

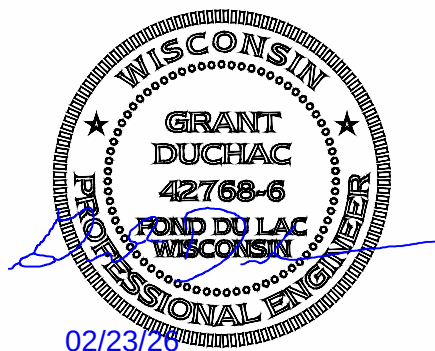
**Storm Water &
Erosion Control
Calculations For:**

Featherstone Rise

La Crosse, WI

Excel Job # 250128900

January 9, 2026
February 23, 2026



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0.0 Introduction

0.1 Existing Conditions

The proposed development is located on the north side of State Highway 33 in the Town of Shelby, Wisconsin. The project site is bound by County Road F and three residential properties to the west, County Road FO to the north, and wooded and agriculture land to the east. The existing site consists of agricultural fields with wooded areas and contains two barns. The southwest corner of the site drains toward STH 33. A small westerly portion drains west through a 24" culvert beneath County Rd. F. While most of the site drains to the north along County Road FO. No wetlands are present within the site; however, portions of the property contain steep slopes. The existing site can be seen in Appendix A.

- Property Area: 54.89 acres

0.2 Proposed Project Overview

The proposed project will include 36 single-family residential lots. Stormwater runoff from the development will be conveyed through a network of swales and culverts to six stormwater management biofiltration basins located around the perimeter of the site. These basins are designed to promote infiltration, reduce peak discharge rates, and provide stormwater treatment in compliance with local and state stormwater quantity, quality, and infiltration requirements.

The proposed site can be seen in Appendix B.

- Drainage/Ultimate Development Area: 35.03 acres
- Disturbed Area: 12.14 acres

1.0 Design Criteria

1.1 Soils

Soil characteristics were determined using the web soil survey. See Table 1 for a summary of the soils and hydrologic ratings indicated by the web soil survey and Appendix D for web soil survey map.

Table 1: Web Soil Survey

MAP SYMBOL	SOIL TYPE	HYDROLOGIC RATING
114B2	Mt. Carroll Silt Loam	B
132C2	Brinkman Silt Loam	B
133D2	Valton Silt Loam	C
163E2	Elbaville Silt Loam	C
601C	Beavercreek Cobbly Fine Sandy Loam	A
1125F	Doreton	B

Soil borings are to be completed for the project site in the future.

1.2 Rainfall Data

NOAA Atlas 14, La Crosse County rainfall depths with a MSE 4 distribution was used for stormwater calculations.

Table 2: NOAA Atlas 14 24-hour Rainfall Depth

DESIGN STORM	RAINFALL DEPTH (INCHES)
1-YEAR	2.50
2-YEAR	2.90
5-YEAR	3.70
10-YEAR	4.30
25-YEAR	4.90
100-YEAR	6.10

2.0 Stormwater Management Requirements

2.1 Peak Discharge

La Crosse County- Maintain or reduce the 1-yr, 2-yr, 5-yr, 10-yr, and 25-yr, 24 hour post development peak runoff discharge rates to the 1-yr, 2-yr, 5-yr, 10-yr, and 25-yr, 24 hour pre development peak runoff discharge rates respectively, or to the maximum extent practicable. All designed stormwater facilities shall safely pass the 100-yr storm event.

Wisconsin Department of Natural Resources (DNR)- Maintain or reduce the 1-yr and 2-yr 24 hour post development peak runoff discharge rates to the 1-yr and 2-yr 24 hour pre development peak runoff discharge rates respectively, or to the maximum extent practicable.

Wisconsin Department of Transportation (DOT)- Maintain or reduce the 1-yr, 2-yr, 10-yr, 25-yr, 50-yr and 100-yr 24 hour post development peak runoff discharge rates to the 1-yr, 2-yr, 10-yr, 25-yr, 50-yr and 100-yr, 24 hour pre development peak runoff discharge rates respectively, or to the maximum extent practicable drainage to the STH 33.

The Pre Development runoff curve numbers used were based on La Crosse County Post Construction Storm Water Management 29.09(1)(c). Per discussions with La Crosse County Conservation Department, post development curve numbers represent the actual post construction state as development disturbance will be limited.

Table 3: Runoff Curve Numbers

SOIL GROUP	PRE DEVELOPMENT	POST DEVELOPMENT
HYDROLOGIC GROUP B	55	61
HYDROLOGIC GROUP C	70	74

A combination of biofiltration basins will be used to reduce peak flows to be below the predevelopment flows throughout the subdivision. Some low sediment runoff residential lot areas will drain directly offsite without treatment through a stormwater facility. The runoff from the treated areas will overcompensate for the untreated areas.

Table 4: 100yr-24hr storm biofiltration summary

BIOFILTER	EMERGENCY SPILLWAY ELEVATION (FT)	CALCULATED POND ELEVATION (FT)	BASIN DISCHARGE (CFS)	DISCHARGE EXIT POINT
1A	1243.00	1242.96	6.62	STH 33 ROW
3A	1197.00	1197.22	13.73	CTH FO ROW
3B	1199.00	1199.47	24.52	CTH FO ROW
3C	1181.00	1181.10	6.79	CTH FO ROW
3D	1191.00	1191.05	6.89	CTH FO ROW
3E	1219.00	1219.11	7.12	CTH FO ROW

Table 5: Pond Summary – Basin 1A

DESIGN STORM	POND RELEASE RATE (CFS)	STORAGE VOLUME (C.F.)	MAXIMUM ELEVATION (FT)
1 YR – 24 HR	0.32	2,951	1239.93
2 YR – 24 HR	0.45	5,132	1240.45
5 YR – 24 HR	1.17	8,802	1241.17
10 YR – 24 HR	2.19	11,696	1241.65
25 YR – 24 HR	3.60	14,669	1242.10
100 YR – 24 HR	6.62	21,220	1242.96

Table 6: Pond Summary – Basin 3A

DESIGN STORM	POND RELEASE RATE (CFS)	STORAGE VOLUME (C.F.)	MAXIMUM ELEVATION (FT)
1 YR – 24 HR	0.56	7,129	1193.37
2 YR – 24 HR	0.97	10,734	1193.92
5 YR – 24 HR	2.63	17,153	1194.76
10 YR – 24 HR	4.83	22,437	1195.36
25 YR – 24 HR	6.79	28,352	1195.98
100 YR – 24 HR	13.73	42,103	1197.22

Table 7: Pond Summary – Basin 3B

DESIGN STORM	POND RELEASE RATE (CFS)	STORAGE VOLUME (C.F.)	MAXIMUM ELEVATION (FT)
1 YR – 24 HR	0.53	6,156	1196.53
2 YR – 24 HR	0.96	8,793	1196.99
5 YR – 24 HR	2.61	13,957	1197.78
10 YR – 24 HR	4.59	18,152	1198.33
25 YR – 24 HR	6.56	22,719	1198.86
100 YR – 24 HR	24.52	28,439	1199.47

Table 8: Pond Summary – Basin 3C

DESIGN STORM	POND RELEASE RATE (CFS)	STORAGE VOLUME (C.F.)	MAXIMUM ELEVATION (FT)
1 YR – 24 HR	0.23	2,322	1178.99
2 YR – 24 HR	0.31	3,509	1179.39
5 YR – 24 HR	0.73	5,454	1179.96
10 YR – 24 HR	1.13	6,905	1180.33
25 YR – 24 HR	2.08	8,327	1180.67
100 YR – 24 HR	6.79	10,244	1181.10

Table 9: Pond Summary – Basin 3D

DESIGN STORM	POND RELEASE RATE (CFS)	STORAGE VOLUME (C.F.)	MAXIMUM ELEVATION (FT)
1 YR – 24 HR	0.37	2,240	1188.74
2 YR – 24 HR	0.74	2,906	1189.08
5 YR – 24 HR	1.92	4,243	1189.67
10 YR – 24 HR	3.16	5,269	1190.07
25 YR – 24 HR	4.56	6,232	1190.42
100 YR – 24 HR	6.89	8,209	1191.05

Table 10: Pond Summary – Basin 3E

DESIGN STORM	POND RELEASE RATE (CFS)	STORAGE VOLUME (C.F.)	MAXIMUM ELEVATION (FT)
1 YR – 24 HR	0.26	2,290	1216.82
2 YR – 24 HR	0.30	3,688	1217.25
5 YR – 24 HR	0.67	5,965	1217.88
10 YR – 24 HR	1.23	7,552	1218.29
25 YR – 24 HR	2.04	9,113	1218.66
100 YR – 24 HR	7.12	11,171	1219.11

Table 11: Overall Peak Discharge Release Summary

DESIGN STORM	PREDEVELOPMENT (CFS) (1L)	POST DEVELOPMENT (CFS) (2L)
1 YR- 24 HR	2.17	2.11
2 YR- 24 HR	6.15	3.04
5YR- 24 HR	20.61	7.52
10 YR- 24 HR	34.45	15.10
25 YR- 24 HR	50.10	24.04
100 YR- 24 HR	85.40	41.84

Table 11 shows that post development release rates for the entire development will be less than predevelopment release rates for all design storms.

Table 12: Drainage to WisDOT STH 33 right-of-way

DESIGN STORM	PREDEVELOPMENT	POST DEVELOPMENT			
	Peak Discharge (cfs) (1)	To Biofilter (cfs) (1A)	Basin Discharge (cfs) (P1A)	Offsite (cfs) (1B)	Peak Discharge (To Biofilter + Offsite) (cfs) (3L)
1YR-24 HR	0.09	2.93	0.32	0.14	0.14
2YR-24 HR	0.31	4.83	0.45	0.26	0.26
5YR-24HR	1.62	9.27	1.17	0.55	0.77
10YR-24HR	3.23	13.00	2.19	0.80	1.81
25YR-24HR	5.15	16.99	3.02	1.08	3.27
100YR-24HR	9.61	25.52	5.93	1.67	6.55

Table 12 shows that post development release rates to WisDOT STH 33 will be less than pre development release rates for the 2-yr, 5-yr, 10-yr, 25-yr and 100-yr 24 hour storms. Due to the conservative pre (meadow condition) and post runoff curve numbers listed in Table 3, the 1-yr 24 hour storm draining to STH 33 has been reduced to the maximum extent practicable.

See sheets C2.1-C2.3 and C4.0-C4.3 of the construction plans for pond design and Appendix C for peak discharge calculations.

Therefore, peak discharge requirements are met.

2.2 Stormwater Quality

La Crosse County- The site is considered a new development project and will be required to remove 80% of total suspended solids (TSS) from site runoff.

Wisconsin DNR- The site is considered a new development project and will be required to remove 80% of total suspended solids (TSS) from site runoff.

The site will treat stormwater using a combination of biofiltration with storage. SLAMM analysis was used to determine the quantity of suspended solids that will be removed by the proposed biofiltration basins. The proposed site will create 5,780 lbs of TSS and the proposed biofiltration basins will reduce TSS to 1150 lbs, which results in an 80.10% reduction in TSS release.

Since the proposed biofiltration basins remove 80.10% of suspended solids which is greater than the required 80%.

Therefore, stormwater quality requirements have been met.

2.3 Infiltration

La Crosse County- Infiltrate sufficient runoff volume so that the post-development infiltration volume shall be at least 90% of the pre-development infiltration volume, based on an average annual rainfall. However, no more than 1% of the post-construction site is required as an effective infiltration area.

Wisconsin DNR- Infiltrate sufficient runoff volume so that the post-development infiltration volume shall be at least 90% of the pre-development infiltration volume, based on an average annual rainfall. However, no more than 1% of the post-construction site is required as an effective infiltration area.

The proposed development will be 1,525,922 sf, which means that a maximum of 15,260 sf of area will be required for infiltration onsite. The six proposed biofiltration basins have an area of 19,614 sf of infiltration area.

This meets the 1% maximum requirement ($19,614 \text{ sf} / 1,525,922 \text{ sf} = 1.3\%$).

Therefore, Infiltration requirements are met.

3.0 Storm Sewer Design

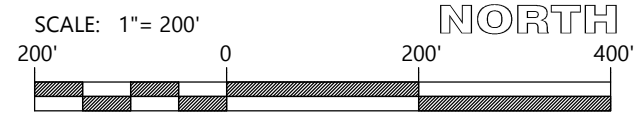
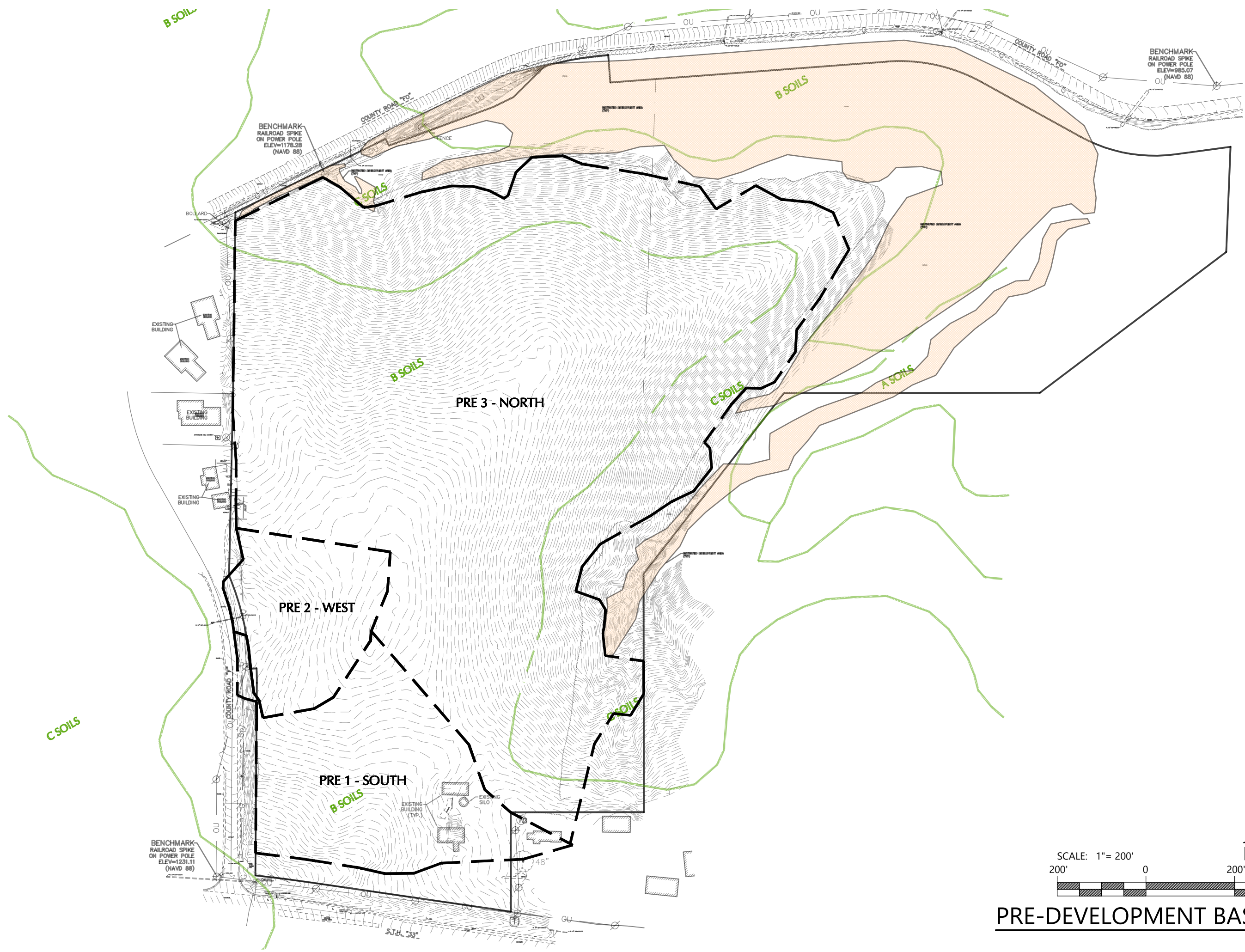
All storm sewers have been designed to convey the 25-year 24-hour post development storm.

See Appendix E and Appendix F for pipe drainage areas and pipe sizing calculations.

4.0 Erosion Control

The erosion control measures shall follow La Crosse County specifications. The construction sequence, erosion matting and erosion control notes are shown in the construction plan set.

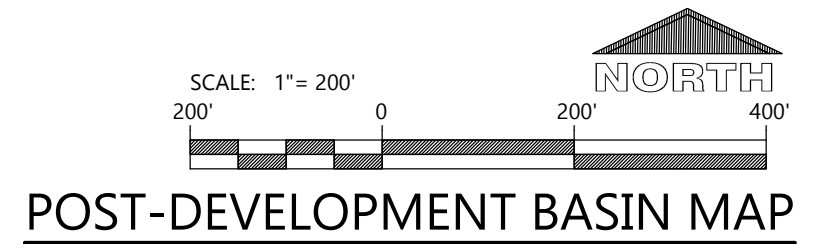
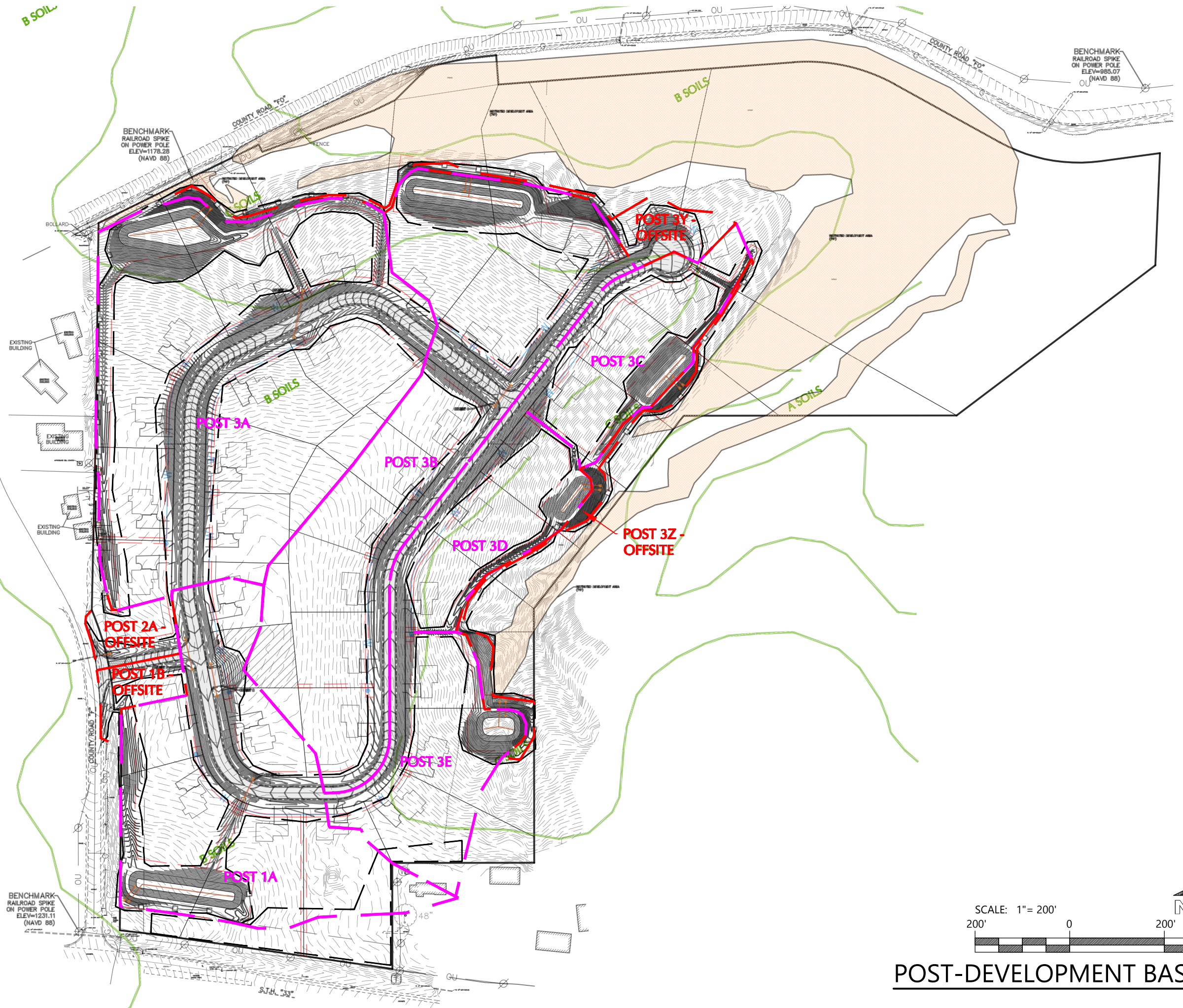
Appendix A: Pre-Development Basin Area(s)



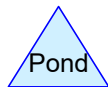
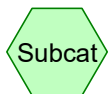
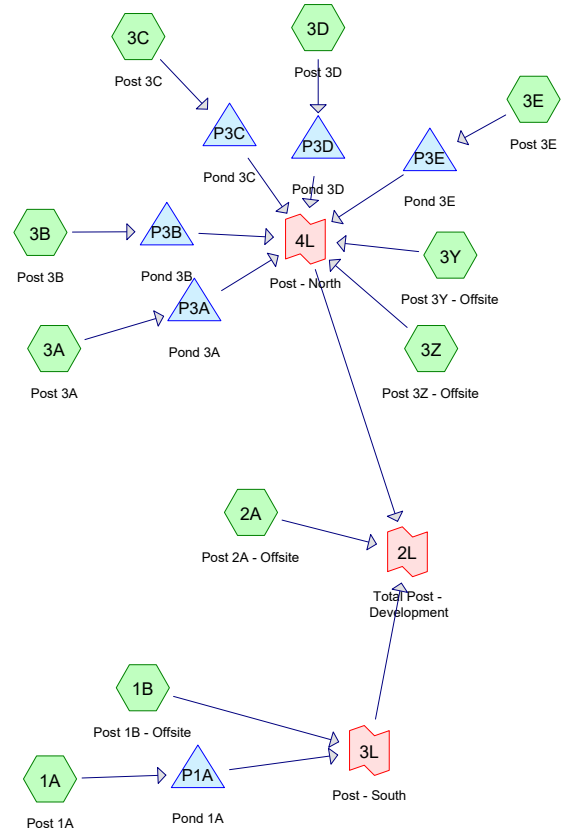
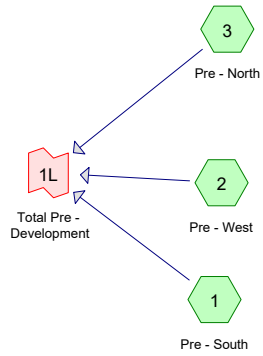
PRE-DEVELOPMENT BASIN MAP

Appendix B: Post Development Basin Area(s)

C SOILS



Appendix C: Peak Discharge Calculations



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Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1 YR	MSE 24-hr	4	Default	24.00	1	2.50	2
2	2 YR	MSE 24-hr	4	Default	24.00	1	2.90	2
3	5 YR	MSE 24-hr	4	Default	24.00	1	3.70	2
4	10 YR	MSE 24-hr	4	Default	24.00	1	4.30	2
5	25 YR	MSE 24-hr	4	Default	24.00	1	4.90	2
6	100 YR	MSE 24-hr	4	Default	24.00	1	6.10	2

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Time span=5.00-500.00 hrs, dt=0.05 hrs, 9901 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1: Pre - South	Runoff Area=4.910 ac 0.00% Impervious Runoff Depth=0.08" Tc=10.0 min CN=55 Runoff=0.09 cfs 0.034 af
Subcatchment1A: Post 1A	Runoff Area=6.030 ac 19.24% Impervious Runoff Depth=0.39" Tc=6.0 min CN=68 Runoff=2.93 cfs 0.195 af
Subcatchment1B: Post 1B - Offsite	Runoff Area=0.440 ac 11.36% Impervious Runoff Depth=0.30" Tc=6.0 min CN=65 Runoff=0.14 cfs 0.011 af
Subcatchment2: Pre - West	Runoff Area=2.540 ac 0.00% Impervious Runoff Depth=0.08" Tc=6.0 min CN=55 Runoff=0.04 cfs 0.017 af
Subcatchment2A: Post 2A - Offsite	Runoff Area=0.530 ac 11.32% Impervious Runoff Depth=0.30" Tc=6.0 min CN=65 Runoff=0.16 cfs 0.013 af
Subcatchment3: Pre - North	Runoff Area=27.590 ac 0.00% Impervious Runoff Depth=0.17" Tc=10.0 min CN=60 Runoff=2.12 cfs 0.400 af
Subcatchment3A: Post 3A	Runoff Area=10.600 ac 18.58% Impervious Runoff Depth=0.46" Tc=6.0 min CN=70 Runoff=6.50 cfs 0.402 af
Subcatchment3B: Post 3B	Runoff Area=8.450 ac 19.88% Impervious Runoff Depth=0.49" Tc=6.0 min CN=71 Runoff=5.75 cfs 0.346 af
Subcatchment3C: Post 3C	Runoff Area=2.490 ac 22.89% Impervious Runoff Depth=0.65" Tc=6.0 min CN=75 Runoff=2.42 cfs 0.135 af
Subcatchment3D: Post 3D	Runoff Area=2.380 ac 23.95% Impervious Runoff Depth=0.69" Tc=6.0 min CN=76 Runoff=2.49 cfs 0.138 af
Subcatchment3E: Post 3E	Runoff Area=2.780 ac 19.06% Impervious Runoff Depth=0.61" Tc=6.0 min CN=74 Runoff=2.49 cfs 0.141 af
Subcatchment3Y: Post 3Y - Offsite	Runoff Area=0.820 ac 36.59% Impervious Runoff Depth=1.06" Tc=6.0 min CN=83 Runoff=1.36 cfs 0.072 af
Subcatchment3Z: Post 3Z - Offsite	Runoff Area=0.520 ac 0.00% Impervious Runoff Depth=0.61" Tc=6.0 min CN=74 Runoff=0.47 cfs 0.026 af
Subcatchment5S: Culvert 1	Runoff Area=4,797 sf 48.61% Impervious Runoff Depth=0.84" Tc=6.0 min CN=79 Runoff=0.14 cfs 0.008 af
Subcatchment6S: Culvert 2	Runoff Area=24,708 sf 36.87% Impervious Runoff Depth=0.65" Tc=6.0 min CN=75 Runoff=0.55 cfs 0.031 af
Subcatchment7S: Culvert 3	Runoff Area=41,517 sf 32.00% Impervious Runoff Depth=0.57" Tc=6.0 min CN=73 Runoff=0.78 cfs 0.045 af

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Subcatchment8S: Culvert 4Runoff Area=209,603 sf 25.18% Impervious Runoff Depth=0.46"
Tc=6.0 min CN=70 Runoff=2.95 cfs 0.183 af**Subcatchment9S: Culvert 5**Runoff Area=188,836 sf 19.96% Impervious Runoff Depth=0.39"
Tc=6.0 min CN=68 Runoff=2.10 cfs 0.140 af**Pond P1A: Pond 1A**Peak Elev=1,239.93' Storage=2,951 cf Inflow=2.93 cfs 0.195 af
Primary=0.00 cfs 0.000 af Secondary=0.32 cfs 0.195 af Tertiary=0.00 cfs 0.000 af Outflow=0.32 cfs 0.195 af**Pond P3A: Pond 3A**Peak Elev=1,193.37' Storage=7,129 cf Inflow=6.50 cfs 0.402 af
Primary=0.04 cfs 0.006 af Secondary=0.52 cfs 0.396 af Tertiary=0.00 cfs 0.000 af Outflow=0.56 cfs 0.402 af**Pond P3B: Pond 3B**Peak Elev=1,196.53' Storage=6,156 cf Inflow=5.75 cfs 0.346 af
Primary=0.10 cfs 0.017 af Secondary=0.44 cfs 0.329 af Tertiary=0.00 cfs 0.000 af Outflow=0.53 cfs 0.346 af**Pond P3C: Pond 3C**Peak Elev=1,178.99' Storage=2,322 cf Inflow=2.42 cfs 0.135 af
Primary=0.00 cfs 0.000 af Secondary=0.23 cfs 0.135 af Tertiary=0.00 cfs 0.000 af Outflow=0.23 cfs 0.135 af**Pond P3D: Pond 3D**Peak Elev=1,188.74' Storage=2,240 cf Inflow=2.49 cfs 0.138 af
Primary=0.22 cfs 0.031 af Secondary=0.15 cfs 0.107 af Tertiary=0.00 cfs 0.000 af Outflow=0.37 cfs 0.138 af**Pond P3E: Pond 3E**Peak Elev=1,216.82' Storage=2,290 cf Inflow=2.49 cfs 0.141 af
Primary=0.00 cfs 0.000 af Secondary=0.26 cfs 0.141 af Tertiary=0.00 cfs 0.000 af Outflow=0.26 cfs 0.141 af**Link 1L: Total Pre - Development**Inflow=2.17 cfs 0.451 af
Primary=2.17 cfs 0.451 af**Link 2L: Total Post - Development**Inflow=2.11 cfs 0.177 af
Primary=2.11 cfs 0.177 af**Link 3L: Post - South**Inflow=0.14 cfs 0.011 af
Primary=0.14 cfs 0.011 af**Link 4L: Post - North**Inflow=1.82 cfs 0.153 af
Primary=1.82 cfs 0.153 af**Total Runoff Area = 80.857 ac Runoff Volume = 2.336 af Average Runoff Depth = 0.35"**
88.21% Pervious = 71.323 ac 11.79% Impervious = 9.534 ac

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Summary for Subcatchment 1: Pre - South

Runoff = 0.09 cfs @ 13.10 hrs, Volume= 0.034 af, Depth= 0.08"
Routed to Link 1L : Total Pre - Development

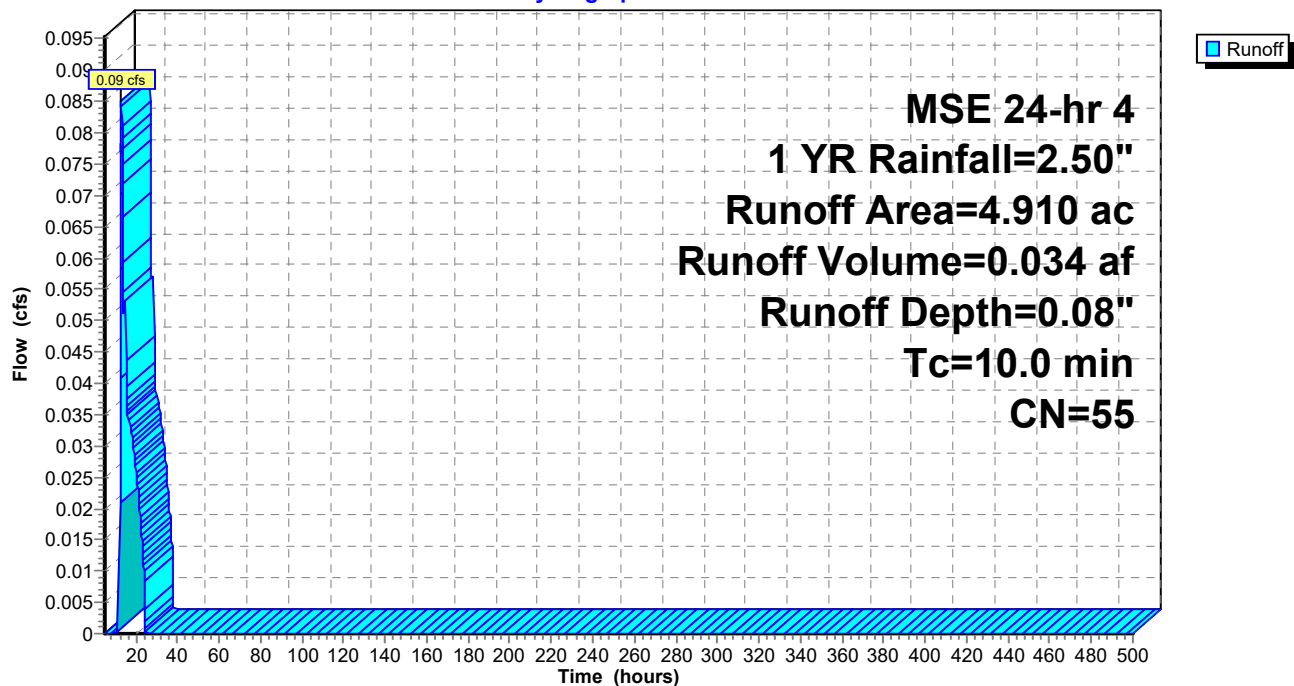
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1 YR Rainfall=2.50"

Area (ac)	CN	Description
* 4.910	55	Pre Dev - B Soils
4.910		100.00% Pervious Area

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

Subcatchment 1: Pre - South

Hydrograph



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Hydrograph for Subcatchment 1: Pre - South

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.11	0.00	0.00	260.00	2.50	0.08	0.00
10.00	0.40	0.00	0.00	265.00	2.50	0.08	0.00
15.00	2.20	0.04	0.05	270.00	2.50	0.08	0.00
20.00	2.42	0.07	0.03	275.00	2.50	0.08	0.00
25.00	2.50	0.08	0.00	280.00	2.50	0.08	0.00
30.00	2.50	0.08	0.00	285.00	2.50	0.08	0.00
35.00	2.50	0.08	0.00	290.00	2.50	0.08	0.00
40.00	2.50	0.08	0.00	295.00	2.50	0.08	0.00
45.00	2.50	0.08	0.00	300.00	2.50	0.08	0.00
50.00	2.50	0.08	0.00	305.00	2.50	0.08	0.00
55.00	2.50	0.08	0.00	310.00	2.50	0.08	0.00
60.00	2.50	0.08	0.00	315.00	2.50	0.08	0.00
65.00	2.50	0.08	0.00	320.00	2.50	0.08	0.00
70.00	2.50	0.08	0.00	325.00	2.50	0.08	0.00
75.00	2.50	0.08	0.00	330.00	2.50	0.08	0.00
80.00	2.50	0.08	0.00	335.00	2.50	0.08	0.00
85.00	2.50	0.08	0.00	340.00	2.50	0.08	0.00
90.00	2.50	0.08	0.00	345.00	2.50	0.08	0.00
95.00	2.50	0.08	0.00	350.00	2.50	0.08	0.00
100.00	2.50	0.08	0.00	355.00	2.50	0.08	0.00
105.00	2.50	0.08	0.00	360.00	2.50	0.08	0.00
110.00	2.50	0.08	0.00	365.00	2.50	0.08	0.00
115.00	2.50	0.08	0.00	370.00	2.50	0.08	0.00
120.00	2.50	0.08	0.00	375.00	2.50	0.08	0.00
125.00	2.50	0.08	0.00	380.00	2.50	0.08	0.00
130.00	2.50	0.08	0.00	385.00	2.50	0.08	0.00
135.00	2.50	0.08	0.00	390.00	2.50	0.08	0.00
140.00	2.50	0.08	0.00	395.00	2.50	0.08	0.00
145.00	2.50	0.08	0.00	400.00	2.50	0.08	0.00
150.00	2.50	0.08	0.00	405.00	2.50	0.08	0.00
155.00	2.50	0.08	0.00	410.00	2.50	0.08	0.00
160.00	2.50	0.08	0.00	415.00	2.50	0.08	0.00
165.00	2.50	0.08	0.00	420.00	2.50	0.08	0.00
170.00	2.50	0.08	0.00	425.00	2.50	0.08	0.00
175.00	2.50	0.08	0.00	430.00	2.50	0.08	0.00
180.00	2.50	0.08	0.00	435.00	2.50	0.08	0.00
185.00	2.50	0.08	0.00	440.00	2.50	0.08	0.00
190.00	2.50	0.08	0.00	445.00	2.50	0.08	0.00
195.00	2.50	0.08	0.00	450.00	2.50	0.08	0.00
200.00	2.50	0.08	0.00	455.00	2.50	0.08	0.00
205.00	2.50	0.08	0.00	460.00	2.50	0.08	0.00
210.00	2.50	0.08	0.00	465.00	2.50	0.08	0.00
215.00	2.50	0.08	0.00	470.00	2.50	0.08	0.00
220.00	2.50	0.08	0.00	475.00	2.50	0.08	0.00
225.00	2.50	0.08	0.00	480.00	2.50	0.08	0.00
230.00	2.50	0.08	0.00	485.00	2.50	0.08	0.00
235.00	2.50	0.08	0.00	490.00	2.50	0.08	0.00
240.00	2.50	0.08	0.00	495.00	2.50	0.08	0.00
245.00	2.50	0.08	0.00	500.00	2.50	0.08	0.00
250.00	2.50	0.08	0.00				
255.00	2.50	0.08	0.00				

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Summary for Subcatchment 1A: Post 1A

Runoff = 2.93 cfs @ 12.15 hrs, Volume= 0.195 af, Depth= 0.39"
Routed to Pond P1A : Pond 1A

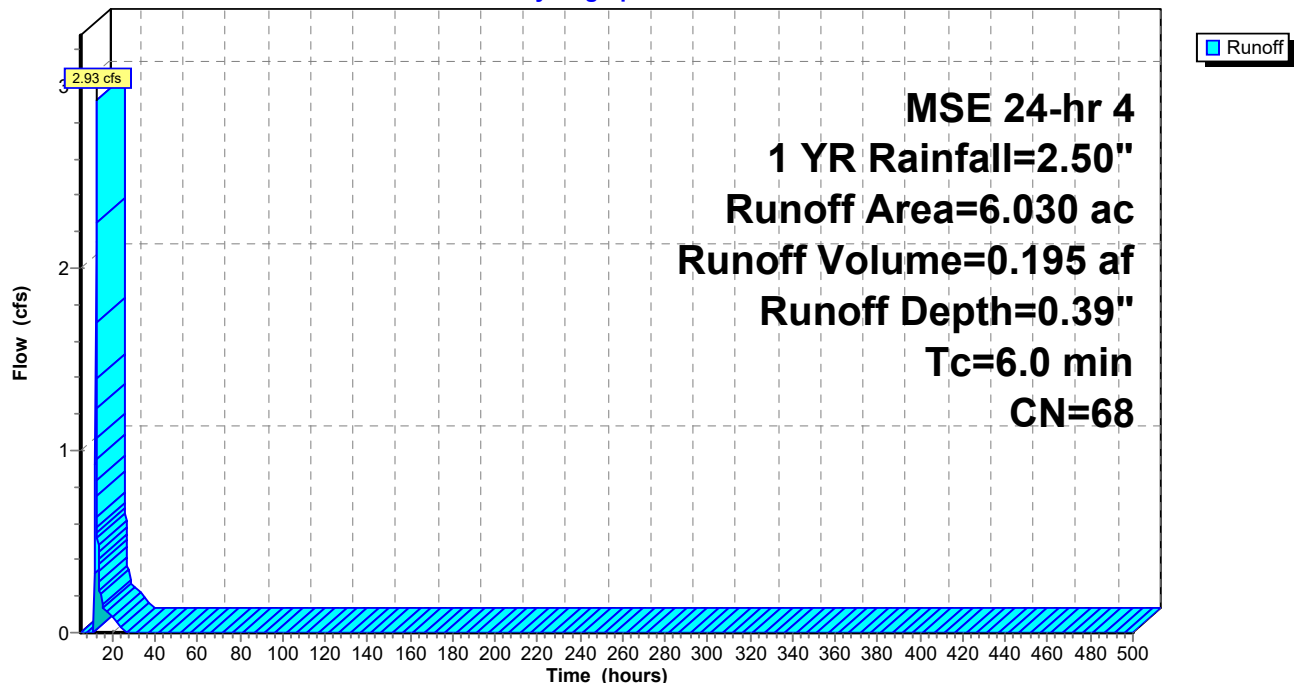
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1 YR Rainfall=2.50"

	Area (ac)	CN	Description
*	1.160	98	Impervious
*	4.870	61	Post - B Soils
*	0.000	74	Post - C Soils
	6.030	68	Weighted Average
	4.870		80.76% Pervious Area
	1.160		19.24% Impervious Area

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

Subcatchment 1A: Post 1A

Hydrograph



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"
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Page 8

Hydrograph for Subcatchment 1A: Post 1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.11	0.00	0.00	260.00	2.50	0.39	0.00
10.00	0.40	0.00	0.00	265.00	2.50	0.39	0.00
15.00	2.20	0.26	0.20	270.00	2.50	0.39	0.00
20.00	2.42	0.35	0.08	275.00	2.50	0.39	0.00
25.00	2.50	0.39	0.00	280.00	2.50	0.39	0.00
30.00	2.50	0.39	0.00	285.00	2.50	0.39	0.00
35.00	2.50	0.39	0.00	290.00	2.50	0.39	0.00
40.00	2.50	0.39	0.00	295.00	2.50	0.39	0.00
45.00	2.50	0.39	0.00	300.00	2.50	0.39	0.00
50.00	2.50	0.39	0.00	305.00	2.50	0.39	0.00
55.00	2.50	0.39	0.00	310.00	2.50	0.39	0.00
60.00	2.50	0.39	0.00	315.00	2.50	0.39	0.00
65.00	2.50	0.39	0.00	320.00	2.50	0.39	0.00
70.00	2.50	0.39	0.00	325.00	2.50	0.39	0.00
75.00	2.50	0.39	0.00	330.00	2.50	0.39	0.00
80.00	2.50	0.39	0.00	335.00	2.50	0.39	0.00
85.00	2.50	0.39	0.00	340.00	2.50	0.39	0.00
90.00	2.50	0.39	0.00	345.00	2.50	0.39	0.00
95.00	2.50	0.39	0.00	350.00	2.50	0.39	0.00
100.00	2.50	0.39	0.00	355.00	2.50	0.39	0.00
105.00	2.50	0.39	0.00	360.00	2.50	0.39	0.00
110.00	2.50	0.39	0.00	365.00	2.50	0.39	0.00
115.00	2.50	0.39	0.00	370.00	2.50	0.39	0.00
120.00	2.50	0.39	0.00	375.00	2.50	0.39	0.00
125.00	2.50	0.39	0.00	380.00	2.50	0.39	0.00
130.00	2.50	0.39	0.00	385.00	2.50	0.39	0.00
135.00	2.50	0.39	0.00	390.00	2.50	0.39	0.00
140.00	2.50	0.39	0.00	395.00	2.50	0.39	0.00
145.00	2.50	0.39	0.00	400.00	2.50	0.39	0.00
150.00	2.50	0.39	0.00	405.00	2.50	0.39	0.00
155.00	2.50	0.39	0.00	410.00	2.50	0.39	0.00
160.00	2.50	0.39	0.00	415.00	2.50	0.39	0.00
165.00	2.50	0.39	0.00	420.00	2.50	0.39	0.00
170.00	2.50	0.39	0.00	425.00	2.50	0.39	0.00
175.00	2.50	0.39	0.00	430.00	2.50	0.39	0.00
180.00	2.50	0.39	0.00	435.00	2.50	0.39	0.00
185.00	2.50	0.39	0.00	440.00	2.50	0.39	0.00
190.00	2.50	0.39	0.00	445.00	2.50	0.39	0.00
195.00	2.50	0.39	0.00	450.00	2.50	0.39	0.00
200.00	2.50	0.39	0.00	455.00	2.50	0.39	0.00
205.00	2.50	0.39	0.00	460.00	2.50	0.39	0.00
210.00	2.50	0.39	0.00	465.00	2.50	0.39	0.00
215.00	2.50	0.39	0.00	470.00	2.50	0.39	0.00
220.00	2.50	0.39	0.00	475.00	2.50	0.39	0.00
225.00	2.50	0.39	0.00	480.00	2.50	0.39	0.00
230.00	2.50	0.39	0.00	485.00	2.50	0.39	0.00
235.00	2.50	0.39	0.00	490.00	2.50	0.39	0.00
240.00	2.50	0.39	0.00	495.00	2.50	0.39	0.00
245.00	2.50	0.39	0.00	500.00	2.50	0.39	0.00
250.00	2.50	0.39	0.00				
255.00	2.50	0.39	0.00				

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Summary for Subcatchment 1B: Post 1B - Offsite

Runoff = 0.14 cfs @ 12.16 hrs, Volume= 0.011 af, Depth= 0.30"
Routed to Link 3L : Post - South

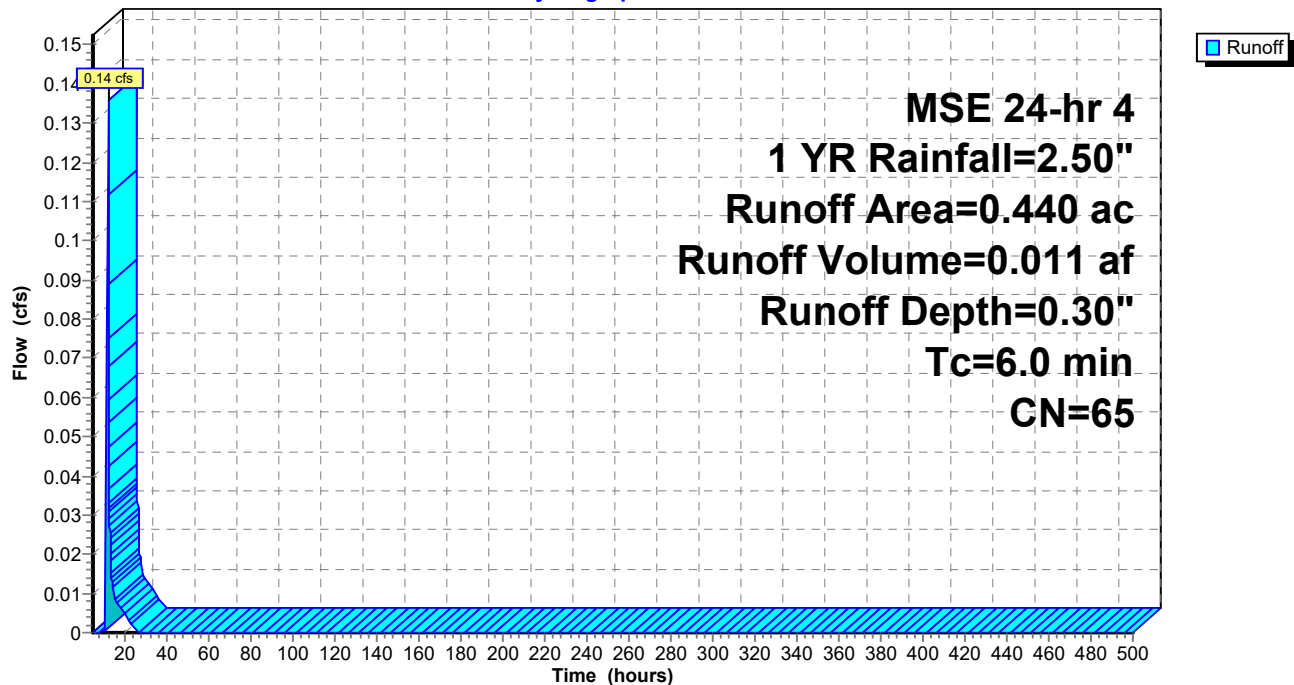
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1 YR Rainfall=2.50"

	Area (ac)	CN	Description
*	0.050	98	Impervious
*	0.390	61	Post - B Soils
*	0.000	74	Post - C Soils
	0.440	65	Weighted Average
	0.390		88.64% Pervious Area
	0.050		11.36% Impervious Area

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

Subcatchment 1B: Post 1B - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Hydrograph for Subcatchment 1B: Post 1B - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.11	0.00	0.00	260.00	2.50	0.30	0.00
10.00	0.40	0.00	0.00	265.00	2.50	0.30	0.00
15.00	2.20	0.19	0.01	270.00	2.50	0.30	0.00
20.00	2.42	0.27	0.01	275.00	2.50	0.30	0.00
25.00	2.50	0.30	0.00	280.00	2.50	0.30	0.00
30.00	2.50	0.30	0.00	285.00	2.50	0.30	0.00
35.00	2.50	0.30	0.00	290.00	2.50	0.30	0.00
40.00	2.50	0.30	0.00	295.00	2.50	0.30	0.00
45.00	2.50	0.30	0.00	300.00	2.50	0.30	0.00
50.00	2.50	0.30	0.00	305.00	2.50	0.30	0.00
55.00	2.50	0.30	0.00	310.00	2.50	0.30	0.00
60.00	2.50	0.30	0.00	315.00	2.50	0.30	0.00
65.00	2.50	0.30	0.00	320.00	2.50	0.30	0.00
70.00	2.50	0.30	0.00	325.00	2.50	0.30	0.00
75.00	2.50	0.30	0.00	330.00	2.50	0.30	0.00
80.00	2.50	0.30	0.00	335.00	2.50	0.30	0.00
85.00	2.50	0.30	0.00	340.00	2.50	0.30	0.00
90.00	2.50	0.30	0.00	345.00	2.50	0.30	0.00
95.00	2.50	0.30	0.00	350.00	2.50	0.30	0.00
100.00	2.50	0.30	0.00	355.00	2.50	0.30	0.00
105.00	2.50	0.30	0.00	360.00	2.50	0.30	0.00
110.00	2.50	0.30	0.00	365.00	2.50	0.30	0.00
115.00	2.50	0.30	0.00	370.00	2.50	0.30	0.00
120.00	2.50	0.30	0.00	375.00	2.50	0.30	0.00
125.00	2.50	0.30	0.00	380.00	2.50	0.30	0.00
130.00	2.50	0.30	0.00	385.00	2.50	0.30	0.00
135.00	2.50	0.30	0.00	390.00	2.50	0.30	0.00
140.00	2.50	0.30	0.00	395.00	2.50	0.30	0.00
145.00	2.50	0.30	0.00	400.00	2.50	0.30	0.00
150.00	2.50	0.30	0.00	405.00	2.50	0.30	0.00
155.00	2.50	0.30	0.00	410.00	2.50	0.30	0.00
160.00	2.50	0.30	0.00	415.00	2.50	0.30	0.00
165.00	2.50	0.30	0.00	420.00	2.50	0.30	0.00
170.00	2.50	0.30	0.00	425.00	2.50	0.30	0.00
175.00	2.50	0.30	0.00	430.00	2.50	0.30	0.00
180.00	2.50	0.30	0.00	435.00	2.50	0.30	0.00
185.00	2.50	0.30	0.00	440.00	2.50	0.30	0.00
190.00	2.50	0.30	0.00	445.00	2.50	0.30	0.00
195.00	2.50	0.30	0.00	450.00	2.50	0.30	0.00
200.00	2.50	0.30	0.00	455.00	2.50	0.30	0.00
205.00	2.50	0.30	0.00	460.00	2.50	0.30	0.00
210.00	2.50	0.30	0.00	465.00	2.50	0.30	0.00
215.00	2.50	0.30	0.00	470.00	2.50	0.30	0.00
220.00	2.50	0.30	0.00	475.00	2.50	0.30	0.00
225.00	2.50	0.30	0.00	480.00	2.50	0.30	0.00
230.00	2.50	0.30	0.00	485.00	2.50	0.30	0.00
235.00	2.50	0.30	0.00	490.00	2.50	0.30	0.00
240.00	2.50	0.30	0.00	495.00	2.50	0.30	0.00
245.00	2.50	0.30	0.00	500.00	2.50	0.30	0.00
250.00	2.50	0.30	0.00				
255.00	2.50	0.30	0.00				

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Summary for Subcatchment 2: Pre - West

Runoff = 0.04 cfs @ 13.05 hrs, Volume= 0.017 af, Depth= 0.08"
Routed to Link 1L : Total Pre - Development

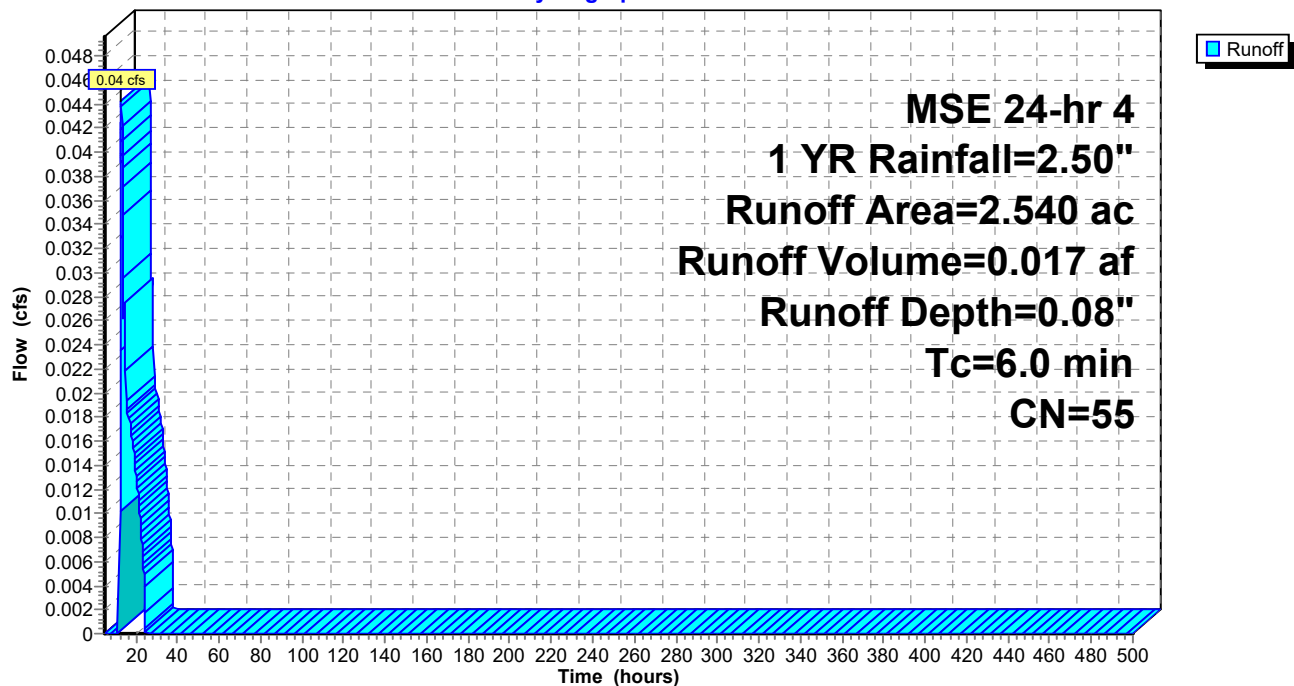
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1 YR Rainfall=2.50"

Area (ac)	CN	Description
* 2.540	55	Pre Dev - B Soils
2.540		100.00% Pervious Area

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

Subcatchment 2: Pre - West

Hydrograph



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Hydrograph for Subcatchment 2: Pre - West

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.11	0.00	0.00	260.00	2.50	0.08	0.00
10.00	0.40	0.00	0.00	265.00	2.50	0.08	0.00
15.00	2.20	0.04	0.03	270.00	2.50	0.08	0.00
20.00	2.42	0.07	0.01	275.00	2.50	0.08	0.00
25.00	2.50	0.08	0.00	280.00	2.50	0.08	0.00
30.00	2.50	0.08	0.00	285.00	2.50	0.08	0.00
35.00	2.50	0.08	0.00	290.00	2.50	0.08	0.00
40.00	2.50	0.08	0.00	295.00	2.50	0.08	0.00
45.00	2.50	0.08	0.00	300.00	2.50	0.08	0.00
50.00	2.50	0.08	0.00	305.00	2.50	0.08	0.00
55.00	2.50	0.08	0.00	310.00	2.50	0.08	0.00
60.00	2.50	0.08	0.00	315.00	2.50	0.08	0.00
65.00	2.50	0.08	0.00	320.00	2.50	0.08	0.00
70.00	2.50	0.08	0.00	325.00	2.50	0.08	0.00
75.00	2.50	0.08	0.00	330.00	2.50	0.08	0.00
80.00	2.50	0.08	0.00	335.00	2.50	0.08	0.00
85.00	2.50	0.08	0.00	340.00	2.50	0.08	0.00
90.00	2.50	0.08	0.00	345.00	2.50	0.08	0.00
95.00	2.50	0.08	0.00	350.00	2.50	0.08	0.00
100.00	2.50	0.08	0.00	355.00	2.50	0.08	0.00
105.00	2.50	0.08	0.00	360.00	2.50	0.08	0.00
110.00	2.50	0.08	0.00	365.00	2.50	0.08	0.00
115.00	2.50	0.08	0.00	370.00	2.50	0.08	0.00
120.00	2.50	0.08	0.00	375.00	2.50	0.08	0.00
125.00	2.50	0.08	0.00	380.00	2.50	0.08	0.00
130.00	2.50	0.08	0.00	385.00	2.50	0.08	0.00
135.00	2.50	0.08	0.00	390.00	2.50	0.08	0.00
140.00	2.50	0.08	0.00	395.00	2.50	0.08	0.00
145.00	2.50	0.08	0.00	400.00	2.50	0.08	0.00
150.00	2.50	0.08	0.00	405.00	2.50	0.08	0.00
155.00	2.50	0.08	0.00	410.00	2.50	0.08	0.00
160.00	2.50	0.08	0.00	415.00	2.50	0.08	0.00
165.00	2.50	0.08	0.00	420.00	2.50	0.08	0.00
170.00	2.50	0.08	0.00	425.00	2.50	0.08	0.00
175.00	2.50	0.08	0.00	430.00	2.50	0.08	0.00
180.00	2.50	0.08	0.00	435.00	2.50	0.08	0.00
185.00	2.50	0.08	0.00	440.00	2.50	0.08	0.00
190.00	2.50	0.08	0.00	445.00	2.50	0.08	0.00
195.00	2.50	0.08	0.00	450.00	2.50	0.08	0.00
200.00	2.50	0.08	0.00	455.00	2.50	0.08	0.00
205.00	2.50	0.08	0.00	460.00	2.50	0.08	0.00
210.00	2.50	0.08	0.00	465.00	2.50	0.08	0.00
215.00	2.50	0.08	0.00	470.00	2.50	0.08	0.00
220.00	2.50	0.08	0.00	475.00	2.50	0.08	0.00
225.00	2.50	0.08	0.00	480.00	2.50	0.08	0.00
230.00	2.50	0.08	0.00	485.00	2.50	0.08	0.00
235.00	2.50	0.08	0.00	490.00	2.50	0.08	0.00
240.00	2.50	0.08	0.00	495.00	2.50	0.08	0.00
245.00	2.50	0.08	0.00	500.00	2.50	0.08	0.00
250.00	2.50	0.08	0.00				
255.00	2.50	0.08	0.00				

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Summary for Subcatchment 2A: Post 2A - Offsite

Runoff = 0.16 cfs @ 12.16 hrs, Volume= 0.013 af, Depth= 0.30"
Routed to Link 2L : Total Post - Development

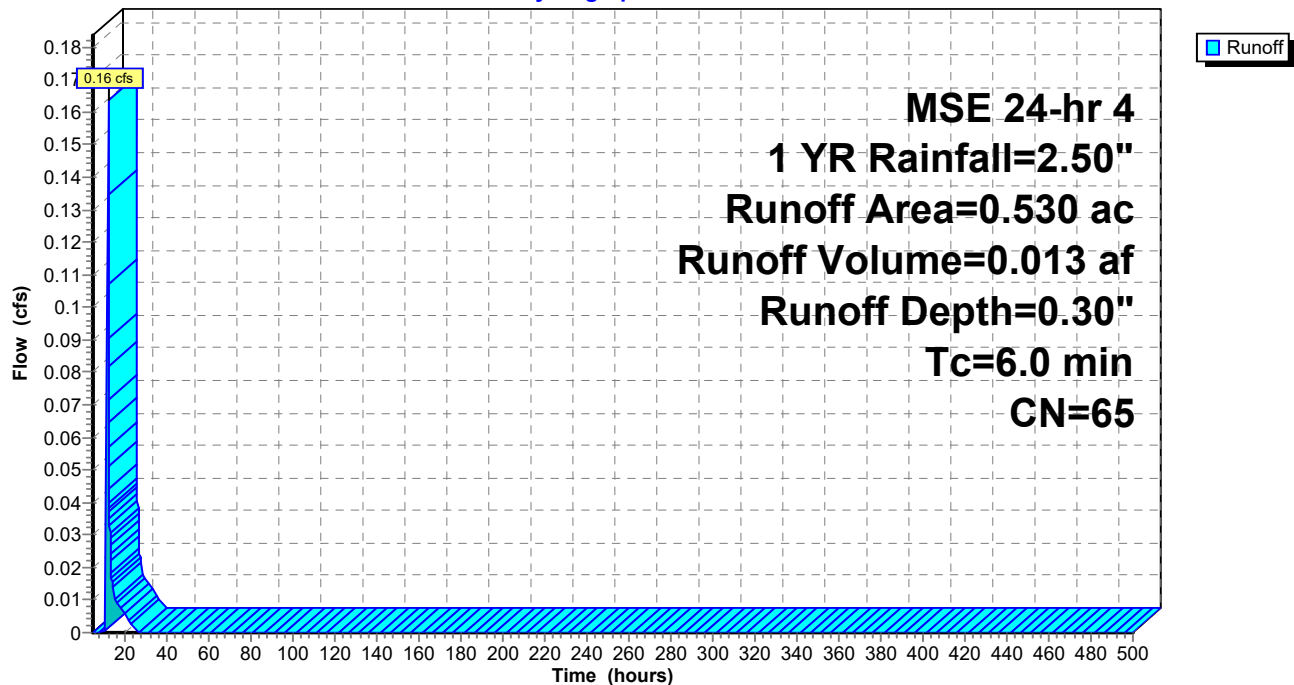
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1 YR Rainfall=2.50"

	Area (ac)	CN	Description
*	0.060	98	Impervious
*	0.470	61	Post - B Soils
*	0.000	74	Post - C Soils
	0.530	65	Weighted Average
	0.470		88.68% Pervious Area
	0.060		11.32% Impervious Area

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

Subcatchment 2A: Post 2A - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Hydrograph for Subcatchment 2A: Post 2A - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.11	0.00	0.00	260.00	2.50	0.30	0.00
10.00	0.40	0.00	0.00	265.00	2.50	0.30	0.00
15.00	2.20	0.19	0.01	270.00	2.50	0.30	0.00
20.00	2.42	0.27	0.01	275.00	2.50	0.30	0.00
25.00	2.50	0.30	0.00	280.00	2.50	0.30	0.00
30.00	2.50	0.30	0.00	285.00	2.50	0.30	0.00
35.00	2.50	0.30	0.00	290.00	2.50	0.30	0.00
40.00	2.50	0.30	0.00	295.00	2.50	0.30	0.00
45.00	2.50	0.30	0.00	300.00	2.50	0.30	0.00
50.00	2.50	0.30	0.00	305.00	2.50	0.30	0.00
55.00	2.50	0.30	0.00	310.00	2.50	0.30	0.00
60.00	2.50	0.30	0.00	315.00	2.50	0.30	0.00
65.00	2.50	0.30	0.00	320.00	2.50	0.30	0.00
70.00	2.50	0.30	0.00	325.00	2.50	0.30	0.00
75.00	2.50	0.30	0.00	330.00	2.50	0.30	0.00
80.00	2.50	0.30	0.00	335.00	2.50	0.30	0.00
85.00	2.50	0.30	0.00	340.00	2.50	0.30	0.00
90.00	2.50	0.30	0.00	345.00	2.50	0.30	0.00
95.00	2.50	0.30	0.00	350.00	2.50	0.30	0.00
100.00	2.50	0.30	0.00	355.00	2.50	0.30	0.00
105.00	2.50	0.30	0.00	360.00	2.50	0.30	0.00
110.00	2.50	0.30	0.00	365.00	2.50	0.30	0.00
115.00	2.50	0.30	0.00	370.00	2.50	0.30	0.00
120.00	2.50	0.30	0.00	375.00	2.50	0.30	0.00
125.00	2.50	0.30	0.00	380.00	2.50	0.30	0.00
130.00	2.50	0.30	0.00	385.00	2.50	0.30	0.00
135.00	2.50	0.30	0.00	390.00	2.50	0.30	0.00
140.00	2.50	0.30	0.00	395.00	2.50	0.30	0.00
145.00	2.50	0.30	0.00	400.00	2.50	0.30	0.00
150.00	2.50	0.30	0.00	405.00	2.50	0.30	0.00
155.00	2.50	0.30	0.00	410.00	2.50	0.30	0.00
160.00	2.50	0.30	0.00	415.00	2.50	0.30	0.00
165.00	2.50	0.30	0.00	420.00	2.50	0.30	0.00
170.00	2.50	0.30	0.00	425.00	2.50	0.30	0.00
175.00	2.50	0.30	0.00	430.00	2.50	0.30	0.00
180.00	2.50	0.30	0.00	435.00	2.50	0.30	0.00
185.00	2.50	0.30	0.00	440.00	2.50	0.30	0.00
190.00	2.50	0.30	0.00	445.00	2.50	0.30	0.00
195.00	2.50	0.30	0.00	450.00	2.50	0.30	0.00
200.00	2.50	0.30	0.00	455.00	2.50	0.30	0.00
205.00	2.50	0.30	0.00	460.00	2.50	0.30	0.00
210.00	2.50	0.30	0.00	465.00	2.50	0.30	0.00
215.00	2.50	0.30	0.00	470.00	2.50	0.30	0.00
220.00	2.50	0.30	0.00	475.00	2.50	0.30	0.00
225.00	2.50	0.30	0.00	480.00	2.50	0.30	0.00
230.00	2.50	0.30	0.00	485.00	2.50	0.30	0.00
235.00	2.50	0.30	0.00	490.00	2.50	0.30	0.00
240.00	2.50	0.30	0.00	495.00	2.50	0.30	0.00
245.00	2.50	0.30	0.00	500.00	2.50	0.30	0.00
250.00	2.50	0.30	0.00				
255.00	2.50	0.30	0.00				

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Summary for Subcatchment 3: Pre - North

Runoff = 2.12 cfs @ 12.34 hrs, Volume= 0.400 af, Depth= 0.17"
Routed to Link 1L : Total Pre - Development

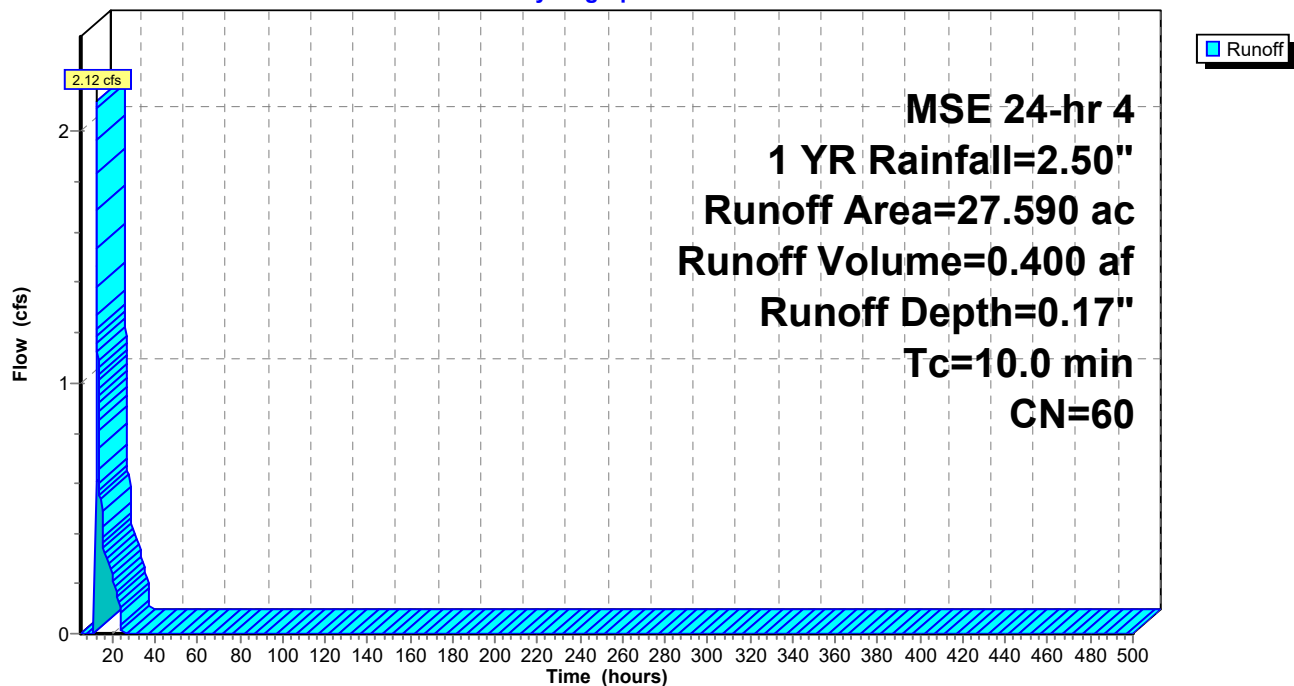
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1 YR Rainfall=2.50"

	Area (ac)	CN	Description
*	18.190	55	Pre Dev - B Soils
*	9.400	70	Pre Dev - C Soils
	27.590	60	Weighted Average
	27.590		100.00% Pervious Area

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

Subcatchment 3: Pre - North

Hydrograph



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Hydrograph for Subcatchment 3: Pre - North

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.11	0.00	0.00	260.00	2.50	0.17	0.00
10.00	0.40	0.00	0.00	265.00	2.50	0.17	0.00
15.00	2.20	0.10	0.53	270.00	2.50	0.17	0.00
20.00	2.42	0.15	0.23	275.00	2.50	0.17	0.00
25.00	2.50	0.17	0.00	280.00	2.50	0.17	0.00
30.00	2.50	0.17	0.00	285.00	2.50	0.17	0.00
35.00	2.50	0.17	0.00	290.00	2.50	0.17	0.00
40.00	2.50	0.17	0.00	295.00	2.50	0.17	0.00
45.00	2.50	0.17	0.00	300.00	2.50	0.17	0.00
50.00	2.50	0.17	0.00	305.00	2.50	0.17	0.00
55.00	2.50	0.17	0.00	310.00	2.50	0.17	0.00
60.00	2.50	0.17	0.00	315.00	2.50	0.17	0.00
65.00	2.50	0.17	0.00	320.00	2.50	0.17	0.00
70.00	2.50	0.17	0.00	325.00	2.50	0.17	0.00
75.00	2.50	0.17	0.00	330.00	2.50	0.17	0.00
80.00	2.50	0.17	0.00	335.00	2.50	0.17	0.00
85.00	2.50	0.17	0.00	340.00	2.50	0.17	0.00
90.00	2.50	0.17	0.00	345.00	2.50	0.17	0.00
95.00	2.50	0.17	0.00	350.00	2.50	0.17	0.00
100.00	2.50	0.17	0.00	355.00	2.50	0.17	0.00
105.00	2.50	0.17	0.00	360.00	2.50	0.17	0.00
110.00	2.50	0.17	0.00	365.00	2.50	0.17	0.00
115.00	2.50	0.17	0.00	370.00	2.50	0.17	0.00
120.00	2.50	0.17	0.00	375.00	2.50	0.17	0.00
125.00	2.50	0.17	0.00	380.00	2.50	0.17	0.00
130.00	2.50	0.17	0.00	385.00	2.50	0.17	0.00
135.00	2.50	0.17	0.00	390.00	2.50	0.17	0.00
140.00	2.50	0.17	0.00	395.00	2.50	0.17	0.00
145.00	2.50	0.17	0.00	400.00	2.50	0.17	0.00
150.00	2.50	0.17	0.00	405.00	2.50	0.17	0.00
155.00	2.50	0.17	0.00	410.00	2.50	0.17	0.00
160.00	2.50	0.17	0.00	415.00	2.50	0.17	0.00
165.00	2.50	0.17	0.00	420.00	2.50	0.17	0.00
170.00	2.50	0.17	0.00	425.00	2.50	0.17	0.00
175.00	2.50	0.17	0.00	430.00	2.50	0.17	0.00
180.00	2.50	0.17	0.00	435.00	2.50	0.17	0.00
185.00	2.50	0.17	0.00	440.00	2.50	0.17	0.00
190.00	2.50	0.17	0.00	445.00	2.50	0.17	0.00
195.00	2.50	0.17	0.00	450.00	2.50	0.17	0.00
200.00	2.50	0.17	0.00	455.00	2.50	0.17	0.00
205.00	2.50	0.17	0.00	460.00	2.50	0.17	0.00
210.00	2.50	0.17	0.00	465.00	2.50	0.17	0.00
215.00	2.50	0.17	0.00	470.00	2.50	0.17	0.00
220.00	2.50	0.17	0.00	475.00	2.50	0.17	0.00
225.00	2.50	0.17	0.00	480.00	2.50	0.17	0.00
230.00	2.50	0.17	0.00	485.00	2.50	0.17	0.00
235.00	2.50	0.17	0.00	490.00	2.50	0.17	0.00
240.00	2.50	0.17	0.00	495.00	2.50	0.17	0.00
245.00	2.50	0.17	0.00	500.00	2.50	0.17	0.00
250.00	2.50	0.17	0.00				
255.00	2.50	0.17	0.00				

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Summary for Subcatchment 3A: Post 3A

Runoff = 6.50 cfs @ 12.15 hrs, Volume= 0.402 af, Depth= 0.46"
Routed to Pond P3A : Pond 3A

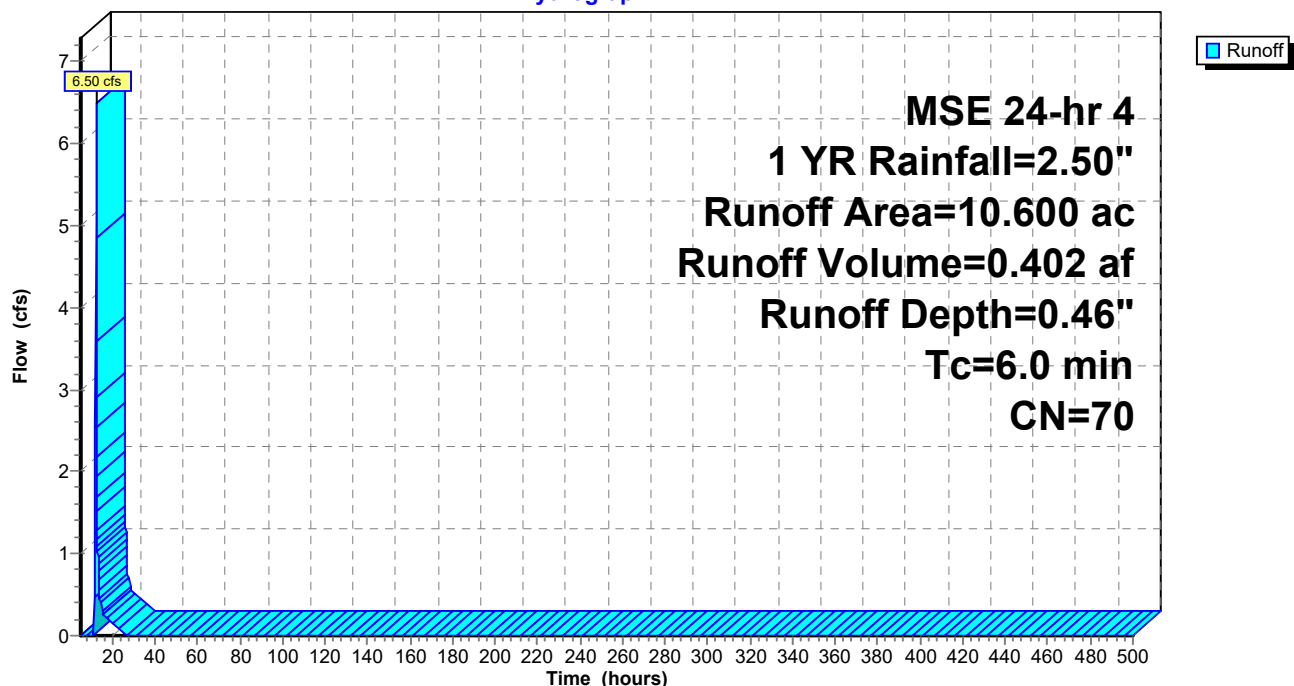
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1 YR Rainfall=2.50"

Area (ac)	CN	Description
* 1.970	98	Impervious
* 6.570	61	Post - B Soils
* 2.060	74	Post - C Soils
10.600	70	Weighted Average
8.630		81.42% Pervious Area
1.970		18.58% Impervious Area

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

Subcatchment 3A: Post 3A

Hydrograph



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"
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Hydrograph for Subcatchment 3A: Post 3A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.11	0.00	0.00	260.00	2.50	0.46	0.00
10.00	0.40	0.00	0.00	265.00	2.50	0.46	0.00
15.00	2.20	0.32	0.40	270.00	2.50	0.46	0.00
20.00	2.42	0.42	0.16	275.00	2.50	0.46	0.00
25.00	2.50	0.46	0.00	280.00	2.50	0.46	0.00
30.00	2.50	0.46	0.00	285.00	2.50	0.46	0.00
35.00	2.50	0.46	0.00	290.00	2.50	0.46	0.00
40.00	2.50	0.46	0.00	295.00	2.50	0.46	0.00
45.00	2.50	0.46	0.00	300.00	2.50	0.46	0.00
50.00	2.50	0.46	0.00	305.00	2.50	0.46	0.00
55.00	2.50	0.46	0.00	310.00	2.50	0.46	0.00
60.00	2.50	0.46	0.00	315.00	2.50	0.46	0.00
65.00	2.50	0.46	0.00	320.00	2.50	0.46	0.00
70.00	2.50	0.46	0.00	325.00	2.50	0.46	0.00
75.00	2.50	0.46	0.00	330.00	2.50	0.46	0.00
80.00	2.50	0.46	0.00	335.00	2.50	0.46	0.00
85.00	2.50	0.46	0.00	340.00	2.50	0.46	0.00
90.00	2.50	0.46	0.00	345.00	2.50	0.46	0.00
95.00	2.50	0.46	0.00	350.00	2.50	0.46	0.00
100.00	2.50	0.46	0.00	355.00	2.50	0.46	0.00
105.00	2.50	0.46	0.00	360.00	2.50	0.46	0.00
110.00	2.50	0.46	0.00	365.00	2.50	0.46	0.00
115.00	2.50	0.46	0.00	370.00	2.50	0.46	0.00
120.00	2.50	0.46	0.00	375.00	2.50	0.46	0.00
125.00	2.50	0.46	0.00	380.00	2.50	0.46	0.00
130.00	2.50	0.46	0.00	385.00	2.50	0.46	0.00
135.00	2.50	0.46	0.00	390.00	2.50	0.46	0.00
140.00	2.50	0.46	0.00	395.00	2.50	0.46	0.00
145.00	2.50	0.46	0.00	400.00	2.50	0.46	0.00
150.00	2.50	0.46	0.00	405.00	2.50	0.46	0.00
155.00	2.50	0.46	0.00	410.00	2.50	0.46	0.00
160.00	2.50	0.46	0.00	415.00	2.50	0.46	0.00
165.00	2.50	0.46	0.00	420.00	2.50	0.46	0.00
170.00	2.50	0.46	0.00	425.00	2.50	0.46	0.00
175.00	2.50	0.46	0.00	430.00	2.50	0.46	0.00
180.00	2.50	0.46	0.00	435.00	2.50	0.46	0.00
185.00	2.50	0.46	0.00	440.00	2.50	0.46	0.00
190.00	2.50	0.46	0.00	445.00	2.50	0.46	0.00
195.00	2.50	0.46	0.00	450.00	2.50	0.46	0.00
200.00	2.50	0.46	0.00	455.00	2.50	0.46	0.00
205.00	2.50	0.46	0.00	460.00	2.50	0.46	0.00
210.00	2.50	0.46	0.00	465.00	2.50	0.46	0.00
215.00	2.50	0.46	0.00	470.00	2.50	0.46	0.00
220.00	2.50	0.46	0.00	475.00	2.50	0.46	0.00
225.00	2.50	0.46	0.00	480.00	2.50	0.46	0.00
230.00	2.50	0.46	0.00	485.00	2.50	0.46	0.00
235.00	2.50	0.46	0.00	490.00	2.50	0.46	0.00
240.00	2.50	0.46	0.00	495.00	2.50	0.46	0.00
245.00	2.50	0.46	0.00	500.00	2.50	0.46	0.00
250.00	2.50	0.46	0.00				
255.00	2.50	0.46	0.00				

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Summary for Subcatchment 3B: Post 3B

Runoff = 5.75 cfs @ 12.15 hrs, Volume= 0.346 af, Depth= 0.49"
Routed to Pond P3B : Pond 3B

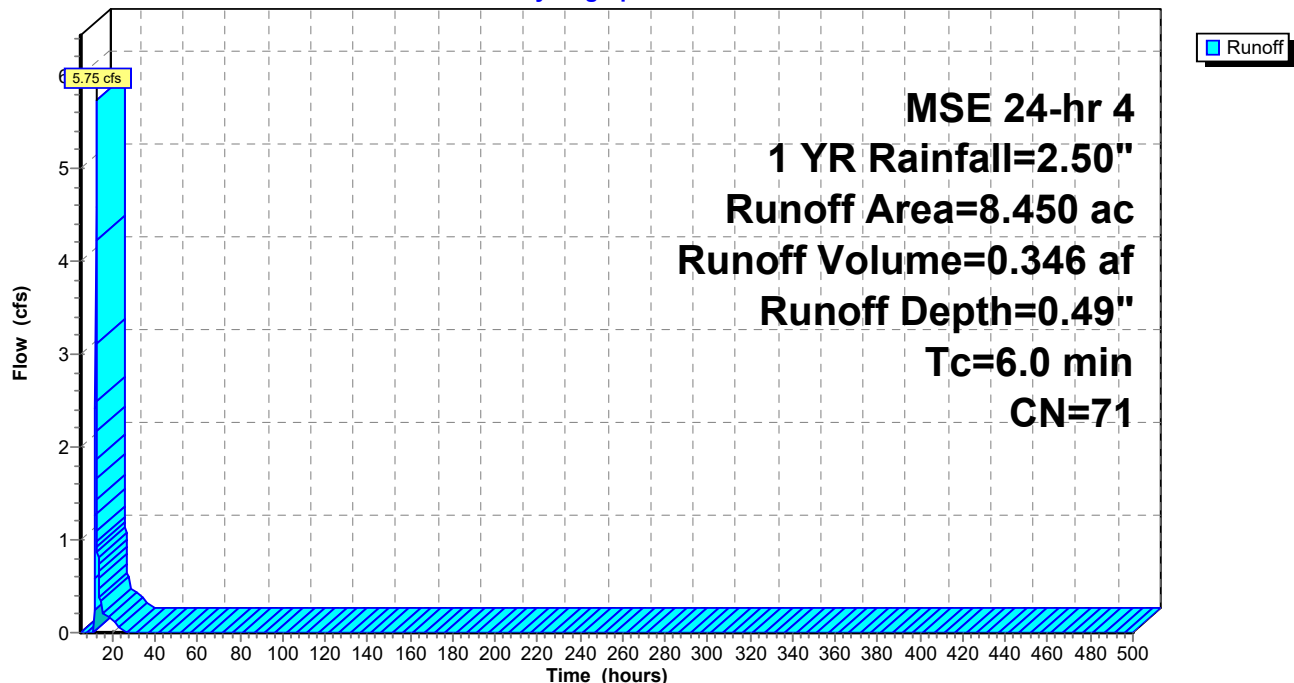
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1 YR Rainfall=2.50"

	Area (ac)	CN	Description
*	1.680	98	Impervious
*	5.290	61	Post - B Soils
*	1.480	74	Post - C Soils
	8.450	71	Weighted Average
	6.770		80.12% Pervious Area
	1.680		19.88% Impervious Area

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

Subcatchment 3B: Post 3B

Hydrograph



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Hydrograph for Subcatchment 3B: Post 3B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.11	0.00	0.00	260.00	2.50	0.49	0.00
10.00	0.40	0.00	0.00	265.00	2.50	0.49	0.00
15.00	2.20	0.35	0.33	270.00	2.50	0.49	0.00
20.00	2.42	0.45	0.13	275.00	2.50	0.49	0.00
25.00	2.50	0.49	0.00	280.00	2.50	0.49	0.00
30.00	2.50	0.49	0.00	285.00	2.50	0.49	0.00
35.00	2.50	0.49	0.00	290.00	2.50	0.49	0.00
40.00	2.50	0.49	0.00	295.00	2.50	0.49	0.00
45.00	2.50	0.49	0.00	300.00	2.50	0.49	0.00
50.00	2.50	0.49	0.00	305.00	2.50	0.49	0.00
55.00	2.50	0.49	0.00	310.00	2.50	0.49	0.00
60.00	2.50	0.49	0.00	315.00	2.50	0.49	0.00
65.00	2.50	0.49	0.00	320.00	2.50	0.49	0.00
70.00	2.50	0.49	0.00	325.00	2.50	0.49	0.00
75.00	2.50	0.49	0.00	330.00	2.50	0.49	0.00
80.00	2.50	0.49	0.00	335.00	2.50	0.49	0.00
85.00	2.50	0.49	0.00	340.00	2.50	0.49	0.00
90.00	2.50	0.49	0.00	345.00	2.50	0.49	0.00
95.00	2.50	0.49	0.00	350.00	2.50	0.49	0.00
100.00	2.50	0.49	0.00	355.00	2.50	0.49	0.00
105.00	2.50	0.49	0.00	360.00	2.50	0.49	0.00
110.00	2.50	0.49	0.00	365.00	2.50	0.49	0.00
115.00	2.50	0.49	0.00	370.00	2.50	0.49	0.00
120.00	2.50	0.49	0.00	375.00	2.50	0.49	0.00
125.00	2.50	0.49	0.00	380.00	2.50	0.49	0.00
130.00	2.50	0.49	0.00	385.00	2.50	0.49	0.00
135.00	2.50	0.49	0.00	390.00	2.50	0.49	0.00
140.00	2.50	0.49	0.00	395.00	2.50	0.49	0.00
145.00	2.50	0.49	0.00	400.00	2.50	0.49	0.00
150.00	2.50	0.49	0.00	405.00	2.50	0.49	0.00
155.00	2.50	0.49	0.00	410.00	2.50	0.49	0.00
160.00	2.50	0.49	0.00	415.00	2.50	0.49	0.00
165.00	2.50	0.49	0.00	420.00	2.50	0.49	0.00
170.00	2.50	0.49	0.00	425.00	2.50	0.49	0.00
175.00	2.50	0.49	0.00	430.00	2.50	0.49	0.00
180.00	2.50	0.49	0.00	435.00	2.50	0.49	0.00
185.00	2.50	0.49	0.00	440.00	2.50	0.49	0.00
190.00	2.50	0.49	0.00	445.00	2.50	0.49	0.00
195.00	2.50	0.49	0.00	450.00	2.50	0.49	0.00
200.00	2.50	0.49	0.00	455.00	2.50	0.49	0.00
205.00	2.50	0.49	0.00	460.00	2.50	0.49	0.00
210.00	2.50	0.49	0.00	465.00	2.50	0.49	0.00
215.00	2.50	0.49	0.00	470.00	2.50	0.49	0.00
220.00	2.50	0.49	0.00	475.00	2.50	0.49	0.00
225.00	2.50	0.49	0.00	480.00	2.50	0.49	0.00
230.00	2.50	0.49	0.00	485.00	2.50	0.49	0.00
235.00	2.50	0.49	0.00	490.00	2.50	0.49	0.00
240.00	2.50	0.49	0.00	495.00	2.50	0.49	0.00
245.00	2.50	0.49	0.00	500.00	2.50	0.49	0.00
250.00	2.50	0.49	0.00				
255.00	2.50	0.49	0.00				

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Summary for Subcatchment 3C: Post 3C

Runoff = 2.42 cfs @ 12.14 hrs, Volume= 0.135 af, Depth= 0.65"
Routed to Pond P3C : Pond 3C

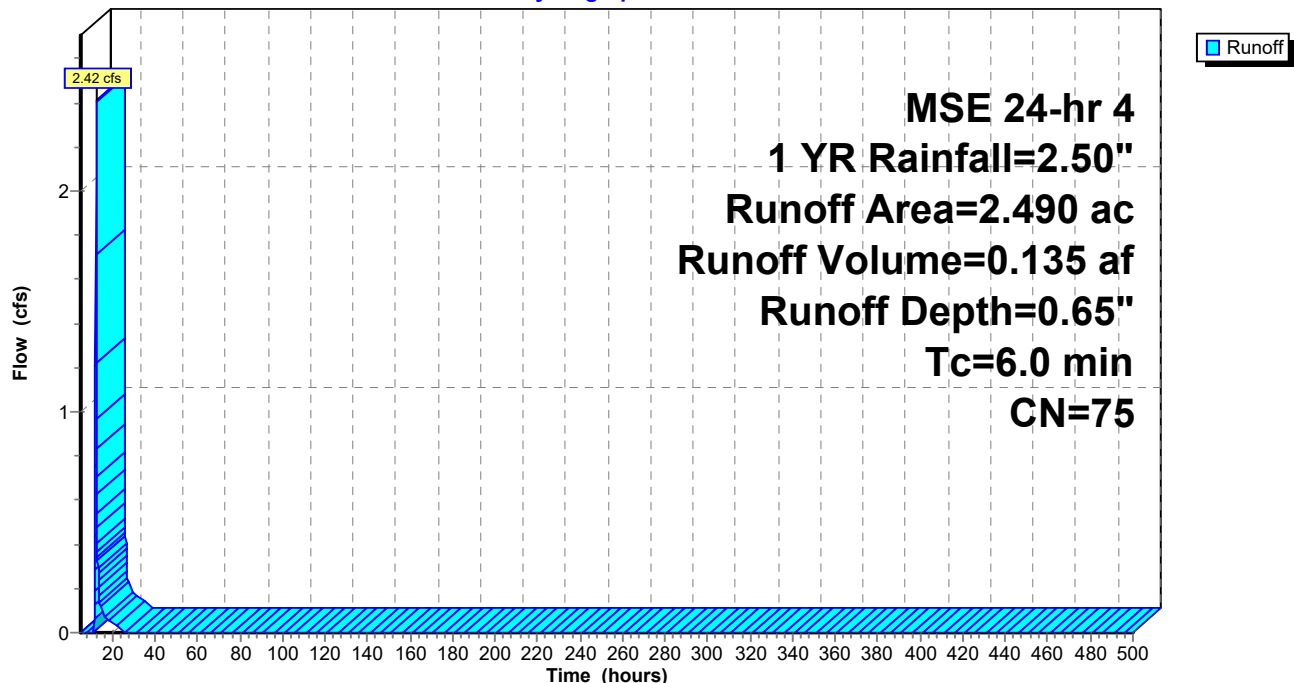
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1 YR Rainfall=2.50"

Area (ac)	CN	Description
* 0.570	98	Impervious
* 0.800	61	Post - B Soils
* 1.120	74	Post - C Soils
2.490	75	Weighted Average
1.920		77.11% Pervious Area
0.570		22.89% Impervious Area

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

Subcatchment 3C: Post 3C

Hydrograph



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Hydrograph for Subcatchment 3C: Post 3C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.11	0.00	0.00	260.00	2.50	0.65	0.00
10.00	0.40	0.00	0.00	265.00	2.50	0.65	0.00
15.00	2.20	0.48	0.12	270.00	2.50	0.65	0.00
20.00	2.42	0.60	0.05	275.00	2.50	0.65	0.00
25.00	2.50	0.65	0.00	280.00	2.50	0.65	0.00
30.00	2.50	0.65	0.00	285.00	2.50	0.65	0.00
35.00	2.50	0.65	0.00	290.00	2.50	0.65	0.00
40.00	2.50	0.65	0.00	295.00	2.50	0.65	0.00
45.00	2.50	0.65	0.00	300.00	2.50	0.65	0.00
50.00	2.50	0.65	0.00	305.00	2.50	0.65	0.00
55.00	2.50	0.65	0.00	310.00	2.50	0.65	0.00
60.00	2.50	0.65	0.00	315.00	2.50	0.65	0.00
65.00	2.50	0.65	0.00	320.00	2.50	0.65	0.00
70.00	2.50	0.65	0.00	325.00	2.50	0.65	0.00
75.00	2.50	0.65	0.00	330.00	2.50	0.65	0.00
80.00	2.50	0.65	0.00	335.00	2.50	0.65	0.00
85.00	2.50	0.65	0.00	340.00	2.50	0.65	0.00
90.00	2.50	0.65	0.00	345.00	2.50	0.65	0.00
95.00	2.50	0.65	0.00	350.00	2.50	0.65	0.00
100.00	2.50	0.65	0.00	355.00	2.50	0.65	0.00
105.00	2.50	0.65	0.00	360.00	2.50	0.65	0.00
110.00	2.50	0.65	0.00	365.00	2.50	0.65	0.00
115.00	2.50	0.65	0.00	370.00	2.50	0.65	0.00
120.00	2.50	0.65	0.00	375.00	2.50	0.65	0.00
125.00	2.50	0.65	0.00	380.00	2.50	0.65	0.00
130.00	2.50	0.65	0.00	385.00	2.50	0.65	0.00
135.00	2.50	0.65	0.00	390.00	2.50	0.65	0.00
140.00	2.50	0.65	0.00	395.00	2.50	0.65	0.00
145.00	2.50	0.65	0.00	400.00	2.50	0.65	0.00
150.00	2.50	0.65	0.00	405.00	2.50	0.65	0.00
155.00	2.50	0.65	0.00	410.00	2.50	0.65	0.00
160.00	2.50	0.65	0.00	415.00	2.50	0.65	0.00
165.00	2.50	0.65	0.00	420.00	2.50	0.65	0.00
170.00	2.50	0.65	0.00	425.00	2.50	0.65	0.00
175.00	2.50	0.65	0.00	430.00	2.50	0.65	0.00
180.00	2.50	0.65	0.00	435.00	2.50	0.65	0.00
185.00	2.50	0.65	0.00	440.00	2.50	0.65	0.00
190.00	2.50	0.65	0.00	445.00	2.50	0.65	0.00
195.00	2.50	0.65	0.00	450.00	2.50	0.65	0.00
200.00	2.50	0.65	0.00	455.00	2.50	0.65	0.00
205.00	2.50	0.65	0.00	460.00	2.50	0.65	0.00
210.00	2.50	0.65	0.00	465.00	2.50	0.65	0.00
215.00	2.50	0.65	0.00	470.00	2.50	0.65	0.00
220.00	2.50	0.65	0.00	475.00	2.50	0.65	0.00
225.00	2.50	0.65	0.00	480.00	2.50	0.65	0.00
230.00	2.50	0.65	0.00	485.00	2.50	0.65	0.00
235.00	2.50	0.65	0.00	490.00	2.50	0.65	0.00
240.00	2.50	0.65	0.00	495.00	2.50	0.65	0.00
245.00	2.50	0.65	0.00	500.00	2.50	0.65	0.00
250.00	2.50	0.65	0.00				
255.00	2.50	0.65	0.00				

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Summary for Subcatchment 3D: Post 3D

Runoff = 2.49 cfs @ 12.14 hrs, Volume= 0.138 af, Depth= 0.69"
Routed to Pond P3D : Pond 3D

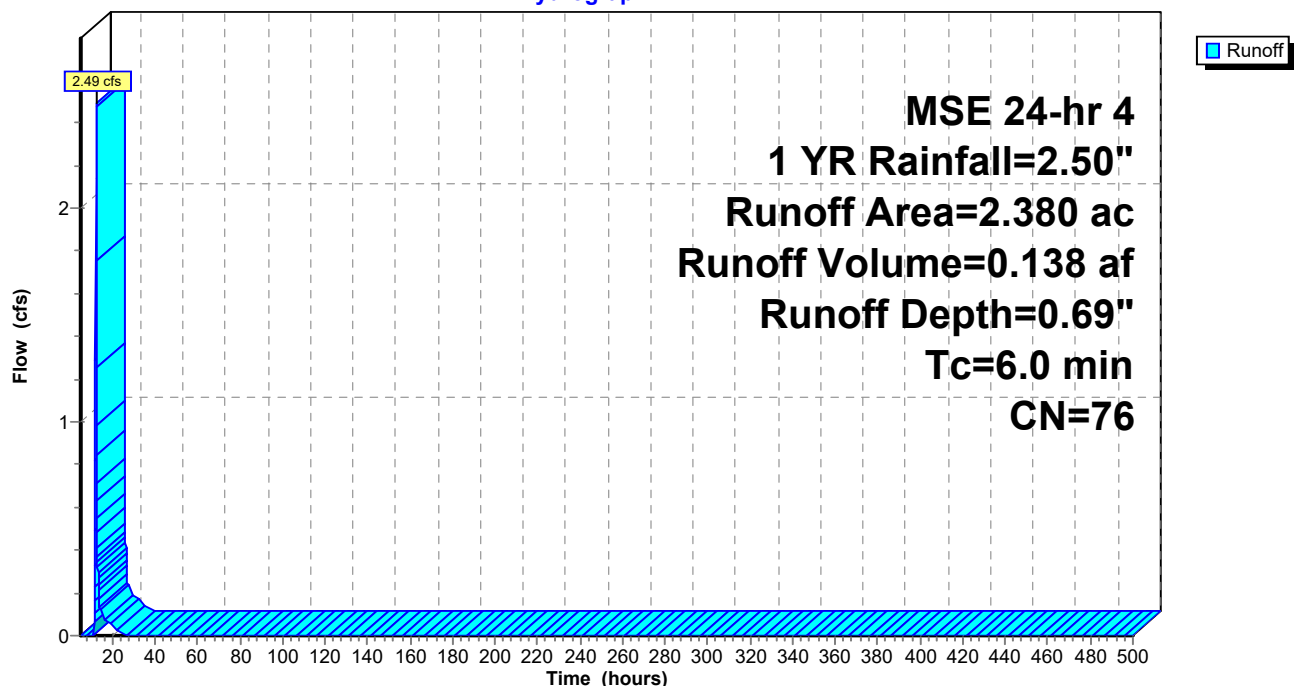
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1 YR Rainfall=2.50"

Area (ac)	CN	Description
* 0.570	98	Impervious
* 0.610	61	Post - B Soils
* 1.200	74	Post - C Soils
2.380	76	Weighted Average
1.810		76.05% Pervious Area
0.570		23.95% Impervious Area

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

Subcatchment 3D: Post 3D

Hydrograph



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Hydrograph for Subcatchment 3D: Post 3D

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.11	0.00	0.00	260.00	2.50	0.69	0.00
10.00	0.40	0.00	0.00	265.00	2.50	0.69	0.00
15.00	2.20	0.52	0.12	270.00	2.50	0.69	0.00
20.00	2.42	0.65	0.04	275.00	2.50	0.69	0.00
25.00	2.50	0.69	0.00	280.00	2.50	0.69	0.00
30.00	2.50	0.69	0.00	285.00	2.50	0.69	0.00
35.00	2.50	0.69	0.00	290.00	2.50	0.69	0.00
40.00	2.50	0.69	0.00	295.00	2.50	0.69	0.00
45.00	2.50	0.69	0.00	300.00	2.50	0.69	0.00
50.00	2.50	0.69	0.00	305.00	2.50	0.69	0.00
55.00	2.50	0.69	0.00	310.00	2.50	0.69	0.00
60.00	2.50	0.69	0.00	315.00	2.50	0.69	0.00
65.00	2.50	0.69	0.00	320.00	2.50	0.69	0.00
70.00	2.50	0.69	0.00	325.00	2.50	0.69	0.00
75.00	2.50	0.69	0.00	330.00	2.50	0.69	0.00
80.00	2.50	0.69	0.00	335.00	2.50	0.69	0.00
85.00	2.50	0.69	0.00	340.00	2.50	0.69	0.00
90.00	2.50	0.69	0.00	345.00	2.50	0.69	0.00
95.00	2.50	0.69	0.00	350.00	2.50	0.69	0.00
100.00	2.50	0.69	0.00	355.00	2.50	0.69	0.00
105.00	2.50	0.69	0.00	360.00	2.50	0.69	0.00
110.00	2.50	0.69	0.00	365.00	2.50	0.69	0.00
115.00	2.50	0.69	0.00	370.00	2.50	0.69	0.00
120.00	2.50	0.69	0.00	375.00	2.50	0.69	0.00
125.00	2.50	0.69	0.00	380.00	2.50	0.69	0.00
130.00	2.50	0.69	0.00	385.00	2.50	0.69	0.00
135.00	2.50	0.69	0.00	390.00	2.50	0.69	0.00
140.00	2.50	0.69	0.00	395.00	2.50	0.69	0.00
145.00	2.50	0.69	0.00	400.00	2.50	0.69	0.00
150.00	2.50	0.69	0.00	405.00	2.50	0.69	0.00
155.00	2.50	0.69	0.00	410.00	2.50	0.69	0.00
160.00	2.50	0.69	0.00	415.00	2.50	0.69	0.00
165.00	2.50	0.69	0.00	420.00	2.50	0.69	0.00
170.00	2.50	0.69	0.00	425.00	2.50	0.69	0.00
175.00	2.50	0.69	0.00	430.00	2.50	0.69	0.00
180.00	2.50	0.69	0.00	435.00	2.50	0.69	0.00
185.00	2.50	0.69	0.00	440.00	2.50	0.69	0.00
190.00	2.50	0.69	0.00	445.00	2.50	0.69	0.00
195.00	2.50	0.69	0.00	450.00	2.50	0.69	0.00
200.00	2.50	0.69	0.00	455.00	2.50	0.69	0.00
205.00	2.50	0.69	0.00	460.00	2.50	0.69	0.00
210.00	2.50	0.69	0.00	465.00	2.50	0.69	0.00
215.00	2.50	0.69	0.00	470.00	2.50	0.69	0.00
220.00	2.50	0.69	0.00	475.00	2.50	0.69	0.00
225.00	2.50	0.69	0.00	480.00	2.50	0.69	0.00
230.00	2.50	0.69	0.00	485.00	2.50	0.69	0.00
235.00	2.50	0.69	0.00	490.00	2.50	0.69	0.00
240.00	2.50	0.69	0.00	495.00	2.50	0.69	0.00
245.00	2.50	0.69	0.00	500.00	2.50	0.69	0.00
250.00	2.50	0.69	0.00				
255.00	2.50	0.69	0.00				

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Summary for Subcatchment 3E: Post 3E

Runoff = 2.49 cfs @ 12.14 hrs, Volume= 0.141 af, Depth= 0.61"
Routed to Pond P3E : Pond 3E

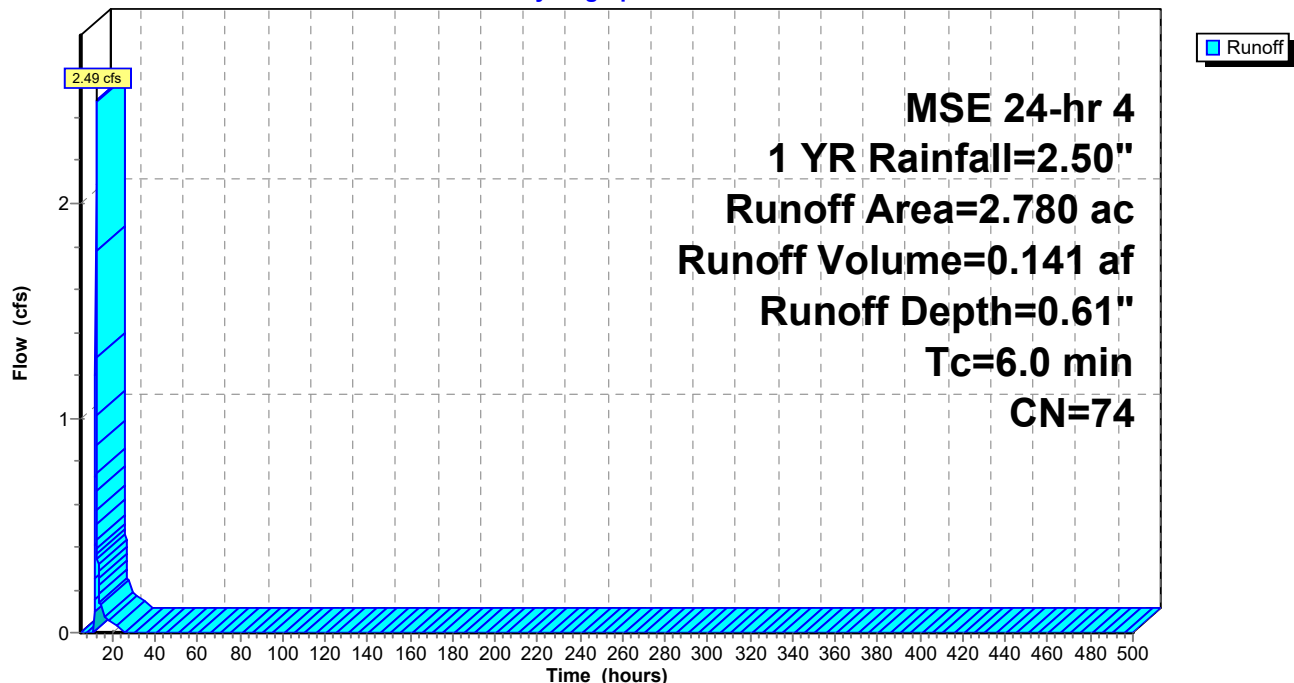
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1 YR Rainfall=2.50"

Area (ac)	CN	Description
* 0.530	98	Impervious
* 0.920	61	Post - B Soils
* 1.330	74	Post - C Soils
2.780	74	Weighted Average
2.250		80.94% Pervious Area
0.530		19.06% Impervious Area

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

Subcatchment 3E: Post 3E

Hydrograph



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Hydrograph for Subcatchment 3E: Post 3E

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.11	0.00	0.00	260.00	2.50	0.61	0.00
10.00	0.40	0.00	0.00	265.00	2.50	0.61	0.00
15.00	2.20	0.45	0.13	270.00	2.50	0.61	0.00
20.00	2.42	0.56	0.05	275.00	2.50	0.61	0.00
25.00	2.50	0.61	0.00	280.00	2.50	0.61	0.00
30.00	2.50	0.61	0.00	285.00	2.50	0.61	0.00
35.00	2.50	0.61	0.00	290.00	2.50	0.61	0.00
40.00	2.50	0.61	0.00	295.00	2.50	0.61	0.00
45.00	2.50	0.61	0.00	300.00	2.50	0.61	0.00
50.00	2.50	0.61	0.00	305.00	2.50	0.61	0.00
55.00	2.50	0.61	0.00	310.00	2.50	0.61	0.00
60.00	2.50	0.61	0.00	315.00	2.50	0.61	0.00
65.00	2.50	0.61	0.00	320.00	2.50	0.61	0.00
70.00	2.50	0.61	0.00	325.00	2.50	0.61	0.00
75.00	2.50	0.61	0.00	330.00	2.50	0.61	0.00
80.00	2.50	0.61	0.00	335.00	2.50	0.61	0.00
85.00	2.50	0.61	0.00	340.00	2.50	0.61	0.00
90.00	2.50	0.61	0.00	345.00	2.50	0.61	0.00
95.00	2.50	0.61	0.00	350.00	2.50	0.61	0.00
100.00	2.50	0.61	0.00	355.00	2.50	0.61	0.00
105.00	2.50	0.61	0.00	360.00	2.50	0.61	0.00
110.00	2.50	0.61	0.00	365.00	2.50	0.61	0.00
115.00	2.50	0.61	0.00	370.00	2.50	0.61	0.00
120.00	2.50	0.61	0.00	375.00	2.50	0.61	0.00
125.00	2.50	0.61	0.00	380.00	2.50	0.61	0.00
130.00	2.50	0.61	0.00	385.00	2.50	0.61	0.00
135.00	2.50	0.61	0.00	390.00	2.50	0.61	0.00
140.00	2.50	0.61	0.00	395.00	2.50	0.61	0.00
145.00	2.50	0.61	0.00	400.00	2.50	0.61	0.00
150.00	2.50	0.61	0.00	405.00	2.50	0.61	0.00
155.00	2.50	0.61	0.00	410.00	2.50	0.61	0.00
160.00	2.50	0.61	0.00	415.00	2.50	0.61	0.00
165.00	2.50	0.61	0.00	420.00	2.50	0.61	0.00
170.00	2.50	0.61	0.00	425.00	2.50	0.61	0.00
175.00	2.50	0.61	0.00	430.00	2.50	0.61	0.00
180.00	2.50	0.61	0.00	435.00	2.50	0.61	0.00
185.00	2.50	0.61	0.00	440.00	2.50	0.61	0.00
190.00	2.50	0.61	0.00	445.00	2.50	0.61	0.00
195.00	2.50	0.61	0.00	450.00	2.50	0.61	0.00
200.00	2.50	0.61	0.00	455.00	2.50	0.61	0.00
205.00	2.50	0.61	0.00	460.00	2.50	0.61	0.00
210.00	2.50	0.61	0.00	465.00	2.50	0.61	0.00
215.00	2.50	0.61	0.00	470.00	2.50	0.61	0.00
220.00	2.50	0.61	0.00	475.00	2.50	0.61	0.00
225.00	2.50	0.61	0.00	480.00	2.50	0.61	0.00
230.00	2.50	0.61	0.00	485.00	2.50	0.61	0.00
235.00	2.50	0.61	0.00	490.00	2.50	0.61	0.00
240.00	2.50	0.61	0.00	495.00	2.50	0.61	0.00
245.00	2.50	0.61	0.00	500.00	2.50	0.61	0.00
250.00	2.50	0.61	0.00				
255.00	2.50	0.61	0.00				

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Summary for Subcatchment 3Y: Post 3Y - Offsite

Runoff = 1.36 cfs @ 12.14 hrs, Volume= 0.072 af, Depth= 1.06"
Routed to Link 4L : Post - North

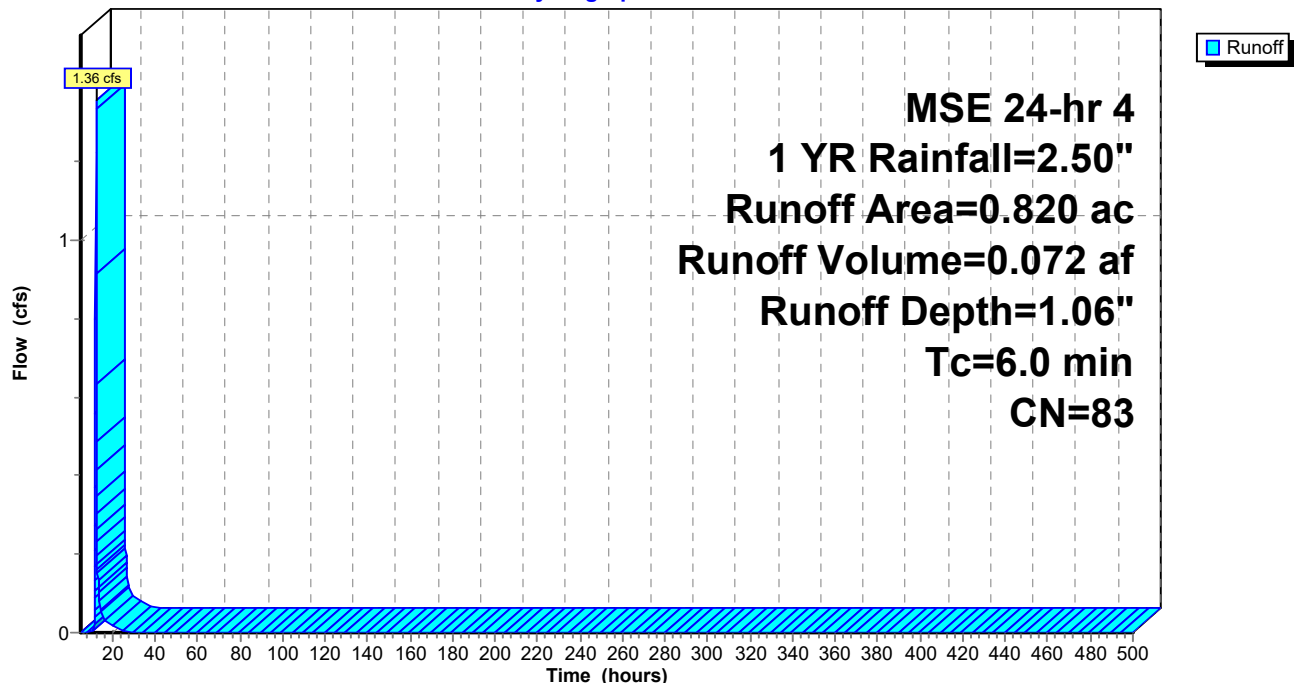
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1 YR Rainfall=2.50"

	Area (ac)	CN	Description
*	0.300	98	Impervious
*	0.000	61	Post - B Soils
*	0.520	74	Post - C Soils
	0.820	83	Weighted Average
	0.520		63.41% Pervious Area
	0.300		36.59% Impervious Area

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

Subcatchment 3Y: Post 3Y - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Hydrograph for Subcatchment 3Y: Post 3Y - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.11	0.00	0.00	260.00	2.50	1.06	0.00
10.00	0.40	0.00	0.00	265.00	2.50	1.06	0.00
15.00	2.20	0.83	0.05	270.00	2.50	1.06	0.00
20.00	2.42	0.99	0.02	275.00	2.50	1.06	0.00
25.00	2.50	1.06	0.00	280.00	2.50	1.06	0.00
30.00	2.50	1.06	0.00	285.00	2.50	1.06	0.00
35.00	2.50	1.06	0.00	290.00	2.50	1.06	0.00
40.00	2.50	1.06	0.00	295.00	2.50	1.06	0.00
45.00	2.50	1.06	0.00	300.00	2.50	1.06	0.00
50.00	2.50	1.06	0.00	305.00	2.50	1.06	0.00
55.00	2.50	1.06	0.00	310.00	2.50	1.06	0.00
60.00	2.50	1.06	0.00	315.00	2.50	1.06	0.00
65.00	2.50	1.06	0.00	320.00	2.50	1.06	0.00
70.00	2.50	1.06	0.00	325.00	2.50	1.06	0.00
75.00	2.50	1.06	0.00	330.00	2.50	1.06	0.00
80.00	2.50	1.06	0.00	335.00	2.50	1.06	0.00
85.00	2.50	1.06	0.00	340.00	2.50	1.06	0.00
90.00	2.50	1.06	0.00	345.00	2.50	1.06	0.00
95.00	2.50	1.06	0.00	350.00	2.50	1.06	0.00
100.00	2.50	1.06	0.00	355.00	2.50	1.06	0.00
105.00	2.50	1.06	0.00	360.00	2.50	1.06	0.00
110.00	2.50	1.06	0.00	365.00	2.50	1.06	0.00
115.00	2.50	1.06	0.00	370.00	2.50	1.06	0.00
120.00	2.50	1.06	0.00	375.00	2.50	1.06	0.00
125.00	2.50	1.06	0.00	380.00	2.50	1.06	0.00
130.00	2.50	1.06	0.00	385.00	2.50	1.06	0.00
135.00	2.50	1.06	0.00	390.00	2.50	1.06	0.00
140.00	2.50	1.06	0.00	395.00	2.50	1.06	0.00
145.00	2.50	1.06	0.00	400.00	2.50	1.06	0.00
150.00	2.50	1.06	0.00	405.00	2.50	1.06	0.00
155.00	2.50	1.06	0.00	410.00	2.50	1.06	0.00
160.00	2.50	1.06	0.00	415.00	2.50	1.06	0.00
165.00	2.50	1.06	0.00	420.00	2.50	1.06	0.00
170.00	2.50	1.06	0.00	425.00	2.50	1.06	0.00
175.00	2.50	1.06	0.00	430.00	2.50	1.06	0.00
180.00	2.50	1.06	0.00	435.00	2.50	1.06	0.00
185.00	2.50	1.06	0.00	440.00	2.50	1.06	0.00
190.00	2.50	1.06	0.00	445.00	2.50	1.06	0.00
195.00	2.50	1.06	0.00	450.00	2.50	1.06	0.00
200.00	2.50	1.06	0.00	455.00	2.50	1.06	0.00
205.00	2.50	1.06	0.00	460.00	2.50	1.06	0.00
210.00	2.50	1.06	0.00	465.00	2.50	1.06	0.00
215.00	2.50	1.06	0.00	470.00	2.50	1.06	0.00
220.00	2.50	1.06	0.00	475.00	2.50	1.06	0.00
225.00	2.50	1.06	0.00	480.00	2.50	1.06	0.00
230.00	2.50	1.06	0.00	485.00	2.50	1.06	0.00
235.00	2.50	1.06	0.00	490.00	2.50	1.06	0.00
240.00	2.50	1.06	0.00	495.00	2.50	1.06	0.00
245.00	2.50	1.06	0.00	500.00	2.50	1.06	0.00
250.00	2.50	1.06	0.00				
255.00	2.50	1.06	0.00				

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Summary for Subcatchment 3Z: Post 3Z - Offsite

Runoff = 0.47 cfs @ 12.14 hrs, Volume= 0.026 af, Depth= 0.61"
Routed to Link 4L : Post - North

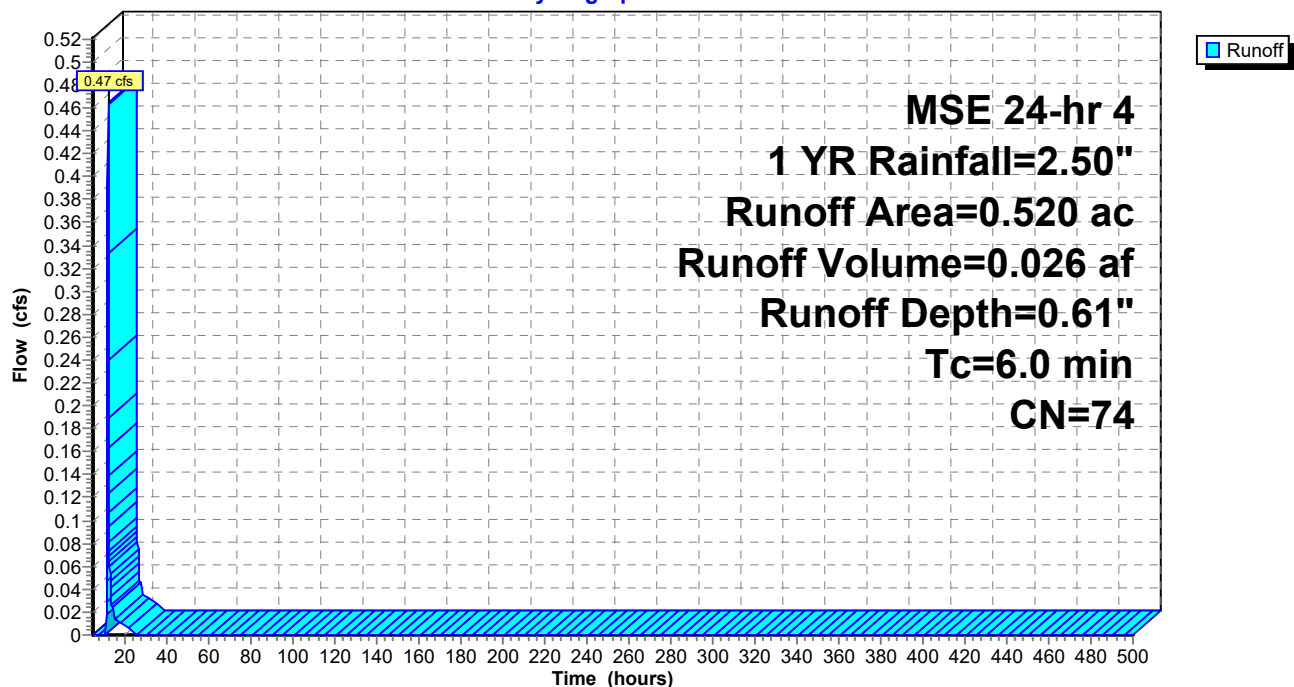
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1 YR Rainfall=2.50"

Area (ac)	CN	Description
* 0.000	98	Impervious
* 0.000	61	Post - B Soils
* 0.520	74	Post - C Soils
0.520	74	Weighted Average
0.520		100.00% Pervious Area

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

Subcatchment 3Z: Post 3Z - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Hydrograph for Subcatchment 3Z: Post 3Z - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.11	0.00	0.00	260.00	2.50	0.61	0.00
10.00	0.40	0.00	0.00	265.00	2.50	0.61	0.00
15.00	2.20	0.45	0.02	270.00	2.50	0.61	0.00
20.00	2.42	0.56	0.01	275.00	2.50	0.61	0.00
25.00	2.50	0.61	0.00	280.00	2.50	0.61	0.00
30.00	2.50	0.61	0.00	285.00	2.50	0.61	0.00
35.00	2.50	0.61	0.00	290.00	2.50	0.61	0.00
40.00	2.50	0.61	0.00	295.00	2.50	0.61	0.00
45.00	2.50	0.61	0.00	300.00	2.50	0.61	0.00
50.00	2.50	0.61	0.00	305.00	2.50	0.61	0.00
55.00	2.50	0.61	0.00	310.00	2.50	0.61	0.00
60.00	2.50	0.61	0.00	315.00	2.50	0.61	0.00
65.00	2.50	0.61	0.00	320.00	2.50	0.61	0.00
70.00	2.50	0.61	0.00	325.00	2.50	0.61	0.00
75.00	2.50	0.61	0.00	330.00	2.50	0.61	0.00
80.00	2.50	0.61	0.00	335.00	2.50	0.61	0.00
85.00	2.50	0.61	0.00	340.00	2.50	0.61	0.00
90.00	2.50	0.61	0.00	345.00	2.50	0.61	0.00
95.00	2.50	0.61	0.00	350.00	2.50	0.61	0.00
100.00	2.50	0.61	0.00	355.00	2.50	0.61	0.00
105.00	2.50	0.61	0.00	360.00	2.50	0.61	0.00
110.00	2.50	0.61	0.00	365.00	2.50	0.61	0.00
115.00	2.50	0.61	0.00	370.00	2.50	0.61	0.00
120.00	2.50	0.61	0.00	375.00	2.50	0.61	0.00
125.00	2.50	0.61	0.00	380.00	2.50	0.61	0.00
130.00	2.50	0.61	0.00	385.00	2.50	0.61	0.00
135.00	2.50	0.61	0.00	390.00	2.50	0.61	0.00
140.00	2.50	0.61	0.00	395.00	2.50	0.61	0.00
145.00	2.50	0.61	0.00	400.00	2.50	0.61	0.00
150.00	2.50	0.61	0.00	405.00	2.50	0.61	0.00
155.00	2.50	0.61	0.00	410.00	2.50	0.61	0.00
160.00	2.50	0.61	0.00	415.00	2.50	0.61	0.00
165.00	2.50	0.61	0.00	420.00	2.50	0.61	0.00
170.00	2.50	0.61	0.00	425.00	2.50	0.61	0.00
175.00	2.50	0.61	0.00	430.00	2.50	0.61	0.00
180.00	2.50	0.61	0.00	435.00	2.50	0.61	0.00
185.00	2.50	0.61	0.00	440.00	2.50	0.61	0.00
190.00	2.50	0.61	0.00	445.00	2.50	0.61	0.00
195.00	2.50	0.61	0.00	450.00	2.50	0.61	0.00
200.00	2.50	0.61	0.00	455.00	2.50	0.61	0.00
205.00	2.50	0.61	0.00	460.00	2.50	0.61	0.00
210.00	2.50	0.61	0.00	465.00	2.50	0.61	0.00
215.00	2.50	0.61	0.00	470.00	2.50	0.61	0.00
220.00	2.50	0.61	0.00	475.00	2.50	0.61	0.00
225.00	2.50	0.61	0.00	480.00	2.50	0.61	0.00
230.00	2.50	0.61	0.00	485.00	2.50	0.61	0.00
235.00	2.50	0.61	0.00	490.00	2.50	0.61	0.00
240.00	2.50	0.61	0.00	495.00	2.50	0.61	0.00
245.00	2.50	0.61	0.00	500.00	2.50	0.61	0.00
250.00	2.50	0.61	0.00				
255.00	2.50	0.61	0.00				

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Summary for Subcatchment 5S: Culvert 1

Runoff = 0.14 cfs @ 12.14 hrs, Volume= 0.008 af, Depth= 0.84"

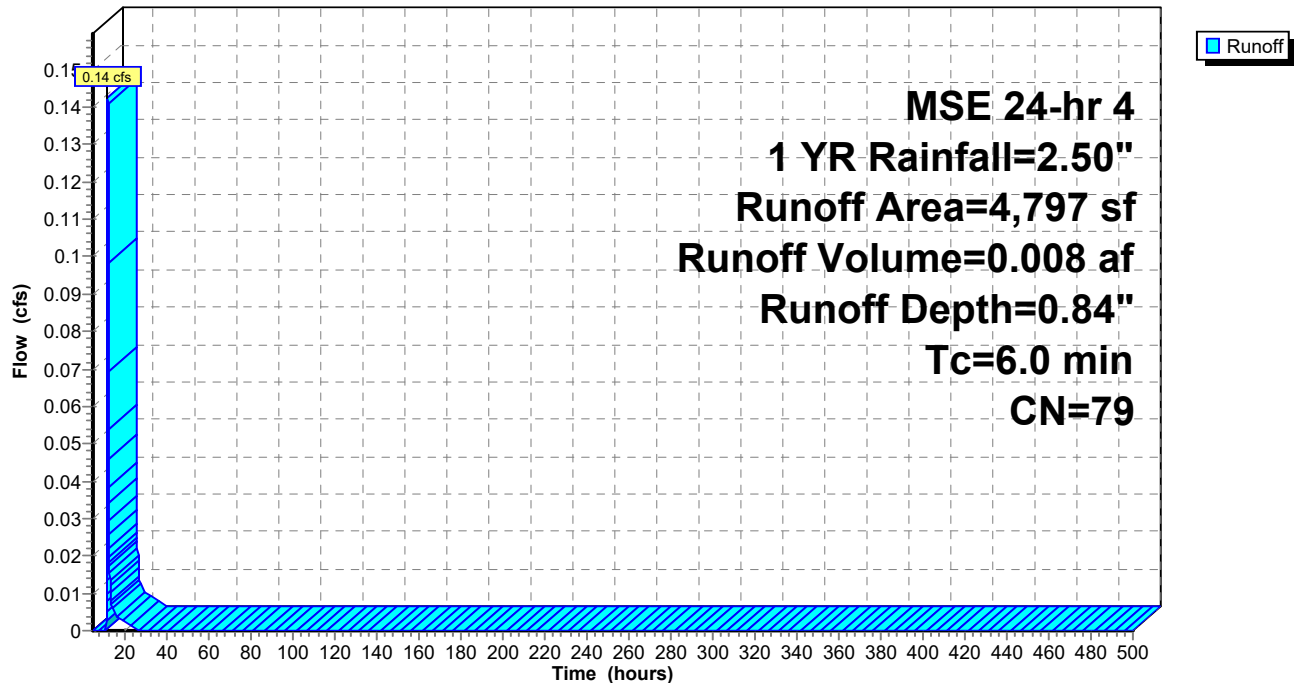
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1 YR Rainfall=2.50"

	Area (sf)	CN	Description
*	2,465	61	Post - B Soils
*	2,332	98	Impervious
	4,797	79	Weighted Average
	2,465		51.39% Pervious Area
	2,332		48.61% Impervious Area

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

Subcatchment 5S: Culvert 1

Hydrograph



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"
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Hydrograph for Subcatchment 5S: Culvert 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.11	0.00	0.00	260.00	2.50	0.84	0.00
10.00	0.40	0.00	0.00	265.00	2.50	0.84	0.00
15.00	2.20	0.64	0.01	270.00	2.50	0.84	0.00
20.00	2.42	0.78	0.00	275.00	2.50	0.84	0.00
25.00	2.50	0.84	0.00	280.00	2.50	0.84	0.00
30.00	2.50	0.84	0.00	285.00	2.50	0.84	0.00
35.00	2.50	0.84	0.00	290.00	2.50	0.84	0.00
40.00	2.50	0.84	0.00	295.00	2.50	0.84	0.00
45.00	2.50	0.84	0.00	300.00	2.50	0.84	0.00
50.00	2.50	0.84	0.00	305.00	2.50	0.84	0.00
55.00	2.50	0.84	0.00	310.00	2.50	0.84	0.00
60.00	2.50	0.84	0.00	315.00	2.50	0.84	0.00
65.00	2.50	0.84	0.00	320.00	2.50	0.84	0.00
70.00	2.50	0.84	0.00	325.00	2.50	0.84	0.00
75.00	2.50	0.84	0.00	330.00	2.50	0.84	0.00
80.00	2.50	0.84	0.00	335.00	2.50	0.84	0.00
85.00	2.50	0.84	0.00	340.00	2.50	0.84	0.00
90.00	2.50	0.84	0.00	345.00	2.50	0.84	0.00
95.00	2.50	0.84	0.00	350.00	2.50	0.84	0.00
100.00	2.50	0.84	0.00	355.00	2.50	0.84	0.00
105.00	2.50	0.84	0.00	360.00	2.50	0.84	0.00
110.00	2.50	0.84	0.00	365.00	2.50	0.84	0.00
115.00	2.50	0.84	0.00	370.00	2.50	0.84	0.00
120.00	2.50	0.84	0.00	375.00	2.50	0.84	0.00
125.00	2.50	0.84	0.00	380.00	2.50	0.84	0.00
130.00	2.50	0.84	0.00	385.00	2.50	0.84	0.00
135.00	2.50	0.84	0.00	390.00	2.50	0.84	0.00
140.00	2.50	0.84	0.00	395.00	2.50	0.84	0.00
145.00	2.50	0.84	0.00	400.00	2.50	0.84	0.00
150.00	2.50	0.84	0.00	405.00	2.50	0.84	0.00
155.00	2.50	0.84	0.00	410.00	2.50	0.84	0.00
160.00	2.50	0.84	0.00	415.00	2.50	0.84	0.00
165.00	2.50	0.84	0.00	420.00	2.50	0.84	0.00
170.00	2.50	0.84	0.00	425.00	2.50	0.84	0.00
175.00	2.50	0.84	0.00	430.00	2.50	0.84	0.00
180.00	2.50	0.84	0.00	435.00	2.50	0.84	0.00
185.00	2.50	0.84	0.00	440.00	2.50	0.84	0.00
190.00	2.50	0.84	0.00	445.00	2.50	0.84	0.00
195.00	2.50	0.84	0.00	450.00	2.50	0.84	0.00
200.00	2.50	0.84	0.00	455.00	2.50	0.84	0.00
205.00	2.50	0.84	0.00	460.00	2.50	0.84	0.00
210.00	2.50	0.84	0.00	465.00	2.50	0.84	0.00
215.00	2.50	0.84	0.00	470.00	2.50	0.84	0.00
220.00	2.50	0.84	0.00	475.00	2.50	0.84	0.00
225.00	2.50	0.84	0.00	480.00	2.50	0.84	0.00
230.00	2.50	0.84	0.00	485.00	2.50	0.84	0.00
235.00	2.50	0.84	0.00	490.00	2.50	0.84	0.00
240.00	2.50	0.84	0.00	495.00	2.50	0.84	0.00
245.00	2.50	0.84	0.00	500.00	2.50	0.84	0.00
250.00	2.50	0.84	0.00				
255.00	2.50	0.84	0.00				

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Summary for Subcatchment 6S: Culvert 2

Runoff = 0.55 cfs @ 12.14 hrs, Volume= 0.031 af, Depth= 0.65"

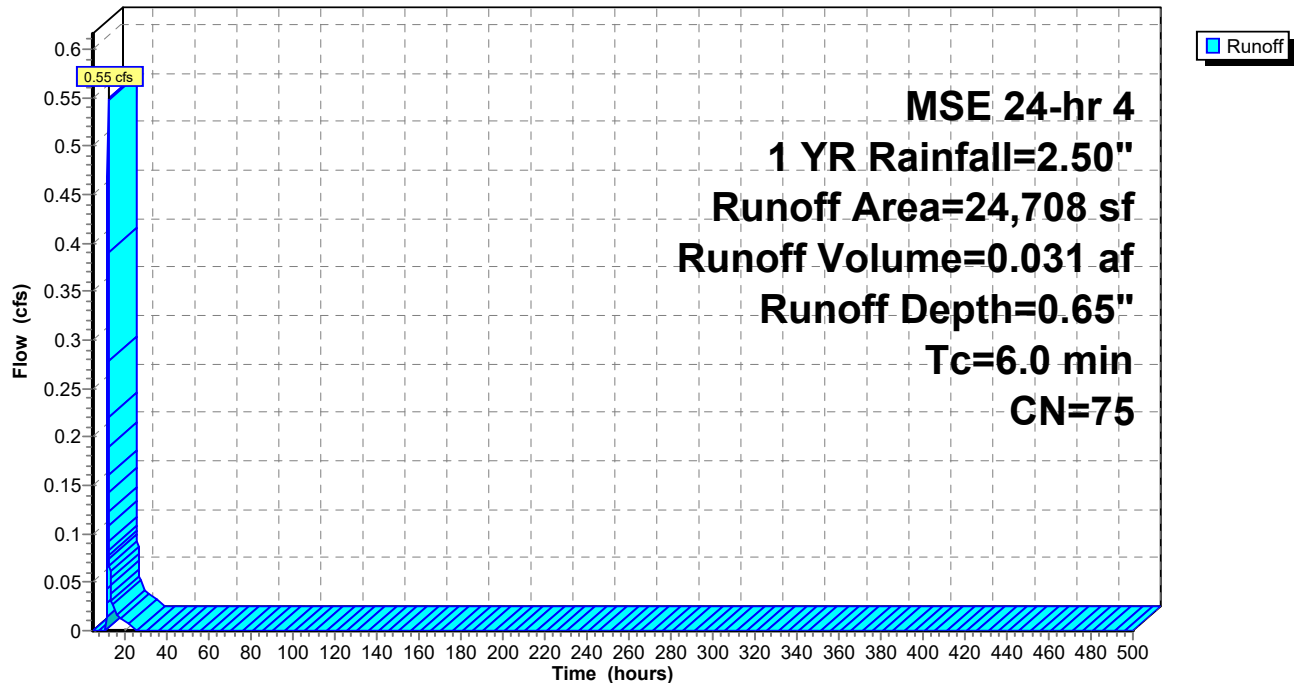
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1 YR Rainfall=2.50"

	Area (sf)	CN	Description
*	15,597	61	Post - B Soils
*	9,111	98	Impervious
	24,708	75	Weighted Average
	15,597		63.13% Pervious Area
	9,111		36.87% Impervious Area

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

Subcatchment 6S: Culvert 2

Hydrograph



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Hydrograph for Subcatchment 6S: Culvert 2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.11	0.00	0.00	260.00	2.50	0.65	0.00
10.00	0.40	0.00	0.00	265.00	2.50	0.65	0.00
15.00	2.20	0.48	0.03	270.00	2.50	0.65	0.00
20.00	2.42	0.60	0.01	275.00	2.50	0.65	0.00
25.00	2.50	0.65	0.00	280.00	2.50	0.65	0.00
30.00	2.50	0.65	0.00	285.00	2.50	0.65	0.00
35.00	2.50	0.65	0.00	290.00	2.50	0.65	0.00
40.00	2.50	0.65	0.00	295.00	2.50	0.65	0.00
45.00	2.50	0.65	0.00	300.00	2.50	0.65	0.00
50.00	2.50	0.65	0.00	305.00	2.50	0.65	0.00
55.00	2.50	0.65	0.00	310.00	2.50	0.65	0.00
60.00	2.50	0.65	0.00	315.00	2.50	0.65	0.00
65.00	2.50	0.65	0.00	320.00	2.50	0.65	0.00
70.00	2.50	0.65	0.00	325.00	2.50	0.65	0.00
75.00	2.50	0.65	0.00	330.00	2.50	0.65	0.00
80.00	2.50	0.65	0.00	335.00	2.50	0.65	0.00
85.00	2.50	0.65	0.00	340.00	2.50	0.65	0.00
90.00	2.50	0.65	0.00	345.00	2.50	0.65	0.00
95.00	2.50	0.65	0.00	350.00	2.50	0.65	0.00
100.00	2.50	0.65	0.00	355.00	2.50	0.65	0.00
105.00	2.50	0.65	0.00	360.00	2.50	0.65	0.00
110.00	2.50	0.65	0.00	365.00	2.50	0.65	0.00
115.00	2.50	0.65	0.00	370.00	2.50	0.65	0.00
120.00	2.50	0.65	0.00	375.00	2.50	0.65	0.00
125.00	2.50	0.65	0.00	380.00	2.50	0.65	0.00
130.00	2.50	0.65	0.00	385.00	2.50	0.65	0.00
135.00	2.50	0.65	0.00	390.00	2.50	0.65	0.00
140.00	2.50	0.65	0.00	395.00	2.50	0.65	0.00
145.00	2.50	0.65	0.00	400.00	2.50	0.65	0.00
150.00	2.50	0.65	0.00	405.00	2.50	0.65	0.00
155.00	2.50	0.65	0.00	410.00	2.50	0.65	0.00
160.00	2.50	0.65	0.00	415.00	2.50	0.65	0.00
165.00	2.50	0.65	0.00	420.00	2.50	0.65	0.00
170.00	2.50	0.65	0.00	425.00	2.50	0.65	0.00
175.00	2.50	0.65	0.00	430.00	2.50	0.65	0.00
180.00	2.50	0.65	0.00	435.00	2.50	0.65	0.00
185.00	2.50	0.65	0.00	440.00	2.50	0.65	0.00
190.00	2.50	0.65	0.00	445.00	2.50	0.65	0.00
195.00	2.50	0.65	0.00	450.00	2.50	0.65	0.00
200.00	2.50	0.65	0.00	455.00	2.50	0.65	0.00
205.00	2.50	0.65	0.00	460.00	2.50	0.65	0.00
210.00	2.50	0.65	0.00	465.00	2.50	0.65	0.00
215.00	2.50	0.65	0.00	470.00	2.50	0.65	0.00
220.00	2.50	0.65	0.00	475.00	2.50	0.65	0.00
225.00	2.50	0.65	0.00	480.00	2.50	0.65	0.00
230.00	2.50	0.65	0.00	485.00	2.50	0.65	0.00
235.00	2.50	0.65	0.00	490.00	2.50	0.65	0.00
240.00	2.50	0.65	0.00	495.00	2.50	0.65	0.00
245.00	2.50	0.65	0.00	500.00	2.50	0.65	0.00
250.00	2.50	0.65	0.00				
255.00	2.50	0.65	0.00				

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Summary for Subcatchment 7S: Culvert 3

Runoff = 0.78 cfs @ 12.14 hrs, Volume= 0.045 af, Depth= 0.57"

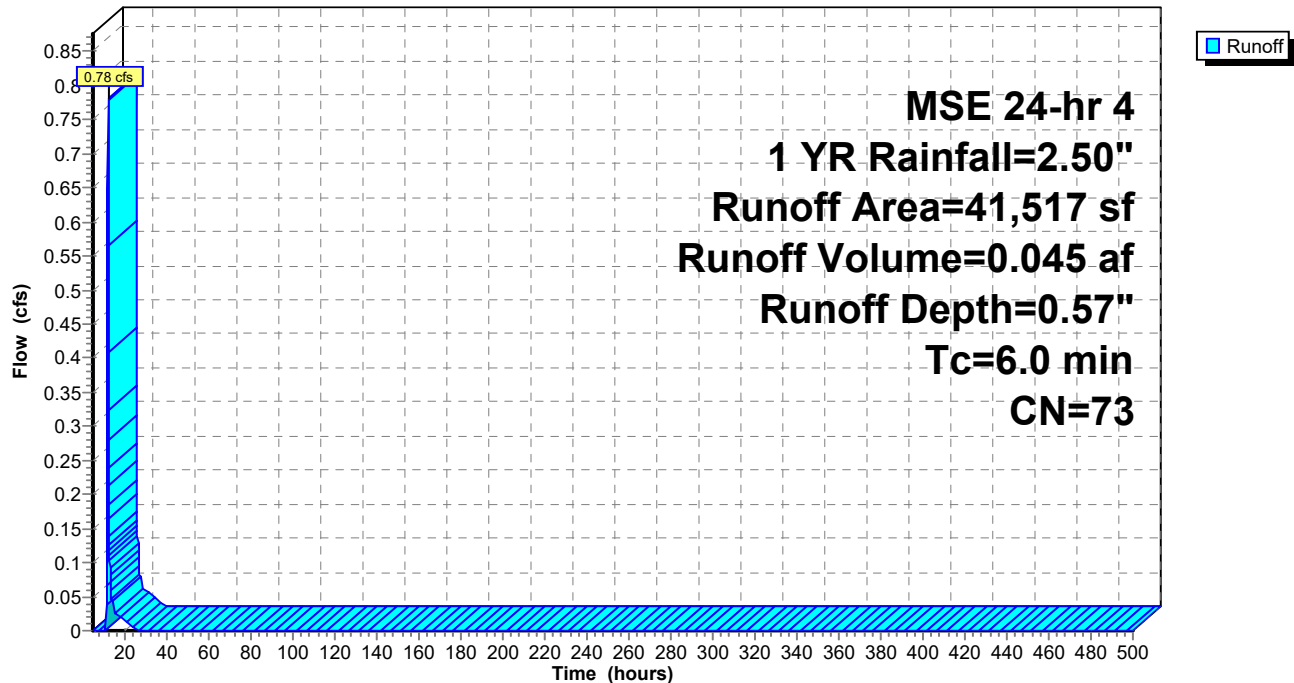
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1 YR Rainfall=2.50"

	Area (sf)	CN	Description
*	28,233	61	Post - B Soils
*	13,284	98	Impervious
	41,517	73	Weighted Average
	28,233		68.00% Pervious Area
	13,284		32.00% Impervious Area

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

Subcatchment 7S: Culvert 3

Hydrograph



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Hydrograph for Subcatchment 7S: Culvert 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.11	0.00	0.00	260.00	2.50	0.57	0.00
10.00	0.40	0.00	0.00	265.00	2.50	0.57	0.00
15.00	2.20	0.41	0.04	270.00	2.50	0.57	0.00
20.00	2.42	0.52	0.02	275.00	2.50	0.57	0.00
25.00	2.50	0.57	0.00	280.00	2.50	0.57	0.00
30.00	2.50	0.57	0.00	285.00	2.50	0.57	0.00
35.00	2.50	0.57	0.00	290.00	2.50	0.57	0.00
40.00	2.50	0.57	0.00	295.00	2.50	0.57	0.00
45.00	2.50	0.57	0.00	300.00	2.50	0.57	0.00
50.00	2.50	0.57	0.00	305.00	2.50	0.57	0.00
55.00	2.50	0.57	0.00	310.00	2.50	0.57	0.00
60.00	2.50	0.57	0.00	315.00	2.50	0.57	0.00
65.00	2.50	0.57	0.00	320.00	2.50	0.57	0.00
70.00	2.50	0.57	0.00	325.00	2.50	0.57	0.00
75.00	2.50	0.57	0.00	330.00	2.50	0.57	0.00
80.00	2.50	0.57	0.00	335.00	2.50	0.57	0.00
85.00	2.50	0.57	0.00	340.00	2.50	0.57	0.00
90.00	2.50	0.57	0.00	345.00	2.50	0.57	0.00
95.00	2.50	0.57	0.00	350.00	2.50	0.57	0.00
100.00	2.50	0.57	0.00	355.00	2.50	0.57	0.00
105.00	2.50	0.57	0.00	360.00	2.50	0.57	0.00
110.00	2.50	0.57	0.00	365.00	2.50	0.57	0.00
115.00	2.50	0.57	0.00	370.00	2.50	0.57	0.00
120.00	2.50	0.57	0.00	375.00	2.50	0.57	0.00
125.00	2.50	0.57	0.00	380.00	2.50	0.57	0.00
130.00	2.50	0.57	0.00	385.00	2.50	0.57	0.00
135.00	2.50	0.57	0.00	390.00	2.50	0.57	0.00
140.00	2.50	0.57	0.00	395.00	2.50	0.57	0.00
145.00	2.50	0.57	0.00	400.00	2.50	0.57	0.00
150.00	2.50	0.57	0.00	405.00	2.50	0.57	0.00
155.00	2.50	0.57	0.00	410.00	2.50	0.57	0.00
160.00	2.50	0.57	0.00	415.00	2.50	0.57	0.00
165.00	2.50	0.57	0.00	420.00	2.50	0.57	0.00
170.00	2.50	0.57	0.00	425.00	2.50	0.57	0.00
175.00	2.50	0.57	0.00	430.00	2.50	0.57	0.00
180.00	2.50	0.57	0.00	435.00	2.50	0.57	0.00
185.00	2.50	0.57	0.00	440.00	2.50	0.57	0.00
190.00	2.50	0.57	0.00	445.00	2.50	0.57	0.00
195.00	2.50	0.57	0.00	450.00	2.50	0.57	0.00
200.00	2.50	0.57	0.00	455.00	2.50	0.57	0.00
205.00	2.50	0.57	0.00	460.00	2.50	0.57	0.00
210.00	2.50	0.57	0.00	465.00	2.50	0.57	0.00
215.00	2.50	0.57	0.00	470.00	2.50	0.57	0.00
220.00	2.50	0.57	0.00	475.00	2.50	0.57	0.00
225.00	2.50	0.57	0.00	480.00	2.50	0.57	0.00
230.00	2.50	0.57	0.00	485.00	2.50	0.57	0.00
235.00	2.50	0.57	0.00	490.00	2.50	0.57	0.00
240.00	2.50	0.57	0.00	495.00	2.50	0.57	0.00
245.00	2.50	0.57	0.00	500.00	2.50	0.57	0.00
250.00	2.50	0.57	0.00				
255.00	2.50	0.57	0.00				

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Summary for Subcatchment 8S: Culvert 4

Runoff = 2.95 cfs @ 12.15 hrs, Volume= 0.183 af, Depth= 0.46"

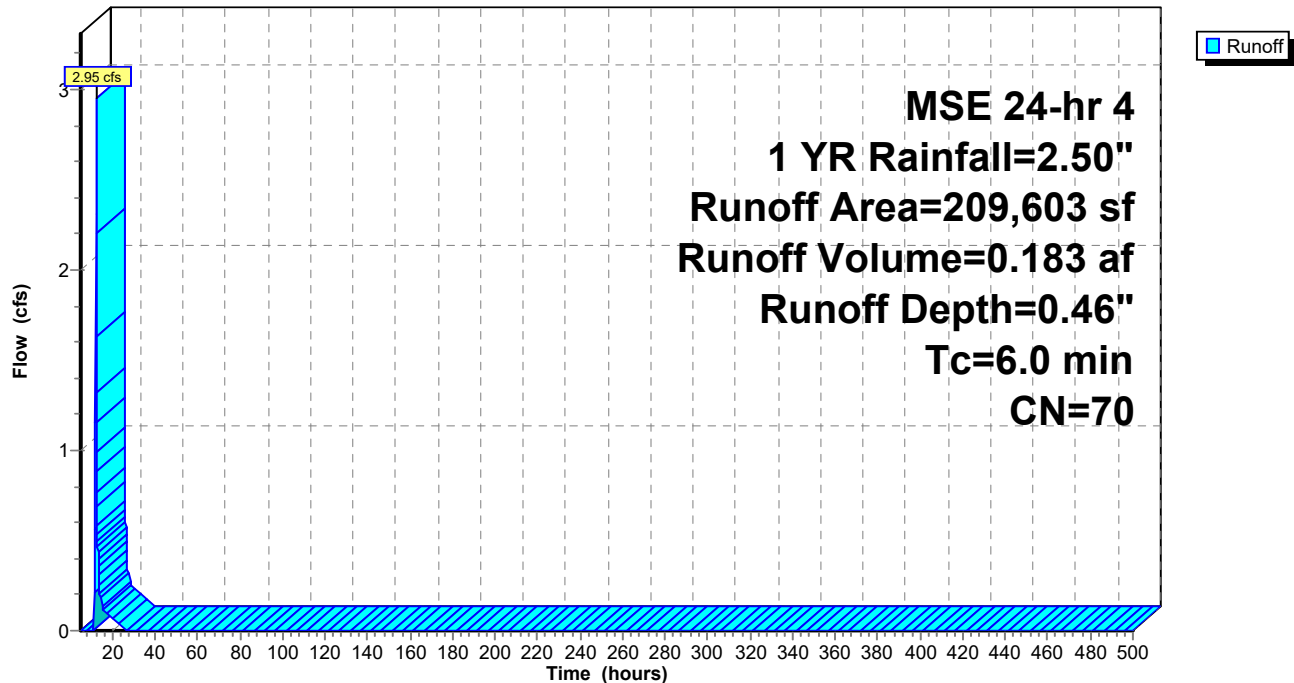
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1 YR Rainfall=2.50"

	Area (sf)	CN	Description
*	156,823	61	Post - B Soils
*	52,780	98	Impervious
	209,603	70	Weighted Average
	156,823		74.82% Pervious Area
	52,780		25.18% Impervious Area

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

Subcatchment 8S: Culvert 4

Hydrograph



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Hydrograph for Subcatchment 8S: Culvert 4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.11	0.00	0.00	260.00	2.50	0.46	0.00
10.00	0.40	0.00	0.00	265.00	2.50	0.46	0.00
15.00	2.20	0.32	0.18	270.00	2.50	0.46	0.00
20.00	2.42	0.42	0.07	275.00	2.50	0.46	0.00
25.00	2.50	0.46	0.00	280.00	2.50	0.46	0.00
30.00	2.50	0.46	0.00	285.00	2.50	0.46	0.00
35.00	2.50	0.46	0.00	290.00	2.50	0.46	0.00
40.00	2.50	0.46	0.00	295.00	2.50	0.46	0.00
45.00	2.50	0.46	0.00	300.00	2.50	0.46	0.00
50.00	2.50	0.46	0.00	305.00	2.50	0.46	0.00
55.00	2.50	0.46	0.00	310.00	2.50	0.46	0.00
60.00	2.50	0.46	0.00	315.00	2.50	0.46	0.00
65.00	2.50	0.46	0.00	320.00	2.50	0.46	0.00
70.00	2.50	0.46	0.00	325.00	2.50	0.46	0.00
75.00	2.50	0.46	0.00	330.00	2.50	0.46	0.00
80.00	2.50	0.46	0.00	335.00	2.50	0.46	0.00
85.00	2.50	0.46	0.00	340.00	2.50	0.46	0.00
90.00	2.50	0.46	0.00	345.00	2.50	0.46	0.00
95.00	2.50	0.46	0.00	350.00	2.50	0.46	0.00
100.00	2.50	0.46	0.00	355.00	2.50	0.46	0.00
105.00	2.50	0.46	0.00	360.00	2.50	0.46	0.00
110.00	2.50	0.46	0.00	365.00	2.50	0.46	0.00
115.00	2.50	0.46	0.00	370.00	2.50	0.46	0.00
120.00	2.50	0.46	0.00	375.00	2.50	0.46	0.00
125.00	2.50	0.46	0.00	380.00	2.50	0.46	0.00
130.00	2.50	0.46	0.00	385.00	2.50	0.46	0.00
135.00	2.50	0.46	0.00	390.00	2.50	0.46	0.00
140.00	2.50	0.46	0.00	395.00	2.50	0.46	0.00
145.00	2.50	0.46	0.00	400.00	2.50	0.46	0.00
150.00	2.50	0.46	0.00	405.00	2.50	0.46	0.00
155.00	2.50	0.46	0.00	410.00	2.50	0.46	0.00
160.00	2.50	0.46	0.00	415.00	2.50	0.46	0.00
165.00	2.50	0.46	0.00	420.00	2.50	0.46	0.00
170.00	2.50	0.46	0.00	425.00	2.50	0.46	0.00
175.00	2.50	0.46	0.00	430.00	2.50	0.46	0.00
180.00	2.50	0.46	0.00	435.00	2.50	0.46	0.00
185.00	2.50	0.46	0.00	440.00	2.50	0.46	0.00
190.00	2.50	0.46	0.00	445.00	2.50	0.46	0.00
195.00	2.50	0.46	0.00	450.00	2.50	0.46	0.00
200.00	2.50	0.46	0.00	455.00	2.50	0.46	0.00
205.00	2.50	0.46	0.00	460.00	2.50	0.46	0.00
210.00	2.50	0.46	0.00	465.00	2.50	0.46	0.00
215.00	2.50	0.46	0.00	470.00	2.50	0.46	0.00
220.00	2.50	0.46	0.00	475.00	2.50	0.46	0.00
225.00	2.50	0.46	0.00	480.00	2.50	0.46	0.00
230.00	2.50	0.46	0.00	485.00	2.50	0.46	0.00
235.00	2.50	0.46	0.00	490.00	2.50	0.46	0.00
240.00	2.50	0.46	0.00	495.00	2.50	0.46	0.00
245.00	2.50	0.46	0.00	500.00	2.50	0.46	0.00
250.00	2.50	0.46	0.00				
255.00	2.50	0.46	0.00				

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Summary for Subcatchment 9S: Culvert 5

Runoff = 2.10 cfs @ 12.15 hrs, Volume= 0.140 af, Depth= 0.39"

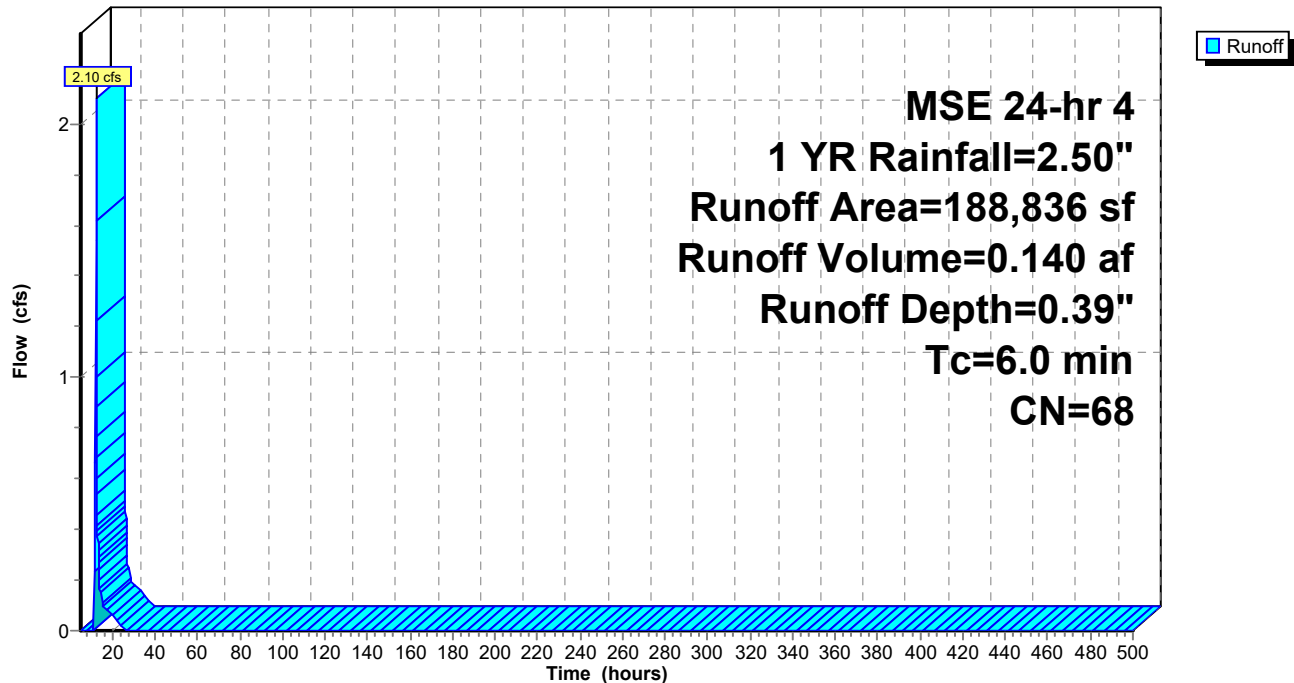
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 1 YR Rainfall=2.50"

	Area (sf)	CN	Description
*	151,149	61	Post - B Soils
*	37,687	98	Impervious
	188,836	68	Weighted Average
	151,149		80.04% Pervious Area
	37,687		19.96% Impervious Area

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

Subcatchment 9S: Culvert 5

Hydrograph



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"
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Hydrograph for Subcatchment 9S: Culvert 5

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.11	0.00	0.00	260.00	2.50	0.39	0.00
10.00	0.40	0.00	0.00	265.00	2.50	0.39	0.00
15.00	2.20	0.26	0.15	270.00	2.50	0.39	0.00
20.00	2.42	0.35	0.06	275.00	2.50	0.39	0.00
25.00	2.50	0.39	0.00	280.00	2.50	0.39	0.00
30.00	2.50	0.39	0.00	285.00	2.50	0.39	0.00
35.00	2.50	0.39	0.00	290.00	2.50	0.39	0.00
40.00	2.50	0.39	0.00	295.00	2.50	0.39	0.00
45.00	2.50	0.39	0.00	300.00	2.50	0.39	0.00
50.00	2.50	0.39	0.00	305.00	2.50	0.39	0.00
55.00	2.50	0.39	0.00	310.00	2.50	0.39	0.00
60.00	2.50	0.39	0.00	315.00	2.50	0.39	0.00
65.00	2.50	0.39	0.00	320.00	2.50	0.39	0.00
70.00	2.50	0.39	0.00	325.00	2.50	0.39	0.00
75.00	2.50	0.39	0.00	330.00	2.50	0.39	0.00
80.00	2.50	0.39	0.00	335.00	2.50	0.39	0.00
85.00	2.50	0.39	0.00	340.00	2.50	0.39	0.00
90.00	2.50	0.39	0.00	345.00	2.50	0.39	0.00
95.00	2.50	0.39	0.00	350.00	2.50	0.39	0.00
100.00	2.50	0.39	0.00	355.00	2.50	0.39	0.00
105.00	2.50	0.39	0.00	360.00	2.50	0.39	0.00
110.00	2.50	0.39	0.00	365.00	2.50	0.39	0.00
115.00	2.50	0.39	0.00	370.00	2.50	0.39	0.00
120.00	2.50	0.39	0.00	375.00	2.50	0.39	0.00
125.00	2.50	0.39	0.00	380.00	2.50	0.39	0.00
130.00	2.50	0.39	0.00	385.00	2.50	0.39	0.00
135.00	2.50	0.39	0.00	390.00	2.50	0.39	0.00
140.00	2.50	0.39	0.00	395.00	2.50	0.39	0.00
145.00	2.50	0.39	0.00	400.00	2.50	0.39	0.00
150.00	2.50	0.39	0.00	405.00	2.50	0.39	0.00
155.00	2.50	0.39	0.00	410.00	2.50	0.39	0.00
160.00	2.50	0.39	0.00	415.00	2.50	0.39	0.00
165.00	2.50	0.39	0.00	420.00	2.50	0.39	0.00
170.00	2.50	0.39	0.00	425.00	2.50	0.39	0.00
175.00	2.50	0.39	0.00	430.00	2.50	0.39	0.00
180.00	2.50	0.39	0.00	435.00	2.50	0.39	0.00
185.00	2.50	0.39	0.00	440.00	2.50	0.39	0.00
190.00	2.50	0.39	0.00	445.00	2.50	0.39	0.00
195.00	2.50	0.39	0.00	450.00	2.50	0.39	0.00
200.00	2.50	0.39	0.00	455.00	2.50	0.39	0.00
205.00	2.50	0.39	0.00	460.00	2.50	0.39	0.00
210.00	2.50	0.39	0.00	465.00	2.50	0.39	0.00
215.00	2.50	0.39	0.00	470.00	2.50	0.39	0.00
220.00	2.50	0.39	0.00	475.00	2.50	0.39	0.00
225.00	2.50	0.39	0.00	480.00	2.50	0.39	0.00
230.00	2.50	0.39	0.00	485.00	2.50	0.39	0.00
235.00	2.50	0.39	0.00	490.00	2.50	0.39	0.00
240.00	2.50	0.39	0.00	495.00	2.50	0.39	0.00
245.00	2.50	0.39	0.00	500.00	2.50	0.39	0.00
250.00	2.50	0.39	0.00				
255.00	2.50	0.39	0.00				

Summary for Pond P1A: Pond 1A

Inflow Area = 6.030 ac, 19.24% Impervious, Inflow Depth = 0.39" for 1 YR event
 Inflow = 2.93 cfs @ 12.15 hrs, Volume= 0.195 af
 Outflow = 0.32 cfs @ 13.52 hrs, Volume= 0.195 af, Atten= 89%, Lag= 82.1 min
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
 Routed to Link 3L : Post - South
 Secondary = 0.32 cfs @ 13.52 hrs, Volume= 0.195 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,239.93' @ 13.52 hrs Surf.Area= 3,843 sf Storage= 2,951 cf

Plug-Flow detention time= 92.6 min calculated for 0.195 af (100% of inflow)
 Center-of-Mass det. time= 92.6 min (974.9 - 882.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,239.00'	30,563 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,239.00	2,496	0	0
1,244.00	9,729	30,563	30,563

Device	Routing	Invert	Outlet Devices
#1	Primary	1,240.00'	12.0" Round Culvert L= 39.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,240.00' / 1,236.00' S= 0.1026 ' /' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,240.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,242.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,239.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,243.00'	20.0' long + 4.0 ' /' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,239.00' (Free Discharge)

↑ **1=Culvert** (Controls 0.00 cfs)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Controls 0.00 cfs)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.32 cfs @ 13.52 hrs HW=1,239.93' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.32 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,239.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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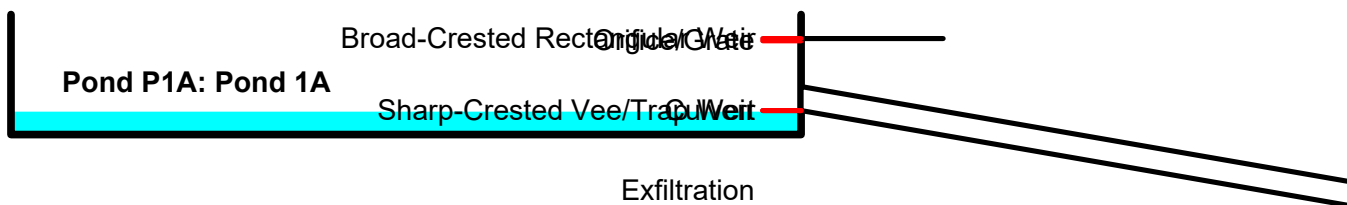
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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

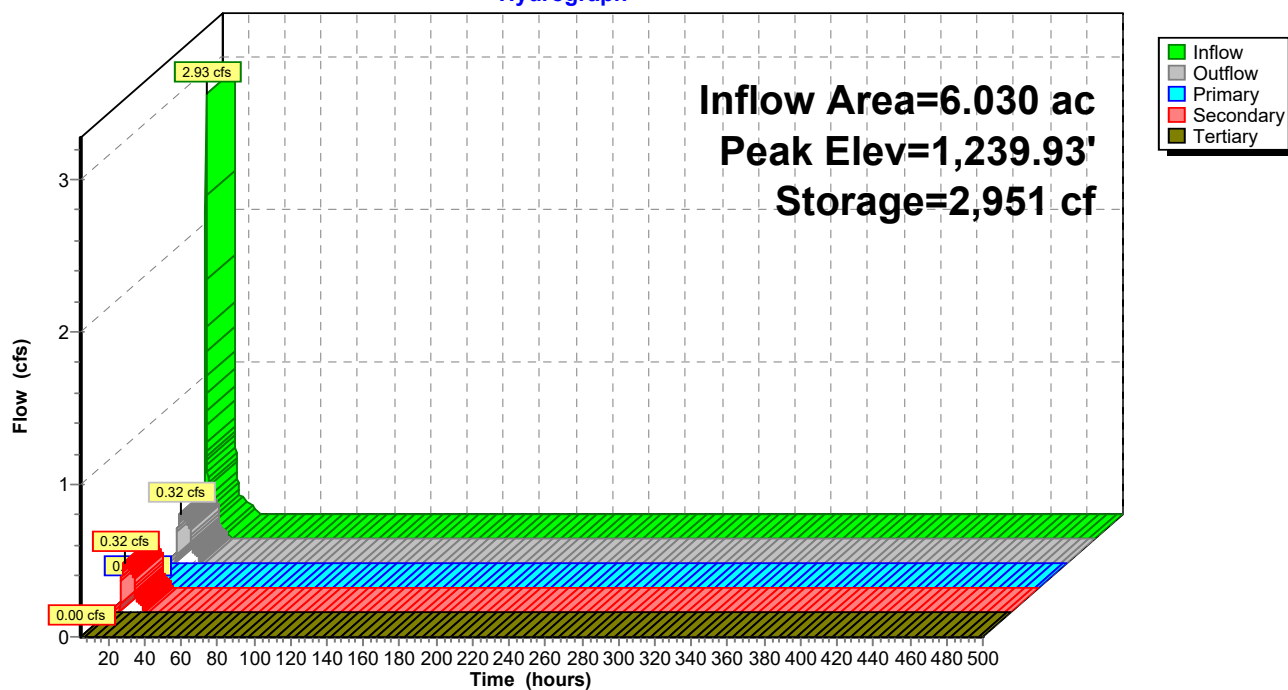
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Pond P1A: Pond 1A

Hydrograph



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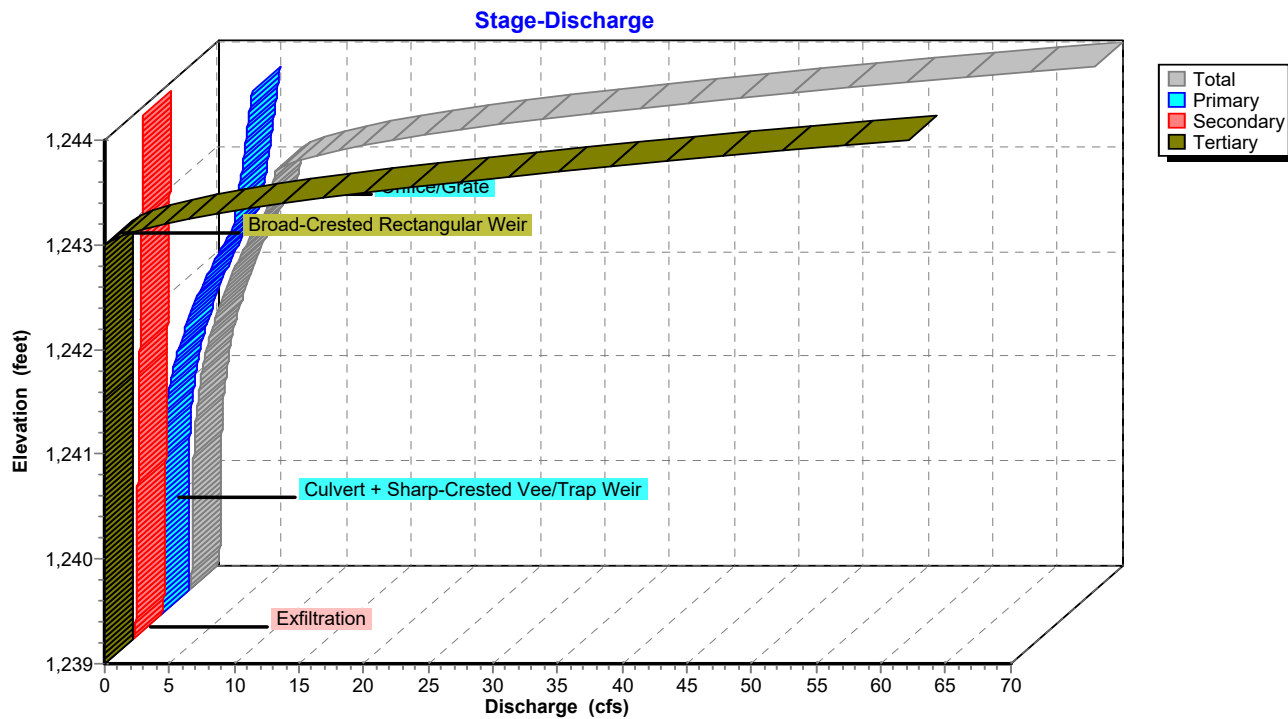
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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

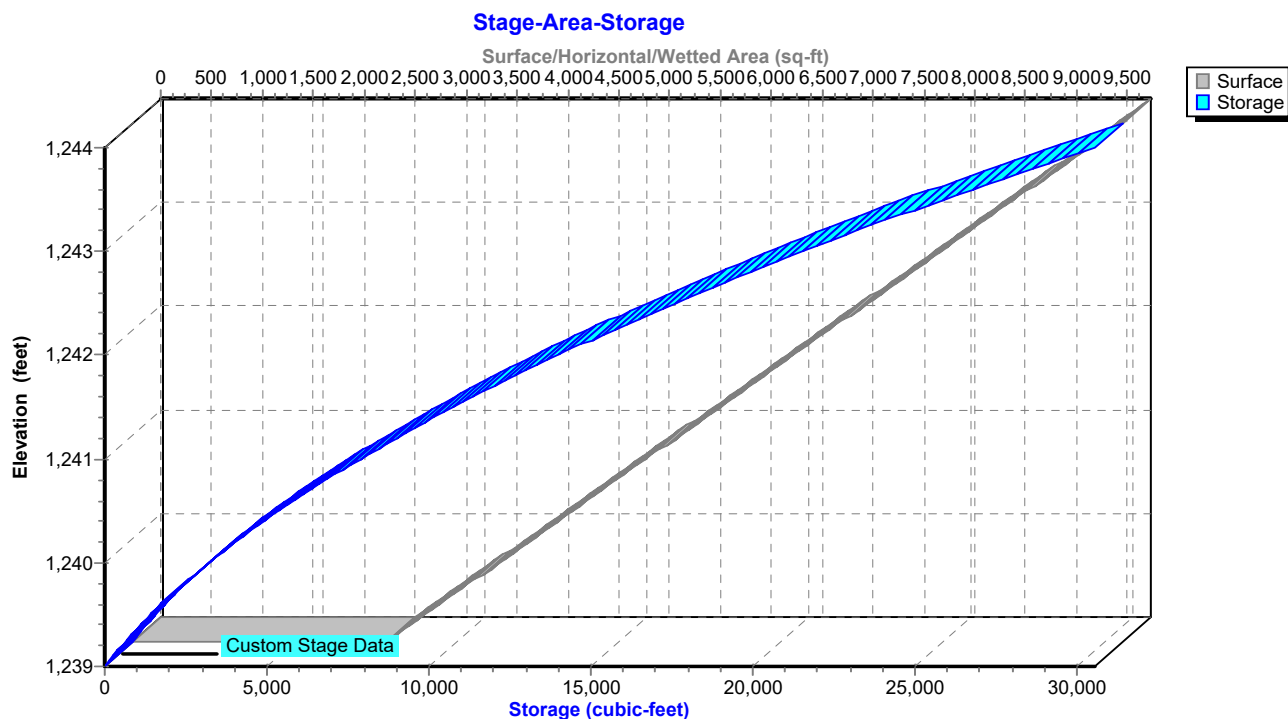
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Pond P1A: Pond 1A



Pond P1A: Pond 1A



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Hydrograph for Pond P1A: Pond 1A

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
15.00	0.20	2,447	1,239.80	0.30	0.00	0.30	0.00
25.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
35.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00

Stage-Discharge for Pond P1A: Pond 1A

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,239.00	0.00	0.00	0.00	0.00
1,239.10	0.22	0.00	0.22	0.00
1,239.20	0.23	0.00	0.23	0.00
1,239.30	0.24	0.00	0.24	0.00
1,239.40	0.26	0.00	0.26	0.00
1,239.50	0.27	0.00	0.27	0.00
1,239.60	0.28	0.00	0.28	0.00
1,239.70	0.29	0.00	0.29	0.00
1,239.80	0.30	0.00	0.30	0.00
1,239.90	0.32	0.00	0.32	0.00
1,240.00	0.33	0.00	0.33	0.00
1,240.10	0.34	0.00	0.34	0.00
1,240.20	0.36	0.01	0.35	0.00
1,240.30	0.39	0.02	0.36	0.00
1,240.40	0.42	0.05	0.38	0.00
1,240.50	0.47	0.08	0.39	0.00
1,240.60	0.53	0.13	0.40	0.00
1,240.70	0.61	0.19	0.41	0.00
1,240.80	0.70	0.27	0.42	0.00
1,240.90	0.80	0.36	0.44	0.00
1,241.00	0.92	0.47	0.45	0.00
1,241.10	1.06	0.60	0.46	0.00
1,241.20	1.22	0.75	0.47	0.00
1,241.30	1.40	0.91	0.49	0.00
1,241.40	1.60	1.10	0.50	0.00
1,241.50	1.82	1.31	0.51	0.00
1,241.60	2.06	1.54	0.52	0.00
1,241.70	2.32	1.79	0.53	0.00
1,241.80	2.61	2.06	0.55	0.00
1,241.90	2.92	2.36	0.56	0.00
1,242.00	3.25	2.68	0.57	0.00
1,242.10	3.61	3.03	0.58	0.00
1,242.20	4.00	3.41	0.59	0.00
1,242.30	4.41	3.81	0.61	0.00
1,242.40	4.85	4.23	0.62	0.00
1,242.50	5.32	4.69	0.63	0.00
1,242.60	5.81	5.17	0.64	0.00
1,242.70	6.26	5.61	0.65	0.00
1,242.80	6.40	5.74	0.67	0.00
1,242.90	6.54	5.86	0.68	0.00
1,243.00	6.67	5.98	0.69	0.00
1,243.10	8.40	6.10	0.70	1.60
1,243.20	11.53	6.21	0.71	4.60
1,243.30	15.75	6.33	0.73	8.70
1,243.40	20.96	6.44	0.74	13.78
1,243.50	27.39	6.55	0.75	20.08
1,243.60	34.93	6.66	0.76	27.51
1,243.70	42.64	6.76	0.77	35.10
1,243.80	51.08	6.87	0.79	43.42
1,243.90	60.22	6.97	0.80	52.45
1,244.00	70.06	7.07	0.81	62.18

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Stage-Area-Storage for Pond P1A: Pond 1A

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,239.00	2,496	0	1,241.55	6,185	11,068
1,239.05	2,568	127	1,241.60	6,257	11,379
1,239.10	2,641	257	1,241.65	6,329	11,694
1,239.15	2,713	391	1,241.70	6,402	12,012
1,239.20	2,785	528	1,241.75	6,474	12,334
1,239.25	2,858	669	1,241.80	6,546	12,659
1,239.30	2,930	814	1,241.85	6,619	12,989
1,239.35	3,002	962	1,241.90	6,691	13,321
1,239.40	3,075	1,114	1,241.95	6,763	13,658
1,239.45	3,147	1,270	1,242.00	6,836	13,998
1,239.50	3,219	1,429	1,242.05	6,908	14,341
1,239.55	3,292	1,592	1,242.10	6,980	14,689
1,239.60	3,364	1,758	1,242.15	7,053	15,039
1,239.65	3,436	1,928	1,242.20	7,125	15,394
1,239.70	3,509	2,102	1,242.25	7,197	15,752
1,239.75	3,581	2,279	1,242.30	7,270	16,114
1,239.80	3,653	2,460	1,242.35	7,342	16,479
1,239.85	3,726	2,644	1,242.40	7,414	16,848
1,239.90	3,798	2,832	1,242.45	7,487	17,220
1,239.95	3,870	3,024	1,242.50	7,559	17,596
1,240.00	3,943	3,219	1,242.55	7,631	17,976
1,240.05	4,015	3,418	1,242.60	7,704	18,360
1,240.10	4,087	3,621	1,242.65	7,776	18,747
1,240.15	4,160	3,827	1,242.70	7,848	19,137
1,240.20	4,232	4,037	1,242.75	7,921	19,531
1,240.25	4,304	4,250	1,242.80	7,993	19,929
1,240.30	4,377	4,467	1,242.85	8,065	20,331
1,240.35	4,449	4,688	1,242.90	8,138	20,736
1,240.40	4,521	4,912	1,242.95	8,210	21,144
1,240.45	4,594	5,140	1,243.00	8,282	21,557
1,240.50	4,666	5,371	1,243.05	8,355	21,973
1,240.55	4,738	5,607	1,243.10	8,427	22,392
1,240.60	4,811	5,845	1,243.15	8,499	22,815
1,240.65	4,883	6,088	1,243.20	8,572	23,242
1,240.70	4,955	6,334	1,243.25	8,644	23,673
1,240.75	5,028	6,583	1,243.30	8,716	24,107
1,240.80	5,100	6,836	1,243.35	8,789	24,544
1,240.85	5,172	7,093	1,243.40	8,861	24,985
1,240.90	5,245	7,354	1,243.45	8,933	25,430
1,240.95	5,317	7,618	1,243.50	9,006	25,879
1,241.00	5,389	7,885	1,243.55	9,078	26,331
1,241.05	5,462	8,156	1,243.60	9,150	26,787
1,241.10	5,534	8,431	1,243.65	9,223	27,246
1,241.15	5,606	8,710	1,243.70	9,295	27,709
1,241.20	5,679	8,992	1,243.75	9,367	28,175
1,241.25	5,751	9,278	1,243.80	9,440	28,646
1,241.30	5,823	9,567	1,243.85	9,512	29,119
1,241.35	5,896	9,860	1,243.90	9,584	29,597
1,241.40	5,968	10,157	1,243.95	9,657	30,078
1,241.45	6,040	10,457	1,244.00	9,729	30,563
1,241.50	6,113	10,761			

Summary for Pond P3A: Pond 3A

Inflow Area = 10.600 ac, 18.58% Impervious, Inflow Depth = 0.46" for 1 YR event
 Inflow = 6.50 cfs @ 12.15 hrs, Volume= 0.402 af
 Outflow = 0.56 cfs @ 13.57 hrs, Volume= 0.402 af, Atten= 91%, Lag= 85.5 min
 Primary = 0.04 cfs @ 13.57 hrs, Volume= 0.006 af
 Routed to Link 4L : Post - North
 Secondary = 0.52 cfs @ 13.57 hrs, Volume= 0.396 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,193.37' @ 13.57 hrs Surf.Area= 6,214 sf Storage= 7,129 cf

Plug-Flow detention time= 145.8 min calculated for 0.402 af (100% of inflow)
 Center-of-Mass det. time= 145.8 min (1,019.2 - 873.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,192.00'	51,846 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,192.00	4,165	0	0
1,198.00	13,117	51,846	51,846

Device	Routing	Invert	Outlet Devices
#1	Primary	1,193.00'	12.0" Round Culvert L= 41.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,193.00' / 1,189.00' S= 0.0976 ' / ' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,193.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,196.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,192.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,197.00'	20.0' long + 4.0 ' /' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.04 cfs @ 13.57 hrs HW=1,193.37' (Free Discharge)

↑ **1=Culvert** (Passes 0.04 cfs of 0.56 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 0.04 cfs @ 1.64 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.52 cfs @ 13.57 hrs HW=1,193.37' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.52 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,192.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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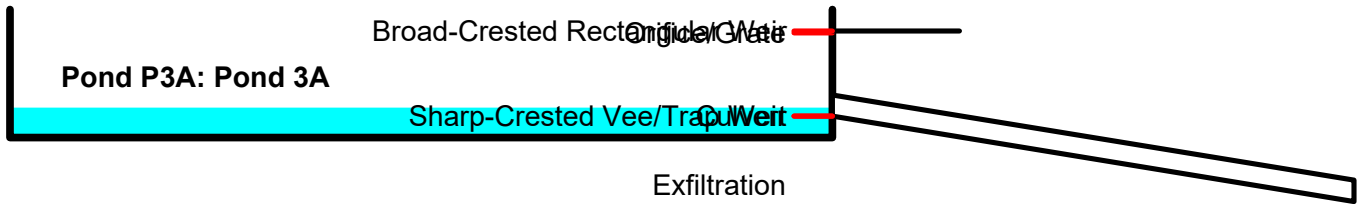
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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

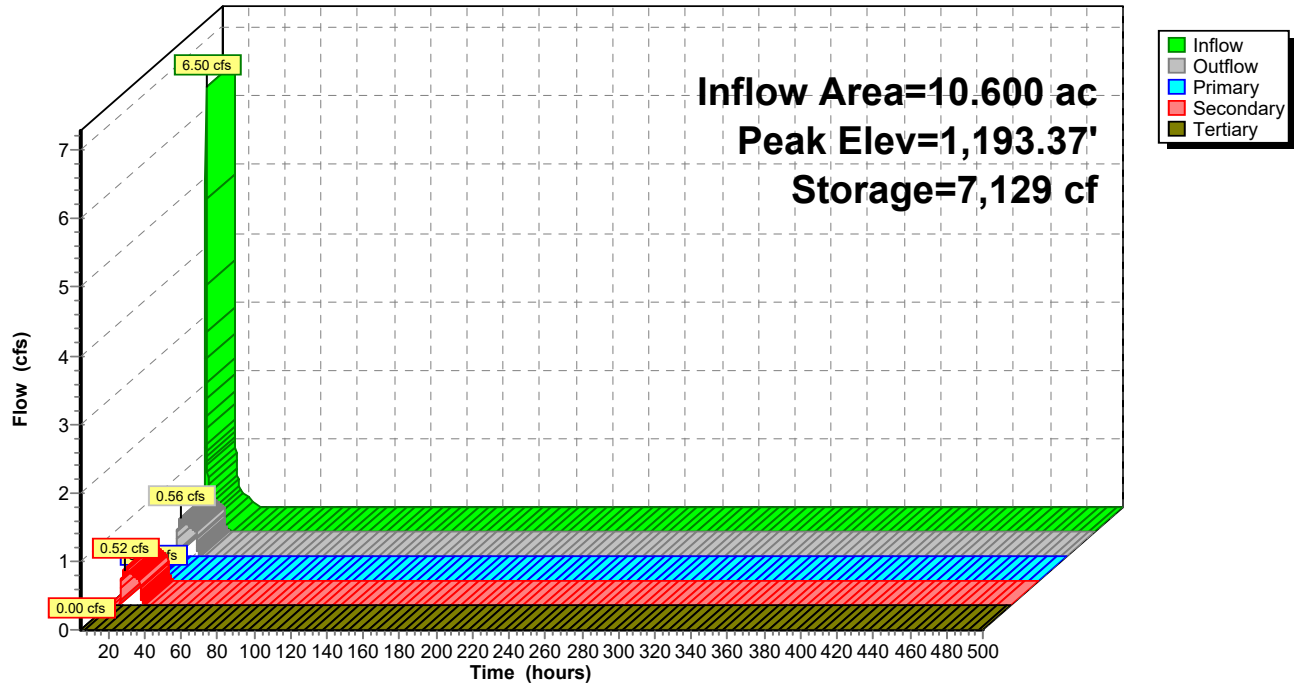
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Pond P3A: Pond 3A

Hydrograph



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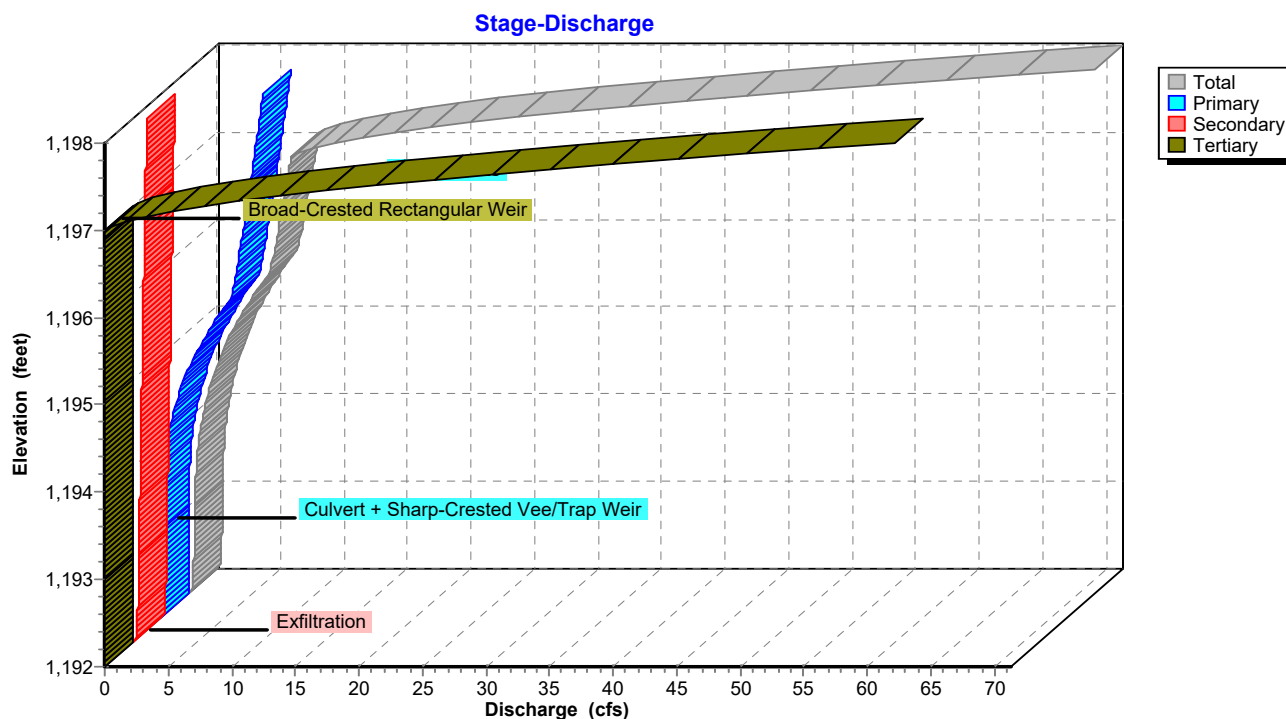
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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

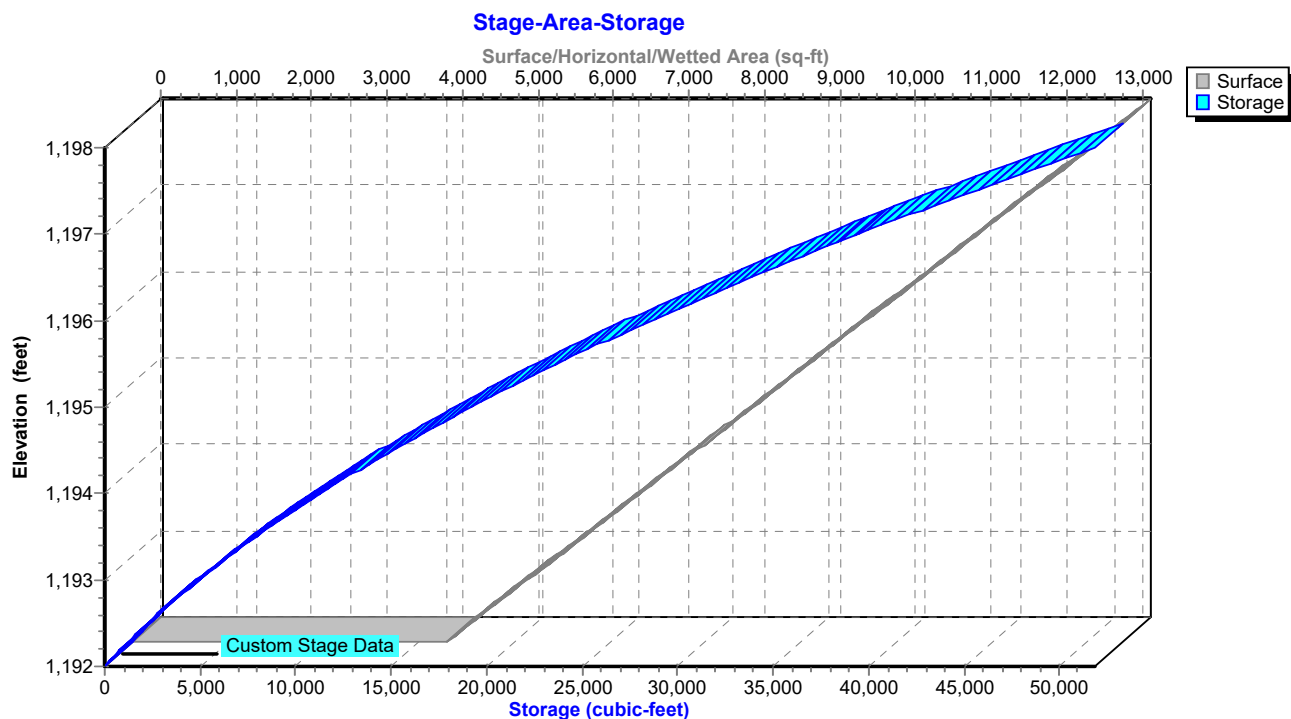
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Pond P3A: Pond 3A



Pond P3A: Pond 3A



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Hydrograph for Pond P3A: Pond 3A

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
15.00	0.40	6,518	1,193.27	0.52	0.02	0.51	0.00
25.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
35.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Stage-Discharge for Pond P3A: Pond 3A

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,192.00	0.00	0.00	0.00	0.00
1,192.20	0.37	0.00	0.37	0.00
1,192.40	0.40	0.00	0.40	0.00
1,192.60	0.42	0.00	0.42	0.00
1,192.80	0.45	0.00	0.45	0.00
1,193.00	0.47	0.00	0.47	0.00
1,193.20	0.50	0.01	0.50	0.00
1,193.40	0.57	0.05	0.52	0.00
1,193.60	0.68	0.13	0.55	0.00
1,193.80	0.84	0.27	0.57	0.00
1,194.00	1.07	0.47	0.60	0.00
1,194.20	1.37	0.75	0.62	0.00
1,194.40	1.75	1.10	0.65	0.00
1,194.60	2.21	1.54	0.67	0.00
1,194.80	2.76	2.06	0.70	0.00
1,195.00	3.40	2.68	0.72	0.00
1,195.20	4.15	3.41	0.74	0.00
1,195.40	5.00	4.23	0.77	0.00
1,195.60	5.96	5.17	0.79	0.00
1,195.80	6.55	5.74	0.82	0.00
1,196.00	6.82	5.98	0.84	0.00
1,196.20	7.08	6.21	0.87	0.00
1,196.40	7.33	6.44	0.89	0.00
1,196.60	7.58	6.66	0.92	0.00
1,196.80	7.81	6.87	0.94	0.00
1,197.00	8.04	7.07	0.97	0.00
1,197.20	12.86	7.27	0.99	4.60
1,197.40	22.27	7.47	1.02	13.78
1,197.60	36.21	7.66	1.04	27.51
1,197.80	52.33	7.84	1.07	43.42
1,198.00	71.29	8.02	1.09	62.18

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Stage-Area-Storage for Pond P3A: Pond 3A

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,192.00	4,165	0	1,197.10	11,774	40,645
1,192.10	4,314	424	1,197.20	11,923	41,830
1,192.20	4,463	863	1,197.30	12,073	43,030
1,192.30	4,613	1,317	1,197.40	12,222	44,244
1,192.40	4,762	1,785	1,197.50	12,371	45,474
1,192.50	4,911	2,269	1,197.60	12,520	46,719
1,192.60	5,060	2,768	1,197.70	12,669	47,978
1,192.70	5,209	3,281	1,197.80	12,819	49,252
1,192.80	5,359	3,809	1,197.90	12,968	50,542
1,192.90	5,508	4,353	1,198.00	13,117	51,846
1,193.00	5,657	4,911			
1,193.10	5,806	5,484			
1,193.20	5,955	6,072			
1,193.30	6,105	6,675			
1,193.40	6,254	7,293			
1,193.50	6,403	7,926			
1,193.60	6,552	8,574			
1,193.70	6,701	9,236			
1,193.80	6,851	9,914			
1,193.90	7,000	10,607			
1,194.00	7,149	11,314			
1,194.10	7,298	12,036			
1,194.20	7,447	12,774			
1,194.30	7,597	13,526			
1,194.40	7,746	14,293			
1,194.50	7,895	15,075			
1,194.60	8,044	15,872			
1,194.70	8,193	16,684			
1,194.80	8,343	17,511			
1,194.90	8,492	18,352			
1,195.00	8,641	19,209			
1,195.10	8,790	20,081			
1,195.20	8,939	20,967			
1,195.30	9,089	21,868			
1,195.40	9,238	22,785			
1,195.50	9,387	23,716			
1,195.60	9,536	24,662			
1,195.70	9,685	25,623			
1,195.80	9,835	26,599			
1,195.90	9,984	27,590			
1,196.00	10,133	28,596			
1,196.10	10,282	29,617			
1,196.20	10,431	30,652			
1,196.30	10,581	31,703			
1,196.40	10,730	32,769			
1,196.50	10,879	33,849			
1,196.60	11,028	34,944			
1,196.70	11,177	36,055			
1,196.80	11,327	37,180			
1,196.90	11,476	38,320			
1,197.00	11,625	39,475			

Summary for Pond P3B: Pond 3B

Inflow Area = 8.450 ac, 19.88% Impervious, Inflow Depth = 0.49" for 1 YR event
 Inflow = 5.75 cfs @ 12.15 hrs, Volume= 0.346 af
 Outflow = 0.53 cfs @ 13.52 hrs, Volume= 0.346 af, Atten= 91%, Lag= 82.3 min
 Primary = 0.10 cfs @ 13.52 hrs, Volume= 0.017 af
 Routed to Link 4L : Post - North
 Secondary = 0.44 cfs @ 13.52 hrs, Volume= 0.329 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,196.53' @ 13.52 hrs Surf.Area= 5,245 sf Storage= 6,156 cf

Plug-Flow detention time= 147.6 min calculated for 0.346 af (100% of inflow)
 Center-of-Mass det. time= 147.6 min (1,016.9 - 869.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,195.00'	33,965 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,195.00	2,799	0	0
1,200.00	10,787	33,965	33,965

Device	Routing	Invert	Outlet Devices
#1	Primary	1,196.00'	12.0" Round Culvert L= 36.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,196.00' / 1,192.00' S= 0.1111 ' /' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,196.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,198.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,195.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,199.00'	20.0' long + 4.0 ' /' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.10 cfs @ 13.52 hrs HW=1,196.53' (Free Discharge)

↑ **1=Culvert** (Passes 0.10 cfs of 1.05 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 0.10 cfs @ 1.96 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.44 cfs @ 13.52 hrs HW=1,196.53' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.44 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,195.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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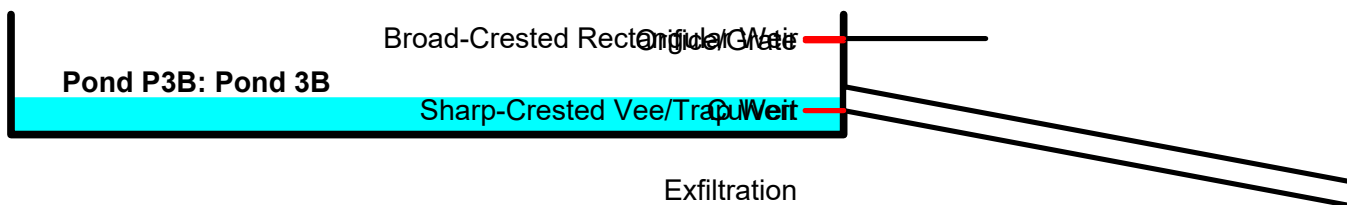
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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

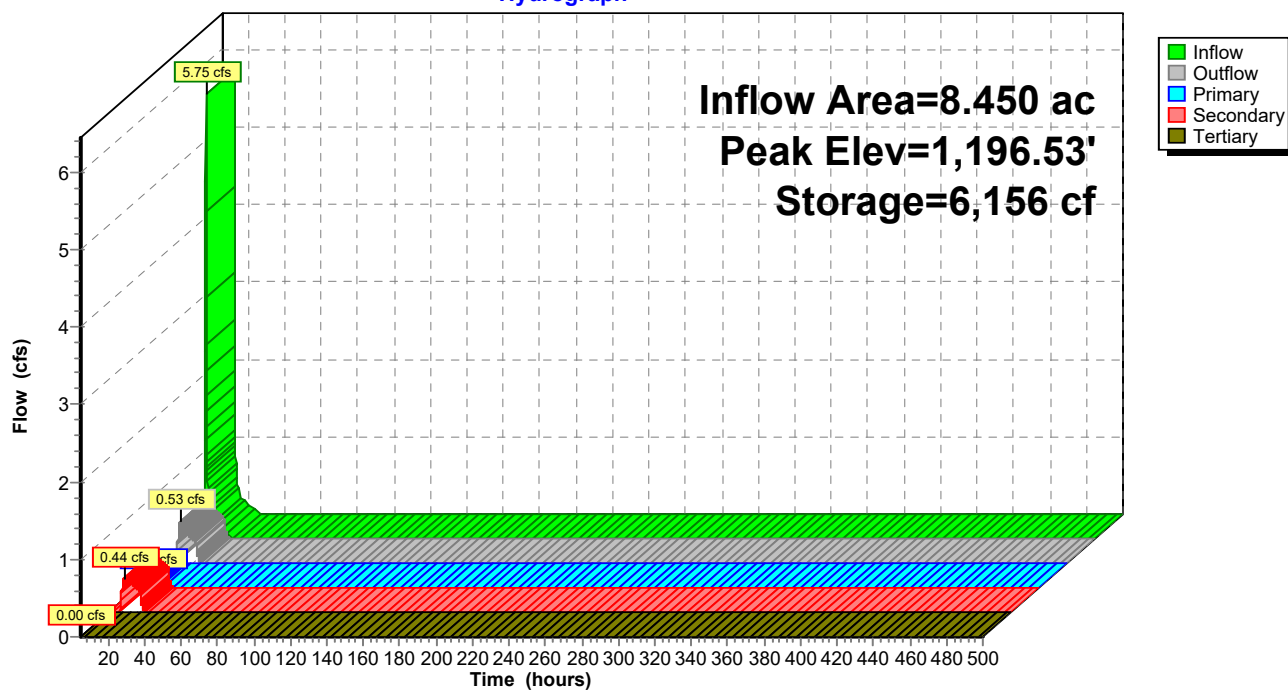
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Pond P3B: Pond 3B

Hydrograph



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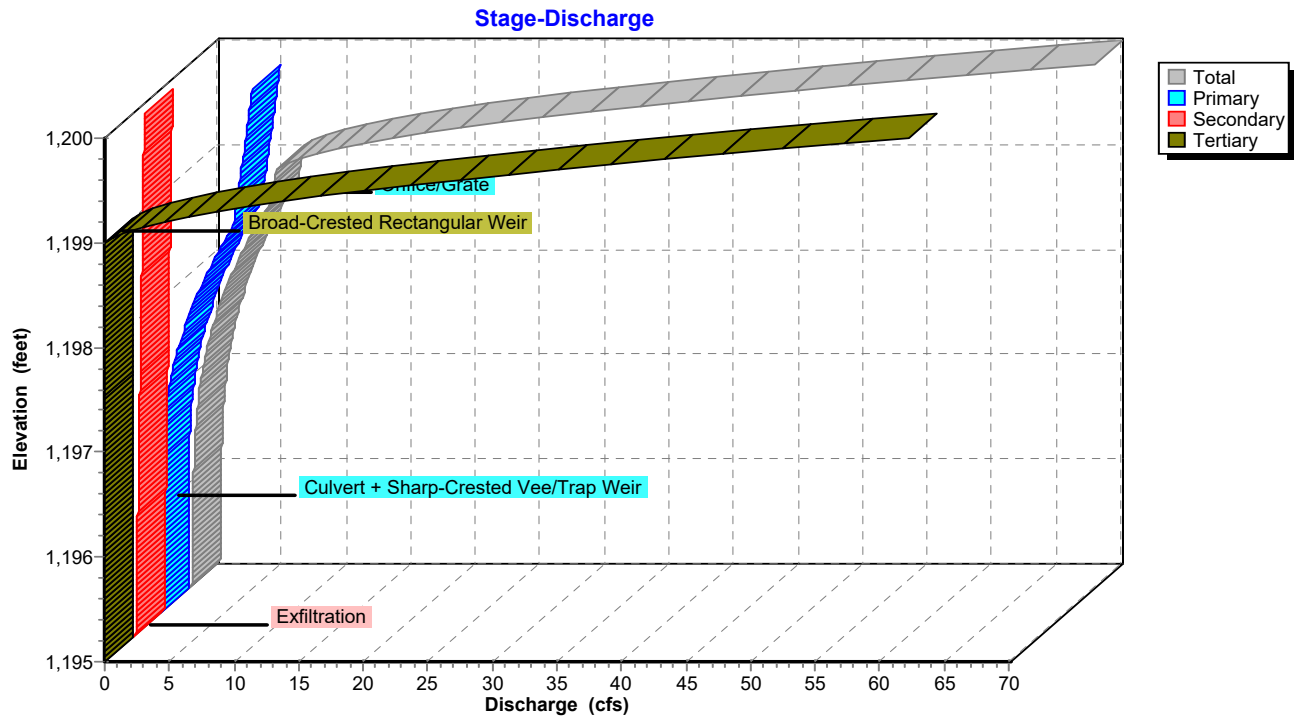
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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

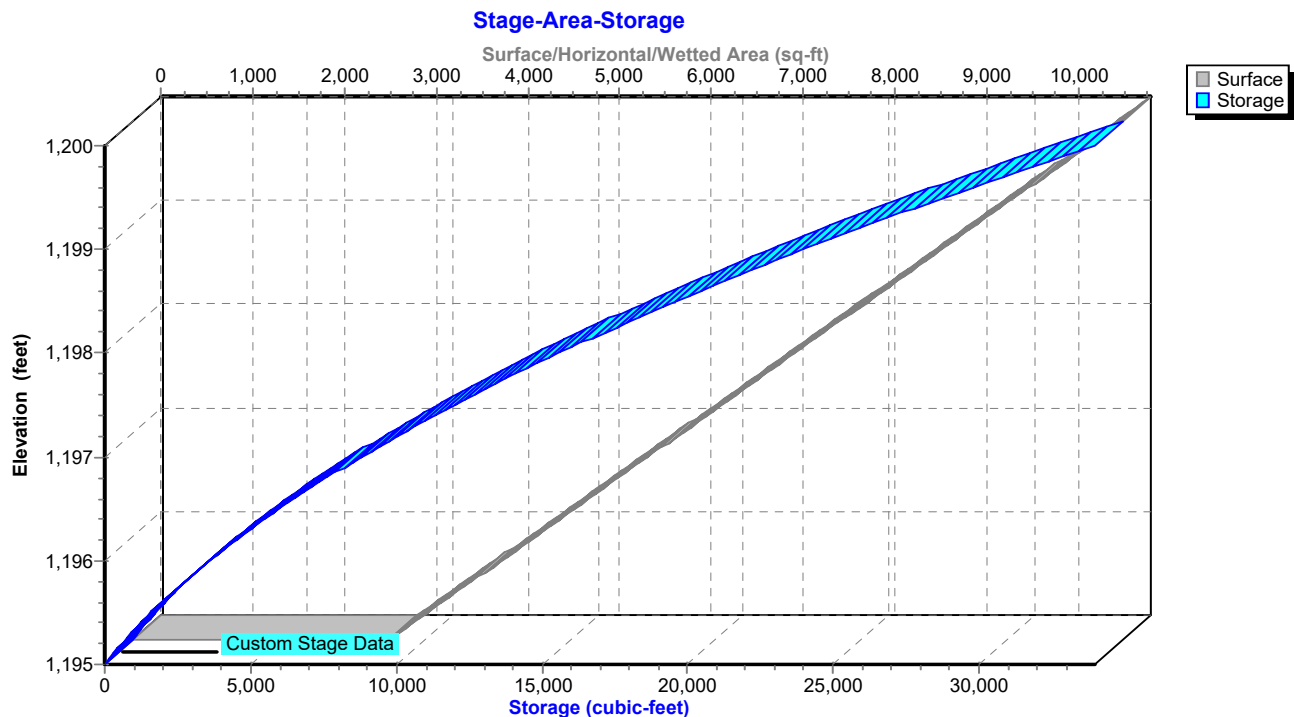
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Pond P3B: Pond 3B



Pond P3B: Pond 3B



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Hydrograph for Pond P3B: Pond 3B

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
15.00	0.33	5,427	1,196.39	0.46	0.04	0.42	0.00
25.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
35.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Stage-Discharge for Pond P3B: Pond 3B

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,195.00	0.00	0.00	0.00	0.00
1,195.10	0.25	0.00	0.25	0.00
1,195.20	0.26	0.00	0.26	0.00
1,195.30	0.27	0.00	0.27	0.00
1,195.40	0.29	0.00	0.29	0.00
1,195.50	0.30	0.00	0.30	0.00
1,195.60	0.31	0.00	0.31	0.00
1,195.70	0.33	0.00	0.33	0.00
1,195.80	0.34	0.00	0.34	0.00
1,195.90	0.35	0.00	0.35	0.00
1,196.00	0.37	0.00	0.37	0.00
1,196.10	0.38	0.00	0.38	0.00
1,196.20	0.40	0.01	0.39	0.00
1,196.30	0.43	0.02	0.41	0.00
1,196.40	0.47	0.05	0.42	0.00
1,196.50	0.52	0.08	0.43	0.00
1,196.60	0.58	0.13	0.45	0.00
1,196.70	0.65	0.19	0.46	0.00
1,196.80	0.74	0.27	0.47	0.00
1,196.90	0.85	0.36	0.49	0.00
1,197.00	0.97	0.47	0.50	0.00
1,197.10	1.11	0.60	0.51	0.00
1,197.20	1.27	0.75	0.53	0.00
1,197.30	1.45	0.91	0.54	0.00
1,197.40	1.65	1.10	0.55	0.00
1,197.50	1.87	1.31	0.57	0.00
1,197.60	2.12	1.54	0.58	0.00
1,197.70	2.38	1.79	0.59	0.00
1,197.80	2.67	2.06	0.61	0.00
1,197.90	2.98	2.36	0.62	0.00
1,198.00	3.32	2.68	0.63	0.00
1,198.10	3.68	3.03	0.65	0.00
1,198.20	4.06	3.41	0.66	0.00
1,198.30	4.48	3.81	0.67	0.00
1,198.40	4.92	4.23	0.69	0.00
1,198.50	5.39	4.69	0.70	0.00
1,198.60	5.88	5.17	0.71	0.00
1,198.70	6.33	5.61	0.73	0.00
1,198.80	6.47	5.74	0.74	0.00
1,198.90	6.61	5.86	0.75	0.00
1,199.00	6.75	5.98	0.77	0.00
1,199.10	8.48	6.10	0.78	1.60
1,199.20	11.60	6.21	0.79	4.60
1,199.30	15.83	6.33	0.81	8.70
1,199.40	21.04	6.44	0.82	13.78
1,199.50	27.47	6.55	0.83	20.08
1,199.60	35.01	6.66	0.85	27.51
1,199.70	42.73	6.76	0.86	35.10
1,199.80	51.17	6.87	0.87	43.42
1,199.90	60.31	6.97	0.89	52.45
1,200.00	70.15	7.07	0.90	62.18

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Stage-Area-Storage for Pond P3B: Pond 3B

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,195.00	2,799	0	1,197.55	6,873	12,332
1,195.05	2,879	142	1,197.60	6,953	12,677
1,195.10	2,959	288	1,197.65	7,033	13,027
1,195.15	3,039	438	1,197.70	7,113	13,381
1,195.20	3,119	592	1,197.75	7,192	13,738
1,195.25	3,198	750	1,197.80	7,272	14,100
1,195.30	3,278	912	1,197.85	7,352	14,465
1,195.35	3,358	1,078	1,197.90	7,432	14,835
1,195.40	3,438	1,247	1,197.95	7,512	15,209
1,195.45	3,518	1,421	1,198.00	7,592	15,586
1,195.50	3,598	1,599	1,198.05	7,672	15,968
1,195.55	3,678	1,781	1,198.10	7,752	16,353
1,195.60	3,758	1,967	1,198.15	7,831	16,743
1,195.65	3,837	2,157	1,198.20	7,911	17,137
1,195.70	3,917	2,351	1,198.25	7,991	17,534
1,195.75	3,997	2,549	1,198.30	8,071	17,936
1,195.80	4,077	2,750	1,198.35	8,151	18,341
1,195.85	4,157	2,956	1,198.40	8,231	18,751
1,195.90	4,237	3,166	1,198.45	8,311	19,164
1,195.95	4,317	3,380	1,198.50	8,391	19,582
1,196.00	4,397	3,598	1,198.55	8,470	20,003
1,196.05	4,476	3,820	1,198.60	8,550	20,429
1,196.10	4,556	4,045	1,198.65	8,630	20,858
1,196.15	4,636	4,275	1,198.70	8,710	21,292
1,196.20	4,716	4,509	1,198.75	8,790	21,729
1,196.25	4,796	4,747	1,198.80	8,870	22,171
1,196.30	4,876	4,989	1,198.85	8,950	22,616
1,196.35	4,956	5,234	1,198.90	9,030	23,066
1,196.40	5,036	5,484	1,198.95	9,110	23,519
1,196.45	5,116	5,738	1,199.00	9,189	23,977
1,196.50	5,195	5,996	1,199.05	9,269	24,438
1,196.55	5,275	6,258	1,199.10	9,349	24,904
1,196.60	5,355	6,523	1,199.15	9,429	25,373
1,196.65	5,435	6,793	1,199.20	9,509	25,847
1,196.70	5,515	7,067	1,199.25	9,589	26,324
1,196.75	5,595	7,345	1,199.30	9,669	26,806
1,196.80	5,675	7,626	1,199.35	9,749	27,291
1,196.85	5,755	7,912	1,199.40	9,828	27,780
1,196.90	5,834	8,202	1,199.45	9,908	28,274
1,196.95	5,914	8,495	1,199.50	9,988	28,771
1,197.00	5,994	8,793	1,199.55	10,068	29,273
1,197.05	6,074	9,095	1,199.60	10,148	29,778
1,197.10	6,154	9,401	1,199.65	10,228	30,287
1,197.15	6,234	9,710	1,199.70	10,308	30,801
1,197.20	6,314	10,024	1,199.75	10,388	31,318
1,197.25	6,394	10,342	1,199.80	10,467	31,840
1,197.30	6,473	10,663	1,199.85	10,547	32,365
1,197.35	6,553	10,989	1,199.90	10,627	32,894
1,197.40	6,633	11,319	1,199.95	10,707	33,428
1,197.45	6,713	11,652	1,200.00	10,787	33,965
1,197.50	6,793	11,990			

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Summary for Pond P3C: Pond 3C

Inflow Area = 2.490 ac, 22.89% Impervious, Inflow Depth = 0.65" for 1 YR event
 Inflow = 2.42 cfs @ 12.14 hrs, Volume= 0.135 af
 Outflow = 0.23 cfs @ 13.33 hrs, Volume= 0.135 af, Atten= 90%, Lag= 71.5 min
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
 Routed to Link 4L : Post - North
 Secondary = 0.23 cfs @ 13.33 hrs, Volume= 0.135 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,178.99' @ 13.33 hrs Surf.Area= 2,797 sf Storage= 2,322 cf

Plug-Flow detention time= 97.9 min calculated for 0.135 af (100% of inflow)
 Center-of-Mass det. time= 97.9 min (952.3 - 854.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,178.00'	14,846 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,178.00	1,905	0	0
1,182.00	5,518	14,846	14,846

Device	Routing	Invert	Outlet Devices
#1	Primary	1,179.00'	12.0" Round Culvert L= 30.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,179.00' / 1,175.00' S= 0.1333 ' / Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,179.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,180.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,178.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,181.00'	20.0' long + 4.0 ' / SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,178.00' (Free Discharge)

↑ **1=Culvert** (Controls 0.00 cfs)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Controls 0.00 cfs)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.23 cfs @ 13.33 hrs HW=1,178.99' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.23 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,178.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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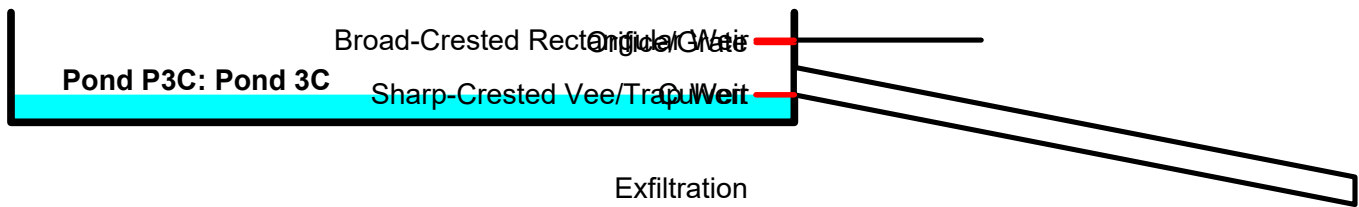
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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

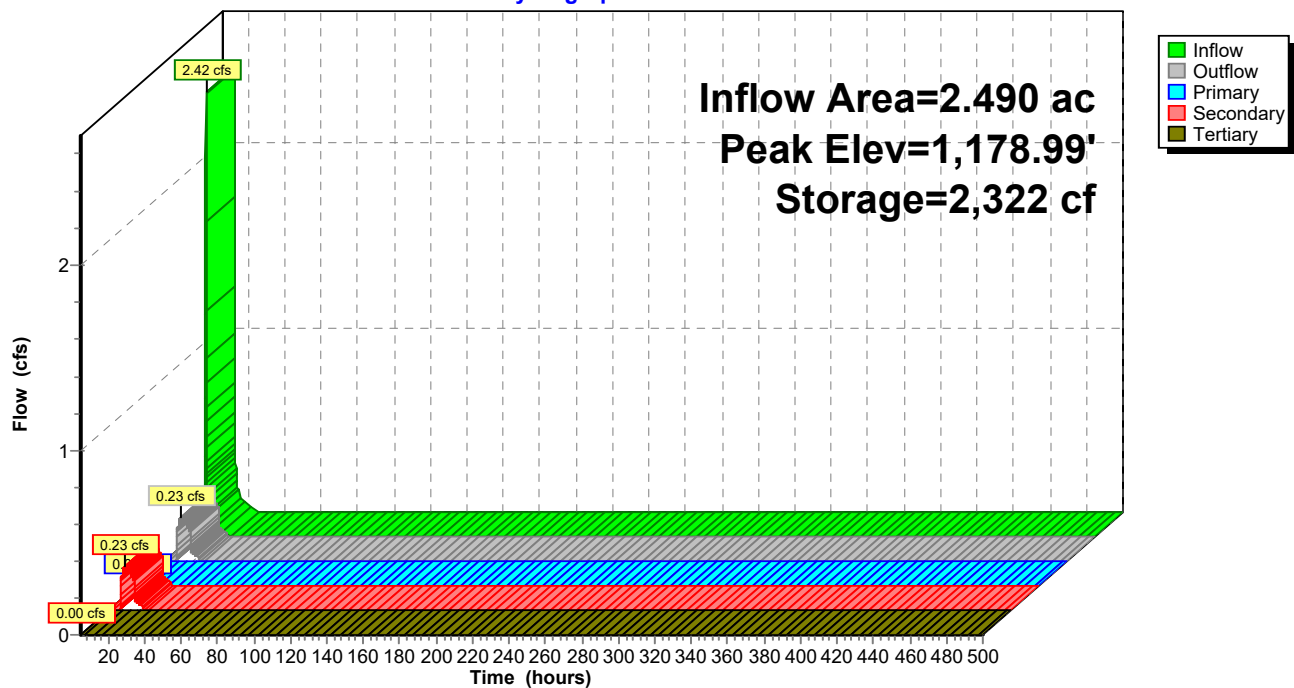
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Pond P3C: Pond 3C

Hydrograph



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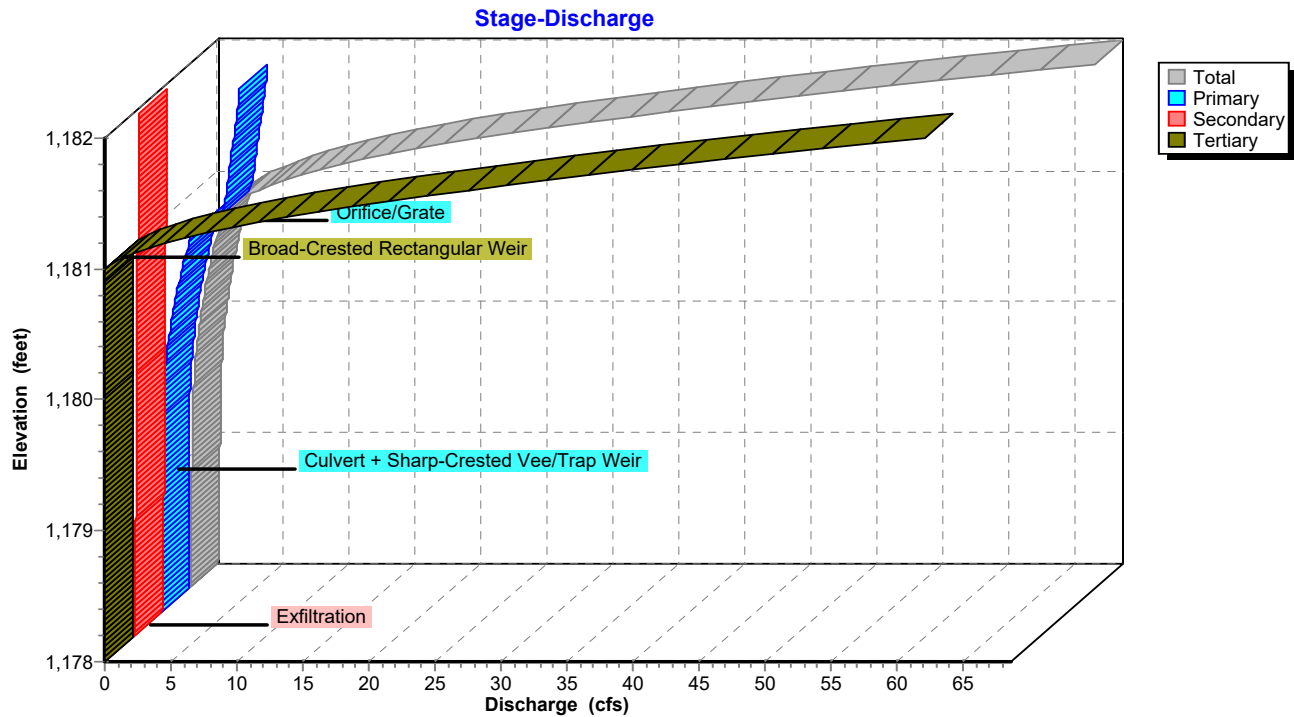
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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

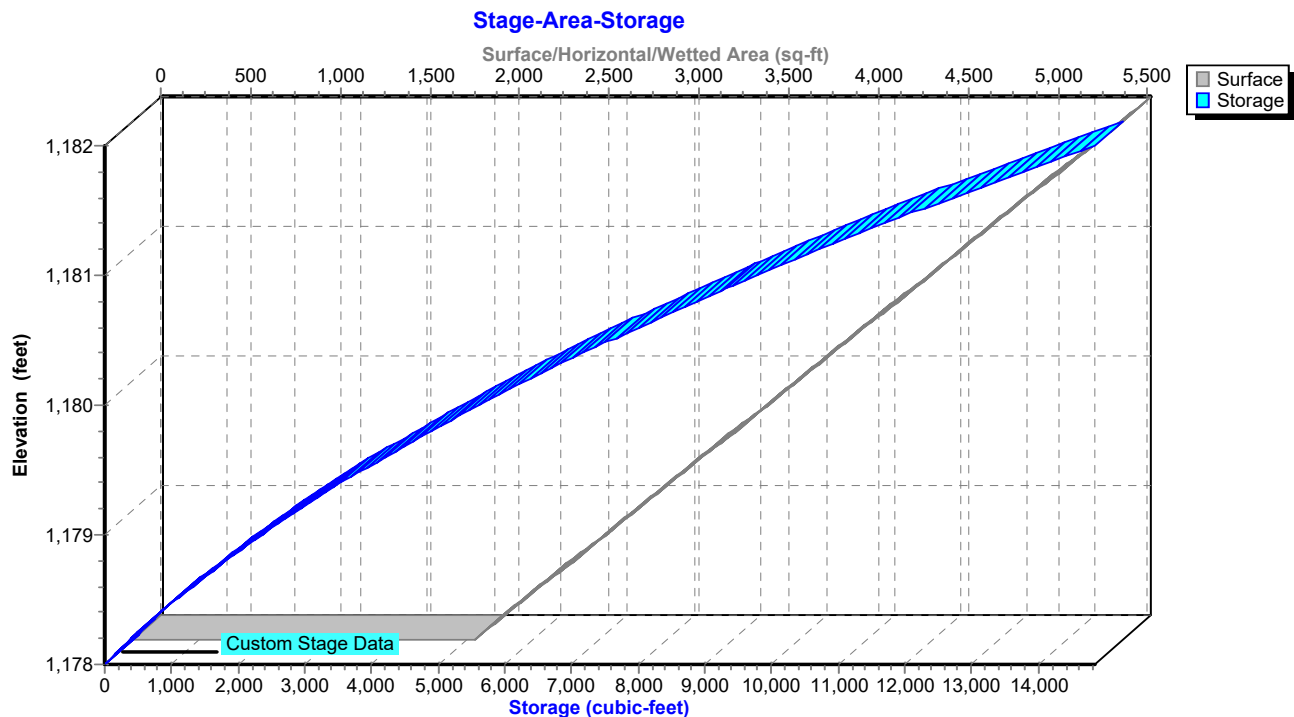
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Pond P3C: Pond 3C



Pond P3C: Pond 3C



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Hydrograph for Pond P3C: Pond 3C

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
15.00	0.12	1,792	1,178.79	0.22	0.00	0.22	0.00
25.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
35.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00

Stage-Discharge for Pond P3C: Pond 3C

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,178.00	0.00	0.00	0.00	0.00
1,178.10	0.17	0.00	0.17	0.00
1,178.20	0.17	0.00	0.17	0.00
1,178.30	0.18	0.00	0.18	0.00
1,178.40	0.19	0.00	0.19	0.00
1,178.50	0.20	0.00	0.20	0.00
1,178.60	0.20	0.00	0.20	0.00
1,178.70	0.21	0.00	0.21	0.00
1,178.80	0.22	0.00	0.22	0.00
1,178.90	0.23	0.00	0.23	0.00
1,179.00	0.23	0.00	0.23	0.00
1,179.10	0.24	0.00	0.24	0.00
1,179.20	0.26	0.01	0.25	0.00
1,179.30	0.28	0.02	0.26	0.00
1,179.40	0.31	0.05	0.26	0.00
1,179.50	0.36	0.08	0.27	0.00
1,179.60	0.41	0.13	0.28	0.00
1,179.70	0.48	0.19	0.29	0.00
1,179.80	0.57	0.27	0.29	0.00
1,179.90	0.67	0.36	0.30	0.00
1,180.00	0.78	0.47	0.31	0.00
1,180.10	0.92	0.60	0.32	0.00
1,180.20	1.07	0.75	0.32	0.00
1,180.30	1.25	0.91	0.33	0.00
1,180.40	1.44	1.10	0.34	0.00
1,180.50	1.65	1.31	0.35	0.00
1,180.60	1.89	1.54	0.35	0.00
1,180.70	2.15	1.79	0.36	0.00
1,180.80	2.43	2.06	0.37	0.00
1,180.90	2.74	2.36	0.38	0.00
1,181.00	4.10	3.72	0.38	0.00
1,181.10	6.78	4.78	0.39	1.60
1,181.20	9.93	4.93	0.40	4.60
1,181.30	14.18	5.07	0.41	8.70
1,181.40	19.41	5.21	0.41	13.78
1,181.50	25.85	5.35	0.42	20.08
1,181.60	33.42	5.48	0.43	27.51
1,181.70	41.15	5.61	0.44	35.10
1,181.80	49.60	5.74	0.44	43.42
1,181.90	58.76	5.86	0.45	52.45
1,182.00	68.62	5.98	0.46	62.18

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Stage-Area-Storage for Pond P3C: Pond 3C

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,178.00	1,905	0	1,180.55	4,208	7,794
1,178.05	1,950	96	1,180.60	4,253	8,006
1,178.10	1,995	195	1,180.65	4,299	8,220
1,178.15	2,040	296	1,180.70	4,344	8,436
1,178.20	2,086	399	1,180.75	4,389	8,654
1,178.25	2,131	504	1,180.80	4,434	8,875
1,178.30	2,176	612	1,180.85	4,479	9,098
1,178.35	2,221	722	1,180.90	4,524	9,323
1,178.40	2,266	834	1,180.95	4,570	9,550
1,178.45	2,311	949	1,181.00	4,615	9,780
1,178.50	2,357	1,065	1,181.05	4,660	10,011
1,178.55	2,402	1,184	1,181.10	4,705	10,246
1,178.60	2,447	1,306	1,181.15	4,750	10,482
1,178.65	2,492	1,429	1,181.20	4,795	10,721
1,178.70	2,537	1,555	1,181.25	4,841	10,962
1,178.75	2,582	1,683	1,181.30	4,886	11,205
1,178.80	2,628	1,813	1,181.35	4,931	11,450
1,178.85	2,673	1,946	1,181.40	4,976	11,698
1,178.90	2,718	2,080	1,181.45	5,021	11,948
1,178.95	2,763	2,217	1,181.50	5,066	12,200
1,179.00	2,808	2,357	1,181.55	5,112	12,454
1,179.05	2,853	2,498	1,181.60	5,157	12,711
1,179.10	2,899	2,642	1,181.65	5,202	12,970
1,179.15	2,944	2,788	1,181.70	5,247	13,231
1,179.20	2,989	2,936	1,181.75	5,292	13,495
1,179.25	3,034	3,087	1,181.80	5,337	13,760
1,179.30	3,079	3,240	1,181.85	5,383	14,028
1,179.35	3,124	3,395	1,181.90	5,428	14,299
1,179.40	3,170	3,552	1,181.95	5,473	14,571
1,179.45	3,215	3,712	1,182.00	5,518	14,846
1,179.50	3,260	3,874			
1,179.55	3,305	4,038			
1,179.60	3,350	4,204			
1,179.65	3,395	4,373			
1,179.70	3,441	4,544			
1,179.75	3,486	4,717			
1,179.80	3,531	4,892			
1,179.85	3,576	5,070			
1,179.90	3,621	5,250			
1,179.95	3,666	5,432			
1,180.00	3,712	5,617			
1,180.05	3,757	5,803			
1,180.10	3,802	5,992			
1,180.15	3,847	6,183			
1,180.20	3,892	6,377			
1,180.25	3,937	6,573			
1,180.30	3,982	6,771			
1,180.35	4,028	6,971			
1,180.40	4,073	7,173			
1,180.45	4,118	7,378			
1,180.50	4,163	7,585			

Summary for Pond P3D: Pond 3D

Inflow Area = 2.380 ac, 23.95% Impervious, Inflow Depth = 0.69" for 1 YR event
 Inflow = 2.49 cfs @ 12.14 hrs, Volume= 0.138 af
 Outflow = 0.37 cfs @ 12.65 hrs, Volume= 0.138 af, Atten= 85%, Lag= 30.7 min
 Primary = 0.22 cfs @ 12.65 hrs, Volume= 0.031 af
 Routed to Link 4L : Post - North
 Secondary = 0.15 cfs @ 12.65 hrs, Volume= 0.107 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,188.74' @ 12.65 hrs Surf.Area= 1,840 sf Storage= 2,240 cf

Plug-Flow detention time= 118.3 min calculated for 0.138 af (100% of inflow)
 Center-of-Mass det. time= 118.3 min (969.4 - 851.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,187.00'	11,620 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,187.00	741	0	0
1,192.00	3,907	11,620	11,620

Device	Routing	Invert	Outlet Devices
#1	Primary	1,188.00'	12.0" Round Culvert L= 35.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,188.00' / 1,184.00' S= 0.1143 ' / ' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,188.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,190.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600
#4	Secondary	1,187.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,191.00'	20.0' long + 4.0 ' /' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.22 cfs @ 12.65 hrs HW=1,188.74' (Free Discharge)

↑ **1=Culvert** (Passes 0.22 cfs of 1.81 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 0.22 cfs @ 2.31 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.15 cfs @ 12.65 hrs HW=1,188.74' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.15 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,187.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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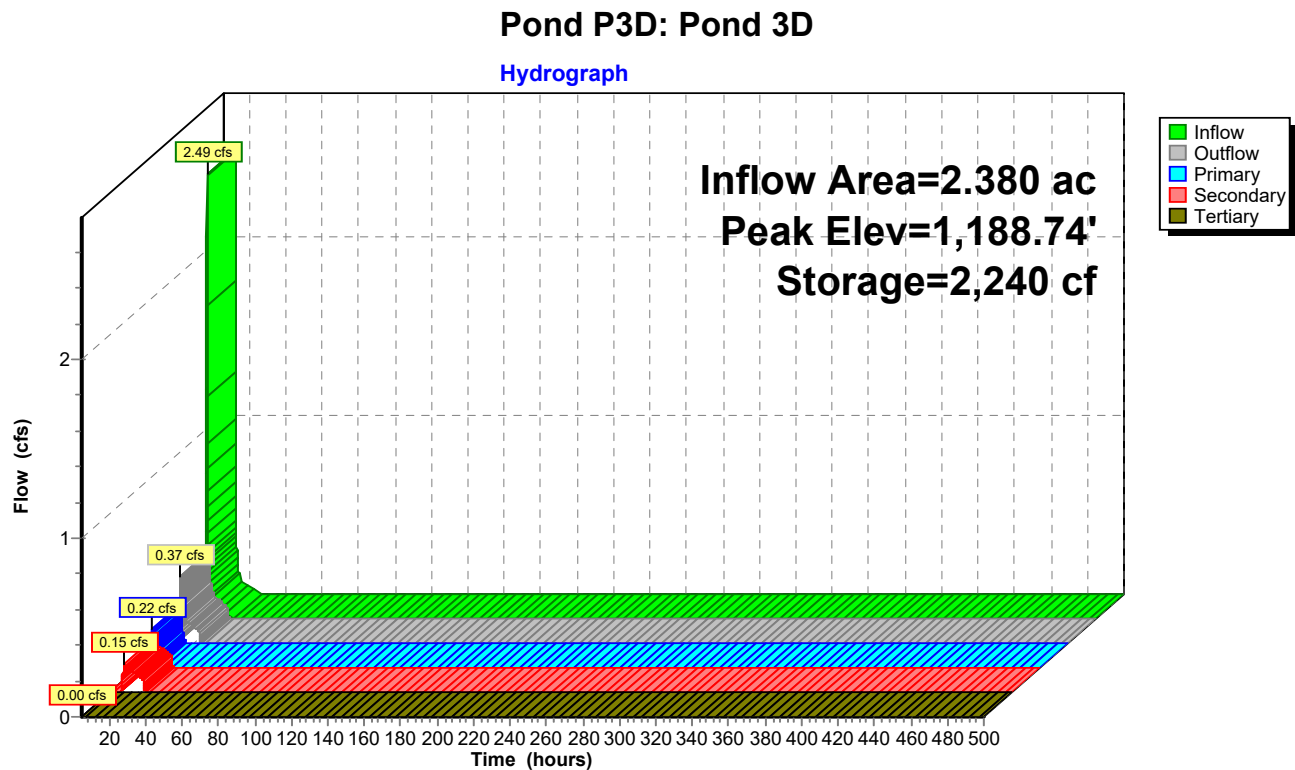
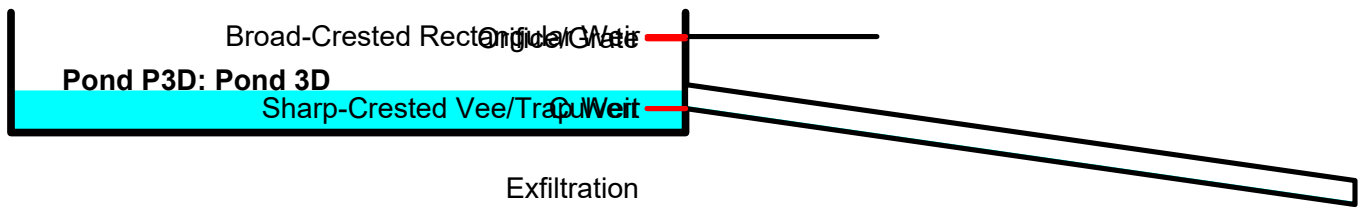
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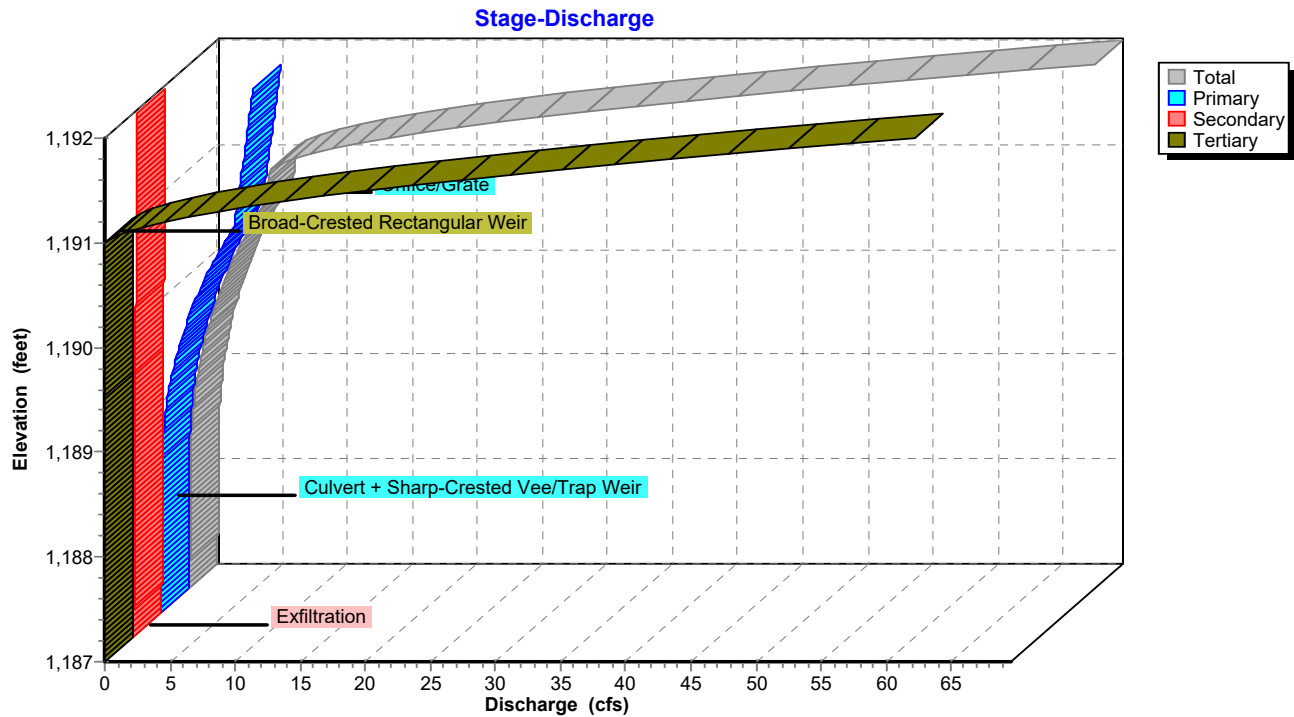
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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

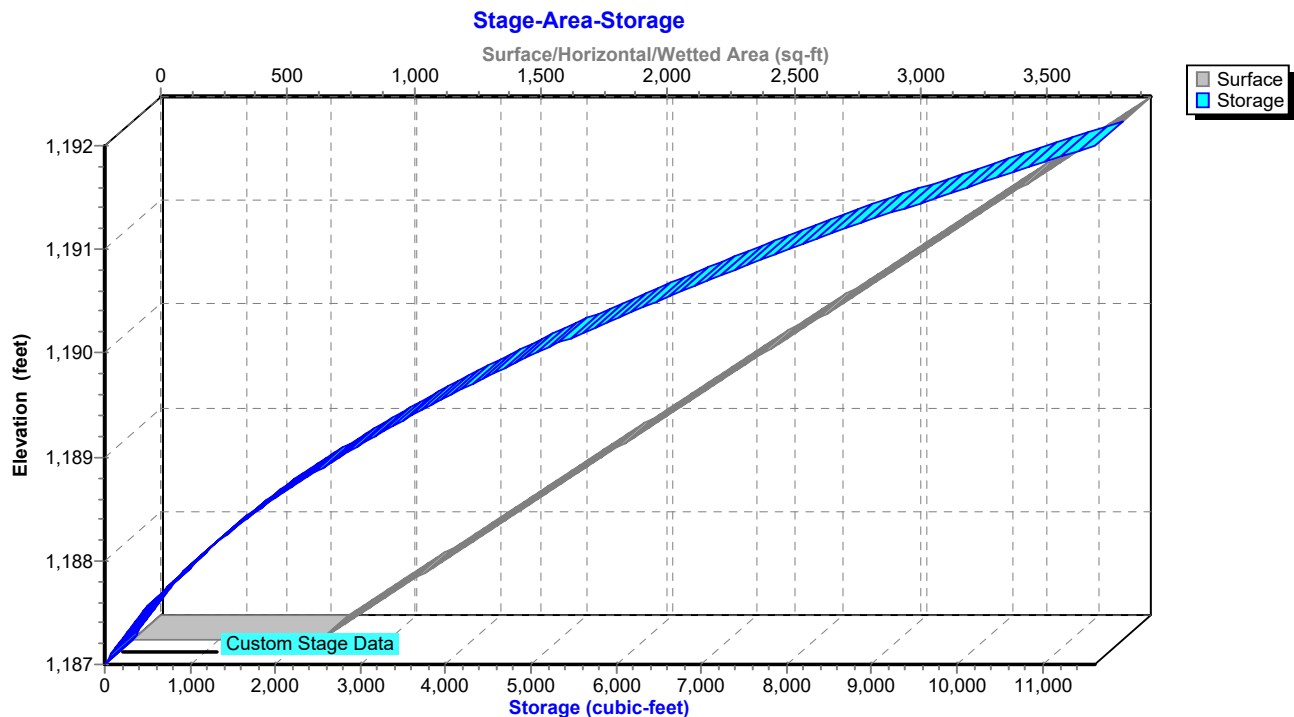
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Pond P3D: Pond 3D



Pond P3D: Pond 3D



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Hydrograph for Pond P3D: Pond 3D

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
15.00	0.12	1,584	1,188.35	0.17	0.04	0.13	0.00
25.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
35.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Stage-Discharge for Pond P3D: Pond 3D

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,187.00	0.00	0.00	0.00	0.00
1,187.10	0.07	0.00	0.07	0.00
1,187.20	0.07	0.00	0.07	0.00
1,187.30	0.08	0.00	0.08	0.00
1,187.40	0.08	0.00	0.08	0.00
1,187.50	0.09	0.00	0.09	0.00
1,187.60	0.09	0.00	0.09	0.00
1,187.70	0.10	0.00	0.10	0.00
1,187.80	0.10	0.00	0.10	0.00
1,187.90	0.11	0.00	0.11	0.00
1,188.00	0.11	0.00	0.11	0.00
1,188.10	0.12	0.00	0.12	0.00
1,188.20	0.13	0.01	0.13	0.00
1,188.30	0.15	0.02	0.13	0.00
1,188.40	0.18	0.05	0.14	0.00
1,188.50	0.22	0.08	0.14	0.00
1,188.60	0.28	0.13	0.15	0.00
1,188.70	0.35	0.19	0.15	0.00
1,188.80	0.43	0.27	0.16	0.00
1,188.90	0.53	0.36	0.16	0.00
1,189.00	0.64	0.47	0.17	0.00
1,189.10	0.77	0.60	0.17	0.00
1,189.20	0.93	0.75	0.18	0.00
1,189.30	1.10	0.91	0.18	0.00
1,189.40	1.29	1.10	0.19	0.00
1,189.50	1.50	1.31	0.19	0.00
1,189.60	1.73	1.54	0.20	0.00
1,189.70	1.99	1.79	0.20	0.00
1,189.80	2.27	2.06	0.21	0.00
1,189.90	2.58	2.36	0.21	0.00
1,190.00	2.90	2.68	0.22	0.00
1,190.10	3.26	3.03	0.23	0.00
1,190.20	3.64	3.41	0.23	0.00
1,190.30	4.04	3.81	0.24	0.00
1,190.40	4.47	4.23	0.24	0.00
1,190.50	4.93	4.69	0.25	0.00
1,190.60	5.42	5.17	0.25	0.00
1,190.70	5.87	5.61	0.26	0.00
1,190.80	6.00	5.74	0.26	0.00
1,190.90	6.13	5.86	0.27	0.00
1,191.00	6.25	5.98	0.27	0.00
1,191.10	7.98	6.10	0.28	1.60
1,191.20	11.09	6.21	0.28	4.60
1,191.30	15.31	6.33	0.29	8.70
1,191.40	20.52	6.44	0.29	13.78
1,191.50	26.93	6.55	0.30	20.08
1,191.60	34.47	6.66	0.30	27.51
1,191.70	42.18	6.76	0.31	35.10
1,191.80	50.61	6.87	0.32	43.42
1,191.90	59.75	6.97	0.32	52.45
1,192.00	69.58	7.07	0.33	62.18

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Stage-Area-Storage for Pond P3D: Pond 3D

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,187.00	741	0	1,189.55	2,356	3,948
1,187.05	773	38	1,189.60	2,387	4,067
1,187.10	804	77	1,189.65	2,419	4,187
1,187.15	836	118	1,189.70	2,451	4,309
1,187.20	868	161	1,189.75	2,482	4,432
1,187.25	899	205	1,189.80	2,514	4,557
1,187.30	931	251	1,189.85	2,546	4,683
1,187.35	963	298	1,189.90	2,577	4,812
1,187.40	994	347	1,189.95	2,609	4,941
1,187.45	1,026	398	1,190.00	2,641	5,072
1,187.50	1,058	450	1,190.05	2,672	5,205
1,187.55	1,089	503	1,190.10	2,704	5,340
1,187.60	1,121	559	1,190.15	2,736	5,476
1,187.65	1,153	615	1,190.20	2,767	5,613
1,187.70	1,184	674	1,190.25	2,799	5,752
1,187.75	1,216	734	1,190.30	2,831	5,893
1,187.80	1,248	795	1,190.35	2,862	6,035
1,187.85	1,279	859	1,190.40	2,894	6,179
1,187.90	1,311	923	1,190.45	2,926	6,325
1,187.95	1,343	990	1,190.50	2,957	6,472
1,188.00	1,374	1,058	1,190.55	2,989	6,621
1,188.05	1,406	1,127	1,190.60	3,021	6,771
1,188.10	1,438	1,198	1,190.65	3,052	6,923
1,188.15	1,469	1,271	1,190.70	3,084	7,076
1,188.20	1,501	1,345	1,190.75	3,116	7,231
1,188.25	1,533	1,421	1,190.80	3,147	7,388
1,188.30	1,564	1,498	1,190.85	3,179	7,546
1,188.35	1,596	1,577	1,190.90	3,210	7,705
1,188.40	1,627	1,658	1,190.95	3,242	7,867
1,188.45	1,659	1,740	1,191.00	3,274	8,030
1,188.50	1,691	1,824	1,191.05	3,305	8,194
1,188.55	1,722	1,909	1,191.10	3,337	8,360
1,188.60	1,754	1,996	1,191.15	3,369	8,528
1,188.65	1,786	2,085	1,191.20	3,400	8,697
1,188.70	1,817	2,175	1,191.25	3,432	8,868
1,188.75	1,849	2,266	1,191.30	3,464	9,040
1,188.80	1,881	2,360	1,191.35	3,495	9,214
1,188.85	1,912	2,454	1,191.40	3,527	9,390
1,188.90	1,944	2,551	1,191.45	3,559	9,567
1,188.95	1,976	2,649	1,191.50	3,590	9,746
1,189.00	2,007	2,748	1,191.55	3,622	9,926
1,189.05	2,039	2,850	1,191.60	3,654	10,108
1,189.10	2,071	2,952	1,191.65	3,685	10,291
1,189.15	2,102	3,057	1,191.70	3,717	10,476
1,189.20	2,134	3,163	1,191.75	3,749	10,663
1,189.25	2,166	3,270	1,191.80	3,780	10,851
1,189.30	2,197	3,379	1,191.85	3,812	11,041
1,189.35	2,229	3,490	1,191.90	3,844	11,232
1,189.40	2,261	3,602	1,191.95	3,875	11,425
1,189.45	2,292	3,716	1,192.00	3,907	11,620
1,189.50	2,324	3,831			

Summary for Pond P3E: Pond 3E

Inflow Area = 2.780 ac, 19.06% Impervious, Inflow Depth = 0.61" for 1 YR event
 Inflow = 2.49 cfs @ 12.14 hrs, Volume= 0.141 af
 Outflow = 0.26 cfs @ 13.29 hrs, Volume= 0.141 af, Atten= 90%, Lag= 69.0 min
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
 Routed to Link 4L : Post - North
 Secondary = 0.26 cfs @ 13.29 hrs, Volume= 0.141 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,216.82' @ 13.29 hrs Surf.Area= 3,080 sf Storage= 2,290 cf

Plug-Flow detention time= 82.8 min calculated for 0.141 af (100% of inflow)
 Center-of-Mass det. time= 82.8 min (940.8 - 858.0)

Volume	Invert	Avail.Storage	Storage Description
#1	1,216.00'	15,578 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,216.00	2,517	0	0
1,220.00	5,272	15,578	15,578

Device	Routing	Invert	Outlet Devices
#1	Primary	1,217.00'	12.0" Round Culvert L= 32.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,217.00' / 1,213.00' S= 0.1250 ' / Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,217.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,218.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600
#4	Secondary	1,216.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,219.00'	20.0' long + 4.0 ' /' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,216.00' (Free Discharge)

↑ **1=Culvert** (Controls 0.00 cfs)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Controls 0.00 cfs)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.26 cfs @ 13.29 hrs HW=1,216.82' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.26 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,216.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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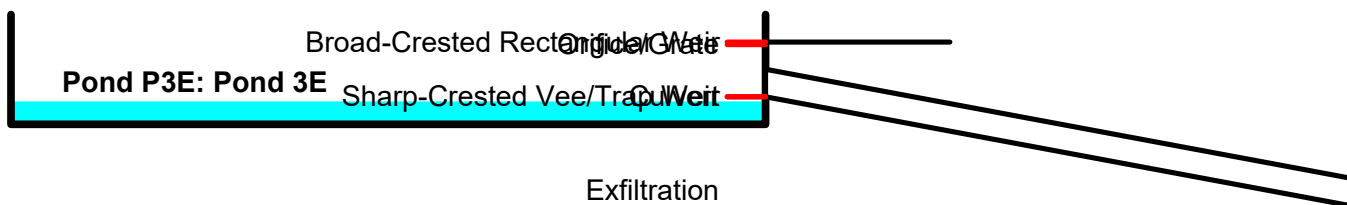
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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

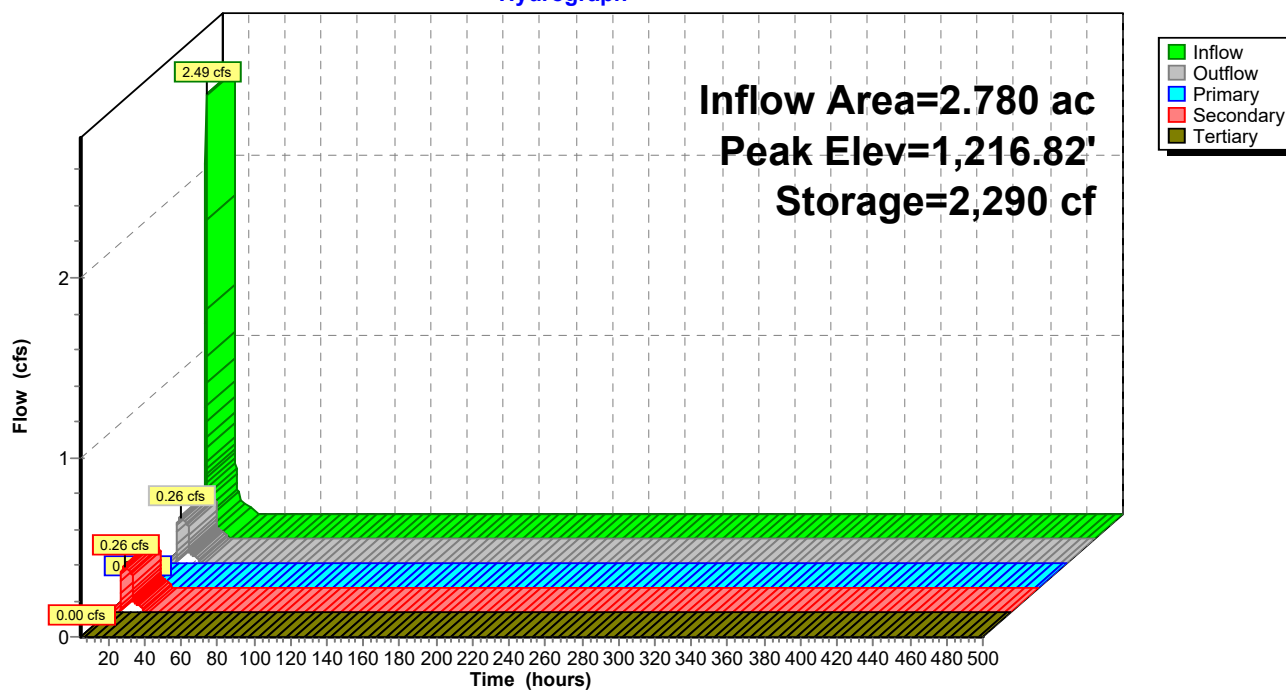
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Pond P3E: Pond 3E

Hydrograph



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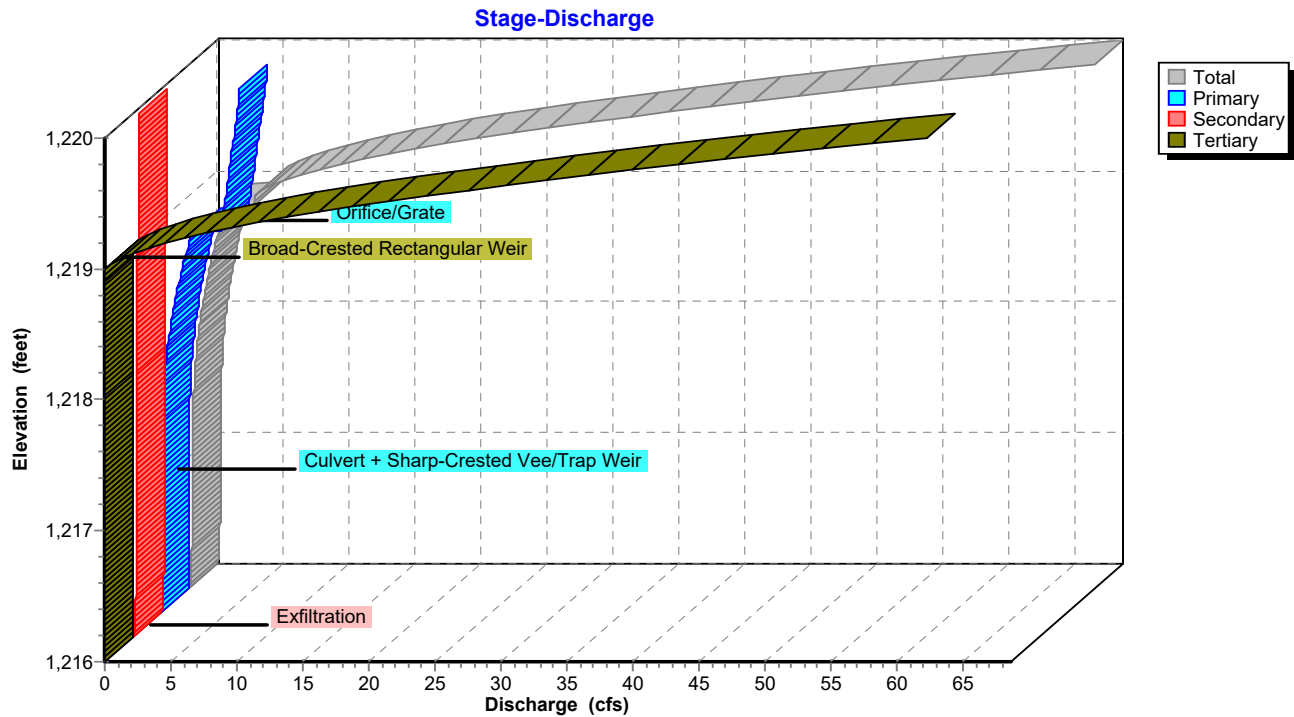
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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

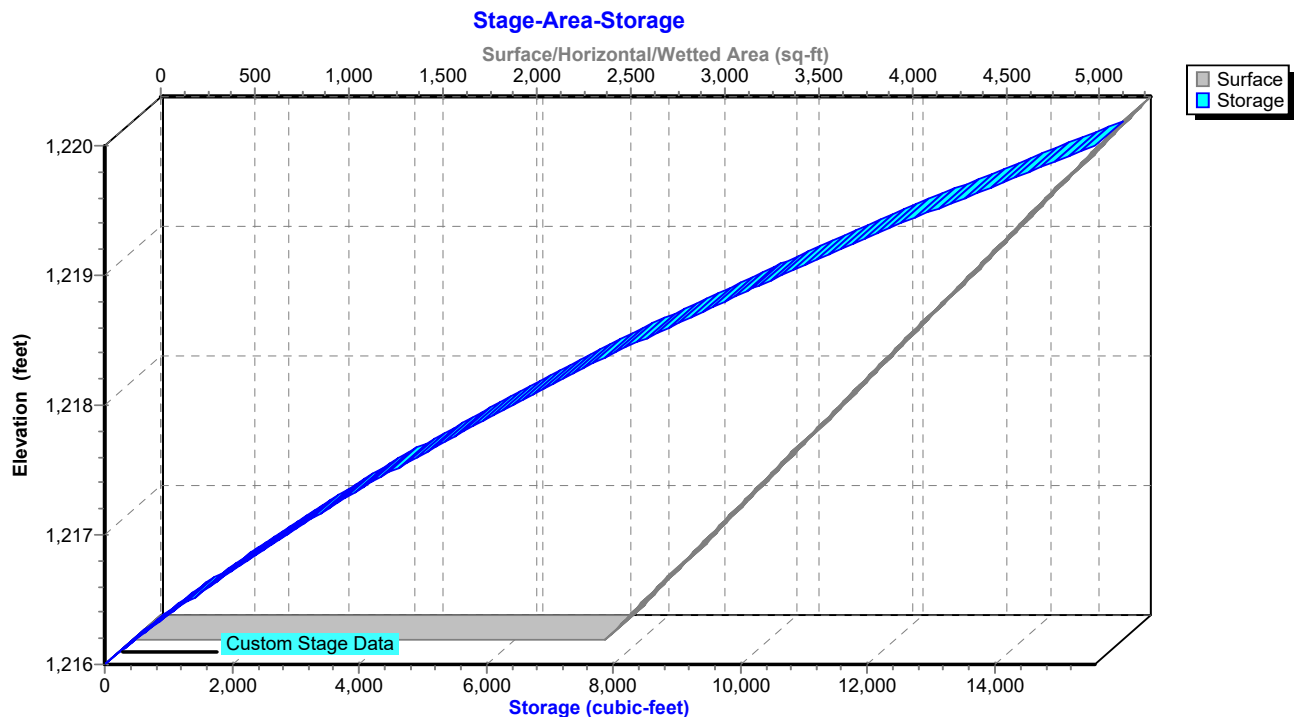
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Pond P3E: Pond 3E



Pond P3E: Pond 3E



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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Hydrograph for Pond P3E: Pond 3E

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
15.00	0.13	1,665	1,216.61	0.24	0.00	0.24	0.00
25.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
35.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Stage-Discharge for Pond P3E: Pond 3E

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,216.00	0.00	0.00	0.00	0.00
1,216.10	0.22	0.00	0.22	0.00
1,216.20	0.22	0.00	0.22	0.00
1,216.30	0.23	0.00	0.23	0.00
1,216.40	0.23	0.00	0.23	0.00
1,216.50	0.24	0.00	0.24	0.00
1,216.60	0.24	0.00	0.24	0.00
1,216.70	0.25	0.00	0.25	0.00
1,216.80	0.26	0.00	0.26	0.00
1,216.90	0.26	0.00	0.26	0.00
1,217.00	0.27	0.00	0.27	0.00
1,217.10	0.27	0.00	0.27	0.00
1,217.20	0.29	0.01	0.28	0.00
1,217.30	0.31	0.02	0.28	0.00
1,217.40	0.34	0.05	0.29	0.00
1,217.50	0.38	0.08	0.30	0.00
1,217.60	0.43	0.13	0.30	0.00
1,217.70	0.50	0.19	0.31	0.00
1,217.80	0.58	0.27	0.31	0.00
1,217.90	0.68	0.36	0.32	0.00
1,218.00	0.80	0.47	0.32	0.00
1,218.10	0.93	0.60	0.33	0.00
1,218.20	1.08	0.75	0.34	0.00
1,218.30	1.26	0.91	0.34	0.00
1,218.40	1.45	1.10	0.35	0.00
1,218.50	1.66	1.31	0.35	0.00
1,218.60	1.89	1.54	0.36	0.00
1,218.70	2.15	1.79	0.36	0.00
1,218.80	2.43	2.06	0.37	0.00
1,218.90	2.74	2.36	0.38	0.00
1,219.00	5.01	4.63	0.38	0.00
1,219.10	6.77	4.78	0.39	1.60
1,219.20	9.92	4.93	0.39	4.60
1,219.30	14.17	5.07	0.40	8.70
1,219.40	19.40	5.21	0.40	13.78
1,219.50	25.84	5.35	0.41	20.08
1,219.60	33.40	5.48	0.42	27.51
1,219.70	41.13	5.61	0.42	35.10
1,219.80	49.59	5.74	0.43	43.42
1,219.90	58.74	5.86	0.43	52.45
1,220.00	68.59	5.98	0.44	62.18

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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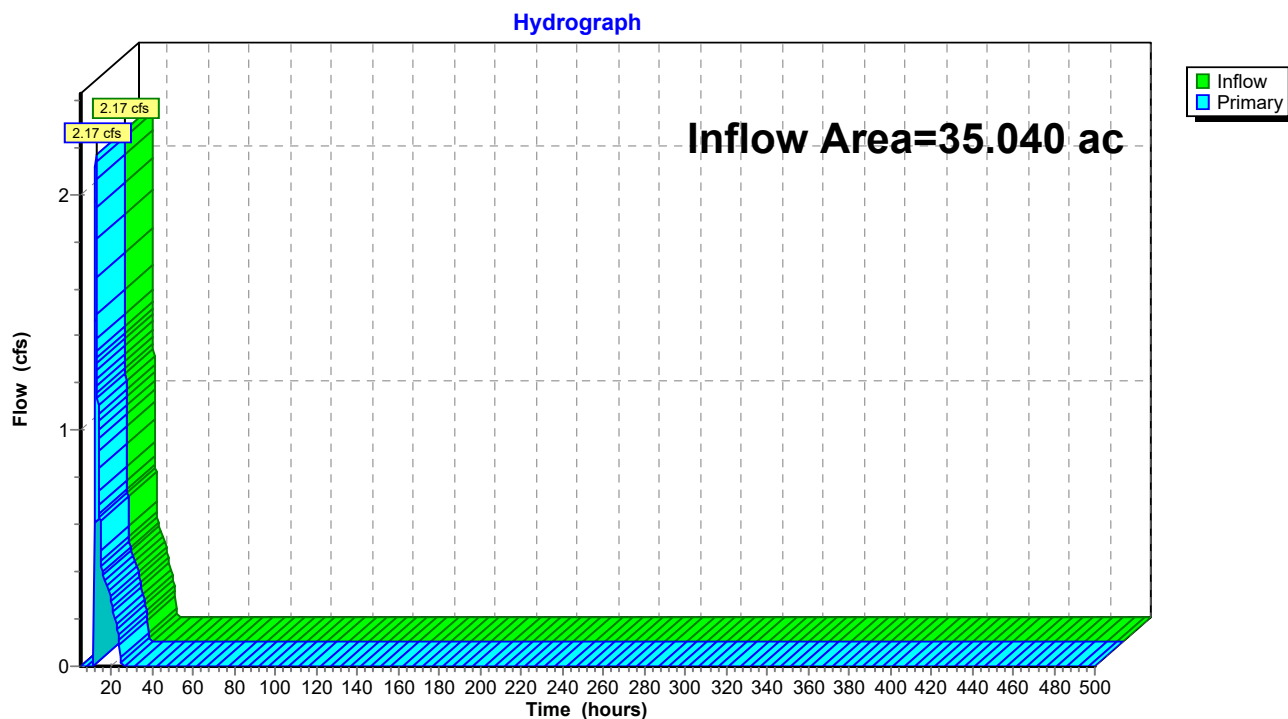
Stage-Area-Storage for Pond P3E: Pond 3E

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,216.00	2,517	0	1,218.55	4,273	8,658
1,216.05	2,551	127	1,218.60	4,308	8,872
1,216.10	2,586	255	1,218.65	4,342	9,088
1,216.15	2,620	385	1,218.70	4,377	9,306
1,216.20	2,655	517	1,218.75	4,411	9,526
1,216.25	2,689	651	1,218.80	4,445	9,747
1,216.30	2,724	786	1,218.85	4,480	9,971
1,216.35	2,758	923	1,218.90	4,514	10,195
1,216.40	2,793	1,062	1,218.95	4,549	10,422
1,216.45	2,827	1,202	1,219.00	4,583	10,650
1,216.50	2,861	1,345	1,219.05	4,618	10,880
1,216.55	2,896	1,489	1,219.10	4,652	11,112
1,216.60	2,930	1,634	1,219.15	4,687	11,346
1,216.65	2,965	1,782	1,219.20	4,721	11,581
1,216.70	2,999	1,931	1,219.25	4,755	11,818
1,216.75	3,034	2,081	1,219.30	4,790	12,056
1,216.80	3,068	2,234	1,219.35	4,824	12,297
1,216.85	3,102	2,388	1,219.40	4,859	12,539
1,216.90	3,137	2,544	1,219.45	4,893	12,783
1,216.95	3,171	2,702	1,219.50	4,928	13,028
1,217.00	3,206	2,861	1,219.55	4,962	13,275
1,217.05	3,240	3,023	1,219.60	4,996	13,524
1,217.10	3,275	3,185	1,219.65	5,031	13,775
1,217.15	3,309	3,350	1,219.70	5,065	14,027
1,217.20	3,344	3,516	1,219.75	5,100	14,282
1,217.25	3,378	3,684	1,219.80	5,134	14,537
1,217.30	3,412	3,854	1,219.85	5,169	14,795
1,217.35	3,447	4,026	1,219.90	5,203	15,054
1,217.40	3,481	4,199	1,219.95	5,238	15,315
1,217.45	3,516	4,374	1,220.00	5,272	15,578
1,217.50	3,550	4,550			
1,217.55	3,585	4,729			
1,217.60	3,619	4,909			
1,217.65	3,653	5,091			
1,217.70	3,688	5,274			
1,217.75	3,722	5,459			
1,217.80	3,757	5,646			
1,217.85	3,791	5,835			
1,217.90	3,826	6,025			
1,217.95	3,860	6,218			
1,218.00	3,895	6,412			
1,218.05	3,929	6,607			
1,218.10	3,963	6,804			
1,218.15	3,998	7,003			
1,218.20	4,032	7,204			
1,218.25	4,067	7,407			
1,218.30	4,101	7,611			
1,218.35	4,136	7,817			
1,218.40	4,170	8,024			
1,218.45	4,204	8,234			
1,218.50	4,239	8,445			

Summary for Link 1L: Total Pre - Development

Inflow Area = 35.040 ac, 0.00% Impervious, Inflow Depth = 0.15" for 1 YR event
Inflow = 2.17 cfs @ 12.36 hrs, Volume= 0.451 af
Primary = 2.17 cfs @ 12.36 hrs, Volume= 0.451 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 1L: Total Pre - Development

250128900_swm

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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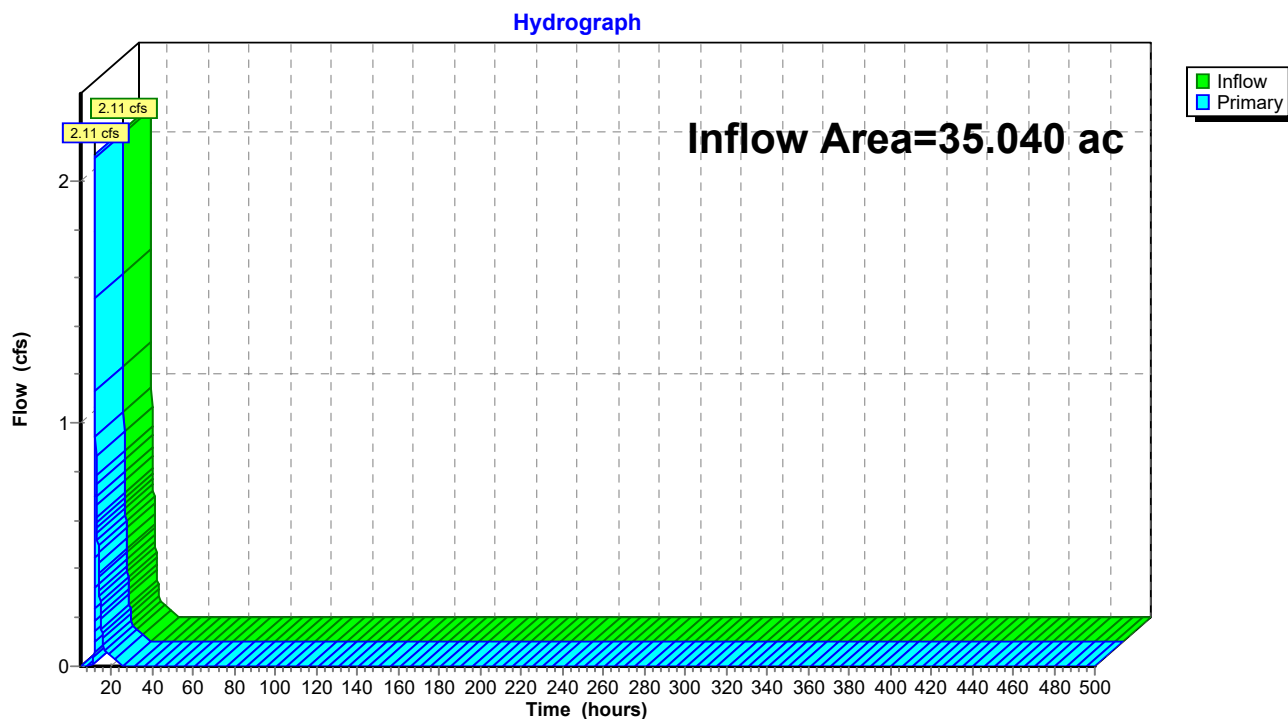
Hydrograph for Link 1L: Total Pre - Development

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	265.00	0.00	0.00	0.00
15.00	0.61	0.00	0.61	270.00	0.00	0.00	0.00
20.00	0.27	0.00	0.27	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

Summary for Link 2L: Total Post - Development

Inflow Area = 35.040 ac, 19.66% Impervious, Inflow Depth = 0.06" for 1 YR event
Inflow = 2.11 cfs @ 12.14 hrs, Volume= 0.177 af
Primary = 2.11 cfs @ 12.14 hrs, Volume= 0.177 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 2L: Total Post - Development

250128900_swm

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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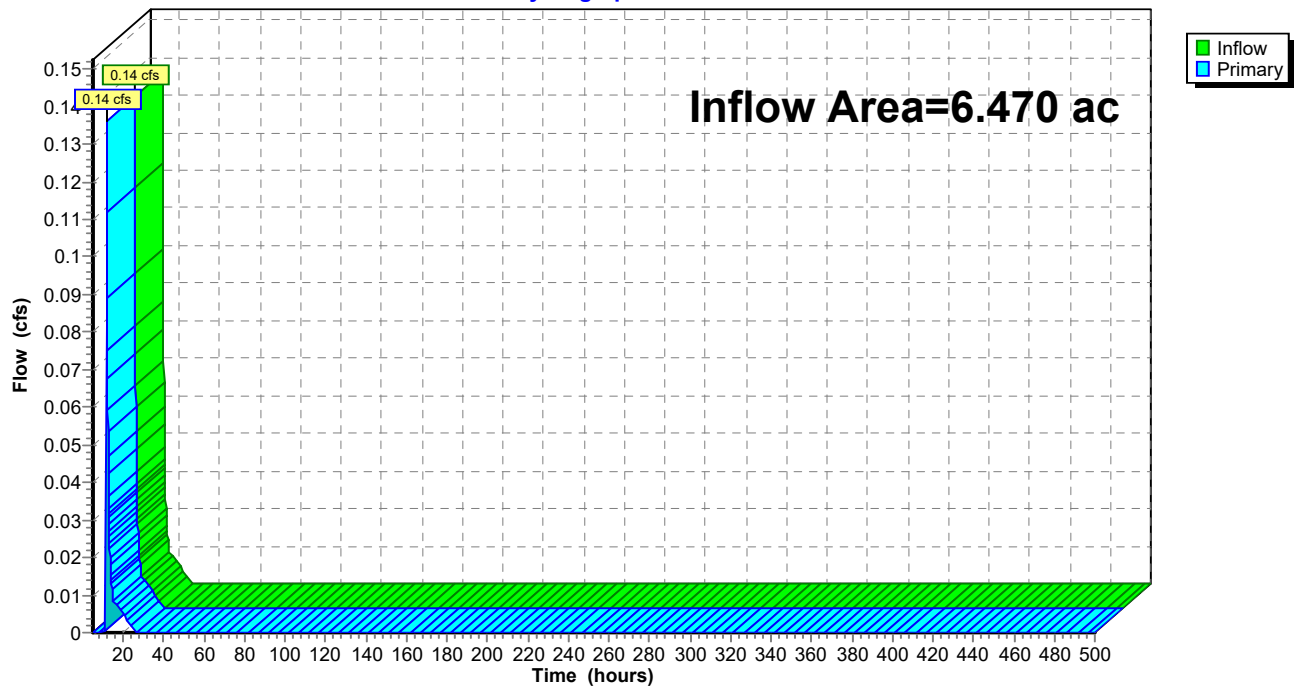
Hydrograph for Link 2L: Total Post - Development

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	265.00	0.00	0.00	0.00
15.00	0.20	0.00	0.20	270.00	0.00	0.00	0.00
20.00	0.04	0.00	0.04	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

Summary for Link 3L: Post - South

Inflow Area = 6.470 ac, 18.70% Impervious, Inflow Depth = 0.02" for 1 YR event
Inflow = 0.14 cfs @ 12.16 hrs, Volume= 0.011 af
Primary = 0.14 cfs @ 12.16 hrs, Volume= 0.011 af, Atten= 0%, Lag= 0.0 min
Routed to Link 2L : Total Post - Development

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 3L: Post - South**Hydrograph**

250128900_swm

Prepared by Excel Engineering

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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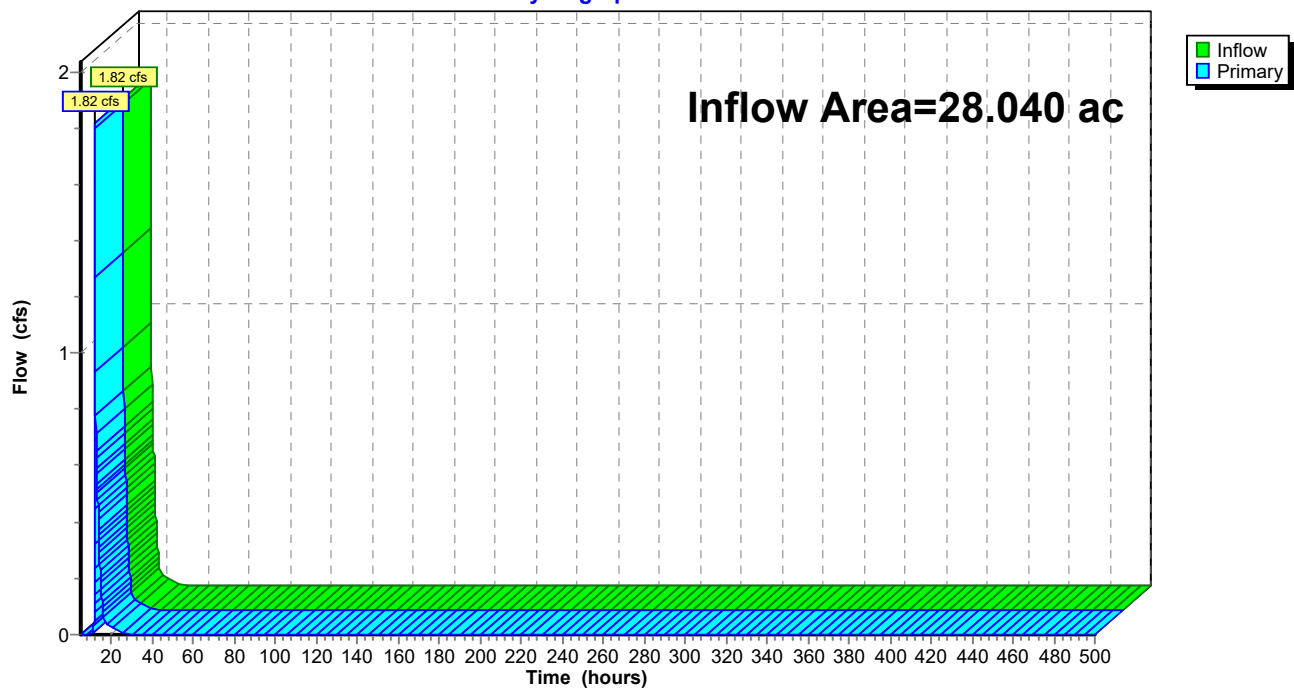
Hydrograph for Link 3L: Post - South

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	265.00	0.00	0.00	0.00
15.00	0.01	0.00	0.01	270.00	0.00	0.00	0.00
20.00	0.01	0.00	0.01	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

Summary for Link 4L: Post - North

Inflow Area = 28.040 ac, 20.04% Impervious, Inflow Depth = 0.07" for 1 YR event
Inflow = 1.82 cfs @ 12.14 hrs, Volume= 0.153 af
Primary = 1.82 cfs @ 12.14 hrs, Volume= 0.153 af, Atten= 0%, Lag= 0.0 min
Routed to Link 2L : Total Post - Development

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 4L: Post - North**Hydrograph**

250128900_swm

Prepared by Excel Engineering

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Featherstone Rise
MSE 24-hr 4 1 YR Rainfall=2.50"

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Hydrograph for Link 4L: Post - North

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	265.00	0.00	0.00	0.00
15.00	0.17	0.00	0.17	270.00	0.00	0.00	0.00
20.00	0.03	0.00	0.03	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

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MSE 24-hr 4 2 YR Rainfall=2.90"

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Time span=5.00-500.00 hrs, dt=0.05 hrs, 9901 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1: Pre - South	Runoff Area=4.910 ac 0.00% Impervious Runoff Depth=0.17" Tc=10.0 min CN=55 Runoff=0.31 cfs 0.069 af
Subcatchment1A: Post 1A	Runoff Area=6.030 ac 19.24% Impervious Runoff Depth=0.58" Tc=6.0 min CN=68 Runoff=4.83 cfs 0.289 af
Subcatchment1B: Post 1B - Offsite	Runoff Area=0.440 ac 11.36% Impervious Runoff Depth=0.46" Tc=6.0 min CN=65 Runoff=0.26 cfs 0.017 af
Subcatchment2: Pre - West	Runoff Area=2.540 ac 0.00% Impervious Runoff Depth=0.17" Tc=6.0 min CN=55 Runoff=0.17 cfs 0.036 af
Subcatchment2A: Post 2A - Offsite	Runoff Area=0.530 ac 11.32% Impervious Runoff Depth=0.46" Tc=6.0 min CN=65 Runoff=0.31 cfs 0.020 af
Subcatchment3: Pre - North	Runoff Area=27.590 ac 0.00% Impervious Runoff Depth=0.30" Tc=10.0 min CN=60 Runoff=5.79 cfs 0.685 af
Subcatchment3A: Post 3A	Runoff Area=10.600 ac 18.58% Impervious Runoff Depth=0.66" Tc=6.0 min CN=70 Runoff=10.12 cfs 0.582 af
Subcatchment3B: Post 3B	Runoff Area=8.450 ac 19.88% Impervious Runoff Depth=0.70" Tc=6.0 min CN=71 Runoff=8.74 cfs 0.495 af
Subcatchment3C: Post 3C	Runoff Area=2.490 ac 22.89% Impervious Runoff Depth=0.90" Tc=6.0 min CN=75 Runoff=3.42 cfs 0.186 af
Subcatchment3D: Post 3D	Runoff Area=2.380 ac 23.95% Impervious Runoff Depth=0.95" Tc=6.0 min CN=76 Runoff=3.48 cfs 0.188 af
Subcatchment3E: Post 3E	Runoff Area=2.780 ac 19.06% Impervious Runoff Depth=0.85" Tc=6.0 min CN=74 Runoff=3.57 cfs 0.196 af
Subcatchment3Y: Post 3Y - Offsite	Runoff Area=0.820 ac 36.59% Impervious Runoff Depth=1.37" Tc=6.0 min CN=83 Runoff=1.76 cfs 0.093 af
Subcatchment3Z: Post 3Z - Offsite	Runoff Area=0.520 ac 0.00% Impervious Runoff Depth=0.85" Tc=6.0 min CN=74 Runoff=0.67 cfs 0.037 af
Subcatchment5S: Culvert 1	Runoff Area=4,797 sf 48.61% Impervious Runoff Depth=1.12" Tc=6.0 min CN=79 Runoff=0.19 cfs 0.010 af
Subcatchment6S: Culvert 2	Runoff Area=24,708 sf 36.87% Impervious Runoff Depth=0.90" Tc=6.0 min CN=75 Runoff=0.78 cfs 0.042 af
Subcatchment7S: Culvert 3	Runoff Area=41,517 sf 32.00% Impervious Runoff Depth=0.80" Tc=6.0 min CN=73 Runoff=1.14 cfs 0.063 af

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MSE 24-hr 4 2 YR Rainfall=2.90"

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Subcatchment8S: Culvert 4Runoff Area=209,603 sf 25.18% Impervious Runoff Depth=0.66"
Tc=6.0 min CN=70 Runoff=4.59 cfs 0.264 af**Subcatchment9S: Culvert 5**Runoff Area=188,836 sf 19.96% Impervious Runoff Depth=0.58"
Tc=6.0 min CN=68 Runoff=3.47 cfs 0.208 af**Pond P1A: Pond 1A**Peak Elev=1,240.45' Storage=5,132 cf Inflow=4.83 cfs 0.289 af
Primary=0.06 cfs 0.010 af Secondary=0.38 cfs 0.279 af Tertiary=0.00 cfs 0.000 af Outflow=0.45 cfs 0.289 af**Pond P3A: Pond 3A**Peak Elev=1,193.92' Storage=10,734 cf Inflow=10.12 cfs 0.582 af
Primary=0.38 cfs 0.083 af Secondary=0.59 cfs 0.500 af Tertiary=0.00 cfs 0.000 af Outflow=0.97 cfs 0.582 af**Pond P3B: Pond 3B**Peak Elev=1,196.99' Storage=8,739 cf Inflow=8.74 cfs 0.495 af
Primary=0.46 cfs 0.095 af Secondary=0.50 cfs 0.400 af Tertiary=0.00 cfs 0.000 af Outflow=0.96 cfs 0.495 af**Pond P3C: Pond 3C**Peak Elev=1,179.39' Storage=3,509 cf Inflow=3.42 cfs 0.186 af
Primary=0.04 cfs 0.006 af Secondary=0.26 cfs 0.180 af Tertiary=0.00 cfs 0.000 af Outflow=0.31 cfs 0.186 af**Pond P3D: Pond 3D**Peak Elev=1,189.08' Storage=2,906 cf Inflow=3.48 cfs 0.188 af
Primary=0.57 cfs 0.066 af Secondary=0.17 cfs 0.122 af Tertiary=0.00 cfs 0.000 af Outflow=0.74 cfs 0.188 af**Pond P3E: Pond 3E**Peak Elev=1,217.25' Storage=3,688 cf Inflow=3.57 cfs 0.196 af
Primary=0.02 cfs 0.002 af Secondary=0.28 cfs 0.194 af Tertiary=0.00 cfs 0.000 af Outflow=0.30 cfs 0.196 af**Link 1L: Total Pre - Development**Inflow=6.15 cfs 0.790 af
Primary=6.15 cfs 0.790 af**Link 2L: Total Post - Development**Inflow=3.04 cfs 0.429 af
Primary=3.04 cfs 0.429 af**Link 3L: Post - South**Inflow=0.26 cfs 0.027 af
Primary=0.26 cfs 0.027 af**Link 4L: Post - North**Inflow=2.47 cfs 0.382 af
Primary=2.47 cfs 0.382 af**Total Runoff Area = 80.857 ac Runoff Volume = 3.483 af Average Runoff Depth = 0.52"**
88.21% Pervious = 71.323 ac 11.79% Impervious = 9.534 ac

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MSE 24-hr 4 2 YR Rainfall=2.90"

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Summary for Subcatchment 1: Pre - South

Runoff = 0.31 cfs @ 12.41 hrs, Volume= 0.069 af, Depth= 0.17"
Routed to Link 1L : Total Pre - Development

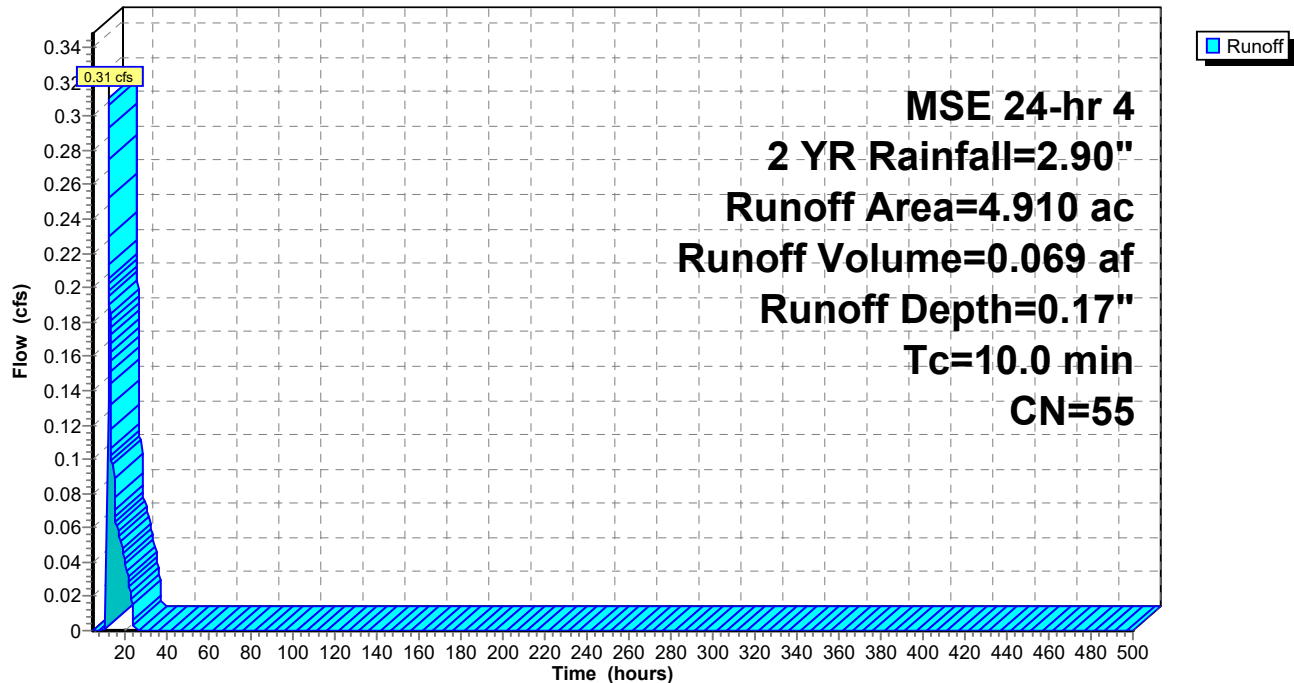
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2 YR Rainfall=2.90"

Area (ac)	CN	Description
* 4.910	55	Pre Dev - B Soils
4.910		100.00% Pervious Area

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

Subcatchment 1: Pre - South

Hydrograph



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Hydrograph for Subcatchment 1: Pre - South

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.13	0.00	0.00	260.00	2.90	0.17	0.00
10.00	0.46	0.00	0.00	265.00	2.90	0.17	0.00
15.00	2.55	0.09	0.10	270.00	2.90	0.17	0.00
20.00	2.81	0.15	0.04	275.00	2.90	0.17	0.00
25.00	2.90	0.17	0.00	280.00	2.90	0.17	0.00
30.00	2.90	0.17	0.00	285.00	2.90	0.17	0.00
35.00	2.90	0.17	0.00	290.00	2.90	0.17	0.00
40.00	2.90	0.17	0.00	295.00	2.90	0.17	0.00
45.00	2.90	0.17	0.00	300.00	2.90	0.17	0.00
50.00	2.90	0.17	0.00	305.00	2.90	0.17	0.00
55.00	2.90	0.17	0.00	310.00	2.90	0.17	0.00
60.00	2.90	0.17	0.00	315.00	2.90	0.17	0.00
65.00	2.90	0.17	0.00	320.00	2.90	0.17	0.00
70.00	2.90	0.17	0.00	325.00	2.90	0.17	0.00
75.00	2.90	0.17	0.00	330.00	2.90	0.17	0.00
80.00	2.90	0.17	0.00	335.00	2.90	0.17	0.00
85.00	2.90	0.17	0.00	340.00	2.90	0.17	0.00
90.00	2.90	0.17	0.00	345.00	2.90	0.17	0.00
95.00	2.90	0.17	0.00	350.00	2.90	0.17	0.00
100.00	2.90	0.17	0.00	355.00	2.90	0.17	0.00
105.00	2.90	0.17	0.00	360.00	2.90	0.17	0.00
110.00	2.90	0.17	0.00	365.00	2.90	0.17	0.00
115.00	2.90	0.17	0.00	370.00	2.90	0.17	0.00
120.00	2.90	0.17	0.00	375.00	2.90	0.17	0.00
125.00	2.90	0.17	0.00	380.00	2.90	0.17	0.00
130.00	2.90	0.17	0.00	385.00	2.90	0.17	0.00
135.00	2.90	0.17	0.00	390.00	2.90	0.17	0.00
140.00	2.90	0.17	0.00	395.00	2.90	0.17	0.00
145.00	2.90	0.17	0.00	400.00	2.90	0.17	0.00
150.00	2.90	0.17	0.00	405.00	2.90	0.17	0.00
155.00	2.90	0.17	0.00	410.00	2.90	0.17	0.00
160.00	2.90	0.17	0.00	415.00	2.90	0.17	0.00
165.00	2.90	0.17	0.00	420.00	2.90	0.17	0.00
170.00	2.90	0.17	0.00	425.00	2.90	0.17	0.00
175.00	2.90	0.17	0.00	430.00	2.90	0.17	0.00
180.00	2.90	0.17	0.00	435.00	2.90	0.17	0.00
185.00	2.90	0.17	0.00	440.00	2.90	0.17	0.00
190.00	2.90	0.17	0.00	445.00	2.90	0.17	0.00
195.00	2.90	0.17	0.00	450.00	2.90	0.17	0.00
200.00	2.90	0.17	0.00	455.00	2.90	0.17	0.00
205.00	2.90	0.17	0.00	460.00	2.90	0.17	0.00
210.00	2.90	0.17	0.00	465.00	2.90	0.17	0.00
215.00	2.90	0.17	0.00	470.00	2.90	0.17	0.00
220.00	2.90	0.17	0.00	475.00	2.90	0.17	0.00
225.00	2.90	0.17	0.00	480.00	2.90	0.17	0.00
230.00	2.90	0.17	0.00	485.00	2.90	0.17	0.00
235.00	2.90	0.17	0.00	490.00	2.90	0.17	0.00
240.00	2.90	0.17	0.00	495.00	2.90	0.17	0.00
245.00	2.90	0.17	0.00	500.00	2.90	0.17	0.00
250.00	2.90	0.17	0.00				
255.00	2.90	0.17	0.00				

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Summary for Subcatchment 1A: Post 1A

Runoff = 4.83 cfs @ 12.15 hrs, Volume= 0.289 af, Depth= 0.58"
Routed to Pond P1A : Pond 1A

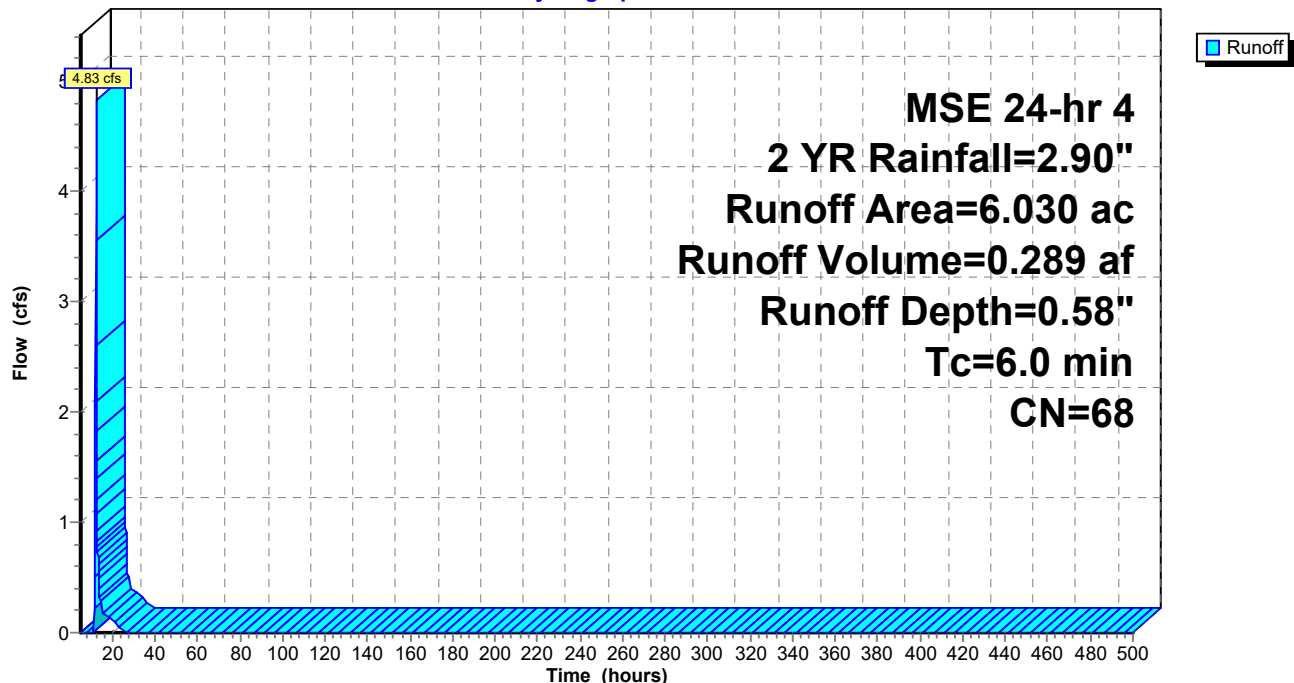
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2 YR Rainfall=2.90"

Area (ac)	CN	Description
* 1.160	98	Impervious
* 4.870	61	Post - B Soils
* 0.000	74	Post - C Soils
6.030	68	Weighted Average
4.870		80.76% Pervious Area
1.160		19.24% Impervious Area

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

Subcatchment 1A: Post 1A

Hydrograph



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Subcatchment 1A: Post 1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.13	0.00	0.00	260.00	2.90	0.58	0.00
10.00	0.46	0.00	0.00	265.00	2.90	0.58	0.00
15.00	2.55	0.41	0.28	270.00	2.90	0.58	0.00
20.00	2.81	0.53	0.11	275.00	2.90	0.58	0.00
25.00	2.90	0.58	0.00	280.00	2.90	0.58	0.00
30.00	2.90	0.58	0.00	285.00	2.90	0.58	0.00
35.00	2.90	0.58	0.00	290.00	2.90	0.58	0.00
40.00	2.90	0.58	0.00	295.00	2.90	0.58	0.00
45.00	2.90	0.58	0.00	300.00	2.90	0.58	0.00
50.00	2.90	0.58	0.00	305.00	2.90	0.58	0.00
55.00	2.90	0.58	0.00	310.00	2.90	0.58	0.00
60.00	2.90	0.58	0.00	315.00	2.90	0.58	0.00
65.00	2.90	0.58	0.00	320.00	2.90	0.58	0.00
70.00	2.90	0.58	0.00	325.00	2.90	0.58	0.00
75.00	2.90	0.58	0.00	330.00	2.90	0.58	0.00
80.00	2.90	0.58	0.00	335.00	2.90	0.58	0.00
85.00	2.90	0.58	0.00	340.00	2.90	0.58	0.00
90.00	2.90	0.58	0.00	345.00	2.90	0.58	0.00
95.00	2.90	0.58	0.00	350.00	2.90	0.58	0.00
100.00	2.90	0.58	0.00	355.00	2.90	0.58	0.00
105.00	2.90	0.58	0.00	360.00	2.90	0.58	0.00
110.00	2.90	0.58	0.00	365.00	2.90	0.58	0.00
115.00	2.90	0.58	0.00	370.00	2.90	0.58	0.00
120.00	2.90	0.58	0.00	375.00	2.90	0.58	0.00
125.00	2.90	0.58	0.00	380.00	2.90	0.58	0.00
130.00	2.90	0.58	0.00	385.00	2.90	0.58	0.00
135.00	2.90	0.58	0.00	390.00	2.90	0.58	0.00
140.00	2.90	0.58	0.00	395.00	2.90	0.58	0.00
145.00	2.90	0.58	0.00	400.00	2.90	0.58	0.00
150.00	2.90	0.58	0.00	405.00	2.90	0.58	0.00
155.00	2.90	0.58	0.00	410.00	2.90	0.58	0.00
160.00	2.90	0.58	0.00	415.00	2.90	0.58	0.00
165.00	2.90	0.58	0.00	420.00	2.90	0.58	0.00
170.00	2.90	0.58	0.00	425.00	2.90	0.58	0.00
175.00	2.90	0.58	0.00	430.00	2.90	0.58	0.00
180.00	2.90	0.58	0.00	435.00	2.90	0.58	0.00
185.00	2.90	0.58	0.00	440.00	2.90	0.58	0.00
190.00	2.90	0.58	0.00	445.00	2.90	0.58	0.00
195.00	2.90	0.58	0.00	450.00	2.90	0.58	0.00
200.00	2.90	0.58	0.00	455.00	2.90	0.58	0.00
205.00	2.90	0.58	0.00	460.00	2.90	0.58	0.00
210.00	2.90	0.58	0.00	465.00	2.90	0.58	0.00
215.00	2.90	0.58	0.00	470.00	2.90	0.58	0.00
220.00	2.90	0.58	0.00	475.00	2.90	0.58	0.00
225.00	2.90	0.58	0.00	480.00	2.90	0.58	0.00
230.00	2.90	0.58	0.00	485.00	2.90	0.58	0.00
235.00	2.90	0.58	0.00	490.00	2.90	0.58	0.00
240.00	2.90	0.58	0.00	495.00	2.90	0.58	0.00
245.00	2.90	0.58	0.00	500.00	2.90	0.58	0.00
250.00	2.90	0.58	0.00				
255.00	2.90	0.58	0.00				

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MSE 24-hr 4 2 YR Rainfall=2.90"

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Summary for Subcatchment 1B: Post 1B - Offsite

Runoff = 0.26 cfs @ 12.15 hrs, Volume= 0.017 af, Depth= 0.46"
Routed to Link 3L : Post - South

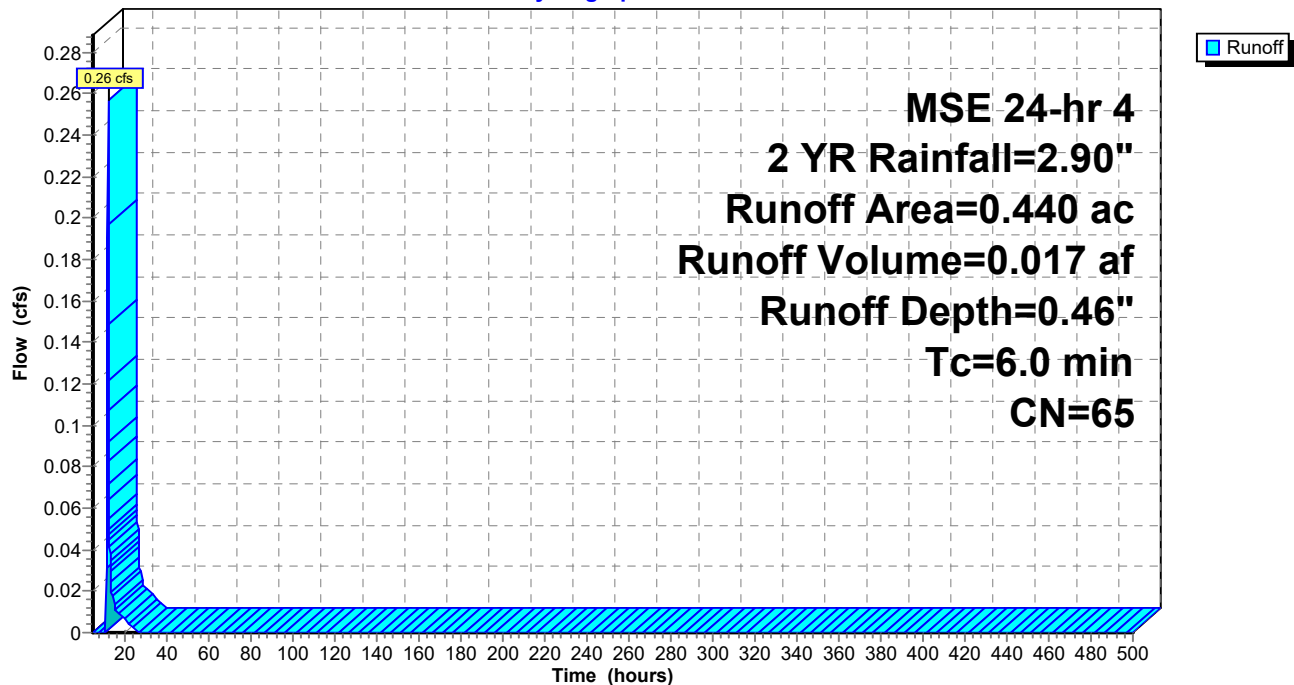
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2 YR Rainfall=2.90"

Area (ac)	CN	Description
* 0.050	98	Impervious
* 0.390	61	Post - B Soils
* 0.000	74	Post - C Soils
0.440	65	Weighted Average
0.390		88.64% Pervious Area
0.050		11.36% Impervious Area

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

Subcatchment 1B: Post 1B - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Subcatchment 1B: Post 1B - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.13	0.00	0.00	260.00	2.90	0.46	0.00
10.00	0.46	0.00	0.00	265.00	2.90	0.46	0.00
15.00	2.55	0.32	0.02	270.00	2.90	0.46	0.00
20.00	2.81	0.42	0.01	275.00	2.90	0.46	0.00
25.00	2.90	0.46	0.00	280.00	2.90	0.46	0.00
30.00	2.90	0.46	0.00	285.00	2.90	0.46	0.00
35.00	2.90	0.46	0.00	290.00	2.90	0.46	0.00
40.00	2.90	0.46	0.00	295.00	2.90	0.46	0.00
45.00	2.90	0.46	0.00	300.00	2.90	0.46	0.00
50.00	2.90	0.46	0.00	305.00	2.90	0.46	0.00
55.00	2.90	0.46	0.00	310.00	2.90	0.46	0.00
60.00	2.90	0.46	0.00	315.00	2.90	0.46	0.00
65.00	2.90	0.46	0.00	320.00	2.90	0.46	0.00
70.00	2.90	0.46	0.00	325.00	2.90	0.46	0.00
75.00	2.90	0.46	0.00	330.00	2.90	0.46	0.00
80.00	2.90	0.46	0.00	335.00	2.90	0.46	0.00
85.00	2.90	0.46	0.00	340.00	2.90	0.46	0.00
90.00	2.90	0.46	0.00	345.00	2.90	0.46	0.00
95.00	2.90	0.46	0.00	350.00	2.90	0.46	0.00
100.00	2.90	0.46	0.00	355.00	2.90	0.46	0.00
105.00	2.90	0.46	0.00	360.00	2.90	0.46	0.00
110.00	2.90	0.46	0.00	365.00	2.90	0.46	0.00
115.00	2.90	0.46	0.00	370.00	2.90	0.46	0.00
120.00	2.90	0.46	0.00	375.00	2.90	0.46	0.00
125.00	2.90	0.46	0.00	380.00	2.90	0.46	0.00
130.00	2.90	0.46	0.00	385.00	2.90	0.46	0.00
135.00	2.90	0.46	0.00	390.00	2.90	0.46	0.00
140.00	2.90	0.46	0.00	395.00	2.90	0.46	0.00
145.00	2.90	0.46	0.00	400.00	2.90	0.46	0.00
150.00	2.90	0.46	0.00	405.00	2.90	0.46	0.00
155.00	2.90	0.46	0.00	410.00	2.90	0.46	0.00
160.00	2.90	0.46	0.00	415.00	2.90	0.46	0.00
165.00	2.90	0.46	0.00	420.00	2.90	0.46	0.00
170.00	2.90	0.46	0.00	425.00	2.90	0.46	0.00
175.00	2.90	0.46	0.00	430.00	2.90	0.46	0.00
180.00	2.90	0.46	0.00	435.00	2.90	0.46	0.00
185.00	2.90	0.46	0.00	440.00	2.90	0.46	0.00
190.00	2.90	0.46	0.00	445.00	2.90	0.46	0.00
195.00	2.90	0.46	0.00	450.00	2.90	0.46	0.00
200.00	2.90	0.46	0.00	455.00	2.90	0.46	0.00
205.00	2.90	0.46	0.00	460.00	2.90	0.46	0.00
210.00	2.90	0.46	0.00	465.00	2.90	0.46	0.00
215.00	2.90	0.46	0.00	470.00	2.90	0.46	0.00
220.00	2.90	0.46	0.00	475.00	2.90	0.46	0.00
225.00	2.90	0.46	0.00	480.00	2.90	0.46	0.00
230.00	2.90	0.46	0.00	485.00	2.90	0.46	0.00
235.00	2.90	0.46	0.00	490.00	2.90	0.46	0.00
240.00	2.90	0.46	0.00	495.00	2.90	0.46	0.00
245.00	2.90	0.46	0.00	500.00	2.90	0.46	0.00
250.00	2.90	0.46	0.00				
255.00	2.90	0.46	0.00				

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Summary for Subcatchment 2: Pre - West

Runoff = 0.17 cfs @ 12.34 hrs, Volume= 0.036 af, Depth= 0.17"
Routed to Link 1L : Total Pre - Development

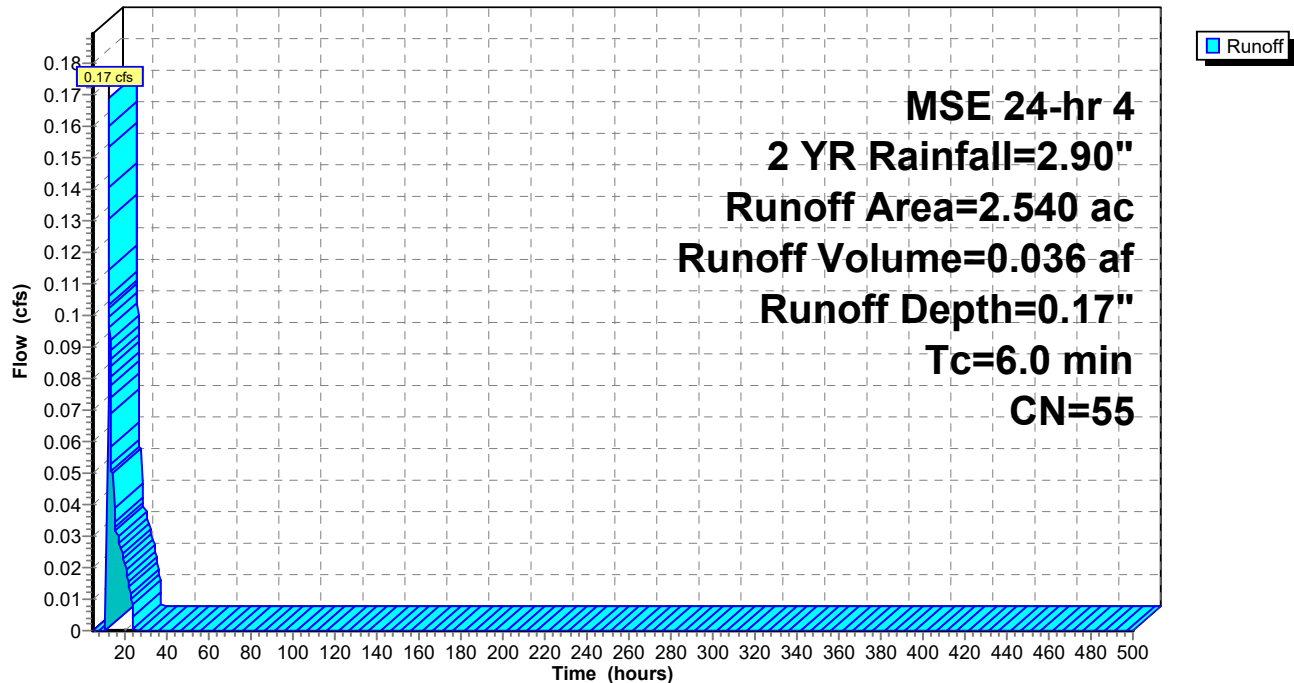
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2 YR Rainfall=2.90"

Area (ac)	CN	Description
* 2.540	55	Pre Dev - B Soils
2.540		100.00% Pervious Area

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

Subcatchment 2: Pre - West

Hydrograph



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Subcatchment 2: Pre - West

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.13	0.00	0.00	260.00	2.90	0.17	0.00
10.00	0.46	0.00	0.00	265.00	2.90	0.17	0.00
15.00	2.55	0.09	0.05	270.00	2.90	0.17	0.00
20.00	2.81	0.15	0.02	275.00	2.90	0.17	0.00
25.00	2.90	0.17	0.00	280.00	2.90	0.17	0.00
30.00	2.90	0.17	0.00	285.00	2.90	0.17	0.00
35.00	2.90	0.17	0.00	290.00	2.90	0.17	0.00
40.00	2.90	0.17	0.00	295.00	2.90	0.17	0.00
45.00	2.90	0.17	0.00	300.00	2.90	0.17	0.00
50.00	2.90	0.17	0.00	305.00	2.90	0.17	0.00
55.00	2.90	0.17	0.00	310.00	2.90	0.17	0.00
60.00	2.90	0.17	0.00	315.00	2.90	0.17	0.00
65.00	2.90	0.17	0.00	320.00	2.90	0.17	0.00
70.00	2.90	0.17	0.00	325.00	2.90	0.17	0.00
75.00	2.90	0.17	0.00	330.00	2.90	0.17	0.00
80.00	2.90	0.17	0.00	335.00	2.90	0.17	0.00
85.00	2.90	0.17	0.00	340.00	2.90	0.17	0.00
90.00	2.90	0.17	0.00	345.00	2.90	0.17	0.00
95.00	2.90	0.17	0.00	350.00	2.90	0.17	0.00
100.00	2.90	0.17	0.00	355.00	2.90	0.17	0.00
105.00	2.90	0.17	0.00	360.00	2.90	0.17	0.00
110.00	2.90	0.17	0.00	365.00	2.90	0.17	0.00
115.00	2.90	0.17	0.00	370.00	2.90	0.17	0.00
120.00	2.90	0.17	0.00	375.00	2.90	0.17	0.00
125.00	2.90	0.17	0.00	380.00	2.90	0.17	0.00
130.00	2.90	0.17	0.00	385.00	2.90	0.17	0.00
135.00	2.90	0.17	0.00	390.00	2.90	0.17	0.00
140.00	2.90	0.17	0.00	395.00	2.90	0.17	0.00
145.00	2.90	0.17	0.00	400.00	2.90	0.17	0.00
150.00	2.90	0.17	0.00	405.00	2.90	0.17	0.00
155.00	2.90	0.17	0.00	410.00	2.90	0.17	0.00
160.00	2.90	0.17	0.00	415.00	2.90	0.17	0.00
165.00	2.90	0.17	0.00	420.00	2.90	0.17	0.00
170.00	2.90	0.17	0.00	425.00	2.90	0.17	0.00
175.00	2.90	0.17	0.00	430.00	2.90	0.17	0.00
180.00	2.90	0.17	0.00	435.00	2.90	0.17	0.00
185.00	2.90	0.17	0.00	440.00	2.90	0.17	0.00
190.00	2.90	0.17	0.00	445.00	2.90	0.17	0.00
195.00	2.90	0.17	0.00	450.00	2.90	0.17	0.00
200.00	2.90	0.17	0.00	455.00	2.90	0.17	0.00
205.00	2.90	0.17	0.00	460.00	2.90	0.17	0.00
210.00	2.90	0.17	0.00	465.00	2.90	0.17	0.00
215.00	2.90	0.17	0.00	470.00	2.90	0.17	0.00
220.00	2.90	0.17	0.00	475.00	2.90	0.17	0.00
225.00	2.90	0.17	0.00	480.00	2.90	0.17	0.00
230.00	2.90	0.17	0.00	485.00	2.90	0.17	0.00
235.00	2.90	0.17	0.00	490.00	2.90	0.17	0.00
240.00	2.90	0.17	0.00	495.00	2.90	0.17	0.00
245.00	2.90	0.17	0.00	500.00	2.90	0.17	0.00
250.00	2.90	0.17	0.00				
255.00	2.90	0.17	0.00				

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Summary for Subcatchment 2A: Post 2A - Offsite

Runoff = 0.31 cfs @ 12.15 hrs, Volume= 0.020 af, Depth= 0.46"
Routed to Link 2L : Total Post - Development

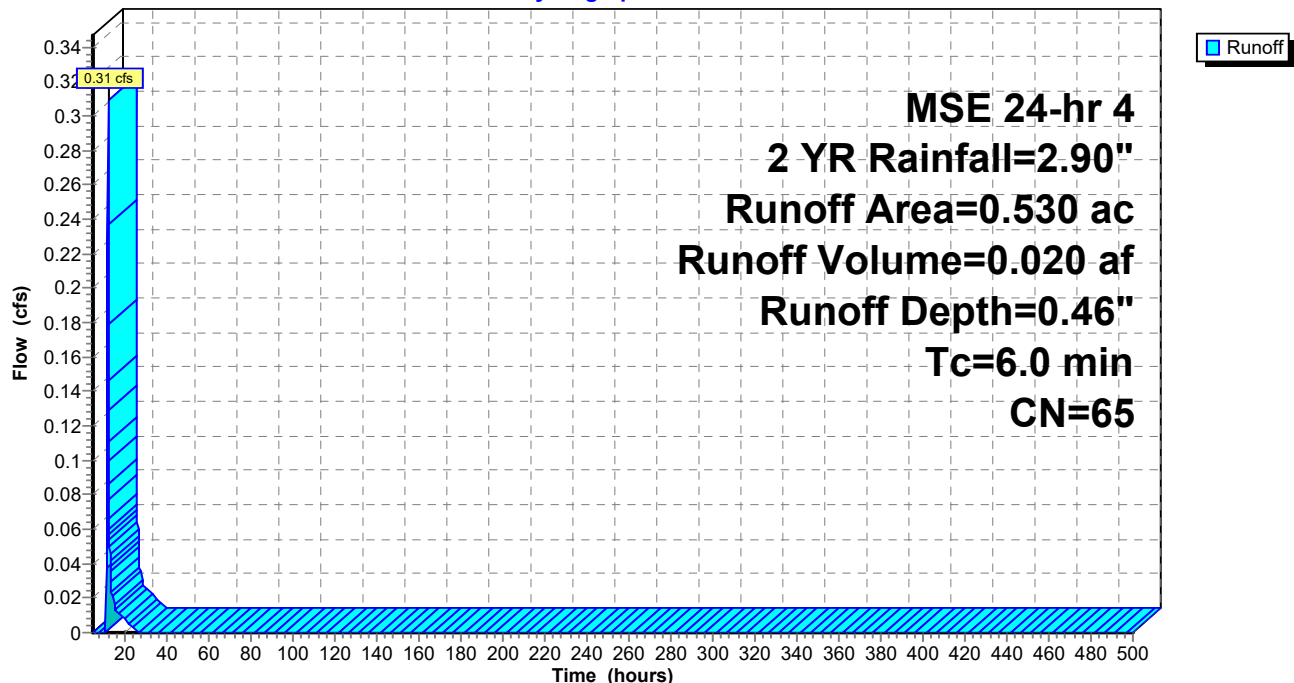
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2 YR Rainfall=2.90"

	Area (ac)	CN	Description
*	0.060	98	Impervious
*	0.470	61	Post - B Soils
*	0.000	74	Post - C Soils
	0.530	65	Weighted Average
	0.470		88.68% Pervious Area
	0.060		11.32% Impervious Area

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

Subcatchment 2A: Post 2A - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Subcatchment 2A: Post 2A - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.13	0.00	0.00	260.00	2.90	0.46	0.00
10.00	0.46	0.00	0.00	265.00	2.90	0.46	0.00
15.00	2.55	0.32	0.02	270.00	2.90	0.46	0.00
20.00	2.81	0.42	0.01	275.00	2.90	0.46	0.00
25.00	2.90	0.46	0.00	280.00	2.90	0.46	0.00
30.00	2.90	0.46	0.00	285.00	2.90	0.46	0.00
35.00	2.90	0.46	0.00	290.00	2.90	0.46	0.00
40.00	2.90	0.46	0.00	295.00	2.90	0.46	0.00
45.00	2.90	0.46	0.00	300.00	2.90	0.46	0.00
50.00	2.90	0.46	0.00	305.00	2.90	0.46	0.00
55.00	2.90	0.46	0.00	310.00	2.90	0.46	0.00
60.00	2.90	0.46	0.00	315.00	2.90	0.46	0.00
65.00	2.90	0.46	0.00	320.00	2.90	0.46	0.00
70.00	2.90	0.46	0.00	325.00	2.90	0.46	0.00
75.00	2.90	0.46	0.00	330.00	2.90	0.46	0.00
80.00	2.90	0.46	0.00	335.00	2.90	0.46	0.00
85.00	2.90	0.46	0.00	340.00	2.90	0.46	0.00
90.00	2.90	0.46	0.00	345.00	2.90	0.46	0.00
95.00	2.90	0.46	0.00	350.00	2.90	0.46	0.00
100.00	2.90	0.46	0.00	355.00	2.90	0.46	0.00
105.00	2.90	0.46	0.00	360.00	2.90	0.46	0.00
110.00	2.90	0.46	0.00	365.00	2.90	0.46	0.00
115.00	2.90	0.46	0.00	370.00	2.90	0.46	0.00
120.00	2.90	0.46	0.00	375.00	2.90	0.46	0.00
125.00	2.90	0.46	0.00	380.00	2.90	0.46	0.00
130.00	2.90	0.46	0.00	385.00	2.90	0.46	0.00
135.00	2.90	0.46	0.00	390.00	2.90	0.46	0.00
140.00	2.90	0.46	0.00	395.00	2.90	0.46	0.00
145.00	2.90	0.46	0.00	400.00	2.90	0.46	0.00
150.00	2.90	0.46	0.00	405.00	2.90	0.46	0.00
155.00	2.90	0.46	0.00	410.00	2.90	0.46	0.00
160.00	2.90	0.46	0.00	415.00	2.90	0.46	0.00
165.00	2.90	0.46	0.00	420.00	2.90	0.46	0.00
170.00	2.90	0.46	0.00	425.00	2.90	0.46	0.00
175.00	2.90	0.46	0.00	430.00	2.90	0.46	0.00
180.00	2.90	0.46	0.00	435.00	2.90	0.46	0.00
185.00	2.90	0.46	0.00	440.00	2.90	0.46	0.00
190.00	2.90	0.46	0.00	445.00	2.90	0.46	0.00
195.00	2.90	0.46	0.00	450.00	2.90	0.46	0.00
200.00	2.90	0.46	0.00	455.00	2.90	0.46	0.00
205.00	2.90	0.46	0.00	460.00	2.90	0.46	0.00
210.00	2.90	0.46	0.00	465.00	2.90	0.46	0.00
215.00	2.90	0.46	0.00	470.00	2.90	0.46	0.00
220.00	2.90	0.46	0.00	475.00	2.90	0.46	0.00
225.00	2.90	0.46	0.00	480.00	2.90	0.46	0.00
230.00	2.90	0.46	0.00	485.00	2.90	0.46	0.00
235.00	2.90	0.46	0.00	490.00	2.90	0.46	0.00
240.00	2.90	0.46	0.00	495.00	2.90	0.46	0.00
245.00	2.90	0.46	0.00	500.00	2.90	0.46	0.00
250.00	2.90	0.46	0.00				
255.00	2.90	0.46	0.00				

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Summary for Subcatchment 3: Pre - North

Runoff = 5.79 cfs @ 12.24 hrs, Volume= 0.685 af, Depth= 0.30"
Routed to Link 1L : Total Pre - Development

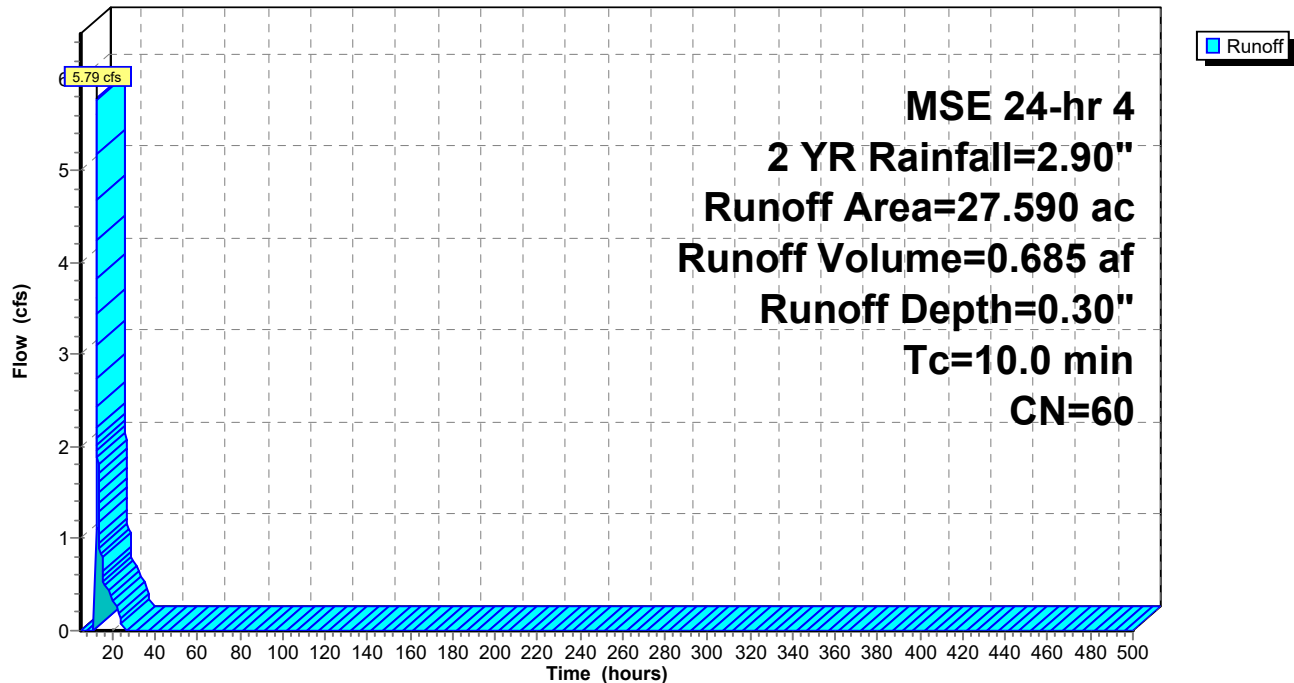
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2 YR Rainfall=2.90"

	Area (ac)	CN	Description
*	18.190	55	Pre Dev - B Soils
*	9.400	70	Pre Dev - C Soils
	27.590	60	Weighted Average
	27.590		100.00% Pervious Area

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

Subcatchment 3: Pre - North

Hydrograph



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Subcatchment 3: Pre - North

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.13	0.00	0.00	260.00	2.90	0.30	0.00
10.00	0.46	0.00	0.00	265.00	2.90	0.30	0.00
15.00	2.55	0.19	0.81	270.00	2.90	0.30	0.00
20.00	2.81	0.27	0.34	275.00	2.90	0.30	0.00
25.00	2.90	0.30	0.00	280.00	2.90	0.30	0.00
30.00	2.90	0.30	0.00	285.00	2.90	0.30	0.00
35.00	2.90	0.30	0.00	290.00	2.90	0.30	0.00
40.00	2.90	0.30	0.00	295.00	2.90	0.30	0.00
45.00	2.90	0.30	0.00	300.00	2.90	0.30	0.00
50.00	2.90	0.30	0.00	305.00	2.90	0.30	0.00
55.00	2.90	0.30	0.00	310.00	2.90	0.30	0.00
60.00	2.90	0.30	0.00	315.00	2.90	0.30	0.00
65.00	2.90	0.30	0.00	320.00	2.90	0.30	0.00
70.00	2.90	0.30	0.00	325.00	2.90	0.30	0.00
75.00	2.90	0.30	0.00	330.00	2.90	0.30	0.00
80.00	2.90	0.30	0.00	335.00	2.90	0.30	0.00
85.00	2.90	0.30	0.00	340.00	2.90	0.30	0.00
90.00	2.90	0.30	0.00	345.00	2.90	0.30	0.00
95.00	2.90	0.30	0.00	350.00	2.90	0.30	0.00
100.00	2.90	0.30	0.00	355.00	2.90	0.30	0.00
105.00	2.90	0.30	0.00	360.00	2.90	0.30	0.00
110.00	2.90	0.30	0.00	365.00	2.90	0.30	0.00
115.00	2.90	0.30	0.00	370.00	2.90	0.30	0.00
120.00	2.90	0.30	0.00	375.00	2.90	0.30	0.00
125.00	2.90	0.30	0.00	380.00	2.90	0.30	0.00
130.00	2.90	0.30	0.00	385.00	2.90	0.30	0.00
135.00	2.90	0.30	0.00	390.00	2.90	0.30	0.00
140.00	2.90	0.30	0.00	395.00	2.90	0.30	0.00
145.00	2.90	0.30	0.00	400.00	2.90	0.30	0.00
150.00	2.90	0.30	0.00	405.00	2.90	0.30	0.00
155.00	2.90	0.30	0.00	410.00	2.90	0.30	0.00
160.00	2.90	0.30	0.00	415.00	2.90	0.30	0.00
165.00	2.90	0.30	0.00	420.00	2.90	0.30	0.00
170.00	2.90	0.30	0.00	425.00	2.90	0.30	0.00
175.00	2.90	0.30	0.00	430.00	2.90	0.30	0.00
180.00	2.90	0.30	0.00	435.00	2.90	0.30	0.00
185.00	2.90	0.30	0.00	440.00	2.90	0.30	0.00
190.00	2.90	0.30	0.00	445.00	2.90	0.30	0.00
195.00	2.90	0.30	0.00	450.00	2.90	0.30	0.00
200.00	2.90	0.30	0.00	455.00	2.90	0.30	0.00
205.00	2.90	0.30	0.00	460.00	2.90	0.30	0.00
210.00	2.90	0.30	0.00	465.00	2.90	0.30	0.00
215.00	2.90	0.30	0.00	470.00	2.90	0.30	0.00
220.00	2.90	0.30	0.00	475.00	2.90	0.30	0.00
225.00	2.90	0.30	0.00	480.00	2.90	0.30	0.00
230.00	2.90	0.30	0.00	485.00	2.90	0.30	0.00
235.00	2.90	0.30	0.00	490.00	2.90	0.30	0.00
240.00	2.90	0.30	0.00	495.00	2.90	0.30	0.00
245.00	2.90	0.30	0.00	500.00	2.90	0.30	0.00
250.00	2.90	0.30	0.00				
255.00	2.90	0.30	0.00				

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Summary for Subcatchment 3A: Post 3A

Runoff = 10.12 cfs @ 12.14 hrs, Volume= 0.582 af, Depth= 0.66"
Routed to Pond P3A : Pond 3A

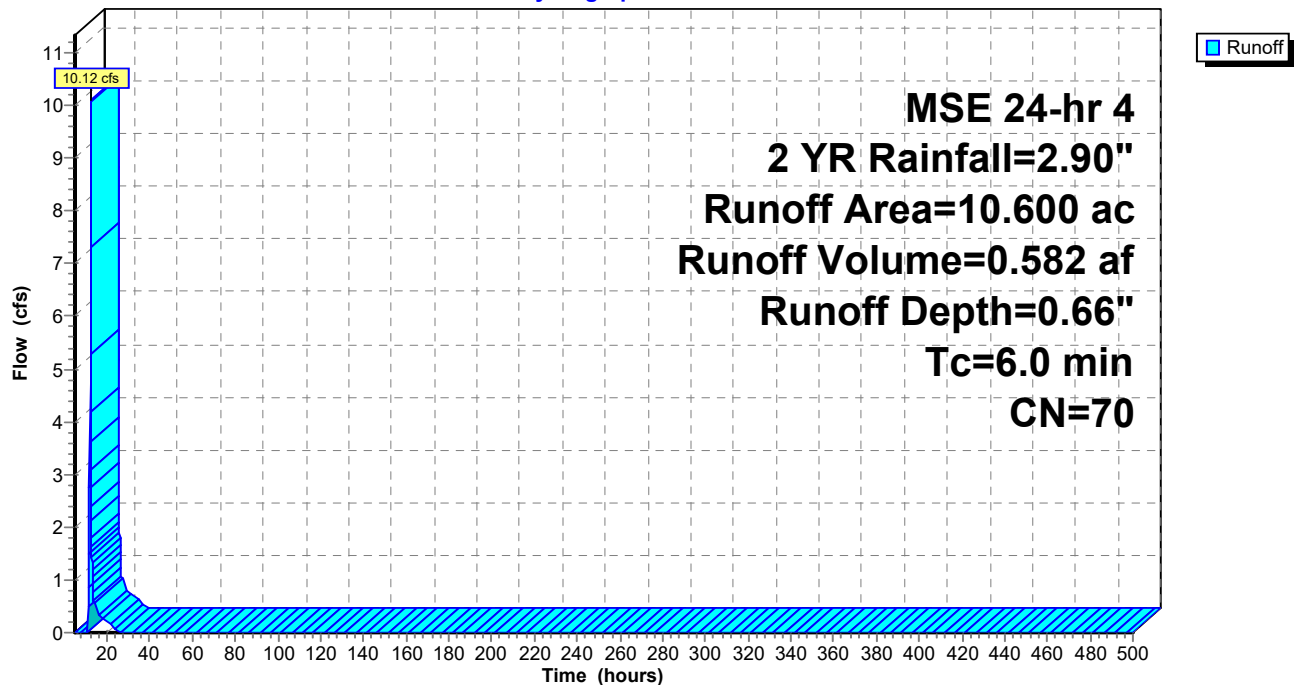
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2 YR Rainfall=2.90"

	Area (ac)	CN	Description
*	1.970	98	Impervious
*	6.570	61	Post - B Soils
*	2.060	74	Post - C Soils
	10.600	70	Weighted Average
	8.630		81.42% Pervious Area
	1.970		18.58% Impervious Area

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

Subcatchment 3A: Post 3A

Hydrograph



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Subcatchment 3A: Post 3A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.13	0.00	0.00	260.00	2.90	0.66	0.00
10.00	0.46	0.00	0.00	265.00	2.90	0.66	0.00
15.00	2.55	0.48	0.53	270.00	2.90	0.66	0.00
20.00	2.81	0.61	0.21	275.00	2.90	0.66	0.00
25.00	2.90	0.66	0.00	280.00	2.90	0.66	0.00
30.00	2.90	0.66	0.00	285.00	2.90	0.66	0.00
35.00	2.90	0.66	0.00	290.00	2.90	0.66	0.00
40.00	2.90	0.66	0.00	295.00	2.90	0.66	0.00
45.00	2.90	0.66	0.00	300.00	2.90	0.66	0.00
50.00	2.90	0.66	0.00	305.00	2.90	0.66	0.00
55.00	2.90	0.66	0.00	310.00	2.90	0.66	0.00
60.00	2.90	0.66	0.00	315.00	2.90	0.66	0.00
65.00	2.90	0.66	0.00	320.00	2.90	0.66	0.00
70.00	2.90	0.66	0.00	325.00	2.90	0.66	0.00
75.00	2.90	0.66	0.00	330.00	2.90	0.66	0.00
80.00	2.90	0.66	0.00	335.00	2.90	0.66	0.00
85.00	2.90	0.66	0.00	340.00	2.90	0.66	0.00
90.00	2.90	0.66	0.00	345.00	2.90	0.66	0.00
95.00	2.90	0.66	0.00	350.00	2.90	0.66	0.00
100.00	2.90	0.66	0.00	355.00	2.90	0.66	0.00
105.00	2.90	0.66	0.00	360.00	2.90	0.66	0.00
110.00	2.90	0.66	0.00	365.00	2.90	0.66	0.00
115.00	2.90	0.66	0.00	370.00	2.90	0.66	0.00
120.00	2.90	0.66	0.00	375.00	2.90	0.66	0.00
125.00	2.90	0.66	0.00	380.00	2.90	0.66	0.00
130.00	2.90	0.66	0.00	385.00	2.90	0.66	0.00
135.00	2.90	0.66	0.00	390.00	2.90	0.66	0.00
140.00	2.90	0.66	0.00	395.00	2.90	0.66	0.00
145.00	2.90	0.66	0.00	400.00	2.90	0.66	0.00
150.00	2.90	0.66	0.00	405.00	2.90	0.66	0.00
155.00	2.90	0.66	0.00	410.00	2.90	0.66	0.00
160.00	2.90	0.66	0.00	415.00	2.90	0.66	0.00
165.00	2.90	0.66	0.00	420.00	2.90	0.66	0.00
170.00	2.90	0.66	0.00	425.00	2.90	0.66	0.00
175.00	2.90	0.66	0.00	430.00	2.90	0.66	0.00
180.00	2.90	0.66	0.00	435.00	2.90	0.66	0.00
185.00	2.90	0.66	0.00	440.00	2.90	0.66	0.00
190.00	2.90	0.66	0.00	445.00	2.90	0.66	0.00
195.00	2.90	0.66	0.00	450.00	2.90	0.66	0.00
200.00	2.90	0.66	0.00	455.00	2.90	0.66	0.00
205.00	2.90	0.66	0.00	460.00	2.90	0.66	0.00
210.00	2.90	0.66	0.00	465.00	2.90	0.66	0.00
215.00	2.90	0.66	0.00	470.00	2.90	0.66	0.00
220.00	2.90	0.66	0.00	475.00	2.90	0.66	0.00
225.00	2.90	0.66	0.00	480.00	2.90	0.66	0.00
230.00	2.90	0.66	0.00	485.00	2.90	0.66	0.00
235.00	2.90	0.66	0.00	490.00	2.90	0.66	0.00
240.00	2.90	0.66	0.00	495.00	2.90	0.66	0.00
245.00	2.90	0.66	0.00	500.00	2.90	0.66	0.00
250.00	2.90	0.66	0.00				
255.00	2.90	0.66	0.00				

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Summary for Subcatchment 3B: Post 3B

Runoff = 8.74 cfs @ 12.14 hrs, Volume= 0.495 af, Depth= 0.70"
Routed to Pond P3B : Pond 3B

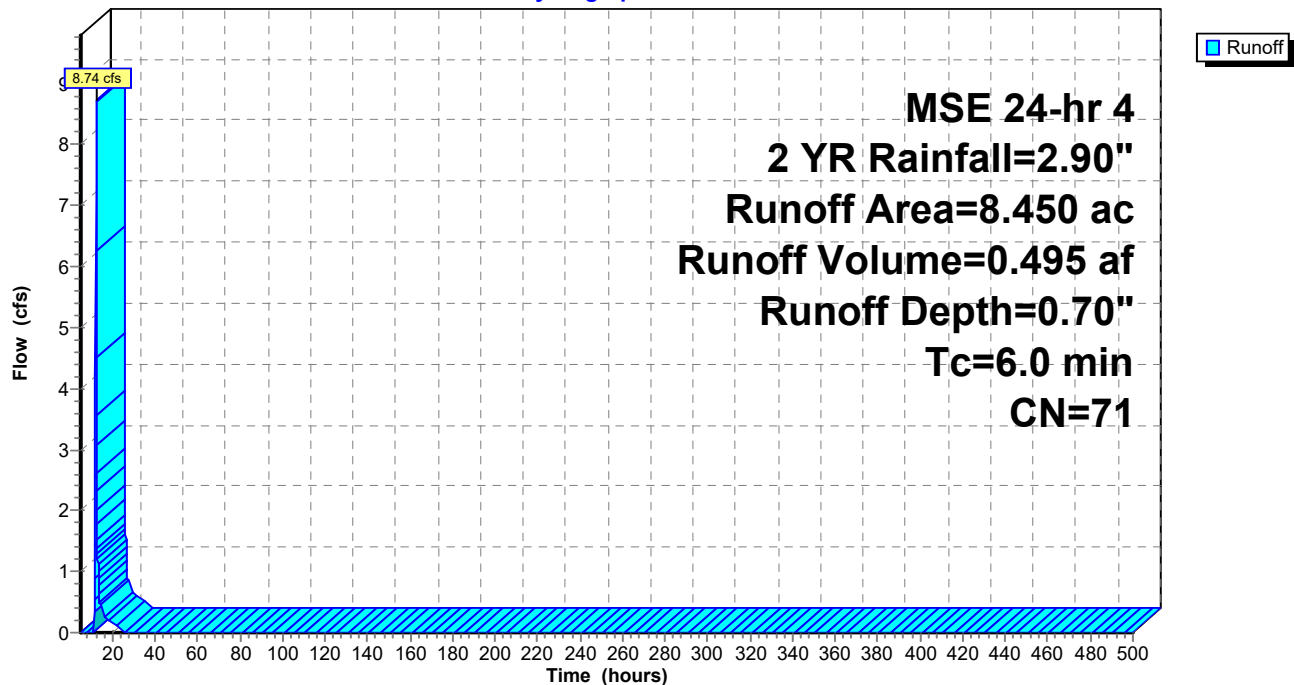
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2 YR Rainfall=2.90"

Area (ac)	CN	Description
* 1.680	98	Impervious
* 5.290	61	Post - B Soils
* 1.480	74	Post - C Soils
8.450	71	Weighted Average
6.770		80.12% Pervious Area
1.680		19.88% Impervious Area

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

Subcatchment 3B: Post 3B

Hydrograph



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Subcatchment 3B: Post 3B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.13	0.00	0.00	260.00	2.90	0.70	0.00
10.00	0.46	0.00	0.00	265.00	2.90	0.70	0.00
15.00	2.55	0.52	0.44	270.00	2.90	0.70	0.00
20.00	2.81	0.65	0.17	275.00	2.90	0.70	0.00
25.00	2.90	0.70	0.00	280.00	2.90	0.70	0.00
30.00	2.90	0.70	0.00	285.00	2.90	0.70	0.00
35.00	2.90	0.70	0.00	290.00	2.90	0.70	0.00
40.00	2.90	0.70	0.00	295.00	2.90	0.70	0.00
45.00	2.90	0.70	0.00	300.00	2.90	0.70	0.00
50.00	2.90	0.70	0.00	305.00	2.90	0.70	0.00
55.00	2.90	0.70	0.00	310.00	2.90	0.70	0.00
60.00	2.90	0.70	0.00	315.00	2.90	0.70	0.00
65.00	2.90	0.70	0.00	320.00	2.90	0.70	0.00
70.00	2.90	0.70	0.00	325.00	2.90	0.70	0.00
75.00	2.90	0.70	0.00	330.00	2.90	0.70	0.00
80.00	2.90	0.70	0.00	335.00	2.90	0.70	0.00
85.00	2.90	0.70	0.00	340.00	2.90	0.70	0.00
90.00	2.90	0.70	0.00	345.00	2.90	0.70	0.00
95.00	2.90	0.70	0.00	350.00	2.90	0.70	0.00
100.00	2.90	0.70	0.00	355.00	2.90	0.70	0.00
105.00	2.90	0.70	0.00	360.00	2.90	0.70	0.00
110.00	2.90	0.70	0.00	365.00	2.90	0.70	0.00
115.00	2.90	0.70	0.00	370.00	2.90	0.70	0.00
120.00	2.90	0.70	0.00	375.00	2.90	0.70	0.00
125.00	2.90	0.70	0.00	380.00	2.90	0.70	0.00
130.00	2.90	0.70	0.00	385.00	2.90	0.70	0.00
135.00	2.90	0.70	0.00	390.00	2.90	0.70	0.00
140.00	2.90	0.70	0.00	395.00	2.90	0.70	0.00
145.00	2.90	0.70	0.00	400.00	2.90	0.70	0.00
150.00	2.90	0.70	0.00	405.00	2.90	0.70	0.00
155.00	2.90	0.70	0.00	410.00	2.90	0.70	0.00
160.00	2.90	0.70	0.00	415.00	2.90	0.70	0.00
165.00	2.90	0.70	0.00	420.00	2.90	0.70	0.00
170.00	2.90	0.70	0.00	425.00	2.90	0.70	0.00
175.00	2.90	0.70	0.00	430.00	2.90	0.70	0.00
180.00	2.90	0.70	0.00	435.00	2.90	0.70	0.00
185.00	2.90	0.70	0.00	440.00	2.90	0.70	0.00
190.00	2.90	0.70	0.00	445.00	2.90	0.70	0.00
195.00	2.90	0.70	0.00	450.00	2.90	0.70	0.00
200.00	2.90	0.70	0.00	455.00	2.90	0.70	0.00
205.00	2.90	0.70	0.00	460.00	2.90	0.70	0.00
210.00	2.90	0.70	0.00	465.00	2.90	0.70	0.00
215.00	2.90	0.70	0.00	470.00	2.90	0.70	0.00
220.00	2.90	0.70	0.00	475.00	2.90	0.70	0.00
225.00	2.90	0.70	0.00	480.00	2.90	0.70	0.00
230.00	2.90	0.70	0.00	485.00	2.90	0.70	0.00
235.00	2.90	0.70	0.00	490.00	2.90	0.70	0.00
240.00	2.90	0.70	0.00	495.00	2.90	0.70	0.00
245.00	2.90	0.70	0.00	500.00	2.90	0.70	0.00
250.00	2.90	0.70	0.00				
255.00	2.90	0.70	0.00				

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Summary for Subcatchment 3C: Post 3C

Runoff = 3.42 cfs @ 12.14 hrs, Volume= 0.186 af, Depth= 0.90"
Routed to Pond P3C : Pond 3C

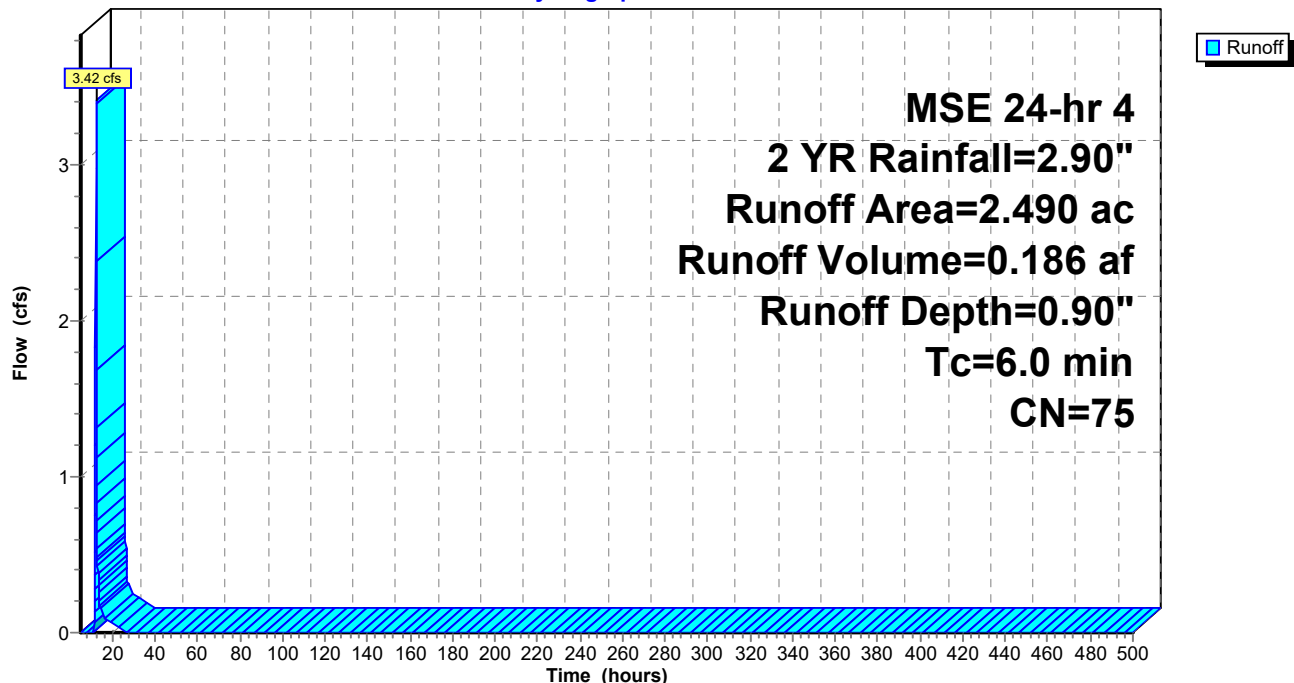
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2 YR Rainfall=2.90"

	Area (ac)	CN	Description
*	0.570	98	Impervious
*	0.800	61	Post - B Soils
*	1.120	74	Post - C Soils
	2.490	75	Weighted Average
	1.920		77.11% Pervious Area
	0.570		22.89% Impervious Area

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

Subcatchment 3C: Post 3C

Hydrograph



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Subcatchment 3C: Post 3C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.13	0.00	0.00	260.00	2.90	0.90	0.00
10.00	0.46	0.00	0.00	265.00	2.90	0.90	0.00
15.00	2.55	0.68	0.15	270.00	2.90	0.90	0.00
20.00	2.81	0.84	0.06	275.00	2.90	0.90	0.00
25.00	2.90	0.90	0.00	280.00	2.90	0.90	0.00
30.00	2.90	0.90	0.00	285.00	2.90	0.90	0.00
35.00	2.90	0.90	0.00	290.00	2.90	0.90	0.00
40.00	2.90	0.90	0.00	295.00	2.90	0.90	0.00
45.00	2.90	0.90	0.00	300.00	2.90	0.90	0.00
50.00	2.90	0.90	0.00	305.00	2.90	0.90	0.00
55.00	2.90	0.90	0.00	310.00	2.90	0.90	0.00
60.00	2.90	0.90	0.00	315.00	2.90	0.90	0.00
65.00	2.90	0.90	0.00	320.00	2.90	0.90	0.00
70.00	2.90	0.90	0.00	325.00	2.90	0.90	0.00
75.00	2.90	0.90	0.00	330.00	2.90	0.90	0.00
80.00	2.90	0.90	0.00	335.00	2.90	0.90	0.00
85.00	2.90	0.90	0.00	340.00	2.90	0.90	0.00
90.00	2.90	0.90	0.00	345.00	2.90	0.90	0.00
95.00	2.90	0.90	0.00	350.00	2.90	0.90	0.00
100.00	2.90	0.90	0.00	355.00	2.90	0.90	0.00
105.00	2.90	0.90	0.00	360.00	2.90	0.90	0.00
110.00	2.90	0.90	0.00	365.00	2.90	0.90	0.00
115.00	2.90	0.90	0.00	370.00	2.90	0.90	0.00
120.00	2.90	0.90	0.00	375.00	2.90	0.90	0.00
125.00	2.90	0.90	0.00	380.00	2.90	0.90	0.00
130.00	2.90	0.90	0.00	385.00	2.90	0.90	0.00
135.00	2.90	0.90	0.00	390.00	2.90	0.90	0.00
140.00	2.90	0.90	0.00	395.00	2.90	0.90	0.00
145.00	2.90	0.90	0.00	400.00	2.90	0.90	0.00
150.00	2.90	0.90	0.00	405.00	2.90	0.90	0.00
155.00	2.90	0.90	0.00	410.00	2.90	0.90	0.00
160.00	2.90	0.90	0.00	415.00	2.90	0.90	0.00
165.00	2.90	0.90	0.00	420.00	2.90	0.90	0.00
170.00	2.90	0.90	0.00	425.00	2.90	0.90	0.00
175.00	2.90	0.90	0.00	430.00	2.90	0.90	0.00
180.00	2.90	0.90	0.00	435.00	2.90	0.90	0.00
185.00	2.90	0.90	0.00	440.00	2.90	0.90	0.00
190.00	2.90	0.90	0.00	445.00	2.90	0.90	0.00
195.00	2.90	0.90	0.00	450.00	2.90	0.90	0.00
200.00	2.90	0.90	0.00	455.00	2.90	0.90	0.00
205.00	2.90	0.90	0.00	460.00	2.90	0.90	0.00
210.00	2.90	0.90	0.00	465.00	2.90	0.90	0.00
215.00	2.90	0.90	0.00	470.00	2.90	0.90	0.00
220.00	2.90	0.90	0.00	475.00	2.90	0.90	0.00
225.00	2.90	0.90	0.00	480.00	2.90	0.90	0.00
230.00	2.90	0.90	0.00	485.00	2.90	0.90	0.00
235.00	2.90	0.90	0.00	490.00	2.90	0.90	0.00
240.00	2.90	0.90	0.00	495.00	2.90	0.90	0.00
245.00	2.90	0.90	0.00	500.00	2.90	0.90	0.00
250.00	2.90	0.90	0.00				
255.00	2.90	0.90	0.00				

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Summary for Subcatchment 3D: Post 3D

Runoff = 3.48 cfs @ 12.14 hrs, Volume= 0.188 af, Depth= 0.95"
Routed to Pond P3D : Pond 3D

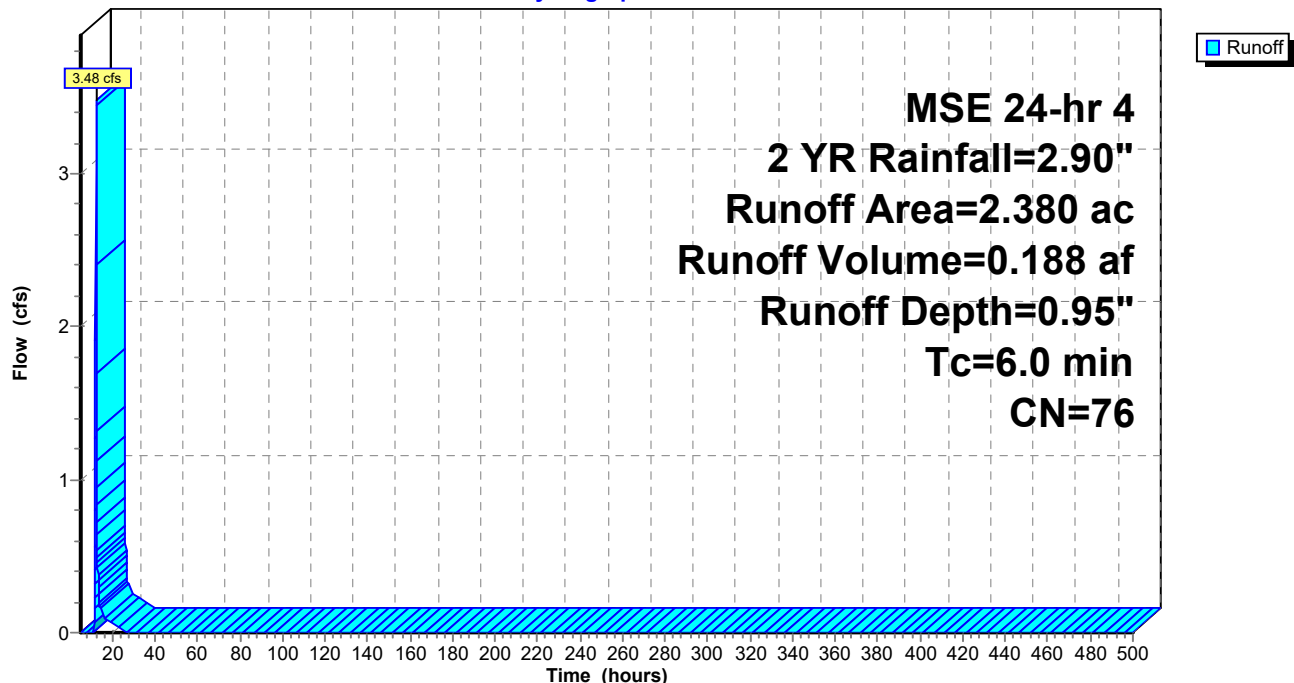
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2 YR Rainfall=2.90"

	Area (ac)	CN	Description
*	0.570	98	Impervious
*	0.610	61	Post - B Soils
*	1.200	74	Post - C Soils
	2.380	76	Weighted Average
	1.810		76.05% Pervious Area
	0.570		23.95% Impervious Area

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

Subcatchment 3D: Post 3D

Hydrograph



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Featherstone Rise
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Hydrograph for Subcatchment 3D: Post 3D

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.13	0.00	0.00	260.00	2.90	0.95	0.00
10.00	0.46	0.00	0.00	265.00	2.90	0.95	0.00
15.00	2.55	0.72	0.15	270.00	2.90	0.95	0.00
20.00	2.81	0.89	0.06	275.00	2.90	0.95	0.00
25.00	2.90	0.95	0.00	280.00	2.90	0.95	0.00
30.00	2.90	0.95	0.00	285.00	2.90	0.95	0.00
35.00	2.90	0.95	0.00	290.00	2.90	0.95	0.00
40.00	2.90	0.95	0.00	295.00	2.90	0.95	0.00
45.00	2.90	0.95	0.00	300.00	2.90	0.95	0.00
50.00	2.90	0.95	0.00	305.00	2.90	0.95	0.00
55.00	2.90	0.95	0.00	310.00	2.90	0.95	0.00
60.00	2.90	0.95	0.00	315.00	2.90	0.95	0.00
65.00	2.90	0.95	0.00	320.00	2.90	0.95	0.00
70.00	2.90	0.95	0.00	325.00	2.90	0.95	0.00
75.00	2.90	0.95	0.00	330.00	2.90	0.95	0.00
80.00	2.90	0.95	0.00	335.00	2.90	0.95	0.00
85.00	2.90	0.95	0.00	340.00	2.90	0.95	0.00
90.00	2.90	0.95	0.00	345.00	2.90	0.95	0.00
95.00	2.90	0.95	0.00	350.00	2.90	0.95	0.00
100.00	2.90	0.95	0.00	355.00	2.90	0.95	0.00
105.00	2.90	0.95	0.00	360.00	2.90	0.95	0.00
110.00	2.90	0.95	0.00	365.00	2.90	0.95	0.00
115.00	2.90	0.95	0.00	370.00	2.90	0.95	0.00
120.00	2.90	0.95	0.00	375.00	2.90	0.95	0.00
125.00	2.90	0.95	0.00	380.00	2.90	0.95	0.00
130.00	2.90	0.95	0.00	385.00	2.90	0.95	0.00
135.00	2.90	0.95	0.00	390.00	2.90	0.95	0.00
140.00	2.90	0.95	0.00	395.00	2.90	0.95	0.00
145.00	2.90	0.95	0.00	400.00	2.90	0.95	0.00
150.00	2.90	0.95	0.00	405.00	2.90	0.95	0.00
155.00	2.90	0.95	0.00	410.00	2.90	0.95	0.00
160.00	2.90	0.95	0.00	415.00	2.90	0.95	0.00
165.00	2.90	0.95	0.00	420.00	2.90	0.95	0.00
170.00	2.90	0.95	0.00	425.00	2.90	0.95	0.00
175.00	2.90	0.95	0.00	430.00	2.90	0.95	0.00
180.00	2.90	0.95	0.00	435.00	2.90	0.95	0.00
185.00	2.90	0.95	0.00	440.00	2.90	0.95	0.00
190.00	2.90	0.95	0.00	445.00	2.90	0.95	0.00
195.00	2.90	0.95	0.00	450.00	2.90	0.95	0.00
200.00	2.90	0.95	0.00	455.00	2.90	0.95	0.00
205.00	2.90	0.95	0.00	460.00	2.90	0.95	0.00
210.00	2.90	0.95	0.00	465.00	2.90	0.95	0.00
215.00	2.90	0.95	0.00	470.00	2.90	0.95	0.00
220.00	2.90	0.95	0.00	475.00	2.90	0.95	0.00
225.00	2.90	0.95	0.00	480.00	2.90	0.95	0.00
230.00	2.90	0.95	0.00	485.00	2.90	0.95	0.00
235.00	2.90	0.95	0.00	490.00	2.90	0.95	0.00
240.00	2.90	0.95	0.00	495.00	2.90	0.95	0.00
245.00	2.90	0.95	0.00	500.00	2.90	0.95	0.00
250.00	2.90	0.95	0.00				
255.00	2.90	0.95	0.00				

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Summary for Subcatchment 3E: Post 3E

Runoff = 3.57 cfs @ 12.14 hrs, Volume= 0.196 af, Depth= 0.85"
Routed to Pond P3E : Pond 3E

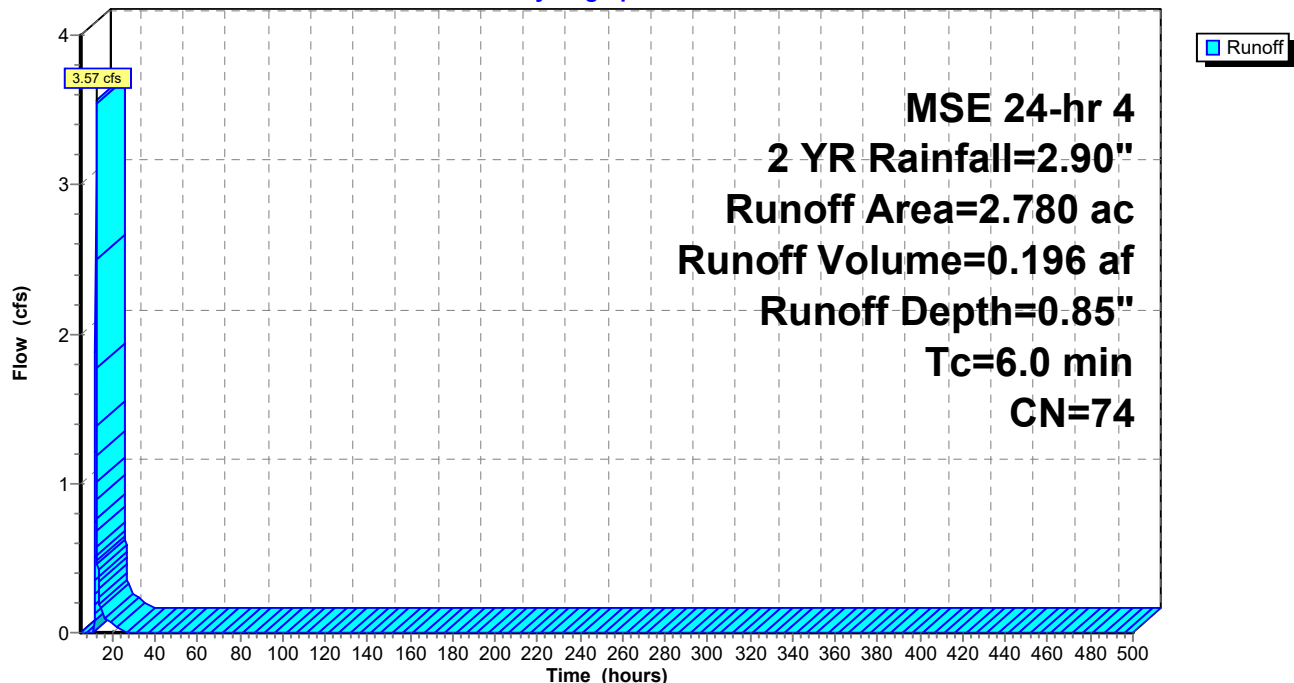
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2 YR Rainfall=2.90"

	Area (ac)	CN	Description
*	0.530	98	Impervious
*	0.920	61	Post - B Soils
*	1.330	74	Post - C Soils
	2.780	74	Weighted Average
	2.250		80.94% Pervious Area
	0.530		19.06% Impervious Area

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

Subcatchment 3E: Post 3E

Hydrograph



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Subcatchment 3E: Post 3E

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.13	0.00	0.00	260.00	2.90	0.85	0.00
10.00	0.46	0.00	0.00	265.00	2.90	0.85	0.00
15.00	2.55	0.64	0.16	270.00	2.90	0.85	0.00
20.00	2.81	0.79	0.06	275.00	2.90	0.85	0.00
25.00	2.90	0.85	0.00	280.00	2.90	0.85	0.00
30.00	2.90	0.85	0.00	285.00	2.90	0.85	0.00
35.00	2.90	0.85	0.00	290.00	2.90	0.85	0.00
40.00	2.90	0.85	0.00	295.00	2.90	0.85	0.00
45.00	2.90	0.85	0.00	300.00	2.90	0.85	0.00
50.00	2.90	0.85	0.00	305.00	2.90	0.85	0.00
55.00	2.90	0.85	0.00	310.00	2.90	0.85	0.00
60.00	2.90	0.85	0.00	315.00	2.90	0.85	0.00
65.00	2.90	0.85	0.00	320.00	2.90	0.85	0.00
70.00	2.90	0.85	0.00	325.00	2.90	0.85	0.00
75.00	2.90	0.85	0.00	330.00	2.90	0.85	0.00
80.00	2.90	0.85	0.00	335.00	2.90	0.85	0.00
85.00	2.90	0.85	0.00	340.00	2.90	0.85	0.00
90.00	2.90	0.85	0.00	345.00	2.90	0.85	0.00
95.00	2.90	0.85	0.00	350.00	2.90	0.85	0.00
100.00	2.90	0.85	0.00	355.00	2.90	0.85	0.00
105.00	2.90	0.85	0.00	360.00	2.90	0.85	0.00
110.00	2.90	0.85	0.00	365.00	2.90	0.85	0.00
115.00	2.90	0.85	0.00	370.00	2.90	0.85	0.00
120.00	2.90	0.85	0.00	375.00	2.90	0.85	0.00
125.00	2.90	0.85	0.00	380.00	2.90	0.85	0.00
130.00	2.90	0.85	0.00	385.00	2.90	0.85	0.00
135.00	2.90	0.85	0.00	390.00	2.90	0.85	0.00
140.00	2.90	0.85	0.00	395.00	2.90	0.85	0.00
145.00	2.90	0.85	0.00	400.00	2.90	0.85	0.00
150.00	2.90	0.85	0.00	405.00	2.90	0.85	0.00
155.00	2.90	0.85	0.00	410.00	2.90	0.85	0.00
160.00	2.90	0.85	0.00	415.00	2.90	0.85	0.00
165.00	2.90	0.85	0.00	420.00	2.90	0.85	0.00
170.00	2.90	0.85	0.00	425.00	2.90	0.85	0.00
175.00	2.90	0.85	0.00	430.00	2.90	0.85	0.00
180.00	2.90	0.85	0.00	435.00	2.90	0.85	0.00
185.00	2.90	0.85	0.00	440.00	2.90	0.85	0.00
190.00	2.90	0.85	0.00	445.00	2.90	0.85	0.00
195.00	2.90	0.85	0.00	450.00	2.90	0.85	0.00
200.00	2.90	0.85	0.00	455.00	2.90	0.85	0.00
205.00	2.90	0.85	0.00	460.00	2.90	0.85	0.00
210.00	2.90	0.85	0.00	465.00	2.90	0.85	0.00
215.00	2.90	0.85	0.00	470.00	2.90	0.85	0.00
220.00	2.90	0.85	0.00	475.00	2.90	0.85	0.00
225.00	2.90	0.85	0.00	480.00	2.90	0.85	0.00
230.00	2.90	0.85	0.00	485.00	2.90	0.85	0.00
235.00	2.90	0.85	0.00	490.00	2.90	0.85	0.00
240.00	2.90	0.85	0.00	495.00	2.90	0.85	0.00
245.00	2.90	0.85	0.00	500.00	2.90	0.85	0.00
250.00	2.90	0.85	0.00				
255.00	2.90	0.85	0.00				

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Summary for Subcatchment 3Y: Post 3Y - Offsite

Runoff = 1.76 cfs @ 12.13 hrs, Volume= 0.093 af, Depth= 1.37"
Routed to Link 4L : Post - North

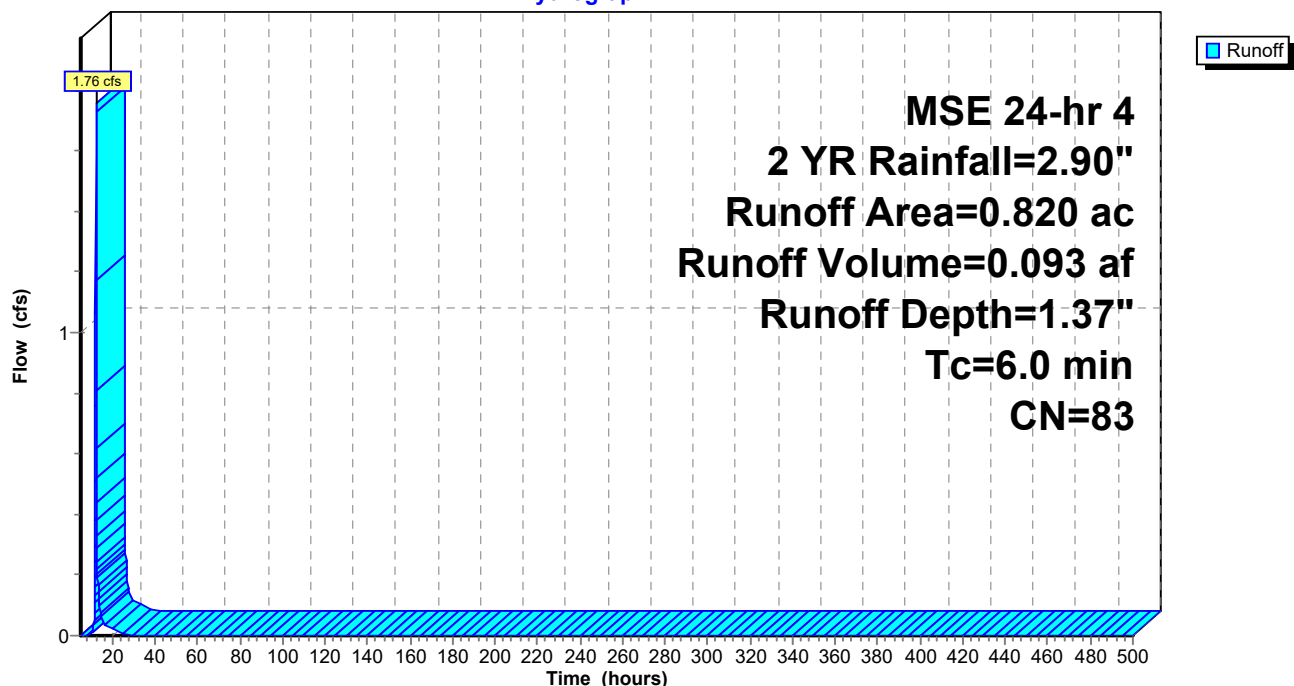
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2 YR Rainfall=2.90"

Area (ac)	CN	Description
* 0.300	98	Impervious
* 0.000	61	Post - B Soils
* 0.520	74	Post - C Soils
0.820	83	Weighted Average
0.520		63.41% Pervious Area
0.300		36.59% Impervious Area

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

Subcatchment 3Y: Post 3Y - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Subcatchment 3Y: Post 3Y - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.13	0.00	0.00	260.00	2.90	1.37	0.00
10.00	0.46	0.00	0.00	265.00	2.90	1.37	0.00
15.00	2.55	1.09	0.06	270.00	2.90	1.37	0.00
20.00	2.81	1.29	0.02	275.00	2.90	1.37	0.00
25.00	2.90	1.37	0.00	280.00	2.90	1.37	0.00
30.00	2.90	1.37	0.00	285.00	2.90	1.37	0.00
35.00	2.90	1.37	0.00	290.00	2.90	1.37	0.00
40.00	2.90	1.37	0.00	295.00	2.90	1.37	0.00
45.00	2.90	1.37	0.00	300.00	2.90	1.37	0.00
50.00	2.90	1.37	0.00	305.00	2.90	1.37	0.00
55.00	2.90	1.37	0.00	310.00	2.90	1.37	0.00
60.00	2.90	1.37	0.00	315.00	2.90	1.37	0.00
65.00	2.90	1.37	0.00	320.00	2.90	1.37	0.00
70.00	2.90	1.37	0.00	325.00	2.90	1.37	0.00
75.00	2.90	1.37	0.00	330.00	2.90	1.37	0.00
80.00	2.90	1.37	0.00	335.00	2.90	1.37	0.00
85.00	2.90	1.37	0.00	340.00	2.90	1.37	0.00
90.00	2.90	1.37	0.00	345.00	2.90	1.37	0.00
95.00	2.90	1.37	0.00	350.00	2.90	1.37	0.00
100.00	2.90	1.37	0.00	355.00	2.90	1.37	0.00
105.00	2.90	1.37	0.00	360.00	2.90	1.37	0.00
110.00	2.90	1.37	0.00	365.00	2.90	1.37	0.00
115.00	2.90	1.37	0.00	370.00	2.90	1.37	0.00
120.00	2.90	1.37	0.00	375.00	2.90	1.37	0.00
125.00	2.90	1.37	0.00	380.00	2.90	1.37	0.00
130.00	2.90	1.37	0.00	385.00	2.90	1.37	0.00
135.00	2.90	1.37	0.00	390.00	2.90	1.37	0.00
140.00	2.90	1.37	0.00	395.00	2.90	1.37	0.00
145.00	2.90	1.37	0.00	400.00	2.90	1.37	0.00
150.00	2.90	1.37	0.00	405.00	2.90	1.37	0.00
155.00	2.90	1.37	0.00	410.00	2.90	1.37	0.00
160.00	2.90	1.37	0.00	415.00	2.90	1.37	0.00
165.00	2.90	1.37	0.00	420.00	2.90	1.37	0.00
170.00	2.90	1.37	0.00	425.00	2.90	1.37	0.00
175.00	2.90	1.37	0.00	430.00	2.90	1.37	0.00
180.00	2.90	1.37	0.00	435.00	2.90	1.37	0.00
185.00	2.90	1.37	0.00	440.00	2.90	1.37	0.00
190.00	2.90	1.37	0.00	445.00	2.90	1.37	0.00
195.00	2.90	1.37	0.00	450.00	2.90	1.37	0.00
200.00	2.90	1.37	0.00	455.00	2.90	1.37	0.00
205.00	2.90	1.37	0.00	460.00	2.90	1.37	0.00
210.00	2.90	1.37	0.00	465.00	2.90	1.37	0.00
215.00	2.90	1.37	0.00	470.00	2.90	1.37	0.00
220.00	2.90	1.37	0.00	475.00	2.90	1.37	0.00
225.00	2.90	1.37	0.00	480.00	2.90	1.37	0.00
230.00	2.90	1.37	0.00	485.00	2.90	1.37	0.00
235.00	2.90	1.37	0.00	490.00	2.90	1.37	0.00
240.00	2.90	1.37	0.00	495.00	2.90	1.37	0.00
245.00	2.90	1.37	0.00	500.00	2.90	1.37	0.00
250.00	2.90	1.37	0.00				
255.00	2.90	1.37	0.00				

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Summary for Subcatchment 3Z: Post 3Z - Offsite

Runoff = 0.67 cfs @ 12.14 hrs, Volume= 0.037 af, Depth= 0.85"
Routed to Link 4L : Post - North

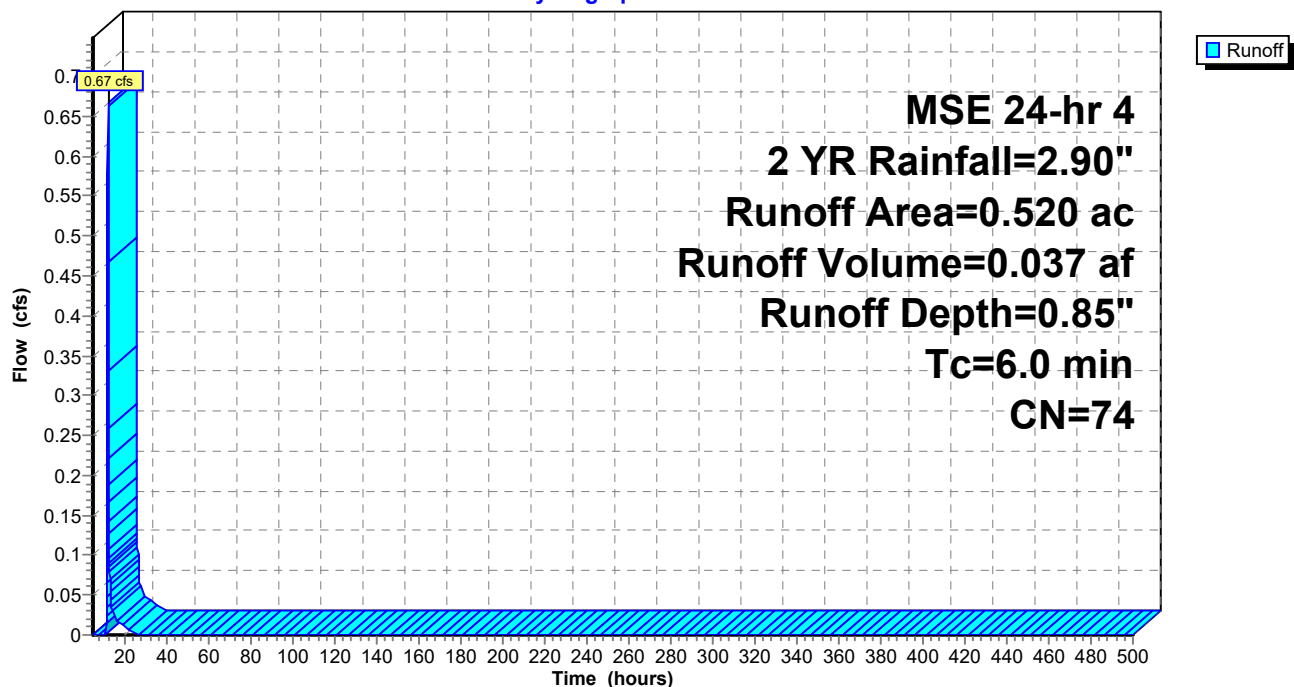
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2 YR Rainfall=2.90"

Area (ac)	CN	Description
* 0.000	98	Impervious
* 0.000	61	Post - B Soils
* 0.520	74	Post - C Soils
0.520	74	Weighted Average
0.520		100.00% Pervious Area

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

Subcatchment 3Z: Post 3Z - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Subcatchment 3Z: Post 3Z - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.13	0.00	0.00	260.00	2.90	0.85	0.00
10.00	0.46	0.00	0.00	265.00	2.90	0.85	0.00
15.00	2.55	0.64	0.03	270.00	2.90	0.85	0.00
20.00	2.81	0.79	0.01	275.00	2.90	0.85	0.00
25.00	2.90	0.85	0.00	280.00	2.90	0.85	0.00
30.00	2.90	0.85	0.00	285.00	2.90	0.85	0.00
35.00	2.90	0.85	0.00	290.00	2.90	0.85	0.00
40.00	2.90	0.85	0.00	295.00	2.90	0.85	0.00
45.00	2.90	0.85	0.00	300.00	2.90	0.85	0.00
50.00	2.90	0.85	0.00	305.00	2.90	0.85	0.00
55.00	2.90	0.85	0.00	310.00	2.90	0.85	0.00
60.00	2.90	0.85	0.00	315.00	2.90	0.85	0.00
65.00	2.90	0.85	0.00	320.00	2.90	0.85	0.00
70.00	2.90	0.85	0.00	325.00	2.90	0.85	0.00
75.00	2.90	0.85	0.00	330.00	2.90	0.85	0.00
80.00	2.90	0.85	0.00	335.00	2.90	0.85	0.00
85.00	2.90	0.85	0.00	340.00	2.90	0.85	0.00
90.00	2.90	0.85	0.00	345.00	2.90	0.85	0.00
95.00	2.90	0.85	0.00	350.00	2.90	0.85	0.00
100.00	2.90	0.85	0.00	355.00	2.90	0.85	0.00
105.00	2.90	0.85	0.00	360.00	2.90	0.85	0.00
110.00	2.90	0.85	0.00	365.00	2.90	0.85	0.00
115.00	2.90	0.85	0.00	370.00	2.90	0.85	0.00
120.00	2.90	0.85	0.00	375.00	2.90	0.85	0.00
125.00	2.90	0.85	0.00	380.00	2.90	0.85	0.00
130.00	2.90	0.85	0.00	385.00	2.90	0.85	0.00
135.00	2.90	0.85	0.00	390.00	2.90	0.85	0.00
140.00	2.90	0.85	0.00	395.00	2.90	0.85	0.00
145.00	2.90	0.85	0.00	400.00	2.90	0.85	0.00
150.00	2.90	0.85	0.00	405.00	2.90	0.85	0.00
155.00	2.90	0.85	0.00	410.00	2.90	0.85	0.00
160.00	2.90	0.85	0.00	415.00	2.90	0.85	0.00
165.00	2.90	0.85	0.00	420.00	2.90	0.85	0.00
170.00	2.90	0.85	0.00	425.00	2.90	0.85	0.00
175.00	2.90	0.85	0.00	430.00	2.90	0.85	0.00
180.00	2.90	0.85	0.00	435.00	2.90	0.85	0.00
185.00	2.90	0.85	0.00	440.00	2.90	0.85	0.00
190.00	2.90	0.85	0.00	445.00	2.90	0.85	0.00
195.00	2.90	0.85	0.00	450.00	2.90	0.85	0.00
200.00	2.90	0.85	0.00	455.00	2.90	0.85	0.00
205.00	2.90	0.85	0.00	460.00	2.90	0.85	0.00
210.00	2.90	0.85	0.00	465.00	2.90	0.85	0.00
215.00	2.90	0.85	0.00	470.00	2.90	0.85	0.00
220.00	2.90	0.85	0.00	475.00	2.90	0.85	0.00
225.00	2.90	0.85	0.00	480.00	2.90	0.85	0.00
230.00	2.90	0.85	0.00	485.00	2.90	0.85	0.00
235.00	2.90	0.85	0.00	490.00	2.90	0.85	0.00
240.00	2.90	0.85	0.00	495.00	2.90	0.85	0.00
245.00	2.90	0.85	0.00	500.00	2.90	0.85	0.00
250.00	2.90	0.85	0.00				
255.00	2.90	0.85	0.00				

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Summary for Subcatchment 5S: Culvert 1

Runoff = 0.19 cfs @ 12.14 hrs, Volume= 0.010 af, Depth= 1.12"

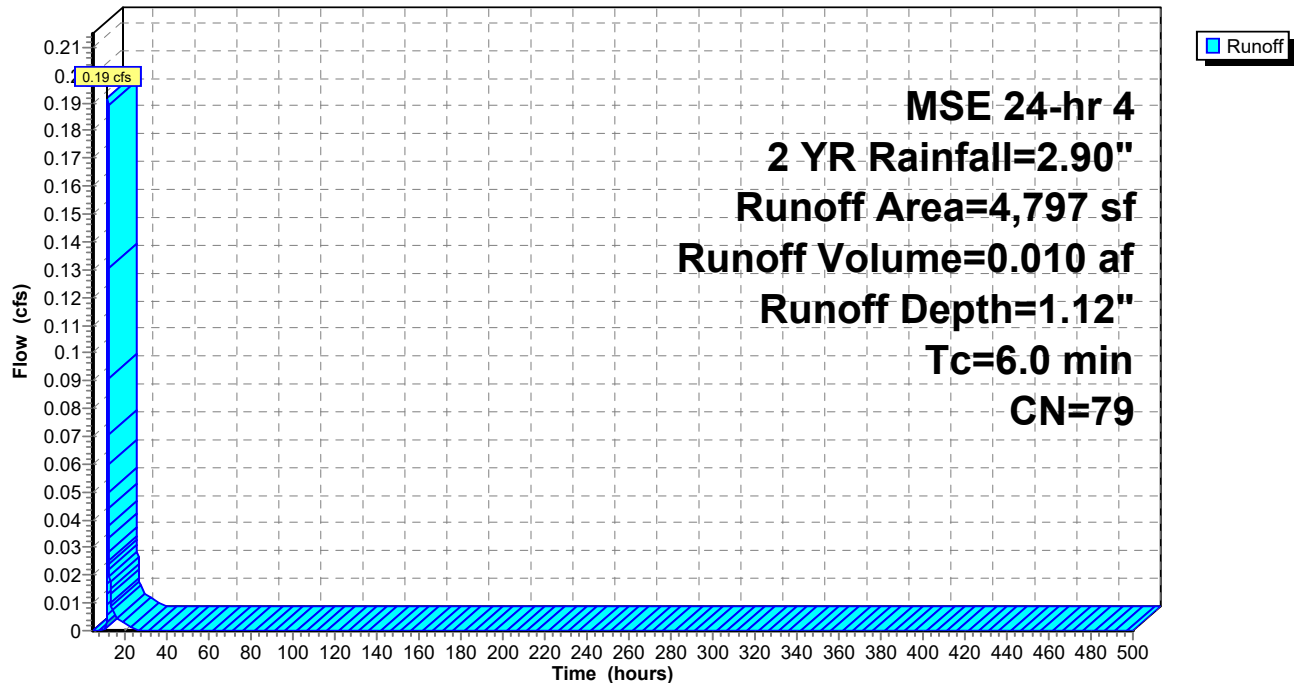
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2 YR Rainfall=2.90"

	Area (sf)	CN	Description
*	2,465	61	Post - B Soils
*	2,332	98	Impervious
	4,797	79	Weighted Average
	2,465		51.39% Pervious Area
	2,332		48.61% Impervious Area

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

Subcatchment 5S: Culvert 1

Hydrograph



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Subcatchment 5S: Culvert 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.13	0.00	0.00	260.00	2.90	1.12	0.00
10.00	0.46	0.00	0.00	265.00	2.90	1.12	0.00
15.00	2.55	0.87	0.01	270.00	2.90	1.12	0.00
20.00	2.81	1.05	0.00	275.00	2.90	1.12	0.00
25.00	2.90	1.12	0.00	280.00	2.90	1.12	0.00
30.00	2.90	1.12	0.00	285.00	2.90	1.12	0.00
35.00	2.90	1.12	0.00	290.00	2.90	1.12	0.00
40.00	2.90	1.12	0.00	295.00	2.90	1.12	0.00
45.00	2.90	1.12	0.00	300.00	2.90	1.12	0.00
50.00	2.90	1.12	0.00	305.00	2.90	1.12	0.00
55.00	2.90	1.12	0.00	310.00	2.90	1.12	0.00
60.00	2.90	1.12	0.00	315.00	2.90	1.12	0.00
65.00	2.90	1.12	0.00	320.00	2.90	1.12	0.00
70.00	2.90	1.12	0.00	325.00	2.90	1.12	0.00
75.00	2.90	1.12	0.00	330.00	2.90	1.12	0.00
80.00	2.90	1.12	0.00	335.00	2.90	1.12	0.00
85.00	2.90	1.12	0.00	340.00	2.90	1.12	0.00
90.00	2.90	1.12	0.00	345.00	2.90	1.12	0.00
95.00	2.90	1.12	0.00	350.00	2.90	1.12	0.00
100.00	2.90	1.12	0.00	355.00	2.90	1.12	0.00
105.00	2.90	1.12	0.00	360.00	2.90	1.12	0.00
110.00	2.90	1.12	0.00	365.00	2.90	1.12	0.00
115.00	2.90	1.12	0.00	370.00	2.90	1.12	0.00
120.00	2.90	1.12	0.00	375.00	2.90	1.12	0.00
125.00	2.90	1.12	0.00	380.00	2.90	1.12	0.00
130.00	2.90	1.12	0.00	385.00	2.90	1.12	0.00
135.00	2.90	1.12	0.00	390.00	2.90	1.12	0.00
140.00	2.90	1.12	0.00	395.00	2.90	1.12	0.00
145.00	2.90	1.12	0.00	400.00	2.90	1.12	0.00
150.00	2.90	1.12	0.00	405.00	2.90	1.12	0.00
155.00	2.90	1.12	0.00	410.00	2.90	1.12	0.00
160.00	2.90	1.12	0.00	415.00	2.90	1.12	0.00
165.00	2.90	1.12	0.00	420.00	2.90	1.12	0.00
170.00	2.90	1.12	0.00	425.00	2.90	1.12	0.00
175.00	2.90	1.12	0.00	430.00	2.90	1.12	0.00
180.00	2.90	1.12	0.00	435.00	2.90	1.12	0.00
185.00	2.90	1.12	0.00	440.00	2.90	1.12	0.00
190.00	2.90	1.12	0.00	445.00	2.90	1.12	0.00
195.00	2.90	1.12	0.00	450.00	2.90	1.12	0.00
200.00	2.90	1.12	0.00	455.00	2.90	1.12	0.00
205.00	2.90	1.12	0.00	460.00	2.90	1.12	0.00
210.00	2.90	1.12	0.00	465.00	2.90	1.12	0.00
215.00	2.90	1.12	0.00	470.00	2.90	1.12	0.00
220.00	2.90	1.12	0.00	475.00	2.90	1.12	0.00
225.00	2.90	1.12	0.00	480.00	2.90	1.12	0.00
230.00	2.90	1.12	0.00	485.00	2.90	1.12	0.00
235.00	2.90	1.12	0.00	490.00	2.90	1.12	0.00
240.00	2.90	1.12	0.00	495.00	2.90	1.12	0.00
245.00	2.90	1.12	0.00	500.00	2.90	1.12	0.00
250.00	2.90	1.12	0.00				
255.00	2.90	1.12	0.00				

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Summary for Subcatchment 6S: Culvert 2

Runoff = 0.78 cfs @ 12.14 hrs, Volume= 0.042 af, Depth= 0.90"

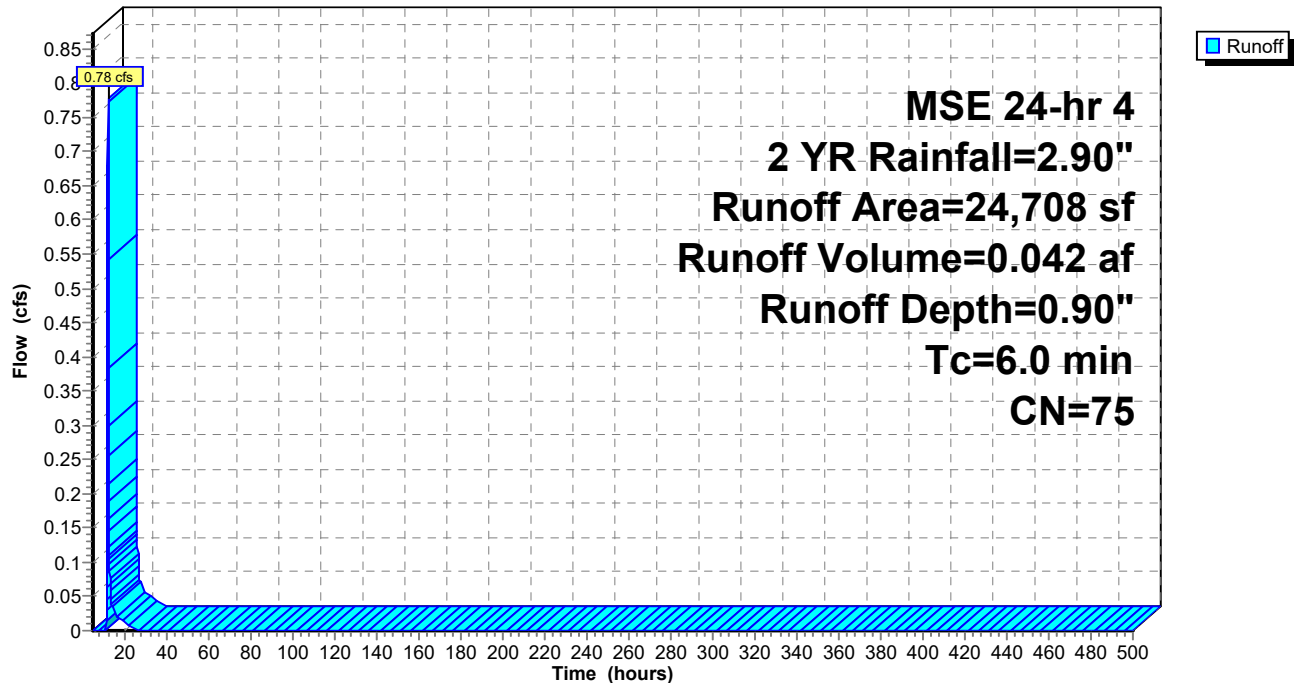
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2 YR Rainfall=2.90"

	Area (sf)	CN	Description
*	15,597	61	Post - B Soils
*	9,111	98	Impervious
	24,708	75	Weighted Average
	15,597		63.13% Pervious Area
	9,111		36.87% Impervious Area

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

Subcatchment 6S: Culvert 2

Hydrograph



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Subcatchment 6S: Culvert 2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.13	0.00	0.00	260.00	2.90	0.90	0.00
10.00	0.46	0.00	0.00	265.00	2.90	0.90	0.00
15.00	2.55	0.68	0.03	270.00	2.90	0.90	0.00
20.00	2.81	0.84	0.01	275.00	2.90	0.90	0.00
25.00	2.90	0.90	0.00	280.00	2.90	0.90	0.00
30.00	2.90	0.90	0.00	285.00	2.90	0.90	0.00
35.00	2.90	0.90	0.00	290.00	2.90	0.90	0.00
40.00	2.90	0.90	0.00	295.00	2.90	0.90	0.00
45.00	2.90	0.90	0.00	300.00	2.90	0.90	0.00
50.00	2.90	0.90	0.00	305.00	2.90	0.90	0.00
55.00	2.90	0.90	0.00	310.00	2.90	0.90	0.00
60.00	2.90	0.90	0.00	315.00	2.90	0.90	0.00
65.00	2.90	0.90	0.00	320.00	2.90	0.90	0.00
70.00	2.90	0.90	0.00	325.00	2.90	0.90	0.00
75.00	2.90	0.90	0.00	330.00	2.90	0.90	0.00
80.00	2.90	0.90	0.00	335.00	2.90	0.90	0.00
85.00	2.90	0.90	0.00	340.00	2.90	0.90	0.00
90.00	2.90	0.90	0.00	345.00	2.90	0.90	0.00
95.00	2.90	0.90	0.00	350.00	2.90	0.90	0.00
100.00	2.90	0.90	0.00	355.00	2.90	0.90	0.00
105.00	2.90	0.90	0.00	360.00	2.90	0.90	0.00
110.00	2.90	0.90	0.00	365.00	2.90	0.90	0.00
115.00	2.90	0.90	0.00	370.00	2.90	0.90	0.00
120.00	2.90	0.90	0.00	375.00	2.90	0.90	0.00
125.00	2.90	0.90	0.00	380.00	2.90	0.90	0.00
130.00	2.90	0.90	0.00	385.00	2.90	0.90	0.00
135.00	2.90	0.90	0.00	390.00	2.90	0.90	0.00
140.00	2.90	0.90	0.00	395.00	2.90	0.90	0.00
145.00	2.90	0.90	0.00	400.00	2.90	0.90	0.00
150.00	2.90	0.90	0.00	405.00	2.90	0.90	0.00
155.00	2.90	0.90	0.00	410.00	2.90	0.90	0.00
160.00	2.90	0.90	0.00	415.00	2.90	0.90	0.00
165.00	2.90	0.90	0.00	420.00	2.90	0.90	0.00
170.00	2.90	0.90	0.00	425.00	2.90	0.90	0.00
175.00	2.90	0.90	0.00	430.00	2.90	0.90	0.00
180.00	2.90	0.90	0.00	435.00	2.90	0.90	0.00
185.00	2.90	0.90	0.00	440.00	2.90	0.90	0.00
190.00	2.90	0.90	0.00	445.00	2.90	0.90	0.00
195.00	2.90	0.90	0.00	450.00	2.90	0.90	0.00
200.00	2.90	0.90	0.00	455.00	2.90	0.90	0.00
205.00	2.90	0.90	0.00	460.00	2.90	0.90	0.00
210.00	2.90	0.90	0.00	465.00	2.90	0.90	0.00
215.00	2.90	0.90	0.00	470.00	2.90	0.90	0.00
220.00	2.90	0.90	0.00	475.00	2.90	0.90	0.00
225.00	2.90	0.90	0.00	480.00	2.90	0.90	0.00
230.00	2.90	0.90	0.00	485.00	2.90	0.90	0.00
235.00	2.90	0.90	0.00	490.00	2.90	0.90	0.00
240.00	2.90	0.90	0.00	495.00	2.90	0.90	0.00
245.00	2.90	0.90	0.00	500.00	2.90	0.90	0.00
250.00	2.90	0.90	0.00				
255.00	2.90	0.90	0.00				

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Summary for Subcatchment 7S: Culvert 3

Runoff = 1.14 cfs @ 12.14 hrs, Volume= 0.063 af, Depth= 0.80"

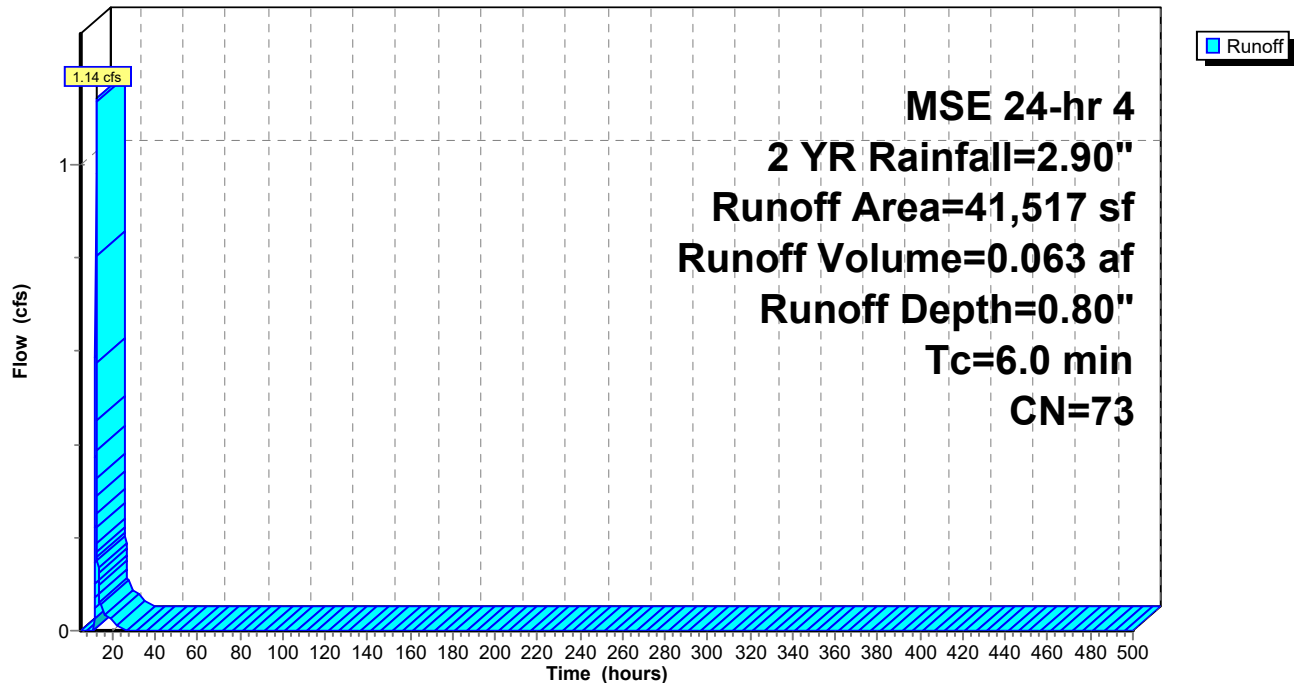
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2 YR Rainfall=2.90"

	Area (sf)	CN	Description
*	28,233	61	Post - B Soils
*	13,284	98	Impervious
	41,517	73	Weighted Average
	28,233		68.00% Pervious Area
	13,284		32.00% Impervious Area

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

Subcatchment 7S: Culvert 3

Hydrograph



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Subcatchment 7S: Culvert 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.13	0.00	0.00	260.00	2.90	0.80	0.00
10.00	0.46	0.00	0.00	265.00	2.90	0.80	0.00
15.00	2.55	0.59	0.05	270.00	2.90	0.80	0.00
20.00	2.81	0.74	0.02	275.00	2.90	0.80	0.00
25.00	2.90	0.80	0.00	280.00	2.90	0.80	0.00
30.00	2.90	0.80	0.00	285.00	2.90	0.80	0.00
35.00	2.90	0.80	0.00	290.00	2.90	0.80	0.00
40.00	2.90	0.80	0.00	295.00	2.90	0.80	0.00
45.00	2.90	0.80	0.00	300.00	2.90	0.80	0.00
50.00	2.90	0.80	0.00	305.00	2.90	0.80	0.00
55.00	2.90	0.80	0.00	310.00	2.90	0.80	0.00
60.00	2.90	0.80	0.00	315.00	2.90	0.80	0.00
65.00	2.90	0.80	0.00	320.00	2.90	0.80	0.00
70.00	2.90	0.80	0.00	325.00	2.90	0.80	0.00
75.00	2.90	0.80	0.00	330.00	2.90	0.80	0.00
80.00	2.90	0.80	0.00	335.00	2.90	0.80	0.00
85.00	2.90	0.80	0.00	340.00	2.90	0.80	0.00
90.00	2.90	0.80	0.00	345.00	2.90	0.80	0.00
95.00	2.90	0.80	0.00	350.00	2.90	0.80	0.00
100.00	2.90	0.80	0.00	355.00	2.90	0.80	0.00
105.00	2.90	0.80	0.00	360.00	2.90	0.80	0.00
110.00	2.90	0.80	0.00	365.00	2.90	0.80	0.00
115.00	2.90	0.80	0.00	370.00	2.90	0.80	0.00
120.00	2.90	0.80	0.00	375.00	2.90	0.80	0.00
125.00	2.90	0.80	0.00	380.00	2.90	0.80	0.00
130.00	2.90	0.80	0.00	385.00	2.90	0.80	0.00
135.00	2.90	0.80	0.00	390.00	2.90	0.80	0.00
140.00	2.90	0.80	0.00	395.00	2.90	0.80	0.00
145.00	2.90	0.80	0.00	400.00	2.90	0.80	0.00
150.00	2.90	0.80	0.00	405.00	2.90	0.80	0.00
155.00	2.90	0.80	0.00	410.00	2.90	0.80	0.00
160.00	2.90	0.80	0.00	415.00	2.90	0.80	0.00
165.00	2.90	0.80	0.00	420.00	2.90	0.80	0.00
170.00	2.90	0.80	0.00	425.00	2.90	0.80	0.00
175.00	2.90	0.80	0.00	430.00	2.90	0.80	0.00
180.00	2.90	0.80	0.00	435.00	2.90	0.80	0.00
185.00	2.90	0.80	0.00	440.00	2.90	0.80	0.00
190.00	2.90	0.80	0.00	445.00	2.90	0.80	0.00
195.00	2.90	0.80	0.00	450.00	2.90	0.80	0.00
200.00	2.90	0.80	0.00	455.00	2.90	0.80	0.00
205.00	2.90	0.80	0.00	460.00	2.90	0.80	0.00
210.00	2.90	0.80	0.00	465.00	2.90	0.80	0.00
215.00	2.90	0.80	0.00	470.00	2.90	0.80	0.00
220.00	2.90	0.80	0.00	475.00	2.90	0.80	0.00
225.00	2.90	0.80	0.00	480.00	2.90	0.80	0.00
230.00	2.90	0.80	0.00	485.00	2.90	0.80	0.00
235.00	2.90	0.80	0.00	490.00	2.90	0.80	0.00
240.00	2.90	0.80	0.00	495.00	2.90	0.80	0.00
245.00	2.90	0.80	0.00	500.00	2.90	0.80	0.00
250.00	2.90	0.80	0.00				
255.00	2.90	0.80	0.00				

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Summary for Subcatchment 8S: Culvert 4

Runoff = 4.59 cfs @ 12.14 hrs, Volume= 0.264 af, Depth= 0.66"

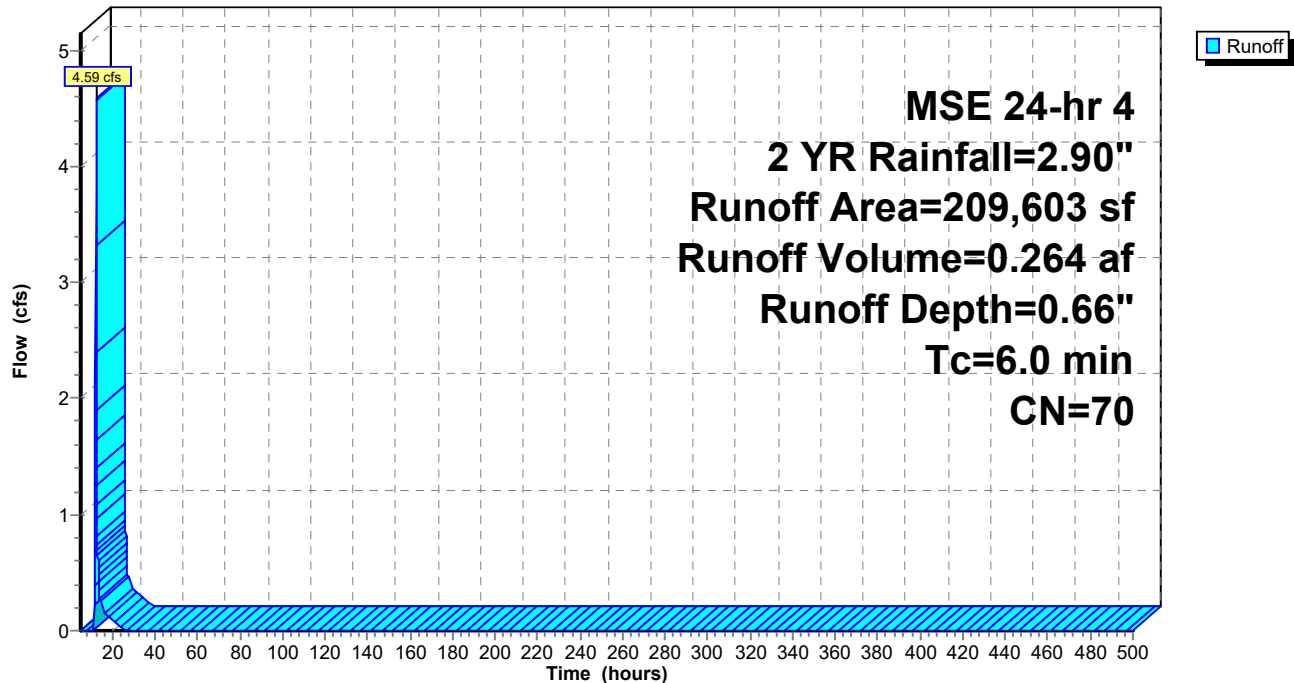
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2 YR Rainfall=2.90"

	Area (sf)	CN	Description
*	156,823	61	Post - B Soils
*	52,780	98	Impervious
	209,603	70	Weighted Average
	156,823		74.82% Pervious Area
	52,780		25.18% Impervious Area

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

Subcatchment 8S: Culvert 4

Hydrograph



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"
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Hydrograph for Subcatchment 8S: Culvert 4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.13	0.00	0.00	260.00	2.90	0.66	0.00
10.00	0.46	0.00	0.00	265.00	2.90	0.66	0.00
15.00	2.55	0.48	0.24	270.00	2.90	0.66	0.00
20.00	2.81	0.61	0.09	275.00	2.90	0.66	0.00
25.00	2.90	0.66	0.00	280.00	2.90	0.66	0.00
30.00	2.90	0.66	0.00	285.00	2.90	0.66	0.00
35.00	2.90	0.66	0.00	290.00	2.90	0.66	0.00
40.00	2.90	0.66	0.00	295.00	2.90	0.66	0.00
45.00	2.90	0.66	0.00	300.00	2.90	0.66	0.00
50.00	2.90	0.66	0.00	305.00	2.90	0.66	0.00
55.00	2.90	0.66	0.00	310.00	2.90	0.66	0.00
60.00	2.90	0.66	0.00	315.00	2.90	0.66	0.00
65.00	2.90	0.66	0.00	320.00	2.90	0.66	0.00
70.00	2.90	0.66	0.00	325.00	2.90	0.66	0.00
75.00	2.90	0.66	0.00	330.00	2.90	0.66	0.00
80.00	2.90	0.66	0.00	335.00	2.90	0.66	0.00
85.00	2.90	0.66	0.00	340.00	2.90	0.66	0.00
90.00	2.90	0.66	0.00	345.00	2.90	0.66	0.00
95.00	2.90	0.66	0.00	350.00	2.90	0.66	0.00
100.00	2.90	0.66	0.00	355.00	2.90	0.66	0.00
105.00	2.90	0.66	0.00	360.00	2.90	0.66	0.00
110.00	2.90	0.66	0.00	365.00	2.90	0.66	0.00
115.00	2.90	0.66	0.00	370.00	2.90	0.66	0.00
120.00	2.90	0.66	0.00	375.00	2.90	0.66	0.00
125.00	2.90	0.66	0.00	380.00	2.90	0.66	0.00
130.00	2.90	0.66	0.00	385.00	2.90	0.66	0.00
135.00	2.90	0.66	0.00	390.00	2.90	0.66	0.00
140.00	2.90	0.66	0.00	395.00	2.90	0.66	0.00
145.00	2.90	0.66	0.00	400.00	2.90	0.66	0.00
150.00	2.90	0.66	0.00	405.00	2.90	0.66	0.00
155.00	2.90	0.66	0.00	410.00	2.90	0.66	0.00
160.00	2.90	0.66	0.00	415.00	2.90	0.66	0.00
165.00	2.90	0.66	0.00	420.00	2.90	0.66	0.00
170.00	2.90	0.66	0.00	425.00	2.90	0.66	0.00
175.00	2.90	0.66	0.00	430.00	2.90	0.66	0.00
180.00	2.90	0.66	0.00	435.00	2.90	0.66	0.00
185.00	2.90	0.66	0.00	440.00	2.90	0.66	0.00
190.00	2.90	0.66	0.00	445.00	2.90	0.66	0.00
195.00	2.90	0.66	0.00	450.00	2.90	0.66	0.00
200.00	2.90	0.66	0.00	455.00	2.90	0.66	0.00
205.00	2.90	0.66	0.00	460.00	2.90	0.66	0.00
210.00	2.90	0.66	0.00	465.00	2.90	0.66	0.00
215.00	2.90	0.66	0.00	470.00	2.90	0.66	0.00
220.00	2.90	0.66	0.00	475.00	2.90	0.66	0.00
225.00	2.90	0.66	0.00	480.00	2.90	0.66	0.00
230.00	2.90	0.66	0.00	485.00	2.90	0.66	0.00
235.00	2.90	0.66	0.00	490.00	2.90	0.66	0.00
240.00	2.90	0.66	0.00	495.00	2.90	0.66	0.00
245.00	2.90	0.66	0.00	500.00	2.90	0.66	0.00
250.00	2.90	0.66	0.00				
255.00	2.90	0.66	0.00				

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Summary for Subcatchment 9S: Culvert 5

Runoff = 3.47 cfs @ 12.15 hrs, Volume= 0.208 af, Depth= 0.58"

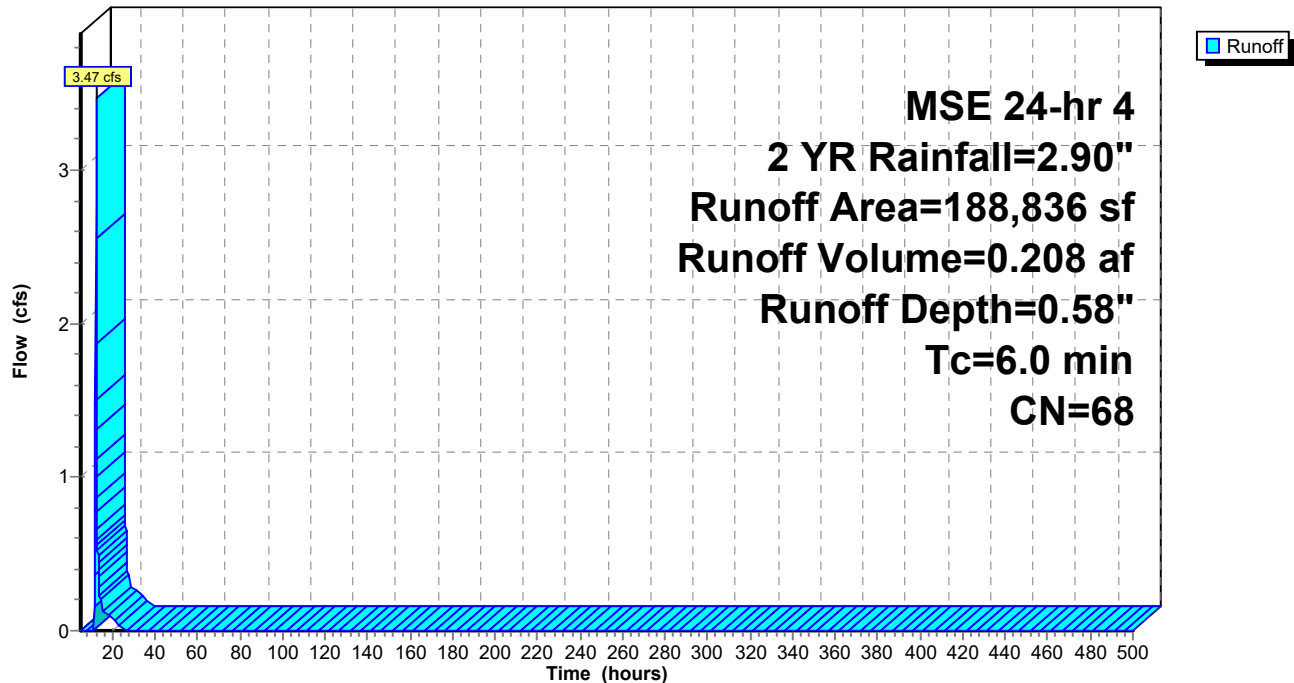
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 2 YR Rainfall=2.90"

	Area (sf)	CN	Description
*	151,149	61	Post - B Soils
*	37,687	98	Impervious
	188,836	68	Weighted Average
	151,149		80.04% Pervious Area
	37,687		19.96% Impervious Area

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

Subcatchment 9S: Culvert 5

Hydrograph



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Subcatchment 9S: Culvert 5

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.13	0.00	0.00	260.00	2.90	0.58	0.00
10.00	0.46	0.00	0.00	265.00	2.90	0.58	0.00
15.00	2.55	0.41	0.20	270.00	2.90	0.58	0.00
20.00	2.81	0.53	0.08	275.00	2.90	0.58	0.00
25.00	2.90	0.58	0.00	280.00	2.90	0.58	0.00
30.00	2.90	0.58	0.00	285.00	2.90	0.58	0.00
35.00	2.90	0.58	0.00	290.00	2.90	0.58	0.00
40.00	2.90	0.58	0.00	295.00	2.90	0.58	0.00
45.00	2.90	0.58	0.00	300.00	2.90	0.58	0.00
50.00	2.90	0.58	0.00	305.00	2.90	0.58	0.00
55.00	2.90	0.58	0.00	310.00	2.90	0.58	0.00
60.00	2.90	0.58	0.00	315.00	2.90	0.58	0.00
65.00	2.90	0.58	0.00	320.00	2.90	0.58	0.00
70.00	2.90	0.58	0.00	325.00	2.90	0.58	0.00
75.00	2.90	0.58	0.00	330.00	2.90	0.58	0.00
80.00	2.90	0.58	0.00	335.00	2.90	0.58	0.00
85.00	2.90	0.58	0.00	340.00	2.90	0.58	0.00
90.00	2.90	0.58	0.00	345.00	2.90	0.58	0.00
95.00	2.90	0.58	0.00	350.00	2.90	0.58	0.00
100.00	2.90	0.58	0.00	355.00	2.90	0.58	0.00
105.00	2.90	0.58	0.00	360.00	2.90	0.58	0.00
110.00	2.90	0.58	0.00	365.00	2.90	0.58	0.00
115.00	2.90	0.58	0.00	370.00	2.90	0.58	0.00
120.00	2.90	0.58	0.00	375.00	2.90	0.58	0.00
125.00	2.90	0.58	0.00	380.00	2.90	0.58	0.00
130.00	2.90	0.58	0.00	385.00	2.90	0.58	0.00
135.00	2.90	0.58	0.00	390.00	2.90	0.58	0.00
140.00	2.90	0.58	0.00	395.00	2.90	0.58	0.00
145.00	2.90	0.58	0.00	400.00	2.90	0.58	0.00
150.00	2.90	0.58	0.00	405.00	2.90	0.58	0.00
155.00	2.90	0.58	0.00	410.00	2.90	0.58	0.00
160.00	2.90	0.58	0.00	415.00	2.90	0.58	0.00
165.00	2.90	0.58	0.00	420.00	2.90	0.58	0.00
170.00	2.90	0.58	0.00	425.00	2.90	0.58	0.00
175.00	2.90	0.58	0.00	430.00	2.90	0.58	0.00
180.00	2.90	0.58	0.00	435.00	2.90	0.58	0.00
185.00	2.90	0.58	0.00	440.00	2.90	0.58	0.00
190.00	2.90	0.58	0.00	445.00	2.90	0.58	0.00
195.00	2.90	0.58	0.00	450.00	2.90	0.58	0.00
200.00	2.90	0.58	0.00	455.00	2.90	0.58	0.00
205.00	2.90	0.58	0.00	460.00	2.90	0.58	0.00
210.00	2.90	0.58	0.00	465.00	2.90	0.58	0.00
215.00	2.90	0.58	0.00	470.00	2.90	0.58	0.00
220.00	2.90	0.58	0.00	475.00	2.90	0.58	0.00
225.00	2.90	0.58	0.00	480.00	2.90	0.58	0.00
230.00	2.90	0.58	0.00	485.00	2.90	0.58	0.00
235.00	2.90	0.58	0.00	490.00	2.90	0.58	0.00
240.00	2.90	0.58	0.00	495.00	2.90	0.58	0.00
245.00	2.90	0.58	0.00	500.00	2.90	0.58	0.00
250.00	2.90	0.58	0.00				
255.00	2.90	0.58	0.00				

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Summary for Pond P1A: Pond 1A

Inflow Area = 6.030 ac, 19.24% Impervious, Inflow Depth = 0.58" for 2 YR event
 Inflow = 4.83 cfs @ 12.15 hrs, Volume= 0.289 af
 Outflow = 0.45 cfs @ 13.52 hrs, Volume= 0.289 af, Atten= 91%, Lag= 82.3 min
 Primary = 0.06 cfs @ 13.52 hrs, Volume= 0.010 af
 Routed to Link 3L : Post - South
 Secondary = 0.38 cfs @ 13.52 hrs, Volume= 0.279 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,240.45' @ 13.52 hrs Surf.Area= 4,591 sf Storage= 5,132 cf

Plug-Flow detention time= 141.5 min calculated for 0.289 af (100% of inflow)
 Center-of-Mass det. time= 141.5 min (1,010.2 - 868.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,239.00'	30,563 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,239.00	2,496	0	0
1,244.00	9,729	30,563	30,563

Device	Routing	Invert	Outlet Devices
#1	Primary	1,240.00'	12.0" Round Culvert L= 39.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,240.00' / 1,236.00' S= 0.1026 ' /' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,240.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,242.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,239.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,243.00'	20.0' long + 4.0 ' /' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.06 cfs @ 13.52 hrs HW=1,240.45' (Free Discharge)

↑ **1=Culvert** (Passes 0.06 cfs of 0.78 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 0.06 cfs @ 1.80 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.38 cfs @ 13.52 hrs HW=1,240.45' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.38 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,239.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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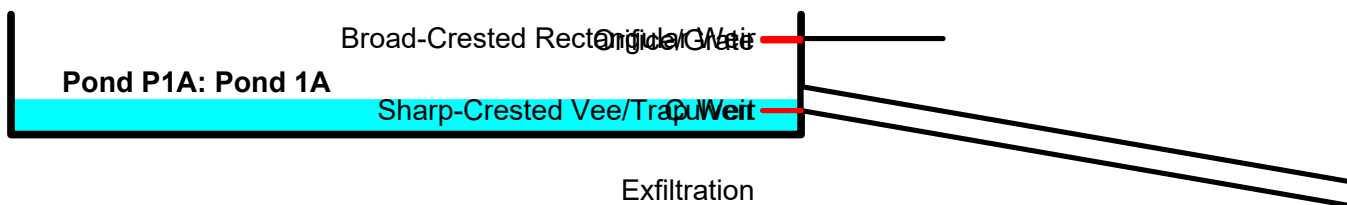
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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

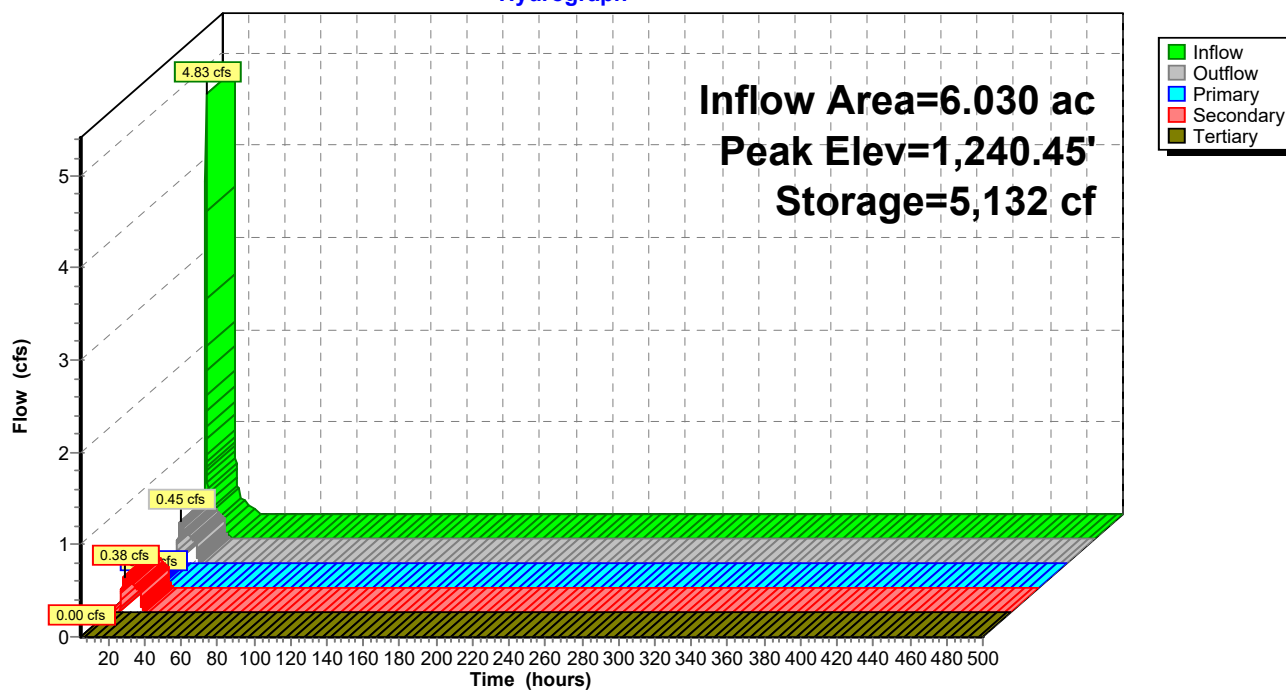
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Pond P1A: Pond 1A

Hydrograph



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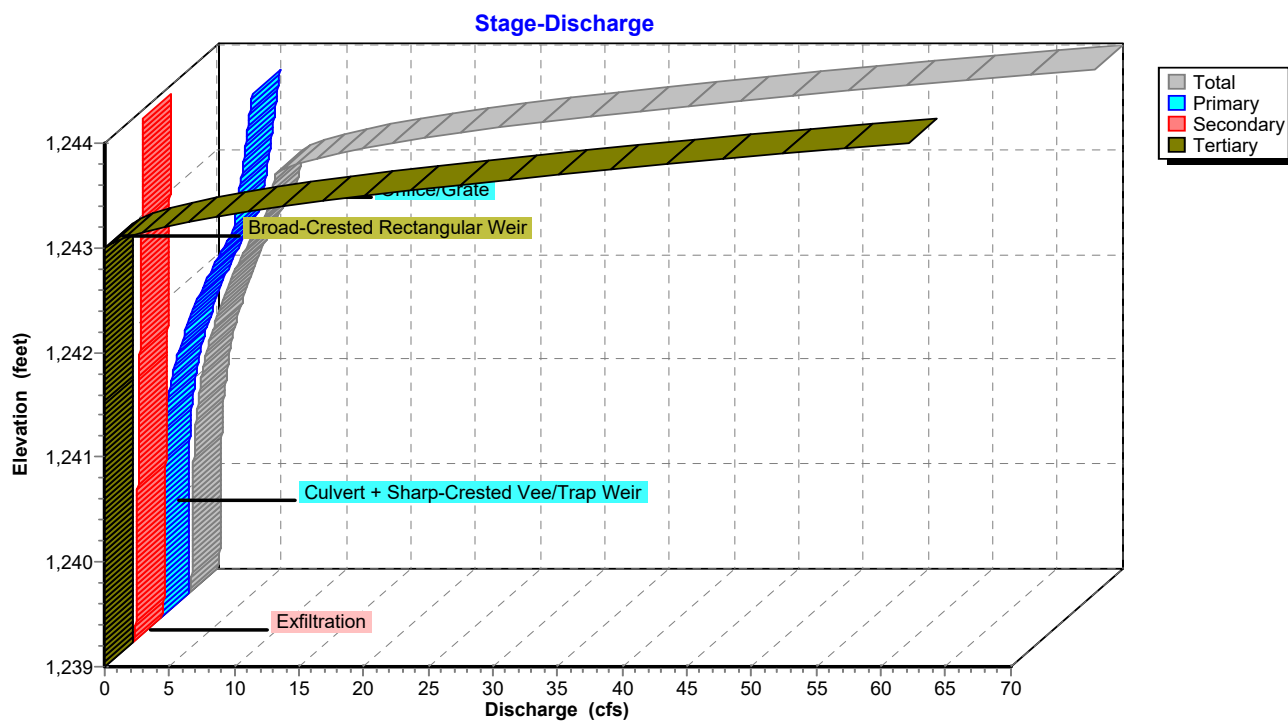
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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

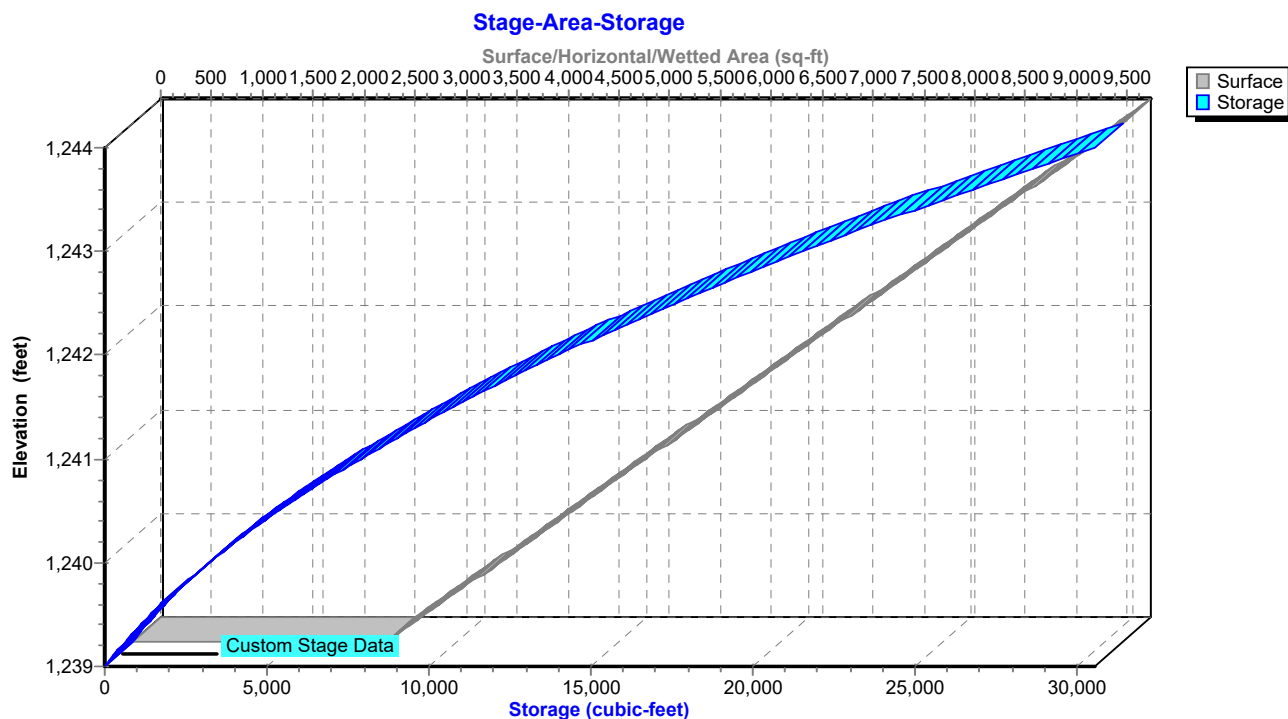
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Pond P1A: Pond 1A



Pond P1A: Pond 1A



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Pond P1A: Pond 1A

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
15.00	0.28	4,507	1,240.31	0.39	0.03	0.37	0.00
25.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
35.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Stage-Discharge for Pond P1A: Pond 1A

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,239.00	0.00	0.00	0.00	0.00
1,239.10	0.22	0.00	0.22	0.00
1,239.20	0.23	0.00	0.23	0.00
1,239.30	0.24	0.00	0.24	0.00
1,239.40	0.26	0.00	0.26	0.00
1,239.50	0.27	0.00	0.27	0.00
1,239.60	0.28	0.00	0.28	0.00
1,239.70	0.29	0.00	0.29	0.00
1,239.80	0.30	0.00	0.30	0.00
1,239.90	0.32	0.00	0.32	0.00
1,240.00	0.33	0.00	0.33	0.00
1,240.10	0.34	0.00	0.34	0.00
1,240.20	0.36	0.01	0.35	0.00
1,240.30	0.39	0.02	0.36	0.00
1,240.40	0.42	0.05	0.38	0.00
1,240.50	0.47	0.08	0.39	0.00
1,240.60	0.53	0.13	0.40	0.00
1,240.70	0.61	0.19	0.41	0.00
1,240.80	0.70	0.27	0.42	0.00
1,240.90	0.80	0.36	0.44	0.00
1,241.00	0.92	0.47	0.45	0.00
1,241.10	1.06	0.60	0.46	0.00
1,241.20	1.22	0.75	0.47	0.00
1,241.30	1.40	0.91	0.49	0.00
1,241.40	1.60	1.10	0.50	0.00
1,241.50	1.82	1.31	0.51	0.00
1,241.60	2.06	1.54	0.52	0.00
1,241.70	2.32	1.79	0.53	0.00
1,241.80	2.61	2.06	0.55	0.00
1,241.90	2.92	2.36	0.56	0.00
1,242.00	3.25	2.68	0.57	0.00
1,242.10	3.61	3.03	0.58	0.00
1,242.20	4.00	3.41	0.59	0.00
1,242.30	4.41	3.81	0.61	0.00
1,242.40	4.85	4.23	0.62	0.00
1,242.50	5.32	4.69	0.63	0.00
1,242.60	5.81	5.17	0.64	0.00
1,242.70	6.26	5.61	0.65	0.00
1,242.80	6.40	5.74	0.67	0.00
1,242.90	6.54	5.86	0.68	0.00
1,243.00	6.67	5.98	0.69	0.00
1,243.10	8.40	6.10	0.70	1.60
1,243.20	11.53	6.21	0.71	4.60
1,243.30	15.75	6.33	0.73	8.70
1,243.40	20.96	6.44	0.74	13.78
1,243.50	27.39	6.55	0.75	20.08
1,243.60	34.93	6.66	0.76	27.51
1,243.70	42.64	6.76	0.77	35.10
1,243.80	51.08	6.87	0.79	43.42
1,243.90	60.22	6.97	0.80	52.45
1,244.00	70.06	7.07	0.81	62.18

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Stage-Area-Storage for Pond P1A: Pond 1A

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,239.00	2,496	0	1,241.55	6,185	11,068
1,239.05	2,568	127	1,241.60	6,257	11,379
1,239.10	2,641	257	1,241.65	6,329	11,694
1,239.15	2,713	391	1,241.70	6,402	12,012
1,239.20	2,785	528	1,241.75	6,474	12,334
1,239.25	2,858	669	1,241.80	6,546	12,659
1,239.30	2,930	814	1,241.85	6,619	12,989
1,239.35	3,002	962	1,241.90	6,691	13,321
1,239.40	3,075	1,114	1,241.95	6,763	13,658
1,239.45	3,147	1,270	1,242.00	6,836	13,998
1,239.50	3,219	1,429	1,242.05	6,908	14,341
1,239.55	3,292	1,592	1,242.10	6,980	14,689
1,239.60	3,364	1,758	1,242.15	7,053	15,039
1,239.65	3,436	1,928	1,242.20	7,125	15,394
1,239.70	3,509	2,102	1,242.25	7,197	15,752
1,239.75	3,581	2,279	1,242.30	7,270	16,114
1,239.80	3,653	2,460	1,242.35	7,342	16,479
1,239.85	3,726	2,644	1,242.40	7,414	16,848
1,239.90	3,798	2,832	1,242.45	7,487	17,220
1,239.95	3,870	3,024	1,242.50	7,559	17,596
1,240.00	3,943	3,219	1,242.55	7,631	17,976
1,240.05	4,015	3,418	1,242.60	7,704	18,360
1,240.10	4,087	3,621	1,242.65	7,776	18,747
1,240.15	4,160	3,827	1,242.70	7,848	19,137
1,240.20	4,232	4,037	1,242.75	7,921	19,531
1,240.25	4,304	4,250	1,242.80	7,993	19,929
1,240.30	4,377	4,467	1,242.85	8,065	20,331
1,240.35	4,449	4,688	1,242.90	8,138	20,736
1,240.40	4,521	4,912	1,242.95	8,210	21,144
1,240.45	4,594	5,140	1,243.00	8,282	21,557
1,240.50	4,666	5,371	1,243.05	8,355	21,973
1,240.55	4,738	5,607	1,243.10	8,427	22,392
1,240.60	4,811	5,845	1,243.15	8,499	22,815
1,240.65	4,883	6,088	1,243.20	8,572	23,242
1,240.70	4,955	6,334	1,243.25	8,644	23,673
1,240.75	5,028	6,583	1,243.30	8,716	24,107
1,240.80	5,100	6,836	1,243.35	8,789	24,544
1,240.85	5,172	7,093	1,243.40	8,861	24,985
1,240.90	5,245	7,354	1,243.45	8,933	25,430
1,240.95	5,317	7,618	1,243.50	9,006	25,879
1,241.00	5,389	7,885	1,243.55	9,078	26,331
1,241.05	5,462	8,156	1,243.60	9,150	26,787
1,241.10	5,534	8,431	1,243.65	9,223	27,246
1,241.15	5,606	8,710	1,243.70	9,295	27,709
1,241.20	5,679	8,992	1,243.75	9,367	28,175
1,241.25	5,751	9,278	1,243.80	9,440	28,646
1,241.30	5,823	9,567	1,243.85	9,512	29,119
1,241.35	5,896	9,860	1,243.90	9,584	29,597
1,241.40	5,968	10,157	1,243.95	9,657	30,078
1,241.45	6,040	10,457	1,244.00	9,729	30,563
1,241.50	6,113	10,761			

Summary for Pond P3A: Pond 3A

Inflow Area = 10.600 ac, 18.58% Impervious, Inflow Depth = 0.66" for 2 YR event
 Inflow = 10.12 cfs @ 12.14 hrs, Volume= 0.582 af
 Outflow = 0.97 cfs @ 13.42 hrs, Volume= 0.582 af, Atten= 90%, Lag= 76.5 min
 Primary = 0.38 cfs @ 13.42 hrs, Volume= 0.083 af
 Routed to Link 4L : Post - North
 Secondary = 0.59 cfs @ 13.42 hrs, Volume= 0.500 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,193.92' @ 13.42 hrs Surf.Area= 7,027 sf Storage= 10,734 cf

Plug-Flow detention time= 169.1 min calculated for 0.582 af (100% of inflow)
 Center-of-Mass det. time= 169.1 min (1,030.6 - 861.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,192.00'	51,846 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,192.00	4,165	0	0
1,198.00	13,117	51,846	51,846

Device	Routing	Invert	Outlet Devices
#1	Primary	1,193.00'	12.0" Round Culvert L= 41.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,193.00' / 1,189.00' S= 0.0976 ' /' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,193.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,196.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,192.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,197.00'	20.0' long + 4.0 ' /' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.38 cfs @ 13.42 hrs HW=1,193.92' (Free Discharge)

↑ **1=Culvert** (Passes 0.38 cfs of 2.46 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 0.38 cfs @ 2.58 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.59 cfs @ 13.42 hrs HW=1,193.92' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.59 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,192.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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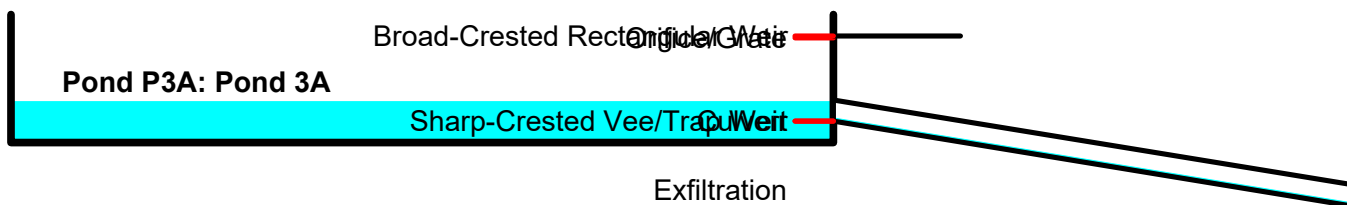
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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

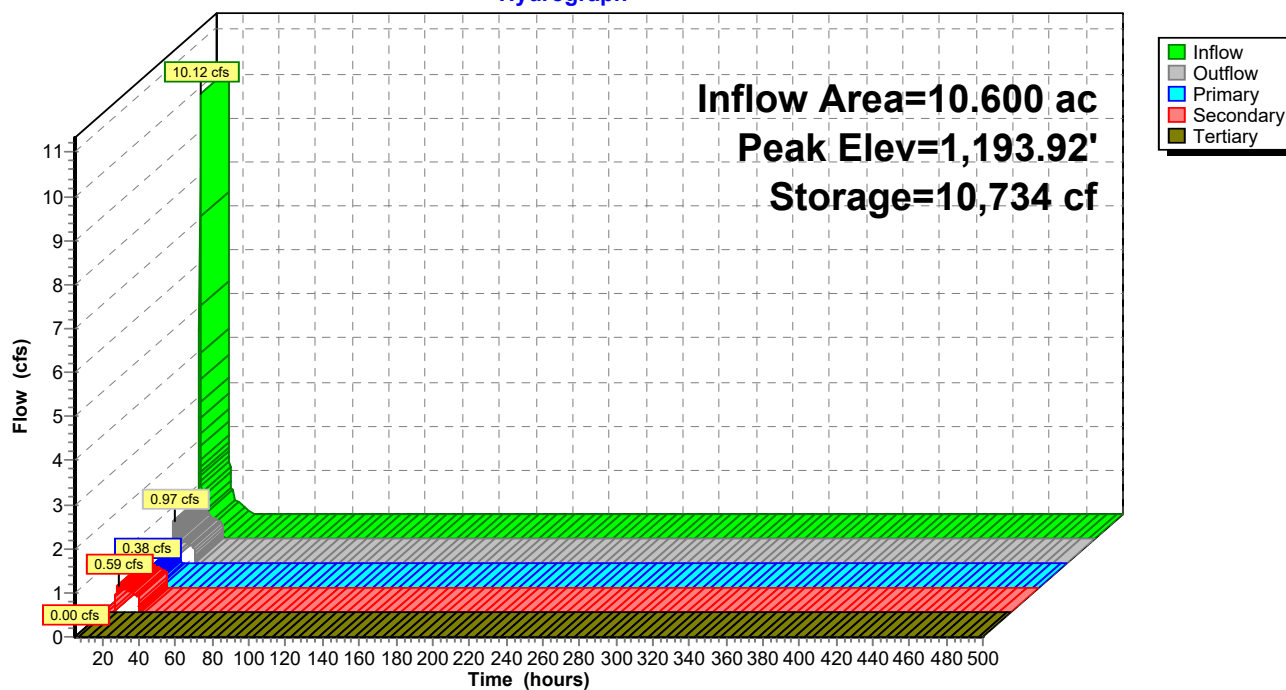
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Pond P3A: Pond 3A

Hydrograph



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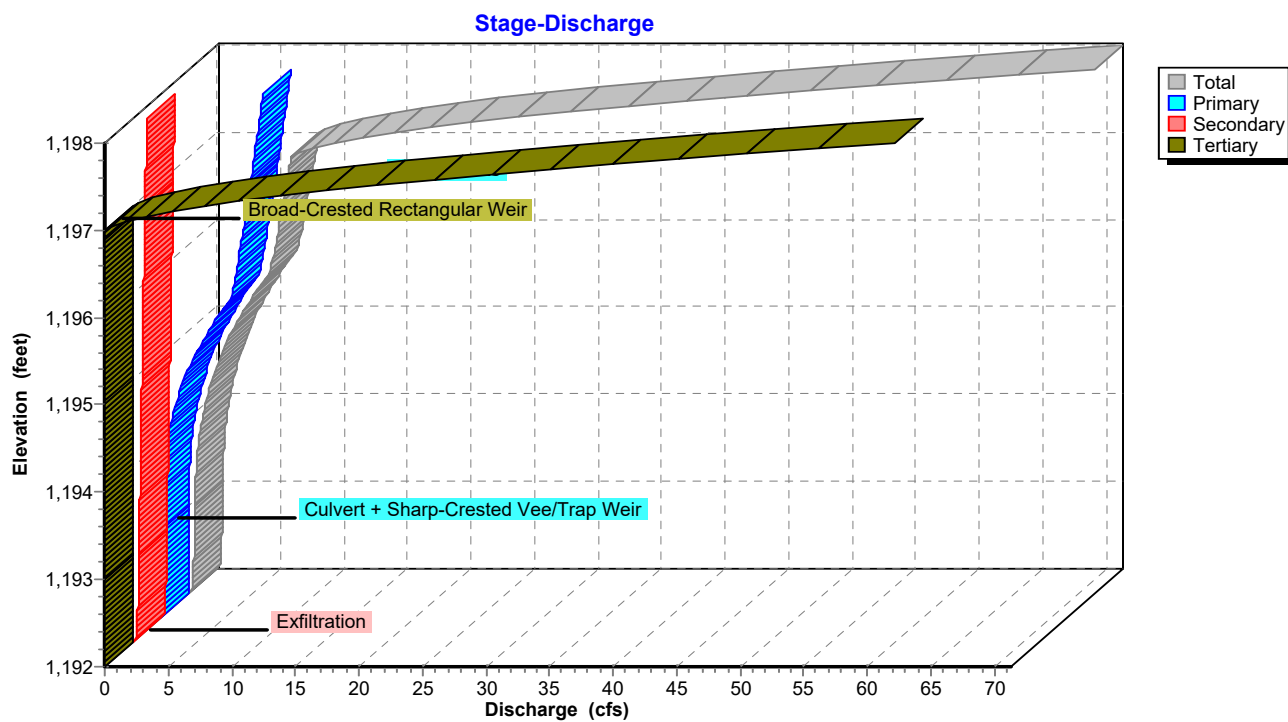
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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

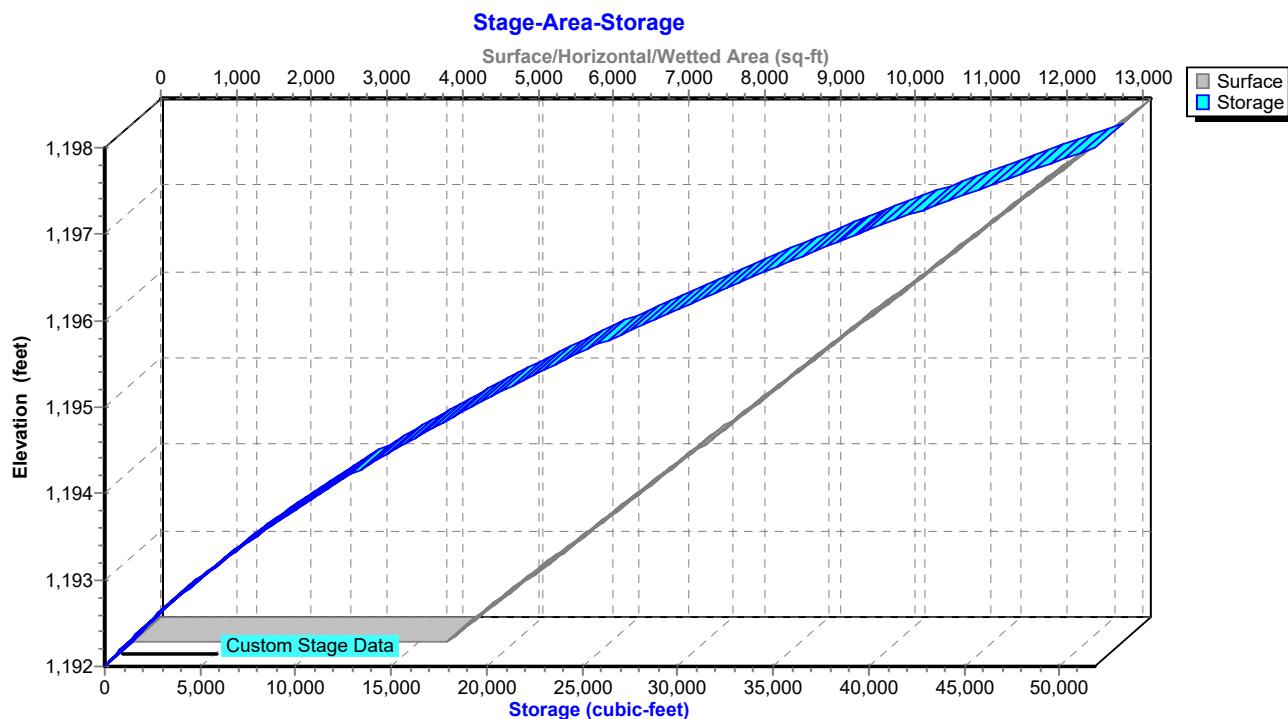
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Pond P3A: Pond 3A



Pond P3A: Pond 3A



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Pond P3A: Pond 3A

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
15.00	0.53	9,268	1,193.70	0.76	0.20	0.56	0.00
25.00	0.00	4	1,192.00	0.01	0.00	0.01	0.00
35.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Stage-Discharge for Pond P3A: Pond 3A

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,192.00	0.00	0.00	0.00	0.00
1,192.20	0.37	0.00	0.37	0.00
1,192.40	0.40	0.00	0.40	0.00
1,192.60	0.42	0.00	0.42	0.00
1,192.80	0.45	0.00	0.45	0.00
1,193.00	0.47	0.00	0.47	0.00
1,193.20	0.50	0.01	0.50	0.00
1,193.40	0.57	0.05	0.52	0.00
1,193.60	0.68	0.13	0.55	0.00
1,193.80	0.84	0.27	0.57	0.00
1,194.00	1.07	0.47	0.60	0.00
1,194.20	1.37	0.75	0.62	0.00
1,194.40	1.75	1.10	0.65	0.00
1,194.60	2.21	1.54	0.67	0.00
1,194.80	2.76	2.06	0.70	0.00
1,195.00	3.40	2.68	0.72	0.00
1,195.20	4.15	3.41	0.74	0.00
1,195.40	5.00	4.23	0.77	0.00
1,195.60	5.96	5.17	0.79	0.00
1,195.80	6.55	5.74	0.82	0.00
1,196.00	6.82	5.98	0.84	0.00
1,196.20	7.08	6.21	0.87	0.00
1,196.40	7.33	6.44	0.89	0.00
1,196.60	7.58	6.66	0.92	0.00
1,196.80	7.81	6.87	0.94	0.00
1,197.00	8.04	7.07	0.97	0.00
1,197.20	12.86	7.27	0.99	4.60
1,197.40	22.27	7.47	1.02	13.78
1,197.60	36.21	7.66	1.04	27.51
1,197.80	52.33	7.84	1.07	43.42
1,198.00	71.29	8.02	1.09	62.18

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Featherstone Rise
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Stage-Area-Storage for Pond P3A: Pond 3A

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,192.00	4,165	0	1,197.10	11,774	40,645
1,192.10	4,314	424	1,197.20	11,923	41,830
1,192.20	4,463	863	1,197.30	12,073	43,030
1,192.30	4,613	1,317	1,197.40	12,222	44,244
1,192.40	4,762	1,785	1,197.50	12,371	45,474
1,192.50	4,911	2,269	1,197.60	12,520	46,719
1,192.60	5,060	2,768	1,197.70	12,669	47,978
1,192.70	5,209	3,281	1,197.80	12,819	49,252
1,192.80	5,359	3,809	1,197.90	12,968	50,542
1,192.90	5,508	4,353	1,198.00	13,117	51,846
1,193.00	5,657	4,911			
1,193.10	5,806	5,484			
1,193.20	5,955	6,072			
1,193.30	6,105	6,675			
1,193.40	6,254	7,293			
1,193.50	6,403	7,926			
1,193.60	6,552	8,574			
1,193.70	6,701	9,236			
1,193.80	6,851	9,914			
1,193.90	7,000	10,607			
1,194.00	7,149	11,314			
1,194.10	7,298	12,036			
1,194.20	7,447	12,774			
1,194.30	7,597	13,526			
1,194.40	7,746	14,293			
1,194.50	7,895	15,075			
1,194.60	8,044	15,872			
1,194.70	8,193	16,684			
1,194.80	8,343	17,511			
1,194.90	8,492	18,352			
1,195.00	8,641	19,209			
1,195.10	8,790	20,081			
1,195.20	8,939	20,967			
1,195.30	9,089	21,868			
1,195.40	9,238	22,785			
1,195.50	9,387	23,716			
1,195.60	9,536	24,662			
1,195.70	9,685	25,623			
1,195.80	9,835	26,599			
1,195.90	9,984	27,590			
1,196.00	10,133	28,596			
1,196.10	10,282	29,617			
1,196.20	10,431	30,652			
1,196.30	10,581	31,703			
1,196.40	10,730	32,769			
1,196.50	10,879	33,849			
1,196.60	11,028	34,944			
1,196.70	11,177	36,055			
1,196.80	11,327	37,180			
1,196.90	11,476	38,320			
1,197.00	11,625	39,475			

Summary for Pond P3B: Pond 3B

Inflow Area = 8.450 ac, 19.88% Impervious, Inflow Depth = 0.70" for 2 YR event
 Inflow = 8.74 cfs @ 12.14 hrs, Volume= 0.495 af
 Outflow = 0.96 cfs @ 13.21 hrs, Volume= 0.495 af, Atten= 89%, Lag= 64.1 min
 Primary = 0.46 cfs @ 13.21 hrs, Volume= 0.095 af
 Routed to Link 4L : Post - North
 Secondary = 0.50 cfs @ 13.21 hrs, Volume= 0.400 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,196.99' @ 13.21 hrs Surf.Area= 5,980 sf Storage= 8,739 cf

Plug-Flow detention time= 153.6 min calculated for 0.495 af (100% of inflow)
 Center-of-Mass det. time= 153.6 min (1,011.7 - 858.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,195.00'	33,965 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,195.00	2,799	0	0
1,200.00	10,787	33,965	33,965

Device	Routing	Invert	Outlet Devices
#1	Primary	1,196.00'	12.0" Round Culvert L= 36.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,196.00' / 1,192.00' S= 0.1111 ' / Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,196.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,198.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,195.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,199.00'	20.0' long + 4.0 ' / SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.46 cfs @ 13.21 hrs HW=1,196.99' (Free Discharge)

↑ **1=Culvert** (Passes 0.46 cfs of 2.66 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 0.46 cfs @ 2.68 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.50 cfs @ 13.21 hrs HW=1,196.99' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.50 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,195.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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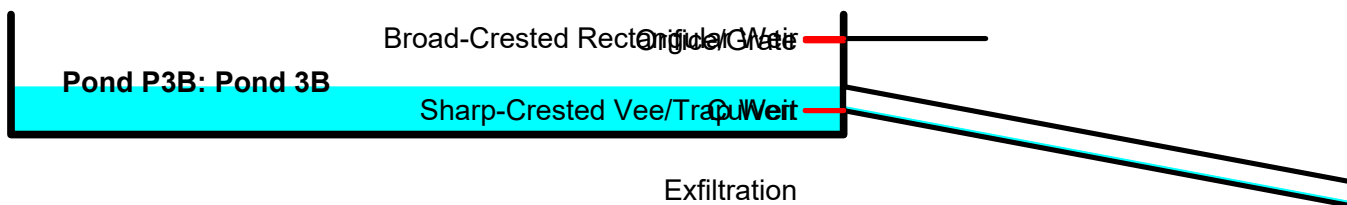
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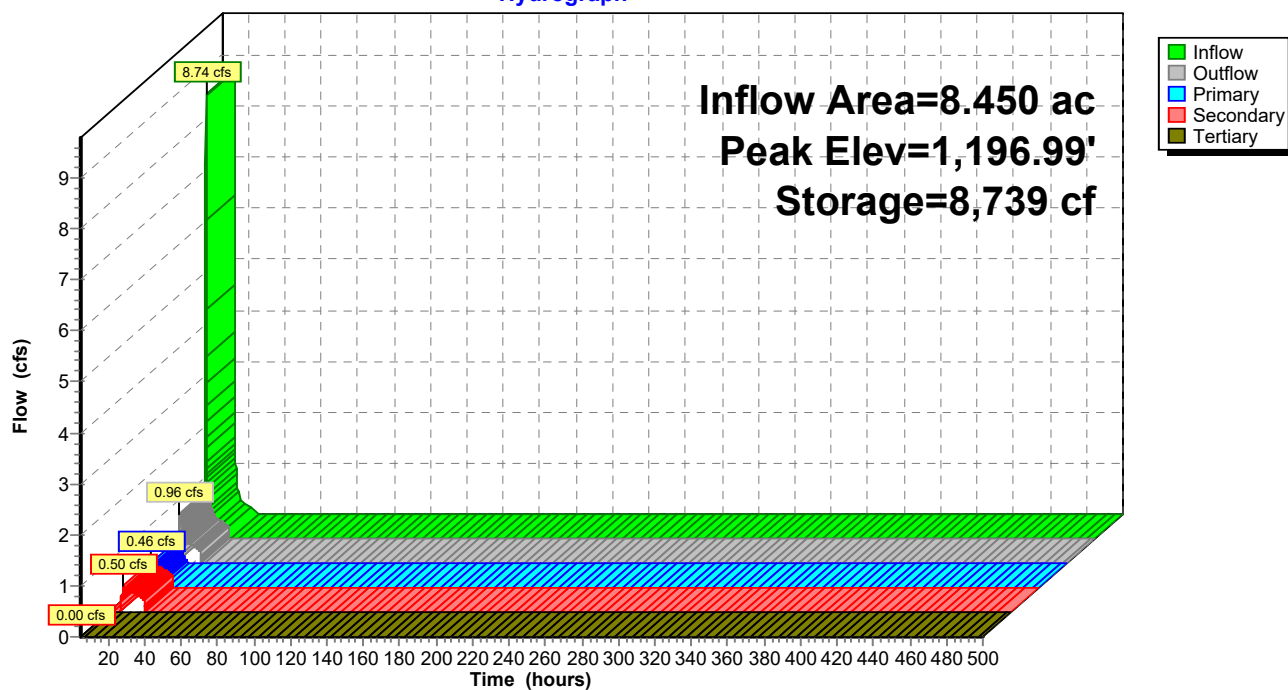
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Pond P3B: Pond 3B

Hydrograph



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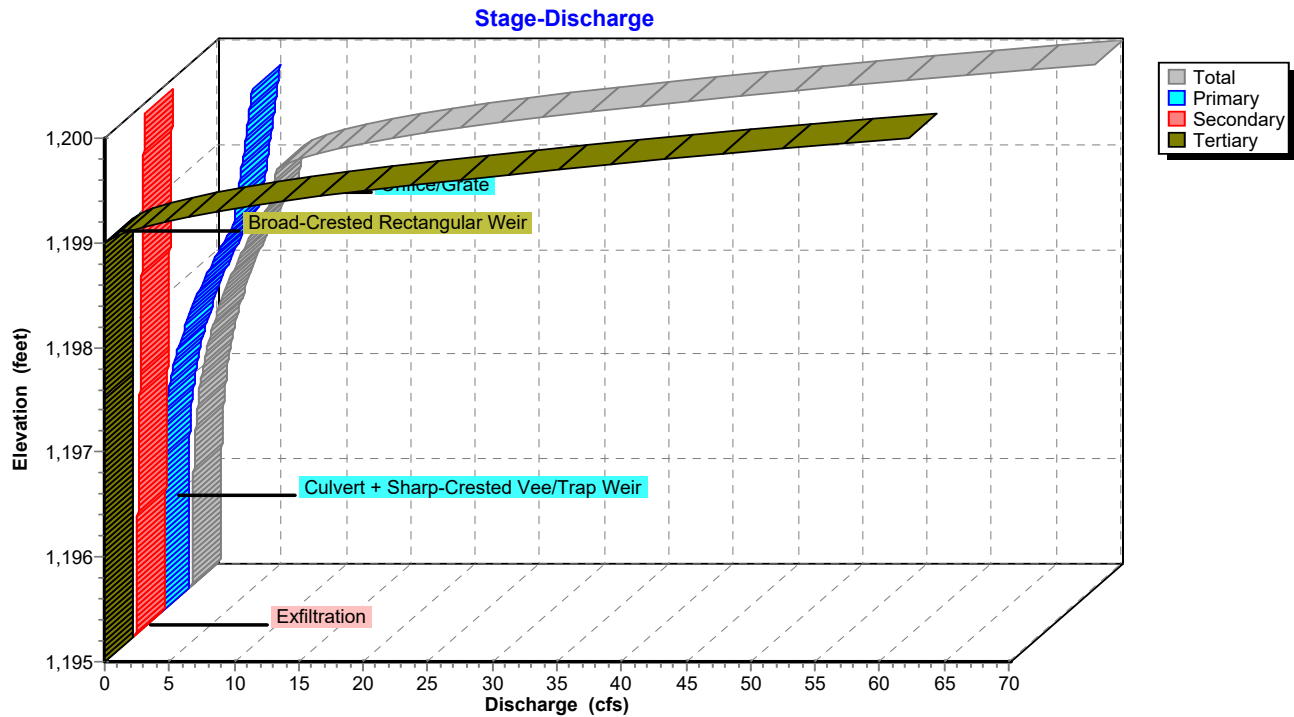
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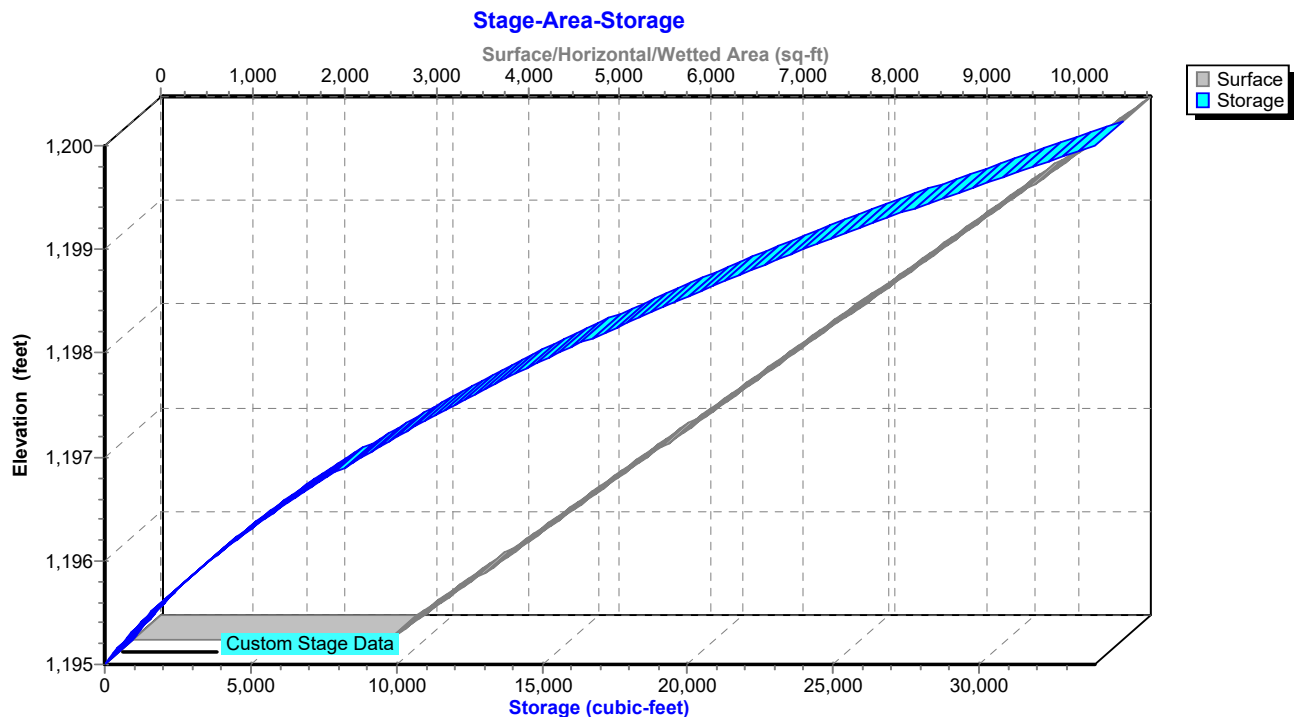
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Pond P3B: Pond 3B



Pond P3B: Pond 3B



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Pond P3B: Pond 3B

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
15.00	0.44	7,069	1,196.70	0.65	0.19	0.46	0.00
25.00	0.00	3	1,195.00	0.01	0.00	0.01	0.00
35.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Stage-Discharge for Pond P3B: Pond 3B

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,195.00	0.00	0.00	0.00	0.00
1,195.10	0.25	0.00	0.25	0.00
1,195.20	0.26	0.00	0.26	0.00
1,195.30	0.27	0.00	0.27	0.00
1,195.40	0.29	0.00	0.29	0.00
1,195.50	0.30	0.00	0.30	0.00
1,195.60	0.31	0.00	0.31	0.00
1,195.70	0.33	0.00	0.33	0.00
1,195.80	0.34	0.00	0.34	0.00
1,195.90	0.35	0.00	0.35	0.00
1,196.00	0.37	0.00	0.37	0.00
1,196.10	0.38	0.00	0.38	0.00
1,196.20	0.40	0.01	0.39	0.00
1,196.30	0.43	0.02	0.41	0.00
1,196.40	0.47	0.05	0.42	0.00
1,196.50	0.52	0.08	0.43	0.00
1,196.60	0.58	0.13	0.45	0.00
1,196.70	0.65	0.19	0.46	0.00
1,196.80	0.74	0.27	0.47	0.00
1,196.90	0.85	0.36	0.49	0.00
1,197.00	0.97	0.47	0.50	0.00
1,197.10	1.11	0.60	0.51	0.00
1,197.20	1.27	0.75	0.53	0.00
1,197.30	1.45	0.91	0.54	0.00
1,197.40	1.65	1.10	0.55	0.00
1,197.50	1.87	1.31	0.57	0.00
1,197.60	2.12	1.54	0.58	0.00
1,197.70	2.38	1.79	0.59	0.00
1,197.80	2.67	2.06	0.61	0.00
1,197.90	2.98	2.36	0.62	0.00
1,198.00	3.32	2.68	0.63	0.00
1,198.10	3.68	3.03	0.65	0.00
1,198.20	4.06	3.41	0.66	0.00
1,198.30	4.48	3.81	0.67	0.00
1,198.40	4.92	4.23	0.69	0.00
1,198.50	5.39	4.69	0.70	0.00
1,198.60	5.88	5.17	0.71	0.00
1,198.70	6.33	5.61	0.73	0.00
1,198.80	6.47	5.74	0.74	0.00
1,198.90	6.61	5.86	0.75	0.00
1,199.00	6.75	5.98	0.77	0.00
1,199.10	8.48	6.10	0.78	1.60
1,199.20	11.60	6.21	0.79	4.60
1,199.30	15.83	6.33	0.81	8.70
1,199.40	21.04	6.44	0.82	13.78
1,199.50	27.47	6.55	0.83	20.08
1,199.60	35.01	6.66	0.85	27.51
1,199.70	42.73	6.76	0.86	35.10
1,199.80	51.17	6.87	0.87	43.42
1,199.90	60.31	6.97	0.89	52.45
1,200.00	70.15	7.07	0.90	62.18

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Stage-Area-Storage for Pond P3B: Pond 3B

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,195.00	2,799	0	1,197.55	6,873	12,332
1,195.05	2,879	142	1,197.60	6,953	12,677
1,195.10	2,959	288	1,197.65	7,033	13,027
1,195.15	3,039	438	1,197.70	7,113	13,381
1,195.20	3,119	592	1,197.75	7,192	13,738
1,195.25	3,198	750	1,197.80	7,272	14,100
1,195.30	3,278	912	1,197.85	7,352	14,465
1,195.35	3,358	1,078	1,197.90	7,432	14,835
1,195.40	3,438	1,247	1,197.95	7,512	15,209
1,195.45	3,518	1,421	1,198.00	7,592	15,586
1,195.50	3,598	1,599	1,198.05	7,672	15,968
1,195.55	3,678	1,781	1,198.10	7,752	16,353
1,195.60	3,758	1,967	1,198.15	7,831	16,743
1,195.65	3,837	2,157	1,198.20	7,911	17,137
1,195.70	3,917	2,351	1,198.25	7,991	17,534
1,195.75	3,997	2,549	1,198.30	8,071	17,936
1,195.80	4,077	2,750	1,198.35	8,151	18,341
1,195.85	4,157	2,956	1,198.40	8,231	18,751
1,195.90	4,237	3,166	1,198.45	8,311	19,164
1,195.95	4,317	3,380	1,198.50	8,391	19,582
1,196.00	4,397	3,598	1,198.55	8,470	20,003
1,196.05	4,476	3,820	1,198.60	8,550	20,429
1,196.10	4,556	4,045	1,198.65	8,630	20,858
1,196.15	4,636	4,275	1,198.70	8,710	21,292
1,196.20	4,716	4,509	1,198.75	8,790	21,729
1,196.25	4,796	4,747	1,198.80	8,870	22,171
1,196.30	4,876	4,989	1,198.85	8,950	22,616
1,196.35	4,956	5,234	1,198.90	9,030	23,066
1,196.40	5,036	5,484	1,198.95	9,110	23,519
1,196.45	5,116	5,738	1,199.00	9,189	23,977
1,196.50	5,195	5,996	1,199.05	9,269	24,438
1,196.55	5,275	6,258	1,199.10	9,349	24,904
1,196.60	5,355	6,523	1,199.15	9,429	25,373
1,196.65	5,435	6,793	1,199.20	9,509	25,847
1,196.70	5,515	7,067	1,199.25	9,589	26,324
1,196.75	5,595	7,345	1,199.30	9,669	26,806
1,196.80	5,675	7,626	1,199.35	9,749	27,291
1,196.85	5,755	7,912	1,199.40	9,828	27,780
1,196.90	5,834	8,202	1,199.45	9,908	28,274
1,196.95	5,914	8,495	1,199.50	9,988	28,771
1,197.00	5,994	8,793	1,199.55	10,068	29,273
1,197.05	6,074	9,095	1,199.60	10,148	29,778
1,197.10	6,154	9,401	1,199.65	10,228	30,287
1,197.15	6,234	9,710	1,199.70	10,308	30,801
1,197.20	6,314	10,024	1,199.75	10,388	31,318
1,197.25	6,394	10,342	1,199.80	10,467	31,840
1,197.30	6,473	10,663	1,199.85	10,547	32,365
1,197.35	6,553	10,989	1,199.90	10,627	32,894
1,197.40	6,633	11,319	1,199.95	10,707	33,428
1,197.45	6,713	11,652	1,200.00	10,787	33,965
1,197.50	6,793	11,990			

Summary for Pond P3C: Pond 3C

Inflow Area = 2.490 ac, 22.89% Impervious, Inflow Depth = 0.90" for 2 YR event
 Inflow = 3.42 cfs @ 12.14 hrs, Volume= 0.186 af
 Outflow = 0.31 cfs @ 13.33 hrs, Volume= 0.186 af, Atten= 91%, Lag= 71.2 min
 Primary = 0.04 cfs @ 13.33 hrs, Volume= 0.006 af
 Routed to Link 4L : Post - North
 Secondary = 0.26 cfs @ 13.33 hrs, Volume= 0.180 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,179.39' @ 13.33 hrs Surf.Area= 3,157 sf Storage= 3,509 cf

Plug-Flow detention time= 133.0 min calculated for 0.186 af (100% of inflow)
 Center-of-Mass det. time= 133.0 min (978.5 - 845.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,178.00'	14,846 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,178.00	1,905	0	0
1,182.00	5,518	14,846	14,846

Device	Routing	Invert	Outlet Devices
#1	Primary	1,179.00'	12.0" Round Culvert L= 30.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,179.00' / 1,175.00' S= 0.1333 ' /' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,179.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,180.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,178.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,181.00'	20.0' long + 4.0 ' /' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.04 cfs @ 13.33 hrs HW=1,179.39' (Free Discharge)

↑ **1=Culvert** (Passes 0.04 cfs of 0.59 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 0.04 cfs @ 1.67 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.26 cfs @ 13.33 hrs HW=1,179.39' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.26 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,178.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)



- Inflow
- Outflow
- Primary
- Secondary
- Tertiary

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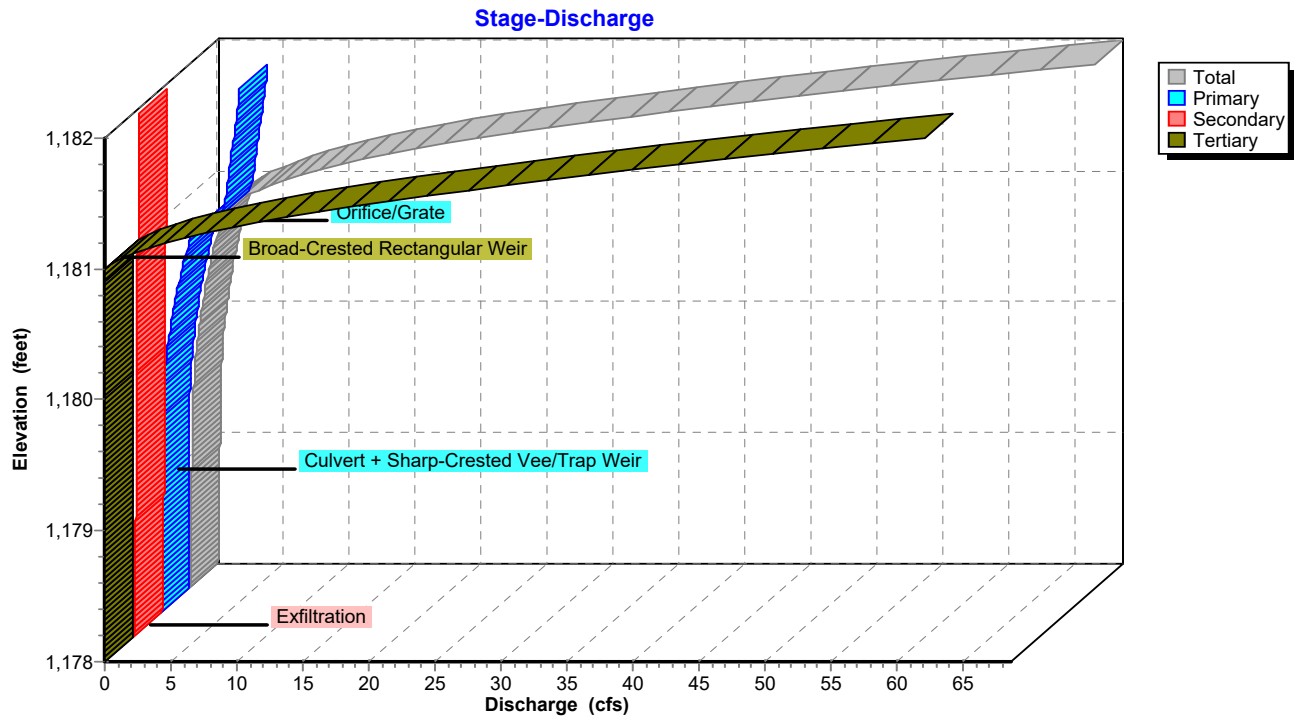
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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

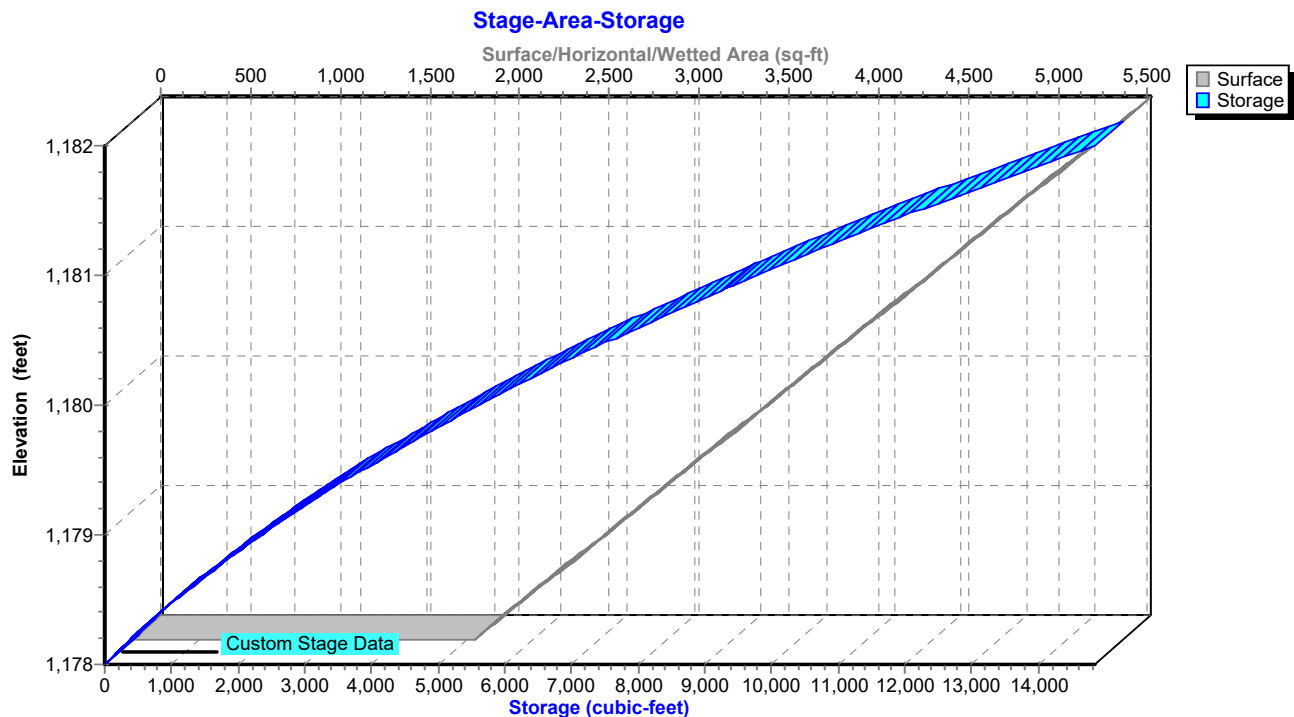
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Pond P3C: Pond 3C



Pond P3C: Pond 3C



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Pond P3C: Pond 3C

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
15.00	0.15	2,904	1,179.19	0.26	0.01	0.25	0.00
25.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
35.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00

Stage-Discharge for Pond P3C: Pond 3C

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,178.00	0.00	0.00	0.00	0.00
1,178.10	0.17	0.00	0.17	0.00
1,178.20	0.17	0.00	0.17	0.00
1,178.30	0.18	0.00	0.18	0.00
1,178.40	0.19	0.00	0.19	0.00
1,178.50	0.20	0.00	0.20	0.00
1,178.60	0.20	0.00	0.20	0.00
1,178.70	0.21	0.00	0.21	0.00
1,178.80	0.22	0.00	0.22	0.00
1,178.90	0.23	0.00	0.23	0.00
1,179.00	0.23	0.00	0.23	0.00
1,179.10	0.24	0.00	0.24	0.00
1,179.20	0.26	0.01	0.25	0.00
1,179.30	0.28	0.02	0.26	0.00
1,179.40	0.31	0.05	0.26	0.00
1,179.50	0.36	0.08	0.27	0.00
1,179.60	0.41	0.13	0.28	0.00
1,179.70	0.48	0.19	0.29	0.00
1,179.80	0.57	0.27	0.29	0.00
1,179.90	0.67	0.36	0.30	0.00
1,180.00	0.78	0.47	0.31	0.00
1,180.10	0.92	0.60	0.32	0.00
1,180.20	1.07	0.75	0.32	0.00
1,180.30	1.25	0.91	0.33	0.00
1,180.40	1.44	1.10	0.34	0.00
1,180.50	1.65	1.31	0.35	0.00
1,180.60	1.89	1.54	0.35	0.00
1,180.70	2.15	1.79	0.36	0.00
1,180.80	2.43	2.06	0.37	0.00
1,180.90	2.74	2.36	0.38	0.00
1,181.00	4.10	3.72	0.38	0.00
1,181.10	6.78	4.78	0.39	1.60
1,181.20	9.93	4.93	0.40	4.60
1,181.30	14.18	5.07	0.41	8.70
1,181.40	19.41	5.21	0.41	13.78
1,181.50	25.85	5.35	0.42	20.08
1,181.60	33.42	5.48	0.43	27.51
1,181.70	41.15	5.61	0.44	35.10
1,181.80	49.60	5.74	0.44	43.42
1,181.90	58.76	5.86	0.45	52.45
1,182.00	68.62	5.98	0.46	62.18

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Stage-Area-Storage for Pond P3C: Pond 3C

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,178.00	1,905	0	1,180.55	4,208	7,794
1,178.05	1,950	96	1,180.60	4,253	8,006
1,178.10	1,995	195	1,180.65	4,299	8,220
1,178.15	2,040	296	1,180.70	4,344	8,436
1,178.20	2,086	399	1,180.75	4,389	8,654
1,178.25	2,131	504	1,180.80	4,434	8,875
1,178.30	2,176	612	1,180.85	4,479	9,098
1,178.35	2,221	722	1,180.90	4,524	9,323
1,178.40	2,266	834	1,180.95	4,570	9,550
1,178.45	2,311	949	1,181.00	4,615	9,780
1,178.50	2,357	1,065	1,181.05	4,660	10,011
1,178.55	2,402	1,184	1,181.10	4,705	10,246
1,178.60	2,447	1,306	1,181.15	4,750	10,482
1,178.65	2,492	1,429	1,181.20	4,795	10,721
1,178.70	2,537	1,555	1,181.25	4,841	10,962
1,178.75	2,582	1,683	1,181.30	4,886	11,205
1,178.80	2,628	1,813	1,181.35	4,931	11,450
1,178.85	2,673	1,946	1,181.40	4,976	11,698
1,178.90	2,718	2,080	1,181.45	5,021	11,948
1,178.95	2,763	2,217	1,181.50	5,066	12,200
1,179.00	2,808	2,357	1,181.55	5,112	12,454
1,179.05	2,853	2,498	1,181.60	5,157	12,711
1,179.10	2,899	2,642	1,181.65	5,202	12,970
1,179.15	2,944	2,788	1,181.70	5,247	13,231
1,179.20	2,989	2,936	1,181.75	5,292	13,495
1,179.25	3,034	3,087	1,181.80	5,337	13,760
1,179.30	3,079	3,240	1,181.85	5,383	14,028
1,179.35	3,124	3,395	1,181.90	5,428	14,299
1,179.40	3,170	3,552	1,181.95	5,473	14,571
1,179.45	3,215	3,712	1,182.00	5,518	14,846
1,179.50	3,260	3,874			
1,179.55	3,305	4,038			
1,179.60	3,350	4,204			
1,179.65	3,395	4,373			
1,179.70	3,441	4,544			
1,179.75	3,486	4,717			
1,179.80	3,531	4,892			
1,179.85	3,576	5,070			
1,179.90	3,621	5,250			
1,179.95	3,666	5,432			
1,180.00	3,712	5,617			
1,180.05	3,757	5,803			
1,180.10	3,802	5,992			
1,180.15	3,847	6,183			
1,180.20	3,892	6,377			
1,180.25	3,937	6,573			
1,180.30	3,982	6,771			
1,180.35	4,028	6,971			
1,180.40	4,073	7,173			
1,180.45	4,118	7,378			
1,180.50	4,163	7,585			

Summary for Pond P3D: Pond 3D

Inflow Area = 2.380 ac, 23.95% Impervious, Inflow Depth = 0.95" for 2 YR event
 Inflow = 3.48 cfs @ 12.14 hrs, Volume= 0.188 af
 Outflow = 0.74 cfs @ 12.49 hrs, Volume= 0.188 af, Atten= 79%, Lag= 21.3 min
 Primary = 0.57 cfs @ 12.49 hrs, Volume= 0.066 af
 Routed to Link 4L : Post - North
 Secondary = 0.17 cfs @ 12.49 hrs, Volume= 0.122 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,189.08' @ 12.49 hrs Surf.Area= 2,057 sf Storage= 2,906 cf

Plug-Flow detention time= 107.7 min calculated for 0.188 af (100% of inflow)
 Center-of-Mass det. time= 107.7 min (950.3 - 842.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,187.00'	11,620 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,187.00	741	0	0
1,192.00	3,907	11,620	11,620

Device	Routing	Invert	Outlet Devices
#1	Primary	1,188.00'	12.0" Round Culvert L= 35.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,188.00' / 1,184.00' S= 0.1143 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,188.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,190.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600
#4	Secondary	1,187.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,191.00'	20.0' long + 4.0 ' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.57 cfs @ 12.49 hrs HW=1,189.08' (Free Discharge)

↑ **1=Culvert** (Passes 0.57 cfs of 2.87 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 0.57 cfs @ 2.79 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.17 cfs @ 12.49 hrs HW=1,189.08' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.17 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,187.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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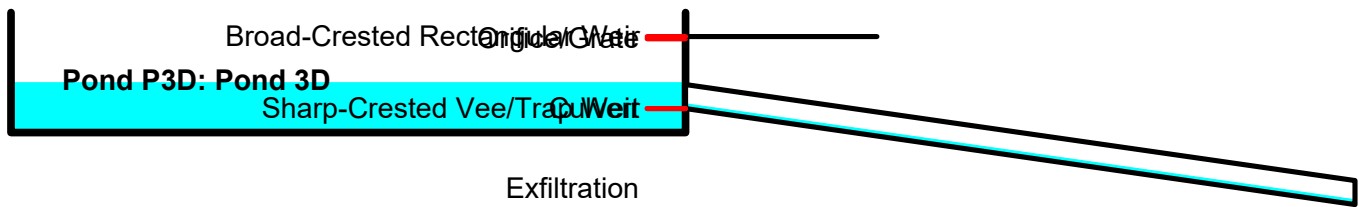
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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

Printed 2/23/2026

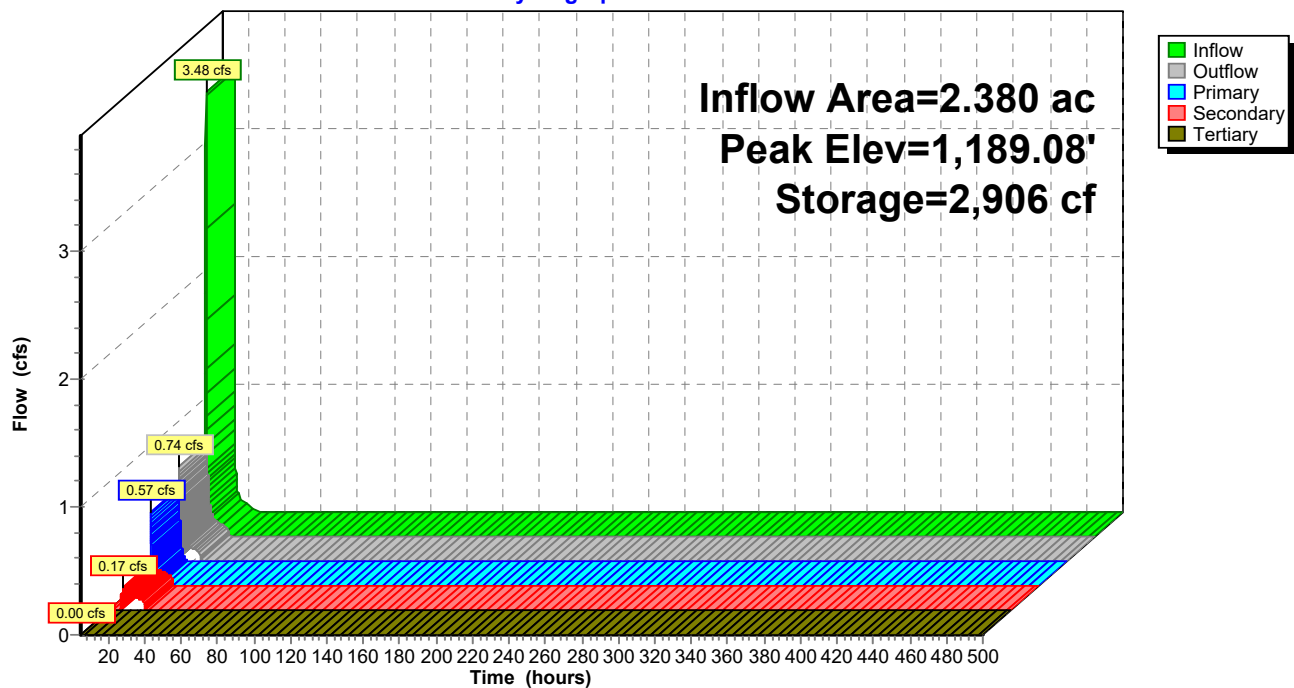
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Exfiltration

Pond P3D: Pond 3D

Hydrograph



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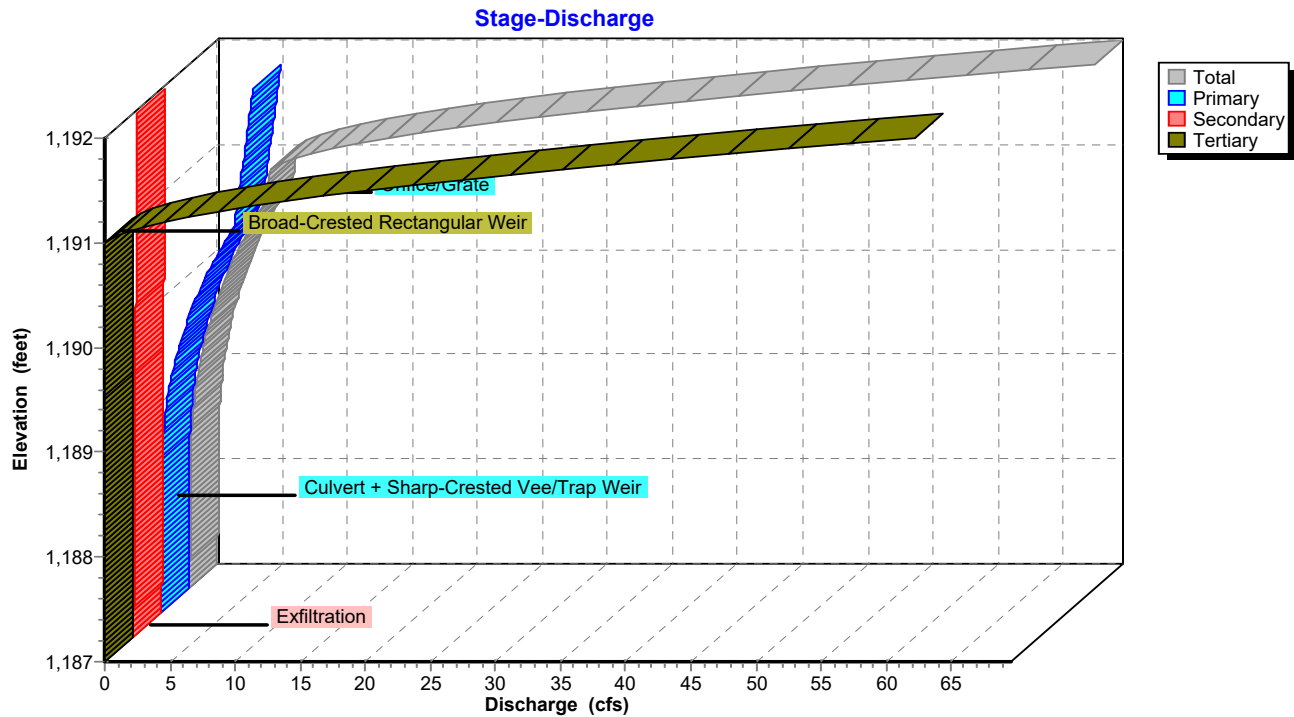
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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

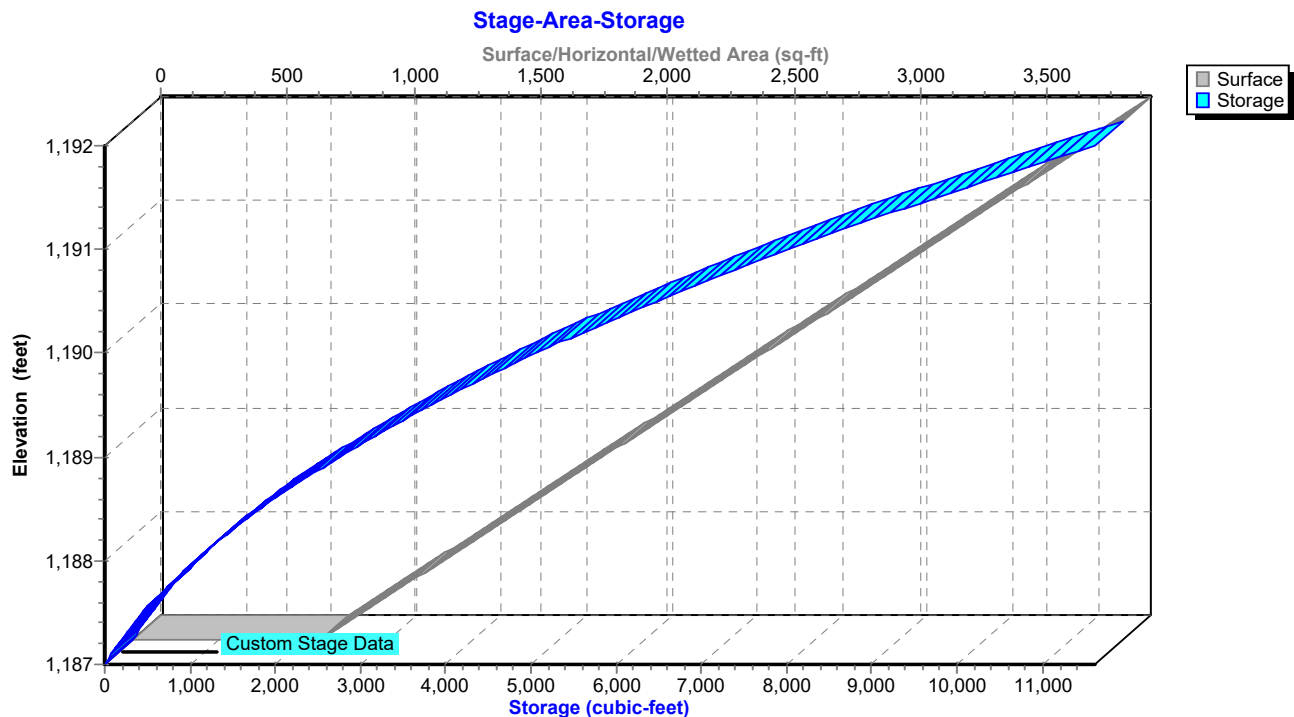
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Pond P3D: Pond 3D



Pond P3D: Pond 3D



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Pond P3D: Pond 3D

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
15.00	0.15	1,743	1,188.45	0.20	0.07	0.14	0.00
25.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
35.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Stage-Discharge for Pond P3D: Pond 3D

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,187.00	0.00	0.00	0.00	0.00
1,187.10	0.07	0.00	0.07	0.00
1,187.20	0.07	0.00	0.07	0.00
1,187.30	0.08	0.00	0.08	0.00
1,187.40	0.08	0.00	0.08	0.00
1,187.50	0.09	0.00	0.09	0.00
1,187.60	0.09	0.00	0.09	0.00
1,187.70	0.10	0.00	0.10	0.00
1,187.80	0.10	0.00	0.10	0.00
1,187.90	0.11	0.00	0.11	0.00
1,188.00	0.11	0.00	0.11	0.00
1,188.10	0.12	0.00	0.12	0.00
1,188.20	0.13	0.01	0.13	0.00
1,188.30	0.15	0.02	0.13	0.00
1,188.40	0.18	0.05	0.14	0.00
1,188.50	0.22	0.08	0.14	0.00
1,188.60	0.28	0.13	0.15	0.00
1,188.70	0.35	0.19	0.15	0.00
1,188.80	0.43	0.27	0.16	0.00
1,188.90	0.53	0.36	0.16	0.00
1,189.00	0.64	0.47	0.17	0.00
1,189.10	0.77	0.60	0.17	0.00
1,189.20	0.93	0.75	0.18	0.00
1,189.30	1.10	0.91	0.18	0.00
1,189.40	1.29	1.10	0.19	0.00
1,189.50	1.50	1.31	0.19	0.00
1,189.60	1.73	1.54	0.20	0.00
1,189.70	1.99	1.79	0.20	0.00
1,189.80	2.27	2.06	0.21	0.00
1,189.90	2.58	2.36	0.21	0.00
1,190.00	2.90	2.68	0.22	0.00
1,190.10	3.26	3.03	0.23	0.00
1,190.20	3.64	3.41	0.23	0.00
1,190.30	4.04	3.81	0.24	0.00
1,190.40	4.47	4.23	0.24	0.00
1,190.50	4.93	4.69	0.25	0.00
1,190.60	5.42	5.17	0.25	0.00
1,190.70	5.87	5.61	0.26	0.00
1,190.80	6.00	5.74	0.26	0.00
1,190.90	6.13	5.86	0.27	0.00
1,191.00	6.25	5.98	0.27	0.00
1,191.10	7.98	6.10	0.28	1.60
1,191.20	11.09	6.21	0.28	4.60
1,191.30	15.31	6.33	0.29	8.70
1,191.40	20.52	6.44	0.29	13.78
1,191.50	26.93	6.55	0.30	20.08
1,191.60	34.47	6.66	0.30	27.51
1,191.70	42.18	6.76	0.31	35.10
1,191.80	50.61	6.87	0.32	43.42
1,191.90	59.75	6.97	0.32	52.45
1,192.00	69.58	7.07	0.33	62.18

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Stage-Area-Storage for Pond P3D: Pond 3D

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,187.00	741	0	1,189.55	2,356	3,948
1,187.05	773	38	1,189.60	2,387	4,067
1,187.10	804	77	1,189.65	2,419	4,187
1,187.15	836	118	1,189.70	2,451	4,309
1,187.20	868	161	1,189.75	2,482	4,432
1,187.25	899	205	1,189.80	2,514	4,557
1,187.30	931	251	1,189.85	2,546	4,683
1,187.35	963	298	1,189.90	2,577	4,812
1,187.40	994	347	1,189.95	2,609	4,941
1,187.45	1,026	398	1,190.00	2,641	5,072
1,187.50	1,058	450	1,190.05	2,672	5,205
1,187.55	1,089	503	1,190.10	2,704	5,340
1,187.60	1,121	559	1,190.15	2,736	5,476
1,187.65	1,153	615	1,190.20	2,767	5,613
1,187.70	1,184	674	1,190.25	2,799	5,752
1,187.75	1,216	734	1,190.30	2,831	5,893
1,187.80	1,248	795	1,190.35	2,862	6,035
1,187.85	1,279	859	1,190.40	2,894	6,179
1,187.90	1,311	923	1,190.45	2,926	6,325
1,187.95	1,343	990	1,190.50	2,957	6,472
1,188.00	1,374	1,058	1,190.55	2,989	6,621
1,188.05	1,406	1,127	1,190.60	3,021	6,771
1,188.10	1,438	1,198	1,190.65	3,052	6,923
1,188.15	1,469	1,271	1,190.70	3,084	7,076
1,188.20	1,501	1,345	1,190.75	3,116	7,231
1,188.25	1,533	1,421	1,190.80	3,147	7,388
1,188.30	1,564	1,498	1,190.85	3,179	7,546
1,188.35	1,596	1,577	1,190.90	3,210	7,705
1,188.40	1,627	1,658	1,190.95	3,242	7,867
1,188.45	1,659	1,740	1,191.00	3,274	8,030
1,188.50	1,691	1,824	1,191.05	3,305	8,194
1,188.55	1,722	1,909	1,191.10	3,337	8,360
1,188.60	1,754	1,996	1,191.15	3,369	8,528
1,188.65	1,786	2,085	1,191.20	3,400	8,697
1,188.70	1,817	2,175	1,191.25	3,432	8,868
1,188.75	1,849	2,266	1,191.30	3,464	9,040
1,188.80	1,881	2,360	1,191.35	3,495	9,214
1,188.85	1,912	2,454	1,191.40	3,527	9,390
1,188.90	1,944	2,551	1,191.45	3,559	9,567
1,188.95	1,976	2,649	1,191.50	3,590	9,746
1,189.00	2,007	2,748	1,191.55	3,622	9,926
1,189.05	2,039	2,850	1,191.60	3,654	10,108
1,189.10	2,071	2,952	1,191.65	3,685	10,291
1,189.15	2,102	3,057	1,191.70	3,717	10,476
1,189.20	2,134	3,163	1,191.75	3,749	10,663
1,189.25	2,166	3,270	1,191.80	3,780	10,851
1,189.30	2,197	3,379	1,191.85	3,812	11,041
1,189.35	2,229	3,490	1,191.90	3,844	11,232
1,189.40	2,261	3,602	1,191.95	3,875	11,425
1,189.45	2,292	3,716	1,192.00	3,907	11,620
1,189.50	2,324	3,831			

Summary for Pond P3E: Pond 3E

Inflow Area = 2.780 ac, 19.06% Impervious, Inflow Depth = 0.85" for 2 YR event
 Inflow = 3.57 cfs @ 12.14 hrs, Volume= 0.196 af
 Outflow = 0.30 cfs @ 13.44 hrs, Volume= 0.196 af, Atten= 92%, Lag= 78.0 min
 Primary = 0.02 cfs @ 13.44 hrs, Volume= 0.002 af
 Routed to Link 4L : Post - North
 Secondary = 0.28 cfs @ 13.44 hrs, Volume= 0.194 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,217.25' @ 13.44 hrs Surf.Area= 3,379 sf Storage= 3,688 cf

Plug-Flow detention time= 129.4 min calculated for 0.196 af (100% of inflow)
 Center-of-Mass det. time= 129.4 min (978.0 - 848.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,216.00'	15,578 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,216.00	2,517	0	0
1,220.00	5,272	15,578	15,578

Device	Routing	Invert	Outlet Devices
#1	Primary	1,217.00'	12.0" Round Culvert L= 32.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,217.00' / 1,213.00' S= 0.1250 ' / Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,217.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,218.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600
#4	Secondary	1,216.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,219.00'	20.0' long + 4.0 ' / SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.01 cfs @ 13.44 hrs HW=1,217.25' (Free Discharge)

↑ **1=Culvert** (Passes 0.01 cfs of 0.26 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 0.01 cfs @ 1.35 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.28 cfs @ 13.44 hrs HW=1,217.25' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.28 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,216.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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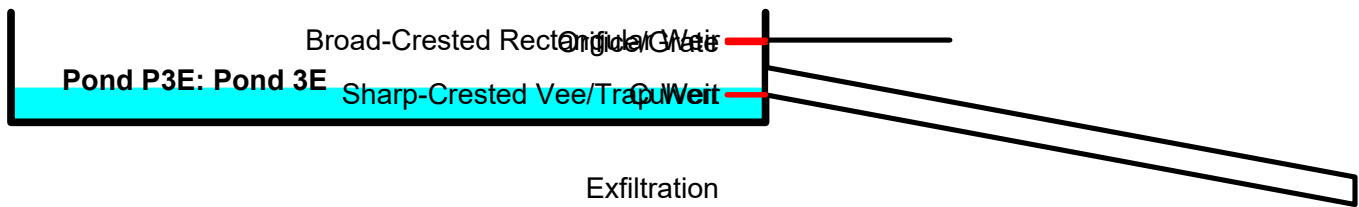
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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

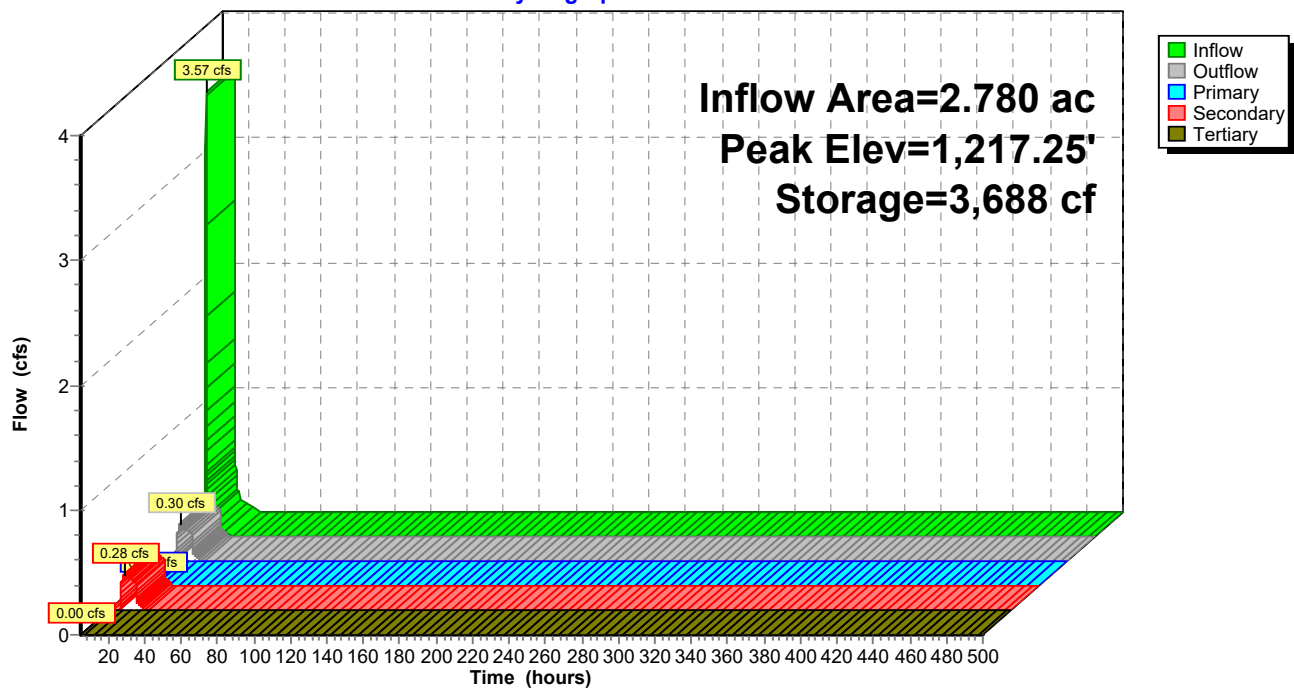
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Pond P3E: Pond 3E

Hydrograph



250128900_swm

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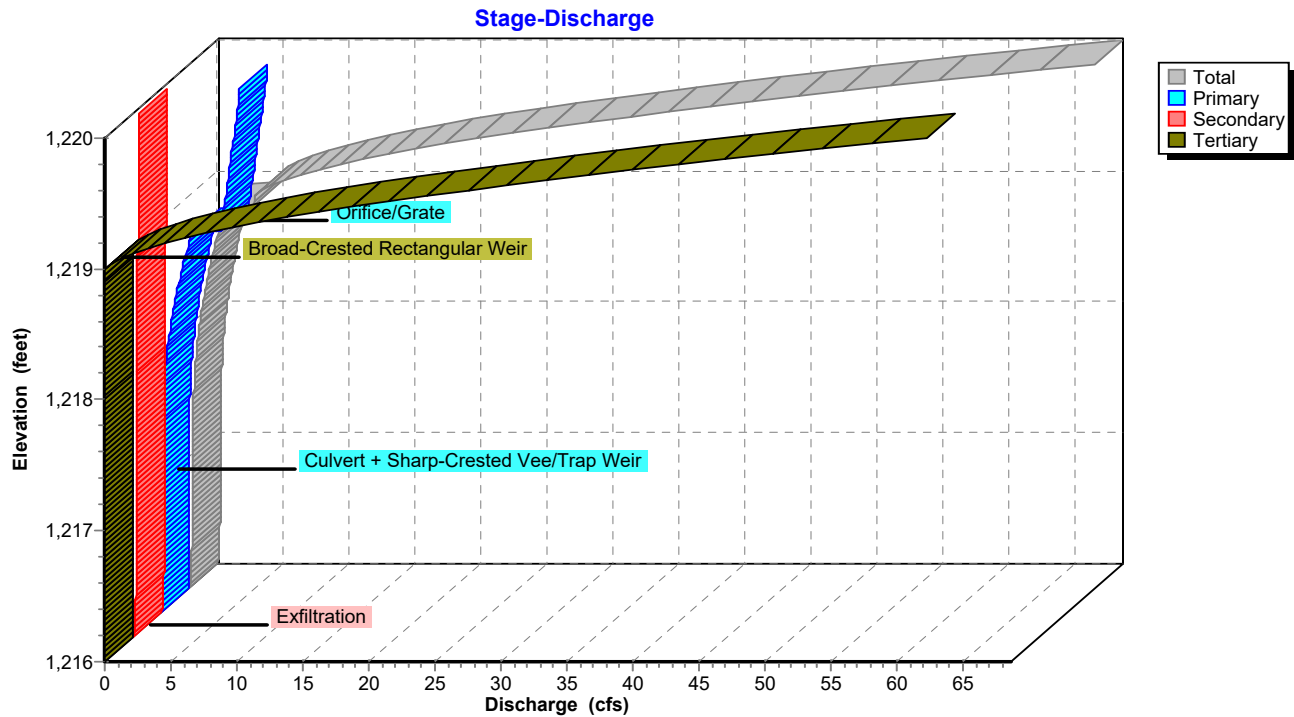
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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

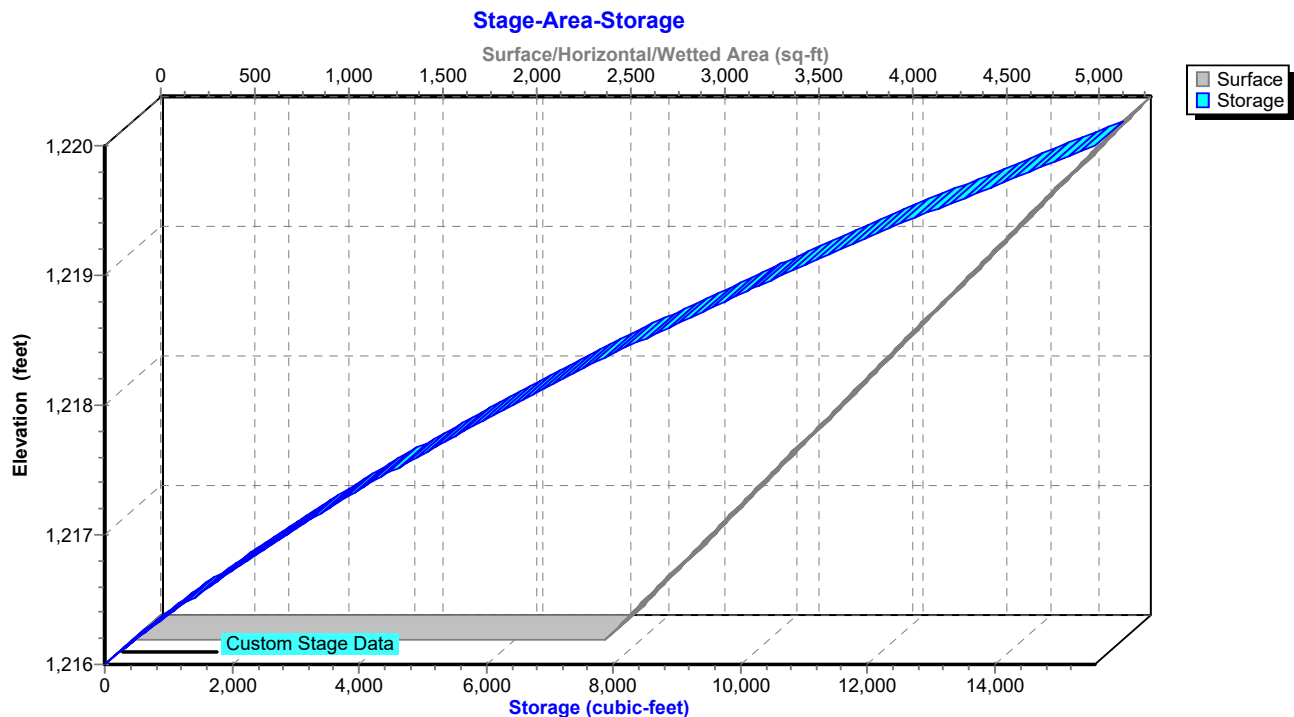
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Pond P3E: Pond 3E



Pond P3E: Pond 3E



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Pond P3E: Pond 3E

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
15.00	0.16	3,132	1,217.08	0.27	0.00	0.27	0.00
25.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
35.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00

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Prepared by Excel Engineering

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Stage-Discharge for Pond P3E: Pond 3E

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,216.00	0.00	0.00	0.00	0.00
1,216.10	0.22	0.00	0.22	0.00
1,216.20	0.22	0.00	0.22	0.00
1,216.30	0.23	0.00	0.23	0.00
1,216.40	0.23	0.00	0.23	0.00
1,216.50	0.24	0.00	0.24	0.00
1,216.60	0.24	0.00	0.24	0.00
1,216.70	0.25	0.00	0.25	0.00
1,216.80	0.26	0.00	0.26	0.00
1,216.90	0.26	0.00	0.26	0.00
1,217.00	0.27	0.00	0.27	0.00
1,217.10	0.27	0.00	0.27	0.00
1,217.20	0.29	0.01	0.28	0.00
1,217.30	0.31	0.02	0.28	0.00
1,217.40	0.34	0.05	0.29	0.00
1,217.50	0.38	0.08	0.30	0.00
1,217.60	0.43	0.13	0.30	0.00
1,217.70	0.50	0.19	0.31	0.00
1,217.80	0.58	0.27	0.31	0.00
1,217.90	0.68	0.36	0.32	0.00
1,218.00	0.80	0.47	0.32	0.00
1,218.10	0.93	0.60	0.33	0.00
1,218.20	1.08	0.75	0.34	0.00
1,218.30	1.26	0.91	0.34	0.00
1,218.40	1.45	1.10	0.35	0.00
1,218.50	1.66	1.31	0.35	0.00
1,218.60	1.89	1.54	0.36	0.00
1,218.70	2.15	1.79	0.36	0.00
1,218.80	2.43	2.06	0.37	0.00
1,218.90	2.74	2.36	0.38	0.00
1,219.00	5.01	4.63	0.38	0.00
1,219.10	6.77	4.78	0.39	1.60
1,219.20	9.92	4.93	0.39	4.60
1,219.30	14.17	5.07	0.40	8.70
1,219.40	19.40	5.21	0.40	13.78
1,219.50	25.84	5.35	0.41	20.08
1,219.60	33.40	5.48	0.42	27.51
1,219.70	41.13	5.61	0.42	35.10
1,219.80	49.59	5.74	0.43	43.42
1,219.90	58.74	5.86	0.43	52.45
1,220.00	68.59	5.98	0.44	62.18

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Stage-Area-Storage for Pond P3E: Pond 3E

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,216.00	2,517	0	1,218.55	4,273	8,658
1,216.05	2,551	127	1,218.60	4,308	8,872
1,216.10	2,586	255	1,218.65	4,342	9,088
1,216.15	2,620	385	1,218.70	4,377	9,306
1,216.20	2,655	517	1,218.75	4,411	9,526
1,216.25	2,689	651	1,218.80	4,445	9,747
1,216.30	2,724	786	1,218.85	4,480	9,971
1,216.35	2,758	923	1,218.90	4,514	10,195
1,216.40	2,793	1,062	1,218.95	4,549	10,422
1,216.45	2,827	1,202	1,219.00	4,583	10,650
1,216.50	2,861	1,345	1,219.05	4,618	10,880
1,216.55	2,896	1,489	1,219.10	4,652	11,112
1,216.60	2,930	1,634	1,219.15	4,687	11,346
1,216.65	2,965	1,782	1,219.20	4,721	11,581
1,216.70	2,999	1,931	1,219.25	4,755	11,818
1,216.75	3,034	2,081	1,219.30	4,790	12,056
1,216.80	3,068	2,234	1,219.35	4,824	12,297
1,216.85	3,102	2,388	1,219.40	4,859	12,539
1,216.90	3,137	2,544	1,219.45	4,893	12,783
1,216.95	3,171	2,702	1,219.50	4,928	13,028
1,217.00	3,206	2,861	1,219.55	4,962	13,275
1,217.05	3,240	3,023	1,219.60	4,996	13,524
1,217.10	3,275	3,185	1,219.65	5,031	13,775
1,217.15	3,309	3,350	1,219.70	5,065	14,027
1,217.20	3,344	3,516	1,219.75	5,100	14,282
1,217.25	3,378	3,684	1,219.80	5,134	14,537
1,217.30	3,412	3,854	1,219.85	5,169	14,795
1,217.35	3,447	4,026	1,219.90	5,203	15,054
1,217.40	3,481	4,199	1,219.95	5,238	15,315
1,217.45	3,516	4,374	1,220.00	5,272	15,578
1,217.50	3,550	4,550			
1,217.55	3,585	4,729			
1,217.60	3,619	4,909			
1,217.65	3,653	5,091			
1,217.70	3,688	5,274			
1,217.75	3,722	5,459			
1,217.80	3,757	5,646			
1,217.85	3,791	5,835			
1,217.90	3,826	6,025			
1,217.95	3,860	6,218			
1,218.00	3,895	6,412			
1,218.05	3,929	6,607			
1,218.10	3,963	6,804			
1,218.15	3,998	7,003			
1,218.20	4,032	7,204			
1,218.25	4,067	7,407			
1,218.30	4,101	7,611			
1,218.35	4,136	7,817			
1,218.40	4,170	8,024			
1,218.45	4,204	8,234			
1,218.50	4,239	8,445			

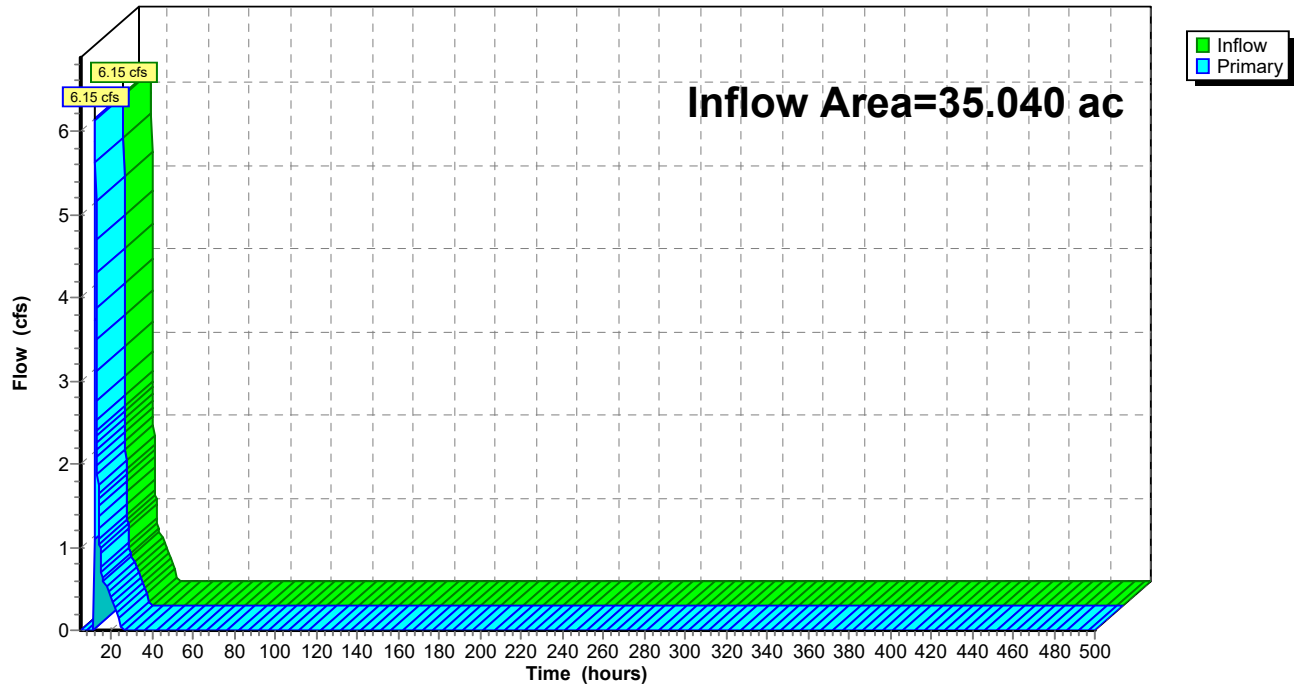
Summary for Link 1L: Total Pre - Development

Inflow Area = 35.040 ac, 0.00% Impervious, Inflow Depth = 0.27" for 2 YR event
Inflow = 6.15 cfs @ 12.24 hrs, Volume= 0.790 af
Primary = 6.15 cfs @ 12.24 hrs, Volume= 0.790 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 1L: Total Pre - Development

Hydrograph



250128900_swm

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Link 1L: Total Pre - Development

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	265.00	0.00	0.00	0.00
15.00	0.96	0.00	0.96	270.00	0.00	0.00	0.00
20.00	0.40	0.00	0.40	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

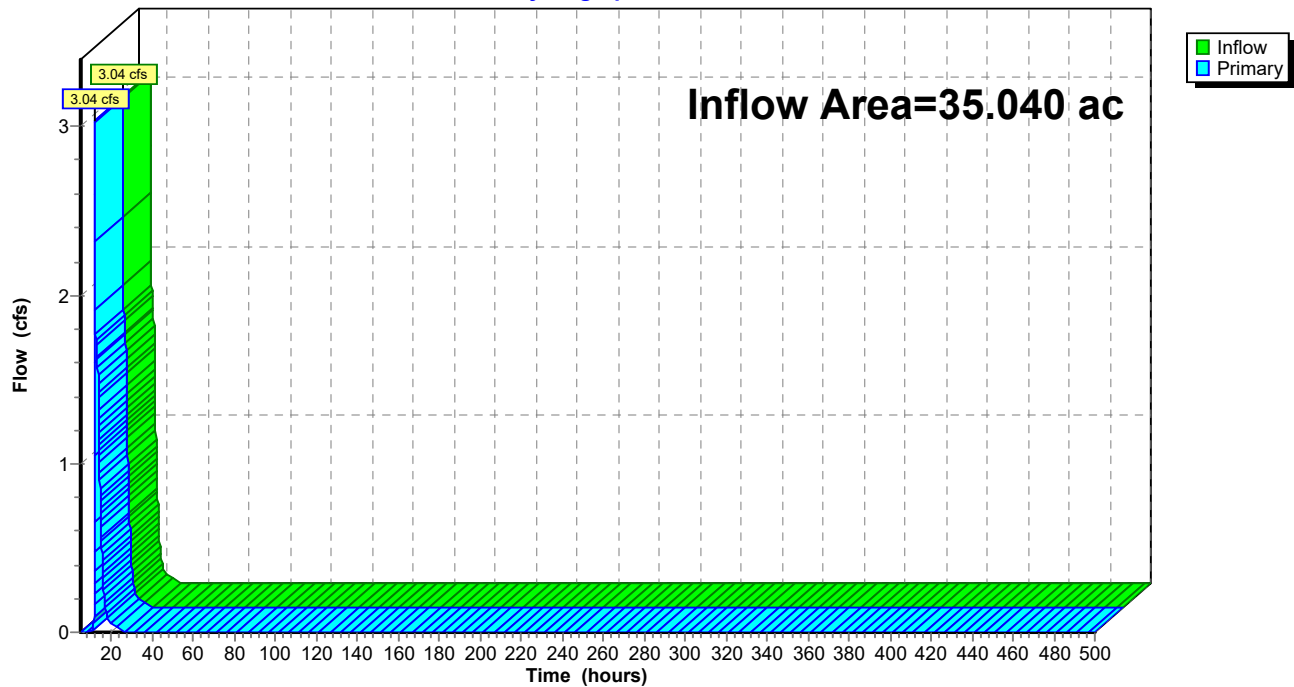
Summary for Link 2L: Total Post - Development

Inflow Area = 35.040 ac, 19.66% Impervious, Inflow Depth = 0.15" for 2 YR event
Inflow = 3.04 cfs @ 12.14 hrs, Volume= 0.429 af
Primary = 3.04 cfs @ 12.14 hrs, Volume= 0.429 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 2L: Total Post - Development

Hydrograph



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Link 2L: Total Post - Development

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	265.00	0.00	0.00	0.00
15.00	0.63	0.00	0.63	270.00	0.00	0.00	0.00
20.00	0.05	0.00	0.05	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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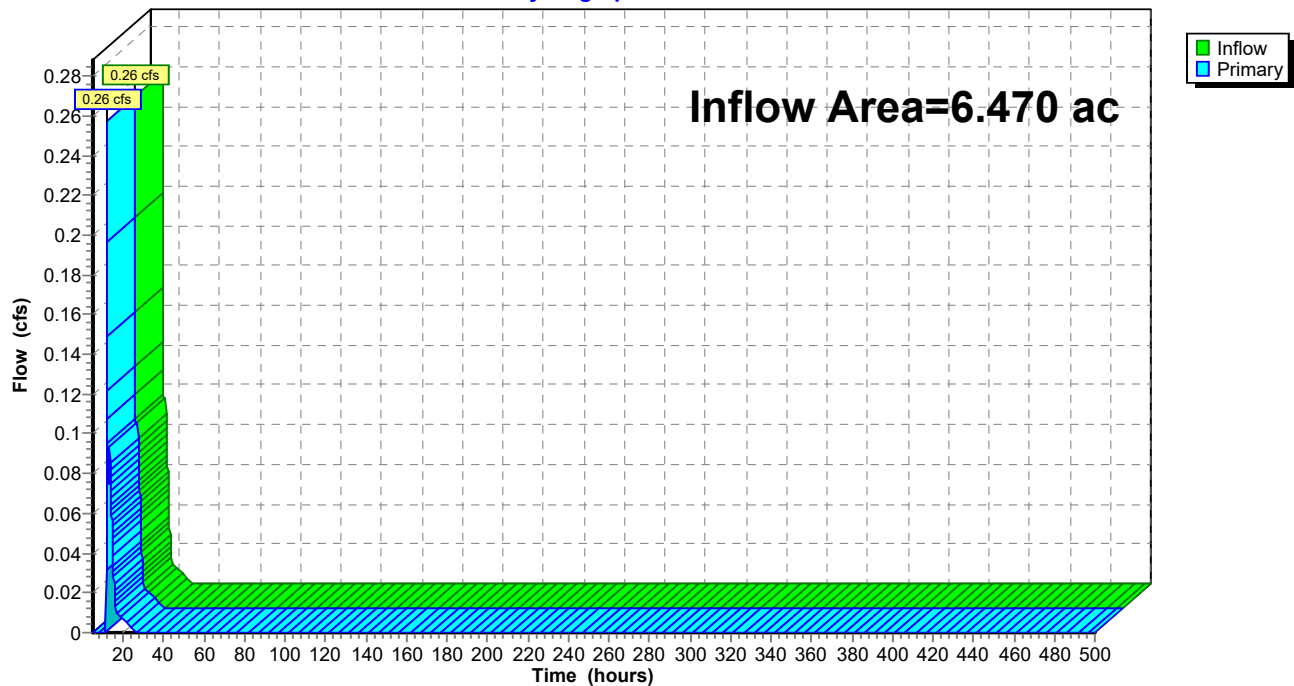
Summary for Link 3L: Post - South

Inflow Area = 6.470 ac, 18.70% Impervious, Inflow Depth = 0.05" for 2 YR event
Inflow = 0.26 cfs @ 12.15 hrs, Volume= 0.027 af
Primary = 0.26 cfs @ 12.15 hrs, Volume= 0.027 af, Atten= 0%, Lag= 0.0 min
Routed to Link 2L : Total Post - Development

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 3L: Post - South

Hydrograph



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Link 3L: Post - South

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	265.00	0.00	0.00	0.00
15.00	0.04	0.00	0.04	270.00	0.00	0.00	0.00
20.00	0.01	0.00	0.01	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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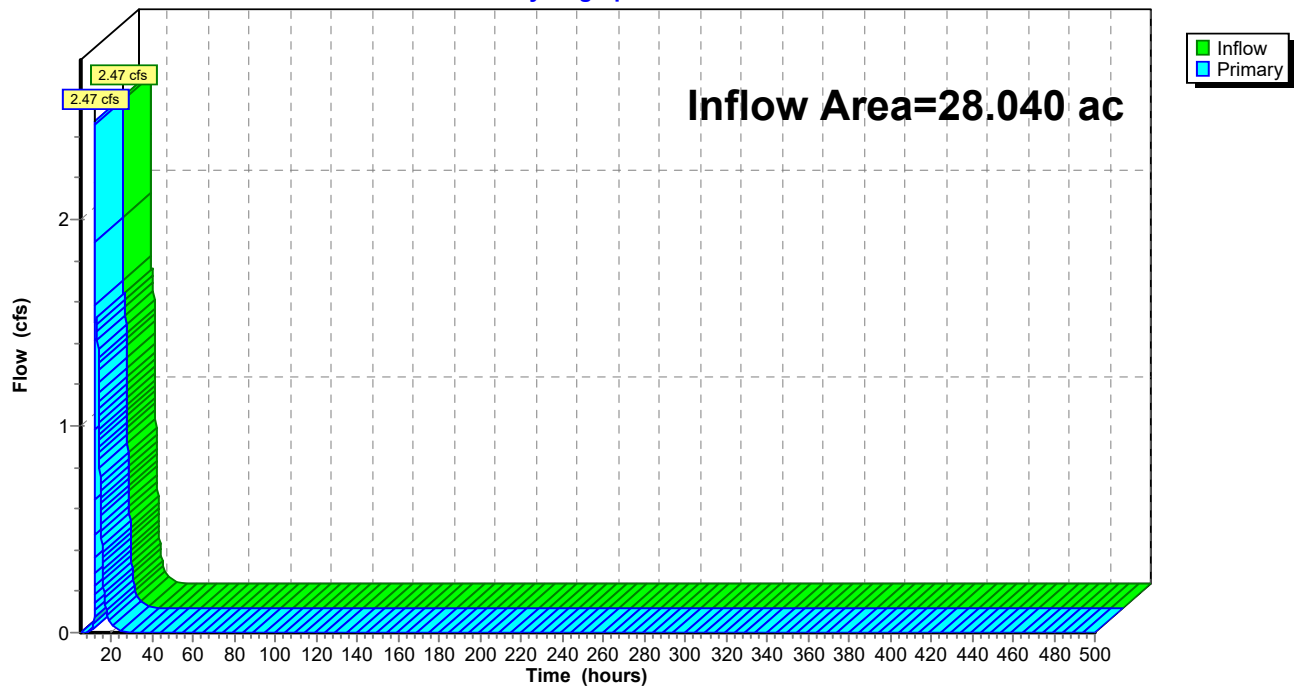
Summary for Link 4L: Post - North

Inflow Area = 28.040 ac, 20.04% Impervious, Inflow Depth = 0.16" for 2 YR event
Inflow = 2.47 cfs @ 12.14 hrs, Volume= 0.382 af
Primary = 2.47 cfs @ 12.14 hrs, Volume= 0.382 af, Atten= 0%, Lag= 0.0 min
Routed to Link 2L : Total Post - Development

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 4L: Post - North

Hydrograph



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Featherstone Rise
MSE 24-hr 4 2 YR Rainfall=2.90"

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Hydrograph for Link 4L: Post - North

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	265.00	0.00	0.00	0.00
15.00	0.56	0.00	0.56	270.00	0.00	0.00	0.00
20.00	0.04	0.00	0.04	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Time span=5.00-500.00 hrs, dt=0.05 hrs, 9901 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1: Pre - South	Runoff Area=4.910 ac 0.00% Impervious Runoff Depth=0.42" Tc=10.0 min CN=55 Runoff=1.62 cfs 0.170 af
Subcatchment1A: Post 1A	Runoff Area=6.030 ac 19.24% Impervious Runoff Depth=1.02" Tc=6.0 min CN=68 Runoff=9.27 cfs 0.512 af
Subcatchment1B: Post 1B - Offsite	Runoff Area=0.440 ac 11.36% Impervious Runoff Depth=0.86" Tc=6.0 min CN=65 Runoff=0.55 cfs 0.032 af
Subcatchment2: Pre - West	Runoff Area=2.540 ac 0.00% Impervious Runoff Depth=0.42" Tc=6.0 min CN=55 Runoff=1.04 cfs 0.088 af
Subcatchment2A: Post 2A - Offsite	Runoff Area=0.530 ac 11.32% Impervious Runoff Depth=0.86" Tc=6.0 min CN=65 Runoff=0.66 cfs 0.038 af
Subcatchment3: Pre - North	Runoff Area=27.590 ac 0.00% Impervious Runoff Depth=0.62" Tc=10.0 min CN=60 Runoff=18.17 cfs 1.426 af
Subcatchment3A: Post 3A	Runoff Area=10.600 ac 18.58% Impervious Runoff Depth=1.13" Tc=6.0 min CN=70 Runoff=18.39 cfs 1.001 af
Subcatchment3B: Post 3B	Runoff Area=8.450 ac 19.88% Impervious Runoff Depth=1.19" Tc=6.0 min CN=71 Runoff=15.52 cfs 0.840 af
Subcatchment3C: Post 3C	Runoff Area=2.490 ac 22.89% Impervious Runoff Depth=1.45" Tc=6.0 min CN=75 Runoff=5.62 cfs 0.300 af
Subcatchment3D: Post 3D	Runoff Area=2.380 ac 23.95% Impervious Runoff Depth=1.51" Tc=6.0 min CN=76 Runoff=5.64 cfs 0.300 af
Subcatchment3E: Post 3E	Runoff Area=2.780 ac 19.06% Impervious Runoff Depth=1.38" Tc=6.0 min CN=74 Runoff=5.98 cfs 0.320 af
Subcatchment3Y: Post 3Y - Offsite	Runoff Area=0.820 ac 36.59% Impervious Runoff Depth=2.03" Tc=6.0 min CN=83 Runoff=2.59 cfs 0.139 af
Subcatchment3Z: Post 3Z - Offsite	Runoff Area=0.520 ac 0.00% Impervious Runoff Depth=1.38" Tc=6.0 min CN=74 Runoff=1.12 cfs 0.060 af
Subcatchment5S: Culvert 1	Runoff Area=4,797 sf 48.61% Impervious Runoff Depth=1.72" Tc=6.0 min CN=79 Runoff=0.30 cfs 0.016 af
Subcatchment6S: Culvert 2	Runoff Area=24,708 sf 36.87% Impervious Runoff Depth=1.45" Tc=6.0 min CN=75 Runoff=1.28 cfs 0.068 af
Subcatchment7S: Culvert 3	Runoff Area=41,517 sf 32.00% Impervious Runoff Depth=1.32" Tc=6.0 min CN=73 Runoff=1.95 cfs 0.105 af

Subcatchment8S: Culvert 4Runoff Area=209,603 sf 25.18% Impervious Runoff Depth=1.13"
Tc=6.0 min CN=70 Runoff=8.35 cfs 0.455 af**Subcatchment9S: Culvert 5**Runoff Area=188,836 sf 19.96% Impervious Runoff Depth=1.02"
Tc=6.0 min CN=68 Runoff=6.66 cfs 0.368 af**Pond P1A: Pond 1A**Peak Elev=1,241.17' Storage=8,802 cf Inflow=9.27 cfs 0.512 af
Primary=0.70 cfs 0.135 af Secondary=0.47 cfs 0.377 af Tertiary=0.00 cfs 0.000 af Outflow=1.17 cfs 0.512 af**Pond P3A: Pond 3A**Peak Elev=1,194.76' Storage=17,153 cf Inflow=18.39 cfs 1.001 af
Primary=1.94 cfs 0.381 af Secondary=0.69 cfs 0.621 af Tertiary=0.00 cfs 0.000 af Outflow=2.63 cfs 1.001 af**Pond P3B: Pond 3B**Peak Elev=1,197.78' Storage=13,957 cf Inflow=15.52 cfs 0.840 af
Primary=2.01 cfs 0.345 af Secondary=0.60 cfs 0.495 af Tertiary=0.00 cfs 0.000 af Outflow=2.61 cfs 0.840 af**Pond P3C: Pond 3C**Peak Elev=1,179.96' Storage=5,454 cf Inflow=5.62 cfs 0.300 af
Primary=0.42 cfs 0.067 af Secondary=0.31 cfs 0.233 af Tertiary=0.00 cfs 0.000 af Outflow=0.73 cfs 0.300 af**Pond P3D: Pond 3D**Peak Elev=1,189.67' Storage=4,243 cf Inflow=5.64 cfs 0.300 af
Primary=1.72 cfs 0.153 af Secondary=0.20 cfs 0.147 af Tertiary=0.00 cfs 0.000 af Outflow=1.92 cfs 0.300 af**Pond P3E: Pond 3E**Peak Elev=1,217.88' Storage=5,965 cf Inflow=5.98 cfs 0.320 af
Primary=0.35 cfs 0.060 af Secondary=0.32 cfs 0.260 af Tertiary=0.00 cfs 0.000 af Outflow=0.67 cfs 0.320 af**Link 1L: Total Pre - Development**Inflow=20.61 cfs 1.684 af
Primary=20.61 cfs 1.684 af**Link 2L: Total Post - Development**Inflow=7.52 cfs 1.408 af
Primary=7.52 cfs 1.408 af**Link 3L: Post - South**Inflow=0.77 cfs 0.167 af
Primary=0.77 cfs 0.167 af**Link 4L: Post - North**Inflow=6.64 cfs 1.203 af
Primary=6.64 cfs 1.203 af**Total Runoff Area = 80.857 ac Runoff Volume = 6.236 af Average Runoff Depth = 0.93"**
88.21% Pervious = 71.323 ac 11.79% Impervious = 9.534 ac

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Summary for Subcatchment 1: Pre - South

Runoff = 1.62 cfs @ 12.22 hrs, Volume= 0.170 af, Depth= 0.42"
Routed to Link 1L : Total Pre - Development

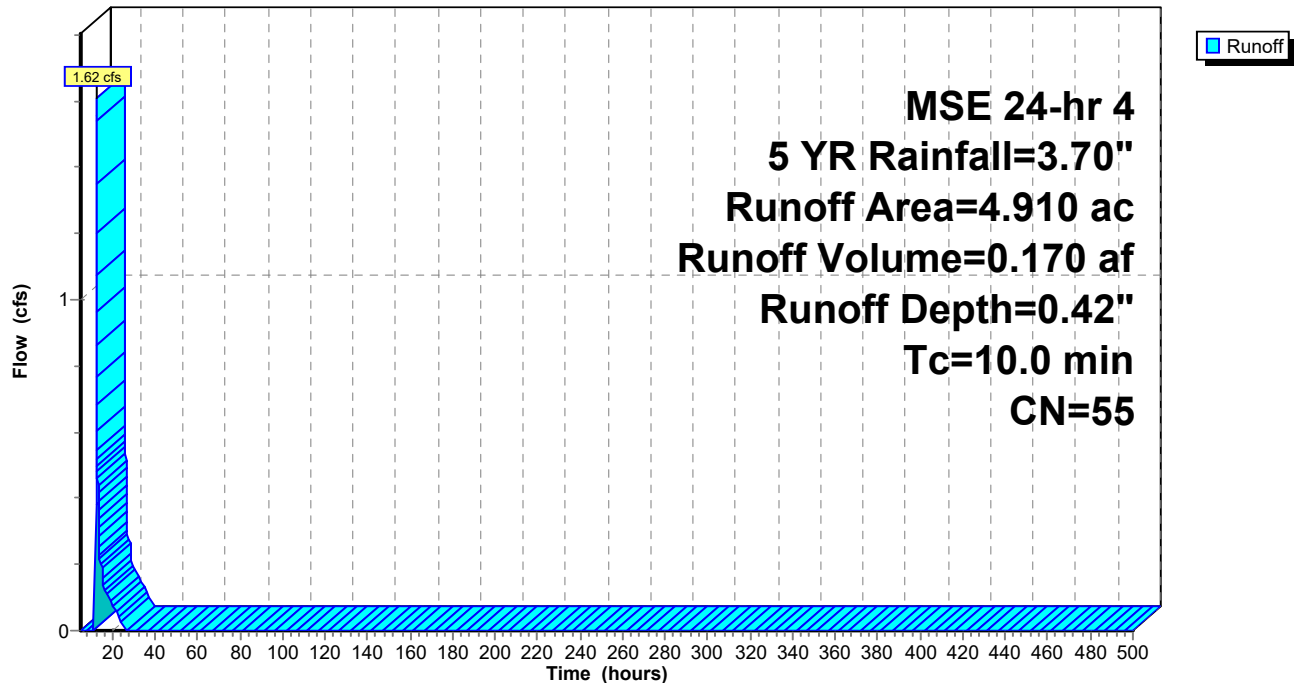
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 5 YR Rainfall=3.70"

Area (ac)	CN	Description
* 4.910	55	Pre Dev - B Soils
4.910		100.00% Pervious Area

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

Subcatchment 1: Pre - South

Hydrograph



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Subcatchment 1: Pre - South

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.17	0.00	0.00	260.00	3.70	0.42	0.00
10.00	0.59	0.00	0.00	265.00	3.70	0.42	0.00
15.00	3.25	0.27	0.20	270.00	3.70	0.42	0.00
20.00	3.58	0.37	0.08	275.00	3.70	0.42	0.00
25.00	3.70	0.42	0.00	280.00	3.70	0.42	0.00
30.00	3.70	0.42	0.00	285.00	3.70	0.42	0.00
35.00	3.70	0.42	0.00	290.00	3.70	0.42	0.00
40.00	3.70	0.42	0.00	295.00	3.70	0.42	0.00
45.00	3.70	0.42	0.00	300.00	3.70	0.42	0.00
50.00	3.70	0.42	0.00	305.00	3.70	0.42	0.00
55.00	3.70	0.42	0.00	310.00	3.70	0.42	0.00
60.00	3.70	0.42	0.00	315.00	3.70	0.42	0.00
65.00	3.70	0.42	0.00	320.00	3.70	0.42	0.00
70.00	3.70	0.42	0.00	325.00	3.70	0.42	0.00
75.00	3.70	0.42	0.00	330.00	3.70	0.42	0.00
80.00	3.70	0.42	0.00	335.00	3.70	0.42	0.00
85.00	3.70	0.42	0.00	340.00	3.70	0.42	0.00
90.00	3.70	0.42	0.00	345.00	3.70	0.42	0.00
95.00	3.70	0.42	0.00	350.00	3.70	0.42	0.00
100.00	3.70	0.42	0.00	355.00	3.70	0.42	0.00
105.00	3.70	0.42	0.00	360.00	3.70	0.42	0.00
110.00	3.70	0.42	0.00	365.00	3.70	0.42	0.00
115.00	3.70	0.42	0.00	370.00	3.70	0.42	0.00
120.00	3.70	0.42	0.00	375.00	3.70	0.42	0.00
125.00	3.70	0.42	0.00	380.00	3.70	0.42	0.00
130.00	3.70	0.42	0.00	385.00	3.70	0.42	0.00
135.00	3.70	0.42	0.00	390.00	3.70	0.42	0.00
140.00	3.70	0.42	0.00	395.00	3.70	0.42	0.00
145.00	3.70	0.42	0.00	400.00	3.70	0.42	0.00
150.00	3.70	0.42	0.00	405.00	3.70	0.42	0.00
155.00	3.70	0.42	0.00	410.00	3.70	0.42	0.00
160.00	3.70	0.42	0.00	415.00	3.70	0.42	0.00
165.00	3.70	0.42	0.00	420.00	3.70	0.42	0.00
170.00	3.70	0.42	0.00	425.00	3.70	0.42	0.00
175.00	3.70	0.42	0.00	430.00	3.70	0.42	0.00
180.00	3.70	0.42	0.00	435.00	3.70	0.42	0.00
185.00	3.70	0.42	0.00	440.00	3.70	0.42	0.00
190.00	3.70	0.42	0.00	445.00	3.70	0.42	0.00
195.00	3.70	0.42	0.00	450.00	3.70	0.42	0.00
200.00	3.70	0.42	0.00	455.00	3.70	0.42	0.00
205.00	3.70	0.42	0.00	460.00	3.70	0.42	0.00
210.00	3.70	0.42	0.00	465.00	3.70	0.42	0.00
215.00	3.70	0.42	0.00	470.00	3.70	0.42	0.00
220.00	3.70	0.42	0.00	475.00	3.70	0.42	0.00
225.00	3.70	0.42	0.00	480.00	3.70	0.42	0.00
230.00	3.70	0.42	0.00	485.00	3.70	0.42	0.00
235.00	3.70	0.42	0.00	490.00	3.70	0.42	0.00
240.00	3.70	0.42	0.00	495.00	3.70	0.42	0.00
245.00	3.70	0.42	0.00	500.00	3.70	0.42	0.00
250.00	3.70	0.42	0.00				
255.00	3.70	0.42	0.00				

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Summary for Subcatchment 1A: Post 1A

Runoff = 9.27 cfs @ 12.14 hrs, Volume= 0.512 af, Depth= 1.02"
Routed to Pond P1A : Pond 1A

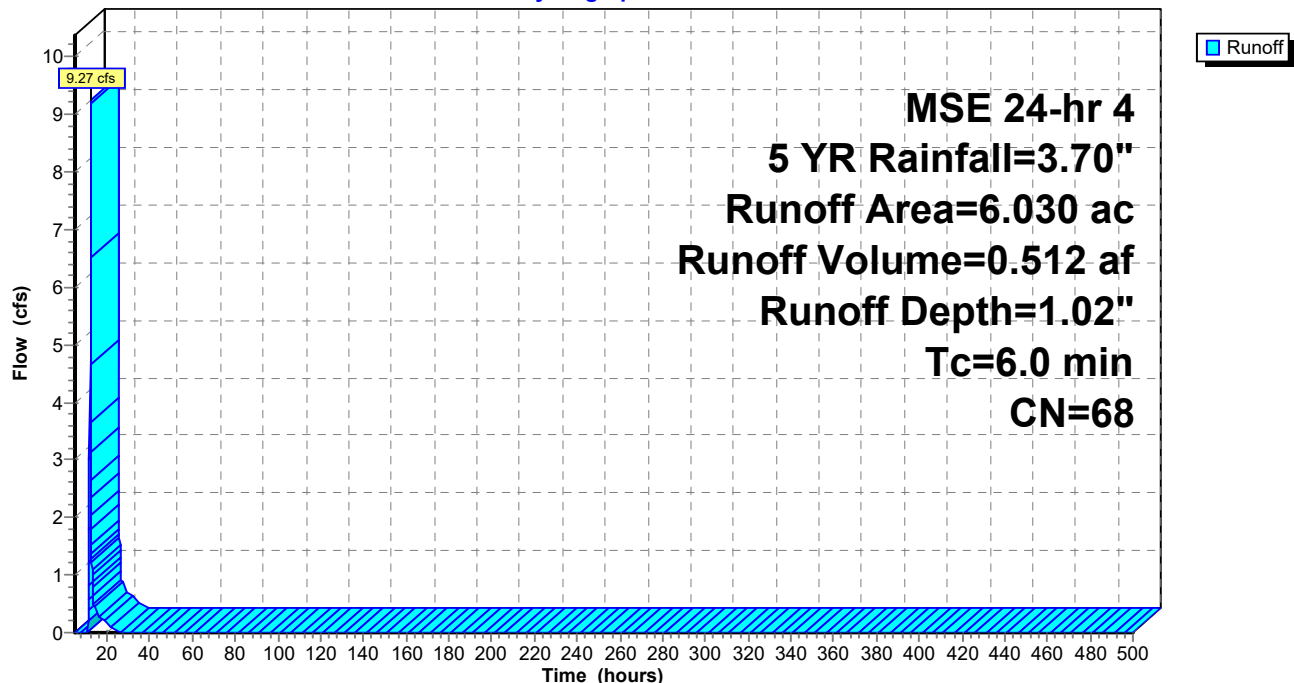
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 5 YR Rainfall=3.70"

Area (ac)	CN	Description
* 1.160	98	Impervious
* 4.870	61	Post - B Soils
* 0.000	74	Post - C Soils
6.030	68	Weighted Average
4.870		80.76% Pervious Area
1.160		19.24% Impervious Area

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

Subcatchment 1A: Post 1A

Hydrograph



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Subcatchment 1A: Post 1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.17	0.00	0.00	260.00	3.70	1.02	0.00
10.00	0.59	0.00	0.00	265.00	3.70	1.02	0.00
15.00	3.25	0.76	0.44	270.00	3.70	1.02	0.00
20.00	3.58	0.95	0.17	275.00	3.70	1.02	0.00
25.00	3.70	1.02	0.00	280.00	3.70	1.02	0.00
30.00	3.70	1.02	0.00	285.00	3.70	1.02	0.00
35.00	3.70	1.02	0.00	290.00	3.70	1.02	0.00
40.00	3.70	1.02	0.00	295.00	3.70	1.02	0.00
45.00	3.70	1.02	0.00	300.00	3.70	1.02	0.00
50.00	3.70	1.02	0.00	305.00	3.70	1.02	0.00
55.00	3.70	1.02	0.00	310.00	3.70	1.02	0.00
60.00	3.70	1.02	0.00	315.00	3.70	1.02	0.00
65.00	3.70	1.02	0.00	320.00	3.70	1.02	0.00
70.00	3.70	1.02	0.00	325.00	3.70	1.02	0.00
75.00	3.70	1.02	0.00	330.00	3.70	1.02	0.00
80.00	3.70	1.02	0.00	335.00	3.70	1.02	0.00
85.00	3.70	1.02	0.00	340.00	3.70	1.02	0.00
90.00	3.70	1.02	0.00	345.00	3.70	1.02	0.00
95.00	3.70	1.02	0.00	350.00	3.70	1.02	0.00
100.00	3.70	1.02	0.00	355.00	3.70	1.02	0.00
105.00	3.70	1.02	0.00	360.00	3.70	1.02	0.00
110.00	3.70	1.02	0.00	365.00	3.70	1.02	0.00
115.00	3.70	1.02	0.00	370.00	3.70	1.02	0.00
120.00	3.70	1.02	0.00	375.00	3.70	1.02	0.00
125.00	3.70	1.02	0.00	380.00	3.70	1.02	0.00
130.00	3.70	1.02	0.00	385.00	3.70	1.02	0.00
135.00	3.70	1.02	0.00	390.00	3.70	1.02	0.00
140.00	3.70	1.02	0.00	395.00	3.70	1.02	0.00
145.00	3.70	1.02	0.00	400.00	3.70	1.02	0.00
150.00	3.70	1.02	0.00	405.00	3.70	1.02	0.00
155.00	3.70	1.02	0.00	410.00	3.70	1.02	0.00
160.00	3.70	1.02	0.00	415.00	3.70	1.02	0.00
165.00	3.70	1.02	0.00	420.00	3.70	1.02	0.00
170.00	3.70	1.02	0.00	425.00	3.70	1.02	0.00
175.00	3.70	1.02	0.00	430.00	3.70	1.02	0.00
180.00	3.70	1.02	0.00	435.00	3.70	1.02	0.00
185.00	3.70	1.02	0.00	440.00	3.70	1.02	0.00
190.00	3.70	1.02	0.00	445.00	3.70	1.02	0.00
195.00	3.70	1.02	0.00	450.00	3.70	1.02	0.00
200.00	3.70	1.02	0.00	455.00	3.70	1.02	0.00
205.00	3.70	1.02	0.00	460.00	3.70	1.02	0.00
210.00	3.70	1.02	0.00	465.00	3.70	1.02	0.00
215.00	3.70	1.02	0.00	470.00	3.70	1.02	0.00
220.00	3.70	1.02	0.00	475.00	3.70	1.02	0.00
225.00	3.70	1.02	0.00	480.00	3.70	1.02	0.00
230.00	3.70	1.02	0.00	485.00	3.70	1.02	0.00
235.00	3.70	1.02	0.00	490.00	3.70	1.02	0.00
240.00	3.70	1.02	0.00	495.00	3.70	1.02	0.00
245.00	3.70	1.02	0.00	500.00	3.70	1.02	0.00
250.00	3.70	1.02	0.00				
255.00	3.70	1.02	0.00				

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Summary for Subcatchment 1B: Post 1B - Offsite

Runoff = 0.55 cfs @ 12.14 hrs, Volume= 0.032 af, Depth= 0.86"
Routed to Link 3L : Post - South

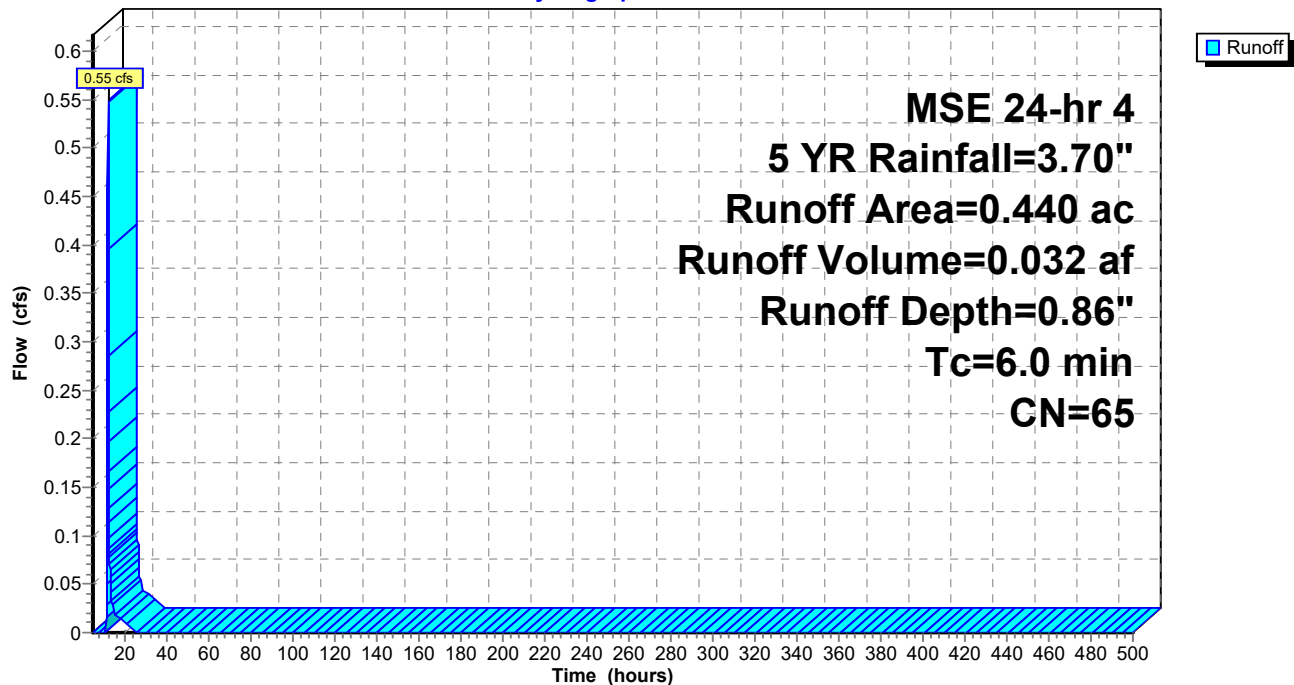
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 5 YR Rainfall=3.70"

	Area (ac)	CN	Description
*	0.050	98	Impervious
*	0.390	61	Post - B Soils
*	0.000	74	Post - C Soils
	0.440	65	Weighted Average
	0.390		88.64% Pervious Area
	0.050		11.36% Impervious Area

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

Subcatchment 1B: Post 1B - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Subcatchment 1B: Post 1B - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.17	0.00	0.00	260.00	3.70	0.86	0.00
10.00	0.59	0.00	0.00	265.00	3.70	0.86	0.00
15.00	3.25	0.63	0.03	270.00	3.70	0.86	0.00
20.00	3.58	0.79	0.01	275.00	3.70	0.86	0.00
25.00	3.70	0.86	0.00	280.00	3.70	0.86	0.00
30.00	3.70	0.86	0.00	285.00	3.70	0.86	0.00
35.00	3.70	0.86	0.00	290.00	3.70	0.86	0.00
40.00	3.70	0.86	0.00	295.00	3.70	0.86	0.00
45.00	3.70	0.86	0.00	300.00	3.70	0.86	0.00
50.00	3.70	0.86	0.00	305.00	3.70	0.86	0.00
55.00	3.70	0.86	0.00	310.00	3.70	0.86	0.00
60.00	3.70	0.86	0.00	315.00	3.70	0.86	0.00
65.00	3.70	0.86	0.00	320.00	3.70	0.86	0.00
70.00	3.70	0.86	0.00	325.00	3.70	0.86	0.00
75.00	3.70	0.86	0.00	330.00	3.70	0.86	0.00
80.00	3.70	0.86	0.00	335.00	3.70	0.86	0.00
85.00	3.70	0.86	0.00	340.00	3.70	0.86	0.00
90.00	3.70	0.86	0.00	345.00	3.70	0.86	0.00
95.00	3.70	0.86	0.00	350.00	3.70	0.86	0.00
100.00	3.70	0.86	0.00	355.00	3.70	0.86	0.00
105.00	3.70	0.86	0.00	360.00	3.70	0.86	0.00
110.00	3.70	0.86	0.00	365.00	3.70	0.86	0.00
115.00	3.70	0.86	0.00	370.00	3.70	0.86	0.00
120.00	3.70	0.86	0.00	375.00	3.70	0.86	0.00
125.00	3.70	0.86	0.00	380.00	3.70	0.86	0.00
130.00	3.70	0.86	0.00	385.00	3.70	0.86	0.00
135.00	3.70	0.86	0.00	390.00	3.70	0.86	0.00
140.00	3.70	0.86	0.00	395.00	3.70	0.86	0.00
145.00	3.70	0.86	0.00	400.00	3.70	0.86	0.00
150.00	3.70	0.86	0.00	405.00	3.70	0.86	0.00
155.00	3.70	0.86	0.00	410.00	3.70	0.86	0.00
160.00	3.70	0.86	0.00	415.00	3.70	0.86	0.00
165.00	3.70	0.86	0.00	420.00	3.70	0.86	0.00
170.00	3.70	0.86	0.00	425.00	3.70	0.86	0.00
175.00	3.70	0.86	0.00	430.00	3.70	0.86	0.00
180.00	3.70	0.86	0.00	435.00	3.70	0.86	0.00
185.00	3.70	0.86	0.00	440.00	3.70	0.86	0.00
190.00	3.70	0.86	0.00	445.00	3.70	0.86	0.00
195.00	3.70	0.86	0.00	450.00	3.70	0.86	0.00
200.00	3.70	0.86	0.00	455.00	3.70	0.86	0.00
205.00	3.70	0.86	0.00	460.00	3.70	0.86	0.00
210.00	3.70	0.86	0.00	465.00	3.70	0.86	0.00
215.00	3.70	0.86	0.00	470.00	3.70	0.86	0.00
220.00	3.70	0.86	0.00	475.00	3.70	0.86	0.00
225.00	3.70	0.86	0.00	480.00	3.70	0.86	0.00
230.00	3.70	0.86	0.00	485.00	3.70	0.86	0.00
235.00	3.70	0.86	0.00	490.00	3.70	0.86	0.00
240.00	3.70	0.86	0.00	495.00	3.70	0.86	0.00
245.00	3.70	0.86	0.00	500.00	3.70	0.86	0.00
250.00	3.70	0.86	0.00				
255.00	3.70	0.86	0.00				

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Summary for Subcatchment 2: Pre - West

Runoff = 1.04 cfs @ 12.16 hrs, Volume= 0.088 af, Depth= 0.42"
Routed to Link 1L : Total Pre - Development

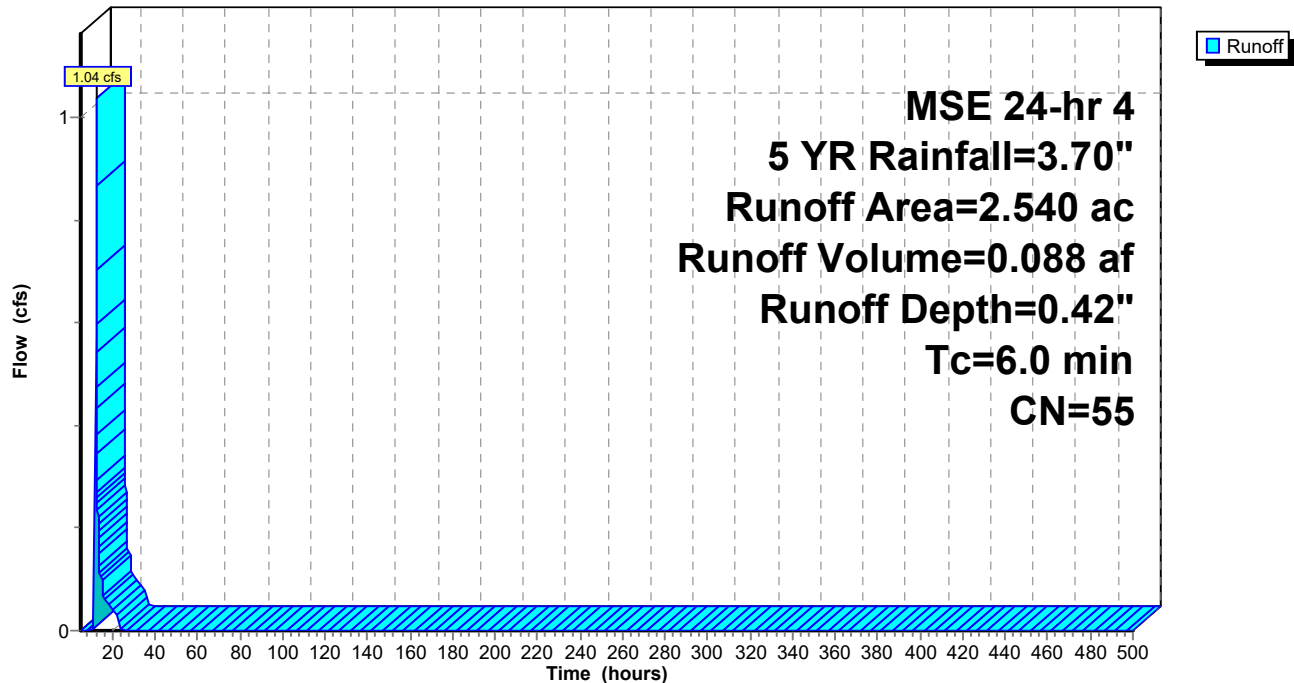
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 5 YR Rainfall=3.70"

Area (ac)	CN	Description
* 2.540	55	Pre Dev - B Soils
2.540		100.00% Pervious Area

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

Subcatchment 2: Pre - West

Hydrograph



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Subcatchment 2: Pre - West

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.17	0.00	0.00	260.00	3.70	0.42	0.00
10.00	0.59	0.00	0.00	265.00	3.70	0.42	0.00
15.00	3.25	0.27	0.10	270.00	3.70	0.42	0.00
20.00	3.58	0.37	0.04	275.00	3.70	0.42	0.00
25.00	3.70	0.42	0.00	280.00	3.70	0.42	0.00
30.00	3.70	0.42	0.00	285.00	3.70	0.42	0.00
35.00	3.70	0.42	0.00	290.00	3.70	0.42	0.00
40.00	3.70	0.42	0.00	295.00	3.70	0.42	0.00
45.00	3.70	0.42	0.00	300.00	3.70	0.42	0.00
50.00	3.70	0.42	0.00	305.00	3.70	0.42	0.00
55.00	3.70	0.42	0.00	310.00	3.70	0.42	0.00
60.00	3.70	0.42	0.00	315.00	3.70	0.42	0.00
65.00	3.70	0.42	0.00	320.00	3.70	0.42	0.00
70.00	3.70	0.42	0.00	325.00	3.70	0.42	0.00
75.00	3.70	0.42	0.00	330.00	3.70	0.42	0.00
80.00	3.70	0.42	0.00	335.00	3.70	0.42	0.00
85.00	3.70	0.42	0.00	340.00	3.70	0.42	0.00
90.00	3.70	0.42	0.00	345.00	3.70	0.42	0.00
95.00	3.70	0.42	0.00	350.00	3.70	0.42	0.00
100.00	3.70	0.42	0.00	355.00	3.70	0.42	0.00
105.00	3.70	0.42	0.00	360.00	3.70	0.42	0.00
110.00	3.70	0.42	0.00	365.00	3.70	0.42	0.00
115.00	3.70	0.42	0.00	370.00	3.70	0.42	0.00
120.00	3.70	0.42	0.00	375.00	3.70	0.42	0.00
125.00	3.70	0.42	0.00	380.00	3.70	0.42	0.00
130.00	3.70	0.42	0.00	385.00	3.70	0.42	0.00
135.00	3.70	0.42	0.00	390.00	3.70	0.42	0.00
140.00	3.70	0.42	0.00	395.00	3.70	0.42	0.00
145.00	3.70	0.42	0.00	400.00	3.70	0.42	0.00
150.00	3.70	0.42	0.00	405.00	3.70	0.42	0.00
155.00	3.70	0.42	0.00	410.00	3.70	0.42	0.00
160.00	3.70	0.42	0.00	415.00	3.70	0.42	0.00
165.00	3.70	0.42	0.00	420.00	3.70	0.42	0.00
170.00	3.70	0.42	0.00	425.00	3.70	0.42	0.00
175.00	3.70	0.42	0.00	430.00	3.70	0.42	0.00
180.00	3.70	0.42	0.00	435.00	3.70	0.42	0.00
185.00	3.70	0.42	0.00	440.00	3.70	0.42	0.00
190.00	3.70	0.42	0.00	445.00	3.70	0.42	0.00
195.00	3.70	0.42	0.00	450.00	3.70	0.42	0.00
200.00	3.70	0.42	0.00	455.00	3.70	0.42	0.00
205.00	3.70	0.42	0.00	460.00	3.70	0.42	0.00
210.00	3.70	0.42	0.00	465.00	3.70	0.42	0.00
215.00	3.70	0.42	0.00	470.00	3.70	0.42	0.00
220.00	3.70	0.42	0.00	475.00	3.70	0.42	0.00
225.00	3.70	0.42	0.00	480.00	3.70	0.42	0.00
230.00	3.70	0.42	0.00	485.00	3.70	0.42	0.00
235.00	3.70	0.42	0.00	490.00	3.70	0.42	0.00
240.00	3.70	0.42	0.00	495.00	3.70	0.42	0.00
245.00	3.70	0.42	0.00	500.00	3.70	0.42	0.00
250.00	3.70	0.42	0.00				
255.00	3.70	0.42	0.00				

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Summary for Subcatchment 2A: Post 2A - Offsite

Runoff = 0.66 cfs @ 12.14 hrs, Volume= 0.038 af, Depth= 0.86"
Routed to Link 2L : Total Post - Development

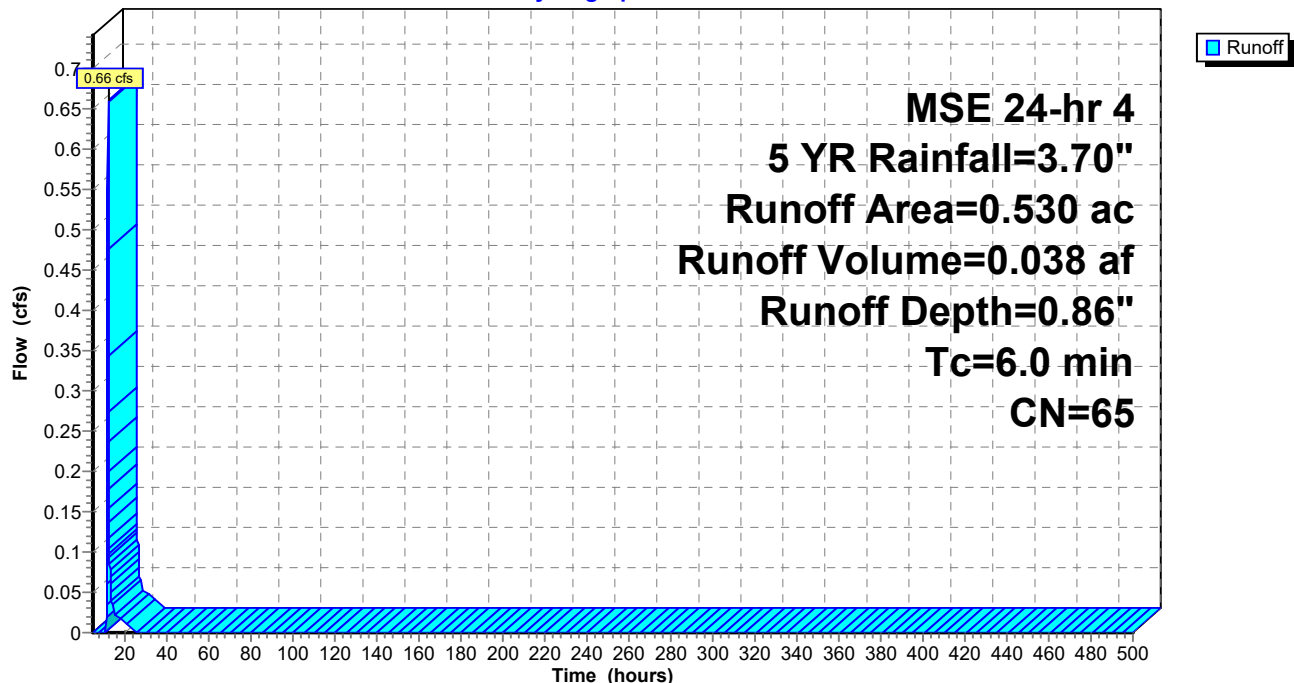
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 5 YR Rainfall=3.70"

	Area (ac)	CN	Description
*	0.060	98	Impervious
*	0.470	61	Post - B Soils
*	0.000	74	Post - C Soils
	0.530	65	Weighted Average
	0.470		88.68% Pervious Area
	0.060		11.32% Impervious Area

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

Subcatchment 2A: Post 2A - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Subcatchment 2A: Post 2A - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.17	0.00	0.00	260.00	3.70	0.86	0.00
10.00	0.59	0.00	0.00	265.00	3.70	0.86	0.00
15.00	3.25	0.63	0.03	270.00	3.70	0.86	0.00
20.00	3.58	0.79	0.01	275.00	3.70	0.86	0.00
25.00	3.70	0.86	0.00	280.00	3.70	0.86	0.00
30.00	3.70	0.86	0.00	285.00	3.70	0.86	0.00
35.00	3.70	0.86	0.00	290.00	3.70	0.86	0.00
40.00	3.70	0.86	0.00	295.00	3.70	0.86	0.00
45.00	3.70	0.86	0.00	300.00	3.70	0.86	0.00
50.00	3.70	0.86	0.00	305.00	3.70	0.86	0.00
55.00	3.70	0.86	0.00	310.00	3.70	0.86	0.00
60.00	3.70	0.86	0.00	315.00	3.70	0.86	0.00
65.00	3.70	0.86	0.00	320.00	3.70	0.86	0.00
70.00	3.70	0.86	0.00	325.00	3.70	0.86	0.00
75.00	3.70	0.86	0.00	330.00	3.70	0.86	0.00
80.00	3.70	0.86	0.00	335.00	3.70	0.86	0.00
85.00	3.70	0.86	0.00	340.00	3.70	0.86	0.00
90.00	3.70	0.86	0.00	345.00	3.70	0.86	0.00
95.00	3.70	0.86	0.00	350.00	3.70	0.86	0.00
100.00	3.70	0.86	0.00	355.00	3.70	0.86	0.00
105.00	3.70	0.86	0.00	360.00	3.70	0.86	0.00
110.00	3.70	0.86	0.00	365.00	3.70	0.86	0.00
115.00	3.70	0.86	0.00	370.00	3.70	0.86	0.00
120.00	3.70	0.86	0.00	375.00	3.70	0.86	0.00
125.00	3.70	0.86	0.00	380.00	3.70	0.86	0.00
130.00	3.70	0.86	0.00	385.00	3.70	0.86	0.00
135.00	3.70	0.86	0.00	390.00	3.70	0.86	0.00
140.00	3.70	0.86	0.00	395.00	3.70	0.86	0.00
145.00	3.70	0.86	0.00	400.00	3.70	0.86	0.00
150.00	3.70	0.86	0.00	405.00	3.70	0.86	0.00
155.00	3.70	0.86	0.00	410.00	3.70	0.86	0.00
160.00	3.70	0.86	0.00	415.00	3.70	0.86	0.00
165.00	3.70	0.86	0.00	420.00	3.70	0.86	0.00
170.00	3.70	0.86	0.00	425.00	3.70	0.86	0.00
175.00	3.70	0.86	0.00	430.00	3.70	0.86	0.00
180.00	3.70	0.86	0.00	435.00	3.70	0.86	0.00
185.00	3.70	0.86	0.00	440.00	3.70	0.86	0.00
190.00	3.70	0.86	0.00	445.00	3.70	0.86	0.00
195.00	3.70	0.86	0.00	450.00	3.70	0.86	0.00
200.00	3.70	0.86	0.00	455.00	3.70	0.86	0.00
205.00	3.70	0.86	0.00	460.00	3.70	0.86	0.00
210.00	3.70	0.86	0.00	465.00	3.70	0.86	0.00
215.00	3.70	0.86	0.00	470.00	3.70	0.86	0.00
220.00	3.70	0.86	0.00	475.00	3.70	0.86	0.00
225.00	3.70	0.86	0.00	480.00	3.70	0.86	0.00
230.00	3.70	0.86	0.00	485.00	3.70	0.86	0.00
235.00	3.70	0.86	0.00	490.00	3.70	0.86	0.00
240.00	3.70	0.86	0.00	495.00	3.70	0.86	0.00
245.00	3.70	0.86	0.00	500.00	3.70	0.86	0.00
250.00	3.70	0.86	0.00				
255.00	3.70	0.86	0.00				

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Summary for Subcatchment 3: Pre - North

Runoff = 18.17 cfs @ 12.20 hrs, Volume= 1.426 af, Depth= 0.62"
Routed to Link 1L : Total Pre - Development

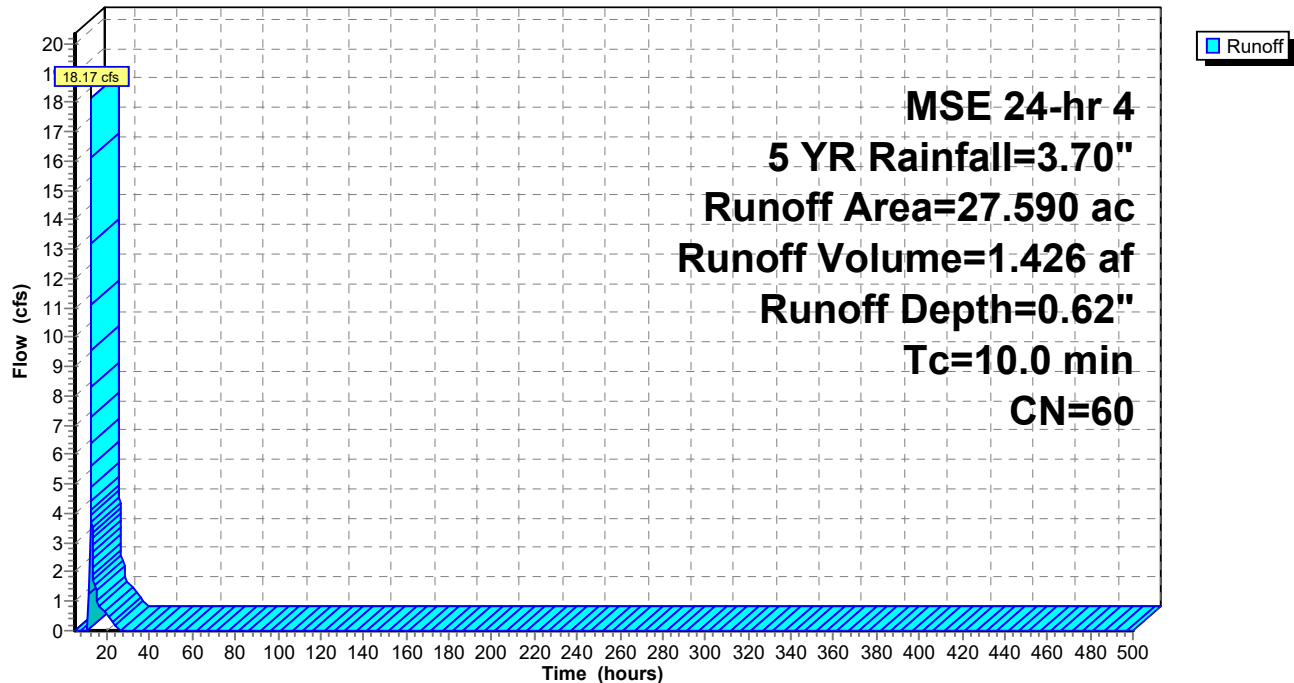
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 5 YR Rainfall=3.70"

	Area (ac)	CN	Description
*	18.190	55	Pre Dev - B Soils
*	9.400	70	Pre Dev - C Soils
	27.590	60	Weighted Average
	27.590		100.00% Pervious Area

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

Subcatchment 3: Pre - North

Hydrograph



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Subcatchment 3: Pre - North

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.17	0.00	0.00	260.00	3.70	0.62	0.00
10.00	0.59	0.00	0.00	265.00	3.70	0.62	0.00
15.00	3.25	0.43	1.45	270.00	3.70	0.62	0.00
20.00	3.58	0.57	0.58	275.00	3.70	0.62	0.00
25.00	3.70	0.62	0.00	280.00	3.70	0.62	0.00
30.00	3.70	0.62	0.00	285.00	3.70	0.62	0.00
35.00	3.70	0.62	0.00	290.00	3.70	0.62	0.00
40.00	3.70	0.62	0.00	295.00	3.70	0.62	0.00
45.00	3.70	0.62	0.00	300.00	3.70	0.62	0.00
50.00	3.70	0.62	0.00	305.00	3.70	0.62	0.00
55.00	3.70	0.62	0.00	310.00	3.70	0.62	0.00
60.00	3.70	0.62	0.00	315.00	3.70	0.62	0.00
65.00	3.70	0.62	0.00	320.00	3.70	0.62	0.00
70.00	3.70	0.62	0.00	325.00	3.70	0.62	0.00
75.00	3.70	0.62	0.00	330.00	3.70	0.62	0.00
80.00	3.70	0.62	0.00	335.00	3.70	0.62	0.00
85.00	3.70	0.62	0.00	340.00	3.70	0.62	0.00
90.00	3.70	0.62	0.00	345.00	3.70	0.62	0.00
95.00	3.70	0.62	0.00	350.00	3.70	0.62	0.00
100.00	3.70	0.62	0.00	355.00	3.70	0.62	0.00
105.00	3.70	0.62	0.00	360.00	3.70	0.62	0.00
110.00	3.70	0.62	0.00	365.00	3.70	0.62	0.00
115.00	3.70	0.62	0.00	370.00	3.70	0.62	0.00
120.00	3.70	0.62	0.00	375.00	3.70	0.62	0.00
125.00	3.70	0.62	0.00	380.00	3.70	0.62	0.00
130.00	3.70	0.62	0.00	385.00	3.70	0.62	0.00
135.00	3.70	0.62	0.00	390.00	3.70	0.62	0.00
140.00	3.70	0.62	0.00	395.00	3.70	0.62	0.00
145.00	3.70	0.62	0.00	400.00	3.70	0.62	0.00
150.00	3.70	0.62	0.00	405.00	3.70	0.62	0.00
155.00	3.70	0.62	0.00	410.00	3.70	0.62	0.00
160.00	3.70	0.62	0.00	415.00	3.70	0.62	0.00
165.00	3.70	0.62	0.00	420.00	3.70	0.62	0.00
170.00	3.70	0.62	0.00	425.00	3.70	0.62	0.00
175.00	3.70	0.62	0.00	430.00	3.70	0.62	0.00
180.00	3.70	0.62	0.00	435.00	3.70	0.62	0.00
185.00	3.70	0.62	0.00	440.00	3.70	0.62	0.00
190.00	3.70	0.62	0.00	445.00	3.70	0.62	0.00
195.00	3.70	0.62	0.00	450.00	3.70	0.62	0.00
200.00	3.70	0.62	0.00	455.00	3.70	0.62	0.00
205.00	3.70	0.62	0.00	460.00	3.70	0.62	0.00
210.00	3.70	0.62	0.00	465.00	3.70	0.62	0.00
215.00	3.70	0.62	0.00	470.00	3.70	0.62	0.00
220.00	3.70	0.62	0.00	475.00	3.70	0.62	0.00
225.00	3.70	0.62	0.00	480.00	3.70	0.62	0.00
230.00	3.70	0.62	0.00	485.00	3.70	0.62	0.00
235.00	3.70	0.62	0.00	490.00	3.70	0.62	0.00
240.00	3.70	0.62	0.00	495.00	3.70	0.62	0.00
245.00	3.70	0.62	0.00	500.00	3.70	0.62	0.00
250.00	3.70	0.62	0.00				
255.00	3.70	0.62	0.00				

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Summary for Subcatchment 3A: Post 3A

Runoff = 18.39 cfs @ 12.14 hrs, Volume= 1.001 af, Depth= 1.13"
Routed to Pond P3A : Pond 3A

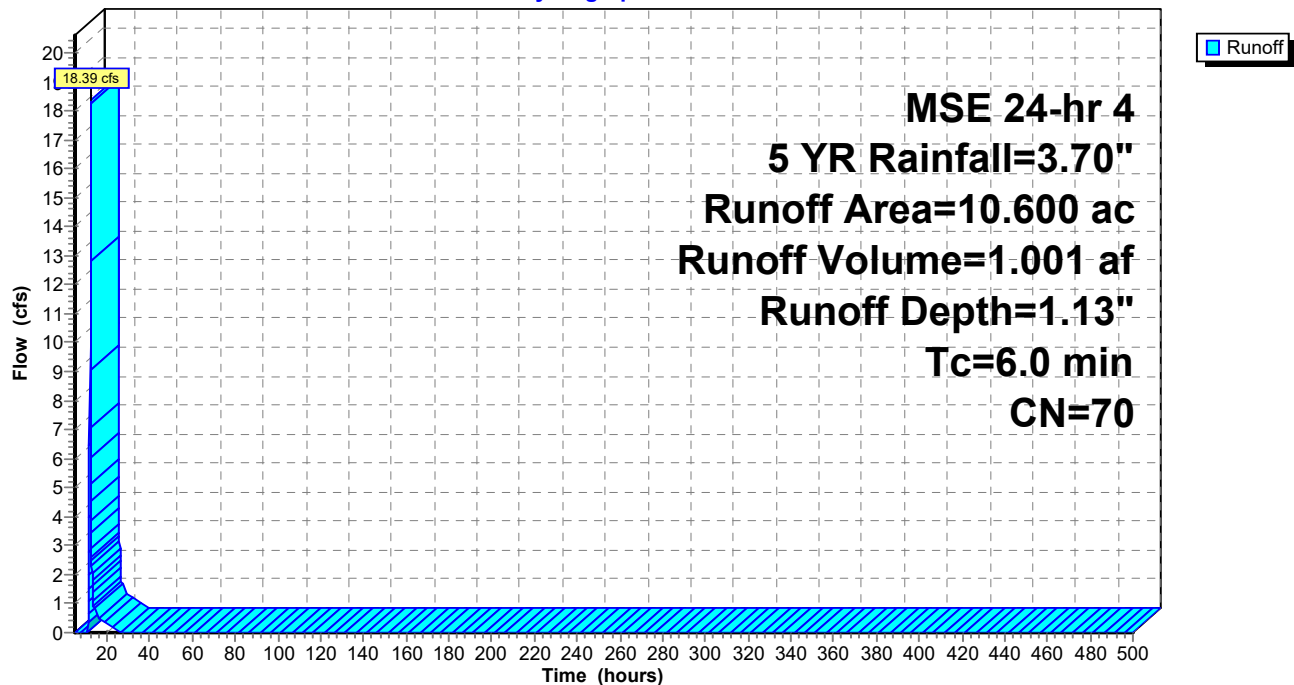
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 5 YR Rainfall=3.70"

Area (ac)	CN	Description
* 1.970	98	Impervious
* 6.570	61	Post - B Soils
* 2.060	74	Post - C Soils
10.600	70	Weighted Average
8.630		81.42% Pervious Area
1.970		18.58% Impervious Area

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

Subcatchment 3A: Post 3A

Hydrograph



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Subcatchment 3A: Post 3A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.17	0.00	0.00	260.00	3.70	1.13	0.00
10.00	0.59	0.00	0.00	265.00	3.70	1.13	0.00
15.00	3.25	0.86	0.82	270.00	3.70	1.13	0.00
20.00	3.58	1.06	0.31	275.00	3.70	1.13	0.00
25.00	3.70	1.13	0.00	280.00	3.70	1.13	0.00
30.00	3.70	1.13	0.00	285.00	3.70	1.13	0.00
35.00	3.70	1.13	0.00	290.00	3.70	1.13	0.00
40.00	3.70	1.13	0.00	295.00	3.70	1.13	0.00
45.00	3.70	1.13	0.00	300.00	3.70	1.13	0.00
50.00	3.70	1.13	0.00	305.00	3.70	1.13	0.00
55.00	3.70	1.13	0.00	310.00	3.70	1.13	0.00
60.00	3.70	1.13	0.00	315.00	3.70	1.13	0.00
65.00	3.70	1.13	0.00	320.00	3.70	1.13	0.00
70.00	3.70	1.13	0.00	325.00	3.70	1.13	0.00
75.00	3.70	1.13	0.00	330.00	3.70	1.13	0.00
80.00	3.70	1.13	0.00	335.00	3.70	1.13	0.00
85.00	3.70	1.13	0.00	340.00	3.70	1.13	0.00
90.00	3.70	1.13	0.00	345.00	3.70	1.13	0.00
95.00	3.70	1.13	0.00	350.00	3.70	1.13	0.00
100.00	3.70	1.13	0.00	355.00	3.70	1.13	0.00
105.00	3.70	1.13	0.00	360.00	3.70	1.13	0.00
110.00	3.70	1.13	0.00	365.00	3.70	1.13	0.00
115.00	3.70	1.13	0.00	370.00	3.70	1.13	0.00
120.00	3.70	1.13	0.00	375.00	3.70	1.13	0.00
125.00	3.70	1.13	0.00	380.00	3.70	1.13	0.00
130.00	3.70	1.13	0.00	385.00	3.70	1.13	0.00
135.00	3.70	1.13	0.00	390.00	3.70	1.13	0.00
140.00	3.70	1.13	0.00	395.00	3.70	1.13	0.00
145.00	3.70	1.13	0.00	400.00	3.70	1.13	0.00
150.00	3.70	1.13	0.00	405.00	3.70	1.13	0.00
155.00	3.70	1.13	0.00	410.00	3.70	1.13	0.00
160.00	3.70	1.13	0.00	415.00	3.70	1.13	0.00
165.00	3.70	1.13	0.00	420.00	3.70	1.13	0.00
170.00	3.70	1.13	0.00	425.00	3.70	1.13	0.00
175.00	3.70	1.13	0.00	430.00	3.70	1.13	0.00
180.00	3.70	1.13	0.00	435.00	3.70	1.13	0.00
185.00	3.70	1.13	0.00	440.00	3.70	1.13	0.00
190.00	3.70	1.13	0.00	445.00	3.70	1.13	0.00
195.00	3.70	1.13	0.00	450.00	3.70	1.13	0.00
200.00	3.70	1.13	0.00	455.00	3.70	1.13	0.00
205.00	3.70	1.13	0.00	460.00	3.70	1.13	0.00
210.00	3.70	1.13	0.00	465.00	3.70	1.13	0.00
215.00	3.70	1.13	0.00	470.00	3.70	1.13	0.00
220.00	3.70	1.13	0.00	475.00	3.70	1.13	0.00
225.00	3.70	1.13	0.00	480.00	3.70	1.13	0.00
230.00	3.70	1.13	0.00	485.00	3.70	1.13	0.00
235.00	3.70	1.13	0.00	490.00	3.70	1.13	0.00
240.00	3.70	1.13	0.00	495.00	3.70	1.13	0.00
245.00	3.70	1.13	0.00	500.00	3.70	1.13	0.00
250.00	3.70	1.13	0.00				
255.00	3.70	1.13	0.00				

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Summary for Subcatchment 3B: Post 3B

Runoff = 15.52 cfs @ 12.14 hrs, Volume= 0.840 af, Depth= 1.19"
Routed to Pond P3B : Pond 3B

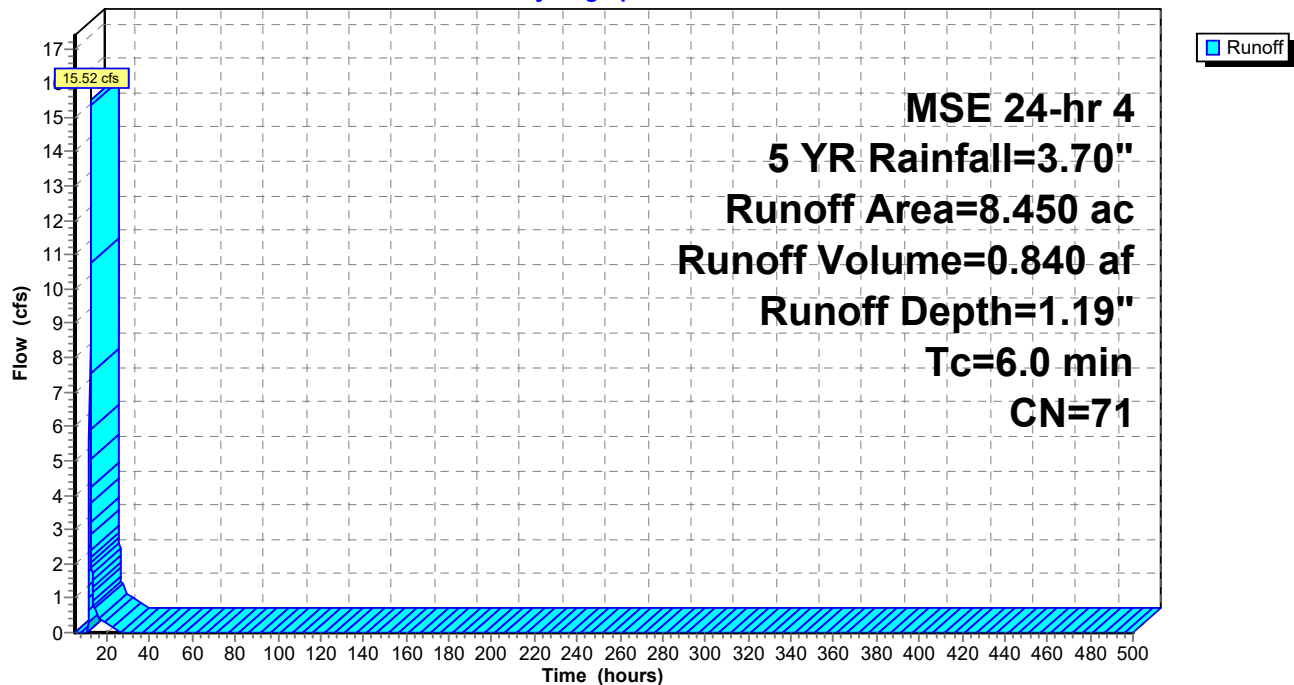
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 5 YR Rainfall=3.70"

	Area (ac)	CN	Description
*	1.680	98	Impervious
*	5.290	61	Post - B Soils
*	1.480	74	Post - C Soils
	8.450	71	Weighted Average
	6.770		80.12% Pervious Area
	1.680		19.88% Impervious Area

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

Subcatchment 3B: Post 3B

Hydrograph



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Subcatchment 3B: Post 3B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.17	0.00	0.00	260.00	3.70	1.19	0.00
10.00	0.59	0.00	0.00	265.00	3.70	1.19	0.00
15.00	3.25	0.91	0.68	270.00	3.70	1.19	0.00
20.00	3.58	1.11	0.26	275.00	3.70	1.19	0.00
25.00	3.70	1.19	0.00	280.00	3.70	1.19	0.00
30.00	3.70	1.19	0.00	285.00	3.70	1.19	0.00
35.00	3.70	1.19	0.00	290.00	3.70	1.19	0.00
40.00	3.70	1.19	0.00	295.00	3.70	1.19	0.00
45.00	3.70	1.19	0.00	300.00	3.70	1.19	0.00
50.00	3.70	1.19	0.00	305.00	3.70	1.19	0.00
55.00	3.70	1.19	0.00	310.00	3.70	1.19	0.00
60.00	3.70	1.19	0.00	315.00	3.70	1.19	0.00
65.00	3.70	1.19	0.00	320.00	3.70	1.19	0.00
70.00	3.70	1.19	0.00	325.00	3.70	1.19	0.00
75.00	3.70	1.19	0.00	330.00	3.70	1.19	0.00
80.00	3.70	1.19	0.00	335.00	3.70	1.19	0.00
85.00	3.70	1.19	0.00	340.00	3.70	1.19	0.00
90.00	3.70	1.19	0.00	345.00	3.70	1.19	0.00
95.00	3.70	1.19	0.00	350.00	3.70	1.19	0.00
100.00	3.70	1.19	0.00	355.00	3.70	1.19	0.00
105.00	3.70	1.19	0.00	360.00	3.70	1.19	0.00
110.00	3.70	1.19	0.00	365.00	3.70	1.19	0.00
115.00	3.70	1.19	0.00	370.00	3.70	1.19	0.00
120.00	3.70	1.19	0.00	375.00	3.70	1.19	0.00
125.00	3.70	1.19	0.00	380.00	3.70	1.19	0.00
130.00	3.70	1.19	0.00	385.00	3.70	1.19	0.00
135.00	3.70	1.19	0.00	390.00	3.70	1.19	0.00
140.00	3.70	1.19	0.00	395.00	3.70	1.19	0.00
145.00	3.70	1.19	0.00	400.00	3.70	1.19	0.00
150.00	3.70	1.19	0.00	405.00	3.70	1.19	0.00
155.00	3.70	1.19	0.00	410.00	3.70	1.19	0.00
160.00	3.70	1.19	0.00	415.00	3.70	1.19	0.00
165.00	3.70	1.19	0.00	420.00	3.70	1.19	0.00
170.00	3.70	1.19	0.00	425.00	3.70	1.19	0.00
175.00	3.70	1.19	0.00	430.00	3.70	1.19	0.00
180.00	3.70	1.19	0.00	435.00	3.70	1.19	0.00
185.00	3.70	1.19	0.00	440.00	3.70	1.19	0.00
190.00	3.70	1.19	0.00	445.00	3.70	1.19	0.00
195.00	3.70	1.19	0.00	450.00	3.70	1.19	0.00
200.00	3.70	1.19	0.00	455.00	3.70	1.19	0.00
205.00	3.70	1.19	0.00	460.00	3.70	1.19	0.00
210.00	3.70	1.19	0.00	465.00	3.70	1.19	0.00
215.00	3.70	1.19	0.00	470.00	3.70	1.19	0.00
220.00	3.70	1.19	0.00	475.00	3.70	1.19	0.00
225.00	3.70	1.19	0.00	480.00	3.70	1.19	0.00
230.00	3.70	1.19	0.00	485.00	3.70	1.19	0.00
235.00	3.70	1.19	0.00	490.00	3.70	1.19	0.00
240.00	3.70	1.19	0.00	495.00	3.70	1.19	0.00
245.00	3.70	1.19	0.00	500.00	3.70	1.19	0.00
250.00	3.70	1.19	0.00				
255.00	3.70	1.19	0.00				

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Summary for Subcatchment 3C: Post 3C

Runoff = 5.62 cfs @ 12.14 hrs, Volume= 0.300 af, Depth= 1.45"
Routed to Pond P3C : Pond 3C

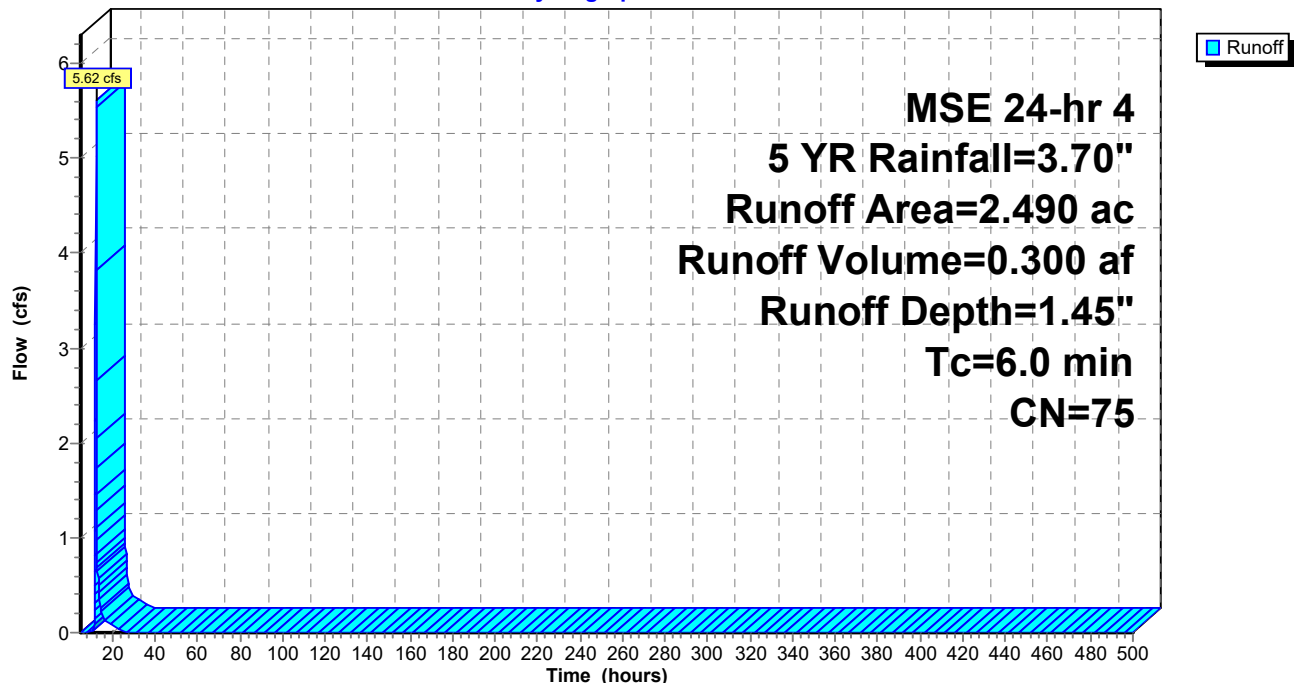
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 5 YR Rainfall=3.70"

	Area (ac)	CN	Description
*	0.570	98	Impervious
*	0.800	61	Post - B Soils
*	1.120	74	Post - C Soils
	2.490	75	Weighted Average
	1.920		77.11% Pervious Area
	0.570		22.89% Impervious Area

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

Subcatchment 3C: Post 3C

Hydrograph



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Subcatchment 3C: Post 3C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.17	0.00	0.00	260.00	3.70	1.45	0.00
10.00	0.59	0.00	0.00	265.00	3.70	1.45	0.00
15.00	3.25	1.13	0.22	270.00	3.70	1.45	0.00
20.00	3.58	1.36	0.08	275.00	3.70	1.45	0.00
25.00	3.70	1.45	0.00	280.00	3.70	1.45	0.00
30.00	3.70	1.45	0.00	285.00	3.70	1.45	0.00
35.00	3.70	1.45	0.00	290.00	3.70	1.45	0.00
40.00	3.70	1.45	0.00	295.00	3.70	1.45	0.00
45.00	3.70	1.45	0.00	300.00	3.70	1.45	0.00
50.00	3.70	1.45	0.00	305.00	3.70	1.45	0.00
55.00	3.70	1.45	0.00	310.00	3.70	1.45	0.00
60.00	3.70	1.45	0.00	315.00	3.70	1.45	0.00
65.00	3.70	1.45	0.00	320.00	3.70	1.45	0.00
70.00	3.70	1.45	0.00	325.00	3.70	1.45	0.00
75.00	3.70	1.45	0.00	330.00	3.70	1.45	0.00
80.00	3.70	1.45	0.00	335.00	3.70	1.45	0.00
85.00	3.70	1.45	0.00	340.00	3.70	1.45	0.00
90.00	3.70	1.45	0.00	345.00	3.70	1.45	0.00
95.00	3.70	1.45	0.00	350.00	3.70	1.45	0.00
100.00	3.70	1.45	0.00	355.00	3.70	1.45	0.00
105.00	3.70	1.45	0.00	360.00	3.70	1.45	0.00
110.00	3.70	1.45	0.00	365.00	3.70	1.45	0.00
115.00	3.70	1.45	0.00	370.00	3.70	1.45	0.00
120.00	3.70	1.45	0.00	375.00	3.70	1.45	0.00
125.00	3.70	1.45	0.00	380.00	3.70	1.45	0.00
130.00	3.70	1.45	0.00	385.00	3.70	1.45	0.00
135.00	3.70	1.45	0.00	390.00	3.70	1.45	0.00
140.00	3.70	1.45	0.00	395.00	3.70	1.45	0.00
145.00	3.70	1.45	0.00	400.00	3.70	1.45	0.00
150.00	3.70	1.45	0.00	405.00	3.70	1.45	0.00
155.00	3.70	1.45	0.00	410.00	3.70	1.45	0.00
160.00	3.70	1.45	0.00	415.00	3.70	1.45	0.00
165.00	3.70	1.45	0.00	420.00	3.70	1.45	0.00
170.00	3.70	1.45	0.00	425.00	3.70	1.45	0.00
175.00	3.70	1.45	0.00	430.00	3.70	1.45	0.00
180.00	3.70	1.45	0.00	435.00	3.70	1.45	0.00
185.00	3.70	1.45	0.00	440.00	3.70	1.45	0.00
190.00	3.70	1.45	0.00	445.00	3.70	1.45	0.00
195.00	3.70	1.45	0.00	450.00	3.70	1.45	0.00
200.00	3.70	1.45	0.00	455.00	3.70	1.45	0.00
205.00	3.70	1.45	0.00	460.00	3.70	1.45	0.00
210.00	3.70	1.45	0.00	465.00	3.70	1.45	0.00
215.00	3.70	1.45	0.00	470.00	3.70	1.45	0.00
220.00	3.70	1.45	0.00	475.00	3.70	1.45	0.00
225.00	3.70	1.45	0.00	480.00	3.70	1.45	0.00
230.00	3.70	1.45	0.00	485.00	3.70	1.45	0.00
235.00	3.70	1.45	0.00	490.00	3.70	1.45	0.00
240.00	3.70	1.45	0.00	495.00	3.70	1.45	0.00
245.00	3.70	1.45	0.00	500.00	3.70	1.45	0.00
250.00	3.70	1.45	0.00				
255.00	3.70	1.45	0.00				

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Summary for Subcatchment 3D: Post 3D

Runoff = 5.64 cfs @ 12.14 hrs, Volume= 0.300 af, Depth= 1.51"
Routed to Pond P3D : Pond 3D

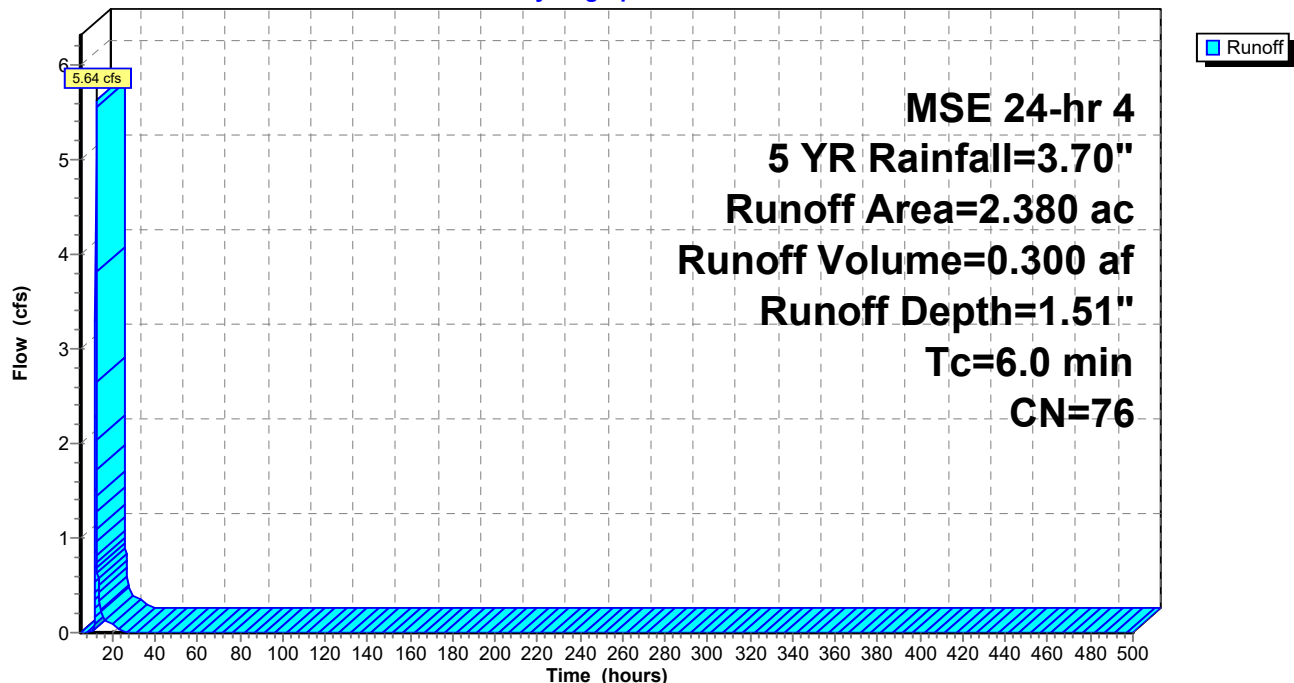
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 5 YR Rainfall=3.70"

	Area (ac)	CN	Description
*	0.570	98	Impervious
*	0.610	61	Post - B Soils
*	1.200	74	Post - C Soils
	2.380	76	Weighted Average
	1.810		76.05% Pervious Area
	0.570		23.95% Impervious Area

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

Subcatchment 3D: Post 3D

Hydrograph



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Subcatchment 3D: Post 3D

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.17	0.00	0.00	260.00	3.70	1.51	0.00
10.00	0.59	0.00	0.00	265.00	3.70	1.51	0.00
15.00	3.25	1.19	0.22	270.00	3.70	1.51	0.00
20.00	3.58	1.42	0.08	275.00	3.70	1.51	0.00
25.00	3.70	1.51	0.00	280.00	3.70	1.51	0.00
30.00	3.70	1.51	0.00	285.00	3.70	1.51	0.00
35.00	3.70	1.51	0.00	290.00	3.70	1.51	0.00
40.00	3.70	1.51	0.00	295.00	3.70	1.51	0.00
45.00	3.70	1.51	0.00	300.00	3.70	1.51	0.00
50.00	3.70	1.51	0.00	305.00	3.70	1.51	0.00
55.00	3.70	1.51	0.00	310.00	3.70	1.51	0.00
60.00	3.70	1.51	0.00	315.00	3.70	1.51	0.00
65.00	3.70	1.51	0.00	320.00	3.70	1.51	0.00
70.00	3.70	1.51	0.00	325.00	3.70	1.51	0.00
75.00	3.70	1.51	0.00	330.00	3.70	1.51	0.00
80.00	3.70	1.51	0.00	335.00	3.70	1.51	0.00
85.00	3.70	1.51	0.00	340.00	3.70	1.51	0.00
90.00	3.70	1.51	0.00	345.00	3.70	1.51	0.00
95.00	3.70	1.51	0.00	350.00	3.70	1.51	0.00
100.00	3.70	1.51	0.00	355.00	3.70	1.51	0.00
105.00	3.70	1.51	0.00	360.00	3.70	1.51	0.00
110.00	3.70	1.51	0.00	365.00	3.70	1.51	0.00
115.00	3.70	1.51	0.00	370.00	3.70	1.51	0.00
120.00	3.70	1.51	0.00	375.00	3.70	1.51	0.00
125.00	3.70	1.51	0.00	380.00	3.70	1.51	0.00
130.00	3.70	1.51	0.00	385.00	3.70	1.51	0.00
135.00	3.70	1.51	0.00	390.00	3.70	1.51	0.00
140.00	3.70	1.51	0.00	395.00	3.70	1.51	0.00
145.00	3.70	1.51	0.00	400.00	3.70	1.51	0.00
150.00	3.70	1.51	0.00	405.00	3.70	1.51	0.00
155.00	3.70	1.51	0.00	410.00	3.70	1.51	0.00
160.00	3.70	1.51	0.00	415.00	3.70	1.51	0.00
165.00	3.70	1.51	0.00	420.00	3.70	1.51	0.00
170.00	3.70	1.51	0.00	425.00	3.70	1.51	0.00
175.00	3.70	1.51	0.00	430.00	3.70	1.51	0.00
180.00	3.70	1.51	0.00	435.00	3.70	1.51	0.00
185.00	3.70	1.51	0.00	440.00	3.70	1.51	0.00
190.00	3.70	1.51	0.00	445.00	3.70	1.51	0.00
195.00	3.70	1.51	0.00	450.00	3.70	1.51	0.00
200.00	3.70	1.51	0.00	455.00	3.70	1.51	0.00
205.00	3.70	1.51	0.00	460.00	3.70	1.51	0.00
210.00	3.70	1.51	0.00	465.00	3.70	1.51	0.00
215.00	3.70	1.51	0.00	470.00	3.70	1.51	0.00
220.00	3.70	1.51	0.00	475.00	3.70	1.51	0.00
225.00	3.70	1.51	0.00	480.00	3.70	1.51	0.00
230.00	3.70	1.51	0.00	485.00	3.70	1.51	0.00
235.00	3.70	1.51	0.00	490.00	3.70	1.51	0.00
240.00	3.70	1.51	0.00	495.00	3.70	1.51	0.00
245.00	3.70	1.51	0.00	500.00	3.70	1.51	0.00
250.00	3.70	1.51	0.00				
255.00	3.70	1.51	0.00				

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Summary for Subcatchment 3E: Post 3E

Runoff = 5.98 cfs @ 12.14 hrs, Volume= 0.320 af, Depth= 1.38"
Routed to Pond P3E : Pond 3E

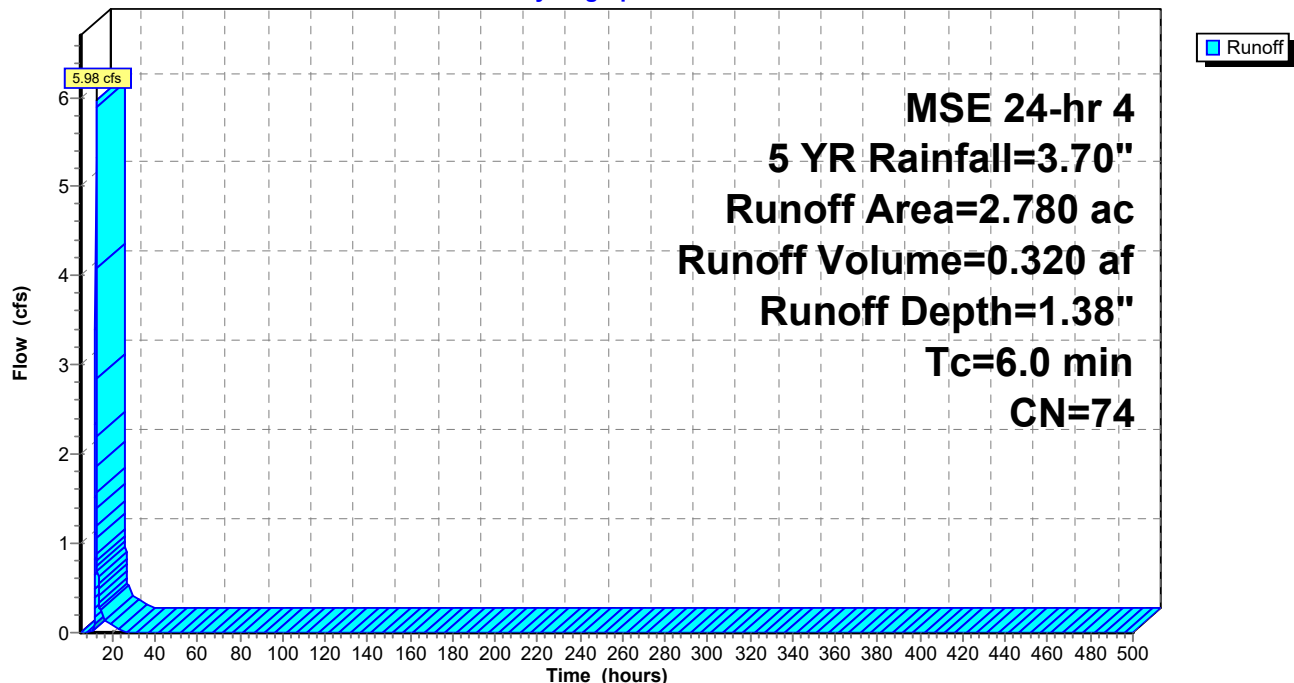
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 5 YR Rainfall=3.70"

Area (ac)	CN	Description
* 0.530	98	Impervious
* 0.920	61	Post - B Soils
* 1.330	74	Post - C Soils
2.780	74	Weighted Average
2.250		80.94% Pervious Area
0.530		19.06% Impervious Area

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

Subcatchment 3E: Post 3E

Hydrograph



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Subcatchment 3E: Post 3E

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.17	0.00	0.00	260.00	3.70	1.38	0.00
10.00	0.59	0.00	0.00	265.00	3.70	1.38	0.00
15.00	3.25	1.07	0.24	270.00	3.70	1.38	0.00
20.00	3.58	1.30	0.09	275.00	3.70	1.38	0.00
25.00	3.70	1.38	0.00	280.00	3.70	1.38	0.00
30.00	3.70	1.38	0.00	285.00	3.70	1.38	0.00
35.00	3.70	1.38	0.00	290.00	3.70	1.38	0.00
40.00	3.70	1.38	0.00	295.00	3.70	1.38	0.00
45.00	3.70	1.38	0.00	300.00	3.70	1.38	0.00
50.00	3.70	1.38	0.00	305.00	3.70	1.38	0.00
55.00	3.70	1.38	0.00	310.00	3.70	1.38	0.00
60.00	3.70	1.38	0.00	315.00	3.70	1.38	0.00
65.00	3.70	1.38	0.00	320.00	3.70	1.38	0.00
70.00	3.70	1.38	0.00	325.00	3.70	1.38	0.00
75.00	3.70	1.38	0.00	330.00	3.70	1.38	0.00
80.00	3.70	1.38	0.00	335.00	3.70	1.38	0.00
85.00	3.70	1.38	0.00	340.00	3.70	1.38	0.00
90.00	3.70	1.38	0.00	345.00	3.70	1.38	0.00
95.00	3.70	1.38	0.00	350.00	3.70	1.38	0.00
100.00	3.70	1.38	0.00	355.00	3.70	1.38	0.00
105.00	3.70	1.38	0.00	360.00	3.70	1.38	0.00
110.00	3.70	1.38	0.00	365.00	3.70	1.38	0.00
115.00	3.70	1.38	0.00	370.00	3.70	1.38	0.00
120.00	3.70	1.38	0.00	375.00	3.70	1.38	0.00
125.00	3.70	1.38	0.00	380.00	3.70	1.38	0.00
130.00	3.70	1.38	0.00	385.00	3.70	1.38	0.00
135.00	3.70	1.38	0.00	390.00	3.70	1.38	0.00
140.00	3.70	1.38	0.00	395.00	3.70	1.38	0.00
145.00	3.70	1.38	0.00	400.00	3.70	1.38	0.00
150.00	3.70	1.38	0.00	405.00	3.70	1.38	0.00
155.00	3.70	1.38	0.00	410.00	3.70	1.38	0.00
160.00	3.70	1.38	0.00	415.00	3.70	1.38	0.00
165.00	3.70	1.38	0.00	420.00	3.70	1.38	0.00
170.00	3.70	1.38	0.00	425.00	3.70	1.38	0.00
175.00	3.70	1.38	0.00	430.00	3.70	1.38	0.00
180.00	3.70	1.38	0.00	435.00	3.70	1.38	0.00
185.00	3.70	1.38	0.00	440.00	3.70	1.38	0.00
190.00	3.70	1.38	0.00	445.00	3.70	1.38	0.00
195.00	3.70	1.38	0.00	450.00	3.70	1.38	0.00
200.00	3.70	1.38	0.00	455.00	3.70	1.38	0.00
205.00	3.70	1.38	0.00	460.00	3.70	1.38	0.00
210.00	3.70	1.38	0.00	465.00	3.70	1.38	0.00
215.00	3.70	1.38	0.00	470.00	3.70	1.38	0.00
220.00	3.70	1.38	0.00	475.00	3.70	1.38	0.00
225.00	3.70	1.38	0.00	480.00	3.70	1.38	0.00
230.00	3.70	1.38	0.00	485.00	3.70	1.38	0.00
235.00	3.70	1.38	0.00	490.00	3.70	1.38	0.00
240.00	3.70	1.38	0.00	495.00	3.70	1.38	0.00
245.00	3.70	1.38	0.00	500.00	3.70	1.38	0.00
250.00	3.70	1.38	0.00				
255.00	3.70	1.38	0.00				

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Summary for Subcatchment 3Y: Post 3Y - Offsite

Runoff = 2.59 cfs @ 12.13 hrs, Volume= 0.139 af, Depth= 2.03"
Routed to Link 4L : Post - North

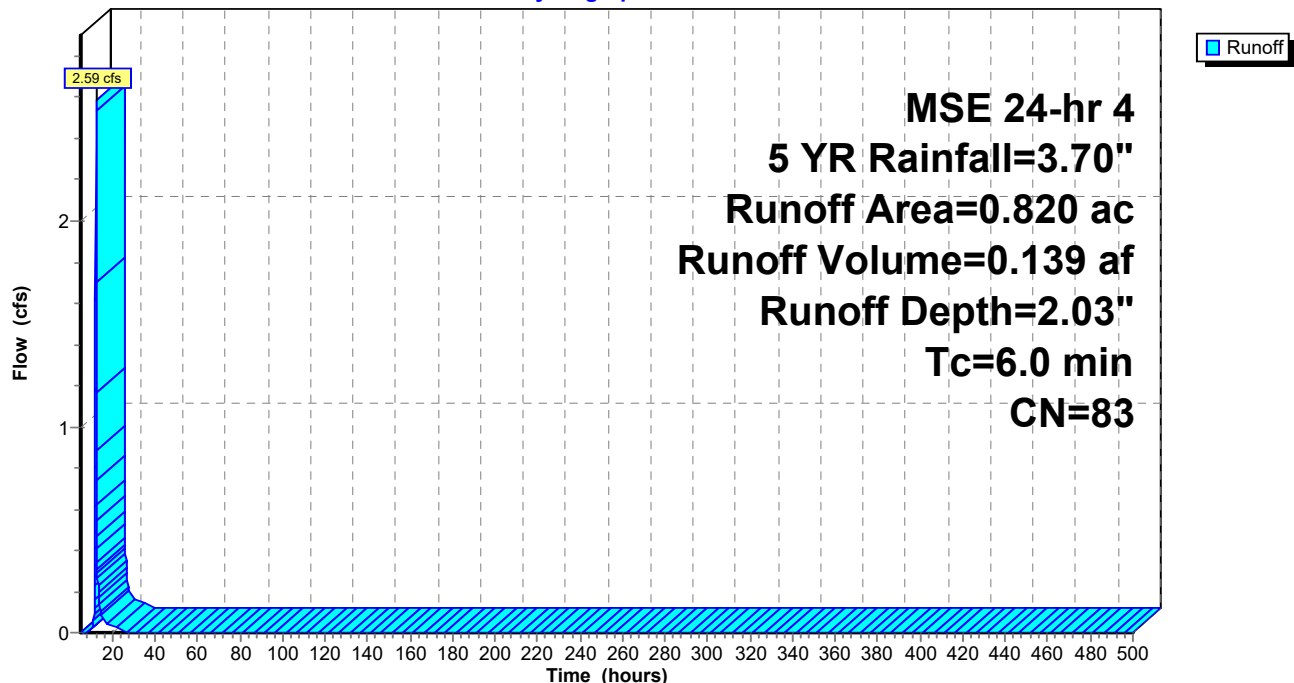
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 5 YR Rainfall=3.70"

	Area (ac)	CN	Description
*	0.300	98	Impervious
*	0.000	61	Post - B Soils
*	0.520	74	Post - C Soils
	0.820	83	Weighted Average
	0.520		63.41% Pervious Area
	0.300		36.59% Impervious Area

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

Subcatchment 3Y: Post 3Y - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"
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Hydrograph for Subcatchment 3Y: Post 3Y - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.17	0.00	0.00	260.00	3.70	2.03	0.00
10.00	0.59	0.01	0.02	265.00	3.70	2.03	0.00
15.00	3.25	1.65	0.09	270.00	3.70	2.03	0.00
20.00	3.58	1.93	0.03	275.00	3.70	2.03	0.00
25.00	3.70	2.03	0.00	280.00	3.70	2.03	0.00
30.00	3.70	2.03	0.00	285.00	3.70	2.03	0.00
35.00	3.70	2.03	0.00	290.00	3.70	2.03	0.00
40.00	3.70	2.03	0.00	295.00	3.70	2.03	0.00
45.00	3.70	2.03	0.00	300.00	3.70	2.03	0.00
50.00	3.70	2.03	0.00	305.00	3.70	2.03	0.00
55.00	3.70	2.03	0.00	310.00	3.70	2.03	0.00
60.00	3.70	2.03	0.00	315.00	3.70	2.03	0.00
65.00	3.70	2.03	0.00	320.00	3.70	2.03	0.00
70.00	3.70	2.03	0.00	325.00	3.70	2.03	0.00
75.00	3.70	2.03	0.00	330.00	3.70	2.03	0.00
80.00	3.70	2.03	0.00	335.00	3.70	2.03	0.00
85.00	3.70	2.03	0.00	340.00	3.70	2.03	0.00
90.00	3.70	2.03	0.00	345.00	3.70	2.03	0.00
95.00	3.70	2.03	0.00	350.00	3.70	2.03	0.00
100.00	3.70	2.03	0.00	355.00	3.70	2.03	0.00
105.00	3.70	2.03	0.00	360.00	3.70	2.03	0.00
110.00	3.70	2.03	0.00	365.00	3.70	2.03	0.00
115.00	3.70	2.03	0.00	370.00	3.70	2.03	0.00
120.00	3.70	2.03	0.00	375.00	3.70	2.03	0.00
125.00	3.70	2.03	0.00	380.00	3.70	2.03	0.00
130.00	3.70	2.03	0.00	385.00	3.70	2.03	0.00
135.00	3.70	2.03	0.00	390.00	3.70	2.03	0.00
140.00	3.70	2.03	0.00	395.00	3.70	2.03	0.00
145.00	3.70	2.03	0.00	400.00	3.70	2.03	0.00
150.00	3.70	2.03	0.00	405.00	3.70	2.03	0.00
155.00	3.70	2.03	0.00	410.00	3.70	2.03	0.00
160.00	3.70	2.03	0.00	415.00	3.70	2.03	0.00
165.00	3.70	2.03	0.00	420.00	3.70	2.03	0.00
170.00	3.70	2.03	0.00	425.00	3.70	2.03	0.00
175.00	3.70	2.03	0.00	430.00	3.70	2.03	0.00
180.00	3.70	2.03	0.00	435.00	3.70	2.03	0.00
185.00	3.70	2.03	0.00	440.00	3.70	2.03	0.00
190.00	3.70	2.03	0.00	445.00	3.70	2.03	0.00
195.00	3.70	2.03	0.00	450.00	3.70	2.03	0.00
200.00	3.70	2.03	0.00	455.00	3.70	2.03	0.00
205.00	3.70	2.03	0.00	460.00	3.70	2.03	0.00
210.00	3.70	2.03	0.00	465.00	3.70	2.03	0.00
215.00	3.70	2.03	0.00	470.00	3.70	2.03	0.00
220.00	3.70	2.03	0.00	475.00	3.70	2.03	0.00
225.00	3.70	2.03	0.00	480.00	3.70	2.03	0.00
230.00	3.70	2.03	0.00	485.00	3.70	2.03	0.00
235.00	3.70	2.03	0.00	490.00	3.70	2.03	0.00
240.00	3.70	2.03	0.00	495.00	3.70	2.03	0.00
245.00	3.70	2.03	0.00	500.00	3.70	2.03	0.00
250.00	3.70	2.03	0.00				
255.00	3.70	2.03	0.00				

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Summary for Subcatchment 3Z: Post 3Z - Offsite

Runoff = 1.12 cfs @ 12.14 hrs, Volume= 0.060 af, Depth= 1.38"
Routed to Link 4L : Post - North

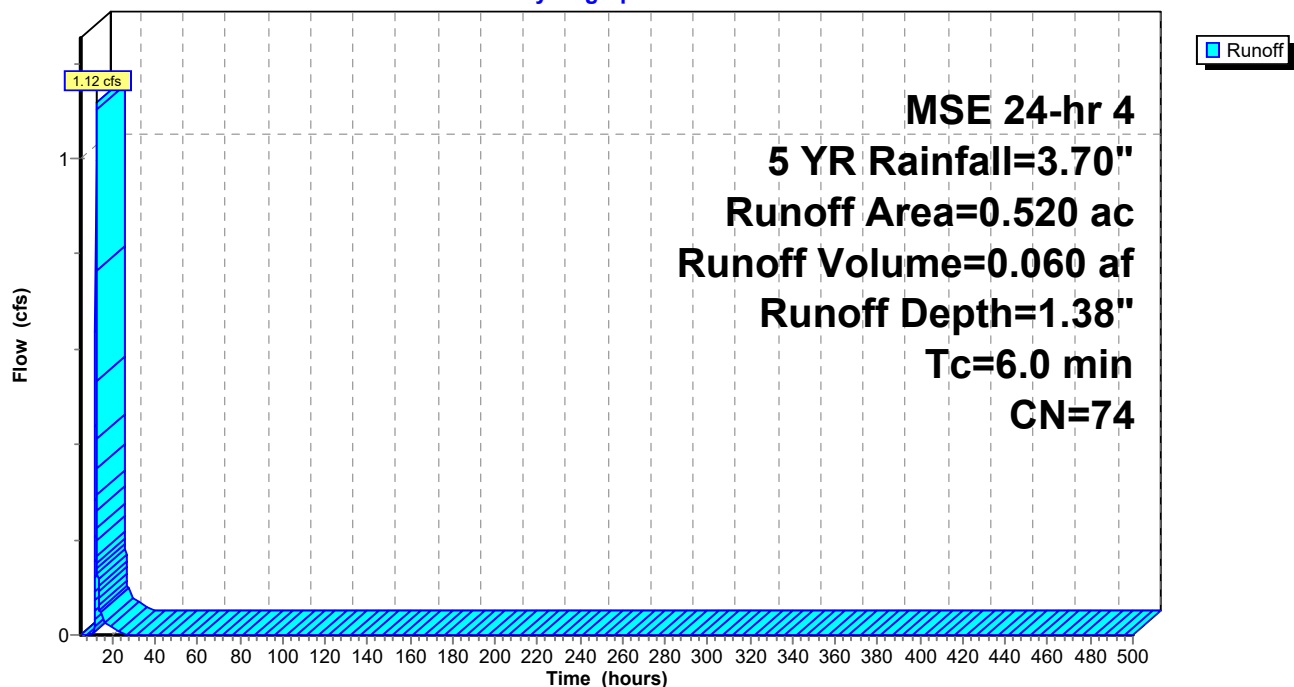
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 5 YR Rainfall=3.70"

Area (ac)	CN	Description
* 0.000	98	Impervious
* 0.000	61	Post - B Soils
* 0.520	74	Post - C Soils
0.520	74	Weighted Average
0.520		100.00% Pervious Area

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

Subcatchment 3Z: Post 3Z - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Subcatchment 3Z: Post 3Z - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.17	0.00	0.00	260.00	3.70	1.38	0.00
10.00	0.59	0.00	0.00	265.00	3.70	1.38	0.00
15.00	3.25	1.07	0.05	270.00	3.70	1.38	0.00
20.00	3.58	1.30	0.02	275.00	3.70	1.38	0.00
25.00	3.70	1.38	0.00	280.00	3.70	1.38	0.00
30.00	3.70	1.38	0.00	285.00	3.70	1.38	0.00
35.00	3.70	1.38	0.00	290.00	3.70	1.38	0.00
40.00	3.70	1.38	0.00	295.00	3.70	1.38	0.00
45.00	3.70	1.38	0.00	300.00	3.70	1.38	0.00
50.00	3.70	1.38	0.00	305.00	3.70	1.38	0.00
55.00	3.70	1.38	0.00	310.00	3.70	1.38	0.00
60.00	3.70	1.38	0.00	315.00	3.70	1.38	0.00
65.00	3.70	1.38	0.00	320.00	3.70	1.38	0.00
70.00	3.70	1.38	0.00	325.00	3.70	1.38	0.00
75.00	3.70	1.38	0.00	330.00	3.70	1.38	0.00
80.00	3.70	1.38	0.00	335.00	3.70	1.38	0.00
85.00	3.70	1.38	0.00	340.00	3.70	1.38	0.00
90.00	3.70	1.38	0.00	345.00	3.70	1.38	0.00
95.00	3.70	1.38	0.00	350.00	3.70	1.38	0.00
100.00	3.70	1.38	0.00	355.00	3.70	1.38	0.00
105.00	3.70	1.38	0.00	360.00	3.70	1.38	0.00
110.00	3.70	1.38	0.00	365.00	3.70	1.38	0.00
115.00	3.70	1.38	0.00	370.00	3.70	1.38	0.00
120.00	3.70	1.38	0.00	375.00	3.70	1.38	0.00
125.00	3.70	1.38	0.00	380.00	3.70	1.38	0.00
130.00	3.70	1.38	0.00	385.00	3.70	1.38	0.00
135.00	3.70	1.38	0.00	390.00	3.70	1.38	0.00
140.00	3.70	1.38	0.00	395.00	3.70	1.38	0.00
145.00	3.70	1.38	0.00	400.00	3.70	1.38	0.00
150.00	3.70	1.38	0.00	405.00	3.70	1.38	0.00
155.00	3.70	1.38	0.00	410.00	3.70	1.38	0.00
160.00	3.70	1.38	0.00	415.00	3.70	1.38	0.00
165.00	3.70	1.38	0.00	420.00	3.70	1.38	0.00
170.00	3.70	1.38	0.00	425.00	3.70	1.38	0.00
175.00	3.70	1.38	0.00	430.00	3.70	1.38	0.00
180.00	3.70	1.38	0.00	435.00	3.70	1.38	0.00
185.00	3.70	1.38	0.00	440.00	3.70	1.38	0.00
190.00	3.70	1.38	0.00	445.00	3.70	1.38	0.00
195.00	3.70	1.38	0.00	450.00	3.70	1.38	0.00
200.00	3.70	1.38	0.00	455.00	3.70	1.38	0.00
205.00	3.70	1.38	0.00	460.00	3.70	1.38	0.00
210.00	3.70	1.38	0.00	465.00	3.70	1.38	0.00
215.00	3.70	1.38	0.00	470.00	3.70	1.38	0.00
220.00	3.70	1.38	0.00	475.00	3.70	1.38	0.00
225.00	3.70	1.38	0.00	480.00	3.70	1.38	0.00
230.00	3.70	1.38	0.00	485.00	3.70	1.38	0.00
235.00	3.70	1.38	0.00	490.00	3.70	1.38	0.00
240.00	3.70	1.38	0.00	495.00	3.70	1.38	0.00
245.00	3.70	1.38	0.00	500.00	3.70	1.38	0.00
250.00	3.70	1.38	0.00				
255.00	3.70	1.38	0.00				

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Summary for Subcatchment 5S: Culvert 1

Runoff = 0.30 cfs @ 12.13 hrs, Volume= 0.016 af, Depth= 1.72"

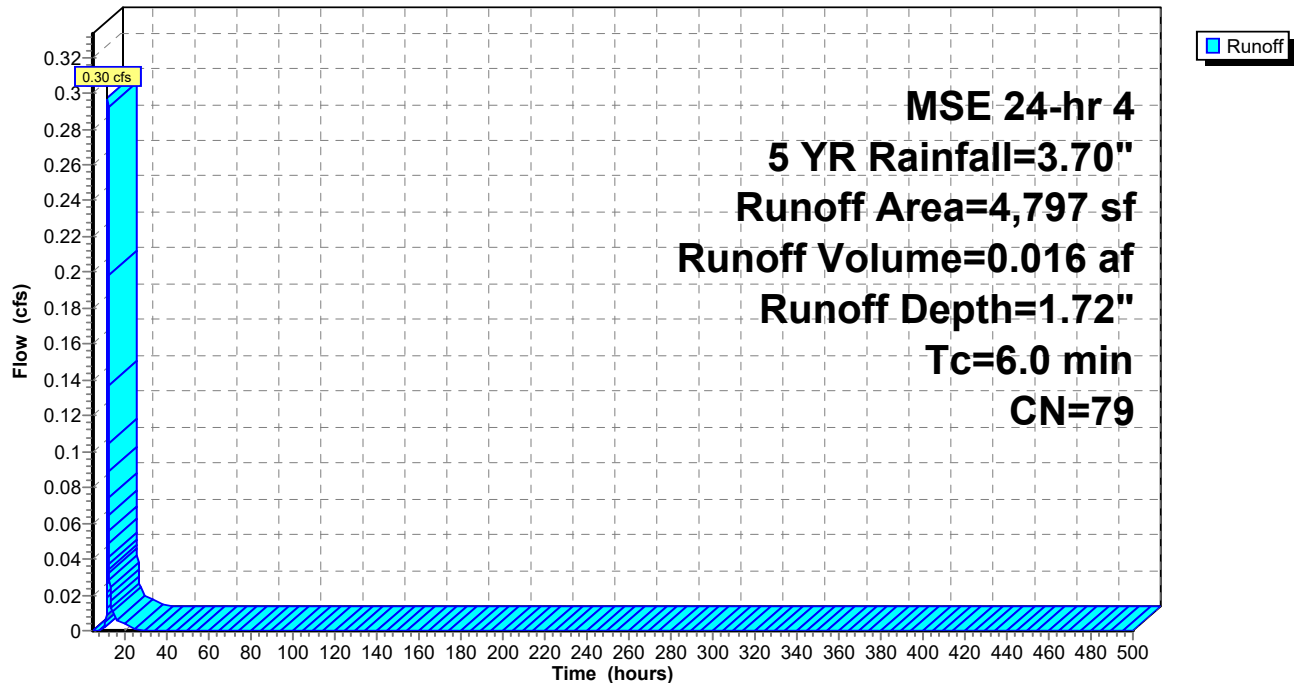
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 5 YR Rainfall=3.70"

	Area (sf)	CN	Description
*	2,465	61	Post - B Soils
*	2,332	98	Impervious
	4,797	79	Weighted Average
	2,465		51.39% Pervious Area
	2,332		48.61% Impervious Area

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

Subcatchment 5S: Culvert 1

Hydrograph



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Subcatchment 5S: Culvert 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.17	0.00	0.00	260.00	3.70	1.72	0.00
10.00	0.59	0.00	0.00	265.00	3.70	1.72	0.00
15.00	3.25	1.38	0.01	270.00	3.70	1.72	0.00
20.00	3.58	1.63	0.00	275.00	3.70	1.72	0.00
25.00	3.70	1.72	0.00	280.00	3.70	1.72	0.00
30.00	3.70	1.72	0.00	285.00	3.70	1.72	0.00
35.00	3.70	1.72	0.00	290.00	3.70	1.72	0.00
40.00	3.70	1.72	0.00	295.00	3.70	1.72	0.00
45.00	3.70	1.72	0.00	300.00	3.70	1.72	0.00
50.00	3.70	1.72	0.00	305.00	3.70	1.72	0.00
55.00	3.70	1.72	0.00	310.00	3.70	1.72	0.00
60.00	3.70	1.72	0.00	315.00	3.70	1.72	0.00
65.00	3.70	1.72	0.00	320.00	3.70	1.72	0.00
70.00	3.70	1.72	0.00	325.00	3.70	1.72	0.00
75.00	3.70	1.72	0.00	330.00	3.70	1.72	0.00
80.00	3.70	1.72	0.00	335.00	3.70	1.72	0.00
85.00	3.70	1.72	0.00	340.00	3.70	1.72	0.00
90.00	3.70	1.72	0.00	345.00	3.70	1.72	0.00
95.00	3.70	1.72	0.00	350.00	3.70	1.72	0.00
100.00	3.70	1.72	0.00	355.00	3.70	1.72	0.00
105.00	3.70	1.72	0.00	360.00	3.70	1.72	0.00
110.00	3.70	1.72	0.00	365.00	3.70	1.72	0.00
115.00	3.70	1.72	0.00	370.00	3.70	1.72	0.00
120.00	3.70	1.72	0.00	375.00	3.70	1.72	0.00
125.00	3.70	1.72	0.00	380.00	3.70	1.72	0.00
130.00	3.70	1.72	0.00	385.00	3.70	1.72	0.00
135.00	3.70	1.72	0.00	390.00	3.70	1.72	0.00
140.00	3.70	1.72	0.00	395.00	3.70	1.72	0.00
145.00	3.70	1.72	0.00	400.00	3.70	1.72	0.00
150.00	3.70	1.72	0.00	405.00	3.70	1.72	0.00
155.00	3.70	1.72	0.00	410.00	3.70	1.72	0.00
160.00	3.70	1.72	0.00	415.00	3.70	1.72	0.00
165.00	3.70	1.72	0.00	420.00	3.70	1.72	0.00
170.00	3.70	1.72	0.00	425.00	3.70	1.72	0.00
175.00	3.70	1.72	0.00	430.00	3.70	1.72	0.00
180.00	3.70	1.72	0.00	435.00	3.70	1.72	0.00
185.00	3.70	1.72	0.00	440.00	3.70	1.72	0.00
190.00	3.70	1.72	0.00	445.00	3.70	1.72	0.00
195.00	3.70	1.72	0.00	450.00	3.70	1.72	0.00
200.00	3.70	1.72	0.00	455.00	3.70	1.72	0.00
205.00	3.70	1.72	0.00	460.00	3.70	1.72	0.00
210.00	3.70	1.72	0.00	465.00	3.70	1.72	0.00
215.00	3.70	1.72	0.00	470.00	3.70	1.72	0.00
220.00	3.70	1.72	0.00	475.00	3.70	1.72	0.00
225.00	3.70	1.72	0.00	480.00	3.70	1.72	0.00
230.00	3.70	1.72	0.00	485.00	3.70	1.72	0.00
235.00	3.70	1.72	0.00	490.00	3.70	1.72	0.00
240.00	3.70	1.72	0.00	495.00	3.70	1.72	0.00
245.00	3.70	1.72	0.00	500.00	3.70	1.72	0.00
250.00	3.70	1.72	0.00				
255.00	3.70	1.72	0.00				

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Summary for Subcatchment 6S: Culvert 2

Runoff = 1.28 cfs @ 12.14 hrs, Volume= 0.068 af, Depth= 1.45"

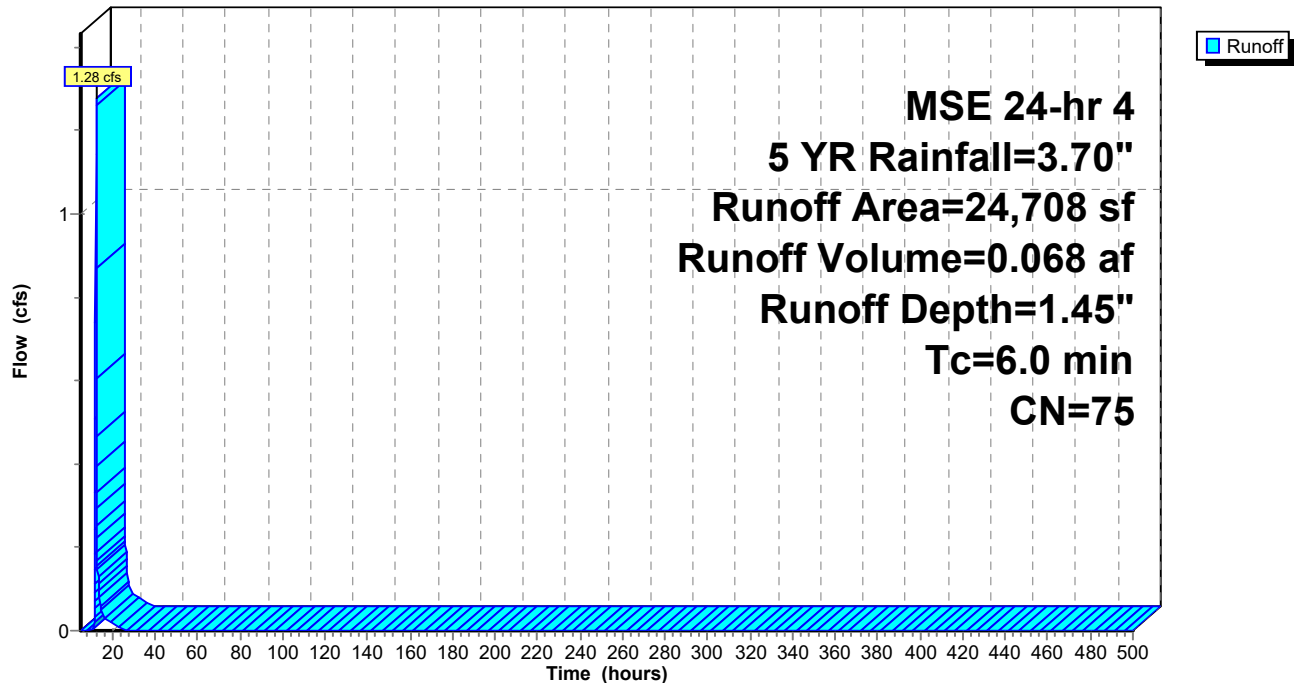
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 5 YR Rainfall=3.70"

	Area (sf)	CN	Description
*	15,597	61	Post - B Soils
*	9,111	98	Impervious
	24,708	75	Weighted Average
	15,597		63.13% Pervious Area
	9,111		36.87% Impervious Area

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

Subcatchment 6S: Culvert 2

Hydrograph



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Subcatchment 6S: Culvert 2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.17	0.00	0.00	260.00	3.70	1.45	0.00
10.00	0.59	0.00	0.00	265.00	3.70	1.45	0.00
15.00	3.25	1.13	0.05	270.00	3.70	1.45	0.00
20.00	3.58	1.36	0.02	275.00	3.70	1.45	0.00
25.00	3.70	1.45	0.00	280.00	3.70	1.45	0.00
30.00	3.70	1.45	0.00	285.00	3.70	1.45	0.00
35.00	3.70	1.45	0.00	290.00	3.70	1.45	0.00
40.00	3.70	1.45	0.00	295.00	3.70	1.45	0.00
45.00	3.70	1.45	0.00	300.00	3.70	1.45	0.00
50.00	3.70	1.45	0.00	305.00	3.70	1.45	0.00
55.00	3.70	1.45	0.00	310.00	3.70	1.45	0.00
60.00	3.70	1.45	0.00	315.00	3.70	1.45	0.00
65.00	3.70	1.45	0.00	320.00	3.70	1.45	0.00
70.00	3.70	1.45	0.00	325.00	3.70	1.45	0.00
75.00	3.70	1.45	0.00	330.00	3.70	1.45	0.00
80.00	3.70	1.45	0.00	335.00	3.70	1.45	0.00
85.00	3.70	1.45	0.00	340.00	3.70	1.45	0.00
90.00	3.70	1.45	0.00	345.00	3.70	1.45	0.00
95.00	3.70	1.45	0.00	350.00	3.70	1.45	0.00
100.00	3.70	1.45	0.00	355.00	3.70	1.45	0.00
105.00	3.70	1.45	0.00	360.00	3.70	1.45	0.00
110.00	3.70	1.45	0.00	365.00	3.70	1.45	0.00
115.00	3.70	1.45	0.00	370.00	3.70	1.45	0.00
120.00	3.70	1.45	0.00	375.00	3.70	1.45	0.00
125.00	3.70	1.45	0.00	380.00	3.70	1.45	0.00
130.00	3.70	1.45	0.00	385.00	3.70	1.45	0.00
135.00	3.70	1.45	0.00	390.00	3.70	1.45	0.00
140.00	3.70	1.45	0.00	395.00	3.70	1.45	0.00
145.00	3.70	1.45	0.00	400.00	3.70	1.45	0.00
150.00	3.70	1.45	0.00	405.00	3.70	1.45	0.00
155.00	3.70	1.45	0.00	410.00	3.70	1.45	0.00
160.00	3.70	1.45	0.00	415.00	3.70	1.45	0.00
165.00	3.70	1.45	0.00	420.00	3.70	1.45	0.00
170.00	3.70	1.45	0.00	425.00	3.70	1.45	0.00
175.00	3.70	1.45	0.00	430.00	3.70	1.45	0.00
180.00	3.70	1.45	0.00	435.00	3.70	1.45	0.00
185.00	3.70	1.45	0.00	440.00	3.70	1.45	0.00
190.00	3.70	1.45	0.00	445.00	3.70	1.45	0.00
195.00	3.70	1.45	0.00	450.00	3.70	1.45	0.00
200.00	3.70	1.45	0.00	455.00	3.70	1.45	0.00
205.00	3.70	1.45	0.00	460.00	3.70	1.45	0.00
210.00	3.70	1.45	0.00	465.00	3.70	1.45	0.00
215.00	3.70	1.45	0.00	470.00	3.70	1.45	0.00
220.00	3.70	1.45	0.00	475.00	3.70	1.45	0.00
225.00	3.70	1.45	0.00	480.00	3.70	1.45	0.00
230.00	3.70	1.45	0.00	485.00	3.70	1.45	0.00
235.00	3.70	1.45	0.00	490.00	3.70	1.45	0.00
240.00	3.70	1.45	0.00	495.00	3.70	1.45	0.00
245.00	3.70	1.45	0.00	500.00	3.70	1.45	0.00
250.00	3.70	1.45	0.00				
255.00	3.70	1.45	0.00				

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Summary for Subcatchment 7S: Culvert 3

Runoff = 1.95 cfs @ 12.14 hrs, Volume= 0.105 af, Depth= 1.32"

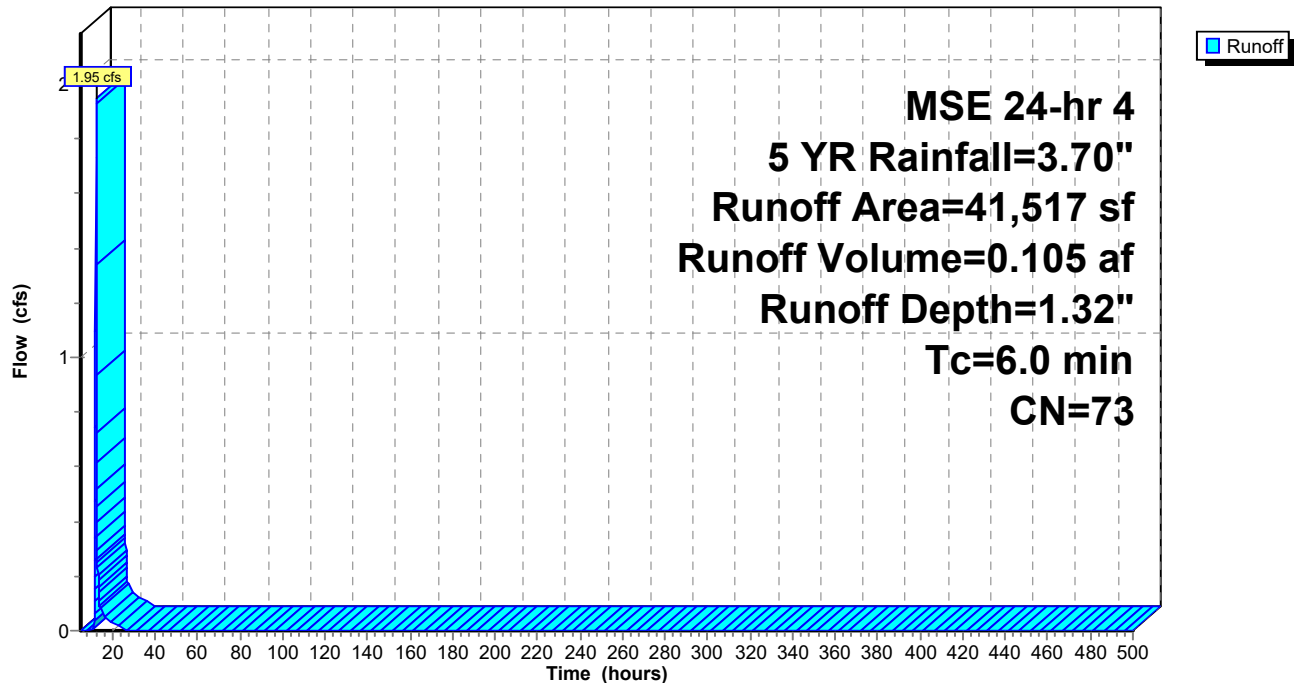
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 5 YR Rainfall=3.70"

	Area (sf)	CN	Description
*	28,233	61	Post - B Soils
*	13,284	98	Impervious
	41,517	73	Weighted Average
	28,233		68.00% Pervious Area
	13,284		32.00% Impervious Area

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

Subcatchment 7S: Culvert 3

Hydrograph



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Subcatchment 7S: Culvert 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.17	0.00	0.00	260.00	3.70	1.32	0.00
10.00	0.59	0.00	0.00	265.00	3.70	1.32	0.00
15.00	3.25	1.02	0.08	270.00	3.70	1.32	0.00
20.00	3.58	1.23	0.03	275.00	3.70	1.32	0.00
25.00	3.70	1.32	0.00	280.00	3.70	1.32	0.00
30.00	3.70	1.32	0.00	285.00	3.70	1.32	0.00
35.00	3.70	1.32	0.00	290.00	3.70	1.32	0.00
40.00	3.70	1.32	0.00	295.00	3.70	1.32	0.00
45.00	3.70	1.32	0.00	300.00	3.70	1.32	0.00
50.00	3.70	1.32	0.00	305.00	3.70	1.32	0.00
55.00	3.70	1.32	0.00	310.00	3.70	1.32	0.00
60.00	3.70	1.32	0.00	315.00	3.70	1.32	0.00
65.00	3.70	1.32	0.00	320.00	3.70	1.32	0.00
70.00	3.70	1.32	0.00	325.00	3.70	1.32	0.00
75.00	3.70	1.32	0.00	330.00	3.70	1.32	0.00
80.00	3.70	1.32	0.00	335.00	3.70	1.32	0.00
85.00	3.70	1.32	0.00	340.00	3.70	1.32	0.00
90.00	3.70	1.32	0.00	345.00	3.70	1.32	0.00
95.00	3.70	1.32	0.00	350.00	3.70	1.32	0.00
100.00	3.70	1.32	0.00	355.00	3.70	1.32	0.00
105.00	3.70	1.32	0.00	360.00	3.70	1.32	0.00
110.00	3.70	1.32	0.00	365.00	3.70	1.32	0.00
115.00	3.70	1.32	0.00	370.00	3.70	1.32	0.00
120.00	3.70	1.32	0.00	375.00	3.70	1.32	0.00
125.00	3.70	1.32	0.00	380.00	3.70	1.32	0.00
130.00	3.70	1.32	0.00	385.00	3.70	1.32	0.00
135.00	3.70	1.32	0.00	390.00	3.70	1.32	0.00
140.00	3.70	1.32	0.00	395.00	3.70	1.32	0.00
145.00	3.70	1.32	0.00	400.00	3.70	1.32	0.00
150.00	3.70	1.32	0.00	405.00	3.70	1.32	0.00
155.00	3.70	1.32	0.00	410.00	3.70	1.32	0.00
160.00	3.70	1.32	0.00	415.00	3.70	1.32	0.00
165.00	3.70	1.32	0.00	420.00	3.70	1.32	0.00
170.00	3.70	1.32	0.00	425.00	3.70	1.32	0.00
175.00	3.70	1.32	0.00	430.00	3.70	1.32	0.00
180.00	3.70	1.32	0.00	435.00	3.70	1.32	0.00
185.00	3.70	1.32	0.00	440.00	3.70	1.32	0.00
190.00	3.70	1.32	0.00	445.00	3.70	1.32	0.00
195.00	3.70	1.32	0.00	450.00	3.70	1.32	0.00
200.00	3.70	1.32	0.00	455.00	3.70	1.32	0.00
205.00	3.70	1.32	0.00	460.00	3.70	1.32	0.00
210.00	3.70	1.32	0.00	465.00	3.70	1.32	0.00
215.00	3.70	1.32	0.00	470.00	3.70	1.32	0.00
220.00	3.70	1.32	0.00	475.00	3.70	1.32	0.00
225.00	3.70	1.32	0.00	480.00	3.70	1.32	0.00
230.00	3.70	1.32	0.00	485.00	3.70	1.32	0.00
235.00	3.70	1.32	0.00	490.00	3.70	1.32	0.00
240.00	3.70	1.32	0.00	495.00	3.70	1.32	0.00
245.00	3.70	1.32	0.00	500.00	3.70	1.32	0.00
250.00	3.70	1.32	0.00				
255.00	3.70	1.32	0.00				

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Summary for Subcatchment 8S: Culvert 4

Runoff = 8.35 cfs @ 12.14 hrs, Volume= 0.455 af, Depth= 1.13"

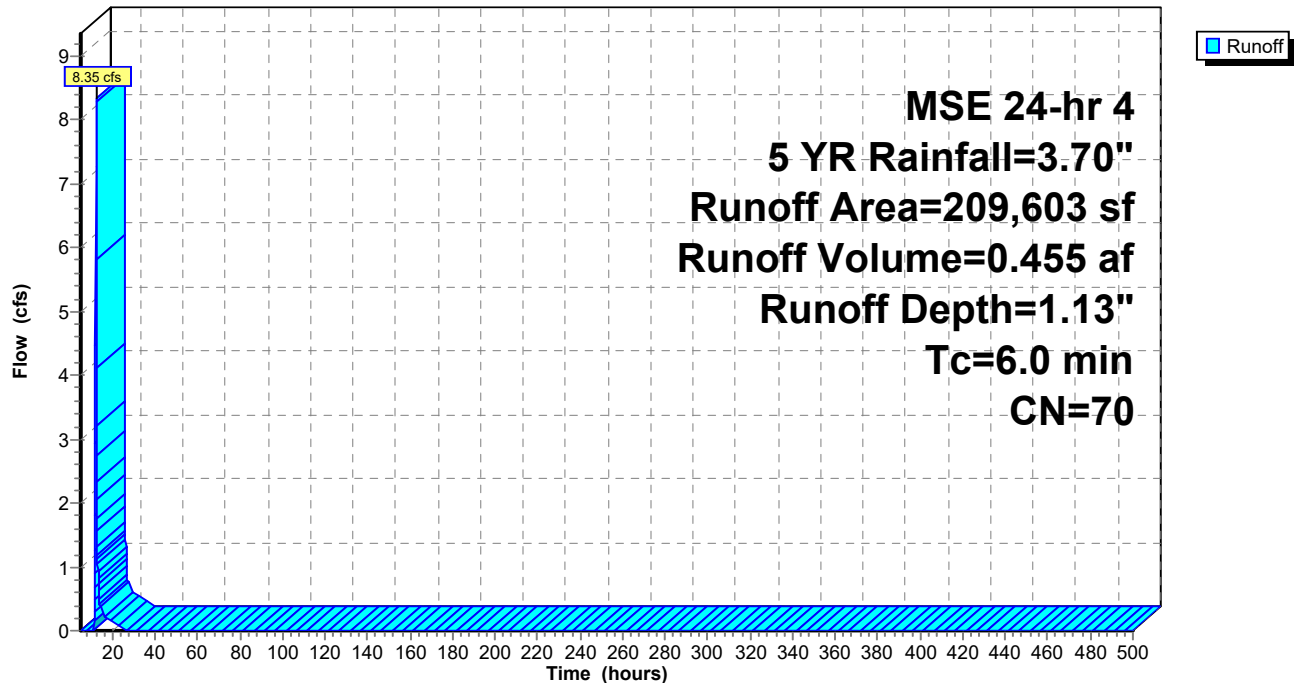
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 5 YR Rainfall=3.70"

	Area (sf)	CN	Description
*	156,823	61	Post - B Soils
*	52,780	98	Impervious
	209,603	70	Weighted Average
	156,823		74.82% Pervious Area
	52,780		25.18% Impervious Area

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

Subcatchment 8S: Culvert 4

Hydrograph



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"
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Hydrograph for Subcatchment 8S: Culvert 4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.17	0.00	0.00	260.00	3.70	1.13	0.00
10.00	0.59	0.00	0.00	265.00	3.70	1.13	0.00
15.00	3.25	0.86	0.37	270.00	3.70	1.13	0.00
20.00	3.58	1.06	0.14	275.00	3.70	1.13	0.00
25.00	3.70	1.13	0.00	280.00	3.70	1.13	0.00
30.00	3.70	1.13	0.00	285.00	3.70	1.13	0.00
35.00	3.70	1.13	0.00	290.00	3.70	1.13	0.00
40.00	3.70	1.13	0.00	295.00	3.70	1.13	0.00
45.00	3.70	1.13	0.00	300.00	3.70	1.13	0.00
50.00	3.70	1.13	0.00	305.00	3.70	1.13	0.00
55.00	3.70	1.13	0.00	310.00	3.70	1.13	0.00
60.00	3.70	1.13	0.00	315.00	3.70	1.13	0.00
65.00	3.70	1.13	0.00	320.00	3.70	1.13	0.00
70.00	3.70	1.13	0.00	325.00	3.70	1.13	0.00
75.00	3.70	1.13	0.00	330.00	3.70	1.13	0.00
80.00	3.70	1.13	0.00	335.00	3.70	1.13	0.00
85.00	3.70	1.13	0.00	340.00	3.70	1.13	0.00
90.00	3.70	1.13	0.00	345.00	3.70	1.13	0.00
95.00	3.70	1.13	0.00	350.00	3.70	1.13	0.00
100.00	3.70	1.13	0.00	355.00	3.70	1.13	0.00
105.00	3.70	1.13	0.00	360.00	3.70	1.13	0.00
110.00	3.70	1.13	0.00	365.00	3.70	1.13	0.00
115.00	3.70	1.13	0.00	370.00	3.70	1.13	0.00
120.00	3.70	1.13	0.00	375.00	3.70	1.13	0.00
125.00	3.70	1.13	0.00	380.00	3.70	1.13	0.00
130.00	3.70	1.13	0.00	385.00	3.70	1.13	0.00
135.00	3.70	1.13	0.00	390.00	3.70	1.13	0.00
140.00	3.70	1.13	0.00	395.00	3.70	1.13	0.00
145.00	3.70	1.13	0.00	400.00	3.70	1.13	0.00
150.00	3.70	1.13	0.00	405.00	3.70	1.13	0.00
155.00	3.70	1.13	0.00	410.00	3.70	1.13	0.00
160.00	3.70	1.13	0.00	415.00	3.70	1.13	0.00
165.00	3.70	1.13	0.00	420.00	3.70	1.13	0.00
170.00	3.70	1.13	0.00	425.00	3.70	1.13	0.00
175.00	3.70	1.13	0.00	430.00	3.70	1.13	0.00
180.00	3.70	1.13	0.00	435.00	3.70	1.13	0.00
185.00	3.70	1.13	0.00	440.00	3.70	1.13	0.00
190.00	3.70	1.13	0.00	445.00	3.70	1.13	0.00
195.00	3.70	1.13	0.00	450.00	3.70	1.13	0.00
200.00	3.70	1.13	0.00	455.00	3.70	1.13	0.00
205.00	3.70	1.13	0.00	460.00	3.70	1.13	0.00
210.00	3.70	1.13	0.00	465.00	3.70	1.13	0.00
215.00	3.70	1.13	0.00	470.00	3.70	1.13	0.00
220.00	3.70	1.13	0.00	475.00	3.70	1.13	0.00
225.00	3.70	1.13	0.00	480.00	3.70	1.13	0.00
230.00	3.70	1.13	0.00	485.00	3.70	1.13	0.00
235.00	3.70	1.13	0.00	490.00	3.70	1.13	0.00
240.00	3.70	1.13	0.00	495.00	3.70	1.13	0.00
245.00	3.70	1.13	0.00	500.00	3.70	1.13	0.00
250.00	3.70	1.13	0.00				
255.00	3.70	1.13	0.00				

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Summary for Subcatchment 9S: Culvert 5

Runoff = 6.66 cfs @ 12.14 hrs, Volume= 0.368 af, Depth= 1.02"

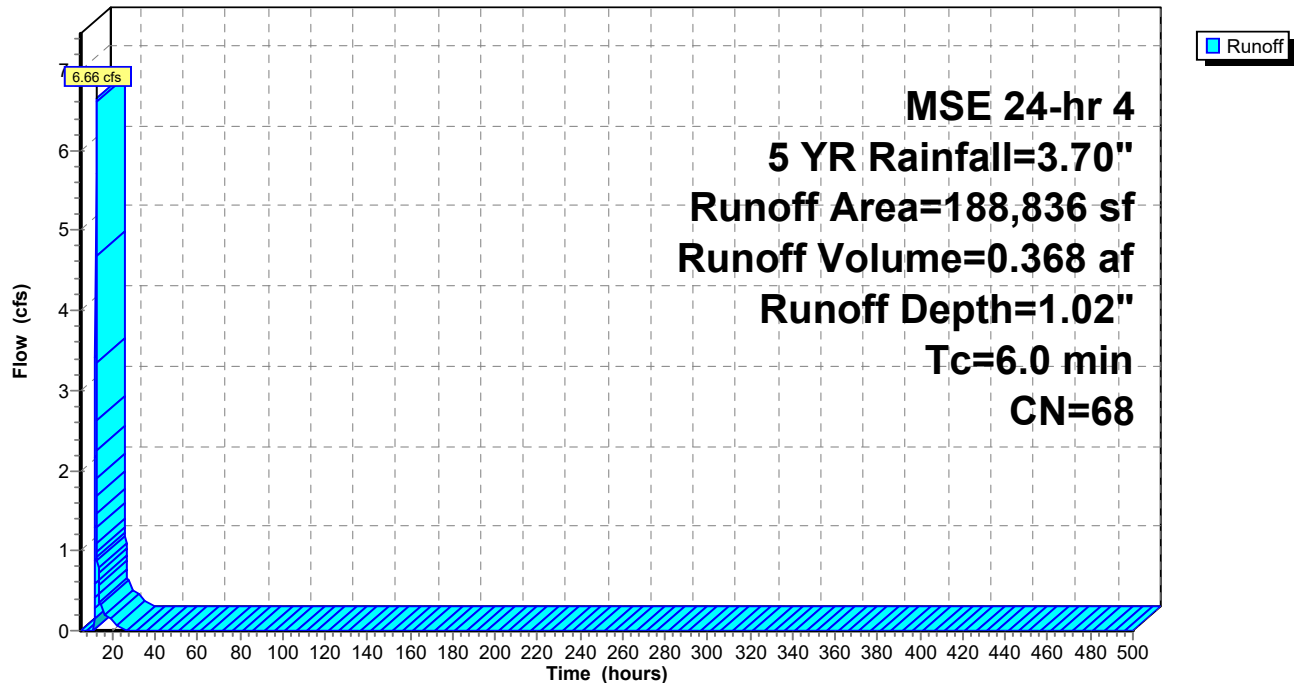
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 5 YR Rainfall=3.70"

	Area (sf)	CN	Description
*	151,149	61	Post - B Soils
*	37,687	98	Impervious
	188,836	68	Weighted Average
	151,149		80.04% Pervious Area
	37,687		19.96% Impervious Area

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

Subcatchment 9S: Culvert 5

Hydrograph



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"
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Hydrograph for Subcatchment 9S: Culvert 5

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.17	0.00	0.00	260.00	3.70	1.02	0.00
10.00	0.59	0.00	0.00	265.00	3.70	1.02	0.00
15.00	3.25	0.76	0.31	270.00	3.70	1.02	0.00
20.00	3.58	0.95	0.12	275.00	3.70	1.02	0.00
25.00	3.70	1.02	0.00	280.00	3.70	1.02	0.00
30.00	3.70	1.02	0.00	285.00	3.70	1.02	0.00
35.00	3.70	1.02	0.00	290.00	3.70	1.02	0.00
40.00	3.70	1.02	0.00	295.00	3.70	1.02	0.00
45.00	3.70	1.02	0.00	300.00	3.70	1.02	0.00
50.00	3.70	1.02	0.00	305.00	3.70	1.02	0.00
55.00	3.70	1.02	0.00	310.00	3.70	1.02	0.00
60.00	3.70	1.02	0.00	315.00	3.70	1.02	0.00
65.00	3.70	1.02	0.00	320.00	3.70	1.02	0.00
70.00	3.70	1.02	0.00	325.00	3.70	1.02	0.00
75.00	3.70	1.02	0.00	330.00	3.70	1.02	0.00
80.00	3.70	1.02	0.00	335.00	3.70	1.02	0.00
85.00	3.70	1.02	0.00	340.00	3.70	1.02	0.00
90.00	3.70	1.02	0.00	345.00	3.70	1.02	0.00
95.00	3.70	1.02	0.00	350.00	3.70	1.02	0.00
100.00	3.70	1.02	0.00	355.00	3.70	1.02	0.00
105.00	3.70	1.02	0.00	360.00	3.70	1.02	0.00
110.00	3.70	1.02	0.00	365.00	3.70	1.02	0.00
115.00	3.70	1.02	0.00	370.00	3.70	1.02	0.00
120.00	3.70	1.02	0.00	375.00	3.70	1.02	0.00
125.00	3.70	1.02	0.00	380.00	3.70	1.02	0.00
130.00	3.70	1.02	0.00	385.00	3.70	1.02	0.00
135.00	3.70	1.02	0.00	390.00	3.70	1.02	0.00
140.00	3.70	1.02	0.00	395.00	3.70	1.02	0.00
145.00	3.70	1.02	0.00	400.00	3.70	1.02	0.00
150.00	3.70	1.02	0.00	405.00	3.70	1.02	0.00
155.00	3.70	1.02	0.00	410.00	3.70	1.02	0.00
160.00	3.70	1.02	0.00	415.00	3.70	1.02	0.00
165.00	3.70	1.02	0.00	420.00	3.70	1.02	0.00
170.00	3.70	1.02	0.00	425.00	3.70	1.02	0.00
175.00	3.70	1.02	0.00	430.00	3.70	1.02	0.00
180.00	3.70	1.02	0.00	435.00	3.70	1.02	0.00
185.00	3.70	1.02	0.00	440.00	3.70	1.02	0.00
190.00	3.70	1.02	0.00	445.00	3.70	1.02	0.00
195.00	3.70	1.02	0.00	450.00	3.70	1.02	0.00
200.00	3.70	1.02	0.00	455.00	3.70	1.02	0.00
205.00	3.70	1.02	0.00	460.00	3.70	1.02	0.00
210.00	3.70	1.02	0.00	465.00	3.70	1.02	0.00
215.00	3.70	1.02	0.00	470.00	3.70	1.02	0.00
220.00	3.70	1.02	0.00	475.00	3.70	1.02	0.00
225.00	3.70	1.02	0.00	480.00	3.70	1.02	0.00
230.00	3.70	1.02	0.00	485.00	3.70	1.02	0.00
235.00	3.70	1.02	0.00	490.00	3.70	1.02	0.00
240.00	3.70	1.02	0.00	495.00	3.70	1.02	0.00
245.00	3.70	1.02	0.00	500.00	3.70	1.02	0.00
250.00	3.70	1.02	0.00				
255.00	3.70	1.02	0.00				

Summary for Pond P1A: Pond 1A

Inflow Area = 6.030 ac, 19.24% Impervious, Inflow Depth = 1.02" for 5 YR event
 Inflow = 9.27 cfs @ 12.14 hrs, Volume= 0.512 af
 Outflow = 1.17 cfs @ 12.91 hrs, Volume= 0.512 af, Atten= 87%, Lag= 46.2 min
 Primary = 0.70 cfs @ 12.91 hrs, Volume= 0.135 af
 Routed to Link 3L : Post - South
 Secondary = 0.47 cfs @ 12.91 hrs, Volume= 0.377 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,241.17' @ 12.91 hrs Surf.Area= 5,630 sf Storage= 8,802 cf

Plug-Flow detention time= 145.4 min calculated for 0.512 af (100% of inflow)
 Center-of-Mass det. time= 145.3 min (996.8 - 851.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,239.00'	30,563 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,239.00	2,496	0	0
1,244.00	9,729	30,563	30,563

Device	Routing	Invert	Outlet Devices
#1	Primary	1,240.00'	12.0" Round Culvert L= 39.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,240.00' / 1,236.00' S= 0.1026 ' /' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,240.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,242.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,239.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,243.00'	20.0' long + 4.0 ' /' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.70 cfs @ 12.91 hrs HW=1,241.17' (Free Discharge)

↑ **1=Culvert** (Passes 0.70 cfs of 3.09 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 0.70 cfs @ 2.91 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.47 cfs @ 12.91 hrs HW=1,241.17' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.47 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,239.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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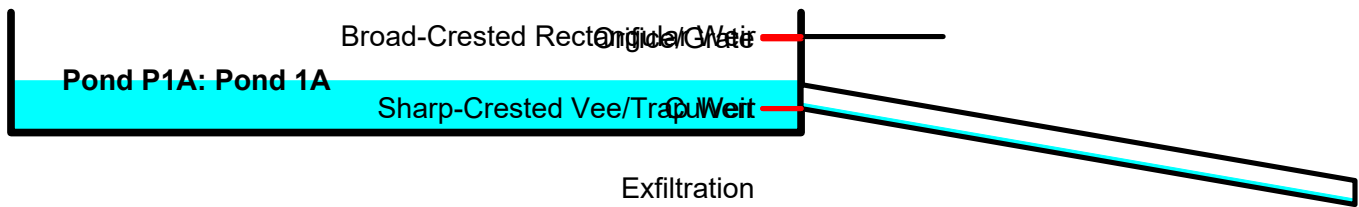
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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

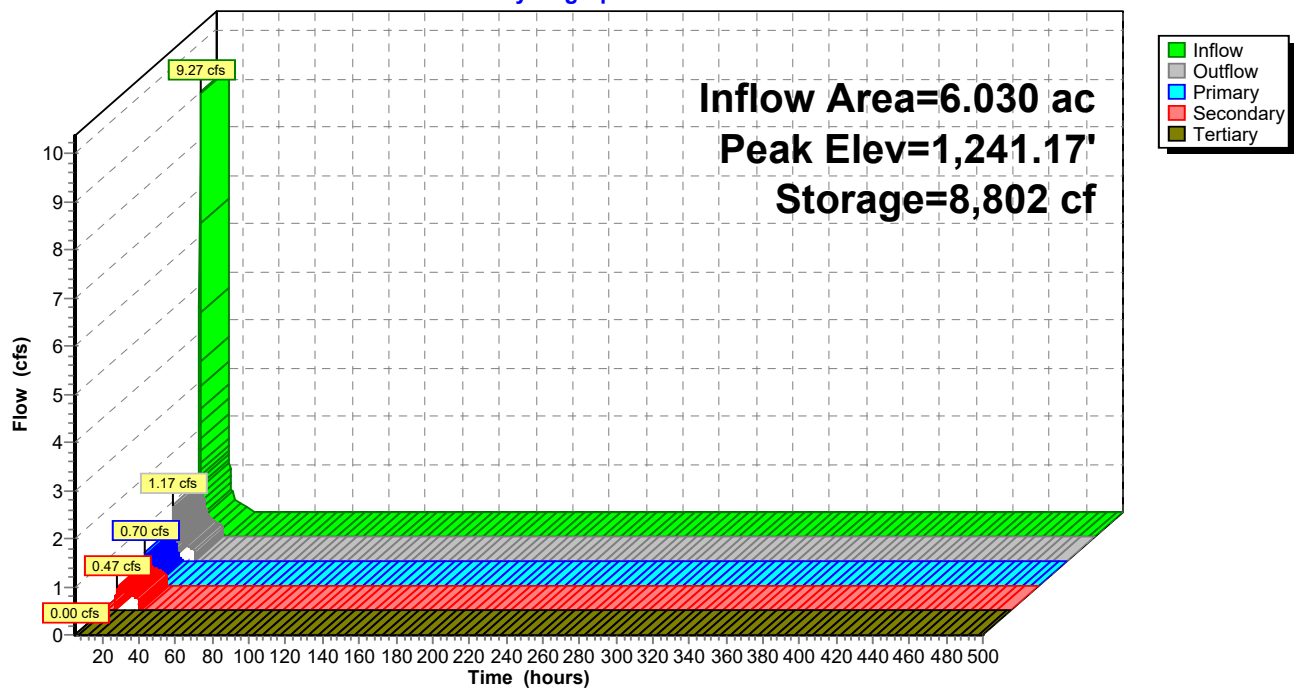
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Pond P1A: Pond 1A

Hydrograph



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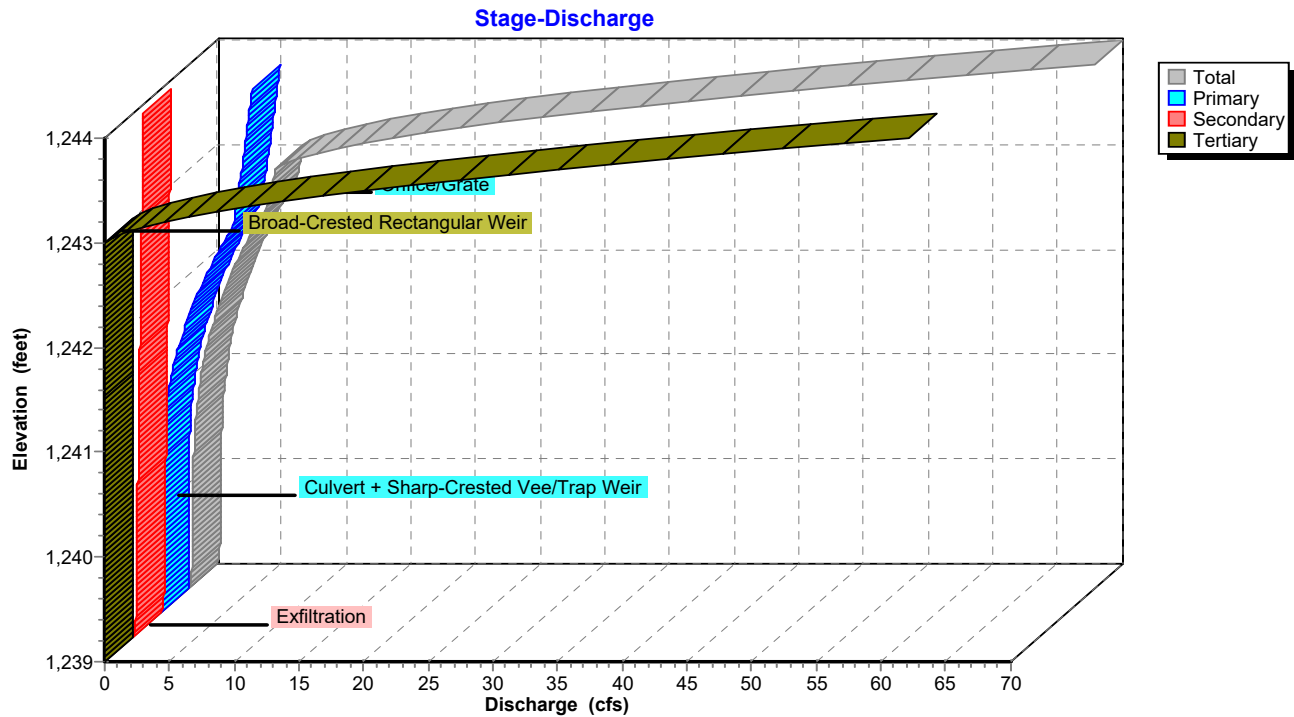
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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

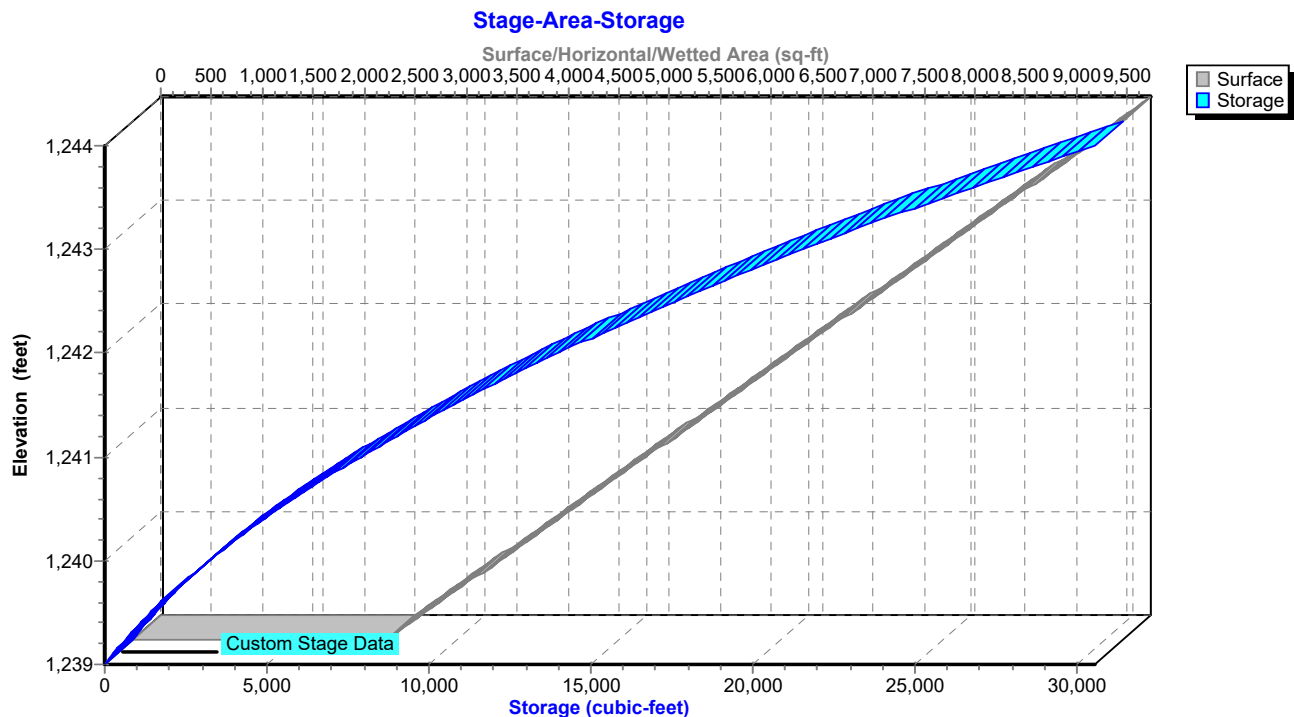
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Pond P1A: Pond 1A



Pond P1A: Pond 1A



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Pond P1A: Pond 1A

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
15.00	0.44	6,616	1,240.76	0.66	0.24	0.42	0.00
25.00	0.00	17	1,239.01	0.03	0.00	0.03	0.00
35.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Stage-Discharge for Pond P1A: Pond 1A

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,239.00	0.00	0.00	0.00	0.00
1,239.10	0.22	0.00	0.22	0.00
1,239.20	0.23	0.00	0.23	0.00
1,239.30	0.24	0.00	0.24	0.00
1,239.40	0.26	0.00	0.26	0.00
1,239.50	0.27	0.00	0.27	0.00
1,239.60	0.28	0.00	0.28	0.00
1,239.70	0.29	0.00	0.29	0.00
1,239.80	0.30	0.00	0.30	0.00
1,239.90	0.32	0.00	0.32	0.00
1,240.00	0.33	0.00	0.33	0.00
1,240.10	0.34	0.00	0.34	0.00
1,240.20	0.36	0.01	0.35	0.00
1,240.30	0.39	0.02	0.36	0.00
1,240.40	0.42	0.05	0.38	0.00
1,240.50	0.47	0.08	0.39	0.00
1,240.60	0.53	0.13	0.40	0.00
1,240.70	0.61	0.19	0.41	0.00
1,240.80	0.70	0.27	0.42	0.00
1,240.90	0.80	0.36	0.44	0.00
1,241.00	0.92	0.47	0.45	0.00
1,241.10	1.06	0.60	0.46	0.00
1,241.20	1.22	0.75	0.47	0.00
1,241.30	1.40	0.91	0.49	0.00
1,241.40	1.60	1.10	0.50	0.00
1,241.50	1.82	1.31	0.51	0.00
1,241.60	2.06	1.54	0.52	0.00
1,241.70	2.32	1.79	0.53	0.00
1,241.80	2.61	2.06	0.55	0.00
1,241.90	2.92	2.36	0.56	0.00
1,242.00	3.25	2.68	0.57	0.00
1,242.10	3.61	3.03	0.58	0.00
1,242.20	4.00	3.41	0.59	0.00
1,242.30	4.41	3.81	0.61	0.00
1,242.40	4.85	4.23	0.62	0.00
1,242.50	5.32	4.69	0.63	0.00
1,242.60	5.81	5.17	0.64	0.00
1,242.70	6.26	5.61	0.65	0.00
1,242.80	6.40	5.74	0.67	0.00
1,242.90	6.54	5.86	0.68	0.00
1,243.00	6.67	5.98	0.69	0.00
1,243.10	8.40	6.10	0.70	1.60
1,243.20	11.53	6.21	0.71	4.60
1,243.30	15.75	6.33	0.73	8.70
1,243.40	20.96	6.44	0.74	13.78
1,243.50	27.39	6.55	0.75	20.08
1,243.60	34.93	6.66	0.76	27.51
1,243.70	42.64	6.76	0.77	35.10
1,243.80	51.08	6.87	0.79	43.42
1,243.90	60.22	6.97	0.80	52.45
1,244.00	70.06	7.07	0.81	62.18

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Stage-Area-Storage for Pond P1A: Pond 1A

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,239.00	2,496	0	1,241.55	6,185	11,068
1,239.05	2,568	127	1,241.60	6,257	11,379
1,239.10	2,641	257	1,241.65	6,329	11,694
1,239.15	2,713	391	1,241.70	6,402	12,012
1,239.20	2,785	528	1,241.75	6,474	12,334
1,239.25	2,858	669	1,241.80	6,546	12,659
1,239.30	2,930	814	1,241.85	6,619	12,989
1,239.35	3,002	962	1,241.90	6,691	13,321
1,239.40	3,075	1,114	1,241.95	6,763	13,658
1,239.45	3,147	1,270	1,242.00	6,836	13,998
1,239.50	3,219	1,429	1,242.05	6,908	14,341
1,239.55	3,292	1,592	1,242.10	6,980	14,689
1,239.60	3,364	1,758	1,242.15	7,053	15,039
1,239.65	3,436	1,928	1,242.20	7,125	15,394
1,239.70	3,509	2,102	1,242.25	7,197	15,752
1,239.75	3,581	2,279	1,242.30	7,270	16,114
1,239.80	3,653	2,460	1,242.35	7,342	16,479
1,239.85	3,726	2,644	1,242.40	7,414	16,848
1,239.90	3,798	2,832	1,242.45	7,487	17,220
1,239.95	3,870	3,024	1,242.50	7,559	17,596
1,240.00	3,943	3,219	1,242.55	7,631	17,976
1,240.05	4,015	3,418	1,242.60	7,704	18,360
1,240.10	4,087	3,621	1,242.65	7,776	18,747
1,240.15	4,160	3,827	1,242.70	7,848	19,137
1,240.20	4,232	4,037	1,242.75	7,921	19,531
1,240.25	4,304	4,250	1,242.80	7,993	19,929
1,240.30	4,377	4,467	1,242.85	8,065	20,331
1,240.35	4,449	4,688	1,242.90	8,138	20,736
1,240.40	4,521	4,912	1,242.95	8,210	21,144
1,240.45	4,594	5,140	1,243.00	8,282	21,557
1,240.50	4,666	5,371	1,243.05	8,355	21,973
1,240.55	4,738	5,607	1,243.10	8,427	22,392
1,240.60	4,811	5,845	1,243.15	8,499	22,815
1,240.65	4,883	6,088	1,243.20	8,572	23,242
1,240.70	4,955	6,334	1,243.25	8,644	23,673
1,240.75	5,028	6,583	1,243.30	8,716	24,107
1,240.80	5,100	6,836	1,243.35	8,789	24,544
1,240.85	5,172	7,093	1,243.40	8,861	24,985
1,240.90	5,245	7,354	1,243.45	8,933	25,430
1,240.95	5,317	7,618	1,243.50	9,006	25,879
1,241.00	5,389	7,885	1,243.55	9,078	26,331
1,241.05	5,462	8,156	1,243.60	9,150	26,787
1,241.10	5,534	8,431	1,243.65	9,223	27,246
1,241.15	5,606	8,710	1,243.70	9,295	27,709
1,241.20	5,679	8,992	1,243.75	9,367	28,175
1,241.25	5,751	9,278	1,243.80	9,440	28,646
1,241.30	5,823	9,567	1,243.85	9,512	29,119
1,241.35	5,896	9,860	1,243.90	9,584	29,597
1,241.40	5,968	10,157	1,243.95	9,657	30,078
1,241.45	6,040	10,457	1,244.00	9,729	30,563
1,241.50	6,113	10,761			

Summary for Pond P3A: Pond 3A

Inflow Area = 10.600 ac, 18.58% Impervious, Inflow Depth = 1.13" for 5 YR event
 Inflow = 18.39 cfs @ 12.14 hrs, Volume= 1.001 af
 Outflow = 2.63 cfs @ 12.66 hrs, Volume= 1.001 af, Atten= 86%, Lag= 31.2 min
 Primary = 1.94 cfs @ 12.66 hrs, Volume= 0.381 af
 Routed to Link 4L : Post - North
 Secondary = 0.69 cfs @ 12.66 hrs, Volume= 0.621 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,194.76' @ 12.66 hrs Surf.Area= 8,278 sf Storage= 17,153 cf

Plug-Flow detention time= 150.9 min calculated for 1.001 af (100% of inflow)
 Center-of-Mass det. time= 150.9 min (996.9 - 846.0)

Volume	Invert	Avail.Storage	Storage Description
#1	1,192.00'	51,846 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,192.00	4,165	0	0
1,198.00	13,117	51,846	51,846

Device	Routing	Invert	Outlet Devices
#1	Primary	1,193.00'	12.0" Round Culvert L= 41.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,193.00' / 1,189.00' S= 0.0976 ' /' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,193.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,196.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,192.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,197.00'	20.0' long + 4.0 ' /' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=1.94 cfs @ 12.66 hrs HW=1,194.76' (Free Discharge)

↑ **1=Culvert** (Passes 1.94 cfs of 4.24 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 1.94 cfs @ 3.57 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.69 cfs @ 12.66 hrs HW=1,194.76' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.69 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,192.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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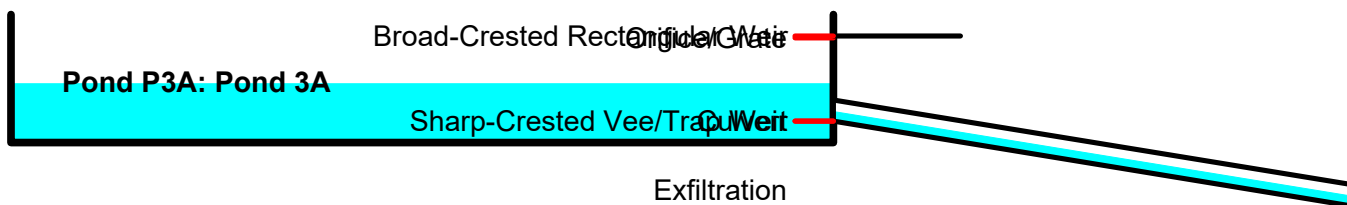
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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

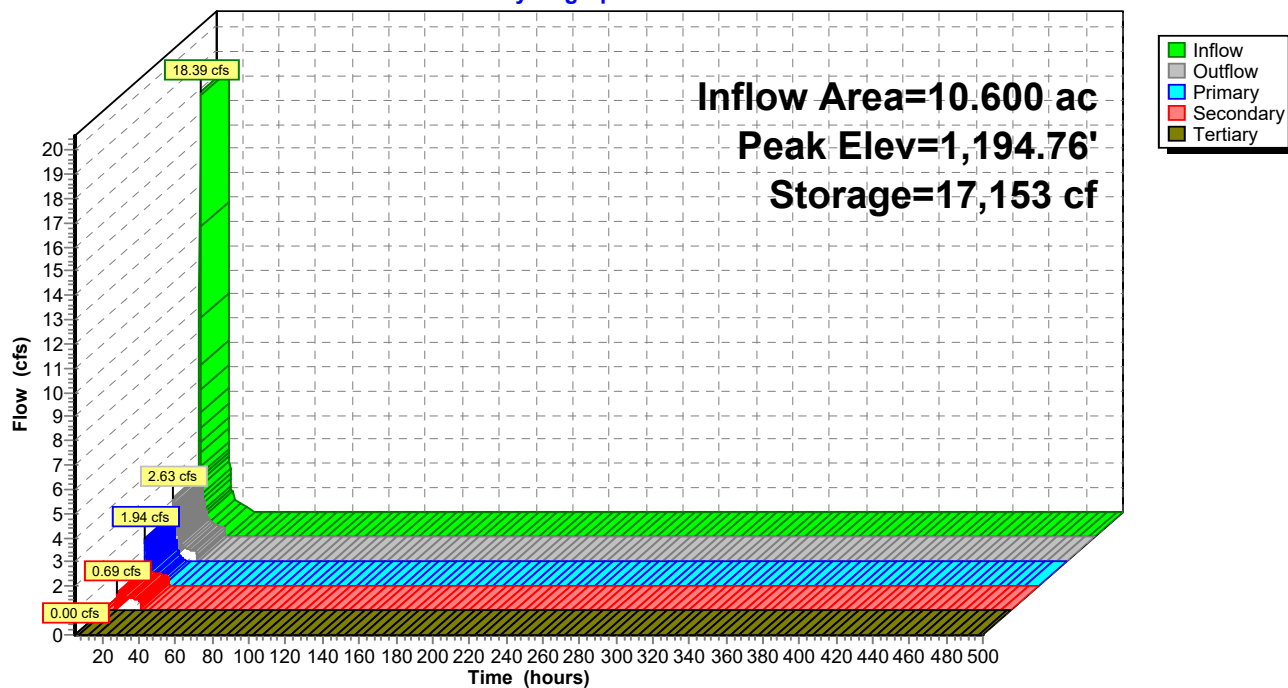
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Pond P3A: Pond 3A

Hydrograph



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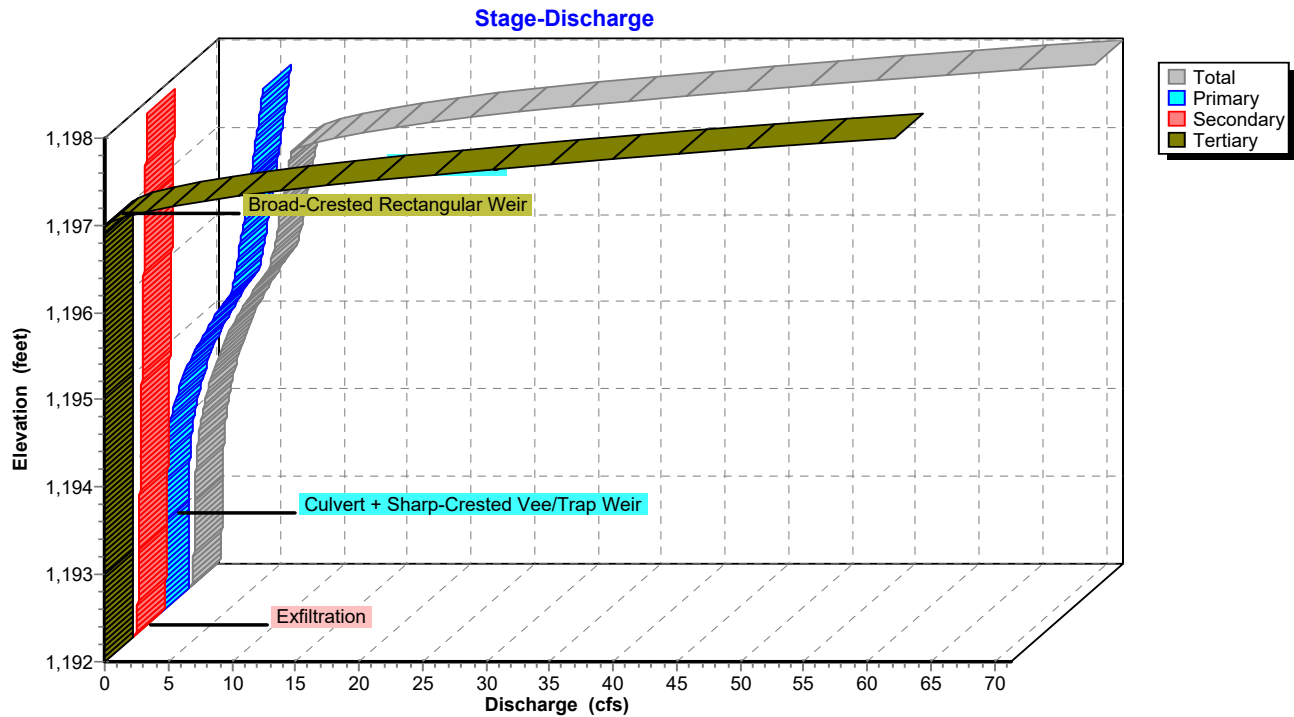
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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

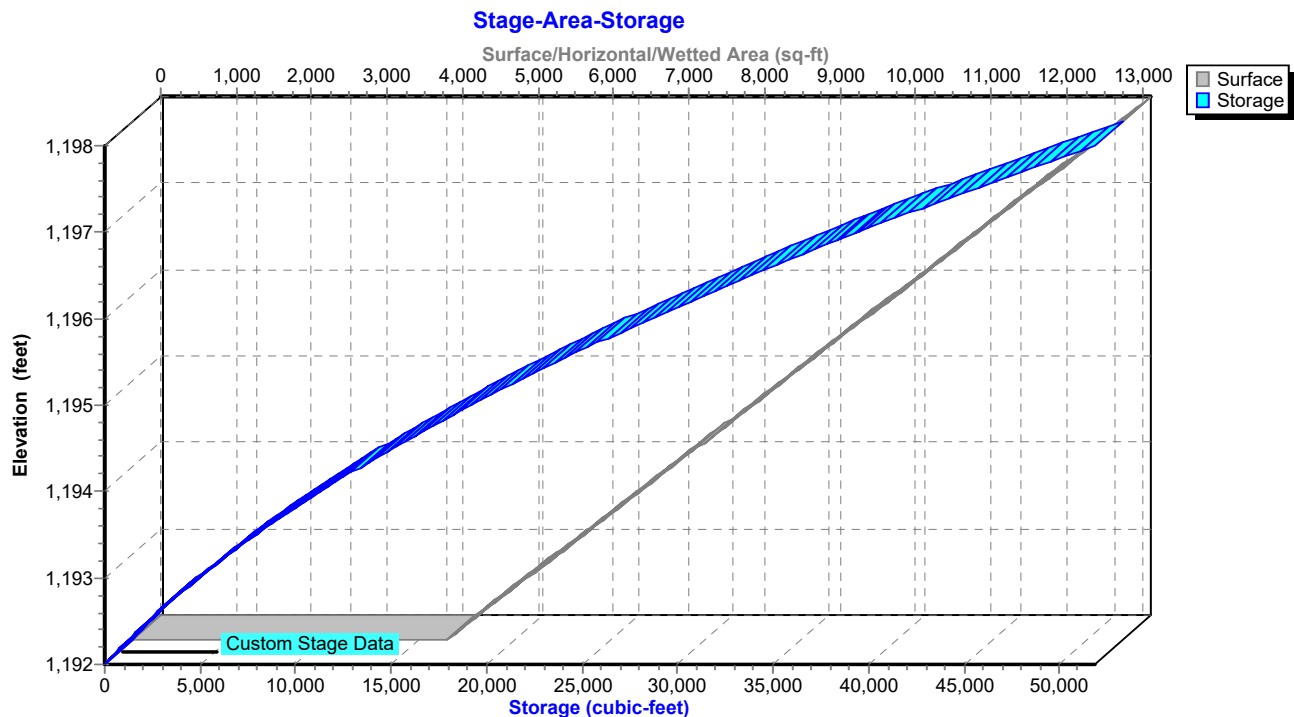
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Pond P3A: Pond 3A



Pond P3A: Pond 3A



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Pond P3A: Pond 3A

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
15.00	0.82	12,093	1,194.11	1.22	0.61	0.61	0.00
25.00	0.00	1,378	1,192.31	0.39	0.00	0.39	0.00
35.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Stage-Discharge for Pond P3A: Pond 3A

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,192.00	0.00	0.00	0.00	0.00
1,192.20	0.37	0.00	0.37	0.00
1,192.40	0.40	0.00	0.40	0.00
1,192.60	0.42	0.00	0.42	0.00
1,192.80	0.45	0.00	0.45	0.00
1,193.00	0.47	0.00	0.47	0.00
1,193.20	0.50	0.01	0.50	0.00
1,193.40	0.57	0.05	0.52	0.00
1,193.60	0.68	0.13	0.55	0.00
1,193.80	0.84	0.27	0.57	0.00
1,194.00	1.07	0.47	0.60	0.00
1,194.20	1.37	0.75	0.62	0.00
1,194.40	1.75	1.10	0.65	0.00
1,194.60	2.21	1.54	0.67	0.00
1,194.80	2.76	2.06	0.70	0.00
1,195.00	3.40	2.68	0.72	0.00
1,195.20	4.15	3.41	0.74	0.00
1,195.40	5.00	4.23	0.77	0.00
1,195.60	5.96	5.17	0.79	0.00
1,195.80	6.55	5.74	0.82	0.00
1,196.00	6.82	5.98	0.84	0.00
1,196.20	7.08	6.21	0.87	0.00
1,196.40	7.33	6.44	0.89	0.00
1,196.60	7.58	6.66	0.92	0.00
1,196.80	7.81	6.87	0.94	0.00
1,197.00	8.04	7.07	0.97	0.00
1,197.20	12.86	7.27	0.99	4.60
1,197.40	22.27	7.47	1.02	13.78
1,197.60	36.21	7.66	1.04	27.51
1,197.80	52.33	7.84	1.07	43.42
1,198.00	71.29	8.02	1.09	62.18

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Stage-Area-Storage for Pond P3A: Pond 3A

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,192.00	4,165	0	1,197.10	11,774	40,645
1,192.10	4,314	424	1,197.20	11,923	41,830
1,192.20	4,463	863	1,197.30	12,073	43,030
1,192.30	4,613	1,317	1,197.40	12,222	44,244
1,192.40	4,762	1,785	1,197.50	12,371	45,474
1,192.50	4,911	2,269	1,197.60	12,520	46,719
1,192.60	5,060	2,768	1,197.70	12,669	47,978
1,192.70	5,209	3,281	1,197.80	12,819	49,252
1,192.80	5,359	3,809	1,197.90	12,968	50,542
1,192.90	5,508	4,353	1,198.00	13,117	51,846
1,193.00	5,657	4,911			
1,193.10	5,806	5,484			
1,193.20	5,955	6,072			
1,193.30	6,105	6,675			
1,193.40	6,254	7,293			
1,193.50	6,403	7,926			
1,193.60	6,552	8,574			
1,193.70	6,701	9,236			
1,193.80	6,851	9,914			
1,193.90	7,000	10,607			
1,194.00	7,149	11,314			
1,194.10	7,298	12,036			
1,194.20	7,447	12,774			
1,194.30	7,597	13,526			
1,194.40	7,746	14,293			
1,194.50	7,895	15,075			
1,194.60	8,044	15,872			
1,194.70	8,193	16,684			
1,194.80	8,343	17,511			
1,194.90	8,492	18,352			
1,195.00	8,641	19,209			
1,195.10	8,790	20,081			
1,195.20	8,939	20,967			
1,195.30	9,089	21,868			
1,195.40	9,238	22,785			
1,195.50	9,387	23,716			
1,195.60	9,536	24,662			
1,195.70	9,685	25,623			
1,195.80	9,835	26,599			
1,195.90	9,984	27,590			
1,196.00	10,133	28,596			
1,196.10	10,282	29,617			
1,196.20	10,431	30,652			
1,196.30	10,581	31,703			
1,196.40	10,730	32,769			
1,196.50	10,879	33,849			
1,196.60	11,028	34,944			
1,196.70	11,177	36,055			
1,196.80	11,327	37,180			
1,196.90	11,476	38,320			
1,197.00	11,625	39,475			

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Summary for Pond P3B: Pond 3B

Inflow Area = 8.450 ac, 19.88% Impervious, Inflow Depth = 1.19" for 5 YR event
 Inflow = 15.52 cfs @ 12.14 hrs, Volume= 0.840 af
 Outflow = 2.61 cfs @ 12.58 hrs, Volume= 0.840 af, Atten= 83%, Lag= 26.5 min
 Primary = 2.01 cfs @ 12.58 hrs, Volume= 0.345 af
 Routed to Link 4L : Post - North
 Secondary = 0.60 cfs @ 12.58 hrs, Volume= 0.495 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,197.78' @ 12.58 hrs Surf.Area= 7,241 sf Storage= 13,957 cf

Plug-Flow detention time= 133.6 min calculated for 0.840 af (100% of inflow)
 Center-of-Mass det. time= 133.6 min (976.9 - 843.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,195.00'	33,965 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,195.00	2,799	0	0
1,200.00	10,787	33,965	33,965

Device	Routing	Invert	Outlet Devices
#1	Primary	1,196.00'	12.0" Round Culvert L= 36.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,196.00' / 1,192.00' S= 0.1111 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,196.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,198.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,195.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,199.00'	20.0' long + 4.0 ' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=2.00 cfs @ 12.58 hrs HW=1,197.78' (Free Discharge)

↑ **1=Culvert** (Passes 2.00 cfs of 4.28 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 2.00 cfs @ 3.59 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.60 cfs @ 12.58 hrs HW=1,197.78' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.60 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,195.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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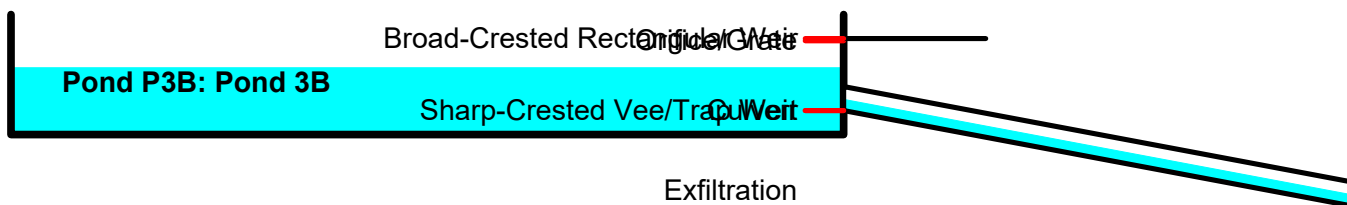
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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

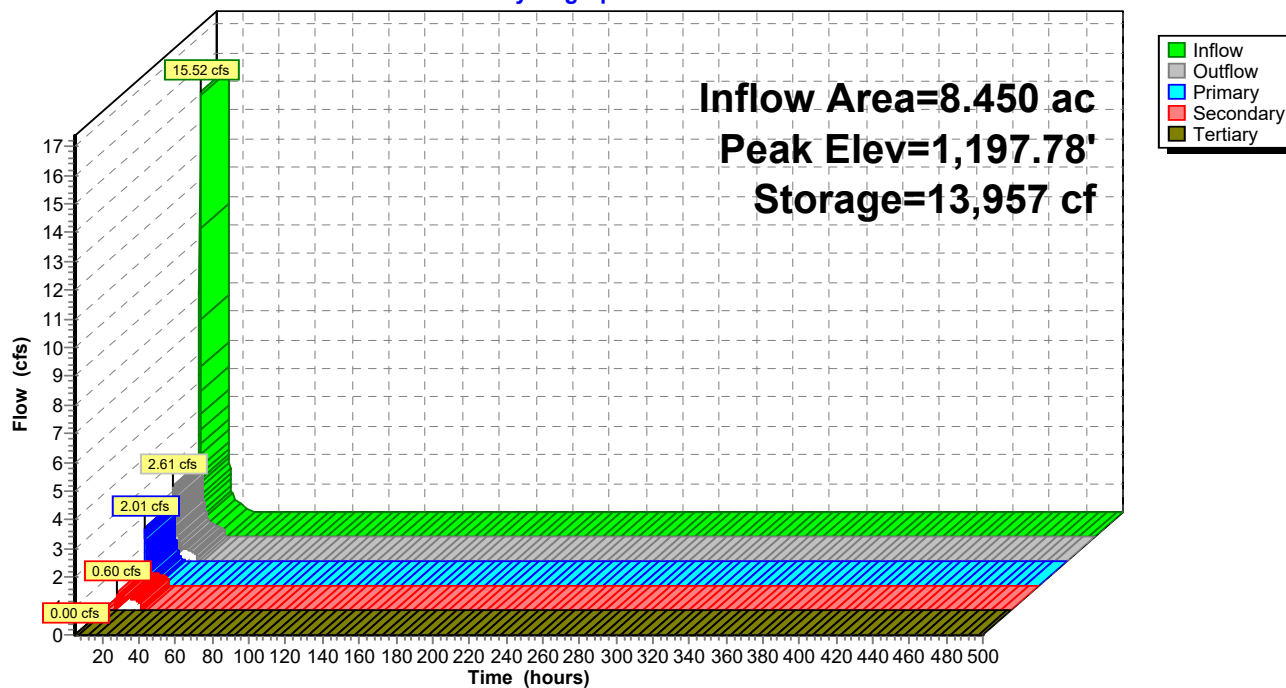
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Pond P3B: Pond 3B

Hydrograph



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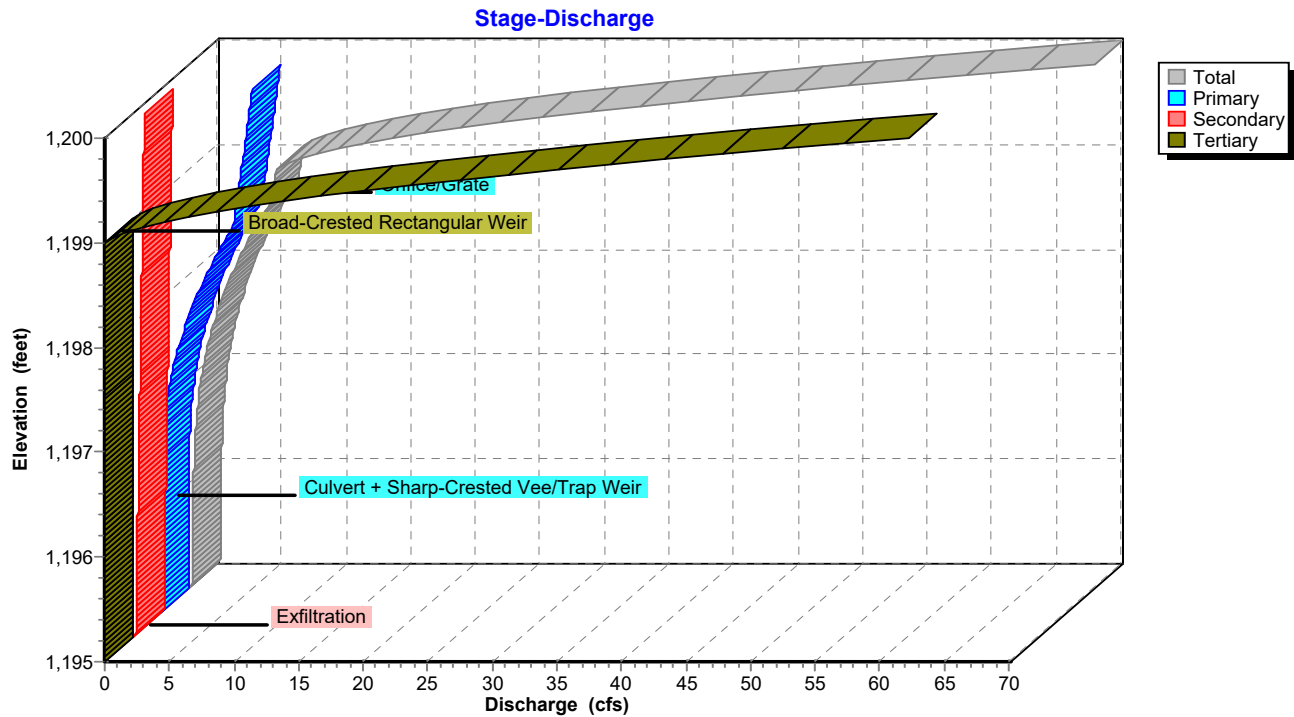
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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

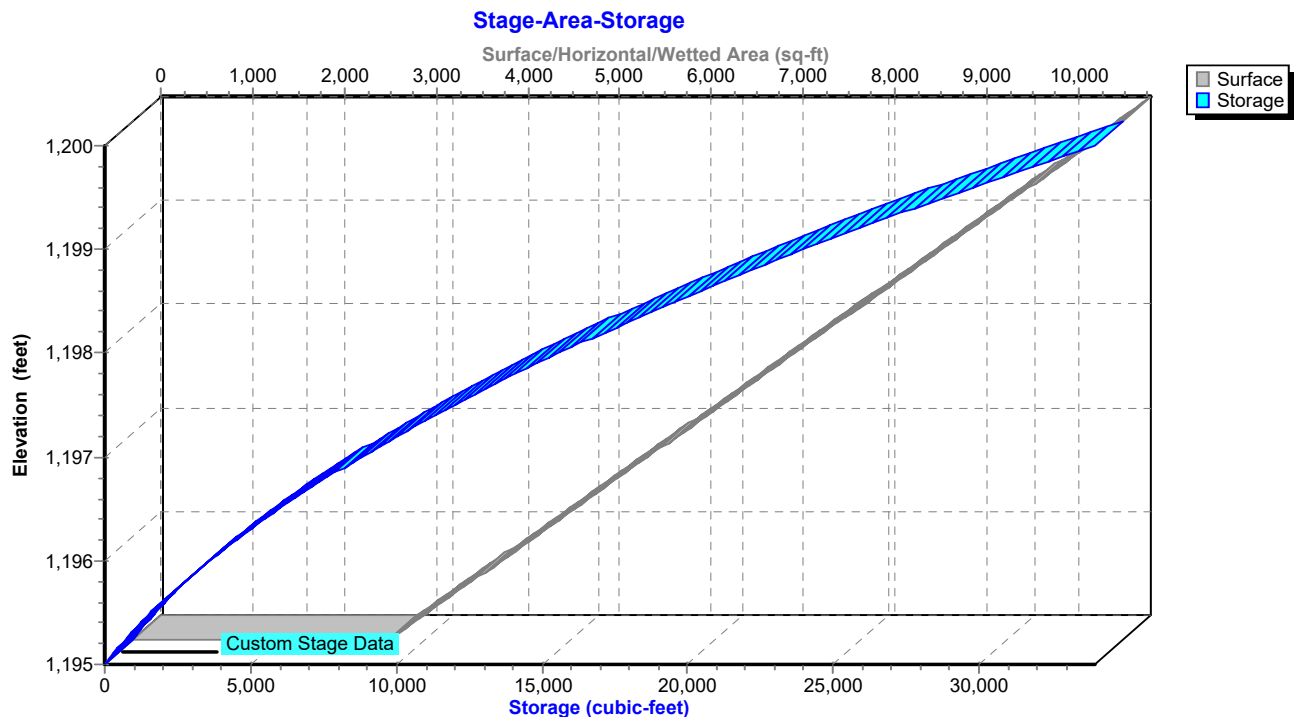
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Pond P3B: Pond 3B



Pond P3B: Pond 3B



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Pond P3B: Pond 3B

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
15.00	0.68	8,900	1,197.02	1.00	0.50	0.50	0.00
25.00	0.00	936	1,195.31	0.27	0.00	0.27	0.00
35.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Stage-Discharge for Pond P3B: Pond 3B

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,195.00	0.00	0.00	0.00	0.00
1,195.10	0.25	0.00	0.25	0.00
1,195.20	0.26	0.00	0.26	0.00
1,195.30	0.27	0.00	0.27	0.00
1,195.40	0.29	0.00	0.29	0.00
1,195.50	0.30	0.00	0.30	0.00
1,195.60	0.31	0.00	0.31	0.00
1,195.70	0.33	0.00	0.33	0.00
1,195.80	0.34	0.00	0.34	0.00
1,195.90	0.35	0.00	0.35	0.00
1,196.00	0.37	0.00	0.37	0.00
1,196.10	0.38	0.00	0.38	0.00
1,196.20	0.40	0.01	0.39	0.00
1,196.30	0.43	0.02	0.41	0.00
1,196.40	0.47	0.05	0.42	0.00
1,196.50	0.52	0.08	0.43	0.00
1,196.60	0.58	0.13	0.45	0.00
1,196.70	0.65	0.19	0.46	0.00
1,196.80	0.74	0.27	0.47	0.00
1,196.90	0.85	0.36	0.49	0.00
1,197.00	0.97	0.47	0.50	0.00
1,197.10	1.11	0.60	0.51	0.00
1,197.20	1.27	0.75	0.53	0.00
1,197.30	1.45	0.91	0.54	0.00
1,197.40	1.65	1.10	0.55	0.00
1,197.50	1.87	1.31	0.57	0.00
1,197.60	2.12	1.54	0.58	0.00
1,197.70	2.38	1.79	0.59	0.00
1,197.80	2.67	2.06	0.61	0.00
1,197.90	2.98	2.36	0.62	0.00
1,198.00	3.32	2.68	0.63	0.00
1,198.10	3.68	3.03	0.65	0.00
1,198.20	4.06	3.41	0.66	0.00
1,198.30	4.48	3.81	0.67	0.00
1,198.40	4.92	4.23	0.69	0.00
1,198.50	5.39	4.69	0.70	0.00
1,198.60	5.88	5.17	0.71	0.00
1,198.70	6.33	5.61	0.73	0.00
1,198.80	6.47	5.74	0.74	0.00
1,198.90	6.61	5.86	0.75	0.00
1,199.00	6.75	5.98	0.77	0.00
1,199.10	8.48	6.10	0.78	1.60
1,199.20	11.60	6.21	0.79	4.60
1,199.30	15.83	6.33	0.81	8.70
1,199.40	21.04	6.44	0.82	13.78
1,199.50	27.47	6.55	0.83	20.08
1,199.60	35.01	6.66	0.85	27.51
1,199.70	42.73	6.76	0.86	35.10
1,199.80	51.17	6.87	0.87	43.42
1,199.90	60.31	6.97	0.89	52.45
1,200.00	70.15	7.07	0.90	62.18

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Stage-Area-Storage for Pond P3B: Pond 3B

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,195.00	2,799	0	1,197.55	6,873	12,332
1,195.05	2,879	142	1,197.60	6,953	12,677
1,195.10	2,959	288	1,197.65	7,033	13,027
1,195.15	3,039	438	1,197.70	7,113	13,381
1,195.20	3,119	592	1,197.75	7,192	13,738
1,195.25	3,198	750	1,197.80	7,272	14,100
1,195.30	3,278	912	1,197.85	7,352	14,465
1,195.35	3,358	1,078	1,197.90	7,432	14,835
1,195.40	3,438	1,247	1,197.95	7,512	15,209
1,195.45	3,518	1,421	1,198.00	7,592	15,586
1,195.50	3,598	1,599	1,198.05	7,672	15,968
1,195.55	3,678	1,781	1,198.10	7,752	16,353
1,195.60	3,758	1,967	1,198.15	7,831	16,743
1,195.65	3,837	2,157	1,198.20	7,911	17,137
1,195.70	3,917	2,351	1,198.25	7,991	17,534
1,195.75	3,997	2,549	1,198.30	8,071	17,936
1,195.80	4,077	2,750	1,198.35	8,151	18,341
1,195.85	4,157	2,956	1,198.40	8,231	18,751
1,195.90	4,237	3,166	1,198.45	8,311	19,164
1,195.95	4,317	3,380	1,198.50	8,391	19,582
1,196.00	4,397	3,598	1,198.55	8,470	20,003
1,196.05	4,476	3,820	1,198.60	8,550	20,429
1,196.10	4,556	4,045	1,198.65	8,630	20,858
1,196.15	4,636	4,275	1,198.70	8,710	21,292
1,196.20	4,716	4,509	1,198.75	8,790	21,729
1,196.25	4,796	4,747	1,198.80	8,870	22,171
1,196.30	4,876	4,989	1,198.85	8,950	22,616
1,196.35	4,956	5,234	1,198.90	9,030	23,066
1,196.40	5,036	5,484	1,198.95	9,110	23,519
1,196.45	5,116	5,738	1,199.00	9,189	23,977
1,196.50	5,195	5,996	1,199.05	9,269	24,438
1,196.55	5,275	6,258	1,199.10	9,349	24,904
1,196.60	5,355	6,523	1,199.15	9,429	25,373
1,196.65	5,435	6,793	1,199.20	9,509	25,847
1,196.70	5,515	7,067	1,199.25	9,589	26,324
1,196.75	5,595	7,345	1,199.30	9,669	26,806
1,196.80	5,675	7,626	1,199.35	9,749	27,291
1,196.85	5,755	7,912	1,199.40	9,828	27,780
1,196.90	5,834	8,202	1,199.45	9,908	28,274
1,196.95	5,914	8,495	1,199.50	9,988	28,771
1,197.00	5,994	8,793	1,199.55	10,068	29,273
1,197.05	6,074	9,095	1,199.60	10,148	29,778
1,197.10	6,154	9,401	1,199.65	10,228	30,287
1,197.15	6,234	9,710	1,199.70	10,308	30,801
1,197.20	6,314	10,024	1,199.75	10,388	31,318
1,197.25	6,394	10,342	1,199.80	10,467	31,840
1,197.30	6,473	10,663	1,199.85	10,547	32,365
1,197.35	6,553	10,989	1,199.90	10,627	32,894
1,197.40	6,633	11,319	1,199.95	10,707	33,428
1,197.45	6,713	11,652	1,200.00	10,787	33,965
1,197.50	6,793	11,990			

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Summary for Pond P3C: Pond 3C

Inflow Area = 2.490 ac, 22.89% Impervious, Inflow Depth = 1.45" for 5 YR event
 Inflow = 5.62 cfs @ 12.14 hrs, Volume= 0.300 af
 Outflow = 0.73 cfs @ 12.67 hrs, Volume= 0.300 af, Atten= 87%, Lag= 31.9 min
 Primary = 0.42 cfs @ 12.67 hrs, Volume= 0.067 af
 Routed to Link 4L : Post - North
 Secondary = 0.31 cfs @ 12.67 hrs, Volume= 0.233 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,179.96' @ 12.67 hrs Surf.Area= 3,672 sf Storage= 5,454 cf

Plug-Flow detention time= 135.6 min calculated for 0.300 af (100% of inflow)
 Center-of-Mass det. time= 135.6 min (968.8 - 833.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,178.00'	14,846 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,178.00	1,905	0	0
1,182.00	5,518	14,846	14,846

Device	Routing	Invert	Outlet Devices
#1	Primary	1,179.00'	12.0" Round Culvert L= 30.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,179.00' / 1,175.00' S= 0.1333 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,179.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,180.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,178.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,181.00'	20.0' long + 4.0 ' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.42 cfs @ 12.67 hrs HW=1,179.96' (Free Discharge)

↑ **1=Culvert** (Passes 0.42 cfs of 2.57 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 0.42 cfs @ 2.63 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.31 cfs @ 12.67 hrs HW=1,179.96' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.31 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,178.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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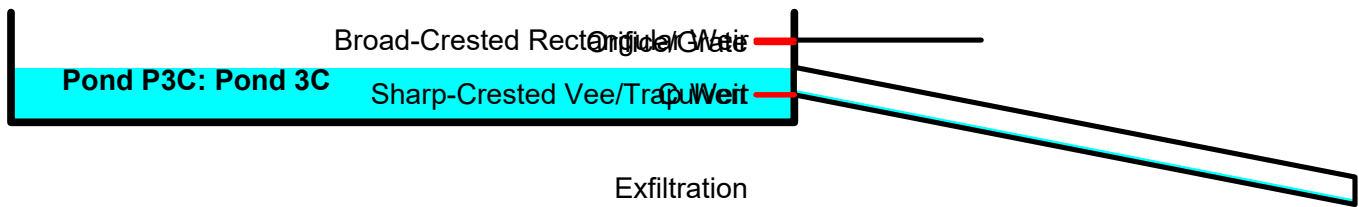
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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

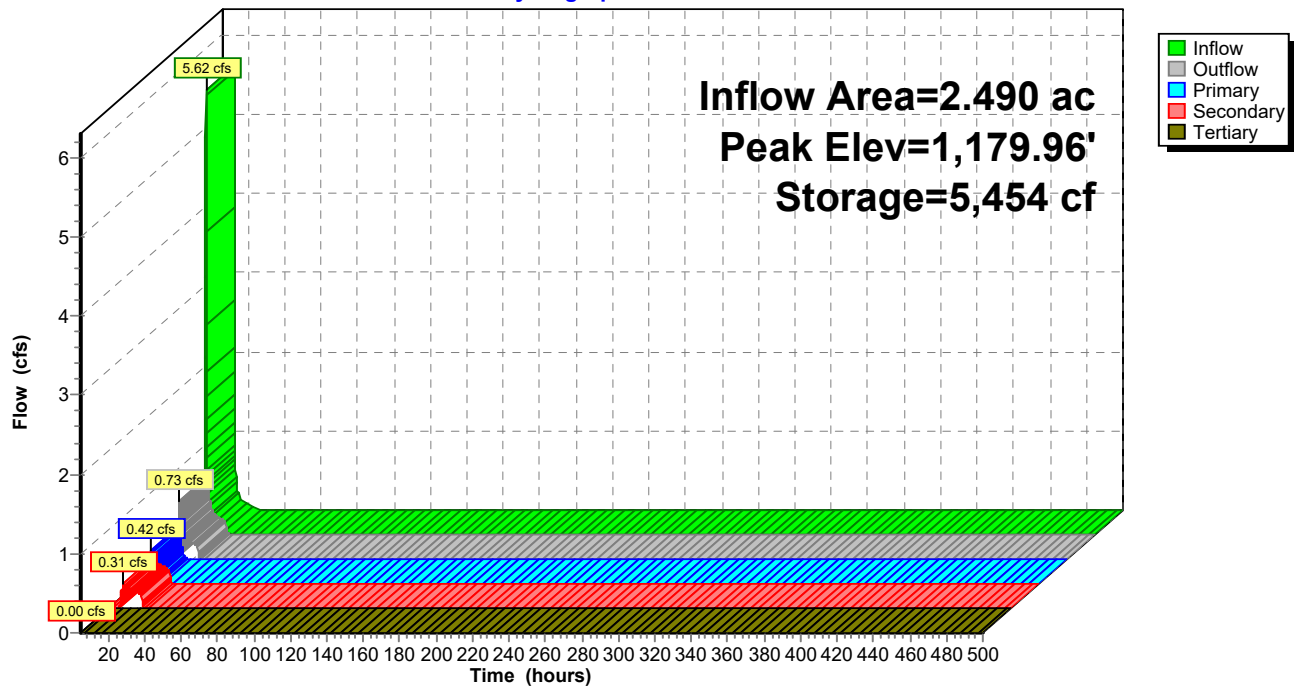
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Pond P3C: Pond 3C

Hydrograph



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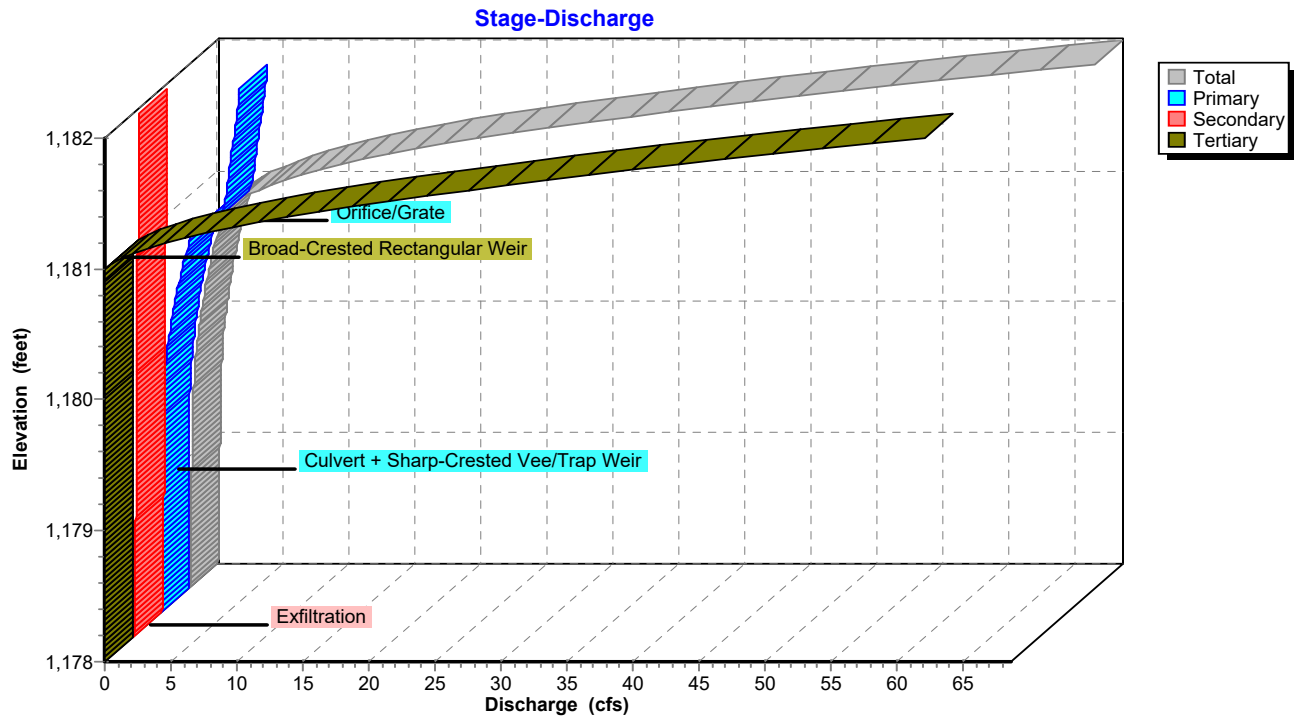
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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

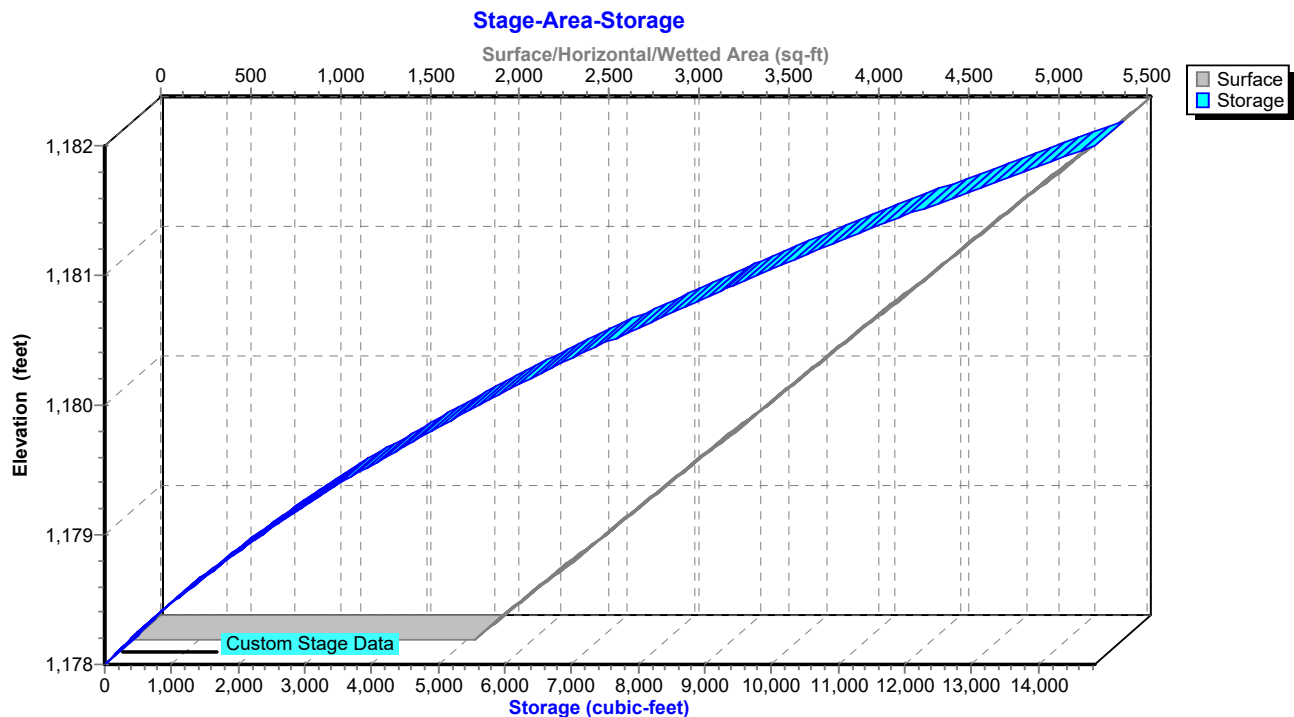
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Pond P3C: Pond 3C



Pond P3C: Pond 3C



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Pond P3C: Pond 3C

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
15.00	0.22	3,926	1,179.52	0.36	0.09	0.27	0.00
25.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
35.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Stage-Discharge for Pond P3C: Pond 3C

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,178.00	0.00	0.00	0.00	0.00
1,178.10	0.17	0.00	0.17	0.00
1,178.20	0.17	0.00	0.17	0.00
1,178.30	0.18	0.00	0.18	0.00
1,178.40	0.19	0.00	0.19	0.00
1,178.50	0.20	0.00	0.20	0.00
1,178.60	0.20	0.00	0.20	0.00
1,178.70	0.21	0.00	0.21	0.00
1,178.80	0.22	0.00	0.22	0.00
1,178.90	0.23	0.00	0.23	0.00
1,179.00	0.23	0.00	0.23	0.00
1,179.10	0.24	0.00	0.24	0.00
1,179.20	0.26	0.01	0.25	0.00
1,179.30	0.28	0.02	0.26	0.00
1,179.40	0.31	0.05	0.26	0.00
1,179.50	0.36	0.08	0.27	0.00
1,179.60	0.41	0.13	0.28	0.00
1,179.70	0.48	0.19	0.29	0.00
1,179.80	0.57	0.27	0.29	0.00
1,179.90	0.67	0.36	0.30	0.00
1,180.00	0.78	0.47	0.31	0.00
1,180.10	0.92	0.60	0.32	0.00
1,180.20	1.07	0.75	0.32	0.00
1,180.30	1.25	0.91	0.33	0.00
1,180.40	1.44	1.10	0.34	0.00
1,180.50	1.65	1.31	0.35	0.00
1,180.60	1.89	1.54	0.35	0.00
1,180.70	2.15	1.79	0.36	0.00
1,180.80	2.43	2.06	0.37	0.00
1,180.90	2.74	2.36	0.38	0.00
1,181.00	4.10	3.72	0.38	0.00
1,181.10	6.78	4.78	0.39	1.60
1,181.20	9.93	4.93	0.40	4.60
1,181.30	14.18	5.07	0.41	8.70
1,181.40	19.41	5.21	0.41	13.78
1,181.50	25.85	5.35	0.42	20.08
1,181.60	33.42	5.48	0.43	27.51
1,181.70	41.15	5.61	0.44	35.10
1,181.80	49.60	5.74	0.44	43.42
1,181.90	58.76	5.86	0.45	52.45
1,182.00	68.62	5.98	0.46	62.18

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Stage-Area-Storage for Pond P3C: Pond 3C

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,178.00	1,905	0	1,180.55	4,208	7,794
1,178.05	1,950	96	1,180.60	4,253	8,006
1,178.10	1,995	195	1,180.65	4,299	8,220
1,178.15	2,040	296	1,180.70	4,344	8,436
1,178.20	2,086	399	1,180.75	4,389	8,654
1,178.25	2,131	504	1,180.80	4,434	8,875
1,178.30	2,176	612	1,180.85	4,479	9,098
1,178.35	2,221	722	1,180.90	4,524	9,323
1,178.40	2,266	834	1,180.95	4,570	9,550
1,178.45	2,311	949	1,181.00	4,615	9,780
1,178.50	2,357	1,065	1,181.05	4,660	10,011
1,178.55	2,402	1,184	1,181.10	4,705	10,246
1,178.60	2,447	1,306	1,181.15	4,750	10,482
1,178.65	2,492	1,429	1,181.20	4,795	10,721
1,178.70	2,537	1,555	1,181.25	4,841	10,962
1,178.75	2,582	1,683	1,181.30	4,886	11,205
1,178.80	2,628	1,813	1,181.35	4,931	11,450
1,178.85	2,673	1,946	1,181.40	4,976	11,698
1,178.90	2,718	2,080	1,181.45	5,021	11,948
1,178.95	2,763	2,217	1,181.50	5,066	12,200
1,179.00	2,808	2,357	1,181.55	5,112	12,454
1,179.05	2,853	2,498	1,181.60	5,157	12,711
1,179.10	2,899	2,642	1,181.65	5,202	12,970
1,179.15	2,944	2,788	1,181.70	5,247	13,231
1,179.20	2,989	2,936	1,181.75	5,292	13,495
1,179.25	3,034	3,087	1,181.80	5,337	13,760
1,179.30	3,079	3,240	1,181.85	5,383	14,028
1,179.35	3,124	3,395	1,181.90	5,428	14,299
1,179.40	3,170	3,552	1,181.95	5,473	14,571
1,179.45	3,215	3,712	1,182.00	5,518	14,846
1,179.50	3,260	3,874			
1,179.55	3,305	4,038			
1,179.60	3,350	4,204			
1,179.65	3,395	4,373			
1,179.70	3,441	4,544			
1,179.75	3,486	4,717			
1,179.80	3,531	4,892			
1,179.85	3,576	5,070			
1,179.90	3,621	5,250			
1,179.95	3,666	5,432			
1,180.00	3,712	5,617			
1,180.05	3,757	5,803			
1,180.10	3,802	5,992			
1,180.15	3,847	6,183			
1,180.20	3,892	6,377			
1,180.25	3,937	6,573			
1,180.30	3,982	6,771			
1,180.35	4,028	6,971			
1,180.40	4,073	7,173			
1,180.45	4,118	7,378			
1,180.50	4,163	7,585			

Summary for Pond P3D: Pond 3D

Inflow Area = 2.380 ac, 23.95% Impervious, Inflow Depth = 1.51" for 5 YR event
 Inflow = 5.64 cfs @ 12.14 hrs, Volume= 0.300 af
 Outflow = 1.92 cfs @ 12.32 hrs, Volume= 0.300 af, Atten= 66%, Lag= 11.2 min
 Primary = 1.72 cfs @ 12.32 hrs, Volume= 0.153 af
 Routed to Link 4L : Post - North
 Secondary = 0.20 cfs @ 12.32 hrs, Volume= 0.147 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,189.67' @ 12.32 hrs Surf.Area= 2,434 sf Storage= 4,243 cf

Plug-Flow detention time= 90.2 min calculated for 0.300 af (100% of inflow)
 Center-of-Mass det. time= 90.2 min (920.9 - 830.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,187.00'	11,620 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,187.00	741	0	0
1,192.00	3,907	11,620	11,620

Device	Routing	Invert	Outlet Devices
#1	Primary	1,188.00'	12.0" Round Culvert L= 35.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,188.00' / 1,184.00' S= 0.1143 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,188.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,190.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600
#4	Secondary	1,187.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,191.00'	20.0' long + 4.0 ' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=1.71 cfs @ 12.32 hrs HW=1,189.67' (Free Discharge)

↑ **1=Culvert** (Passes 1.71 cfs of 4.09 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 1.71 cfs @ 3.47 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.20 cfs @ 12.32 hrs HW=1,189.67' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.20 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,187.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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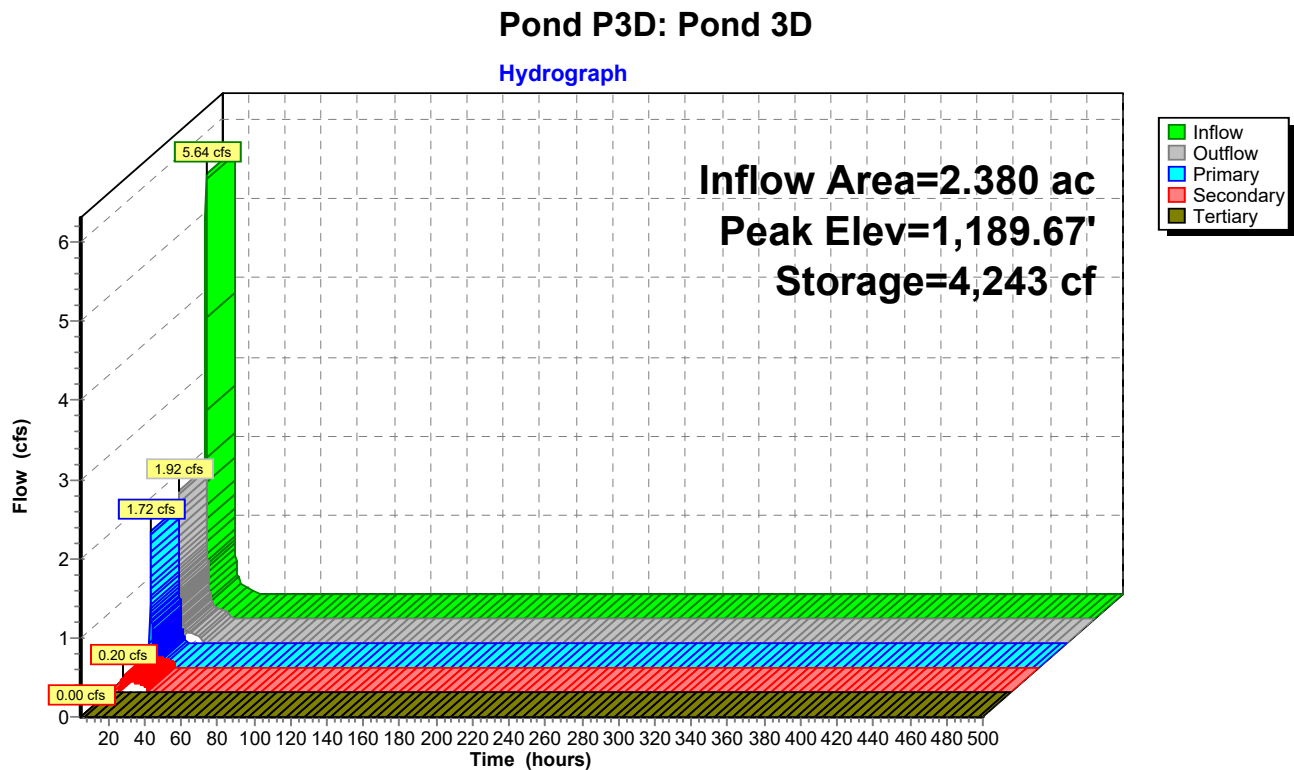
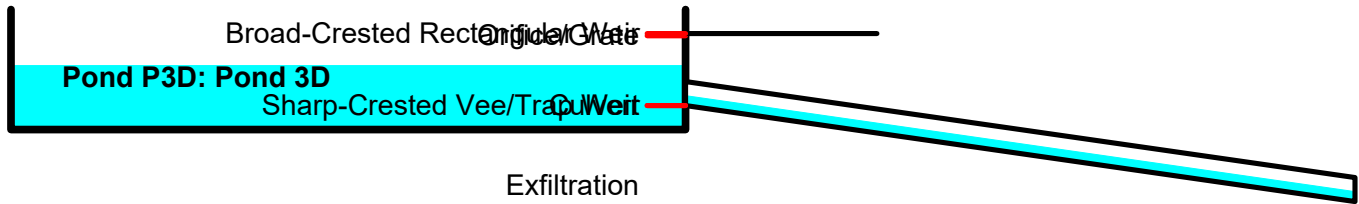
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Featherstone Rise
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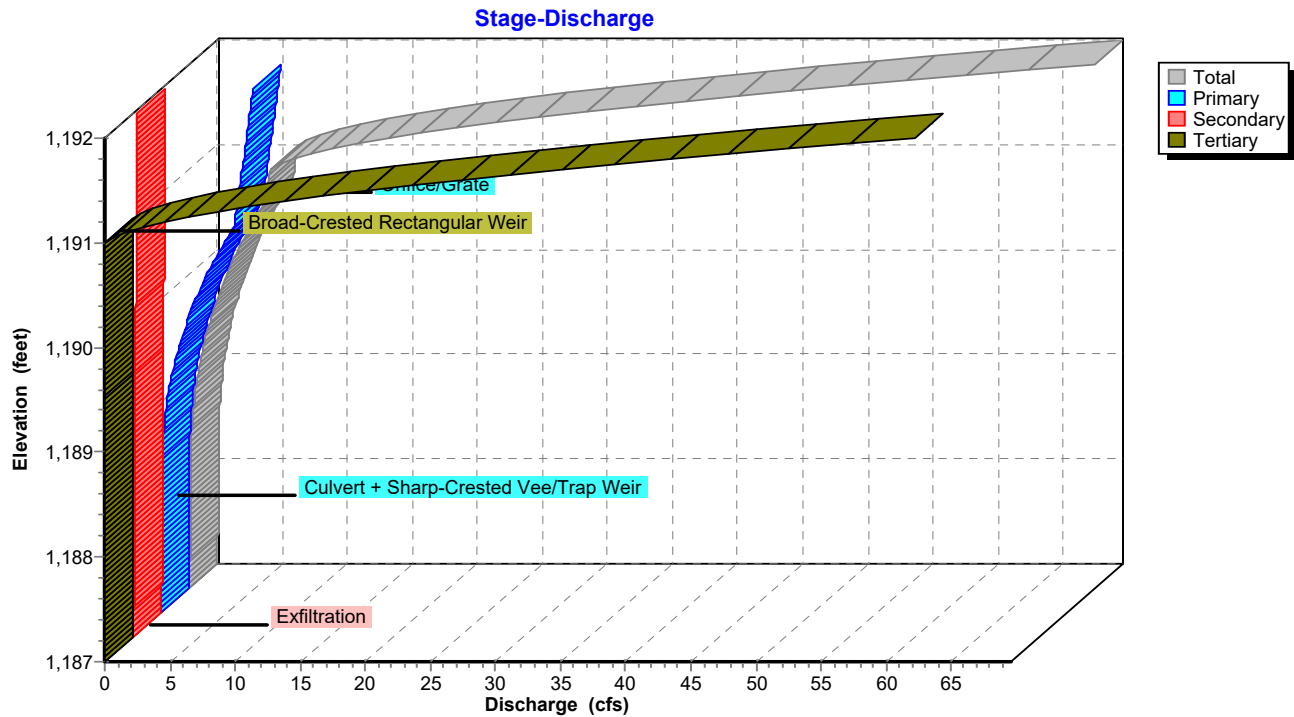
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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

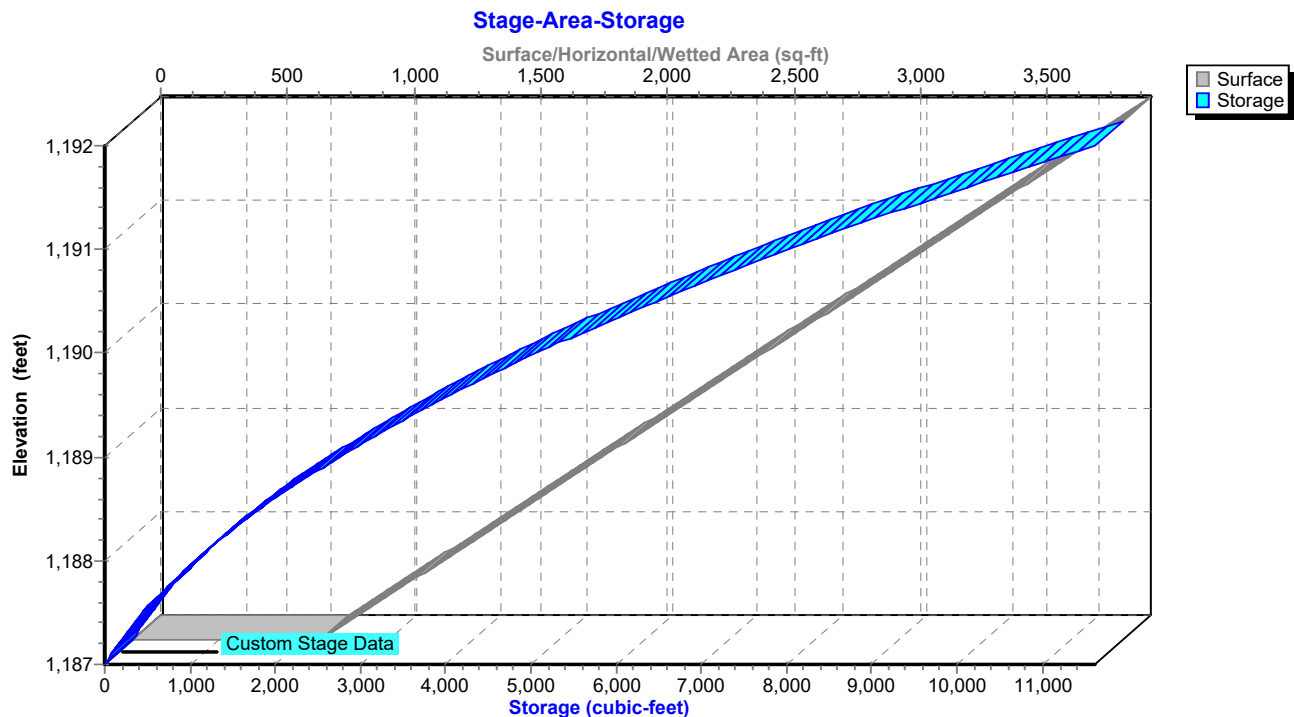
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Pond P3D: Pond 3D



Pond P3D: Pond 3D



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Pond P3D: Pond 3D

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
15.00	0.22	1,976	1,188.59	0.27	0.13	0.15	0.00
25.00	0.00	155	1,187.19	0.07	0.00	0.07	0.00
35.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Stage-Discharge for Pond P3D: Pond 3D

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,187.00	0.00	0.00	0.00	0.00
1,187.10	0.07	0.00	0.07	0.00
1,187.20	0.07	0.00	0.07	0.00
1,187.30	0.08	0.00	0.08	0.00
1,187.40	0.08	0.00	0.08	0.00
1,187.50	0.09	0.00	0.09	0.00
1,187.60	0.09	0.00	0.09	0.00
1,187.70	0.10	0.00	0.10	0.00
1,187.80	0.10	0.00	0.10	0.00
1,187.90	0.11	0.00	0.11	0.00
1,188.00	0.11	0.00	0.11	0.00
1,188.10	0.12	0.00	0.12	0.00
1,188.20	0.13	0.01	0.13	0.00
1,188.30	0.15	0.02	0.13	0.00
1,188.40	0.18	0.05	0.14	0.00
1,188.50	0.22	0.08	0.14	0.00
1,188.60	0.28	0.13	0.15	0.00
1,188.70	0.35	0.19	0.15	0.00
1,188.80	0.43	0.27	0.16	0.00
1,188.90	0.53	0.36	0.16	0.00
1,189.00	0.64	0.47	0.17	0.00
1,189.10	0.77	0.60	0.17	0.00
1,189.20	0.93	0.75	0.18	0.00
1,189.30	1.10	0.91	0.18	0.00
1,189.40	1.29	1.10	0.19	0.00
1,189.50	1.50	1.31	0.19	0.00
1,189.60	1.73	1.54	0.20	0.00
1,189.70	1.99	1.79	0.20	0.00
1,189.80	2.27	2.06	0.21	0.00
1,189.90	2.58	2.36	0.21	0.00
1,190.00	2.90	2.68	0.22	0.00
1,190.10	3.26	3.03	0.23	0.00
1,190.20	3.64	3.41	0.23	0.00
1,190.30	4.04	3.81	0.24	0.00
1,190.40	4.47	4.23	0.24	0.00
1,190.50	4.93	4.69	0.25	0.00
1,190.60	5.42	5.17	0.25	0.00
1,190.70	5.87	5.61	0.26	0.00
1,190.80	6.00	5.74	0.26	0.00
1,190.90	6.13	5.86	0.27	0.00
1,191.00	6.25	5.98	0.27	0.00
1,191.10	7.98	6.10	0.28	1.60
1,191.20	11.09	6.21	0.28	4.60
1,191.30	15.31	6.33	0.29	8.70
1,191.40	20.52	6.44	0.29	13.78
1,191.50	26.93	6.55	0.30	20.08
1,191.60	34.47	6.66	0.30	27.51
1,191.70	42.18	6.76	0.31	35.10
1,191.80	50.61	6.87	0.32	43.42
1,191.90	59.75	6.97	0.32	52.45
1,192.00	69.58	7.07	0.33	62.18

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Stage-Area-Storage for Pond P3D: Pond 3D

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,187.00	741	0	1,189.55	2,356	3,948
1,187.05	773	38	1,189.60	2,387	4,067
1,187.10	804	77	1,189.65	2,419	4,187
1,187.15	836	118	1,189.70	2,451	4,309
1,187.20	868	161	1,189.75	2,482	4,432
1,187.25	899	205	1,189.80	2,514	4,557
1,187.30	931	251	1,189.85	2,546	4,683
1,187.35	963	298	1,189.90	2,577	4,812
1,187.40	994	347	1,189.95	2,609	4,941
1,187.45	1,026	398	1,190.00	2,641	5,072
1,187.50	1,058	450	1,190.05	2,672	5,205
1,187.55	1,089	503	1,190.10	2,704	5,340
1,187.60	1,121	559	1,190.15	2,736	5,476
1,187.65	1,153	615	1,190.20	2,767	5,613
1,187.70	1,184	674	1,190.25	2,799	5,752
1,187.75	1,216	734	1,190.30	2,831	5,893
1,187.80	1,248	795	1,190.35	2,862	6,035
1,187.85	1,279	859	1,190.40	2,894	6,179
1,187.90	1,311	923	1,190.45	2,926	6,325
1,187.95	1,343	990	1,190.50	2,957	6,472
1,188.00	1,374	1,058	1,190.55	2,989	6,621
1,188.05	1,406	1,127	1,190.60	3,021	6,771
1,188.10	1,438	1,198	1,190.65	3,052	6,923
1,188.15	1,469	1,271	1,190.70	3,084	7,076
1,188.20	1,501	1,345	1,190.75	3,116	7,231
1,188.25	1,533	1,421	1,190.80	3,147	7,388
1,188.30	1,564	1,498	1,190.85	3,179	7,546
1,188.35	1,596	1,577	1,190.90	3,210	7,705
1,188.40	1,627	1,658	1,190.95	3,242	7,867
1,188.45	1,659	1,740	1,191.00	3,274	8,030
1,188.50	1,691	1,824	1,191.05	3,305	8,194
1,188.55	1,722	1,909	1,191.10	3,337	8,360
1,188.60	1,754	1,996	1,191.15	3,369	8,528
1,188.65	1,786	2,085	1,191.20	3,400	8,697
1,188.70	1,817	2,175	1,191.25	3,432	8,868
1,188.75	1,849	2,266	1,191.30	3,464	9,040
1,188.80	1,881	2,360	1,191.35	3,495	9,214
1,188.85	1,912	2,454	1,191.40	3,527	9,390
1,188.90	1,944	2,551	1,191.45	3,559	9,567
1,188.95	1,976	2,649	1,191.50	3,590	9,746
1,189.00	2,007	2,748	1,191.55	3,622	9,926
1,189.05	2,039	2,850	1,191.60	3,654	10,108
1,189.10	2,071	2,952	1,191.65	3,685	10,291
1,189.15	2,102	3,057	1,191.70	3,717	10,476
1,189.20	2,134	3,163	1,191.75	3,749	10,663
1,189.25	2,166	3,270	1,191.80	3,780	10,851
1,189.30	2,197	3,379	1,191.85	3,812	11,041
1,189.35	2,229	3,490	1,191.90	3,844	11,232
1,189.40	2,261	3,602	1,191.95	3,875	11,425
1,189.45	2,292	3,716	1,192.00	3,907	11,620
1,189.50	2,324	3,831			

Summary for Pond P3E: Pond 3E

Inflow Area = 2.780 ac, 19.06% Impervious, Inflow Depth = 1.38" for 5 YR event
 Inflow = 5.98 cfs @ 12.14 hrs, Volume= 0.320 af
 Outflow = 0.67 cfs @ 12.92 hrs, Volume= 0.320 af, Atten= 89%, Lag= 47.0 min
 Primary = 0.35 cfs @ 12.92 hrs, Volume= 0.060 af
 Routed to Link 4L : Post - North
 Secondary = 0.32 cfs @ 12.92 hrs, Volume= 0.260 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,217.88' @ 12.92 hrs Surf.Area= 3,815 sf Storage= 5,965 cf

Plug-Flow detention time= 147.5 min calculated for 0.320 af (100% of inflow)
 Center-of-Mass det. time= 147.5 min (983.2 - 835.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,216.00'	15,578 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,216.00	2,517	0	0
1,220.00	5,272	15,578	15,578

Device	Routing	Invert	Outlet Devices
#1	Primary	1,217.00'	12.0" Round Culvert L= 32.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,217.00' / 1,213.00' S= 0.1250 ' / ' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,217.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,218.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600
#4	Secondary	1,216.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,219.00'	20.0' long + 4.0 ' /' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.35 cfs @ 12.92 hrs HW=1,217.88' (Free Discharge)

↑ **1=Culvert** (Passes 0.35 cfs of 2.35 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 0.35 cfs @ 2.53 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.32 cfs @ 12.92 hrs HW=1,217.88' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.32 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,216.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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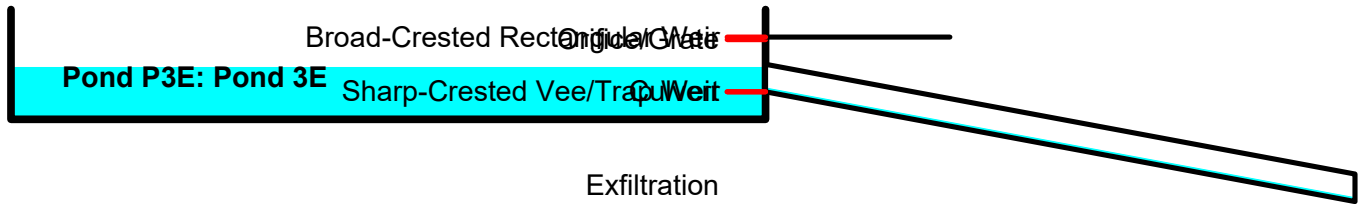
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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

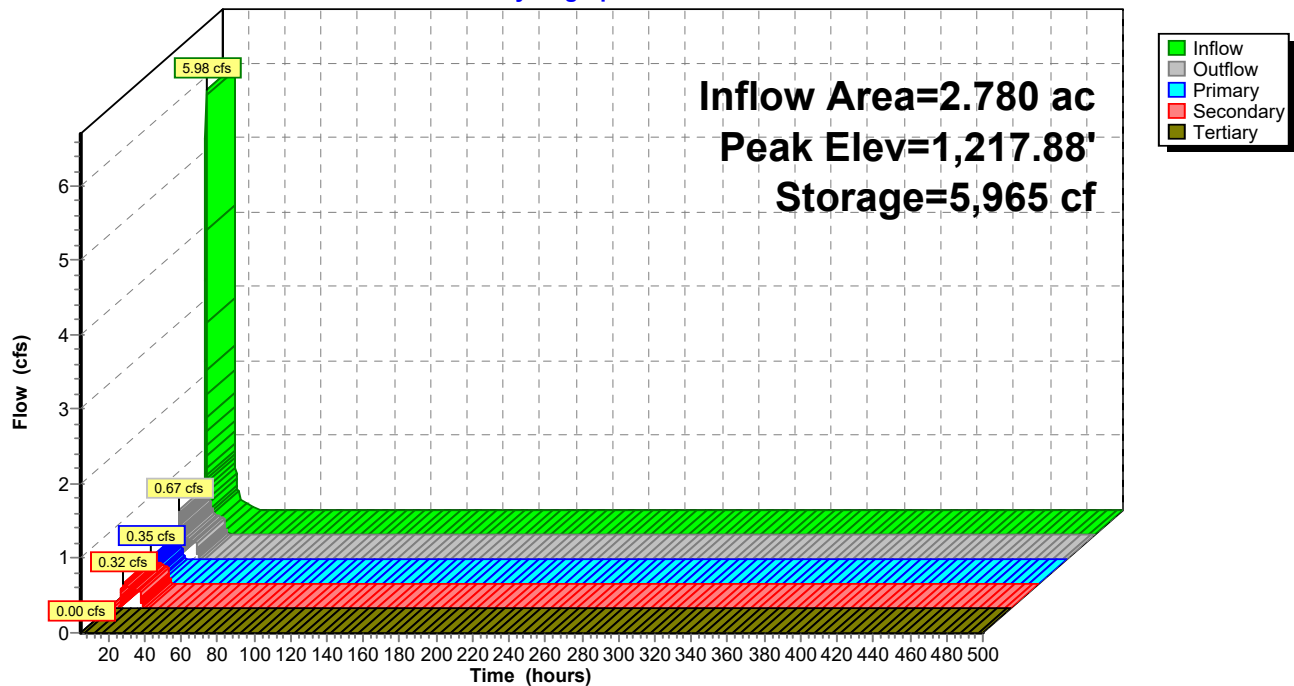
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Pond P3E: Pond 3E

Hydrograph



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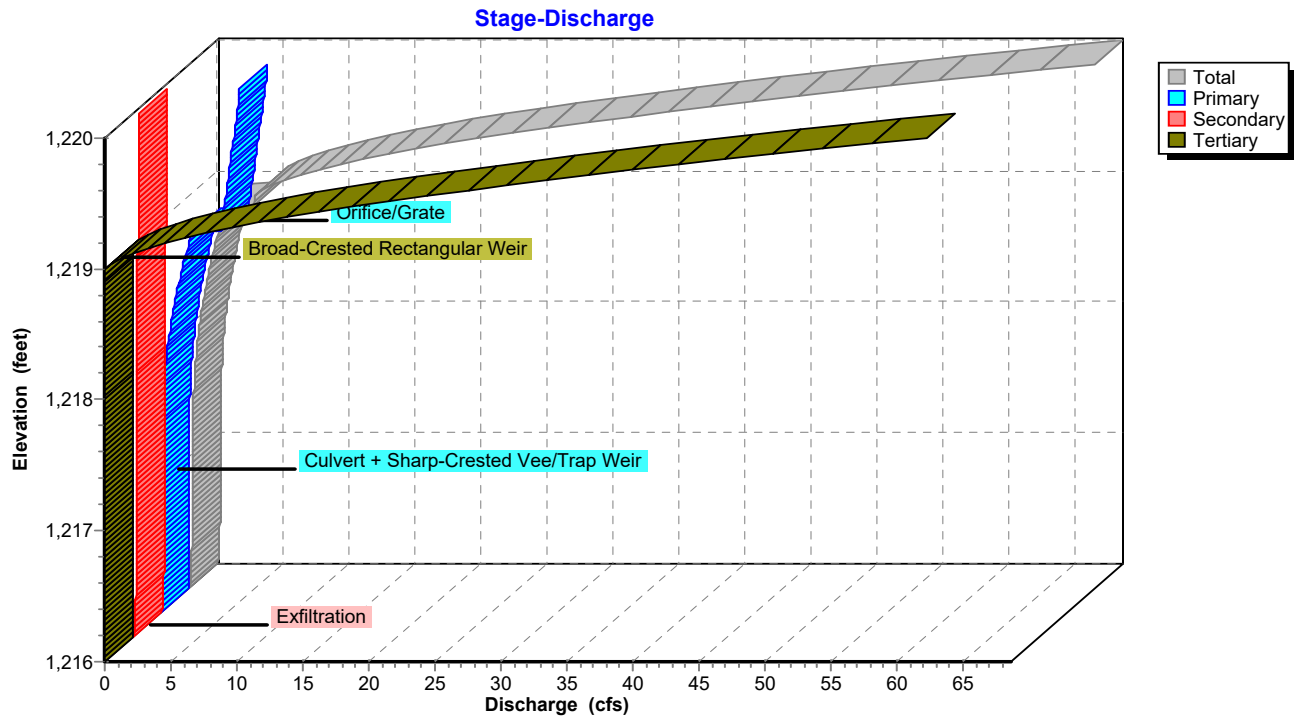
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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

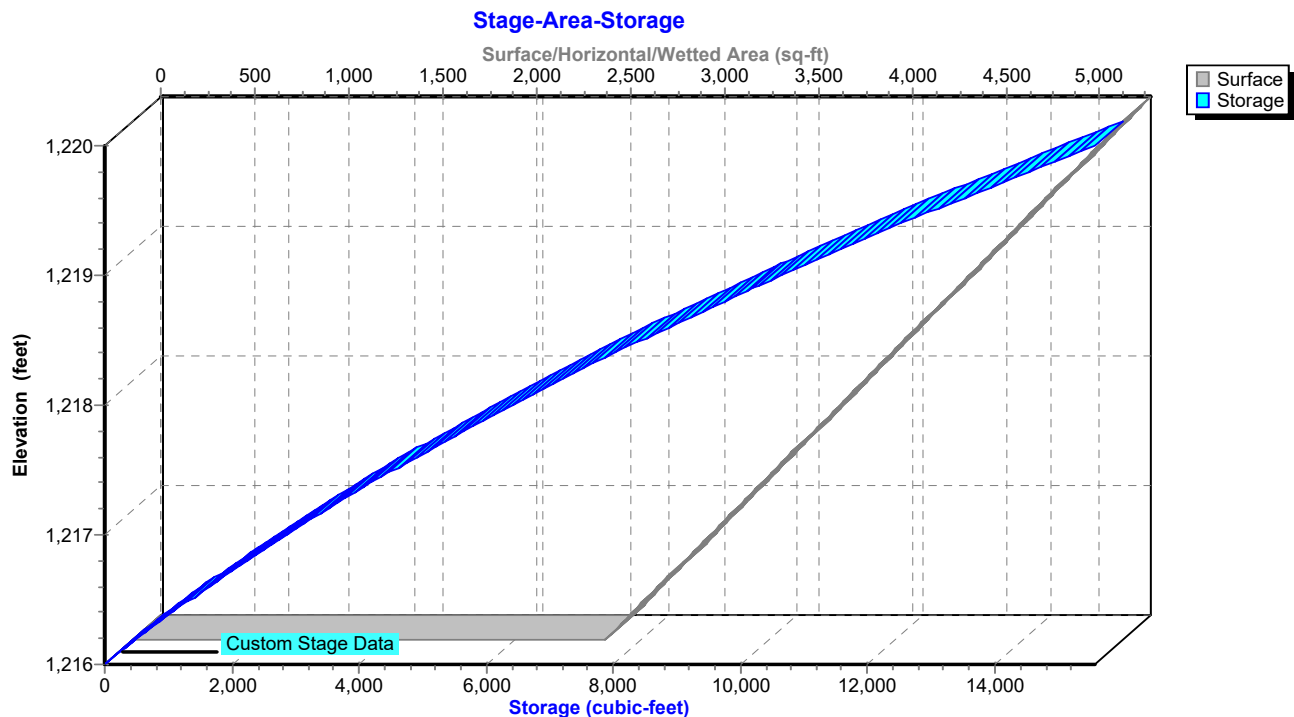
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Pond P3E: Pond 3E



Pond P3E: Pond 3E



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Pond P3E: Pond 3E

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
15.00	0.24	4,630	1,217.52	0.39	0.09	0.30	0.00
25.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
35.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Stage-Discharge for Pond P3E: Pond 3E

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,216.00	0.00	0.00	0.00	0.00
1,216.10	0.22	0.00	0.22	0.00
1,216.20	0.22	0.00	0.22	0.00
1,216.30	0.23	0.00	0.23	0.00
1,216.40	0.23	0.00	0.23	0.00
1,216.50	0.24	0.00	0.24	0.00
1,216.60	0.24	0.00	0.24	0.00
1,216.70	0.25	0.00	0.25	0.00
1,216.80	0.26	0.00	0.26	0.00
1,216.90	0.26	0.00	0.26	0.00
1,217.00	0.27	0.00	0.27	0.00
1,217.10	0.27	0.00	0.27	0.00
1,217.20	0.29	0.01	0.28	0.00
1,217.30	0.31	0.02	0.28	0.00
1,217.40	0.34	0.05	0.29	0.00
1,217.50	0.38	0.08	0.30	0.00
1,217.60	0.43	0.13	0.30	0.00
1,217.70	0.50	0.19	0.31	0.00
1,217.80	0.58	0.27	0.31	0.00
1,217.90	0.68	0.36	0.32	0.00
1,218.00	0.80	0.47	0.32	0.00
1,218.10	0.93	0.60	0.33	0.00
1,218.20	1.08	0.75	0.34	0.00
1,218.30	1.26	0.91	0.34	0.00
1,218.40	1.45	1.10	0.35	0.00
1,218.50	1.66	1.31	0.35	0.00
1,218.60	1.89	1.54	0.36	0.00
1,218.70	2.15	1.79	0.36	0.00
1,218.80	2.43	2.06	0.37	0.00
1,218.90	2.74	2.36	0.38	0.00
1,219.00	5.01	4.63	0.38	0.00
1,219.10	6.77	4.78	0.39	1.60
1,219.20	9.92	4.93	0.39	4.60
1,219.30	14.17	5.07	0.40	8.70
1,219.40	19.40	5.21	0.40	13.78
1,219.50	25.84	5.35	0.41	20.08
1,219.60	33.40	5.48	0.42	27.51
1,219.70	41.13	5.61	0.42	35.10
1,219.80	49.59	5.74	0.43	43.42
1,219.90	58.74	5.86	0.43	52.45
1,220.00	68.59	5.98	0.44	62.18

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Stage-Area-Storage for Pond P3E: Pond 3E

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,216.00	2,517	0	1,218.55	4,273	8,658
1,216.05	2,551	127	1,218.60	4,308	8,872
1,216.10	2,586	255	1,218.65	4,342	9,088
1,216.15	2,620	385	1,218.70	4,377	9,306
1,216.20	2,655	517	1,218.75	4,411	9,526
1,216.25	2,689	651	1,218.80	4,445	9,747
1,216.30	2,724	786	1,218.85	4,480	9,971
1,216.35	2,758	923	1,218.90	4,514	10,195
1,216.40	2,793	1,062	1,218.95	4,549	10,422
1,216.45	2,827	1,202	1,219.00	4,583	10,650
1,216.50	2,861	1,345	1,219.05	4,618	10,880
1,216.55	2,896	1,489	1,219.10	4,652	11,112
1,216.60	2,930	1,634	1,219.15	4,687	11,346
1,216.65	2,965	1,782	1,219.20	4,721	11,581
1,216.70	2,999	1,931	1,219.25	4,755	11,818
1,216.75	3,034	2,081	1,219.30	4,790	12,056
1,216.80	3,068	2,234	1,219.35	4,824	12,297
1,216.85	3,102	2,388	1,219.40	4,859	12,539
1,216.90	3,137	2,544	1,219.45	4,893	12,783
1,216.95	3,171	2,702	1,219.50	4,928	13,028
1,217.00	3,206	2,861	1,219.55	4,962	13,275
1,217.05	3,240	3,023	1,219.60	4,996	13,524
1,217.10	3,275	3,185	1,219.65	5,031	13,775
1,217.15	3,309	3,350	1,219.70	5,065	14,027
1,217.20	3,344	3,516	1,219.75	5,100	14,282
1,217.25	3,378	3,684	1,219.80	5,134	14,537
1,217.30	3,412	3,854	1,219.85	5,169	14,795
1,217.35	3,447	4,026	1,219.90	5,203	15,054
1,217.40	3,481	4,199	1,219.95	5,238	15,315
1,217.45	3,516	4,374	1,220.00	5,272	15,578
1,217.50	3,550	4,550			
1,217.55	3,585	4,729			
1,217.60	3,619	4,909			
1,217.65	3,653	5,091			
1,217.70	3,688	5,274			
1,217.75	3,722	5,459			
1,217.80	3,757	5,646			
1,217.85	3,791	5,835			
1,217.90	3,826	6,025			
1,217.95	3,860	6,218			
1,218.00	3,895	6,412			
1,218.05	3,929	6,607			
1,218.10	3,963	6,804			
1,218.15	3,998	7,003			
1,218.20	4,032	7,204			
1,218.25	4,067	7,407			
1,218.30	4,101	7,611			
1,218.35	4,136	7,817			
1,218.40	4,170	8,024			
1,218.45	4,204	8,234			
1,218.50	4,239	8,445			

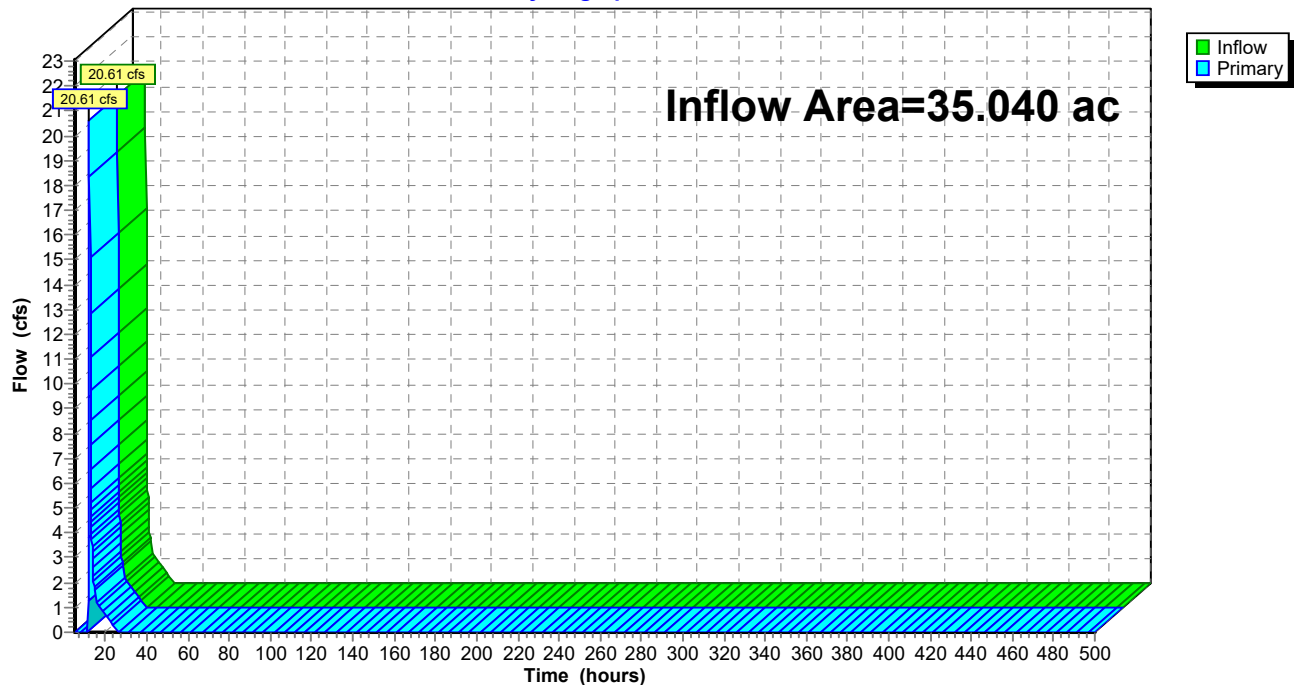
Summary for Link 1L: Total Pre - Development

Inflow Area = 35.040 ac, 0.00% Impervious, Inflow Depth = 0.58" for 5 YR event
Inflow = 20.61 cfs @ 12.20 hrs, Volume= 1.684 af
Primary = 20.61 cfs @ 12.20 hrs, Volume= 1.684 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 1L: Total Pre - Development

Hydrograph



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Link 1L: Total Pre - Development

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	265.00	0.00	0.00	0.00
15.00	1.75	0.00	1.75	270.00	0.00	0.00	0.00
20.00	0.70	0.00	0.70	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

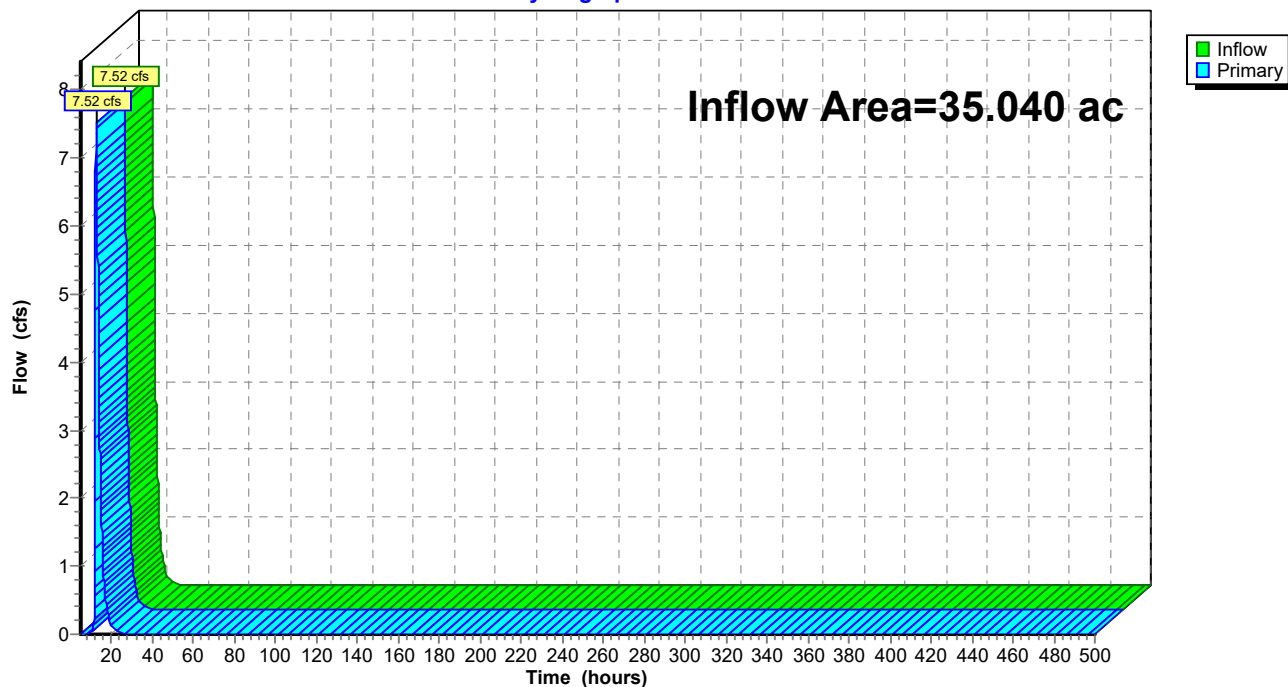
Summary for Link 2L: Total Post - Development

Inflow Area = 35.040 ac, 19.66% Impervious, Inflow Depth = 0.48" for 5 YR event
Inflow = 7.52 cfs @ 12.49 hrs, Volume= 1.408 af
Primary = 7.52 cfs @ 12.49 hrs, Volume= 1.408 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 2L: Total Post - Development

Hydrograph



250128900_swm

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Link 2L: Total Post - Development

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.02	0.00	0.02	265.00	0.00	0.00	0.00
15.00	1.85	0.00	1.85	270.00	0.00	0.00	0.00
20.00	0.11	0.00	0.11	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

250128900_swm

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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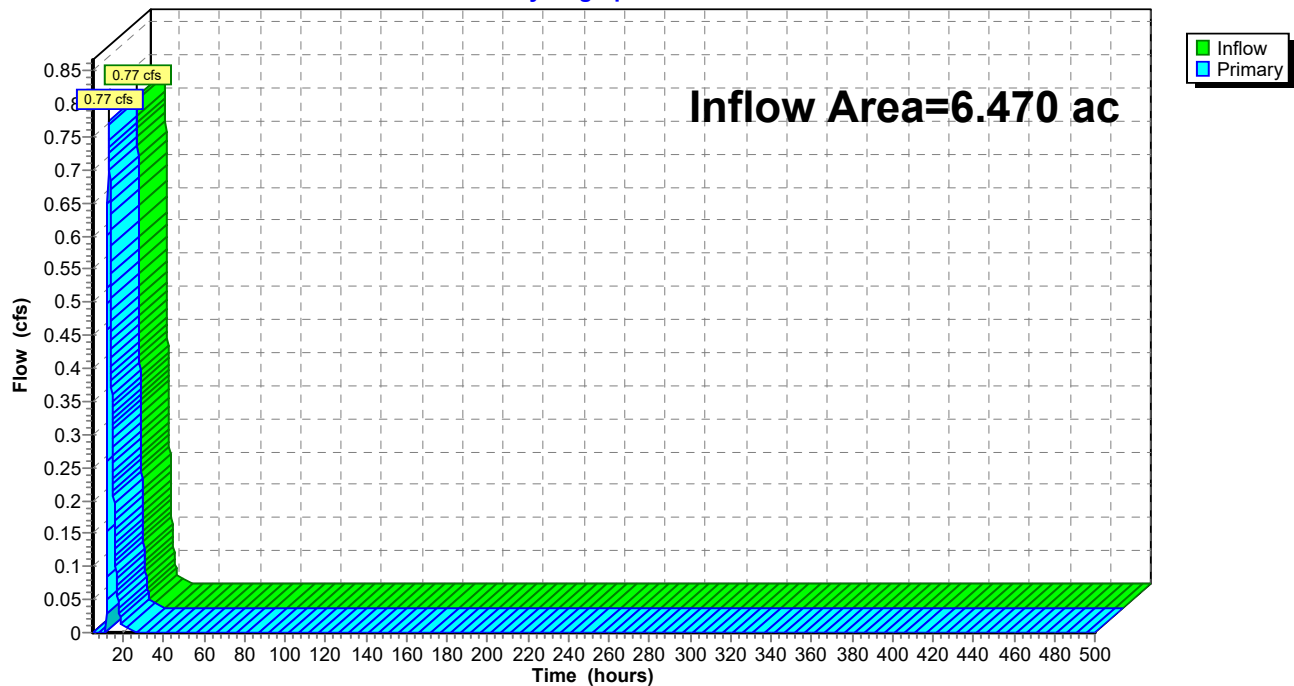
Summary for Link 3L: Post - South

Inflow Area = 6.470 ac, 18.70% Impervious, Inflow Depth = 0.31" for 5 YR event
Inflow = 0.77 cfs @ 12.85 hrs, Volume= 0.167 af
Primary = 0.77 cfs @ 12.85 hrs, Volume= 0.167 af, Atten= 0%, Lag= 0.0 min
Routed to Link 2L : Total Post - Development

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 3L: Post - South

Hydrograph



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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Link 3L: Post - South

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	265.00	0.00	0.00	0.00
15.00	0.26	0.00	0.26	270.00	0.00	0.00	0.00
20.00	0.01	0.00	0.01	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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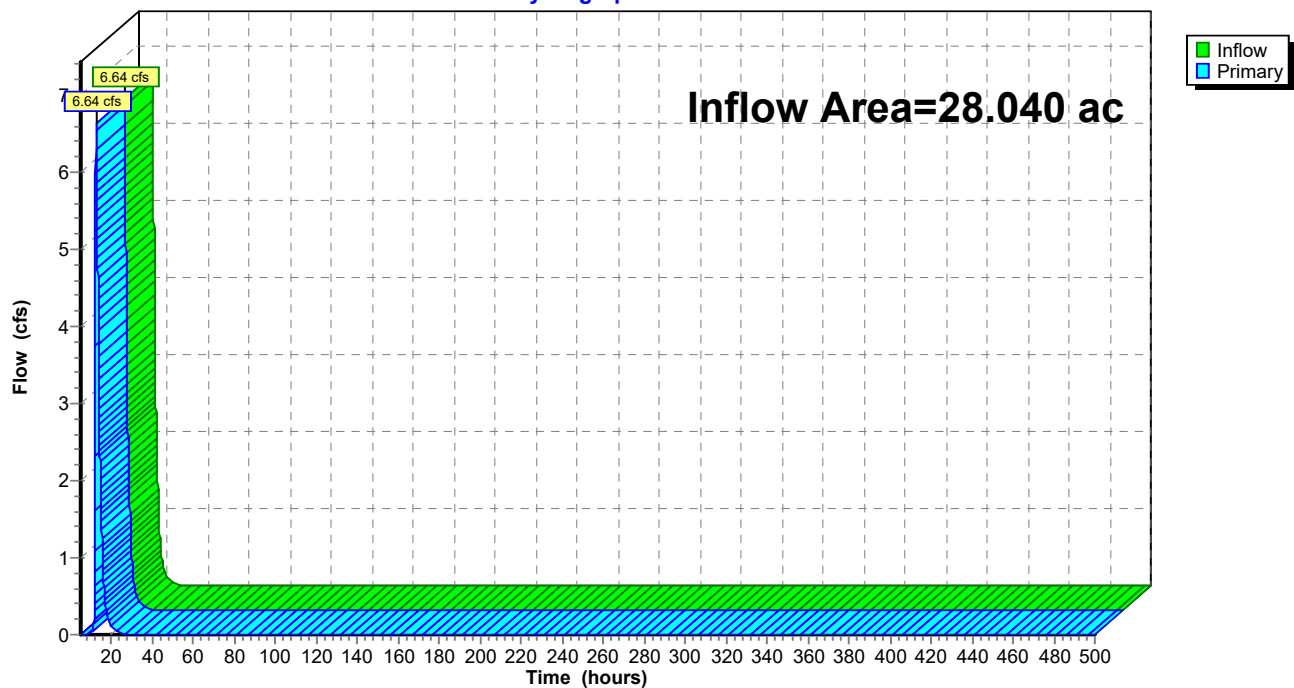
Summary for Link 4L: Post - North

Inflow Area = 28.040 ac, 20.04% Impervious, Inflow Depth = 0.51" for 5 YR event
Inflow = 6.64 cfs @ 12.48 hrs, Volume= 1.203 af
Primary = 6.64 cfs @ 12.48 hrs, Volume= 1.203 af, Atten= 0%, Lag= 0.0 min
Routed to Link 2L : Total Post - Development

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 4L: Post - North

Hydrograph



250128900_swm

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Featherstone Rise
MSE 24-hr 4 5 YR Rainfall=3.70"

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Hydrograph for Link 4L: Post - North

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.02	0.00	0.02	265.00	0.00	0.00	0.00
15.00	1.55	0.00	1.55	270.00	0.00	0.00	0.00
20.00	0.09	0.00	0.09	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Time span=5.00-500.00 hrs, dt=0.05 hrs, 9901 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1: Pre - South	Runoff Area=4.910 ac 0.00% Impervious Runoff Depth=0.65" Tc=10.0 min CN=55 Runoff=3.23 cfs 0.268 af
Subcatchment1A: Post 1A	Runoff Area=6.030 ac 19.24% Impervious Runoff Depth=1.40" Tc=6.0 min CN=68 Runoff=13.00 cfs 0.703 af
Subcatchment1B: Post 1B - Offsite	Runoff Area=0.440 ac 11.36% Impervious Runoff Depth=1.21" Tc=6.0 min CN=65 Runoff=0.80 cfs 0.044 af
Subcatchment2: Pre - West	Runoff Area=2.540 ac 0.00% Impervious Runoff Depth=0.65" Tc=6.0 min CN=55 Runoff=2.06 cfs 0.138 af
Subcatchment2A: Post 2A - Offsite	Runoff Area=0.530 ac 11.32% Impervious Runoff Depth=1.21" Tc=6.0 min CN=65 Runoff=0.97 cfs 0.053 af
Subcatchment3: Pre - North	Runoff Area=27.590 ac 0.00% Impervious Runoff Depth=0.91" Tc=10.0 min CN=60 Runoff=29.63 cfs 2.101 af
Subcatchment3A: Post 3A	Runoff Area=10.600 ac 18.58% Impervious Runoff Depth=1.53" Tc=6.0 min CN=70 Runoff=25.27 cfs 1.355 af
Subcatchment3B: Post 3B	Runoff Area=8.450 ac 19.88% Impervious Runoff Depth=1.60" Tc=6.0 min CN=71 Runoff=21.12 cfs 1.129 af
Subcatchment3C: Post 3C	Runoff Area=2.490 ac 22.89% Impervious Runoff Depth=1.89" Tc=6.0 min CN=75 Runoff=7.40 cfs 0.393 af
Subcatchment3D: Post 3D	Runoff Area=2.380 ac 23.95% Impervious Runoff Depth=1.97" Tc=6.0 min CN=76 Runoff=7.36 cfs 0.391 af
Subcatchment3E: Post 3E	Runoff Area=2.780 ac 19.06% Impervious Runoff Depth=1.82" Tc=6.0 min CN=74 Runoff=7.93 cfs 0.422 af
Subcatchment3Y: Post 3Y - Offsite	Runoff Area=0.820 ac 36.59% Impervious Runoff Depth=2.55" Tc=6.0 min CN=83 Runoff=3.24 cfs 0.174 af
Subcatchment3Z: Post 3Z - Offsite	Runoff Area=0.520 ac 0.00% Impervious Runoff Depth=1.82" Tc=6.0 min CN=74 Runoff=1.48 cfs 0.079 af
Subcatchment5S: Culvert 1	Runoff Area=4,797 sf 48.61% Impervious Runoff Depth=2.21" Tc=6.0 min CN=79 Runoff=0.38 cfs 0.020 af
Subcatchment6S: Culvert 2	Runoff Area=24,708 sf 36.87% Impervious Runoff Depth=1.89" Tc=6.0 min CN=75 Runoff=1.69 cfs 0.090 af
Subcatchment7S: Culvert 3	Runoff Area=41,517 sf 32.00% Impervious Runoff Depth=1.75" Tc=6.0 min CN=73 Runoff=2.61 cfs 0.139 af

Subcatchment8S: Culvert 4Runoff Area=209,603 sf 25.18% Impervious Runoff Depth=1.53"
Tc=6.0 min CN=70 Runoff=11.47 cfs 0.615 af**Subcatchment9S: Culvert 5**Runoff Area=188,836 sf 19.96% Impervious Runoff Depth=1.40"
Tc=6.0 min CN=68 Runoff=9.35 cfs 0.505 af**Pond P1A: Pond 1A**Peak Elev=1,241.65' Storage=11,696 cf Inflow=13.00 cfs 0.703 af
Primary=1.66 cfs 0.276 af Secondary=0.53 cfs 0.427 af Tertiary=0.00 cfs 0.000 af Outflow=2.19 cfs 0.703 af**Pond P3A: Pond 3A**Peak Elev=1,195.36' Storage=22,437 cf Inflow=25.27 cfs 1.355 af
Primary=4.07 cfs 0.668 af Secondary=0.77 cfs 0.687 af Tertiary=0.00 cfs 0.000 af Outflow=4.83 cfs 1.355 af**Pond P3B: Pond 3B**Peak Elev=1,198.33' Storage=18,152 cf Inflow=21.12 cfs 1.129 af
Primary=3.92 cfs 0.579 af Secondary=0.68 cfs 0.550 af Tertiary=0.00 cfs 0.000 af Outflow=4.59 cfs 1.129 af**Pond P3C: Pond 3C**Peak Elev=1,180.33' Storage=6,905 cf Inflow=7.40 cfs 0.393 af
Primary=0.97 cfs 0.132 af Secondary=0.33 cfs 0.262 af Tertiary=0.00 cfs 0.000 af Outflow=1.31 cfs 0.393 af**Pond P3D: Pond 3D**Peak Elev=1,190.07' Storage=5,269 cf Inflow=7.36 cfs 0.391 af
Primary=2.94 cfs 0.230 af Secondary=0.22 cfs 0.161 af Tertiary=0.00 cfs 0.000 af Outflow=3.16 cfs 0.391 af**Pond P3E: Pond 3E**Peak Elev=1,218.29' Storage=7,552 cf Inflow=7.93 cfs 0.422 af
Primary=0.89 cfs 0.130 af Secondary=0.34 cfs 0.291 af Tertiary=0.00 cfs 0.000 af Outflow=1.23 cfs 0.422 af**Link 1L: Total Pre - Development**Inflow=34.45 cfs 2.507 af
Primary=34.45 cfs 2.507 af**Link 2L: Total Post - Development**Inflow=15.10 cfs 2.364 af
Primary=15.10 cfs 2.364 af**Link 3L: Post - South**Inflow=1.81 cfs 0.320 af
Primary=1.81 cfs 0.320 af**Link 4L: Post - North**Inflow=13.10 cfs 1.991 af
Primary=13.10 cfs 1.991 af**Total Runoff Area = 80.857 ac Runoff Volume = 8.619 af Average Runoff Depth = 1.28"**
88.21% Pervious = 71.323 ac 11.79% Impervious = 9.534 ac

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Summary for Subcatchment 1: Pre - South

Runoff = 3.23 cfs @ 12.21 hrs, Volume= 0.268 af, Depth= 0.65"
Routed to Link 1L : Total Pre - Development

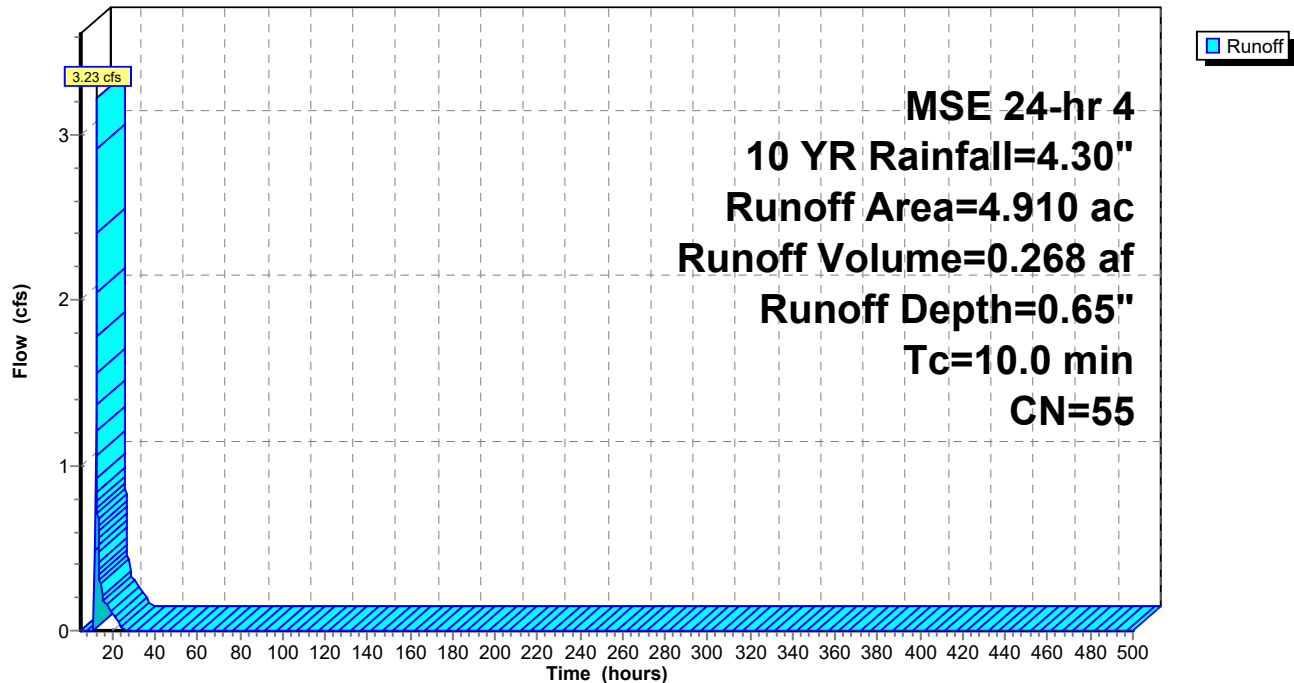
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10 YR Rainfall=4.30"

Area (ac)	CN	Description
* 4.910	55	Pre Dev - B Soils
4.910		100.00% Pervious Area

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

Subcatchment 1: Pre - South

Hydrograph



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Subcatchment 1: Pre - South

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.20	0.00	0.00	260.00	4.30	0.65	0.00
10.00	0.68	0.00	0.00	265.00	4.30	0.65	0.00
15.00	3.78	0.44	0.28	270.00	4.30	0.65	0.00
20.00	4.16	0.60	0.11	275.00	4.30	0.65	0.00
25.00	4.30	0.65	0.00	280.00	4.30	0.65	0.00
30.00	4.30	0.65	0.00	285.00	4.30	0.65	0.00
35.00	4.30	0.65	0.00	290.00	4.30	0.65	0.00
40.00	4.30	0.65	0.00	295.00	4.30	0.65	0.00
45.00	4.30	0.65	0.00	300.00	4.30	0.65	0.00
50.00	4.30	0.65	0.00	305.00	4.30	0.65	0.00
55.00	4.30	0.65	0.00	310.00	4.30	0.65	0.00
60.00	4.30	0.65	0.00	315.00	4.30	0.65	0.00
65.00	4.30	0.65	0.00	320.00	4.30	0.65	0.00
70.00	4.30	0.65	0.00	325.00	4.30	0.65	0.00
75.00	4.30	0.65	0.00	330.00	4.30	0.65	0.00
80.00	4.30	0.65	0.00	335.00	4.30	0.65	0.00
85.00	4.30	0.65	0.00	340.00	4.30	0.65	0.00
90.00	4.30	0.65	0.00	345.00	4.30	0.65	0.00
95.00	4.30	0.65	0.00	350.00	4.30	0.65	0.00
100.00	4.30	0.65	0.00	355.00	4.30	0.65	0.00
105.00	4.30	0.65	0.00	360.00	4.30	0.65	0.00
110.00	4.30	0.65	0.00	365.00	4.30	0.65	0.00
115.00	4.30	0.65	0.00	370.00	4.30	0.65	0.00
120.00	4.30	0.65	0.00	375.00	4.30	0.65	0.00
125.00	4.30	0.65	0.00	380.00	4.30	0.65	0.00
130.00	4.30	0.65	0.00	385.00	4.30	0.65	0.00
135.00	4.30	0.65	0.00	390.00	4.30	0.65	0.00
140.00	4.30	0.65	0.00	395.00	4.30	0.65	0.00
145.00	4.30	0.65	0.00	400.00	4.30	0.65	0.00
150.00	4.30	0.65	0.00	405.00	4.30	0.65	0.00
155.00	4.30	0.65	0.00	410.00	4.30	0.65	0.00
160.00	4.30	0.65	0.00	415.00	4.30	0.65	0.00
165.00	4.30	0.65	0.00	420.00	4.30	0.65	0.00
170.00	4.30	0.65	0.00	425.00	4.30	0.65	0.00
175.00	4.30	0.65	0.00	430.00	4.30	0.65	0.00
180.00	4.30	0.65	0.00	435.00	4.30	0.65	0.00
185.00	4.30	0.65	0.00	440.00	4.30	0.65	0.00
190.00	4.30	0.65	0.00	445.00	4.30	0.65	0.00
195.00	4.30	0.65	0.00	450.00	4.30	0.65	0.00
200.00	4.30	0.65	0.00	455.00	4.30	0.65	0.00
205.00	4.30	0.65	0.00	460.00	4.30	0.65	0.00
210.00	4.30	0.65	0.00	465.00	4.30	0.65	0.00
215.00	4.30	0.65	0.00	470.00	4.30	0.65	0.00
220.00	4.30	0.65	0.00	475.00	4.30	0.65	0.00
225.00	4.30	0.65	0.00	480.00	4.30	0.65	0.00
230.00	4.30	0.65	0.00	485.00	4.30	0.65	0.00
235.00	4.30	0.65	0.00	490.00	4.30	0.65	0.00
240.00	4.30	0.65	0.00	495.00	4.30	0.65	0.00
245.00	4.30	0.65	0.00	500.00	4.30	0.65	0.00
250.00	4.30	0.65	0.00				
255.00	4.30	0.65	0.00				

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Summary for Subcatchment 1A: Post 1A

Runoff = 13.00 cfs @ 12.14 hrs, Volume= 0.703 af, Depth= 1.40"
Routed to Pond P1A : Pond 1A

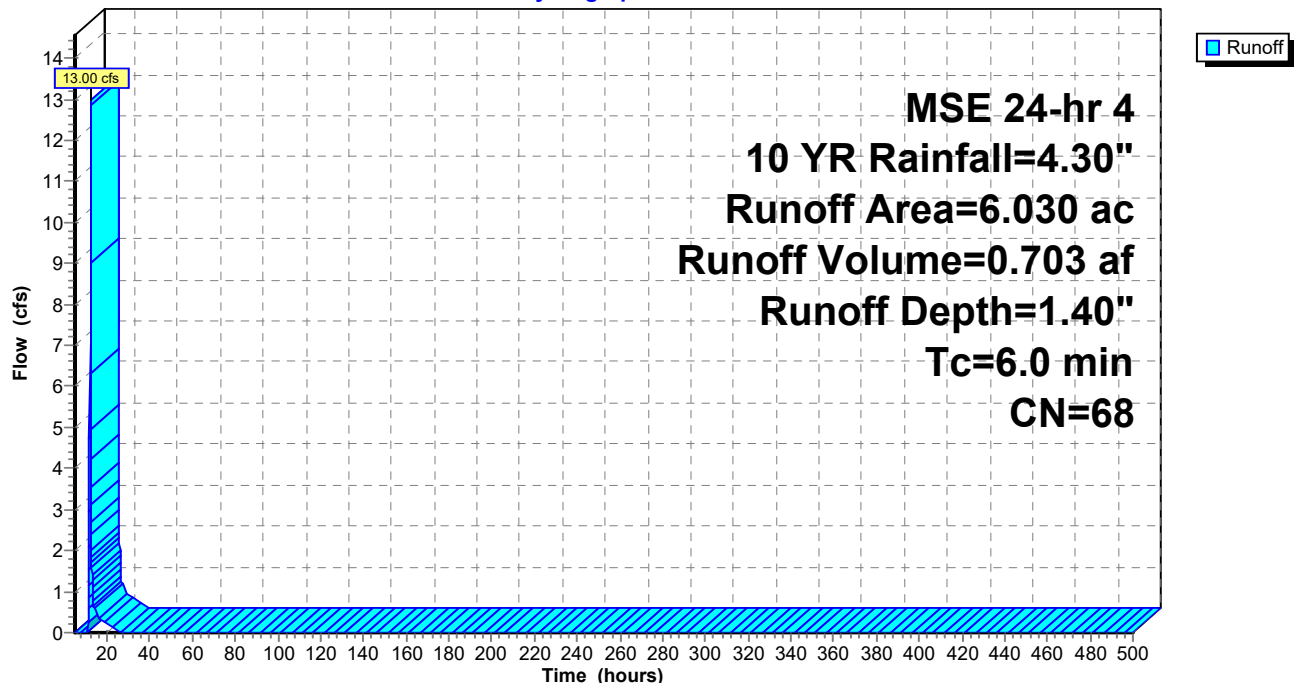
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10 YR Rainfall=4.30"

Area (ac)	CN	Description
* 1.160	98	Impervious
* 4.870	61	Post - B Soils
* 0.000	74	Post - C Soils
6.030	68	Weighted Average
4.870		80.76% Pervious Area
1.160		19.24% Impervious Area

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

Subcatchment 1A: Post 1A

Hydrograph



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Subcatchment 1A: Post 1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.20	0.00	0.00	260.00	4.30	1.40	0.00
10.00	0.68	0.00	0.00	265.00	4.30	1.40	0.00
15.00	3.78	1.07	0.56	270.00	4.30	1.40	0.00
20.00	4.16	1.31	0.21	275.00	4.30	1.40	0.00
25.00	4.30	1.40	0.00	280.00	4.30	1.40	0.00
30.00	4.30	1.40	0.00	285.00	4.30	1.40	0.00
35.00	4.30	1.40	0.00	290.00	4.30	1.40	0.00
40.00	4.30	1.40	0.00	295.00	4.30	1.40	0.00
45.00	4.30	1.40	0.00	300.00	4.30	1.40	0.00
50.00	4.30	1.40	0.00	305.00	4.30	1.40	0.00
55.00	4.30	1.40	0.00	310.00	4.30	1.40	0.00
60.00	4.30	1.40	0.00	315.00	4.30	1.40	0.00
65.00	4.30	1.40	0.00	320.00	4.30	1.40	0.00
70.00	4.30	1.40	0.00	325.00	4.30	1.40	0.00
75.00	4.30	1.40	0.00	330.00	4.30	1.40	0.00
80.00	4.30	1.40	0.00	335.00	4.30	1.40	0.00
85.00	4.30	1.40	0.00	340.00	4.30	1.40	0.00
90.00	4.30	1.40	0.00	345.00	4.30	1.40	0.00
95.00	4.30	1.40	0.00	350.00	4.30	1.40	0.00
100.00	4.30	1.40	0.00	355.00	4.30	1.40	0.00
105.00	4.30	1.40	0.00	360.00	4.30	1.40	0.00
110.00	4.30	1.40	0.00	365.00	4.30	1.40	0.00
115.00	4.30	1.40	0.00	370.00	4.30	1.40	0.00
120.00	4.30	1.40	0.00	375.00	4.30	1.40	0.00
125.00	4.30	1.40	0.00	380.00	4.30	1.40	0.00
130.00	4.30	1.40	0.00	385.00	4.30	1.40	0.00
135.00	4.30	1.40	0.00	390.00	4.30	1.40	0.00
140.00	4.30	1.40	0.00	395.00	4.30	1.40	0.00
145.00	4.30	1.40	0.00	400.00	4.30	1.40	0.00
150.00	4.30	1.40	0.00	405.00	4.30	1.40	0.00
155.00	4.30	1.40	0.00	410.00	4.30	1.40	0.00
160.00	4.30	1.40	0.00	415.00	4.30	1.40	0.00
165.00	4.30	1.40	0.00	420.00	4.30	1.40	0.00
170.00	4.30	1.40	0.00	425.00	4.30	1.40	0.00
175.00	4.30	1.40	0.00	430.00	4.30	1.40	0.00
180.00	4.30	1.40	0.00	435.00	4.30	1.40	0.00
185.00	4.30	1.40	0.00	440.00	4.30	1.40	0.00
190.00	4.30	1.40	0.00	445.00	4.30	1.40	0.00
195.00	4.30	1.40	0.00	450.00	4.30	1.40	0.00
200.00	4.30	1.40	0.00	455.00	4.30	1.40	0.00
205.00	4.30	1.40	0.00	460.00	4.30	1.40	0.00
210.00	4.30	1.40	0.00	465.00	4.30	1.40	0.00
215.00	4.30	1.40	0.00	470.00	4.30	1.40	0.00
220.00	4.30	1.40	0.00	475.00	4.30	1.40	0.00
225.00	4.30	1.40	0.00	480.00	4.30	1.40	0.00
230.00	4.30	1.40	0.00	485.00	4.30	1.40	0.00
235.00	4.30	1.40	0.00	490.00	4.30	1.40	0.00
240.00	4.30	1.40	0.00	495.00	4.30	1.40	0.00
245.00	4.30	1.40	0.00	500.00	4.30	1.40	0.00
250.00	4.30	1.40	0.00				
255.00	4.30	1.40	0.00				

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Summary for Subcatchment 1B: Post 1B - Offsite

Runoff = 0.80 cfs @ 12.14 hrs, Volume= 0.044 af, Depth= 1.21"
Routed to Link 3L : Post - South

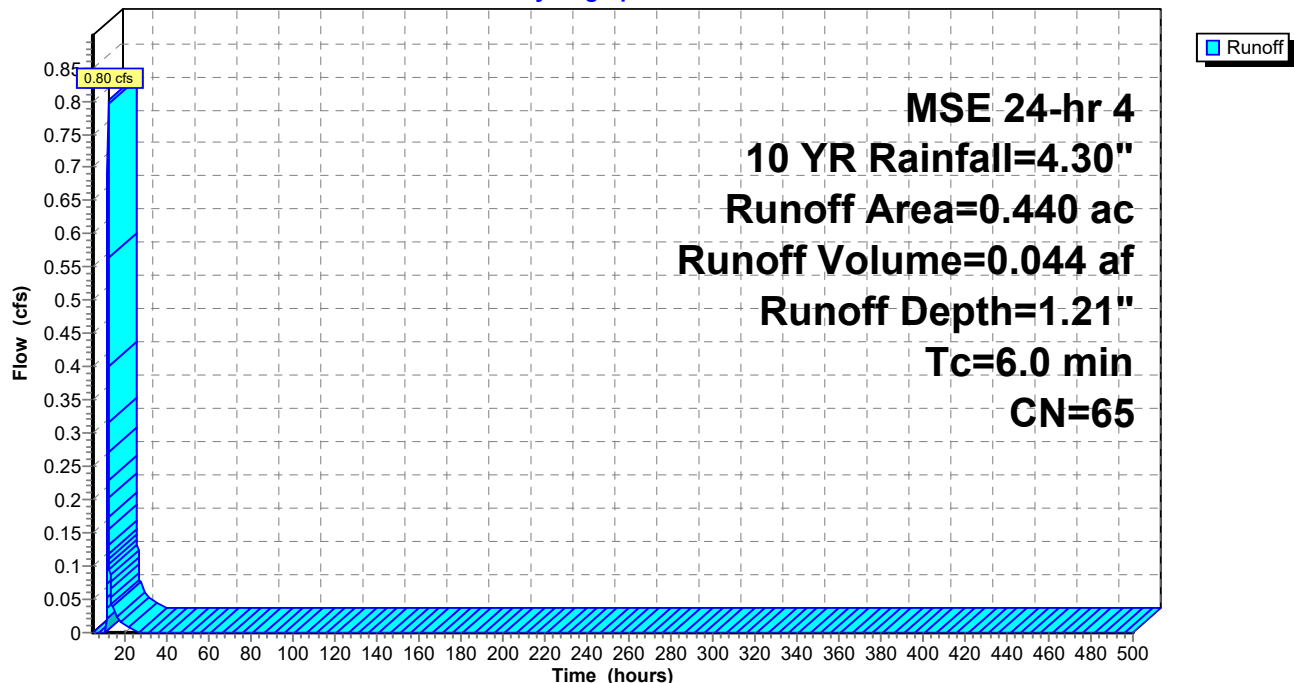
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10 YR Rainfall=4.30"

	Area (ac)	CN	Description
*	0.050	98	Impervious
*	0.390	61	Post - B Soils
*	0.000	74	Post - C Soils
	0.440	65	Weighted Average
	0.390		88.64% Pervious Area
	0.050		11.36% Impervious Area

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

Subcatchment 1B: Post 1B - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Subcatchment 1B: Post 1B - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.20	0.00	0.00	260.00	4.30	1.21	0.00
10.00	0.68	0.00	0.00	265.00	4.30	1.21	0.00
15.00	3.78	0.90	0.04	270.00	4.30	1.21	0.00
20.00	4.16	1.12	0.01	275.00	4.30	1.21	0.00
25.00	4.30	1.21	0.00	280.00	4.30	1.21	0.00
30.00	4.30	1.21	0.00	285.00	4.30	1.21	0.00
35.00	4.30	1.21	0.00	290.00	4.30	1.21	0.00
40.00	4.30	1.21	0.00	295.00	4.30	1.21	0.00
45.00	4.30	1.21	0.00	300.00	4.30	1.21	0.00
50.00	4.30	1.21	0.00	305.00	4.30	1.21	0.00
55.00	4.30	1.21	0.00	310.00	4.30	1.21	0.00
60.00	4.30	1.21	0.00	315.00	4.30	1.21	0.00
65.00	4.30	1.21	0.00	320.00	4.30	1.21	0.00
70.00	4.30	1.21	0.00	325.00	4.30	1.21	0.00
75.00	4.30	1.21	0.00	330.00	4.30	1.21	0.00
80.00	4.30	1.21	0.00	335.00	4.30	1.21	0.00
85.00	4.30	1.21	0.00	340.00	4.30	1.21	0.00
90.00	4.30	1.21	0.00	345.00	4.30	1.21	0.00
95.00	4.30	1.21	0.00	350.00	4.30	1.21	0.00
100.00	4.30	1.21	0.00	355.00	4.30	1.21	0.00
105.00	4.30	1.21	0.00	360.00	4.30	1.21	0.00
110.00	4.30	1.21	0.00	365.00	4.30	1.21	0.00
115.00	4.30	1.21	0.00	370.00	4.30	1.21	0.00
120.00	4.30	1.21	0.00	375.00	4.30	1.21	0.00
125.00	4.30	1.21	0.00	380.00	4.30	1.21	0.00
130.00	4.30	1.21	0.00	385.00	4.30	1.21	0.00
135.00	4.30	1.21	0.00	390.00	4.30	1.21	0.00
140.00	4.30	1.21	0.00	395.00	4.30	1.21	0.00
145.00	4.30	1.21	0.00	400.00	4.30	1.21	0.00
150.00	4.30	1.21	0.00	405.00	4.30	1.21	0.00
155.00	4.30	1.21	0.00	410.00	4.30	1.21	0.00
160.00	4.30	1.21	0.00	415.00	4.30	1.21	0.00
165.00	4.30	1.21	0.00	420.00	4.30	1.21	0.00
170.00	4.30	1.21	0.00	425.00	4.30	1.21	0.00
175.00	4.30	1.21	0.00	430.00	4.30	1.21	0.00
180.00	4.30	1.21	0.00	435.00	4.30	1.21	0.00
185.00	4.30	1.21	0.00	440.00	4.30	1.21	0.00
190.00	4.30	1.21	0.00	445.00	4.30	1.21	0.00
195.00	4.30	1.21	0.00	450.00	4.30	1.21	0.00
200.00	4.30	1.21	0.00	455.00	4.30	1.21	0.00
205.00	4.30	1.21	0.00	460.00	4.30	1.21	0.00
210.00	4.30	1.21	0.00	465.00	4.30	1.21	0.00
215.00	4.30	1.21	0.00	470.00	4.30	1.21	0.00
220.00	4.30	1.21	0.00	475.00	4.30	1.21	0.00
225.00	4.30	1.21	0.00	480.00	4.30	1.21	0.00
230.00	4.30	1.21	0.00	485.00	4.30	1.21	0.00
235.00	4.30	1.21	0.00	490.00	4.30	1.21	0.00
240.00	4.30	1.21	0.00	495.00	4.30	1.21	0.00
245.00	4.30	1.21	0.00	500.00	4.30	1.21	0.00
250.00	4.30	1.21	0.00				
255.00	4.30	1.21	0.00				

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Summary for Subcatchment 2: Pre - West

Runoff = 2.06 cfs @ 12.15 hrs, Volume= 0.138 af, Depth= 0.65"
Routed to Link 1L : Total Pre - Development

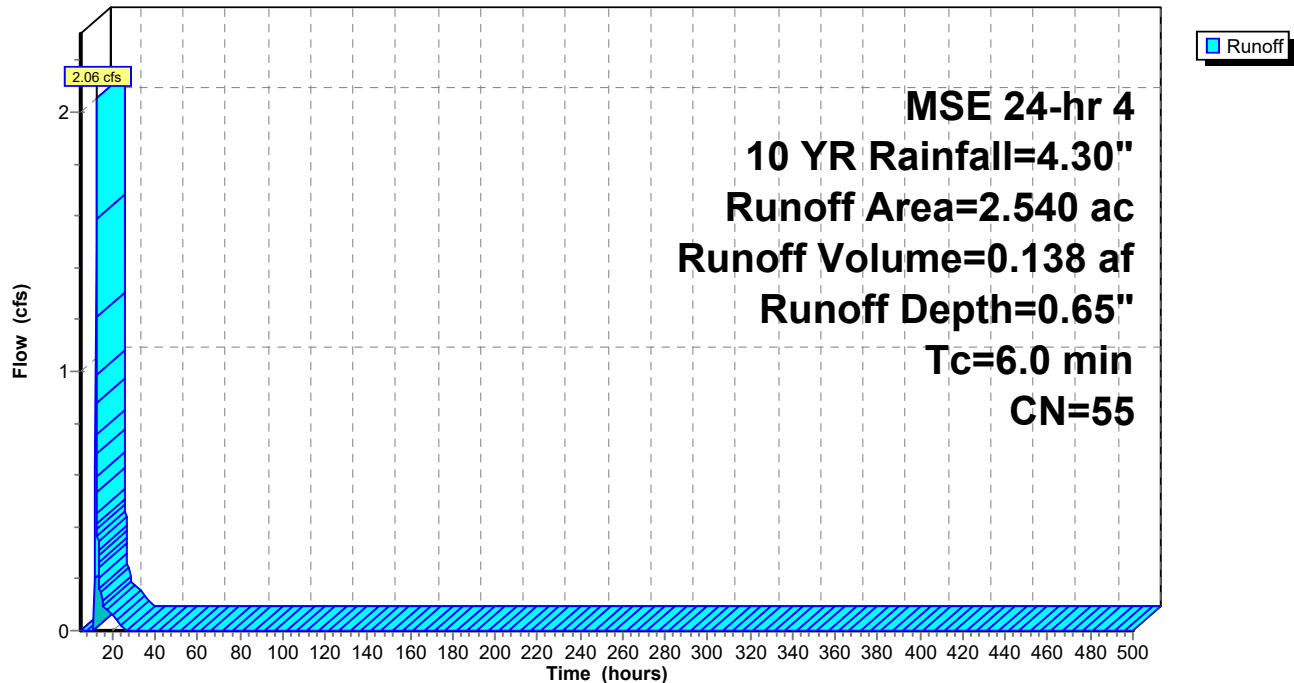
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10 YR Rainfall=4.30"

Area (ac)	CN	Description
* 2.540	55	Pre Dev - B Soils
2.540		100.00% Pervious Area

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

Subcatchment 2: Pre - West

Hydrograph



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Subcatchment 2: Pre - West

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.20	0.00	0.00	260.00	4.30	0.65	0.00
10.00	0.68	0.00	0.00	265.00	4.30	0.65	0.00
15.00	3.78	0.44	0.14	270.00	4.30	0.65	0.00
20.00	4.16	0.60	0.06	275.00	4.30	0.65	0.00
25.00	4.30	0.65	0.00	280.00	4.30	0.65	0.00
30.00	4.30	0.65	0.00	285.00	4.30	0.65	0.00
35.00	4.30	0.65	0.00	290.00	4.30	0.65	0.00
40.00	4.30	0.65	0.00	295.00	4.30	0.65	0.00
45.00	4.30	0.65	0.00	300.00	4.30	0.65	0.00
50.00	4.30	0.65	0.00	305.00	4.30	0.65	0.00
55.00	4.30	0.65	0.00	310.00	4.30	0.65	0.00
60.00	4.30	0.65	0.00	315.00	4.30	0.65	0.00
65.00	4.30	0.65	0.00	320.00	4.30	0.65	0.00
70.00	4.30	0.65	0.00	325.00	4.30	0.65	0.00
75.00	4.30	0.65	0.00	330.00	4.30	0.65	0.00
80.00	4.30	0.65	0.00	335.00	4.30	0.65	0.00
85.00	4.30	0.65	0.00	340.00	4.30	0.65	0.00
90.00	4.30	0.65	0.00	345.00	4.30	0.65	0.00
95.00	4.30	0.65	0.00	350.00	4.30	0.65	0.00
100.00	4.30	0.65	0.00	355.00	4.30	0.65	0.00
105.00	4.30	0.65	0.00	360.00	4.30	0.65	0.00
110.00	4.30	0.65	0.00	365.00	4.30	0.65	0.00
115.00	4.30	0.65	0.00	370.00	4.30	0.65	0.00
120.00	4.30	0.65	0.00	375.00	4.30	0.65	0.00
125.00	4.30	0.65	0.00	380.00	4.30	0.65	0.00
130.00	4.30	0.65	0.00	385.00	4.30	0.65	0.00
135.00	4.30	0.65	0.00	390.00	4.30	0.65	0.00
140.00	4.30	0.65	0.00	395.00	4.30	0.65	0.00
145.00	4.30	0.65	0.00	400.00	4.30	0.65	0.00
150.00	4.30	0.65	0.00	405.00	4.30	0.65	0.00
155.00	4.30	0.65	0.00	410.00	4.30	0.65	0.00
160.00	4.30	0.65	0.00	415.00	4.30	0.65	0.00
165.00	4.30	0.65	0.00	420.00	4.30	0.65	0.00
170.00	4.30	0.65	0.00	425.00	4.30	0.65	0.00
175.00	4.30	0.65	0.00	430.00	4.30	0.65	0.00
180.00	4.30	0.65	0.00	435.00	4.30	0.65	0.00
185.00	4.30	0.65	0.00	440.00	4.30	0.65	0.00
190.00	4.30	0.65	0.00	445.00	4.30	0.65	0.00
195.00	4.30	0.65	0.00	450.00	4.30	0.65	0.00
200.00	4.30	0.65	0.00	455.00	4.30	0.65	0.00
205.00	4.30	0.65	0.00	460.00	4.30	0.65	0.00
210.00	4.30	0.65	0.00	465.00	4.30	0.65	0.00
215.00	4.30	0.65	0.00	470.00	4.30	0.65	0.00
220.00	4.30	0.65	0.00	475.00	4.30	0.65	0.00
225.00	4.30	0.65	0.00	480.00	4.30	0.65	0.00
230.00	4.30	0.65	0.00	485.00	4.30	0.65	0.00
235.00	4.30	0.65	0.00	490.00	4.30	0.65	0.00
240.00	4.30	0.65	0.00	495.00	4.30	0.65	0.00
245.00	4.30	0.65	0.00	500.00	4.30	0.65	0.00
250.00	4.30	0.65	0.00				
255.00	4.30	0.65	0.00				

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Summary for Subcatchment 2A: Post 2A - Offsite

Runoff = 0.97 cfs @ 12.14 hrs, Volume= 0.053 af, Depth= 1.21"
Routed to Link 2L : Total Post - Development

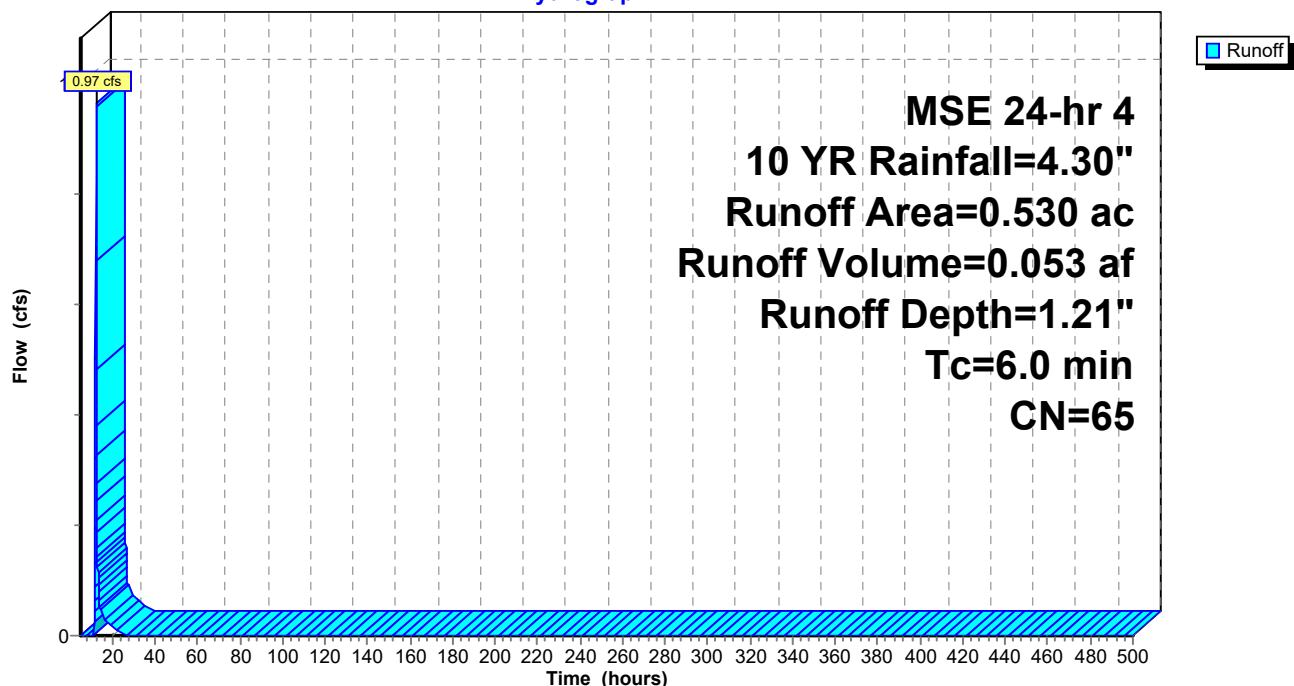
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10 YR Rainfall=4.30"

Area (ac)	CN	Description
* 0.060	98	Impervious
* 0.470	61	Post - B Soils
* 0.000	74	Post - C Soils
0.530	65	Weighted Average
0.470		88.68% Pervious Area
0.060		11.32% Impervious Area

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

Subcatchment 2A: Post 2A - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Subcatchment 2A: Post 2A - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.20	0.00	0.00	260.00	4.30	1.21	0.00
10.00	0.68	0.00	0.00	265.00	4.30	1.21	0.00
15.00	3.78	0.90	0.05	270.00	4.30	1.21	0.00
20.00	4.16	1.12	0.02	275.00	4.30	1.21	0.00
25.00	4.30	1.21	0.00	280.00	4.30	1.21	0.00
30.00	4.30	1.21	0.00	285.00	4.30	1.21	0.00
35.00	4.30	1.21	0.00	290.00	4.30	1.21	0.00
40.00	4.30	1.21	0.00	295.00	4.30	1.21	0.00
45.00	4.30	1.21	0.00	300.00	4.30	1.21	0.00
50.00	4.30	1.21	0.00	305.00	4.30	1.21	0.00
55.00	4.30	1.21	0.00	310.00	4.30	1.21	0.00
60.00	4.30	1.21	0.00	315.00	4.30	1.21	0.00
65.00	4.30	1.21	0.00	320.00	4.30	1.21	0.00
70.00	4.30	1.21	0.00	325.00	4.30	1.21	0.00
75.00	4.30	1.21	0.00	330.00	4.30	1.21	0.00
80.00	4.30	1.21	0.00	335.00	4.30	1.21	0.00
85.00	4.30	1.21	0.00	340.00	4.30	1.21	0.00
90.00	4.30	1.21	0.00	345.00	4.30	1.21	0.00
95.00	4.30	1.21	0.00	350.00	4.30	1.21	0.00
100.00	4.30	1.21	0.00	355.00	4.30	1.21	0.00
105.00	4.30	1.21	0.00	360.00	4.30	1.21	0.00
110.00	4.30	1.21	0.00	365.00	4.30	1.21	0.00
115.00	4.30	1.21	0.00	370.00	4.30	1.21	0.00
120.00	4.30	1.21	0.00	375.00	4.30	1.21	0.00
125.00	4.30	1.21	0.00	380.00	4.30	1.21	0.00
130.00	4.30	1.21	0.00	385.00	4.30	1.21	0.00
135.00	4.30	1.21	0.00	390.00	4.30	1.21	0.00
140.00	4.30	1.21	0.00	395.00	4.30	1.21	0.00
145.00	4.30	1.21	0.00	400.00	4.30	1.21	0.00
150.00	4.30	1.21	0.00	405.00	4.30	1.21	0.00
155.00	4.30	1.21	0.00	410.00	4.30	1.21	0.00
160.00	4.30	1.21	0.00	415.00	4.30	1.21	0.00
165.00	4.30	1.21	0.00	420.00	4.30	1.21	0.00
170.00	4.30	1.21	0.00	425.00	4.30	1.21	0.00
175.00	4.30	1.21	0.00	430.00	4.30	1.21	0.00
180.00	4.30	1.21	0.00	435.00	4.30	1.21	0.00
185.00	4.30	1.21	0.00	440.00	4.30	1.21	0.00
190.00	4.30	1.21	0.00	445.00	4.30	1.21	0.00
195.00	4.30	1.21	0.00	450.00	4.30	1.21	0.00
200.00	4.30	1.21	0.00	455.00	4.30	1.21	0.00
205.00	4.30	1.21	0.00	460.00	4.30	1.21	0.00
210.00	4.30	1.21	0.00	465.00	4.30	1.21	0.00
215.00	4.30	1.21	0.00	470.00	4.30	1.21	0.00
220.00	4.30	1.21	0.00	475.00	4.30	1.21	0.00
225.00	4.30	1.21	0.00	480.00	4.30	1.21	0.00
230.00	4.30	1.21	0.00	485.00	4.30	1.21	0.00
235.00	4.30	1.21	0.00	490.00	4.30	1.21	0.00
240.00	4.30	1.21	0.00	495.00	4.30	1.21	0.00
245.00	4.30	1.21	0.00	500.00	4.30	1.21	0.00
250.00	4.30	1.21	0.00				
255.00	4.30	1.21	0.00				

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Summary for Subcatchment 3: Pre - North

Runoff = 29.63 cfs @ 12.20 hrs, Volume= 2.101 af, Depth= 0.91"
Routed to Link 1L : Total Pre - Development

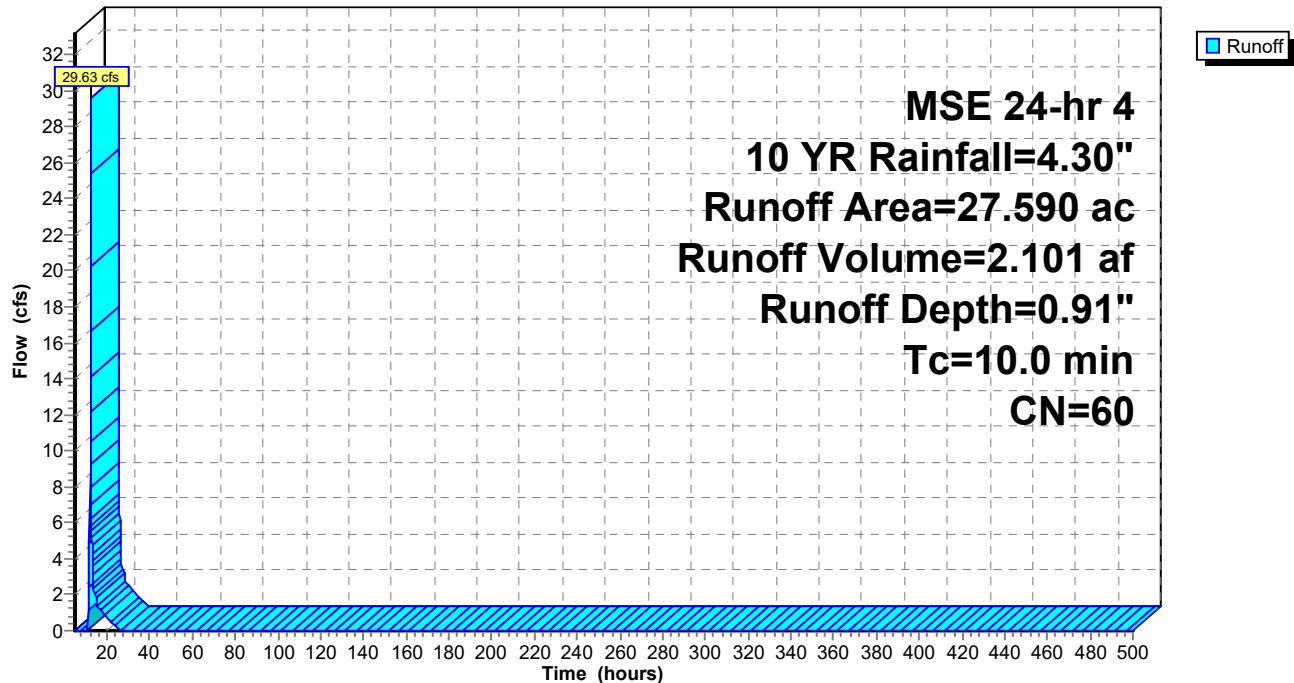
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10 YR Rainfall=4.30"

	Area (ac)	CN	Description
*	18.190	55	Pre Dev - B Soils
*	9.400	70	Pre Dev - C Soils
	27.590	60	Weighted Average
	27.590		100.00% Pervious Area

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

Subcatchment 3: Pre - North

Hydrograph



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Subcatchment 3: Pre - North

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.20	0.00	0.00	260.00	4.30	0.91	0.00
10.00	0.68	0.00	0.00	265.00	4.30	0.91	0.00
15.00	3.78	0.66	1.97	270.00	4.30	0.91	0.00
20.00	4.16	0.84	0.77	275.00	4.30	0.91	0.00
25.00	4.30	0.91	0.00	280.00	4.30	0.91	0.00
30.00	4.30	0.91	0.00	285.00	4.30	0.91	0.00
35.00	4.30	0.91	0.00	290.00	4.30	0.91	0.00
40.00	4.30	0.91	0.00	295.00	4.30	0.91	0.00
45.00	4.30	0.91	0.00	300.00	4.30	0.91	0.00
50.00	4.30	0.91	0.00	305.00	4.30	0.91	0.00
55.00	4.30	0.91	0.00	310.00	4.30	0.91	0.00
60.00	4.30	0.91	0.00	315.00	4.30	0.91	0.00
65.00	4.30	0.91	0.00	320.00	4.30	0.91	0.00
70.00	4.30	0.91	0.00	325.00	4.30	0.91	0.00
75.00	4.30	0.91	0.00	330.00	4.30	0.91	0.00
80.00	4.30	0.91	0.00	335.00	4.30	0.91	0.00
85.00	4.30	0.91	0.00	340.00	4.30	0.91	0.00
90.00	4.30	0.91	0.00	345.00	4.30	0.91	0.00
95.00	4.30	0.91	0.00	350.00	4.30	0.91	0.00
100.00	4.30	0.91	0.00	355.00	4.30	0.91	0.00
105.00	4.30	0.91	0.00	360.00	4.30	0.91	0.00
110.00	4.30	0.91	0.00	365.00	4.30	0.91	0.00
115.00	4.30	0.91	0.00	370.00	4.30	0.91	0.00
120.00	4.30	0.91	0.00	375.00	4.30	0.91	0.00
125.00	4.30	0.91	0.00	380.00	4.30	0.91	0.00
130.00	4.30	0.91	0.00	385.00	4.30	0.91	0.00
135.00	4.30	0.91	0.00	390.00	4.30	0.91	0.00
140.00	4.30	0.91	0.00	395.00	4.30	0.91	0.00
145.00	4.30	0.91	0.00	400.00	4.30	0.91	0.00
150.00	4.30	0.91	0.00	405.00	4.30	0.91	0.00
155.00	4.30	0.91	0.00	410.00	4.30	0.91	0.00
160.00	4.30	0.91	0.00	415.00	4.30	0.91	0.00
165.00	4.30	0.91	0.00	420.00	4.30	0.91	0.00
170.00	4.30	0.91	0.00	425.00	4.30	0.91	0.00
175.00	4.30	0.91	0.00	430.00	4.30	0.91	0.00
180.00	4.30	0.91	0.00	435.00	4.30	0.91	0.00
185.00	4.30	0.91	0.00	440.00	4.30	0.91	0.00
190.00	4.30	0.91	0.00	445.00	4.30	0.91	0.00
195.00	4.30	0.91	0.00	450.00	4.30	0.91	0.00
200.00	4.30	0.91	0.00	455.00	4.30	0.91	0.00
205.00	4.30	0.91	0.00	460.00	4.30	0.91	0.00
210.00	4.30	0.91	0.00	465.00	4.30	0.91	0.00
215.00	4.30	0.91	0.00	470.00	4.30	0.91	0.00
220.00	4.30	0.91	0.00	475.00	4.30	0.91	0.00
225.00	4.30	0.91	0.00	480.00	4.30	0.91	0.00
230.00	4.30	0.91	0.00	485.00	4.30	0.91	0.00
235.00	4.30	0.91	0.00	490.00	4.30	0.91	0.00
240.00	4.30	0.91	0.00	495.00	4.30	0.91	0.00
245.00	4.30	0.91	0.00	500.00	4.30	0.91	0.00
250.00	4.30	0.91	0.00				
255.00	4.30	0.91	0.00				

250128900_swm

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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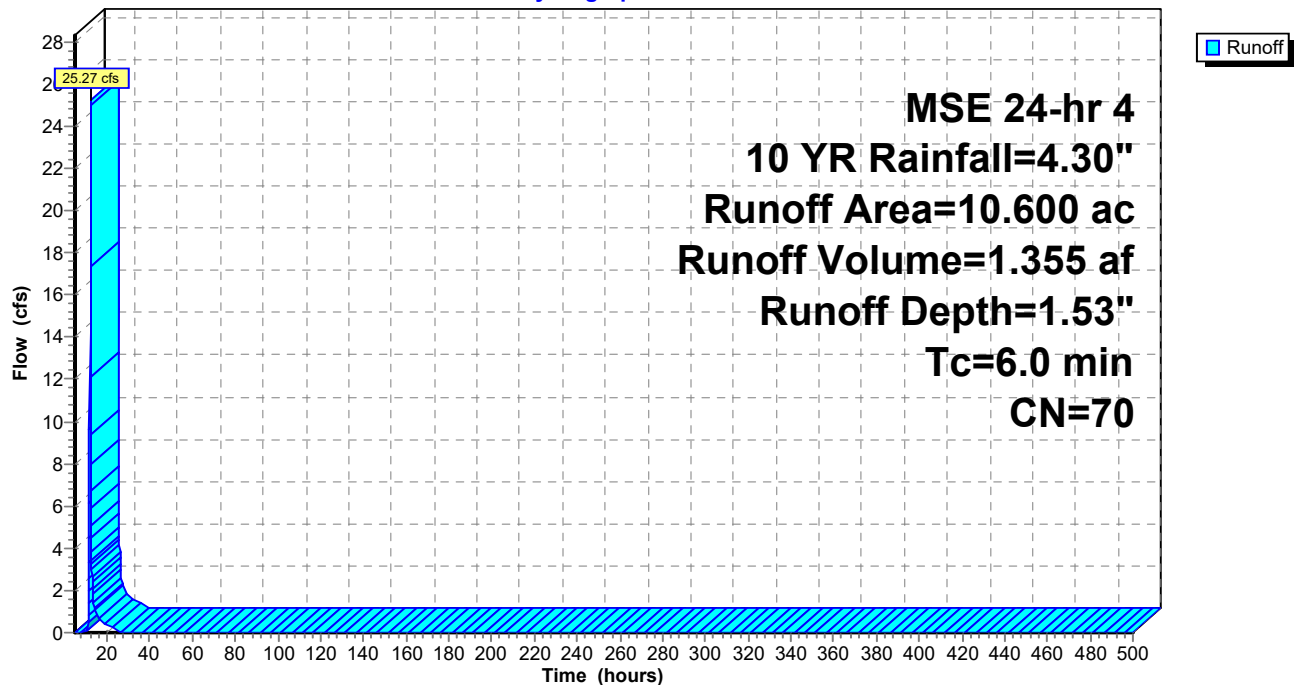
Summary for Subcatchment 3A: Post 3A

Runoff = 25.27 cfs @ 12.14 hrs, Volume= 1.355 af, Depth= 1.53"
Routed to Pond P3A : Pond 3A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10 YR Rainfall=4.30"

Area (ac)	CN	Description
* 1.970	98	Impervious
* 6.570	61	Post - B Soils
* 2.060	74	Post - C Soils
10.600	70	Weighted Average
8.630		81.42% Pervious Area
1.970		18.58% Impervious Area

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

Subcatchment 3A: Post 3A**Hydrograph**

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Subcatchment 3A: Post 3A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.20	0.00	0.00	260.00	4.30	1.53	0.00
10.00	0.68	0.00	0.00	265.00	4.30	1.53	0.00
15.00	3.78	1.18	1.05	270.00	4.30	1.53	0.00
20.00	4.16	1.44	0.39	275.00	4.30	1.53	0.00
25.00	4.30	1.53	0.00	280.00	4.30	1.53	0.00
30.00	4.30	1.53	0.00	285.00	4.30	1.53	0.00
35.00	4.30	1.53	0.00	290.00	4.30	1.53	0.00
40.00	4.30	1.53	0.00	295.00	4.30	1.53	0.00
45.00	4.30	1.53	0.00	300.00	4.30	1.53	0.00
50.00	4.30	1.53	0.00	305.00	4.30	1.53	0.00
55.00	4.30	1.53	0.00	310.00	4.30	1.53	0.00
60.00	4.30	1.53	0.00	315.00	4.30	1.53	0.00
65.00	4.30	1.53	0.00	320.00	4.30	1.53	0.00
70.00	4.30	1.53	0.00	325.00	4.30	1.53	0.00
75.00	4.30	1.53	0.00	330.00	4.30	1.53	0.00
80.00	4.30	1.53	0.00	335.00	4.30	1.53	0.00
85.00	4.30	1.53	0.00	340.00	4.30	1.53	0.00
90.00	4.30	1.53	0.00	345.00	4.30	1.53	0.00
95.00	4.30	1.53	0.00	350.00	4.30	1.53	0.00
100.00	4.30	1.53	0.00	355.00	4.30	1.53	0.00
105.00	4.30	1.53	0.00	360.00	4.30	1.53	0.00
110.00	4.30	1.53	0.00	365.00	4.30	1.53	0.00
115.00	4.30	1.53	0.00	370.00	4.30	1.53	0.00
120.00	4.30	1.53	0.00	375.00	4.30	1.53	0.00
125.00	4.30	1.53	0.00	380.00	4.30	1.53	0.00
130.00	4.30	1.53	0.00	385.00	4.30	1.53	0.00
135.00	4.30	1.53	0.00	390.00	4.30	1.53	0.00
140.00	4.30	1.53	0.00	395.00	4.30	1.53	0.00
145.00	4.30	1.53	0.00	400.00	4.30	1.53	0.00
150.00	4.30	1.53	0.00	405.00	4.30	1.53	0.00
155.00	4.30	1.53	0.00	410.00	4.30	1.53	0.00
160.00	4.30	1.53	0.00	415.00	4.30	1.53	0.00
165.00	4.30	1.53	0.00	420.00	4.30	1.53	0.00
170.00	4.30	1.53	0.00	425.00	4.30	1.53	0.00
175.00	4.30	1.53	0.00	430.00	4.30	1.53	0.00
180.00	4.30	1.53	0.00	435.00	4.30	1.53	0.00
185.00	4.30	1.53	0.00	440.00	4.30	1.53	0.00
190.00	4.30	1.53	0.00	445.00	4.30	1.53	0.00
195.00	4.30	1.53	0.00	450.00	4.30	1.53	0.00
200.00	4.30	1.53	0.00	455.00	4.30	1.53	0.00
205.00	4.30	1.53	0.00	460.00	4.30	1.53	0.00
210.00	4.30	1.53	0.00	465.00	4.30	1.53	0.00
215.00	4.30	1.53	0.00	470.00	4.30	1.53	0.00
220.00	4.30	1.53	0.00	475.00	4.30	1.53	0.00
225.00	4.30	1.53	0.00	480.00	4.30	1.53	0.00
230.00	4.30	1.53	0.00	485.00	4.30	1.53	0.00
235.00	4.30	1.53	0.00	490.00	4.30	1.53	0.00
240.00	4.30	1.53	0.00	495.00	4.30	1.53	0.00
245.00	4.30	1.53	0.00	500.00	4.30	1.53	0.00
250.00	4.30	1.53	0.00				
255.00	4.30	1.53	0.00				

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Summary for Subcatchment 3B: Post 3B

Runoff = 21.12 cfs @ 12.14 hrs, Volume= 1.129 af, Depth= 1.60"
Routed to Pond P3B : Pond 3B

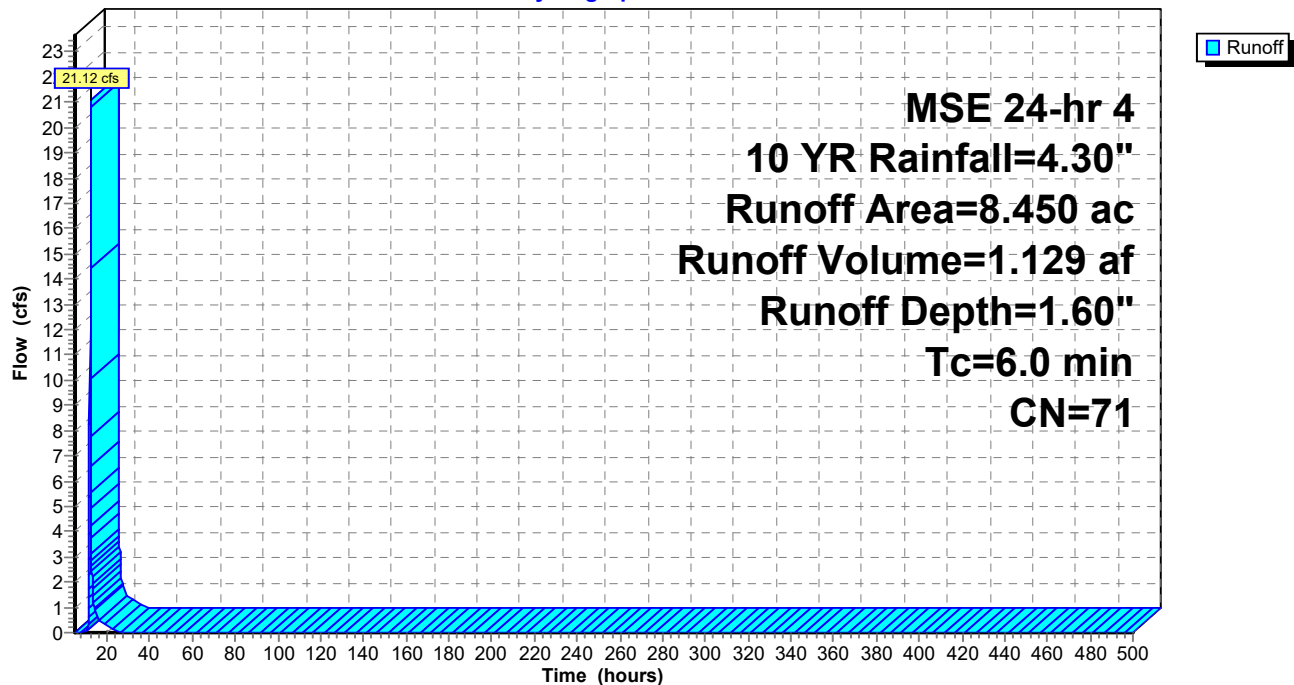
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10 YR Rainfall=4.30"

	Area (ac)	CN	Description
*	1.680	98	Impervious
*	5.290	61	Post - B Soils
*	1.480	74	Post - C Soils
	8.450	71	Weighted Average
	6.770		80.12% Pervious Area
	1.680		19.88% Impervious Area

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

Subcatchment 3B: Post 3B

Hydrograph



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Subcatchment 3B: Post 3B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.20	0.00	0.00	260.00	4.30	1.60	0.00
10.00	0.68	0.00	0.00	265.00	4.30	1.60	0.00
15.00	3.78	1.25	0.86	270.00	4.30	1.60	0.00
20.00	4.16	1.51	0.32	275.00	4.30	1.60	0.00
25.00	4.30	1.60	0.00	280.00	4.30	1.60	0.00
30.00	4.30	1.60	0.00	285.00	4.30	1.60	0.00
35.00	4.30	1.60	0.00	290.00	4.30	1.60	0.00
40.00	4.30	1.60	0.00	295.00	4.30	1.60	0.00
45.00	4.30	1.60	0.00	300.00	4.30	1.60	0.00
50.00	4.30	1.60	0.00	305.00	4.30	1.60	0.00
55.00	4.30	1.60	0.00	310.00	4.30	1.60	0.00
60.00	4.30	1.60	0.00	315.00	4.30	1.60	0.00
65.00	4.30	1.60	0.00	320.00	4.30	1.60	0.00
70.00	4.30	1.60	0.00	325.00	4.30	1.60	0.00
75.00	4.30	1.60	0.00	330.00	4.30	1.60	0.00
80.00	4.30	1.60	0.00	335.00	4.30	1.60	0.00
85.00	4.30	1.60	0.00	340.00	4.30	1.60	0.00
90.00	4.30	1.60	0.00	345.00	4.30	1.60	0.00
95.00	4.30	1.60	0.00	350.00	4.30	1.60	0.00
100.00	4.30	1.60	0.00	355.00	4.30	1.60	0.00
105.00	4.30	1.60	0.00	360.00	4.30	1.60	0.00
110.00	4.30	1.60	0.00	365.00	4.30	1.60	0.00
115.00	4.30	1.60	0.00	370.00	4.30	1.60	0.00
120.00	4.30	1.60	0.00	375.00	4.30	1.60	0.00
125.00	4.30	1.60	0.00	380.00	4.30	1.60	0.00
130.00	4.30	1.60	0.00	385.00	4.30	1.60	0.00
135.00	4.30	1.60	0.00	390.00	4.30	1.60	0.00
140.00	4.30	1.60	0.00	395.00	4.30	1.60	0.00
145.00	4.30	1.60	0.00	400.00	4.30	1.60	0.00
150.00	4.30	1.60	0.00	405.00	4.30	1.60	0.00
155.00	4.30	1.60	0.00	410.00	4.30	1.60	0.00
160.00	4.30	1.60	0.00	415.00	4.30	1.60	0.00
165.00	4.30	1.60	0.00	420.00	4.30	1.60	0.00
170.00	4.30	1.60	0.00	425.00	4.30	1.60	0.00
175.00	4.30	1.60	0.00	430.00	4.30	1.60	0.00
180.00	4.30	1.60	0.00	435.00	4.30	1.60	0.00
185.00	4.30	1.60	0.00	440.00	4.30	1.60	0.00
190.00	4.30	1.60	0.00	445.00	4.30	1.60	0.00
195.00	4.30	1.60	0.00	450.00	4.30	1.60	0.00
200.00	4.30	1.60	0.00	455.00	4.30	1.60	0.00
205.00	4.30	1.60	0.00	460.00	4.30	1.60	0.00
210.00	4.30	1.60	0.00	465.00	4.30	1.60	0.00
215.00	4.30	1.60	0.00	470.00	4.30	1.60	0.00
220.00	4.30	1.60	0.00	475.00	4.30	1.60	0.00
225.00	4.30	1.60	0.00	480.00	4.30	1.60	0.00
230.00	4.30	1.60	0.00	485.00	4.30	1.60	0.00
235.00	4.30	1.60	0.00	490.00	4.30	1.60	0.00
240.00	4.30	1.60	0.00	495.00	4.30	1.60	0.00
245.00	4.30	1.60	0.00	500.00	4.30	1.60	0.00
250.00	4.30	1.60	0.00				
255.00	4.30	1.60	0.00				

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Summary for Subcatchment 3C: Post 3C

Runoff = 7.40 cfs @ 12.14 hrs, Volume= 0.393 af, Depth= 1.89"
Routed to Pond P3C : Pond 3C

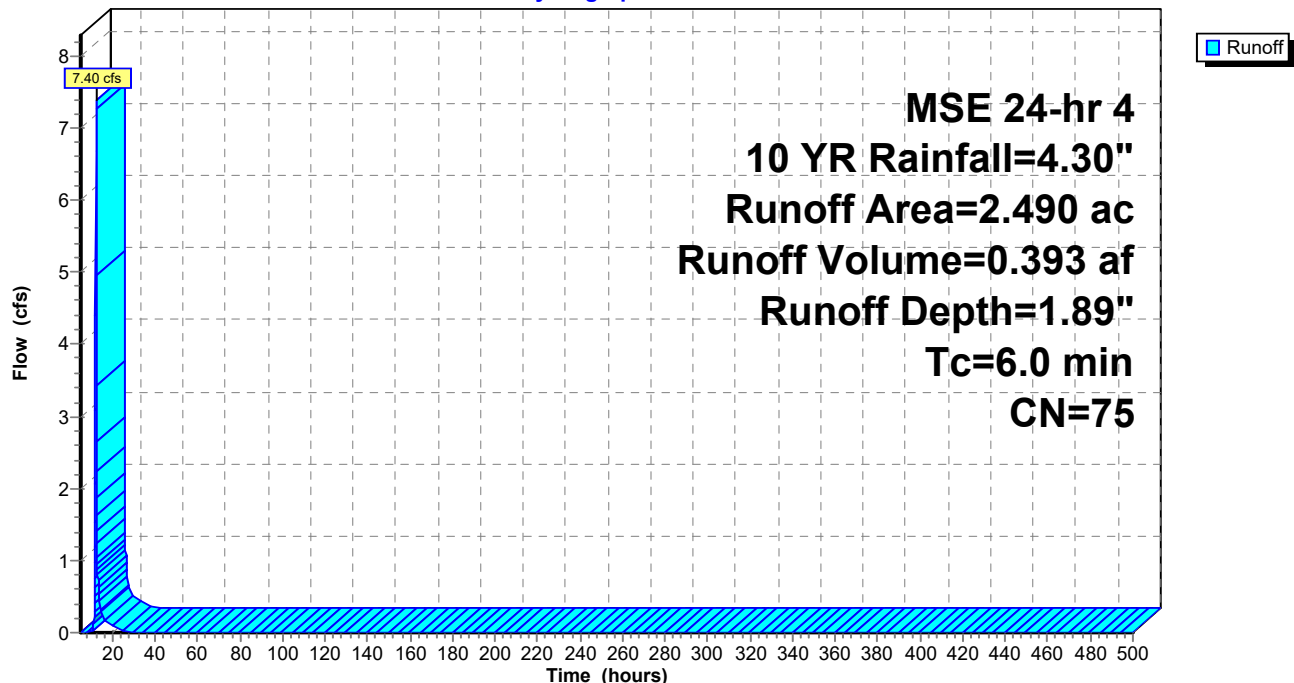
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10 YR Rainfall=4.30"

	Area (ac)	CN	Description
*	0.570	98	Impervious
*	0.800	61	Post - B Soils
*	1.120	74	Post - C Soils
	2.490	75	Weighted Average
	1.920		77.11% Pervious Area
	0.570		22.89% Impervious Area

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

Subcatchment 3C: Post 3C

Hydrograph



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Subcatchment 3C: Post 3C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.20	0.00	0.00	260.00	4.30	1.89	0.00
10.00	0.68	0.00	0.00	265.00	4.30	1.89	0.00
15.00	3.78	1.50	0.28	270.00	4.30	1.89	0.00
20.00	4.16	1.79	0.10	275.00	4.30	1.89	0.00
25.00	4.30	1.89	0.00	280.00	4.30	1.89	0.00
30.00	4.30	1.89	0.00	285.00	4.30	1.89	0.00
35.00	4.30	1.89	0.00	290.00	4.30	1.89	0.00
40.00	4.30	1.89	0.00	295.00	4.30	1.89	0.00
45.00	4.30	1.89	0.00	300.00	4.30	1.89	0.00
50.00	4.30	1.89	0.00	305.00	4.30	1.89	0.00
55.00	4.30	1.89	0.00	310.00	4.30	1.89	0.00
60.00	4.30	1.89	0.00	315.00	4.30	1.89	0.00
65.00	4.30	1.89	0.00	320.00	4.30	1.89	0.00
70.00	4.30	1.89	0.00	325.00	4.30	1.89	0.00
75.00	4.30	1.89	0.00	330.00	4.30	1.89	0.00
80.00	4.30	1.89	0.00	335.00	4.30	1.89	0.00
85.00	4.30	1.89	0.00	340.00	4.30	1.89	0.00
90.00	4.30	1.89	0.00	345.00	4.30	1.89	0.00
95.00	4.30	1.89	0.00	350.00	4.30	1.89	0.00
100.00	4.30	1.89	0.00	355.00	4.30	1.89	0.00
105.00	4.30	1.89	0.00	360.00	4.30	1.89	0.00
110.00	4.30	1.89	0.00	365.00	4.30	1.89	0.00
115.00	4.30	1.89	0.00	370.00	4.30	1.89	0.00
120.00	4.30	1.89	0.00	375.00	4.30	1.89	0.00
125.00	4.30	1.89	0.00	380.00	4.30	1.89	0.00
130.00	4.30	1.89	0.00	385.00	4.30	1.89	0.00
135.00	4.30	1.89	0.00	390.00	4.30	1.89	0.00
140.00	4.30	1.89	0.00	395.00	4.30	1.89	0.00
145.00	4.30	1.89	0.00	400.00	4.30	1.89	0.00
150.00	4.30	1.89	0.00	405.00	4.30	1.89	0.00
155.00	4.30	1.89	0.00	410.00	4.30	1.89	0.00
160.00	4.30	1.89	0.00	415.00	4.30	1.89	0.00
165.00	4.30	1.89	0.00	420.00	4.30	1.89	0.00
170.00	4.30	1.89	0.00	425.00	4.30	1.89	0.00
175.00	4.30	1.89	0.00	430.00	4.30	1.89	0.00
180.00	4.30	1.89	0.00	435.00	4.30	1.89	0.00
185.00	4.30	1.89	0.00	440.00	4.30	1.89	0.00
190.00	4.30	1.89	0.00	445.00	4.30	1.89	0.00
195.00	4.30	1.89	0.00	450.00	4.30	1.89	0.00
200.00	4.30	1.89	0.00	455.00	4.30	1.89	0.00
205.00	4.30	1.89	0.00	460.00	4.30	1.89	0.00
210.00	4.30	1.89	0.00	465.00	4.30	1.89	0.00
215.00	4.30	1.89	0.00	470.00	4.30	1.89	0.00
220.00	4.30	1.89	0.00	475.00	4.30	1.89	0.00
225.00	4.30	1.89	0.00	480.00	4.30	1.89	0.00
230.00	4.30	1.89	0.00	485.00	4.30	1.89	0.00
235.00	4.30	1.89	0.00	490.00	4.30	1.89	0.00
240.00	4.30	1.89	0.00	495.00	4.30	1.89	0.00
245.00	4.30	1.89	0.00	500.00	4.30	1.89	0.00
250.00	4.30	1.89	0.00				
255.00	4.30	1.89	0.00				

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Summary for Subcatchment 3D: Post 3D

Runoff = 7.36 cfs @ 12.13 hrs, Volume= 0.391 af, Depth= 1.97"
Routed to Pond P3D : Pond 3D

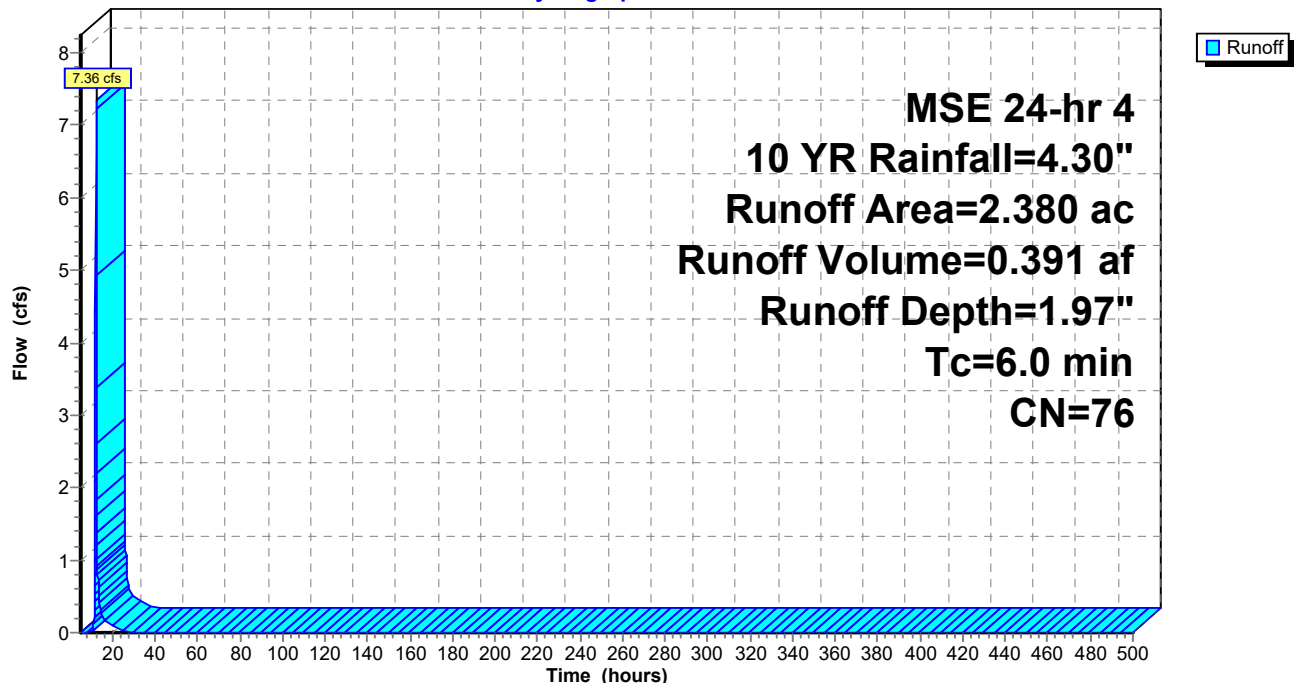
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10 YR Rainfall=4.30"

	Area (ac)	CN	Description
*	0.570	98	Impervious
*	0.610	61	Post - B Soils
*	1.200	74	Post - C Soils
	2.380	76	Weighted Average
	1.810		76.05% Pervious Area
	0.570		23.95% Impervious Area

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

Subcatchment 3D: Post 3D

Hydrograph



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Featherstone Rise
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Hydrograph for Subcatchment 3D: Post 3D

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.20	0.00	0.00	260.00	4.30	1.97	0.00
10.00	0.68	0.00	0.01	265.00	4.30	1.97	0.00
15.00	3.78	1.57	0.27	270.00	4.30	1.97	0.00
20.00	4.16	1.86	0.10	275.00	4.30	1.97	0.00
25.00	4.30	1.97	0.00	280.00	4.30	1.97	0.00
30.00	4.30	1.97	0.00	285.00	4.30	1.97	0.00
35.00	4.30	1.97	0.00	290.00	4.30	1.97	0.00
40.00	4.30	1.97	0.00	295.00	4.30	1.97	0.00
45.00	4.30	1.97	0.00	300.00	4.30	1.97	0.00
50.00	4.30	1.97	0.00	305.00	4.30	1.97	0.00
55.00	4.30	1.97	0.00	310.00	4.30	1.97	0.00
60.00	4.30	1.97	0.00	315.00	4.30	1.97	0.00
65.00	4.30	1.97	0.00	320.00	4.30	1.97	0.00
70.00	4.30	1.97	0.00	325.00	4.30	1.97	0.00
75.00	4.30	1.97	0.00	330.00	4.30	1.97	0.00
80.00	4.30	1.97	0.00	335.00	4.30	1.97	0.00
85.00	4.30	1.97	0.00	340.00	4.30	1.97	0.00
90.00	4.30	1.97	0.00	345.00	4.30	1.97	0.00
95.00	4.30	1.97	0.00	350.00	4.30	1.97	0.00
100.00	4.30	1.97	0.00	355.00	4.30	1.97	0.00
105.00	4.30	1.97	0.00	360.00	4.30	1.97	0.00
110.00	4.30	1.97	0.00	365.00	4.30	1.97	0.00
115.00	4.30	1.97	0.00	370.00	4.30	1.97	0.00
120.00	4.30	1.97	0.00	375.00	4.30	1.97	0.00
125.00	4.30	1.97	0.00	380.00	4.30	1.97	0.00
130.00	4.30	1.97	0.00	385.00	4.30	1.97	0.00
135.00	4.30	1.97	0.00	390.00	4.30	1.97	0.00
140.00	4.30	1.97	0.00	395.00	4.30	1.97	0.00
145.00	4.30	1.97	0.00	400.00	4.30	1.97	0.00
150.00	4.30	1.97	0.00	405.00	4.30	1.97	0.00
155.00	4.30	1.97	0.00	410.00	4.30	1.97	0.00
160.00	4.30	1.97	0.00	415.00	4.30	1.97	0.00
165.00	4.30	1.97	0.00	420.00	4.30	1.97	0.00
170.00	4.30	1.97	0.00	425.00	4.30	1.97	0.00
175.00	4.30	1.97	0.00	430.00	4.30	1.97	0.00
180.00	4.30	1.97	0.00	435.00	4.30	1.97	0.00
185.00	4.30	1.97	0.00	440.00	4.30	1.97	0.00
190.00	4.30	1.97	0.00	445.00	4.30	1.97	0.00
195.00	4.30	1.97	0.00	450.00	4.30	1.97	0.00
200.00	4.30	1.97	0.00	455.00	4.30	1.97	0.00
205.00	4.30	1.97	0.00	460.00	4.30	1.97	0.00
210.00	4.30	1.97	0.00	465.00	4.30	1.97	0.00
215.00	4.30	1.97	0.00	470.00	4.30	1.97	0.00
220.00	4.30	1.97	0.00	475.00	4.30	1.97	0.00
225.00	4.30	1.97	0.00	480.00	4.30	1.97	0.00
230.00	4.30	1.97	0.00	485.00	4.30	1.97	0.00
235.00	4.30	1.97	0.00	490.00	4.30	1.97	0.00
240.00	4.30	1.97	0.00	495.00	4.30	1.97	0.00
245.00	4.30	1.97	0.00	500.00	4.30	1.97	0.00
250.00	4.30	1.97	0.00				
255.00	4.30	1.97	0.00				

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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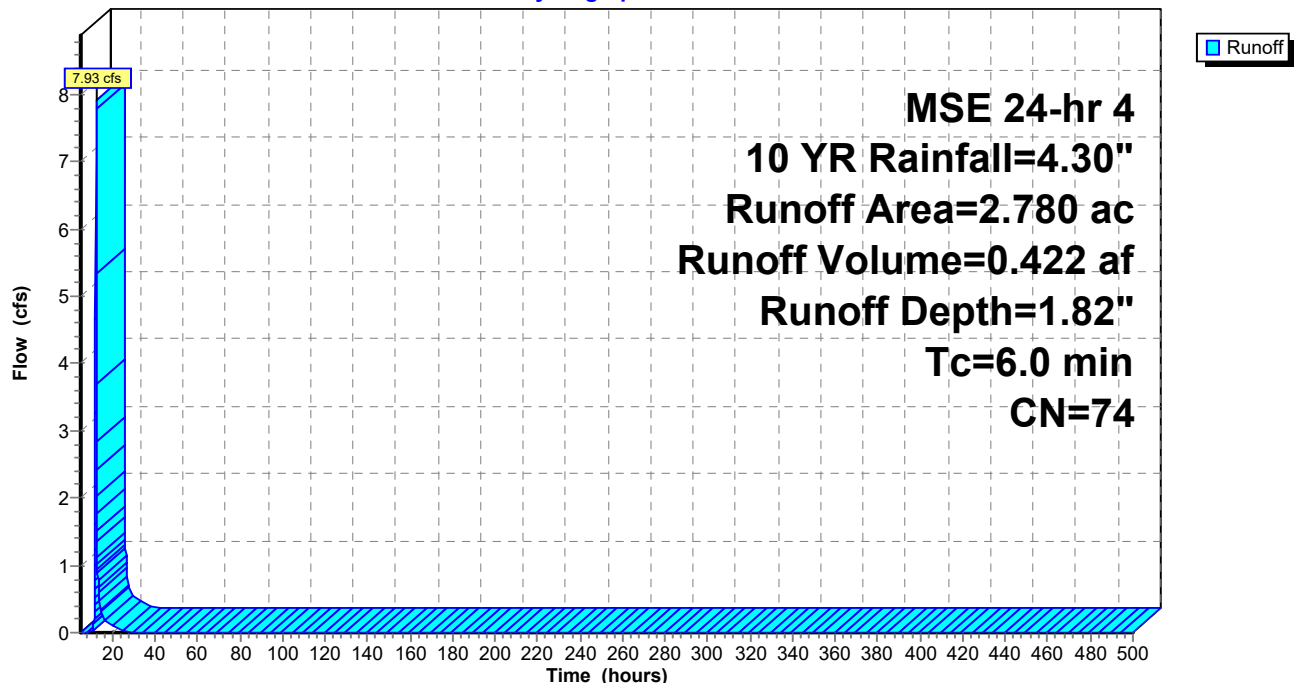
Summary for Subcatchment 3E: Post 3E

Runoff = 7.93 cfs @ 12.14 hrs, Volume= 0.422 af, Depth= 1.82"
Routed to Pond P3E : Pond 3E

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10 YR Rainfall=4.30"

Area (ac)	CN	Description
* 0.530	98	Impervious
* 0.920	61	Post - B Soils
* 1.330	74	Post - C Soils
2.780	74	Weighted Average
2.250		80.94% Pervious Area
0.530		19.06% Impervious Area

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

Subcatchment 3E: Post 3E**Hydrograph**

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Subcatchment 3E: Post 3E

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.20	0.00	0.00	260.00	4.30	1.82	0.00
10.00	0.68	0.00	0.00	265.00	4.30	1.82	0.00
15.00	3.78	1.44	0.30	270.00	4.30	1.82	0.00
20.00	4.16	1.72	0.11	275.00	4.30	1.82	0.00
25.00	4.30	1.82	0.00	280.00	4.30	1.82	0.00
30.00	4.30	1.82	0.00	285.00	4.30	1.82	0.00
35.00	4.30	1.82	0.00	290.00	4.30	1.82	0.00
40.00	4.30	1.82	0.00	295.00	4.30	1.82	0.00
45.00	4.30	1.82	0.00	300.00	4.30	1.82	0.00
50.00	4.30	1.82	0.00	305.00	4.30	1.82	0.00
55.00	4.30	1.82	0.00	310.00	4.30	1.82	0.00
60.00	4.30	1.82	0.00	315.00	4.30	1.82	0.00
65.00	4.30	1.82	0.00	320.00	4.30	1.82	0.00
70.00	4.30	1.82	0.00	325.00	4.30	1.82	0.00
75.00	4.30	1.82	0.00	330.00	4.30	1.82	0.00
80.00	4.30	1.82	0.00	335.00	4.30	1.82	0.00
85.00	4.30	1.82	0.00	340.00	4.30	1.82	0.00
90.00	4.30	1.82	0.00	345.00	4.30	1.82	0.00
95.00	4.30	1.82	0.00	350.00	4.30	1.82	0.00
100.00	4.30	1.82	0.00	355.00	4.30	1.82	0.00
105.00	4.30	1.82	0.00	360.00	4.30	1.82	0.00
110.00	4.30	1.82	0.00	365.00	4.30	1.82	0.00
115.00	4.30	1.82	0.00	370.00	4.30	1.82	0.00
120.00	4.30	1.82	0.00	375.00	4.30	1.82	0.00
125.00	4.30	1.82	0.00	380.00	4.30	1.82	0.00
130.00	4.30	1.82	0.00	385.00	4.30	1.82	0.00
135.00	4.30	1.82	0.00	390.00	4.30	1.82	0.00
140.00	4.30	1.82	0.00	395.00	4.30	1.82	0.00
145.00	4.30	1.82	0.00	400.00	4.30	1.82	0.00
150.00	4.30	1.82	0.00	405.00	4.30	1.82	0.00
155.00	4.30	1.82	0.00	410.00	4.30	1.82	0.00
160.00	4.30	1.82	0.00	415.00	4.30	1.82	0.00
165.00	4.30	1.82	0.00	420.00	4.30	1.82	0.00
170.00	4.30	1.82	0.00	425.00	4.30	1.82	0.00
175.00	4.30	1.82	0.00	430.00	4.30	1.82	0.00
180.00	4.30	1.82	0.00	435.00	4.30	1.82	0.00
185.00	4.30	1.82	0.00	440.00	4.30	1.82	0.00
190.00	4.30	1.82	0.00	445.00	4.30	1.82	0.00
195.00	4.30	1.82	0.00	450.00	4.30	1.82	0.00
200.00	4.30	1.82	0.00	455.00	4.30	1.82	0.00
205.00	4.30	1.82	0.00	460.00	4.30	1.82	0.00
210.00	4.30	1.82	0.00	465.00	4.30	1.82	0.00
215.00	4.30	1.82	0.00	470.00	4.30	1.82	0.00
220.00	4.30	1.82	0.00	475.00	4.30	1.82	0.00
225.00	4.30	1.82	0.00	480.00	4.30	1.82	0.00
230.00	4.30	1.82	0.00	485.00	4.30	1.82	0.00
235.00	4.30	1.82	0.00	490.00	4.30	1.82	0.00
240.00	4.30	1.82	0.00	495.00	4.30	1.82	0.00
245.00	4.30	1.82	0.00	500.00	4.30	1.82	0.00
250.00	4.30	1.82	0.00				
255.00	4.30	1.82	0.00				

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Summary for Subcatchment 3Y: Post 3Y - Offsite

Runoff = 3.24 cfs @ 12.13 hrs, Volume= 0.174 af, Depth= 2.55"
Routed to Link 4L : Post - North

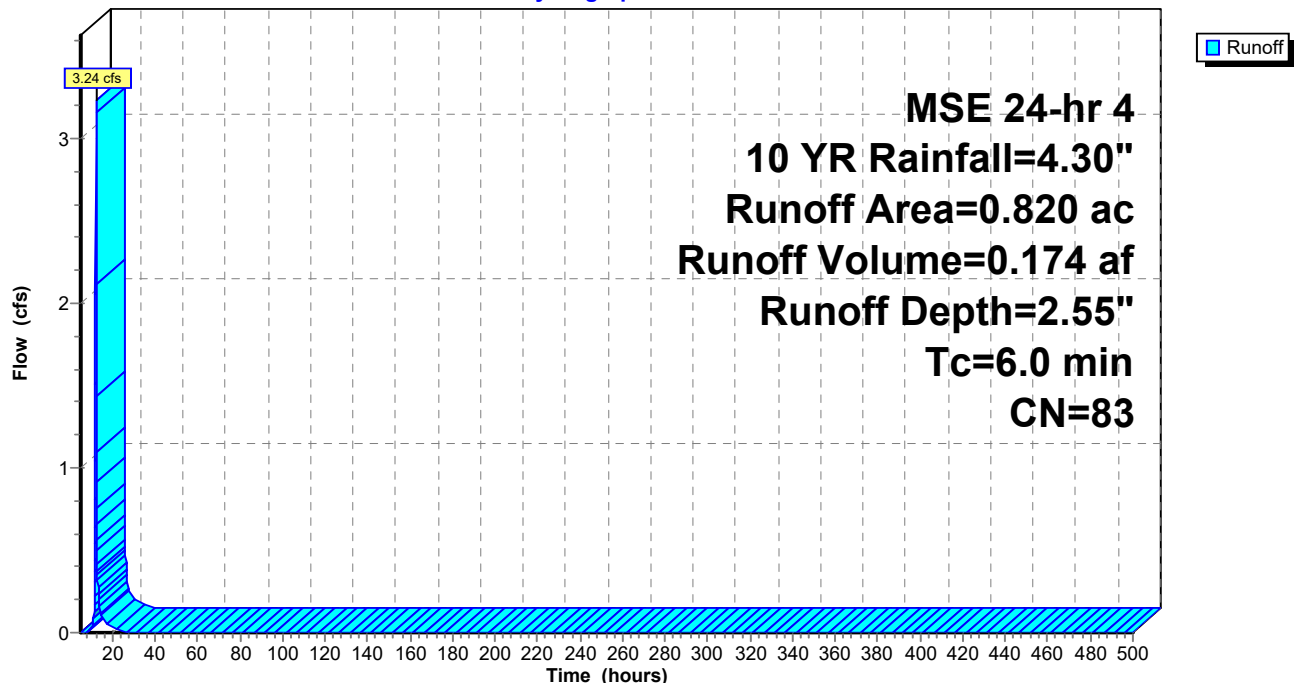
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10 YR Rainfall=4.30"

Area (ac)	CN	Description
* 0.300	98	Impervious
* 0.000	61	Post - B Soils
* 0.520	74	Post - C Soils
0.820	83	Weighted Average
0.520		63.41% Pervious Area
0.300		36.59% Impervious Area

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

Subcatchment 3Y: Post 3Y - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Subcatchment 3Y: Post 3Y - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.20	0.00	0.00	260.00	4.30	2.55	0.00
10.00	0.68	0.03	0.03	265.00	4.30	2.55	0.00
15.00	3.78	2.10	0.11	270.00	4.30	2.55	0.00
20.00	4.16	2.43	0.04	275.00	4.30	2.55	0.00
25.00	4.30	2.55	0.00	280.00	4.30	2.55	0.00
30.00	4.30	2.55	0.00	285.00	4.30	2.55	0.00
35.00	4.30	2.55	0.00	290.00	4.30	2.55	0.00
40.00	4.30	2.55	0.00	295.00	4.30	2.55	0.00
45.00	4.30	2.55	0.00	300.00	4.30	2.55	0.00
50.00	4.30	2.55	0.00	305.00	4.30	2.55	0.00
55.00	4.30	2.55	0.00	310.00	4.30	2.55	0.00
60.00	4.30	2.55	0.00	315.00	4.30	2.55	0.00
65.00	4.30	2.55	0.00	320.00	4.30	2.55	0.00
70.00	4.30	2.55	0.00	325.00	4.30	2.55	0.00
75.00	4.30	2.55	0.00	330.00	4.30	2.55	0.00
80.00	4.30	2.55	0.00	335.00	4.30	2.55	0.00
85.00	4.30	2.55	0.00	340.00	4.30	2.55	0.00
90.00	4.30	2.55	0.00	345.00	4.30	2.55	0.00
95.00	4.30	2.55	0.00	350.00	4.30	2.55	0.00
100.00	4.30	2.55	0.00	355.00	4.30	2.55	0.00
105.00	4.30	2.55	0.00	360.00	4.30	2.55	0.00
110.00	4.30	2.55	0.00	365.00	4.30	2.55	0.00
115.00	4.30	2.55	0.00	370.00	4.30	2.55	0.00
120.00	4.30	2.55	0.00	375.00	4.30	2.55	0.00
125.00	4.30	2.55	0.00	380.00	4.30	2.55	0.00
130.00	4.30	2.55	0.00	385.00	4.30	2.55	0.00
135.00	4.30	2.55	0.00	390.00	4.30	2.55	0.00
140.00	4.30	2.55	0.00	395.00	4.30	2.55	0.00
145.00	4.30	2.55	0.00	400.00	4.30	2.55	0.00
150.00	4.30	2.55	0.00	405.00	4.30	2.55	0.00
155.00	4.30	2.55	0.00	410.00	4.30	2.55	0.00
160.00	4.30	2.55	0.00	415.00	4.30	2.55	0.00
165.00	4.30	2.55	0.00	420.00	4.30	2.55	0.00
170.00	4.30	2.55	0.00	425.00	4.30	2.55	0.00
175.00	4.30	2.55	0.00	430.00	4.30	2.55	0.00
180.00	4.30	2.55	0.00	435.00	4.30	2.55	0.00
185.00	4.30	2.55	0.00	440.00	4.30	2.55	0.00
190.00	4.30	2.55	0.00	445.00	4.30	2.55	0.00
195.00	4.30	2.55	0.00	450.00	4.30	2.55	0.00
200.00	4.30	2.55	0.00	455.00	4.30	2.55	0.00
205.00	4.30	2.55	0.00	460.00	4.30	2.55	0.00
210.00	4.30	2.55	0.00	465.00	4.30	2.55	0.00
215.00	4.30	2.55	0.00	470.00	4.30	2.55	0.00
220.00	4.30	2.55	0.00	475.00	4.30	2.55	0.00
225.00	4.30	2.55	0.00	480.00	4.30	2.55	0.00
230.00	4.30	2.55	0.00	485.00	4.30	2.55	0.00
235.00	4.30	2.55	0.00	490.00	4.30	2.55	0.00
240.00	4.30	2.55	0.00	495.00	4.30	2.55	0.00
245.00	4.30	2.55	0.00	500.00	4.30	2.55	0.00
250.00	4.30	2.55	0.00				
255.00	4.30	2.55	0.00				

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Summary for Subcatchment 3Z: Post 3Z - Offsite

Runoff = 1.48 cfs @ 12.14 hrs, Volume= 0.079 af, Depth= 1.82"
Routed to Link 4L : Post - North

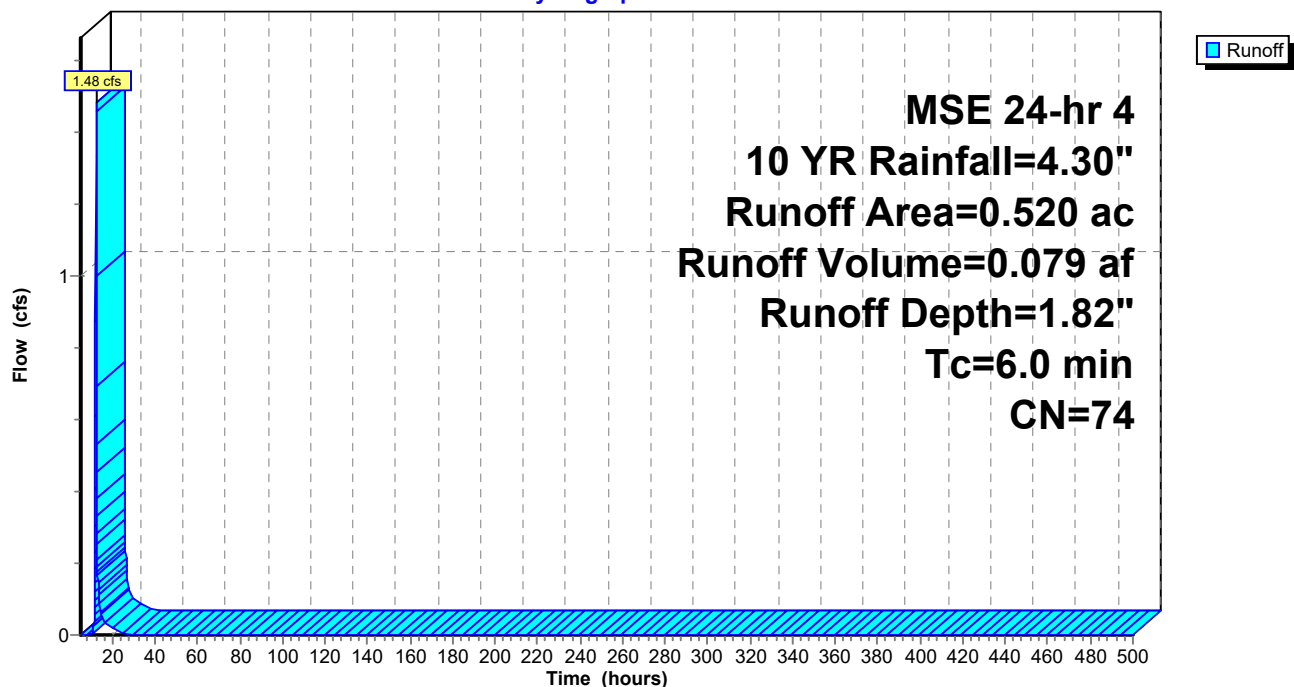
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10 YR Rainfall=4.30"

Area (ac)	CN	Description
* 0.000	98	Impervious
* 0.000	61	Post - B Soils
* 0.520	74	Post - C Soils
0.520	74	Weighted Average
0.520		100.00% Pervious Area

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

Subcatchment 3Z: Post 3Z - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Subcatchment 3Z: Post 3Z - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.20	0.00	0.00	260.00	4.30	1.82	0.00
10.00	0.68	0.00	0.00	265.00	4.30	1.82	0.00
15.00	3.78	1.44	0.06	270.00	4.30	1.82	0.00
20.00	4.16	1.72	0.02	275.00	4.30	1.82	0.00
25.00	4.30	1.82	0.00	280.00	4.30	1.82	0.00
30.00	4.30	1.82	0.00	285.00	4.30	1.82	0.00
35.00	4.30	1.82	0.00	290.00	4.30	1.82	0.00
40.00	4.30	1.82	0.00	295.00	4.30	1.82	0.00
45.00	4.30	1.82	0.00	300.00	4.30	1.82	0.00
50.00	4.30	1.82	0.00	305.00	4.30	1.82	0.00
55.00	4.30	1.82	0.00	310.00	4.30	1.82	0.00
60.00	4.30	1.82	0.00	315.00	4.30	1.82	0.00
65.00	4.30	1.82	0.00	320.00	4.30	1.82	0.00
70.00	4.30	1.82	0.00	325.00	4.30	1.82	0.00
75.00	4.30	1.82	0.00	330.00	4.30	1.82	0.00
80.00	4.30	1.82	0.00	335.00	4.30	1.82	0.00
85.00	4.30	1.82	0.00	340.00	4.30	1.82	0.00
90.00	4.30	1.82	0.00	345.00	4.30	1.82	0.00
95.00	4.30	1.82	0.00	350.00	4.30	1.82	0.00
100.00	4.30	1.82	0.00	355.00	4.30	1.82	0.00
105.00	4.30	1.82	0.00	360.00	4.30	1.82	0.00
110.00	4.30	1.82	0.00	365.00	4.30	1.82	0.00
115.00	4.30	1.82	0.00	370.00	4.30	1.82	0.00
120.00	4.30	1.82	0.00	375.00	4.30	1.82	0.00
125.00	4.30	1.82	0.00	380.00	4.30	1.82	0.00
130.00	4.30	1.82	0.00	385.00	4.30	1.82	0.00
135.00	4.30	1.82	0.00	390.00	4.30	1.82	0.00
140.00	4.30	1.82	0.00	395.00	4.30	1.82	0.00
145.00	4.30	1.82	0.00	400.00	4.30	1.82	0.00
150.00	4.30	1.82	0.00	405.00	4.30	1.82	0.00
155.00	4.30	1.82	0.00	410.00	4.30	1.82	0.00
160.00	4.30	1.82	0.00	415.00	4.30	1.82	0.00
165.00	4.30	1.82	0.00	420.00	4.30	1.82	0.00
170.00	4.30	1.82	0.00	425.00	4.30	1.82	0.00
175.00	4.30	1.82	0.00	430.00	4.30	1.82	0.00
180.00	4.30	1.82	0.00	435.00	4.30	1.82	0.00
185.00	4.30	1.82	0.00	440.00	4.30	1.82	0.00
190.00	4.30	1.82	0.00	445.00	4.30	1.82	0.00
195.00	4.30	1.82	0.00	450.00	4.30	1.82	0.00
200.00	4.30	1.82	0.00	455.00	4.30	1.82	0.00
205.00	4.30	1.82	0.00	460.00	4.30	1.82	0.00
210.00	4.30	1.82	0.00	465.00	4.30	1.82	0.00
215.00	4.30	1.82	0.00	470.00	4.30	1.82	0.00
220.00	4.30	1.82	0.00	475.00	4.30	1.82	0.00
225.00	4.30	1.82	0.00	480.00	4.30	1.82	0.00
230.00	4.30	1.82	0.00	485.00	4.30	1.82	0.00
235.00	4.30	1.82	0.00	490.00	4.30	1.82	0.00
240.00	4.30	1.82	0.00	495.00	4.30	1.82	0.00
245.00	4.30	1.82	0.00	500.00	4.30	1.82	0.00
250.00	4.30	1.82	0.00				
255.00	4.30	1.82	0.00				

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Summary for Subcatchment 5S: Culvert 1

Runoff = 0.38 cfs @ 12.13 hrs, Volume= 0.020 af, Depth= 2.21"

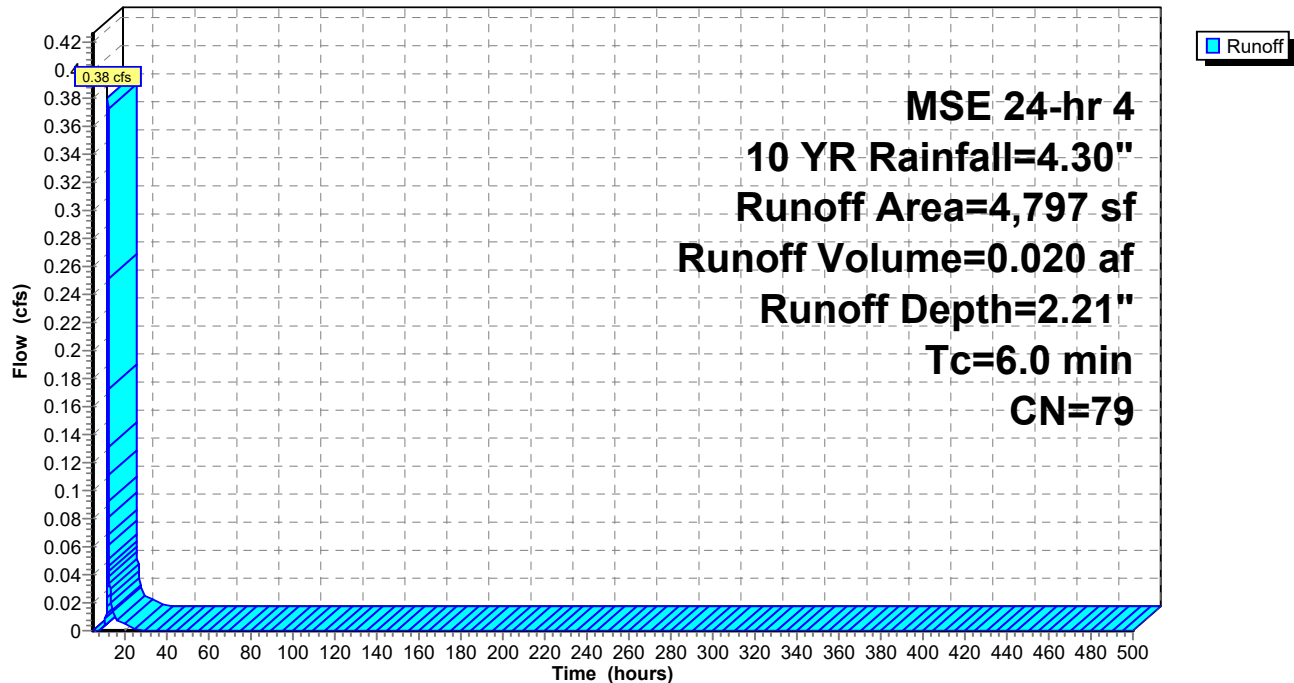
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10 YR Rainfall=4.30"

	Area (sf)	CN	Description
*	2,465	61	Post - B Soils
*	2,332	98	Impervious
	4,797	79	Weighted Average
	2,465		51.39% Pervious Area
	2,332		48.61% Impervious Area

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

Subcatchment 5S: Culvert 1

Hydrograph



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Subcatchment 5S: Culvert 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.20	0.00	0.00	260.00	4.30	2.21	0.00
10.00	0.68	0.01	0.00	265.00	4.30	2.21	0.00
15.00	3.78	1.79	0.01	270.00	4.30	2.21	0.00
20.00	4.16	2.09	0.00	275.00	4.30	2.21	0.00
25.00	4.30	2.21	0.00	280.00	4.30	2.21	0.00
30.00	4.30	2.21	0.00	285.00	4.30	2.21	0.00
35.00	4.30	2.21	0.00	290.00	4.30	2.21	0.00
40.00	4.30	2.21	0.00	295.00	4.30	2.21	0.00
45.00	4.30	2.21	0.00	300.00	4.30	2.21	0.00
50.00	4.30	2.21	0.00	305.00	4.30	2.21	0.00
55.00	4.30	2.21	0.00	310.00	4.30	2.21	0.00
60.00	4.30	2.21	0.00	315.00	4.30	2.21	0.00
65.00	4.30	2.21	0.00	320.00	4.30	2.21	0.00
70.00	4.30	2.21	0.00	325.00	4.30	2.21	0.00
75.00	4.30	2.21	0.00	330.00	4.30	2.21	0.00
80.00	4.30	2.21	0.00	335.00	4.30	2.21	0.00
85.00	4.30	2.21	0.00	340.00	4.30	2.21	0.00
90.00	4.30	2.21	0.00	345.00	4.30	2.21	0.00
95.00	4.30	2.21	0.00	350.00	4.30	2.21	0.00
100.00	4.30	2.21	0.00	355.00	4.30	2.21	0.00
105.00	4.30	2.21	0.00	360.00	4.30	2.21	0.00
110.00	4.30	2.21	0.00	365.00	4.30	2.21	0.00
115.00	4.30	2.21	0.00	370.00	4.30	2.21	0.00
120.00	4.30	2.21	0.00	375.00	4.30	2.21	0.00
125.00	4.30	2.21	0.00	380.00	4.30	2.21	0.00
130.00	4.30	2.21	0.00	385.00	4.30	2.21	0.00
135.00	4.30	2.21	0.00	390.00	4.30	2.21	0.00
140.00	4.30	2.21	0.00	395.00	4.30	2.21	0.00
145.00	4.30	2.21	0.00	400.00	4.30	2.21	0.00
150.00	4.30	2.21	0.00	405.00	4.30	2.21	0.00
155.00	4.30	2.21	0.00	410.00	4.30	2.21	0.00
160.00	4.30	2.21	0.00	415.00	4.30	2.21	0.00
165.00	4.30	2.21	0.00	420.00	4.30	2.21	0.00
170.00	4.30	2.21	0.00	425.00	4.30	2.21	0.00
175.00	4.30	2.21	0.00	430.00	4.30	2.21	0.00
180.00	4.30	2.21	0.00	435.00	4.30	2.21	0.00
185.00	4.30	2.21	0.00	440.00	4.30	2.21	0.00
190.00	4.30	2.21	0.00	445.00	4.30	2.21	0.00
195.00	4.30	2.21	0.00	450.00	4.30	2.21	0.00
200.00	4.30	2.21	0.00	455.00	4.30	2.21	0.00
205.00	4.30	2.21	0.00	460.00	4.30	2.21	0.00
210.00	4.30	2.21	0.00	465.00	4.30	2.21	0.00
215.00	4.30	2.21	0.00	470.00	4.30	2.21	0.00
220.00	4.30	2.21	0.00	475.00	4.30	2.21	0.00
225.00	4.30	2.21	0.00	480.00	4.30	2.21	0.00
230.00	4.30	2.21	0.00	485.00	4.30	2.21	0.00
235.00	4.30	2.21	0.00	490.00	4.30	2.21	0.00
240.00	4.30	2.21	0.00	495.00	4.30	2.21	0.00
245.00	4.30	2.21	0.00	500.00	4.30	2.21	0.00
250.00	4.30	2.21	0.00				
255.00	4.30	2.21	0.00				

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Summary for Subcatchment 6S: Culvert 2

Runoff = 1.69 cfs @ 12.14 hrs, Volume= 0.090 af, Depth= 1.89"

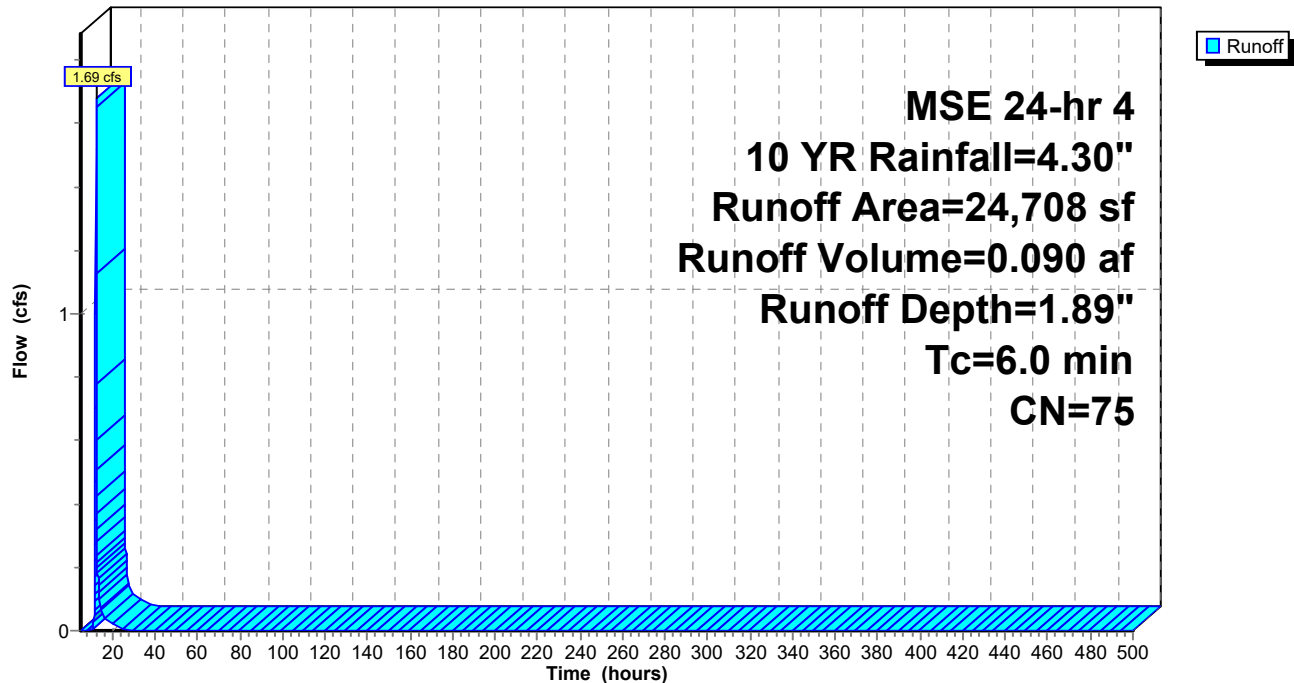
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10 YR Rainfall=4.30"

	Area (sf)	CN	Description
*	15,597	61	Post - B Soils
*	9,111	98	Impervious
	24,708	75	Weighted Average
	15,597		63.13% Pervious Area
	9,111		36.87% Impervious Area

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

Subcatchment 6S: Culvert 2

Hydrograph



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Subcatchment 6S: Culvert 2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.20	0.00	0.00	260.00	4.30	1.89	0.00
10.00	0.68	0.00	0.00	265.00	4.30	1.89	0.00
15.00	3.78	1.50	0.06	270.00	4.30	1.89	0.00
20.00	4.16	1.79	0.02	275.00	4.30	1.89	0.00
25.00	4.30	1.89	0.00	280.00	4.30	1.89	0.00
30.00	4.30	1.89	0.00	285.00	4.30	1.89	0.00
35.00	4.30	1.89	0.00	290.00	4.30	1.89	0.00
40.00	4.30	1.89	0.00	295.00	4.30	1.89	0.00
45.00	4.30	1.89	0.00	300.00	4.30	1.89	0.00
50.00	4.30	1.89	0.00	305.00	4.30	1.89	0.00
55.00	4.30	1.89	0.00	310.00	4.30	1.89	0.00
60.00	4.30	1.89	0.00	315.00	4.30	1.89	0.00
65.00	4.30	1.89	0.00	320.00	4.30	1.89	0.00
70.00	4.30	1.89	0.00	325.00	4.30	1.89	0.00
75.00	4.30	1.89	0.00	330.00	4.30	1.89	0.00
80.00	4.30	1.89	0.00	335.00	4.30	1.89	0.00
85.00	4.30	1.89	0.00	340.00	4.30	1.89	0.00
90.00	4.30	1.89	0.00	345.00	4.30	1.89	0.00
95.00	4.30	1.89	0.00	350.00	4.30	1.89	0.00
100.00	4.30	1.89	0.00	355.00	4.30	1.89	0.00
105.00	4.30	1.89	0.00	360.00	4.30	1.89	0.00
110.00	4.30	1.89	0.00	365.00	4.30	1.89	0.00
115.00	4.30	1.89	0.00	370.00	4.30	1.89	0.00
120.00	4.30	1.89	0.00	375.00	4.30	1.89	0.00
125.00	4.30	1.89	0.00	380.00	4.30	1.89	0.00
130.00	4.30	1.89	0.00	385.00	4.30	1.89	0.00
135.00	4.30	1.89	0.00	390.00	4.30	1.89	0.00
140.00	4.30	1.89	0.00	395.00	4.30	1.89	0.00
145.00	4.30	1.89	0.00	400.00	4.30	1.89	0.00
150.00	4.30	1.89	0.00	405.00	4.30	1.89	0.00
155.00	4.30	1.89	0.00	410.00	4.30	1.89	0.00
160.00	4.30	1.89	0.00	415.00	4.30	1.89	0.00
165.00	4.30	1.89	0.00	420.00	4.30	1.89	0.00
170.00	4.30	1.89	0.00	425.00	4.30	1.89	0.00
175.00	4.30	1.89	0.00	430.00	4.30	1.89	0.00
180.00	4.30	1.89	0.00	435.00	4.30	1.89	0.00
185.00	4.30	1.89	0.00	440.00	4.30	1.89	0.00
190.00	4.30	1.89	0.00	445.00	4.30	1.89	0.00
195.00	4.30	1.89	0.00	450.00	4.30	1.89	0.00
200.00	4.30	1.89	0.00	455.00	4.30	1.89	0.00
205.00	4.30	1.89	0.00	460.00	4.30	1.89	0.00
210.00	4.30	1.89	0.00	465.00	4.30	1.89	0.00
215.00	4.30	1.89	0.00	470.00	4.30	1.89	0.00
220.00	4.30	1.89	0.00	475.00	4.30	1.89	0.00
225.00	4.30	1.89	0.00	480.00	4.30	1.89	0.00
230.00	4.30	1.89	0.00	485.00	4.30	1.89	0.00
235.00	4.30	1.89	0.00	490.00	4.30	1.89	0.00
240.00	4.30	1.89	0.00	495.00	4.30	1.89	0.00
245.00	4.30	1.89	0.00	500.00	4.30	1.89	0.00
250.00	4.30	1.89	0.00				
255.00	4.30	1.89	0.00				

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Summary for Subcatchment 7S: Culvert 3

Runoff = 2.61 cfs @ 12.14 hrs, Volume= 0.139 af, Depth= 1.75"

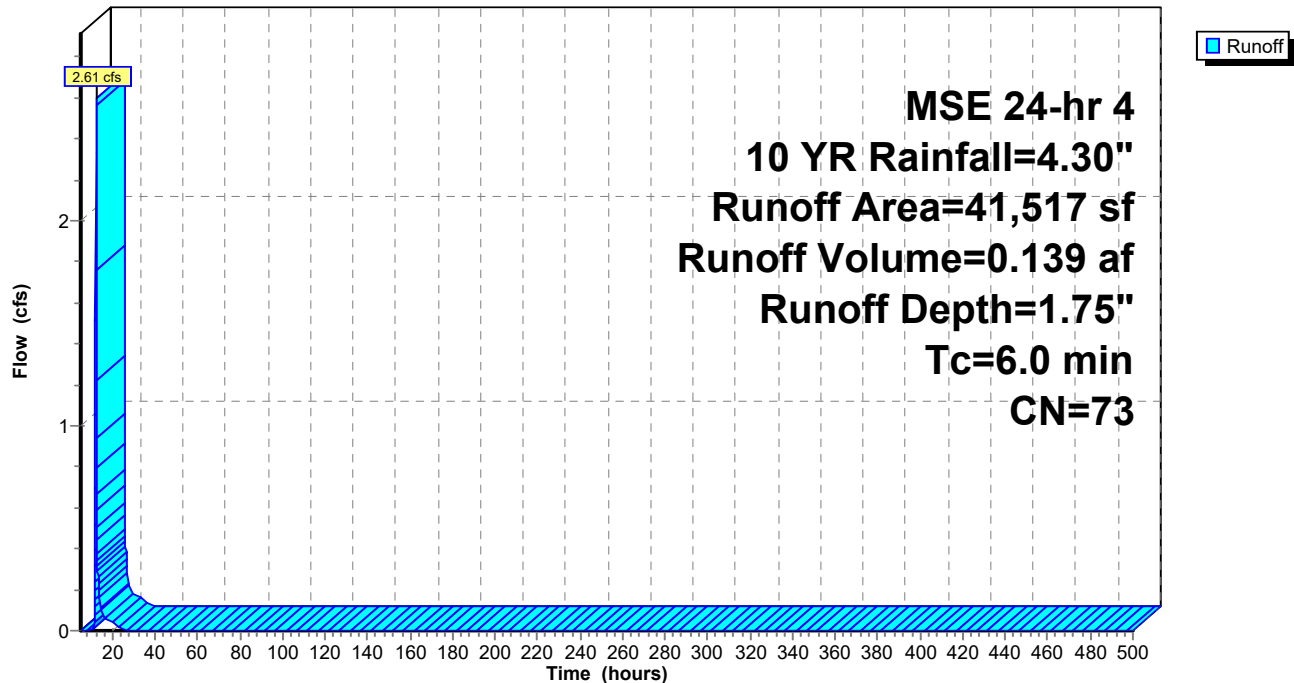
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10 YR Rainfall=4.30"

	Area (sf)	CN	Description
*	28,233	61	Post - B Soils
*	13,284	98	Impervious
	41,517	73	Weighted Average
	28,233		68.00% Pervious Area
	13,284		32.00% Impervious Area

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

Subcatchment 7S: Culvert 3

Hydrograph



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Subcatchment 7S: Culvert 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.20	0.00	0.00	260.00	4.30	1.75	0.00
10.00	0.68	0.00	0.00	265.00	4.30	1.75	0.00
15.00	3.78	1.37	0.10	270.00	4.30	1.75	0.00
20.00	4.16	1.64	0.04	275.00	4.30	1.75	0.00
25.00	4.30	1.75	0.00	280.00	4.30	1.75	0.00
30.00	4.30	1.75	0.00	285.00	4.30	1.75	0.00
35.00	4.30	1.75	0.00	290.00	4.30	1.75	0.00
40.00	4.30	1.75	0.00	295.00	4.30	1.75	0.00
45.00	4.30	1.75	0.00	300.00	4.30	1.75	0.00
50.00	4.30	1.75	0.00	305.00	4.30	1.75	0.00
55.00	4.30	1.75	0.00	310.00	4.30	1.75	0.00
60.00	4.30	1.75	0.00	315.00	4.30	1.75	0.00
65.00	4.30	1.75	0.00	320.00	4.30	1.75	0.00
70.00	4.30	1.75	0.00	325.00	4.30	1.75	0.00
75.00	4.30	1.75	0.00	330.00	4.30	1.75	0.00
80.00	4.30	1.75	0.00	335.00	4.30	1.75	0.00
85.00	4.30	1.75	0.00	340.00	4.30	1.75	0.00
90.00	4.30	1.75	0.00	345.00	4.30	1.75	0.00
95.00	4.30	1.75	0.00	350.00	4.30	1.75	0.00
100.00	4.30	1.75	0.00	355.00	4.30	1.75	0.00
105.00	4.30	1.75	0.00	360.00	4.30	1.75	0.00
110.00	4.30	1.75	0.00	365.00	4.30	1.75	0.00
115.00	4.30	1.75	0.00	370.00	4.30	1.75	0.00
120.00	4.30	1.75	0.00	375.00	4.30	1.75	0.00
125.00	4.30	1.75	0.00	380.00	4.30	1.75	0.00
130.00	4.30	1.75	0.00	385.00	4.30	1.75	0.00
135.00	4.30	1.75	0.00	390.00	4.30	1.75	0.00
140.00	4.30	1.75	0.00	395.00	4.30	1.75	0.00
145.00	4.30	1.75	0.00	400.00	4.30	1.75	0.00
150.00	4.30	1.75	0.00	405.00	4.30	1.75	0.00
155.00	4.30	1.75	0.00	410.00	4.30	1.75	0.00
160.00	4.30	1.75	0.00	415.00	4.30	1.75	0.00
165.00	4.30	1.75	0.00	420.00	4.30	1.75	0.00
170.00	4.30	1.75	0.00	425.00	4.30	1.75	0.00
175.00	4.30	1.75	0.00	430.00	4.30	1.75	0.00
180.00	4.30	1.75	0.00	435.00	4.30	1.75	0.00
185.00	4.30	1.75	0.00	440.00	4.30	1.75	0.00
190.00	4.30	1.75	0.00	445.00	4.30	1.75	0.00
195.00	4.30	1.75	0.00	450.00	4.30	1.75	0.00
200.00	4.30	1.75	0.00	455.00	4.30	1.75	0.00
205.00	4.30	1.75	0.00	460.00	4.30	1.75	0.00
210.00	4.30	1.75	0.00	465.00	4.30	1.75	0.00
215.00	4.30	1.75	0.00	470.00	4.30	1.75	0.00
220.00	4.30	1.75	0.00	475.00	4.30	1.75	0.00
225.00	4.30	1.75	0.00	480.00	4.30	1.75	0.00
230.00	4.30	1.75	0.00	485.00	4.30	1.75	0.00
235.00	4.30	1.75	0.00	490.00	4.30	1.75	0.00
240.00	4.30	1.75	0.00	495.00	4.30	1.75	0.00
245.00	4.30	1.75	0.00	500.00	4.30	1.75	0.00
250.00	4.30	1.75	0.00				
255.00	4.30	1.75	0.00				

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Summary for Subcatchment 8S: Culvert 4

Runoff = 11.47 cfs @ 12.14 hrs, Volume= 0.615 af, Depth= 1.53"

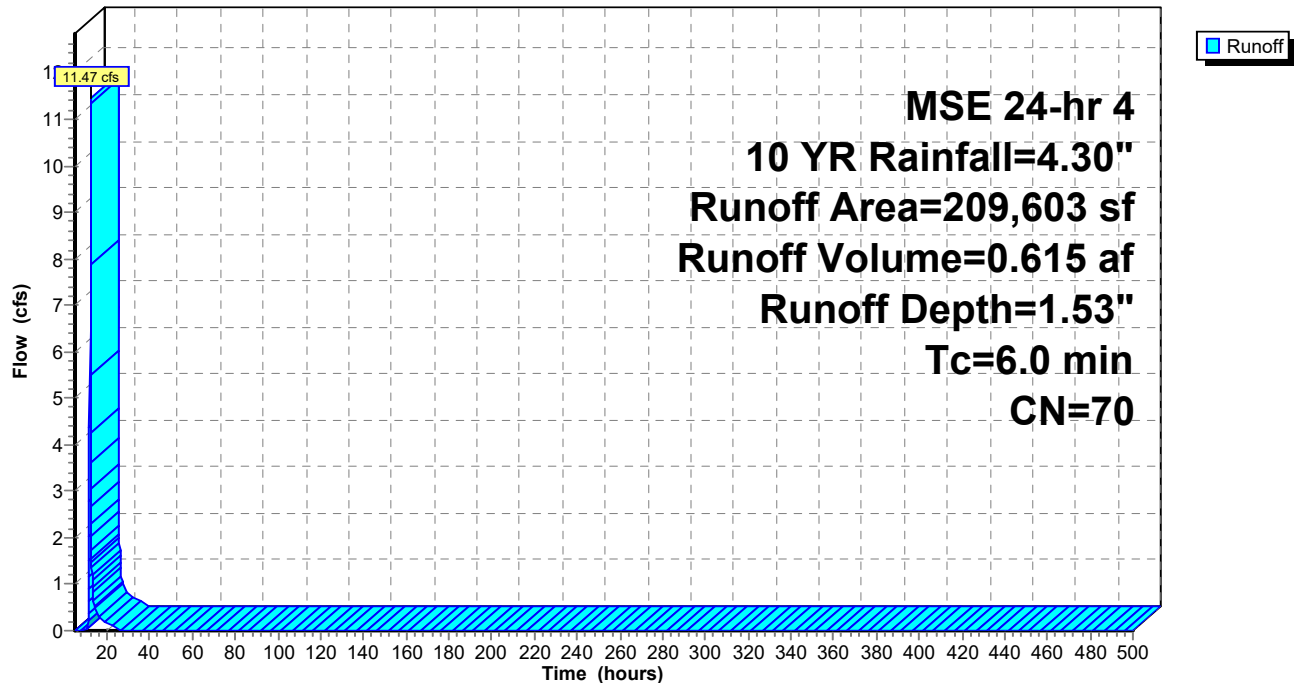
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10 YR Rainfall=4.30"

	Area (sf)	CN	Description
*	156,823	61	Post - B Soils
*	52,780	98	Impervious
	209,603	70	Weighted Average
	156,823		74.82% Pervious Area
	52,780		25.18% Impervious Area

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

Subcatchment 8S: Culvert 4

Hydrograph



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Subcatchment 8S: Culvert 4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.20	0.00	0.00	260.00	4.30	1.53	0.00
10.00	0.68	0.00	0.00	265.00	4.30	1.53	0.00
15.00	3.78	1.18	0.48	270.00	4.30	1.53	0.00
20.00	4.16	1.44	0.18	275.00	4.30	1.53	0.00
25.00	4.30	1.53	0.00	280.00	4.30	1.53	0.00
30.00	4.30	1.53	0.00	285.00	4.30	1.53	0.00
35.00	4.30	1.53	0.00	290.00	4.30	1.53	0.00
40.00	4.30	1.53	0.00	295.00	4.30	1.53	0.00
45.00	4.30	1.53	0.00	300.00	4.30	1.53	0.00
50.00	4.30	1.53	0.00	305.00	4.30	1.53	0.00
55.00	4.30	1.53	0.00	310.00	4.30	1.53	0.00
60.00	4.30	1.53	0.00	315.00	4.30	1.53	0.00
65.00	4.30	1.53	0.00	320.00	4.30	1.53	0.00
70.00	4.30	1.53	0.00	325.00	4.30	1.53	0.00
75.00	4.30	1.53	0.00	330.00	4.30	1.53	0.00
80.00	4.30	1.53	0.00	335.00	4.30	1.53	0.00
85.00	4.30	1.53	0.00	340.00	4.30	1.53	0.00
90.00	4.30	1.53	0.00	345.00	4.30	1.53	0.00
95.00	4.30	1.53	0.00	350.00	4.30	1.53	0.00
100.00	4.30	1.53	0.00	355.00	4.30	1.53	0.00
105.00	4.30	1.53	0.00	360.00	4.30	1.53	0.00
110.00	4.30	1.53	0.00	365.00	4.30	1.53	0.00
115.00	4.30	1.53	0.00	370.00	4.30	1.53	0.00
120.00	4.30	1.53	0.00	375.00	4.30	1.53	0.00
125.00	4.30	1.53	0.00	380.00	4.30	1.53	0.00
130.00	4.30	1.53	0.00	385.00	4.30	1.53	0.00
135.00	4.30	1.53	0.00	390.00	4.30	1.53	0.00
140.00	4.30	1.53	0.00	395.00	4.30	1.53	0.00
145.00	4.30	1.53	0.00	400.00	4.30	1.53	0.00
150.00	4.30	1.53	0.00	405.00	4.30	1.53	0.00
155.00	4.30	1.53	0.00	410.00	4.30	1.53	0.00
160.00	4.30	1.53	0.00	415.00	4.30	1.53	0.00
165.00	4.30	1.53	0.00	420.00	4.30	1.53	0.00
170.00	4.30	1.53	0.00	425.00	4.30	1.53	0.00
175.00	4.30	1.53	0.00	430.00	4.30	1.53	0.00
180.00	4.30	1.53	0.00	435.00	4.30	1.53	0.00
185.00	4.30	1.53	0.00	440.00	4.30	1.53	0.00
190.00	4.30	1.53	0.00	445.00	4.30	1.53	0.00
195.00	4.30	1.53	0.00	450.00	4.30	1.53	0.00
200.00	4.30	1.53	0.00	455.00	4.30	1.53	0.00
205.00	4.30	1.53	0.00	460.00	4.30	1.53	0.00
210.00	4.30	1.53	0.00	465.00	4.30	1.53	0.00
215.00	4.30	1.53	0.00	470.00	4.30	1.53	0.00
220.00	4.30	1.53	0.00	475.00	4.30	1.53	0.00
225.00	4.30	1.53	0.00	480.00	4.30	1.53	0.00
230.00	4.30	1.53	0.00	485.00	4.30	1.53	0.00
235.00	4.30	1.53	0.00	490.00	4.30	1.53	0.00
240.00	4.30	1.53	0.00	495.00	4.30	1.53	0.00
245.00	4.30	1.53	0.00	500.00	4.30	1.53	0.00
250.00	4.30	1.53	0.00				
255.00	4.30	1.53	0.00				

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Summary for Subcatchment 9S: Culvert 5

Runoff = 9.35 cfs @ 12.14 hrs, Volume= 0.505 af, Depth= 1.40"

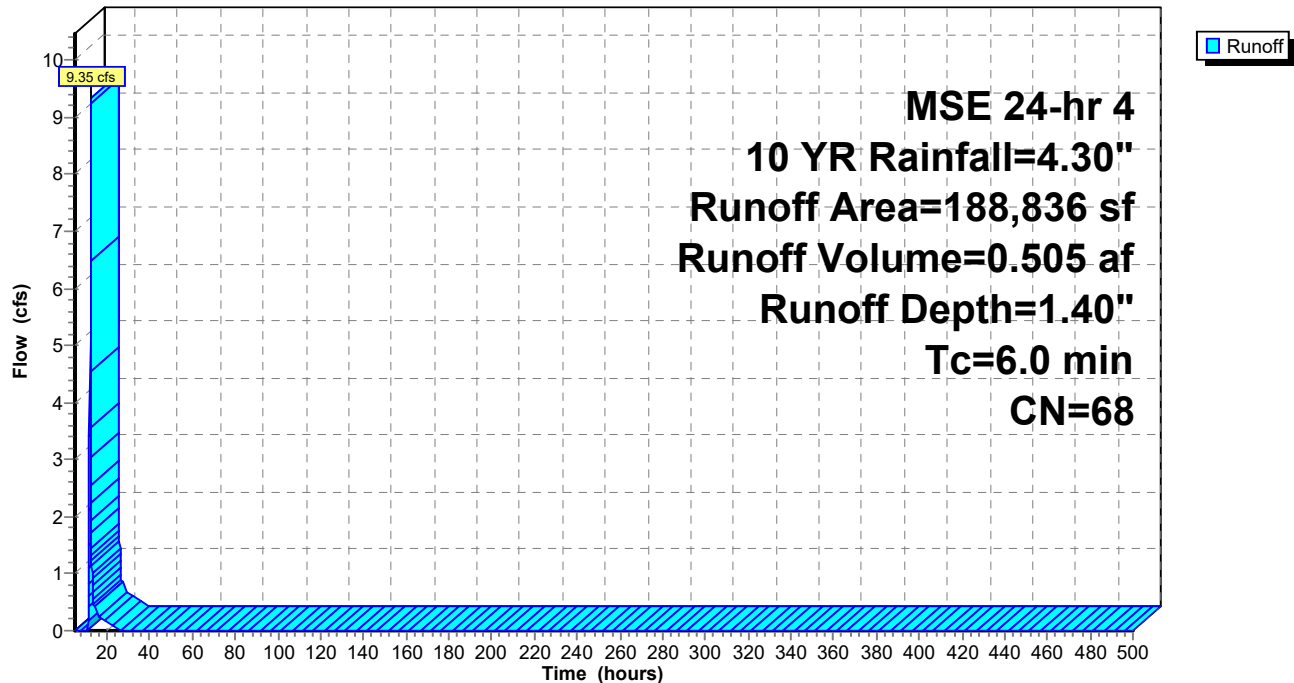
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 10 YR Rainfall=4.30"

	Area (sf)	CN	Description
*	151,149	61	Post - B Soils
*	37,687	98	Impervious
	188,836	68	Weighted Average
	151,149		80.04% Pervious Area
	37,687		19.96% Impervious Area

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

Subcatchment 9S: Culvert 5

Hydrograph



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Subcatchment 9S: Culvert 5

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.20	0.00	0.00	260.00	4.30	1.40	0.00
10.00	0.68	0.00	0.00	265.00	4.30	1.40	0.00
15.00	3.78	1.07	0.41	270.00	4.30	1.40	0.00
20.00	4.16	1.31	0.15	275.00	4.30	1.40	0.00
25.00	4.30	1.40	0.00	280.00	4.30	1.40	0.00
30.00	4.30	1.40	0.00	285.00	4.30	1.40	0.00
35.00	4.30	1.40	0.00	290.00	4.30	1.40	0.00
40.00	4.30	1.40	0.00	295.00	4.30	1.40	0.00
45.00	4.30	1.40	0.00	300.00	4.30	1.40	0.00
50.00	4.30	1.40	0.00	305.00	4.30	1.40	0.00
55.00	4.30	1.40	0.00	310.00	4.30	1.40	0.00
60.00	4.30	1.40	0.00	315.00	4.30	1.40	0.00
65.00	4.30	1.40	0.00	320.00	4.30	1.40	0.00
70.00	4.30	1.40	0.00	325.00	4.30	1.40	0.00
75.00	4.30	1.40	0.00	330.00	4.30	1.40	0.00
80.00	4.30	1.40	0.00	335.00	4.30	1.40	0.00
85.00	4.30	1.40	0.00	340.00	4.30	1.40	0.00
90.00	4.30	1.40	0.00	345.00	4.30	1.40	0.00
95.00	4.30	1.40	0.00	350.00	4.30	1.40	0.00
100.00	4.30	1.40	0.00	355.00	4.30	1.40	0.00
105.00	4.30	1.40	0.00	360.00	4.30	1.40	0.00
110.00	4.30	1.40	0.00	365.00	4.30	1.40	0.00
115.00	4.30	1.40	0.00	370.00	4.30	1.40	0.00
120.00	4.30	1.40	0.00	375.00	4.30	1.40	0.00
125.00	4.30	1.40	0.00	380.00	4.30	1.40	0.00
130.00	4.30	1.40	0.00	385.00	4.30	1.40	0.00
135.00	4.30	1.40	0.00	390.00	4.30	1.40	0.00
140.00	4.30	1.40	0.00	395.00	4.30	1.40	0.00
145.00	4.30	1.40	0.00	400.00	4.30	1.40	0.00
150.00	4.30	1.40	0.00	405.00	4.30	1.40	0.00
155.00	4.30	1.40	0.00	410.00	4.30	1.40	0.00
160.00	4.30	1.40	0.00	415.00	4.30	1.40	0.00
165.00	4.30	1.40	0.00	420.00	4.30	1.40	0.00
170.00	4.30	1.40	0.00	425.00	4.30	1.40	0.00
175.00	4.30	1.40	0.00	430.00	4.30	1.40	0.00
180.00	4.30	1.40	0.00	435.00	4.30	1.40	0.00
185.00	4.30	1.40	0.00	440.00	4.30	1.40	0.00
190.00	4.30	1.40	0.00	445.00	4.30	1.40	0.00
195.00	4.30	1.40	0.00	450.00	4.30	1.40	0.00
200.00	4.30	1.40	0.00	455.00	4.30	1.40	0.00
205.00	4.30	1.40	0.00	460.00	4.30	1.40	0.00
210.00	4.30	1.40	0.00	465.00	4.30	1.40	0.00
215.00	4.30	1.40	0.00	470.00	4.30	1.40	0.00
220.00	4.30	1.40	0.00	475.00	4.30	1.40	0.00
225.00	4.30	1.40	0.00	480.00	4.30	1.40	0.00
230.00	4.30	1.40	0.00	485.00	4.30	1.40	0.00
235.00	4.30	1.40	0.00	490.00	4.30	1.40	0.00
240.00	4.30	1.40	0.00	495.00	4.30	1.40	0.00
245.00	4.30	1.40	0.00	500.00	4.30	1.40	0.00
250.00	4.30	1.40	0.00				
255.00	4.30	1.40	0.00				

Summary for Pond P1A: Pond 1A

Inflow Area = 6.030 ac, 19.24% Impervious, Inflow Depth = 1.40" for 10 YR event
 Inflow = 13.00 cfs @ 12.14 hrs, Volume= 0.703 af
 Outflow = 2.19 cfs @ 12.58 hrs, Volume= 0.703 af, Atten= 83%, Lag= 26.4 min
 Primary = 1.66 cfs @ 12.58 hrs, Volume= 0.276 af
 Routed to Link 3L : Post - South
 Secondary = 0.53 cfs @ 12.58 hrs, Volume= 0.427 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,241.65' @ 12.58 hrs Surf.Area= 6,330 sf Storage= 11,696 cf

Plug-Flow detention time= 132.1 min calculated for 0.703 af (100% of inflow)
 Center-of-Mass det. time= 132.1 min (975.0 - 842.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,239.00'	30,563 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,239.00	2,496	0	0
1,244.00	9,729	30,563	30,563

Device	Routing	Invert	Outlet Devices
#1	Primary	1,240.00'	12.0" Round Culvert L= 39.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,240.00' / 1,236.00' S= 0.1026 ' / Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,240.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,242.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,239.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,243.00'	20.0' long + 4.0 ' / SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=1.66 cfs @ 12.58 hrs HW=1,241.65' (Free Discharge)

↑ **1=Culvert** (Passes 1.66 cfs of 4.05 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 1.66 cfs @ 3.45 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.53 cfs @ 12.58 hrs HW=1,241.65' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.53 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,239.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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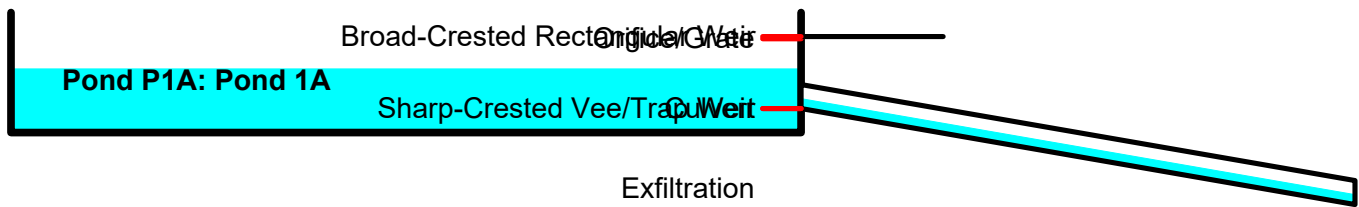
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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

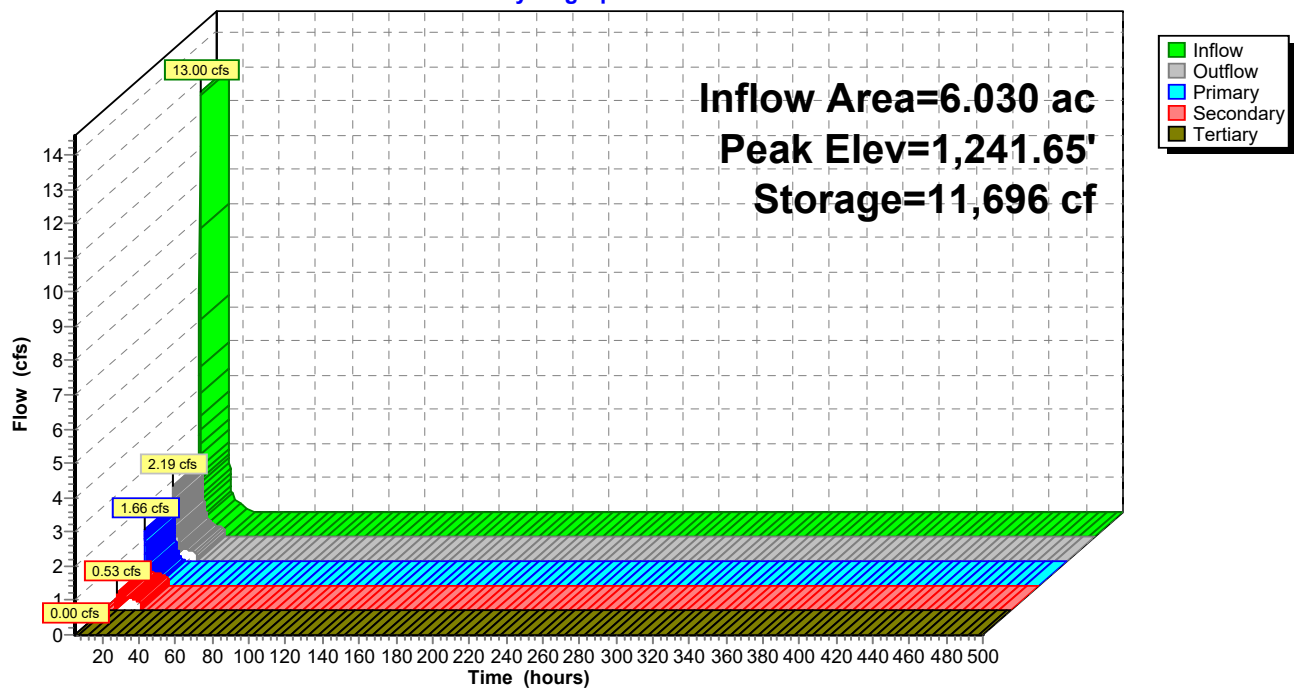
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Pond P1A: Pond 1A

Hydrograph



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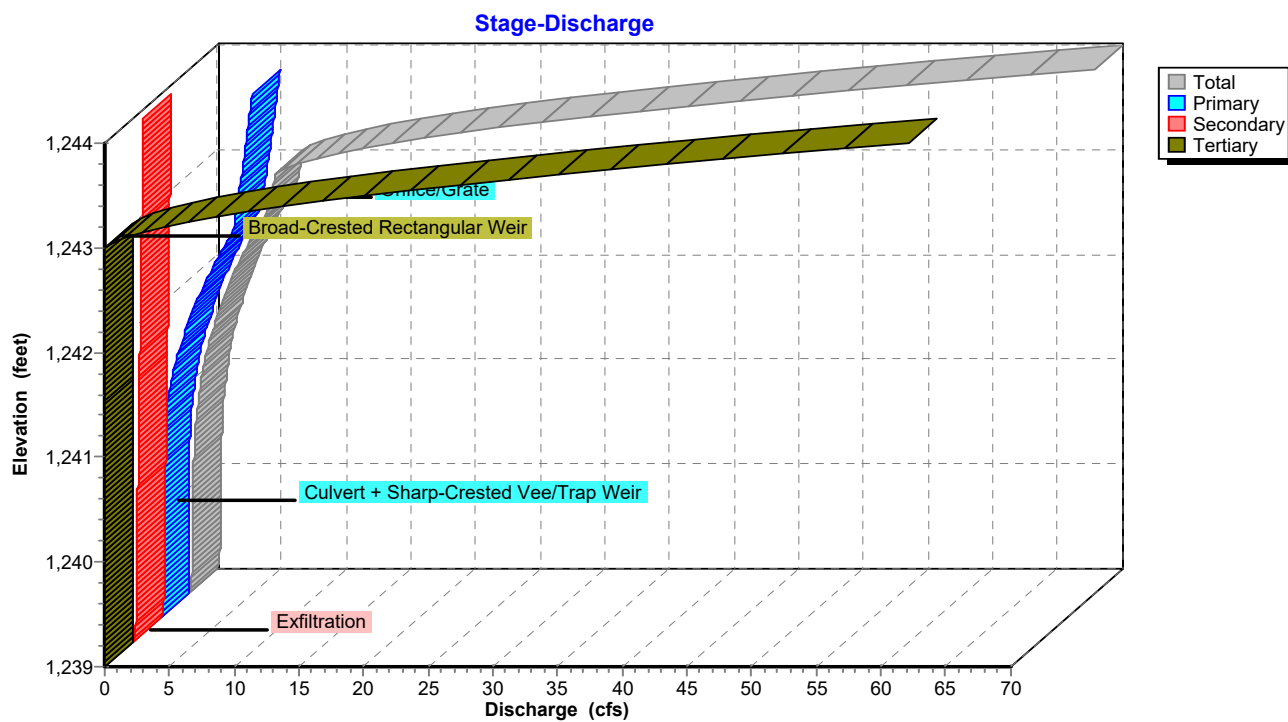
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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

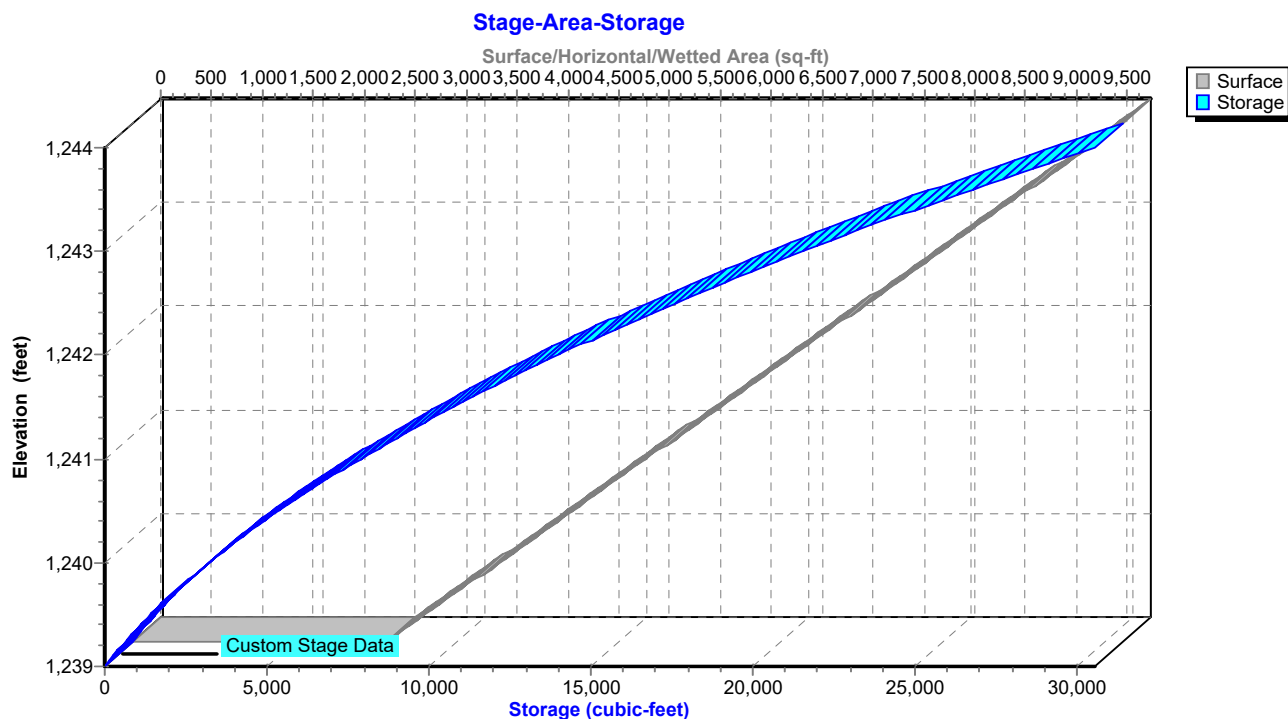
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Pond P1A: Pond 1A



Pond P1A: Pond 1A



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Pond P1A: Pond 1A

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
15.00	0.56	7,487	1,240.93	0.83	0.39	0.44	0.00
25.00	0.00	568	1,239.21	0.23	0.00	0.23	0.00
35.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Stage-Discharge for Pond P1A: Pond 1A

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,239.00	0.00	0.00	0.00	0.00
1,239.10	0.22	0.00	0.22	0.00
1,239.20	0.23	0.00	0.23	0.00
1,239.30	0.24	0.00	0.24	0.00
1,239.40	0.26	0.00	0.26	0.00
1,239.50	0.27	0.00	0.27	0.00
1,239.60	0.28	0.00	0.28	0.00
1,239.70	0.29	0.00	0.29	0.00
1,239.80	0.30	0.00	0.30	0.00
1,239.90	0.32	0.00	0.32	0.00
1,240.00	0.33	0.00	0.33	0.00
1,240.10	0.34	0.00	0.34	0.00
1,240.20	0.36	0.01	0.35	0.00
1,240.30	0.39	0.02	0.36	0.00
1,240.40	0.42	0.05	0.38	0.00
1,240.50	0.47	0.08	0.39	0.00
1,240.60	0.53	0.13	0.40	0.00
1,240.70	0.61	0.19	0.41	0.00
1,240.80	0.70	0.27	0.42	0.00
1,240.90	0.80	0.36	0.44	0.00
1,241.00	0.92	0.47	0.45	0.00
1,241.10	1.06	0.60	0.46	0.00
1,241.20	1.22	0.75	0.47	0.00
1,241.30	1.40	0.91	0.49	0.00
1,241.40	1.60	1.10	0.50	0.00
1,241.50	1.82	1.31	0.51	0.00
1,241.60	2.06	1.54	0.52	0.00
1,241.70	2.32	1.79	0.53	0.00
1,241.80	2.61	2.06	0.55	0.00
1,241.90	2.92	2.36	0.56	0.00
1,242.00	3.25	2.68	0.57	0.00
1,242.10	3.61	3.03	0.58	0.00
1,242.20	4.00	3.41	0.59	0.00
1,242.30	4.41	3.81	0.61	0.00
1,242.40	4.85	4.23	0.62	0.00
1,242.50	5.32	4.69	0.63	0.00
1,242.60	5.81	5.17	0.64	0.00
1,242.70	6.26	5.61	0.65	0.00
1,242.80	6.40	5.74	0.67	0.00
1,242.90	6.54	5.86	0.68	0.00
1,243.00	6.67	5.98	0.69	0.00
1,243.10	8.40	6.10	0.70	1.60
1,243.20	11.53	6.21	0.71	4.60
1,243.30	15.75	6.33	0.73	8.70
1,243.40	20.96	6.44	0.74	13.78
1,243.50	27.39	6.55	0.75	20.08
1,243.60	34.93	6.66	0.76	27.51
1,243.70	42.64	6.76	0.77	35.10
1,243.80	51.08	6.87	0.79	43.42
1,243.90	60.22	6.97	0.80	52.45
1,244.00	70.06	7.07	0.81	62.18

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Stage-Area-Storage for Pond P1A: Pond 1A

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,239.00	2,496	0	1,241.55	6,185	11,068
1,239.05	2,568	127	1,241.60	6,257	11,379
1,239.10	2,641	257	1,241.65	6,329	11,694
1,239.15	2,713	391	1,241.70	6,402	12,012
1,239.20	2,785	528	1,241.75	6,474	12,334
1,239.25	2,858	669	1,241.80	6,546	12,659
1,239.30	2,930	814	1,241.85	6,619	12,989
1,239.35	3,002	962	1,241.90	6,691	13,321
1,239.40	3,075	1,114	1,241.95	6,763	13,658
1,239.45	3,147	1,270	1,242.00	6,836	13,998
1,239.50	3,219	1,429	1,242.05	6,908	14,341
1,239.55	3,292	1,592	1,242.10	6,980	14,689
1,239.60	3,364	1,758	1,242.15	7,053	15,039
1,239.65	3,436	1,928	1,242.20	7,125	15,394
1,239.70	3,509	2,102	1,242.25	7,197	15,752
1,239.75	3,581	2,279	1,242.30	7,270	16,114
1,239.80	3,653	2,460	1,242.35	7,342	16,479
1,239.85	3,726	2,644	1,242.40	7,414	16,848
1,239.90	3,798	2,832	1,242.45	7,487	17,220
1,239.95	3,870	3,024	1,242.50	7,559	17,596
1,240.00	3,943	3,219	1,242.55	7,631	17,976
1,240.05	4,015	3,418	1,242.60	7,704	18,360
1,240.10	4,087	3,621	1,242.65	7,776	18,747
1,240.15	4,160	3,827	1,242.70	7,848	19,137
1,240.20	4,232	4,037	1,242.75	7,921	19,531
1,240.25	4,304	4,250	1,242.80	7,993	19,929
1,240.30	4,377	4,467	1,242.85	8,065	20,331
1,240.35	4,449	4,688	1,242.90	8,138	20,736
1,240.40	4,521	4,912	1,242.95	8,210	21,144
1,240.45	4,594	5,140	1,243.00	8,282	21,557
1,240.50	4,666	5,371	1,243.05	8,355	21,973
1,240.55	4,738	5,607	1,243.10	8,427	22,392
1,240.60	4,811	5,845	1,243.15	8,499	22,815
1,240.65	4,883	6,088	1,243.20	8,572	23,242
1,240.70	4,955	6,334	1,243.25	8,644	23,673
1,240.75	5,028	6,583	1,243.30	8,716	24,107
1,240.80	5,100	6,836	1,243.35	8,789	24,544
1,240.85	5,172	7,093	1,243.40	8,861	24,985
1,240.90	5,245	7,354	1,243.45	8,933	25,430
1,240.95	5,317	7,618	1,243.50	9,006	25,879
1,241.00	5,389	7,885	1,243.55	9,078	26,331
1,241.05	5,462	8,156	1,243.60	9,150	26,787
1,241.10	5,534	8,431	1,243.65	9,223	27,246
1,241.15	5,606	8,710	1,243.70	9,295	27,709
1,241.20	5,679	8,992	1,243.75	9,367	28,175
1,241.25	5,751	9,278	1,243.80	9,440	28,646
1,241.30	5,823	9,567	1,243.85	9,512	29,119
1,241.35	5,896	9,860	1,243.90	9,584	29,597
1,241.40	5,968	10,157	1,243.95	9,657	30,078
1,241.45	6,040	10,457	1,244.00	9,729	30,563
1,241.50	6,113	10,761			

Summary for Pond P3A: Pond 3A

Inflow Area = 10.600 ac, 18.58% Impervious, Inflow Depth = 1.53" for 10 YR event
 Inflow = 25.27 cfs @ 12.14 hrs, Volume= 1.355 af
 Outflow = 4.83 cfs @ 12.52 hrs, Volume= 1.355 af, Atten= 81%, Lag= 23.2 min
 Primary = 4.07 cfs @ 12.52 hrs, Volume= 0.668 af
 Routed to Link 4L : Post - North
 Secondary = 0.77 cfs @ 12.52 hrs, Volume= 0.687 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,195.36' @ 12.52 hrs Surf.Area= 9,182 sf Storage= 22,437 cf

Plug-Flow detention time= 133.9 min calculated for 1.355 af (100% of inflow)
 Center-of-Mass det. time= 133.9 min (972.0 - 838.0)

Volume	Invert	Avail.Storage	Storage Description
#1	1,192.00'	51,846 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,192.00	4,165	0	0
1,198.00	13,117	51,846	51,846

Device	Routing	Invert	Outlet Devices
#1	Primary	1,193.00'	12.0" Round Culvert L= 41.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,193.00' / 1,189.00' S= 0.0976 ' /' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,193.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,196.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,192.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,197.00'	20.0' long + 4.0 ' /' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=4.06 cfs @ 12.52 hrs HW=1,195.36' (Free Discharge)

↑ **1=Culvert** (Passes 4.06 cfs of 5.16 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 4.06 cfs @ 4.13 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.76 cfs @ 12.52 hrs HW=1,195.36' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.76 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,192.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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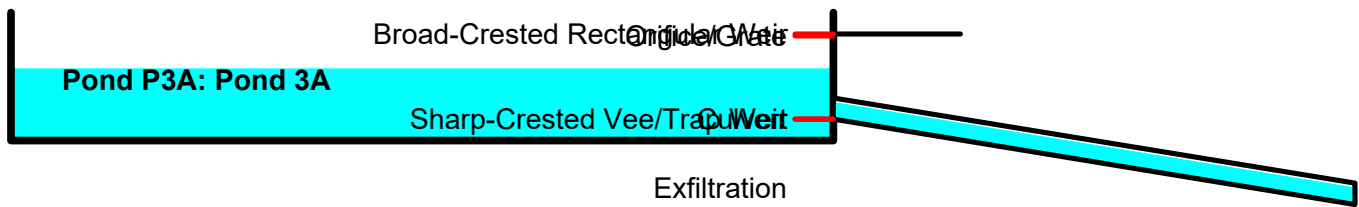
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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

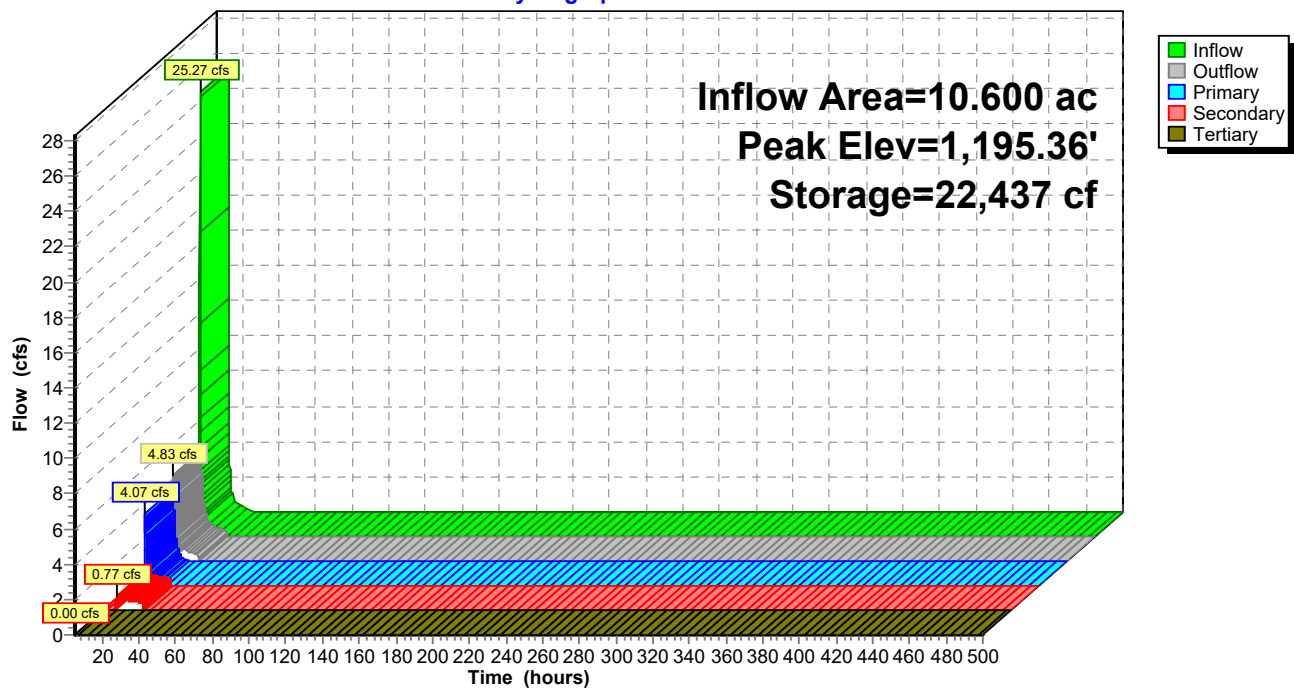
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Pond P3A: Pond 3A

Hydrograph



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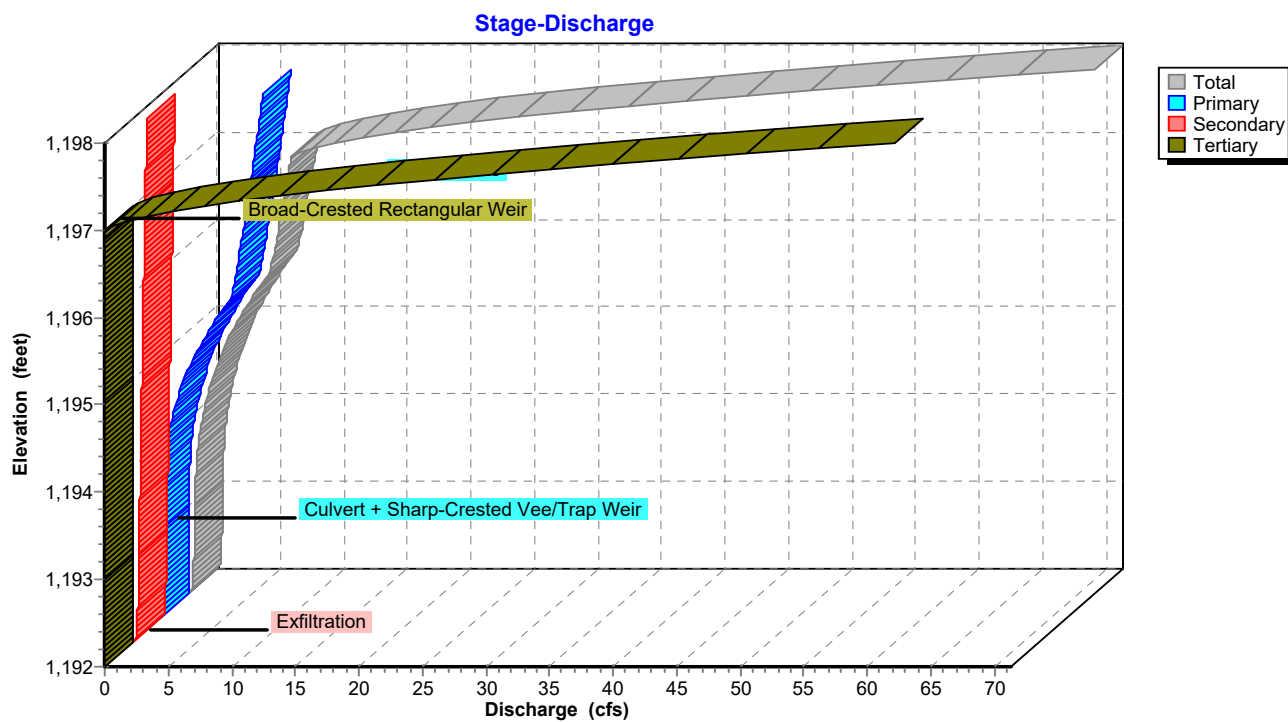
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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

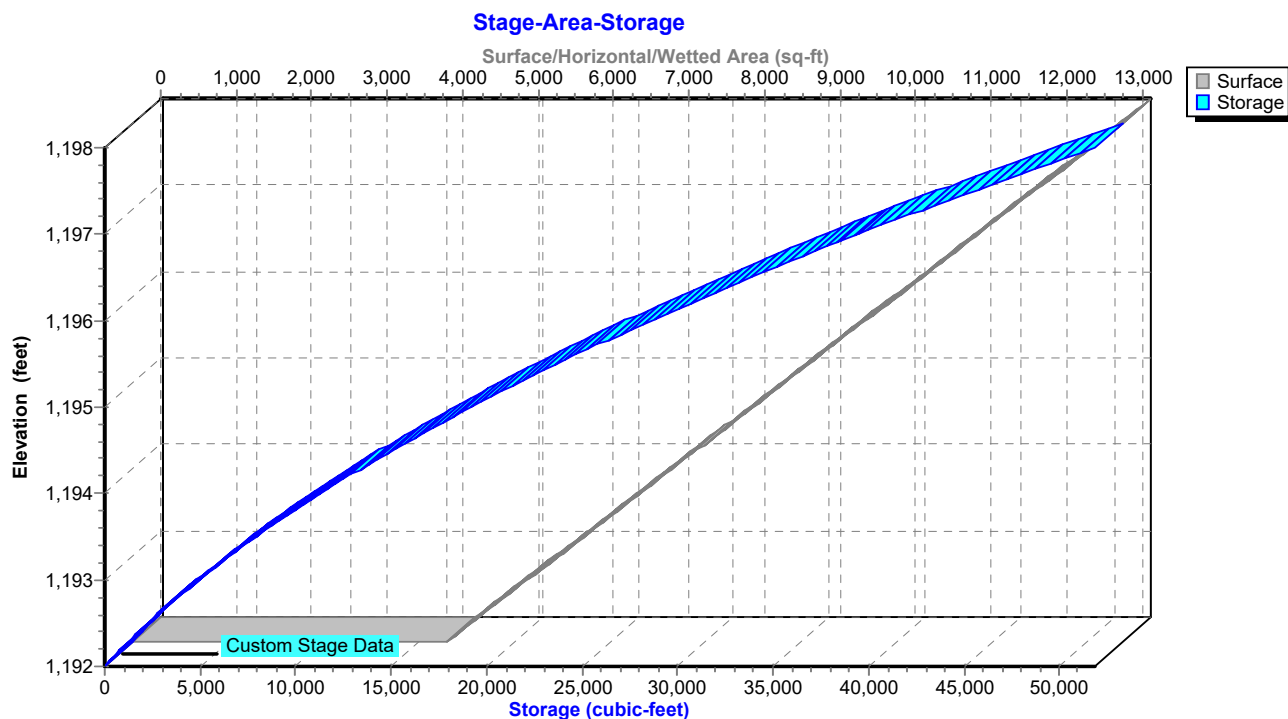
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Pond P3A: Pond 3A



Pond P3A: Pond 3A



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Pond P3A: Pond 3A

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
15.00	1.05	13,406	1,194.28	1.52	0.89	0.63	0.00
25.00	0.00	2,541	1,192.55	0.42	0.00	0.42	0.00
35.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Stage-Discharge for Pond P3A: Pond 3A

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,192.00	0.00	0.00	0.00	0.00
1,192.20	0.37	0.00	0.37	0.00
1,192.40	0.40	0.00	0.40	0.00
1,192.60	0.42	0.00	0.42	0.00
1,192.80	0.45	0.00	0.45	0.00
1,193.00	0.47	0.00	0.47	0.00
1,193.20	0.50	0.01	0.50	0.00
1,193.40	0.57	0.05	0.52	0.00
1,193.60	0.68	0.13	0.55	0.00
1,193.80	0.84	0.27	0.57	0.00
1,194.00	1.07	0.47	0.60	0.00
1,194.20	1.37	0.75	0.62	0.00
1,194.40	1.75	1.10	0.65	0.00
1,194.60	2.21	1.54	0.67	0.00
1,194.80	2.76	2.06	0.70	0.00
1,195.00	3.40	2.68	0.72	0.00
1,195.20	4.15	3.41	0.74	0.00
1,195.40	5.00	4.23	0.77	0.00
1,195.60	5.96	5.17	0.79	0.00
1,195.80	6.55	5.74	0.82	0.00
1,196.00	6.82	5.98	0.84	0.00
1,196.20	7.08	6.21	0.87	0.00
1,196.40	7.33	6.44	0.89	0.00
1,196.60	7.58	6.66	0.92	0.00
1,196.80	7.81	6.87	0.94	0.00
1,197.00	8.04	7.07	0.97	0.00
1,197.20	12.86	7.27	0.99	4.60
1,197.40	22.27	7.47	1.02	13.78
1,197.60	36.21	7.66	1.04	27.51
1,197.80	52.33	7.84	1.07	43.42
1,198.00	71.29	8.02	1.09	62.18

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Stage-Area-Storage for Pond P3A: Pond 3A

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,192.00	4,165	0	1,197.10	11,774	40,645
1,192.10	4,314	424	1,197.20	11,923	41,830
1,192.20	4,463	863	1,197.30	12,073	43,030
1,192.30	4,613	1,317	1,197.40	12,222	44,244
1,192.40	4,762	1,785	1,197.50	12,371	45,474
1,192.50	4,911	2,269	1,197.60	12,520	46,719
1,192.60	5,060	2,768	1,197.70	12,669	47,978
1,192.70	5,209	3,281	1,197.80	12,819	49,252
1,192.80	5,359	3,809	1,197.90	12,968	50,542
1,192.90	5,508	4,353	1,198.00	13,117	51,846
1,193.00	5,657	4,911			
1,193.10	5,806	5,484			
1,193.20	5,955	6,072			
1,193.30	6,105	6,675			
1,193.40	6,254	7,293			
1,193.50	6,403	7,926			
1,193.60	6,552	8,574			
1,193.70	6,701	9,236			
1,193.80	6,851	9,914			
1,193.90	7,000	10,607			
1,194.00	7,149	11,314			
1,194.10	7,298	12,036			
1,194.20	7,447	12,774			
1,194.30	7,597	13,526			
1,194.40	7,746	14,293			
1,194.50	7,895	15,075			
1,194.60	8,044	15,872			
1,194.70	8,193	16,684			
1,194.80	8,343	17,511			
1,194.90	8,492	18,352			
1,195.00	8,641	19,209			
1,195.10	8,790	20,081			
1,195.20	8,939	20,967			
1,195.30	9,089	21,868			
1,195.40	9,238	22,785			
1,195.50	9,387	23,716			
1,195.60	9,536	24,662			
1,195.70	9,685	25,623			
1,195.80	9,835	26,599			
1,195.90	9,984	27,590			
1,196.00	10,133	28,596			
1,196.10	10,282	29,617			
1,196.20	10,431	30,652			
1,196.30	10,581	31,703			
1,196.40	10,730	32,769			
1,196.50	10,879	33,849			
1,196.60	11,028	34,944			
1,196.70	11,177	36,055			
1,196.80	11,327	37,180			
1,196.90	11,476	38,320			
1,197.00	11,625	39,475			

Summary for Pond P3B: Pond 3B

Inflow Area = 8.450 ac, 19.88% Impervious, Inflow Depth = 1.60" for 10 YR event
 Inflow = 21.12 cfs @ 12.14 hrs, Volume= 1.129 af
 Outflow = 4.59 cfs @ 12.47 hrs, Volume= 1.129 af, Atten= 78%, Lag= 20.1 min
 Primary = 3.92 cfs @ 12.47 hrs, Volume= 0.579 af
 Routed to Link 4L : Post - North
 Secondary = 0.68 cfs @ 12.47 hrs, Volume= 0.550 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,198.33' @ 12.47 hrs Surf.Area= 8,114 sf Storage= 18,152 cf

Plug-Flow detention time= 118.9 min calculated for 1.129 af (100% of inflow)
 Center-of-Mass det. time= 118.9 min (954.6 - 835.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,195.00'	33,965 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,195.00	2,799	0	0
1,200.00	10,787	33,965	33,965

Device	Routing	Invert	Outlet Devices
#1	Primary	1,196.00'	12.0" Round Culvert L= 36.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,196.00' / 1,192.00' S= 0.1111 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,196.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,198.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,195.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,199.00'	20.0' long + 4.0 ' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=3.91 cfs @ 12.47 hrs HW=1,198.32' (Free Discharge)

↑ **1=Culvert** (Passes 3.91 cfs of 5.11 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 3.91 cfs @ 4.10 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.68 cfs @ 12.47 hrs HW=1,198.32' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.68 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,195.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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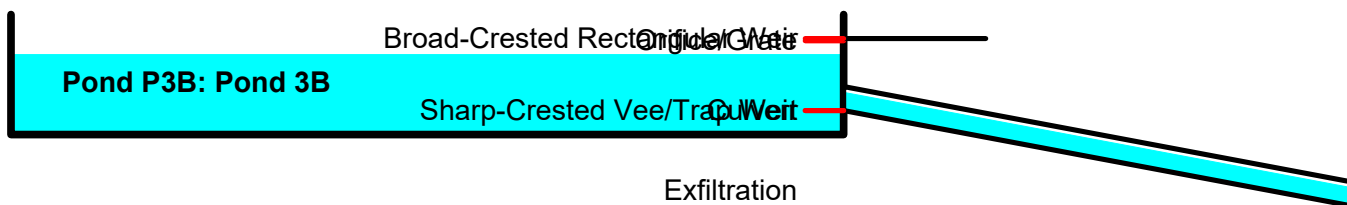
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MSE 24-hr 4 10 YR Rainfall=4.30"

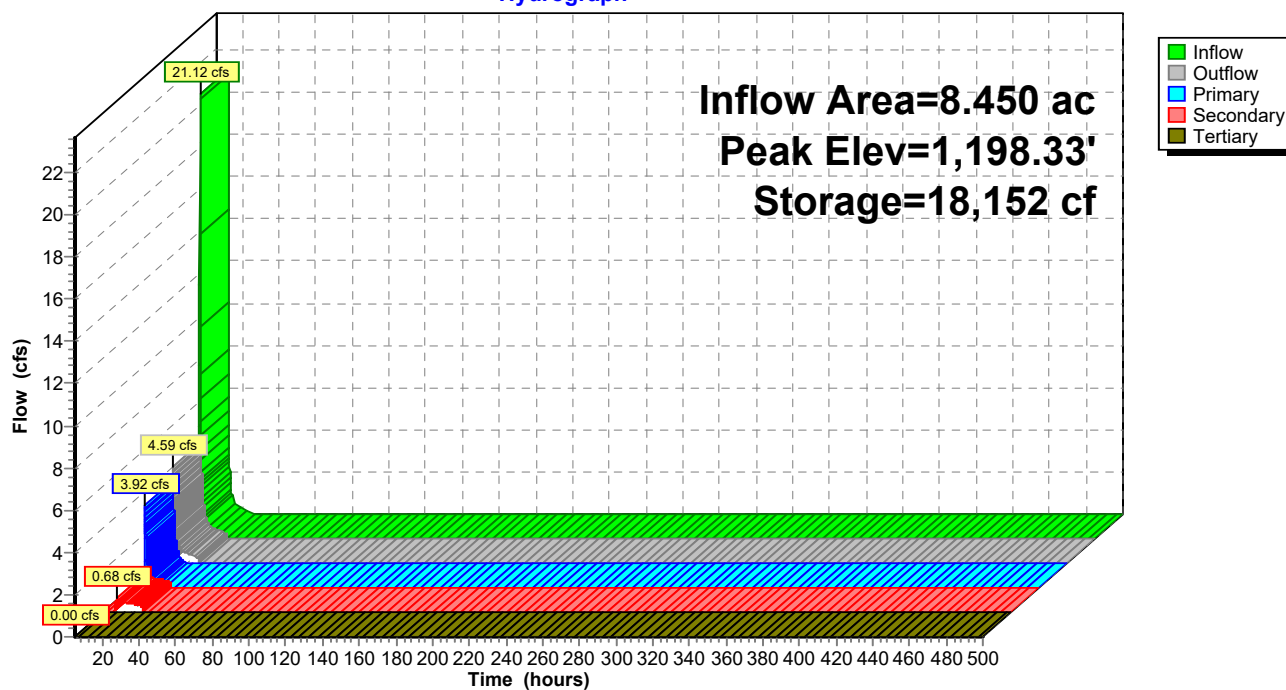
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Pond P3B: Pond 3B

Hydrograph



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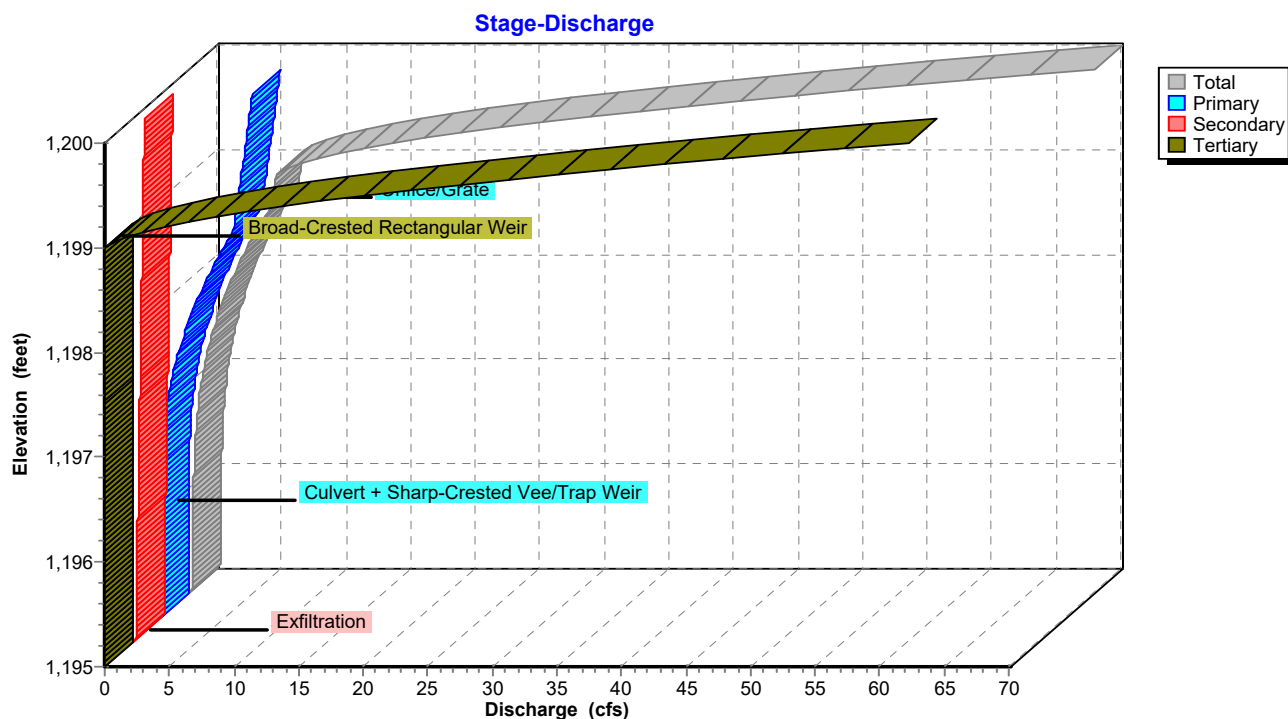
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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

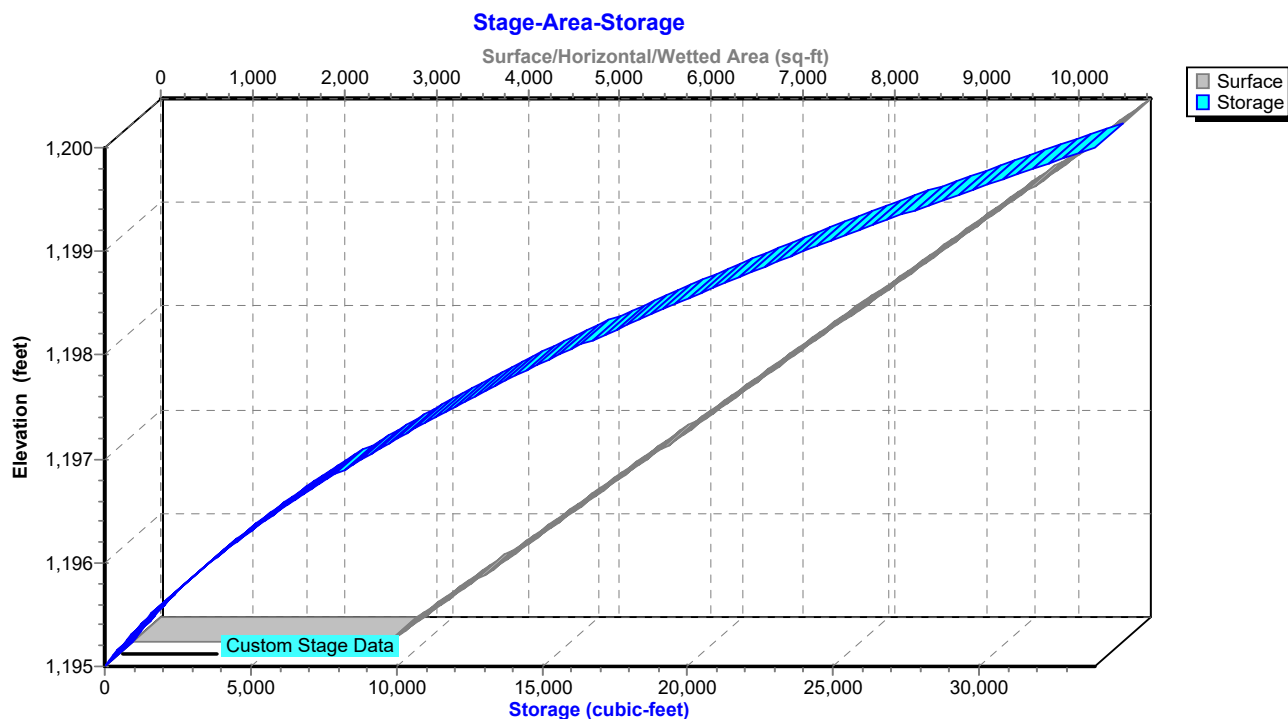
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Pond P3B: Pond 3B



Pond P3B: Pond 3B



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Pond P3B: Pond 3B

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
15.00	0.86	9,831	1,197.17	1.22	0.70	0.52	0.00
25.00	0.00	1,719	1,195.53	0.30	0.00	0.30	0.00
35.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Stage-Discharge for Pond P3B: Pond 3B

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,195.00	0.00	0.00	0.00	0.00
1,195.10	0.25	0.00	0.25	0.00
1,195.20	0.26	0.00	0.26	0.00
1,195.30	0.27	0.00	0.27	0.00
1,195.40	0.29	0.00	0.29	0.00
1,195.50	0.30	0.00	0.30	0.00
1,195.60	0.31	0.00	0.31	0.00
1,195.70	0.33	0.00	0.33	0.00
1,195.80	0.34	0.00	0.34	0.00
1,195.90	0.35	0.00	0.35	0.00
1,196.00	0.37	0.00	0.37	0.00
1,196.10	0.38	0.00	0.38	0.00
1,196.20	0.40	0.01	0.39	0.00
1,196.30	0.43	0.02	0.41	0.00
1,196.40	0.47	0.05	0.42	0.00
1,196.50	0.52	0.08	0.43	0.00
1,196.60	0.58	0.13	0.45	0.00
1,196.70	0.65	0.19	0.46	0.00
1,196.80	0.74	0.27	0.47	0.00
1,196.90	0.85	0.36	0.49	0.00
1,197.00	0.97	0.47	0.50	0.00
1,197.10	1.11	0.60	0.51	0.00
1,197.20	1.27	0.75	0.53	0.00
1,197.30	1.45	0.91	0.54	0.00
1,197.40	1.65	1.10	0.55	0.00
1,197.50	1.87	1.31	0.57	0.00
1,197.60	2.12	1.54	0.58	0.00
1,197.70	2.38	1.79	0.59	0.00
1,197.80	2.67	2.06	0.61	0.00
1,197.90	2.98	2.36	0.62	0.00
1,198.00	3.32	2.68	0.63	0.00
1,198.10	3.68	3.03	0.65	0.00
1,198.20	4.06	3.41	0.66	0.00
1,198.30	4.48	3.81	0.67	0.00
1,198.40	4.92	4.23	0.69	0.00
1,198.50	5.39	4.69	0.70	0.00
1,198.60	5.88	5.17	0.71	0.00
1,198.70	6.33	5.61	0.73	0.00
1,198.80	6.47	5.74	0.74	0.00
1,198.90	6.61	5.86	0.75	0.00
1,199.00	6.75	5.98	0.77	0.00
1,199.10	8.48	6.10	0.78	1.60
1,199.20	11.60	6.21	0.79	4.60
1,199.30	15.83	6.33	0.81	8.70
1,199.40	21.04	6.44	0.82	13.78
1,199.50	27.47	6.55	0.83	20.08
1,199.60	35.01	6.66	0.85	27.51
1,199.70	42.73	6.76	0.86	35.10
1,199.80	51.17	6.87	0.87	43.42
1,199.90	60.31	6.97	0.89	52.45
1,200.00	70.15	7.07	0.90	62.18

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Stage-Area-Storage for Pond P3B: Pond 3B

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,195.00	2,799	0	1,197.55	6,873	12,332
1,195.05	2,879	142	1,197.60	6,953	12,677
1,195.10	2,959	288	1,197.65	7,033	13,027
1,195.15	3,039	438	1,197.70	7,113	13,381
1,195.20	3,119	592	1,197.75	7,192	13,738
1,195.25	3,198	750	1,197.80	7,272	14,100
1,195.30	3,278	912	1,197.85	7,352	14,465
1,195.35	3,358	1,078	1,197.90	7,432	14,835
1,195.40	3,438	1,247	1,197.95	7,512	15,209
1,195.45	3,518	1,421	1,198.00	7,592	15,586
1,195.50	3,598	1,599	1,198.05	7,672	15,968
1,195.55	3,678	1,781	1,198.10	7,752	16,353
1,195.60	3,758	1,967	1,198.15	7,831	16,743
1,195.65	3,837	2,157	1,198.20	7,911	17,137
1,195.70	3,917	2,351	1,198.25	7,991	17,534
1,195.75	3,997	2,549	1,198.30	8,071	17,936
1,195.80	4,077	2,750	1,198.35	8,151	18,341
1,195.85	4,157	2,956	1,198.40	8,231	18,751
1,195.90	4,237	3,166	1,198.45	8,311	19,164
1,195.95	4,317	3,380	1,198.50	8,391	19,582
1,196.00	4,397	3,598	1,198.55	8,470	20,003
1,196.05	4,476	3,820	1,198.60	8,550	20,429
1,196.10	4,556	4,045	1,198.65	8,630	20,858
1,196.15	4,636	4,275	1,198.70	8,710	21,292
1,196.20	4,716	4,509	1,198.75	8,790	21,729
1,196.25	4,796	4,747	1,198.80	8,870	22,171
1,196.30	4,876	4,989	1,198.85	8,950	22,616
1,196.35	4,956	5,234	1,198.90	9,030	23,066
1,196.40	5,036	5,484	1,198.95	9,110	23,519
1,196.45	5,116	5,738	1,199.00	9,189	23,977
1,196.50	5,195	5,996	1,199.05	9,269	24,438
1,196.55	5,275	6,258	1,199.10	9,349	24,904
1,196.60	5,355	6,523	1,199.15	9,429	25,373
1,196.65	5,435	6,793	1,199.20	9,509	25,847
1,196.70	5,515	7,067	1,199.25	9,589	26,324
1,196.75	5,595	7,345	1,199.30	9,669	26,806
1,196.80	5,675	7,626	1,199.35	9,749	27,291
1,196.85	5,755	7,912	1,199.40	9,828	27,780
1,196.90	5,834	8,202	1,199.45	9,908	28,274
1,196.95	5,914	8,495	1,199.50	9,988	28,771
1,197.00	5,994	8,793	1,199.55	10,068	29,273
1,197.05	6,074	9,095	1,199.60	10,148	29,778
1,197.10	6,154	9,401	1,199.65	10,228	30,287
1,197.15	6,234	9,710	1,199.70	10,308	30,801
1,197.20	6,314	10,024	1,199.75	10,388	31,318
1,197.25	6,394	10,342	1,199.80	10,467	31,840
1,197.30	6,473	10,663	1,199.85	10,547	32,365
1,197.35	6,553	10,989	1,199.90	10,627	32,894
1,197.40	6,633	11,319	1,199.95	10,707	33,428
1,197.45	6,713	11,652	1,200.00	10,787	33,965
1,197.50	6,793	11,990			

Summary for Pond P3C: Pond 3C

Inflow Area = 2.490 ac, 22.89% Impervious, Inflow Depth = 1.89" for 10 YR event
 Inflow = 7.40 cfs @ 12.14 hrs, Volume= 0.393 af
 Outflow = 1.31 cfs @ 12.53 hrs, Volume= 0.393 af, Atten= 82%, Lag= 23.7 min
 Primary = 0.97 cfs @ 12.53 hrs, Volume= 0.132 af
 Routed to Link 4L : Post - North
 Secondary = 0.33 cfs @ 12.53 hrs, Volume= 0.262 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,180.33' @ 12.53 hrs Surf.Area= 4,013 sf Storage= 6,905 cf

Plug-Flow detention time= 125.7 min calculated for 0.393 af (100% of inflow)
 Center-of-Mass det. time= 125.7 min (952.1 - 826.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,178.00'	14,846 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,178.00	1,905	0	0
1,182.00	5,518	14,846	14,846

Device	Routing	Invert	Outlet Devices
#1	Primary	1,179.00'	12.0" Round Culvert L= 30.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,179.00' / 1,175.00' S= 0.1333 ' /' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,179.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,180.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,178.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,181.00'	20.0' long + 4.0 ' /' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.97 cfs @ 12.53 hrs HW=1,180.33' (Free Discharge)

↑ **1=Culvert** (Passes 0.97 cfs of 3.45 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 0.97 cfs @ 3.11 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.33 cfs @ 12.53 hrs HW=1,180.33' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.33 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,178.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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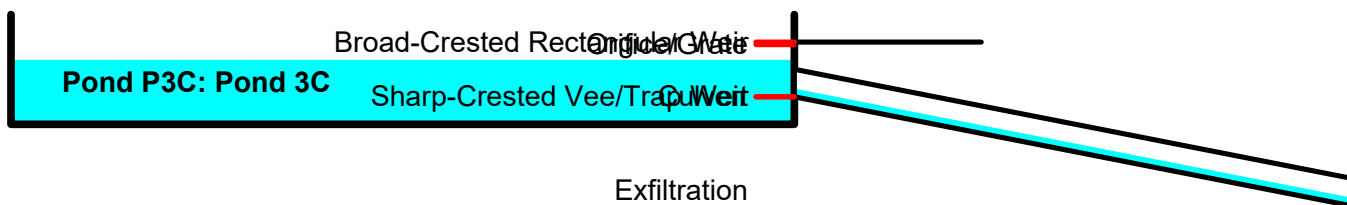
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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

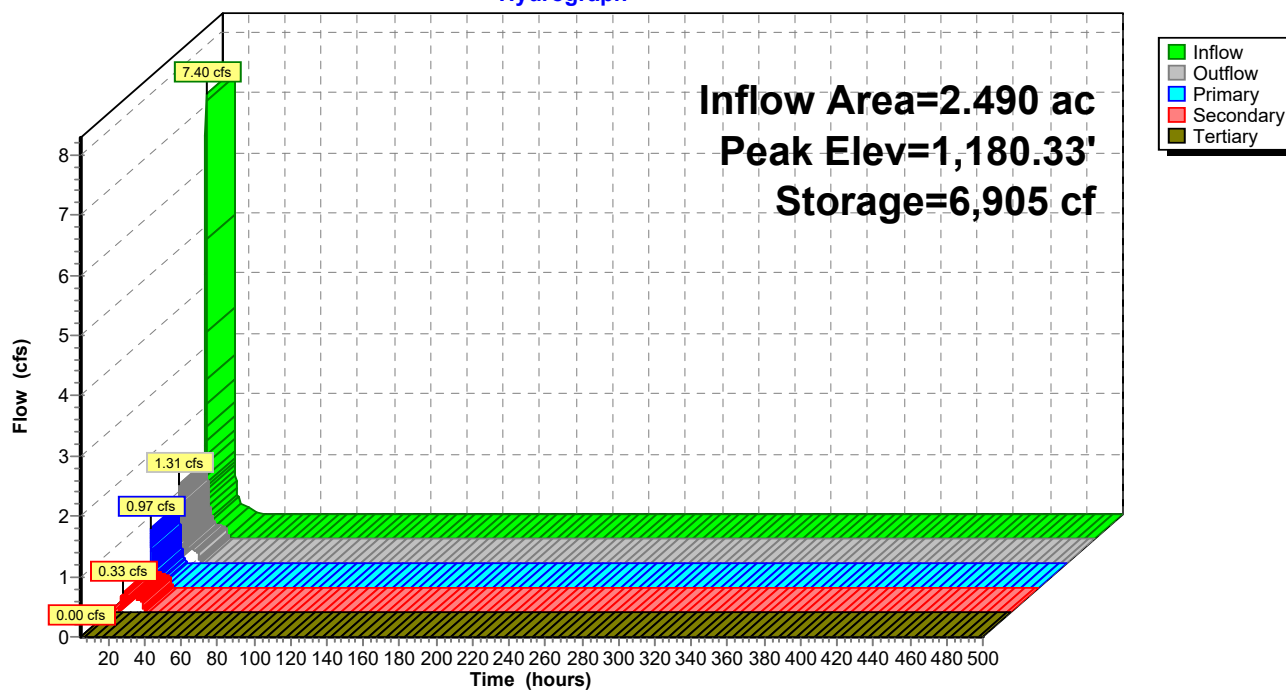
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Pond P3C: Pond 3C

Hydrograph



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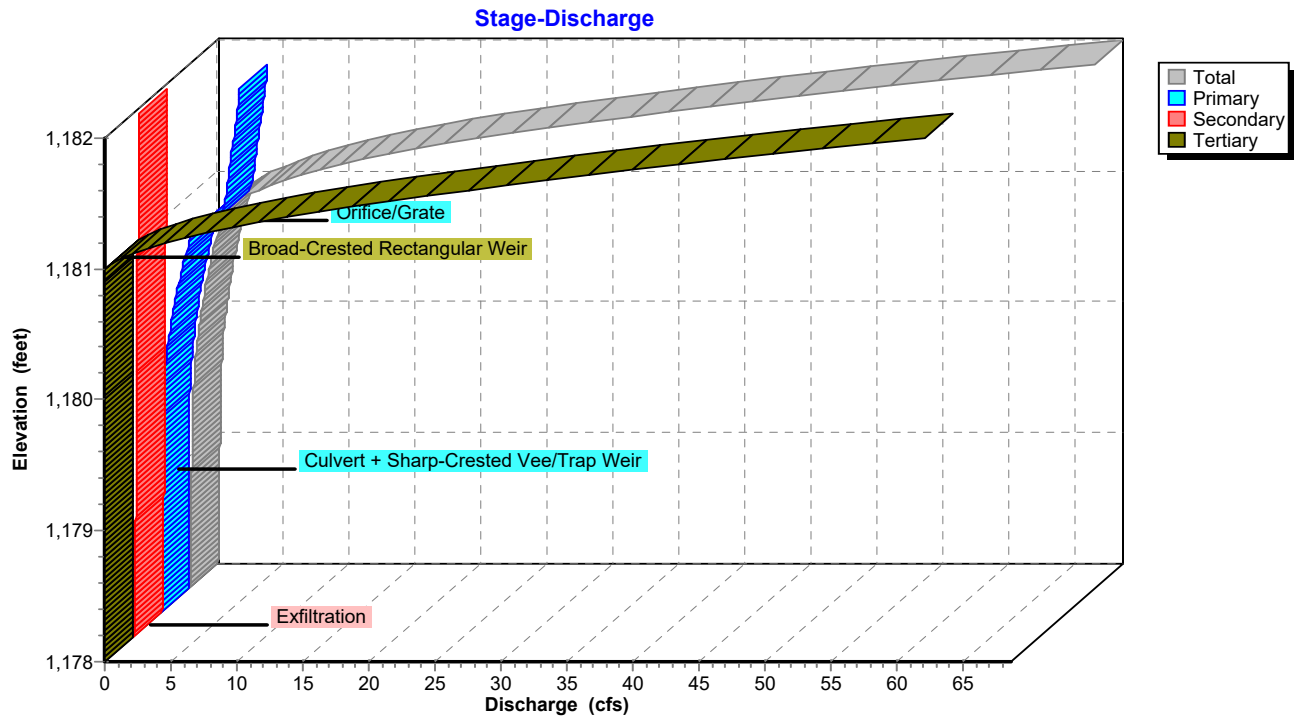
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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

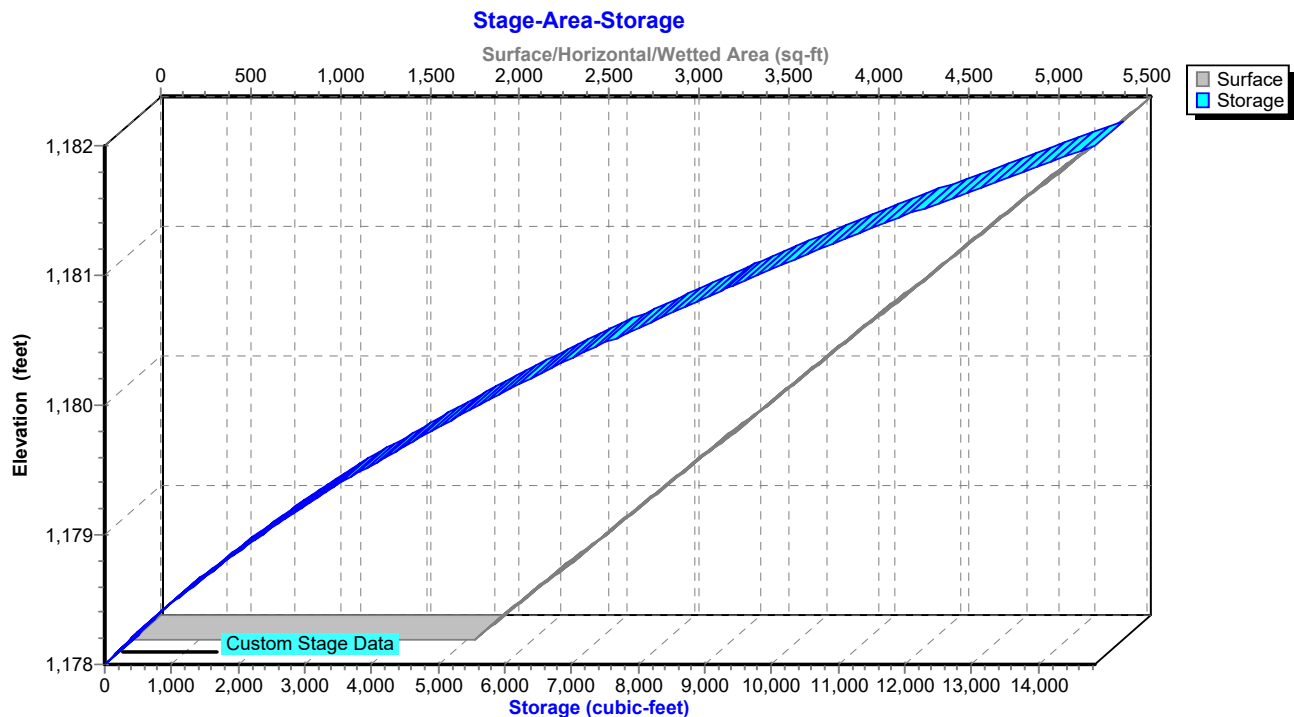
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Pond P3C: Pond 3C



Pond P3C: Pond 3C



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Pond P3C: Pond 3C

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
15.00	0.28	4,320	1,179.63	0.43	0.15	0.28	0.00
25.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
35.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Stage-Discharge for Pond P3C: Pond 3C

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,178.00	0.00	0.00	0.00	0.00
1,178.10	0.17	0.00	0.17	0.00
1,178.20	0.17	0.00	0.17	0.00
1,178.30	0.18	0.00	0.18	0.00
1,178.40	0.19	0.00	0.19	0.00
1,178.50	0.20	0.00	0.20	0.00
1,178.60	0.20	0.00	0.20	0.00
1,178.70	0.21	0.00	0.21	0.00
1,178.80	0.22	0.00	0.22	0.00
1,178.90	0.23	0.00	0.23	0.00
1,179.00	0.23	0.00	0.23	0.00
1,179.10	0.24	0.00	0.24	0.00
1,179.20	0.26	0.01	0.25	0.00
1,179.30	0.28	0.02	0.26	0.00
1,179.40	0.31	0.05	0.26	0.00
1,179.50	0.36	0.08	0.27	0.00
1,179.60	0.41	0.13	0.28	0.00
1,179.70	0.48	0.19	0.29	0.00
1,179.80	0.57	0.27	0.29	0.00
1,179.90	0.67	0.36	0.30	0.00
1,180.00	0.78	0.47	0.31	0.00
1,180.10	0.92	0.60	0.32	0.00
1,180.20	1.07	0.75	0.32	0.00
1,180.30	1.25	0.91	0.33	0.00
1,180.40	1.44	1.10	0.34	0.00
1,180.50	1.65	1.31	0.35	0.00
1,180.60	1.89	1.54	0.35	0.00
1,180.70	2.15	1.79	0.36	0.00
1,180.80	2.43	2.06	0.37	0.00
1,180.90	2.74	2.36	0.38	0.00
1,181.00	4.10	3.72	0.38	0.00
1,181.10	6.78	4.78	0.39	1.60
1,181.20	9.93	4.93	0.40	4.60
1,181.30	14.18	5.07	0.41	8.70
1,181.40	19.41	5.21	0.41	13.78
1,181.50	25.85	5.35	0.42	20.08
1,181.60	33.42	5.48	0.43	27.51
1,181.70	41.15	5.61	0.44	35.10
1,181.80	49.60	5.74	0.44	43.42
1,181.90	58.76	5.86	0.45	52.45
1,182.00	68.62	5.98	0.46	62.18

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Stage-Area-Storage for Pond P3C: Pond 3C

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,178.00	1,905	0	1,180.55	4,208	7,794
1,178.05	1,950	96	1,180.60	4,253	8,006
1,178.10	1,995	195	1,180.65	4,299	8,220
1,178.15	2,040	296	1,180.70	4,344	8,436
1,178.20	2,086	399	1,180.75	4,389	8,654
1,178.25	2,131	504	1,180.80	4,434	8,875
1,178.30	2,176	612	1,180.85	4,479	9,098
1,178.35	2,221	722	1,180.90	4,524	9,323
1,178.40	2,266	834	1,180.95	4,570	9,550
1,178.45	2,311	949	1,181.00	4,615	9,780
1,178.50	2,357	1,065	1,181.05	4,660	10,011
1,178.55	2,402	1,184	1,181.10	4,705	10,246
1,178.60	2,447	1,306	1,181.15	4,750	10,482
1,178.65	2,492	1,429	1,181.20	4,795	10,721
1,178.70	2,537	1,555	1,181.25	4,841	10,962
1,178.75	2,582	1,683	1,181.30	4,886	11,205
1,178.80	2,628	1,813	1,181.35	4,931	11,450
1,178.85	2,673	1,946	1,181.40	4,976	11,698
1,178.90	2,718	2,080	1,181.45	5,021	11,948
1,178.95	2,763	2,217	1,181.50	5,066	12,200
1,179.00	2,808	2,357	1,181.55	5,112	12,454
1,179.05	2,853	2,498	1,181.60	5,157	12,711
1,179.10	2,899	2,642	1,181.65	5,202	12,970
1,179.15	2,944	2,788	1,181.70	5,247	13,231
1,179.20	2,989	2,936	1,181.75	5,292	13,495
1,179.25	3,034	3,087	1,181.80	5,337	13,760
1,179.30	3,079	3,240	1,181.85	5,383	14,028
1,179.35	3,124	3,395	1,181.90	5,428	14,299
1,179.40	3,170	3,552	1,181.95	5,473	14,571
1,179.45	3,215	3,712	1,182.00	5,518	14,846
1,179.50	3,260	3,874			
1,179.55	3,305	4,038			
1,179.60	3,350	4,204			
1,179.65	3,395	4,373			
1,179.70	3,441	4,544			
1,179.75	3,486	4,717			
1,179.80	3,531	4,892			
1,179.85	3,576	5,070			
1,179.90	3,621	5,250			
1,179.95	3,666	5,432			
1,180.00	3,712	5,617			
1,180.05	3,757	5,803			
1,180.10	3,802	5,992			
1,180.15	3,847	6,183			
1,180.20	3,892	6,377			
1,180.25	3,937	6,573			
1,180.30	3,982	6,771			
1,180.35	4,028	6,971			
1,180.40	4,073	7,173			
1,180.45	4,118	7,378			
1,180.50	4,163	7,585			

Summary for Pond P3D: Pond 3D

Inflow Area = 2.380 ac, 23.95% Impervious, Inflow Depth = 1.97" for 10 YR event
 Inflow = 7.36 cfs @ 12.13 hrs, Volume= 0.391 af
 Outflow = 3.16 cfs @ 12.27 hrs, Volume= 0.391 af, Atten= 57%, Lag= 8.1 min
 Primary = 2.94 cfs @ 12.27 hrs, Volume= 0.230 af
 Routed to Link 4L : Post - North
 Secondary = 0.22 cfs @ 12.27 hrs, Volume= 0.161 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,190.07' @ 12.27 hrs Surf.Area= 2,687 sf Storage= 5,269 cf

Plug-Flow detention time= 80.4 min calculated for 0.391 af (100% of inflow)
 Center-of-Mass det. time= 80.4 min (904.6 - 824.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,187.00'	11,620 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,187.00	741	0	0
1,192.00	3,907	11,620	11,620

Device	Routing	Invert	Outlet Devices
#1	Primary	1,188.00'	12.0" Round Culvert L= 35.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,188.00' / 1,184.00' S= 0.1143 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,188.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,190.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600
#4	Secondary	1,187.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,191.00'	20.0' long + 4.0 ' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=2.90 cfs @ 12.27 hrs HW=1,190.06' (Free Discharge)

↑ **1=Culvert** (Passes 2.90 cfs of 4.73 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 2.90 cfs @ 3.86 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.22 cfs @ 12.27 hrs HW=1,190.06' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.22 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,187.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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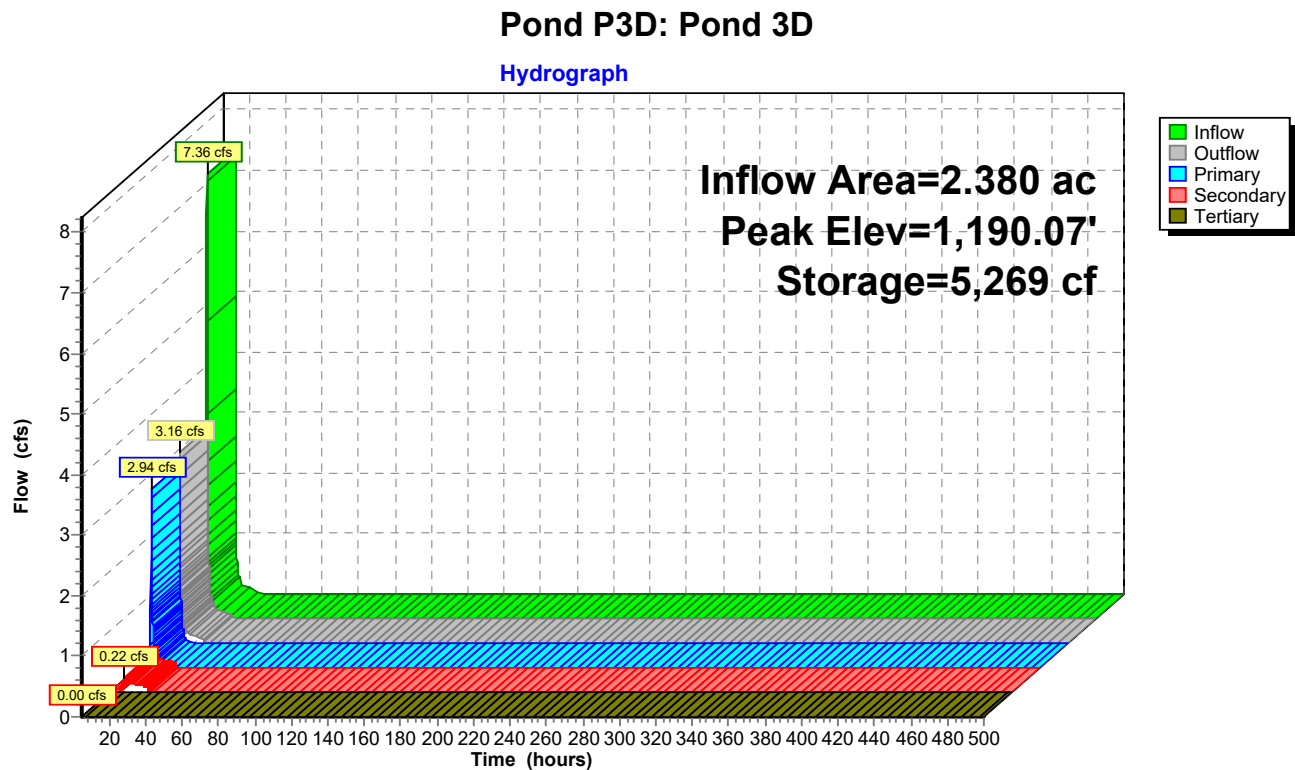
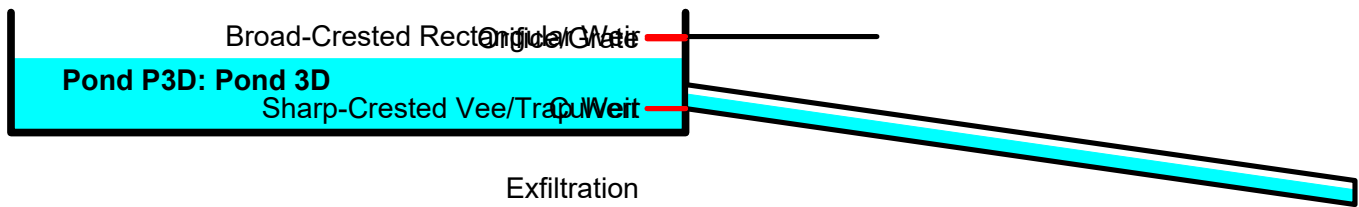
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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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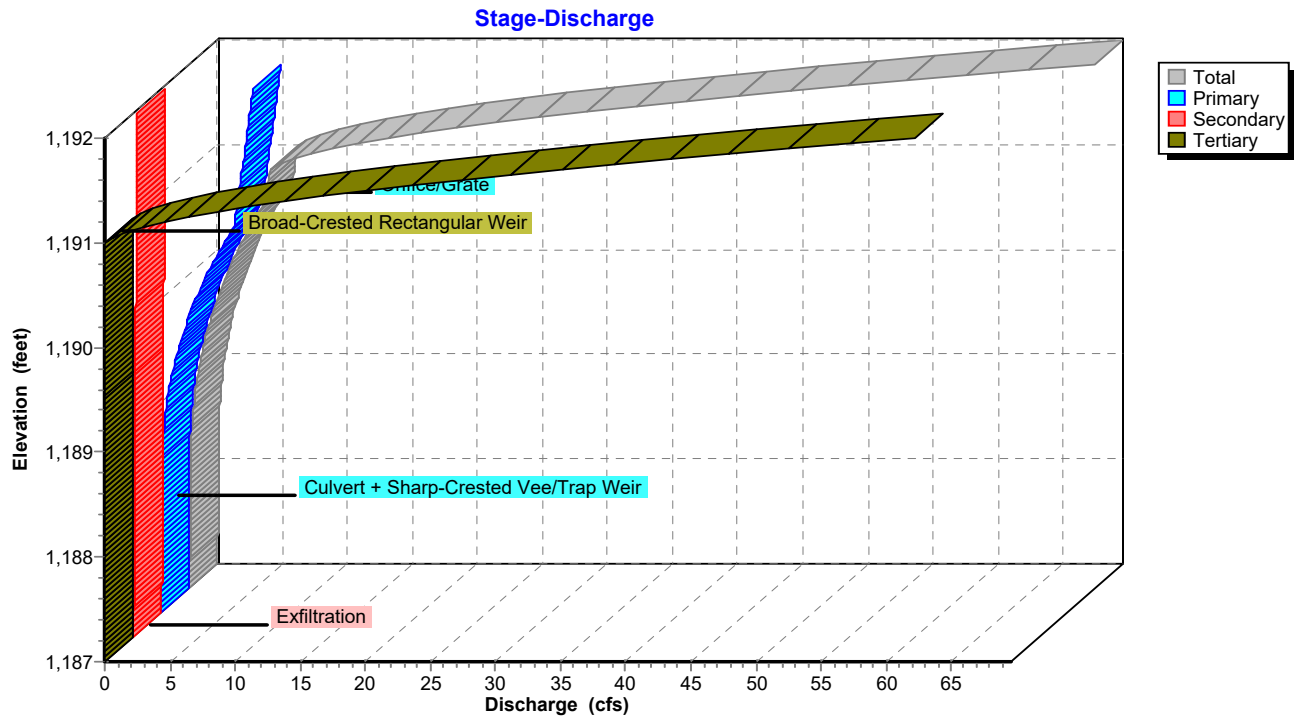
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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

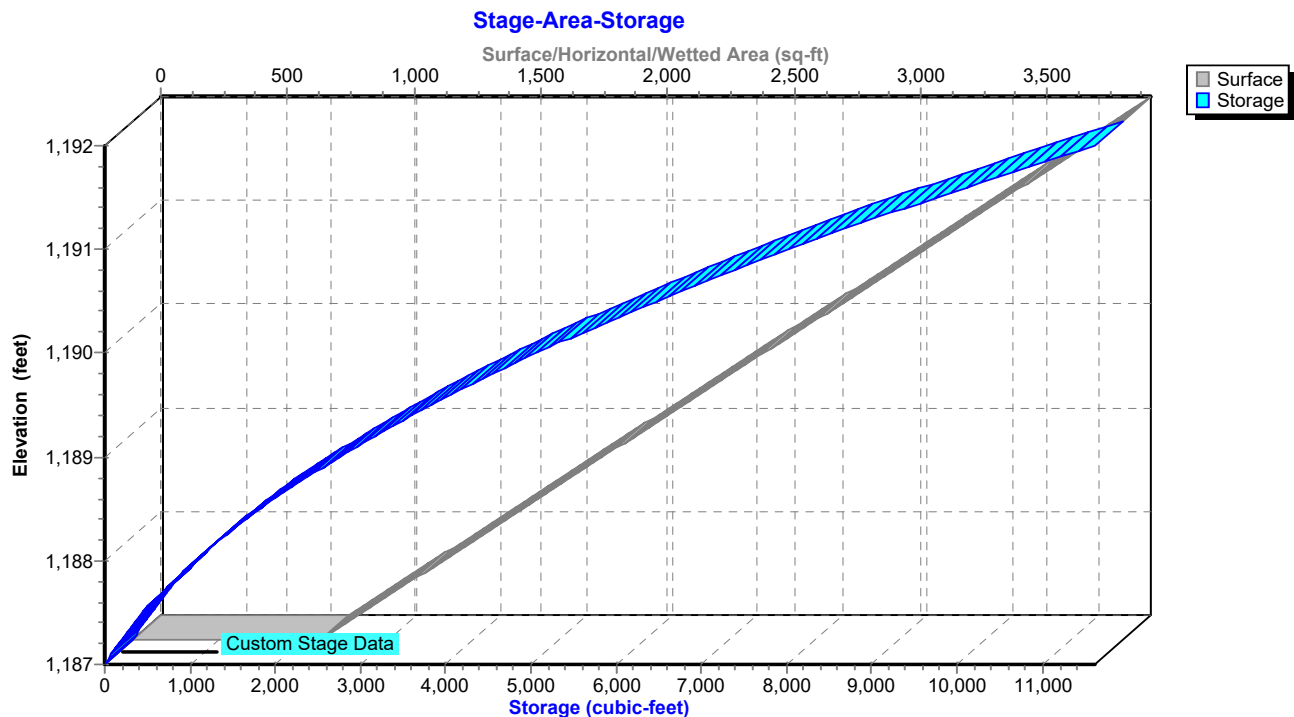
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Pond P3D: Pond 3D



Pond P3D: Pond 3D



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Pond P3D: Pond 3D

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
15.00	0.27	2,118	1,188.67	0.32	0.17	0.15	0.00
25.00	0.00	336	1,187.39	0.08	0.00	0.08	0.00
35.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00

Stage-Discharge for Pond P3D: Pond 3D

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,187.00	0.00	0.00	0.00	0.00
1,187.10	0.07	0.00	0.07	0.00
1,187.20	0.07	0.00	0.07	0.00
1,187.30	0.08	0.00	0.08	0.00
1,187.40	0.08	0.00	0.08	0.00
1,187.50	0.09	0.00	0.09	0.00
1,187.60	0.09	0.00	0.09	0.00
1,187.70	0.10	0.00	0.10	0.00
1,187.80	0.10	0.00	0.10	0.00
1,187.90	0.11	0.00	0.11	0.00
1,188.00	0.11	0.00	0.11	0.00
1,188.10	0.12	0.00	0.12	0.00
1,188.20	0.13	0.01	0.13	0.00
1,188.30	0.15	0.02	0.13	0.00
1,188.40	0.18	0.05	0.14	0.00
1,188.50	0.22	0.08	0.14	0.00
1,188.60	0.28	0.13	0.15	0.00
1,188.70	0.35	0.19	0.15	0.00
1,188.80	0.43	0.27	0.16	0.00
1,188.90	0.53	0.36	0.16	0.00
1,189.00	0.64	0.47	0.17	0.00
1,189.10	0.77	0.60	0.17	0.00
1,189.20	0.93	0.75	0.18	0.00
1,189.30	1.10	0.91	0.18	0.00
1,189.40	1.29	1.10	0.19	0.00
1,189.50	1.50	1.31	0.19	0.00
1,189.60	1.73	1.54	0.20	0.00
1,189.70	1.99	1.79	0.20	0.00
1,189.80	2.27	2.06	0.21	0.00
1,189.90	2.58	2.36	0.21	0.00
1,190.00	2.90	2.68	0.22	0.00
1,190.10	3.26	3.03	0.23	0.00
1,190.20	3.64	3.41	0.23	0.00
1,190.30	4.04	3.81	0.24	0.00
1,190.40	4.47	4.23	0.24	0.00
1,190.50	4.93	4.69	0.25	0.00
1,190.60	5.42	5.17	0.25	0.00
1,190.70	5.87	5.61	0.26	0.00
1,190.80	6.00	5.74	0.26	0.00
1,190.90	6.13	5.86	0.27	0.00
1,191.00	6.25	5.98	0.27	0.00
1,191.10	7.98	6.10	0.28	1.60
1,191.20	11.09	6.21	0.28	4.60
1,191.30	15.31	6.33	0.29	8.70
1,191.40	20.52	6.44	0.29	13.78
1,191.50	26.93	6.55	0.30	20.08
1,191.60	34.47	6.66	0.30	27.51
1,191.70	42.18	6.76	0.31	35.10
1,191.80	50.61	6.87	0.32	43.42
1,191.90	59.75	6.97	0.32	52.45
1,192.00	69.58	7.07	0.33	62.18

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Stage-Area-Storage for Pond P3D: Pond 3D

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,187.00	741	0	1,189.55	2,356	3,948
1,187.05	773	38	1,189.60	2,387	4,067
1,187.10	804	77	1,189.65	2,419	4,187
1,187.15	836	118	1,189.70	2,451	4,309
1,187.20	868	161	1,189.75	2,482	4,432
1,187.25	899	205	1,189.80	2,514	4,557
1,187.30	931	251	1,189.85	2,546	4,683
1,187.35	963	298	1,189.90	2,577	4,812
1,187.40	994	347	1,189.95	2,609	4,941
1,187.45	1,026	398	1,190.00	2,641	5,072
1,187.50	1,058	450	1,190.05	2,672	5,205
1,187.55	1,089	503	1,190.10	2,704	5,340
1,187.60	1,121	559	1,190.15	2,736	5,476
1,187.65	1,153	615	1,190.20	2,767	5,613
1,187.70	1,184	674	1,190.25	2,799	5,752
1,187.75	1,216	734	1,190.30	2,831	5,893
1,187.80	1,248	795	1,190.35	2,862	6,035
1,187.85	1,279	859	1,190.40	2,894	6,179
1,187.90	1,311	923	1,190.45	2,926	6,325
1,187.95	1,343	990	1,190.50	2,957	6,472
1,188.00	1,374	1,058	1,190.55	2,989	6,621
1,188.05	1,406	1,127	1,190.60	3,021	6,771
1,188.10	1,438	1,198	1,190.65	3,052	6,923
1,188.15	1,469	1,271	1,190.70	3,084	7,076
1,188.20	1,501	1,345	1,190.75	3,116	7,231
1,188.25	1,533	1,421	1,190.80	3,147	7,388
1,188.30	1,564	1,498	1,190.85	3,179	7,546
1,188.35	1,596	1,577	1,190.90	3,210	7,705
1,188.40	1,627	1,658	1,190.95	3,242	7,867
1,188.45	1,659	1,740	1,191.00	3,274	8,030
1,188.50	1,691	1,824	1,191.05	3,305	8,194
1,188.55	1,722	1,909	1,191.10	3,337	8,360
1,188.60	1,754	1,996	1,191.15	3,369	8,528
1,188.65	1,786	2,085	1,191.20	3,400	8,697
1,188.70	1,817	2,175	1,191.25	3,432	8,868
1,188.75	1,849	2,266	1,191.30	3,464	9,040
1,188.80	1,881	2,360	1,191.35	3,495	9,214
1,188.85	1,912	2,454	1,191.40	3,527	9,390
1,188.90	1,944	2,551	1,191.45	3,559	9,567
1,188.95	1,976	2,649	1,191.50	3,590	9,746
1,189.00	2,007	2,748	1,191.55	3,622	9,926
1,189.05	2,039	2,850	1,191.60	3,654	10,108
1,189.10	2,071	2,952	1,191.65	3,685	10,291
1,189.15	2,102	3,057	1,191.70	3,717	10,476
1,189.20	2,134	3,163	1,191.75	3,749	10,663
1,189.25	2,166	3,270	1,191.80	3,780	10,851
1,189.30	2,197	3,379	1,191.85	3,812	11,041
1,189.35	2,229	3,490	1,191.90	3,844	11,232
1,189.40	2,261	3,602	1,191.95	3,875	11,425
1,189.45	2,292	3,716	1,192.00	3,907	11,620
1,189.50	2,324	3,831			

Summary for Pond P3E: Pond 3E

Inflow Area = 2.780 ac, 19.06% Impervious, Inflow Depth = 1.82" for 10 YR event
 Inflow = 7.93 cfs @ 12.14 hrs, Volume= 0.422 af
 Outflow = 1.23 cfs @ 12.58 hrs, Volume= 0.422 af, Atten= 84%, Lag= 26.6 min
 Primary = 0.89 cfs @ 12.58 hrs, Volume= 0.130 af
 Routed to Link 4L : Post - North
 Secondary = 0.34 cfs @ 12.58 hrs, Volume= 0.291 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,218.29' @ 12.58 hrs Surf.Area= 4,091 sf Storage= 7,552 cf

Plug-Flow detention time= 137.2 min calculated for 0.422 af (100% of inflow)
 Center-of-Mass det. time= 137.2 min (966.0 - 828.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,216.00'	15,578 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,216.00	2,517	0	0
1,220.00	5,272	15,578	15,578

Device	Routing	Invert	Outlet Devices
#1	Primary	1,217.00'	12.0" Round Culvert L= 32.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,217.00' / 1,213.00' S= 0.1250 ' / Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,217.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,218.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600
#4	Secondary	1,216.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,219.00'	20.0' long + 4.0 ' / SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.89 cfs @ 12.58 hrs HW=1,218.28' (Free Discharge)

↑ **1=Culvert** (Passes 0.89 cfs of 3.35 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 0.89 cfs @ 3.05 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.34 cfs @ 12.58 hrs HW=1,218.28' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.34 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,216.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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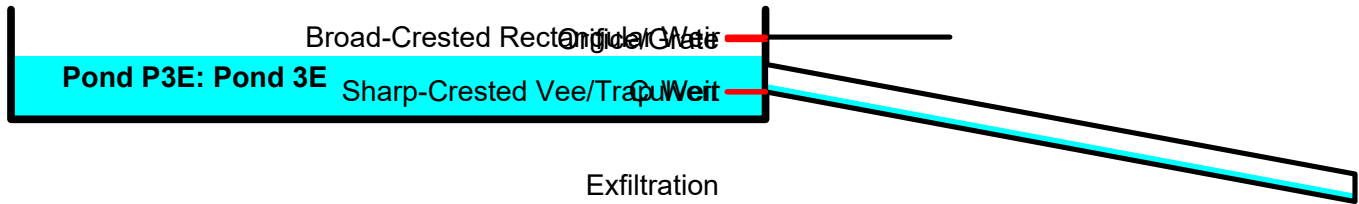
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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

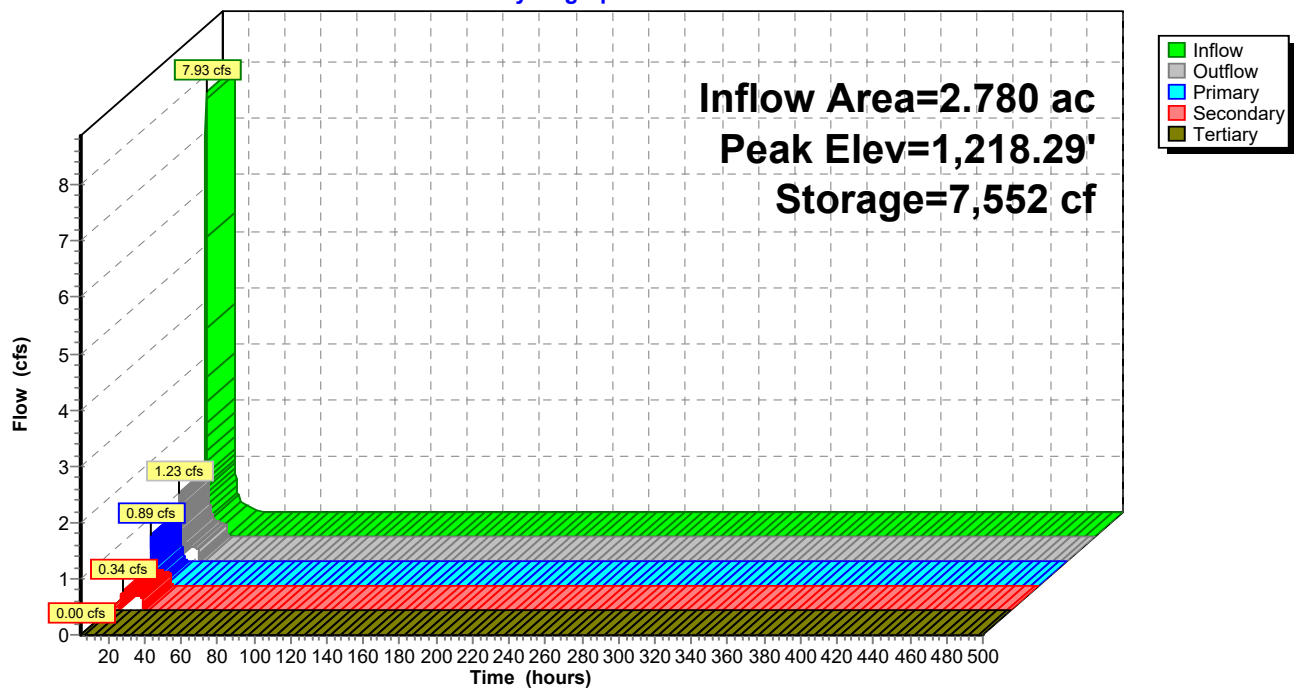
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Pond P3E: Pond 3E

Hydrograph



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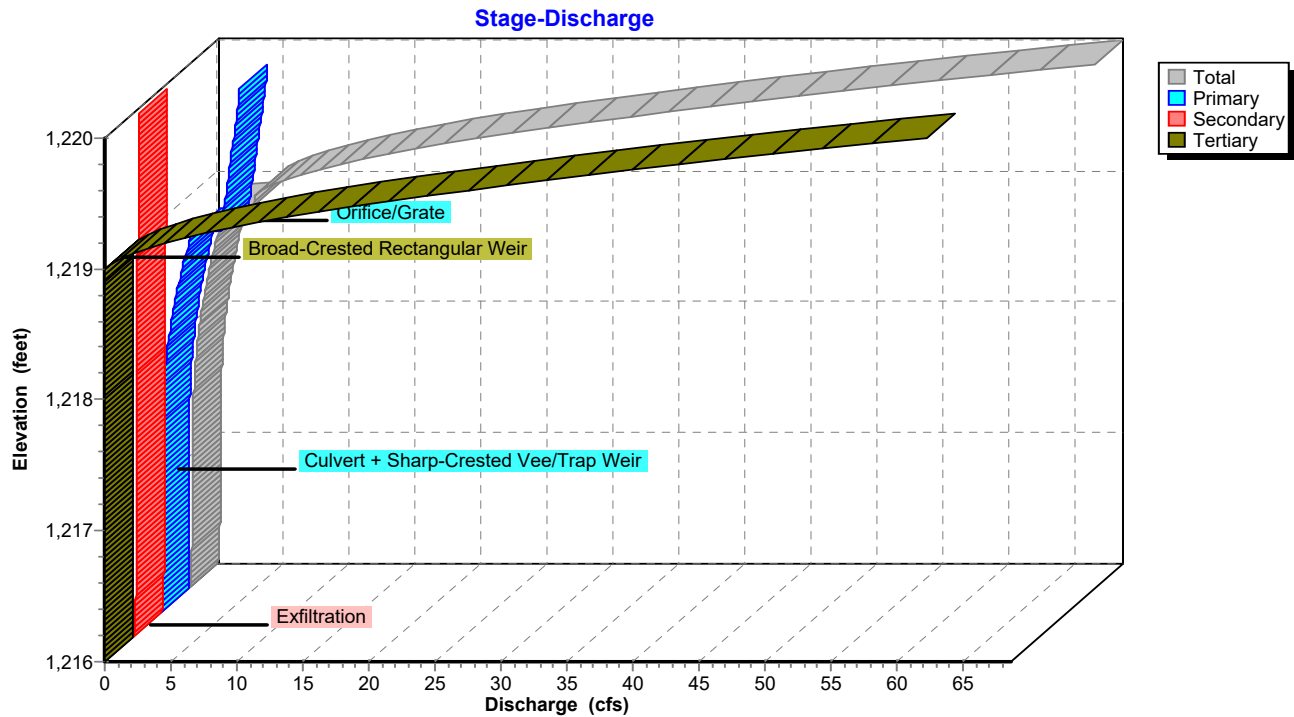
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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

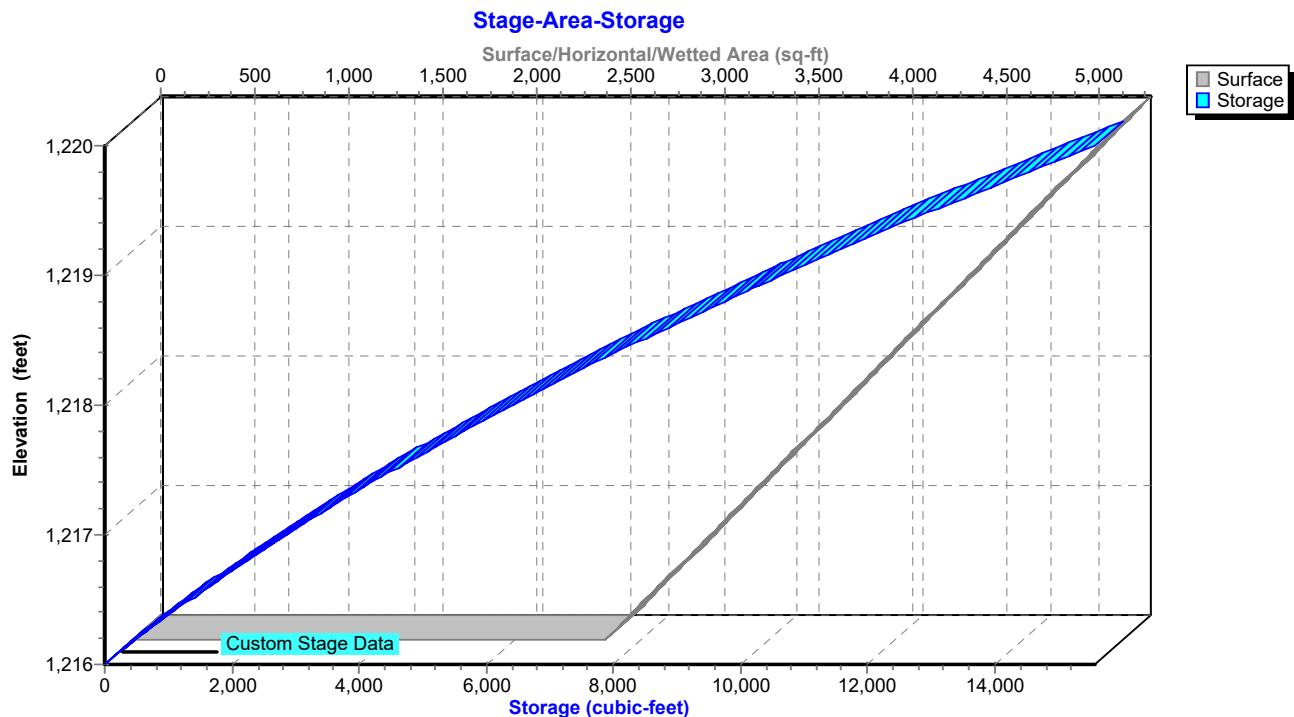
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Pond P3E: Pond 3E



Pond P3E: Pond 3E



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Pond P3E: Pond 3E

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
15.00	0.30	5,124	1,217.66	0.47	0.17	0.30	0.00
25.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
35.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00

Stage-Discharge for Pond P3E: Pond 3E

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,216.00	0.00	0.00	0.00	0.00
1,216.10	0.22	0.00	0.22	0.00
1,216.20	0.22	0.00	0.22	0.00
1,216.30	0.23	0.00	0.23	0.00
1,216.40	0.23	0.00	0.23	0.00
1,216.50	0.24	0.00	0.24	0.00
1,216.60	0.24	0.00	0.24	0.00
1,216.70	0.25	0.00	0.25	0.00
1,216.80	0.26	0.00	0.26	0.00
1,216.90	0.26	0.00	0.26	0.00
1,217.00	0.27	0.00	0.27	0.00
1,217.10	0.27	0.00	0.27	0.00
1,217.20	0.29	0.01	0.28	0.00
1,217.30	0.31	0.02	0.28	0.00
1,217.40	0.34	0.05	0.29	0.00
1,217.50	0.38	0.08	0.30	0.00
1,217.60	0.43	0.13	0.30	0.00
1,217.70	0.50	0.19	0.31	0.00
1,217.80	0.58	0.27	0.31	0.00
1,217.90	0.68	0.36	0.32	0.00
1,218.00	0.80	0.47	0.32	0.00
1,218.10	0.93	0.60	0.33	0.00
1,218.20	1.08	0.75	0.34	0.00
1,218.30	1.26	0.91	0.34	0.00
1,218.40	1.45	1.10	0.35	0.00
1,218.50	1.66	1.31	0.35	0.00
1,218.60	1.89	1.54	0.36	0.00
1,218.70	2.15	1.79	0.36	0.00
1,218.80	2.43	2.06	0.37	0.00
1,218.90	2.74	2.36	0.38	0.00
1,219.00	5.01	4.63	0.38	0.00
1,219.10	6.77	4.78	0.39	1.60
1,219.20	9.92	4.93	0.39	4.60
1,219.30	14.17	5.07	0.40	8.70
1,219.40	19.40	5.21	0.40	13.78
1,219.50	25.84	5.35	0.41	20.08
1,219.60	33.40	5.48	0.42	27.51
1,219.70	41.13	5.61	0.42	35.10
1,219.80	49.59	5.74	0.43	43.42
1,219.90	58.74	5.86	0.43	52.45
1,220.00	68.59	5.98	0.44	62.18

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Stage-Area-Storage for Pond P3E: Pond 3E

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,216.00	2,517	0	1,218.55	4,273	8,658
1,216.05	2,551	127	1,218.60	4,308	8,872
1,216.10	2,586	255	1,218.65	4,342	9,088
1,216.15	2,620	385	1,218.70	4,377	9,306
1,216.20	2,655	517	1,218.75	4,411	9,526
1,216.25	2,689	651	1,218.80	4,445	9,747
1,216.30	2,724	786	1,218.85	4,480	9,971
1,216.35	2,758	923	1,218.90	4,514	10,195
1,216.40	2,793	1,062	1,218.95	4,549	10,422
1,216.45	2,827	1,202	1,219.00	4,583	10,650
1,216.50	2,861	1,345	1,219.05	4,618	10,880
1,216.55	2,896	1,489	1,219.10	4,652	11,112
1,216.60	2,930	1,634	1,219.15	4,687	11,346
1,216.65	2,965	1,782	1,219.20	4,721	11,581
1,216.70	2,999	1,931	1,219.25	4,755	11,818
1,216.75	3,034	2,081	1,219.30	4,790	12,056
1,216.80	3,068	2,234	1,219.35	4,824	12,297
1,216.85	3,102	2,388	1,219.40	4,859	12,539
1,216.90	3,137	2,544	1,219.45	4,893	12,783
1,216.95	3,171	2,702	1,219.50	4,928	13,028
1,217.00	3,206	2,861	1,219.55	4,962	13,275
1,217.05	3,240	3,023	1,219.60	4,996	13,524
1,217.10	3,275	3,185	1,219.65	5,031	13,775
1,217.15	3,309	3,350	1,219.70	5,065	14,027
1,217.20	3,344	3,516	1,219.75	5,100	14,282
1,217.25	3,378	3,684	1,219.80	5,134	14,537
1,217.30	3,412	3,854	1,219.85	5,169	14,795
1,217.35	3,447	4,026	1,219.90	5,203	15,054
1,217.40	3,481	4,199	1,219.95	5,238	15,315
1,217.45	3,516	4,374	1,220.00	5,272	15,578
1,217.50	3,550	4,550			
1,217.55	3,585	4,729			
1,217.60	3,619	4,909			
1,217.65	3,653	5,091			
1,217.70	3,688	5,274			
1,217.75	3,722	5,459			
1,217.80	3,757	5,646			
1,217.85	3,791	5,835			
1,217.90	3,826	6,025			
1,217.95	3,860	6,218			
1,218.00	3,895	6,412			
1,218.05	3,929	6,607			
1,218.10	3,963	6,804			
1,218.15	3,998	7,003			
1,218.20	4,032	7,204			
1,218.25	4,067	7,407			
1,218.30	4,101	7,611			
1,218.35	4,136	7,817			
1,218.40	4,170	8,024			
1,218.45	4,204	8,234			
1,218.50	4,239	8,445			

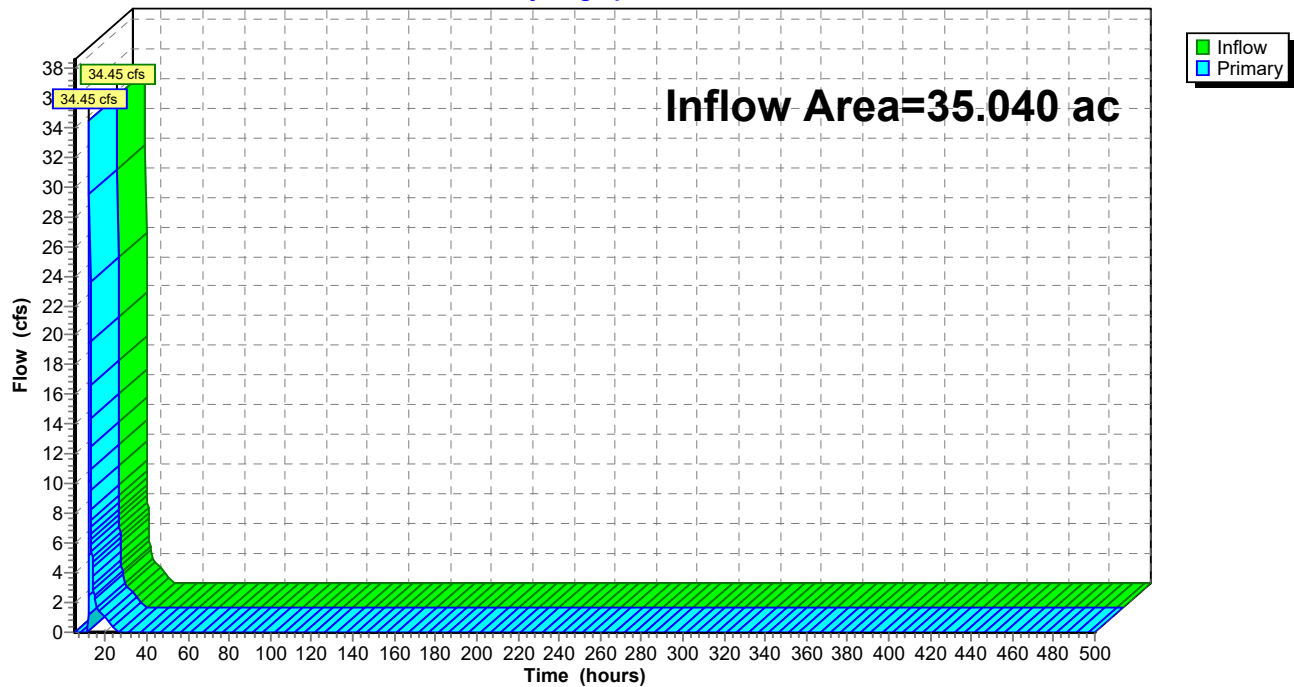
Summary for Link 1L: Total Pre - Development

Inflow Area = 35.040 ac, 0.00% Impervious, Inflow Depth = 0.86" for 10 YR event
Inflow = 34.45 cfs @ 12.20 hrs, Volume= 2.507 af
Primary = 34.45 cfs @ 12.20 hrs, Volume= 2.507 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 1L: Total Pre - Development

Hydrograph



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Link 1L: Total Pre - Development

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	265.00	0.00	0.00	0.00
15.00	2.40	0.00	2.40	270.00	0.00	0.00	0.00
20.00	0.94	0.00	0.94	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

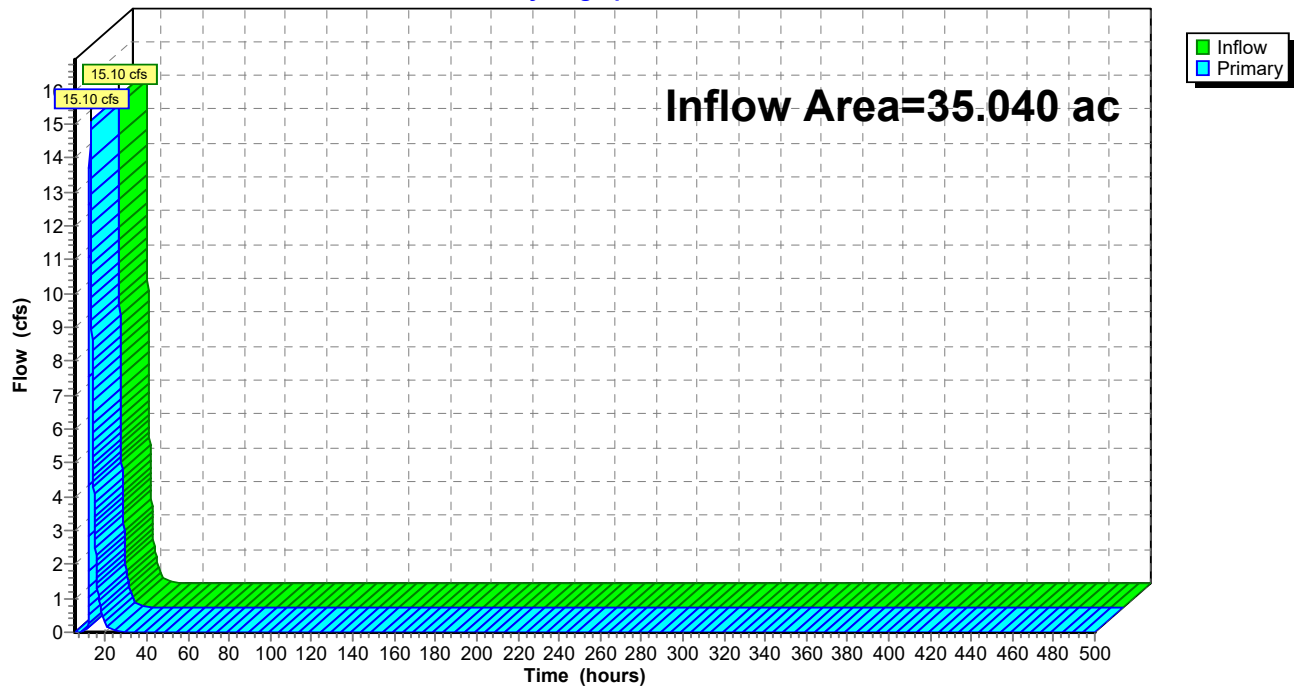
Summary for Link 2L: Total Post - Development

Inflow Area = 35.040 ac, 19.66% Impervious, Inflow Depth = 0.81" for 10 YR event
Inflow = 15.10 cfs @ 12.42 hrs, Volume= 2.364 af
Primary = 15.10 cfs @ 12.42 hrs, Volume= 2.364 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 2L: Total Post - Development

Hydrograph



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Link 2L: Total Post - Development

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.03	0.00	0.03	265.00	0.00	0.00	0.00
15.00	2.72	0.00	2.72	270.00	0.00	0.00	0.00
20.00	0.22	0.00	0.22	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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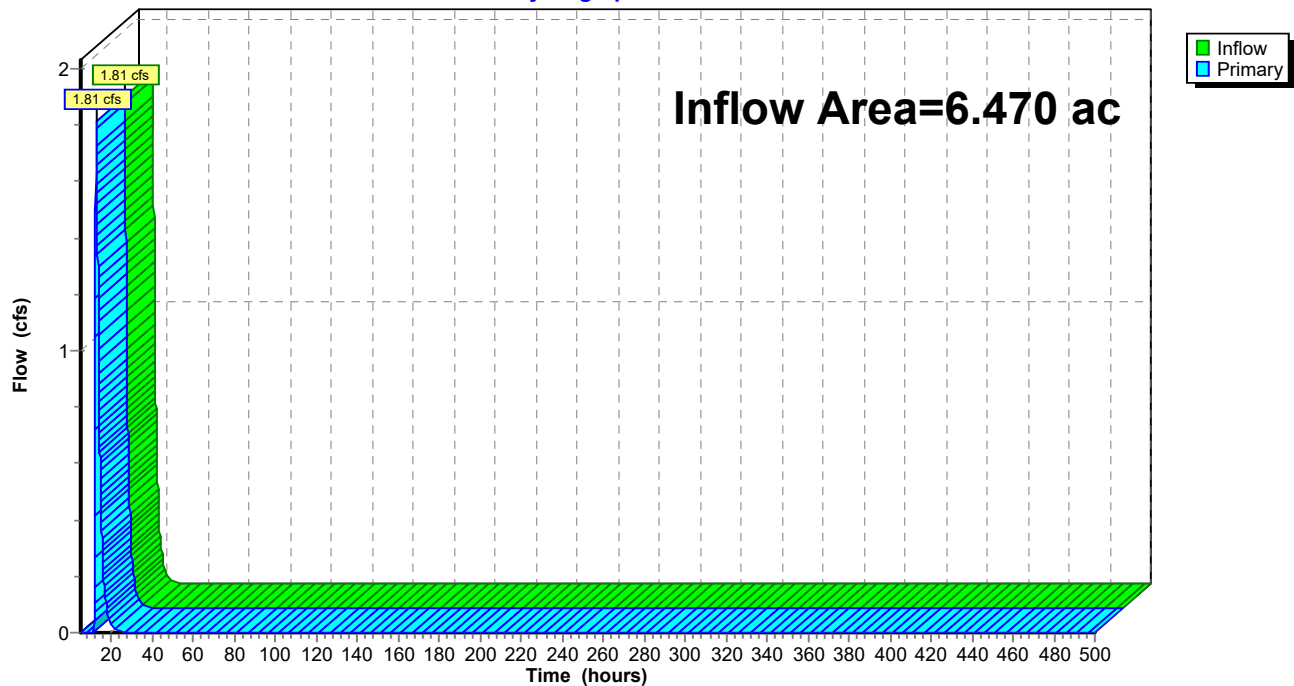
Summary for Link 3L: Post - South

Inflow Area = 6.470 ac, 18.70% Impervious, Inflow Depth = 0.59" for 10 YR event
Inflow = 1.81 cfs @ 12.54 hrs, Volume= 0.320 af
Primary = 1.81 cfs @ 12.54 hrs, Volume= 0.320 af, Atten= 0%, Lag= 0.0 min
Routed to Link 2L : Total Post - Development

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 3L: Post - South

Hydrograph



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Link 3L: Post - South

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	265.00	0.00	0.00	0.00
15.00	0.43	0.00	0.43	270.00	0.00	0.00	0.00
20.00	0.02	0.00	0.02	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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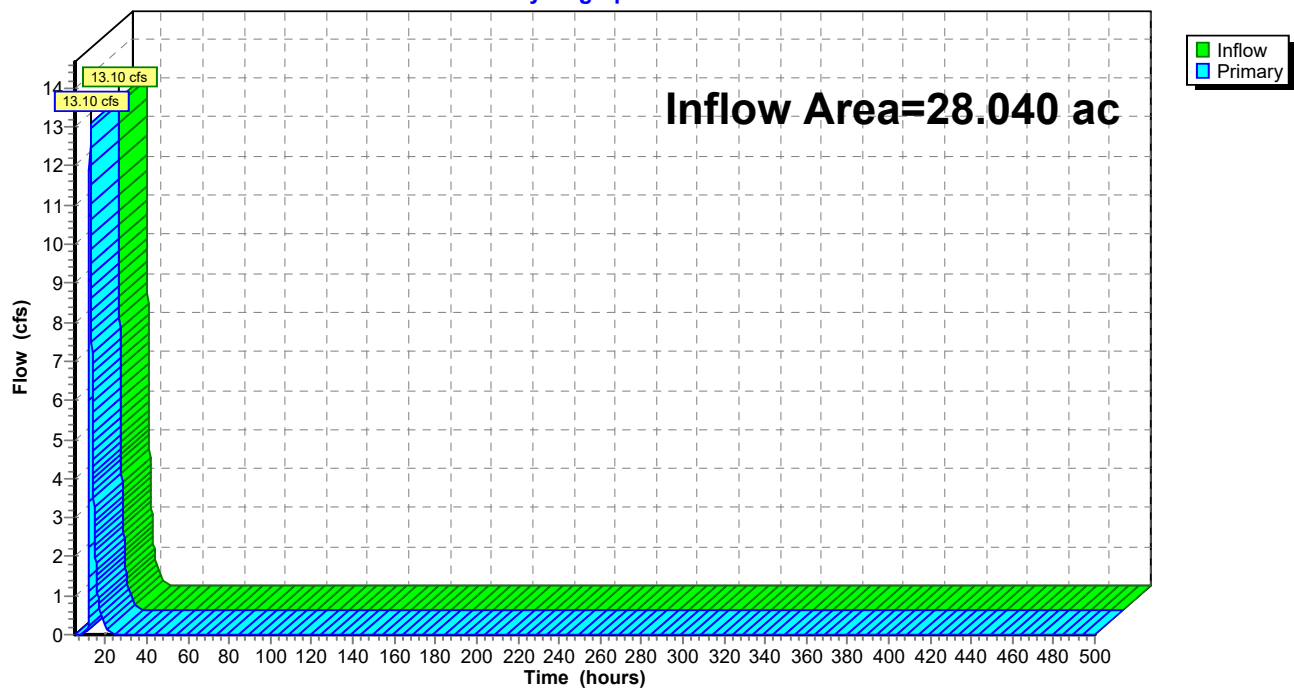
Summary for Link 4L: Post - North

Inflow Area = 28.040 ac, 20.04% Impervious, Inflow Depth = 0.85" for 10 YR event
Inflow = 13.10 cfs @ 12.41 hrs, Volume= 1.991 af
Primary = 13.10 cfs @ 12.41 hrs, Volume= 1.991 af, Atten= 0%, Lag= 0.0 min
Routed to Link 2L : Total Post - Development

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 4L: Post - North

Hydrograph



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Featherstone Rise
MSE 24-hr 4 10 YR Rainfall=4.30"

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Hydrograph for Link 4L: Post - North

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.03	0.00	0.03	265.00	0.00	0.00	0.00
15.00	2.25	0.00	2.25	270.00	0.00	0.00	0.00
20.00	0.19	0.00	0.19	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Time span=5.00-500.00 hrs, dt=0.05 hrs, 9901 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1: Pre - South	Runoff Area=4.910 ac 0.00% Impervious Runoff Depth=0.93" Tc=10.0 min CN=55 Runoff=5.15 cfs 0.381 af
Subcatchment1A: Post 1A	Runoff Area=6.030 ac 19.24% Impervious Runoff Depth=1.81" Tc=6.0 min CN=68 Runoff=16.99 cfs 0.909 af
Subcatchment1B: Post 1B - Offsite	Runoff Area=0.440 ac 11.36% Impervious Runoff Depth=1.59" Tc=6.0 min CN=65 Runoff=1.08 cfs 0.058 af
Subcatchment2: Pre - West	Runoff Area=2.540 ac 0.00% Impervious Runoff Depth=0.93" Tc=6.0 min CN=55 Runoff=3.24 cfs 0.197 af
Subcatchment2A: Post 2A - Offsite	Runoff Area=0.530 ac 11.32% Impervious Runoff Depth=1.59" Tc=6.0 min CN=65 Runoff=1.30 cfs 0.070 af
Subcatchment3: Pre - North	Runoff Area=27.590 ac 0.00% Impervious Runoff Depth=1.24" Tc=10.0 min CN=60 Runoff=42.44 cfs 2.858 af
Subcatchment3A: Post 3A	Runoff Area=10.600 ac 18.58% Impervious Runoff Depth=1.96" Tc=6.0 min CN=70 Runoff=32.55 cfs 1.734 af
Subcatchment3B: Post 3B	Runoff Area=8.450 ac 19.88% Impervious Runoff Depth=2.04" Tc=6.0 min CN=71 Runoff=27.03 cfs 1.437 af
Subcatchment3C: Post 3C	Runoff Area=2.490 ac 22.89% Impervious Runoff Depth=2.37" Tc=6.0 min CN=75 Runoff=9.25 cfs 0.491 af
Subcatchment3D: Post 3D	Runoff Area=2.380 ac 23.95% Impervious Runoff Depth=2.45" Tc=6.0 min CN=76 Runoff=9.15 cfs 0.487 af
Subcatchment3E: Post 3E	Runoff Area=2.780 ac 19.06% Impervious Runoff Depth=2.28" Tc=6.0 min CN=74 Runoff=9.96 cfs 0.529 af
Subcatchment3Y: Post 3Y - Offsite	Runoff Area=0.820 ac 36.59% Impervious Runoff Depth=3.08" Tc=6.0 min CN=83 Runoff=3.89 cfs 0.211 af
Subcatchment3Z: Post 3Z - Offsite	Runoff Area=0.520 ac 0.00% Impervious Runoff Depth=2.28" Tc=6.0 min CN=74 Runoff=1.86 cfs 0.099 af
Subcatchment5S: Culvert 1	Runoff Area=4,797 sf 48.61% Impervious Runoff Depth=2.72" Tc=6.0 min CN=79 Runoff=0.47 cfs 0.025 af
Subcatchment6S: Culvert 2	Runoff Area=24,708 sf 36.87% Impervious Runoff Depth=2.37" Tc=6.0 min CN=75 Runoff=2.11 cfs 0.112 af
Subcatchment7S: Culvert 3	Runoff Area=41,517 sf 32.00% Impervious Runoff Depth=2.20" Tc=6.0 min CN=73 Runoff=3.29 cfs 0.175 af

Subcatchment8S: Culvert 4Runoff Area=209,603 sf 25.18% Impervious Runoff Depth=1.96"
Tc=6.0 min CN=70 Runoff=14.78 cfs 0.787 af**Subcatchment9S: Culvert 5**Runoff Area=188,836 sf 19.96% Impervious Runoff Depth=1.81"
Tc=6.0 min CN=68 Runoff=12.22 cfs 0.653 af**Pond P1A: Pond 1A**Peak Elev=1,242.10' Storage=14,669 cf Inflow=16.99 cfs 0.909 af
Primary=3.02 cfs 0.440 af Secondary=0.58 cfs 0.469 af Tertiary=0.00 cfs 0.000 af Outflow=3.60 cfs 0.909 af**Pond P3A: Pond 3A**Peak Elev=1,195.98' Storage=28,352 cf Inflow=32.55 cfs 1.734 af
Primary=5.95 cfs 0.991 af Secondary=0.84 cfs 0.743 af Tertiary=0.00 cfs 0.000 af Outflow=6.79 cfs 1.734 af**Pond P3B: Pond 3B**Peak Elev=1,198.86' Storage=22,719 cf Inflow=27.03 cfs 1.437 af
Primary=5.81 cfs 0.841 af Secondary=0.75 cfs 0.596 af Tertiary=0.00 cfs 0.000 af Outflow=6.56 cfs 1.437 af**Pond P3C: Pond 3C**Peak Elev=1,180.67' Storage=8,327 cf Inflow=9.25 cfs 0.491 af
Primary=1.72 cfs 0.206 af Secondary=0.36 cfs 0.286 af Tertiary=0.00 cfs 0.000 af Outflow=2.08 cfs 0.491 af**Pond P3D: Pond 3D**Peak Elev=1,190.42' Storage=6,232 cf Inflow=9.15 cfs 0.487 af
Primary=4.31 cfs 0.312 af Secondary=0.24 cfs 0.174 af Tertiary=0.00 cfs 0.000 af Outflow=4.56 cfs 0.487 af**Pond P3E: Pond 3E**Peak Elev=1,218.66' Storage=9,113 cf Inflow=9.96 cfs 0.529 af
Primary=1.67 cfs 0.212 af Secondary=0.36 cfs 0.318 af Tertiary=0.00 cfs 0.000 af Outflow=2.04 cfs 0.529 af**Link 1L: Total Pre - Development**Inflow=50.10 cfs 3.436 af
Primary=50.10 cfs 3.436 af**Link 2L: Total Post - Development**Inflow=24.04 cfs 3.439 af
Primary=24.04 cfs 3.439 af**Link 3L: Post - South**Inflow=3.27 cfs 0.498 af
Primary=3.27 cfs 0.498 af**Link 4L: Post - North**Inflow=20.79 cfs 2.871 af
Primary=20.79 cfs 2.871 af**Total Runoff Area = 80.857 ac Runoff Volume = 11.213 af Average Runoff Depth = 1.66"**
88.21% Pervious = 71.323 ac 11.79% Impervious = 9.534 ac

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Summary for Subcatchment 1: Pre - South

Runoff = 5.15 cfs @ 12.20 hrs, Volume= 0.381 af, Depth= 0.93"
Routed to Link 1L : Total Pre - Development

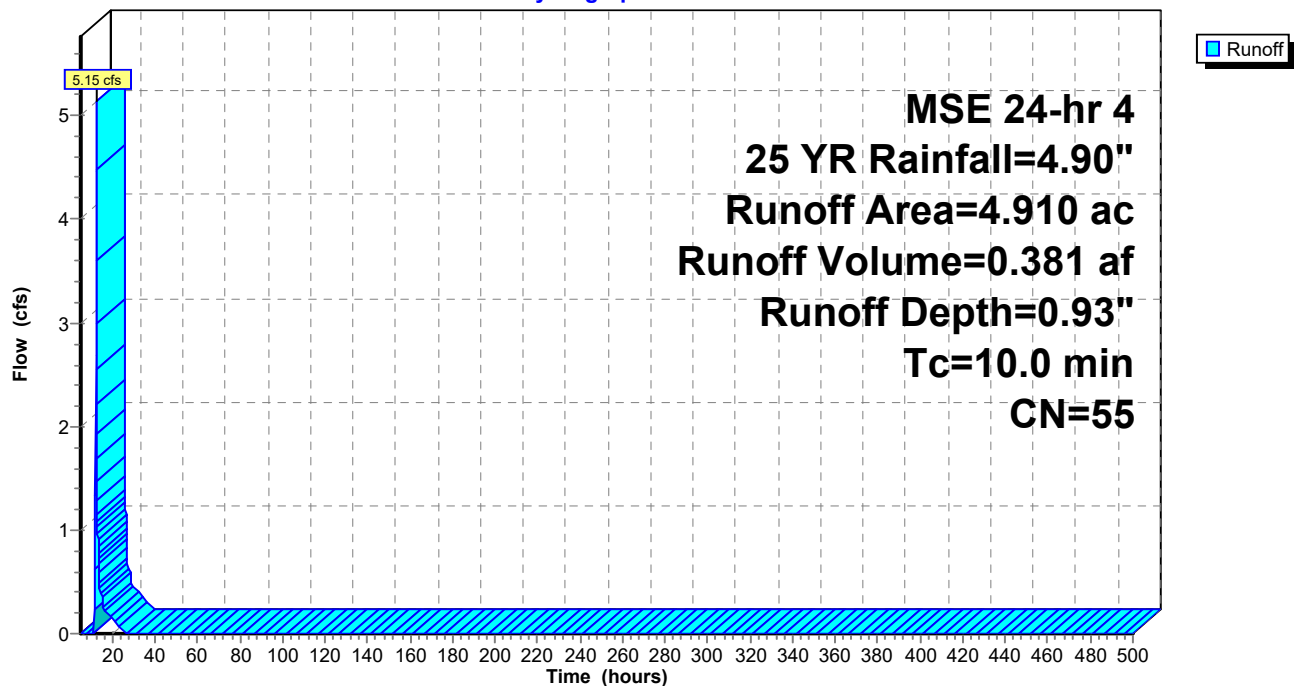
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 25 YR Rainfall=4.90"

Area (ac)	CN	Description
* 4.910	55	Pre Dev - B Soils
4.910		100.00% Pervious Area

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

Subcatchment 1: Pre - South

Hydrograph



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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Subcatchment 1: Pre - South

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.22	0.00	0.00	260.00	4.90	0.93	0.00
10.00	0.78	0.00	0.00	265.00	4.90	0.93	0.00
15.00	4.31	0.66	0.37	270.00	4.90	0.93	0.00
20.00	4.74	0.85	0.15	275.00	4.90	0.93	0.00
25.00	4.90	0.93	0.00	280.00	4.90	0.93	0.00
30.00	4.90	0.93	0.00	285.00	4.90	0.93	0.00
35.00	4.90	0.93	0.00	290.00	4.90	0.93	0.00
40.00	4.90	0.93	0.00	295.00	4.90	0.93	0.00
45.00	4.90	0.93	0.00	300.00	4.90	0.93	0.00
50.00	4.90	0.93	0.00	305.00	4.90	0.93	0.00
55.00	4.90	0.93	0.00	310.00	4.90	0.93	0.00
60.00	4.90	0.93	0.00	315.00	4.90	0.93	0.00
65.00	4.90	0.93	0.00	320.00	4.90	0.93	0.00
70.00	4.90	0.93	0.00	325.00	4.90	0.93	0.00
75.00	4.90	0.93	0.00	330.00	4.90	0.93	0.00
80.00	4.90	0.93	0.00	335.00	4.90	0.93	0.00
85.00	4.90	0.93	0.00	340.00	4.90	0.93	0.00
90.00	4.90	0.93	0.00	345.00	4.90	0.93	0.00
95.00	4.90	0.93	0.00	350.00	4.90	0.93	0.00
100.00	4.90	0.93	0.00	355.00	4.90	0.93	0.00
105.00	4.90	0.93	0.00	360.00	4.90	0.93	0.00
110.00	4.90	0.93	0.00	365.00	4.90	0.93	0.00
115.00	4.90	0.93	0.00	370.00	4.90	0.93	0.00
120.00	4.90	0.93	0.00	375.00	4.90	0.93	0.00
125.00	4.90	0.93	0.00	380.00	4.90	0.93	0.00
130.00	4.90	0.93	0.00	385.00	4.90	0.93	0.00
135.00	4.90	0.93	0.00	390.00	4.90	0.93	0.00
140.00	4.90	0.93	0.00	395.00	4.90	0.93	0.00
145.00	4.90	0.93	0.00	400.00	4.90	0.93	0.00
150.00	4.90	0.93	0.00	405.00	4.90	0.93	0.00
155.00	4.90	0.93	0.00	410.00	4.90	0.93	0.00
160.00	4.90	0.93	0.00	415.00	4.90	0.93	0.00
165.00	4.90	0.93	0.00	420.00	4.90	0.93	0.00
170.00	4.90	0.93	0.00	425.00	4.90	0.93	0.00
175.00	4.90	0.93	0.00	430.00	4.90	0.93	0.00
180.00	4.90	0.93	0.00	435.00	4.90	0.93	0.00
185.00	4.90	0.93	0.00	440.00	4.90	0.93	0.00
190.00	4.90	0.93	0.00	445.00	4.90	0.93	0.00
195.00	4.90	0.93	0.00	450.00	4.90	0.93	0.00
200.00	4.90	0.93	0.00	455.00	4.90	0.93	0.00
205.00	4.90	0.93	0.00	460.00	4.90	0.93	0.00
210.00	4.90	0.93	0.00	465.00	4.90	0.93	0.00
215.00	4.90	0.93	0.00	470.00	4.90	0.93	0.00
220.00	4.90	0.93	0.00	475.00	4.90	0.93	0.00
225.00	4.90	0.93	0.00	480.00	4.90	0.93	0.00
230.00	4.90	0.93	0.00	485.00	4.90	0.93	0.00
235.00	4.90	0.93	0.00	490.00	4.90	0.93	0.00
240.00	4.90	0.93	0.00	495.00	4.90	0.93	0.00
245.00	4.90	0.93	0.00	500.00	4.90	0.93	0.00
250.00	4.90	0.93	0.00				
255.00	4.90	0.93	0.00				

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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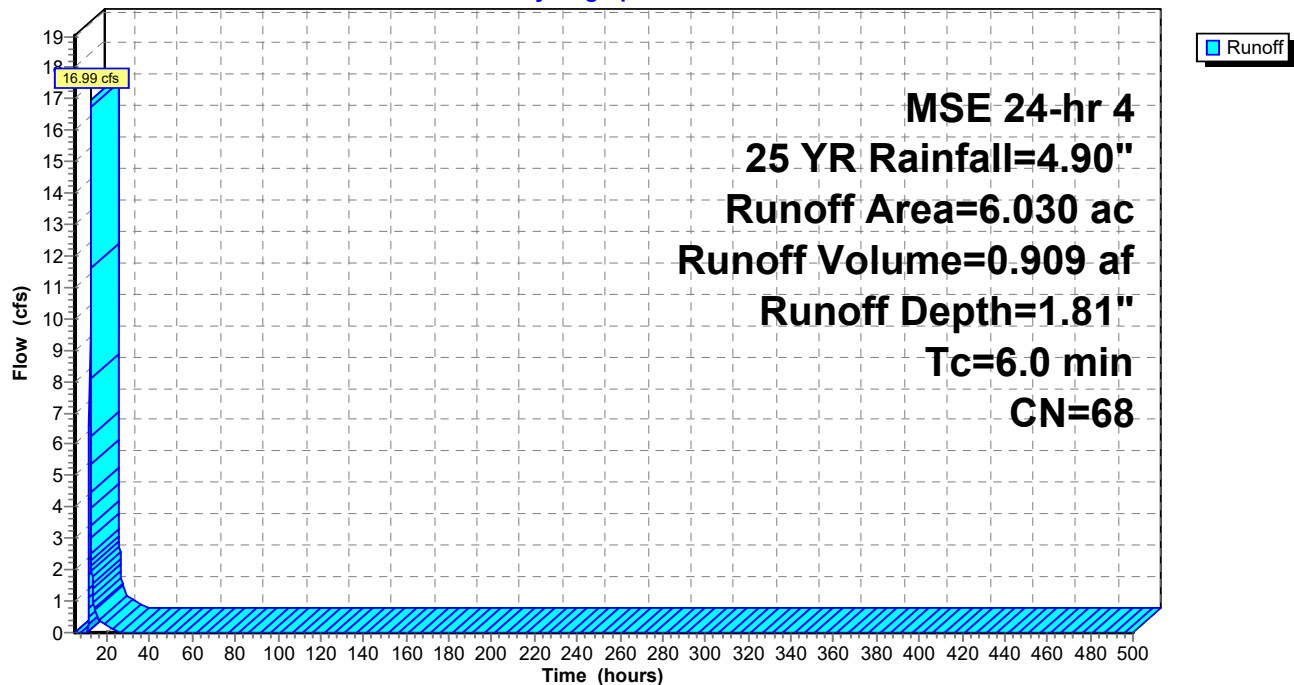
Summary for Subcatchment 1A: Post 1A

Runoff = 16.99 cfs @ 12.14 hrs, Volume= 0.909 af, Depth= 1.81"
Routed to Pond P1A : Pond 1A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 25 YR Rainfall=4.90"

Area (ac)	CN	Description
* 1.160	98	Impervious
* 4.870	61	Post - B Soils
* 0.000	74	Post - C Soils
6.030	68	Weighted Average
4.870		80.76% Pervious Area
1.160		19.24% Impervious Area

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

Subcatchment 1A: Post 1A**Hydrograph**

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Subcatchment 1A: Post 1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.22	0.00	0.00	260.00	4.90	1.81	0.00
10.00	0.78	0.00	0.00	265.00	4.90	1.81	0.00
15.00	4.31	1.40	0.69	270.00	4.90	1.81	0.00
20.00	4.74	1.70	0.26	275.00	4.90	1.81	0.00
25.00	4.90	1.81	0.00	280.00	4.90	1.81	0.00
30.00	4.90	1.81	0.00	285.00	4.90	1.81	0.00
35.00	4.90	1.81	0.00	290.00	4.90	1.81	0.00
40.00	4.90	1.81	0.00	295.00	4.90	1.81	0.00
45.00	4.90	1.81	0.00	300.00	4.90	1.81	0.00
50.00	4.90	1.81	0.00	305.00	4.90	1.81	0.00
55.00	4.90	1.81	0.00	310.00	4.90	1.81	0.00
60.00	4.90	1.81	0.00	315.00	4.90	1.81	0.00
65.00	4.90	1.81	0.00	320.00	4.90	1.81	0.00
70.00	4.90	1.81	0.00	325.00	4.90	1.81	0.00
75.00	4.90	1.81	0.00	330.00	4.90	1.81	0.00
80.00	4.90	1.81	0.00	335.00	4.90	1.81	0.00
85.00	4.90	1.81	0.00	340.00	4.90	1.81	0.00
90.00	4.90	1.81	0.00	345.00	4.90	1.81	0.00
95.00	4.90	1.81	0.00	350.00	4.90	1.81	0.00
100.00	4.90	1.81	0.00	355.00	4.90	1.81	0.00
105.00	4.90	1.81	0.00	360.00	4.90	1.81	0.00
110.00	4.90	1.81	0.00	365.00	4.90	1.81	0.00
115.00	4.90	1.81	0.00	370.00	4.90	1.81	0.00
120.00	4.90	1.81	0.00	375.00	4.90	1.81	0.00
125.00	4.90	1.81	0.00	380.00	4.90	1.81	0.00
130.00	4.90	1.81	0.00	385.00	4.90	1.81	0.00
135.00	4.90	1.81	0.00	390.00	4.90	1.81	0.00
140.00	4.90	1.81	0.00	395.00	4.90	1.81	0.00
145.00	4.90	1.81	0.00	400.00	4.90	1.81	0.00
150.00	4.90	1.81	0.00	405.00	4.90	1.81	0.00
155.00	4.90	1.81	0.00	410.00	4.90	1.81	0.00
160.00	4.90	1.81	0.00	415.00	4.90	1.81	0.00
165.00	4.90	1.81	0.00	420.00	4.90	1.81	0.00
170.00	4.90	1.81	0.00	425.00	4.90	1.81	0.00
175.00	4.90	1.81	0.00	430.00	4.90	1.81	0.00
180.00	4.90	1.81	0.00	435.00	4.90	1.81	0.00
185.00	4.90	1.81	0.00	440.00	4.90	1.81	0.00
190.00	4.90	1.81	0.00	445.00	4.90	1.81	0.00
195.00	4.90	1.81	0.00	450.00	4.90	1.81	0.00
200.00	4.90	1.81	0.00	455.00	4.90	1.81	0.00
205.00	4.90	1.81	0.00	460.00	4.90	1.81	0.00
210.00	4.90	1.81	0.00	465.00	4.90	1.81	0.00
215.00	4.90	1.81	0.00	470.00	4.90	1.81	0.00
220.00	4.90	1.81	0.00	475.00	4.90	1.81	0.00
225.00	4.90	1.81	0.00	480.00	4.90	1.81	0.00
230.00	4.90	1.81	0.00	485.00	4.90	1.81	0.00
235.00	4.90	1.81	0.00	490.00	4.90	1.81	0.00
240.00	4.90	1.81	0.00	495.00	4.90	1.81	0.00
245.00	4.90	1.81	0.00	500.00	4.90	1.81	0.00
250.00	4.90	1.81	0.00				
255.00	4.90	1.81	0.00				

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Summary for Subcatchment 1B: Post 1B - Offsite

Runoff = 1.08 cfs @ 12.14 hrs, Volume= 0.058 af, Depth= 1.59"
Routed to Link 3L : Post - South

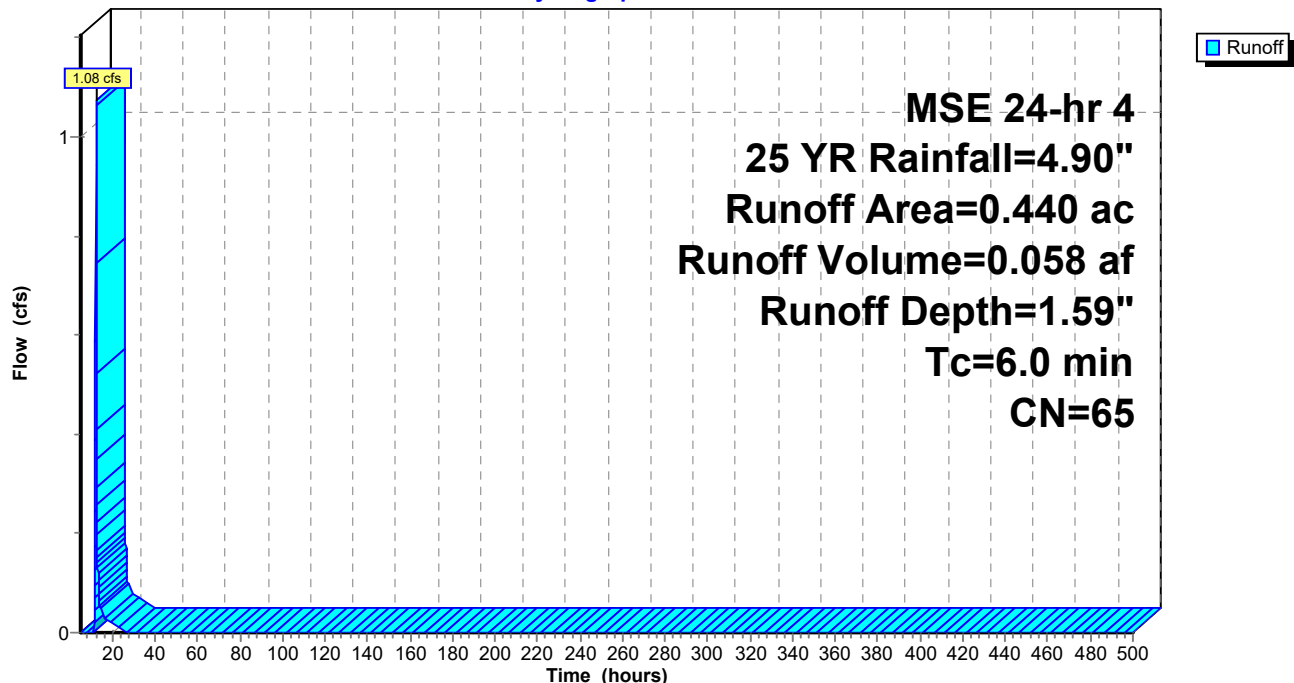
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 25 YR Rainfall=4.90"

Area (ac)	CN	Description
* 0.050	98	Impervious
* 0.390	61	Post - B Soils
* 0.000	74	Post - C Soils
0.440	65	Weighted Average
0.390		88.64% Pervious Area
0.050		11.36% Impervious Area

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

Subcatchment 1B: Post 1B - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Subcatchment 1B: Post 1B - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.22	0.00	0.00	260.00	4.90	1.59	0.00
10.00	0.78	0.00	0.00	265.00	4.90	1.59	0.00
15.00	4.31	1.21	0.05	270.00	4.90	1.59	0.00
20.00	4.74	1.48	0.02	275.00	4.90	1.59	0.00
25.00	4.90	1.59	0.00	280.00	4.90	1.59	0.00
30.00	4.90	1.59	0.00	285.00	4.90	1.59	0.00
35.00	4.90	1.59	0.00	290.00	4.90	1.59	0.00
40.00	4.90	1.59	0.00	295.00	4.90	1.59	0.00
45.00	4.90	1.59	0.00	300.00	4.90	1.59	0.00
50.00	4.90	1.59	0.00	305.00	4.90	1.59	0.00
55.00	4.90	1.59	0.00	310.00	4.90	1.59	0.00
60.00	4.90	1.59	0.00	315.00	4.90	1.59	0.00
65.00	4.90	1.59	0.00	320.00	4.90	1.59	0.00
70.00	4.90	1.59	0.00	325.00	4.90	1.59	0.00
75.00	4.90	1.59	0.00	330.00	4.90	1.59	0.00
80.00	4.90	1.59	0.00	335.00	4.90	1.59	0.00
85.00	4.90	1.59	0.00	340.00	4.90	1.59	0.00
90.00	4.90	1.59	0.00	345.00	4.90	1.59	0.00
95.00	4.90	1.59	0.00	350.00	4.90	1.59	0.00
100.00	4.90	1.59	0.00	355.00	4.90	1.59	0.00
105.00	4.90	1.59	0.00	360.00	4.90	1.59	0.00
110.00	4.90	1.59	0.00	365.00	4.90	1.59	0.00
115.00	4.90	1.59	0.00	370.00	4.90	1.59	0.00
120.00	4.90	1.59	0.00	375.00	4.90	1.59	0.00
125.00	4.90	1.59	0.00	380.00	4.90	1.59	0.00
130.00	4.90	1.59	0.00	385.00	4.90	1.59	0.00
135.00	4.90	1.59	0.00	390.00	4.90	1.59	0.00
140.00	4.90	1.59	0.00	395.00	4.90	1.59	0.00
145.00	4.90	1.59	0.00	400.00	4.90	1.59	0.00
150.00	4.90	1.59	0.00	405.00	4.90	1.59	0.00
155.00	4.90	1.59	0.00	410.00	4.90	1.59	0.00
160.00	4.90	1.59	0.00	415.00	4.90	1.59	0.00
165.00	4.90	1.59	0.00	420.00	4.90	1.59	0.00
170.00	4.90	1.59	0.00	425.00	4.90	1.59	0.00
175.00	4.90	1.59	0.00	430.00	4.90	1.59	0.00
180.00	4.90	1.59	0.00	435.00	4.90	1.59	0.00
185.00	4.90	1.59	0.00	440.00	4.90	1.59	0.00
190.00	4.90	1.59	0.00	445.00	4.90	1.59	0.00
195.00	4.90	1.59	0.00	450.00	4.90	1.59	0.00
200.00	4.90	1.59	0.00	455.00	4.90	1.59	0.00
205.00	4.90	1.59	0.00	460.00	4.90	1.59	0.00
210.00	4.90	1.59	0.00	465.00	4.90	1.59	0.00
215.00	4.90	1.59	0.00	470.00	4.90	1.59	0.00
220.00	4.90	1.59	0.00	475.00	4.90	1.59	0.00
225.00	4.90	1.59	0.00	480.00	4.90	1.59	0.00
230.00	4.90	1.59	0.00	485.00	4.90	1.59	0.00
235.00	4.90	1.59	0.00	490.00	4.90	1.59	0.00
240.00	4.90	1.59	0.00	495.00	4.90	1.59	0.00
245.00	4.90	1.59	0.00	500.00	4.90	1.59	0.00
250.00	4.90	1.59	0.00				
255.00	4.90	1.59	0.00				

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Summary for Subcatchment 2: Pre - West

Runoff = 3.24 cfs @ 12.15 hrs, Volume= 0.197 af, Depth= 0.93"
Routed to Link 1L : Total Pre - Development

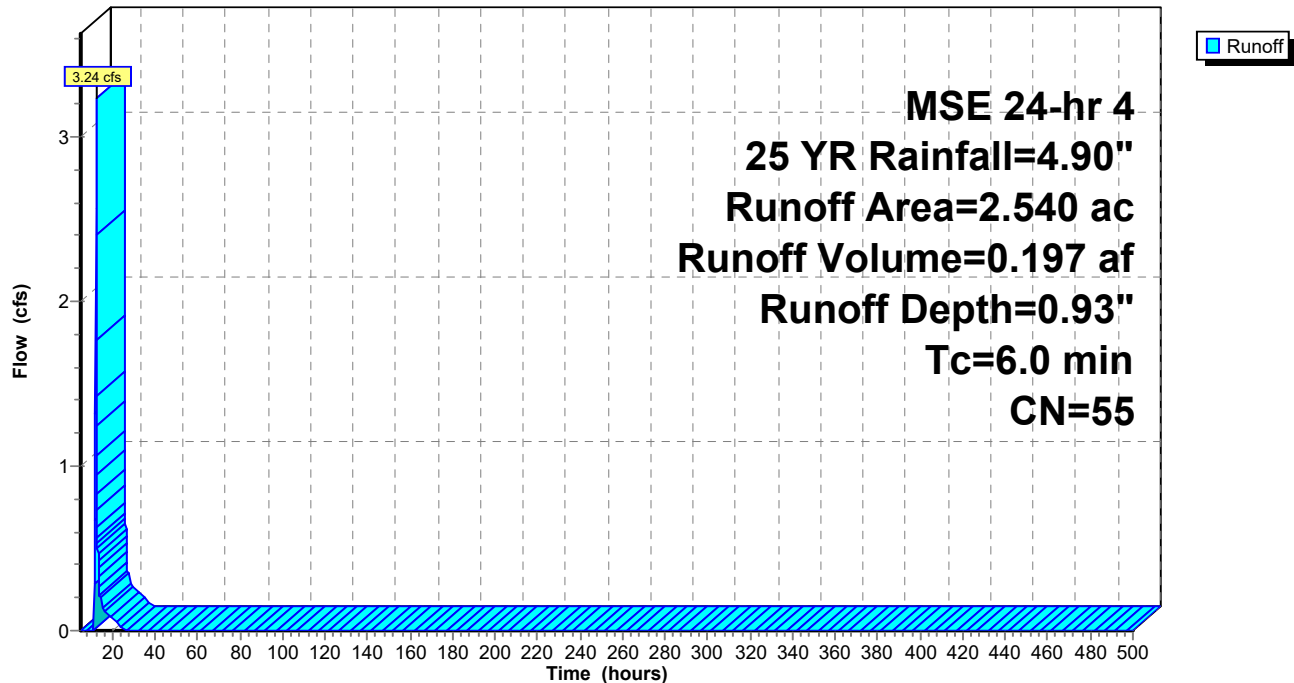
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 25 YR Rainfall=4.90"

Area (ac)	CN	Description
* 2.540	55	Pre Dev - B Soils
2.540		100.00% Pervious Area

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

Subcatchment 2: Pre - West

Hydrograph



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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Subcatchment 2: Pre - West

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.22	0.00	0.00	260.00	4.90	0.93	0.00
10.00	0.78	0.00	0.00	265.00	4.90	0.93	0.00
15.00	4.31	0.66	0.19	270.00	4.90	0.93	0.00
20.00	4.74	0.85	0.07	275.00	4.90	0.93	0.00
25.00	4.90	0.93	0.00	280.00	4.90	0.93	0.00
30.00	4.90	0.93	0.00	285.00	4.90	0.93	0.00
35.00	4.90	0.93	0.00	290.00	4.90	0.93	0.00
40.00	4.90	0.93	0.00	295.00	4.90	0.93	0.00
45.00	4.90	0.93	0.00	300.00	4.90	0.93	0.00
50.00	4.90	0.93	0.00	305.00	4.90	0.93	0.00
55.00	4.90	0.93	0.00	310.00	4.90	0.93	0.00
60.00	4.90	0.93	0.00	315.00	4.90	0.93	0.00
65.00	4.90	0.93	0.00	320.00	4.90	0.93	0.00
70.00	4.90	0.93	0.00	325.00	4.90	0.93	0.00
75.00	4.90	0.93	0.00	330.00	4.90	0.93	0.00
80.00	4.90	0.93	0.00	335.00	4.90	0.93	0.00
85.00	4.90	0.93	0.00	340.00	4.90	0.93	0.00
90.00	4.90	0.93	0.00	345.00	4.90	0.93	0.00
95.00	4.90	0.93	0.00	350.00	4.90	0.93	0.00
100.00	4.90	0.93	0.00	355.00	4.90	0.93	0.00
105.00	4.90	0.93	0.00	360.00	4.90	0.93	0.00
110.00	4.90	0.93	0.00	365.00	4.90	0.93	0.00
115.00	4.90	0.93	0.00	370.00	4.90	0.93	0.00
120.00	4.90	0.93	0.00	375.00	4.90	0.93	0.00
125.00	4.90	0.93	0.00	380.00	4.90	0.93	0.00
130.00	4.90	0.93	0.00	385.00	4.90	0.93	0.00
135.00	4.90	0.93	0.00	390.00	4.90	0.93	0.00
140.00	4.90	0.93	0.00	395.00	4.90	0.93	0.00
145.00	4.90	0.93	0.00	400.00	4.90	0.93	0.00
150.00	4.90	0.93	0.00	405.00	4.90	0.93	0.00
155.00	4.90	0.93	0.00	410.00	4.90	0.93	0.00
160.00	4.90	0.93	0.00	415.00	4.90	0.93	0.00
165.00	4.90	0.93	0.00	420.00	4.90	0.93	0.00
170.00	4.90	0.93	0.00	425.00	4.90	0.93	0.00
175.00	4.90	0.93	0.00	430.00	4.90	0.93	0.00
180.00	4.90	0.93	0.00	435.00	4.90	0.93	0.00
185.00	4.90	0.93	0.00	440.00	4.90	0.93	0.00
190.00	4.90	0.93	0.00	445.00	4.90	0.93	0.00
195.00	4.90	0.93	0.00	450.00	4.90	0.93	0.00
200.00	4.90	0.93	0.00	455.00	4.90	0.93	0.00
205.00	4.90	0.93	0.00	460.00	4.90	0.93	0.00
210.00	4.90	0.93	0.00	465.00	4.90	0.93	0.00
215.00	4.90	0.93	0.00	470.00	4.90	0.93	0.00
220.00	4.90	0.93	0.00	475.00	4.90	0.93	0.00
225.00	4.90	0.93	0.00	480.00	4.90	0.93	0.00
230.00	4.90	0.93	0.00	485.00	4.90	0.93	0.00
235.00	4.90	0.93	0.00	490.00	4.90	0.93	0.00
240.00	4.90	0.93	0.00	495.00	4.90	0.93	0.00
245.00	4.90	0.93	0.00	500.00	4.90	0.93	0.00
250.00	4.90	0.93	0.00				
255.00	4.90	0.93	0.00				

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Summary for Subcatchment 2A: Post 2A - Offsite

Runoff = 1.30 cfs @ 12.14 hrs, Volume= 0.070 af, Depth= 1.59"
Routed to Link 2L : Total Post - Development

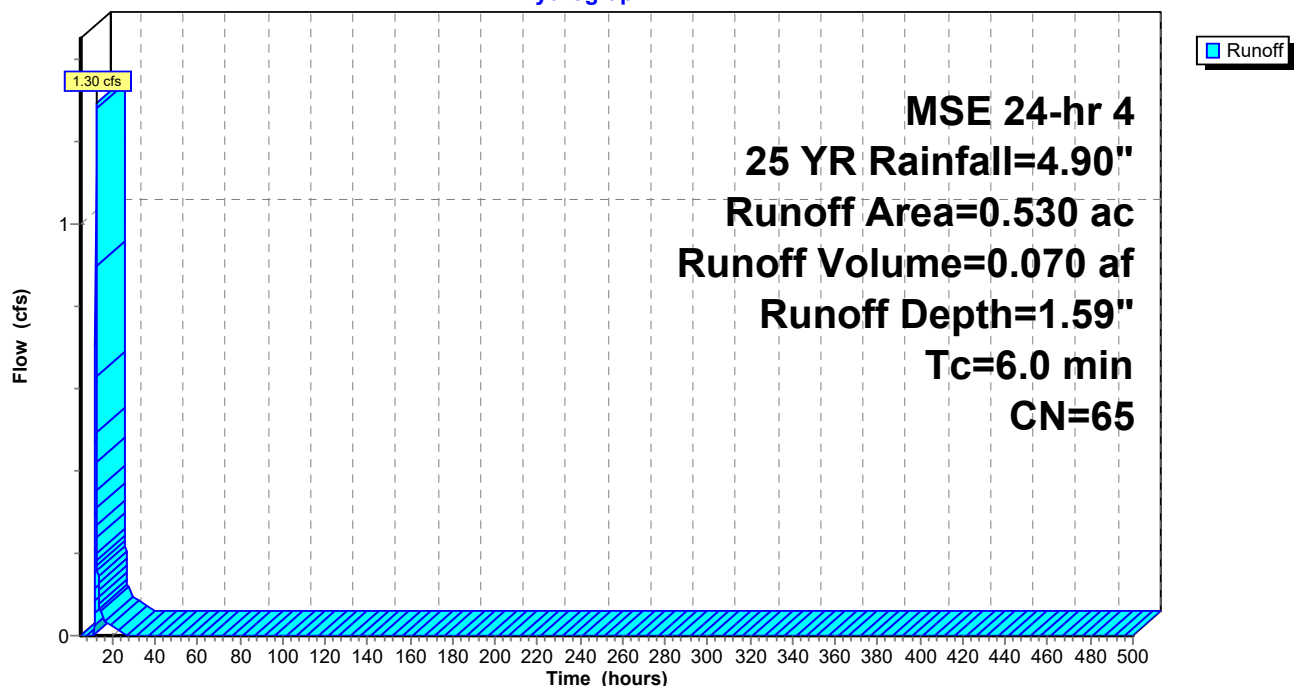
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 25 YR Rainfall=4.90"

	Area (ac)	CN	Description
*	0.060	98	Impervious
*	0.470	61	Post - B Soils
*	0.000	74	Post - C Soils
	0.530	65	Weighted Average
	0.470		88.68% Pervious Area
	0.060		11.32% Impervious Area

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

Subcatchment 2A: Post 2A - Offsite

Hydrograph



250128900_swm

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Subcatchment 2A: Post 2A - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.22	0.00	0.00	260.00	4.90	1.59	0.00
10.00	0.78	0.00	0.00	265.00	4.90	1.59	0.00
15.00	4.31	1.21	0.06	270.00	4.90	1.59	0.00
20.00	4.74	1.48	0.02	275.00	4.90	1.59	0.00
25.00	4.90	1.59	0.00	280.00	4.90	1.59	0.00
30.00	4.90	1.59	0.00	285.00	4.90	1.59	0.00
35.00	4.90	1.59	0.00	290.00	4.90	1.59	0.00
40.00	4.90	1.59	0.00	295.00	4.90	1.59	0.00
45.00	4.90	1.59	0.00	300.00	4.90	1.59	0.00
50.00	4.90	1.59	0.00	305.00	4.90	1.59	0.00
55.00	4.90	1.59	0.00	310.00	4.90	1.59	0.00
60.00	4.90	1.59	0.00	315.00	4.90	1.59	0.00
65.00	4.90	1.59	0.00	320.00	4.90	1.59	0.00
70.00	4.90	1.59	0.00	325.00	4.90	1.59	0.00
75.00	4.90	1.59	0.00	330.00	4.90	1.59	0.00
80.00	4.90	1.59	0.00	335.00	4.90	1.59	0.00
85.00	4.90	1.59	0.00	340.00	4.90	1.59	0.00
90.00	4.90	1.59	0.00	345.00	4.90	1.59	0.00
95.00	4.90	1.59	0.00	350.00	4.90	1.59	0.00
100.00	4.90	1.59	0.00	355.00	4.90	1.59	0.00
105.00	4.90	1.59	0.00	360.00	4.90	1.59	0.00
110.00	4.90	1.59	0.00	365.00	4.90	1.59	0.00
115.00	4.90	1.59	0.00	370.00	4.90	1.59	0.00
120.00	4.90	1.59	0.00	375.00	4.90	1.59	0.00
125.00	4.90	1.59	0.00	380.00	4.90	1.59	0.00
130.00	4.90	1.59	0.00	385.00	4.90	1.59	0.00
135.00	4.90	1.59	0.00	390.00	4.90	1.59	0.00
140.00	4.90	1.59	0.00	395.00	4.90	1.59	0.00
145.00	4.90	1.59	0.00	400.00	4.90	1.59	0.00
150.00	4.90	1.59	0.00	405.00	4.90	1.59	0.00
155.00	4.90	1.59	0.00	410.00	4.90	1.59	0.00
160.00	4.90	1.59	0.00	415.00	4.90	1.59	0.00
165.00	4.90	1.59	0.00	420.00	4.90	1.59	0.00
170.00	4.90	1.59	0.00	425.00	4.90	1.59	0.00
175.00	4.90	1.59	0.00	430.00	4.90	1.59	0.00
180.00	4.90	1.59	0.00	435.00	4.90	1.59	0.00
185.00	4.90	1.59	0.00	440.00	4.90	1.59	0.00
190.00	4.90	1.59	0.00	445.00	4.90	1.59	0.00
195.00	4.90	1.59	0.00	450.00	4.90	1.59	0.00
200.00	4.90	1.59	0.00	455.00	4.90	1.59	0.00
205.00	4.90	1.59	0.00	460.00	4.90	1.59	0.00
210.00	4.90	1.59	0.00	465.00	4.90	1.59	0.00
215.00	4.90	1.59	0.00	470.00	4.90	1.59	0.00
220.00	4.90	1.59	0.00	475.00	4.90	1.59	0.00
225.00	4.90	1.59	0.00	480.00	4.90	1.59	0.00
230.00	4.90	1.59	0.00	485.00	4.90	1.59	0.00
235.00	4.90	1.59	0.00	490.00	4.90	1.59	0.00
240.00	4.90	1.59	0.00	495.00	4.90	1.59	0.00
245.00	4.90	1.59	0.00	500.00	4.90	1.59	0.00
250.00	4.90	1.59	0.00				
255.00	4.90	1.59	0.00				

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Summary for Subcatchment 3: Pre - North

Runoff = 42.44 cfs @ 12.19 hrs, Volume= 2.858 af, Depth= 1.24"
Routed to Link 1L : Total Pre - Development

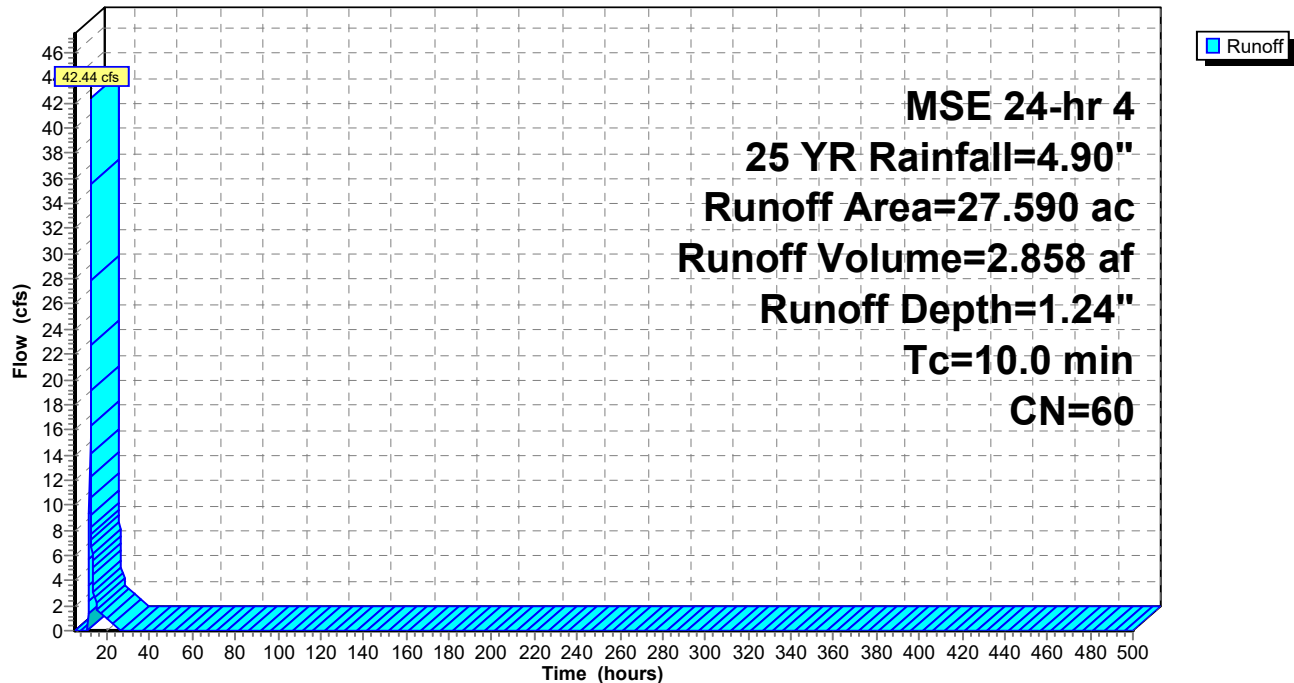
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 25 YR Rainfall=4.90"

	Area (ac)	CN	Description
*	18.190	55	Pre Dev - B Soils
*	9.400	70	Pre Dev - C Soils
	27.590	60	Weighted Average
	27.590		100.00% Pervious Area

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

Subcatchment 3: Pre - North

Hydrograph



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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Subcatchment 3: Pre - North

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.22	0.00	0.00	260.00	4.90	1.24	0.00
10.00	0.78	0.00	0.00	265.00	4.90	1.24	0.00
15.00	4.31	0.92	2.53	270.00	4.90	1.24	0.00
20.00	4.74	1.15	0.97	275.00	4.90	1.24	0.00
25.00	4.90	1.24	0.00	280.00	4.90	1.24	0.00
30.00	4.90	1.24	0.00	285.00	4.90	1.24	0.00
35.00	4.90	1.24	0.00	290.00	4.90	1.24	0.00
40.00	4.90	1.24	0.00	295.00	4.90	1.24	0.00
45.00	4.90	1.24	0.00	300.00	4.90	1.24	0.00
50.00	4.90	1.24	0.00	305.00	4.90	1.24	0.00
55.00	4.90	1.24	0.00	310.00	4.90	1.24	0.00
60.00	4.90	1.24	0.00	315.00	4.90	1.24	0.00
65.00	4.90	1.24	0.00	320.00	4.90	1.24	0.00
70.00	4.90	1.24	0.00	325.00	4.90	1.24	0.00
75.00	4.90	1.24	0.00	330.00	4.90	1.24	0.00
80.00	4.90	1.24	0.00	335.00	4.90	1.24	0.00
85.00	4.90	1.24	0.00	340.00	4.90	1.24	0.00
90.00	4.90	1.24	0.00	345.00	4.90	1.24	0.00
95.00	4.90	1.24	0.00	350.00	4.90	1.24	0.00
100.00	4.90	1.24	0.00	355.00	4.90	1.24	0.00
105.00	4.90	1.24	0.00	360.00	4.90	1.24	0.00
110.00	4.90	1.24	0.00	365.00	4.90	1.24	0.00
115.00	4.90	1.24	0.00	370.00	4.90	1.24	0.00
120.00	4.90	1.24	0.00	375.00	4.90	1.24	0.00
125.00	4.90	1.24	0.00	380.00	4.90	1.24	0.00
130.00	4.90	1.24	0.00	385.00	4.90	1.24	0.00
135.00	4.90	1.24	0.00	390.00	4.90	1.24	0.00
140.00	4.90	1.24	0.00	395.00	4.90	1.24	0.00
145.00	4.90	1.24	0.00	400.00	4.90	1.24	0.00
150.00	4.90	1.24	0.00	405.00	4.90	1.24	0.00
155.00	4.90	1.24	0.00	410.00	4.90	1.24	0.00
160.00	4.90	1.24	0.00	415.00	4.90	1.24	0.00
165.00	4.90	1.24	0.00	420.00	4.90	1.24	0.00
170.00	4.90	1.24	0.00	425.00	4.90	1.24	0.00
175.00	4.90	1.24	0.00	430.00	4.90	1.24	0.00
180.00	4.90	1.24	0.00	435.00	4.90	1.24	0.00
185.00	4.90	1.24	0.00	440.00	4.90	1.24	0.00
190.00	4.90	1.24	0.00	445.00	4.90	1.24	0.00
195.00	4.90	1.24	0.00	450.00	4.90	1.24	0.00
200.00	4.90	1.24	0.00	455.00	4.90	1.24	0.00
205.00	4.90	1.24	0.00	460.00	4.90	1.24	0.00
210.00	4.90	1.24	0.00	465.00	4.90	1.24	0.00
215.00	4.90	1.24	0.00	470.00	4.90	1.24	0.00
220.00	4.90	1.24	0.00	475.00	4.90	1.24	0.00
225.00	4.90	1.24	0.00	480.00	4.90	1.24	0.00
230.00	4.90	1.24	0.00	485.00	4.90	1.24	0.00
235.00	4.90	1.24	0.00	490.00	4.90	1.24	0.00
240.00	4.90	1.24	0.00	495.00	4.90	1.24	0.00
245.00	4.90	1.24	0.00	500.00	4.90	1.24	0.00
250.00	4.90	1.24	0.00				
255.00	4.90	1.24	0.00				

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Summary for Subcatchment 3A: Post 3A

Runoff = 32.55 cfs @ 12.14 hrs, Volume= 1.734 af, Depth= 1.96"
Routed to Pond P3A : Pond 3A

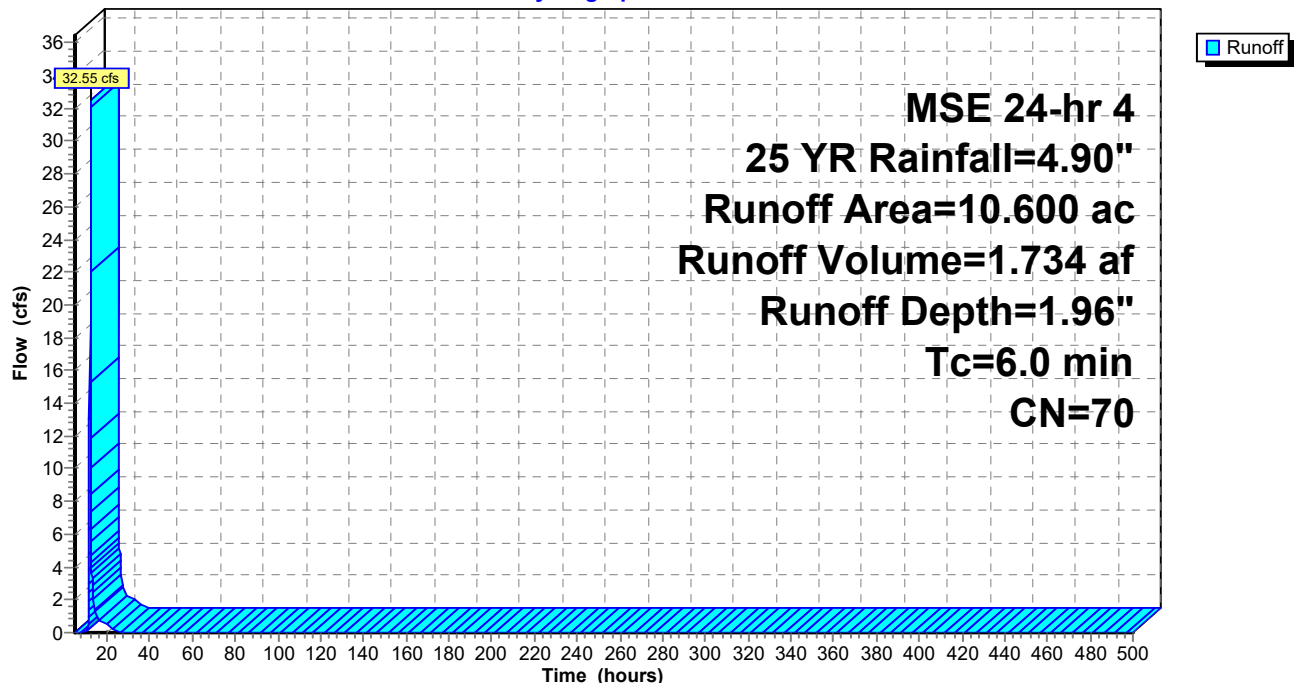
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 25 YR Rainfall=4.90"

Area (ac)	CN	Description
* 1.970	98	Impervious
* 6.570	61	Post - B Soils
* 2.060	74	Post - C Soils
10.600	70	Weighted Average
8.630		81.42% Pervious Area
1.970		18.58% Impervious Area

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

Subcatchment 3A: Post 3A

Hydrograph



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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Subcatchment 3A: Post 3A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.22	0.00	0.00	260.00	4.90	1.96	0.00
10.00	0.78	0.00	0.00	265.00	4.90	1.96	0.00
15.00	4.31	1.54	1.28	270.00	4.90	1.96	0.00
20.00	4.74	1.85	0.48	275.00	4.90	1.96	0.00
25.00	4.90	1.96	0.00	280.00	4.90	1.96	0.00
30.00	4.90	1.96	0.00	285.00	4.90	1.96	0.00
35.00	4.90	1.96	0.00	290.00	4.90	1.96	0.00
40.00	4.90	1.96	0.00	295.00	4.90	1.96	0.00
45.00	4.90	1.96	0.00	300.00	4.90	1.96	0.00
50.00	4.90	1.96	0.00	305.00	4.90	1.96	0.00
55.00	4.90	1.96	0.00	310.00	4.90	1.96	0.00
60.00	4.90	1.96	0.00	315.00	4.90	1.96	0.00
65.00	4.90	1.96	0.00	320.00	4.90	1.96	0.00
70.00	4.90	1.96	0.00	325.00	4.90	1.96	0.00
75.00	4.90	1.96	0.00	330.00	4.90	1.96	0.00
80.00	4.90	1.96	0.00	335.00	4.90	1.96	0.00
85.00	4.90	1.96	0.00	340.00	4.90	1.96	0.00
90.00	4.90	1.96	0.00	345.00	4.90	1.96	0.00
95.00	4.90	1.96	0.00	350.00	4.90	1.96	0.00
100.00	4.90	1.96	0.00	355.00	4.90	1.96	0.00
105.00	4.90	1.96	0.00	360.00	4.90	1.96	0.00
110.00	4.90	1.96	0.00	365.00	4.90	1.96	0.00
115.00	4.90	1.96	0.00	370.00	4.90	1.96	0.00
120.00	4.90	1.96	0.00	375.00	4.90	1.96	0.00
125.00	4.90	1.96	0.00	380.00	4.90	1.96	0.00
130.00	4.90	1.96	0.00	385.00	4.90	1.96	0.00
135.00	4.90	1.96	0.00	390.00	4.90	1.96	0.00
140.00	4.90	1.96	0.00	395.00	4.90	1.96	0.00
145.00	4.90	1.96	0.00	400.00	4.90	1.96	0.00
150.00	4.90	1.96	0.00	405.00	4.90	1.96	0.00
155.00	4.90	1.96	0.00	410.00	4.90	1.96	0.00
160.00	4.90	1.96	0.00	415.00	4.90	1.96	0.00
165.00	4.90	1.96	0.00	420.00	4.90	1.96	0.00
170.00	4.90	1.96	0.00	425.00	4.90	1.96	0.00
175.00	4.90	1.96	0.00	430.00	4.90	1.96	0.00
180.00	4.90	1.96	0.00	435.00	4.90	1.96	0.00
185.00	4.90	1.96	0.00	440.00	4.90	1.96	0.00
190.00	4.90	1.96	0.00	445.00	4.90	1.96	0.00
195.00	4.90	1.96	0.00	450.00	4.90	1.96	0.00
200.00	4.90	1.96	0.00	455.00	4.90	1.96	0.00
205.00	4.90	1.96	0.00	460.00	4.90	1.96	0.00
210.00	4.90	1.96	0.00	465.00	4.90	1.96	0.00
215.00	4.90	1.96	0.00	470.00	4.90	1.96	0.00
220.00	4.90	1.96	0.00	475.00	4.90	1.96	0.00
225.00	4.90	1.96	0.00	480.00	4.90	1.96	0.00
230.00	4.90	1.96	0.00	485.00	4.90	1.96	0.00
235.00	4.90	1.96	0.00	490.00	4.90	1.96	0.00
240.00	4.90	1.96	0.00	495.00	4.90	1.96	0.00
245.00	4.90	1.96	0.00	500.00	4.90	1.96	0.00
250.00	4.90	1.96	0.00				
255.00	4.90	1.96	0.00				

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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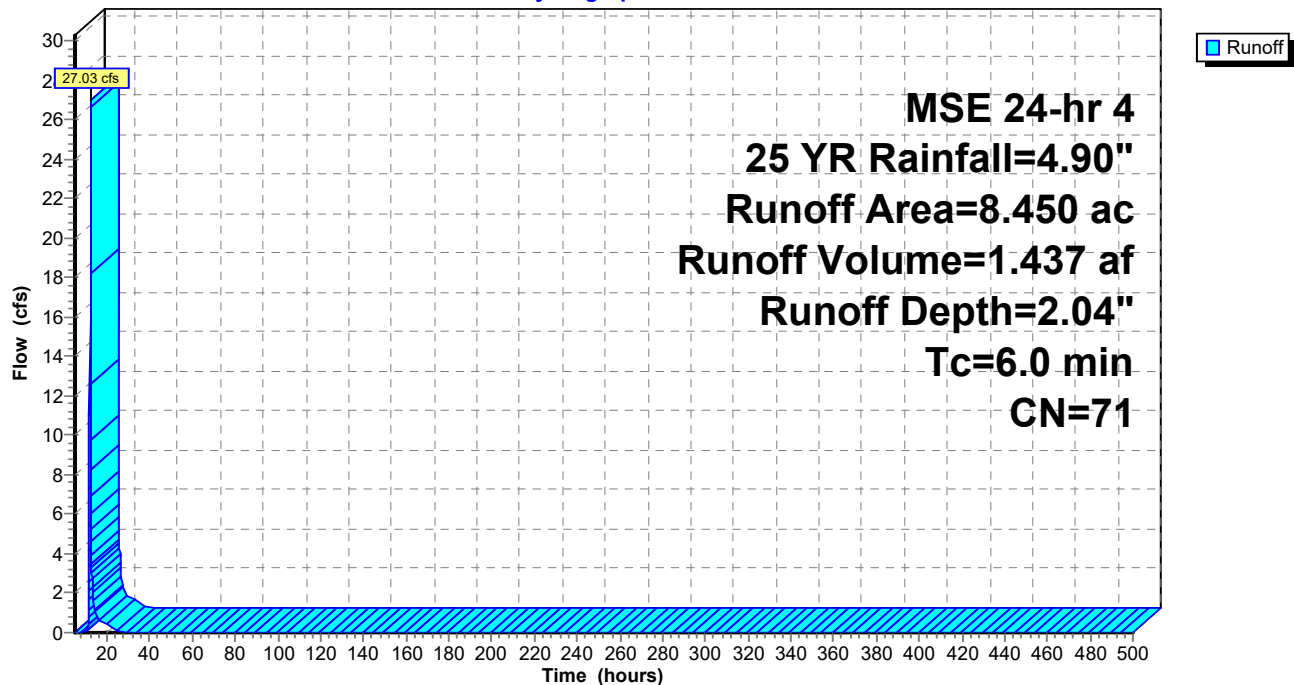
Summary for Subcatchment 3B: Post 3B

Runoff = 27.03 cfs @ 12.14 hrs, Volume= 1.437 af, Depth= 2.04"
Routed to Pond P3B : Pond 3B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 25 YR Rainfall=4.90"

	Area (ac)	CN	Description
*	1.680	98	Impervious
*	5.290	61	Post - B Soils
*	1.480	74	Post - C Soils
	8.450	71	Weighted Average
	6.770		80.12% Pervious Area
	1.680		19.88% Impervious Area

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

Subcatchment 3B: Post 3B**Hydrograph**

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Subcatchment 3B: Post 3B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.22	0.00	0.00	260.00	4.90	2.04	0.00
10.00	0.78	0.00	0.00	265.00	4.90	2.04	0.00
15.00	4.31	1.61	1.05	270.00	4.90	2.04	0.00
20.00	4.74	1.92	0.39	275.00	4.90	2.04	0.00
25.00	4.90	2.04	0.00	280.00	4.90	2.04	0.00
30.00	4.90	2.04	0.00	285.00	4.90	2.04	0.00
35.00	4.90	2.04	0.00	290.00	4.90	2.04	0.00
40.00	4.90	2.04	0.00	295.00	4.90	2.04	0.00
45.00	4.90	2.04	0.00	300.00	4.90	2.04	0.00
50.00	4.90	2.04	0.00	305.00	4.90	2.04	0.00
55.00	4.90	2.04	0.00	310.00	4.90	2.04	0.00
60.00	4.90	2.04	0.00	315.00	4.90	2.04	0.00
65.00	4.90	2.04	0.00	320.00	4.90	2.04	0.00
70.00	4.90	2.04	0.00	325.00	4.90	2.04	0.00
75.00	4.90	2.04	0.00	330.00	4.90	2.04	0.00
80.00	4.90	2.04	0.00	335.00	4.90	2.04	0.00
85.00	4.90	2.04	0.00	340.00	4.90	2.04	0.00
90.00	4.90	2.04	0.00	345.00	4.90	2.04	0.00
95.00	4.90	2.04	0.00	350.00	4.90	2.04	0.00
100.00	4.90	2.04	0.00	355.00	4.90	2.04	0.00
105.00	4.90	2.04	0.00	360.00	4.90	2.04	0.00
110.00	4.90	2.04	0.00	365.00	4.90	2.04	0.00
115.00	4.90	2.04	0.00	370.00	4.90	2.04	0.00
120.00	4.90	2.04	0.00	375.00	4.90	2.04	0.00
125.00	4.90	2.04	0.00	380.00	4.90	2.04	0.00
130.00	4.90	2.04	0.00	385.00	4.90	2.04	0.00
135.00	4.90	2.04	0.00	390.00	4.90	2.04	0.00
140.00	4.90	2.04	0.00	395.00	4.90	2.04	0.00
145.00	4.90	2.04	0.00	400.00	4.90	2.04	0.00
150.00	4.90	2.04	0.00	405.00	4.90	2.04	0.00
155.00	4.90	2.04	0.00	410.00	4.90	2.04	0.00
160.00	4.90	2.04	0.00	415.00	4.90	2.04	0.00
165.00	4.90	2.04	0.00	420.00	4.90	2.04	0.00
170.00	4.90	2.04	0.00	425.00	4.90	2.04	0.00
175.00	4.90	2.04	0.00	430.00	4.90	2.04	0.00
180.00	4.90	2.04	0.00	435.00	4.90	2.04	0.00
185.00	4.90	2.04	0.00	440.00	4.90	2.04	0.00
190.00	4.90	2.04	0.00	445.00	4.90	2.04	0.00
195.00	4.90	2.04	0.00	450.00	4.90	2.04	0.00
200.00	4.90	2.04	0.00	455.00	4.90	2.04	0.00
205.00	4.90	2.04	0.00	460.00	4.90	2.04	0.00
210.00	4.90	2.04	0.00	465.00	4.90	2.04	0.00
215.00	4.90	2.04	0.00	470.00	4.90	2.04	0.00
220.00	4.90	2.04	0.00	475.00	4.90	2.04	0.00
225.00	4.90	2.04	0.00	480.00	4.90	2.04	0.00
230.00	4.90	2.04	0.00	485.00	4.90	2.04	0.00
235.00	4.90	2.04	0.00	490.00	4.90	2.04	0.00
240.00	4.90	2.04	0.00	495.00	4.90	2.04	0.00
245.00	4.90	2.04	0.00	500.00	4.90	2.04	0.00
250.00	4.90	2.04	0.00				
255.00	4.90	2.04	0.00				

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Summary for Subcatchment 3C: Post 3C

Runoff = 9.25 cfs @ 12.13 hrs, Volume= 0.491 af, Depth= 2.37"
Routed to Pond P3C : Pond 3C

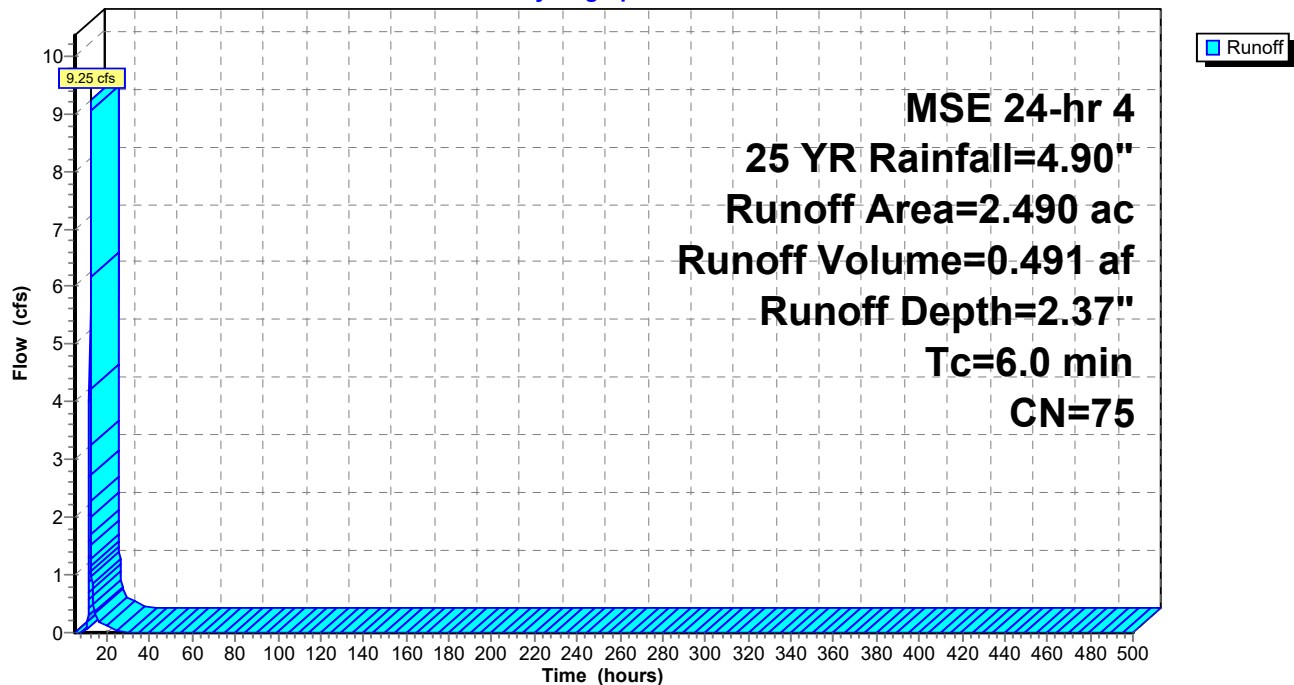
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 25 YR Rainfall=4.90"

Area (ac)	CN	Description
* 0.570	98	Impervious
* 0.800	61	Post - B Soils
* 1.120	74	Post - C Soils
2.490	75	Weighted Average
1.920		77.11% Pervious Area
0.570		22.89% Impervious Area

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

Subcatchment 3C: Post 3C

Hydrograph



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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Subcatchment 3C: Post 3C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.22	0.00	0.00	260.00	4.90	2.37	0.00
10.00	0.78	0.00	0.03	265.00	4.90	2.37	0.00
15.00	4.31	1.90	0.34	270.00	4.90	2.37	0.00
20.00	4.74	2.24	0.12	275.00	4.90	2.37	0.00
25.00	4.90	2.37	0.00	280.00	4.90	2.37	0.00
30.00	4.90	2.37	0.00	285.00	4.90	2.37	0.00
35.00	4.90	2.37	0.00	290.00	4.90	2.37	0.00
40.00	4.90	2.37	0.00	295.00	4.90	2.37	0.00
45.00	4.90	2.37	0.00	300.00	4.90	2.37	0.00
50.00	4.90	2.37	0.00	305.00	4.90	2.37	0.00
55.00	4.90	2.37	0.00	310.00	4.90	2.37	0.00
60.00	4.90	2.37	0.00	315.00	4.90	2.37	0.00
65.00	4.90	2.37	0.00	320.00	4.90	2.37	0.00
70.00	4.90	2.37	0.00	325.00	4.90	2.37	0.00
75.00	4.90	2.37	0.00	330.00	4.90	2.37	0.00
80.00	4.90	2.37	0.00	335.00	4.90	2.37	0.00
85.00	4.90	2.37	0.00	340.00	4.90	2.37	0.00
90.00	4.90	2.37	0.00	345.00	4.90	2.37	0.00
95.00	4.90	2.37	0.00	350.00	4.90	2.37	0.00
100.00	4.90	2.37	0.00	355.00	4.90	2.37	0.00
105.00	4.90	2.37	0.00	360.00	4.90	2.37	0.00
110.00	4.90	2.37	0.00	365.00	4.90	2.37	0.00
115.00	4.90	2.37	0.00	370.00	4.90	2.37	0.00
120.00	4.90	2.37	0.00	375.00	4.90	2.37	0.00
125.00	4.90	2.37	0.00	380.00	4.90	2.37	0.00
130.00	4.90	2.37	0.00	385.00	4.90	2.37	0.00
135.00	4.90	2.37	0.00	390.00	4.90	2.37	0.00
140.00	4.90	2.37	0.00	395.00	4.90	2.37	0.00
145.00	4.90	2.37	0.00	400.00	4.90	2.37	0.00
150.00	4.90	2.37	0.00	405.00	4.90	2.37	0.00
155.00	4.90	2.37	0.00	410.00	4.90	2.37	0.00
160.00	4.90	2.37	0.00	415.00	4.90	2.37	0.00
165.00	4.90	2.37	0.00	420.00	4.90	2.37	0.00
170.00	4.90	2.37	0.00	425.00	4.90	2.37	0.00
175.00	4.90	2.37	0.00	430.00	4.90	2.37	0.00
180.00	4.90	2.37	0.00	435.00	4.90	2.37	0.00
185.00	4.90	2.37	0.00	440.00	4.90	2.37	0.00
190.00	4.90	2.37	0.00	445.00	4.90	2.37	0.00
195.00	4.90	2.37	0.00	450.00	4.90	2.37	0.00
200.00	4.90	2.37	0.00	455.00	4.90	2.37	0.00
205.00	4.90	2.37	0.00	460.00	4.90	2.37	0.00
210.00	4.90	2.37	0.00	465.00	4.90	2.37	0.00
215.00	4.90	2.37	0.00	470.00	4.90	2.37	0.00
220.00	4.90	2.37	0.00	475.00	4.90	2.37	0.00
225.00	4.90	2.37	0.00	480.00	4.90	2.37	0.00
230.00	4.90	2.37	0.00	485.00	4.90	2.37	0.00
235.00	4.90	2.37	0.00	490.00	4.90	2.37	0.00
240.00	4.90	2.37	0.00	495.00	4.90	2.37	0.00
245.00	4.90	2.37	0.00	500.00	4.90	2.37	0.00
250.00	4.90	2.37	0.00				
255.00	4.90	2.37	0.00				

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Summary for Subcatchment 3D: Post 3D

Runoff = 9.15 cfs @ 12.13 hrs, Volume= 0.487 af, Depth= 2.45"
Routed to Pond P3D : Pond 3D

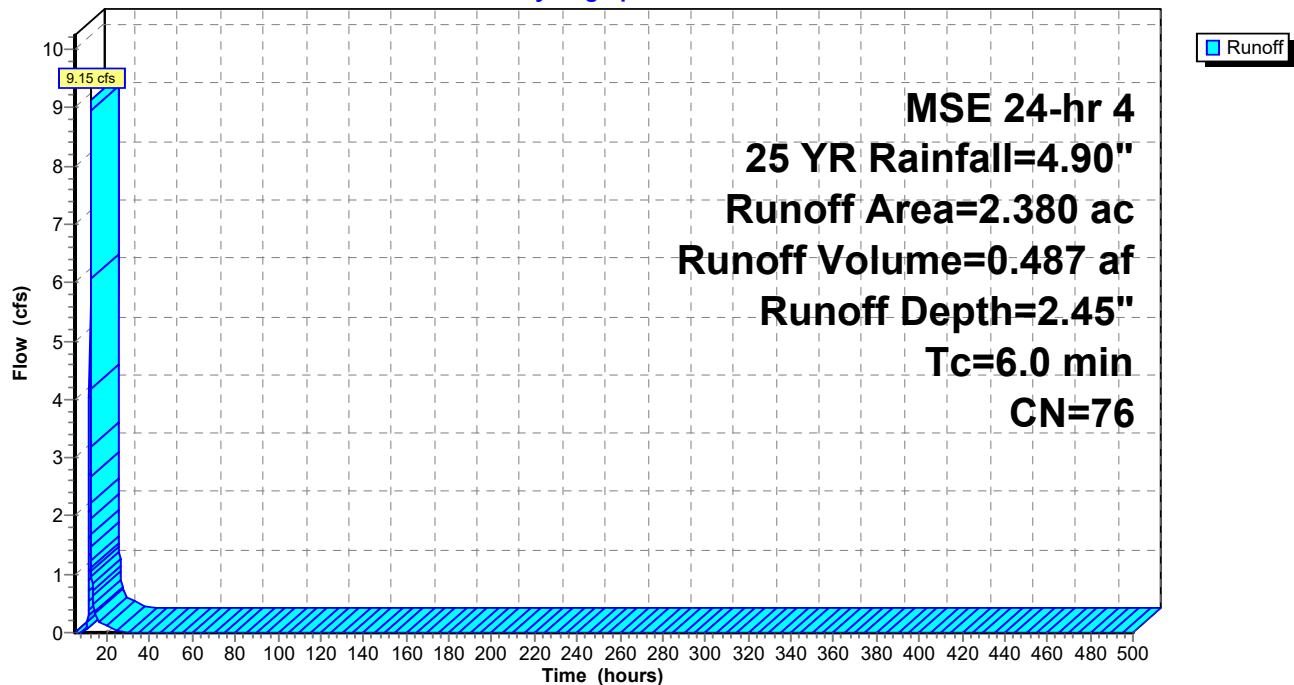
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 25 YR Rainfall=4.90"

Area (ac)	CN	Description
* 0.570	98	Impervious
* 0.610	61	Post - B Soils
* 1.200	74	Post - C Soils
2.380	76	Weighted Average
1.810		76.05% Pervious Area
0.570		23.95% Impervious Area

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

Subcatchment 3D: Post 3D

Hydrograph



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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Subcatchment 3D: Post 3D

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.22	0.00	0.00	260.00	4.90	2.45	0.00
10.00	0.78	0.01	0.03	265.00	4.90	2.45	0.00
15.00	4.31	1.98	0.33	270.00	4.90	2.45	0.00
20.00	4.74	2.32	0.12	275.00	4.90	2.45	0.00
25.00	4.90	2.45	0.00	280.00	4.90	2.45	0.00
30.00	4.90	2.45	0.00	285.00	4.90	2.45	0.00
35.00	4.90	2.45	0.00	290.00	4.90	2.45	0.00
40.00	4.90	2.45	0.00	295.00	4.90	2.45	0.00
45.00	4.90	2.45	0.00	300.00	4.90	2.45	0.00
50.00	4.90	2.45	0.00	305.00	4.90	2.45	0.00
55.00	4.90	2.45	0.00	310.00	4.90	2.45	0.00
60.00	4.90	2.45	0.00	315.00	4.90	2.45	0.00
65.00	4.90	2.45	0.00	320.00	4.90	2.45	0.00
70.00	4.90	2.45	0.00	325.00	4.90	2.45	0.00
75.00	4.90	2.45	0.00	330.00	4.90	2.45	0.00
80.00	4.90	2.45	0.00	335.00	4.90	2.45	0.00
85.00	4.90	2.45	0.00	340.00	4.90	2.45	0.00
90.00	4.90	2.45	0.00	345.00	4.90	2.45	0.00
95.00	4.90	2.45	0.00	350.00	4.90	2.45	0.00
100.00	4.90	2.45	0.00	355.00	4.90	2.45	0.00
105.00	4.90	2.45	0.00	360.00	4.90	2.45	0.00
110.00	4.90	2.45	0.00	365.00	4.90	2.45	0.00
115.00	4.90	2.45	0.00	370.00	4.90	2.45	0.00
120.00	4.90	2.45	0.00	375.00	4.90	2.45	0.00
125.00	4.90	2.45	0.00	380.00	4.90	2.45	0.00
130.00	4.90	2.45	0.00	385.00	4.90	2.45	0.00
135.00	4.90	2.45	0.00	390.00	4.90	2.45	0.00
140.00	4.90	2.45	0.00	395.00	4.90	2.45	0.00
145.00	4.90	2.45	0.00	400.00	4.90	2.45	0.00
150.00	4.90	2.45	0.00	405.00	4.90	2.45	0.00
155.00	4.90	2.45	0.00	410.00	4.90	2.45	0.00
160.00	4.90	2.45	0.00	415.00	4.90	2.45	0.00
165.00	4.90	2.45	0.00	420.00	4.90	2.45	0.00
170.00	4.90	2.45	0.00	425.00	4.90	2.45	0.00
175.00	4.90	2.45	0.00	430.00	4.90	2.45	0.00
180.00	4.90	2.45	0.00	435.00	4.90	2.45	0.00
185.00	4.90	2.45	0.00	440.00	4.90	2.45	0.00
190.00	4.90	2.45	0.00	445.00	4.90	2.45	0.00
195.00	4.90	2.45	0.00	450.00	4.90	2.45	0.00
200.00	4.90	2.45	0.00	455.00	4.90	2.45	0.00
205.00	4.90	2.45	0.00	460.00	4.90	2.45	0.00
210.00	4.90	2.45	0.00	465.00	4.90	2.45	0.00
215.00	4.90	2.45	0.00	470.00	4.90	2.45	0.00
220.00	4.90	2.45	0.00	475.00	4.90	2.45	0.00
225.00	4.90	2.45	0.00	480.00	4.90	2.45	0.00
230.00	4.90	2.45	0.00	485.00	4.90	2.45	0.00
235.00	4.90	2.45	0.00	490.00	4.90	2.45	0.00
240.00	4.90	2.45	0.00	495.00	4.90	2.45	0.00
245.00	4.90	2.45	0.00	500.00	4.90	2.45	0.00
250.00	4.90	2.45	0.00				
255.00	4.90	2.45	0.00				

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Summary for Subcatchment 3E: Post 3E

Runoff = 9.96 cfs @ 12.13 hrs, Volume= 0.529 af, Depth= 2.28"
Routed to Pond P3E : Pond 3E

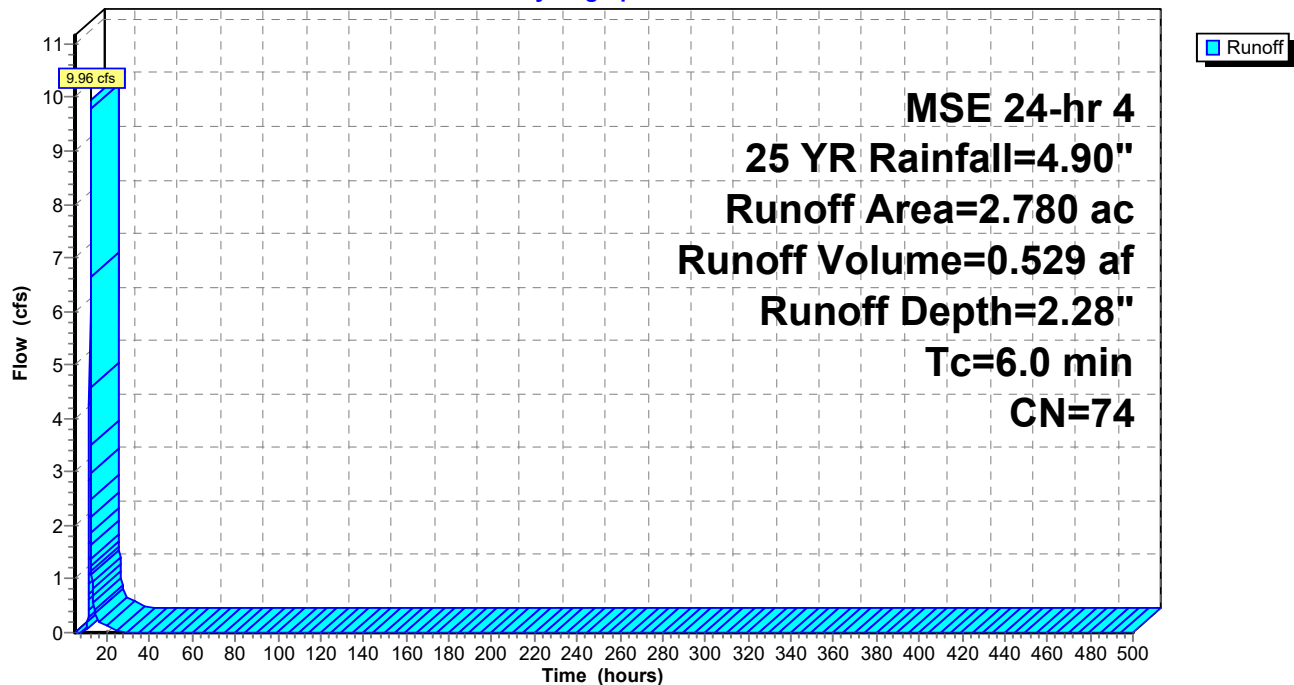
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 25 YR Rainfall=4.90"

	Area (ac)	CN	Description
*	0.530	98	Impervious
*	0.920	61	Post - B Soils
*	1.330	74	Post - C Soils
	2.780	74	Weighted Average
	2.250		80.94% Pervious Area
	0.530		19.06% Impervious Area

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

Subcatchment 3E: Post 3E

Hydrograph



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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Subcatchment 3E: Post 3E

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.22	0.00	0.00	260.00	4.90	2.28	0.00
10.00	0.78	0.00	0.02	265.00	4.90	2.28	0.00
15.00	4.31	1.83	0.37	270.00	4.90	2.28	0.00
20.00	4.74	2.16	0.14	275.00	4.90	2.28	0.00
25.00	4.90	2.28	0.00	280.00	4.90	2.28	0.00
30.00	4.90	2.28	0.00	285.00	4.90	2.28	0.00
35.00	4.90	2.28	0.00	290.00	4.90	2.28	0.00
40.00	4.90	2.28	0.00	295.00	4.90	2.28	0.00
45.00	4.90	2.28	0.00	300.00	4.90	2.28	0.00
50.00	4.90	2.28	0.00	305.00	4.90	2.28	0.00
55.00	4.90	2.28	0.00	310.00	4.90	2.28	0.00
60.00	4.90	2.28	0.00	315.00	4.90	2.28	0.00
65.00	4.90	2.28	0.00	320.00	4.90	2.28	0.00
70.00	4.90	2.28	0.00	325.00	4.90	2.28	0.00
75.00	4.90	2.28	0.00	330.00	4.90	2.28	0.00
80.00	4.90	2.28	0.00	335.00	4.90	2.28	0.00
85.00	4.90	2.28	0.00	340.00	4.90	2.28	0.00
90.00	4.90	2.28	0.00	345.00	4.90	2.28	0.00
95.00	4.90	2.28	0.00	350.00	4.90	2.28	0.00
100.00	4.90	2.28	0.00	355.00	4.90	2.28	0.00
105.00	4.90	2.28	0.00	360.00	4.90	2.28	0.00
110.00	4.90	2.28	0.00	365.00	4.90	2.28	0.00
115.00	4.90	2.28	0.00	370.00	4.90	2.28	0.00
120.00	4.90	2.28	0.00	375.00	4.90	2.28	0.00
125.00	4.90	2.28	0.00	380.00	4.90	2.28	0.00
130.00	4.90	2.28	0.00	385.00	4.90	2.28	0.00
135.00	4.90	2.28	0.00	390.00	4.90	2.28	0.00
140.00	4.90	2.28	0.00	395.00	4.90	2.28	0.00
145.00	4.90	2.28	0.00	400.00	4.90	2.28	0.00
150.00	4.90	2.28	0.00	405.00	4.90	2.28	0.00
155.00	4.90	2.28	0.00	410.00	4.90	2.28	0.00
160.00	4.90	2.28	0.00	415.00	4.90	2.28	0.00
165.00	4.90	2.28	0.00	420.00	4.90	2.28	0.00
170.00	4.90	2.28	0.00	425.00	4.90	2.28	0.00
175.00	4.90	2.28	0.00	430.00	4.90	2.28	0.00
180.00	4.90	2.28	0.00	435.00	4.90	2.28	0.00
185.00	4.90	2.28	0.00	440.00	4.90	2.28	0.00
190.00	4.90	2.28	0.00	445.00	4.90	2.28	0.00
195.00	4.90	2.28	0.00	450.00	4.90	2.28	0.00
200.00	4.90	2.28	0.00	455.00	4.90	2.28	0.00
205.00	4.90	2.28	0.00	460.00	4.90	2.28	0.00
210.00	4.90	2.28	0.00	465.00	4.90	2.28	0.00
215.00	4.90	2.28	0.00	470.00	4.90	2.28	0.00
220.00	4.90	2.28	0.00	475.00	4.90	2.28	0.00
225.00	4.90	2.28	0.00	480.00	4.90	2.28	0.00
230.00	4.90	2.28	0.00	485.00	4.90	2.28	0.00
235.00	4.90	2.28	0.00	490.00	4.90	2.28	0.00
240.00	4.90	2.28	0.00	495.00	4.90	2.28	0.00
245.00	4.90	2.28	0.00	500.00	4.90	2.28	0.00
250.00	4.90	2.28	0.00				
255.00	4.90	2.28	0.00				

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Summary for Subcatchment 3Y: Post 3Y - Offsite

Runoff = 3.89 cfs @ 12.13 hrs, Volume= 0.211 af, Depth= 3.08"
Routed to Link 4L : Post - North

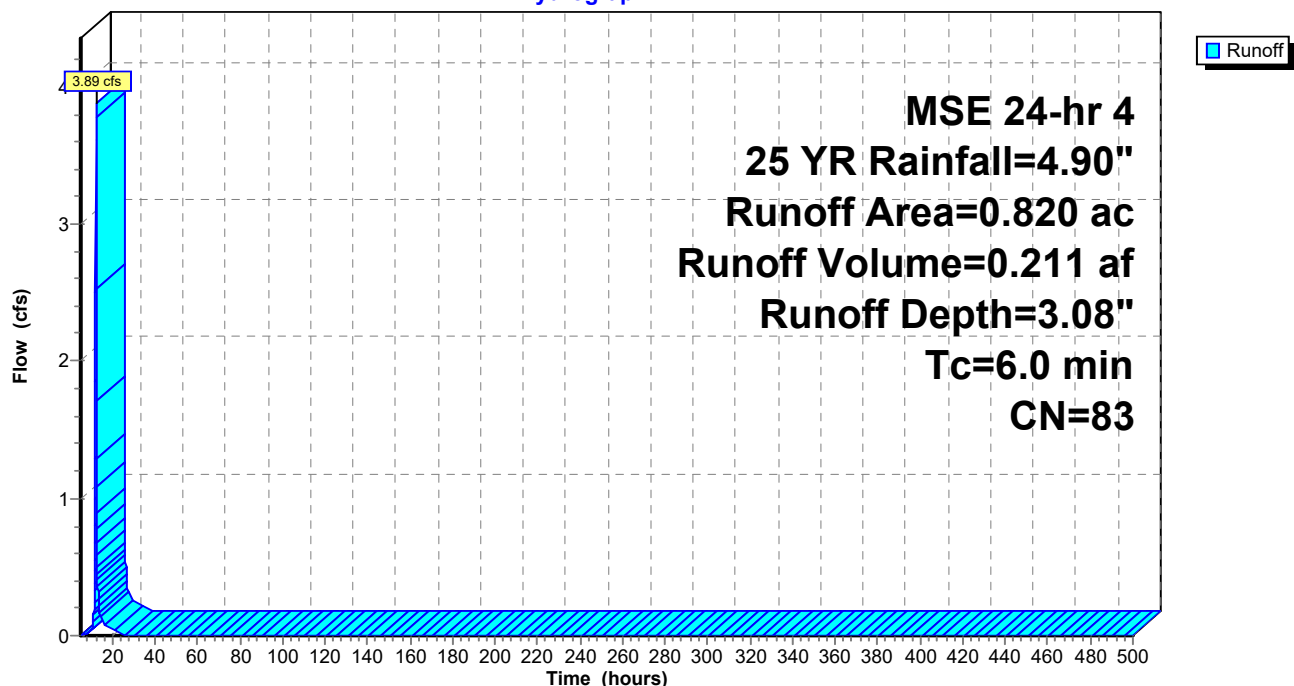
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 25 YR Rainfall=4.90"

	Area (ac)	CN	Description
*	0.300	98	Impervious
*	0.000	61	Post - B Soils
*	0.520	74	Post - C Soils
	0.820	83	Weighted Average
	0.520		63.41% Pervious Area
	0.300		36.59% Impervious Area

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

Subcatchment 3Y: Post 3Y - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"
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Hydrograph for Subcatchment 3Y: Post 3Y - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.22	0.00	0.00	260.00	4.90	3.08	0.00
10.00	0.78	0.06	0.04	265.00	4.90	3.08	0.00
15.00	4.31	2.55	0.13	270.00	4.90	3.08	0.00
20.00	4.74	2.94	0.05	275.00	4.90	3.08	0.00
25.00	4.90	3.08	0.00	280.00	4.90	3.08	0.00
30.00	4.90	3.08	0.00	285.00	4.90	3.08	0.00
35.00	4.90	3.08	0.00	290.00	4.90	3.08	0.00
40.00	4.90	3.08	0.00	295.00	4.90	3.08	0.00
45.00	4.90	3.08	0.00	300.00	4.90	3.08	0.00
50.00	4.90	3.08	0.00	305.00	4.90	3.08	0.00
55.00	4.90	3.08	0.00	310.00	4.90	3.08	0.00
60.00	4.90	3.08	0.00	315.00	4.90	3.08	0.00
65.00	4.90	3.08	0.00	320.00	4.90	3.08	0.00
70.00	4.90	3.08	0.00	325.00	4.90	3.08	0.00
75.00	4.90	3.08	0.00	330.00	4.90	3.08	0.00
80.00	4.90	3.08	0.00	335.00	4.90	3.08	0.00
85.00	4.90	3.08	0.00	340.00	4.90	3.08	0.00
90.00	4.90	3.08	0.00	345.00	4.90	3.08	0.00
95.00	4.90	3.08	0.00	350.00	4.90	3.08	0.00
100.00	4.90	3.08	0.00	355.00	4.90	3.08	0.00
105.00	4.90	3.08	0.00	360.00	4.90	3.08	0.00
110.00	4.90	3.08	0.00	365.00	4.90	3.08	0.00
115.00	4.90	3.08	0.00	370.00	4.90	3.08	0.00
120.00	4.90	3.08	0.00	375.00	4.90	3.08	0.00
125.00	4.90	3.08	0.00	380.00	4.90	3.08	0.00
130.00	4.90	3.08	0.00	385.00	4.90	3.08	0.00
135.00	4.90	3.08	0.00	390.00	4.90	3.08	0.00
140.00	4.90	3.08	0.00	395.00	4.90	3.08	0.00
145.00	4.90	3.08	0.00	400.00	4.90	3.08	0.00
150.00	4.90	3.08	0.00	405.00	4.90	3.08	0.00
155.00	4.90	3.08	0.00	410.00	4.90	3.08	0.00
160.00	4.90	3.08	0.00	415.00	4.90	3.08	0.00
165.00	4.90	3.08	0.00	420.00	4.90	3.08	0.00
170.00	4.90	3.08	0.00	425.00	4.90	3.08	0.00
175.00	4.90	3.08	0.00	430.00	4.90	3.08	0.00
180.00	4.90	3.08	0.00	435.00	4.90	3.08	0.00
185.00	4.90	3.08	0.00	440.00	4.90	3.08	0.00
190.00	4.90	3.08	0.00	445.00	4.90	3.08	0.00
195.00	4.90	3.08	0.00	450.00	4.90	3.08	0.00
200.00	4.90	3.08	0.00	455.00	4.90	3.08	0.00
205.00	4.90	3.08	0.00	460.00	4.90	3.08	0.00
210.00	4.90	3.08	0.00	465.00	4.90	3.08	0.00
215.00	4.90	3.08	0.00	470.00	4.90	3.08	0.00
220.00	4.90	3.08	0.00	475.00	4.90	3.08	0.00
225.00	4.90	3.08	0.00	480.00	4.90	3.08	0.00
230.00	4.90	3.08	0.00	485.00	4.90	3.08	0.00
235.00	4.90	3.08	0.00	490.00	4.90	3.08	0.00
240.00	4.90	3.08	0.00	495.00	4.90	3.08	0.00
245.00	4.90	3.08	0.00	500.00	4.90	3.08	0.00
250.00	4.90	3.08	0.00				
255.00	4.90	3.08	0.00				

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Summary for Subcatchment 3Z: Post 3Z - Offsite

Runoff = 1.86 cfs @ 12.13 hrs, Volume= 0.099 af, Depth= 2.28"
Routed to Link 4L : Post - North

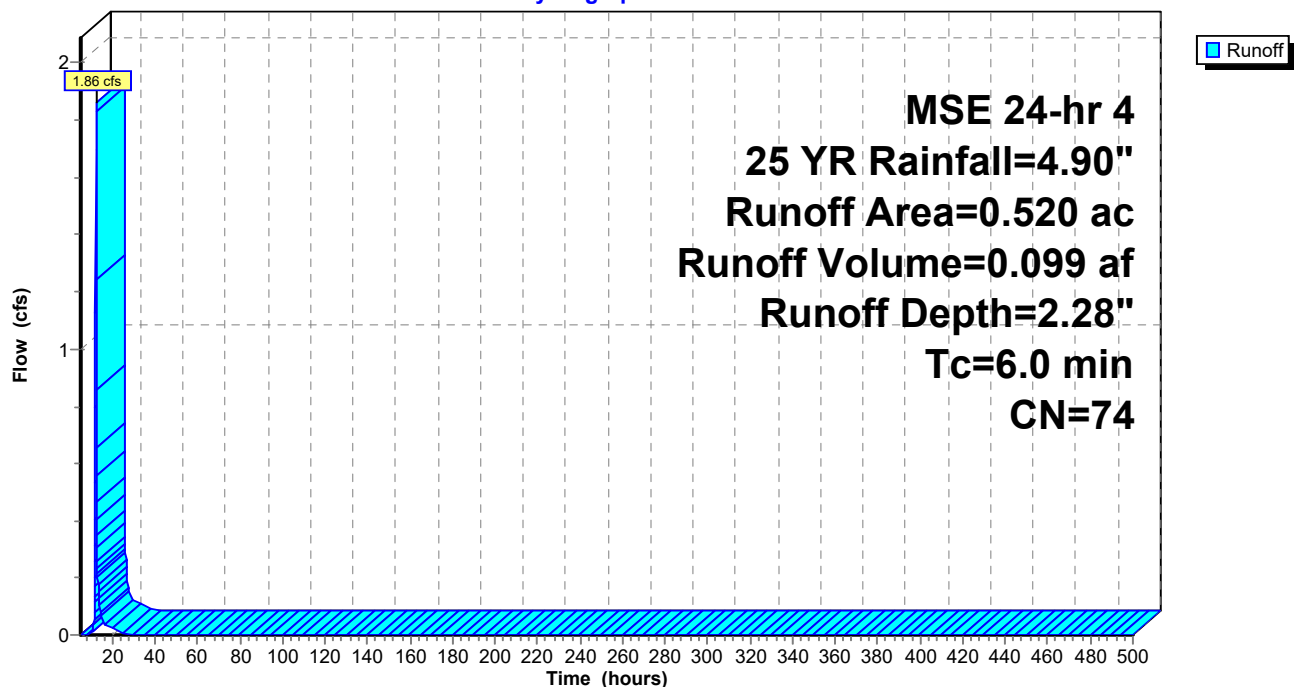
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 25 YR Rainfall=4.90"

Area (ac)	CN	Description
* 0.000	98	Impervious
* 0.000	61	Post - B Soils
* 0.520	74	Post - C Soils
0.520	74	Weighted Average
0.520		100.00% Pervious Area

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

Subcatchment 3Z: Post 3Z - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Subcatchment 3Z: Post 3Z - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.22	0.00	0.00	260.00	4.90	2.28	0.00
10.00	0.78	0.00	0.00	265.00	4.90	2.28	0.00
15.00	4.31	1.83	0.07	270.00	4.90	2.28	0.00
20.00	4.74	2.16	0.03	275.00	4.90	2.28	0.00
25.00	4.90	2.28	0.00	280.00	4.90	2.28	0.00
30.00	4.90	2.28	0.00	285.00	4.90	2.28	0.00
35.00	4.90	2.28	0.00	290.00	4.90	2.28	0.00
40.00	4.90	2.28	0.00	295.00	4.90	2.28	0.00
45.00	4.90	2.28	0.00	300.00	4.90	2.28	0.00
50.00	4.90	2.28	0.00	305.00	4.90	2.28	0.00
55.00	4.90	2.28	0.00	310.00	4.90	2.28	0.00
60.00	4.90	2.28	0.00	315.00	4.90	2.28	0.00
65.00	4.90	2.28	0.00	320.00	4.90	2.28	0.00
70.00	4.90	2.28	0.00	325.00	4.90	2.28	0.00
75.00	4.90	2.28	0.00	330.00	4.90	2.28	0.00
80.00	4.90	2.28	0.00	335.00	4.90	2.28	0.00
85.00	4.90	2.28	0.00	340.00	4.90	2.28	0.00
90.00	4.90	2.28	0.00	345.00	4.90	2.28	0.00
95.00	4.90	2.28	0.00	350.00	4.90	2.28	0.00
100.00	4.90	2.28	0.00	355.00	4.90	2.28	0.00
105.00	4.90	2.28	0.00	360.00	4.90	2.28	0.00
110.00	4.90	2.28	0.00	365.00	4.90	2.28	0.00
115.00	4.90	2.28	0.00	370.00	4.90	2.28	0.00
120.00	4.90	2.28	0.00	375.00	4.90	2.28	0.00
125.00	4.90	2.28	0.00	380.00	4.90	2.28	0.00
130.00	4.90	2.28	0.00	385.00	4.90	2.28	0.00
135.00	4.90	2.28	0.00	390.00	4.90	2.28	0.00
140.00	4.90	2.28	0.00	395.00	4.90	2.28	0.00
145.00	4.90	2.28	0.00	400.00	4.90	2.28	0.00
150.00	4.90	2.28	0.00	405.00	4.90	2.28	0.00
155.00	4.90	2.28	0.00	410.00	4.90	2.28	0.00
160.00	4.90	2.28	0.00	415.00	4.90	2.28	0.00
165.00	4.90	2.28	0.00	420.00	4.90	2.28	0.00
170.00	4.90	2.28	0.00	425.00	4.90	2.28	0.00
175.00	4.90	2.28	0.00	430.00	4.90	2.28	0.00
180.00	4.90	2.28	0.00	435.00	4.90	2.28	0.00
185.00	4.90	2.28	0.00	440.00	4.90	2.28	0.00
190.00	4.90	2.28	0.00	445.00	4.90	2.28	0.00
195.00	4.90	2.28	0.00	450.00	4.90	2.28	0.00
200.00	4.90	2.28	0.00	455.00	4.90	2.28	0.00
205.00	4.90	2.28	0.00	460.00	4.90	2.28	0.00
210.00	4.90	2.28	0.00	465.00	4.90	2.28	0.00
215.00	4.90	2.28	0.00	470.00	4.90	2.28	0.00
220.00	4.90	2.28	0.00	475.00	4.90	2.28	0.00
225.00	4.90	2.28	0.00	480.00	4.90	2.28	0.00
230.00	4.90	2.28	0.00	485.00	4.90	2.28	0.00
235.00	4.90	2.28	0.00	490.00	4.90	2.28	0.00
240.00	4.90	2.28	0.00	495.00	4.90	2.28	0.00
245.00	4.90	2.28	0.00	500.00	4.90	2.28	0.00
250.00	4.90	2.28	0.00				
255.00	4.90	2.28	0.00				

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Summary for Subcatchment 5S: Culvert 1

Runoff = 0.47 cfs @ 12.13 hrs, Volume= 0.025 af, Depth= 2.72"

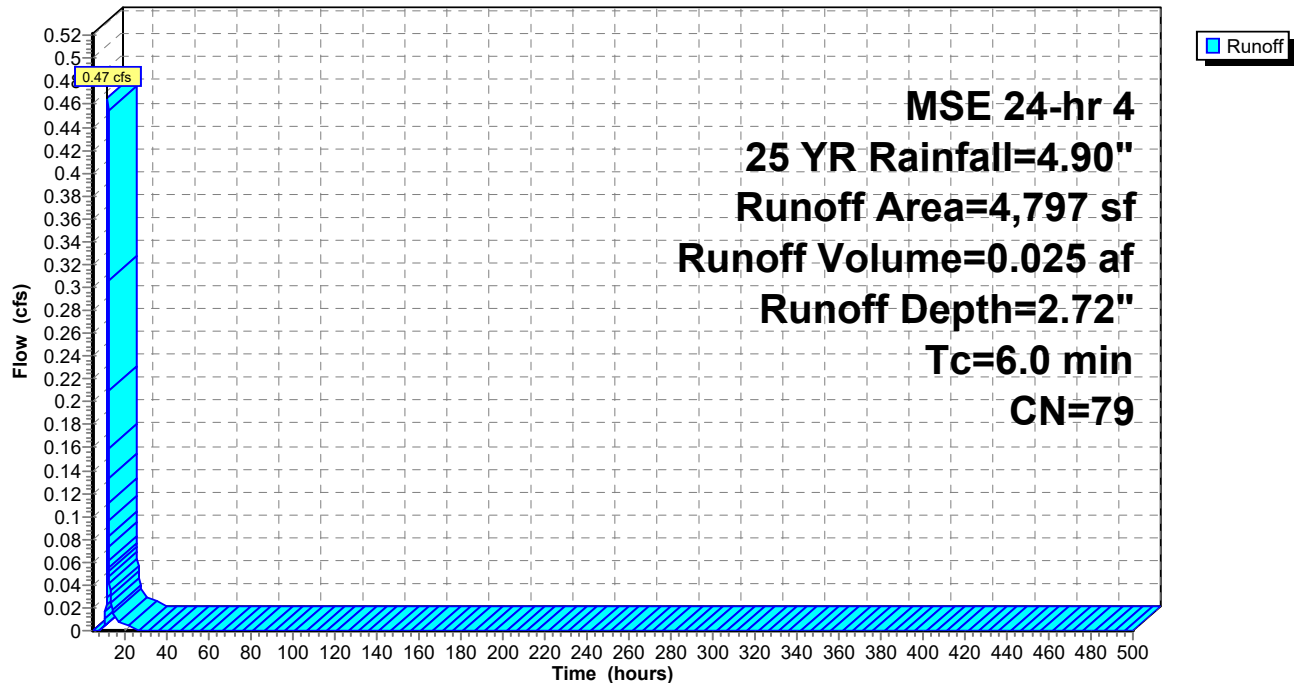
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 25 YR Rainfall=4.90"

	Area (sf)	CN	Description
*	2,465	61	Post - B Soils
*	2,332	98	Impervious
	4,797	79	Weighted Average
	2,465		51.39% Pervious Area
	2,332		48.61% Impervious Area

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

Subcatchment 5S: Culvert 1

Hydrograph



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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Subcatchment 5S: Culvert 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.22	0.00	0.00	260.00	4.90	2.72	0.00
10.00	0.78	0.02	0.00	265.00	4.90	2.72	0.00
15.00	4.31	2.22	0.02	270.00	4.90	2.72	0.00
20.00	4.74	2.58	0.01	275.00	4.90	2.72	0.00
25.00	4.90	2.72	0.00	280.00	4.90	2.72	0.00
30.00	4.90	2.72	0.00	285.00	4.90	2.72	0.00
35.00	4.90	2.72	0.00	290.00	4.90	2.72	0.00
40.00	4.90	2.72	0.00	295.00	4.90	2.72	0.00
45.00	4.90	2.72	0.00	300.00	4.90	2.72	0.00
50.00	4.90	2.72	0.00	305.00	4.90	2.72	0.00
55.00	4.90	2.72	0.00	310.00	4.90	2.72	0.00
60.00	4.90	2.72	0.00	315.00	4.90	2.72	0.00
65.00	4.90	2.72	0.00	320.00	4.90	2.72	0.00
70.00	4.90	2.72	0.00	325.00	4.90	2.72	0.00
75.00	4.90	2.72	0.00	330.00	4.90	2.72	0.00
80.00	4.90	2.72	0.00	335.00	4.90	2.72	0.00
85.00	4.90	2.72	0.00	340.00	4.90	2.72	0.00
90.00	4.90	2.72	0.00	345.00	4.90	2.72	0.00
95.00	4.90	2.72	0.00	350.00	4.90	2.72	0.00
100.00	4.90	2.72	0.00	355.00	4.90	2.72	0.00
105.00	4.90	2.72	0.00	360.00	4.90	2.72	0.00
110.00	4.90	2.72	0.00	365.00	4.90	2.72	0.00
115.00	4.90	2.72	0.00	370.00	4.90	2.72	0.00
120.00	4.90	2.72	0.00	375.00	4.90	2.72	0.00
125.00	4.90	2.72	0.00	380.00	4.90	2.72	0.00
130.00	4.90	2.72	0.00	385.00	4.90	2.72	0.00
135.00	4.90	2.72	0.00	390.00	4.90	2.72	0.00
140.00	4.90	2.72	0.00	395.00	4.90	2.72	0.00
145.00	4.90	2.72	0.00	400.00	4.90	2.72	0.00
150.00	4.90	2.72	0.00	405.00	4.90	2.72	0.00
155.00	4.90	2.72	0.00	410.00	4.90	2.72	0.00
160.00	4.90	2.72	0.00	415.00	4.90	2.72	0.00
165.00	4.90	2.72	0.00	420.00	4.90	2.72	0.00
170.00	4.90	2.72	0.00	425.00	4.90	2.72	0.00
175.00	4.90	2.72	0.00	430.00	4.90	2.72	0.00
180.00	4.90	2.72	0.00	435.00	4.90	2.72	0.00
185.00	4.90	2.72	0.00	440.00	4.90	2.72	0.00
190.00	4.90	2.72	0.00	445.00	4.90	2.72	0.00
195.00	4.90	2.72	0.00	450.00	4.90	2.72	0.00
200.00	4.90	2.72	0.00	455.00	4.90	2.72	0.00
205.00	4.90	2.72	0.00	460.00	4.90	2.72	0.00
210.00	4.90	2.72	0.00	465.00	4.90	2.72	0.00
215.00	4.90	2.72	0.00	470.00	4.90	2.72	0.00
220.00	4.90	2.72	0.00	475.00	4.90	2.72	0.00
225.00	4.90	2.72	0.00	480.00	4.90	2.72	0.00
230.00	4.90	2.72	0.00	485.00	4.90	2.72	0.00
235.00	4.90	2.72	0.00	490.00	4.90	2.72	0.00
240.00	4.90	2.72	0.00	495.00	4.90	2.72	0.00
245.00	4.90	2.72	0.00	500.00	4.90	2.72	0.00
250.00	4.90	2.72	0.00				
255.00	4.90	2.72	0.00				

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Summary for Subcatchment 6S: Culvert 2

Runoff = 2.11 cfs @ 12.13 hrs, Volume= 0.112 af, Depth= 2.37"

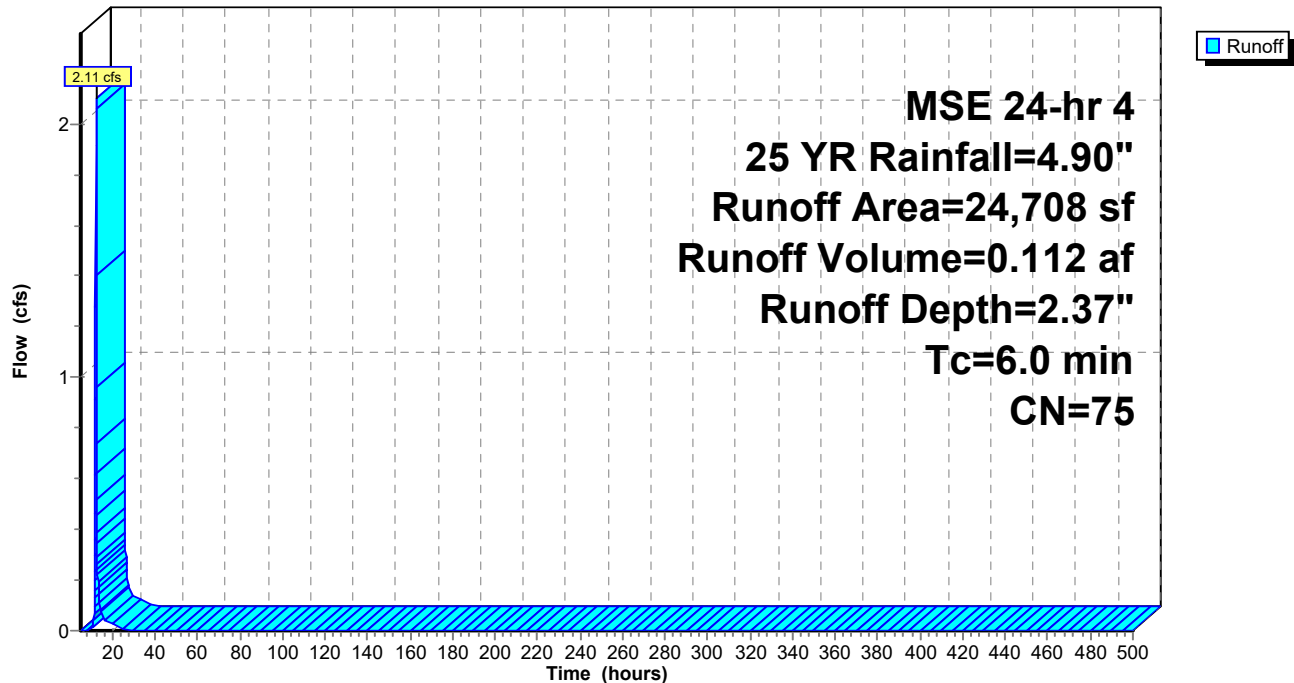
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 25 YR Rainfall=4.90"

	Area (sf)	CN	Description
*	15,597	61	Post - B Soils
*	9,111	98	Impervious
	24,708	75	Weighted Average
	15,597		63.13% Pervious Area
	9,111		36.87% Impervious Area

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

Subcatchment 6S: Culvert 2

Hydrograph



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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Subcatchment 6S: Culvert 2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.22	0.00	0.00	260.00	4.90	2.37	0.00
10.00	0.78	0.00	0.01	265.00	4.90	2.37	0.00
15.00	4.31	1.90	0.08	270.00	4.90	2.37	0.00
20.00	4.74	2.24	0.03	275.00	4.90	2.37	0.00
25.00	4.90	2.37	0.00	280.00	4.90	2.37	0.00
30.00	4.90	2.37	0.00	285.00	4.90	2.37	0.00
35.00	4.90	2.37	0.00	290.00	4.90	2.37	0.00
40.00	4.90	2.37	0.00	295.00	4.90	2.37	0.00
45.00	4.90	2.37	0.00	300.00	4.90	2.37	0.00
50.00	4.90	2.37	0.00	305.00	4.90	2.37	0.00
55.00	4.90	2.37	0.00	310.00	4.90	2.37	0.00
60.00	4.90	2.37	0.00	315.00	4.90	2.37	0.00
65.00	4.90	2.37	0.00	320.00	4.90	2.37	0.00
70.00	4.90	2.37	0.00	325.00	4.90	2.37	0.00
75.00	4.90	2.37	0.00	330.00	4.90	2.37	0.00
80.00	4.90	2.37	0.00	335.00	4.90	2.37	0.00
85.00	4.90	2.37	0.00	340.00	4.90	2.37	0.00
90.00	4.90	2.37	0.00	345.00	4.90	2.37	0.00
95.00	4.90	2.37	0.00	350.00	4.90	2.37	0.00
100.00	4.90	2.37	0.00	355.00	4.90	2.37	0.00
105.00	4.90	2.37	0.00	360.00	4.90	2.37	0.00
110.00	4.90	2.37	0.00	365.00	4.90	2.37	0.00
115.00	4.90	2.37	0.00	370.00	4.90	2.37	0.00
120.00	4.90	2.37	0.00	375.00	4.90	2.37	0.00
125.00	4.90	2.37	0.00	380.00	4.90	2.37	0.00
130.00	4.90	2.37	0.00	385.00	4.90	2.37	0.00
135.00	4.90	2.37	0.00	390.00	4.90	2.37	0.00
140.00	4.90	2.37	0.00	395.00	4.90	2.37	0.00
145.00	4.90	2.37	0.00	400.00	4.90	2.37	0.00
150.00	4.90	2.37	0.00	405.00	4.90	2.37	0.00
155.00	4.90	2.37	0.00	410.00	4.90	2.37	0.00
160.00	4.90	2.37	0.00	415.00	4.90	2.37	0.00
165.00	4.90	2.37	0.00	420.00	4.90	2.37	0.00
170.00	4.90	2.37	0.00	425.00	4.90	2.37	0.00
175.00	4.90	2.37	0.00	430.00	4.90	2.37	0.00
180.00	4.90	2.37	0.00	435.00	4.90	2.37	0.00
185.00	4.90	2.37	0.00	440.00	4.90	2.37	0.00
190.00	4.90	2.37	0.00	445.00	4.90	2.37	0.00
195.00	4.90	2.37	0.00	450.00	4.90	2.37	0.00
200.00	4.90	2.37	0.00	455.00	4.90	2.37	0.00
205.00	4.90	2.37	0.00	460.00	4.90	2.37	0.00
210.00	4.90	2.37	0.00	465.00	4.90	2.37	0.00
215.00	4.90	2.37	0.00	470.00	4.90	2.37	0.00
220.00	4.90	2.37	0.00	475.00	4.90	2.37	0.00
225.00	4.90	2.37	0.00	480.00	4.90	2.37	0.00
230.00	4.90	2.37	0.00	485.00	4.90	2.37	0.00
235.00	4.90	2.37	0.00	490.00	4.90	2.37	0.00
240.00	4.90	2.37	0.00	495.00	4.90	2.37	0.00
245.00	4.90	2.37	0.00	500.00	4.90	2.37	0.00
250.00	4.90	2.37	0.00				
255.00	4.90	2.37	0.00				

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Summary for Subcatchment 7S: Culvert 3

Runoff = 3.29 cfs @ 12.13 hrs, Volume= 0.175 af, Depth= 2.20"

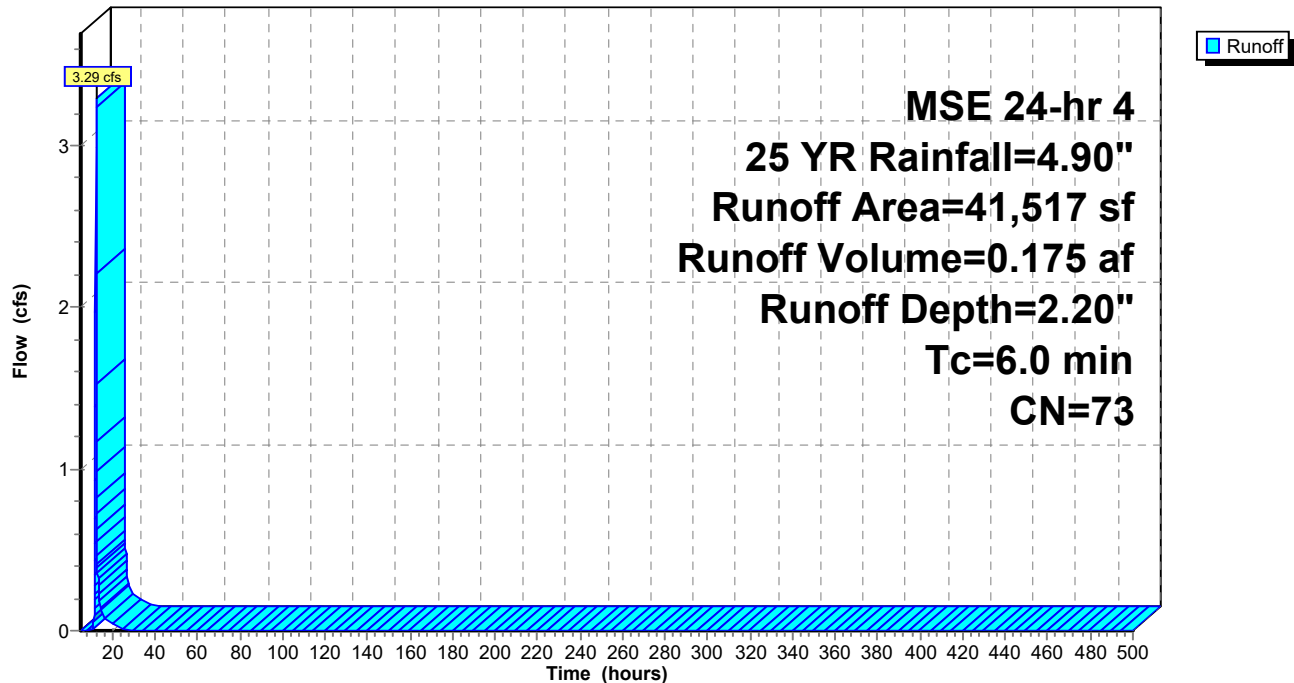
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 25 YR Rainfall=4.90"

	Area (sf)	CN	Description
*	28,233	61	Post - B Soils
*	13,284	98	Impervious
	41,517	73	Weighted Average
	28,233		68.00% Pervious Area
	13,284		32.00% Impervious Area

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

Subcatchment 7S: Culvert 3

Hydrograph



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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Subcatchment 7S: Culvert 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.22	0.00	0.00	260.00	4.90	2.20	0.00
10.00	0.78	0.00	0.00	265.00	4.90	2.20	0.00
15.00	4.31	1.75	0.12	270.00	4.90	2.20	0.00
20.00	4.74	2.08	0.05	275.00	4.90	2.20	0.00
25.00	4.90	2.20	0.00	280.00	4.90	2.20	0.00
30.00	4.90	2.20	0.00	285.00	4.90	2.20	0.00
35.00	4.90	2.20	0.00	290.00	4.90	2.20	0.00
40.00	4.90	2.20	0.00	295.00	4.90	2.20	0.00
45.00	4.90	2.20	0.00	300.00	4.90	2.20	0.00
50.00	4.90	2.20	0.00	305.00	4.90	2.20	0.00
55.00	4.90	2.20	0.00	310.00	4.90	2.20	0.00
60.00	4.90	2.20	0.00	315.00	4.90	2.20	0.00
65.00	4.90	2.20	0.00	320.00	4.90	2.20	0.00
70.00	4.90	2.20	0.00	325.00	4.90	2.20	0.00
75.00	4.90	2.20	0.00	330.00	4.90	2.20	0.00
80.00	4.90	2.20	0.00	335.00	4.90	2.20	0.00
85.00	4.90	2.20	0.00	340.00	4.90	2.20	0.00
90.00	4.90	2.20	0.00	345.00	4.90	2.20	0.00
95.00	4.90	2.20	0.00	350.00	4.90	2.20	0.00
100.00	4.90	2.20	0.00	355.00	4.90	2.20	0.00
105.00	4.90	2.20	0.00	360.00	4.90	2.20	0.00
110.00	4.90	2.20	0.00	365.00	4.90	2.20	0.00
115.00	4.90	2.20	0.00	370.00	4.90	2.20	0.00
120.00	4.90	2.20	0.00	375.00	4.90	2.20	0.00
125.00	4.90	2.20	0.00	380.00	4.90	2.20	0.00
130.00	4.90	2.20	0.00	385.00	4.90	2.20	0.00
135.00	4.90	2.20	0.00	390.00	4.90	2.20	0.00
140.00	4.90	2.20	0.00	395.00	4.90	2.20	0.00
145.00	4.90	2.20	0.00	400.00	4.90	2.20	0.00
150.00	4.90	2.20	0.00	405.00	4.90	2.20	0.00
155.00	4.90	2.20	0.00	410.00	4.90	2.20	0.00
160.00	4.90	2.20	0.00	415.00	4.90	2.20	0.00
165.00	4.90	2.20	0.00	420.00	4.90	2.20	0.00
170.00	4.90	2.20	0.00	425.00	4.90	2.20	0.00
175.00	4.90	2.20	0.00	430.00	4.90	2.20	0.00
180.00	4.90	2.20	0.00	435.00	4.90	2.20	0.00
185.00	4.90	2.20	0.00	440.00	4.90	2.20	0.00
190.00	4.90	2.20	0.00	445.00	4.90	2.20	0.00
195.00	4.90	2.20	0.00	450.00	4.90	2.20	0.00
200.00	4.90	2.20	0.00	455.00	4.90	2.20	0.00
205.00	4.90	2.20	0.00	460.00	4.90	2.20	0.00
210.00	4.90	2.20	0.00	465.00	4.90	2.20	0.00
215.00	4.90	2.20	0.00	470.00	4.90	2.20	0.00
220.00	4.90	2.20	0.00	475.00	4.90	2.20	0.00
225.00	4.90	2.20	0.00	480.00	4.90	2.20	0.00
230.00	4.90	2.20	0.00	485.00	4.90	2.20	0.00
235.00	4.90	2.20	0.00	490.00	4.90	2.20	0.00
240.00	4.90	2.20	0.00	495.00	4.90	2.20	0.00
245.00	4.90	2.20	0.00	500.00	4.90	2.20	0.00
250.00	4.90	2.20	0.00				
255.00	4.90	2.20	0.00				

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Summary for Subcatchment 8S: Culvert 4

Runoff = 14.78 cfs @ 12.14 hrs, Volume= 0.787 af, Depth= 1.96"

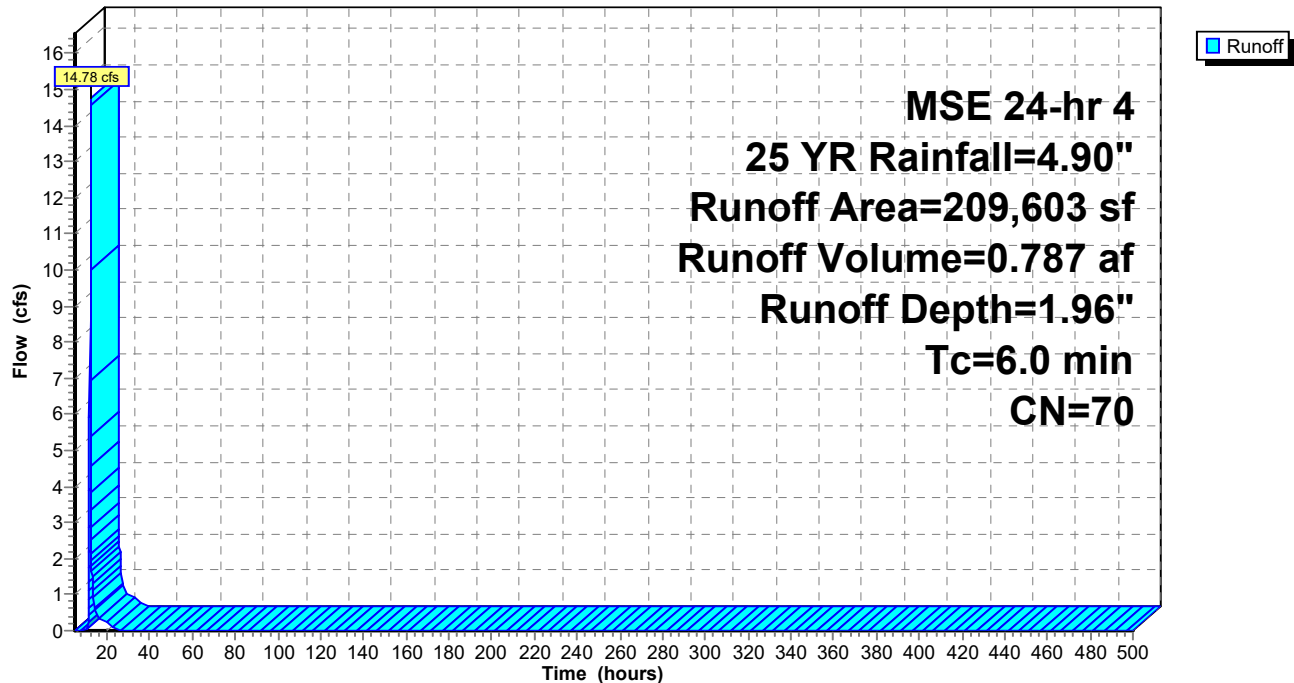
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 25 YR Rainfall=4.90"

	Area (sf)	CN	Description
*	156,823	61	Post - B Soils
*	52,780	98	Impervious
	209,603	70	Weighted Average
	156,823		74.82% Pervious Area
	52,780		25.18% Impervious Area

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

Subcatchment 8S: Culvert 4

Hydrograph



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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Subcatchment 8S: Culvert 4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.22	0.00	0.00	260.00	4.90	1.96	0.00
10.00	0.78	0.00	0.00	265.00	4.90	1.96	0.00
15.00	4.31	1.54	0.58	270.00	4.90	1.96	0.00
20.00	4.74	1.85	0.22	275.00	4.90	1.96	0.00
25.00	4.90	1.96	0.00	280.00	4.90	1.96	0.00
30.00	4.90	1.96	0.00	285.00	4.90	1.96	0.00
35.00	4.90	1.96	0.00	290.00	4.90	1.96	0.00
40.00	4.90	1.96	0.00	295.00	4.90	1.96	0.00
45.00	4.90	1.96	0.00	300.00	4.90	1.96	0.00
50.00	4.90	1.96	0.00	305.00	4.90	1.96	0.00
55.00	4.90	1.96	0.00	310.00	4.90	1.96	0.00
60.00	4.90	1.96	0.00	315.00	4.90	1.96	0.00
65.00	4.90	1.96	0.00	320.00	4.90	1.96	0.00
70.00	4.90	1.96	0.00	325.00	4.90	1.96	0.00
75.00	4.90	1.96	0.00	330.00	4.90	1.96	0.00
80.00	4.90	1.96	0.00	335.00	4.90	1.96	0.00
85.00	4.90	1.96	0.00	340.00	4.90	1.96	0.00
90.00	4.90	1.96	0.00	345.00	4.90	1.96	0.00
95.00	4.90	1.96	0.00	350.00	4.90	1.96	0.00
100.00	4.90	1.96	0.00	355.00	4.90	1.96	0.00
105.00	4.90	1.96	0.00	360.00	4.90	1.96	0.00
110.00	4.90	1.96	0.00	365.00	4.90	1.96	0.00
115.00	4.90	1.96	0.00	370.00	4.90	1.96	0.00
120.00	4.90	1.96	0.00	375.00	4.90	1.96	0.00
125.00	4.90	1.96	0.00	380.00	4.90	1.96	0.00
130.00	4.90	1.96	0.00	385.00	4.90	1.96	0.00
135.00	4.90	1.96	0.00	390.00	4.90	1.96	0.00
140.00	4.90	1.96	0.00	395.00	4.90	1.96	0.00
145.00	4.90	1.96	0.00	400.00	4.90	1.96	0.00
150.00	4.90	1.96	0.00	405.00	4.90	1.96	0.00
155.00	4.90	1.96	0.00	410.00	4.90	1.96	0.00
160.00	4.90	1.96	0.00	415.00	4.90	1.96	0.00
165.00	4.90	1.96	0.00	420.00	4.90	1.96	0.00
170.00	4.90	1.96	0.00	425.00	4.90	1.96	0.00
175.00	4.90	1.96	0.00	430.00	4.90	1.96	0.00
180.00	4.90	1.96	0.00	435.00	4.90	1.96	0.00
185.00	4.90	1.96	0.00	440.00	4.90	1.96	0.00
190.00	4.90	1.96	0.00	445.00	4.90	1.96	0.00
195.00	4.90	1.96	0.00	450.00	4.90	1.96	0.00
200.00	4.90	1.96	0.00	455.00	4.90	1.96	0.00
205.00	4.90	1.96	0.00	460.00	4.90	1.96	0.00
210.00	4.90	1.96	0.00	465.00	4.90	1.96	0.00
215.00	4.90	1.96	0.00	470.00	4.90	1.96	0.00
220.00	4.90	1.96	0.00	475.00	4.90	1.96	0.00
225.00	4.90	1.96	0.00	480.00	4.90	1.96	0.00
230.00	4.90	1.96	0.00	485.00	4.90	1.96	0.00
235.00	4.90	1.96	0.00	490.00	4.90	1.96	0.00
240.00	4.90	1.96	0.00	495.00	4.90	1.96	0.00
245.00	4.90	1.96	0.00	500.00	4.90	1.96	0.00
250.00	4.90	1.96	0.00				
255.00	4.90	1.96	0.00				

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Summary for Subcatchment 9S: Culvert 5

Runoff = 12.22 cfs @ 12.14 hrs, Volume= 0.653 af, Depth= 1.81"

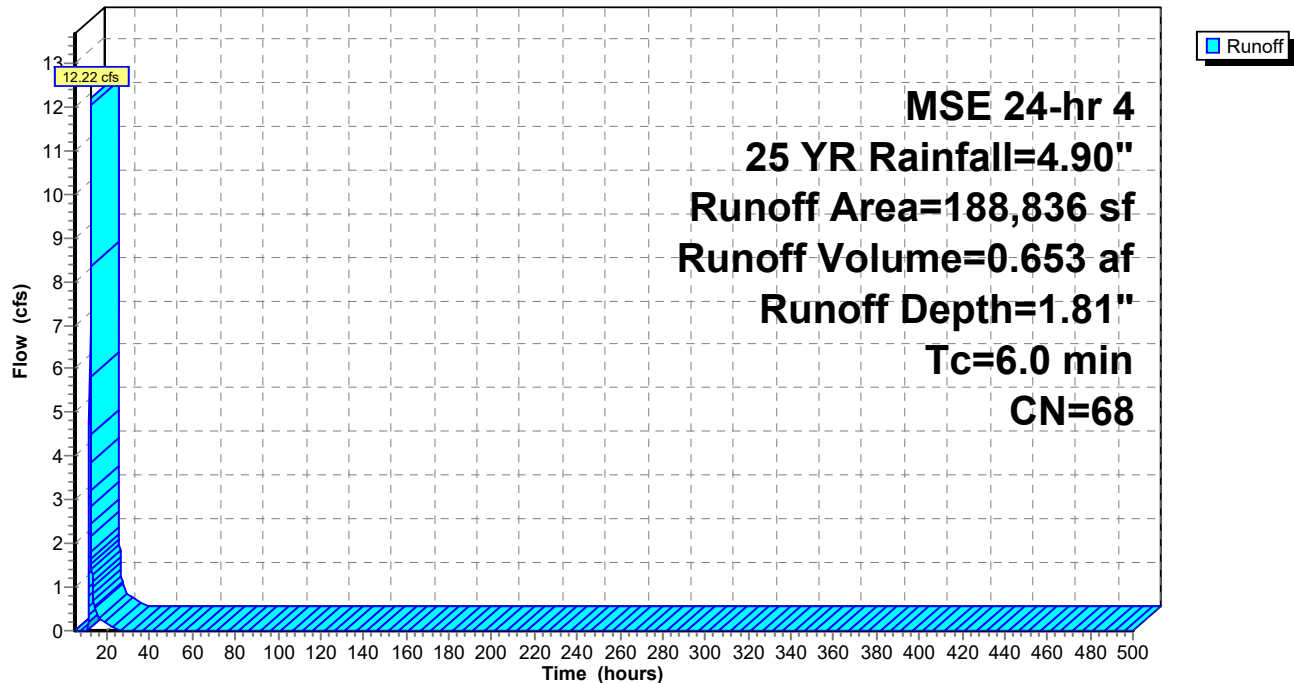
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 25 YR Rainfall=4.90"

	Area (sf)	CN	Description
*	151,149	61	Post - B Soils
*	37,687	98	Impervious
	188,836	68	Weighted Average
	151,149		80.04% Pervious Area
	37,687		19.96% Impervious Area

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

Subcatchment 9S: Culvert 5

Hydrograph



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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Subcatchment 9S: Culvert 5

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.22	0.00	0.00	260.00	4.90	1.81	0.00
10.00	0.78	0.00	0.00	265.00	4.90	1.81	0.00
15.00	4.31	1.40	0.50	270.00	4.90	1.81	0.00
20.00	4.74	1.70	0.19	275.00	4.90	1.81	0.00
25.00	4.90	1.81	0.00	280.00	4.90	1.81	0.00
30.00	4.90	1.81	0.00	285.00	4.90	1.81	0.00
35.00	4.90	1.81	0.00	290.00	4.90	1.81	0.00
40.00	4.90	1.81	0.00	295.00	4.90	1.81	0.00
45.00	4.90	1.81	0.00	300.00	4.90	1.81	0.00
50.00	4.90	1.81	0.00	305.00	4.90	1.81	0.00
55.00	4.90	1.81	0.00	310.00	4.90	1.81	0.00
60.00	4.90	1.81	0.00	315.00	4.90	1.81	0.00
65.00	4.90	1.81	0.00	320.00	4.90	1.81	0.00
70.00	4.90	1.81	0.00	325.00	4.90	1.81	0.00
75.00	4.90	1.81	0.00	330.00	4.90	1.81	0.00
80.00	4.90	1.81	0.00	335.00	4.90	1.81	0.00
85.00	4.90	1.81	0.00	340.00	4.90	1.81	0.00
90.00	4.90	1.81	0.00	345.00	4.90	1.81	0.00
95.00	4.90	1.81	0.00	350.00	4.90	1.81	0.00
100.00	4.90	1.81	0.00	355.00	4.90	1.81	0.00
105.00	4.90	1.81	0.00	360.00	4.90	1.81	0.00
110.00	4.90	1.81	0.00	365.00	4.90	1.81	0.00
115.00	4.90	1.81	0.00	370.00	4.90	1.81	0.00
120.00	4.90	1.81	0.00	375.00	4.90	1.81	0.00
125.00	4.90	1.81	0.00	380.00	4.90	1.81	0.00
130.00	4.90	1.81	0.00	385.00	4.90	1.81	0.00
135.00	4.90	1.81	0.00	390.00	4.90	1.81	0.00
140.00	4.90	1.81	0.00	395.00	4.90	1.81	0.00
145.00	4.90	1.81	0.00	400.00	4.90	1.81	0.00
150.00	4.90	1.81	0.00	405.00	4.90	1.81	0.00
155.00	4.90	1.81	0.00	410.00	4.90	1.81	0.00
160.00	4.90	1.81	0.00	415.00	4.90	1.81	0.00
165.00	4.90	1.81	0.00	420.00	4.90	1.81	0.00
170.00	4.90	1.81	0.00	425.00	4.90	1.81	0.00
175.00	4.90	1.81	0.00	430.00	4.90	1.81	0.00
180.00	4.90	1.81	0.00	435.00	4.90	1.81	0.00
185.00	4.90	1.81	0.00	440.00	4.90	1.81	0.00
190.00	4.90	1.81	0.00	445.00	4.90	1.81	0.00
195.00	4.90	1.81	0.00	450.00	4.90	1.81	0.00
200.00	4.90	1.81	0.00	455.00	4.90	1.81	0.00
205.00	4.90	1.81	0.00	460.00	4.90	1.81	0.00
210.00	4.90	1.81	0.00	465.00	4.90	1.81	0.00
215.00	4.90	1.81	0.00	470.00	4.90	1.81	0.00
220.00	4.90	1.81	0.00	475.00	4.90	1.81	0.00
225.00	4.90	1.81	0.00	480.00	4.90	1.81	0.00
230.00	4.90	1.81	0.00	485.00	4.90	1.81	0.00
235.00	4.90	1.81	0.00	490.00	4.90	1.81	0.00
240.00	4.90	1.81	0.00	495.00	4.90	1.81	0.00
245.00	4.90	1.81	0.00	500.00	4.90	1.81	0.00
250.00	4.90	1.81	0.00				
255.00	4.90	1.81	0.00				

Summary for Pond P1A: Pond 1A

Inflow Area = 6.030 ac, 19.24% Impervious, Inflow Depth = 1.81" for 25 YR event
 Inflow = 16.99 cfs @ 12.14 hrs, Volume= 0.909 af
 Outflow = 3.60 cfs @ 12.48 hrs, Volume= 0.909 af, Atten= 79%, Lag= 20.8 min
 Primary = 3.02 cfs @ 12.48 hrs, Volume= 0.440 af
 Routed to Link 3L : Post - South
 Secondary = 0.58 cfs @ 12.48 hrs, Volume= 0.469 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,242.10' @ 12.48 hrs Surf.Area= 6,976 sf Storage= 14,669 cf

Plug-Flow detention time= 119.8 min calculated for 0.909 af (100% of inflow)
 Center-of-Mass det. time= 119.8 min (956.0 - 836.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,239.00'	30,563 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,239.00	2,496	0	0
1,244.00	9,729	30,563	30,563

Device	Routing	Invert	Outlet Devices
#1	Primary	1,240.00'	12.0" Round Culvert L= 39.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,240.00' / 1,236.00' S= 0.1026 ' / ' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,240.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,242.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,239.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,243.00'	20.0' long + 4.0 ' / ' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=3.02 cfs @ 12.48 hrs HW=1,242.10' (Free Discharge)

↑ **1=Culvert** (Passes 3.02 cfs of 4.78 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 3.02 cfs @ 3.89 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.58 cfs @ 12.48 hrs HW=1,242.10' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.58 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,239.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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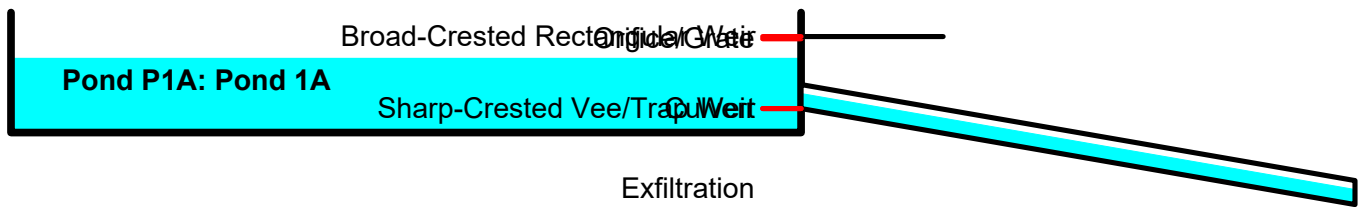
Prepared by Excel Engineering

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

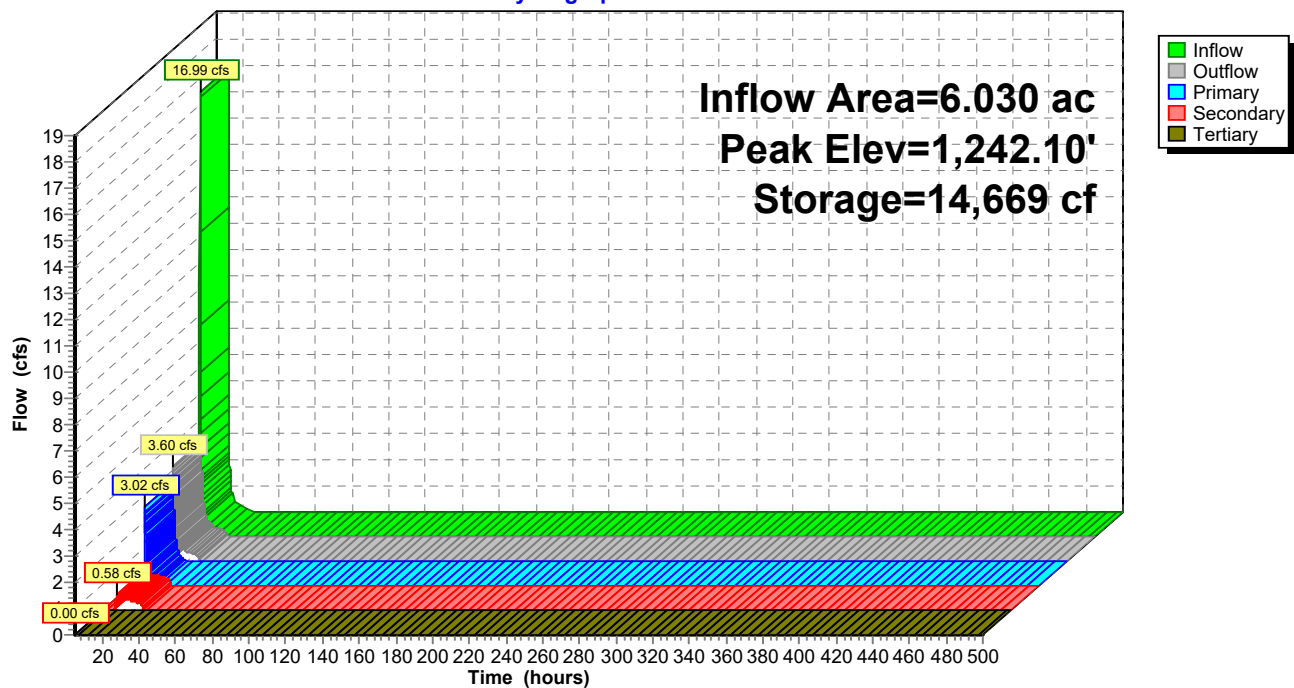
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Pond P1A: Pond 1A

Hydrograph



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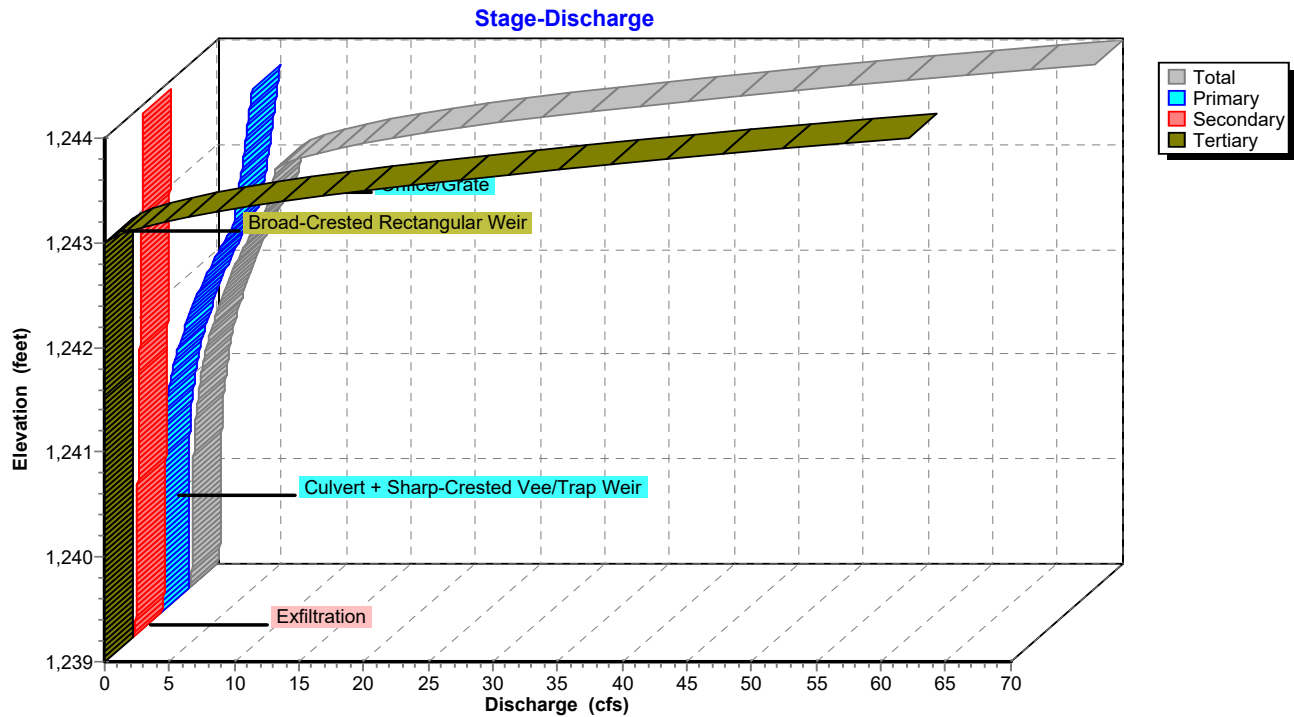
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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

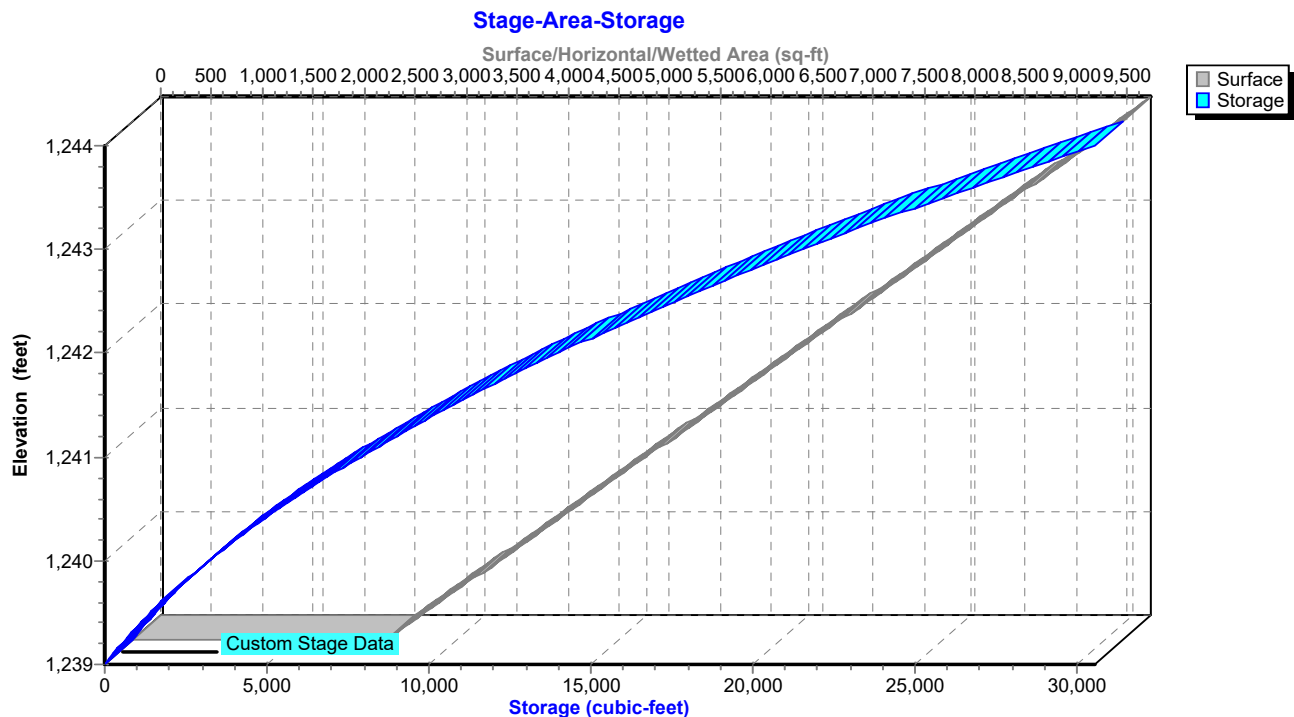
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Pond P1A: Pond 1A



Pond P1A: Pond 1A



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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Pond P1A: Pond 1A

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
15.00	0.69	8,153	1,241.05	0.99	0.54	0.46	0.00
25.00	0.00	1,163	1,239.42	0.26	0.00	0.26	0.00
35.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Stage-Discharge for Pond P1A: Pond 1A

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,239.00	0.00	0.00	0.00	0.00
1,239.10	0.22	0.00	0.22	0.00
1,239.20	0.23	0.00	0.23	0.00
1,239.30	0.24	0.00	0.24	0.00
1,239.40	0.26	0.00	0.26	0.00
1,239.50	0.27	0.00	0.27	0.00
1,239.60	0.28	0.00	0.28	0.00
1,239.70	0.29	0.00	0.29	0.00
1,239.80	0.30	0.00	0.30	0.00
1,239.90	0.32	0.00	0.32	0.00
1,240.00	0.33	0.00	0.33	0.00
1,240.10	0.34	0.00	0.34	0.00
1,240.20	0.36	0.01	0.35	0.00
1,240.30	0.39	0.02	0.36	0.00
1,240.40	0.42	0.05	0.38	0.00
1,240.50	0.47	0.08	0.39	0.00
1,240.60	0.53	0.13	0.40	0.00
1,240.70	0.61	0.19	0.41	0.00
1,240.80	0.70	0.27	0.42	0.00
1,240.90	0.80	0.36	0.44	0.00
1,241.00	0.92	0.47	0.45	0.00
1,241.10	1.06	0.60	0.46	0.00
1,241.20	1.22	0.75	0.47	0.00
1,241.30	1.40	0.91	0.49	0.00
1,241.40	1.60	1.10	0.50	0.00
1,241.50	1.82	1.31	0.51	0.00
1,241.60	2.06	1.54	0.52	0.00
1,241.70	2.32	1.79	0.53	0.00
1,241.80	2.61	2.06	0.55	0.00
1,241.90	2.92	2.36	0.56	0.00
1,242.00	3.25	2.68	0.57	0.00
1,242.10	3.61	3.03	0.58	0.00
1,242.20	4.00	3.41	0.59	0.00
1,242.30	4.41	3.81	0.61	0.00
1,242.40	4.85	4.23	0.62	0.00
1,242.50	5.32	4.69	0.63	0.00
1,242.60	5.81	5.17	0.64	0.00
1,242.70	6.26	5.61	0.65	0.00
1,242.80	6.40	5.74	0.67	0.00
1,242.90	6.54	5.86	0.68	0.00
1,243.00	6.67	5.98	0.69	0.00
1,243.10	8.40	6.10	0.70	1.60
1,243.20	11.53	6.21	0.71	4.60
1,243.30	15.75	6.33	0.73	8.70
1,243.40	20.96	6.44	0.74	13.78
1,243.50	27.39	6.55	0.75	20.08
1,243.60	34.93	6.66	0.76	27.51
1,243.70	42.64	6.76	0.77	35.10
1,243.80	51.08	6.87	0.79	43.42
1,243.90	60.22	6.97	0.80	52.45
1,244.00	70.06	7.07	0.81	62.18

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Stage-Area-Storage for Pond P1A: Pond 1A

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,239.00	2,496	0	1,241.55	6,185	11,068
1,239.05	2,568	127	1,241.60	6,257	11,379
1,239.10	2,641	257	1,241.65	6,329	11,694
1,239.15	2,713	391	1,241.70	6,402	12,012
1,239.20	2,785	528	1,241.75	6,474	12,334
1,239.25	2,858	669	1,241.80	6,546	12,659
1,239.30	2,930	814	1,241.85	6,619	12,989
1,239.35	3,002	962	1,241.90	6,691	13,321
1,239.40	3,075	1,114	1,241.95	6,763	13,658
1,239.45	3,147	1,270	1,242.00	6,836	13,998
1,239.50	3,219	1,429	1,242.05	6,908	14,341
1,239.55	3,292	1,592	1,242.10	6,980	14,689
1,239.60	3,364	1,758	1,242.15	7,053	15,039
1,239.65	3,436	1,928	1,242.20	7,125	15,394
1,239.70	3,509	2,102	1,242.25	7,197	15,752
1,239.75	3,581	2,279	1,242.30	7,270	16,114
1,239.80	3,653	2,460	1,242.35	7,342	16,479
1,239.85	3,726	2,644	1,242.40	7,414	16,848
1,239.90	3,798	2,832	1,242.45	7,487	17,220
1,239.95	3,870	3,024	1,242.50	7,559	17,596
1,240.00	3,943	3,219	1,242.55	7,631	17,976
1,240.05	4,015	3,418	1,242.60	7,704	18,360
1,240.10	4,087	3,621	1,242.65	7,776	18,747
1,240.15	4,160	3,827	1,242.70	7,848	19,137
1,240.20	4,232	4,037	1,242.75	7,921	19,531
1,240.25	4,304	4,250	1,242.80	7,993	19,929
1,240.30	4,377	4,467	1,242.85	8,065	20,331
1,240.35	4,449	4,688	1,242.90	8,138	20,736
1,240.40	4,521	4,912	1,242.95	8,210	21,144
1,240.45	4,594	5,140	1,243.00	8,282	21,557
1,240.50	4,666	5,371	1,243.05	8,355	21,973
1,240.55	4,738	5,607	1,243.10	8,427	22,392
1,240.60	4,811	5,845	1,243.15	8,499	22,815
1,240.65	4,883	6,088	1,243.20	8,572	23,242
1,240.70	4,955	6,334	1,243.25	8,644	23,673
1,240.75	5,028	6,583	1,243.30	8,716	24,107
1,240.80	5,100	6,836	1,243.35	8,789	24,544
1,240.85	5,172	7,093	1,243.40	8,861	24,985
1,240.90	5,245	7,354	1,243.45	8,933	25,430
1,240.95	5,317	7,618	1,243.50	9,006	25,879
1,241.00	5,389	7,885	1,243.55	9,078	26,331
1,241.05	5,462	8,156	1,243.60	9,150	26,787
1,241.10	5,534	8,431	1,243.65	9,223	27,246
1,241.15	5,606	8,710	1,243.70	9,295	27,709
1,241.20	5,679	8,992	1,243.75	9,367	28,175
1,241.25	5,751	9,278	1,243.80	9,440	28,646
1,241.30	5,823	9,567	1,243.85	9,512	29,119
1,241.35	5,896	9,860	1,243.90	9,584	29,597
1,241.40	5,968	10,157	1,243.95	9,657	30,078
1,241.45	6,040	10,457	1,244.00	9,729	30,563
1,241.50	6,113	10,761			

Summary for Pond P3A: Pond 3A

Inflow Area = 10.600 ac, 18.58% Impervious, Inflow Depth = 1.96" for 25 YR event
 Inflow = 32.55 cfs @ 12.14 hrs, Volume= 1.734 af
 Outflow = 6.79 cfs @ 12.48 hrs, Volume= 1.734 af, Atten= 79%, Lag= 20.6 min
 Primary = 5.95 cfs @ 12.48 hrs, Volume= 0.991 af
 Routed to Link 4L : Post - North
 Secondary = 0.84 cfs @ 12.48 hrs, Volume= 0.743 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,195.98' @ 12.48 hrs Surf.Area= 10,097 sf Storage= 28,352 cf

Plug-Flow detention time= 120.8 min calculated for 1.733 af (100% of inflow)
 Center-of-Mass det. time= 120.8 min (952.6 - 831.8)

Volume	Invert	Avail.Storage	Storage Description
#1	1,192.00'	51,846 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,192.00	4,165	0	0
1,198.00	13,117	51,846	51,846

Device	Routing	Invert	Outlet Devices
#1	Primary	1,193.00'	12.0" Round Culvert L= 41.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,193.00' / 1,189.00' S= 0.0976 ' S= 0.0976 ' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,193.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,196.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,192.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,197.00'	20.0' long + 4.0 ' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=5.95 cfs @ 12.48 hrs HW=1,195.97' (Free Discharge)

↑ **1=Culvert** (Inlet Controls 5.95 cfs @ 7.57 fps)

↑ **2=Sharp-Crested Vee/Trap Weir** (Passes 5.95 cfs of 7.23 cfs potential flow)

↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.84 cfs @ 12.48 hrs HW=1,195.97' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.84 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,192.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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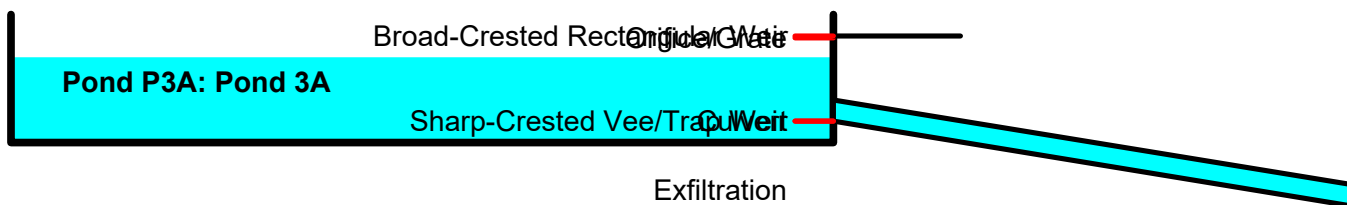
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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

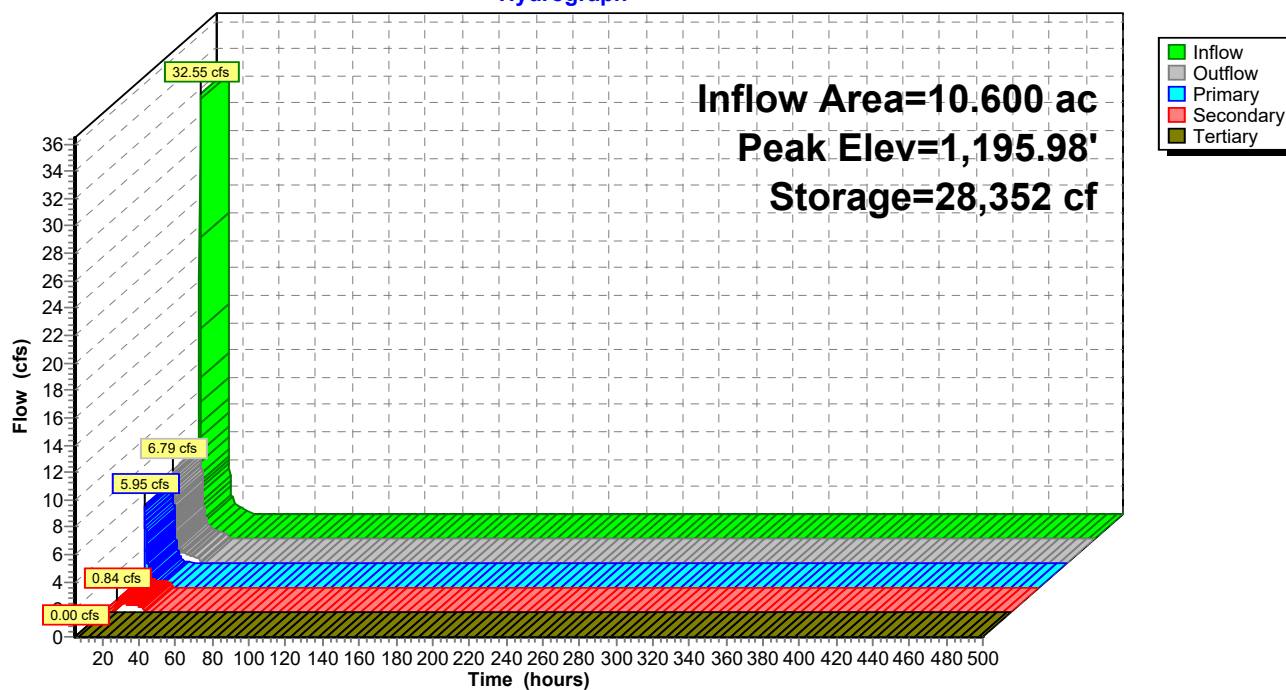
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Pond P3A: Pond 3A

Hydrograph



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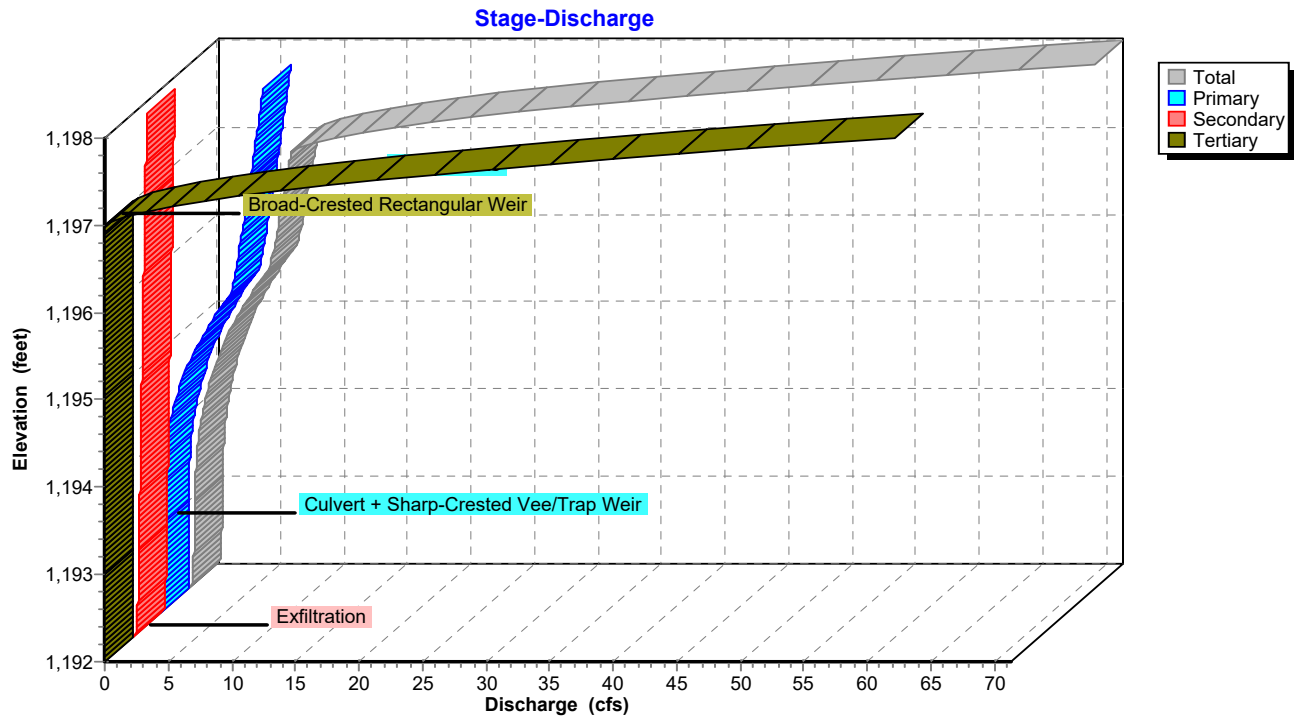
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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

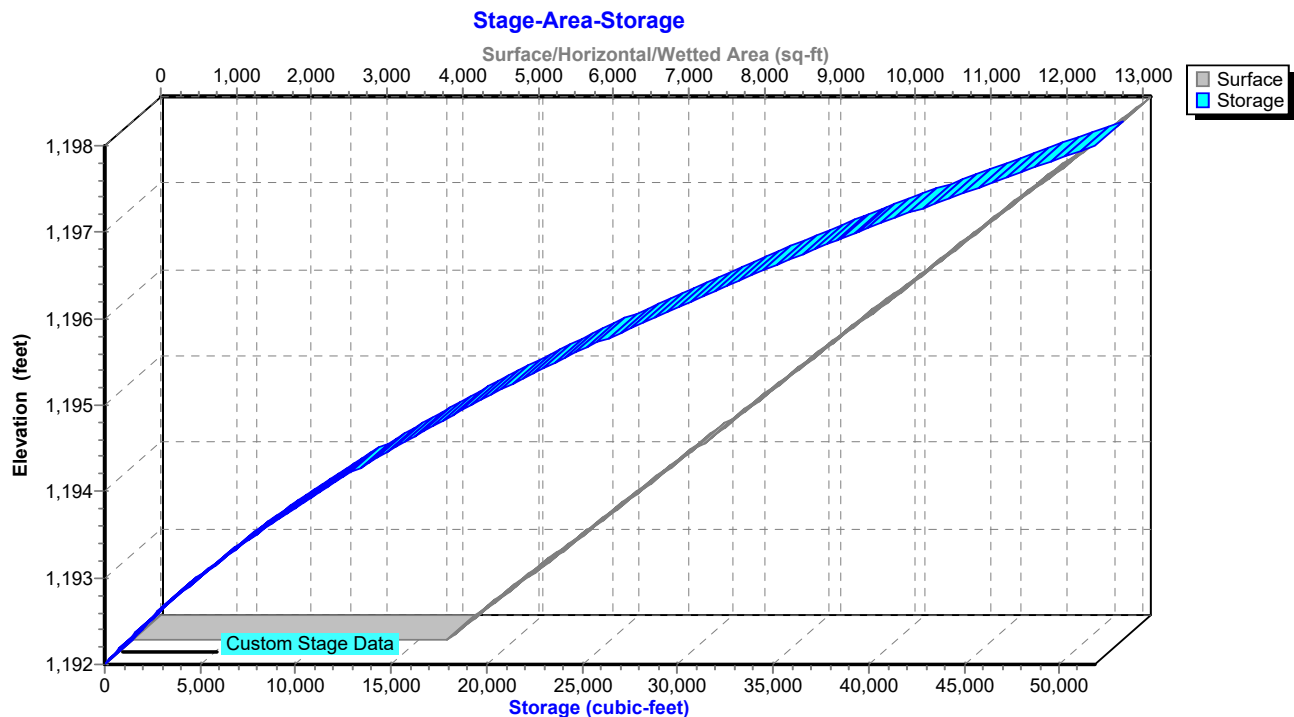
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Pond P3A: Pond 3A



Pond P3A: Pond 3A



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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Pond P3A: Pond 3A

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
15.00	1.28	14,510	1,194.43	1.81	1.16	0.65	0.00
25.00	0.00	3,460	1,192.73	0.44	0.00	0.44	0.00
35.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Stage-Discharge for Pond P3A: Pond 3A

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,192.00	0.00	0.00	0.00	0.00
1,192.20	0.37	0.00	0.37	0.00
1,192.40	0.40	0.00	0.40	0.00
1,192.60	0.42	0.00	0.42	0.00
1,192.80	0.45	0.00	0.45	0.00
1,193.00	0.47	0.00	0.47	0.00
1,193.20	0.50	0.01	0.50	0.00
1,193.40	0.57	0.05	0.52	0.00
1,193.60	0.68	0.13	0.55	0.00
1,193.80	0.84	0.27	0.57	0.00
1,194.00	1.07	0.47	0.60	0.00
1,194.20	1.37	0.75	0.62	0.00
1,194.40	1.75	1.10	0.65	0.00
1,194.60	2.21	1.54	0.67	0.00
1,194.80	2.76	2.06	0.70	0.00
1,195.00	3.40	2.68	0.72	0.00
1,195.20	4.15	3.41	0.74	0.00
1,195.40	5.00	4.23	0.77	0.00
1,195.60	5.96	5.17	0.79	0.00
1,195.80	6.55	5.74	0.82	0.00
1,196.00	6.82	5.98	0.84	0.00
1,196.20	7.08	6.21	0.87	0.00
1,196.40	7.33	6.44	0.89	0.00
1,196.60	7.58	6.66	0.92	0.00
1,196.80	7.81	6.87	0.94	0.00
1,197.00	8.04	7.07	0.97	0.00
1,197.20	12.86	7.27	0.99	4.60
1,197.40	22.27	7.47	1.02	13.78
1,197.60	36.21	7.66	1.04	27.51
1,197.80	52.33	7.84	1.07	43.42
1,198.00	71.29	8.02	1.09	62.18

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Stage-Area-Storage for Pond P3A: Pond 3A

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,192.00	4,165	0	1,197.10	11,774	40,645
1,192.10	4,314	424	1,197.20	11,923	41,830
1,192.20	4,463	863	1,197.30	12,073	43,030
1,192.30	4,613	1,317	1,197.40	12,222	44,244
1,192.40	4,762	1,785	1,197.50	12,371	45,474
1,192.50	4,911	2,269	1,197.60	12,520	46,719
1,192.60	5,060	2,768	1,197.70	12,669	47,978
1,192.70	5,209	3,281	1,197.80	12,819	49,252
1,192.80	5,359	3,809	1,197.90	12,968	50,542
1,192.90	5,508	4,353	1,198.00	13,117	51,846
1,193.00	5,657	4,911			
1,193.10	5,806	5,484			
1,193.20	5,955	6,072			
1,193.30	6,105	6,675			
1,193.40	6,254	7,293			
1,193.50	6,403	7,926			
1,193.60	6,552	8,574			
1,193.70	6,701	9,236			
1,193.80	6,851	9,914			
1,193.90	7,000	10,607			
1,194.00	7,149	11,314			
1,194.10	7,298	12,036			
1,194.20	7,447	12,774			
1,194.30	7,597	13,526			
1,194.40	7,746	14,293			
1,194.50	7,895	15,075			
1,194.60	8,044	15,872			
1,194.70	8,193	16,684			
1,194.80	8,343	17,511			
1,194.90	8,492	18,352			
1,195.00	8,641	19,209			
1,195.10	8,790	20,081			
1,195.20	8,939	20,967			
1,195.30	9,089	21,868			
1,195.40	9,238	22,785			
1,195.50	9,387	23,716			
1,195.60	9,536	24,662			
1,195.70	9,685	25,623			
1,195.80	9,835	26,599			
1,195.90	9,984	27,590			
1,196.00	10,133	28,596			
1,196.10	10,282	29,617			
1,196.20	10,431	30,652			
1,196.30	10,581	31,703			
1,196.40	10,730	32,769			
1,196.50	10,879	33,849			
1,196.60	11,028	34,944			
1,196.70	11,177	36,055			
1,196.80	11,327	37,180			
1,196.90	11,476	38,320			
1,197.00	11,625	39,475			

Summary for Pond P3B: Pond 3B

Inflow Area = 8.450 ac, 19.88% Impervious, Inflow Depth = 2.04" for 25 YR event
 Inflow = 27.03 cfs @ 12.14 hrs, Volume= 1.437 af
 Outflow = 6.56 cfs @ 12.42 hrs, Volume= 1.437 af, Atten= 76%, Lag= 17.2 min
 Primary = 5.81 cfs @ 12.42 hrs, Volume= 0.841 af
 Routed to Link 4L : Post - North
 Secondary = 0.75 cfs @ 12.42 hrs, Volume= 0.596 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,198.86' @ 12.42 hrs Surf.Area= 8,968 sf Storage= 22,719 cf

Plug-Flow detention time= 107.4 min calculated for 1.437 af (100% of inflow)
 Center-of-Mass det. time= 107.4 min (937.1 - 829.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,195.00'	33,965 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,195.00	2,799	0	0
1,200.00	10,787	33,965	33,965

Device	Routing	Invert	Outlet Devices
#1	Primary	1,196.00'	12.0" Round Culvert L= 36.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,196.00' / 1,192.00' S= 0.1111 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,196.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,198.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,195.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,199.00'	20.0' long + 4.0 ' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=5.81 cfs @ 12.42 hrs HW=1,198.86' (Free Discharge)

↑ **1=Culvert** (Inlet Controls 5.81 cfs @ 7.39 fps)

↑ **2=Sharp-Crested Vee/Trap Weir** (Passes 5.81 cfs of 6.55 cfs potential flow)

↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.75 cfs @ 12.42 hrs HW=1,198.86' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.75 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,195.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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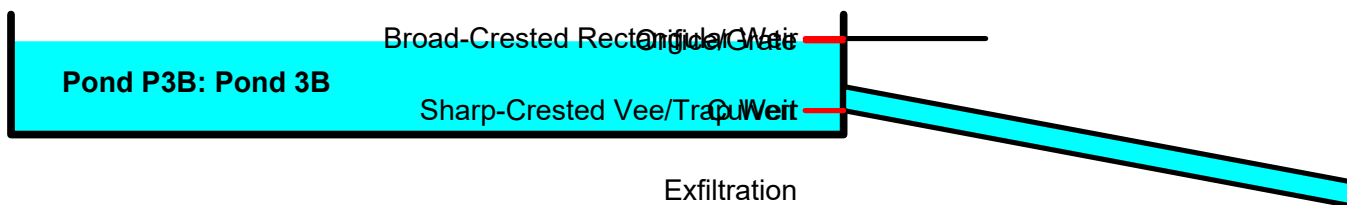
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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

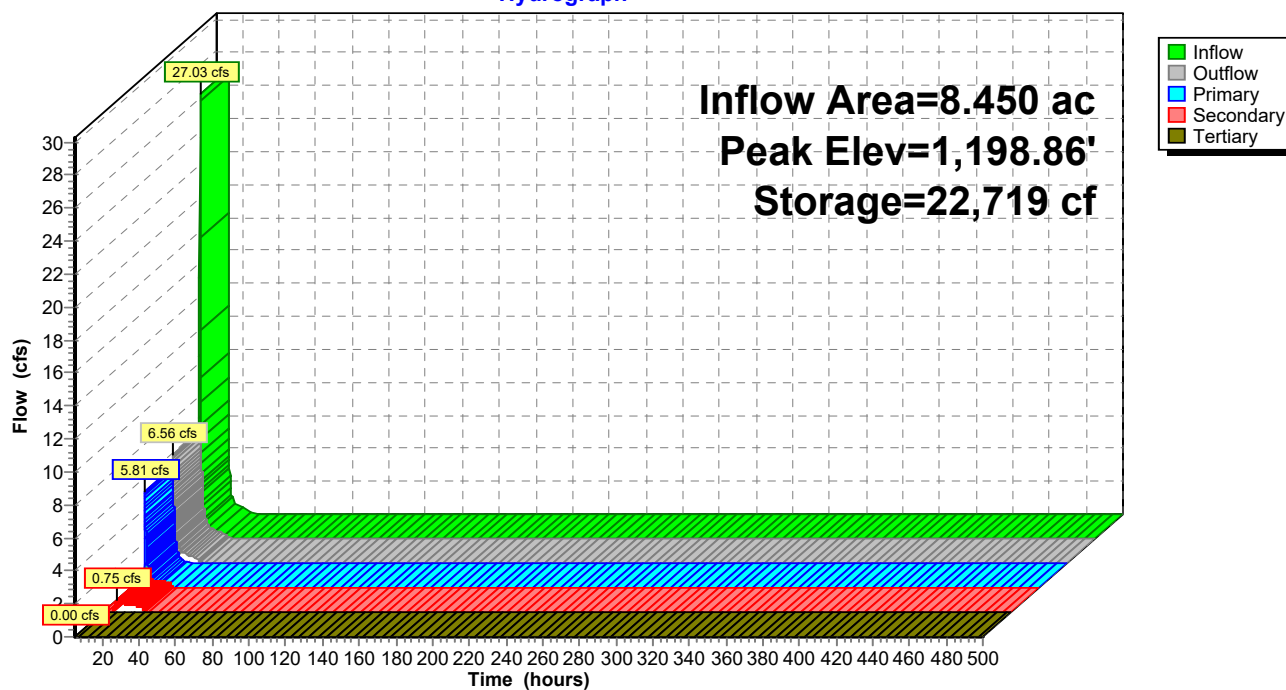
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Pond P3B: Pond 3B

Hydrograph



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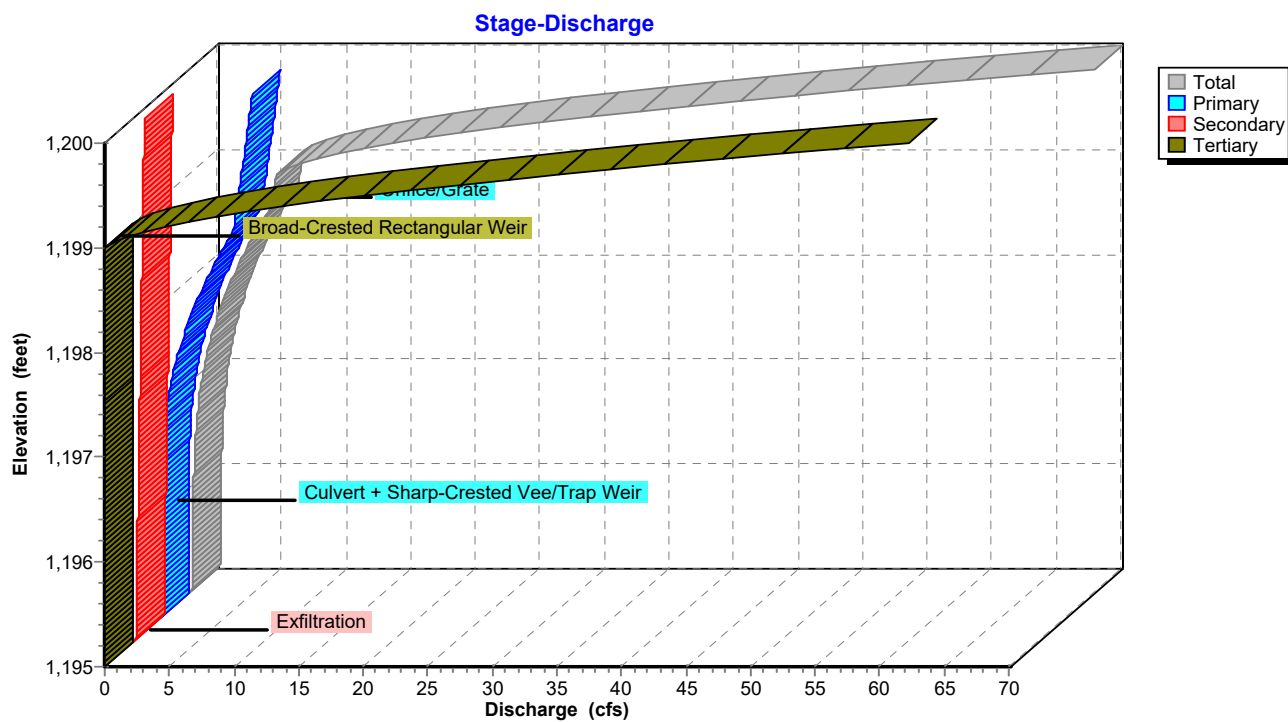
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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

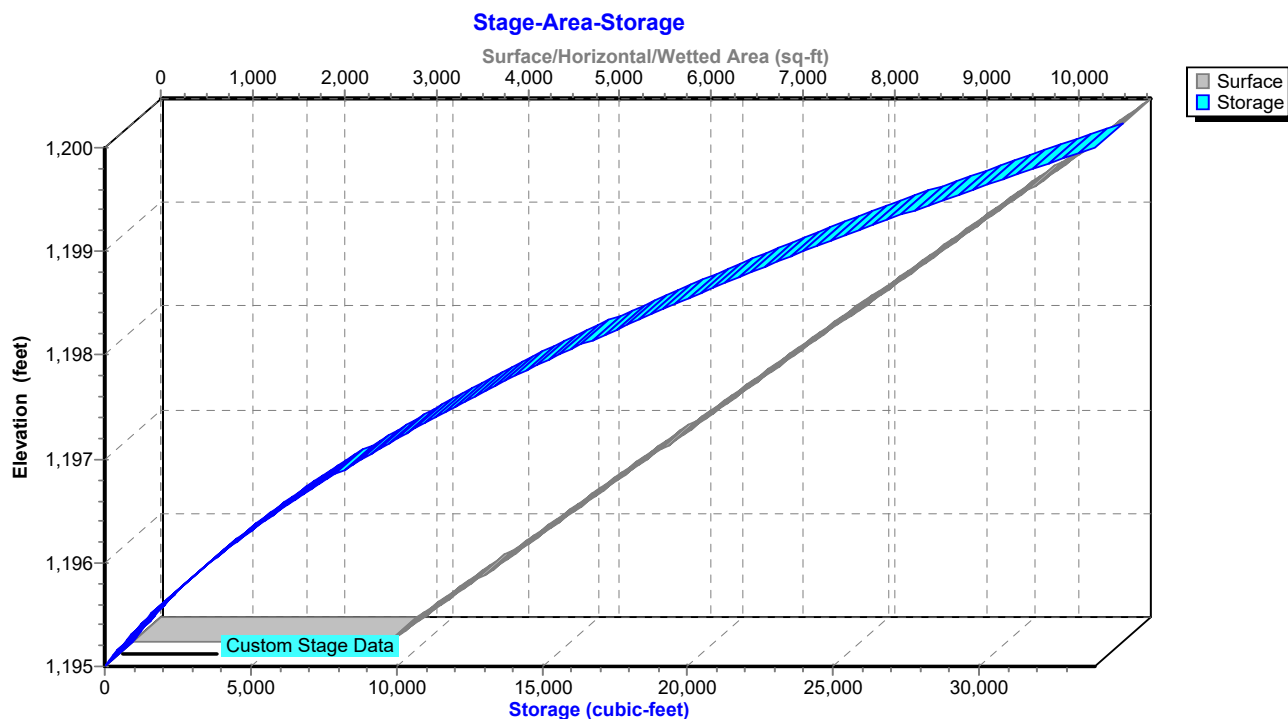
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Pond P3B: Pond 3B



Pond P3B: Pond 3B



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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Pond P3B: Pond 3B

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
15.00	1.05	10,621	1,197.29	1.44	0.90	0.54	0.00
25.00	0.00	2,354	1,195.70	0.33	0.00	0.33	0.00
35.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00

Stage-Discharge for Pond P3B: Pond 3B

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,195.00	0.00	0.00	0.00	0.00
1,195.10	0.25	0.00	0.25	0.00
1,195.20	0.26	0.00	0.26	0.00
1,195.30	0.27	0.00	0.27	0.00
1,195.40	0.29	0.00	0.29	0.00
1,195.50	0.30	0.00	0.30	0.00
1,195.60	0.31	0.00	0.31	0.00
1,195.70	0.33	0.00	0.33	0.00
1,195.80	0.34	0.00	0.34	0.00
1,195.90	0.35	0.00	0.35	0.00
1,196.00	0.37	0.00	0.37	0.00
1,196.10	0.38	0.00	0.38	0.00
1,196.20	0.40	0.01	0.39	0.00
1,196.30	0.43	0.02	0.41	0.00
1,196.40	0.47	0.05	0.42	0.00
1,196.50	0.52	0.08	0.43	0.00
1,196.60	0.58	0.13	0.45	0.00
1,196.70	0.65	0.19	0.46	0.00
1,196.80	0.74	0.27	0.47	0.00
1,196.90	0.85	0.36	0.49	0.00
1,197.00	0.97	0.47	0.50	0.00
1,197.10	1.11	0.60	0.51	0.00
1,197.20	1.27	0.75	0.53	0.00
1,197.30	1.45	0.91	0.54	0.00
1,197.40	1.65	1.10	0.55	0.00
1,197.50	1.87	1.31	0.57	0.00
1,197.60	2.12	1.54	0.58	0.00
1,197.70	2.38	1.79	0.59	0.00
1,197.80	2.67	2.06	0.61	0.00
1,197.90	2.98	2.36	0.62	0.00
1,198.00	3.32	2.68	0.63	0.00
1,198.10	3.68	3.03	0.65	0.00
1,198.20	4.06	3.41	0.66	0.00
1,198.30	4.48	3.81	0.67	0.00
1,198.40	4.92	4.23	0.69	0.00
1,198.50	5.39	4.69	0.70	0.00
1,198.60	5.88	5.17	0.71	0.00
1,198.70	6.33	5.61	0.73	0.00
1,198.80	6.47	5.74	0.74	0.00
1,198.90	6.61	5.86	0.75	0.00
1,199.00	6.75	5.98	0.77	0.00
1,199.10	8.48	6.10	0.78	1.60
1,199.20	11.60	6.21	0.79	4.60
1,199.30	15.83	6.33	0.81	8.70
1,199.40	21.04	6.44	0.82	13.78
1,199.50	27.47	6.55	0.83	20.08
1,199.60	35.01	6.66	0.85	27.51
1,199.70	42.73	6.76	0.86	35.10
1,199.80	51.17	6.87	0.87	43.42
1,199.90	60.31	6.97	0.89	52.45
1,200.00	70.15	7.07	0.90	62.18

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Stage-Area-Storage for Pond P3B: Pond 3B

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,195.00	2,799	0	1,197.55	6,873	12,332
1,195.05	2,879	142	1,197.60	6,953	12,677
1,195.10	2,959	288	1,197.65	7,033	13,027
1,195.15	3,039	438	1,197.70	7,113	13,381
1,195.20	3,119	592	1,197.75	7,192	13,738
1,195.25	3,198	750	1,197.80	7,272	14,100
1,195.30	3,278	912	1,197.85	7,352	14,465
1,195.35	3,358	1,078	1,197.90	7,432	14,835
1,195.40	3,438	1,247	1,197.95	7,512	15,209
1,195.45	3,518	1,421	1,198.00	7,592	15,586
1,195.50	3,598	1,599	1,198.05	7,672	15,968
1,195.55	3,678	1,781	1,198.10	7,752	16,353
1,195.60	3,758	1,967	1,198.15	7,831	16,743
1,195.65	3,837	2,157	1,198.20	7,911	17,137
1,195.70	3,917	2,351	1,198.25	7,991	17,534
1,195.75	3,997	2,549	1,198.30	8,071	17,936
1,195.80	4,077	2,750	1,198.35	8,151	18,341
1,195.85	4,157	2,956	1,198.40	8,231	18,751
1,195.90	4,237	3,166	1,198.45	8,311	19,164
1,195.95	4,317	3,380	1,198.50	8,391	19,582
1,196.00	4,397	3,598	1,198.55	8,470	20,003
1,196.05	4,476	3,820	1,198.60	8,550	20,429
1,196.10	4,556	4,045	1,198.65	8,630	20,858
1,196.15	4,636	4,275	1,198.70	8,710	21,292
1,196.20	4,716	4,509	1,198.75	8,790	21,729
1,196.25	4,796	4,747	1,198.80	8,870	22,171
1,196.30	4,876	4,989	1,198.85	8,950	22,616
1,196.35	4,956	5,234	1,198.90	9,030	23,066
1,196.40	5,036	5,484	1,198.95	9,110	23,519
1,196.45	5,116	5,738	1,199.00	9,189	23,977
1,196.50	5,195	5,996	1,199.05	9,269	24,438
1,196.55	5,275	6,258	1,199.10	9,349	24,904
1,196.60	5,355	6,523	1,199.15	9,429	25,373
1,196.65	5,435	6,793	1,199.20	9,509	25,847
1,196.70	5,515	7,067	1,199.25	9,589	26,324
1,196.75	5,595	7,345	1,199.30	9,669	26,806
1,196.80	5,675	7,626	1,199.35	9,749	27,291
1,196.85	5,755	7,912	1,199.40	9,828	27,780
1,196.90	5,834	8,202	1,199.45	9,908	28,274
1,196.95	5,914	8,495	1,199.50	9,988	28,771
1,197.00	5,994	8,793	1,199.55	10,068	29,273
1,197.05	6,074	9,095	1,199.60	10,148	29,778
1,197.10	6,154	9,401	1,199.65	10,228	30,287
1,197.15	6,234	9,710	1,199.70	10,308	30,801
1,197.20	6,314	10,024	1,199.75	10,388	31,318
1,197.25	6,394	10,342	1,199.80	10,467	31,840
1,197.30	6,473	10,663	1,199.85	10,547	32,365
1,197.35	6,553	10,989	1,199.90	10,627	32,894
1,197.40	6,633	11,319	1,199.95	10,707	33,428
1,197.45	6,713	11,652	1,200.00	10,787	33,965
1,197.50	6,793	11,990			

Summary for Pond P3C: Pond 3C

Inflow Area = 2.490 ac, 22.89% Impervious, Inflow Depth = 2.37" for 25 YR event
 Inflow = 9.25 cfs @ 12.13 hrs, Volume= 0.491 af
 Outflow = 2.08 cfs @ 12.44 hrs, Volume= 0.491 af, Atten= 77%, Lag= 18.1 min
 Primary = 1.72 cfs @ 12.44 hrs, Volume= 0.206 af
 Routed to Link 4L : Post - North
 Secondary = 0.36 cfs @ 12.44 hrs, Volume= 0.286 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,180.67' @ 12.44 hrs Surf.Area= 4,321 sf Storage= 8,327 cf

Plug-Flow detention time= 116.3 min calculated for 0.491 af (100% of inflow)
 Center-of-Mass det. time= 116.3 min (937.4 - 821.1)

Volume	Invert	Avail.Storage	Storage Description
#1	1,178.00'	14,846 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,178.00	1,905	0	0
1,182.00	5,518	14,846	14,846

Device	Routing	Invert	Outlet Devices
#1	Primary	1,179.00'	12.0" Round Culvert L= 30.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,179.00' / 1,175.00' S= 0.1333 ' / Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,179.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,180.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,178.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,181.00'	20.0' long + 4.0 ' /' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=1.72 cfs @ 12.44 hrs HW=1,180.67' (Free Discharge)

↑ **1=Culvert** (Passes 1.72 cfs of 4.10 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 1.72 cfs @ 3.48 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.36 cfs @ 12.44 hrs HW=1,180.67' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.36 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,178.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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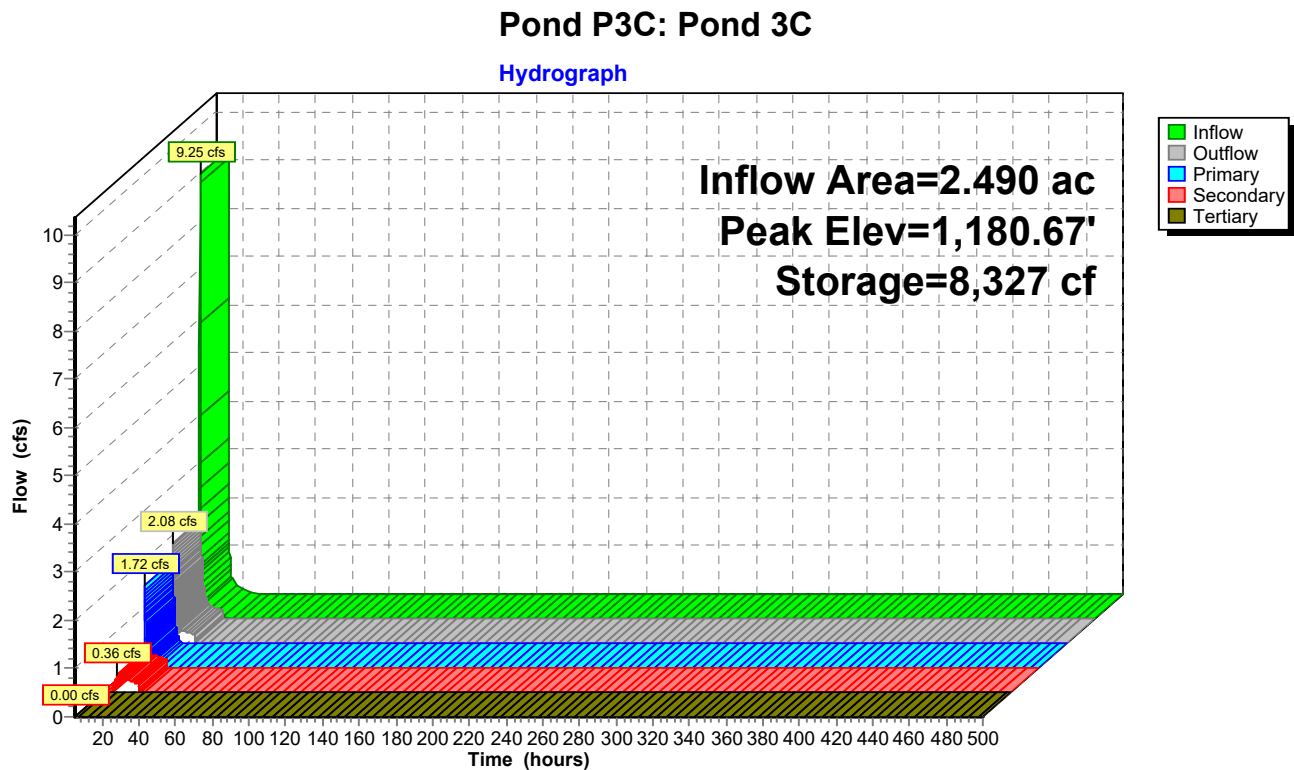
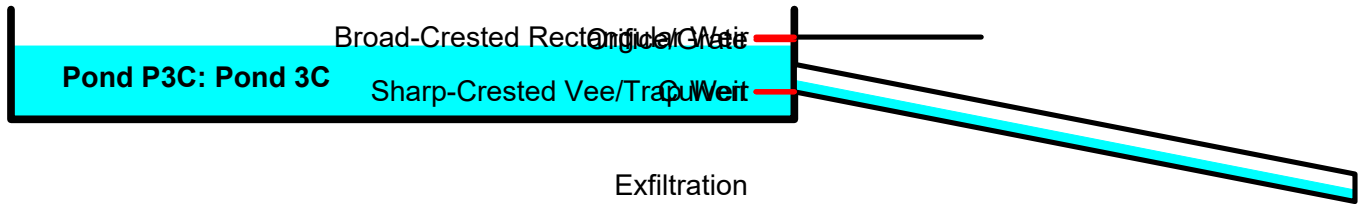
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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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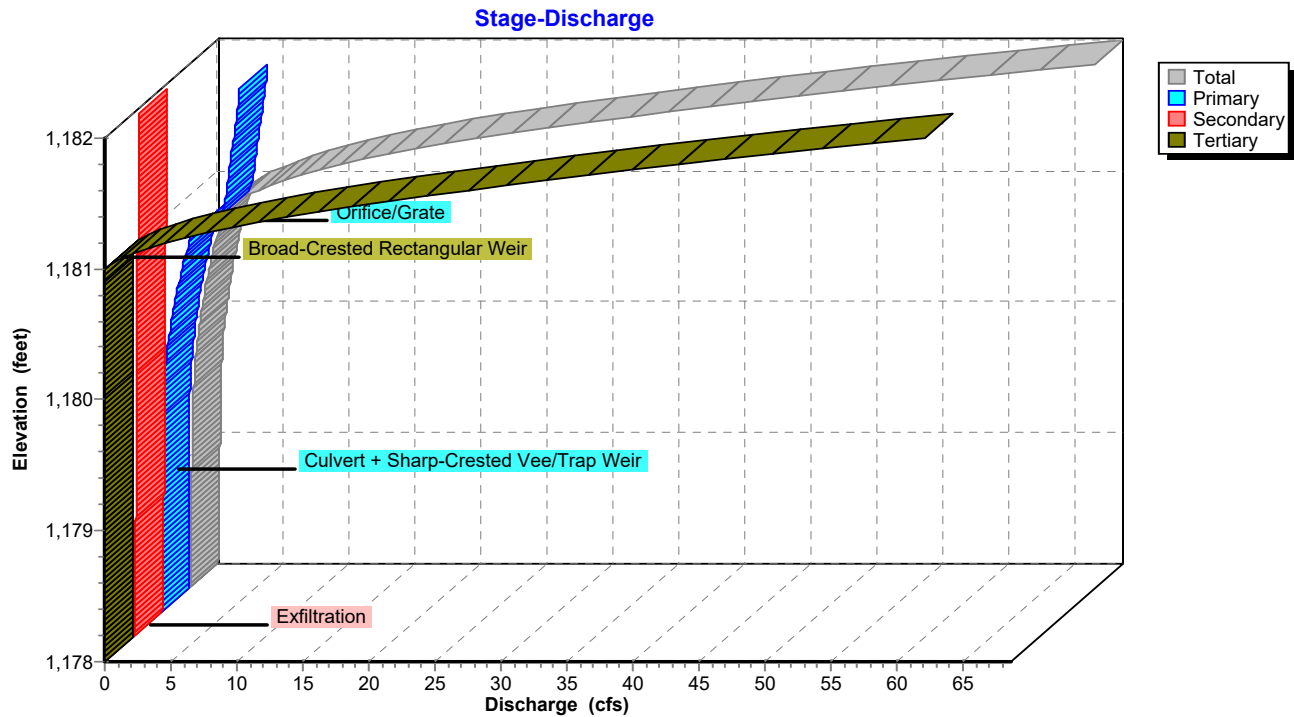
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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

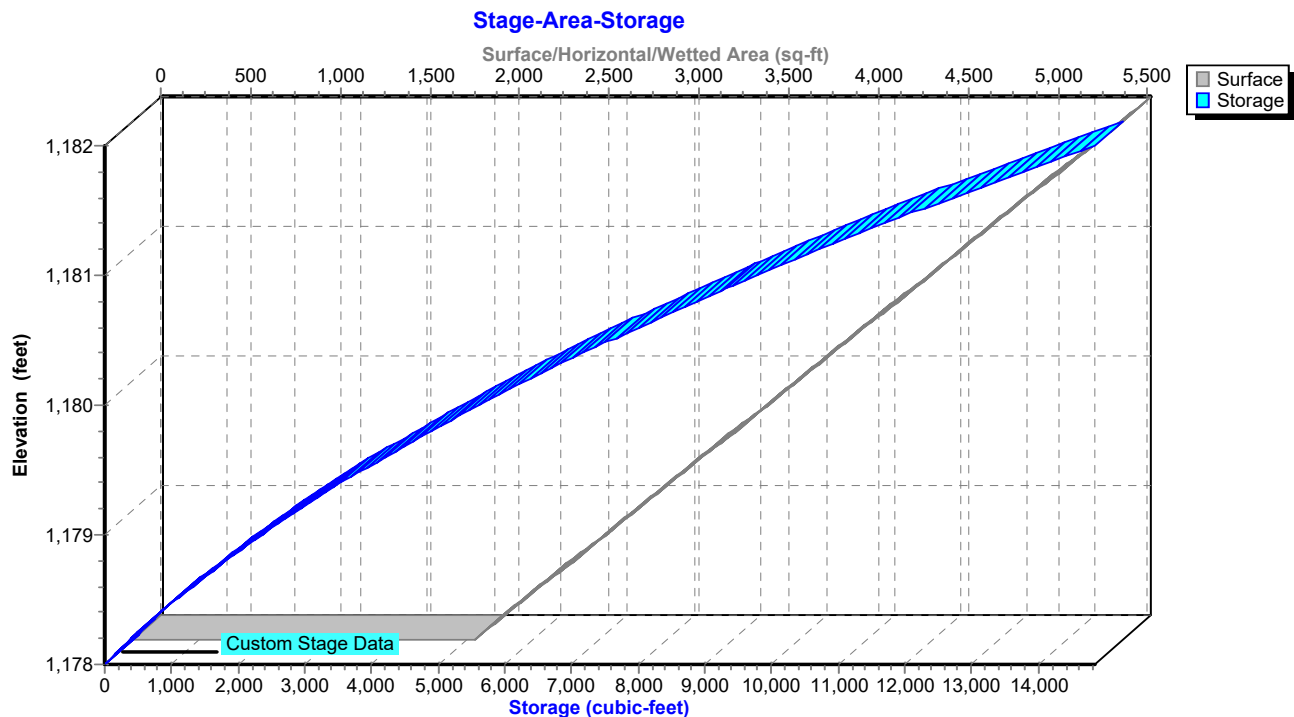
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Pond P3C: Pond 3C



Pond P3C: Pond 3C



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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Pond P3C: Pond 3C

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
15.00	0.34	4,615	1,179.72	0.50	0.21	0.29	0.00
25.00	0.00	9	1,178.00	0.02	0.00	0.02	0.00
35.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Stage-Discharge for Pond P3C: Pond 3C

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,178.00	0.00	0.00	0.00	0.00
1,178.10	0.17	0.00	0.17	0.00
1,178.20	0.17	0.00	0.17	0.00
1,178.30	0.18	0.00	0.18	0.00
1,178.40	0.19	0.00	0.19	0.00
1,178.50	0.20	0.00	0.20	0.00
1,178.60	0.20	0.00	0.20	0.00
1,178.70	0.21	0.00	0.21	0.00
1,178.80	0.22	0.00	0.22	0.00
1,178.90	0.23	0.00	0.23	0.00
1,179.00	0.23	0.00	0.23	0.00
1,179.10	0.24	0.00	0.24	0.00
1,179.20	0.26	0.01	0.25	0.00
1,179.30	0.28	0.02	0.26	0.00
1,179.40	0.31	0.05	0.26	0.00
1,179.50	0.36	0.08	0.27	0.00
1,179.60	0.41	0.13	0.28	0.00
1,179.70	0.48	0.19	0.29	0.00
1,179.80	0.57	0.27	0.29	0.00
1,179.90	0.67	0.36	0.30	0.00
1,180.00	0.78	0.47	0.31	0.00
1,180.10	0.92	0.60	0.32	0.00
1,180.20	1.07	0.75	0.32	0.00
1,180.30	1.25	0.91	0.33	0.00
1,180.40	1.44	1.10	0.34	0.00
1,180.50	1.65	1.31	0.35	0.00
1,180.60	1.89	1.54	0.35	0.00
1,180.70	2.15	1.79	0.36	0.00
1,180.80	2.43	2.06	0.37	0.00
1,180.90	2.74	2.36	0.38	0.00
1,181.00	4.10	3.72	0.38	0.00
1,181.10	6.78	4.78	0.39	1.60
1,181.20	9.93	4.93	0.40	4.60
1,181.30	14.18	5.07	0.41	8.70
1,181.40	19.41	5.21	0.41	13.78
1,181.50	25.85	5.35	0.42	20.08
1,181.60	33.42	5.48	0.43	27.51
1,181.70	41.15	5.61	0.44	35.10
1,181.80	49.60	5.74	0.44	43.42
1,181.90	58.76	5.86	0.45	52.45
1,182.00	68.62	5.98	0.46	62.18

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Stage-Area-Storage for Pond P3C: Pond 3C

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,178.00	1,905	0	1,180.55	4,208	7,794
1,178.05	1,950	96	1,180.60	4,253	8,006
1,178.10	1,995	195	1,180.65	4,299	8,220
1,178.15	2,040	296	1,180.70	4,344	8,436
1,178.20	2,086	399	1,180.75	4,389	8,654
1,178.25	2,131	504	1,180.80	4,434	8,875
1,178.30	2,176	612	1,180.85	4,479	9,098
1,178.35	2,221	722	1,180.90	4,524	9,323
1,178.40	2,266	834	1,180.95	4,570	9,550
1,178.45	2,311	949	1,181.00	4,615	9,780
1,178.50	2,357	1,065	1,181.05	4,660	10,011
1,178.55	2,402	1,184	1,181.10	4,705	10,246
1,178.60	2,447	1,306	1,181.15	4,750	10,482
1,178.65	2,492	1,429	1,181.20	4,795	10,721
1,178.70	2,537	1,555	1,181.25	4,841	10,962
1,178.75	2,582	1,683	1,181.30	4,886	11,205
1,178.80	2,628	1,813	1,181.35	4,931	11,450
1,178.85	2,673	1,946	1,181.40	4,976	11,698
1,178.90	2,718	2,080	1,181.45	5,021	11,948
1,178.95	2,763	2,217	1,181.50	5,066	12,200
1,179.00	2,808	2,357	1,181.55	5,112	12,454
1,179.05	2,853	2,498	1,181.60	5,157	12,711
1,179.10	2,899	2,642	1,181.65	5,202	12,970
1,179.15	2,944	2,788	1,181.70	5,247	13,231
1,179.20	2,989	2,936	1,181.75	5,292	13,495
1,179.25	3,034	3,087	1,181.80	5,337	13,760
1,179.30	3,079	3,240	1,181.85	5,383	14,028
1,179.35	3,124	3,395	1,181.90	5,428	14,299
1,179.40	3,170	3,552	1,181.95	5,473	14,571
1,179.45	3,215	3,712	1,182.00	5,518	14,846
1,179.50	3,260	3,874			
1,179.55	3,305	4,038			
1,179.60	3,350	4,204			
1,179.65	3,395	4,373			
1,179.70	3,441	4,544			
1,179.75	3,486	4,717			
1,179.80	3,531	4,892			
1,179.85	3,576	5,070			
1,179.90	3,621	5,250			
1,179.95	3,666	5,432			
1,180.00	3,712	5,617			
1,180.05	3,757	5,803			
1,180.10	3,802	5,992			
1,180.15	3,847	6,183			
1,180.20	3,892	6,377			
1,180.25	3,937	6,573			
1,180.30	3,982	6,771			
1,180.35	4,028	6,971			
1,180.40	4,073	7,173			
1,180.45	4,118	7,378			
1,180.50	4,163	7,585			

Summary for Pond P3D: Pond 3D

Inflow Area = 2.380 ac, 23.95% Impervious, Inflow Depth = 2.45" for 25 YR event
 Inflow = 9.15 cfs @ 12.13 hrs, Volume= 0.487 af
 Outflow = 4.56 cfs @ 12.25 hrs, Volume= 0.487 af, Atten= 50%, Lag= 6.9 min
 Primary = 4.31 cfs @ 12.25 hrs, Volume= 0.312 af
 Routed to Link 4L : Post - North
 Secondary = 0.24 cfs @ 12.25 hrs, Volume= 0.174 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,190.42' @ 12.25 hrs Surf.Area= 2,905 sf Storage= 6,232 cf

Plug-Flow detention time= 72.6 min calculated for 0.487 af (100% of inflow)
 Center-of-Mass det. time= 72.5 min (891.5 - 818.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,187.00'	11,620 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,187.00	741	0	0
1,192.00	3,907	11,620	11,620

Device	Routing	Invert	Outlet Devices
#1	Primary	1,188.00'	12.0" Round Culvert L= 35.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,188.00' / 1,184.00' S= 0.1143 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,188.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,190.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600
#4	Secondary	1,187.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,191.00'	20.0' long + 4.0 ' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=4.30 cfs @ 12.25 hrs HW=1,190.42' (Free Discharge)

↑ **1=Culvert** (Passes 4.30 cfs of 5.23 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 4.30 cfs @ 4.18 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.24 cfs @ 12.25 hrs HW=1,190.42' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.24 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,187.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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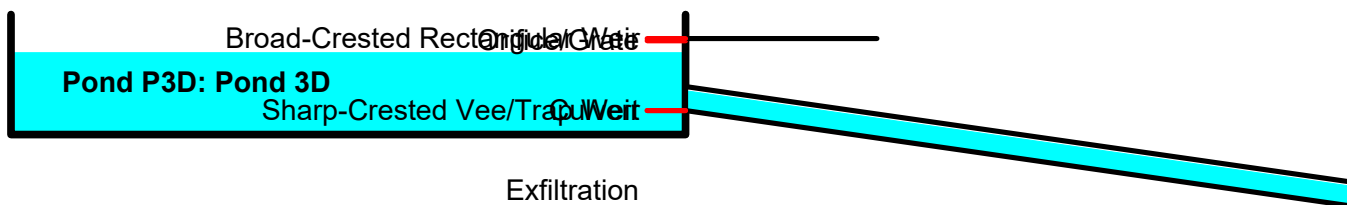
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MSE 24-hr 4 25 YR Rainfall=4.90"

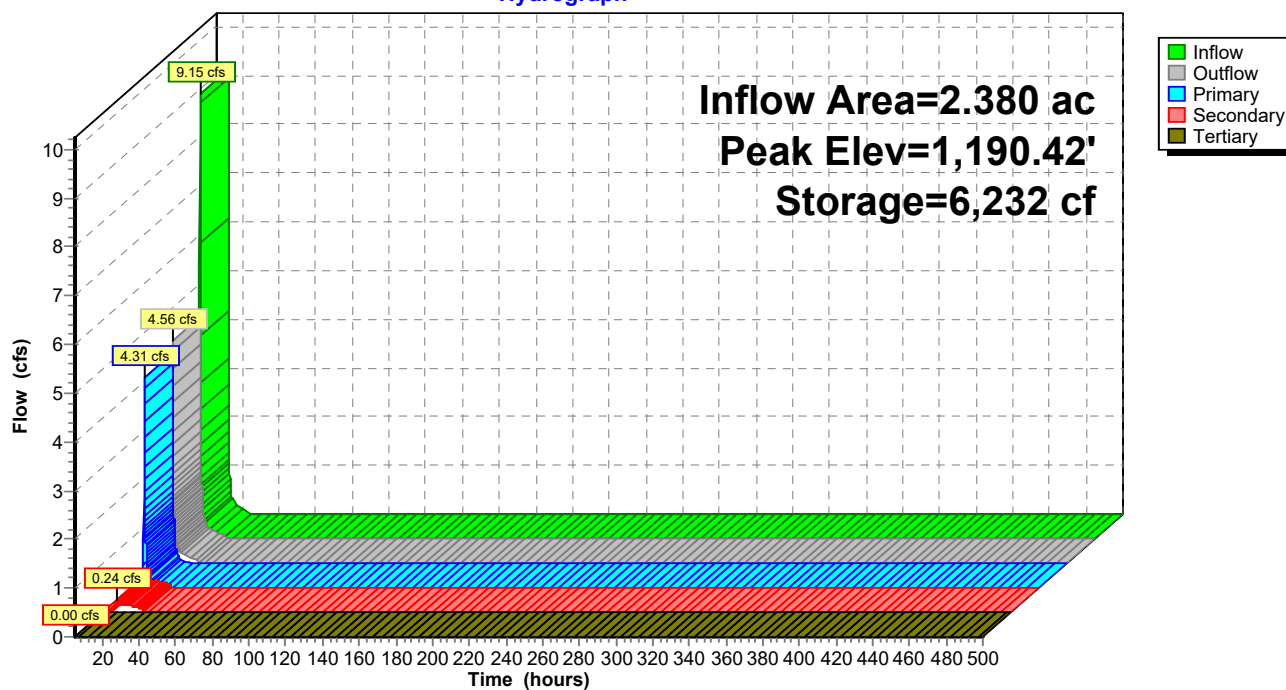
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Pond P3D: Pond 3D

Hydrograph



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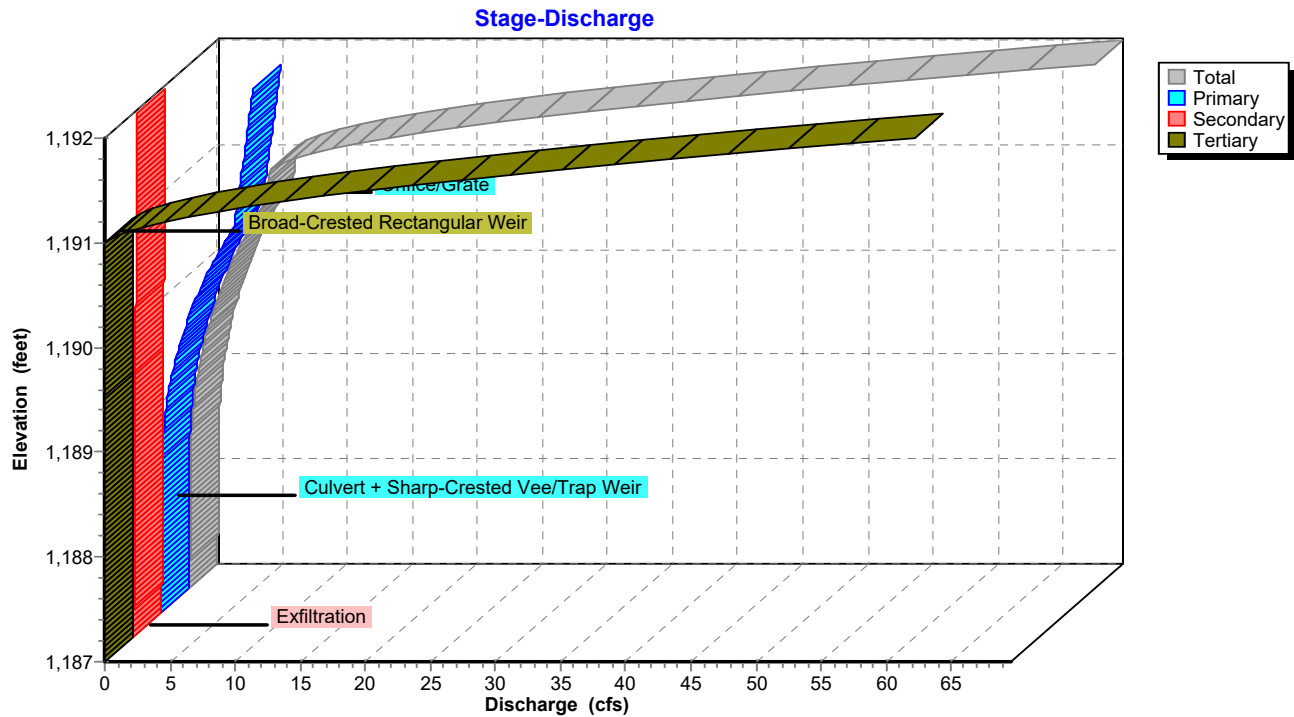
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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

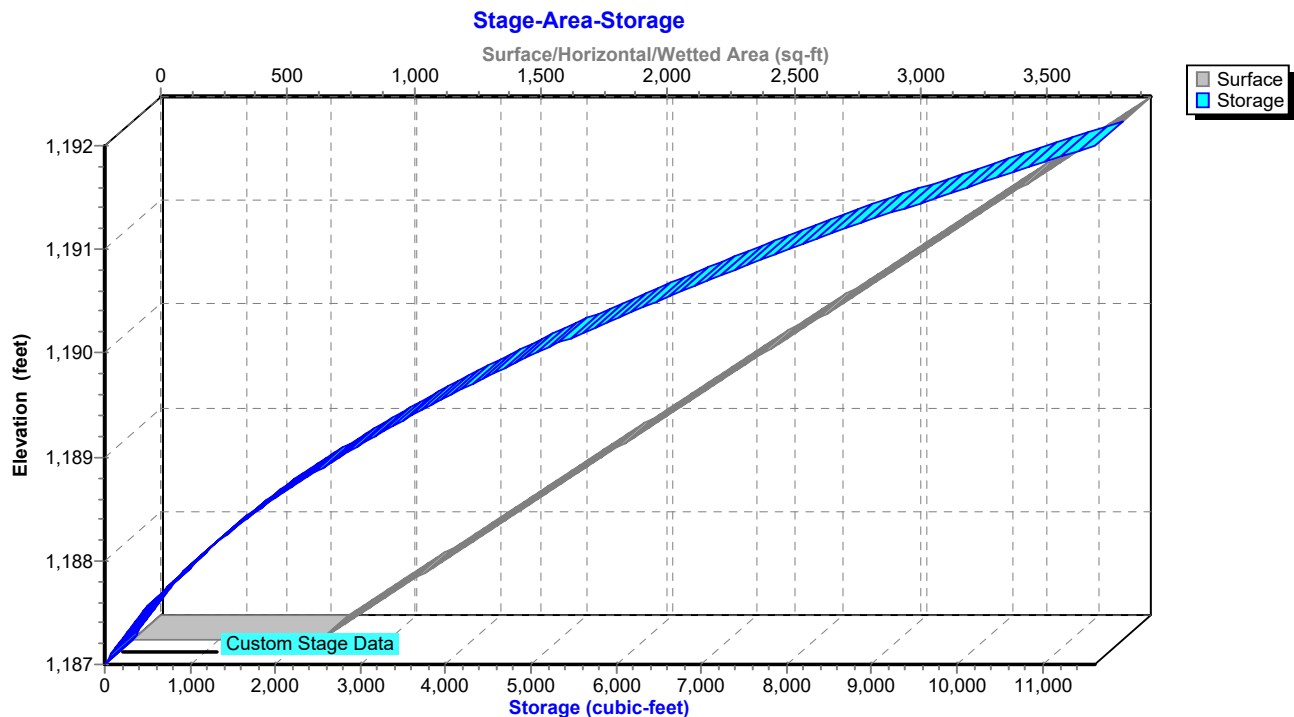
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Pond P3D: Pond 3D



Pond P3D: Pond 3D



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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Pond P3D: Pond 3D

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
15.00	0.33	2,246	1,188.74	0.38	0.22	0.15	0.00
25.00	0.00	485	1,187.53	0.09	0.00	0.09	0.00
35.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Stage-Discharge for Pond P3D: Pond 3D

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,187.00	0.00	0.00	0.00	0.00
1,187.10	0.07	0.00	0.07	0.00
1,187.20	0.07	0.00	0.07	0.00
1,187.30	0.08	0.00	0.08	0.00
1,187.40	0.08	0.00	0.08	0.00
1,187.50	0.09	0.00	0.09	0.00
1,187.60	0.09	0.00	0.09	0.00
1,187.70	0.10	0.00	0.10	0.00
1,187.80	0.10	0.00	0.10	0.00
1,187.90	0.11	0.00	0.11	0.00
1,188.00	0.11	0.00	0.11	0.00
1,188.10	0.12	0.00	0.12	0.00
1,188.20	0.13	0.01	0.13	0.00
1,188.30	0.15	0.02	0.13	0.00
1,188.40	0.18	0.05	0.14	0.00
1,188.50	0.22	0.08	0.14	0.00
1,188.60	0.28	0.13	0.15	0.00
1,188.70	0.35	0.19	0.15	0.00
1,188.80	0.43	0.27	0.16	0.00
1,188.90	0.53	0.36	0.16	0.00
1,189.00	0.64	0.47	0.17	0.00
1,189.10	0.77	0.60	0.17	0.00
1,189.20	0.93	0.75	0.18	0.00
1,189.30	1.10	0.91	0.18	0.00
1,189.40	1.29	1.10	0.19	0.00
1,189.50	1.50	1.31	0.19	0.00
1,189.60	1.73	1.54	0.20	0.00
1,189.70	1.99	1.79	0.20	0.00
1,189.80	2.27	2.06	0.21	0.00
1,189.90	2.58	2.36	0.21	0.00
1,190.00	2.90	2.68	0.22	0.00
1,190.10	3.26	3.03	0.23	0.00
1,190.20	3.64	3.41	0.23	0.00
1,190.30	4.04	3.81	0.24	0.00
1,190.40	4.47	4.23	0.24	0.00
1,190.50	4.93	4.69	0.25	0.00
1,190.60	5.42	5.17	0.25	0.00
1,190.70	5.87	5.61	0.26	0.00
1,190.80	6.00	5.74	0.26	0.00
1,190.90	6.13	5.86	0.27	0.00
1,191.00	6.25	5.98	0.27	0.00
1,191.10	7.98	6.10	0.28	1.60
1,191.20	11.09	6.21	0.28	4.60
1,191.30	15.31	6.33	0.29	8.70
1,191.40	20.52	6.44	0.29	13.78
1,191.50	26.93	6.55	0.30	20.08
1,191.60	34.47	6.66	0.30	27.51
1,191.70	42.18	6.76	0.31	35.10
1,191.80	50.61	6.87	0.32	43.42
1,191.90	59.75	6.97	0.32	52.45
1,192.00	69.58	7.07	0.33	62.18

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Stage-Area-Storage for Pond P3D: Pond 3D

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,187.00	741	0	1,189.55	2,356	3,948
1,187.05	773	38	1,189.60	2,387	4,067
1,187.10	804	77	1,189.65	2,419	4,187
1,187.15	836	118	1,189.70	2,451	4,309
1,187.20	868	161	1,189.75	2,482	4,432
1,187.25	899	205	1,189.80	2,514	4,557
1,187.30	931	251	1,189.85	2,546	4,683
1,187.35	963	298	1,189.90	2,577	4,812
1,187.40	994	347	1,189.95	2,609	4,941
1,187.45	1,026	398	1,190.00	2,641	5,072
1,187.50	1,058	450	1,190.05	2,672	5,205
1,187.55	1,089	503	1,190.10	2,704	5,340
1,187.60	1,121	559	1,190.15	2,736	5,476
1,187.65	1,153	615	1,190.20	2,767	5,613
1,187.70	1,184	674	1,190.25	2,799	5,752
1,187.75	1,216	734	1,190.30	2,831	5,893
1,187.80	1,248	795	1,190.35	2,862	6,035
1,187.85	1,279	859	1,190.40	2,894	6,179
1,187.90	1,311	923	1,190.45	2,926	6,325
1,187.95	1,343	990	1,190.50	2,957	6,472
1,188.00	1,374	1,058	1,190.55	2,989	6,621
1,188.05	1,406	1,127	1,190.60	3,021	6,771
1,188.10	1,438	1,198	1,190.65	3,052	6,923
1,188.15	1,469	1,271	1,190.70	3,084	7,076
1,188.20	1,501	1,345	1,190.75	3,116	7,231
1,188.25	1,533	1,421	1,190.80	3,147	7,388
1,188.30	1,564	1,498	1,190.85	3,179	7,546
1,188.35	1,596	1,577	1,190.90	3,210	7,705
1,188.40	1,627	1,658	1,190.95	3,242	7,867
1,188.45	1,659	1,740	1,191.00	3,274	8,030
1,188.50	1,691	1,824	1,191.05	3,305	8,194
1,188.55	1,722	1,909	1,191.10	3,337	8,360
1,188.60	1,754	1,996	1,191.15	3,369	8,528
1,188.65	1,786	2,085	1,191.20	3,400	8,697
1,188.70	1,817	2,175	1,191.25	3,432	8,868
1,188.75	1,849	2,266	1,191.30	3,464	9,040
1,188.80	1,881	2,360	1,191.35	3,495	9,214
1,188.85	1,912	2,454	1,191.40	3,527	9,390
1,188.90	1,944	2,551	1,191.45	3,559	9,567
1,188.95	1,976	2,649	1,191.50	3,590	9,746
1,189.00	2,007	2,748	1,191.55	3,622	9,926
1,189.05	2,039	2,850	1,191.60	3,654	10,108
1,189.10	2,071	2,952	1,191.65	3,685	10,291
1,189.15	2,102	3,057	1,191.70	3,717	10,476
1,189.20	2,134	3,163	1,191.75	3,749	10,663
1,189.25	2,166	3,270	1,191.80	3,780	10,851
1,189.30	2,197	3,379	1,191.85	3,812	11,041
1,189.35	2,229	3,490	1,191.90	3,844	11,232
1,189.40	2,261	3,602	1,191.95	3,875	11,425
1,189.45	2,292	3,716	1,192.00	3,907	11,620
1,189.50	2,324	3,831			

Summary for Pond P3E: Pond 3E

Inflow Area = 2.780 ac, 19.06% Impervious, Inflow Depth = 2.28" for 25 YR event
 Inflow = 9.96 cfs @ 12.13 hrs, Volume= 0.529 af
 Outflow = 2.04 cfs @ 12.47 hrs, Volume= 0.529 af, Atten= 80%, Lag= 20.3 min
 Primary = 1.67 cfs @ 12.47 hrs, Volume= 0.212 af
 Routed to Link 4L : Post - North
 Secondary = 0.36 cfs @ 12.47 hrs, Volume= 0.318 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,218.66' @ 12.47 hrs Surf.Area= 4,346 sf Storage= 9,113 cf

Plug-Flow detention time= 126.7 min calculated for 0.529 af (100% of inflow)
 Center-of-Mass det. time= 126.7 min (949.9 - 823.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,216.00'	15,578 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,216.00	2,517	0	0
1,220.00	5,272	15,578	15,578

Device	Routing	Invert	Outlet Devices
#1	Primary	1,217.00'	12.0" Round Culvert L= 32.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,217.00' / 1,213.00' S= 0.1250 ' / Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,217.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,218.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600
#4	Secondary	1,216.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,219.00'	20.0' long + 4.0 ' /' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=1.67 cfs @ 12.47 hrs HW=1,218.65' (Free Discharge)

↑ **1=Culvert** (Passes 1.67 cfs of 4.06 cfs potential flow)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Weir Controls 1.67 cfs @ 3.46 fps)
 ↑ **3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.36 cfs @ 12.47 hrs HW=1,218.65' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.36 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,216.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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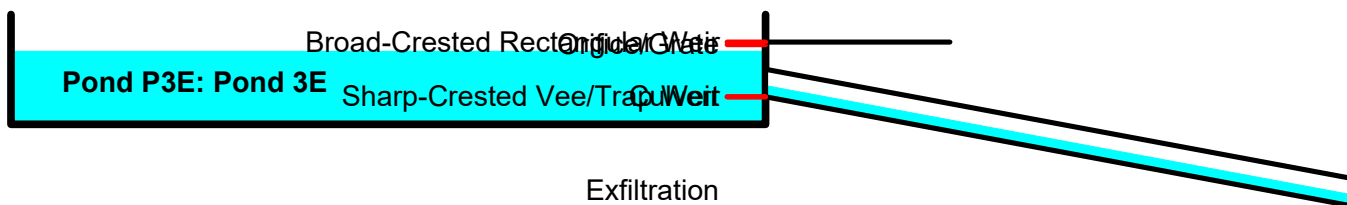
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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

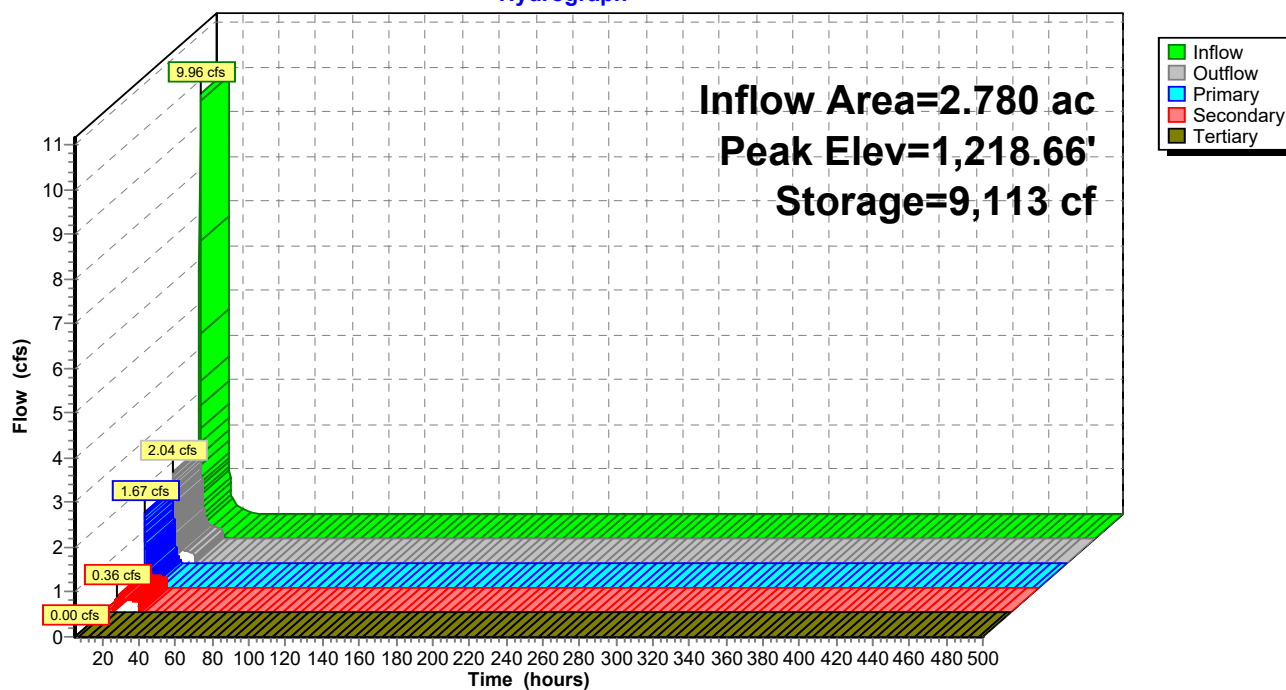
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Pond P3E: Pond 3E

Hydrograph



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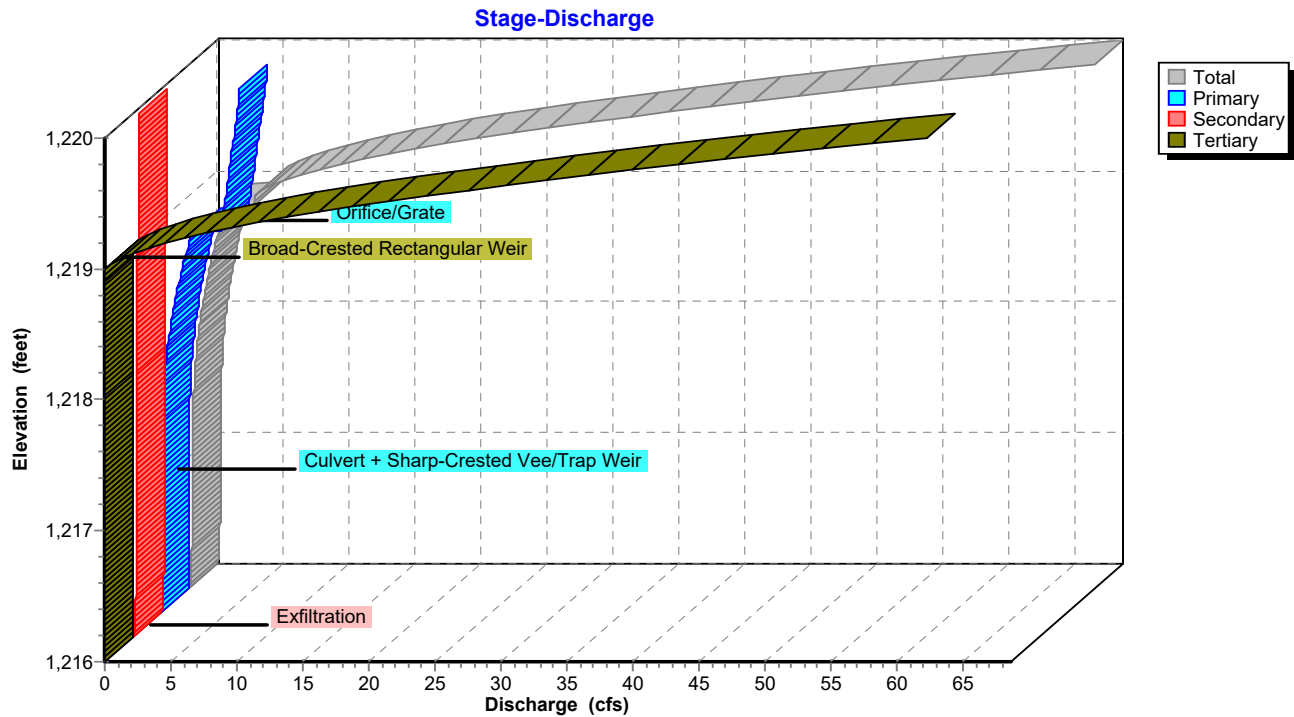
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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

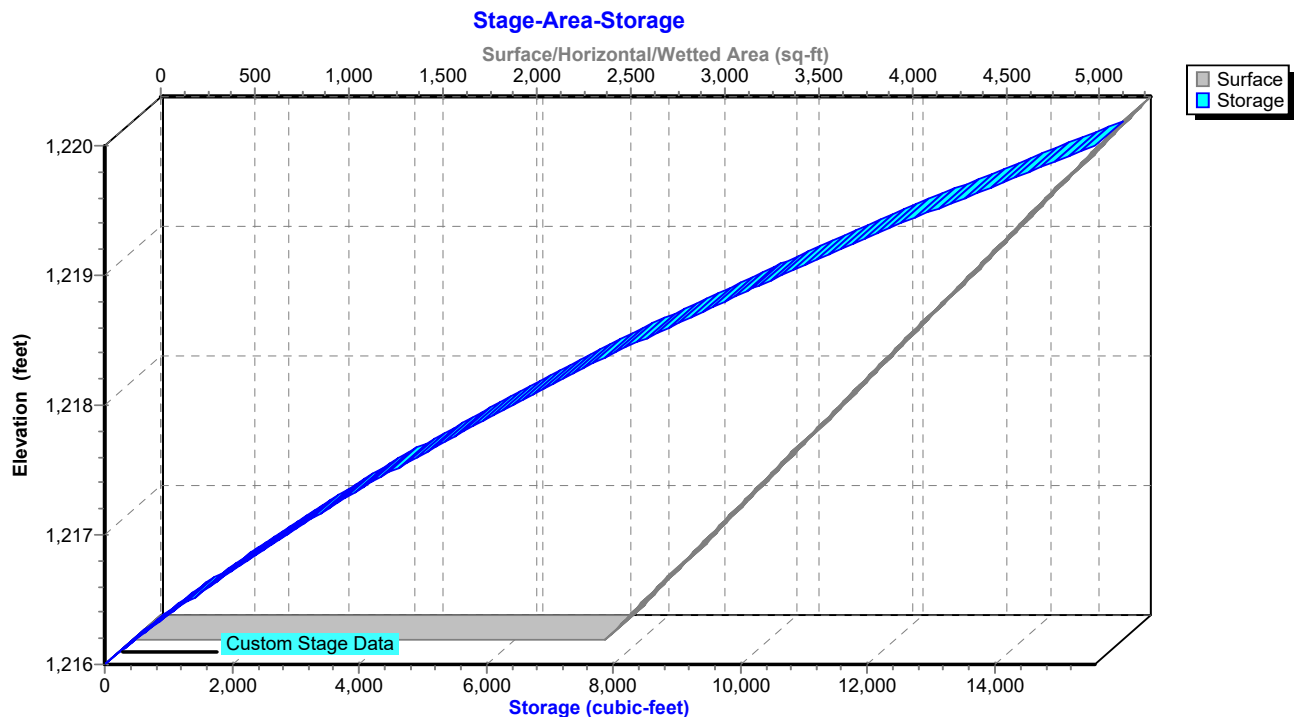
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Pond P3E: Pond 3E



Pond P3E: Pond 3E



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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Pond P3E: Pond 3E

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
15.00	0.37	5,470	1,217.75	0.54	0.23	0.31	0.00
25.00	0.00	6	1,216.00	0.01	0.00	0.01	0.00
35.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Stage-Discharge for Pond P3E: Pond 3E

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,216.00	0.00	0.00	0.00	0.00
1,216.10	0.22	0.00	0.22	0.00
1,216.20	0.22	0.00	0.22	0.00
1,216.30	0.23	0.00	0.23	0.00
1,216.40	0.23	0.00	0.23	0.00
1,216.50	0.24	0.00	0.24	0.00
1,216.60	0.24	0.00	0.24	0.00
1,216.70	0.25	0.00	0.25	0.00
1,216.80	0.26	0.00	0.26	0.00
1,216.90	0.26	0.00	0.26	0.00
1,217.00	0.27	0.00	0.27	0.00
1,217.10	0.27	0.00	0.27	0.00
1,217.20	0.29	0.01	0.28	0.00
1,217.30	0.31	0.02	0.28	0.00
1,217.40	0.34	0.05	0.29	0.00
1,217.50	0.38	0.08	0.30	0.00
1,217.60	0.43	0.13	0.30	0.00
1,217.70	0.50	0.19	0.31	0.00
1,217.80	0.58	0.27	0.31	0.00
1,217.90	0.68	0.36	0.32	0.00
1,218.00	0.80	0.47	0.32	0.00
1,218.10	0.93	0.60	0.33	0.00
1,218.20	1.08	0.75	0.34	0.00
1,218.30	1.26	0.91	0.34	0.00
1,218.40	1.45	1.10	0.35	0.00
1,218.50	1.66	1.31	0.35	0.00
1,218.60	1.89	1.54	0.36	0.00
1,218.70	2.15	1.79	0.36	0.00
1,218.80	2.43	2.06	0.37	0.00
1,218.90	2.74	2.36	0.38	0.00
1,219.00	5.01	4.63	0.38	0.00
1,219.10	6.77	4.78	0.39	1.60
1,219.20	9.92	4.93	0.39	4.60
1,219.30	14.17	5.07	0.40	8.70
1,219.40	19.40	5.21	0.40	13.78
1,219.50	25.84	5.35	0.41	20.08
1,219.60	33.40	5.48	0.42	27.51
1,219.70	41.13	5.61	0.42	35.10
1,219.80	49.59	5.74	0.43	43.42
1,219.90	58.74	5.86	0.43	52.45
1,220.00	68.59	5.98	0.44	62.18

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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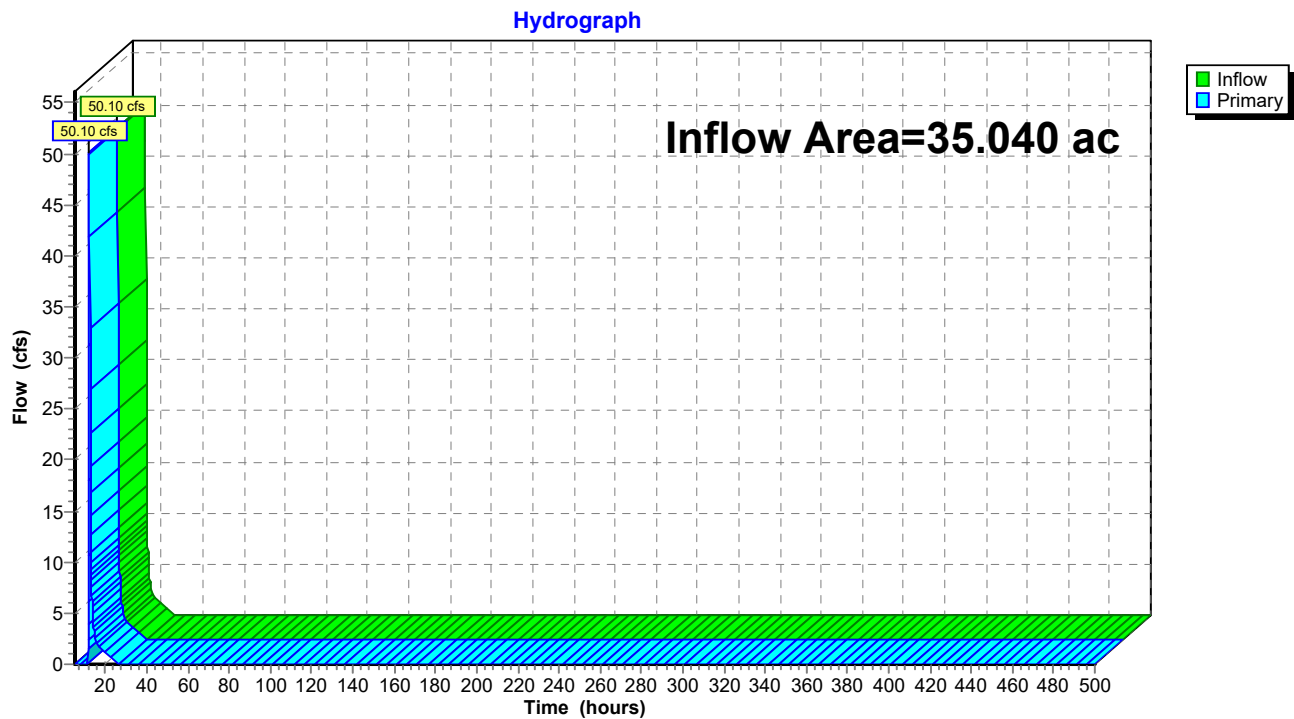
Stage-Area-Storage for Pond P3E: Pond 3E

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,216.00	2,517	0	1,218.55	4,273	8,658
1,216.05	2,551	127	1,218.60	4,308	8,872
1,216.10	2,586	255	1,218.65	4,342	9,088
1,216.15	2,620	385	1,218.70	4,377	9,306
1,216.20	2,655	517	1,218.75	4,411	9,526
1,216.25	2,689	651	1,218.80	4,445	9,747
1,216.30	2,724	786	1,218.85	4,480	9,971
1,216.35	2,758	923	1,218.90	4,514	10,195
1,216.40	2,793	1,062	1,218.95	4,549	10,422
1,216.45	2,827	1,202	1,219.00	4,583	10,650
1,216.50	2,861	1,345	1,219.05	4,618	10,880
1,216.55	2,896	1,489	1,219.10	4,652	11,112
1,216.60	2,930	1,634	1,219.15	4,687	11,346
1,216.65	2,965	1,782	1,219.20	4,721	11,581
1,216.70	2,999	1,931	1,219.25	4,755	11,818
1,216.75	3,034	2,081	1,219.30	4,790	12,056
1,216.80	3,068	2,234	1,219.35	4,824	12,297
1,216.85	3,102	2,388	1,219.40	4,859	12,539
1,216.90	3,137	2,544	1,219.45	4,893	12,783
1,216.95	3,171	2,702	1,219.50	4,928	13,028
1,217.00	3,206	2,861	1,219.55	4,962	13,275
1,217.05	3,240	3,023	1,219.60	4,996	13,524
1,217.10	3,275	3,185	1,219.65	5,031	13,775
1,217.15	3,309	3,350	1,219.70	5,065	14,027
1,217.20	3,344	3,516	1,219.75	5,100	14,282
1,217.25	3,378	3,684	1,219.80	5,134	14,537
1,217.30	3,412	3,854	1,219.85	5,169	14,795
1,217.35	3,447	4,026	1,219.90	5,203	15,054
1,217.40	3,481	4,199	1,219.95	5,238	15,315
1,217.45	3,516	4,374	1,220.00	5,272	15,578
1,217.50	3,550	4,550			
1,217.55	3,585	4,729			
1,217.60	3,619	4,909			
1,217.65	3,653	5,091			
1,217.70	3,688	5,274			
1,217.75	3,722	5,459			
1,217.80	3,757	5,646			
1,217.85	3,791	5,835			
1,217.90	3,826	6,025			
1,217.95	3,860	6,218			
1,218.00	3,895	6,412			
1,218.05	3,929	6,607			
1,218.10	3,963	6,804			
1,218.15	3,998	7,003			
1,218.20	4,032	7,204			
1,218.25	4,067	7,407			
1,218.30	4,101	7,611			
1,218.35	4,136	7,817			
1,218.40	4,170	8,024			
1,218.45	4,204	8,234			
1,218.50	4,239	8,445			

Summary for Link 1L: Total Pre - Development

Inflow Area = 35.040 ac, 0.00% Impervious, Inflow Depth = 1.18" for 25 YR event
Inflow = 50.10 cfs @ 12.19 hrs, Volume= 3.436 af
Primary = 50.10 cfs @ 12.19 hrs, Volume= 3.436 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 1L: Total Pre - Development

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Link 1L: Total Pre - Development

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	265.00	0.00	0.00	0.00
15.00	3.09	0.00	3.09	270.00	0.00	0.00	0.00
20.00	1.19	0.00	1.19	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

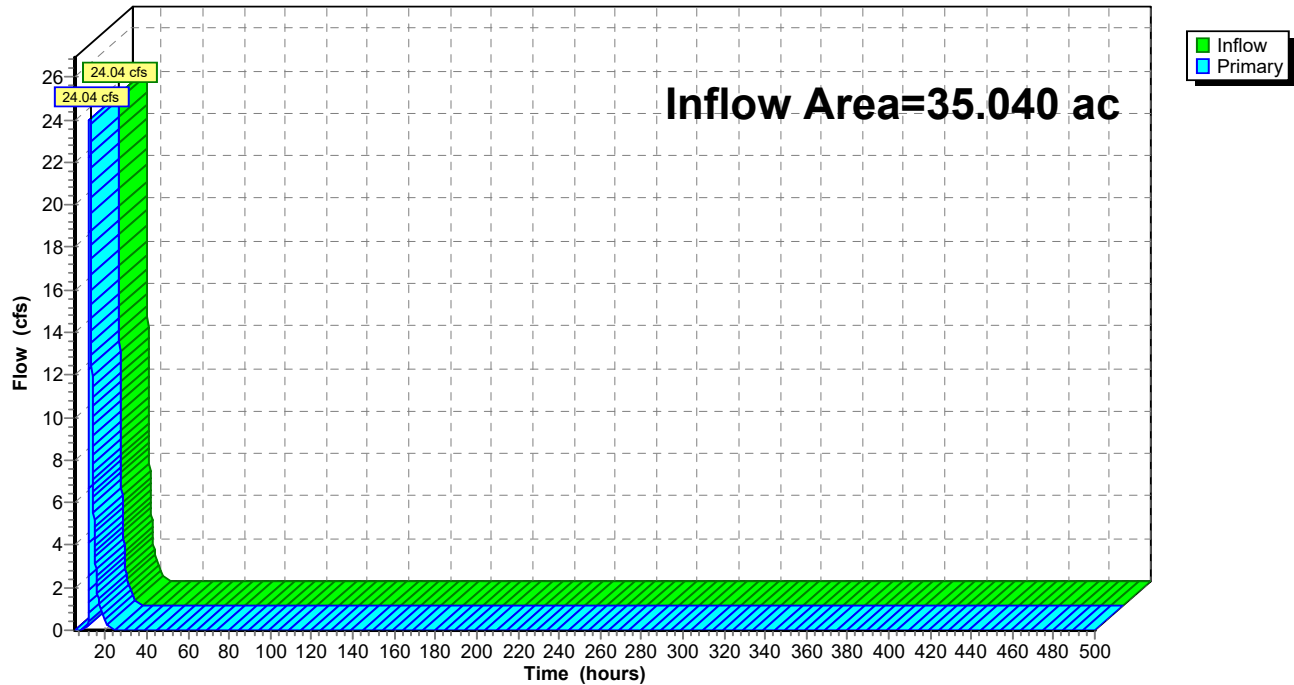
Summary for Link 2L: Total Post - Development

Inflow Area = 35.040 ac, 19.66% Impervious, Inflow Depth = 1.18" for 25 YR event
Inflow = 24.04 cfs @ 12.28 hrs, Volume= 3.439 af
Primary = 24.04 cfs @ 12.28 hrs, Volume= 3.439 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 2L: Total Post - Development

Hydrograph



250128900_swm

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Link 2L: Total Post - Development

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.05	0.00	0.05	265.00	0.00	0.00	0.00
15.00	3.56	0.00	3.56	270.00	0.00	0.00	0.00
20.00	0.38	0.00	0.38	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

250128900_swm

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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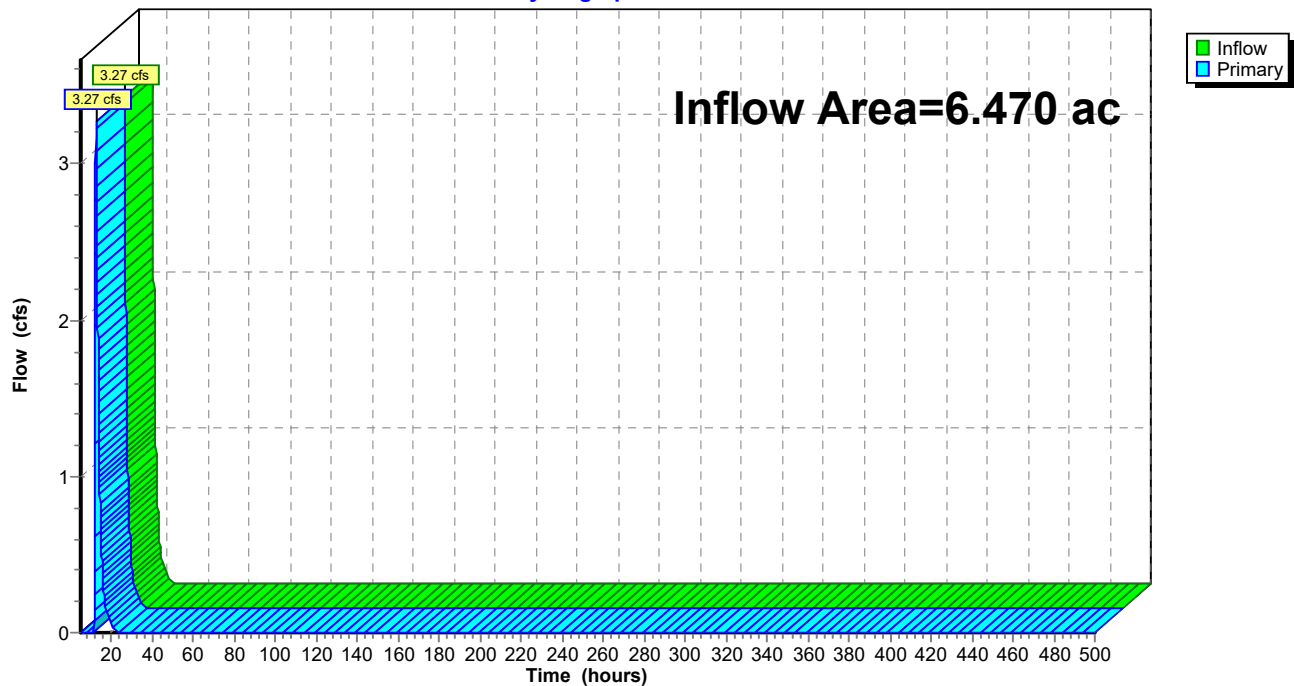
Summary for Link 3L: Post - South

Inflow Area = 6.470 ac, 18.70% Impervious, Inflow Depth = 0.92" for 25 YR event
Inflow = 3.27 cfs @ 12.45 hrs, Volume= 0.498 af
Primary = 3.27 cfs @ 12.45 hrs, Volume= 0.498 af, Atten= 0%, Lag= 0.0 min
Routed to Link 2L : Total Post - Development

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 3L: Post - South

Hydrograph



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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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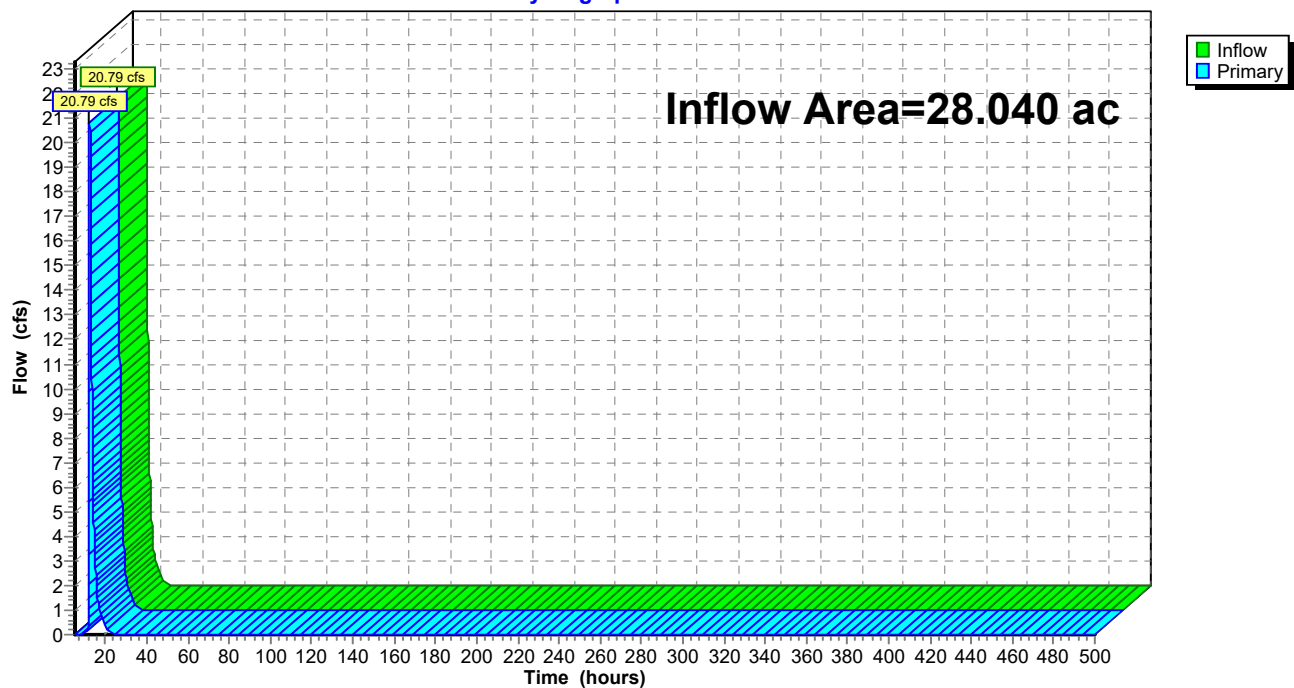
Hydrograph for Link 3L: Post - South

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	265.00	0.00	0.00	0.00
15.00	0.58	0.00	0.58	270.00	0.00	0.00	0.00
20.00	0.04	0.00	0.04	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

Summary for Link 4L: Post - North

Inflow Area = 28.040 ac, 20.04% Impervious, Inflow Depth = 1.23" for 25 YR event
Inflow = 20.79 cfs @ 12.27 hrs, Volume= 2.871 af
Primary = 20.79 cfs @ 12.27 hrs, Volume= 2.871 af, Atten= 0%, Lag= 0.0 min
Routed to Link 2L : Total Post - Development

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 4L: Post - North**Hydrograph**

250128900_swm

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Featherstone Rise
MSE 24-hr 4 25 YR Rainfall=4.90"

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Hydrograph for Link 4L: Post - North

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.05	0.00	0.05	265.00	0.00	0.00	0.00
15.00	2.92	0.00	2.92	270.00	0.00	0.00	0.00
20.00	0.32	0.00	0.32	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

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Time span=5.00-500.00 hrs, dt=0.05 hrs, 9901 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1: Pre - South	Runoff Area=4.910 ac 0.00% Impervious Runoff Depth=1.58" Tc=10.0 min CN=55 Runoff=9.61 cfs 0.645 af
Subcatchment1A: Post 1A	Runoff Area=6.030 ac 19.24% Impervious Runoff Depth=2.70" Tc=6.0 min CN=68 Runoff=25.52 cfs 1.356 af
Subcatchment1B: Post 1B - Offsite	Runoff Area=0.440 ac 11.36% Impervious Runoff Depth=2.42" Tc=6.0 min CN=65 Runoff=1.67 cfs 0.089 af
Subcatchment2: Pre - West	Runoff Area=2.540 ac 0.00% Impervious Runoff Depth=1.58" Tc=6.0 min CN=55 Runoff=5.96 cfs 0.333 af
Subcatchment2A: Post 2A - Offsite	Runoff Area=0.530 ac 11.32% Impervious Runoff Depth=2.42" Tc=6.0 min CN=65 Runoff=2.01 cfs 0.107 af
Subcatchment3: Pre - North	Runoff Area=27.590 ac 0.00% Impervious Runoff Depth=1.99" Tc=10.0 min CN=60 Runoff=71.12 cfs 4.569 af
Subcatchment3A: Post 3A	Runoff Area=10.600 ac 18.58% Impervious Runoff Depth=2.88" Tc=6.0 min CN=70 Runoff=47.96 cfs 2.548 af
Subcatchment3B: Post 3B	Runoff Area=8.450 ac 19.88% Impervious Runoff Depth=2.98" Tc=6.0 min CN=71 Runoff=39.47 cfs 2.098 af
Subcatchment3C: Post 3C	Runoff Area=2.490 ac 22.89% Impervious Runoff Depth=3.37" Tc=6.0 min CN=75 Runoff=13.07 cfs 0.699 af
Subcatchment3D: Post 3D	Runoff Area=2.380 ac 23.95% Impervious Runoff Depth=3.47" Tc=6.0 min CN=76 Runoff=12.83 cfs 0.688 af
Subcatchment3E: Post 3E	Runoff Area=2.780 ac 19.06% Impervious Runoff Depth=3.27" Tc=6.0 min CN=74 Runoff=14.19 cfs 0.757 af
Subcatchment3Y: Post 3Y - Offsite	Runoff Area=0.820 ac 36.59% Impervious Runoff Depth=4.18" Tc=6.0 min CN=83 Runoff=5.20 cfs 0.286 af
Subcatchment3Z: Post 3Z - Offsite	Runoff Area=0.520 ac 0.00% Impervious Runoff Depth=3.27" Tc=6.0 min CN=74 Runoff=2.65 cfs 0.142 af
Subcatchment5S: Culvert 1	Runoff Area=4,797 sf 48.61% Impervious Runoff Depth=3.77" Tc=6.0 min CN=79 Runoff=0.64 cfs 0.035 af
Subcatchment6S: Culvert 2	Runoff Area=24,708 sf 36.87% Impervious Runoff Depth=3.37" Tc=6.0 min CN=75 Runoff=2.98 cfs 0.159 af
Subcatchment7S: Culvert 3	Runoff Area=41,517 sf 32.00% Impervious Runoff Depth=3.17" Tc=6.0 min CN=73 Runoff=4.73 cfs 0.252 af

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Subcatchment8S: Culvert 4Runoff Area=209,603 sf 25.18% Impervious Runoff Depth=2.88"
Tc=6.0 min CN=70 Runoff=21.77 cfs 1.157 af**Subcatchment9S: Culvert 5**Runoff Area=188,836 sf 19.96% Impervious Runoff Depth=2.70"
Tc=6.0 min CN=68 Runoff=18.35 cfs 0.975 af**Pond P1A: Pond 1A**Peak Elev=1,242.96' Storage=21,220 cf Inflow=25.52 cfs 1.356 af
Primary=5.93 cfs 0.818 af Secondary=0.69 cfs 0.537 af Tertiary=0.00 cfs 0.000 af Outflow=6.62 cfs 1.356 af**Pond P3A: Pond 3A**Peak Elev=1,197.22' Storage=42,103 cf Inflow=47.96 cfs 2.548 af
Primary=7.30 cfs 1.598 af Secondary=1.00 cfs 0.844 af Tertiary=5.43 cfs 0.106 af Outflow=13.73 cfs 2.548 af**Pond P3B: Pond 3B**Peak Elev=1,199.47' Storage=28,439 cf Inflow=39.47 cfs 2.098 af
Primary=6.51 cfs 1.159 af Secondary=0.83 cfs 0.668 af Tertiary=17.18 cfs 0.271 af Outflow=24.52 cfs 2.098 af**Pond P3C: Pond 3C**Peak Elev=1,181.10' Storage=10,244 cf Inflow=13.07 cfs 0.699 af
Primary=4.78 cfs 0.358 af Secondary=0.39 cfs 0.326 af Tertiary=1.62 cfs 0.014 af Outflow=6.79 cfs 0.699 af**Pond P3D: Pond 3D**Peak Elev=1,191.05' Storage=8,209 cf Inflow=12.83 cfs 0.688 af
Primary=6.04 cfs 0.488 af Secondary=0.28 cfs 0.196 af Tertiary=0.57 cfs 0.004 af Outflow=6.89 cfs 0.688 af**Pond P3E: Pond 3E**Peak Elev=1,219.11' Storage=11,171 cf Inflow=14.19 cfs 0.757 af
Primary=4.80 cfs 0.380 af Secondary=0.39 cfs 0.361 af Tertiary=1.93 cfs 0.016 af Outflow=7.12 cfs 0.757 af**Link 1L: Total Pre - Development**Inflow=85.40 cfs 5.547 af
Primary=85.40 cfs 5.547 af**Link 2L: Total Post - Development**Inflow=41.84 cfs 5.425 af
Primary=41.84 cfs 5.425 af**Link 3L: Post - South**Inflow=6.55 cfs 0.907 af
Primary=6.55 cfs 0.907 af**Link 4L: Post - North**Inflow=34.01 cfs 4.411 af
Primary=34.01 cfs 4.411 af**Total Runoff Area = 80.857 ac Runoff Volume = 16.893 af Average Runoff Depth = 2.51"**
88.21% Pervious = 71.323 ac 11.79% Impervious = 9.534 ac

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Summary for Subcatchment 1: Pre - South

Runoff = 9.61 cfs @ 12.19 hrs, Volume= 0.645 af, Depth= 1.58"
Routed to Link 1L : Total Pre - Development

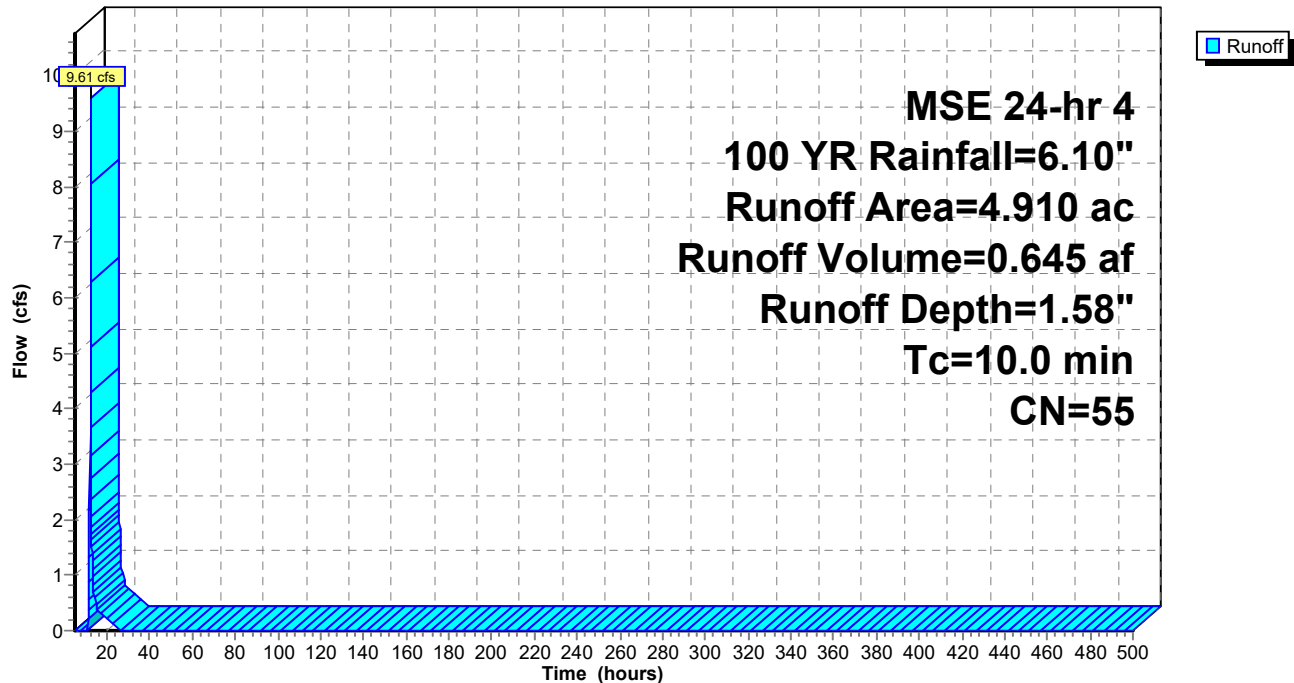
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100 YR Rainfall=6.10"

Area (ac)	CN	Description
* 4.910	55	Pre Dev - B Soils
4.910		100.00% Pervious Area

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

Subcatchment 1: Pre - South

Hydrograph



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Hydrograph for Subcatchment 1: Pre - South

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.28	0.00	0.00	260.00	6.10	1.58	0.00
10.00	0.97	0.00	0.00	265.00	6.10	1.58	0.00
15.00	5.36	1.17	0.57	270.00	6.10	1.58	0.00
20.00	5.90	1.46	0.22	275.00	6.10	1.58	0.00
25.00	6.10	1.58	0.00	280.00	6.10	1.58	0.00
30.00	6.10	1.58	0.00	285.00	6.10	1.58	0.00
35.00	6.10	1.58	0.00	290.00	6.10	1.58	0.00
40.00	6.10	1.58	0.00	295.00	6.10	1.58	0.00
45.00	6.10	1.58	0.00	300.00	6.10	1.58	0.00
50.00	6.10	1.58	0.00	305.00	6.10	1.58	0.00
55.00	6.10	1.58	0.00	310.00	6.10	1.58	0.00
60.00	6.10	1.58	0.00	315.00	6.10	1.58	0.00
65.00	6.10	1.58	0.00	320.00	6.10	1.58	0.00
70.00	6.10	1.58	0.00	325.00	6.10	1.58	0.00
75.00	6.10	1.58	0.00	330.00	6.10	1.58	0.00
80.00	6.10	1.58	0.00	335.00	6.10	1.58	0.00
85.00	6.10	1.58	0.00	340.00	6.10	1.58	0.00
90.00	6.10	1.58	0.00	345.00	6.10	1.58	0.00
95.00	6.10	1.58	0.00	350.00	6.10	1.58	0.00
100.00	6.10	1.58	0.00	355.00	6.10	1.58	0.00
105.00	6.10	1.58	0.00	360.00	6.10	1.58	0.00
110.00	6.10	1.58	0.00	365.00	6.10	1.58	0.00
115.00	6.10	1.58	0.00	370.00	6.10	1.58	0.00
120.00	6.10	1.58	0.00	375.00	6.10	1.58	0.00
125.00	6.10	1.58	0.00	380.00	6.10	1.58	0.00
130.00	6.10	1.58	0.00	385.00	6.10	1.58	0.00
135.00	6.10	1.58	0.00	390.00	6.10	1.58	0.00
140.00	6.10	1.58	0.00	395.00	6.10	1.58	0.00
145.00	6.10	1.58	0.00	400.00	6.10	1.58	0.00
150.00	6.10	1.58	0.00	405.00	6.10	1.58	0.00
155.00	6.10	1.58	0.00	410.00	6.10	1.58	0.00
160.00	6.10	1.58	0.00	415.00	6.10	1.58	0.00
165.00	6.10	1.58	0.00	420.00	6.10	1.58	0.00
170.00	6.10	1.58	0.00	425.00	6.10	1.58	0.00
175.00	6.10	1.58	0.00	430.00	6.10	1.58	0.00
180.00	6.10	1.58	0.00	435.00	6.10	1.58	0.00
185.00	6.10	1.58	0.00	440.00	6.10	1.58	0.00
190.00	6.10	1.58	0.00	445.00	6.10	1.58	0.00
195.00	6.10	1.58	0.00	450.00	6.10	1.58	0.00
200.00	6.10	1.58	0.00	455.00	6.10	1.58	0.00
205.00	6.10	1.58	0.00	460.00	6.10	1.58	0.00
210.00	6.10	1.58	0.00	465.00	6.10	1.58	0.00
215.00	6.10	1.58	0.00	470.00	6.10	1.58	0.00
220.00	6.10	1.58	0.00	475.00	6.10	1.58	0.00
225.00	6.10	1.58	0.00	480.00	6.10	1.58	0.00
230.00	6.10	1.58	0.00	485.00	6.10	1.58	0.00
235.00	6.10	1.58	0.00	490.00	6.10	1.58	0.00
240.00	6.10	1.58	0.00	495.00	6.10	1.58	0.00
245.00	6.10	1.58	0.00	500.00	6.10	1.58	0.00
250.00	6.10	1.58	0.00				
255.00	6.10	1.58	0.00				

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MSE 24-hr 4 100 YR Rainfall=6.10"

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Summary for Subcatchment 1A: Post 1A

Runoff = 25.52 cfs @ 12.14 hrs, Volume= 1.356 af, Depth= 2.70"
Routed to Pond P1A : Pond 1A

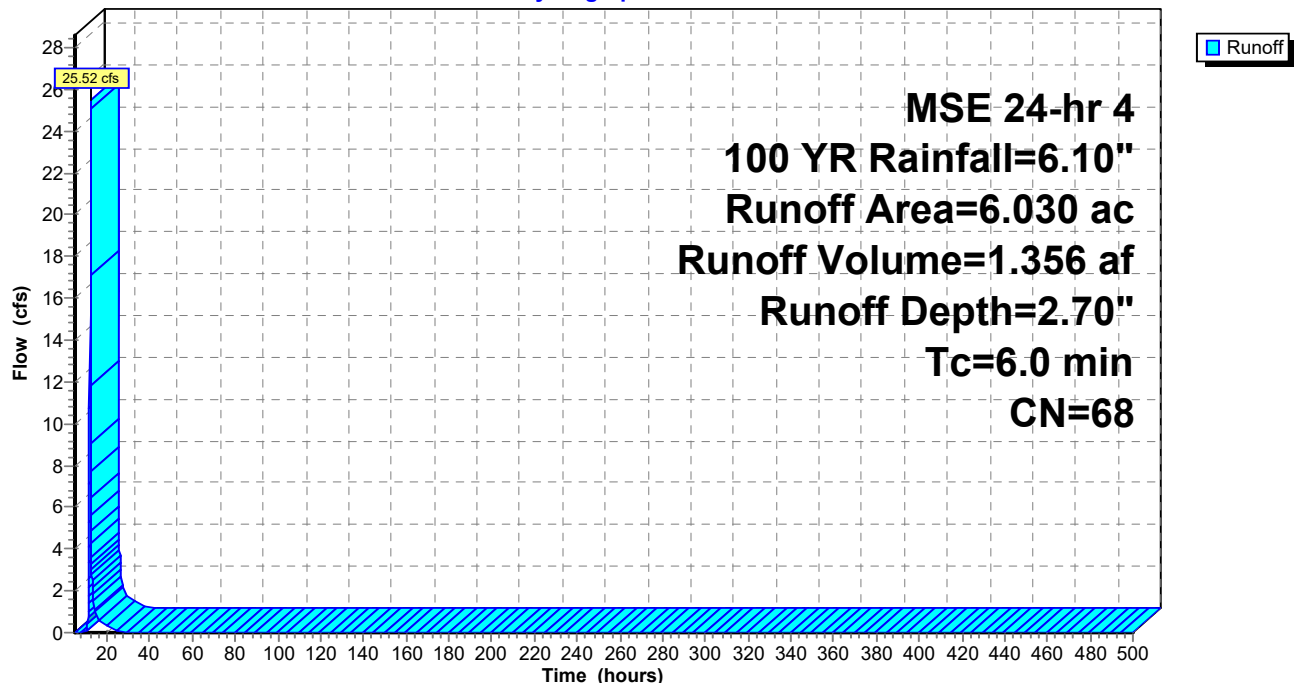
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100 YR Rainfall=6.10"

Area (ac)	CN	Description
* 1.160	98	Impervious
* 4.870	61	Post - B Soils
* 0.000	74	Post - C Soils
6.030	68	Weighted Average
4.870		80.76% Pervious Area
1.160		19.24% Impervious Area

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

Subcatchment 1A: Post 1A

Hydrograph



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Featherstone Rise

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Hydrograph for Subcatchment 1A: Post 1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.28	0.00	0.00	260.00	6.10	2.70	0.00
10.00	0.97	0.00	0.00	265.00	6.10	2.70	0.00
15.00	5.36	2.14	0.96	270.00	6.10	2.70	0.00
20.00	5.90	2.55	0.36	275.00	6.10	2.70	0.00
25.00	6.10	2.70	0.00	280.00	6.10	2.70	0.00
30.00	6.10	2.70	0.00	285.00	6.10	2.70	0.00
35.00	6.10	2.70	0.00	290.00	6.10	2.70	0.00
40.00	6.10	2.70	0.00	295.00	6.10	2.70	0.00
45.00	6.10	2.70	0.00	300.00	6.10	2.70	0.00
50.00	6.10	2.70	0.00	305.00	6.10	2.70	0.00
55.00	6.10	2.70	0.00	310.00	6.10	2.70	0.00
60.00	6.10	2.70	0.00	315.00	6.10	2.70	0.00
65.00	6.10	2.70	0.00	320.00	6.10	2.70	0.00
70.00	6.10	2.70	0.00	325.00	6.10	2.70	0.00
75.00	6.10	2.70	0.00	330.00	6.10	2.70	0.00
80.00	6.10	2.70	0.00	335.00	6.10	2.70	0.00
85.00	6.10	2.70	0.00	340.00	6.10	2.70	0.00
90.00	6.10	2.70	0.00	345.00	6.10	2.70	0.00
95.00	6.10	2.70	0.00	350.00	6.10	2.70	0.00
100.00	6.10	2.70	0.00	355.00	6.10	2.70	0.00
105.00	6.10	2.70	0.00	360.00	6.10	2.70	0.00
110.00	6.10	2.70	0.00	365.00	6.10	2.70	0.00
115.00	6.10	2.70	0.00	370.00	6.10	2.70	0.00
120.00	6.10	2.70	0.00	375.00	6.10	2.70	0.00
125.00	6.10	2.70	0.00	380.00	6.10	2.70	0.00
130.00	6.10	2.70	0.00	385.00	6.10	2.70	0.00
135.00	6.10	2.70	0.00	390.00	6.10	2.70	0.00
140.00	6.10	2.70	0.00	395.00	6.10	2.70	0.00
145.00	6.10	2.70	0.00	400.00	6.10	2.70	0.00
150.00	6.10	2.70	0.00	405.00	6.10	2.70	0.00
155.00	6.10	2.70	0.00	410.00	6.10	2.70	0.00
160.00	6.10	2.70	0.00	415.00	6.10	2.70	0.00
165.00	6.10	2.70	0.00	420.00	6.10	2.70	0.00
170.00	6.10	2.70	0.00	425.00	6.10	2.70	0.00
175.00	6.10	2.70	0.00	430.00	6.10	2.70	0.00
180.00	6.10	2.70	0.00	435.00	6.10	2.70	0.00
185.00	6.10	2.70	0.00	440.00	6.10	2.70	0.00
190.00	6.10	2.70	0.00	445.00	6.10	2.70	0.00
195.00	6.10	2.70	0.00	450.00	6.10	2.70	0.00
200.00	6.10	2.70	0.00	455.00	6.10	2.70	0.00
205.00	6.10	2.70	0.00	460.00	6.10	2.70	0.00
210.00	6.10	2.70	0.00	465.00	6.10	2.70	0.00
215.00	6.10	2.70	0.00	470.00	6.10	2.70	0.00
220.00	6.10	2.70	0.00	475.00	6.10	2.70	0.00
225.00	6.10	2.70	0.00	480.00	6.10	2.70	0.00
230.00	6.10	2.70	0.00	485.00	6.10	2.70	0.00
235.00	6.10	2.70	0.00	490.00	6.10	2.70	0.00
240.00	6.10	2.70	0.00	495.00	6.10	2.70	0.00
245.00	6.10	2.70	0.00	500.00	6.10	2.70	0.00
250.00	6.10	2.70	0.00				
255.00	6.10	2.70	0.00				

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Summary for Subcatchment 1B: Post 1B - Offsite

Runoff = 1.67 cfs @ 12.14 hrs, Volume= 0.089 af, Depth= 2.42"
Routed to Link 3L : Post - South

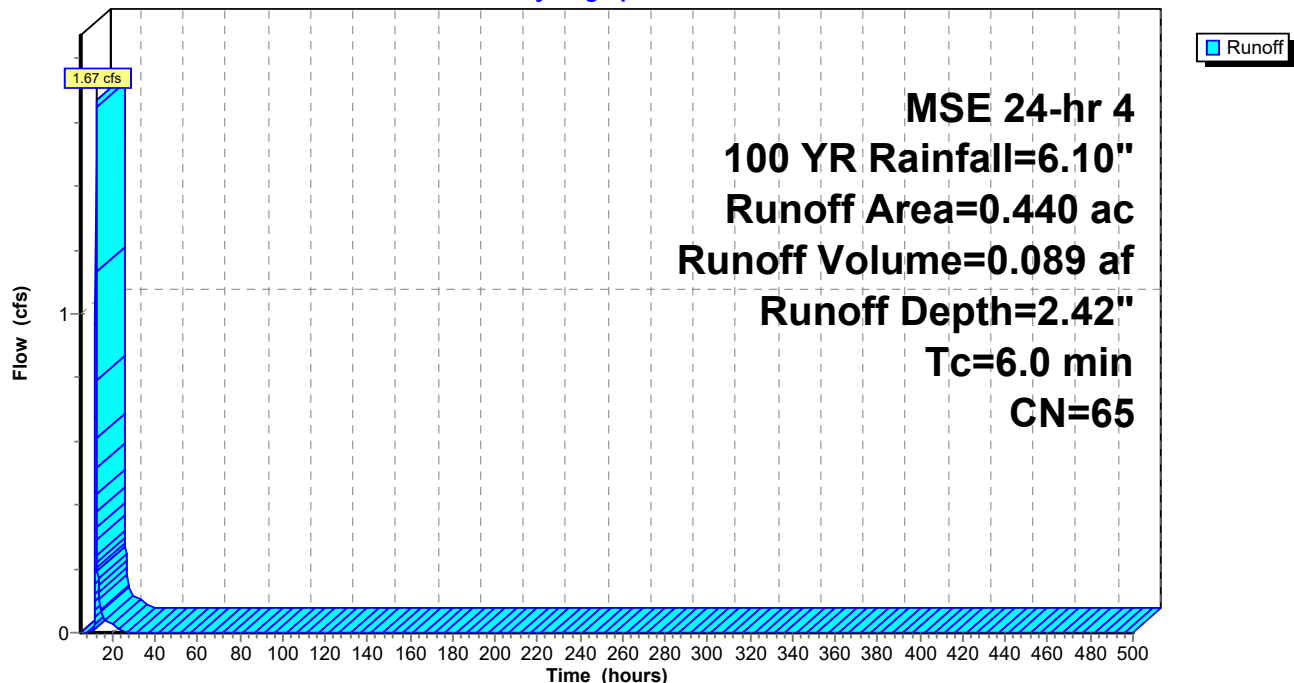
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100 YR Rainfall=6.10"

Area (ac)	CN	Description
* 0.050	98	Impervious
* 0.390	61	Post - B Soils
* 0.000	74	Post - C Soils
0.440	65	Weighted Average
0.390		88.64% Pervious Area
0.050		11.36% Impervious Area

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

Subcatchment 1B: Post 1B - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Hydrograph for Subcatchment 1B: Post 1B - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.28	0.00	0.00	260.00	6.10	2.42	0.00
10.00	0.97	0.00	0.00	265.00	6.10	2.42	0.00
15.00	5.36	1.90	0.07	270.00	6.10	2.42	0.00
20.00	5.90	2.28	0.02	275.00	6.10	2.42	0.00
25.00	6.10	2.42	0.00	280.00	6.10	2.42	0.00
30.00	6.10	2.42	0.00	285.00	6.10	2.42	0.00
35.00	6.10	2.42	0.00	290.00	6.10	2.42	0.00
40.00	6.10	2.42	0.00	295.00	6.10	2.42	0.00
45.00	6.10	2.42	0.00	300.00	6.10	2.42	0.00
50.00	6.10	2.42	0.00	305.00	6.10	2.42	0.00
55.00	6.10	2.42	0.00	310.00	6.10	2.42	0.00
60.00	6.10	2.42	0.00	315.00	6.10	2.42	0.00
65.00	6.10	2.42	0.00	320.00	6.10	2.42	0.00
70.00	6.10	2.42	0.00	325.00	6.10	2.42	0.00
75.00	6.10	2.42	0.00	330.00	6.10	2.42	0.00
80.00	6.10	2.42	0.00	335.00	6.10	2.42	0.00
85.00	6.10	2.42	0.00	340.00	6.10	2.42	0.00
90.00	6.10	2.42	0.00	345.00	6.10	2.42	0.00
95.00	6.10	2.42	0.00	350.00	6.10	2.42	0.00
100.00	6.10	2.42	0.00	355.00	6.10	2.42	0.00
105.00	6.10	2.42	0.00	360.00	6.10	2.42	0.00
110.00	6.10	2.42	0.00	365.00	6.10	2.42	0.00
115.00	6.10	2.42	0.00	370.00	6.10	2.42	0.00
120.00	6.10	2.42	0.00	375.00	6.10	2.42	0.00
125.00	6.10	2.42	0.00	380.00	6.10	2.42	0.00
130.00	6.10	2.42	0.00	385.00	6.10	2.42	0.00
135.00	6.10	2.42	0.00	390.00	6.10	2.42	0.00
140.00	6.10	2.42	0.00	395.00	6.10	2.42	0.00
145.00	6.10	2.42	0.00	400.00	6.10	2.42	0.00
150.00	6.10	2.42	0.00	405.00	6.10	2.42	0.00
155.00	6.10	2.42	0.00	410.00	6.10	2.42	0.00
160.00	6.10	2.42	0.00	415.00	6.10	2.42	0.00
165.00	6.10	2.42	0.00	420.00	6.10	2.42	0.00
170.00	6.10	2.42	0.00	425.00	6.10	2.42	0.00
175.00	6.10	2.42	0.00	430.00	6.10	2.42	0.00
180.00	6.10	2.42	0.00	435.00	6.10	2.42	0.00
185.00	6.10	2.42	0.00	440.00	6.10	2.42	0.00
190.00	6.10	2.42	0.00	445.00	6.10	2.42	0.00
195.00	6.10	2.42	0.00	450.00	6.10	2.42	0.00
200.00	6.10	2.42	0.00	455.00	6.10	2.42	0.00
205.00	6.10	2.42	0.00	460.00	6.10	2.42	0.00
210.00	6.10	2.42	0.00	465.00	6.10	2.42	0.00
215.00	6.10	2.42	0.00	470.00	6.10	2.42	0.00
220.00	6.10	2.42	0.00	475.00	6.10	2.42	0.00
225.00	6.10	2.42	0.00	480.00	6.10	2.42	0.00
230.00	6.10	2.42	0.00	485.00	6.10	2.42	0.00
235.00	6.10	2.42	0.00	490.00	6.10	2.42	0.00
240.00	6.10	2.42	0.00	495.00	6.10	2.42	0.00
245.00	6.10	2.42	0.00	500.00	6.10	2.42	0.00
250.00	6.10	2.42	0.00				
255.00	6.10	2.42	0.00				

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Summary for Subcatchment 2: Pre - West

Runoff = 5.96 cfs @ 12.14 hrs, Volume= 0.333 af, Depth= 1.58"
Routed to Link 1L : Total Pre - Development

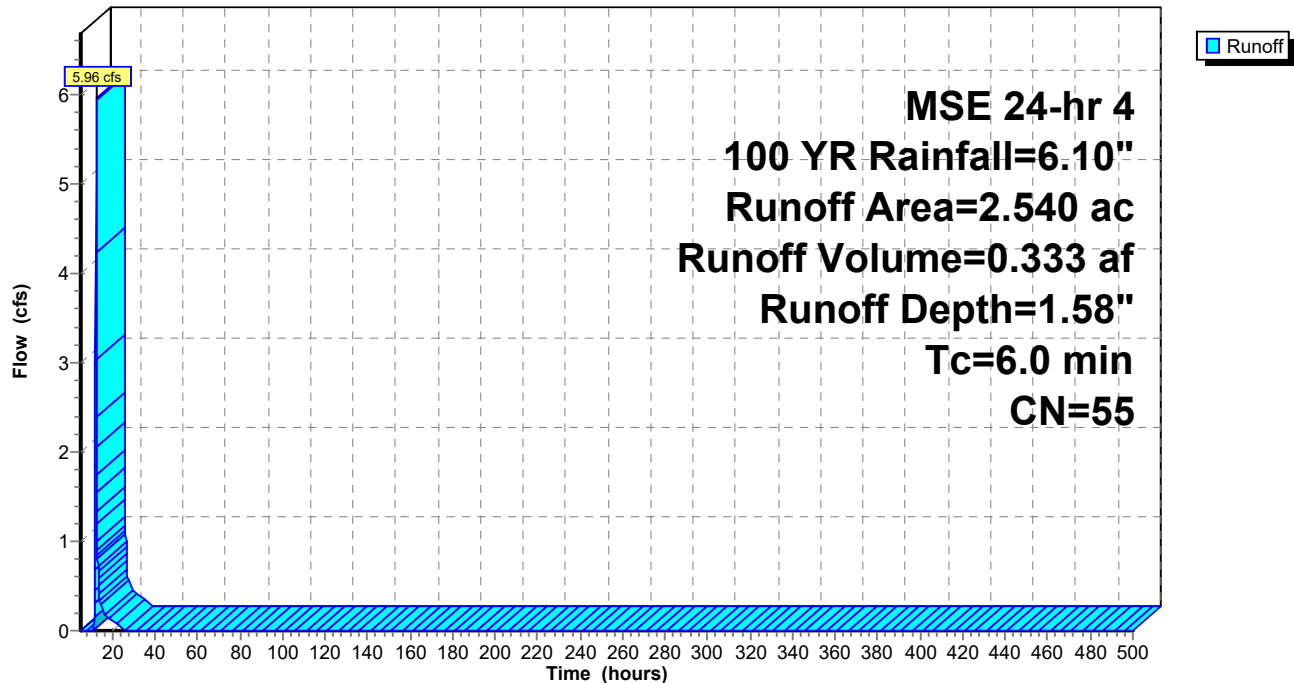
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100 YR Rainfall=6.10"

Area (ac)	CN	Description
* 2.540	55	Pre Dev - B Soils
2.540		100.00% Pervious Area

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

Subcatchment 2: Pre - West

Hydrograph



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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Hydrograph for Subcatchment 2: Pre - West

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.28	0.00	0.00	260.00	6.10	1.58	0.00
10.00	0.97	0.00	0.00	265.00	6.10	1.58	0.00
15.00	5.36	1.17	0.29	270.00	6.10	1.58	0.00
20.00	5.90	1.46	0.11	275.00	6.10	1.58	0.00
25.00	6.10	1.58	0.00	280.00	6.10	1.58	0.00
30.00	6.10	1.58	0.00	285.00	6.10	1.58	0.00
35.00	6.10	1.58	0.00	290.00	6.10	1.58	0.00
40.00	6.10	1.58	0.00	295.00	6.10	1.58	0.00
45.00	6.10	1.58	0.00	300.00	6.10	1.58	0.00
50.00	6.10	1.58	0.00	305.00	6.10	1.58	0.00
55.00	6.10	1.58	0.00	310.00	6.10	1.58	0.00
60.00	6.10	1.58	0.00	315.00	6.10	1.58	0.00
65.00	6.10	1.58	0.00	320.00	6.10	1.58	0.00
70.00	6.10	1.58	0.00	325.00	6.10	1.58	0.00
75.00	6.10	1.58	0.00	330.00	6.10	1.58	0.00
80.00	6.10	1.58	0.00	335.00	6.10	1.58	0.00
85.00	6.10	1.58	0.00	340.00	6.10	1.58	0.00
90.00	6.10	1.58	0.00	345.00	6.10	1.58	0.00
95.00	6.10	1.58	0.00	350.00	6.10	1.58	0.00
100.00	6.10	1.58	0.00	355.00	6.10	1.58	0.00
105.00	6.10	1.58	0.00	360.00	6.10	1.58	0.00
110.00	6.10	1.58	0.00	365.00	6.10	1.58	0.00
115.00	6.10	1.58	0.00	370.00	6.10	1.58	0.00
120.00	6.10	1.58	0.00	375.00	6.10	1.58	0.00
125.00	6.10	1.58	0.00	380.00	6.10	1.58	0.00
130.00	6.10	1.58	0.00	385.00	6.10	1.58	0.00
135.00	6.10	1.58	0.00	390.00	6.10	1.58	0.00
140.00	6.10	1.58	0.00	395.00	6.10	1.58	0.00
145.00	6.10	1.58	0.00	400.00	6.10	1.58	0.00
150.00	6.10	1.58	0.00	405.00	6.10	1.58	0.00
155.00	6.10	1.58	0.00	410.00	6.10	1.58	0.00
160.00	6.10	1.58	0.00	415.00	6.10	1.58	0.00
165.00	6.10	1.58	0.00	420.00	6.10	1.58	0.00
170.00	6.10	1.58	0.00	425.00	6.10	1.58	0.00
175.00	6.10	1.58	0.00	430.00	6.10	1.58	0.00
180.00	6.10	1.58	0.00	435.00	6.10	1.58	0.00
185.00	6.10	1.58	0.00	440.00	6.10	1.58	0.00
190.00	6.10	1.58	0.00	445.00	6.10	1.58	0.00
195.00	6.10	1.58	0.00	450.00	6.10	1.58	0.00
200.00	6.10	1.58	0.00	455.00	6.10	1.58	0.00
205.00	6.10	1.58	0.00	460.00	6.10	1.58	0.00
210.00	6.10	1.58	0.00	465.00	6.10	1.58	0.00
215.00	6.10	1.58	0.00	470.00	6.10	1.58	0.00
220.00	6.10	1.58	0.00	475.00	6.10	1.58	0.00
225.00	6.10	1.58	0.00	480.00	6.10	1.58	0.00
230.00	6.10	1.58	0.00	485.00	6.10	1.58	0.00
235.00	6.10	1.58	0.00	490.00	6.10	1.58	0.00
240.00	6.10	1.58	0.00	495.00	6.10	1.58	0.00
245.00	6.10	1.58	0.00	500.00	6.10	1.58	0.00
250.00	6.10	1.58	0.00				
255.00	6.10	1.58	0.00				

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Summary for Subcatchment 2A: Post 2A - Offsite

Runoff = 2.01 cfs @ 12.14 hrs, Volume= 0.107 af, Depth= 2.42"
Routed to Link 2L : Total Post - Development

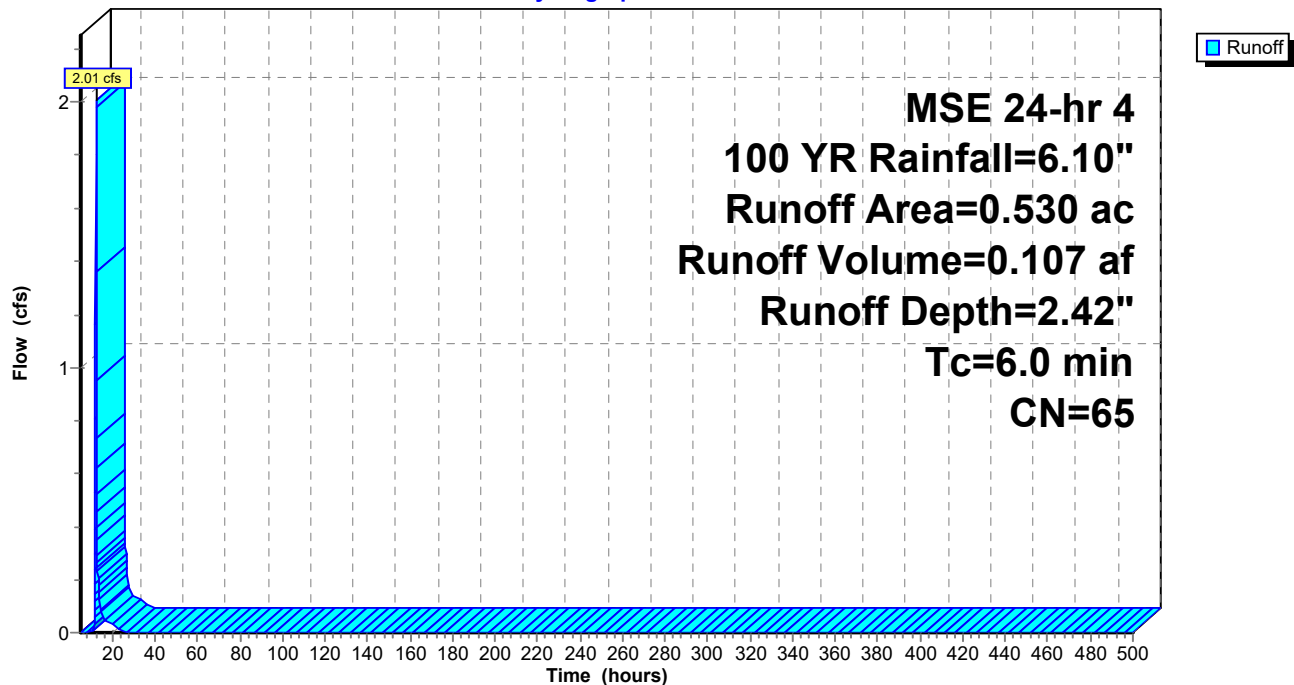
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100 YR Rainfall=6.10"

Area (ac)	CN	Description
* 0.060	98	Impervious
* 0.470	61	Post - B Soils
* 0.000	74	Post - C Soils
0.530	65	Weighted Average
0.470		88.68% Pervious Area
0.060		11.32% Impervious Area

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

Subcatchment 2A: Post 2A - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Hydrograph for Subcatchment 2A: Post 2A - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.28	0.00	0.00	260.00	6.10	2.42	0.00
10.00	0.97	0.00	0.00	265.00	6.10	2.42	0.00
15.00	5.36	1.90	0.08	270.00	6.10	2.42	0.00
20.00	5.90	2.28	0.03	275.00	6.10	2.42	0.00
25.00	6.10	2.42	0.00	280.00	6.10	2.42	0.00
30.00	6.10	2.42	0.00	285.00	6.10	2.42	0.00
35.00	6.10	2.42	0.00	290.00	6.10	2.42	0.00
40.00	6.10	2.42	0.00	295.00	6.10	2.42	0.00
45.00	6.10	2.42	0.00	300.00	6.10	2.42	0.00
50.00	6.10	2.42	0.00	305.00	6.10	2.42	0.00
55.00	6.10	2.42	0.00	310.00	6.10	2.42	0.00
60.00	6.10	2.42	0.00	315.00	6.10	2.42	0.00
65.00	6.10	2.42	0.00	320.00	6.10	2.42	0.00
70.00	6.10	2.42	0.00	325.00	6.10	2.42	0.00
75.00	6.10	2.42	0.00	330.00	6.10	2.42	0.00
80.00	6.10	2.42	0.00	335.00	6.10	2.42	0.00
85.00	6.10	2.42	0.00	340.00	6.10	2.42	0.00
90.00	6.10	2.42	0.00	345.00	6.10	2.42	0.00
95.00	6.10	2.42	0.00	350.00	6.10	2.42	0.00
100.00	6.10	2.42	0.00	355.00	6.10	2.42	0.00
105.00	6.10	2.42	0.00	360.00	6.10	2.42	0.00
110.00	6.10	2.42	0.00	365.00	6.10	2.42	0.00
115.00	6.10	2.42	0.00	370.00	6.10	2.42	0.00
120.00	6.10	2.42	0.00	375.00	6.10	2.42	0.00
125.00	6.10	2.42	0.00	380.00	6.10	2.42	0.00
130.00	6.10	2.42	0.00	385.00	6.10	2.42	0.00
135.00	6.10	2.42	0.00	390.00	6.10	2.42	0.00
140.00	6.10	2.42	0.00	395.00	6.10	2.42	0.00
145.00	6.10	2.42	0.00	400.00	6.10	2.42	0.00
150.00	6.10	2.42	0.00	405.00	6.10	2.42	0.00
155.00	6.10	2.42	0.00	410.00	6.10	2.42	0.00
160.00	6.10	2.42	0.00	415.00	6.10	2.42	0.00
165.00	6.10	2.42	0.00	420.00	6.10	2.42	0.00
170.00	6.10	2.42	0.00	425.00	6.10	2.42	0.00
175.00	6.10	2.42	0.00	430.00	6.10	2.42	0.00
180.00	6.10	2.42	0.00	435.00	6.10	2.42	0.00
185.00	6.10	2.42	0.00	440.00	6.10	2.42	0.00
190.00	6.10	2.42	0.00	445.00	6.10	2.42	0.00
195.00	6.10	2.42	0.00	450.00	6.10	2.42	0.00
200.00	6.10	2.42	0.00	455.00	6.10	2.42	0.00
205.00	6.10	2.42	0.00	460.00	6.10	2.42	0.00
210.00	6.10	2.42	0.00	465.00	6.10	2.42	0.00
215.00	6.10	2.42	0.00	470.00	6.10	2.42	0.00
220.00	6.10	2.42	0.00	475.00	6.10	2.42	0.00
225.00	6.10	2.42	0.00	480.00	6.10	2.42	0.00
230.00	6.10	2.42	0.00	485.00	6.10	2.42	0.00
235.00	6.10	2.42	0.00	490.00	6.10	2.42	0.00
240.00	6.10	2.42	0.00	495.00	6.10	2.42	0.00
245.00	6.10	2.42	0.00	500.00	6.10	2.42	0.00
250.00	6.10	2.42	0.00				
255.00	6.10	2.42	0.00				

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Summary for Subcatchment 3: Pre - North

Runoff = 71.12 cfs @ 12.19 hrs, Volume= 4.569 af, Depth= 1.99"
Routed to Link 1L : Total Pre - Development

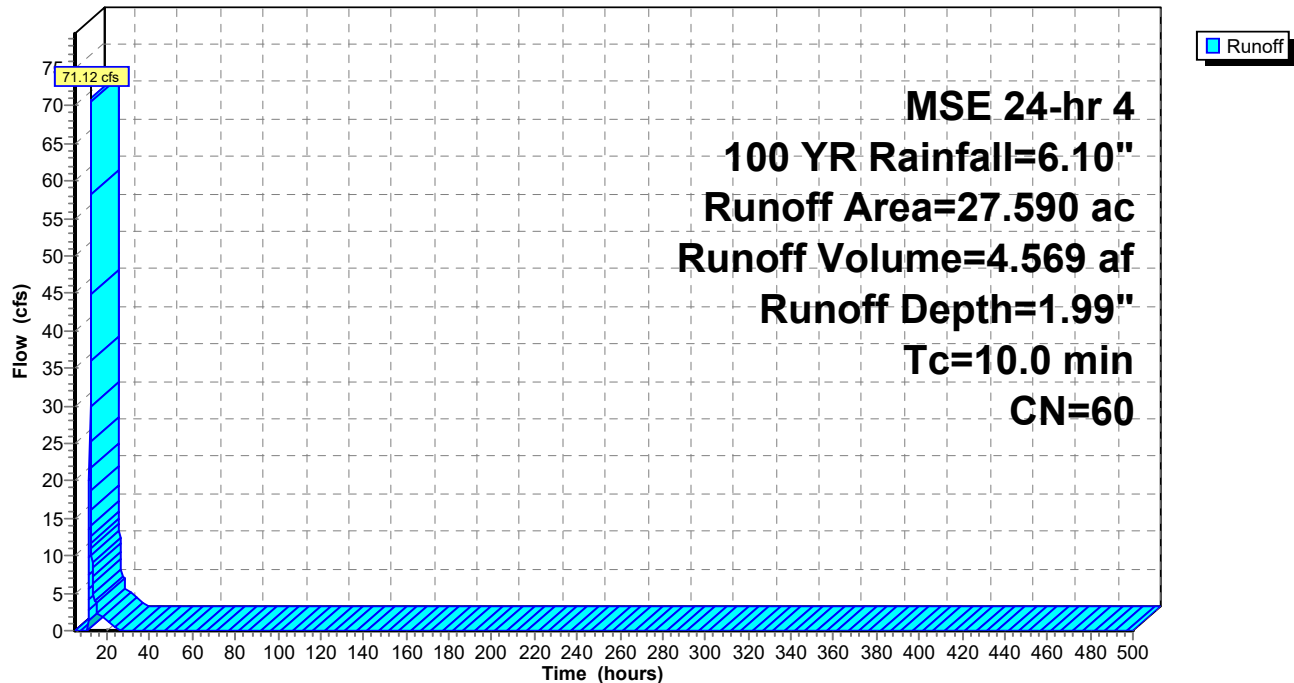
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100 YR Rainfall=6.10"

	Area (ac)	CN	Description
*	18.190	55	Pre Dev - B Soils
*	9.400	70	Pre Dev - C Soils
	27.590	60	Weighted Average
	27.590		100.00% Pervious Area

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

Subcatchment 3: Pre - North

Hydrograph



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Featherstone Rise

MSE 24-hr 4 100 YR Rainfall=6.10"

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Hydrograph for Subcatchment 3: Pre - North

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.28	0.00	0.00	260.00	6.10	1.99	0.00
10.00	0.97	0.00	0.00	265.00	6.10	1.99	0.00
15.00	5.36	1.52	3.69	270.00	6.10	1.99	0.00
20.00	5.90	1.86	1.40	275.00	6.10	1.99	0.00
25.00	6.10	1.99	0.00	280.00	6.10	1.99	0.00
30.00	6.10	1.99	0.00	285.00	6.10	1.99	0.00
35.00	6.10	1.99	0.00	290.00	6.10	1.99	0.00
40.00	6.10	1.99	0.00	295.00	6.10	1.99	0.00
45.00	6.10	1.99	0.00	300.00	6.10	1.99	0.00
50.00	6.10	1.99	0.00	305.00	6.10	1.99	0.00
55.00	6.10	1.99	0.00	310.00	6.10	1.99	0.00
60.00	6.10	1.99	0.00	315.00	6.10	1.99	0.00
65.00	6.10	1.99	0.00	320.00	6.10	1.99	0.00
70.00	6.10	1.99	0.00	325.00	6.10	1.99	0.00
75.00	6.10	1.99	0.00	330.00	6.10	1.99	0.00
80.00	6.10	1.99	0.00	335.00	6.10	1.99	0.00
85.00	6.10	1.99	0.00	340.00	6.10	1.99	0.00
90.00	6.10	1.99	0.00	345.00	6.10	1.99	0.00
95.00	6.10	1.99	0.00	350.00	6.10	1.99	0.00
100.00	6.10	1.99	0.00	355.00	6.10	1.99	0.00
105.00	6.10	1.99	0.00	360.00	6.10	1.99	0.00
110.00	6.10	1.99	0.00	365.00	6.10	1.99	0.00
115.00	6.10	1.99	0.00	370.00	6.10	1.99	0.00
120.00	6.10	1.99	0.00	375.00	6.10	1.99	0.00
125.00	6.10	1.99	0.00	380.00	6.10	1.99	0.00
130.00	6.10	1.99	0.00	385.00	6.10	1.99	0.00
135.00	6.10	1.99	0.00	390.00	6.10	1.99	0.00
140.00	6.10	1.99	0.00	395.00	6.10	1.99	0.00
145.00	6.10	1.99	0.00	400.00	6.10	1.99	0.00
150.00	6.10	1.99	0.00	405.00	6.10	1.99	0.00
155.00	6.10	1.99	0.00	410.00	6.10	1.99	0.00
160.00	6.10	1.99	0.00	415.00	6.10	1.99	0.00
165.00	6.10	1.99	0.00	420.00	6.10	1.99	0.00
170.00	6.10	1.99	0.00	425.00	6.10	1.99	0.00
175.00	6.10	1.99	0.00	430.00	6.10	1.99	0.00
180.00	6.10	1.99	0.00	435.00	6.10	1.99	0.00
185.00	6.10	1.99	0.00	440.00	6.10	1.99	0.00
190.00	6.10	1.99	0.00	445.00	6.10	1.99	0.00
195.00	6.10	1.99	0.00	450.00	6.10	1.99	0.00
200.00	6.10	1.99	0.00	455.00	6.10	1.99	0.00
205.00	6.10	1.99	0.00	460.00	6.10	1.99	0.00
210.00	6.10	1.99	0.00	465.00	6.10	1.99	0.00
215.00	6.10	1.99	0.00	470.00	6.10	1.99	0.00
220.00	6.10	1.99	0.00	475.00	6.10	1.99	0.00
225.00	6.10	1.99	0.00	480.00	6.10	1.99	0.00
230.00	6.10	1.99	0.00	485.00	6.10	1.99	0.00
235.00	6.10	1.99	0.00	490.00	6.10	1.99	0.00
240.00	6.10	1.99	0.00	495.00	6.10	1.99	0.00
245.00	6.10	1.99	0.00	500.00	6.10	1.99	0.00
250.00	6.10	1.99	0.00				
255.00	6.10	1.99	0.00				

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Summary for Subcatchment 3A: Post 3A

Runoff = 47.96 cfs @ 12.13 hrs, Volume= 2.548 af, Depth= 2.88"
Routed to Pond P3A : Pond 3A

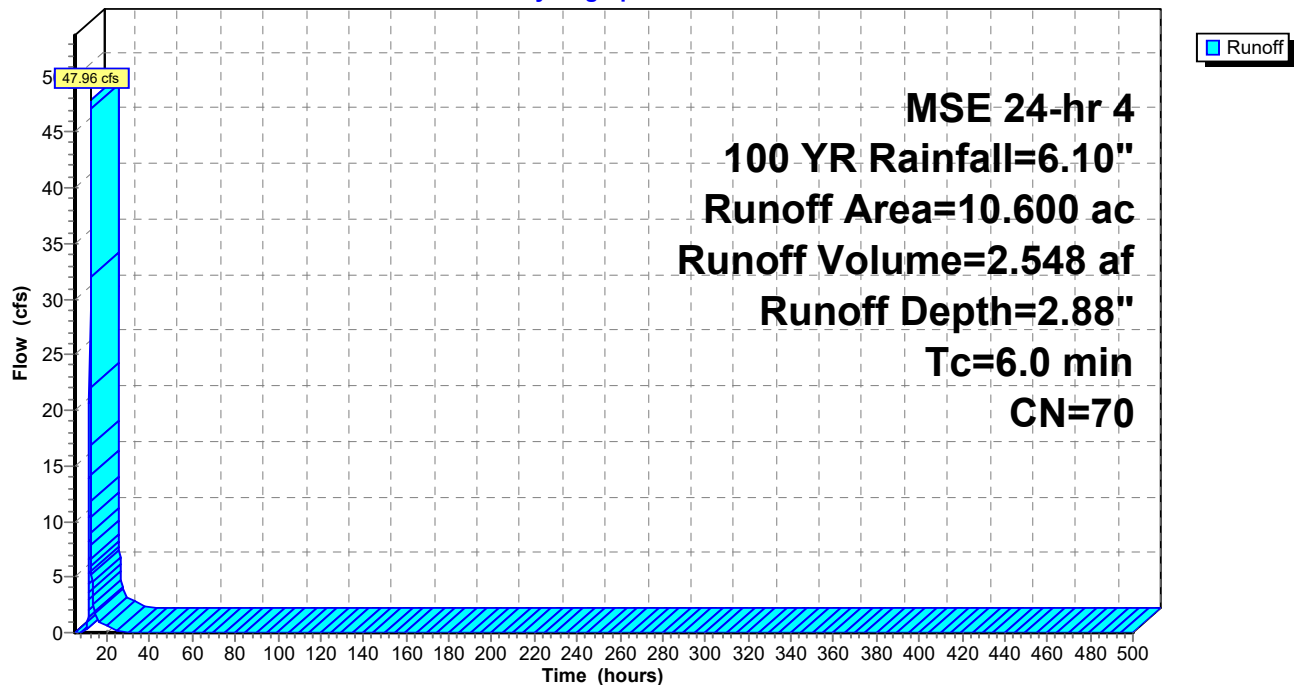
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100 YR Rainfall=6.10"

	Area (ac)	CN	Description
*	1.970	98	Impervious
*	6.570	61	Post - B Soils
*	2.060	74	Post - C Soils
	10.600	70	Weighted Average
	8.630		81.42% Pervious Area
	1.970		18.58% Impervious Area

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

Subcatchment 3A: Post 3A

Hydrograph



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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Hydrograph for Subcatchment 3A: Post 3A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.28	0.00	0.00	260.00	6.10	2.88	0.00
10.00	0.97	0.00	0.10	265.00	6.10	2.88	0.00
15.00	5.36	2.31	1.76	270.00	6.10	2.88	0.00
20.00	5.90	2.73	0.65	275.00	6.10	2.88	0.00
25.00	6.10	2.88	0.00	280.00	6.10	2.88	0.00
30.00	6.10	2.88	0.00	285.00	6.10	2.88	0.00
35.00	6.10	2.88	0.00	290.00	6.10	2.88	0.00
40.00	6.10	2.88	0.00	295.00	6.10	2.88	0.00
45.00	6.10	2.88	0.00	300.00	6.10	2.88	0.00
50.00	6.10	2.88	0.00	305.00	6.10	2.88	0.00
55.00	6.10	2.88	0.00	310.00	6.10	2.88	0.00
60.00	6.10	2.88	0.00	315.00	6.10	2.88	0.00
65.00	6.10	2.88	0.00	320.00	6.10	2.88	0.00
70.00	6.10	2.88	0.00	325.00	6.10	2.88	0.00
75.00	6.10	2.88	0.00	330.00	6.10	2.88	0.00
80.00	6.10	2.88	0.00	335.00	6.10	2.88	0.00
85.00	6.10	2.88	0.00	340.00	6.10	2.88	0.00
90.00	6.10	2.88	0.00	345.00	6.10	2.88	0.00
95.00	6.10	2.88	0.00	350.00	6.10	2.88	0.00
100.00	6.10	2.88	0.00	355.00	6.10	2.88	0.00
105.00	6.10	2.88	0.00	360.00	6.10	2.88	0.00
110.00	6.10	2.88	0.00	365.00	6.10	2.88	0.00
115.00	6.10	2.88	0.00	370.00	6.10	2.88	0.00
120.00	6.10	2.88	0.00	375.00	6.10	2.88	0.00
125.00	6.10	2.88	0.00	380.00	6.10	2.88	0.00
130.00	6.10	2.88	0.00	385.00	6.10	2.88	0.00
135.00	6.10	2.88	0.00	390.00	6.10	2.88	0.00
140.00	6.10	2.88	0.00	395.00	6.10	2.88	0.00
145.00	6.10	2.88	0.00	400.00	6.10	2.88	0.00
150.00	6.10	2.88	0.00	405.00	6.10	2.88	0.00
155.00	6.10	2.88	0.00	410.00	6.10	2.88	0.00
160.00	6.10	2.88	0.00	415.00	6.10	2.88	0.00
165.00	6.10	2.88	0.00	420.00	6.10	2.88	0.00
170.00	6.10	2.88	0.00	425.00	6.10	2.88	0.00
175.00	6.10	2.88	0.00	430.00	6.10	2.88	0.00
180.00	6.10	2.88	0.00	435.00	6.10	2.88	0.00
185.00	6.10	2.88	0.00	440.00	6.10	2.88	0.00
190.00	6.10	2.88	0.00	445.00	6.10	2.88	0.00
195.00	6.10	2.88	0.00	450.00	6.10	2.88	0.00
200.00	6.10	2.88	0.00	455.00	6.10	2.88	0.00
205.00	6.10	2.88	0.00	460.00	6.10	2.88	0.00
210.00	6.10	2.88	0.00	465.00	6.10	2.88	0.00
215.00	6.10	2.88	0.00	470.00	6.10	2.88	0.00
220.00	6.10	2.88	0.00	475.00	6.10	2.88	0.00
225.00	6.10	2.88	0.00	480.00	6.10	2.88	0.00
230.00	6.10	2.88	0.00	485.00	6.10	2.88	0.00
235.00	6.10	2.88	0.00	490.00	6.10	2.88	0.00
240.00	6.10	2.88	0.00	495.00	6.10	2.88	0.00
245.00	6.10	2.88	0.00	500.00	6.10	2.88	0.00
250.00	6.10	2.88	0.00				
255.00	6.10	2.88	0.00				

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Featherstone Rise

MSE 24-hr 4 100 YR Rainfall=6.10"

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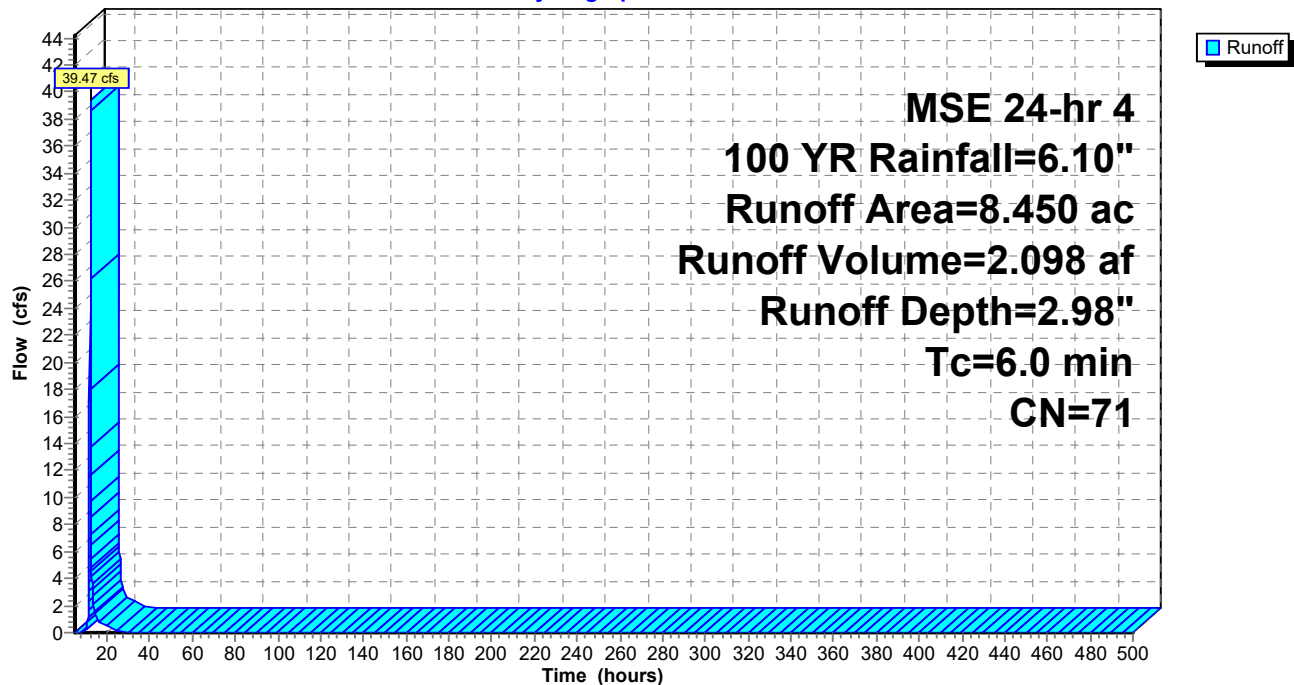
Summary for Subcatchment 3B: Post 3B

Runoff = 39.47 cfs @ 12.13 hrs, Volume= 2.098 af, Depth= 2.98"
Routed to Pond P3B : Pond 3B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100 YR Rainfall=6.10"

Area (ac)	CN	Description
* 1.680	98	Impervious
* 5.290	61	Post - B Soils
* 1.480	74	Post - C Soils
8.450	71	Weighted Average
6.770		80.12% Pervious Area
1.680		19.88% Impervious Area

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

Subcatchment 3B: Post 3B**Hydrograph**

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"
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Hydrograph for Subcatchment 3B: Post 3B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.28	0.00	0.00	260.00	6.10	2.98	0.00
10.00	0.97	0.01	0.12	265.00	6.10	2.98	0.00
15.00	5.36	2.39	1.43	270.00	6.10	2.98	0.00
20.00	5.90	2.82	0.52	275.00	6.10	2.98	0.00
25.00	6.10	2.98	0.00	280.00	6.10	2.98	0.00
30.00	6.10	2.98	0.00	285.00	6.10	2.98	0.00
35.00	6.10	2.98	0.00	290.00	6.10	2.98	0.00
40.00	6.10	2.98	0.00	295.00	6.10	2.98	0.00
45.00	6.10	2.98	0.00	300.00	6.10	2.98	0.00
50.00	6.10	2.98	0.00	305.00	6.10	2.98	0.00
55.00	6.10	2.98	0.00	310.00	6.10	2.98	0.00
60.00	6.10	2.98	0.00	315.00	6.10	2.98	0.00
65.00	6.10	2.98	0.00	320.00	6.10	2.98	0.00
70.00	6.10	2.98	0.00	325.00	6.10	2.98	0.00
75.00	6.10	2.98	0.00	330.00	6.10	2.98	0.00
80.00	6.10	2.98	0.00	335.00	6.10	2.98	0.00
85.00	6.10	2.98	0.00	340.00	6.10	2.98	0.00
90.00	6.10	2.98	0.00	345.00	6.10	2.98	0.00
95.00	6.10	2.98	0.00	350.00	6.10	2.98	0.00
100.00	6.10	2.98	0.00	355.00	6.10	2.98	0.00
105.00	6.10	2.98	0.00	360.00	6.10	2.98	0.00
110.00	6.10	2.98	0.00	365.00	6.10	2.98	0.00
115.00	6.10	2.98	0.00	370.00	6.10	2.98	0.00
120.00	6.10	2.98	0.00	375.00	6.10	2.98	0.00
125.00	6.10	2.98	0.00	380.00	6.10	2.98	0.00
130.00	6.10	2.98	0.00	385.00	6.10	2.98	0.00
135.00	6.10	2.98	0.00	390.00	6.10	2.98	0.00
140.00	6.10	2.98	0.00	395.00	6.10	2.98	0.00
145.00	6.10	2.98	0.00	400.00	6.10	2.98	0.00
150.00	6.10	2.98	0.00	405.00	6.10	2.98	0.00
155.00	6.10	2.98	0.00	410.00	6.10	2.98	0.00
160.00	6.10	2.98	0.00	415.00	6.10	2.98	0.00
165.00	6.10	2.98	0.00	420.00	6.10	2.98	0.00
170.00	6.10	2.98	0.00	425.00	6.10	2.98	0.00
175.00	6.10	2.98	0.00	430.00	6.10	2.98	0.00
180.00	6.10	2.98	0.00	435.00	6.10	2.98	0.00
185.00	6.10	2.98	0.00	440.00	6.10	2.98	0.00
190.00	6.10	2.98	0.00	445.00	6.10	2.98	0.00
195.00	6.10	2.98	0.00	450.00	6.10	2.98	0.00
200.00	6.10	2.98	0.00	455.00	6.10	2.98	0.00
205.00	6.10	2.98	0.00	460.00	6.10	2.98	0.00
210.00	6.10	2.98	0.00	465.00	6.10	2.98	0.00
215.00	6.10	2.98	0.00	470.00	6.10	2.98	0.00
220.00	6.10	2.98	0.00	475.00	6.10	2.98	0.00
225.00	6.10	2.98	0.00	480.00	6.10	2.98	0.00
230.00	6.10	2.98	0.00	485.00	6.10	2.98	0.00
235.00	6.10	2.98	0.00	490.00	6.10	2.98	0.00
240.00	6.10	2.98	0.00	495.00	6.10	2.98	0.00
245.00	6.10	2.98	0.00	500.00	6.10	2.98	0.00
250.00	6.10	2.98	0.00				
255.00	6.10	2.98	0.00				

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Featherstone Rise

MSE 24-hr 4 100 YR Rainfall=6.10"

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Summary for Subcatchment 3C: Post 3C

Runoff = 13.07 cfs @ 12.13 hrs, Volume= 0.699 af, Depth= 3.37"
Routed to Pond P3C : Pond 3C

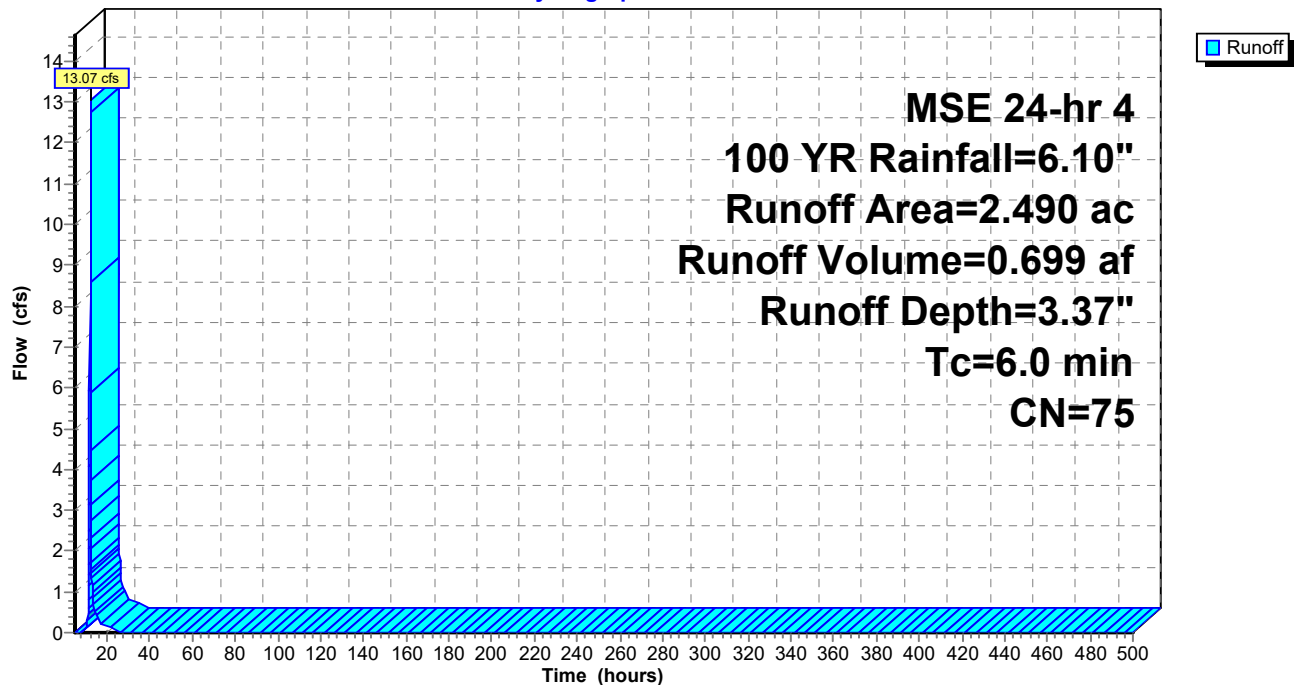
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100 YR Rainfall=6.10"

Area (ac)	CN	Description
* 0.570	98	Impervious
* 0.800	61	Post - B Soils
* 1.120	74	Post - C Soils
2.490	75	Weighted Average
1.920		77.11% Pervious Area
0.570		22.89% Impervious Area

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

Subcatchment 3C: Post 3C

Hydrograph



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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Hydrograph for Subcatchment 3C: Post 3C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.28	0.00	0.00	260.00	6.10	3.37	0.00
10.00	0.97	0.02	0.09	265.00	6.10	3.37	0.00
15.00	5.36	2.75	0.45	270.00	6.10	3.37	0.00
20.00	5.90	3.20	0.16	275.00	6.10	3.37	0.00
25.00	6.10	3.37	0.00	280.00	6.10	3.37	0.00
30.00	6.10	3.37	0.00	285.00	6.10	3.37	0.00
35.00	6.10	3.37	0.00	290.00	6.10	3.37	0.00
40.00	6.10	3.37	0.00	295.00	6.10	3.37	0.00
45.00	6.10	3.37	0.00	300.00	6.10	3.37	0.00
50.00	6.10	3.37	0.00	305.00	6.10	3.37	0.00
55.00	6.10	3.37	0.00	310.00	6.10	3.37	0.00
60.00	6.10	3.37	0.00	315.00	6.10	3.37	0.00
65.00	6.10	3.37	0.00	320.00	6.10	3.37	0.00
70.00	6.10	3.37	0.00	325.00	6.10	3.37	0.00
75.00	6.10	3.37	0.00	330.00	6.10	3.37	0.00
80.00	6.10	3.37	0.00	335.00	6.10	3.37	0.00
85.00	6.10	3.37	0.00	340.00	6.10	3.37	0.00
90.00	6.10	3.37	0.00	345.00	6.10	3.37	0.00
95.00	6.10	3.37	0.00	350.00	6.10	3.37	0.00
100.00	6.10	3.37	0.00	355.00	6.10	3.37	0.00
105.00	6.10	3.37	0.00	360.00	6.10	3.37	0.00
110.00	6.10	3.37	0.00	365.00	6.10	3.37	0.00
115.00	6.10	3.37	0.00	370.00	6.10	3.37	0.00
120.00	6.10	3.37	0.00	375.00	6.10	3.37	0.00
125.00	6.10	3.37	0.00	380.00	6.10	3.37	0.00
130.00	6.10	3.37	0.00	385.00	6.10	3.37	0.00
135.00	6.10	3.37	0.00	390.00	6.10	3.37	0.00
140.00	6.10	3.37	0.00	395.00	6.10	3.37	0.00
145.00	6.10	3.37	0.00	400.00	6.10	3.37	0.00
150.00	6.10	3.37	0.00	405.00	6.10	3.37	0.00
155.00	6.10	3.37	0.00	410.00	6.10	3.37	0.00
160.00	6.10	3.37	0.00	415.00	6.10	3.37	0.00
165.00	6.10	3.37	0.00	420.00	6.10	3.37	0.00
170.00	6.10	3.37	0.00	425.00	6.10	3.37	0.00
175.00	6.10	3.37	0.00	430.00	6.10	3.37	0.00
180.00	6.10	3.37	0.00	435.00	6.10	3.37	0.00
185.00	6.10	3.37	0.00	440.00	6.10	3.37	0.00
190.00	6.10	3.37	0.00	445.00	6.10	3.37	0.00
195.00	6.10	3.37	0.00	450.00	6.10	3.37	0.00
200.00	6.10	3.37	0.00	455.00	6.10	3.37	0.00
205.00	6.10	3.37	0.00	460.00	6.10	3.37	0.00
210.00	6.10	3.37	0.00	465.00	6.10	3.37	0.00
215.00	6.10	3.37	0.00	470.00	6.10	3.37	0.00
220.00	6.10	3.37	0.00	475.00	6.10	3.37	0.00
225.00	6.10	3.37	0.00	480.00	6.10	3.37	0.00
230.00	6.10	3.37	0.00	485.00	6.10	3.37	0.00
235.00	6.10	3.37	0.00	490.00	6.10	3.37	0.00
240.00	6.10	3.37	0.00	495.00	6.10	3.37	0.00
245.00	6.10	3.37	0.00	500.00	6.10	3.37	0.00
250.00	6.10	3.37	0.00				
255.00	6.10	3.37	0.00				

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Summary for Subcatchment 3D: Post 3D

Runoff = 12.83 cfs @ 12.13 hrs, Volume= 0.688 af, Depth= 3.47"
Routed to Pond P3D : Pond 3D

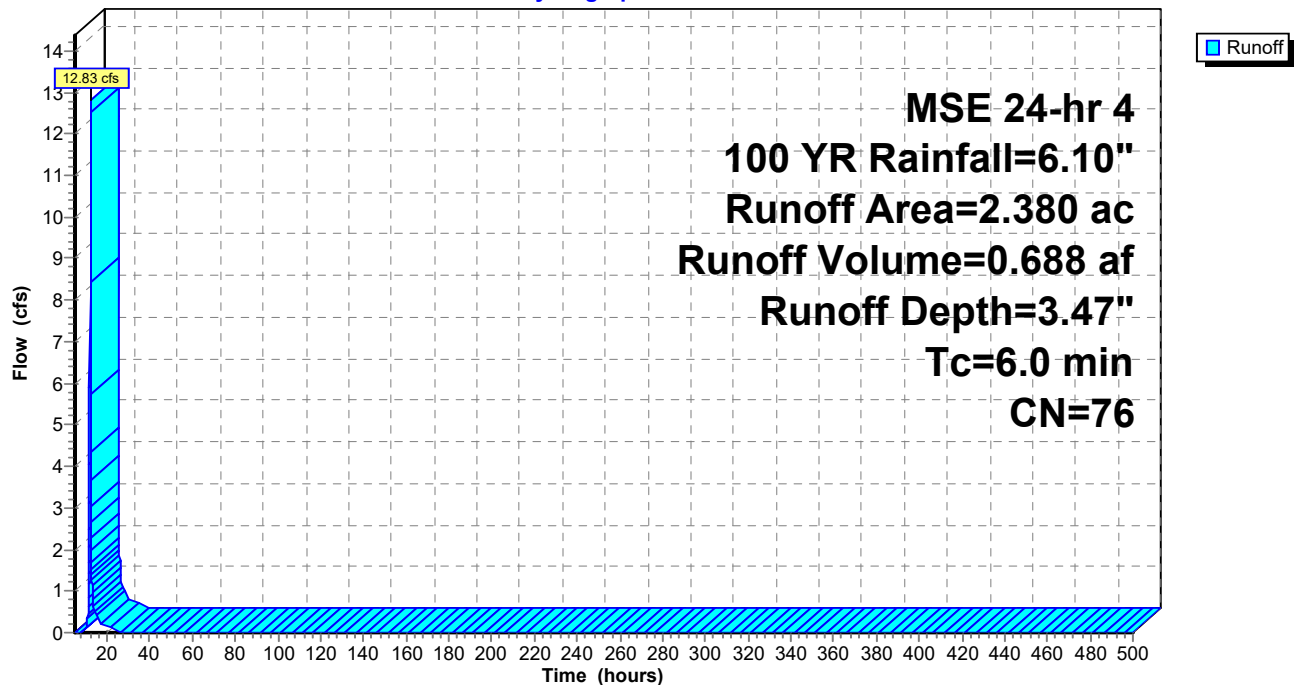
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100 YR Rainfall=6.10"

Area (ac)	CN	Description
* 0.570	98	Impervious
* 0.610	61	Post - B Soils
* 1.200	74	Post - C Soils
2.380	76	Weighted Average
1.810		76.05% Pervious Area
0.570		23.95% Impervious Area

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

Subcatchment 3D: Post 3D

Hydrograph



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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Hydrograph for Subcatchment 3D: Post 3D

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.28	0.00	0.00	260.00	6.10	3.47	0.00
10.00	0.97	0.03	0.10	265.00	6.10	3.47	0.00
15.00	5.36	2.84	0.43	270.00	6.10	3.47	0.00
20.00	5.90	3.30	0.16	275.00	6.10	3.47	0.00
25.00	6.10	3.47	0.00	280.00	6.10	3.47	0.00
30.00	6.10	3.47	0.00	285.00	6.10	3.47	0.00
35.00	6.10	3.47	0.00	290.00	6.10	3.47	0.00
40.00	6.10	3.47	0.00	295.00	6.10	3.47	0.00
45.00	6.10	3.47	0.00	300.00	6.10	3.47	0.00
50.00	6.10	3.47	0.00	305.00	6.10	3.47	0.00
55.00	6.10	3.47	0.00	310.00	6.10	3.47	0.00
60.00	6.10	3.47	0.00	315.00	6.10	3.47	0.00
65.00	6.10	3.47	0.00	320.00	6.10	3.47	0.00
70.00	6.10	3.47	0.00	325.00	6.10	3.47	0.00
75.00	6.10	3.47	0.00	330.00	6.10	3.47	0.00
80.00	6.10	3.47	0.00	335.00	6.10	3.47	0.00
85.00	6.10	3.47	0.00	340.00	6.10	3.47	0.00
90.00	6.10	3.47	0.00	345.00	6.10	3.47	0.00
95.00	6.10	3.47	0.00	350.00	6.10	3.47	0.00
100.00	6.10	3.47	0.00	355.00	6.10	3.47	0.00
105.00	6.10	3.47	0.00	360.00	6.10	3.47	0.00
110.00	6.10	3.47	0.00	365.00	6.10	3.47	0.00
115.00	6.10	3.47	0.00	370.00	6.10	3.47	0.00
120.00	6.10	3.47	0.00	375.00	6.10	3.47	0.00
125.00	6.10	3.47	0.00	380.00	6.10	3.47	0.00
130.00	6.10	3.47	0.00	385.00	6.10	3.47	0.00
135.00	6.10	3.47	0.00	390.00	6.10	3.47	0.00
140.00	6.10	3.47	0.00	395.00	6.10	3.47	0.00
145.00	6.10	3.47	0.00	400.00	6.10	3.47	0.00
150.00	6.10	3.47	0.00	405.00	6.10	3.47	0.00
155.00	6.10	3.47	0.00	410.00	6.10	3.47	0.00
160.00	6.10	3.47	0.00	415.00	6.10	3.47	0.00
165.00	6.10	3.47	0.00	420.00	6.10	3.47	0.00
170.00	6.10	3.47	0.00	425.00	6.10	3.47	0.00
175.00	6.10	3.47	0.00	430.00	6.10	3.47	0.00
180.00	6.10	3.47	0.00	435.00	6.10	3.47	0.00
185.00	6.10	3.47	0.00	440.00	6.10	3.47	0.00
190.00	6.10	3.47	0.00	445.00	6.10	3.47	0.00
195.00	6.10	3.47	0.00	450.00	6.10	3.47	0.00
200.00	6.10	3.47	0.00	455.00	6.10	3.47	0.00
205.00	6.10	3.47	0.00	460.00	6.10	3.47	0.00
210.00	6.10	3.47	0.00	465.00	6.10	3.47	0.00
215.00	6.10	3.47	0.00	470.00	6.10	3.47	0.00
220.00	6.10	3.47	0.00	475.00	6.10	3.47	0.00
225.00	6.10	3.47	0.00	480.00	6.10	3.47	0.00
230.00	6.10	3.47	0.00	485.00	6.10	3.47	0.00
235.00	6.10	3.47	0.00	490.00	6.10	3.47	0.00
240.00	6.10	3.47	0.00	495.00	6.10	3.47	0.00
245.00	6.10	3.47	0.00	500.00	6.10	3.47	0.00
250.00	6.10	3.47	0.00				
255.00	6.10	3.47	0.00				

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Featherstone Rise

MSE 24-hr 4 100 YR Rainfall=6.10"

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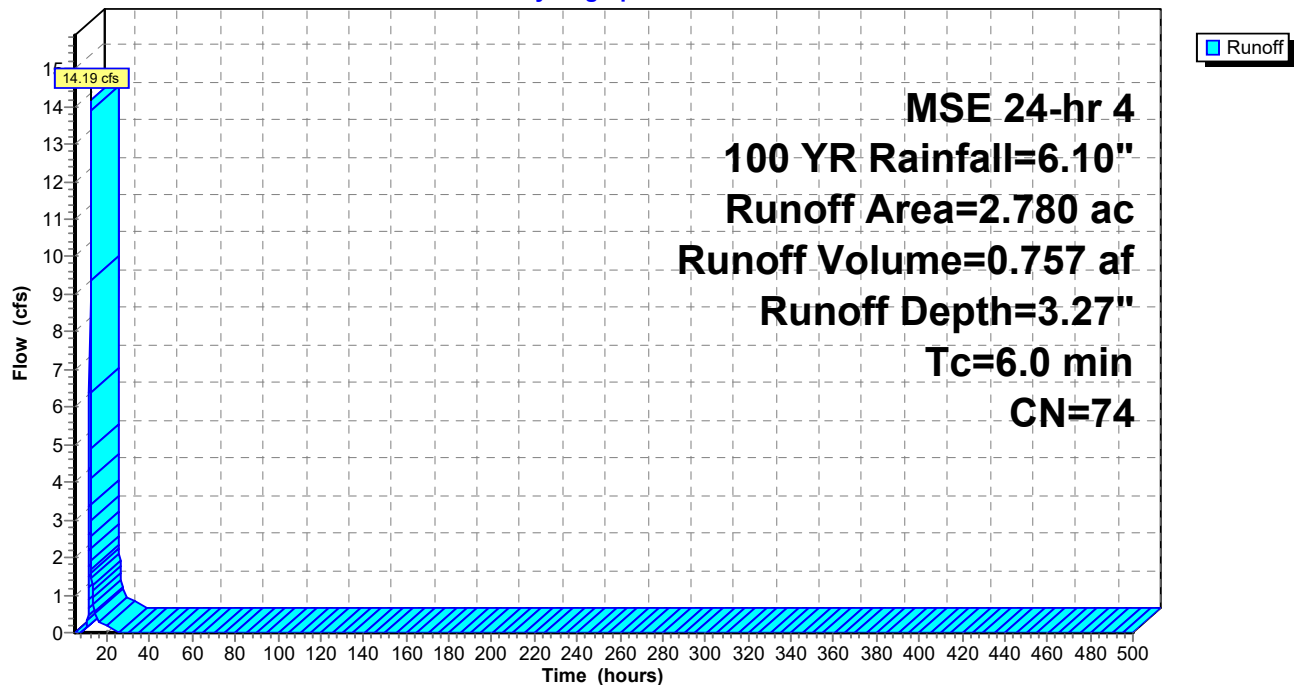
Summary for Subcatchment 3E: Post 3E

Runoff = 14.19 cfs @ 12.13 hrs, Volume= 0.757 af, Depth= 3.27"
Routed to Pond P3E : Pond 3E

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100 YR Rainfall=6.10"

Area (ac)	CN	Description
* 0.530	98	Impervious
* 0.920	61	Post - B Soils
* 1.330	74	Post - C Soils
2.780	74	Weighted Average
2.250		80.94% Pervious Area
0.530		19.06% Impervious Area

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

Subcatchment 3E: Post 3E**Hydrograph**

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Hydrograph for Subcatchment 3E: Post 3E

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.28	0.00	0.00	260.00	6.10	3.27	0.00
10.00	0.97	0.02	0.08	265.00	6.10	3.27	0.00
15.00	5.36	2.66	0.49	270.00	6.10	3.27	0.00
20.00	5.90	3.10	0.18	275.00	6.10	3.27	0.00
25.00	6.10	3.27	0.00	280.00	6.10	3.27	0.00
30.00	6.10	3.27	0.00	285.00	6.10	3.27	0.00
35.00	6.10	3.27	0.00	290.00	6.10	3.27	0.00
40.00	6.10	3.27	0.00	295.00	6.10	3.27	0.00
45.00	6.10	3.27	0.00	300.00	6.10	3.27	0.00
50.00	6.10	3.27	0.00	305.00	6.10	3.27	0.00
55.00	6.10	3.27	0.00	310.00	6.10	3.27	0.00
60.00	6.10	3.27	0.00	315.00	6.10	3.27	0.00
65.00	6.10	3.27	0.00	320.00	6.10	3.27	0.00
70.00	6.10	3.27	0.00	325.00	6.10	3.27	0.00
75.00	6.10	3.27	0.00	330.00	6.10	3.27	0.00
80.00	6.10	3.27	0.00	335.00	6.10	3.27	0.00
85.00	6.10	3.27	0.00	340.00	6.10	3.27	0.00
90.00	6.10	3.27	0.00	345.00	6.10	3.27	0.00
95.00	6.10	3.27	0.00	350.00	6.10	3.27	0.00
100.00	6.10	3.27	0.00	355.00	6.10	3.27	0.00
105.00	6.10	3.27	0.00	360.00	6.10	3.27	0.00
110.00	6.10	3.27	0.00	365.00	6.10	3.27	0.00
115.00	6.10	3.27	0.00	370.00	6.10	3.27	0.00
120.00	6.10	3.27	0.00	375.00	6.10	3.27	0.00
125.00	6.10	3.27	0.00	380.00	6.10	3.27	0.00
130.00	6.10	3.27	0.00	385.00	6.10	3.27	0.00
135.00	6.10	3.27	0.00	390.00	6.10	3.27	0.00
140.00	6.10	3.27	0.00	395.00	6.10	3.27	0.00
145.00	6.10	3.27	0.00	400.00	6.10	3.27	0.00
150.00	6.10	3.27	0.00	405.00	6.10	3.27	0.00
155.00	6.10	3.27	0.00	410.00	6.10	3.27	0.00
160.00	6.10	3.27	0.00	415.00	6.10	3.27	0.00
165.00	6.10	3.27	0.00	420.00	6.10	3.27	0.00
170.00	6.10	3.27	0.00	425.00	6.10	3.27	0.00
175.00	6.10	3.27	0.00	430.00	6.10	3.27	0.00
180.00	6.10	3.27	0.00	435.00	6.10	3.27	0.00
185.00	6.10	3.27	0.00	440.00	6.10	3.27	0.00
190.00	6.10	3.27	0.00	445.00	6.10	3.27	0.00
195.00	6.10	3.27	0.00	450.00	6.10	3.27	0.00
200.00	6.10	3.27	0.00	455.00	6.10	3.27	0.00
205.00	6.10	3.27	0.00	460.00	6.10	3.27	0.00
210.00	6.10	3.27	0.00	465.00	6.10	3.27	0.00
215.00	6.10	3.27	0.00	470.00	6.10	3.27	0.00
220.00	6.10	3.27	0.00	475.00	6.10	3.27	0.00
225.00	6.10	3.27	0.00	480.00	6.10	3.27	0.00
230.00	6.10	3.27	0.00	485.00	6.10	3.27	0.00
235.00	6.10	3.27	0.00	490.00	6.10	3.27	0.00
240.00	6.10	3.27	0.00	495.00	6.10	3.27	0.00
245.00	6.10	3.27	0.00	500.00	6.10	3.27	0.00
250.00	6.10	3.27	0.00				
255.00	6.10	3.27	0.00				

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Featherstone Rise

MSE 24-hr 4 100 YR Rainfall=6.10"

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Summary for Subcatchment 3Y: Post 3Y - Offsite

Runoff = 5.20 cfs @ 12.13 hrs, Volume= 0.286 af, Depth= 4.18"
Routed to Link 4L : Post - North

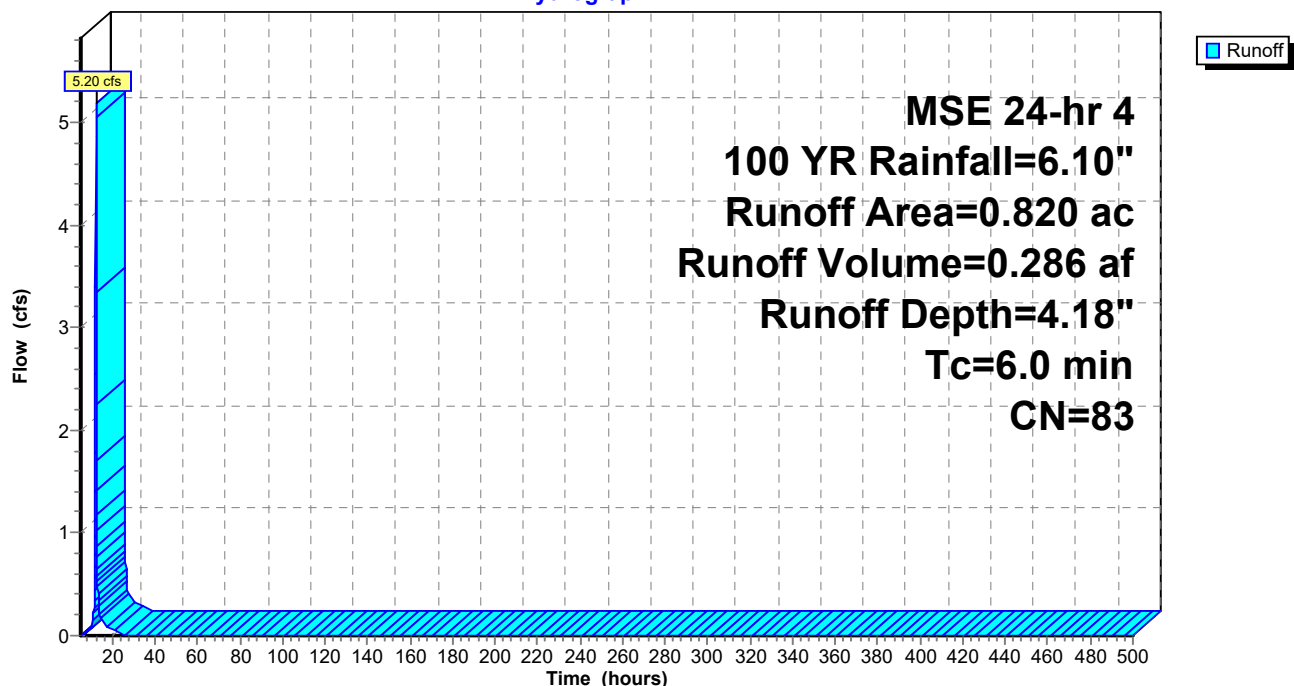
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100 YR Rainfall=6.10"

Area (ac)	CN	Description
* 0.300	98	Impervious
* 0.000	61	Post - B Soils
* 0.520	74	Post - C Soils
0.820	83	Weighted Average
0.520		63.41% Pervious Area
0.300		36.59% Impervious Area

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

Subcatchment 3Y: Post 3Y - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Hydrograph for Subcatchment 3Y: Post 3Y - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.28	0.00	0.00	260.00	6.10	4.18	0.00
10.00	0.97	0.12	0.07	265.00	6.10	4.18	0.00
15.00	5.36	3.50	0.16	270.00	6.10	4.18	0.00
20.00	5.90	4.00	0.06	275.00	6.10	4.18	0.00
25.00	6.10	4.18	0.00	280.00	6.10	4.18	0.00
30.00	6.10	4.18	0.00	285.00	6.10	4.18	0.00
35.00	6.10	4.18	0.00	290.00	6.10	4.18	0.00
40.00	6.10	4.18	0.00	295.00	6.10	4.18	0.00
45.00	6.10	4.18	0.00	300.00	6.10	4.18	0.00
50.00	6.10	4.18	0.00	305.00	6.10	4.18	0.00
55.00	6.10	4.18	0.00	310.00	6.10	4.18	0.00
60.00	6.10	4.18	0.00	315.00	6.10	4.18	0.00
65.00	6.10	4.18	0.00	320.00	6.10	4.18	0.00
70.00	6.10	4.18	0.00	325.00	6.10	4.18	0.00
75.00	6.10	4.18	0.00	330.00	6.10	4.18	0.00
80.00	6.10	4.18	0.00	335.00	6.10	4.18	0.00
85.00	6.10	4.18	0.00	340.00	6.10	4.18	0.00
90.00	6.10	4.18	0.00	345.00	6.10	4.18	0.00
95.00	6.10	4.18	0.00	350.00	6.10	4.18	0.00
100.00	6.10	4.18	0.00	355.00	6.10	4.18	0.00
105.00	6.10	4.18	0.00	360.00	6.10	4.18	0.00
110.00	6.10	4.18	0.00	365.00	6.10	4.18	0.00
115.00	6.10	4.18	0.00	370.00	6.10	4.18	0.00
120.00	6.10	4.18	0.00	375.00	6.10	4.18	0.00
125.00	6.10	4.18	0.00	380.00	6.10	4.18	0.00
130.00	6.10	4.18	0.00	385.00	6.10	4.18	0.00
135.00	6.10	4.18	0.00	390.00	6.10	4.18	0.00
140.00	6.10	4.18	0.00	395.00	6.10	4.18	0.00
145.00	6.10	4.18	0.00	400.00	6.10	4.18	0.00
150.00	6.10	4.18	0.00	405.00	6.10	4.18	0.00
155.00	6.10	4.18	0.00	410.00	6.10	4.18	0.00
160.00	6.10	4.18	0.00	415.00	6.10	4.18	0.00
165.00	6.10	4.18	0.00	420.00	6.10	4.18	0.00
170.00	6.10	4.18	0.00	425.00	6.10	4.18	0.00
175.00	6.10	4.18	0.00	430.00	6.10	4.18	0.00
180.00	6.10	4.18	0.00	435.00	6.10	4.18	0.00
185.00	6.10	4.18	0.00	440.00	6.10	4.18	0.00
190.00	6.10	4.18	0.00	445.00	6.10	4.18	0.00
195.00	6.10	4.18	0.00	450.00	6.10	4.18	0.00
200.00	6.10	4.18	0.00	455.00	6.10	4.18	0.00
205.00	6.10	4.18	0.00	460.00	6.10	4.18	0.00
210.00	6.10	4.18	0.00	465.00	6.10	4.18	0.00
215.00	6.10	4.18	0.00	470.00	6.10	4.18	0.00
220.00	6.10	4.18	0.00	475.00	6.10	4.18	0.00
225.00	6.10	4.18	0.00	480.00	6.10	4.18	0.00
230.00	6.10	4.18	0.00	485.00	6.10	4.18	0.00
235.00	6.10	4.18	0.00	490.00	6.10	4.18	0.00
240.00	6.10	4.18	0.00	495.00	6.10	4.18	0.00
245.00	6.10	4.18	0.00	500.00	6.10	4.18	0.00
250.00	6.10	4.18	0.00				
255.00	6.10	4.18	0.00				

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Featherstone Rise

MSE 24-hr 4 100 YR Rainfall=6.10"

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Summary for Subcatchment 3Z: Post 3Z - Offsite

Runoff = 2.65 cfs @ 12.13 hrs, Volume= 0.142 af, Depth= 3.27"
Routed to Link 4L : Post - North

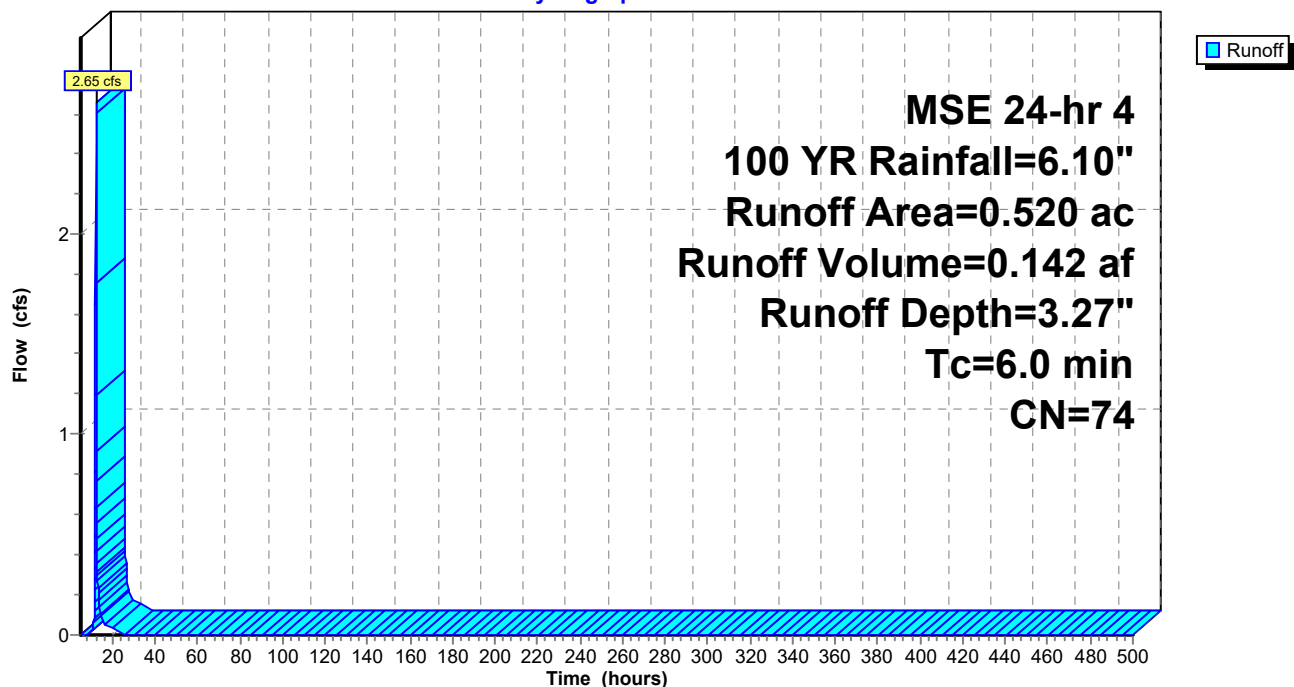
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100 YR Rainfall=6.10"

Area (ac)	CN	Description
* 0.000	98	Impervious
* 0.000	61	Post - B Soils
* 0.520	74	Post - C Soils
0.520	74	Weighted Average
0.520		100.00% Pervious Area

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

Subcatchment 3Z: Post 3Z - Offsite

Hydrograph



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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Hydrograph for Subcatchment 3Z: Post 3Z - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.28	0.00	0.00	260.00	6.10	3.27	0.00
10.00	0.97	0.02	0.02	265.00	6.10	3.27	0.00
15.00	5.36	2.66	0.09	270.00	6.10	3.27	0.00
20.00	5.90	3.10	0.03	275.00	6.10	3.27	0.00
25.00	6.10	3.27	0.00	280.00	6.10	3.27	0.00
30.00	6.10	3.27	0.00	285.00	6.10	3.27	0.00
35.00	6.10	3.27	0.00	290.00	6.10	3.27	0.00
40.00	6.10	3.27	0.00	295.00	6.10	3.27	0.00
45.00	6.10	3.27	0.00	300.00	6.10	3.27	0.00
50.00	6.10	3.27	0.00	305.00	6.10	3.27	0.00
55.00	6.10	3.27	0.00	310.00	6.10	3.27	0.00
60.00	6.10	3.27	0.00	315.00	6.10	3.27	0.00
65.00	6.10	3.27	0.00	320.00	6.10	3.27	0.00
70.00	6.10	3.27	0.00	325.00	6.10	3.27	0.00
75.00	6.10	3.27	0.00	330.00	6.10	3.27	0.00
80.00	6.10	3.27	0.00	335.00	6.10	3.27	0.00
85.00	6.10	3.27	0.00	340.00	6.10	3.27	0.00
90.00	6.10	3.27	0.00	345.00	6.10	3.27	0.00
95.00	6.10	3.27	0.00	350.00	6.10	3.27	0.00
100.00	6.10	3.27	0.00	355.00	6.10	3.27	0.00
105.00	6.10	3.27	0.00	360.00	6.10	3.27	0.00
110.00	6.10	3.27	0.00	365.00	6.10	3.27	0.00
115.00	6.10	3.27	0.00	370.00	6.10	3.27	0.00
120.00	6.10	3.27	0.00	375.00	6.10	3.27	0.00
125.00	6.10	3.27	0.00	380.00	6.10	3.27	0.00
130.00	6.10	3.27	0.00	385.00	6.10	3.27	0.00
135.00	6.10	3.27	0.00	390.00	6.10	3.27	0.00
140.00	6.10	3.27	0.00	395.00	6.10	3.27	0.00
145.00	6.10	3.27	0.00	400.00	6.10	3.27	0.00
150.00	6.10	3.27	0.00	405.00	6.10	3.27	0.00
155.00	6.10	3.27	0.00	410.00	6.10	3.27	0.00
160.00	6.10	3.27	0.00	415.00	6.10	3.27	0.00
165.00	6.10	3.27	0.00	420.00	6.10	3.27	0.00
170.00	6.10	3.27	0.00	425.00	6.10	3.27	0.00
175.00	6.10	3.27	0.00	430.00	6.10	3.27	0.00
180.00	6.10	3.27	0.00	435.00	6.10	3.27	0.00
185.00	6.10	3.27	0.00	440.00	6.10	3.27	0.00
190.00	6.10	3.27	0.00	445.00	6.10	3.27	0.00
195.00	6.10	3.27	0.00	450.00	6.10	3.27	0.00
200.00	6.10	3.27	0.00	455.00	6.10	3.27	0.00
205.00	6.10	3.27	0.00	460.00	6.10	3.27	0.00
210.00	6.10	3.27	0.00	465.00	6.10	3.27	0.00
215.00	6.10	3.27	0.00	470.00	6.10	3.27	0.00
220.00	6.10	3.27	0.00	475.00	6.10	3.27	0.00
225.00	6.10	3.27	0.00	480.00	6.10	3.27	0.00
230.00	6.10	3.27	0.00	485.00	6.10	3.27	0.00
235.00	6.10	3.27	0.00	490.00	6.10	3.27	0.00
240.00	6.10	3.27	0.00	495.00	6.10	3.27	0.00
245.00	6.10	3.27	0.00	500.00	6.10	3.27	0.00
250.00	6.10	3.27	0.00				
255.00	6.10	3.27	0.00				

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Summary for Subcatchment 5S: Culvert 1

Runoff = 0.64 cfs @ 12.13 hrs, Volume= 0.035 af, Depth= 3.77"

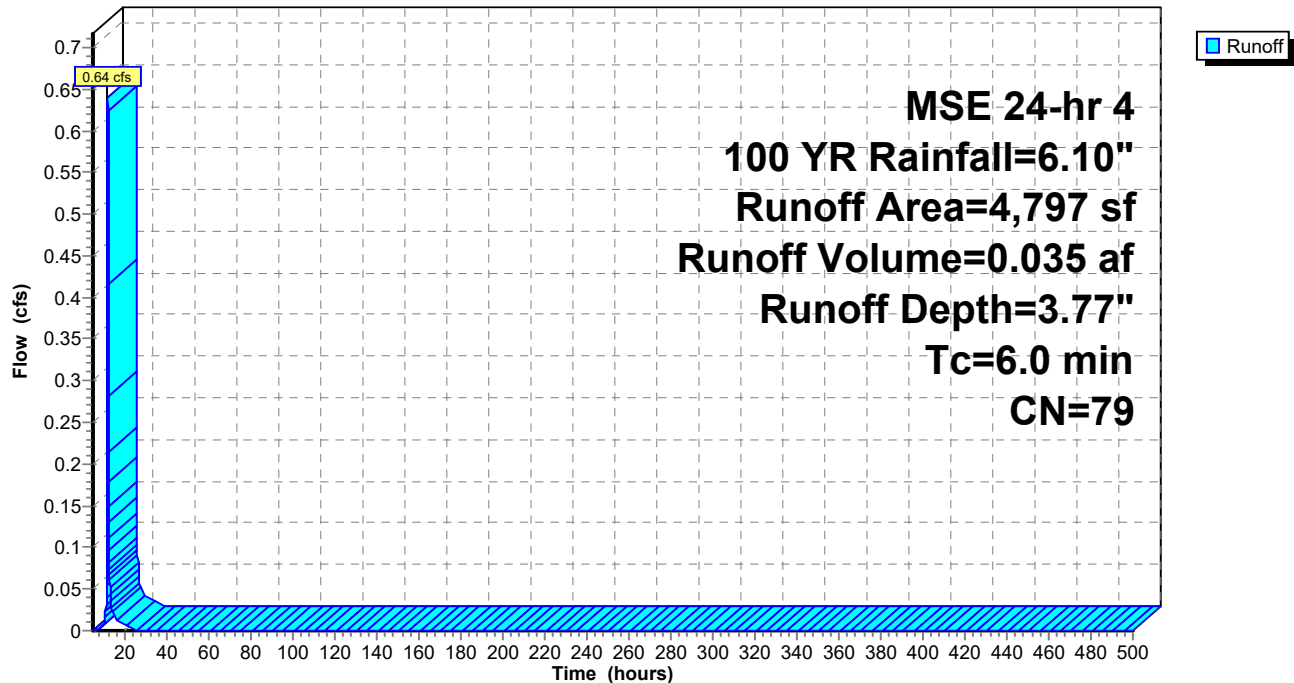
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100 YR Rainfall=6.10"

	Area (sf)	CN	Description
*	2,465	61	Post - B Soils
*	2,332	98	Impervious
	4,797	79	Weighted Average
	2,465		51.39% Pervious Area
	2,332		48.61% Impervious Area

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

Subcatchment 5S: Culvert 1

Hydrograph



250128900_swm

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Hydrograph for Subcatchment 5S: Culvert 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.28	0.00	0.00	260.00	6.10	3.77	0.00
10.00	0.97	0.06	0.01	265.00	6.10	3.77	0.00
15.00	5.36	3.12	0.02	270.00	6.10	3.77	0.00
20.00	5.90	3.59	0.01	275.00	6.10	3.77	0.00
25.00	6.10	3.77	0.00	280.00	6.10	3.77	0.00
30.00	6.10	3.77	0.00	285.00	6.10	3.77	0.00
35.00	6.10	3.77	0.00	290.00	6.10	3.77	0.00
40.00	6.10	3.77	0.00	295.00	6.10	3.77	0.00
45.00	6.10	3.77	0.00	300.00	6.10	3.77	0.00
50.00	6.10	3.77	0.00	305.00	6.10	3.77	0.00
55.00	6.10	3.77	0.00	310.00	6.10	3.77	0.00
60.00	6.10	3.77	0.00	315.00	6.10	3.77	0.00
65.00	6.10	3.77	0.00	320.00	6.10	3.77	0.00
70.00	6.10	3.77	0.00	325.00	6.10	3.77	0.00
75.00	6.10	3.77	0.00	330.00	6.10	3.77	0.00
80.00	6.10	3.77	0.00	335.00	6.10	3.77	0.00
85.00	6.10	3.77	0.00	340.00	6.10	3.77	0.00
90.00	6.10	3.77	0.00	345.00	6.10	3.77	0.00
95.00	6.10	3.77	0.00	350.00	6.10	3.77	0.00
100.00	6.10	3.77	0.00	355.00	6.10	3.77	0.00
105.00	6.10	3.77	0.00	360.00	6.10	3.77	0.00
110.00	6.10	3.77	0.00	365.00	6.10	3.77	0.00
115.00	6.10	3.77	0.00	370.00	6.10	3.77	0.00
120.00	6.10	3.77	0.00	375.00	6.10	3.77	0.00
125.00	6.10	3.77	0.00	380.00	6.10	3.77	0.00
130.00	6.10	3.77	0.00	385.00	6.10	3.77	0.00
135.00	6.10	3.77	0.00	390.00	6.10	3.77	0.00
140.00	6.10	3.77	0.00	395.00	6.10	3.77	0.00
145.00	6.10	3.77	0.00	400.00	6.10	3.77	0.00
150.00	6.10	3.77	0.00	405.00	6.10	3.77	0.00
155.00	6.10	3.77	0.00	410.00	6.10	3.77	0.00
160.00	6.10	3.77	0.00	415.00	6.10	3.77	0.00
165.00	6.10	3.77	0.00	420.00	6.10	3.77	0.00
170.00	6.10	3.77	0.00	425.00	6.10	3.77	0.00
175.00	6.10	3.77	0.00	430.00	6.10	3.77	0.00
180.00	6.10	3.77	0.00	435.00	6.10	3.77	0.00
185.00	6.10	3.77	0.00	440.00	6.10	3.77	0.00
190.00	6.10	3.77	0.00	445.00	6.10	3.77	0.00
195.00	6.10	3.77	0.00	450.00	6.10	3.77	0.00
200.00	6.10	3.77	0.00	455.00	6.10	3.77	0.00
205.00	6.10	3.77	0.00	460.00	6.10	3.77	0.00
210.00	6.10	3.77	0.00	465.00	6.10	3.77	0.00
215.00	6.10	3.77	0.00	470.00	6.10	3.77	0.00
220.00	6.10	3.77	0.00	475.00	6.10	3.77	0.00
225.00	6.10	3.77	0.00	480.00	6.10	3.77	0.00
230.00	6.10	3.77	0.00	485.00	6.10	3.77	0.00
235.00	6.10	3.77	0.00	490.00	6.10	3.77	0.00
240.00	6.10	3.77	0.00	495.00	6.10	3.77	0.00
245.00	6.10	3.77	0.00	500.00	6.10	3.77	0.00
250.00	6.10	3.77	0.00				
255.00	6.10	3.77	0.00				

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Summary for Subcatchment 6S: Culvert 2

Runoff = 2.98 cfs @ 12.13 hrs, Volume= 0.159 af, Depth= 3.37"

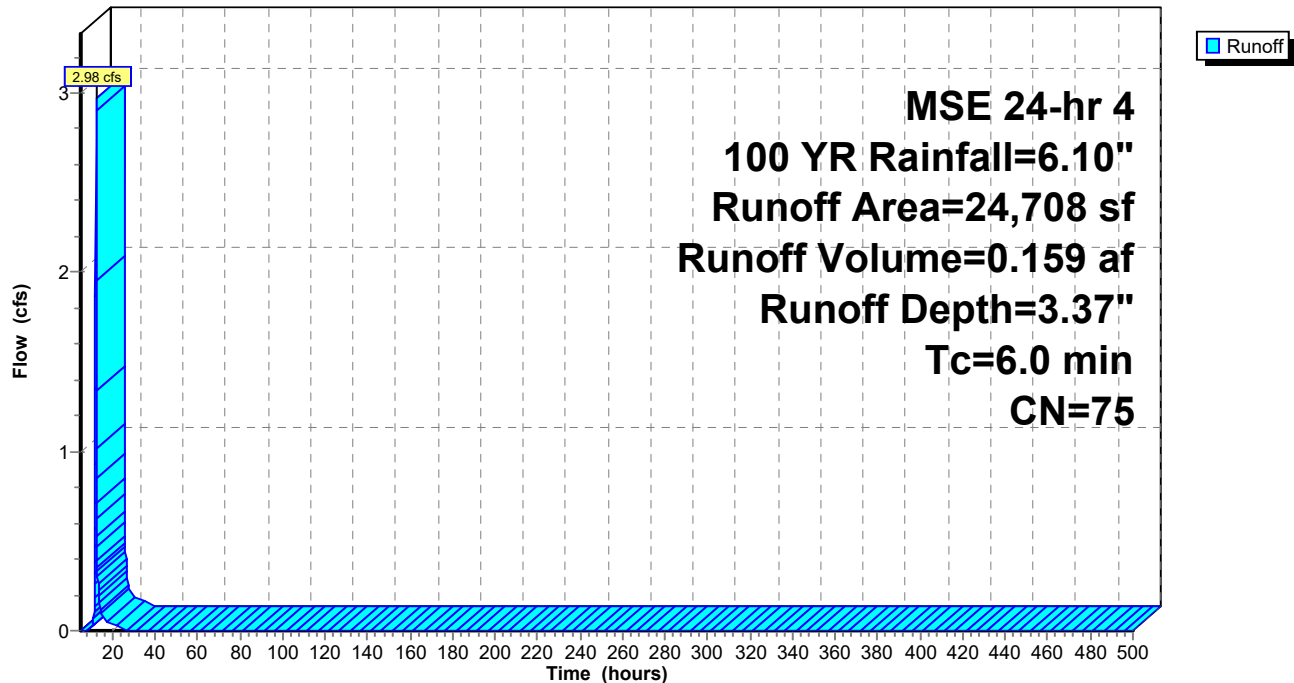
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100 YR Rainfall=6.10"

	Area (sf)	CN	Description
*	15,597	61	Post - B Soils
*	9,111	98	Impervious
	24,708	75	Weighted Average
	15,597		63.13% Pervious Area
	9,111		36.87% Impervious Area

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

Subcatchment 6S: Culvert 2

Hydrograph



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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Hydrograph for Subcatchment 6S: Culvert 2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.28	0.00	0.00	260.00	6.10	3.37	0.00
10.00	0.97	0.02	0.02	265.00	6.10	3.37	0.00
15.00	5.36	2.75	0.10	270.00	6.10	3.37	0.00
20.00	5.90	3.20	0.04	275.00	6.10	3.37	0.00
25.00	6.10	3.37	0.00	280.00	6.10	3.37	0.00
30.00	6.10	3.37	0.00	285.00	6.10	3.37	0.00
35.00	6.10	3.37	0.00	290.00	6.10	3.37	0.00
40.00	6.10	3.37	0.00	295.00	6.10	3.37	0.00
45.00	6.10	3.37	0.00	300.00	6.10	3.37	0.00
50.00	6.10	3.37	0.00	305.00	6.10	3.37	0.00
55.00	6.10	3.37	0.00	310.00	6.10	3.37	0.00
60.00	6.10	3.37	0.00	315.00	6.10	3.37	0.00
65.00	6.10	3.37	0.00	320.00	6.10	3.37	0.00
70.00	6.10	3.37	0.00	325.00	6.10	3.37	0.00
75.00	6.10	3.37	0.00	330.00	6.10	3.37	0.00
80.00	6.10	3.37	0.00	335.00	6.10	3.37	0.00
85.00	6.10	3.37	0.00	340.00	6.10	3.37	0.00
90.00	6.10	3.37	0.00	345.00	6.10	3.37	0.00
95.00	6.10	3.37	0.00	350.00	6.10	3.37	0.00
100.00	6.10	3.37	0.00	355.00	6.10	3.37	0.00
105.00	6.10	3.37	0.00	360.00	6.10	3.37	0.00
110.00	6.10	3.37	0.00	365.00	6.10	3.37	0.00
115.00	6.10	3.37	0.00	370.00	6.10	3.37	0.00
120.00	6.10	3.37	0.00	375.00	6.10	3.37	0.00
125.00	6.10	3.37	0.00	380.00	6.10	3.37	0.00
130.00	6.10	3.37	0.00	385.00	6.10	3.37	0.00
135.00	6.10	3.37	0.00	390.00	6.10	3.37	0.00
140.00	6.10	3.37	0.00	395.00	6.10	3.37	0.00
145.00	6.10	3.37	0.00	400.00	6.10	3.37	0.00
150.00	6.10	3.37	0.00	405.00	6.10	3.37	0.00
155.00	6.10	3.37	0.00	410.00	6.10	3.37	0.00
160.00	6.10	3.37	0.00	415.00	6.10	3.37	0.00
165.00	6.10	3.37	0.00	420.00	6.10	3.37	0.00
170.00	6.10	3.37	0.00	425.00	6.10	3.37	0.00
175.00	6.10	3.37	0.00	430.00	6.10	3.37	0.00
180.00	6.10	3.37	0.00	435.00	6.10	3.37	0.00
185.00	6.10	3.37	0.00	440.00	6.10	3.37	0.00
190.00	6.10	3.37	0.00	445.00	6.10	3.37	0.00
195.00	6.10	3.37	0.00	450.00	6.10	3.37	0.00
200.00	6.10	3.37	0.00	455.00	6.10	3.37	0.00
205.00	6.10	3.37	0.00	460.00	6.10	3.37	0.00
210.00	6.10	3.37	0.00	465.00	6.10	3.37	0.00
215.00	6.10	3.37	0.00	470.00	6.10	3.37	0.00
220.00	6.10	3.37	0.00	475.00	6.10	3.37	0.00
225.00	6.10	3.37	0.00	480.00	6.10	3.37	0.00
230.00	6.10	3.37	0.00	485.00	6.10	3.37	0.00
235.00	6.10	3.37	0.00	490.00	6.10	3.37	0.00
240.00	6.10	3.37	0.00	495.00	6.10	3.37	0.00
245.00	6.10	3.37	0.00	500.00	6.10	3.37	0.00
250.00	6.10	3.37	0.00				
255.00	6.10	3.37	0.00				

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Summary for Subcatchment 7S: Culvert 3

Runoff = 4.73 cfs @ 12.13 hrs, Volume= 0.252 af, Depth= 3.17"

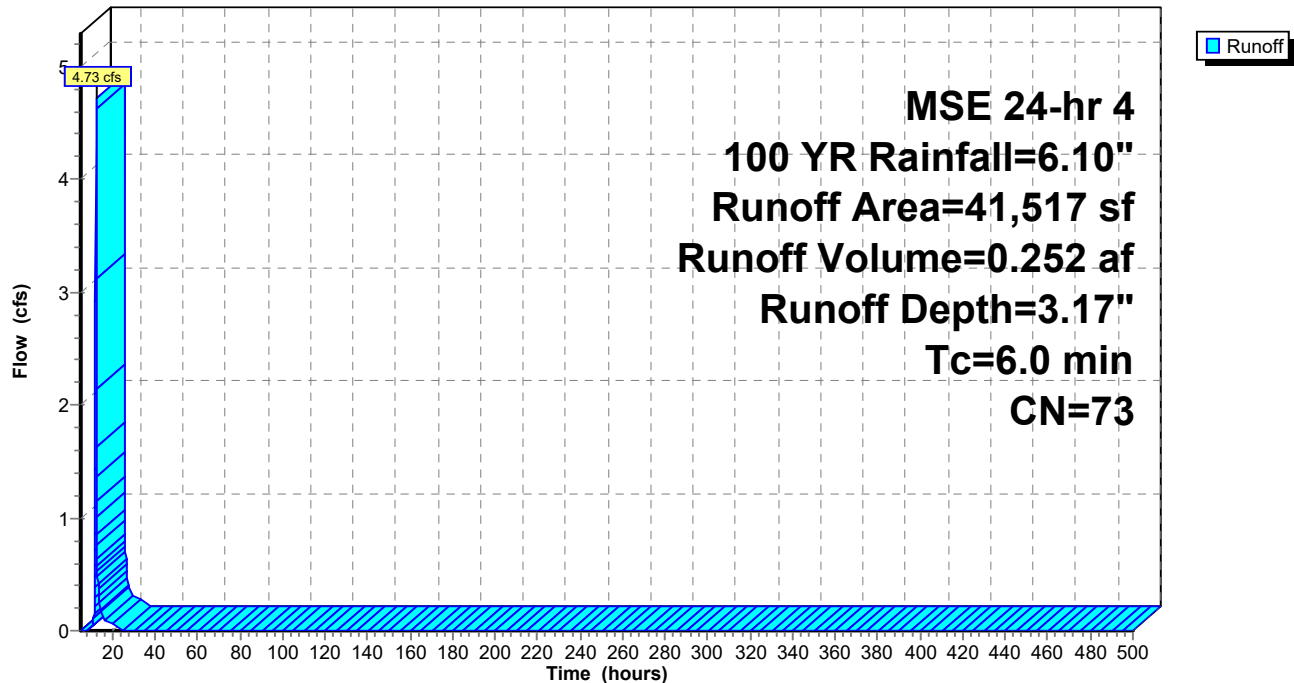
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100 YR Rainfall=6.10"

	Area (sf)	CN	Description
*	28,233	61	Post - B Soils
*	13,284	98	Impervious
	41,517	73	Weighted Average
	28,233		68.00% Pervious Area
	13,284		32.00% Impervious Area

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

Subcatchment 7S: Culvert 3

Hydrograph



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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Hydrograph for Subcatchment 7S: Culvert 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.28	0.00	0.00	260.00	6.10	3.17	0.00
10.00	0.97	0.01	0.02	265.00	6.10	3.17	0.00
15.00	5.36	2.57	0.17	270.00	6.10	3.17	0.00
20.00	5.90	3.01	0.06	275.00	6.10	3.17	0.00
25.00	6.10	3.17	0.00	280.00	6.10	3.17	0.00
30.00	6.10	3.17	0.00	285.00	6.10	3.17	0.00
35.00	6.10	3.17	0.00	290.00	6.10	3.17	0.00
40.00	6.10	3.17	0.00	295.00	6.10	3.17	0.00
45.00	6.10	3.17	0.00	300.00	6.10	3.17	0.00
50.00	6.10	3.17	0.00	305.00	6.10	3.17	0.00
55.00	6.10	3.17	0.00	310.00	6.10	3.17	0.00
60.00	6.10	3.17	0.00	315.00	6.10	3.17	0.00
65.00	6.10	3.17	0.00	320.00	6.10	3.17	0.00
70.00	6.10	3.17	0.00	325.00	6.10	3.17	0.00
75.00	6.10	3.17	0.00	330.00	6.10	3.17	0.00
80.00	6.10	3.17	0.00	335.00	6.10	3.17	0.00
85.00	6.10	3.17	0.00	340.00	6.10	3.17	0.00
90.00	6.10	3.17	0.00	345.00	6.10	3.17	0.00
95.00	6.10	3.17	0.00	350.00	6.10	3.17	0.00
100.00	6.10	3.17	0.00	355.00	6.10	3.17	0.00
105.00	6.10	3.17	0.00	360.00	6.10	3.17	0.00
110.00	6.10	3.17	0.00	365.00	6.10	3.17	0.00
115.00	6.10	3.17	0.00	370.00	6.10	3.17	0.00
120.00	6.10	3.17	0.00	375.00	6.10	3.17	0.00
125.00	6.10	3.17	0.00	380.00	6.10	3.17	0.00
130.00	6.10	3.17	0.00	385.00	6.10	3.17	0.00
135.00	6.10	3.17	0.00	390.00	6.10	3.17	0.00
140.00	6.10	3.17	0.00	395.00	6.10	3.17	0.00
145.00	6.10	3.17	0.00	400.00	6.10	3.17	0.00
150.00	6.10	3.17	0.00	405.00	6.10	3.17	0.00
155.00	6.10	3.17	0.00	410.00	6.10	3.17	0.00
160.00	6.10	3.17	0.00	415.00	6.10	3.17	0.00
165.00	6.10	3.17	0.00	420.00	6.10	3.17	0.00
170.00	6.10	3.17	0.00	425.00	6.10	3.17	0.00
175.00	6.10	3.17	0.00	430.00	6.10	3.17	0.00
180.00	6.10	3.17	0.00	435.00	6.10	3.17	0.00
185.00	6.10	3.17	0.00	440.00	6.10	3.17	0.00
190.00	6.10	3.17	0.00	445.00	6.10	3.17	0.00
195.00	6.10	3.17	0.00	450.00	6.10	3.17	0.00
200.00	6.10	3.17	0.00	455.00	6.10	3.17	0.00
205.00	6.10	3.17	0.00	460.00	6.10	3.17	0.00
210.00	6.10	3.17	0.00	465.00	6.10	3.17	0.00
215.00	6.10	3.17	0.00	470.00	6.10	3.17	0.00
220.00	6.10	3.17	0.00	475.00	6.10	3.17	0.00
225.00	6.10	3.17	0.00	480.00	6.10	3.17	0.00
230.00	6.10	3.17	0.00	485.00	6.10	3.17	0.00
235.00	6.10	3.17	0.00	490.00	6.10	3.17	0.00
240.00	6.10	3.17	0.00	495.00	6.10	3.17	0.00
245.00	6.10	3.17	0.00	500.00	6.10	3.17	0.00
250.00	6.10	3.17	0.00				
255.00	6.10	3.17	0.00				

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Summary for Subcatchment 8S: Culvert 4

Runoff = 21.77 cfs @ 12.13 hrs, Volume= 1.157 af, Depth= 2.88"

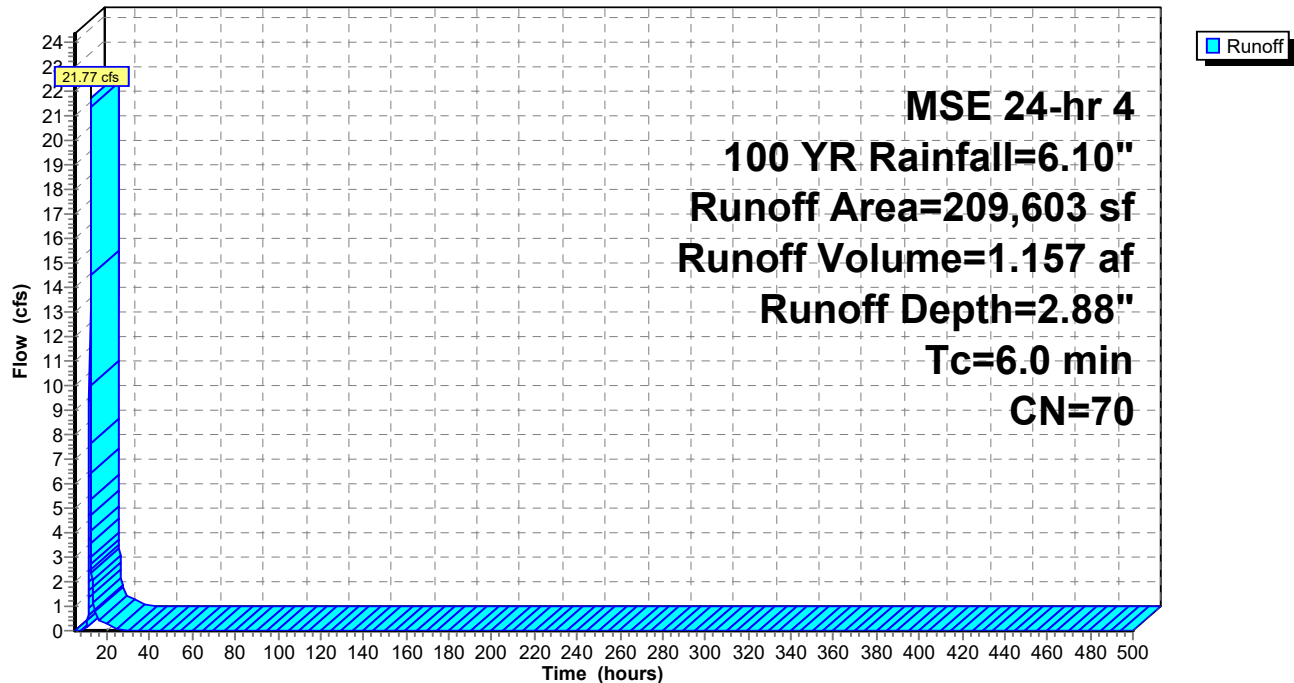
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100 YR Rainfall=6.10"

	Area (sf)	CN	Description
*	156,823	61	Post - B Soils
*	52,780	98	Impervious
	209,603	70	Weighted Average
	156,823		74.82% Pervious Area
	52,780		25.18% Impervious Area

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

Subcatchment 8S: Culvert 4

Hydrograph



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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"
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Hydrograph for Subcatchment 8S: Culvert 4

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.28	0.00	0.00	260.00	6.10	2.88	0.00
10.00	0.97	0.00	0.05	265.00	6.10	2.88	0.00
15.00	5.36	2.31	0.80	270.00	6.10	2.88	0.00
20.00	5.90	2.73	0.29	275.00	6.10	2.88	0.00
25.00	6.10	2.88	0.00	280.00	6.10	2.88	0.00
30.00	6.10	2.88	0.00	285.00	6.10	2.88	0.00
35.00	6.10	2.88	0.00	290.00	6.10	2.88	0.00
40.00	6.10	2.88	0.00	295.00	6.10	2.88	0.00
45.00	6.10	2.88	0.00	300.00	6.10	2.88	0.00
50.00	6.10	2.88	0.00	305.00	6.10	2.88	0.00
55.00	6.10	2.88	0.00	310.00	6.10	2.88	0.00
60.00	6.10	2.88	0.00	315.00	6.10	2.88	0.00
65.00	6.10	2.88	0.00	320.00	6.10	2.88	0.00
70.00	6.10	2.88	0.00	325.00	6.10	2.88	0.00
75.00	6.10	2.88	0.00	330.00	6.10	2.88	0.00
80.00	6.10	2.88	0.00	335.00	6.10	2.88	0.00
85.00	6.10	2.88	0.00	340.00	6.10	2.88	0.00
90.00	6.10	2.88	0.00	345.00	6.10	2.88	0.00
95.00	6.10	2.88	0.00	350.00	6.10	2.88	0.00
100.00	6.10	2.88	0.00	355.00	6.10	2.88	0.00
105.00	6.10	2.88	0.00	360.00	6.10	2.88	0.00
110.00	6.10	2.88	0.00	365.00	6.10	2.88	0.00
115.00	6.10	2.88	0.00	370.00	6.10	2.88	0.00
120.00	6.10	2.88	0.00	375.00	6.10	2.88	0.00
125.00	6.10	2.88	0.00	380.00	6.10	2.88	0.00
130.00	6.10	2.88	0.00	385.00	6.10	2.88	0.00
135.00	6.10	2.88	0.00	390.00	6.10	2.88	0.00
140.00	6.10	2.88	0.00	395.00	6.10	2.88	0.00
145.00	6.10	2.88	0.00	400.00	6.10	2.88	0.00
150.00	6.10	2.88	0.00	405.00	6.10	2.88	0.00
155.00	6.10	2.88	0.00	410.00	6.10	2.88	0.00
160.00	6.10	2.88	0.00	415.00	6.10	2.88	0.00
165.00	6.10	2.88	0.00	420.00	6.10	2.88	0.00
170.00	6.10	2.88	0.00	425.00	6.10	2.88	0.00
175.00	6.10	2.88	0.00	430.00	6.10	2.88	0.00
180.00	6.10	2.88	0.00	435.00	6.10	2.88	0.00
185.00	6.10	2.88	0.00	440.00	6.10	2.88	0.00
190.00	6.10	2.88	0.00	445.00	6.10	2.88	0.00
195.00	6.10	2.88	0.00	450.00	6.10	2.88	0.00
200.00	6.10	2.88	0.00	455.00	6.10	2.88	0.00
205.00	6.10	2.88	0.00	460.00	6.10	2.88	0.00
210.00	6.10	2.88	0.00	465.00	6.10	2.88	0.00
215.00	6.10	2.88	0.00	470.00	6.10	2.88	0.00
220.00	6.10	2.88	0.00	475.00	6.10	2.88	0.00
225.00	6.10	2.88	0.00	480.00	6.10	2.88	0.00
230.00	6.10	2.88	0.00	485.00	6.10	2.88	0.00
235.00	6.10	2.88	0.00	490.00	6.10	2.88	0.00
240.00	6.10	2.88	0.00	495.00	6.10	2.88	0.00
245.00	6.10	2.88	0.00	500.00	6.10	2.88	0.00
250.00	6.10	2.88	0.00				
255.00	6.10	2.88	0.00				

Summary for Subcatchment 9S: Culvert 5

Runoff = 18.35 cfs @ 12.14 hrs, Volume= 0.975 af, Depth= 2.70"

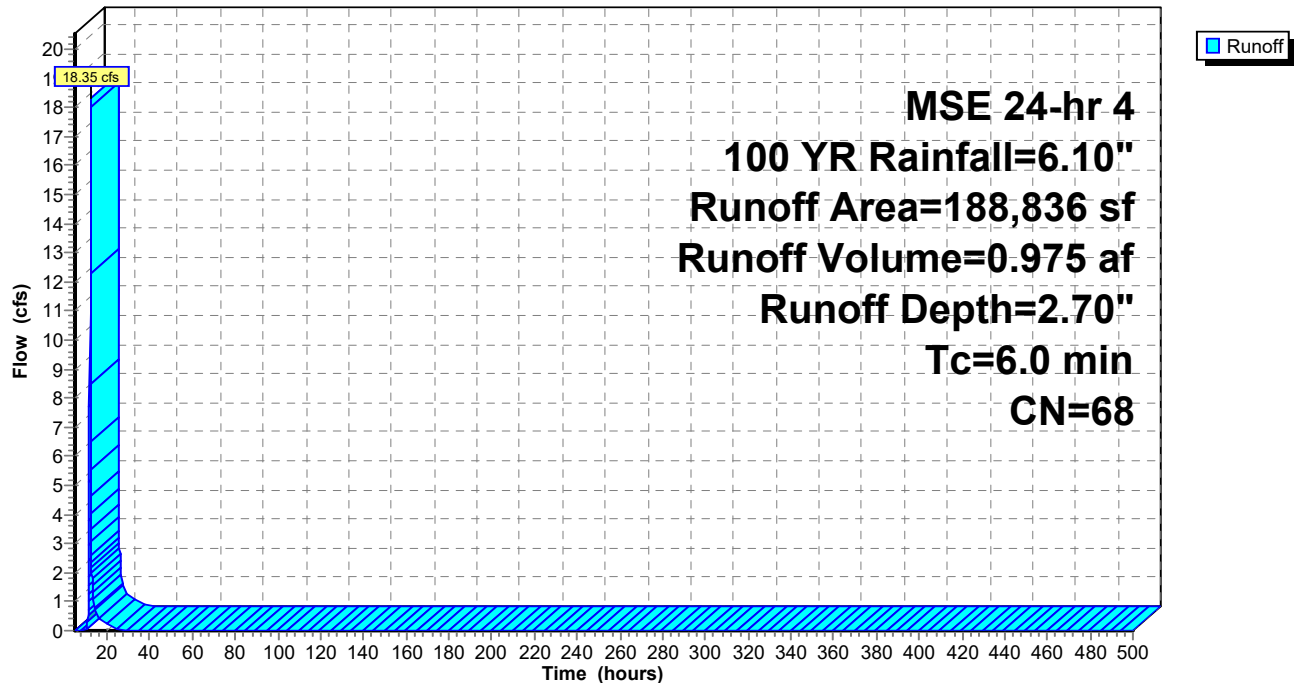
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
MSE 24-hr 4 100 YR Rainfall=6.10"

	Area (sf)	CN	Description
*	151,149	61	Post - B Soils
*	37,687	98	Impervious
	188,836	68	Weighted Average
	151,149		80.04% Pervious Area
	37,687		19.96% Impervious Area

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

Subcatchment 9S: Culvert 5

Hydrograph



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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Hydrograph for Subcatchment 9S: Culvert 5

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.28	0.00	0.00	260.00	6.10	2.70	0.00
10.00	0.97	0.00	0.00	265.00	6.10	2.70	0.00
15.00	5.36	2.14	0.69	270.00	6.10	2.70	0.00
20.00	5.90	2.55	0.26	275.00	6.10	2.70	0.00
25.00	6.10	2.70	0.00	280.00	6.10	2.70	0.00
30.00	6.10	2.70	0.00	285.00	6.10	2.70	0.00
35.00	6.10	2.70	0.00	290.00	6.10	2.70	0.00
40.00	6.10	2.70	0.00	295.00	6.10	2.70	0.00
45.00	6.10	2.70	0.00	300.00	6.10	2.70	0.00
50.00	6.10	2.70	0.00	305.00	6.10	2.70	0.00
55.00	6.10	2.70	0.00	310.00	6.10	2.70	0.00
60.00	6.10	2.70	0.00	315.00	6.10	2.70	0.00
65.00	6.10	2.70	0.00	320.00	6.10	2.70	0.00
70.00	6.10	2.70	0.00	325.00	6.10	2.70	0.00
75.00	6.10	2.70	0.00	330.00	6.10	2.70	0.00
80.00	6.10	2.70	0.00	335.00	6.10	2.70	0.00
85.00	6.10	2.70	0.00	340.00	6.10	2.70	0.00
90.00	6.10	2.70	0.00	345.00	6.10	2.70	0.00
95.00	6.10	2.70	0.00	350.00	6.10	2.70	0.00
100.00	6.10	2.70	0.00	355.00	6.10	2.70	0.00
105.00	6.10	2.70	0.00	360.00	6.10	2.70	0.00
110.00	6.10	2.70	0.00	365.00	6.10	2.70	0.00
115.00	6.10	2.70	0.00	370.00	6.10	2.70	0.00
120.00	6.10	2.70	0.00	375.00	6.10	2.70	0.00
125.00	6.10	2.70	0.00	380.00	6.10	2.70	0.00
130.00	6.10	2.70	0.00	385.00	6.10	2.70	0.00
135.00	6.10	2.70	0.00	390.00	6.10	2.70	0.00
140.00	6.10	2.70	0.00	395.00	6.10	2.70	0.00
145.00	6.10	2.70	0.00	400.00	6.10	2.70	0.00
150.00	6.10	2.70	0.00	405.00	6.10	2.70	0.00
155.00	6.10	2.70	0.00	410.00	6.10	2.70	0.00
160.00	6.10	2.70	0.00	415.00	6.10	2.70	0.00
165.00	6.10	2.70	0.00	420.00	6.10	2.70	0.00
170.00	6.10	2.70	0.00	425.00	6.10	2.70	0.00
175.00	6.10	2.70	0.00	430.00	6.10	2.70	0.00
180.00	6.10	2.70	0.00	435.00	6.10	2.70	0.00
185.00	6.10	2.70	0.00	440.00	6.10	2.70	0.00
190.00	6.10	2.70	0.00	445.00	6.10	2.70	0.00
195.00	6.10	2.70	0.00	450.00	6.10	2.70	0.00
200.00	6.10	2.70	0.00	455.00	6.10	2.70	0.00
205.00	6.10	2.70	0.00	460.00	6.10	2.70	0.00
210.00	6.10	2.70	0.00	465.00	6.10	2.70	0.00
215.00	6.10	2.70	0.00	470.00	6.10	2.70	0.00
220.00	6.10	2.70	0.00	475.00	6.10	2.70	0.00
225.00	6.10	2.70	0.00	480.00	6.10	2.70	0.00
230.00	6.10	2.70	0.00	485.00	6.10	2.70	0.00
235.00	6.10	2.70	0.00	490.00	6.10	2.70	0.00
240.00	6.10	2.70	0.00	495.00	6.10	2.70	0.00
245.00	6.10	2.70	0.00	500.00	6.10	2.70	0.00
250.00	6.10	2.70	0.00				
255.00	6.10	2.70	0.00				

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Summary for Pond P1A: Pond 1A

Inflow Area = 6.030 ac, 19.24% Impervious, Inflow Depth = 2.70" for 100 YR event
 Inflow = 25.52 cfs @ 12.14 hrs, Volume= 1.356 af
 Outflow = 6.62 cfs @ 12.40 hrs, Volume= 1.356 af, Atten= 74%, Lag= 15.7 min
 Primary = 5.93 cfs @ 12.40 hrs, Volume= 0.818 af
 Routed to Link 3L : Post - South
 Secondary = 0.69 cfs @ 12.40 hrs, Volume= 0.537 af
 Tertiary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,242.96' @ 12.40 hrs Surf.Area= 8,223 sf Storage= 21,220 cf

Plug-Flow detention time= 101.4 min calculated for 1.356 af (100% of inflow)
 Center-of-Mass det. time= 101.4 min (927.7 - 826.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,239.00'	30,563 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,239.00	2,496	0	0
1,244.00	9,729	30,563	30,563

Device	Routing	Invert	Outlet Devices
#1	Primary	1,240.00'	12.0" Round Culvert L= 39.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,240.00' / 1,236.00' S= 0.1026 ' /' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,240.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,242.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,239.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,243.00'	20.0' long + 4.0 ' /' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=5.93 cfs @ 12.40 hrs HW=1,242.96' (Free Discharge)

↑ **1=Culvert** (Inlet Controls 5.93 cfs @ 7.55 fps)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Passes < 7.14 cfs potential flow)
 ↑ **3=Orifice/Grate** (Passes < 0.46 cfs potential flow)

Secondary OutFlow Max=0.69 cfs @ 12.40 hrs HW=1,242.96' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.69 cfs)

Tertiary OutFlow Max=0.00 cfs @ 5.00 hrs HW=1,239.00' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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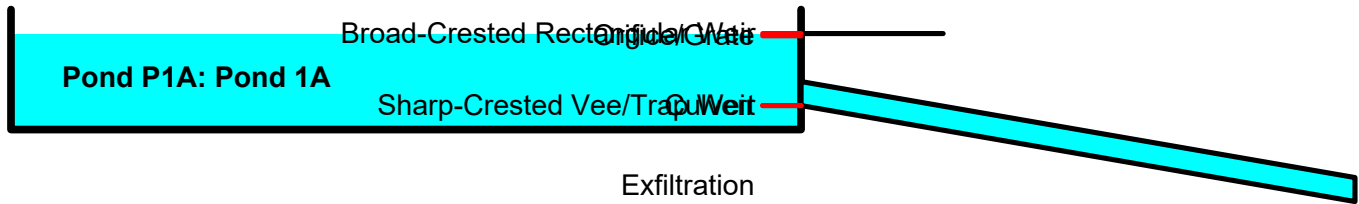
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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

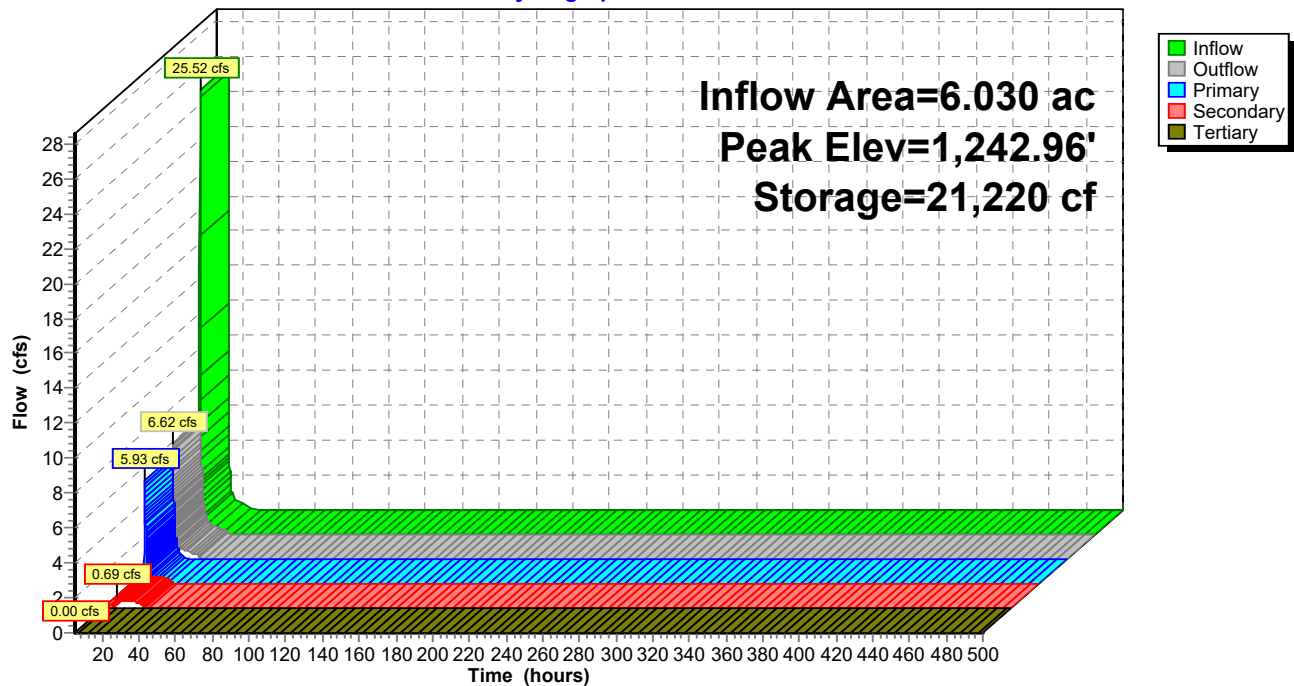
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Pond P1A: Pond 1A

Hydrograph



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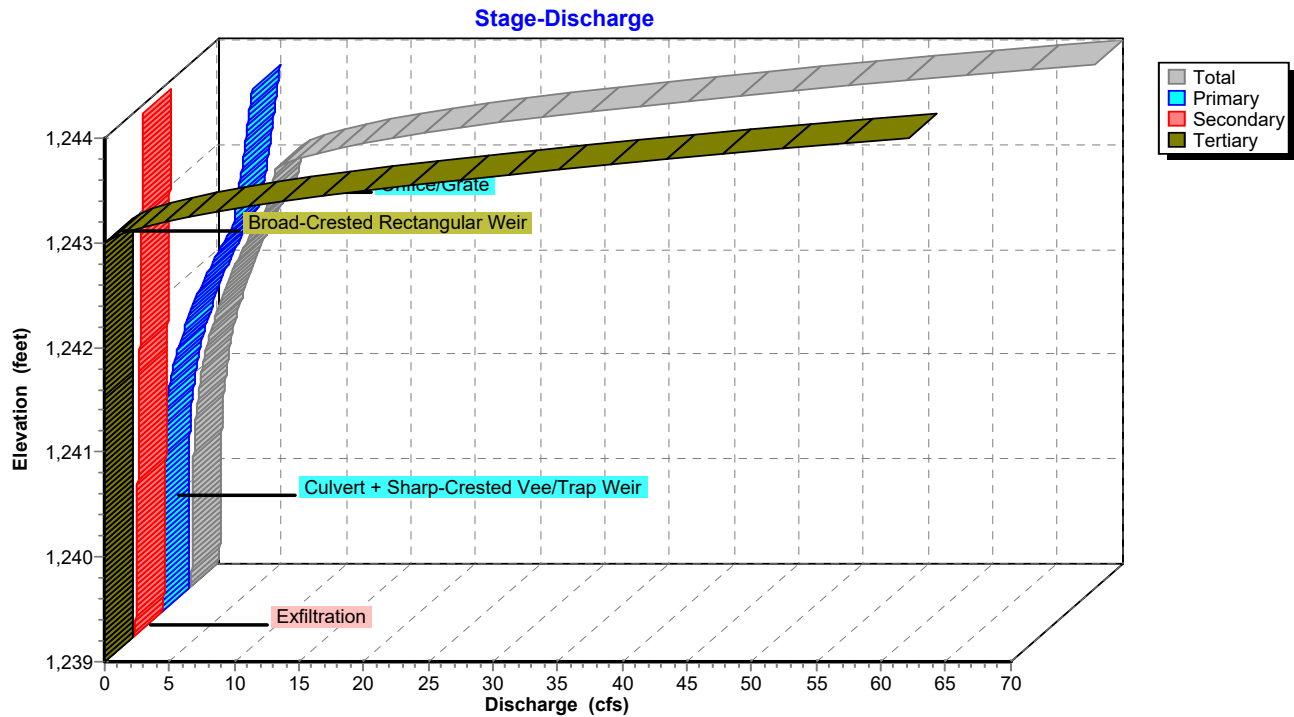
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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

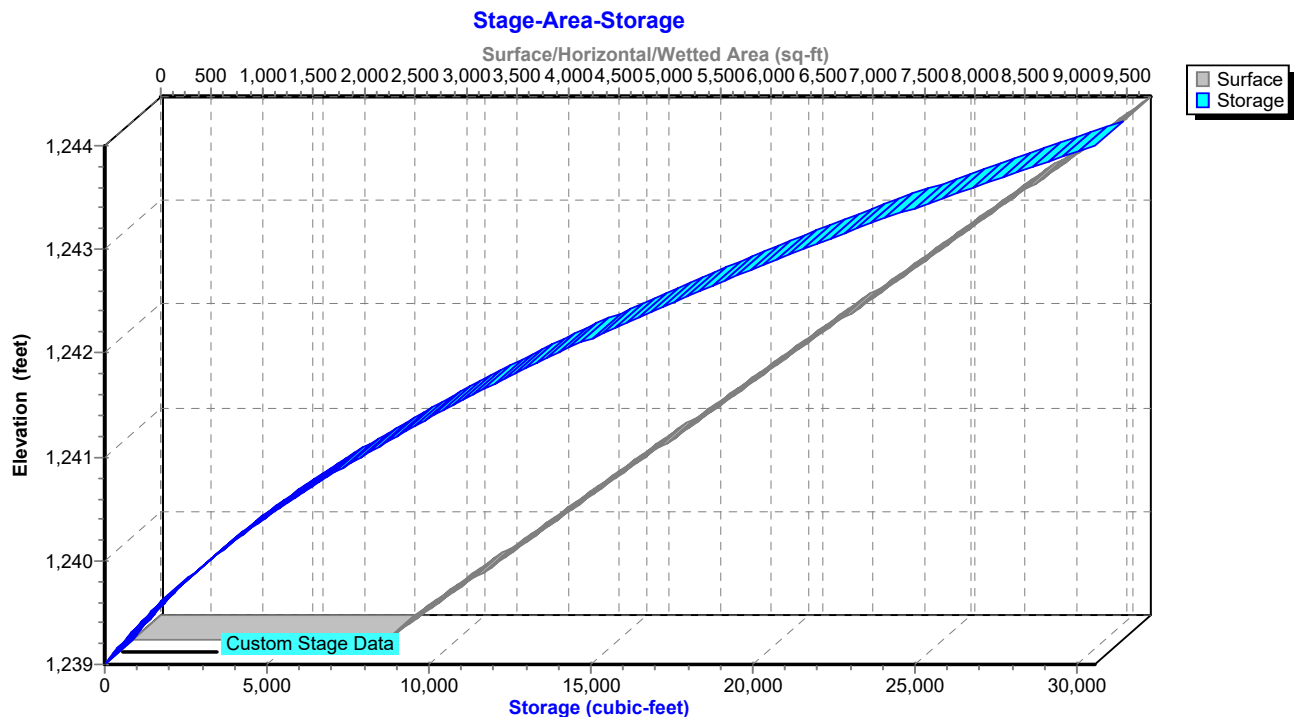
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Pond P1A: Pond 1A



Pond P1A: Pond 1A



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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Hydrograph for Pond P1A: Pond 1A

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
15.00	0.96	9,234	1,241.24	1.29	0.82	0.48	0.00
25.00	0.00	2,098	1,239.70	0.29	0.00	0.29	0.00
35.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,239.00	0.00	0.00	0.00	0.00

Stage-Discharge for Pond P1A: Pond 1A

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,239.00	0.00	0.00	0.00	0.00
1,239.10	0.22	0.00	0.22	0.00
1,239.20	0.23	0.00	0.23	0.00
1,239.30	0.24	0.00	0.24	0.00
1,239.40	0.26	0.00	0.26	0.00
1,239.50	0.27	0.00	0.27	0.00
1,239.60	0.28	0.00	0.28	0.00
1,239.70	0.29	0.00	0.29	0.00
1,239.80	0.30	0.00	0.30	0.00
1,239.90	0.32	0.00	0.32	0.00
1,240.00	0.33	0.00	0.33	0.00
1,240.10	0.34	0.00	0.34	0.00
1,240.20	0.36	0.01	0.35	0.00
1,240.30	0.39	0.02	0.36	0.00
1,240.40	0.42	0.05	0.38	0.00
1,240.50	0.47	0.08	0.39	0.00
1,240.60	0.53	0.13	0.40	0.00
1,240.70	0.61	0.19	0.41	0.00
1,240.80	0.70	0.27	0.42	0.00
1,240.90	0.80	0.36	0.44	0.00
1,241.00	0.92	0.47	0.45	0.00
1,241.10	1.06	0.60	0.46	0.00
1,241.20	1.22	0.75	0.47	0.00
1,241.30	1.40	0.91	0.49	0.00
1,241.40	1.60	1.10	0.50	0.00
1,241.50	1.82	1.31	0.51	0.00
1,241.60	2.06	1.54	0.52	0.00
1,241.70	2.32	1.79	0.53	0.00
1,241.80	2.61	2.06	0.55	0.00
1,241.90	2.92	2.36	0.56	0.00
1,242.00	3.25	2.68	0.57	0.00
1,242.10	3.61	3.03	0.58	0.00
1,242.20	4.00	3.41	0.59	0.00
1,242.30	4.41	3.81	0.61	0.00
1,242.40	4.85	4.23	0.62	0.00
1,242.50	5.32	4.69	0.63	0.00
1,242.60	5.81	5.17	0.64	0.00
1,242.70	6.26	5.61	0.65	0.00
1,242.80	6.40	5.74	0.67	0.00
1,242.90	6.54	5.86	0.68	0.00
1,243.00	6.67	5.98	0.69	0.00
1,243.10	8.40	6.10	0.70	1.60
1,243.20	11.53	6.21	0.71	4.60
1,243.30	15.75	6.33	0.73	8.70
1,243.40	20.96	6.44	0.74	13.78
1,243.50	27.39	6.55	0.75	20.08
1,243.60	34.93	6.66	0.76	27.51
1,243.70	42.64	6.76	0.77	35.10
1,243.80	51.08	6.87	0.79	43.42
1,243.90	60.22	6.97	0.80	52.45
1,244.00	70.06	7.07	0.81	62.18

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Stage-Area-Storage for Pond P1A: Pond 1A

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,239.00	2,496	0	1,241.55	6,185	11,068
1,239.05	2,568	127	1,241.60	6,257	11,379
1,239.10	2,641	257	1,241.65	6,329	11,694
1,239.15	2,713	391	1,241.70	6,402	12,012
1,239.20	2,785	528	1,241.75	6,474	12,334
1,239.25	2,858	669	1,241.80	6,546	12,659
1,239.30	2,930	814	1,241.85	6,619	12,989
1,239.35	3,002	962	1,241.90	6,691	13,321
1,239.40	3,075	1,114	1,241.95	6,763	13,658
1,239.45	3,147	1,270	1,242.00	6,836	13,998
1,239.50	3,219	1,429	1,242.05	6,908	14,341
1,239.55	3,292	1,592	1,242.10	6,980	14,689
1,239.60	3,364	1,758	1,242.15	7,053	15,039
1,239.65	3,436	1,928	1,242.20	7,125	15,394
1,239.70	3,509	2,102	1,242.25	7,197	15,752
1,239.75	3,581	2,279	1,242.30	7,270	16,114
1,239.80	3,653	2,460	1,242.35	7,342	16,479
1,239.85	3,726	2,644	1,242.40	7,414	16,848
1,239.90	3,798	2,832	1,242.45	7,487	17,220
1,239.95	3,870	3,024	1,242.50	7,559	17,596
1,240.00	3,943	3,219	1,242.55	7,631	17,976
1,240.05	4,015	3,418	1,242.60	7,704	18,360
1,240.10	4,087	3,621	1,242.65	7,776	18,747
1,240.15	4,160	3,827	1,242.70	7,848	19,137
1,240.20	4,232	4,037	1,242.75	7,921	19,531
1,240.25	4,304	4,250	1,242.80	7,993	19,929
1,240.30	4,377	4,467	1,242.85	8,065	20,331
1,240.35	4,449	4,688	1,242.90	8,138	20,736
1,240.40	4,521	4,912	1,242.95	8,210	21,144
1,240.45	4,594	5,140	1,243.00	8,282	21,557
1,240.50	4,666	5,371	1,243.05	8,355	21,973
1,240.55	4,738	5,607	1,243.10	8,427	22,392
1,240.60	4,811	5,845	1,243.15	8,499	22,815
1,240.65	4,883	6,088	1,243.20	8,572	23,242
1,240.70	4,955	6,334	1,243.25	8,644	23,673
1,240.75	5,028	6,583	1,243.30	8,716	24,107
1,240.80	5,100	6,836	1,243.35	8,789	24,544
1,240.85	5,172	7,093	1,243.40	8,861	24,985
1,240.90	5,245	7,354	1,243.45	8,933	25,430
1,240.95	5,317	7,618	1,243.50	9,006	25,879
1,241.00	5,389	7,885	1,243.55	9,078	26,331
1,241.05	5,462	8,156	1,243.60	9,150	26,787
1,241.10	5,534	8,431	1,243.65	9,223	27,246
1,241.15	5,606	8,710	1,243.70	9,295	27,709
1,241.20	5,679	8,992	1,243.75	9,367	28,175
1,241.25	5,751	9,278	1,243.80	9,440	28,646
1,241.30	5,823	9,567	1,243.85	9,512	29,119
1,241.35	5,896	9,860	1,243.90	9,584	29,597
1,241.40	5,968	10,157	1,243.95	9,657	30,078
1,241.45	6,040	10,457	1,244.00	9,729	30,563
1,241.50	6,113	10,761			

Summary for Pond P3A: Pond 3A

Inflow Area = 10.600 ac, 18.58% Impervious, Inflow Depth = 2.88" for 100 YR event
 Inflow = 47.96 cfs @ 12.13 hrs, Volume= 2.548 af
 Outflow = 13.73 cfs @ 12.37 hrs, Volume= 2.548 af, Atten= 71%, Lag= 14.0 min
 Primary = 7.30 cfs @ 12.37 hrs, Volume= 1.598 af
 Routed to Link 4L : Post - North
 Secondary = 1.00 cfs @ 12.37 hrs, Volume= 0.844 af
 Tertiary = 5.43 cfs @ 12.37 hrs, Volume= 0.106 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,197.22' @ 12.37 hrs Surf.Area= 11,957 sf Storage= 42,103 cf

Plug-Flow detention time= 106.9 min calculated for 2.548 af (100% of inflow)
 Center-of-Mass det. time= 106.9 min (929.3 - 822.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,192.00'	51,846 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,192.00	4,165	0	0
1,198.00	13,117	51,846	51,846

Device	Routing	Invert	Outlet Devices
#1	Primary	1,193.00'	12.0" Round Culvert L= 41.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,193.00' / 1,189.00' S= 0.0976 ' S= 0.0976 ' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,193.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,196.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,192.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,197.00'	20.0' long + 4.0 ' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=7.29 cfs @ 12.37 hrs HW=1,197.22' (Free Discharge)

↑ **1=Culvert** (Inlet Controls 7.29 cfs @ 9.28 fps)

↑ **2=Sharp-Crested Vee/Trap Weir** (Passes < 17.33 cfs potential flow)

↑ **3=Orifice/Grate** (Passes < 5.85 cfs potential flow)

Secondary OutFlow Max=1.00 cfs @ 12.37 hrs HW=1,197.22' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 1.00 cfs)

Tertiary OutFlow Max=5.24 cfs @ 12.37 hrs HW=1,197.22' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Weir Controls 5.24 cfs @ 1.15 fps)

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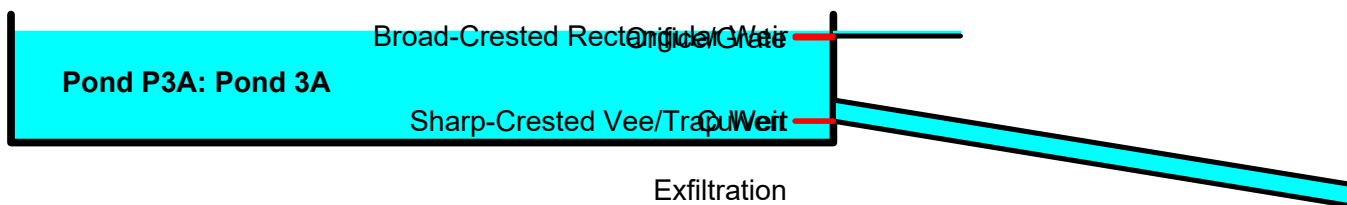
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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

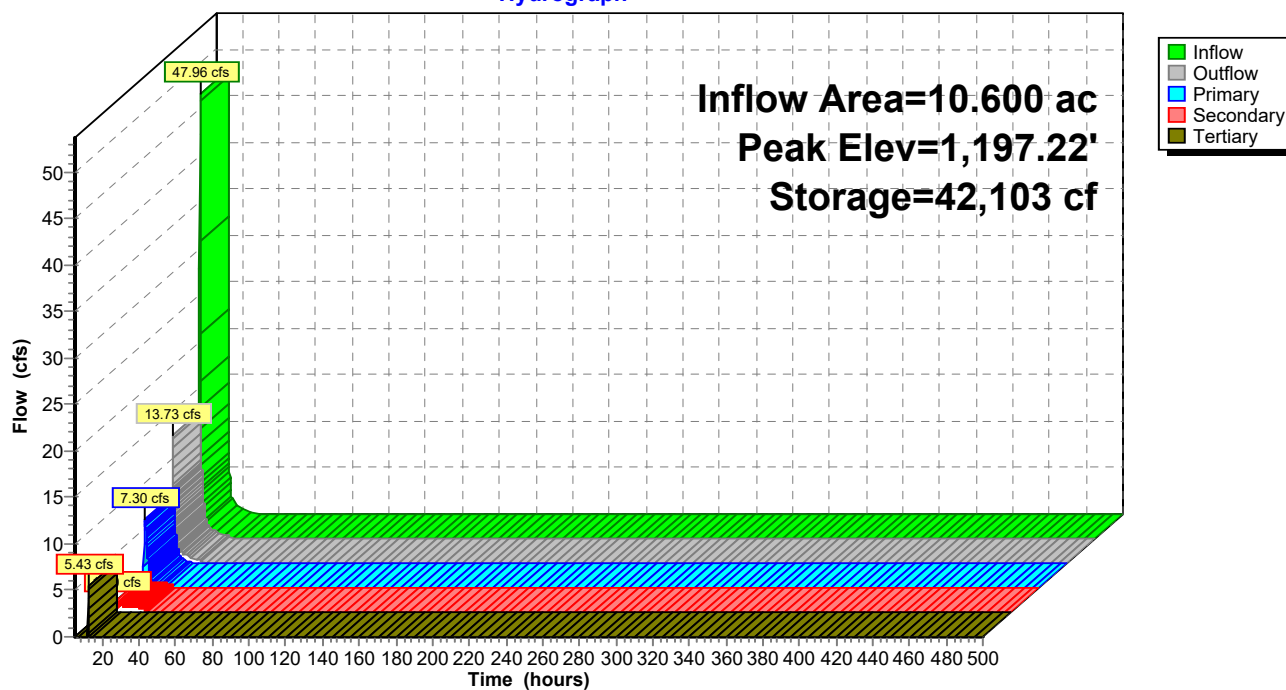
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Pond P3A: Pond 3A

Hydrograph



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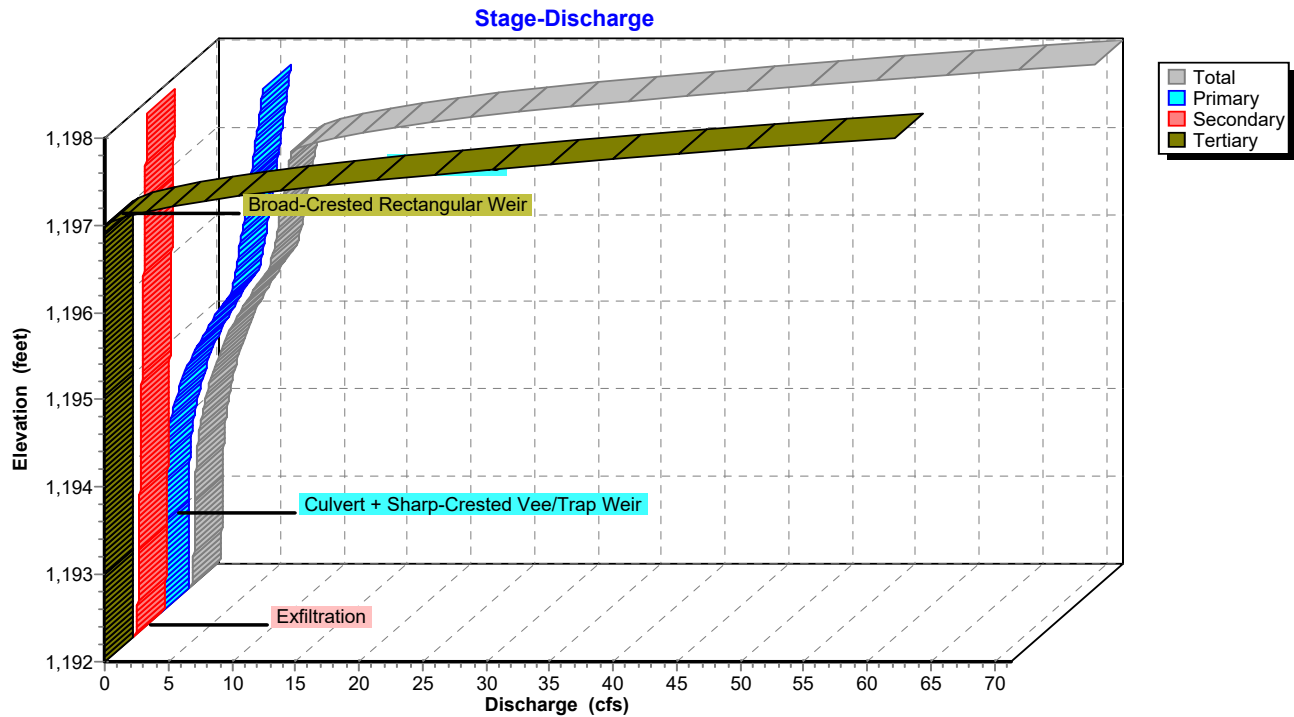
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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

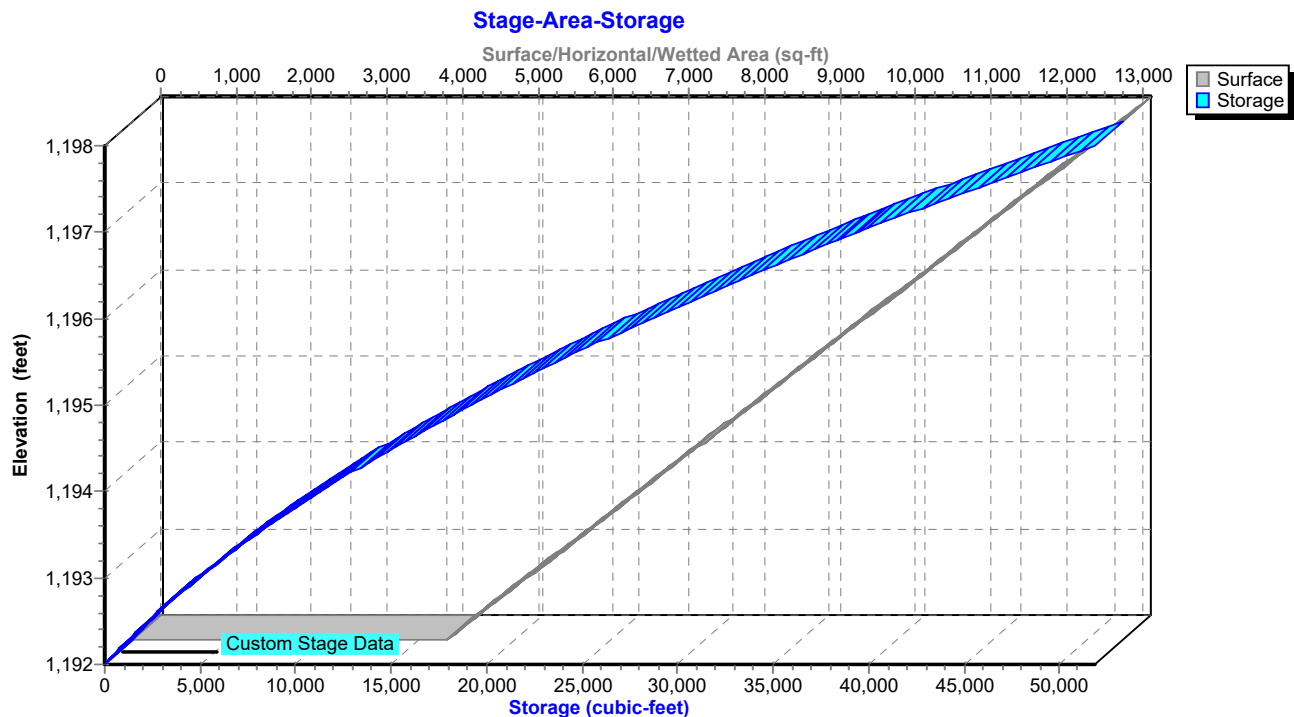
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Pond P3A: Pond 3A



Pond P3A: Pond 3A



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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Hydrograph for Pond P3A: Pond 3A

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
15.00	1.76	17,009	1,194.74	2.58	1.89	0.69	0.00
25.00	0.00	4,780	1,192.98	0.47	0.00	0.47	0.00
35.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,192.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Stage-Discharge for Pond P3A: Pond 3A

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,192.00	0.00	0.00	0.00	0.00
1,192.20	0.37	0.00	0.37	0.00
1,192.40	0.40	0.00	0.40	0.00
1,192.60	0.42	0.00	0.42	0.00
1,192.80	0.45	0.00	0.45	0.00
1,193.00	0.47	0.00	0.47	0.00
1,193.20	0.50	0.01	0.50	0.00
1,193.40	0.57	0.05	0.52	0.00
1,193.60	0.68	0.13	0.55	0.00
1,193.80	0.84	0.27	0.57	0.00
1,194.00	1.07	0.47	0.60	0.00
1,194.20	1.37	0.75	0.62	0.00
1,194.40	1.75	1.10	0.65	0.00
1,194.60	2.21	1.54	0.67	0.00
1,194.80	2.76	2.06	0.70	0.00
1,195.00	3.40	2.68	0.72	0.00
1,195.20	4.15	3.41	0.74	0.00
1,195.40	5.00	4.23	0.77	0.00
1,195.60	5.96	5.17	0.79	0.00
1,195.80	6.55	5.74	0.82	0.00
1,196.00	6.82	5.98	0.84	0.00
1,196.20	7.08	6.21	0.87	0.00
1,196.40	7.33	6.44	0.89	0.00
1,196.60	7.58	6.66	0.92	0.00
1,196.80	7.81	6.87	0.94	0.00
1,197.00	8.04	7.07	0.97	0.00
1,197.20	12.86	7.27	0.99	4.60
1,197.40	22.27	7.47	1.02	13.78
1,197.60	36.21	7.66	1.04	27.51
1,197.80	52.33	7.84	1.07	43.42
1,198.00	71.29	8.02	1.09	62.18

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Stage-Area-Storage for Pond P3A: Pond 3A

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,192.00	4,165	0	1,197.10	11,774	40,645
1,192.10	4,314	424	1,197.20	11,923	41,830
1,192.20	4,463	863	1,197.30	12,073	43,030
1,192.30	4,613	1,317	1,197.40	12,222	44,244
1,192.40	4,762	1,785	1,197.50	12,371	45,474
1,192.50	4,911	2,269	1,197.60	12,520	46,719
1,192.60	5,060	2,768	1,197.70	12,669	47,978
1,192.70	5,209	3,281	1,197.80	12,819	49,252
1,192.80	5,359	3,809	1,197.90	12,968	50,542
1,192.90	5,508	4,353	1,198.00	13,117	51,846
1,193.00	5,657	4,911			
1,193.10	5,806	5,484			
1,193.20	5,955	6,072			
1,193.30	6,105	6,675			
1,193.40	6,254	7,293			
1,193.50	6,403	7,926			
1,193.60	6,552	8,574			
1,193.70	6,701	9,236			
1,193.80	6,851	9,914			
1,193.90	7,000	10,607			
1,194.00	7,149	11,314			
1,194.10	7,298	12,036			
1,194.20	7,447	12,774			
1,194.30	7,597	13,526			
1,194.40	7,746	14,293			
1,194.50	7,895	15,075			
1,194.60	8,044	15,872			
1,194.70	8,193	16,684			
1,194.80	8,343	17,511			
1,194.90	8,492	18,352			
1,195.00	8,641	19,209			
1,195.10	8,790	20,081			
1,195.20	8,939	20,967			
1,195.30	9,089	21,868			
1,195.40	9,238	22,785			
1,195.50	9,387	23,716			
1,195.60	9,536	24,662			
1,195.70	9,685	25,623			
1,195.80	9,835	26,599			
1,195.90	9,984	27,590			
1,196.00	10,133	28,596			
1,196.10	10,282	29,617			
1,196.20	10,431	30,652			
1,196.30	10,581	31,703			
1,196.40	10,730	32,769			
1,196.50	10,879	33,849			
1,196.60	11,028	34,944			
1,196.70	11,177	36,055			
1,196.80	11,327	37,180			
1,196.90	11,476	38,320			
1,197.00	11,625	39,475			

Summary for Pond P3B: Pond 3B

Inflow Area = 8.450 ac, 19.88% Impervious, Inflow Depth = 2.98" for 100 YR event
 Inflow = 39.47 cfs @ 12.13 hrs, Volume= 2.098 af
 Outflow = 24.52 cfs @ 12.22 hrs, Volume= 2.098 af, Atten= 38%, Lag= 5.3 min
 Primary = 6.51 cfs @ 12.22 hrs, Volume= 1.159 af
 Routed to Link 4L : Post - North
 Secondary = 0.83 cfs @ 12.22 hrs, Volume= 0.668 af
 Tertiary = 17.18 cfs @ 12.22 hrs, Volume= 0.271 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,199.47' @ 12.22 hrs Surf.Area= 9,935 sf Storage= 28,439 cf

Plug-Flow detention time= 88.3 min calculated for 2.098 af (100% of inflow)
 Center-of-Mass det. time= 88.3 min (908.7 - 820.5)

Volume	Invert	Avail.Storage	Storage Description
#1	1,195.00'	33,965 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,195.00	2,799	0	0
1,200.00	10,787	33,965	33,965

Device	Routing	Invert	Outlet Devices
#1	Primary	1,196.00'	12.0" Round Culvert L= 36.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,196.00' / 1,192.00' S= 0.1111 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,196.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,198.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,195.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,199.00'	20.0' long + 4.0 ' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=6.47 cfs @ 12.22 hrs HW=1,199.43' (Free Discharge)

↑ **1=Culvert** (Inlet Controls 6.47 cfs @ 8.24 fps)

↑ **2=Sharp-Crested Vee/Trap Weir** (Passes < 10.32 cfs potential flow)

↑ **3=Orifice/Grate** (Passes < 12.53 cfs potential flow)

Secondary OutFlow Max=0.82 cfs @ 12.22 hrs HW=1,199.43' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.82 cfs)

Tertiary OutFlow Max=15.41 cfs @ 12.22 hrs HW=1,199.43' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Weir Controls 15.41 cfs @ 1.66 fps)

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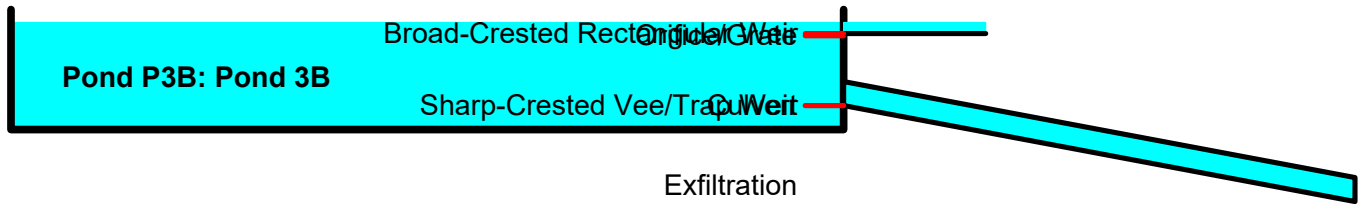
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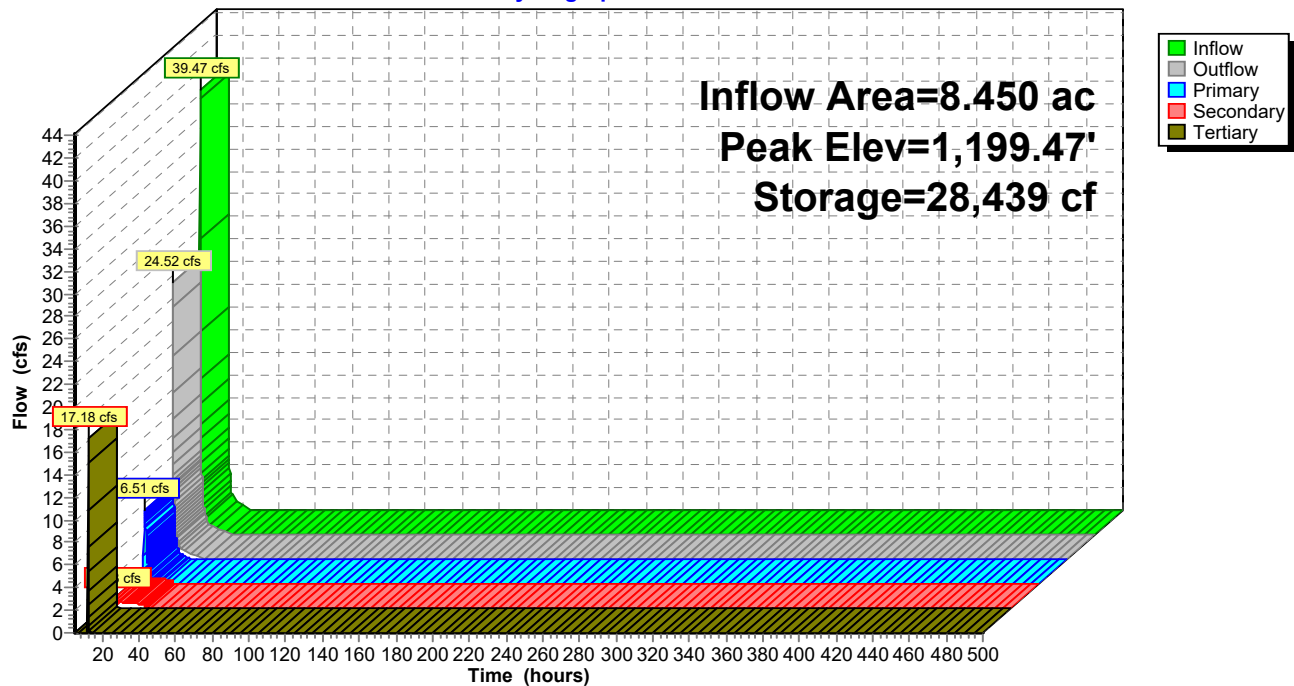
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Pond P3B: Pond 3B

Hydrograph



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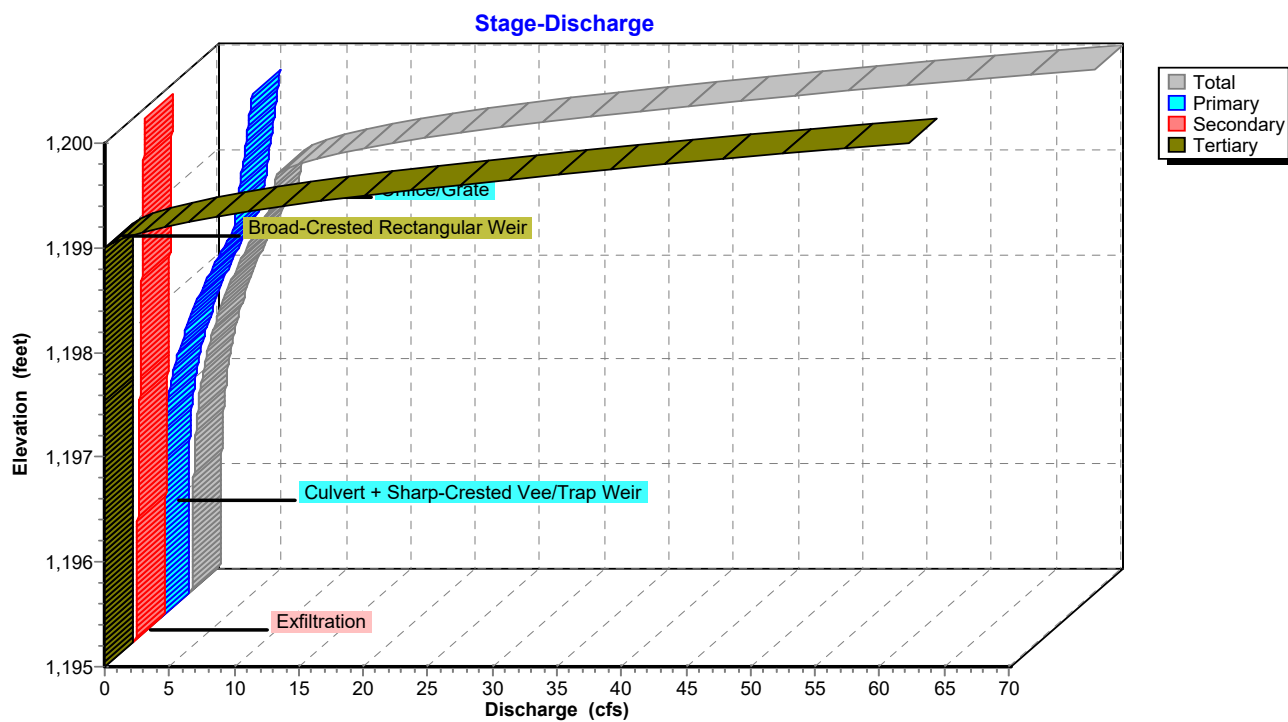
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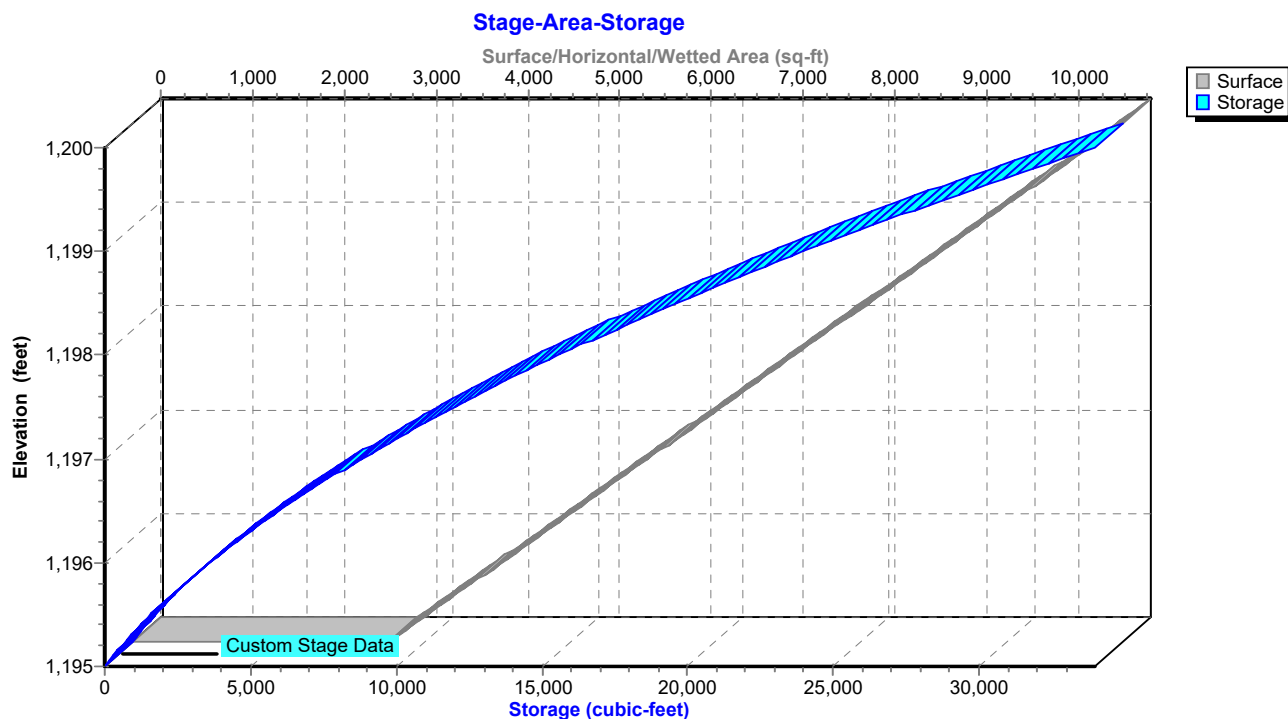
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Pond P3B: Pond 3B



Pond P3B: Pond 3B



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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Hydrograph for Pond P3B: Pond 3B

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
15.00	1.43	11,895	1,197.49	1.84	1.28	0.56	0.00
25.00	0.00	3,283	1,195.93	0.36	0.00	0.36	0.00
35.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,195.00	0.00	0.00	0.00	0.00

Stage-Discharge for Pond P3B: Pond 3B

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,195.00	0.00	0.00	0.00	0.00
1,195.10	0.25	0.00	0.25	0.00
1,195.20	0.26	0.00	0.26	0.00
1,195.30	0.27	0.00	0.27	0.00
1,195.40	0.29	0.00	0.29	0.00
1,195.50	0.30	0.00	0.30	0.00
1,195.60	0.31	0.00	0.31	0.00
1,195.70	0.33	0.00	0.33	0.00
1,195.80	0.34	0.00	0.34	0.00
1,195.90	0.35	0.00	0.35	0.00
1,196.00	0.37	0.00	0.37	0.00
1,196.10	0.38	0.00	0.38	0.00
1,196.20	0.40	0.01	0.39	0.00
1,196.30	0.43	0.02	0.41	0.00
1,196.40	0.47	0.05	0.42	0.00
1,196.50	0.52	0.08	0.43	0.00
1,196.60	0.58	0.13	0.45	0.00
1,196.70	0.65	0.19	0.46	0.00
1,196.80	0.74	0.27	0.47	0.00
1,196.90	0.85	0.36	0.49	0.00
1,197.00	0.97	0.47	0.50	0.00
1,197.10	1.11	0.60	0.51	0.00
1,197.20	1.27	0.75	0.53	0.00
1,197.30	1.45	0.91	0.54	0.00
1,197.40	1.65	1.10	0.55	0.00
1,197.50	1.87	1.31	0.57	0.00
1,197.60	2.12	1.54	0.58	0.00
1,197.70	2.38	1.79	0.59	0.00
1,197.80	2.67	2.06	0.61	0.00
1,197.90	2.98	2.36	0.62	0.00
1,198.00	3.32	2.68	0.63	0.00
1,198.10	3.68	3.03	0.65	0.00
1,198.20	4.06	3.41	0.66	0.00
1,198.30	4.48	3.81	0.67	0.00
1,198.40	4.92	4.23	0.69	0.00
1,198.50	5.39	4.69	0.70	0.00
1,198.60	5.88	5.17	0.71	0.00
1,198.70	6.33	5.61	0.73	0.00
1,198.80	6.47	5.74	0.74	0.00
1,198.90	6.61	5.86	0.75	0.00
1,199.00	6.75	5.98	0.77	0.00
1,199.10	8.48	6.10	0.78	1.60
1,199.20	11.60	6.21	0.79	4.60
1,199.30	15.83	6.33	0.81	8.70
1,199.40	21.04	6.44	0.82	13.78
1,199.50	27.47	6.55	0.83	20.08
1,199.60	35.01	6.66	0.85	27.51
1,199.70	42.73	6.76	0.86	35.10
1,199.80	51.17	6.87	0.87	43.42
1,199.90	60.31	6.97	0.89	52.45
1,200.00	70.15	7.07	0.90	62.18

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Stage-Area-Storage for Pond P3B: Pond 3B

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,195.00	2,799	0	1,197.55	6,873	12,332
1,195.05	2,879	142	1,197.60	6,953	12,677
1,195.10	2,959	288	1,197.65	7,033	13,027
1,195.15	3,039	438	1,197.70	7,113	13,381
1,195.20	3,119	592	1,197.75	7,192	13,738
1,195.25	3,198	750	1,197.80	7,272	14,100
1,195.30	3,278	912	1,197.85	7,352	14,465
1,195.35	3,358	1,078	1,197.90	7,432	14,835
1,195.40	3,438	1,247	1,197.95	7,512	15,209
1,195.45	3,518	1,421	1,198.00	7,592	15,586
1,195.50	3,598	1,599	1,198.05	7,672	15,968
1,195.55	3,678	1,781	1,198.10	7,752	16,353
1,195.60	3,758	1,967	1,198.15	7,831	16,743
1,195.65	3,837	2,157	1,198.20	7,911	17,137
1,195.70	3,917	2,351	1,198.25	7,991	17,534
1,195.75	3,997	2,549	1,198.30	8,071	17,936
1,195.80	4,077	2,750	1,198.35	8,151	18,341
1,195.85	4,157	2,956	1,198.40	8,231	18,751
1,195.90	4,237	3,166	1,198.45	8,311	19,164
1,195.95	4,317	3,380	1,198.50	8,391	19,582
1,196.00	4,397	3,598	1,198.55	8,470	20,003
1,196.05	4,476	3,820	1,198.60	8,550	20,429
1,196.10	4,556	4,045	1,198.65	8,630	20,858
1,196.15	4,636	4,275	1,198.70	8,710	21,292
1,196.20	4,716	4,509	1,198.75	8,790	21,729
1,196.25	4,796	4,747	1,198.80	8,870	22,171
1,196.30	4,876	4,989	1,198.85	8,950	22,616
1,196.35	4,956	5,234	1,198.90	9,030	23,066
1,196.40	5,036	5,484	1,198.95	9,110	23,519
1,196.45	5,116	5,738	1,199.00	9,189	23,977
1,196.50	5,195	5,996	1,199.05	9,269	24,438
1,196.55	5,275	6,258	1,199.10	9,349	24,904
1,196.60	5,355	6,523	1,199.15	9,429	25,373
1,196.65	5,435	6,793	1,199.20	9,509	25,847
1,196.70	5,515	7,067	1,199.25	9,589	26,324
1,196.75	5,595	7,345	1,199.30	9,669	26,806
1,196.80	5,675	7,626	1,199.35	9,749	27,291
1,196.85	5,755	7,912	1,199.40	9,828	27,780
1,196.90	5,834	8,202	1,199.45	9,908	28,274
1,196.95	5,914	8,495	1,199.50	9,988	28,771
1,197.00	5,994	8,793	1,199.55	10,068	29,273
1,197.05	6,074	9,095	1,199.60	10,148	29,778
1,197.10	6,154	9,401	1,199.65	10,228	30,287
1,197.15	6,234	9,710	1,199.70	10,308	30,801
1,197.20	6,314	10,024	1,199.75	10,388	31,318
1,197.25	6,394	10,342	1,199.80	10,467	31,840
1,197.30	6,473	10,663	1,199.85	10,547	32,365
1,197.35	6,553	10,989	1,199.90	10,627	32,894
1,197.40	6,633	11,319	1,199.95	10,707	33,428
1,197.45	6,713	11,652	1,200.00	10,787	33,965
1,197.50	6,793	11,990			

Summary for Pond P3C: Pond 3C

Inflow Area = 2.490 ac, 22.89% Impervious, Inflow Depth = 3.37" for 100 YR event
 Inflow = 13.07 cfs @ 12.13 hrs, Volume= 0.699 af
 Outflow = 6.79 cfs @ 12.25 hrs, Volume= 0.699 af, Atten= 48%, Lag= 6.9 min
 Primary = 4.78 cfs @ 12.24 hrs, Volume= 0.358 af
 Routed to Link 4L : Post - North
 Secondary = 0.39 cfs @ 12.25 hrs, Volume= 0.326 af
 Tertiary = 1.62 cfs @ 12.25 hrs, Volume= 0.014 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,181.10' @ 12.25 hrs Surf.Area= 4,705 sf Storage= 10,244 cf

Plug-Flow detention time= 99.6 min calculated for 0.699 af (100% of inflow)
 Center-of-Mass det. time= 99.7 min (912.3 - 812.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,178.00'	14,846 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,178.00	1,905	0	0
1,182.00	5,518	14,846	14,846

Device	Routing	Invert	Outlet Devices
#1	Primary	1,179.00'	12.0" Round Culvert L= 30.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,179.00' / 1,175.00' S= 0.1333 ' /' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,179.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,180.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	1,178.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,181.00'	20.0' long + 4.0 ' /' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=4.78 cfs @ 12.24 hrs HW=1,181.10' (Free Discharge)

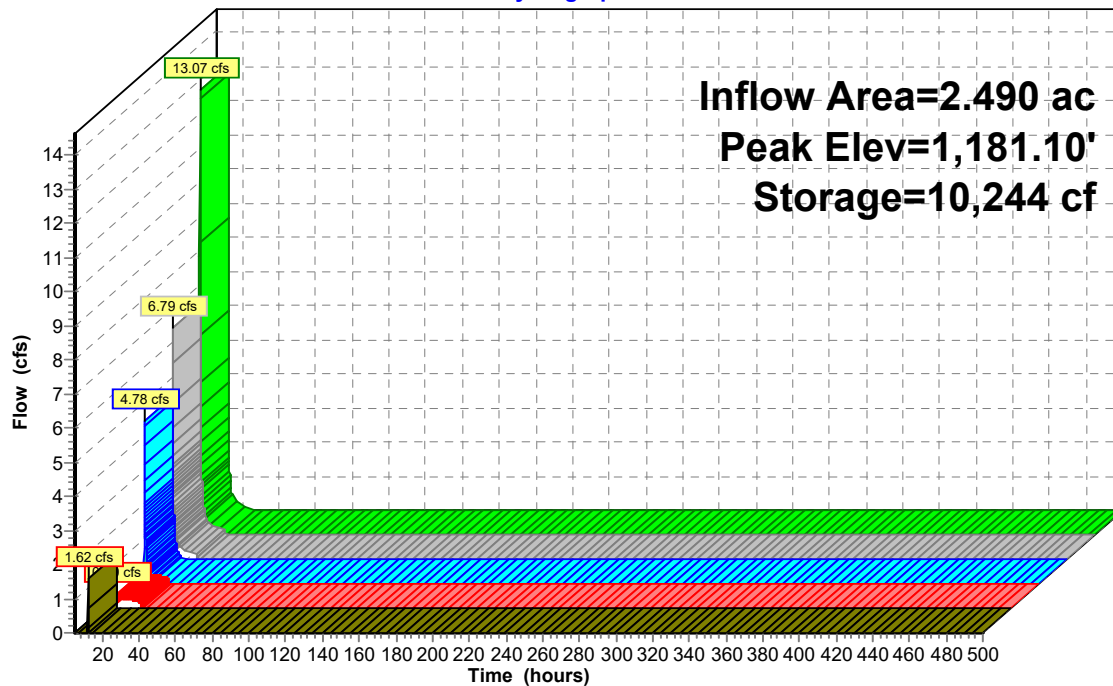
↑ **1=Culvert** (Inlet Controls 4.78 cfs @ 6.08 fps)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Passes < 3.02 cfs potential flow)
 ↑ **3=Orifice/Grate** (Passes < 2.84 cfs potential flow)

Secondary OutFlow Max=0.39 cfs @ 12.25 hrs HW=1,181.10' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.39 cfs)

Tertiary OutFlow Max=1.54 cfs @ 12.25 hrs HW=1,181.10' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Weir Controls 1.54 cfs @ 0.78 fps)



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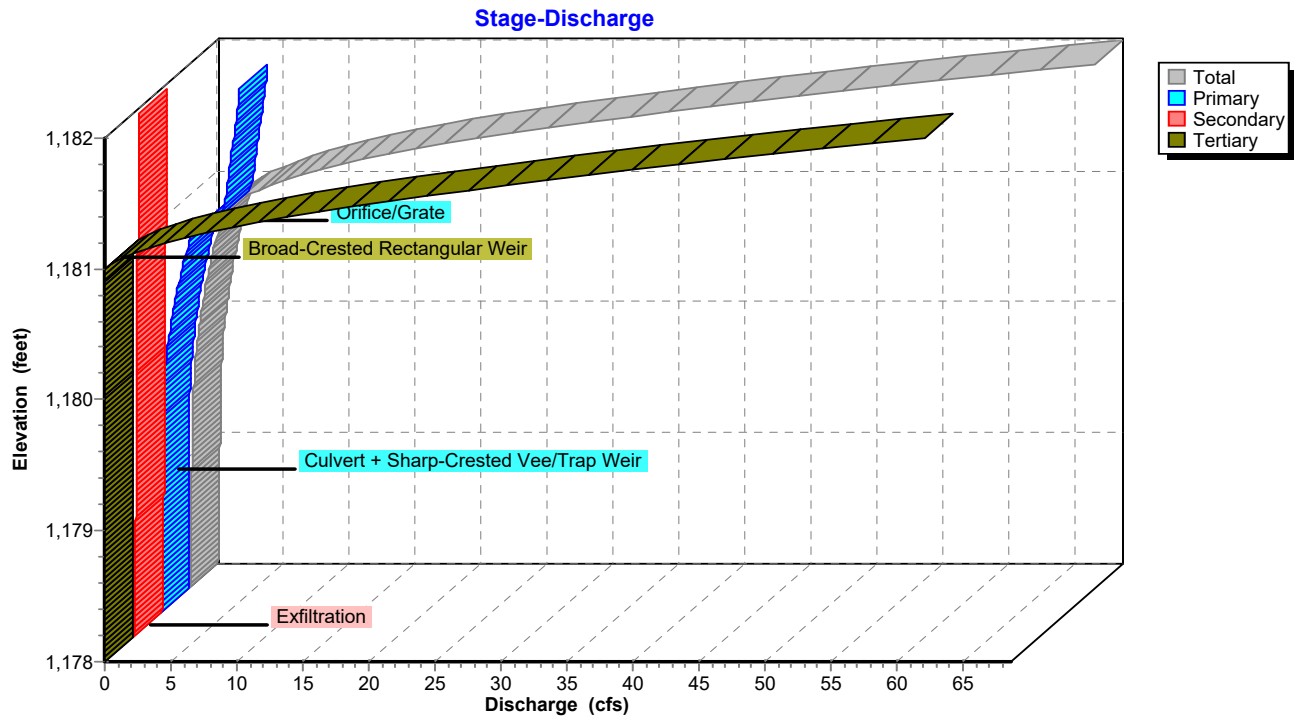
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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

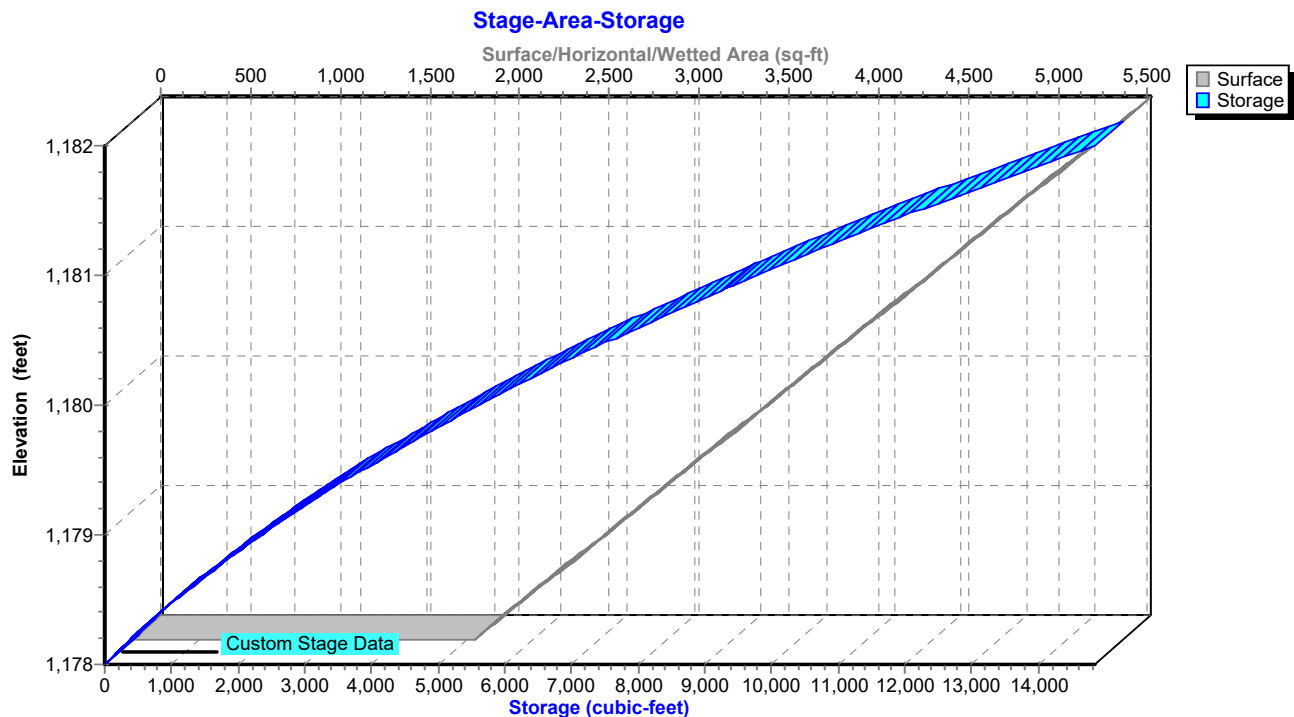
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Pond P3C: Pond 3C



Pond P3C: Pond 3C



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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Hydrograph for Pond P3C: Pond 3C

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
15.00	0.45	5,056	1,179.85	0.61	0.31	0.30	0.00
25.00	0.00	501	1,178.25	0.18	0.00	0.18	0.00
35.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,178.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Stage-Discharge for Pond P3C: Pond 3C

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,178.00	0.00	0.00	0.00	0.00
1,178.10	0.17	0.00	0.17	0.00
1,178.20	0.17	0.00	0.17	0.00
1,178.30	0.18	0.00	0.18	0.00
1,178.40	0.19	0.00	0.19	0.00
1,178.50	0.20	0.00	0.20	0.00
1,178.60	0.20	0.00	0.20	0.00
1,178.70	0.21	0.00	0.21	0.00
1,178.80	0.22	0.00	0.22	0.00
1,178.90	0.23	0.00	0.23	0.00
1,179.00	0.23	0.00	0.23	0.00
1,179.10	0.24	0.00	0.24	0.00
1,179.20	0.26	0.01	0.25	0.00
1,179.30	0.28	0.02	0.26	0.00
1,179.40	0.31	0.05	0.26	0.00
1,179.50	0.36	0.08	0.27	0.00
1,179.60	0.41	0.13	0.28	0.00
1,179.70	0.48	0.19	0.29	0.00
1,179.80	0.57	0.27	0.29	0.00
1,179.90	0.67	0.36	0.30	0.00
1,180.00	0.78	0.47	0.31	0.00
1,180.10	0.92	0.60	0.32	0.00
1,180.20	1.07	0.75	0.32	0.00
1,180.30	1.25	0.91	0.33	0.00
1,180.40	1.44	1.10	0.34	0.00
1,180.50	1.65	1.31	0.35	0.00
1,180.60	1.89	1.54	0.35	0.00
1,180.70	2.15	1.79	0.36	0.00
1,180.80	2.43	2.06	0.37	0.00
1,180.90	2.74	2.36	0.38	0.00
1,181.00	4.10	3.72	0.38	0.00
1,181.10	6.78	4.78	0.39	1.60
1,181.20	9.93	4.93	0.40	4.60
1,181.30	14.18	5.07	0.41	8.70
1,181.40	19.41	5.21	0.41	13.78
1,181.50	25.85	5.35	0.42	20.08
1,181.60	33.42	5.48	0.43	27.51
1,181.70	41.15	5.61	0.44	35.10
1,181.80	49.60	5.74	0.44	43.42
1,181.90	58.76	5.86	0.45	52.45
1,182.00	68.62	5.98	0.46	62.18

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Stage-Area-Storage for Pond P3C: Pond 3C

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,178.00	1,905	0	1,180.55	4,208	7,794
1,178.05	1,950	96	1,180.60	4,253	8,006
1,178.10	1,995	195	1,180.65	4,299	8,220
1,178.15	2,040	296	1,180.70	4,344	8,436
1,178.20	2,086	399	1,180.75	4,389	8,654
1,178.25	2,131	504	1,180.80	4,434	8,875
1,178.30	2,176	612	1,180.85	4,479	9,098
1,178.35	2,221	722	1,180.90	4,524	9,323
1,178.40	2,266	834	1,180.95	4,570	9,550
1,178.45	2,311	949	1,181.00	4,615	9,780
1,178.50	2,357	1,065	1,181.05	4,660	10,011
1,178.55	2,402	1,184	1,181.10	4,705	10,246
1,178.60	2,447	1,306	1,181.15	4,750	10,482
1,178.65	2,492	1,429	1,181.20	4,795	10,721
1,178.70	2,537	1,555	1,181.25	4,841	10,962
1,178.75	2,582	1,683	1,181.30	4,886	11,205
1,178.80	2,628	1,813	1,181.35	4,931	11,450
1,178.85	2,673	1,946	1,181.40	4,976	11,698
1,178.90	2,718	2,080	1,181.45	5,021	11,948
1,178.95	2,763	2,217	1,181.50	5,066	12,200
1,179.00	2,808	2,357	1,181.55	5,112	12,454
1,179.05	2,853	2,498	1,181.60	5,157	12,711
1,179.10	2,899	2,642	1,181.65	5,202	12,970
1,179.15	2,944	2,788	1,181.70	5,247	13,231
1,179.20	2,989	2,936	1,181.75	5,292	13,495
1,179.25	3,034	3,087	1,181.80	5,337	13,760
1,179.30	3,079	3,240	1,181.85	5,383	14,028
1,179.35	3,124	3,395	1,181.90	5,428	14,299
1,179.40	3,170	3,552	1,181.95	5,473	14,571
1,179.45	3,215	3,712	1,182.00	5,518	14,846
1,179.50	3,260	3,874			
1,179.55	3,305	4,038			
1,179.60	3,350	4,204			
1,179.65	3,395	4,373			
1,179.70	3,441	4,544			
1,179.75	3,486	4,717			
1,179.80	3,531	4,892			
1,179.85	3,576	5,070			
1,179.90	3,621	5,250			
1,179.95	3,666	5,432			
1,180.00	3,712	5,617			
1,180.05	3,757	5,803			
1,180.10	3,802	5,992			
1,180.15	3,847	6,183			
1,180.20	3,892	6,377			
1,180.25	3,937	6,573			
1,180.30	3,982	6,771			
1,180.35	4,028	6,971			
1,180.40	4,073	7,173			
1,180.45	4,118	7,378			
1,180.50	4,163	7,585			

Summary for Pond P3D: Pond 3D

Inflow Area = 2.380 ac, 23.95% Impervious, Inflow Depth = 3.47" for 100 YR event
 Inflow = 12.83 cfs @ 12.13 hrs, Volume= 0.688 af
 Outflow = 6.89 cfs @ 12.24 hrs, Volume= 0.688 af, Atten= 46%, Lag= 6.3 min
 Primary = 6.04 cfs @ 12.23 hrs, Volume= 0.488 af
 Routed to Link 4L : Post - North
 Secondary = 0.28 cfs @ 12.23 hrs, Volume= 0.196 af
 Tertiary = 0.57 cfs @ 12.24 hrs, Volume= 0.004 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,191.05' @ 12.23 hrs Surf.Area= 3,308 sf Storage= 8,209 cf

Plug-Flow detention time= 61.5 min calculated for 0.687 af (100% of inflow)
 Center-of-Mass det. time= 61.5 min (872.2 - 810.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,187.00'	11,620 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,187.00	741	0	0
1,192.00	3,907	11,620	11,620

Device	Routing	Invert	Outlet Devices
#1	Primary	1,188.00'	12.0" Round Culvert L= 35.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,188.00' / 1,184.00' S= 0.1143 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,188.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,190.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600
#4	Secondary	1,187.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,191.00'	20.0' long + 4.0 ' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=6.03 cfs @ 12.23 hrs HW=1,191.04' (Free Discharge)

↑ **1=Culvert** (Inlet Controls 6.03 cfs @ 7.68 fps)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Passes < 7.67 cfs potential flow)
 ↑ **3=Orifice/Grate** (Passes < 10.95 cfs potential flow)

Secondary OutFlow Max=0.28 cfs @ 12.23 hrs HW=1,191.04' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.28 cfs)

Tertiary OutFlow Max=0.48 cfs @ 12.24 hrs HW=1,191.05' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Weir Controls 0.48 cfs @ 0.53 fps)

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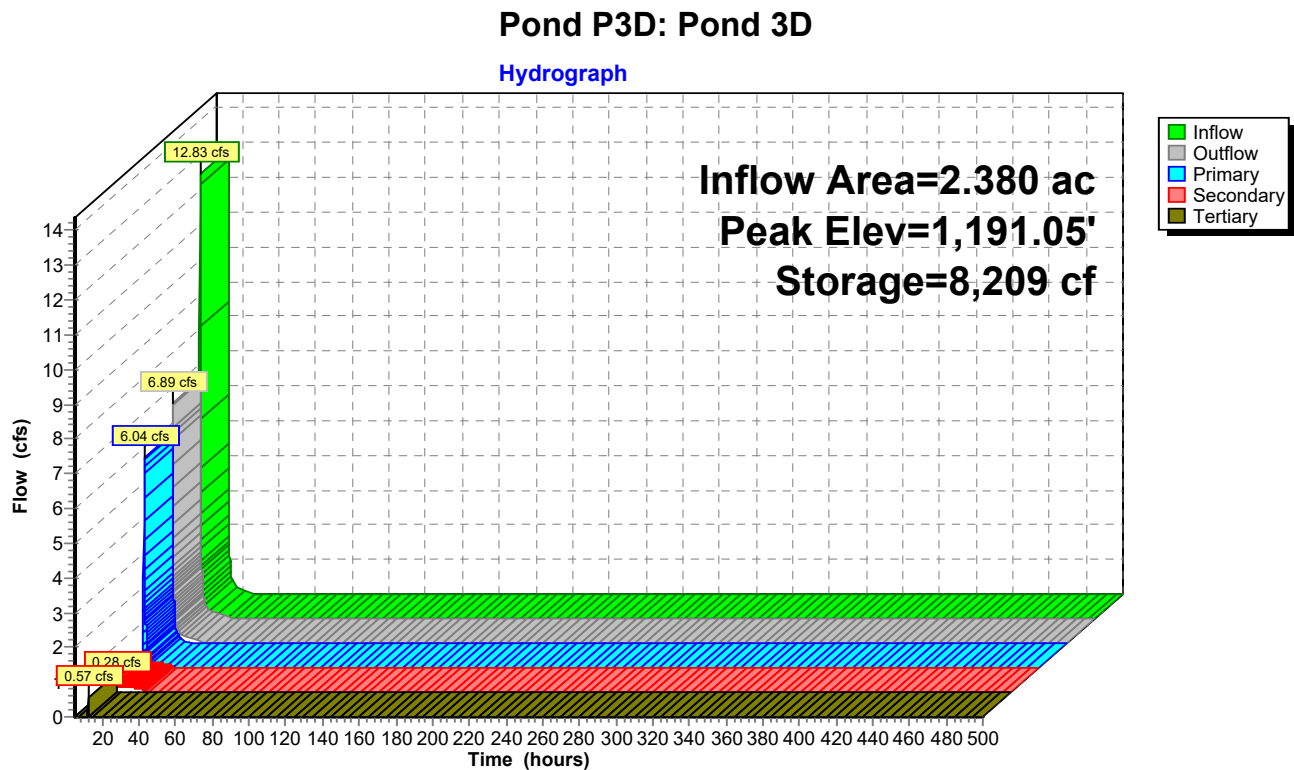
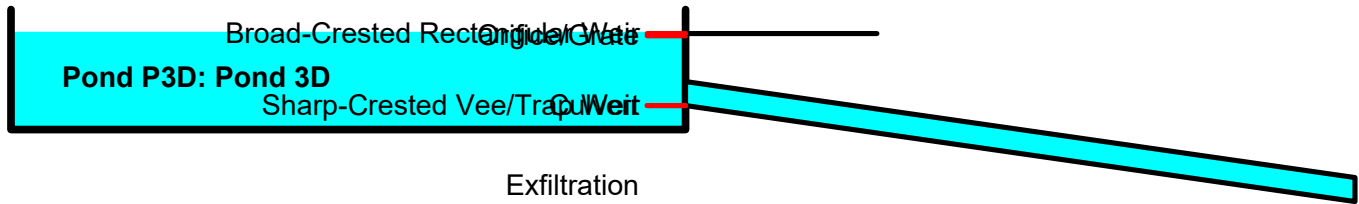
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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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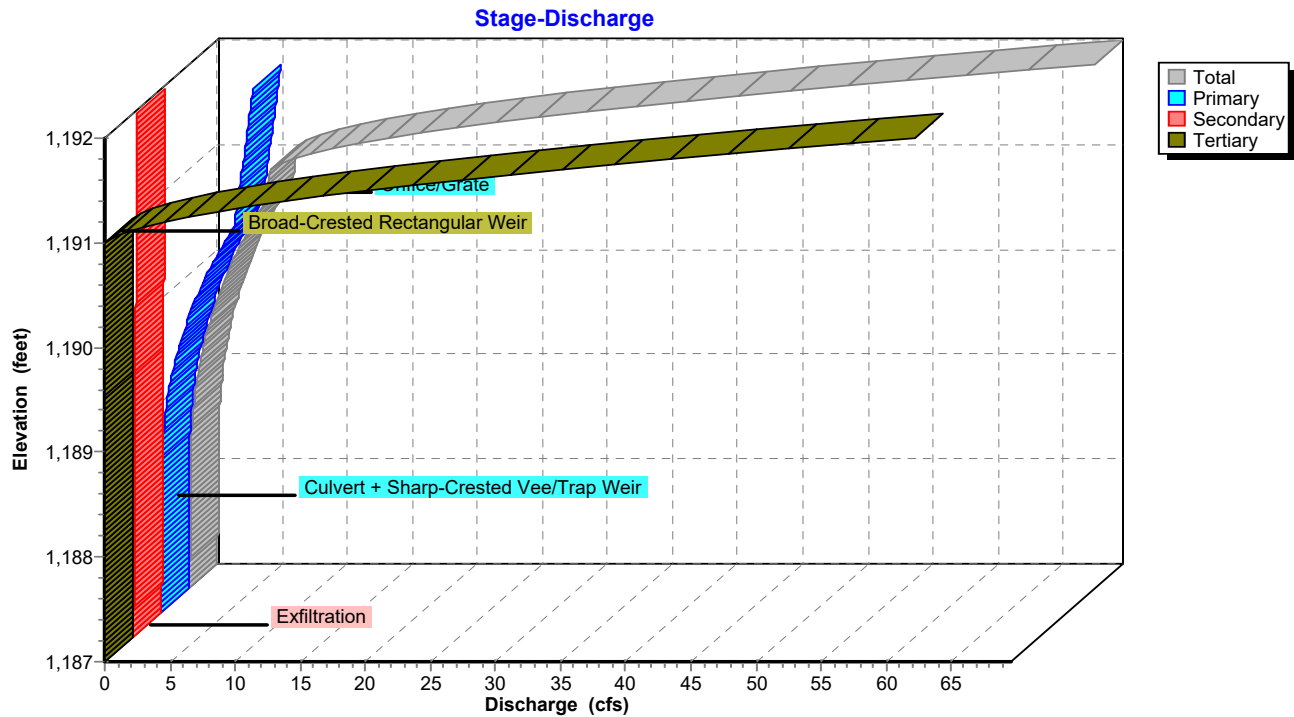
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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

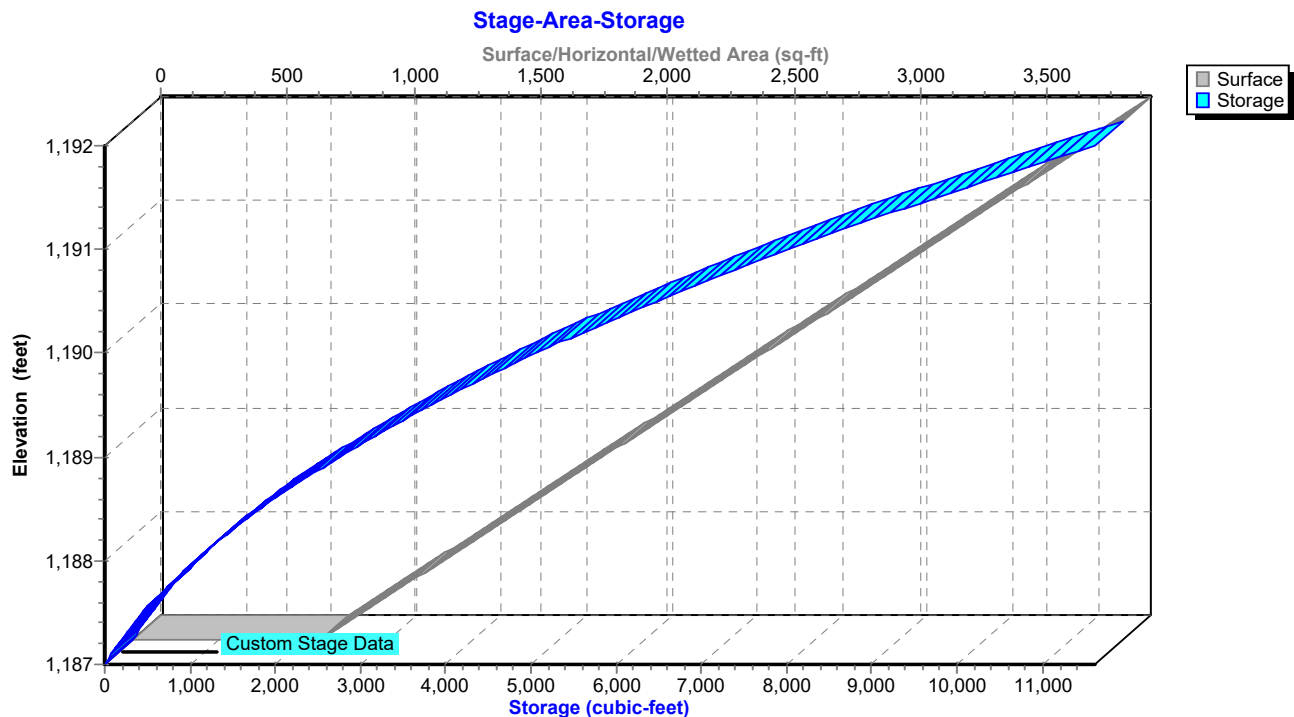
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Pond P3D: Pond 3D



Pond P3D: Pond 3D



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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Hydrograph for Pond P3D: Pond 3D

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
15.00	0.43	2,469	1,188.86	0.48	0.32	0.16	0.00
25.00	0.00	703	1,187.72	0.10	0.00	0.10	0.00
35.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,187.00	0.00	0.00	0.00	0.00

Stage-Discharge for Pond P3D: Pond 3D

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,187.00	0.00	0.00	0.00	0.00
1,187.10	0.07	0.00	0.07	0.00
1,187.20	0.07	0.00	0.07	0.00
1,187.30	0.08	0.00	0.08	0.00
1,187.40	0.08	0.00	0.08	0.00
1,187.50	0.09	0.00	0.09	0.00
1,187.60	0.09	0.00	0.09	0.00
1,187.70	0.10	0.00	0.10	0.00
1,187.80	0.10	0.00	0.10	0.00
1,187.90	0.11	0.00	0.11	0.00
1,188.00	0.11	0.00	0.11	0.00
1,188.10	0.12	0.00	0.12	0.00
1,188.20	0.13	0.01	0.13	0.00
1,188.30	0.15	0.02	0.13	0.00
1,188.40	0.18	0.05	0.14	0.00
1,188.50	0.22	0.08	0.14	0.00
1,188.60	0.28	0.13	0.15	0.00
1,188.70	0.35	0.19	0.15	0.00
1,188.80	0.43	0.27	0.16	0.00
1,188.90	0.53	0.36	0.16	0.00
1,189.00	0.64	0.47	0.17	0.00
1,189.10	0.77	0.60	0.17	0.00
1,189.20	0.93	0.75	0.18	0.00
1,189.30	1.10	0.91	0.18	0.00
1,189.40	1.29	1.10	0.19	0.00
1,189.50	1.50	1.31	0.19	0.00
1,189.60	1.73	1.54	0.20	0.00
1,189.70	1.99	1.79	0.20	0.00
1,189.80	2.27	2.06	0.21	0.00
1,189.90	2.58	2.36	0.21	0.00
1,190.00	2.90	2.68	0.22	0.00
1,190.10	3.26	3.03	0.23	0.00
1,190.20	3.64	3.41	0.23	0.00
1,190.30	4.04	3.81	0.24	0.00
1,190.40	4.47	4.23	0.24	0.00
1,190.50	4.93	4.69	0.25	0.00
1,190.60	5.42	5.17	0.25	0.00
1,190.70	5.87	5.61	0.26	0.00
1,190.80	6.00	5.74	0.26	0.00
1,190.90	6.13	5.86	0.27	0.00
1,191.00	6.25	5.98	0.27	0.00
1,191.10	7.98	6.10	0.28	1.60
1,191.20	11.09	6.21	0.28	4.60
1,191.30	15.31	6.33	0.29	8.70
1,191.40	20.52	6.44	0.29	13.78
1,191.50	26.93	6.55	0.30	20.08
1,191.60	34.47	6.66	0.30	27.51
1,191.70	42.18	6.76	0.31	35.10
1,191.80	50.61	6.87	0.32	43.42
1,191.90	59.75	6.97	0.32	52.45
1,192.00	69.58	7.07	0.33	62.18

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Stage-Area-Storage for Pond P3D: Pond 3D

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,187.00	741	0	1,189.55	2,356	3,948
1,187.05	773	38	1,189.60	2,387	4,067
1,187.10	804	77	1,189.65	2,419	4,187
1,187.15	836	118	1,189.70	2,451	4,309
1,187.20	868	161	1,189.75	2,482	4,432
1,187.25	899	205	1,189.80	2,514	4,557
1,187.30	931	251	1,189.85	2,546	4,683
1,187.35	963	298	1,189.90	2,577	4,812
1,187.40	994	347	1,189.95	2,609	4,941
1,187.45	1,026	398	1,190.00	2,641	5,072
1,187.50	1,058	450	1,190.05	2,672	5,205
1,187.55	1,089	503	1,190.10	2,704	5,340
1,187.60	1,121	559	1,190.15	2,736	5,476
1,187.65	1,153	615	1,190.20	2,767	5,613
1,187.70	1,184	674	1,190.25	2,799	5,752
1,187.75	1,216	734	1,190.30	2,831	5,893
1,187.80	1,248	795	1,190.35	2,862	6,035
1,187.85	1,279	859	1,190.40	2,894	6,179
1,187.90	1,311	923	1,190.45	2,926	6,325
1,187.95	1,343	990	1,190.50	2,957	6,472
1,188.00	1,374	1,058	1,190.55	2,989	6,621
1,188.05	1,406	1,127	1,190.60	3,021	6,771
1,188.10	1,438	1,198	1,190.65	3,052	6,923
1,188.15	1,469	1,271	1,190.70	3,084	7,076
1,188.20	1,501	1,345	1,190.75	3,116	7,231
1,188.25	1,533	1,421	1,190.80	3,147	7,388
1,188.30	1,564	1,498	1,190.85	3,179	7,546
1,188.35	1,596	1,577	1,190.90	3,210	7,705
1,188.40	1,627	1,658	1,190.95	3,242	7,867
1,188.45	1,659	1,740	1,191.00	3,274	8,030
1,188.50	1,691	1,824	1,191.05	3,305	8,194
1,188.55	1,722	1,909	1,191.10	3,337	8,360
1,188.60	1,754	1,996	1,191.15	3,369	8,528
1,188.65	1,786	2,085	1,191.20	3,400	8,697
1,188.70	1,817	2,175	1,191.25	3,432	8,868
1,188.75	1,849	2,266	1,191.30	3,464	9,040
1,188.80	1,881	2,360	1,191.35	3,495	9,214
1,188.85	1,912	2,454	1,191.40	3,527	9,390
1,188.90	1,944	2,551	1,191.45	3,559	9,567
1,188.95	1,976	2,649	1,191.50	3,590	9,746
1,189.00	2,007	2,748	1,191.55	3,622	9,926
1,189.05	2,039	2,850	1,191.60	3,654	10,108
1,189.10	2,071	2,952	1,191.65	3,685	10,291
1,189.15	2,102	3,057	1,191.70	3,717	10,476
1,189.20	2,134	3,163	1,191.75	3,749	10,663
1,189.25	2,166	3,270	1,191.80	3,780	10,851
1,189.30	2,197	3,379	1,191.85	3,812	11,041
1,189.35	2,229	3,490	1,191.90	3,844	11,232
1,189.40	2,261	3,602	1,191.95	3,875	11,425
1,189.45	2,292	3,716	1,192.00	3,907	11,620
1,189.50	2,324	3,831			

Summary for Pond P3E: Pond 3E

Inflow Area = 2.780 ac, 19.06% Impervious, Inflow Depth = 3.27" for 100 YR event
 Inflow = 14.19 cfs @ 12.13 hrs, Volume= 0.757 af
 Outflow = 7.12 cfs @ 12.25 hrs, Volume= 0.757 af, Atten= 50%, Lag= 7.2 min
 Primary = 4.80 cfs @ 12.25 hrs, Volume= 0.380 af
 Routed to Link 4L : Post - North
 Secondary = 0.39 cfs @ 12.25 hrs, Volume= 0.361 af
 Tertiary = 1.93 cfs @ 12.25 hrs, Volume= 0.016 af

Routing by Stor-Ind method, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs
 Peak Elev= 1,219.11' @ 12.25 hrs Surf.Area= 4,661 sf Storage= 11,171 cf

Plug-Flow detention time= 107.5 min calculated for 0.757 af (100% of inflow)
 Center-of-Mass det. time= 107.5 min (922.2 - 814.6)

Volume	Invert	Avail.Storage	Storage Description
#1	1,216.00'	15,578 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,216.00	2,517	0	0
1,220.00	5,272	15,578	15,578

Device	Routing	Invert	Outlet Devices
#1	Primary	1,217.00'	12.0" Round Culvert L= 32.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 1,217.00' / 1,213.00' S= 0.1250 ' /' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	1,217.00'	20.0 deg Sharp-Crested Vee/Trap Weir Cv= 2.69 (C= 3.36)
#3	Device 1	1,218.90'	24.0" x 36.0" Horiz. Orifice/Grate C= 0.600
#4	Secondary	1,216.00'	3.600 in/hr Exfiltration over Surface area
#5	Tertiary	1,219.00'	20.0' long + 4.0 ' /' SideZ x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=4.80 cfs @ 12.25 hrs HW=1,219.11' (Free Discharge)

↑ **1=Culvert** (Inlet Controls 4.80 cfs @ 6.11 fps)
 ↑ **2=Sharp-Crested Vee/Trap Weir** (Passes < 3.08 cfs potential flow)
 ↑ **3=Orifice/Grate** (Passes < 13.32 cfs potential flow)

Secondary OutFlow Max=0.39 cfs @ 12.25 hrs HW=1,219.11' (Free Discharge)

↑ **4=Exfiltration** (Exfiltration Controls 0.39 cfs)

Tertiary OutFlow Max=1.84 cfs @ 12.25 hrs HW=1,219.11' (Free Discharge)

↑ **5=Broad-Crested Rectangular Weir** (Weir Controls 1.84 cfs @ 0.82 fps)

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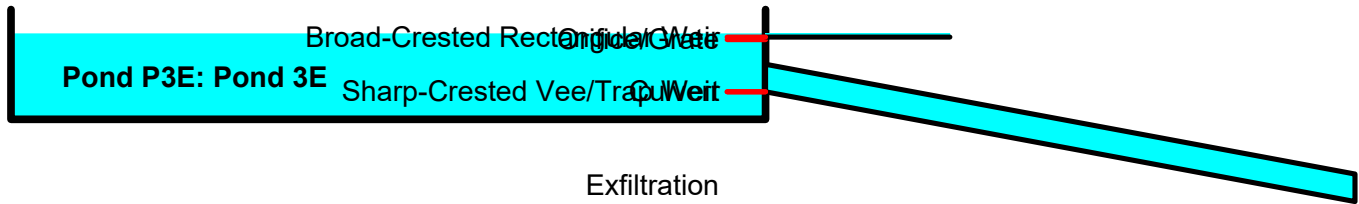
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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

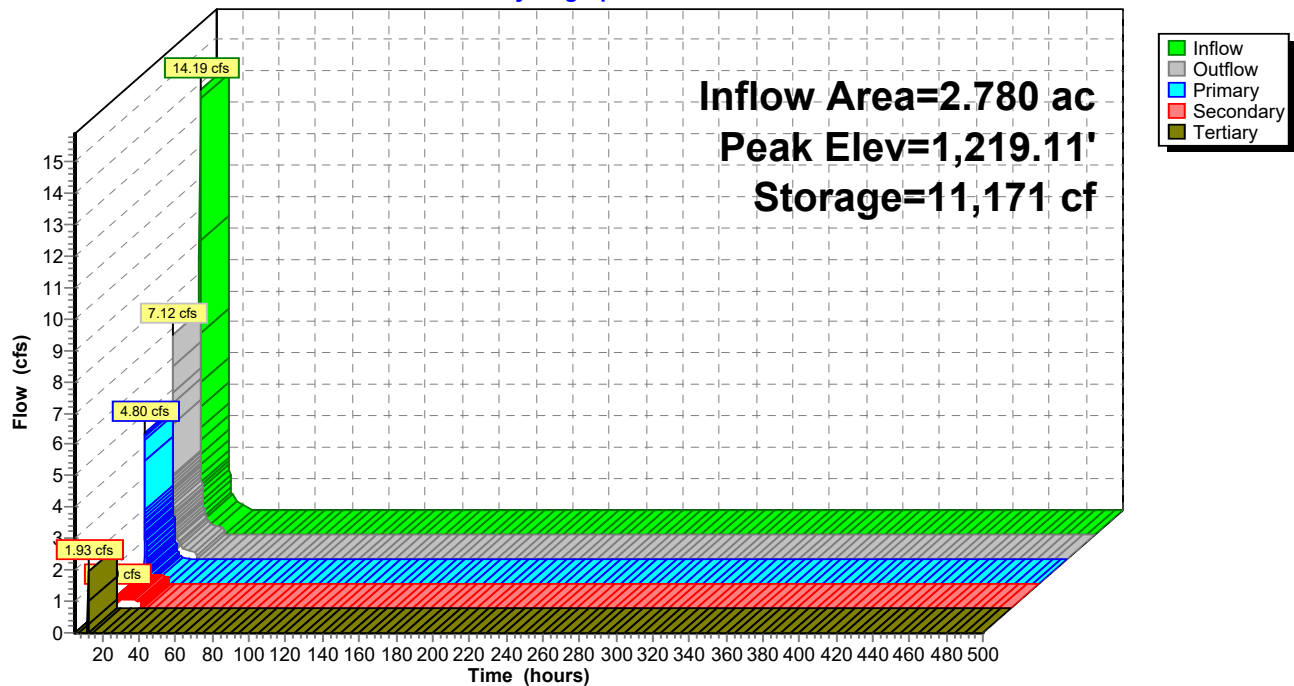
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Pond P3E: Pond 3E

Hydrograph



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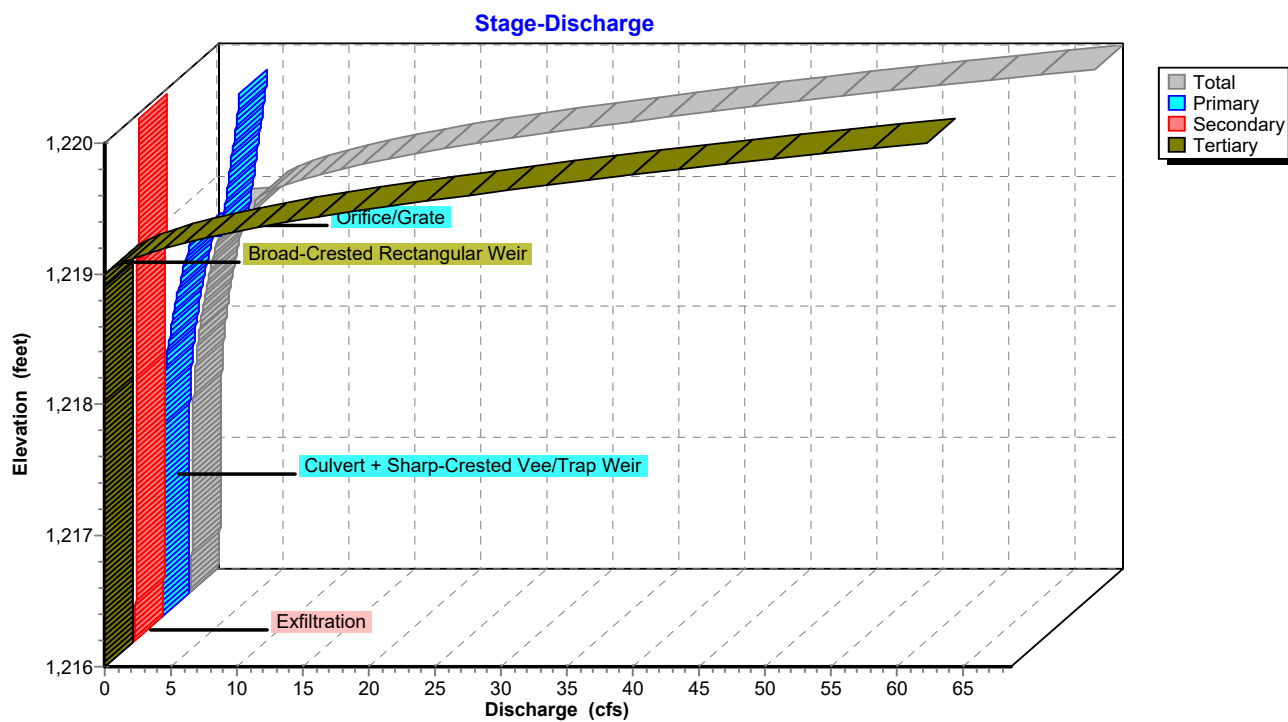
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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

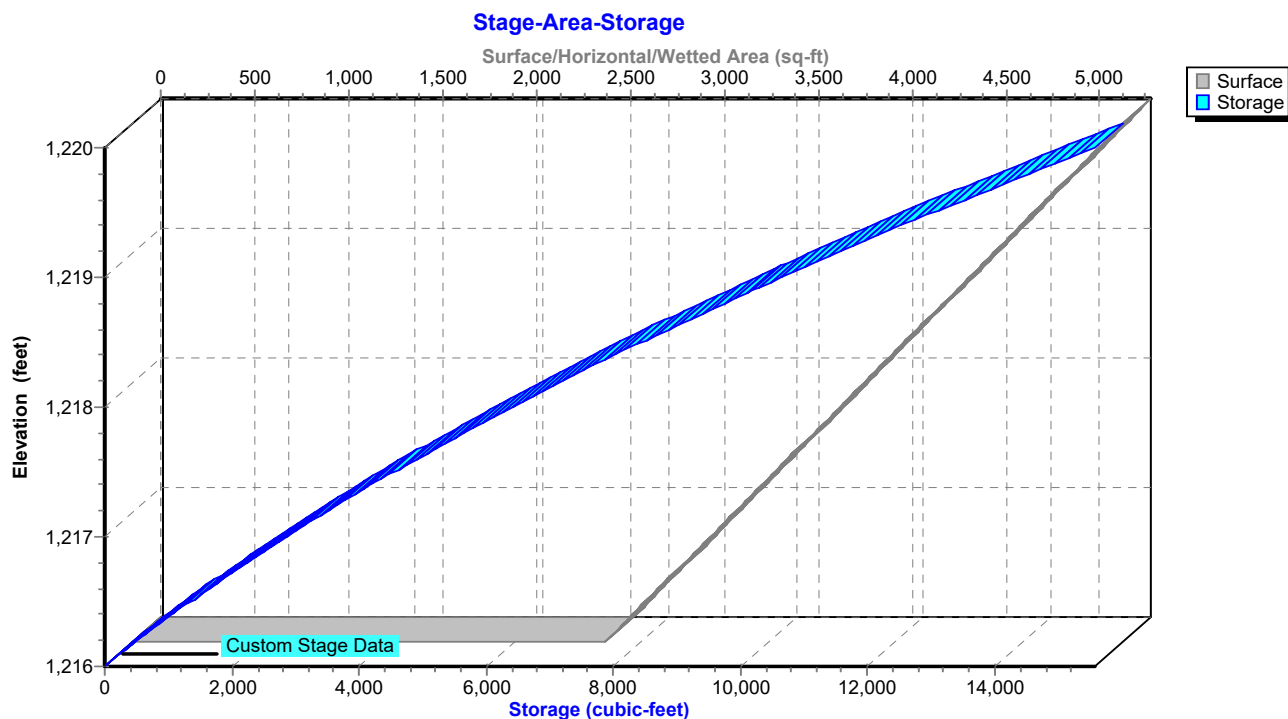
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Pond P3E: Pond 3E



Pond P3E: Pond 3E



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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Hydrograph for Pond P3E: Pond 3E

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
5.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
15.00	0.49	5,966	1,217.88	0.67	0.35	0.32	0.00
25.00	0.00	622	1,216.24	0.22	0.00	0.22	0.00
35.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
45.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
55.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
65.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
75.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
85.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
95.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
105.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
115.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
125.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
135.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
145.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
155.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
165.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
175.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
185.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
195.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
205.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
215.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
225.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
235.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
245.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
255.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
265.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
275.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
285.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
295.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
305.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
315.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
325.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
335.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
345.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
355.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
365.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
375.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
385.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
395.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
405.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
415.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
425.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
435.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
445.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
455.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
465.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
475.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
485.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00
495.00	0.00	0	1,216.00	0.00	0.00	0.00	0.00

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Stage-Discharge for Pond P3E: Pond 3E

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)	Tertiary (cfs)
1,216.00	0.00	0.00	0.00	0.00
1,216.10	0.22	0.00	0.22	0.00
1,216.20	0.22	0.00	0.22	0.00
1,216.30	0.23	0.00	0.23	0.00
1,216.40	0.23	0.00	0.23	0.00
1,216.50	0.24	0.00	0.24	0.00
1,216.60	0.24	0.00	0.24	0.00
1,216.70	0.25	0.00	0.25	0.00
1,216.80	0.26	0.00	0.26	0.00
1,216.90	0.26	0.00	0.26	0.00
1,217.00	0.27	0.00	0.27	0.00
1,217.10	0.27	0.00	0.27	0.00
1,217.20	0.29	0.01	0.28	0.00
1,217.30	0.31	0.02	0.28	0.00
1,217.40	0.34	0.05	0.29	0.00
1,217.50	0.38	0.08	0.30	0.00
1,217.60	0.43	0.13	0.30	0.00
1,217.70	0.50	0.19	0.31	0.00
1,217.80	0.58	0.27	0.31	0.00
1,217.90	0.68	0.36	0.32	0.00
1,218.00	0.80	0.47	0.32	0.00
1,218.10	0.93	0.60	0.33	0.00
1,218.20	1.08	0.75	0.34	0.00
1,218.30	1.26	0.91	0.34	0.00
1,218.40	1.45	1.10	0.35	0.00
1,218.50	1.66	1.31	0.35	0.00
1,218.60	1.89	1.54	0.36	0.00
1,218.70	2.15	1.79	0.36	0.00
1,218.80	2.43	2.06	0.37	0.00
1,218.90	2.74	2.36	0.38	0.00
1,219.00	5.01	4.63	0.38	0.00
1,219.10	6.77	4.78	0.39	1.60
1,219.20	9.92	4.93	0.39	4.60
1,219.30	14.17	5.07	0.40	8.70
1,219.40	19.40	5.21	0.40	13.78
1,219.50	25.84	5.35	0.41	20.08
1,219.60	33.40	5.48	0.42	27.51
1,219.70	41.13	5.61	0.42	35.10
1,219.80	49.59	5.74	0.43	43.42
1,219.90	58.74	5.86	0.43	52.45
1,220.00	68.59	5.98	0.44	62.18

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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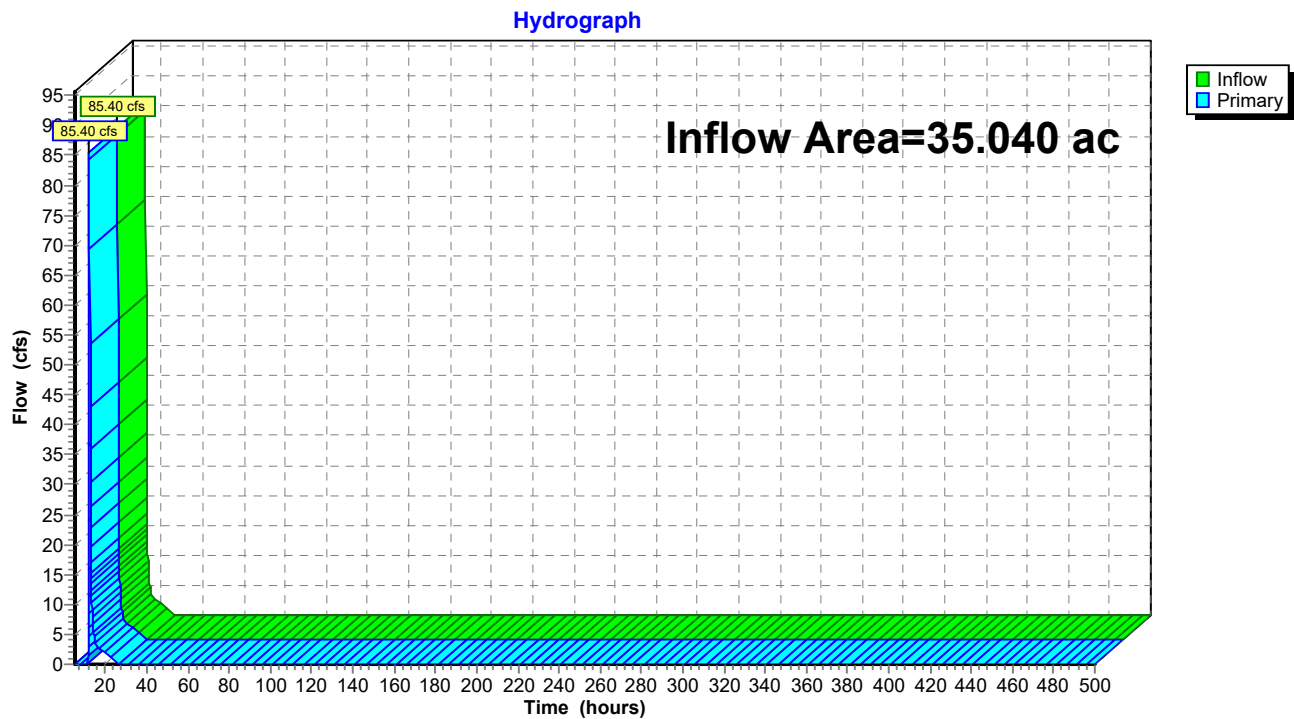
Stage-Area-Storage for Pond P3E: Pond 3E

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
1,216.00	2,517	0	1,218.55	4,273	8,658
1,216.05	2,551	127	1,218.60	4,308	8,872
1,216.10	2,586	255	1,218.65	4,342	9,088
1,216.15	2,620	385	1,218.70	4,377	9,306
1,216.20	2,655	517	1,218.75	4,411	9,526
1,216.25	2,689	651	1,218.80	4,445	9,747
1,216.30	2,724	786	1,218.85	4,480	9,971
1,216.35	2,758	923	1,218.90	4,514	10,195
1,216.40	2,793	1,062	1,218.95	4,549	10,422
1,216.45	2,827	1,202	1,219.00	4,583	10,650
1,216.50	2,861	1,345	1,219.05	4,618	10,880
1,216.55	2,896	1,489	1,219.10	4,652	11,112
1,216.60	2,930	1,634	1,219.15	4,687	11,346
1,216.65	2,965	1,782	1,219.20	4,721	11,581
1,216.70	2,999	1,931	1,219.25	4,755	11,818
1,216.75	3,034	2,081	1,219.30	4,790	12,056
1,216.80	3,068	2,234	1,219.35	4,824	12,297
1,216.85	3,102	2,388	1,219.40	4,859	12,539
1,216.90	3,137	2,544	1,219.45	4,893	12,783
1,216.95	3,171	2,702	1,219.50	4,928	13,028
1,217.00	3,206	2,861	1,219.55	4,962	13,275
1,217.05	3,240	3,023	1,219.60	4,996	13,524
1,217.10	3,275	3,185	1,219.65	5,031	13,775
1,217.15	3,309	3,350	1,219.70	5,065	14,027
1,217.20	3,344	3,516	1,219.75	5,100	14,282
1,217.25	3,378	3,684	1,219.80	5,134	14,537
1,217.30	3,412	3,854	1,219.85	5,169	14,795
1,217.35	3,447	4,026	1,219.90	5,203	15,054
1,217.40	3,481	4,199	1,219.95	5,238	15,315
1,217.45	3,516	4,374	1,220.00	5,272	15,578
1,217.50	3,550	4,550			
1,217.55	3,585	4,729			
1,217.60	3,619	4,909			
1,217.65	3,653	5,091			
1,217.70	3,688	5,274			
1,217.75	3,722	5,459			
1,217.80	3,757	5,646			
1,217.85	3,791	5,835			
1,217.90	3,826	6,025			
1,217.95	3,860	6,218			
1,218.00	3,895	6,412			
1,218.05	3,929	6,607			
1,218.10	3,963	6,804			
1,218.15	3,998	7,003			
1,218.20	4,032	7,204			
1,218.25	4,067	7,407			
1,218.30	4,101	7,611			
1,218.35	4,136	7,817			
1,218.40	4,170	8,024			
1,218.45	4,204	8,234			
1,218.50	4,239	8,445			

Summary for Link 1L: Total Pre - Development

Inflow Area = 35.040 ac, 0.00% Impervious, Inflow Depth = 1.90" for 100 YR event
Inflow = 85.40 cfs @ 12.18 hrs, Volume= 5.547 af
Primary = 85.40 cfs @ 12.18 hrs, Volume= 5.547 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 1L: Total Pre - Development

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Hydrograph for Link 1L: Total Pre - Development

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	265.00	0.00	0.00	0.00
15.00	4.55	0.00	4.55	270.00	0.00	0.00	0.00
20.00	1.73	0.00	1.73	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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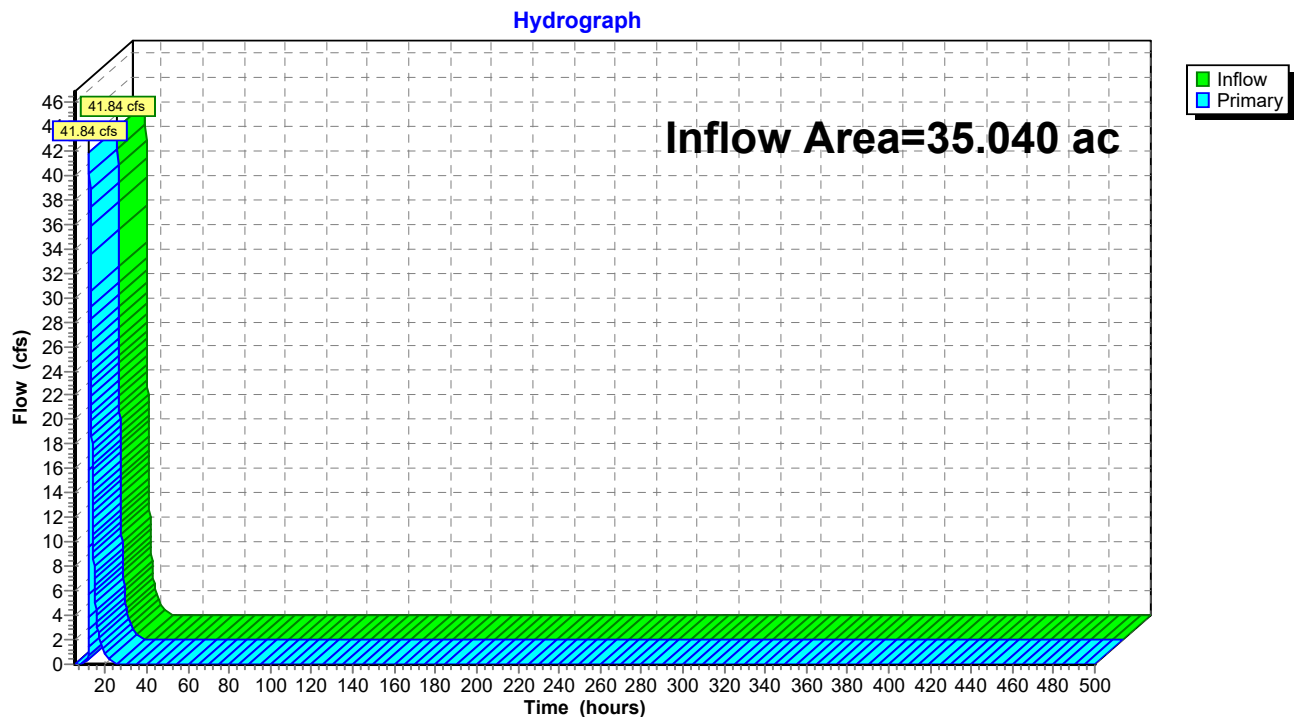
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Summary for Link 2L: Total Post - Development

Inflow Area = 35.040 ac, 19.66% Impervious, Inflow Depth = 1.86" for 100 YR event
Inflow = 41.84 cfs @ 12.21 hrs, Volume= 5.425 af
Primary = 41.84 cfs @ 12.21 hrs, Volume= 5.425 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 2L: Total Post - Development



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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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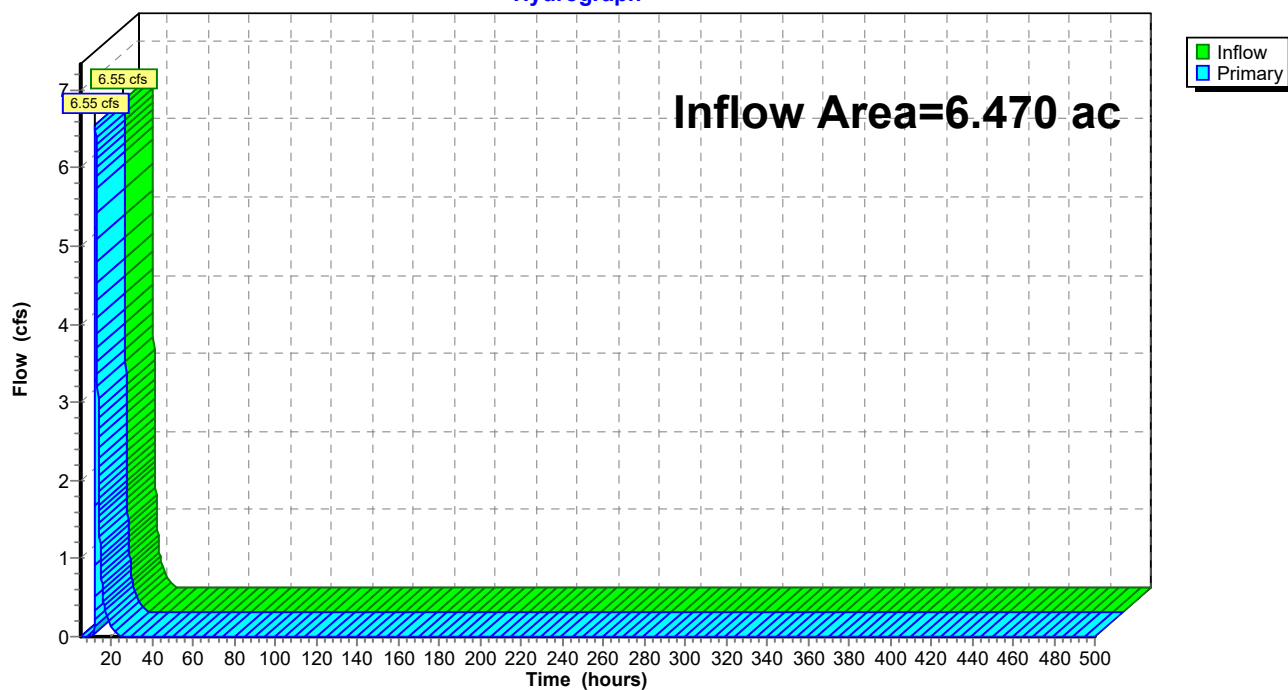
Hydrograph for Link 2L: Total Post - Development

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.09	0.00	0.09	265.00	0.00	0.00	0.00
15.00	5.37	0.00	5.37	270.00	0.00	0.00	0.00
20.00	0.78	0.00	0.78	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

Summary for Link 3L: Post - South

Inflow Area = 6.470 ac, 18.70% Impervious, Inflow Depth = 1.68" for 100 YR event
Inflow = 6.55 cfs @ 12.25 hrs, Volume= 0.907 af
Primary = 6.55 cfs @ 12.25 hrs, Volume= 0.907 af, Atten= 0%, Lag= 0.0 min
Routed to Link 2L : Total Post - Development

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 3L: Post - South**Hydrograph**

250128900_swm

Prepared by Excel Engineering

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

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Hydrograph for Link 3L: Post - South

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.00	0.00	0.00	265.00	0.00	0.00	0.00
15.00	0.88	0.00	0.88	270.00	0.00	0.00	0.00
20.00	0.11	0.00	0.11	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

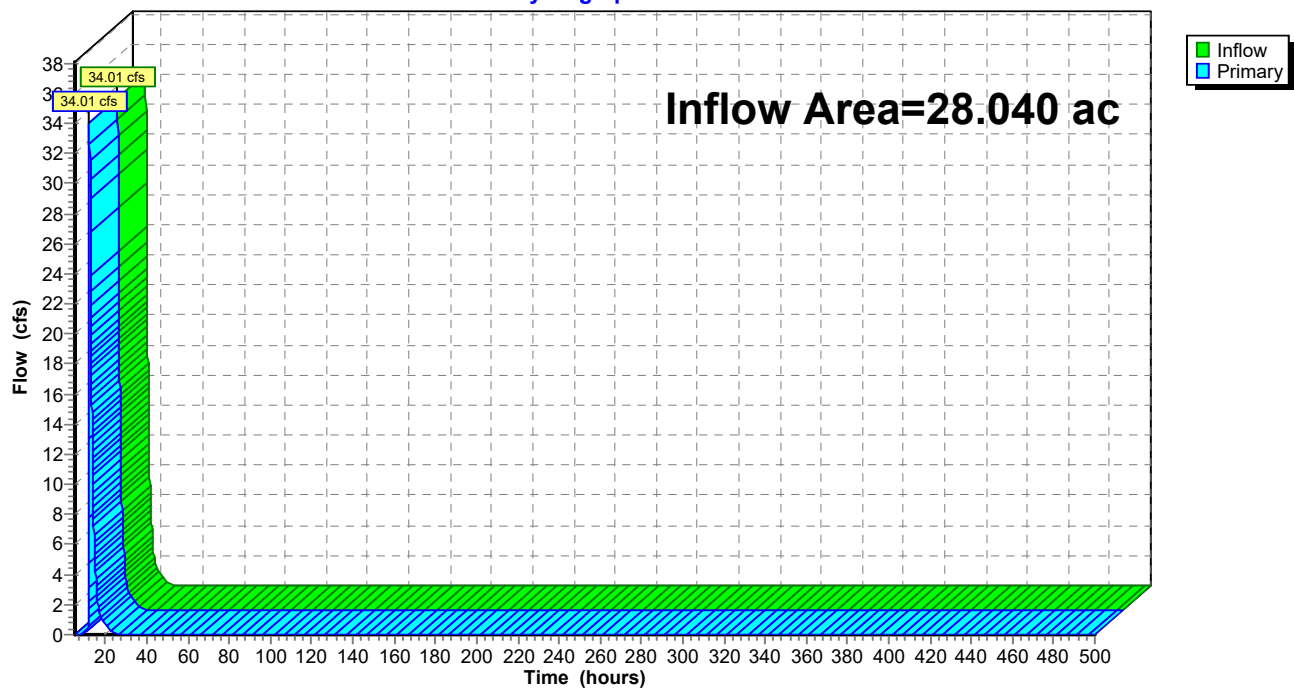
Summary for Link 4L: Post - North

Inflow Area = 28.040 ac, 20.04% Impervious, Inflow Depth = 1.89" for 100 YR event
Inflow = 34.01 cfs @ 12.21 hrs, Volume= 4.411 af
Primary = 34.01 cfs @ 12.21 hrs, Volume= 4.411 af, Atten= 0%, Lag= 0.0 min
Routed to Link 2L : Total Post - Development

Primary outflow = Inflow, Time Span= 5.00-500.00 hrs, dt= 0.05 hrs

Link 4L: Post - North

Hydrograph



250128900_swm

Prepared by Excel Engineering

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Featherstone Rise
MSE 24-hr 4 100 YR Rainfall=6.10"

Printed 2/23/2026

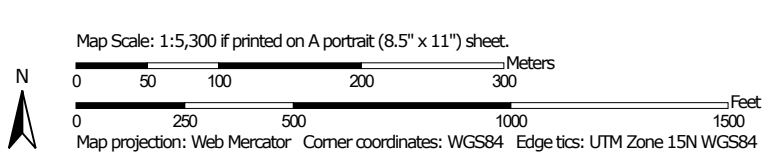
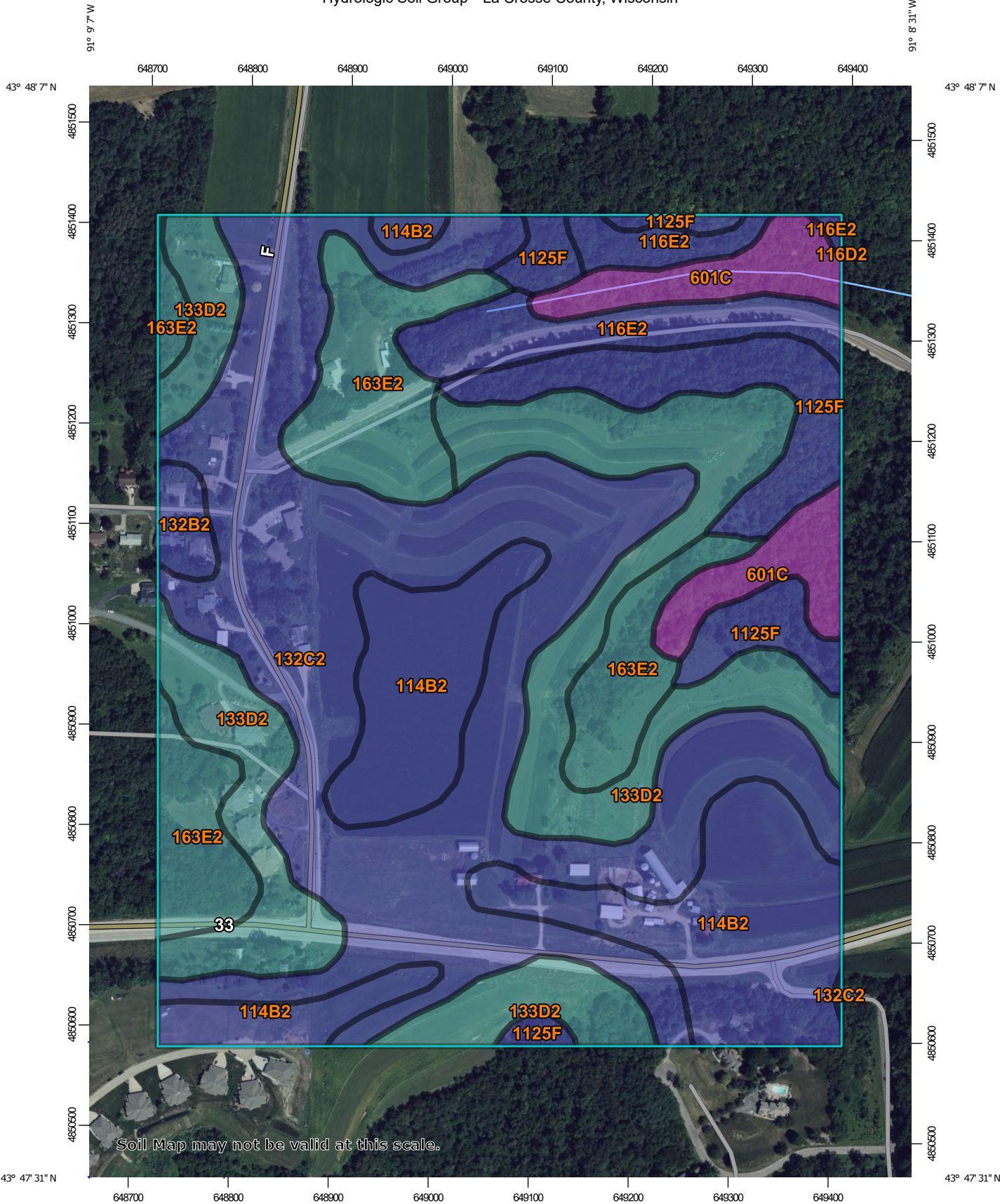
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Hydrograph for Link 4L: Post - North

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	0.00	0.00	260.00	0.00	0.00	0.00
10.00	0.09	0.00	0.09	265.00	0.00	0.00	0.00
15.00	4.41	0.00	4.41	270.00	0.00	0.00	0.00
20.00	0.64	0.00	0.64	275.00	0.00	0.00	0.00
25.00	0.00	0.00	0.00	280.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	285.00	0.00	0.00	0.00
35.00	0.00	0.00	0.00	290.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	295.00	0.00	0.00	0.00
45.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	305.00	0.00	0.00	0.00
55.00	0.00	0.00	0.00	310.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	315.00	0.00	0.00	0.00
65.00	0.00	0.00	0.00	320.00	0.00	0.00	0.00
70.00	0.00	0.00	0.00	325.00	0.00	0.00	0.00
75.00	0.00	0.00	0.00	330.00	0.00	0.00	0.00
80.00	0.00	0.00	0.00	335.00	0.00	0.00	0.00
85.00	0.00	0.00	0.00	340.00	0.00	0.00	0.00
90.00	0.00	0.00	0.00	345.00	0.00	0.00	0.00
95.00	0.00	0.00	0.00	350.00	0.00	0.00	0.00
100.00	0.00	0.00	0.00	355.00	0.00	0.00	0.00
105.00	0.00	0.00	0.00	360.00	0.00	0.00	0.00
110.00	0.00	0.00	0.00	365.00	0.00	0.00	0.00
115.00	0.00	0.00	0.00	370.00	0.00	0.00	0.00
120.00	0.00	0.00	0.00	375.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	380.00	0.00	0.00	0.00
130.00	0.00	0.00	0.00	385.00	0.00	0.00	0.00
135.00	0.00	0.00	0.00	390.00	0.00	0.00	0.00
140.00	0.00	0.00	0.00	395.00	0.00	0.00	0.00
145.00	0.00	0.00	0.00	400.00	0.00	0.00	0.00
150.00	0.00	0.00	0.00	405.00	0.00	0.00	0.00
155.00	0.00	0.00	0.00	410.00	0.00	0.00	0.00
160.00	0.00	0.00	0.00	415.00	0.00	0.00	0.00
165.00	0.00	0.00	0.00	420.00	0.00	0.00	0.00
170.00	0.00	0.00	0.00	425.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	430.00	0.00	0.00	0.00
180.00	0.00	0.00	0.00	435.00	0.00	0.00	0.00
185.00	0.00	0.00	0.00	440.00	0.00	0.00	0.00
190.00	0.00	0.00	0.00	445.00	0.00	0.00	0.00
195.00	0.00	0.00	0.00	450.00	0.00	0.00	0.00
200.00	0.00	0.00	0.00	455.00	0.00	0.00	0.00
205.00	0.00	0.00	0.00	460.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	465.00	0.00	0.00	0.00
215.00	0.00	0.00	0.00	470.00	0.00	0.00	0.00
220.00	0.00	0.00	0.00	475.00	0.00	0.00	0.00
225.00	0.00	0.00	0.00	480.00	0.00	0.00	0.00
230.00	0.00	0.00	0.00	485.00	0.00	0.00	0.00
235.00	0.00	0.00	0.00	490.00	0.00	0.00	0.00
240.00	0.00	0.00	0.00	495.00	0.00	0.00	0.00
245.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00				
255.00	0.00	0.00	0.00				

Appendix D: Web Soil Survey Map

Hydrologic Soil Group—La Crosse County, Wisconsin



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 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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: La Crosse County, Wisconsin
 Survey Area Data: Version 24, Sep 10, 2025

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

Date(s) aerial images were photographed: Jul 31, 2020—Sep 2, 2020

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
114B2	Mt. Carroll silt loam, 2 to 6 percent slopes, moderately eroded	B	22.5	16.0%
116D2	Churchtown silt loam, 12 to 20 percent slopes, moderately eroded	B	0.0	0.0%
116E2	Churchtown silt loam, 20 to 30 percent slopes, moderately eroded	B	7.2	5.1%
132B2	Brinkman silt loam, 2 to 6 percent slopes, moderately eroded	B	1.4	1.0%
132C2	Brinkman silt loam, 6 to 12 percent slopes, moderately eroded	B	47.1	33.5%
133D2	Valton silt loam, 12 to 20 percent slopes, moderately eroded	C	28.1	20.0%
163E2	Elbaville silt loam, 20 to 30 percent slopes, moderately eroded	C	16.3	11.6%
601C	Beavercreek cobbly fine sandy loam, 3 to 12 percent slopes, occasionally flooded	A	7.0	4.9%
1125F	Dorerton, very stony-Elbaville complex, 30 to 60 percent slopes	B	11.1	7.9%
Totals for Area of Interest			140.6	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

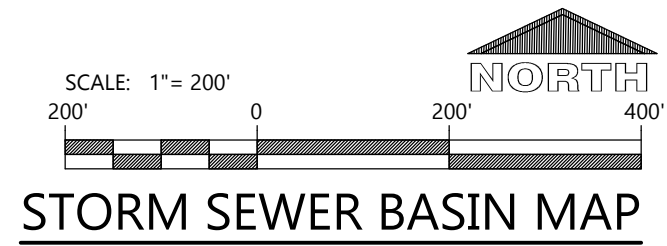
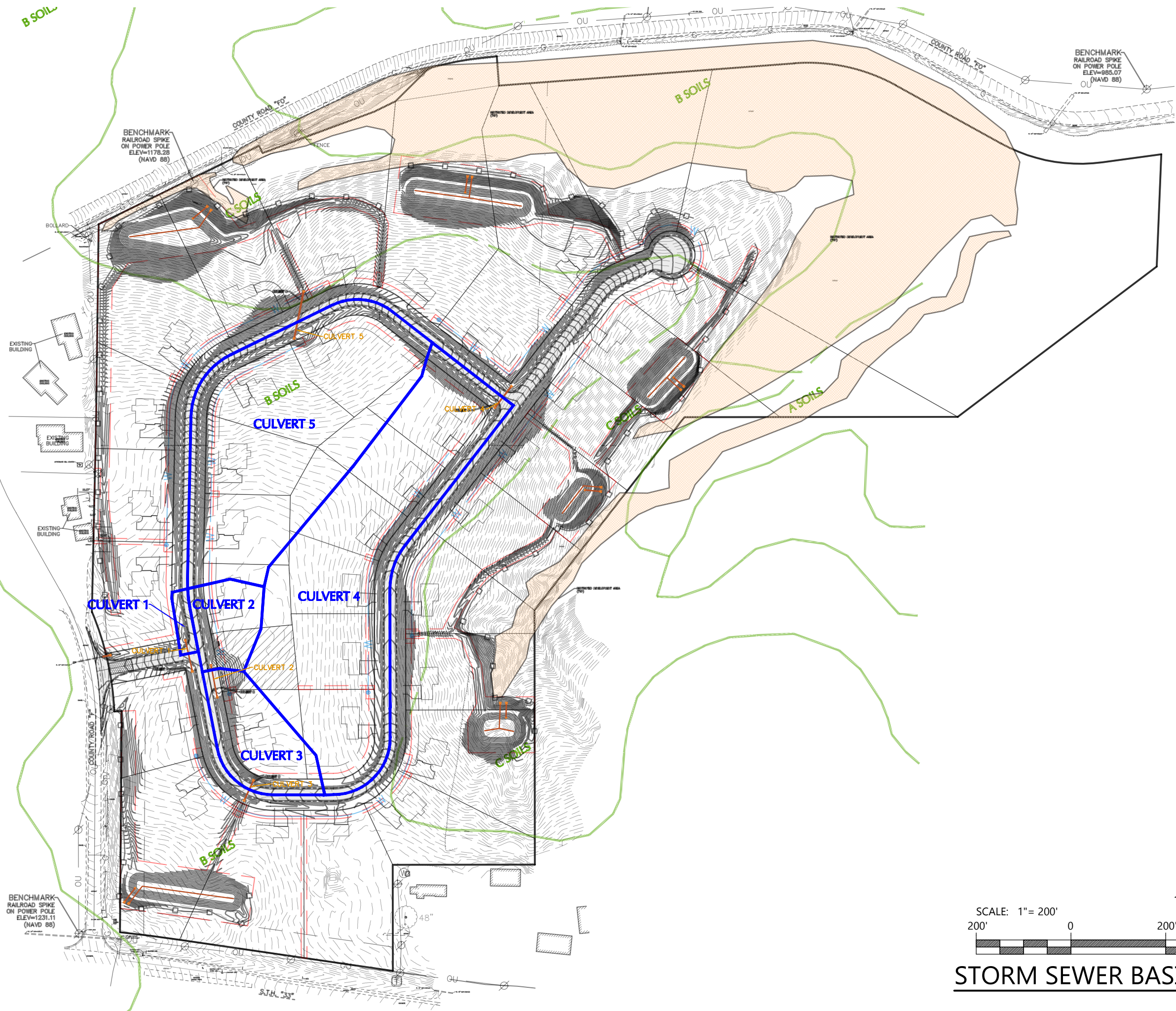
Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Appendix E: Storm Sewer Basin Map

C SOILS



Appendix F: Storm Sewer Culvert Calculations

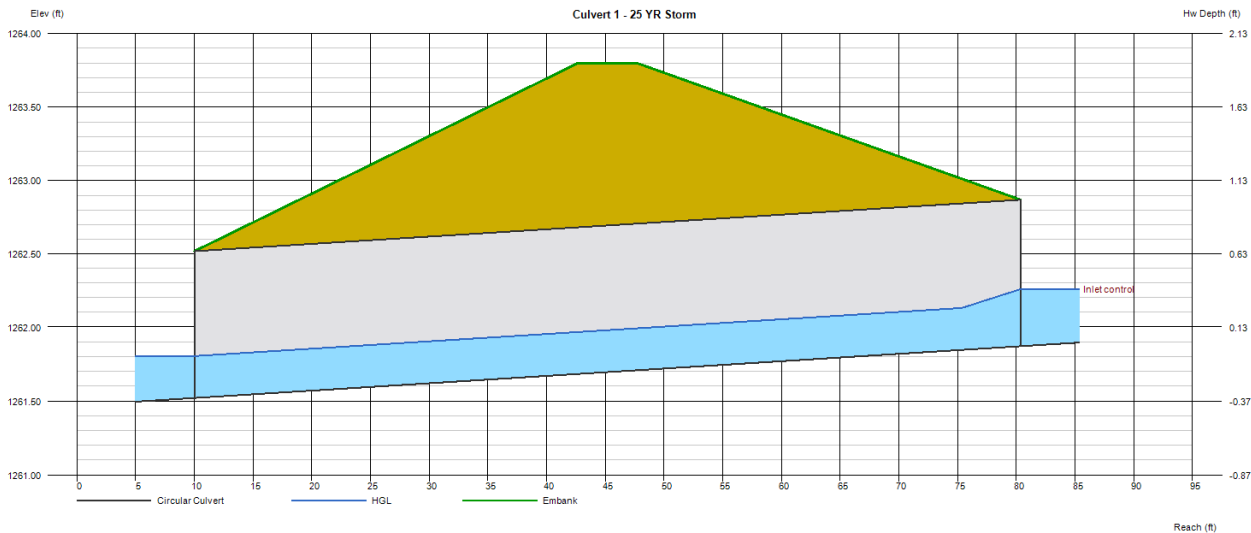
Culvert Report

Culvert 1 - 25 YR Storm

Invert Elev Dn (ft)	=	1261.52
Pipe Length (ft)	=	70.35
Slope (%)	=	0.50
Invert Elev Up (ft)	=	1261.87
Rise (in)	=	12.0
Shape	=	Circular
Span (in)	=	12.0
No. Barrels	=	1
n-Value	=	0.024
Culvert Type	=	Circular Corrugate Metal Pipe
Culvert Entrance	=	Headwall
Coeff. K,M,c,Y,k	=	0.0078, 2, 0.0379, 0.69, 0.5

Embankment	
Top Elevation (ft)	= 1263.80
Top Width (ft)	= 5.00
Crest Width (ft)	= 5.00

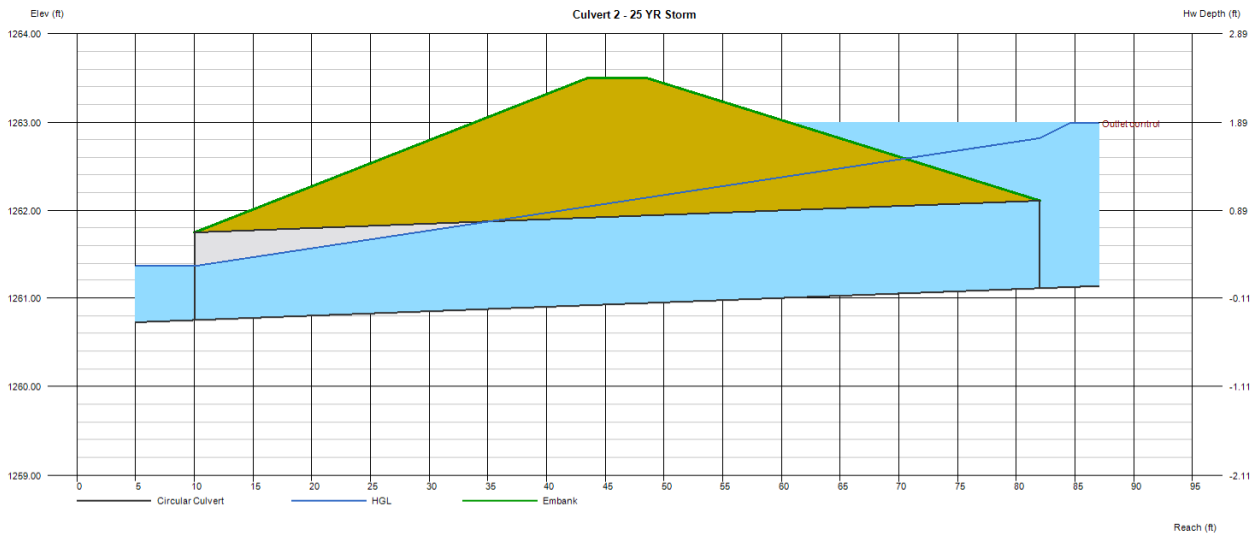
Calculations	
Qmin (cfs)	= 0.47
Qmax (cfs)	= 0.47
Tailwater Elev (ft)	= 0.00
Highlighted	
Qtotal (cfs)	= 0.47
Qpipe (cfs)	= 0.47
Qovertop (cfs)	= 0.00
Veloc Dn (ft/s)	= 2.56
Veloc Up (ft/s)	= 2.56
HGL Dn (ft)	= 1261.80
HGL Up (ft)	= 1262.15
Hw Elev (ft)	= 1262.26
Hw/D (ft)	= 0.39
Flow Regime	= Inlet Control



Culvert Report

Culvert 2 - 25 YR Storm

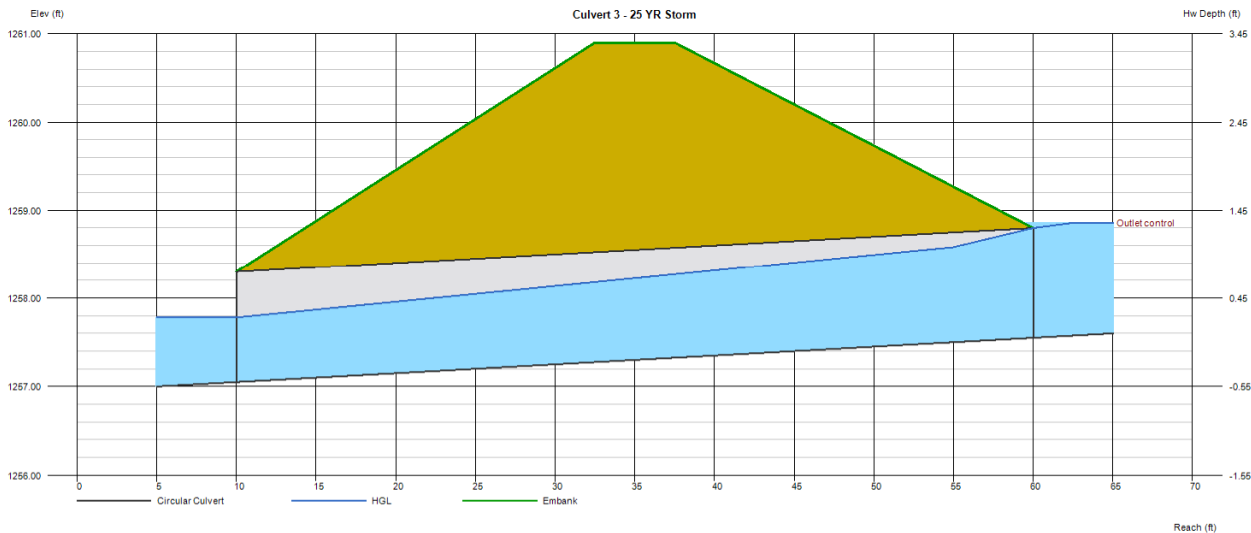
Invert Elev Dn (ft)	= 1260.75	Calculations	
Pipe Length (ft)	= 72.00	Qmin (cfs)	= 2.11
Slope (%)	= 0.50	Qmax (cfs)	= 2.11
Invert Elev Up (ft)	= 1261.11	Tailwater Elev (ft)	= 0.00
Rise (in)	= 12.0		
Shape	= Circular	Highlighted	
Span (in)	= 12.0	Qtotal (cfs)	= 2.11
No. Barrels	= 1	Qpipe (cfs)	= 2.11
n-Value	= 0.024	Qovertop (cfs)	= 0.00
Culvert Type	= Circular Corrugate Metal Pipe	Veloc Dn (ft/s)	= 4.13
Culvert Entrance	= Headwall	Veloc Up (ft/s)	= 2.69
Coeff. K,M,c,Y,k	= 0.0078, 2, 0.0379, 0.69, 0.5	HGL Dn (ft)	= 1261.37
		HGL Up (ft)	= 1262.82
		Hw Elev (ft)	= 1262.99
		Hw/D (ft)	= 1.88
		Flow Regime	= Outlet Control
Embankment			
Top Elevation (ft)	= 1263.50		
Top Width (ft)	= 5.00		
Crest Width (ft)	= 5.00		



Culvert Report

Culvert 3 - 25 YR Storm

Invert Elev Dn (ft)	= 1257.05	Calculations	
Pipe Length (ft)	= 50.00	Qmin (cfs)	= 3.29
Slope (%)	= 1.00	Qmax (cfs)	= 3.29
Invert Elev Up (ft)	= 1257.55	Tailwater Elev (ft)	= 0.00
Rise (in)	= 15.0		
Shape	= Circular	Highlighted	
Span (in)	= 15.0	Qtotal (cfs)	= 3.29
No. Barrels	= 1	Qpipe (cfs)	= 3.29
n-Value	= 0.024	Qovertop (cfs)	= 0.00
Culvert Type	= Circular Corrugate Metal Pipe	Veloc Dn (ft/s)	= 4.42
Culvert Entrance	= Headwall	Veloc Up (ft/s)	= 2.83
Coeff. K,M,c,Y,k	= 0.0078, 2, 0.0379, 0.69, 0.5	HGL Dn (ft)	= 1257.78
		HGL Up (ft)	= 1258.67
		Hw Elev (ft)	= 1258.86
		Hw/D (ft)	= 1.05
		Flow Regime	= Outlet Control
Embankment			
Top Elevation (ft)	= 1260.90		
Top Width (ft)	= 5.00		
Crest Width (ft)	= 5.00		



Culvert Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc.

Monday, Feb 23 2026

Culvert 4 - 25 YR Storm

Invert Elev Dn (ft)	= 1231.15
Pipe Length (ft)	= 60.00
Slope (%)	= 2.25
Invert Elev Up (ft)	= 1232.50
Rise (in)	= 24.0
Shape	= Circular
Span (in)	= 24.0
No. Barrels	= 1
n-Value	= 0.024
Culvert Type	= Circular Corrugate Metal Pipe
Culvert Entrance	= Headwall
Coeff. K,M,c,Y,k	= 0.0078, 2, 0.0379, 0.69, 0.5

Embankment

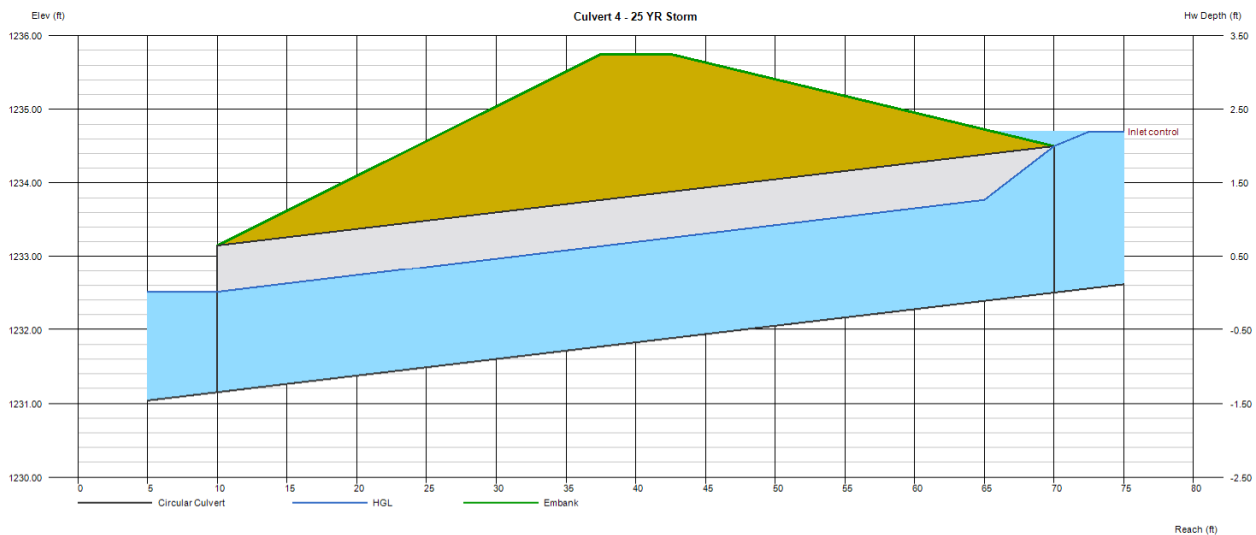
Top Elevation (ft)	= 1235.75
Top Width (ft)	= 5.00
Crest Width (ft)	= 5.00

Calculations

Qmin (cfs)	= 14.78
Qmax (cfs)	= 14.78
Tailwater Elev (ft)	= 0.00

Highlighted

Qtotal (cfs)	= 14.78
Qpipe (cfs)	= 14.78
Qovertop (cfs)	= 0.00
Veloc Dn (ft/s)	= 6.49
Veloc Up (ft/s)	= 6.37
HGL Dn (ft)	= 1232.51
HGL Up (ft)	= 1233.89
Hw Elev (ft)	= 1234.70
Hw/D (ft)	= 1.10
Flow Regime	= Inlet Control



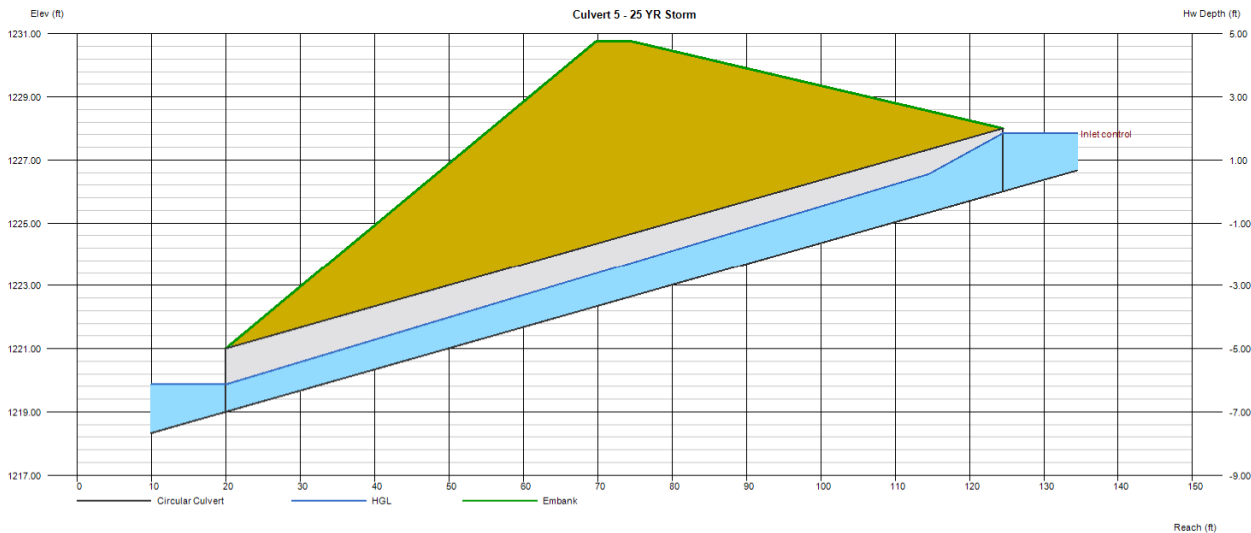
Culvert Report

Culvert 5 - 25 YR Storm

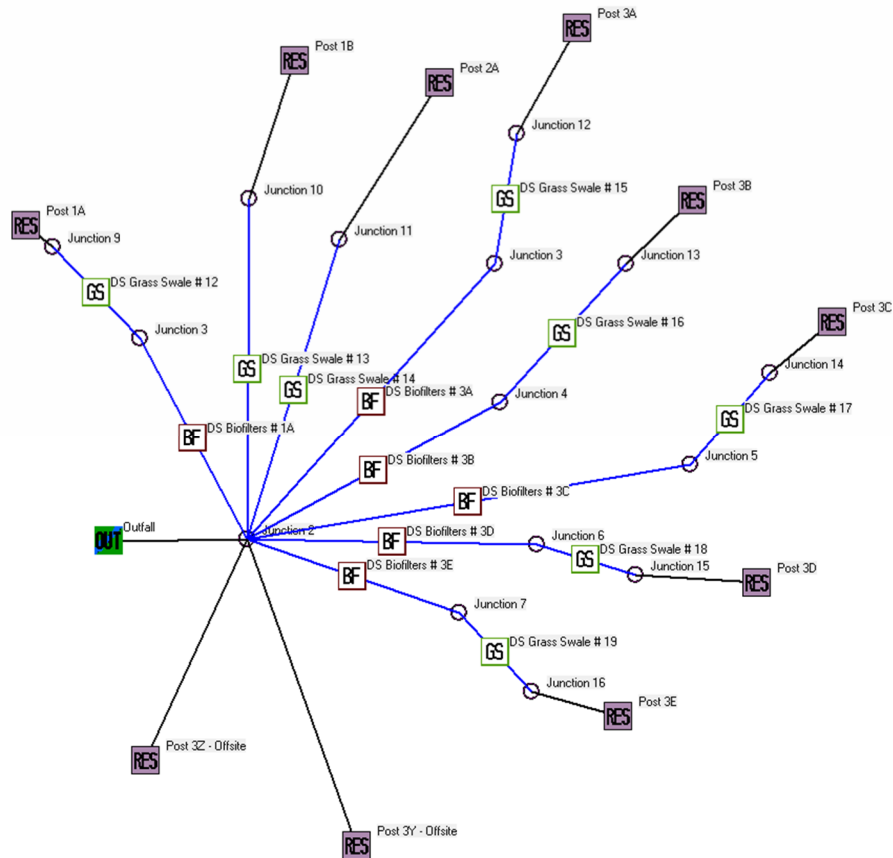
Invert Elev Dn (ft)	=	1219.00
Pipe Length (ft)	=	104.50
Slope (%)	=	6.70
Invert Elev Up (ft)	=	1226.00
Rise (in)	=	24.0
Shape	=	Circular
Span (in)	=	24.0
No. Barrels	=	1
n-Value	=	0.024
Culvert Type	=	Circular Corrugate Metal Pipe
Culvert Entrance	=	Headwall
Coeff. K,M,c,Y,k	=	0.0078, 2, 0.0379, 0.69, 0.5

Embankment	
Top Elevation (ft)	= 1230.75
Top Width (ft)	= 5.00
Crest Width (ft)	= 5.00

Calculations	
Qmin (cfs)	= 12.22
Qmax (cfs)	= 12.22
Tailwater Elev (ft)	= 0.00
Highlighted	
Qtotal (cfs)	= 12.22
Qpipe (cfs)	= 12.22
Qovertop (cfs)	= 0.00
Veloc Dn (ft/s)	= 9.39
Veloc Up (ft/s)	= 5.89
HGL Dn (ft)	= 1219.87
HGL Up (ft)	= 1227.26
Hw Elev (ft)	= 1227.85
Hw/D (ft)	= 0.92
Flow Regime	= Inlet Control



Appendix G: SLAMM Basin Map & Input/ Output Information



Outfall Output Summary

	Runoff Volume (cu. ft.)	Percent Runoff Reduction	Runoff Coefficient (Rv)	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Particulate Solids Reduction
Total of All Land Uses without Controls	377181		0.09	245.5	5780	
Outfall Total with Controls	304336	19.31 %	0.07	60.50	1150	80.10 %
Current File Output: Annualized Total After Outfall Controls	305172	Years in Model Run:	1.00		1153	

Print Output Summary to .csv File

Print Output Summary to Text File

Print Output Summary to Printer

Total Area Modeled (ac)

34.890

A biofilter will clog. Review biofilter control practice summary tab to determine which biofilter it is.

Total Control Practice Costs

Capital Cost	N/A
Land Cost	N/A
Annual Maintenance Cost	N/A
Present Value of All Costs	N/A
Annualized Value of All Costs	N/A

Perform Outfall
Flow Duration
Curve Calculations

Receiving Water Impacts Due To Stormwater Runoff (CWP Impervious Cover Model)

	Calculated Rv	Approximate Urban Stream Classification
Without Controls	0.09	Good
With Controls	0.07	Good

Input Data

Data file name: \\job-files\2025 Job Files\250128900 Weber - Subdivision Planning - Town of Shelby WI\250128904 Civil\storm water report and calculations\slamm\Current - slamm.mdb

WinSLAMM Version 10.5.0

Rain file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WisReg - Madison WI 1981.ran

Particulate Solids Concentration file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\v10.1 WI_AVG01.pscx

Runoff Coefficient file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_SL06 Dec06.rsvx

Residential Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_Res and Other Urban Dec06.std

Institutional Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_Com Inst Indust Dec06.std

Commercial Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_Com Inst Indust Dec06.std

Industrial Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_Com Inst Indust Dec06.std

Other Urban Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_Res and Other Urban Dec06.std

Freeway Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\Freeway Dec06.std

Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False

Pollutant Relative Concentration file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_GEO03.ppdxd

Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv

Cost Data file name:

Seed for random number generator: -42

Study period starting date: 01/01/81 Study period ending date: 12/31/81

Start of Winter Season: 12/02 End of Winter Season: 03/12

Date: 02-23-2026 Time: 12:35:52

Site information:

LU# 1 - Residential: Post 1A Total area (ac): 6.030

1 - Roofs 1: 0.480 ac. Pitched Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

25 - Driveways 1: 0.250 ac. Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

31 - Sidewalks 1: 0.090 ac. Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

37 - Streets 1: 0.340 ac. Smooth Street Length = 0.1169 mi Street Width = 23.99487 ft Street Edges = 2

Default St. Dirt Accum. Annual Winter Load = 2500 lbs Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

45 - Large Landscaped Areas 1: 4.870 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 2 - Residential: Post 1B Total area (ac): 0.440

37 - Streets 1: 0.050 ac. Smooth Street Length = 0.0172 mi Street Width = 23.98256 ft Street Edges = 2

Default St. Dirt Accum. Annual Winter Load = 2500 lbs Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

45 - Large Landscaped Areas 1: 0.390 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 3 - Residential: Post 2A Total area (ac): 0.520

37 - Streets 1: 0.050 ac. Smooth Street Length = 0.0172 mi Street Width = 23.98256 ft Street Edges = 2

Default St. Dirt Accum. Annual Winter Load = 2500 lbs Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

45 - Large Landscaped Areas 1: 0.470 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 4 - Residential: Post 3A Total area (ac): 10.600

1 - Roofs 1: 0.800 ac. Pitched Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

25 - Driveways 1: 0.460 ac. Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

31 - Sidewalks 1: 0.150 ac. Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

37 - Streets 1: 0.560 ac. Smooth Street Length = 0.1925 mi Street Width = 24 ft Street Edges = 2

Default St. Dirt Accum. Annual Winter Load = 2500 lbs Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

45 - Large Landscaped Areas 1: 8.630 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 5 - Residential: Post 3B Total area (ac): 8.450

1 - Roofs 1: 0.720 ac. Pitched Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

25 - Driveways 1: 0.340 ac. Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

31 - Sidewalks 1: 0.130 ac. Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

37 - Streets 1: 0.490 ac. Smooth Street Length = 0.1891 mi Street Width = 21.37758 ft Street Edges = 2

Default St. Dirt Accum. Annual Winter Load = 2500 lbs Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

45 - Large Landscaped Areas 1: 6.770 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 6 - Residential: Post 3C Total area (ac): 2.380

1 - Roofs 1: 0.280 ac. Pitched Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

25 - Driveways 1: 0.120 ac. Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

31 - Sidewalks 1: 0.060 ac. Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
 37 - Streets 1: 0.110 ac. Smooth Street Length = 0.1616 mi Street Width = 5.615718 ft Street Edges = 2
 Default St. Dirt Accum. Annual Winter Load = 2500 lbs Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
 45 - Large Landscaped Areas 1: 1.810 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
 LU# 7 - Residential: Post 3D Total area (ac): 2.370
 1 - Roofs 1: 0.240 ac. Pitched Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
 25 - Driveways 1: 0.120 ac. Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
 31 - Sidewalks 1: 0.040 ac. Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
 37 - Streets 1: 0.160 ac. Smooth Street Length = 0.0619 mi Street Width = 21.32472 ft Street Edges = 2
 Default St. Dirt Accum. Annual Winter Load = 2500 lbs Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
 45 - Large Landscaped Areas 1: 1.810 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
 LU# 8 - Residential: Post 3E Total area (ac): 2.770
 1 - Roofs 1: 0.240 ac. Pitched Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
 25 - Driveways 1: 0.120 ac. Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
 31 - Sidewalks 1: 0.040 ac. Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
 37 - Streets 1: 0.120 ac. Smooth Street Length = 0.055 mi Street Width = 18 ft Street Edges = 2
 Default St. Dirt Accum. Annual Winter Load = 2500 lbs Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
 45 - Large Landscaped Areas 1: 2.250 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
 LU# 9 - Residential: Post 3Y - Offsite Total area (ac): 0.810
 1 - Roofs 1: 0.120 ac. Pitched Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
 25 - Driveways 1: 0.080 ac. Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
 31 - Sidewalks 1: 0.010 ac. Disconnected Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
 37 - Streets 1: 0.080 ac. Smooth Street Length = 0.0413 mi Street Width = 15.98063 ft Street Edges = 2
 Default St. Dirt Accum. Annual Winter Load = 2500 lbs Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
 45 - Large Landscaped Areas 1: 0.520 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
 LU# 10 - Residential: Post 3Z - Offsite Total area (ac): 0.520
 45 - Large Landscaped Areas 1: 0.520 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

Control Practice 1: Biofilter CP# 1 (DS) - DS Biofilters # 1A

1. Top area (square feet) = 11677
2. Bottom area (square feet) = 4186
3. Depth (ft): 7
4. Biofilter width (ft) - for Cost Purposes Only: 10
5. Infiltration rate (in/hr) = 0.02
6. Random infiltration rate generation? No
7. Infiltration rate fraction (side): 0.01
8. Infiltration rate fraction (bottom): 1
9. Depth of biofilter that is rock filled (ft) 0
10. Porosity of rock filled volume = 0
11. Engineered soil infiltration rate: 3.6
12. Engineered soil depth (ft) = 2
13. Engineered soil porosity = 0.27
14. Percent solids reduction due to flow through engineered soil = 80
15. Biofilter peak to average flow ratio = 3.8
16. Number of biofiltration control devices = 1
17. Particle size distribution file: Not needed - calculated by program
18. Initial water surface elevation (ft): 0

Soil Data	Soil Type Fraction in Eng. Soil
User-Defined Media Type	1.000
Biofilter Outlet/Discharge Characteristics:	
Outlet type: Sharp Crested Weir	
1. Weir length (ft):	0.17
2. Invert elevation above datum (ft):	3
Outlet type: Broad Crested Weir	
1. Weir crest length (ft):	20
2. Weir crest width (ft):	10
3. Height of datum to bottom of weir opening:	6
Outlet type: Vertical Stand Pipe	

1. Stand pipe diameter (ft): 1
 2. Stand pipe height above datum (ft): 5.9
- Outlet type: Drain Tile/Underdrain
1. Underdrain outlet diameter (ft): 0.5
 2. Invert elevation above datum (ft): 0.25
 3. Number of underdrain outlets: 1

Control Practice 2: Biofilter CP# 2 (DS) - DS Biofilters # 3A

1. Top area (square feet) = 15329
2. Bottom area (square feet) = 6290
3. Depth (ft): 8
4. Biofilter width (ft) - for Cost Purposes Only: 10
5. Infiltration rate (in/hr) = 0.02
6. Random infiltration rate generation? No
7. Infiltration rate fraction (side): 0.01
8. Infiltration rate fraction (bottom): 1
9. Depth of biofilter that is rock filled (ft) 0
10. Porosity of rock filled volume = 0
11. Engineered soil infiltration rate: 3.6
12. Engineered soil depth (ft) = 2
13. Engineered soil porosity = 0.27
14. Percent solids reduction due to flow through engineered soil = 80
15. Biofilter peak to average flow ratio = 3.8
16. Number of biofiltration control devices = 1
17. Particle size distribution file: Not needed - calculated by program
18. Initial water surface elevation (ft): 0

Soil Data Soil Type Fraction in Eng. Soil

User-Defined Media Type 1.000

Biofilter Outlet/Discharge Characteristics:

Outlet type: Sharp Crested Weir

1. Weir length (ft): 0.17
2. Invert elevation above datum (ft): 3

Outlet type: Broad Crested Weir

1. Weir crest length (ft): 20
2. Weir crest width (ft): 10
3. Height of datum to bottom of weir opening: 7

Outlet type: Vertical Stand Pipe

1. Stand pipe diameter (ft): 1
2. Stand pipe height above datum (ft): 6.9

Outlet type: Drain Tile/Underdrain

1. Underdrain outlet diameter (ft): 0.5
2. Invert elevation above datum (ft): 0.25
3. Number of underdrain outlets: 1

Control Practice 3: Biofilter CP# 3 (DS) - DS Biofilters # 3B

1. Top area (square feet) = 12112
2. Bottom area (square feet) = 3974
3. Depth (ft): 7
4. Biofilter width (ft) - for Cost Purposes Only: 10
5. Infiltration rate (in/hr) = 0.02
6. Random infiltration rate generation? No
7. Infiltration rate fraction (side): 0.01
8. Infiltration rate fraction (bottom): 1
9. Depth of biofilter that is rock filled (ft) 0
10. Porosity of rock filled volume = 0
11. Engineered soil infiltration rate: 3.6
12. Engineered soil depth (ft) = 2
13. Engineered soil porosity = 0.27

14. Percent solids reduction due to flow through engineered soil = 80
15. Biofilter peak to average flow ratio = 3.8
16. Number of biofiltration control devices = 1
17. Particle size distribution file: Not needed - calculated by program
18. Initial water surface elevation (ft): 0
 - Soil Data Soil Type Fraction in Eng. Soil
 - User-Defined Media Type 1.000
 - Biofilter Outlet/Discharge Characteristics:
 - Outlet type: Sharp Crested Weir
 1. Weir length (ft): 0.17
 2. Invert elevation above datum (ft): 3
 - Outlet type: Broad Crested Weir
 1. Weir crest length (ft): 20
 2. Weir crest width (ft): 10
 3. Height of datum to bottom of weir opening: 6
 - Outlet type: Vertical Stand Pipe
 1. Stand pipe diameter (ft): 1
 2. Stand pipe height above datum (ft): 5.9
 - Outlet type: Drain Tile/Underdrain
 1. Underdrain outlet diameter (ft): 0.5
 2. Invert elevation above datum (ft): 0.25
 3. Number of underdrain outlets: 1

Control Practice 4: Biofilter CP# 4 (DS) - DS Biofilters # 3C

1. Top area (square feet) = 5518
2. Bottom area (square feet) = 1905
3. Depth (ft): 6
4. Biofilter width (ft) - for Cost Purposes Only: 10
5. Infiltration rate (in/hr) = 0.1
6. Random infiltration rate generation? No
7. Infiltration rate fraction (side): 0.01
8. Infiltration rate fraction (bottom): 1
9. Depth of biofilter that is rock filled (ft) 0
10. Porosity of rock filled volume = 0
11. Engineered soil infiltration rate: 3.6
12. Engineered soil depth (ft) = 2
13. Engineered soil porosity = 0.27
14. Percent solids reduction due to flow through engineered soil = 80
15. Biofilter peak to average flow ratio = 3.8
16. Number of biofiltration control devices = 1
17. Particle size distribution file: Not needed - calculated by program
18. Initial water surface elevation (ft): 0
 - Soil Data Soil Type Fraction in Eng. Soil
 - User-Defined Media Type 1.000
 - Biofilter Outlet/Discharge Characteristics:
 - Outlet type: Sharp Crested Weir
 1. Weir length (ft): 0.17
 2. Invert elevation above datum (ft): 3
 - Outlet type: Broad Crested Weir
 1. Weir crest length (ft): 20
 2. Weir crest width (ft): 10
 3. Height of datum to bottom of weir opening: 5
 - Outlet type: Vertical Stand Pipe
 1. Stand pipe diameter (ft): 1
 2. Stand pipe height above datum (ft): 4.9
 - Outlet type: Drain Tile/Underdrain
 1. Underdrain outlet diameter (ft): 0.5
 2. Invert elevation above datum (ft): 0.25

3. Number of underdrain outlets: 1

Control Practice 5: Biofilter CP# 5 (DS) - DS Biofilters # 3D

1. Top area (square feet) = 3907
2. Bottom area (square feet) = 741
3. Depth (ft): 7
4. Biofilter width (ft) - for Cost Purposes Only: 10
5. Infiltration rate (in/hr) = 0.02
6. Random infiltration rate generation? No
7. Infiltration rate fraction (side): 0.01
8. Infiltration rate fraction (bottom): 1
9. Depth of biofilter that is rock filled (ft) 0
10. Porosity of rock filled volume = 0
11. Engineered soil infiltration rate: 3.6
12. Engineered soil depth (ft) = 2
13. Engineered soil porosity = 0.27
14. Percent solids reduction due to flow through engineered soil = 80
15. Biofilter peak to average flow ratio = 3.8
16. Number of biofiltration control devices = 1
17. Particle size distribution file: Not needed - calculated by program
18. Initial water surface elevation (ft): 0

Soil Data Soil Type Fraction in Eng. Soil

User-Defined Media Type 1.000

Biofilter Outlet/Discharge Characteristics:

Outlet type: Sharp Crested Weir

1. Weir length (ft): 0.17
2. Invert elevation above datum (ft): 3

Outlet type: Broad Crested Weir

1. Weir crest length (ft): 20
2. Weir crest width (ft): 10
3. Height of datum to bottom of weir opening: 6

Outlet type: Vertical Stand Pipe

1. Stand pipe diameter (ft): 1
2. Stand pipe height above datum (ft): 5.9

Outlet type: Drain Tile/Underdrain

1. Underdrain outlet diameter (ft): 0.5
2. Invert elevation above datum (ft): 0.25
3. Number of underdrain outlets: 1

Control Practice 6: Biofilter CP# 6 (DS) - DS Biofilters # 3E

1. Top area (square feet) = 5272
2. Bottom area (square feet) = 2517
3. Depth (ft): 6
4. Biofilter width (ft) - for Cost Purposes Only: 10
5. Infiltration rate (in/hr) = 0.02
6. Random infiltration rate generation? No
7. Infiltration rate fraction (side): 0.01
8. Infiltration rate fraction (bottom): 1
9. Depth of biofilter that is rock filled (ft) 0
10. Porosity of rock filled volume = 0
11. Engineered soil infiltration rate: 3.6
12. Engineered soil depth (ft) = 2
13. Engineered soil porosity = 0.27
14. Percent solids reduction due to flow through engineered soil = 80
15. Biofilter peak to average flow ratio = 3.8
16. Number of biofiltration control devices = 1
17. Particle size distribution file: Not needed - calculated by program
18. Initial water surface elevation (ft): 0

Soil Data Soil Type Fraction in Eng. Soil

User-Defined Media Type 1.000

Biofilter Outlet/Discharge Characteristics:

Outlet type: Sharp Crested Weir

1. Weir length (ft): 0.17
2. Invert elevation above datum (ft): 3

Outlet type: Broad Crested Weir

1. Weir crest length (ft): 20
2. Weir crest width (ft): 10
3. Height of datum to bottom of weir opening: 5

Outlet type: Vertical Stand Pipe

1. Stand pipe diameter (ft): 1
2. Stand pipe height above datum (ft): 4.9

Outlet type: Drain Tile/Underdrain

1. Underdrain outlet diameter (ft): 0.5
2. Invert elevation above datum (ft): 0.25
3. Number of underdrain outlets: 1

Control Practice 7: Grass Swale CP# 1 (DS) - DS Grass Swale # 12

Total drainage area (acres)= 6.030

Fraction of drainage area served by swales (ac) = 0.63

Swale density (ft/ac) = 262.35

Total swale length (ft) = 1582

Average swale length to outlet (ft)= 248

Typical bottom width (ft) = 2.0

Typical swale side slope (_H:1V) = 3.0

Typical longitudinal slope (ft.H/ft.V) = 0.020

Swale retardance factor: C

Typical grass height (in) = 2.0

Swale dynamic infiltration rate (in/hr)= 0.010

Typical swale depth (ft) for cost analysis (optional) = 0.0

Particle size distribution file name: Not needed - calculated by program

Use total swale length instead of swale density for infiltration calculations: True

Control Practice 8: Grass Swale CP# 2 (DS) - DS Grass Swale # 13

Total drainage area (acres)= 0.440

Fraction of drainage area served by swales (ac) = 1.00

Swale density (ft/ac) = 615.91

Total swale length (ft) = 271

Average swale length to outlet (ft)= 240

Typical bottom width (ft) = 2.0

Typical swale side slope (_H:1V) = 3.0

Typical longitudinal slope (ft.H/ft.V) = 0.035

Swale retardance factor: C

Typical grass height (in) = 2.0

Swale dynamic infiltration rate (in/hr)= 0.010

Typical swale depth (ft) for cost analysis (optional) = 0.0

Particle size distribution file name: Not needed - calculated by program

Use total swale length instead of swale density for infiltration calculations: True

Control Practice 9: Grass Swale CP# 3 (DS) - DS Grass Swale # 14

Total drainage area (acres)= 0.520

Fraction of drainage area served by swales (ac) = 1.00

Swale density (ft/ac) = 461.54

Total swale length (ft) = 240

Average swale length to outlet (ft)= 200

Typical bottom width (ft) = 2.0

Typical swale side slope (_H:1V) = 3.0

Typical longitudinal slope (ft.H/ft.V) = 0.035
Swale retardance factor: C
Typical grass height (in) = 2.0
Swale dynamic infiltration rate (in/hr)= 0.010
Typical swale depth (ft) for cost analysis (optional) = 0.0
Particle size distribution file name: Not needed - calculated by program
Use total swale length instead of swale density for infiltration calculations: True

Control Practice 10: Grass Swale CP# 4 (DS) - DS Grass Swale # 15

Total drainage area (acres)= 10.600
Fraction of drainage area served by swales (ac) = 0.88
Swale density (ft/ac) = 486.67
Total swale length (ft) = 3250
Average swale length to outlet (ft)= 294
Typical bottom width (ft) = 2.0
Typical swale side slope (_H:1V) = 3.0
Typical longitudinal slope (ft.H/ft.V) = 0.035
Swale retardance factor: C
Typical grass height (in) = 2.0
Swale dynamic infiltration rate (in/hr)= 0.010
Typical swale depth (ft) for cost analysis (optional) = 0.0
Particle size distribution file name: Not needed - calculated by program
Use total swale length instead of swale density for infiltration calculations: True

Control Practice 11: Grass Swale CP# 5 (DS) - DS Grass Swale # 16

Total drainage area (acres)= 8.450
Fraction of drainage area served by swales (ac) = 0.79
Swale density (ft/ac) = 278.63
Total swale length (ft) = 1860
Average swale length to outlet (ft)= 278
Typical bottom width (ft) = 2.0
Typical swale side slope (_H:1V) = 3.0
Typical longitudinal slope (ft.H/ft.V) = 0.030
Swale retardance factor: C
Typical grass height (in) = 2.0
Swale dynamic infiltration rate (in/hr)= 0.010
Typical swale depth (ft) for cost analysis (optional) = 0.0
Particle size distribution file name: Not needed - calculated by program
Use total swale length instead of swale density for infiltration calculations: True

Control Practice 12: Grass Swale CP# 6 (DS) - DS Grass Swale # 17

Total drainage area (acres)= 2.380
Fraction of drainage area served by swales (ac) = 0.72
Swale density (ft/ac) = 466.85
Total swale length (ft) = 800
Average swale length to outlet (ft)= 266
Typical bottom width (ft) = 2.0
Typical swale side slope (_H:1V) = 3.0
Typical longitudinal slope (ft.H/ft.V) = 0.035
Swale retardance factor: C
Typical grass height (in) = 2.0
Swale dynamic infiltration rate (in/hr)= 0.010
Typical swale depth (ft) for cost analysis (optional) = 0.0
Particle size distribution file name: Not needed - calculated by program
Use total swale length instead of swale density for infiltration calculations: True

Control Practice 13: Grass Swale CP# 7 (DS) - DS Grass Swale # 18

Total drainage area (acres)= 2.370

Fraction of drainage area served by swales (ac) = 0.80
Swale density (ft/ac) = 263.71
Total swale length (ft) = 500
Average swale length to outlet (ft)= 280
Typical bottom width (ft) = 2.0
Typical swale side slope (_H:1V) = 3.0
Typical longitudinal slope (ft.H/ft.V) = 0.035
Swale retardance factor: C
Typical grass height (in) = 2.0
Swale dynamic infiltration rate (in/hr)= 0.010
Typical swale depth (ft) for cost analysis (optional) = 0.0
Particle size distribution file name: Not needed - calculated by program
Use total swale length instead of swale density for infiltration calculations: True

Control Practice 14: Grass Swale CP# 8 (DS) - DS Grass Swale # 19

Total drainage area (acres)= 2.770
Fraction of drainage area served by swales (ac) = 0.69
Swale density (ft/ac) = 355.21
Total swale length (ft) = 500
Average swale length to outlet (ft)= 260
Typical bottom width (ft) = 2.0
Typical swale side slope (_H:1V) = 3.0
Typical longitudinal slope (ft.H/ft.V) = 0.035
Swale retardance factor: C
Typical grass height (in) = 2.0
Swale dynamic infiltration rate (in/hr)= 0.010
Typical swale depth (ft) for cost analysis (optional) = 0.0
Particle size distribution file name: Not needed - calculated by program
Use total swale length instead of swale density for infiltration calculations: True

Output Data

SLAMM for Windows Version 10.5.0

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Data file name: \\job-files\2025 Job Files\250128900 Weber - Subdivision Planning - Town of Shelby WI\250128904 Civil\storm water report and calculations\slamm\Current - slamm.mdb

Data file description:

Rain file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WisReg - Madison WI 1981.ran

Particulate Solids Concentration file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\v10.1 WI_AVG01.pscx

Runoff Coefficient file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_SL06 Dec06.rsvx

Pollutant Relative Concentration file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_GEO03.ppdX

Residential Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_Res and Other Urban Dec06.std

Institutional Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_Com Inst Indust Dec06.std

Commercial Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_Com Inst Indust Dec06.std

Industrial Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_Com Inst Indust Dec06.std

Other Urban Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\WI_Res and Other Urban Dec06.std

Freeway Street Delivery file name: J:\Programs\civil\WinSLAMM\v10.5.0\Parameter Files\Freeway Dec06.std

Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False

Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv

Cost Data file name:

Seed for random number generator: -42

Start of Winter Season: 12/02 End of Winter Season: 03/12

Model Run Start Date: 01/01/81 Model Run End Date: 12/31/81

Date of run: 02-23-2026 Time of run: 12:34:42

Total Area Modeled (acres): 34.890

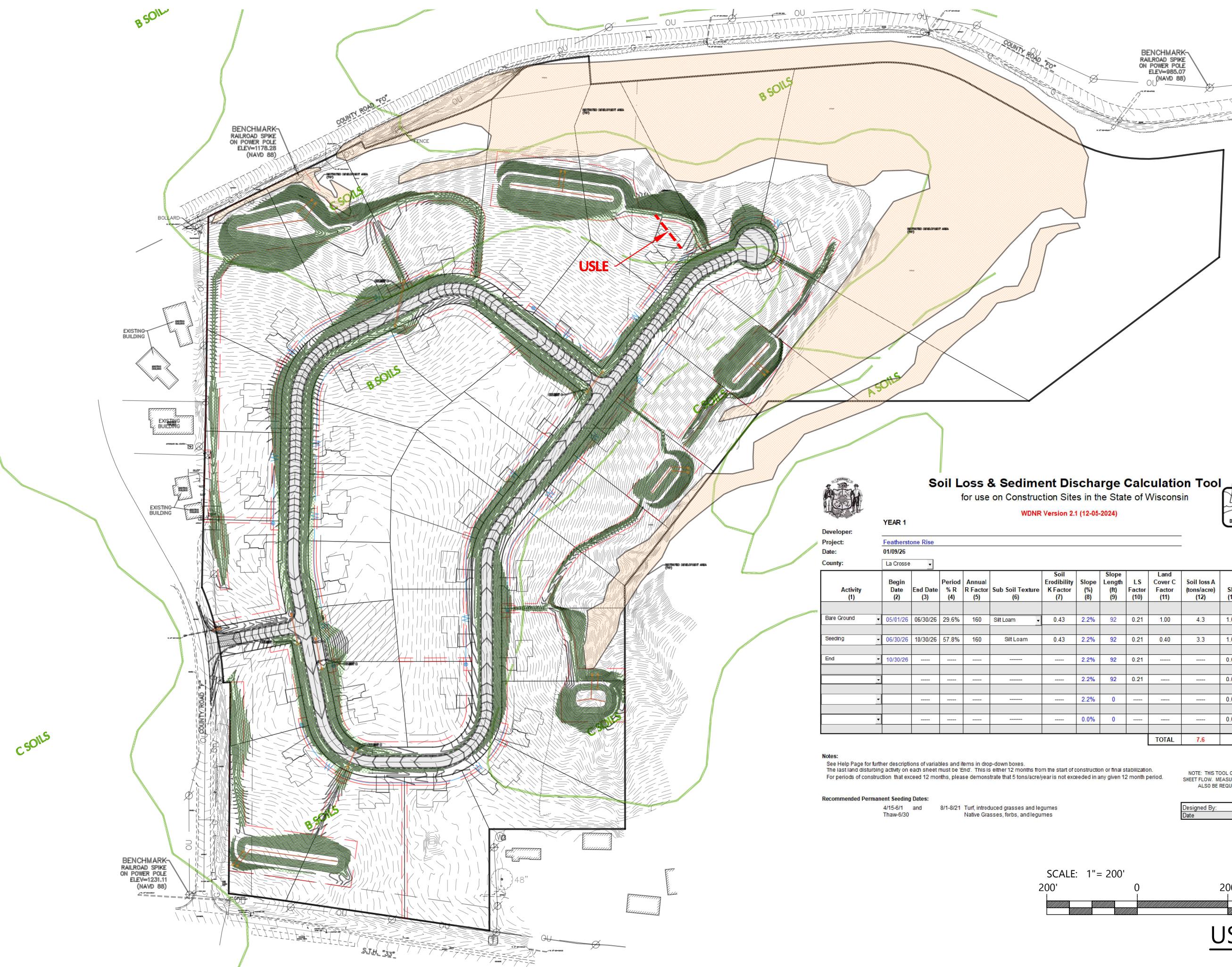
Years in Model Run: 1.00

Runoff Volume (cu ft)	Percent Runoff Volume Reduction	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Particulate Solids Reduction

Total of all Land Uses without Controls:	377181	-	245.5	5780	-
Outfall Total with Controls:	304336	19.31%	60.50	1150	80.10%
Annualized Total After Outfall Controls:	305172			1153	

Biofilter # 1 is expected to clog in 11.01 years.. Percent Solids Reduction due to Engineered Media = 80
 Biofilter # 2 is expected to clog in 10.13 years.. Percent Solids Reduction due to Engineered Media = 80
 Biofilter # 3 is expected to clog in 7.29 years.. Percent Solids Reduction due to Engineered Media = 80
 Biofilter # 4 is expected to clog in 6.06 years.. Percent Solids Reduction due to Engineered Media = 80
 Biofilter # 5 is expected to clog in 4.89 years.. Percent Solids Reduction due to Engineered Media = 80
 Biofilter # 6 is expected to clog in 14.34 years.. Percent Solids Reduction due to Engineered Media = 80

Appendix H: USLE Map and Calculations



Developer: _____
Project: Featherstone Rise
Date: 01/09/26
County: La Crosse

Soil Loss & Sediment Discharge Calculation Tool

for use on Construction Sites in the State of Wisconsin

WDNR Version 2.1 (12-05-2024)



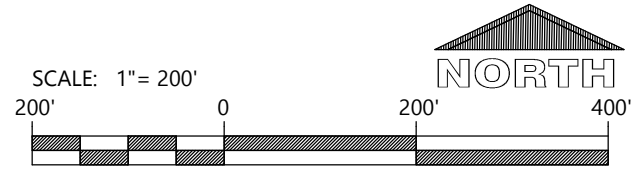
Version 2.1														
Activity (1)	Begin Date (2)	End Date (3)	Period % R (4)	Annual R Factor (5)	Sub Soil Texture (6)	Soil Erodibility K Factor (7)	Slope (%) (8)	Slope Length (ft) (9)	LS Factor (10)	Land Cover C Factor (11)	Soil loss A (tons/acre) (12)	SDF (13)	Sediment Control Practice (14)	Sediment Discharge (t/ac) (15)
Bare Ground	05/01/26	06/30/26	29.6%	160	Silt Loam	0.43	2.2%	92	0.21	1.00	4.3	1.039	Silt Fence	2.7
Seeding	06/30/26	10/30/26	57.8%	160	Silt Loam	0.43	2.2%	92	0.21	0.40	3.3	1.039	Silt Fence	2.1
End	10/30/26						2.2%	92	0.21			0.000	Silt Fence	0.0
							2.2%	92	0.21			0.000		0.0
							2.2%	0				0.000		0.0
							0.0%	0				0.000		0.0
TOTAL											7.6		TOTAL	4.7
													% Reduction Required	NONE

Notes:
See Help Page for further descriptions of variables and items in drop-down boxes.
The last land disturbing activity on each sheet must be 'End'. This is either 12 months from the start of construction or final stabilization.
For periods of construction that exceed 12 months, please demonstrate that 5 tons/acre/year is not exceeded in any given 12 month period.

Recommended Permanent Seeding Dates:
4/15-6/1 and 8/1-8/21 Turf, introduced grasses and legumes
Thaw-6/30 Native Grasses, forbs, and legumes

NOTE: THIS TOOL ONLY ADDRESSED SOIL EROSION DUE TO SHEET FLOW. MEASURES TO CONTROL CHANNEL EROSION MAY ALSO BE REQUIRED TO MEET SEDIMENT DISCHARGE REQUIREMENTS.

Designed By: JEC
Date: 1/9/2026



USLE MAP