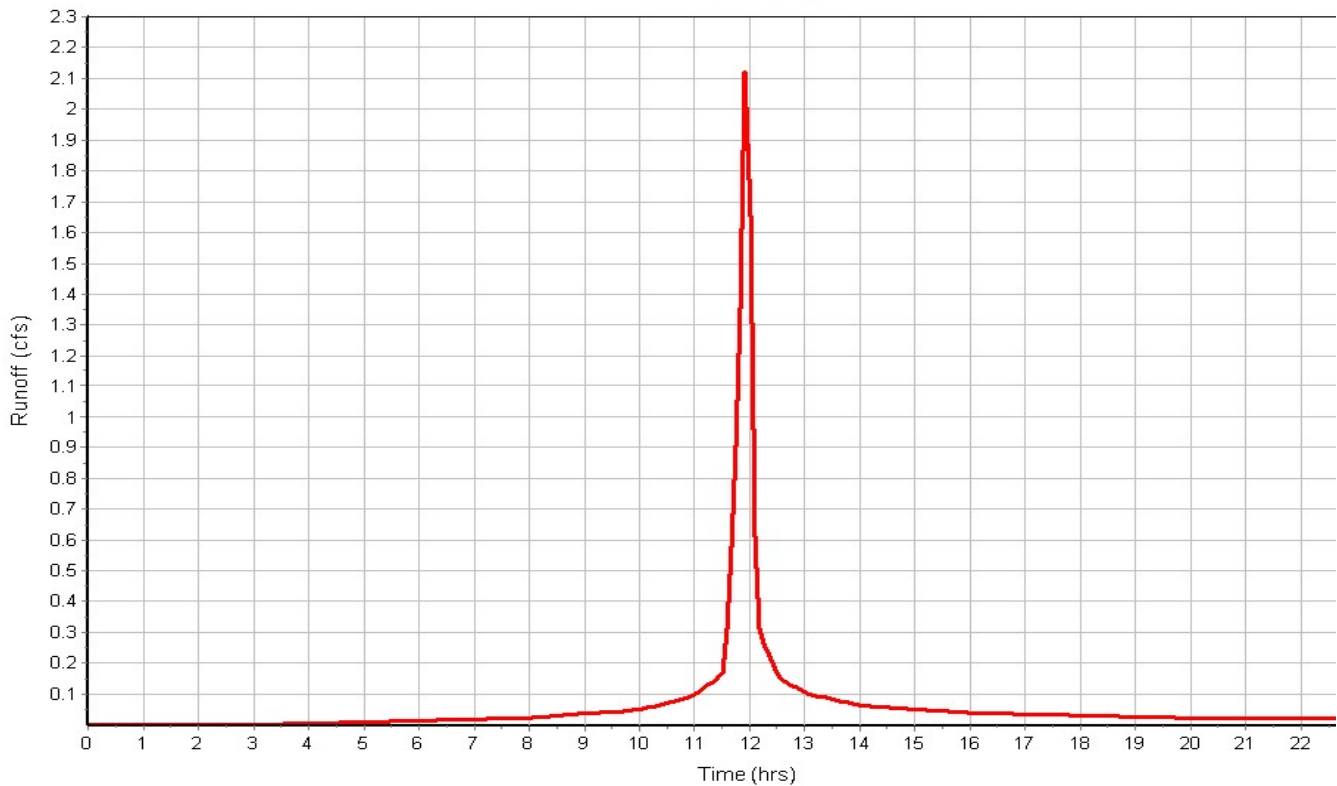
Total Rainfall (in) 3.24
Total Runoff (in) 2.75
Peak Runoff (cfs) 2.12
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea 02 -to wb1

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea 03

Input Data

Area (ac) 10.24
Weighted Curve Number 89.68
Rain Gage ID DublinRain

Composite Curve Number

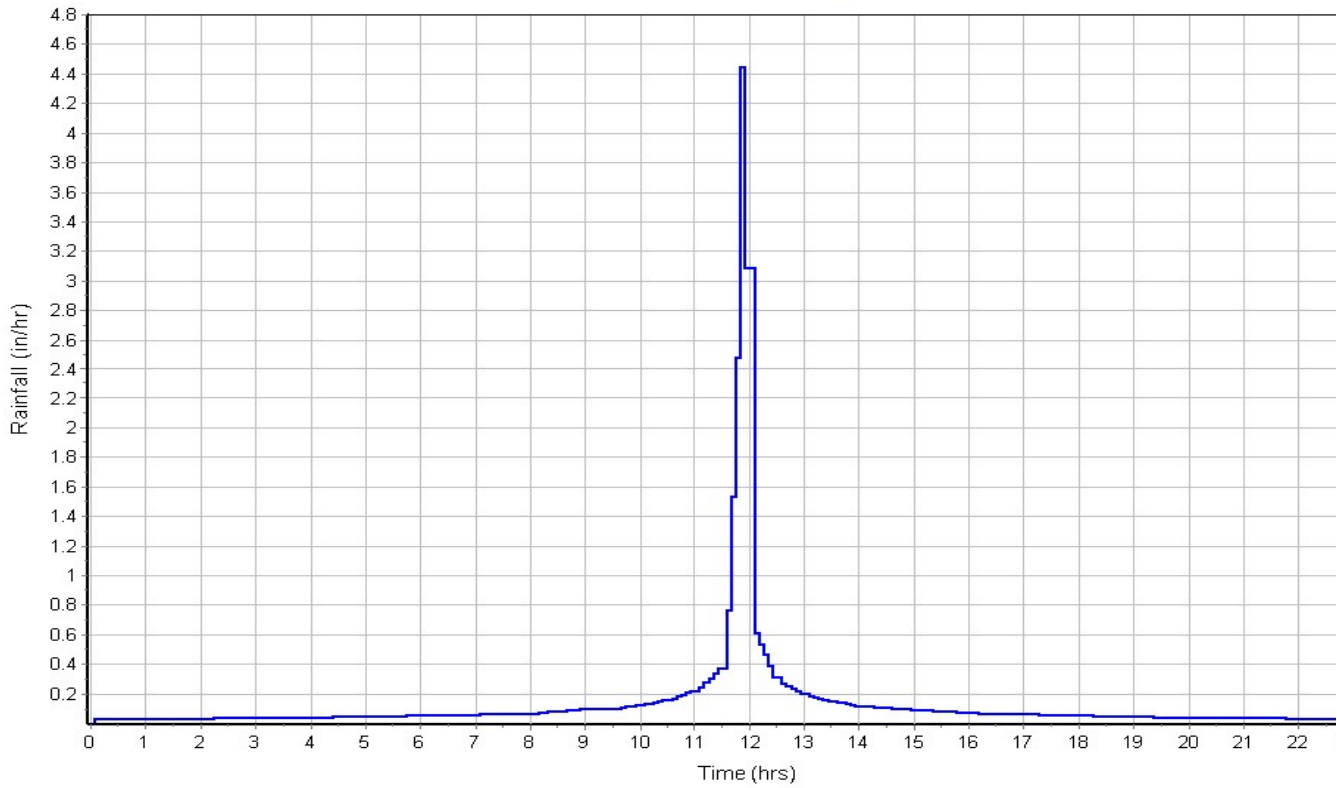
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	6.69	-	98.00
-	3.55	-	74.00
Composite Area & Weighted CN	10.24		89.68

Subbasin Runoff Results

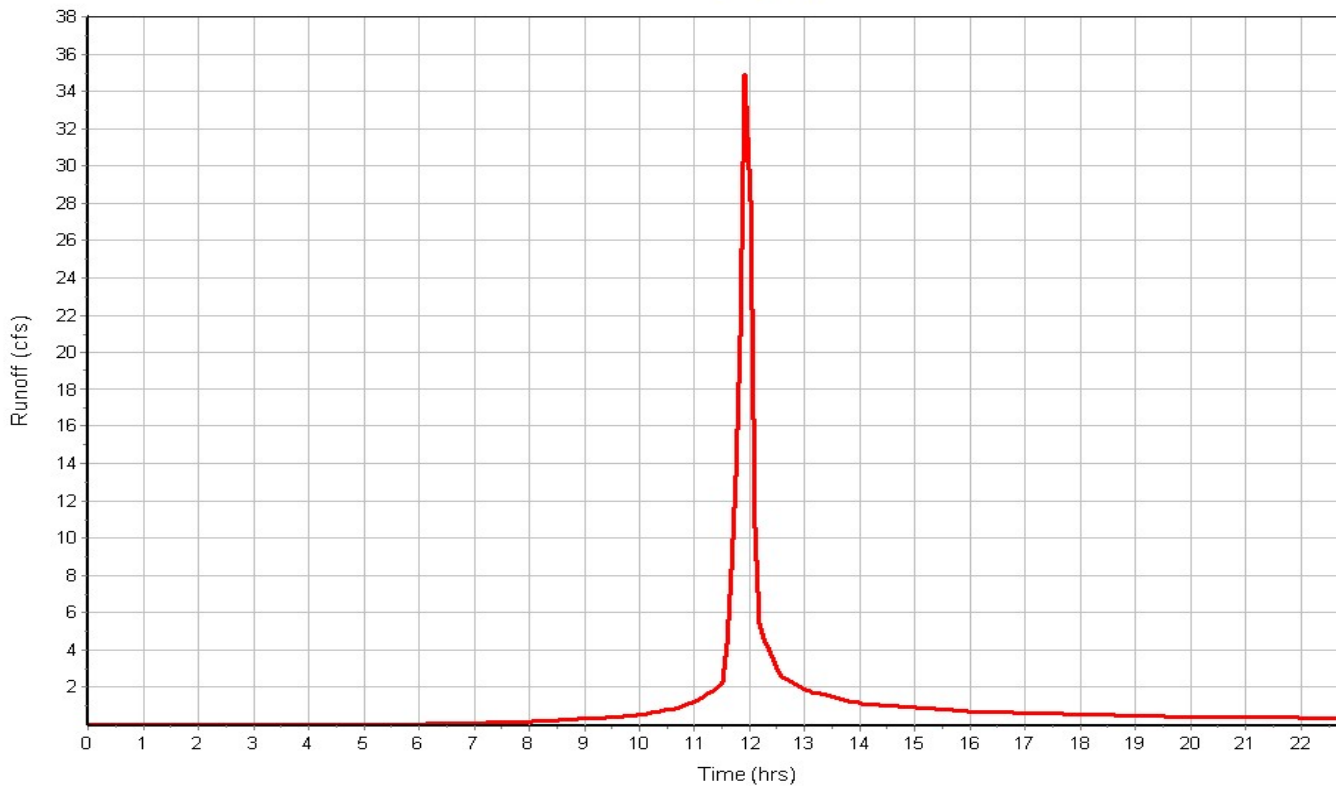
Total Rainfall (in) 3.24
Total Runoff (in) 2.18
Peak Runoff (cfs) 34.93
Weighted Curve Number 89.68
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea 03

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea01

Input Data

Area (ac) 14.97
Weighted Curve Number 90.80
Rain Gage ID DublinRain

Composite Curve Number

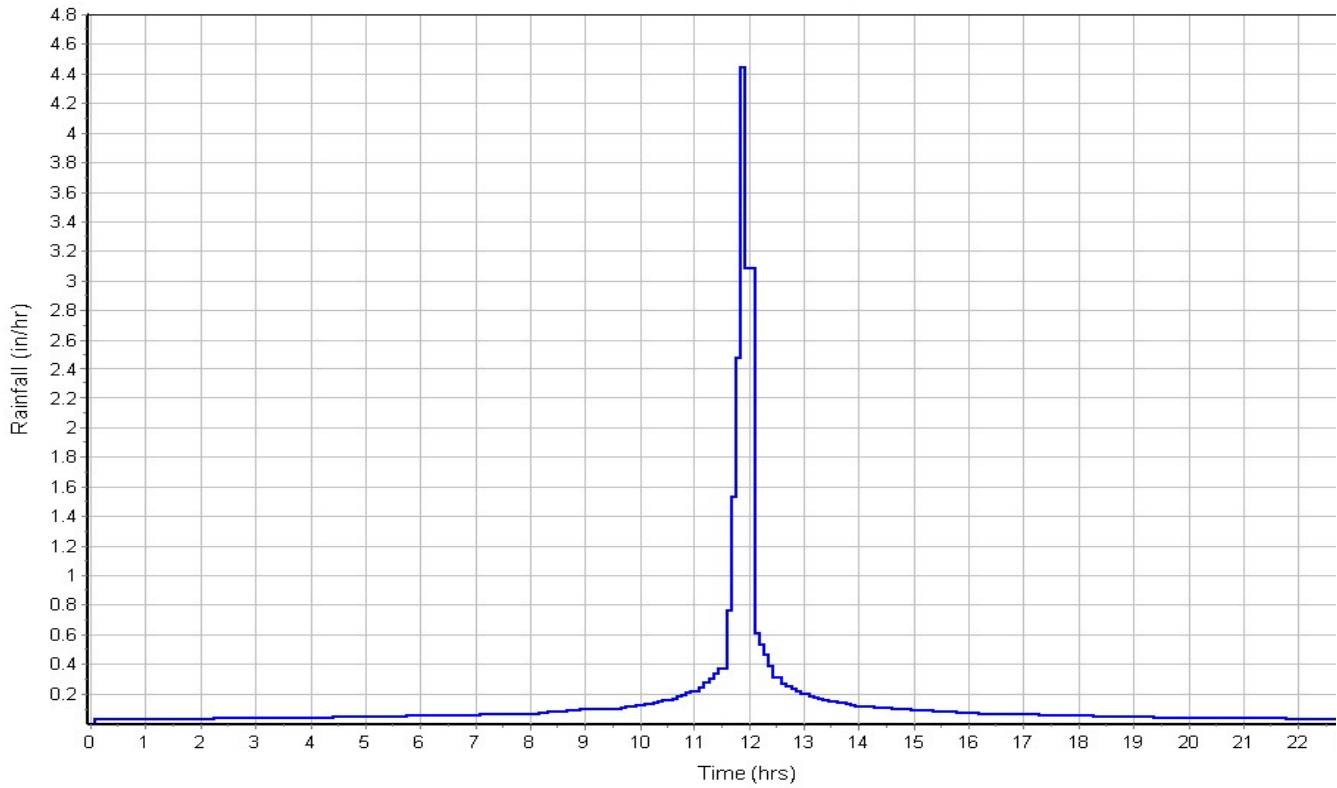
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	10.48	-	98.00
-	4.49	-	74.00
Composite Area & Weighted CN	14.97		90.80

Subbasin Runoff Results

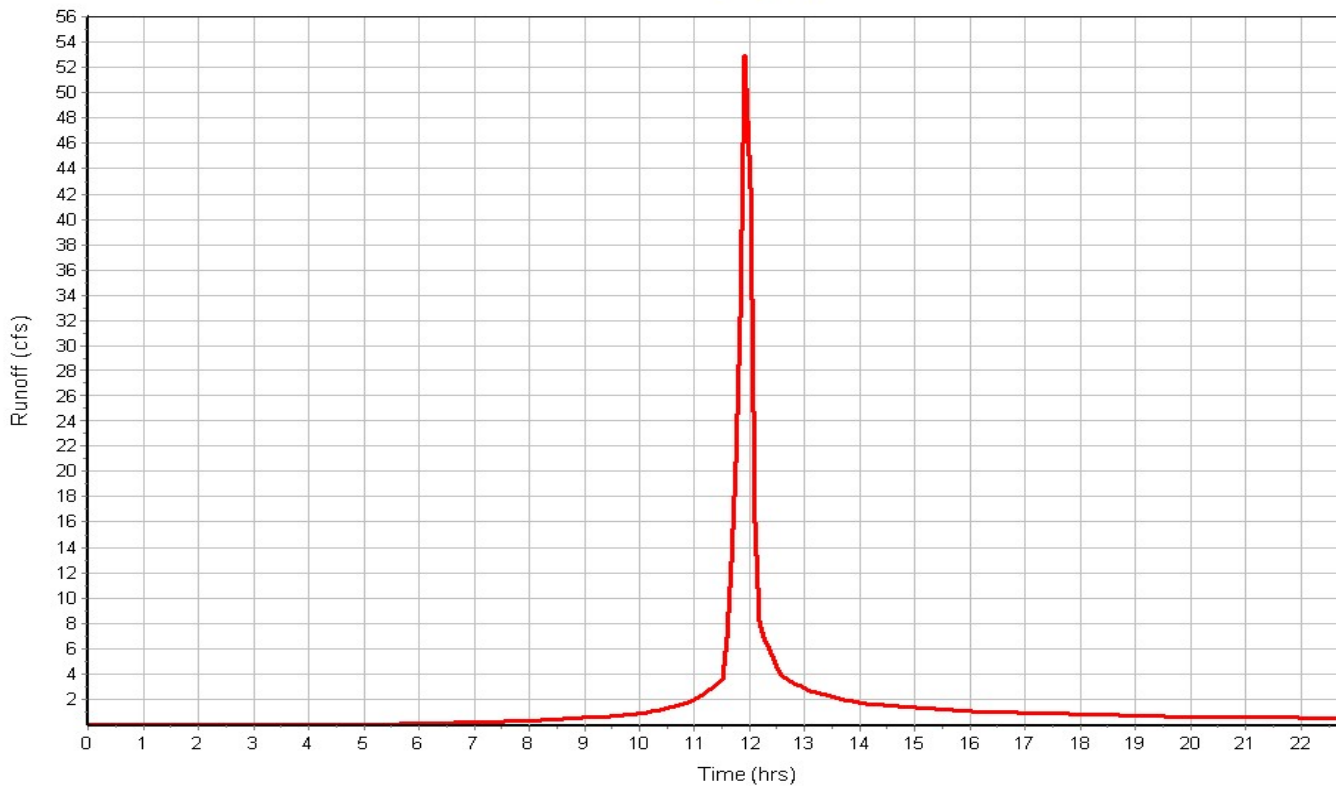
Total Rainfall (in) 3.24
Total Runoff (in) 2.28
Peak Runoff (cfs) 52.98
Weighted Curve Number 90.80
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea01

Rainfall Intensity Graph



Runoff Hydrograph



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Subbasin : ToBiobasin01

Input Data

Area (ac) 1.39
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

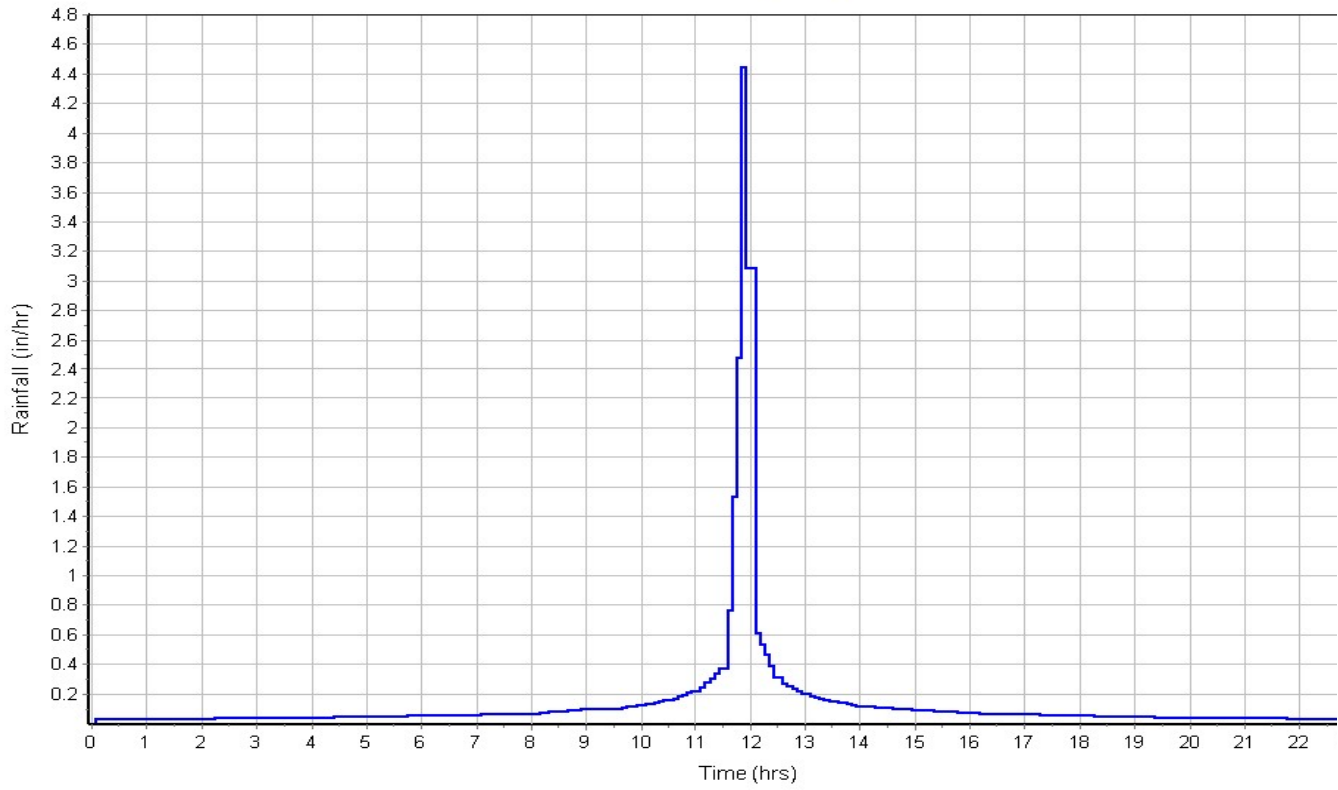
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	1.25	-	98.00
-	0.14	-	74.00
Composite Area & Weighted CN	1.39		95.60

Subbasin Runoff Results

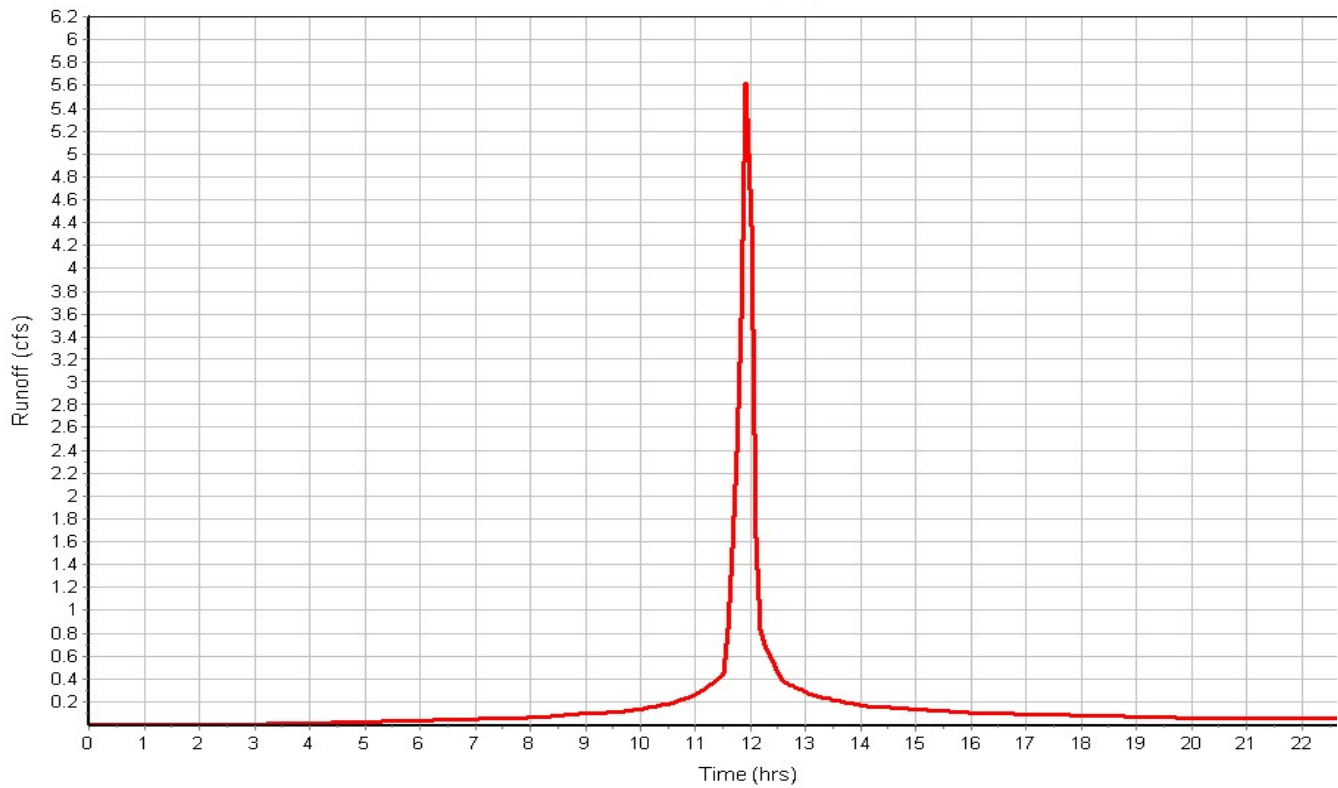
Total Rainfall (in) 3.24
Total Runoff (in) 2.75
Peak Runoff (cfs) 5.62
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin01

Rainfall Intensity Graph



Runoff Hydrograph





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Subbasin : ToBiobasin02

Input Data

Area (ac) 0.52
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

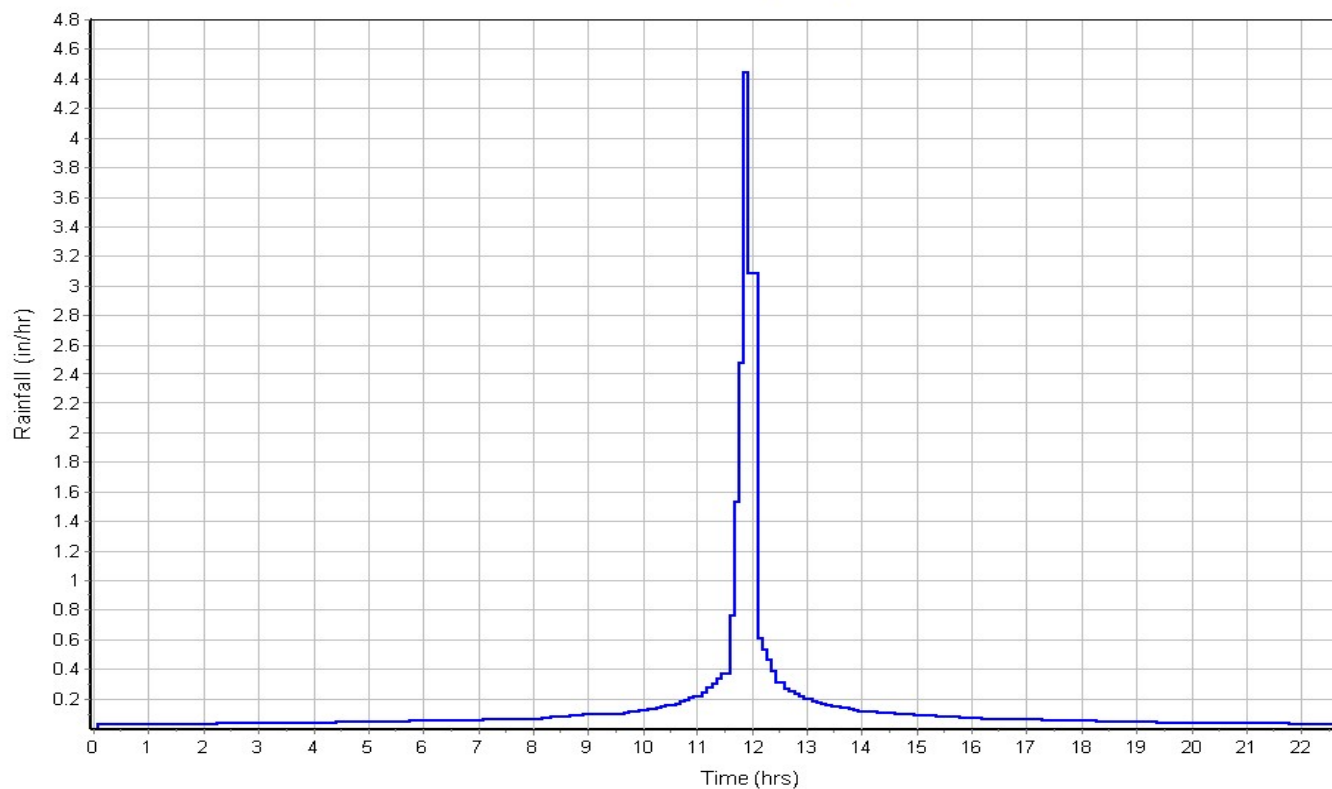
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.47	-	98.00
-	0.05	-	74.00
Composite Area & Weighted CN	0.52		95.60

Subbasin Runoff Results

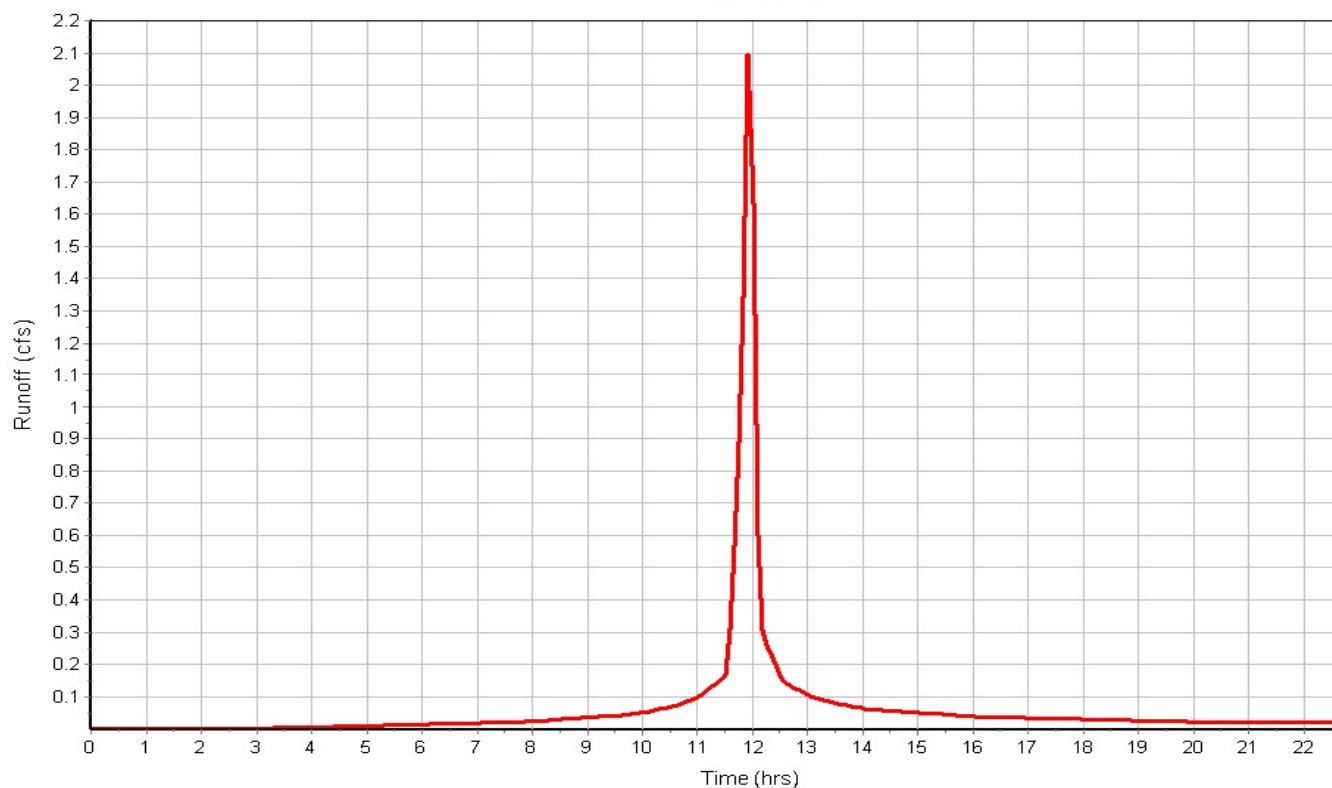
Total Rainfall (in) 3.24
Total Runoff (in) 2.75
Peak Runoff (cfs) 2.10
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin03

Input Data

Area (ac) 1.35
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

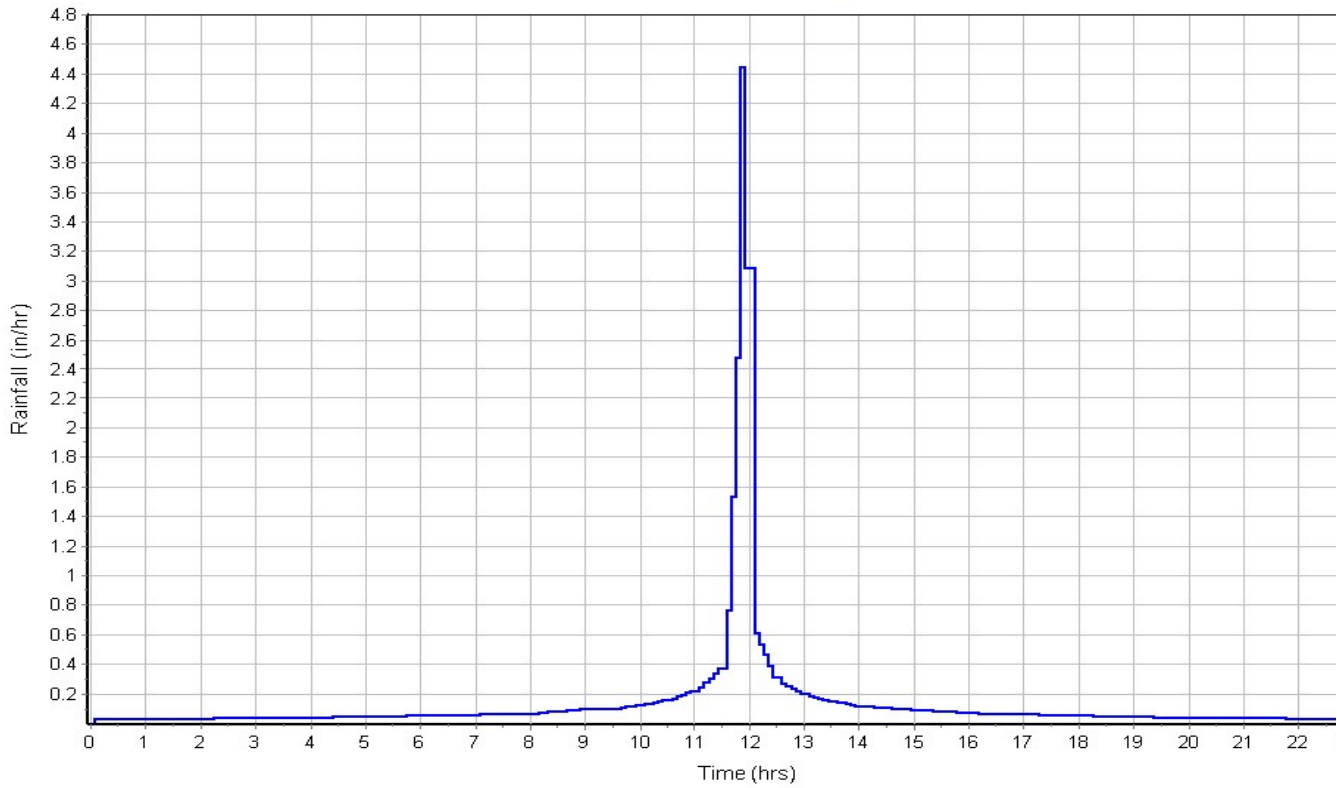
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	1.22	-	98.00
-	0.14	-	74.00
Composite Area & Weighted CN	1.36		95.60

Subbasin Runoff Results

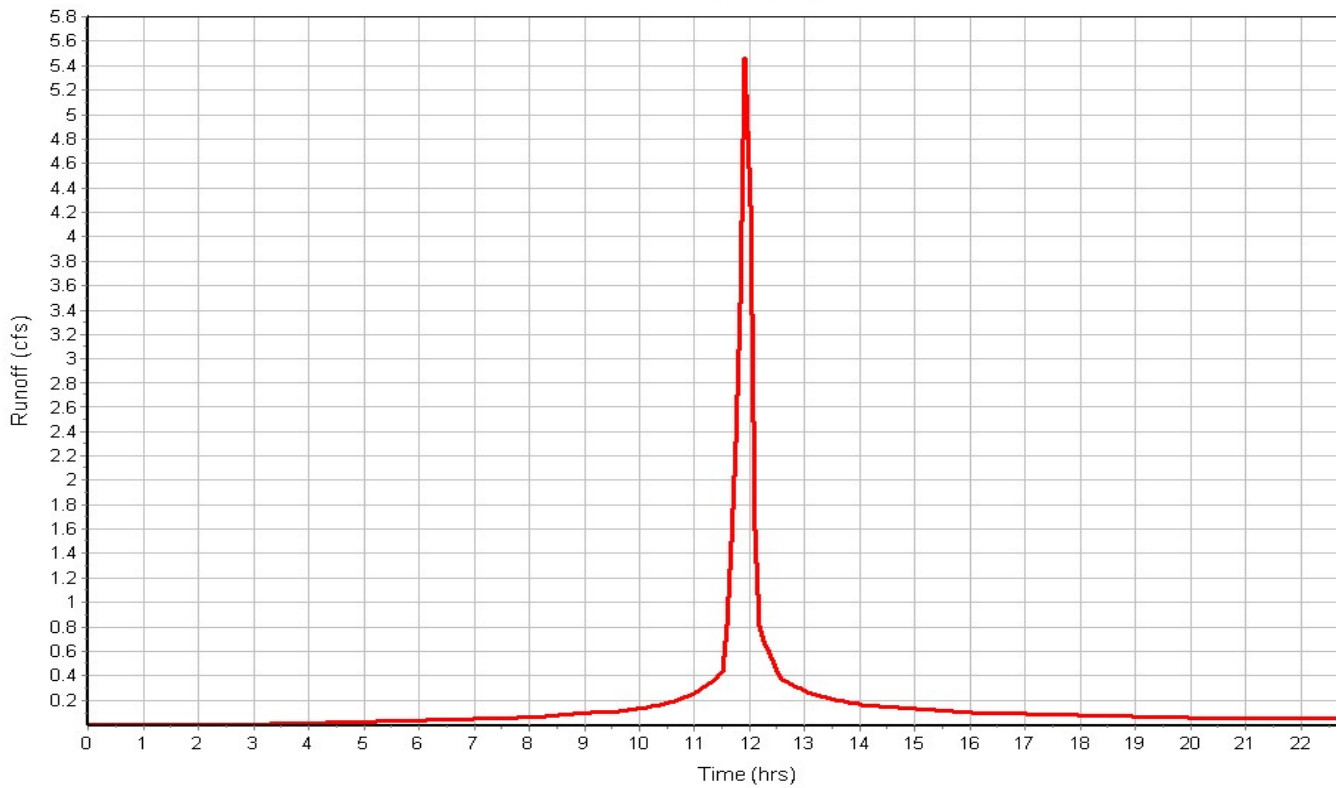
Total Rainfall (in) 3.24
Total Runoff (in) 2.75
Peak Runoff (cfs) 5.46
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin03

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin04

Input Data

Area (ac) 0.81
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

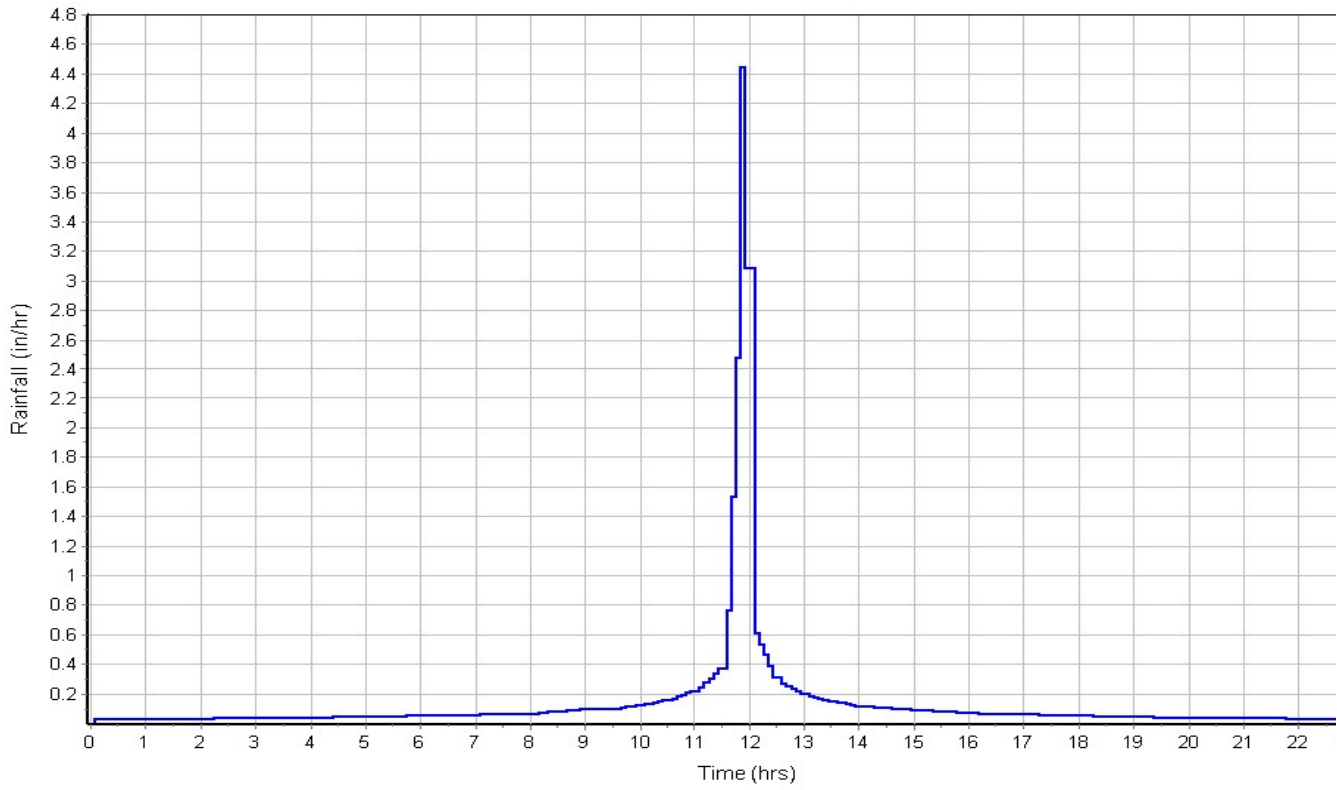
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.73	-	98.00
-	0.08	-	74.00
Composite Area & Weighted CN	0.81		95.60

Subbasin Runoff Results

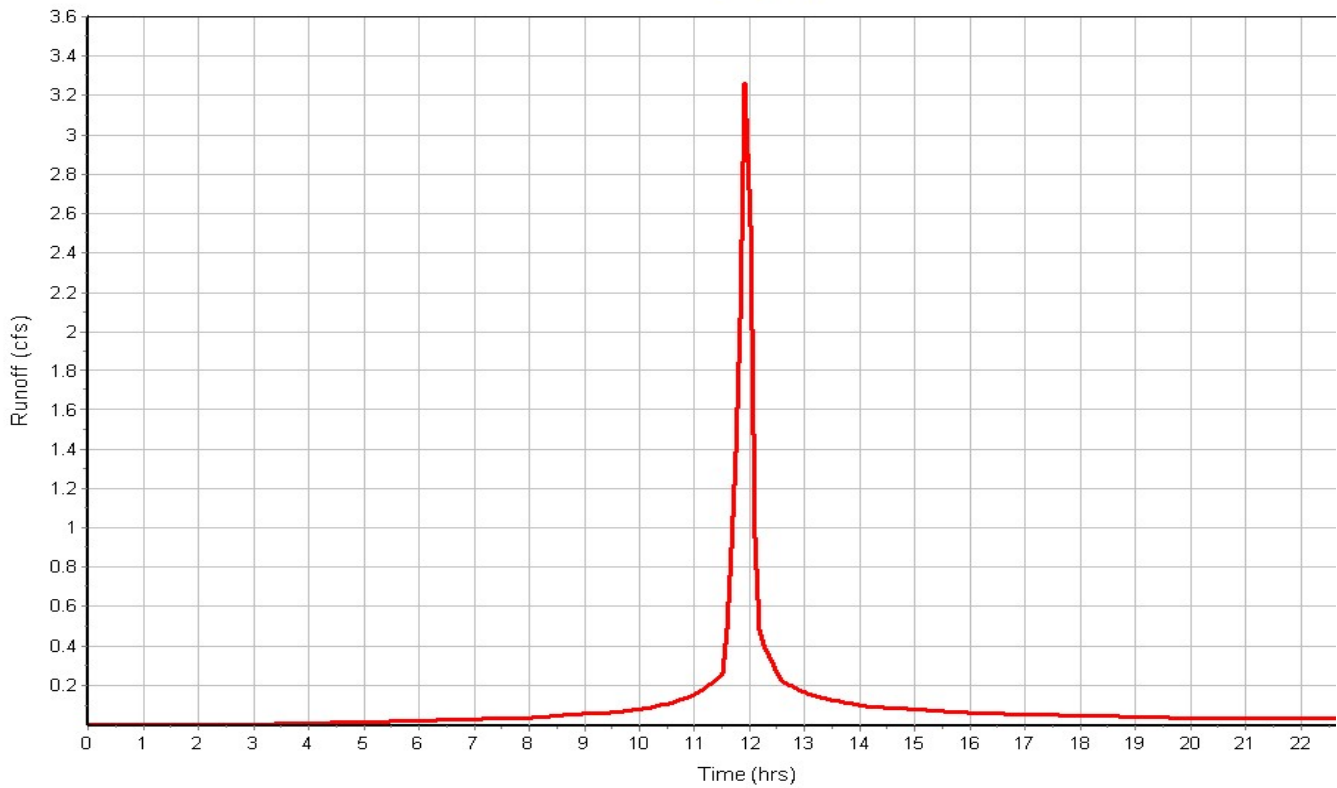
Total Rainfall (in) 3.24
Total Runoff (in) 2.75
Peak Runoff (cfs) 3.26
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin04

Rainfall Intensity Graph



Runoff Hydrograph





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Subbasin : ToBiobasin05

Input Data

Area (ac) 1.44
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

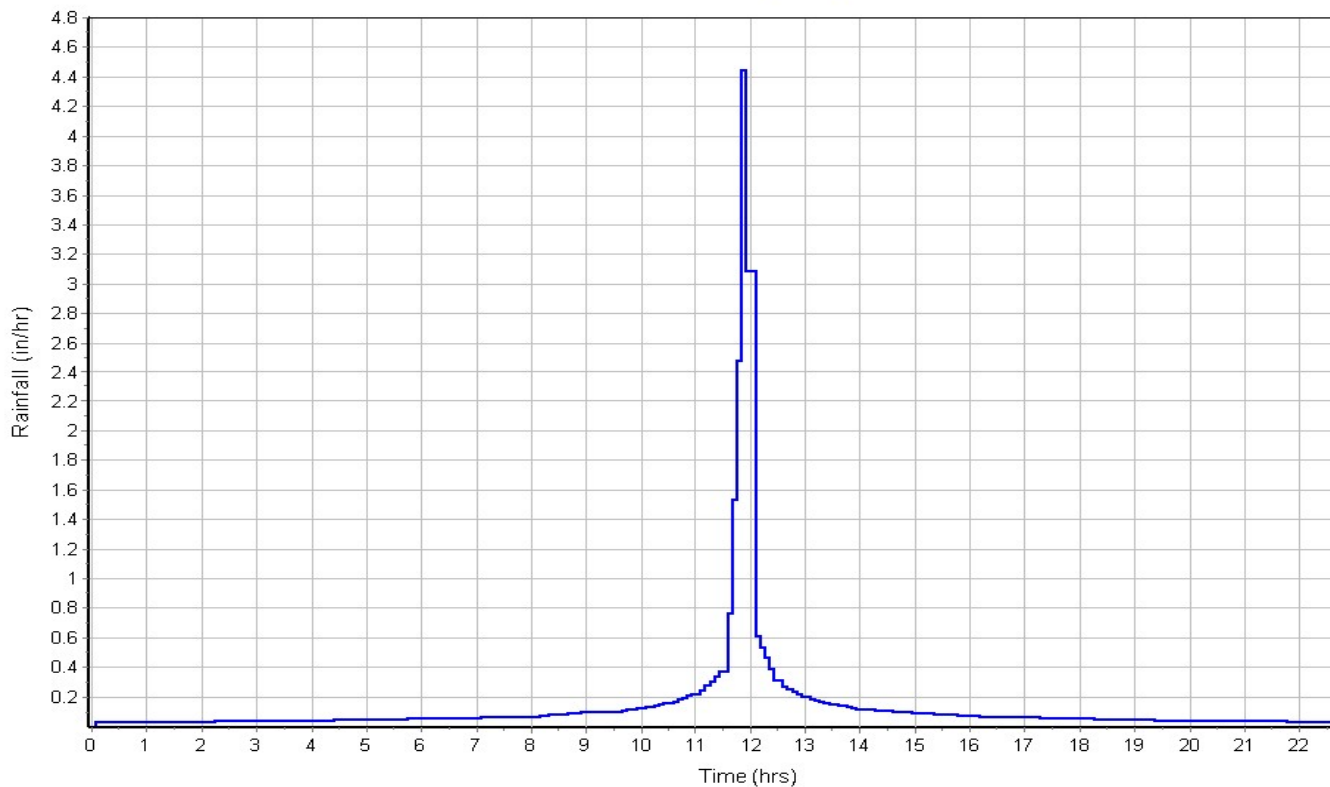
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	1.29	-	98.00
-	0.14	-	74.00
Composite Area & Weighted CN	1.43		95.60

Subbasin Runoff Results

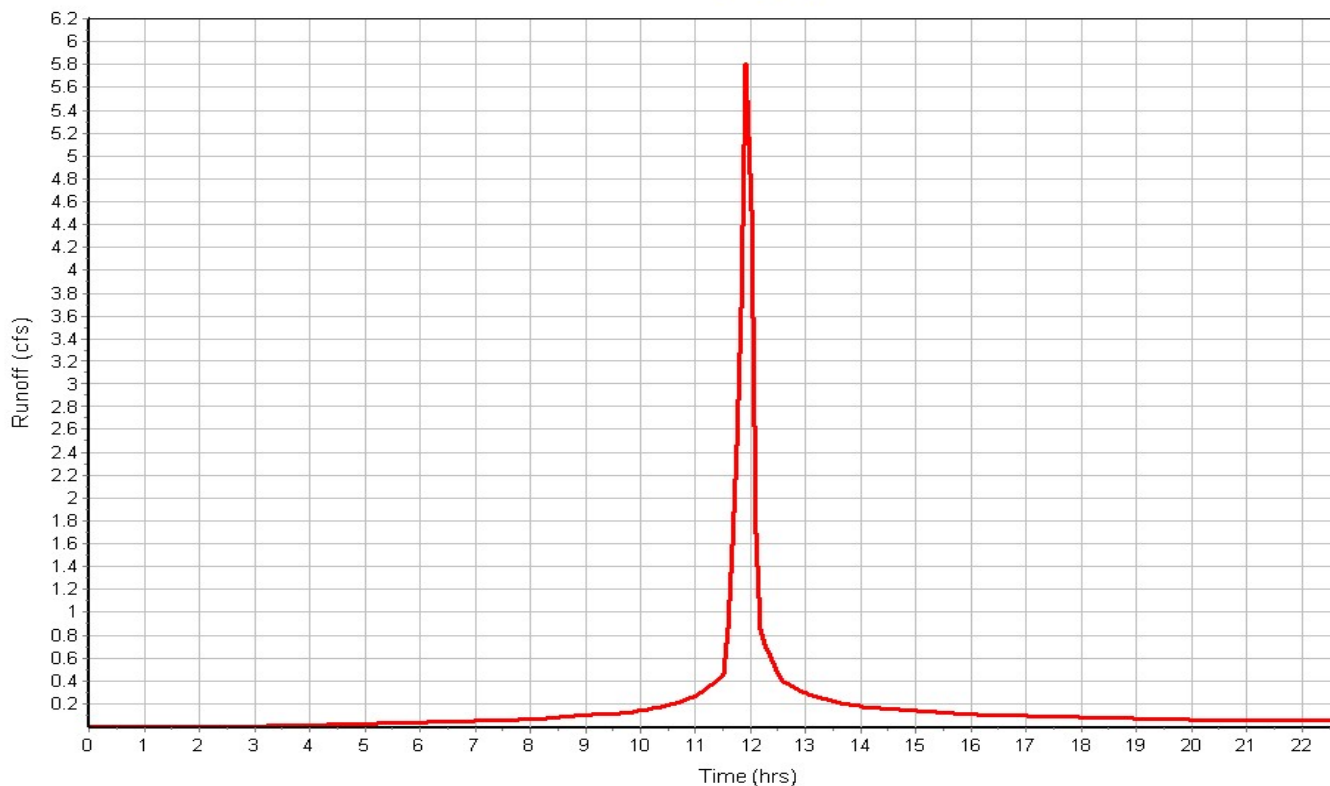
Total Rainfall (in) 3.24
Total Runoff (in) 2.75
Peak Runoff (cfs) 5.80
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin05

Rainfall Intensity Graph



Runoff Hydrograph







Subbasin : ToPP01-02

Input Data

Area (ac) 0.91
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

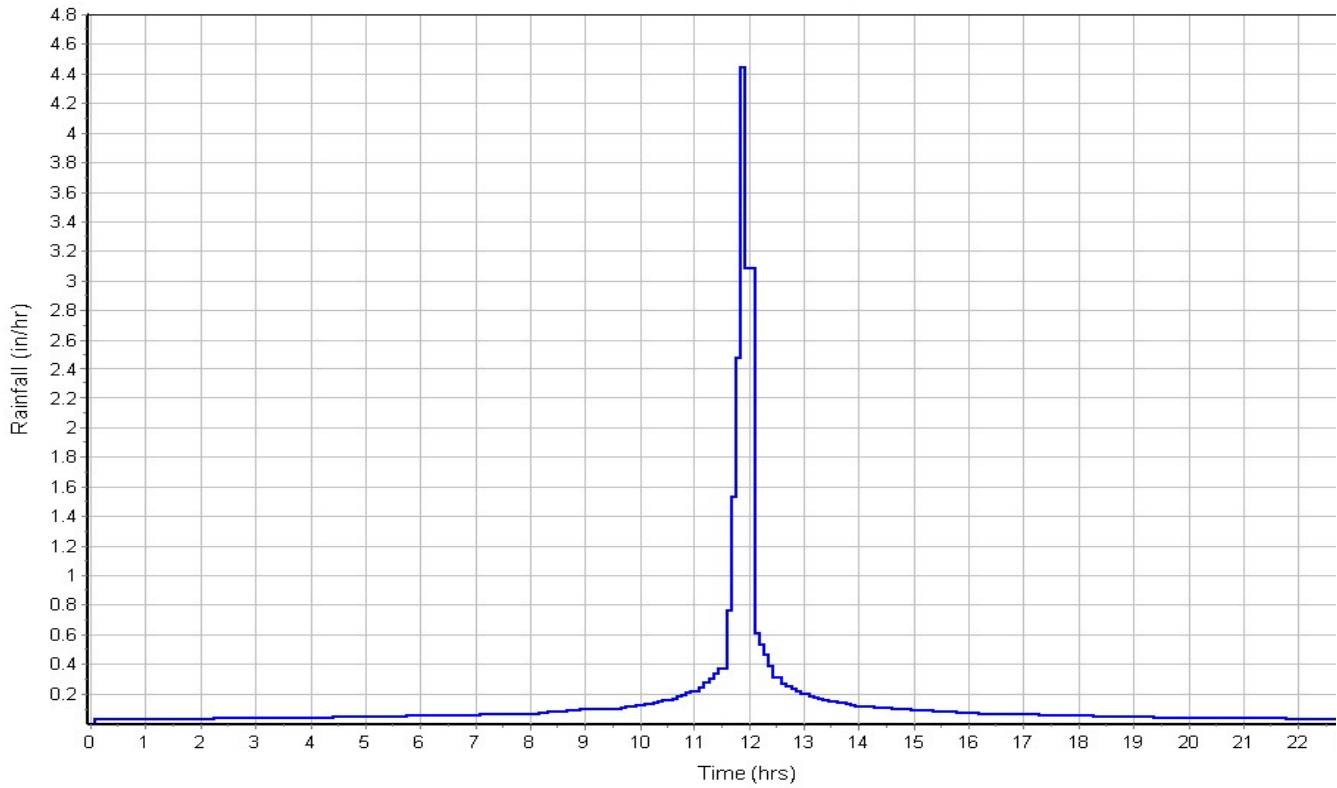
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.82	-	98.00
-	0.09	-	74.00
Composite Area & Weighted CN	0.91		95.60

Subbasin Runoff Results

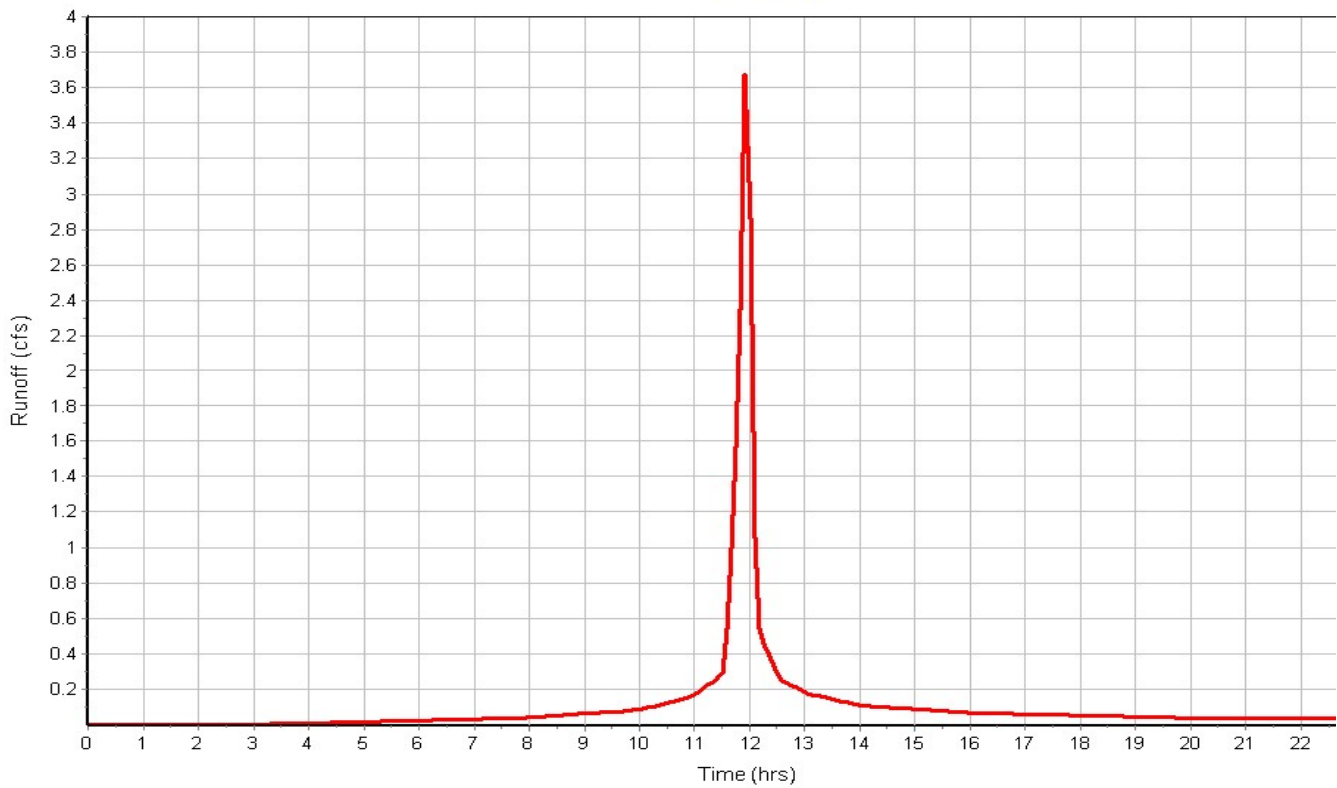
Total Rainfall (in) 3.24
Total Runoff (in) 2.75
Peak Runoff (cfs) 3.68
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToPP01-02

Rainfall Intensity Graph



Runoff Hydrograph





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Subbasin : ToPP03-04

Input Data

Area (ac) 0.93
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

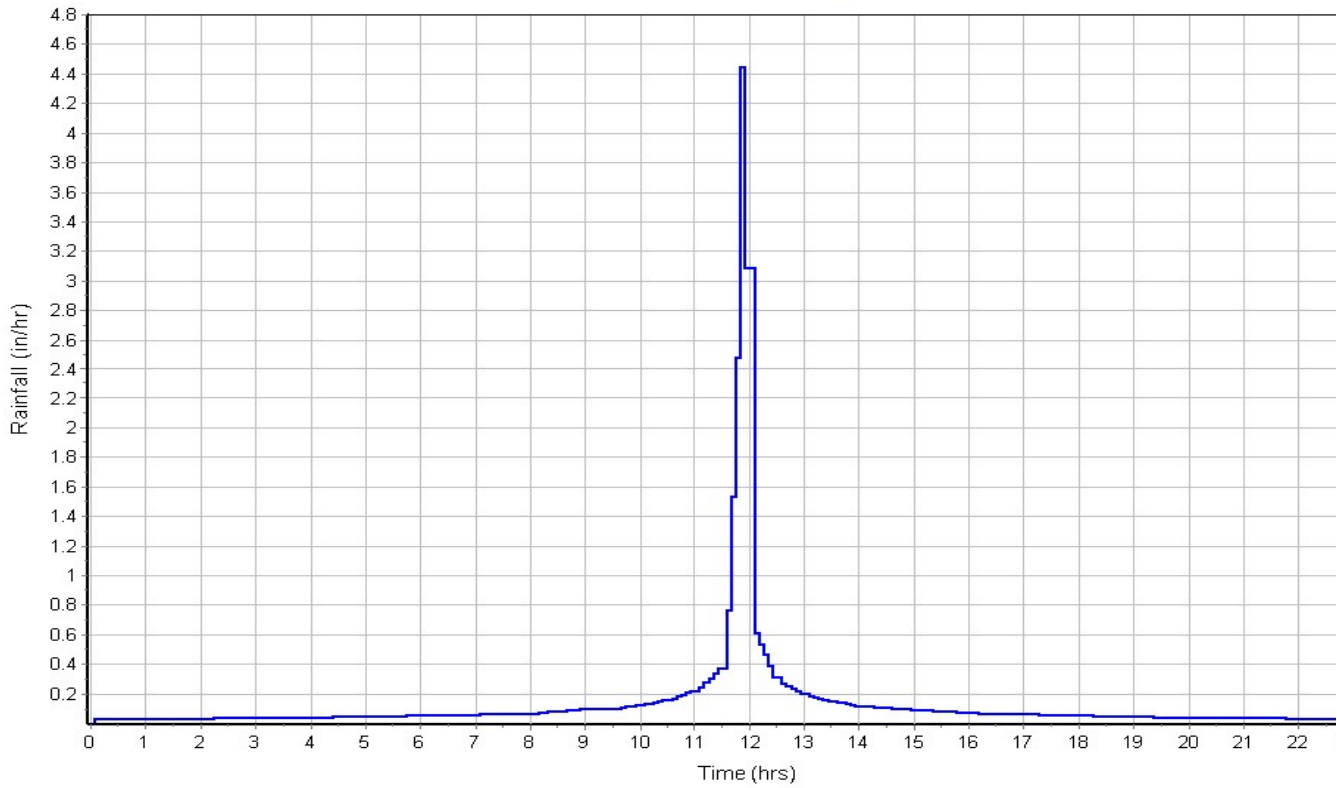
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.83	-	98.00
-	0.09	-	74.00
Composite Area & Weighted CN	0.92		95.60

Subbasin Runoff Results

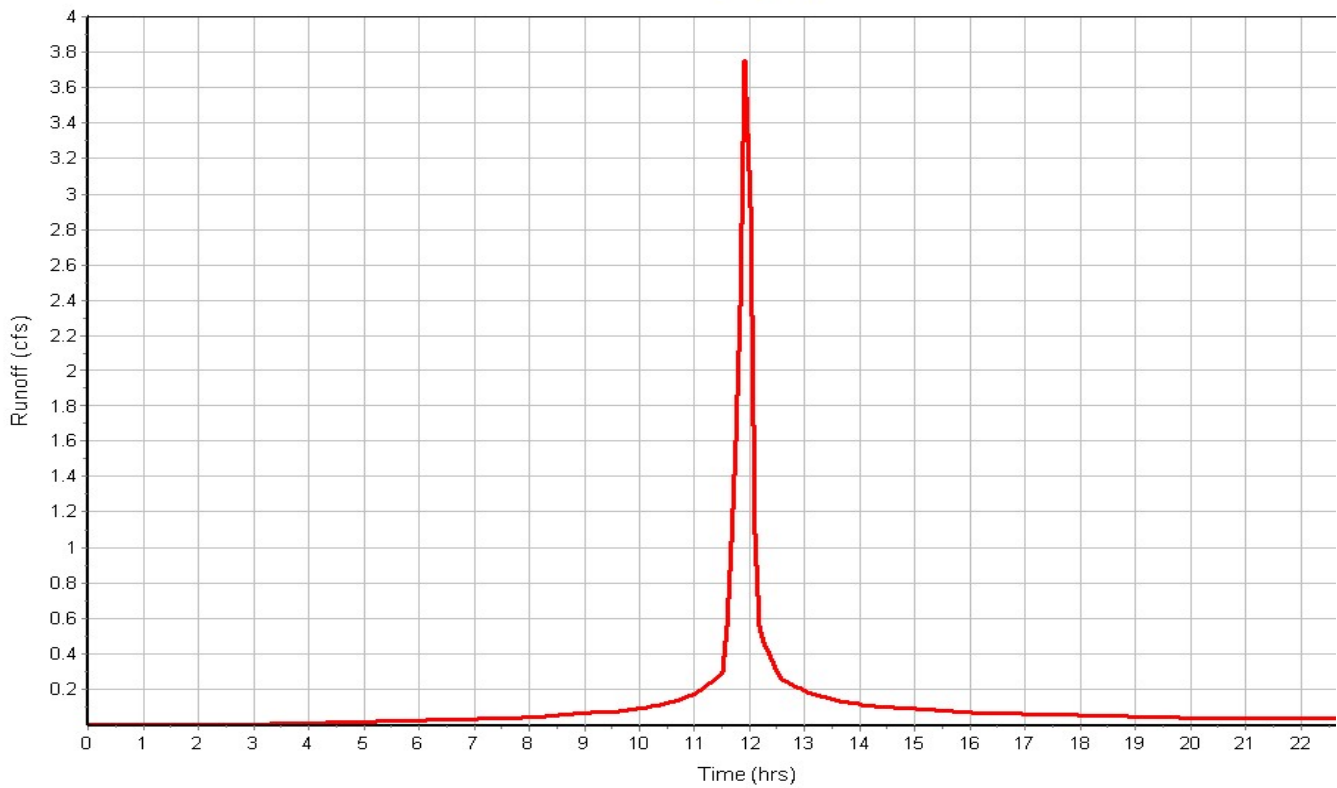
Total Rainfall (in) 3.24
Total Runoff (in) 2.75
Peak Runoff (cfs) 3.75
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToPP03-04

Rainfall Intensity Graph



Runoff Hydrograph





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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 (ft ²)	Minimum Pipe Cover (in)
1	Biobasin02dummysnode	862.67	867.17	4.50	862.67	0.00	867.17	0.00	0.00	0.00
2	CatchBasin03	862.00	866.50	4.50	862.00	0.00	866.50	0.00	2879.24	0.00
3	CatchBasin04	862.44	866.94	4.50	862.44	0.00	866.94	0.00	4642.88	0.00
4	CatchBasin05	862.67	867.17	4.50	862.67	0.00	867.17	0.00	1566.12	0.00
5	CatchBasin12	862.60	867.10	4.50	862.60	0.00	867.10	0.00	6347.63	0.00
6	CatchBasin8	862.64	867.14	4.50	862.64	0.00	867.14	0.00	6037.65	0.00
7	Dummy1	861.69	867.00	5.31	861.69	0.00	867.00	0.00	0.00	0.00
8	Ex0	860.13	865.00	4.87	860.13	0.00	865.00	0.00	0.00	0.00
9	ExA	860.81	865.00	4.19	860.81	0.00	865.00	0.00	0.00	0.00
10	Existing 36-inch outlet pipe	870.00	875.50	5.50	870.00	0.00	875.50	0.00	0.00	0.00
11	Manhole 7	862.47	868.00	5.53	862.47	0.00	868.00	0.00	0.00	0.00
12	Manhole1	861.75	868.00	6.25	861.75	0.00	868.00	0.00	0.00	0.00
13	Manhole10	862.23	868.00	5.77	862.23	0.00	868.00	0.00	0.00	0.00
14	Manhole11	862.42	868.00	5.58	862.42	0.00	868.00	0.00	0.00	0.00
15	Manhole13	863.79	868.00	4.21	863.79	0.00	868.00	0.00	0.00	0.00
16	Manhole2	861.80	868.00	6.20	861.80	0.00	868.00	0.00	0.00	0.00
17	Manhole6	862.28	868.00	5.72	862.28	0.00	868.00	0.00	0.00	0.00
18	Manhole9	863.79	868.00	4.21	863.79	0.00	868.00	0.00	0.00	0.00
19	Offsite 02 outlet	877.50	881.50	4.00	877.50	0.00	881.50	0.00	0.00	0.00
20	OutToDitch	861.58	863.00	1.42	861.58	0.00	863.00	0.00	0.00	0.00
21	Stucture1	861.69	868.00	6.31	861.69	0.00	868.00	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 (ac-in)
	(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(days hh:mm)	(days hh:mm)	
1 Biobasin02dummynode	1.86	0.00	865.20	2.53	0.00	1.97	862.99	0.32	0 12:07	0 00:00	0.00
2 CatchBasin03	5.79	0.00	864.61	2.61	0.00	1.89	862.64	0.64	0 12:08	0 00:00	0.00
3 CatchBasin04	5.23	0.00	865.05	2.61	0.00	1.89	862.86	0.42	0 12:08	0 00:00	0.00
4 CatchBasin05	1.83	0.00	865.07	2.40	0.00	2.10	862.98	0.31	0 12:08	0 00:00	0.00
5 CatchBasin12	3.00	0.00	864.39	1.79	0.00	2.71	862.96	0.36	0 12:09	0 00:00	0.00
6 CatchBasin8	2.92	0.00	864.38	1.74	0.00	2.76	862.99	0.35	0 12:09	0 00:00	0.00
7 Dummy1	15.26	0.00	864.07	2.38	0.00	2.93	862.58	0.89	0 13:25	0 00:00	0.00
8 Ex0	16.41	0.00	861.24	1.11	0.00	3.76	860.58	0.45	0 13:26	0 00:00	0.00
9 ExA	21.78	0.00	863.70	2.89	0.00	3.11	861.65	0.84	0 13:26	0 00:00	0.00
10 Existing 36-inch outlet pipe	13.65	3.67	870.98	0.98	0.00	5.42	870.34	0.34	0 12:06	0 00:00	0.00
11 Manhole 7	2.89	0.00	864.30	1.83	0.00	3.70	862.86	0.39	0 12:09	0 00:00	0.00
12 Manhole1	11.47	0.00	864.03	2.28	0.00	3.97	862.54	0.79	0 12:10	0 00:00	0.00
13 Manhole10	3.03	0.00	864.21	1.98	0.00	3.79	862.73	0.50	0 12:09	0 00:00	0.00
14 Manhole11	2.97	0.00	864.30	1.88	0.00	3.70	862.83	0.41	0 12:09	0 00:00	0.00
15 Manhole13	0.12	0.00	864.21	0.42	0.00	3.79	863.88	0.09	0 12:09	0 00:00	0.00
16 Manhole2	5.70	0.00	864.22	2.42	0.00	3.78	862.56	0.76	0 12:09	0 00:00	0.00
17 Manhole6	2.96	0.00	864.21	1.93	0.00	3.79	862.75	0.47	0 12:09	0 00:00	0.00
18 Manhole9	0.13	0.00	864.21	0.42	0.00	3.79	863.87	0.08	0 12:09	0 00:00	0.00
19 Offsite 02 outlet	1.82	0.00	877.93	0.43	0.00	4.27	877.67	0.17	0 13:30	0 00:00	0.00
20 OutToDitch	24.66	0.00	863.73	2.15	0.00	3.85	862.23	0.65	0 13:26	0 00:00	0.00
21 Stucture1	24.83	0.00	863.97	2.28	0.00	4.03	862.52	0.83	0 12:12	0 00:00	0.00

Channel Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Shape	Height (ft)	Width (ft)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate
1	Ditch	375.41	861.58	0.00	860.81	0.00	0.77	0.2100	Trapezoidal	6.000	40.000	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	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
	(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)		
1 Ditch	21.78	0 12:08	596.14	0.04	1.75	3.58	2.52	0.42	0.00		

Pipe Input

SN Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Invert Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses
1 1->basins	62.54	861.75	0.00	861.69	0.00	0.06	0.1000	CIRCULAR	36.000	36.000	0.0130	0.5000
2 10->11	190.96	862.23	0.00	861.75	0.00	0.48	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000
3 11->10	75.00	862.42	0.00	862.23	0.00	0.19	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000
4 12->11	72.47	862.60	0.00	862.42	0.00	0.18	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000
5 13->10	16.00	863.79	0.00	863.72	1.49	0.07	0.4400	CIRCULAR	12.000	12.000	0.0130	0.5000
6 2->1	20.00	861.80	0.00	861.75	0.00	0.05	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000
7 3->2	81.60	862.00	0.00	861.80	0.00	0.20	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000
8 4->3	175.98	862.44	0.00	862.00	0.00	0.44	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000
9 5->4	92.80	862.67	0.00	862.44	0.00	0.23	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000
10 6->1	210.04	862.28	0.00	861.75	0.00	0.53	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000
11 7->6	75.00	862.47	0.00	862.28	0.00	0.19	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000
12 8->7	69.56	862.64	0.00	862.47	0.00	0.17	0.2400	CIRCULAR	18.000	18.000	0.0130	0.5000
13 9->8	16.00	863.79	0.00	863.73	1.45	0.06	0.3700	CIRCULAR	15.000	15.000	0.0130	0.5000
14 Basin connector	85.00	859.00	0.00	858.90	-0.10	0.10	0.1200	CIRCULAR	24.000	24.000	0.0130	0.5000
15 Basins->outlet	109.09	861.69	0.00	861.58	0.00	0.11	0.1000	CIRCULAR	36.000	36.000	0.0130	0.5000
16 Dual 18 inch pipes	35.92	860.81	0.00	860.13	0.00	0.68	1.9000	CIRCULAR	18.000	18.000	0.0130	0.5000
17 Elliptical pipe under roadway	98.05	860.07	-0.06	859.65	0.00	0.42	0.4300	Horizontal Ellipse	36.000	54.000	0.0130	0.5000
18 Offsite 02->outfall	84.10	877.50	0.00	875.40	5.40	2.10	2.5000	CIRCULAR	12.000	12.000	0.0130	0.5000
19 offsite basin2 -> offsite basin 1	201.70	878.00	0.00	877.70	2.70	0.30	0.1500	CIRCULAR	24.000	24.000	0.0130	0.5000
20 Offsite->basin	1296.34	870.00	0.00	862.00	3.00	8.00	0.6200	CIRCULAR	42.000	42.000	0.0130	0.5000
21 OutletPipe	10.82	862.00	0.31	861.69	0.00	0.31	2.8700	CIRCULAR	36.000	36.000	0.0130	0.5000

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	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
	(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)		
1 1->basins	11.31	0 12:08	20.66	0.55	2.02	0.52	2.27	0.76	0.00		Calculated
2 10->11	2.93	0 12:08	5.27	0.56	1.66	1.92	1.50	1.00	167.00		SURCHARGED
3 11->10	2.97	0 12:07	5.29	0.56	1.68	0.74	1.50	1.00	133.00		SURCHARGED
4 12->11	2.97	0 12:07	5.24	0.57	1.68	0.72	1.50	1.00	10.00		SURCHARGED
5 13->10	0.07	0 12:06	2.36	0.03	1.33	0.20	0.44	0.45	0.00		Calculated
6 2->1	5.70	0 12:08	5.25	1.09	3.23	0.10	1.50	1.00	223.00		SURCHARGED
7 3->2	5.70	0 12:08	5.20	1.10	3.23	0.42	1.50	1.00	197.00		SURCHARGED
8 4->3	4.90	0 12:06	5.25	0.93	2.77	1.06	1.50	1.00	124.00		SURCHARGED
9 5->4	1.73	0 12:04	5.23	0.33	1.76	0.88	1.50	1.00	13.00		SURCHARGED
10 6->1	2.85	0 12:08	5.28	0.54	1.61	2.17	1.50	1.00	161.00		SURCHARGED
11 7->6	2.89	0 12:08	5.29	0.55	1.64	0.76	1.50	1.00	40.00		SURCHARGED
12 8->7	2.89	0 12:07	5.19	0.56	1.64	0.71	1.50	1.00	9.00		SURCHARGED
13 9->8	0.08	0 12:06	3.96	0.02	1.24	0.22	0.44	0.36	0.00		Calculated
14 Basin connector	10.81	0 12:05	0.78	13.93	3.44	0.41	2.00	1.00	1440.00		SURCHARGED
15 Basins->outlet	24.66	0 12:08	21.18	1.16	5.51	0.33	2.22	0.74	0.00		> CAPACITY
16 Dual 18 inch pipes	16.41	0 13:26	14.48	1.13	10.04	0.06	1.31	0.87	0.00		> CAPACITY
17 Elliptical pipe under roadway	16.41	0 13:26	86.04	0.19	5.11	0.32	1.04	0.35	0.00		Calculated
18 Offsite 02->outfall	1.82	0 13:30	5.63	0.32	6.01	0.23	0.41	0.41	0.00		Calculated
19 offsite basin2 -> offsite basin 1	11.92	0 12:12	8.72	1.37	4.37	0.77	1.68	0.84	0.00		> CAPACITY
20 Offsite->basin	13.48	0 12:06	79.04	0.17	4.53	4.77	1.61	0.46	0.00		Calculated
21 OutletPipe	15.26	0 13:40	112.90	0.14	4.02	0.04	2.17	0.72	0.00		Calculated

Storage Nodes

Storage Node : Biobasin 01

Input Data

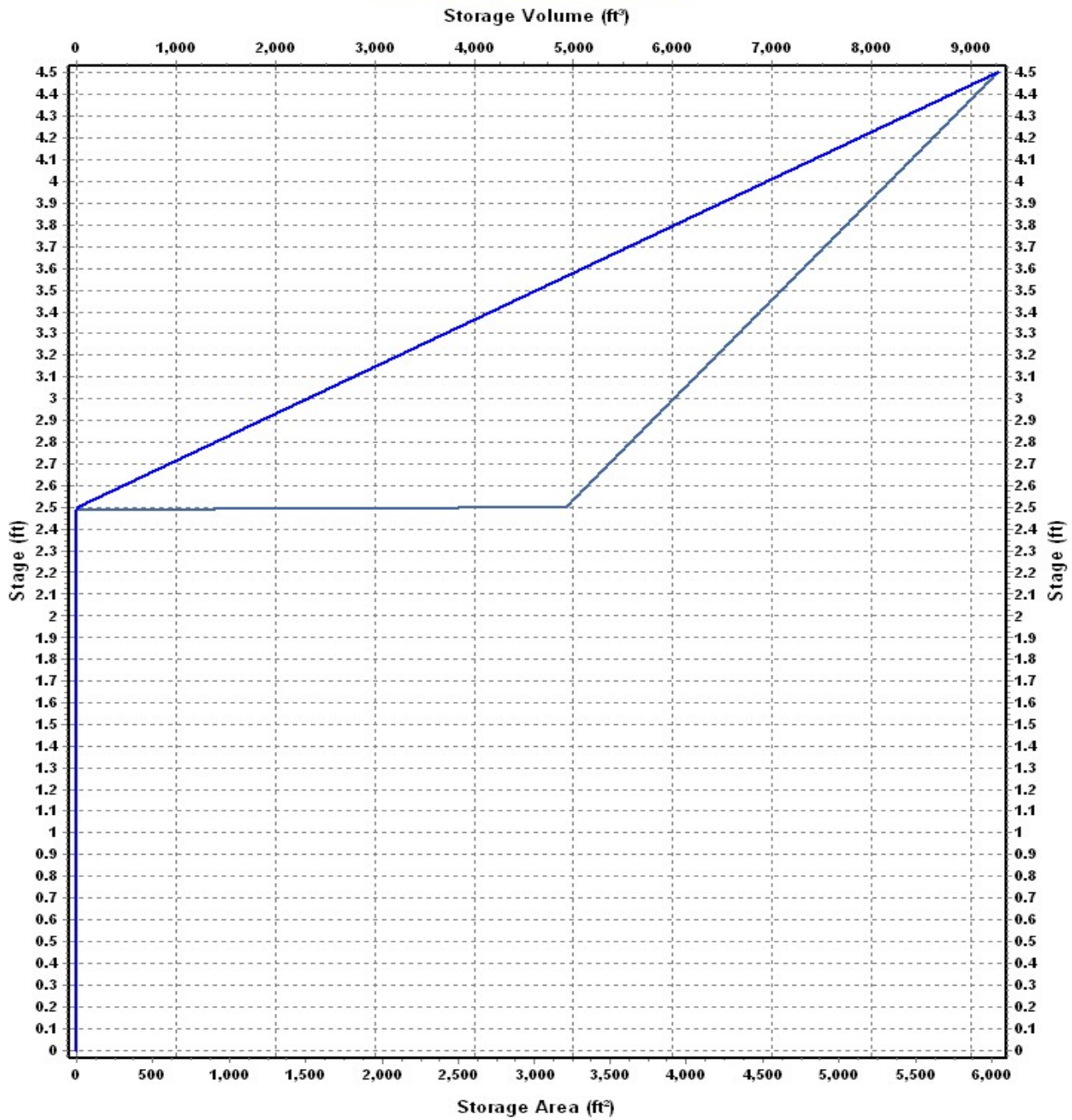
Invert Elevation (ft)	862.64
Max (Rim) Elevation (ft)	867.14
Max (Rim) Offset (ft)	4.50
Initial Water Elevation (ft)	865.14
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	3205.91	18.52
4.5	6037.65	9262.08

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Biobasin 01 (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 Biobasin01grate	Bottom	Rectangular	No		19.60	19.60	866.14	0.60

Output Summary Results

Peak Inflow (cfs)	5.61
Peak Lateral Inflow (cfs)	5.61
Peak Outflow (cfs)	2.92
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.39
Max HGL Depth Attained (ft)	3.75
Average HGL Elevation Attained (ft)	865.55
Average HGL Depth Attained (ft)	2.91
Time of Max HGL Occurrence (days hh:mm)	0 12:07
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin02

Input Data

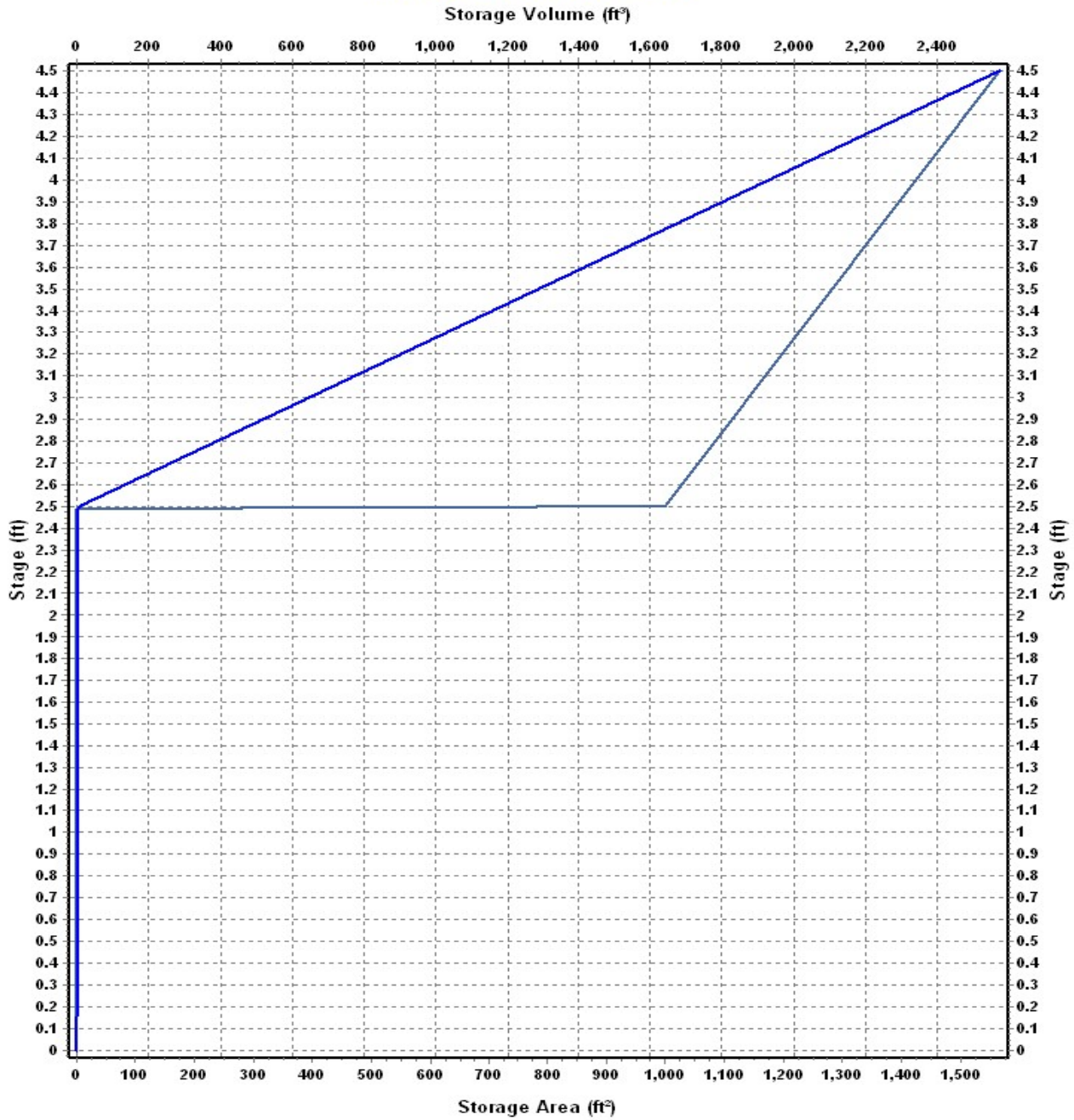
Invert Elevation (ft) 862.67
Max (Rim) Elevation (ft) 867.17
Max (Rim) Offset (ft) 4.50
Initial Water Elevation (ft) 865.17
Initial Water Depth (ft) 2.50
Ponded Area (ft²) 0.00
Evaporation Loss 0.00

Storage Area Volume Curves

Storage Curve : Biobasin 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	999.15	7.49
4.5	1566.12	2572.76

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Biobasin02 (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 Biobasin02grate	Bottom	Rectangular	No		19.60	19.60	866.17	0.60

Output Summary Results

Peak Inflow (cfs)	2.10
Peak Lateral Inflow (cfs)	2.10
Peak Outflow (cfs)	1.86
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.36
Max HGL Depth Attained (ft)	3.69
Average HGL Elevation Attained (ft)	865.60
Average HGL Depth Attained (ft)	2.93
Time of Max HGL Occurrence (days hh:mm)	0 12:02
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin03

Input Data

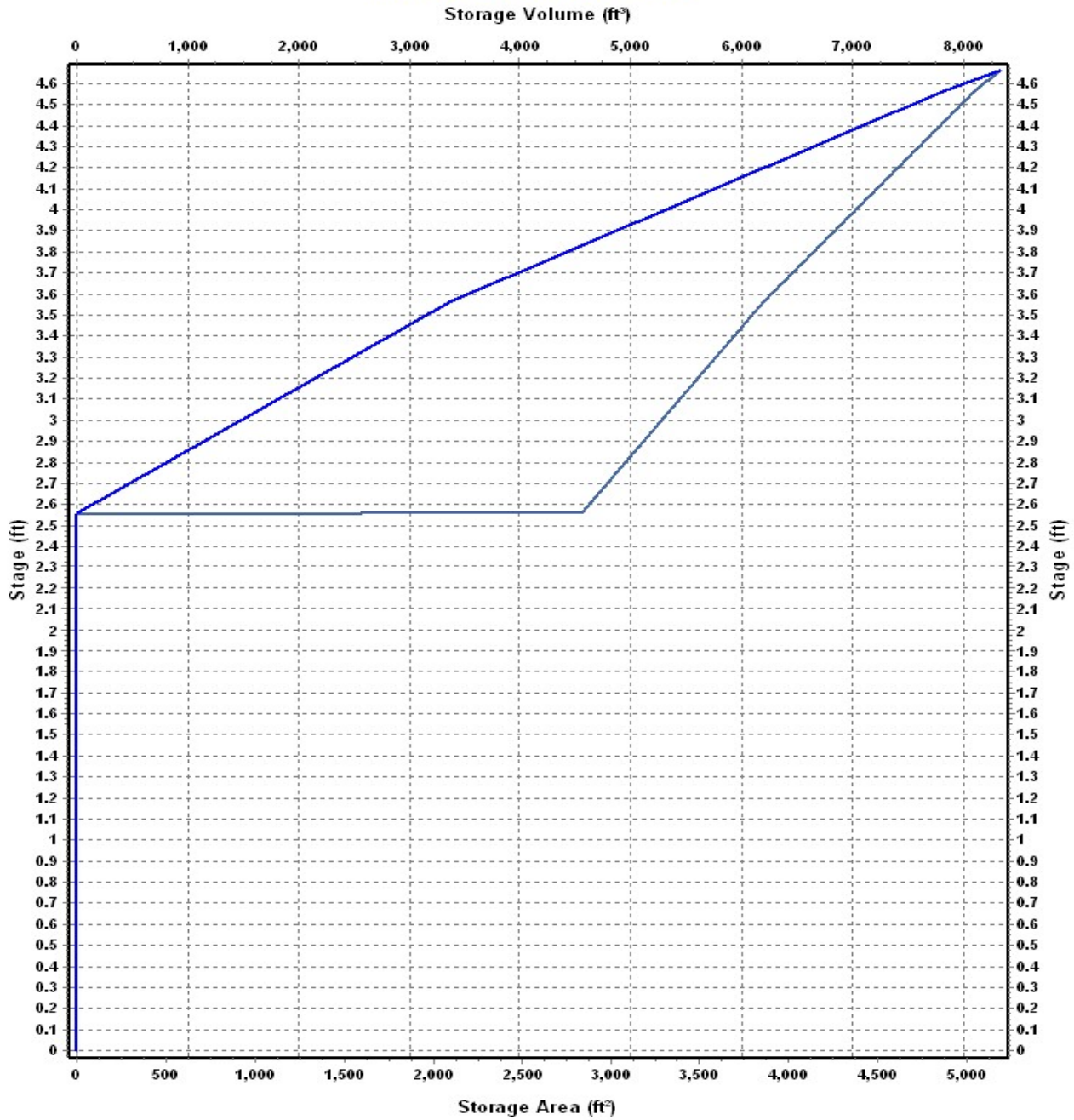
Invert Elevation (ft) 862.44
Max (Rim) Elevation (ft) 867.10
Max (Rim) Offset (ft) 4.66
Initial Water Elevation (ft) 865.00
Initial Water Depth (ft) 2.56
Ponded Area (ft²) 0.00
Evaporation Loss 0.00

Storage Area Volume Curves

Storage Curve : Biobasin03

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.55	1	2.55
2.56	2836.20	16.74
3.56	3856.90	3363.29
4.56	5038.71	7811.10
4.66	5181	8322.09

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Biobasin03 (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 Biobasin03grate	Bottom	Rectangular	No		19.60	19.60	866.00	0.60

Output Summary Results

Peak Inflow (cfs)	5.46
Peak Lateral Inflow (cfs)	5.46
Peak Outflow (cfs)	3.62
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.29
Max HGL Depth Attained (ft)	3.85
Average HGL Elevation Attained (ft)	865.42
Average HGL Depth Attained (ft)	2.98
Time of Max HGL Occurrence (days hh:mm)	0 12:06
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin04

Input Data

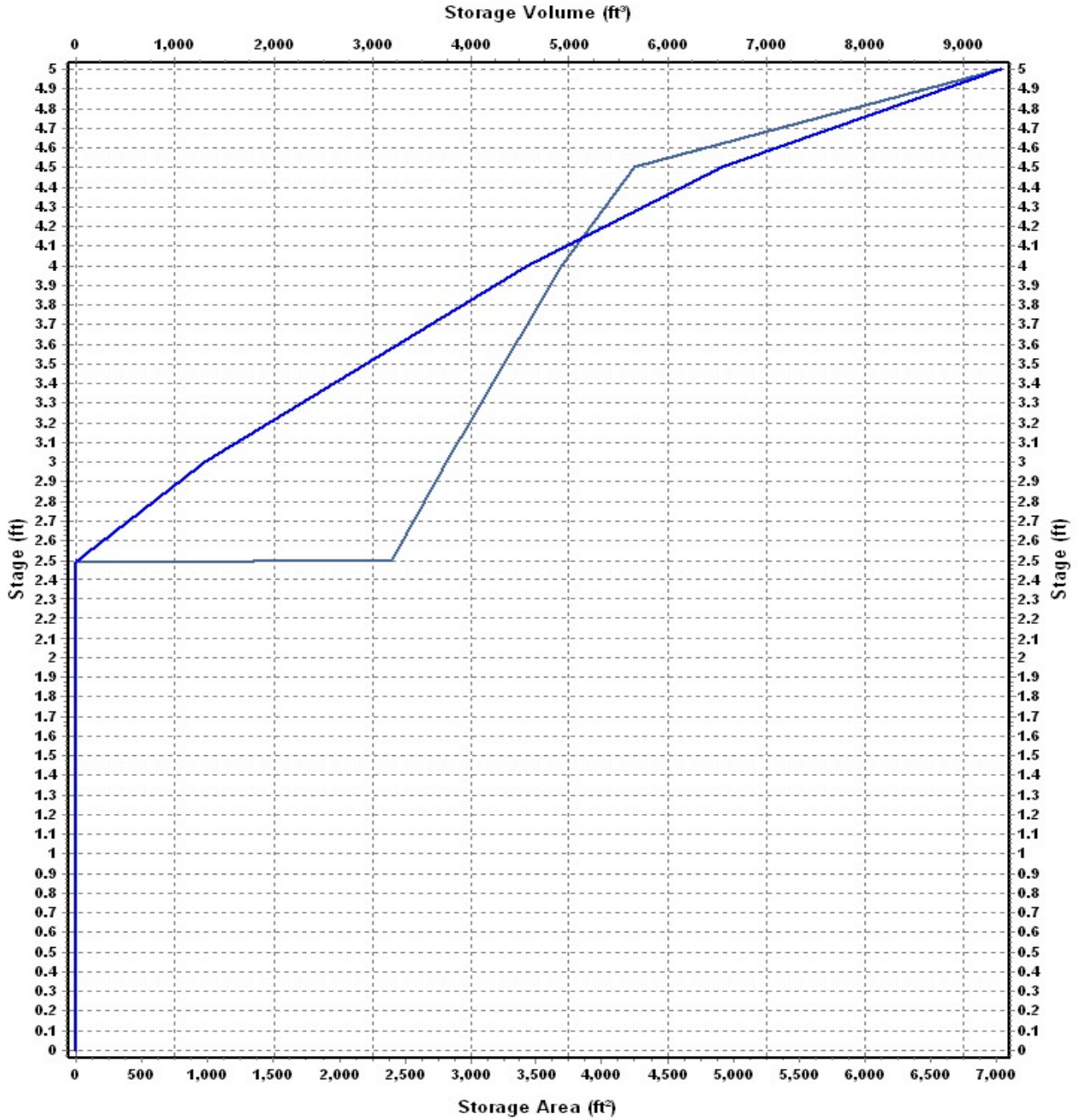
Invert Elevation (ft) 862.00
Max (Rim) Elevation (ft) 867.00
Max (Rim) Offset (ft) 5.00
Initial Water Elevation (ft) 864.50
Initial Water Depth (ft) 2.50
Ponded Area (ft²) 0.00
Evaporation Loss 0.00

Storage Area Volume Curves

Storage Curve : Biobasin04

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	2398.60	14.49
3	2813.60	1317.54
4	3690.90	4569.79
4.5	4246.20	6554.07
5	7028.50	9372.75

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Biobasin04 (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 Biobasin04grate	Bottom	Rectangular	No		19.60	19.60	865.50	0.60

Output Summary Results

Peak Inflow (cfs)	3.26
Peak Lateral Inflow (cfs)	3.26
Peak Outflow (cfs)	1.11
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	865.62
Max HGL Depth Attained (ft)	3.62
Average HGL Elevation Attained (ft)	864.85
Average HGL Depth Attained (ft)	2.85
Time of Max HGL Occurrence (days hh:mm)	0 12:09
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin05

Input Data

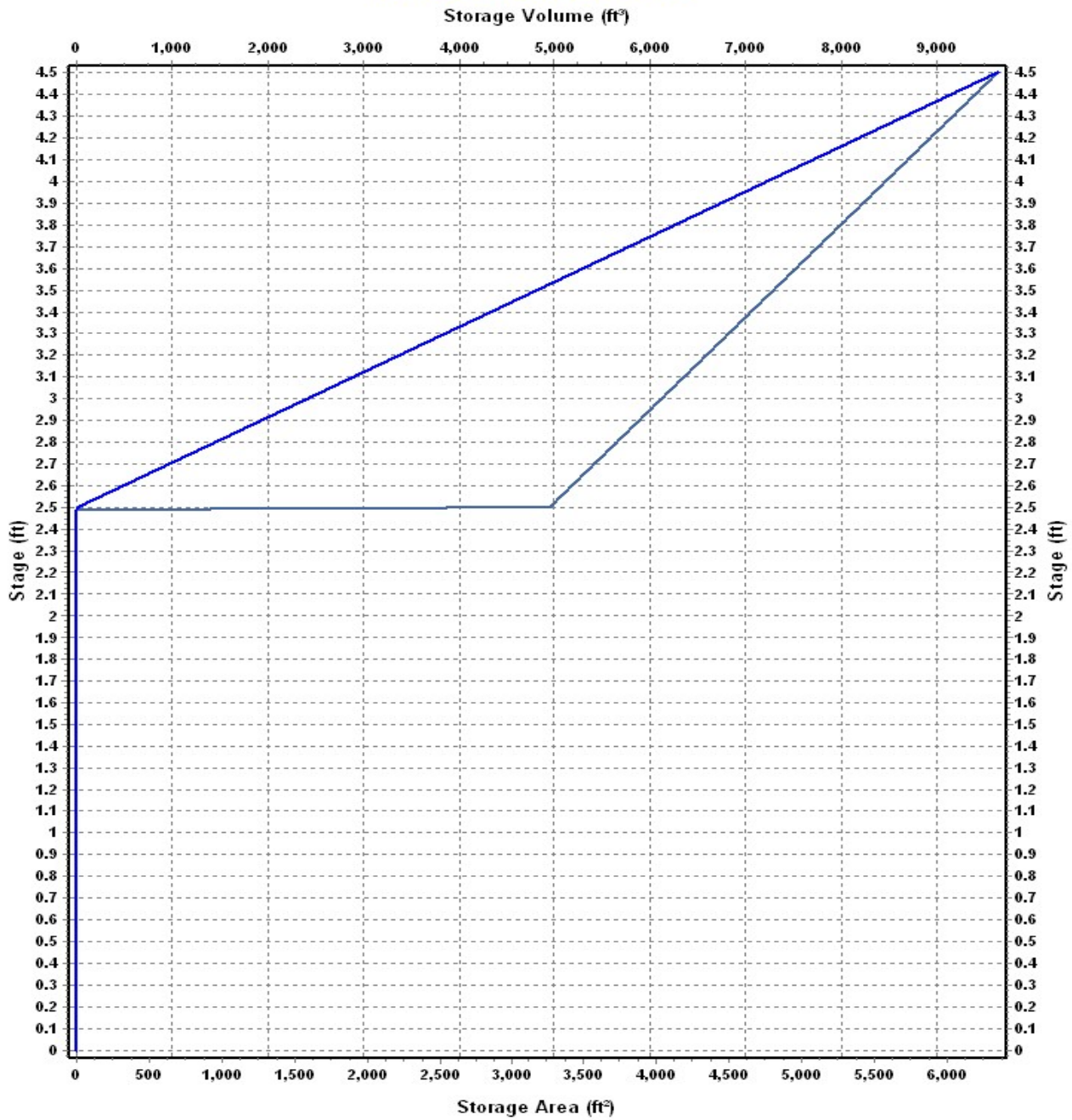
Invert Elevation (ft) 862.60
Max (Rim) Elevation (ft) 867.10
Max (Rim) Offset (ft) 4.50
Initial Water Elevation (ft) 865.10
Initial Water Depth (ft) 2.50
Ponded Area (ft²) 0.00
Evaporation Loss 0.00

Storage Area Volume Curves

Storage Curve : Biobasin05

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	3264.52	18.82
4.5	6347.63	9630.97

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Biobasin05 (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 Biobasin05grate	Bottom	Rectangular	No		19.60	19.60	866.10	0.60

Output Summary Results

Peak Inflow (cfs)	5.80
Peak Lateral Inflow (cfs)	5.80
Peak Outflow (cfs)	3.00
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.35
Max HGL Depth Attained (ft)	3.75
Average HGL Elevation Attained (ft)	865.52
Average HGL Depth Attained (ft)	2.92
Time of Max HGL Occurrence (days hh:mm)	0 12:07
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 01 Parking lot ponding

Input Data

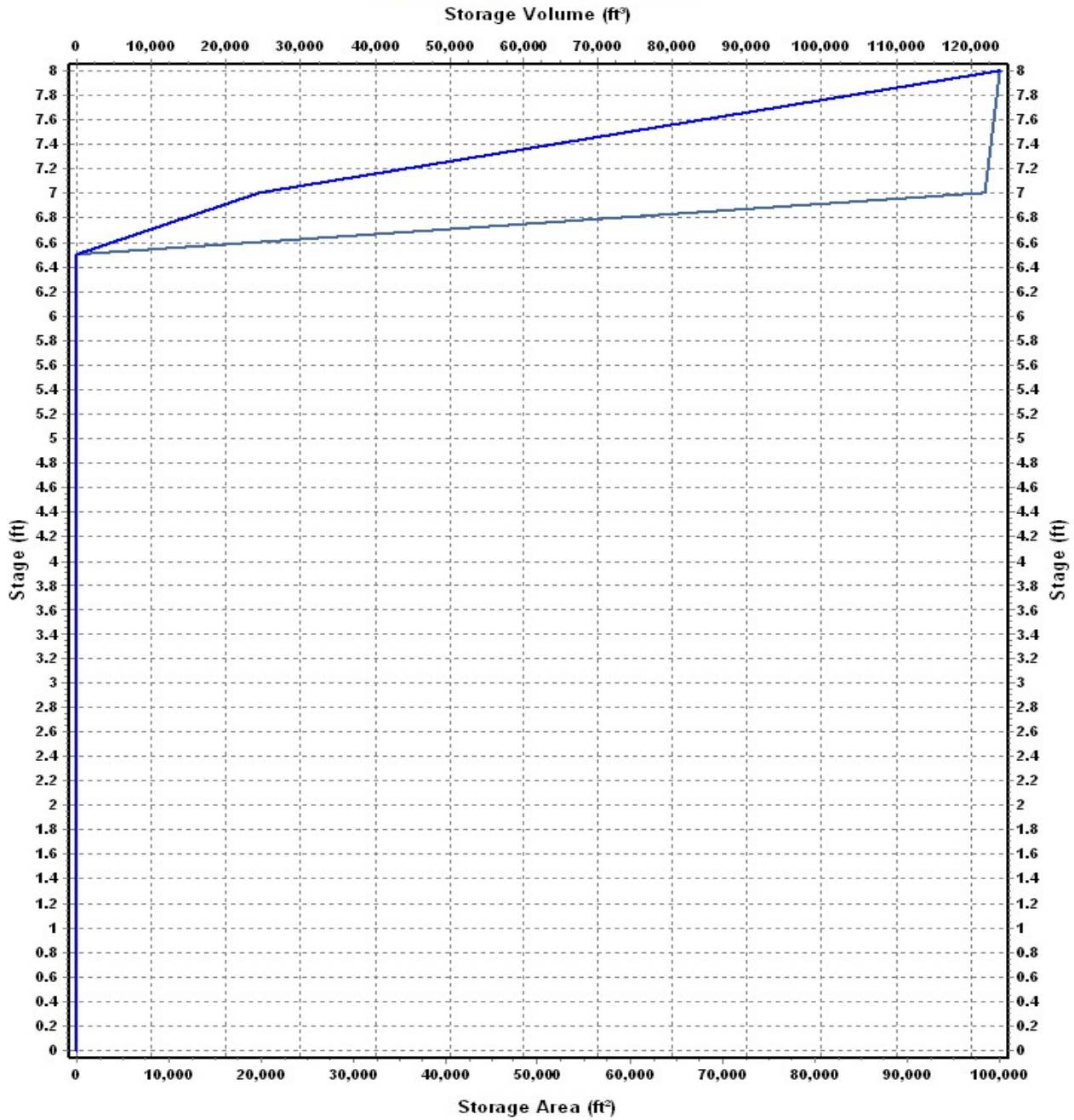
Invert Elevation (ft)	871.00
Max (Rim) Elevation (ft)	879.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	877.50
Initial Water Depth (ft)	6.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Offsite 01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
6.5	1	6.50
7	98432	24614.75
8	100000	123830.75

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Offsite 01 Parking lot ponding (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 Offsite 01 orifice	Side	CIRCULAR	No	9.25			871.00	0.60

Output Summary Results

Peak Inflow (cfs)	33.19
Peak Lateral Inflow (cfs)	33.19
Peak Outflow (cfs)	5.80
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	878.04
Max HGL Depth Attained (ft)	7.04
Average HGL Elevation Attained (ft)	872.28
Average HGL Depth Attained (ft)	1.28
Time of Max HGL Occurrence (days hh:mm)	0 12:23
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 02 Wet basin 02

Input Data

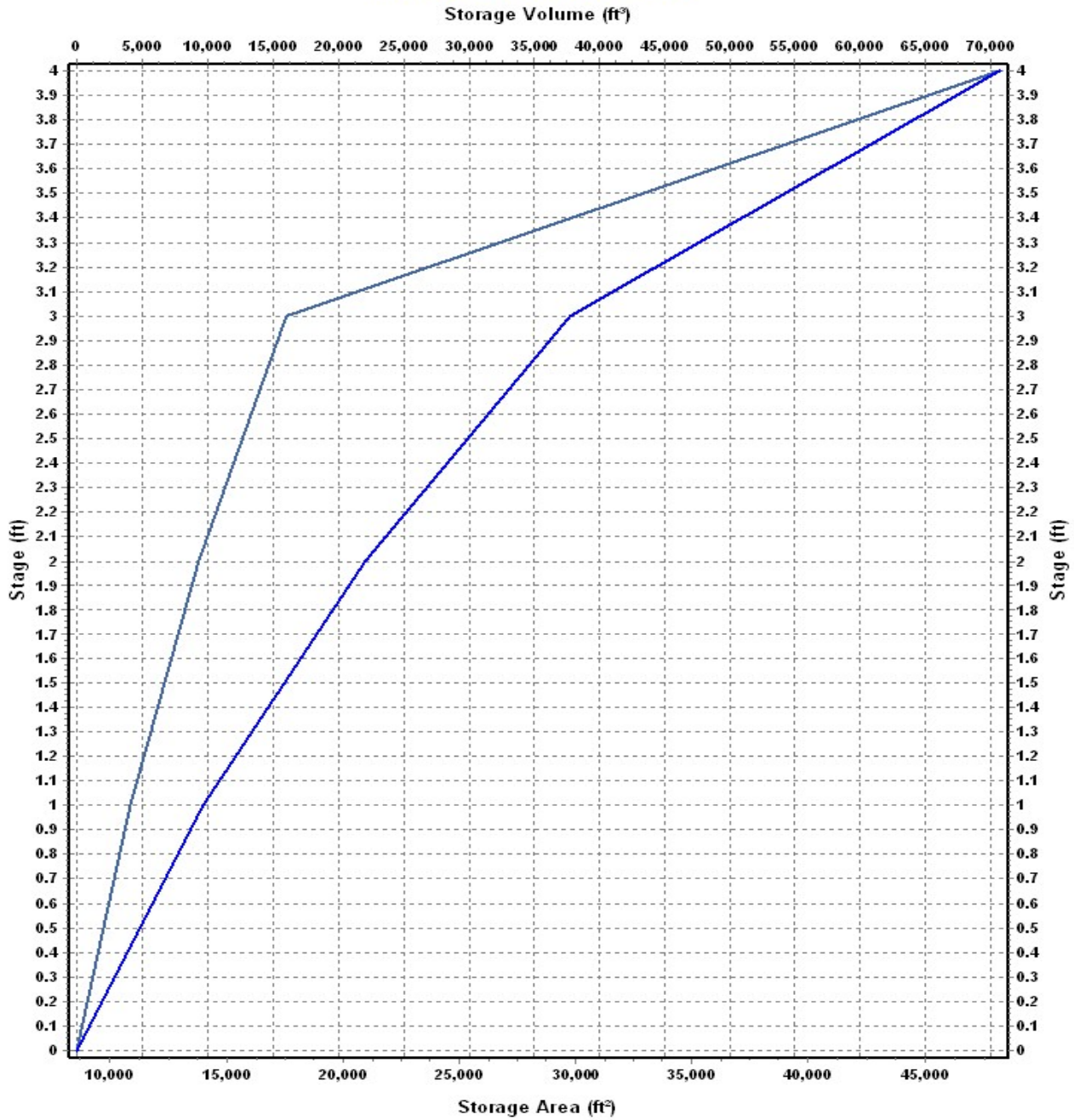
Invert Elevation (ft)	878.00
Max (Rim) Elevation (ft)	882.00
Max (Rim) Offset (ft)	4.00
Initial Water Elevation (ft)	878.00
Initial Water Depth (ft)	0.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Offsite 02 wet basin 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	8571	0.000
1	10862	9716.50
2	13819	22057.00
3	17571	37752.00
4	48211	70643.00

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Offsite 02 Wet basin 02 (continued)

Output Summary Results

Peak Inflow (cfs)	25.48
Peak Lateral Inflow (cfs)	25.48
Peak Outflow (cfs)	11.92
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	880.03
Max HGL Depth Attained (ft)	2.03
Average HGL Elevation Attained (ft)	878.80
Average HGL Depth Attained (ft)	0.8
Time of Max HGL Occurrence (days hh:mm)	0 12:12
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 02-wet basin 1

Input Data

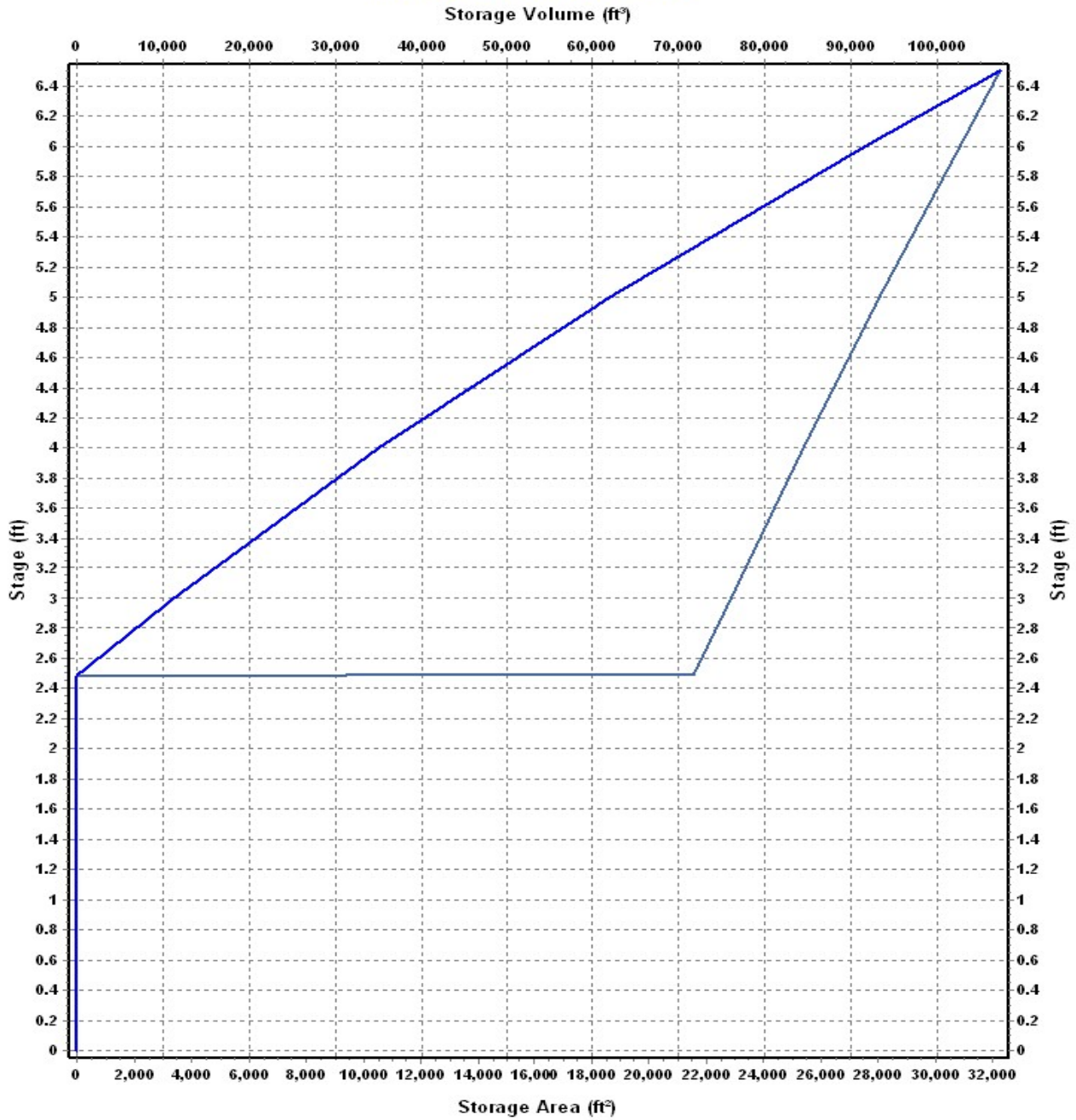
Invert Elevation (ft)	875.00
Max (Rim) Elevation (ft)	881.50
Max (Rim) Offset (ft)	6.50
Initial Water Elevation (ft)	877.50
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : blazer wet basin 01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	21562	110.30
3	22825	11207.05
4	25395	35317.05
5	28053	62041.05
6	30840	91487.55
6.5	32234	107256.05

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Offsite 02-wet basin 1 (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 Offsite 02 grate	Bottom	Rectangular	No		19.60	19.60	880.50	0.60
2 offsite 02 window	Side	Rectangular	No		6.00	24.00	879.20	0.60
3 Offsite 02 wq	Side	CIRCULAR	No	4.00			877.50	0.60

Output Summary Results

Peak Inflow (cfs)	20.54
Peak Lateral Inflow (cfs)	11.39
Peak Outflow (cfs)	1.82
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	879.53
Max HGL Depth Attained (ft)	4.53
Average HGL Elevation Attained (ft)	878.50
Average HGL Depth Attained (ft)	3.5
Time of Max HGL Occurrence (days hh:mm)	0 13:29
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 04

Input Data

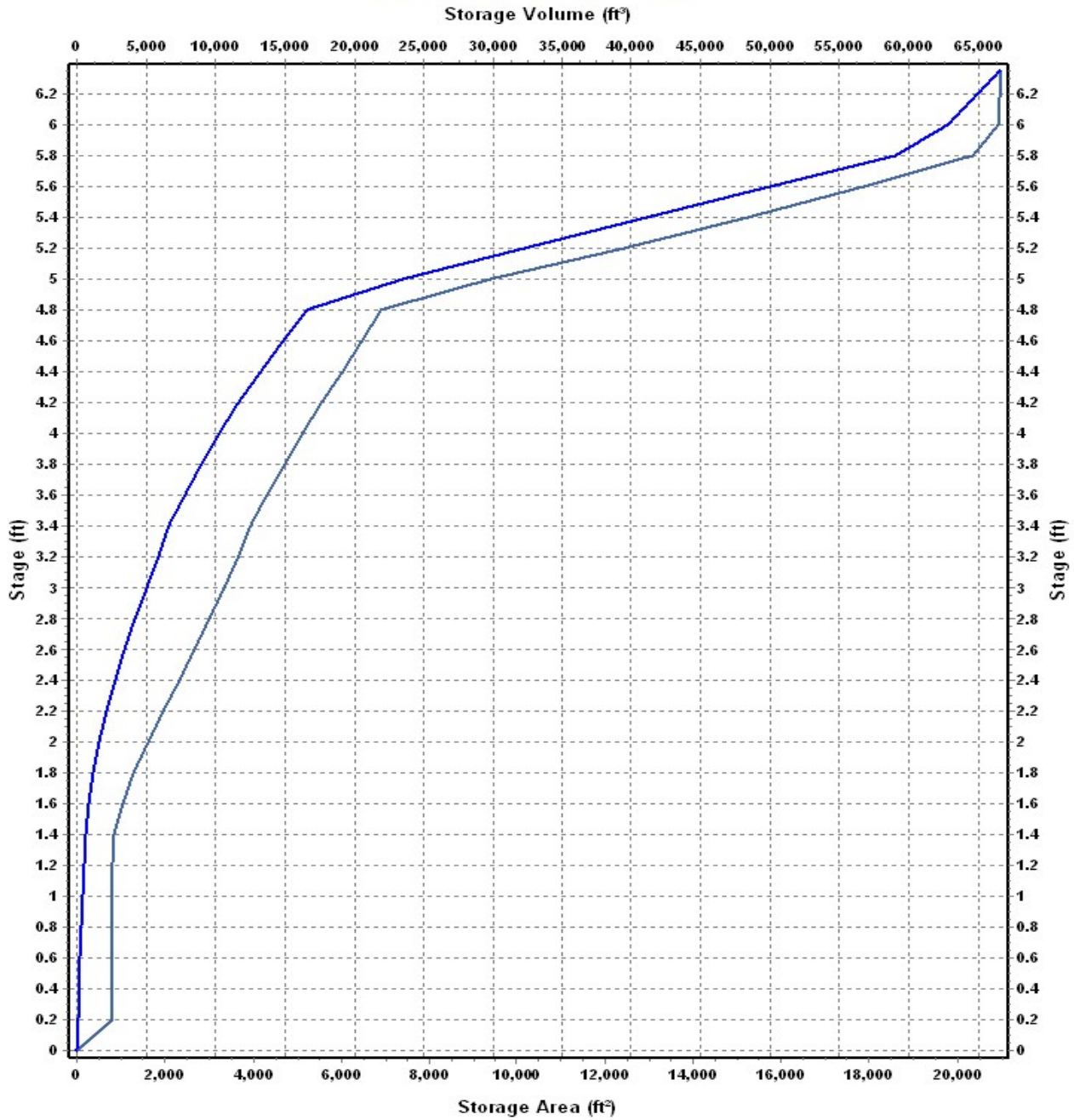
Invert Elevation (ft)	871.65
Max (Rim) Elevation (ft)	878.00
Max (Rim) Offset (ft)	6.35
Initial Water Elevation (ft)	871.65
Initial Water Depth (ft)	0.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Offsite 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	0	0
.2	820.00	82
.4	815.00	163
.6	816.67	245
.8	817.50	327
1	818.00	409
1.2	816.67	490
1.4	850.00	595
1.6	1038.75	831
1.8	1297.78	1168
2	1606.00	1606
2.2	1950.00	2145
2.4	2319.17	2783
2.6	2676.15	3479
2.8	3010.71	4215
3	3326.67	4990
3.2	3691.25	5906
3.4	3938.24	6695
3.6	4318.89	7774
3.8	4721.58	8971
4	5142.00	10284
4.2	5578.57	11715
4.4	6028.18	13262
4.6	6478.26	14900
4.8	6925.42	16621
5	9432.00	23580
5.2	12438.08	32339
5.4	15251.85	41180
5.6	17886.43	50082
5.8	20357.93	59038
6	20943.33	62830
6.2	20946.77	64935
6.35	20960.63	66550

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Offsite 04 (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 Offsite 04 orifice	Side	CIRCULAR	No	8.50			871.65	0.60

Output Summary Results

Peak Inflow (cfs)	19.15
Peak Lateral Inflow (cfs)	19.15
Peak Outflow (cfs)	4.18
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	876.85
Max HGL Depth Attained (ft)	5.2
Average HGL Elevation Attained (ft)	872.38
Average HGL Depth Attained (ft)	0.73
Time of Max HGL Occurrence (days hh:mm)	0 12:19
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Pavers01-02

Input Data

Invert Elevation (ft)	863.79
Max (Rim) Elevation (ft)	867.24
Max (Rim) Offset (ft)	3.45
Initial Water Elevation (ft)	863.79
Initial Water Depth (ft)	0.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Outflow Weirs

SN Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1 Paver01-02 weir	Rectangular	No	865.70	1.91	4.00	1.00	3.33

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 Paver01-02 wq orifice 2	Side	CIRCULAR	No	1.00			863.79	0.60
2 Pavers01-02 WQ orifice 1	Side	CIRCULAR	No	1.00			863.79	0.60

Output Summary Results

Peak Inflow (cfs)	3.67
Peak Lateral Inflow (cfs)	3.67
Peak Outflow (cfs)	0.06
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	865.41
Max HGL Depth Attained (ft)	1.62
Average HGL Elevation Attained (ft)	864.64
Average HGL Depth Attained (ft)	0.85
Time of Max HGL Occurrence (days hh:mm)	0 16:28
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Pavers03-04

Input Data

Invert Elevation (ft)	863.79
Max (Rim) Elevation (ft)	867.24
Max (Rim) Offset (ft)	3.45
Initial Water Elevation (ft)	863.79
Initial Water Depth (ft)	0.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Outflow Weirs

SN Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1 Paver04-06 weir	Rectangular	No	866.80	3.01	4.00	1.00	3.33

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 Paver03-04 WQ orifice 1	Side	CIRCULAR	No	1.00			863.79	0.60
2 Paver03-04 WQ orifice 2	Side	CIRCULAR	No	1.00			863.79	0.60

Output Summary Results

Peak Inflow (cfs)	3.75
Peak Lateral Inflow (cfs)	3.75
Peak Outflow (cfs)	0.07
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	865.47
Max HGL Depth Attained (ft)	1.68
Average HGL Elevation Attained (ft)	864.67
Average HGL Depth Attained (ft)	0.88
Time of Max HGL Occurrence (days hh:mm)	0 16:32
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Wet Basin 02

Input Data

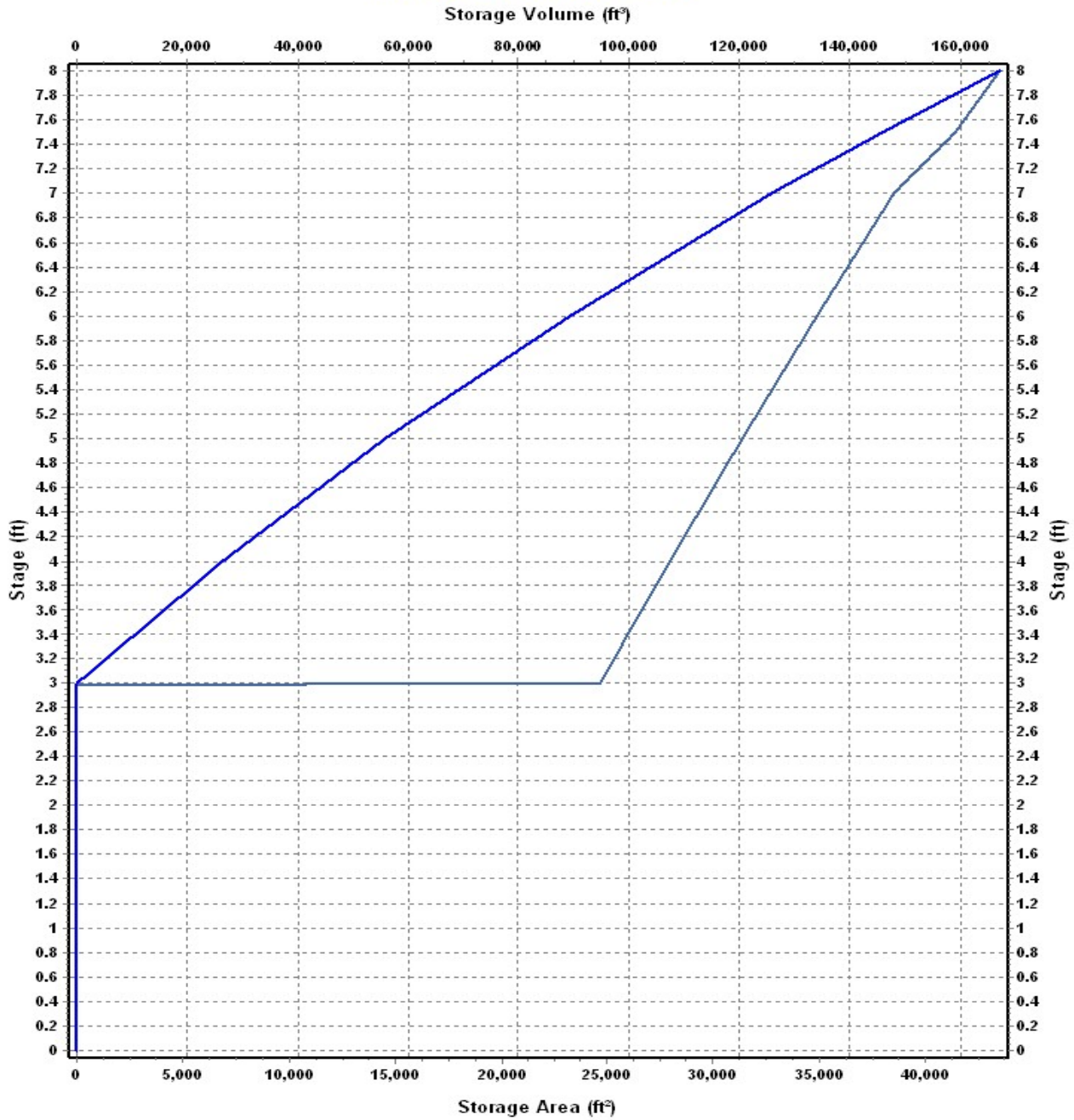
Invert Elevation (ft)	859.00
Max (Rim) Elevation (ft)	867.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	862.00
Initial Water Depth (ft)	3.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Wet Basin 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.99	1	2.99
3	24635.51	126.17
4	27948.90	26418.38
5	31362.79	56074.23
6	34877.21	89194.23
7	38492.15	125878.91
7.5	41380.21	145847.00
8	43477.39	167061.40

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Wet Basin 02 (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 Wet basin grate	Bottom	Rectangular	No		19.60	19.60	865.00	0.60
2 Wet basin window 1	Side	Rectangular	No		12.00	36.00	863.20	0.60
3 Wet Basin wq 2	Side	CIRCULAR	No	5.00			862.00	0.60
4 WetBasin WQ 1	Side	CIRCULAR	No	5.00			862.00	0.60
5 WetBasinWindow2	Side	Rectangular	No		12.00	36.00	863.20	0.60

Output Summary Results

Peak Inflow (cfs)	66.46
Peak Lateral Inflow (cfs)	54.64
Peak Outflow (cfs)	25.02
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	864.32
Max HGL Depth Attained (ft)	5.32
Average HGL Elevation Attained (ft)	862.97
Average HGL Depth Attained (ft)	3.97
Time of Max HGL Occurrence (days hh:mm)	0 13:28
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : WetBasin 01

Input Data

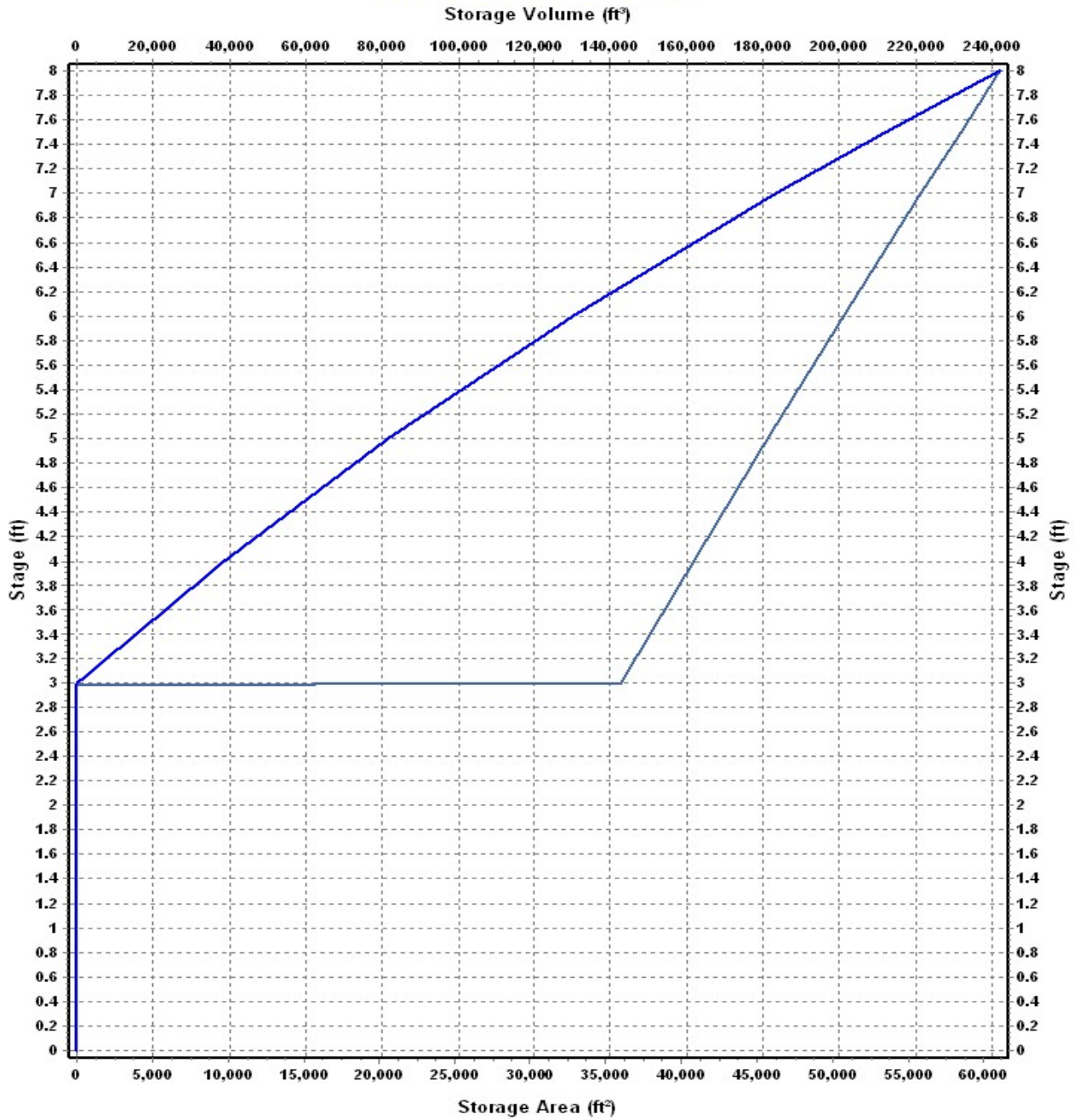
Invert Elevation (ft)	859.00
Max (Rim) Elevation (ft)	867.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	862.00
Initial Water Depth (ft)	3.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Wet Basin 01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.99	1	2.99
3	36012.49	183.06
4	40827.72	38603.17
5	45735.45	81884.76
6	50745.52	130125.25
7	55856.11	183426.07
7.5	58448.67	212002.27
8	61040.22	241874.49

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : WetBasin 01 (continued)

Output Summary Results

Peak Inflow (cfs)	47.02
Peak Lateral Inflow (cfs)	36.99
Peak Outflow (cfs)	5.10
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	864.33
Max HGL Depth Attained (ft)	5.33
Average HGL Elevation Attained (ft)	862.97
Average HGL Depth Attained (ft)	3.97
Time of Max HGL Occurrence (days hh:mm)	0 13:33
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Project Description

File Name 2017-0259 Dublin Smart Park 2017-5-15.SPF

Project Options

Flow Units CFS
 Elevation Type Elevation
 Hydrology Method SCS TR-55
 Time of Concentration (TOC) Method User-Defined
 Link Routing Method Hydrodynamic
 Enable Overflow Ponding at Nodes YES
 Skip Steady State Analysis Time Periods NO

Analysis Options

Start Analysis On Apr 11, 2017 00:00:00
 End Analysis On Apr 12, 2017 00:00:00
 Start Reporting On Apr 11, 2017 00:00:00
 Antecedent Dry Days 0 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 00:05:00 days hh:mm:ss
 Routing Time Step 1 seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins.....	16
Nodes.....	35
<i>Junctions</i>	21
<i>Outfalls</i>	1
<i>Flow Diversions</i>	0
<i>Inlets</i>	0
<i>Storage Nodes</i>	13
Links.....	49
<i>Channels</i>	1
<i>Pipes</i>	21
<i>Pumps</i>	0
<i>Orifices</i>	20
<i>Weirs</i>	2
<i>Outlets</i>	5
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1		Time Series	10-year	Cumulative	inches	Ohio	Franklin	10	3.74	SCS Type II 24-hr

Subbasin Summary

SN Subbasin ID	Area (ac)	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1 Offsite 01: Lucent site	9.91	94.00	3.74	3.07	30.42	39.72	0 00:10:00
2 Offsite 02 - 01	3.38	92.00	3.74	2.87	9.68	13.96	0 00:07:00
3 Offsite 02 - 02	7.84	93.00	3.74	2.97	23.25	31.87	0 00:08:30
4 Offsite 03: Triangle outparcel	2.50	74.00	3.74	1.41	3.52	4.92	0 00:09:00
5 Offsite 04: Cendant Site	5.72	94.00	3.74	3.07	17.56	22.94	0 00:10:00
6 Subarea 02 - to wb 02	0.43	95.60	3.74	3.24	1.39	2.03	0 00:05:00
7 Subarea 02 -to wb1	0.52	95.60	3.74	3.24	1.69	2.48	0 00:05:00
8 Subarea 03	10.24	89.68	3.74	2.64	27.07	42.07	0 00:05:00
9 Subarea01	14.97	90.80	3.74	2.75	41.15	63.39	0 00:05:00
10 ToBiobasin01	1.39	95.60	3.74	3.24	4.51	6.56	0 00:05:00
11 ToBiobasin02	0.52	95.60	3.74	3.24	1.68	2.45	0 00:05:00
12 ToBiobasin03	1.35	95.60	3.74	3.24	4.38	6.38	0 00:05:00
13 ToBiobasin04	0.81	95.60	3.74	3.24	2.62	3.81	0 00:05:00
14 ToBiobasin05	1.44	95.60	3.74	3.24	4.65	6.77	0 00:05:00
15 ToPP01-02	0.91	95.60	3.74	3.24	2.95	4.29	0 00:05:00
16 ToPP03-04	0.93	95.60	3.74	3.24	3.00	4.38	0 00:05:00

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	Biobasin02dummysnode	Junction	862.67	867.17	862.67	867.17	0.00	2.27	866.24	0.00	0.93	0 00:00	0.00	0.00
2	CatchBasin03	Junction	862.00	866.50	862.00	866.50	2879.24	7.67	865.46	0.00	1.04	0 00:00	0.00	0.00
3	CatchBasin04	Junction	862.44	866.94	862.44	866.94	4642.88	6.78	866.05	0.00	0.89	0 00:00	0.00	0.00
4	CatchBasin05	Junction	862.67	867.17	862.67	867.17	1566.12	2.22	866.08	0.00	1.09	0 00:00	0.00	0.00
5	CatchBasin12	Junction	862.60	867.10	862.60	867.10	6347.63	4.37	865.24	0.00	1.86	0 00:00	0.00	0.00
6	CatchBasin8	Junction	862.64	867.14	862.64	867.14	6037.65	4.27	865.21	0.00	1.93	0 00:00	0.00	0.00
7	Dummy1	Junction	861.69	867.00	861.69	867.00	0.00	18.28	864.49	0.00	2.51	0 00:00	0.00	0.00
8	Ex0	Junction	860.13	865.00	860.13	865.00	0.00	18.00	861.30	0.00	3.70	0 00:00	0.00	0.00
9	ExA	Junction	860.81	865.00	860.81	865.00	0.00	24.68	864.19	0.00	2.62	0 00:00	0.00	0.00
10	Existing 36-inch outlet pipe	Junction	870.00	875.50	870.00	875.50	0.00	15.14	871.03	0.00	5.37	0 00:00	0.00	0.00
11	Manhole 7	Junction	862.47	868.00	862.47	868.00	0.00	4.23	865.02	0.00	2.98	0 00:00	0.00	0.00
12	Manhole1	Junction	861.75	868.00	861.75	868.00	0.00	15.93	864.46	0.00	3.54	0 00:00	0.00	0.00
13	Manhole10	Junction	862.23	868.00	862.23	868.00	0.00	4.42	864.82	0.00	3.18	0 00:00	0.00	0.00
14	Manhole11	Junction	862.42	868.00	862.42	868.00	0.00	4.34	865.03	0.00	2.97	0 00:00	0.00	0.00
15	Manhole13	Junction	863.79	868.00	863.79	868.00	0.00	0.22	864.82	0.00	3.18	0 00:00	0.00	0.00
16	Manhole2	Junction	861.80	868.00	861.80	868.00	0.00	7.50	864.81	0.00	3.19	0 00:00	0.00	0.00
17	Manhole6	Junction	862.28	868.00	862.28	868.00	0.00	4.32	864.83	0.00	3.17	0 00:00	0.00	0.00
18	Manhole9	Junction	863.79	868.00	863.79	868.00	0.00	0.21	864.83	0.00	3.17	0 00:00	0.00	0.00
19	Offsite 02 outlet	Junction	877.50	881.50	877.50	881.50	0.00	3.24	878.12	0.00	4.08	0 00:00	0.00	0.00
20	OutToDitch	Junction	861.58	863.00	861.58	863.00	0.00	29.23	864.21	0.00	3.37	0 00:00	0.00	0.00
21	Stucture1	Junction	861.69	868.00	861.69	868.00	0.00	29.44	864.40	0.00	3.60	0 00:00	0.00	0.00
22	Ex00 Outlet	Outfall	859.65					18.00	860.65					
23	Biobasin 01	Storage Node	862.64	867.14	865.14		0.00	6.56	866.47				0.00	0.00
24	Biobasin02	Storage Node	862.67	867.17	865.17		0.00	2.45	866.41				0.00	0.00
25	Biobasin03	Storage Node	862.44	867.10	865.00		0.00	6.38	866.37				0.00	0.00
26	Biobasin04	Storage Node	862.00	867.00	864.50		0.00	3.81	865.70				0.00	0.00
27	Biobasin05	Storage Node	862.60	867.10	865.10		0.00	6.77	866.43				0.00	0.00
28	Offsite 01 Parking lot ponding	Storage Node	871.00	879.00	877.50		0.00	38.92	878.11				0.00	0.00
29	Offsite 02 Wet basin 02	Storage Node	878.00	882.00	878.00		0.00	30.01	880.31				0.00	0.00
30	Offsite 02-wet basin 1	Storage Node	875.00	881.50	877.50		0.00	24.10	879.76				0.00	0.00
31	Offsite 04	Storage Node	871.65	878.00	871.65		0.00	22.56	877.14				0.00	0.00
32	Pavers01-02	Storage Node	863.79	867.24	863.79		0.00	4.29	865.72				0.00	0.00
33	Pavers03-04	Storage Node	863.79	867.24	863.79		0.00	4.38	865.82				0.00	0.00
34	Wet Basin 02	Storage Node	859.00	867.00	862.00		0.00	78.43	864.80				0.00	0.00
35	WetBasin 01	Storage Node	859.00	867.00	862.00		0.00	54.68	864.81				0.00	0.00

Subbasin Hydrology

Subbasin : Offsite 01: Lucent site

Input Data

Area (ac) 9.91
Weighted Curve Number 94.00
Rain Gage ID DublinRain

Composite Curve Number

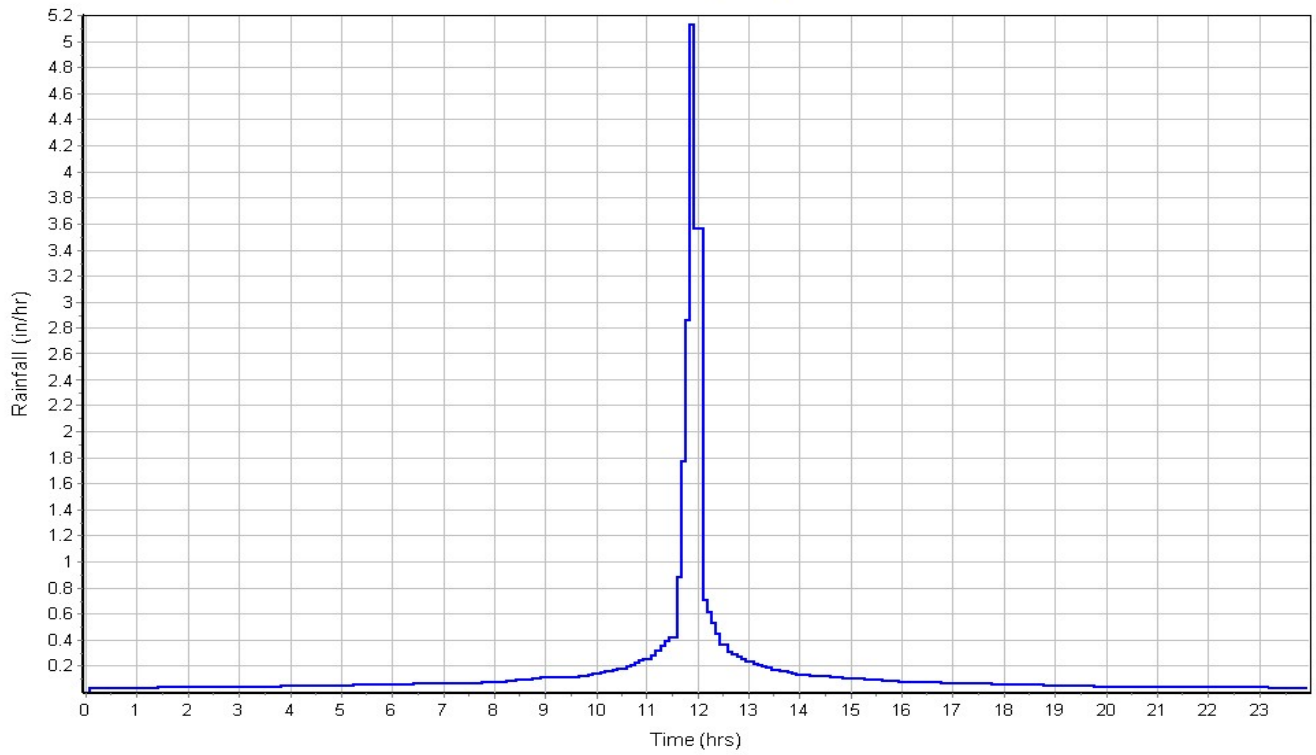
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	9.91	-	94.00
Composite Area & Weighted CN	9.91		94.00

Subbasin Runoff Results

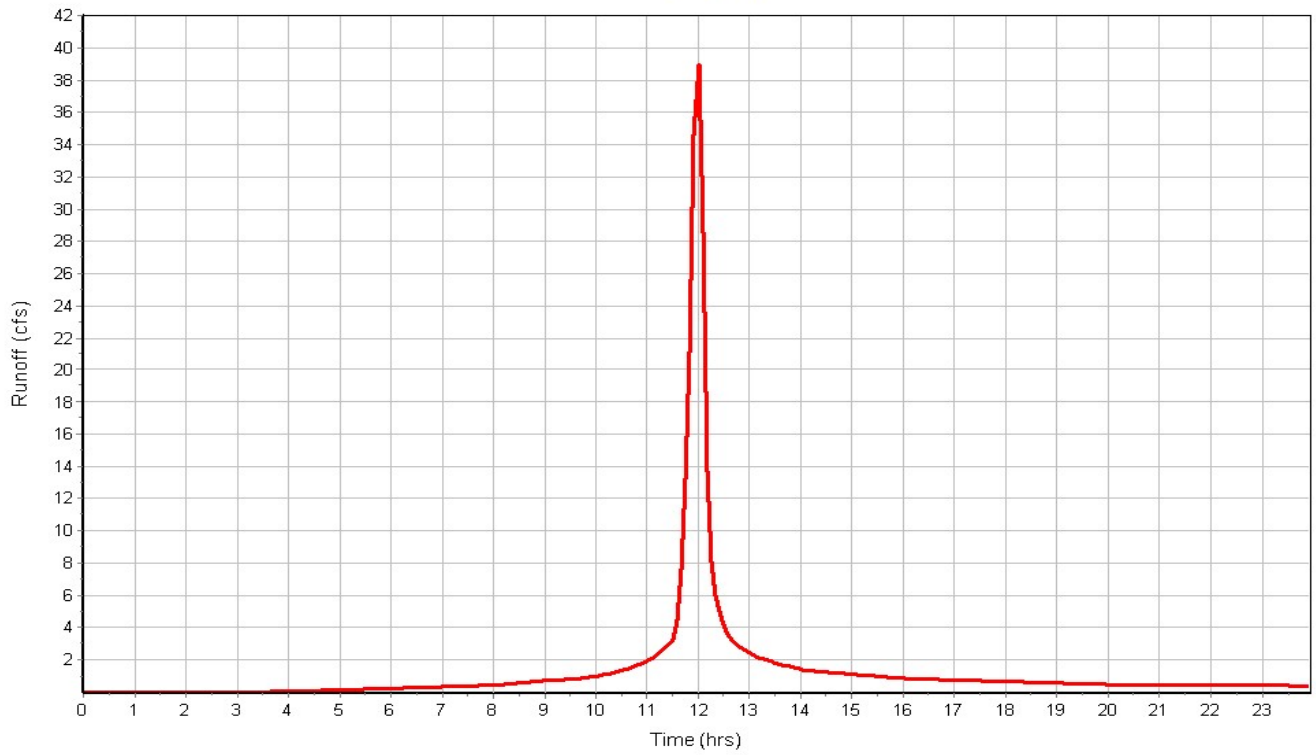
Total Rainfall (in) 3.74
Total Runoff (in) 3.07
Peak Runoff (cfs) 39.72
Weighted Curve Number 94.00
Time of Concentration (days hh:mm:ss) 0 00:10:00

Subbasin : Offsite 01: Lucent site

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 02 - 01

Input Data

Area (ac) 3.38
Weighted Curve Number 92.00
Rain Gage ID DublinRain

Composite Curve Number

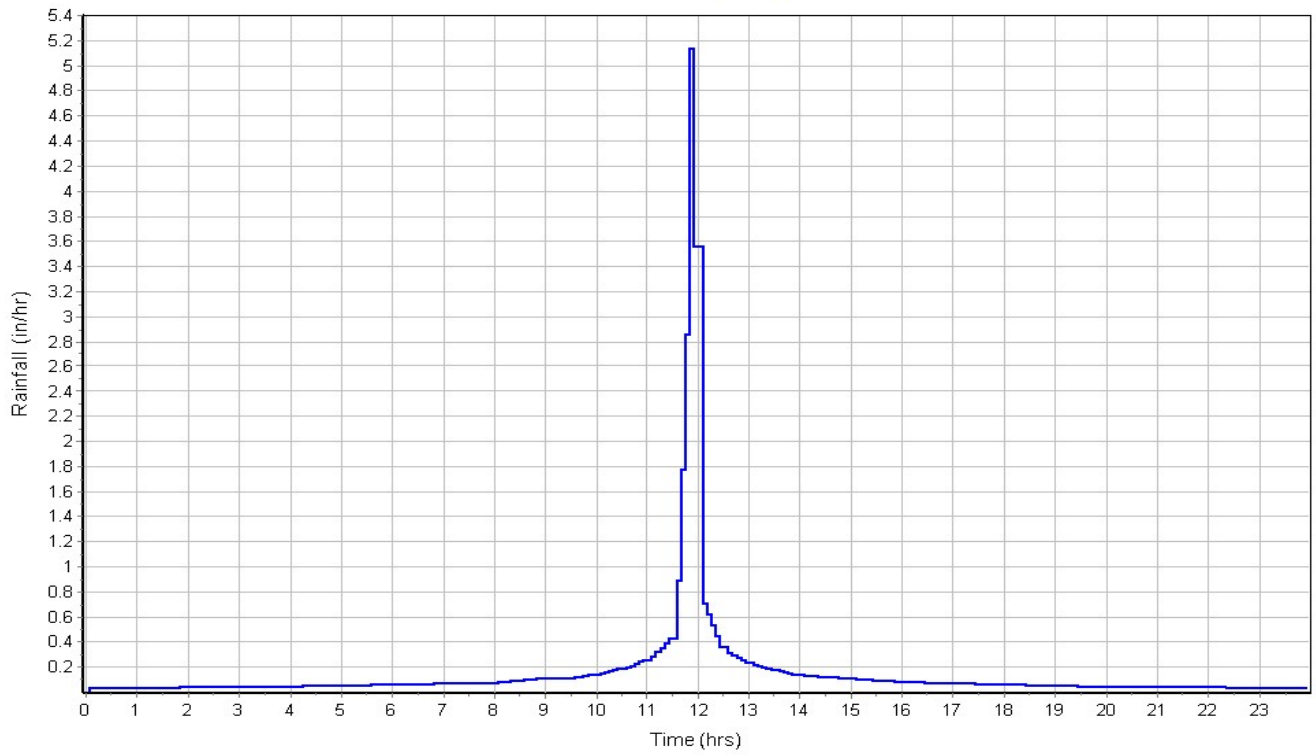
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	3.38	-	92.00
Composite Area & Weighted CN	3.38		92.00

Subbasin Runoff Results

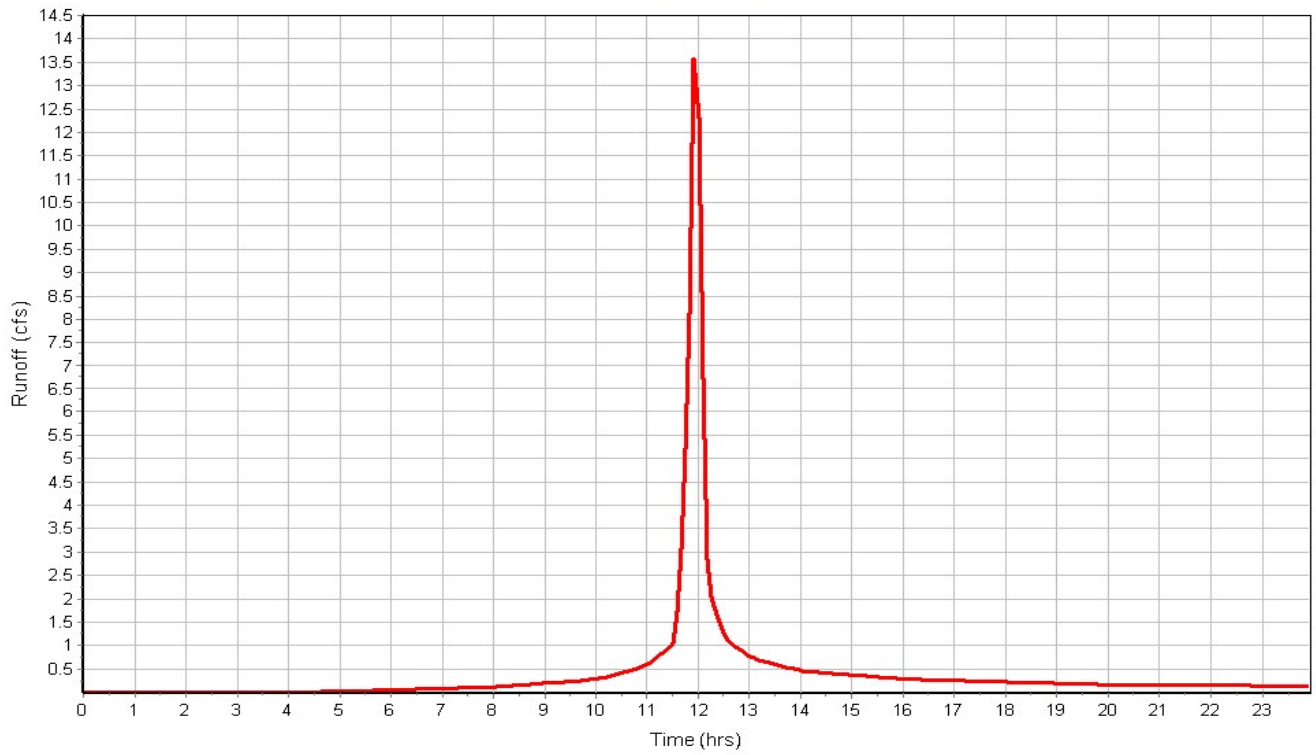
Total Rainfall (in) 3.74
Total Runoff (in) 2.87
Peak Runoff (cfs) 13.96
Weighted Curve Number 92.00
Time of Concentration (days hh:mm:ss) 0 00:07:00

Subbasin : Offsite 02 - 01

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 02 - 02

Input Data

Area (ac) 7.84
Weighted Curve Number 93.00
Rain Gage ID DublinRain

Composite Curve Number

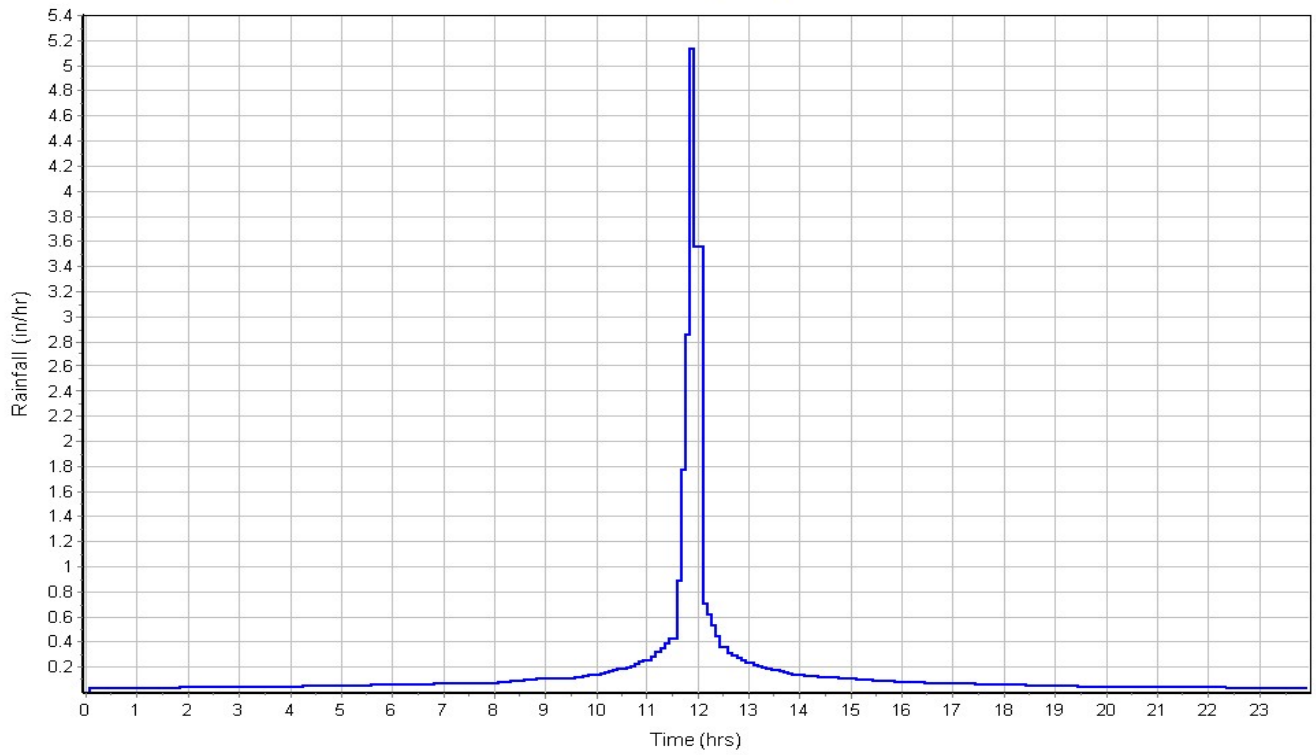
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	7.84	-	93.00
Composite Area & Weighted CN	7.84		93.00

Subbasin Runoff Results

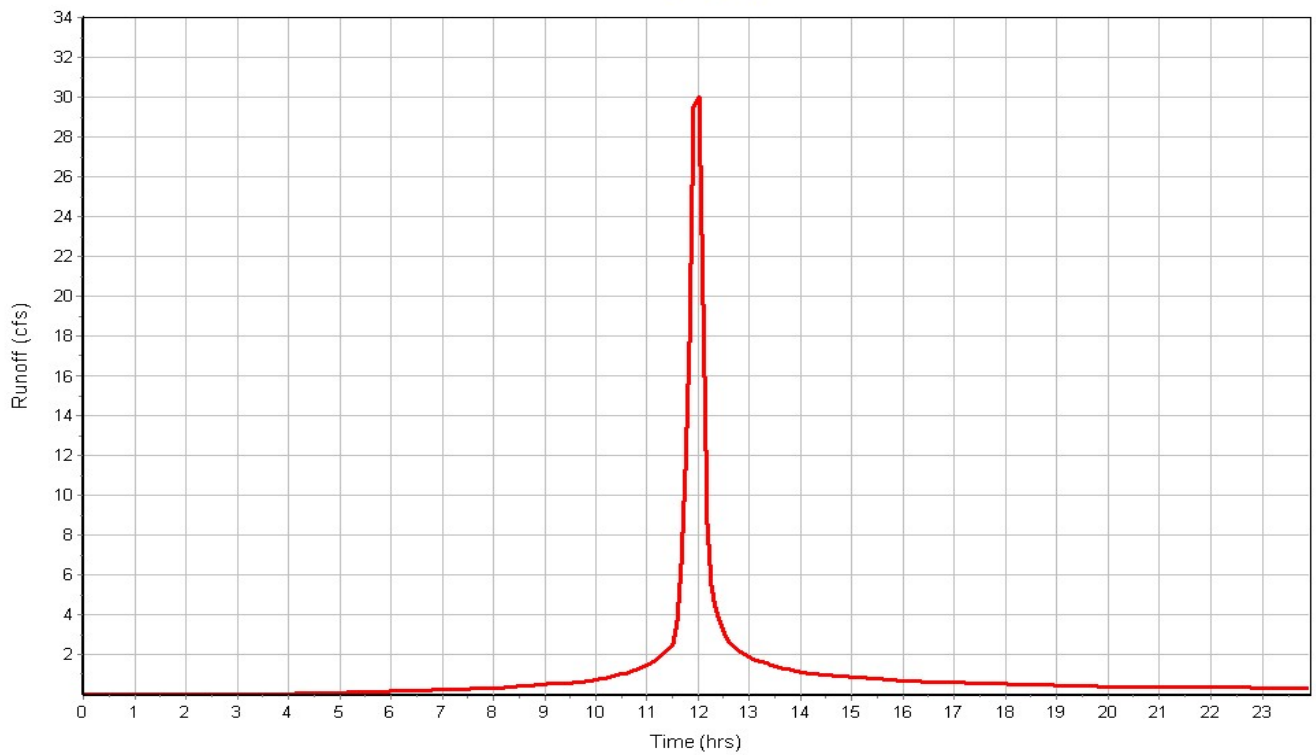
Total Rainfall (in) 3.74
Total Runoff (in) 2.97
Peak Runoff (cfs) 31.87
Weighted Curve Number 93.00
Time of Concentration (days hh:mm:ss) 0 00:08:30

Subbasin : Offsite 02 - 02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 03: Triangle outparcel

Input Data

Area (ac) 2.50
Weighted Curve Number 74.00
Rain Gage ID DublinRain

Composite Curve Number

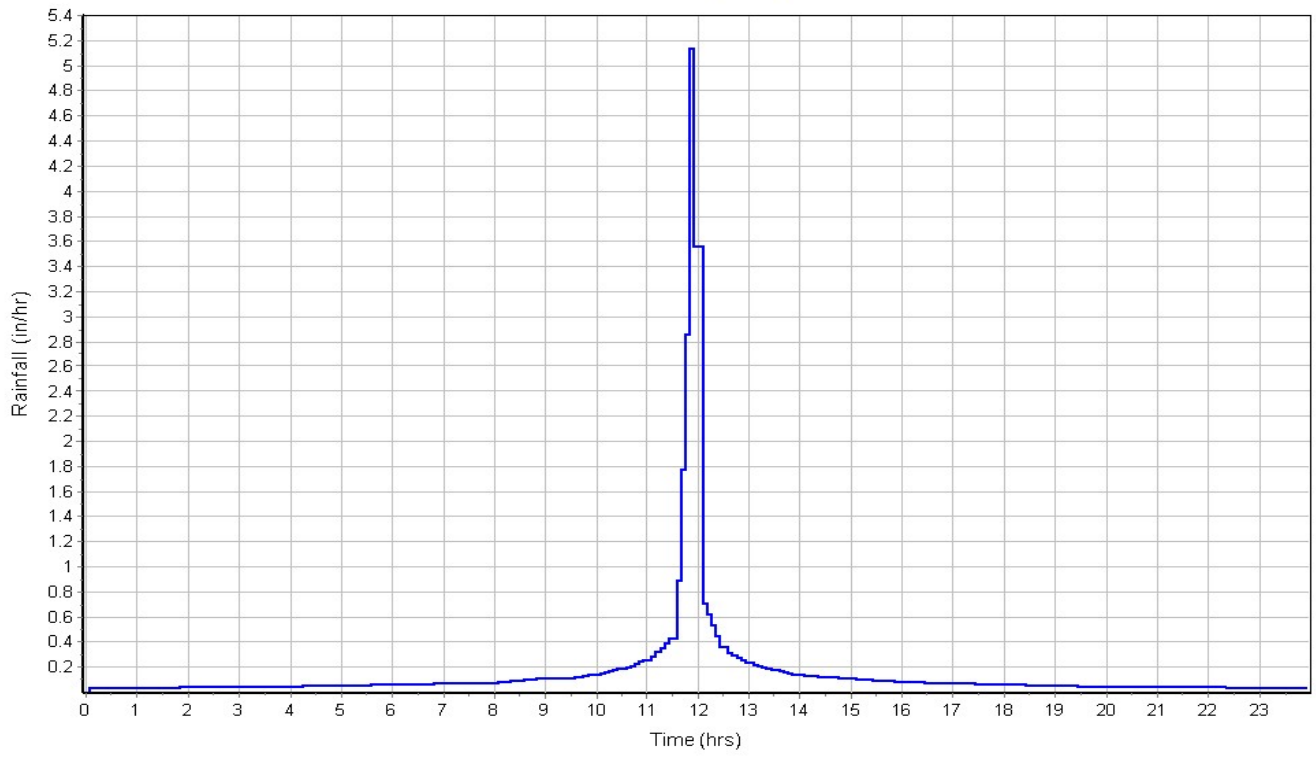
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	2.50	-	74.00
Composite Area & Weighted CN	2.50		74.00

Subbasin Runoff Results

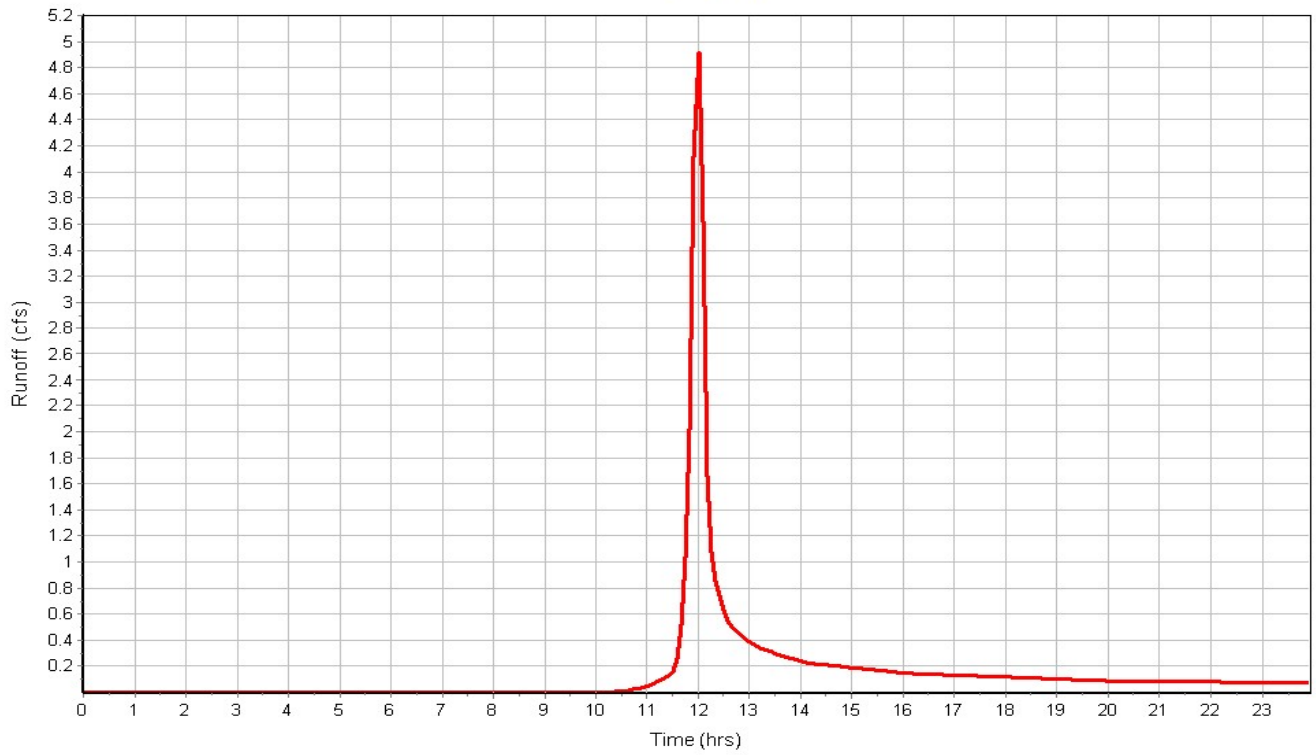
Total Rainfall (in) 3.74
Total Runoff (in) 1.41
Peak Runoff (cfs) 4.92
Weighted Curve Number 74.00
Time of Concentration (days hh:mm:ss) 0 00:09:00

Subbasin : Offsite 03: Triangle outparcel

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 04: Cendant Site

Input Data

Area (ac) 5.72
Weighted Curve Number 94.00
Rain Gage ID DublinRain

Composite Curve Number

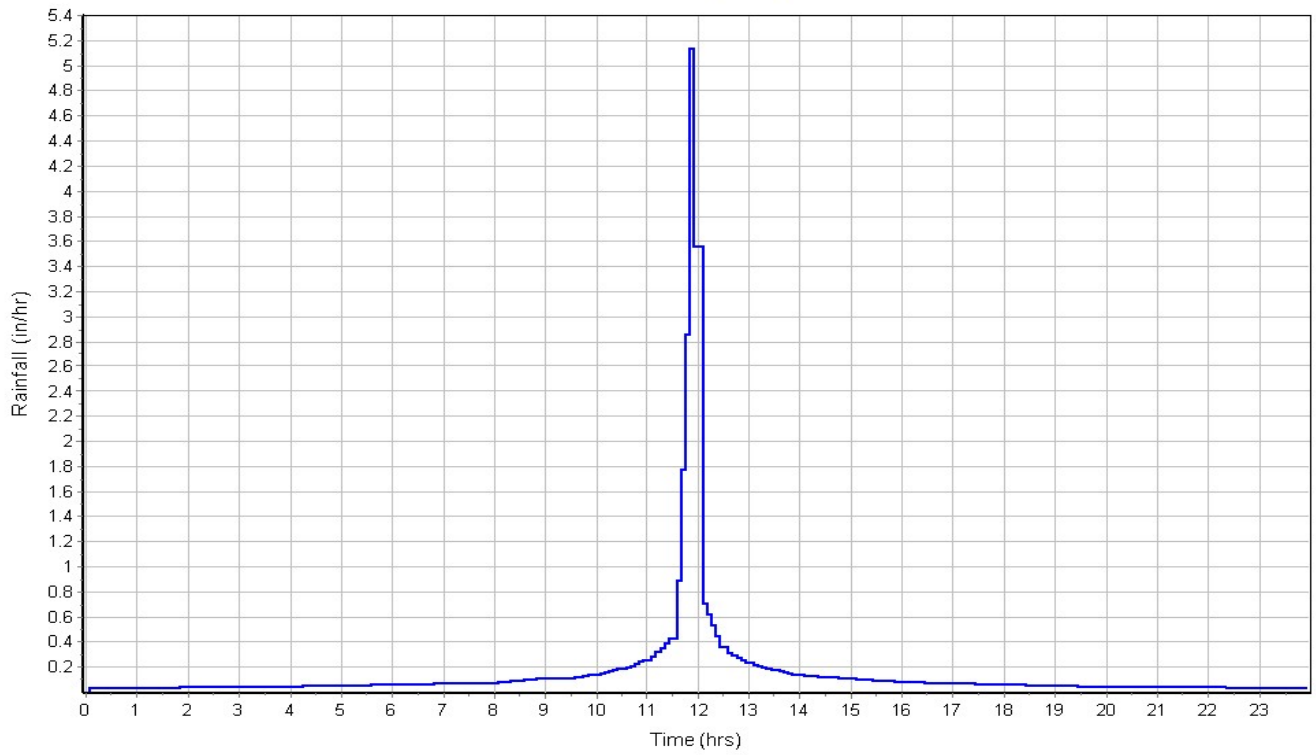
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	5.72	-	94.00
Composite Area & Weighted CN	5.72		94.00

Subbasin Runoff Results

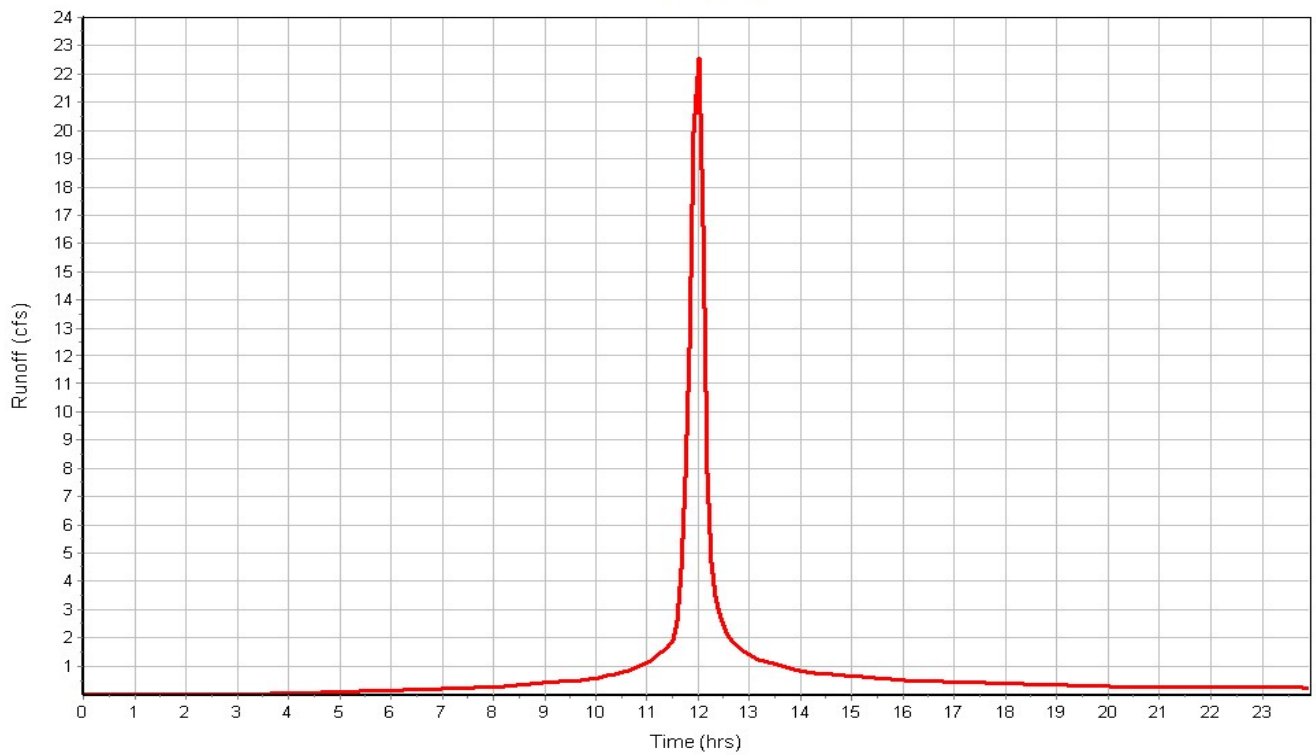
Total Rainfall (in) 3.74
Total Runoff (in) 3.07
Peak Runoff (cfs) 22.94
Weighted Curve Number 94.00
Time of Concentration (days hh:mm:ss) 0 00:10:00

Subbasin : Offsite 04: Cendant Site

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea 02 - to wb 02

Input Data

Area (ac) 0.43
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

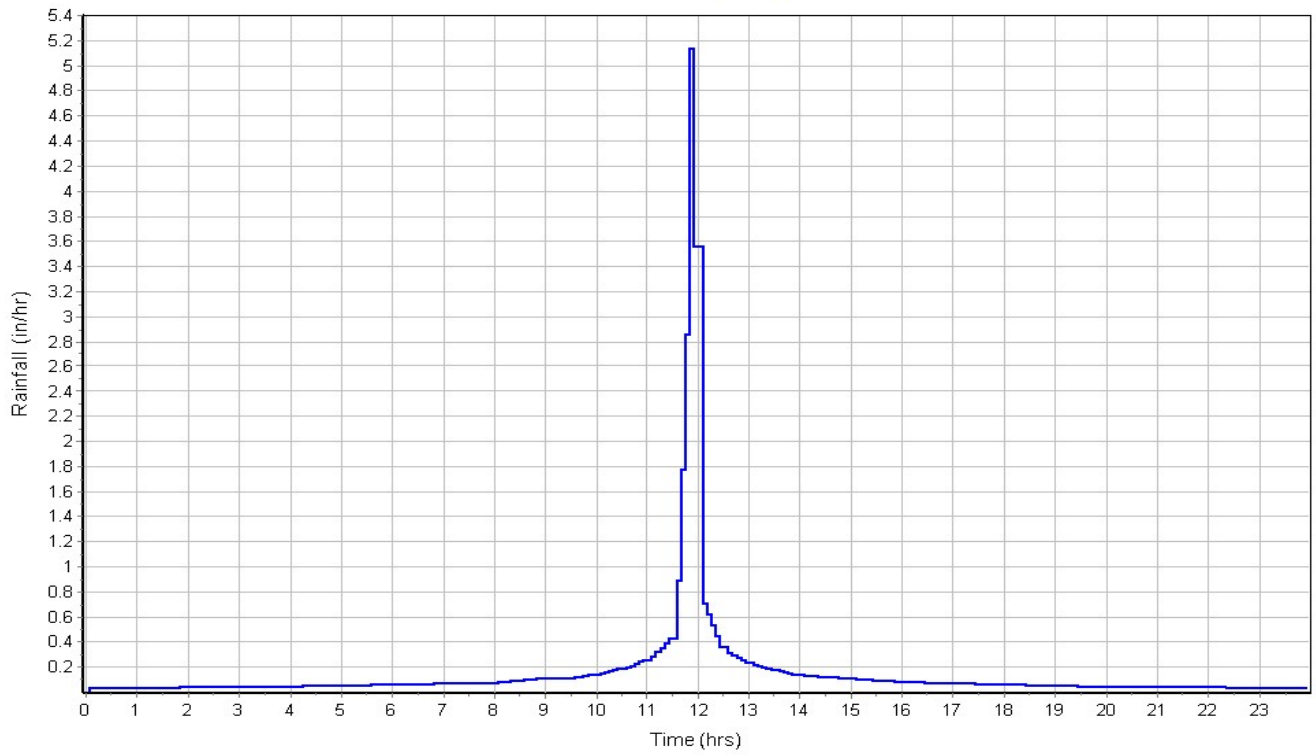
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	0.39	-	98.00
-	0.04	-	74.00
Composite Area & Weighted CN	0.43		95.60

Subbasin Runoff Results

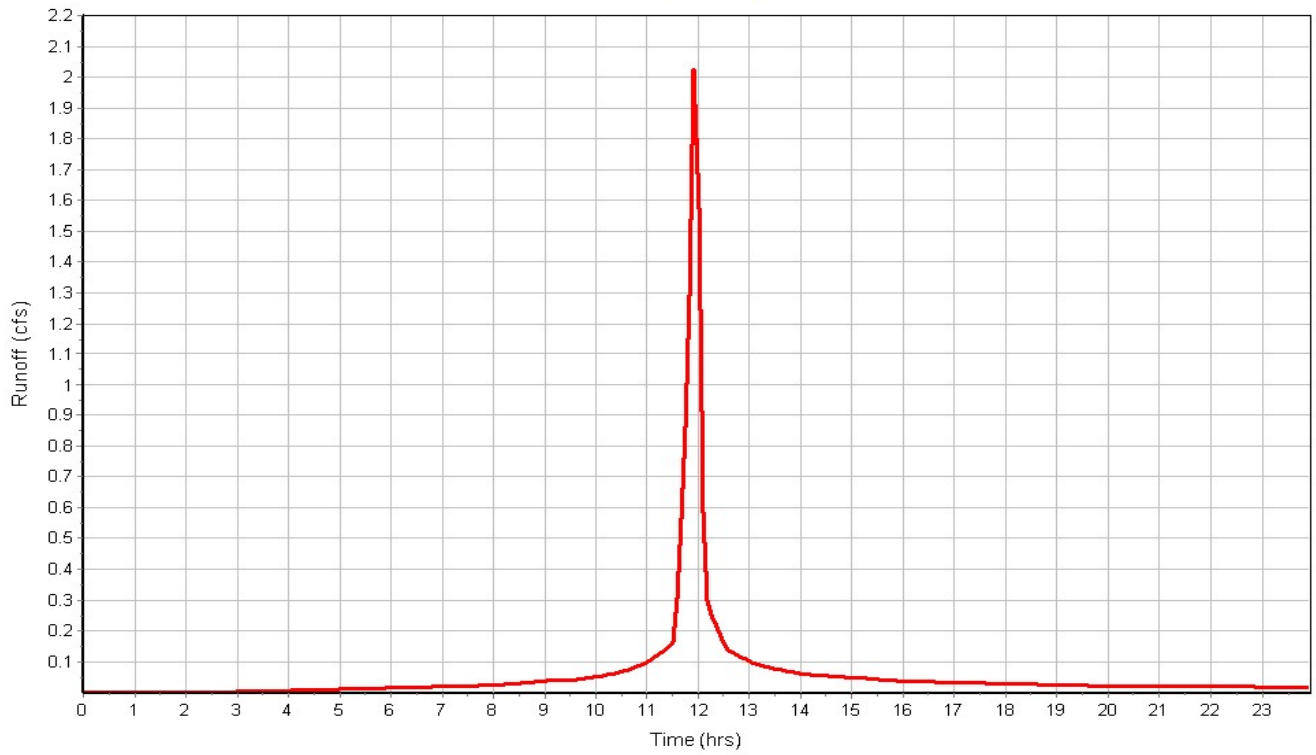
Total Rainfall (in) 3.74
Total Runoff (in) 3.24
Peak Runoff (cfs) 2.03
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea 02 - to wb 02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea 02 -to wb1

Input Data

Area (ac) 0.52
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

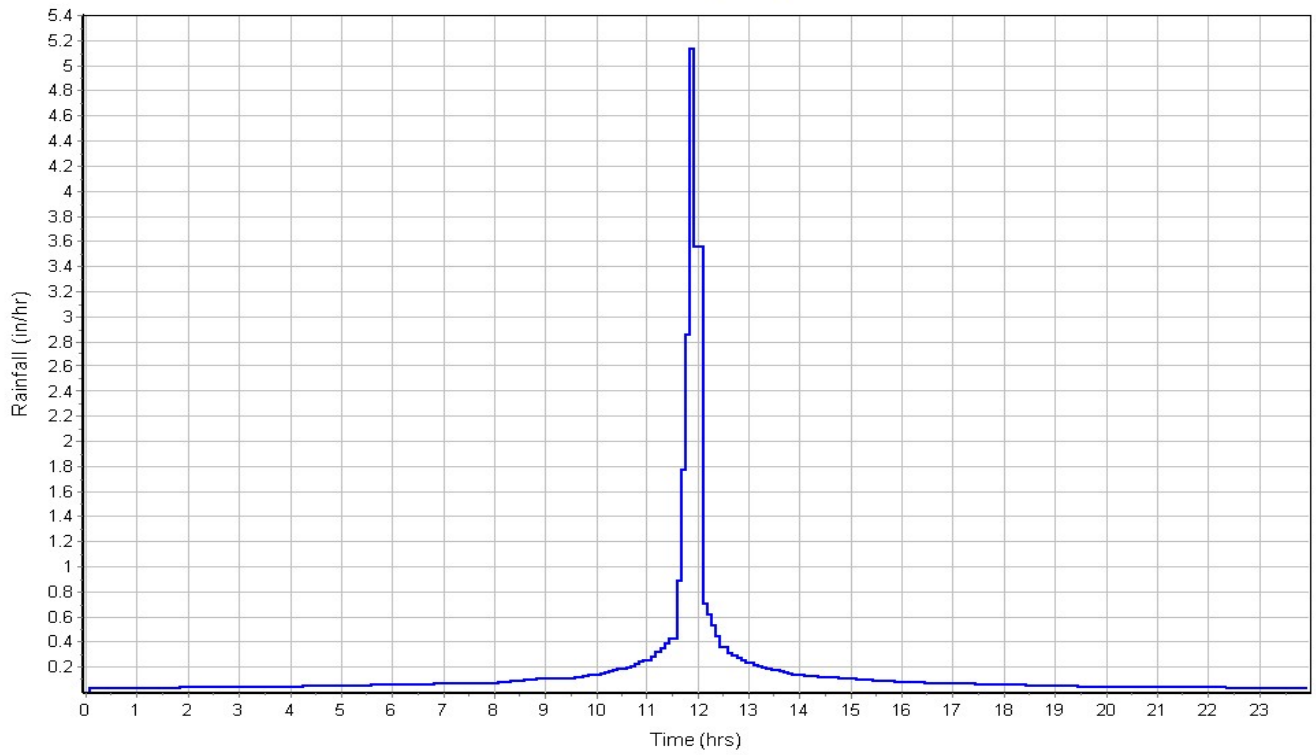
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	0.05	-	74.00
-	0.47	-	98.00
Composite Area & Weighted CN	0.52		95.60

Subbasin Runoff Results

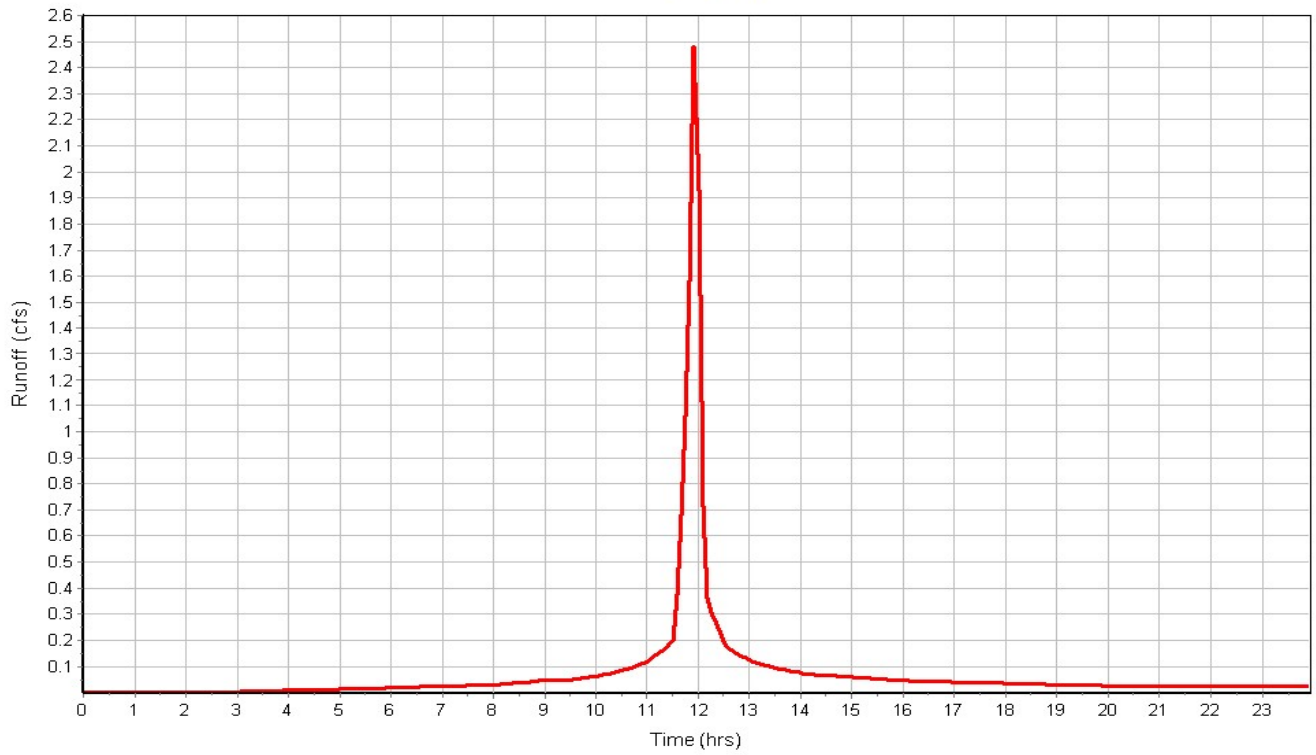
Total Rainfall (in) 3.74
Total Runoff (in) 3.24
Peak Runoff (cfs) 2.48
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea 02 -to wb1

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea 03

Input Data

Area (ac) 10.24
Weighted Curve Number 89.68
Rain Gage ID DublinRain

Composite Curve Number

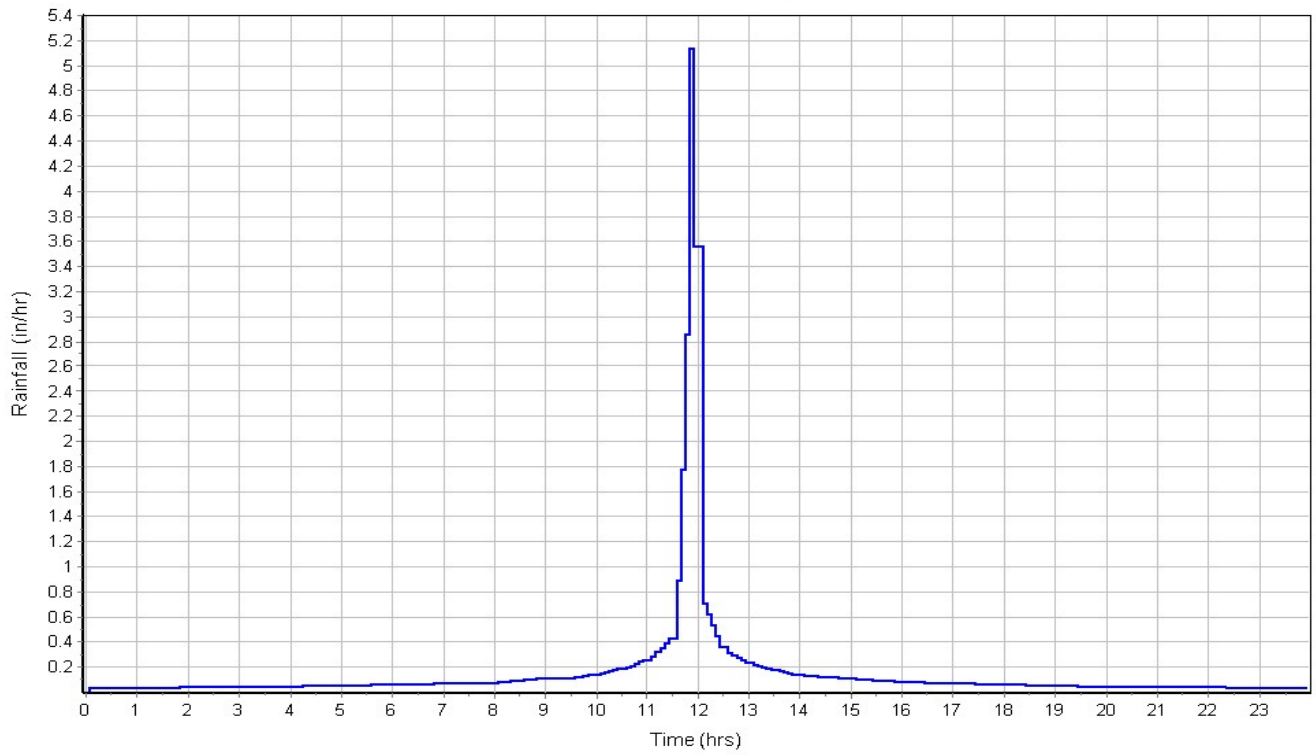
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	6.69	-	98.00
-	3.55	-	74.00
Composite Area & Weighted CN	10.24		89.68

Subbasin Runoff Results

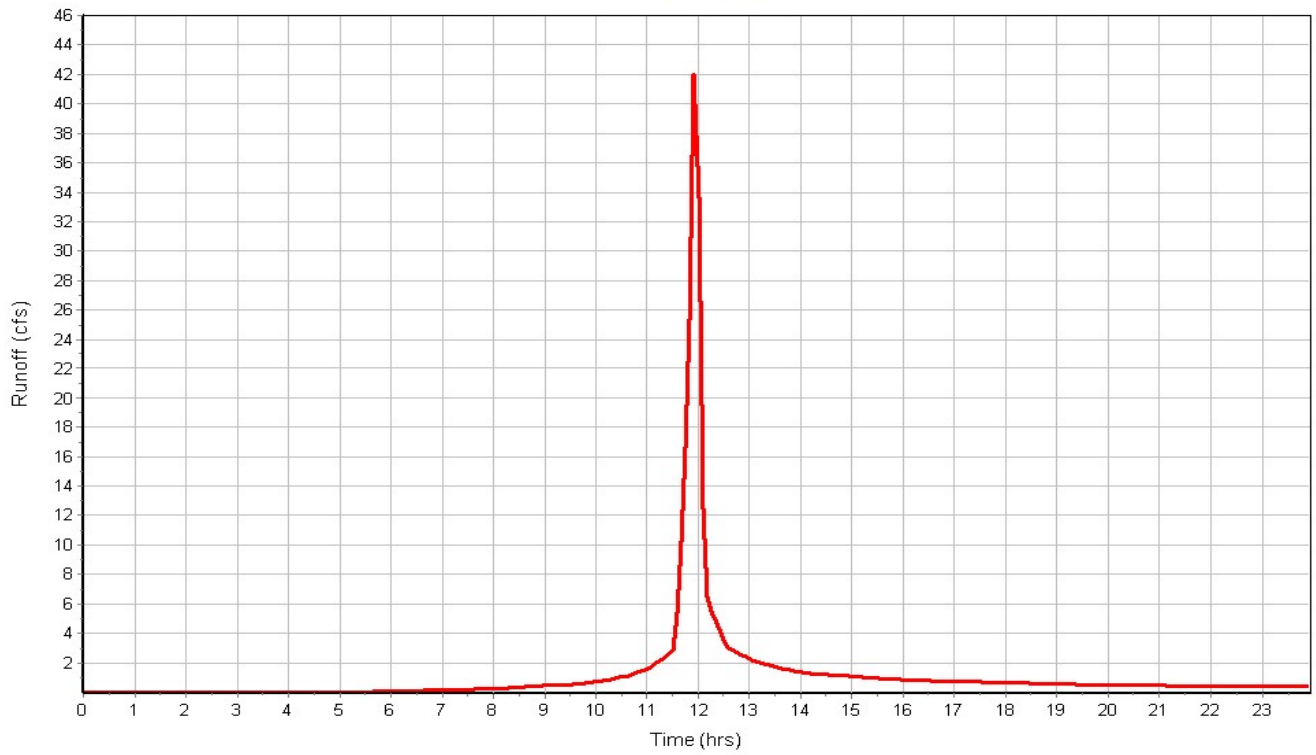
Total Rainfall (in) 3.74
Total Runoff (in) 2.64
Peak Runoff (cfs) 42.07
Weighted Curve Number 89.68
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea 03

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea01

Input Data

Area (ac) 14.97
Weighted Curve Number 90.80
Rain Gage ID DublinRain

Composite Curve Number

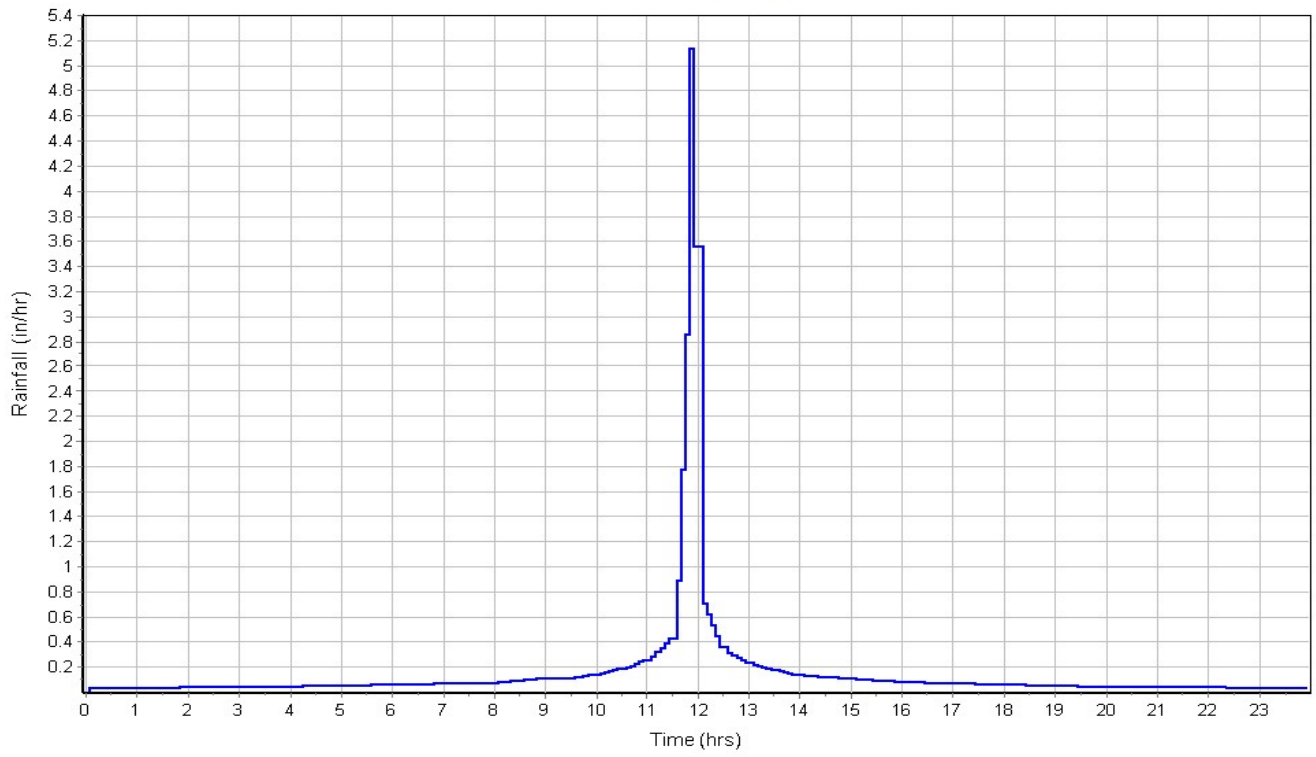
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	10.48	-	98.00
-	4.49	-	74.00
Composite Area & Weighted CN	14.97		90.80

Subbasin Runoff Results

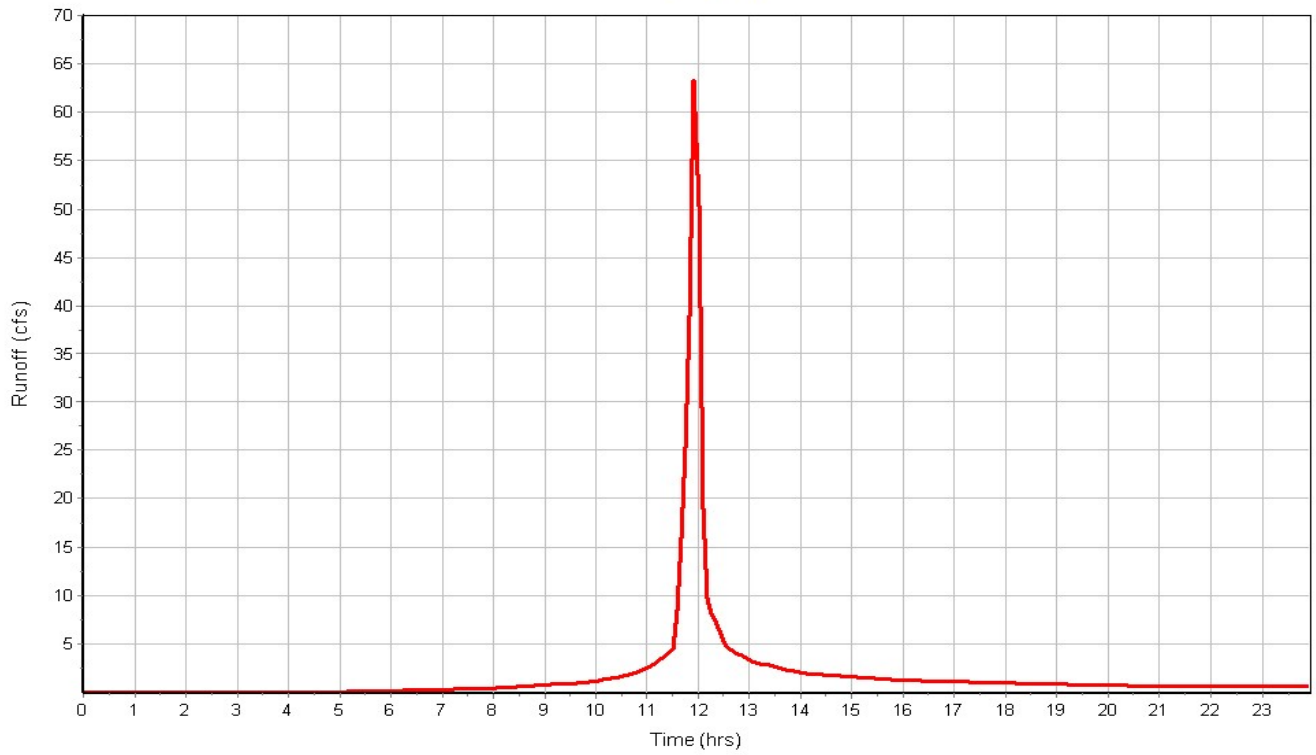
Total Rainfall (in) 3.74
Total Runoff (in) 2.75
Peak Runoff (cfs) 63.39
Weighted Curve Number 90.80
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea01

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin01

Input Data

Area (ac) 1.39
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

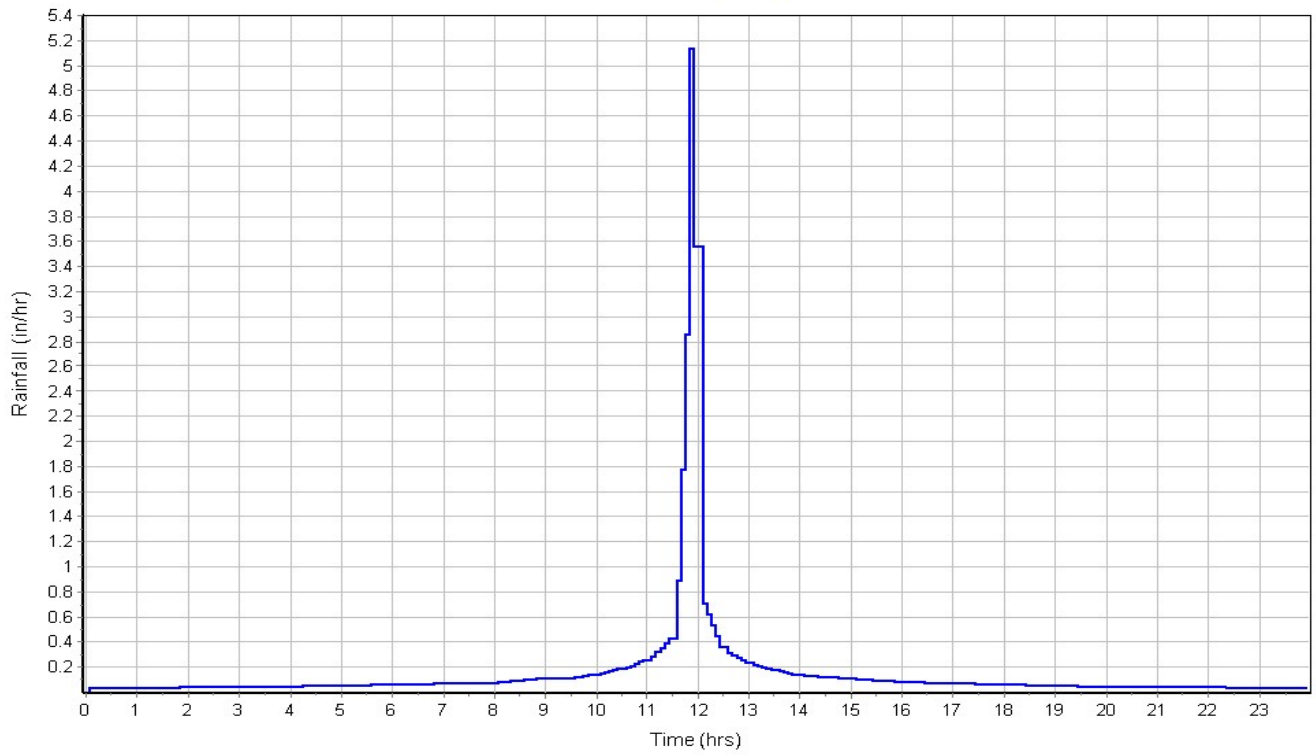
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	1.25	-	98.00
-	0.14	-	74.00
Composite Area & Weighted CN	1.39		95.60

Subbasin Runoff Results

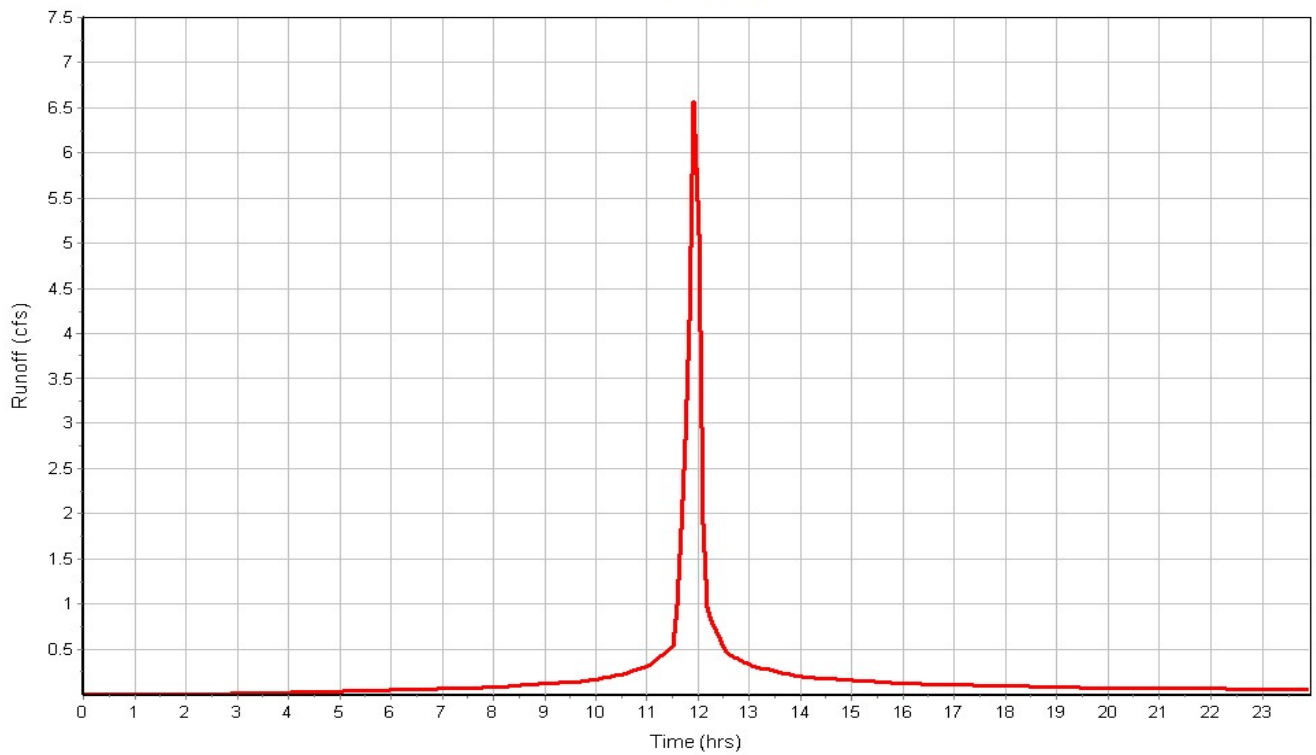
Total Rainfall (in) 3.74
Total Runoff (in) 3.24
Peak Runoff (cfs) 6.56
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin01

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin02

Input Data

Area (ac) 0.52
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

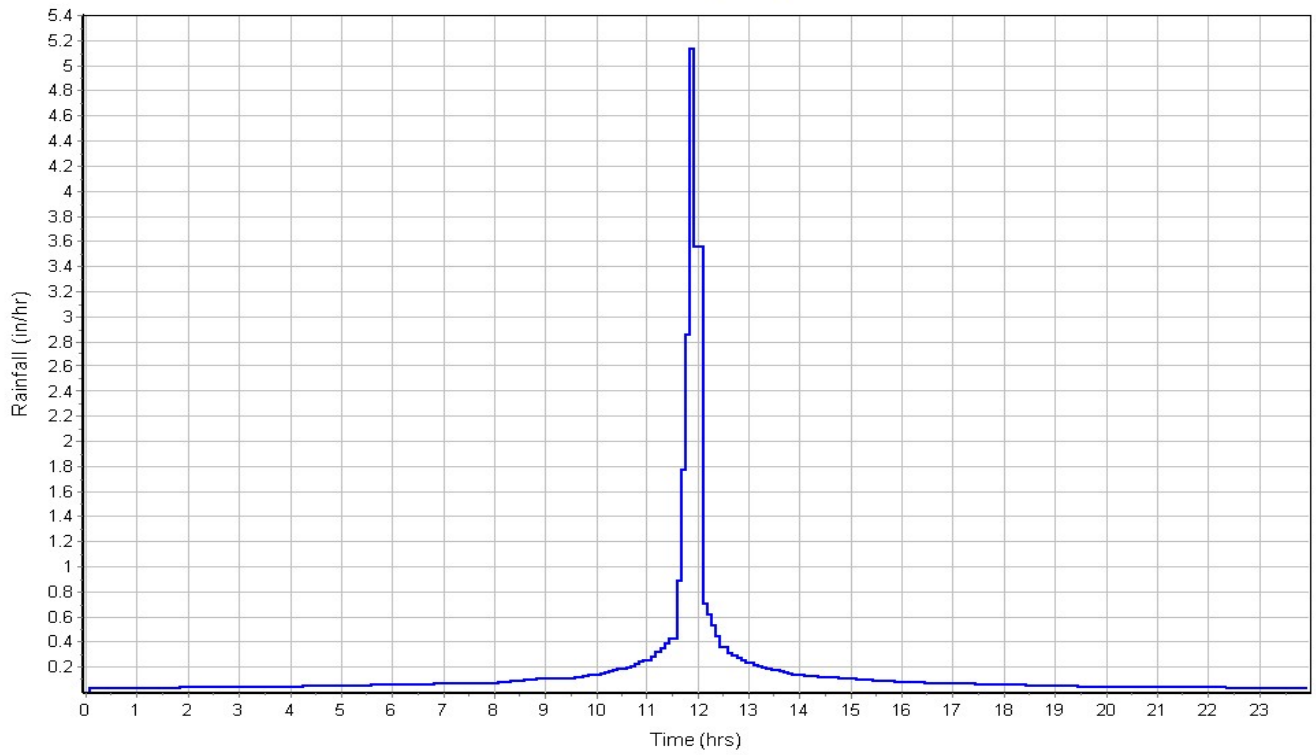
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	0.47	-	98.00
-	0.05	-	74.00
Composite Area & Weighted CN	0.52		95.60

Subbasin Runoff Results

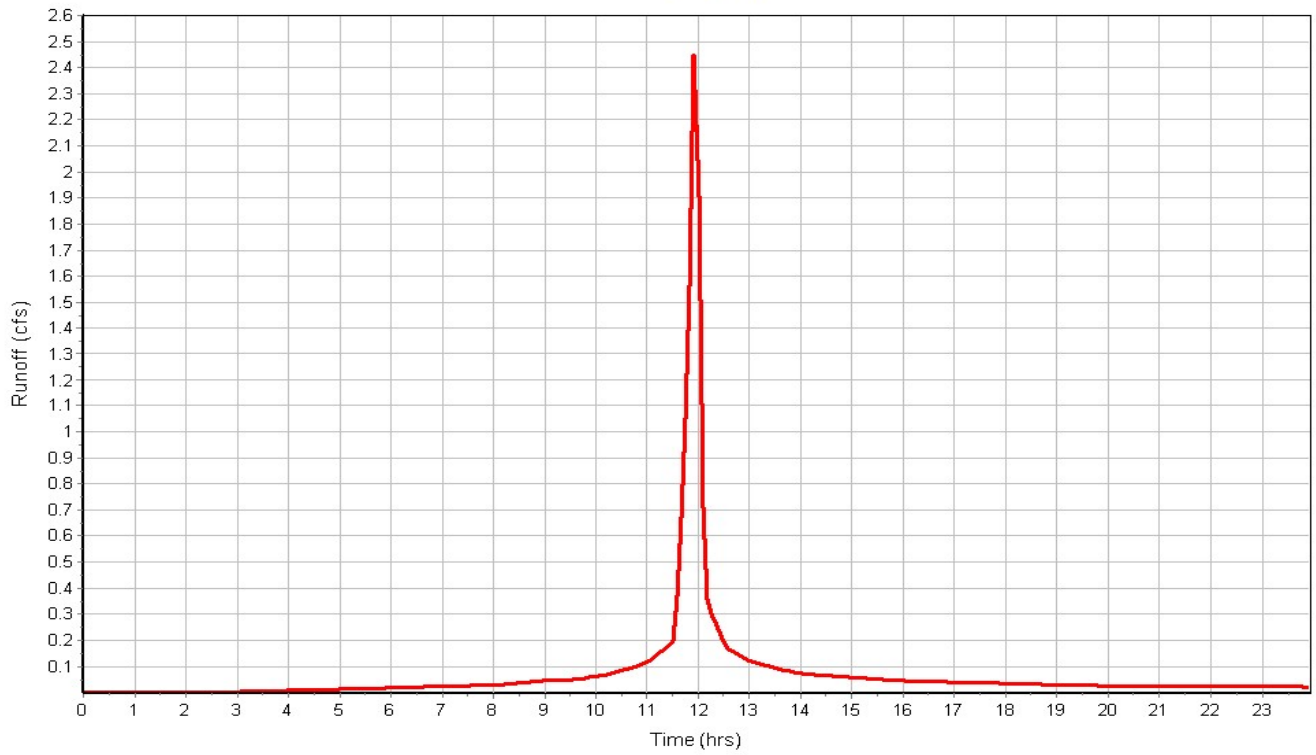
Total Rainfall (in) 3.74
Total Runoff (in) 3.24
Peak Runoff (cfs) 2.45
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin03

Input Data

Area (ac) 1.35
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

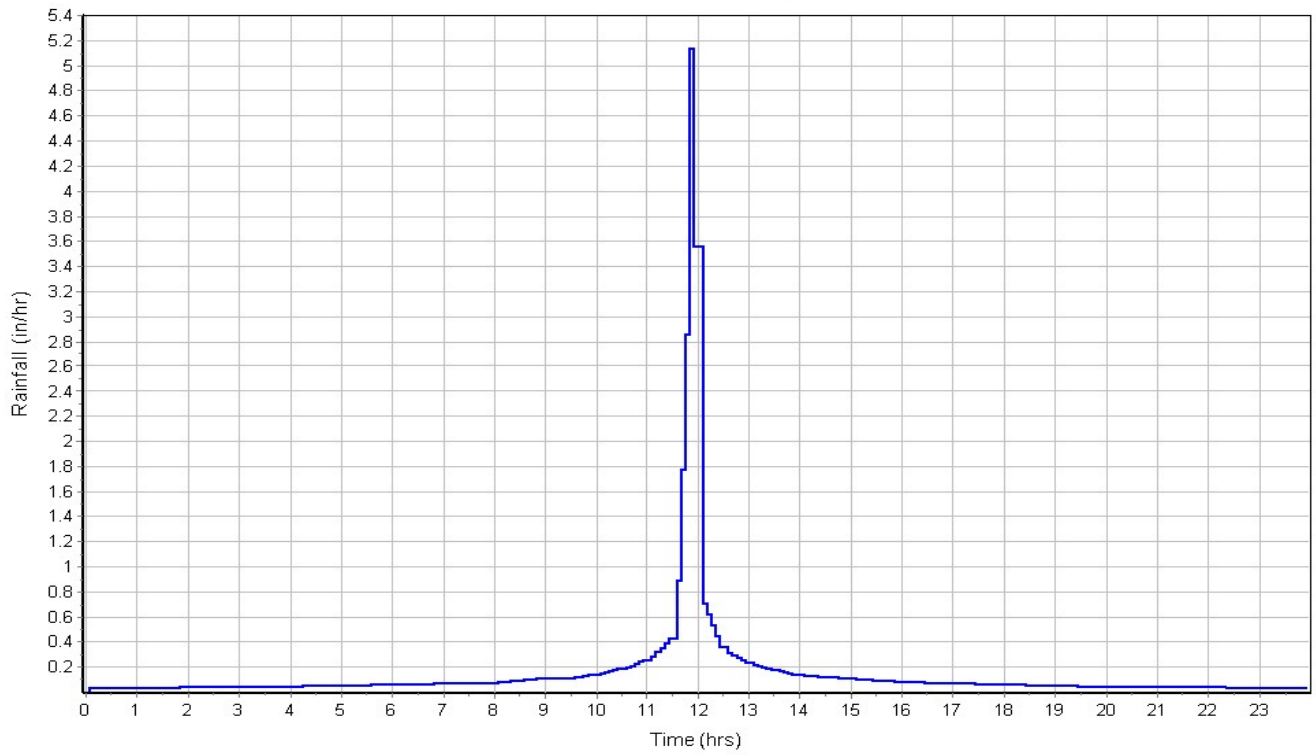
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	1.22	-	98.00
-	0.14	-	74.00
Composite Area & Weighted CN	1.36		95.60

Subbasin Runoff Results

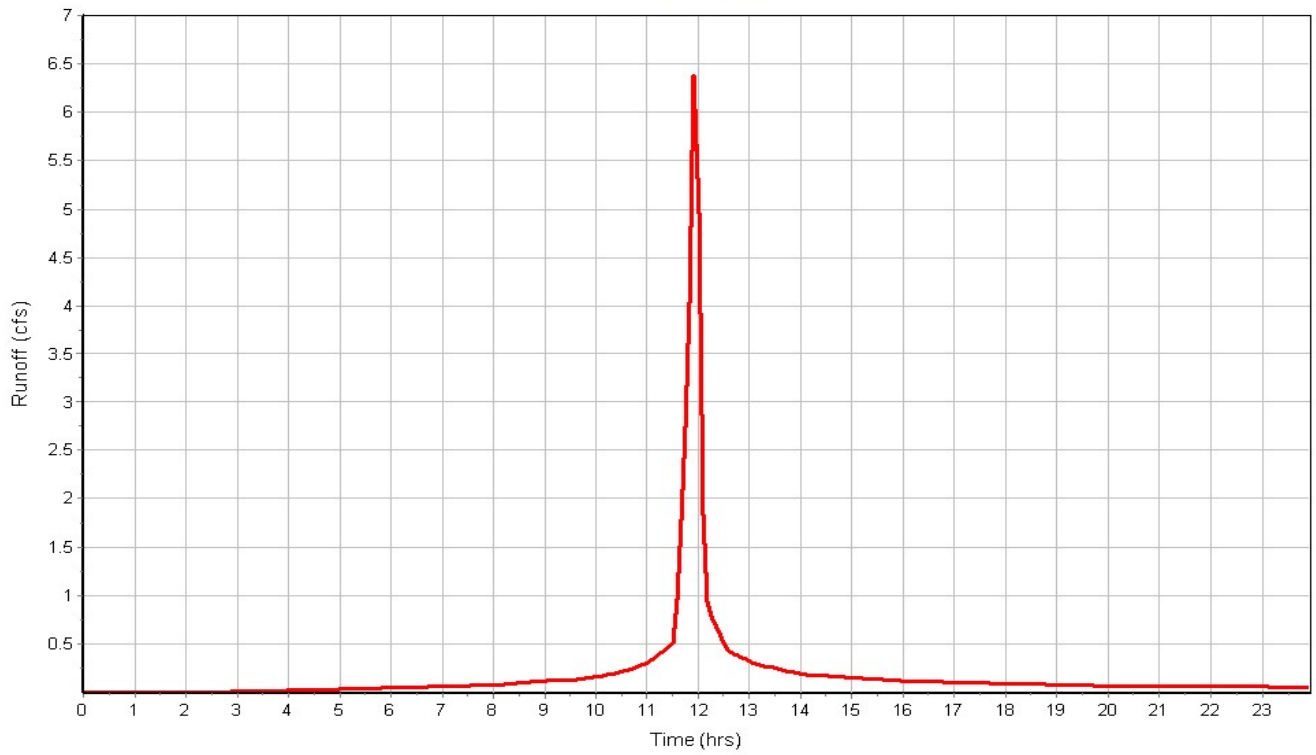
Total Rainfall (in) 3.74
Total Runoff (in) 3.24
Peak Runoff (cfs) 6.38
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin03

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin04

Input Data

Area (ac) 0.81
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

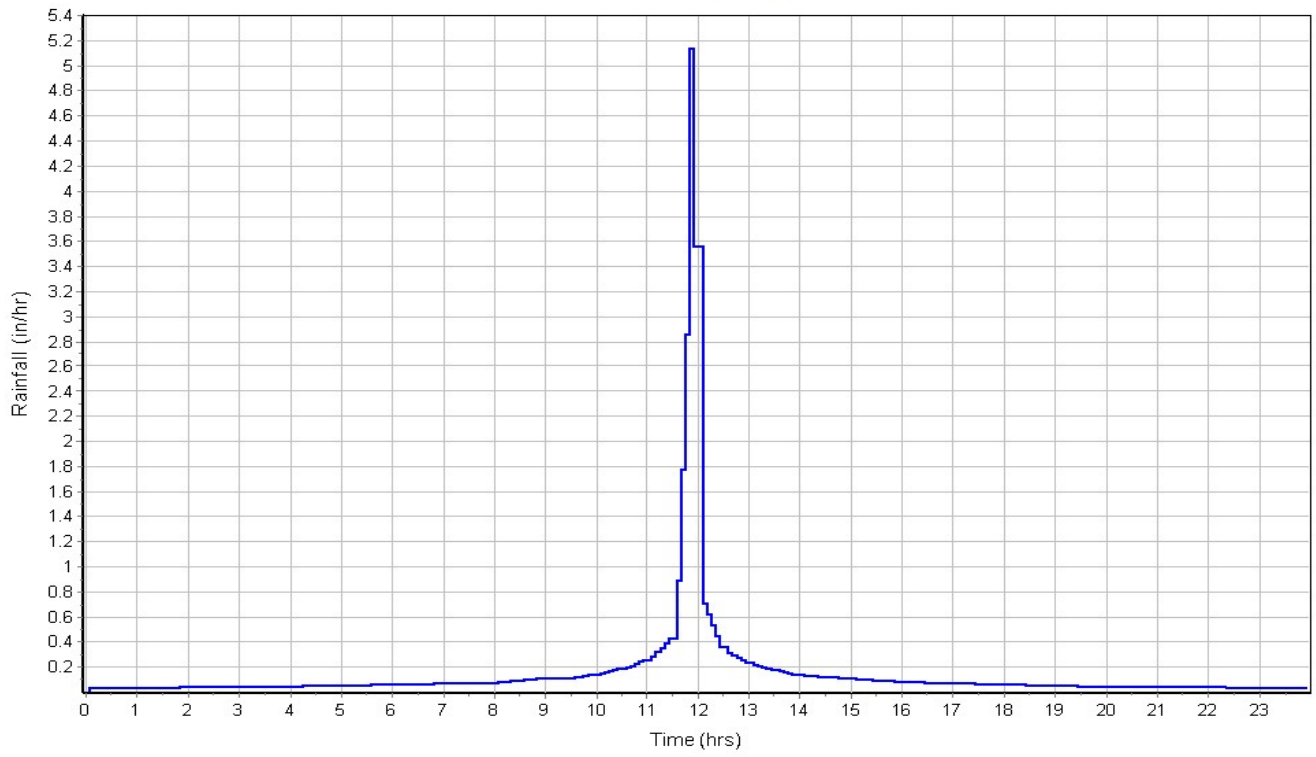
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	0.73	-	98.00
-	0.08	-	74.00
Composite Area & Weighted CN	0.81		95.60

Subbasin Runoff Results

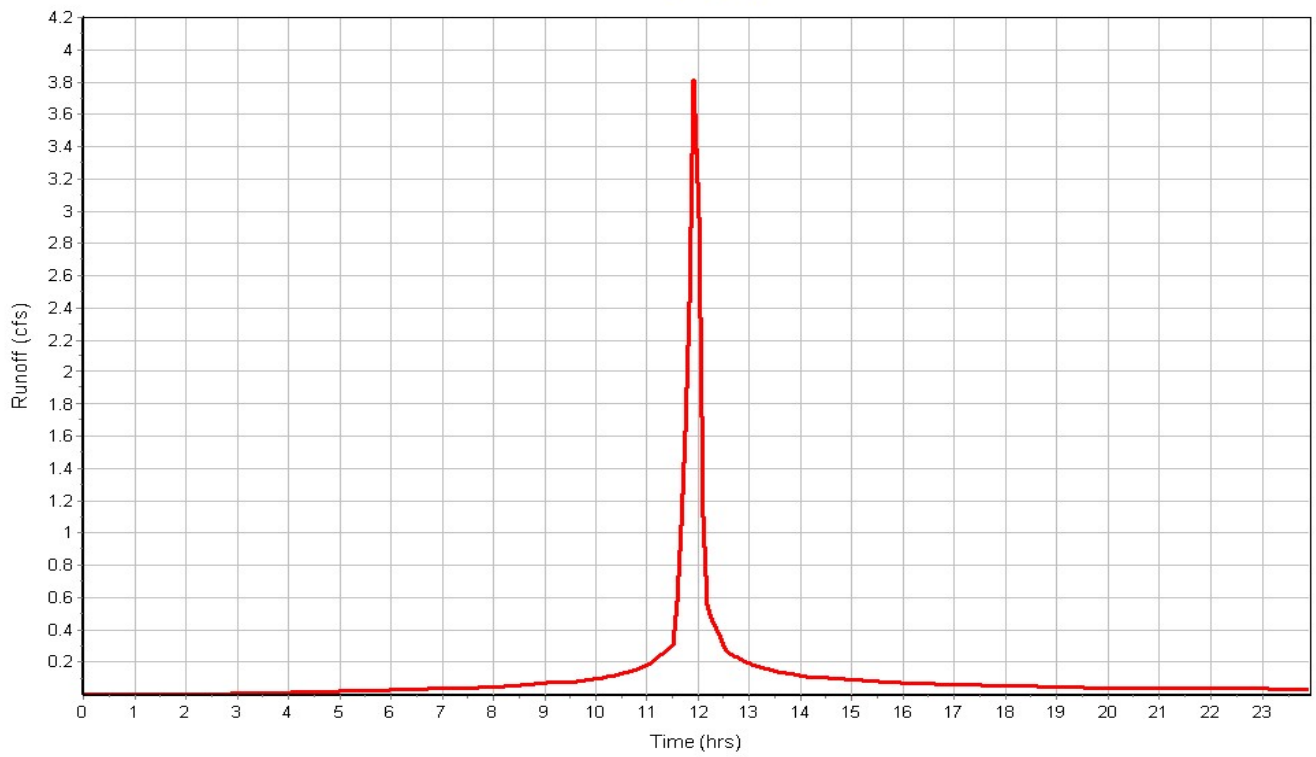
Total Rainfall (in) 3.74
Total Runoff (in) 3.24
Peak Runoff (cfs) 3.81
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin04

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin05

Input Data

Area (ac) 1.44
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

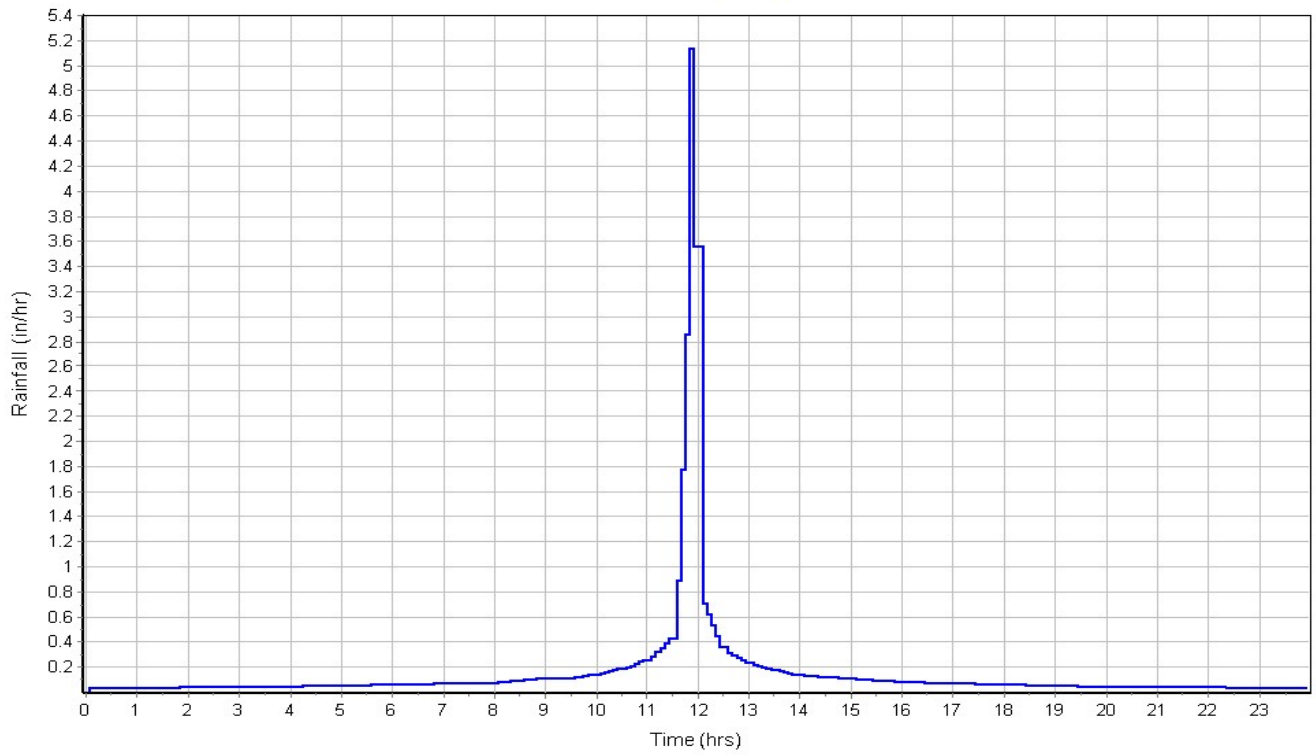
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	1.29	-	98.00
-	0.14	-	74.00
Composite Area & Weighted CN	1.43		95.60

Subbasin Runoff Results

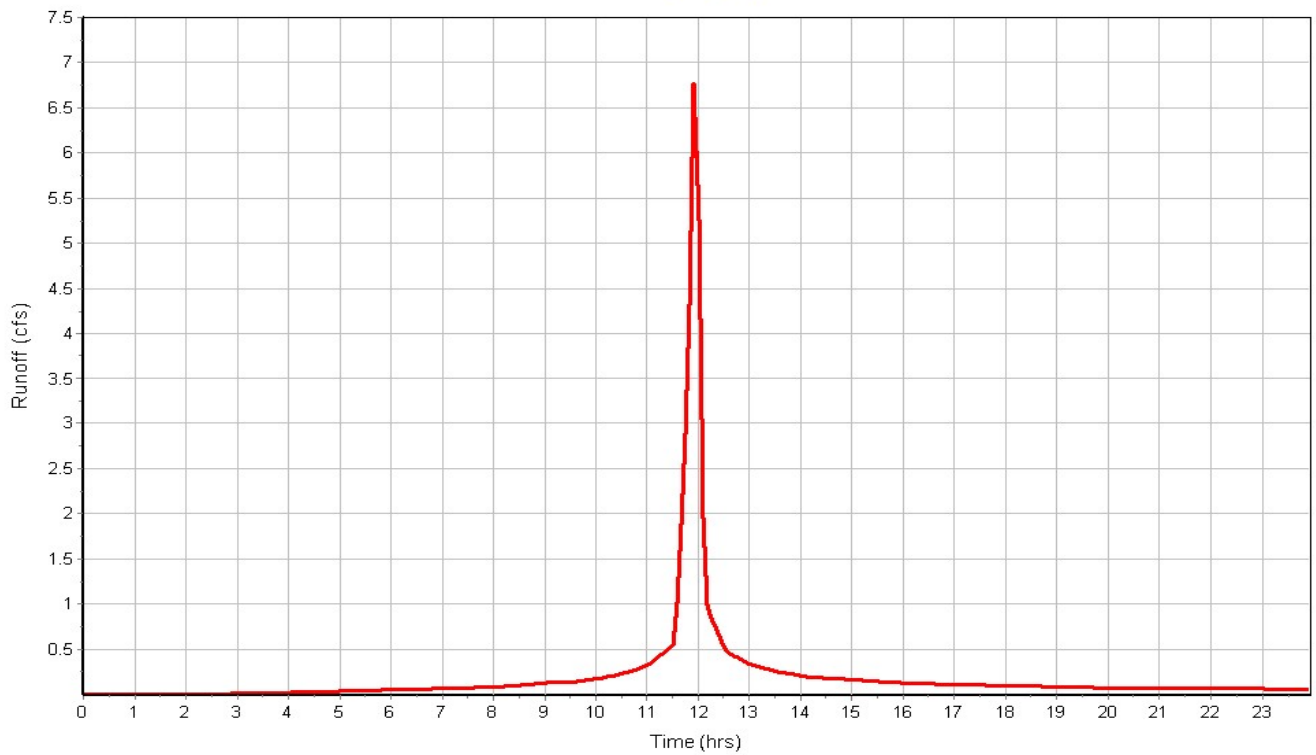
Total Rainfall (in) 3.74
Total Runoff (in) 3.24
Peak Runoff (cfs) 6.77
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin05

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToPP01-02

Input Data

Area (ac) 0.91
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

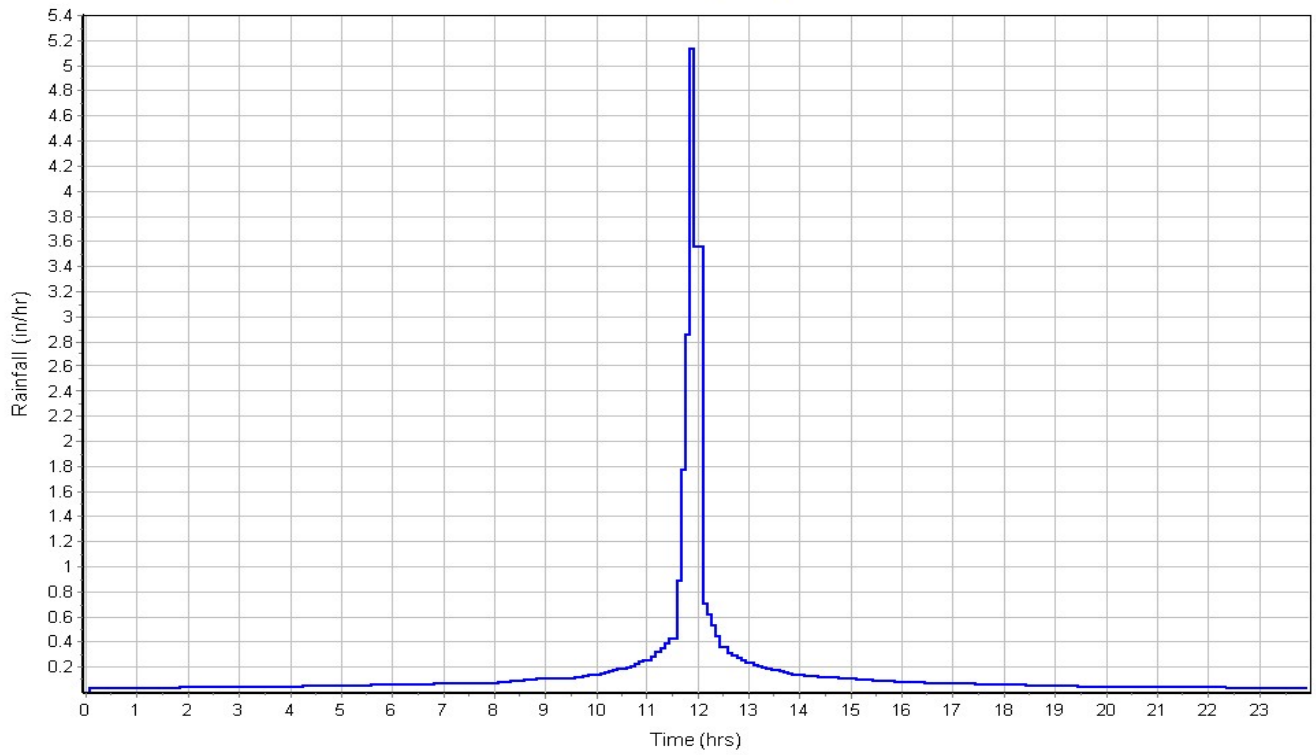
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	0.82	-	98.00
-	0.09	-	74.00
Composite Area & Weighted CN	0.91		95.60

Subbasin Runoff Results

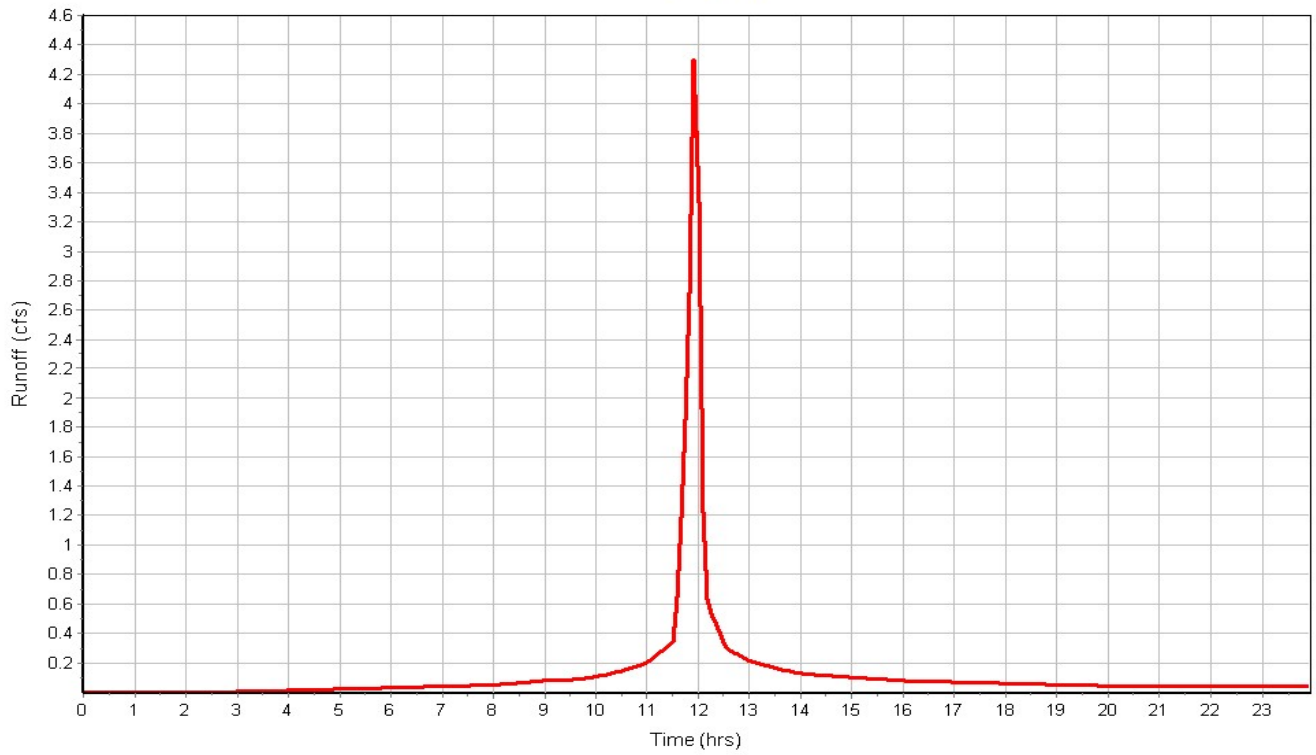
Total Rainfall (in) 3.74
Total Runoff (in) 3.24
Peak Runoff (cfs) 4.29
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToPP01-02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToPP03-04

Input Data

Area (ac) 0.93
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

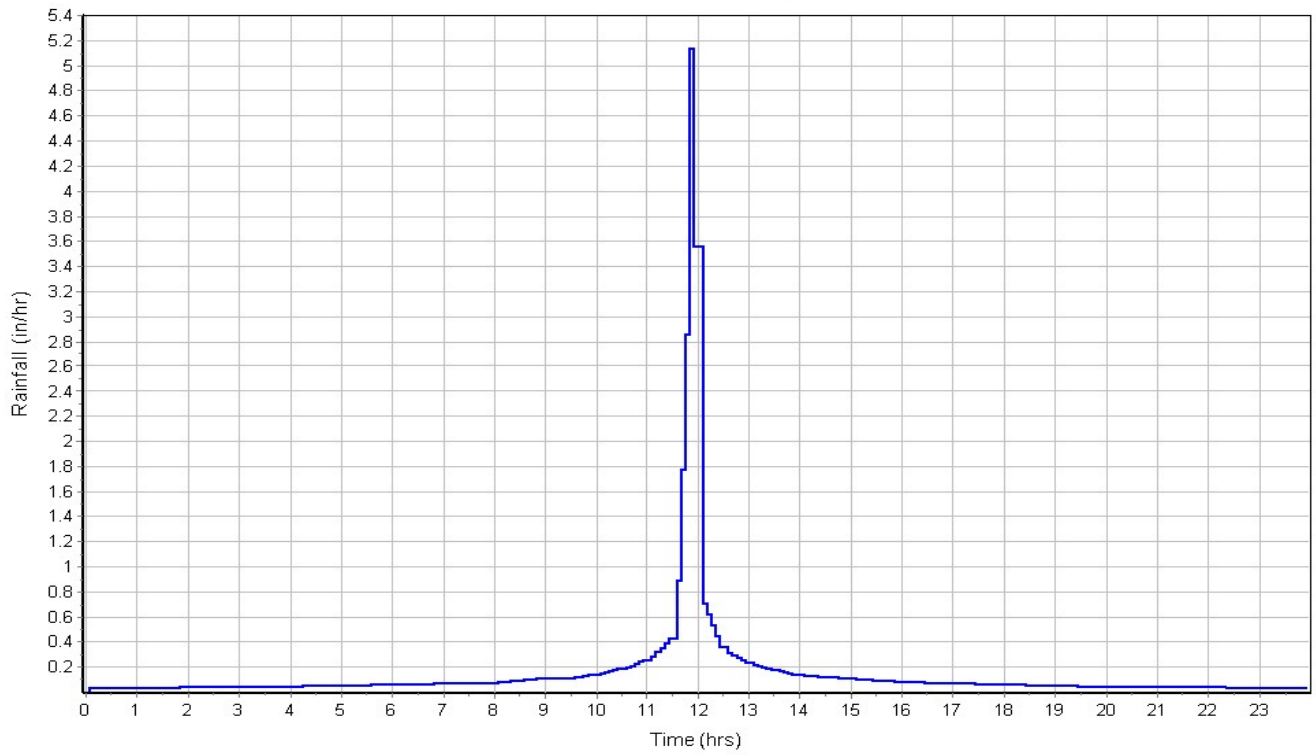
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	0.83	-	98.00
-	0.09	-	74.00
Composite Area & Weighted CN	0.92		95.60

Subbasin Runoff Results

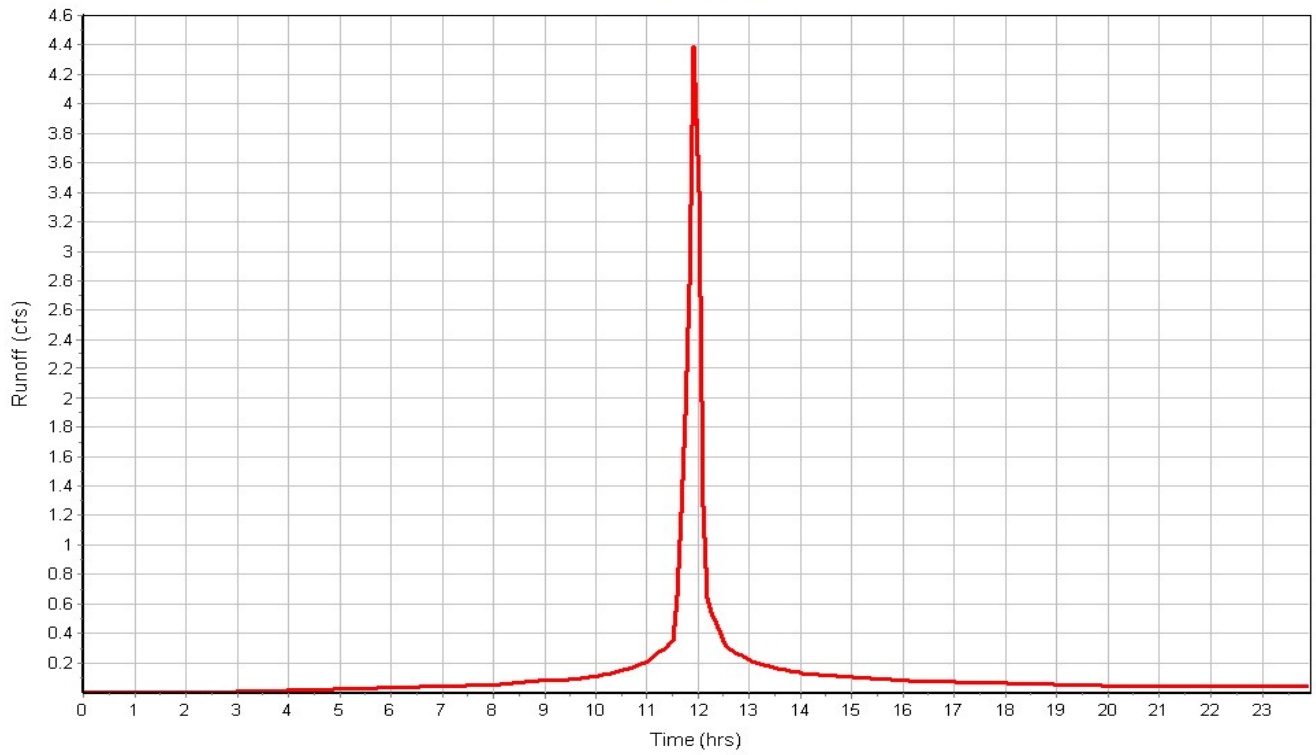
Total Rainfall (in) 3.74
Total Runoff (in) 3.24
Peak Runoff (cfs) 4.38
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToPP03-04

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 (ft ²)	Minimum Pipe Cover (in)
1 Biobasin02dummysnode	862.67	867.17	4.50	862.67	0.00	867.17	0.00	0.00	0.00
2 CatchBasin03	862.00	866.50	4.50	862.00	0.00	866.50	0.00	2879.24	0.00
3 CatchBasin04	862.44	866.94	4.50	862.44	0.00	866.94	0.00	4642.88	0.00
4 CatchBasin05	862.67	867.17	4.50	862.67	0.00	867.17	0.00	1566.12	0.00
5 CatchBasin12	862.60	867.10	4.50	862.60	0.00	867.10	0.00	6347.63	0.00
6 CatchBasin8	862.64	867.14	4.50	862.64	0.00	867.14	0.00	6037.65	0.00
7 Dummy1	861.69	867.00	5.31	861.69	0.00	867.00	0.00	0.00	0.00
8 Ex0	860.13	865.00	4.87	860.13	0.00	865.00	0.00	0.00	0.00
9 ExA	860.81	865.00	4.19	860.81	0.00	865.00	0.00	0.00	0.00
10 Existing 36-inch outlet pipe	870.00	875.50	5.50	870.00	0.00	875.50	0.00	0.00	0.00
11 Manhole 7	862.47	868.00	5.53	862.47	0.00	868.00	0.00	0.00	0.00
12 Manhole1	861.75	868.00	6.25	861.75	0.00	868.00	0.00	0.00	0.00
13 Manhole10	862.23	868.00	5.77	862.23	0.00	868.00	0.00	0.00	0.00
14 Manhole11	862.42	868.00	5.58	862.42	0.00	868.00	0.00	0.00	0.00
15 Manhole13	863.79	868.00	4.21	863.79	0.00	868.00	0.00	0.00	0.00
16 Manhole2	861.80	868.00	6.20	861.80	0.00	868.00	0.00	0.00	0.00
17 Manhole6	862.28	868.00	5.72	862.28	0.00	868.00	0.00	0.00	0.00
18 Manhole9	863.79	868.00	4.21	863.79	0.00	868.00	0.00	0.00	0.00
19 Offsite 02 outlet	877.50	881.50	4.00	877.50	0.00	881.50	0.00	0.00	0.00
20 OutToDitch	861.58	863.00	1.42	861.58	0.00	863.00	0.00	0.00	0.00
21 Stucture1	861.69	868.00	6.31	861.69	0.00	868.00	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 Surge 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 Biobasin02dummysnode	2.27	0.00	866.24	3.57	0.00	0.93	863.20	0.53	0 12:06	0 00:00	0.00	0.00
2 CatchBasin03	7.67	0.00	865.46	3.46	0.00	1.04	862.88	0.88	0 12:08	0 00:00	0.00	0.00
3 CatchBasin04	6.78	0.00	866.05	3.61	0.00	0.89	863.09	0.65	0 12:07	0 00:00	0.00	0.00
4 CatchBasin05	2.22	0.00	866.08	3.41	0.00	1.09	863.20	0.53	0 12:07	0 00:00	0.00	0.00
5 CatchBasin12	4.37	0.00	865.24	2.64	0.00	1.86	863.17	0.57	0 12:07	0 00:00	0.00	0.00
6 CatchBasin8	4.27	0.00	865.21	2.57	0.00	1.93	863.20	0.56	0 12:07	0 00:00	0.00	0.00
7 Dummy1	18.28	0.00	864.49	2.80	0.00	2.51	862.84	1.15	0 13:40	0 00:00	0.00	0.00
8 Ex0	18.00	0.00	861.30	1.17	0.00	3.70	860.67	0.54	0 13:42	0 00:00	0.00	0.00
9 ExA	24.68	0.00	864.19	3.38	0.00	2.62	861.99	1.18	0 13:42	0 00:00	0.00	0.00
10 Existing 36-inch outlet pipe	15.14	4.91	871.03	1.03	0.00	5.37	870.40	0.40	0 12:06	0 00:00	0.00	0.00
11 Manhole 7	4.23	0.00	865.02	2.55	0.00	2.98	863.09	0.62	0 12:07	0 00:00	0.00	0.00
12 Manhole1	15.93	0.00	864.46	2.71	0.00	3.54	862.80	1.05	0 12:11	0 00:00	0.00	0.00
13 Manhole10	4.42	0.00	864.82	2.59	0.00	3.18	862.96	0.73	0 12:07	0 00:00	0.00	0.00
14 Manhole11	4.34	0.00	865.03	2.61	0.00	2.97	863.06	0.64	0 12:07	0 00:00	0.00	0.00
15 Manhole13	0.22	0.00	864.82	1.03	0.00	3.18	863.97	0.18	0 12:07	0 00:00	0.00	0.00
16 Manhole2	7.50	0.00	864.81	3.01	0.00	3.19	862.81	1.01	0 12:09	0 00:00	0.00	0.00
17 Manhole6	4.32	0.00	864.83	2.55	0.00	3.17	862.99	0.71	0 12:08	0 00:00	0.00	0.00
18 Manhole9	0.21	0.00	864.83	1.04	0.00	3.17	863.97	0.18	0 12:08	0 00:00	0.00	0.00
19 Offsite 02 outlet	3.24	0.00	878.12	0.62	0.00	4.08	877.72	0.22	0 12:52	0 00:00	0.00	0.00
20 OutToDitch	29.23	0.00	864.21	2.63	0.00	3.37	862.49	0.91	0 13:42	0 00:00	0.00	0.00
21 Stucture1	29.44	0.00	864.40	2.71	0.00	3.60	862.78	1.09	0 13:38	0 00:00	0.00	0.00

Channel Input

SN Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Shape	Height (ft)	Width (ft)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate
1 Ditch	375.41	861.58	0.00	860.81	0.00	0.77	0.2100	Trapezoidal	6.000	40.000	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	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
	(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)		
1 Ditch	24.68	0 12:04	596.14	0.04	1.78	3.52	3.00	0.50	0.00		

Pipe Input

SN Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	No. of Barrels
1 1->basins	62.54	861.75	0.00	861.69	0.00	0.06	0.1000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
2 10->11	190.96	862.23	0.00	861.75	0.00	0.48	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
3 11->10	75.00	862.42	0.00	862.23	0.00	0.19	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
4 12->11	72.47	862.60	0.00	862.42	0.00	0.18	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
5 13->10	16.00	863.79	0.00	863.72	1.49	0.07	0.4400	CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
6 2->1	20.00	861.80	0.00	861.75	0.00	0.05	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
7 3->2	81.60	862.00	0.00	861.80	0.00	0.20	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
8 4->3	175.98	862.44	0.00	862.00	0.00	0.44	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
9 5->4	92.80	862.67	0.00	862.44	0.00	0.23	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
10 6->1	210.04	862.28	0.00	861.75	0.00	0.53	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
11 7->6	75.00	862.47	0.00	862.28	0.00	0.19	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
12 8->7	69.56	862.64	0.00	862.47	0.00	0.17	0.2400	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
13 9->8	16.00	863.79	0.00	863.73	1.45	0.06	0.3700	CIRCULAR	15.000	15.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
14 Basin connector	85.00	859.00	0.00	858.90	-0.10	0.10	0.1200	CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
15 Basins->outlet	109.09	861.69	0.00	861.58	0.00	0.11	0.1000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
16 Dual 18 inch pipes	35.92	860.81	0.00	860.13	0.00	0.68	1.9000	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
17 Elliptical pipe under roadway	98.05	860.07	-0.06	859.65	0.00	0.42	0.4300	Horizontal Ellipse	36.000	54.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
18 Offsite 02->outfall	84.10	877.50	0.00	875.40	5.40	2.10	2.5000	CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
19 offsite basin2 -> offsite basin 1	201.70	878.00	0.00	877.70	2.70	0.30	0.1500	CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
20 Offsite->basin	1296.34	870.00	0.00	862.00	3.00	8.00	0.6200	CIRCULAR	42.000	42.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
21 OutletPipe	10.82	862.00	0.31	861.69	0.00	0.31	2.8700	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1

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	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
	(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)		
1 1->basins	15.76	0 12:07	20.66	0.76	2.43	0.43	2.69	0.90	0.00		Calculated
2 10->11	4.34	0 12:07	5.27	0.82	2.46	1.29	1.50	1.00	268.00		SURCHARGED
3 11->10	4.34	0 12:06	5.29	0.82	2.46	0.51	1.50	1.00	244.00		SURCHARGED
4 12->11	4.34	0 12:06	5.24	0.83	2.46	0.49	1.50	1.00	214.00		SURCHARGED
5 13->10	0.17	0 12:02	2.36	0.07	1.37	0.19	0.99	1.00	3.00		SURCHARGED
6 2->1	7.50	0 12:05	5.25	1.43	4.24	0.08	1.50	1.00	323.00		SURCHARGED
7 3->2	7.50	0 12:05	5.20	1.44	4.24	0.32	1.50	1.00	297.00		SURCHARGED
8 4->3	6.21	0 12:03	5.25	1.18	3.51	0.84	1.50	1.00	243.00		SURCHARGED
9 5->4	2.22	0 12:00	5.23	0.42	1.54	1.00	1.50	1.00	205.00		SURCHARGED
10 6->1	4.15	0 12:07	5.28	0.79	2.35	1.49	1.50	1.00	262.00		SURCHARGED
11 7->6	4.23	0 12:06	5.29	0.80	2.39	0.52	1.50	1.00	236.00		SURCHARGED
12 8->7	4.23	0 12:06	5.19	0.81	2.39	0.49	1.50	1.00	208.00		SURCHARGED
13 9->8	0.16	0 12:02	3.96	0.04	1.36	0.20	1.02	0.85	0.00		Calculated
14 Basin connector	11.29	0 12:06	0.78	14.56	3.60	0.39	2.00	1.00	1440.00		SURCHARGED
15 Basins->outlet	29.23	0 12:07	21.18	1.38	5.82	0.31	2.67	0.89	0.00		> CAPACITY
16 Dual 18 inch pipes	18.00	0 13:42	14.48	1.24	10.84	0.06	1.33	0.89	0.00		> CAPACITY
17 Elliptical pipe under roadway	18.00	0 13:42	86.04	0.21	5.23	0.31	1.08	0.36	0.00		Calculated
18 Offsite 02->outfall	3.24	0 12:52	5.63	0.57	6.82	0.21	0.58	0.58	0.00		Calculated
19 offsite basin2 -> offsite basin 1	13.44	0 12:12	8.72	1.54	4.72	0.71	1.95	0.98	0.00		> CAPACITY
20 Offsite->basin	14.93	0 12:06	79.04	0.19	4.02	5.37	1.88	0.54	0.00		Calculated
21 OutletPipe	16.84	0 13:54	112.90	0.15	4.07	0.04	2.60	0.87	0.00		Calculated

Storage Nodes

Storage Node : Biobasin 01

Input Data

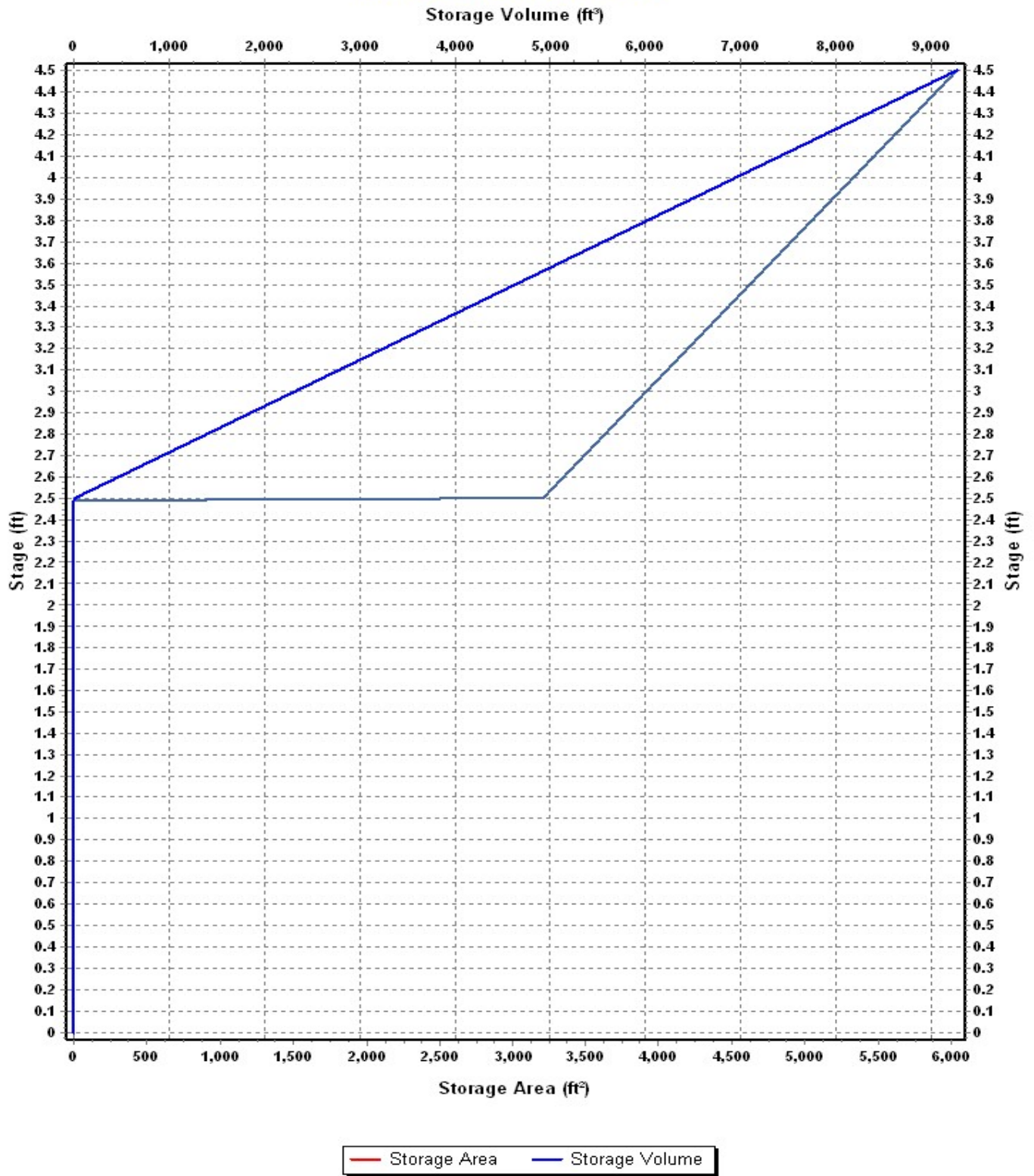
Invert Elevation (ft)	862.64
Max (Rim) Elevation (ft)	867.14
Max (Rim) Offset (ft)	4.50
Initial Water Elevation (ft)	865.14
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	3205.91	18.52
4.5	6037.65	9262.08

Storage Area Volume Curves



Storage Node : Biobasin 01 (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 Biobasin01grate	Bottom	Rectangular	No		19.60	19.60	866.14	0.60

Output Summary Results

Peak Inflow (cfs)	6.56
Peak Lateral Inflow (cfs)	6.56
Peak Outflow (cfs)	4.27
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.47
Max HGL Depth Attained (ft)	3.83
Average HGL Elevation Attained (ft)	865.61
Average HGL Depth Attained (ft)	2.97
Time of Max HGL Occurrence (days hh:mm)	0 12:06
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin02

Input Data

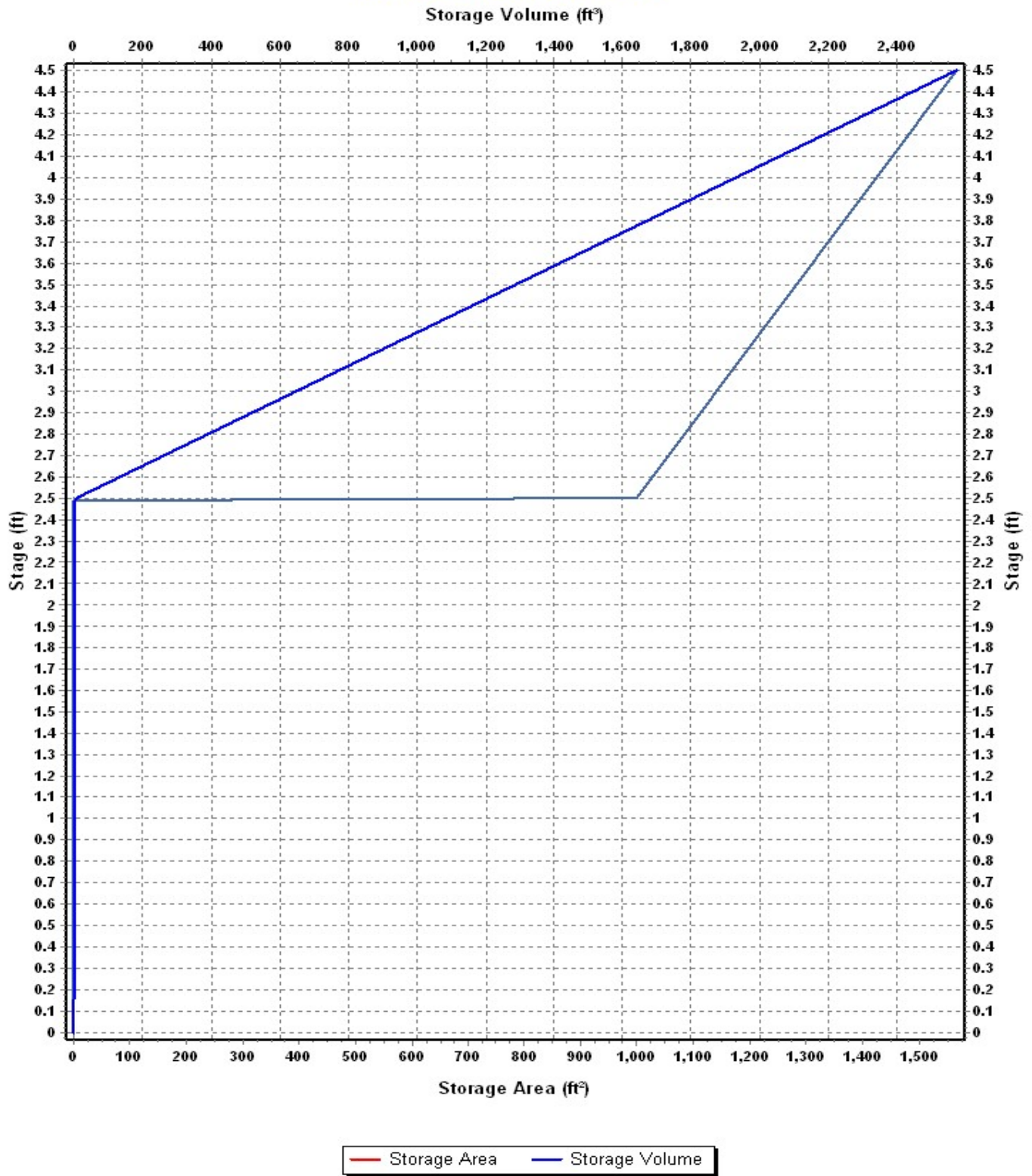
Invert Elevation (ft)	862.67
Max (Rim) Elevation (ft)	867.17
Max (Rim) Offset (ft)	4.50
Initial Water Elevation (ft)	865.17
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	999.15	7.49
4.5	1566.12	2572.76

Storage Area Volume Curves



Storage Node : Biobasin02 (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 Biobasin02grate	Bottom	Rectangular	No		19.60	19.60	866.17	0.60

Output Summary Results

Peak Inflow (cfs)	2.45
Peak Lateral Inflow (cfs)	2.45
Peak Outflow (cfs)	2.27
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.41
Max HGL Depth Attained (ft)	3.74
Average HGL Elevation Attained (ft)	865.66
Average HGL Depth Attained (ft)	2.99
Time of Max HGL Occurrence (days hh:mm)	0 12:06
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin03

Input Data

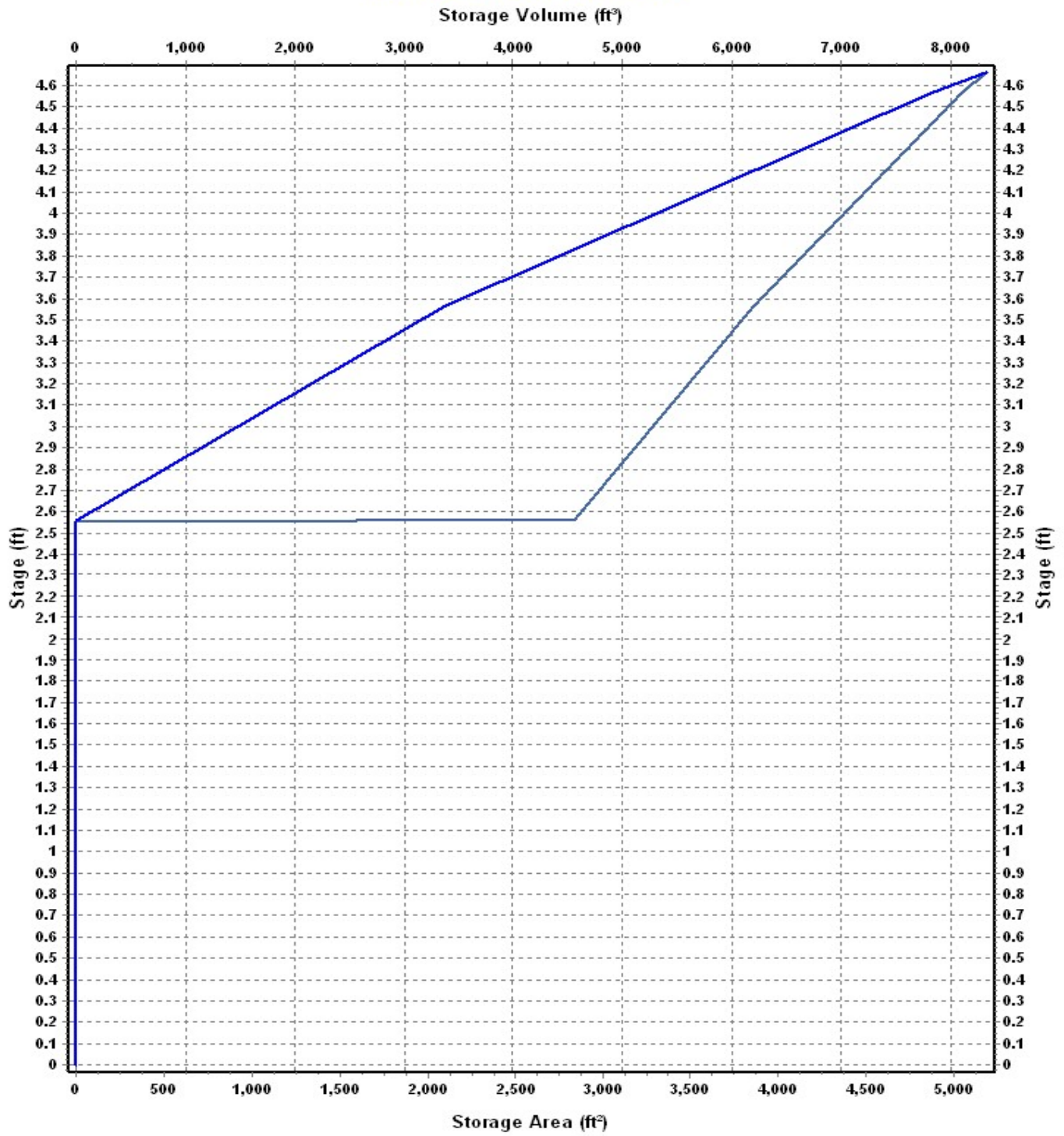
Invert Elevation (ft)	862.44
Max (Rim) Elevation (ft)	867.10
Max (Rim) Offset (ft)	4.66
Initial Water Elevation (ft)	865.00
Initial Water Depth (ft)	2.56
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin03

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.55	1	2.55
2.56	2836.20	16.74
3.56	3856.90	3363.29
4.56	5038.71	7811.10
4.66	5181	8322.09

Storage Area Volume Curves



Storage Area Storage Volume

Storage Node : Biobasin03 (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 Biobasin03grate	Bottom	Rectangular	No		19.60	19.60	866.00	0.60

Output Summary Results

Peak Inflow (cfs)	6.38
Peak Lateral Inflow (cfs)	6.38
Peak Outflow (cfs)	4.79
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.37
Max HGL Depth Attained (ft)	3.93
Average HGL Elevation Attained (ft)	865.48
Average HGL Depth Attained (ft)	3.04
Time of Max HGL Occurrence (days hh:mm)	0 12:06
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin04

Input Data

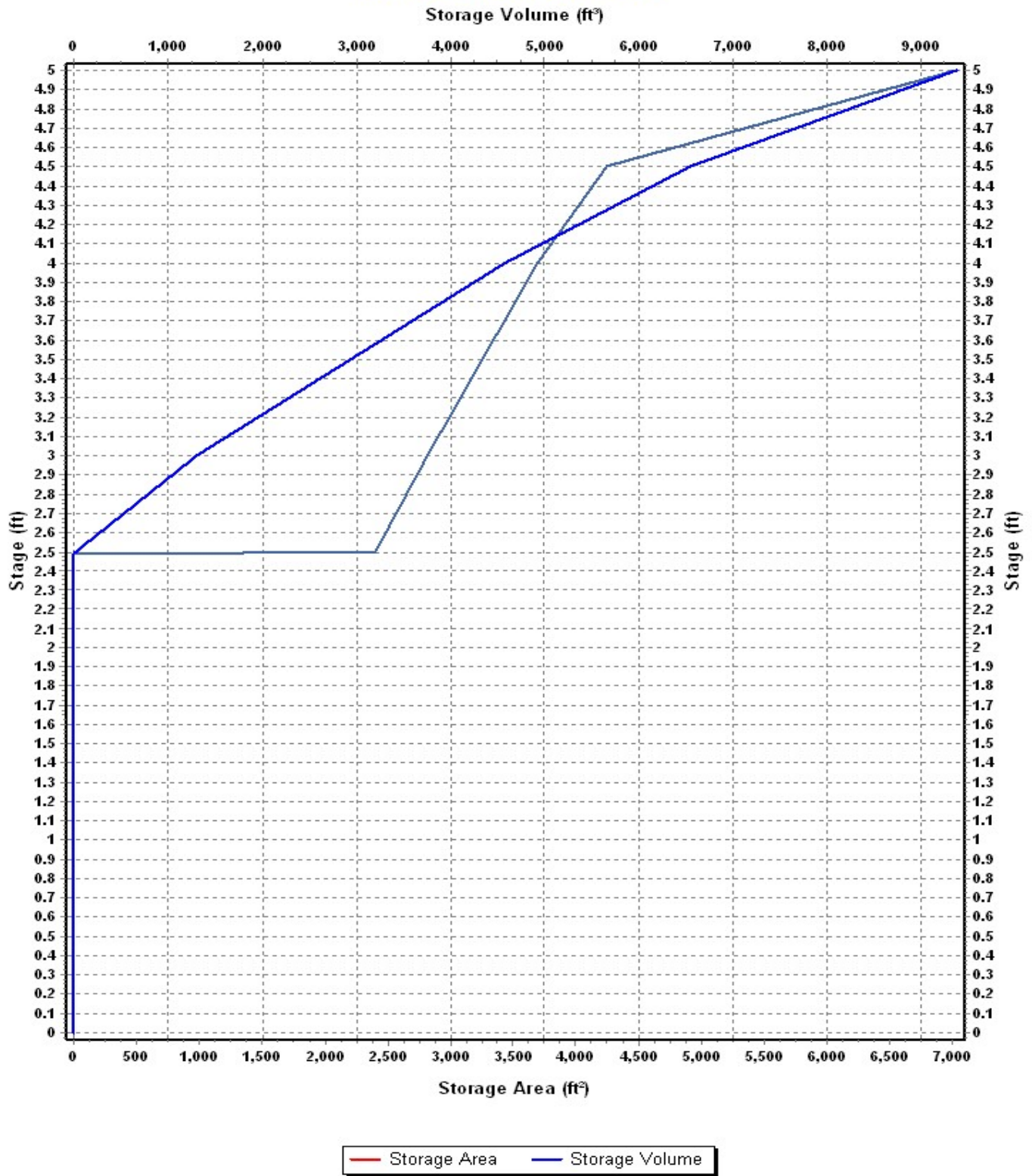
Invert Elevation (ft) 862.00
Max (Rim) Elevation (ft) 867.00
Max (Rim) Offset (ft) 5.00
Initial Water Elevation (ft) 864.50
Initial Water Depth (ft) 2.50
Ponded Area (ft²) 0.00
Evaporation Loss 0.00

Storage Area Volume Curves

Storage Curve : Biobasin04

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	2398.60	14.49
3	2813.60	1317.54
4	3690.90	4569.79
4.5	4246.20	6554.07
5	7028.50	9372.75

Storage Area Volume Curves



Storage Node : Biobasin04 (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 Biobasin04grate	Bottom	Rectangular	No		19.60	19.60	865.50	0.60

Output Summary Results

Peak Inflow (cfs)	3.81
Peak Lateral Inflow (cfs)	3.81
Peak Outflow (cfs)	2.06
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	865.70
Max HGL Depth Attained (ft)	3.7
Average HGL Elevation Attained (ft)	864.91
Average HGL Depth Attained (ft)	2.91
Time of Max HGL Occurrence (days hh:mm)	0 12:07
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin05

Input Data

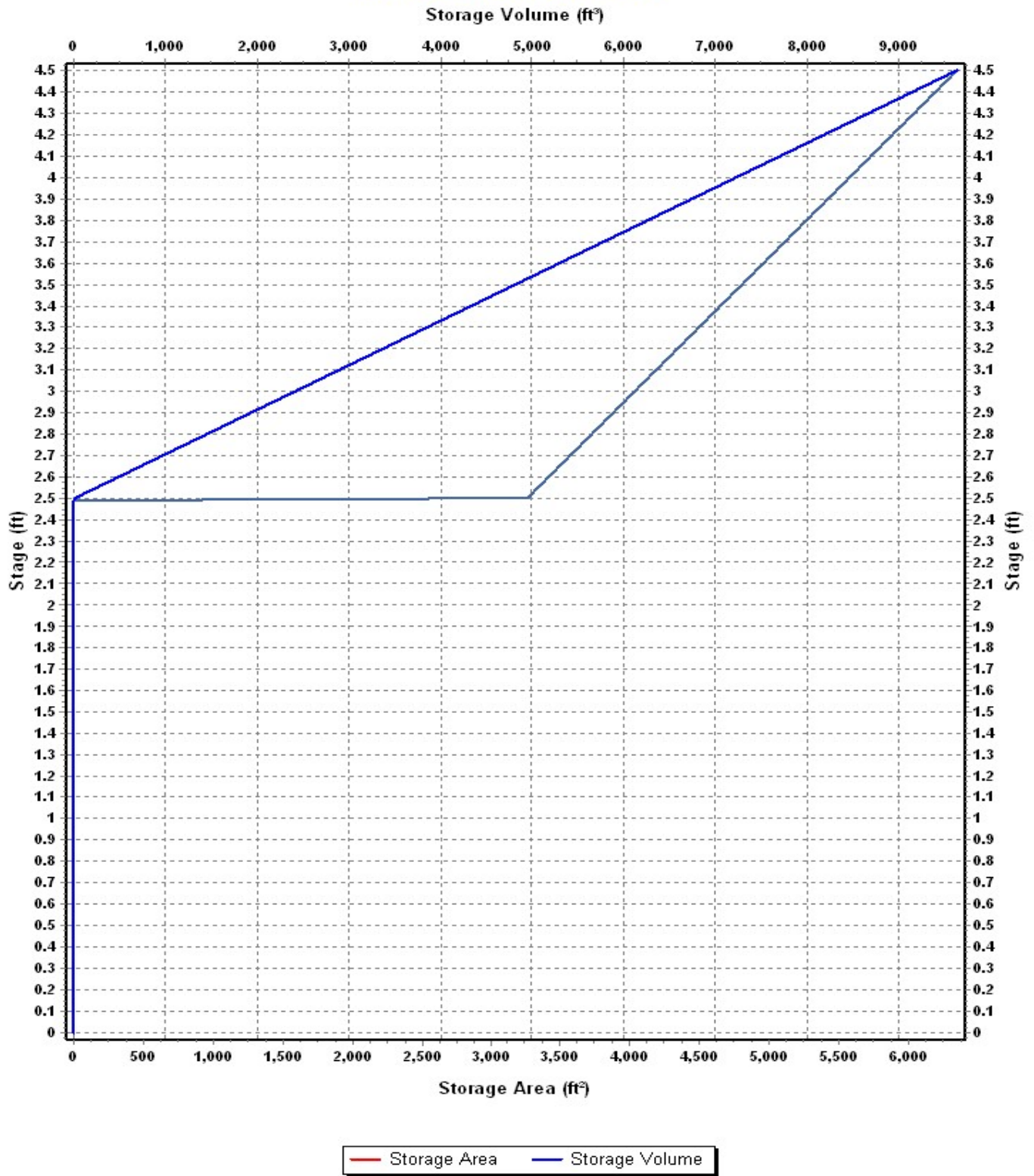
Invert Elevation (ft)	862.60
Max (Rim) Elevation (ft)	867.10
Max (Rim) Offset (ft)	4.50
Initial Water Elevation (ft)	865.10
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin05

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	3264.52	18.82
4.5	6347.63	9630.97

Storage Area Volume Curves



Storage Node : Biobasin05 (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 Biobasin05grate	Bottom	Rectangular	No		19.60	19.60	866.10	0.60

Output Summary Results

Peak Inflow (cfs)	6.77
Peak Lateral Inflow (cfs)	6.77
Peak Outflow (cfs)	4.37
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.43
Max HGL Depth Attained (ft)	3.83
Average HGL Elevation Attained (ft)	865.57
Average HGL Depth Attained (ft)	2.97
Time of Max HGL Occurrence (days hh:mm)	0 12:06
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 01 Parking lot ponding

Input Data

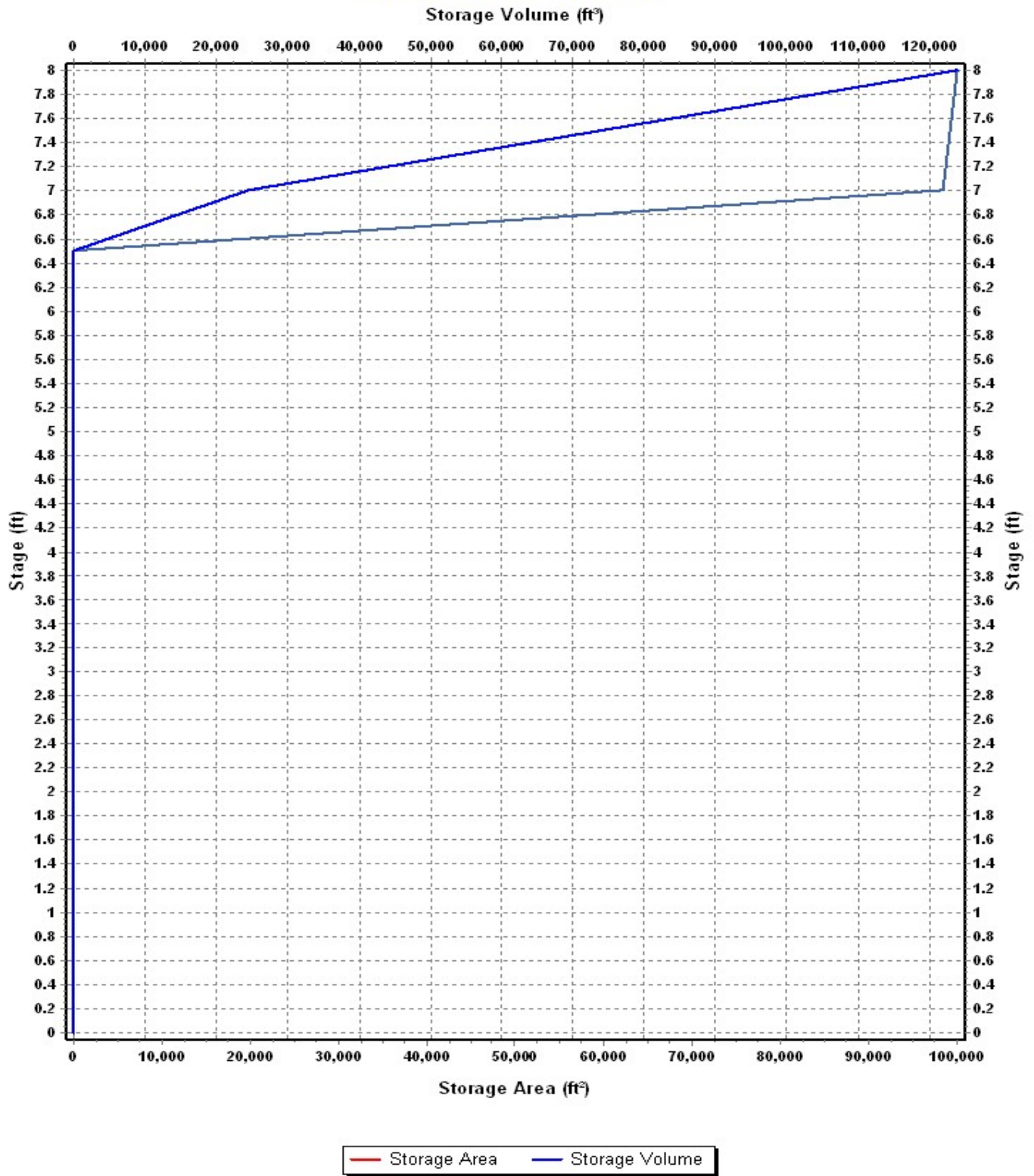
Invert Elevation (ft)	871.00
Max (Rim) Elevation (ft)	879.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	877.50
Initial Water Depth (ft)	6.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Offsite 01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
6.5	1	6.50
7	98432	24614.75
8	100000	123830.75

Storage Area Volume Curves



Storage Node : Offsite 01 Parking lot ponding (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 Offsite 01 orifice	Side	CIRCULAR	No	9.25			871.00	0.60

Output Summary Results

Peak Inflow (cfs)	38.92
Peak Lateral Inflow (cfs)	38.92
Peak Outflow (cfs)	5.83
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	878.11
Max HGL Depth Attained (ft)	7.11
Average HGL Elevation Attained (ft)	872.65
Average HGL Depth Attained (ft)	1.65
Time of Max HGL Occurrence (days hh:mm)	0 12:26
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 02 Wet basin 02

Input Data

Invert Elevation (ft)	878.00
Max (Rim) Elevation (ft)	882.00
Max (Rim) Offset (ft)	4.00
Initial Water Elevation (ft)	878.00
Initial Water Depth (ft)	0.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

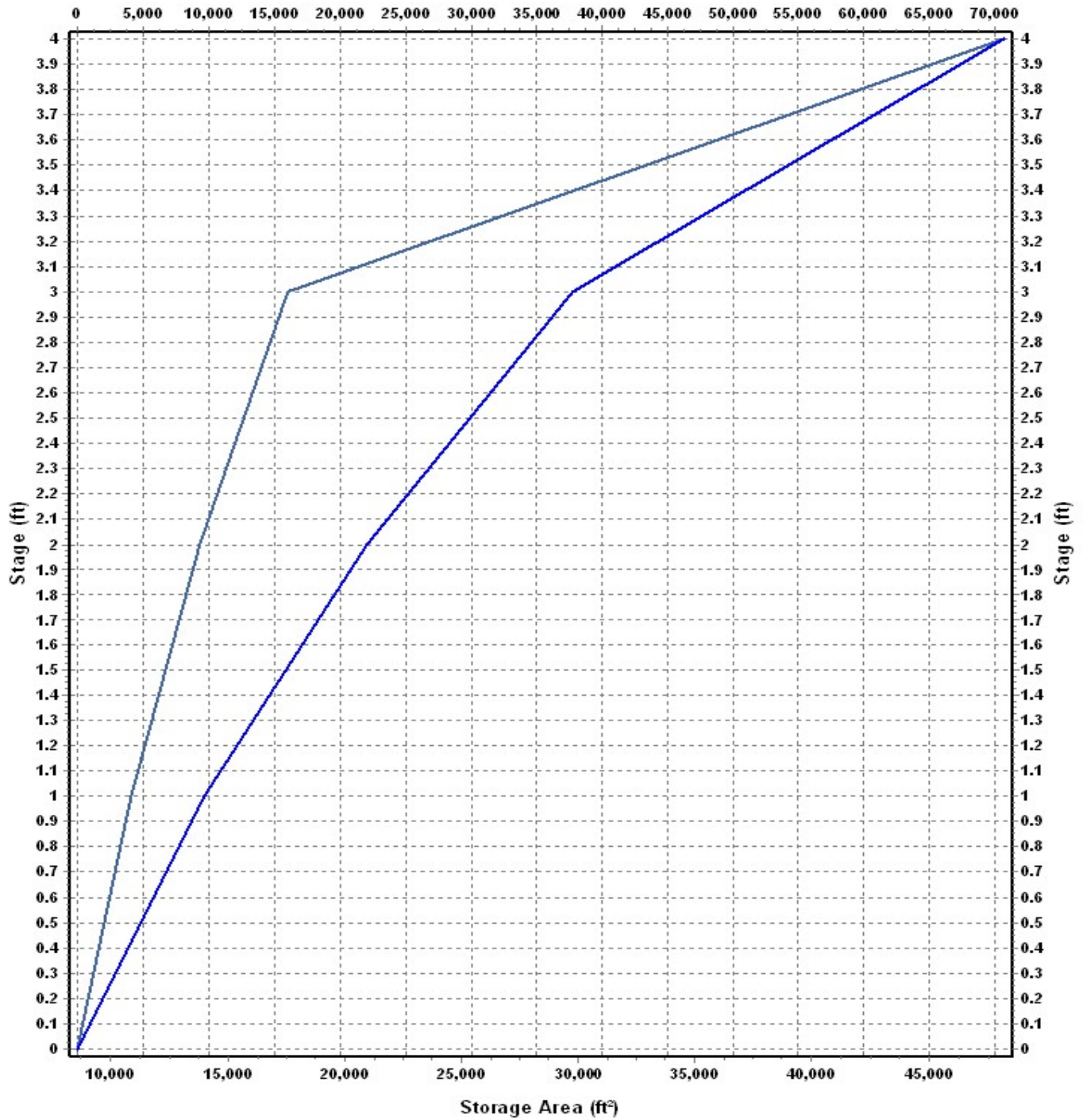
Storage Area Volume Curves

Storage Curve : Offsite 02 wet basin 02

Stage	Storage Area	Storage Volume
(ft)	(ft ²)	(ft ³)
0	8571	0.000
1	10862	9716.50
2	13819	22057.00
3	17571	37752.00
4	48211	70643.00

Storage Area Volume Curves

Storage Volume (ft³)



Storage Area Storage Volume

Storage Node : Offsite 02 Wet basin 02 (continued)

Output Summary Results

Peak Inflow (cfs)	30.01
Peak Lateral Inflow (cfs)	30.01
Peak Outflow (cfs)	13.44
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	880.31
Max HGL Depth Attained (ft)	2.31
Average HGL Elevation Attained (ft)	878.90
Average HGL Depth Attained (ft)	0.9
Time of Max HGL Occurrence (days hh:mm)	0 12:12
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 02-wet basin 1

Input Data

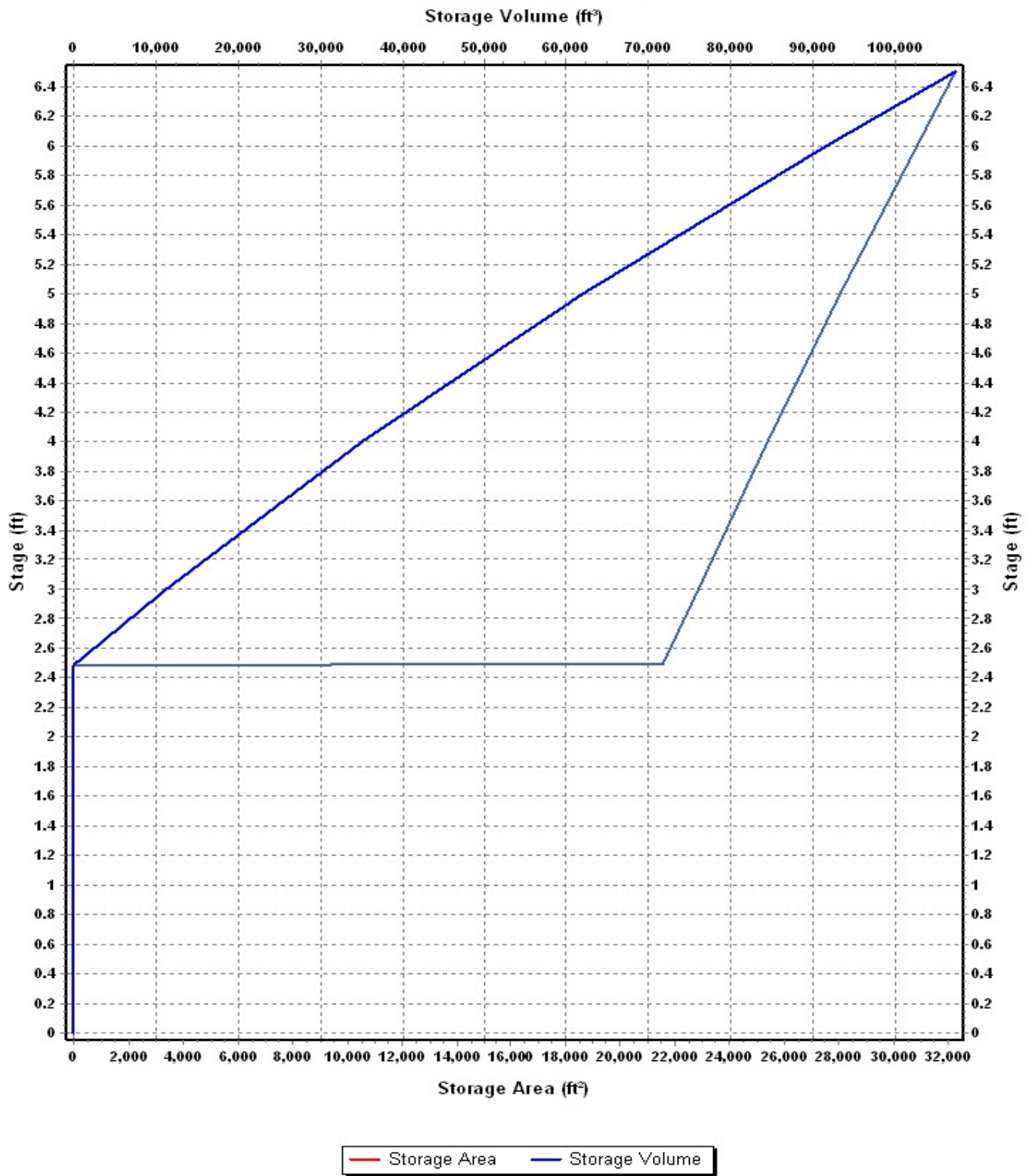
Invert Elevation (ft)	875.00
Max (Rim) Elevation (ft)	881.50
Max (Rim) Offset (ft)	6.50
Initial Water Elevation (ft)	877.50
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : blazer wet basin 01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	21562	110.30
3	22825	11207.05
4	25395	35317.05
5	28053	62041.05
6	30840	91487.55
6.5	32234	107256.05

Storage Area Volume Curves



Storage Node : Offsite 02-wet basin 1 (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 Offsite 02 grate	Bottom	Rectangular	No		19.60	19.60	880.50	0.60
2 offsite 02 window	Side	Rectangular	No		6.00	24.00	879.20	0.60
3 Offsite 02 wq	Side	CIRCULAR	No	4.00			877.50	0.60

Output Summary Results

Peak Inflow (cfs)	24.10
Peak Lateral Inflow (cfs)	13.57
Peak Outflow (cfs)	3.24
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	879.76
Max HGL Depth Attained (ft)	4.76
Average HGL Elevation Attained (ft)	878.61
Average HGL Depth Attained (ft)	3.61
Time of Max HGL Occurrence (days hh:mm)	0 12:52
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 04

Input Data

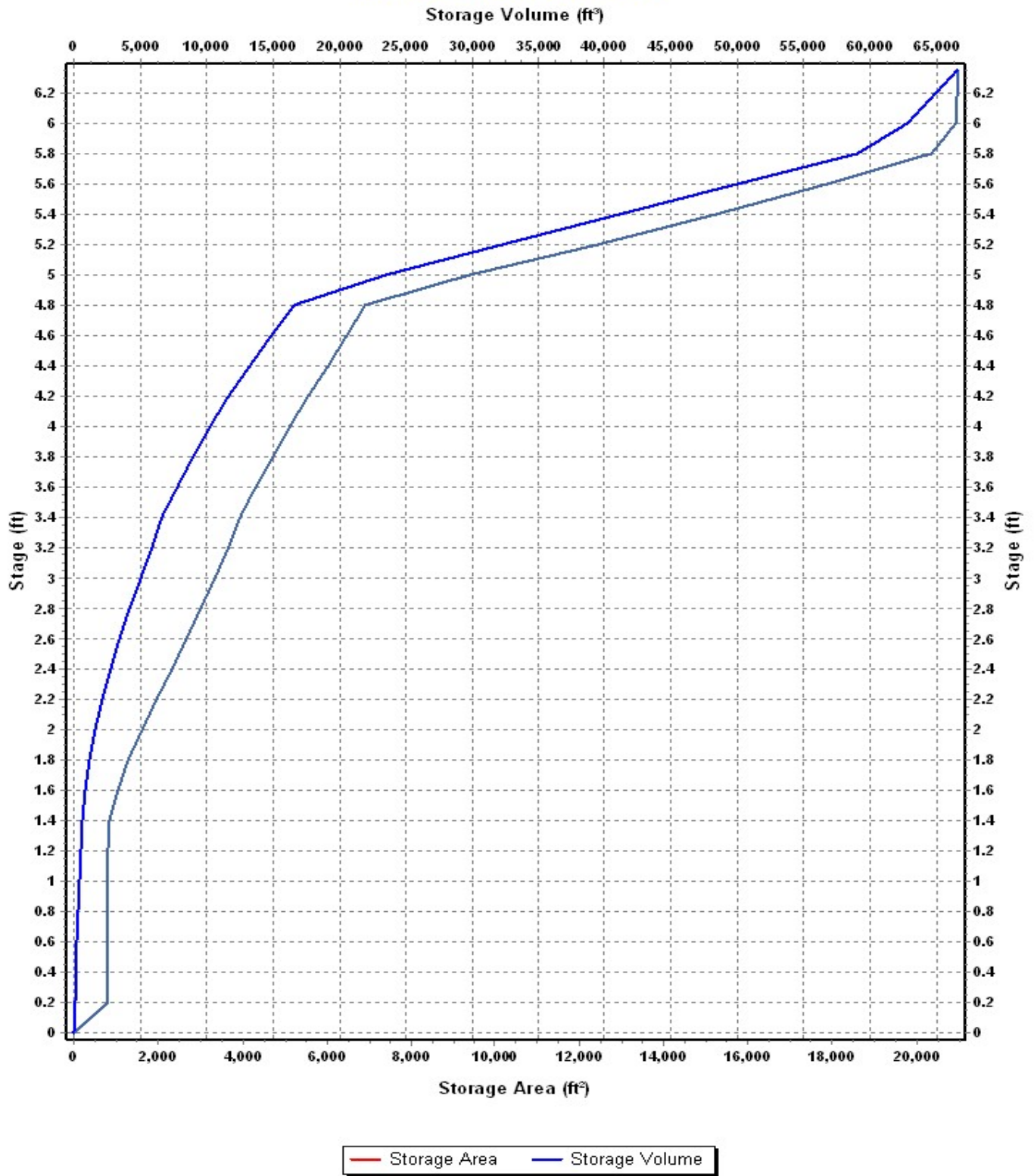
Invert Elevation (ft)	871.65
Max (Rim) Elevation (ft)	878.00
Max (Rim) Offset (ft)	6.35
Initial Water Elevation (ft)	871.65
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Offsite 02

Stage (ft)	Storage Area (ft²)	Storage Volume (ft³)
0	0	0
.2	820.00	82
.4	815.00	163
.6	816.67	245
.8	817.50	327
1	818.00	409
1.2	816.67	490
1.4	850.00	595
1.6	1038.75	831
1.8	1297.78	1168
2	1606.00	1606
2.2	1950.00	2145
2.4	2319.17	2783
2.6	2676.15	3479
2.8	3010.71	4215
3	3326.67	4990
3.2	3691.25	5906
3.4	3938.24	6695
3.6	4318.89	7774
3.8	4721.58	8971
4	5142.00	10284
4.2	5578.57	11715
4.4	6028.18	13262
4.6	6478.26	14900
4.8	6925.42	16621
5	9432.00	23580
5.2	12438.08	32339
5.4	15251.85	41180
5.6	17886.43	50082
5.8	20357.93	59038
6	20943.33	62830
6.2	20946.77	64935
6.35	20960.63	66550

Storage Area Volume Curves



Storage Node : Offsite 04 (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 Offsite 04 orifice	Side	CIRCULAR	No	8.50			871.65	0.60

Output Summary Results

Peak Inflow (cfs)	22.56
Peak Lateral Inflow (cfs)	22.56
Peak Outflow (cfs)	4.30
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	877.14
Max HGL Depth Attained (ft)	5.49
Average HGL Elevation Attained (ft)	872.60
Average HGL Depth Attained (ft)	0.95
Time of Max HGL Occurrence (days hh:mm)	0 12:21
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Pavers01-02

Input Data

Invert Elevation (ft)	863.79
Max (Rim) Elevation (ft)	867.24
Max (Rim) Offset (ft)	3.45
Initial Water Elevation (ft)	863.79
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Outflow Weirs

SN Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1 Paver01-02 weir	Rectangular	No	865.70	1.91	4.00	1.00	3.33

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 Paver01-02 wq orifice 2	Side	CIRCULAR	No	1.00			863.79	0.60
2 Pavers01-02 WQ orifice 1	Side	CIRCULAR	No	1.00			863.79	0.60

Output Summary Results

Peak Inflow (cfs)	4.29
Peak Lateral Inflow (cfs)	4.29
Peak Outflow (cfs)	0.10
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	865.72
Max HGL Depth Attained (ft)	1.93
Average HGL Elevation Attained (ft)	864.85
Average HGL Depth Attained (ft)	1.06
Time of Max HGL Occurrence (days hh:mm)	0 15:16
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Pavers03-04

Input Data

Invert Elevation (ft)	863.79
Max (Rim) Elevation (ft)	867.24
Max (Rim) Offset (ft)	3.45
Initial Water Elevation (ft)	863.79
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Outflow Weirs

SN Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1 Paver04-06 weir	Rectangular	No	866.80	3.01	4.00	1.00	3.33

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 Paver03-04 WQ orifice 1	Side	CIRCULAR	No	1.00			863.79	0.60
2 Paver03-04 WQ orifice 2	Side	CIRCULAR	No	1.00			863.79	0.60

Output Summary Results

Peak Inflow (cfs)	4.38
Peak Lateral Inflow (cfs)	4.38
Peak Outflow (cfs)	0.07
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	865.82
Max HGL Depth Attained (ft)	2.03
Average HGL Elevation Attained (ft)	864.90
Average HGL Depth Attained (ft)	1.11
Time of Max HGL Occurrence (days hh:mm)	0 16:57
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Wet Basin 02

Input Data

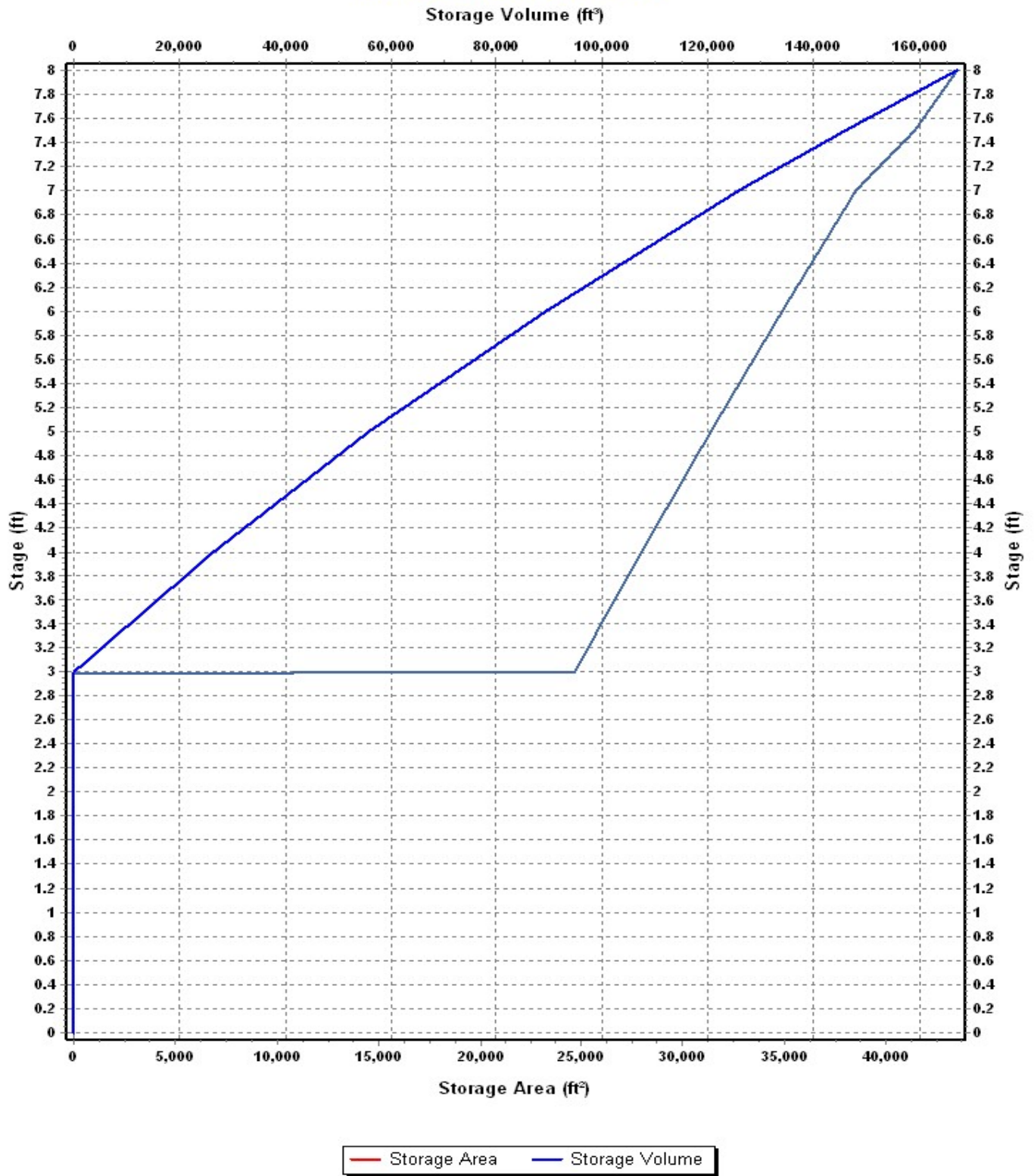
Invert Elevation (ft)	859.00
Max (Rim) Elevation (ft)	867.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	862.00
Initial Water Depth (ft)	3.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Wet Basin 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.99	1	2.99
3	24635.51	126.17
4	27948.90	26418.38
5	31362.79	56074.23
6	34877.21	89194.23
7	38492.15	125878.91
7.5	41380.21	145847.00
8	43477.39	167061.40

Storage Area Volume Curves



Storage Node : Wet Basin 02 (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 Wet basin grate	Bottom	Rectangular	No		19.60	19.60	865.00	0.60
2 Wet basin window 1	Side	Rectangular	No		12.00	36.00	863.20	0.60
3 Wet Basin wq 2	Side	CIRCULAR	No	5.00			862.00	0.60
4 WetBasin WQ 1	Side	CIRCULAR	No	5.00			862.00	0.60
5 WetBasinWindow2	Side	Rectangular	No		12.00	36.00	863.20	0.60

Output Summary Results

Peak Inflow (cfs)	78.43
Peak Lateral Inflow (cfs)	65.33
Peak Outflow (cfs)	29.00
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	864.80
Max HGL Depth Attained (ft)	5.8
Average HGL Elevation Attained (ft)	863.20
Average HGL Depth Attained (ft)	4.2
Time of Max HGL Occurrence (days hh:mm)	0 13:42
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : WetBasin 01

Input Data

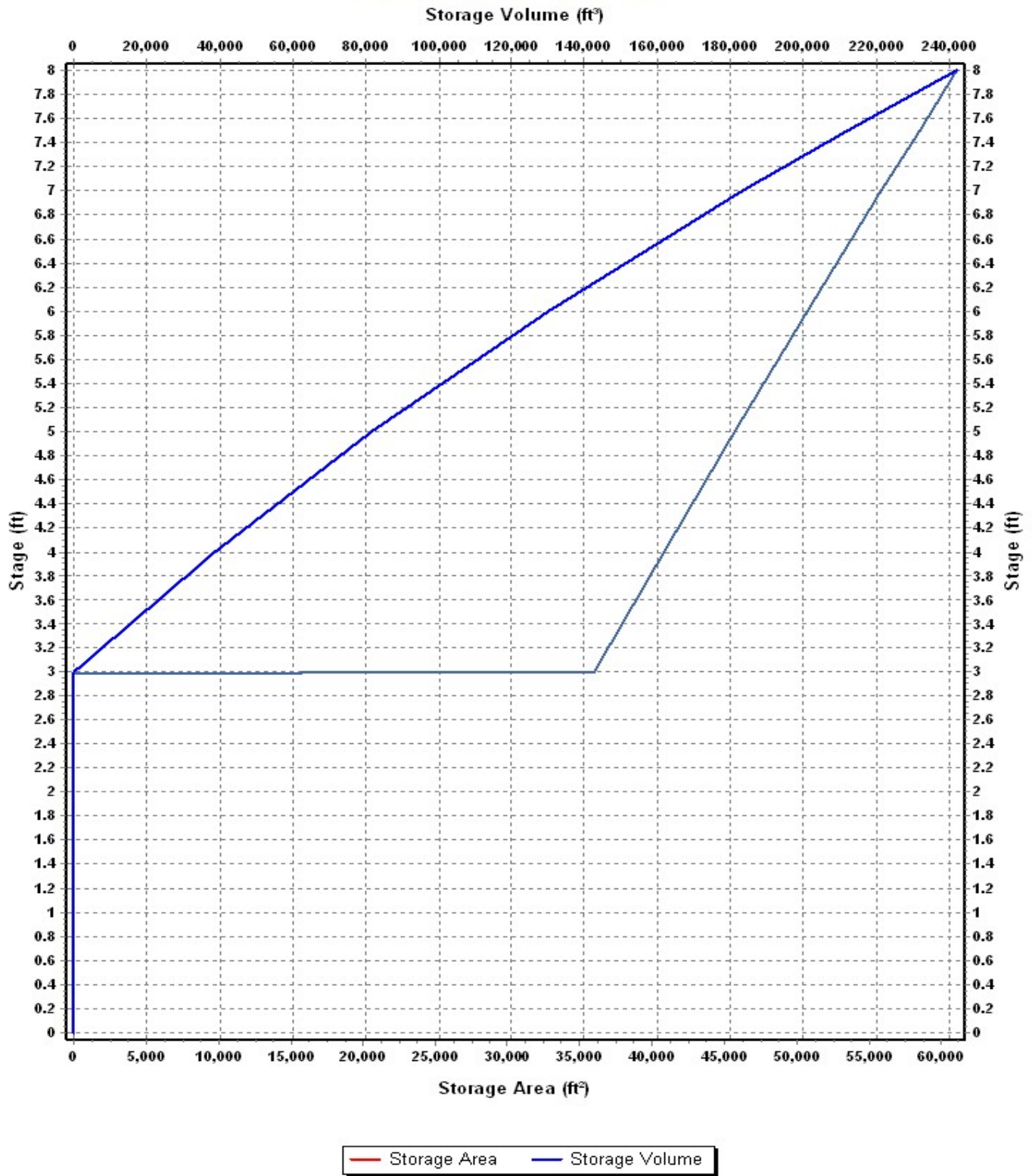
Invert Elevation (ft)	859.00
Max (Rim) Elevation (ft)	867.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	862.00
Initial Water Depth (ft)	3.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Wet Basin 01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.99	1	2.99
3	36012.49	183.06
4	40827.72	38603.17
5	45735.45	81884.76
6	50745.52	130125.25
7	55856.11	183426.07
7.5	58448.67	212002.27
8	61040.22	241874.49

Storage Area Volume Curves



Storage Node : WetBasin 01 (continued)

Output Summary Results

Peak Inflow (cfs)	54.68
Peak Lateral Inflow (cfs)	44.48
Peak Outflow (cfs)	6.09
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	864.81
Max HGL Depth Attained (ft)	5.81
Average HGL Elevation Attained (ft)	863.21
Average HGL Depth Attained (ft)	4.21
Time of Max HGL Occurrence (days hh:mm)	0 13:47
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Project Description

File Name 2017-0259 Dublin Smart Park 2017-5-15.SPF

Project Options

Flow Units CFS
 Elevation Type Elevation
 Hydrology Method SCS TR-55
 Time of Concentration (TOC) Method User-Defined
 Link Routing Method Hydrodynamic
 Enable Overflow Ponding at Nodes YES
 Skip Steady State Analysis Time Periods NO

Analysis Options

Start Analysis On Apr 11, 2017 00:00:00
 End Analysis On Apr 12, 2017 00:00:00
 Start Reporting On Apr 11, 2017 00:00:00
 Antecedent Dry Days 0 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 00:05:00 days hh:mm:ss
 Routing Time Step 1 seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins.....	16
Nodes.....	35
<i>Junctions</i>	21
<i>Outfalls</i>	1
<i>Flow Diversions</i>	0
<i>Inlets</i>	0
<i>Storage Nodes</i>	13
Links.....	49
<i>Channels</i>	1
<i>Pipes</i>	21
<i>Pumps</i>	0
<i>Orifices</i>	20
<i>Weirs</i>	2
<i>Outlets</i>	5
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1		Time Series	25-year	Cumulative	inches	Ohio	Franklin	25	4.44	SCS Type II 24-hr

Subbasin Summary

SN Subbasin ID	Area (ac)	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1 Offsite 01: Lucent site	9.91	94.00	4.44	3.76	37.22	48.04	0 00:10:00
2 Offsite 02 - 01	3.38	92.00	4.44	3.54	11.97	17.05	0 00:07:00
3 Offsite 02 - 02	7.84	93.00	4.44	3.65	28.59	38.71	0 00:08:30
4 Offsite 03: Triangle outparcel	2.50	74.00	4.44	1.93	4.82	6.80	0 00:09:00
5 Offsite 04: Cendant Site	5.72	94.00	4.44	3.76	21.48	27.74	0 00:10:00
6 Subarea 02 - to wb 02	0.43	95.60	4.44	3.93	1.68	2.43	0 00:05:00
7 Subarea 02 -to wb1	0.52	95.60	4.44	3.93	2.05	2.98	0 00:05:00
8 Subarea 03	10.24	89.68	4.44	3.31	33.86	52.01	0 00:05:00
9 Subarea01	14.97	90.80	4.44	3.42	51.18	77.90	0 00:05:00
10 ToBiobasin01	1.39	95.60	4.44	3.93	5.47	7.88	0 00:05:00
11 ToBiobasin02	0.52	95.60	4.44	3.93	2.04	2.94	0 00:05:00
12 ToBiobasin03	1.35	95.60	4.44	3.93	5.31	7.66	0 00:05:00
13 ToBiobasin04	0.81	95.60	4.44	3.93	3.18	4.57	0 00:05:00
14 ToBiobasin05	1.44	95.60	4.44	3.93	5.65	8.13	0 00:05:00
15 ToPP01-02	0.91	95.60	4.44	3.93	3.58	5.15	0 00:05:00
16 ToPP03-04	0.93	95.60	4.44	3.93	3.64	5.26	0 00:05:00

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	Biobasin02dumminode	Junction	862.67	867.17	862.67	867.17	0.00	2.55	866.48	0.00	0.69	0 00:00	0.00	0.00
2	CatchBasin03	Junction	862.00	866.50	862.00	866.50	2879.24	7.80	865.74	0.00	0.76	0 00:00	0.00	0.00
3	CatchBasin04	Junction	862.44	866.94	862.44	866.94	4642.88	7.28	866.28	0.00	0.66	0 00:00	0.00	0.00
4	CatchBasin05	Junction	862.67	867.17	862.67	867.17	1566.12	2.39	866.31	0.00	0.86	0 00:00	0.00	0.00
5	CatchBasin12	Junction	862.60	867.10	862.60	867.10	6347.63	5.85	866.14	0.00	0.96	0 00:00	0.00	0.00
6	CatchBasin8	Junction	862.64	867.14	862.64	867.14	6037.65	5.78	866.17	0.00	0.97	0 00:00	0.00	0.00
7	Dummy1	Junction	861.69	867.00	861.69	867.00	0.00	19.71	865.19	0.00	1.81	0 00:00	0.00	0.00
8	Ex0	Junction	860.13	865.00	860.13	865.00	0.00	19.98	861.36	0.00	3.64	0 00:00	0.00	0.00
9	ExA	Junction	860.81	865.00	860.81	865.00	0.00	26.07	864.84	0.00	1.97	0 00:00	0.00	0.00
10	Existing 36-inch outlet pipe	Junction	870.00	875.50	870.00	875.50	0.00	17.23	871.10	0.00	5.30	0 00:00	0.00	0.00
11	Manhole 7	Junction	862.47	868.00	862.47	868.00	0.00	5.68	865.86	0.00	2.14	0 00:00	0.00	0.00
12	Manhole1	Junction	861.75	868.00	861.75	868.00	0.00	18.47	865.09	0.00	2.91	0 00:00	0.00	0.00
13	Manhole10	Junction	862.23	868.00	862.23	868.00	0.00	5.73	865.53	0.00	2.47	0 00:00	0.00	0.00
14	Manhole11	Junction	862.42	868.00	862.42	868.00	0.00	5.73	865.82	0.00	2.18	0 00:00	0.00	0.00
15	Manhole13	Junction	863.79	868.00	863.79	868.00	0.00	0.27	865.53	0.00	2.47	0 00:00	0.00	0.00
16	Manhole2	Junction	861.80	868.00	861.80	868.00	0.00	7.56	865.29	0.00	2.71	0 00:00	0.00	0.00
17	Manhole6	Junction	862.28	868.00	862.28	868.00	0.00	5.68	865.56	0.00	2.44	0 00:00	0.00	0.00
18	Manhole9	Junction	863.79	868.00	863.79	868.00	0.00	0.44	865.56	0.00	2.44	0 00:00	0.00	0.00
19	Offsite 02 outlet	Junction	877.50	881.50	877.50	881.50	0.00	4.51	878.31	0.00	3.89	0 00:00	0.00	0.00
20	OutToDitch	Junction	861.58	863.00	861.58	863.00	0.00	33.52	864.85	0.00	2.73	0 00:00	0.00	0.00
21	Structure1	Junction	861.69	868.00	861.69	868.00	0.00	33.61	865.07	0.00	2.93	0 00:00	0.00	0.00
22	Ex00 Outlet	Outfall	859.65					19.98	860.70					
23	Biobasin 01	Storage Node	862.64	867.14	865.14		0.00	7.87	866.56				0.00	0.00
24	Biobasin02	Storage Node	862.67	867.17	865.17		0.00	2.94	866.67				0.00	0.00
25	Biobasin03	Storage Node	862.44	867.10	865.00		0.00	7.66	866.60				0.00	0.00
26	Biobasin04	Storage Node	862.00	867.00	864.50		0.00	4.57	865.90				0.00	0.00
27	Biobasin05	Storage Node	862.60	867.10	865.10		0.00	8.13	866.53				0.00	0.00
28	Offsite 01 Parking lot ponding	Storage Node	871.00	879.00	877.50		0.00	47.17	878.23				0.00	0.00
29	Offsite 02 Wet basin 02	Storage Node	878.00	882.00	878.00		0.00	36.43	880.70				0.00	0.00
30	Offsite 02-wet basin 1	Storage Node	875.00	881.50	877.50		0.00	28.59	880.12				0.00	0.00
31	Offsite 04	Storage Node	871.65	878.00	871.65		0.00	27.24	877.47				0.00	0.00
32	Pavers01-02	Storage Node	863.79	867.24	863.79		0.00	5.15	865.80				0.00	0.00
33	Pavers03-04	Storage Node	863.79	867.24	863.79		0.00	5.26	866.35				0.00	0.00
34	Wet Basin 02	Storage Node	859.00	867.00	862.00		0.00	95.24	865.46				0.00	0.00
35	WetBasin 01	Storage Node	859.00	867.00	862.00		0.00	65.19	865.47				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 (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Surcharged (min)	Reported Condition
1	1->basins	Pipe	Manhole1	Structure1	62.54	861.75	861.69	0.1000	36.000	0.0130	18.23	20.66	0.88	2.64	3.00	1.00	243.00	SURCHARGED
2	10->11	Pipe	Manhole10	Manhole1	190.96	862.23	861.75	0.2500	18.000	0.0130	5.73	5.27	1.09	3.24	1.50	1.00	399.00	SURCHARGED
3	11->10	Pipe	Manhole11	Manhole10	75.00	862.42	862.23	0.2500	18.000	0.0130	5.73	5.29	1.08	3.24	1.50	1.00	376.00	SURCHARGED
4	12->11	Pipe	CatchBasin12	Manhole11	72.47	862.60	862.42	0.2500	18.000	0.0130	5.73	5.24	1.09	3.24	1.50	1.00	347.00	SURCHARGED
5	13->10	Pipe	Manhole13	Manhole10	16.00	863.79	863.72	0.4400	12.000	0.0130	0.24	2.36	0.10	1.40	1.00	1.00	245.00	SURCHARGED
6	2->1	Pipe	Manhole2	Manhole1	20.00	861.80	861.75	0.2500	18.000	0.0130	7.55	5.25	1.44	4.27	1.50	1.00	452.00	SURCHARGED
7	3->2	Pipe	CatchBasin03	Manhole2	81.60	862.00	861.80	0.2500	18.000	0.0130	7.56	5.20	1.45	4.28	1.50	1.00	427.00	SURCHARGED
8	4->3	Pipe	CatchBasin04	CatchBasin03	175.98	862.44	862.00	0.2500	18.000	0.0130	6.41	5.25	1.22	3.63	1.50	1.00	374.00	SURCHARGED
9	5->4	Pipe	CatchBasin05	CatchBasin04	92.80	862.67	862.44	0.2500	18.000	0.0130	2.37	5.23	0.45	1.34	1.50	1.00	337.00	SURCHARGED
10	6->1	Pipe	Manhole6	Manhole1	210.04	862.28	861.75	0.2500	18.000	0.0130	5.66	5.28	1.07	3.20	1.50	1.00	393.00	SURCHARGED
11	7->6	Pipe	Manhole7	Manhole6	75.00	862.47	862.28	0.2500	18.000	0.0130	5.68	5.29	1.07	3.22	1.50	1.00	368.00	SURCHARGED
12	8->7	Pipe	CatchBasin8	Manhole7	69.56	862.64	862.47	0.2400	18.000	0.0130	5.68	5.19	1.09	3.22	1.50	1.00	340.00	SURCHARGED
13	9->8	Pipe	Manhole9	Manhole6	16.00	863.79	863.73	0.3700	15.000	0.0130	0.45	3.96	0.11	1.31	1.25	1.00	148.00	SURCHARGED
14	Basin connector	Pipe	WetBasin 01	Wet Basin 02	85.00	859.00	858.90	0.1200	24.000	0.0130	12.25	0.78	15.78	3.90	2.00	1.00	1440.00	SURCHARGED
15	Basins->outlet	Pipe	Structure1	OutToDitch	109.09	861.69	861.58	0.1000	36.000	0.0130	33.52	21.18	1.58	5.87	3.00	1.00	235.00	SURCHARGED
16	Dual 18 inch pipes	Pipe	ExA	Ex0	35.92	860.81	860.13	1.9000	18.000	0.0130	19.98	14.48	1.38	11.83	1.37	0.91	0.00	> CAPACITY
17	Elliptical pipe under roadway	Pipe	Ex0	Ex0 Outlet	98.05	860.07	859.65	0.4300	36.000	0.0130	19.98	86.04	0.23	5.34	1.14	0.38	0.00	Calculated
18	Offsite 02->outfall	Pipe	Offsite 02 outlet	Existing 36-inch outlet pipe	84.10	877.50	875.40	2.5000	12.000	0.0130	4.51	5.63	0.80	7.19	0.75	0.75	0.00	Calculated
19	offsite basin2 -> offsite basin 1	Pipe	Offsite 02 Wet basin 02	Offsite 02-wet basin 1	201.70	878.00	877.70	0.1500	24.000	0.0130	14.98	8.72	1.72	4.90	2.00	1.00	105.00	SURCHARGED
20	Offsite->basin	Pipe	Existing 36-inch outlet pipe	Wet Basin 02	###	870.00	862.00	0.6200	42.000	0.0130	16.99	79.04	0.21	3.47	2.24	0.64	0.00	Calculated
21	Outlet/Pipe	Pipe	Dummy1	Structure1	10.82	862.00	861.69	2.8700	36.000	0.0130	18.63	112.90	0.17	3.95	3.00	1.00	216.00	SURCHARGED
22	Ditch	Channel	OutToDitch	ExA	375.41	861.58	860.81	0.2100	72.000	0.0320	26.07	596.14	0.04	1.67	3.65	0.61	0.00	
23	Biobasin01orifice	Orifice	Biobasin 01	CatchBasin8		862.64	862.64		19.600		5.56							
24	Biobasin02orifice	Orifice	Biobasin02	Biobasin02dummynode		862.67	862.67		19.600		2.48							
25	Biobasin02orifice	Orifice	Biobasin02dummynode	CatchBasin05		862.67	862.67		12.000		2.39							
26	Biobasin03orifice	Orifice	Biobasin03	CatchBasin04		862.44	862.44		19.600		5.07							
27	Biobasin04orifice	Orifice	Biobasin04	CatchBasin03		862.00	862.00		19.600		2.12							
28	Biobasin05orifice	Orifice	Biobasin05	CatchBasin12		862.60	862.60		19.600		5.63							
29	Offsite 01 orifice	Orifice	Offsite 01 Parking lot por	Existing 36-inch outlet pipe		871.00	870.00		9.250		5.88							
30	Offsite 02 grate	Orifice	Offsite 02-wet basin 1	Offsite 02 outlet		875.00	877.50		19.600		0.00							
31	offsite 02 window	Orifice	Offsite 02-wet basin 1	Offsite 02 outlet		875.00	877.50		6.000		3.95							
32	Offsite 02 wq	Orifice	Offsite 02-wet basin 1	Offsite 02 outlet		875.00	877.50		4.000		0.57							
33	Offsite 04 orifice	Orifice	Offsite 04	Existing 36-inch outlet pipe		871.65	870.00		8.500		4.44							
34	Paver01-02 wq orifice 2	Orifice	Pavers01-02	Manhole9		863.79	863.79		1.000		0.04							
35	Paver03-04 WQ orifice 1	Orifice	Pavers03-04	Manhole13		863.79	863.79		1.000		0.04							
36	Paver03-04 WQ orifice 2	Orifice	Pavers03-04	Manhole13		863.79	863.79		1.000		0.04							
37	Pavers01-02 WQ orifice 1	Orifice	Pavers01-02	Manhole9		863.79	863.79		1.000		0.04							
38	Wet basin grate	Orifice	Wet Basin 02	Dummy1		859.00	861.69		19.600		2.83							
39	Wet basin window 1	Orifice	Wet Basin 02	Dummy1		859.00	861.69		12.000		9.43							
40	Wet Basin wq 2	Orifice	Wet Basin 02	Dummy1		859.00	861.69		5.000		0.63							
41	WetBasin WQ 1	Orifice	Wet Basin 02	Dummy1		859.00	861.69		5.000		0.63							
42	WetBasinWindow2	Orifice	Wet Basin 02	Dummy1		859.00	861.69		12.000		9.43							
43	Biomed1a01	Outlet	Biobasin 01	CatchBasin8		862.64	862.64				0.22							
44	Biomed1a02	Outlet	Biobasin02	Biobasin02dummynode		862.67	862.67				0.07							
45	Biomed1a03	Outlet	Biobasin03	CatchBasin04		862.44	862.44				0.21							
46	Biomed1a04	Outlet	Biobasin04	CatchBasin03		862.00	862.00				0.17							
47	Biomed1a05	Outlet	Biobasin05	CatchBasin12		862.60	862.60				0.23							
48	Paver01-02 weir	Weir	Pavers01-02	Manhole9		863.79	863.79				0.40							
49	Paver04-06 weir	Weir	Pavers03-04	Manhole13		863.79	863.79				0.00							

Subbasin Hydrology

Subbasin : Offsite 01: Lucent site

Input Data

Area (ac) 9.91
Weighted Curve Number 94.00
Rain Gage ID DublinRain

Composite Curve Number

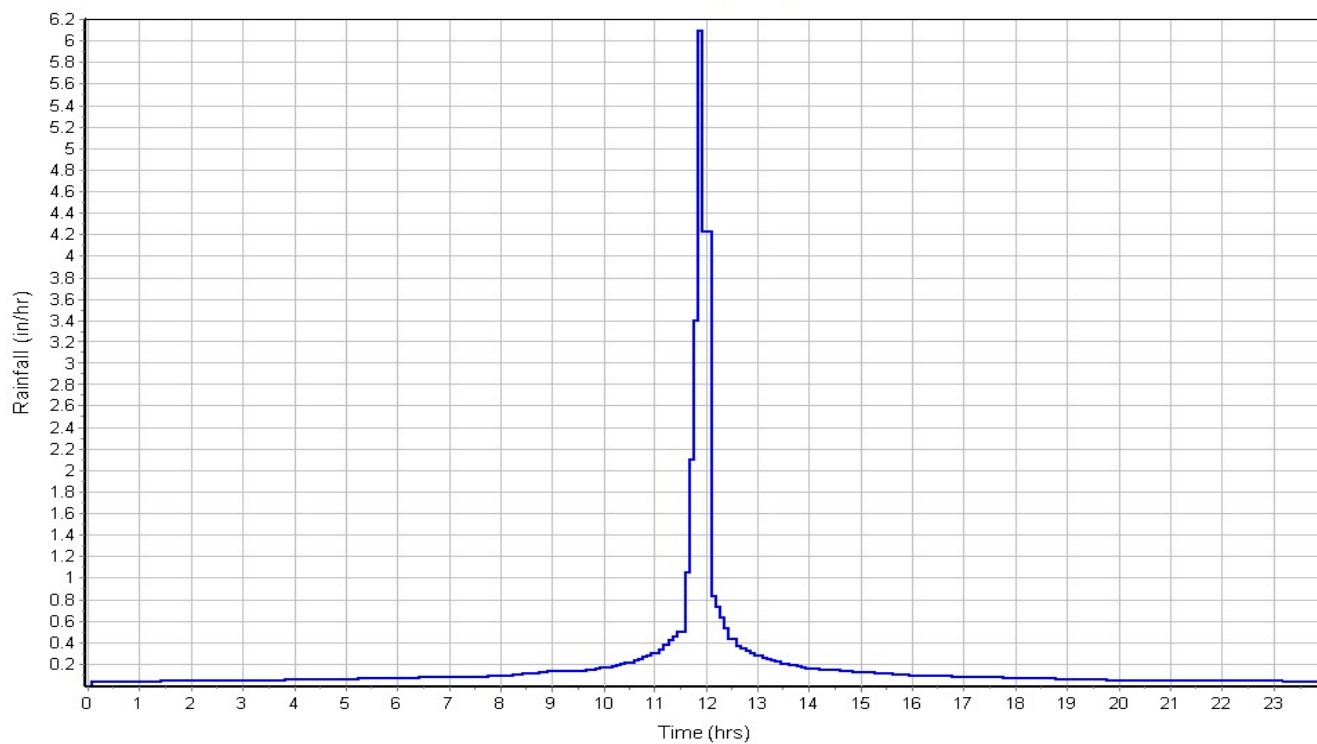
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	9.91	-	94.00
Composite Area & Weighted CN	9.91		94.00

Subbasin Runoff Results

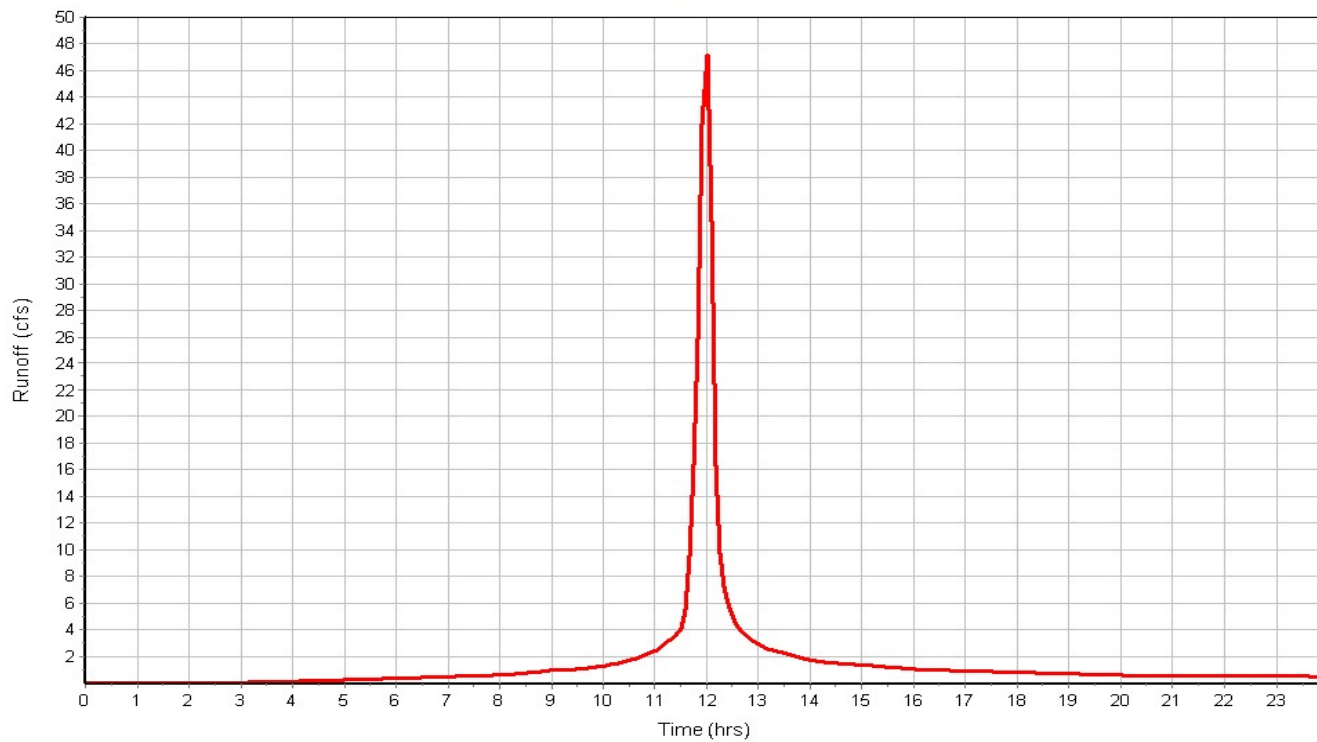
Total Rainfall (in) 4.44
Total Runoff (in) 3.76
Peak Runoff (cfs) 48.04
Weighted Curve Number 94.00
Time of Concentration (days hh:mm:ss) 0 00:10:00

Subbasin : Offsite 01: Lucent site

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 02 - 01

Input Data

Area (ac) 3.38
Weighted Curve Number 92.00
Rain Gage ID DublinRain

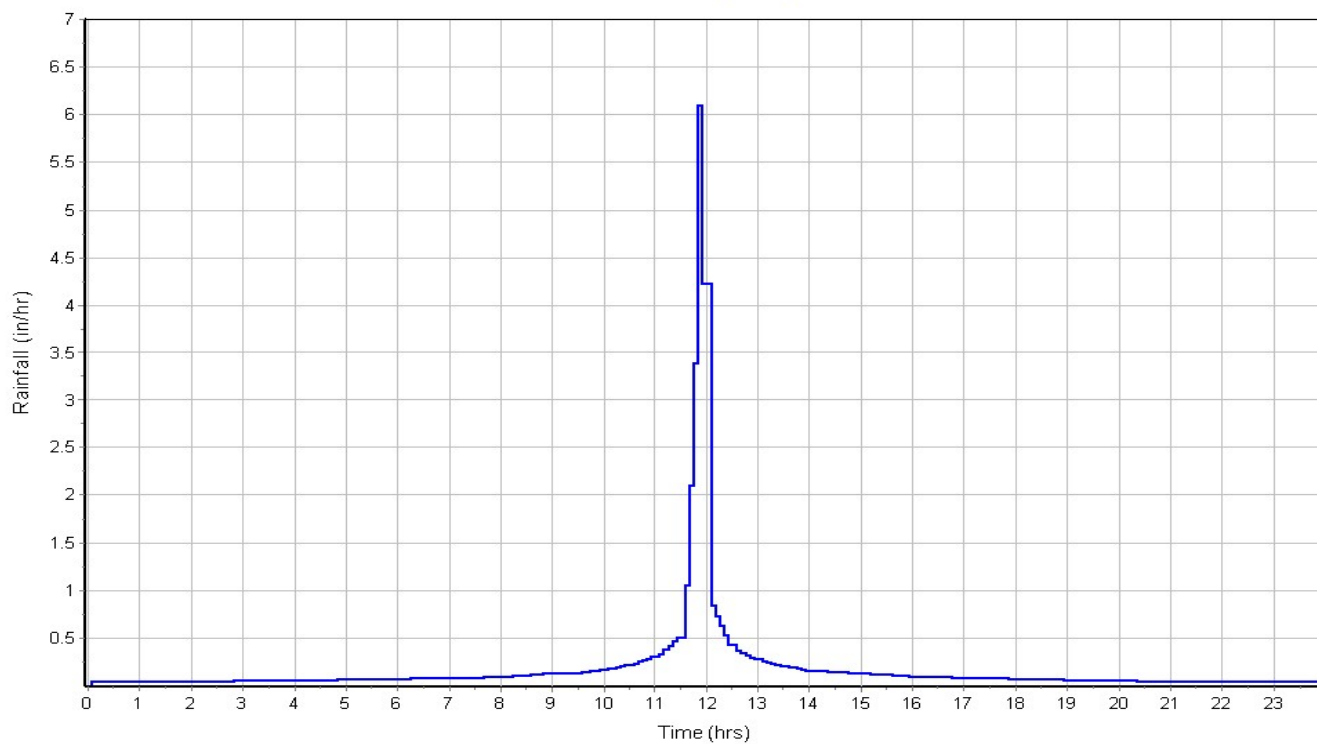
Composite Curve Number

Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	3.38	-	92.00
Composite Area & Weighted CN	3.38		92.00

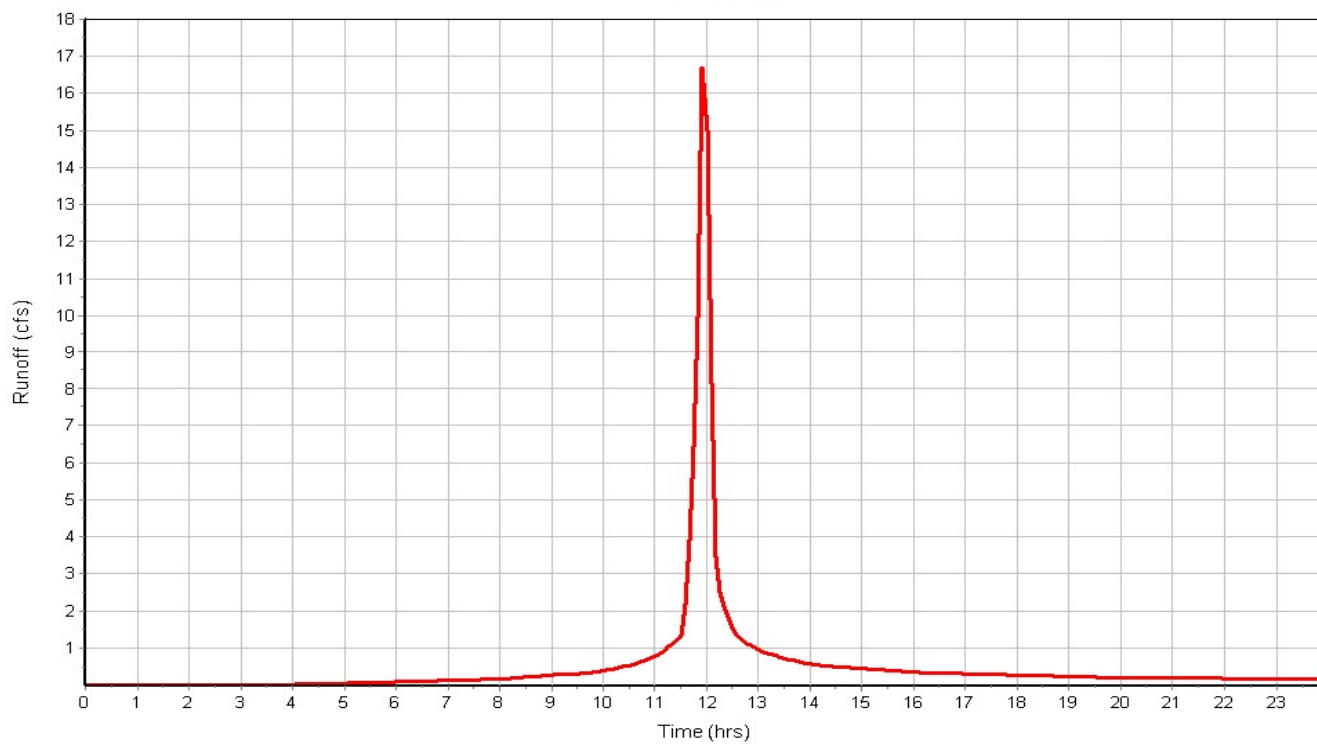
Subbasin Runoff Results

Total Rainfall (in) 4.44
Total Runoff (in) 3.54
Peak Runoff (cfs) 17.05
Weighted Curve Number 92.00
Time of Concentration (days hh:mm:ss) 0 00:07:00

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 02 - 02

Input Data

Area (ac) 7.84
Weighted Curve Number 93.00
Rain Gage ID DublinRain

Composite Curve Number

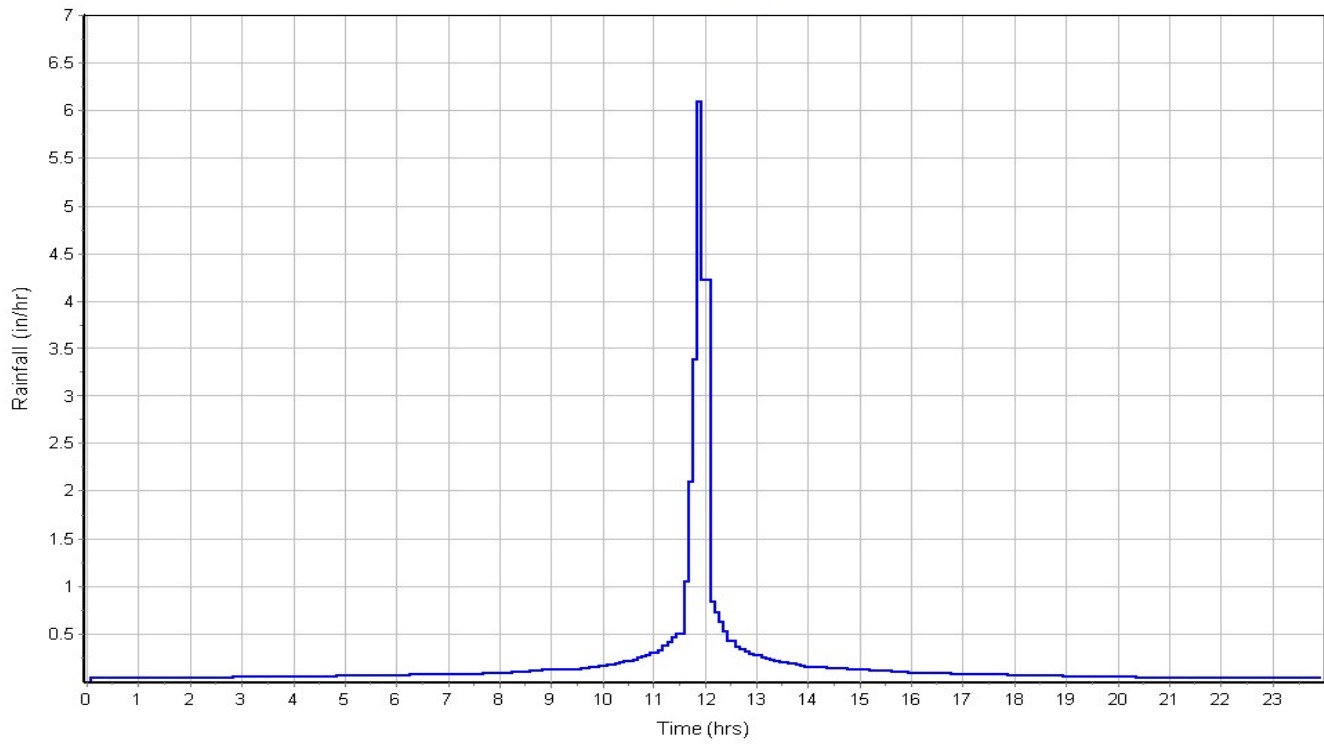
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	7.84	-	93.00
Composite Area & Weighted CN	7.84		93.00

Subbasin Runoff Results

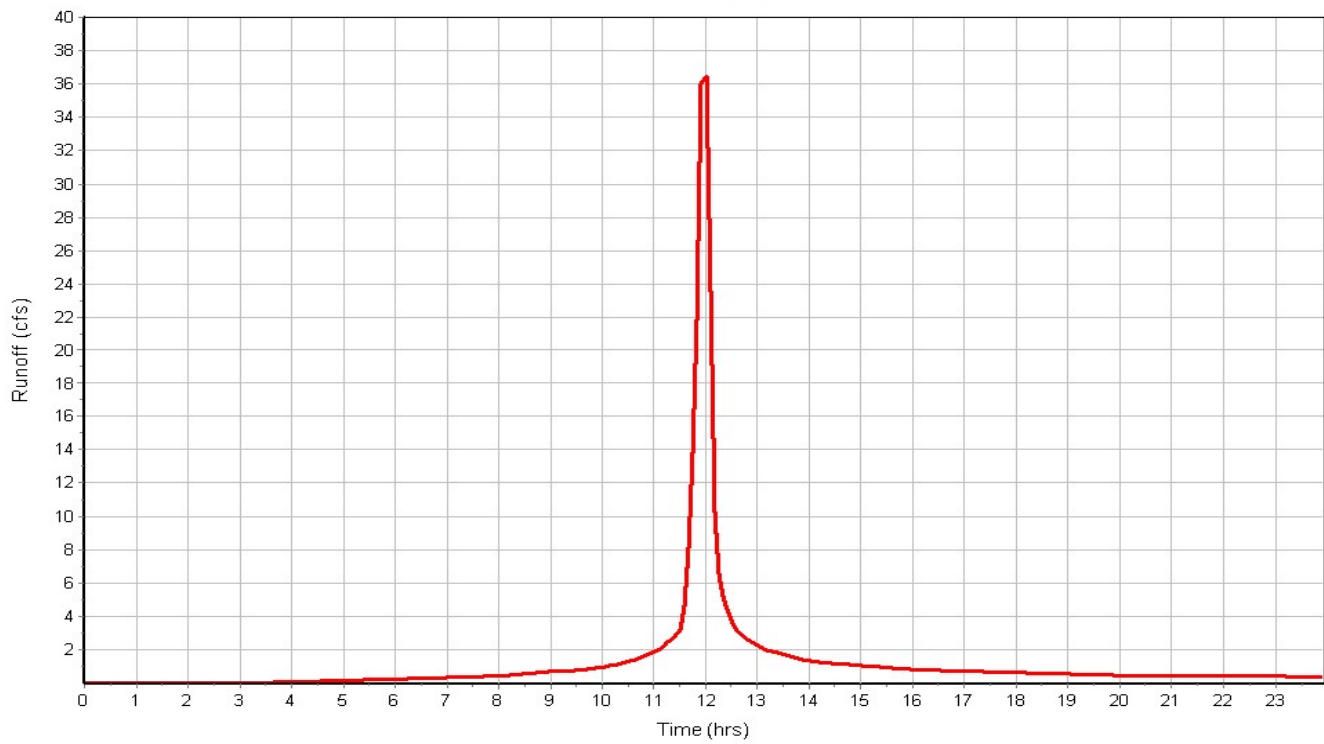
Total Rainfall (in) 4.44
Total Runoff (in) 3.65
Peak Runoff (cfs) 38.71
Weighted Curve Number 93.00
Time of Concentration (days hh:mm:ss) 0 00:08:30

Subbasin : Offsite 02 - 02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 03: Triangle outparcel

Input Data

Area (ac) 2.50
Weighted Curve Number 74.00
Rain Gage ID DublinRain

Composite Curve Number

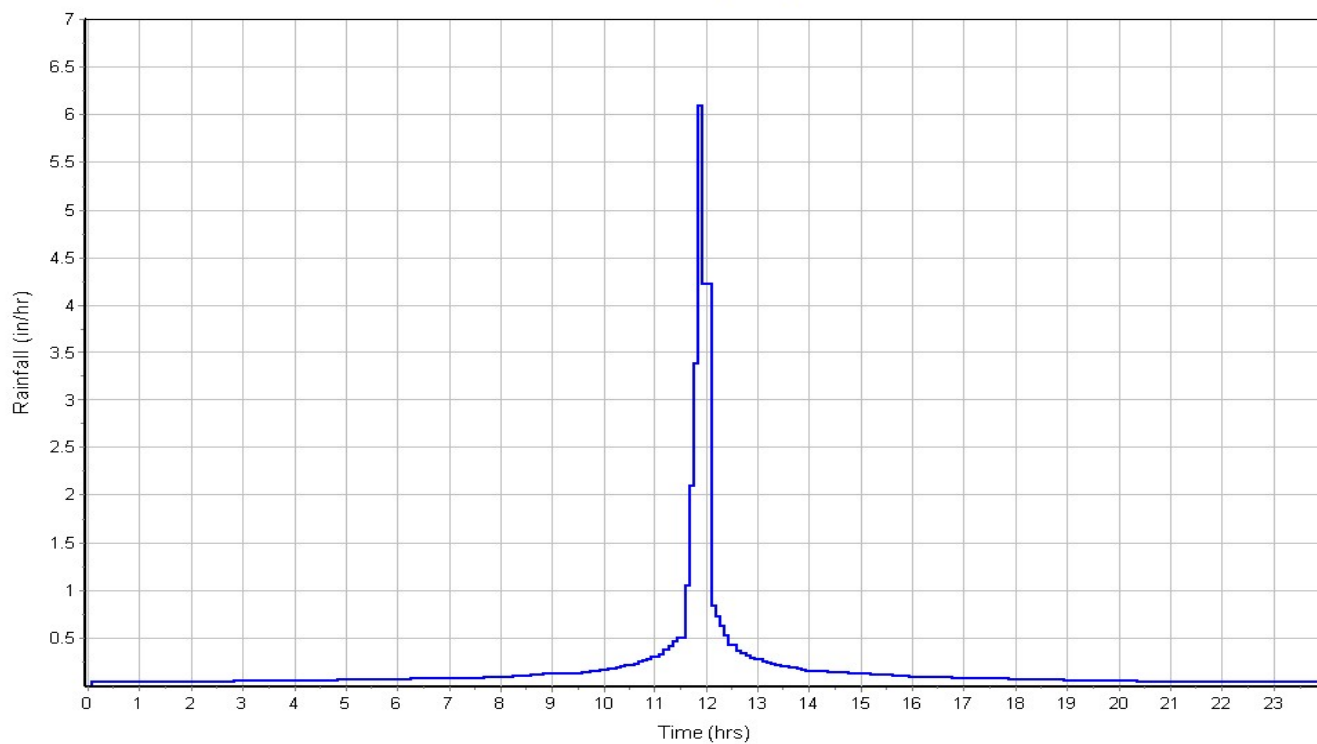
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	2.50	-	74.00
Composite Area & Weighted CN	2.50		74.00

Subbasin Runoff Results

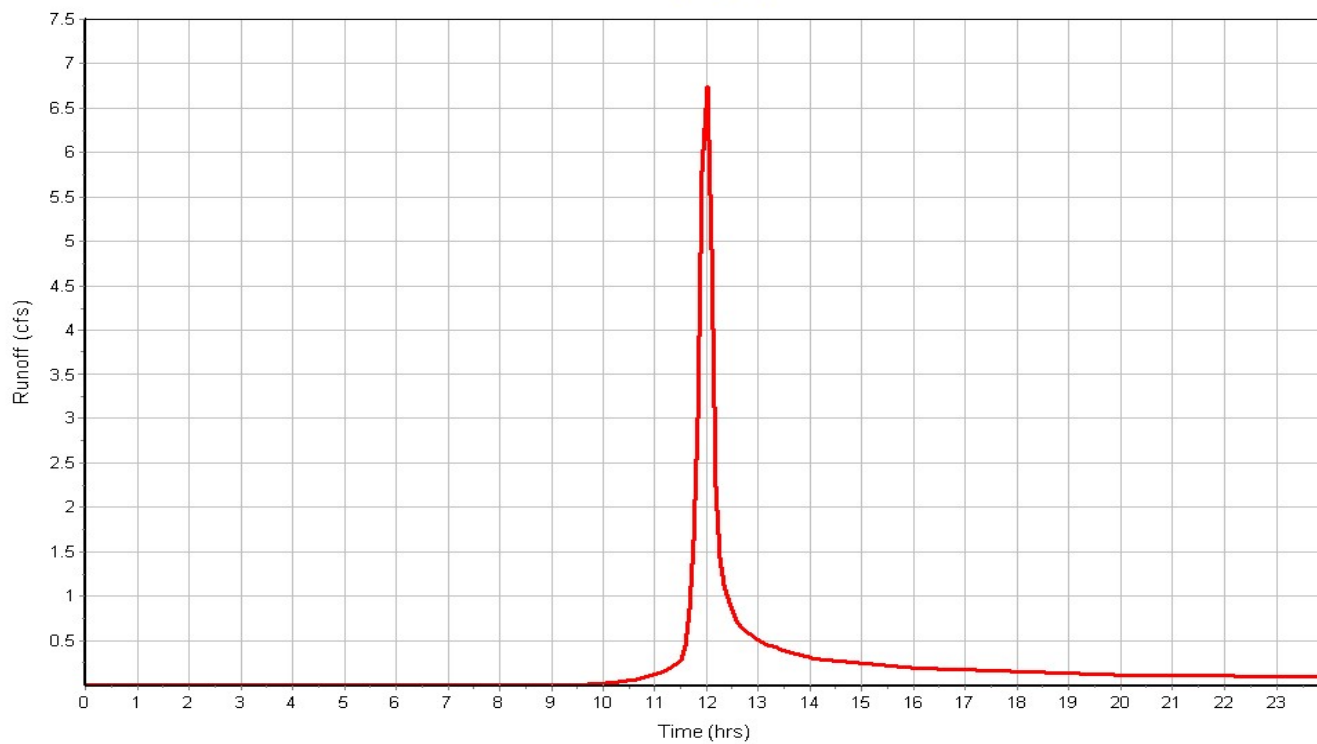
Total Rainfall (in) 4.44
Total Runoff (in) 1.93
Peak Runoff (cfs) 6.80
Weighted Curve Number 74.00
Time of Concentration (days hh:mm:ss) 0 00:09:00

Subbasin : Offsite 03: Triangle outparcel

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 04: Cendant Site

Input Data

Area (ac) 5.72
Weighted Curve Number 94.00
Rain Gage ID DublinRain

Composite Curve Number

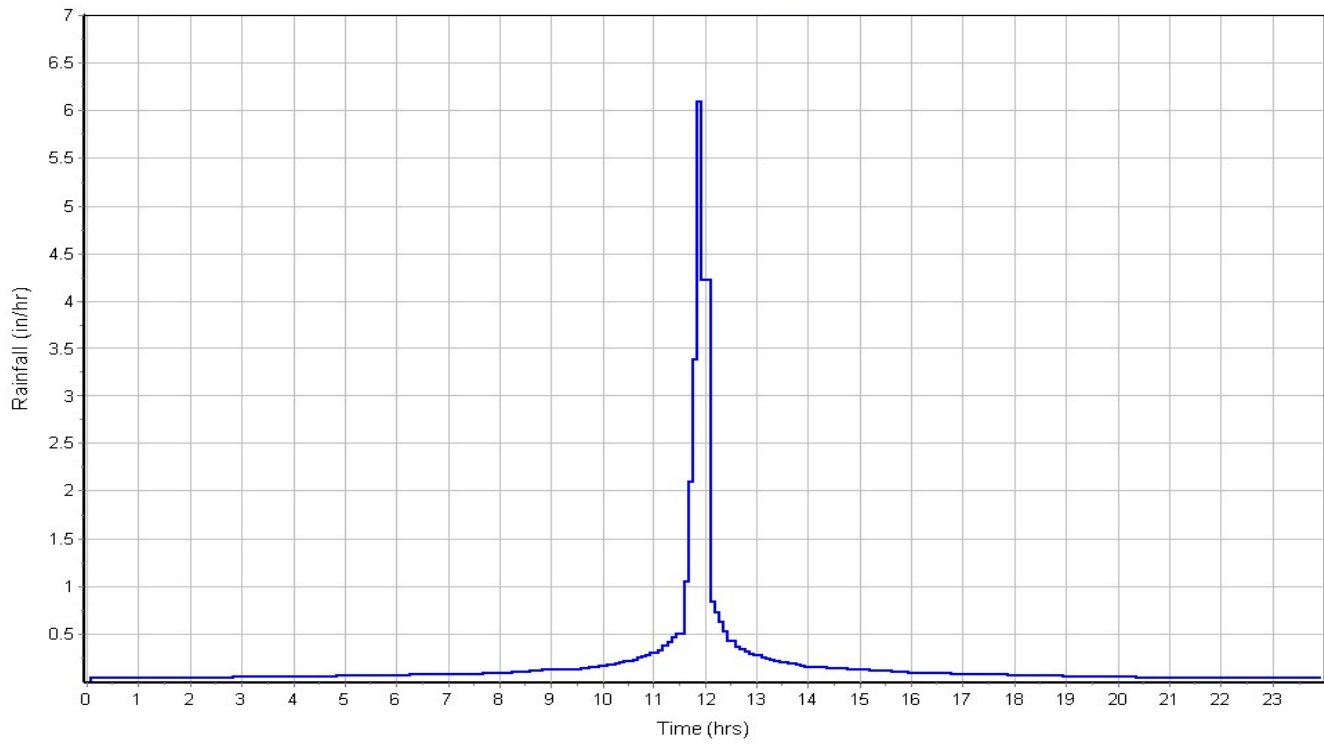
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	5.72	-	94.00
Composite Area & Weighted CN	5.72		94.00

Subbasin Runoff Results

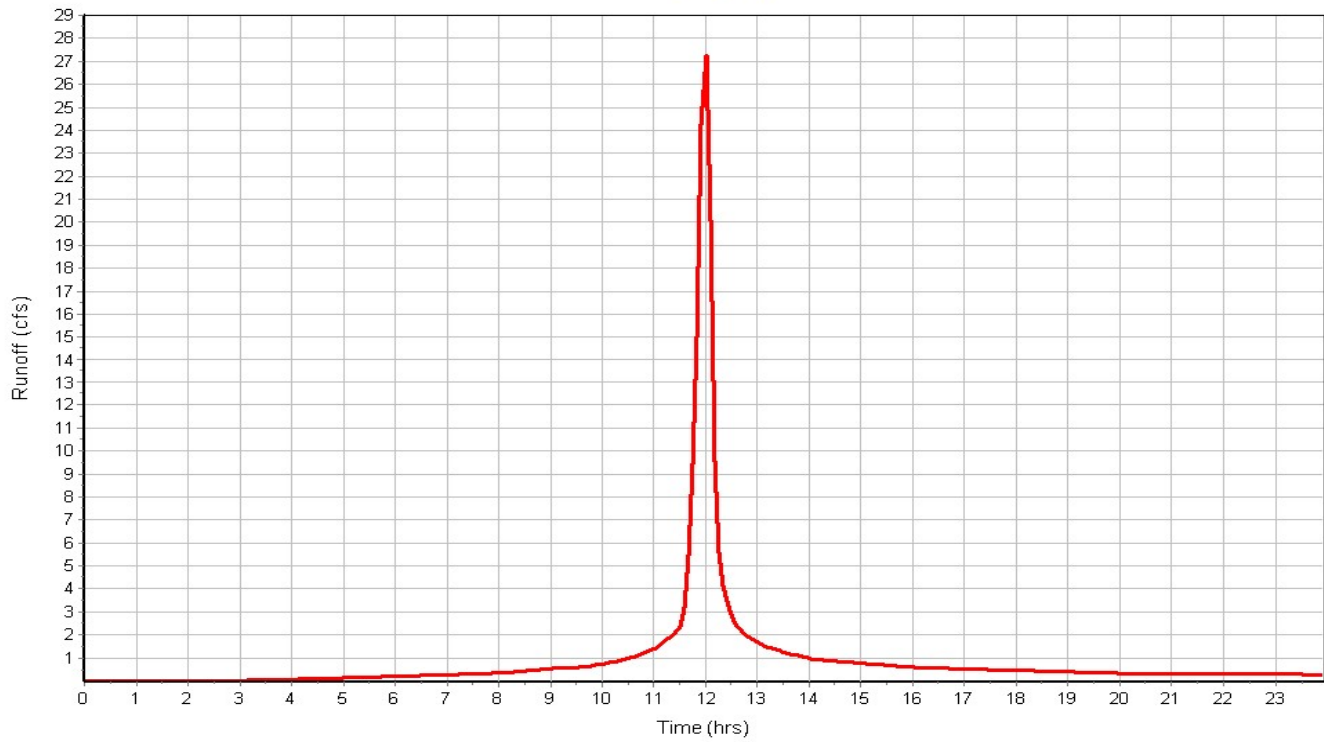
Total Rainfall (in) 4.44
Total Runoff (in) 3.76
Peak Runoff (cfs) 27.74
Weighted Curve Number 94.00
Time of Concentration (days hh:mm:ss) 0 00:10:00

Subbasin : Offsite 04: Cendant Site

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea 02 - to wb 02

Input Data

Area (ac) 0.43
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

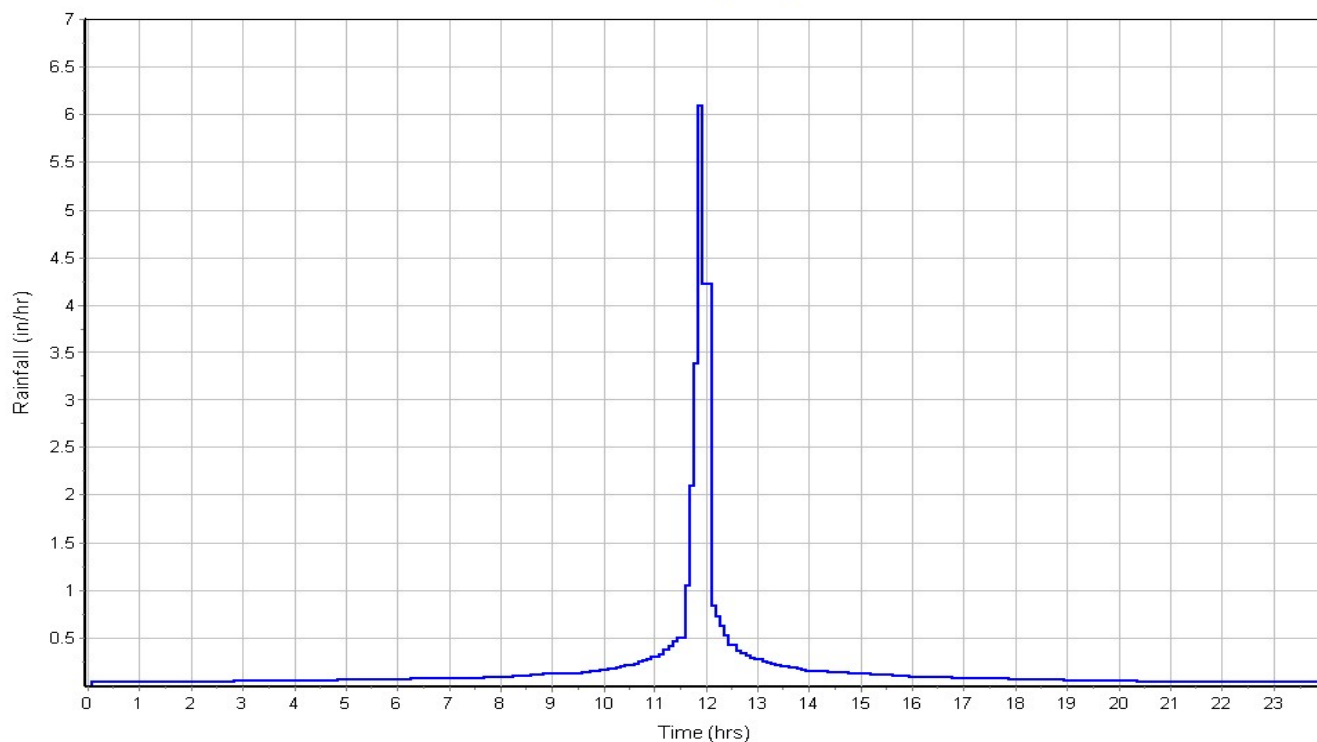
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.39	-	98.00
-	0.04	-	74.00
Composite Area & Weighted CN	0.43		95.60

Subbasin Runoff Results

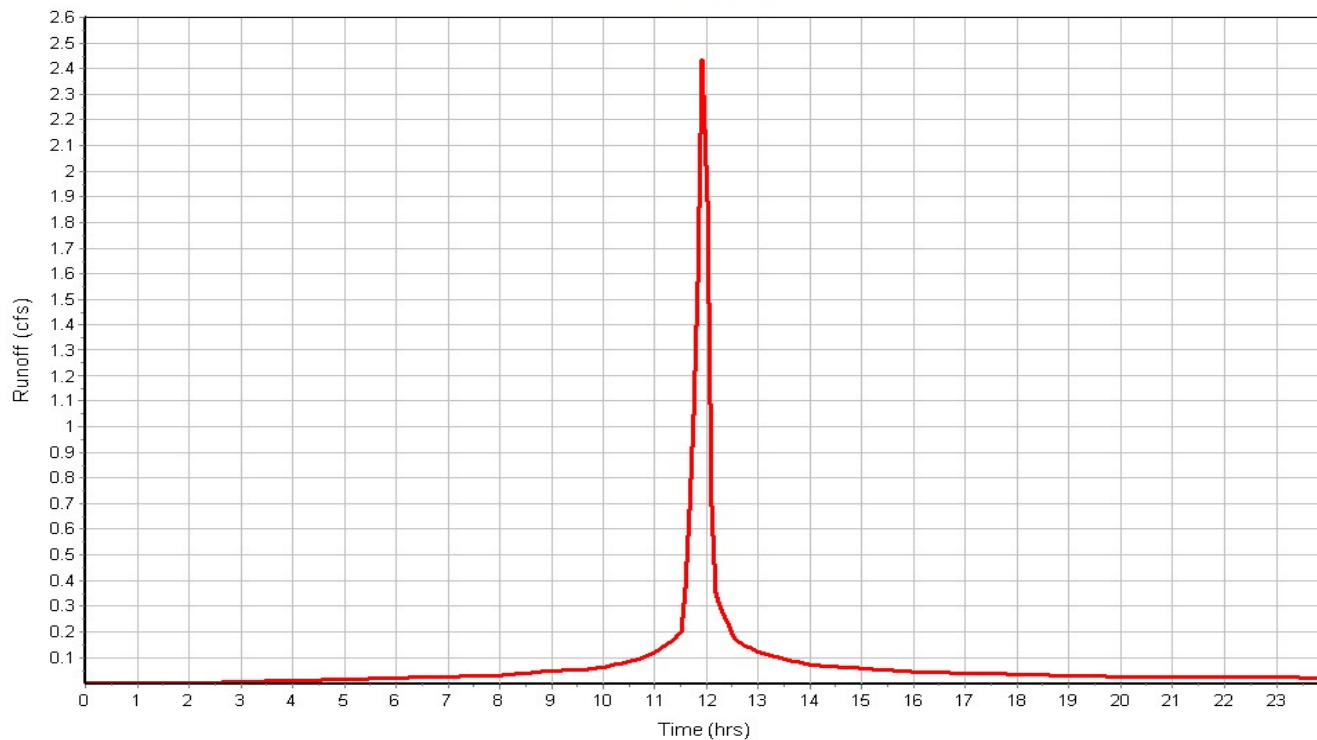
Total Rainfall (in) 4.44
Total Runoff (in) 3.93
Peak Runoff (cfs) 2.43
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea 02 - to wb 02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea 02 -to wb1

Input Data

Area (ac) 0.52
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

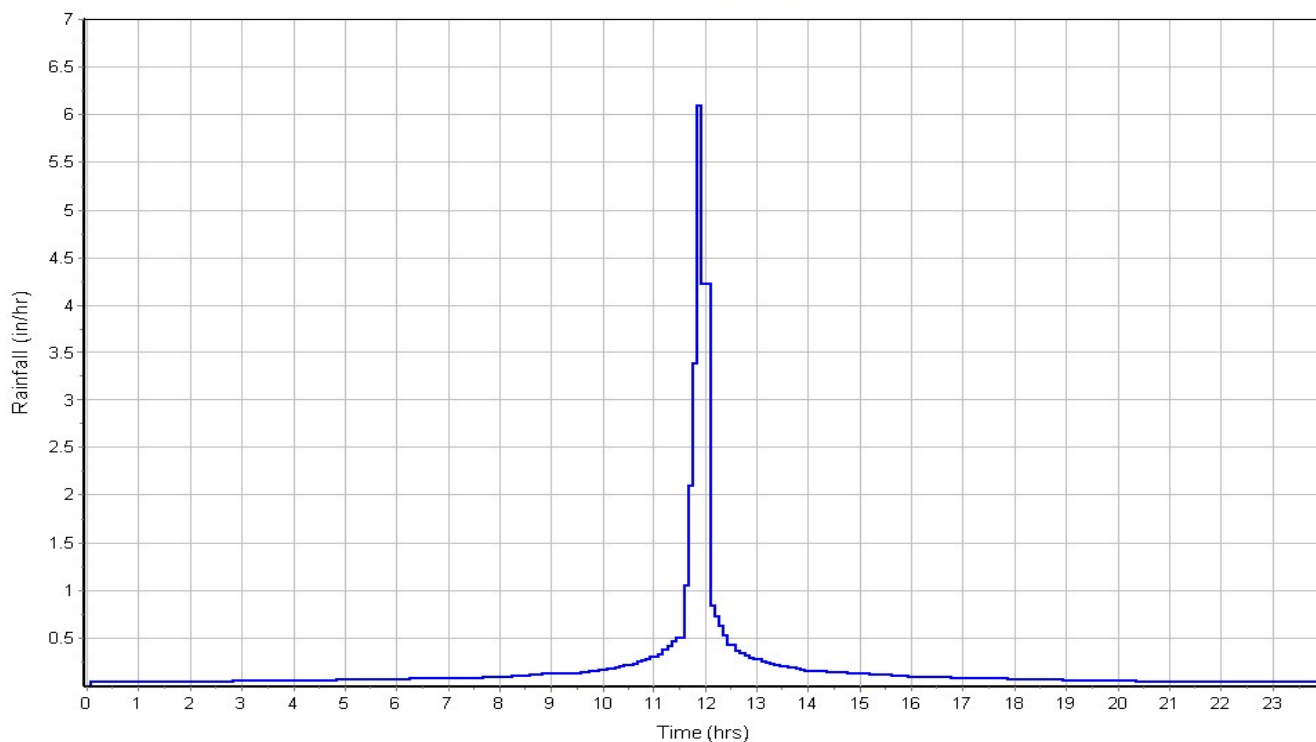
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.05	-	74.00
-	0.47	-	98.00
Composite Area & Weighted CN	0.52		95.60

Subbasin Runoff Results

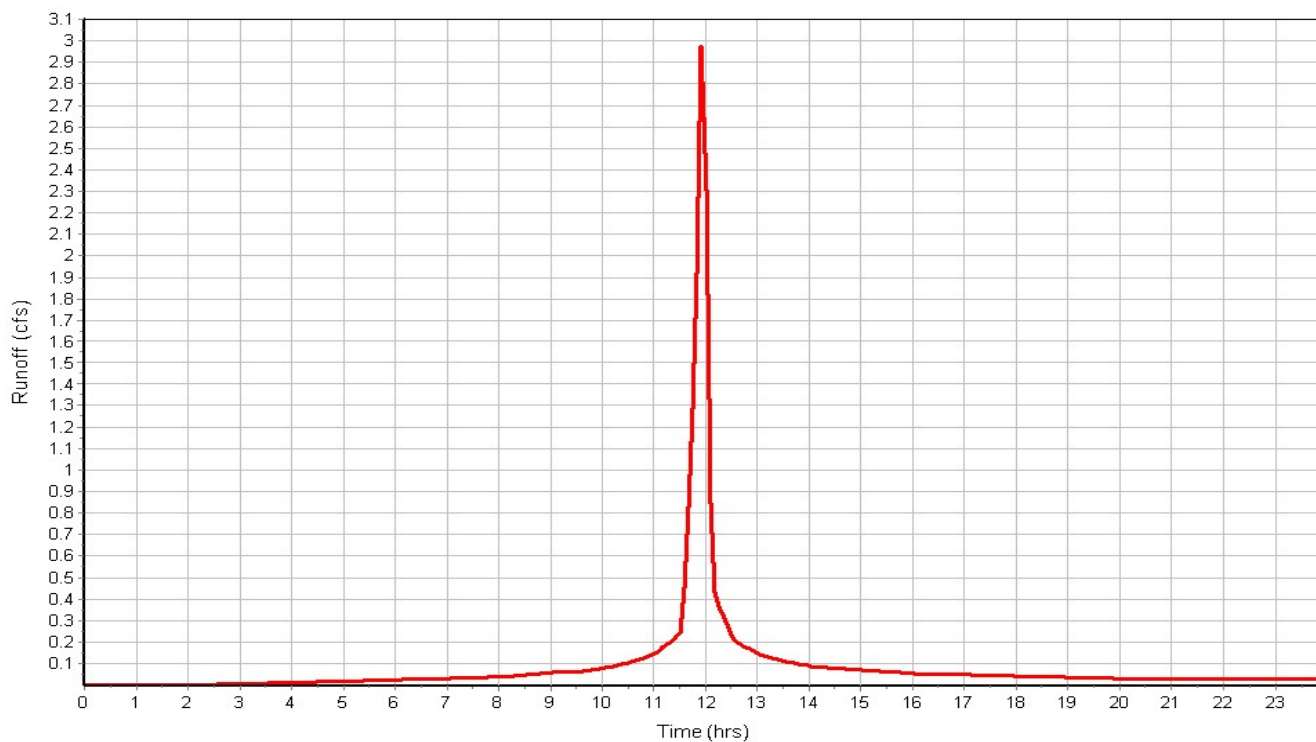
Total Rainfall (in) 4.44
Total Runoff (in) 3.93
Peak Runoff (cfs) 2.98
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea 02 -to wb1

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea 03

Input Data

Area (ac) 10.24
Weighted Curve Number 89.68
Rain Gage ID DublinRain

Composite Curve Number

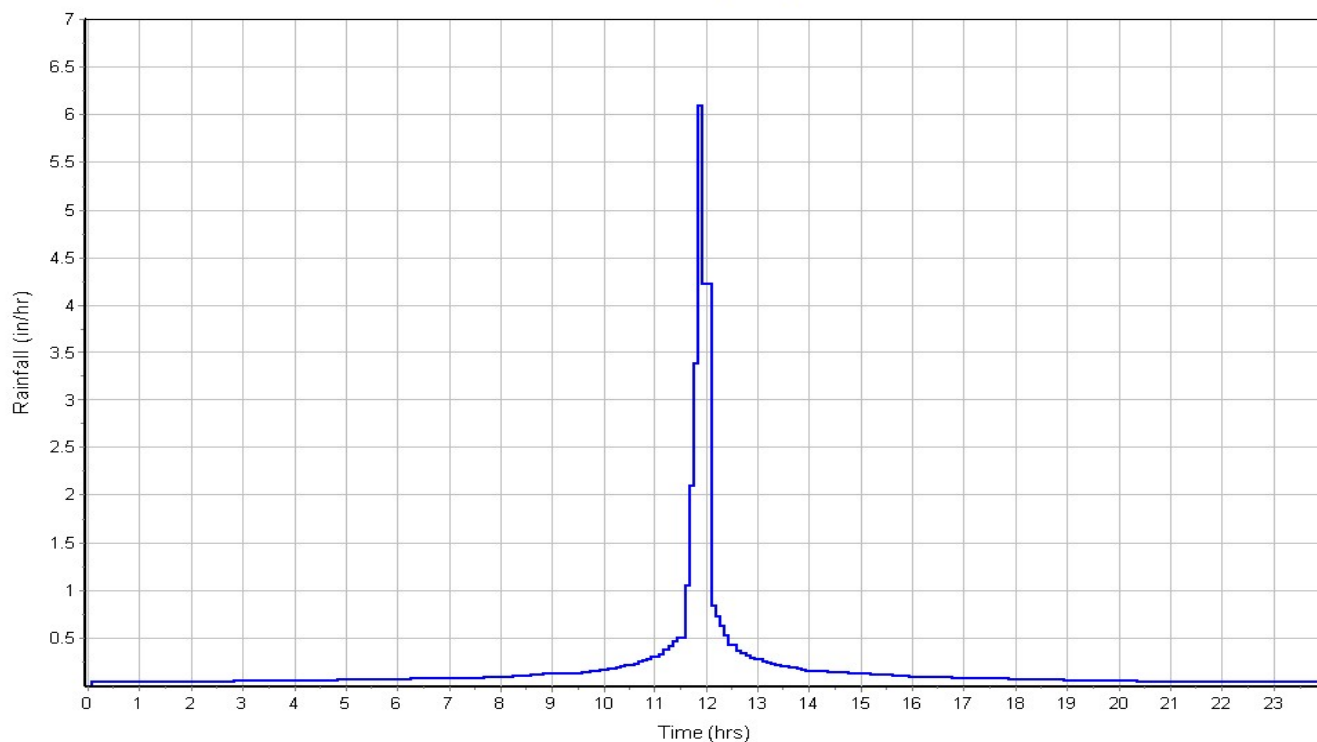
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	6.69	-	98.00
-	3.55	-	74.00
Composite Area & Weighted CN	10.24		89.68

Subbasin Runoff Results

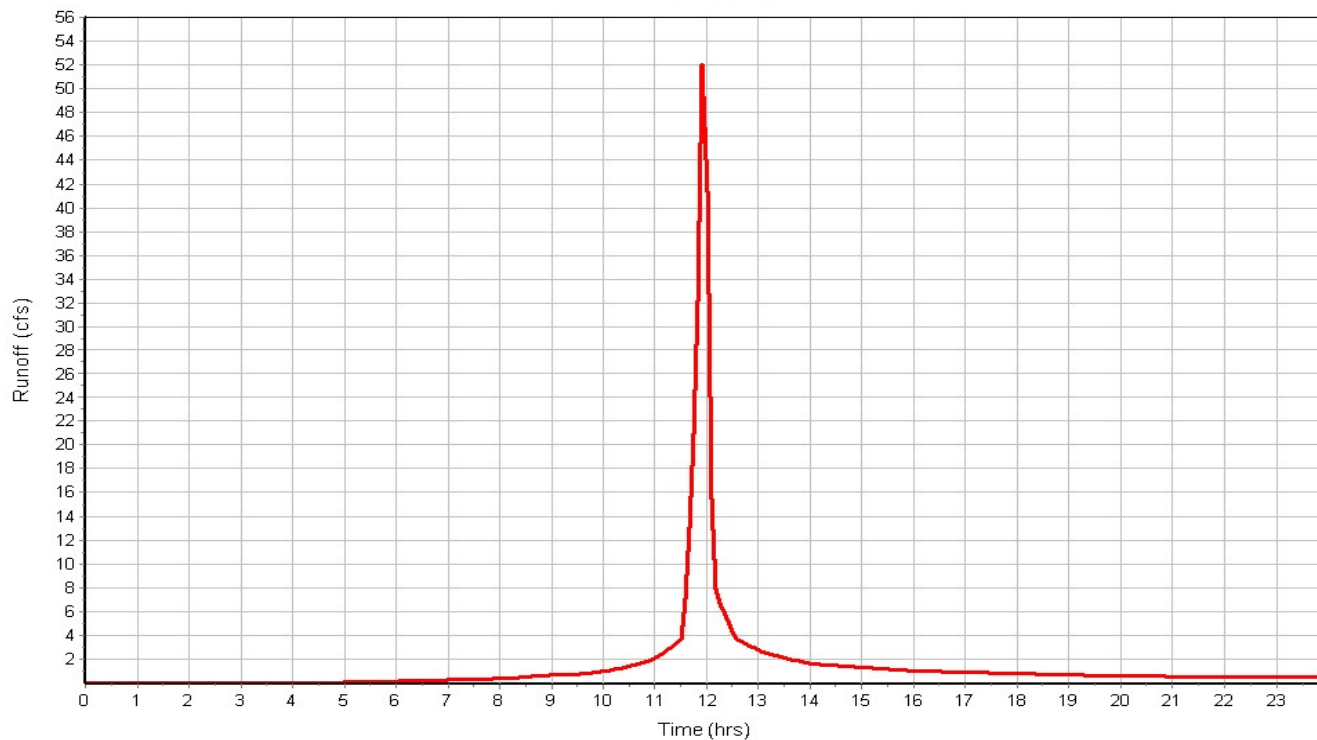
Total Rainfall (in) 4.44
Total Runoff (in) 3.31
Peak Runoff (cfs) 52.01
Weighted Curve Number 89.68
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea 03

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea01

Input Data

Area (ac) 14.97
Weighted Curve Number 90.80
Rain Gage ID DublinRain

Composite Curve Number

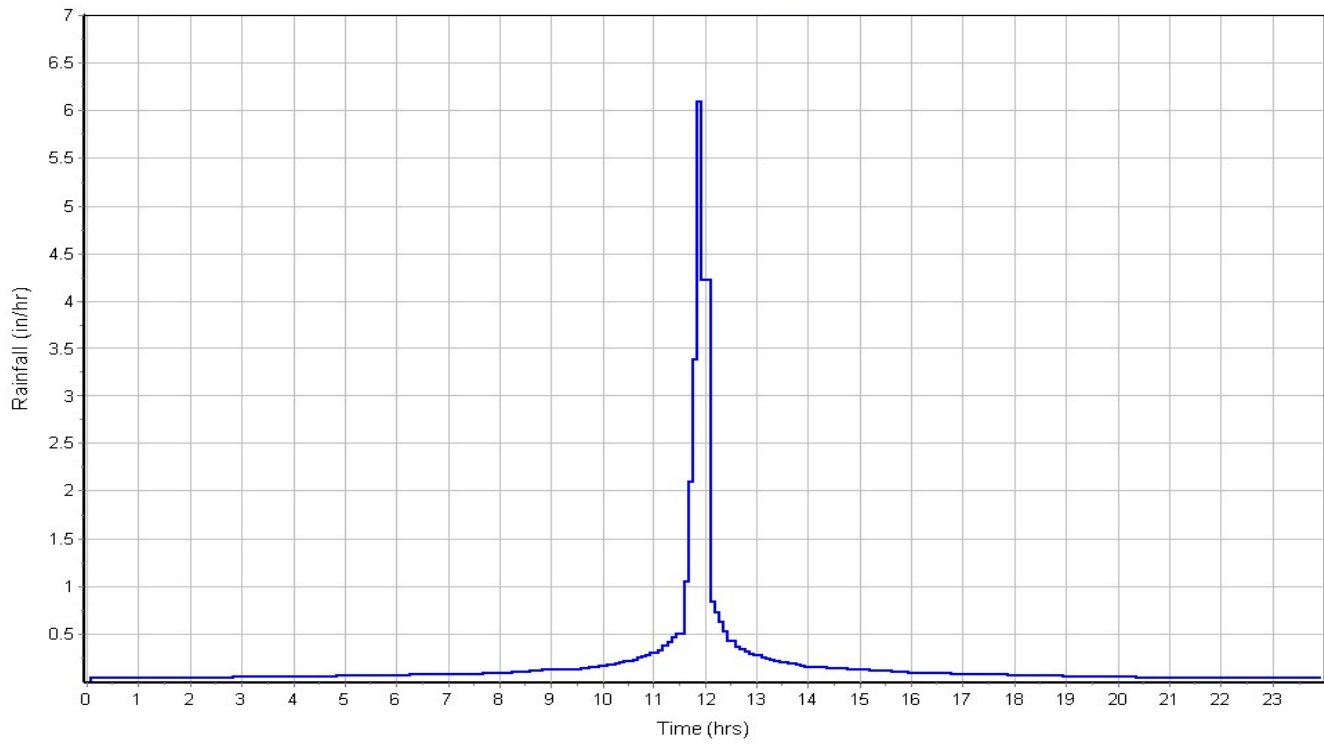
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	10.48	-	98.00
-	4.49	-	74.00
Composite Area & Weighted CN	14.97		90.80

Subbasin Runoff Results

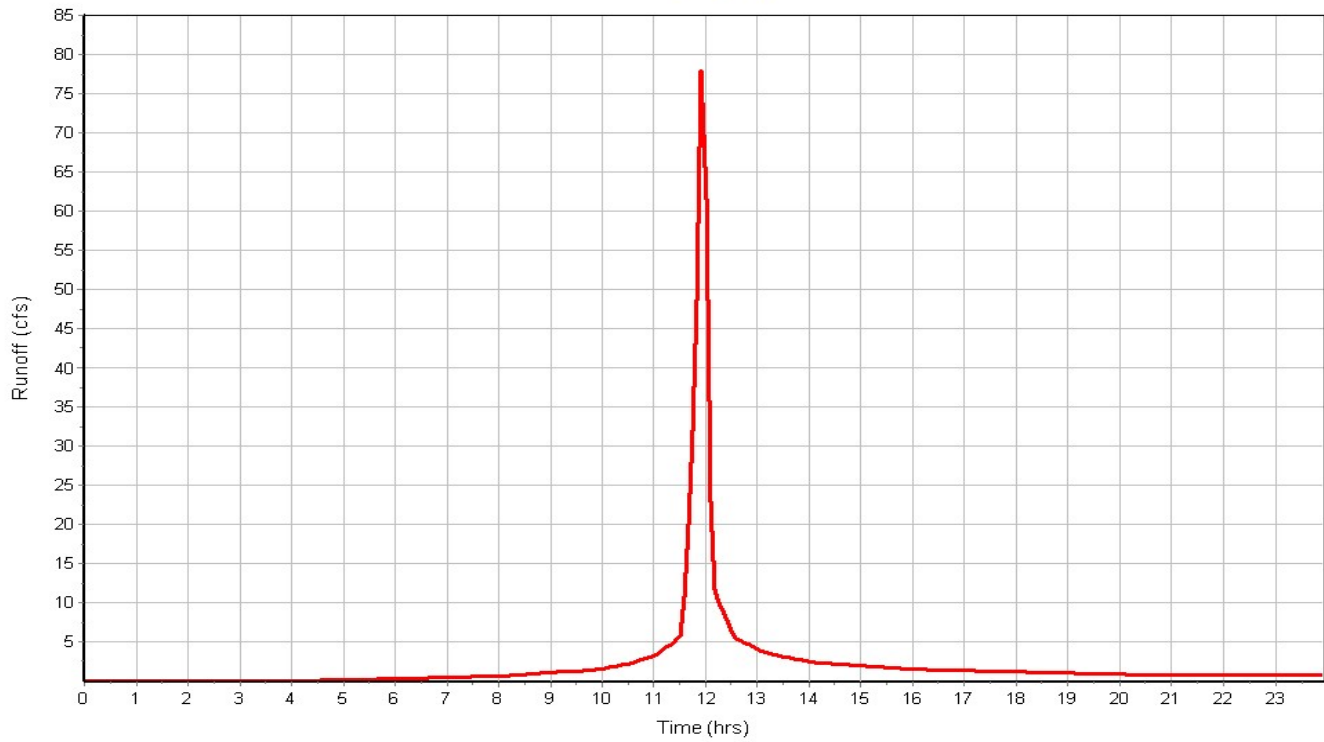
Total Rainfall (in) 4.44
Total Runoff (in) 3.42
Peak Runoff (cfs) 77.90
Weighted Curve Number 90.80
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea01

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin01

Input Data

Area (ac) 1.39
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

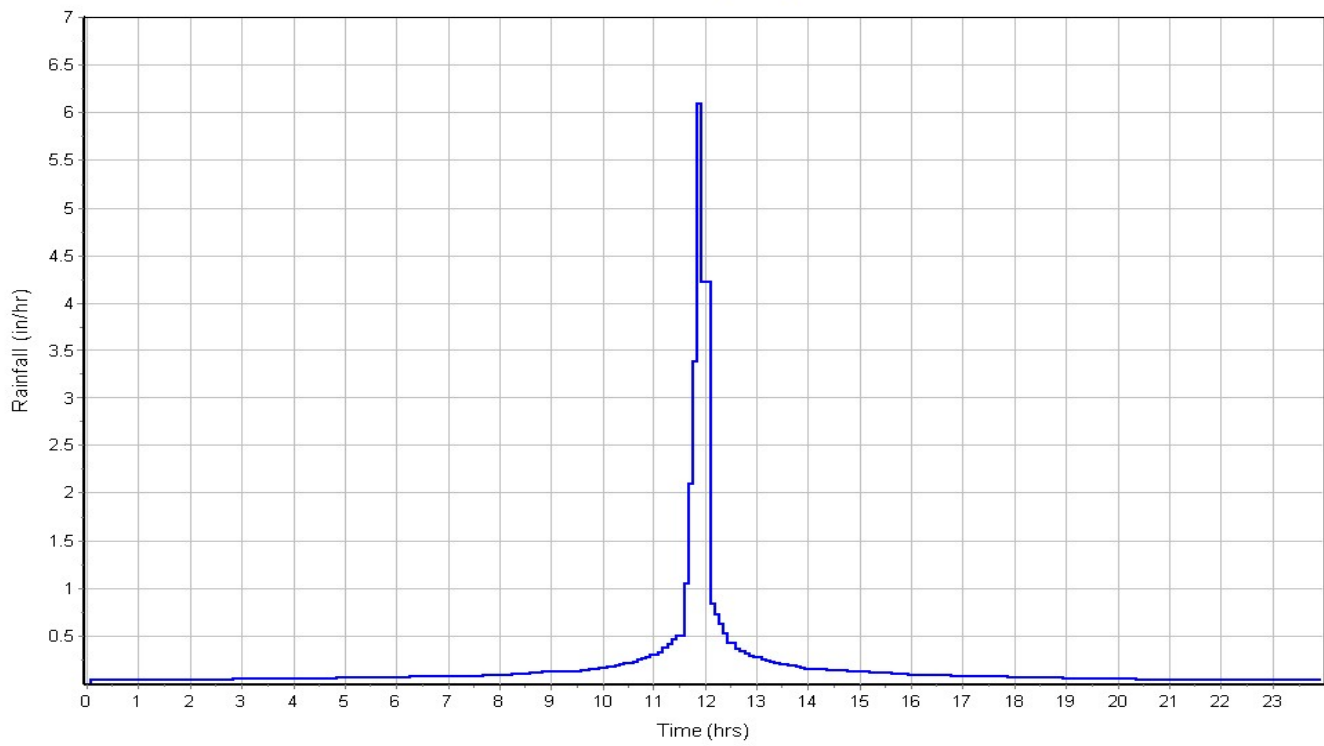
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	1.25	-	98.00
-	0.14	-	74.00
Composite Area & Weighted CN	1.39		95.60

Subbasin Runoff Results

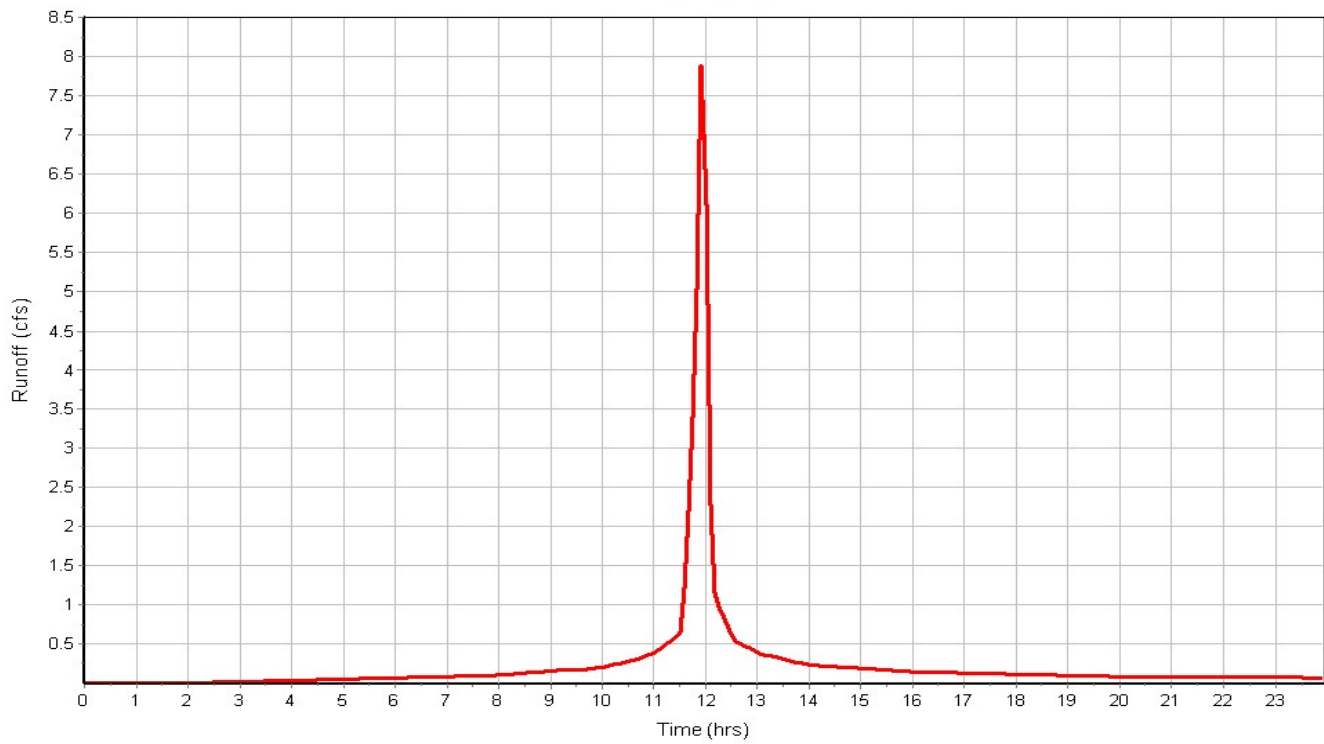
Total Rainfall (in) 4.44
Total Runoff (in) 3.93
Peak Runoff (cfs) 7.88
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin01

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin02

Input Data

Area (ac) 0.52
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

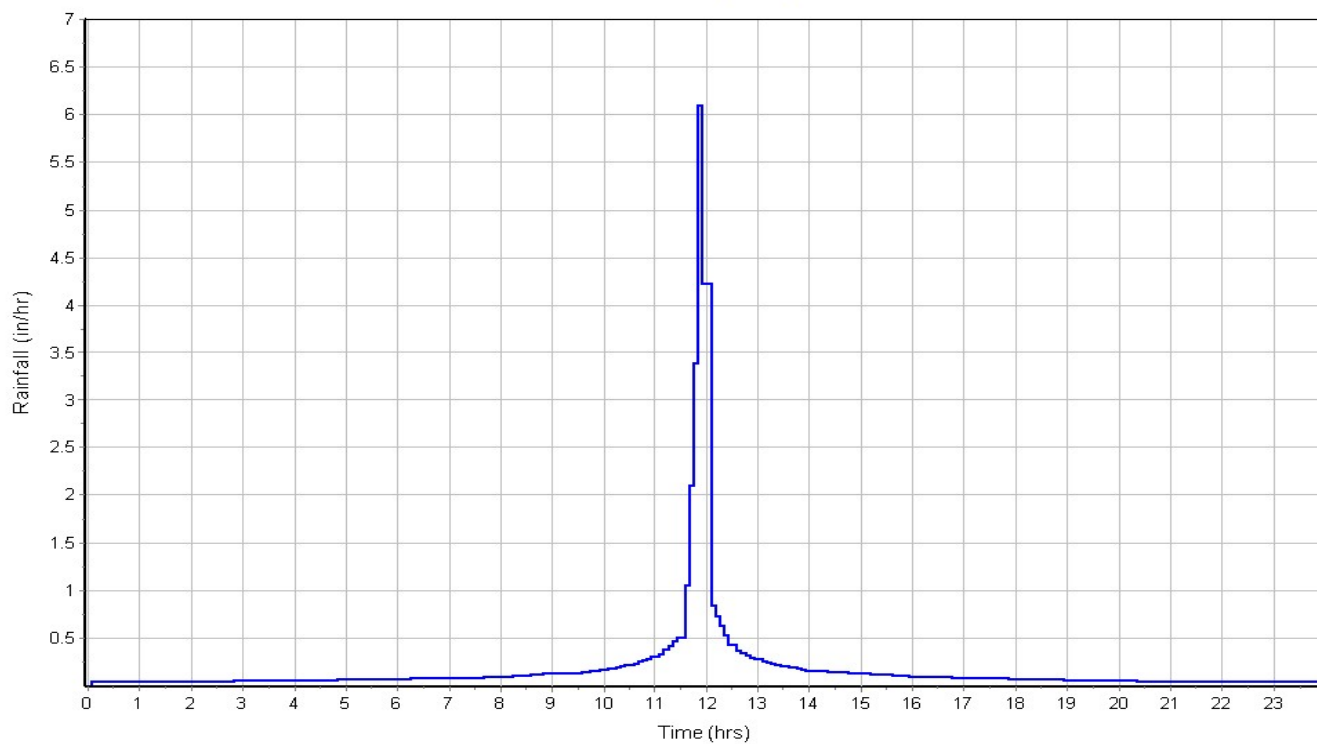
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.47	-	98.00
-	0.05	-	74.00
Composite Area & Weighted CN	0.52		95.60

Subbasin Runoff Results

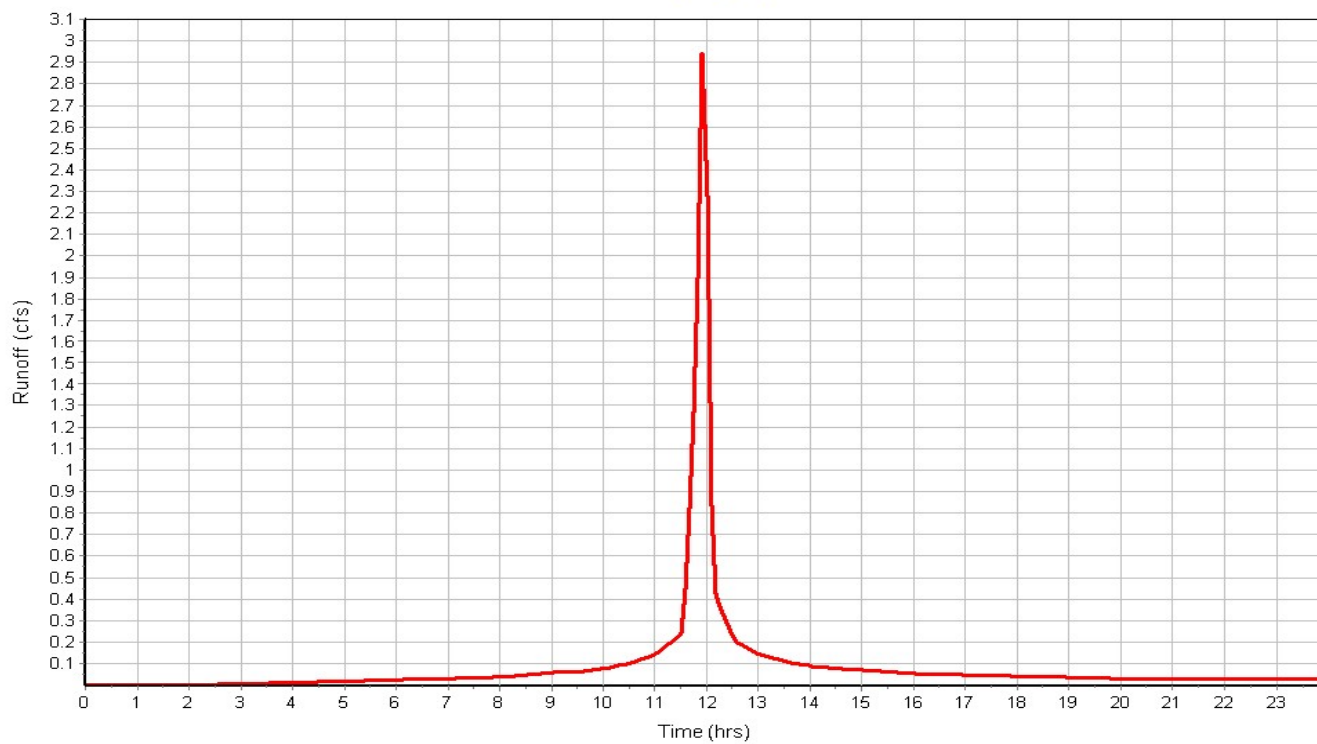
Total Rainfall (in) 4.44
Total Runoff (in) 3.93
Peak Runoff (cfs) 2.94
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin03

Input Data

Area (ac) 1.35
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

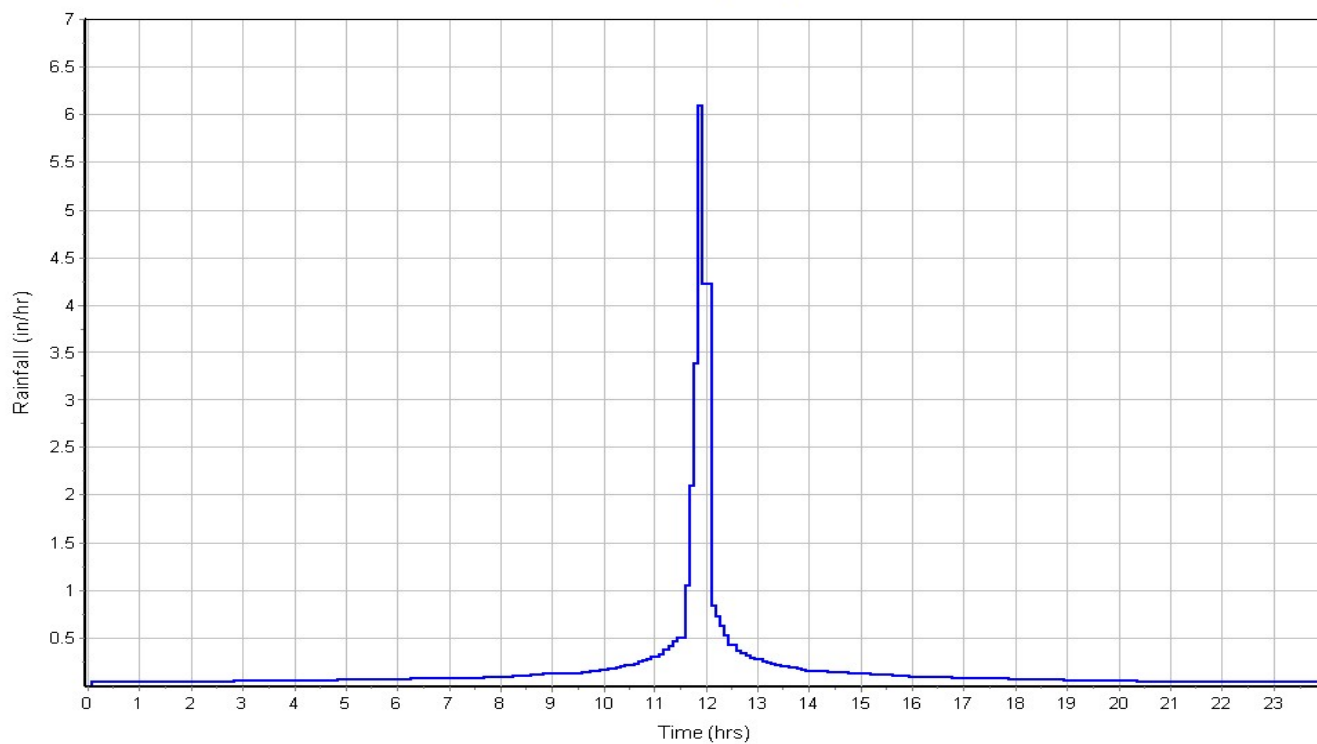
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	1.22	-	98.00
-	0.14	-	74.00
Composite Area & Weighted CN	1.36		95.60

Subbasin Runoff Results

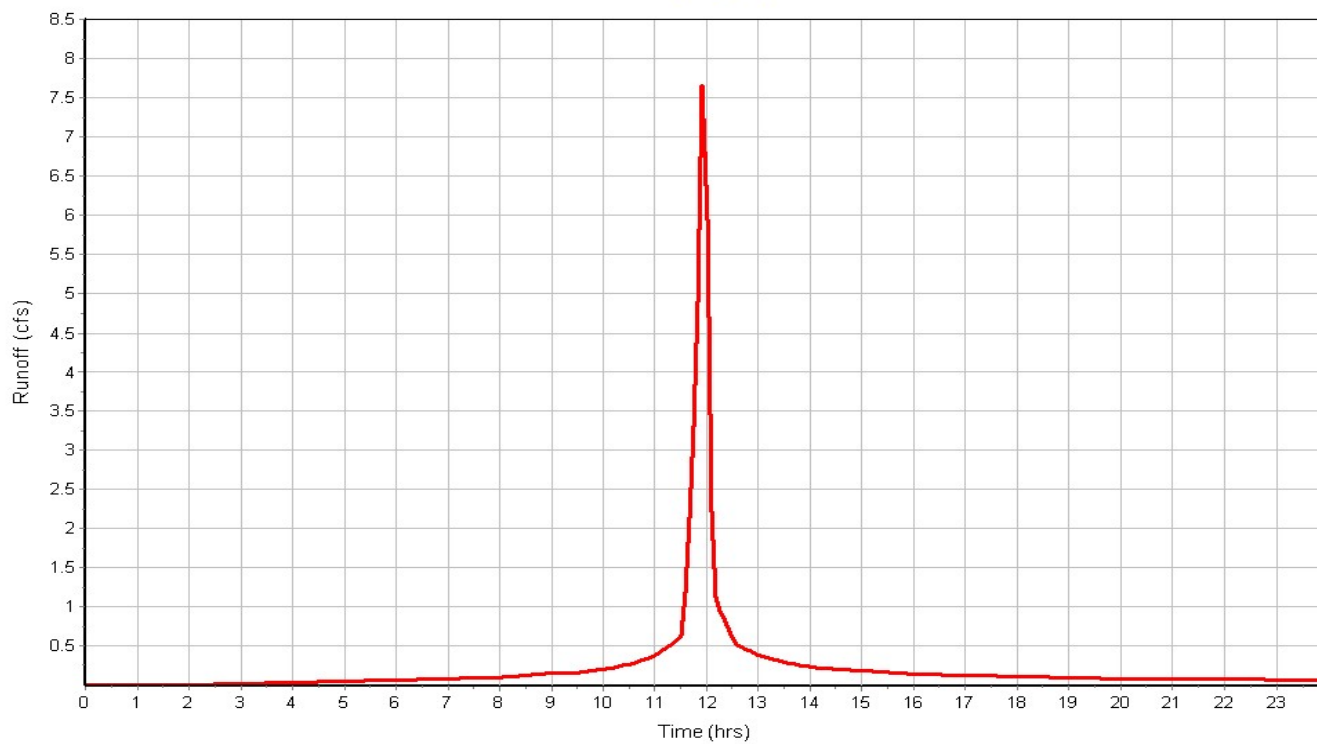
Total Rainfall (in) 4.44
Total Runoff (in) 3.93
Peak Runoff (cfs) 7.66
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin03

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin04

Input Data

Area (ac) 0.81
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

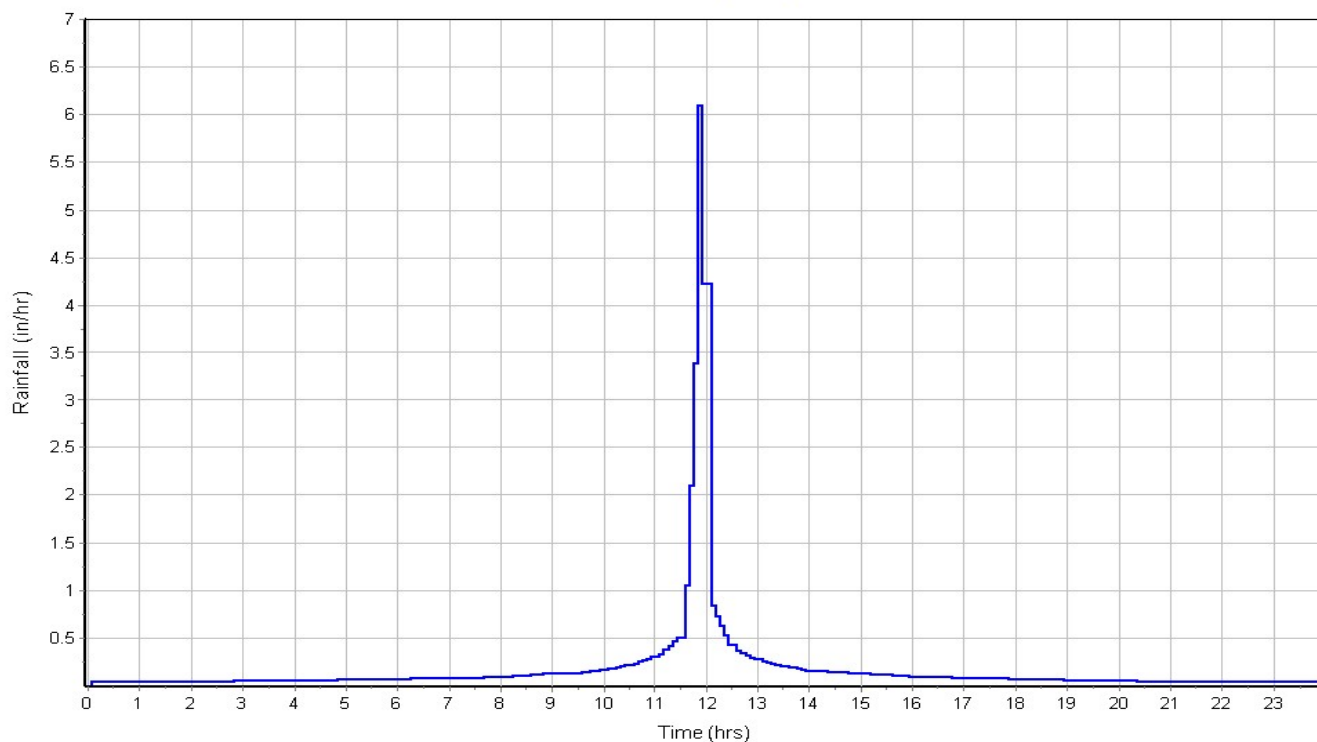
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.73	-	98.00
-	0.08	-	74.00
Composite Area & Weighted CN	0.81		95.60

Subbasin Runoff Results

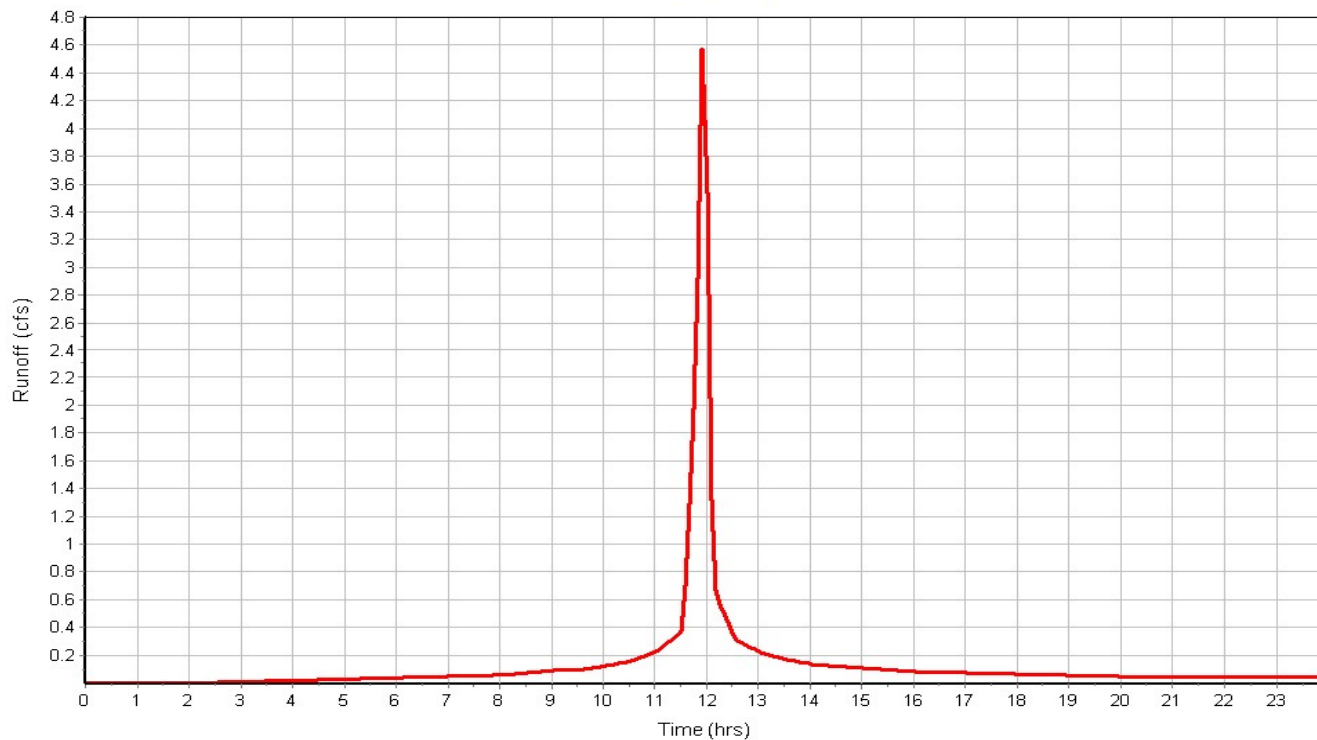
Total Rainfall (in) 4.44
Total Runoff (in) 3.93
Peak Runoff (cfs) 4.57
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin04

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin05

Input Data

Area (ac) 1.44
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

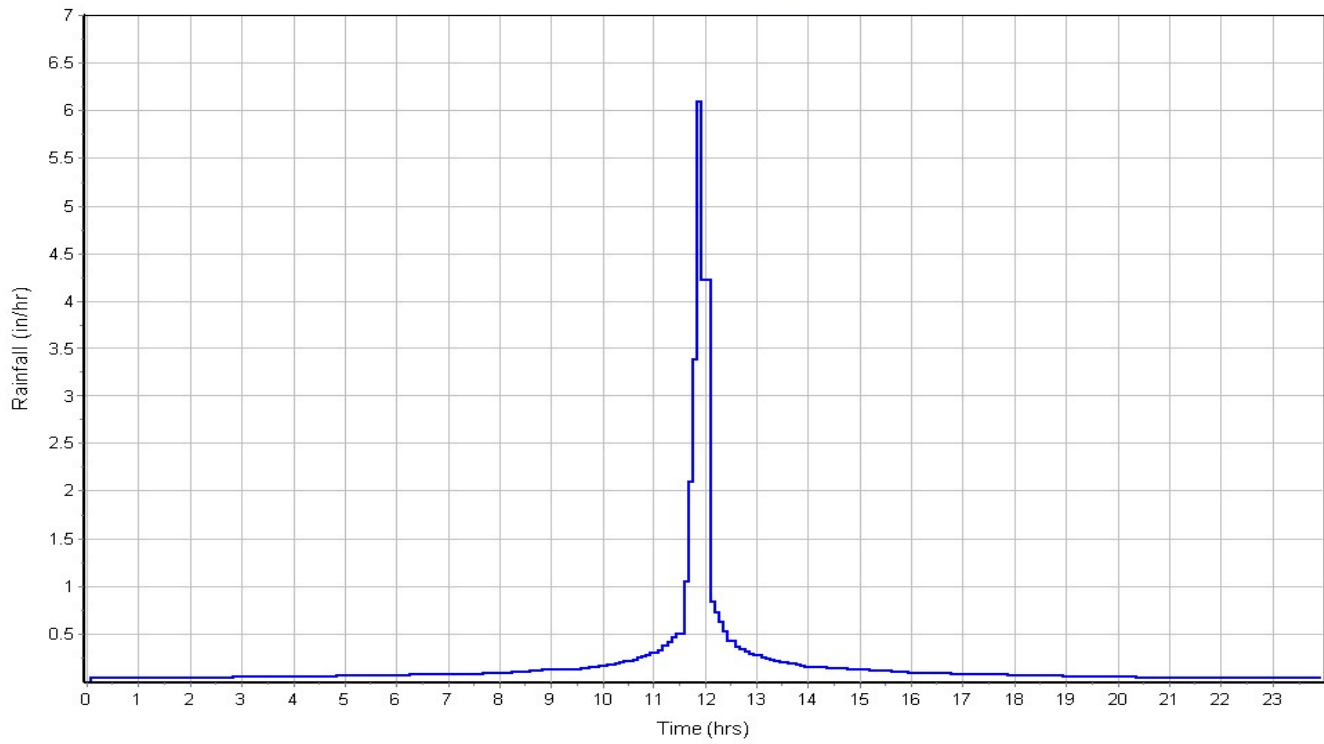
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	1.29	-	98.00
-	0.14	-	74.00
Composite Area & Weighted CN	1.43		95.60

Subbasin Runoff Results

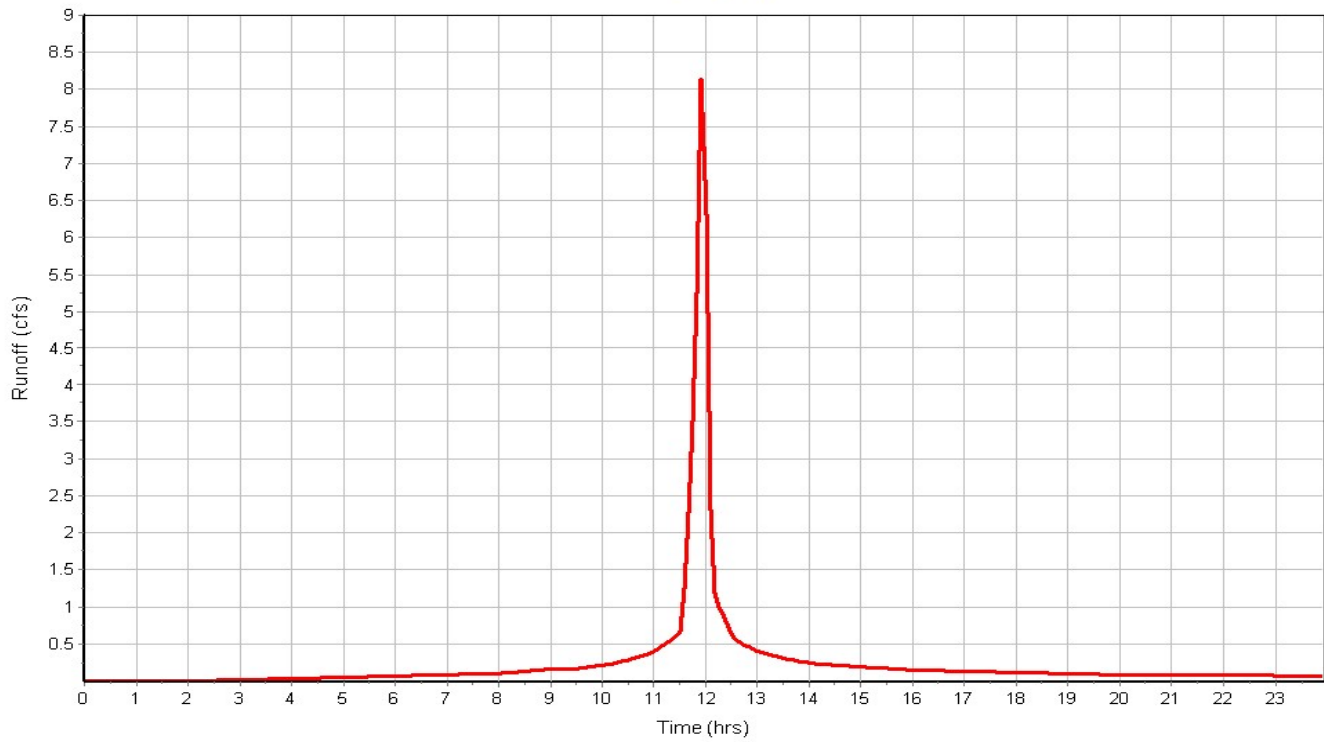
Total Rainfall (in) 4.44
Total Runoff (in) 3.93
Peak Runoff (cfs) 8.13
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin05

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToPP01-02

Input Data

Area (ac) 0.91
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

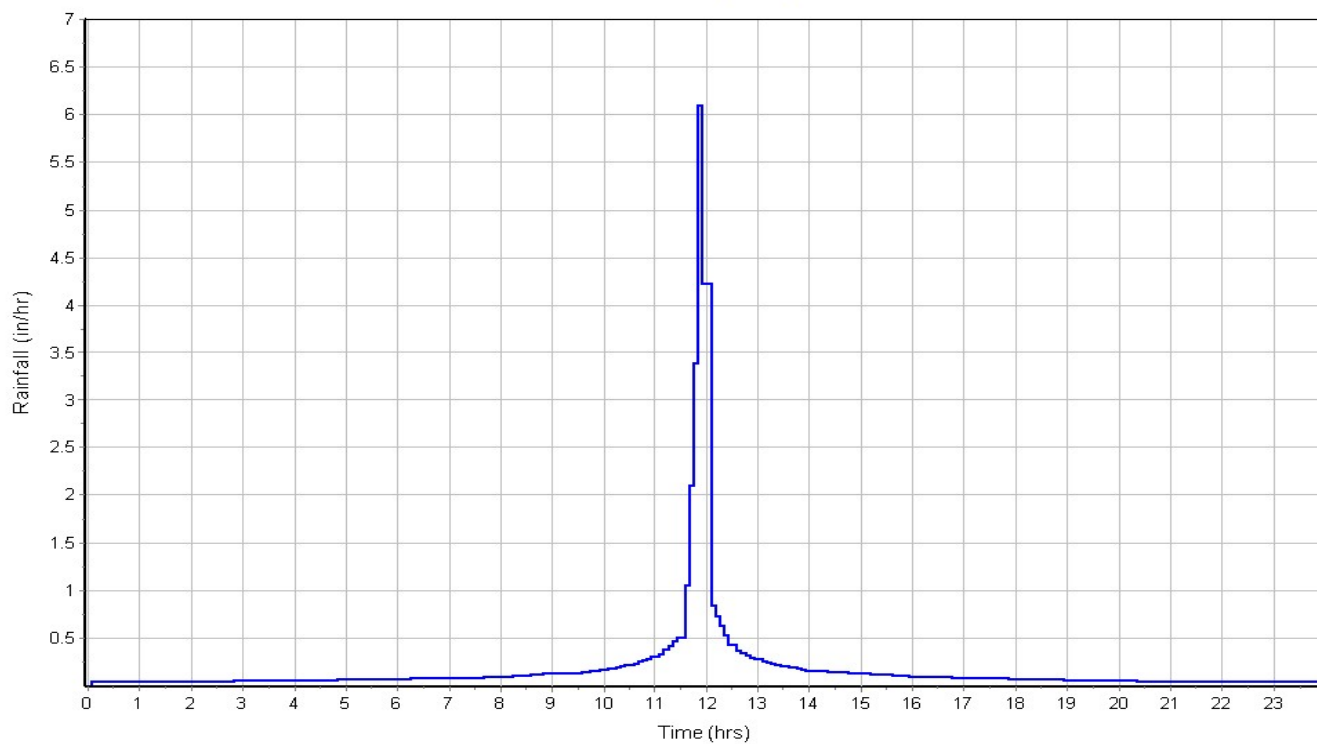
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.82	-	98.00
-	0.09	-	74.00
Composite Area & Weighted CN	0.91		95.60

Subbasin Runoff Results

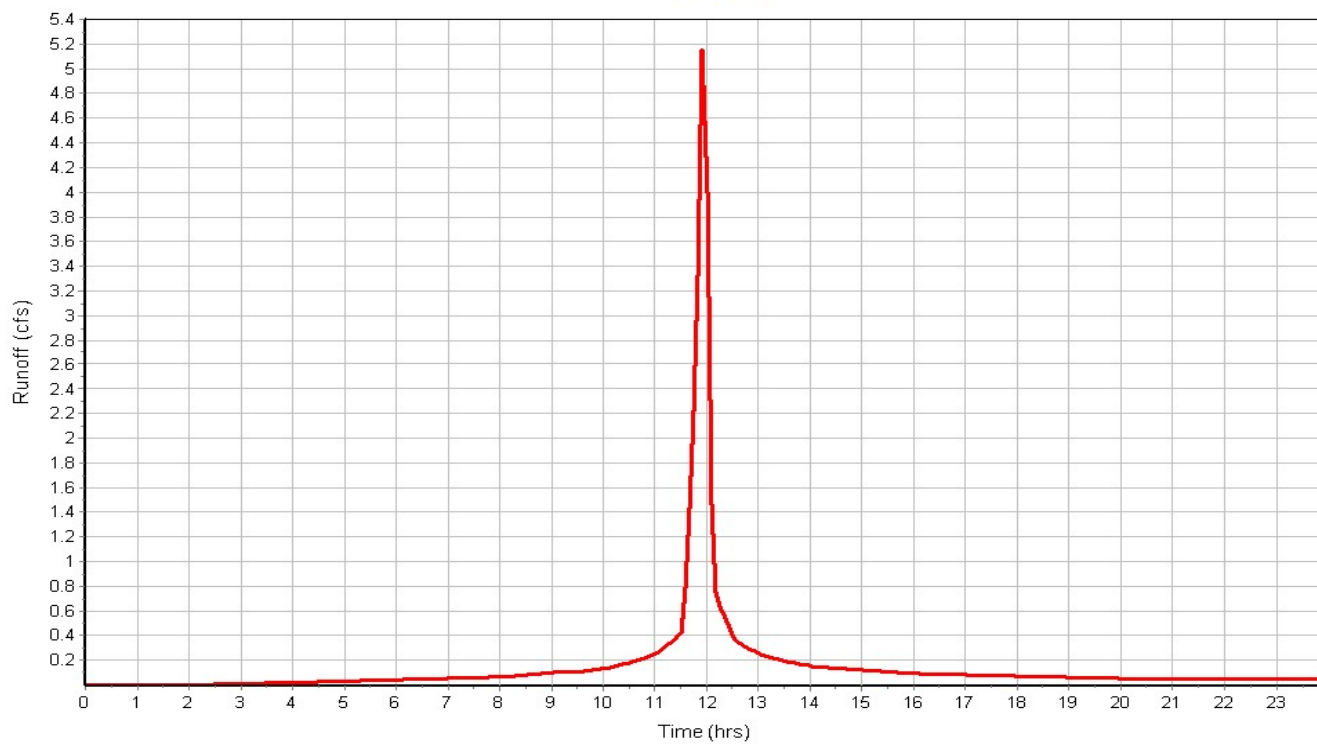
Total Rainfall (in) 4.44
Total Runoff (in) 3.93
Peak Runoff (cfs) 5.15
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToPP01-02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToPP03-04

Input Data

Area (ac) 0.93
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

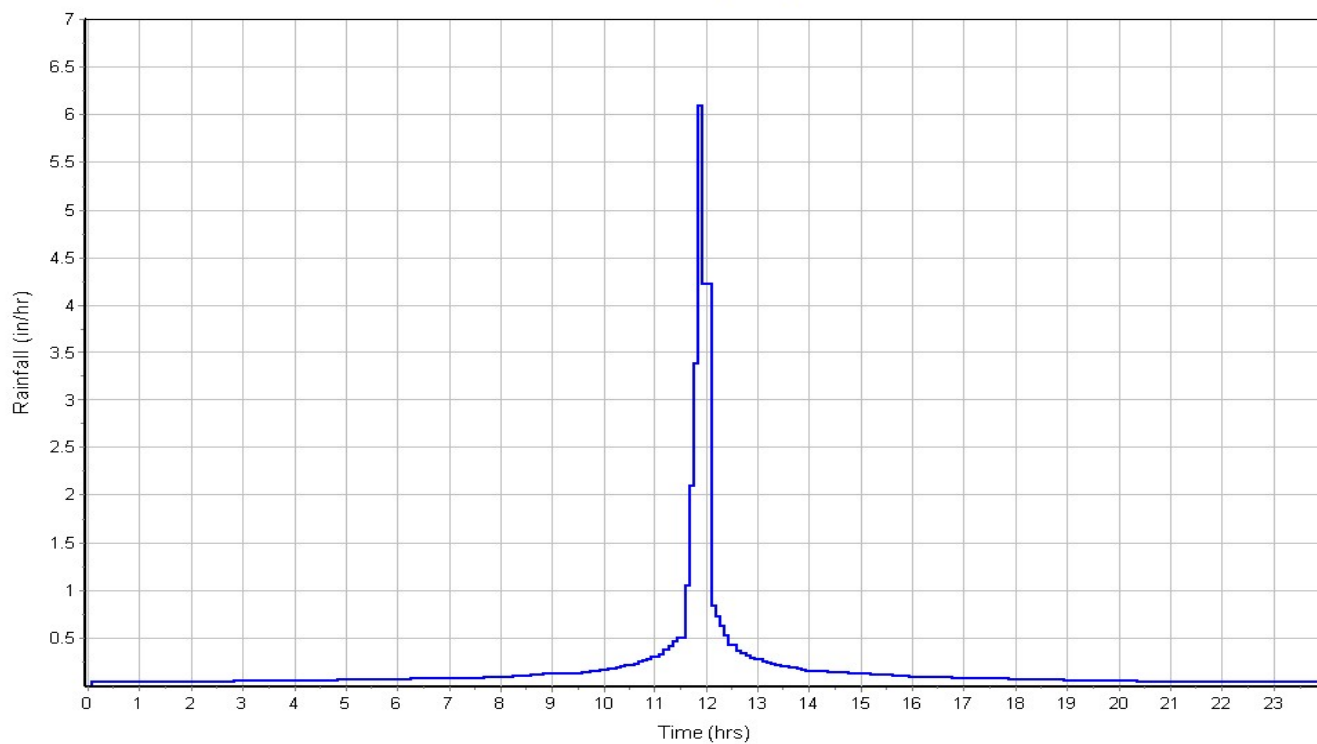
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.83	-	98.00
-	0.09	-	74.00
Composite Area & Weighted CN	0.92		95.60

Subbasin Runoff Results

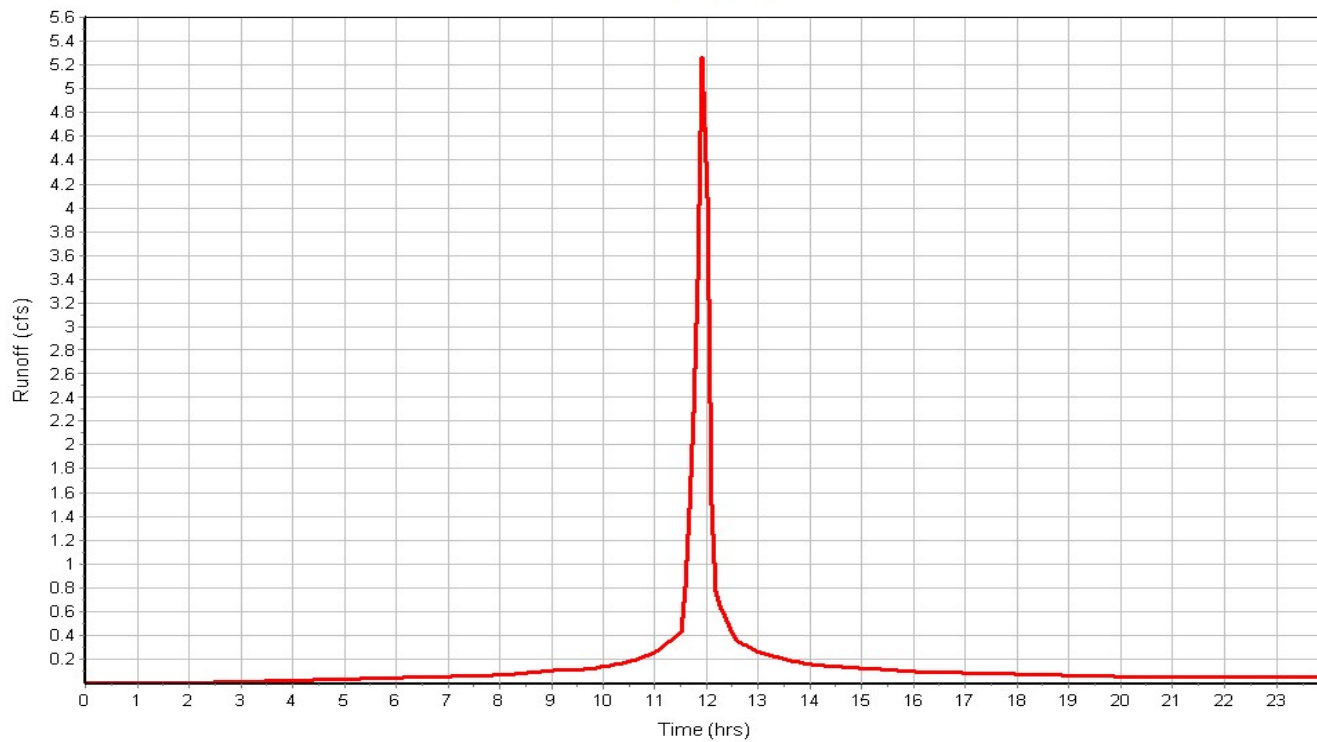
Total Rainfall (in) 4.44
Total Runoff (in) 3.93
Peak Runoff (cfs) 5.26
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToPP03-04

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 (ft ²)	Minimum Pipe Cover (in)
1 Biobasin02dummysnode	862.67	867.17	4.50	862.67	0.00	867.17	0.00	0.00	0.00
2 CatchBasin03	862.00	866.50	4.50	862.00	0.00	866.50	0.00	2879.24	0.00
3 CatchBasin04	862.44	866.94	4.50	862.44	0.00	866.94	0.00	4642.88	0.00
4 CatchBasin05	862.67	867.17	4.50	862.67	0.00	867.17	0.00	1566.12	0.00
5 CatchBasin12	862.60	867.10	4.50	862.60	0.00	867.10	0.00	6347.63	0.00
6 CatchBasin8	862.64	867.14	4.50	862.64	0.00	867.14	0.00	6037.65	0.00
7 Dummy1	861.69	867.00	5.31	861.69	0.00	867.00	0.00	0.00	0.00
8 Ex0	860.13	865.00	4.87	860.13	0.00	865.00	0.00	0.00	0.00
9 ExA	860.81	865.00	4.19	860.81	0.00	865.00	0.00	0.00	0.00
10 Existing 36-inch outlet pipe	870.00	875.50	5.50	870.00	0.00	875.50	0.00	0.00	0.00
11 Manhole 7	862.47	868.00	5.53	862.47	0.00	868.00	0.00	0.00	0.00
12 Manhole1	861.75	868.00	6.25	861.75	0.00	868.00	0.00	0.00	0.00
13 Manhole10	862.23	868.00	5.77	862.23	0.00	868.00	0.00	0.00	0.00
14 Manhole11	862.42	868.00	5.58	862.42	0.00	868.00	0.00	0.00	0.00
15 Manhole13	863.79	868.00	4.21	863.79	0.00	868.00	0.00	0.00	0.00
16 Manhole2	861.80	868.00	6.20	861.80	0.00	868.00	0.00	0.00	0.00
17 Manhole6	862.28	868.00	5.72	862.28	0.00	868.00	0.00	0.00	0.00
18 Manhole9	863.79	868.00	4.21	863.79	0.00	868.00	0.00	0.00	0.00
19 Offsite 02 outlet	877.50	881.50	4.00	877.50	0.00	881.50	0.00	0.00	0.00
20 OutToDitch	861.58	863.00	1.42	861.58	0.00	863.00	0.00	0.00	0.00
21 Stucture1	861.69	868.00	6.31	861.69	0.00	868.00	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 Biobasin02dummysnode	2.55	0.00	866.48	3.81	0.00	0.69	863.46	0.79	0 12:07	0 00:00	0.00	0.00
2 CatchBasin03	7.80	0.00	865.74	3.74	0.00	0.76	863.16	1.16	0 12:10	0 00:00	0.00	0.00
3 CatchBasin04	7.28	0.00	866.28	3.84	0.00	0.66	863.36	0.92	0 12:08	0 00:00	0.00	0.00
4 CatchBasin05	2.39	0.00	866.31	3.64	0.00	0.86	863.45	0.78	0 12:08	0 00:00	0.00	0.00
5 CatchBasin12	5.85	0.00	866.14	3.54	0.00	0.96	863.43	0.83	0 12:06	0 00:00	0.00	0.00
6 CatchBasin8	5.78	0.00	866.17	3.53	0.00	0.97	863.45	0.81	0 12:06	0 00:00	0.00	0.00
7 Dummy1	19.71	0.00	865.19	3.50	0.00	1.81	863.11	1.42	0 13:55	0 00:00	0.00	0.00
8 Ex0	19.98	0.00	861.36	1.23	0.00	3.64	860.74	0.61	0 13:58	0 00:00	0.00	0.00
9 ExA	26.07	0.00	864.84	4.03	0.00	1.97	862.32	1.51	0 13:58	0 00:00	0.00	0.00
10 Existing 36-inch outlet pipe	17.23	6.74	871.10	1.10	0.00	5.30	870.43	0.43	0 12:05	0 00:00	0.00	0.00
11 Manhole 7	5.68	0.00	865.86	3.39	0.00	2.14	863.35	0.88	0 12:08	0 00:00	0.00	0.00
12 Manhole1	18.47	0.00	865.09	3.34	0.00	2.91	863.07	1.32	0 12:25	0 00:00	0.00	0.00
13 Manhole10	5.73	0.00	865.53	3.30	0.00	2.47	863.23	1.00	0 12:10	0 00:00	0.00	0.00
14 Manhole11	5.73	0.00	865.82	3.40	0.00	2.18	863.32	0.90	0 12:09	0 00:00	0.00	0.00
15 Manhole13	0.27	0.00	865.53	1.74	0.00	2.47	864.14	0.35	0 12:10	0 00:00	0.00	0.00
16 Manhole2	7.56	0.00	865.29	3.49	0.00	2.71	863.09	1.29	0 12:19	0 00:00	0.00	0.00
17 Manhole6	5.68	0.00	865.56	3.28	0.00	2.44	863.26	0.98	0 12:09	0 00:00	0.00	0.00
18 Manhole9	0.44	0.00	865.56	1.77	0.00	2.44	864.13	0.34	0 12:09	0 00:00	0.00	0.00
19 Offsite 02 outlet	4.51	0.00	878.31	0.81	0.00	3.89	877.76	0.26	0 12:53	0 00:00	0.00	0.00
20 OutToDitch	33.52	0.00	864.85	3.27	0.00	2.73	862.77	1.19	0 13:58	0 00:00	0.00	0.00
21 Structure1	33.61	0.00	865.07	3.38	0.00	2.93	863.05	1.36	0 13:54	0 00:00	0.00	0.00

Channel Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Shape	Height (ft)	Width (ft)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate
1	Ditch	375.41	861.58	0.00	860.81	0.00	0.77	0.2100	Trapezoidal	6.000	40.000	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	Peak Flow Depth/Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
	(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)		
1 Ditch	26.07	0 12:08	596.14	0.04	1.67	3.75	3.65	0.61	0.00		

Pipe Input

SN Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	No. of Barrels
1 1->basins	62.54	861.75	0.00	861.69	0.00	0.06	0.1000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
2 10->11	190.96	862.23	0.00	861.75	0.00	0.48	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
3 11->10	75.00	862.42	0.00	862.23	0.00	0.19	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
4 12->11	72.47	862.60	0.00	862.42	0.00	0.18	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
5 13->10	16.00	863.79	0.00	863.72	1.49	0.07	0.4400	CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
6 2->1	20.00	861.80	0.00	861.75	0.00	0.05	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
7 3->2	81.60	862.00	0.00	861.80	0.00	0.20	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
8 4->3	175.98	862.44	0.00	862.00	0.00	0.44	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
9 5->4	92.80	862.67	0.00	862.44	0.00	0.23	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
10 6->1	210.04	862.28	0.00	861.75	0.00	0.53	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
11 7->6	75.00	862.47	0.00	862.28	0.00	0.19	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
12 8->7	69.56	862.64	0.00	862.47	0.00	0.17	0.2400	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
13 9->8	16.00	863.79	0.00	863.73	1.45	0.06	0.3700	CIRCULAR	15.000	15.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
14 Basin connector	85.00	859.00	0.00	858.90	-0.10	0.10	0.1200	CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
15 Basins->outlet	109.09	861.69	0.00	861.58	0.00	0.11	0.1000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
16 Dual 18 inch pipes	35.92	860.81	0.00	860.13	0.00	0.68	1.9000	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
17 Elliptical pipe under roadway	98.05	860.07	-0.06	859.65	0.00	0.42	0.4300	Horizontal Ellipse	36.000	54.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
18 Offsite 02->outfall	84.10	877.50	0.00	875.40	5.40	2.10	2.5000	CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
19 offsite basin2 -> offsite basin 1	201.70	878.00	0.00	877.70	2.70	0.30	0.1500	CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
20 Offsite->basin	1296.34	870.00	0.00	862.00	3.00	8.00	0.6200	CIRCULAR	42.000	42.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
21 OutletPipe	10.82	862.00	0.31	861.69	0.00	0.31	2.8700	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1

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	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
	(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)		
1 1->basins	18.23	0 12:03	20.66	0.88	2.64	0.39	3.00	1.00	243.00		SURCHARGED
2 10->11	5.73	0 12:03	5.27	1.09	3.24	0.98	1.50	1.00	399.00		SURCHARGED
3 11->10	5.73	0 12:03	5.29	1.08	3.24	0.39	1.50	1.00	376.00		SURCHARGED
4 12->11	5.73	0 12:03	5.24	1.09	3.24	0.37	1.50	1.00	347.00		SURCHARGED
5 13->10	0.24	0 12:01	2.36	0.10	1.40	0.19	1.00	1.00	245.00		SURCHARGED
6 2->1	7.55	0 12:01	5.25	1.44	4.27	0.08	1.50	1.00	452.00		SURCHARGED
7 3->2	7.56	0 12:01	5.20	1.45	4.28	0.32	1.50	1.00	427.00		SURCHARGED
8 4->3	6.41	0 12:00	5.25	1.22	3.63	0.81	1.50	1.00	374.00		SURCHARGED
9 5->4	2.37	0 11:59	5.23	0.45	1.34	1.15	1.50	1.00	337.00		SURCHARGED
10 6->1	5.66	0 12:03	5.28	1.07	3.20	1.09	1.50	1.00	393.00		SURCHARGED
11 7->6	5.68	0 12:03	5.29	1.07	3.22	0.39	1.50	1.00	368.00		SURCHARGED
12 8->7	5.68	0 12:03	5.19	1.09	3.22	0.36	1.50	1.00	340.00		SURCHARGED
13 9->8	0.45	0 12:32	3.96	0.11	1.31	0.20	1.25	1.00	148.00		SURCHARGED
14 Basin connector	12.25	0 12:07	0.78	15.78	3.90	0.36	2.00	1.00	1440.00		SURCHARGED
15 Basins->outlet	33.52	0 12:07	21.18	1.58	5.87	0.31	3.00	1.00	235.00		SURCHARGED
16 Dual 18 inch pipes	19.98	0 13:58	14.48	1.38	11.83	0.05	1.37	0.91	0.00		> CAPACITY
17 Elliptical pipe under roadway	19.98	0 13:58	86.04	0.23	5.34	0.31	1.14	0.38	0.00		Calculated
18 Offsite 02->outfall	4.51	0 12:53	5.63	0.80	7.19	0.19	0.75	0.75	0.00		Calculated
19 offsite basin2 -> offsite basin 1	14.98	0 12:10	8.72	1.72	4.90	0.69	2.00	1.00	105.00		SURCHARGED
20 Offsite->basin	16.99	0 12:05	79.04	0.21	3.47	6.23	2.24	0.64	0.00		Calculated
21 OutletPipe	18.63	0 14:44	112.90	0.17	3.95	0.05	3.00	1.00	216.00		SURCHARGED

Storage Nodes

Storage Node : Biobasin 01

Input Data

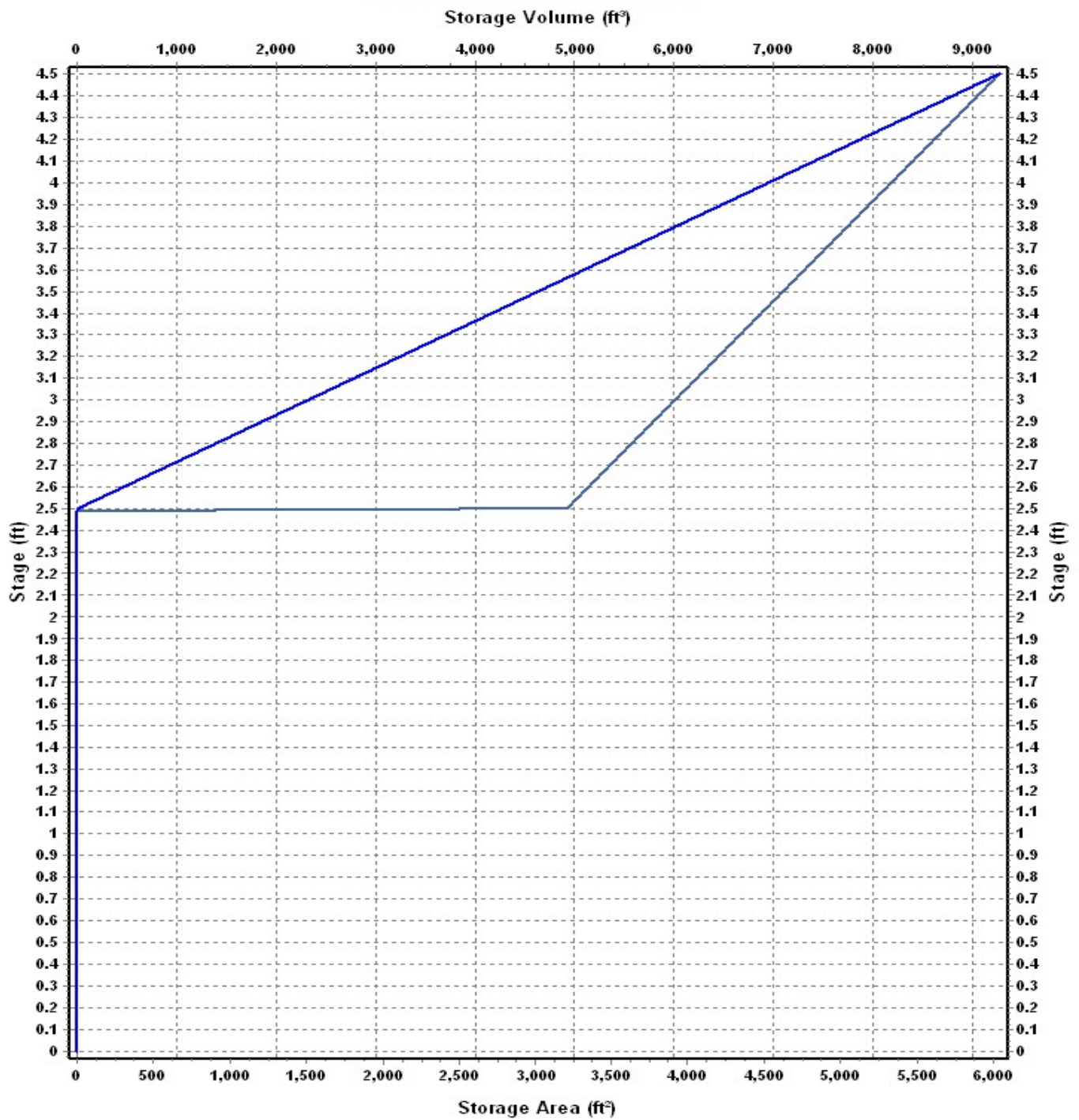
Invert Elevation (ft)	862.64
Max (Rim) Elevation (ft)	867.14
Max (Rim) Offset (ft)	4.50
Initial Water Elevation (ft)	865.14
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	3205.91	18.52
4.5	6037.65	9262.08

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Biobasin 01 (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 Biobasin01grate	Bottom	Rectangular	No		19.60	19.60	866.14	0.60

Output Summary Results

Peak Inflow (cfs)	7.87
Peak Lateral Inflow (cfs)	7.87
Peak Outflow (cfs)	5.78
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.56
Max HGL Depth Attained (ft)	3.92
Average HGL Elevation Attained (ft)	865.63
Average HGL Depth Attained (ft)	2.99
Time of Max HGL Occurrence (days hh:mm)	0 12:05
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin02

Input Data

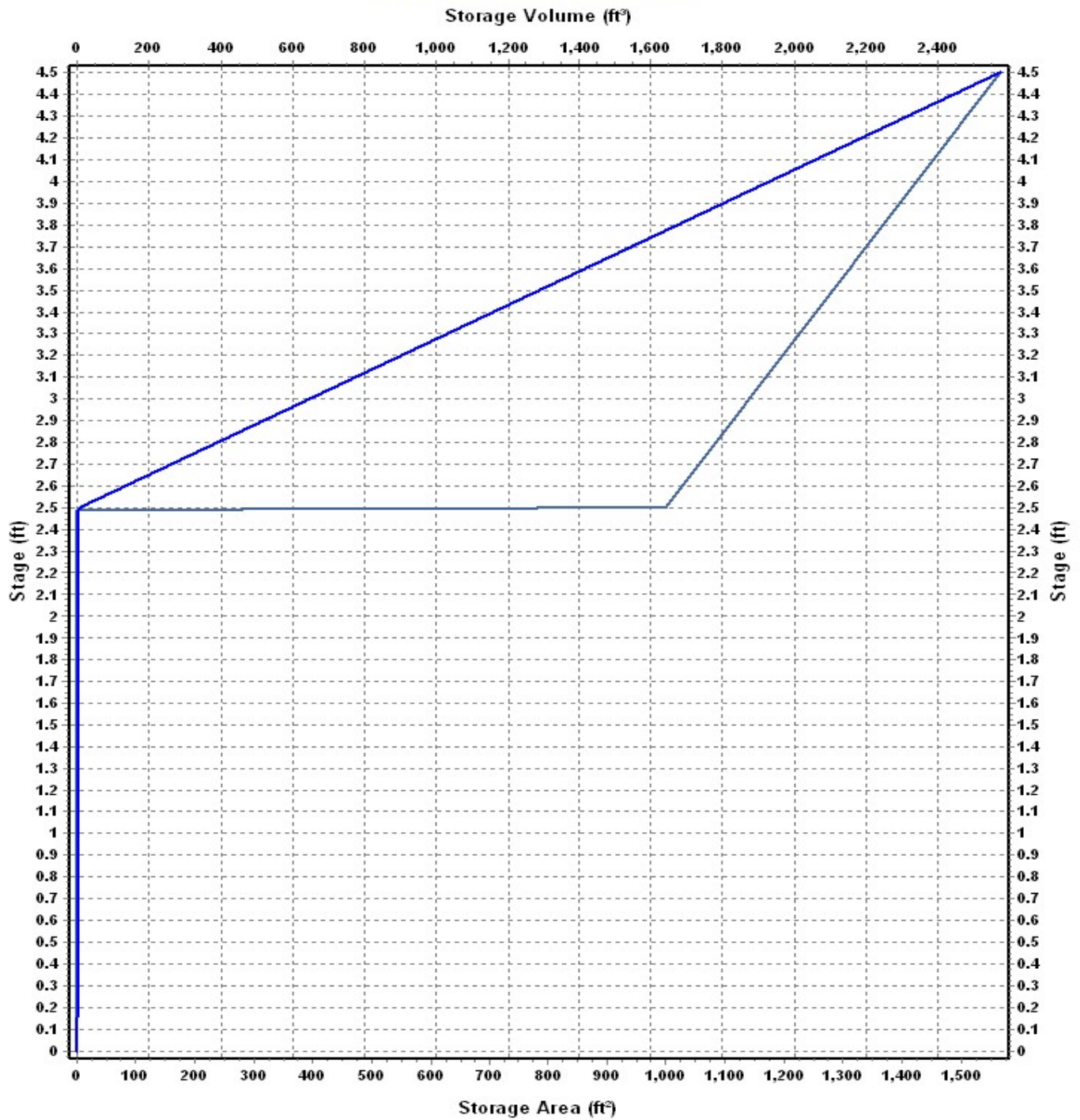
Invert Elevation (ft)	862.67
Max (Rim) Elevation (ft)	867.17
Max (Rim) Offset (ft)	4.50
Initial Water Elevation (ft)	865.17
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	999.15	7.49
4.5	1566.12	2572.76

Storage Area Volume Curves



Storage Area Storage Volume

Storage Node : Biobasin02 (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 Biobasin02grate	Bottom	Rectangular	No		19.60	19.60	866.17	0.60

Output Summary Results

Peak Inflow (cfs)	2.94
Peak Lateral Inflow (cfs)	2.94
Peak Outflow (cfs)	2.55
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.67
Max HGL Depth Attained (ft)	4
Average HGL Elevation Attained (ft)	865.69
Average HGL Depth Attained (ft)	3.02
Time of Max HGL Occurrence (days hh:mm)	0 12:07
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin03

Input Data

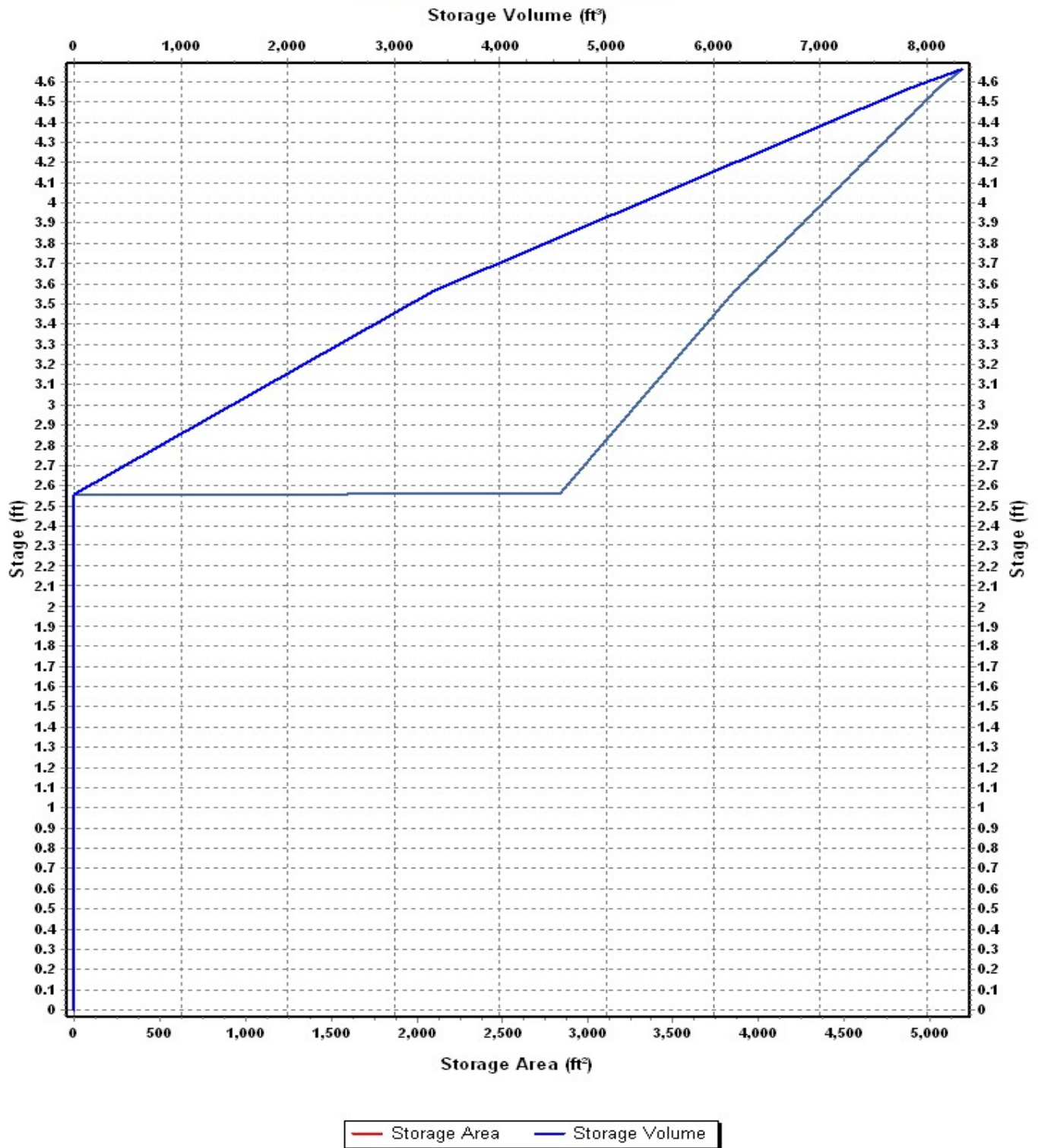
Invert Elevation (ft)	862.44
Max (Rim) Elevation (ft)	867.10
Max (Rim) Offset (ft)	4.66
Initial Water Elevation (ft)	865.00
Initial Water Depth (ft)	2.56
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin03

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.55	1	2.55
2.56	2836.20	16.74
3.56	3856.90	3363.29
4.56	5038.71	7811.10
4.66	5181	8322.09

Storage Area Volume Curves



Storage Node : Biobasin03 (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 Biobasin03grate	Bottom	Rectangular	No		19.60	19.60	866.00	0.60

Output Summary Results

Peak Inflow (cfs)	7.66
Peak Lateral Inflow (cfs)	7.66
Peak Outflow (cfs)	5.26
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.60
Max HGL Depth Attained (ft)	4.16
Average HGL Elevation Attained (ft)	865.51
Average HGL Depth Attained (ft)	3.07
Time of Max HGL Occurrence (days hh:mm)	0 12:08
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin04

Input Data

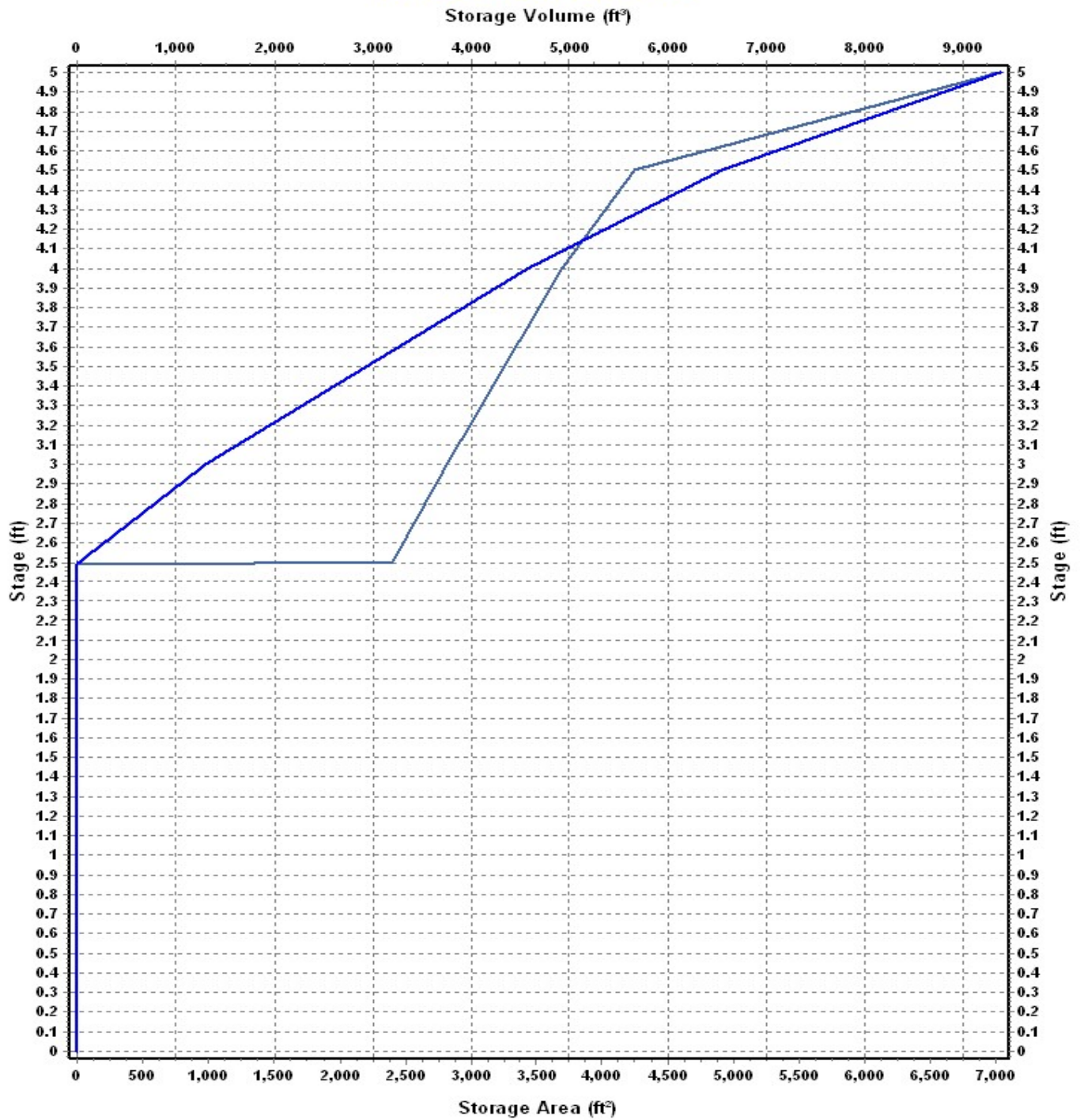
Invert Elevation (ft)	862.00
Max (Rim) Elevation (ft)	867.00
Max (Rim) Offset (ft)	5.00
Initial Water Elevation (ft)	864.50
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin04

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	2398.60	14.49
3	2813.60	1317.54
4	3690.90	4569.79
4.5	4246.20	6554.07
5	7028.50	9372.75

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Biobasin04 (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 Biobasin04grate	Bottom	Rectangular	No		19.60	19.60	865.50	0.60

Output Summary Results

Peak Inflow (cfs)	4.57
Peak Lateral Inflow (cfs)	4.57
Peak Outflow (cfs)	2.27
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	865.90
Max HGL Depth Attained (ft)	3.9
Average HGL Elevation Attained (ft)	864.93
Average HGL Depth Attained (ft)	2.93
Time of Max HGL Occurrence (days hh:mm)	0 12:10
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin05

Input Data

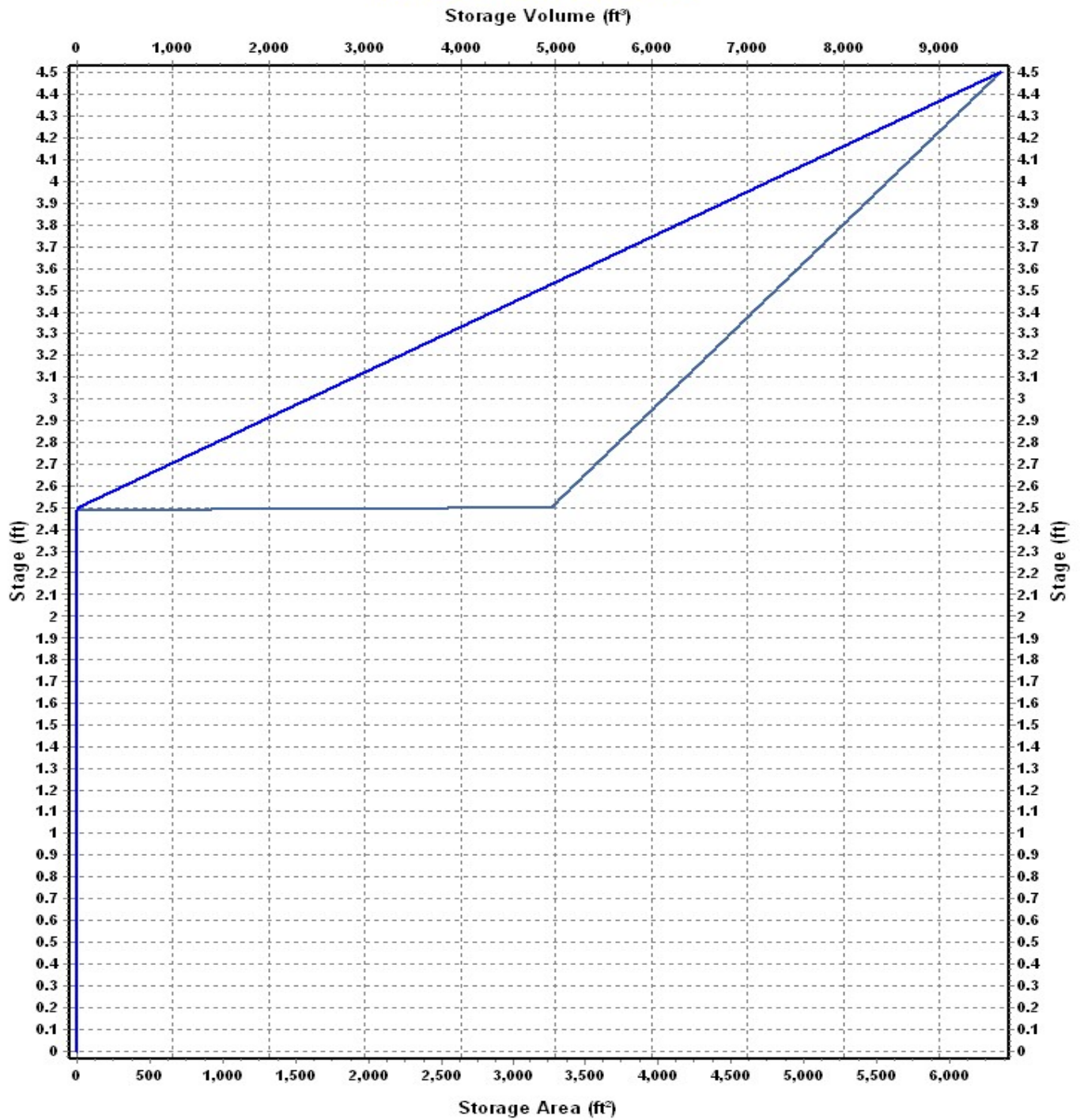
Invert Elevation (ft)	862.60
Max (Rim) Elevation (ft)	867.10
Max (Rim) Offset (ft)	4.50
Initial Water Elevation (ft)	865.10
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin05

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	3264.52	18.82
4.5	6347.63	9630.97

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Biobasin05 (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 Biobasin05grate	Bottom	Rectangular	No		19.60	19.60	866.10	0.60

Output Summary Results

Peak Inflow (cfs)	8.13
Peak Lateral Inflow (cfs)	8.13
Peak Outflow (cfs)	5.85
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.53
Max HGL Depth Attained (ft)	3.93
Average HGL Elevation Attained (ft)	865.60
Average HGL Depth Attained (ft)	3
Time of Max HGL Occurrence (days hh:mm)	0 12:06
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 01 Parking lot ponding

Input Data

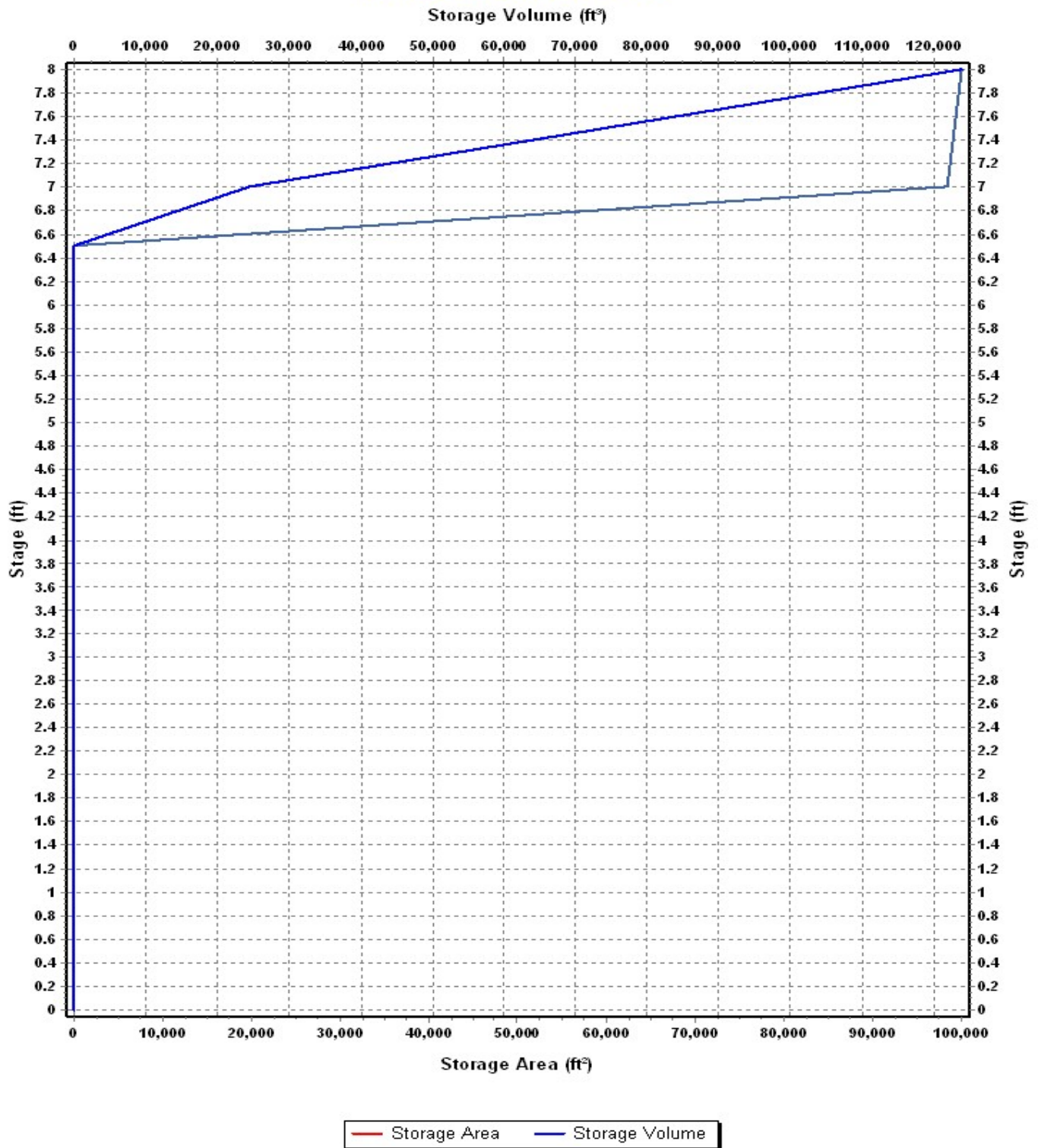
Invert Elevation (ft)	871.00
Max (Rim) Elevation (ft)	879.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	877.50
Initial Water Depth (ft)	6.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Offsite 01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
6.5	1	6.50
7	98432	24614.75
8	100000	123830.75

Storage Area Volume Curves



Storage Node : Offsite 01 Parking lot ponding (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 Offsite 01 orifice	Side	CIRCULAR	No	9.25			871.00	0.60

Output Summary Results

Peak Inflow (cfs)	47.17
Peak Lateral Inflow (cfs)	47.17
Peak Outflow (cfs)	5.88
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	878.23
Max HGL Depth Attained (ft)	7.23
Average HGL Elevation Attained (ft)	872.66
Average HGL Depth Attained (ft)	1.66
Time of Max HGL Occurrence (days hh:mm)	0 12:30
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 02 Wet basin 02

Input Data

Invert Elevation (ft)	878.00
Max (Rim) Elevation (ft)	882.00
Max (Rim) Offset (ft)	4.00
Initial Water Elevation (ft)	878.00
Initial Water Depth (ft)	0.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

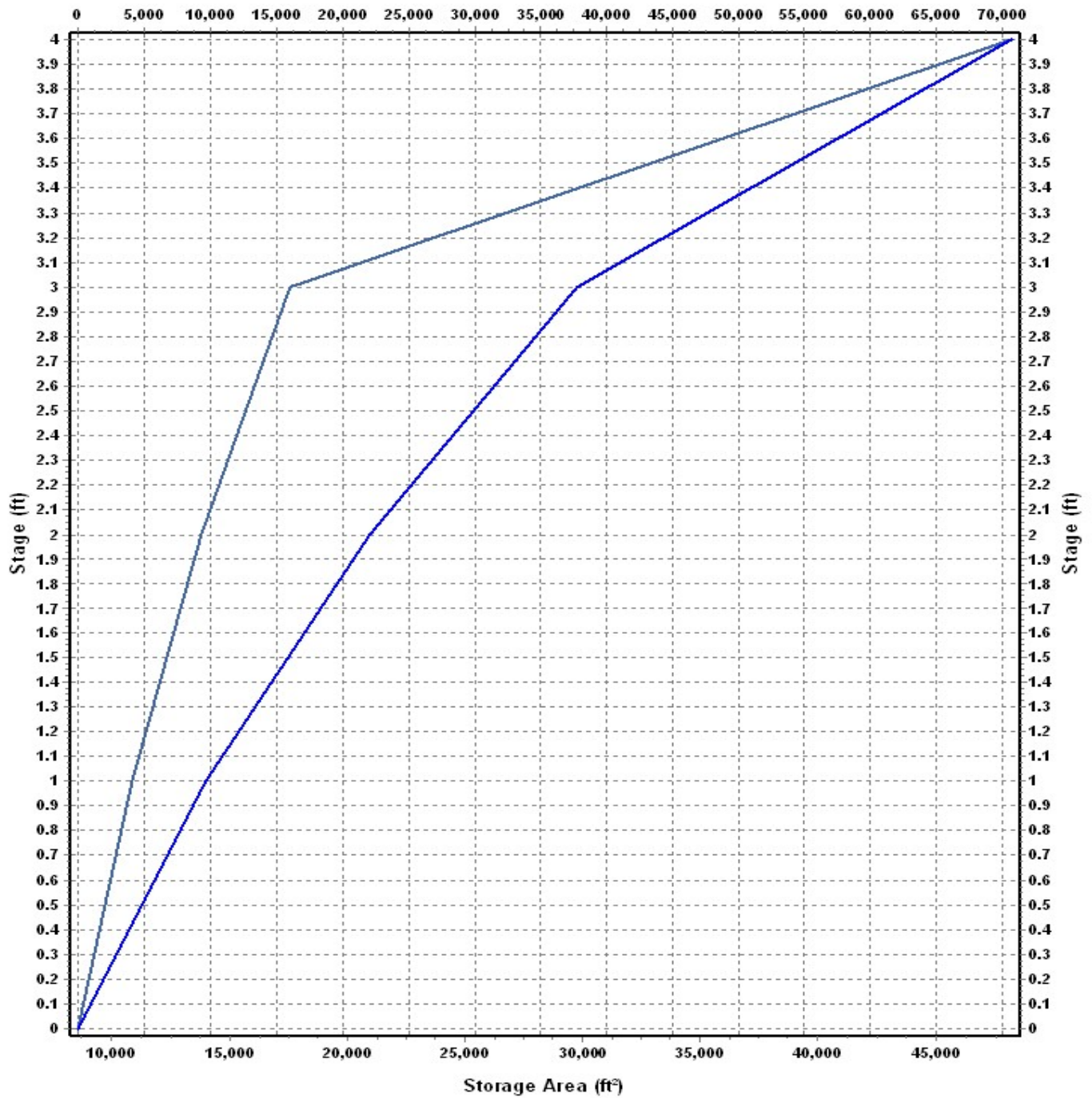
Storage Area Volume Curves

Storage Curve : Offsite 02 wet basin 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	8571	0.000
1	10862	9716.50
2	13819	22057.00
3	17571	37752.00
4	48211	70643.00

Storage Area Volume Curves

Storage Volume (ft³)



— Storage Area — Storage Volume

Storage Node : Offsite 02 Wet basin 02 (continued)

Output Summary Results

Peak Inflow (cfs)	36.43
Peak Lateral Inflow (cfs)	36.43
Peak Outflow (cfs)	14.98
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	880.70
Max HGL Depth Attained (ft)	2.7
Average HGL Elevation Attained (ft)	878.97
Average HGL Depth Attained (ft)	0.97
Time of Max HGL Occurrence (days hh:mm)	0 12:13
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 02-wet basin 1

Input Data

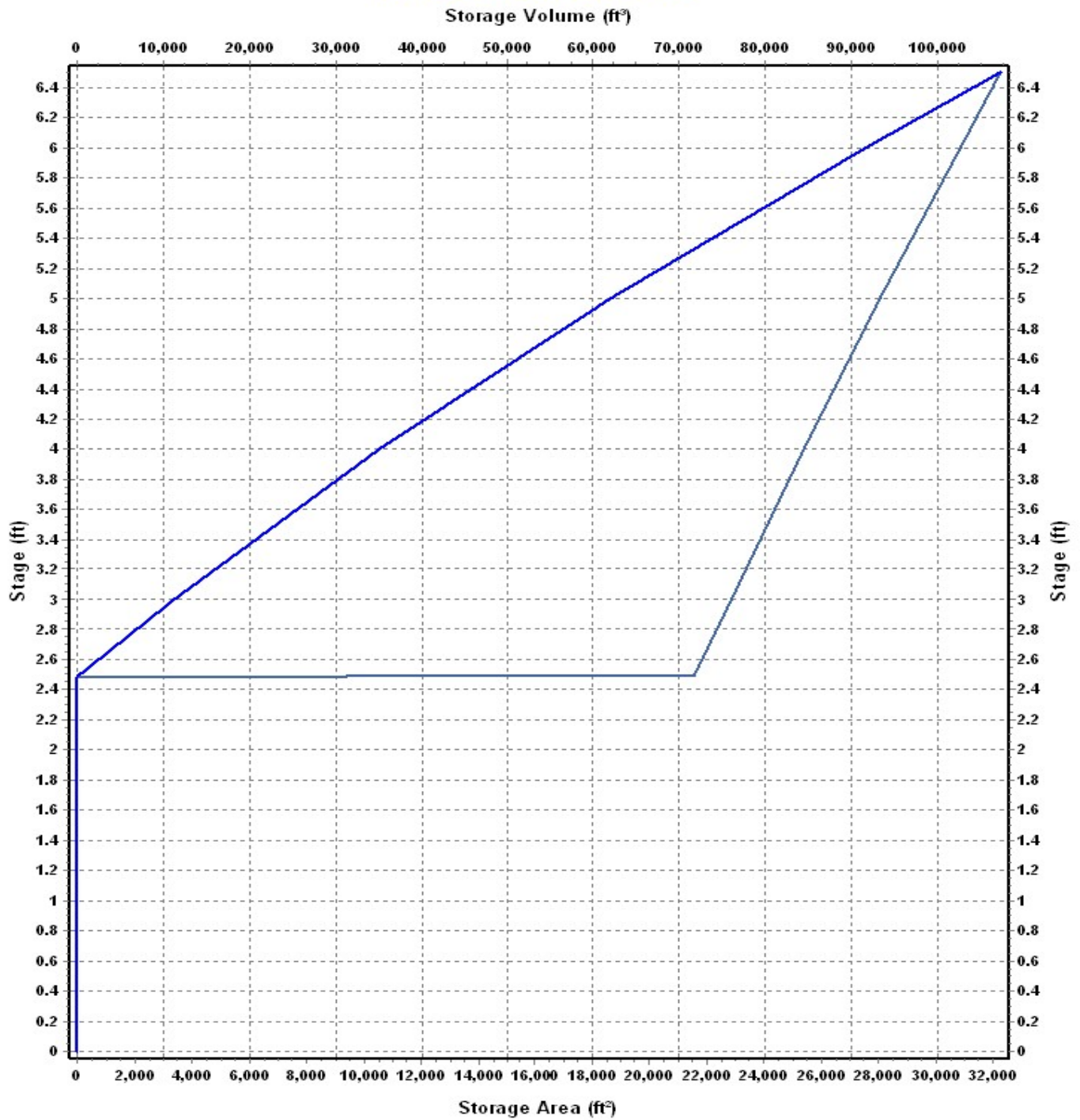
Invert Elevation (ft)	875.00
Max (Rim) Elevation (ft)	881.50
Max (Rim) Offset (ft)	6.50
Initial Water Elevation (ft)	877.50
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : blazer wet basin 01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	21562	110.30
3	22825	11207.05
4	25395	35317.05
5	28053	62041.05
6	30840	91487.55
6.5	32234	107256.05

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Offsite 02-wet basin 1 (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 Offsite 02 grate	Bottom	Rectangular	No		19.60	19.60	880.50	0.60
2 offsite 02 window	Side	Rectangular	No		6.00	24.00	879.20	0.60
3 Offsite 02 wq	Side	CIRCULAR	No	4.00			877.50	0.60

Output Summary Results

Peak Inflow (cfs)	28.59
Peak Lateral Inflow (cfs)	16.68
Peak Outflow (cfs)	4.51
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	880.12
Max HGL Depth Attained (ft)	5.12
Average HGL Elevation Attained (ft)	878.68
Average HGL Depth Attained (ft)	3.68
Time of Max HGL Occurrence (days hh:mm)	0 12:53
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 04

Input Data

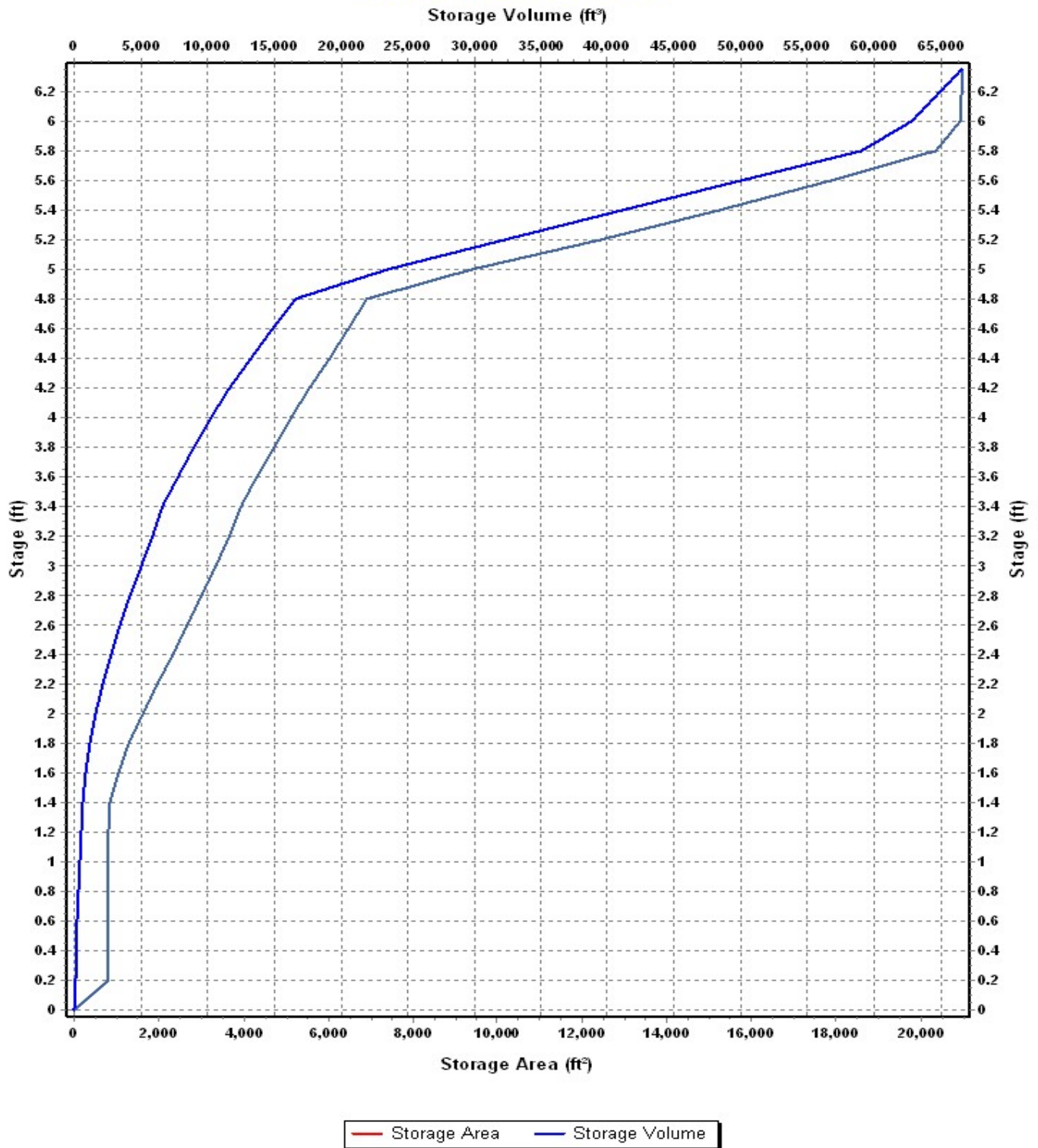
Invert Elevation (ft)	871.65
Max (Rim) Elevation (ft)	878.00
Max (Rim) Offset (ft)	6.35
Initial Water Elevation (ft)	871.65
Initial Water Depth (ft)	0.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Offsite 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	0	0
.2	820.00	82
.4	815.00	163
.6	816.67	245
.8	817.50	327
1	818.00	409
1.2	816.67	490
1.4	850.00	595
1.6	1038.75	831
1.8	1297.78	1168
2	1606.00	1606
2.2	1950.00	2145
2.4	2319.17	2783
2.6	2676.15	3479
2.8	3010.71	4215
3	3326.67	4990
3.2	3691.25	5906
3.4	3938.24	6695
3.6	4318.89	7774
3.8	4721.58	8971
4	5142.00	10284
4.2	5578.57	11715
4.4	6028.18	13262
4.6	6478.26	14900
4.8	6925.42	16621
5	9432.00	23580
5.2	12438.08	32339
5.4	15251.85	41180
5.6	17886.43	50082
5.8	20357.93	59038
6	20943.33	62830
6.2	20946.77	64935
6.35	20960.63	66550

Storage Area Volume Curves



Storage Node : Offsite 04 (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 Offsite 04 orifice	Side	CIRCULAR	No	8.50			871.65	0.60

Output Summary Results

Peak Inflow (cfs)	27.24
Peak Lateral Inflow (cfs)	27.24
Peak Outflow (cfs)	4.44
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	877.47
Max HGL Depth Attained (ft)	5.82
Average HGL Elevation Attained (ft)	872.61
Average HGL Depth Attained (ft)	0.96
Time of Max HGL Occurrence (days hh:mm)	0 12:24
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Pavers01-02

Input Data

Invert Elevation (ft)	863.79
Max (Rim) Elevation (ft)	867.24
Max (Rim) Offset (ft)	3.45
Initial Water Elevation (ft)	863.79
Initial Water Depth (ft)	0.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Outflow Weirs

SN Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1 Paver01-02 weir	Rectangular	No	865.70	1.91	4.00	1.00	3.33

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 Paver01-02 wq orifice 2	Side	CIRCULAR	No	1.00			863.79	0.60
2 Pavers01-02 WQ orifice 1	Side	CIRCULAR	No	1.00			863.79	0.60

Output Summary Results

Peak Inflow (cfs)	5.15
Peak Lateral Inflow (cfs)	5.15
Peak Outflow (cfs)	0.44
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	865.80
Max HGL Depth Attained (ft)	2.01
Average HGL Elevation Attained (ft)	864.88
Average HGL Depth Attained (ft)	1.09
Time of Max HGL Occurrence (days hh:mm)	0 12:32
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Pavers03-04

Input Data

Invert Elevation (ft)	863.79
Max (Rim) Elevation (ft)	867.24
Max (Rim) Offset (ft)	3.45
Initial Water Elevation (ft)	863.79
Initial Water Depth (ft)	0.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Outflow Weirs

SN Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1 Paver04-06 weir	Rectangular	No	866.80	3.01	4.00	1.00	3.33

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 Paver03-04 WQ orifice 1	Side	CIRCULAR	No	1.00			863.79	0.60
2 Paver03-04 WQ orifice 2	Side	CIRCULAR	No	1.00			863.79	0.60

Output Summary Results

Peak Inflow (cfs)	5.26
Peak Lateral Inflow (cfs)	5.26
Peak Outflow (cfs)	0.08
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.35
Max HGL Depth Attained (ft)	2.56
Average HGL Elevation Attained (ft)	865.19
Average HGL Depth Attained (ft)	1.4
Time of Max HGL Occurrence (days hh:mm)	0 17:42
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Wet Basin 02

Input Data

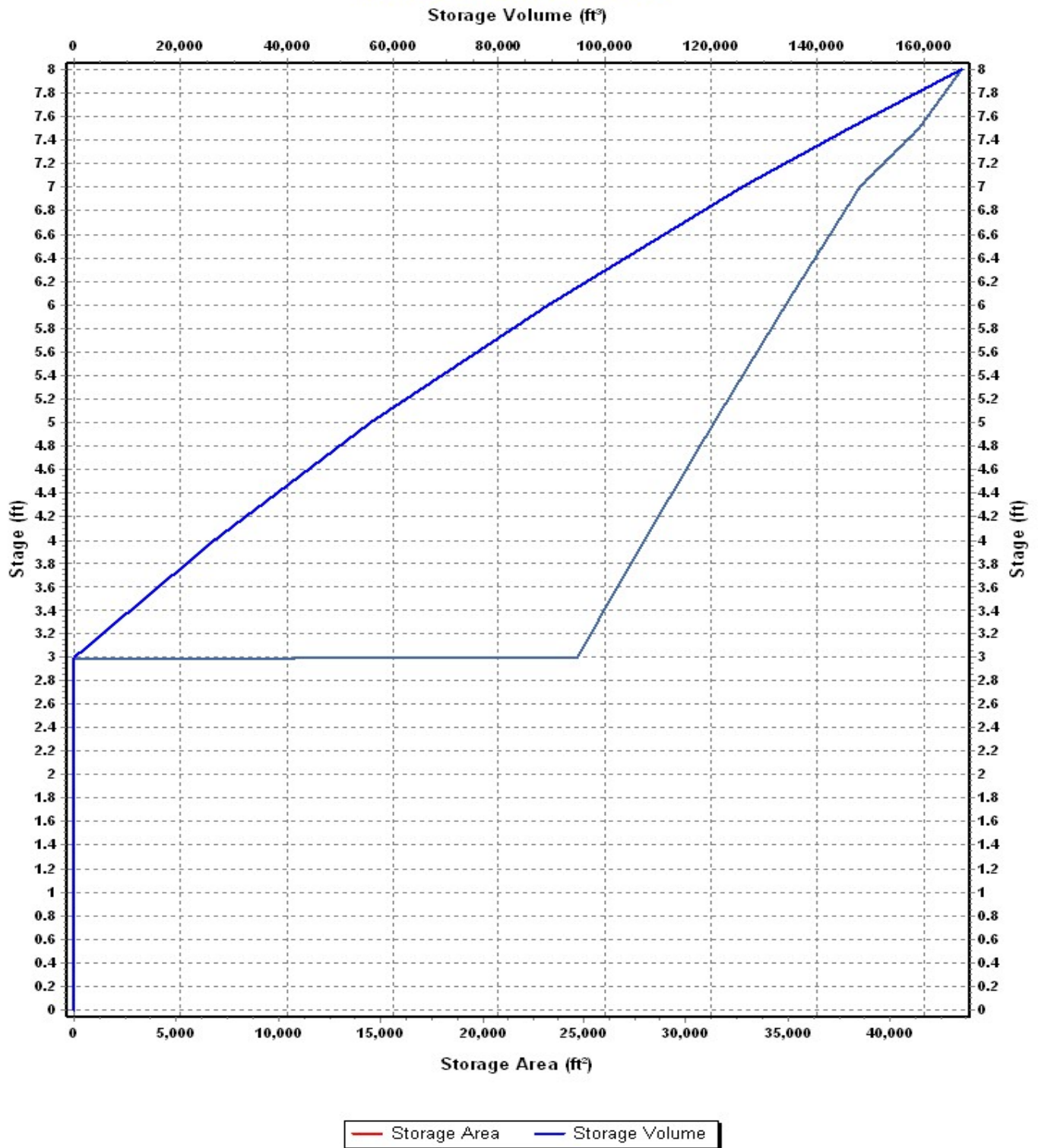
Invert Elevation (ft)	859.00
Max (Rim) Elevation (ft)	867.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	862.00
Initial Water Depth (ft)	3.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Wet Basin 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.99	1	2.99
3	24635.51	126.17
4	27948.90	26418.38
5	31362.79	56074.23
6	34877.21	89194.23
7	38492.15	125878.91
7.5	41380.21	145847.00
8	43477.39	167061.40

Storage Area Volume Curves



Storage Node : Wet Basin 02 (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 Wet basin grate	Bottom	Rectangular	No		19.60	19.60	865.00	0.60
2 Wet basin window 1	Side	Rectangular	No		12.00	36.00	863.20	0.60
3 Wet Basin wq 2	Side	CIRCULAR	No	5.00			862.00	0.60
4 WetBasin WQ 1	Side	CIRCULAR	No	5.00			862.00	0.60
5 WetBasinWindow2	Side	Rectangular	No		12.00	36.00	863.20	0.60

Output Summary Results

Peak Inflow (cfs)	95.24
Peak Lateral Inflow (cfs)	80.31
Peak Outflow (cfs)	29.30
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	865.46
Max HGL Depth Attained (ft)	6.46
Average HGL Elevation Attained (ft)	863.44
Average HGL Depth Attained (ft)	4.44
Time of Max HGL Occurrence (days hh:mm)	0 13:57
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : WetBasin 01

Input Data

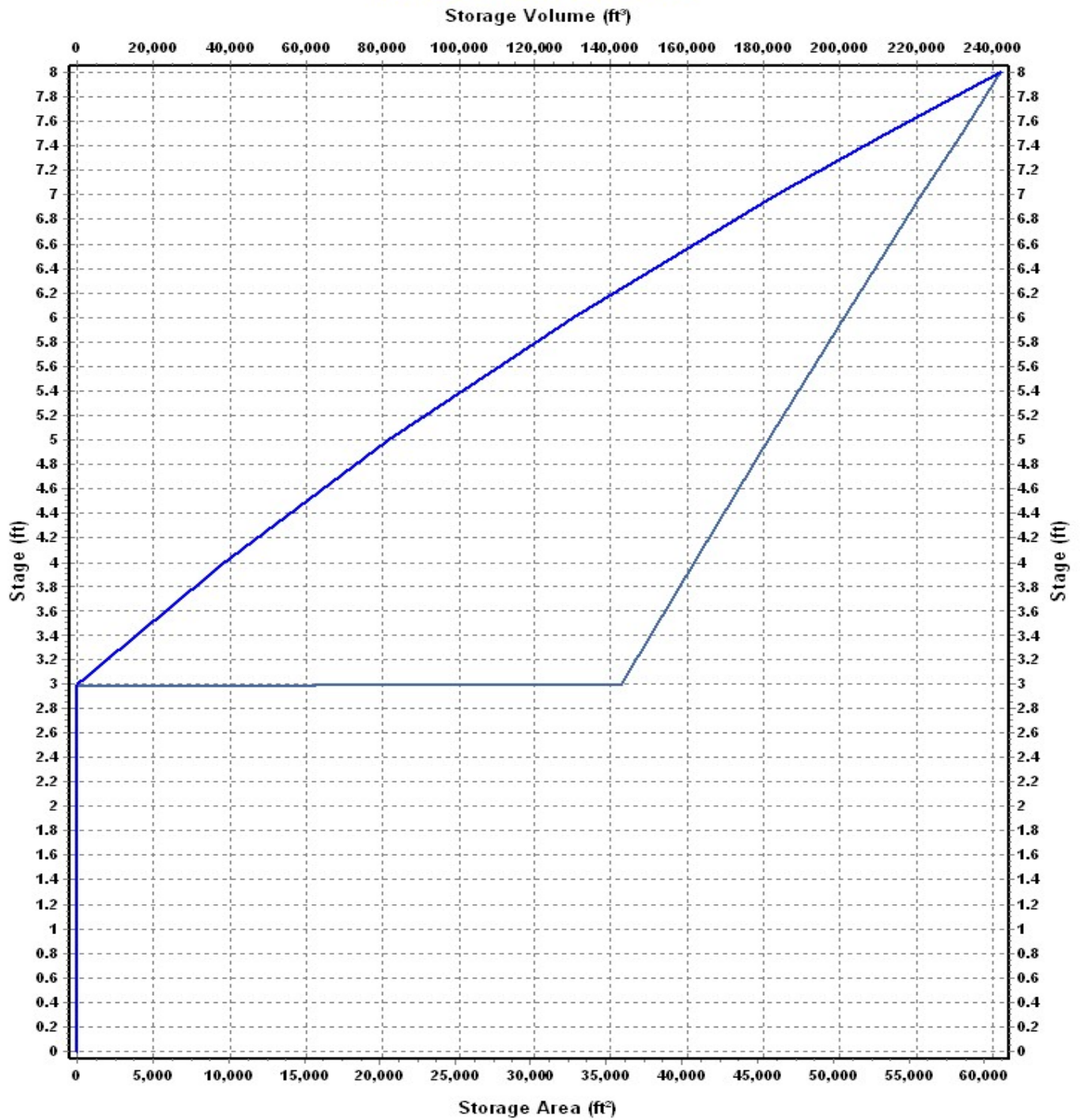
Invert Elevation (ft)	859.00
Max (Rim) Elevation (ft)	867.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	862.00
Initial Water Depth (ft)	3.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Wet Basin 01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.99	1	2.99
3	36012.49	183.06
4	40827.72	38603.17
5	45735.45	81884.76
6	50745.52	130125.25
7	55856.11	183426.07
7.5	58448.67	212002.27
8	61040.22	241874.49

Storage Area Volume Curves



Storage Area Storage Volume

Storage Node : WetBasin 01 (continued)

Output Summary Results

Peak Inflow (cfs)	65.19
Peak Lateral Inflow (cfs)	54.98
Peak Outflow (cfs)	6.78
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	865.47
Max HGL Depth Attained (ft)	6.47
Average HGL Elevation Attained (ft)	863.46
Average HGL Depth Attained (ft)	4.46
Time of Max HGL Occurrence (days hh:mm)	0 14:03
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Project Description

File Name 2017-0259 Dublin Smart Park 2017-5-15.SPF

Project Options

Flow Units CFS
 Elevation Type Elevation
 Hydrology Method SCS TR-55
 Time of Concentration (TOC) Method User-Defined
 Link Routing Method Hydrodynamic
 Enable Overflow Ponding at Nodes YES
 Skip Steady State Analysis Time Periods NO

Analysis Options

Start Analysis On Apr 11, 2017 00:00:00
 End Analysis On Apr 12, 2017 00:00:00
 Start Reporting On Apr 11, 2017 00:00:00
 Antecedent Dry Days 0 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 00:05:00 days hh:mm:ss
 Routing Time Step 1 seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins.....	16
Nodes.....	35
<i>Junctions</i>	21
<i>Outfalls</i>	1
<i>Flow Diversions</i>	0
<i>Inlets</i>	0
<i>Storage Nodes</i>	13
Links.....	49
<i>Channels</i>	1
<i>Pipes</i>	21
<i>Pumps</i>	0
<i>Orifices</i>	20
<i>Weirs</i>	2
<i>Outlets</i>	5
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1		Time Series	50-year	Cumulative	inches	Ohio	Franklin	50	5.02	SCS Type II 24-hr

Subbasin Summary

SN Subbasin ID	Area (ac)	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1 Offsite 01: Lucent site	9.91	94.00	5.02	4.33	42.89	54.90	0 00:10:00
2 Offsite 02 - 01	3.38	92.00	5.02	4.11	13.88	19.63	0 00:07:00
3 Offsite 02 - 02	7.84	93.00	5.02	4.22	33.05	44.39	0 00:08:30
4 Offsite 03: Triangle outparcel	2.50	74.00	5.02	2.38	5.95	8.43	0 00:09:00
5 Offsite 04: Cendant Site	5.72	94.00	5.02	4.33	24.76	31.70	0 00:10:00
6 Subarea 02 - to wb 02	0.43	95.60	5.02	4.51	1.93	2.77	0 00:05:00
7 Subarea 02 -to wb1	0.52	95.60	5.02	4.51	2.35	3.39	0 00:05:00
8 Subarea 03	10.24	89.68	5.02	3.86	39.56	60.29	0 00:05:00
9 Subarea01	14.97	90.80	5.02	3.98	59.56	89.91	0 00:05:00
10 ToBiobasin01	1.39	95.60	5.02	4.51	6.27	8.96	0 00:05:00
11 ToBiobasin02	0.52	95.60	5.02	4.51	2.34	3.34	0 00:05:00
12 ToBiobasin03	1.35	95.60	5.02	4.51	6.09	8.71	0 00:05:00
13 ToBiobasin04	0.81	95.60	5.02	4.51	3.64	5.20	0 00:05:00
14 ToBiobasin05	1.44	95.60	5.02	4.51	6.47	9.25	0 00:05:00
15 ToPP01-02	0.91	95.60	5.02	4.51	4.11	5.86	0 00:05:00
16 ToPP03-04	0.93	95.60	5.02	4.51	4.17	5.99	0 00:05:00

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	Biobasin02dumminode	Junction	862.67	867.17	862.67	867.17	0.00	2.40	866.68	0.00	0.49	0 00:00	0.00	0.00
2	CatchBasin03	Junction	862.00	866.50	862.00	866.50	2879.24	7.76	866.02	0.00	0.48	0 00:00	0.00	0.00
3	CatchBasin04	Junction	862.44	866.94	862.44	866.94	4642.88	7.06	866.48	0.00	0.46	0 00:00	0.00	0.00
4	CatchBasin05	Junction	862.67	867.17	862.67	867.17	1566.12	2.27	866.51	0.00	0.66	0 00:00	0.00	0.00
5	CatchBasin12	Junction	862.60	867.10	862.60	867.10	6347.63	5.98	866.30	0.00	0.80	0 00:00	0.00	0.00
6	CatchBasin8	Junction	862.64	867.14	862.64	867.14	6037.65	5.91	866.33	0.00	0.81	0 00:00	0.00	0.00
7	Dummy1	Junction	861.69	867.00	861.69	867.00	0.00	20.54	865.67	0.00	1.33	0 00:00	0.00	0.00
8	Ex0	Junction	860.13	865.00	860.13	865.00	0.00	21.27	861.40	0.00	3.60	0 00:00	0.00	0.00
9	ExA	Junction	860.81	865.00	860.81	865.00	0.00	27.80	865.29	0.00	1.52	0 00:00	0.00	0.00
10	Existing 36-inch outlet pipe	Junction	870.00	875.50	870.00	875.50	0.00	19.73	871.19	0.00	5.21	0 00:00	0.00	0.00
11	Manhole 7	Junction	862.47	868.00	862.47	868.00	0.00	5.70	866.12	0.00	1.88	0 00:00	0.00	0.00
12	Manhole1	Junction	861.75	868.00	861.75	868.00	0.00	18.51	865.58	0.00	2.42	0 00:00	0.00	0.00
13	Manhole10	Junction	862.23	868.00	862.23	868.00	0.00	5.74	865.85	0.00	2.15	0 00:00	0.00	0.00
14	Manhole11	Junction	862.42	868.00	862.42	868.00	0.00	5.72	866.05	0.00	1.95	0 00:00	0.00	0.00
15	Manhole13	Junction	863.79	868.00	863.79	868.00	0.00	0.25	865.85	0.00	2.15	0 00:00	0.00	0.00
16	Manhole2	Junction	861.80	868.00	861.80	868.00	0.00	7.46	865.73	0.00	2.27	0 00:00	0.00	0.00
17	Manhole6	Junction	862.28	868.00	862.28	868.00	0.00	5.70	865.95	0.00	2.05	0 00:00	0.00	0.00
18	Manhole9	Junction	863.79	868.00	863.79	868.00	0.00	1.25	865.95	0.00	2.05	0 00:00	0.00	0.00
19	Offsite 02 outlet	Junction	877.50	881.50	877.50	881.50	0.00	5.26	878.90	0.00	3.30	0 00:00	0.00	0.00
20	OutToDitch	Junction	861.58	863.00	861.58	863.00	0.00	36.36	865.30	0.00	2.28	0 00:00	0.00	0.00
21	Stucture1	Junction	861.69	868.00	861.69	868.00	0.00	36.39	865.56	0.00	2.44	0 00:00	0.00	0.00
22	Ex00 Outlet	Outfall	859.65					21.27	860.73					
23	Biobasin 01	Storage Node	862.64	867.14	865.14		0.00	8.95	866.70				0.00	0.00
24	Biobasin02	Storage Node	862.67	867.17	865.17		0.00	3.34	866.89				0.00	0.00
25	Biobasin03	Storage Node	862.44	867.10	865.00		0.00	8.71	866.81				0.00	0.00
26	Biobasin04	Storage Node	862.00	867.00	864.50		0.00	5.20	866.15				0.00	0.00
27	Biobasin05	Storage Node	862.60	867.10	865.10		0.00	9.24	866.67				0.00	0.00
28	Offsite 01 Parking lot ponding	Storage Node	871.00	879.00	877.50		0.00	53.87	878.32				0.00	0.00
29	Offsite 02 Wet basin 02	Storage Node	878.00	882.00	878.00		0.00	41.68	881.04				0.00	0.00
30	Offsite 02-wet basin 1	Storage Node	875.00	881.50	877.50		0.00	31.96	880.42				0.00	0.00
31	Offsite 04	Storage Node	871.65	878.00	871.65		0.00	31.08	877.72				0.00	0.00
32	Pavers01-02	Storage Node	863.79	867.24	863.79		0.00	5.86	865.97				0.00	0.00
33	Pavers03-04	Storage Node	863.79	867.24	863.79		0.00	5.98	866.80				0.00	0.00
34	Wet Basin 02	Storage Node	859.00	867.00	862.00		0.00	109.11	865.99				0.00	0.00
35	WetBasin 01	Storage Node	859.00	867.00	862.00		0.00	74.16	866.00				0.00	0.00

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 (ft)	Peak Flow Depth/Total Depth Ratio	Total Time Reported (min)	Surcharged Condition
1	1->basins	Pipe	Manhole1	Structure1	62.54	861.75	861.69	0.1000	36.000	0.0130	18.23	20.66	0.88	2.63	3.00	1.00	347.00	SURCHARGED
2	10->11	Pipe	Manhole10	Manhole1	190.96	862.23	861.75	0.2500	18.000	0.0130	5.74	5.27	1.09	3.25	1.50	1.00	499.00	SURCHARGED
3	11->10	Pipe	Manhole11	Manhole10	75.00	862.42	862.23	0.2500	18.000	0.0130	5.72	5.29	1.08	3.24	1.50	1.00	476.00	SURCHARGED
4	12->11	Pipe	CatchBasin12	Manhole11	72.47	862.60	862.42	0.2500	18.000	0.0130	5.72	5.24	1.09	3.24	1.50	1.00	449.00	SURCHARGED
5	13->10	Pipe	Manhole13	Manhole10	16.00	863.79	863.72	0.4400	12.000	0.0130	0.22	2.36	0.09	1.43	1.00	1.00	346.00	SURCHARGED
6	2->1	Pipe	Manhole2	Manhole1	20.00	861.80	861.75	0.2500	18.000	0.0130	7.46	5.25	1.42	4.22	1.50	1.00	550.00	SURCHARGED
7	3->2	Pipe	CatchBasin03	Manhole2	81.60	862.00	861.80	0.2500	18.000	0.0130	7.46	5.20	1.43	4.22	1.50	1.00	526.00	SURCHARGED
8	4->3	Pipe	CatchBasin04	CatchBasin03	175.98	862.44	862.00	0.2500	18.000	0.0130	6.29	5.25	1.20	3.56	1.50	1.00	475.00	SURCHARGED
9	5->4	Pipe	CatchBasin05	CatchBasin04	92.80	862.67	862.44	0.2500	18.000	0.0130	2.25	5.23	0.43	1.27	1.50	1.00	440.00	SURCHARGED
10	6->1	Pipe	Manhole6	Manhole1	210.04	862.28	861.75	0.2500	18.000	0.0130	5.69	5.28	1.08	3.22	1.50	1.00	493.00	SURCHARGED
11	7->6	Pipe	Manhole7	Manhole6	75.00	862.47	862.28	0.2500	18.000	0.0130	5.70	5.29	1.08	3.23	1.50	1.00	469.00	SURCHARGED
12	8->7	Pipe	CatchBasin8	Manhole7	69.56	862.64	862.47	0.2400	18.000	0.0130	5.70	5.19	1.10	3.23	1.50	1.00	442.00	SURCHARGED
13	9->8	Pipe	Manhole9	Manhole6	16.00	863.79	863.73	0.3700	15.000	0.0130	1.25	3.96	0.32	1.28	1.25	1.00	312.00	SURCHARGED
14	Basin connector	Pipe	WetBasin 01	Wet Basin 02	85.00	859.00	858.90	0.1200	24.000	0.0130	12.97	0.78	16.71	4.13	2.00	1.00	1440.00	SURCHARGED
15	Basins->outlet	Pipe	Structure1	OutToDitch	109.09	861.69	861.58	0.1000	36.000	0.0130	36.36	21.18	1.72	5.69	3.00	1.00	339.00	SURCHARGED
16	Dual 18 inch pipes	Pipe	ExA	Ex0	35.92	860.81	860.13	1.9000	18.000	0.0130	21.27	14.48	1.47	12.48	1.38	0.92	0.00	> CAPACITY
17	Elliptical pipe under roadway	Pipe	Ex0	Ex00 Outlet	98.05	860.07	859.65	0.4300	36.000	0.0130	21.27	86.04	0.25	5.41	1.18	0.39	0.00	Calculated
18	Offsite 02->outfall	Pipe	Offsite 02 outlet	Existing 36-inch outlet pipe	84.10	877.50	875.40	2.5000	12.000	0.0130	5.26	5.63	0.93	7.20	0.88	0.88	0.00	Calculated
19	offsite basin2 -> offsite basin 1	Pipe	Offsite 02 Wet basin 02	Offsite 02-wet basin 1	201.70	878.00	877.70	0.1500	24.000	0.0130	15.34	8.72	1.76	4.91	2.00	1.00	186.00	SURCHARGED
20	Offsite->basin	Pipe	Existing 36-inch outlet pipe	Wet Basin 02	1296.34	870.00	862.00	0.6200	42.000	0.0130	19.58	79.04	0.25	3.17	2.34	0.67	0.00	Calculated
21	OutletPipe	Pipe	Dummy1	Structure1	10.82	862.00	861.69	2.8700	36.000	0.0130	19.85	112.90	0.18	3.83	3.00	1.00	327.00	SURCHARGED
22	Ditch	Channel	OutToDitch	ExA	375.41	861.58	860.81	0.2100	72.000	0.0320	27.80	596.14	0.05	1.56	4.10	0.68	0.00	
23	Biobasin01grate	Orifice	Biobasin 01	CatchBasin8		862.64	862.64		19.600		5.69							
24	Biobasin02grate	Orifice	Biobasin02	Biobasin02dummynode		862.67	862.67		19.600		2.34							
25	Biobasin02orifice	Orifice	Biobasin02dummynode	CatchBasin05		862.67	862.67		12.000		2.27							
26	Biobasin03grate	Orifice	Biobasin03	CatchBasin04		862.44	862.44		19.600		4.93							
27	Biobasin04grate	Orifice	Biobasin04	CatchBasin03		862.00	862.00		19.600		2.08							
28	Biobasin05grate	Orifice	Biobasin05	CatchBasin12		862.60	862.60		19.600		5.75							
29	Offsite 01 orifice	Orifice	Offsite 01 Parking lot ponding	Existing 36-inch outlet pipe		871.00	870.00		9.250		5.92							
30	Offsite 02 grate	Orifice	Offsite 02-wet basin 1	Offsite 02 outlet		875.00	877.50		19.600		0.00							
31	offsite 02 window	Orifice	Offsite 02-wet basin 1	Offsite 02 outlet		875.00	877.50		6.000		4.74							
32	Offsite 02 wq	Orifice	Offsite 02-wet basin 1	Offsite 02 outlet		875.00	877.50		4.000		0.57							
33	Offsite 04 orifice	Orifice	Offsite 04	Existing 36-inch outlet pipe		871.65	870.00		8.500		4.54							
34	Pavers01-02 wq orifice 2	Orifice	Pavers01-02	Manhole9		863.79	863.79		1.000		0.04							
35	Pavers03-04 WQ orifice 1	Orifice	Pavers03-04	Manhole13		863.79	863.79		1.000		0.04							
36	Pavers03-04 WQ orifice 2	Orifice	Pavers03-04	Manhole13		863.79	863.79		1.000		0.04							
37	Pavers01-02 WQ orifice 1	Orifice	Pavers01-02	Manhole9		863.79	863.79		1.000		0.04							
38	Wet basin grate	Orifice	Wet Basin 02	Dummy1		859.00	861.69		19.600		3.65							
39	Wet basin window 1	Orifice	Wet Basin 02	Dummy1		859.00	861.69		12.000		9.41							
40	Wet Basin wq 2	Orifice	Wet Basin 02	Dummy1		859.00	861.69		5.000		0.63							
41	WetBasin WQ 1	Orifice	Wet Basin 02	Dummy1		859.00	861.69		12.000		9.41							
42	WetBasinWindow2	Orifice	Wet Basin 02	Dummy1		859.00	861.69		12.000		9.41							
43	Biomedial01	Outlet	Biobasin 01	CatchBasin8		862.64	862.64				0.23							
44	Biomedial02	Outlet	Biobasin02	Biobasin02dummynode		862.67	862.67				0.08							
45	Biomedial03	Outlet	Biobasin03	CatchBasin04		862.44	862.44				0.22							
46	Biomedial04	Outlet	Biobasin04	CatchBasin03		862.00	862.00				0.18							
47	Biomedial05	Outlet	Biobasin05	CatchBasin12		862.60	862.60				0.24							
48	Pavers01-02 weir	Weir	Pavers01-02	Manhole9		863.79	863.79				1.23							
49	Pavers04-06 weir	Weir	Pavers03-04	Manhole13		863.79	863.79				0.00							

Subbasin Hydrology

Subbasin : Offsite 01: Lucent site

Input Data

Area (ac) 9.91
Weighted Curve Number 94.00
Rain Gage ID DublinRain

Composite Curve Number

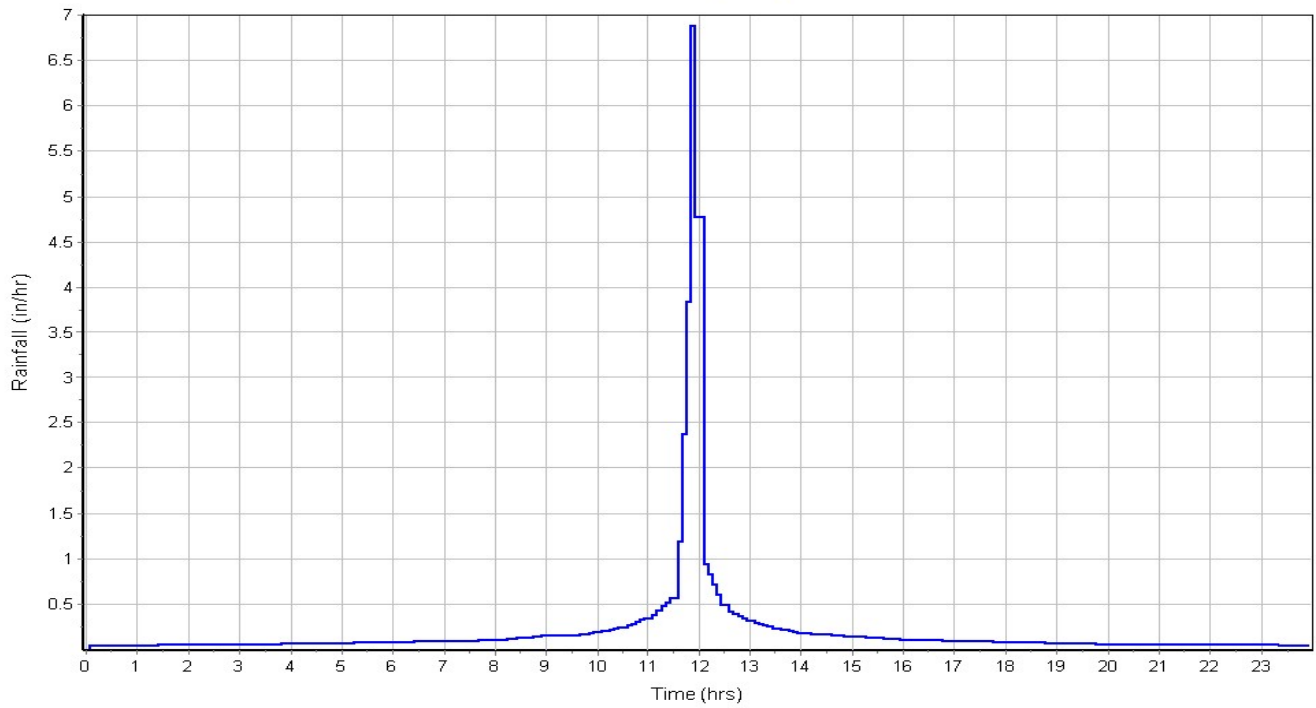
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	9.91	-	94.00
Composite Area & Weighted CN	9.91		94.00

Subbasin Runoff Results

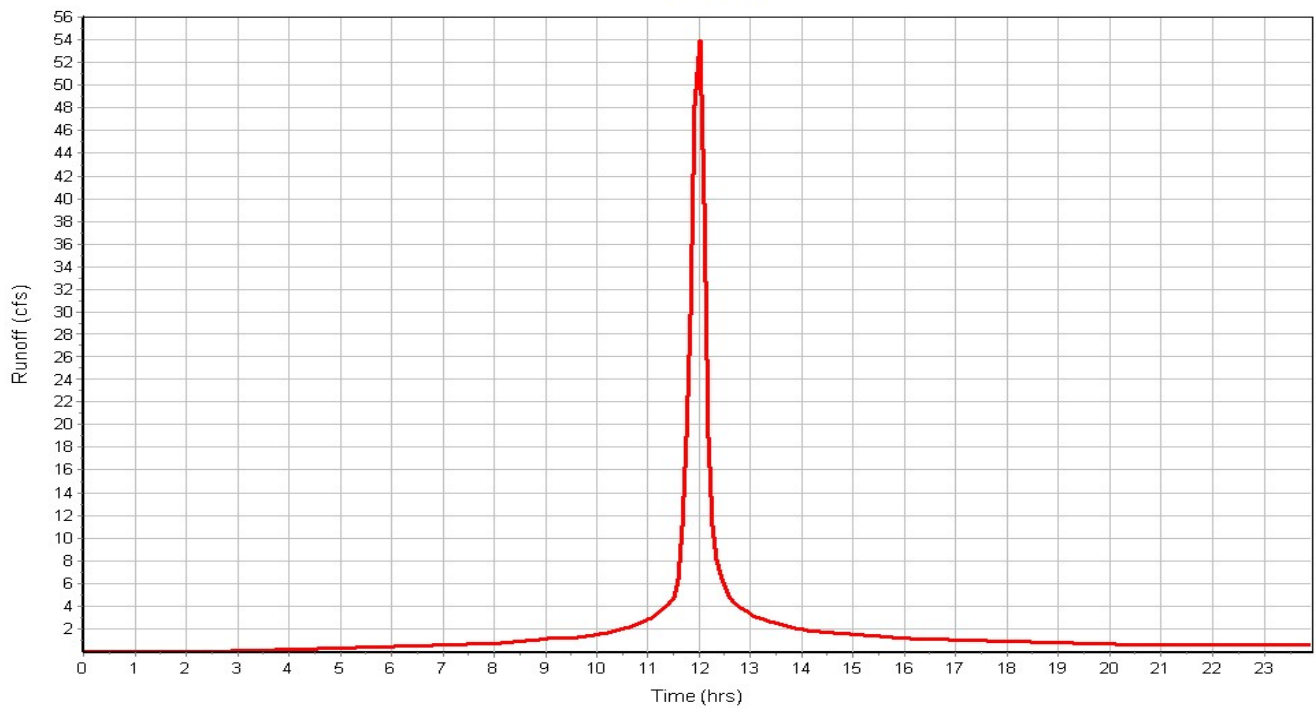
Total Rainfall (in) 5.02
Total Runoff (in) 4.33
Peak Runoff (cfs) 54.90
Weighted Curve Number 94.00
Time of Concentration (days hh:mm:ss) 0 00:10:00

Subbasin : Offsite 01: Lucent site

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 02 - 01

Input Data

Area (ac) 3.38
Weighted Curve Number 92.00
Rain Gage ID DublinRain

Composite Curve Number

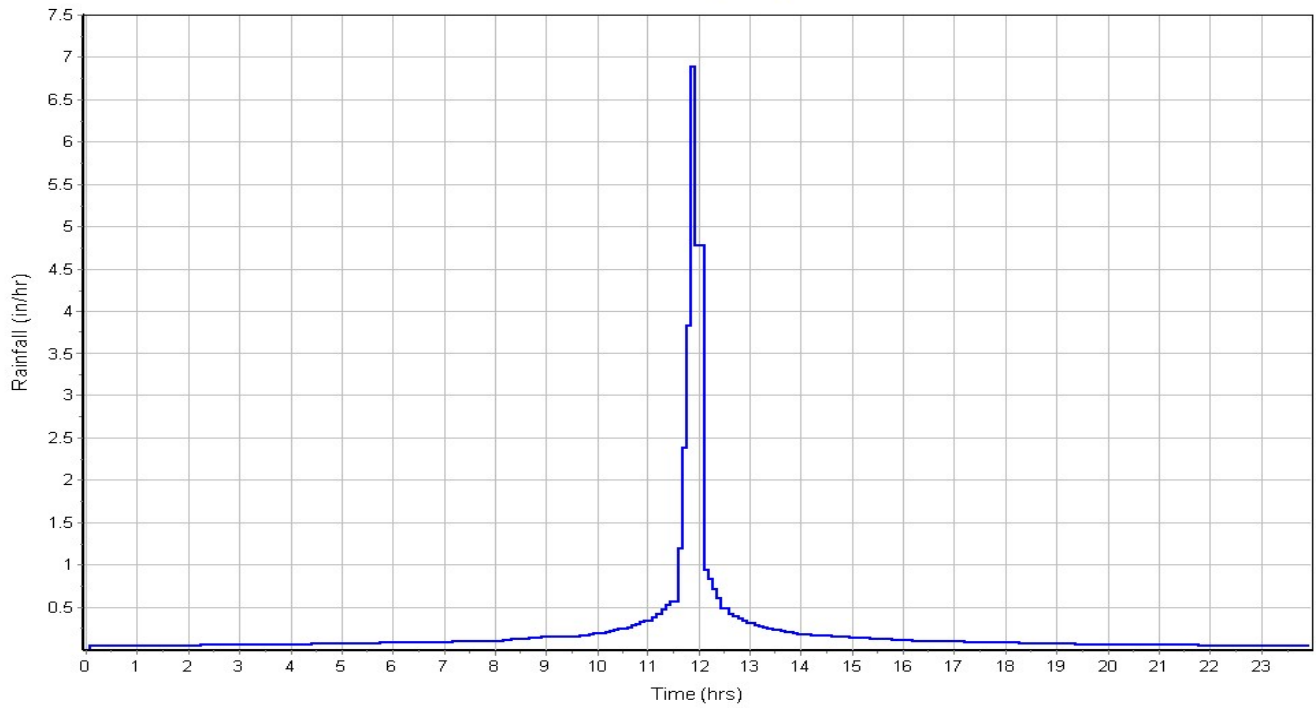
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	3.38	-	92.00
Composite Area & Weighted CN	3.38		92.00

Subbasin Runoff Results

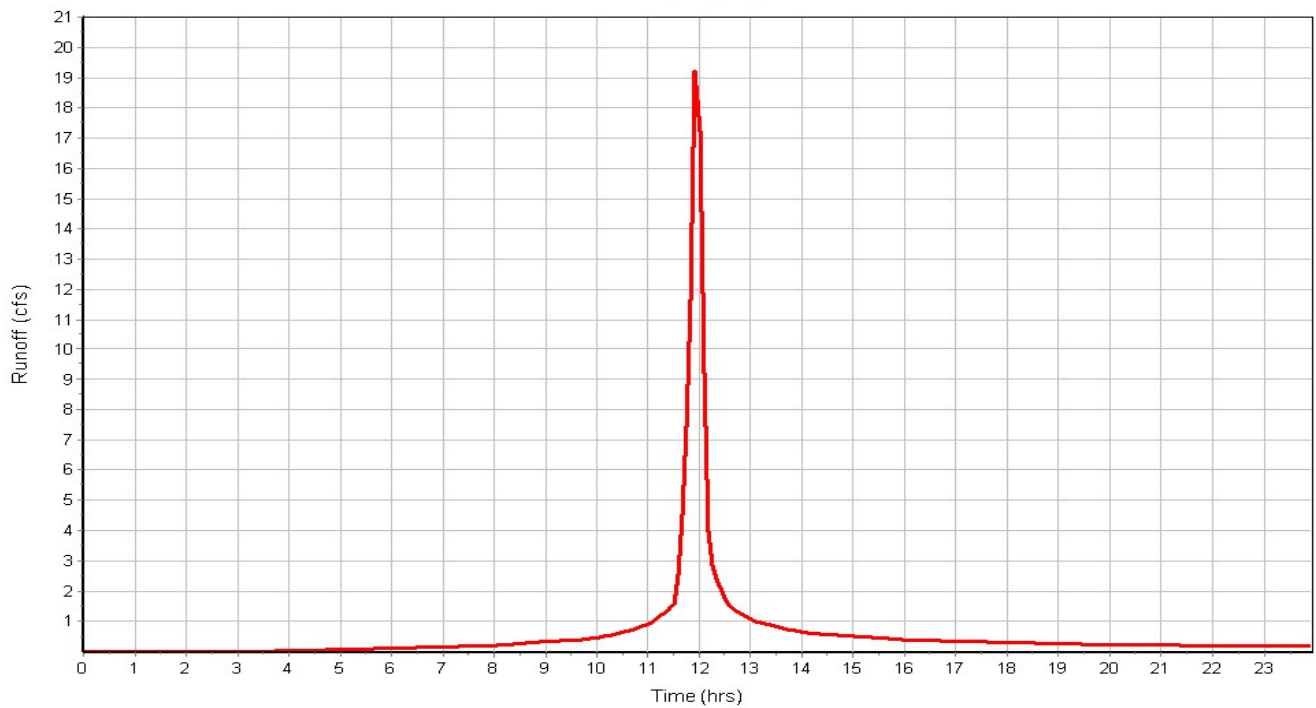
Total Rainfall (in) 5.02
Total Runoff (in) 4.11
Peak Runoff (cfs) 19.63
Weighted Curve Number 92.00
Time of Concentration (days hh:mm:ss) 0 00:07:00

Subbasin : Offsite 02 - 01

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 02 - 02

Input Data

Area (ac) 7.84
Weighted Curve Number 93.00
Rain Gage ID DublinRain

Composite Curve Number

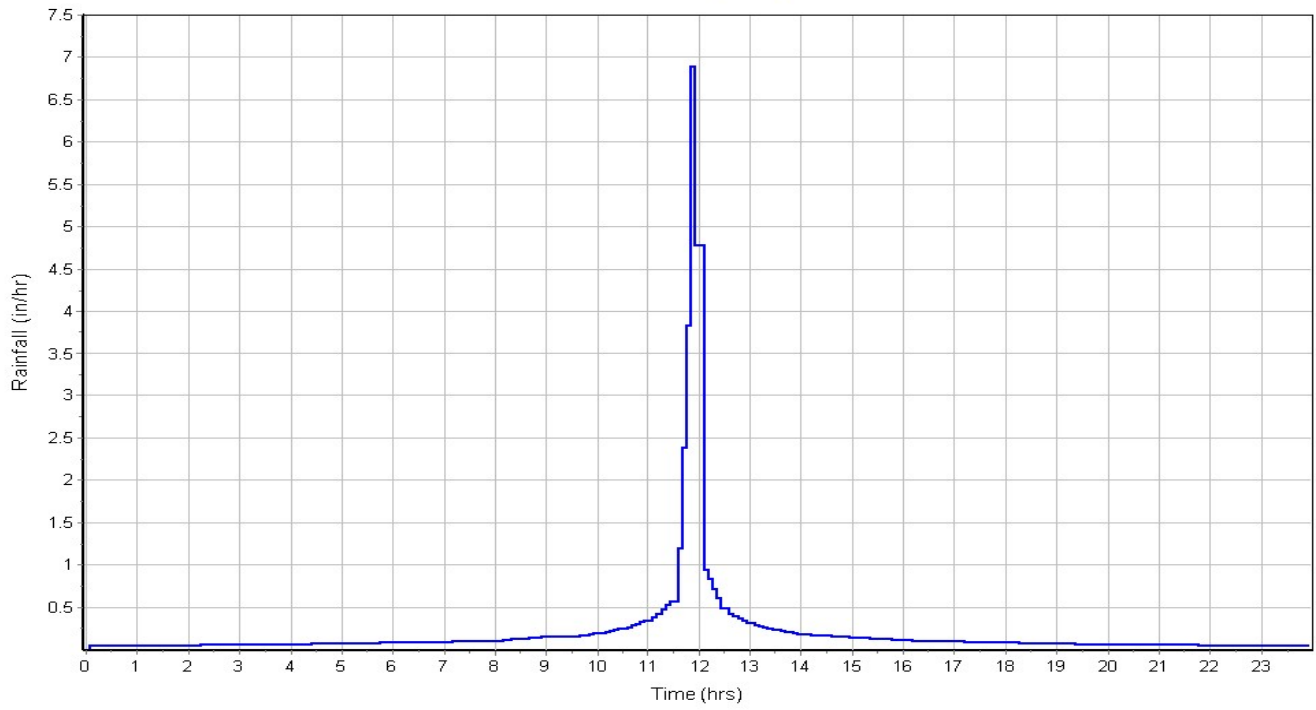
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	7.84	-	93.00
Composite Area & Weighted CN	7.84		93.00

Subbasin Runoff Results

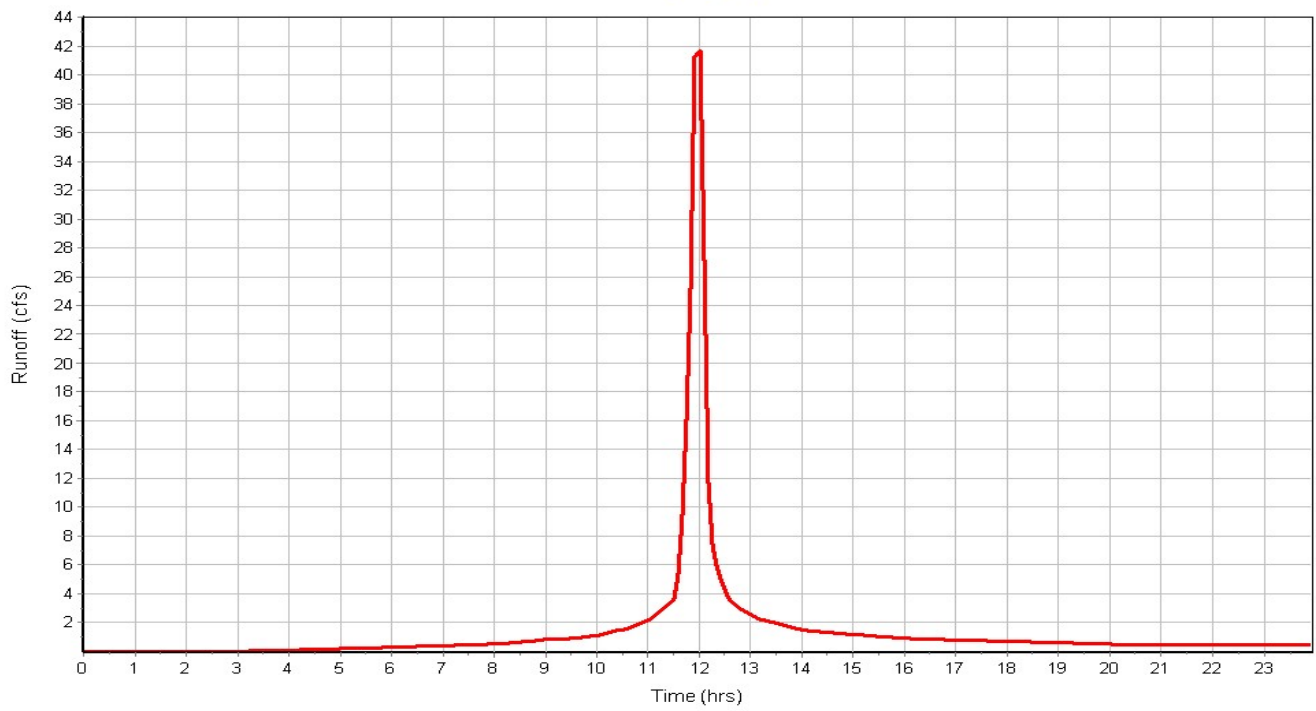
Total Rainfall (in) 5.02
Total Runoff (in) 4.22
Peak Runoff (cfs) 44.39
Weighted Curve Number 93.00
Time of Concentration (days hh:mm:ss) 0 00:08:30

Subbasin : Offsite 02 - 02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 03: Triangle outparcel

Input Data

Area (ac) 2.50
Weighted Curve Number 74.00
Rain Gage ID DublinRain

Composite Curve Number

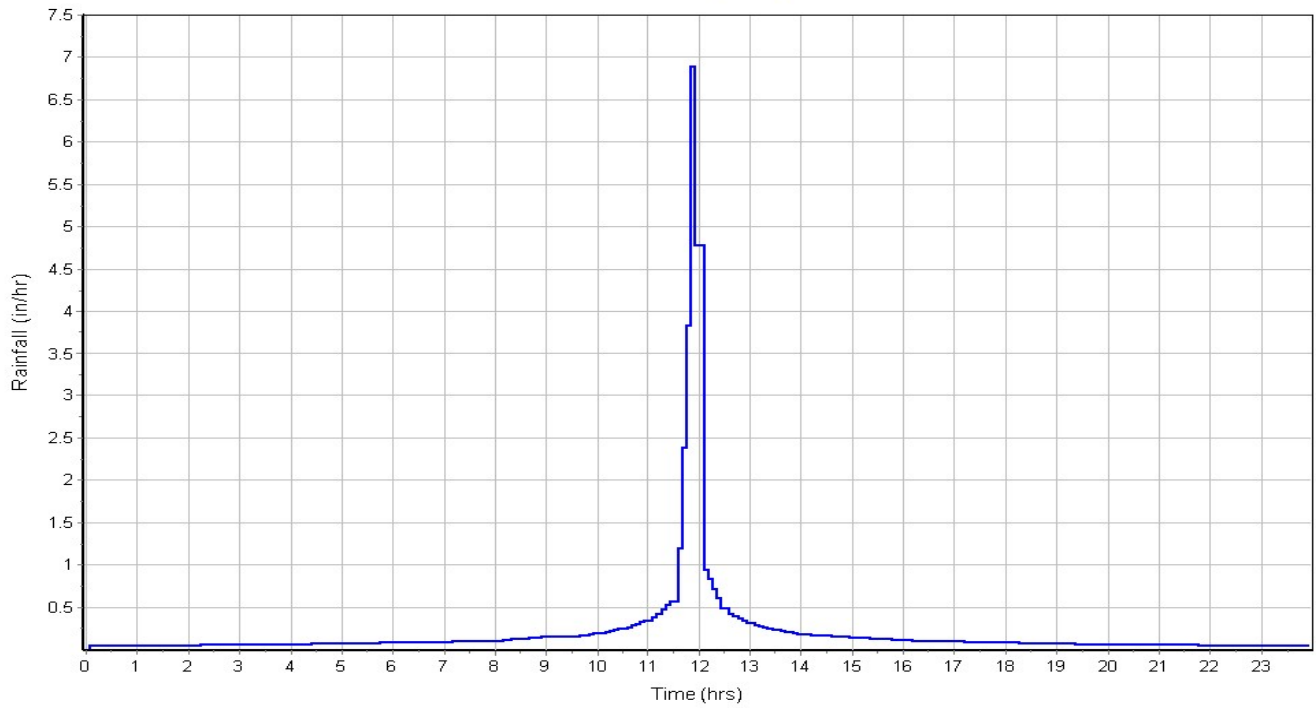
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	2.50	-	74.00
Composite Area & Weighted CN	2.50		74.00

Subbasin Runoff Results

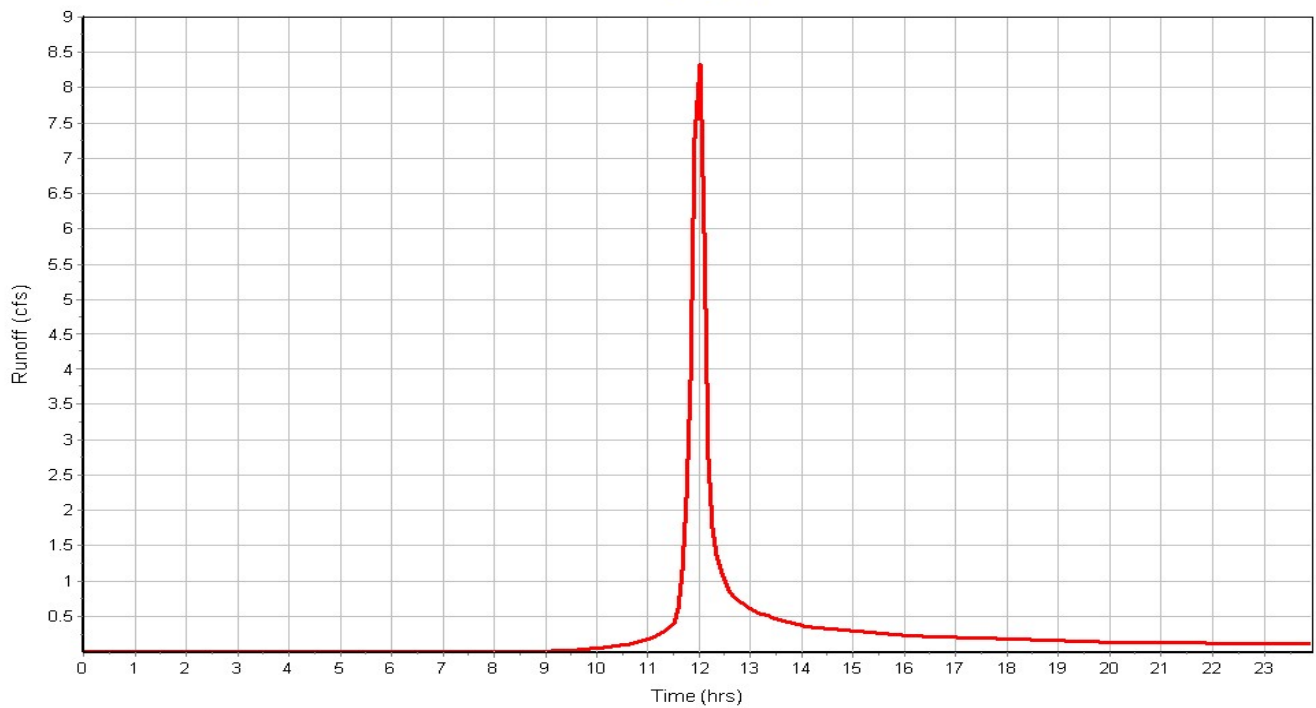
Total Rainfall (in) 5.02
Total Runoff (in) 2.38
Peak Runoff (cfs) 8.43
Weighted Curve Number 74.00
Time of Concentration (days hh:mm:ss) 0 00:09:00

Subbasin : Offsite 03: Triangle outparcel

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 04: Cendant Site

Input Data

Area (ac) 5.72
Weighted Curve Number 94.00
Rain Gage ID DublinRain

Composite Curve Number

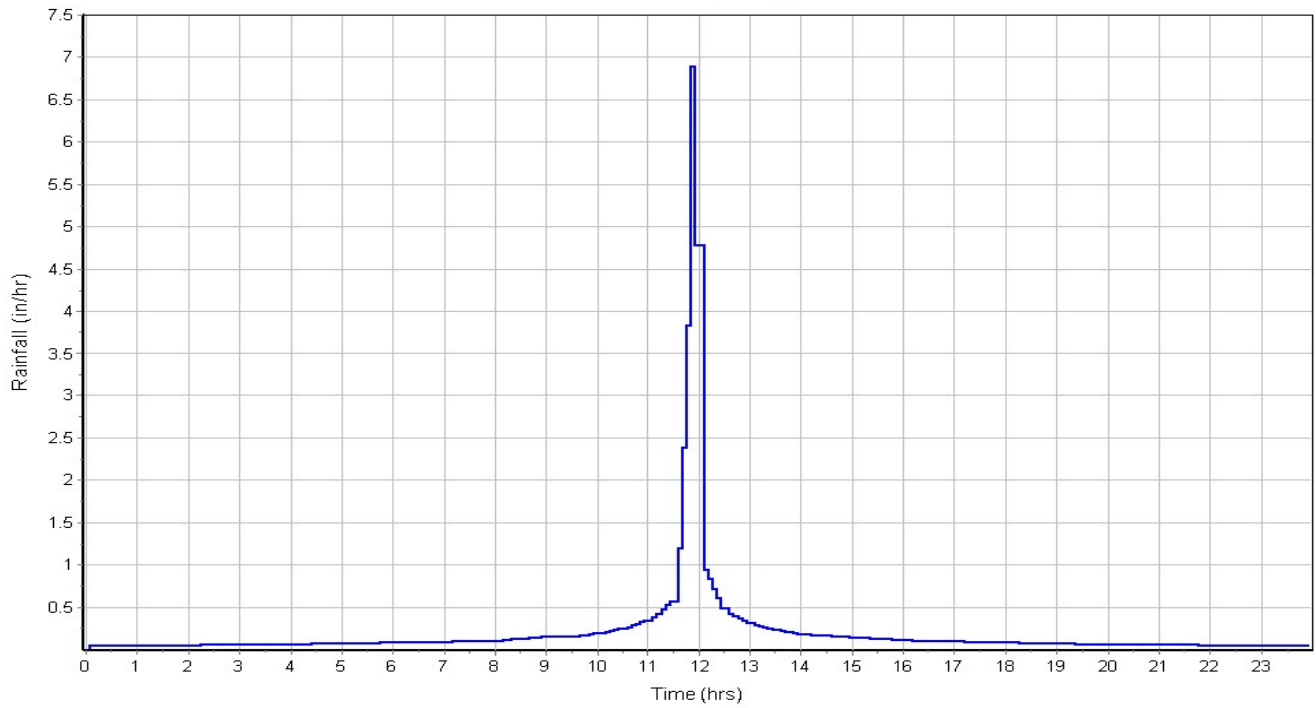
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	5.72	-	94.00
Composite Area & Weighted CN	5.72		94.00

Subbasin Runoff Results

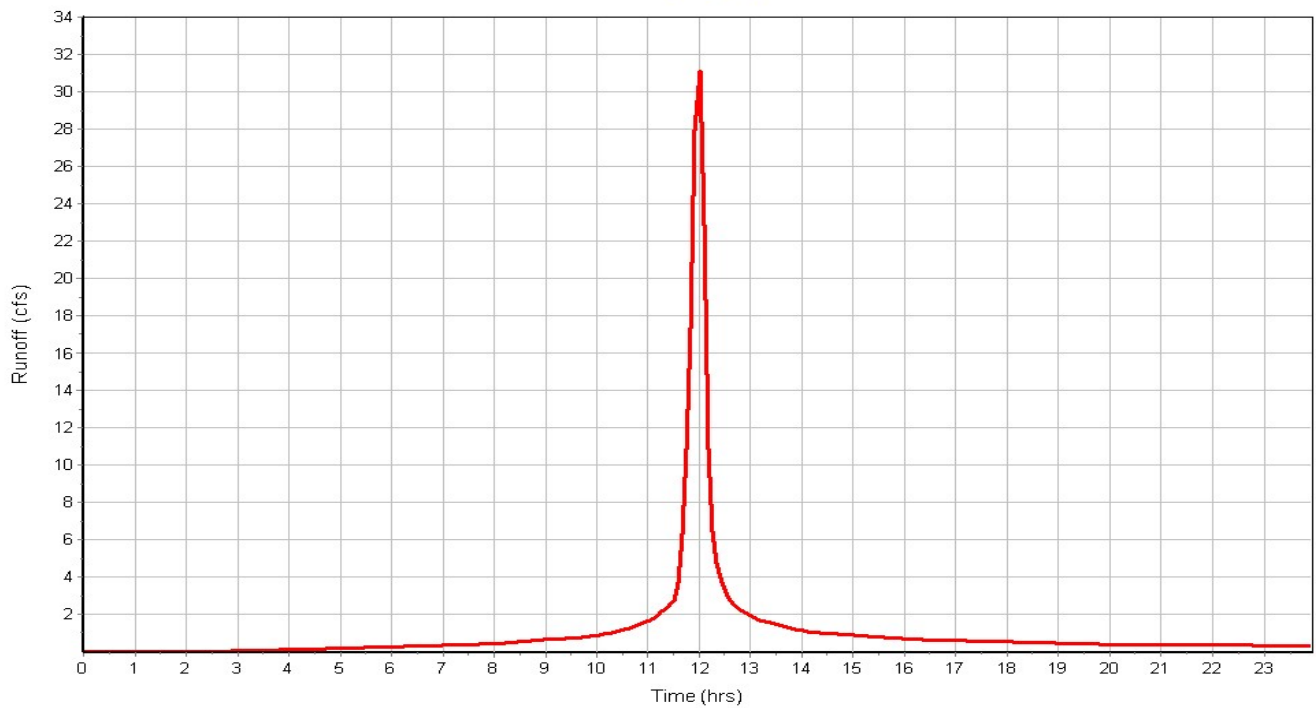
Total Rainfall (in) 5.02
Total Runoff (in) 4.33
Peak Runoff (cfs) 31.70
Weighted Curve Number 94.00
Time of Concentration (days hh:mm:ss) 0 00:10:00

Subbasin : Offsite 04: Cendant Site

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea 02 - to wb 02

Input Data

Area (ac) 0.43
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

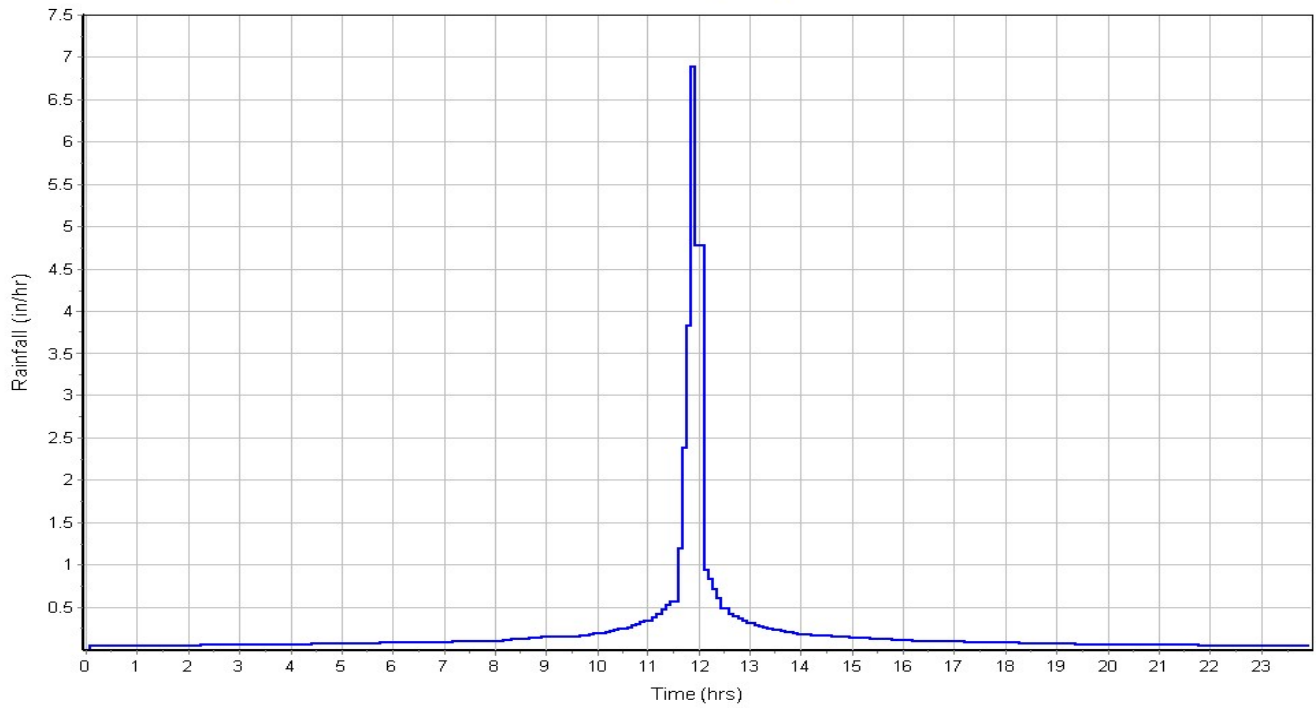
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.39	-	98.00
-	0.04	-	74.00
Composite Area & Weighted CN	0.43		95.60

Subbasin Runoff Results

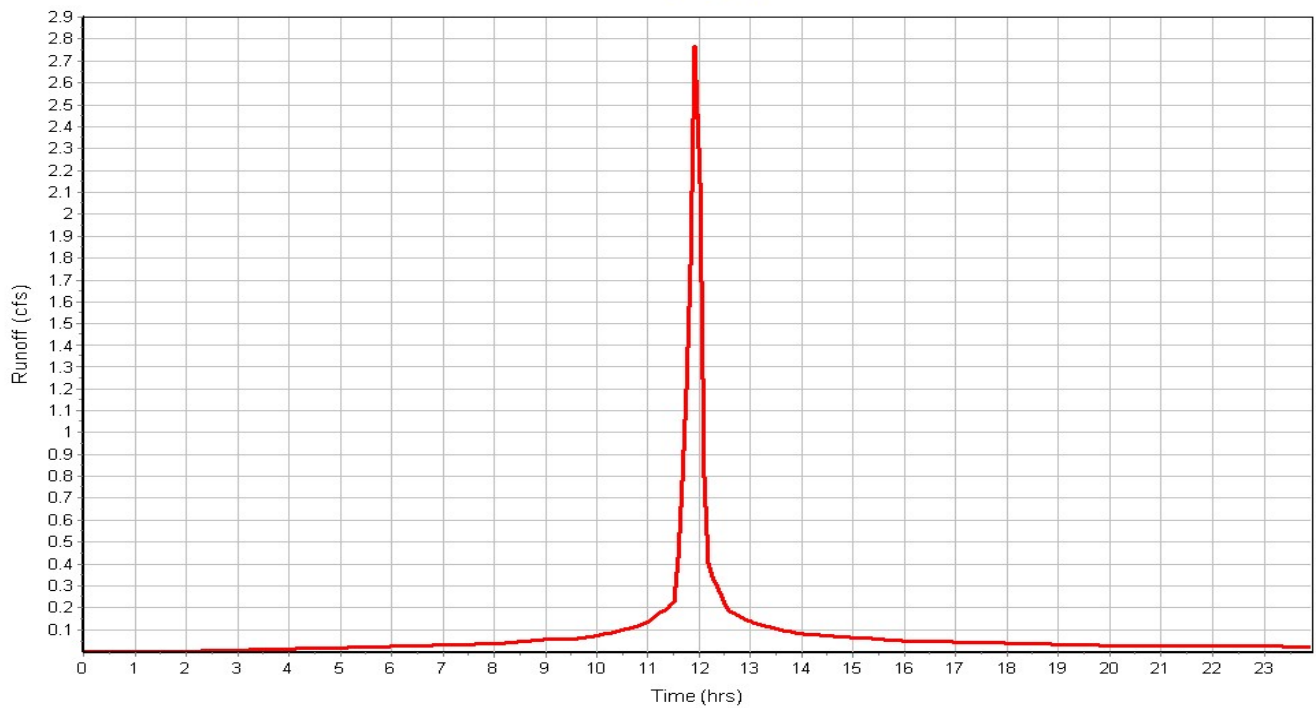
Total Rainfall (in) 5.02
Total Runoff (in) 4.51
Peak Runoff (cfs) 2.77
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea 02 - to wb 02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea 02 -to wb1

Input Data

Area (ac) 0.52
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

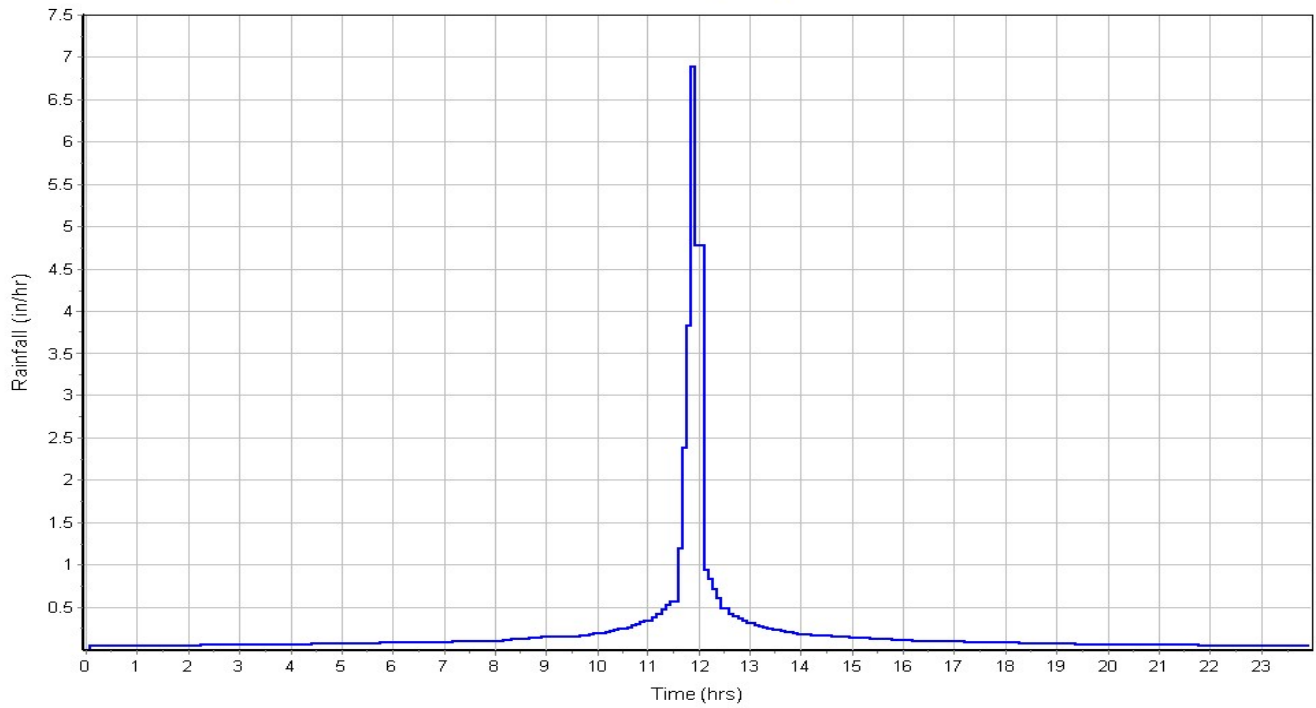
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	0.05	-	74.00
-	0.47	-	98.00
Composite Area & Weighted CN	0.52		95.60

Subbasin Runoff Results

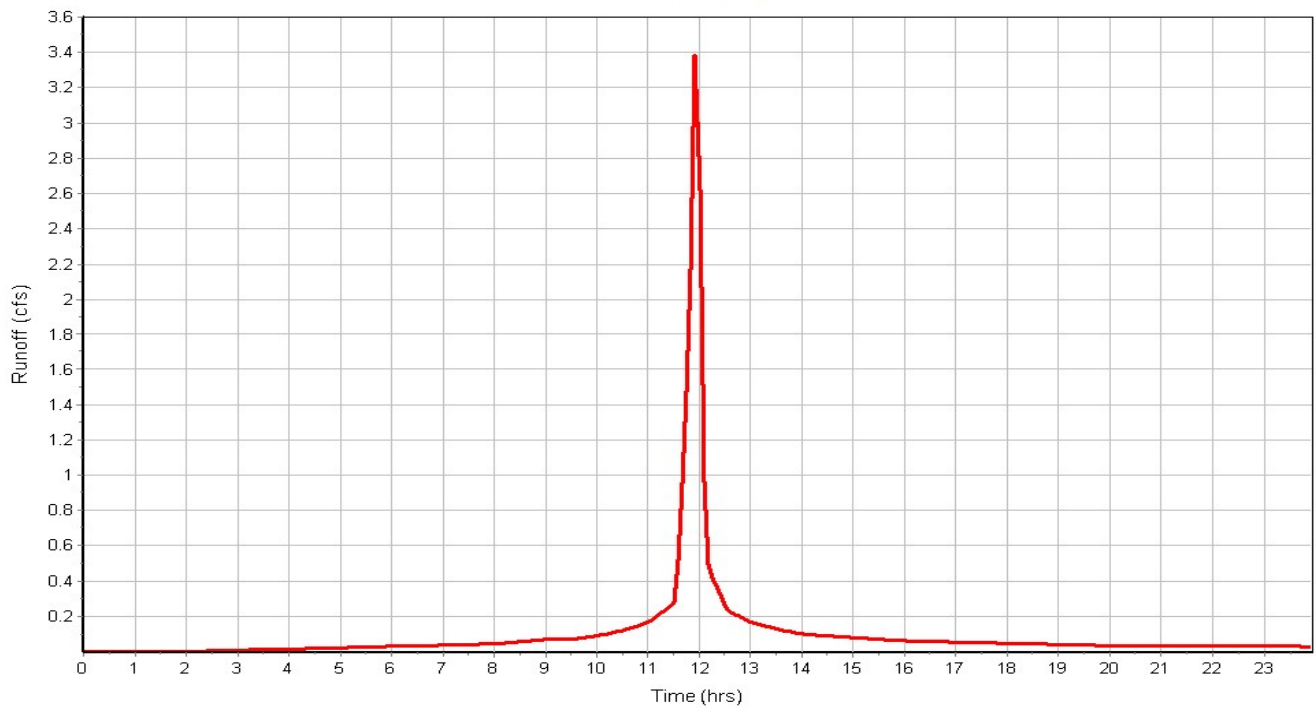
Total Rainfall (in) 5.02
Total Runoff (in) 4.51
Peak Runoff (cfs) 3.39
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea 02 -to wb1

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea 03

Input Data

Area (ac) 10.24
Weighted Curve Number 89.68
Rain Gage ID DublinRain

Composite Curve Number

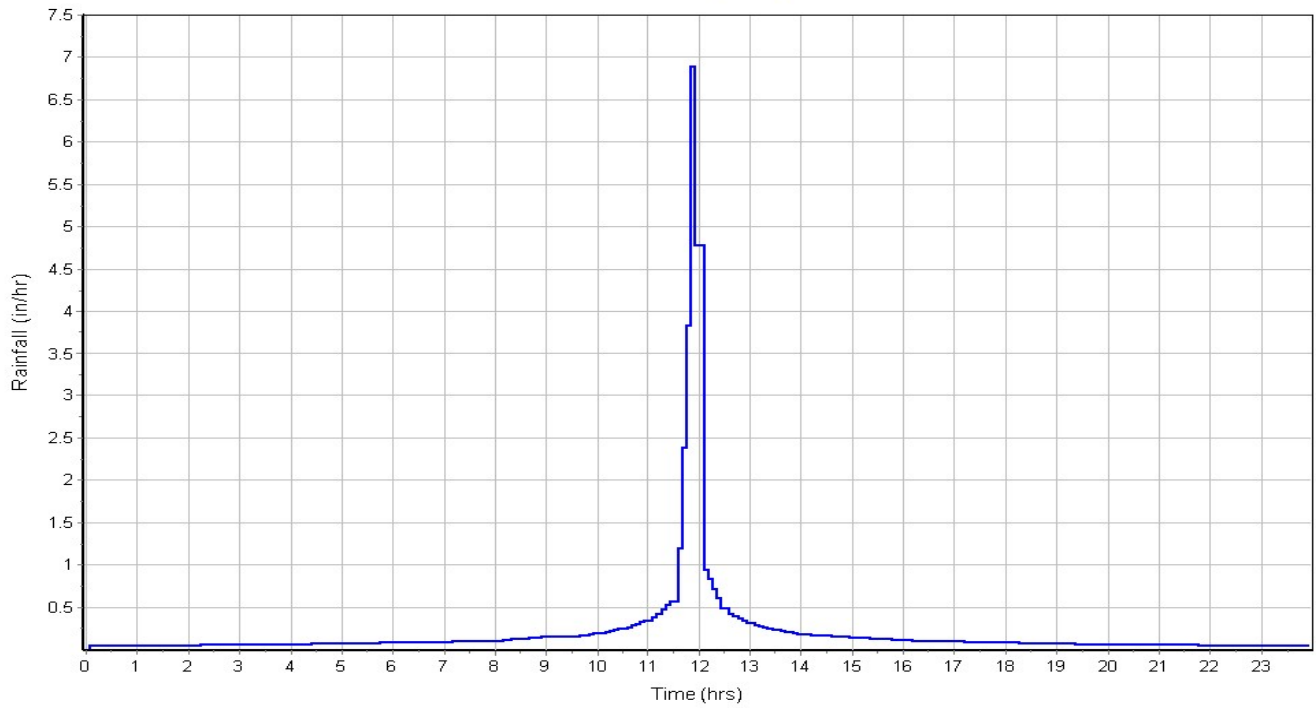
<u>Soil/Surface Description</u>	<u>Area (acres)</u>	<u>Soil Group</u>	<u>Curve Number</u>
-	6.69	-	98.00
-	3.55	-	74.00
Composite Area & Weighted CN	10.24		89.68

Subbasin Runoff Results

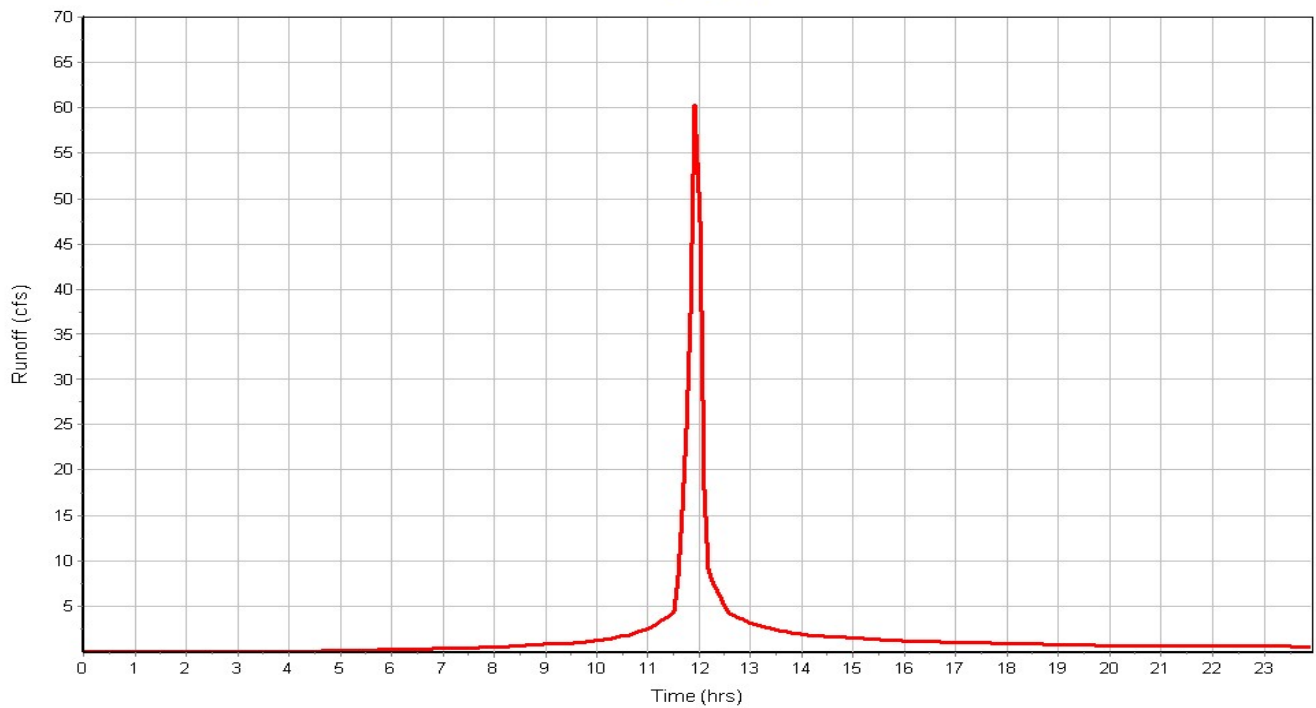
Total Rainfall (in) 5.02
Total Runoff (in) 3.86
Peak Runoff (cfs) 60.29
Weighted Curve Number 89.68
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea 03

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea01

Input Data

Area (ac) 14.97
Weighted Curve Number 90.80
Rain Gage ID DublinRain

Composite Curve Number

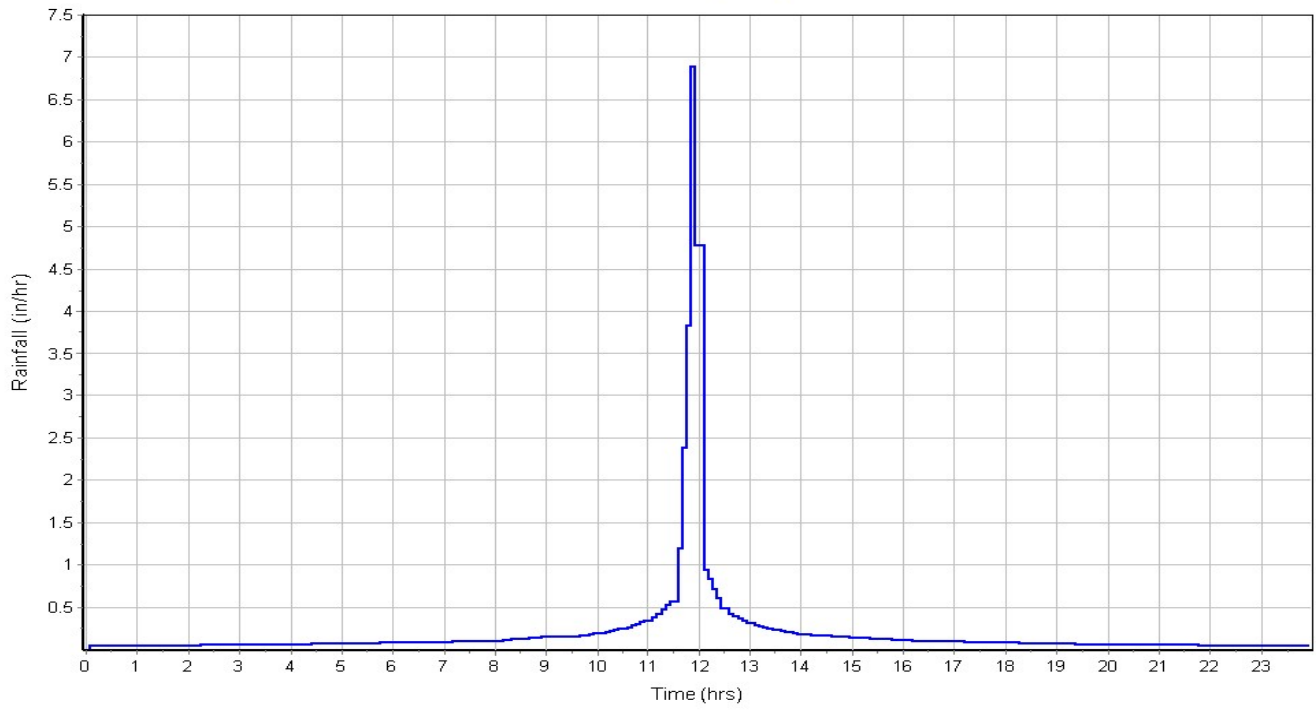
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	10.48	-	98.00
-	4.49	-	74.00
Composite Area & Weighted CN	14.97		90.80

Subbasin Runoff Results

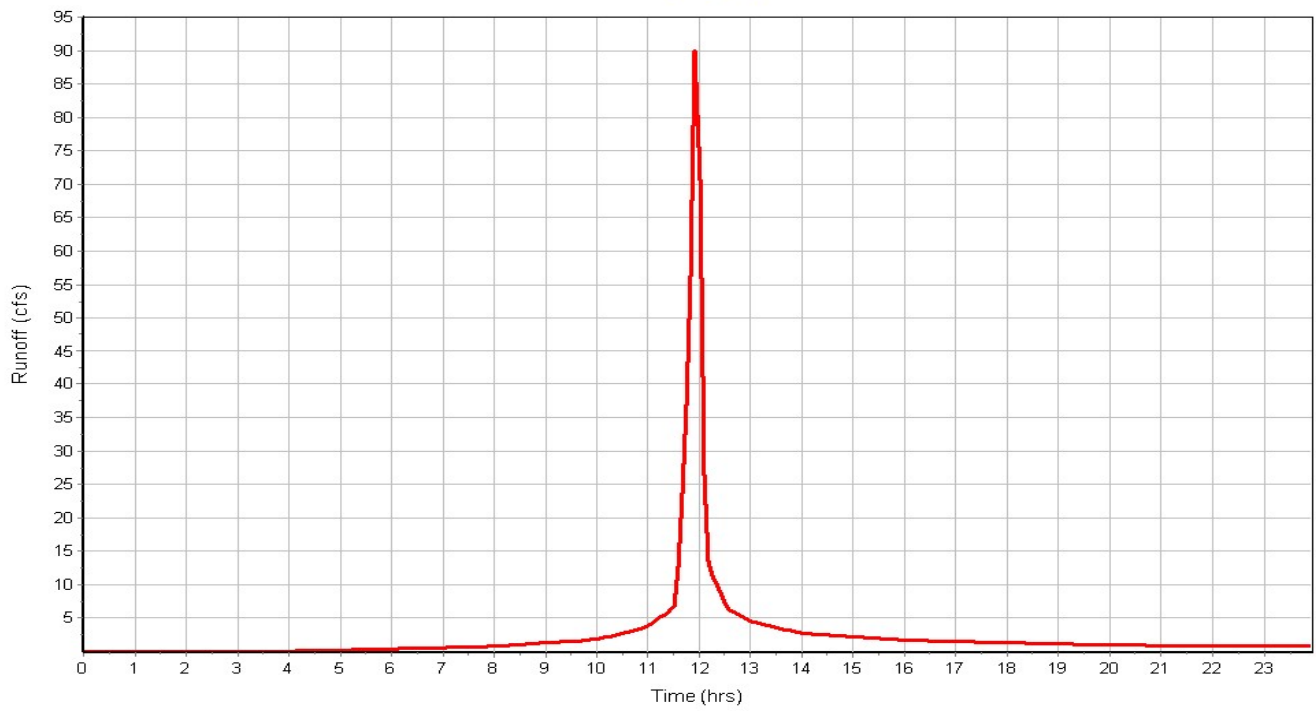
Total Rainfall (in) 5.02
Total Runoff (in) 3.98
Peak Runoff (cfs) 89.91
Weighted Curve Number 90.80
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea01

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin01

Input Data

Area (ac) 1.39
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

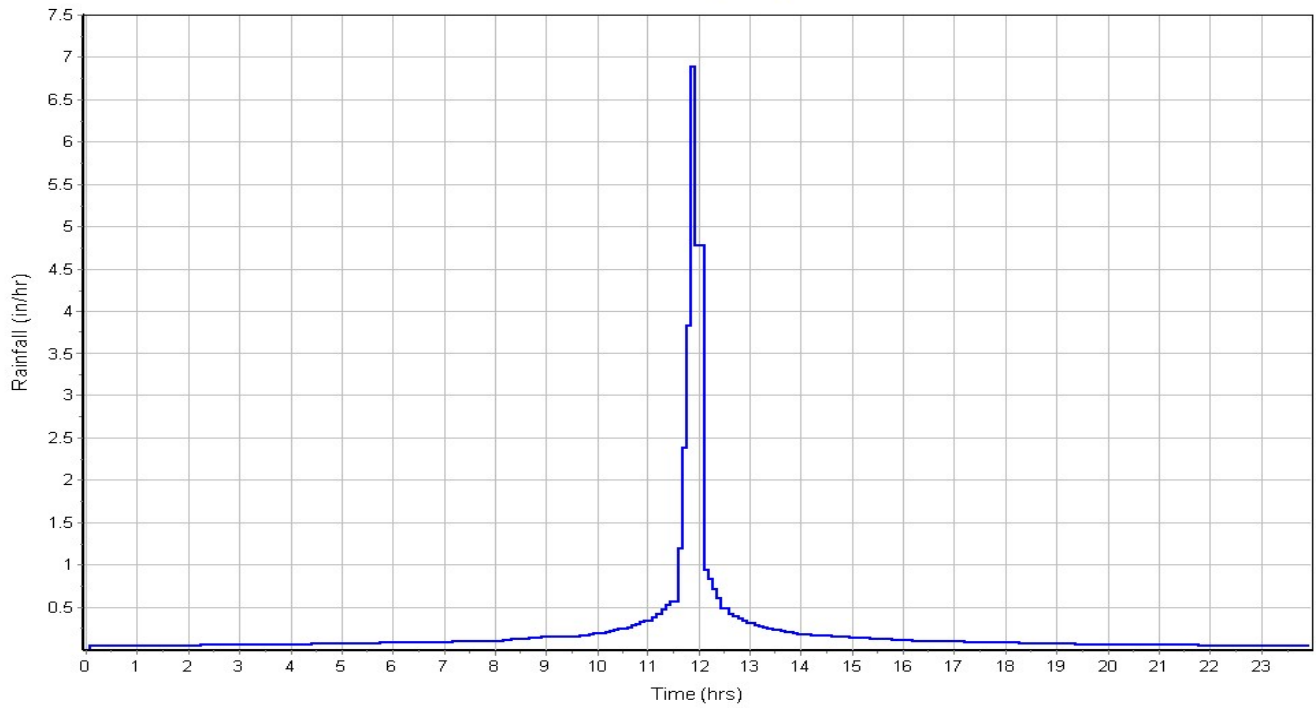
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	1.25	-	98.00
-	0.14	-	74.00
Composite Area & Weighted CN	1.39		95.60

Subbasin Runoff Results

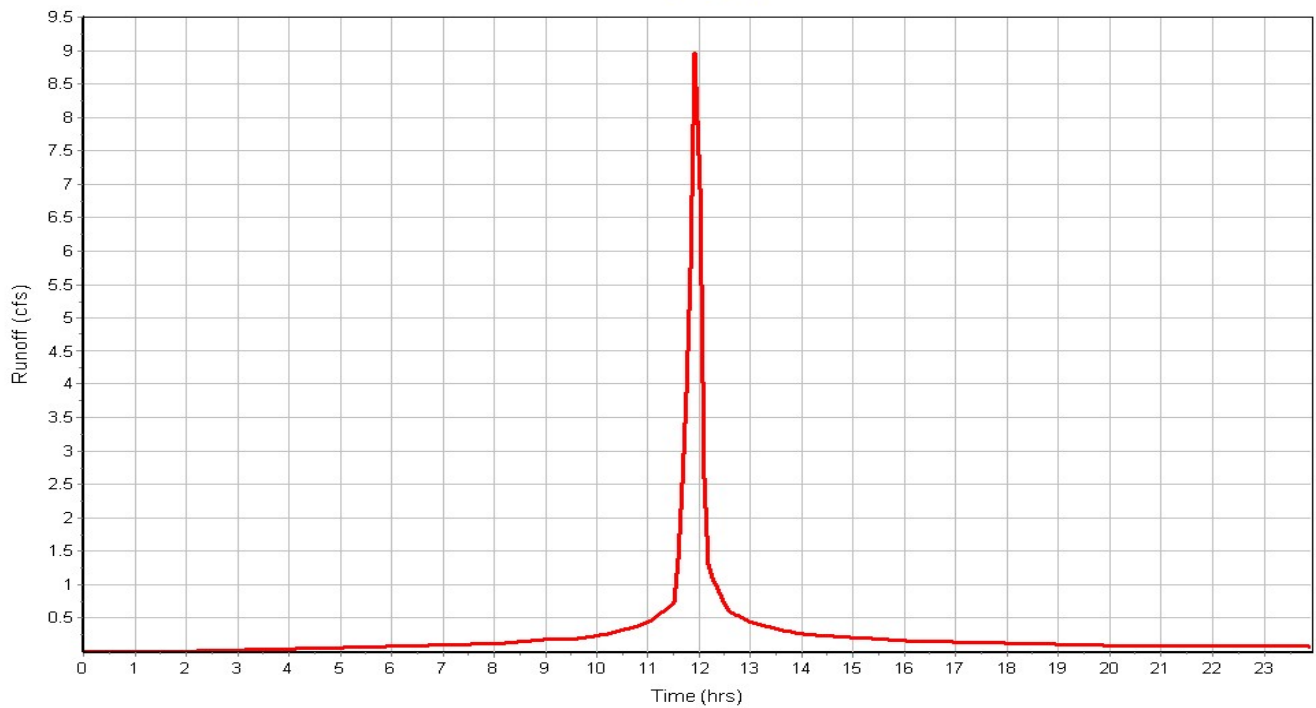
Total Rainfall (in) 5.02
Total Runoff (in) 4.51
Peak Runoff (cfs) 8.96
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin01

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin02

Input Data

Area (ac) 0.52
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

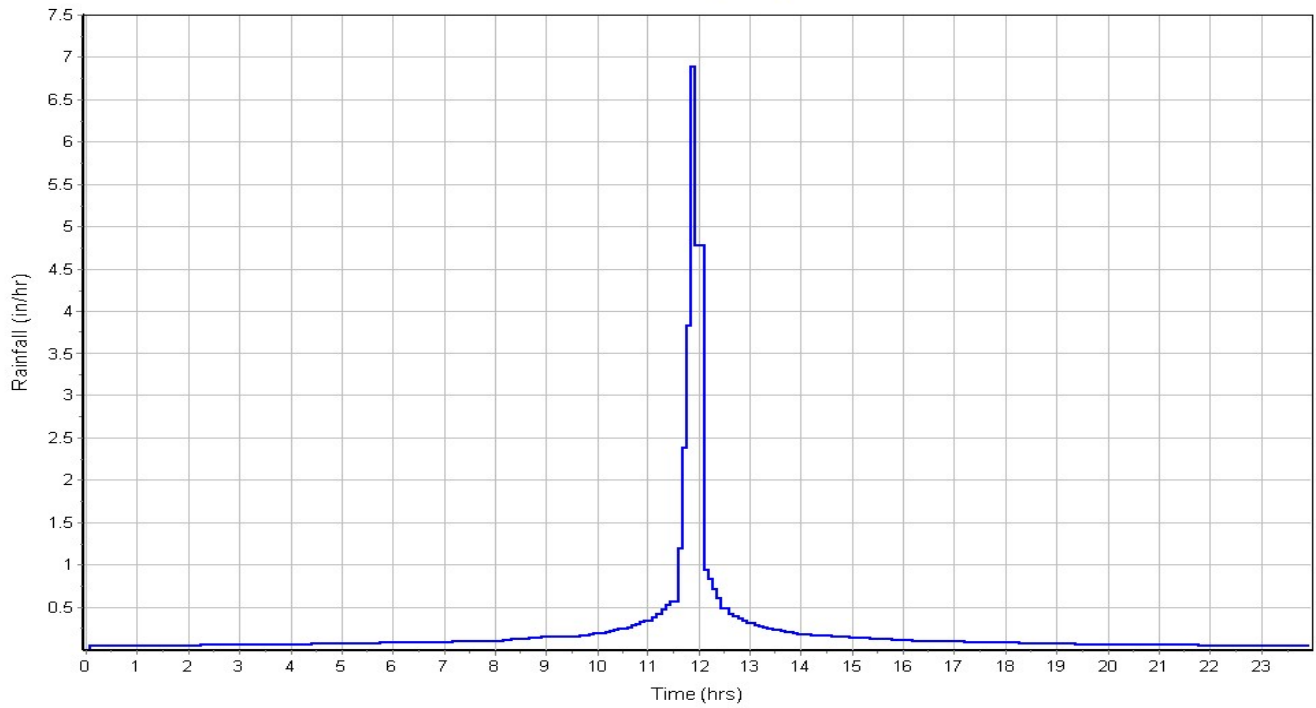
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.47	-	98.00
-	0.05	-	74.00
Composite Area & Weighted CN	0.52		95.60

Subbasin Runoff Results

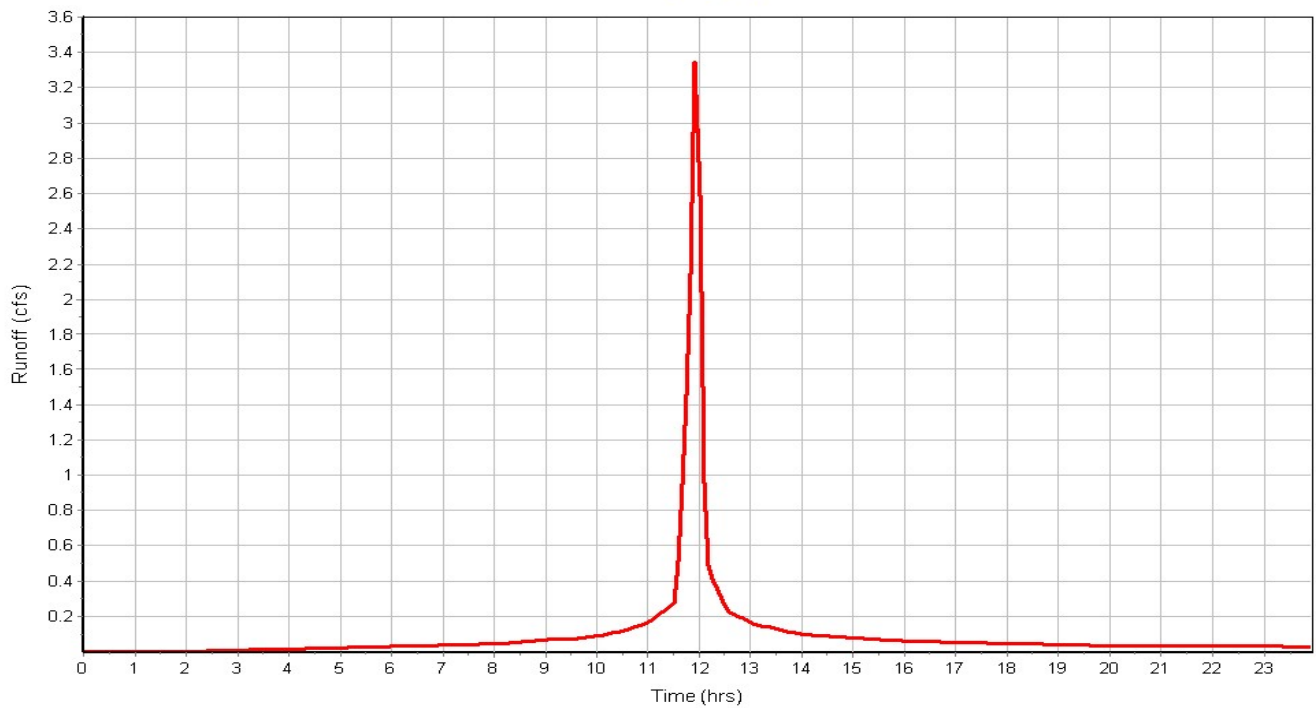
Total Rainfall (in) 5.02
Total Runoff (in) 4.51
Peak Runoff (cfs) 3.34
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin03

Input Data

Area (ac) 1.35
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

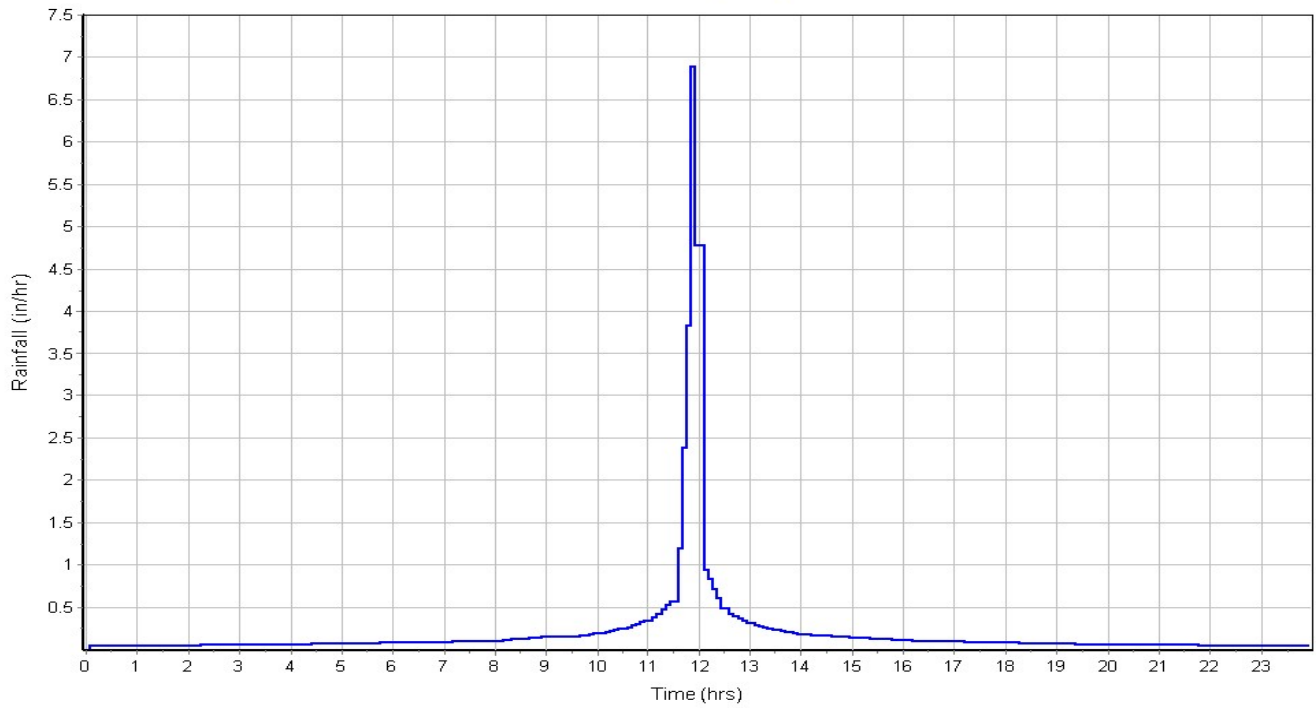
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	1.22	-	98.00
-	0.14	-	74.00
Composite Area & Weighted CN	1.36		95.60

Subbasin Runoff Results

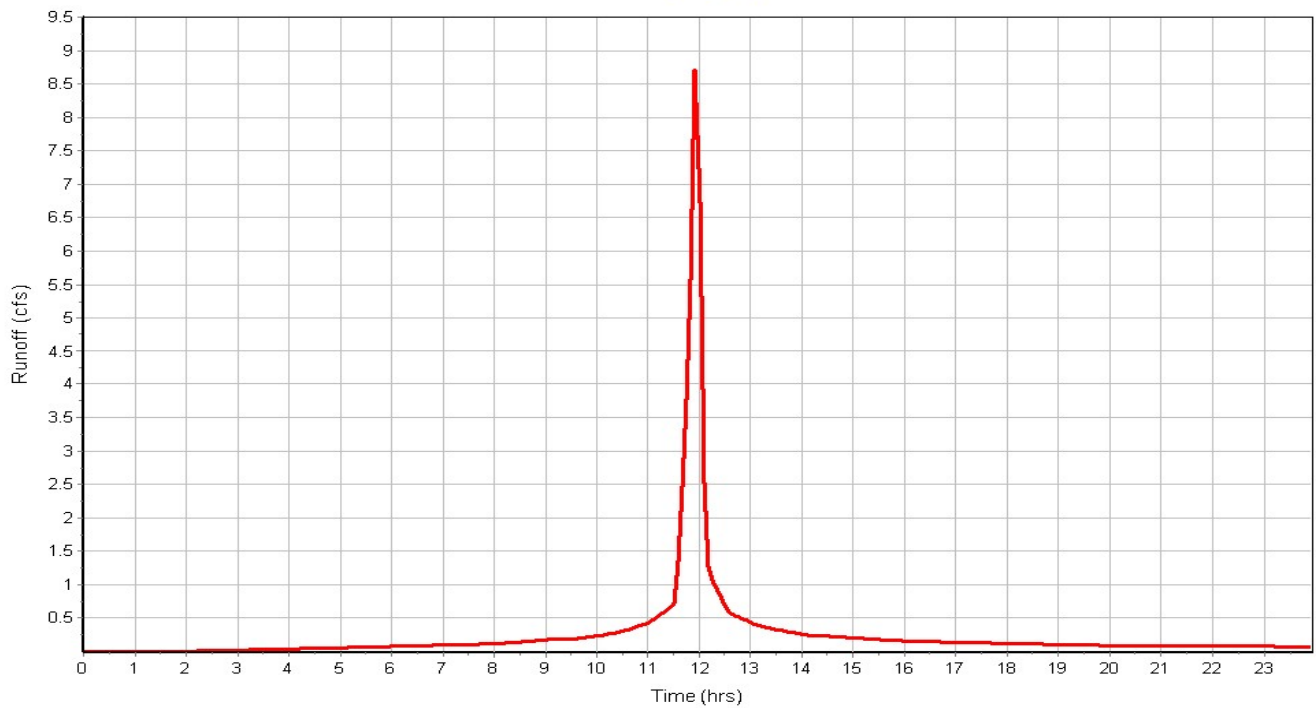
Total Rainfall (in) 5.02
Total Runoff (in) 4.51
Peak Runoff (cfs) 8.71
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin03

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin04

Input Data

Area (ac) 0.81
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

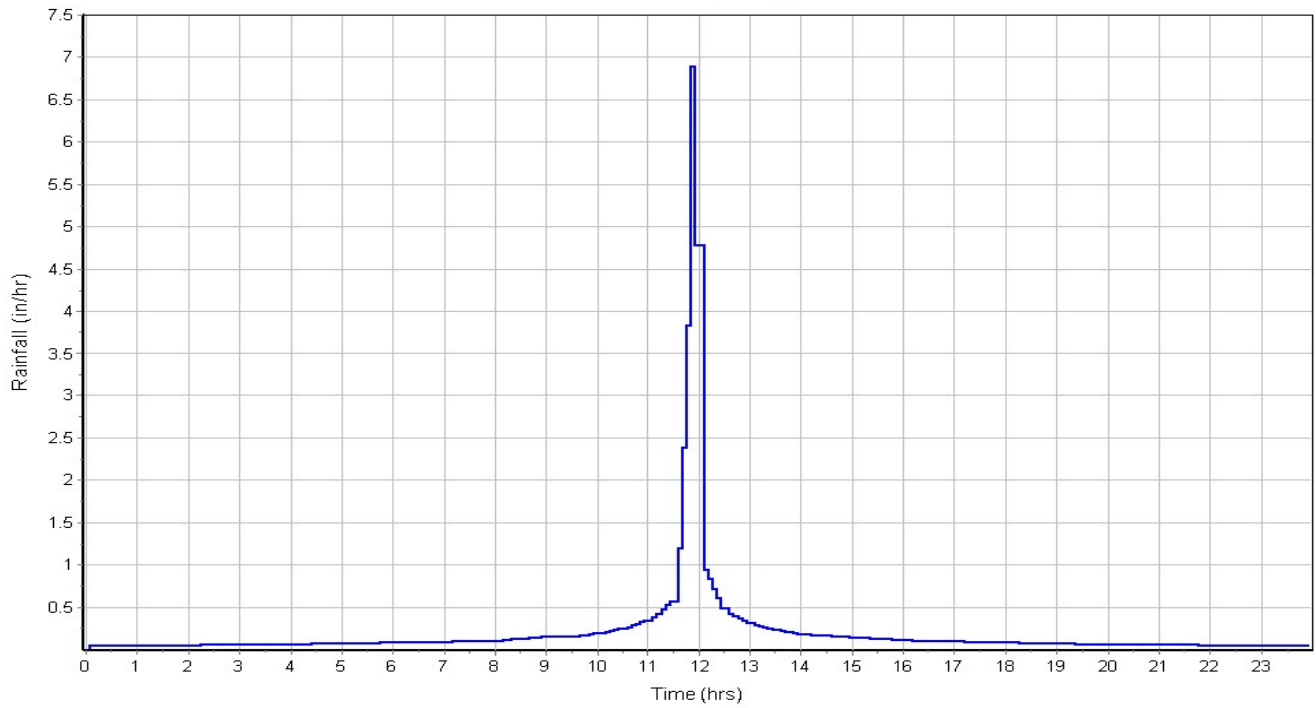
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.73	-	98.00
-	0.08	-	74.00
Composite Area & Weighted CN	0.81		95.60

Subbasin Runoff Results

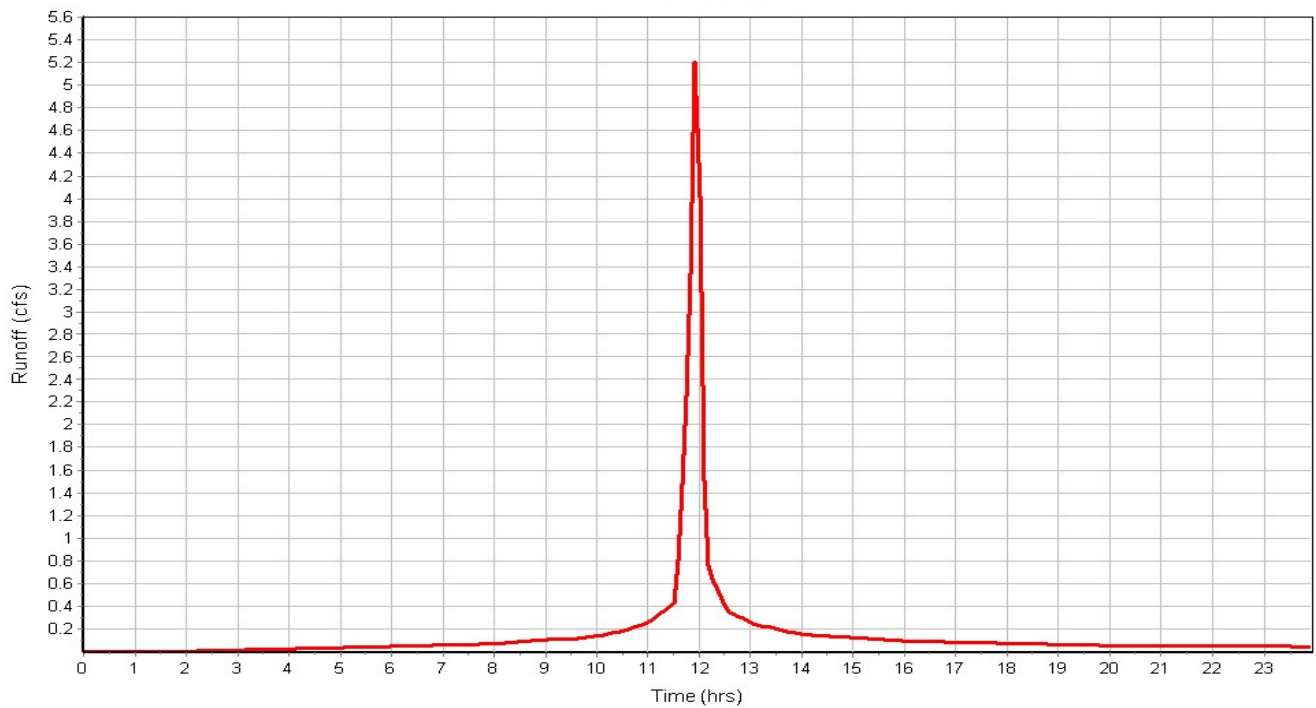
Total Rainfall (in) 5.02
Total Runoff (in) 4.51
Peak Runoff (cfs) 5.20
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin04

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin05

Input Data

Area (ac) 1.44
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

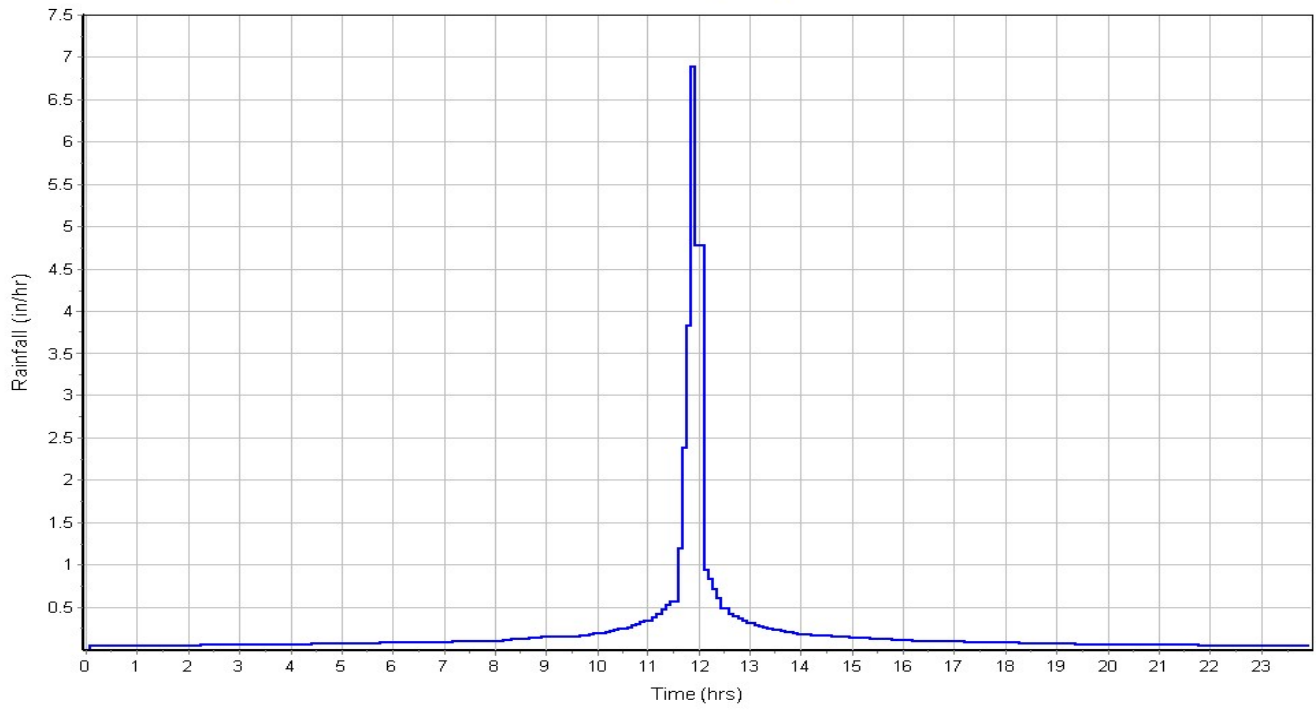
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	1.29	-	98.00
-	0.14	-	74.00
Composite Area & Weighted CN	1.43		95.60

Subbasin Runoff Results

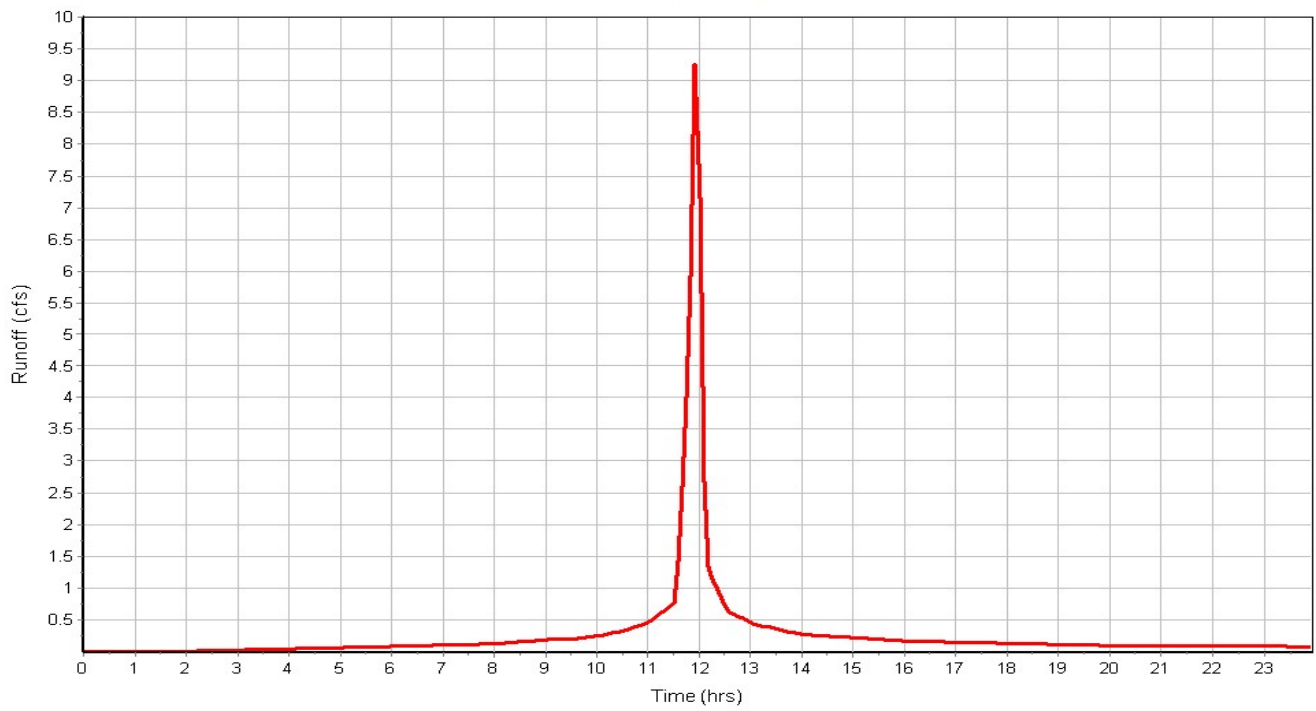
Total Rainfall (in) 5.02
Total Runoff (in) 4.51
Peak Runoff (cfs) 9.25
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin05

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToPP01-02

Input Data

Area (ac) 0.91
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

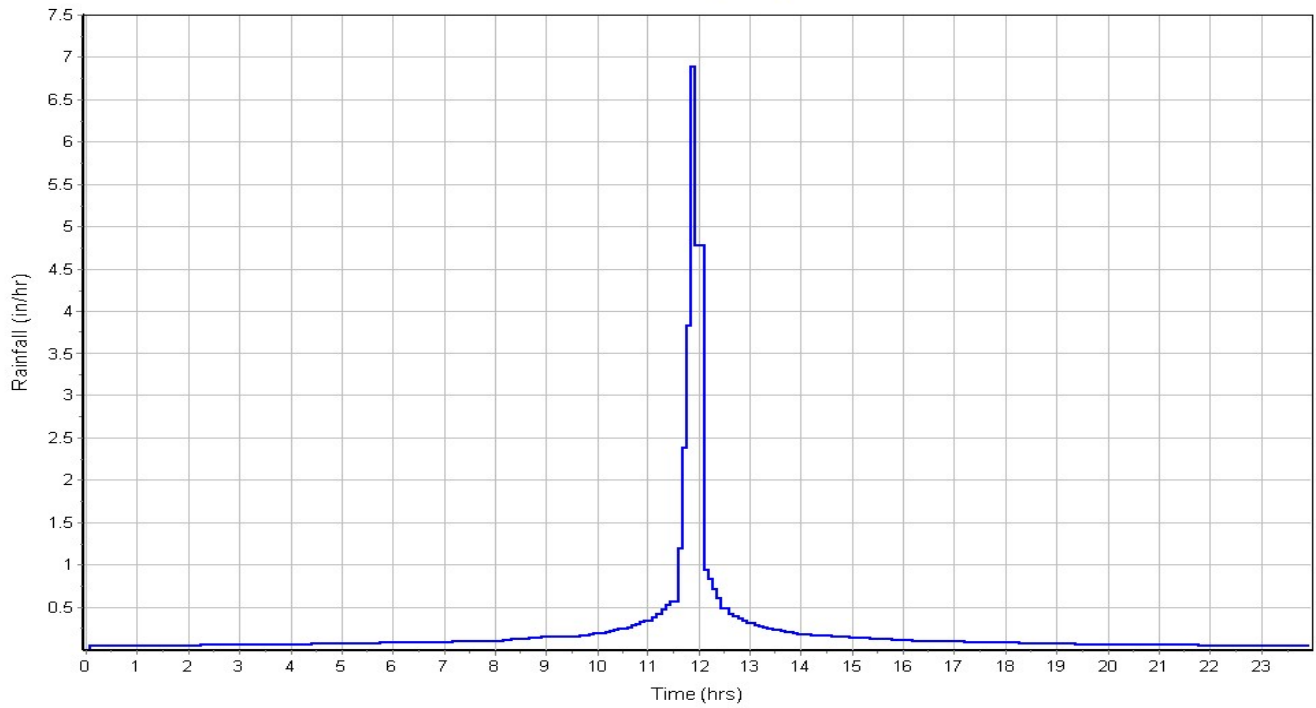
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.82	-	98.00
-	0.09	-	74.00
Composite Area & Weighted CN	0.91		95.60

Subbasin Runoff Results

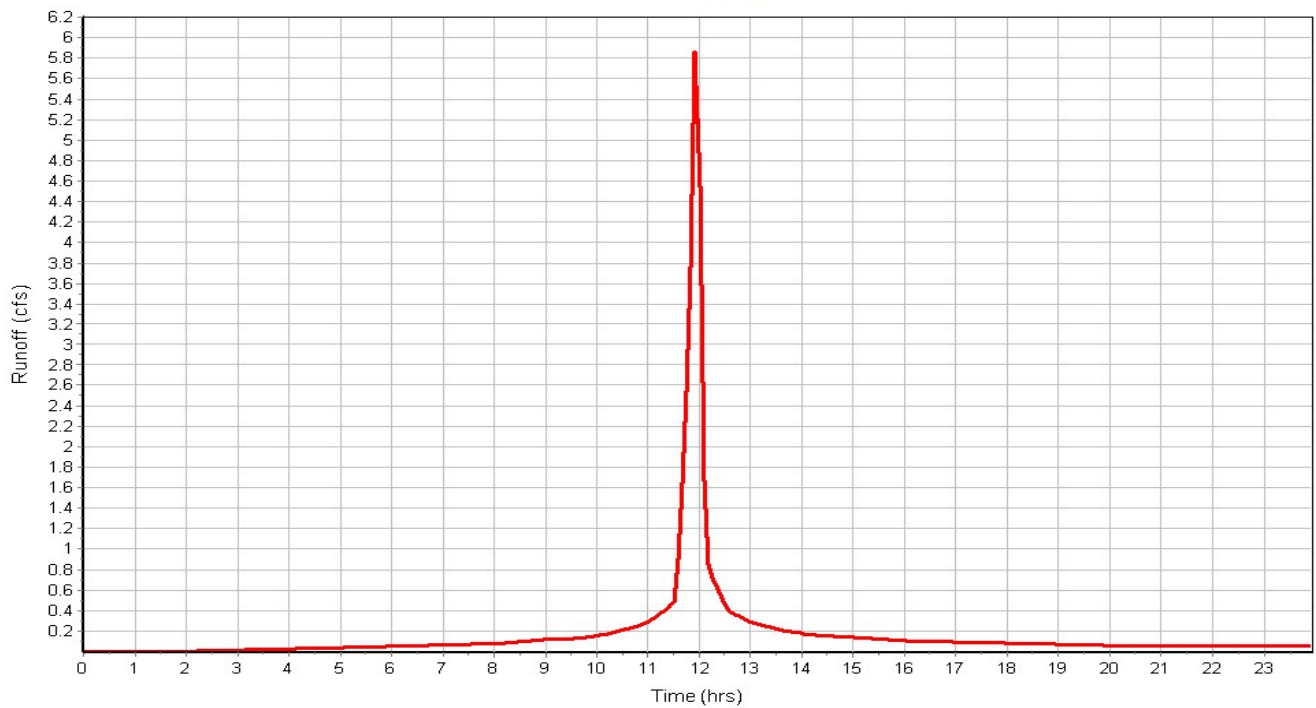
Total Rainfall (in) 5.02
Total Runoff (in) 4.51
Peak Runoff (cfs) 5.86
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToPP01-02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToPP03-04

Input Data

Area (ac) 0.93
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

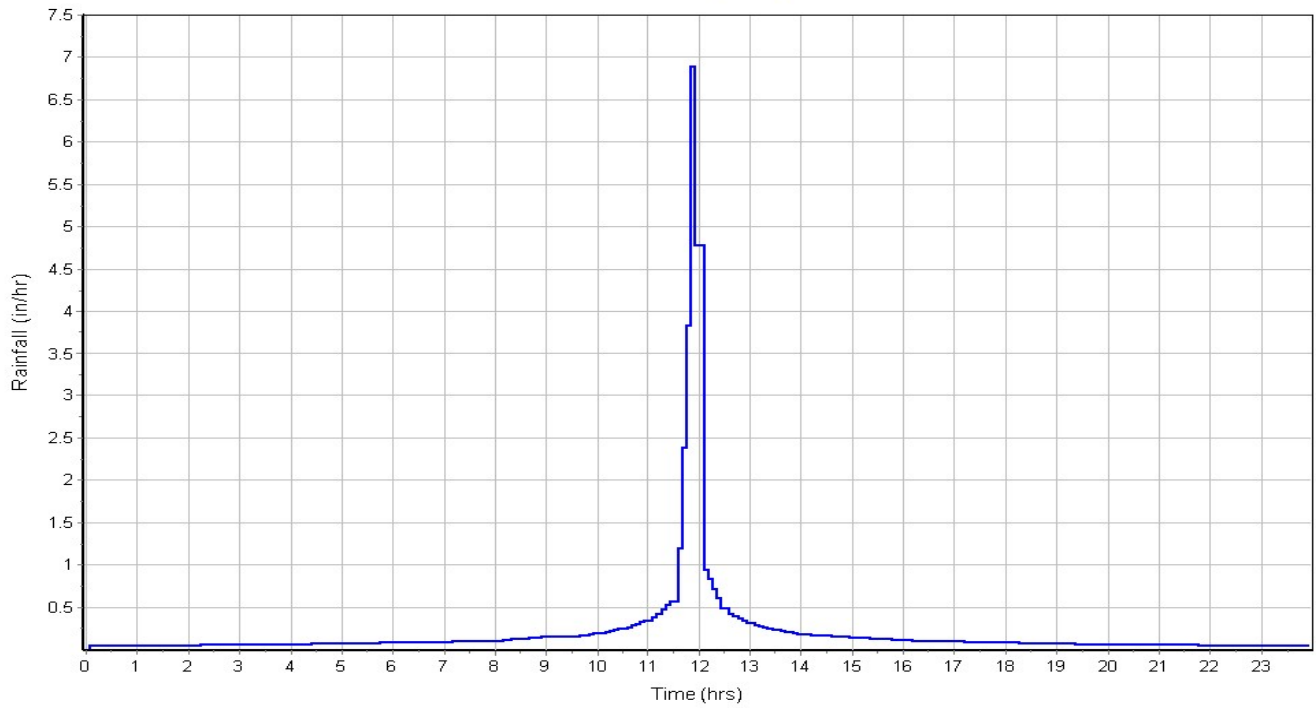
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.83	-	98.00
-	0.09	-	74.00
Composite Area & Weighted CN	0.92		95.60

Subbasin Runoff Results

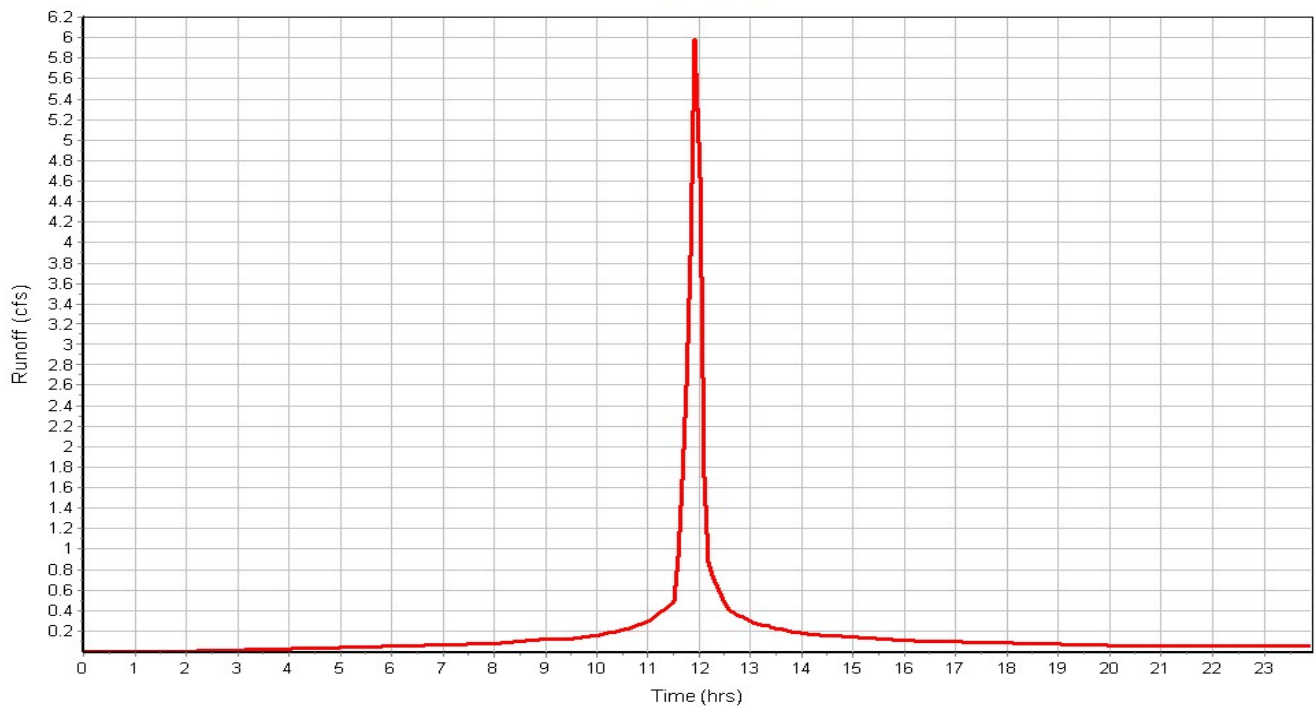
Total Rainfall (in) 5.02
Total Runoff (in) 4.51
Peak Runoff (cfs) 5.99
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToPP03-04

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 (ft ²)	Minimum Pipe Cover (in)
1 Biobasin02dummysnode	862.67	867.17	4.50	862.67	0.00	867.17	0.00	0.00	0.00
2 CatchBasin03	862.00	866.50	4.50	862.00	0.00	866.50	0.00	2879.24	0.00
3 CatchBasin04	862.44	866.94	4.50	862.44	0.00	866.94	0.00	4642.88	0.00
4 CatchBasin05	862.67	867.17	4.50	862.67	0.00	867.17	0.00	1566.12	0.00
5 CatchBasin12	862.60	867.10	4.50	862.60	0.00	867.10	0.00	6347.63	0.00
6 CatchBasin8	862.64	867.14	4.50	862.64	0.00	867.14	0.00	6037.65	0.00
7 Dummy1	861.69	867.00	5.31	861.69	0.00	867.00	0.00	0.00	0.00
8 Ex0	860.13	865.00	4.87	860.13	0.00	865.00	0.00	0.00	0.00
9 ExA	860.81	865.00	4.19	860.81	0.00	865.00	0.00	0.00	0.00
10 Existing 36-inch outlet pipe	870.00	875.50	5.50	870.00	0.00	875.50	0.00	0.00	0.00
11 Manhole 7	862.47	868.00	5.53	862.47	0.00	868.00	0.00	0.00	0.00
12 Manhole1	861.75	868.00	6.25	861.75	0.00	868.00	0.00	0.00	0.00
13 Manhole10	862.23	868.00	5.77	862.23	0.00	868.00	0.00	0.00	0.00
14 Manhole11	862.42	868.00	5.58	862.42	0.00	868.00	0.00	0.00	0.00
15 Manhole13	863.79	868.00	4.21	863.79	0.00	868.00	0.00	0.00	0.00
16 Manhole2	861.80	868.00	6.20	861.80	0.00	868.00	0.00	0.00	0.00
17 Manhole6	862.28	868.00	5.72	862.28	0.00	868.00	0.00	0.00	0.00
18 Manhole9	863.79	868.00	4.21	863.79	0.00	868.00	0.00	0.00	0.00
19 Offsite 02 outlet	877.50	881.50	4.00	877.50	0.00	881.50	0.00	0.00	0.00
20 OutToDitch	861.58	863.00	1.42	861.58	0.00	863.00	0.00	0.00	0.00
21 Stucture1	861.69	868.00	6.31	861.69	0.00	868.00	0.00	0.00	0.00

Junction Results

SN	Element ID	Peak Inflow (cfs)	Peak Lateral Inflow (cfs)	Max HGL Elevation (ft)	Max HGL Depth Attained (ft)	Max Surcharge Depth Attained (ft)	Min Freeboard Attained (ft)	Average HGL Elevation (ft)	Average HGL Depth Attained (ft)	Time of Max HGL Occurrence (days hh:mm)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	Biobasin02dummynode	2.40	0.00	866.68	4.01	0.00	0.49	863.68	1.01	0 12:08	0 00:00	0.00	0.00
2	CatchBasin03	7.76	0.00	866.02	4.02	0.00	0.48	863.39	1.39	0 12:14	0 00:00	0.00	0.00
3	CatchBasin04	7.06	0.00	866.48	4.04	0.00	0.46	863.59	1.15	0 12:09	0 00:00	0.00	0.00
4	CatchBasin05	2.27	0.00	866.51	3.84	0.00	0.66	863.67	1.00	0 12:09	0 00:00	0.00	0.00
5	CatchBasin12	5.98	0.00	866.30	3.70	0.00	0.80	863.65	1.05	0 12:08	0 00:00	0.00	0.00
6	CatchBasin8	5.91	0.00	866.33	3.69	0.00	0.81	863.67	1.03	0 12:08	0 00:00	0.00	0.00
7	Dummy1	20.54	0.00	865.67	3.98	0.00	1.33	863.36	1.67	0 14:05	0 00:00	0.00	0.00
8	Ex0	21.27	0.00	861.40	1.27	0.00	3.60	860.79	0.66	0 12:38	0 00:00	0.00	0.00
9	ExA	27.80	0.00	865.29	4.48	0.00	1.52	862.60	1.79	0 12:38	0 00:00	0.00	0.00
10	Existing 36-inch outlet pipe	19.73	8.33	871.19	1.19	0.00	5.21	870.46	0.46	0 12:07	0 00:00	0.00	0.00
11	Manhole 7	5.70	0.00	866.12	3.65	0.00	1.88	863.58	1.11	0 12:11	0 00:00	0.00	0.00
12	Manhole1	18.51	0.00	865.58	3.83	0.00	2.42	863.31	1.56	0 12:27	0 00:00	0.00	0.00
13	Manhole10	5.74	0.00	865.85	3.62	0.00	2.15	863.46	1.23	0 12:15	0 00:00	0.00	0.00
14	Manhole11	5.72	0.00	866.05	3.63	0.00	1.95	863.55	1.13	0 12:10	0 00:00	0.00	0.00
15	Manhole13	0.25	0.00	865.85	2.06	0.00	2.15	864.29	0.50	0 12:15	0 00:00	0.00	0.00
16	Manhole2	7.46	0.00	865.73	3.93	0.00	2.27	863.32	1.52	0 12:20	0 00:00	0.00	0.00
17	Manhole6	5.70	0.00	865.95	3.67	0.00	2.05	863.49	1.21	0 12:16	0 00:00	0.00	0.00
18	Manhole9	1.25	0.00	865.95	2.16	0.00	2.05	864.29	0.50	0 12:17	0 00:00	0.00	0.00
19	Offsite 02 outlet	5.26	0.00	878.90	1.40	0.00	3.30	877.82	0.32	0 12:57	0 00:00	0.00	0.00
20	OutToDitch	36.36	0.00	865.30	3.72	0.00	2.28	863.01	1.43	0 12:37	0 00:00	0.00	0.00
21	Structure1	36.39	0.00	865.56	3.87	0.00	2.44	863.29	1.60	0 12:32	0 00:00	0.00	0.00

Channel Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Shape	Height (ft)	Width (ft)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate
1	Ditch	375.41	861.58	0.00	860.81	0.00	0.77	0.2100	Trapezoidal	6.000	40.000	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	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
	(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)		
1 Ditch	27.80	0 12:05	596.14	0.05	1.56	4.01	4.10	0.68	0.00		

Pipe Input

SN Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	No. of Barrels
1 1->basins	62.54	861.75	0.00	861.69	0.00	0.06	0.1000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
2 10->11	190.96	862.23	0.00	861.75	0.00	0.48	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
3 11->10	75.00	862.42	0.00	862.23	0.00	0.19	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
4 12->11	72.47	862.60	0.00	862.42	0.00	0.18	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
5 13->10	16.00	863.79	0.00	863.72	1.49	0.07	0.4400	CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
6 2->1	20.00	861.80	0.00	861.75	0.00	0.05	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
7 3->2	81.60	862.00	0.00	861.80	0.00	0.20	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
8 4->3	175.98	862.44	0.00	862.00	0.00	0.44	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
9 5->4	92.80	862.67	0.00	862.44	0.00	0.23	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
10 6->1	210.04	862.28	0.00	861.75	0.00	0.53	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
11 7->6	75.00	862.47	0.00	862.28	0.00	0.19	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
12 8->7	69.56	862.64	0.00	862.47	0.00	0.17	0.2400	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
13 9->8	16.00	863.79	0.00	863.73	1.45	0.06	0.3700	CIRCULAR	15.000	15.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
14 Basin connector	85.00	859.00	0.00	858.90	-0.10	0.10	0.1200	CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
15 Basins->outlet	109.09	861.69	0.00	861.58	0.00	0.11	0.1000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
16 Dual 18 inch pipes	35.92	860.81	0.00	860.13	0.00	0.68	1.9000	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
17 Elliptical pipe under roadway	98.05	860.07	-0.06	859.65	0.00	0.42	0.4300	Horizontal Ellipse	36.000	54.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
18 Offsite 02->outfall	84.10	877.50	0.00	875.40	5.40	2.10	2.5000	CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
19 offsite basin2 -> offsite basin 1	201.70	878.00	0.00	877.70	2.70	0.30	0.1500	CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
20 Offsite->basin	1296.34	870.00	0.00	862.00	3.00	8.00	0.6200	CIRCULAR	42.000	42.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
21 OutletPipe	10.82	862.00	0.31	861.69	0.00	0.31	2.8700	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1

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	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
	(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)		
1 1->basins	18.23	0 12:00	20.66	0.88	2.63	0.40	3.00	1.00	347.00		SURCHARGED
2 10->11	5.74	0 12:00	5.27	1.09	3.25	0.98	1.50	1.00	499.00		SURCHARGED
3 11->10	5.72	0 12:00	5.29	1.08	3.24	0.39	1.50	1.00	476.00		SURCHARGED
4 12->11	5.72	0 12:00	5.24	1.09	3.24	0.37	1.50	1.00	449.00		SURCHARGED
5 13->10	0.22	0 11:58	2.36	0.09	1.43	0.19	1.00	1.00	346.00		SURCHARGED
6 2->1	7.46	0 11:59	5.25	1.42	4.22	0.08	1.50	1.00	550.00		SURCHARGED
7 3->2	7.46	0 11:59	5.20	1.43	4.22	0.32	1.50	1.00	526.00		SURCHARGED
8 4->3	6.29	0 11:58	5.25	1.20	3.56	0.82	1.50	1.00	475.00		SURCHARGED
9 5->4	2.25	0 11:57	5.23	0.43	1.27	1.22	1.50	1.00	440.00		SURCHARGED
10 6->1	5.69	0 12:00	5.28	1.08	3.22	1.09	1.50	1.00	493.00		SURCHARGED
11 7->6	5.70	0 12:00	5.29	1.08	3.23	0.39	1.50	1.00	469.00		SURCHARGED
12 8->7	5.70	0 12:00	5.19	1.10	3.23	0.36	1.50	1.00	442.00		SURCHARGED
13 9->8	1.25	0 12:26	3.96	0.32	1.28	0.21	1.25	1.00	312.00		SURCHARGED
14 Basin connector	12.97	0 12:07	0.78	16.71	4.13	0.34	2.00	1.00	1440.00		SURCHARGED
15 Basins->outlet	36.36	0 12:05	21.18	1.72	5.69	0.32	3.00	1.00	339.00		SURCHARGED
16 Dual 18 inch pipes	21.27	0 12:38	14.48	1.47	12.48	0.05	1.38	0.92	0.00		> CAPACITY
17 Elliptical pipe under roadway	21.27	0 12:38	86.04	0.25	5.41	0.30	1.18	0.39	0.00		Calculated
18 Offsite 02->outfall	5.26	0 12:57	5.63	0.93	7.20	0.19	0.88	0.88	0.00		Calculated
19 offsite basin2 -> offsite basin 1	15.34	0 12:07	8.72	1.76	4.91	0.68	2.00	1.00	188.00		SURCHARGED
20 Offsite->basin	19.58	0 12:07	79.04	0.25	3.17	6.82	2.34	0.67	0.00		Calculated
21 OutletPipe	19.85	0 14:27	112.90	0.18	3.83	0.05	3.00	1.00	327.00		SURCHARGED

Storage Nodes

Storage Node : Biobasin 01

Input Data

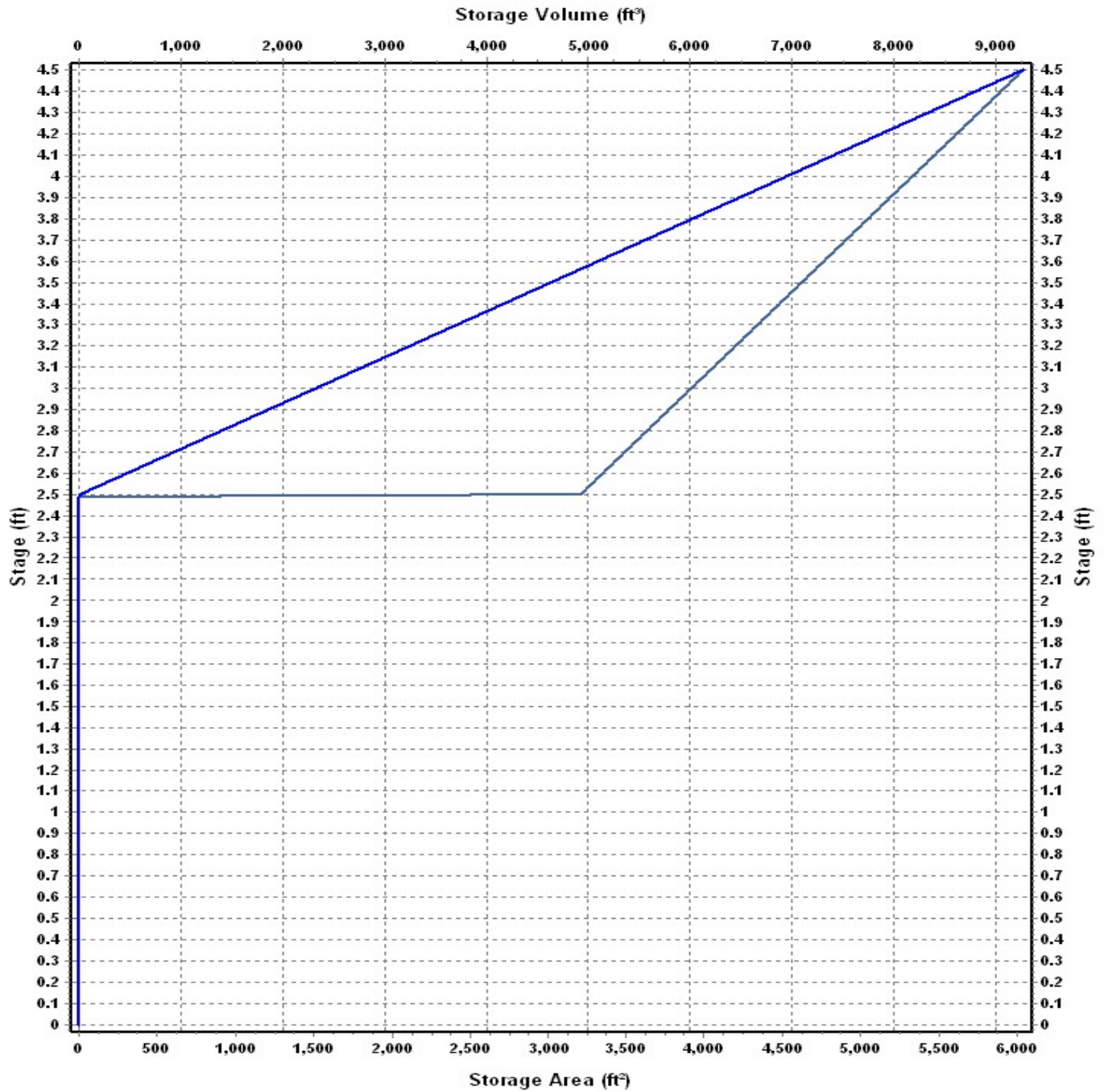
Invert Elevation (ft)	862.64
Max (Rim) Elevation (ft)	867.14
Max (Rim) Offset (ft)	4.50
Initial Water Elevation (ft)	865.14
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	3205.91	18.52
4.5	6037.65	9262.08

Storage Area Volume Curves



Storage Area Storage Volume

Storage Node : Biobasin 01 (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 Biobasin01grate	Bottom	Rectangular	No		19.60	19.60	866.14	0.60

Output Summary Results

Peak Inflow (cfs)	8.95
Peak Lateral Inflow (cfs)	8.95
Peak Outflow (cfs)	5.91
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.70
Max HGL Depth Attained (ft)	4.06
Average HGL Elevation Attained (ft)	865.65
Average HGL Depth Attained (ft)	3.01
Time of Max HGL Occurrence (days hh:mm)	0 12:07
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin02

Input Data

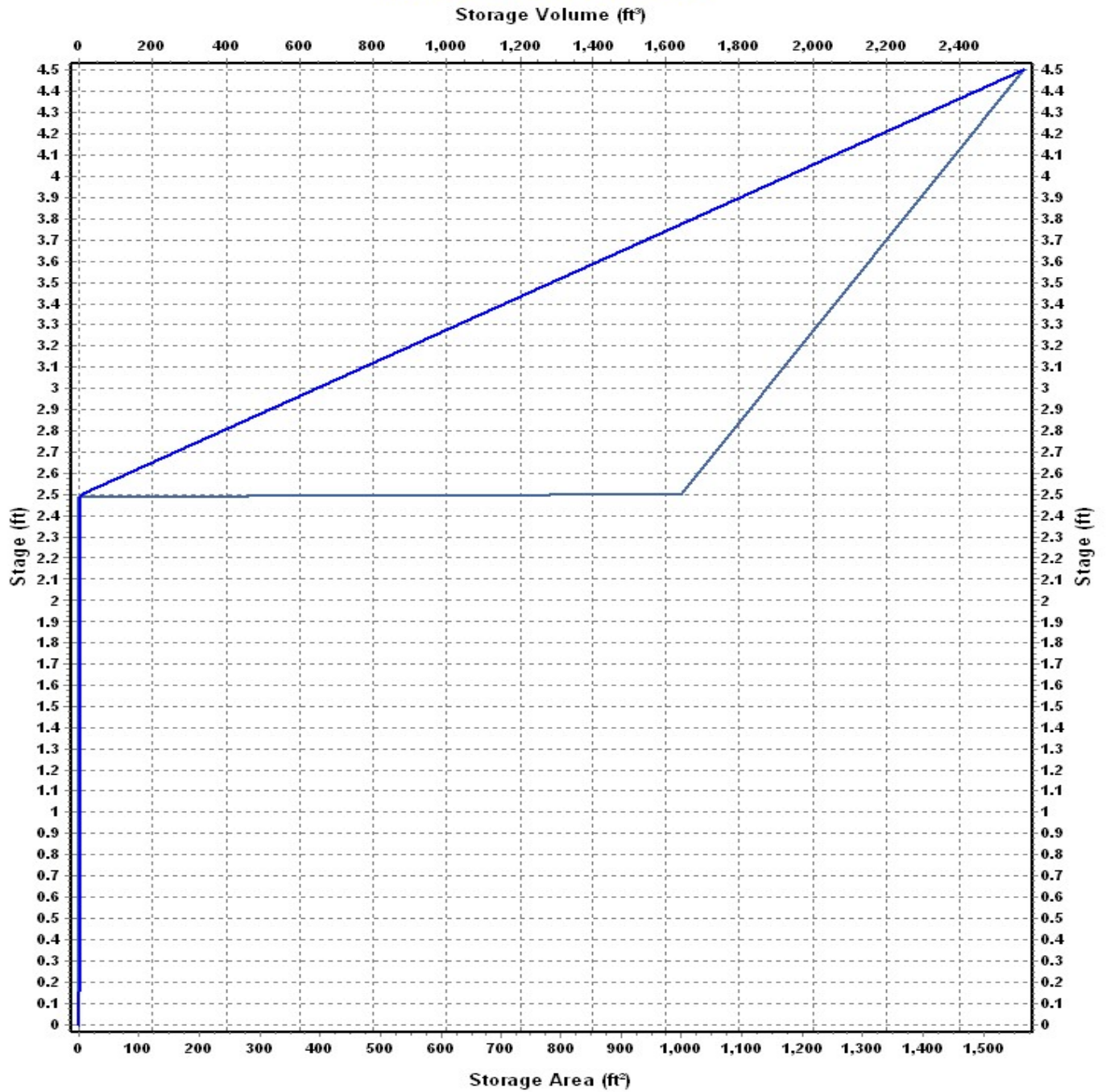
Invert Elevation (ft)	862.67
Max (Rim) Elevation (ft)	867.17
Max (Rim) Offset (ft)	4.50
Initial Water Elevation (ft)	865.17
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	999.15	7.49
4.5	1566.12	2572.76

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Biobasin02 (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 Biobasin02grate	Bottom	Rectangular	No		19.60	19.60	866.17	0.60

Output Summary Results

Peak Inflow (cfs)	3.34
Peak Lateral Inflow (cfs)	3.34
Peak Outflow (cfs)	2.40
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.89
Max HGL Depth Attained (ft)	4.22
Average HGL Elevation Attained (ft)	865.72
Average HGL Depth Attained (ft)	3.05
Time of Max HGL Occurrence (days hh:mm)	0 12:08
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin03

Input Data

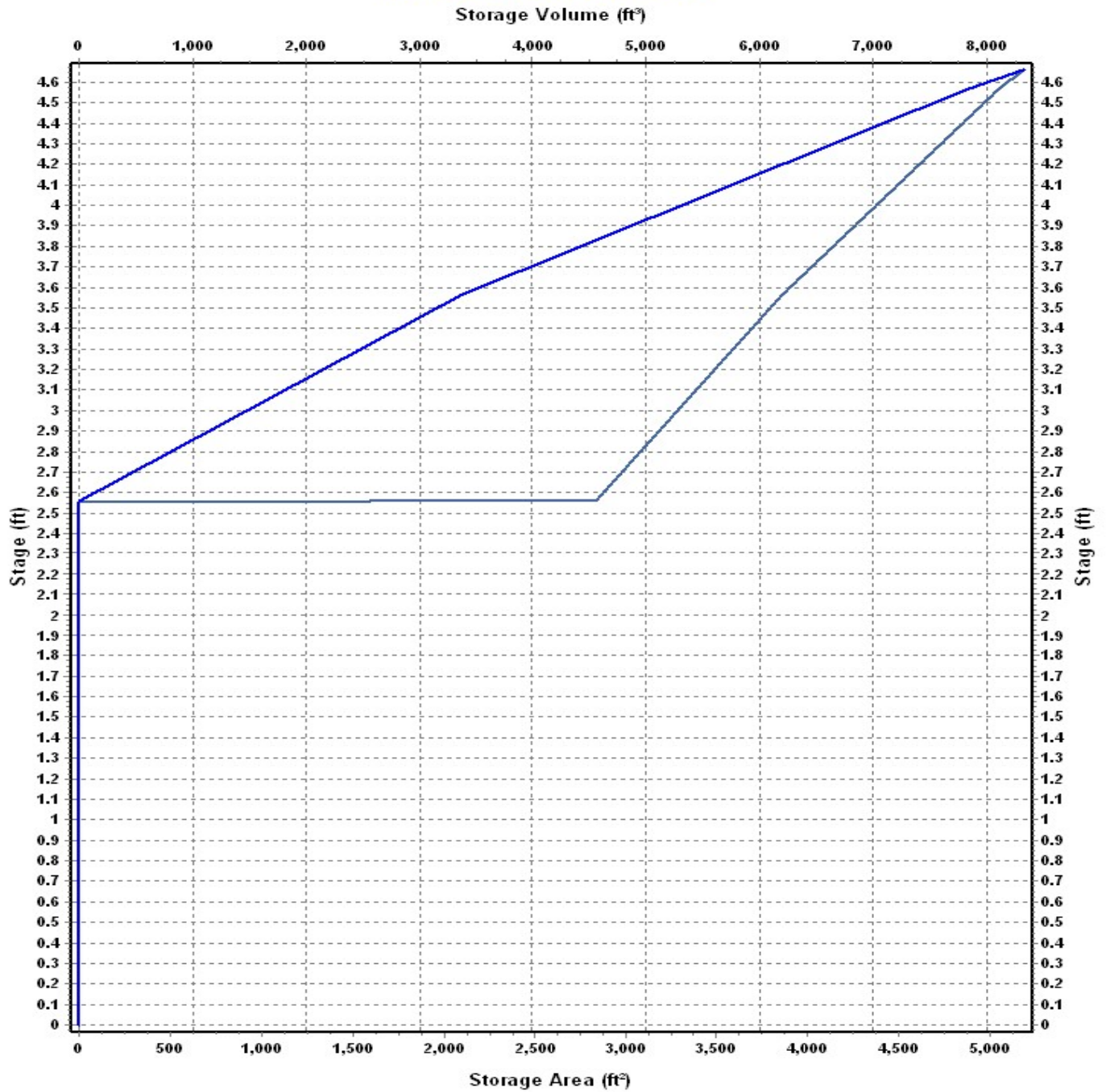
Invert Elevation (ft)	862.44
Max (Rim) Elevation (ft)	867.10
Max (Rim) Offset (ft)	4.66
Initial Water Elevation (ft)	865.00
Initial Water Depth (ft)	2.56
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin03

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.55	1	2.55
2.56	2836.20	16.74
3.56	3856.90	3363.29
4.56	5038.71	7811.10
4.66	5181	8322.09

Storage Area Volume Curves



Storage Area Storage Volume

Storage Node : Biobasin03 (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 Biobasin03grate	Bottom	Rectangular	No		19.60	19.60	866.00	0.60

Output Summary Results

Peak Inflow (cfs)	8.71
Peak Lateral Inflow (cfs)	8.71
Peak Outflow (cfs)	5.12
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.81
Max HGL Depth Attained (ft)	4.37
Average HGL Elevation Attained (ft)	865.54
Average HGL Depth Attained (ft)	3.1
Time of Max HGL Occurrence (days hh:mm)	0 12:08
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin04

Input Data

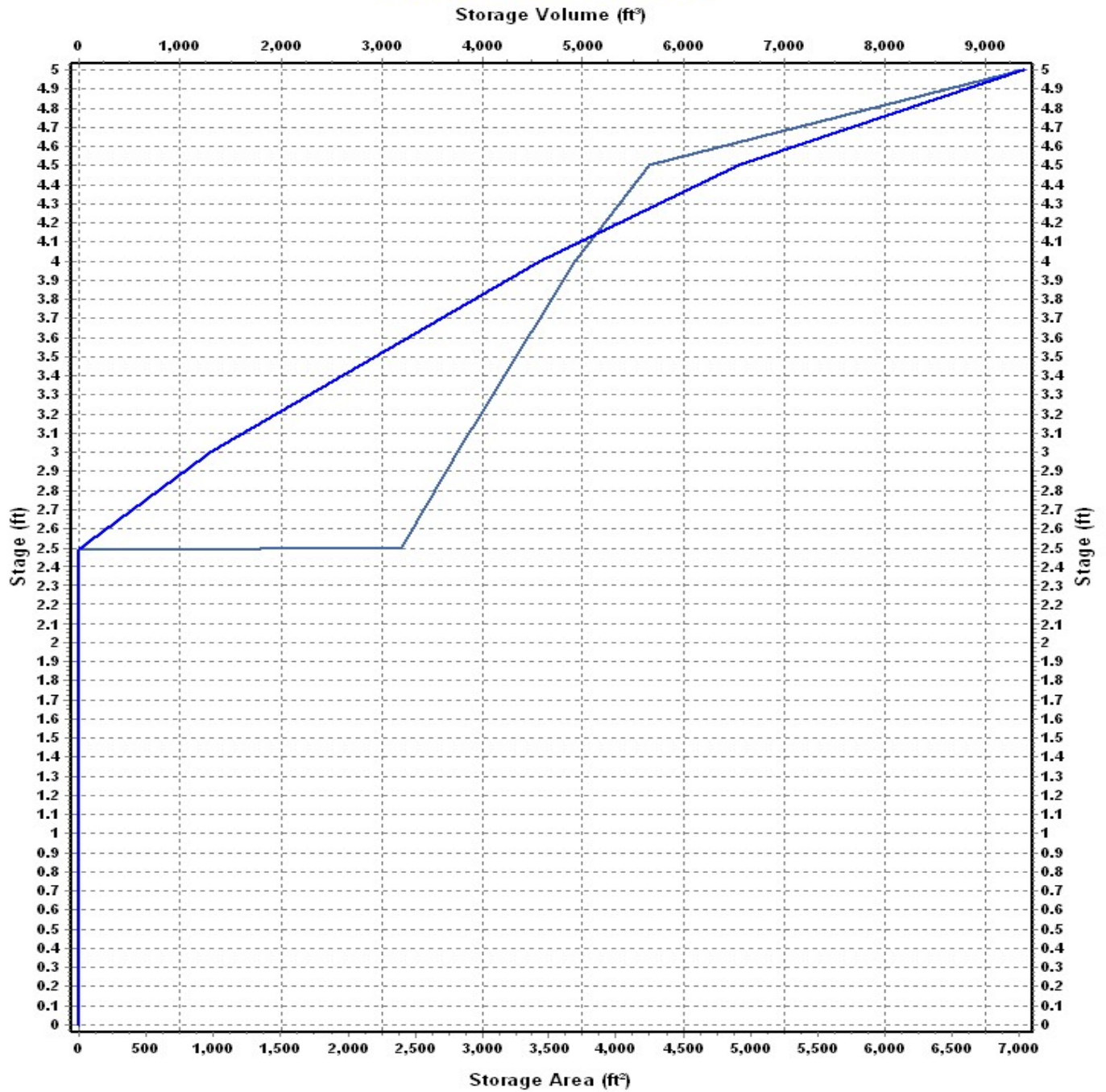
Invert Elevation (ft)	862.00
Max (Rim) Elevation (ft)	867.00
Max (Rim) Offset (ft)	5.00
Initial Water Elevation (ft)	864.50
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin04

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	2398.60	14.49
3	2813.60	1317.54
4	3690.90	4569.79
4.5	4246.20	6554.07
5	7028.50	9372.75

Storage Area Volume Curves



Storage Area Storage Volume

Storage Node : Biobasin04 (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 Biobasin04grate	Bottom	Rectangular	No		19.60	19.60	865.50	0.60

Output Summary Results

Peak Inflow (cfs)	5.20
Peak Lateral Inflow (cfs)	5.20
Peak Outflow (cfs)	2.23
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.15
Max HGL Depth Attained (ft)	4.15
Average HGL Elevation Attained (ft)	864.97
Average HGL Depth Attained (ft)	2.97
Time of Max HGL Occurrence (days hh:mm)	0 12:14
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin05

Input Data

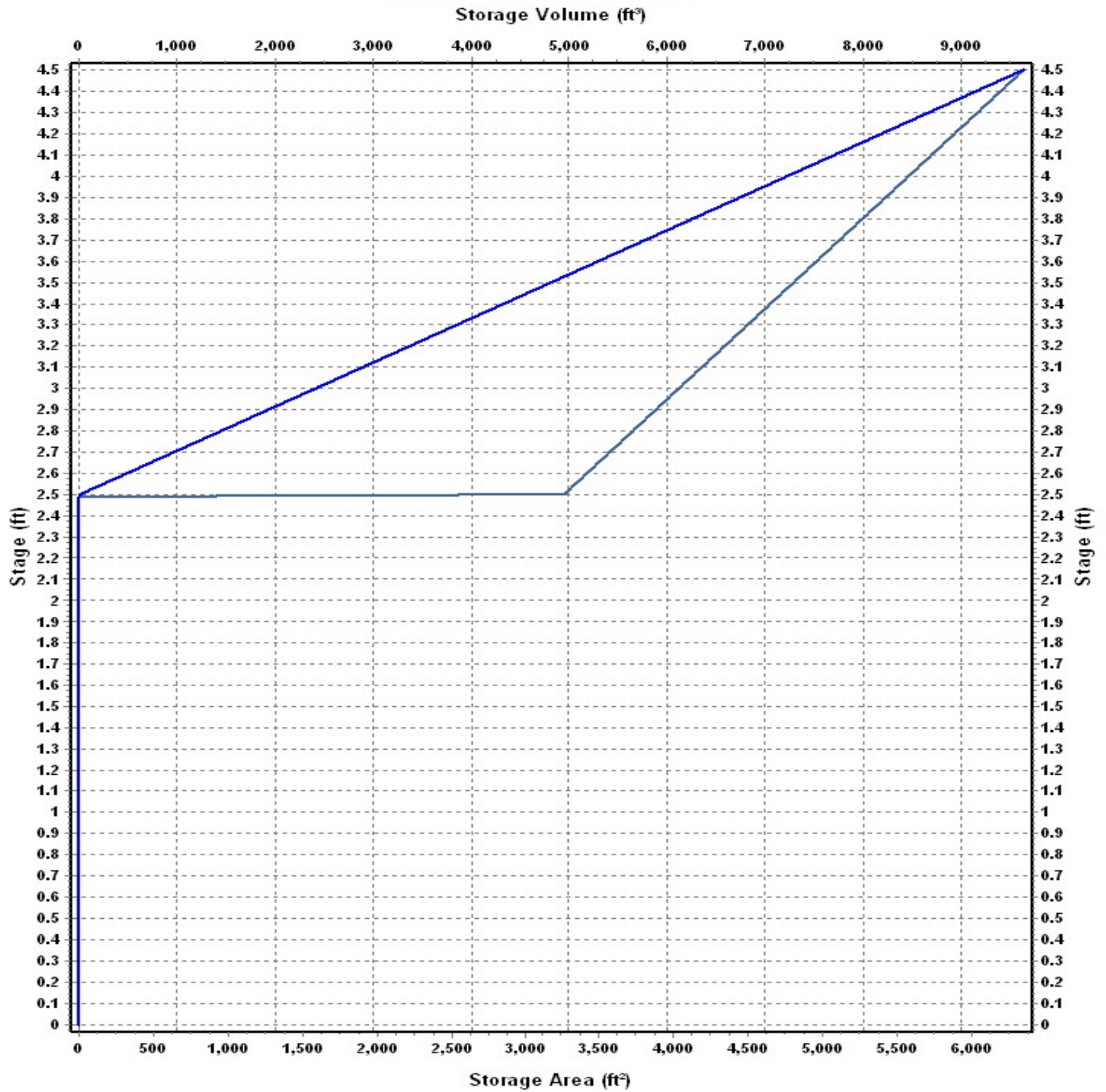
Invert Elevation (ft)	862.60
Max (Rim) Elevation (ft)	867.10
Max (Rim) Offset (ft)	4.50
Initial Water Elevation (ft)	865.10
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin05

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	3264.52	18.82
4.5	6347.63	9630.97

Storage Area Volume Curves



Storage Area Storage Volume

Storage Node : Biobasin05 (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 Biobasin05grate	Bottom	Rectangular	No		19.60	19.60	866.10	0.60

Output Summary Results

Peak Inflow (cfs)	9.24
Peak Lateral Inflow (cfs)	9.24
Peak Outflow (cfs)	5.98
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.67
Max HGL Depth Attained (ft)	4.07
Average HGL Elevation Attained (ft)	865.62
Average HGL Depth Attained (ft)	3.02
Time of Max HGL Occurrence (days hh:mm)	0 12:07
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 01 Parking lot ponding

Input Data

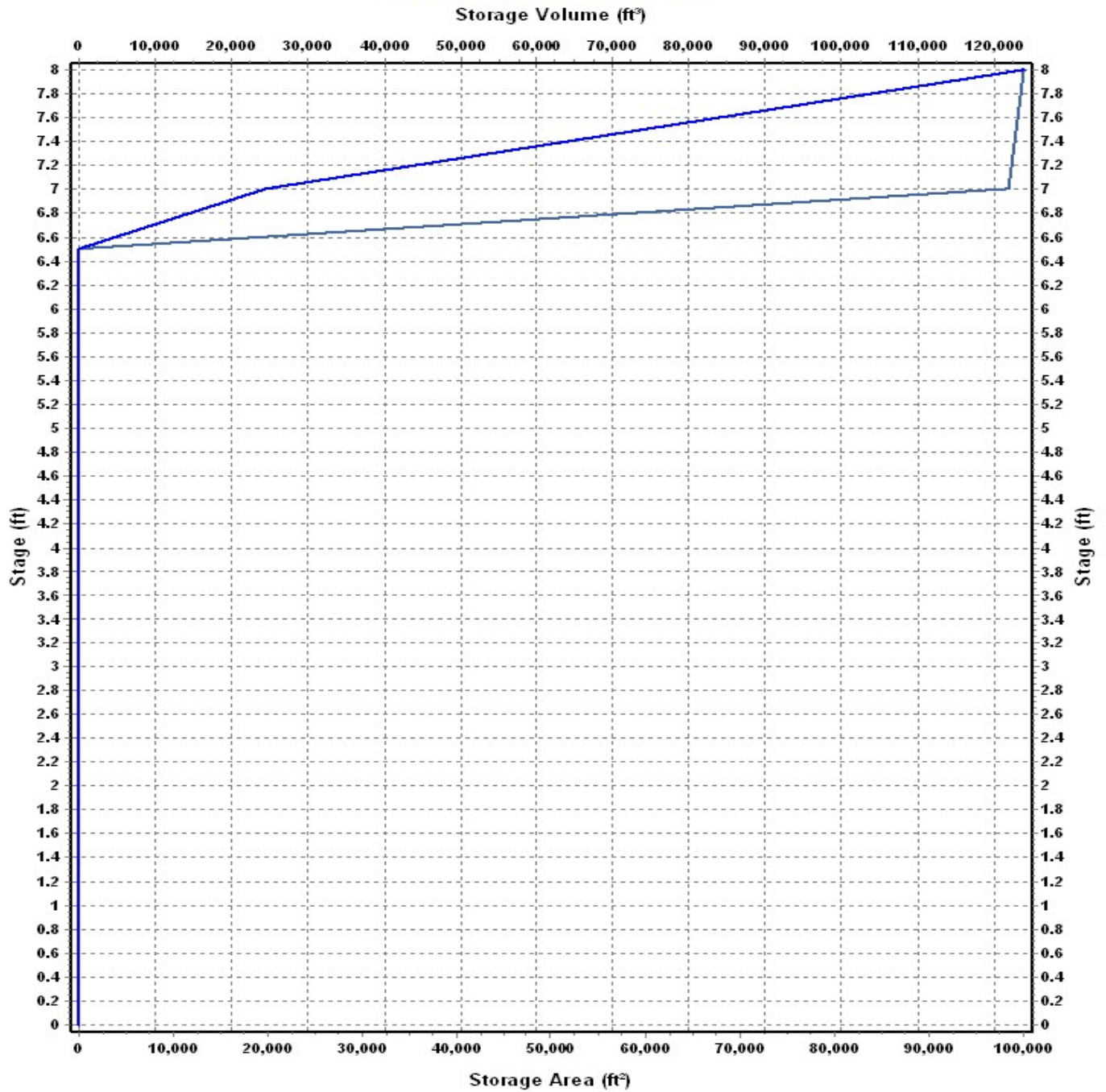
Invert Elevation (ft)	871.00
Max (Rim) Elevation (ft)	879.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	877.50
Initial Water Depth (ft)	6.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Offsite 01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
6.5	1	6.50
7	98432	24614.75
8	100000	123830.75

Storage Area Volume Curves



Storage Area Storage Volume

Storage Node : Offsite 01 Parking lot ponding (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 Offsite 01 orifice	Side	CIRCULAR	No	9.25			871.00	0.60

Output Summary Results

Peak Inflow (cfs)	53.87
Peak Lateral Inflow (cfs)	53.87
Peak Outflow (cfs)	5.92
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	878.32
Max HGL Depth Attained (ft)	7.32
Average HGL Elevation Attained (ft)	872.84
Average HGL Depth Attained (ft)	1.84
Time of Max HGL Occurrence (days hh:mm)	0 12:34
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 02 Wet basin 02

Input Data

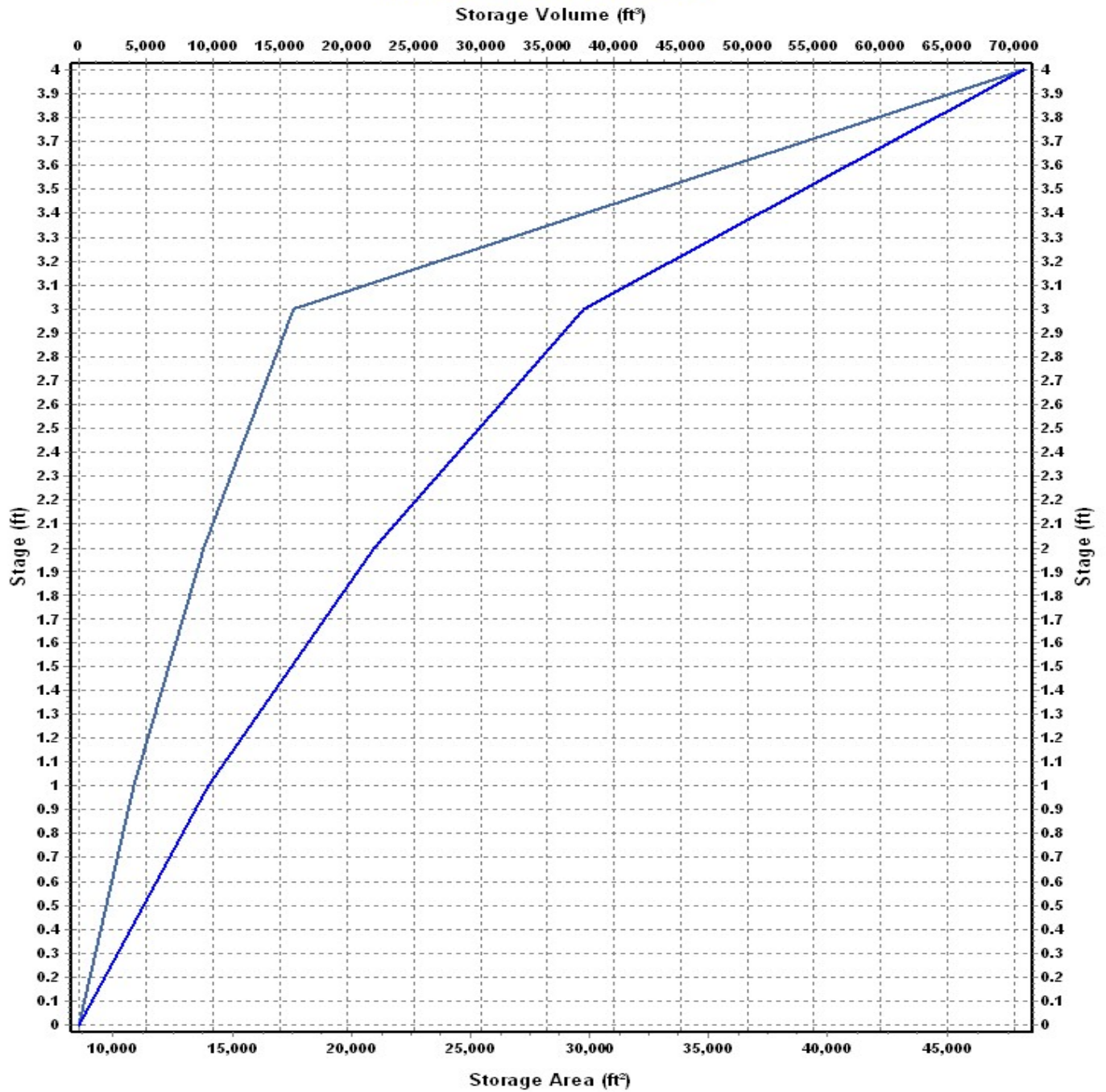
Invert Elevation (ft)	878.00
Max (Rim) Elevation (ft)	882.00
Max (Rim) Offset (ft)	4.00
Initial Water Elevation (ft)	878.00
Initial Water Depth (ft)	0.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Offsite 02 wet basin 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	8571	0.000
1	10862	9716.50
2	13819	22057.00
3	17571	37752.00
4	48211	70643.00

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Offsite 02 Wet basin 02 (continued)

Output Summary Results

Peak Inflow (cfs)	41.68
Peak Lateral Inflow (cfs)	41.68
Peak Outflow (cfs)	15.34
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	881.04
Max HGL Depth Attained (ft)	3.04
Average HGL Elevation Attained (ft)	879.04
Average HGL Depth Attained (ft)	1.04
Time of Max HGL Occurrence (days hh:mm)	0 12:14
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 02-wet basin 1

Input Data

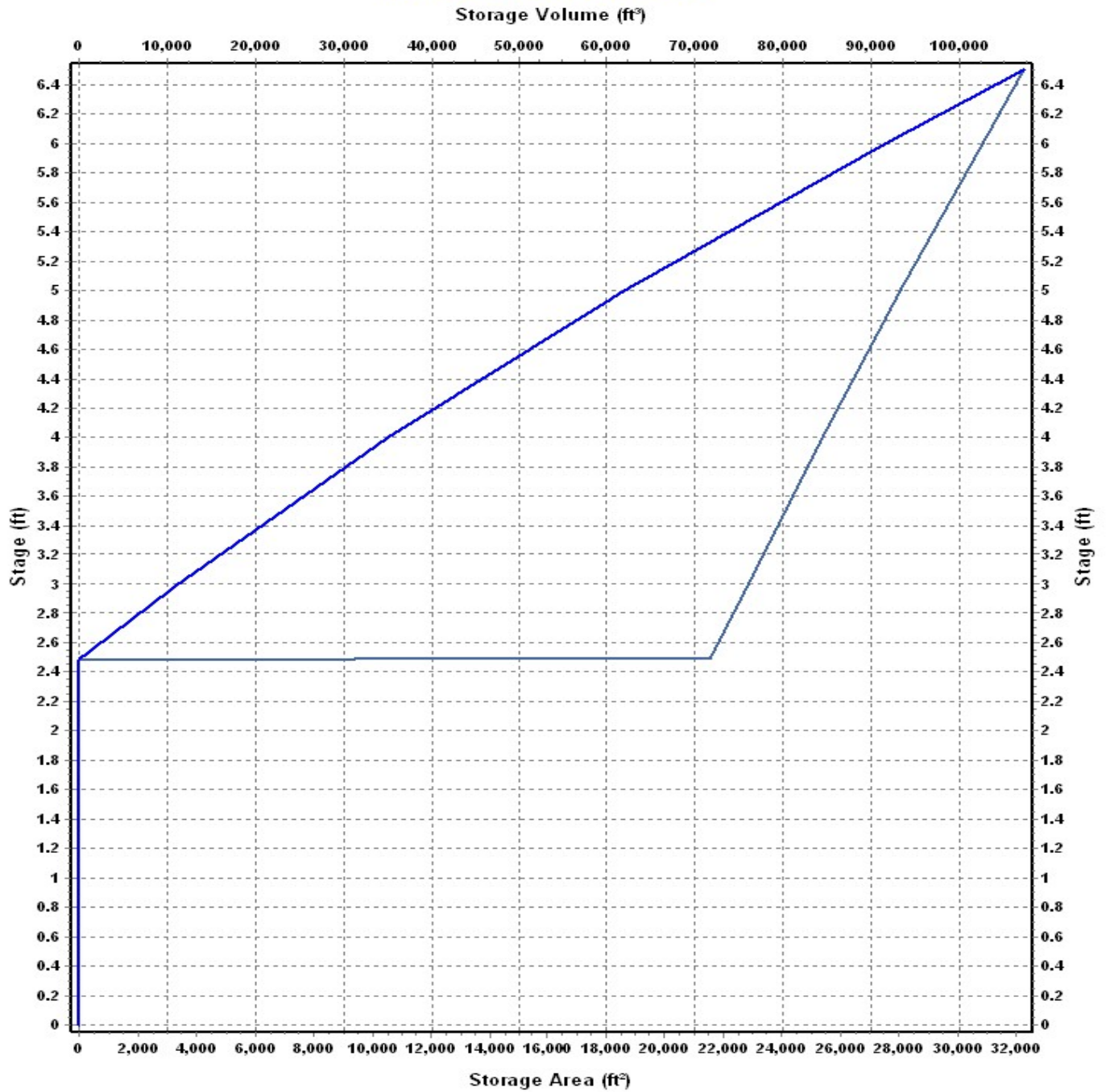
Invert Elevation (ft)	875.00
Max (Rim) Elevation (ft)	881.50
Max (Rim) Offset (ft)	6.50
Initial Water Elevation (ft)	877.50
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : blazer wet basin 01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	21562	110.30
3	22825	11207.05
4	25395	35317.05
5	28053	62041.05
6	30840	91487.55
6.5	32234	107256.05

Storage Area Volume Curves



Storage Area Storage Volume

Storage Node : Offsite 02-wet basin 1 (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 Offsite 02 grate	Bottom	Rectangular	No		19.60	19.60	880.50	0.60
2 offsite 02 window	Side	Rectangular	No		6.00	24.00	879.20	0.60
3 Offsite 02 wq	Side	CIRCULAR	No	4.00			877.50	0.60

Output Summary Results

Peak Inflow (cfs)	31.96
Peak Lateral Inflow (cfs)	19.19
Peak Outflow (cfs)	5.26
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	880.42
Max HGL Depth Attained (ft)	5.42
Average HGL Elevation Attained (ft)	878.74
Average HGL Depth Attained (ft)	3.74
Time of Max HGL Occurrence (days hh:mm)	0 12:56
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 04

Input Data

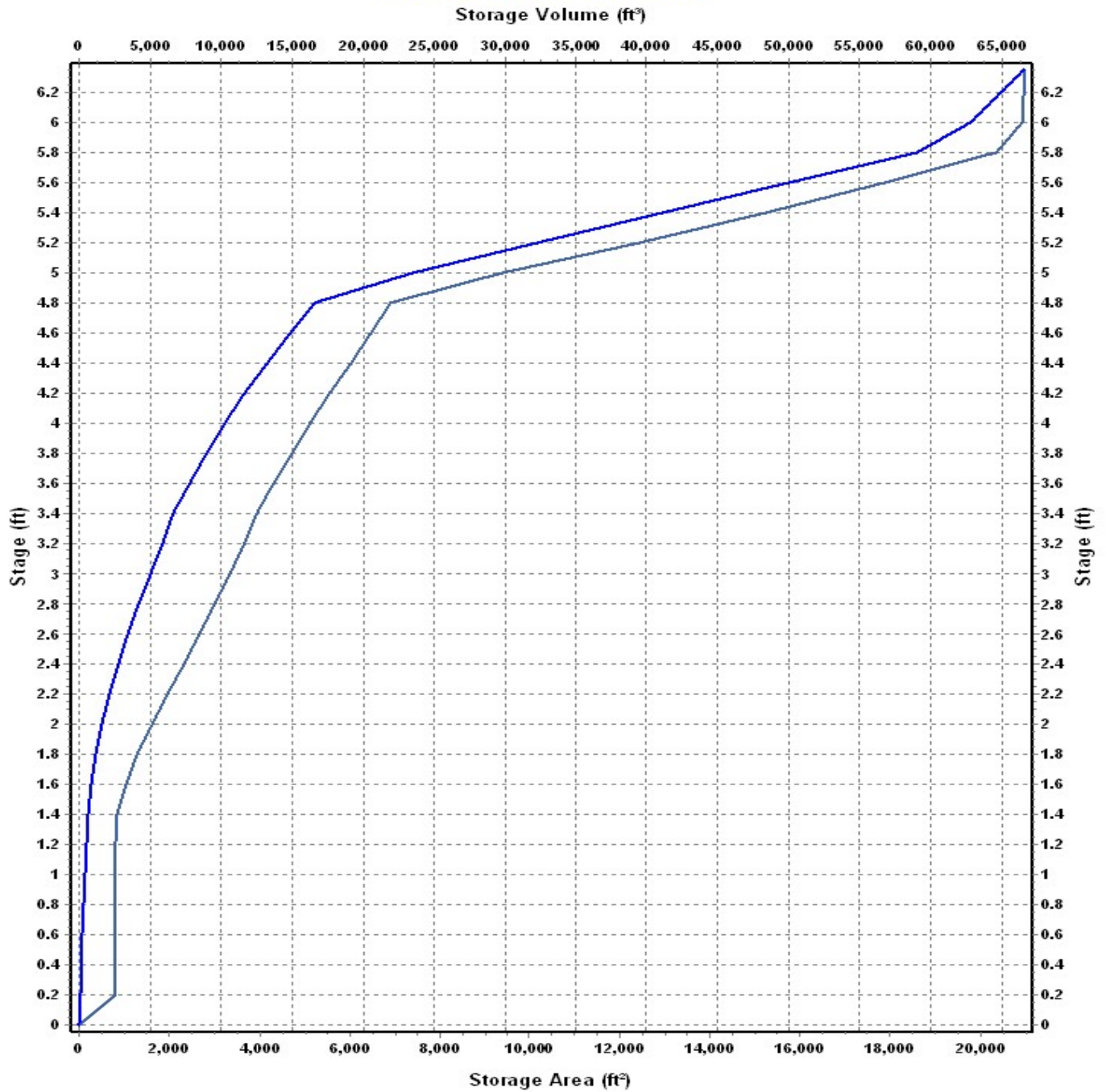
Invert Elevation (ft)	871.65
Max (Rim) Elevation (ft)	878.00
Max (Rim) Offset (ft)	6.35
Initial Water Elevation (ft)	871.65
Initial Water Depth (ft)	0.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Offsite 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	0	0
.2	820.00	82
.4	815.00	163
.6	816.67	245
.8	817.50	327
1	818.00	409
1.2	816.67	490
1.4	850.00	595
1.6	1038.75	831
1.8	1297.78	1168
2	1606.00	1606
2.2	1950.00	2145
2.4	2319.17	2783
2.6	2676.15	3479
2.8	3010.71	4215
3	3326.67	4990
3.2	3691.25	5906
3.4	3938.24	6695
3.6	4318.89	7774
3.8	4721.58	8971
4	5142.00	10284
4.2	5578.57	11715
4.4	6028.18	13262
4.6	6478.26	14900
4.8	6925.42	16621
5	9432.00	23580
5.2	12438.08	32339
5.4	15251.85	41180
5.6	17886.43	50082
5.8	20357.93	59038
6	20943.33	62830
6.2	20946.77	64935
6.35	20960.63	66550

Storage Area Volume Curves



Storage Area Storage Volume

Storage Node : Offsite 04 (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 Offsite 04 orifice	Side	CIRCULAR	No	8.50			871.65	0.60

Output Summary Results

Peak Inflow (cfs)	31.08
Peak Lateral Inflow (cfs)	31.08
Peak Outflow (cfs)	4.54
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	877.72
Max HGL Depth Attained (ft)	6.07
Average HGL Elevation Attained (ft)	872.73
Average HGL Depth Attained (ft)	1.08
Time of Max HGL Occurrence (days hh:mm)	0 12:26
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Pavers01-02

Input Data

Invert Elevation (ft)	863.79
Max (Rim) Elevation (ft)	867.24
Max (Rim) Offset (ft)	3.45
Initial Water Elevation (ft)	863.79
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Outflow Weirs

SN Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1 Paver01-02 weir	Rectangular	No	865.70	1.91	4.00	1.00	3.33

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 Paver01-02 wq orifice 2	Side	CIRCULAR	No	1.00			863.79	0.60
2 Pavers01-02 WQ orifice 1	Side	CIRCULAR	No	1.00			863.79	0.60

Output Summary Results

Peak Inflow (cfs)	5.86
Peak Lateral Inflow (cfs)	5.86
Peak Outflow (cfs)	1.25
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	865.97
Max HGL Depth Attained (ft)	2.18
Average HGL Elevation Attained (ft)	864.90
Average HGL Depth Attained (ft)	1.11
Time of Max HGL Occurrence (days hh:mm)	0 12:18
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Pavers03-04

Input Data

Invert Elevation (ft)	863.79
Max (Rim) Elevation (ft)	867.24
Max (Rim) Offset (ft)	3.45
Initial Water Elevation (ft)	863.79
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Outflow Weirs

SN Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1 Paver04-06 weir	Rectangular	No	866.80	3.01	4.00	1.00	3.33

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 Paver03-04 WQ orifice 1	Side	CIRCULAR	No	1.00			863.79	0.60
2 Paver03-04 WQ orifice 2	Side	CIRCULAR	No	1.00			863.79	0.60

Output Summary Results

Peak Inflow (cfs)	5.98
Peak Lateral Inflow (cfs)	5.98
Peak Outflow (cfs)	0.09
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.80
Max HGL Depth Attained (ft)	3.01
Average HGL Elevation Attained (ft)	865.42
Average HGL Depth Attained (ft)	1.63
Time of Max HGL Occurrence (days hh:mm)	0 18:22
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Wet Basin 02

Input Data

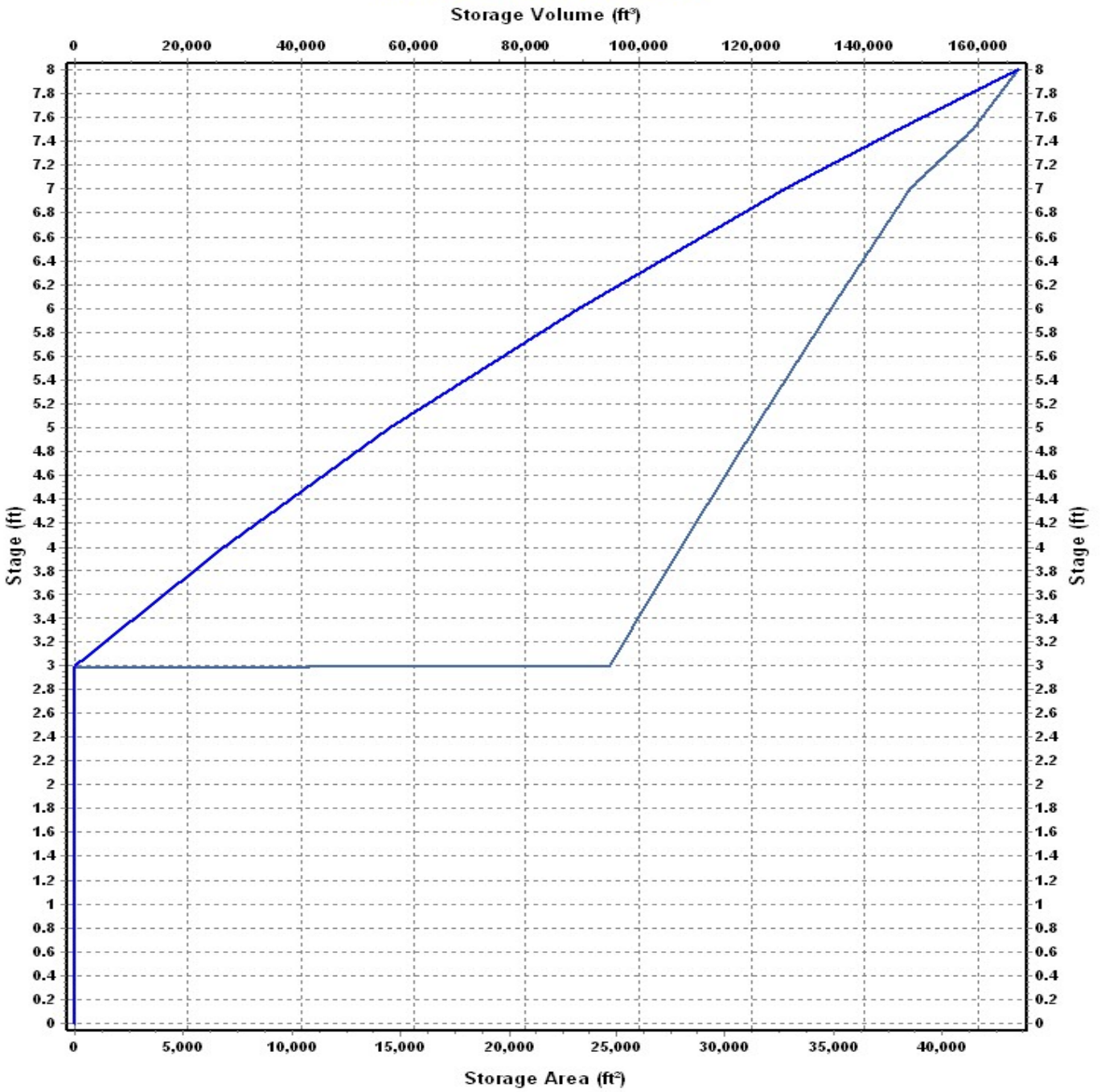
Invert Elevation (ft)	859.00
Max (Rim) Elevation (ft)	867.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	862.00
Initial Water Depth (ft)	3.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Wet Basin 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.99	1	2.99
3	24635.51	126.17
4	27948.90	26418.38
5	31362.79	56074.23
6	34877.21	89194.23
7	38492.15	125878.91
7.5	41380.21	145847.00
8	43477.39	167061.40

Storage Area Volume Curves



Storage Area Storage Volume

Storage Node : Wet Basin 02 (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 Wet basin grate	Bottom	Rectangular	No		19.60	19.60	865.00	0.60
2 Wet basin window 1	Side	Rectangular	No		12.00	36.00	863.20	0.60
3 Wet Basin wq 2	Side	CIRCULAR	No	5.00			862.00	0.60
4 WetBasin WQ 1	Side	CIRCULAR	No	5.00			862.00	0.60
5 WetBasinWindow2	Side	Rectangular	No		12.00	36.00	863.20	0.60

Output Summary Results

Peak Inflow (cfs)	109.11
Peak Lateral Inflow (cfs)	92.61
Peak Outflow (cfs)	33.43
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	865.99
Max HGL Depth Attained (ft)	6.99
Average HGL Elevation Attained (ft)	863.67
Average HGL Depth Attained (ft)	4.67
Time of Max HGL Occurrence (days hh:mm)	0 14:07
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : WetBasin 01

Input Data

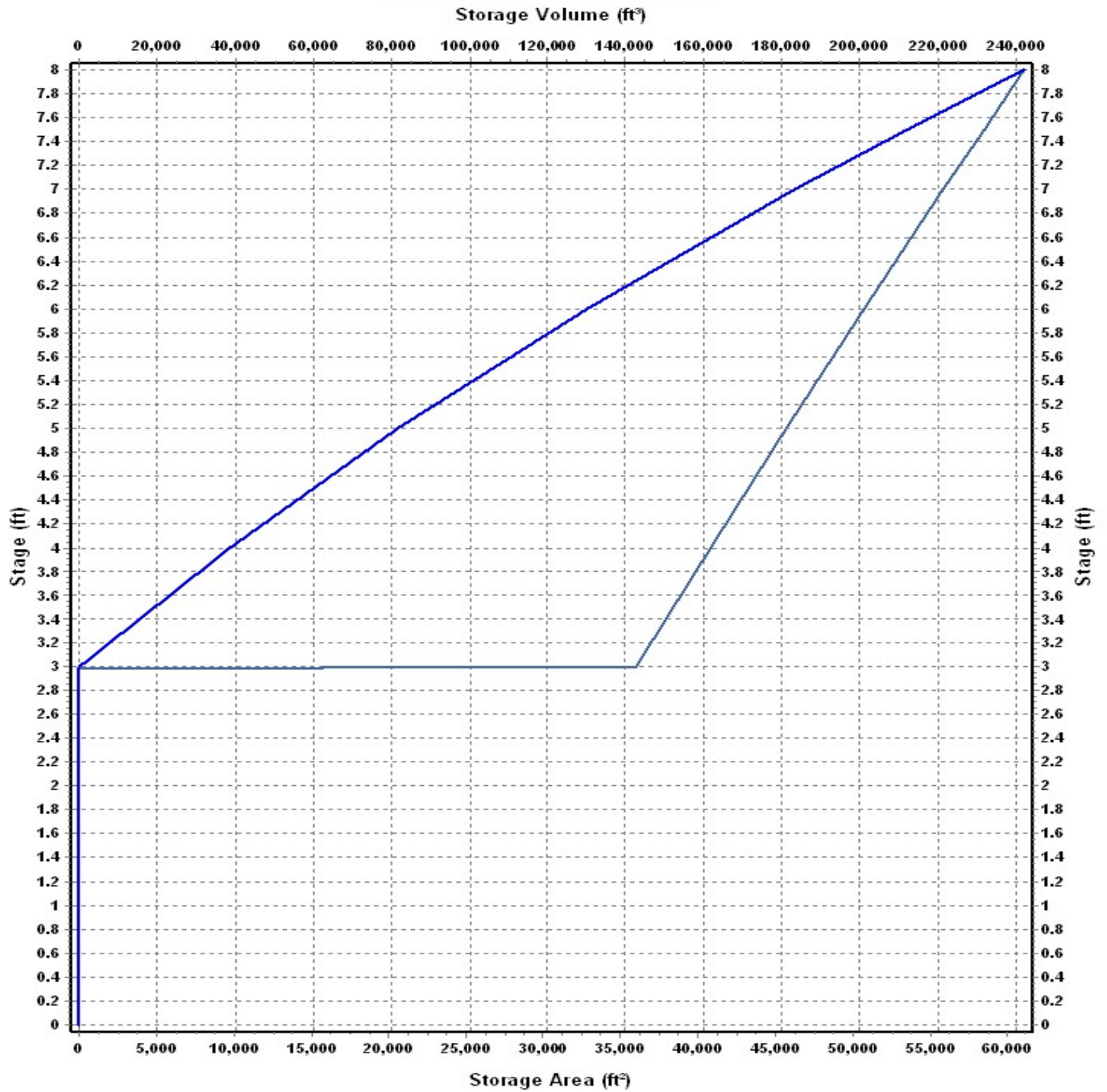
Invert Elevation (ft)	859.00
Max (Rim) Elevation (ft)	867.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	862.00
Initial Water Depth (ft)	3.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Wet Basin 01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.99	1	2.99
3	36012.49	183.06
4	40827.72	38603.17
5	45735.45	81884.76
6	50745.52	130125.25
7	55856.11	183426.07
7.5	58448.67	212002.27
8	61040.22	241874.49

Storage Area Volume Curves



Storage Area Storage Volume

Storage Node : WetBasin 01 (continued)

Output Summary Results

Peak Inflow (cfs)	74.16
Peak Lateral Inflow (cfs)	63.62
Peak Outflow (cfs)	7.27
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.00
Max HGL Depth Attained (ft)	7
Average HGL Elevation Attained (ft)	863.70
Average HGL Depth Attained (ft)	4.7
Time of Max HGL Occurrence (days hh:mm)	0 14:14
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Project Description

File Name 2017-0259 Dublin Smart Park 2017-5-15.SPF

Project Options

Flow Units CFS
 Elevation Type Elevation
 Hydrology Method SCS TR-55
 Time of Concentration (TOC) Method User-Defined
 Link Routing Method Hydrodynamic
 Enable Overflow Ponding at Nodes YES
 Skip Steady State Analysis Time Periods NO

Analysis Options

Start Analysis On Apr 11, 2017 00:00:00
 End Analysis On Apr 12, 2017 00:00:00
 Start Reporting On Apr 11, 2017 00:00:00
 Antecedent Dry Days 0 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 00:05:00 days hh:mm:ss
 Routing Time Step 1 seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins.....	16
Nodes.....	35
<i>Junctions</i>	21
<i>Outfalls</i>	1
<i>Flow Diversions</i>	0
<i>Inlets</i>	0
<i>Storage Nodes</i>	13
Links.....	49
<i>Channels</i>	1
<i>Pipes</i>	21
<i>Pumps</i>	0
<i>Orifices</i>	20
<i>Weirs</i>	2
<i>Outlets</i>	5
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1		Time Series	100-year	Cumulative	inches	Ohio	Franklin	100	5.63	SCS Type II 24-hr

Subbasin Summary

SN Subbasin ID	Area (ac)	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1 Offsite 01: Lucent site	9.91	94.00	5.63	4.93	48.86	62.07	0 00:10:00
2 Offsite 02 - 01	3.38	92.00	5.63	4.71	15.89	22.29	0 00:07:00
3 Offsite 02 - 02	7.84	93.00	5.63	4.82	37.75	50.32	0 00:08:30
4 Offsite 03: Triangle outparcel	2.50	74.00	5.63	2.88	7.19	10.20	0 00:09:00
5 Offsite 04: Cendant Site	5.72	94.00	5.63	4.93	28.20	35.85	0 00:10:00
6 Subarea 02 - to wb 02	0.43	95.60	5.63	5.11	2.19	3.12	0 00:05:00
7 Subarea 02 -to wb1	0.52	95.60	5.63	5.11	2.67	3.81	0 00:05:00
8 Subarea 03	10.24	89.68	5.63	4.45	45.59	68.93	0 00:05:00
9 Subarea01	14.97	90.80	5.63	4.57	68.45	102.49	0 00:05:00
10 ToBiobasin01	1.39	95.60	5.63	5.11	7.11	10.09	0 00:05:00
11 ToBiobasin02	0.52	95.60	5.63	5.11	2.66	3.77	0 00:05:00
12 ToBiobasin03	1.35	95.60	5.63	5.11	6.91	9.81	0 00:05:00
13 ToBiobasin04	0.81	95.60	5.63	5.11	4.13	5.86	0 00:05:00
14 ToBiobasin05	1.44	95.60	5.63	5.11	7.34	10.42	0 00:05:00
15 ToPP01-02	0.91	95.60	5.63	5.11	4.66	6.60	0 00:05:00
16 ToPP03-04	0.93	95.60	5.63	5.11	4.73	6.74	0 00:05:00

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	Biobasin02dummynode	Junction	862.67	867.17	862.67	867.17	0.00	2.25	866.90	0.00	0.27	0 00:00	0.00	0.00
2	CatchBasin03	Junction	862.00	866.50	862.00	866.50	2879.24	7.60	866.30	0.00	0.20	0 00:00	0.00	0.00
3	CatchBasin04	Junction	862.44	866.94	862.44	866.94	4642.88	6.79	866.70	0.00	0.24	0 00:00	0.00	0.00
4	CatchBasin05	Junction	862.67	867.17	862.67	867.17	1566.12	2.14	866.75	0.00	0.42	0 00:00	0.00	0.00
5	CatchBasin12	Junction	862.60	867.10	862.60	867.10	6347.63	5.87	866.49	0.00	0.61	0 00:00	0.00	0.00
6	CatchBasin8	Junction	862.64	867.14	862.64	867.14	6037.65	5.81	866.54	0.00	0.60	0 00:00	0.00	0.00
7	Dummy1	Junction	861.69	867.00	861.69	867.00	0.00	22.61	866.15	0.00	0.85	0 00:00	0.00	0.00
8	Ex0	Junction	860.13	865.00	860.13	865.00	0.00	22.44	861.43	0.00	3.57	0 00:00	0.00	0.00
9	ExA	Junction	860.81	865.00	860.81	865.00	0.00	28.86	865.73	0.00	1.08	0 00:00	0.00	0.00
10	Existing 36-inch outlet pipe	Junction	870.00	875.50	870.00	875.50	0.00	23.25	871.29	0.00	5.11	0 00:00	0.00	0.00
11	Manhole 7	Junction	862.47	868.00	862.47	868.00	0.00	5.60	866.39	0.00	1.61	0 00:00	0.00	0.00
12	Manhole1	Junction	861.75	868.00	861.75	868.00	0.00	18.17	866.05	0.00	1.95	0 00:00	0.00	0.00
13	Manhole10	Junction	862.23	868.00	862.23	868.00	0.00	5.65	866.18	0.00	1.82	0 00:00	0.00	0.00
14	Manhole11	Junction	862.42	868.00	862.42	868.00	0.00	5.63	866.33	0.00	1.67	0 00:00	0.00	0.00
15	Manhole13	Junction	863.79	868.00	863.79	868.00	0.00	0.25	866.15	0.00	1.85	0 00:00	0.00	0.00
16	Manhole2	Junction	861.80	868.00	861.80	868.00	0.00	7.33	866.14	0.00	1.86	0 00:00	0.00	0.00
17	Manhole6	Junction	862.28	868.00	862.28	868.00	0.00	5.60	866.26	0.00	1.74	0 00:00	0.00	0.00
18	Manhole9	Junction	863.79	868.00	863.79	868.00	0.00	1.76	866.25	0.00	1.75	0 00:00	0.00	0.00
19	Offsite 02 outlet	Junction	877.50	881.50	877.50	881.50	0.00	6.31	880.03	0.00	2.17	0 00:00	0.00	0.00
20	OutToDitch	Junction	861.58	863.00	861.58	863.00	0.00	37.71	865.73	0.00	1.85	0 00:00	0.00	0.00
21	Stucture1	Junction	861.69	868.00	861.69	868.00	0.00	37.75	866.02	0.00	1.98	0 00:00	0.00	0.00
22	Ex00 Outlet	Outfall	859.65					22.44	860.75					
23	Biobasin 01	Storage Node	862.64	867.14	865.14		0.00	10.09	866.89				0.00	0.00
24	Biobasin02	Storage Node	862.67	867.17	865.17		0.00	3.77	867.12				0.00	0.00
25	Biobasin03	Storage Node	862.44	867.10	865.00		0.00	9.81	867.03				0.00	0.00
26	Biobasin04	Storage Node	862.00	867.00	864.50		0.00	5.86	866.42				0.00	0.00
27	Biobasin05	Storage Node	862.60	867.10	865.10		0.00	10.42	866.86				0.00	0.00
28	Offsite 01 Parking lot ponding	Storage Node	871.00	879.00	877.50		0.00	60.89	878.43				0.00	0.00
29	Offsite 02 Wet basin 02	Storage Node	878.00	882.00	878.00		0.00	47.16	881.33				0.00	0.00
30	Offsite 02-wet basin 1	Storage Node	875.00	881.50	877.50		0.00	34.79	880.70				0.00	0.00
31	Offsite 04	Storage Node	871.65	878.00	871.65		0.00	35.12	877.99				0.00	0.00
32	Pavers01-02	Storage Node	863.79	867.24	863.79		0.00	6.60	866.27				0.00	0.00
33	Pavers03-04	Storage Node	863.79	867.24	863.79		0.00	6.74	866.86				0.00	0.00
34	Wet Basin 02	Storage Node	859.00	867.00	862.00		0.00	123.96	866.50				0.00	0.00
35	WetBasin 01	Storage Node	859.00	867.00	862.00		0.00	83.91	866.52				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	Peak Flow Total Depth	Total Time Surcharged	Reported Condition
					(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)		(ft/sec)	(ft)	(ft)	(min)	
1	1->basins	Pipe	Manhole1	Structure1	62.54	861.75	861.69	0.1000	36.000	0.0130	17.89	20.66	0.87	2.56	3.00	1.00	450.00	SURCHARGED
2	10->11	Pipe	Manhole10	Manhole1	190.96	862.23	861.75	0.2500	18.000	0.0130	5.65	5.27	1.07	3.20	1.50	1.00	598.00	SURCHARGED
3	11->10	Pipe	Manhole11	Manhole10	75.00	862.42	862.23	0.2500	18.000	0.0130	5.63	5.29	1.07	3.19	1.50	1.00	575.00	SURCHARGED
4	12->11	Pipe	CatchBasin12	Manhole11	72.47	862.60	862.42	0.2500	18.000	0.0130	5.63	5.24	1.08	3.19	1.50	1.00	548.00	SURCHARGED
5	13->10	Pipe	Manhole13	Manhole10	16.00	863.79	863.72	0.4400	12.000	0.0130	0.27	2.36	0.11	1.43	1.00	1.00	450.00	SURCHARGED
6	2->1	Pipe	Manhole2	Manhole1	20.00	861.80	861.75	0.2500	18.000	0.0130	7.32	5.25	1.39	4.14	1.50	1.00	650.00	SURCHARGED
7	3->2	Pipe	CatchBasin03	Manhole2	81.60	862.00	861.80	0.2500	18.000	0.0130	7.33	5.20	1.41	4.15	1.50	1.00	626.00	SURCHARGED
8	4->3	Pipe	CatchBasin04	CatchBasin03	175.98	862.44	862.00	0.2500	18.000	0.0130	6.12	5.25	1.17	3.46	1.50	1.00	574.00	SURCHARGED
9	5->4	Pipe	CatchBasin05	CatchBasin04	92.80	862.67	862.44	0.2500	18.000	0.0130	2.12	5.23	0.41	1.20	1.50	1.00	539.00	SURCHARGED
10	6->1	Pipe	Manhole6	Manhole1	210.04	862.28	861.75	0.2500	18.000	0.0130	5.59	5.28	1.06	3.16	1.50	1.00	592.00	SURCHARGED
11	7->6	Pipe	Manhole 7	Manhole6	75.00	862.47	862.28	0.2500	18.000	0.0130	5.60	5.29	1.06	3.17	1.50	1.00	567.00	SURCHARGED
12	8->7	Pipe	CatchBasin8	Manhole 7	69.56	862.64	862.47	0.2400	18.000	0.0130	5.60	5.19	1.08	3.17	1.50	1.00	542.00	SURCHARGED
13	9->8	Pipe	Manhole9	Manhole6	16.00	863.79	863.73	0.3700	15.000	0.0130	0.96	3.96	0.24	1.27	1.25	1.00	416.00	SURCHARGED
14	Basin connector	Pipe	WetBasin 01	Wet Basin 02	85.00	859.00	858.90	0.1200	24.000	0.0130	13.97	0.78	18.00	4.45	2.00	1.00	1440.00	SURCHARGED
15	Basins->outlet	Pipe	Structure1	OutToDitch	109.09	861.69	861.58	0.1000	36.000	0.0130	37.71	21.18	1.78	5.49	3.00	1.00	444.00	SURCHARGED
16	Dual 18 inch pipes	Pipe	ExA	Ex0	35.52	860.81	860.13	1.9000	18.000	0.0130	22.44	14.48	1.55	13.07	1.40	0.93	0.00	> CAPACITY
17	Elliptical pipe under roadway	Pipe	Ex0	Ex0 Outlet	98.05	860.07	859.65	0.4300	36.000	0.0130	22.44	86.04	0.26	5.52	1.20	0.40	0.00	Calculated
18	Offsite 02->outfall	Pipe	Offsite 02 outlet	Existing 36-inch outlet pipe	84.10	877.50	875.40	2.5000	12.000	0.0130	6.30	5.63	1.12	8.02	1.00	1.00	35.00	SURCHARGED
19	offsite basin2 -> offsite basin 1	Pipe	Offsite 02 Wet basin 02	Offsite 02-wet basin 1	201.70	878.00	877.70	0.1500	24.000	0.0130	15.02	8.72	1.72	4.78	2.00	1.00	252.00	SURCHARGED
20	Offsite->basin	Pipe	Existing 36-inch outlet pipe	Wet Basin 02	1296.34	870.00	862.00	0.6200	42.000	0.0130	22.89	79.04	0.29	3.26	2.39	0.68	0.00	Calculated
21	OutletPipe	Pipe	Dummy1	Structure1	10.82	862.00	861.69	2.8700	36.000	0.0130	21.60	112.90	0.19	3.75	3.00	1.00	432.00	SURCHARGED
22	Ditch	Channel	OutToDitch	ExA	375.41	861.58	860.81	0.2100	72.000	0.0320	28.86	596.14	0.05	1.44	4.53	0.76	0.00	
23	Biobasin01grate	Orifice	Biobasin 01	CatchBasin8		862.64	862.64		19.600		5.59							
24	Biobasin02grate	Orifice	Biobasin02	Biobasin02dummynode		862.67	862.67		19.600		2.19							
25	Biobasin02orifice	Orifice	Biobasin02dummynode	CatchBasin05		862.67	862.67		12.000		2.14							
26	Biobasin03grate	Orifice	Biobasin03	CatchBasin04		862.44	862.44		19.600		4.72							
27	Biobasin04grate	Orifice	Biobasin04	CatchBasin03		862.00	862.00		19.600		1.99							
28	Biobasin05grate	Orifice	Biobasin05	CatchBasin12		862.60	862.60		19.600		5.64							
29	Offsite 01 orifice	Orifice	Offsite 01 Parking lot pond	Existing 36-inch outlet pipe		871.00	870.00		9.250		5.96							
30	Offsite 02 grate	Orifice	Offsite 02-wet basin 1	Offsite 02 outlet		875.00	877.50		19.600		1.99							
31	offsite 02 window	Orifice	Offsite 02-wet basin 1	Offsite 02 outlet		875.00	877.50		6.000		5.15							
32	Offsite 02 wq	Orifice	Offsite 02-wet basin 1	Offsite 02 outlet		875.00	877.50		4.000		0.57							
33	Offsite 04 orifice	Orifice	Offsite 04	Existing 36-inch outlet pipe		871.65	870.00		8.500		4.64							
34	Paver01-02 wa orifice 2	Orifice	Pavers01-02	Manhole9		863.79	863.79		1.000		0.04							
35	Paver03-04 WQ orifice 1	Orifice	Pavers03-04	Manhole13		863.79	863.79		1.000		0.04							
36	Paver03-04 WQ orifice 2	Orifice	Pavers03-04	Manhole13		863.79	863.79		1.000		0.04							
37	Pavers01-02 WQ orifice 1	Orifice	Pavers01-02	Manhole9		863.79	863.79		1.000		0.04							
38	Wet basin grate	Orifice	Wet Basin 02	Dummy1		859.00	861.69		19.600		4.19							
39	Wet basin window 1	Orifice	Wet Basin 02	Dummy1		859.00	861.69		12.000		9.38							
40	Wet Basin wa 2	Orifice	Wet Basin 02	Dummy1		859.00	861.69		5.000		0.63							
41	WetBasin WQ 1	Orifice	Wet Basin 02	Dummy1		859.00	861.69		5.000		0.63							
42	WetBasinWindow2	Orifice	Wet Basin 02	Dummy1		859.00	861.69		12.000		9.38							
43	Biomedia01	Outlet	Biobasin 01	CatchBasin8		862.64	862.64				0.24							
44	Biomedia02	Outlet	Biobasin02	Biobasin02dummynode		862.67	862.67				0.08							
45	Biomedia03	Outlet	Biobasin03	CatchBasin04		862.44	862.44				0.23							
46	Biomedia04	Outlet	Biobasin04	CatchBasin03		862.00	862.00				0.19							
47	Biomedia05	Outlet	Biobasin05	CatchBasin12		862.60	862.60				0.25							
48	Paver01-02 weir	Weir	Pavers01-02	Manhole9		863.79	863.79				1.76							
49	Paver04-06 weir	Weir	Pavers03-04	Manhole13		863.79	863.79				0.20							

Subbasin Hydrology

Subbasin : Offsite 01: Lucent site

Input Data

Area (ac) 9.91
Weighted Curve Number 94.00
Rain Gage ID DublinRain

Composite Curve Number

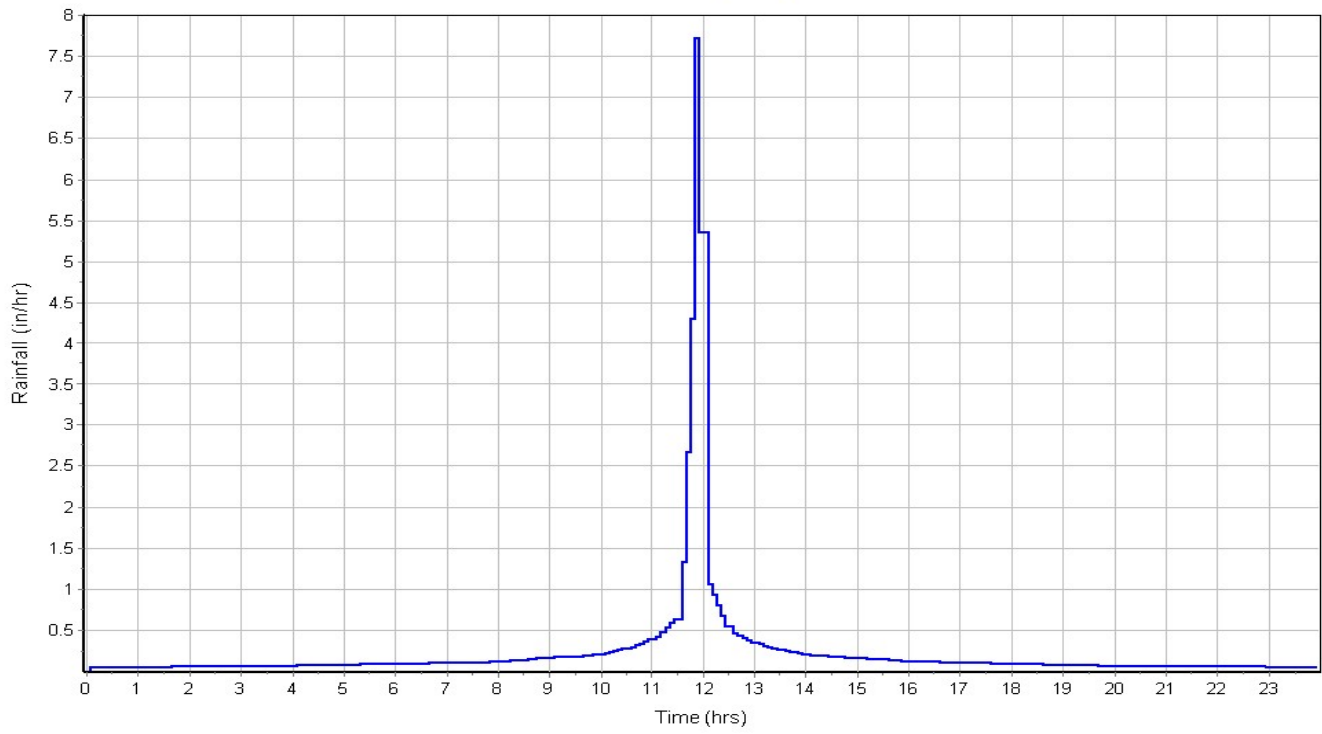
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	9.91	-	94.00
Composite Area & Weighted CN	9.91		94.00

Subbasin Runoff Results

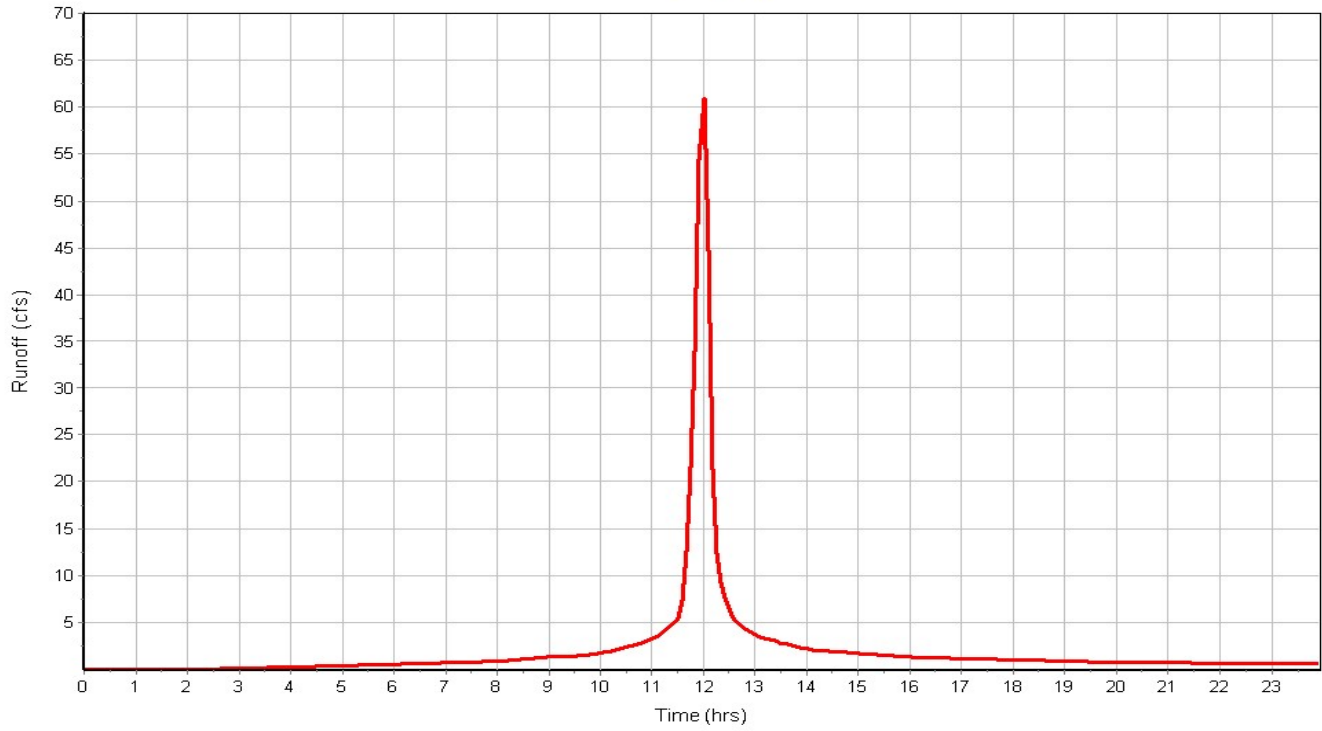
Total Rainfall (in) 5.63
Total Runoff (in) 4.93
Peak Runoff (cfs) 62.07
Weighted Curve Number 94.00
Time of Concentration (days hh:mm:ss) 0 00:10:00

Subbasin : Offsite 01: Lucent site

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 02 - 01

Input Data

Area (ac) 3.38
Weighted Curve Number 92.00
Rain Gage ID DublinRain

Composite Curve Number

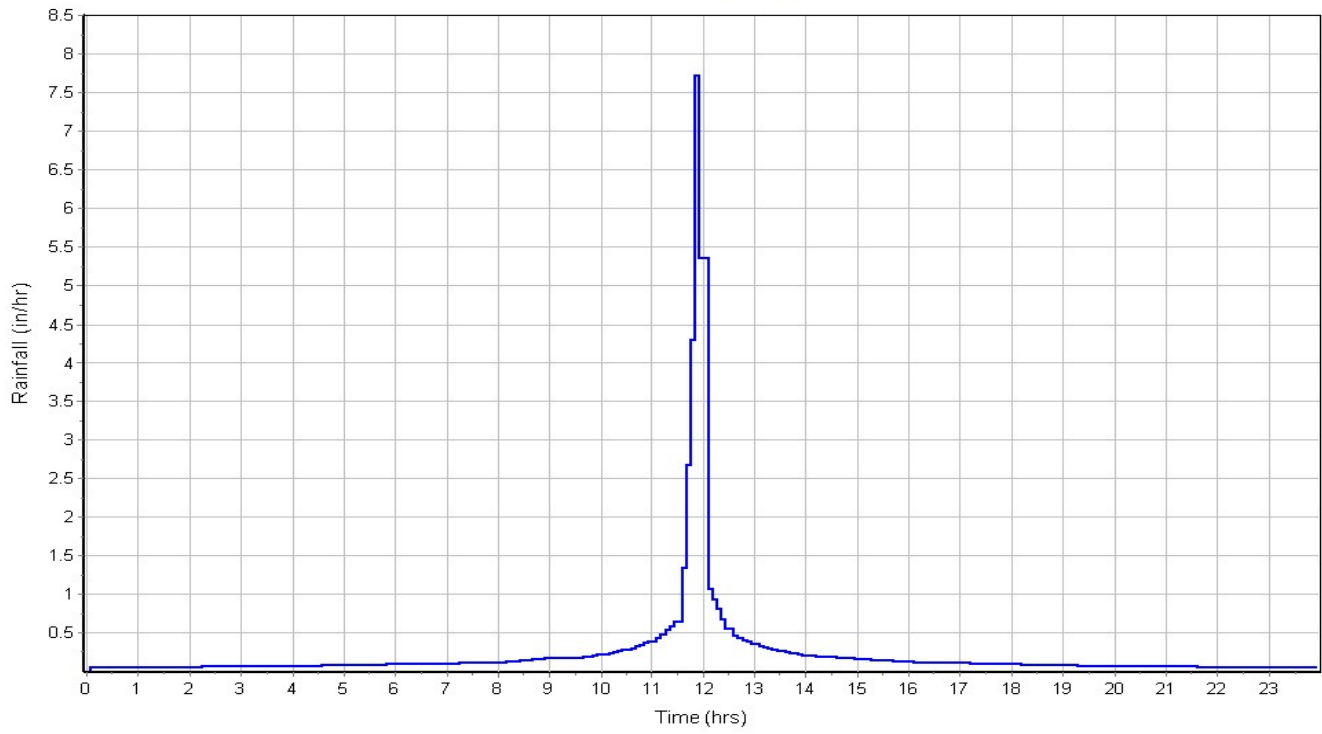
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	3.38	-	92.00
Composite Area & Weighted CN	3.38		92.00

Subbasin Runoff Results

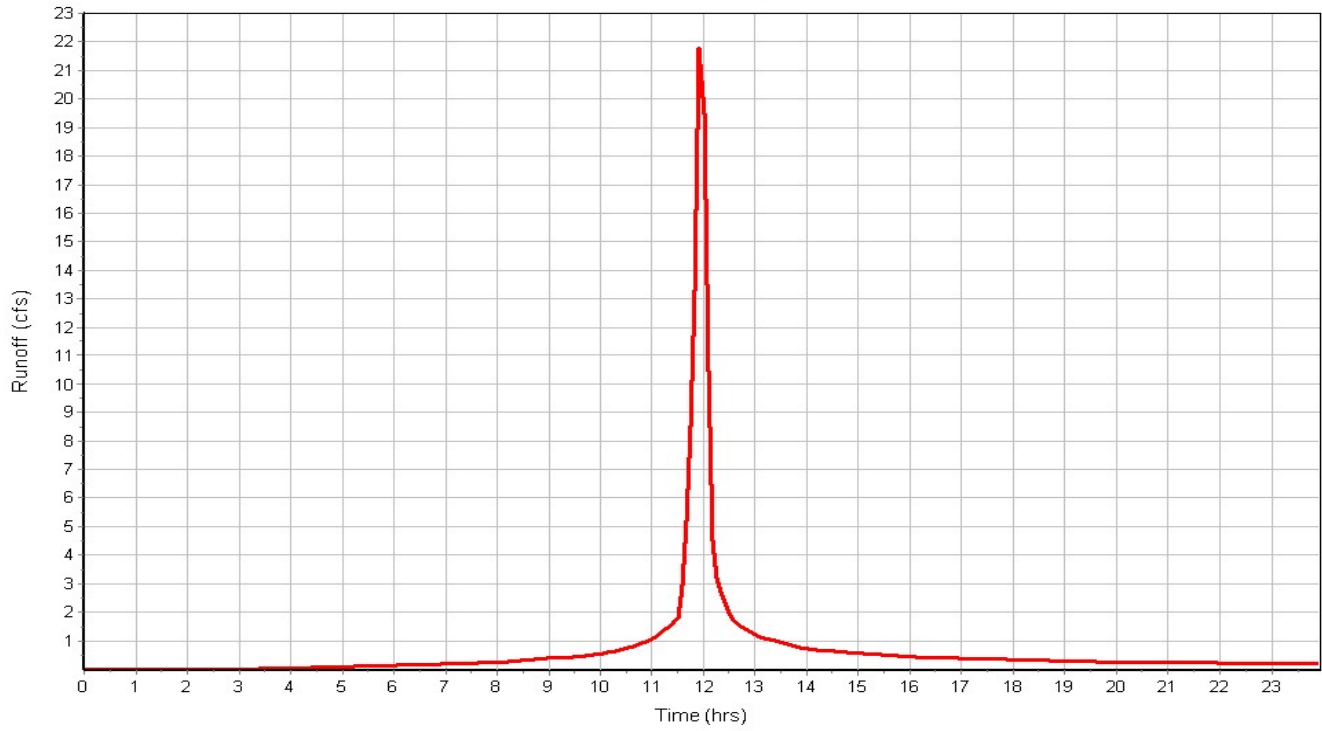
Total Rainfall (in) 5.63
Total Runoff (in) 4.71
Peak Runoff (cfs) 22.29
Weighted Curve Number 92.00
Time of Concentration (days hh:mm:ss) 0 00:07:00

Subbasin : Offsite 02 - 01

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 02 - 02

Input Data

Area (ac) 7.84
Weighted Curve Number 93.00
Rain Gage ID DublinRain

Composite Curve Number

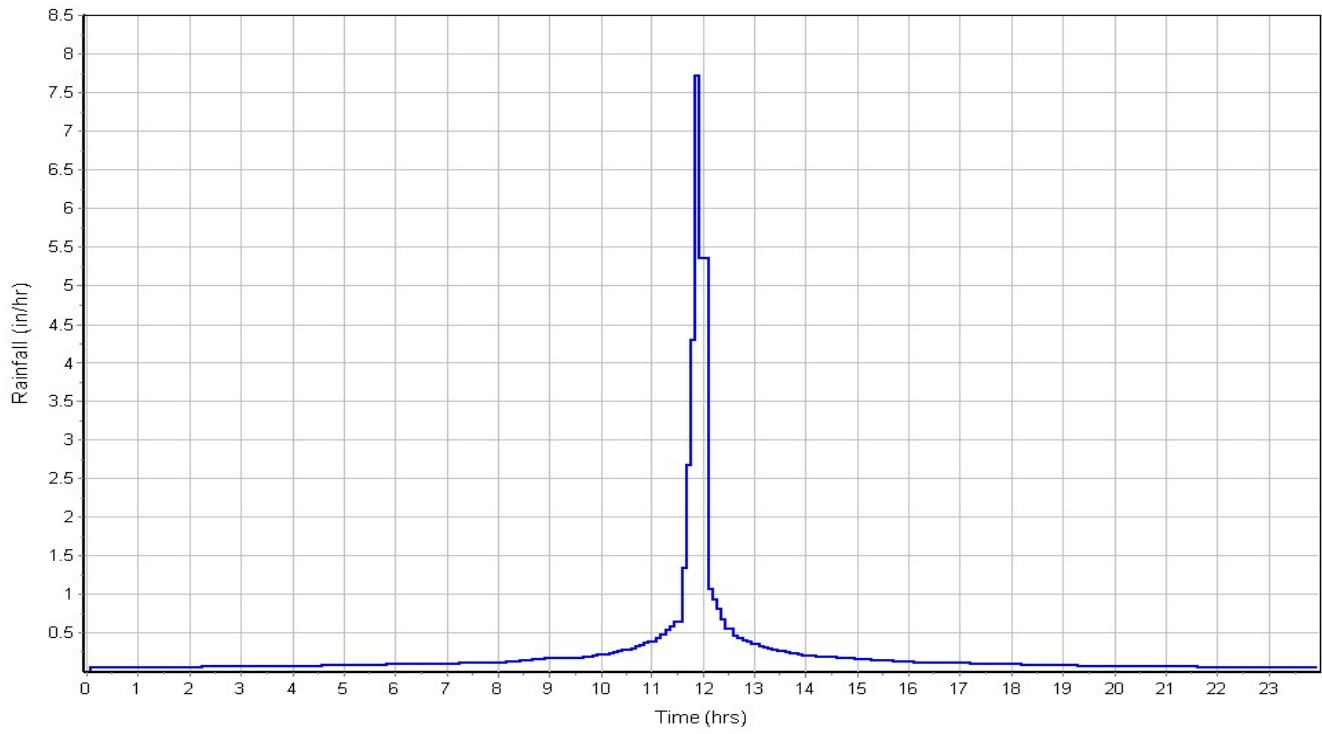
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	7.84	-	93.00
Composite Area & Weighted CN	7.84		93.00

Subbasin Runoff Results

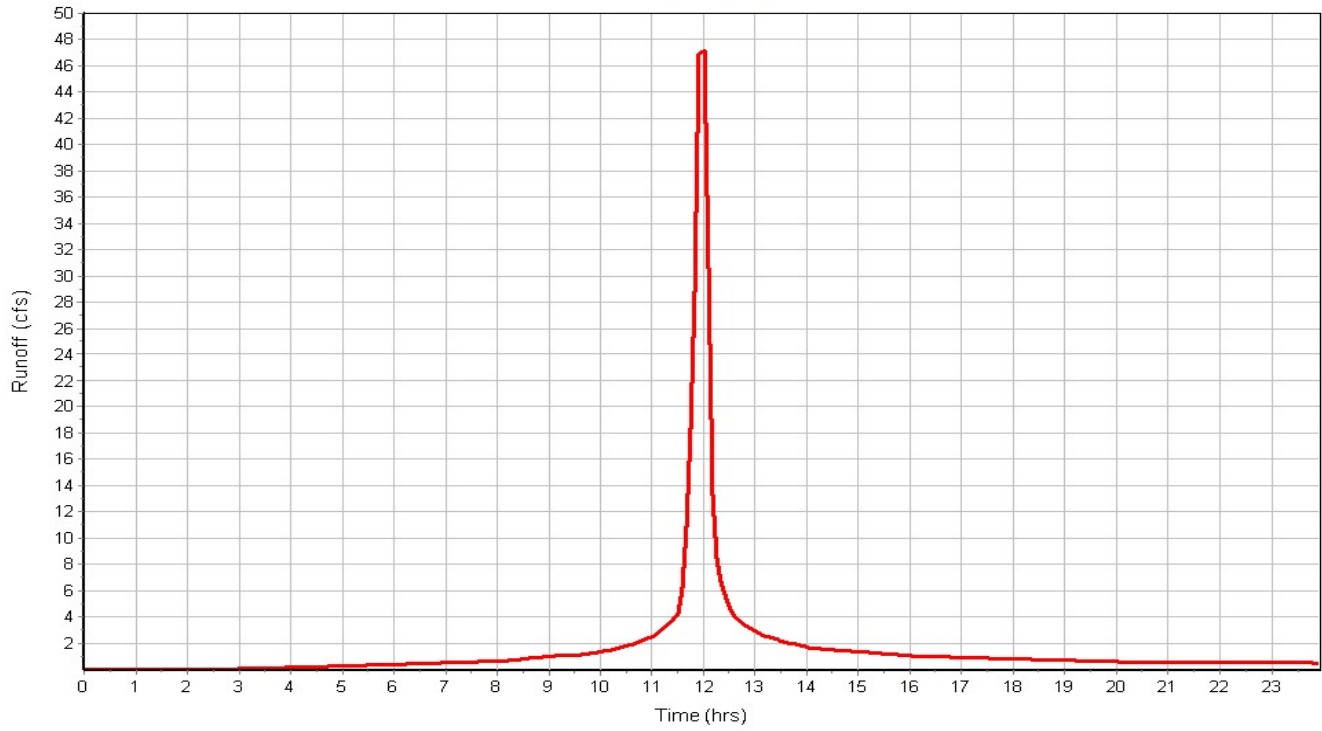
Total Rainfall (in) 5.63
Total Runoff (in) 4.82
Peak Runoff (cfs) 50.32
Weighted Curve Number 93.00
Time of Concentration (days hh:mm:ss) 0 00:08:30

Subbasin : Offsite 02 - 02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 03: Triangle outparcel

Input Data

Area (ac) 2.50
Weighted Curve Number 74.00
Rain Gage ID DublinRain

Composite Curve Number

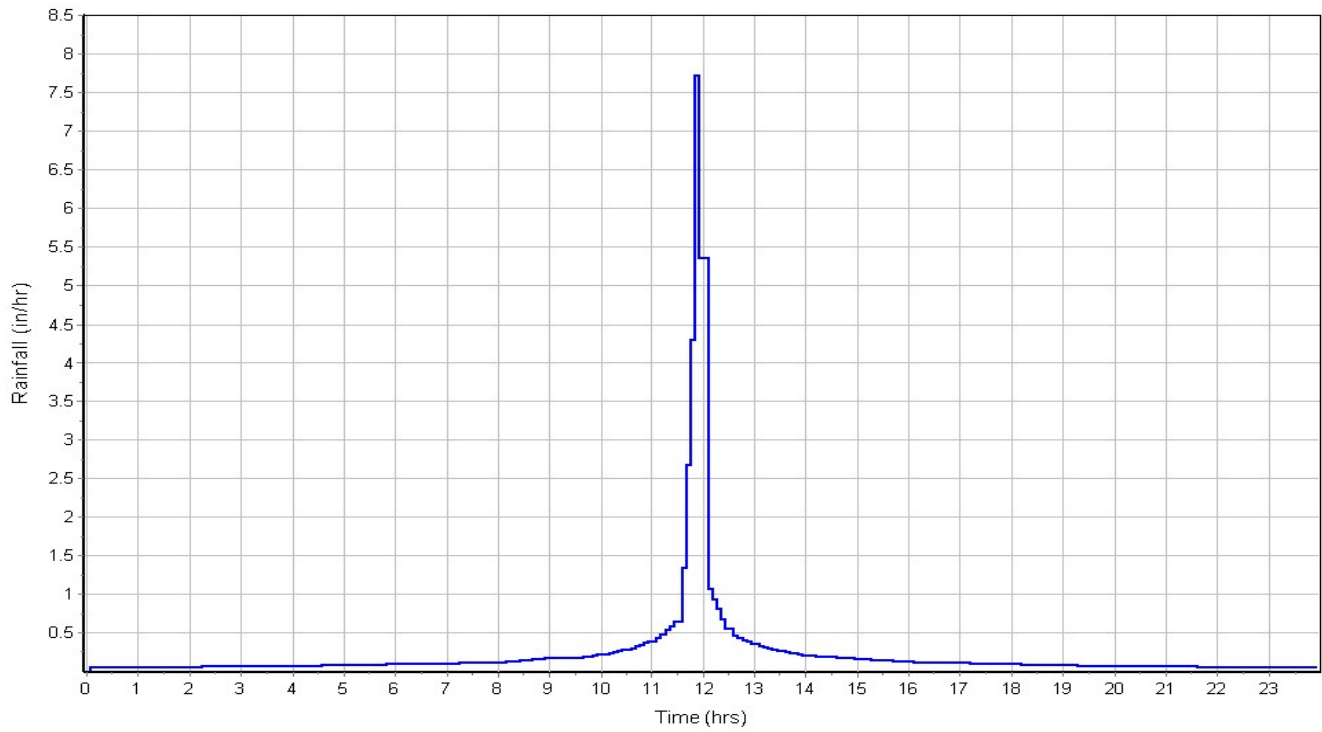
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	2.50	-	74.00
Composite Area & Weighted CN	2.50		74.00

Subbasin Runoff Results

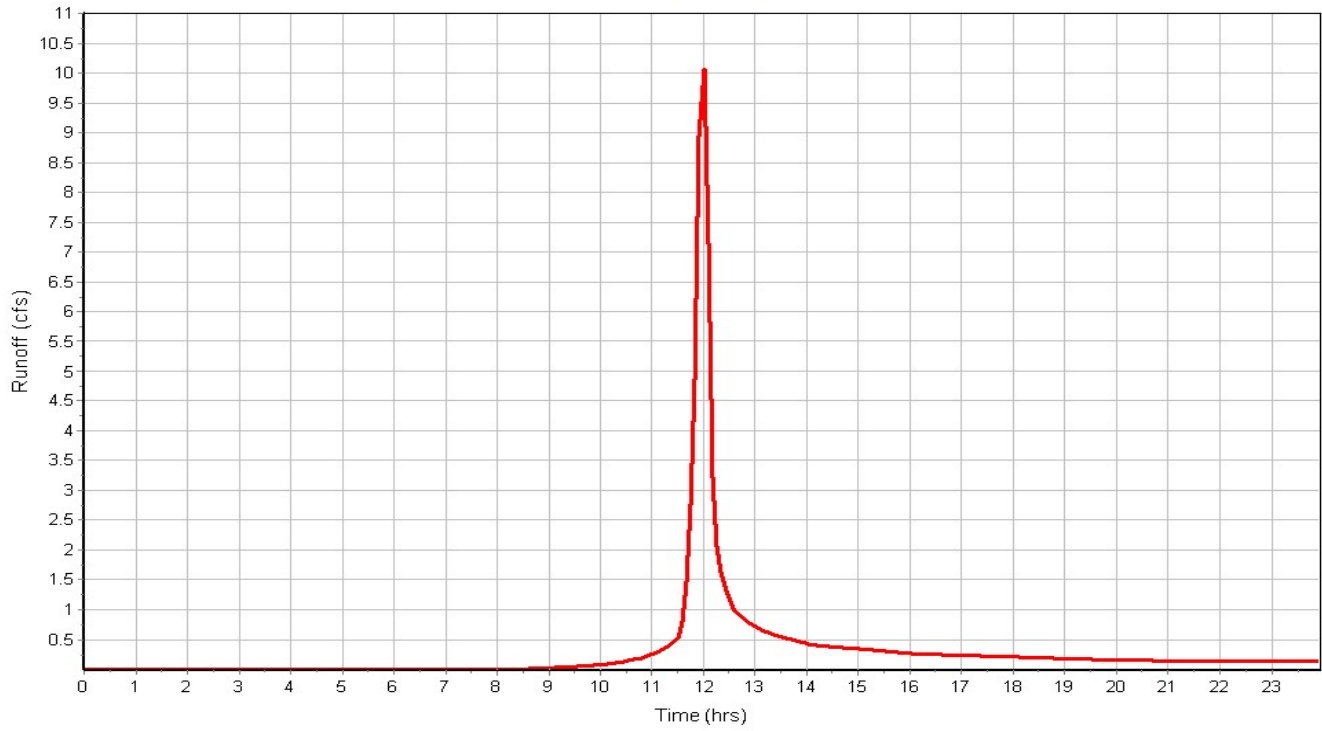
Total Rainfall (in) 5.63
Total Runoff (in) 2.88
Peak Runoff (cfs) 10.20
Weighted Curve Number 74.00
Time of Concentration (days hh:mm:ss) 0 00:09:00

Subbasin : Offsite 03: Triangle outparcel

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Offsite 04: Cendant Site

Input Data

Area (ac) 5.72
Weighted Curve Number 94.00
Rain Gage ID DublinRain

Composite Curve Number

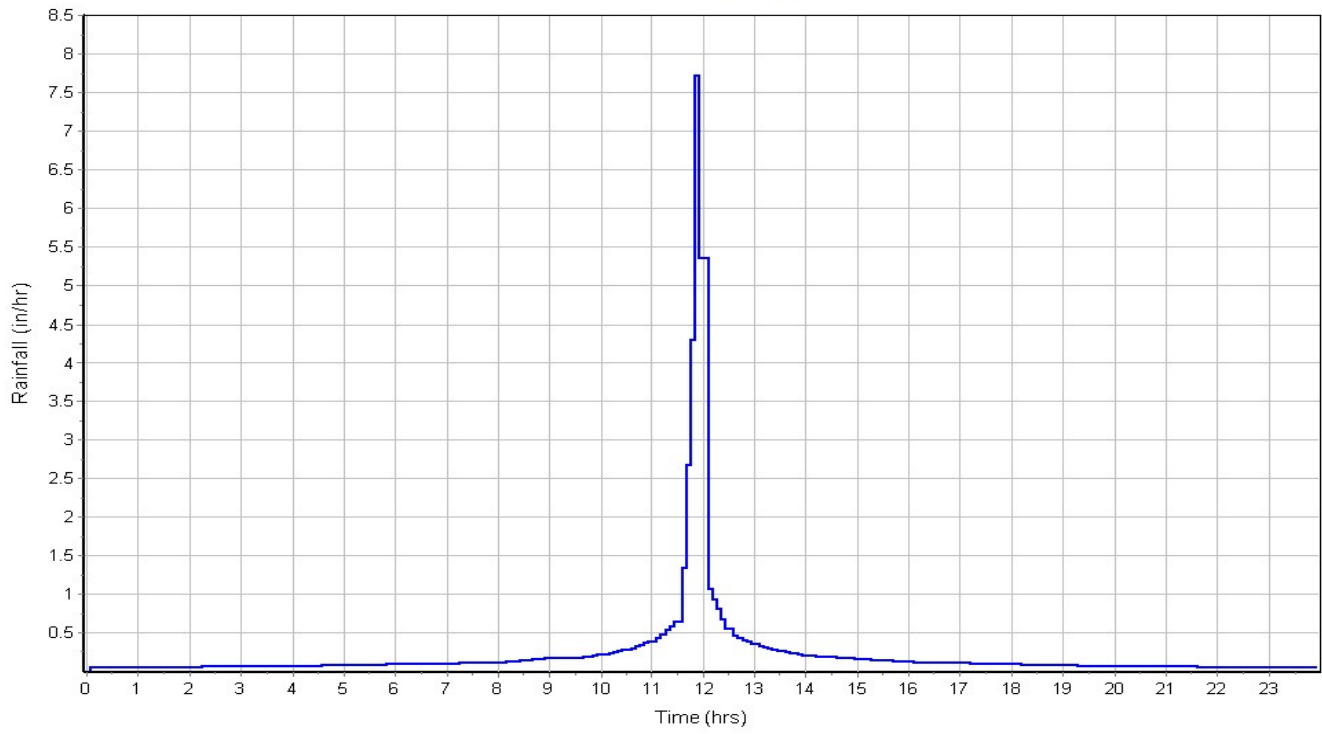
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	5.72	-	94.00
Composite Area & Weighted CN	5.72		94.00

Subbasin Runoff Results

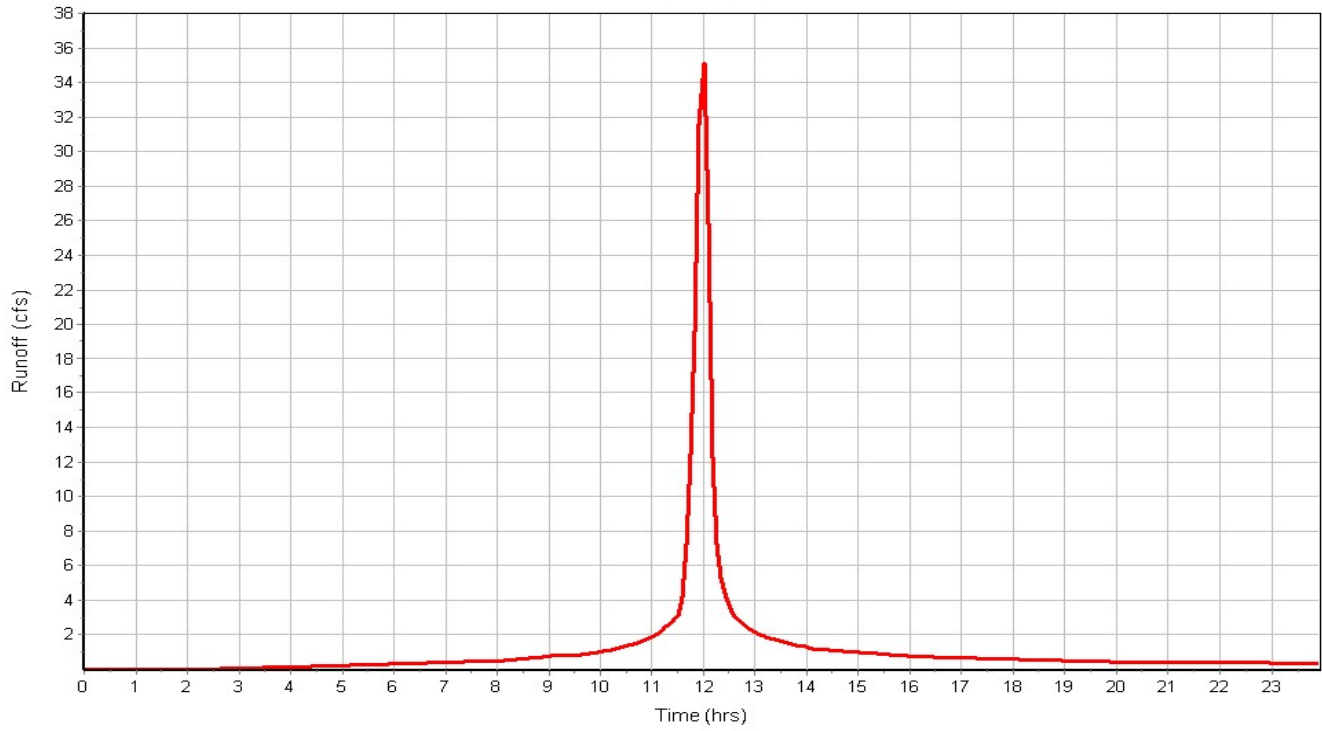
Total Rainfall (in) 5.63
Total Runoff (in) 4.93
Peak Runoff (cfs) 35.85
Weighted Curve Number 94.00
Time of Concentration (days hh:mm:ss) 0 00:10:00

Subbasin : Offsite 04: Cendant Site

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea 02 - to wb 02

Input Data

Area (ac) 0.43
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

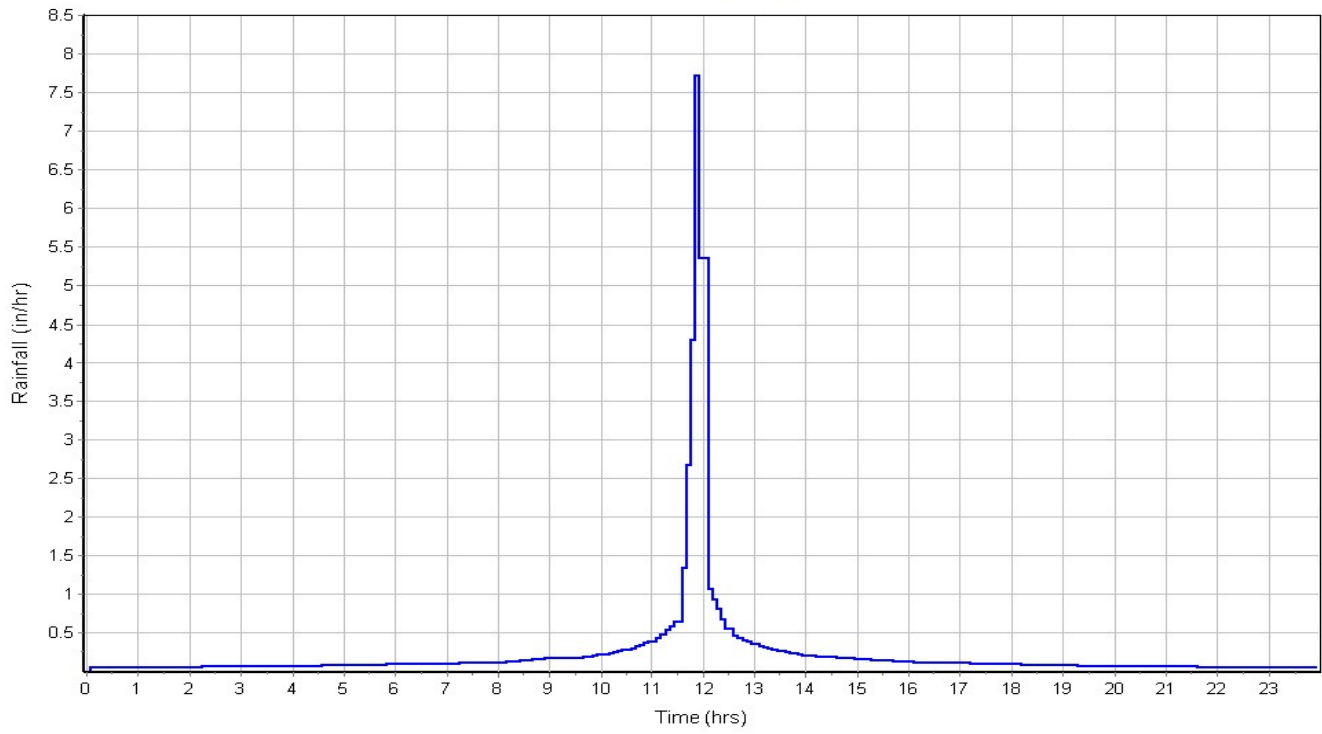
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.39	-	98.00
-	0.04	-	74.00
Composite Area & Weighted CN	0.43		95.60

Subbasin Runoff Results

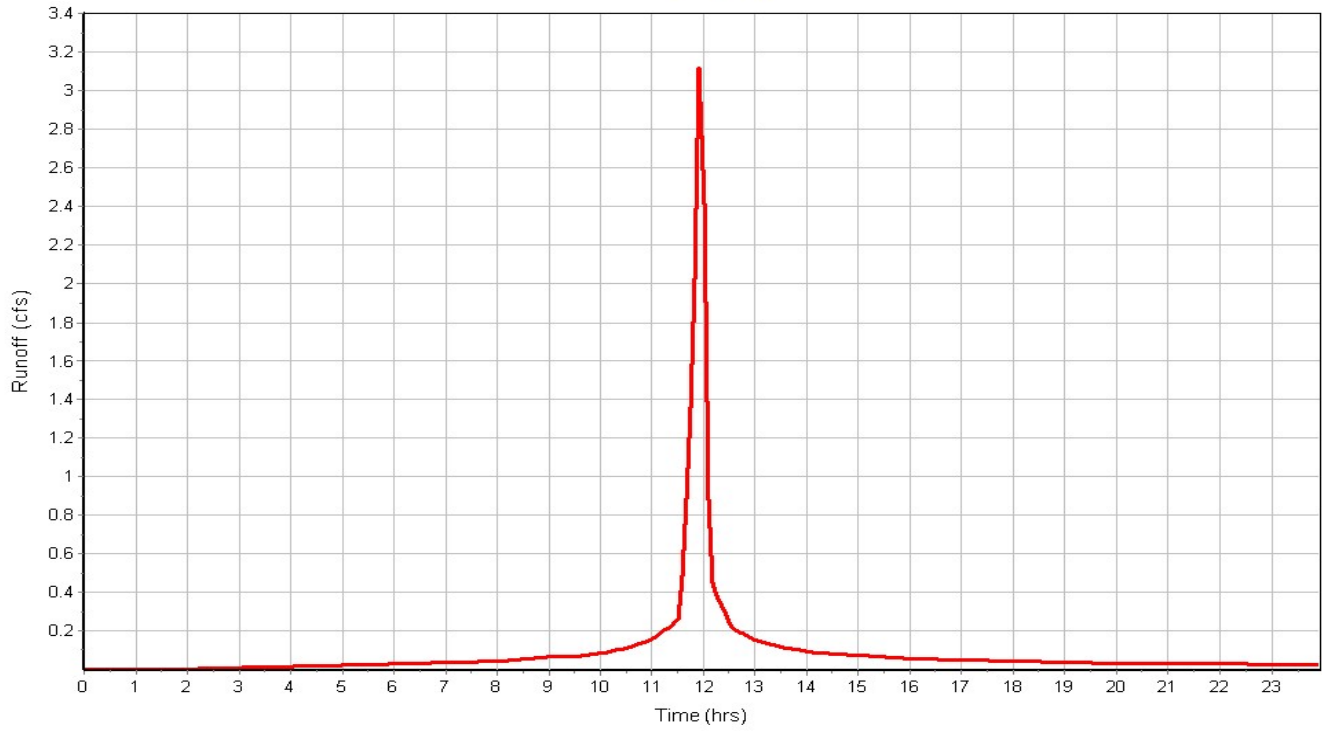
Total Rainfall (in) 5.63
Total Runoff (in) 5.11
Peak Runoff (cfs) 3.12
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea 02 - to wb 02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea 02 -to wb1

Input Data

Area (ac) 0.52
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

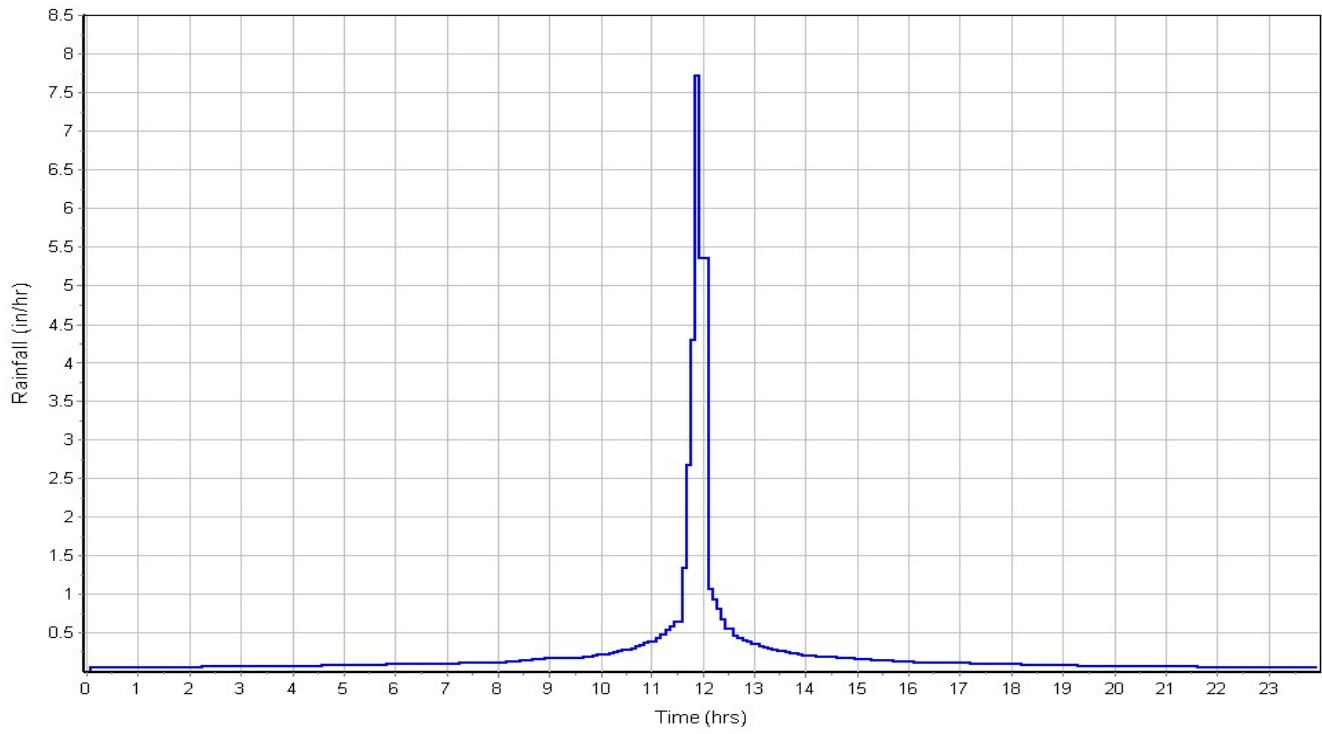
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.05	-	74.00
-	0.47	-	98.00
Composite Area & Weighted CN	0.52		95.60

Subbasin Runoff Results

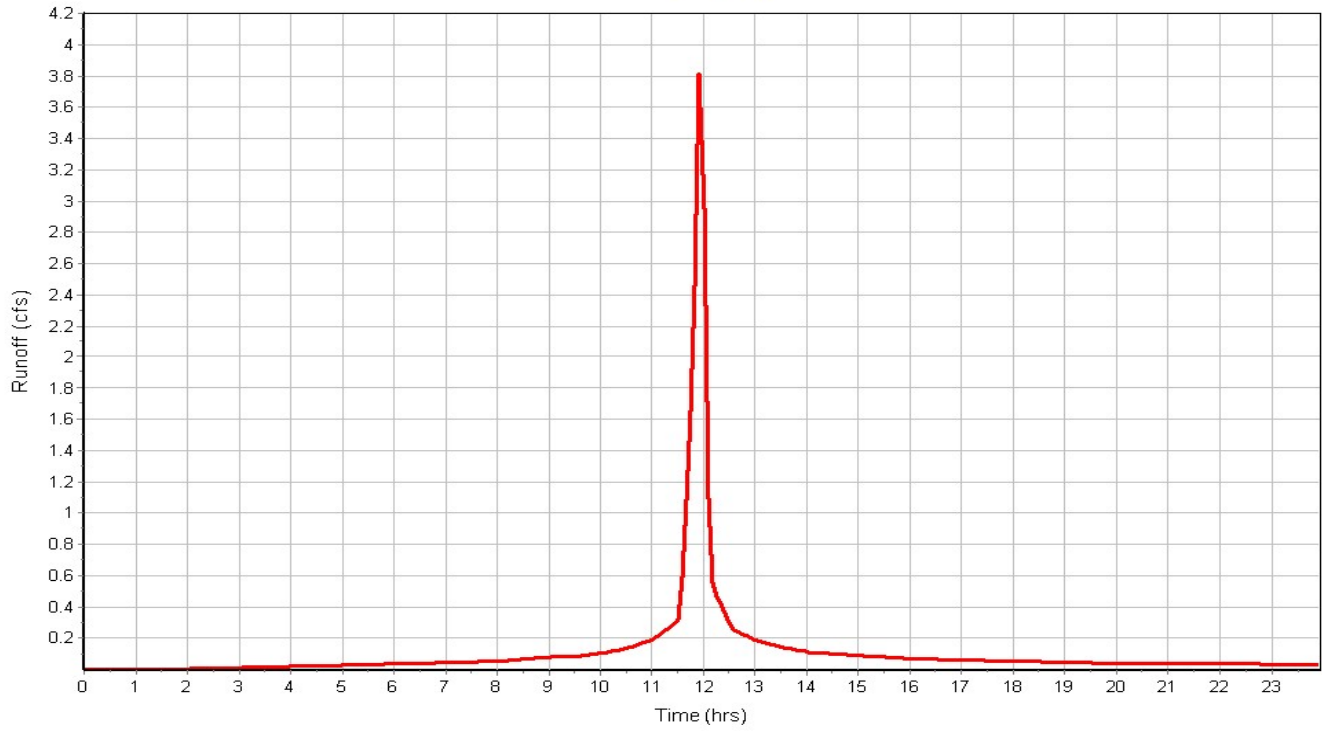
Total Rainfall (in) 5.63
Total Runoff (in) 5.11
Peak Runoff (cfs) 3.81
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea 02 -to wb1

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea 03

Input Data

Area (ac) 10.24
Weighted Curve Number 89.68
Rain Gage ID DublinRain

Composite Curve Number

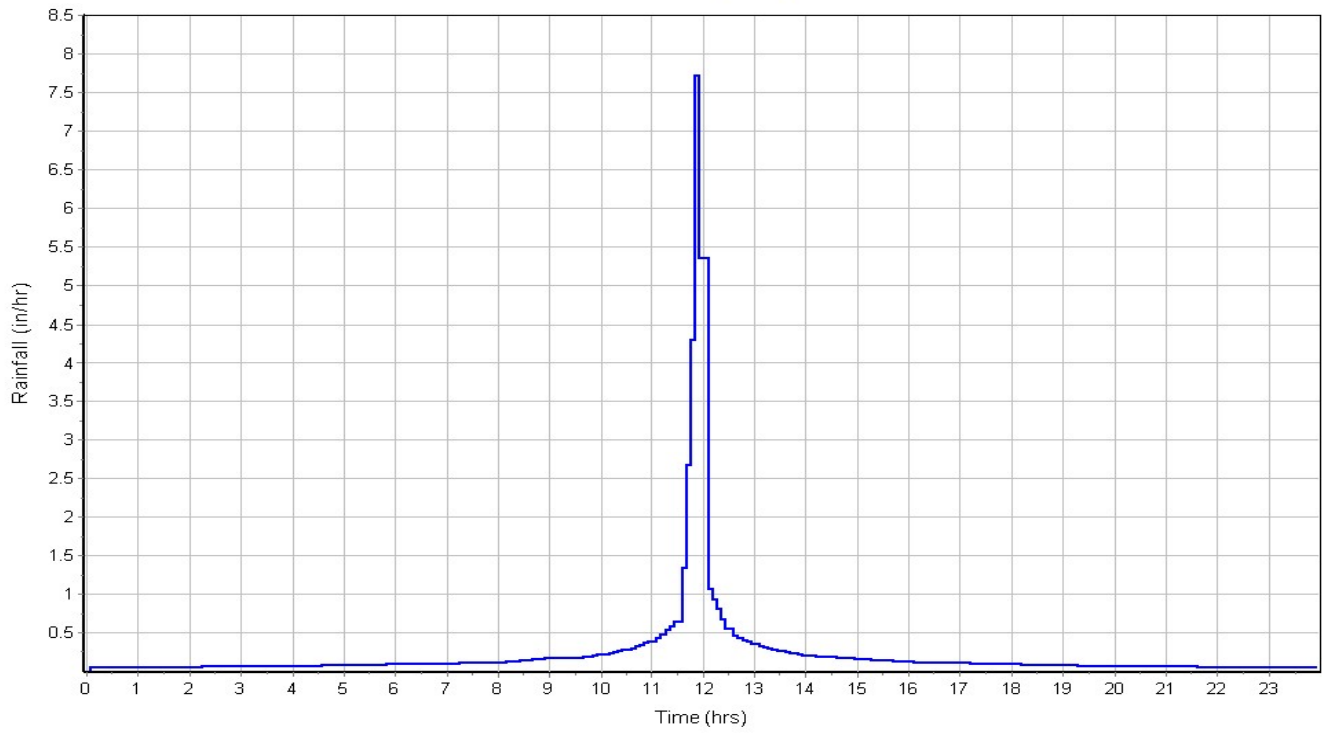
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	6.69	-	98.00
-	3.55	-	74.00
Composite Area & Weighted CN	10.24		89.68

Subbasin Runoff Results

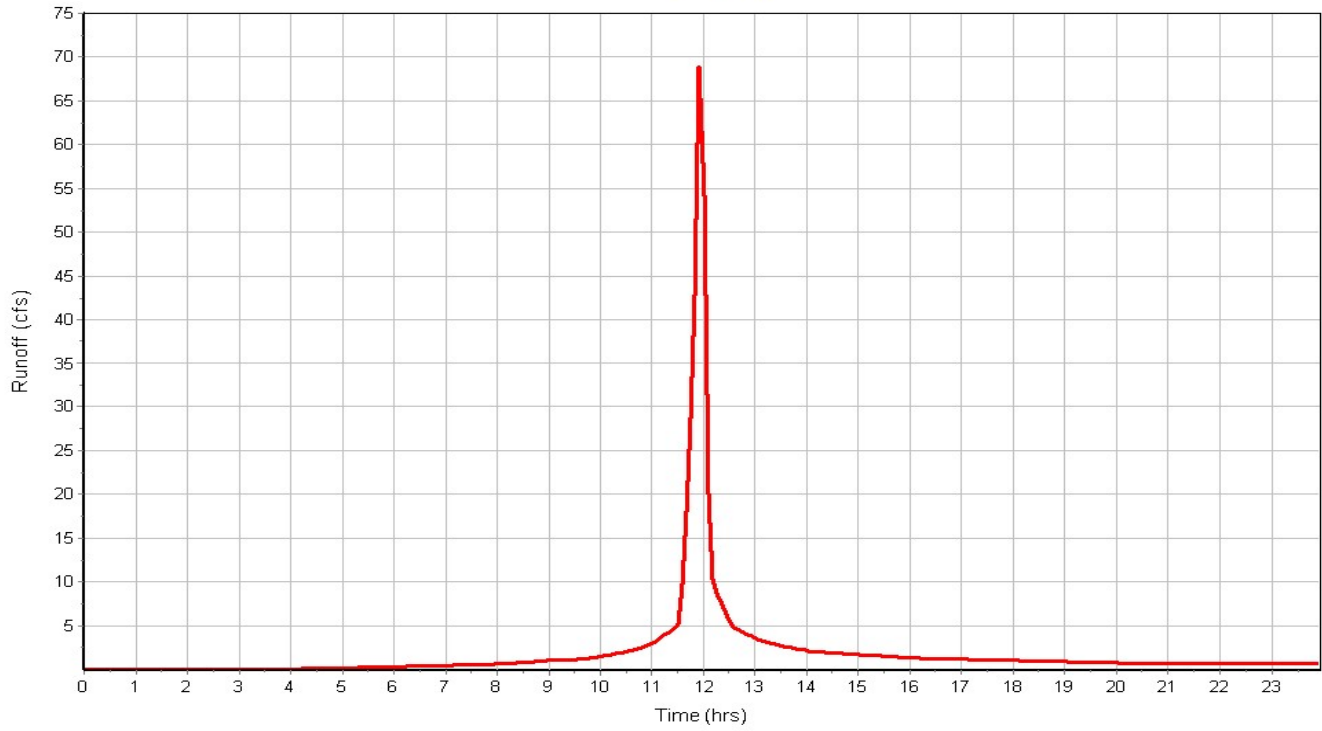
Total Rainfall (in) 5.63
Total Runoff (in) 4.45
Peak Runoff (cfs) 68.93
Weighted Curve Number 89.68
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea 03

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : Subarea01

Input Data

Area (ac) 14.97
Weighted Curve Number 90.80
Rain Gage ID DublinRain

Composite Curve Number

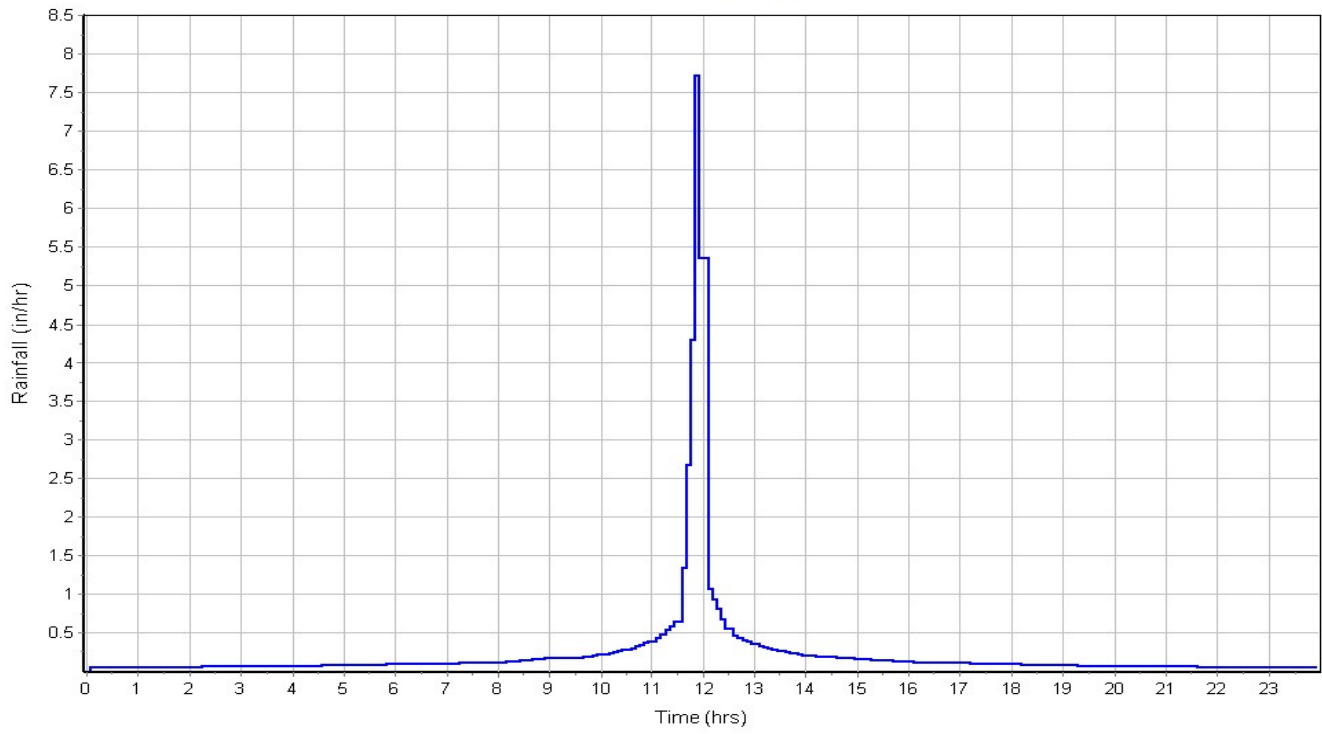
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	10.48	-	98.00
-	4.49	-	74.00
Composite Area & Weighted CN	14.97		90.80

Subbasin Runoff Results

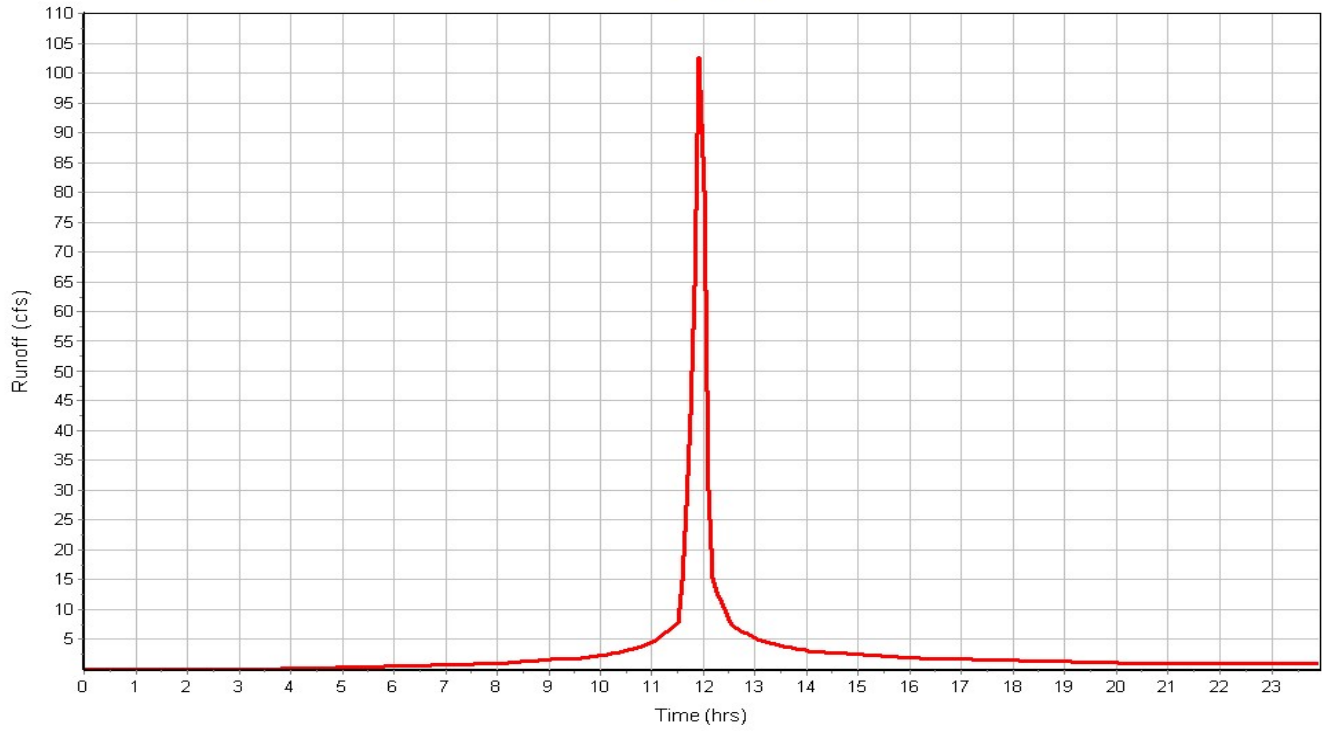
Total Rainfall (in) 5.63
Total Runoff (in) 4.57
Peak Runoff (cfs) 102.49
Weighted Curve Number 90.80
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : Subarea01

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin01

Input Data

Area (ac) 1.39
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

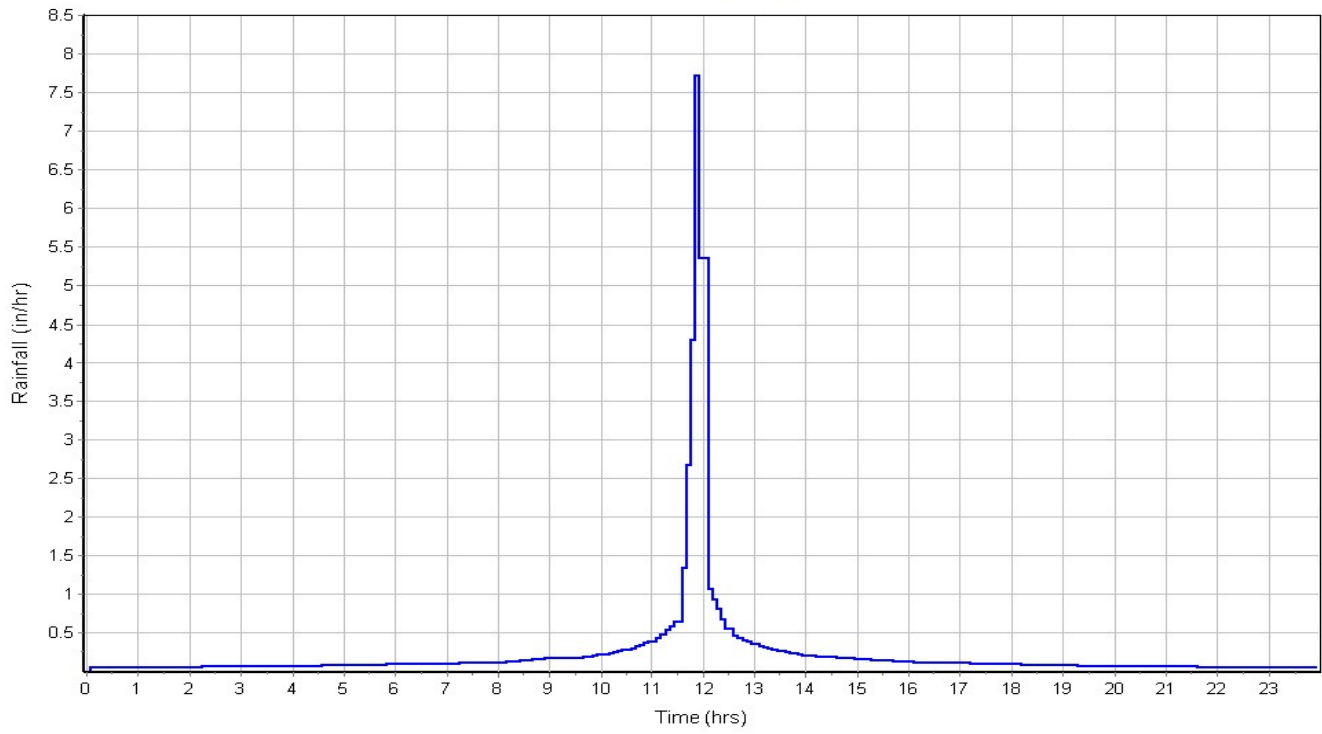
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	1.25	-	98.00
-	0.14	-	74.00
Composite Area & Weighted CN	1.39		95.60

Subbasin Runoff Results

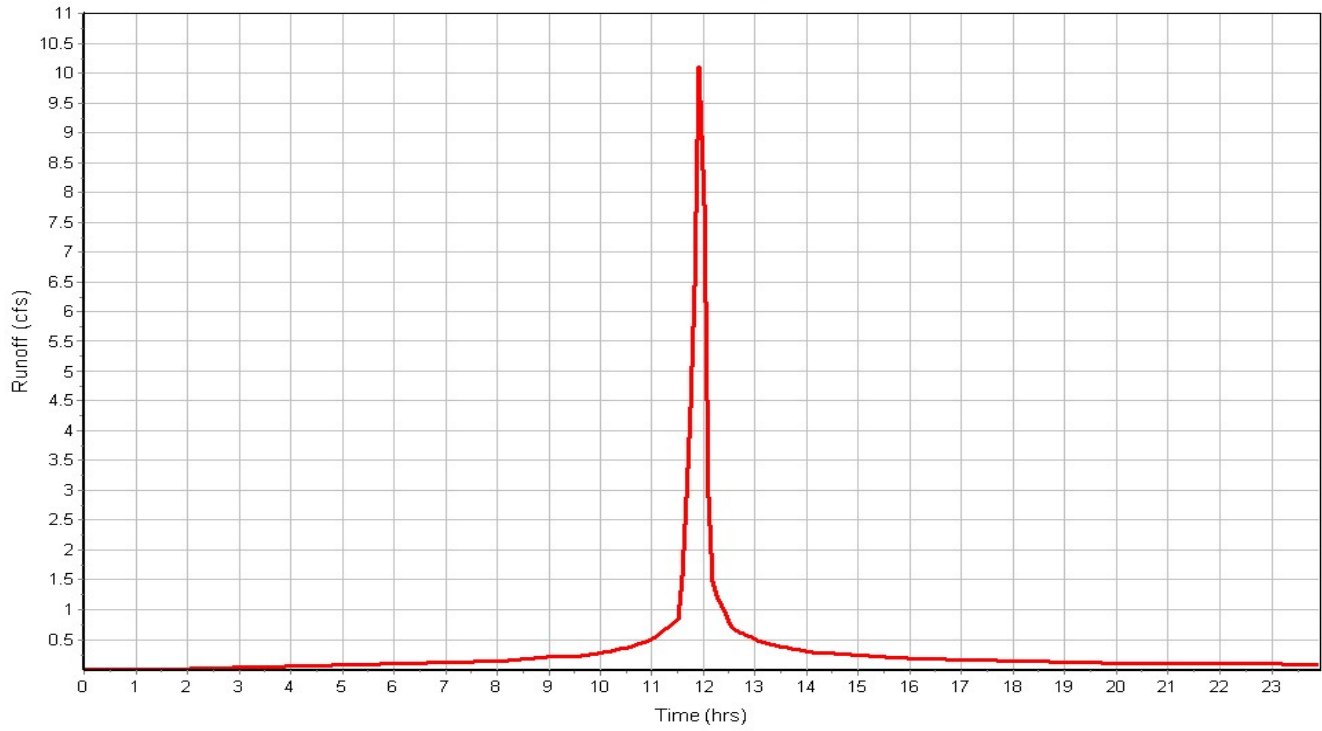
Total Rainfall (in) 5.63
Total Runoff (in) 5.11
Peak Runoff (cfs) 10.09
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin01

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin02

Input Data

Area (ac) 0.52
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

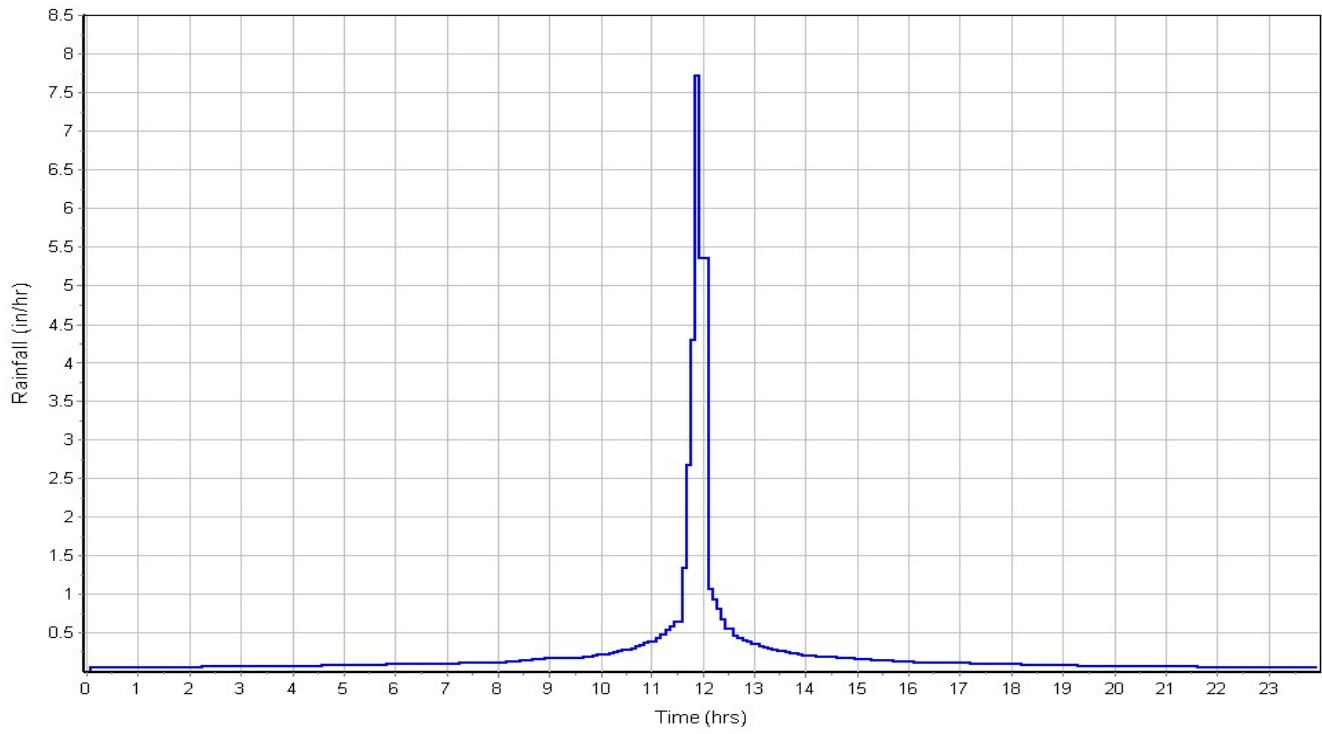
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.47	-	98.00
-	0.05	-	74.00
Composite Area & Weighted CN	0.52		95.60

Subbasin Runoff Results

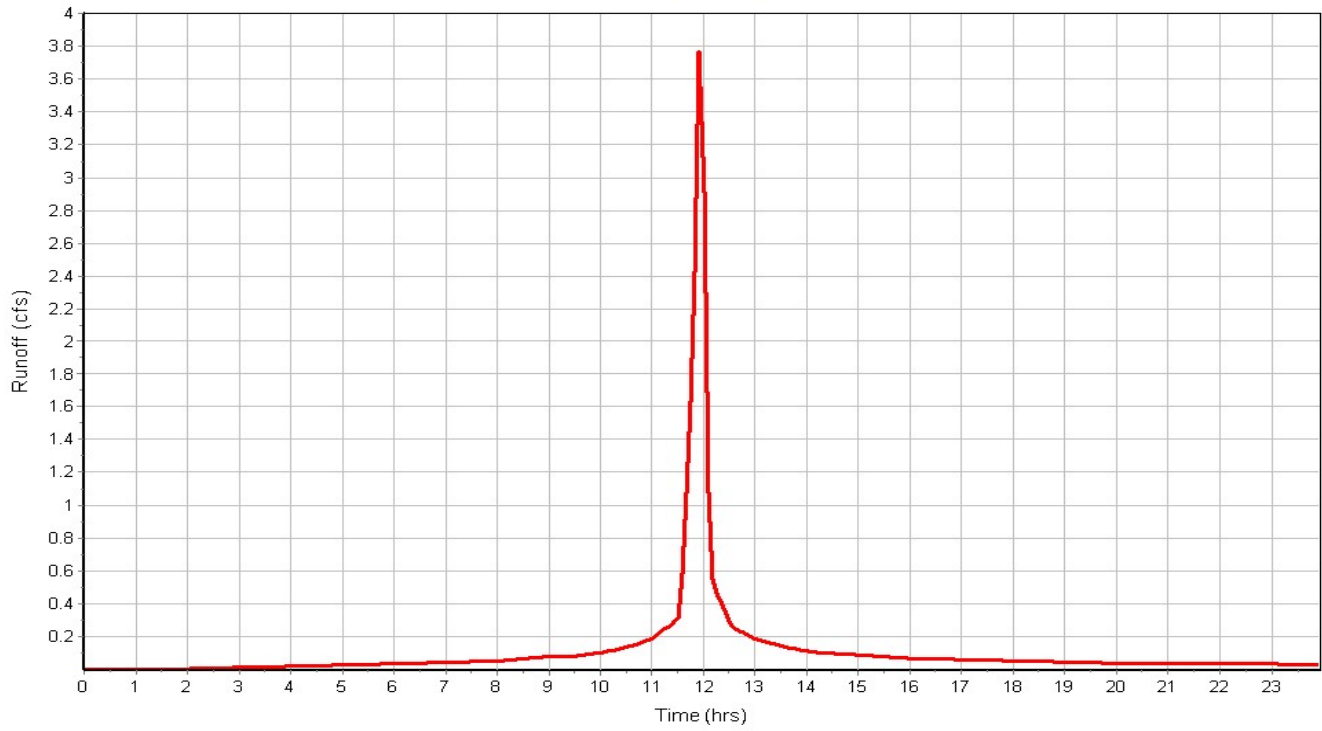
Total Rainfall (in) 5.63
Total Runoff (in) 5.11
Peak Runoff (cfs) 3.77
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin03

Input Data

Area (ac) 1.35
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

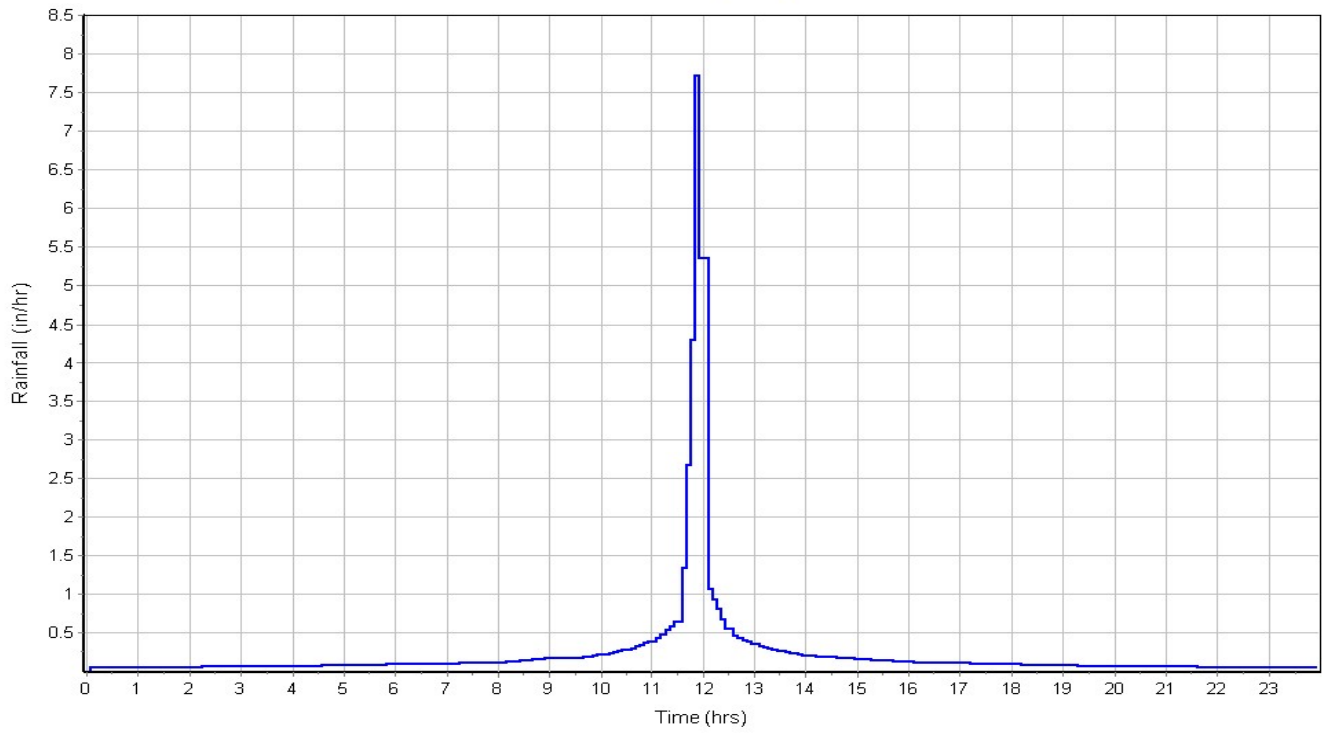
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	1.22	-	98.00
-	0.14	-	74.00
Composite Area & Weighted CN	1.36		95.60

Subbasin Runoff Results

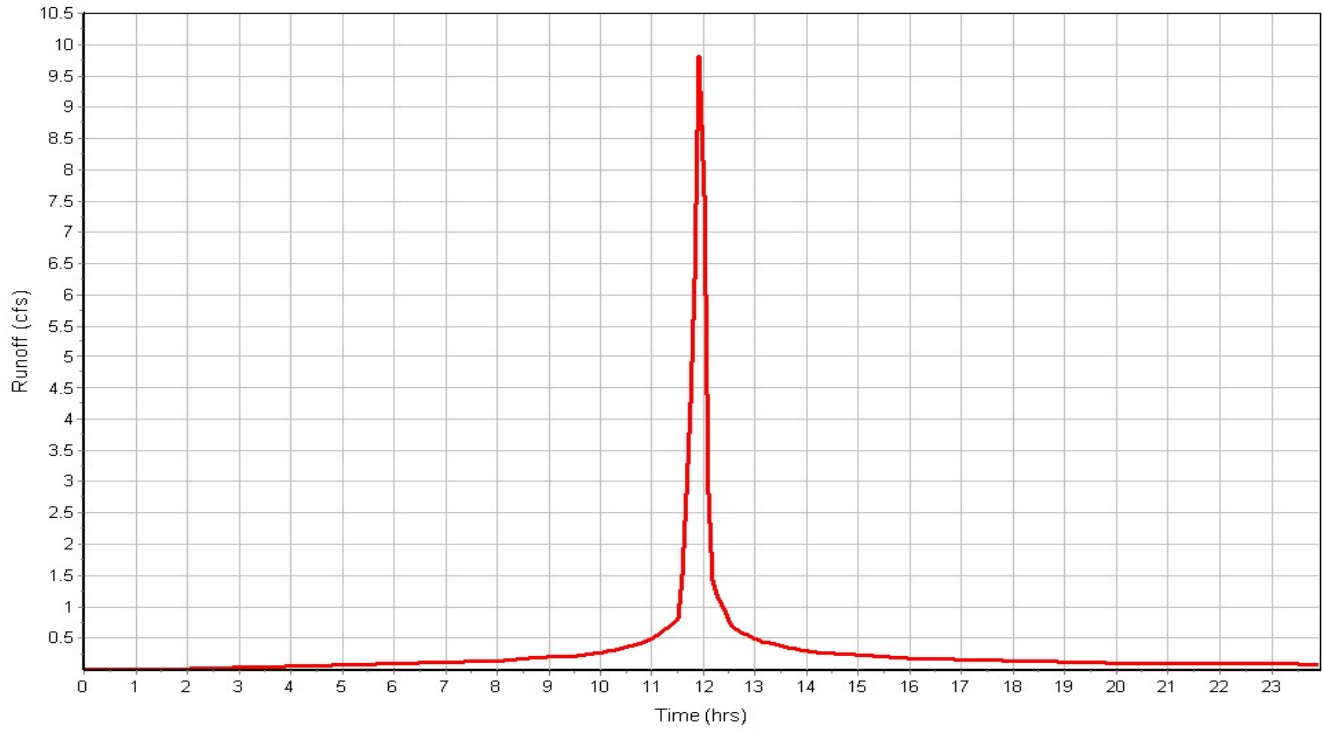
Total Rainfall (in) 5.63
Total Runoff (in) 5.11
Peak Runoff (cfs) 9.81
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin03

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin04

Input Data

Area (ac) 0.81
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

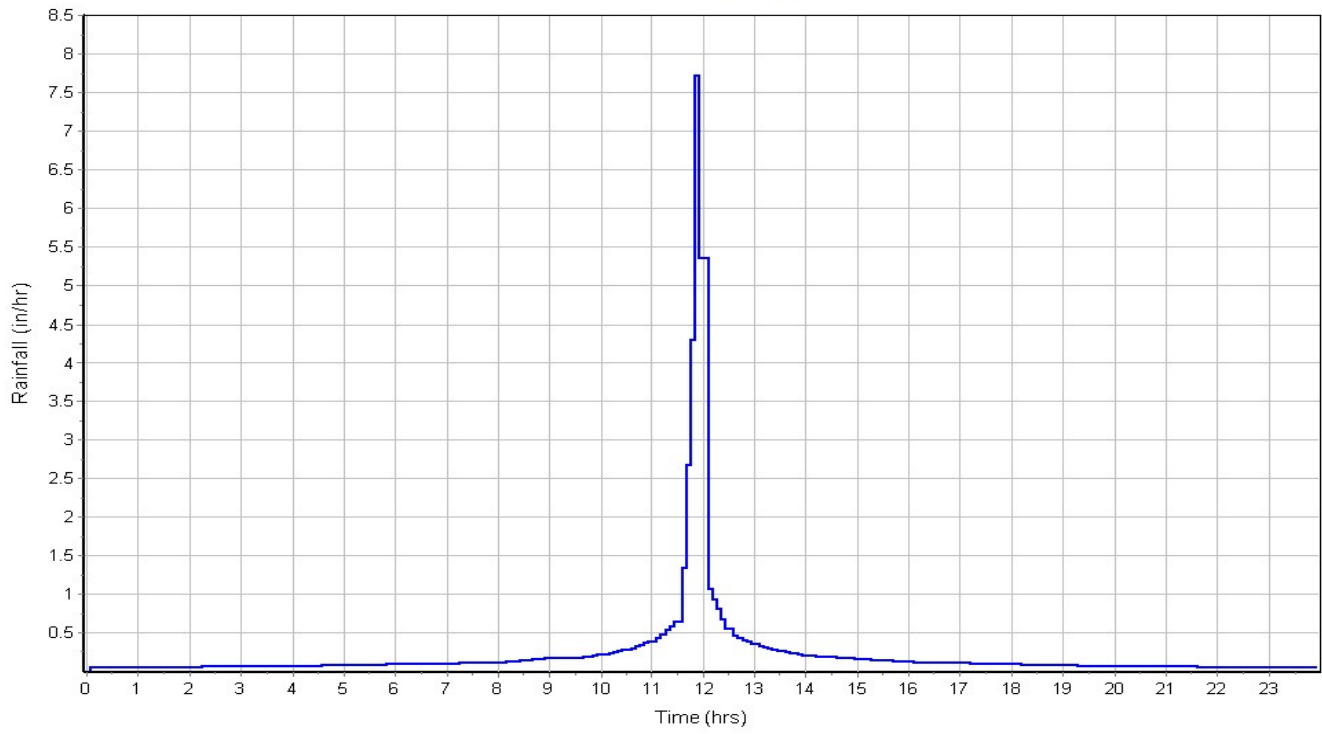
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.73	-	98.00
-	0.08	-	74.00
Composite Area & Weighted CN	0.81		95.60

Subbasin Runoff Results

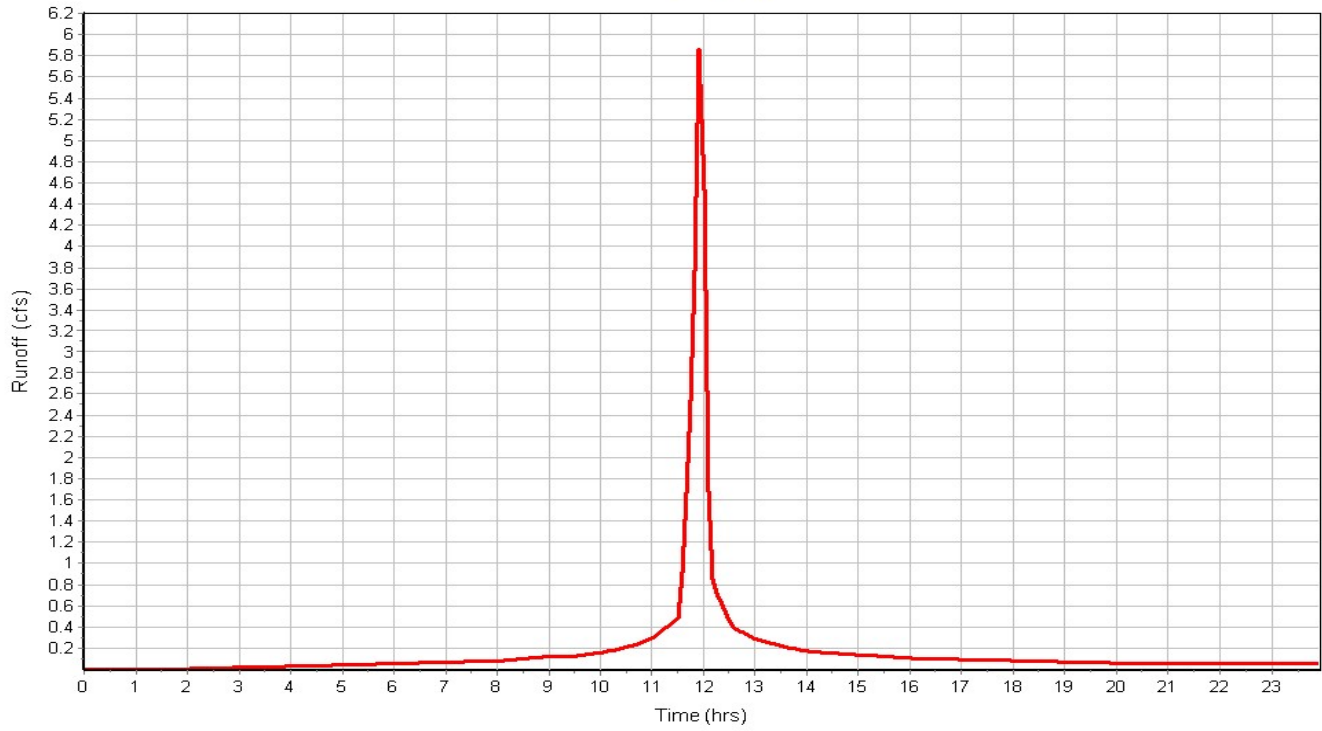
Total Rainfall (in) 5.63
Total Runoff (in) 5.11
Peak Runoff (cfs) 5.86
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin04

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToBiobasin05

Input Data

Area (ac) 1.44
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

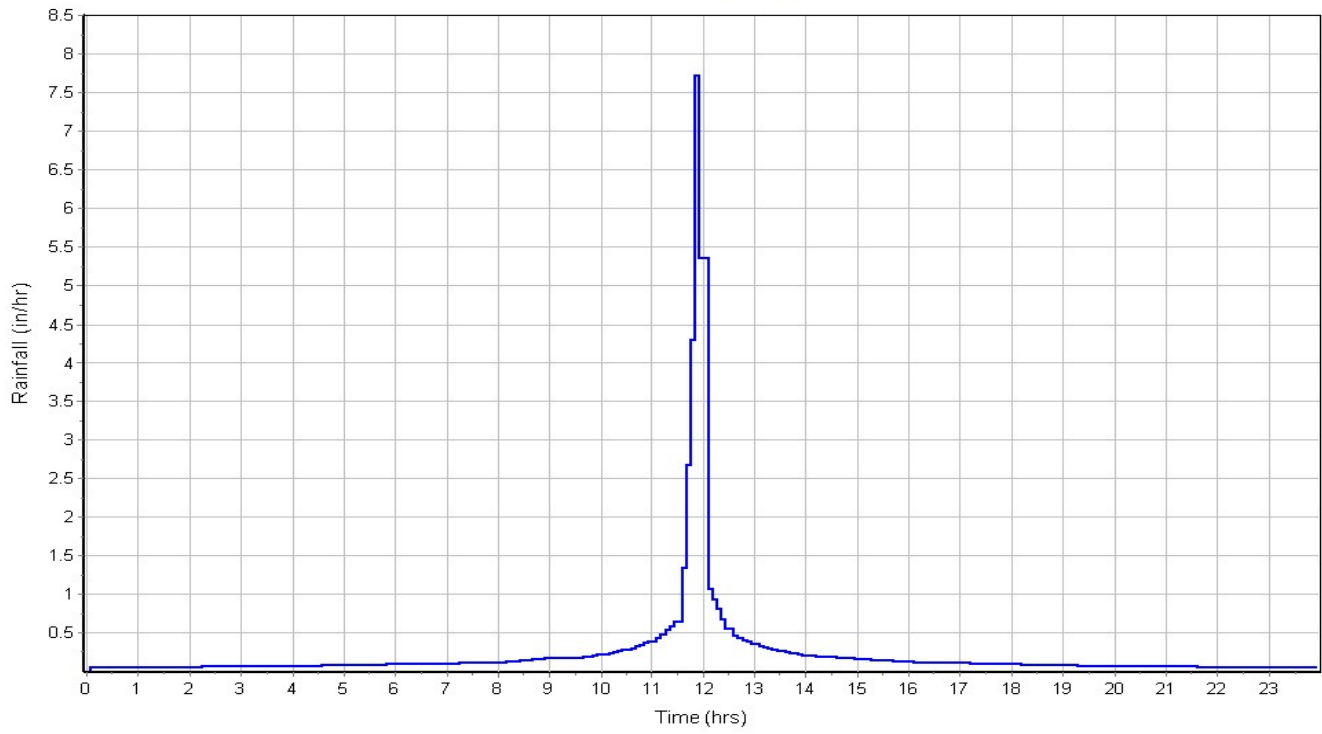
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	1.29	-	98.00
-	0.14	-	74.00
Composite Area & Weighted CN	1.43		95.60

Subbasin Runoff Results

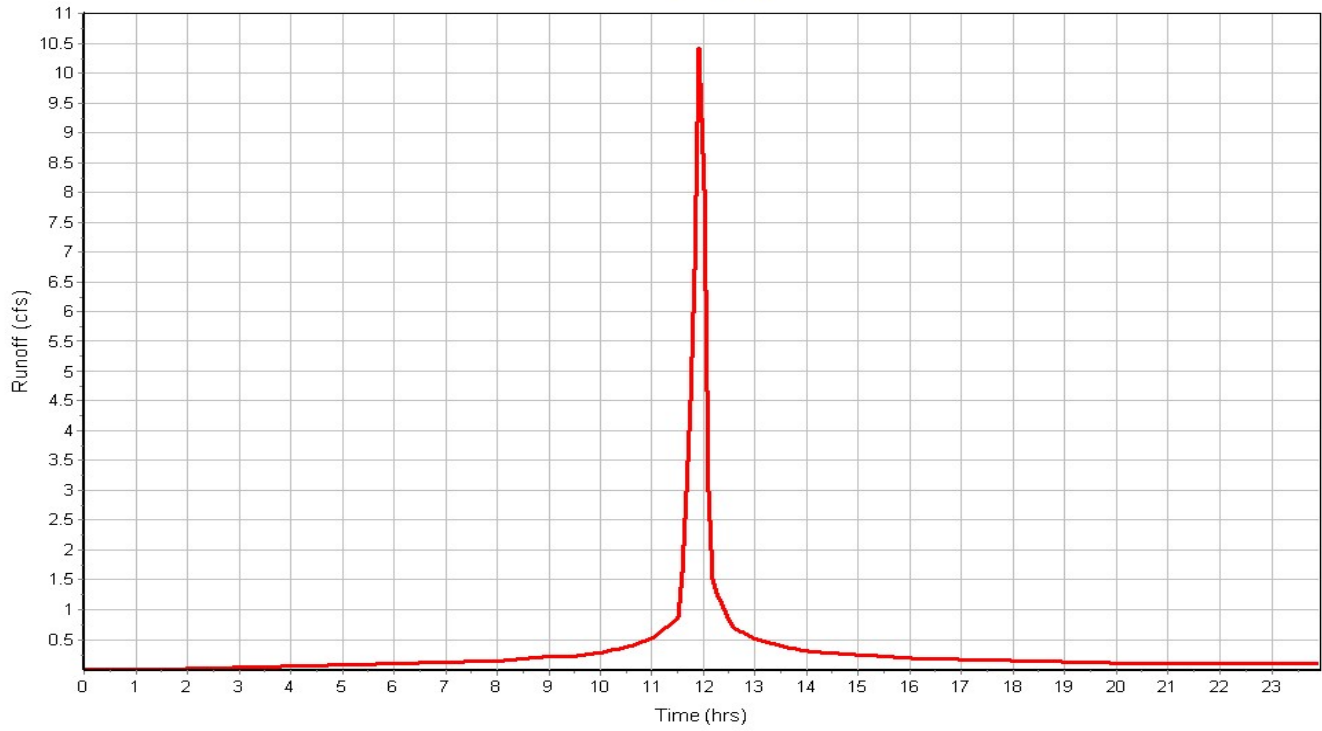
Total Rainfall (in) 5.63
Total Runoff (in) 5.11
Peak Runoff (cfs) 10.42
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToBiobasin05

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToPP01-02

Input Data

Area (ac) 0.91
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

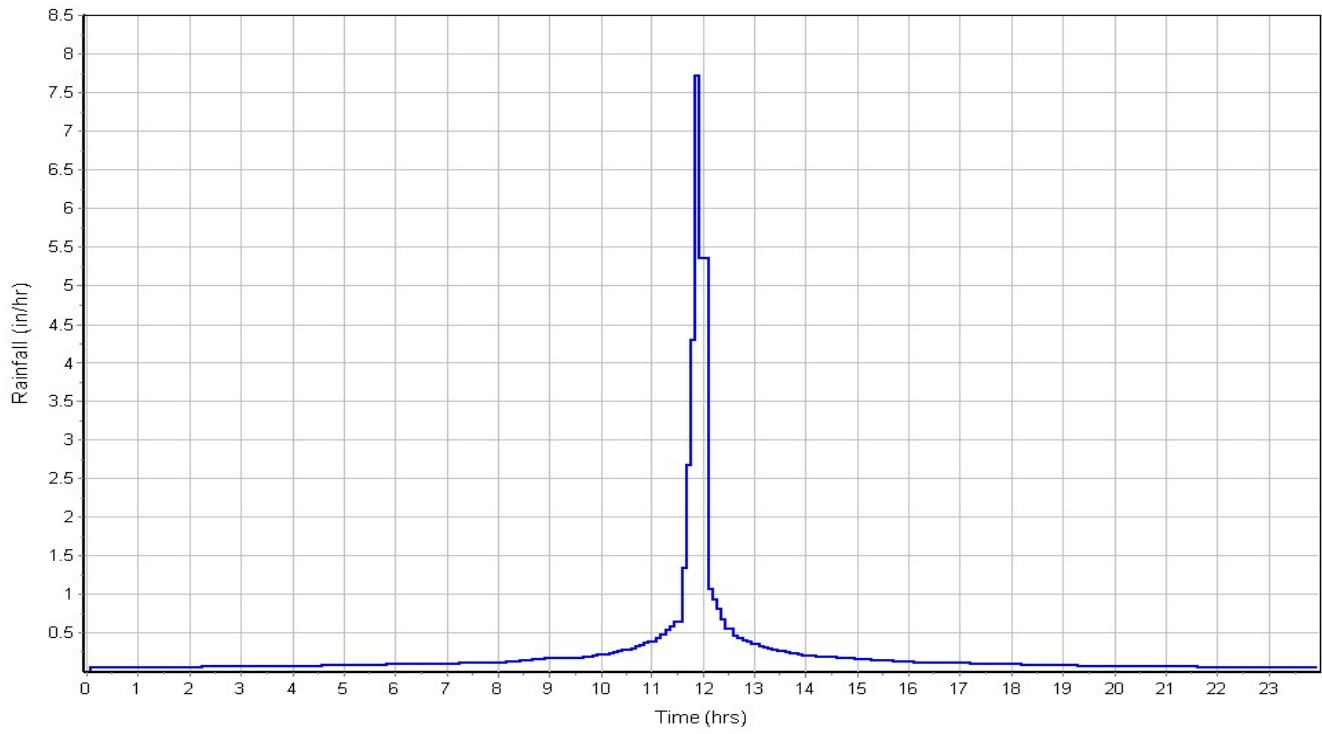
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.82	-	98.00
-	0.09	-	74.00
Composite Area & Weighted CN	0.91		95.60

Subbasin Runoff Results

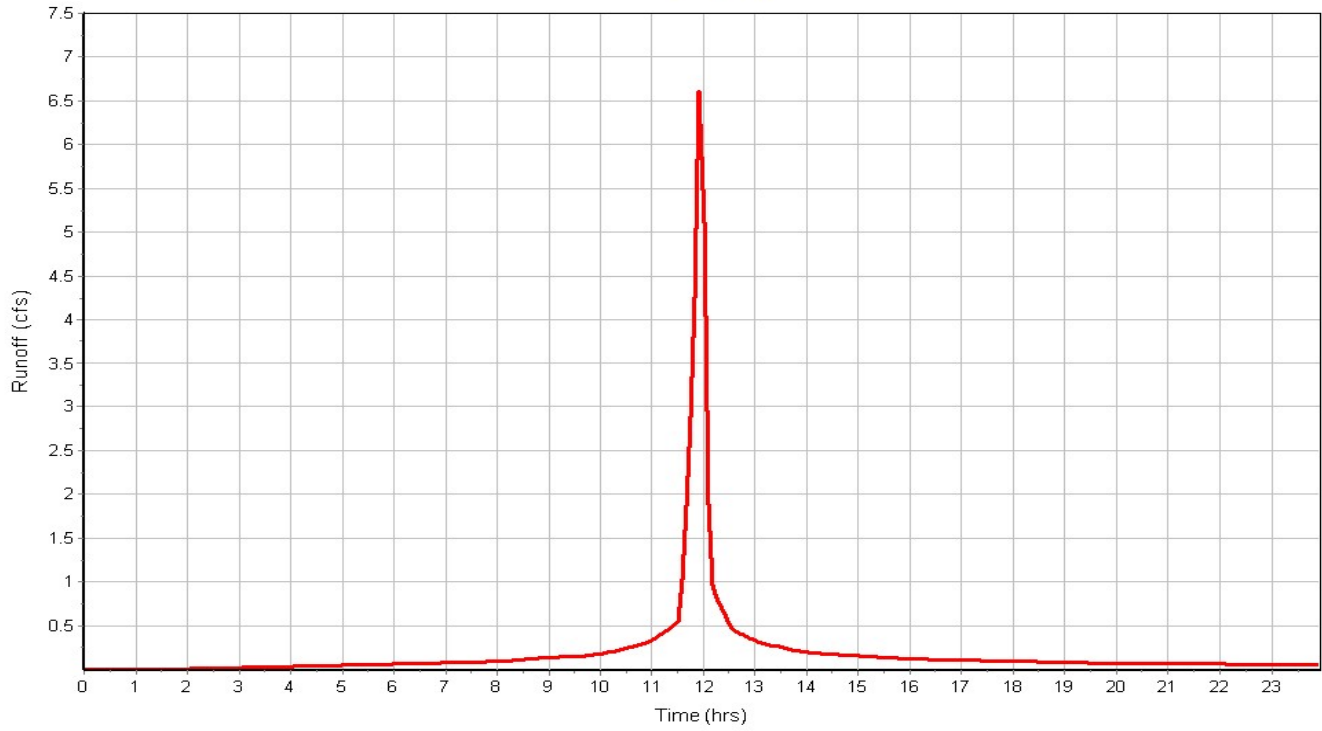
Total Rainfall (in) 5.63
Total Runoff (in) 5.11
Peak Runoff (cfs) 6.60
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToPP01-02

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : ToPP03-04

Input Data

Area (ac) 0.93
Weighted Curve Number 95.60
Rain Gage ID DublinRain

Composite Curve Number

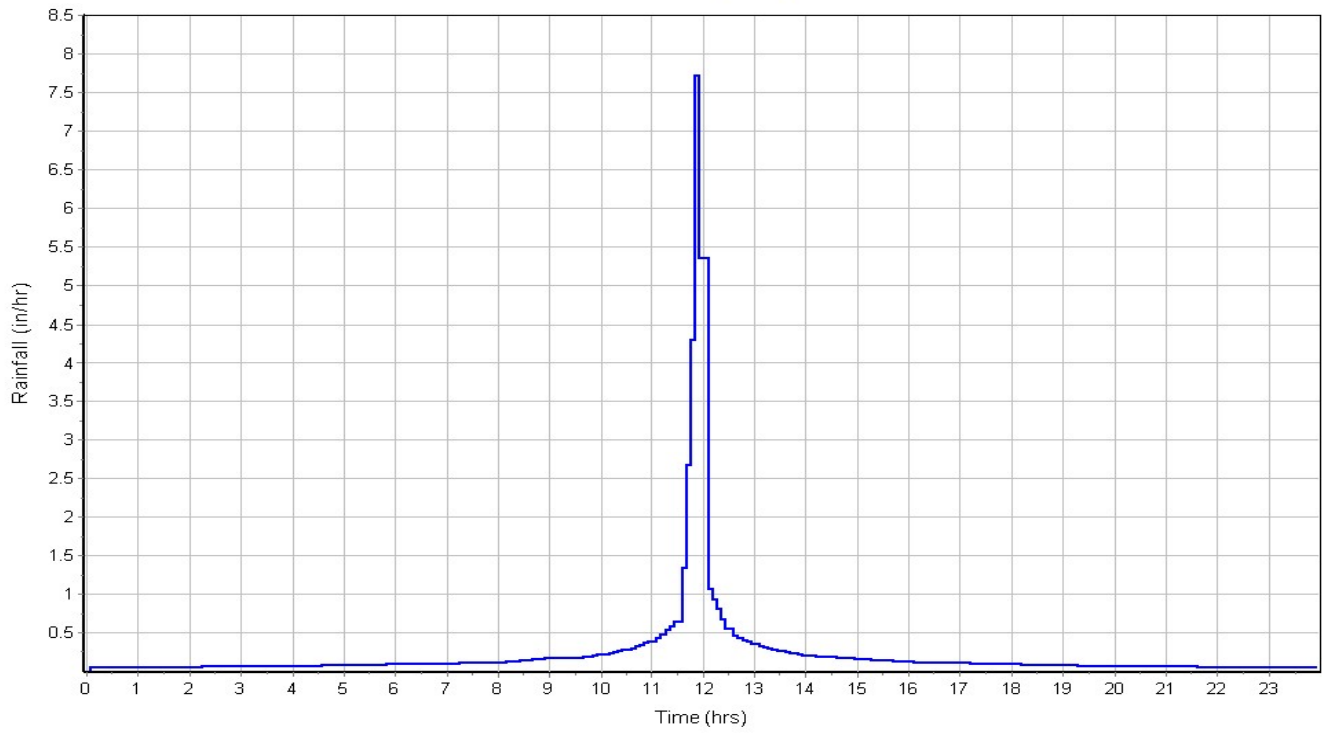
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.83	-	98.00
-	0.09	-	74.00
Composite Area & Weighted CN	0.92		95.60

Subbasin Runoff Results

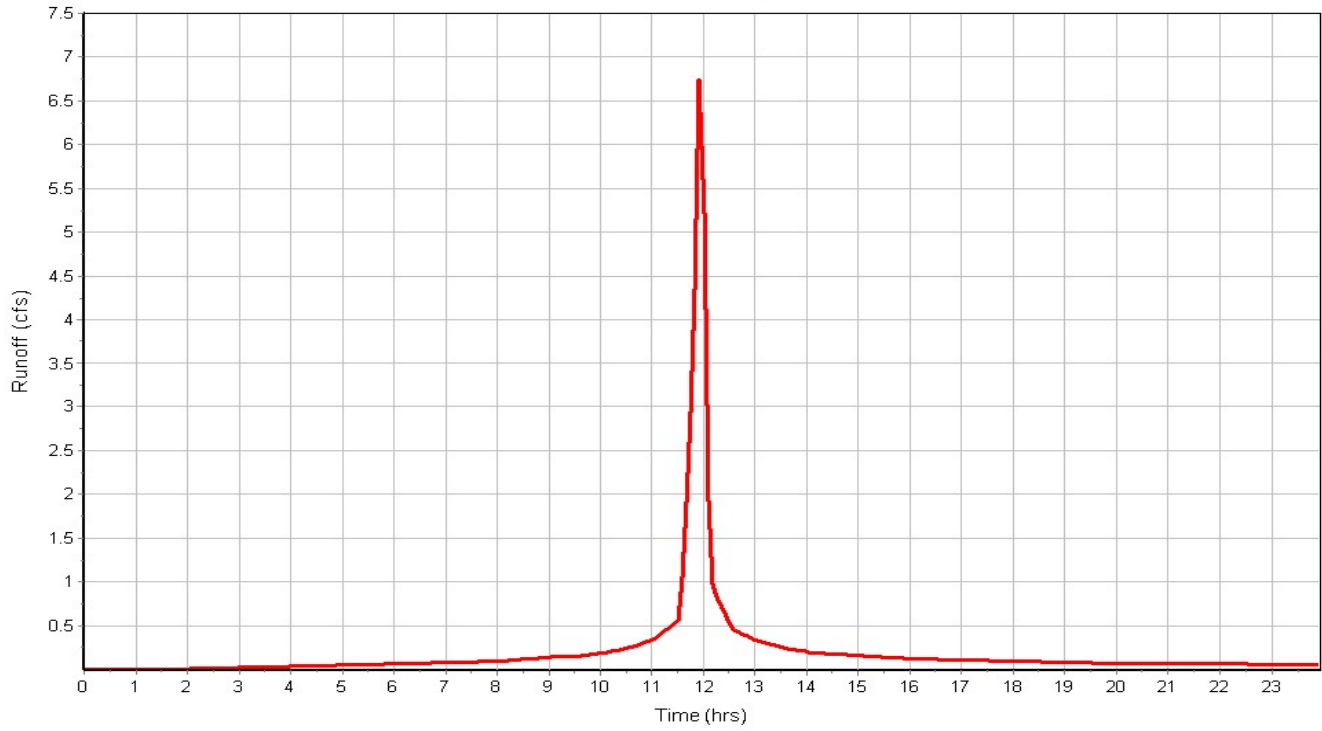
Total Rainfall (in) 5.63
Total Runoff (in) 5.11
Peak Runoff (cfs) 6.74
Weighted Curve Number 95.60
Time of Concentration (days hh:mm:ss) 0 00:05:00

Subbasin : ToPP03-04

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 (ft ²)	Minimum Pipe Cover (in)
1 Biobasin02dummynode	862.67	867.17	4.50	862.67	0.00	867.17	0.00	0.00	0.00
2 CatchBasin03	862.00	866.50	4.50	862.00	0.00	866.50	0.00	2879.24	0.00
3 CatchBasin04	862.44	866.94	4.50	862.44	0.00	866.94	0.00	4642.88	0.00
4 CatchBasin05	862.67	867.17	4.50	862.67	0.00	867.17	0.00	1566.12	0.00
5 CatchBasin12	862.60	867.10	4.50	862.60	0.00	867.10	0.00	6347.63	0.00
6 CatchBasin8	862.64	867.14	4.50	862.64	0.00	867.14	0.00	6037.65	0.00
7 Dummy1	861.69	867.00	5.31	861.69	0.00	867.00	0.00	0.00	0.00
8 Ex0	860.13	865.00	4.87	860.13	0.00	865.00	0.00	0.00	0.00
9 ExA	860.81	865.00	4.19	860.81	0.00	865.00	0.00	0.00	0.00
10 Existing 36-inch outlet pipe	870.00	875.50	5.50	870.00	0.00	875.50	0.00	0.00	0.00
11 Manhole 7	862.47	868.00	5.53	862.47	0.00	868.00	0.00	0.00	0.00
12 Manhole1	861.75	868.00	6.25	861.75	0.00	868.00	0.00	0.00	0.00
13 Manhole10	862.23	868.00	5.77	862.23	0.00	868.00	0.00	0.00	0.00
14 Manhole11	862.42	868.00	5.58	862.42	0.00	868.00	0.00	0.00	0.00
15 Manhole13	863.79	868.00	4.21	863.79	0.00	868.00	0.00	0.00	0.00
16 Manhole2	861.80	868.00	6.20	861.80	0.00	868.00	0.00	0.00	0.00
17 Manhole6	862.28	868.00	5.72	862.28	0.00	868.00	0.00	0.00	0.00
18 Manhole9	863.79	868.00	4.21	863.79	0.00	868.00	0.00	0.00	0.00
19 Offsite 02 outlet	877.50	881.50	4.00	877.50	0.00	881.50	0.00	0.00	0.00
20 OutToDitch	861.58	863.00	1.42	861.58	0.00	863.00	0.00	0.00	0.00
21 Structure1	861.69	868.00	6.31	861.69	0.00	868.00	0.00	0.00	0.00

Junction Results

SN Element ID	Peak Inflow (cfs)	Peak Lateral Inflow (cfs)	Max HGL Elevation Attained (ft)	Max HGL Depth Attained (ft)	Max SurchARGE Depth Attained (ft)	Min Freeboard Attained (ft)	Average HGL Elevation Attained (ft)	Average HGL Depth Attained (ft)	Time of Max HGL Occurrence (days hh:mm)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1 Biobasin02dummysnode	2.25	0.00	866.90	4.23	0.00	0.27	863.95	1.28	0 12:08	0 00:00	0.00	0.00
2 CatchBasin03	7.60	0.00	866.30	4.30	0.00	0.20	863.67	1.67	0 12:19	0 00:00	0.00	0.00
3 CatchBasin04	6.79	0.00	866.70	4.26	0.00	0.24	863.86	1.42	0 12:09	0 00:00	0.00	0.00
4 CatchBasin05	2.14	0.00	866.75	4.08	0.00	0.42	863.94	1.27	0 12:10	0 00:00	0.00	0.00
5 CatchBasin12	5.87	0.00	866.49	3.89	0.00	0.61	863.92	1.32	0 12:09	0 00:00	0.00	0.00
6 CatchBasin8	5.81	0.00	866.54	3.90	0.00	0.60	863.94	1.30	0 12:09	0 00:00	0.00	0.00
7 Dummy1	22.61	0.00	866.15	4.46	0.00	0.85	863.64	1.95	0 14:19	0 00:00	0.00	0.00
8 Ex0	22.44	0.00	861.43	1.30	0.00	3.57	860.85	0.72	0 14:21	0 00:00	0.00	0.00
9 ExA	28.86	0.00	865.73	4.92	0.00	1.08	862.93	2.12	0 14:21	0 00:00	0.00	0.00
10 Existing 36-inch outlet pipe	23.25	10.06	871.29	1.29	0.00	5.11	870.50	0.50	0 12:06	0 00:00	0.00	0.00
11 Manhole 7	5.60	0.00	866.39	3.92	0.00	1.61	863.85	1.38	0 12:13	0 00:00	0.00	0.00
12 Manhole1	18.17	0.00	866.05	4.30	0.00	1.95	863.59	1.84	0 12:32	0 00:00	0.00	0.00
13 Manhole10	5.65	0.00	866.18	3.95	0.00	1.82	863.74	1.51	0 12:19	0 00:00	0.00	0.00
14 Manhole11	5.63	0.00	866.33	3.91	0.00	1.67	863.83	1.41	0 12:14	0 00:00	0.00	0.00
15 Manhole13	0.25	0.00	866.15	2.36	0.00	1.85	864.48	0.69	0 12:21	0 00:00	0.00	0.00
16 Manhole2	7.33	0.00	866.14	4.34	0.00	1.86	863.61	1.81	0 12:36	0 00:00	0.00	0.00
17 Manhole6	5.60	0.00	866.26	3.98	0.00	1.74	863.77	1.49	0 12:21	0 00:00	0.00	0.00
18 Manhole9	1.76	0.00	866.25	2.46	0.00	1.75	864.49	0.70	0 12:20	0 00:00	0.00	0.00
19 Offsite 02 outlet	6.31	0.00	880.03	2.53	0.00	2.17	877.92	0.42	0 12:59	0 00:00	0.00	0.00
20 OutToDitch	37.71	0.00	865.73	4.15	0.00	1.85	863.30	1.72	0 14:21	0 00:00	0.00	0.00
21 Structure1	37.75	0.00	866.02	4.33	0.00	1.98	863.57	1.88	0 14:10	0 00:00	0.00	0.00

Channel Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Shape	Height (ft)	Width (ft)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate
1	Ditch	375.41	861.58	0.00	860.81	0.00	0.77	0.2100	Trapezoidal	6.000	40.000	0.0320	0.5000	0.5000	0.0000	0.00	No

Channel Results

SN Element ID	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Travel Time (min)	Peak Flow Depth (ft)	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged (min)	Froude Number	Reported Condition
1 Ditch	28.86	0 12:05	596.14	0.05	1.44	4.35	4.53	0.76	0.00		

Pipe Input

SN Element ID	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Pipe Width (in)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow	Flap Gate	No. of Barrels
1 1->basins	62.54	861.75	0.00	861.69	0.00	0.06	0.1000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
2 10->11	190.96	862.23	0.00	861.75	0.00	0.48	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
3 11->10	75.00	862.42	0.00	862.23	0.00	0.19	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
4 12->11	72.47	862.60	0.00	862.42	0.00	0.18	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
5 13->10	16.00	863.79	0.00	863.72	1.49	0.07	0.4400	CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
6 2->1	20.00	861.80	0.00	861.75	0.00	0.05	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
7 3->2	81.60	862.00	0.00	861.80	0.00	0.20	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
8 4->3	175.98	862.44	0.00	862.00	0.00	0.44	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
9 5->4	92.80	862.67	0.00	862.44	0.00	0.23	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
10 6->1	210.04	862.28	0.00	861.75	0.00	0.53	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
11 7->6	75.00	862.47	0.00	862.28	0.00	0.19	0.2500	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
12 8->7	69.56	862.64	0.00	862.47	0.00	0.17	0.2400	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
13 9->8	16.00	863.79	0.00	863.73	1.45	0.06	0.3700	CIRCULAR	15.000	15.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
14 Basin connector	85.00	859.00	0.00	858.90	-0.10	0.10	0.1200	CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
15 Basins->outlet	109.09	861.69	0.00	861.58	0.00	0.11	0.1000	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
16 Dual 18 inch pipes	35.92	860.81	0.00	860.13	0.00	0.68	1.9000	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
17 Elliptical pipe under roadway	98.05	860.07	-0.06	859.65	0.00	0.42	0.4300	Horizontal Ellipse	36.000	54.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
18 Offsite 02->outfall	84.10	877.50	0.00	875.40	5.40	2.10	2.5000	CIRCULAR	12.000	12.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
19 offsite basin2 -> offsite basin 1	201.70	878.00	0.00	877.70	2.70	0.30	0.1500	CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
20 Offsite->basin	1296.34	870.00	0.00	862.00	3.00	8.00	0.6200	CIRCULAR	42.000	42.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1
21 OutletPipe	10.82	862.00	0.31	861.69	0.00	0.31	2.8700	CIRCULAR	36.000	36.000	0.0130	0.5000	0.5000	0.0000	0.00	No	1

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	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
	(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)		
1 1->basins	17.89	0 11:58	20.66	0.87	2.56	0.41	3.00	1.00	450.00		SURCHARGED
2 10->11	5.65	0 11:58	5.27	1.07	3.20	0.99	1.50	1.00	598.00		SURCHARGED
3 11->10	5.63	0 11:58	5.29	1.07	3.19	0.39	1.50	1.00	575.00		SURCHARGED
4 12->11	5.63	0 11:58	5.24	1.08	3.19	0.38	1.50	1.00	548.00		SURCHARGED
5 13->10	0.27	0 13:37	2.36	0.11	1.43	0.19	1.00	1.00	450.00		SURCHARGED
6 2->1	7.32	0 11:57	5.25	1.39	4.14	0.08	1.50	1.00	650.00		SURCHARGED
7 3->2	7.33	0 11:57	5.20	1.41	4.15	0.33	1.50	1.00	626.00		SURCHARGED
8 4->3	6.12	0 11:55	5.25	1.17	3.46	0.85	1.50	1.00	574.00		SURCHARGED
9 5->4	2.12	0 11:55	5.23	0.41	1.20	1.29	1.50	1.00	539.00		SURCHARGED
10 6->1	5.59	0 11:58	5.28	1.06	3.16	1.11	1.50	1.00	592.00		SURCHARGED
11 7->6	5.60	0 11:58	5.29	1.06	3.17	0.39	1.50	1.00	567.00		SURCHARGED
12 8->7	5.60	0 11:58	5.19	1.08	3.17	0.37	1.50	1.00	542.00		SURCHARGED
13 9->8	0.96	0 12:39	3.96	0.24	1.27	0.21	1.25	1.00	416.00		SURCHARGED
14 Basin connector	13.97	0 12:08	0.78	18.00	4.45	0.32	2.00	1.00	1440.00		SURCHARGED
15 Basins->outlet	37.71	0 12:04	21.18	1.78	5.49	0.33	3.00	1.00	444.00		SURCHARGED
16 Dual 18 inch pipes	22.44	0 14:21	14.48	1.55	13.07	0.05	1.40	0.93	0.00		> CAPACITY
17 Elliptical pipe under roadway	22.44	0 14:21	86.04	0.26	5.52	0.30	1.20	0.40	0.00		Calculated
18 Offsite 02->outfall	6.30	0 12:59	5.63	1.12	8.02	0.17	1.00	1.00	35.00		SURCHARGED
19 offsite basin2 -> offsite basin 1	15.02	0 12:08	8.72	1.72	4.78	0.70	2.00	1.00	252.00		SURCHARGED
20 Offsite->basin	22.89	0 12:06	79.04	0.29	3.26	6.63	2.39	0.68	0.00		Calculated
21 OutletPipe	21.60	0 12:05	112.90	0.19	3.75	0.05	3.00	1.00	432.00		SURCHARGED

Storage Nodes

Storage Node : Biobasin 01

Input Data

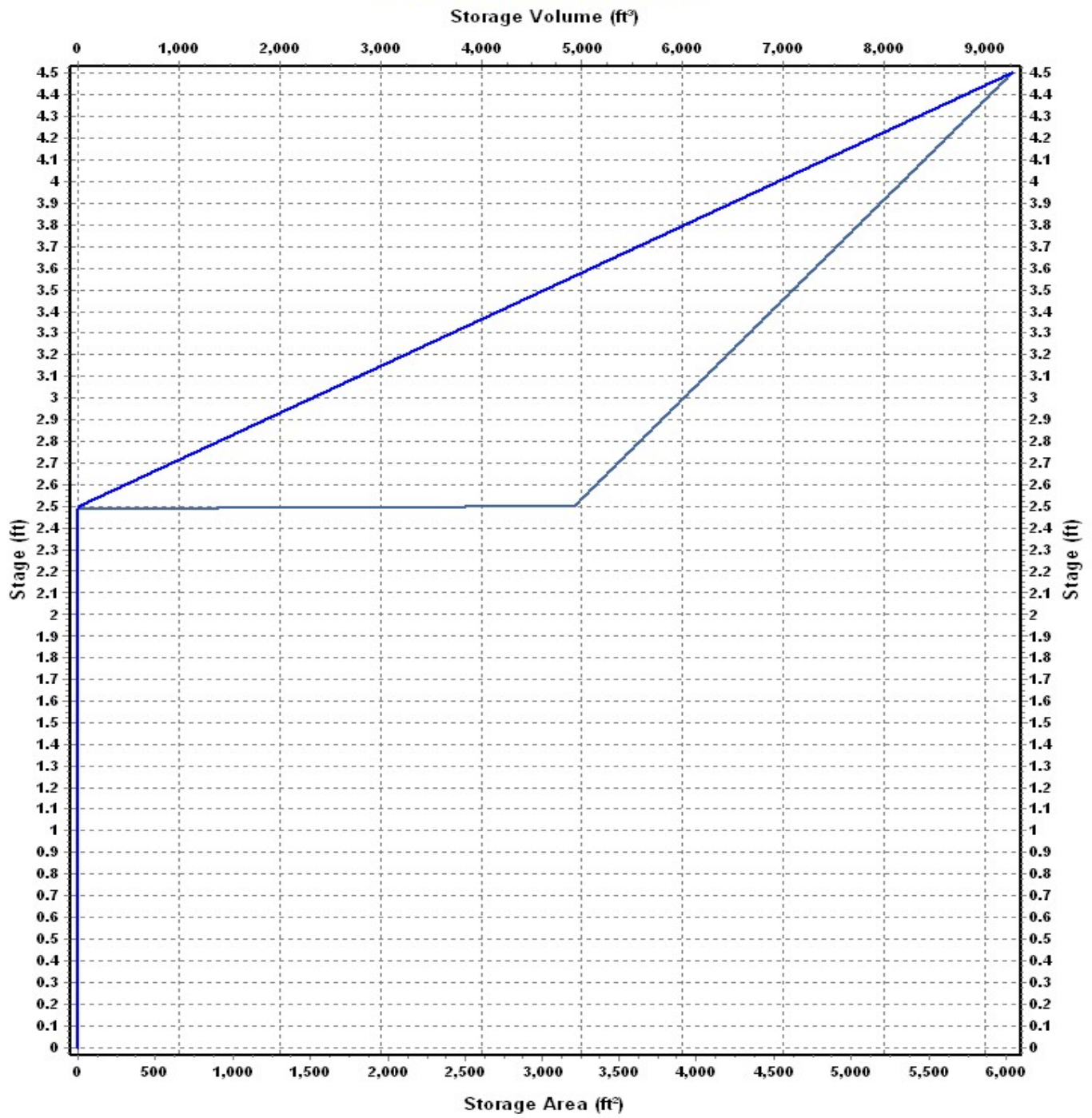
Invert Elevation (ft)	862.64
Max (Rim) Elevation (ft)	867.14
Max (Rim) Offset (ft)	4.50
Initial Water Elevation (ft)	865.14
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	3205.91	18.52
4.5	6037.65	9262.08

Storage Area Volume Curves



Storage Area Storage Volume

Storage Node : Biobasin 01 (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 Biobasin01grate	Bottom	Rectangular	No		19.60	19.60	866.14	0.60

Output Summary Results

Peak Inflow (cfs)	10.09
Peak Lateral Inflow (cfs)	10.09
Peak Outflow (cfs)	5.81
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.89
Max HGL Depth Attained (ft)	4.25
Average HGL Elevation Attained (ft)	865.68
Average HGL Depth Attained (ft)	3.04
Time of Max HGL Occurrence (days hh:mm)	0 12:08
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin02

Input Data

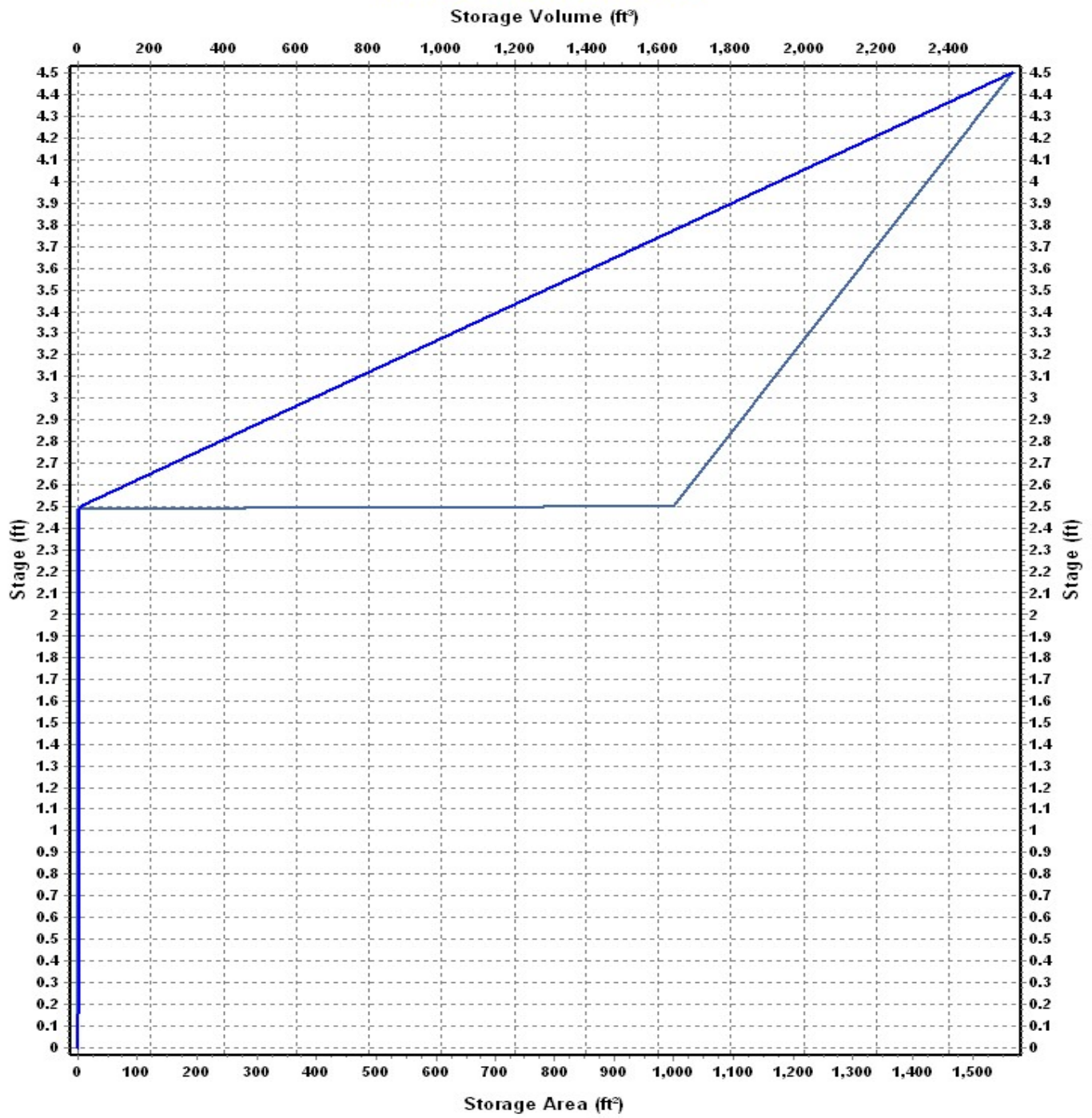
Invert Elevation (ft)	862.67
Max (Rim) Elevation (ft)	867.17
Max (Rim) Offset (ft)	4.50
Initial Water Elevation (ft)	865.17
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	999.15	7.49
4.5	1566.12	2572.76

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Biobasin02 (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 Biobasin02grate	Bottom	Rectangular	No		19.60	19.60	866.17	0.60

Output Summary Results

Peak Inflow (cfs)	3.77
Peak Lateral Inflow (cfs)	3.77
Peak Outflow (cfs)	2.25
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	867.12
Max HGL Depth Attained (ft)	4.45
Average HGL Elevation Attained (ft)	865.75
Average HGL Depth Attained (ft)	3.08
Time of Max HGL Occurrence (days hh:mm)	0 12:08
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin03

Input Data

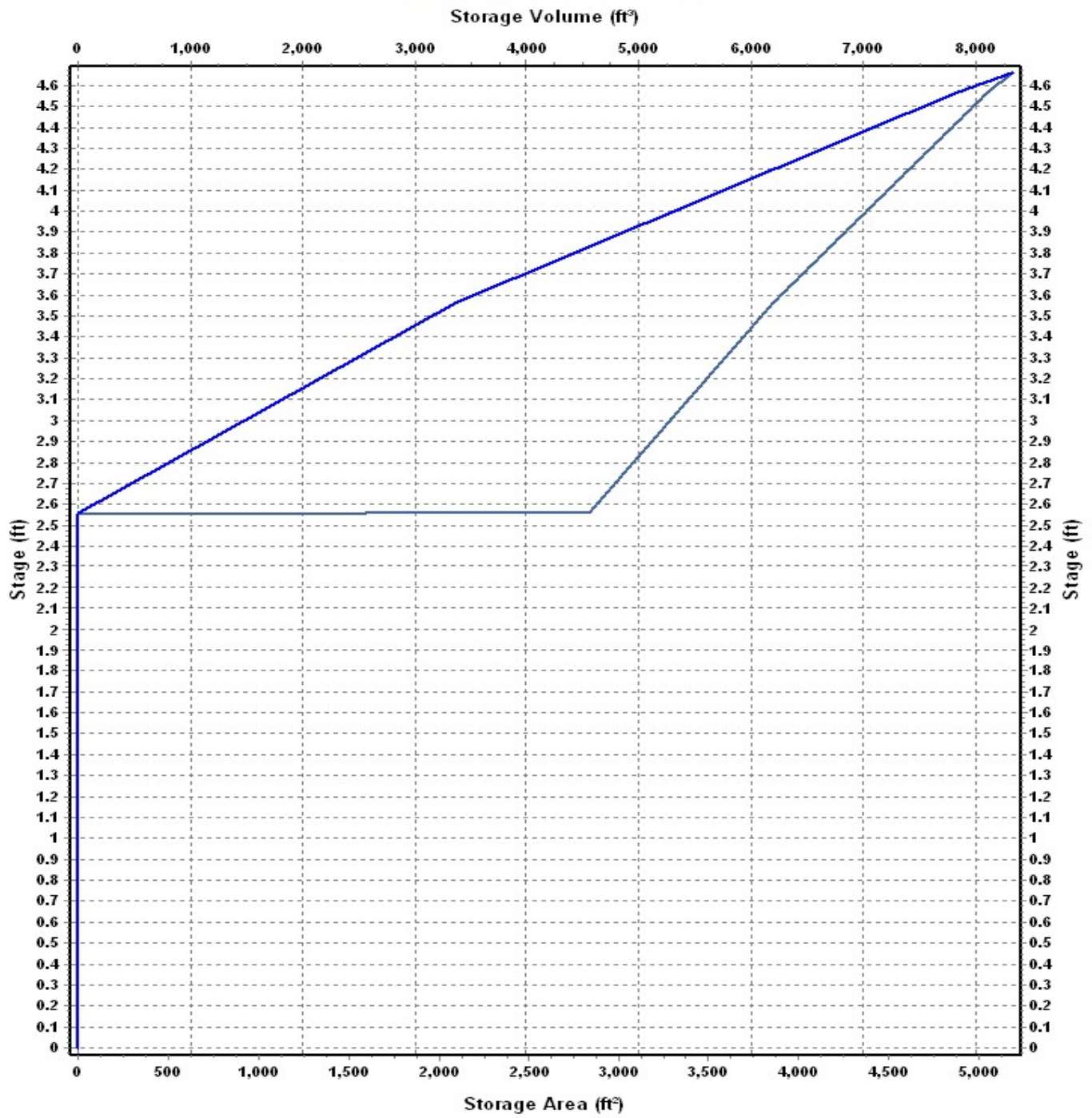
Invert Elevation (ft)	862.44
Max (Rim) Elevation (ft)	867.10
Max (Rim) Offset (ft)	4.66
Initial Water Elevation (ft)	865.00
Initial Water Depth (ft)	2.56
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin03

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.55	1	2.55
2.56	2836.20	16.74
3.56	3856.90	3363.29
4.56	5038.71	7811.10
4.66	5181	8322.09

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Biobasin03 (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 Biobasin03grate	Bottom	Rectangular	No		19.60	19.60	866.00	0.60

Output Summary Results

Peak Inflow (cfs)	9.81
Peak Lateral Inflow (cfs)	9.81
Peak Outflow (cfs)	4.91
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	867.03
Max HGL Depth Attained (ft)	4.59
Average HGL Elevation Attained (ft)	865.58
Average HGL Depth Attained (ft)	3.14
Time of Max HGL Occurrence (days hh:mm)	0 12:09
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin04

Input Data

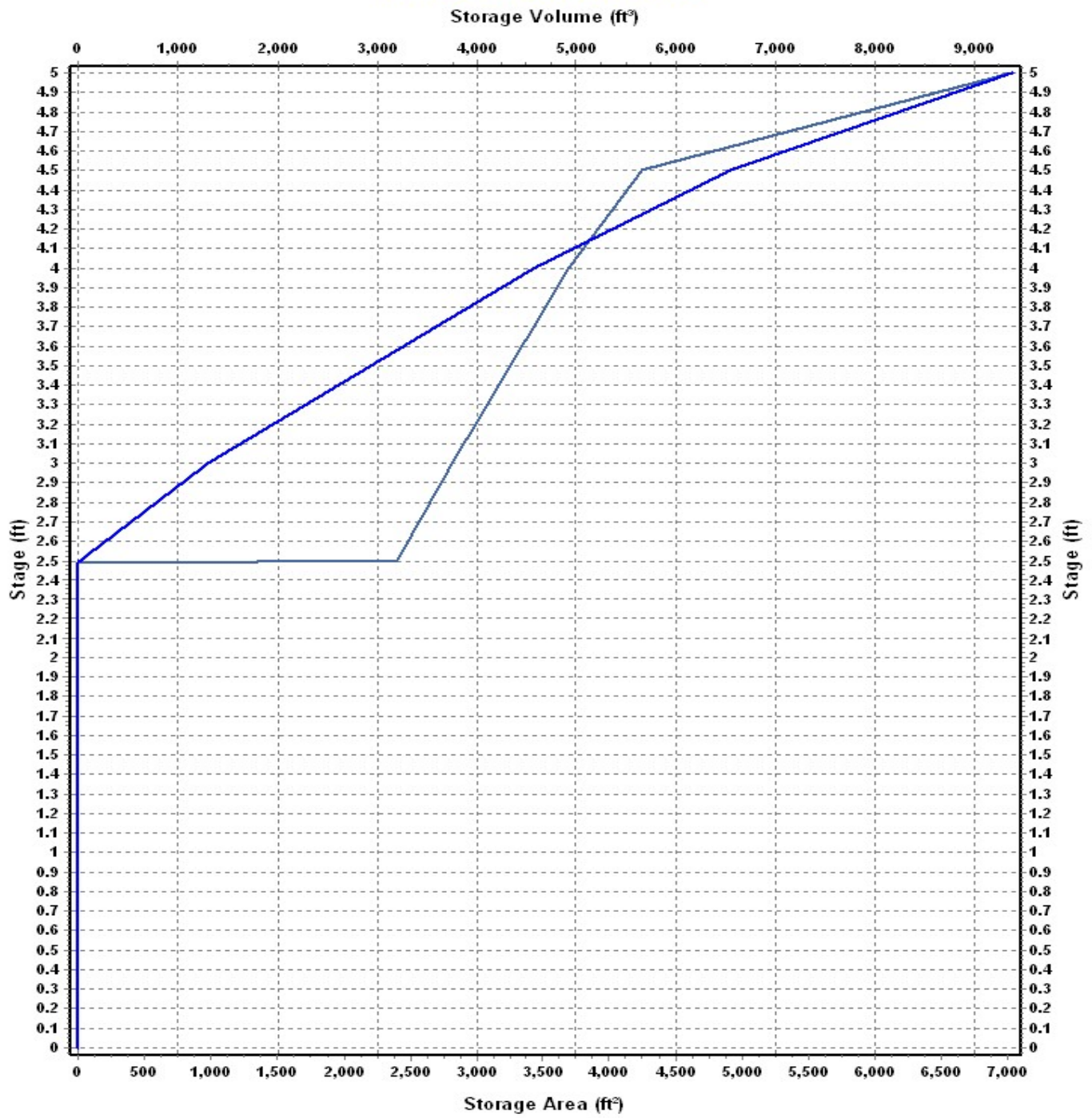
Invert Elevation (ft)	862.00
Max (Rim) Elevation (ft)	867.00
Max (Rim) Offset (ft)	5.00
Initial Water Elevation (ft)	864.50
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin04

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	2398.60	14.49
3	2813.60	1317.54
4	3690.90	4569.79
4.5	4246.20	6554.07
5	7028.50	9372.75

Storage Area Volume Curves



Storage Area Storage Volume

Storage Node : Biobasin04 (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 Biobasin04grate	Bottom	Rectangular	No		19.60	19.60	865.50	0.60

Output Summary Results

Peak Inflow (cfs)	5.86
Peak Lateral Inflow (cfs)	5.86
Peak Outflow (cfs)	2.15
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.42
Max HGL Depth Attained (ft)	4.42
Average HGL Elevation Attained (ft)	865.12
Average HGL Depth Attained (ft)	3.12
Time of Max HGL Occurrence (days hh:mm)	0 12:22
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Biobasin05

Input Data

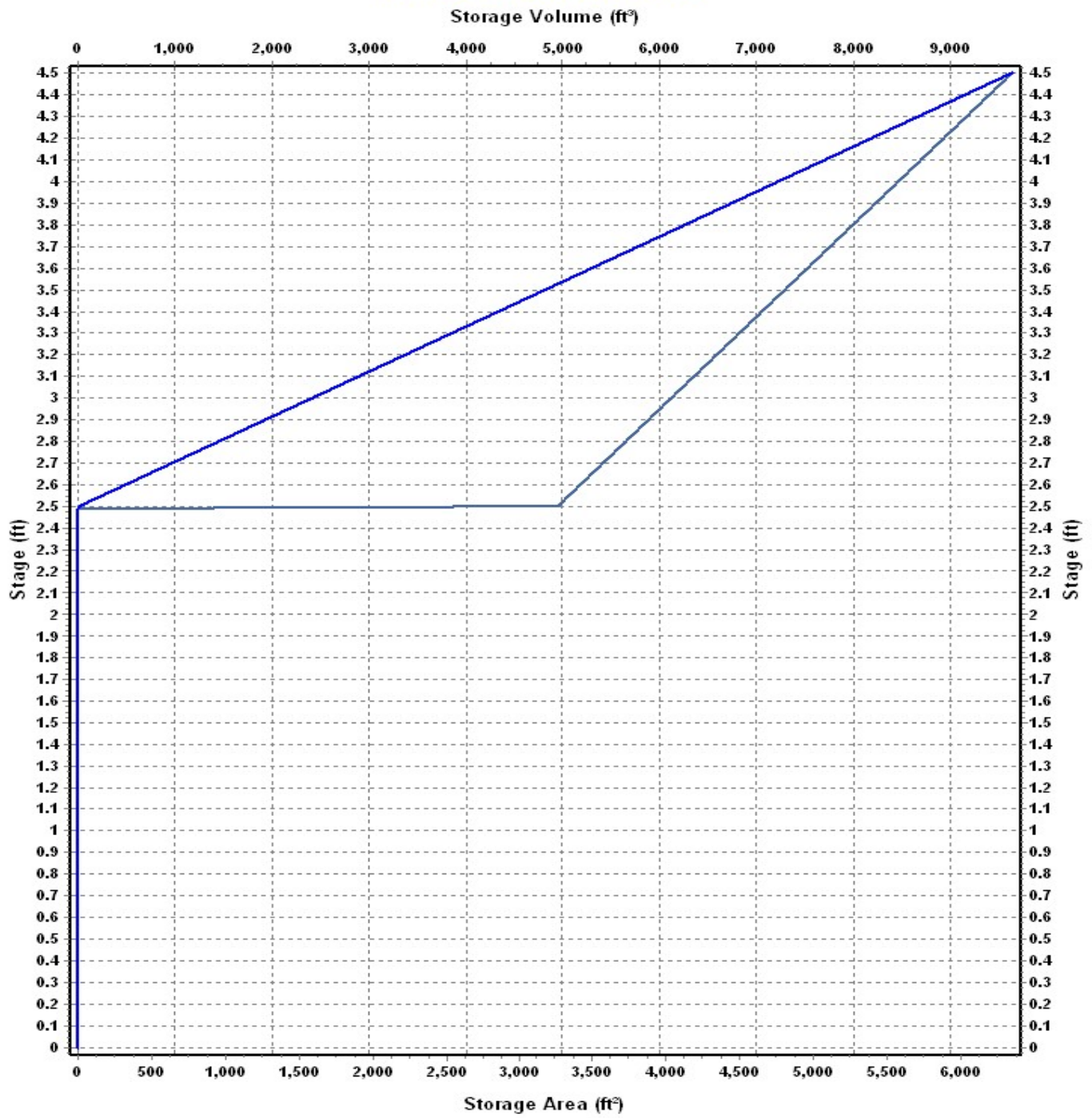
Invert Elevation (ft)	862.60
Max (Rim) Elevation (ft)	867.10
Max (Rim) Offset (ft)	4.50
Initial Water Elevation (ft)	865.10
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Biobasin05

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	3264.52	18.82
4.5	6347.63	9630.97

Storage Area Volume Curves



Storage Area Storage Volume

Storage Node : Biobasin05 (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 Biobasin05grate	Bottom	Rectangular	No		19.60	19.60	866.10	0.60

Output Summary Results

Peak Inflow (cfs)	10.42
Peak Lateral Inflow (cfs)	10.42
Peak Outflow (cfs)	5.87
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.86
Max HGL Depth Attained (ft)	4.26
Average HGL Elevation Attained (ft)	865.65
Average HGL Depth Attained (ft)	3.05
Time of Max HGL Occurrence (days hh:mm)	0 12:08
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 01 Parking lot ponding

Input Data

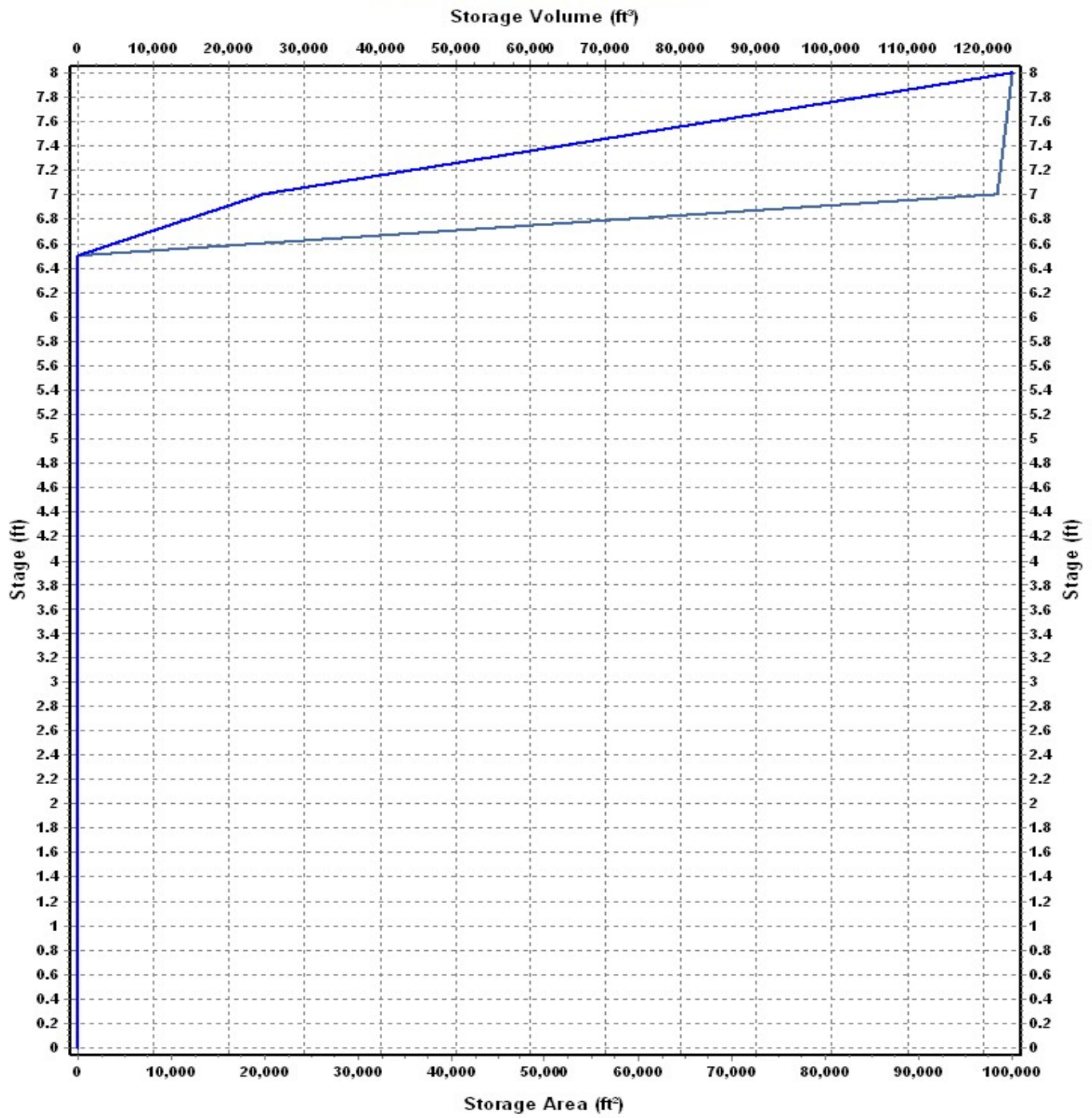
Invert Elevation (ft)	871.00
Max (Rim) Elevation (ft)	879.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	877.50
Initial Water Depth (ft)	6.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Offsite 01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
6.5	1	6.50
7	98432	24614.75
8	100000	123830.75

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Offsite 01 Parking lot ponding (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 Offsite 01 orifice	Side	CIRCULAR	No	9.25			871.00	0.60

Output Summary Results

Peak Inflow (cfs)	60.89
Peak Lateral Inflow (cfs)	60.89
Peak Outflow (cfs)	5.96
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	878.43
Max HGL Depth Attained (ft)	7.43
Average HGL Elevation Attained (ft)	873.11
Average HGL Depth Attained (ft)	2.11
Time of Max HGL Occurrence (days hh:mm)	0 12:37
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 02 Wet basin 02

Input Data

Invert Elevation (ft)	878.00
Max (Rim) Elevation (ft)	882.00
Max (Rim) Offset (ft)	4.00
Initial Water Elevation (ft)	878.00
Initial Water Depth (ft)	0.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

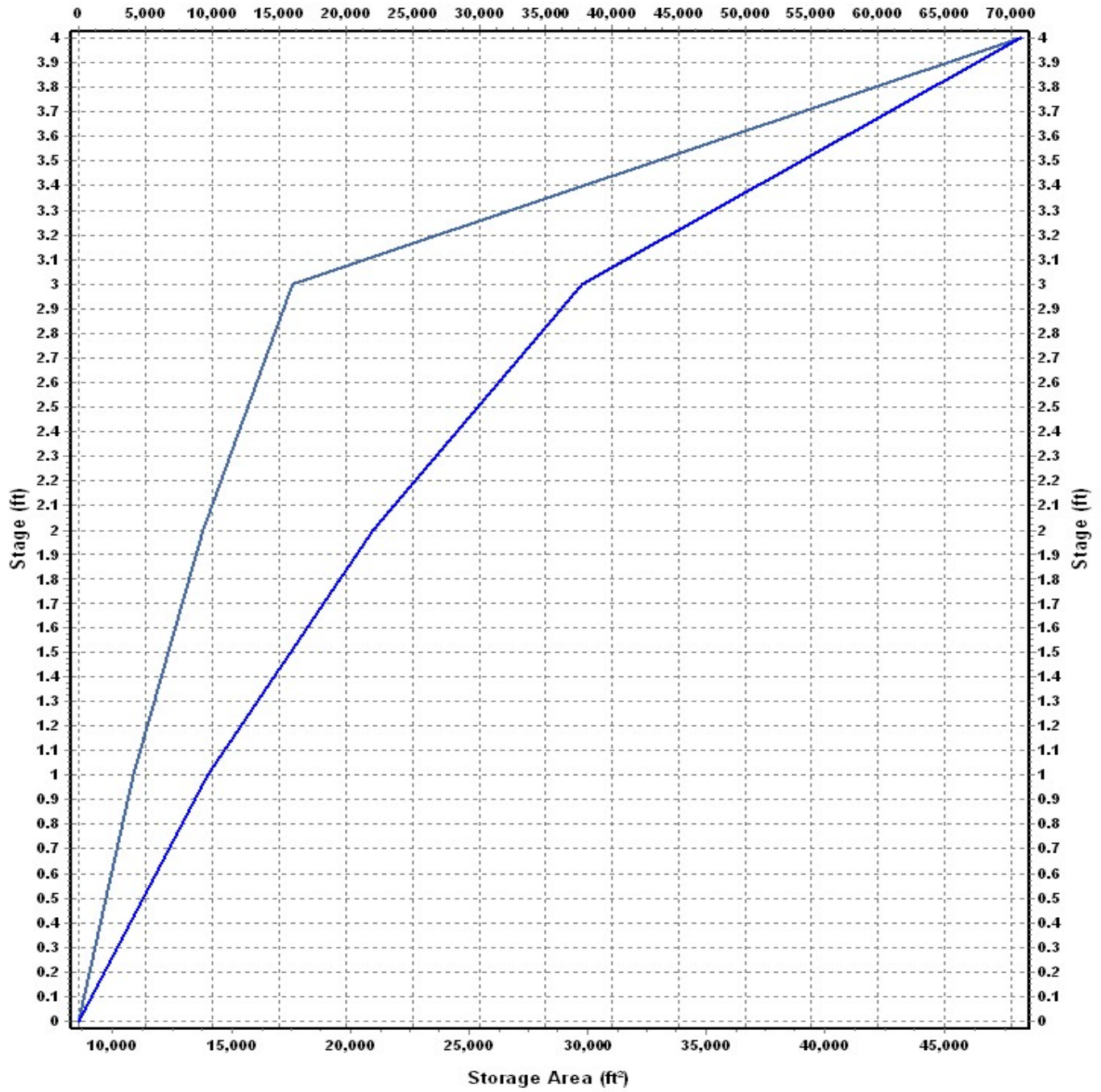
Storage Area Volume Curves

Storage Curve : Offsite 02 wet basin 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	8571	0.000
1	10862	9716.50
2	13819	22057.00
3	17571	37752.00
4	48211	70643.00

Storage Area Volume Curves

Storage Volume (ft³)



Storage Area Storage Volume

Storage Node : Offsite 02 Wet basin 02 (continued)

Output Summary Results

Peak Inflow (cfs)	47.16
Peak Lateral Inflow (cfs)	47.16
Peak Outflow (cfs)	15.02
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	881.33
Max HGL Depth Attained (ft)	3.33
Average HGL Elevation Attained (ft)	879.11
Average HGL Depth Attained (ft)	1.11
Time of Max HGL Occurrence (days hh:mm)	0 12:14
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 02-wet basin 1

Input Data

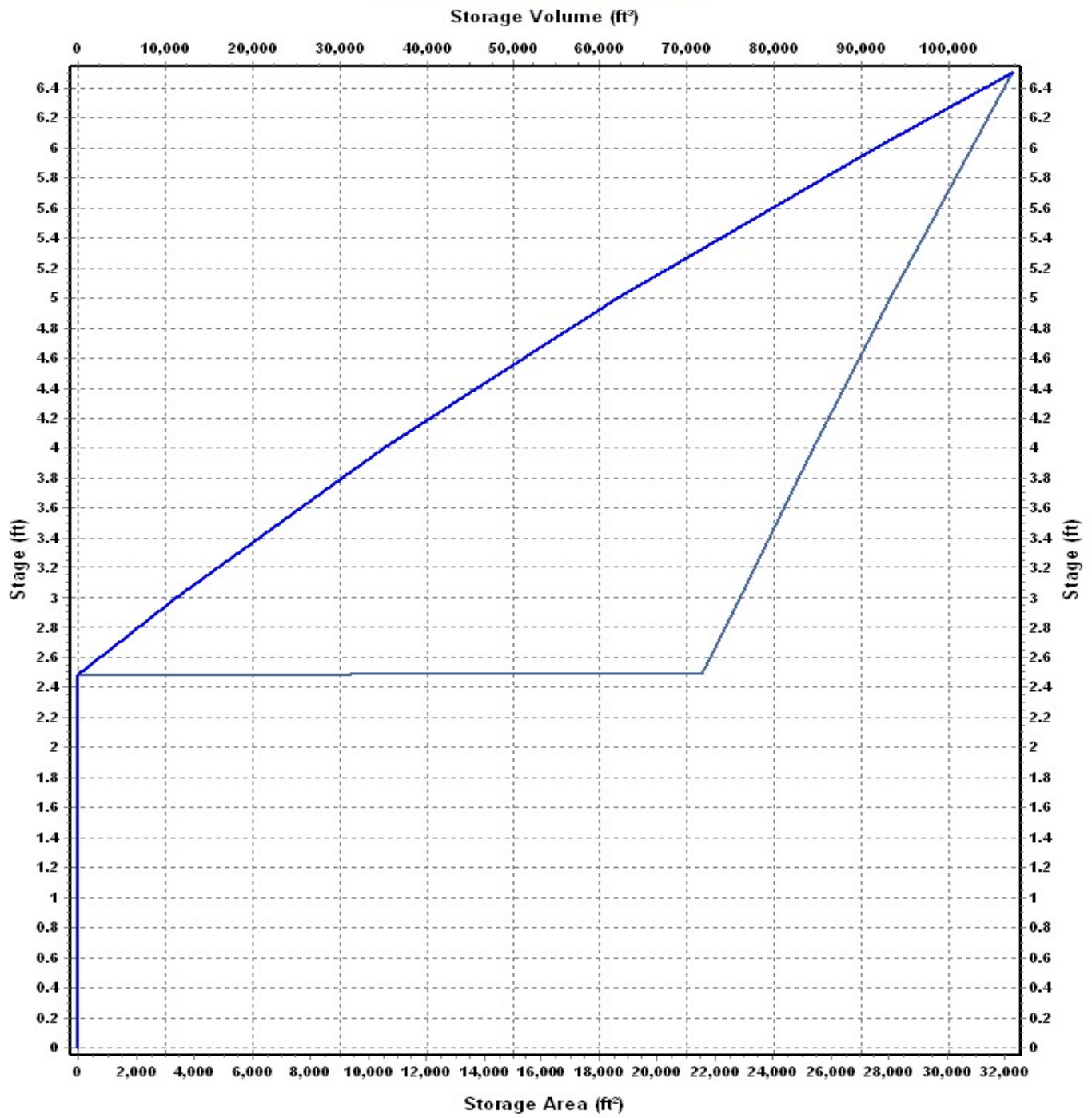
Invert Elevation (ft)	875.00
Max (Rim) Elevation (ft)	881.50
Max (Rim) Offset (ft)	6.50
Initial Water Elevation (ft)	877.50
Initial Water Depth (ft)	2.50
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : blazer wet basin 01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.49	1	2.49
2.5	21562	110.30
3	22825	11207.05
4	25395	35317.05
5	28053	62041.05
6	30840	91487.55
6.5	32234	107256.05

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Offsite 02-wet basin 1 (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 Offsite 02 grate	Bottom	Rectangular	No		19.60	19.60	880.50	0.60
2 offsite 02 window	Side	Rectangular	No		6.00	24.00	879.20	0.60
3 Offsite 02 wq	Side	CIRCULAR	No	4.00			877.50	0.60

Output Summary Results

Peak Inflow (cfs)	34.79
Peak Lateral Inflow (cfs)	21.77
Peak Outflow (cfs)	6.31
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	880.70
Max HGL Depth Attained (ft)	5.7
Average HGL Elevation Attained (ft)	878.82
Average HGL Depth Attained (ft)	3.82
Time of Max HGL Occurrence (days hh:mm)	0 12:58
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Offsite 04

Input Data

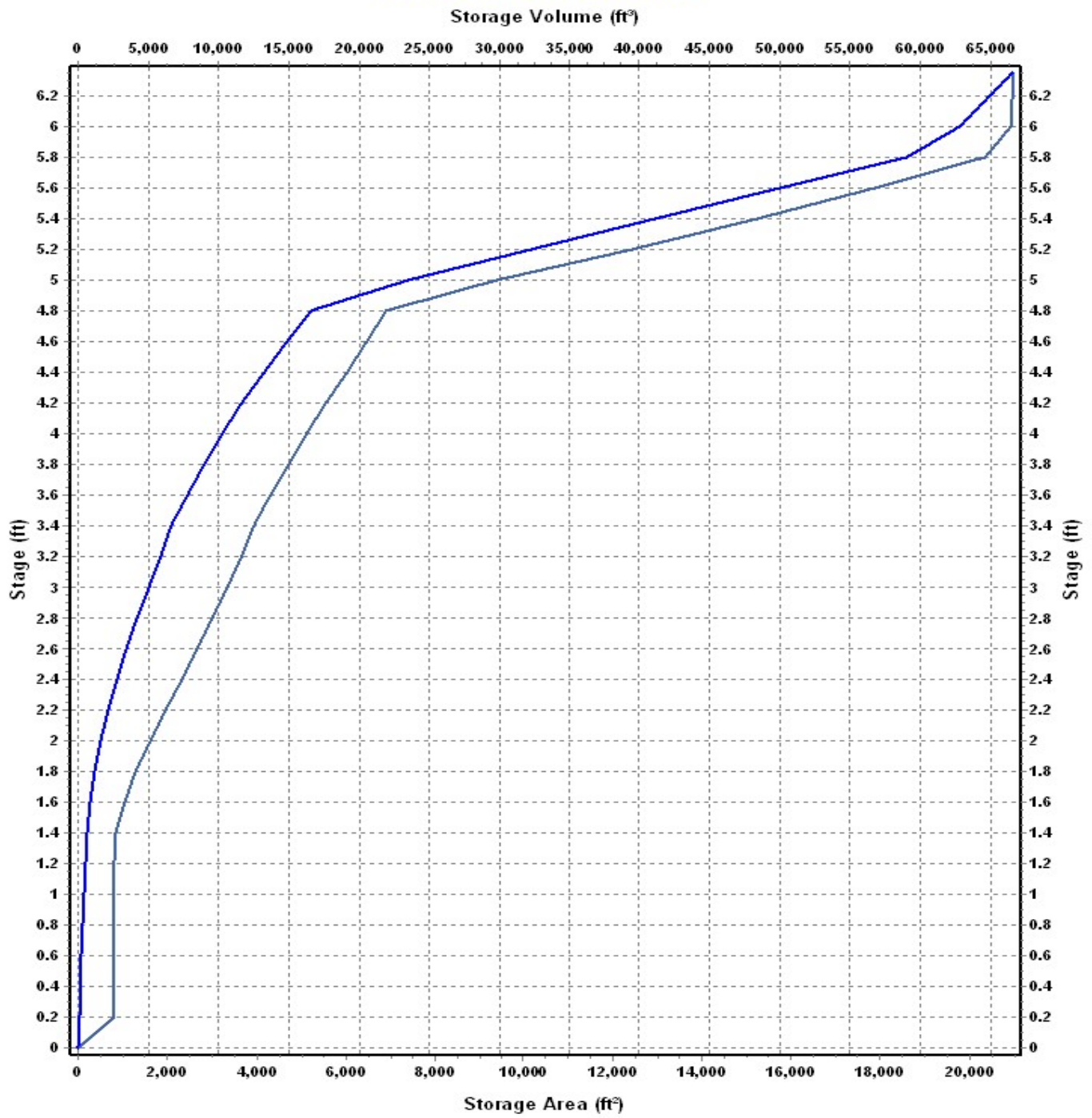
Invert Elevation (ft)	871.65
Max (Rim) Elevation (ft)	878.00
Max (Rim) Offset (ft)	6.35
Initial Water Elevation (ft)	871.65
Initial Water Depth (ft)	0.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Offsite 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	0	0
.2	820.00	82
.4	815.00	163
.6	816.67	245
.8	817.50	327
1	818.00	409
1.2	816.67	490
1.4	850.00	595
1.6	1038.75	831
1.8	1297.78	1168
2	1606.00	1606
2.2	1950.00	2145
2.4	2319.17	2783
2.6	2676.15	3479
2.8	3010.71	4215
3	3326.67	4990
3.2	3691.25	5906
3.4	3938.24	6695
3.6	4318.89	7774
3.8	4721.58	8971
4	5142.00	10284
4.2	5578.57	11715
4.4	6028.18	13262
4.6	6478.26	14900
4.8	6925.42	16621
5	9432.00	23580
5.2	12438.08	32339
5.4	15251.85	41180
5.6	17886.43	50082
5.8	20357.93	59038
6	20943.33	62830
6.2	20946.77	64935
6.35	20960.63	66550

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Offsite 04 (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 Offsite 04 orifice	Side	CIRCULAR	No	8.50			871.65	0.60

Output Summary Results

Peak Inflow (cfs)	35.12
Peak Lateral Inflow (cfs)	35.12
Peak Outflow (cfs)	4.64
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	877.99
Max HGL Depth Attained (ft)	6.34
Average HGL Elevation Attained (ft)	872.90
Average HGL Depth Attained (ft)	1.25
Time of Max HGL Occurrence (days hh:mm)	0 12:28
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Pavers01-02

Input Data

Invert Elevation (ft)	863.79
Max (Rim) Elevation (ft)	867.24
Max (Rim) Offset (ft)	3.45
Initial Water Elevation (ft)	863.79
Initial Water Depth (ft)	0.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Outflow Weirs

SN Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1 Paver01-02 weir	Rectangular	No	865.70	1.91	4.00	1.00	3.33

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 Paver01-02 wq orifice 2	Side	CIRCULAR	No	1.00			863.79	0.60
2 Pavers01-02 WQ orifice 1	Side	CIRCULAR	No	1.00			863.79	0.60

Output Summary Results

Peak Inflow (cfs)	6.60
Peak Lateral Inflow (cfs)	6.60
Peak Outflow (cfs)	1.76
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.27
Max HGL Depth Attained (ft)	2.48
Average HGL Elevation Attained (ft)	864.96
Average HGL Depth Attained (ft)	1.17
Time of Max HGL Occurrence (days hh:mm)	0 12:21
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Pavers03-04

Input Data

Invert Elevation (ft)	863.79
Max (Rim) Elevation (ft)	867.24
Max (Rim) Offset (ft)	3.45
Initial Water Elevation (ft)	863.79
Initial Water Depth (ft)	0.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Outflow Weirs

SN Element ID	Weir Type	Flap Gate	Crest Elevation (ft)	Crest Offset (ft)	Length (ft)	Weir Total Height (ft)	Discharge Coefficient
1 Paver04-06 weir	Rectangular	No	866.80	3.01	4.00	1.00	3.33

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 Paver03-04 WQ orifice 1	Side	CIRCULAR	No	1.00			863.79	0.60
2 Paver03-04 WQ orifice 2	Side	CIRCULAR	No	1.00			863.79	0.60

Output Summary Results

Peak Inflow (cfs)	6.74
Peak Lateral Inflow (cfs)	6.74
Peak Outflow (cfs)	0.25
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.86
Max HGL Depth Attained (ft)	3.07
Average HGL Elevation Attained (ft)	865.48
Average HGL Depth Attained (ft)	1.69
Time of Max HGL Occurrence (days hh:mm)	0 13:37
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : Wet Basin 02

Input Data

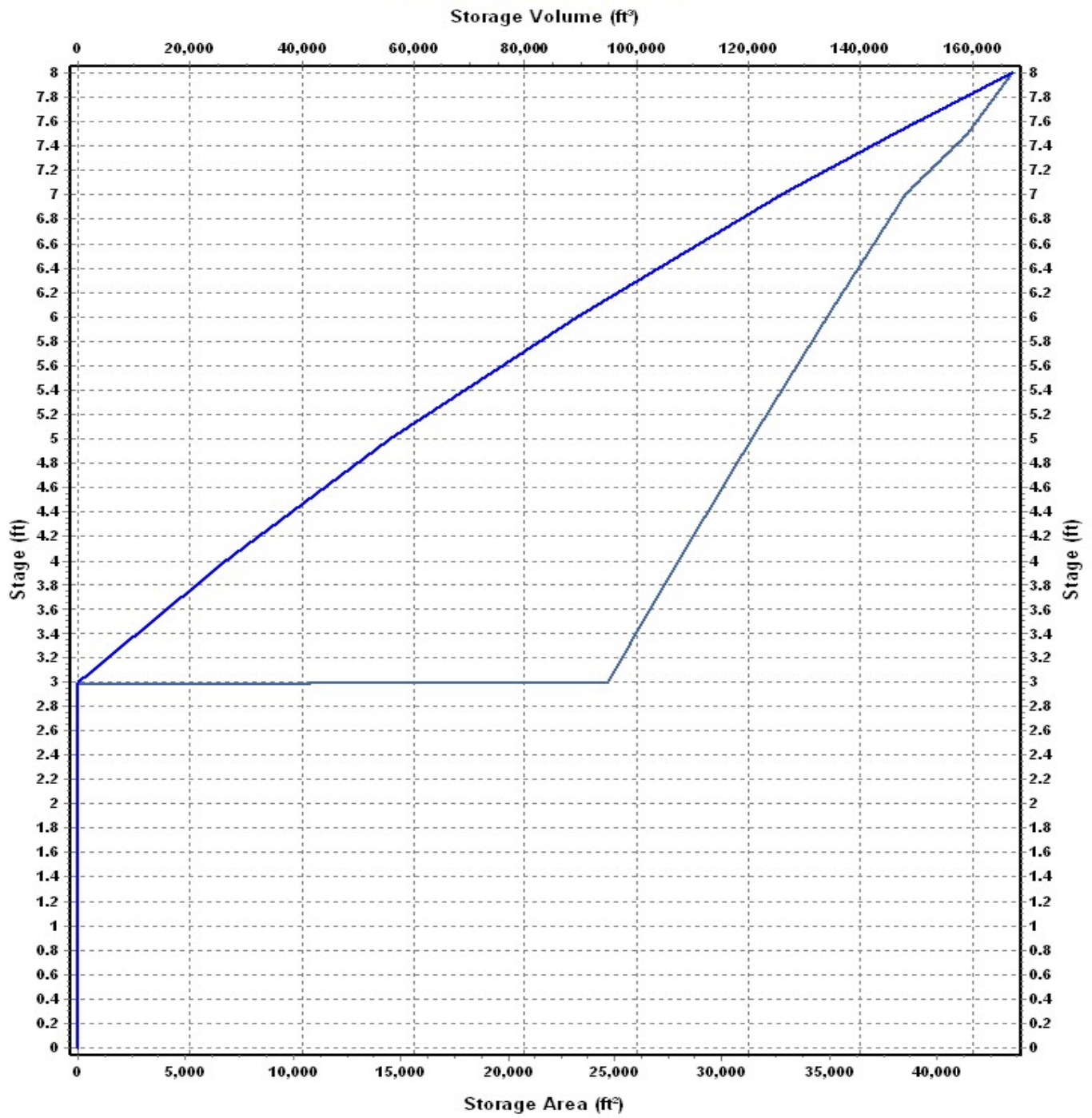
Invert Elevation (ft)	859.00
Max (Rim) Elevation (ft)	867.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	862.00
Initial Water Depth (ft)	3.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Wet Basin 02

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.99	1	2.99
3	24635.51	126.17
4	27948.90	26418.38
5	31362.79	56074.23
6	34877.21	89194.23
7	38492.15	125878.91
7.5	41380.21	145847.00
8	43477.39	167061.40

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : Wet Basin 02 (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 Wet basin grate	Bottom	Rectangular	No		19.60	19.60	865.00	0.60
2 Wet basin window 1	Side	Rectangular	No		12.00	36.00	863.20	0.60
3 Wet Basin wq 2	Side	CIRCULAR	No	5.00			862.00	0.60
4 WetBasin WQ 1	Side	CIRCULAR	No	5.00			862.00	0.60
5 WetBasinWindow2	Side	Rectangular	No		12.00	36.00	863.20	0.60

Output Summary Results

Peak Inflow (cfs)	123.96
Peak Lateral Inflow (cfs)	105.58
Peak Outflow (cfs)	36.19
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.50
Max HGL Depth Attained (ft)	7.5
Average HGL Elevation Attained (ft)	863.95
Average HGL Depth Attained (ft)	4.95
Time of Max HGL Occurrence (days hh:mm)	0 14:22
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Node : WetBasin 01

Input Data

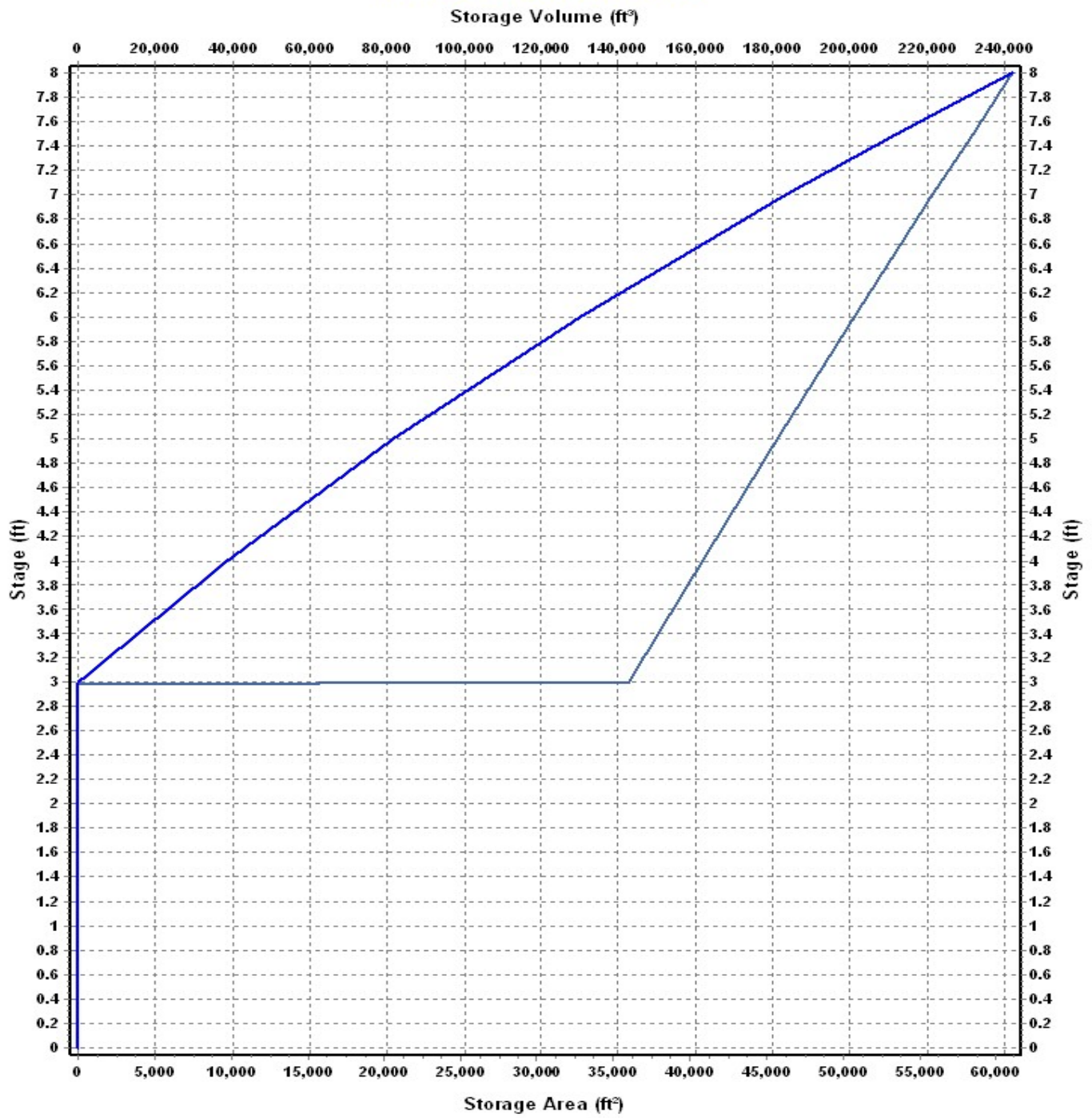
Invert Elevation (ft)	859.00
Max (Rim) Elevation (ft)	867.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	862.00
Initial Water Depth (ft)	3.00
Ponded Area (ft ²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : Wet Basin 01

Stage (ft)	Storage Area (ft ²)	Storage Volume (ft ³)
0	1	0.000
2.99	1	2.99
3	36012.49	183.06
4	40827.72	38603.17
5	45735.45	81884.76
6	50745.52	130125.25
7	55856.11	183426.07
7.5	58448.67	212002.27
8	61040.22	241874.49

Storage Area Volume Curves



— Storage Area — Storage Volume

Storage Node : WetBasin 01 (continued)

Output Summary Results

Peak Inflow (cfs)	83.91
Peak Lateral Inflow (cfs)	72.69
Peak Outflow (cfs)	7.82
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.52
Max HGL Depth Attained (ft)	7.52
Average HGL Elevation Attained (ft)	863.98
Average HGL Depth Attained (ft)	4.98
Time of Max HGL Occurrence (days hh:mm)	0 14:30
Total Exfiltration Volume (1000-ft ³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00