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Job Number: 2019-1248

OSU WMC REGIONAL AMBULATORY FACILITY - DUBLIN

Stormwater Management Plan (SWMP)

Prepared For: The Ohio State University

February 13, 2020



2-14-20

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PROJECT SUMMARY

Project Name: OSU WMC Regional Ambulatory Facility
Location: City of Dublin, Franklin County, Ohio
Type: Stormwater Management Plan
Reviewing Agency: City of Dublin, Ohio EPA

HYDROLOGIC SUMMARY

Rainfall Data: NOAA Atlas 14, Volume 2, Version 3, 2004

1-yr	2.20"
2-yr	2.63"
5-yr	3.24"
10-yr	3.74"
25-yr	4.44"
50-yr	5.02"
100-yr	5.63"

Rainfall Distribution: NRCS Type II 24 hour
Detention Policy: City of Dublin
Water Quality: City of Dublin, Ohio EPA
Hydrology Modeling Program: HydroCAD 10.10

DESIGN SUMMARY

Detention: Wet Basins
Water Quality: Wet Basins
Receiving Water Body: Indian Run, Cosgray Ditch

REVISIONS



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1.0 INTRODUCTION

The following report provides a detailed analysis and design of the Stormwater Management Plan for OSU WMC Regional Ambulatory Facility. The proposed site is located south of US-33, east of Eiterman Road, north of the proposed University Boulevard, and west of Avery Road. The proposed project area involves the development of an agricultural area into an ambulatory facility. The Stormwater Management Plan was prepared in accordance with the requirements of both the City of Dublin and the Ohio EPA. The runoff from this site will be routed through a series of wet basins for water quality and quantity control before discharging to the existing Cosgray Ditch and Indian Run watersheds.



Figure 1 – Site Location Map

2.0 HYDROLOGIC ANALYSIS

Hydrologic parameters such as Runoff Curve Number (RCN) and Time of Concentration were determined using standard Natural Resources Conservation Service (NRCS) methodology. The 1-, 2-, 5-, 10-, 25-, 50-, and 100-year storm event discharge amounts were calculated using the NRCS TR-55 method. This analysis reflects the NRCS Type II distribution, 24-hr storm duration. Rainfall depths were obtained from NOAA Atlas 14, Volume 2, Version 3, 2004. The peak flow rates were computed using the HydroCAD 10.10 computer program. A minimum time of concentration of 5 minutes was used for applicable tributary areas.



3.0 PRE-DEVELOPED ANALYSIS

The pre-developed condition, as seen on Exhibit 1 in Appendix F, consists primarily of an agricultural area in good condition in Type “C” soils which corresponds to a Runoff Curve Number of 78. Pre-developed to Indian Run naturally drains to the northeast to an existing swale on the south side of US-33, which ultimately discharges to South Fork Indian Run. Pre-developed to Cosgray Ditch naturally drains to the southeast to the future University Boulevard which will then discharge to the relocated Cosgray Ditch. These flow rates will be used for critical storm determination only, and peak flow rates for the allowable release rate calculation will be sourced from the City of Dublin Stormwater Master Plan.

All pre-developed subarea characteristics are summarized in Table 1. All time of concentration calculations can be found in the HydroCAD output in Appendix D.

Table 1 - Pre-developed Subarea Characteristics

Subarea Identifier	Tributary Area (acres)	Land Usage	Runoff Curve Number	% Impervious (%)	Time of Concentration (min)	1-year Runoff Volume (ac-ft)
Pre-developed to Indian Run	25.5	Row Crops (Curved & Terraced)	78	0%	-	1.276
Pre-developed to Cosgray Ditch	19.74	Row Crops (Curved & Terraced)	78	0%	-	0.988
Total	45.24	-	78	0%	-	2.264

4.0 POST-DEVELOPED ANALYSIS

Exhibit 2, provided within Appendix F, shows the post-developed condition. The OSU WMC Regional Ambulatory Facility project will utilize three wet basins to provide water quality and quantity control for the proposed development. Subarea 01 will drain to Basin 01 which discharges to the south outfall. Subarea 02 is tributary to Basin 02, which discharges to both Basin 01 and the north outfall depending on the volume of water in the pond. Subarea 03 is tributary to Basin 03 which drains to Basin 02. Offsite 10.1 is an assumed 85% impervious future conditions area that will route through Basin 03. Offsite 10.1 utilizes a dummy basin that will treat water quality and detention requirements onsite. The post-developed subarea characteristics are summarized in Table 2. The post-developed allowable release rates, proposed release rates, and proposed water surface elevations for individual basins can be found in Tables 3, 4, 5, and 6.



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Table 2 - Post-developed Subarea Characteristics

Subarea Identifier	Tributary Area (acres)	Land Usage	Runoff Curve Number	% Impervious (%)	Time of Concentration (min)	1-year Runoff Volume (ac-ft)
Subarea 01	14.96	Open Space, Impervious Cover	92	75%	5	1.767
Subarea 02	10.54	Open Space, Impervious Cover	92	75%	5	1.245
Subarea 03	6.18	Open Space, Impervious Cover	92	75%	5	0.730
Offsite 10.1	13.57	Open Space, Impervious Cover	94	85%	8	1.792
Total	45.25	-	93	78%	-	5.534

For Indian Run, the 1-year runoff volume for the post-developed site decreases to 0.000 ac-ft, a decrease of 100% from the existing condition, which results in 1-year critical storm event.

$$\% \text{ Increase} = [(0.000 - 1.276)/1.276] \times 100 = -100\%$$

1-Yr Critical Storm

For Cosgray Ditch, the 1-year runoff volume for the post-developed site increases to 3.790 ac-ft, an increase of 284% from the existing condition, which results in 50-year critical storm event.

$$\% \text{ Increase} = [(3.790 - 0.988)/0.988] \times 100 = 284\%$$

50-Yr Critical Storm

Calculations supporting the 1-year pre-developed runoff volumes are provided in the HydroCAD output in Appendix D. In Table 3, the Indian Run (SFIR) and Cosgray Ditch watersheds each have portions of the other watershed listed in their Post-Developed Area per Subbasin tables. This is because the watershed line separating Indian Run and Cosgray Ditch was revised based on EMH&T field survey from 2018 which showed inconsistencies between the Dublin Stormwater Master Plan watershed boundary and the 2018 survey data. The same allowable release rates per acre were still applied, but to different applicable watersheds. This change is shown in Appendix F, Exhibit 1.



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Table 3 - Allowable Release Rates/Acre (Dublin Master Plan)

Indian Run Post-Developed Area per Subbasin

Sub-Basin	Onsite Area (ac)
SFIR 2310	24.37
Cosgray 1670	0.63
SFIR 2420	0.5

Cosgray Ditch Post-Developed Area per Subbasin

Sub-Basin	Onsite Area (ac)
SFIR 2310	5.81
Cosgray 1670	12.77
Cosgray 1660	1.13
Cosgray 1680	0.03

Indian Run Allowable Release Rates per Acre

Storm	Subarea Allowed Release Rates/Acre			Cumulative Allowed Release Rates
	SFIR 2310	Cosgray 1670	SFIR 2420	
1	0.3	0.1	0.1	7.424
2	0.3	0.1	0.1	7.424
5	0.4	0.1	0.2	9.911
10	0.5	0.2	0.2	12.411
25	0.6	0.5	0.3	15.087
50	0.8	1	0.4	20.326
100	0.9	1.6	0.6	23.241

Cosgray Ditch Allowable Release Rates per Acre

Storm	Subarea Allowed Release Rates/Acre				Cumulative Allowed Release Rates
	SFIR 2310	Cosgray 1670	Cosgray 1660	Cosgray 1680	
1	0.3	0.1	0.1	0.1	3.136
2	0.3	0.1	0.2	0.1	3.249
5	0.4	0.1	0.3	0.1	3.943
10	0.5	0.2	0.3	0.3	5.807
25	0.6	0.5	0.5	0.7	10.457
50	0.8	1	0.7	1.3	18.248
100	0.9	1.6	0.9	2	26.738



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Table 4 - Basin 03 Proposed Release Rates

Storm Event (yr)	Peak Inflow (cfs)	Allowable Release Rates* (cfs)	Proposed Release Rates (cfs)	Maximum W.S.E., T.O.B. = 931.00 (ft)	Storage Volume Utilized (ac-ft)
1	16.09	7.42	1.52	927.80	0.394
2	20.29	7.42	1.77	928.03	0.515
5	26.24	9.91	1.86	928.61	0.848
10	31.09	12.41	1.83	929.01	1.101
25	37.84	15.09	1.76	929.42	1.377
50	43.40	20.33	1.70	929.72	1.599
100	49.22	23.24	1.64	930.04	1.840

*From Table 4 and a calculated 1-year critical storm

Storage Utilized (100-yr event): 1.840 ac-ft
 Storage Provided (Top of Bank = 931.00 ft.): 2.710 ac-ft

Table 5 - Basin 02 Proposed Release Rates

Storm Event (yr)	Peak Inflow (cfs)	Allowable Release Rates* (cfs)	Proposed Release Rates to Basin 01 (cfs)	Proposed Release Rates to US-33 Outlet (cfs)	Maximum W.S.E., T.O.B. = 930.00 (ft)	Storage Volume Utilized (ac-ft)
1	28.09	7.42	0.98	0.00	927.46	1.238
2	35.40	7.42	1.03	0.00	927.88	1.569
5	45.71	9.91	1.17	0.00	928.43	2.033
10	54.01	12.41	1.24	0.24	928.76	2.332
25	64.26	15.09	1.26	0.93	929.05	2.591
50	74.52	20.33	1.27	1.60	929.26	2.788
100	84.21	23.24	1.28	2.37	929.50	3.015

*From Table 4 and a calculated 1-year critical storm

Storage Utilized (100-yr event): 3.015 ac-ft
 Storage Provided (Top of Bank = 930.00 ft.): 3.520 ac-ft

Table 6 - Basin 01 Proposed Release Rates

Storm Event (yr)	Peak Inflow (cfs)	Allowable Release Rates* (cfs)	Proposed Release Rates (cfs)	Maximum W.S.E., T.O.B. = 929.50 (ft)	Storage Volume Utilized (ac-ft)
1	38.89	3.14	1.21	926.45	1.583
2	49.06	3.14	1.48	926.70	1.880
5	63.37	3.14	2.00	927.01	2.253
10	75.00	3.14	2.36	927.31	2.630
25	91.20	3.14	2.78	927.76	3.216
50	104.55	3.14	3.08	928.14	3.720
100	118.53	26.74	3.42	928.52	4.257

*From Table 4 and a calculated 50-year critical storm

Storage Utilized (100-yr event): 4.257 ac-ft
 Storage Provided (Top of Bank = 929.50 ft.): 5.717 ac-ft

5.0 OUTLET DESIGN

The outlet structure for Wet Basin 01 will be located on the south side of the basin. The location of this structure can be seen on Exhibit 2 in Appendix F.

Wet Basin 01 - Outlet Control Structure

- Normal Pool – 925.00 ft
- Top of Bank – 929.50 ft
- 1st stage outlet – 6.5-inch orifice, cut into submerged riser pipe, invert at 925.00 ft
- 2nd stage outlet – 6-inch wide by 5-inch high window, invert at 926.50 ft
- 3rd stage outlet – two 3-foot long openings cut into sides of catch basin, invert at 928.50 ft
- Tailwater control: 24" outlet pipe with 0.15% slope, invert at 925.00, controls 1st and 2nd stage outlets)

The outlet structure for Wet Basin 02 will be located on the south and north sides of the basin. The location of these structures can be seen on Exhibit 2 in Appendix F.

Wet Basin 02 - Outlet Control Structure

- Normal Pool – 925.70 ft
- Top of Bank – 930.00 ft
- 1st stage outlet – 6.0-inch orifice, cut into submerged riser pipe, invert at 925.70 ft, discharges to Basin 01
- 2nd stage outlet – 12-inch diameter culvert, invert at 928.50 ft, discharges to US-33



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The outlet structure for Wet Basin 03 will be located on the east side of the basin. The location of this structure can be seen on Exhibit 2 in Appendix F.

Wet Basin 03 - Outlet Control Structure

- Normal Pool – 927.00 ft
- Top of Bank – 931.00 ft
- 1st stage outlet – 5.0-inch orifice, cut into submerged riser pipe, invert at 927.00 ft

6.0 WATER QUALITY

The Ohio EPA requires that the water quality volume for wet basins be detained for a period of 24 hours while not discharging more than the first half of the water quality volume in less than 8 hours. Water quality drawdown for the Basins 01 and 02 will be provided by the basin’s 1st stage outlet listed in Section 5.0. Basin 02 will treat the water quality for Basin 03 as well.

Table 7 - Water Quality Calculations

Basin Identifier	Tributary area (acres)	Percent Impervious (%)	Water Quality Volume (ac-ft)	Water Quality Elevation (feet)
Wet Basin 01	14.96	75%	0.813	925.78
Wet Basin 02	16.72	75%	0.909	927.04
Dummy Basin 10.1	13.57	85%	0.829	931.43

7.0 SEDIMENT BASIN CALCULATIONS

The Ohio EPA requires that during construction a site must provide a means by which to control the sediment laden runoff from the construction site. For each acre of drainage area that is tributary to the sediment basin, a drawdown volume of 67 yd³ is provided above the normal pool elevation. The basin will additionally provide more than the required 37 yd³ of settling volume below the normal pool elevation for each acre of disturbed area tributary to the basin.

Wet Basin 01 will be used as a sediment basin during construction. Sediment Basin Calculations are described in Table 6 below and provided within Appendix C. Drainage from Offsite 10.1 will be diverted during construction and not taken to Basin 01.

Table 8 - Sediment Basin Calculations

Basin Identifier	Tributary area (acres)	Disturbed area (acres)	Required Dewatering Volume (ac-ft)	Provided Dewatering Volume (ac-ft)	Required Sediment Storage Volume (ac-ft)	Provided Sediment Storage Volume (ac-ft)	Marlee Float Orifice Size (inches)
Wet Basin 01	31.68	31.68	1.32	5.717	0.73	7.135	5.0



8.0 ODOT DITCH CALCULATIONS

The secondary outlet to the north on Basin 02 discharges to the existing US-33 swale, which is in the ODOT right of way. Pre- and post-project runoff calculations were performed in HydroCAD 10.10 to obtain the 25-, 50-, and 100-year peak discharge rates for the ODOT swale. Ditch hydraulic calculations were performed in Bentley FlowMaster under both scenarios to ensure that there were no adverse effects to the swale from the proposed development. From this analysis and shown in Table 9, the proposed development and stormwater management plan reduces the peak discharge rate and water surface elevation in the ditch for all analyzed design storms. Although the pipe outlet velocities are below the 4 fps threshold on the ODOT L&D Figure 1107-1 chart for sizing rip rap at storm sewer outlets, it is still recommended to place 18” of Type C rock. The pre- and post-project calculations can be viewed in Appendix D. The FlowMaster Calculations can be viewed in Appendix E. Exhibits 3 and 4 in Appendix F show the pre- and post-tributary areas for the US-33 swale, with Exhibit 4 showing where the cross section used for the analysis was cut.

Table 9 - Comparison of Pre- and Post-Development WSEL in US-33 Swale

Storm (yr)	Pre-Development		Post-Development	
(yr)	Q (cfs)	WSEL	Q (cfs)	WSEL
25	27.71	929.58	18.13	929.39
50	33.51	929.66	21.22	929.47
100	39.70	929.73	24.47	929.53

9.0 CONCLUSION

The proposed stormwater management plan for OSU WMC Regional Ambulatory Facility meets all requirements for detention and water quality as set forth by the City of Dublin and the Ohio EPA.

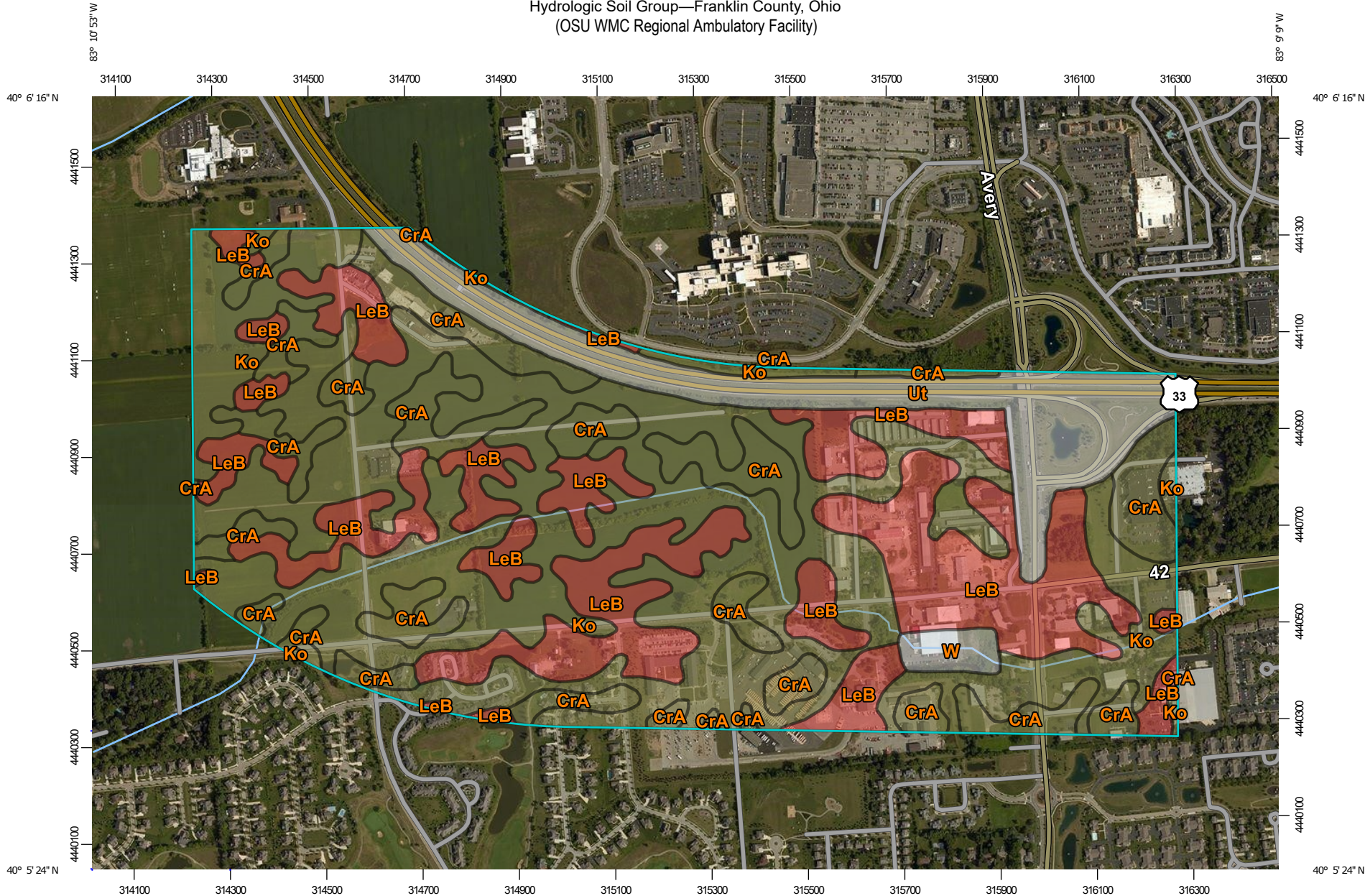


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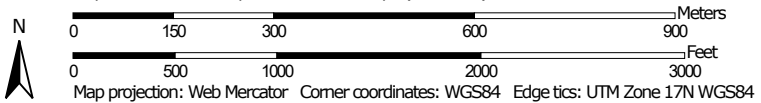
APPENDIX A:

USDA Soils Report

Hydrologic Soil Group—Franklin County, Ohio
(OSU WMC Regional Ambulatory Facility)



Map Scale: 1:11,300 if printed on A landscape (11" x 8.5") sheet.



MAP LEGEND

Area of Interest (AOI)









 Area of Interest (AOI)

Soils

Soil Rating Polygons





 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines


 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points






 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available


Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Franklin County, Ohio
 Survey Area Data: Version 18, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 4, 2014—Aug 27, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CrA	Crosby silt loam, Southern Ohio Till Plain, 0 to 2 percent slopes	C/D	72.5	17.7%
Ko	Kokomo silty clay loam, 0 to 2 percent slopes	C/D	176.5	43.0%
LeB	Lewisburg-Crosby complex, 2 to 6 percent slopes	D	113.2	27.6%
Ut	Udorthents-Urban land complex, gently rolling		43.9	10.7%
W	Water		4.4	1.1%
Totals for Area of Interest			410.5	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



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APPENDIX B:

Storm Sewer Calculations



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STORM SEWER COMPUTATION SHEET

SHT
1

Project: **OSU WMC Regional Ambulatory Facility**

Job No.: **2019-1248**

Date: 2/14/20

By: **JWE**

Checked: **CBP**

Revised:

Revised:

5 Yr Design Storm n= 0.012

Intensity Reference: **Dublin**

Struc.	Struc. Index	Sta.	Drainage Area				Time		Intensity in/hr	Des Q CFS	Length ft.	Dia. In	Slope%	Vel	Cap. Flowing Full	Status	In	Out	TC	Remarks	10 YEAR HYDRAULIC GRADE LINE					
			Trib	Cumul.	C	Cumul. CA	Delta t Min.	Sum t Min.													10 Yr Rainfall Intensity	Discharge Q	Slope %	Minor Losses	10 Yr HGL w/ minor losses	
15	CB2	13+68.96	0.52	1.98	0.90				5.12							927.83	927.88	932.10	0.05 DROP							
		Std. Catch Basin	0.89		0.90	1.27					120.00	18	0.25%	3.2	5.7	OK					2.56 ft. cover 4.27 ft. depth	4.78	6.07	0.2832	0.0000	930.39
		AA-S133A																							ok	
14	CB2	12+48.96	0.49	2.88	0.90				8.22							927.48	927.53	932.10	0.05 DROP							
		Std. Catch Basin	0.41		0.90	2.08					120.00	24	0.15%	3.0	9.5	OK					2.37 ft. cover 4.62 ft. depth	4.69	9.75	0.1574	0.0000	930.05
		AA-S133A																							ok	
13	CB2	11+28.96	0.48	3.36	0.90				9.72							927.25	927.30	932.10	0.05 DROP							
		Std. Catch Basin	0.00		0.90	2.51					120.00	24	0.20%	3.5	11.0	OK					2.55 ft. cover 4.85 ft. depth	4.59	11.53	0.2203	0.0000	929.86
		AA-S133A																							ok	
12	CB2	10+08.96	0.49	3.85	0.90				11.23							926.96	927.01	932.10	0.05 DROP							
		Std. Catch Basin	0.00		0.90	2.95					120.00	24	0.25%	3.9	12.3	OK					2.84 ft. cover 5.14 ft. depth	4.51	13.32	0.2938	0.0000	929.59
		AA-S133A																							ok	
11	CB2	8+88.96	0.33	4.18	0.90				12.17							926.61	926.66	932.30	0.05 DROP							
		Std. Catch Basin	0.00		0.90	3.25					47.34	36	0.10%	3.2	22.9	OK					2.36 ft. cover 5.69 ft. depth	4.44	14.43	0.0397	0.0000	929.24
		AA-S133A																							ok	
10	MH2	8+41.62	0.00	6.01	0.90				18.20							926.51	926.56	932.50	0.05 DROP							
		Manhole Type C	1.83		0.90	4.90					83.61	36	0.10%	3.2	22.9	OK					2.61 ft. cover 5.99 ft. depth	4.41	21.59	0.0888	0.0000	929.22
		AA-S102																							ok	
9	CB2	7+58.01	0.31	6.32	0.90				19.00							926.38	926.43	932.10	0.05 DROP							
		Std. Catch Basin	0.00		0.90	5.18					83.43	36	0.10%	3.2	22.9	OK					2.34 ft. cover 5.72 ft. depth	4.35	22.54	0.0968	0.0000	929.15
		AA-S133A																							ok	
8	CI2	6+74.58	0.27	7.00	0.90				20.98							926.25	926.30	932.30	0.05 DROP							
		C&G Inlet	0.41		0.90	5.79					120.00	36	0.10%	3.2	22.9	OK					2.67 ft. cover 6.05 ft. depth	4.30	24.89	0.1180	0.0000	929.07
		AA-S125A																							ok	
7	CB2	5+54.58	0.48	7.48	0.90				22.15							926.08	926.13	932.10	0.05 DROP							
		Std. Catch Basin	0.00		0.90	6.22					116.83	36	0.10%	3.2	22.9	OK					2.64 ft. cover 6.02 ft. depth	4.23	26.28	0.1315	0.0000	928.92
		AA-S133A																							ok	
6	CB2	4+37.75	0.48	10.33	0.90				30.76							925.91	925.96	931.70	0.05 DROP							
		Std. Catch Basin	2.37		0.90	8.78					122.10	36	0.20%	4.6	32.4	OK					2.41 ft. cover 5.79 ft. depth	4.15	36.49	0.2537	0.0000	928.77
		AA-S133A																							ok	
5	CB2	3+15.65	0.48	10.81	0.90				31.88							925.62	925.67	931.50	0.05 DROP							
		Std. Catch Basin	0.00		0.90	9.22					125.00	36	0.20%	4.6	32.4	OK					2.50 ft. cover 5.88 ft. depth	4.10	37.82	0.2725	0.0000	928.46
		AA-S133A																							ok	
4	CB2	1+90.65	0.47	11.28	0.90				32.93							925.32	925.37	931.20	0.05 DROP							
		Std. Catch Basin	0.00		0.90	9.64					117.60	42	0.10%	3.6	34.6	OK					2.01 ft. cover 5.88 ft. depth	4.05	39.07	0.1278	0.0000	928.12
		AA-S133A																							ok	
3	CB2	0+73.05	0.30	12.82	0.90				37.11							925.15	925.20	930.80	0.05 DROP							
		Std. Catch Basin	1.24		0.90	11.03					43.31	42	0.15%	4.4	42.3	OK					1.73 ft. cover 5.65 ft. depth	3.99	44.04	0.1624	0.0000	927.95
		AA-S133A																							ok	
2	CB2	0+29.74	0.24	13.06	0.90				37.67							925.04	925.09	930.10	0.05 DROP							
		Std. Catch Basin	0.00		0.90	11.24					29.74	42	0.15%	4.4	42.3	OK					1.14 ft. cover 5.06 ft. depth	3.98	44.71	0.1673	0.0000	927.85
		AA-S133A																							ok	
HW1	HW2	0+00.00	0.00	13.06	0.90				37.56							925.00	925.00		0.00 DROP							
		Headwall	0.00		0.90	11.24						42				NP=925.0	Basin 01				-928.88 ft. cover -925.00 ft. depth	3.97	44.57	0.1663	0.0000	927.80
		AA-S166																							problem	



STORM SEWER COMPUTATION SHEET

SHT
2

Project: **OSU WMC Regional Ambulatory Facility**
 Job No.: **2019-1248**
 Intensity Reference: Dublin

Date: 2/14/20
 By: JWE
 Checked:

Revised:
 Revised:

5 Yr Design Storm n= 0.012

10 YEAR HYDRAULIC GRADE LINE

Struc.	Struc. Index	Sta.	Drainage Area				Time		Intensity in/hr	Des Q CFS	Length ft.	Dia. In	Slope%	Vel	Cap. Flowing Full	Status	In	Out	TC	Remarks	10 Yr Rainfall Intensity	Discharge Q	Slope %	Minor Losses	10 Yr HGL w/ minor losses
			Trib	Cumul.	C	Cumul CA	Delta t Min.	Sum t Min.													4.93	1.11	0.0821	0.0000	930.80
17	CI2	1+66.44	0.25	0.25	0.90		10.00	10.00	4.15	0.93						930.00		934.20							
C&G Inlet			0.00		0.90	0.23					19.00	12	0.40%	3.1	2.4	OK				3.03 ft. cover 4.20 ft. depth	4.93	1.11	0.0821	0.0000	930.80
AA-S125A																								ok	
16	CI2	1+47.44	0.32	0.57	0.90		0.10	10.10	4.14	2.12						928.92	929.92	932.90	1.00	DROP					
C&G Inlet			0.00		0.90	0.51					147.44	12	0.40%	3.1	2.4	OK				1.81 ft. cover 3.98 ft. depth	4.91	2.52	0.4239	0.0000	929.72
AA-S125A																								ok	
15	CB2	0+00.00	0.00	0.57	0.90		0.79	10.89	4.03	2.07						927.83	928.33	932.10	0.50	DROP					
Std. Catch Basin			0.00		0.90	0.51					120.00	18	0.25%	3.2	5.7	OK				2.56 ft. cover 4.27 ft. depth	4.78	2.45	0.0463	0.0000	929.03
AA-S133A																								ok	
39	CI2	1+29.98	0.32	0.32	0.90		10.00	10.00	4.15	1.20						928.85	928.85	933.00							
C&G Inlet			0.00		0.90	0.29					129.98	12	0.40%	3.1	2.4	OK				2.98 ft. cover 4.15 ft. depth	4.93	1.42	0.1345	0.0000	929.65
AA-S125A																								ok	
15	CB2	0+00.00	0.00	0.32	0.90		0.70	10.70	4.06	1.17						927.83	928.33	932.10	0.50	DROP					
Std. Catch Basin			0.00		0.90	0.29					120.00	18	0.25%	3.2	5.7	OK				2.56 ft. cover 4.27 ft. depth	4.82	1.39	0.0148	0.0000	929.03
AA-S133A																								ok	
34	CI2	1+65.00	0.41	0.41	0.90		10.00	10.00	4.15	1.53						929.14	929.14	932.70							
C&G Inlet			0.00		0.90	0.37					165.00	12	0.40%	3.1	2.4	OK				2.39 ft. cover 3.56 ft. depth	4.93	1.82	0.2208	0.0000	929.94
AA-S125A																								ok	
14	CB2	0+00.00	0.00	0.41	0.90		0.88	10.88	4.03	1.49						927.48	928.48	932.10	1.00	DROP					
Std. Catch Basin			0.00		0.90	0.37					120.00	24	0.15%	3.0	9.5	OK				2.37 ft. cover 4.62 ft. depth	4.79	1.77	0.0052	0.0000	929.08
AA-S133A																								ok	



STORM SEWER COMPUTATION SHEET

SHT
3

Project: **OSU WMC Regional Ambulatory Facility**
 Job No.: **2019-1248**
 Intensity Reference: Dublin

Date: 2/14/20
 By: JWE
 Checked:

Revised:
 Revised:

5 Yr Design Storm n= 0.012

Struc.	Struc. Index	Sta.	Drainage Area				Time		Intensity in/hr	Des Q CFS	Length ft.	Dia. In	Slope%	Vel	Cap. Flowing Full	Status	In	Out	TC	Remarks	10 YEAR HYDRAULIC GRADE LINE					
			Trib	Cumul.	C	Cumul CA	Delta t Min.	Sum t Min.													10 Yr Rainfall Intensity	Discharge Q	Slope %	Minor Losses	10 Yr HGL w/ minor losses	
21	CB2	1+51.75	1.57	1.57	0.90	1.41	10.00	10.00	4.15	5.87	151.75	18	0.30%	3.5	6.2	OK	926.47	930.70		2.52 ft. cover 4.23 ft. depth	4.93	6.96	0.3725	0.0000	928.88	
Std. Catch Basin AA-S133A			0.00		0.90	1.41																ok				
6	CB2	0+00.00	0.00	1.57	0.90	1.41	0.72	10.72	4.06	5.73	122.10	36	0.20%	4.6	32.4	OK	925.91	926.01	931.70	0.10 DROP	2.46 ft. cover 5.79 ft. depth	4.81	6.80	0.0088	0.0000	928.31
Std. Catch Basin AA-S133A			0.00		0.90	1.41																ok				
33	CB2	5+92.98	0.35	0.35	0.90	0.32	10.00	10.00	4.15	1.31	119.20	12	0.40%	3.1	2.4	OK	929.17	929.17	932.00	1.66 ft. cover 2.83 ft. depth	4.93	1.55	0.1609	0.0000	929.98	
Std. Catch Basin AA-S133A			0.00		0.90	0.32																ok				
32	CB2	4+73.78	0.42	0.77	0.90	0.69	0.64	10.64	4.07	2.82	151.02	18	0.25%	3.2	5.7	OK	928.59	928.69	932.00	0.10 DROP	1.70 ft. cover 3.41 ft. depth	4.82	3.34	0.0859	0.0000	929.79
Std. Catch Basin AA-S133A			0.00		0.90	0.69																ok				
31	CB2	3+22.76	0.37	1.14	0.90	1.03	0.78	11.42	3.97	4.07	119.21	18	0.25%	3.2	5.7	OK	928.11	928.21	932.00	0.10 DROP	2.08 ft. cover 3.89 ft. depth	4.70	4.83	0.1789	0.0000	929.52
Std. Catch Basin AA-S133A			0.00		0.90	1.03																ok				
30	CB2	2+03.55	0.34	1.48	0.90	1.33	0.62	12.03	3.89	5.18	134.00	24	0.15%	3.0	9.5	OK	927.71	927.81	932.00	0.10 DROP	2.04 ft. cover 4.29 ft. depth	4.61	6.14	0.0625	0.0000	929.31
Std. Catch Basin AA-S133A			0.00		0.90	1.33																ok				
29	CI2	0+69.55	0.35	1.83	0.90	1.65	0.74	12.77	3.80	6.26	69.55	24	0.15%	3.0	9.5	OK	927.41	927.51	932.00	0.10 DROP	2.24 ft. cover 4.59 ft. depth	4.51	7.43	0.0913	0.0000	929.01
C&G Inlet AA-S125A			0.00		0.90	1.65																ok				
10	MH2	0+00.00	0.00	1.83	0.90	1.65	0.38	13.15	3.76	6.19	83.61	36	0.10%	3.2	22.9	OK	926.51	927.31	932.50	0.80 DROP	2.66 ft. cover 5.99 ft. depth	4.46	7.34	0.0103	0.0000	928.91
Manhole Type C AA-S102			0.00		0.90	1.65																ok				



STORM SEWER COMPUTATION SHEET

SHT
5

Project: OSU WMC Regional Ambulatory Facility
 Job No.: 2019-1248
 Intensity Reference: Dublin
 Date: 2/14/20
 By: JWE
 Checked:

Revised:
Revised:

5 Yr Design Storm n= 0.012

Struc.	Struc. Index	Sta.	Drainage Area				Time		Intensity in/hr	Des Q CFS	Length ft.	Dia. In	Slope%	Vel	Cap. Flowing Full	Status	In	Out	TC	Remarks	10 YEAR HYDRAULIC GRADE LINE																		
			Trib	Cumul.	C	Cumul CA	Delta t Min.	Sum t Min.													10 Yr Rainfall Intensity	Discharge Q	Slope %	Minor Losses	10 Yr HGL w/ minor losses														
42	CB2	3+70.88	0.00	0.00	0.90			10.00	10.00	4.15	0.00						925.70		929.60																				
Std. Catch Basin AA-S133A			0.00		0.90	0.00					52.81	36	0.10%	3.2	22.9	OK	NP=925.7	Basin 02												4.93	0.00	0.0000	0.0000	928.10	ok				
41	MH2	3+18.07	0.00	0.00	0.90			0.27	10.27	4.12	0.00						925.48	925.65	932.00	0.17	DROP																		
Manhole Type C AA-S102			0.00		0.90	0.00					139.72	36	0.10%	3.2	22.9	OK																							
40	CI2	1+78.35	0.18	0.18	0.90			0.72	10.99	4.02	0.65						925.18	925.34	931.60	0.16	DROP																		
C&G Inlet AA-S125A			0.00		0.90	0.16					178.35	36	0.10%	3.2	22.9	OK																							
HW2 Headwall AA-S166			0.00		0.90	0.16			0.92	11.91								925.00	925.00																				
																		NP=925.0	Basin 01																				
Flow from Basin 02																																							

**STORM SEWER COMPUTATION SHEET**SHT
6Project: **OSU WMC Regional Ambulatory Facility**
Job No.: **2019-1248**
Intensity Reference: DublinDate: 2/14/20
By: JWE
Checked:Revised:
Revised:

5 Yr Design Storm n= 0.012

10 YEAR HYDRAULIC GRADE LINE
10 Yr Rainfall Intensity Discharge Q Slope % Minor Losses 10 Yr HGL w/ minor losses

Struc.	Struc. Index	Sta.	Drainage Area				Time		Intensity in/hr	Des Q CFS	Length ft.	Dia. In	Slope%	Vel	Cap. Flowing Full	Status	In	Out	TC	Remarks	10 Yr Rainfall Intensity	Discharge Q	Slope %	Minor Losses	10 Yr HGL w/ minor losses																				
			Trib	Cumul.	C	Cumul CA	Delta t Min.	Sum t Min.																																					
49	CI2	8+10.89	0.08	0.08	0.90		10.00	10.00	4.15	0.30						929.53		934.42																											
C&G Inlet																				0.00		0.90	0.07					73.36	12	0.40%	3.1	2.4	OK					3.72 ft. cover 4.89 ft. depth	4.93	0.35	0.0084	0.0000	930.33		
AA-S125A																																											ok		
48	CI2	7+37.53	0.07	1.06	0.90		0.39	10.39	4.10	3.91						928.74	929.24	934.45	0.50	DROP					4.86	4.64	0.1654	0.0000	929.94																
C&G Inlet																				0.91		0.90	0.95					165.44	18	0.30%	3.5	6.2	OK						4.00 ft. cover 5.71 ft. depth						ok
AA-S125A																																													
47	CB2	5+72.09	0.29	1.35	0.90		0.78	11.17	4.00	4.86						928.14	928.24	932.50	0.10	DROP					4.74	5.76	0.2549	0.0000	929.34																
Std. Catch Basin																				0.00		0.90	1.22					90.00	18	0.30%	3.5	6.2	OK						2.55 ft. cover 4.36 ft. depth						ok
AA-S133A																																													
46	CB2	4+82.09	0.08	1.43	0.90		0.42	11.60	3.94	5.07						927.77	927.87	933.00	0.10	DROP					4.68	6.02	0.2783	0.0000	928.97																
Std. Catch Basin																				0.00		0.90	1.29					160.55	18	0.30%	3.5	6.2	OK						3.42 ft. cover 5.23 ft. depth						ok
AA-S133A																																													
45	CB2	3+21.54	0.80	2.23	0.90		0.76	12.35	3.85	7.73						926.79	927.29	931.60	0.50	DROP					4.57	9.17	0.1391	0.0000	928.39																
Std. Catch Basin																				0.00		0.90	2.01					106.96	24	0.15%	3.0	9.5	OK						2.56 ft. cover 4.81 ft. depth						ok
AA-S133A																																													
44	CI2	2+14.58	0.57	4.50	0.90		0.59	12.94	3.78	15.31						926.13	926.63	931.40	0.50	DROP					4.48	18.16	0.1662	0.0000	928.13																
C&G Inlet																				1.70		0.90	4.05					182.91	30	0.15%	3.5	17.3	OK						2.48 ft. cover 5.27 ft. depth						ok
AA-S125A																																													
43	CI2	0+31.67	0.72	5.22	0.90		0.87	13.81	3.68	17.31						925.76	925.86	931.70	0.10	DROP					4.37	20.53	0.2123	0.0000	927.77																
C&G Inlet																				0.00		0.90	4.70					31.67	30	0.20%	4.1	19.9	OK						3.05 ft. cover 5.94 ft. depth						ok
AA-S125A																												.15.4																	
HW3	HW2	0+00.00	0.00	5.22	0.90		0.13	13.94	3.67	17.24						925.70	925.70		0.00	DROP					4.35	20.45	0.2107	0.0000	927.70																
Headwall																				0.00		0.90	4.70											NP=925.7	Basin 02				-928.49 ft. cover -925.70 ft. depth						problem
AA-S166																																													



STORM SEWER COMPUTATION SHEET

SHT
7

Project: **OSU WMC Regional Ambulatory Facility**
 Job No.: **2019-1248**
 Intensity Reference: Dublin

Date: 2/14/20
 By: JWE
 Checked:

Revised:
 Revised:

5 Yr Design Storm n= 0.012

10 YEAR HYDRAULIC GRADE LINE

Struc.	Struc. Index	Sta.	Drainage Area				Time		Intensity in/hr	Des Q CFS	Length ft.	Dia. In	Slope%	Vel	Cap. Flowing Full	Status	In	Out	TC	Remarks	10 Yr Rainfall Intensity	Discharge Q	Slope %	Minor Losses	10 Yr HGL w/ minor losses	
			Trib	Cumul.	C	Cumul. CA	Delta t Min.	Sum t Min.													4.93	4.04	0.1251	0.0000	932.31	
CO2		1+07.22	0.91	0.91	0.90		10.00	10.00	4.15	3.40						931.11		935.00								
Trench Drain			0.00		0.90	0.82					107.22	18	0.25%	3.2	5.7	OK				2.18 ft. cover 3.89 ft. depth	4.93	4.04	0.1251	0.0000	932.31	
48	CI2	0+00.00	0.00	0.91	0.90		0.55	10.55	4.08	3.34						928.74	930.84	934.45	2.10	DROP					ok	
C&G Inlet AA-S125A			0.00		0.90	0.82					165.44	18	0.30%	3.5	6.2	OK				1.90 ft. cover 5.71 ft. depth	4.84	3.96	0.1206	0.0000	929.94	
51	CI2	3+61.01	0.32	0.32	0.90		10.00	10.00	4.15	1.20						927.58	927.58	930.30		1.55 ft. cover 2.72 ft. depth	4.93	1.42	0.1345	0.0000	929.14	
C&G Inlet AA-S125A			0.00		0.90	0.29					170.01	12	0.40%	3.1	2.4	OK										ok
50	CI2	1+91.00	0.46	1.70	0.90		0.91	10.91	4.03	6.17						926.80	926.90	930.80	0.10	DROP						
C&G Inlet AA-S125A			0.92		0.90	1.53					191.00	18	0.30%	3.5	6.2	OK				2.29 ft. cover 4.00 ft. depth	4.78	7.32	0.4111	0.0000	928.92	
																										ok
44	CI2	0+00.00	0.00	1.70	0.90		0.90	11.81	3.92	5.99						926.13	926.23	931.40	0.10	DROP						
C&G Inlet AA-S125A			0.00		0.90	1.53					182.91	30	0.15%	3.5	17.3	OK				2.48 ft. cover 5.27 ft. depth	4.65	7.11	0.0254	0.0000	928.13	
																										ok
53	CI2	1+50.11	0.72	0.72	0.90		10.00	10.00	4.15	2.69						927.50	927.50	931.50		2.83 ft. cover 4.00 ft. depth	4.93	3.19	0.6810	0.0000	928.69	
C&G Inlet AA-S125A			0.00		0.90	0.65					49.61	12	0.50%	3.5	2.7	OK										ok
52	CI2	1+00.50	0.20	0.92	0.90		0.24	10.24	4.12	3.41						927.15	927.25	931.80	0.10	DROP						
C&G Inlet AA-S125A			0.00		0.90	0.83					100.50	18	0.25%	3.2	5.7	OK				2.94 ft. cover 4.65 ft. depth	4.89	4.05	0.1259	0.0000	928.35	
																										ok
50	CI2	0+00.00	0.00	0.92	0.90		0.52	10.76	4.05	3.35						926.80	926.90	930.80	0.10	DROP						
C&G Inlet AA-S125A			0.00		0.90	0.83					191.00	18	0.30%	3.5	6.2	OK				2.19 ft. cover 4.00 ft. depth	4.81	3.98	0.1216	0.0000	928.00	
																										ok



STORM SEWER COMPUTATION SHEET

SHT
8

Project: OSU WMC Regional Ambulatory Facility
 Job No.: 2019-1248
 Intensity Reference: Dublin

Date: 2/14/20
 By: JWE
 Checked:

Revised:
 Revised:

5 Yr Design Storm n= 0.012

10 YEAR HYDRAULIC GRADE LINE

Struc.	Struc. Index	Sta.	Drainage Area				Time		Intensity in/hr	Des Q CFS	Length ft.	Dia. In	Slope%	Vel	Cap. Flowing Full	Status	In	Out	TC	Remarks	10 Yr Rainfall Intensity	Discharge Q	Slope %	Minor Losses	10 Yr HGL w/ minor losses
			Trib	Cumul.	C	Cumul CA	Delta t Min.	Sum t Min.																	
60	CB2	1+92.92	0.17	0.82	0.90													929.77	934.10						
Trench Drain AA-S133A			0.65		0.90	0.74	10.00	10.00	4.15	3.07	192.92	12	1.00%	4.9	3.9	OK					4.93	3.64	0.8833	0.0000	930.57
55	MH2	0+00.00	0.00	0.82	0.90													925.84	927.84	933.00	2.00	DROP			
Manhole Type C AA-S102			0.00		0.90	0.74	0.65	10.65	4.06	3.00	142.18	36	0.10%	3.2	22.9	OK					4.82	3.56	0.0024	0.0000	928.24
TD1		0+87.00	0.65	0.65	0.90													929.62	931.50						
Trench Drain AA-S133A			0.00		0.90	0.59	10.00	10.00	4.15	2.43	87.00	12	0.40%	3.1	2.4	OK					4.93	2.88	0.5550	0.0000	930.55
60	CB2	0+00.00	0.00	0.65	0.90													929.27	929.27	934.10	0.00	DROP			
Std. Catch Basin AA-S133A			0.00		0.90	0.59	0.47	10.47	4.09	2.39	192.92	12	1.00%	4.9	3.9	OK					4.85	2.84	0.5380	0.0000	930.07
Calculated Invert																									



STORM SEWER COMPUTATION SHEET

SHT
10

Project: **OSU WMC Regional Ambulatory Facility**
 Job No.: **2019-1248**
 Intensity Reference: Dublin

Date: 2/14/20
 By: JWE
 Checked:

Revised:
Revised:

5 Yr Design Storm n= **0.012**

10 YEAR HYDRAULIC GRADE LINE

Struc.	Struc. Index	Sta.	Drainage Area				Time		Intensity in/hr	Des Q CFS	Length ft.	Dia. In	Slope%	Vel	Cap. Flowing Full	Status	In	Out	TC	Remarks	10 Yr Rainfall Intensity	Discharge Q	Slope %	Minor Losses	10 Yr HGL w/ minor losses
			Trib	Cumul.	C	Cumul CA	Delta t Min.	Sum t Min.																	
67	CI2	6+35.89	0.18	0.18	0.90		10.00	10.00	4.15	0.67						929.27		933.65							
C&G Inlet			0.00		0.90	0.16					80.83	12	0.40%	3.1	2.4	OK					4.93	0.80	0.0426	0.0000	930.35
AA-S125A			ok																						
66	CI2	5+55.06	0.06	0.24	0.90		0.43	10.43	4.09	0.88						928.85	928.95	933.60	0.10	DROP					
C&G Inlet			0.00		0.90	0.22					111.78	12	0.40%	3.1	2.4	OK					4.86	1.05	0.0735	0.0000	930.32
AA-S125A			ok																						
65	CB2	4+43.28	0.30	0.96	0.90		0.60	11.03	4.01	3.47						928.30	928.40	932.30	0.10	DROP					
Std. Catch Basin			0.42		0.90	0.86					117.34	18	0.25%	3.2	5.7	OK					4.76	4.12	0.1301	0.0000	930.24
AA-S133A			ok																						
64	CB2	3+25.94	0.48	2.16	0.90		0.61	11.64	3.94	7.65						927.91	928.01	932.20	0.10	DROP					
Std. Catch Basin			0.72		0.90	1.94					117.33	24	0.15%	3.0	9.5	OK					4.67	9.08	0.1365	0.0000	930.09
AA-S133A			ok																						
63	CB2	2+08.61	0.28	3.06	0.90		0.65	12.28	3.86	10.63						927.63	927.73	932.40	0.10	DROP					
Std. Catch Basin			0.62		0.90	2.75					110.00	24	0.20%	3.5	11.0	OK					4.58	12.60	0.2631	0.0000	929.92
AA-S133A			ok																						
62	CB2	0+98.61	0.18	3.24	0.90		0.52	12.81	3.80	11.07						927.31	927.41	932.20	0.10	DROP					
Std. Catch Basin			0.00		0.90	2.92					75.48	24	0.25%	3.9	12.3	OK					4.50	13.13	0.2856	0.0000	929.64
AA-S133A			ok																						
61	CI2	0+23.13	0.26	4.49	0.90		0.32	13.13	3.76	15.19						927.02	927.12	931.30	0.10	DROP					
C&G Inlet			0.99		0.90	4.04					23.13	36	0.10%	3.2	22.9	OK					4.46	18.02	0.0619	0.0000	929.42
AA-S125A			ok																						
HW5	HW2	0+00.00	0.00	4.49	0.90		0.12	13.25								927.00	927.00		0.00	DROP					
Headwall			0.00		0.90	4.04						36					NP=927.0	Basin 03			4.44	17.96	0.0614	0.0000	929.40
AA-S166			problem																						
69	CB2	3+55.26	0.57	0.57	0.90		10.00	10.00	4.15	2.13						929.49	929.49	932.70							
Std. Catch Basin			0.00		0.90	0.51					189.46	12	0.40%	3.1	2.4	OK					4.93	2.53	0.4268	0.0000	930.64
AA-S133A			ok																						
68	CB2	1+65.80	0.42	0.99	0.90		1.01	11.01	4.02	3.58						928.63	928.73	932.70	0.10	DROP					
Std. Catch Basin			0.00		0.90	0.89					165.80	18	0.25%	3.2	5.7	OK					4.77	4.25	0.1385	0.0000	929.83
AA-S133A			ok																						
61	CI2	0+00.00	0.00	0.99	0.90		0.86	11.87	3.91	3.48						927.02	928.22	931.30	1.20	DROP					
C&G Inlet			0.00		0.90	0.89					23.13	36	0.10%	3.2	22.9	OK					4.64	4.13	0.0033	0.0000	929.42
AA-S125A			ok																						



STORM SEWER COMPUTATION SHEET

SHT
10

Project: **OSU WMC Regional Ambulatory Facility**
 Job No.: **2019-1248**
 Intensity Reference: Dublin

Date: 2/14/20
 By: JWE
 Checked:

Revised:
 Revised:

5 Yr Design Storm n= 0.012

10 YEAR HYDRAULIC GRADE LINE

Struc.	Struc. Index	Sta.	Drainage Area				Time		Intensity in/hr	Des Q CFS	Length ft.	Dia. In	Slope%	Vel	Cap. Flowing Full	Status	In	Out	TC	Remarks	10 Yr Rainfall Intensity	Discharge Q	Slope %	Minor Losses	10 Yr HGL w/ minor losses	
			Trib	Cumul.	C	Cumul CA	Delta t Min.	Sum t Min.																		
75	CB2	0+92.00	0.42	0.42	0.90		10.00	10.00	4.15	1.57						929.17		932.80								
Std. Catch Basin			0.00		0.90	0.38					92.00	12	0.40%	3.1	2.4	OK					2.46 ft. cover	4.93	1.86	0.2317	0.0000	929.97
AA-S133A																					3.63 ft. depth				ok	
65	CB2	0+00.00	0.00	0.42	0.90		0.49	10.49	4.09	1.54						928.30	928.80	932.30	0.50	DROP						
Std. Catch Basin			0.00		0.90	0.38					117.34	18	0.25%	3.2	5.7	OK					2.29 ft. cover	4.85	1.83	0.0258	0.0000	929.50
AA-S133A																					4.00 ft. depth				ok	
74	CB2	1+14.50	0.35	0.35	0.90		10.00	10.00	4.15	1.31						929.37	929.37	932.70								
Std. Catch Basin			0.00		0.90	0.32					114.50	12	0.40%	3.1	2.4	OK					2.16 ft. cover	4.93	1.55	0.1609	0.0000	930.17
AA-S133A																					3.33 ft. depth				ok	
64	CB2	0+00.00	0.00	0.35	0.90		0.61	10.61	4.07	1.28						927.91	928.91	932.20	1.00	DROP						
Std. Catch Basin			0.00		0.90	0.32					117.33	24	0.15%	3.0	9.5	OK					2.04 ft. cover	4.83	1.52	0.0038	0.0000	929.51
AA-S133A																					4.29 ft. depth				ok	
73	CB2	1+10.50	0.37	0.37	0.90		10.00	10.00	4.15	1.38						929.35	929.35	933.60								
Std. Catch Basin			0.00		0.90	0.33					110.50	12	0.40%	3.1	2.4	OK					3.08 ft. cover	4.93	1.64	0.1798	0.0000	930.15
AA-S133A																					4.25 ft. depth				ok	
64	CB2	0+00.00	0.00	0.37	0.90		0.59	10.59	4.07	1.36						927.91	928.91	932.20	1.00	DROP						
Std. Catch Basin			0.00		0.90	0.33					117.33	24	0.15%	3.0	9.5	OK					2.04 ft. cover	4.83	1.61	0.0043	0.0000	929.51
AA-S133A																					4.29 ft. depth				ok	



STORM SEWER COMPUTATION SHEET

SHT
10

Project: **OSU WMC Regional Ambulatory Facility**
 Job No.: **2019-1248**
 Intensity Reference: Dublin

Date: 2/14/20
 By: JWE
 Checked:

Revised:
 Revised:

5 Yr Design Storm n= 0.012

10 YEAR HYDRAULIC GRADE LINE

Struc.	Struc. Index	Sta.	Drainage Area				Time		Intensity in/hr	Des Q CFS	Length ft.	Dia. In	Slope%	Vel	Cap. Flowing Full	Status	In	Out	TC	Remarks	10 Yr Rainfall Intensity	Discharge Q	Slope %	Minor Losses	10 Yr HGL w/ minor losses																		
			Trib	Cumul.	C	Cumul. CA	Delta t Min.	Sum t Min.																																			
72		2+47.51	0.08	0.08	0.90		10.00	10.00	4.15	0.30							928.67		931.50																								
Trench Drain																																		1.66 ft. cover 2.83 ft. depth							ok		
71	CB2	1+67.62	0.36	0.44	0.90		0.43	10.43	4.10	1.62							928.25	928.35	931.70	0.10	DROP																						
Std. Catch Basin AA-S133A																																											
70	CI2	0+48.62	0.18	0.62	0.90		0.61	11.04	4.01	2.24							927.85	927.95	932.40	0.10	DROP																						
C&G Inlet AA-S125A																																											
63	CB2	0+00.00	0.00	0.62	0.90		0.25	11.29	3.98	2.22							927.63	927.73	932.40	0.10	DROP																						
Std. Catch Basin AA-S133A																																											



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APPENDIX C:

Water Quality and Sediment Basin Calculations



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WEXNER REGIONAL AMBULATORY FACILITY

WATER QUALITY VOLUME CALCULATIONS						
BMP	Subarea Identifier	Area (acres)	Percent Impervious (%)	Rv	Water Quality Volume (ac-ft)	Water Quality Volume Elevation (feet)
Basin 1	Subarea 01	14.96	75%	0.73	0.813	-
	Total	14.96	75%	0.73	0.813	925.78

Required Permanent Pool Volume = 42521 cu-ft
 Provided Permanent Pool Volume = 310801 cu-ft

Water Quality Volume calculated using the Ohio EPA formula:

$$WQ_v = \frac{R_v \times P \times A}{12}$$

where:

A = area draining into the BMP (acres)

P = 0.90" precipitation depth

Rv = the volumetric runoff coefficient

Rv = 0.05+0.9i

Where i = fraction of post-construction impervious surface

SEDIMENT BASIN CALCULATIONS					
BMP	Tributary Area (acres)	Disturbed Area (acres)	Required Dewatering Volume (67 CY/Tributary Acre) (ac-ft)	Dewatering Volume Elevation (feet)	Required Sediment Storage Volume (37 CY/Disturbed Acre) (ac-ft)
Basin 01	31.68	31.68	1.32	926.23	0.73



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WEXNER REGIONAL AMBULATORY FACILITY

WATER QUALITY VOLUME CALCULATIONS						
BMP	Subarea Identifier	Area (acres)	Percent Impervious (%)	Rv	Water Quality Volume (ac-ft)	Water Quality Volume Elevation (feet)
Basin 2	Subarea 2	10.54	75%	0.73	0.573	-
	Subarea 3	6.18	75%	0.73	0.336	
	Total	16.72	75%	0.73	0.909	927.04

Required Permanent Pool Volume =

47523	cu-ft
-------	-------

Provided Permanent Pool Volume =

165680	cu-ft
--------	-------

Water Quality Volume calculated using the Ohio EPA formula:

$$WQ_v = \frac{R_v \times P \times A}{12}$$

where:

A = area draining into the BMP (acres)

P = 0.90" precipitation depth

Rv = the volumetric runoff coefficient

Rv = 0.05+0.9i

Where i = fraction of post-construction impervious surface



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WEXNER REGIONAL AMBULATORY FACILITY

WATER QUALITY VOLUME CALCULATIONS						
BMP	Subarea Identifier	Area (acres)	Percent Impervious (%)	Rv	Water Quality Volume (ac-ft)	Water Quality Volume Elevation (feet)
Dummy Basin	Subarea 10.1	13.57	85%	0.82	0.829	-
10.1	Total	13.57	85%	0.82	0.829	931.43

Required Permanent Pool Volume =	43358	cu-ft
Provided Permanent Pool Volume =	-	cu-ft

Water Quality Volume calculated using the Ohio EPA formula:

$$WQ_v = \frac{R_v \times P \times A}{12}$$

where:

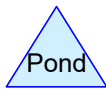
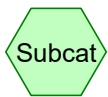
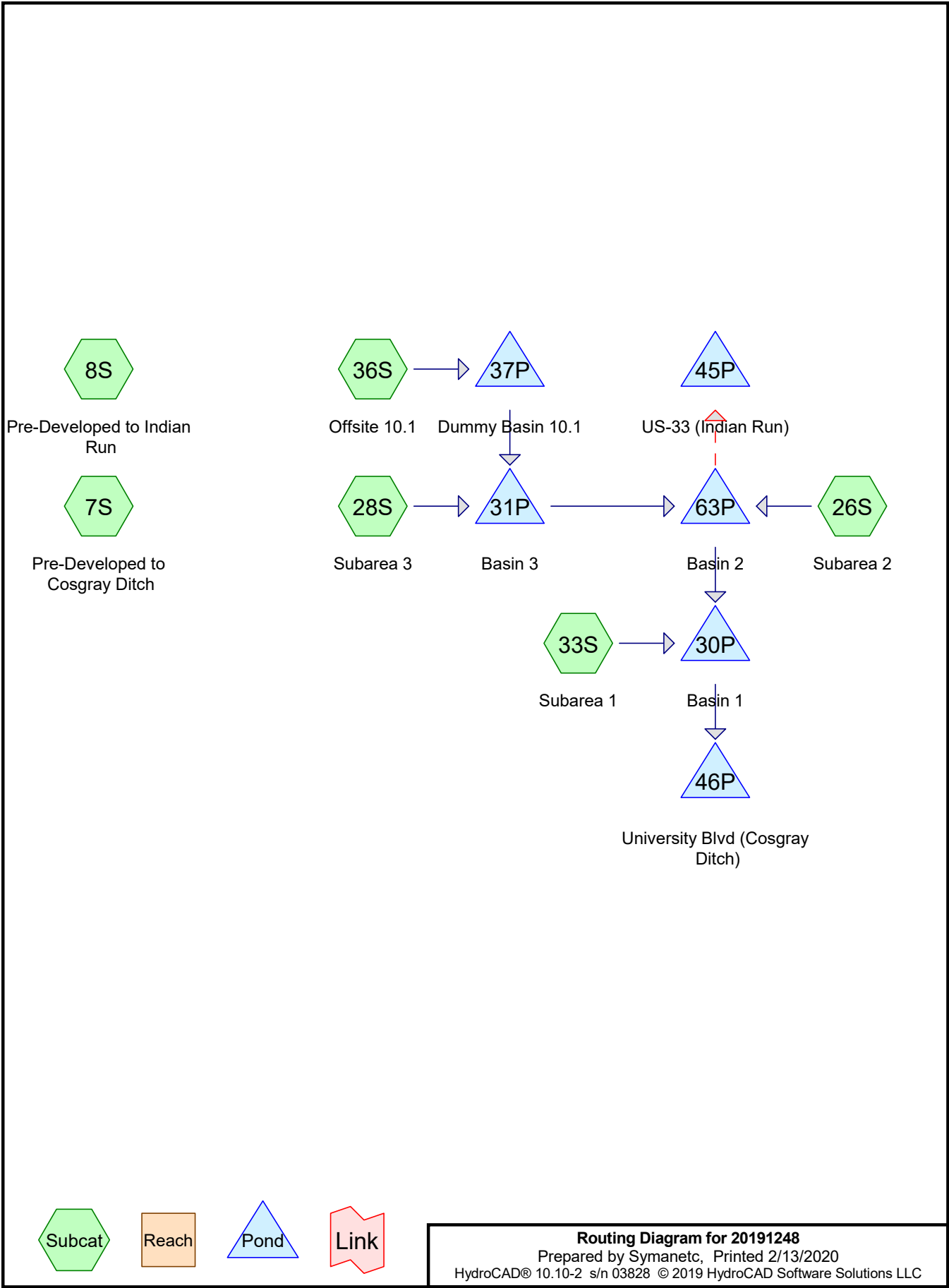
- A = area draining into the BMP (acres)
- P = 0.90" precipitation depth
- Rv = the volumetric runoff coefficient
- Rv = 0.05+0.9i
- Where i = fraction of post-construction impervious surface



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APPENDIX D:

HydroCAD Output



Summary for Subcatchment 7S: Pre-Developed to Cosgray Ditch

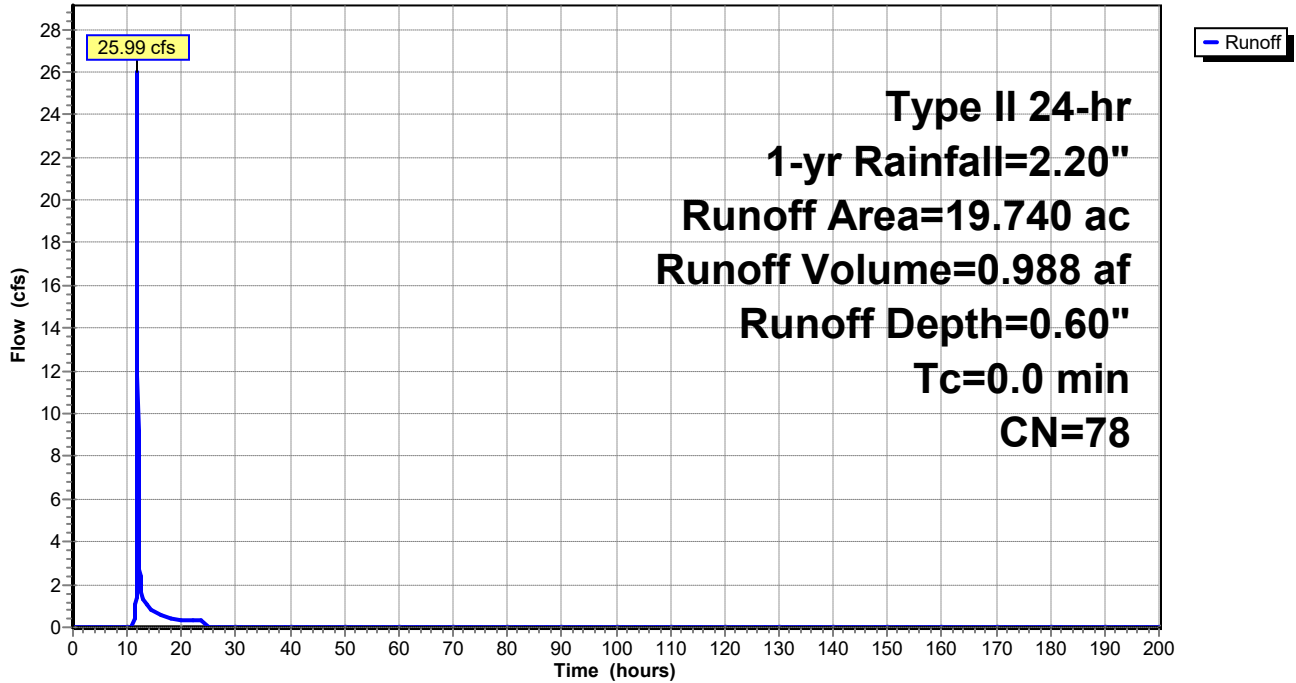
Runoff = 25.99 cfs @ 11.90 hrs, Volume= 0.988 af, Depth= 0.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-yr Rainfall=2.20"

Area (ac)	CN	Description
19.740	78	Row crops, C&T, Good, HSG C
19.740		100.00% Pervious Area

Subcatchment 7S: Pre-Developed to Cosgray Ditch

Hydrograph



Summary for Subcatchment 8S: Pre-Developed to Indian Run

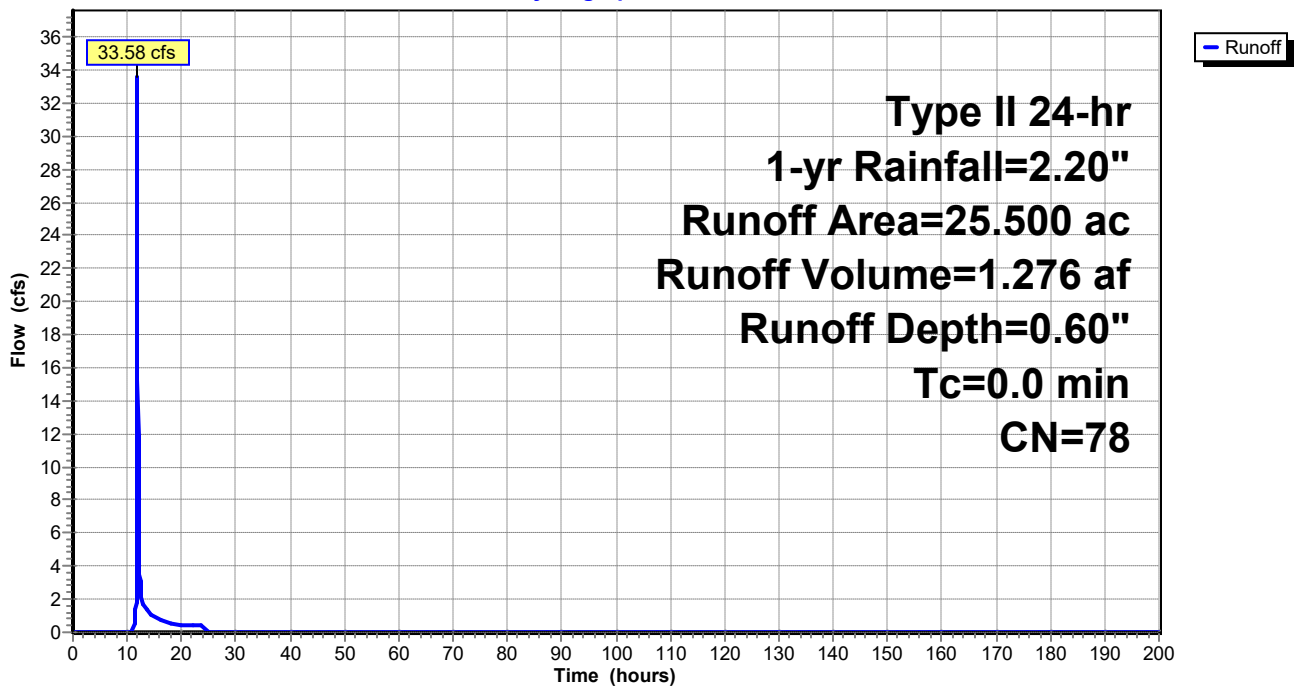
Runoff = 33.58 cfs @ 11.90 hrs, Volume= 1.276 af, Depth= 0.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-yr Rainfall=2.20"

Area (ac)	CN	Description
25.500	78	Row crops, C&T, Good, HSG C
25.500		100.00% Pervious Area

Subcatchment 8S: Pre-Developed to Indian Run

Hydrograph



Summary for Subcatchment 26S: Subarea 2

Runoff = 26.93 cfs @ 11.96 hrs, Volume= 1.245 af, Depth= 1.42"

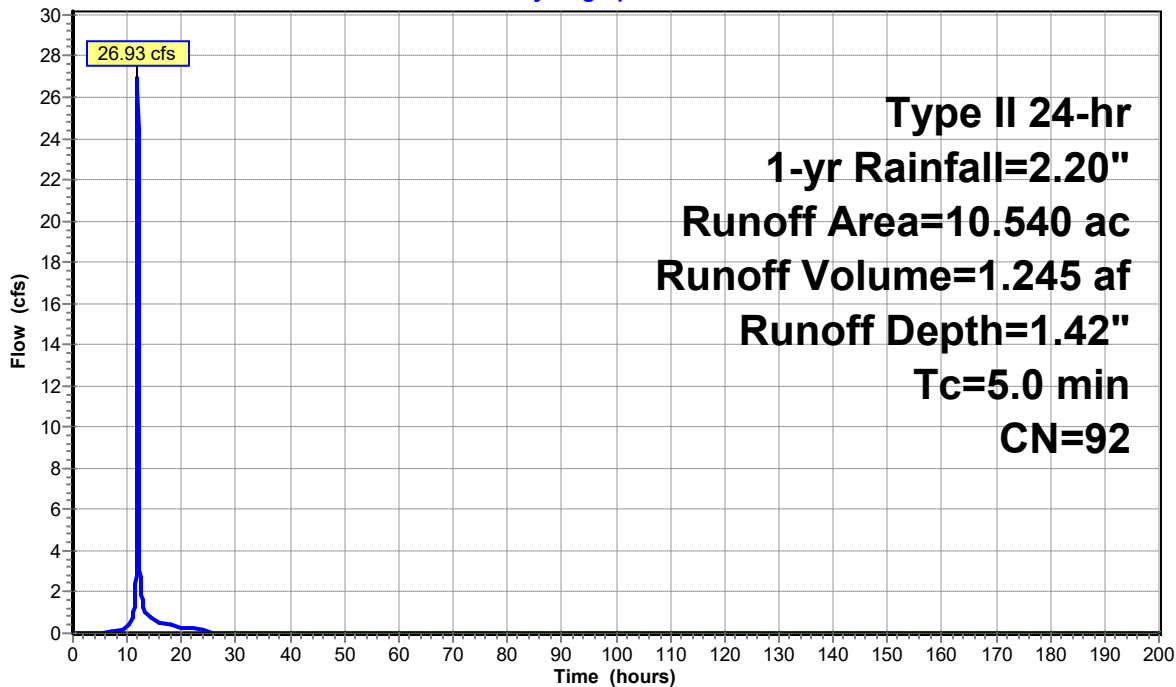
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 1-yr Rainfall=2.20"

Area (ac)	CN	Description
7.285	98	Paved parking, HSG C
2.635	74	>75% Grass cover, Good, HSG C
0.620	98	Water Surface, HSG C
10.540	92	Weighted Average
2.635		25.00% Pervious Area
7.905		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 26S: Subarea 2

Hydrograph



Summary for Subcatchment 28S: Subarea 3

Runoff = 15.79 cfs @ 11.96 hrs, Volume= 0.730 af, Depth= 1.42"

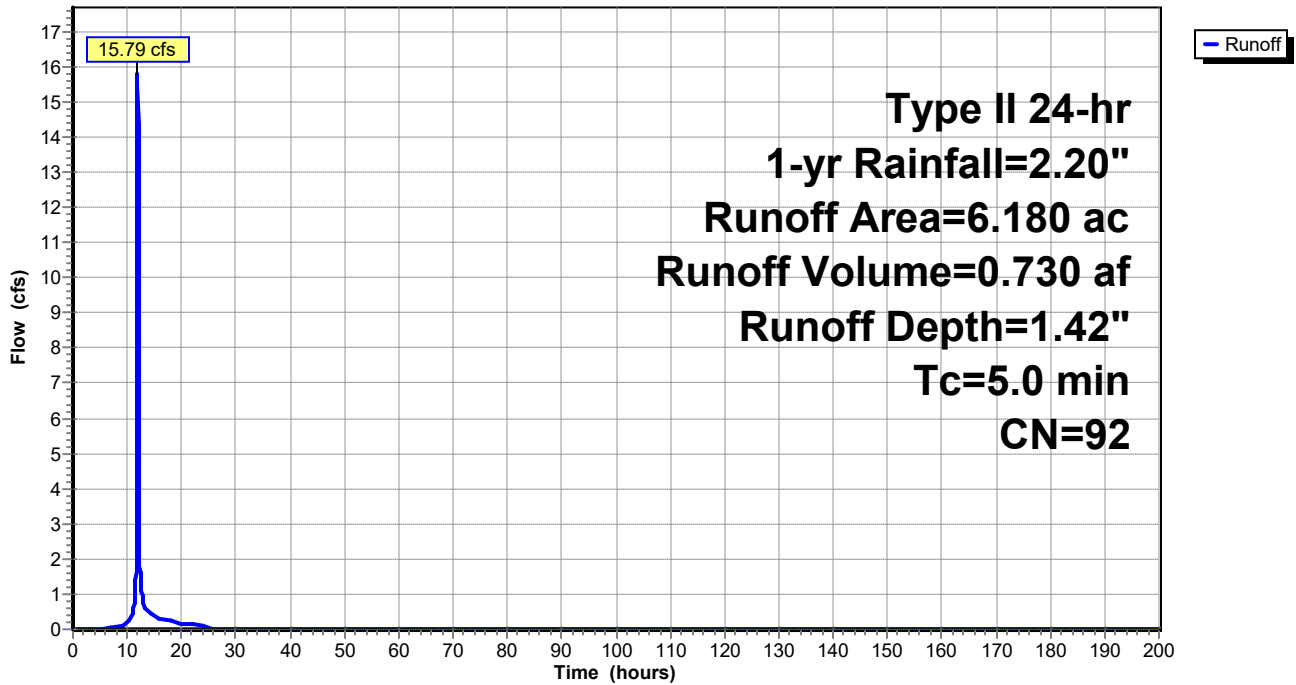
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 1-yr Rainfall=2.20"

Area (ac)	CN	Description
4.175	98	Paved parking, HSG C
1.545	74	>75% Grass cover, Good, HSG C
0.460	98	Water Surface, HSG C
6.180	92	Weighted Average
1.545		25.00% Pervious Area
4.635		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 28S: Subarea 3

Hydrograph



Summary for Subcatchment 33S: Subarea 1

Runoff = 38.22 cfs @ 11.96 hrs, Volume= 1.767 af, Depth= 1.42"

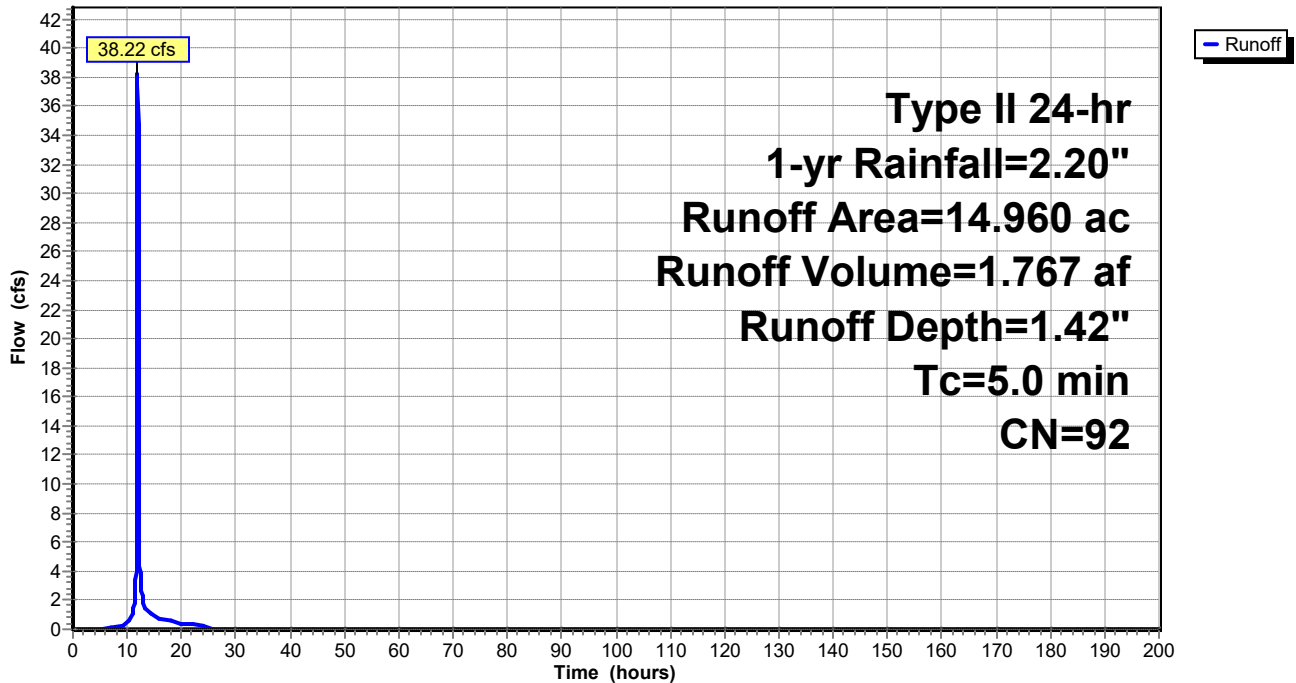
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 1-yr Rainfall=2.20"

Area (ac)	CN	Description
10.210	98	Paved parking, HSG C
3.740	74	>75% Grass cover, Good, HSG C
1.010	98	Water Surface, HSG C
14.960	92	Weighted Average
3.740		25.00% Pervious Area
11.220		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 33S: Subarea 1

Hydrograph



Summary for Subcatchment 36S: Offsite 10.1

Runoff = 34.19 cfs @ 11.99 hrs, Volume= 1.792 af, Depth= 1.58"

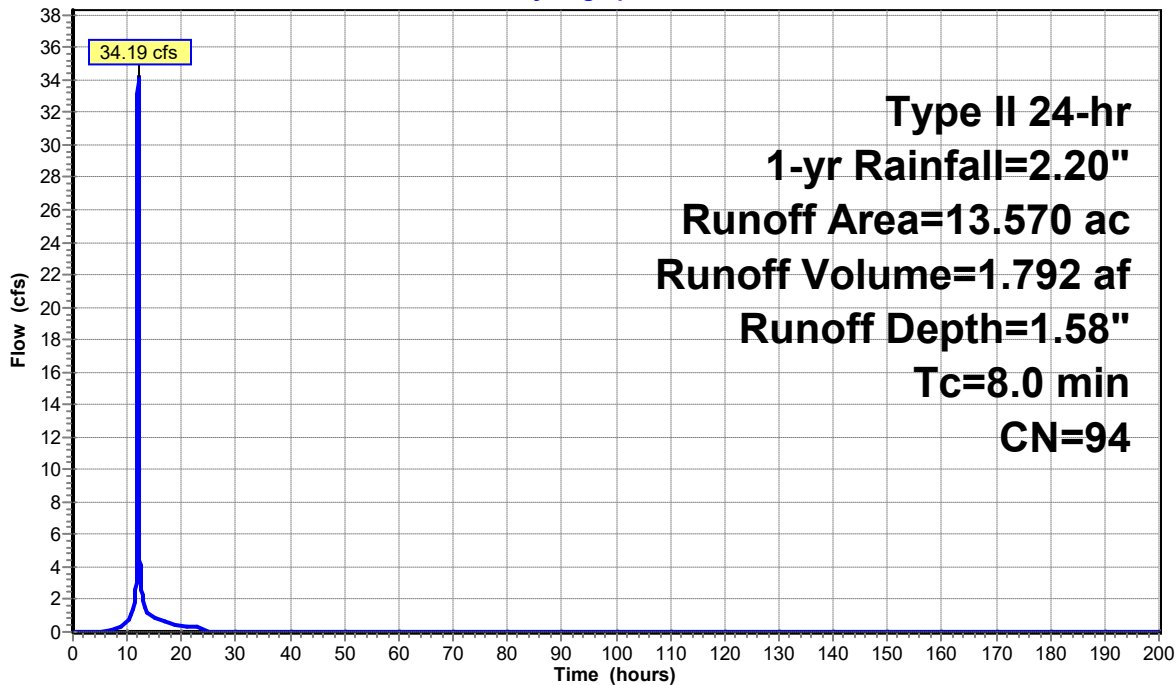
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 1-yr Rainfall=2.20"

Area (ac)	CN	Description
13.570	94	Urban commercial, 85% imp, HSG C
2.036		15.00% Pervious Area
11.534		85.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0					Direct Entry,

Subcatchment 36S: Offsite 10.1

Hydrograph



Summary for Pond 30P: Basin 1

Inflow Area = 45.250 ac, 78.00% Impervious, Inflow Depth > 1.45" for 1-yr event
 Inflow = 38.89 cfs @ 11.96 hrs, Volume= 5.457 af
 Outflow = 1.21 cfs @ 24.05 hrs, Volume= 5.398 af, Atten= 97%, Lag= 725.3 min
 Primary = 1.21 cfs @ 24.05 hrs, Volume= 5.398 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 926.45' @ 24.05 hrs Surf.Area= 1.170 ac Storage= 1.583 af

Plug-Flow detention time= 911.7 min calculated for 5.398 af (99% of inflow)
 Center-of-Mass det. time= 827.3 min (2,772.9 - 1,945.6)

Volume	Invert	Avail.Storage	Storage Description
#1	925.00'	5.717 af	Basin 1 Storage (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.00	1.010	0.000	0.000
926.00	1.120	1.065	1.065
927.00	1.230	1.175	2.240
928.00	1.350	1.290	3.530
929.00	1.480	1.415	4.945
929.50	1.610	0.773	5.717

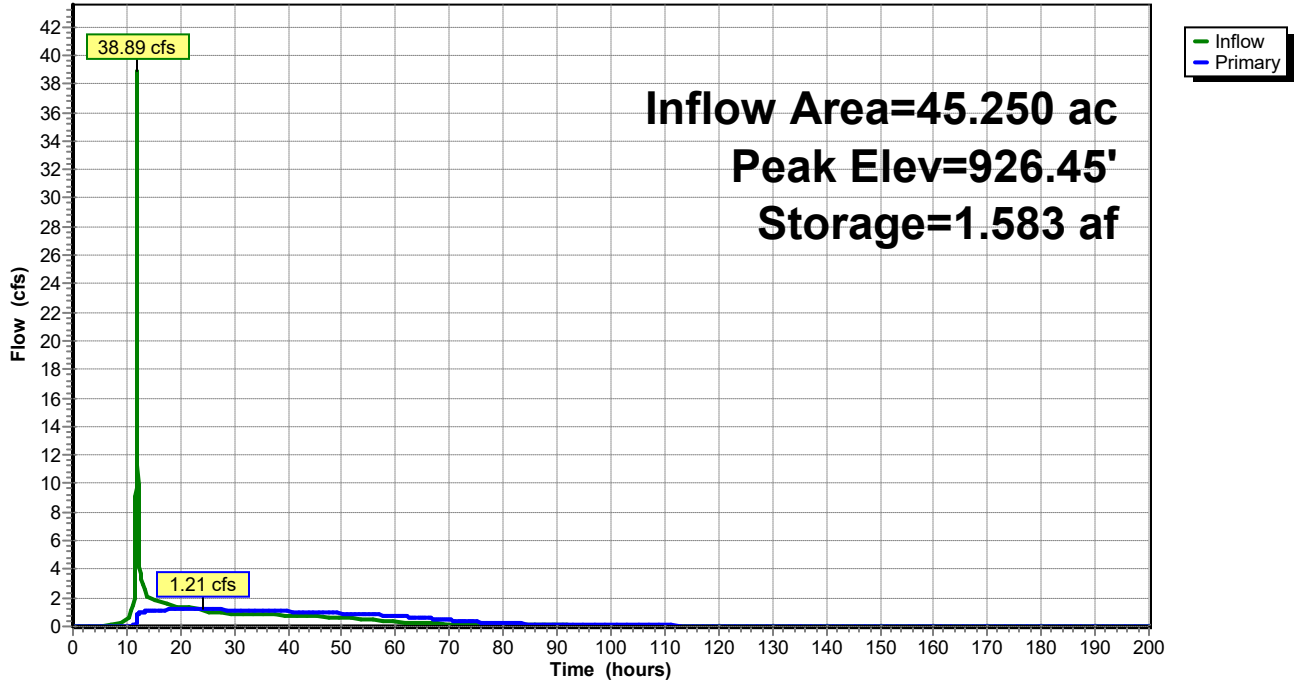
Device	Routing	Invert	Outlet Devices
#1	Primary	925.00'	6.5" Vert. WQ Orifice C= 0.600 Limited to weir flow at low heads
#2	Primary	926.50'	6.0" W x 5.0" H Vert. Window C= 0.600 Limited to weir flow at low heads
#3	Primary	928.50'	3.0' long x 0.5' breadth Broad-Crested Rectangular Weir X 2.00 Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=1.21 cfs @ 24.05 hrs HW=926.45' TW=0.00' (Dynamic Tailwater)

- 1=WQ Orifice (Orifice Controls 1.21 cfs @ 5.23 fps)
- 2=Window (Controls 0.00 cfs)
- 3=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 30P: Basin 1

Hydrograph



Summary for Pond 31P: Basin 3

Inflow Area = 19.750 ac, 81.87% Impervious, Inflow Depth > 1.51" for 1-yr event
 Inflow = 16.09 cfs @ 11.96 hrs, Volume= 2.482 af
 Outflow = 1.52 cfs @ 12.57 hrs, Volume= 2.472 af, Atten= 91%, Lag= 36.4 min
 Primary = 1.52 cfs @ 12.57 hrs, Volume= 2.472 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 927.80' @ 12.57 hrs Surf.Area= 0.524 ac Storage= 0.394 af

Plug-Flow detention time= 278.8 min calculated for 2.472 af (100% of inflow)
 Center-of-Mass det. time= 242.7 min (2,234.6 - 1,991.9)

Volume	Invert	Avail.Storage	Storage Description
#1	927.00'	2.710 af	Basin 3 Storage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
927.00	0.460	0.000	0.000
928.00	0.540	0.500	0.500
929.00	0.650	0.595	1.095
930.00	0.780	0.715	1.810
931.00	1.020	0.900	2.710

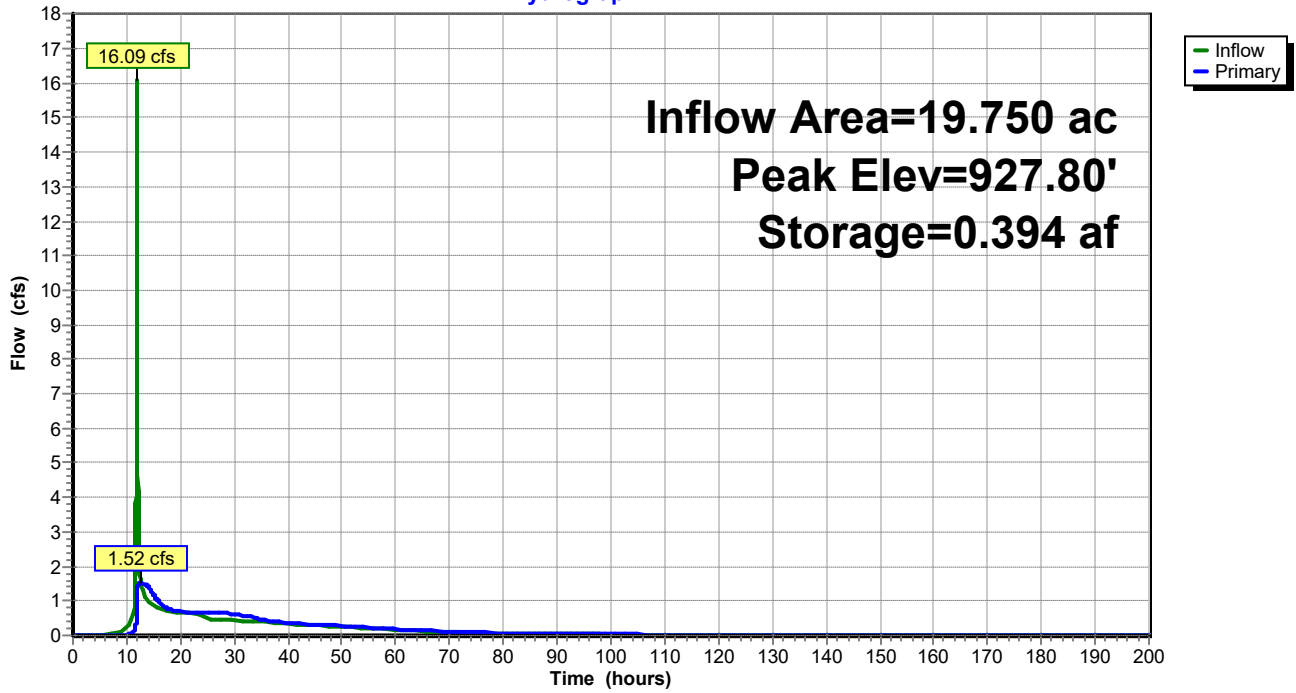
Device	Routing	Invert	Outlet Devices
#1	Primary	927.00'	5.0" Vert. Outlet to Basin 2 X 3.00 C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.52 cfs @ 12.57 hrs HW=927.80' TW=926.92' (Dynamic Tailwater)

↑1=Outlet to Basin 2 (Orifice Controls 1.52 cfs @ 3.71 fps)

Pond 31P: Basin 3

Hydrograph



Summary for Pond 37P: Dummy Basin 10.1

Inflow Area = 13.570 ac, 85.00% Impervious, Inflow Depth = 1.58" for 1-yr event
 Inflow = 34.19 cfs @ 11.99 hrs, Volume= 1.792 af
 Outflow = 0.50 cfs @ 18.28 hrs, Volume= 1.752 af, Atten= 99%, Lag= 377.5 min
 Primary = 0.50 cfs @ 18.28 hrs, Volume= 1.752 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 931.68' @ 18.28 hrs Surf.Area= 2.000 ac Storage= 1.352 af

Plug-Flow detention time= 1,700.2 min calculated for 1.752 af (98% of inflow)
 Center-of-Mass det. time= 1,686.5 min (2,485.3 - 798.9)

Volume	Invert	Avail.Storage	Storage Description
#1	931.00'	8.000 af	Dummy Basin (Prismatic) Listed below (Recalc)

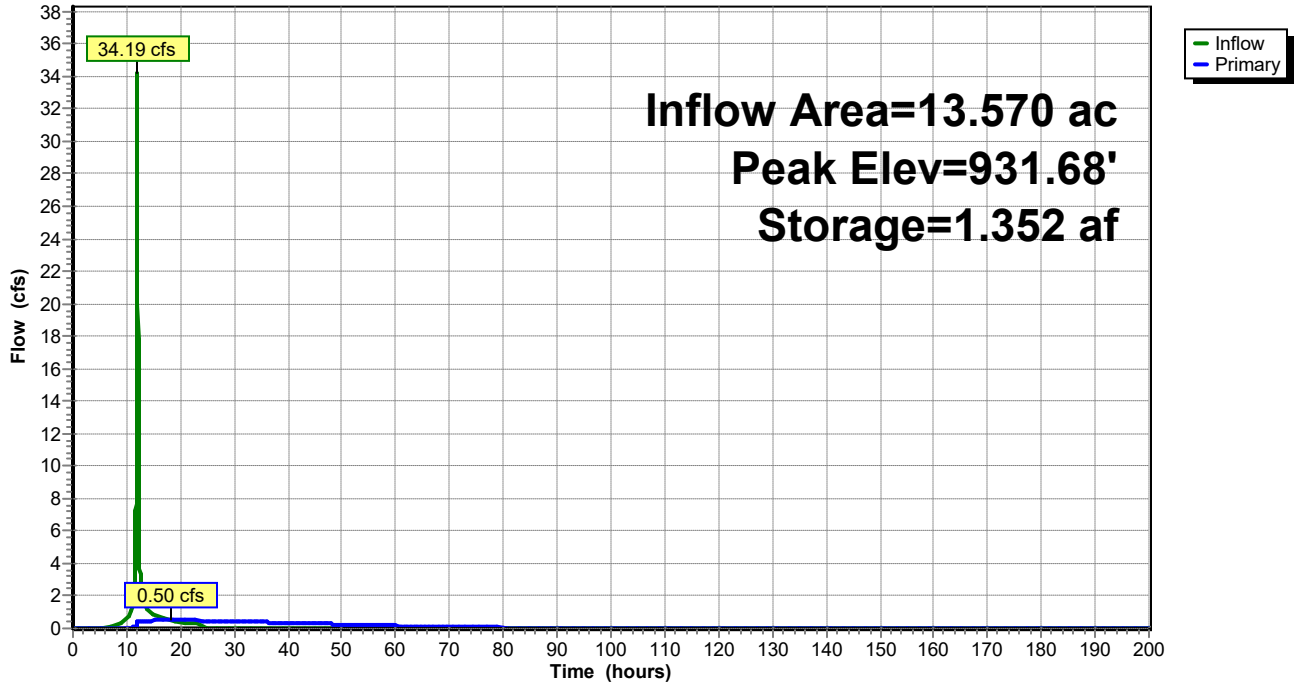
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
931.00	2.000	0.000	0.000
935.00	2.000	8.000	8.000

Device	Routing	Invert	Outlet Devices
#1	Primary	931.00'	2.5" Vert. WQ Orifice X 4.00 C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.50 cfs @ 18.28 hrs HW=931.68' TW=927.59' (Dynamic Tailwater)
 ↑1=WQ Orifice (Orifice Controls 0.50 cfs @ 3.64 fps)

Pond 37P: Dummy Basin 10.1

Hydrograph



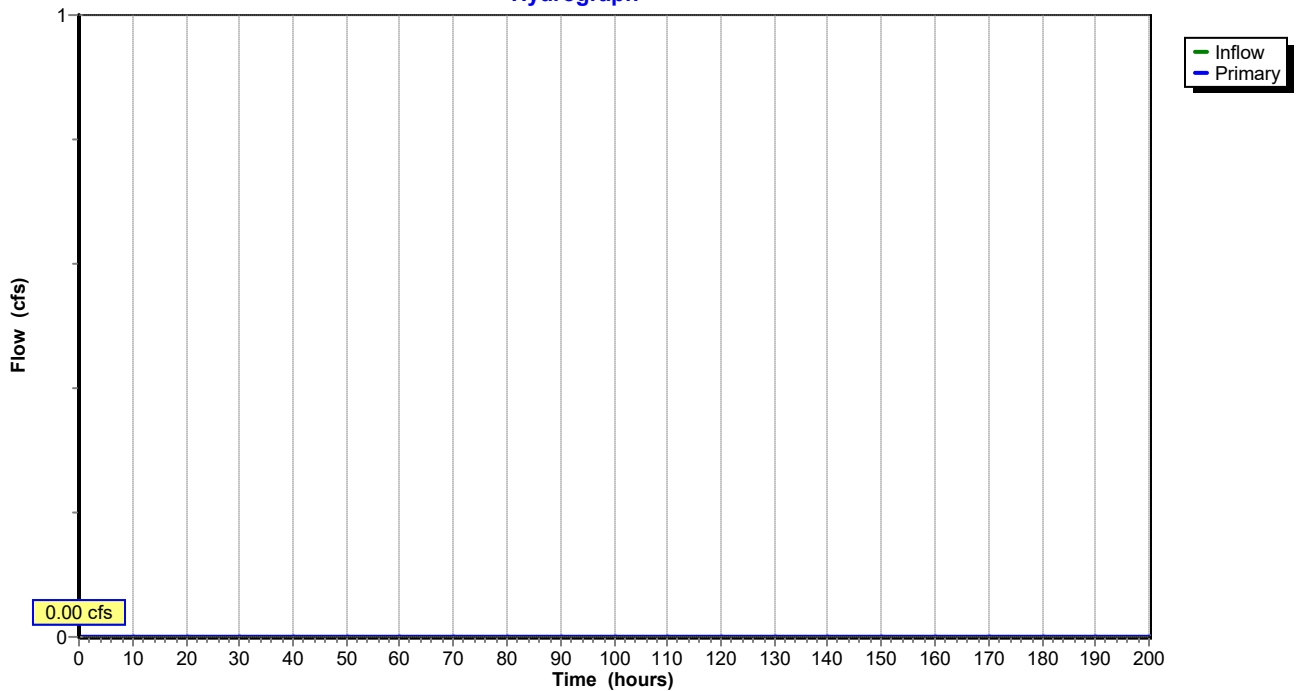
Summary for Pond 45P: US-33 (Indian Run)

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

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs

Pond 45P: US-33 (Indian Run)

Hydrograph



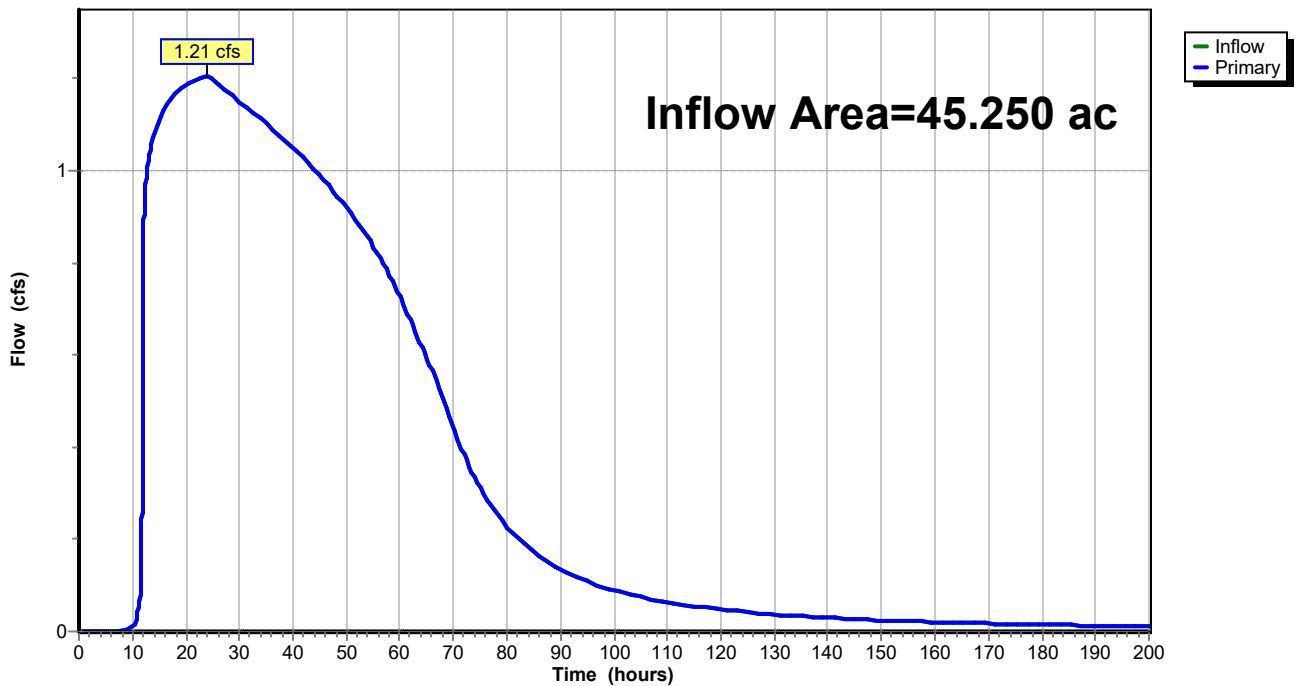
Summary for Pond 46P: University Blvd (Cosgray Ditch)

Inflow Area = 45.250 ac, 78.00% Impervious, Inflow Depth > 1.43" for 1-yr event
Inflow = 1.21 cfs @ 24.05 hrs, Volume= 5.398 af
Primary = 1.21 cfs @ 24.05 hrs, Volume= 5.398 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs

Pond 46P: University Blvd (Cosgray Ditch)

Hydrograph



Summary for Pond 63P: Basin 2

Inflow Area = 30.290 ac, 79.48% Impervious, Inflow Depth > 1.47" for 1-yr event
 Inflow = 28.09 cfs @ 11.96 hrs, Volume= 3.717 af
 Outflow = 0.98 cfs @ 16.94 hrs, Volume= 3.689 af, Atten= 97%, Lag= 298.6 min
 Primary = 0.98 cfs @ 16.94 hrs, Volume= 3.689 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 927.46' @ 20.03 hrs Surf.Area= 0.782 ac Storage= 1.238 af

Plug-Flow detention time= 796.7 min calculated for 3.689 af (99% of inflow)
 Center-of-Mass det. time= 733.8 min (2,490.5 - 1,756.7)

Volume	Invert	Avail.Storage	Storage Description
#1	925.70'	3.520 af	Basin 2 Storage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.70	0.620	0.000	0.000
926.00	0.650	0.190	0.190
927.00	0.740	0.695	0.885
928.00	0.830	0.785	1.670
929.00	0.920	0.875	2.545
930.00	1.030	0.975	3.520

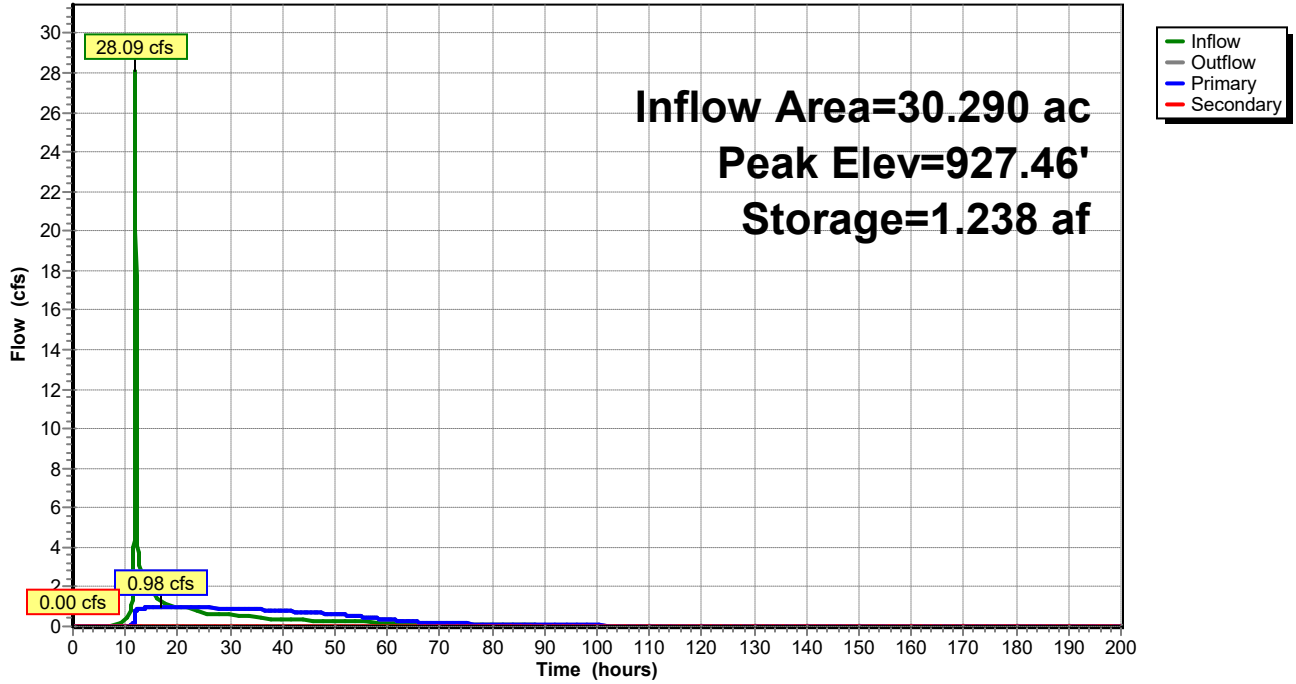
Device	Routing	Invert	Outlet Devices
#1	Primary	925.70'	6.0" Vert. Outlet to Basin 1 C= 0.600 Limited to weir flow at low heads
#2	Secondary	928.50'	12.0" Round Culvert L= 77.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 928.50' / 928.00' S= 0.0065 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.98 cfs @ 16.94 hrs HW=927.42' TW=926.35' (Dynamic Tailwater)
 ↑1=Outlet to Basin 1 (Orifice Controls 0.98 cfs @ 4.98 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=925.70' TW=0.00' (Dynamic Tailwater)
 ↑2=Culvert (Controls 0.00 cfs)

Pond 63P: Basin 2

Hydrograph



Summary for Subcatchment 7S: Pre-Developed to Cosgray Ditch

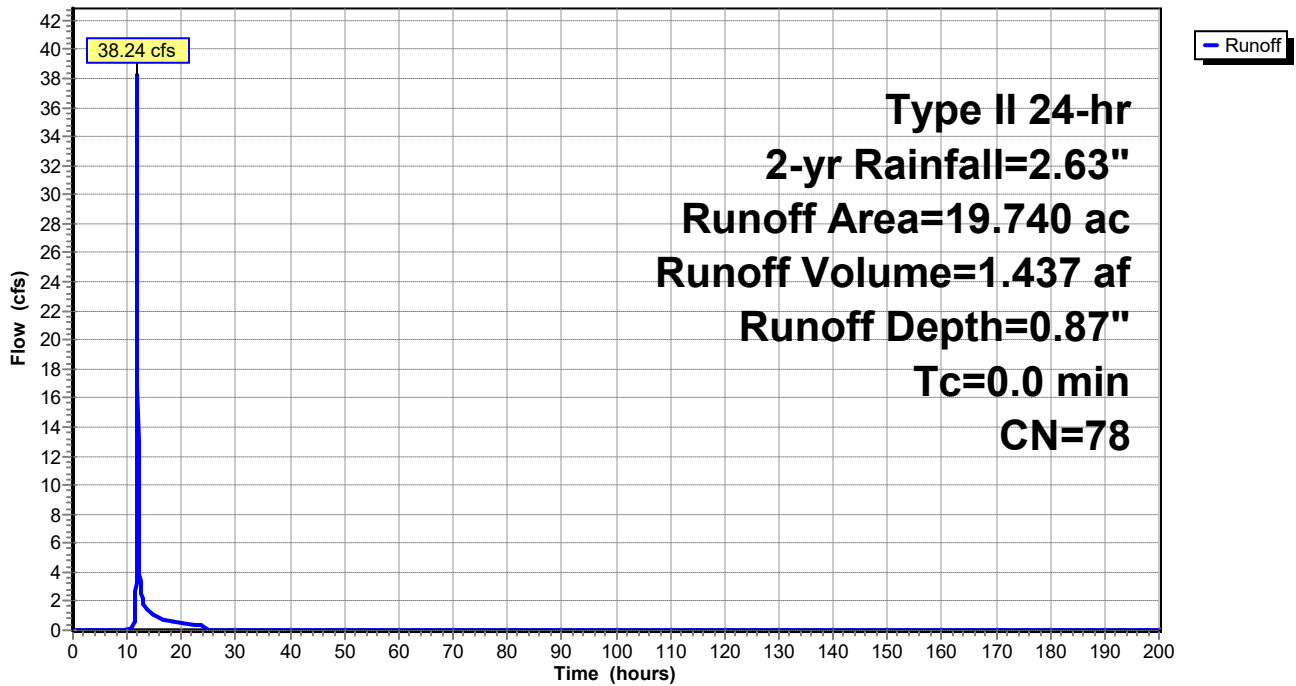
Runoff = 38.24 cfs @ 11.90 hrs, Volume= 1.437 af, Depth= 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-yr Rainfall=2.63"

Area (ac)	CN	Description
19.740	78	Row crops, C&T, Good, HSG C
19.740		100.00% Pervious Area

Subcatchment 7S: Pre-Developed to Cosgray Ditch

Hydrograph



Summary for Subcatchment 8S: Pre-Developed to Indian Run

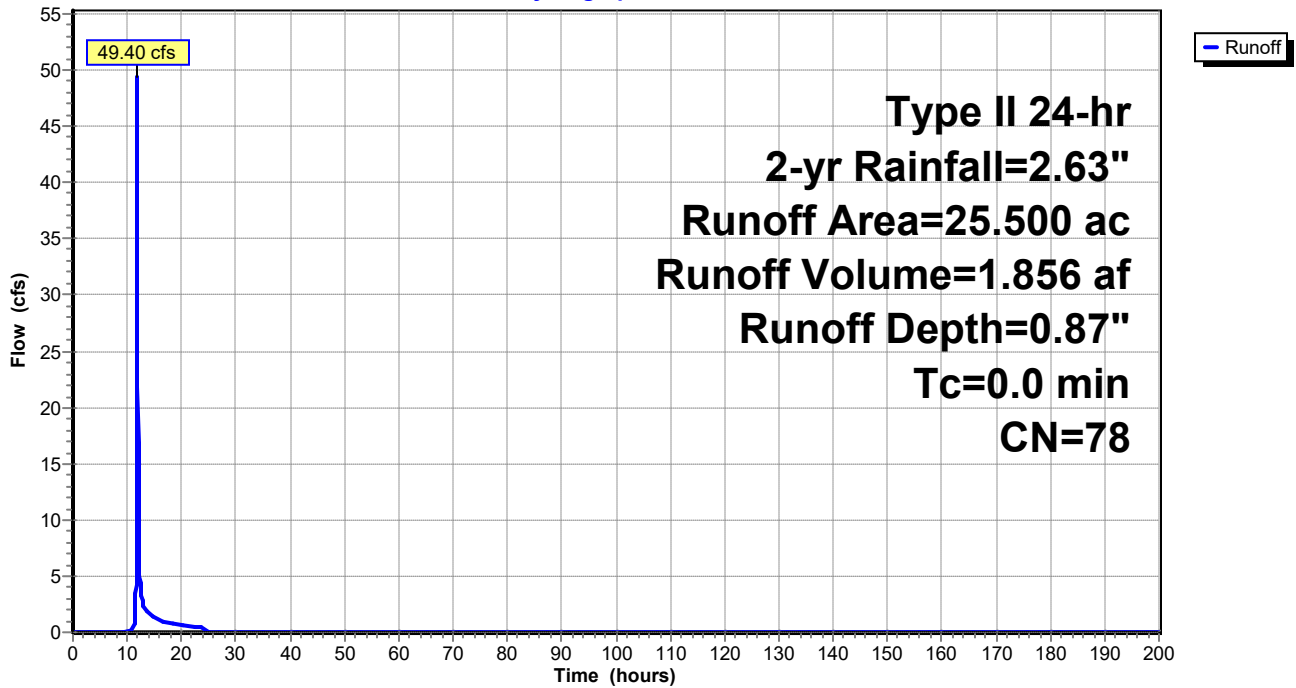
Runoff = 49.40 cfs @ 11.90 hrs, Volume= 1.856 af, Depth= 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-yr Rainfall=2.63"

Area (ac)	CN	Description
25.500	78	Row crops, C&T, Good, HSG C
25.500		100.00% Pervious Area

Subcatchment 8S: Pre-Developed to Indian Run

Hydrograph



Summary for Subcatchment 26S: Subarea 2

Runoff = 33.99 cfs @ 11.96 hrs, Volume= 1.593 af, Depth= 1.81"

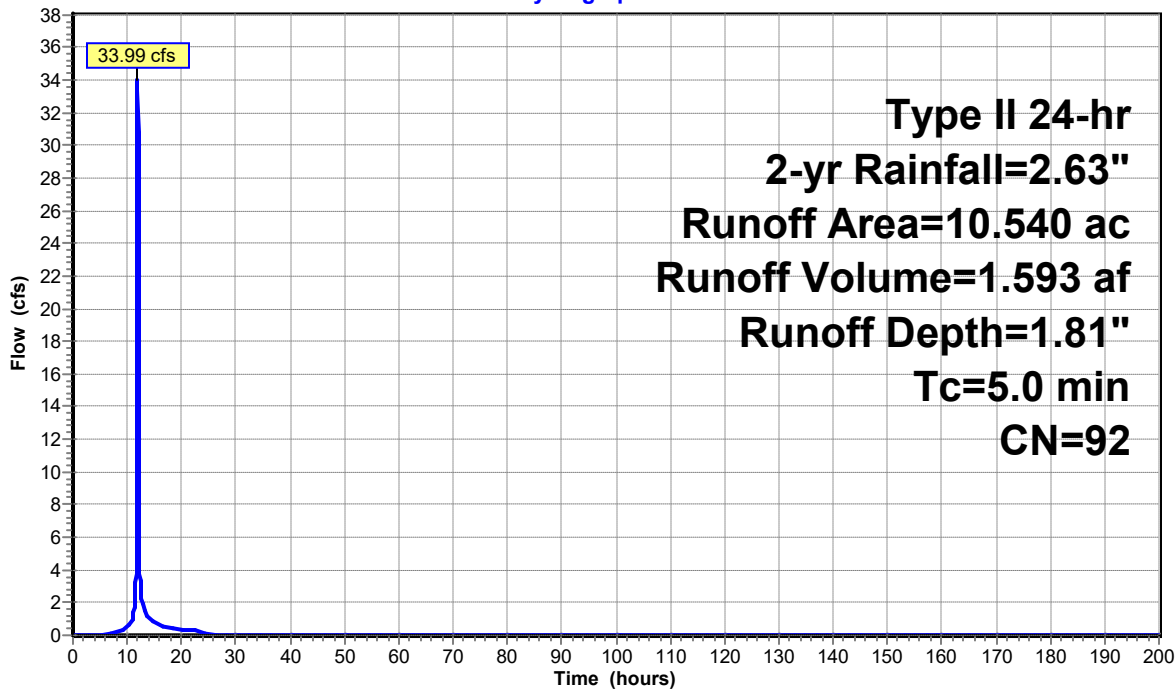
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-yr Rainfall=2.63"

Area (ac)	CN	Description
7.285	98	Paved parking, HSG C
2.635	74	>75% Grass cover, Good, HSG C
0.620	98	Water Surface, HSG C
10.540	92	Weighted Average
2.635		25.00% Pervious Area
7.905		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 26S: Subarea 2

Hydrograph



Summary for Subcatchment 28S: Subarea 3

Runoff = 19.93 cfs @ 11.96 hrs, Volume= 0.934 af, Depth= 1.81"

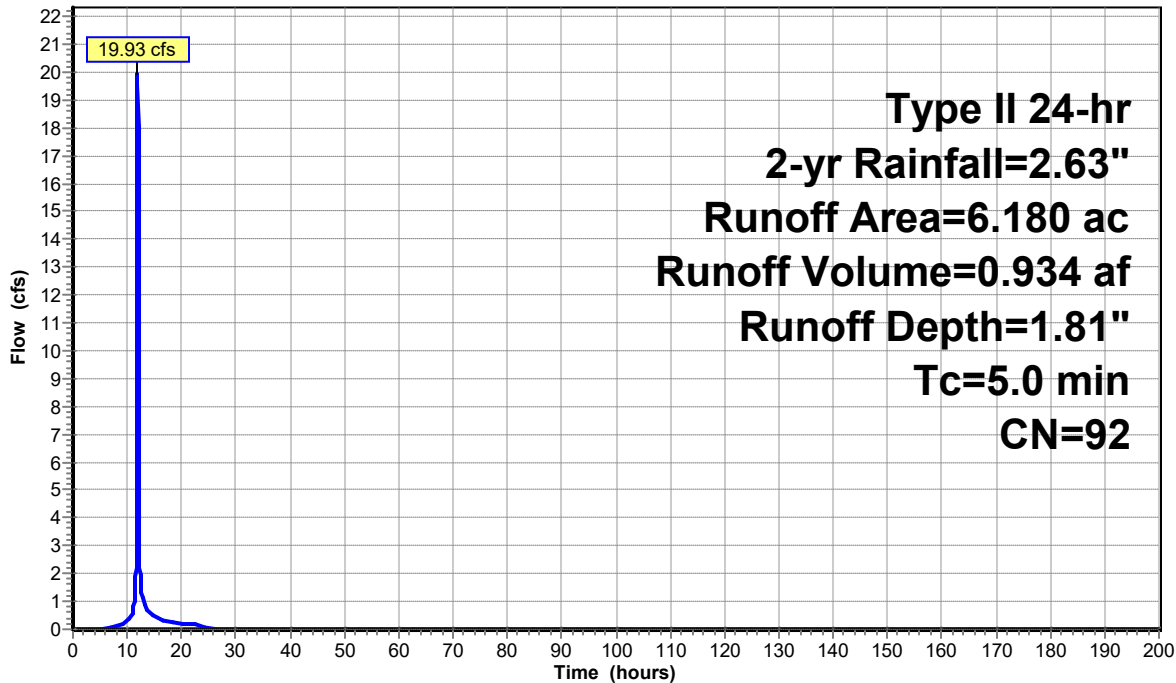
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-yr Rainfall=2.63"

Area (ac)	CN	Description
4.175	98	Paved parking, HSG C
1.545	74	>75% Grass cover, Good, HSG C
0.460	98	Water Surface, HSG C
6.180	92	Weighted Average
1.545		25.00% Pervious Area
4.635		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 28S: Subarea 3

Hydrograph



Runoff

Summary for Subcatchment 33S: Subarea 1

Runoff = 48.25 cfs @ 11.96 hrs, Volume= 2.261 af, Depth= 1.81"

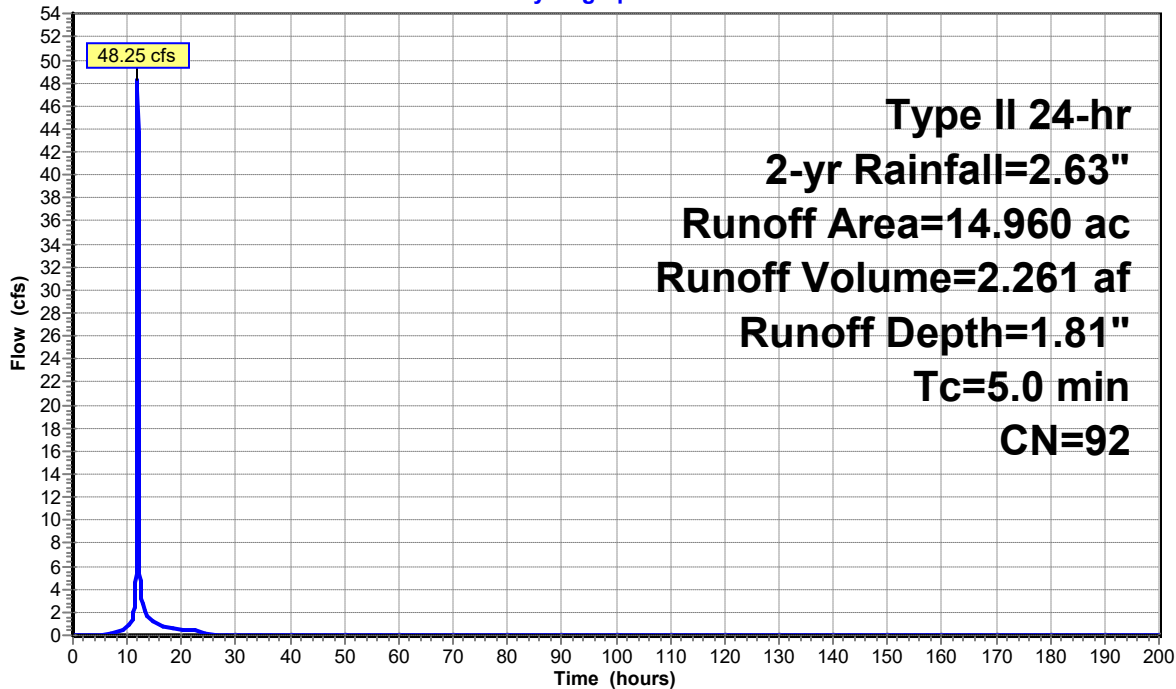
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-yr Rainfall=2.63"

Area (ac)	CN	Description
10.210	98	Paved parking, HSG C
3.740	74	>75% Grass cover, Good, HSG C
1.010	98	Water Surface, HSG C
14.960	92	Weighted Average
3.740		25.00% Pervious Area
11.220		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 33S: Subarea 1

Hydrograph



Summary for Subcatchment 36S: Offsite 10.1

Runoff = 42.45 cfs @ 11.99 hrs, Volume= 2.255 af, Depth= 1.99"

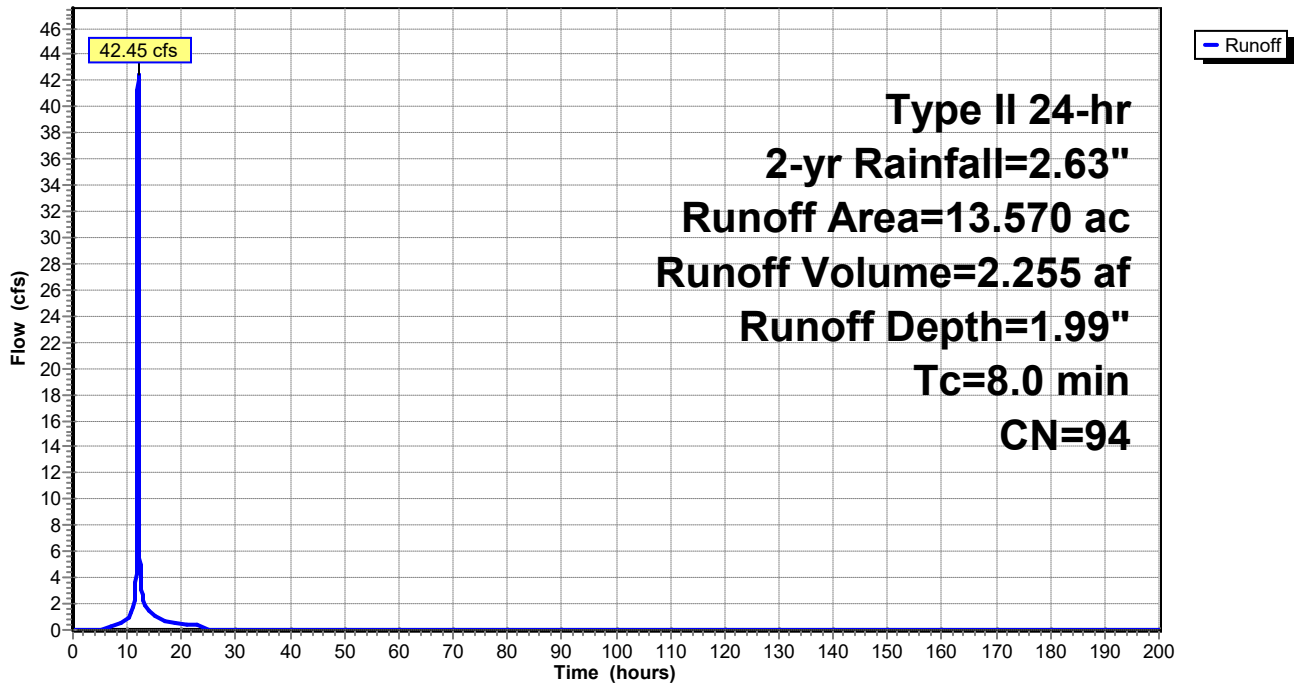
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 2-yr Rainfall=2.63"

Area (ac)	CN	Description
13.570	94	Urban commercial, 85% imp, HSG C
2.036		15.00% Pervious Area
11.534		85.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0					Direct Entry,

Subcatchment 36S: Offsite 10.1

Hydrograph



Summary for Pond 30P: Basin 1

Inflow Area = 45.250 ac, 78.00% Impervious, Inflow Depth > 1.85" for 2-yr event
 Inflow = 49.06 cfs @ 11.96 hrs, Volume= 6.961 af
 Outflow = 1.48 cfs @ 21.42 hrs, Volume= 6.898 af, Atten= 97%, Lag= 567.6 min
 Primary = 1.48 cfs @ 21.42 hrs, Volume= 6.898 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 926.70' @ 21.42 hrs Surf.Area= 1.197 ac Storage= 1.880 af

Plug-Flow detention time= 921.5 min calculated for 6.898 af (99% of inflow)
 Center-of-Mass det. time= 851.4 min (2,925.8 - 2,074.4)

Volume	Invert	Avail.Storage	Storage Description
#1	925.00'	5.717 af	Basin 1 Storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.00	1.010	0.000	0.000
926.00	1.120	1.065	1.065
927.00	1.230	1.175	2.240
928.00	1.350	1.290	3.530
929.00	1.480	1.415	4.945
929.50	1.610	0.773	5.717

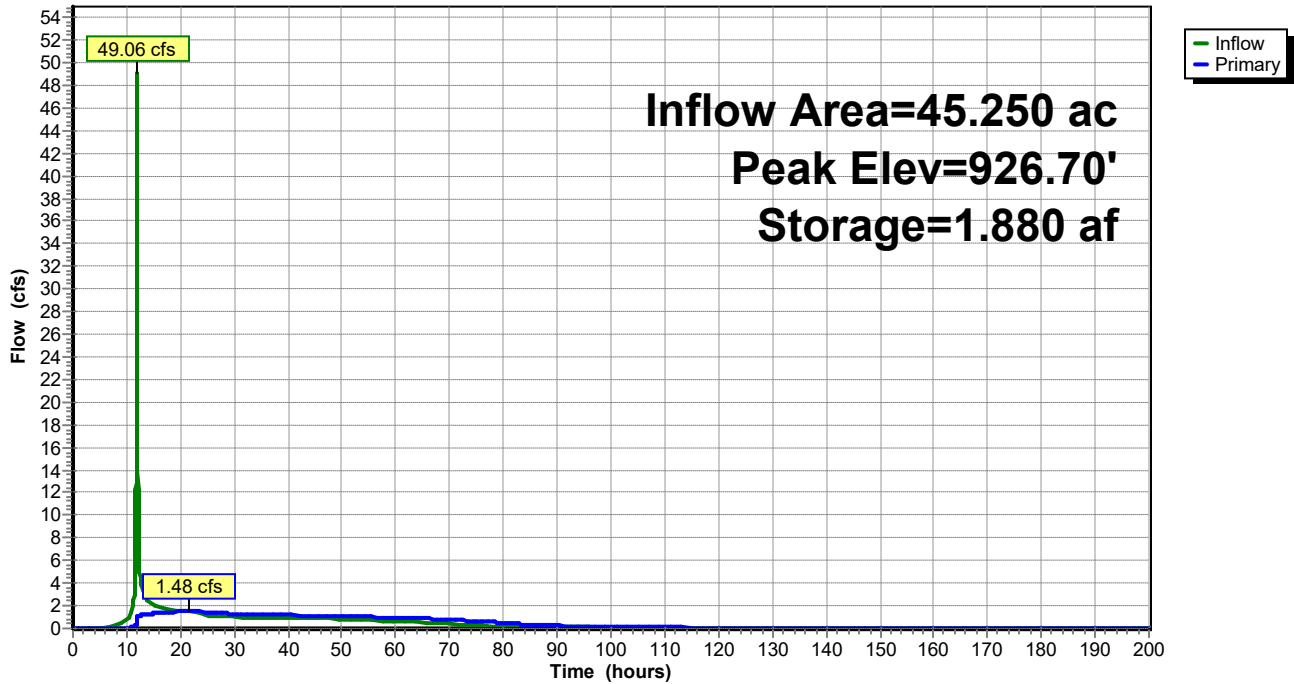
Device	Routing	Invert	Outlet Devices
#1	Primary	925.00'	6.5" Vert. WQ Orifice C= 0.600 Limited to weir flow at low heads
#2	Primary	926.50'	6.0" W x 5.0" H Vert. Window C= 0.600 Limited to weir flow at low heads
#3	Primary	928.50'	3.0' long x 0.5' breadth Broad-Crested Rectangular Weir X 2.00 Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=1.48 cfs @ 21.42 hrs HW=926.70' TW=0.00' (Dynamic Tailwater)

- 1=WQ Orifice (Orifice Controls 1.33 cfs @ 5.76 fps)
- 2=Window (Orifice Controls 0.15 cfs @ 1.45 fps)
- 3=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 30P: Basin 1

Hydrograph



Summary for Pond 31P: Basin 3

Inflow Area = 19.750 ac, 81.87% Impervious, Inflow Depth > 1.91" for 2-yr event
 Inflow = 20.29 cfs @ 11.96 hrs, Volume= 3.146 af
 Outflow = 1.77 cfs @ 12.41 hrs, Volume= 3.136 af, Atten= 91%, Lag= 26.9 min
 Primary = 1.77 cfs @ 12.41 hrs, Volume= 3.136 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 928.03' @ 12.79 hrs Surf.Area= 0.543 ac Storage= 0.515 af

Plug-Flow detention time= 356.7 min calculated for 3.136 af (100% of inflow)
 Center-of-Mass det. time= 326.6 min (2,381.5 - 2,054.9)

Volume	Invert	Avail.Storage	Storage Description
#1	927.00'	2.710 af	Basin 3 Storage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
927.00	0.460	0.000	0.000
928.00	0.540	0.500	0.500
929.00	0.650	0.595	1.095
930.00	0.780	0.715	1.810
931.00	1.020	0.900	2.710

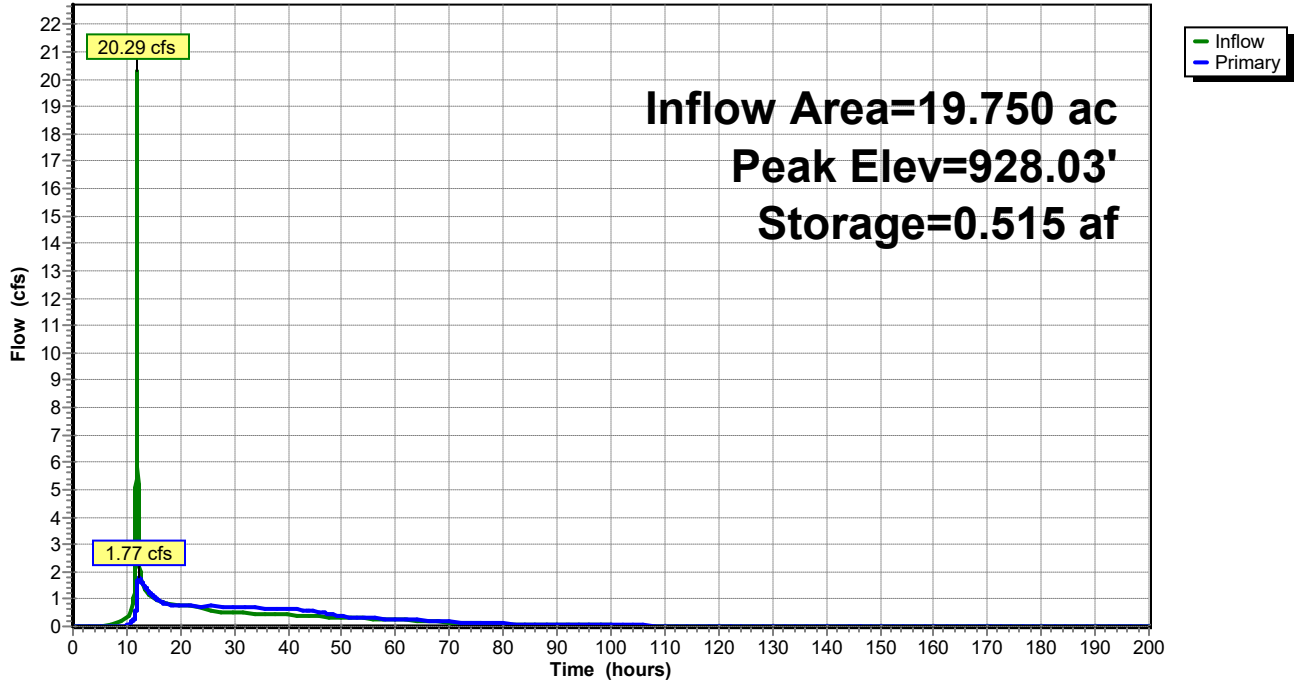
Device	Routing	Invert	Outlet Devices
#1	Primary	927.00'	5.0" Vert. Outlet to Basin 2 X 3.00 C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.77 cfs @ 12.41 hrs HW=928.02' TW=927.21' (Dynamic Tailwater)

↑1=Outlet to Basin 2 (Orifice Controls 1.77 cfs @ 4.33 fps)

Pond 31P: Basin 3

Hydrograph



Summary for Pond 37P: Dummy Basin 10.1

Inflow Area = 13.570 ac, 85.00% Impervious, Inflow Depth = 1.99" for 2-yr event
 Inflow = 42.45 cfs @ 11.99 hrs, Volume= 2.255 af
 Outflow = 0.57 cfs @ 18.65 hrs, Volume= 2.212 af, Atten= 99%, Lag= 399.3 min
 Primary = 0.57 cfs @ 18.65 hrs, Volume= 2.212 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 931.87' @ 18.65 hrs Surf.Area= 2.000 ac Storage= 1.731 af

Plug-Flow detention time= 1,803.7 min calculated for 2.212 af (98% of inflow)
 Center-of-Mass det. time= 1,791.9 min (2,584.3 - 792.4)

Volume	Invert	Avail.Storage	Storage Description
#1	931.00'	8.000 af	Dummy Basin (Prismatic) Listed below (Recalc)

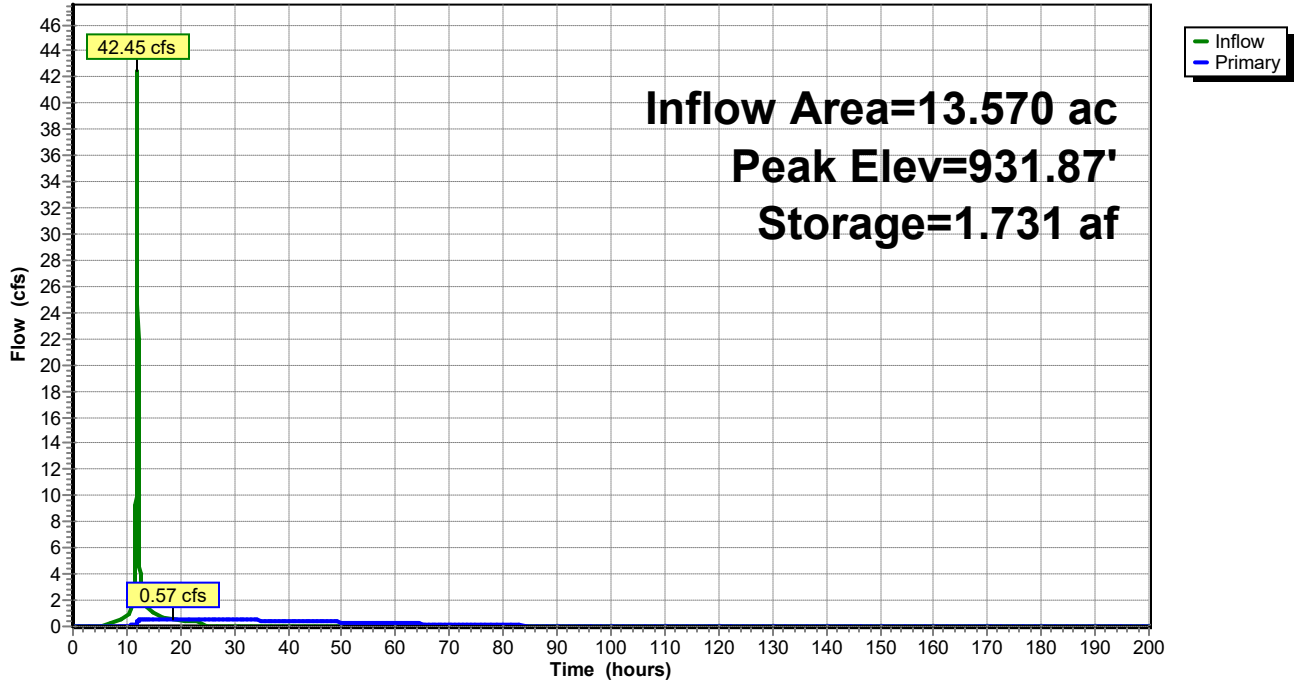
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
931.00	2.000	0.000	0.000
935.00	2.000	8.000	8.000

Device	Routing	Invert	Outlet Devices
#1	Primary	931.00'	2.5" Vert. WQ Orifice X 4.00 C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.57 cfs @ 18.65 hrs HW=931.87' TW=928.00' (Dynamic Tailwater)
 ↑1=WQ Orifice (Orifice Controls 0.57 cfs @ 4.20 fps)

Pond 37P: Dummy Basin 10.1

Hydrograph



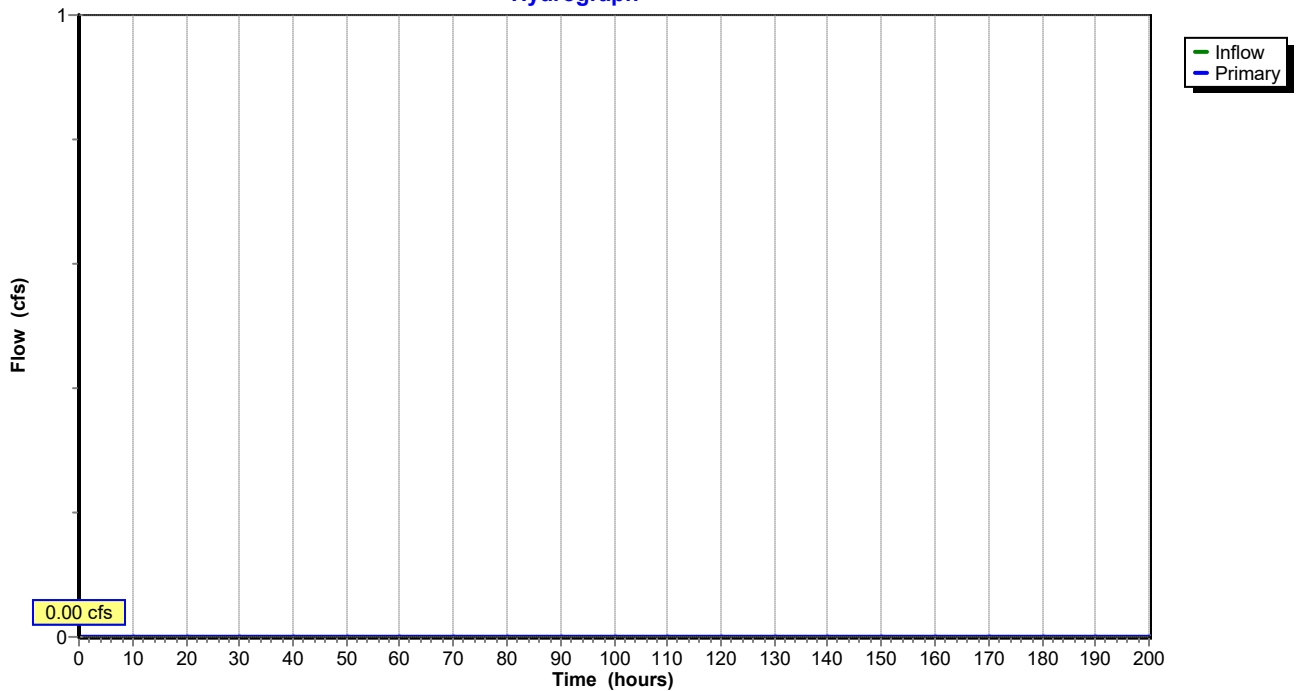
Summary for Pond 45P: US-33 (Indian Run)

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

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs

Pond 45P: US-33 (Indian Run)

Hydrograph



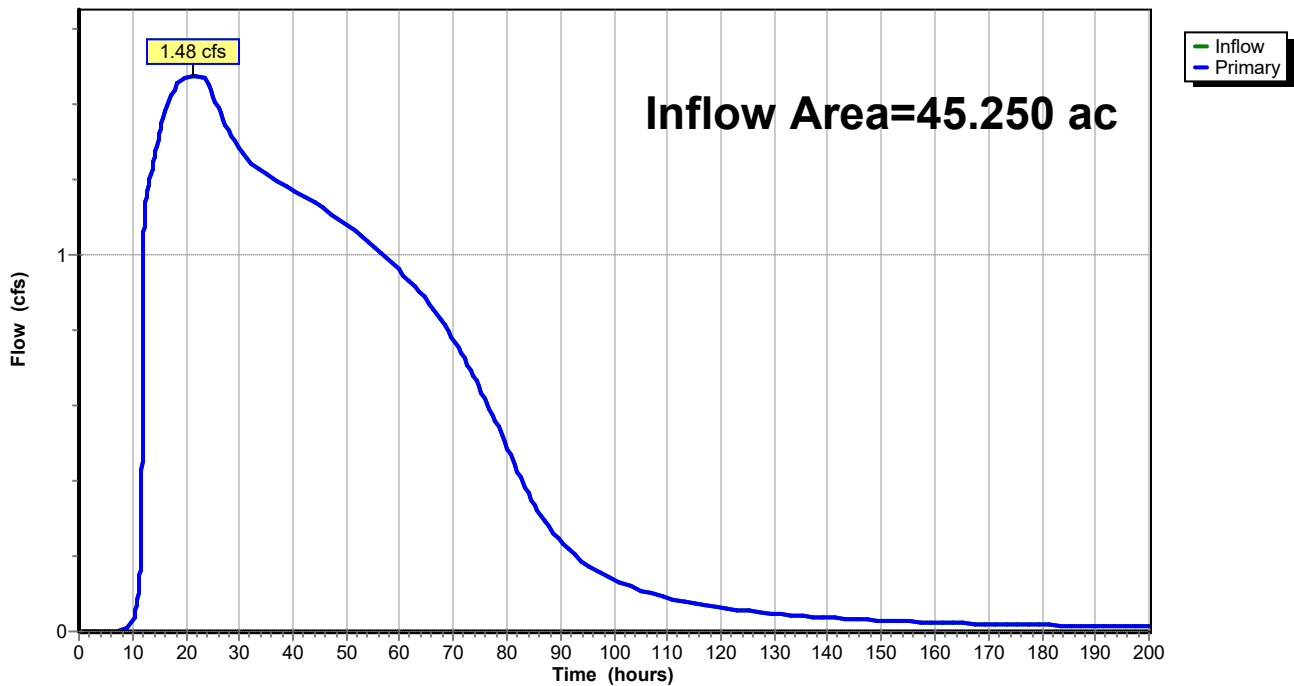
Summary for Pond 46P: University Blvd (Cosgray Ditch)

Inflow Area = 45.250 ac, 78.00% Impervious, Inflow Depth > 1.83" for 2-yr event
Inflow = 1.48 cfs @ 21.42 hrs, Volume= 6.898 af
Primary = 1.48 cfs @ 21.42 hrs, Volume= 6.898 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs

Pond 46P: University Blvd (Cosgray Ditch)

Hydrograph



Summary for Pond 63P: Basin 2

Inflow Area = 30.290 ac, 79.48% Impervious, Inflow Depth > 1.87" for 2-yr event
 Inflow = 35.40 cfs @ 11.96 hrs, Volume= 4.729 af
 Outflow = 1.03 cfs @ 24.61 hrs, Volume= 4.700 af, Atten= 97%, Lag= 758.8 min
 Primary = 1.03 cfs @ 24.61 hrs, Volume= 4.700 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 927.88' @ 23.80 hrs Surf.Area= 0.819 ac Storage= 1.569 af

Plug-Flow detention time= 890.6 min calculated for 4.700 af (99% of inflow)
 Center-of-Mass det. time= 838.1 min (2,687.1 - 1,849.1)

Volume	Invert	Avail.Storage	Storage Description
#1	925.70'	3.520 af	Basin 2 Storage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.70	0.620	0.000	0.000
926.00	0.650	0.190	0.190
927.00	0.740	0.695	0.885
928.00	0.830	0.785	1.670
929.00	0.920	0.875	2.545
930.00	1.030	0.975	3.520

Device	Routing	Invert	Outlet Devices
#1	Primary	925.70'	6.0" Vert. Outlet to Basin 1 C= 0.600 Limited to weir flow at low heads
#2	Secondary	928.50'	12.0" Round Culvert L= 77.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 928.50' / 928.00' S= 0.0065 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.03 cfs @ 24.61 hrs HW=927.86' TW=926.68' (Dynamic Tailwater)

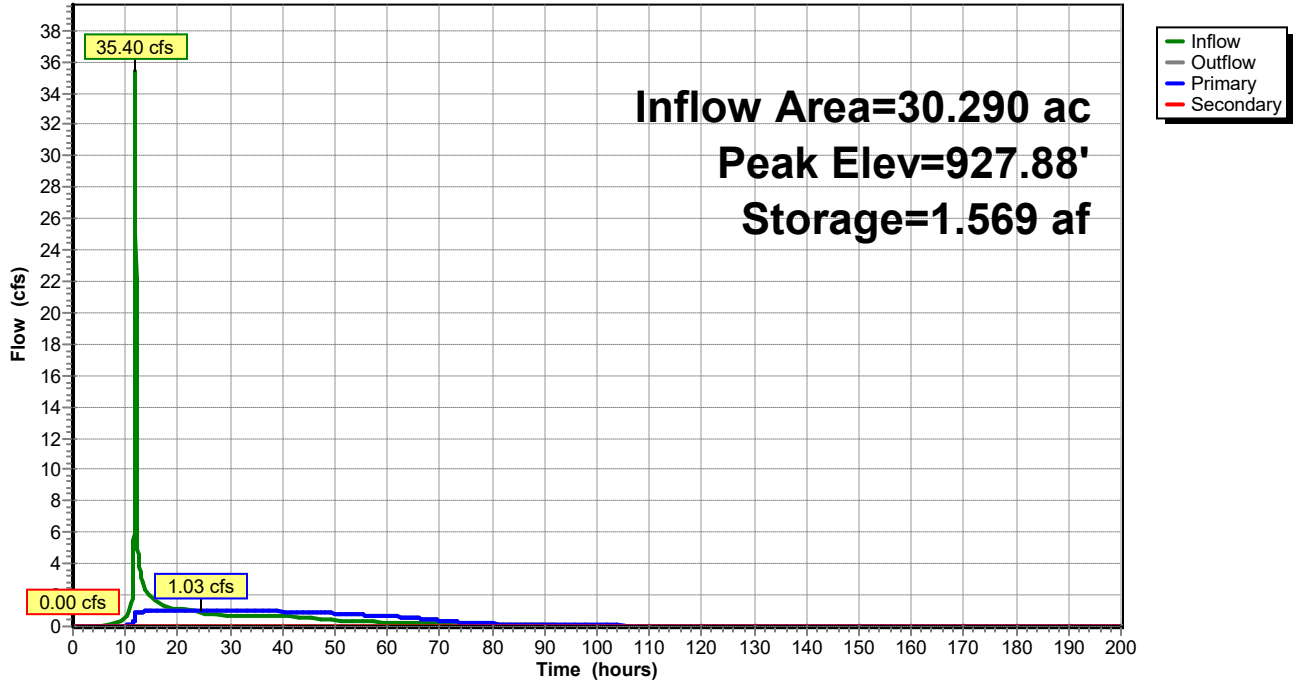
↑1=Outlet to Basin 1 (Orifice Controls 1.03 cfs @ 5.22 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=925.70' TW=0.00' (Dynamic Tailwater)

↑2=Culvert (Controls 0.00 cfs)

Pond 63P: Basin 2

Hydrograph



Summary for Subcatchment 7S: Pre-Developed to Cosgray Ditch

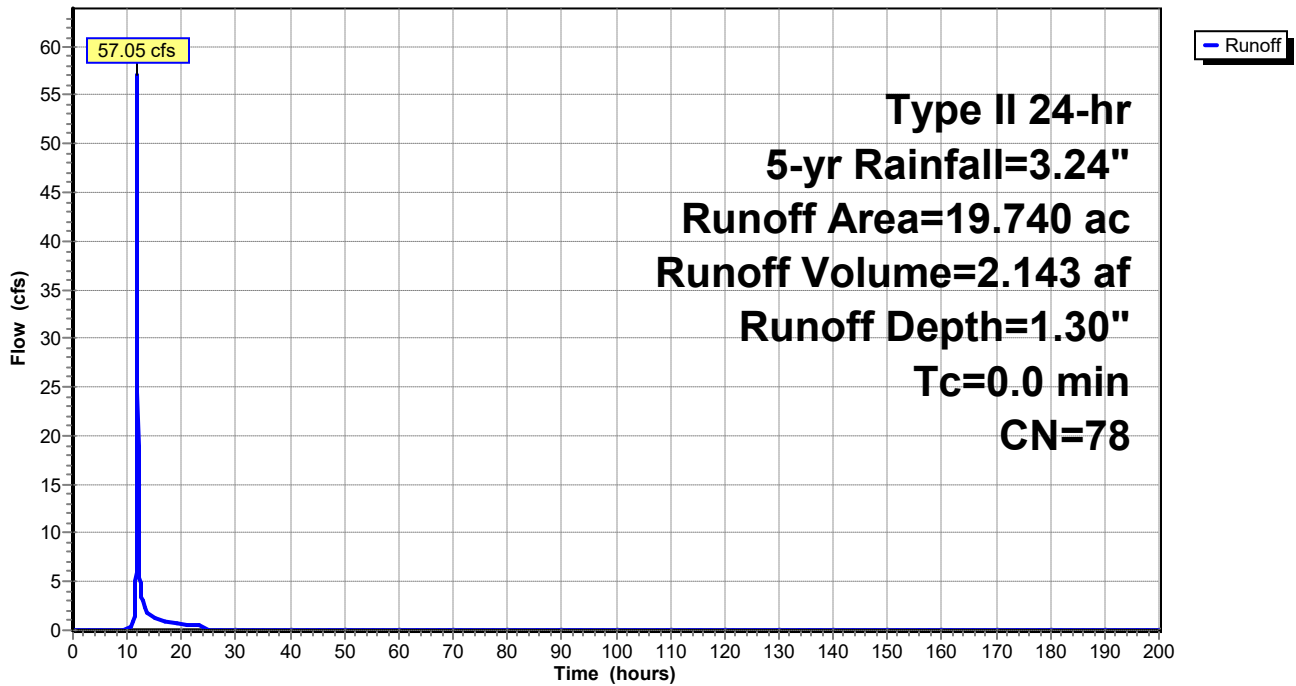
Runoff = 57.05 cfs @ 11.90 hrs, Volume= 2.143 af, Depth= 1.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-yr Rainfall=3.24"

Area (ac)	CN	Description
19.740	78	Row crops, C&T, Good, HSG C
19.740		100.00% Pervious Area

Subcatchment 7S: Pre-Developed to Cosgray Ditch

Hydrograph



Summary for Subcatchment 8S: Pre-Developed to Indian Run

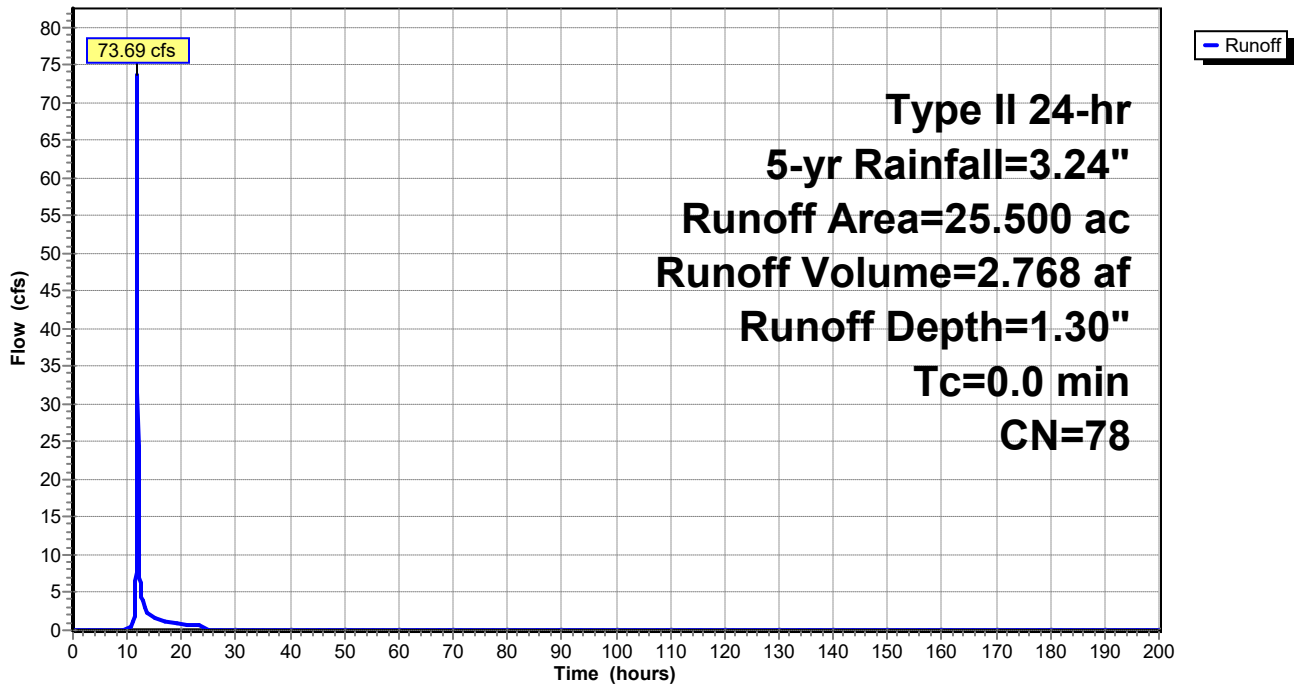
Runoff = 73.69 cfs @ 11.90 hrs, Volume= 2.768 af, Depth= 1.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-yr Rainfall=3.24"

Area (ac)	CN	Description
25.500	78	Row crops, C&T, Good, HSG C
25.500		100.00% Pervious Area

Subcatchment 8S: Pre-Developed to Indian Run

Hydrograph



Summary for Subcatchment 26S: Subarea 2

Runoff = 44.01 cfs @ 11.96 hrs, Volume= 2.098 af, Depth= 2.39"

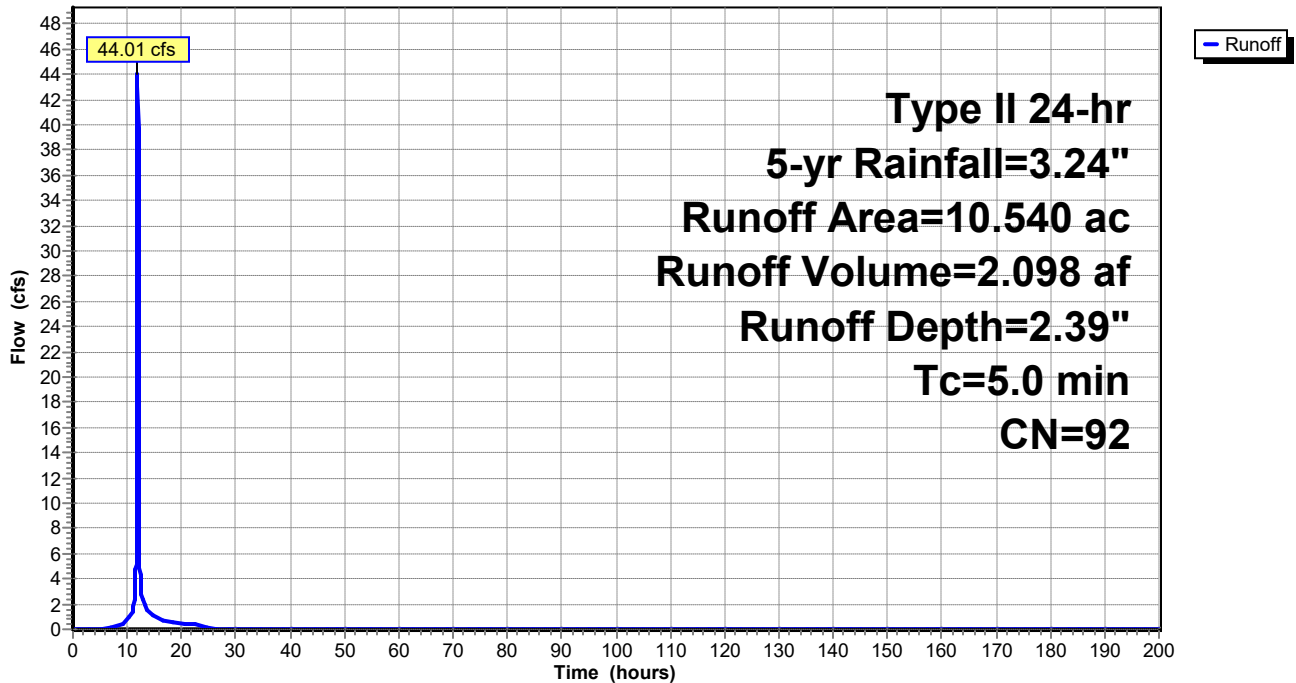
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-yr Rainfall=3.24"

Area (ac)	CN	Description
7.285	98	Paved parking, HSG C
2.635	74	>75% Grass cover, Good, HSG C
0.620	98	Water Surface, HSG C
10.540	92	Weighted Average
2.635		25.00% Pervious Area
7.905		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 26S: Subarea 2

Hydrograph



Summary for Subcatchment 28S: Subarea 3

Runoff = 25.80 cfs @ 11.96 hrs, Volume= 1.230 af, Depth= 2.39"

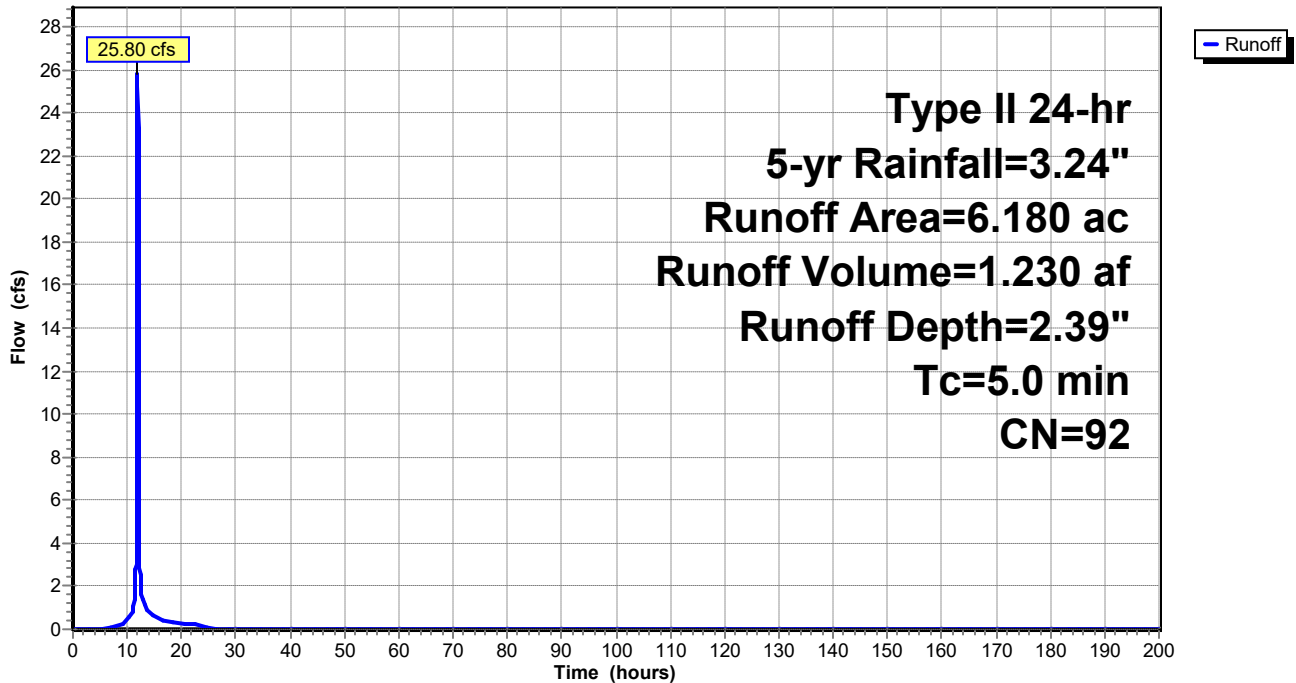
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 5-yr Rainfall=3.24"

Area (ac)	CN	Description
4.175	98	Paved parking, HSG C
1.545	74	>75% Grass cover, Good, HSG C
0.460	98	Water Surface, HSG C
6.180	92	Weighted Average
1.545		25.00% Pervious Area
4.635		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 28S: Subarea 3

Hydrograph



Summary for Subcatchment 33S: Subarea 1

Runoff = 62.47 cfs @ 11.96 hrs, Volume= 2.978 af, Depth= 2.39"

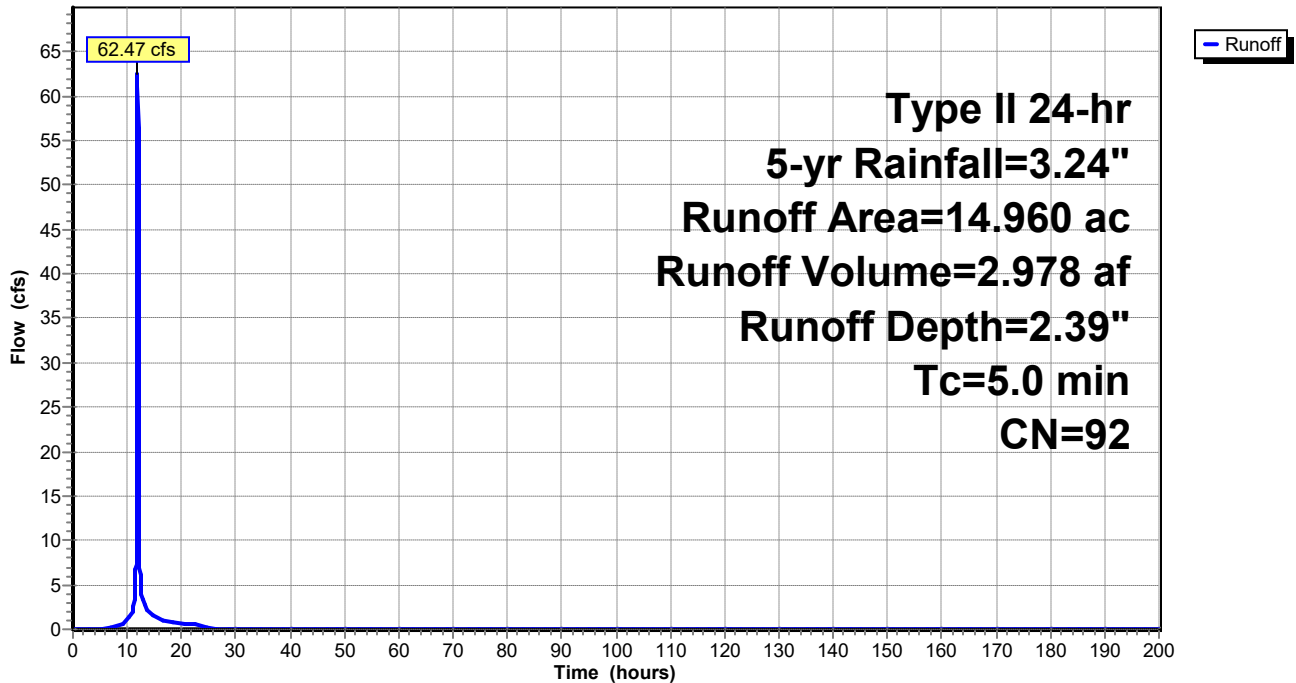
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 5-yr Rainfall=3.24"

Area (ac)	CN	Description
10.210	98	Paved parking, HSG C
3.740	74	>75% Grass cover, Good, HSG C
1.010	98	Water Surface, HSG C
14.960	92	Weighted Average
3.740		25.00% Pervious Area
11.220		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 33S: Subarea 1

Hydrograph



Summary for Subcatchment 36S: Offsite 10.1

Runoff = 54.10 cfs @ 11.99 hrs, Volume= 2.921 af, Depth= 2.58"

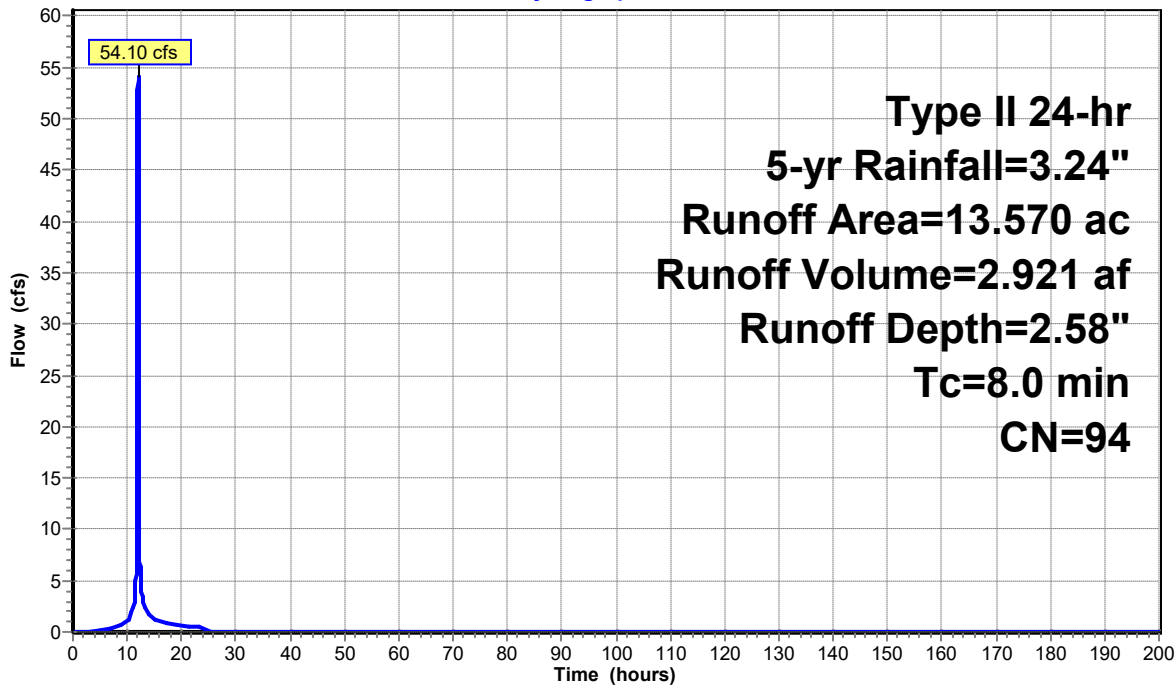
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 5-yr Rainfall=3.24"

Area (ac)	CN	Description
13.570	94	Urban commercial, 85% imp, HSG C
2.036		15.00% Pervious Area
11.534		85.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0					Direct Entry,

Subcatchment 36S: Offsite 10.1

Hydrograph



Summary for Pond 30P: Basin 1

Inflow Area = 45.250 ac, 78.00% Impervious, Inflow Depth > 2.42" for 5-yr event
 Inflow = 63.37 cfs @ 11.96 hrs, Volume= 9.138 af
 Outflow = 2.00 cfs @ 17.29 hrs, Volume= 9.069 af, Atten= 97%, Lag= 319.9 min
 Primary = 2.00 cfs @ 17.29 hrs, Volume= 9.069 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 927.01' @ 17.29 hrs Surf.Area= 1.231 ac Storage= 2.253 af

Plug-Flow detention time= 895.1 min calculated for 9.069 af (99% of inflow)
 Center-of-Mass det. time= 837.2 min (3,074.7 - 2,237.4)

Volume	Invert	Avail.Storage	Storage Description
#1	925.00'	5.717 af	Basin 1 Storage (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.00	1.010	0.000	0.000
926.00	1.120	1.065	1.065
927.00	1.230	1.175	2.240
928.00	1.350	1.290	3.530
929.00	1.480	1.415	4.945
929.50	1.610	0.773	5.717

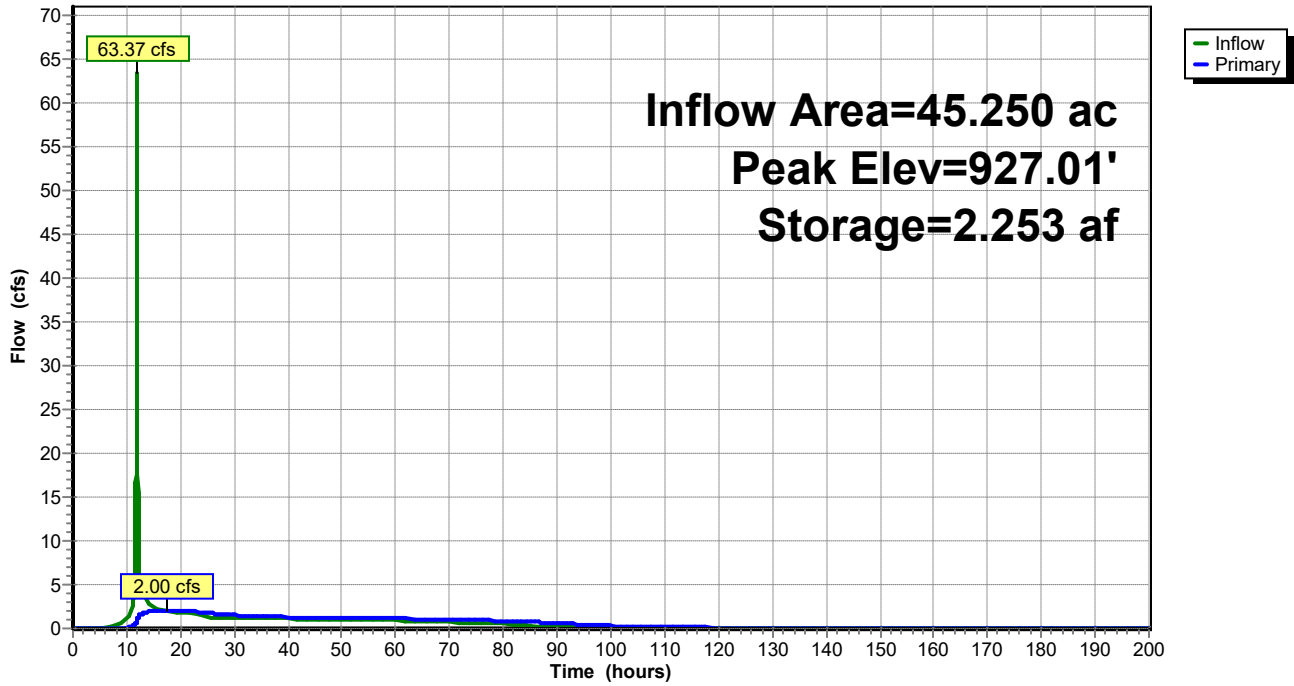
Device	Routing	Invert	Outlet Devices
#1	Primary	925.00'	6.5" Vert. WQ Orifice C= 0.600 Limited to weir flow at low heads
#2	Primary	926.50'	6.0" W x 5.0" H Vert. Window C= 0.600 Limited to weir flow at low heads
#3	Primary	928.50'	3.0' long x 0.5' breadth Broad-Crested Rectangular Weir X 2.00 Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=2.00 cfs @ 17.29 hrs HW=927.01' TW=0.00' (Dynamic Tailwater)

- 1=WQ Orifice (Orifice Controls 1.46 cfs @ 6.35 fps)
- 2=Window (Orifice Controls 0.54 cfs @ 2.59 fps)
- 3=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 30P: Basin 1

Hydrograph



Summary for Pond 31P: Basin 3

Inflow Area = 19.750 ac, 81.87% Impervious, Inflow Depth > 2.49" for 5-yr event
 Inflow = 26.24 cfs @ 11.96 hrs, Volume= 4.105 af
 Outflow = 1.86 cfs @ 12.00 hrs, Volume= 4.094 af, Atten= 93%, Lag= 2.8 min
 Primary = 1.86 cfs @ 12.00 hrs, Volume= 4.094 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 928.61' @ 24.04 hrs Surf.Area= 0.607 ac Storage= 0.848 af

Plug-Flow detention time= 479.7 min calculated for 4.094 af (100% of inflow)
 Center-of-Mass det. time= 454.8 min (2,604.7 - 2,150.0)

Volume	Invert	Avail.Storage	Storage Description
#1	927.00'	2.710 af	Basin 3 Storage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
927.00	0.460	0.000	0.000
928.00	0.540	0.500	0.500
929.00	0.650	0.595	1.095
930.00	0.780	0.715	1.810
931.00	1.020	0.900	2.710

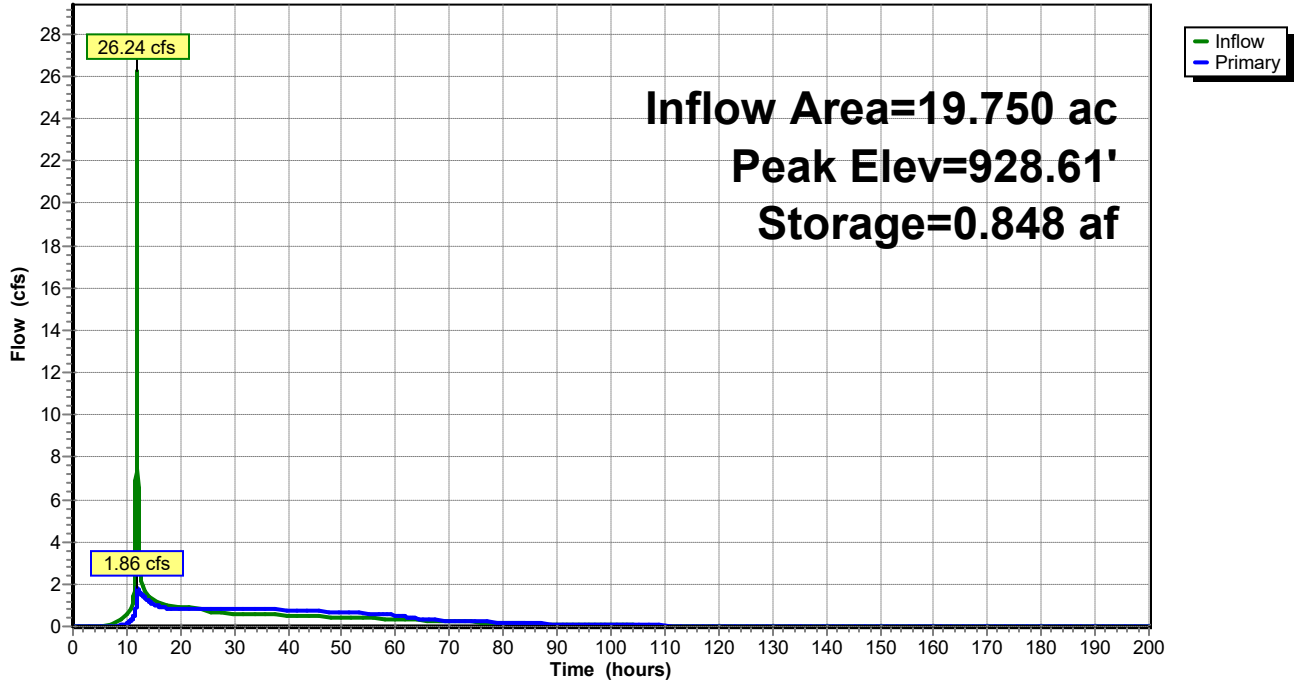
Device	Routing	Invert	Outlet Devices
#1	Primary	927.00'	5.0" Vert. Outlet to Basin 2 X 3.00 C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.82 cfs @ 12.00 hrs HW=928.11' TW=927.26' (Dynamic Tailwater)

↑1=Outlet to Basin 2 (Orifice Controls 1.82 cfs @ 4.44 fps)

Pond 31P: Basin 3

Hydrograph



Summary for Pond 37P: Dummy Basin 10.1

Inflow Area = 13.570 ac, 85.00% Impervious, Inflow Depth = 2.58" for 5-yr event
 Inflow = 54.10 cfs @ 11.99 hrs, Volume= 2.921 af
 Outflow = 0.67 cfs @ 19.09 hrs, Volume= 2.875 af, Atten= 99%, Lag= 425.9 min
 Primary = 0.67 cfs @ 19.09 hrs, Volume= 2.875 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 932.14' @ 19.09 hrs Surf.Area= 2.000 ac Storage= 2.283 af

Plug-Flow detention time= 1,954.8 min calculated for 2.875 af (98% of inflow)
 Center-of-Mass det. time= 1,945.3 min (2,730.5 - 785.3)

Volume	Invert	Avail.Storage	Storage Description
#1	931.00'	8.000 af	Dummy Basin (Prismatic) Listed below (Recalc)

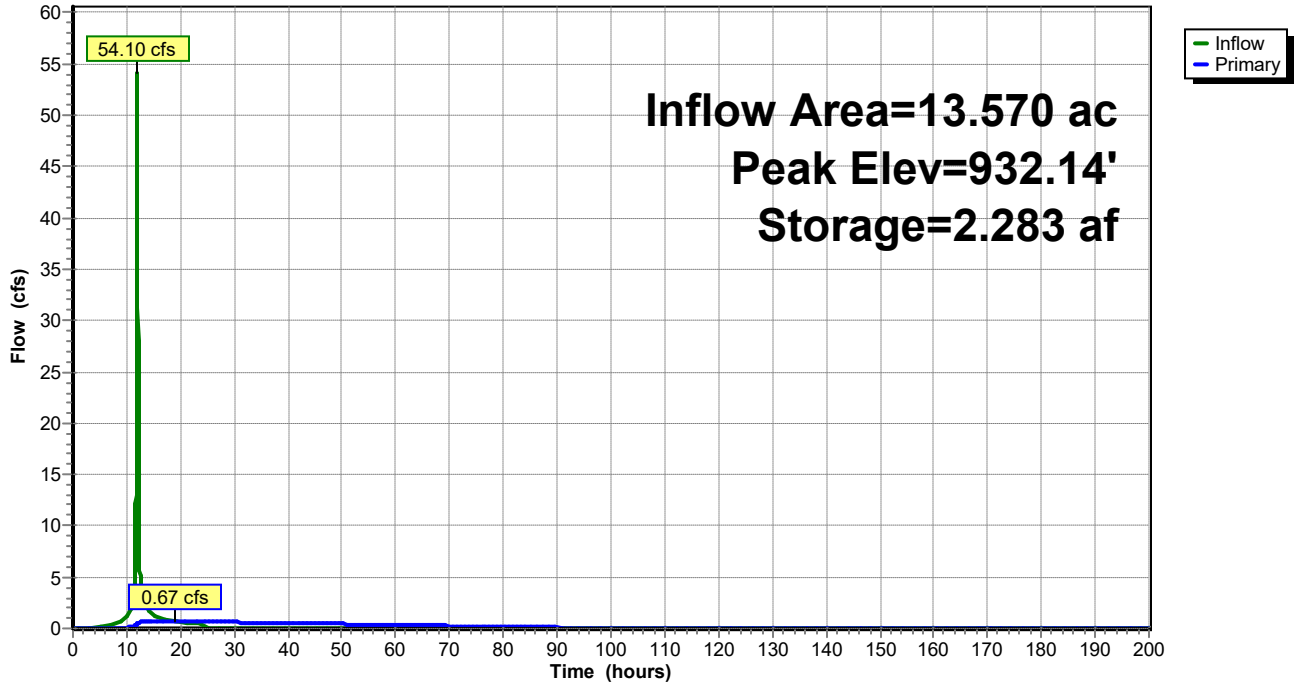
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
931.00	2.000	0.000	0.000
935.00	2.000	8.000	8.000

Device	Routing	Invert	Outlet Devices
#1	Primary	931.00'	2.5" Vert. WQ Orifice X 4.00 C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.67 cfs @ 19.09 hrs HW=932.14' TW=928.56' (Dynamic Tailwater)
 ↑1=WQ Orifice (Orifice Controls 0.67 cfs @ 4.90 fps)

Pond 37P: Dummy Basin 10.1

Hydrograph



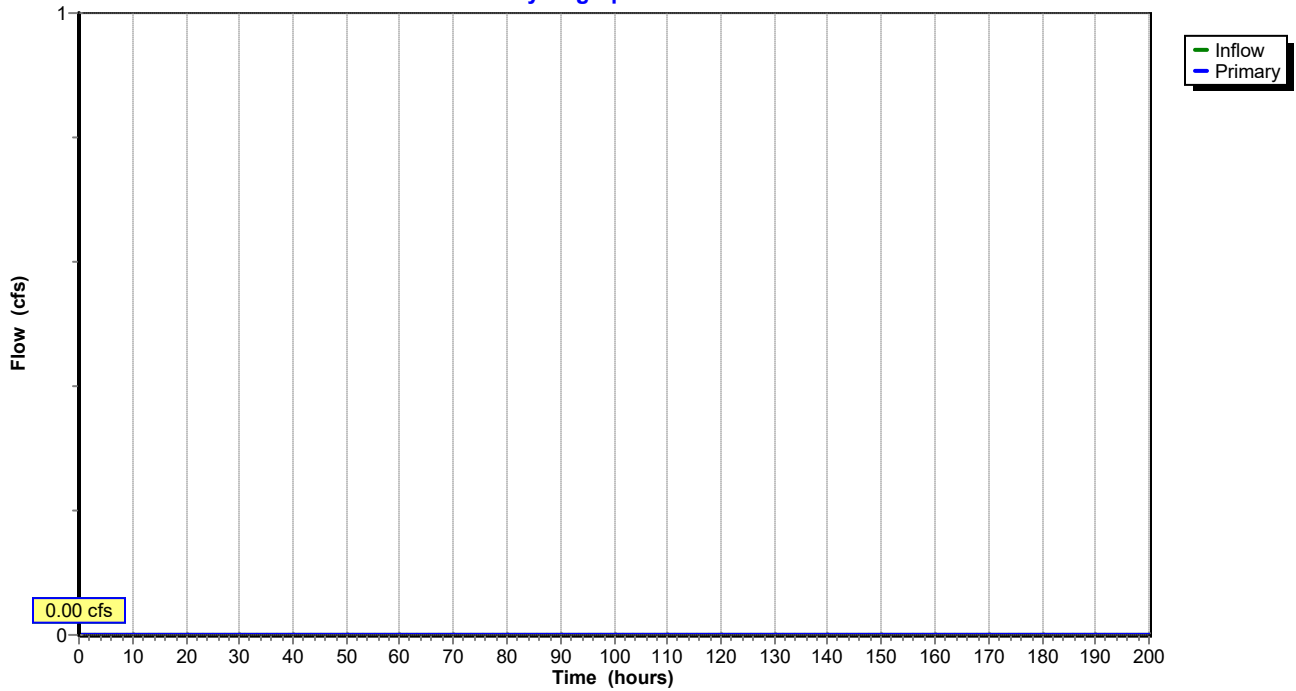
Summary for Pond 45P: US-33 (Indian Run)

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

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs

Pond 45P: US-33 (Indian Run)

Hydrograph



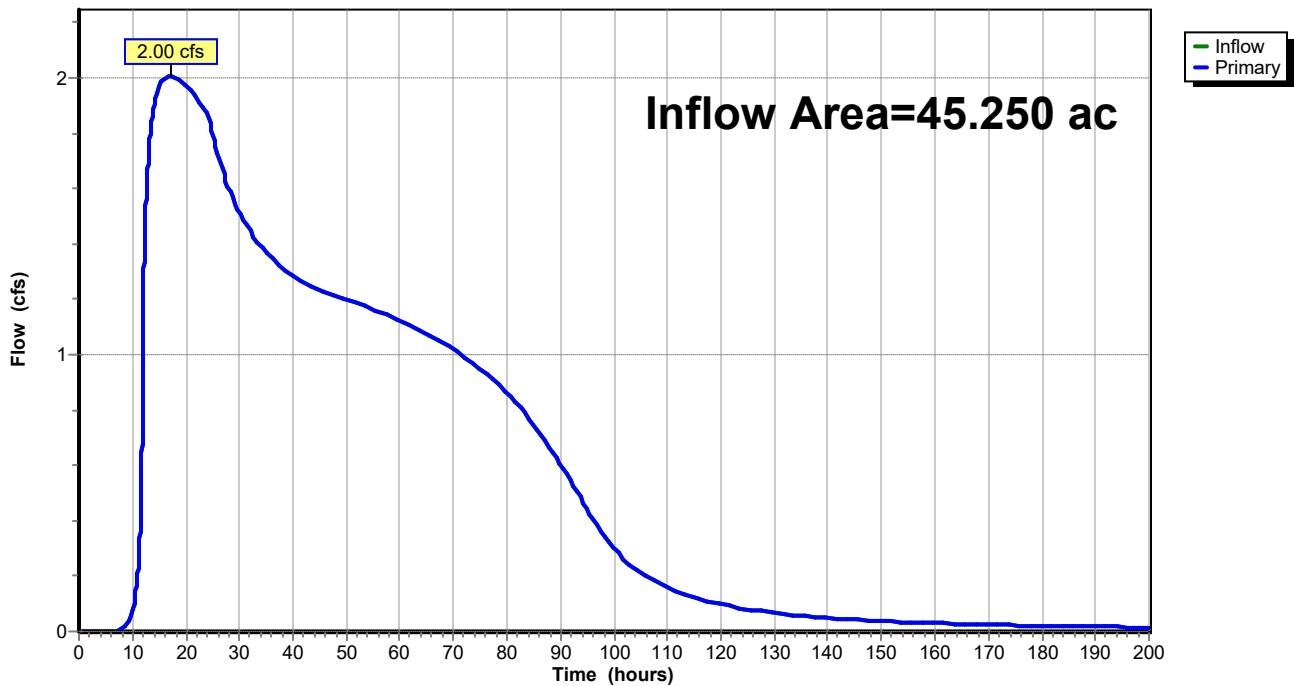
Summary for Pond 46P: University Blvd (Cosgray Ditch)

Inflow Area = 45.250 ac, 78.00% Impervious, Inflow Depth > 2.41" for 5-yr event
Inflow = 2.00 cfs @ 17.29 hrs, Volume= 9.069 af
Primary = 2.00 cfs @ 17.29 hrs, Volume= 9.069 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs

Pond 46P: University Blvd (Cosgray Ditch)

Hydrograph



Summary for Pond 63P: Basin 2

Inflow Area = 30.290 ac, 79.48% Impervious, Inflow Depth > 2.45" for 5-yr event
 Inflow = 45.71 cfs @ 11.96 hrs, Volume= 6.192 af
 Outflow = 1.17 cfs @ 27.70 hrs, Volume= 6.160 af, Atten= 97%, Lag= 944.7 min
 Primary = 1.17 cfs @ 27.70 hrs, Volume= 6.160 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 928.43' @ 24.04 hrs Surf.Area= 0.868 ac Storage= 2.033 af

Plug-Flow detention time= 988.0 min calculated for 6.159 af (99% of inflow)
 Center-of-Mass det. time= 944.7 min (2,935.6 - 1,990.9)

Volume	Invert	Avail.Storage	Storage Description
#1	925.70'	3.520 af	Basin 2 Storage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.70	0.620	0.000	0.000
926.00	0.650	0.190	0.190
927.00	0.740	0.695	0.885
928.00	0.830	0.785	1.670
929.00	0.920	0.875	2.545
930.00	1.030	0.975	3.520

Device	Routing	Invert	Outlet Devices
#1	Primary	925.70'	6.0" Vert. Outlet to Basin 1 C= 0.600 Limited to weir flow at low heads
#2	Secondary	928.50'	12.0" Round Culvert L= 77.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 928.50' / 928.00' S= 0.0065 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.17 cfs @ 27.70 hrs HW=928.32' TW=926.79' (Dynamic Tailwater)

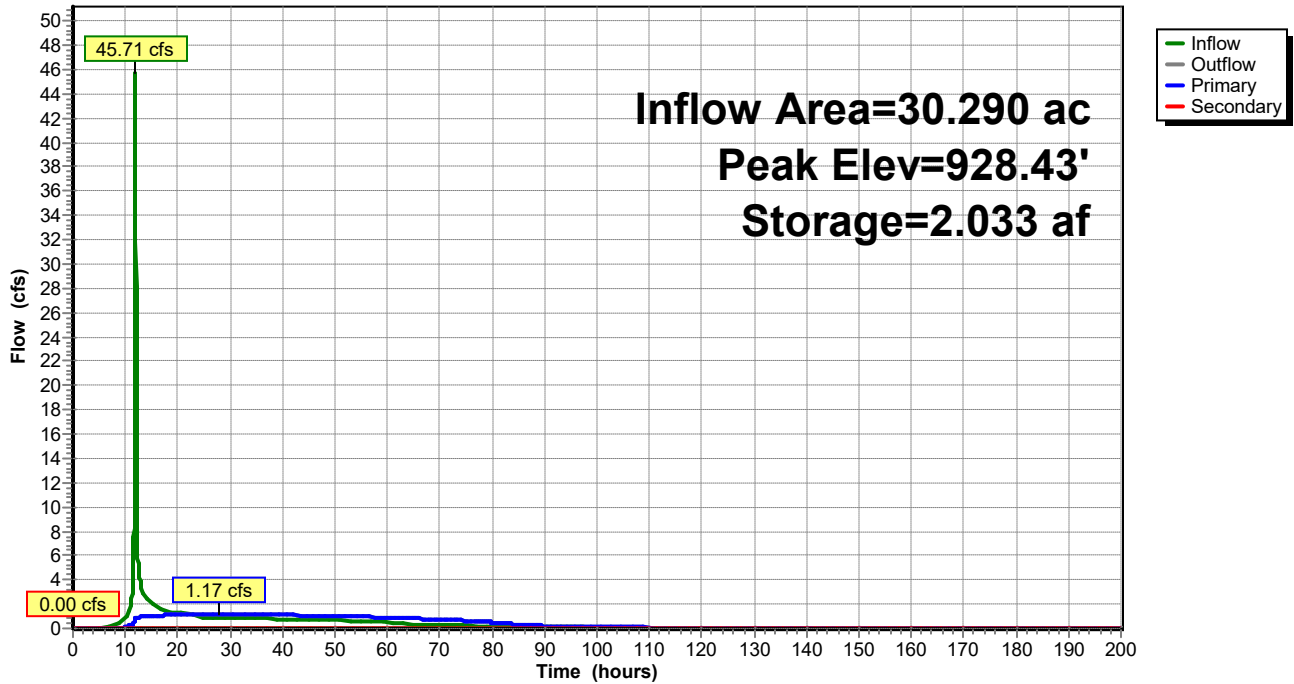
↑1=Outlet to Basin 1 (Orifice Controls 1.17 cfs @ 5.96 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=925.70' TW=0.00' (Dynamic Tailwater)

↑2=Culvert (Controls 0.00 cfs)

Pond 63P: Basin 2

Hydrograph



Summary for Subcatchment 7S: Pre-Developed to Cosgray Ditch

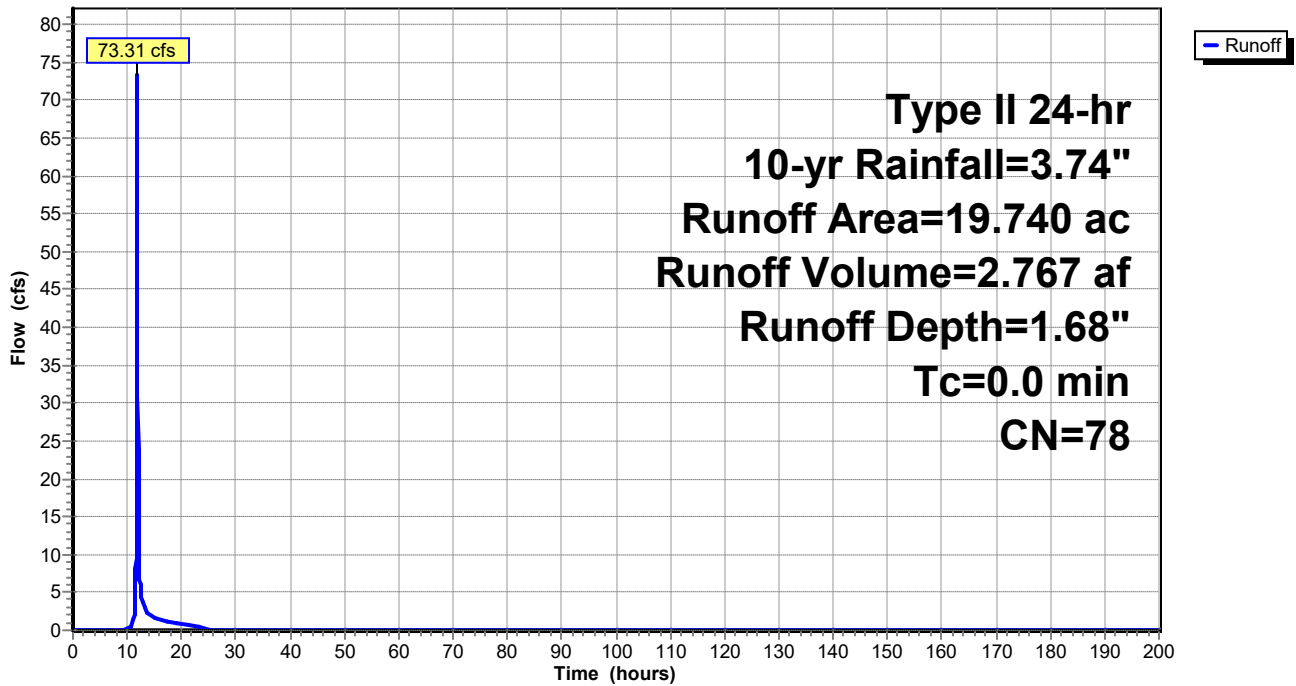
Runoff = 73.31 cfs @ 11.90 hrs, Volume= 2.767 af, Depth= 1.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.74"

Area (ac)	CN	Description
19.740	78	Row crops, C&T, Good, HSG C
19.740		100.00% Pervious Area

Subcatchment 7S: Pre-Developed to Cosgray Ditch

Hydrograph



Summary for Subcatchment 8S: Pre-Developed to Indian Run

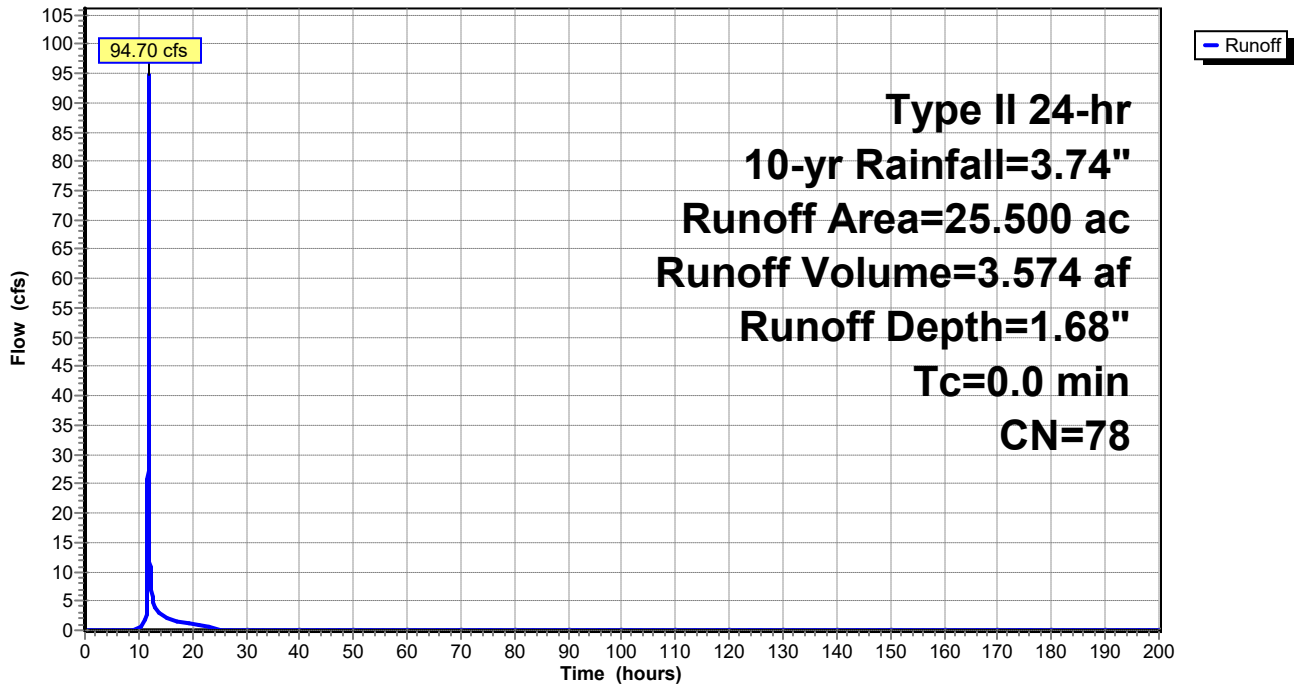
Runoff = 94.70 cfs @ 11.90 hrs, Volume= 3.574 af, Depth= 1.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.74"

Area (ac)	CN	Description
25.500	78	Row crops, C&T, Good, HSG C
25.500		100.00% Pervious Area

Subcatchment 8S: Pre-Developed to Indian Run

Hydrograph



Summary for Subcatchment 26S: Subarea 2

Runoff = 52.19 cfs @ 11.96 hrs, Volume= 2.518 af, Depth= 2.87"

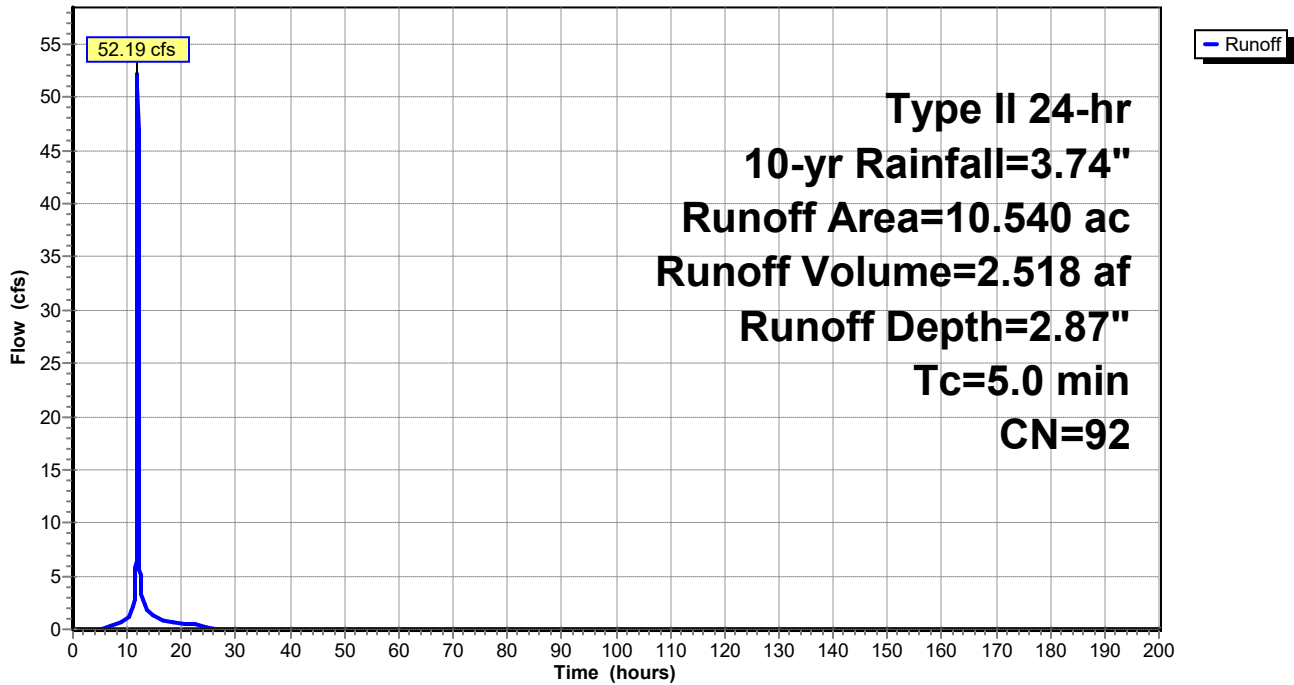
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-yr Rainfall=3.74"

Area (ac)	CN	Description
7.285	98	Paved parking, HSG C
2.635	74	>75% Grass cover, Good, HSG C
0.620	98	Water Surface, HSG C
10.540	92	Weighted Average
2.635		25.00% Pervious Area
7.905		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 26S: Subarea 2

Hydrograph



Summary for Subcatchment 28S: Subarea 3

Runoff = 30.60 cfs @ 11.96 hrs, Volume= 1.477 af, Depth= 2.87"

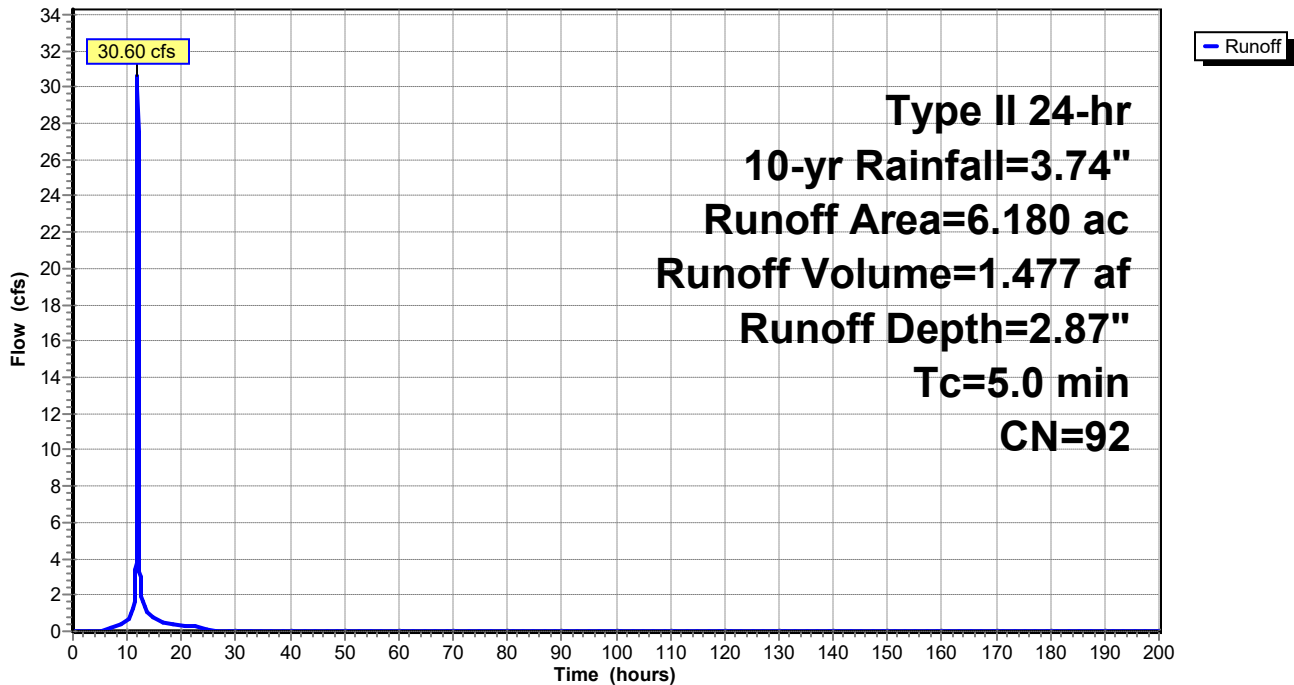
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-yr Rainfall=3.74"

Area (ac)	CN	Description
4.175	98	Paved parking, HSG C
1.545	74	>75% Grass cover, Good, HSG C
0.460	98	Water Surface, HSG C
6.180	92	Weighted Average
1.545		25.00% Pervious Area
4.635		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 28S: Subarea 3

Hydrograph



Summary for Subcatchment 33S: Subarea 1

Runoff = 74.08 cfs @ 11.96 hrs, Volume= 3.574 af, Depth= 2.87"

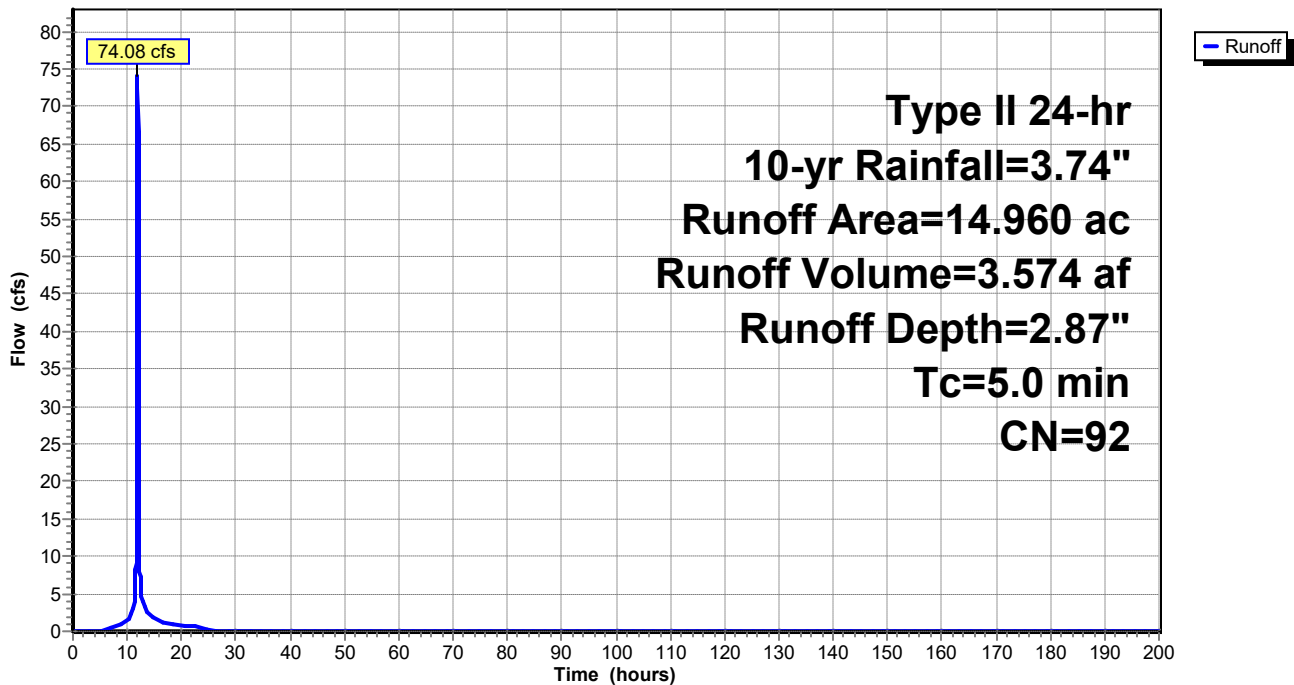
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-yr Rainfall=3.74"

Area (ac)	CN	Description
10.210	98	Paved parking, HSG C
3.740	74	>75% Grass cover, Good, HSG C
1.010	98	Water Surface, HSG C
14.960	92	Weighted Average
3.740		25.00% Pervious Area
11.220		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 33S: Subarea 1

Hydrograph



Summary for Subcatchment 36S: Offsite 10.1

Runoff = 63.60 cfs @ 11.99 hrs, Volume= 3.472 af, Depth= 3.07"

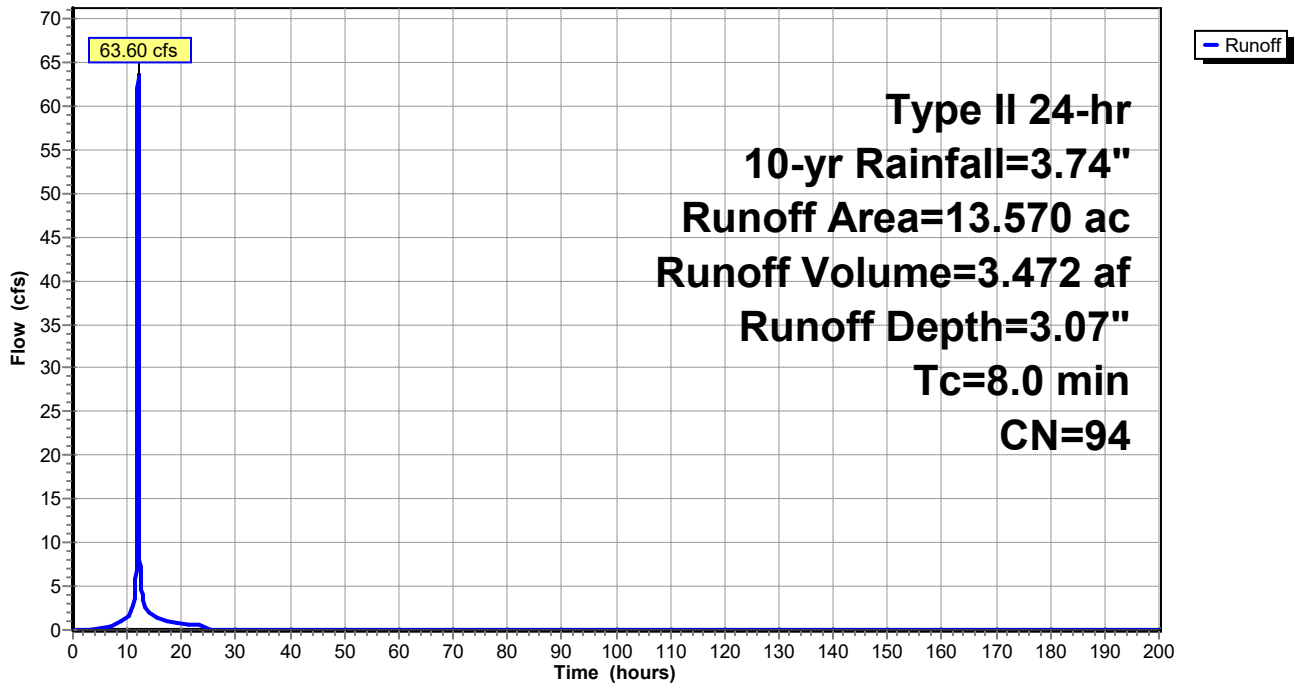
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 10-yr Rainfall=3.74"

Area (ac)	CN	Description
13.570	94	Urban commercial, 85% imp, HSG C
2.036		15.00% Pervious Area
11.534		85.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0					Direct Entry,

Subcatchment 36S: Offsite 10.1

Hydrograph



Summary for Pond 30P: Basin 1

Inflow Area = 45.250 ac, 78.00% Impervious, Inflow Depth > 2.85" for 10-yr event
 Inflow = 75.00 cfs @ 11.96 hrs, Volume= 10.758 af
 Outflow = 2.36 cfs @ 15.99 hrs, Volume= 10.685 af, Atten= 97%, Lag= 241.8 min
 Primary = 2.36 cfs @ 15.99 hrs, Volume= 10.685 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 927.31' @ 15.99 hrs Surf.Area= 1.267 ac Storage= 2.630 af

Plug-Flow detention time= 883.1 min calculated for 10.684 af (99% of inflow)
 Center-of-Mass det. time= 830.6 min (3,177.2 - 2,346.6)

Volume	Invert	Avail.Storage	Storage Description
#1	925.00'	5.717 af	Basin 1 Storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.00	1.010	0.000	0.000
926.00	1.120	1.065	1.065
927.00	1.230	1.175	2.240
928.00	1.350	1.290	3.530
929.00	1.480	1.415	4.945
929.50	1.610	0.773	5.717

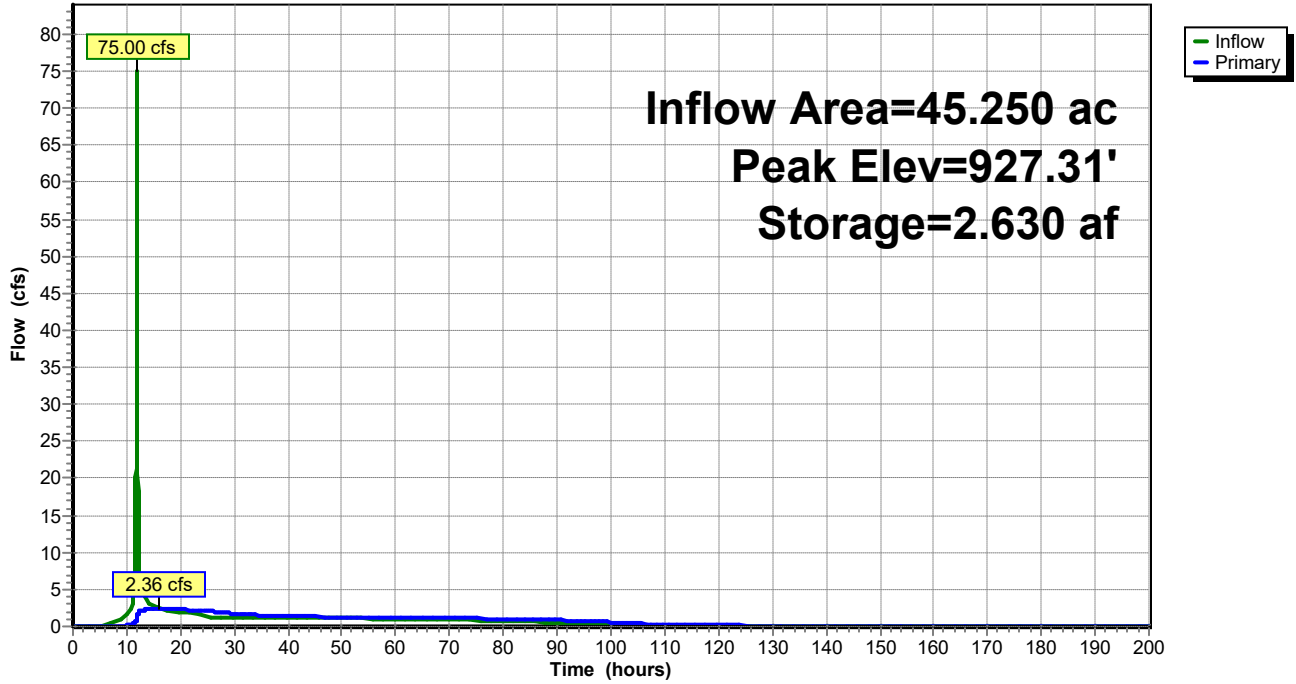
Device	Routing	Invert	Outlet Devices
#1	Primary	925.00'	6.5" Vert. WQ Orifice C= 0.600 Limited to weir flow at low heads
#2	Primary	926.50'	6.0" W x 5.0" H Vert. Window C= 0.600 Limited to weir flow at low heads
#3	Primary	928.50'	3.0' long x 0.5' breadth Broad-Crested Rectangular Weir X 2.00 Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=2.36 cfs @ 15.99 hrs HW=927.31' TW=0.00' (Dynamic Tailwater)

- 1=WQ Orifice (Orifice Controls 1.59 cfs @ 6.88 fps)
- 2=Window (Orifice Controls 0.78 cfs @ 3.72 fps)
- 3=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 30P: Basin 1

Hydrograph



Summary for Pond 31P: Basin 3

Inflow Area = 19.750 ac, 81.87% Impervious, Inflow Depth > 2.98" for 10-yr event
 Inflow = 31.09 cfs @ 11.96 hrs, Volume= 4.899 af
 Outflow = 1.83 cfs @ 11.95 hrs, Volume= 4.887 af, Atten= 94%, Lag= 0.0 min
 Primary = 1.83 cfs @ 11.95 hrs, Volume= 4.887 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 929.01' @ 24.01 hrs Surf.Area= 0.651 ac Storage= 1.101 af

Plug-Flow detention time= 555.0 min calculated for 4.887 af (100% of inflow)
 Center-of-Mass det. time= 532.7 min (2,760.7 - 2,228.0)

Volume	Invert	Avail.Storage	Storage Description
#1	927.00'	2.710 af	Basin 3 Storage Data (Prismatic) Listed below (Recalc)

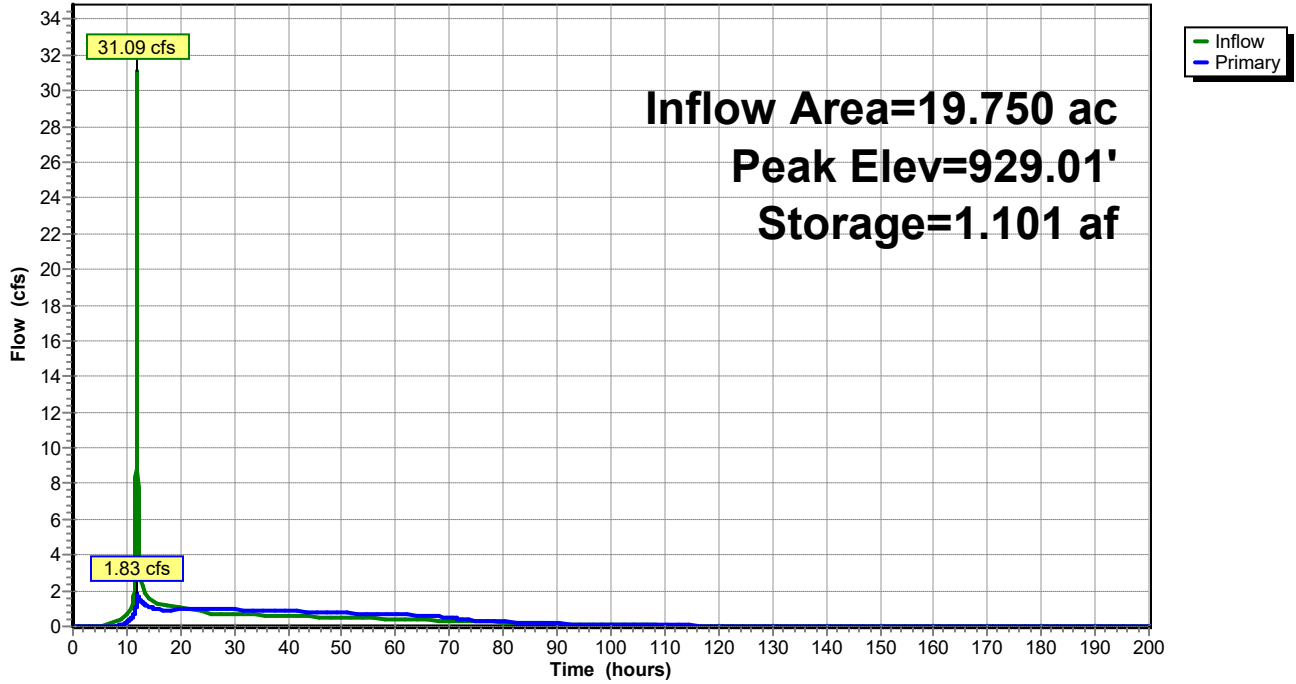
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
927.00	0.460	0.000	0.000
928.00	0.540	0.500	0.500
929.00	0.650	0.595	1.095
930.00	0.780	0.715	1.810
931.00	1.020	0.900	2.710

Device	Routing	Invert	Outlet Devices
#1	Primary	927.00'	5.0" Vert. Outlet to Basin 2 X 3.00 C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.77 cfs @ 11.95 hrs HW=928.10' TW=927.29' (Dynamic Tailwater)
 ↑1=Outlet to Basin 2 (Orifice Controls 1.77 cfs @ 4.33 fps)

Pond 31P: Basin 3

Hydrograph



Summary for Pond 37P: Dummy Basin 10.1

Inflow Area = 13.570 ac, 85.00% Impervious, Inflow Depth = 3.07" for 10-yr event
 Inflow = 63.60 cfs @ 11.99 hrs, Volume= 3.472 af
 Outflow = 0.74 cfs @ 19.40 hrs, Volume= 3.423 af, Atten= 99%, Lag= 444.4 min
 Primary = 0.74 cfs @ 19.40 hrs, Volume= 3.423 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 932.37' @ 19.40 hrs Surf.Area= 2.000 ac Storage= 2.745 af

Plug-Flow detention time= 2,077.1 min calculated for 3.423 af (99% of inflow)
 Center-of-Mass det. time= 2,068.5 min (2,849.1 - 780.6)

Volume	Invert	Avail.Storage	Storage Description
#1	931.00'	8.000 af	Dummy Basin (Prismatic) Listed below (Recalc)

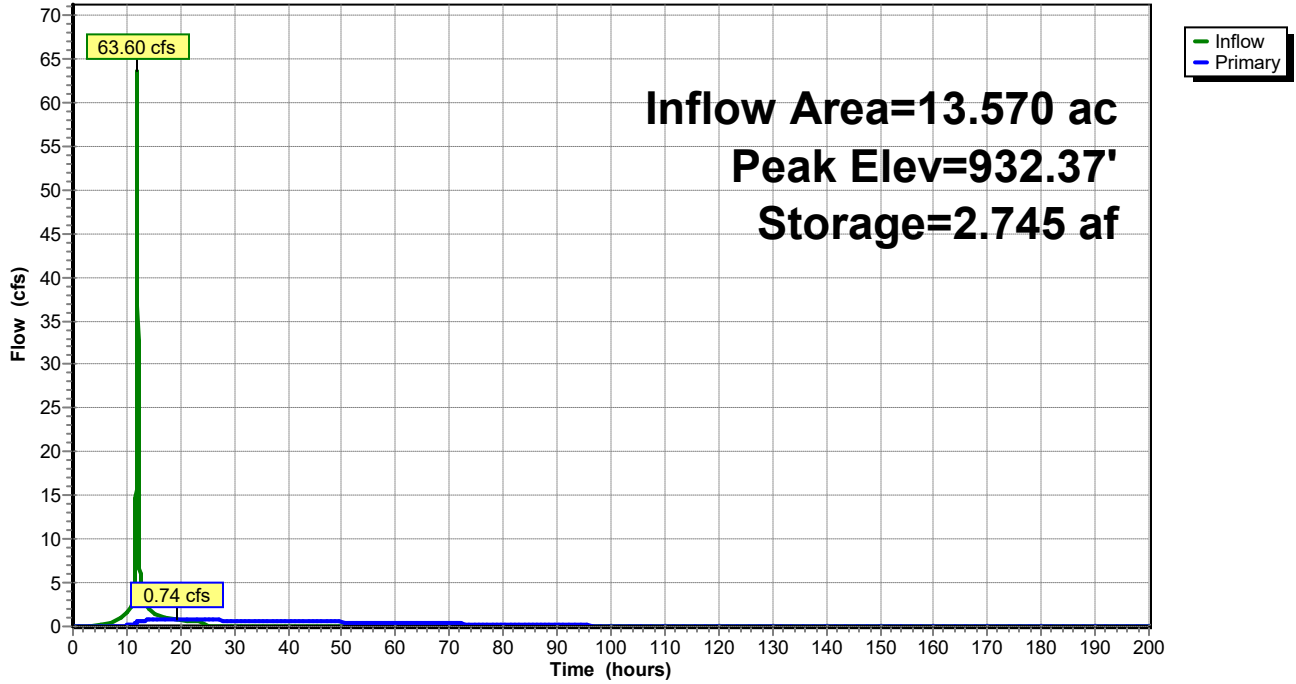
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
931.00	2.000	0.000	0.000
935.00	2.000	8.000	8.000

Device	Routing	Invert	Outlet Devices
#1	Primary	931.00'	2.5" Vert. WQ Orifice X 4.00 C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.74 cfs @ 19.40 hrs HW=932.37' TW=928.98' (Dynamic Tailwater)
 ↑1=WQ Orifice (Orifice Controls 0.74 cfs @ 5.42 fps)

Pond 37P: Dummy Basin 10.1

Hydrograph



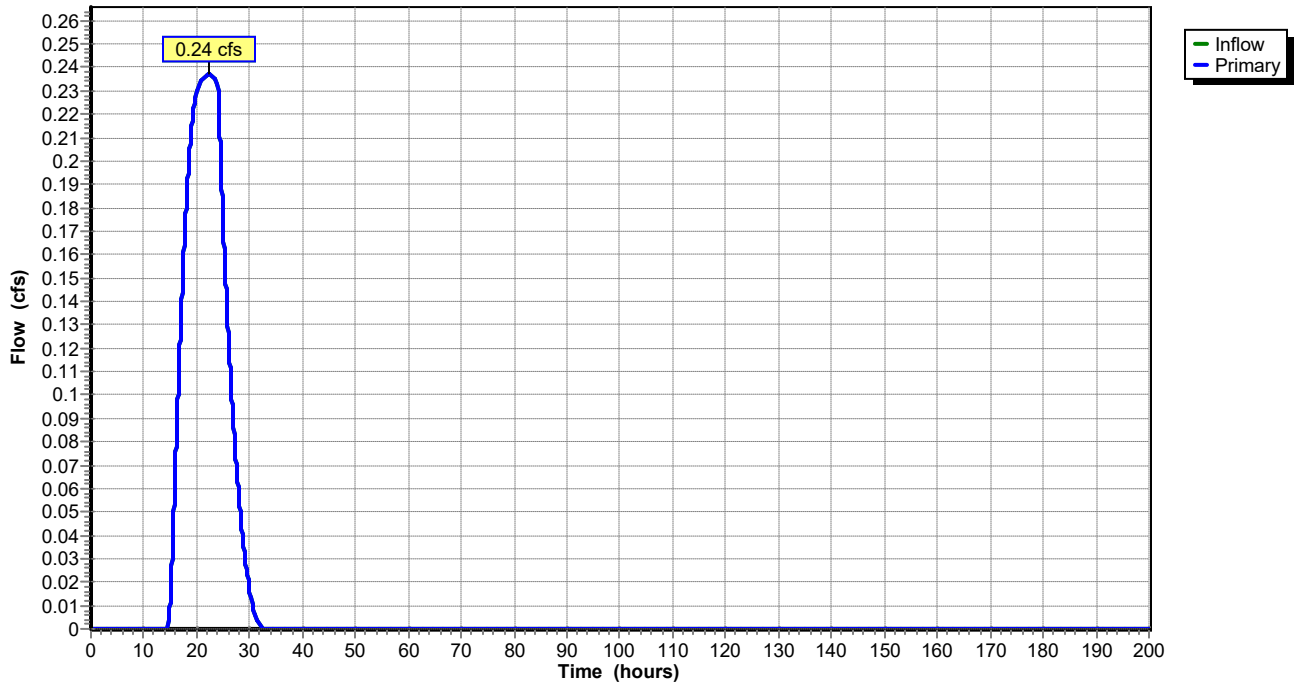
Summary for Pond 45P: US-33 (Indian Run)

Inflow = 0.24 cfs @ 22.12 hrs, Volume= 0.188 af
Primary = 0.24 cfs @ 22.12 hrs, Volume= 0.188 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs

Pond 45P: US-33 (Indian Run)

Hydrograph



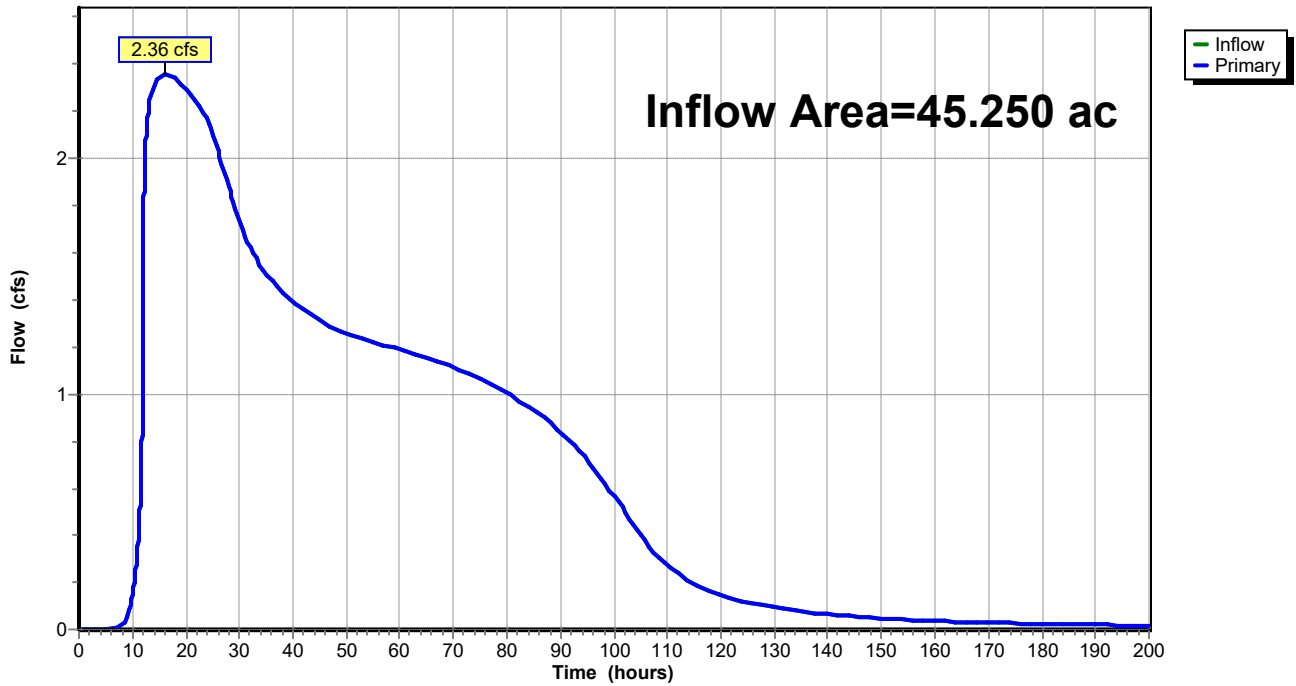
Summary for Pond 46P: University Blvd (Cosgray Ditch)

Inflow Area = 45.250 ac, 78.00% Impervious, Inflow Depth > 2.83" for 10-yr event
Inflow = 2.36 cfs @ 15.99 hrs, Volume= 10.685 af
Primary = 2.36 cfs @ 15.99 hrs, Volume= 10.685 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs

Pond 46P: University Blvd (Cosgray Ditch)

Hydrograph



Summary for Pond 63P: Basin 2

Inflow Area = 30.290 ac, 79.48% Impervious, Inflow Depth > 2.93" for 10-yr event
 Inflow = 54.01 cfs @ 11.96 hrs, Volume= 7.405 af
 Outflow = 1.43 cfs @ 24.03 hrs, Volume= 7.371 af, Atten= 97%, Lag= 724.1 min
 Primary = 1.24 cfs @ 31.15 hrs, Volume= 7.183 af
 Secondary = 0.24 cfs @ 22.12 hrs, Volume= 0.188 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 928.76' @ 22.12 hrs Surf.Area= 0.899 ac Storage= 2.332 af

Plug-Flow detention time= 1,024.5 min calculated for 7.371 af (100% of inflow)
 Center-of-Mass det. time= 986.0 min (3,075.9 - 2,089.9)

Volume	Invert	Avail.Storage	Storage Description
#1	925.70'	3.520 af	Basin 2 Storage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.70	0.620	0.000	0.000
926.00	0.650	0.190	0.190
927.00	0.740	0.695	0.885
928.00	0.830	0.785	1.670
929.00	0.920	0.875	2.545
930.00	1.030	0.975	3.520

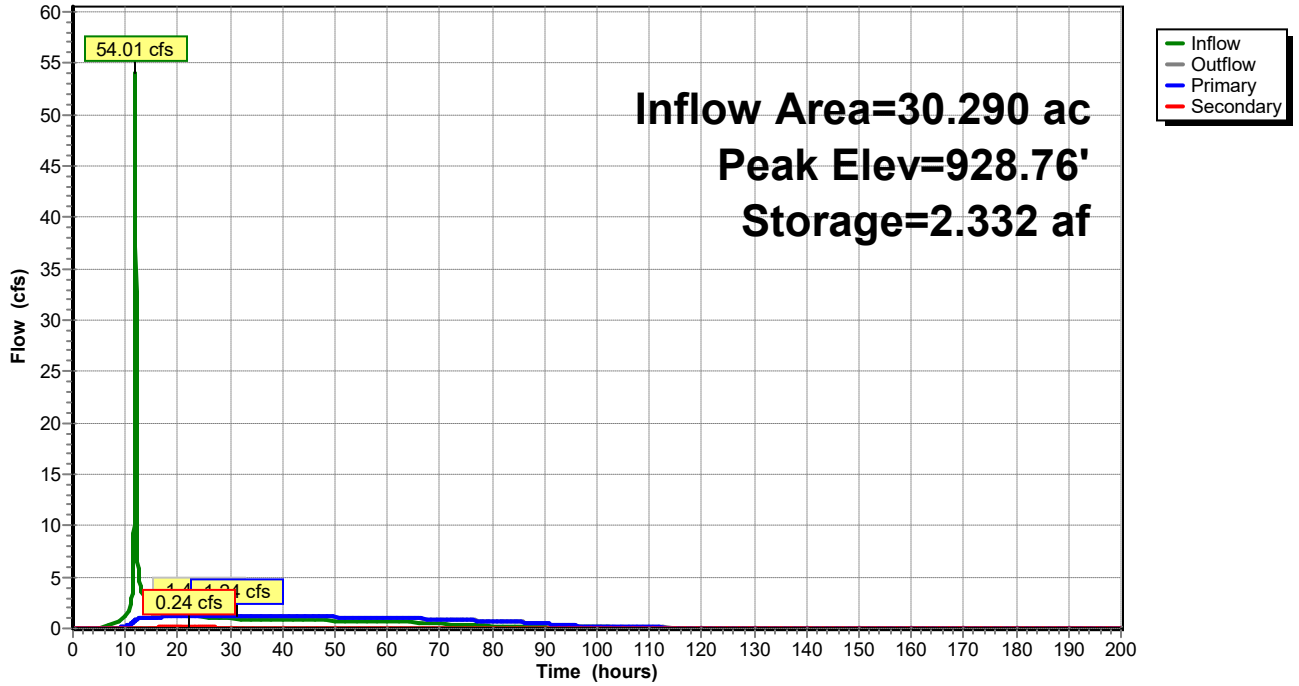
Device	Routing	Invert	Outlet Devices
#1	Primary	925.70'	6.0" Vert. Outlet to Basin 1 C= 0.600 Limited to weir flow at low heads
#2	Secondary	928.50'	12.0" Round Culvert L= 77.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 928.50' / 928.00' S= 0.0065 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.24 cfs @ 31.15 hrs HW=928.54' TW=926.82' (Dynamic Tailwater)
 ↑1=Outlet to Basin 1 (Orifice Controls 1.24 cfs @ 6.31 fps)

Secondary OutFlow Max=0.24 cfs @ 22.12 hrs HW=928.76' TW=0.00' (Dynamic Tailwater)
 ↑2=Culvert (Barrel Controls 0.24 cfs @ 2.14 fps)

Pond 63P: Basin 2

Hydrograph



Summary for Subcatchment 7S: Pre-Developed to Cosgray Ditch

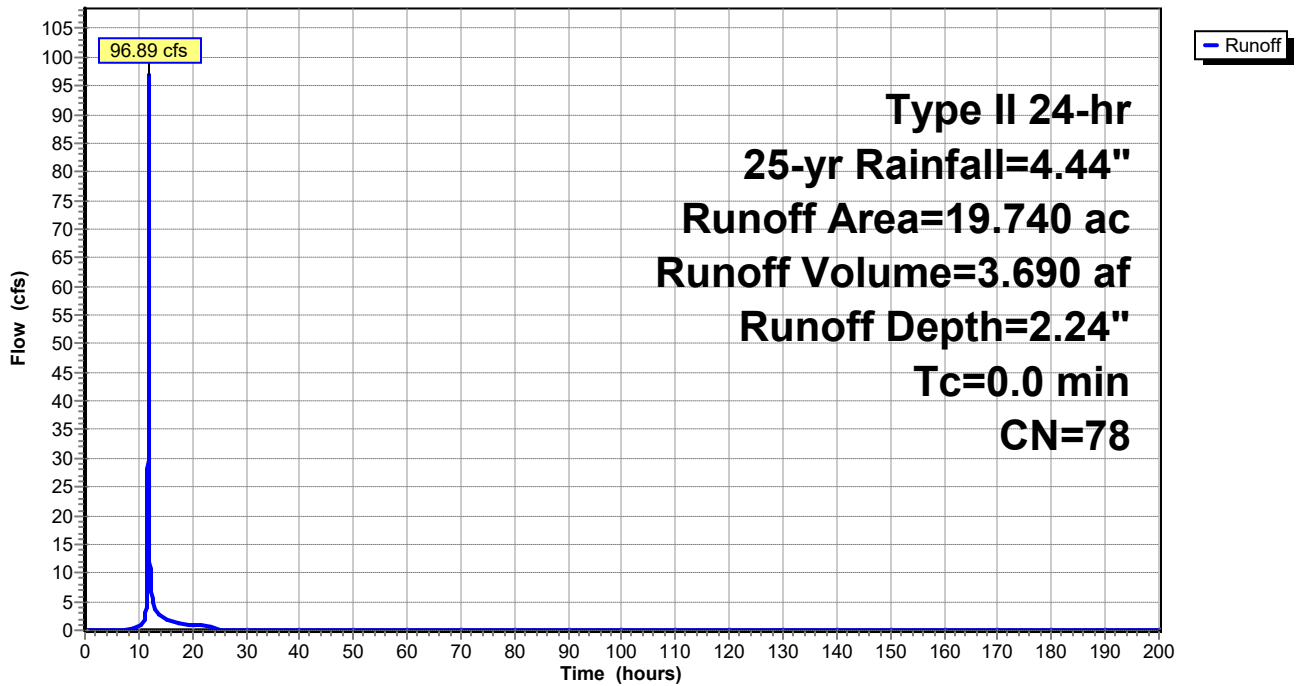
Runoff = 96.89 cfs @ 11.90 hrs, Volume= 3.690 af, Depth= 2.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-yr Rainfall=4.44"

Area (ac)	CN	Description
19.740	78	Row crops, C&T, Good, HSG C
19.740		100.00% Pervious Area

Subcatchment 7S: Pre-Developed to Cosgray Ditch

Hydrograph



Summary for Subcatchment 8S: Pre-Developed to Indian Run

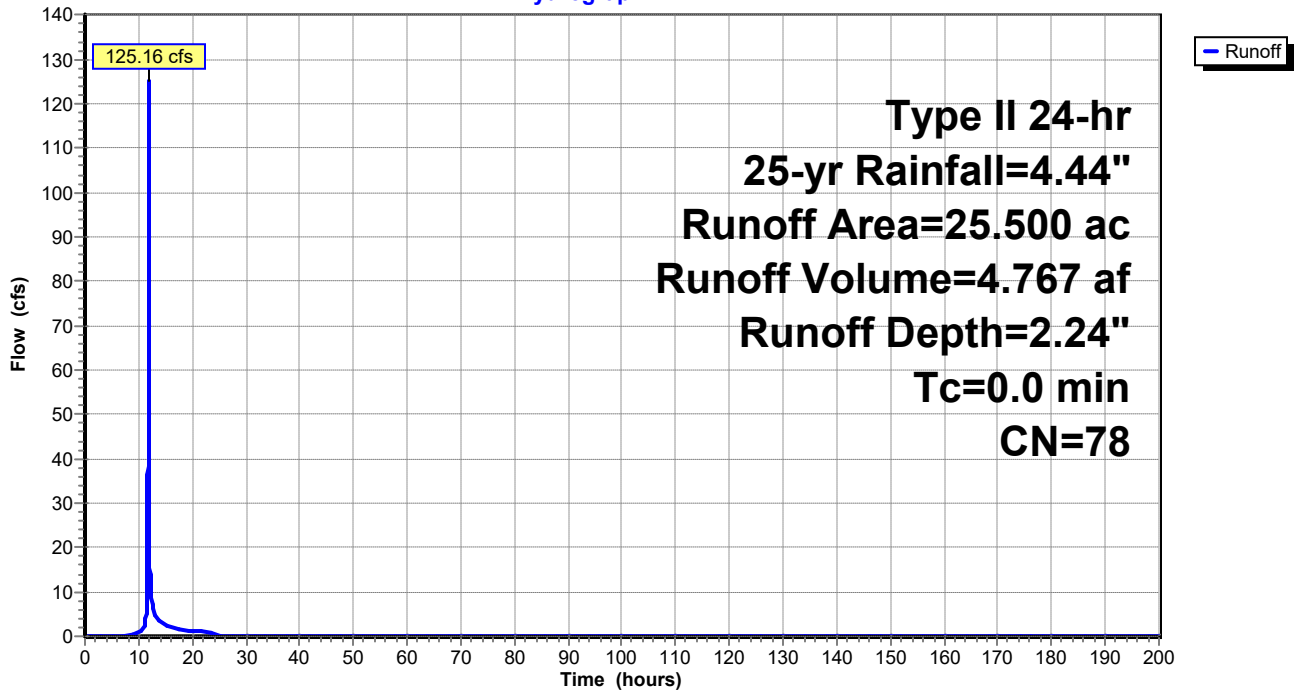
Runoff = 125.16 cfs @ 11.90 hrs, Volume= 4.767 af, Depth= 2.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-yr Rainfall=4.44"

Area (ac)	CN	Description
25.500	78	Row crops, C&T, Good, HSG C
25.500		100.00% Pervious Area

Subcatchment 8S: Pre-Developed to Indian Run

Hydrograph



Summary for Subcatchment 26S: Subarea 2

Runoff = 63.59 cfs @ 11.96 hrs, Volume= 3.113 af, Depth= 3.54"

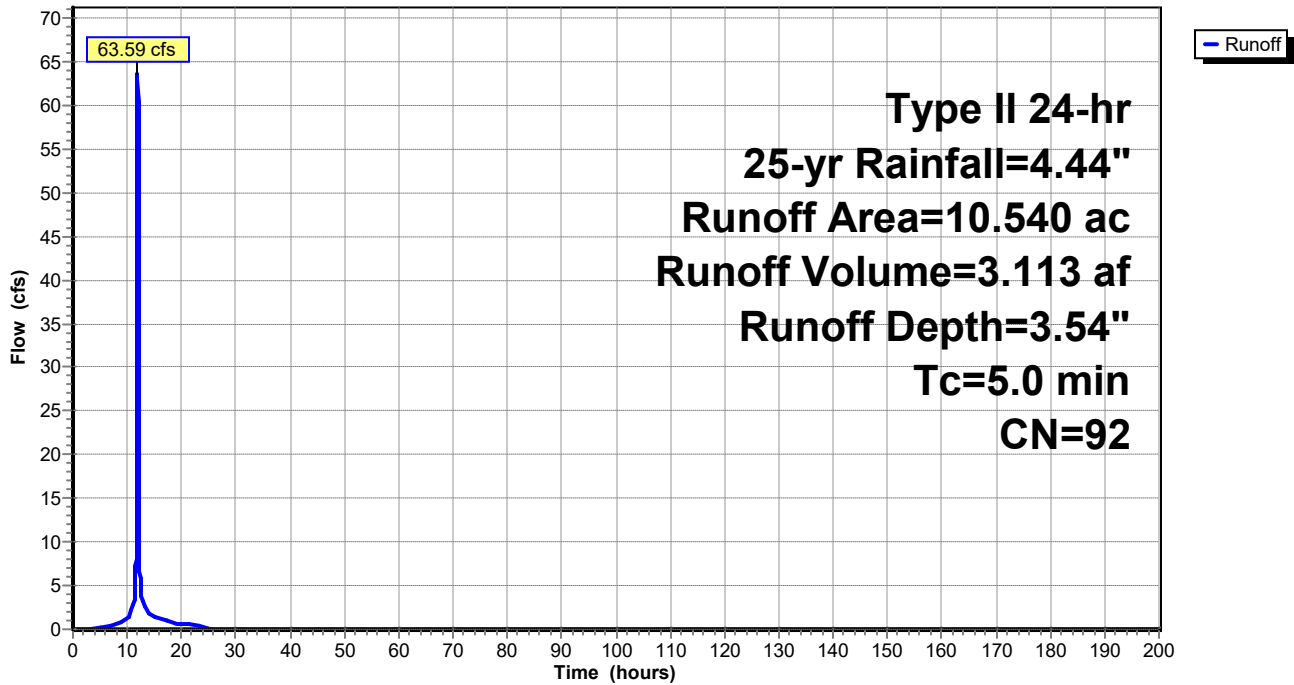
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 25-yr Rainfall=4.44"

Area (ac)	CN	Description
7.285	98	Paved parking, HSG C
2.635	74	>75% Grass cover, Good, HSG C
0.620	98	Water Surface, HSG C
10.540	92	Weighted Average
2.635		25.00% Pervious Area
7.905		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 26S: Subarea 2

Hydrograph



Summary for Subcatchment 28S: Subarea 3

Runoff = 37.29 cfs @ 11.96 hrs, Volume= 1.825 af, Depth= 3.54"

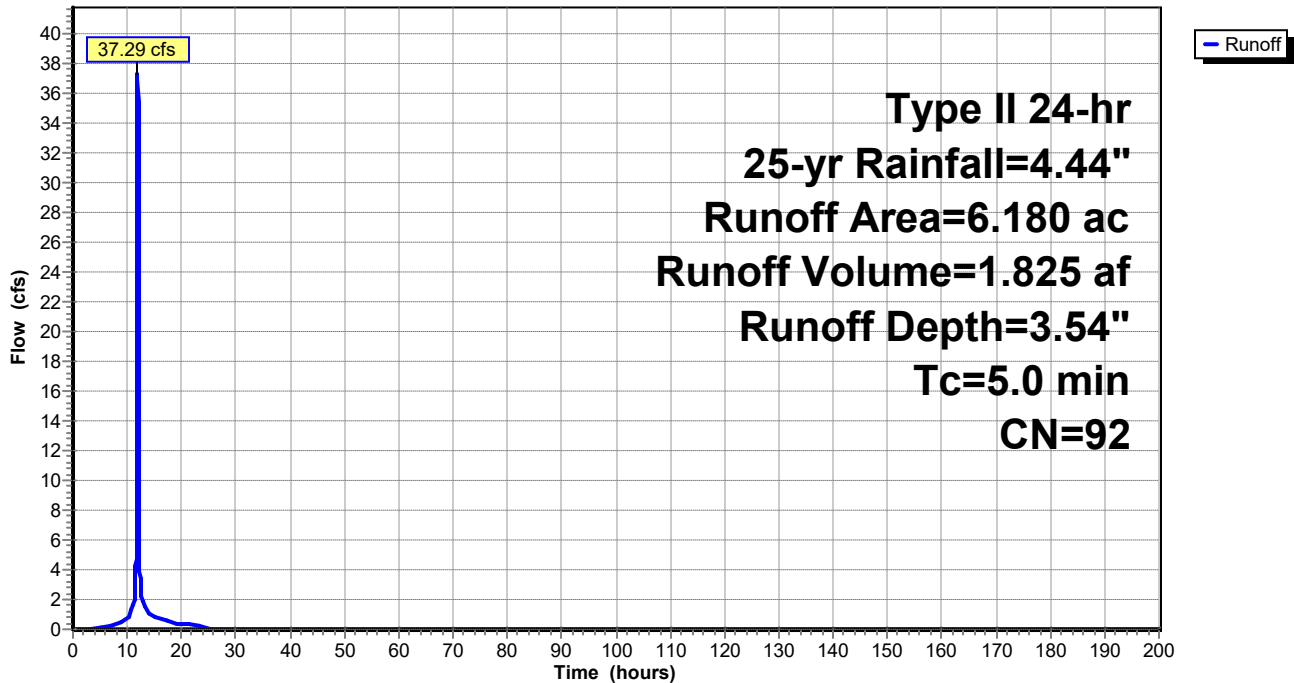
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 25-yr Rainfall=4.44"

Area (ac)	CN	Description
4.175	98	Paved parking, HSG C
1.545	74	>75% Grass cover, Good, HSG C
0.460	98	Water Surface, HSG C
6.180	92	Weighted Average
1.545		25.00% Pervious Area
4.635		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 28S: Subarea 3

Hydrograph



Summary for Subcatchment 33S: Subarea 1

Runoff = 90.26 cfs @ 11.96 hrs, Volume= 4.418 af, Depth= 3.54"

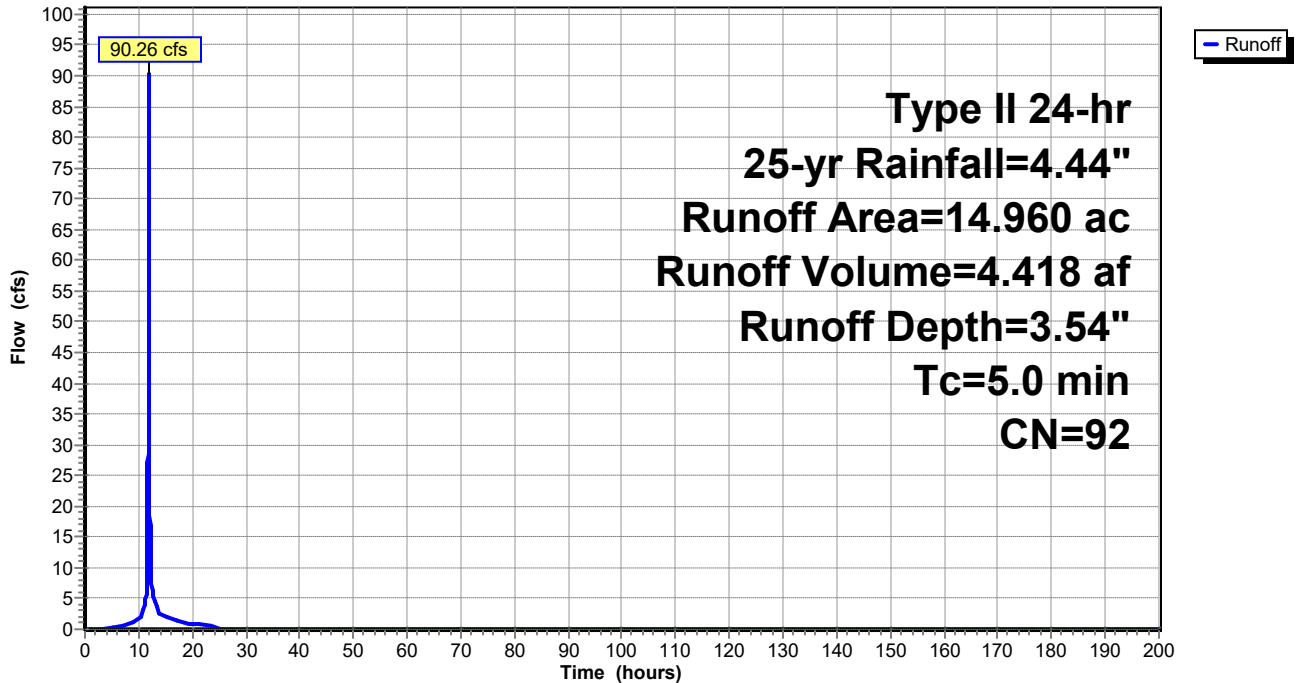
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 25-yr Rainfall=4.44"

Area (ac)	CN	Description
10.210	98	Paved parking, HSG C
3.740	74	>75% Grass cover, Good, HSG C
1.010	98	Water Surface, HSG C
14.960	92	Weighted Average
3.740		25.00% Pervious Area
11.220		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 33S: Subarea 1

Hydrograph



Summary for Subcatchment 36S: Offsite 10.1

Runoff = 76.81 cfs @ 11.99 hrs, Volume= 4.248 af, Depth= 3.76"

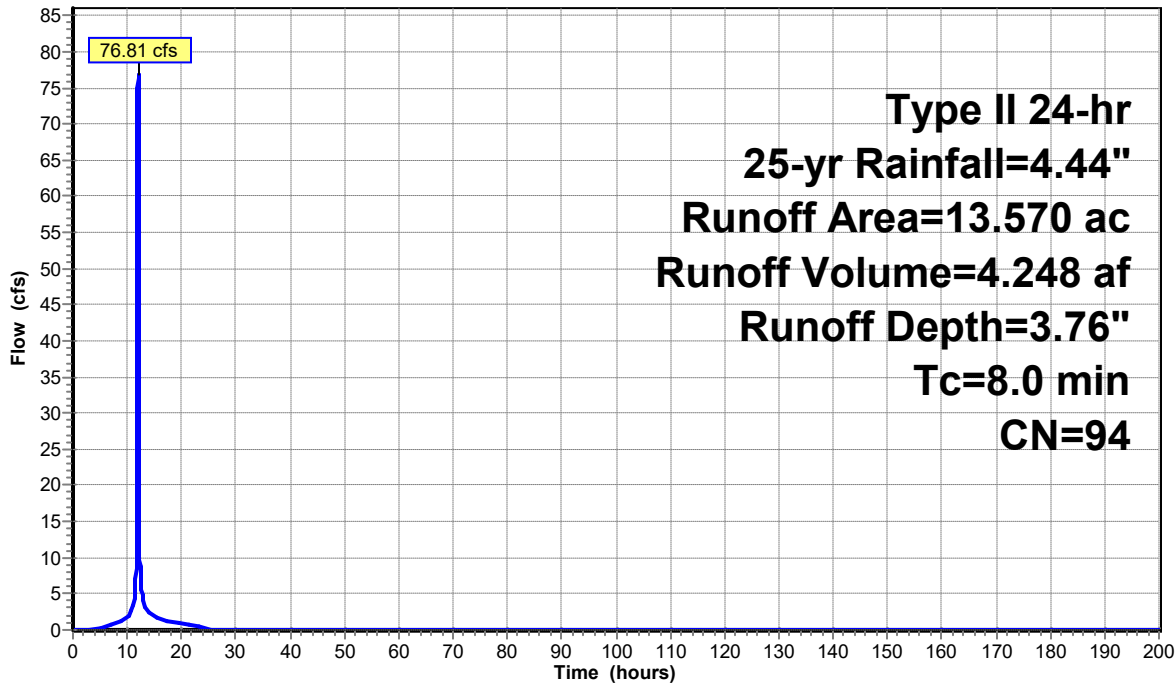
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-yr Rainfall=4.44"

Area (ac)	CN	Description
13.570	94	Urban commercial, 85% imp, HSG C
2.036		15.00% Pervious Area
11.534		85.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0					Direct Entry,

Subcatchment 36S: Offsite 10.1

Hydrograph



Summary for Pond 30P: Basin 1

Inflow Area = 45.250 ac, 78.00% Impervious, Inflow Depth > 3.32" for 25-yr event
 Inflow = 91.20 cfs @ 11.96 hrs, Volume= 12.504 af
 Outflow = 2.78 cfs @ 15.55 hrs, Volume= 12.424 af, Atten= 97%, Lag= 215.8 min
 Primary = 2.78 cfs @ 15.55 hrs, Volume= 12.424 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 927.76' @ 15.55 hrs Surf.Area= 1.322 ac Storage= 3.216 af

Plug-Flow detention time= 878.7 min calculated for 12.423 af (99% of inflow)
 Center-of-Mass det. time= 829.0 min (3,272.2 - 2,443.2)

Volume	Invert	Avail.Storage	Storage Description
#1	925.00'	5.717 af	Basin 1 Storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.00	1.010	0.000	0.000
926.00	1.120	1.065	1.065
927.00	1.230	1.175	2.240
928.00	1.350	1.290	3.530
929.00	1.480	1.415	4.945
929.50	1.610	0.773	5.717

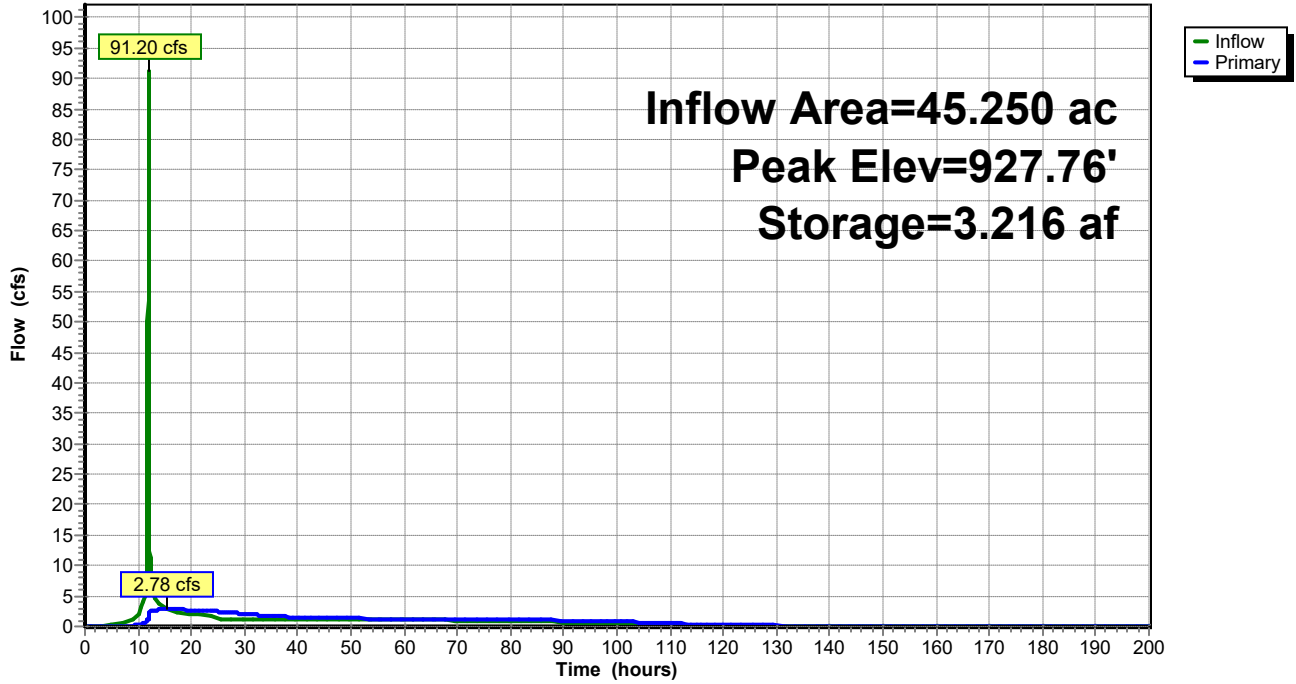
Device	Routing	Invert	Outlet Devices
#1	Primary	925.00'	6.5" Vert. WQ Orifice C= 0.600 Limited to weir flow at low heads
#2	Primary	926.50'	6.0" W x 5.0" H Vert. Window C= 0.600 Limited to weir flow at low heads
#3	Primary	928.50'	3.0' long x 0.5' breadth Broad-Crested Rectangular Weir X 2.00 Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=2.78 cfs @ 15.55 hrs HW=927.76' TW=0.00' (Dynamic Tailwater)

- 1=WQ Orifice (Orifice Controls 1.75 cfs @ 7.60 fps)
- 2=Window (Orifice Controls 1.03 cfs @ 4.94 fps)
- 3=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 30P: Basin 1

Hydrograph



Summary for Pond 31P: Basin 3

Inflow Area = 19.750 ac, 81.87% Impervious, Inflow Depth > 3.66" for 25-yr event
 Inflow = 37.84 cfs @ 11.96 hrs, Volume= 6.020 af
 Outflow = 1.76 cfs @ 11.88 hrs, Volume= 6.006 af, Atten= 95%, Lag= 0.0 min
 Primary = 1.76 cfs @ 11.88 hrs, Volume= 6.006 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 929.42' @ 19.57 hrs Surf.Area= 0.704 ac Storage= 1.377 af

Plug-Flow detention time= 581.2 min calculated for 6.006 af (100% of inflow)
 Center-of-Mass det. time= 561.7 min (2,896.1 - 2,334.4)

Volume	Invert	Avail.Storage	Storage Description
#1	927.00'	2.710 af	Basin 3 Storage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
927.00	0.460	0.000	0.000
928.00	0.540	0.500	0.500
929.00	0.650	0.595	1.095
930.00	0.780	0.715	1.810
931.00	1.020	0.900	2.710

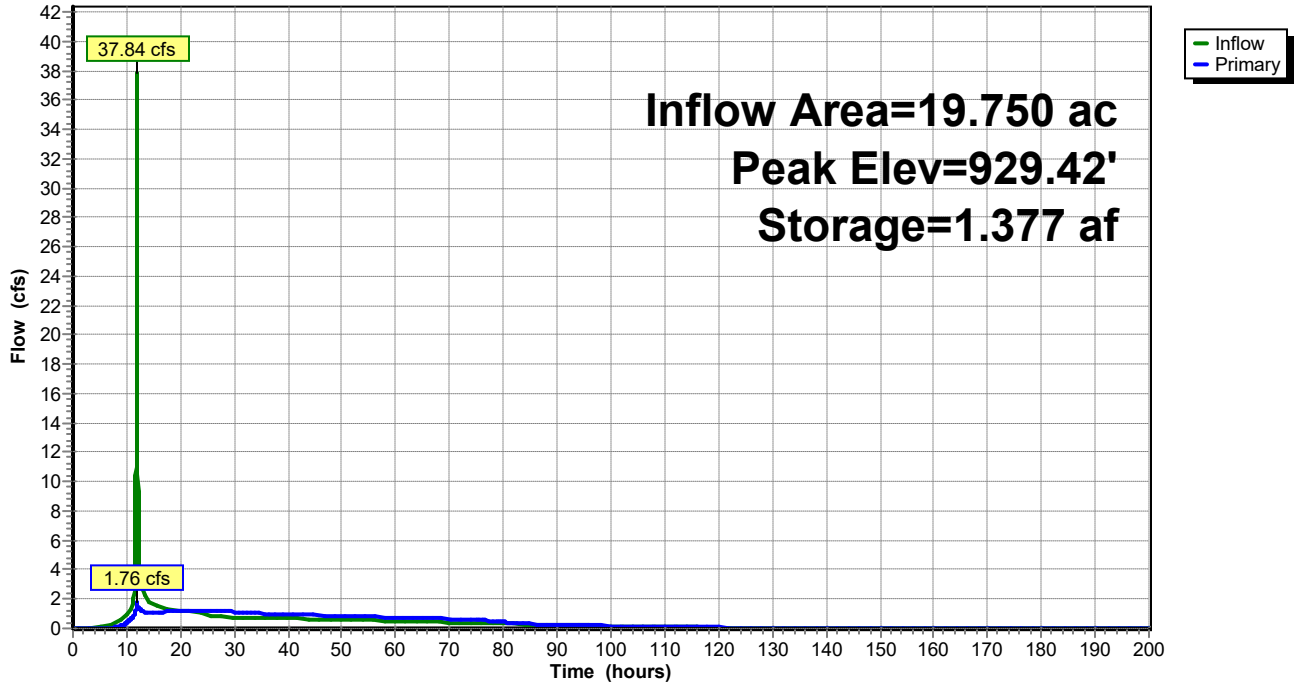
Device	Routing	Invert	Outlet Devices
#1	Primary	927.00'	5.0" Vert. Outlet to Basin 2 X 3.00 C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.71 cfs @ 11.88 hrs HW=928.03' TW=927.28' (Dynamic Tailwater)

↑1=Outlet to Basin 2 (Orifice Controls 1.71 cfs @ 4.17 fps)

Pond 31P: Basin 3

Hydrograph



Summary for Pond 37P: Dummy Basin 10.1

Inflow Area = 13.570 ac, 85.00% Impervious, Inflow Depth = 3.76" for 25-yr event
 Inflow = 76.81 cfs @ 11.99 hrs, Volume= 4.248 af
 Outflow = 0.83 cfs @ 19.76 hrs, Volume= 4.195 af, Atten= 99%, Lag= 466.2 min
 Primary = 0.83 cfs @ 19.76 hrs, Volume= 4.195 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 932.70' @ 19.76 hrs Surf.Area= 2.000 ac Storage= 3.402 af

Plug-Flow detention time= 2,242.5 min calculated for 4.195 af (99% of inflow)
 Center-of-Mass det. time= 2,234.4 min (3,009.7 - 775.3)

Volume	Invert	Avail.Storage	Storage Description
#1	931.00'	8.000 af	Dummy Basin (Prismatic) Listed below (Recalc)

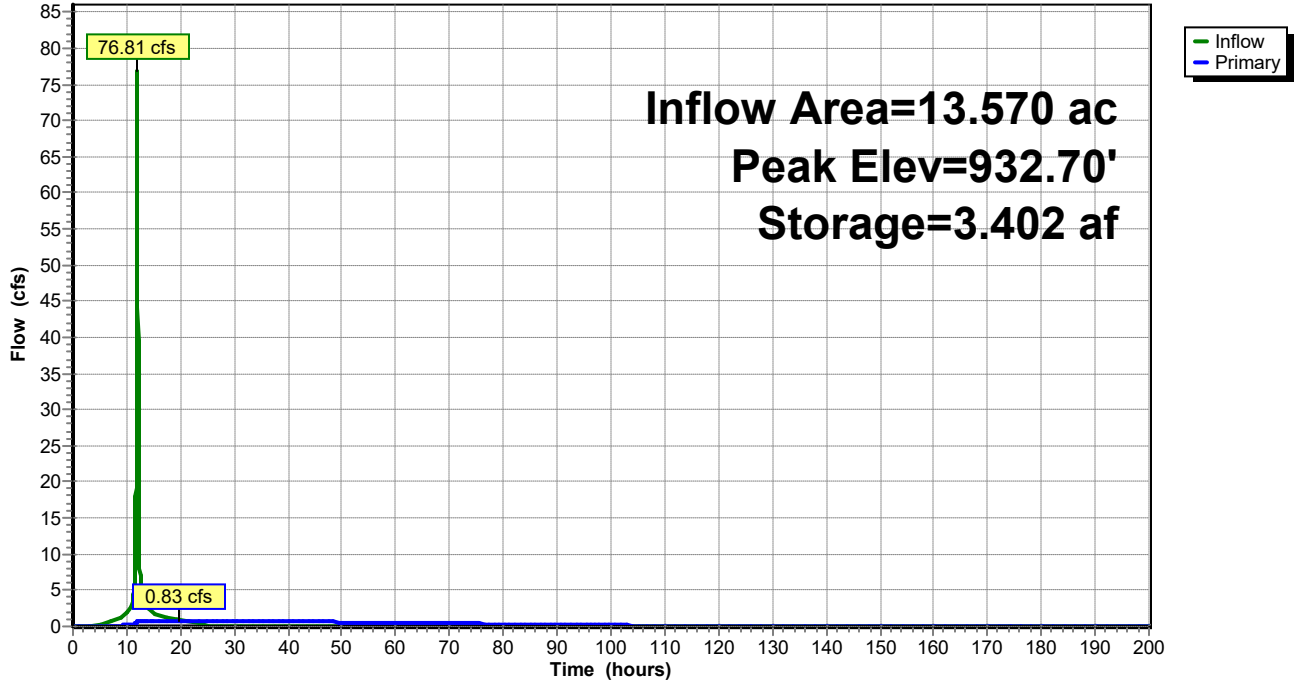
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
931.00	2.000	0.000	0.000
935.00	2.000	8.000	8.000

Device	Routing	Invert	Outlet Devices
#1	Primary	931.00'	2.5" Vert. WQ Orifice X 4.00 C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.83 cfs @ 19.76 hrs HW=932.70' TW=929.42' (Dynamic Tailwater)
 ↑1=WQ Orifice (Orifice Controls 0.83 cfs @ 6.08 fps)

Pond 37P: Dummy Basin 10.1

Hydrograph



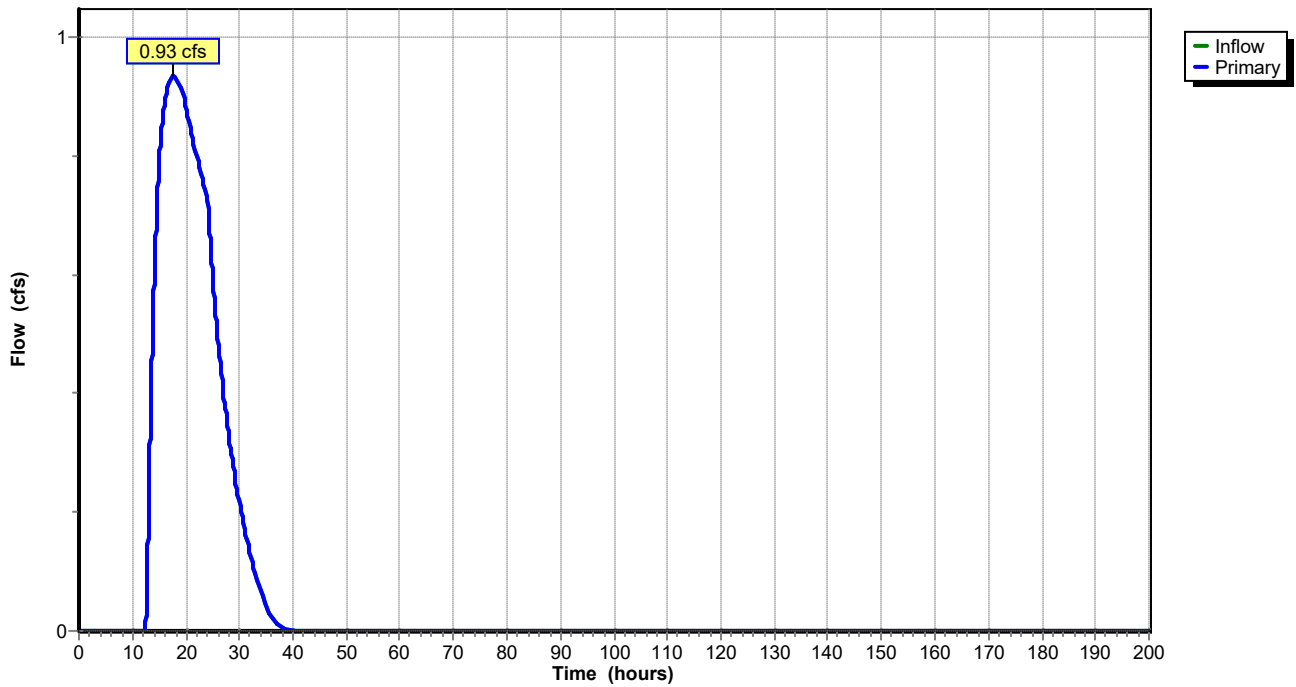
Summary for Pond 45P: US-33 (Indian Run)

Inflow = 0.93 cfs @ 17.75 hrs, Volume= 0.996 af
Primary = 0.93 cfs @ 17.75 hrs, Volume= 0.996 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs

Pond 45P: US-33 (Indian Run)

Hydrograph



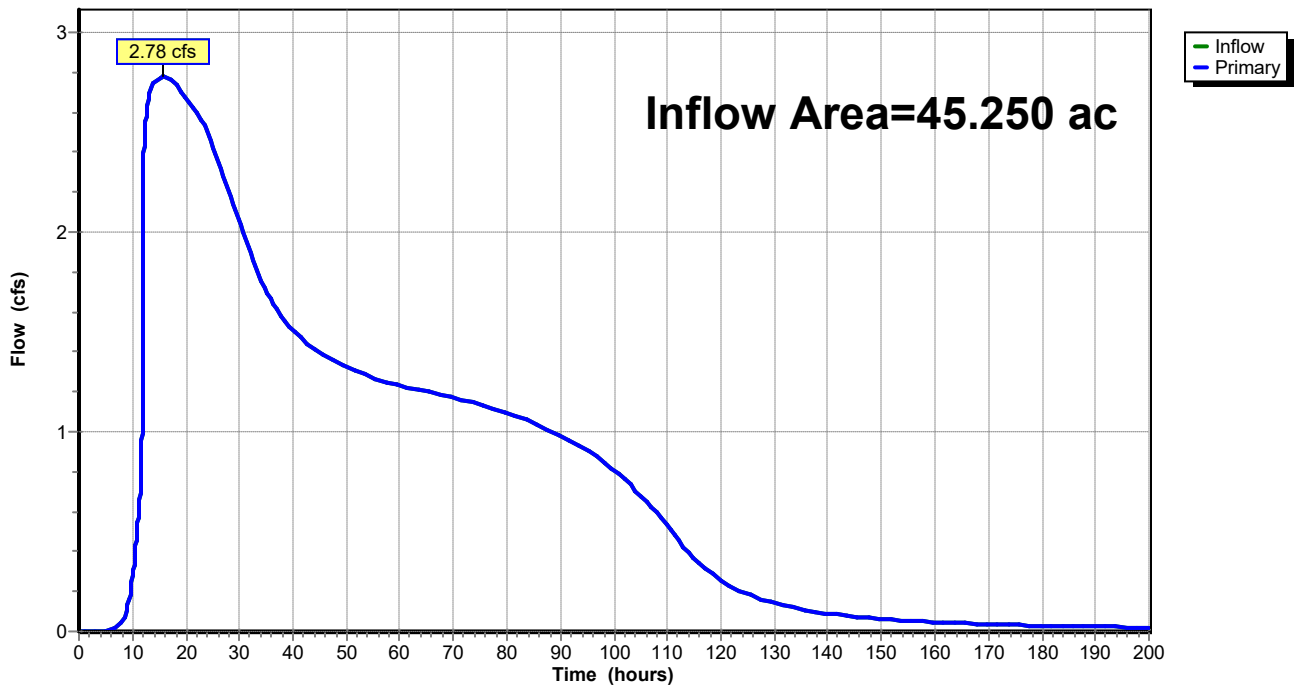
Summary for Pond 46P: University Blvd (Cosgray Ditch)

Inflow Area = 45.250 ac, 78.00% Impervious, Inflow Depth > 3.29" for 25-yr event
Inflow = 2.78 cfs @ 15.55 hrs, Volume= 12.424 af
Primary = 2.78 cfs @ 15.55 hrs, Volume= 12.424 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs

Pond 46P: University Blvd (Cosgray Ditch)

Hydrograph



Summary for Pond 63P: Basin 2

Inflow Area = 30.290 ac, 79.48% Impervious, Inflow Depth > 3.61" for 25-yr event
 Inflow = 65.26 cfs @ 11.96 hrs, Volume= 9.119 af
 Outflow = 2.02 cfs @ 18.23 hrs, Volume= 9.082 af, Atten= 97%, Lag= 376.5 min
 Primary = 1.26 cfs @ 35.92 hrs, Volume= 8.086 af
 Secondary = 0.93 cfs @ 17.75 hrs, Volume= 0.996 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 929.05' @ 17.75 hrs Surf.Area= 0.925 ac Storage= 2.591 af

Plug-Flow detention time= 981.4 min calculated for 9.081 af (100% of inflow)
 Center-of-Mass det. time= 947.1 min (3,121.7 - 2,174.6)

Volume	Invert	Avail.Storage	Storage Description
#1	925.70'	3.520 af	Basin 2 Storage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.70	0.620	0.000	0.000
926.00	0.650	0.190	0.190
927.00	0.740	0.695	0.885
928.00	0.830	0.785	1.670
929.00	0.920	0.875	2.545
930.00	1.030	0.975	3.520

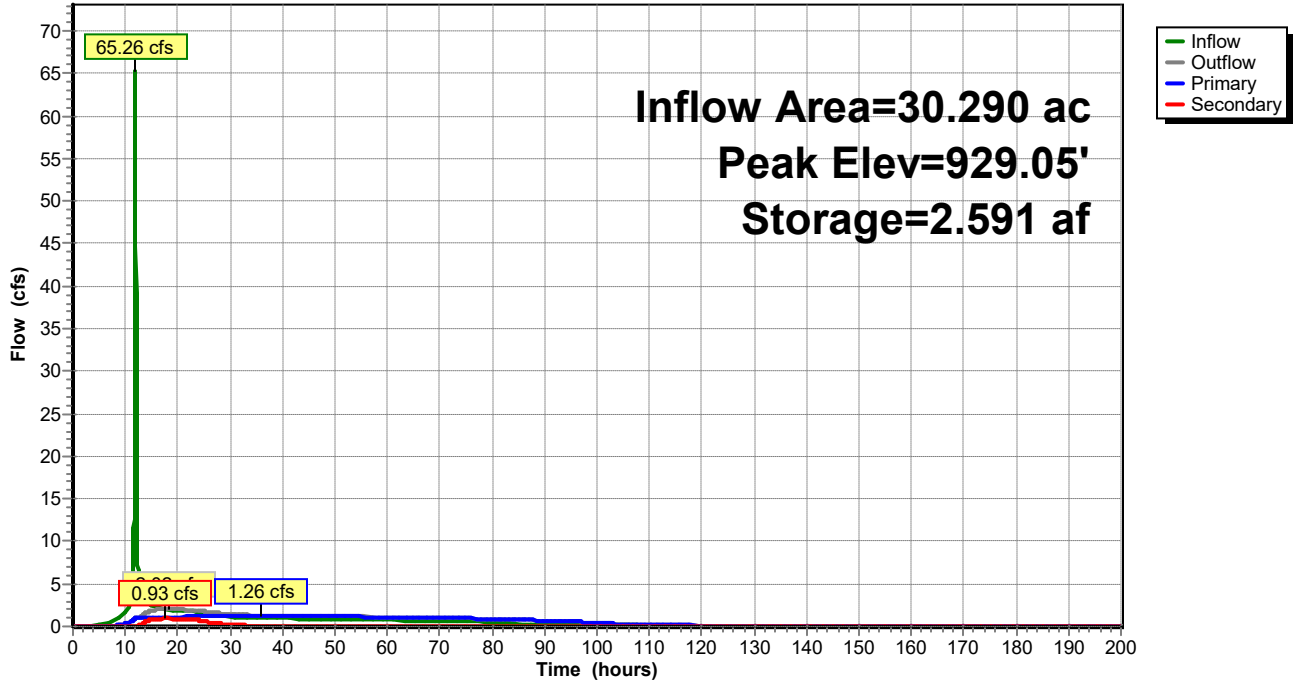
Device	Routing	Invert	Outlet Devices
#1	Primary	925.70'	6.0" Vert. Outlet to Basin 1 C= 0.600 Limited to weir flow at low heads
#2	Secondary	928.50'	12.0" Round Culvert L= 77.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 928.50' / 928.00' S= 0.0065 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.26 cfs @ 35.92 hrs HW=928.59' TW=926.81' (Dynamic Tailwater)
 ↑1=Outlet to Basin 1 (Orifice Controls 1.26 cfs @ 6.42 fps)

Secondary OutFlow Max=0.93 cfs @ 17.75 hrs HW=929.05' TW=0.00' (Dynamic Tailwater)
 ↑2=Culvert (Barrel Controls 0.93 cfs @ 3.06 fps)

Pond 63P: Basin 2

Hydrograph



Summary for Subcatchment 7S: Pre-Developed to Cosgray Ditch

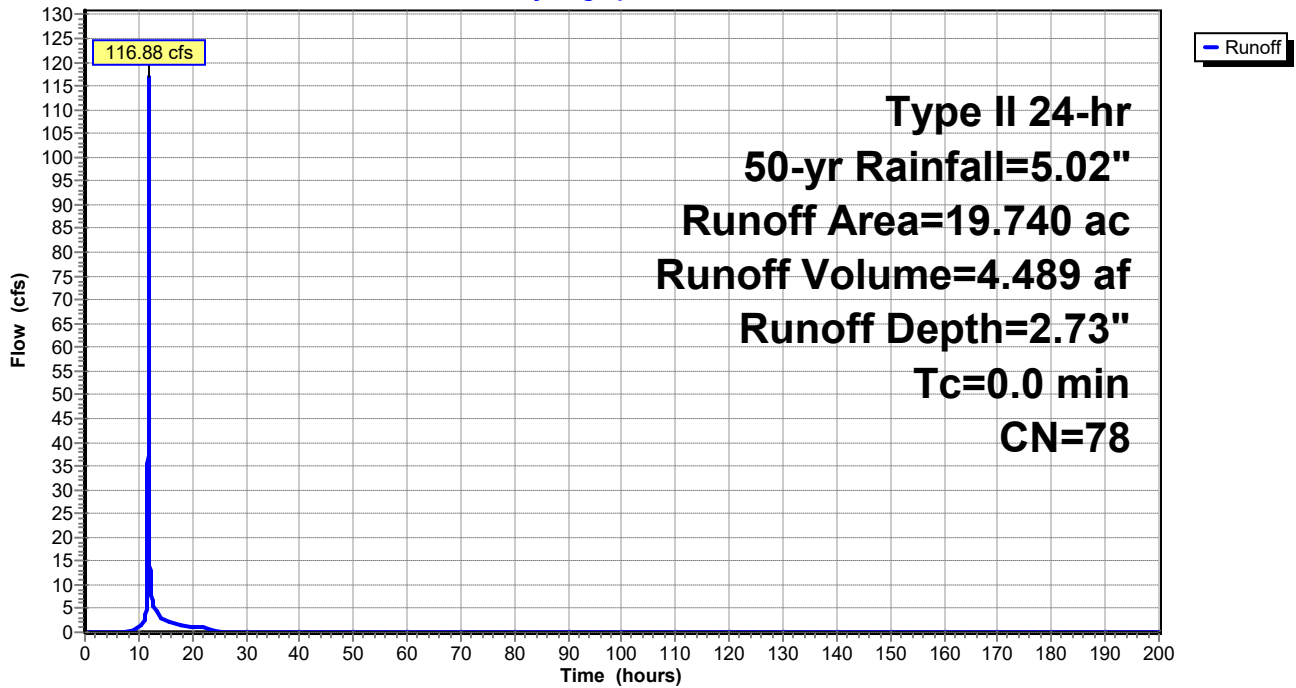
Runoff = 116.88 cfs @ 11.90 hrs, Volume= 4.489 af, Depth= 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-yr Rainfall=5.02"

Area (ac)	CN	Description
19.740	78	Row crops, C&T, Good, HSG C
19.740		100.00% Pervious Area

Subcatchment 7S: Pre-Developed to Cosgray Ditch

Hydrograph



Summary for Subcatchment 8S: Pre-Developed to Indian Run

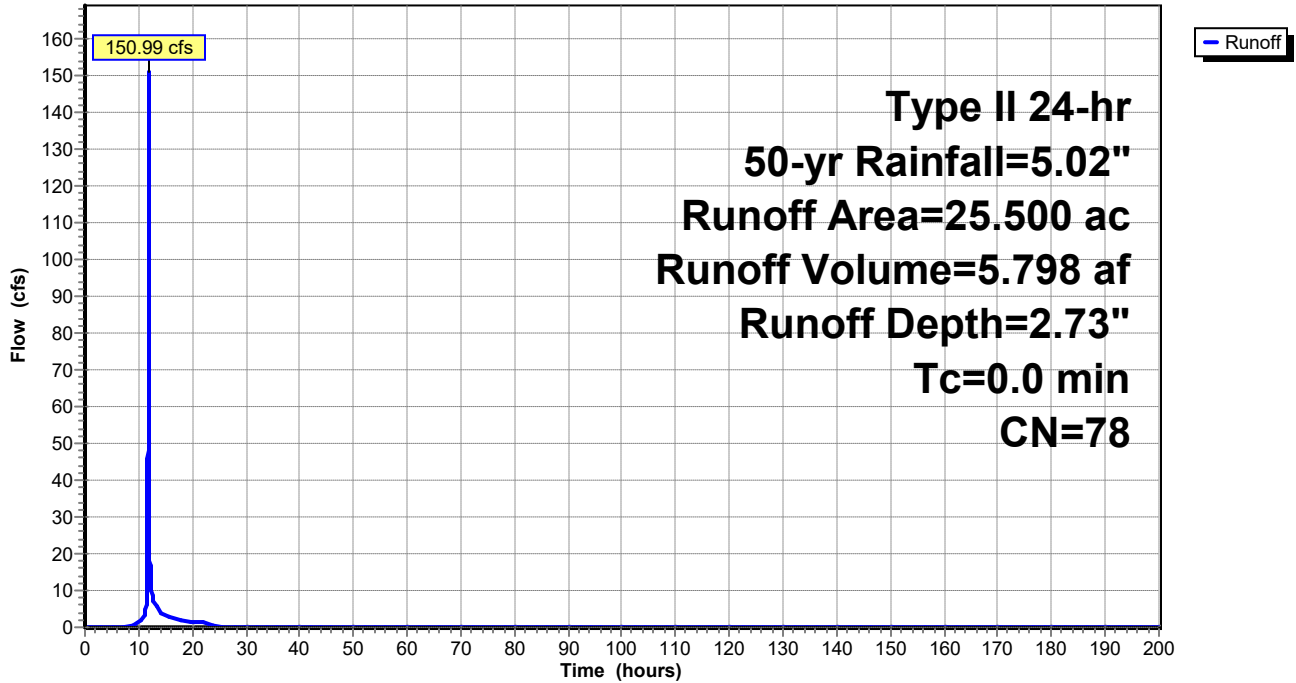
Runoff = 150.99 cfs @ 11.90 hrs, Volume= 5.798 af, Depth= 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-yr Rainfall=5.02"

Area (ac)	CN	Description
25.500	78	Row crops, C&T, Good, HSG C
25.500		100.00% Pervious Area

Subcatchment 8S: Pre-Developed to Indian Run

Hydrograph



Summary for Subcatchment 26S: Subarea 2

Runoff = 72.99 cfs @ 11.96 hrs, Volume= 3.609 af, Depth= 4.11"

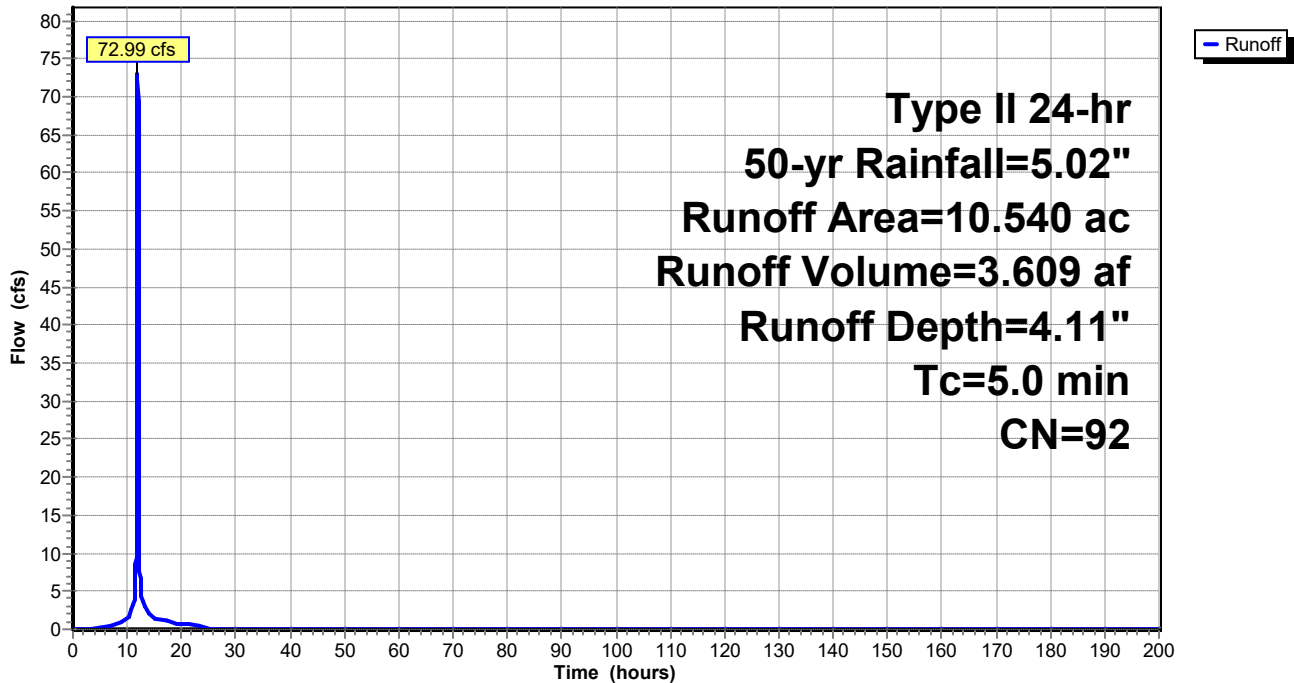
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 50-yr Rainfall=5.02"

Area (ac)	CN	Description
7.285	98	Paved parking, HSG C
2.635	74	>75% Grass cover, Good, HSG C
0.620	98	Water Surface, HSG C
10.540	92	Weighted Average
2.635		25.00% Pervious Area
7.905		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 26S: Subarea 2

Hydrograph



Summary for Subcatchment 28S: Subarea 3

Runoff = 42.80 cfs @ 11.96 hrs, Volume= 2.116 af, Depth= 4.11"

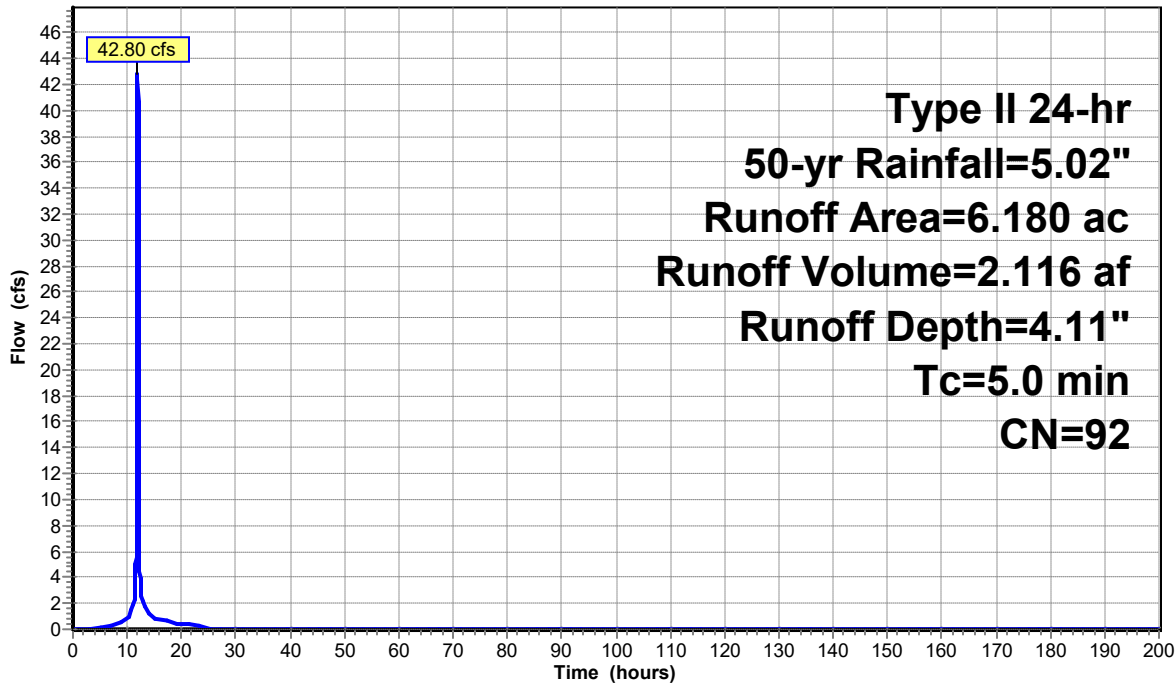
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-yr Rainfall=5.02"

Area (ac)	CN	Description
4.175	98	Paved parking, HSG C
1.545	74	>75% Grass cover, Good, HSG C
0.460	98	Water Surface, HSG C
6.180	92	Weighted Average
1.545		25.00% Pervious Area
4.635		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 28S: Subarea 3

Hydrograph



Summary for Subcatchment 33S: Subarea 1

Runoff = 103.59 cfs @ 11.96 hrs, Volume= 5.122 af, Depth= 4.11"

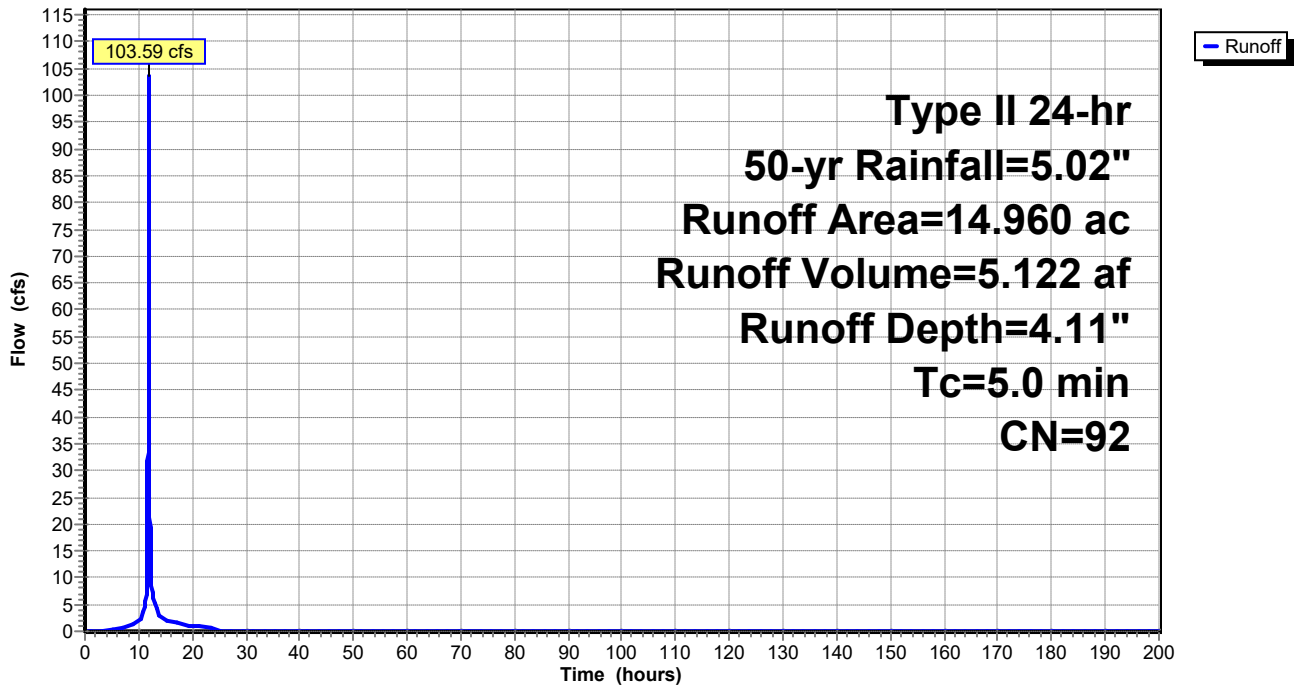
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 50-yr Rainfall=5.02"

Area (ac)	CN	Description
10.210	98	Paved parking, HSG C
3.740	74	>75% Grass cover, Good, HSG C
1.010	98	Water Surface, HSG C
14.960	92	Weighted Average
3.740		25.00% Pervious Area
11.220		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 33S: Subarea 1

Hydrograph



Summary for Subcatchment 36S: Offsite 10.1

Runoff = 87.70 cfs @ 11.99 hrs, Volume= 4.894 af, Depth= 4.33"

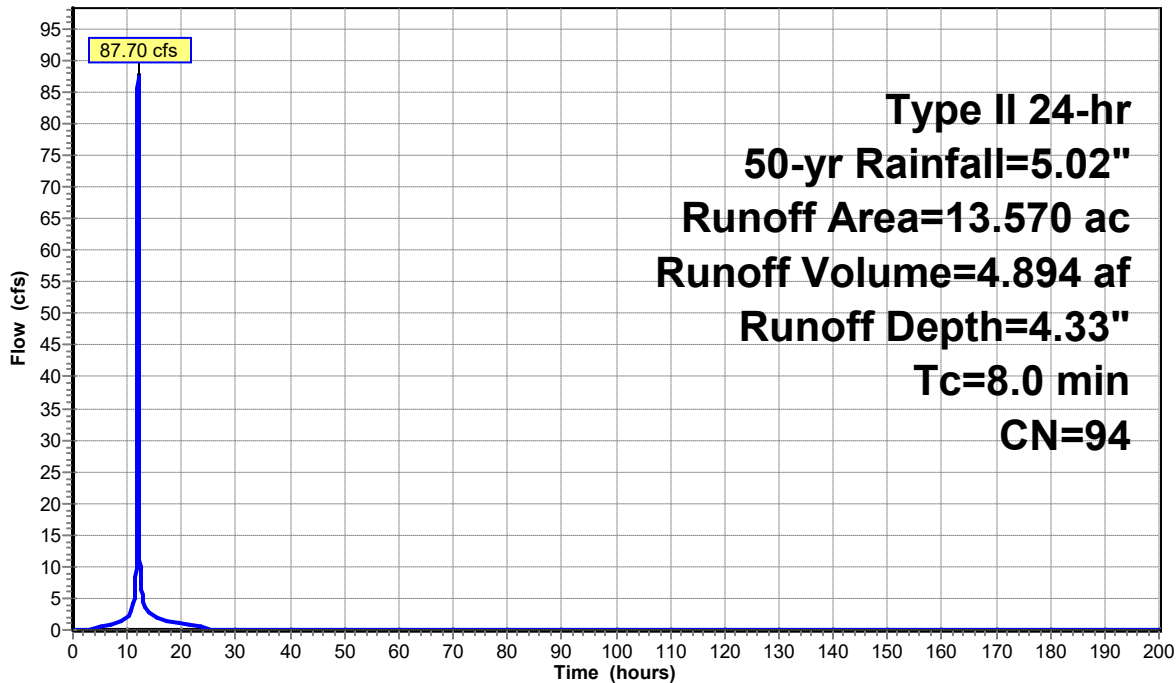
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 50-yr Rainfall=5.02"

Area (ac)	CN	Description
13.570	94	Urban commercial, 85% imp, HSG C
2.036		15.00% Pervious Area
11.534		85.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0					Direct Entry,

Subcatchment 36S: Offsite 10.1

Hydrograph



Summary for Pond 30P: Basin 1

Inflow Area = 45.250 ac, 78.00% Impervious, Inflow Depth > 3.66" for 50-yr event
 Inflow = 104.55 cfs @ 11.96 hrs, Volume= 13.816 af
 Outflow = 3.08 cfs @ 15.32 hrs, Volume= 13.730 af, Atten= 97%, Lag= 201.8 min
 Primary = 3.08 cfs @ 15.32 hrs, Volume= 13.730 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 928.14' @ 15.32 hrs Surf.Area= 1.368 ac Storage= 3.720 af

Plug-Flow detention time= 881.1 min calculated for 13.730 af (99% of inflow)
 Center-of-Mass det. time= 832.4 min (3,345.7 - 2,513.4)

Volume	Invert	Avail.Storage	Storage Description
#1	925.00'	5.717 af	Basin 1 Storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.00	1.010	0.000	0.000
926.00	1.120	1.065	1.065
927.00	1.230	1.175	2.240
928.00	1.350	1.290	3.530
929.00	1.480	1.415	4.945
929.50	1.610	0.773	5.717

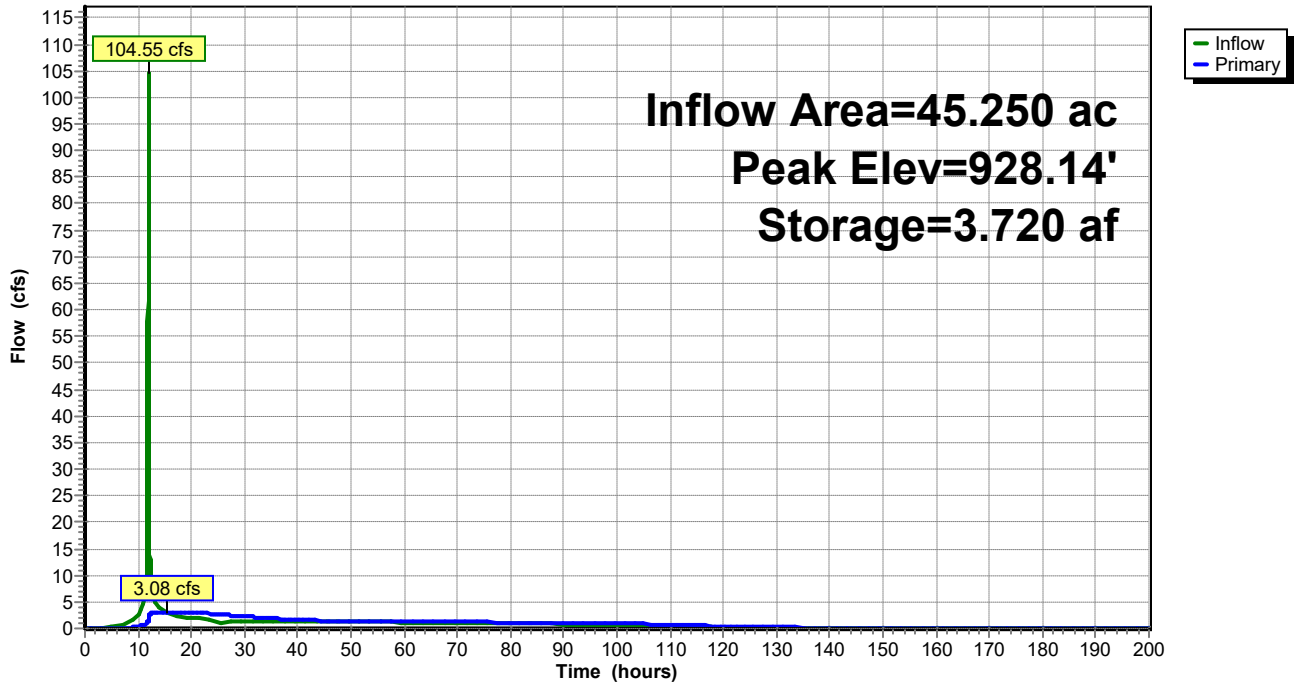
Device	Routing	Invert	Outlet Devices
#1	Primary	925.00'	6.5" Vert. WQ Orifice C= 0.600 Limited to weir flow at low heads
#2	Primary	926.50'	6.0" W x 5.0" H Vert. Window C= 0.600 Limited to weir flow at low heads
#3	Primary	928.50'	3.0' long x 0.5' breadth Broad-Crested Rectangular Weir X 2.00 Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=3.08 cfs @ 15.32 hrs HW=928.14' TW=0.00' (Dynamic Tailwater)

- 1=WQ Orifice (Orifice Controls 1.88 cfs @ 8.16 fps)
- 2=Window (Orifice Controls 1.20 cfs @ 5.76 fps)
- 3=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 30P: Basin 1

Hydrograph



Summary for Pond 31P: Basin 3

Inflow Area = 19.750 ac, 81.87% Impervious, Inflow Depth > 4.22" for 50-yr event
 Inflow = 43.40 cfs @ 11.96 hrs, Volume= 6.953 af
 Outflow = 1.70 cfs @ 11.82 hrs, Volume= 6.939 af, Atten= 96%, Lag= 0.0 min
 Primary = 1.70 cfs @ 11.82 hrs, Volume= 6.939 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 929.72' @ 18.66 hrs Surf.Area= 0.744 ac Storage= 1.599 af

Plug-Flow detention time= 589.5 min calculated for 6.938 af (100% of inflow)
 Center-of-Mass det. time= 571.4 min (2,990.8 - 2,419.3)

Volume	Invert	Avail.Storage	Storage Description
#1	927.00'	2.710 af	Basin 3 Storage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
927.00	0.460	0.000	0.000
928.00	0.540	0.500	0.500
929.00	0.650	0.595	1.095
930.00	0.780	0.715	1.810
931.00	1.020	0.900	2.710

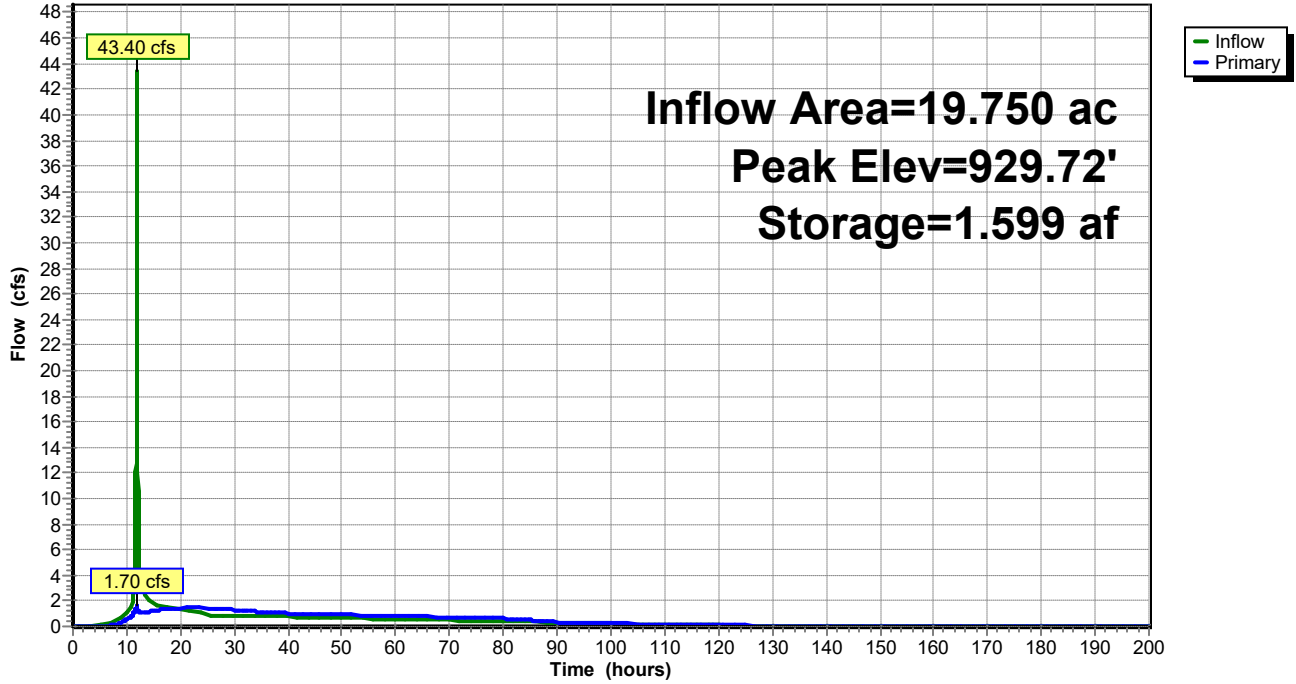
Device	Routing	Invert	Outlet Devices
#1	Primary	927.00'	5.0" Vert. Outlet to Basin 2 X 3.00 C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.65 cfs @ 11.82 hrs HW=927.97' TW=927.27' (Dynamic Tailwater)

↑1=Outlet to Basin 2 (Orifice Controls 1.65 cfs @ 4.03 fps)

Pond 31P: Basin 3

Hydrograph



Summary for Pond 37P: Dummy Basin 10.1

Inflow Area = 13.570 ac, 85.00% Impervious, Inflow Depth = 4.33" for 50-yr event
 Inflow = 87.70 cfs @ 11.99 hrs, Volume= 4.894 af
 Outflow = 0.90 cfs @ 20.01 hrs, Volume= 4.837 af, Atten= 99%, Lag= 481.5 min
 Primary = 0.90 cfs @ 20.01 hrs, Volume= 4.837 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 932.98' @ 20.01 hrs Surf.Area= 2.000 ac Storage= 3.954 af

Plug-Flow detention time= 2,372.8 min calculated for 4.836 af (99% of inflow)
 Center-of-Mass det. time= 2,365.6 min (3,137.3 - 771.7)

Volume	Invert	Avail.Storage	Storage Description
#1	931.00'	8.000 af	Dummy Basin (Prismatic) Listed below (Recalc)

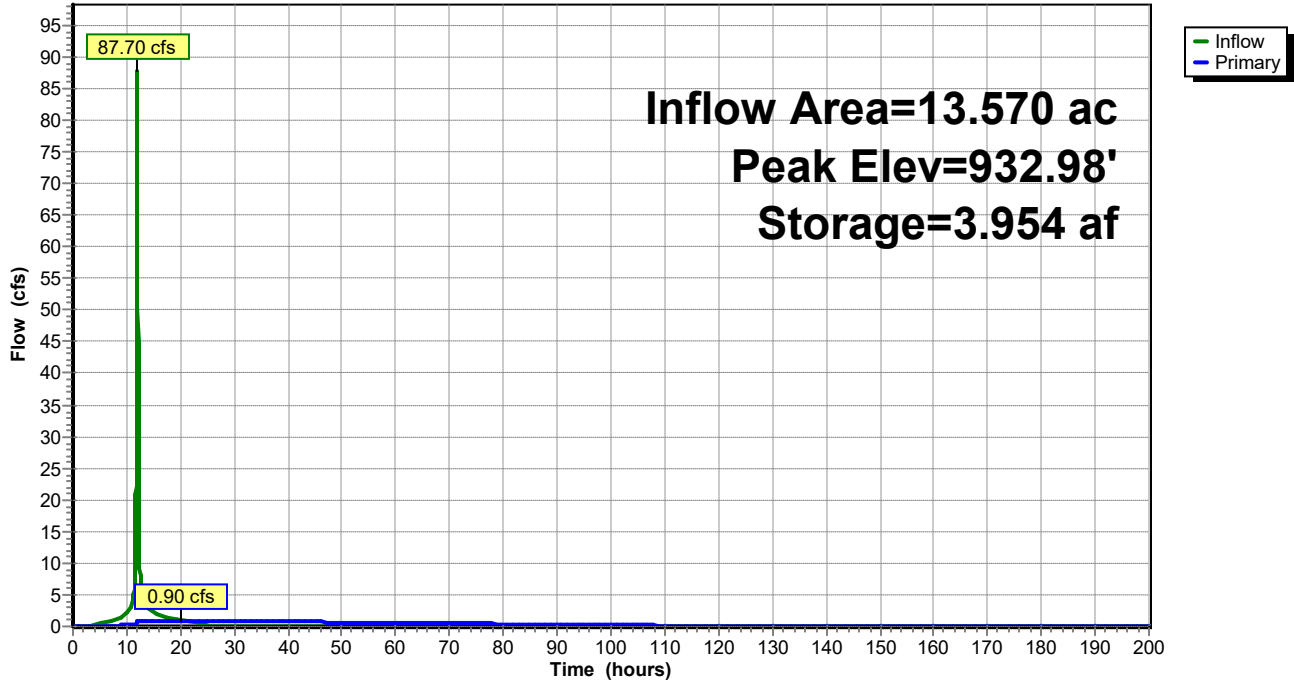
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
931.00	2.000	0.000	0.000
935.00	2.000	8.000	8.000

Device	Routing	Invert	Outlet Devices
#1	Primary	931.00'	2.5" Vert. WQ Orifice X 4.00 C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.90 cfs @ 20.01 hrs HW=932.98' TW=929.71' (Dynamic Tailwater)
 ↑1=WQ Orifice (Orifice Controls 0.90 cfs @ 6.59 fps)

Pond 37P: Dummy Basin 10.1

Hydrograph



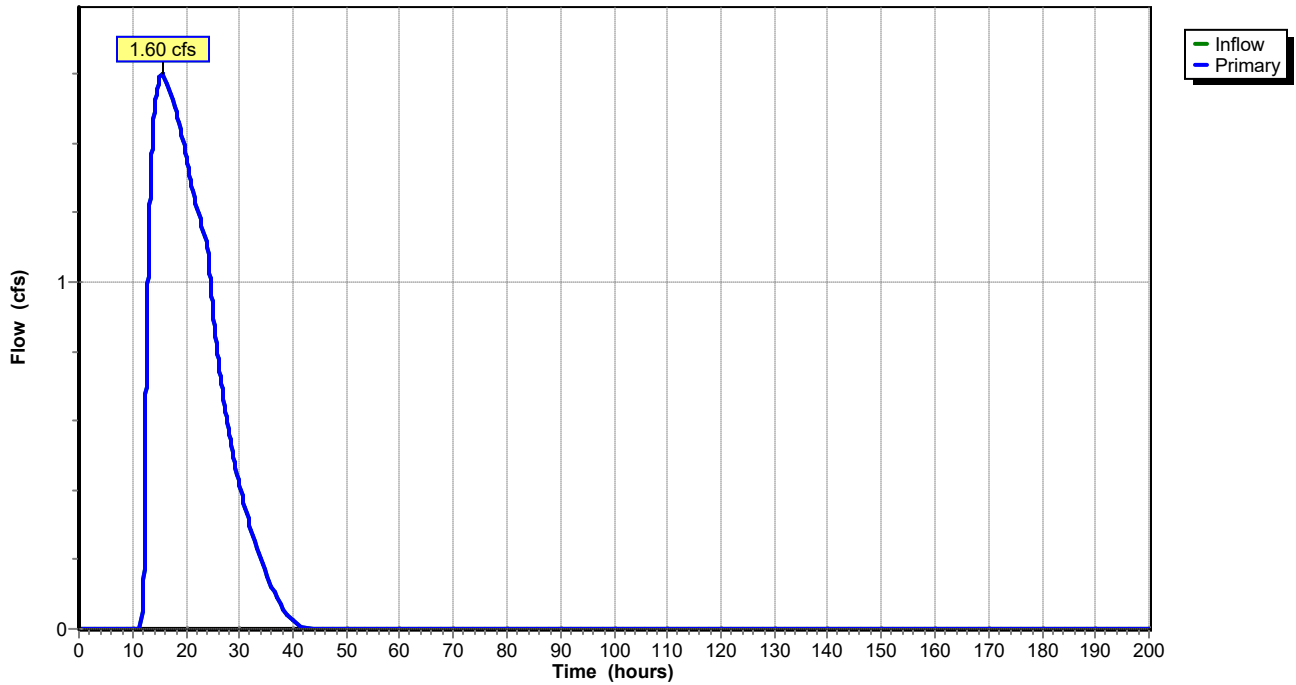
Summary for Pond 45P: US-33 (Indian Run)

Inflow = 1.60 cfs @ 15.64 hrs, Volume= 1.814 af
Primary = 1.60 cfs @ 15.64 hrs, Volume= 1.814 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs

Pond 45P: US-33 (Indian Run)

Hydrograph



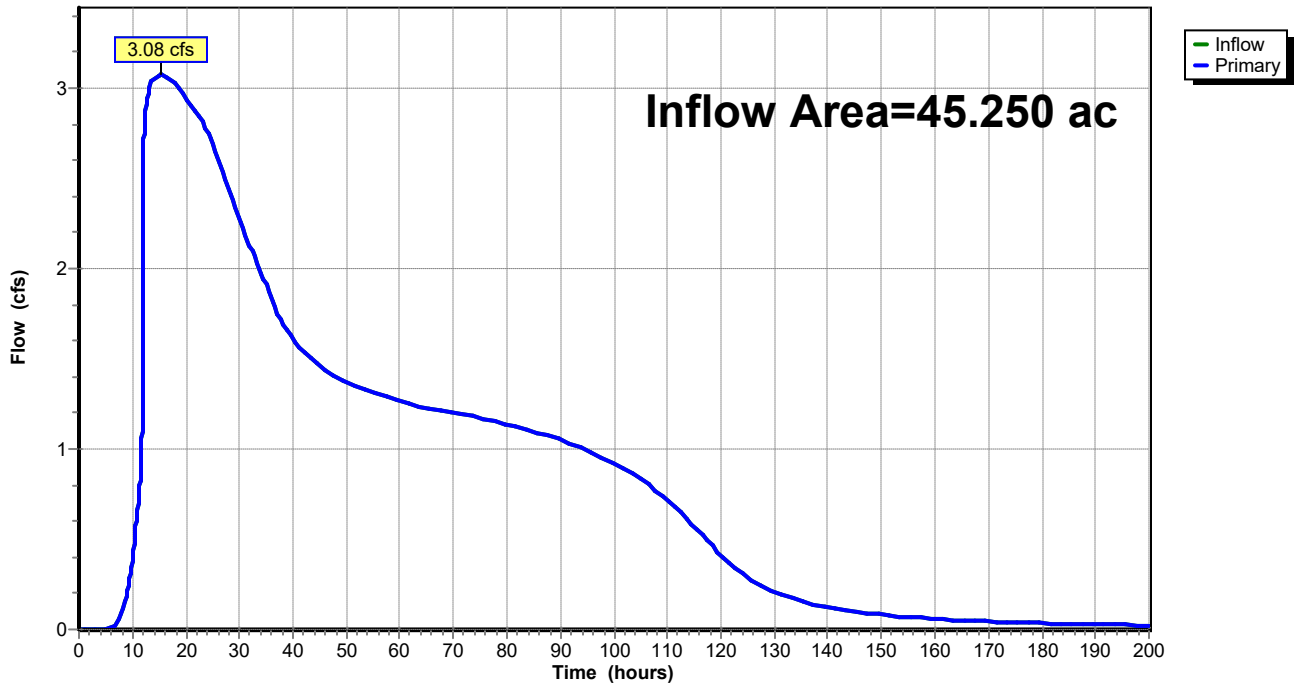
Summary for Pond 46P: University Blvd (Cosgray Ditch)

Inflow Area = 45.250 ac, 78.00% Impervious, Inflow Depth > 3.64" for 50-yr event
Inflow = 3.08 cfs @ 15.32 hrs, Volume= 13.730 af
Primary = 3.08 cfs @ 15.32 hrs, Volume= 13.730 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs

Pond 46P: University Blvd (Cosgray Ditch)

Hydrograph



Summary for Pond 63P: Basin 2

Inflow Area = 30.290 ac, 79.48% Impervious, Inflow Depth > 4.18" for 50-yr event
 Inflow = 74.52 cfs @ 11.96 hrs, Volume= 10.547 af
 Outflow = 2.61 cfs @ 15.69 hrs, Volume= 10.508 af, Atten= 97%, Lag= 223.7 min
 Primary = 1.27 cfs @ 39.23 hrs, Volume= 8.693 af
 Secondary = 1.60 cfs @ 15.64 hrs, Volume= 1.814 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 929.26' @ 15.64 hrs Surf.Area= 0.948 ac Storage= 2.788 af

Plug-Flow detention time= 940.0 min calculated for 10.507 af (100% of inflow)
 Center-of-Mass det. time= 908.1 min (3,141.8 - 2,233.7)

Volume	Invert	Avail.Storage	Storage Description
#1	925.70'	3.520 af	Basin 2 Storage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.70	0.620	0.000	0.000
926.00	0.650	0.190	0.190
927.00	0.740	0.695	0.885
928.00	0.830	0.785	1.670
929.00	0.920	0.875	2.545
930.00	1.030	0.975	3.520

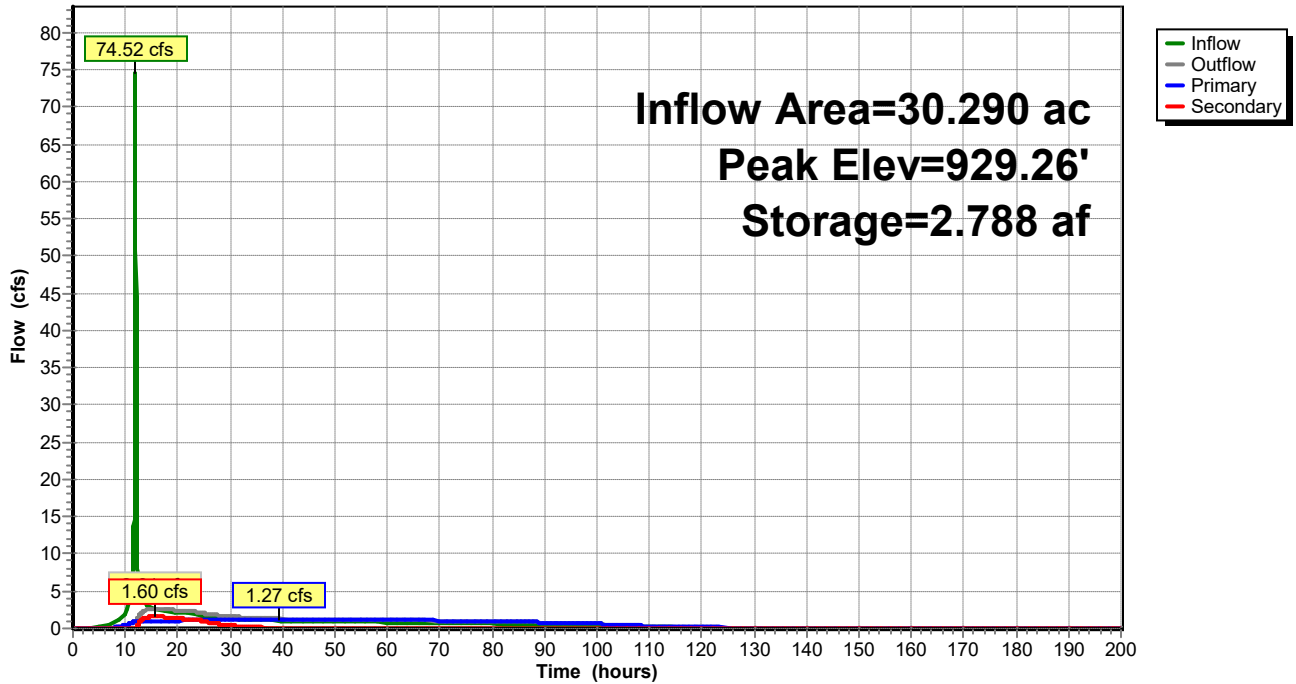
Device	Routing	Invert	Outlet Devices
#1	Primary	925.70'	6.0" Vert. Outlet to Basin 1 C= 0.600 Limited to weir flow at low heads
#2	Secondary	928.50'	12.0" Round Culvert L= 77.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 928.50' / 928.00' S= 0.0065 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.27 cfs @ 39.23 hrs HW=928.61' TW=926.80' (Dynamic Tailwater)
 ↑1=Outlet to Basin 1 (Orifice Controls 1.27 cfs @ 6.47 fps)

Secondary OutFlow Max=1.60 cfs @ 15.64 hrs HW=929.26' TW=0.00' (Dynamic Tailwater)
 ↑2=Culvert (Barrel Controls 1.60 cfs @ 3.47 fps)

Pond 63P: Basin 2

Hydrograph



Summary for Subcatchment 7S: Pre-Developed to Cosgray Ditch

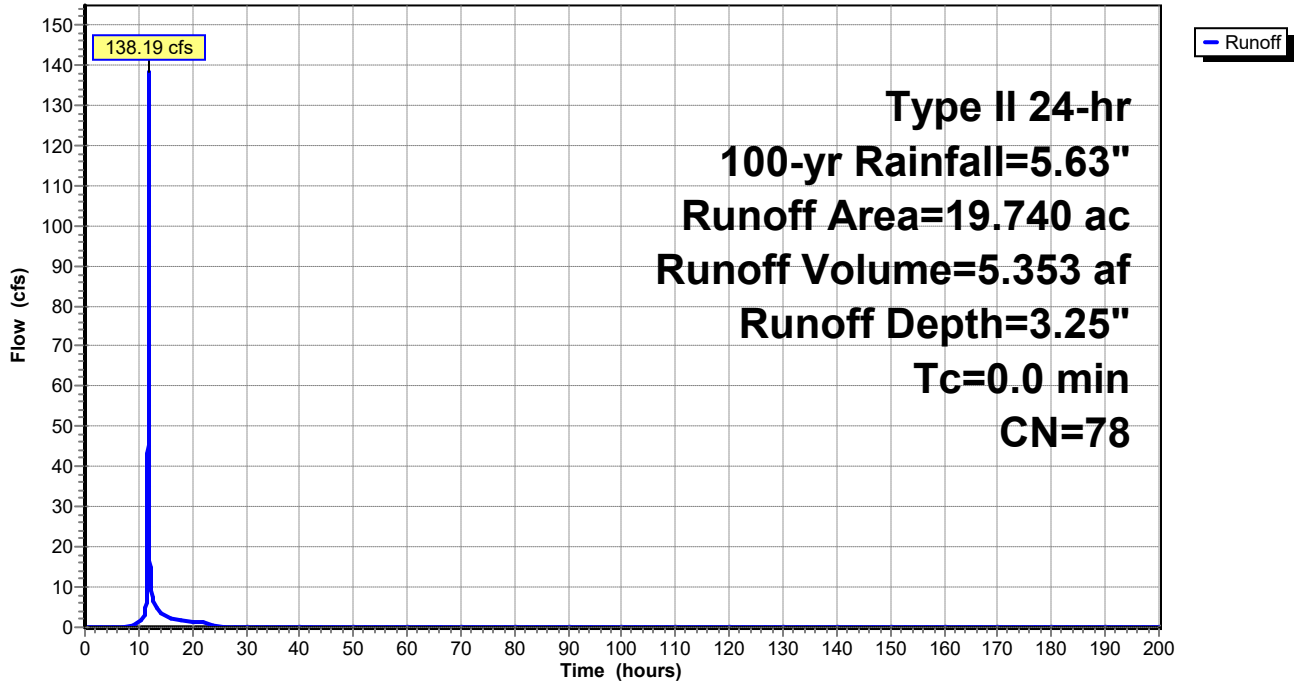
Runoff = 138.19 cfs @ 11.90 hrs, Volume= 5.353 af, Depth= 3.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-yr Rainfall=5.63"

Area (ac)	CN	Description
19.740	78	Row crops, C&T, Good, HSG C
19.740		100.00% Pervious Area

Subcatchment 7S: Pre-Developed to Cosgray Ditch

Hydrograph



Summary for Subcatchment 8S: Pre-Developed to Indian Run

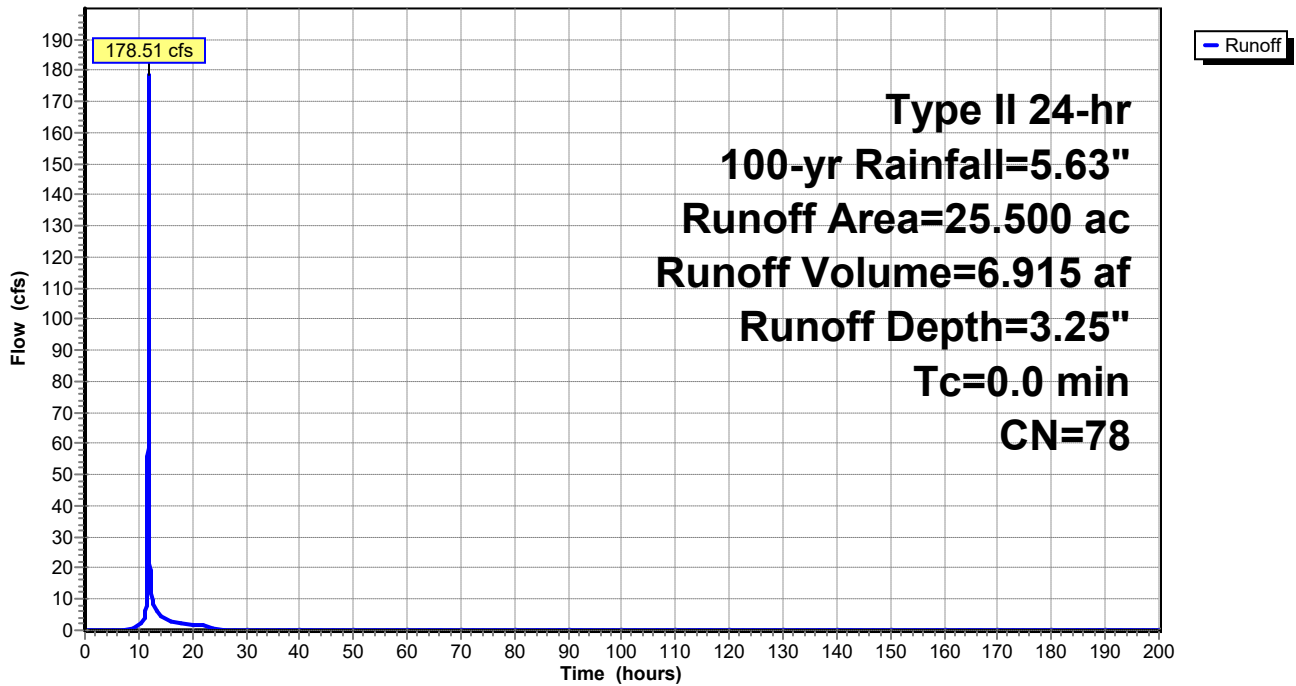
Runoff = 178.51 cfs @ 11.90 hrs, Volume= 6.915 af, Depth= 3.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-yr Rainfall=5.63"

Area (ac)	CN	Description
25.500	78	Row crops, C&T, Good, HSG C
25.500		100.00% Pervious Area

Subcatchment 8S: Pre-Developed to Indian Run

Hydrograph



Summary for Subcatchment 26S: Subarea 2

Runoff = 82.82 cfs @ 11.96 hrs, Volume= 4.133 af, Depth= 4.71"

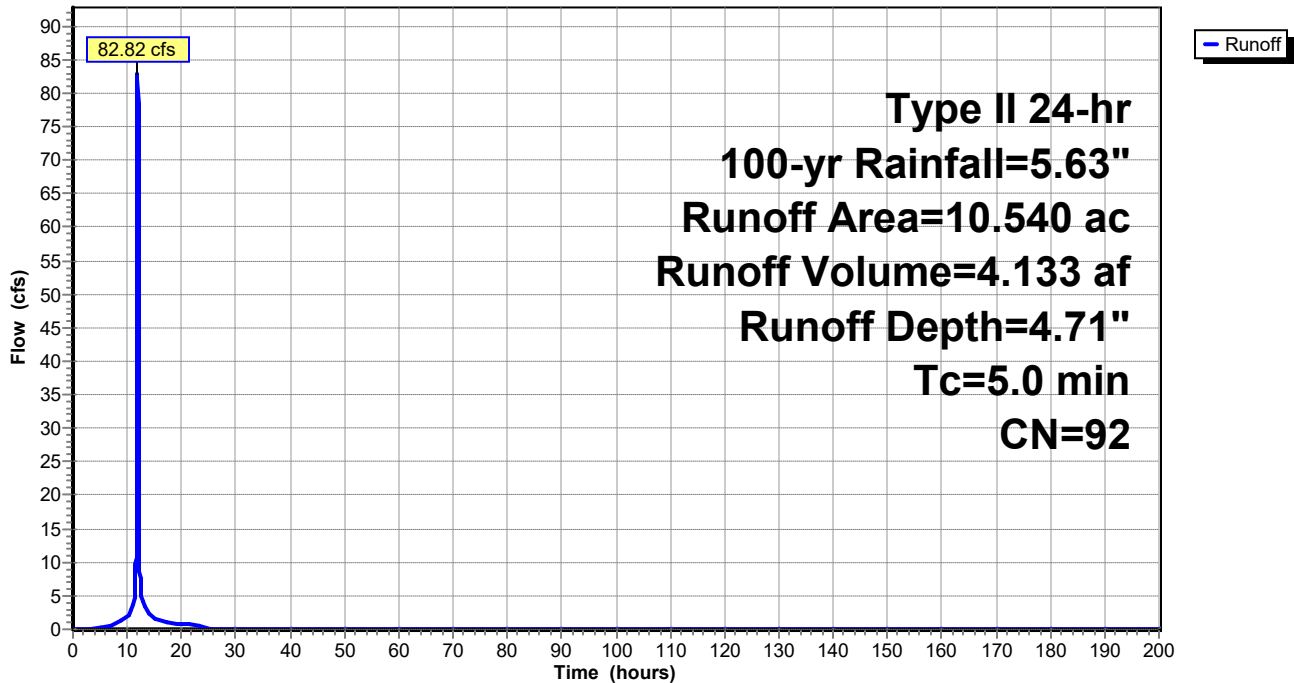
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-yr Rainfall=5.63"

Area (ac)	CN	Description
7.285	98	Paved parking, HSG C
2.635	74	>75% Grass cover, Good, HSG C
0.620	98	Water Surface, HSG C
10.540	92	Weighted Average
2.635		25.00% Pervious Area
7.905		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 26S: Subarea 2

Hydrograph



Summary for Subcatchment 28S: Subarea 3

Runoff = 48.56 cfs @ 11.96 hrs, Volume= 2.424 af, Depth= 4.71"

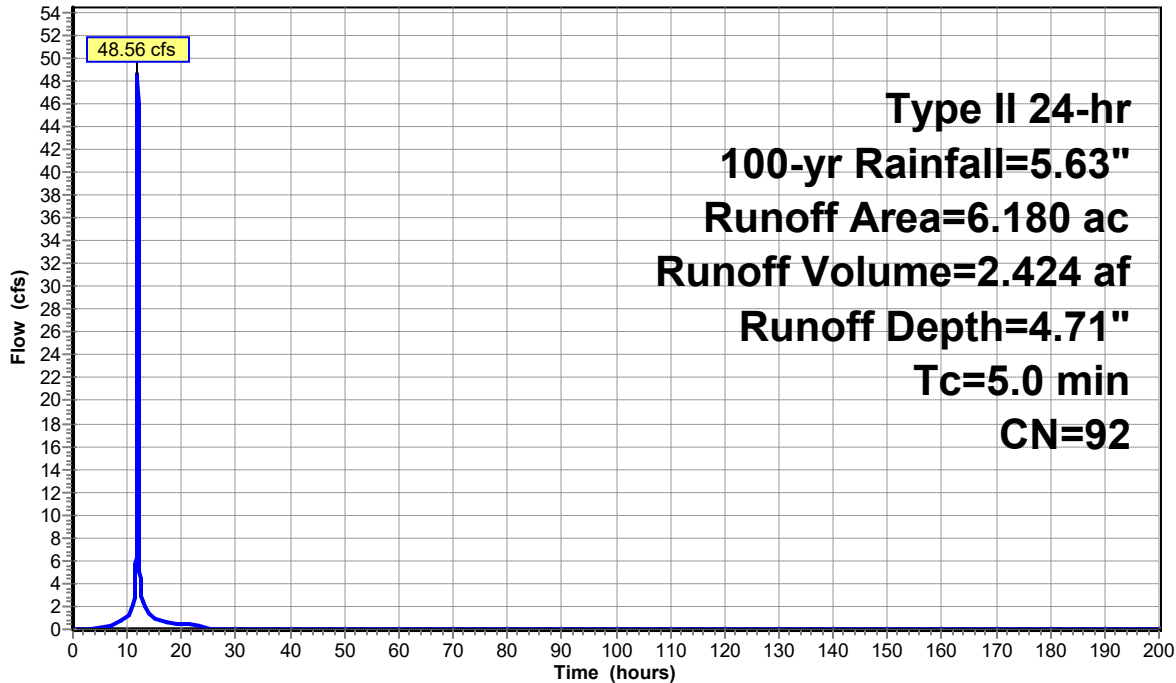
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-yr Rainfall=5.63"

Area (ac)	CN	Description
4.175	98	Paved parking, HSG C
1.545	74	>75% Grass cover, Good, HSG C
0.460	98	Water Surface, HSG C
6.180	92	Weighted Average
1.545		25.00% Pervious Area
4.635		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 28S: Subarea 3

Hydrograph



Summary for Subcatchment 33S: Subarea 1

Runoff = 117.56 cfs @ 11.96 hrs, Volume= 5.867 af, Depth= 4.71"

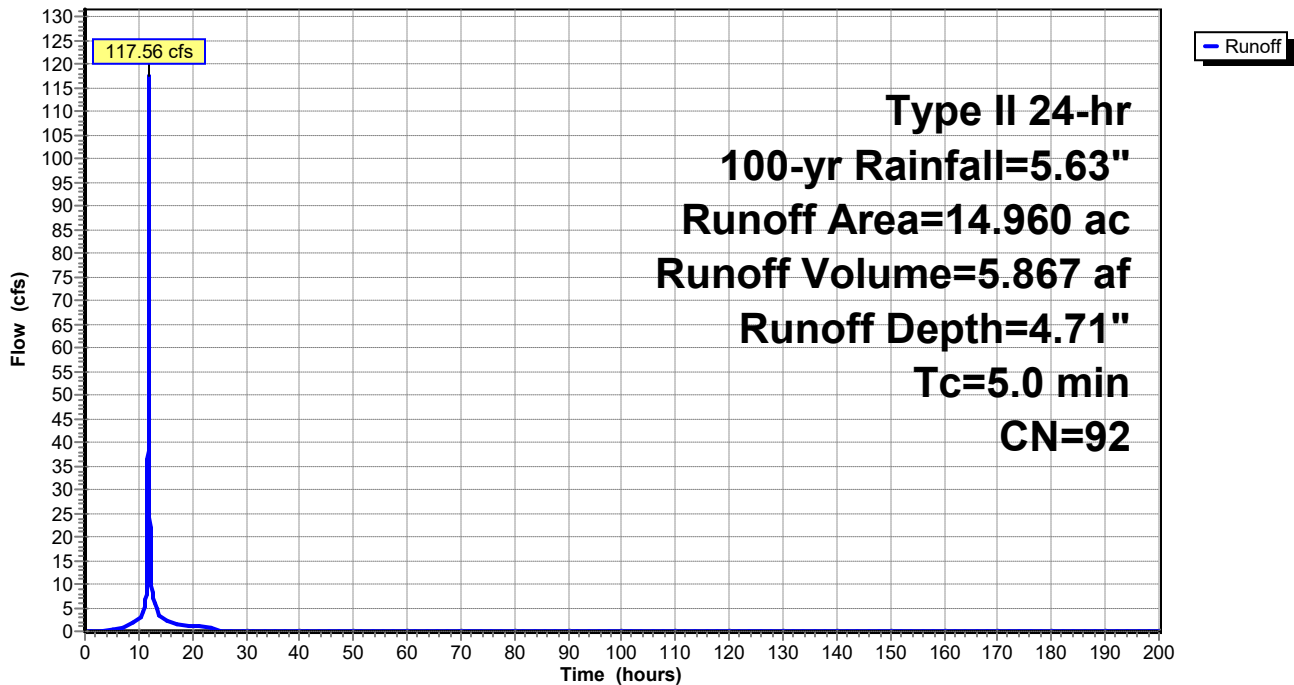
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-yr Rainfall=5.63"

Area (ac)	CN	Description
10.210	98	Paved parking, HSG C
3.740	74	>75% Grass cover, Good, HSG C
1.010	98	Water Surface, HSG C
14.960	92	Weighted Average
3.740		25.00% Pervious Area
11.220		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 33S: Subarea 1

Hydrograph



Summary for Subcatchment 36S: Offsite 10.1

Runoff = 99.11 cfs @ 11.99 hrs, Volume= 5.575 af, Depth= 4.93"

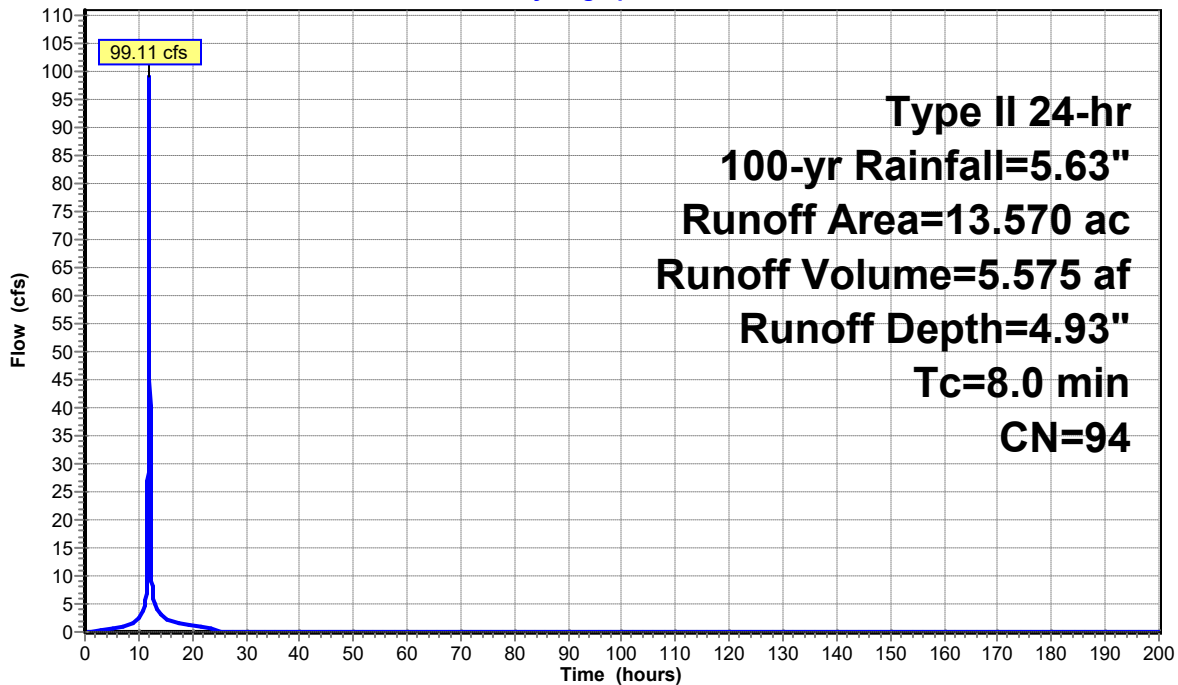
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-yr Rainfall=5.63"

Area (ac)	CN	Description
13.570	94	Urban commercial, 85% imp, HSG C
2.036		15.00% Pervious Area
11.534		85.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0					Direct Entry,

Subcatchment 36S: Offsite 10.1

Hydrograph



Summary for Pond 30P: Basin 1

Inflow Area = 45.250 ac, 78.00% Impervious, Inflow Depth > 4.01" for 100-yr event
 Inflow = 118.53 cfs @ 11.96 hrs, Volume= 15.139 af
 Outflow = 3.42 cfs @ 15.07 hrs, Volume= 15.046 af, Atten= 97%, Lag= 186.6 min
 Primary = 3.42 cfs @ 15.07 hrs, Volume= 15.046 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 928.52' @ 15.07 hrs Surf.Area= 1.418 ac Storage= 4.257 af

Plug-Flow detention time= 886.4 min calculated for 15.046 af (99% of inflow)
 Center-of-Mass det. time= 838.1 min (3,421.4 - 2,583.3)

Volume	Invert	Avail.Storage	Storage Description
#1	925.00'	5.717 af	Basin 1 Storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.00	1.010	0.000	0.000
926.00	1.120	1.065	1.065
927.00	1.230	1.175	2.240
928.00	1.350	1.290	3.530
929.00	1.480	1.415	4.945
929.50	1.610	0.773	5.717

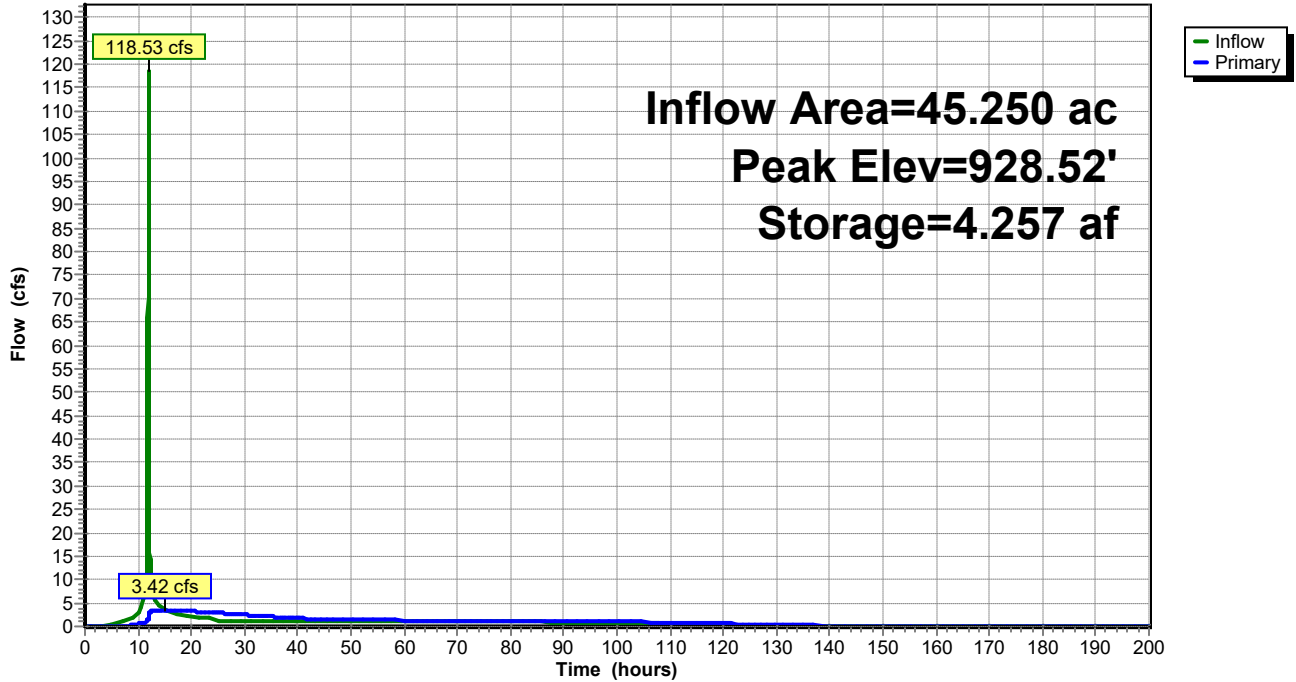
Device	Routing	Invert	Outlet Devices
#1	Primary	925.00'	6.5" Vert. WQ Orifice C= 0.600 Limited to weir flow at low heads
#2	Primary	926.50'	6.0" W x 5.0" H Vert. Window C= 0.600 Limited to weir flow at low heads
#3	Primary	928.50'	3.0' long x 0.5' breadth Broad-Crested Rectangular Weir X 2.00 Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=3.42 cfs @ 15.07 hrs HW=928.52' TW=0.00' (Dynamic Tailwater)

- 1=WQ Orifice (Orifice Controls 2.00 cfs @ 8.69 fps)
- 2=Window (Orifice Controls 1.35 cfs @ 6.49 fps)
- 3=Broad-Crested Rectangular Weir (Weir Controls 0.07 cfs @ 0.44 fps)

Pond 30P: Basin 1

Hydrograph



Summary for Pond 31P: Basin 3

Inflow Area = 19.750 ac, 81.87% Impervious, Inflow Depth > 4.82" for 100-yr event
 Inflow = 49.22 cfs @ 11.96 hrs, Volume= 7.937 af
 Outflow = 1.64 cfs @ 21.71 hrs, Volume= 7.922 af, Atten= 97%, Lag= 585.3 min
 Primary = 1.64 cfs @ 21.71 hrs, Volume= 7.922 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 930.04' @ 18.13 hrs Surf.Area= 0.789 ac Storage= 1.840 af

Plug-Flow detention time= 597.1 min calculated for 7.922 af (100% of inflow)
 Center-of-Mass det. time= 580.1 min (3,085.6 - 2,505.5)

Volume	Invert	Avail.Storage	Storage Description
#1	927.00'	2.710 af	Basin 3 Storage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
927.00	0.460	0.000	0.000
928.00	0.540	0.500	0.500
929.00	0.650	0.595	1.095
930.00	0.780	0.715	1.810
931.00	1.020	0.900	2.710

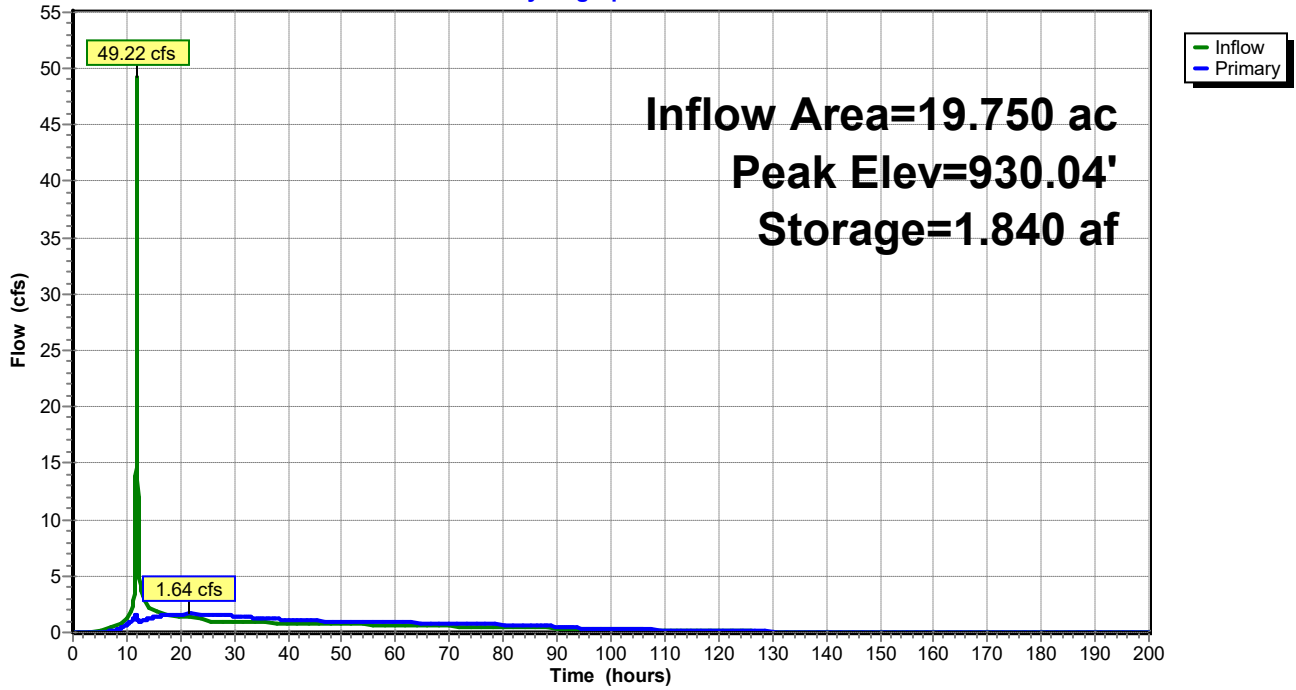
Device	Routing	Invert	Outlet Devices
#1	Primary	927.00'	5.0" Vert. Outlet to Basin 2 X 3.00 C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.64 cfs @ 21.71 hrs HW=929.97' TW=929.28' (Dynamic Tailwater)

↑1=Outlet to Basin 2 (Orifice Controls 1.64 cfs @ 4.01 fps)

Pond 31P: Basin 3

Hydrograph



Summary for Pond 37P: Dummy Basin 10.1

Inflow Area = 13.570 ac, 85.00% Impervious, Inflow Depth = 4.93" for 100-yr event
 Inflow = 99.11 cfs @ 11.99 hrs, Volume= 5.575 af
 Outflow = 0.97 cfs @ 20.74 hrs, Volume= 5.514 af, Atten= 99%, Lag= 525.0 min
 Primary = 0.97 cfs @ 20.74 hrs, Volume= 5.514 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 933.27' @ 20.74 hrs Surf.Area= 2.000 ac Storage= 4.542 af

Plug-Flow detention time= 2,504.7 min calculated for 5.513 af (99% of inflow)
 Center-of-Mass det. time= 2,497.8 min (3,266.2 - 768.5)

Volume	Invert	Avail.Storage	Storage Description
#1	931.00'	8.000 af	Dummy Basin (Prismatic) Listed below (Recalc)

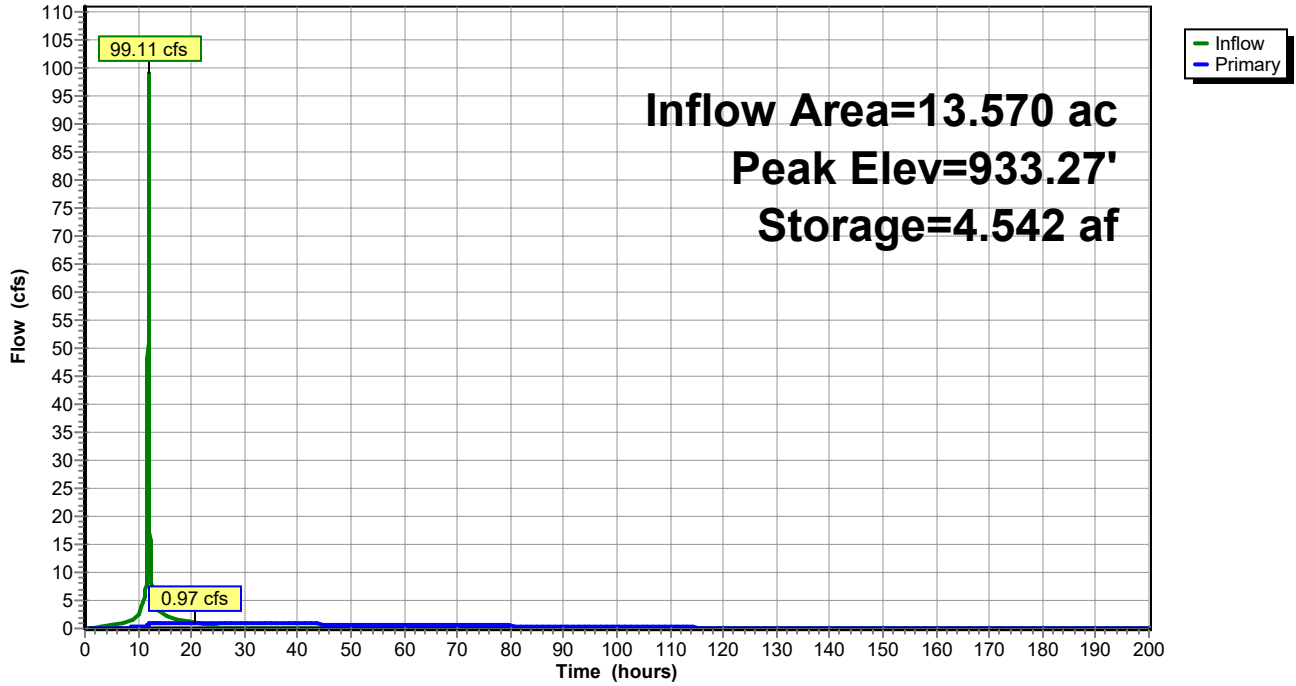
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
931.00	2.000	0.000	0.000
935.00	2.000	8.000	8.000

Device	Routing	Invert	Outlet Devices
#1	Primary	931.00'	2.5" Vert. WQ Orifice X 4.00 C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.97 cfs @ 20.74 hrs HW=933.27' TW=930.00' (Dynamic Tailwater)
 ↑1=WQ Orifice (Orifice Controls 0.97 cfs @ 7.09 fps)

Pond 37P: Dummy Basin 10.1

Hydrograph



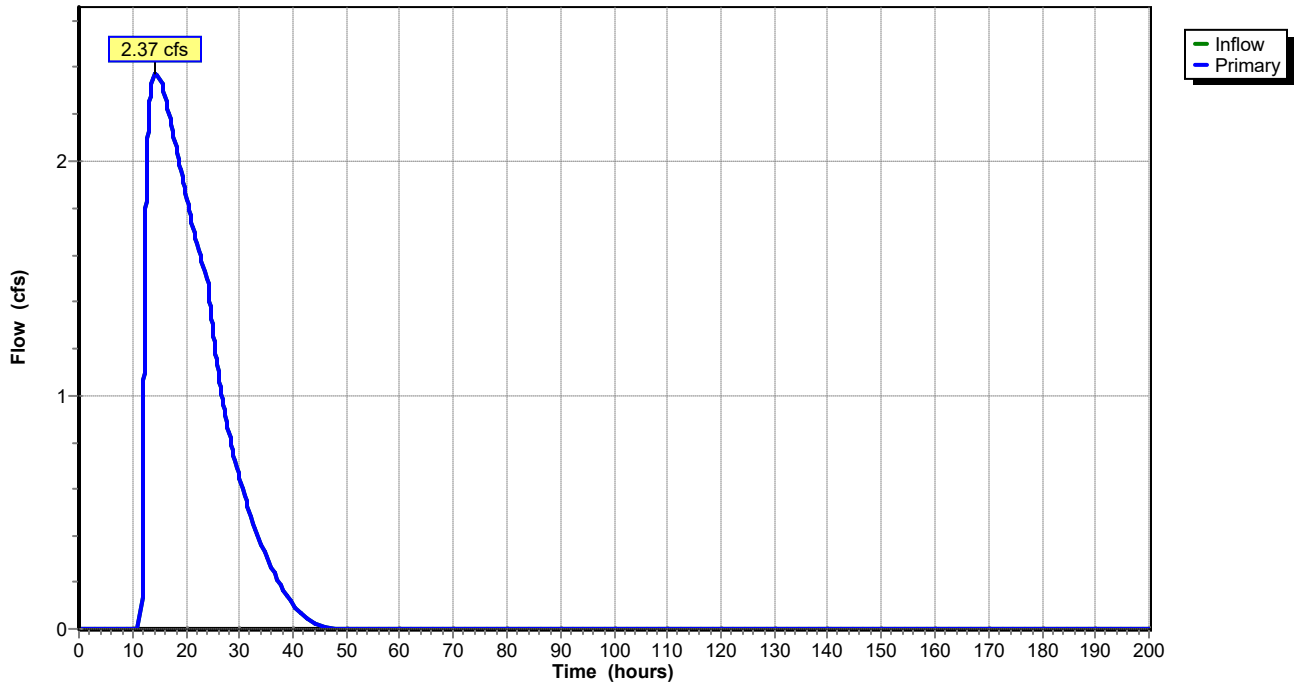
Summary for Pond 45P: US-33 (Indian Run)

Inflow = 2.37 cfs @ 14.32 hrs, Volume= 2.740 af
Primary = 2.37 cfs @ 14.32 hrs, Volume= 2.740 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs

Pond 45P: US-33 (Indian Run)

Hydrograph



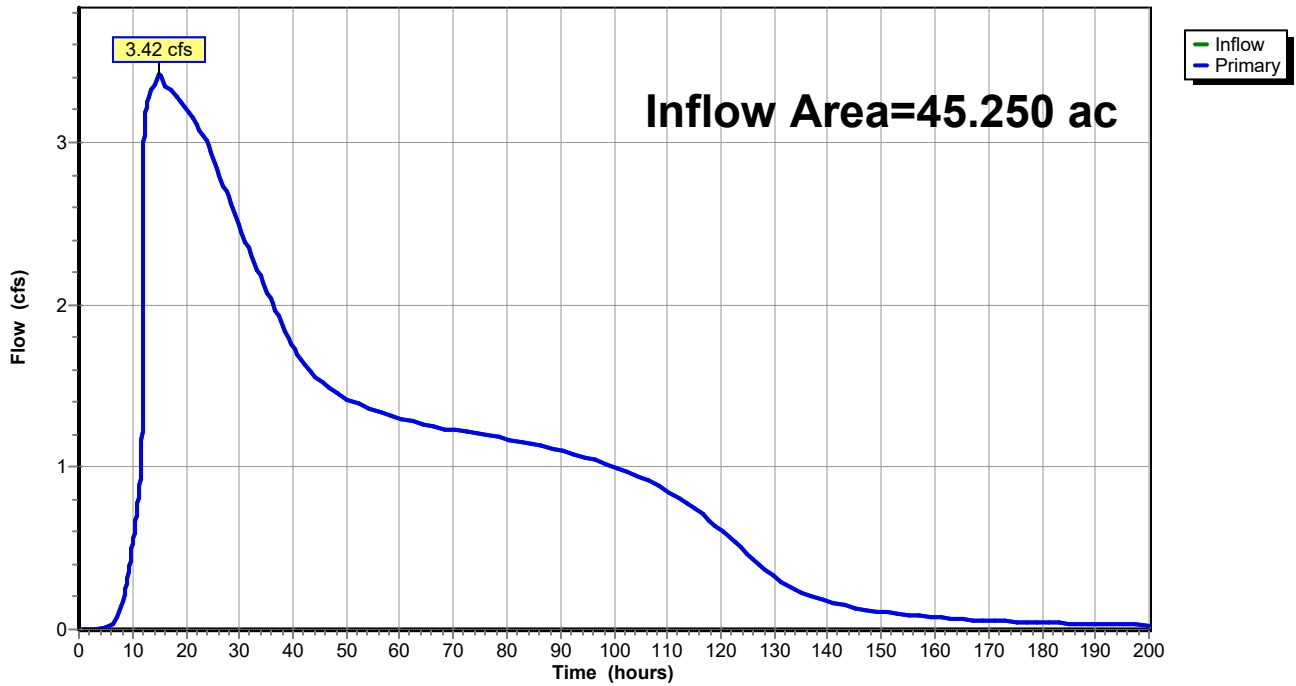
Summary for Pond 46P: University Blvd (Cosgray Ditch)

Inflow Area = 45.250 ac, 78.00% Impervious, Inflow Depth > 3.99" for 100-yr event
Inflow = 3.42 cfs @ 15.07 hrs, Volume= 15.046 af
Primary = 3.42 cfs @ 15.07 hrs, Volume= 15.046 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs

Pond 46P: University Blvd (Cosgray Ditch)

Hydrograph



Summary for Pond 63P: Basin 2

Inflow Area = 30.290 ac, 79.48% Impervious, Inflow Depth > 4.78" for 100-yr event
 Inflow = 84.21 cfs @ 11.96 hrs, Volume= 12.056 af
 Outflow = 3.31 cfs @ 14.09 hrs, Volume= 12.013 af, Atten= 96%, Lag= 128.2 min
 Primary = 1.28 cfs @ 42.29 hrs, Volume= 9.272 af
 Secondary = 2.37 cfs @ 14.32 hrs, Volume= 2.740 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 929.50' @ 14.32 hrs Surf.Area= 0.975 ac Storage= 3.015 af

Plug-Flow detention time= 902.9 min calculated for 12.013 af (100% of inflow)
 Center-of-Mass det. time= 872.5 min (3,165.8 - 2,293.3)

Volume	Invert	Avail.Storage	Storage Description
#1	925.70'	3.520 af	Basin 2 Storage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.70	0.620	0.000	0.000
926.00	0.650	0.190	0.190
927.00	0.740	0.695	0.885
928.00	0.830	0.785	1.670
929.00	0.920	0.875	2.545
930.00	1.030	0.975	3.520

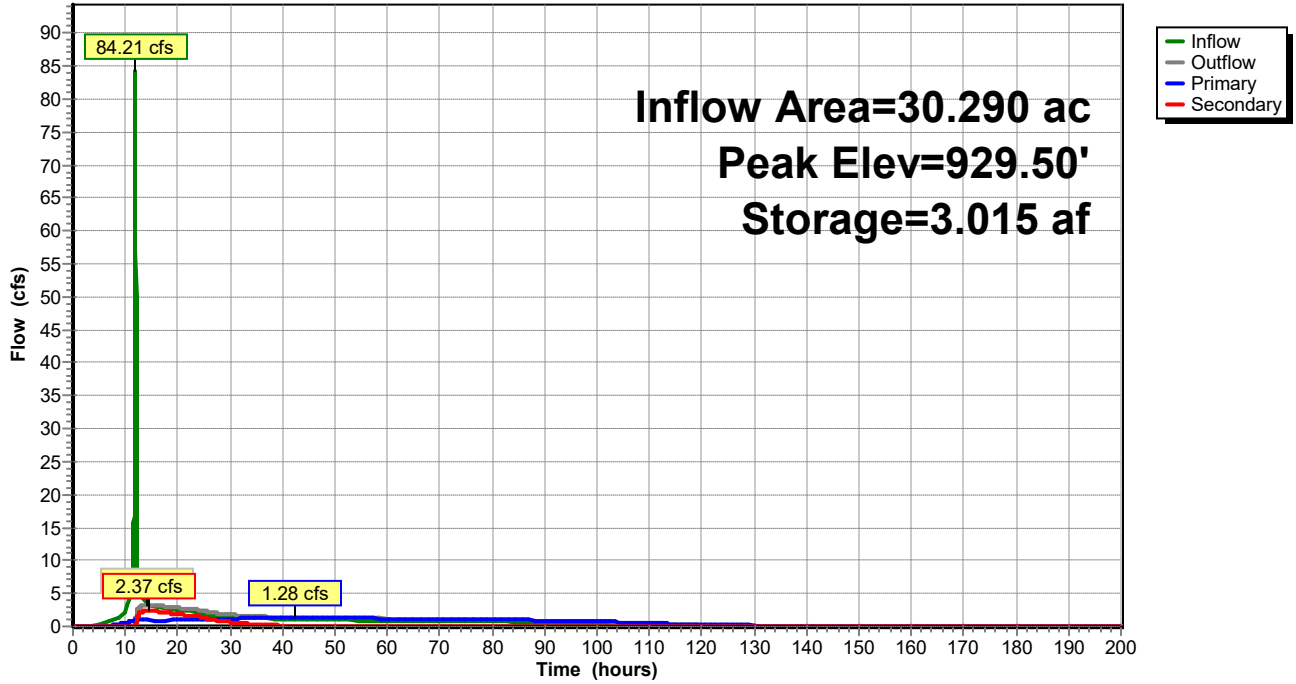
Device	Routing	Invert	Outlet Devices
#1	Primary	925.70'	6.0" Vert. Outlet to Basin 1 C= 0.600 Limited to weir flow at low heads
#2	Secondary	928.50'	12.0" Round Culvert L= 77.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 928.50' / 928.00' S= 0.0065 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

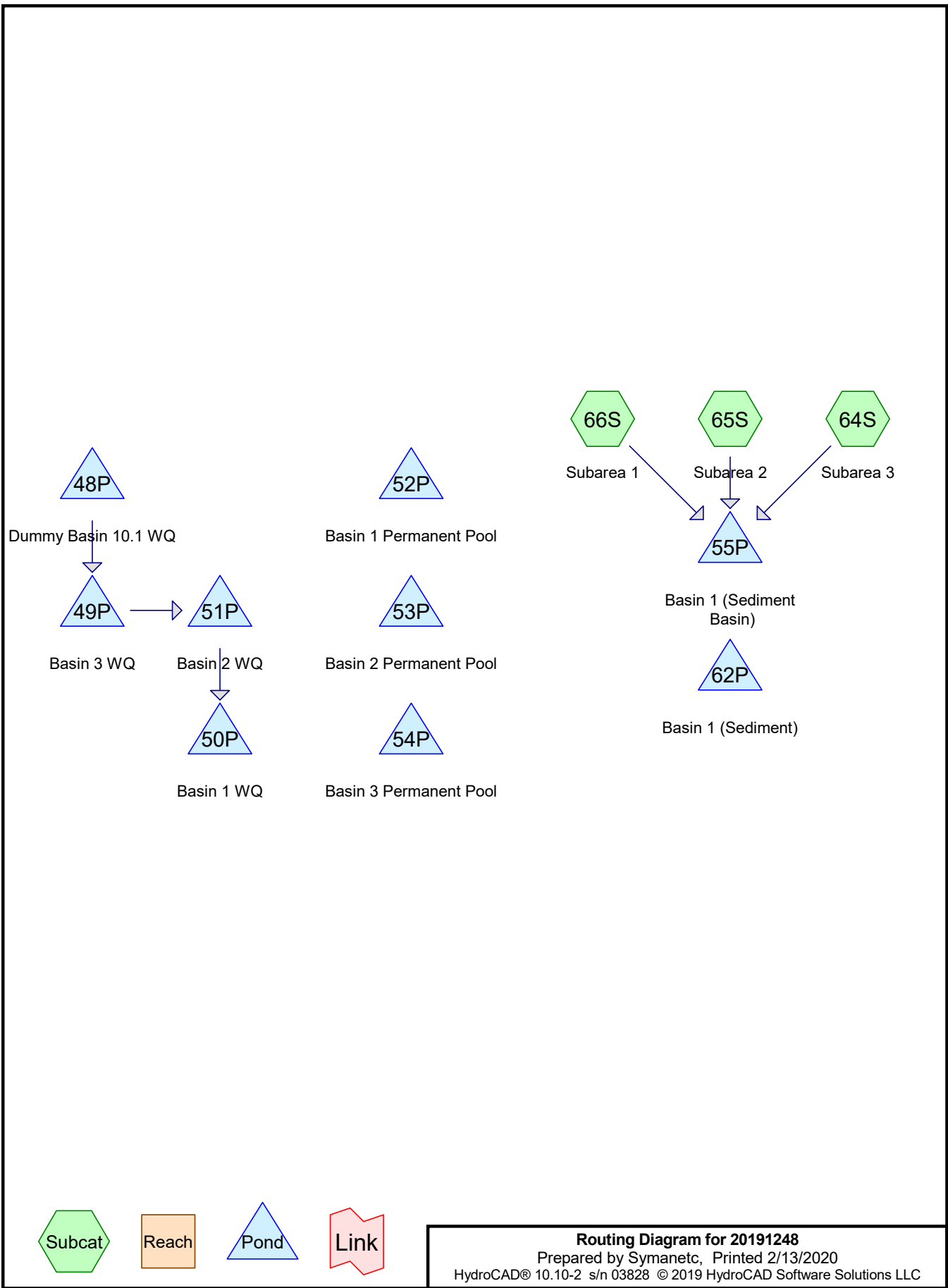
Primary OutFlow Max=1.28 cfs @ 42.29 hrs HW=928.62' TW=926.80' (Dynamic Tailwater)
 ↑1=Outlet to Basin 1 (Orifice Controls 1.28 cfs @ 6.51 fps)

Secondary OutFlow Max=2.37 cfs @ 14.32 hrs HW=929.50' TW=0.00' (Dynamic Tailwater)
 ↑2=Culvert (Barrel Controls 2.37 cfs @ 3.78 fps)

Pond 63P: Basin 2

Hydrograph





Summary for Subcatchment 64S: Subarea 3

Runoff = 26.93 cfs @ 11.96 hrs, Volume= 1.245 af, Depth= 1.42"

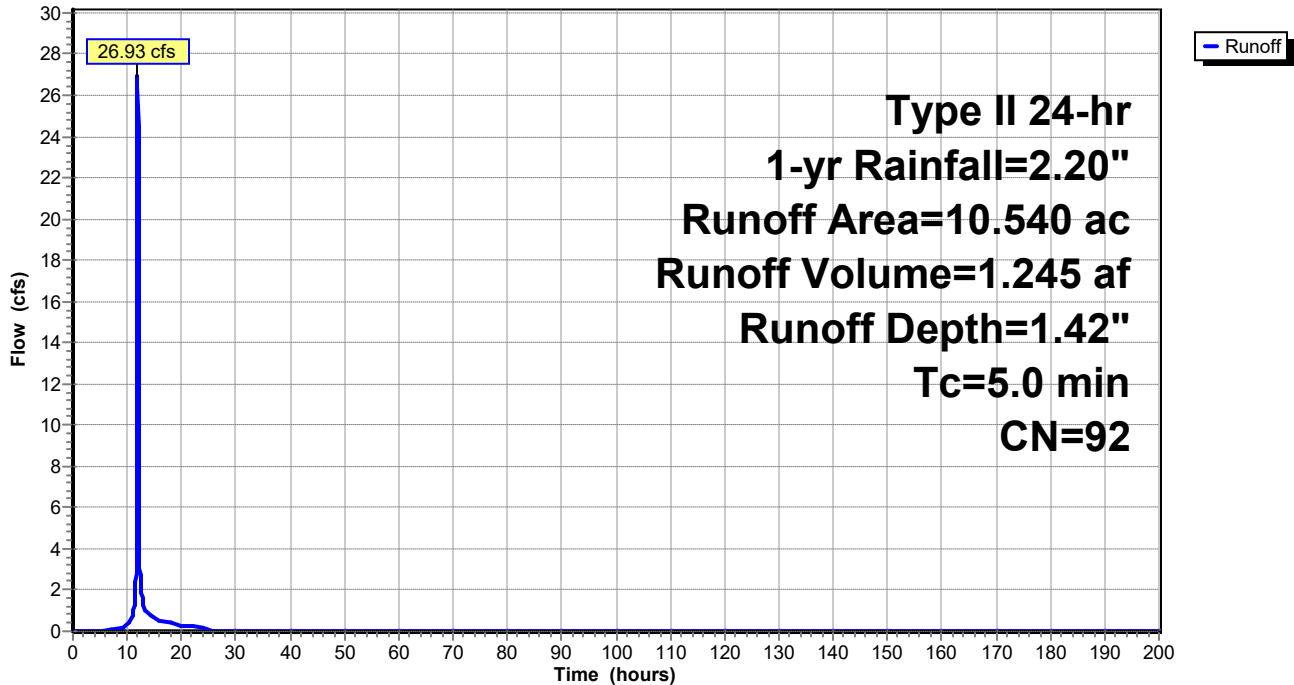
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 1-yr Rainfall=2.20"

Area (ac)	CN	Description
7.285	98	Paved parking, HSG C
2.635	74	>75% Grass cover, Good, HSG C
0.620	98	Water Surface, HSG C
10.540	92	Weighted Average
2.635		25.00% Pervious Area
7.905		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 64S: Subarea 3

Hydrograph



Hydrograph for Subcatchment 64S: Subarea 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.40	0.44	0.06	0.45
0.20	0.00	0.00	0.00	10.60	0.46	0.07	0.53
0.40	0.01	0.00	0.00	10.80	0.49	0.08	0.64
0.60	0.01	0.00	0.00	11.00	0.52	0.10	0.77
0.80	0.02	0.00	0.00	11.20	0.55	0.12	0.99
1.00	0.02	0.00	0.00	11.40	0.60	0.14	1.29
1.20	0.03	0.00	0.00	11.60	0.68	0.18	2.55
1.40	0.03	0.00	0.00	11.80	0.95	0.36	10.34
1.60	0.04	0.00	0.00	12.00	1.46	0.77	22.81
1.80	0.04	0.00	0.00	12.20	1.54	0.83	3.49
2.00	0.05	0.00	0.00	12.40	1.60	0.88	2.54
2.20	0.05	0.00	0.00	12.60	1.64	0.92	1.75
2.40	0.06	0.00	0.00	12.80	1.67	0.95	1.52
2.60	0.06	0.00	0.00	13.00	1.70	0.97	1.32
2.80	0.07	0.00	0.00	13.20	1.72	0.99	1.17
3.00	0.08	0.00	0.00	13.40	1.75	1.01	1.06
3.20	0.08	0.00	0.00	13.60	1.77	1.03	0.95
3.40	0.09	0.00	0.00	13.80	1.79	1.05	0.87
3.60	0.09	0.00	0.00	14.00	1.80	1.06	0.79
3.80	0.10	0.00	0.00	14.20	1.82	1.08	0.74
4.00	0.11	0.00	0.00	14.40	1.84	1.09	0.72
4.20	0.11	0.00	0.00	14.60	1.85	1.10	0.69
4.40	0.12	0.00	0.00	14.80	1.86	1.12	0.66
4.60	0.12	0.00	0.00	15.00	1.88	1.13	0.63
4.80	0.13	0.00	0.00	15.20	1.89	1.14	0.60
5.00	0.14	0.00	0.00	15.40	1.90	1.15	0.58
5.20	0.15	0.00	0.00	15.60	1.91	1.16	0.55
5.40	0.15	0.00	0.00	15.80	1.93	1.17	0.52
5.60	0.16	0.00	0.00	16.00	1.94	1.18	0.49
5.80	0.17	0.00	0.00	16.20	1.95	1.19	0.47
6.00	0.18	0.00	0.00	16.40	1.96	1.20	0.46
6.20	0.18	0.00	0.01	16.60	1.97	1.21	0.45
6.40	0.19	0.00	0.01	16.80	1.97	1.21	0.44
6.60	0.20	0.00	0.02	17.00	1.98	1.22	0.43
6.80	0.21	0.00	0.03	17.20	1.99	1.23	0.42
7.00	0.22	0.00	0.04	17.40	2.00	1.24	0.41
7.20	0.23	0.00	0.05	17.60	2.01	1.25	0.40
7.40	0.24	0.00	0.06	17.80	2.02	1.25	0.39
7.60	0.24	0.01	0.07	18.00	2.03	1.26	0.38
7.80	0.25	0.01	0.08	18.20	2.03	1.27	0.37
8.00	0.26	0.01	0.09	18.40	2.04	1.27	0.36
8.20	0.27	0.01	0.10	18.60	2.05	1.28	0.35
8.40	0.29	0.01	0.12	18.80	2.06	1.29	0.34
8.60	0.30	0.02	0.14	19.00	2.06	1.29	0.33
8.80	0.31	0.02	0.17	19.20	2.07	1.30	0.32
9.00	0.32	0.02	0.19	19.40	2.08	1.31	0.31
9.20	0.34	0.03	0.21	19.60	2.08	1.31	0.30
9.40	0.35	0.03	0.23	19.80	2.09	1.32	0.29
9.60	0.37	0.03	0.24	20.00	2.09	1.32	0.28
9.80	0.38	0.04	0.28	20.20	2.10	1.33	0.27
10.00	0.40	0.05	0.33	20.40	2.11	1.33	0.27
10.20	0.42	0.05	0.38	20.60	2.11	1.34	0.27

Hydrograph for Subcatchment 64S: Subarea 3 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
20.80	2.12	1.34	0.27	31.20	2.20	1.42	0.00
21.00	2.12	1.35	0.27	31.40	2.20	1.42	0.00
21.20	2.13	1.35	0.26	31.60	2.20	1.42	0.00
21.40	2.13	1.36	0.26	31.80	2.20	1.42	0.00
21.60	2.14	1.36	0.26	32.00	2.20	1.42	0.00
21.80	2.14	1.37	0.26	32.20	2.20	1.42	0.00
22.00	2.15	1.37	0.26	32.40	2.20	1.42	0.00
22.20	2.15	1.38	0.25	32.60	2.20	1.42	0.00
22.40	2.16	1.38	0.25	32.80	2.20	1.42	0.00
22.60	2.17	1.39	0.25	33.00	2.20	1.42	0.00
22.80	2.17	1.39	0.25	33.20	2.20	1.42	0.00
23.00	2.18	1.40	0.24	33.40	2.20	1.42	0.00
23.20	2.18	1.40	0.24	33.60	2.20	1.42	0.00
23.40	2.19	1.40	0.24	33.80	2.20	1.42	0.00
23.60	2.19	1.41	0.24	34.00	2.20	1.42	0.00
23.80	2.20	1.41	0.24	34.20	2.20	1.42	0.00
24.00	2.20	1.42	0.23	34.40	2.20	1.42	0.00
24.20	2.20	1.42	0.00	34.60	2.20	1.42	0.00
24.40	2.20	1.42	0.00	34.80	2.20	1.42	0.00
24.60	2.20	1.42	0.00	35.00	2.20	1.42	0.00
24.80	2.20	1.42	0.00	35.20	2.20	1.42	0.00
25.00	2.20	1.42	0.00	35.40	2.20	1.42	0.00
25.20	2.20	1.42	0.00	35.60	2.20	1.42	0.00
25.40	2.20	1.42	0.00	35.80	2.20	1.42	0.00
25.60	2.20	1.42	0.00	36.00	2.20	1.42	0.00
25.80	2.20	1.42	0.00	36.20	2.20	1.42	0.00
26.00	2.20	1.42	0.00	36.40	2.20	1.42	0.00
26.20	2.20	1.42	0.00	36.60	2.20	1.42	0.00
26.40	2.20	1.42	0.00	36.80	2.20	1.42	0.00
26.60	2.20	1.42	0.00	37.00	2.20	1.42	0.00
26.80	2.20	1.42	0.00	37.20	2.20	1.42	0.00
27.00	2.20	1.42	0.00	37.40	2.20	1.42	0.00
27.20	2.20	1.42	0.00	37.60	2.20	1.42	0.00
27.40	2.20	1.42	0.00	37.80	2.20	1.42	0.00
27.60	2.20	1.42	0.00	38.00	2.20	1.42	0.00
27.80	2.20	1.42	0.00	38.20	2.20	1.42	0.00
28.00	2.20	1.42	0.00	38.40	2.20	1.42	0.00
28.20	2.20	1.42	0.00	38.60	2.20	1.42	0.00
28.40	2.20	1.42	0.00	38.80	2.20	1.42	0.00
28.60	2.20	1.42	0.00	39.00	2.20	1.42	0.00
28.80	2.20	1.42	0.00	39.20	2.20	1.42	0.00
29.00	2.20	1.42	0.00	39.40	2.20	1.42	0.00
29.20	2.20	1.42	0.00	39.60	2.20	1.42	0.00
29.40	2.20	1.42	0.00	39.80	2.20	1.42	0.00
29.60	2.20	1.42	0.00	40.00	2.20	1.42	0.00
29.80	2.20	1.42	0.00	40.20	2.20	1.42	0.00
30.00	2.20	1.42	0.00	40.40	2.20	1.42	0.00
30.20	2.20	1.42	0.00	40.60	2.20	1.42	0.00
30.40	2.20	1.42	0.00	40.80	2.20	1.42	0.00
30.60	2.20	1.42	0.00	41.00	2.20	1.42	0.00
30.80	2.20	1.42	0.00	41.20	2.20	1.42	0.00
31.00	2.20	1.42	0.00	41.40	2.20	1.42	0.00

Hydrograph for Subcatchment 64S: Subarea 3 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
41.60	2.20	1.42	0.00	52.00	2.20	1.42	0.00
41.80	2.20	1.42	0.00	52.20	2.20	1.42	0.00
42.00	2.20	1.42	0.00	52.40	2.20	1.42	0.00
42.20	2.20	1.42	0.00	52.60	2.20	1.42	0.00
42.40	2.20	1.42	0.00	52.80	2.20	1.42	0.00
42.60	2.20	1.42	0.00	53.00	2.20	1.42	0.00
42.80	2.20	1.42	0.00	53.20	2.20	1.42	0.00
43.00	2.20	1.42	0.00	53.40	2.20	1.42	0.00
43.20	2.20	1.42	0.00	53.60	2.20	1.42	0.00
43.40	2.20	1.42	0.00	53.80	2.20	1.42	0.00
43.60	2.20	1.42	0.00	54.00	2.20	1.42	0.00
43.80	2.20	1.42	0.00	54.20	2.20	1.42	0.00
44.00	2.20	1.42	0.00	54.40	2.20	1.42	0.00
44.20	2.20	1.42	0.00	54.60	2.20	1.42	0.00
44.40	2.20	1.42	0.00	54.80	2.20	1.42	0.00
44.60	2.20	1.42	0.00	55.00	2.20	1.42	0.00
44.80	2.20	1.42	0.00	55.20	2.20	1.42	0.00
45.00	2.20	1.42	0.00	55.40	2.20	1.42	0.00
45.20	2.20	1.42	0.00	55.60	2.20	1.42	0.00
45.40	2.20	1.42	0.00	55.80	2.20	1.42	0.00
45.60	2.20	1.42	0.00	56.00	2.20	1.42	0.00
45.80	2.20	1.42	0.00	56.20	2.20	1.42	0.00
46.00	2.20	1.42	0.00	56.40	2.20	1.42	0.00
46.20	2.20	1.42	0.00	56.60	2.20	1.42	0.00
46.40	2.20	1.42	0.00	56.80	2.20	1.42	0.00
46.60	2.20	1.42	0.00	57.00	2.20	1.42	0.00
46.80	2.20	1.42	0.00	57.20	2.20	1.42	0.00
47.00	2.20	1.42	0.00	57.40	2.20	1.42	0.00
47.20	2.20	1.42	0.00	57.60	2.20	1.42	0.00
47.40	2.20	1.42	0.00	57.80	2.20	1.42	0.00
47.60	2.20	1.42	0.00	58.00	2.20	1.42	0.00
47.80	2.20	1.42	0.00	58.20	2.20	1.42	0.00
48.00	2.20	1.42	0.00	58.40	2.20	1.42	0.00
48.20	2.20	1.42	0.00	58.60	2.20	1.42	0.00
48.40	2.20	1.42	0.00	58.80	2.20	1.42	0.00
48.60	2.20	1.42	0.00	59.00	2.20	1.42	0.00
48.80	2.20	1.42	0.00	59.20	2.20	1.42	0.00
49.00	2.20	1.42	0.00	59.40	2.20	1.42	0.00
49.20	2.20	1.42	0.00	59.60	2.20	1.42	0.00
49.40	2.20	1.42	0.00	59.80	2.20	1.42	0.00
49.60	2.20	1.42	0.00	60.00	2.20	1.42	0.00
49.80	2.20	1.42	0.00	60.20	2.20	1.42	0.00
50.00	2.20	1.42	0.00	60.40	2.20	1.42	0.00
50.20	2.20	1.42	0.00	60.60	2.20	1.42	0.00
50.40	2.20	1.42	0.00	60.80	2.20	1.42	0.00
50.60	2.20	1.42	0.00	61.00	2.20	1.42	0.00
50.80	2.20	1.42	0.00	61.20	2.20	1.42	0.00
51.00	2.20	1.42	0.00	61.40	2.20	1.42	0.00
51.20	2.20	1.42	0.00	61.60	2.20	1.42	0.00
51.40	2.20	1.42	0.00	61.80	2.20	1.42	0.00
51.60	2.20	1.42	0.00	62.00	2.20	1.42	0.00
51.80	2.20	1.42	0.00	62.20	2.20	1.42	0.00

Hydrograph for Subcatchment 64S: Subarea 3 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
62.40	2.20	1.42	0.00	72.80	2.20	1.42	0.00
62.60	2.20	1.42	0.00	73.00	2.20	1.42	0.00
62.80	2.20	1.42	0.00	73.20	2.20	1.42	0.00
63.00	2.20	1.42	0.00	73.40	2.20	1.42	0.00
63.20	2.20	1.42	0.00	73.60	2.20	1.42	0.00
63.40	2.20	1.42	0.00	73.80	2.20	1.42	0.00
63.60	2.20	1.42	0.00	74.00	2.20	1.42	0.00
63.80	2.20	1.42	0.00	74.20	2.20	1.42	0.00
64.00	2.20	1.42	0.00	74.40	2.20	1.42	0.00
64.20	2.20	1.42	0.00	74.60	2.20	1.42	0.00
64.40	2.20	1.42	0.00	74.80	2.20	1.42	0.00
64.60	2.20	1.42	0.00	75.00	2.20	1.42	0.00
64.80	2.20	1.42	0.00	75.20	2.20	1.42	0.00
65.00	2.20	1.42	0.00	75.40	2.20	1.42	0.00
65.20	2.20	1.42	0.00	75.60	2.20	1.42	0.00
65.40	2.20	1.42	0.00	75.80	2.20	1.42	0.00
65.60	2.20	1.42	0.00	76.00	2.20	1.42	0.00
65.80	2.20	1.42	0.00	76.20	2.20	1.42	0.00
66.00	2.20	1.42	0.00	76.40	2.20	1.42	0.00
66.20	2.20	1.42	0.00	76.60	2.20	1.42	0.00
66.40	2.20	1.42	0.00	76.80	2.20	1.42	0.00
66.60	2.20	1.42	0.00	77.00	2.20	1.42	0.00
66.80	2.20	1.42	0.00	77.20	2.20	1.42	0.00
67.00	2.20	1.42	0.00	77.40	2.20	1.42	0.00
67.20	2.20	1.42	0.00	77.60	2.20	1.42	0.00
67.40	2.20	1.42	0.00	77.80	2.20	1.42	0.00
67.60	2.20	1.42	0.00	78.00	2.20	1.42	0.00
67.80	2.20	1.42	0.00	78.20	2.20	1.42	0.00
68.00	2.20	1.42	0.00	78.40	2.20	1.42	0.00
68.20	2.20	1.42	0.00	78.60	2.20	1.42	0.00
68.40	2.20	1.42	0.00	78.80	2.20	1.42	0.00
68.60	2.20	1.42	0.00	79.00	2.20	1.42	0.00
68.80	2.20	1.42	0.00	79.20	2.20	1.42	0.00
69.00	2.20	1.42	0.00	79.40	2.20	1.42	0.00
69.20	2.20	1.42	0.00	79.60	2.20	1.42	0.00
69.40	2.20	1.42	0.00	79.80	2.20	1.42	0.00
69.60	2.20	1.42	0.00	80.00	2.20	1.42	0.00
69.80	2.20	1.42	0.00	80.20	2.20	1.42	0.00
70.00	2.20	1.42	0.00	80.40	2.20	1.42	0.00
70.20	2.20	1.42	0.00	80.60	2.20	1.42	0.00
70.40	2.20	1.42	0.00	80.80	2.20	1.42	0.00
70.60	2.20	1.42	0.00	81.00	2.20	1.42	0.00
70.80	2.20	1.42	0.00	81.20	2.20	1.42	0.00
71.00	2.20	1.42	0.00	81.40	2.20	1.42	0.00
71.20	2.20	1.42	0.00	81.60	2.20	1.42	0.00
71.40	2.20	1.42	0.00	81.80	2.20	1.42	0.00
71.60	2.20	1.42	0.00	82.00	2.20	1.42	0.00
71.80	2.20	1.42	0.00	82.20	2.20	1.42	0.00
72.00	2.20	1.42	0.00	82.40	2.20	1.42	0.00
72.20	2.20	1.42	0.00	82.60	2.20	1.42	0.00
72.40	2.20	1.42	0.00	82.80	2.20	1.42	0.00
72.60	2.20	1.42	0.00	83.00	2.20	1.42	0.00

Hydrograph for Subcatchment 64S: Subarea 3 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
83.20	2.20	1.42	0.00	93.60	2.20	1.42	0.00
83.40	2.20	1.42	0.00	93.80	2.20	1.42	0.00
83.60	2.20	1.42	0.00	94.00	2.20	1.42	0.00
83.80	2.20	1.42	0.00	94.20	2.20	1.42	0.00
84.00	2.20	1.42	0.00	94.40	2.20	1.42	0.00
84.20	2.20	1.42	0.00	94.60	2.20	1.42	0.00
84.40	2.20	1.42	0.00	94.80	2.20	1.42	0.00
84.60	2.20	1.42	0.00	95.00	2.20	1.42	0.00
84.80	2.20	1.42	0.00	95.20	2.20	1.42	0.00
85.00	2.20	1.42	0.00	95.40	2.20	1.42	0.00
85.20	2.20	1.42	0.00	95.60	2.20	1.42	0.00
85.40	2.20	1.42	0.00	95.80	2.20	1.42	0.00
85.60	2.20	1.42	0.00	96.00	2.20	1.42	0.00
85.80	2.20	1.42	0.00	96.20	2.20	1.42	0.00
86.00	2.20	1.42	0.00	96.40	2.20	1.42	0.00
86.20	2.20	1.42	0.00	96.60	2.20	1.42	0.00
86.40	2.20	1.42	0.00	96.80	2.20	1.42	0.00
86.60	2.20	1.42	0.00	97.00	2.20	1.42	0.00
86.80	2.20	1.42	0.00	97.20	2.20	1.42	0.00
87.00	2.20	1.42	0.00	97.40	2.20	1.42	0.00
87.20	2.20	1.42	0.00	97.60	2.20	1.42	0.00
87.40	2.20	1.42	0.00	97.80	2.20	1.42	0.00
87.60	2.20	1.42	0.00	98.00	2.20	1.42	0.00
87.80	2.20	1.42	0.00	98.20	2.20	1.42	0.00
88.00	2.20	1.42	0.00	98.40	2.20	1.42	0.00
88.20	2.20	1.42	0.00	98.60	2.20	1.42	0.00
88.40	2.20	1.42	0.00	98.80	2.20	1.42	0.00
88.60	2.20	1.42	0.00	99.00	2.20	1.42	0.00
88.80	2.20	1.42	0.00	99.20	2.20	1.42	0.00
89.00	2.20	1.42	0.00	99.40	2.20	1.42	0.00
89.20	2.20	1.42	0.00	99.60	2.20	1.42	0.00
89.40	2.20	1.42	0.00	99.80	2.20	1.42	0.00
89.60	2.20	1.42	0.00	100.00	2.20	1.42	0.00
89.80	2.20	1.42	0.00	100.20	2.20	1.42	0.00
90.00	2.20	1.42	0.00	100.40	2.20	1.42	0.00
90.20	2.20	1.42	0.00	100.60	2.20	1.42	0.00
90.40	2.20	1.42	0.00	100.80	2.20	1.42	0.00
90.60	2.20	1.42	0.00	101.00	2.20	1.42	0.00
90.80	2.20	1.42	0.00	101.20	2.20	1.42	0.00
91.00	2.20	1.42	0.00	101.40	2.20	1.42	0.00
91.20	2.20	1.42	0.00	101.60	2.20	1.42	0.00
91.40	2.20	1.42	0.00	101.80	2.20	1.42	0.00
91.60	2.20	1.42	0.00	102.00	2.20	1.42	0.00
91.80	2.20	1.42	0.00	102.20	2.20	1.42	0.00
92.00	2.20	1.42	0.00	102.40	2.20	1.42	0.00
92.20	2.20	1.42	0.00	102.60	2.20	1.42	0.00
92.40	2.20	1.42	0.00	102.80	2.20	1.42	0.00
92.60	2.20	1.42	0.00	103.00	2.20	1.42	0.00
92.80	2.20	1.42	0.00	103.20	2.20	1.42	0.00
93.00	2.20	1.42	0.00	103.40	2.20	1.42	0.00
93.20	2.20	1.42	0.00	103.60	2.20	1.42	0.00
93.40	2.20	1.42	0.00	103.80	2.20	1.42	0.00

Hydrograph for Subcatchment 64S: Subarea 3 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
104.00	2.20	1.42	0.00	114.40	2.20	1.42	0.00
104.20	2.20	1.42	0.00	114.60	2.20	1.42	0.00
104.40	2.20	1.42	0.00	114.80	2.20	1.42	0.00
104.60	2.20	1.42	0.00	115.00	2.20	1.42	0.00
104.80	2.20	1.42	0.00	115.20	2.20	1.42	0.00
105.00	2.20	1.42	0.00	115.40	2.20	1.42	0.00
105.20	2.20	1.42	0.00	115.60	2.20	1.42	0.00
105.40	2.20	1.42	0.00	115.80	2.20	1.42	0.00
105.60	2.20	1.42	0.00	116.00	2.20	1.42	0.00
105.80	2.20	1.42	0.00	116.20	2.20	1.42	0.00
106.00	2.20	1.42	0.00	116.40	2.20	1.42	0.00
106.20	2.20	1.42	0.00	116.60	2.20	1.42	0.00
106.40	2.20	1.42	0.00	116.80	2.20	1.42	0.00
106.60	2.20	1.42	0.00	117.00	2.20	1.42	0.00
106.80	2.20	1.42	0.00	117.20	2.20	1.42	0.00
107.00	2.20	1.42	0.00	117.40	2.20	1.42	0.00
107.20	2.20	1.42	0.00	117.60	2.20	1.42	0.00
107.40	2.20	1.42	0.00	117.80	2.20	1.42	0.00
107.60	2.20	1.42	0.00	118.00	2.20	1.42	0.00
107.80	2.20	1.42	0.00	118.20	2.20	1.42	0.00
108.00	2.20	1.42	0.00	118.40	2.20	1.42	0.00
108.20	2.20	1.42	0.00	118.60	2.20	1.42	0.00
108.40	2.20	1.42	0.00	118.80	2.20	1.42	0.00
108.60	2.20	1.42	0.00	119.00	2.20	1.42	0.00
108.80	2.20	1.42	0.00	119.20	2.20	1.42	0.00
109.00	2.20	1.42	0.00	119.40	2.20	1.42	0.00
109.20	2.20	1.42	0.00	119.60	2.20	1.42	0.00
109.40	2.20	1.42	0.00	119.80	2.20	1.42	0.00
109.60	2.20	1.42	0.00	120.00	2.20	1.42	0.00
109.80	2.20	1.42	0.00	120.20	2.20	1.42	0.00
110.00	2.20	1.42	0.00	120.40	2.20	1.42	0.00
110.20	2.20	1.42	0.00	120.60	2.20	1.42	0.00
110.40	2.20	1.42	0.00	120.80	2.20	1.42	0.00
110.60	2.20	1.42	0.00	121.00	2.20	1.42	0.00
110.80	2.20	1.42	0.00	121.20	2.20	1.42	0.00
111.00	2.20	1.42	0.00	121.40	2.20	1.42	0.00
111.20	2.20	1.42	0.00	121.60	2.20	1.42	0.00
111.40	2.20	1.42	0.00	121.80	2.20	1.42	0.00
111.60	2.20	1.42	0.00	122.00	2.20	1.42	0.00
111.80	2.20	1.42	0.00	122.20	2.20	1.42	0.00
112.00	2.20	1.42	0.00	122.40	2.20	1.42	0.00
112.20	2.20	1.42	0.00	122.60	2.20	1.42	0.00
112.40	2.20	1.42	0.00	122.80	2.20	1.42	0.00
112.60	2.20	1.42	0.00	123.00	2.20	1.42	0.00
112.80	2.20	1.42	0.00	123.20	2.20	1.42	0.00
113.00	2.20	1.42	0.00	123.40	2.20	1.42	0.00
113.20	2.20	1.42	0.00	123.60	2.20	1.42	0.00
113.40	2.20	1.42	0.00	123.80	2.20	1.42	0.00
113.60	2.20	1.42	0.00	124.00	2.20	1.42	0.00
113.80	2.20	1.42	0.00	124.20	2.20	1.42	0.00
114.00	2.20	1.42	0.00	124.40	2.20	1.42	0.00
114.20	2.20	1.42	0.00	124.60	2.20	1.42	0.00

Hydrograph for Subcatchment 64S: Subarea 3 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
124.80	2.20	1.42	0.00	135.20	2.20	1.42	0.00
125.00	2.20	1.42	0.00	135.40	2.20	1.42	0.00
125.20	2.20	1.42	0.00	135.60	2.20	1.42	0.00
125.40	2.20	1.42	0.00	135.80	2.20	1.42	0.00
125.60	2.20	1.42	0.00	136.00	2.20	1.42	0.00
125.80	2.20	1.42	0.00	136.20	2.20	1.42	0.00
126.00	2.20	1.42	0.00	136.40	2.20	1.42	0.00
126.20	2.20	1.42	0.00	136.60	2.20	1.42	0.00
126.40	2.20	1.42	0.00	136.80	2.20	1.42	0.00
126.60	2.20	1.42	0.00	137.00	2.20	1.42	0.00
126.80	2.20	1.42	0.00	137.20	2.20	1.42	0.00
127.00	2.20	1.42	0.00	137.40	2.20	1.42	0.00
127.20	2.20	1.42	0.00	137.60	2.20	1.42	0.00
127.40	2.20	1.42	0.00	137.80	2.20	1.42	0.00
127.60	2.20	1.42	0.00	138.00	2.20	1.42	0.00
127.80	2.20	1.42	0.00	138.20	2.20	1.42	0.00
128.00	2.20	1.42	0.00	138.40	2.20	1.42	0.00
128.20	2.20	1.42	0.00	138.60	2.20	1.42	0.00
128.40	2.20	1.42	0.00	138.80	2.20	1.42	0.00
128.60	2.20	1.42	0.00	139.00	2.20	1.42	0.00
128.80	2.20	1.42	0.00	139.20	2.20	1.42	0.00
129.00	2.20	1.42	0.00	139.40	2.20	1.42	0.00
129.20	2.20	1.42	0.00	139.60	2.20	1.42	0.00
129.40	2.20	1.42	0.00	139.80	2.20	1.42	0.00
129.60	2.20	1.42	0.00	140.00	2.20	1.42	0.00
129.80	2.20	1.42	0.00	140.20	2.20	1.42	0.00
130.00	2.20	1.42	0.00	140.40	2.20	1.42	0.00
130.20	2.20	1.42	0.00	140.60	2.20	1.42	0.00
130.40	2.20	1.42	0.00	140.80	2.20	1.42	0.00
130.60	2.20	1.42	0.00	141.00	2.20	1.42	0.00
130.80	2.20	1.42	0.00	141.20	2.20	1.42	0.00
131.00	2.20	1.42	0.00	141.40	2.20	1.42	0.00
131.20	2.20	1.42	0.00	141.60	2.20	1.42	0.00
131.40	2.20	1.42	0.00	141.80	2.20	1.42	0.00
131.60	2.20	1.42	0.00	142.00	2.20	1.42	0.00
131.80	2.20	1.42	0.00	142.20	2.20	1.42	0.00
132.00	2.20	1.42	0.00	142.40	2.20	1.42	0.00
132.20	2.20	1.42	0.00	142.60	2.20	1.42	0.00
132.40	2.20	1.42	0.00	142.80	2.20	1.42	0.00
132.60	2.20	1.42	0.00	143.00	2.20	1.42	0.00
132.80	2.20	1.42	0.00	143.20	2.20	1.42	0.00
133.00	2.20	1.42	0.00	143.40	2.20	1.42	0.00
133.20	2.20	1.42	0.00	143.60	2.20	1.42	0.00
133.40	2.20	1.42	0.00	143.80	2.20	1.42	0.00
133.60	2.20	1.42	0.00	144.00	2.20	1.42	0.00
133.80	2.20	1.42	0.00	144.20	2.20	1.42	0.00
134.00	2.20	1.42	0.00	144.40	2.20	1.42	0.00
134.20	2.20	1.42	0.00	144.60	2.20	1.42	0.00
134.40	2.20	1.42	0.00	144.80	2.20	1.42	0.00
134.60	2.20	1.42	0.00	145.00	2.20	1.42	0.00
134.80	2.20	1.42	0.00	145.20	2.20	1.42	0.00
135.00	2.20	1.42	0.00	145.40	2.20	1.42	0.00

Hydrograph for Subcatchment 64S: Subarea 3 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
145.60	2.20	1.42	0.00	156.00	2.20	1.42	0.00
145.80	2.20	1.42	0.00	156.20	2.20	1.42	0.00
146.00	2.20	1.42	0.00	156.40	2.20	1.42	0.00
146.20	2.20	1.42	0.00	156.60	2.20	1.42	0.00
146.40	2.20	1.42	0.00	156.80	2.20	1.42	0.00
146.60	2.20	1.42	0.00	157.00	2.20	1.42	0.00
146.80	2.20	1.42	0.00	157.20	2.20	1.42	0.00
147.00	2.20	1.42	0.00	157.40	2.20	1.42	0.00
147.20	2.20	1.42	0.00	157.60	2.20	1.42	0.00
147.40	2.20	1.42	0.00	157.80	2.20	1.42	0.00
147.60	2.20	1.42	0.00	158.00	2.20	1.42	0.00
147.80	2.20	1.42	0.00	158.20	2.20	1.42	0.00
148.00	2.20	1.42	0.00	158.40	2.20	1.42	0.00
148.20	2.20	1.42	0.00	158.60	2.20	1.42	0.00
148.40	2.20	1.42	0.00	158.80	2.20	1.42	0.00
148.60	2.20	1.42	0.00	159.00	2.20	1.42	0.00
148.80	2.20	1.42	0.00	159.20	2.20	1.42	0.00
149.00	2.20	1.42	0.00	159.40	2.20	1.42	0.00
149.20	2.20	1.42	0.00	159.60	2.20	1.42	0.00
149.40	2.20	1.42	0.00	159.80	2.20	1.42	0.00
149.60	2.20	1.42	0.00	160.00	2.20	1.42	0.00
149.80	2.20	1.42	0.00	160.20	2.20	1.42	0.00
150.00	2.20	1.42	0.00	160.40	2.20	1.42	0.00
150.20	2.20	1.42	0.00	160.60	2.20	1.42	0.00
150.40	2.20	1.42	0.00	160.80	2.20	1.42	0.00
150.60	2.20	1.42	0.00	161.00	2.20	1.42	0.00
150.80	2.20	1.42	0.00	161.20	2.20	1.42	0.00
151.00	2.20	1.42	0.00	161.40	2.20	1.42	0.00
151.20	2.20	1.42	0.00	161.60	2.20	1.42	0.00
151.40	2.20	1.42	0.00	161.80	2.20	1.42	0.00
151.60	2.20	1.42	0.00	162.00	2.20	1.42	0.00
151.80	2.20	1.42	0.00	162.20	2.20	1.42	0.00
152.00	2.20	1.42	0.00	162.40	2.20	1.42	0.00
152.20	2.20	1.42	0.00	162.60	2.20	1.42	0.00
152.40	2.20	1.42	0.00	162.80	2.20	1.42	0.00
152.60	2.20	1.42	0.00	163.00	2.20	1.42	0.00
152.80	2.20	1.42	0.00	163.20	2.20	1.42	0.00
153.00	2.20	1.42	0.00	163.40	2.20	1.42	0.00
153.20	2.20	1.42	0.00	163.60	2.20	1.42	0.00
153.40	2.20	1.42	0.00	163.80	2.20	1.42	0.00
153.60	2.20	1.42	0.00	164.00	2.20	1.42	0.00
153.80	2.20	1.42	0.00	164.20	2.20	1.42	0.00
154.00	2.20	1.42	0.00	164.40	2.20	1.42	0.00
154.20	2.20	1.42	0.00	164.60	2.20	1.42	0.00
154.40	2.20	1.42	0.00	164.80	2.20	1.42	0.00
154.60	2.20	1.42	0.00	165.00	2.20	1.42	0.00
154.80	2.20	1.42	0.00	165.20	2.20	1.42	0.00
155.00	2.20	1.42	0.00	165.40	2.20	1.42	0.00
155.20	2.20	1.42	0.00	165.60	2.20	1.42	0.00
155.40	2.20	1.42	0.00	165.80	2.20	1.42	0.00
155.60	2.20	1.42	0.00	166.00	2.20	1.42	0.00
155.80	2.20	1.42	0.00	166.20	2.20	1.42	0.00

Hydrograph for Subcatchment 64S: Subarea 3 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
166.40	2.20	1.42	0.00	176.80	2.20	1.42	0.00
166.60	2.20	1.42	0.00	177.00	2.20	1.42	0.00
166.80	2.20	1.42	0.00	177.20	2.20	1.42	0.00
167.00	2.20	1.42	0.00	177.40	2.20	1.42	0.00
167.20	2.20	1.42	0.00	177.60	2.20	1.42	0.00
167.40	2.20	1.42	0.00	177.80	2.20	1.42	0.00
167.60	2.20	1.42	0.00	178.00	2.20	1.42	0.00
167.80	2.20	1.42	0.00	178.20	2.20	1.42	0.00
168.00	2.20	1.42	0.00	178.40	2.20	1.42	0.00
168.20	2.20	1.42	0.00	178.60	2.20	1.42	0.00
168.40	2.20	1.42	0.00	178.80	2.20	1.42	0.00
168.60	2.20	1.42	0.00	179.00	2.20	1.42	0.00
168.80	2.20	1.42	0.00	179.20	2.20	1.42	0.00
169.00	2.20	1.42	0.00	179.40	2.20	1.42	0.00
169.20	2.20	1.42	0.00	179.60	2.20	1.42	0.00
169.40	2.20	1.42	0.00	179.80	2.20	1.42	0.00
169.60	2.20	1.42	0.00	180.00	2.20	1.42	0.00
169.80	2.20	1.42	0.00	180.20	2.20	1.42	0.00
170.00	2.20	1.42	0.00	180.40	2.20	1.42	0.00
170.20	2.20	1.42	0.00	180.60	2.20	1.42	0.00
170.40	2.20	1.42	0.00	180.80	2.20	1.42	0.00
170.60	2.20	1.42	0.00	181.00	2.20	1.42	0.00
170.80	2.20	1.42	0.00	181.20	2.20	1.42	0.00
171.00	2.20	1.42	0.00	181.40	2.20	1.42	0.00
171.20	2.20	1.42	0.00	181.60	2.20	1.42	0.00
171.40	2.20	1.42	0.00	181.80	2.20	1.42	0.00
171.60	2.20	1.42	0.00	182.00	2.20	1.42	0.00
171.80	2.20	1.42	0.00	182.20	2.20	1.42	0.00
172.00	2.20	1.42	0.00	182.40	2.20	1.42	0.00
172.20	2.20	1.42	0.00	182.60	2.20	1.42	0.00
172.40	2.20	1.42	0.00	182.80	2.20	1.42	0.00
172.60	2.20	1.42	0.00	183.00	2.20	1.42	0.00
172.80	2.20	1.42	0.00	183.20	2.20	1.42	0.00
173.00	2.20	1.42	0.00	183.40	2.20	1.42	0.00
173.20	2.20	1.42	0.00	183.60	2.20	1.42	0.00
173.40	2.20	1.42	0.00	183.80	2.20	1.42	0.00
173.60	2.20	1.42	0.00	184.00	2.20	1.42	0.00
173.80	2.20	1.42	0.00	184.20	2.20	1.42	0.00
174.00	2.20	1.42	0.00	184.40	2.20	1.42	0.00
174.20	2.20	1.42	0.00	184.60	2.20	1.42	0.00
174.40	2.20	1.42	0.00	184.80	2.20	1.42	0.00
174.60	2.20	1.42	0.00	185.00	2.20	1.42	0.00
174.80	2.20	1.42	0.00	185.20	2.20	1.42	0.00
175.00	2.20	1.42	0.00	185.40	2.20	1.42	0.00
175.20	2.20	1.42	0.00	185.60	2.20	1.42	0.00
175.40	2.20	1.42	0.00	185.80	2.20	1.42	0.00
175.60	2.20	1.42	0.00	186.00	2.20	1.42	0.00
175.80	2.20	1.42	0.00	186.20	2.20	1.42	0.00
176.00	2.20	1.42	0.00	186.40	2.20	1.42	0.00
176.20	2.20	1.42	0.00	186.60	2.20	1.42	0.00
176.40	2.20	1.42	0.00	186.80	2.20	1.42	0.00
176.60	2.20	1.42	0.00	187.00	2.20	1.42	0.00

Hydrograph for Subcatchment 64S: Subarea 3 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
187.20	2.20	1.42	0.00	197.60	2.20	1.42	0.00
187.40	2.20	1.42	0.00	197.80	2.20	1.42	0.00
187.60	2.20	1.42	0.00	198.00	2.20	1.42	0.00
187.80	2.20	1.42	0.00	198.20	2.20	1.42	0.00
188.00	2.20	1.42	0.00	198.40	2.20	1.42	0.00
188.20	2.20	1.42	0.00	198.60	2.20	1.42	0.00
188.40	2.20	1.42	0.00	198.80	2.20	1.42	0.00
188.60	2.20	1.42	0.00	199.00	2.20	1.42	0.00
188.80	2.20	1.42	0.00	199.20	2.20	1.42	0.00
189.00	2.20	1.42	0.00	199.40	2.20	1.42	0.00
189.20	2.20	1.42	0.00	199.60	2.20	1.42	0.00
189.40	2.20	1.42	0.00	199.80	2.20	1.42	0.00
189.60	2.20	1.42	0.00	200.00	2.20	1.42	0.00
189.80	2.20	1.42	0.00				
190.00	2.20	1.42	0.00				
190.20	2.20	1.42	0.00				
190.40	2.20	1.42	0.00				
190.60	2.20	1.42	0.00				
190.80	2.20	1.42	0.00				
191.00	2.20	1.42	0.00				
191.20	2.20	1.42	0.00				
191.40	2.20	1.42	0.00				
191.60	2.20	1.42	0.00				
191.80	2.20	1.42	0.00				
192.00	2.20	1.42	0.00				
192.20	2.20	1.42	0.00				
192.40	2.20	1.42	0.00				
192.60	2.20	1.42	0.00				
192.80	2.20	1.42	0.00				
193.00	2.20	1.42	0.00				
193.20	2.20	1.42	0.00				
193.40	2.20	1.42	0.00				
193.60	2.20	1.42	0.00				
193.80	2.20	1.42	0.00				
194.00	2.20	1.42	0.00				
194.20	2.20	1.42	0.00				
194.40	2.20	1.42	0.00				
194.60	2.20	1.42	0.00				
194.80	2.20	1.42	0.00				
195.00	2.20	1.42	0.00				
195.20	2.20	1.42	0.00				
195.40	2.20	1.42	0.00				
195.60	2.20	1.42	0.00				
195.80	2.20	1.42	0.00				
196.00	2.20	1.42	0.00				
196.20	2.20	1.42	0.00				
196.40	2.20	1.42	0.00				
196.60	2.20	1.42	0.00				
196.80	2.20	1.42	0.00				
197.00	2.20	1.42	0.00				
197.20	2.20	1.42	0.00				
197.40	2.20	1.42	0.00				

Summary for Subcatchment 65S: Subarea 2

Runoff = 15.79 cfs @ 11.96 hrs, Volume= 0.730 af, Depth= 1.42"

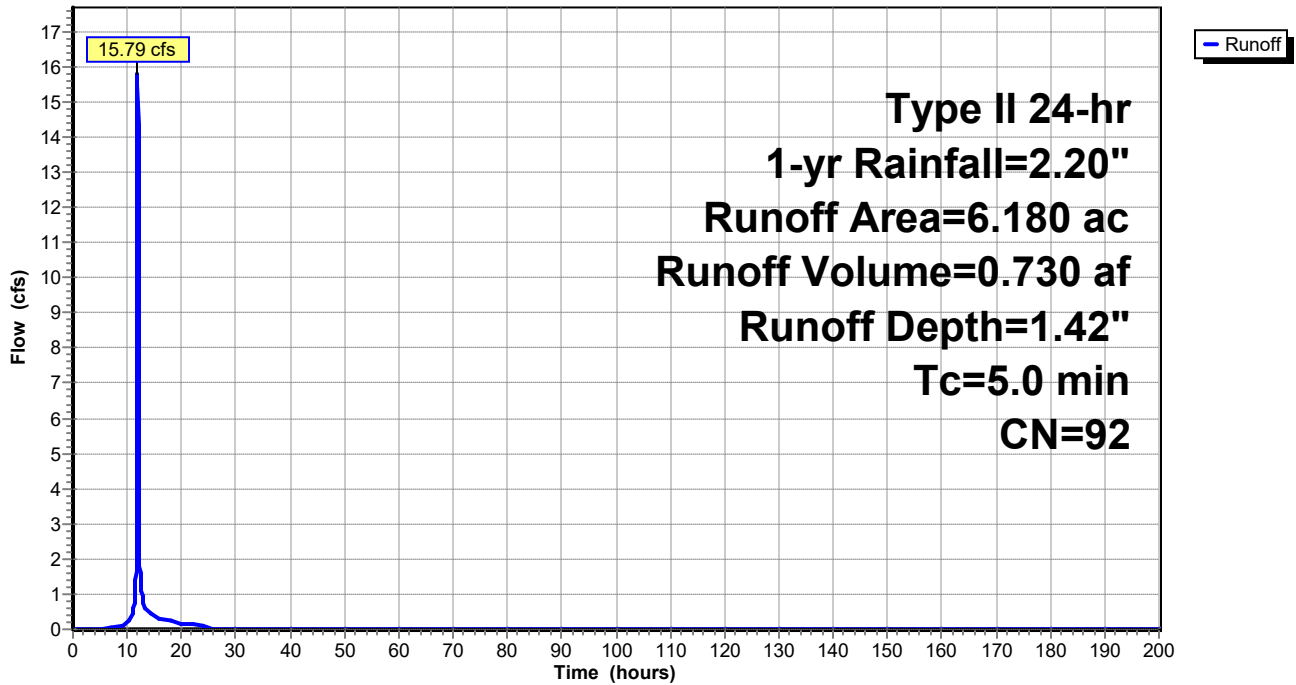
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 1-yr Rainfall=2.20"

Area (ac)	CN	Description
4.175	98	Paved parking, HSG C
1.545	74	>75% Grass cover, Good, HSG C
0.460	98	Water Surface, HSG C
6.180	92	Weighted Average
1.545		25.00% Pervious Area
4.635		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 65S: Subarea 2

Hydrograph



Hydrograph for Subcatchment 65S: Subarea 2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.40	0.44	0.06	0.26
0.20	0.00	0.00	0.00	10.60	0.46	0.07	0.31
0.40	0.01	0.00	0.00	10.80	0.49	0.08	0.38
0.60	0.01	0.00	0.00	11.00	0.52	0.10	0.45
0.80	0.02	0.00	0.00	11.20	0.55	0.12	0.58
1.00	0.02	0.00	0.00	11.40	0.60	0.14	0.76
1.20	0.03	0.00	0.00	11.60	0.68	0.18	1.49
1.40	0.03	0.00	0.00	11.80	0.95	0.36	6.06
1.60	0.04	0.00	0.00	12.00	1.46	0.77	13.37
1.80	0.04	0.00	0.00	12.20	1.54	0.83	2.04
2.00	0.05	0.00	0.00	12.40	1.60	0.88	1.49
2.20	0.05	0.00	0.00	12.60	1.64	0.92	1.03
2.40	0.06	0.00	0.00	12.80	1.67	0.95	0.89
2.60	0.06	0.00	0.00	13.00	1.70	0.97	0.77
2.80	0.07	0.00	0.00	13.20	1.72	0.99	0.69
3.00	0.08	0.00	0.00	13.40	1.75	1.01	0.62
3.20	0.08	0.00	0.00	13.60	1.77	1.03	0.56
3.40	0.09	0.00	0.00	13.80	1.79	1.05	0.51
3.60	0.09	0.00	0.00	14.00	1.80	1.06	0.46
3.80	0.10	0.00	0.00	14.20	1.82	1.08	0.44
4.00	0.11	0.00	0.00	14.40	1.84	1.09	0.42
4.20	0.11	0.00	0.00	14.60	1.85	1.10	0.40
4.40	0.12	0.00	0.00	14.80	1.86	1.12	0.39
4.60	0.12	0.00	0.00	15.00	1.88	1.13	0.37
4.80	0.13	0.00	0.00	15.20	1.89	1.14	0.35
5.00	0.14	0.00	0.00	15.40	1.90	1.15	0.34
5.20	0.15	0.00	0.00	15.60	1.91	1.16	0.32
5.40	0.15	0.00	0.00	15.80	1.93	1.17	0.30
5.60	0.16	0.00	0.00	16.00	1.94	1.18	0.29
5.80	0.17	0.00	0.00	16.20	1.95	1.19	0.28
6.00	0.18	0.00	0.00	16.40	1.96	1.20	0.27
6.20	0.18	0.00	0.00	16.60	1.97	1.21	0.27
6.40	0.19	0.00	0.01	16.80	1.97	1.21	0.26
6.60	0.20	0.00	0.01	17.00	1.98	1.22	0.25
6.80	0.21	0.00	0.02	17.20	1.99	1.23	0.25
7.00	0.22	0.00	0.02	17.40	2.00	1.24	0.24
7.20	0.23	0.00	0.03	17.60	2.01	1.25	0.24
7.40	0.24	0.00	0.03	17.80	2.02	1.25	0.23
7.60	0.24	0.01	0.04	18.00	2.03	1.26	0.22
7.80	0.25	0.01	0.05	18.20	2.03	1.27	0.22
8.00	0.26	0.01	0.05	18.40	2.04	1.27	0.21
8.20	0.27	0.01	0.06	18.60	2.05	1.28	0.21
8.40	0.29	0.01	0.07	18.80	2.06	1.29	0.20
8.60	0.30	0.02	0.08	19.00	2.06	1.29	0.19
8.80	0.31	0.02	0.10	19.20	2.07	1.30	0.19
9.00	0.32	0.02	0.11	19.40	2.08	1.31	0.18
9.20	0.34	0.03	0.12	19.60	2.08	1.31	0.18
9.40	0.35	0.03	0.13	19.80	2.09	1.32	0.17
9.60	0.37	0.03	0.14	20.00	2.09	1.32	0.16
9.80	0.38	0.04	0.17	20.20	2.10	1.33	0.16
10.00	0.40	0.05	0.19	20.40	2.11	1.33	0.16
10.20	0.42	0.05	0.22	20.60	2.11	1.34	0.16

Hydrograph for Subcatchment 65S: Subarea 2 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
20.80	2.12	1.34	0.16	31.20	2.20	1.42	0.00
21.00	2.12	1.35	0.16	31.40	2.20	1.42	0.00
21.20	2.13	1.35	0.15	31.60	2.20	1.42	0.00
21.40	2.13	1.36	0.15	31.80	2.20	1.42	0.00
21.60	2.14	1.36	0.15	32.00	2.20	1.42	0.00
21.80	2.14	1.37	0.15	32.20	2.20	1.42	0.00
22.00	2.15	1.37	0.15	32.40	2.20	1.42	0.00
22.20	2.15	1.38	0.15	32.60	2.20	1.42	0.00
22.40	2.16	1.38	0.15	32.80	2.20	1.42	0.00
22.60	2.17	1.39	0.15	33.00	2.20	1.42	0.00
22.80	2.17	1.39	0.14	33.20	2.20	1.42	0.00
23.00	2.18	1.40	0.14	33.40	2.20	1.42	0.00
23.20	2.18	1.40	0.14	33.60	2.20	1.42	0.00
23.40	2.19	1.40	0.14	33.80	2.20	1.42	0.00
23.60	2.19	1.41	0.14	34.00	2.20	1.42	0.00
23.80	2.20	1.41	0.14	34.20	2.20	1.42	0.00
24.00	2.20	1.42	0.14	34.40	2.20	1.42	0.00
24.20	2.20	1.42	0.00	34.60	2.20	1.42	0.00
24.40	2.20	1.42	0.00	34.80	2.20	1.42	0.00
24.60	2.20	1.42	0.00	35.00	2.20	1.42	0.00
24.80	2.20	1.42	0.00	35.20	2.20	1.42	0.00
25.00	2.20	1.42	0.00	35.40	2.20	1.42	0.00
25.20	2.20	1.42	0.00	35.60	2.20	1.42	0.00
25.40	2.20	1.42	0.00	35.80	2.20	1.42	0.00
25.60	2.20	1.42	0.00	36.00	2.20	1.42	0.00
25.80	2.20	1.42	0.00	36.20	2.20	1.42	0.00
26.00	2.20	1.42	0.00	36.40	2.20	1.42	0.00
26.20	2.20	1.42	0.00	36.60	2.20	1.42	0.00
26.40	2.20	1.42	0.00	36.80	2.20	1.42	0.00
26.60	2.20	1.42	0.00	37.00	2.20	1.42	0.00
26.80	2.20	1.42	0.00	37.20	2.20	1.42	0.00
27.00	2.20	1.42	0.00	37.40	2.20	1.42	0.00
27.20	2.20	1.42	0.00	37.60	2.20	1.42	0.00
27.40	2.20	1.42	0.00	37.80	2.20	1.42	0.00
27.60	2.20	1.42	0.00	38.00	2.20	1.42	0.00
27.80	2.20	1.42	0.00	38.20	2.20	1.42	0.00
28.00	2.20	1.42	0.00	38.40	2.20	1.42	0.00
28.20	2.20	1.42	0.00	38.60	2.20	1.42	0.00
28.40	2.20	1.42	0.00	38.80	2.20	1.42	0.00
28.60	2.20	1.42	0.00	39.00	2.20	1.42	0.00
28.80	2.20	1.42	0.00	39.20	2.20	1.42	0.00
29.00	2.20	1.42	0.00	39.40	2.20	1.42	0.00
29.20	2.20	1.42	0.00	39.60	2.20	1.42	0.00
29.40	2.20	1.42	0.00	39.80	2.20	1.42	0.00
29.60	2.20	1.42	0.00	40.00	2.20	1.42	0.00
29.80	2.20	1.42	0.00	40.20	2.20	1.42	0.00
30.00	2.20	1.42	0.00	40.40	2.20	1.42	0.00
30.20	2.20	1.42	0.00	40.60	2.20	1.42	0.00
30.40	2.20	1.42	0.00	40.80	2.20	1.42	0.00
30.60	2.20	1.42	0.00	41.00	2.20	1.42	0.00
30.80	2.20	1.42	0.00	41.20	2.20	1.42	0.00
31.00	2.20	1.42	0.00	41.40	2.20	1.42	0.00

Hydrograph for Subcatchment 65S: Subarea 2 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
41.60	2.20	1.42	0.00	52.00	2.20	1.42	0.00
41.80	2.20	1.42	0.00	52.20	2.20	1.42	0.00
42.00	2.20	1.42	0.00	52.40	2.20	1.42	0.00
42.20	2.20	1.42	0.00	52.60	2.20	1.42	0.00
42.40	2.20	1.42	0.00	52.80	2.20	1.42	0.00
42.60	2.20	1.42	0.00	53.00	2.20	1.42	0.00
42.80	2.20	1.42	0.00	53.20	2.20	1.42	0.00
43.00	2.20	1.42	0.00	53.40	2.20	1.42	0.00
43.20	2.20	1.42	0.00	53.60	2.20	1.42	0.00
43.40	2.20	1.42	0.00	53.80	2.20	1.42	0.00
43.60	2.20	1.42	0.00	54.00	2.20	1.42	0.00
43.80	2.20	1.42	0.00	54.20	2.20	1.42	0.00
44.00	2.20	1.42	0.00	54.40	2.20	1.42	0.00
44.20	2.20	1.42	0.00	54.60	2.20	1.42	0.00
44.40	2.20	1.42	0.00	54.80	2.20	1.42	0.00
44.60	2.20	1.42	0.00	55.00	2.20	1.42	0.00
44.80	2.20	1.42	0.00	55.20	2.20	1.42	0.00
45.00	2.20	1.42	0.00	55.40	2.20	1.42	0.00
45.20	2.20	1.42	0.00	55.60	2.20	1.42	0.00
45.40	2.20	1.42	0.00	55.80	2.20	1.42	0.00
45.60	2.20	1.42	0.00	56.00	2.20	1.42	0.00
45.80	2.20	1.42	0.00	56.20	2.20	1.42	0.00
46.00	2.20	1.42	0.00	56.40	2.20	1.42	0.00
46.20	2.20	1.42	0.00	56.60	2.20	1.42	0.00
46.40	2.20	1.42	0.00	56.80	2.20	1.42	0.00
46.60	2.20	1.42	0.00	57.00	2.20	1.42	0.00
46.80	2.20	1.42	0.00	57.20	2.20	1.42	0.00
47.00	2.20	1.42	0.00	57.40	2.20	1.42	0.00
47.20	2.20	1.42	0.00	57.60	2.20	1.42	0.00
47.40	2.20	1.42	0.00	57.80	2.20	1.42	0.00
47.60	2.20	1.42	0.00	58.00	2.20	1.42	0.00
47.80	2.20	1.42	0.00	58.20	2.20	1.42	0.00
48.00	2.20	1.42	0.00	58.40	2.20	1.42	0.00
48.20	2.20	1.42	0.00	58.60	2.20	1.42	0.00
48.40	2.20	1.42	0.00	58.80	2.20	1.42	0.00
48.60	2.20	1.42	0.00	59.00	2.20	1.42	0.00
48.80	2.20	1.42	0.00	59.20	2.20	1.42	0.00
49.00	2.20	1.42	0.00	59.40	2.20	1.42	0.00
49.20	2.20	1.42	0.00	59.60	2.20	1.42	0.00
49.40	2.20	1.42	0.00	59.80	2.20	1.42	0.00
49.60	2.20	1.42	0.00	60.00	2.20	1.42	0.00
49.80	2.20	1.42	0.00	60.20	2.20	1.42	0.00
50.00	2.20	1.42	0.00	60.40	2.20	1.42	0.00
50.20	2.20	1.42	0.00	60.60	2.20	1.42	0.00
50.40	2.20	1.42	0.00	60.80	2.20	1.42	0.00
50.60	2.20	1.42	0.00	61.00	2.20	1.42	0.00
50.80	2.20	1.42	0.00	61.20	2.20	1.42	0.00
51.00	2.20	1.42	0.00	61.40	2.20	1.42	0.00
51.20	2.20	1.42	0.00	61.60	2.20	1.42	0.00
51.40	2.20	1.42	0.00	61.80	2.20	1.42	0.00
51.60	2.20	1.42	0.00	62.00	2.20	1.42	0.00
51.80	2.20	1.42	0.00	62.20	2.20	1.42	0.00

Hydrograph for Subcatchment 65S: Subarea 2 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
62.40	2.20	1.42	0.00	72.80	2.20	1.42	0.00
62.60	2.20	1.42	0.00	73.00	2.20	1.42	0.00
62.80	2.20	1.42	0.00	73.20	2.20	1.42	0.00
63.00	2.20	1.42	0.00	73.40	2.20	1.42	0.00
63.20	2.20	1.42	0.00	73.60	2.20	1.42	0.00
63.40	2.20	1.42	0.00	73.80	2.20	1.42	0.00
63.60	2.20	1.42	0.00	74.00	2.20	1.42	0.00
63.80	2.20	1.42	0.00	74.20	2.20	1.42	0.00
64.00	2.20	1.42	0.00	74.40	2.20	1.42	0.00
64.20	2.20	1.42	0.00	74.60	2.20	1.42	0.00
64.40	2.20	1.42	0.00	74.80	2.20	1.42	0.00
64.60	2.20	1.42	0.00	75.00	2.20	1.42	0.00
64.80	2.20	1.42	0.00	75.20	2.20	1.42	0.00
65.00	2.20	1.42	0.00	75.40	2.20	1.42	0.00
65.20	2.20	1.42	0.00	75.60	2.20	1.42	0.00
65.40	2.20	1.42	0.00	75.80	2.20	1.42	0.00
65.60	2.20	1.42	0.00	76.00	2.20	1.42	0.00
65.80	2.20	1.42	0.00	76.20	2.20	1.42	0.00
66.00	2.20	1.42	0.00	76.40	2.20	1.42	0.00
66.20	2.20	1.42	0.00	76.60	2.20	1.42	0.00
66.40	2.20	1.42	0.00	76.80	2.20	1.42	0.00
66.60	2.20	1.42	0.00	77.00	2.20	1.42	0.00
66.80	2.20	1.42	0.00	77.20	2.20	1.42	0.00
67.00	2.20	1.42	0.00	77.40	2.20	1.42	0.00
67.20	2.20	1.42	0.00	77.60	2.20	1.42	0.00
67.40	2.20	1.42	0.00	77.80	2.20	1.42	0.00
67.60	2.20	1.42	0.00	78.00	2.20	1.42	0.00
67.80	2.20	1.42	0.00	78.20	2.20	1.42	0.00
68.00	2.20	1.42	0.00	78.40	2.20	1.42	0.00
68.20	2.20	1.42	0.00	78.60	2.20	1.42	0.00
68.40	2.20	1.42	0.00	78.80	2.20	1.42	0.00
68.60	2.20	1.42	0.00	79.00	2.20	1.42	0.00
68.80	2.20	1.42	0.00	79.20	2.20	1.42	0.00
69.00	2.20	1.42	0.00	79.40	2.20	1.42	0.00
69.20	2.20	1.42	0.00	79.60	2.20	1.42	0.00
69.40	2.20	1.42	0.00	79.80	2.20	1.42	0.00
69.60	2.20	1.42	0.00	80.00	2.20	1.42	0.00
69.80	2.20	1.42	0.00	80.20	2.20	1.42	0.00
70.00	2.20	1.42	0.00	80.40	2.20	1.42	0.00
70.20	2.20	1.42	0.00	80.60	2.20	1.42	0.00
70.40	2.20	1.42	0.00	80.80	2.20	1.42	0.00
70.60	2.20	1.42	0.00	81.00	2.20	1.42	0.00
70.80	2.20	1.42	0.00	81.20	2.20	1.42	0.00
71.00	2.20	1.42	0.00	81.40	2.20	1.42	0.00
71.20	2.20	1.42	0.00	81.60	2.20	1.42	0.00
71.40	2.20	1.42	0.00	81.80	2.20	1.42	0.00
71.60	2.20	1.42	0.00	82.00	2.20	1.42	0.00
71.80	2.20	1.42	0.00	82.20	2.20	1.42	0.00
72.00	2.20	1.42	0.00	82.40	2.20	1.42	0.00
72.20	2.20	1.42	0.00	82.60	2.20	1.42	0.00
72.40	2.20	1.42	0.00	82.80	2.20	1.42	0.00
72.60	2.20	1.42	0.00	83.00	2.20	1.42	0.00

Hydrograph for Subcatchment 65S: Subarea 2 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
83.20	2.20	1.42	0.00	93.60	2.20	1.42	0.00
83.40	2.20	1.42	0.00	93.80	2.20	1.42	0.00
83.60	2.20	1.42	0.00	94.00	2.20	1.42	0.00
83.80	2.20	1.42	0.00	94.20	2.20	1.42	0.00
84.00	2.20	1.42	0.00	94.40	2.20	1.42	0.00
84.20	2.20	1.42	0.00	94.60	2.20	1.42	0.00
84.40	2.20	1.42	0.00	94.80	2.20	1.42	0.00
84.60	2.20	1.42	0.00	95.00	2.20	1.42	0.00
84.80	2.20	1.42	0.00	95.20	2.20	1.42	0.00
85.00	2.20	1.42	0.00	95.40	2.20	1.42	0.00
85.20	2.20	1.42	0.00	95.60	2.20	1.42	0.00
85.40	2.20	1.42	0.00	95.80	2.20	1.42	0.00
85.60	2.20	1.42	0.00	96.00	2.20	1.42	0.00
85.80	2.20	1.42	0.00	96.20	2.20	1.42	0.00
86.00	2.20	1.42	0.00	96.40	2.20	1.42	0.00
86.20	2.20	1.42	0.00	96.60	2.20	1.42	0.00
86.40	2.20	1.42	0.00	96.80	2.20	1.42	0.00
86.60	2.20	1.42	0.00	97.00	2.20	1.42	0.00
86.80	2.20	1.42	0.00	97.20	2.20	1.42	0.00
87.00	2.20	1.42	0.00	97.40	2.20	1.42	0.00
87.20	2.20	1.42	0.00	97.60	2.20	1.42	0.00
87.40	2.20	1.42	0.00	97.80	2.20	1.42	0.00
87.60	2.20	1.42	0.00	98.00	2.20	1.42	0.00
87.80	2.20	1.42	0.00	98.20	2.20	1.42	0.00
88.00	2.20	1.42	0.00	98.40	2.20	1.42	0.00
88.20	2.20	1.42	0.00	98.60	2.20	1.42	0.00
88.40	2.20	1.42	0.00	98.80	2.20	1.42	0.00
88.60	2.20	1.42	0.00	99.00	2.20	1.42	0.00
88.80	2.20	1.42	0.00	99.20	2.20	1.42	0.00
89.00	2.20	1.42	0.00	99.40	2.20	1.42	0.00
89.20	2.20	1.42	0.00	99.60	2.20	1.42	0.00
89.40	2.20	1.42	0.00	99.80	2.20	1.42	0.00
89.60	2.20	1.42	0.00	100.00	2.20	1.42	0.00
89.80	2.20	1.42	0.00	100.20	2.20	1.42	0.00
90.00	2.20	1.42	0.00	100.40	2.20	1.42	0.00
90.20	2.20	1.42	0.00	100.60	2.20	1.42	0.00
90.40	2.20	1.42	0.00	100.80	2.20	1.42	0.00
90.60	2.20	1.42	0.00	101.00	2.20	1.42	0.00
90.80	2.20	1.42	0.00	101.20	2.20	1.42	0.00
91.00	2.20	1.42	0.00	101.40	2.20	1.42	0.00
91.20	2.20	1.42	0.00	101.60	2.20	1.42	0.00
91.40	2.20	1.42	0.00	101.80	2.20	1.42	0.00
91.60	2.20	1.42	0.00	102.00	2.20	1.42	0.00
91.80	2.20	1.42	0.00	102.20	2.20	1.42	0.00
92.00	2.20	1.42	0.00	102.40	2.20	1.42	0.00
92.20	2.20	1.42	0.00	102.60	2.20	1.42	0.00
92.40	2.20	1.42	0.00	102.80	2.20	1.42	0.00
92.60	2.20	1.42	0.00	103.00	2.20	1.42	0.00
92.80	2.20	1.42	0.00	103.20	2.20	1.42	0.00
93.00	2.20	1.42	0.00	103.40	2.20	1.42	0.00
93.20	2.20	1.42	0.00	103.60	2.20	1.42	0.00
93.40	2.20	1.42	0.00	103.80	2.20	1.42	0.00

Hydrograph for Subcatchment 65S: Subarea 2 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
104.00	2.20	1.42	0.00	114.40	2.20	1.42	0.00
104.20	2.20	1.42	0.00	114.60	2.20	1.42	0.00
104.40	2.20	1.42	0.00	114.80	2.20	1.42	0.00
104.60	2.20	1.42	0.00	115.00	2.20	1.42	0.00
104.80	2.20	1.42	0.00	115.20	2.20	1.42	0.00
105.00	2.20	1.42	0.00	115.40	2.20	1.42	0.00
105.20	2.20	1.42	0.00	115.60	2.20	1.42	0.00
105.40	2.20	1.42	0.00	115.80	2.20	1.42	0.00
105.60	2.20	1.42	0.00	116.00	2.20	1.42	0.00
105.80	2.20	1.42	0.00	116.20	2.20	1.42	0.00
106.00	2.20	1.42	0.00	116.40	2.20	1.42	0.00
106.20	2.20	1.42	0.00	116.60	2.20	1.42	0.00
106.40	2.20	1.42	0.00	116.80	2.20	1.42	0.00
106.60	2.20	1.42	0.00	117.00	2.20	1.42	0.00
106.80	2.20	1.42	0.00	117.20	2.20	1.42	0.00
107.00	2.20	1.42	0.00	117.40	2.20	1.42	0.00
107.20	2.20	1.42	0.00	117.60	2.20	1.42	0.00
107.40	2.20	1.42	0.00	117.80	2.20	1.42	0.00
107.60	2.20	1.42	0.00	118.00	2.20	1.42	0.00
107.80	2.20	1.42	0.00	118.20	2.20	1.42	0.00
108.00	2.20	1.42	0.00	118.40	2.20	1.42	0.00
108.20	2.20	1.42	0.00	118.60	2.20	1.42	0.00
108.40	2.20	1.42	0.00	118.80	2.20	1.42	0.00
108.60	2.20	1.42	0.00	119.00	2.20	1.42	0.00
108.80	2.20	1.42	0.00	119.20	2.20	1.42	0.00
109.00	2.20	1.42	0.00	119.40	2.20	1.42	0.00
109.20	2.20	1.42	0.00	119.60	2.20	1.42	0.00
109.40	2.20	1.42	0.00	119.80	2.20	1.42	0.00
109.60	2.20	1.42	0.00	120.00	2.20	1.42	0.00
109.80	2.20	1.42	0.00	120.20	2.20	1.42	0.00
110.00	2.20	1.42	0.00	120.40	2.20	1.42	0.00
110.20	2.20	1.42	0.00	120.60	2.20	1.42	0.00
110.40	2.20	1.42	0.00	120.80	2.20	1.42	0.00
110.60	2.20	1.42	0.00	121.00	2.20	1.42	0.00
110.80	2.20	1.42	0.00	121.20	2.20	1.42	0.00
111.00	2.20	1.42	0.00	121.40	2.20	1.42	0.00
111.20	2.20	1.42	0.00	121.60	2.20	1.42	0.00
111.40	2.20	1.42	0.00	121.80	2.20	1.42	0.00
111.60	2.20	1.42	0.00	122.00	2.20	1.42	0.00
111.80	2.20	1.42	0.00	122.20	2.20	1.42	0.00
112.00	2.20	1.42	0.00	122.40	2.20	1.42	0.00
112.20	2.20	1.42	0.00	122.60	2.20	1.42	0.00
112.40	2.20	1.42	0.00	122.80	2.20	1.42	0.00
112.60	2.20	1.42	0.00	123.00	2.20	1.42	0.00
112.80	2.20	1.42	0.00	123.20	2.20	1.42	0.00
113.00	2.20	1.42	0.00	123.40	2.20	1.42	0.00
113.20	2.20	1.42	0.00	123.60	2.20	1.42	0.00
113.40	2.20	1.42	0.00	123.80	2.20	1.42	0.00
113.60	2.20	1.42	0.00	124.00	2.20	1.42	0.00
113.80	2.20	1.42	0.00	124.20	2.20	1.42	0.00
114.00	2.20	1.42	0.00	124.40	2.20	1.42	0.00
114.20	2.20	1.42	0.00	124.60	2.20	1.42	0.00

Hydrograph for Subcatchment 65S: Subarea 2 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
124.80	2.20	1.42	0.00	135.20	2.20	1.42	0.00
125.00	2.20	1.42	0.00	135.40	2.20	1.42	0.00
125.20	2.20	1.42	0.00	135.60	2.20	1.42	0.00
125.40	2.20	1.42	0.00	135.80	2.20	1.42	0.00
125.60	2.20	1.42	0.00	136.00	2.20	1.42	0.00
125.80	2.20	1.42	0.00	136.20	2.20	1.42	0.00
126.00	2.20	1.42	0.00	136.40	2.20	1.42	0.00
126.20	2.20	1.42	0.00	136.60	2.20	1.42	0.00
126.40	2.20	1.42	0.00	136.80	2.20	1.42	0.00
126.60	2.20	1.42	0.00	137.00	2.20	1.42	0.00
126.80	2.20	1.42	0.00	137.20	2.20	1.42	0.00
127.00	2.20	1.42	0.00	137.40	2.20	1.42	0.00
127.20	2.20	1.42	0.00	137.60	2.20	1.42	0.00
127.40	2.20	1.42	0.00	137.80	2.20	1.42	0.00
127.60	2.20	1.42	0.00	138.00	2.20	1.42	0.00
127.80	2.20	1.42	0.00	138.20	2.20	1.42	0.00
128.00	2.20	1.42	0.00	138.40	2.20	1.42	0.00
128.20	2.20	1.42	0.00	138.60	2.20	1.42	0.00
128.40	2.20	1.42	0.00	138.80	2.20	1.42	0.00
128.60	2.20	1.42	0.00	139.00	2.20	1.42	0.00
128.80	2.20	1.42	0.00	139.20	2.20	1.42	0.00
129.00	2.20	1.42	0.00	139.40	2.20	1.42	0.00
129.20	2.20	1.42	0.00	139.60	2.20	1.42	0.00
129.40	2.20	1.42	0.00	139.80	2.20	1.42	0.00
129.60	2.20	1.42	0.00	140.00	2.20	1.42	0.00
129.80	2.20	1.42	0.00	140.20	2.20	1.42	0.00
130.00	2.20	1.42	0.00	140.40	2.20	1.42	0.00
130.20	2.20	1.42	0.00	140.60	2.20	1.42	0.00
130.40	2.20	1.42	0.00	140.80	2.20	1.42	0.00
130.60	2.20	1.42	0.00	141.00	2.20	1.42	0.00
130.80	2.20	1.42	0.00	141.20	2.20	1.42	0.00
131.00	2.20	1.42	0.00	141.40	2.20	1.42	0.00
131.20	2.20	1.42	0.00	141.60	2.20	1.42	0.00
131.40	2.20	1.42	0.00	141.80	2.20	1.42	0.00
131.60	2.20	1.42	0.00	142.00	2.20	1.42	0.00
131.80	2.20	1.42	0.00	142.20	2.20	1.42	0.00
132.00	2.20	1.42	0.00	142.40	2.20	1.42	0.00
132.20	2.20	1.42	0.00	142.60	2.20	1.42	0.00
132.40	2.20	1.42	0.00	142.80	2.20	1.42	0.00
132.60	2.20	1.42	0.00	143.00	2.20	1.42	0.00
132.80	2.20	1.42	0.00	143.20	2.20	1.42	0.00
133.00	2.20	1.42	0.00	143.40	2.20	1.42	0.00
133.20	2.20	1.42	0.00	143.60	2.20	1.42	0.00
133.40	2.20	1.42	0.00	143.80	2.20	1.42	0.00
133.60	2.20	1.42	0.00	144.00	2.20	1.42	0.00
133.80	2.20	1.42	0.00	144.20	2.20	1.42	0.00
134.00	2.20	1.42	0.00	144.40	2.20	1.42	0.00
134.20	2.20	1.42	0.00	144.60	2.20	1.42	0.00
134.40	2.20	1.42	0.00	144.80	2.20	1.42	0.00
134.60	2.20	1.42	0.00	145.00	2.20	1.42	0.00
134.80	2.20	1.42	0.00	145.20	2.20	1.42	0.00
135.00	2.20	1.42	0.00	145.40	2.20	1.42	0.00

Hydrograph for Subcatchment 65S: Subarea 2 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
145.60	2.20	1.42	0.00	156.00	2.20	1.42	0.00
145.80	2.20	1.42	0.00	156.20	2.20	1.42	0.00
146.00	2.20	1.42	0.00	156.40	2.20	1.42	0.00
146.20	2.20	1.42	0.00	156.60	2.20	1.42	0.00
146.40	2.20	1.42	0.00	156.80	2.20	1.42	0.00
146.60	2.20	1.42	0.00	157.00	2.20	1.42	0.00
146.80	2.20	1.42	0.00	157.20	2.20	1.42	0.00
147.00	2.20	1.42	0.00	157.40	2.20	1.42	0.00
147.20	2.20	1.42	0.00	157.60	2.20	1.42	0.00
147.40	2.20	1.42	0.00	157.80	2.20	1.42	0.00
147.60	2.20	1.42	0.00	158.00	2.20	1.42	0.00
147.80	2.20	1.42	0.00	158.20	2.20	1.42	0.00
148.00	2.20	1.42	0.00	158.40	2.20	1.42	0.00
148.20	2.20	1.42	0.00	158.60	2.20	1.42	0.00
148.40	2.20	1.42	0.00	158.80	2.20	1.42	0.00
148.60	2.20	1.42	0.00	159.00	2.20	1.42	0.00
148.80	2.20	1.42	0.00	159.20	2.20	1.42	0.00
149.00	2.20	1.42	0.00	159.40	2.20	1.42	0.00
149.20	2.20	1.42	0.00	159.60	2.20	1.42	0.00
149.40	2.20	1.42	0.00	159.80	2.20	1.42	0.00
149.60	2.20	1.42	0.00	160.00	2.20	1.42	0.00
149.80	2.20	1.42	0.00	160.20	2.20	1.42	0.00
150.00	2.20	1.42	0.00	160.40	2.20	1.42	0.00
150.20	2.20	1.42	0.00	160.60	2.20	1.42	0.00
150.40	2.20	1.42	0.00	160.80	2.20	1.42	0.00
150.60	2.20	1.42	0.00	161.00	2.20	1.42	0.00
150.80	2.20	1.42	0.00	161.20	2.20	1.42	0.00
151.00	2.20	1.42	0.00	161.40	2.20	1.42	0.00
151.20	2.20	1.42	0.00	161.60	2.20	1.42	0.00
151.40	2.20	1.42	0.00	161.80	2.20	1.42	0.00
151.60	2.20	1.42	0.00	162.00	2.20	1.42	0.00
151.80	2.20	1.42	0.00	162.20	2.20	1.42	0.00
152.00	2.20	1.42	0.00	162.40	2.20	1.42	0.00
152.20	2.20	1.42	0.00	162.60	2.20	1.42	0.00
152.40	2.20	1.42	0.00	162.80	2.20	1.42	0.00
152.60	2.20	1.42	0.00	163.00	2.20	1.42	0.00
152.80	2.20	1.42	0.00	163.20	2.20	1.42	0.00
153.00	2.20	1.42	0.00	163.40	2.20	1.42	0.00
153.20	2.20	1.42	0.00	163.60	2.20	1.42	0.00
153.40	2.20	1.42	0.00	163.80	2.20	1.42	0.00
153.60	2.20	1.42	0.00	164.00	2.20	1.42	0.00
153.80	2.20	1.42	0.00	164.20	2.20	1.42	0.00
154.00	2.20	1.42	0.00	164.40	2.20	1.42	0.00
154.20	2.20	1.42	0.00	164.60	2.20	1.42	0.00
154.40	2.20	1.42	0.00	164.80	2.20	1.42	0.00
154.60	2.20	1.42	0.00	165.00	2.20	1.42	0.00
154.80	2.20	1.42	0.00	165.20	2.20	1.42	0.00
155.00	2.20	1.42	0.00	165.40	2.20	1.42	0.00
155.20	2.20	1.42	0.00	165.60	2.20	1.42	0.00
155.40	2.20	1.42	0.00	165.80	2.20	1.42	0.00
155.60	2.20	1.42	0.00	166.00	2.20	1.42	0.00
155.80	2.20	1.42	0.00	166.20	2.20	1.42	0.00

Hydrograph for Subcatchment 65S: Subarea 2 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
166.40	2.20	1.42	0.00	176.80	2.20	1.42	0.00
166.60	2.20	1.42	0.00	177.00	2.20	1.42	0.00
166.80	2.20	1.42	0.00	177.20	2.20	1.42	0.00
167.00	2.20	1.42	0.00	177.40	2.20	1.42	0.00
167.20	2.20	1.42	0.00	177.60	2.20	1.42	0.00
167.40	2.20	1.42	0.00	177.80	2.20	1.42	0.00
167.60	2.20	1.42	0.00	178.00	2.20	1.42	0.00
167.80	2.20	1.42	0.00	178.20	2.20	1.42	0.00
168.00	2.20	1.42	0.00	178.40	2.20	1.42	0.00
168.20	2.20	1.42	0.00	178.60	2.20	1.42	0.00
168.40	2.20	1.42	0.00	178.80	2.20	1.42	0.00
168.60	2.20	1.42	0.00	179.00	2.20	1.42	0.00
168.80	2.20	1.42	0.00	179.20	2.20	1.42	0.00
169.00	2.20	1.42	0.00	179.40	2.20	1.42	0.00
169.20	2.20	1.42	0.00	179.60	2.20	1.42	0.00
169.40	2.20	1.42	0.00	179.80	2.20	1.42	0.00
169.60	2.20	1.42	0.00	180.00	2.20	1.42	0.00
169.80	2.20	1.42	0.00	180.20	2.20	1.42	0.00
170.00	2.20	1.42	0.00	180.40	2.20	1.42	0.00
170.20	2.20	1.42	0.00	180.60	2.20	1.42	0.00
170.40	2.20	1.42	0.00	180.80	2.20	1.42	0.00
170.60	2.20	1.42	0.00	181.00	2.20	1.42	0.00
170.80	2.20	1.42	0.00	181.20	2.20	1.42	0.00
171.00	2.20	1.42	0.00	181.40	2.20	1.42	0.00
171.20	2.20	1.42	0.00	181.60	2.20	1.42	0.00
171.40	2.20	1.42	0.00	181.80	2.20	1.42	0.00
171.60	2.20	1.42	0.00	182.00	2.20	1.42	0.00
171.80	2.20	1.42	0.00	182.20	2.20	1.42	0.00
172.00	2.20	1.42	0.00	182.40	2.20	1.42	0.00
172.20	2.20	1.42	0.00	182.60	2.20	1.42	0.00
172.40	2.20	1.42	0.00	182.80	2.20	1.42	0.00
172.60	2.20	1.42	0.00	183.00	2.20	1.42	0.00
172.80	2.20	1.42	0.00	183.20	2.20	1.42	0.00
173.00	2.20	1.42	0.00	183.40	2.20	1.42	0.00
173.20	2.20	1.42	0.00	183.60	2.20	1.42	0.00
173.40	2.20	1.42	0.00	183.80	2.20	1.42	0.00
173.60	2.20	1.42	0.00	184.00	2.20	1.42	0.00
173.80	2.20	1.42	0.00	184.20	2.20	1.42	0.00
174.00	2.20	1.42	0.00	184.40	2.20	1.42	0.00
174.20	2.20	1.42	0.00	184.60	2.20	1.42	0.00
174.40	2.20	1.42	0.00	184.80	2.20	1.42	0.00
174.60	2.20	1.42	0.00	185.00	2.20	1.42	0.00
174.80	2.20	1.42	0.00	185.20	2.20	1.42	0.00
175.00	2.20	1.42	0.00	185.40	2.20	1.42	0.00
175.20	2.20	1.42	0.00	185.60	2.20	1.42	0.00
175.40	2.20	1.42	0.00	185.80	2.20	1.42	0.00
175.60	2.20	1.42	0.00	186.00	2.20	1.42	0.00
175.80	2.20	1.42	0.00	186.20	2.20	1.42	0.00
176.00	2.20	1.42	0.00	186.40	2.20	1.42	0.00
176.20	2.20	1.42	0.00	186.60	2.20	1.42	0.00
176.40	2.20	1.42	0.00	186.80	2.20	1.42	0.00
176.60	2.20	1.42	0.00	187.00	2.20	1.42	0.00

Hydrograph for Subcatchment 65S: Subarea 2 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
187.20	2.20	1.42	0.00	197.60	2.20	1.42	0.00
187.40	2.20	1.42	0.00	197.80	2.20	1.42	0.00
187.60	2.20	1.42	0.00	198.00	2.20	1.42	0.00
187.80	2.20	1.42	0.00	198.20	2.20	1.42	0.00
188.00	2.20	1.42	0.00	198.40	2.20	1.42	0.00
188.20	2.20	1.42	0.00	198.60	2.20	1.42	0.00
188.40	2.20	1.42	0.00	198.80	2.20	1.42	0.00
188.60	2.20	1.42	0.00	199.00	2.20	1.42	0.00
188.80	2.20	1.42	0.00	199.20	2.20	1.42	0.00
189.00	2.20	1.42	0.00	199.40	2.20	1.42	0.00
189.20	2.20	1.42	0.00	199.60	2.20	1.42	0.00
189.40	2.20	1.42	0.00	199.80	2.20	1.42	0.00
189.60	2.20	1.42	0.00	200.00	2.20	1.42	0.00
189.80	2.20	1.42	0.00				
190.00	2.20	1.42	0.00				
190.20	2.20	1.42	0.00				
190.40	2.20	1.42	0.00				
190.60	2.20	1.42	0.00				
190.80	2.20	1.42	0.00				
191.00	2.20	1.42	0.00				
191.20	2.20	1.42	0.00				
191.40	2.20	1.42	0.00				
191.60	2.20	1.42	0.00				
191.80	2.20	1.42	0.00				
192.00	2.20	1.42	0.00				
192.20	2.20	1.42	0.00				
192.40	2.20	1.42	0.00				
192.60	2.20	1.42	0.00				
192.80	2.20	1.42	0.00				
193.00	2.20	1.42	0.00				
193.20	2.20	1.42	0.00				
193.40	2.20	1.42	0.00				
193.60	2.20	1.42	0.00				
193.80	2.20	1.42	0.00				
194.00	2.20	1.42	0.00				
194.20	2.20	1.42	0.00				
194.40	2.20	1.42	0.00				
194.60	2.20	1.42	0.00				
194.80	2.20	1.42	0.00				
195.00	2.20	1.42	0.00				
195.20	2.20	1.42	0.00				
195.40	2.20	1.42	0.00				
195.60	2.20	1.42	0.00				
195.80	2.20	1.42	0.00				
196.00	2.20	1.42	0.00				
196.20	2.20	1.42	0.00				
196.40	2.20	1.42	0.00				
196.60	2.20	1.42	0.00				
196.80	2.20	1.42	0.00				
197.00	2.20	1.42	0.00				
197.20	2.20	1.42	0.00				
197.40	2.20	1.42	0.00				

Summary for Subcatchment 66S: Subarea 1

Runoff = 38.22 cfs @ 11.96 hrs, Volume= 1.767 af, Depth= 1.42"

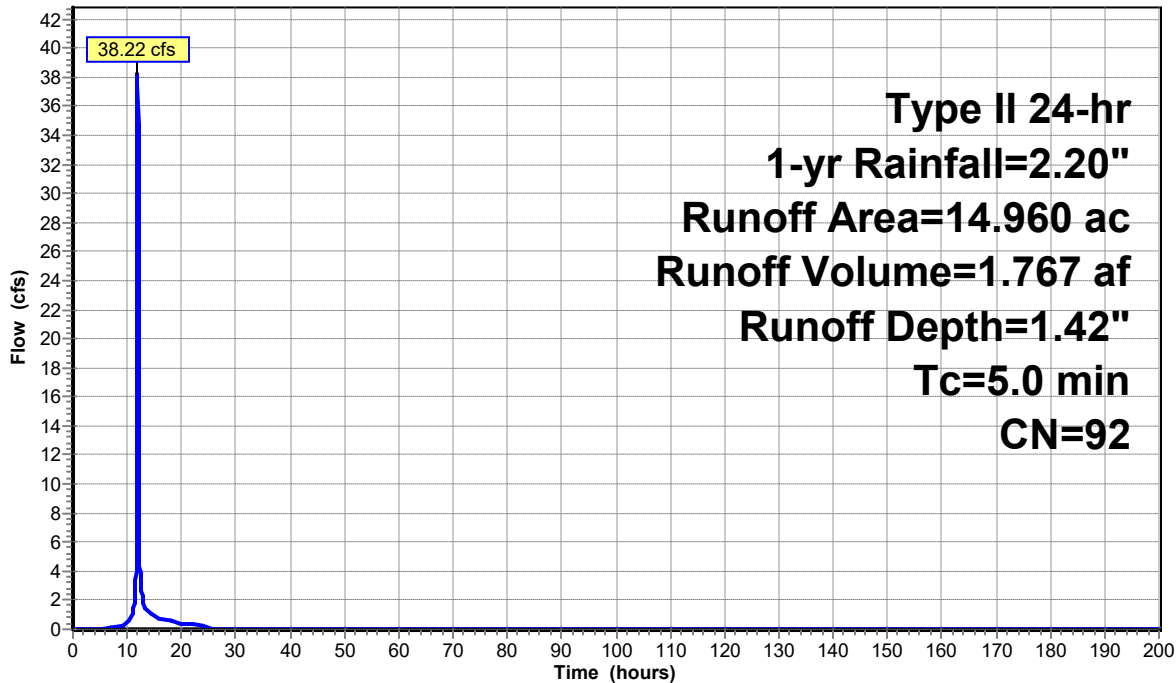
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-yr Rainfall=2.20"

Area (ac)	CN	Description
10.210	98	Paved parking, HSG C
3.740	74	>75% Grass cover, Good, HSG C
1.010	98	Water Surface, HSG C
14.960	92	Weighted Average
3.740		25.00% Pervious Area
11.220		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 66S: Subarea 1

Hydrograph



Hydrograph for Subcatchment 66S: Subarea 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	10.40	0.44	0.06	0.64
0.20	0.00	0.00	0.00	10.60	0.46	0.07	0.75
0.40	0.01	0.00	0.00	10.80	0.49	0.08	0.91
0.60	0.01	0.00	0.00	11.00	0.52	0.10	1.09
0.80	0.02	0.00	0.00	11.20	0.55	0.12	1.40
1.00	0.02	0.00	0.00	11.40	0.60	0.14	1.83
1.20	0.03	0.00	0.00	11.60	0.68	0.18	3.61
1.40	0.03	0.00	0.00	11.80	0.95	0.36	14.67
1.60	0.04	0.00	0.00	12.00	1.46	0.77	32.37
1.80	0.04	0.00	0.00	12.20	1.54	0.83	4.95
2.00	0.05	0.00	0.00	12.40	1.60	0.88	3.61
2.20	0.05	0.00	0.00	12.60	1.64	0.92	2.48
2.40	0.06	0.00	0.00	12.80	1.67	0.95	2.16
2.60	0.06	0.00	0.00	13.00	1.70	0.97	1.87
2.80	0.07	0.00	0.00	13.20	1.72	0.99	1.66
3.00	0.08	0.00	0.00	13.40	1.75	1.01	1.50
3.20	0.08	0.00	0.00	13.60	1.77	1.03	1.35
3.40	0.09	0.00	0.00	13.80	1.79	1.05	1.24
3.60	0.09	0.00	0.00	14.00	1.80	1.06	1.12
3.80	0.10	0.00	0.00	14.20	1.82	1.08	1.06
4.00	0.11	0.00	0.00	14.40	1.84	1.09	1.02
4.20	0.11	0.00	0.00	14.60	1.85	1.10	0.98
4.40	0.12	0.00	0.00	14.80	1.86	1.12	0.94
4.60	0.12	0.00	0.00	15.00	1.88	1.13	0.90
4.80	0.13	0.00	0.00	15.20	1.89	1.14	0.86
5.00	0.14	0.00	0.00	15.40	1.90	1.15	0.82
5.20	0.15	0.00	0.00	15.60	1.91	1.16	0.78
5.40	0.15	0.00	0.00	15.80	1.93	1.17	0.74
5.60	0.16	0.00	0.00	16.00	1.94	1.18	0.70
5.80	0.17	0.00	0.00	16.20	1.95	1.19	0.67
6.00	0.18	0.00	0.00	16.40	1.96	1.20	0.66
6.20	0.18	0.00	0.01	16.60	1.97	1.21	0.64
6.40	0.19	0.00	0.02	16.80	1.97	1.21	0.63
6.60	0.20	0.00	0.03	17.00	1.98	1.22	0.61
6.80	0.21	0.00	0.04	17.20	1.99	1.23	0.60
7.00	0.22	0.00	0.06	17.40	2.00	1.24	0.59
7.20	0.23	0.00	0.07	17.60	2.01	1.25	0.57
7.40	0.24	0.00	0.08	17.80	2.02	1.25	0.56
7.60	0.24	0.01	0.10	18.00	2.03	1.26	0.54
7.80	0.25	0.01	0.11	18.20	2.03	1.27	0.53
8.00	0.26	0.01	0.13	18.40	2.04	1.27	0.51
8.20	0.27	0.01	0.15	18.60	2.05	1.28	0.50
8.40	0.29	0.01	0.17	18.80	2.06	1.29	0.48
8.60	0.30	0.02	0.20	19.00	2.06	1.29	0.47
8.80	0.31	0.02	0.24	19.20	2.07	1.30	0.45
9.00	0.32	0.02	0.27	19.40	2.08	1.31	0.44
9.20	0.34	0.03	0.30	19.60	2.08	1.31	0.42
9.40	0.35	0.03	0.32	19.80	2.09	1.32	0.41
9.60	0.37	0.03	0.35	20.00	2.09	1.32	0.40
9.80	0.38	0.04	0.40	20.20	2.10	1.33	0.39
10.00	0.40	0.05	0.46	20.40	2.11	1.33	0.38
10.20	0.42	0.05	0.54	20.60	2.11	1.34	0.38

Hydrograph for Subcatchment 66S: Subarea 1 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
20.80	2.12	1.34	0.38	31.20	2.20	1.42	0.00
21.00	2.12	1.35	0.38	31.40	2.20	1.42	0.00
21.20	2.13	1.35	0.37	31.60	2.20	1.42	0.00
21.40	2.13	1.36	0.37	31.80	2.20	1.42	0.00
21.60	2.14	1.36	0.37	32.00	2.20	1.42	0.00
21.80	2.14	1.37	0.36	32.20	2.20	1.42	0.00
22.00	2.15	1.37	0.36	32.40	2.20	1.42	0.00
22.20	2.15	1.38	0.36	32.60	2.20	1.42	0.00
22.40	2.16	1.38	0.36	32.80	2.20	1.42	0.00
22.60	2.17	1.39	0.35	33.00	2.20	1.42	0.00
22.80	2.17	1.39	0.35	33.20	2.20	1.42	0.00
23.00	2.18	1.40	0.35	33.40	2.20	1.42	0.00
23.20	2.18	1.40	0.34	33.60	2.20	1.42	0.00
23.40	2.19	1.40	0.34	33.80	2.20	1.42	0.00
23.60	2.19	1.41	0.34	34.00	2.20	1.42	0.00
23.80	2.20	1.41	0.34	34.20	2.20	1.42	0.00
24.00	2.20	1.42	0.33	34.40	2.20	1.42	0.00
24.20	2.20	1.42	0.00	34.60	2.20	1.42	0.00
24.40	2.20	1.42	0.00	34.80	2.20	1.42	0.00
24.60	2.20	1.42	0.00	35.00	2.20	1.42	0.00
24.80	2.20	1.42	0.00	35.20	2.20	1.42	0.00
25.00	2.20	1.42	0.00	35.40	2.20	1.42	0.00
25.20	2.20	1.42	0.00	35.60	2.20	1.42	0.00
25.40	2.20	1.42	0.00	35.80	2.20	1.42	0.00
25.60	2.20	1.42	0.00	36.00	2.20	1.42	0.00
25.80	2.20	1.42	0.00	36.20	2.20	1.42	0.00
26.00	2.20	1.42	0.00	36.40	2.20	1.42	0.00
26.20	2.20	1.42	0.00	36.60	2.20	1.42	0.00
26.40	2.20	1.42	0.00	36.80	2.20	1.42	0.00
26.60	2.20	1.42	0.00	37.00	2.20	1.42	0.00
26.80	2.20	1.42	0.00	37.20	2.20	1.42	0.00
27.00	2.20	1.42	0.00	37.40	2.20	1.42	0.00
27.20	2.20	1.42	0.00	37.60	2.20	1.42	0.00
27.40	2.20	1.42	0.00	37.80	2.20	1.42	0.00
27.60	2.20	1.42	0.00	38.00	2.20	1.42	0.00
27.80	2.20	1.42	0.00	38.20	2.20	1.42	0.00
28.00	2.20	1.42	0.00	38.40	2.20	1.42	0.00
28.20	2.20	1.42	0.00	38.60	2.20	1.42	0.00
28.40	2.20	1.42	0.00	38.80	2.20	1.42	0.00
28.60	2.20	1.42	0.00	39.00	2.20	1.42	0.00
28.80	2.20	1.42	0.00	39.20	2.20	1.42	0.00
29.00	2.20	1.42	0.00	39.40	2.20	1.42	0.00
29.20	2.20	1.42	0.00	39.60	2.20	1.42	0.00
29.40	2.20	1.42	0.00	39.80	2.20	1.42	0.00
29.60	2.20	1.42	0.00	40.00	2.20	1.42	0.00
29.80	2.20	1.42	0.00	40.20	2.20	1.42	0.00
30.00	2.20	1.42	0.00	40.40	2.20	1.42	0.00
30.20	2.20	1.42	0.00	40.60	2.20	1.42	0.00
30.40	2.20	1.42	0.00	40.80	2.20	1.42	0.00
30.60	2.20	1.42	0.00	41.00	2.20	1.42	0.00
30.80	2.20	1.42	0.00	41.20	2.20	1.42	0.00
31.00	2.20	1.42	0.00	41.40	2.20	1.42	0.00

Hydrograph for Subcatchment 66S: Subarea 1 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
41.60	2.20	1.42	0.00	52.00	2.20	1.42	0.00
41.80	2.20	1.42	0.00	52.20	2.20	1.42	0.00
42.00	2.20	1.42	0.00	52.40	2.20	1.42	0.00
42.20	2.20	1.42	0.00	52.60	2.20	1.42	0.00
42.40	2.20	1.42	0.00	52.80	2.20	1.42	0.00
42.60	2.20	1.42	0.00	53.00	2.20	1.42	0.00
42.80	2.20	1.42	0.00	53.20	2.20	1.42	0.00
43.00	2.20	1.42	0.00	53.40	2.20	1.42	0.00
43.20	2.20	1.42	0.00	53.60	2.20	1.42	0.00
43.40	2.20	1.42	0.00	53.80	2.20	1.42	0.00
43.60	2.20	1.42	0.00	54.00	2.20	1.42	0.00
43.80	2.20	1.42	0.00	54.20	2.20	1.42	0.00
44.00	2.20	1.42	0.00	54.40	2.20	1.42	0.00
44.20	2.20	1.42	0.00	54.60	2.20	1.42	0.00
44.40	2.20	1.42	0.00	54.80	2.20	1.42	0.00
44.60	2.20	1.42	0.00	55.00	2.20	1.42	0.00
44.80	2.20	1.42	0.00	55.20	2.20	1.42	0.00
45.00	2.20	1.42	0.00	55.40	2.20	1.42	0.00
45.20	2.20	1.42	0.00	55.60	2.20	1.42	0.00
45.40	2.20	1.42	0.00	55.80	2.20	1.42	0.00
45.60	2.20	1.42	0.00	56.00	2.20	1.42	0.00
45.80	2.20	1.42	0.00	56.20	2.20	1.42	0.00
46.00	2.20	1.42	0.00	56.40	2.20	1.42	0.00
46.20	2.20	1.42	0.00	56.60	2.20	1.42	0.00
46.40	2.20	1.42	0.00	56.80	2.20	1.42	0.00
46.60	2.20	1.42	0.00	57.00	2.20	1.42	0.00
46.80	2.20	1.42	0.00	57.20	2.20	1.42	0.00
47.00	2.20	1.42	0.00	57.40	2.20	1.42	0.00
47.20	2.20	1.42	0.00	57.60	2.20	1.42	0.00
47.40	2.20	1.42	0.00	57.80	2.20	1.42	0.00
47.60	2.20	1.42	0.00	58.00	2.20	1.42	0.00
47.80	2.20	1.42	0.00	58.20	2.20	1.42	0.00
48.00	2.20	1.42	0.00	58.40	2.20	1.42	0.00
48.20	2.20	1.42	0.00	58.60	2.20	1.42	0.00
48.40	2.20	1.42	0.00	58.80	2.20	1.42	0.00
48.60	2.20	1.42	0.00	59.00	2.20	1.42	0.00
48.80	2.20	1.42	0.00	59.20	2.20	1.42	0.00
49.00	2.20	1.42	0.00	59.40	2.20	1.42	0.00
49.20	2.20	1.42	0.00	59.60	2.20	1.42	0.00
49.40	2.20	1.42	0.00	59.80	2.20	1.42	0.00
49.60	2.20	1.42	0.00	60.00	2.20	1.42	0.00
49.80	2.20	1.42	0.00	60.20	2.20	1.42	0.00
50.00	2.20	1.42	0.00	60.40	2.20	1.42	0.00
50.20	2.20	1.42	0.00	60.60	2.20	1.42	0.00
50.40	2.20	1.42	0.00	60.80	2.20	1.42	0.00
50.60	2.20	1.42	0.00	61.00	2.20	1.42	0.00
50.80	2.20	1.42	0.00	61.20	2.20	1.42	0.00
51.00	2.20	1.42	0.00	61.40	2.20	1.42	0.00
51.20	2.20	1.42	0.00	61.60	2.20	1.42	0.00
51.40	2.20	1.42	0.00	61.80	2.20	1.42	0.00
51.60	2.20	1.42	0.00	62.00	2.20	1.42	0.00
51.80	2.20	1.42	0.00	62.20	2.20	1.42	0.00

Hydrograph for Subcatchment 66S: Subarea 1 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
62.40	2.20	1.42	0.00	72.80	2.20	1.42	0.00
62.60	2.20	1.42	0.00	73.00	2.20	1.42	0.00
62.80	2.20	1.42	0.00	73.20	2.20	1.42	0.00
63.00	2.20	1.42	0.00	73.40	2.20	1.42	0.00
63.20	2.20	1.42	0.00	73.60	2.20	1.42	0.00
63.40	2.20	1.42	0.00	73.80	2.20	1.42	0.00
63.60	2.20	1.42	0.00	74.00	2.20	1.42	0.00
63.80	2.20	1.42	0.00	74.20	2.20	1.42	0.00
64.00	2.20	1.42	0.00	74.40	2.20	1.42	0.00
64.20	2.20	1.42	0.00	74.60	2.20	1.42	0.00
64.40	2.20	1.42	0.00	74.80	2.20	1.42	0.00
64.60	2.20	1.42	0.00	75.00	2.20	1.42	0.00
64.80	2.20	1.42	0.00	75.20	2.20	1.42	0.00
65.00	2.20	1.42	0.00	75.40	2.20	1.42	0.00
65.20	2.20	1.42	0.00	75.60	2.20	1.42	0.00
65.40	2.20	1.42	0.00	75.80	2.20	1.42	0.00
65.60	2.20	1.42	0.00	76.00	2.20	1.42	0.00
65.80	2.20	1.42	0.00	76.20	2.20	1.42	0.00
66.00	2.20	1.42	0.00	76.40	2.20	1.42	0.00
66.20	2.20	1.42	0.00	76.60	2.20	1.42	0.00
66.40	2.20	1.42	0.00	76.80	2.20	1.42	0.00
66.60	2.20	1.42	0.00	77.00	2.20	1.42	0.00
66.80	2.20	1.42	0.00	77.20	2.20	1.42	0.00
67.00	2.20	1.42	0.00	77.40	2.20	1.42	0.00
67.20	2.20	1.42	0.00	77.60	2.20	1.42	0.00
67.40	2.20	1.42	0.00	77.80	2.20	1.42	0.00
67.60	2.20	1.42	0.00	78.00	2.20	1.42	0.00
67.80	2.20	1.42	0.00	78.20	2.20	1.42	0.00
68.00	2.20	1.42	0.00	78.40	2.20	1.42	0.00
68.20	2.20	1.42	0.00	78.60	2.20	1.42	0.00
68.40	2.20	1.42	0.00	78.80	2.20	1.42	0.00
68.60	2.20	1.42	0.00	79.00	2.20	1.42	0.00
68.80	2.20	1.42	0.00	79.20	2.20	1.42	0.00
69.00	2.20	1.42	0.00	79.40	2.20	1.42	0.00
69.20	2.20	1.42	0.00	79.60	2.20	1.42	0.00
69.40	2.20	1.42	0.00	79.80	2.20	1.42	0.00
69.60	2.20	1.42	0.00	80.00	2.20	1.42	0.00
69.80	2.20	1.42	0.00	80.20	2.20	1.42	0.00
70.00	2.20	1.42	0.00	80.40	2.20	1.42	0.00
70.20	2.20	1.42	0.00	80.60	2.20	1.42	0.00
70.40	2.20	1.42	0.00	80.80	2.20	1.42	0.00
70.60	2.20	1.42	0.00	81.00	2.20	1.42	0.00
70.80	2.20	1.42	0.00	81.20	2.20	1.42	0.00
71.00	2.20	1.42	0.00	81.40	2.20	1.42	0.00
71.20	2.20	1.42	0.00	81.60	2.20	1.42	0.00
71.40	2.20	1.42	0.00	81.80	2.20	1.42	0.00
71.60	2.20	1.42	0.00	82.00	2.20	1.42	0.00
71.80	2.20	1.42	0.00	82.20	2.20	1.42	0.00
72.00	2.20	1.42	0.00	82.40	2.20	1.42	0.00
72.20	2.20	1.42	0.00	82.60	2.20	1.42	0.00
72.40	2.20	1.42	0.00	82.80	2.20	1.42	0.00
72.60	2.20	1.42	0.00	83.00	2.20	1.42	0.00

Hydrograph for Subcatchment 66S: Subarea 1 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
83.20	2.20	1.42	0.00	93.60	2.20	1.42	0.00
83.40	2.20	1.42	0.00	93.80	2.20	1.42	0.00
83.60	2.20	1.42	0.00	94.00	2.20	1.42	0.00
83.80	2.20	1.42	0.00	94.20	2.20	1.42	0.00
84.00	2.20	1.42	0.00	94.40	2.20	1.42	0.00
84.20	2.20	1.42	0.00	94.60	2.20	1.42	0.00
84.40	2.20	1.42	0.00	94.80	2.20	1.42	0.00
84.60	2.20	1.42	0.00	95.00	2.20	1.42	0.00
84.80	2.20	1.42	0.00	95.20	2.20	1.42	0.00
85.00	2.20	1.42	0.00	95.40	2.20	1.42	0.00
85.20	2.20	1.42	0.00	95.60	2.20	1.42	0.00
85.40	2.20	1.42	0.00	95.80	2.20	1.42	0.00
85.60	2.20	1.42	0.00	96.00	2.20	1.42	0.00
85.80	2.20	1.42	0.00	96.20	2.20	1.42	0.00
86.00	2.20	1.42	0.00	96.40	2.20	1.42	0.00
86.20	2.20	1.42	0.00	96.60	2.20	1.42	0.00
86.40	2.20	1.42	0.00	96.80	2.20	1.42	0.00
86.60	2.20	1.42	0.00	97.00	2.20	1.42	0.00
86.80	2.20	1.42	0.00	97.20	2.20	1.42	0.00
87.00	2.20	1.42	0.00	97.40	2.20	1.42	0.00
87.20	2.20	1.42	0.00	97.60	2.20	1.42	0.00
87.40	2.20	1.42	0.00	97.80	2.20	1.42	0.00
87.60	2.20	1.42	0.00	98.00	2.20	1.42	0.00
87.80	2.20	1.42	0.00	98.20	2.20	1.42	0.00
88.00	2.20	1.42	0.00	98.40	2.20	1.42	0.00
88.20	2.20	1.42	0.00	98.60	2.20	1.42	0.00
88.40	2.20	1.42	0.00	98.80	2.20	1.42	0.00
88.60	2.20	1.42	0.00	99.00	2.20	1.42	0.00
88.80	2.20	1.42	0.00	99.20	2.20	1.42	0.00
89.00	2.20	1.42	0.00	99.40	2.20	1.42	0.00
89.20	2.20	1.42	0.00	99.60	2.20	1.42	0.00
89.40	2.20	1.42	0.00	99.80	2.20	1.42	0.00
89.60	2.20	1.42	0.00	100.00	2.20	1.42	0.00
89.80	2.20	1.42	0.00	100.20	2.20	1.42	0.00
90.00	2.20	1.42	0.00	100.40	2.20	1.42	0.00
90.20	2.20	1.42	0.00	100.60	2.20	1.42	0.00
90.40	2.20	1.42	0.00	100.80	2.20	1.42	0.00
90.60	2.20	1.42	0.00	101.00	2.20	1.42	0.00
90.80	2.20	1.42	0.00	101.20	2.20	1.42	0.00
91.00	2.20	1.42	0.00	101.40	2.20	1.42	0.00
91.20	2.20	1.42	0.00	101.60	2.20	1.42	0.00
91.40	2.20	1.42	0.00	101.80	2.20	1.42	0.00
91.60	2.20	1.42	0.00	102.00	2.20	1.42	0.00
91.80	2.20	1.42	0.00	102.20	2.20	1.42	0.00
92.00	2.20	1.42	0.00	102.40	2.20	1.42	0.00
92.20	2.20	1.42	0.00	102.60	2.20	1.42	0.00
92.40	2.20	1.42	0.00	102.80	2.20	1.42	0.00
92.60	2.20	1.42	0.00	103.00	2.20	1.42	0.00
92.80	2.20	1.42	0.00	103.20	2.20	1.42	0.00
93.00	2.20	1.42	0.00	103.40	2.20	1.42	0.00
93.20	2.20	1.42	0.00	103.60	2.20	1.42	0.00
93.40	2.20	1.42	0.00	103.80	2.20	1.42	0.00

Hydrograph for Subcatchment 66S: Subarea 1 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
104.00	2.20	1.42	0.00	114.40	2.20	1.42	0.00
104.20	2.20	1.42	0.00	114.60	2.20	1.42	0.00
104.40	2.20	1.42	0.00	114.80	2.20	1.42	0.00
104.60	2.20	1.42	0.00	115.00	2.20	1.42	0.00
104.80	2.20	1.42	0.00	115.20	2.20	1.42	0.00
105.00	2.20	1.42	0.00	115.40	2.20	1.42	0.00
105.20	2.20	1.42	0.00	115.60	2.20	1.42	0.00
105.40	2.20	1.42	0.00	115.80	2.20	1.42	0.00
105.60	2.20	1.42	0.00	116.00	2.20	1.42	0.00
105.80	2.20	1.42	0.00	116.20	2.20	1.42	0.00
106.00	2.20	1.42	0.00	116.40	2.20	1.42	0.00
106.20	2.20	1.42	0.00	116.60	2.20	1.42	0.00
106.40	2.20	1.42	0.00	116.80	2.20	1.42	0.00
106.60	2.20	1.42	0.00	117.00	2.20	1.42	0.00
106.80	2.20	1.42	0.00	117.20	2.20	1.42	0.00
107.00	2.20	1.42	0.00	117.40	2.20	1.42	0.00
107.20	2.20	1.42	0.00	117.60	2.20	1.42	0.00
107.40	2.20	1.42	0.00	117.80	2.20	1.42	0.00
107.60	2.20	1.42	0.00	118.00	2.20	1.42	0.00
107.80	2.20	1.42	0.00	118.20	2.20	1.42	0.00
108.00	2.20	1.42	0.00	118.40	2.20	1.42	0.00
108.20	2.20	1.42	0.00	118.60	2.20	1.42	0.00
108.40	2.20	1.42	0.00	118.80	2.20	1.42	0.00
108.60	2.20	1.42	0.00	119.00	2.20	1.42	0.00
108.80	2.20	1.42	0.00	119.20	2.20	1.42	0.00
109.00	2.20	1.42	0.00	119.40	2.20	1.42	0.00
109.20	2.20	1.42	0.00	119.60	2.20	1.42	0.00
109.40	2.20	1.42	0.00	119.80	2.20	1.42	0.00
109.60	2.20	1.42	0.00	120.00	2.20	1.42	0.00
109.80	2.20	1.42	0.00	120.20	2.20	1.42	0.00
110.00	2.20	1.42	0.00	120.40	2.20	1.42	0.00
110.20	2.20	1.42	0.00	120.60	2.20	1.42	0.00
110.40	2.20	1.42	0.00	120.80	2.20	1.42	0.00
110.60	2.20	1.42	0.00	121.00	2.20	1.42	0.00
110.80	2.20	1.42	0.00	121.20	2.20	1.42	0.00
111.00	2.20	1.42	0.00	121.40	2.20	1.42	0.00
111.20	2.20	1.42	0.00	121.60	2.20	1.42	0.00
111.40	2.20	1.42	0.00	121.80	2.20	1.42	0.00
111.60	2.20	1.42	0.00	122.00	2.20	1.42	0.00
111.80	2.20	1.42	0.00	122.20	2.20	1.42	0.00
112.00	2.20	1.42	0.00	122.40	2.20	1.42	0.00
112.20	2.20	1.42	0.00	122.60	2.20	1.42	0.00
112.40	2.20	1.42	0.00	122.80	2.20	1.42	0.00
112.60	2.20	1.42	0.00	123.00	2.20	1.42	0.00
112.80	2.20	1.42	0.00	123.20	2.20	1.42	0.00
113.00	2.20	1.42	0.00	123.40	2.20	1.42	0.00
113.20	2.20	1.42	0.00	123.60	2.20	1.42	0.00
113.40	2.20	1.42	0.00	123.80	2.20	1.42	0.00
113.60	2.20	1.42	0.00	124.00	2.20	1.42	0.00
113.80	2.20	1.42	0.00	124.20	2.20	1.42	0.00
114.00	2.20	1.42	0.00	124.40	2.20	1.42	0.00
114.20	2.20	1.42	0.00	124.60	2.20	1.42	0.00

Hydrograph for Subcatchment 66S: Subarea 1 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
124.80	2.20	1.42	0.00	135.20	2.20	1.42	0.00
125.00	2.20	1.42	0.00	135.40	2.20	1.42	0.00
125.20	2.20	1.42	0.00	135.60	2.20	1.42	0.00
125.40	2.20	1.42	0.00	135.80	2.20	1.42	0.00
125.60	2.20	1.42	0.00	136.00	2.20	1.42	0.00
125.80	2.20	1.42	0.00	136.20	2.20	1.42	0.00
126.00	2.20	1.42	0.00	136.40	2.20	1.42	0.00
126.20	2.20	1.42	0.00	136.60	2.20	1.42	0.00
126.40	2.20	1.42	0.00	136.80	2.20	1.42	0.00
126.60	2.20	1.42	0.00	137.00	2.20	1.42	0.00
126.80	2.20	1.42	0.00	137.20	2.20	1.42	0.00
127.00	2.20	1.42	0.00	137.40	2.20	1.42	0.00
127.20	2.20	1.42	0.00	137.60	2.20	1.42	0.00
127.40	2.20	1.42	0.00	137.80	2.20	1.42	0.00
127.60	2.20	1.42	0.00	138.00	2.20	1.42	0.00
127.80	2.20	1.42	0.00	138.20	2.20	1.42	0.00
128.00	2.20	1.42	0.00	138.40	2.20	1.42	0.00
128.20	2.20	1.42	0.00	138.60	2.20	1.42	0.00
128.40	2.20	1.42	0.00	138.80	2.20	1.42	0.00
128.60	2.20	1.42	0.00	139.00	2.20	1.42	0.00
128.80	2.20	1.42	0.00	139.20	2.20	1.42	0.00
129.00	2.20	1.42	0.00	139.40	2.20	1.42	0.00
129.20	2.20	1.42	0.00	139.60	2.20	1.42	0.00
129.40	2.20	1.42	0.00	139.80	2.20	1.42	0.00
129.60	2.20	1.42	0.00	140.00	2.20	1.42	0.00
129.80	2.20	1.42	0.00	140.20	2.20	1.42	0.00
130.00	2.20	1.42	0.00	140.40	2.20	1.42	0.00
130.20	2.20	1.42	0.00	140.60	2.20	1.42	0.00
130.40	2.20	1.42	0.00	140.80	2.20	1.42	0.00
130.60	2.20	1.42	0.00	141.00	2.20	1.42	0.00
130.80	2.20	1.42	0.00	141.20	2.20	1.42	0.00
131.00	2.20	1.42	0.00	141.40	2.20	1.42	0.00
131.20	2.20	1.42	0.00	141.60	2.20	1.42	0.00
131.40	2.20	1.42	0.00	141.80	2.20	1.42	0.00
131.60	2.20	1.42	0.00	142.00	2.20	1.42	0.00
131.80	2.20	1.42	0.00	142.20	2.20	1.42	0.00
132.00	2.20	1.42	0.00	142.40	2.20	1.42	0.00
132.20	2.20	1.42	0.00	142.60	2.20	1.42	0.00
132.40	2.20	1.42	0.00	142.80	2.20	1.42	0.00
132.60	2.20	1.42	0.00	143.00	2.20	1.42	0.00
132.80	2.20	1.42	0.00	143.20	2.20	1.42	0.00
133.00	2.20	1.42	0.00	143.40	2.20	1.42	0.00
133.20	2.20	1.42	0.00	143.60	2.20	1.42	0.00
133.40	2.20	1.42	0.00	143.80	2.20	1.42	0.00
133.60	2.20	1.42	0.00	144.00	2.20	1.42	0.00
133.80	2.20	1.42	0.00	144.20	2.20	1.42	0.00
134.00	2.20	1.42	0.00	144.40	2.20	1.42	0.00
134.20	2.20	1.42	0.00	144.60	2.20	1.42	0.00
134.40	2.20	1.42	0.00	144.80	2.20	1.42	0.00
134.60	2.20	1.42	0.00	145.00	2.20	1.42	0.00
134.80	2.20	1.42	0.00	145.20	2.20	1.42	0.00
135.00	2.20	1.42	0.00	145.40	2.20	1.42	0.00

Hydrograph for Subcatchment 66S: Subarea 1 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
145.60	2.20	1.42	0.00	156.00	2.20	1.42	0.00
145.80	2.20	1.42	0.00	156.20	2.20	1.42	0.00
146.00	2.20	1.42	0.00	156.40	2.20	1.42	0.00
146.20	2.20	1.42	0.00	156.60	2.20	1.42	0.00
146.40	2.20	1.42	0.00	156.80	2.20	1.42	0.00
146.60	2.20	1.42	0.00	157.00	2.20	1.42	0.00
146.80	2.20	1.42	0.00	157.20	2.20	1.42	0.00
147.00	2.20	1.42	0.00	157.40	2.20	1.42	0.00
147.20	2.20	1.42	0.00	157.60	2.20	1.42	0.00
147.40	2.20	1.42	0.00	157.80	2.20	1.42	0.00
147.60	2.20	1.42	0.00	158.00	2.20	1.42	0.00
147.80	2.20	1.42	0.00	158.20	2.20	1.42	0.00
148.00	2.20	1.42	0.00	158.40	2.20	1.42	0.00
148.20	2.20	1.42	0.00	158.60	2.20	1.42	0.00
148.40	2.20	1.42	0.00	158.80	2.20	1.42	0.00
148.60	2.20	1.42	0.00	159.00	2.20	1.42	0.00
148.80	2.20	1.42	0.00	159.20	2.20	1.42	0.00
149.00	2.20	1.42	0.00	159.40	2.20	1.42	0.00
149.20	2.20	1.42	0.00	159.60	2.20	1.42	0.00
149.40	2.20	1.42	0.00	159.80	2.20	1.42	0.00
149.60	2.20	1.42	0.00	160.00	2.20	1.42	0.00
149.80	2.20	1.42	0.00	160.20	2.20	1.42	0.00
150.00	2.20	1.42	0.00	160.40	2.20	1.42	0.00
150.20	2.20	1.42	0.00	160.60	2.20	1.42	0.00
150.40	2.20	1.42	0.00	160.80	2.20	1.42	0.00
150.60	2.20	1.42	0.00	161.00	2.20	1.42	0.00
150.80	2.20	1.42	0.00	161.20	2.20	1.42	0.00
151.00	2.20	1.42	0.00	161.40	2.20	1.42	0.00
151.20	2.20	1.42	0.00	161.60	2.20	1.42	0.00
151.40	2.20	1.42	0.00	161.80	2.20	1.42	0.00
151.60	2.20	1.42	0.00	162.00	2.20	1.42	0.00
151.80	2.20	1.42	0.00	162.20	2.20	1.42	0.00
152.00	2.20	1.42	0.00	162.40	2.20	1.42	0.00
152.20	2.20	1.42	0.00	162.60	2.20	1.42	0.00
152.40	2.20	1.42	0.00	162.80	2.20	1.42	0.00
152.60	2.20	1.42	0.00	163.00	2.20	1.42	0.00
152.80	2.20	1.42	0.00	163.20	2.20	1.42	0.00
153.00	2.20	1.42	0.00	163.40	2.20	1.42	0.00
153.20	2.20	1.42	0.00	163.60	2.20	1.42	0.00
153.40	2.20	1.42	0.00	163.80	2.20	1.42	0.00
153.60	2.20	1.42	0.00	164.00	2.20	1.42	0.00
153.80	2.20	1.42	0.00	164.20	2.20	1.42	0.00
154.00	2.20	1.42	0.00	164.40	2.20	1.42	0.00
154.20	2.20	1.42	0.00	164.60	2.20	1.42	0.00
154.40	2.20	1.42	0.00	164.80	2.20	1.42	0.00
154.60	2.20	1.42	0.00	165.00	2.20	1.42	0.00
154.80	2.20	1.42	0.00	165.20	2.20	1.42	0.00
155.00	2.20	1.42	0.00	165.40	2.20	1.42	0.00
155.20	2.20	1.42	0.00	165.60	2.20	1.42	0.00
155.40	2.20	1.42	0.00	165.80	2.20	1.42	0.00
155.60	2.20	1.42	0.00	166.00	2.20	1.42	0.00
155.80	2.20	1.42	0.00	166.20	2.20	1.42	0.00

Hydrograph for Subcatchment 66S: Subarea 1 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
166.40	2.20	1.42	0.00	176.80	2.20	1.42	0.00
166.60	2.20	1.42	0.00	177.00	2.20	1.42	0.00
166.80	2.20	1.42	0.00	177.20	2.20	1.42	0.00
167.00	2.20	1.42	0.00	177.40	2.20	1.42	0.00
167.20	2.20	1.42	0.00	177.60	2.20	1.42	0.00
167.40	2.20	1.42	0.00	177.80	2.20	1.42	0.00
167.60	2.20	1.42	0.00	178.00	2.20	1.42	0.00
167.80	2.20	1.42	0.00	178.20	2.20	1.42	0.00
168.00	2.20	1.42	0.00	178.40	2.20	1.42	0.00
168.20	2.20	1.42	0.00	178.60	2.20	1.42	0.00
168.40	2.20	1.42	0.00	178.80	2.20	1.42	0.00
168.60	2.20	1.42	0.00	179.00	2.20	1.42	0.00
168.80	2.20	1.42	0.00	179.20	2.20	1.42	0.00
169.00	2.20	1.42	0.00	179.40	2.20	1.42	0.00
169.20	2.20	1.42	0.00	179.60	2.20	1.42	0.00
169.40	2.20	1.42	0.00	179.80	2.20	1.42	0.00
169.60	2.20	1.42	0.00	180.00	2.20	1.42	0.00
169.80	2.20	1.42	0.00	180.20	2.20	1.42	0.00
170.00	2.20	1.42	0.00	180.40	2.20	1.42	0.00
170.20	2.20	1.42	0.00	180.60	2.20	1.42	0.00
170.40	2.20	1.42	0.00	180.80	2.20	1.42	0.00
170.60	2.20	1.42	0.00	181.00	2.20	1.42	0.00
170.80	2.20	1.42	0.00	181.20	2.20	1.42	0.00
171.00	2.20	1.42	0.00	181.40	2.20	1.42	0.00
171.20	2.20	1.42	0.00	181.60	2.20	1.42	0.00
171.40	2.20	1.42	0.00	181.80	2.20	1.42	0.00
171.60	2.20	1.42	0.00	182.00	2.20	1.42	0.00
171.80	2.20	1.42	0.00	182.20	2.20	1.42	0.00
172.00	2.20	1.42	0.00	182.40	2.20	1.42	0.00
172.20	2.20	1.42	0.00	182.60	2.20	1.42	0.00
172.40	2.20	1.42	0.00	182.80	2.20	1.42	0.00
172.60	2.20	1.42	0.00	183.00	2.20	1.42	0.00
172.80	2.20	1.42	0.00	183.20	2.20	1.42	0.00
173.00	2.20	1.42	0.00	183.40	2.20	1.42	0.00
173.20	2.20	1.42	0.00	183.60	2.20	1.42	0.00
173.40	2.20	1.42	0.00	183.80	2.20	1.42	0.00
173.60	2.20	1.42	0.00	184.00	2.20	1.42	0.00
173.80	2.20	1.42	0.00	184.20	2.20	1.42	0.00
174.00	2.20	1.42	0.00	184.40	2.20	1.42	0.00
174.20	2.20	1.42	0.00	184.60	2.20	1.42	0.00
174.40	2.20	1.42	0.00	184.80	2.20	1.42	0.00
174.60	2.20	1.42	0.00	185.00	2.20	1.42	0.00
174.80	2.20	1.42	0.00	185.20	2.20	1.42	0.00
175.00	2.20	1.42	0.00	185.40	2.20	1.42	0.00
175.20	2.20	1.42	0.00	185.60	2.20	1.42	0.00
175.40	2.20	1.42	0.00	185.80	2.20	1.42	0.00
175.60	2.20	1.42	0.00	186.00	2.20	1.42	0.00
175.80	2.20	1.42	0.00	186.20	2.20	1.42	0.00
176.00	2.20	1.42	0.00	186.40	2.20	1.42	0.00
176.20	2.20	1.42	0.00	186.60	2.20	1.42	0.00
176.40	2.20	1.42	0.00	186.80	2.20	1.42	0.00
176.60	2.20	1.42	0.00	187.00	2.20	1.42	0.00

Hydrograph for Subcatchment 66S: Subarea 1 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
187.20	2.20	1.42	0.00	197.60	2.20	1.42	0.00
187.40	2.20	1.42	0.00	197.80	2.20	1.42	0.00
187.60	2.20	1.42	0.00	198.00	2.20	1.42	0.00
187.80	2.20	1.42	0.00	198.20	2.20	1.42	0.00
188.00	2.20	1.42	0.00	198.40	2.20	1.42	0.00
188.20	2.20	1.42	0.00	198.60	2.20	1.42	0.00
188.40	2.20	1.42	0.00	198.80	2.20	1.42	0.00
188.60	2.20	1.42	0.00	199.00	2.20	1.42	0.00
188.80	2.20	1.42	0.00	199.20	2.20	1.42	0.00
189.00	2.20	1.42	0.00	199.40	2.20	1.42	0.00
189.20	2.20	1.42	0.00	199.60	2.20	1.42	0.00
189.40	2.20	1.42	0.00	199.80	2.20	1.42	0.00
189.60	2.20	1.42	0.00	200.00	2.20	1.42	0.00
189.80	2.20	1.42	0.00				
190.00	2.20	1.42	0.00				
190.20	2.20	1.42	0.00				
190.40	2.20	1.42	0.00				
190.60	2.20	1.42	0.00				
190.80	2.20	1.42	0.00				
191.00	2.20	1.42	0.00				
191.20	2.20	1.42	0.00				
191.40	2.20	1.42	0.00				
191.60	2.20	1.42	0.00				
191.80	2.20	1.42	0.00				
192.00	2.20	1.42	0.00				
192.20	2.20	1.42	0.00				
192.40	2.20	1.42	0.00				
192.60	2.20	1.42	0.00				
192.80	2.20	1.42	0.00				
193.00	2.20	1.42	0.00				
193.20	2.20	1.42	0.00				
193.40	2.20	1.42	0.00				
193.60	2.20	1.42	0.00				
193.80	2.20	1.42	0.00				
194.00	2.20	1.42	0.00				
194.20	2.20	1.42	0.00				
194.40	2.20	1.42	0.00				
194.60	2.20	1.42	0.00				
194.80	2.20	1.42	0.00				
195.00	2.20	1.42	0.00				
195.20	2.20	1.42	0.00				
195.40	2.20	1.42	0.00				
195.60	2.20	1.42	0.00				
195.80	2.20	1.42	0.00				
196.00	2.20	1.42	0.00				
196.20	2.20	1.42	0.00				
196.40	2.20	1.42	0.00				
196.60	2.20	1.42	0.00				
196.80	2.20	1.42	0.00				
197.00	2.20	1.42	0.00				
197.20	2.20	1.42	0.00				
197.40	2.20	1.42	0.00				

Summary for Pond 48P: Dummy Basin 10.1 WQ

Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Outflow = 0.39 cfs @ 0.00 hrs, Volume= 0.822 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.39 cfs @ 0.00 hrs, Volume= 0.822 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Starting Elev= 931.43' Surf.Area= 2.000 ac Storage= 0.860 af
 Peak Elev= 931.43' @ 0.00 hrs Surf.Area= 2.000 ac Storage= 0.860 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	931.00'	8.000 af	Dummy Basin (Prismatic) Listed below (Recalc)

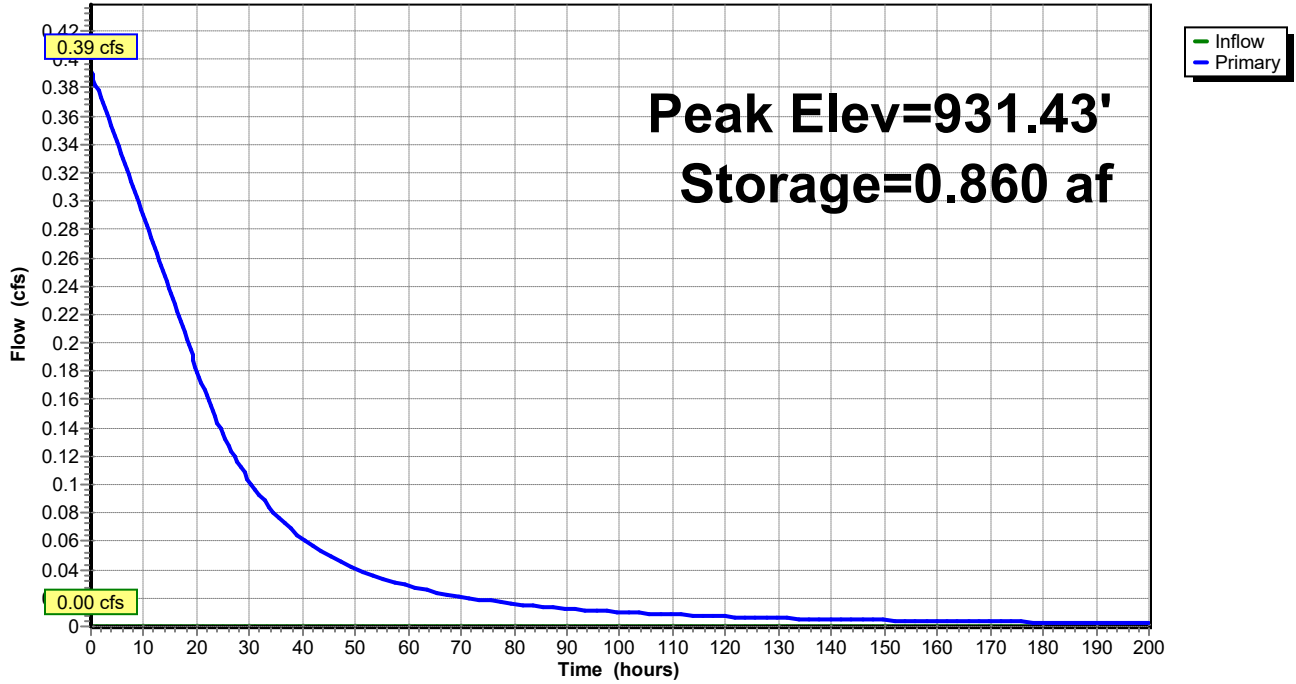
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
931.00	2.000	0.000	0.000
935.00	2.000	8.000	8.000

Device	Routing	Invert	Outlet Devices
#1	Primary	931.00'	3.0" Vert. WQ Orifice X 3.00 C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.39 cfs @ 0.00 hrs HW=931.43' TW=928.67' (Dynamic Tailwater)
 ↑1=WQ Orifice (Orifice Controls 0.39 cfs @ 2.66 fps)

Pond 48P: Dummy Basin 10.1 WQ

Hydrograph



Hydrograph for Pond 48P: Dummy Basin 10.1 WQ

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.860	931.43	0.39
0.50	0.00	0.844	931.42	0.39
1.00	0.00	0.828	931.41	0.38
1.50	0.00	0.812	931.41	0.38
2.00	0.00	0.797	931.40	0.37
2.50	0.00	0.782	931.39	0.37
3.00	0.00	0.767	931.38	0.36
3.50	0.00	0.752	931.38	0.35
4.00	0.00	0.737	931.37	0.35
4.50	0.00	0.723	931.36	0.34
5.00	0.00	0.709	931.35	0.34
5.50	0.00	0.695	931.35	0.33
6.00	0.00	0.681	931.34	0.33
6.50	0.00	0.668	931.33	0.32
7.00	0.00	0.655	931.33	0.32
7.50	0.00	0.642	931.32	0.31
8.00	0.00	0.629	931.31	0.31
8.50	0.00	0.616	931.31	0.30
9.00	0.00	0.604	931.30	0.30
9.50	0.00	0.591	931.30	0.29
10.00	0.00	0.579	931.29	0.29
10.50	0.00	0.568	931.28	0.28
11.00	0.00	0.556	931.28	0.28
11.50	0.00	0.545	931.27	0.27
12.00	0.00	0.534	931.27	0.27
12.50	0.00	0.523	931.26	0.26
13.00	0.00	0.512	931.26	0.26
13.50	0.00	0.501	931.25	0.25
14.00	0.00	0.491	931.25	0.25
14.50	0.00	0.481	931.24	0.24
15.00	0.00	0.471	931.24	0.24
15.50	0.00	0.461	931.23	0.23
16.00	0.00	0.452	931.23	0.23
16.50	0.00	0.443	931.22	0.22
17.00	0.00	0.434	931.22	0.22
17.50	0.00	0.425	931.21	0.21
18.00	0.00	0.416	931.21	0.20
18.50	0.00	0.408	931.20	0.20
19.00	0.00	0.400	931.20	0.19
19.50	0.00	0.392	931.20	0.19
20.00	0.00	0.385	931.19	0.18
20.50	0.00	0.377	931.19	0.18
21.00	0.00	0.370	931.18	0.17
21.50	0.00	0.363	931.18	0.17
22.00	0.00	0.356	931.18	0.16
22.50	0.00	0.350	931.17	0.16
23.00	0.00	0.343	931.17	0.15
23.50	0.00	0.337	931.17	0.15
24.00	0.00	0.331	931.17	0.14
24.50	0.00	0.325	931.16	0.14
25.00	0.00	0.320	931.16	0.14
25.50	0.00	0.314	931.16	0.13

Hydrograph for Pond 48P: Dummy Basin 10.1 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
26.00	0.00	0.309	931.15	0.13
26.50	0.00	0.304	931.15	0.12
27.00	0.00	0.298	931.15	0.12
27.50	0.00	0.294	931.15	0.12
28.00	0.00	0.289	931.14	0.11
28.50	0.00	0.284	931.14	0.11
29.00	0.00	0.280	931.14	0.11
29.50	0.00	0.275	931.14	0.10
30.00	0.00	0.271	931.14	0.10
30.50	0.00	0.267	931.13	0.10
31.00	0.00	0.263	931.13	0.10
31.50	0.00	0.259	931.13	0.09
32.00	0.00	0.255	931.13	0.09
32.50	0.00	0.251	931.13	0.09
33.00	0.00	0.248	931.12	0.09
33.50	0.00	0.244	931.12	0.08
34.00	0.00	0.241	931.12	0.08
34.50	0.00	0.237	931.12	0.08
35.00	0.00	0.234	931.12	0.08
35.50	0.00	0.231	931.12	0.08
36.00	0.00	0.228	931.11	0.07
36.50	0.00	0.224	931.11	0.07
37.00	0.00	0.221	931.11	0.07
37.50	0.00	0.219	931.11	0.07
38.00	0.00	0.216	931.11	0.07
38.50	0.00	0.213	931.11	0.07
39.00	0.00	0.210	931.11	0.06
39.50	0.00	0.208	931.10	0.06
40.00	0.00	0.205	931.10	0.06
40.50	0.00	0.202	931.10	0.06
41.00	0.00	0.200	931.10	0.06
41.50	0.00	0.198	931.10	0.06
42.00	0.00	0.195	931.10	0.06
42.50	0.00	0.193	931.10	0.06
43.00	0.00	0.191	931.10	0.05
43.50	0.00	0.188	931.09	0.05
44.00	0.00	0.186	931.09	0.05
44.50	0.00	0.184	931.09	0.05
45.00	0.00	0.182	931.09	0.05
45.50	0.00	0.180	931.09	0.05
46.00	0.00	0.178	931.09	0.05
46.50	0.00	0.176	931.09	0.05
47.00	0.00	0.174	931.09	0.05
47.50	0.00	0.172	931.09	0.04
48.00	0.00	0.170	931.09	0.04
48.50	0.00	0.169	931.08	0.04
49.00	0.00	0.167	931.08	0.04
49.50	0.00	0.165	931.08	0.04
50.00	0.00	0.163	931.08	0.04
50.50	0.00	0.162	931.08	0.04
51.00	0.00	0.160	931.08	0.04
51.50	0.00	0.159	931.08	0.04

Hydrograph for Pond 48P: Dummy Basin 10.1 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
52.00	0.00	0.157	931.08	0.04
52.50	0.00	0.155	931.08	0.04
53.00	0.00	0.154	931.08	0.04
53.50	0.00	0.152	931.08	0.04
54.00	0.00	0.151	931.08	0.04
54.50	0.00	0.149	931.07	0.03
55.00	0.00	0.148	931.07	0.03
55.50	0.00	0.147	931.07	0.03
56.00	0.00	0.145	931.07	0.03
56.50	0.00	0.144	931.07	0.03
57.00	0.00	0.143	931.07	0.03
57.50	0.00	0.141	931.07	0.03
58.00	0.00	0.140	931.07	0.03
58.50	0.00	0.139	931.07	0.03
59.00	0.00	0.138	931.07	0.03
59.50	0.00	0.136	931.07	0.03
60.00	0.00	0.135	931.07	0.03
60.50	0.00	0.134	931.07	0.03
61.00	0.00	0.133	931.07	0.03
61.50	0.00	0.132	931.07	0.03
62.00	0.00	0.131	931.07	0.03
62.50	0.00	0.130	931.06	0.03
63.00	0.00	0.129	931.06	0.03
63.50	0.00	0.127	931.06	0.03
64.00	0.00	0.126	931.06	0.03
64.50	0.00	0.125	931.06	0.02
65.00	0.00	0.124	931.06	0.02
65.50	0.00	0.123	931.06	0.02
66.00	0.00	0.122	931.06	0.02
66.50	0.00	0.121	931.06	0.02
67.00	0.00	0.121	931.06	0.02
67.50	0.00	0.120	931.06	0.02
68.00	0.00	0.119	931.06	0.02
68.50	0.00	0.118	931.06	0.02
69.00	0.00	0.117	931.06	0.02
69.50	0.00	0.116	931.06	0.02
70.00	0.00	0.115	931.06	0.02
70.50	0.00	0.114	931.06	0.02
71.00	0.00	0.113	931.06	0.02
71.50	0.00	0.113	931.06	0.02
72.00	0.00	0.112	931.06	0.02
72.50	0.00	0.111	931.06	0.02
73.00	0.00	0.110	931.06	0.02
73.50	0.00	0.109	931.05	0.02
74.00	0.00	0.109	931.05	0.02
74.50	0.00	0.108	931.05	0.02
75.00	0.00	0.107	931.05	0.02
75.50	0.00	0.106	931.05	0.02
76.00	0.00	0.106	931.05	0.02
76.50	0.00	0.105	931.05	0.02
77.00	0.00	0.104	931.05	0.02
77.50	0.00	0.103	931.05	0.02

Hydrograph for Pond 48P: Dummy Basin 10.1 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
78.00	0.00	0.103	931.05	0.02
78.50	0.00	0.102	931.05	0.02
79.00	0.00	0.101	931.05	0.02
79.50	0.00	0.101	931.05	0.02
80.00	0.00	0.100	931.05	0.02
80.50	0.00	0.099	931.05	0.02
81.00	0.00	0.099	931.05	0.02
81.50	0.00	0.098	931.05	0.02
82.00	0.00	0.097	931.05	0.02
82.50	0.00	0.097	931.05	0.01
83.00	0.00	0.096	931.05	0.01
83.50	0.00	0.096	931.05	0.01
84.00	0.00	0.095	931.05	0.01
84.50	0.00	0.094	931.05	0.01
85.00	0.00	0.094	931.05	0.01
85.50	0.00	0.093	931.05	0.01
86.00	0.00	0.093	931.05	0.01
86.50	0.00	0.092	931.05	0.01
87.00	0.00	0.092	931.05	0.01
87.50	0.00	0.091	931.05	0.01
88.00	0.00	0.090	931.05	0.01
88.50	0.00	0.090	931.04	0.01
89.00	0.00	0.089	931.04	0.01
89.50	0.00	0.089	931.04	0.01
90.00	0.00	0.088	931.04	0.01
90.50	0.00	0.088	931.04	0.01
91.00	0.00	0.087	931.04	0.01
91.50	0.00	0.087	931.04	0.01
92.00	0.00	0.086	931.04	0.01
92.50	0.00	0.086	931.04	0.01
93.00	0.00	0.085	931.04	0.01
93.50	0.00	0.085	931.04	0.01
94.00	0.00	0.084	931.04	0.01
94.50	0.00	0.084	931.04	0.01
95.00	0.00	0.083	931.04	0.01
95.50	0.00	0.083	931.04	0.01
96.00	0.00	0.082	931.04	0.01
96.50	0.00	0.082	931.04	0.01
97.00	0.00	0.082	931.04	0.01
97.50	0.00	0.081	931.04	0.01
98.00	0.00	0.081	931.04	0.01
98.50	0.00	0.080	931.04	0.01
99.00	0.00	0.080	931.04	0.01
99.50	0.00	0.079	931.04	0.01
100.00	0.00	0.079	931.04	0.01
100.50	0.00	0.079	931.04	0.01
101.00	0.00	0.078	931.04	0.01
101.50	0.00	0.078	931.04	0.01
102.00	0.00	0.077	931.04	0.01
102.50	0.00	0.077	931.04	0.01
103.00	0.00	0.077	931.04	0.01
103.50	0.00	0.076	931.04	0.01

Hydrograph for Pond 48P: Dummy Basin 10.1 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
104.00	0.00	0.076	931.04	0.01
104.50	0.00	0.075	931.04	0.01
105.00	0.00	0.075	931.04	0.01
105.50	0.00	0.075	931.04	0.01
106.00	0.00	0.074	931.04	0.01
106.50	0.00	0.074	931.04	0.01
107.00	0.00	0.074	931.04	0.01
107.50	0.00	0.073	931.04	0.01
108.00	0.00	0.073	931.04	0.01
108.50	0.00	0.072	931.04	0.01
109.00	0.00	0.072	931.04	0.01
109.50	0.00	0.072	931.04	0.01
110.00	0.00	0.071	931.04	0.01
110.50	0.00	0.071	931.04	0.01
111.00	0.00	0.071	931.04	0.01
111.50	0.00	0.070	931.04	0.01
112.00	0.00	0.070	931.04	0.01
112.50	0.00	0.070	931.03	0.01
113.00	0.00	0.069	931.03	0.01
113.50	0.00	0.069	931.03	0.01
114.00	0.00	0.069	931.03	0.01
114.50	0.00	0.068	931.03	0.01
115.00	0.00	0.068	931.03	0.01
115.50	0.00	0.068	931.03	0.01
116.00	0.00	0.068	931.03	0.01
116.50	0.00	0.067	931.03	0.01
117.00	0.00	0.067	931.03	0.01
117.50	0.00	0.067	931.03	0.01
118.00	0.00	0.066	931.03	0.01
118.50	0.00	0.066	931.03	0.01
119.00	0.00	0.066	931.03	0.01
119.50	0.00	0.065	931.03	0.01
120.00	0.00	0.065	931.03	0.01
120.50	0.00	0.065	931.03	0.01
121.00	0.00	0.065	931.03	0.01
121.50	0.00	0.064	931.03	0.01
122.00	0.00	0.064	931.03	0.01
122.50	0.00	0.064	931.03	0.01
123.00	0.00	0.063	931.03	0.01
123.50	0.00	0.063	931.03	0.01
124.00	0.00	0.063	931.03	0.01
124.50	0.00	0.063	931.03	0.01
125.00	0.00	0.062	931.03	0.01
125.50	0.00	0.062	931.03	0.01
126.00	0.00	0.062	931.03	0.01
126.50	0.00	0.062	931.03	0.01
127.00	0.00	0.061	931.03	0.01
127.50	0.00	0.061	931.03	0.01
128.00	0.00	0.061	931.03	0.01
128.50	0.00	0.061	931.03	0.01
129.00	0.00	0.060	931.03	0.01
129.50	0.00	0.060	931.03	0.01

Hydrograph for Pond 48P: Dummy Basin 10.1 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
130.00	0.00	0.060	931.03	0.01
130.50	0.00	0.060	931.03	0.01
131.00	0.00	0.059	931.03	0.01
131.50	0.00	0.059	931.03	0.01
132.00	0.00	0.059	931.03	0.01
132.50	0.00	0.059	931.03	0.01
133.00	0.00	0.058	931.03	0.01
133.50	0.00	0.058	931.03	0.01
134.00	0.00	0.058	931.03	0.01
134.50	0.00	0.058	931.03	0.01
135.00	0.00	0.058	931.03	0.01
135.50	0.00	0.057	931.03	0.01
136.00	0.00	0.057	931.03	0.01
136.50	0.00	0.057	931.03	0.01
137.00	0.00	0.057	931.03	0.01
137.50	0.00	0.056	931.03	0.01
138.00	0.00	0.056	931.03	0.01
138.50	0.00	0.056	931.03	0.01
139.00	0.00	0.056	931.03	0.01
139.50	0.00	0.056	931.03	0.01
140.00	0.00	0.055	931.03	0.01
140.50	0.00	0.055	931.03	0.01
141.00	0.00	0.055	931.03	0.00
141.50	0.00	0.055	931.03	0.00
142.00	0.00	0.055	931.03	0.00
142.50	0.00	0.054	931.03	0.00
143.00	0.00	0.054	931.03	0.00
143.50	0.00	0.054	931.03	0.00
144.00	0.00	0.054	931.03	0.00
144.50	0.00	0.054	931.03	0.00
145.00	0.00	0.053	931.03	0.00
145.50	0.00	0.053	931.03	0.00
146.00	0.00	0.053	931.03	0.00
146.50	0.00	0.053	931.03	0.00
147.00	0.00	0.053	931.03	0.00
147.50	0.00	0.052	931.03	0.00
148.00	0.00	0.052	931.03	0.00
148.50	0.00	0.052	931.03	0.00
149.00	0.00	0.052	931.03	0.00
149.50	0.00	0.052	931.03	0.00
150.00	0.00	0.051	931.03	0.00
150.50	0.00	0.051	931.03	0.00
151.00	0.00	0.051	931.03	0.00
151.50	0.00	0.051	931.03	0.00
152.00	0.00	0.051	931.03	0.00
152.50	0.00	0.051	931.03	0.00
153.00	0.00	0.050	931.03	0.00
153.50	0.00	0.050	931.03	0.00
154.00	0.00	0.050	931.03	0.00
154.50	0.00	0.050	931.02	0.00
155.00	0.00	0.050	931.02	0.00
155.50	0.00	0.050	931.02	0.00

Hydrograph for Pond 48P: Dummy Basin 10.1 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
156.00	0.00	0.049	931.02	0.00
156.50	0.00	0.049	931.02	0.00
157.00	0.00	0.049	931.02	0.00
157.50	0.00	0.049	931.02	0.00
158.00	0.00	0.049	931.02	0.00
158.50	0.00	0.049	931.02	0.00
159.00	0.00	0.048	931.02	0.00
159.50	0.00	0.048	931.02	0.00
160.00	0.00	0.048	931.02	0.00
160.50	0.00	0.048	931.02	0.00
161.00	0.00	0.048	931.02	0.00
161.50	0.00	0.048	931.02	0.00
162.00	0.00	0.047	931.02	0.00
162.50	0.00	0.047	931.02	0.00
163.00	0.00	0.047	931.02	0.00
163.50	0.00	0.047	931.02	0.00
164.00	0.00	0.047	931.02	0.00
164.50	0.00	0.047	931.02	0.00
165.00	0.00	0.047	931.02	0.00
165.50	0.00	0.046	931.02	0.00
166.00	0.00	0.046	931.02	0.00
166.50	0.00	0.046	931.02	0.00
167.00	0.00	0.046	931.02	0.00
167.50	0.00	0.046	931.02	0.00
168.00	0.00	0.046	931.02	0.00
168.50	0.00	0.046	931.02	0.00
169.00	0.00	0.045	931.02	0.00
169.50	0.00	0.045	931.02	0.00
170.00	0.00	0.045	931.02	0.00
170.50	0.00	0.045	931.02	0.00
171.00	0.00	0.045	931.02	0.00
171.50	0.00	0.045	931.02	0.00
172.00	0.00	0.045	931.02	0.00
172.50	0.00	0.044	931.02	0.00
173.00	0.00	0.044	931.02	0.00
173.50	0.00	0.044	931.02	0.00
174.00	0.00	0.044	931.02	0.00
174.50	0.00	0.044	931.02	0.00
175.00	0.00	0.044	931.02	0.00
175.50	0.00	0.044	931.02	0.00
176.00	0.00	0.044	931.02	0.00
176.50	0.00	0.043	931.02	0.00
177.00	0.00	0.043	931.02	0.00
177.50	0.00	0.043	931.02	0.00
178.00	0.00	0.043	931.02	0.00
178.50	0.00	0.043	931.02	0.00
179.00	0.00	0.043	931.02	0.00
179.50	0.00	0.043	931.02	0.00
180.00	0.00	0.043	931.02	0.00
180.50	0.00	0.042	931.02	0.00
181.00	0.00	0.042	931.02	0.00
181.50	0.00	0.042	931.02	0.00

Hydrograph for Pond 48P: Dummy Basin 10.1 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
182.00	0.00	0.042	931.02	0.00
182.50	0.00	0.042	931.02	0.00
183.00	0.00	0.042	931.02	0.00
183.50	0.00	0.042	931.02	0.00
184.00	0.00	0.042	931.02	0.00
184.50	0.00	0.041	931.02	0.00
185.00	0.00	0.041	931.02	0.00
185.50	0.00	0.041	931.02	0.00
186.00	0.00	0.041	931.02	0.00
186.50	0.00	0.041	931.02	0.00
187.00	0.00	0.041	931.02	0.00
187.50	0.00	0.041	931.02	0.00
188.00	0.00	0.041	931.02	0.00
188.50	0.00	0.041	931.02	0.00
189.00	0.00	0.040	931.02	0.00
189.50	0.00	0.040	931.02	0.00
190.00	0.00	0.040	931.02	0.00
190.50	0.00	0.040	931.02	0.00
191.00	0.00	0.040	931.02	0.00
191.50	0.00	0.040	931.02	0.00
192.00	0.00	0.040	931.02	0.00
192.50	0.00	0.040	931.02	0.00
193.00	0.00	0.040	931.02	0.00
193.50	0.00	0.039	931.02	0.00
194.00	0.00	0.039	931.02	0.00
194.50	0.00	0.039	931.02	0.00
195.00	0.00	0.039	931.02	0.00
195.50	0.00	0.039	931.02	0.00
196.00	0.00	0.039	931.02	0.00
196.50	0.00	0.039	931.02	0.00
197.00	0.00	0.039	931.02	0.00
197.50	0.00	0.039	931.02	0.00
198.00	0.00	0.038	931.02	0.00
198.50	0.00	0.038	931.02	0.00
199.00	0.00	0.038	931.02	0.00
199.50	0.00	0.038	931.02	0.00
200.00	0.00	0.038	931.02	0.00

Summary for Pond 49P: Basin 3 WQ

Inflow = 0.39 cfs @ 0.00 hrs, Volume= 0.822 af
 Outflow = 0.98 cfs @ 0.00 hrs, Volume= 1.192 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.98 cfs @ 0.00 hrs, Volume= 1.192 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Starting Elev= 928.67' Surf.Area= 0.614 ac Storage= 0.886 af
 Peak Elev= 928.67' @ 0.00 hrs Surf.Area= 0.614 ac Storage= 0.887 af (0.000 af above start)

Plug-Flow detention time= 3,909.1 min calculated for 0.306 af (37% of inflow)
 Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	927.00'	2.710 af	Basin 3 Storage Data (Prismatic) Listed below (Recalc)

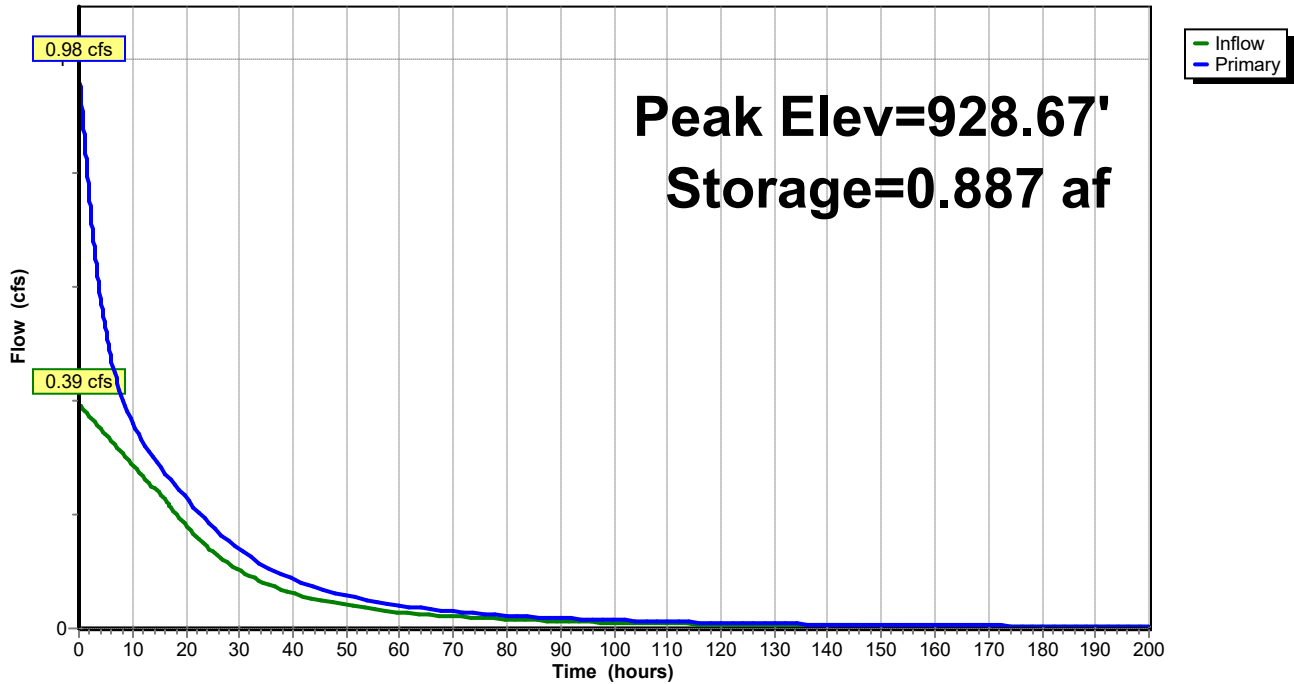
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
927.00	0.460	0.000	0.000
928.00	0.540	0.500	0.500
929.00	0.650	0.595	1.095
930.00	0.780	0.715	1.810
931.00	1.020	0.900	2.710

Device	Routing	Invert	Outlet Devices
#1	Primary	928.00'	8.0" Vert. WQ Orifice C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.98 cfs @ 0.00 hrs HW=928.67' TW=927.04' (Dynamic Tailwater)
 ↑**1=WQ Orifice** (Orifice Controls 0.98 cfs @ 2.79 fps)

Pond 49P: Basin 3 WQ

Hydrograph



Hydrograph for Pond 49P: Basin 3 WQ

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
0.00	0.39	0.887	928.67	0.98
0.50	0.39	0.863	928.63	0.93
1.00	0.38	0.842	928.60	0.87
1.50	0.38	0.823	928.57	0.81
2.00	0.37	0.806	928.54	0.75
2.50	0.37	0.791	928.51	0.70
3.00	0.36	0.778	928.49	0.66
3.50	0.35	0.767	928.47	0.62
4.00	0.35	0.757	928.45	0.58
4.50	0.34	0.748	928.44	0.55
5.00	0.34	0.740	928.43	0.52
5.50	0.33	0.733	928.41	0.50
6.00	0.33	0.726	928.40	0.48
6.50	0.32	0.720	928.39	0.46
7.00	0.32	0.715	928.38	0.44
7.50	0.31	0.710	928.38	0.42
8.00	0.31	0.706	928.37	0.41
8.50	0.30	0.702	928.36	0.40
9.00	0.30	0.699	928.35	0.38
9.50	0.29	0.695	928.35	0.37
10.00	0.29	0.692	928.34	0.36
10.50	0.28	0.689	928.34	0.35
11.00	0.28	0.686	928.33	0.34
11.50	0.27	0.684	928.33	0.34
12.00	0.27	0.681	928.32	0.33
12.50	0.26	0.679	928.32	0.32
13.00	0.26	0.676	928.32	0.31
13.50	0.25	0.674	928.31	0.31
14.00	0.25	0.672	928.31	0.30
14.50	0.24	0.670	928.30	0.29
15.00	0.24	0.668	928.30	0.29
15.50	0.23	0.666	928.30	0.28
16.00	0.23	0.664	928.29	0.27
16.50	0.22	0.662	928.29	0.27
17.00	0.22	0.660	928.29	0.26
17.50	0.21	0.658	928.28	0.26
18.00	0.20	0.656	928.28	0.25
18.50	0.20	0.654	928.28	0.25
19.00	0.19	0.652	928.27	0.24
19.50	0.19	0.650	928.27	0.23
20.00	0.18	0.648	928.27	0.23
20.50	0.18	0.646	928.26	0.22
21.00	0.17	0.644	928.26	0.22
21.50	0.17	0.642	928.26	0.21
22.00	0.16	0.640	928.25	0.21
22.50	0.16	0.638	928.25	0.20
23.00	0.15	0.636	928.25	0.20
23.50	0.15	0.634	928.24	0.19
24.00	0.14	0.633	928.24	0.19
24.50	0.14	0.631	928.24	0.18
25.00	0.14	0.629	928.23	0.18
25.50	0.13	0.627	928.23	0.17

Hydrograph for Pond 49P: Basin 3 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
26.00	0.13	0.625	928.23	0.17
26.50	0.12	0.624	928.22	0.17
27.00	0.12	0.622	928.22	0.16
27.50	0.12	0.620	928.22	0.16
28.00	0.11	0.619	928.21	0.15
28.50	0.11	0.617	928.21	0.15
29.00	0.11	0.615	928.21	0.15
29.50	0.10	0.614	928.21	0.14
30.00	0.10	0.612	928.20	0.14
30.50	0.10	0.611	928.20	0.14
31.00	0.10	0.609	928.20	0.13
31.50	0.09	0.608	928.20	0.13
32.00	0.09	0.606	928.19	0.13
32.50	0.09	0.605	928.19	0.12
33.00	0.09	0.604	928.19	0.12
33.50	0.08	0.602	928.19	0.12
34.00	0.08	0.601	928.18	0.11
34.50	0.08	0.600	928.18	0.11
35.00	0.08	0.598	928.18	0.11
35.50	0.08	0.597	928.18	0.11
36.00	0.07	0.596	928.17	0.10
36.50	0.07	0.595	928.17	0.10
37.00	0.07	0.594	928.17	0.10
37.50	0.07	0.593	928.17	0.10
38.00	0.07	0.591	928.17	0.09
38.50	0.07	0.590	928.16	0.09
39.00	0.06	0.589	928.16	0.09
39.50	0.06	0.588	928.16	0.09
40.00	0.06	0.587	928.16	0.09
40.50	0.06	0.586	928.16	0.08
41.00	0.06	0.585	928.16	0.08
41.50	0.06	0.584	928.15	0.08
42.00	0.06	0.583	928.15	0.08
42.50	0.06	0.582	928.15	0.08
43.00	0.05	0.581	928.15	0.08
43.50	0.05	0.581	928.15	0.07
44.00	0.05	0.580	928.15	0.07
44.50	0.05	0.579	928.14	0.07
45.00	0.05	0.578	928.14	0.07
45.50	0.05	0.577	928.14	0.07
46.00	0.05	0.576	928.14	0.07
46.50	0.05	0.576	928.14	0.07
47.00	0.05	0.575	928.14	0.06
47.50	0.04	0.574	928.14	0.06
48.00	0.04	0.573	928.13	0.06
48.50	0.04	0.572	928.13	0.06
49.00	0.04	0.572	928.13	0.06
49.50	0.04	0.571	928.13	0.06
50.00	0.04	0.570	928.13	0.06
50.50	0.04	0.570	928.13	0.06
51.00	0.04	0.569	928.13	0.06
51.50	0.04	0.568	928.12	0.05

Hydrograph for Pond 49P: Basin 3 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
52.00	0.04	0.568	928.12	0.05
52.50	0.04	0.567	928.12	0.05
53.00	0.04	0.566	928.12	0.05
53.50	0.04	0.566	928.12	0.05
54.00	0.04	0.565	928.12	0.05
54.50	0.03	0.565	928.12	0.05
55.00	0.03	0.564	928.12	0.05
55.50	0.03	0.563	928.12	0.05
56.00	0.03	0.563	928.11	0.05
56.50	0.03	0.562	928.11	0.05
57.00	0.03	0.562	928.11	0.04
57.50	0.03	0.561	928.11	0.04
58.00	0.03	0.561	928.11	0.04
58.50	0.03	0.560	928.11	0.04
59.00	0.03	0.560	928.11	0.04
59.50	0.03	0.559	928.11	0.04
60.00	0.03	0.559	928.11	0.04
60.50	0.03	0.558	928.11	0.04
61.00	0.03	0.558	928.11	0.04
61.50	0.03	0.557	928.10	0.04
62.00	0.03	0.557	928.10	0.04
62.50	0.03	0.556	928.10	0.04
63.00	0.03	0.556	928.10	0.04
63.50	0.03	0.555	928.10	0.04
64.00	0.03	0.555	928.10	0.04
64.50	0.02	0.554	928.10	0.04
65.00	0.02	0.554	928.10	0.03
65.50	0.02	0.554	928.10	0.03
66.00	0.02	0.553	928.10	0.03
66.50	0.02	0.553	928.10	0.03
67.00	0.02	0.552	928.10	0.03
67.50	0.02	0.552	928.10	0.03
68.00	0.02	0.551	928.09	0.03
68.50	0.02	0.551	928.09	0.03
69.00	0.02	0.551	928.09	0.03
69.50	0.02	0.550	928.09	0.03
70.00	0.02	0.550	928.09	0.03
70.50	0.02	0.550	928.09	0.03
71.00	0.02	0.549	928.09	0.03
71.50	0.02	0.549	928.09	0.03
72.00	0.02	0.549	928.09	0.03
72.50	0.02	0.548	928.09	0.03
73.00	0.02	0.548	928.09	0.03
73.50	0.02	0.548	928.09	0.03
74.00	0.02	0.547	928.09	0.03
74.50	0.02	0.547	928.09	0.03
75.00	0.02	0.547	928.09	0.03
75.50	0.02	0.546	928.08	0.03
76.00	0.02	0.546	928.08	0.03
76.50	0.02	0.546	928.08	0.02
77.00	0.02	0.545	928.08	0.02
77.50	0.02	0.545	928.08	0.02

Hydrograph for Pond 49P: Basin 3 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
78.00	0.02	0.545	928.08	0.02
78.50	0.02	0.544	928.08	0.02
79.00	0.02	0.544	928.08	0.02
79.50	0.02	0.544	928.08	0.02
80.00	0.02	0.544	928.08	0.02
80.50	0.02	0.543	928.08	0.02
81.00	0.02	0.543	928.08	0.02
81.50	0.02	0.543	928.08	0.02
82.00	0.02	0.542	928.08	0.02
82.50	0.01	0.542	928.08	0.02
83.00	0.01	0.542	928.08	0.02
83.50	0.01	0.542	928.08	0.02
84.00	0.01	0.541	928.08	0.02
84.50	0.01	0.541	928.08	0.02
85.00	0.01	0.541	928.08	0.02
85.50	0.01	0.541	928.07	0.02
86.00	0.01	0.540	928.07	0.02
86.50	0.01	0.540	928.07	0.02
87.00	0.01	0.540	928.07	0.02
87.50	0.01	0.540	928.07	0.02
88.00	0.01	0.539	928.07	0.02
88.50	0.01	0.539	928.07	0.02
89.00	0.01	0.539	928.07	0.02
89.50	0.01	0.539	928.07	0.02
90.00	0.01	0.538	928.07	0.02
90.50	0.01	0.538	928.07	0.02
91.00	0.01	0.538	928.07	0.02
91.50	0.01	0.538	928.07	0.02
92.00	0.01	0.538	928.07	0.02
92.50	0.01	0.537	928.07	0.02
93.00	0.01	0.537	928.07	0.02
93.50	0.01	0.537	928.07	0.02
94.00	0.01	0.537	928.07	0.02
94.50	0.01	0.537	928.07	0.02
95.00	0.01	0.536	928.07	0.02
95.50	0.01	0.536	928.07	0.02
96.00	0.01	0.536	928.07	0.02
96.50	0.01	0.536	928.07	0.02
97.00	0.01	0.536	928.07	0.02
97.50	0.01	0.535	928.07	0.02
98.00	0.01	0.535	928.06	0.02
98.50	0.01	0.535	928.06	0.01
99.00	0.01	0.535	928.06	0.01
99.50	0.01	0.535	928.06	0.01
100.00	0.01	0.534	928.06	0.01
100.50	0.01	0.534	928.06	0.01
101.00	0.01	0.534	928.06	0.01
101.50	0.01	0.534	928.06	0.01
102.00	0.01	0.534	928.06	0.01
102.50	0.01	0.534	928.06	0.01
103.00	0.01	0.533	928.06	0.01
103.50	0.01	0.533	928.06	0.01

Hydrograph for Pond 49P: Basin 3 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
104.00	0.01	0.533	928.06	0.01
104.50	0.01	0.533	928.06	0.01
105.00	0.01	0.533	928.06	0.01
105.50	0.01	0.533	928.06	0.01
106.00	0.01	0.532	928.06	0.01
106.50	0.01	0.532	928.06	0.01
107.00	0.01	0.532	928.06	0.01
107.50	0.01	0.532	928.06	0.01
108.00	0.01	0.532	928.06	0.01
108.50	0.01	0.532	928.06	0.01
109.00	0.01	0.531	928.06	0.01
109.50	0.01	0.531	928.06	0.01
110.00	0.01	0.531	928.06	0.01
110.50	0.01	0.531	928.06	0.01
111.00	0.01	0.531	928.06	0.01
111.50	0.01	0.531	928.06	0.01
112.00	0.01	0.531	928.06	0.01
112.50	0.01	0.530	928.06	0.01
113.00	0.01	0.530	928.06	0.01
113.50	0.01	0.530	928.06	0.01
114.00	0.01	0.530	928.06	0.01
114.50	0.01	0.530	928.06	0.01
115.00	0.01	0.530	928.05	0.01
115.50	0.01	0.530	928.05	0.01
116.00	0.01	0.529	928.05	0.01
116.50	0.01	0.529	928.05	0.01
117.00	0.01	0.529	928.05	0.01
117.50	0.01	0.529	928.05	0.01
118.00	0.01	0.529	928.05	0.01
118.50	0.01	0.529	928.05	0.01
119.00	0.01	0.529	928.05	0.01
119.50	0.01	0.529	928.05	0.01
120.00	0.01	0.528	928.05	0.01
120.50	0.01	0.528	928.05	0.01
121.00	0.01	0.528	928.05	0.01
121.50	0.01	0.528	928.05	0.01
122.00	0.01	0.528	928.05	0.01
122.50	0.01	0.528	928.05	0.01
123.00	0.01	0.528	928.05	0.01
123.50	0.01	0.528	928.05	0.01
124.00	0.01	0.527	928.05	0.01
124.50	0.01	0.527	928.05	0.01
125.00	0.01	0.527	928.05	0.01
125.50	0.01	0.527	928.05	0.01
126.00	0.01	0.527	928.05	0.01
126.50	0.01	0.527	928.05	0.01
127.00	0.01	0.527	928.05	0.01
127.50	0.01	0.527	928.05	0.01
128.00	0.01	0.527	928.05	0.01
128.50	0.01	0.526	928.05	0.01
129.00	0.01	0.526	928.05	0.01
129.50	0.01	0.526	928.05	0.01

Hydrograph for Pond 49P: Basin 3 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
130.00	0.01	0.526	928.05	0.01
130.50	0.01	0.526	928.05	0.01
131.00	0.01	0.526	928.05	0.01
131.50	0.01	0.526	928.05	0.01
132.00	0.01	0.526	928.05	0.01
132.50	0.01	0.526	928.05	0.01
133.00	0.01	0.526	928.05	0.01
133.50	0.01	0.525	928.05	0.01
134.00	0.01	0.525	928.05	0.01
134.50	0.01	0.525	928.05	0.01
135.00	0.01	0.525	928.05	0.01
135.50	0.01	0.525	928.05	0.01
136.00	0.01	0.525	928.05	0.01
136.50	0.01	0.525	928.05	0.01
137.00	0.01	0.525	928.05	0.01
137.50	0.01	0.525	928.05	0.01
138.00	0.01	0.525	928.05	0.01
138.50	0.01	0.524	928.05	0.01
139.00	0.01	0.524	928.04	0.01
139.50	0.01	0.524	928.04	0.01
140.00	0.01	0.524	928.04	0.01
140.50	0.01	0.524	928.04	0.01
141.00	0.00	0.524	928.04	0.01
141.50	0.00	0.524	928.04	0.01
142.00	0.00	0.524	928.04	0.01
142.50	0.00	0.524	928.04	0.01
143.00	0.00	0.524	928.04	0.01
143.50	0.00	0.524	928.04	0.01
144.00	0.00	0.524	928.04	0.01
144.50	0.00	0.523	928.04	0.01
145.00	0.00	0.523	928.04	0.01
145.50	0.00	0.523	928.04	0.01
146.00	0.00	0.523	928.04	0.01
146.50	0.00	0.523	928.04	0.01
147.00	0.00	0.523	928.04	0.01
147.50	0.00	0.523	928.04	0.01
148.00	0.00	0.523	928.04	0.01
148.50	0.00	0.523	928.04	0.01
149.00	0.00	0.523	928.04	0.01
149.50	0.00	0.523	928.04	0.01
150.00	0.00	0.523	928.04	0.01
150.50	0.00	0.522	928.04	0.01
151.00	0.00	0.522	928.04	0.01
151.50	0.00	0.522	928.04	0.01
152.00	0.00	0.522	928.04	0.01
152.50	0.00	0.522	928.04	0.01
153.00	0.00	0.522	928.04	0.01
153.50	0.00	0.522	928.04	0.01
154.00	0.00	0.522	928.04	0.01
154.50	0.00	0.522	928.04	0.01
155.00	0.00	0.522	928.04	0.01
155.50	0.00	0.522	928.04	0.01

Hydrograph for Pond 49P: Basin 3 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
156.00	0.00	0.522	928.04	0.01
156.50	0.00	0.522	928.04	0.01
157.00	0.00	0.521	928.04	0.01
157.50	0.00	0.521	928.04	0.01
158.00	0.00	0.521	928.04	0.01
158.50	0.00	0.521	928.04	0.01
159.00	0.00	0.521	928.04	0.01
159.50	0.00	0.521	928.04	0.01
160.00	0.00	0.521	928.04	0.01
160.50	0.00	0.521	928.04	0.01
161.00	0.00	0.521	928.04	0.01
161.50	0.00	0.521	928.04	0.01
162.00	0.00	0.521	928.04	0.01
162.50	0.00	0.521	928.04	0.01
163.00	0.00	0.521	928.04	0.01
163.50	0.00	0.521	928.04	0.01
164.00	0.00	0.521	928.04	0.01
164.50	0.00	0.520	928.04	0.01
165.00	0.00	0.520	928.04	0.01
165.50	0.00	0.520	928.04	0.01
166.00	0.00	0.520	928.04	0.01
166.50	0.00	0.520	928.04	0.01
167.00	0.00	0.520	928.04	0.01
167.50	0.00	0.520	928.04	0.00
168.00	0.00	0.520	928.04	0.00
168.50	0.00	0.520	928.04	0.00
169.00	0.00	0.520	928.04	0.00
169.50	0.00	0.520	928.04	0.00
170.00	0.00	0.520	928.04	0.00
170.50	0.00	0.520	928.04	0.00
171.00	0.00	0.520	928.04	0.00
171.50	0.00	0.520	928.04	0.00
172.00	0.00	0.520	928.04	0.00
172.50	0.00	0.519	928.04	0.00
173.00	0.00	0.519	928.04	0.00
173.50	0.00	0.519	928.04	0.00
174.00	0.00	0.519	928.04	0.00
174.50	0.00	0.519	928.04	0.00
175.00	0.00	0.519	928.04	0.00
175.50	0.00	0.519	928.04	0.00
176.00	0.00	0.519	928.04	0.00
176.50	0.00	0.519	928.04	0.00
177.00	0.00	0.519	928.03	0.00
177.50	0.00	0.519	928.03	0.00
178.00	0.00	0.519	928.03	0.00
178.50	0.00	0.519	928.03	0.00
179.00	0.00	0.519	928.03	0.00
179.50	0.00	0.519	928.03	0.00
180.00	0.00	0.519	928.03	0.00
180.50	0.00	0.519	928.03	0.00
181.00	0.00	0.519	928.03	0.00
181.50	0.00	0.518	928.03	0.00

Hydrograph for Pond 49P: Basin 3 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
182.00	0.00	0.518	928.03	0.00
182.50	0.00	0.518	928.03	0.00
183.00	0.00	0.518	928.03	0.00
183.50	0.00	0.518	928.03	0.00
184.00	0.00	0.518	928.03	0.00
184.50	0.00	0.518	928.03	0.00
185.00	0.00	0.518	928.03	0.00
185.50	0.00	0.518	928.03	0.00
186.00	0.00	0.518	928.03	0.00
186.50	0.00	0.518	928.03	0.00
187.00	0.00	0.518	928.03	0.00
187.50	0.00	0.518	928.03	0.00
188.00	0.00	0.518	928.03	0.00
188.50	0.00	0.518	928.03	0.00
189.00	0.00	0.518	928.03	0.00
189.50	0.00	0.518	928.03	0.00
190.00	0.00	0.518	928.03	0.00
190.50	0.00	0.518	928.03	0.00
191.00	0.00	0.517	928.03	0.00
191.50	0.00	0.517	928.03	0.00
192.00	0.00	0.517	928.03	0.00
192.50	0.00	0.517	928.03	0.00
193.00	0.00	0.517	928.03	0.00
193.50	0.00	0.517	928.03	0.00
194.00	0.00	0.517	928.03	0.00
194.50	0.00	0.517	928.03	0.00
195.00	0.00	0.517	928.03	0.00
195.50	0.00	0.517	928.03	0.00
196.00	0.00	0.517	928.03	0.00
196.50	0.00	0.517	928.03	0.00
197.00	0.00	0.517	928.03	0.00
197.50	0.00	0.517	928.03	0.00
198.00	0.00	0.517	928.03	0.00
198.50	0.00	0.517	928.03	0.00
199.00	0.00	0.517	928.03	0.00
199.50	0.00	0.517	928.03	0.00
200.00	0.00	0.517	928.03	0.00

Summary for Pond 50P: Basin 1 WQ

Inflow = 1.32 cfs @ 0.00 hrs, Volume= 2.084 af
 Outflow = 0.92 cfs @ 8.76 hrs, Volume= 2.855 af, Atten= 30%, Lag= 525.4 min
 Primary = 0.92 cfs @ 8.76 hrs, Volume= 2.855 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Starting Elev= 925.78' Surf.Area= 1.096 ac Storage= 0.821 af
 Peak Elev= 925.95' @ 8.76 hrs Surf.Area= 1.115 ac Storage= 1.013 af (0.192 af above start)

Plug-Flow detention time= 1,168.7 min calculated for 2.033 af (98% of inflow)
 Center-of-Mass det. time= 389.0 min (1,776.8 - 1,387.8)

Volume	Invert	Avail.Storage	Storage Description
#1	925.00'	5.717 af	Basin 1 Storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.00	1.010	0.000	0.000
926.00	1.120	1.065	1.065
927.00	1.230	1.175	2.240
928.00	1.350	1.290	3.530
929.00	1.480	1.415	4.945
929.50	1.610	0.773	5.717

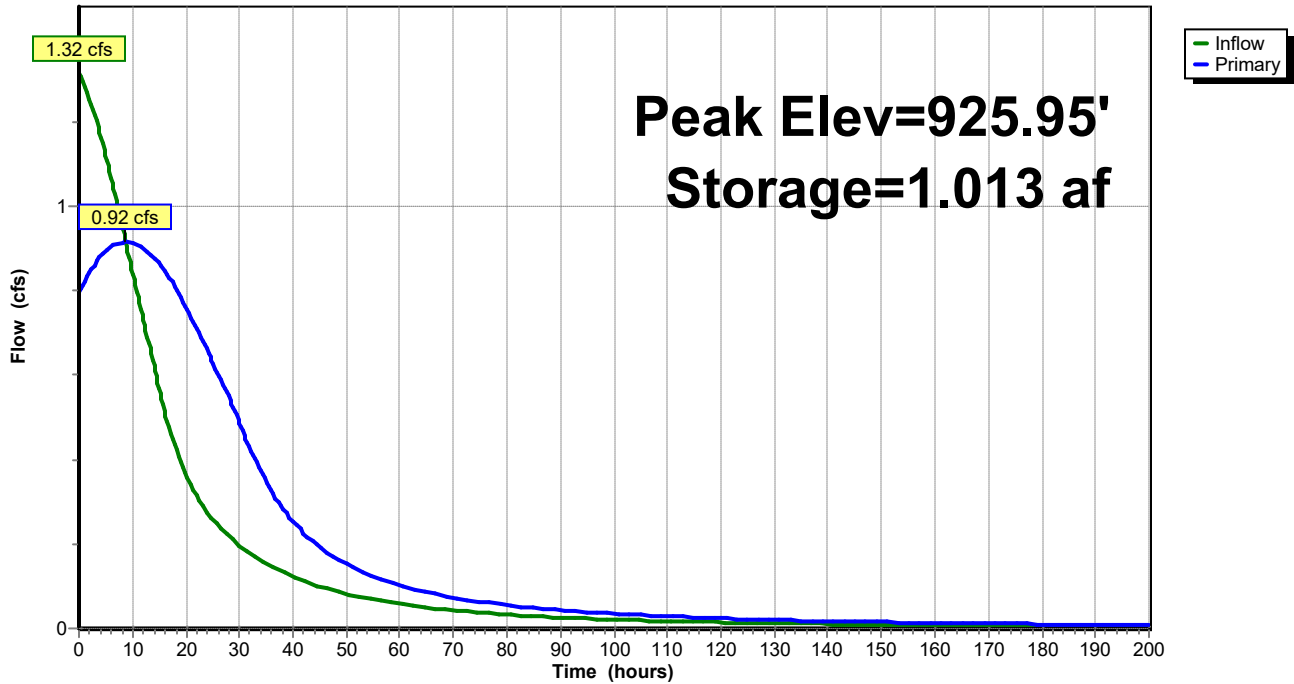
Device	Routing	Invert	Outlet Devices
#1	Primary	925.00'	6.5" Vert. WQ Orifice C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.92 cfs @ 8.76 hrs HW=925.95' (Free Discharge)

↑**1=WQ Orifice** (Orifice Controls 0.92 cfs @ 3.98 fps)

Pond 50P: Basin 1 WQ

Hydrograph



Hydrograph for Pond 50P: Basin 1 WQ

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
0.00	1.32	0.822	925.78	0.79
0.50	1.31	0.843	925.80	0.81
1.00	1.29	0.863	925.82	0.82
1.50	1.27	0.882	925.84	0.83
2.00	1.26	0.899	925.85	0.85
2.50	1.24	0.916	925.87	0.86
3.00	1.22	0.931	925.88	0.87
3.50	1.19	0.945	925.89	0.87
4.00	1.17	0.957	925.90	0.88
4.50	1.15	0.969	925.91	0.89
5.00	1.12	0.979	925.92	0.90
5.50	1.10	0.987	925.93	0.90
6.00	1.07	0.995	925.94	0.91
6.50	1.04	1.001	925.94	0.91
7.00	1.02	1.006	925.95	0.91
7.50	0.99	1.009	925.95	0.91
8.00	0.96	1.012	925.95	0.92
8.50	0.93	1.013	925.95	0.92
9.00	0.90	1.013	925.95	0.92
9.50	0.87	1.012	925.95	0.92
10.00	0.85	1.010	925.95	0.91
10.50	0.82	1.006	925.95	0.91
11.00	0.79	1.002	925.94	0.91
11.50	0.76	0.996	925.94	0.91
12.00	0.73	0.990	925.93	0.90
12.50	0.71	0.982	925.93	0.90
13.00	0.68	0.974	925.92	0.89
13.50	0.66	0.965	925.91	0.89
14.00	0.63	0.955	925.90	0.88
14.50	0.60	0.944	925.89	0.87
15.00	0.57	0.932	925.88	0.87
15.50	0.54	0.919	925.87	0.86
16.00	0.52	0.906	925.86	0.85
16.50	0.49	0.892	925.84	0.84
17.00	0.47	0.877	925.83	0.83
17.50	0.45	0.862	925.82	0.82
18.00	0.43	0.846	925.80	0.81
18.50	0.41	0.830	925.79	0.80
19.00	0.39	0.814	925.77	0.79
19.50	0.38	0.798	925.76	0.77
20.00	0.36	0.781	925.74	0.76
20.50	0.35	0.765	925.73	0.75
21.00	0.34	0.748	925.71	0.74
21.50	0.33	0.732	925.70	0.73
22.00	0.31	0.715	925.68	0.71
22.50	0.30	0.699	925.67	0.70
23.00	0.29	0.683	925.65	0.69
23.50	0.28	0.666	925.64	0.67
24.00	0.28	0.650	925.62	0.66
24.50	0.27	0.635	925.61	0.64
25.00	0.26	0.619	925.59	0.63
25.50	0.25	0.604	925.58	0.62

Hydrograph for Pond 50P: Basin 1 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
26.00	0.24	0.589	925.57	0.60
26.50	0.24	0.574	925.55	0.59
27.00	0.23	0.560	925.54	0.58
27.50	0.22	0.546	925.53	0.56
28.00	0.22	0.532	925.51	0.55
28.50	0.21	0.519	925.50	0.53
29.00	0.21	0.505	925.49	0.52
29.50	0.20	0.493	925.48	0.50
30.00	0.20	0.481	925.46	0.49
30.50	0.19	0.469	925.45	0.47
31.00	0.19	0.457	925.44	0.46
31.50	0.18	0.446	925.43	0.44
32.00	0.18	0.436	925.42	0.43
32.50	0.17	0.426	925.41	0.41
33.00	0.17	0.416	925.40	0.40
33.50	0.16	0.407	925.39	0.38
34.00	0.16	0.398	925.39	0.37
34.50	0.16	0.390	925.38	0.36
35.00	0.15	0.381	925.37	0.35
35.50	0.15	0.374	925.36	0.34
36.00	0.15	0.366	925.36	0.33
36.50	0.14	0.359	925.35	0.32
37.00	0.14	0.352	925.34	0.31
37.50	0.14	0.345	925.34	0.30
38.00	0.13	0.339	925.33	0.29
38.50	0.13	0.332	925.32	0.28
39.00	0.13	0.326	925.32	0.27
39.50	0.13	0.321	925.31	0.26
40.00	0.12	0.315	925.31	0.25
40.50	0.12	0.310	925.30	0.25
41.00	0.12	0.305	925.30	0.24
41.50	0.11	0.300	925.29	0.23
42.00	0.11	0.295	925.29	0.23
42.50	0.11	0.290	925.28	0.22
43.00	0.11	0.286	925.28	0.21
43.50	0.11	0.281	925.27	0.21
44.00	0.10	0.277	925.27	0.20
44.50	0.10	0.273	925.27	0.20
45.00	0.10	0.269	925.26	0.19
45.50	0.10	0.265	925.26	0.19
46.00	0.10	0.262	925.26	0.18
46.50	0.09	0.258	925.25	0.18
47.00	0.09	0.255	925.25	0.18
47.50	0.09	0.251	925.25	0.17
48.00	0.09	0.248	925.24	0.17
48.50	0.09	0.245	925.24	0.16
49.00	0.09	0.242	925.24	0.16
49.50	0.08	0.238	925.23	0.16
50.00	0.08	0.236	925.23	0.15
50.50	0.08	0.233	925.23	0.15
51.00	0.08	0.230	925.22	0.15
51.50	0.08	0.227	925.22	0.14

Hydrograph for Pond 50P: Basin 1 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
52.00	0.08	0.224	925.22	0.14
52.50	0.07	0.222	925.22	0.14
53.00	0.07	0.219	925.21	0.13
53.50	0.07	0.217	925.21	0.13
54.00	0.07	0.214	925.21	0.13
54.50	0.07	0.212	925.21	0.13
55.00	0.07	0.210	925.21	0.12
55.50	0.07	0.207	925.20	0.12
56.00	0.07	0.205	925.20	0.12
56.50	0.06	0.203	925.20	0.12
57.00	0.06	0.201	925.20	0.11
57.50	0.06	0.199	925.19	0.11
58.00	0.06	0.197	925.19	0.11
58.50	0.06	0.195	925.19	0.11
59.00	0.06	0.193	925.19	0.11
59.50	0.06	0.191	925.19	0.10
60.00	0.06	0.189	925.19	0.10
60.50	0.06	0.187	925.18	0.10
61.00	0.06	0.186	925.18	0.10
61.50	0.06	0.184	925.18	0.10
62.00	0.05	0.182	925.18	0.10
62.50	0.05	0.181	925.18	0.09
63.00	0.05	0.179	925.18	0.09
63.50	0.05	0.177	925.17	0.09
64.00	0.05	0.176	925.17	0.09
64.50	0.05	0.174	925.17	0.09
65.00	0.05	0.173	925.17	0.09
65.50	0.05	0.171	925.17	0.08
66.00	0.05	0.170	925.17	0.08
66.50	0.05	0.168	925.16	0.08
67.00	0.05	0.167	925.16	0.08
67.50	0.05	0.165	925.16	0.08
68.00	0.05	0.164	925.16	0.08
68.50	0.04	0.163	925.16	0.08
69.00	0.04	0.161	925.16	0.08
69.50	0.04	0.160	925.16	0.07
70.00	0.04	0.159	925.16	0.07
70.50	0.04	0.157	925.15	0.07
71.00	0.04	0.156	925.15	0.07
71.50	0.04	0.155	925.15	0.07
72.00	0.04	0.154	925.15	0.07
72.50	0.04	0.152	925.15	0.07
73.00	0.04	0.151	925.15	0.07
73.50	0.04	0.150	925.15	0.07
74.00	0.04	0.149	925.15	0.07
74.50	0.04	0.148	925.15	0.06
75.00	0.04	0.147	925.14	0.06
75.50	0.04	0.146	925.14	0.06
76.00	0.04	0.145	925.14	0.06
76.50	0.04	0.144	925.14	0.06
77.00	0.04	0.143	925.14	0.06
77.50	0.03	0.142	925.14	0.06

Hydrograph for Pond 50P: Basin 1 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
78.00	0.03	0.141	925.14	0.06
78.50	0.03	0.140	925.14	0.06
79.00	0.03	0.139	925.14	0.06
79.50	0.03	0.138	925.14	0.06
80.00	0.03	0.137	925.13	0.06
80.50	0.03	0.136	925.13	0.05
81.00	0.03	0.135	925.13	0.05
81.50	0.03	0.134	925.13	0.05
82.00	0.03	0.133	925.13	0.05
82.50	0.03	0.132	925.13	0.05
83.00	0.03	0.131	925.13	0.05
83.50	0.03	0.130	925.13	0.05
84.00	0.03	0.129	925.13	0.05
84.50	0.03	0.129	925.13	0.05
85.00	0.03	0.128	925.13	0.05
85.50	0.03	0.127	925.12	0.05
86.00	0.03	0.126	925.12	0.05
86.50	0.03	0.125	925.12	0.05
87.00	0.03	0.125	925.12	0.05
87.50	0.03	0.124	925.12	0.05
88.00	0.03	0.123	925.12	0.05
88.50	0.03	0.122	925.12	0.04
89.00	0.03	0.122	925.12	0.04
89.50	0.03	0.121	925.12	0.04
90.00	0.03	0.120	925.12	0.04
90.50	0.03	0.119	925.12	0.04
91.00	0.03	0.119	925.12	0.04
91.50	0.02	0.118	925.12	0.04
92.00	0.02	0.117	925.12	0.04
92.50	0.02	0.116	925.11	0.04
93.00	0.02	0.116	925.11	0.04
93.50	0.02	0.115	925.11	0.04
94.00	0.02	0.114	925.11	0.04
94.50	0.02	0.114	925.11	0.04
95.00	0.02	0.113	925.11	0.04
95.50	0.02	0.113	925.11	0.04
96.00	0.02	0.112	925.11	0.04
96.50	0.02	0.111	925.11	0.04
97.00	0.02	0.111	925.11	0.04
97.50	0.02	0.110	925.11	0.04
98.00	0.02	0.109	925.11	0.04
98.50	0.02	0.109	925.11	0.04
99.00	0.02	0.108	925.11	0.04
99.50	0.02	0.108	925.11	0.04
100.00	0.02	0.107	925.11	0.03
100.50	0.02	0.106	925.10	0.03
101.00	0.02	0.106	925.10	0.03
101.50	0.02	0.105	925.10	0.03
102.00	0.02	0.105	925.10	0.03
102.50	0.02	0.104	925.10	0.03
103.00	0.02	0.104	925.10	0.03
103.50	0.02	0.103	925.10	0.03

Hydrograph for Pond 50P: Basin 1 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
104.00	0.02	0.103	925.10	0.03
104.50	0.02	0.102	925.10	0.03
105.00	0.02	0.101	925.10	0.03
105.50	0.02	0.101	925.10	0.03
106.00	0.02	0.100	925.10	0.03
106.50	0.02	0.100	925.10	0.03
107.00	0.02	0.099	925.10	0.03
107.50	0.02	0.099	925.10	0.03
108.00	0.02	0.098	925.10	0.03
108.50	0.02	0.098	925.10	0.03
109.00	0.02	0.097	925.10	0.03
109.50	0.02	0.097	925.10	0.03
110.00	0.02	0.097	925.10	0.03
110.50	0.02	0.096	925.09	0.03
111.00	0.02	0.096	925.09	0.03
111.50	0.02	0.095	925.09	0.03
112.00	0.02	0.095	925.09	0.03
112.50	0.02	0.094	925.09	0.03
113.00	0.02	0.094	925.09	0.03
113.50	0.02	0.093	925.09	0.03
114.00	0.02	0.093	925.09	0.03
114.50	0.02	0.092	925.09	0.03
115.00	0.02	0.092	925.09	0.03
115.50	0.02	0.092	925.09	0.03
116.00	0.02	0.091	925.09	0.03
116.50	0.02	0.091	925.09	0.03
117.00	0.02	0.090	925.09	0.03
117.50	0.01	0.090	925.09	0.02
118.00	0.01	0.089	925.09	0.02
118.50	0.01	0.089	925.09	0.02
119.00	0.01	0.089	925.09	0.02
119.50	0.01	0.088	925.09	0.02
120.00	0.01	0.088	925.09	0.02
120.50	0.01	0.087	925.09	0.02
121.00	0.01	0.087	925.09	0.02
121.50	0.01	0.087	925.09	0.02
122.00	0.01	0.086	925.09	0.02
122.50	0.01	0.086	925.08	0.02
123.00	0.01	0.086	925.08	0.02
123.50	0.01	0.085	925.08	0.02
124.00	0.01	0.085	925.08	0.02
124.50	0.01	0.084	925.08	0.02
125.00	0.01	0.084	925.08	0.02
125.50	0.01	0.084	925.08	0.02
126.00	0.01	0.083	925.08	0.02
126.50	0.01	0.083	925.08	0.02
127.00	0.01	0.083	925.08	0.02
127.50	0.01	0.082	925.08	0.02
128.00	0.01	0.082	925.08	0.02
128.50	0.01	0.082	925.08	0.02
129.00	0.01	0.081	925.08	0.02
129.50	0.01	0.081	925.08	0.02

Hydrograph for Pond 50P: Basin 1 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
130.00	0.01	0.081	925.08	0.02
130.50	0.01	0.080	925.08	0.02
131.00	0.01	0.080	925.08	0.02
131.50	0.01	0.080	925.08	0.02
132.00	0.01	0.079	925.08	0.02
132.50	0.01	0.079	925.08	0.02
133.00	0.01	0.079	925.08	0.02
133.50	0.01	0.078	925.08	0.02
134.00	0.01	0.078	925.08	0.02
134.50	0.01	0.078	925.08	0.02
135.00	0.01	0.077	925.08	0.02
135.50	0.01	0.077	925.08	0.02
136.00	0.01	0.077	925.08	0.02
136.50	0.01	0.077	925.08	0.02
137.00	0.01	0.076	925.08	0.02
137.50	0.01	0.076	925.07	0.02
138.00	0.01	0.076	925.07	0.02
138.50	0.01	0.075	925.07	0.02
139.00	0.01	0.075	925.07	0.02
139.50	0.01	0.075	925.07	0.02
140.00	0.01	0.074	925.07	0.02
140.50	0.01	0.074	925.07	0.02
141.00	0.01	0.074	925.07	0.02
141.50	0.01	0.074	925.07	0.02
142.00	0.01	0.073	925.07	0.02
142.50	0.01	0.073	925.07	0.02
143.00	0.01	0.073	925.07	0.02
143.50	0.01	0.073	925.07	0.02
144.00	0.01	0.072	925.07	0.02
144.50	0.01	0.072	925.07	0.02
145.00	0.01	0.072	925.07	0.02
145.50	0.01	0.071	925.07	0.02
146.00	0.01	0.071	925.07	0.02
146.50	0.01	0.071	925.07	0.02
147.00	0.01	0.071	925.07	0.02
147.50	0.01	0.070	925.07	0.02
148.00	0.01	0.070	925.07	0.02
148.50	0.01	0.070	925.07	0.02
149.00	0.01	0.070	925.07	0.02
149.50	0.01	0.069	925.07	0.02
150.00	0.01	0.069	925.07	0.01
150.50	0.01	0.069	925.07	0.01
151.00	0.01	0.069	925.07	0.01
151.50	0.01	0.068	925.07	0.01
152.00	0.01	0.068	925.07	0.01
152.50	0.01	0.068	925.07	0.01
153.00	0.01	0.068	925.07	0.01
153.50	0.01	0.067	925.07	0.01
154.00	0.01	0.067	925.07	0.01
154.50	0.01	0.067	925.07	0.01
155.00	0.01	0.067	925.07	0.01
155.50	0.01	0.067	925.07	0.01

Hydrograph for Pond 50P: Basin 1 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
156.00	0.01	0.066	925.07	0.01
156.50	0.01	0.066	925.07	0.01
157.00	0.01	0.066	925.07	0.01
157.50	0.01	0.066	925.06	0.01
158.00	0.01	0.065	925.06	0.01
158.50	0.01	0.065	925.06	0.01
159.00	0.01	0.065	925.06	0.01
159.50	0.01	0.065	925.06	0.01
160.00	0.01	0.065	925.06	0.01
160.50	0.01	0.064	925.06	0.01
161.00	0.01	0.064	925.06	0.01
161.50	0.01	0.064	925.06	0.01
162.00	0.01	0.064	925.06	0.01
162.50	0.01	0.064	925.06	0.01
163.00	0.01	0.063	925.06	0.01
163.50	0.01	0.063	925.06	0.01
164.00	0.01	0.063	925.06	0.01
164.50	0.01	0.063	925.06	0.01
165.00	0.01	0.063	925.06	0.01
165.50	0.01	0.062	925.06	0.01
166.00	0.01	0.062	925.06	0.01
166.50	0.01	0.062	925.06	0.01
167.00	0.01	0.062	925.06	0.01
167.50	0.01	0.062	925.06	0.01
168.00	0.01	0.061	925.06	0.01
168.50	0.01	0.061	925.06	0.01
169.00	0.01	0.061	925.06	0.01
169.50	0.01	0.061	925.06	0.01
170.00	0.01	0.061	925.06	0.01
170.50	0.01	0.060	925.06	0.01
171.00	0.01	0.060	925.06	0.01
171.50	0.01	0.060	925.06	0.01
172.00	0.01	0.060	925.06	0.01
172.50	0.01	0.060	925.06	0.01
173.00	0.01	0.059	925.06	0.01
173.50	0.01	0.059	925.06	0.01
174.00	0.01	0.059	925.06	0.01
174.50	0.01	0.059	925.06	0.01
175.00	0.01	0.059	925.06	0.01
175.50	0.01	0.059	925.06	0.01
176.00	0.01	0.058	925.06	0.01
176.50	0.01	0.058	925.06	0.01
177.00	0.01	0.058	925.06	0.01
177.50	0.01	0.058	925.06	0.01
178.00	0.01	0.058	925.06	0.01
178.50	0.01	0.057	925.06	0.01
179.00	0.01	0.057	925.06	0.01
179.50	0.01	0.057	925.06	0.01
180.00	0.01	0.057	925.06	0.01
180.50	0.01	0.057	925.06	0.01
181.00	0.01	0.057	925.06	0.01
181.50	0.01	0.056	925.06	0.01

Hydrograph for Pond 50P: Basin 1 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
182.00	0.01	0.056	925.06	0.01
182.50	0.01	0.056	925.06	0.01
183.00	0.01	0.056	925.06	0.01
183.50	0.01	0.056	925.06	0.01
184.00	0.01	0.056	925.05	0.01
184.50	0.01	0.056	925.05	0.01
185.00	0.01	0.055	925.05	0.01
185.50	0.01	0.055	925.05	0.01
186.00	0.01	0.055	925.05	0.01
186.50	0.01	0.055	925.05	0.01
187.00	0.01	0.055	925.05	0.01
187.50	0.01	0.055	925.05	0.01
188.00	0.01	0.054	925.05	0.01
188.50	0.01	0.054	925.05	0.01
189.00	0.01	0.054	925.05	0.01
189.50	0.01	0.054	925.05	0.01
190.00	0.01	0.054	925.05	0.01
190.50	0.01	0.054	925.05	0.01
191.00	0.01	0.054	925.05	0.01
191.50	0.01	0.053	925.05	0.01
192.00	0.01	0.053	925.05	0.01
192.50	0.01	0.053	925.05	0.01
193.00	0.01	0.053	925.05	0.01
193.50	0.01	0.053	925.05	0.01
194.00	0.01	0.053	925.05	0.01
194.50	0.01	0.053	925.05	0.01
195.00	0.01	0.052	925.05	0.01
195.50	0.01	0.052	925.05	0.01
196.00	0.01	0.052	925.05	0.01
196.50	0.01	0.052	925.05	0.01
197.00	0.01	0.052	925.05	0.01
197.50	0.01	0.052	925.05	0.01
198.00	0.01	0.052	925.05	0.01
198.50	0.01	0.051	925.05	0.01
199.00	0.01	0.051	925.05	0.01
199.50	0.00	0.051	925.05	0.01
200.00	0.00	0.051	925.05	0.01

Summary for Pond 51P: Basin 2 WQ

Inflow = 0.98 cfs @ 0.00 hrs, Volume= 1.192 af
 Outflow = 1.32 cfs @ 0.00 hrs, Volume= 2.084 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.32 cfs @ 0.00 hrs, Volume= 2.084 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Starting Elev= 927.04' Surf.Area= 0.744 ac Storage= 0.915 af
 Peak Elev= 927.04' @ 0.00 hrs Surf.Area= 0.744 ac Storage= 0.916 af (0.000 af above start)

Plug-Flow detention time= 851.8 min calculated for 1.169 af (98% of inflow)
 Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	925.70'	3.520 af	Basin 2 Storage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.70	0.620	0.000	0.000
926.00	0.650	0.190	0.190
927.00	0.740	0.695	0.885
928.00	0.830	0.785	1.670
929.00	0.920	0.875	2.545
930.00	1.030	0.975	3.520

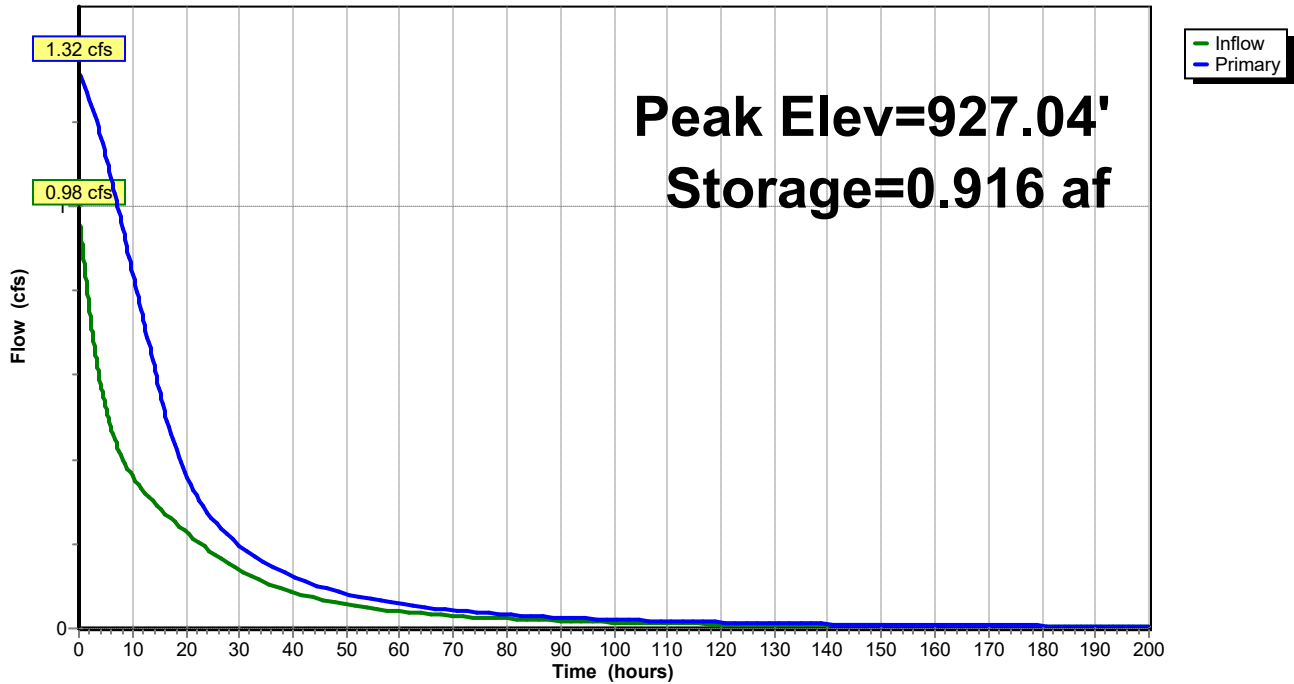
Device	Routing	Invert	Outlet Devices
#1	Primary	925.70'	7.0" Vert. WQ Orifice C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.32 cfs @ 0.00 hrs HW=927.04' TW=925.78' (Dynamic Tailwater)

↑ **1=WQ Orifice** (Orifice Controls 1.32 cfs @ 4.93 fps)

Pond 51P: Basin 2 WQ

Hydrograph



Hydrograph for Pond 51P: Basin 2 WQ

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
0.00	0.98	0.916	927.04	1.32
0.50	0.93	0.901	927.02	1.31
1.00	0.87	0.884	927.00	1.29
1.50	0.81	0.866	926.97	1.27
2.00	0.75	0.846	926.95	1.26
2.50	0.70	0.824	926.92	1.24
3.00	0.66	0.802	926.89	1.22
3.50	0.62	0.778	926.85	1.19
4.00	0.58	0.754	926.82	1.17
4.50	0.55	0.729	926.79	1.15
5.00	0.52	0.705	926.75	1.12
5.50	0.50	0.680	926.72	1.10
6.00	0.48	0.655	926.68	1.07
6.50	0.46	0.631	926.65	1.04
7.00	0.44	0.607	926.61	1.02
7.50	0.42	0.583	926.58	0.99
8.00	0.41	0.560	926.55	0.96
8.50	0.40	0.538	926.52	0.93
9.00	0.38	0.516	926.48	0.90
9.50	0.37	0.495	926.45	0.87
10.00	0.36	0.474	926.42	0.85
10.50	0.35	0.455	926.40	0.82
11.00	0.34	0.436	926.37	0.79
11.50	0.34	0.418	926.34	0.76
12.00	0.33	0.401	926.32	0.73
12.50	0.32	0.384	926.29	0.71
13.00	0.31	0.369	926.27	0.68
13.50	0.31	0.354	926.25	0.66
14.00	0.30	0.340	926.23	0.63
14.50	0.29	0.327	926.21	0.60
15.00	0.29	0.315	926.19	0.57
15.50	0.28	0.303	926.17	0.54
16.00	0.27	0.293	926.16	0.52
16.50	0.27	0.283	926.14	0.49
17.00	0.26	0.275	926.13	0.47
17.50	0.26	0.266	926.12	0.45
18.00	0.25	0.259	926.10	0.43
18.50	0.25	0.252	926.09	0.41
19.00	0.24	0.245	926.08	0.39
19.50	0.23	0.239	926.07	0.38
20.00	0.23	0.233	926.07	0.36
20.50	0.22	0.228	926.06	0.35
21.00	0.22	0.223	926.05	0.34
21.50	0.21	0.218	926.04	0.33
22.00	0.21	0.214	926.04	0.31
22.50	0.20	0.209	926.03	0.30
23.00	0.20	0.205	926.02	0.29
23.50	0.19	0.202	926.02	0.28
24.00	0.19	0.198	926.01	0.28
24.50	0.18	0.194	926.01	0.27
25.00	0.18	0.191	926.00	0.26
25.50	0.17	0.188	926.00	0.25

Hydrograph for Pond 51P: Basin 2 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
26.00	0.17	0.185	925.99	0.24
26.50	0.17	0.181	925.99	0.24
27.00	0.16	0.179	925.98	0.23
27.50	0.16	0.176	925.98	0.22
28.00	0.15	0.173	925.97	0.22
28.50	0.15	0.170	925.97	0.21
29.00	0.15	0.168	925.97	0.21
29.50	0.14	0.165	925.96	0.20
30.00	0.14	0.163	925.96	0.20
30.50	0.14	0.161	925.95	0.19
31.00	0.13	0.158	925.95	0.19
31.50	0.13	0.156	925.95	0.18
32.00	0.13	0.154	925.94	0.18
32.50	0.12	0.152	925.94	0.17
33.00	0.12	0.150	925.94	0.17
33.50	0.12	0.148	925.93	0.16
34.00	0.11	0.146	925.93	0.16
34.50	0.11	0.144	925.93	0.16
35.00	0.11	0.142	925.92	0.15
35.50	0.11	0.140	925.92	0.15
36.00	0.10	0.138	925.92	0.15
36.50	0.10	0.137	925.92	0.14
37.00	0.10	0.135	925.91	0.14
37.50	0.10	0.133	925.91	0.14
38.00	0.09	0.132	925.91	0.13
38.50	0.09	0.130	925.91	0.13
39.00	0.09	0.128	925.90	0.13
39.50	0.09	0.127	925.90	0.13
40.00	0.09	0.125	925.90	0.12
40.50	0.08	0.124	925.90	0.12
41.00	0.08	0.123	925.89	0.12
41.50	0.08	0.121	925.89	0.11
42.00	0.08	0.120	925.89	0.11
42.50	0.08	0.118	925.89	0.11
43.00	0.08	0.117	925.89	0.11
43.50	0.07	0.116	925.88	0.11
44.00	0.07	0.115	925.88	0.10
44.50	0.07	0.113	925.88	0.10
45.00	0.07	0.112	925.88	0.10
45.50	0.07	0.111	925.88	0.10
46.00	0.07	0.110	925.87	0.10
46.50	0.07	0.109	925.87	0.09
47.00	0.06	0.107	925.87	0.09
47.50	0.06	0.106	925.87	0.09
48.00	0.06	0.105	925.87	0.09
48.50	0.06	0.104	925.87	0.09
49.00	0.06	0.103	925.86	0.09
49.50	0.06	0.102	925.86	0.08
50.00	0.06	0.101	925.86	0.08
50.50	0.06	0.100	925.86	0.08
51.00	0.06	0.099	925.86	0.08
51.50	0.05	0.098	925.86	0.08

Hydrograph for Pond 51P: Basin 2 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
52.00	0.05	0.097	925.85	0.08
52.50	0.05	0.096	925.85	0.07
53.00	0.05	0.095	925.85	0.07
53.50	0.05	0.094	925.85	0.07
54.00	0.05	0.094	925.85	0.07
54.50	0.05	0.093	925.85	0.07
55.00	0.05	0.092	925.85	0.07
55.50	0.05	0.091	925.85	0.07
56.00	0.05	0.090	925.84	0.07
56.50	0.05	0.089	925.84	0.06
57.00	0.04	0.089	925.84	0.06
57.50	0.04	0.088	925.84	0.06
58.00	0.04	0.087	925.84	0.06
58.50	0.04	0.086	925.84	0.06
59.00	0.04	0.085	925.84	0.06
59.50	0.04	0.085	925.84	0.06
60.00	0.04	0.084	925.83	0.06
60.50	0.04	0.083	925.83	0.06
61.00	0.04	0.083	925.83	0.06
61.50	0.04	0.082	925.83	0.06
62.00	0.04	0.081	925.83	0.05
62.50	0.04	0.081	925.83	0.05
63.00	0.04	0.080	925.83	0.05
63.50	0.04	0.079	925.83	0.05
64.00	0.04	0.079	925.83	0.05
64.50	0.04	0.078	925.82	0.05
65.00	0.03	0.077	925.82	0.05
65.50	0.03	0.077	925.82	0.05
66.00	0.03	0.076	925.82	0.05
66.50	0.03	0.076	925.82	0.05
67.00	0.03	0.075	925.82	0.05
67.50	0.03	0.074	925.82	0.05
68.00	0.03	0.074	925.82	0.05
68.50	0.03	0.073	925.82	0.04
69.00	0.03	0.073	925.82	0.04
69.50	0.03	0.072	925.82	0.04
70.00	0.03	0.072	925.81	0.04
70.50	0.03	0.071	925.81	0.04
71.00	0.03	0.071	925.81	0.04
71.50	0.03	0.070	925.81	0.04
72.00	0.03	0.070	925.81	0.04
72.50	0.03	0.069	925.81	0.04
73.00	0.03	0.069	925.81	0.04
73.50	0.03	0.068	925.81	0.04
74.00	0.03	0.068	925.81	0.04
74.50	0.03	0.067	925.81	0.04
75.00	0.03	0.067	925.81	0.04
75.50	0.03	0.066	925.81	0.04
76.00	0.03	0.066	925.81	0.04
76.50	0.02	0.065	925.80	0.04
77.00	0.02	0.065	925.80	0.04
77.50	0.02	0.064	925.80	0.03

Hydrograph for Pond 51P: Basin 2 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
78.00	0.02	0.064	925.80	0.03
78.50	0.02	0.064	925.80	0.03
79.00	0.02	0.063	925.80	0.03
79.50	0.02	0.063	925.80	0.03
80.00	0.02	0.062	925.80	0.03
80.50	0.02	0.062	925.80	0.03
81.00	0.02	0.062	925.80	0.03
81.50	0.02	0.061	925.80	0.03
82.00	0.02	0.061	925.80	0.03
82.50	0.02	0.060	925.80	0.03
83.00	0.02	0.060	925.80	0.03
83.50	0.02	0.060	925.80	0.03
84.00	0.02	0.059	925.79	0.03
84.50	0.02	0.059	925.79	0.03
85.00	0.02	0.059	925.79	0.03
85.50	0.02	0.058	925.79	0.03
86.00	0.02	0.058	925.79	0.03
86.50	0.02	0.057	925.79	0.03
87.00	0.02	0.057	925.79	0.03
87.50	0.02	0.057	925.79	0.03
88.00	0.02	0.056	925.79	0.03
88.50	0.02	0.056	925.79	0.03
89.00	0.02	0.056	925.79	0.03
89.50	0.02	0.055	925.79	0.03
90.00	0.02	0.055	925.79	0.03
90.50	0.02	0.055	925.79	0.03
91.00	0.02	0.054	925.79	0.03
91.50	0.02	0.054	925.79	0.02
92.00	0.02	0.054	925.79	0.02
92.50	0.02	0.054	925.79	0.02
93.00	0.02	0.053	925.79	0.02
93.50	0.02	0.053	925.78	0.02
94.00	0.02	0.053	925.78	0.02
94.50	0.02	0.052	925.78	0.02
95.00	0.02	0.052	925.78	0.02
95.50	0.02	0.052	925.78	0.02
96.00	0.02	0.051	925.78	0.02
96.50	0.02	0.051	925.78	0.02
97.00	0.02	0.051	925.78	0.02
97.50	0.02	0.051	925.78	0.02
98.00	0.02	0.050	925.78	0.02
98.50	0.01	0.050	925.78	0.02
99.00	0.01	0.050	925.78	0.02
99.50	0.01	0.050	925.78	0.02
100.00	0.01	0.049	925.78	0.02
100.50	0.01	0.049	925.78	0.02
101.00	0.01	0.049	925.78	0.02
101.50	0.01	0.049	925.78	0.02
102.00	0.01	0.048	925.78	0.02
102.50	0.01	0.048	925.78	0.02
103.00	0.01	0.048	925.78	0.02
103.50	0.01	0.048	925.78	0.02

Hydrograph for Pond 51P: Basin 2 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
104.00	0.01	0.047	925.78	0.02
104.50	0.01	0.047	925.78	0.02
105.00	0.01	0.047	925.78	0.02
105.50	0.01	0.047	925.77	0.02
106.00	0.01	0.046	925.77	0.02
106.50	0.01	0.046	925.77	0.02
107.00	0.01	0.046	925.77	0.02
107.50	0.01	0.046	925.77	0.02
108.00	0.01	0.045	925.77	0.02
108.50	0.01	0.045	925.77	0.02
109.00	0.01	0.045	925.77	0.02
109.50	0.01	0.045	925.77	0.02
110.00	0.01	0.045	925.77	0.02
110.50	0.01	0.044	925.77	0.02
111.00	0.01	0.044	925.77	0.02
111.50	0.01	0.044	925.77	0.02
112.00	0.01	0.044	925.77	0.02
112.50	0.01	0.044	925.77	0.02
113.00	0.01	0.043	925.77	0.02
113.50	0.01	0.043	925.77	0.02
114.00	0.01	0.043	925.77	0.02
114.50	0.01	0.043	925.77	0.02
115.00	0.01	0.043	925.77	0.02
115.50	0.01	0.042	925.77	0.02
116.00	0.01	0.042	925.77	0.02
116.50	0.01	0.042	925.77	0.02
117.00	0.01	0.042	925.77	0.02
117.50	0.01	0.042	925.77	0.01
118.00	0.01	0.041	925.77	0.01
118.50	0.01	0.041	925.77	0.01
119.00	0.01	0.041	925.77	0.01
119.50	0.01	0.041	925.77	0.01
120.00	0.01	0.041	925.77	0.01
120.50	0.01	0.041	925.77	0.01
121.00	0.01	0.040	925.76	0.01
121.50	0.01	0.040	925.76	0.01
122.00	0.01	0.040	925.76	0.01
122.50	0.01	0.040	925.76	0.01
123.00	0.01	0.040	925.76	0.01
123.50	0.01	0.039	925.76	0.01
124.00	0.01	0.039	925.76	0.01
124.50	0.01	0.039	925.76	0.01
125.00	0.01	0.039	925.76	0.01
125.50	0.01	0.039	925.76	0.01
126.00	0.01	0.039	925.76	0.01
126.50	0.01	0.038	925.76	0.01
127.00	0.01	0.038	925.76	0.01
127.50	0.01	0.038	925.76	0.01
128.00	0.01	0.038	925.76	0.01
128.50	0.01	0.038	925.76	0.01
129.00	0.01	0.038	925.76	0.01
129.50	0.01	0.038	925.76	0.01

Hydrograph for Pond 51P: Basin 2 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
130.00	0.01	0.037	925.76	0.01
130.50	0.01	0.037	925.76	0.01
131.00	0.01	0.037	925.76	0.01
131.50	0.01	0.037	925.76	0.01
132.00	0.01	0.037	925.76	0.01
132.50	0.01	0.037	925.76	0.01
133.00	0.01	0.037	925.76	0.01
133.50	0.01	0.036	925.76	0.01
134.00	0.01	0.036	925.76	0.01
134.50	0.01	0.036	925.76	0.01
135.00	0.01	0.036	925.76	0.01
135.50	0.01	0.036	925.76	0.01
136.00	0.01	0.036	925.76	0.01
136.50	0.01	0.036	925.76	0.01
137.00	0.01	0.035	925.76	0.01
137.50	0.01	0.035	925.76	0.01
138.00	0.01	0.035	925.76	0.01
138.50	0.01	0.035	925.76	0.01
139.00	0.01	0.035	925.76	0.01
139.50	0.01	0.035	925.76	0.01
140.00	0.01	0.035	925.76	0.01
140.50	0.01	0.034	925.76	0.01
141.00	0.01	0.034	925.76	0.01
141.50	0.01	0.034	925.75	0.01
142.00	0.01	0.034	925.75	0.01
142.50	0.01	0.034	925.75	0.01
143.00	0.01	0.034	925.75	0.01
143.50	0.01	0.034	925.75	0.01
144.00	0.01	0.034	925.75	0.01
144.50	0.01	0.033	925.75	0.01
145.00	0.01	0.033	925.75	0.01
145.50	0.01	0.033	925.75	0.01
146.00	0.01	0.033	925.75	0.01
146.50	0.01	0.033	925.75	0.01
147.00	0.01	0.033	925.75	0.01
147.50	0.01	0.033	925.75	0.01
148.00	0.01	0.033	925.75	0.01
148.50	0.01	0.033	925.75	0.01
149.00	0.01	0.032	925.75	0.01
149.50	0.01	0.032	925.75	0.01
150.00	0.01	0.032	925.75	0.01
150.50	0.01	0.032	925.75	0.01
151.00	0.01	0.032	925.75	0.01
151.50	0.01	0.032	925.75	0.01
152.00	0.01	0.032	925.75	0.01
152.50	0.01	0.032	925.75	0.01
153.00	0.01	0.032	925.75	0.01
153.50	0.01	0.031	925.75	0.01
154.00	0.01	0.031	925.75	0.01
154.50	0.01	0.031	925.75	0.01
155.00	0.01	0.031	925.75	0.01
155.50	0.01	0.031	925.75	0.01

Hydrograph for Pond 51P: Basin 2 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
156.00	0.01	0.031	925.75	0.01
156.50	0.01	0.031	925.75	0.01
157.00	0.01	0.031	925.75	0.01
157.50	0.01	0.031	925.75	0.01
158.00	0.01	0.030	925.75	0.01
158.50	0.01	0.030	925.75	0.01
159.00	0.01	0.030	925.75	0.01
159.50	0.01	0.030	925.75	0.01
160.00	0.01	0.030	925.75	0.01
160.50	0.01	0.030	925.75	0.01
161.00	0.01	0.030	925.75	0.01
161.50	0.01	0.030	925.75	0.01
162.00	0.01	0.030	925.75	0.01
162.50	0.01	0.030	925.75	0.01
163.00	0.01	0.029	925.75	0.01
163.50	0.01	0.029	925.75	0.01
164.00	0.01	0.029	925.75	0.01
164.50	0.01	0.029	925.75	0.01
165.00	0.01	0.029	925.75	0.01
165.50	0.01	0.029	925.75	0.01
166.00	0.01	0.029	925.75	0.01
166.50	0.01	0.029	925.75	0.01
167.00	0.01	0.029	925.75	0.01
167.50	0.00	0.029	925.75	0.01
168.00	0.00	0.029	925.75	0.01
168.50	0.00	0.028	925.75	0.01
169.00	0.00	0.028	925.75	0.01
169.50	0.00	0.028	925.75	0.01
170.00	0.00	0.028	925.75	0.01
170.50	0.00	0.028	925.75	0.01
171.00	0.00	0.028	925.75	0.01
171.50	0.00	0.028	925.74	0.01
172.00	0.00	0.028	925.74	0.01
172.50	0.00	0.028	925.74	0.01
173.00	0.00	0.028	925.74	0.01
173.50	0.00	0.028	925.74	0.01
174.00	0.00	0.028	925.74	0.01
174.50	0.00	0.027	925.74	0.01
175.00	0.00	0.027	925.74	0.01
175.50	0.00	0.027	925.74	0.01
176.00	0.00	0.027	925.74	0.01
176.50	0.00	0.027	925.74	0.01
177.00	0.00	0.027	925.74	0.01
177.50	0.00	0.027	925.74	0.01
178.00	0.00	0.027	925.74	0.01
178.50	0.00	0.027	925.74	0.01
179.00	0.00	0.027	925.74	0.01
179.50	0.00	0.027	925.74	0.01
180.00	0.00	0.027	925.74	0.01
180.50	0.00	0.026	925.74	0.01
181.00	0.00	0.026	925.74	0.01
181.50	0.00	0.026	925.74	0.01

Hydrograph for Pond 51P: Basin 2 WQ (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
182.00	0.00	0.026	925.74	0.01
182.50	0.00	0.026	925.74	0.01
183.00	0.00	0.026	925.74	0.01
183.50	0.00	0.026	925.74	0.01
184.00	0.00	0.026	925.74	0.01
184.50	0.00	0.026	925.74	0.01
185.00	0.00	0.026	925.74	0.01
185.50	0.00	0.026	925.74	0.01
186.00	0.00	0.026	925.74	0.01
186.50	0.00	0.026	925.74	0.01
187.00	0.00	0.026	925.74	0.01
187.50	0.00	0.025	925.74	0.01
188.00	0.00	0.025	925.74	0.01
188.50	0.00	0.025	925.74	0.01
189.00	0.00	0.025	925.74	0.01
189.50	0.00	0.025	925.74	0.01
190.00	0.00	0.025	925.74	0.01
190.50	0.00	0.025	925.74	0.01
191.00	0.00	0.025	925.74	0.01
191.50	0.00	0.025	925.74	0.01
192.00	0.00	0.025	925.74	0.01
192.50	0.00	0.025	925.74	0.01
193.00	0.00	0.025	925.74	0.01
193.50	0.00	0.025	925.74	0.01
194.00	0.00	0.025	925.74	0.01
194.50	0.00	0.024	925.74	0.01
195.00	0.00	0.024	925.74	0.01
195.50	0.00	0.024	925.74	0.01
196.00	0.00	0.024	925.74	0.01
196.50	0.00	0.024	925.74	0.01
197.00	0.00	0.024	925.74	0.01
197.50	0.00	0.024	925.74	0.01
198.00	0.00	0.024	925.74	0.01
198.50	0.00	0.024	925.74	0.01
199.00	0.00	0.024	925.74	0.01
199.50	0.00	0.024	925.74	0.00
200.00	0.00	0.024	925.74	0.00

Summary for Pond 52P: Basin 1 Permanent Pool

Volume	Invert	Avail.Storage	Storage Description
#1	913.00'	7.135 af	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
913.00	0.380	0.000	0.000
914.00	0.410	0.395	0.395
915.00	0.450	0.430	0.825
916.00	0.480	0.465	1.290
917.00	0.510	0.495	1.785
918.00	0.550	0.530	2.315
919.00	0.580	0.565	2.880
920.00	0.620	0.600	3.480
921.00	0.650	0.635	4.115
922.00	0.690	0.670	4.785
923.00	0.730	0.710	5.495
924.00	0.770	0.750	6.245
925.00	1.010	0.890	7.135

Summary for Pond 53P: Basin 2 Permanent Pool

Volume	Invert	Avail.Storage	Storage Description
#1	914.00'	165,680 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
914.00	7,841	0	0
915.00	8,712	8,276	8,276
916.00	9,583	9,148	17,424
917.00	10,890	10,237	27,661
918.00	11,761	11,326	38,986
919.00	12,632	12,197	51,183
920.00	13,939	13,286	64,469
921.00	14,810	14,375	78,844
922.00	16,117	15,464	94,307
923.00	17,424	16,771	111,078
924.00	18,295	17,860	128,938
925.00	21,344	19,820	148,757
925.70	27,007	16,923	165,680

Summary for Pond 54P: Basin 3 Permanent Pool

Volume	Invert	Avail.Storage	Storage Description
#1	915.00'	84,506 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
915.00	1,742	0	0
916.00	2,614	2,178	2,178
917.00	3,049	2,831	5,009
918.00	3,920	3,485	8,494
919.00	4,356	4,138	12,632
920.00	5,227	4,792	17,424
921.00	6,098	5,663	23,087
922.00	7,405	6,752	29,839
923.00	8,276	7,841	37,679
924.00	9,583	8,930	46,609
925.00	10,890	10,237	56,846
926.00	12,197	11,543	68,389
927.00	20,038	16,117	84,506

Summary for Pond 55P: Basin 1 (Sediment Basin)

Inflow Area = 31.680 ac, 75.00% Impervious, Inflow Depth = 1.42" for 1-yr event
 Inflow = 80.94 cfs @ 11.96 hrs, Volume= 3.743 af
 Outflow = 5.62 cfs @ 12.55 hrs, Volume= 3.743 af, Atten= 93%, Lag= 35.6 min
 Primary = 5.62 cfs @ 12.55 hrs, Volume= 3.743 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 926.89' @ 12.55 hrs Surf.Area= 1.218 ac Storage= 2.110 af

Plug-Flow detention time= 1,075.0 min calculated for 3.742 af (100% of inflow)
 Center-of-Mass det. time= 1,075.3 min (1,883.3 - 808.0)

Volume	Invert	Avail.Storage	Storage Description
#1	925.00'	5.717 af	Basin 1 Storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.00	1.010	0.000	0.000
926.00	1.120	1.065	1.065
927.00	1.230	1.175	2.240
928.00	1.350	1.290	3.530
929.00	1.480	1.415	4.945
929.50	1.610	0.773	5.717

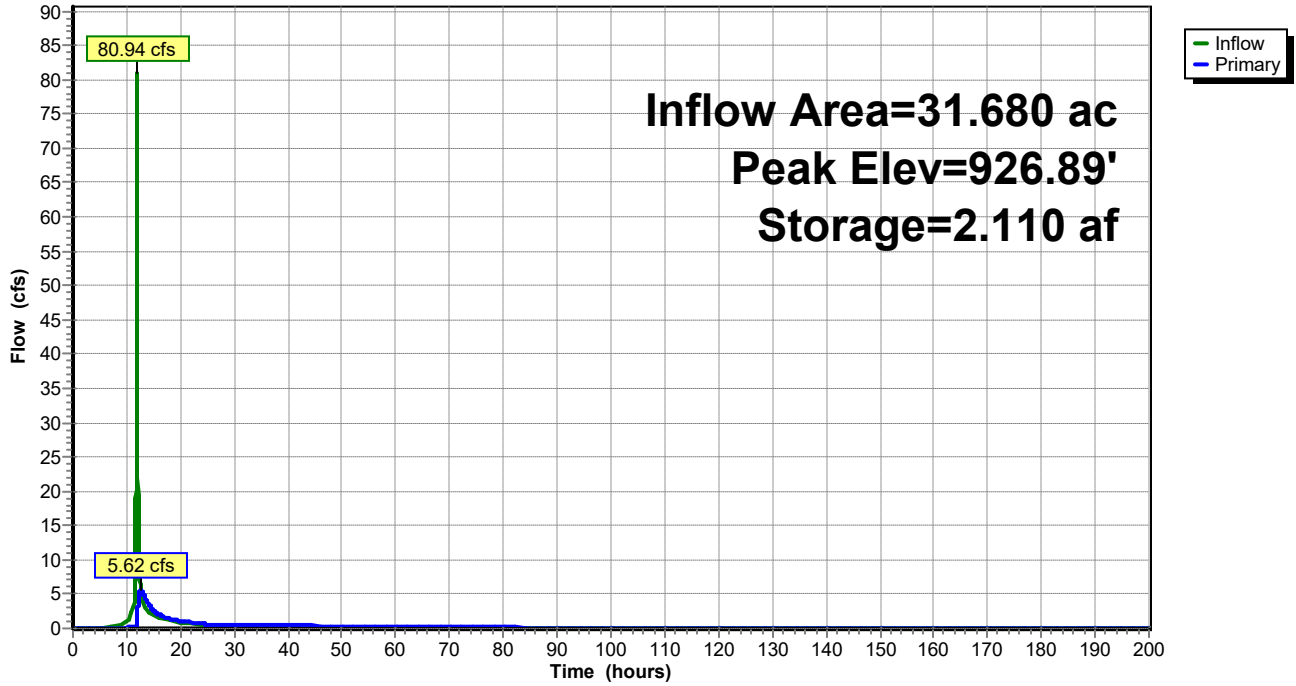
Device	Routing	Invert	Outlet Devices
#1	Primary	925.00'	Marlee Float Model-3 5.0-in
#2	Primary	926.50'	24.0" Horiz. Riser C= 0.600 Limited to weir flow at low heads
#3	Primary	929.25'	110.0' long x 4.0' breadth Emergency Overflow
Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00			
2.50 3.00 3.50 4.00 4.50 5.00 5.50			
Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66			
2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32			

Primary OutFlow Max=5.62 cfs @ 12.55 hrs HW=926.89' (Free Discharge)

- 1=Marlee Float Model-3 5.0-in (Custom Controls 0.55 cfs)
- 2=Riser (Weir Controls 5.07 cfs @ 2.05 fps)
- 3=Emergency Overflow (Controls 0.00 cfs)

Pond 55P: Basin 1 (Sediment Basin)

Hydrograph



Hydrograph for Pond 55P: Basin 1 (Sediment Basin)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.000	925.00	0.00
0.50	0.00	0.000	925.00	0.00
1.00	0.00	0.000	925.00	0.00
1.50	0.00	0.000	925.00	0.00
2.00	0.00	0.000	925.00	0.00
2.50	0.00	0.000	925.00	0.00
3.00	0.00	0.000	925.00	0.00
3.50	0.00	0.000	925.00	0.00
4.00	0.00	0.000	925.00	0.00
4.50	0.00	0.000	925.00	0.00
5.00	0.00	0.000	925.00	0.00
5.50	0.00	0.000	925.00	0.00
6.00	0.00	0.000	925.00	0.00
6.50	0.06	0.001	925.00	0.00
7.00	0.12	0.005	925.00	0.01
7.50	0.19	0.010	925.01	0.02
8.00	0.26	0.019	925.02	0.03
8.50	0.40	0.031	925.03	0.05
9.00	0.58	0.048	925.05	0.08
9.50	0.70	0.071	925.07	0.12
10.00	0.98	0.099	925.10	0.16
10.50	1.46	0.142	925.14	0.18
11.00	2.30	0.211	925.21	0.20
11.50	4.37	0.335	925.33	0.24
12.00	68.55	1.657	926.52	0.54
12.50	6.30	2.108	926.89	5.60
13.00	3.96	2.081	926.87	5.17
13.50	3.02	2.027	926.83	4.35
14.00	2.38	1.974	926.78	3.60
14.50	2.11	1.930	926.74	3.02
15.00	1.90	1.897	926.72	2.61
15.50	1.69	1.870	926.69	2.29
16.00	1.47	1.846	926.68	2.03
16.50	1.38	1.826	926.66	1.81
17.00	1.30	1.810	926.64	1.65
17.50	1.22	1.797	926.63	1.52
18.00	1.15	1.785	926.62	1.41
18.50	1.07	1.775	926.62	1.32
19.00	0.99	1.765	926.61	1.23
19.50	0.92	1.755	926.60	1.15
20.00	0.84	1.746	926.59	1.07
20.50	0.81	1.737	926.58	1.00
21.00	0.80	1.730	926.58	0.95
21.50	0.78	1.724	926.57	0.91
22.00	0.77	1.719	926.57	0.87
22.50	0.75	1.715	926.56	0.85
23.00	0.74	1.712	926.56	0.82
23.50	0.72	1.708	926.56	0.80
24.00	0.71	1.705	926.56	0.78
24.50	0.00	1.680	926.54	0.64
25.00	0.00	1.656	926.51	0.54
25.50	0.00	1.635	926.50	0.50

Hydrograph for Pond 55P: Basin 1 (Sediment Basin) (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
26.00	0.00	1.615	926.48	0.49
26.50	0.00	1.594	926.46	0.49
27.00	0.00	1.574	926.44	0.49
27.50	0.00	1.554	926.43	0.49
28.00	0.00	1.534	926.41	0.48
28.50	0.00	1.514	926.39	0.48
29.00	0.00	1.494	926.38	0.48
29.50	0.00	1.475	926.36	0.47
30.00	0.00	1.455	926.34	0.47
30.50	0.00	1.436	926.33	0.47
31.00	0.00	1.416	926.31	0.47
31.50	0.00	1.397	926.29	0.46
32.00	0.00	1.378	926.28	0.46
32.50	0.00	1.359	926.26	0.46
33.00	0.00	1.340	926.24	0.46
33.50	0.00	1.321	926.23	0.45
34.00	0.00	1.303	926.21	0.45
34.50	0.00	1.284	926.19	0.45
35.00	0.00	1.266	926.18	0.44
35.50	0.00	1.247	926.16	0.44
36.00	0.00	1.229	926.15	0.44
36.50	0.00	1.211	926.13	0.44
37.00	0.00	1.193	926.11	0.43
37.50	0.00	1.175	926.10	0.43
38.00	0.00	1.157	926.08	0.43
38.50	0.00	1.140	926.07	0.43
39.00	0.00	1.122	926.05	0.42
39.50	0.00	1.105	926.04	0.42
40.00	0.00	1.087	926.02	0.42
40.50	0.00	1.070	926.00	0.42
41.00	0.00	1.053	925.99	0.41
41.50	0.00	1.036	925.97	0.41
42.00	0.00	1.019	925.96	0.41
42.50	0.00	1.002	925.94	0.40
43.00	0.00	0.986	925.93	0.40
43.50	0.00	0.969	925.91	0.40
44.00	0.00	0.953	925.90	0.39
44.50	0.00	0.937	925.88	0.39
45.00	0.00	0.921	925.87	0.39
45.50	0.00	0.905	925.86	0.38
46.00	0.00	0.889	925.84	0.38
46.50	0.00	0.873	925.83	0.38
47.00	0.00	0.858	925.81	0.37
47.50	0.00	0.842	925.80	0.37
48.00	0.00	0.827	925.79	0.37
48.50	0.00	0.812	925.77	0.37
49.00	0.00	0.797	925.76	0.36
49.50	0.00	0.782	925.74	0.36
50.00	0.00	0.767	925.73	0.36
50.50	0.00	0.752	925.72	0.35
51.00	0.00	0.738	925.70	0.35
51.50	0.00	0.723	925.69	0.35

Hydrograph for Pond 55P: Basin 1 (Sediment Basin) (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
52.00	0.00	0.709	925.68	0.34
52.50	0.00	0.695	925.66	0.34
53.00	0.00	0.681	925.65	0.34
53.50	0.00	0.667	925.64	0.34
54.00	0.00	0.653	925.63	0.33
54.50	0.00	0.639	925.61	0.33
55.00	0.00	0.625	925.60	0.33
55.50	0.00	0.612	925.59	0.33
56.00	0.00	0.599	925.57	0.32
56.50	0.00	0.585	925.56	0.32
57.00	0.00	0.572	925.55	0.32
57.50	0.00	0.559	925.54	0.31
58.00	0.00	0.546	925.53	0.31
58.50	0.00	0.533	925.51	0.31
59.00	0.00	0.521	925.50	0.31
59.50	0.00	0.508	925.49	0.30
60.00	0.00	0.496	925.48	0.30
60.50	0.00	0.484	925.47	0.29
61.00	0.00	0.472	925.46	0.29
61.50	0.00	0.460	925.44	0.28
62.00	0.00	0.448	925.43	0.28
62.50	0.00	0.437	925.42	0.28
63.00	0.00	0.425	925.41	0.27
63.50	0.00	0.414	925.40	0.27
64.00	0.00	0.403	925.39	0.26
64.50	0.00	0.393	925.38	0.26
65.00	0.00	0.382	925.37	0.25
65.50	0.00	0.372	925.36	0.25
66.00	0.00	0.361	925.35	0.25
66.50	0.00	0.351	925.34	0.24
67.00	0.00	0.341	925.33	0.24
67.50	0.00	0.331	925.32	0.23
68.00	0.00	0.322	925.31	0.23
68.50	0.00	0.312	925.30	0.23
69.00	0.00	0.303	925.30	0.22
69.50	0.00	0.294	925.29	0.22
70.00	0.00	0.285	925.28	0.22
70.50	0.00	0.276	925.27	0.22
71.00	0.00	0.267	925.26	0.21
71.50	0.00	0.258	925.25	0.21
72.00	0.00	0.249	925.24	0.21
72.50	0.00	0.241	925.24	0.21
73.00	0.00	0.232	925.23	0.20
73.50	0.00	0.224	925.22	0.20
74.00	0.00	0.215	925.21	0.20
74.50	0.00	0.207	925.20	0.20
75.00	0.00	0.199	925.20	0.20
75.50	0.00	0.191	925.19	0.19
76.00	0.00	0.183	925.18	0.19
76.50	0.00	0.175	925.17	0.19
77.00	0.00	0.168	925.16	0.19
77.50	0.00	0.160	925.16	0.18

Hydrograph for Pond 55P: Basin 1 (Sediment Basin) (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
78.00	0.00	0.152	925.15	0.18
78.50	0.00	0.145	925.14	0.18
79.00	0.00	0.138	925.14	0.18
79.50	0.00	0.130	925.13	0.18
80.00	0.00	0.123	925.12	0.17
80.50	0.00	0.116	925.11	0.17
81.00	0.00	0.109	925.11	0.17
81.50	0.00	0.102	925.10	0.17
82.00	0.00	0.095	925.09	0.16
82.50	0.00	0.089	925.09	0.15
83.00	0.00	0.083	925.08	0.14
83.50	0.00	0.078	925.08	0.13
84.00	0.00	0.073	925.07	0.12
84.50	0.00	0.068	925.07	0.11
85.00	0.00	0.063	925.06	0.10
85.50	0.00	0.059	925.06	0.10
86.00	0.00	0.055	925.05	0.09
86.50	0.00	0.052	925.05	0.09
87.00	0.00	0.048	925.05	0.08
87.50	0.00	0.045	925.04	0.07
88.00	0.00	0.042	925.04	0.07
88.50	0.00	0.039	925.04	0.06
89.00	0.00	0.037	925.04	0.06
89.50	0.00	0.034	925.03	0.06
90.00	0.00	0.032	925.03	0.05
90.50	0.00	0.030	925.03	0.05
91.00	0.00	0.028	925.03	0.05
91.50	0.00	0.026	925.03	0.04
92.00	0.00	0.024	925.02	0.04
92.50	0.00	0.023	925.02	0.04
93.00	0.00	0.021	925.02	0.04
93.50	0.00	0.020	925.02	0.03
94.00	0.00	0.019	925.02	0.03
94.50	0.00	0.017	925.02	0.03
95.00	0.00	0.016	925.02	0.03
95.50	0.00	0.015	925.01	0.02
96.00	0.00	0.014	925.01	0.02
96.50	0.00	0.013	925.01	0.02
97.00	0.00	0.012	925.01	0.02
97.50	0.00	0.012	925.01	0.02
98.00	0.00	0.011	925.01	0.02
98.50	0.00	0.010	925.01	0.02
99.00	0.00	0.009	925.01	0.02
99.50	0.00	0.009	925.01	0.01
100.00	0.00	0.008	925.01	0.01
100.50	0.00	0.008	925.01	0.01
101.00	0.00	0.007	925.01	0.01
101.50	0.00	0.007	925.01	0.01
102.00	0.00	0.006	925.01	0.01
102.50	0.00	0.006	925.01	0.01
103.00	0.00	0.005	925.01	0.01
103.50	0.00	0.005	925.01	0.01

Hydrograph for Pond 55P: Basin 1 (Sediment Basin) (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
104.00	0.00	0.005	925.00	0.01
104.50	0.00	0.004	925.00	0.01
105.00	0.00	0.004	925.00	0.01
105.50	0.00	0.004	925.00	0.01
106.00	0.00	0.004	925.00	0.01
106.50	0.00	0.003	925.00	0.01
107.00	0.00	0.003	925.00	0.01
107.50	0.00	0.003	925.00	0.00
108.00	0.00	0.003	925.00	0.00
108.50	0.00	0.003	925.00	0.00
109.00	0.00	0.002	925.00	0.00
109.50	0.00	0.002	925.00	0.00
110.00	0.00	0.002	925.00	0.00
110.50	0.00	0.002	925.00	0.00
111.00	0.00	0.002	925.00	0.00
111.50	0.00	0.002	925.00	0.00
112.00	0.00	0.002	925.00	0.00
112.50	0.00	0.001	925.00	0.00
113.00	0.00	0.001	925.00	0.00
113.50	0.00	0.001	925.00	0.00
114.00	0.00	0.001	925.00	0.00
114.50	0.00	0.001	925.00	0.00
115.00	0.00	0.001	925.00	0.00
115.50	0.00	0.001	925.00	0.00
116.00	0.00	0.001	925.00	0.00
116.50	0.00	0.001	925.00	0.00
117.00	0.00	0.001	925.00	0.00
117.50	0.00	0.001	925.00	0.00
118.00	0.00	0.001	925.00	0.00
118.50	0.00	0.001	925.00	0.00
119.00	0.00	0.001	925.00	0.00
119.50	0.00	0.001	925.00	0.00
120.00	0.00	0.001	925.00	0.00
120.50	0.00	0.000	925.00	0.00
121.00	0.00	0.000	925.00	0.00
121.50	0.00	0.000	925.00	0.00
122.00	0.00	0.000	925.00	0.00
122.50	0.00	0.000	925.00	0.00
123.00	0.00	0.000	925.00	0.00
123.50	0.00	0.000	925.00	0.00
124.00	0.00	0.000	925.00	0.00
124.50	0.00	0.000	925.00	0.00
125.00	0.00	0.000	925.00	0.00
125.50	0.00	0.000	925.00	0.00
126.00	0.00	0.000	925.00	0.00
126.50	0.00	0.000	925.00	0.00
127.00	0.00	0.000	925.00	0.00
127.50	0.00	0.000	925.00	0.00
128.00	0.00	0.000	925.00	0.00
128.50	0.00	0.000	925.00	0.00
129.00	0.00	0.000	925.00	0.00
129.50	0.00	0.000	925.00	0.00

Hydrograph for Pond 55P: Basin 1 (Sediment Basin) (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
130.00	0.00	0.000	925.00	0.00
130.50	0.00	0.000	925.00	0.00
131.00	0.00	0.000	925.00	0.00
131.50	0.00	0.000	925.00	0.00
132.00	0.00	0.000	925.00	0.00
132.50	0.00	0.000	925.00	0.00
133.00	0.00	0.000	925.00	0.00
133.50	0.00	0.000	925.00	0.00
134.00	0.00	0.000	925.00	0.00
134.50	0.00	0.000	925.00	0.00
135.00	0.00	0.000	925.00	0.00
135.50	0.00	0.000	925.00	0.00
136.00	0.00	0.000	925.00	0.00
136.50	0.00	0.000	925.00	0.00
137.00	0.00	0.000	925.00	0.00
137.50	0.00	0.000	925.00	0.00
138.00	0.00	0.000	925.00	0.00
138.50	0.00	0.000	925.00	0.00
139.00	0.00	0.000	925.00	0.00
139.50	0.00	0.000	925.00	0.00
140.00	0.00	0.000	925.00	0.00
140.50	0.00	0.000	925.00	0.00
141.00	0.00	0.000	925.00	0.00
141.50	0.00	0.000	925.00	0.00
142.00	0.00	0.000	925.00	0.00
142.50	0.00	0.000	925.00	0.00
143.00	0.00	0.000	925.00	0.00
143.50	0.00	0.000	925.00	0.00
144.00	0.00	0.000	925.00	0.00
144.50	0.00	0.000	925.00	0.00
145.00	0.00	0.000	925.00	0.00
145.50	0.00	0.000	925.00	0.00
146.00	0.00	0.000	925.00	0.00
146.50	0.00	0.000	925.00	0.00
147.00	0.00	0.000	925.00	0.00
147.50	0.00	0.000	925.00	0.00
148.00	0.00	0.000	925.00	0.00
148.50	0.00	0.000	925.00	0.00
149.00	0.00	0.000	925.00	0.00
149.50	0.00	0.000	925.00	0.00
150.00	0.00	0.000	925.00	0.00
150.50	0.00	0.000	925.00	0.00
151.00	0.00	0.000	925.00	0.00
151.50	0.00	0.000	925.00	0.00
152.00	0.00	0.000	925.00	0.00
152.50	0.00	0.000	925.00	0.00
153.00	0.00	0.000	925.00	0.00
153.50	0.00	0.000	925.00	0.00
154.00	0.00	0.000	925.00	0.00
154.50	0.00	0.000	925.00	0.00
155.00	0.00	0.000	925.00	0.00
155.50	0.00	0.000	925.00	0.00

Hydrograph for Pond 55P: Basin 1 (Sediment Basin) (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
156.00	0.00	0.000	925.00	0.00
156.50	0.00	0.000	925.00	0.00
157.00	0.00	0.000	925.00	0.00
157.50	0.00	0.000	925.00	0.00
158.00	0.00	0.000	925.00	0.00
158.50	0.00	0.000	925.00	0.00
159.00	0.00	0.000	925.00	0.00
159.50	0.00	0.000	925.00	0.00
160.00	0.00	0.000	925.00	0.00
160.50	0.00	0.000	925.00	0.00
161.00	0.00	0.000	925.00	0.00
161.50	0.00	0.000	925.00	0.00
162.00	0.00	0.000	925.00	0.00
162.50	0.00	0.000	925.00	0.00
163.00	0.00	0.000	925.00	0.00
163.50	0.00	0.000	925.00	0.00
164.00	0.00	0.000	925.00	0.00
164.50	0.00	0.000	925.00	0.00
165.00	0.00	0.000	925.00	0.00
165.50	0.00	0.000	925.00	0.00
166.00	0.00	0.000	925.00	0.00
166.50	0.00	0.000	925.00	0.00
167.00	0.00	0.000	925.00	0.00
167.50	0.00	0.000	925.00	0.00
168.00	0.00	0.000	925.00	0.00
168.50	0.00	0.000	925.00	0.00
169.00	0.00	0.000	925.00	0.00
169.50	0.00	0.000	925.00	0.00
170.00	0.00	0.000	925.00	0.00
170.50	0.00	0.000	925.00	0.00
171.00	0.00	0.000	925.00	0.00
171.50	0.00	0.000	925.00	0.00
172.00	0.00	0.000	925.00	0.00
172.50	0.00	0.000	925.00	0.00
173.00	0.00	0.000	925.00	0.00
173.50	0.00	0.000	925.00	0.00
174.00	0.00	0.000	925.00	0.00
174.50	0.00	0.000	925.00	0.00
175.00	0.00	0.000	925.00	0.00
175.50	0.00	0.000	925.00	0.00
176.00	0.00	0.000	925.00	0.00
176.50	0.00	0.000	925.00	0.00
177.00	0.00	0.000	925.00	0.00
177.50	0.00	0.000	925.00	0.00
178.00	0.00	0.000	925.00	0.00
178.50	0.00	0.000	925.00	0.00
179.00	0.00	0.000	925.00	0.00
179.50	0.00	0.000	925.00	0.00
180.00	0.00	0.000	925.00	0.00
180.50	0.00	0.000	925.00	0.00
181.00	0.00	0.000	925.00	0.00
181.50	0.00	0.000	925.00	0.00

Hydrograph for Pond 55P: Basin 1 (Sediment Basin) (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
182.00	0.00	0.000	925.00	0.00
182.50	0.00	0.000	925.00	0.00
183.00	0.00	0.000	925.00	0.00
183.50	0.00	0.000	925.00	0.00
184.00	0.00	0.000	925.00	0.00
184.50	0.00	0.000	925.00	0.00
185.00	0.00	0.000	925.00	0.00
185.50	0.00	0.000	925.00	0.00
186.00	0.00	0.000	925.00	0.00
186.50	0.00	0.000	925.00	0.00
187.00	0.00	0.000	925.00	0.00
187.50	0.00	0.000	925.00	0.00
188.00	0.00	0.000	925.00	0.00
188.50	0.00	0.000	925.00	0.00
189.00	0.00	0.000	925.00	0.00
189.50	0.00	0.000	925.00	0.00
190.00	0.00	0.000	925.00	0.00
190.50	0.00	0.000	925.00	0.00
191.00	0.00	0.000	925.00	0.00
191.50	0.00	0.000	925.00	0.00
192.00	0.00	0.000	925.00	0.00
192.50	0.00	0.000	925.00	0.00
193.00	0.00	0.000	925.00	0.00
193.50	0.00	0.000	925.00	0.00
194.00	0.00	0.000	925.00	0.00
194.50	0.00	0.000	925.00	0.00
195.00	0.00	0.000	925.00	0.00
195.50	0.00	0.000	925.00	0.00
196.00	0.00	0.000	925.00	0.00
196.50	0.00	0.000	925.00	0.00
197.00	0.00	0.000	925.00	0.00
197.50	0.00	0.000	925.00	0.00
198.00	0.00	0.000	925.00	0.00
198.50	0.00	0.000	925.00	0.00
199.00	0.00	0.000	925.00	0.00
199.50	0.00	0.000	925.00	0.00
200.00	0.00	0.000	925.00	0.00

Summary for Pond 62P: Basin 1 (Sediment)

Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Outflow = 0.45 cfs @ 0.00 hrs, Volume= 1.326 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.45 cfs @ 0.00 hrs, Volume= 1.326 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Starting Elev= 926.23' Surf.Area= 1.145 ac Storage= 1.326 af
 Peak Elev= 926.23' @ 0.00 hrs Surf.Area= 1.145 ac Storage= 1.326 af

Plug-Flow detention time= (not calculated: no plugs found)
 Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	925.00'	5.717 af	Basin 1 Storage (Prismatic) Listed below (Recalc)

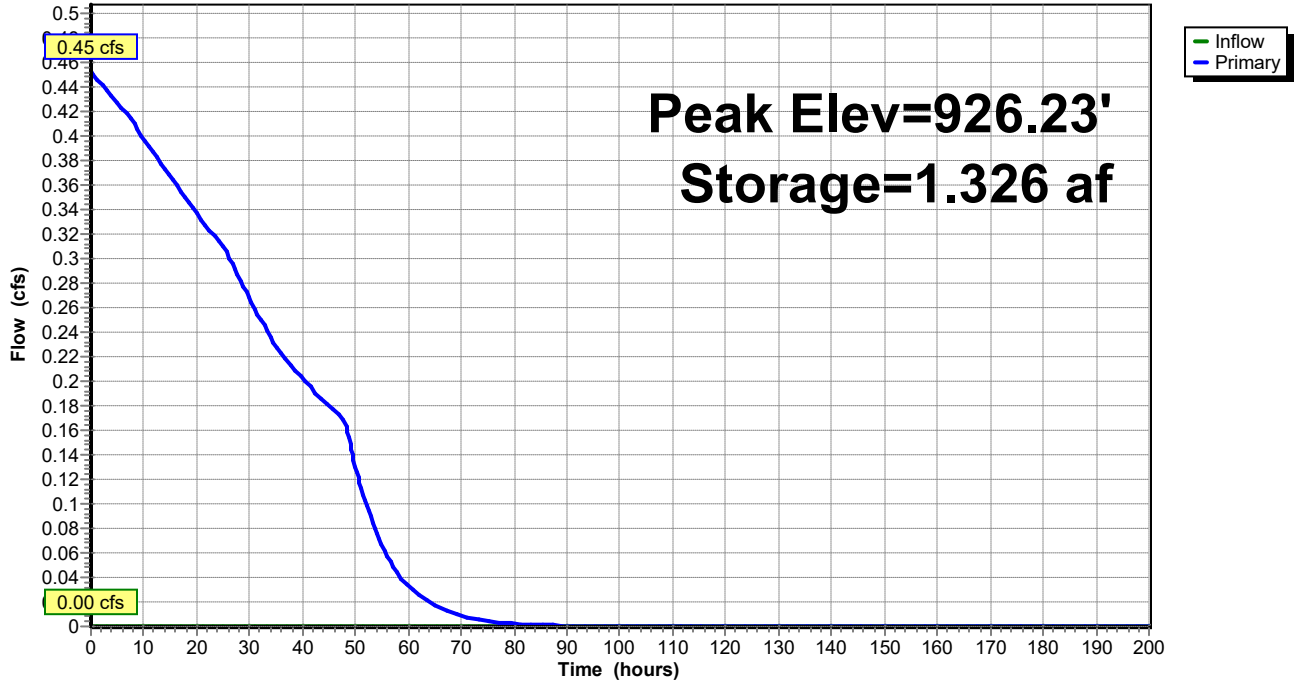
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.00	1.010	0.000	0.000
926.00	1.120	1.065	1.065
927.00	1.230	1.175	2.240
928.00	1.350	1.290	3.530
929.00	1.480	1.415	4.945
929.50	1.610	0.773	5.717

Device	Routing	Invert	Outlet Devices
#1	Primary	925.00'	Marlee Float Model-3 5.0-in

Primary OutFlow Max=0.45 cfs @ 0.00 hrs HW=926.23' (Free Discharge)
 ↑1=Marlee Float Model-3 5.0-in (Custom Controls 0.45 cfs)

Pond 62P: Basin 1 (Sediment)

Hydrograph



Hydrograph for Pond 62P: Basin 1 (Sediment)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	1.326	926.23	0.45
0.50	0.00	1.307	926.21	0.45
1.00	0.00	1.288	926.20	0.45
1.50	0.00	1.270	926.18	0.45
2.00	0.00	1.251	926.17	0.44
2.50	0.00	1.233	926.15	0.44
3.00	0.00	1.215	926.13	0.44
3.50	0.00	1.197	926.12	0.43
4.00	0.00	1.179	926.10	0.43
4.50	0.00	1.161	926.09	0.43
5.00	0.00	1.144	926.07	0.43
5.50	0.00	1.126	926.05	0.42
6.00	0.00	1.109	926.04	0.42
6.50	0.00	1.091	926.02	0.42
7.00	0.00	1.074	926.01	0.42
7.50	0.00	1.057	925.99	0.41
8.00	0.00	1.040	925.98	0.41
8.50	0.00	1.023	925.96	0.41
9.00	0.00	1.006	925.95	0.40
9.50	0.00	0.989	925.93	0.40
10.00	0.00	0.973	925.92	0.40
10.50	0.00	0.956	925.90	0.39
11.00	0.00	0.940	925.89	0.39
11.50	0.00	0.924	925.87	0.39
12.00	0.00	0.908	925.86	0.38
12.50	0.00	0.892	925.84	0.38
13.00	0.00	0.876	925.83	0.38
13.50	0.00	0.861	925.82	0.38
14.00	0.00	0.845	925.80	0.37
14.50	0.00	0.830	925.79	0.37
15.00	0.00	0.815	925.77	0.37
15.50	0.00	0.800	925.76	0.36
16.00	0.00	0.785	925.75	0.36
16.50	0.00	0.770	925.73	0.36
17.00	0.00	0.755	925.72	0.35
17.50	0.00	0.741	925.71	0.35
18.00	0.00	0.726	925.69	0.35
18.50	0.00	0.712	925.68	0.35
19.00	0.00	0.698	925.67	0.34
19.50	0.00	0.684	925.65	0.34
20.00	0.00	0.670	925.64	0.34
20.50	0.00	0.656	925.63	0.33
21.00	0.00	0.642	925.62	0.33
21.50	0.00	0.628	925.60	0.33
22.00	0.00	0.615	925.59	0.33
22.50	0.00	0.602	925.58	0.32
23.00	0.00	0.588	925.57	0.32
23.50	0.00	0.575	925.55	0.32
24.00	0.00	0.562	925.54	0.31
24.50	0.00	0.549	925.53	0.31
25.00	0.00	0.536	925.52	0.31
25.50	0.00	0.523	925.50	0.31

Hydrograph for Pond 62P: Basin 1 (Sediment) (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
26.00	0.00	0.511	925.49	0.30
26.50	0.00	0.498	925.48	0.30
27.00	0.00	0.486	925.47	0.29
27.50	0.00	0.474	925.46	0.29
28.00	0.00	0.462	925.45	0.28
28.50	0.00	0.451	925.44	0.28
29.00	0.00	0.439	925.42	0.28
29.50	0.00	0.428	925.41	0.27
30.00	0.00	0.417	925.40	0.27
30.50	0.00	0.406	925.39	0.26
31.00	0.00	0.395	925.38	0.26
31.50	0.00	0.384	925.37	0.26
32.00	0.00	0.374	925.36	0.25
32.50	0.00	0.363	925.35	0.25
33.00	0.00	0.353	925.34	0.24
33.50	0.00	0.343	925.33	0.24
34.00	0.00	0.334	925.32	0.24
34.50	0.00	0.324	925.32	0.23
35.00	0.00	0.314	925.31	0.23
35.50	0.00	0.305	925.30	0.23
36.00	0.00	0.296	925.29	0.22
36.50	0.00	0.287	925.28	0.22
37.00	0.00	0.278	925.27	0.22
37.50	0.00	0.269	925.26	0.21
38.00	0.00	0.260	925.25	0.21
38.50	0.00	0.251	925.25	0.21
39.00	0.00	0.242	925.24	0.21
39.50	0.00	0.234	925.23	0.20
40.00	0.00	0.226	925.22	0.20
40.50	0.00	0.217	925.21	0.20
41.00	0.00	0.209	925.20	0.20
41.50	0.00	0.201	925.20	0.20
42.00	0.00	0.193	925.19	0.19
42.50	0.00	0.185	925.18	0.19
43.00	0.00	0.177	925.17	0.19
43.50	0.00	0.169	925.17	0.19
44.00	0.00	0.162	925.16	0.18
44.50	0.00	0.154	925.15	0.18
45.00	0.00	0.147	925.14	0.18
45.50	0.00	0.139	925.14	0.18
46.00	0.00	0.132	925.13	0.18
46.50	0.00	0.125	925.12	0.17
47.00	0.00	0.118	925.12	0.17
47.50	0.00	0.110	925.11	0.17
48.00	0.00	0.104	925.10	0.17
48.50	0.00	0.097	925.10	0.16
49.00	0.00	0.090	925.09	0.15
49.50	0.00	0.084	925.08	0.14
50.00	0.00	0.079	925.08	0.13
50.50	0.00	0.074	925.07	0.12
51.00	0.00	0.069	925.07	0.11
51.50	0.00	0.064	925.06	0.11

Hydrograph for Pond 62P: Basin 1 (Sediment) (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
52.00	0.00	0.060	925.06	0.10
52.50	0.00	0.056	925.06	0.09
53.00	0.00	0.052	925.05	0.09
53.50	0.00	0.049	925.05	0.08
54.00	0.00	0.046	925.05	0.08
54.50	0.00	0.043	925.04	0.07
55.00	0.00	0.040	925.04	0.07
55.50	0.00	0.037	925.04	0.06
56.00	0.00	0.035	925.03	0.06
56.50	0.00	0.033	925.03	0.05
57.00	0.00	0.030	925.03	0.05
57.50	0.00	0.028	925.03	0.05
58.00	0.00	0.027	925.03	0.04
58.50	0.00	0.025	925.02	0.04
59.00	0.00	0.023	925.02	0.04
59.50	0.00	0.022	925.02	0.04
60.00	0.00	0.020	925.02	0.03
60.50	0.00	0.019	925.02	0.03
61.00	0.00	0.018	925.02	0.03
61.50	0.00	0.016	925.02	0.03
62.00	0.00	0.015	925.02	0.03
62.50	0.00	0.014	925.01	0.02
63.00	0.00	0.013	925.01	0.02
63.50	0.00	0.013	925.01	0.02
64.00	0.00	0.012	925.01	0.02
64.50	0.00	0.011	925.01	0.02
65.00	0.00	0.010	925.01	0.02
65.50	0.00	0.010	925.01	0.02
66.00	0.00	0.009	925.01	0.01
66.50	0.00	0.008	925.01	0.01
67.00	0.00	0.008	925.01	0.01
67.50	0.00	0.007	925.01	0.01
68.00	0.00	0.007	925.01	0.01
68.50	0.00	0.006	925.01	0.01
69.00	0.00	0.006	925.01	0.01
69.50	0.00	0.006	925.01	0.01
70.00	0.00	0.005	925.01	0.01
70.50	0.00	0.005	925.00	0.01
71.00	0.00	0.004	925.00	0.01
71.50	0.00	0.004	925.00	0.01
72.00	0.00	0.004	925.00	0.01
72.50	0.00	0.004	925.00	0.01
73.00	0.00	0.003	925.00	0.01
73.50	0.00	0.003	925.00	0.01
74.00	0.00	0.003	925.00	0.00
74.50	0.00	0.003	925.00	0.00
75.00	0.00	0.003	925.00	0.00
75.50	0.00	0.002	925.00	0.00
76.00	0.00	0.002	925.00	0.00
76.50	0.00	0.002	925.00	0.00
77.00	0.00	0.002	925.00	0.00
77.50	0.00	0.002	925.00	0.00

Hydrograph for Pond 62P: Basin 1 (Sediment) (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
78.00	0.00	0.002	925.00	0.00
78.50	0.00	0.002	925.00	0.00
79.00	0.00	0.002	925.00	0.00
79.50	0.00	0.001	925.00	0.00
80.00	0.00	0.001	925.00	0.00
80.50	0.00	0.001	925.00	0.00
81.00	0.00	0.001	925.00	0.00
81.50	0.00	0.001	925.00	0.00
82.00	0.00	0.001	925.00	0.00
82.50	0.00	0.001	925.00	0.00
83.00	0.00	0.001	925.00	0.00
83.50	0.00	0.001	925.00	0.00
84.00	0.00	0.001	925.00	0.00
84.50	0.00	0.001	925.00	0.00
85.00	0.00	0.001	925.00	0.00
85.50	0.00	0.001	925.00	0.00
86.00	0.00	0.001	925.00	0.00
86.50	0.00	0.001	925.00	0.00
87.00	0.00	0.001	925.00	0.00
87.50	0.00	0.000	925.00	0.00
88.00	0.00	0.000	925.00	0.00
88.50	0.00	0.000	925.00	0.00
89.00	0.00	0.000	925.00	0.00
89.50	0.00	0.000	925.00	0.00
90.00	0.00	0.000	925.00	0.00
90.50	0.00	0.000	925.00	0.00
91.00	0.00	0.000	925.00	0.00
91.50	0.00	0.000	925.00	0.00
92.00	0.00	0.000	925.00	0.00
92.50	0.00	0.000	925.00	0.00
93.00	0.00	0.000	925.00	0.00
93.50	0.00	0.000	925.00	0.00
94.00	0.00	0.000	925.00	0.00
94.50	0.00	0.000	925.00	0.00
95.00	0.00	0.000	925.00	0.00
95.50	0.00	0.000	925.00	0.00
96.00	0.00	0.000	925.00	0.00
96.50	0.00	0.000	925.00	0.00
97.00	0.00	0.000	925.00	0.00
97.50	0.00	0.000	925.00	0.00
98.00	0.00	0.000	925.00	0.00
98.50	0.00	0.000	925.00	0.00
99.00	0.00	0.000	925.00	0.00
99.50	0.00	0.000	925.00	0.00
100.00	0.00	0.000	925.00	0.00
100.50	0.00	0.000	925.00	0.00
101.00	0.00	0.000	925.00	0.00
101.50	0.00	0.000	925.00	0.00
102.00	0.00	0.000	925.00	0.00
102.50	0.00	0.000	925.00	0.00
103.00	0.00	0.000	925.00	0.00
103.50	0.00	0.000	925.00	0.00

Hydrograph for Pond 62P: Basin 1 (Sediment) (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
104.00	0.00	0.000	925.00	0.00
104.50	0.00	0.000	925.00	0.00
105.00	0.00	0.000	925.00	0.00
105.50	0.00	0.000	925.00	0.00
106.00	0.00	0.000	925.00	0.00
106.50	0.00	0.000	925.00	0.00
107.00	0.00	0.000	925.00	0.00
107.50	0.00	0.000	925.00	0.00
108.00	0.00	0.000	925.00	0.00
108.50	0.00	0.000	925.00	0.00
109.00	0.00	0.000	925.00	0.00
109.50	0.00	0.000	925.00	0.00
110.00	0.00	0.000	925.00	0.00
110.50	0.00	0.000	925.00	0.00
111.00	0.00	0.000	925.00	0.00
111.50	0.00	0.000	925.00	0.00
112.00	0.00	0.000	925.00	0.00
112.50	0.00	0.000	925.00	0.00
113.00	0.00	0.000	925.00	0.00
113.50	0.00	0.000	925.00	0.00
114.00	0.00	0.000	925.00	0.00
114.50	0.00	0.000	925.00	0.00
115.00	0.00	0.000	925.00	0.00
115.50	0.00	0.000	925.00	0.00
116.00	0.00	0.000	925.00	0.00
116.50	0.00	0.000	925.00	0.00
117.00	0.00	0.000	925.00	0.00
117.50	0.00	0.000	925.00	0.00
118.00	0.00	0.000	925.00	0.00
118.50	0.00	0.000	925.00	0.00
119.00	0.00	0.000	925.00	0.00
119.50	0.00	0.000	925.00	0.00
120.00	0.00	0.000	925.00	0.00
120.50	0.00	0.000	925.00	0.00
121.00	0.00	0.000	925.00	0.00
121.50	0.00	0.000	925.00	0.00
122.00	0.00	0.000	925.00	0.00
122.50	0.00	0.000	925.00	0.00
123.00	0.00	0.000	925.00	0.00
123.50	0.00	0.000	925.00	0.00
124.00	0.00	0.000	925.00	0.00
124.50	0.00	0.000	925.00	0.00
125.00	0.00	0.000	925.00	0.00
125.50	0.00	0.000	925.00	0.00
126.00	0.00	0.000	925.00	0.00
126.50	0.00	0.000	925.00	0.00
127.00	0.00	0.000	925.00	0.00
127.50	0.00	0.000	925.00	0.00
128.00	0.00	0.000	925.00	0.00
128.50	0.00	0.000	925.00	0.00
129.00	0.00	0.000	925.00	0.00
129.50	0.00	0.000	925.00	0.00

Hydrograph for Pond 62P: Basin 1 (Sediment) (continued)

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
130.00	0.00	0.000	925.00	0.00
130.50	0.00	0.000	925.00	0.00
131.00	0.00	0.000	925.00	0.00
131.50	0.00	0.000	925.00	0.00
132.00	0.00	0.000	925.00	0.00
132.50	0.00	0.000	925.00	0.00
133.00	0.00	0.000	925.00	0.00
133.50	0.00	0.000	925.00	0.00
134.00	0.00	0.000	925.00	0.00
134.50	0.00	0.000	925.00	0.00
135.00	0.00	0.000	925.00	0.00
135.50	0.00	0.000	925.00	0.00
136.00	0.00	0.000	925.00	0.00
136.50	0.00	0.000	925.00	0.00
137.00	0.00	0.000	925.00	0.00
137.50	0.00	0.000	925.00	0.00
138.00	0.00	0.000	925.00	0.00
138.50	0.00	0.000	925.00	0.00
139.00	0.00	0.000	925.00	0.00
139.50	0.00	0.000	925.00	0.00
140.00	0.00	0.000	925.00	0.00
140.50	0.00	0.000	925.00	0.00
141.00	0.00	0.000	925.00	0.00
141.50	0.00	0.000	925.00	0.00
142.00	0.00	0.000	925.00	0.00
142.50	0.00	0.000	925.00	0.00
143.00	0.00	0.000	925.00	0.00
143.50	0.00	0.000	925.00	0.00
144.00	0.00	0.000	925.00	0.00
144.50	0.00	0.000	925.00	0.00
145.00	0.00	0.000	925.00	0.00
145.50	0.00	0.000	925.00	0.00
146.00	0.00	0.000	925.00	0.00
146.50	0.00	0.000	925.00	0.00
147.00	0.00	0.000	925.00	0.00
147.50	0.00	0.000	925.00	0.00
148.00	0.00	0.000	925.00	0.00
148.50	0.00	0.000	925.00	0.00
149.00	0.00	0.000	925.00	0.00
149.50	0.00	0.000	925.00	0.00
150.00	0.00	0.000	925.00	0.00
150.50	0.00	0.000	925.00	0.00
151.00	0.00	0.000	925.00	0.00
151.50	0.00	0.000	925.00	0.00
152.00	0.00	0.000	925.00	0.00
152.50	0.00	0.000	925.00	0.00
153.00	0.00	0.000	925.00	0.00
153.50	0.00	0.000	925.00	0.00
154.00	0.00	0.000	925.00	0.00
154.50	0.00	0.000	925.00	0.00
155.00	0.00	0.000	925.00	0.00
155.50	0.00	0.000	925.00	0.00

Hydrograph for Pond 62P: Basin 1 (Sediment) (continued)

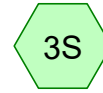
Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
156.00	0.00	0.000	925.00	0.00
156.50	0.00	0.000	925.00	0.00
157.00	0.00	0.000	925.00	0.00
157.50	0.00	0.000	925.00	0.00
158.00	0.00	0.000	925.00	0.00
158.50	0.00	0.000	925.00	0.00
159.00	0.00	0.000	925.00	0.00
159.50	0.00	0.000	925.00	0.00
160.00	0.00	0.000	925.00	0.00
160.50	0.00	0.000	925.00	0.00
161.00	0.00	0.000	925.00	0.00
161.50	0.00	0.000	925.00	0.00
162.00	0.00	0.000	925.00	0.00
162.50	0.00	0.000	925.00	0.00
163.00	0.00	0.000	925.00	0.00
163.50	0.00	0.000	925.00	0.00
164.00	0.00	0.000	925.00	0.00
164.50	0.00	0.000	925.00	0.00
165.00	0.00	0.000	925.00	0.00
165.50	0.00	0.000	925.00	0.00
166.00	0.00	0.000	925.00	0.00
166.50	0.00	0.000	925.00	0.00
167.00	0.00	0.000	925.00	0.00
167.50	0.00	0.000	925.00	0.00
168.00	0.00	0.000	925.00	0.00
168.50	0.00	0.000	925.00	0.00
169.00	0.00	0.000	925.00	0.00
169.50	0.00	0.000	925.00	0.00
170.00	0.00	0.000	925.00	0.00
170.50	0.00	0.000	925.00	0.00
171.00	0.00	0.000	925.00	0.00
171.50	0.00	0.000	925.00	0.00
172.00	0.00	0.000	925.00	0.00
172.50	0.00	0.000	925.00	0.00
173.00	0.00	0.000	925.00	0.00
173.50	0.00	0.000	925.00	0.00
174.00	0.00	0.000	925.00	0.00
174.50	0.00	0.000	925.00	0.00
175.00	0.00	0.000	925.00	0.00
175.50	0.00	0.000	925.00	0.00
176.00	0.00	0.000	925.00	0.00
176.50	0.00	0.000	925.00	0.00
177.00	0.00	0.000	925.00	0.00
177.50	0.00	0.000	925.00	0.00
178.00	0.00	0.000	925.00	0.00
178.50	0.00	0.000	925.00	0.00
179.00	0.00	0.000	925.00	0.00
179.50	0.00	0.000	925.00	0.00
180.00	0.00	0.000	925.00	0.00
180.50	0.00	0.000	925.00	0.00
181.00	0.00	0.000	925.00	0.00
181.50	0.00	0.000	925.00	0.00

Hydrograph for Pond 62P: Basin 1 (Sediment) (continued)

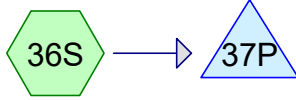
Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
182.00	0.00	0.000	925.00	0.00
182.50	0.00	0.000	925.00	0.00
183.00	0.00	0.000	925.00	0.00
183.50	0.00	0.000	925.00	0.00
184.00	0.00	0.000	925.00	0.00
184.50	0.00	0.000	925.00	0.00
185.00	0.00	0.000	925.00	0.00
185.50	0.00	0.000	925.00	0.00
186.00	0.00	0.000	925.00	0.00
186.50	0.00	0.000	925.00	0.00
187.00	0.00	0.000	925.00	0.00
187.50	0.00	0.000	925.00	0.00
188.00	0.00	0.000	925.00	0.00
188.50	0.00	0.000	925.00	0.00
189.00	0.00	0.000	925.00	0.00
189.50	0.00	0.000	925.00	0.00
190.00	0.00	0.000	925.00	0.00
190.50	0.00	0.000	925.00	0.00
191.00	0.00	0.000	925.00	0.00
191.50	0.00	0.000	925.00	0.00
192.00	0.00	0.000	925.00	0.00
192.50	0.00	0.000	925.00	0.00
193.00	0.00	0.000	925.00	0.00
193.50	0.00	0.000	925.00	0.00
194.00	0.00	0.000	925.00	0.00
194.50	0.00	0.000	925.00	0.00
195.00	0.00	0.000	925.00	0.00
195.50	0.00	0.000	925.00	0.00
196.00	0.00	0.000	925.00	0.00
196.50	0.00	0.000	925.00	0.00
197.00	0.00	0.000	925.00	0.00
197.50	0.00	0.000	925.00	0.00
198.00	0.00	0.000	925.00	0.00
198.50	0.00	0.000	925.00	0.00
199.00	0.00	0.000	925.00	0.00
199.50	0.00	0.000	925.00	0.00
200.00	0.00	0.000	925.00	0.00



Pre-Runoff to US-33 Ditch



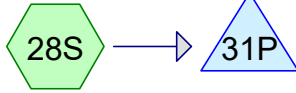
Post Offsite Runoff to US-33 Ditch



Offsite 10.1 Dummy Basin 10.1

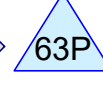


US-33 (Indian Run)



Subarea 3

Basin 3

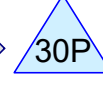


Basin 2

Subarea 2



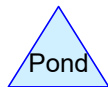
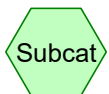
Subarea 1



Basin 1



University Blvd (Cosgray Ditch)



Rainfall Events Listing

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

Summary for Subcatchment 1S: Pre-Runoff to US-33 Ditch

Runoff = 27.71 cfs @ 13.39 hrs, Volume= 7.535 af, Depth= 2.50"

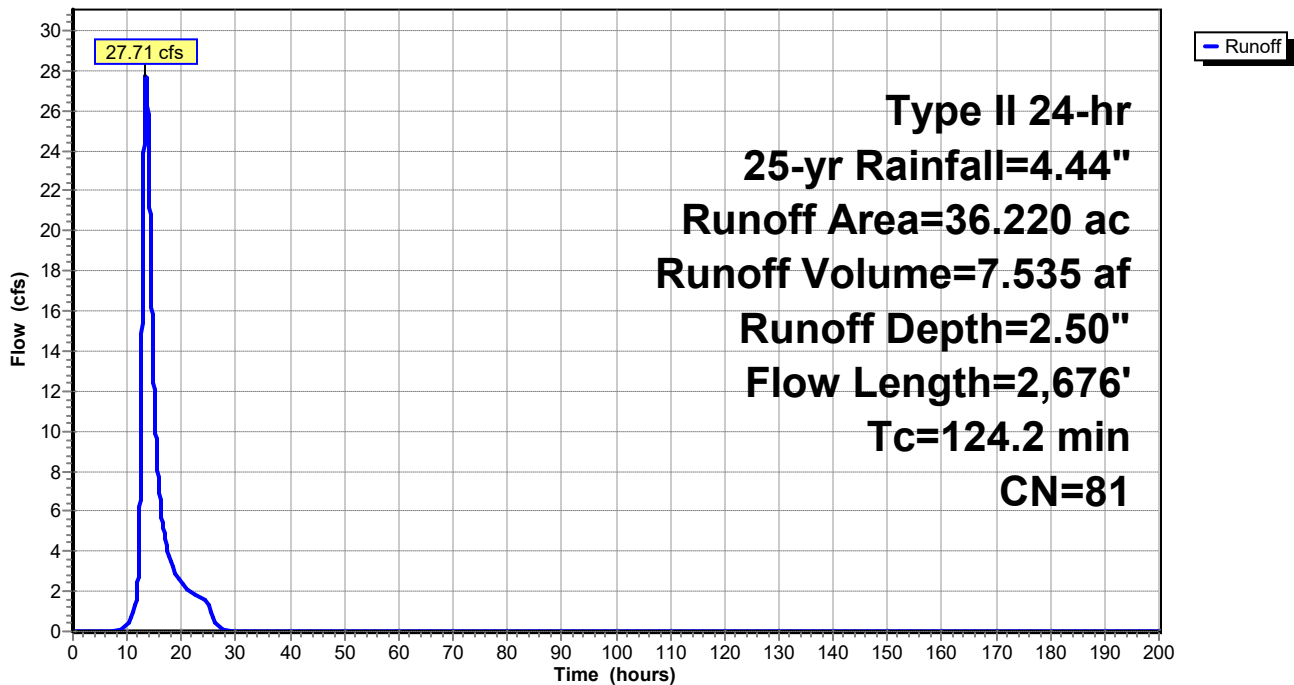
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 25-yr Rainfall=4.44"

Area (ac)	CN	Description
27.850	78	Row crops, C&T, Good, HSG C
2.610	72	Woods/grass comb., Good, HSG C
* 5.760	98	Impervious Areas
36.220	81	Weighted Average
30.460		84.10% Pervious Area
5.760		15.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2	100	0.0112	0.14		Sheet Flow, A to B Sheet Flow Range n= 0.130 P2= 2.63"
112.0	2,576	0.0030	0.38		Shallow Concentrated Flow, B to C Overland Flow Short Grass Pasture Kv= 7.0 fps
124.2	2,676	Total			

Subcatchment 1S: Pre-Runoff to US-33 Ditch

Hydrograph



Summary for Subcatchment 3S: Post Offsite Runoff to US-33 Ditch

Runoff = 18.13 cfs @ 12.62 hrs, Volume= 2.873 af, Depth= 3.14"

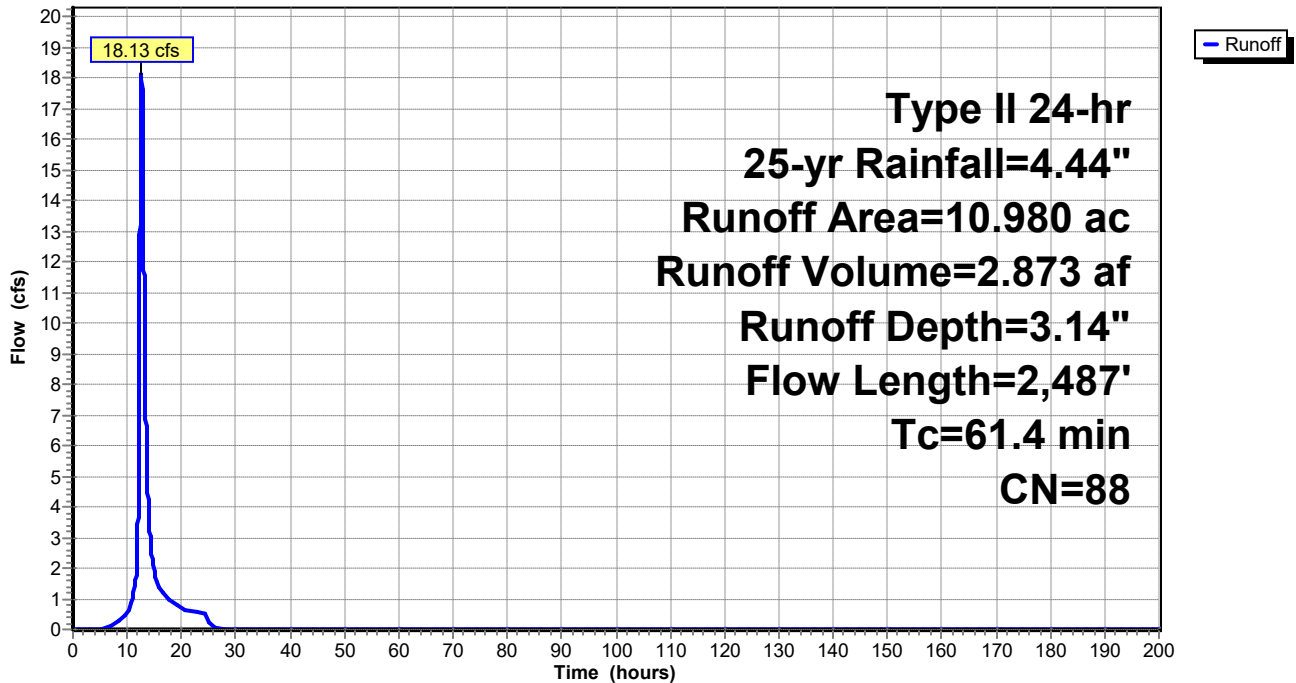
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 25-yr Rainfall=4.44"

Area (ac)	CN	Description
4.140	78	Row crops, C&T, Good, HSG C
1.110	72	Woods/grass comb., Good, HSG C
* 5.730	98	Impervious Areas
10.980	88	Weighted Average
5.250		47.81% Pervious Area
5.730		52.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.5	100	0.0096	0.11		Sheet Flow, A to B Sheet Flow Grass: Short n= 0.150 P2= 2.63"
46.9	2,387	0.0032	0.85		Shallow Concentrated Flow, B to C Overland Flow Grassed Waterway Kv= 15.0 fps
61.4	2,487	Total			

Subcatchment 3S: Post Offsite Runoff to US-33 Ditch

Hydrograph



Summary for Subcatchment 26S: Subarea 2

Runoff = 63.59 cfs @ 11.96 hrs, Volume= 3.113 af, Depth= 3.54"

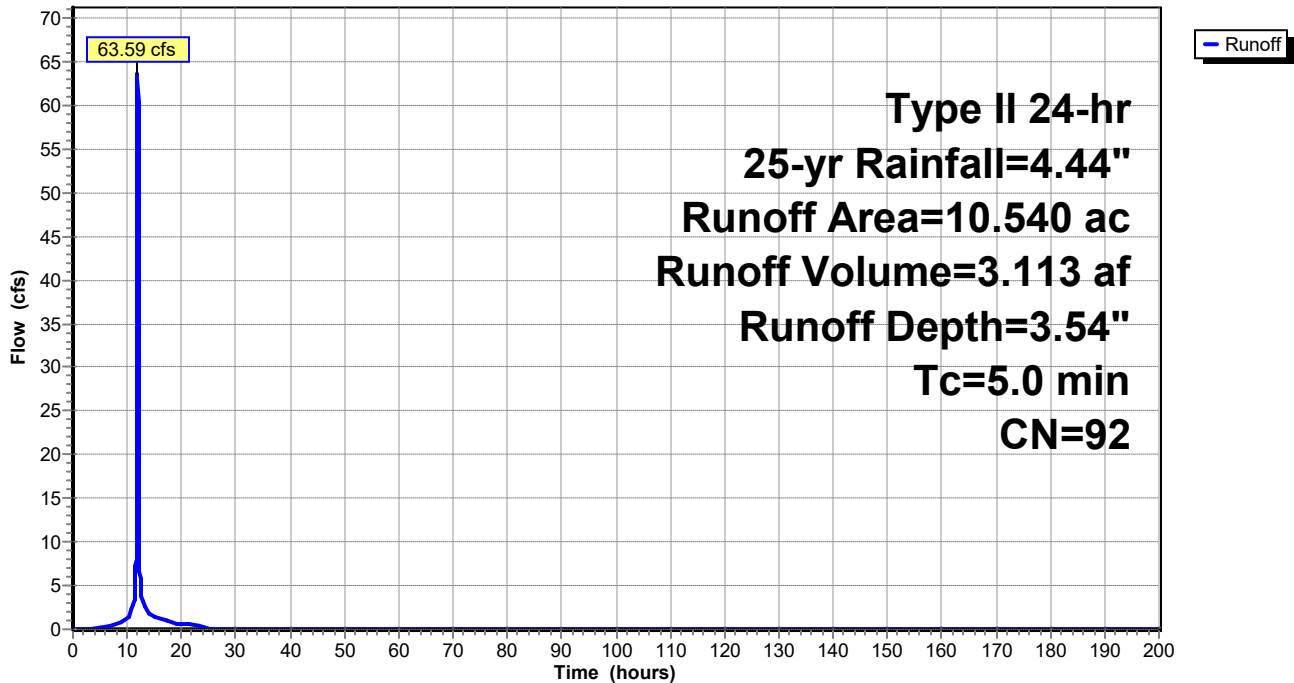
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 25-yr Rainfall=4.44"

Area (ac)	CN	Description
7.285	98	Paved parking, HSG C
2.635	74	>75% Grass cover, Good, HSG C
0.620	98	Water Surface, HSG C
10.540	92	Weighted Average
2.635		25.00% Pervious Area
7.905		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 26S: Subarea 2

Hydrograph



Summary for Subcatchment 28S: Subarea 3

Runoff = 37.29 cfs @ 11.96 hrs, Volume= 1.825 af, Depth= 3.54"

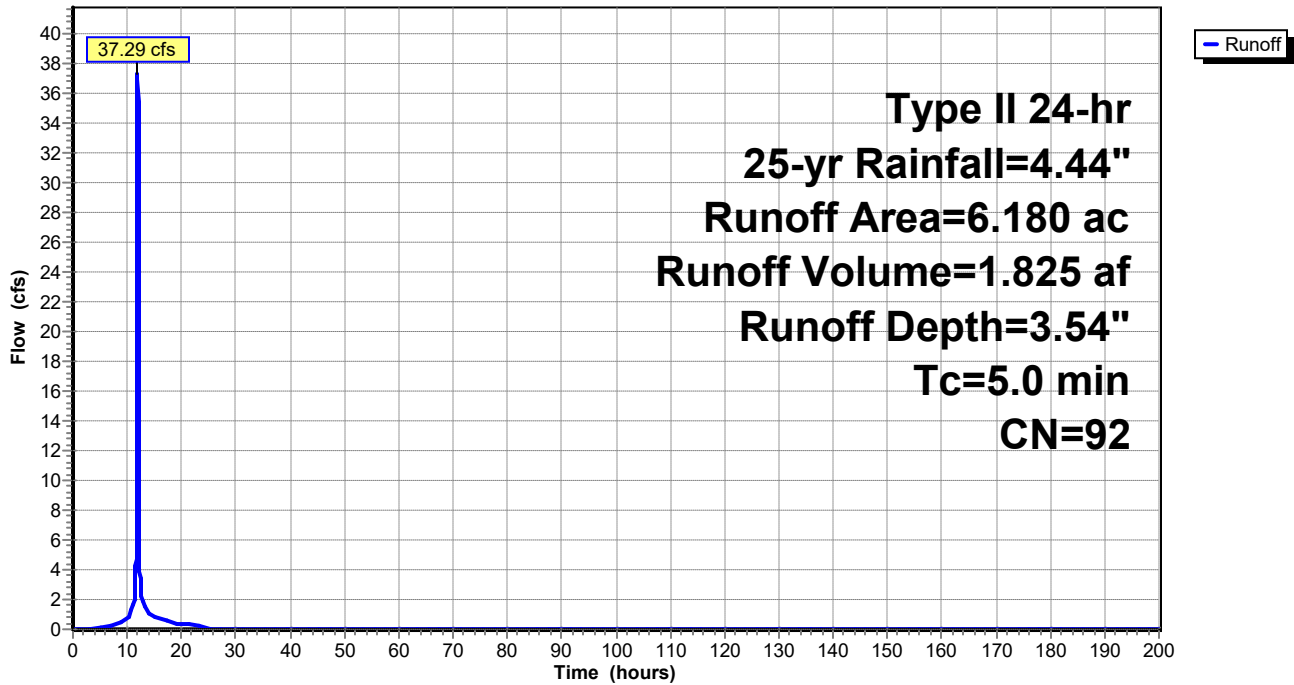
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-yr Rainfall=4.44"

Area (ac)	CN	Description
4.175	98	Paved parking, HSG C
1.545	74	>75% Grass cover, Good, HSG C
0.460	98	Water Surface, HSG C
6.180	92	Weighted Average
1.545		25.00% Pervious Area
4.635		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 28S: Subarea 3

Hydrograph



Summary for Subcatchment 33S: Subarea 1

Runoff = 90.26 cfs @ 11.96 hrs, Volume= 4.418 af, Depth= 3.54"

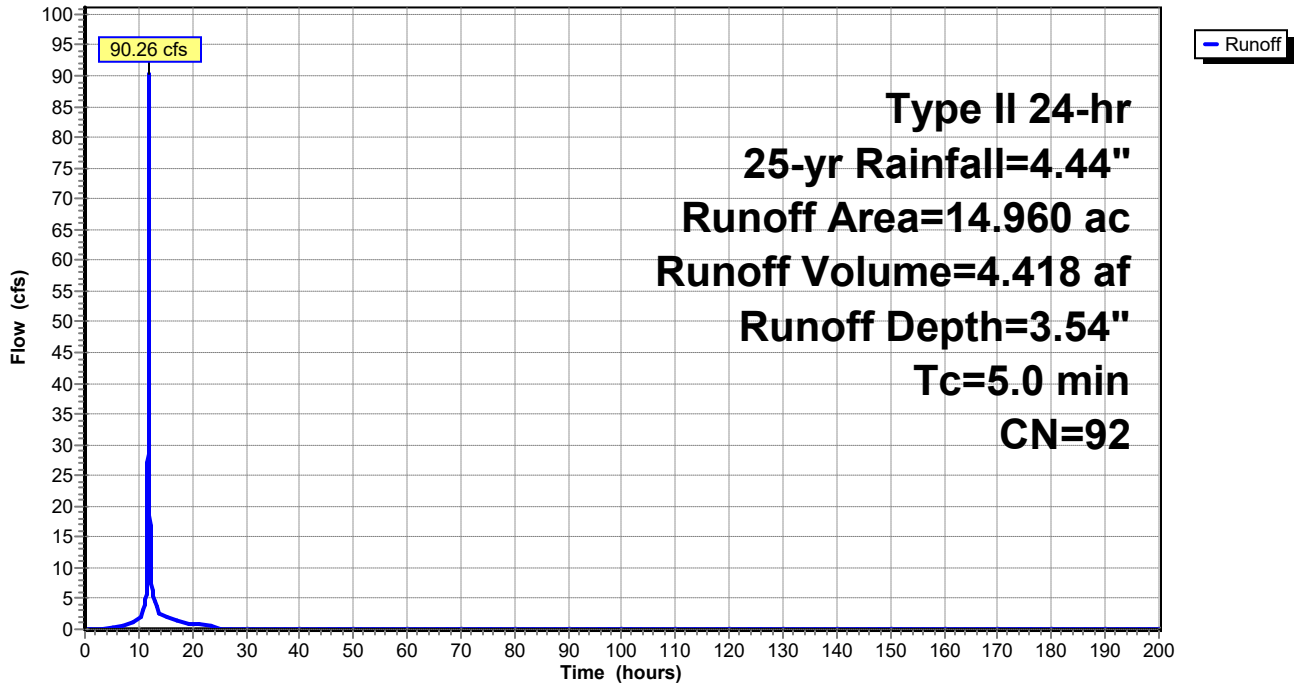
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 25-yr Rainfall=4.44"

Area (ac)	CN	Description
10.210	98	Paved parking, HSG C
3.740	74	>75% Grass cover, Good, HSG C
1.010	98	Water Surface, HSG C
14.960	92	Weighted Average
3.740		25.00% Pervious Area
11.220		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 33S: Subarea 1

Hydrograph



Summary for Subcatchment 36S: Offsite 10.1

Runoff = 76.81 cfs @ 11.99 hrs, Volume= 4.248 af, Depth= 3.76"

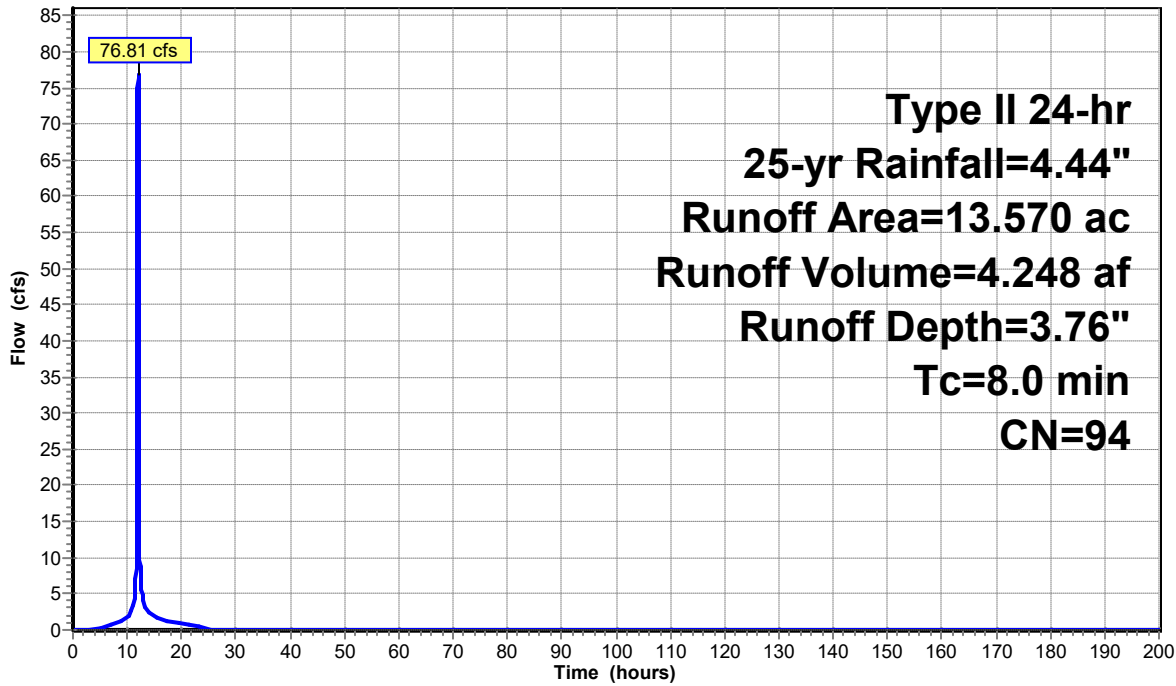
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 25-yr Rainfall=4.44"

Area (ac)	CN	Description
13.570	94	Urban commercial, 85% imp, HSG C
2.036		15.00% Pervious Area
11.534		85.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0					Direct Entry,

Subcatchment 36S: Offsite 10.1

Hydrograph



Summary for Pond 30P: Basin 1

Inflow Area = 45.250 ac, 78.00% Impervious, Inflow Depth > 3.32" for 25-yr event
 Inflow = 91.20 cfs @ 11.96 hrs, Volume= 12.504 af
 Outflow = 2.78 cfs @ 15.55 hrs, Volume= 12.424 af, Atten= 97%, Lag= 215.8 min
 Primary = 2.78 cfs @ 15.55 hrs, Volume= 12.424 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 927.76' @ 15.55 hrs Surf.Area= 1.322 ac Storage= 3.216 af

Plug-Flow detention time= 878.7 min calculated for 12.423 af (99% of inflow)
 Center-of-Mass det. time= 829.0 min (3,272.2 - 2,443.2)

Volume	Invert	Avail.Storage	Storage Description
#1	925.00'	5.717 af	Basin 1 Storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.00	1.010	0.000	0.000
926.00	1.120	1.065	1.065
927.00	1.230	1.175	2.240
928.00	1.350	1.290	3.530
929.00	1.480	1.415	4.945
929.50	1.610	0.773	5.717

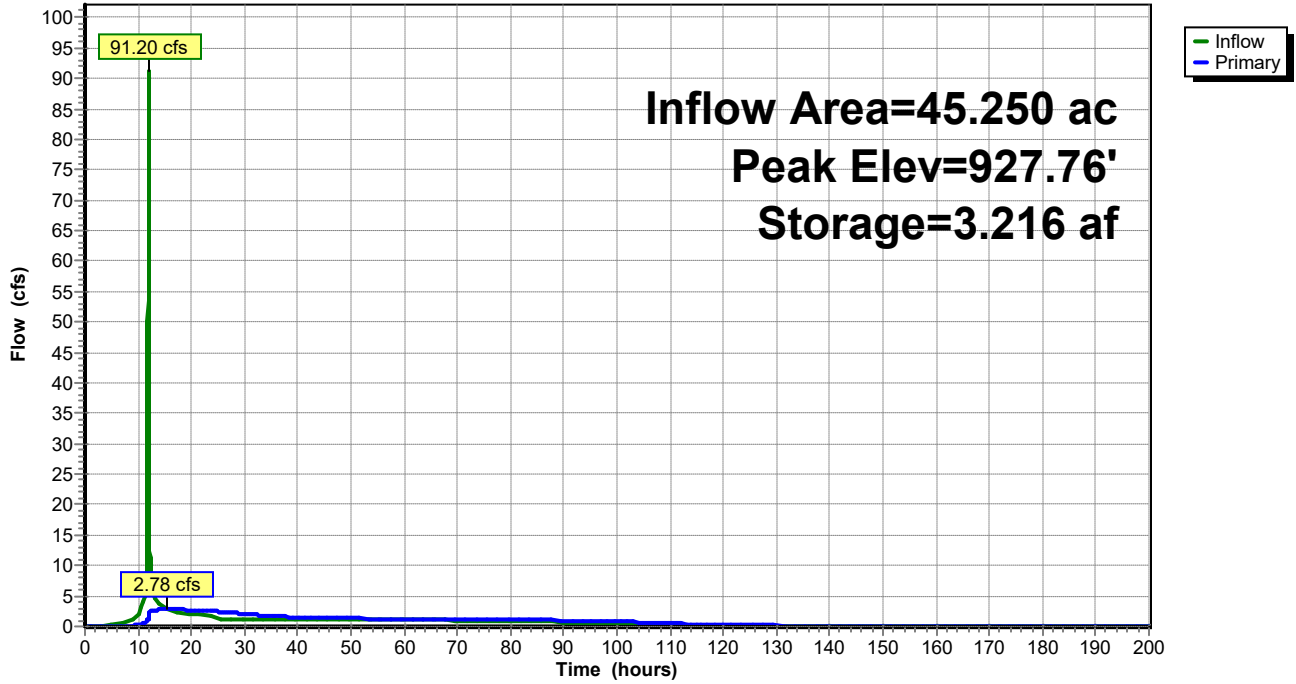
Device	Routing	Invert	Outlet Devices
#1	Primary	925.00'	6.5" Vert. WQ Orifice C= 0.600 Limited to weir flow at low heads
#2	Primary	926.50'	6.0" W x 5.0" H Vert. Window C= 0.600 Limited to weir flow at low heads
#3	Primary	928.50'	3.0' long x 0.5' breadth Broad-Crested Rectangular Weir X 2.00 Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=2.78 cfs @ 15.55 hrs HW=927.76' TW=0.00' (Dynamic Tailwater)

- 1=WQ Orifice (Orifice Controls 1.75 cfs @ 7.60 fps)
- 2=Window (Orifice Controls 1.03 cfs @ 4.94 fps)
- 3=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 30P: Basin 1

Hydrograph



Summary for Pond 31P: Basin 3

Inflow Area = 19.750 ac, 81.87% Impervious, Inflow Depth > 3.66" for 25-yr event
 Inflow = 37.84 cfs @ 11.96 hrs, Volume= 6.020 af
 Outflow = 1.76 cfs @ 11.88 hrs, Volume= 6.006 af, Atten= 95%, Lag= 0.0 min
 Primary = 1.76 cfs @ 11.88 hrs, Volume= 6.006 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 929.42' @ 19.57 hrs Surf.Area= 0.704 ac Storage= 1.377 af

Plug-Flow detention time= 581.2 min calculated for 6.006 af (100% of inflow)
 Center-of-Mass det. time= 561.7 min (2,896.1 - 2,334.4)

Volume	Invert	Avail.Storage	Storage Description
#1	927.00'	2.710 af	Basin 3 Storage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
927.00	0.460	0.000	0.000
928.00	0.540	0.500	0.500
929.00	0.650	0.595	1.095
930.00	0.780	0.715	1.810
931.00	1.020	0.900	2.710

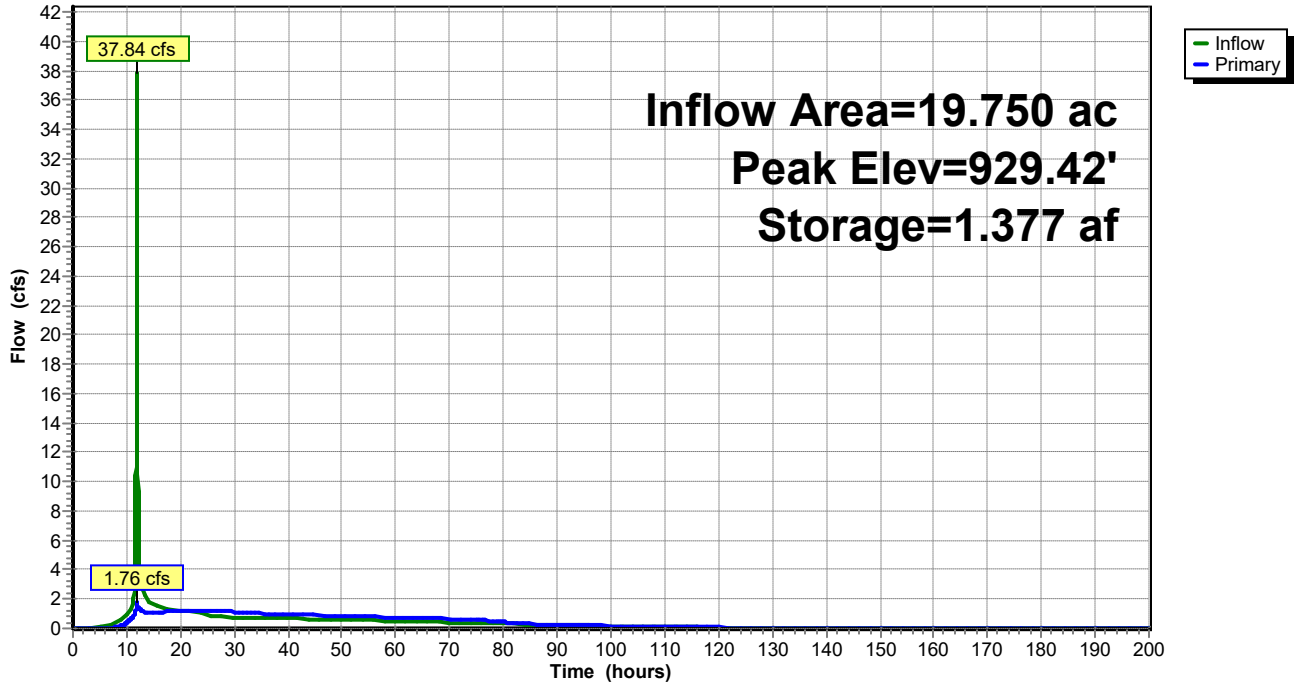
Device	Routing	Invert	Outlet Devices
#1	Primary	927.00'	5.0" Vert. Outlet to Basin 2 X 3.00 C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.71 cfs @ 11.88 hrs HW=928.03' TW=927.28' (Dynamic Tailwater)

↑1=Outlet to Basin 2 (Orifice Controls 1.71 cfs @ 4.17 fps)

Pond 31P: Basin 3

Hydrograph



Summary for Pond 37P: Dummy Basin 10.1

Inflow Area = 13.570 ac, 85.00% Impervious, Inflow Depth = 3.76" for 25-yr event
 Inflow = 76.81 cfs @ 11.99 hrs, Volume= 4.248 af
 Outflow = 0.83 cfs @ 19.76 hrs, Volume= 4.195 af, Atten= 99%, Lag= 466.2 min
 Primary = 0.83 cfs @ 19.76 hrs, Volume= 4.195 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 932.70' @ 19.76 hrs Surf.Area= 2.000 ac Storage= 3.402 af

Plug-Flow detention time= 2,242.5 min calculated for 4.195 af (99% of inflow)
 Center-of-Mass det. time= 2,234.4 min (3,009.7 - 775.3)

Volume	Invert	Avail.Storage	Storage Description
#1	931.00'	8.000 af	Dummy Basin (Prismatic) Listed below (Recalc)

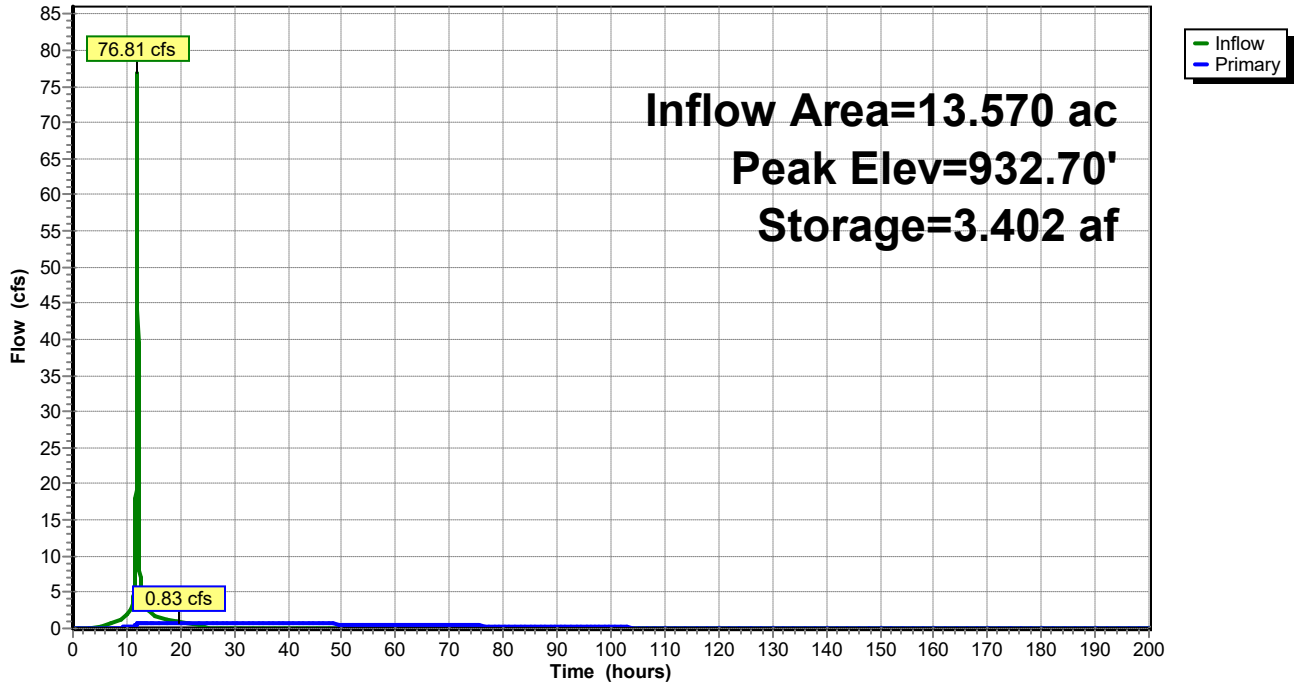
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
931.00	2.000	0.000	0.000
935.00	2.000	8.000	8.000

Device	Routing	Invert	Outlet Devices
#1	Primary	931.00'	2.5" Vert. WQ Orifice X 4.00 C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.83 cfs @ 19.76 hrs HW=932.70' TW=929.42' (Dynamic Tailwater)
 ↑1=WQ Orifice (Orifice Controls 0.83 cfs @ 6.08 fps)

Pond 37P: Dummy Basin 10.1

Hydrograph



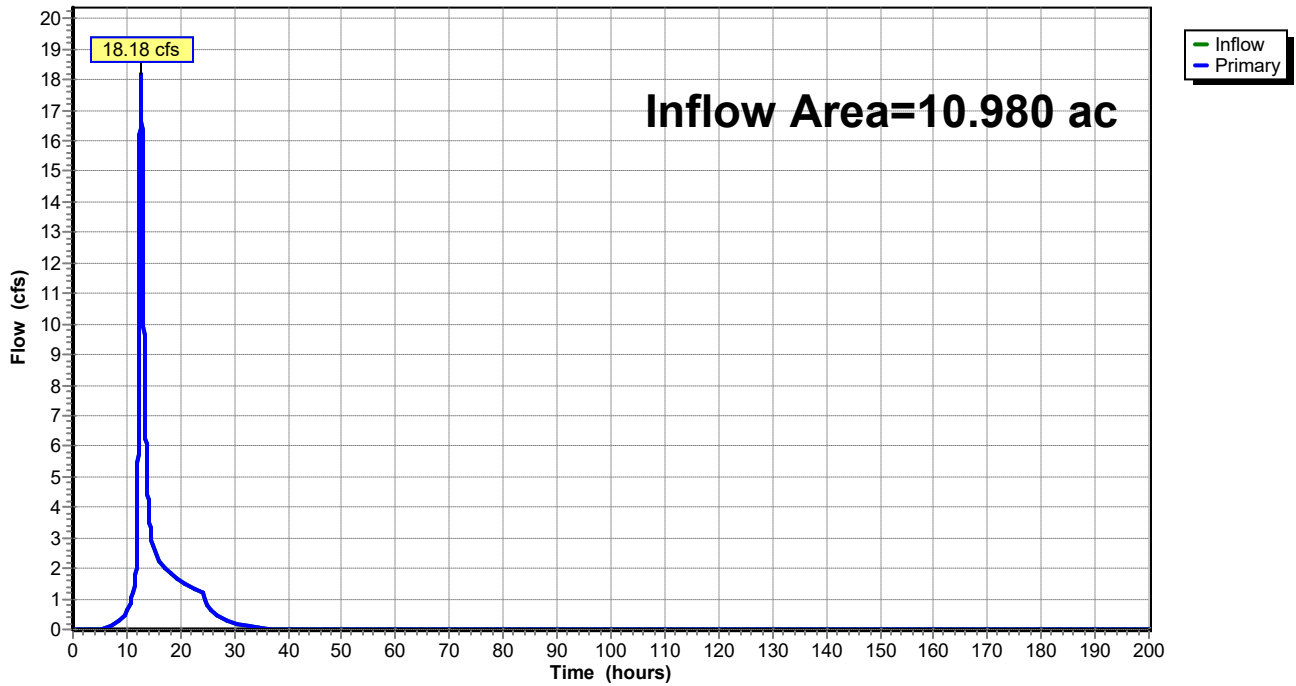
Summary for Pond 45P: US-33 (Indian Run)

Inflow Area = 10.980 ac, 52.19% Impervious, Inflow Depth = 4.23" for 25-yr event
Inflow = 18.18 cfs @ 12.62 hrs, Volume= 3.869 af
Primary = 18.18 cfs @ 12.62 hrs, Volume= 3.869 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs

Pond 45P: US-33 (Indian Run)

Hydrograph



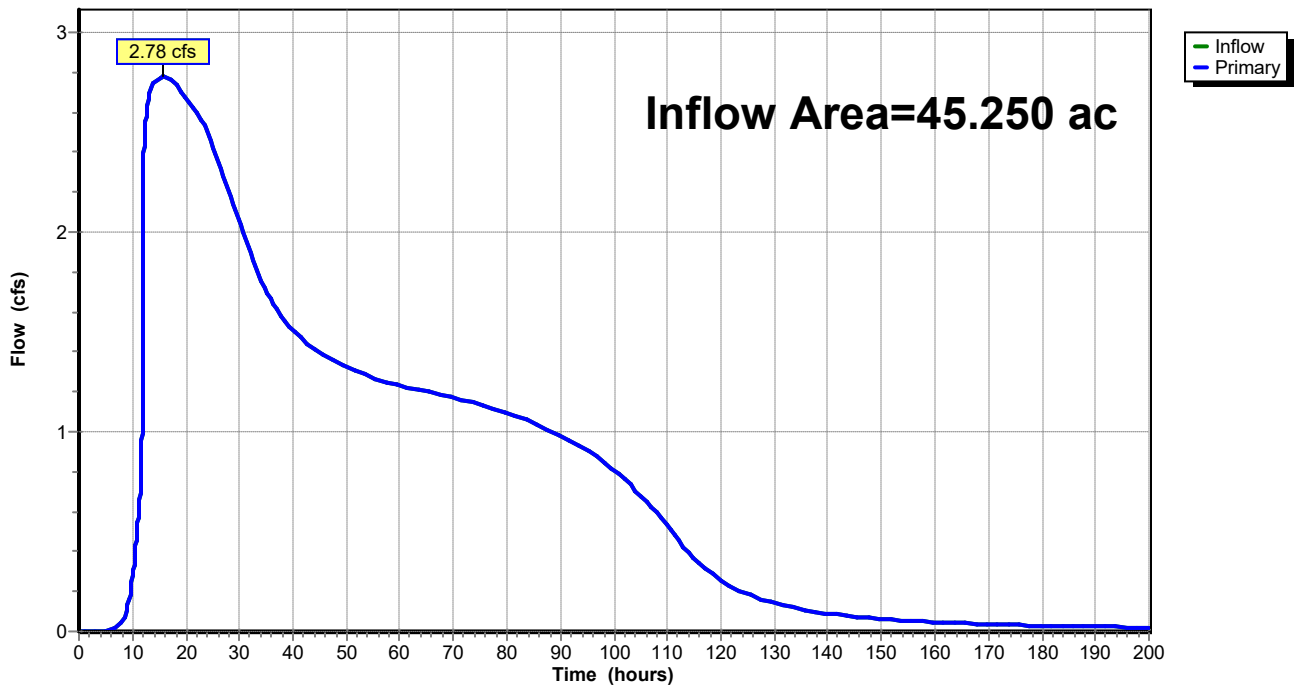
Summary for Pond 46P: University Blvd (Cosgray Ditch)

Inflow Area = 45.250 ac, 78.00% Impervious, Inflow Depth > 3.29" for 25-yr event
Inflow = 2.78 cfs @ 15.55 hrs, Volume= 12.424 af
Primary = 2.78 cfs @ 15.55 hrs, Volume= 12.424 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs

Pond 46P: University Blvd (Cosgray Ditch)

Hydrograph



Summary for Pond 63P: Basin 2

Inflow Area = 30.290 ac, 79.48% Impervious, Inflow Depth > 3.61" for 25-yr event
 Inflow = 65.26 cfs @ 11.96 hrs, Volume= 9.119 af
 Outflow = 2.02 cfs @ 18.23 hrs, Volume= 9.082 af, Atten= 97%, Lag= 376.5 min
 Primary = 1.26 cfs @ 35.92 hrs, Volume= 8.086 af
 Secondary = 0.93 cfs @ 17.75 hrs, Volume= 0.996 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 929.05' @ 17.75 hrs Surf.Area= 0.925 ac Storage= 2.591 af

Plug-Flow detention time= 981.4 min calculated for 9.081 af (100% of inflow)
 Center-of-Mass det. time= 947.1 min (3,121.7 - 2,174.6)

Volume	Invert	Avail.Storage	Storage Description
#1	925.70'	3.520 af	Basin 2 Storage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.70	0.620	0.000	0.000
926.00	0.650	0.190	0.190
927.00	0.740	0.695	0.885
928.00	0.830	0.785	1.670
929.00	0.920	0.875	2.545
930.00	1.030	0.975	3.520

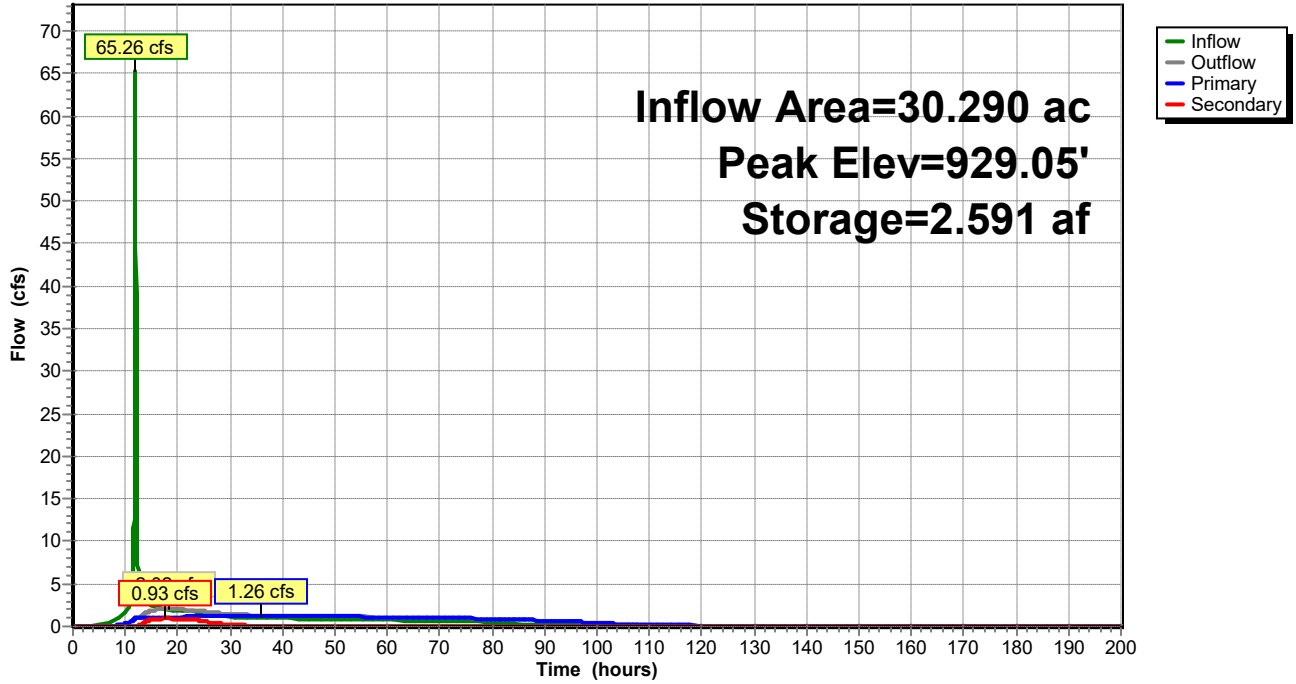
Device	Routing	Invert	Outlet Devices
#1	Primary	925.70'	6.0" Vert. Outlet to Basin 1 C= 0.600 Limited to weir flow at low heads
#2	Secondary	928.50'	12.0" Round Culvert L= 77.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 928.50' / 928.00' S= 0.0065 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.26 cfs @ 35.92 hrs HW=928.59' TW=926.81' (Dynamic Tailwater)
 ↑1=Outlet to Basin 1 (Orifice Controls 1.26 cfs @ 6.42 fps)

Secondary OutFlow Max=0.93 cfs @ 17.75 hrs HW=929.05' TW=0.00' (Dynamic Tailwater)
 ↑2=Culvert (Barrel Controls 0.93 cfs @ 3.06 fps)

Pond 63P: Basin 2

Hydrograph



Summary for Subcatchment 1S: Pre-Runoff to US-33 Ditch

Runoff = 33.51 cfs @ 13.39 hrs, Volume= 9.064 af, Depth= 3.00"

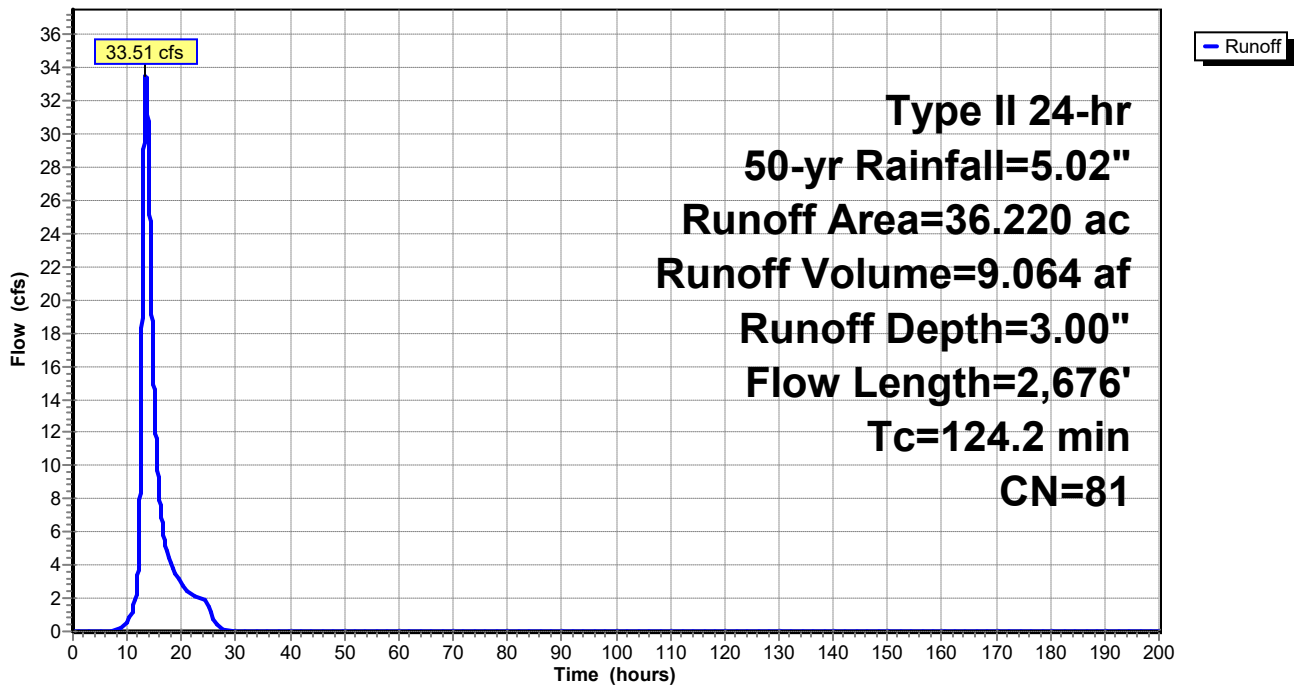
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 50-yr Rainfall=5.02"

Area (ac)	CN	Description
27.850	78	Row crops, C&T, Good, HSG C
2.610	72	Woods/grass comb., Good, HSG C
* 5.760	98	Impervious Areas
36.220	81	Weighted Average
30.460		84.10% Pervious Area
5.760		15.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2	100	0.0112	0.14		Sheet Flow, A to B Sheet Flow Range n= 0.130 P2= 2.63"
112.0	2,576	0.0030	0.38		Shallow Concentrated Flow, B to C Overland Flow Short Grass Pasture Kv= 7.0 fps
124.2	2,676	Total			

Subcatchment 1S: Pre-Runoff to US-33 Ditch

Hydrograph



Summary for Subcatchment 3S: Post Offsite Runoff to US-33 Ditch

Runoff = 21.22 cfs @ 12.62 hrs, Volume= 3.374 af, Depth= 3.69"

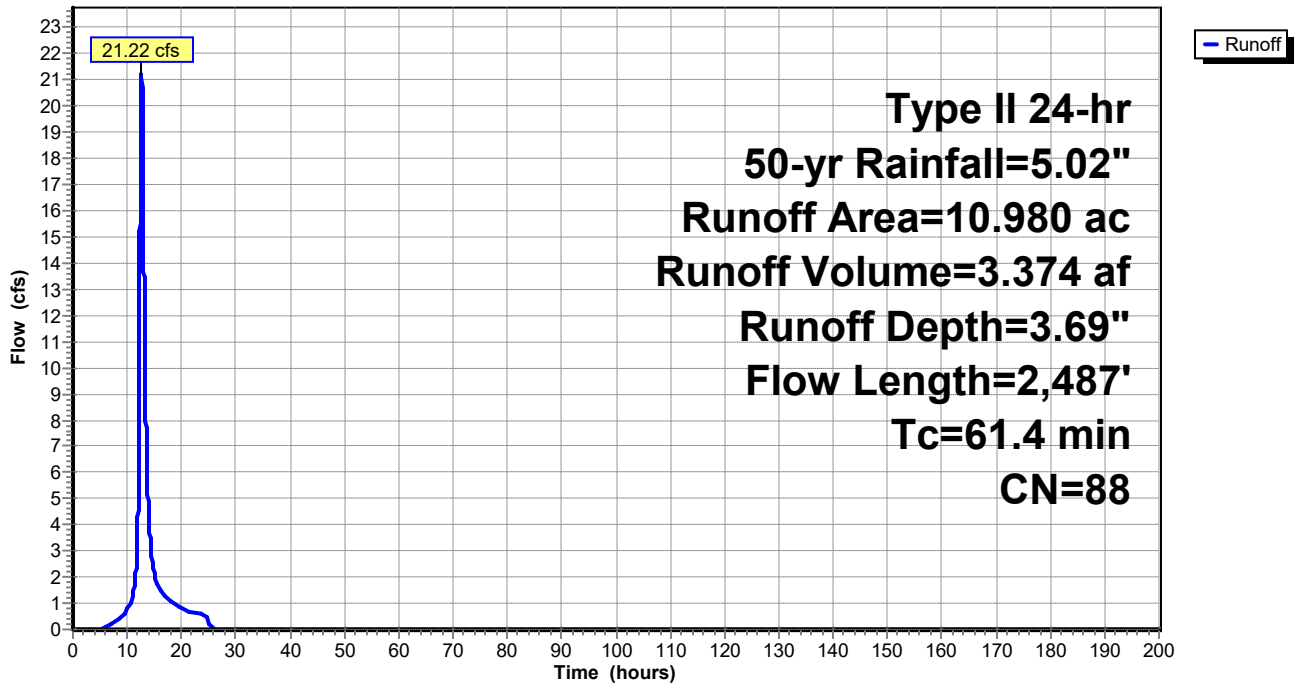
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 50-yr Rainfall=5.02"

Area (ac)	CN	Description
4.140	78	Row crops, C&T, Good, HSG C
1.110	72	Woods/grass comb., Good, HSG C
* 5.730	98	Impervious Areas
10.980	88	Weighted Average
5.250		47.81% Pervious Area
5.730		52.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.5	100	0.0096	0.11		Sheet Flow, A to B Sheet Flow Grass: Short n= 0.150 P2= 2.63"
46.9	2,387	0.0032	0.85		Shallow Concentrated Flow, B to C Overland Flow Grassed Waterway Kv= 15.0 fps
61.4	2,487	Total			

Subcatchment 3S: Post Offsite Runoff to US-33 Ditch

Hydrograph



Summary for Subcatchment 26S: Subarea 2

Runoff = 72.99 cfs @ 11.96 hrs, Volume= 3.609 af, Depth= 4.11"

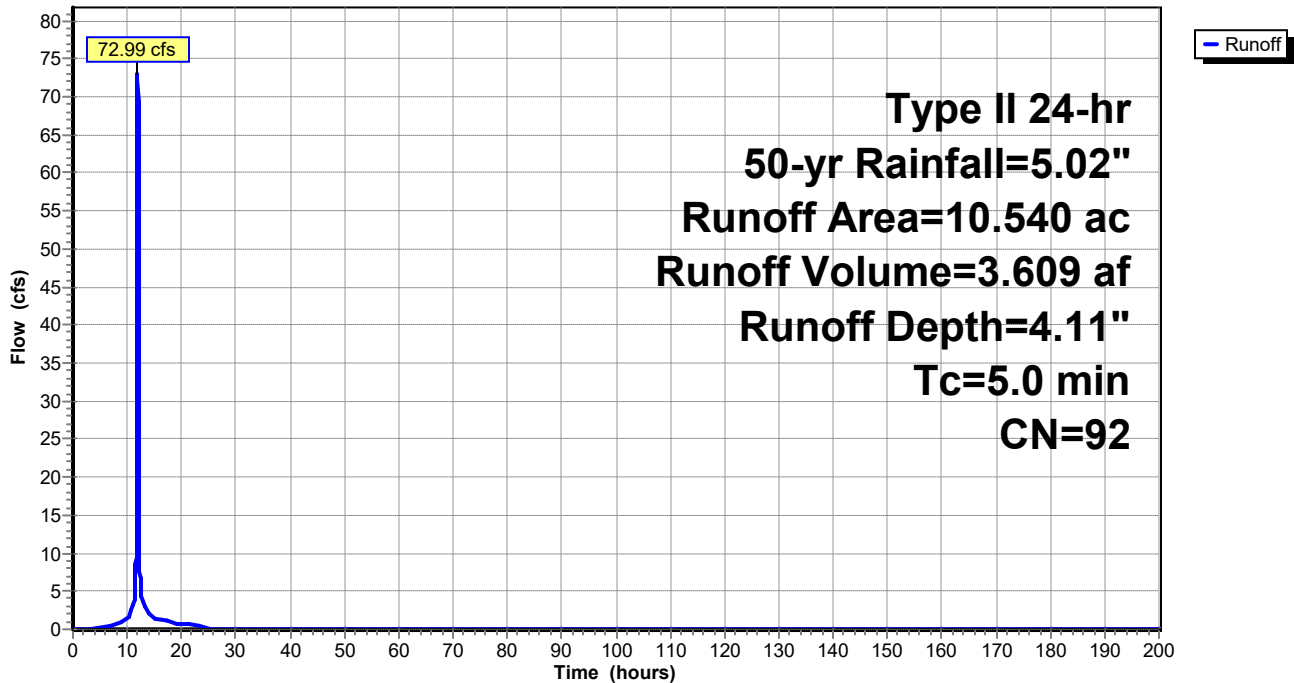
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 50-yr Rainfall=5.02"

Area (ac)	CN	Description
7.285	98	Paved parking, HSG C
2.635	74	>75% Grass cover, Good, HSG C
0.620	98	Water Surface, HSG C
10.540	92	Weighted Average
2.635		25.00% Pervious Area
7.905		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 26S: Subarea 2

Hydrograph



Summary for Subcatchment 28S: Subarea 3

Runoff = 42.80 cfs @ 11.96 hrs, Volume= 2.116 af, Depth= 4.11"

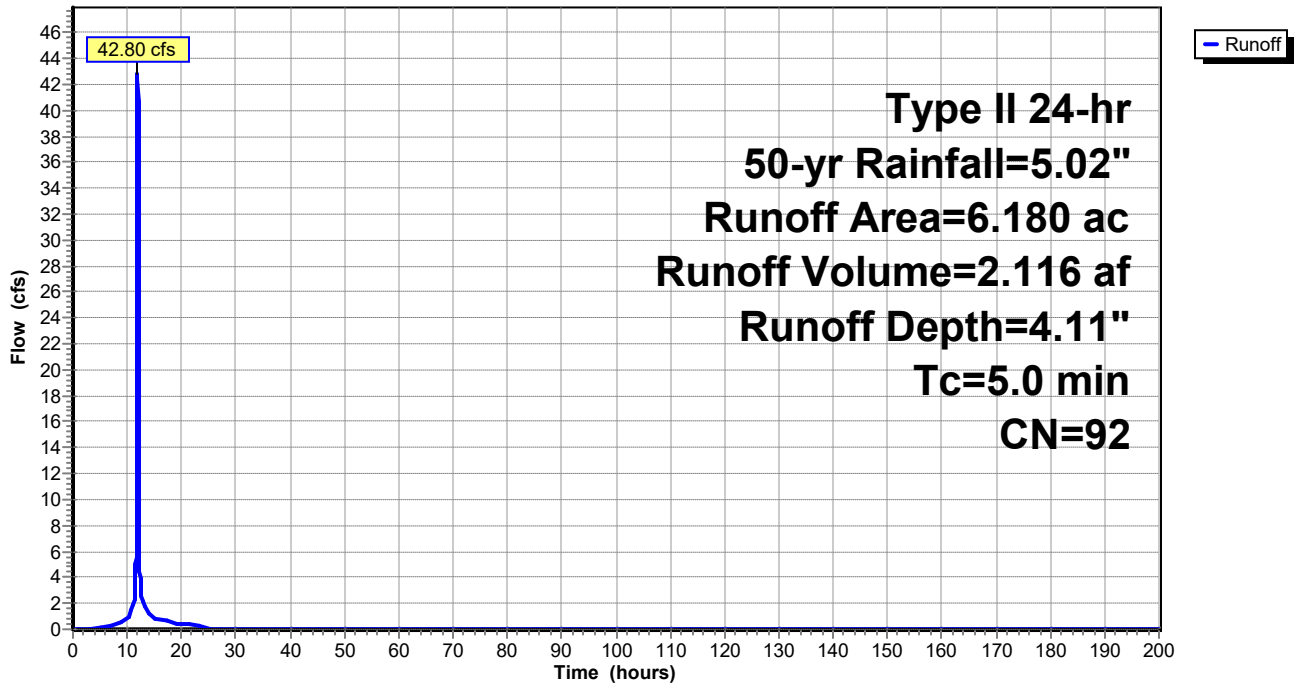
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 50-yr Rainfall=5.02"

Area (ac)	CN	Description
4.175	98	Paved parking, HSG C
1.545	74	>75% Grass cover, Good, HSG C
0.460	98	Water Surface, HSG C
6.180	92	Weighted Average
1.545		25.00% Pervious Area
4.635		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 28S: Subarea 3

Hydrograph



Summary for Subcatchment 33S: Subarea 1

Runoff = 103.59 cfs @ 11.96 hrs, Volume= 5.122 af, Depth= 4.11"

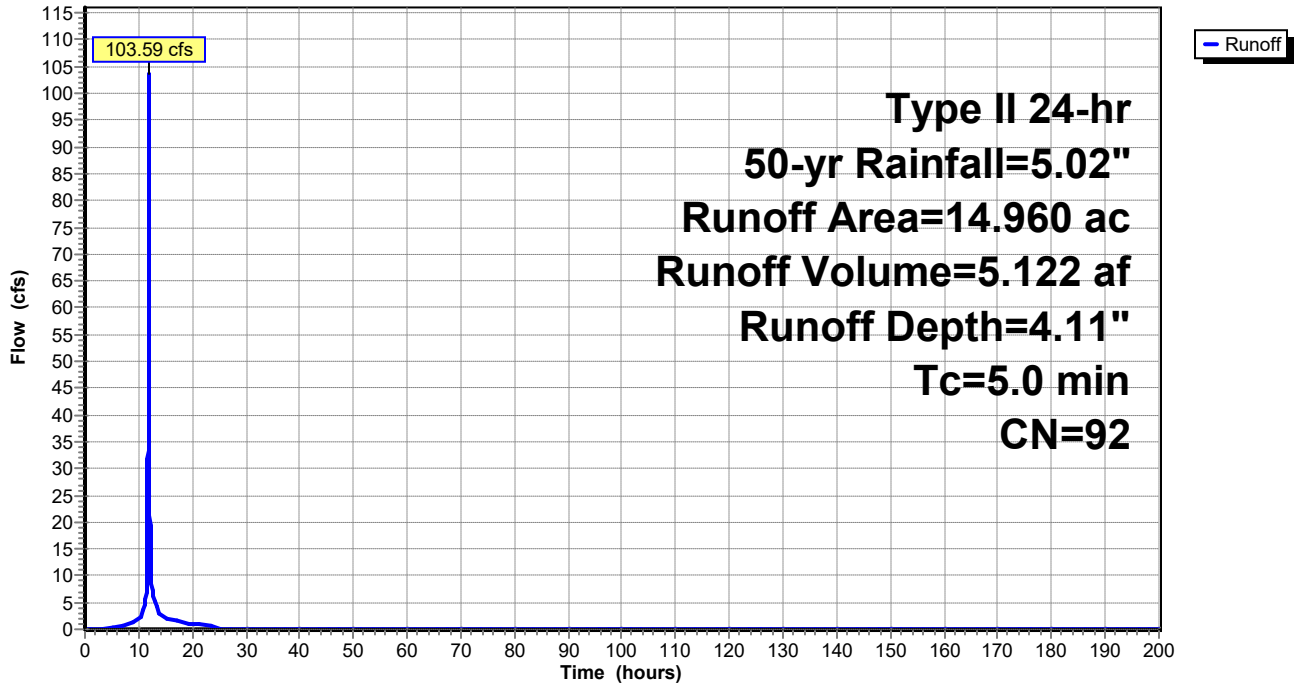
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 50-yr Rainfall=5.02"

Area (ac)	CN	Description
10.210	98	Paved parking, HSG C
3.740	74	>75% Grass cover, Good, HSG C
1.010	98	Water Surface, HSG C
14.960	92	Weighted Average
3.740		25.00% Pervious Area
11.220		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 33S: Subarea 1

Hydrograph



Summary for Subcatchment 36S: Offsite 10.1

Runoff = 87.70 cfs @ 11.99 hrs, Volume= 4.894 af, Depth= 4.33"

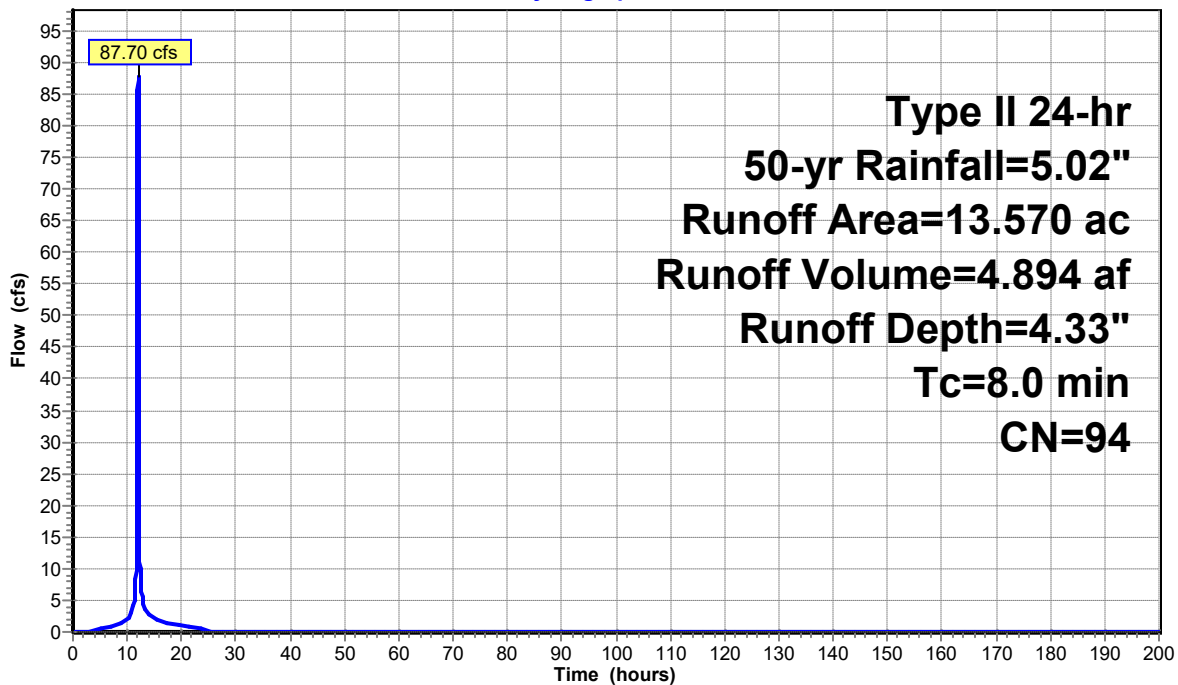
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 50-yr Rainfall=5.02"

Area (ac)	CN	Description
13.570	94	Urban commercial, 85% imp, HSG C
2.036		15.00% Pervious Area
11.534		85.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0					Direct Entry,

Subcatchment 36S: Offsite 10.1

Hydrograph



Summary for Pond 30P: Basin 1

Inflow Area = 45.250 ac, 78.00% Impervious, Inflow Depth > 3.66" for 50-yr event
 Inflow = 104.55 cfs @ 11.96 hrs, Volume= 13.816 af
 Outflow = 3.08 cfs @ 15.32 hrs, Volume= 13.730 af, Atten= 97%, Lag= 201.8 min
 Primary = 3.08 cfs @ 15.32 hrs, Volume= 13.730 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 928.14' @ 15.32 hrs Surf.Area= 1.368 ac Storage= 3.720 af

Plug-Flow detention time= 881.1 min calculated for 13.730 af (99% of inflow)
 Center-of-Mass det. time= 832.4 min (3,345.7 - 2,513.4)

Volume	Invert	Avail.Storage	Storage Description
#1	925.00'	5.717 af	Basin 1 Storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.00	1.010	0.000	0.000
926.00	1.120	1.065	1.065
927.00	1.230	1.175	2.240
928.00	1.350	1.290	3.530
929.00	1.480	1.415	4.945
929.50	1.610	0.773	5.717

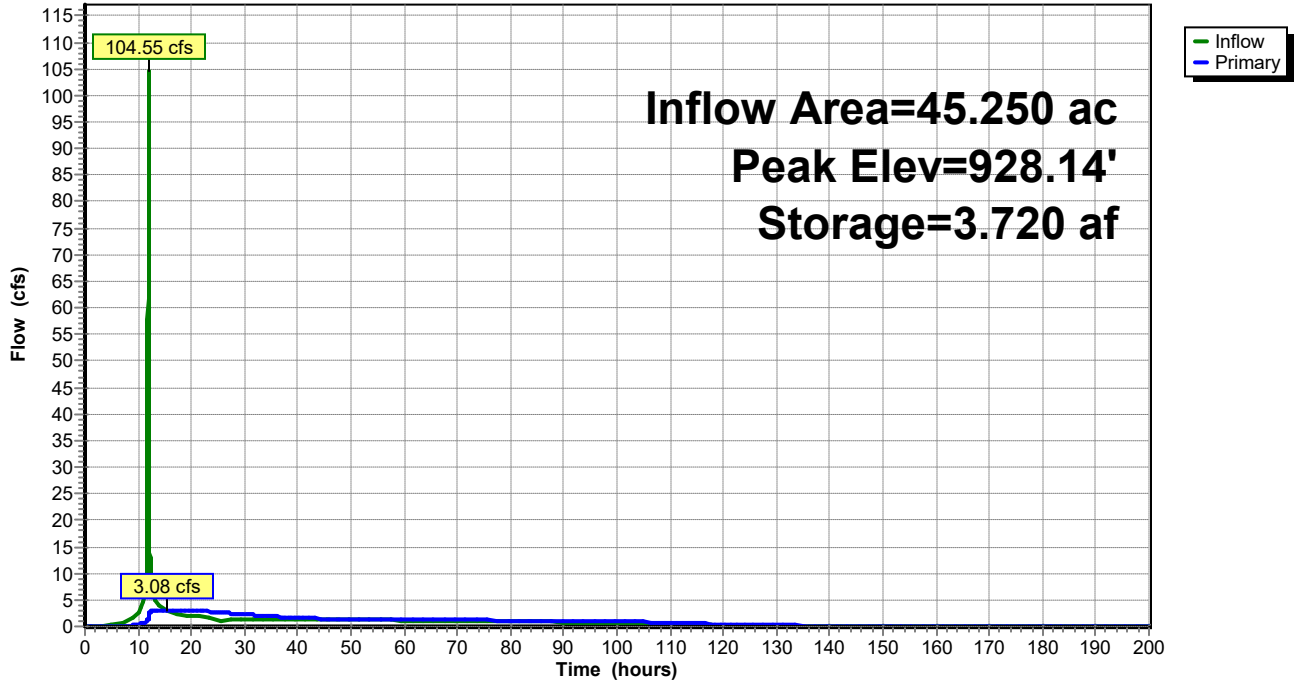
Device	Routing	Invert	Outlet Devices
#1	Primary	925.00'	6.5" Vert. WQ Orifice C= 0.600 Limited to weir flow at low heads
#2	Primary	926.50'	6.0" W x 5.0" H Vert. Window C= 0.600 Limited to weir flow at low heads
#3	Primary	928.50'	3.0' long x 0.5' breadth Broad-Crested Rectangular Weir X 2.00 Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=3.08 cfs @ 15.32 hrs HW=928.14' TW=0.00' (Dynamic Tailwater)

- 1=WQ Orifice (Orifice Controls 1.88 cfs @ 8.16 fps)
- 2=Window (Orifice Controls 1.20 cfs @ 5.76 fps)
- 3=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 30P: Basin 1

Hydrograph



Summary for Pond 31P: Basin 3

Inflow Area = 19.750 ac, 81.87% Impervious, Inflow Depth > 4.22" for 50-yr event
 Inflow = 43.40 cfs @ 11.96 hrs, Volume= 6.953 af
 Outflow = 1.70 cfs @ 11.82 hrs, Volume= 6.939 af, Atten= 96%, Lag= 0.0 min
 Primary = 1.70 cfs @ 11.82 hrs, Volume= 6.939 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 929.72' @ 18.66 hrs Surf.Area= 0.744 ac Storage= 1.599 af

Plug-Flow detention time= 589.5 min calculated for 6.938 af (100% of inflow)
 Center-of-Mass det. time= 571.4 min (2,990.8 - 2,419.3)

Volume	Invert	Avail.Storage	Storage Description
#1	927.00'	2.710 af	Basin 3 Storage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
927.00	0.460	0.000	0.000
928.00	0.540	0.500	0.500
929.00	0.650	0.595	1.095
930.00	0.780	0.715	1.810
931.00	1.020	0.900	2.710

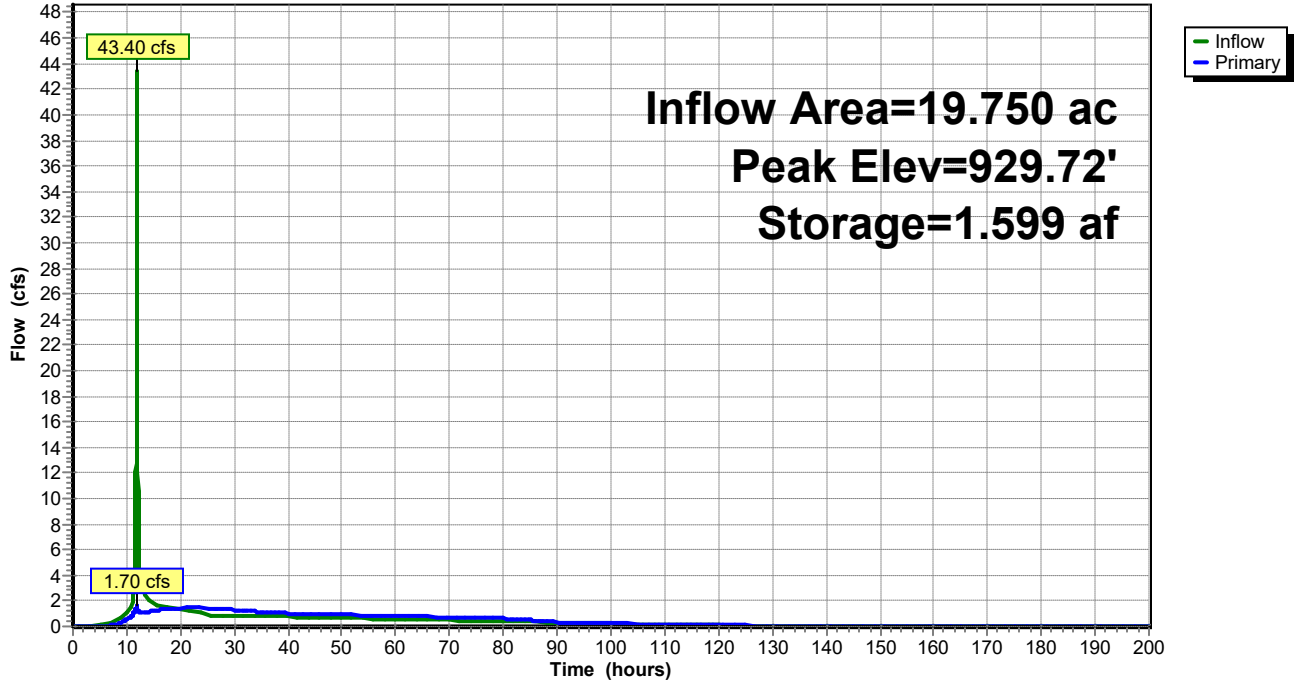
Device	Routing	Invert	Outlet Devices
#1	Primary	927.00'	5.0" Vert. Outlet to Basin 2 X 3.00 C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.65 cfs @ 11.82 hrs HW=927.97' TW=927.27' (Dynamic Tailwater)

↑1=Outlet to Basin 2 (Orifice Controls 1.65 cfs @ 4.03 fps)

Pond 31P: Basin 3

Hydrograph



Summary for Pond 37P: Dummy Basin 10.1

Inflow Area = 13.570 ac, 85.00% Impervious, Inflow Depth = 4.33" for 50-yr event
 Inflow = 87.70 cfs @ 11.99 hrs, Volume= 4.894 af
 Outflow = 0.90 cfs @ 20.01 hrs, Volume= 4.837 af, Atten= 99%, Lag= 481.5 min
 Primary = 0.90 cfs @ 20.01 hrs, Volume= 4.837 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 932.98' @ 20.01 hrs Surf.Area= 2.000 ac Storage= 3.954 af

Plug-Flow detention time= 2,372.8 min calculated for 4.836 af (99% of inflow)
 Center-of-Mass det. time= 2,365.6 min (3,137.3 - 771.7)

Volume	Invert	Avail.Storage	Storage Description
#1	931.00'	8.000 af	Dummy Basin (Prismatic) Listed below (Recalc)

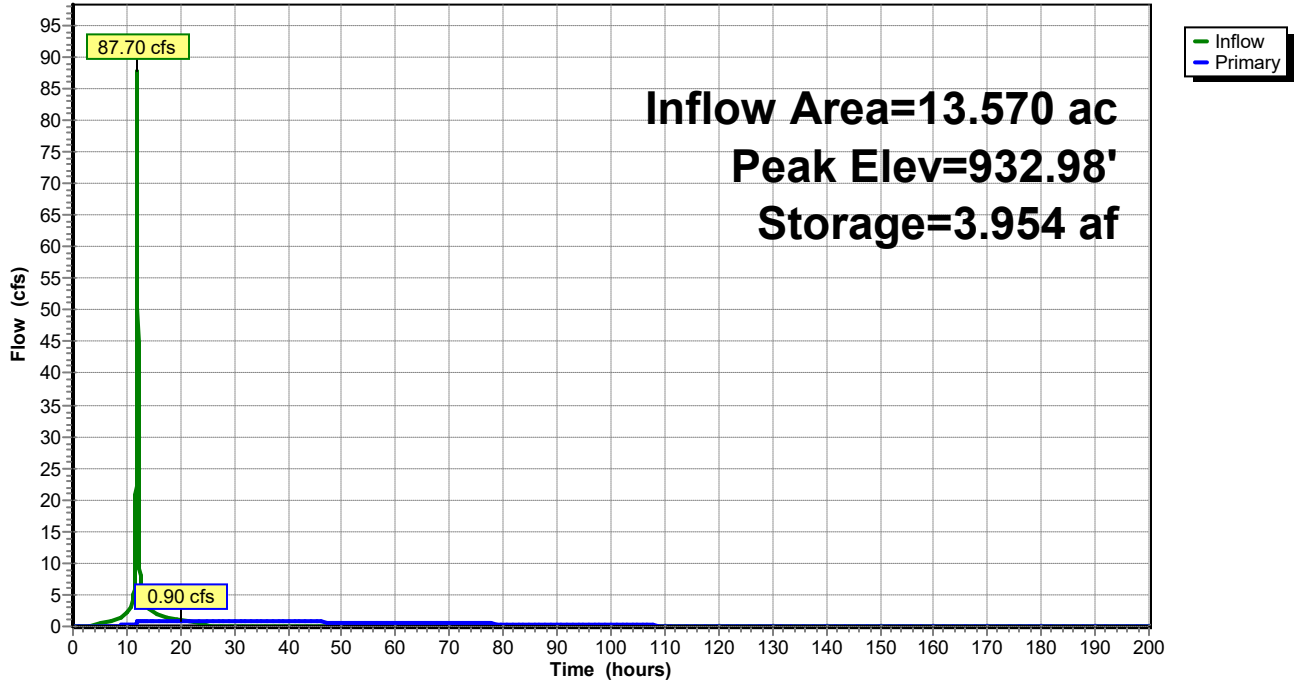
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
931.00	2.000	0.000	0.000
935.00	2.000	8.000	8.000

Device	Routing	Invert	Outlet Devices
#1	Primary	931.00'	2.5" Vert. WQ Orifice X 4.00 C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.90 cfs @ 20.01 hrs HW=932.98' TW=929.71' (Dynamic Tailwater)
 ↑1=WQ Orifice (Orifice Controls 0.90 cfs @ 6.59 fps)

Pond 37P: Dummy Basin 10.1

Hydrograph



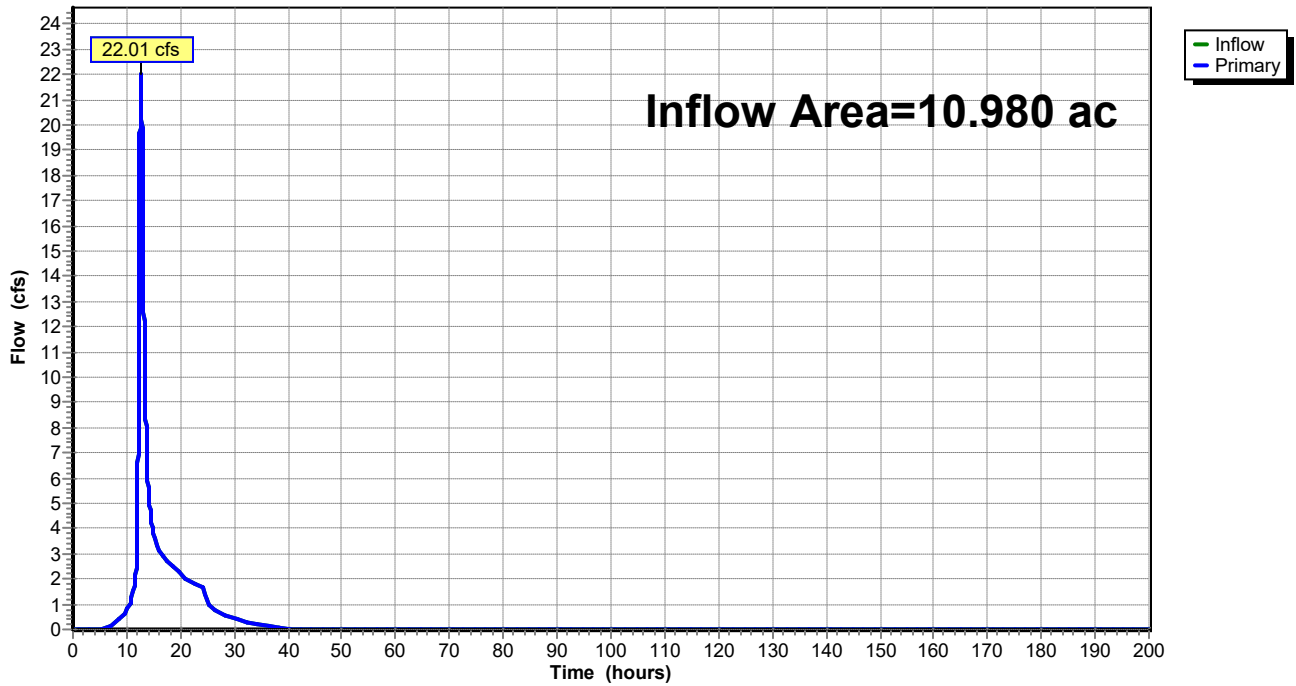
Summary for Pond 45P: US-33 (Indian Run)

Inflow Area = 10.980 ac, 52.19% Impervious, Inflow Depth = 5.67" for 50-yr event
Inflow = 22.01 cfs @ 12.62 hrs, Volume= 5.189 af
Primary = 22.01 cfs @ 12.62 hrs, Volume= 5.189 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs

Pond 45P: US-33 (Indian Run)

Hydrograph



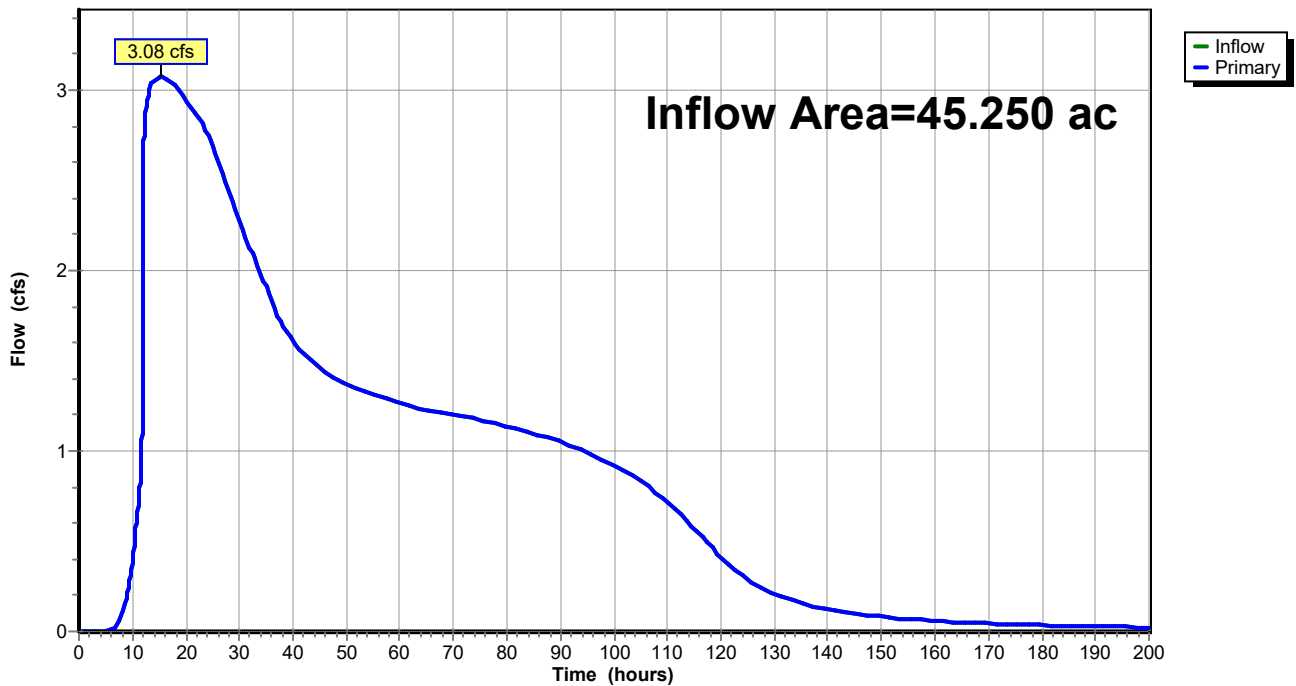
Summary for Pond 46P: University Blvd (Cosgray Ditch)

Inflow Area = 45.250 ac, 78.00% Impervious, Inflow Depth > 3.64" for 50-yr event
Inflow = 3.08 cfs @ 15.32 hrs, Volume= 13.730 af
Primary = 3.08 cfs @ 15.32 hrs, Volume= 13.730 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs

Pond 46P: University Blvd (Cosgray Ditch)

Hydrograph



Summary for Pond 63P: Basin 2

Inflow Area = 30.290 ac, 79.48% Impervious, Inflow Depth > 4.18" for 50-yr event
 Inflow = 74.52 cfs @ 11.96 hrs, Volume= 10.547 af
 Outflow = 2.61 cfs @ 15.69 hrs, Volume= 10.508 af, Atten= 97%, Lag= 223.7 min
 Primary = 1.27 cfs @ 39.23 hrs, Volume= 8.693 af
 Secondary = 1.60 cfs @ 15.64 hrs, Volume= 1.814 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 929.26' @ 15.64 hrs Surf.Area= 0.948 ac Storage= 2.788 af

Plug-Flow detention time= 940.0 min calculated for 10.507 af (100% of inflow)
 Center-of-Mass det. time= 908.1 min (3,141.8 - 2,233.7)

Volume	Invert	Avail.Storage	Storage Description
#1	925.70'	3.520 af	Basin 2 Storage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.70	0.620	0.000	0.000
926.00	0.650	0.190	0.190
927.00	0.740	0.695	0.885
928.00	0.830	0.785	1.670
929.00	0.920	0.875	2.545
930.00	1.030	0.975	3.520

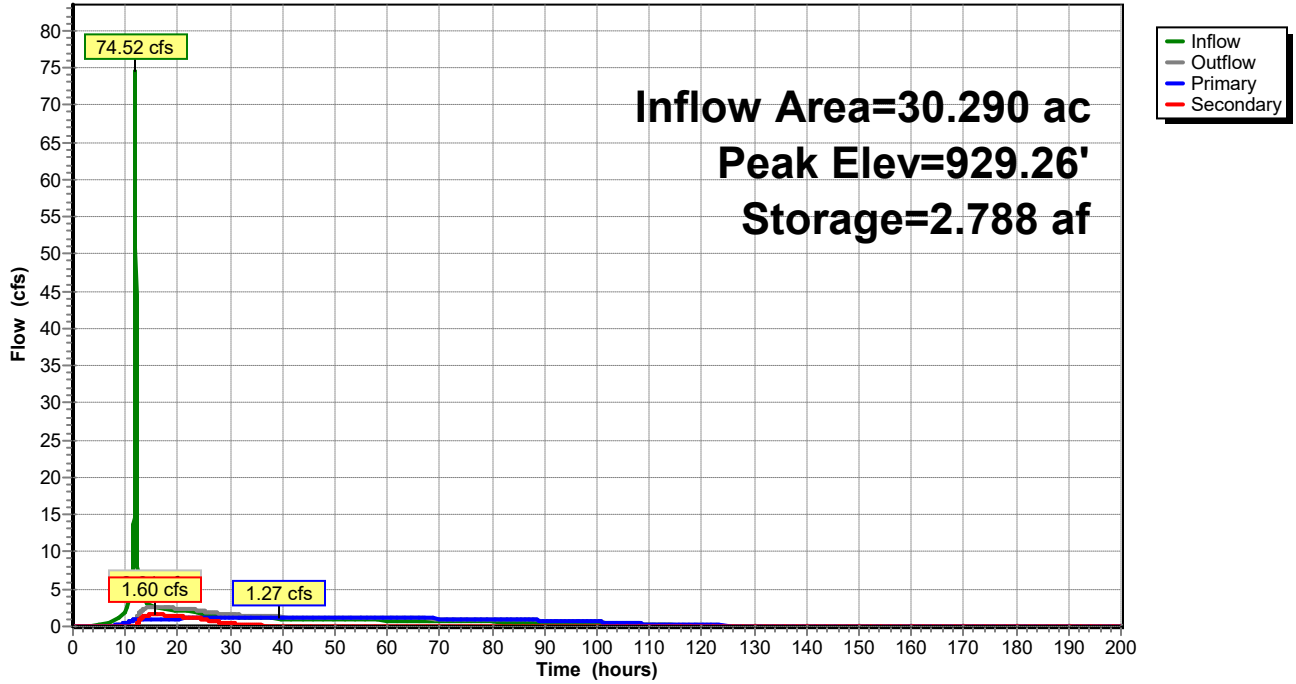
Device	Routing	Invert	Outlet Devices
#1	Primary	925.70'	6.0" Vert. Outlet to Basin 1 C= 0.600 Limited to weir flow at low heads
#2	Secondary	928.50'	12.0" Round Culvert L= 77.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 928.50' / 928.00' S= 0.0065 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.27 cfs @ 39.23 hrs HW=928.61' TW=926.80' (Dynamic Tailwater)
 ↑1=Outlet to Basin 1 (Orifice Controls 1.27 cfs @ 6.47 fps)

Secondary OutFlow Max=1.60 cfs @ 15.64 hrs HW=929.26' TW=0.00' (Dynamic Tailwater)
 ↑2=Culvert (Barrel Controls 1.60 cfs @ 3.47 fps)

Pond 63P: Basin 2

Hydrograph



Summary for Subcatchment 1S: Pre-Runoff to US-33 Ditch

Runoff = 39.70 cfs @ 13.39 hrs, Volume= 10.710 af, Depth= 3.55"

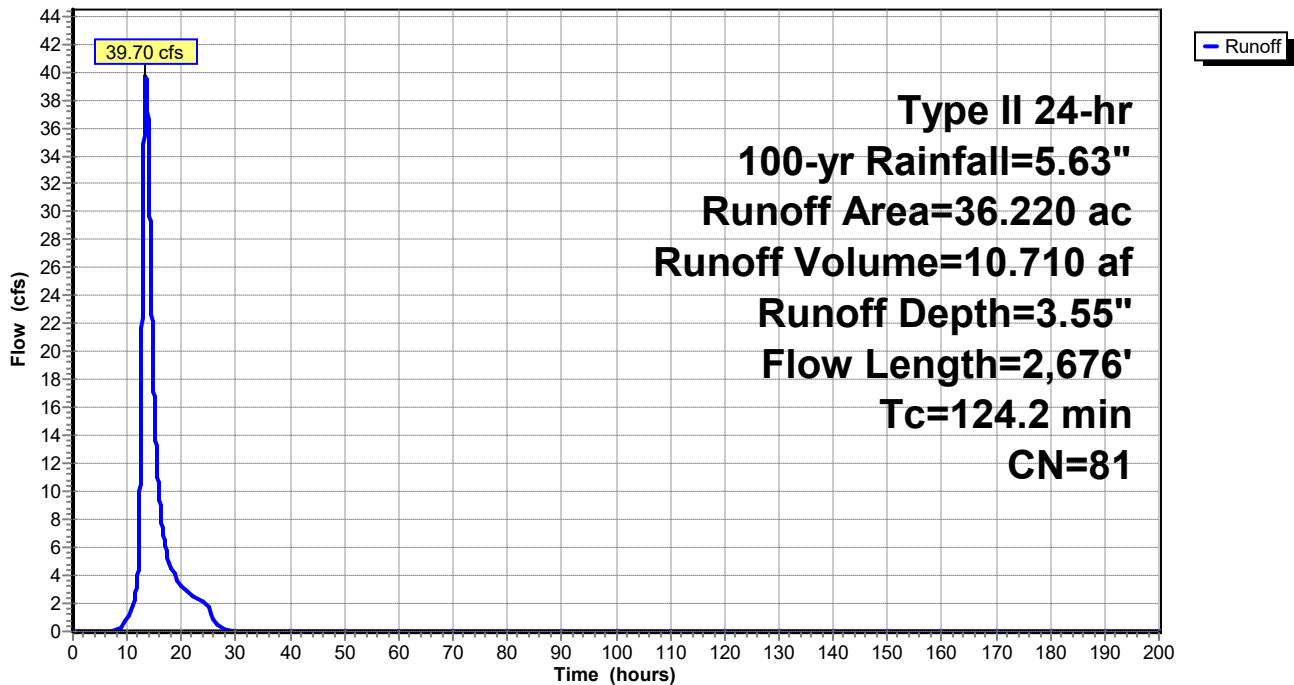
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-yr Rainfall=5.63"

Area (ac)	CN	Description
27.850	78	Row crops, C&T, Good, HSG C
2.610	72	Woods/grass comb., Good, HSG C
* 5.760	98	Impervious Areas
36.220	81	Weighted Average
30.460		84.10% Pervious Area
5.760		15.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2	100	0.0112	0.14		Sheet Flow, A to B Sheet Flow Range n= 0.130 P2= 2.63"
112.0	2,576	0.0030	0.38		Shallow Concentrated Flow, B to C Overland Flow Short Grass Pasture Kv= 7.0 fps
124.2	2,676	Total			

Subcatchment 1S: Pre-Runoff to US-33 Ditch

Hydrograph



Summary for Subcatchment 3S: Post Offsite Runoff to US-33 Ditch

Runoff = 24.47 cfs @ 12.62 hrs, Volume= 3.907 af, Depth= 4.27"

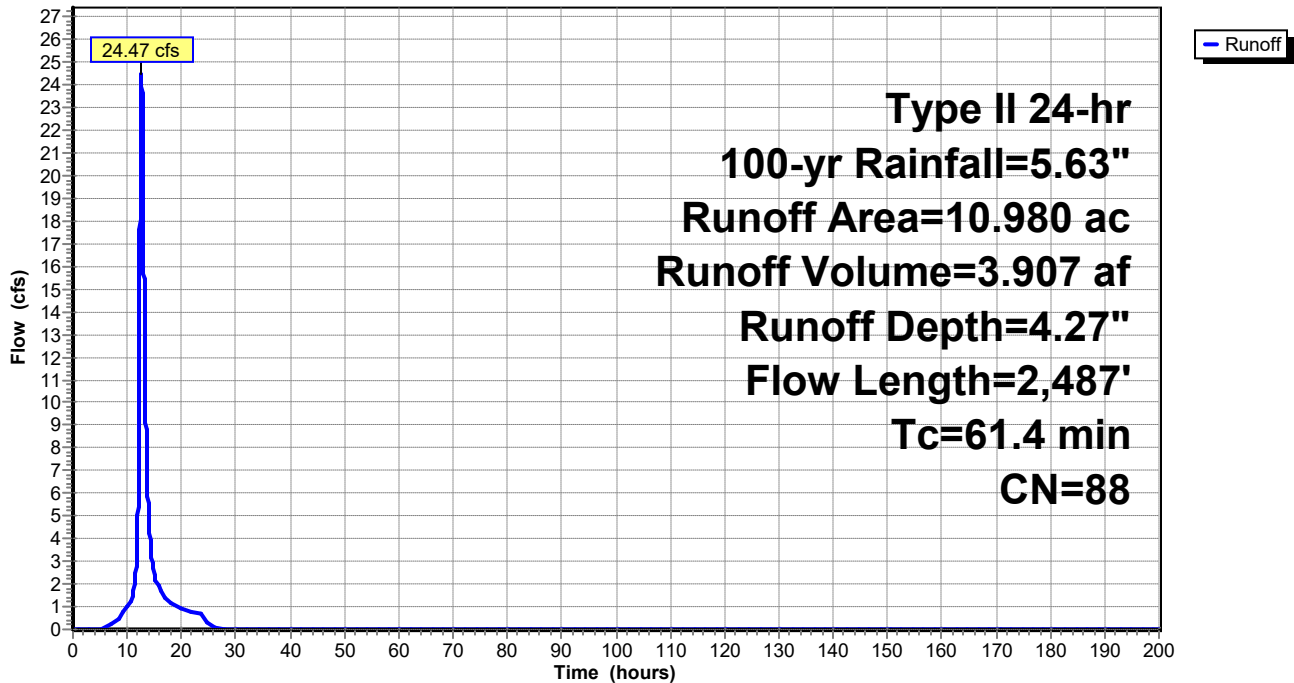
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-yr Rainfall=5.63"

Area (ac)	CN	Description
4.140	78	Row crops, C&T, Good, HSG C
1.110	72	Woods/grass comb., Good, HSG C
* 5.730	98	Impervious Areas
10.980	88	Weighted Average
5.250		47.81% Pervious Area
5.730		52.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.5	100	0.0096	0.11		Sheet Flow, A to B Sheet Flow Grass: Short n= 0.150 P2= 2.63"
46.9	2,387	0.0032	0.85		Shallow Concentrated Flow, B to C Overland Flow Grassed Waterway Kv= 15.0 fps
61.4	2,487	Total			

Subcatchment 3S: Post Offsite Runoff to US-33 Ditch

Hydrograph



Summary for Subcatchment 26S: Subarea 2

Runoff = 82.82 cfs @ 11.96 hrs, Volume= 4.133 af, Depth= 4.71"

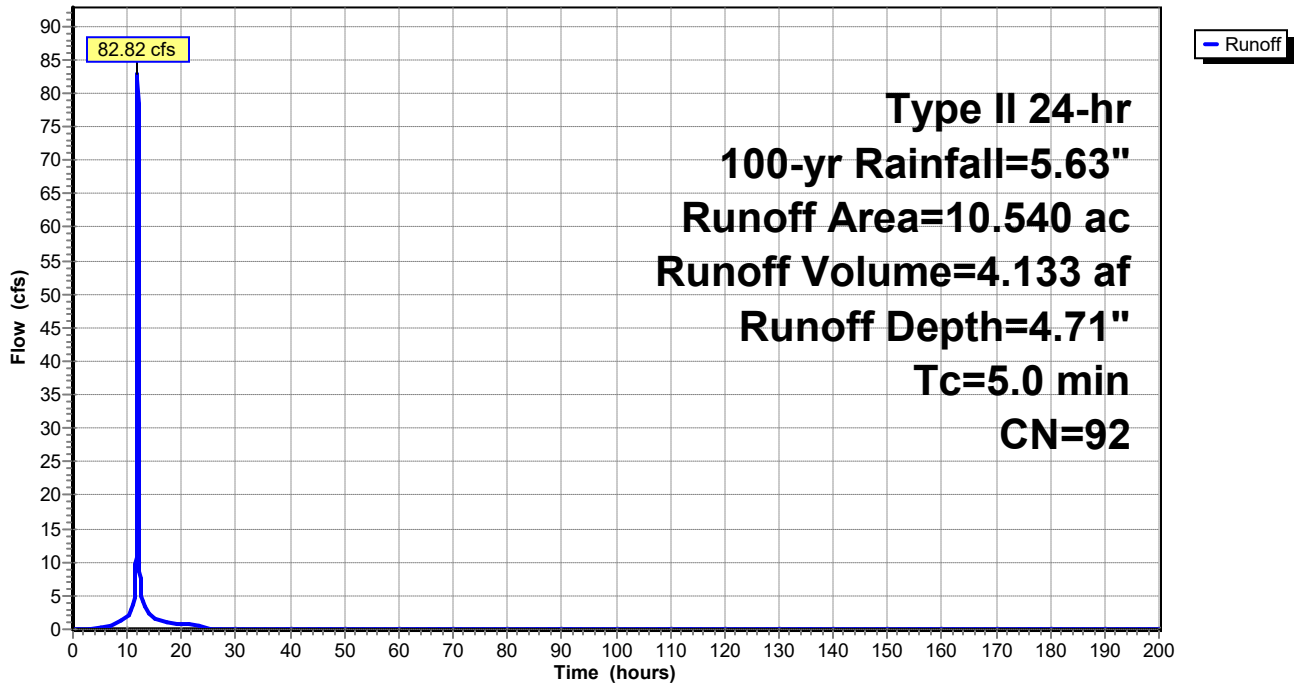
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-yr Rainfall=5.63"

Area (ac)	CN	Description
7.285	98	Paved parking, HSG C
2.635	74	>75% Grass cover, Good, HSG C
0.620	98	Water Surface, HSG C
10.540	92	Weighted Average
2.635		25.00% Pervious Area
7.905		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 26S: Subarea 2

Hydrograph



Summary for Subcatchment 28S: Subarea 3

Runoff = 48.56 cfs @ 11.96 hrs, Volume= 2.424 af, Depth= 4.71"

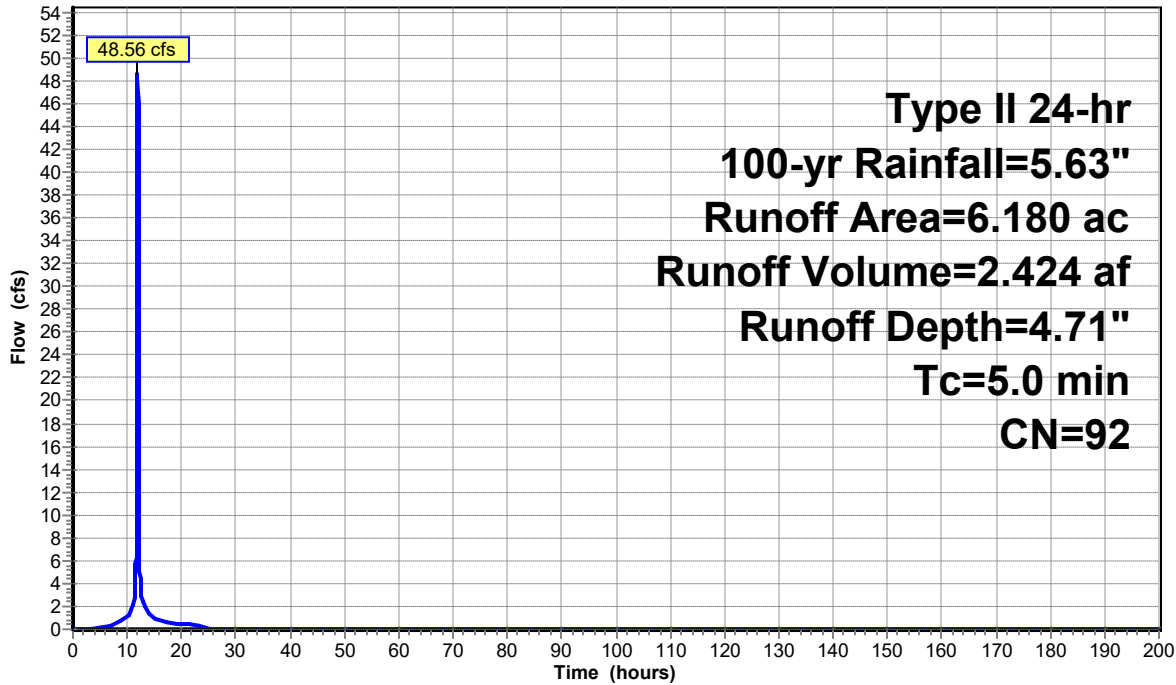
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-yr Rainfall=5.63"

Area (ac)	CN	Description
4.175	98	Paved parking, HSG C
1.545	74	>75% Grass cover, Good, HSG C
0.460	98	Water Surface, HSG C
6.180	92	Weighted Average
1.545		25.00% Pervious Area
4.635		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 28S: Subarea 3

Hydrograph



Summary for Subcatchment 33S: Subarea 1

Runoff = 117.56 cfs @ 11.96 hrs, Volume= 5.867 af, Depth= 4.71"

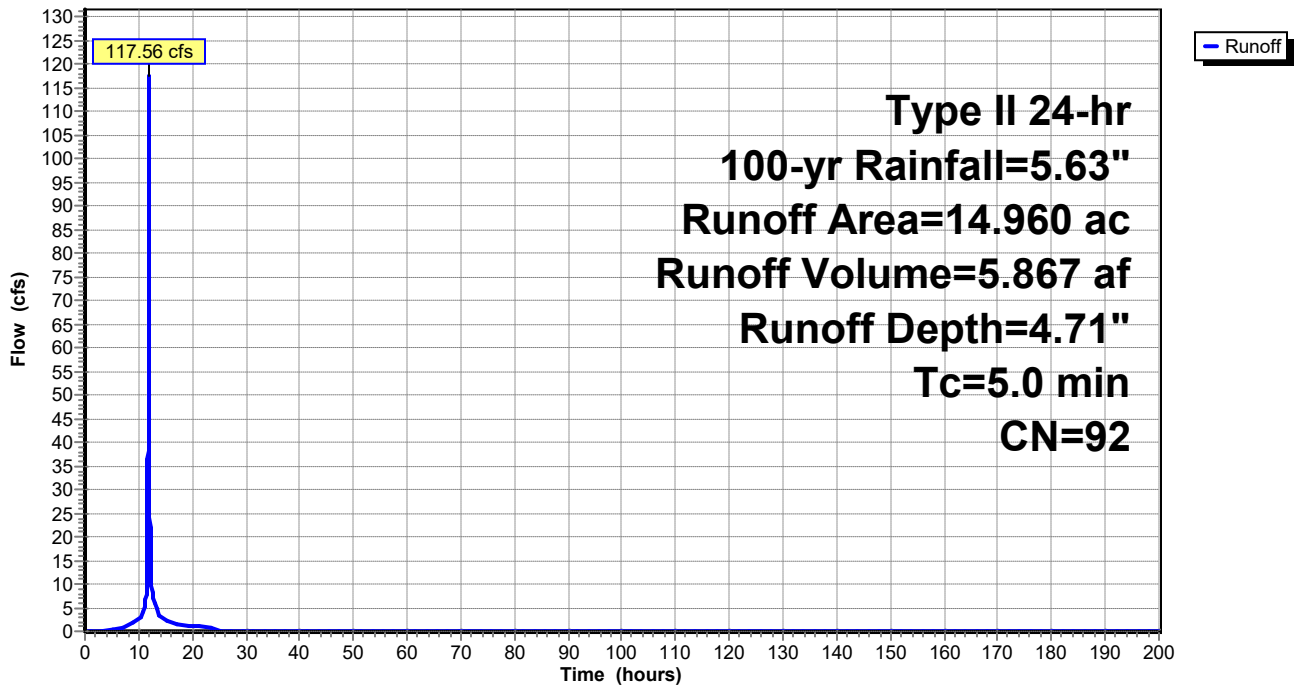
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Type II 24-hr 100-yr Rainfall=5.63"

Area (ac)	CN	Description
10.210	98	Paved parking, HSG C
3.740	74	>75% Grass cover, Good, HSG C
1.010	98	Water Surface, HSG C
14.960	92	Weighted Average
3.740		25.00% Pervious Area
11.220		75.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 33S: Subarea 1

Hydrograph



Summary for Subcatchment 36S: Offsite 10.1

Runoff = 99.11 cfs @ 11.99 hrs, Volume= 5.575 af, Depth= 4.93"

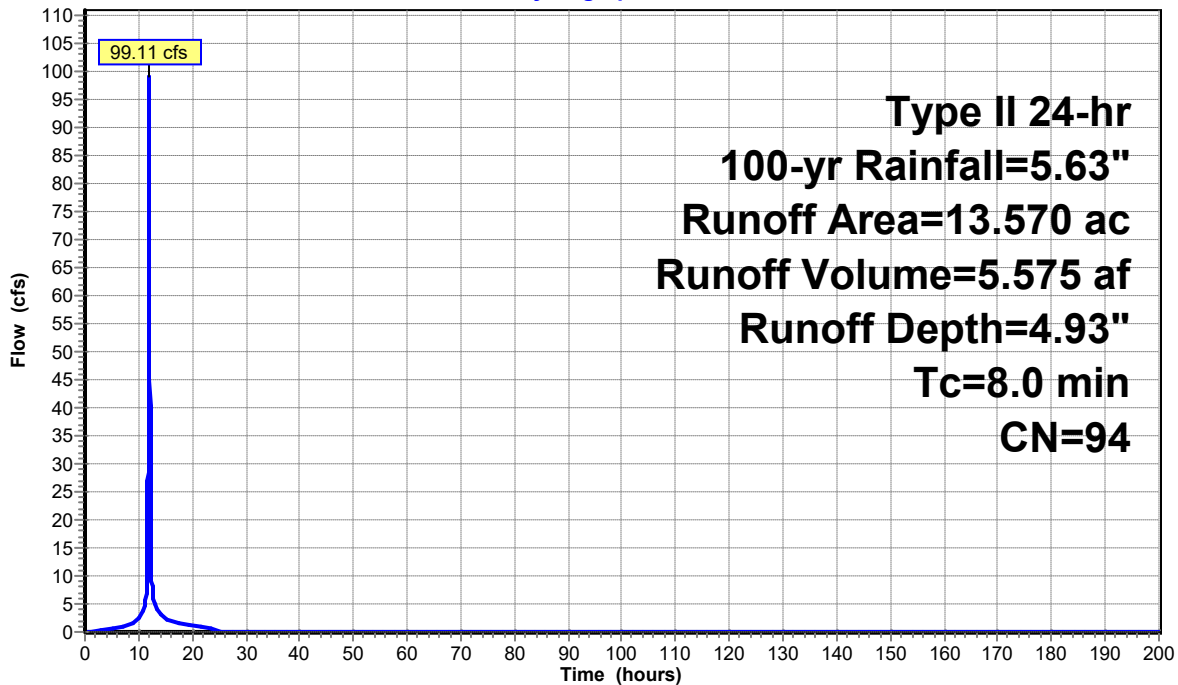
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-yr Rainfall=5.63"

Area (ac)	CN	Description
13.570	94	Urban commercial, 85% imp, HSG C
2.036		15.00% Pervious Area
11.534		85.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0					Direct Entry,

Subcatchment 36S: Offsite 10.1

Hydrograph



Summary for Pond 30P: Basin 1

Inflow Area = 45.250 ac, 78.00% Impervious, Inflow Depth > 4.01" for 100-yr event
 Inflow = 118.53 cfs @ 11.96 hrs, Volume= 15.139 af
 Outflow = 3.42 cfs @ 15.07 hrs, Volume= 15.046 af, Atten= 97%, Lag= 186.6 min
 Primary = 3.42 cfs @ 15.07 hrs, Volume= 15.046 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 928.52' @ 15.07 hrs Surf.Area= 1.418 ac Storage= 4.257 af

Plug-Flow detention time= 886.4 min calculated for 15.046 af (99% of inflow)
 Center-of-Mass det. time= 838.1 min (3,421.4 - 2,583.3)

Volume	Invert	Avail.Storage	Storage Description
#1	925.00'	5.717 af	Basin 1 Storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.00	1.010	0.000	0.000
926.00	1.120	1.065	1.065
927.00	1.230	1.175	2.240
928.00	1.350	1.290	3.530
929.00	1.480	1.415	4.945
929.50	1.610	0.773	5.717

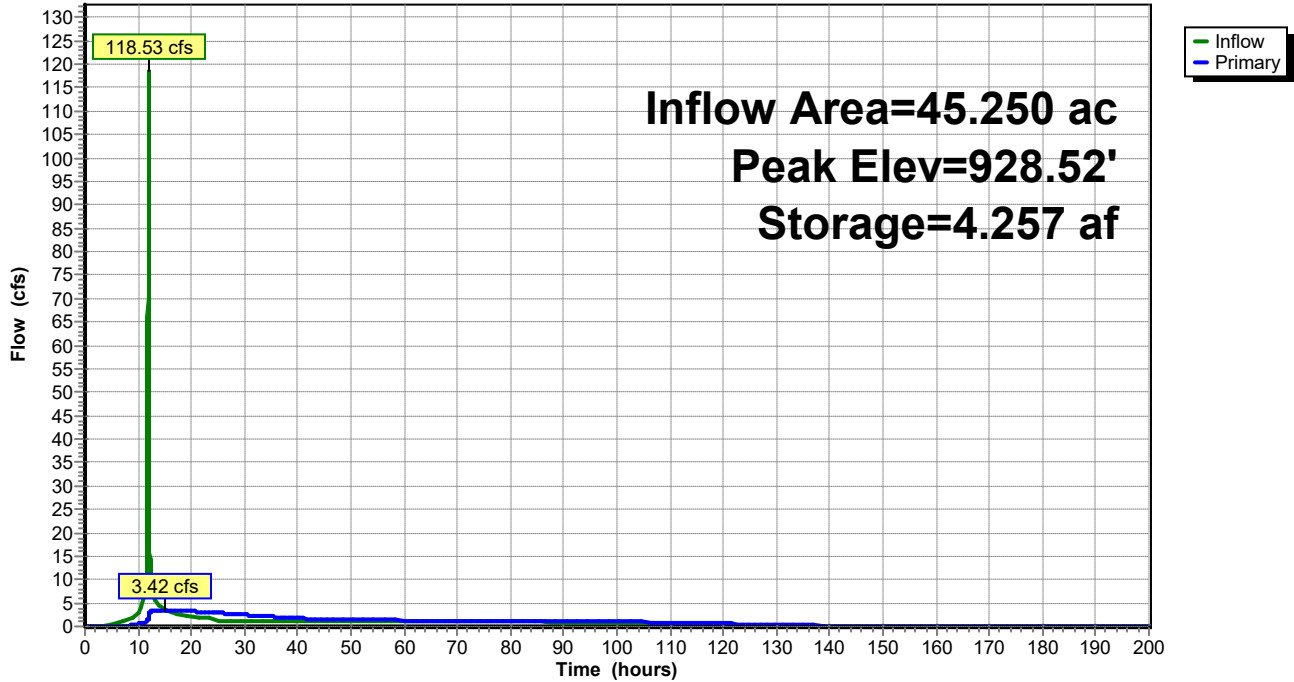
Device	Routing	Invert	Outlet Devices
#1	Primary	925.00'	6.5" Vert. WQ Orifice C= 0.600 Limited to weir flow at low heads
#2	Primary	926.50'	6.0" W x 5.0" H Vert. Window C= 0.600 Limited to weir flow at low heads
#3	Primary	928.50'	3.0' long x 0.5' breadth Broad-Crested Rectangular Weir X 2.00 Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=3.42 cfs @ 15.07 hrs HW=928.52' TW=0.00' (Dynamic Tailwater)

- 1=WQ Orifice (Orifice Controls 2.00 cfs @ 8.69 fps)
- 2=Window (Orifice Controls 1.35 cfs @ 6.49 fps)
- 3=Broad-Crested Rectangular Weir (Weir Controls 0.07 cfs @ 0.44 fps)

Pond 30P: Basin 1

Hydrograph



Summary for Pond 31P: Basin 3

Inflow Area = 19.750 ac, 81.87% Impervious, Inflow Depth > 4.82" for 100-yr event
 Inflow = 49.22 cfs @ 11.96 hrs, Volume= 7.937 af
 Outflow = 1.64 cfs @ 21.71 hrs, Volume= 7.922 af, Atten= 97%, Lag= 585.3 min
 Primary = 1.64 cfs @ 21.71 hrs, Volume= 7.922 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 930.04' @ 18.13 hrs Surf.Area= 0.789 ac Storage= 1.840 af

Plug-Flow detention time= 597.1 min calculated for 7.922 af (100% of inflow)
 Center-of-Mass det. time= 580.1 min (3,085.6 - 2,505.5)

Volume	Invert	Avail.Storage	Storage Description
#1	927.00'	2.710 af	Basin 3 Storage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
927.00	0.460	0.000	0.000
928.00	0.540	0.500	0.500
929.00	0.650	0.595	1.095
930.00	0.780	0.715	1.810
931.00	1.020	0.900	2.710

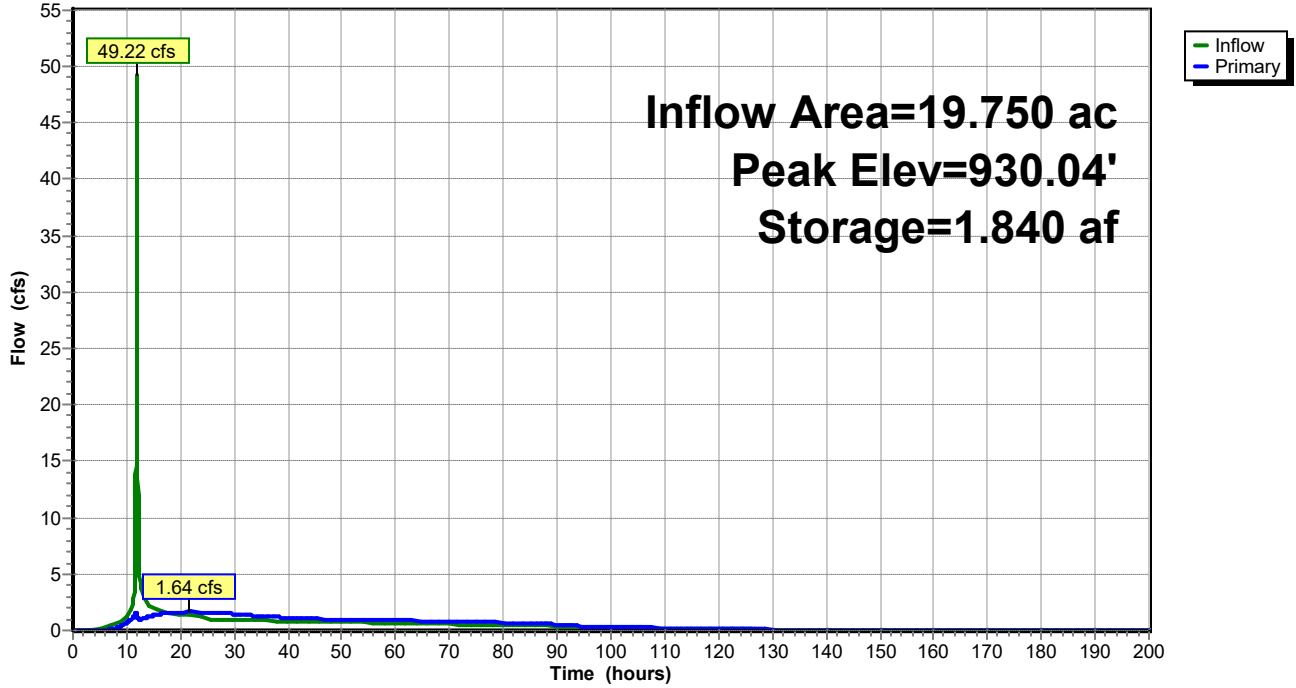
Device	Routing	Invert	Outlet Devices
#1	Primary	927.00'	5.0" Vert. Outlet to Basin 2 X 3.00 C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.64 cfs @ 21.71 hrs HW=929.97' TW=929.28' (Dynamic Tailwater)

↑1=Outlet to Basin 2 (Orifice Controls 1.64 cfs @ 4.01 fps)

Pond 31P: Basin 3

Hydrograph



Summary for Pond 37P: Dummy Basin 10.1

Inflow Area = 13.570 ac, 85.00% Impervious, Inflow Depth = 4.93" for 100-yr event
 Inflow = 99.11 cfs @ 11.99 hrs, Volume= 5.575 af
 Outflow = 0.97 cfs @ 20.74 hrs, Volume= 5.514 af, Atten= 99%, Lag= 525.0 min
 Primary = 0.97 cfs @ 20.74 hrs, Volume= 5.514 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 933.27' @ 20.74 hrs Surf.Area= 2.000 ac Storage= 4.542 af

Plug-Flow detention time= 2,504.7 min calculated for 5.513 af (99% of inflow)
 Center-of-Mass det. time= 2,497.8 min (3,266.2 - 768.5)

Volume	Invert	Avail.Storage	Storage Description
#1	931.00'	8.000 af	Dummy Basin (Prismatic) Listed below (Recalc)

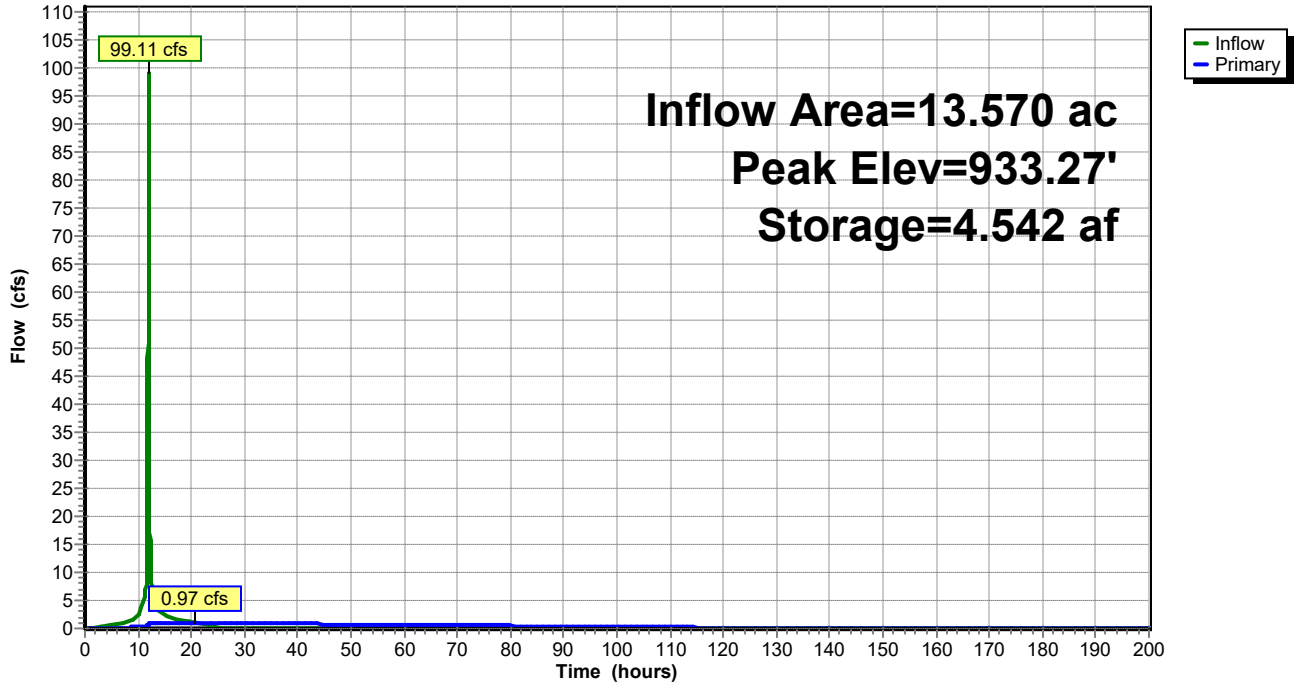
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
931.00	2.000	0.000	0.000
935.00	2.000	8.000	8.000

Device	Routing	Invert	Outlet Devices
#1	Primary	931.00'	2.5" Vert. WQ Orifice X 4.00 C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.97 cfs @ 20.74 hrs HW=933.27' TW=930.00' (Dynamic Tailwater)
 ↑1=WQ Orifice (Orifice Controls 0.97 cfs @ 7.09 fps)

Pond 37P: Dummy Basin 10.1

Hydrograph



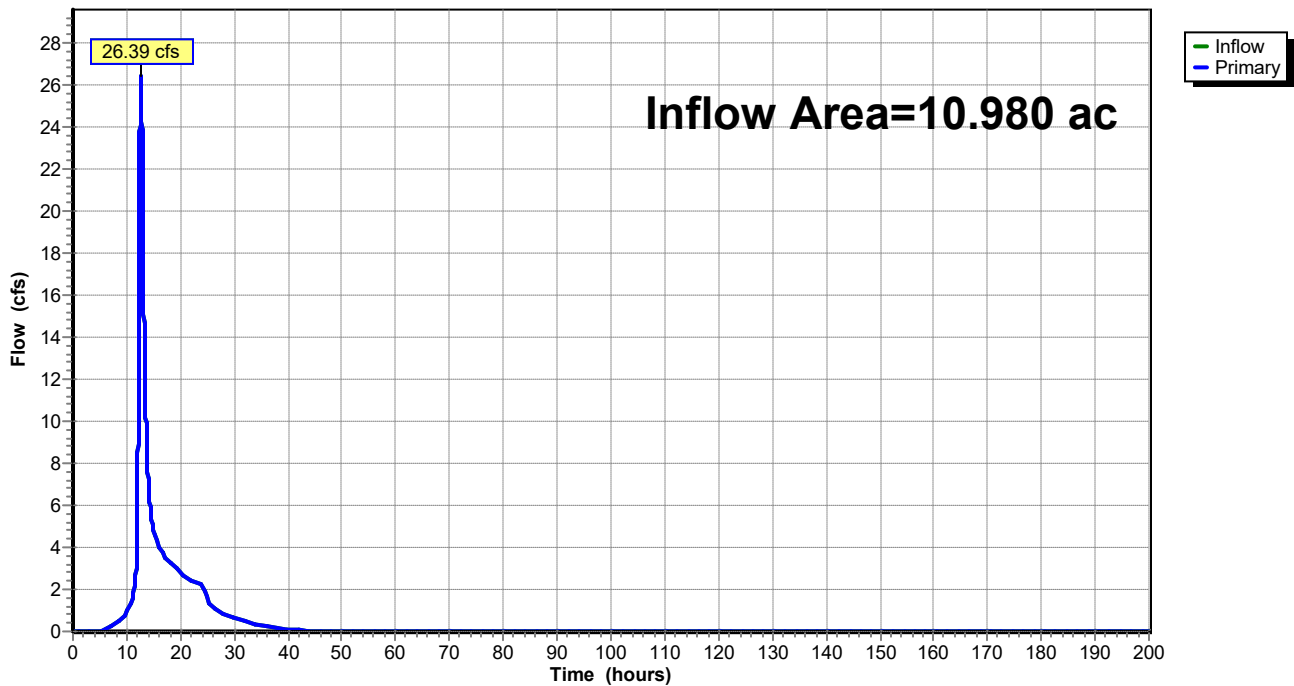
Summary for Pond 45P: US-33 (Indian Run)

Inflow Area = 10.980 ac, 52.19% Impervious, Inflow Depth = 7.27" for 100-yr event
Inflow = 26.39 cfs @ 12.62 hrs, Volume= 6.648 af
Primary = 26.39 cfs @ 12.62 hrs, Volume= 6.648 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs

Pond 45P: US-33 (Indian Run)

Hydrograph



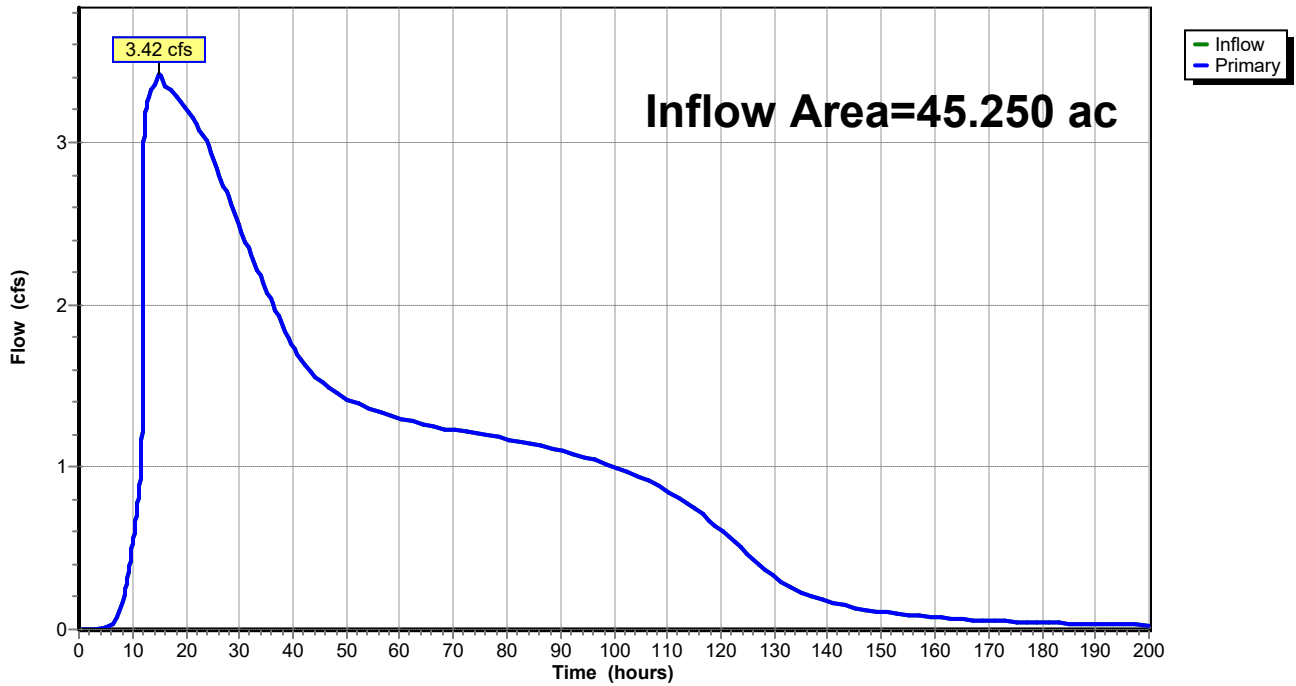
Summary for Pond 46P: University Blvd (Cosgray Ditch)

Inflow Area = 45.250 ac, 78.00% Impervious, Inflow Depth > 3.99" for 100-yr event
Inflow = 3.42 cfs @ 15.07 hrs, Volume= 15.046 af
Primary = 3.42 cfs @ 15.07 hrs, Volume= 15.046 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs

Pond 46P: University Blvd (Cosgray Ditch)

Hydrograph



Summary for Pond 63P: Basin 2

Inflow Area = 30.290 ac, 79.48% Impervious, Inflow Depth > 4.78" for 100-yr event
 Inflow = 84.21 cfs @ 11.96 hrs, Volume= 12.056 af
 Outflow = 3.31 cfs @ 14.09 hrs, Volume= 12.013 af, Atten= 96%, Lag= 128.2 min
 Primary = 1.28 cfs @ 42.29 hrs, Volume= 9.272 af
 Secondary = 2.37 cfs @ 14.32 hrs, Volume= 2.740 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.01 hrs
 Peak Elev= 929.50' @ 14.32 hrs Surf.Area= 0.975 ac Storage= 3.015 af

Plug-Flow detention time= 902.9 min calculated for 12.013 af (100% of inflow)
 Center-of-Mass det. time= 872.5 min (3,165.8 - 2,293.3)

Volume	Invert	Avail.Storage	Storage Description
#1	925.70'	3.520 af	Basin 2 Storage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
925.70	0.620	0.000	0.000
926.00	0.650	0.190	0.190
927.00	0.740	0.695	0.885
928.00	0.830	0.785	1.670
929.00	0.920	0.875	2.545
930.00	1.030	0.975	3.520

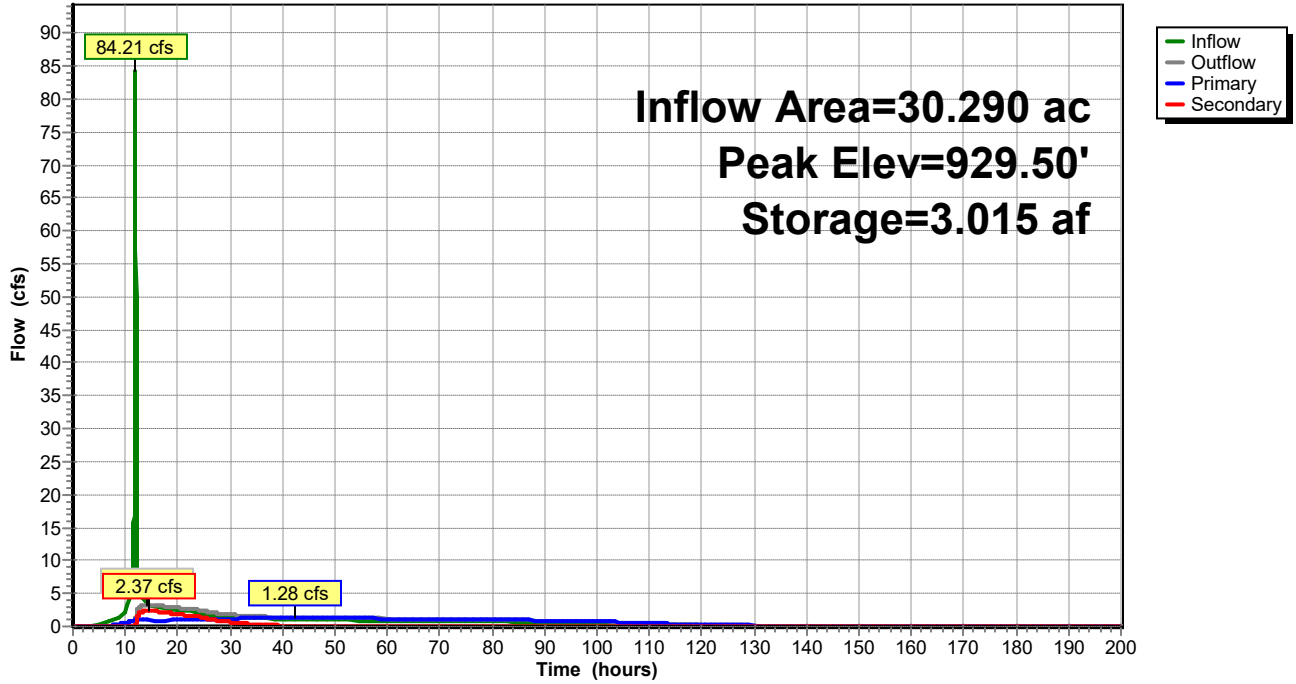
Device	Routing	Invert	Outlet Devices
#1	Primary	925.70'	6.0" Vert. Outlet to Basin 1 C= 0.600 Limited to weir flow at low heads
#2	Secondary	928.50'	12.0" Round Culvert L= 77.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 928.50' / 928.00' S= 0.0065 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.28 cfs @ 42.29 hrs HW=928.62' TW=926.80' (Dynamic Tailwater)
 ↑1=Outlet to Basin 1 (Orifice Controls 1.28 cfs @ 6.51 fps)

Secondary OutFlow Max=2.37 cfs @ 14.32 hrs HW=929.50' TW=0.00' (Dynamic Tailwater)
 ↑2=Culvert (Barrel Controls 2.37 cfs @ 3.78 fps)

Pond 63P: Basin 2

Hydrograph





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APPENDIX E:

FlowMaster Calculations

Worksheet for Pre US-33 Ditch - 25yr

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Channel Slope	0.003 ft/ft
Discharge	27.71 cfs

Section Definitions

Station (ft)	Elevation (ft)
0+00	934.00
0+00	934.00
0+04	934.00
0+08	934.00
0+13	934.00
0+14	933.83
0+21	933.13
0+25	932.00
0+29	931.04
0+32	930.00
0+32	930.00
0+32	930.00
0+33	930.00
0+33	930.00
0+35	930.00
0+36	930.00
0+38	929.12
0+38	928.18
0+42	927.79
0+42	927.79
0+45	928.44
0+50	929.18
0+50	929.18
0+51	929.19
0+96	929.69
1+14	929.87
1+27	930.06
1+28	930.06

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00, 934.00)	(1+28, 930.06)	0.040

Options

Current Roughness Weighted Method	Pavlovskii's Method
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Worksheet for Pre US-33 Ditch - 25yr

Options

Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method

Results

Normal Depth	21.5 in
Elevation Range	927.8 to 934.0 ft
Flow Area	22.6 ft ²
Wetted Perimeter	50.7 ft
Hydraulic Radius	5.4 in
Top Width	49.94 ft
Normal Depth	21.5 in
Critical Depth	12.5 in
Critical Slope	0.029 ft/ft
Velocity	1.23 ft/s
Velocity Head	0.02 ft
Specific Energy	1.81 ft
Froude Number	0.321
Flow Type	Subcritical

GVF Input Data

Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data

Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Downstream Velocity	0.00 ft/s
Upstream Velocity	0.00 ft/s
Normal Depth	21.5 in
Critical Depth	12.5 in
Channel Slope	0.003 ft/ft
Critical Slope	0.029 ft/ft

Worksheet for Pre US-33 Ditch - 50yr

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Channel Slope	0.003 ft/ft
Discharge	33.51 cfs

Section Definitions

Station (ft)		Elevation (ft)
	0+00	934.00
	0+00	934.00
	0+04	934.00
	0+08	934.00
	0+13	934.00
	0+14	933.83
	0+21	933.13
	0+25	932.00
	0+29	931.04
	0+32	930.00
	0+32	930.00
	0+32	930.00
	0+33	930.00
	0+33	930.00
	0+35	930.00
	0+36	930.00
	0+38	929.12
	0+38	928.18
	0+42	927.79
	0+42	927.79
	0+45	928.44
	0+50	929.18
	0+50	929.18
	0+51	929.19
	0+96	929.69
	1+14	929.87
	1+27	930.06
	1+28	930.06

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00, 934.00)	(1+28, 930.06)	0.040

Options

Current Roughness Weighted Method	Pavlovskii's Method
-----------------------------------	---------------------

Worksheet for Pre US-33 Ditch - 50yr

Options

Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method

Results

Normal Depth	22.4 in
Elevation Range	927.8 to 934.0 ft
Flow Area	26.7 ft ²
Wetted Perimeter	57.8 ft
Hydraulic Radius	5.5 in
Top Width	57.08 ft
Normal Depth	22.4 in
Critical Depth	13.7 in
Critical Slope	0.028 ft/ft
Velocity	1.25 ft/s
Velocity Head	0.02 ft
Specific Energy	1.89 ft
Froude Number	0.323
Flow Type	Subcritical

GVF Input Data

Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data

Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Downstream Velocity	0.00 ft/s
Upstream Velocity	0.00 ft/s
Normal Depth	22.4 in
Critical Depth	13.7 in
Channel Slope	0.003 ft/ft
Critical Slope	0.028 ft/ft

Worksheet for Pre US-33 Ditch - 100yr

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Channel Slope	0.003 ft/ft
Discharge	39.70 cfs

Section Definitions

Station (ft)		Elevation (ft)
	0+00	934.00
	0+00	934.00
	0+04	934.00
	0+08	934.00
	0+13	934.00
	0+14	933.83
	0+21	933.13
	0+25	932.00
	0+29	931.04
	0+32	930.00
	0+32	930.00
	0+32	930.00
	0+33	930.00
	0+33	930.00
	0+35	930.00
	0+36	930.00
	0+38	929.12
	0+38	928.18
	0+42	927.79
	0+42	927.79
	0+45	928.44
	0+50	929.18
	0+50	929.18
	0+51	929.19
	0+96	929.69
	1+14	929.87
	1+27	930.06
	1+28	930.06

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00, 934.00)	(1+28, 930.06)	0.040

Options

Current Roughness Weighted Method	Pavlovskii's Method
-----------------------------------	---------------------

Worksheet for Pre US-33 Ditch - 100yr

Options

Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method

Results

Normal Depth	23.2 in
Elevation Range	927.8 to 934.0 ft
Flow Area	30.8 ft ²
Wetted Perimeter	64.3 ft
Hydraulic Radius	5.8 in
Top Width	63.57 ft
Normal Depth	23.2 in
Critical Depth	14.8 in
Critical Slope	0.028 ft/ft
Velocity	1.29 ft/s
Velocity Head	0.03 ft
Specific Energy	1.96 ft
Froude Number	0.326
Flow Type	Subcritical

GVF Input Data

Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data

Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Downstream Velocity	0.00 ft/s
Upstream Velocity	0.00 ft/s
Normal Depth	23.2 in
Critical Depth	14.8 in
Channel Slope	0.003 ft/ft
Critical Slope	0.028 ft/ft

Worksheet for Post US-33 Ditch - 25yr

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Channel Slope	0.003 ft/ft
Discharge	18.13 cfs

Section Definitions

Station (ft)		Elevation (ft)
	0+00	934.00
	0+00	934.00
	0+04	934.00
	0+08	934.00
	0+13	934.00
	0+14	933.83
	0+21	933.13
	0+25	932.00
	0+29	931.04
	0+32	930.00
	0+32	930.00
	0+32	930.00
	0+33	930.00
	0+33	930.00
	0+35	930.00
	0+36	930.00
	0+38	929.12
	0+38	928.18
	0+42	927.79
	0+42	927.79
	0+45	928.44
	0+50	929.18
	0+50	929.18
	0+51	929.19
	0+96	929.69
	1+14	929.87
	1+27	930.06
	1+28	930.06

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00, 934.00)	(1+28, 930.06)	0.040

Options

Current Roughness Weighted Method	Pavlovskii's Method
-----------------------------------	---------------------

Worksheet for Post US-33 Ditch - 25yr

Options

Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method

Results

Normal Depth	19.2 in
Elevation Range	927.8 to 934.0 ft
Flow Area	14.7 ft ²
Wetted Perimeter	32.8 ft
Hydraulic Radius	5.4 in
Top Width	32.10 ft
Normal Depth	19.2 in
Critical Depth	10.3 in
Critical Slope	0.031 ft/ft
Velocity	1.23 ft/s
Velocity Head	0.02 ft
Specific Energy	1.62 ft
Froude Number	0.321
Flow Type	Subcritical

GVF Input Data

Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data

Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Downstream Velocity	0.00 ft/s
Upstream Velocity	0.00 ft/s
Normal Depth	19.2 in
Critical Depth	10.3 in
Channel Slope	0.003 ft/ft
Critical Slope	0.031 ft/ft

Worksheet for Post US-33 Ditch - 50yr

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Channel Slope	0.003 ft/ft
Discharge	21.22 cfs

Section Definitions

	Station (ft)	Elevation (ft)
	0+00	934.00
	0+00	934.00
	0+04	934.00
	0+08	934.00
	0+13	934.00
	0+14	933.83
	0+21	933.13
	0+25	932.00
	0+29	931.04
	0+32	930.00
	0+32	930.00
	0+32	930.00
	0+33	930.00
	0+33	930.00
	0+35	930.00
	0+36	930.00
	0+38	929.12
	0+38	928.18
	0+42	927.79
	0+42	927.79
	0+45	928.44
	0+50	929.18
	0+50	929.18
	0+51	929.19
	0+96	929.69
	1+14	929.87
	1+27	930.06
	1+28	930.06

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00, 934.00)	(1+28, 930.06)	0.040

Options

Current Roughness Weighted Method	Pavlovskii's Method
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Worksheet for Post US-33 Ditch - 50yr

Options

Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method

Results

Normal Depth	20.1 in
Elevation Range	927.8 to 934.0 ft
Flow Area	17.5 ft ²
Wetted Perimeter	40.1 ft
Hydraulic Radius	5.2 in
Top Width	39.42 ft
Normal Depth	20.1 in
Critical Depth	11.1 in
Critical Slope	0.030 ft/ft
Velocity	1.21 ft/s
Velocity Head	0.02 ft
Specific Energy	1.70 ft
Froude Number	0.320
Flow Type	Subcritical

GVF Input Data

Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data

Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Downstream Velocity	0.00 ft/s
Upstream Velocity	0.00 ft/s
Normal Depth	20.1 in
Critical Depth	11.1 in
Channel Slope	0.003 ft/ft
Critical Slope	0.030 ft/ft

Worksheet for Post US-33 Ditch - 100yr

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Channel Slope	0.003 ft/ft
Discharge	24.47 cfs

Section Definitions

Station (ft)		Elevation (ft)
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	0+00	934.00
	0+04	934.00
	0+08	934.00
	0+13	934.00
	0+14	933.83
	0+21	933.13
	0+25	932.00
	0+29	931.04
	0+32	930.00
	0+32	930.00
	0+32	930.00
	0+33	930.00
	0+33	930.00
	0+35	930.00
	0+36	930.00
	0+38	929.12
	0+38	928.18
	0+42	927.79
	0+42	927.79
	0+45	928.44
	0+50	929.18
	0+50	929.18
	0+51	929.19
	0+96	929.69
	1+14	929.87
	1+27	930.06
	1+28	930.06

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00, 934.00)	(1+28, 930.06)	0.040

Options

Current Roughness Weighted Method	Pavlovskii's Method
-----------------------------------	---------------------

Worksheet for Post US-33 Ditch - 100yr

Options

Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method

Results

Normal Depth	20.9 in
Elevation Range	927.8 to 934.0 ft
Flow Area	20.2 ft ²
Wetted Perimeter	45.9 ft
Hydraulic Radius	5.3 in
Top Width	45.19 ft
Normal Depth	20.9 in
Critical Depth	11.8 in
Critical Slope	0.029 ft/ft
Velocity	1.21 ft/s
Velocity Head	0.02 ft
Specific Energy	1.76 ft
Froude Number	0.320
Flow Type	Subcritical

GVF Input Data

Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data

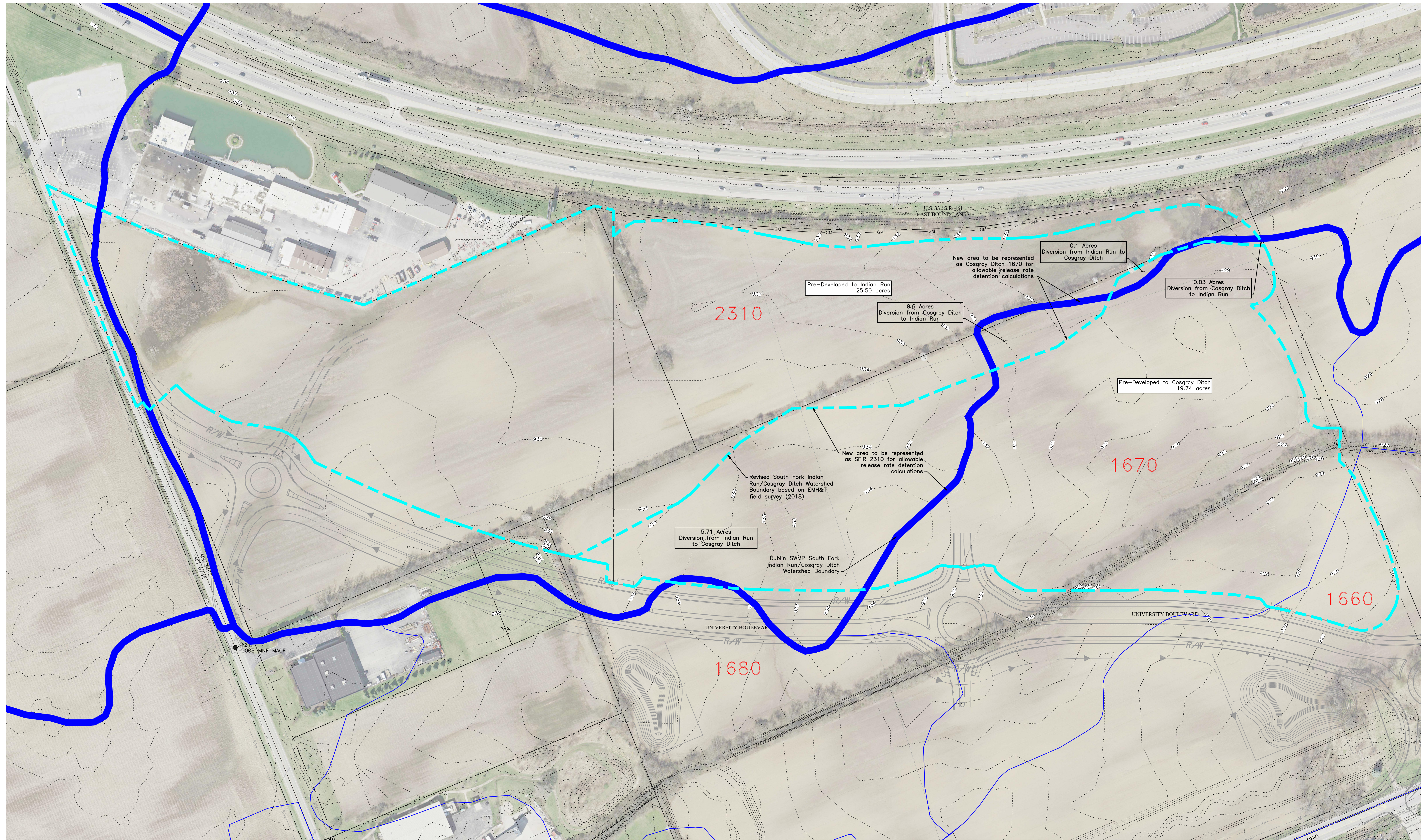
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Downstream Velocity	0.00 ft/s
Upstream Velocity	0.00 ft/s
Normal Depth	20.9 in
Critical Depth	11.8 in
Channel Slope	0.003 ft/ft
Critical Slope	0.029 ft/ft



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APPENDIX F:

Exhibits



LEGEND

--- Tributary Boundary

2310
1670

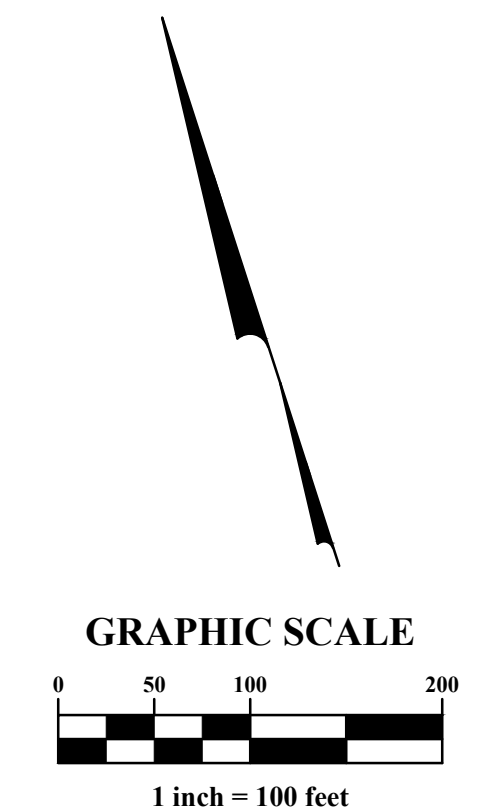
Dublin Master Plan
Watershed Boundaries

Pre-Developed to Indian Run
Tributary Area: 25.50 acres
Impervious Area: 0.00 acres
RCN: 78

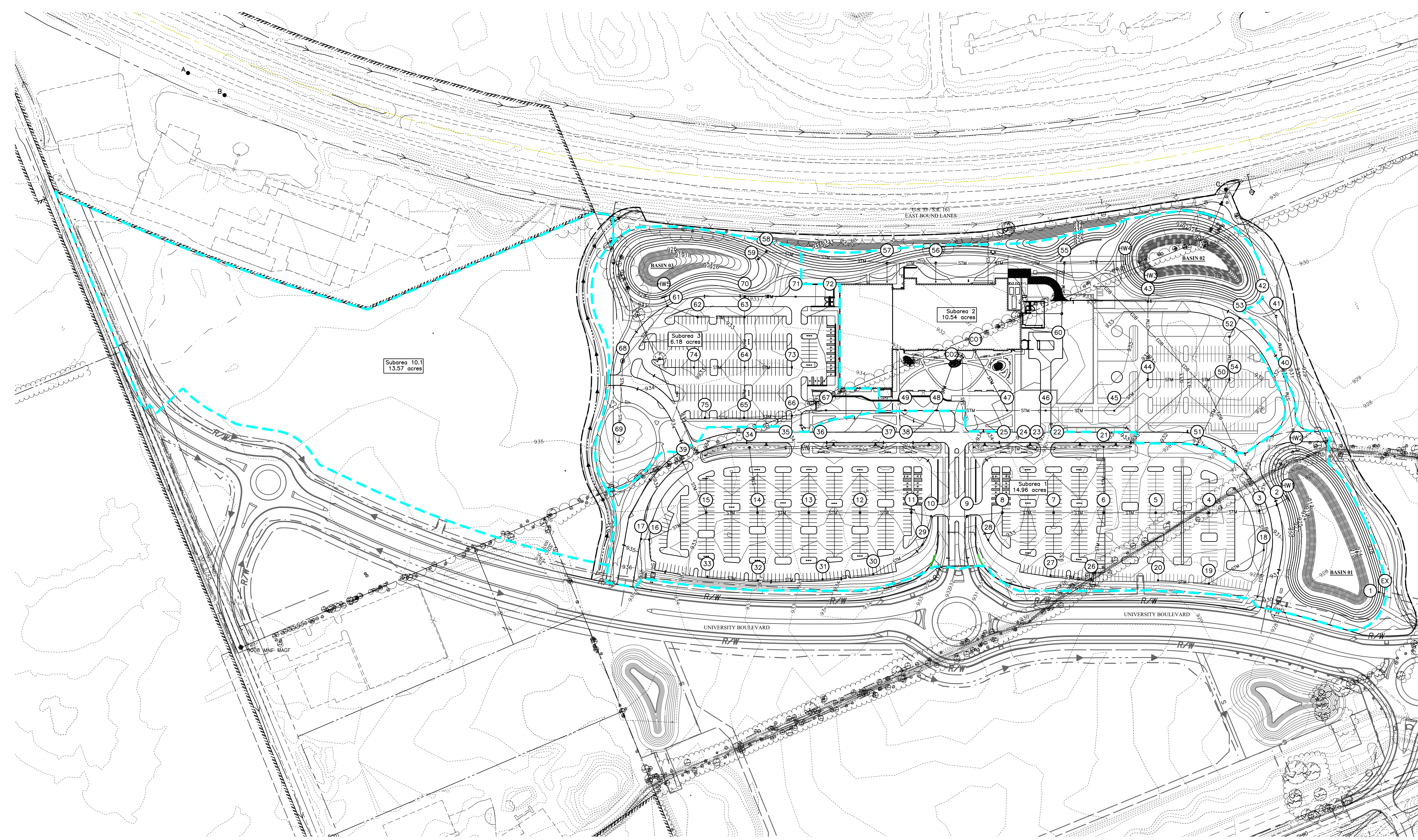
Pre-Developed to Cosgray Ditch
Tributary Area: 19.74 acres
Impervious Area: 0.00 acres
RCN: 78

EXHIBIT 1: PRE-DEVELOPED TRIBUTARY MAP

Drawn by: Checked by:
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NO.	DATE	DESCRIPTION
REVISIONS		
OSU PROJECT NUMBER 25-18138-00		
OSU WMC Regional Ambulatory Facility		
PREPARED BY THE OHIO STATE UNIVERSITY FACILITIES OPERATION AND DEVELOPMENT COLUMBUS, OHIO		
PREPARED BY DLR Group Westlake Reed Leskosky 1422 EUCLID AVENUE, SUITE 300 CLEVELAND, OHIO 44115		
OSU PROJ. NO. OSU-180636		DATE FEBRUARY 14, 2020

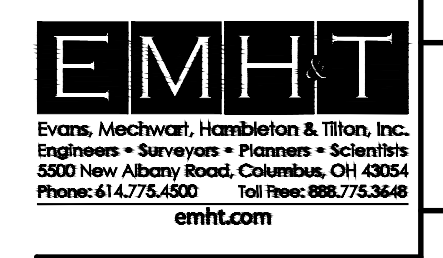


LEGEND
 --- Limits of grading/disturbance
 --- Tributary Boundary

Subarea 1 Tributary Area: 14.96 acres Impervious Area: 11.22 acres RCN: 92 Tc: 5 min	Basin 1 Normal Pool: 925.00 Top of Bank: 929.50
Subarea 2 Tributary Area: 10.54 acres Impervious Area: 7.91 acres RCN: 92 Tc: 5 min	Basin 2 Normal Pool: 925.70 Top of Bank: 930.00
Subarea 3 Tributary Area: 6.18 acres Impervious Area: 4.64 acres RCN: 92 Tc: 5 min	Basin 3 Normal Pool: 927.00 Top of Bank: 931.0
Subarea 10.1 Tributary Area: 13.57 Impervious Area: 11.535 RCN: 94 Tc: 8 min	

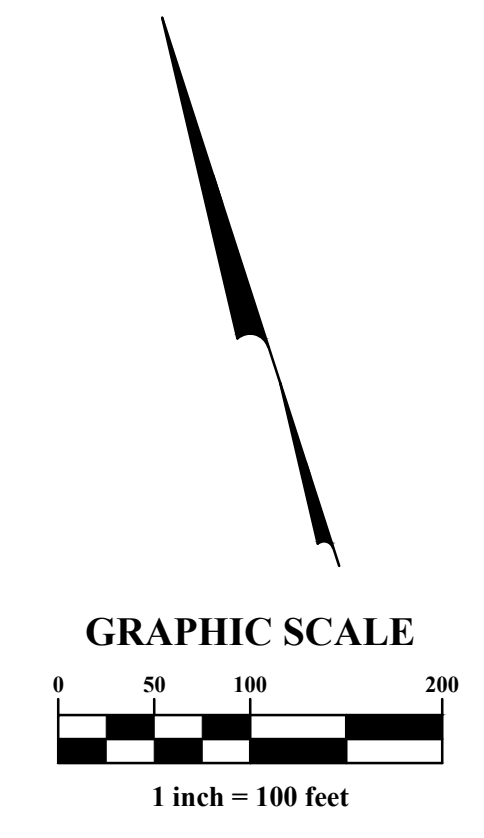
EXHIBIT 2: POST-DEVELOPED TRIBUTARY MAP

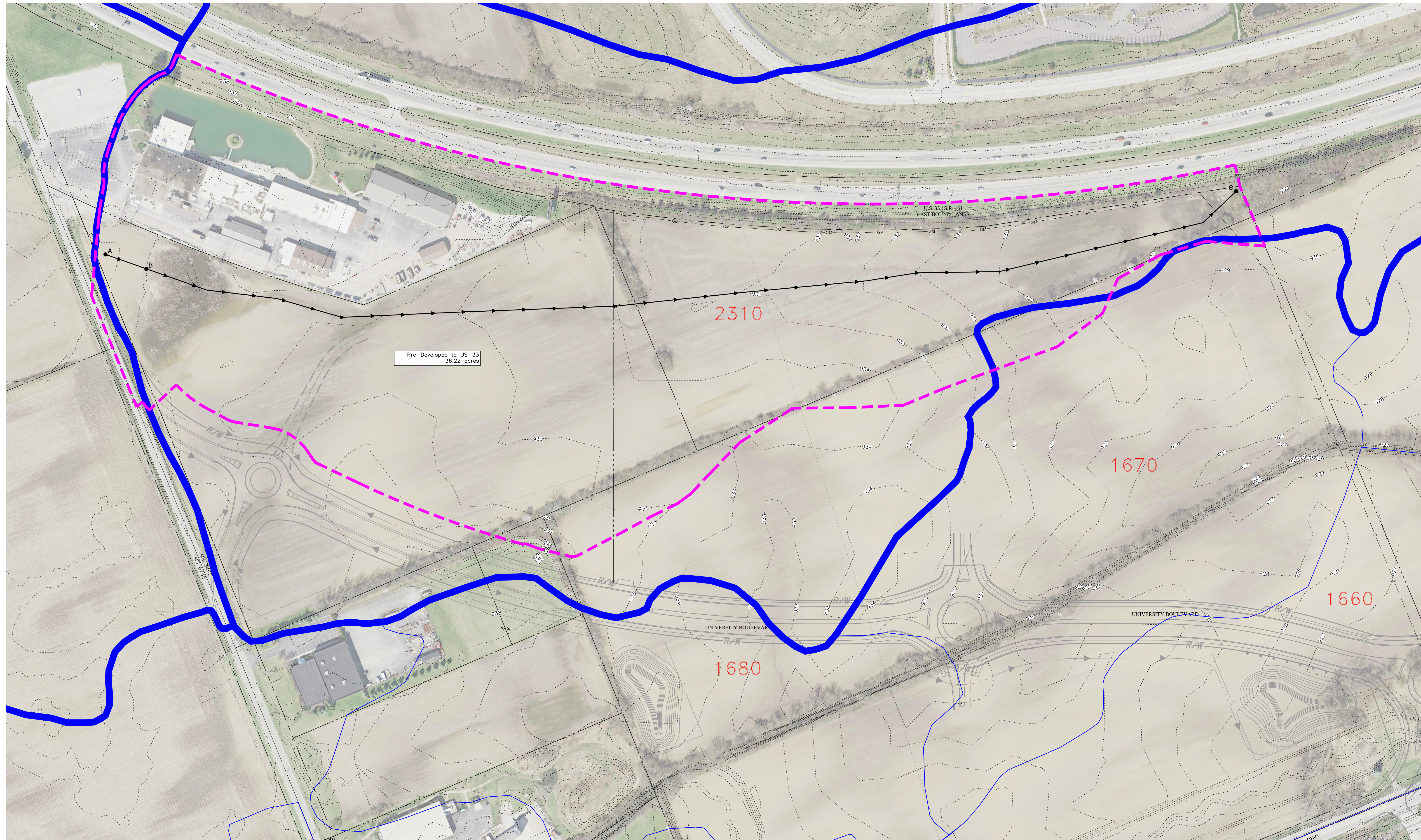
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OSU PROJECT NUMBER 25-18138-00		
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OSU PROJ. NO. OSU-180636		DATE FEBRUARY 14, 2020





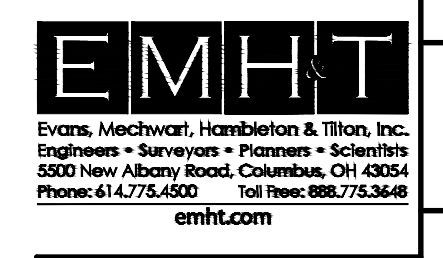
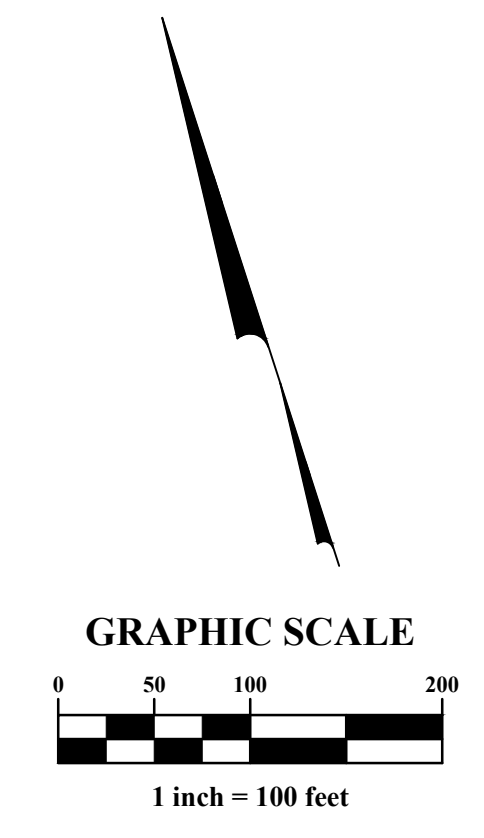
LEGEND

- US-33 South Swale Tributary Boundary
- Time of Concentration Path
- 2310
1670 Dublin Master Plan Watershed Boundaries

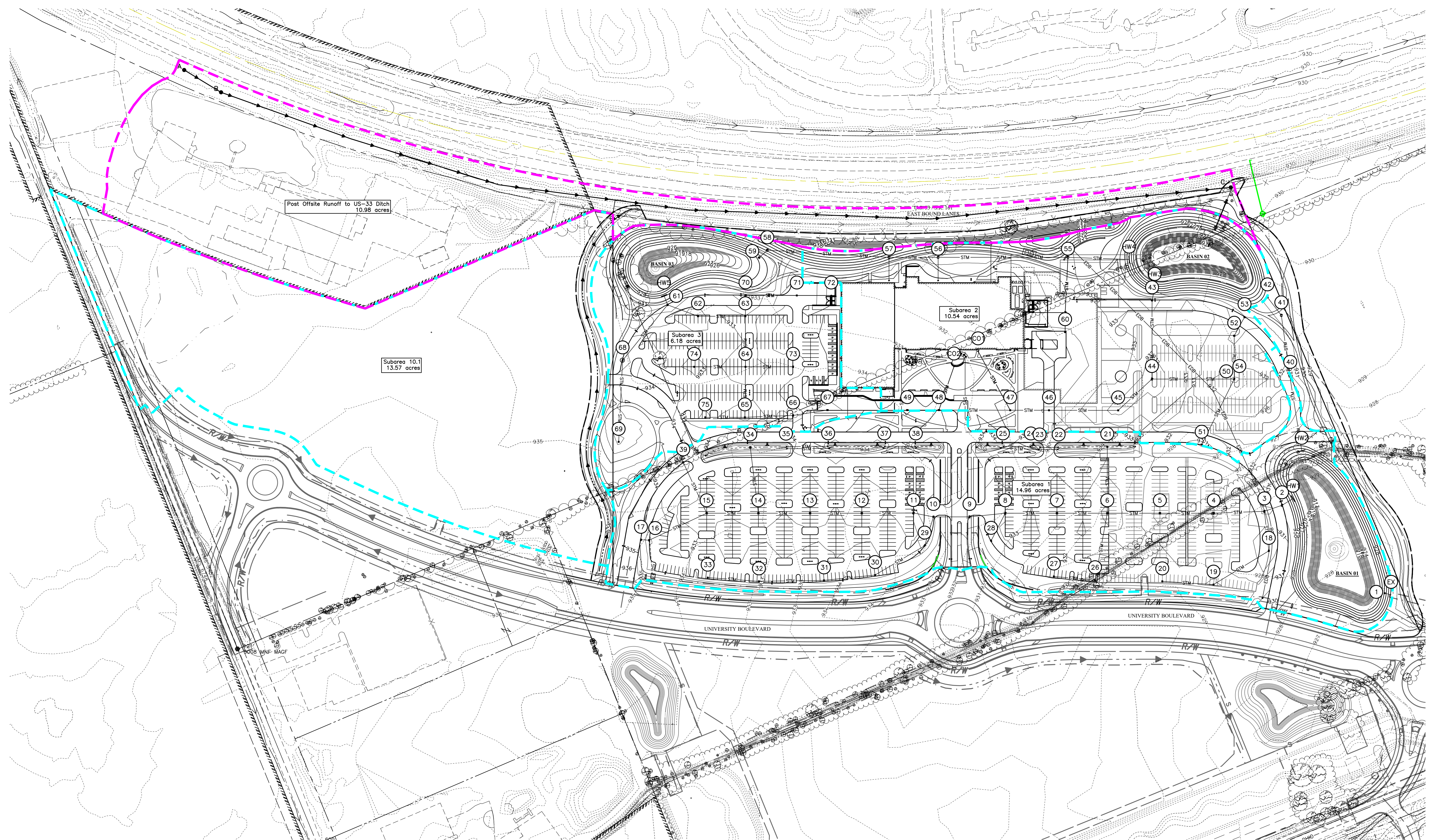
Pre-Developed to US-33
 Tributary Area: 36.22 acres
 Impervious Area: 5.76 acres
 Time of Concentration: 124.2 min
 RCN: 78

EXHIBIT 3: PRE-DEVELOPED TRIBUTARY MAP TO US-33 SWALE

Drawn by: _____
 Checked by: _____
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OSU PROJECT NUMBER 25-18138-00		
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OSU PROJ. NO. OSU-180636		SHEET NUMBER
DATE FEBRUARY 14, 2020		

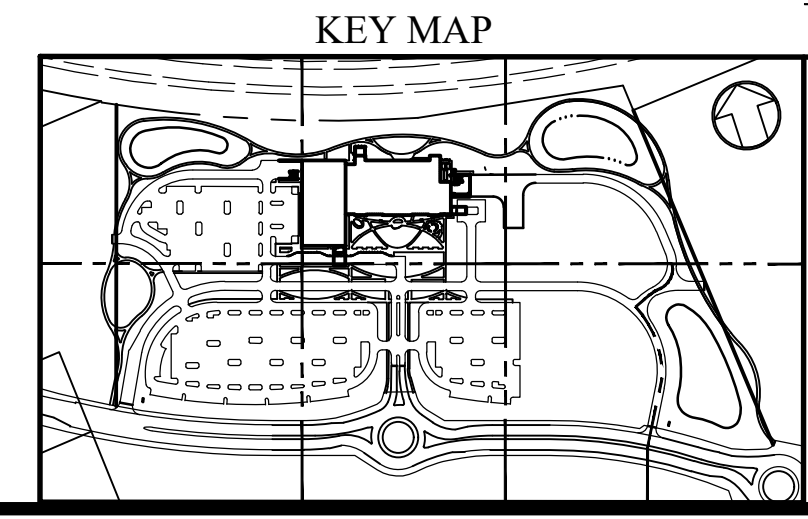
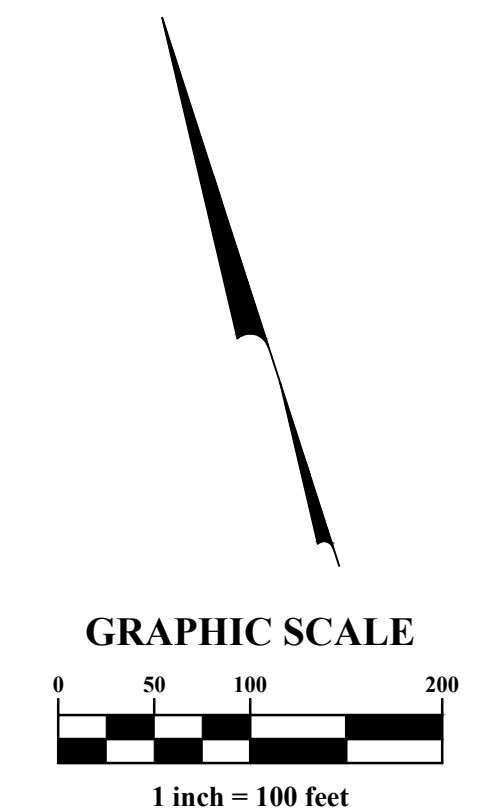


LEGEND

- US-33 South Swale Tributary Boundary
- Project Site Tributary Boundary
- Time of Concentration Path
- Swale Cross Section

EXHIBIT 4: POST- DEVELOPED TRIBUTARY MAP TO US-33 SWALE

Drawn by: Checked by:
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REVISIONS		
OSU PROJECT NUMBER 25-18138-00		
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OSU PROJ. NO. OSU-180636		DATE FEBRUARY 14, 2020