



EP Design Services, LLC

SEDIMENT BASIN REPORT

For

DM Investments of North Brunswick, LLC

Block 224, Lots 2, 5, 6, & 87
Township of North Brunswick
Middlesex County, New Jersey

Prepared by:
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TABLE OF CONTENTS

<u>SECTION</u>		<u>PAGE</u>
1.0	Sediment Basin Calculations	3
2.0	Shape and Depth.....	3
A.1	Trap Efficiency	3
A.2	Sediment Storage Capacity Plus 2-year Storm Runoff Volume.....	4
B.1	Dewatering	4
B.2	Principal Spillway Crest Elevation – Top of Sediment Riser	5
B.3	Emergency Spillways	5
3.0	Diversion Swales Design	5
4.0	Westside Swale Design	5

LIST OF APPENDICES

<u>Appendix</u>	<u>Title</u>
A	Sediment Basin & Diversion Swale Routings

1.0 SEDIMENT BASIN CALCULATIONS

A temporary sediment basin will be used during construction as a means to increase the amount of sediment capture and increase the water quality of the stormwater run-off. The sediment basin will be located within the footprint of the proposed infiltration basin. Two diversion swales will be used to help convey the runoff into the sediment basin. The following information demonstrates compliance with the Standards for Soil Erosion and Sediment Control in New Jersey Chapter 24 (Standard for Sediment Basin). Appendix A provides all of the required information regarding the design of the Sediment Basin and diversion swales, which were calculated using the TR-20 flood routing method through the HydroCAD software.

The sediment basin will be constructed during the initial phases of construction and will be utilized until development of the site progresses to a point where the proposed permanent infiltration basin can be constructed.

2.0 SHAPE AND DEPTH

Sediment Basin Min. Width:

$$W = 10 \times (Q5)^{1/2}$$

$$W = 10 \times (48.21)^{1/2}$$

$$W = 69.4 \text{ ft}$$

Sediment Basin Min. Depth = 4 ft.

A.1 TRAP EFFICIENCY

Determine minimum basin volume to meet 70% trap efficiency.

From Curve 26-1 at trap efficiency = 75%

(to achieve 75% when sediment is predominantly sand and coarse grained)

$$C/I = .04$$

From Figure 26-1, average annual surface runoff for Wall Township is 22 inches

$$I = 21 \text{ in} \times 1\text{ft}/12\text{in} \times 15.01 \text{ ac} = 26.27 \text{ Ac.-ft}$$

$$C = 26.27 \text{ ac.-ft} \times 0.04 = 1.051 \text{ Ac.-ft}$$

Depth (Feet)	C (Ac-ft)	TE (%) (Curve 24-1)	C/I	I (Ac-ft)	DA (Acre)	i (in/yr) (Figure 24-1)
4	1.051	75	0.04	26.27	15.01	22

Total required capacity of sediment basin up to spillway crest = 1.051 ac-ft

Total proposed capacity of sediment basin up to spillway crest = 4.271 ac-ft > 1.051 ac-ft

The trap efficiency requirements are met.

A.2 SEDIMENT STORAGE CAPACITY PLUS 2-YEAR STORM RUNOFF VOLUME

Volume of Sediment trapped in Basin (V)

$$V \text{ (Ac.-ft./yr.)} = (DA) (A) (DR) (TE) (1/\gamma_s) (2,000 \text{ lbs/ton}) (1/43,560 \text{ sf/acre})$$

DA (Acre)	A (ton/Ac/yr)	DR (%) (sand)	TE (%)	γ_s (lbs/ft ³)	V (Ac-ft /yr)	2yr Runoff Vol. (Ac-ft)	Total Required Capacity (Ac-ft)	Total Proposed Capacity (Ac-ft)
15.01	50	32.66	75	85	0.099	2.924	3.023	4.271

$$V = (26.93) (50) (0.30) (0.75) (1/100) (2,000) (1/43,560) = 0.099 \text{ Ac.-ft./yr.}$$

$$\begin{aligned} \text{Temporary Floodwater Storage} &= (2\text{yr storm volume} + \text{Sediment Volume}) \\ &= 2.924 + 0.099 = \mathbf{3.023 \text{ Ac.-ft./yr}} \end{aligned}$$

Larger of two calculated values = 3.023 Ac-ft. > 1.051 Ac-ft.

Volume below emergency spillway = 4.271 Ac-ft > 3.023 Ac-ft.

The volume provided is greater than the required volume. Capacity requirements are met.

B.1 DEWATERING

The sediment basin will utilize a Faircloth skimmer device which floats on the surface of the water in the basin, drawing cleaner water from the surface. The skimmer device is made of PVC pipe equipped with a float and attached with a flexible coupling to an outlet at the base of the riser. Because the skimmer floats, it rises and falls with the level of the water in the basin and drains only the cleanest top layer of runoff, avoiding the sediment laden water from the submerged volume of the basin. Sediment removal rates from basins equipped with skimmers have been shown to be significantly more effective than with a perforated riser or orifice.

The 8-inch skimmer was designed with a 7-inch orifice diameter in order to allow the sediment basin to completely drain the 2-year design storm runoff in under three (3) days. The skimmer was sized through the manufacturer (below), as well as analyzed through the HydroCAD software (Appendix A).

Calculate Skimmer Size for Faircloth Skimmer®				
Basin Volume in Cubic Feet	216,057	Cu.Ft	Skimmer Size	8.0 Inch
Days to Drain*	3	Days	Orifice Radius	3.4 Inch[es]
			Orifice Diameter	6.8 Inch[es]
*In NC assume 3 days to drain		If no results maximum flow rate for a single skimmer is exceeded. More than one skimmer may be required.		

The skimmer will be attached to a corrugated metal riser through a tack-welded Schedule 40 steel pipe set at the bottom of the basin at an elevation of 83.00 ft. The corrugated metal riser will also be equipped with a trash rack and serve as the principal spillway for the sediment basin. A shallow pit will be excavated under the skimmer landing area to accommodate sediment that reaches the outlet end and settles around the skimmer. The pit allows the skimmer to drain the entire volume of the

basin while preventing the skimmer from resting on the basin floor when it has been completely drained. The bottom of the pit will be below the invert of the outlet pipe that the skimmer is attached to and maintained regularly throughout the various construction phases of the project.

Details and maintenance notes associated with the Faircloth skimmer device and corrugated metal riser can be found in in the Soil Erosion and Sediment Control Details.

B.2 PRINCIPAL SPILLWAY CREST ELEVATION – TOP OF SEDIMENT RISER

- a. One (1) foot below the emergency spillway crest elevation = 85.50
- b. Volume of the 2-year storm = 2.924 Ac.-ft
Storage below the crest of the emergency spillway sets the principal = 84.19

Use 84.19

B.3 EMERGENCY SPILLWAYS

Capacity – The minimum capacity of the emergency spillway is sufficient to pass the peak flow from the 25-year 24-hour storm.

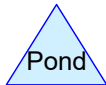
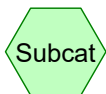
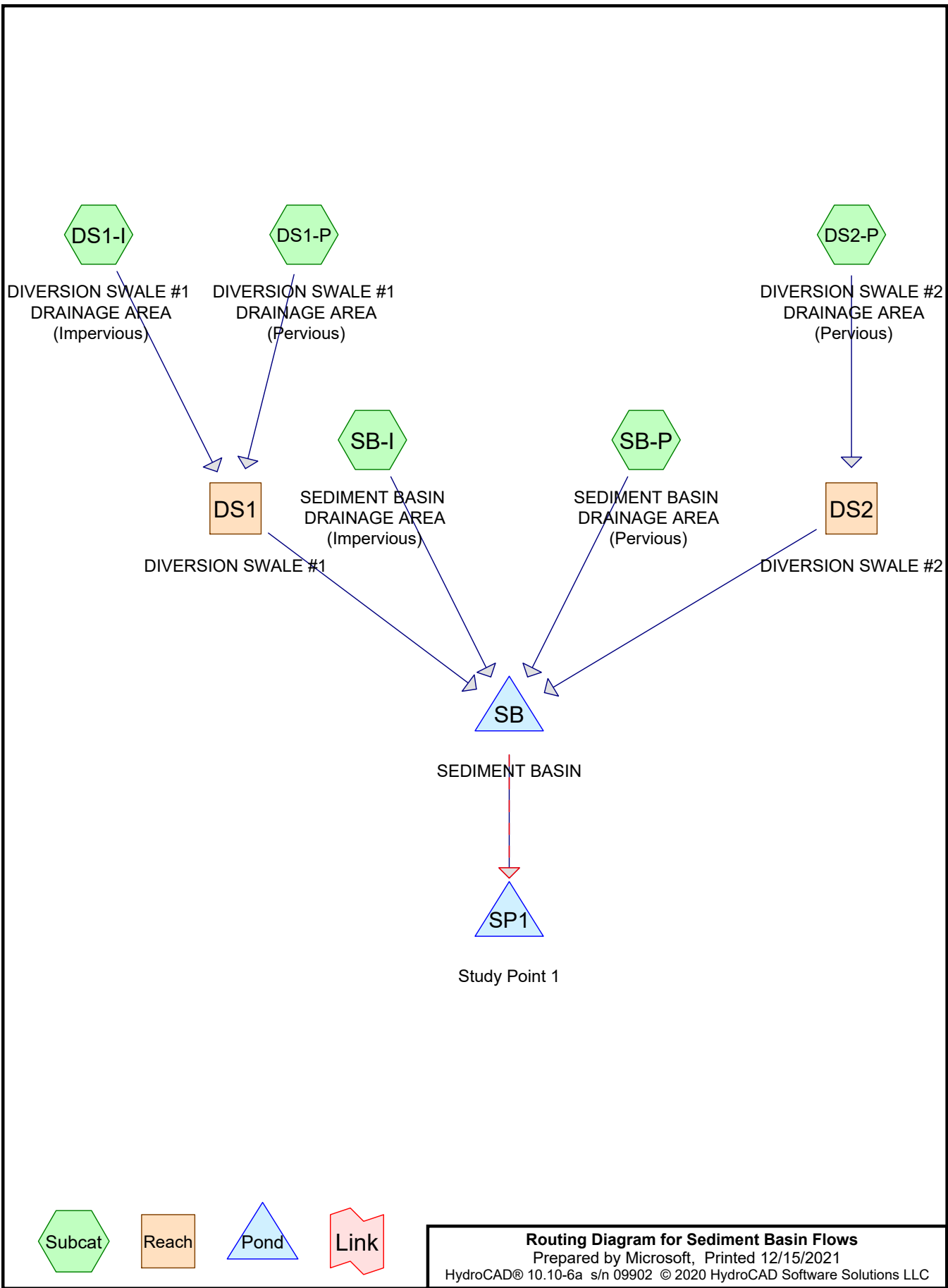
3.0 PROPOSED DIVERSION SWALE DESIGN

Diversion swale #1 has been designed to provide a trapezoidal shape and an *n*-value of 0.025 to represent a “bare” condition. The following table displays each swale’s characteristics.

Swale #	Drainage Area (Ac.)	Depth (ft.)	Bottom Width (ft.)	Length (ft.)	Slope	Side Slope (H:V)
Diversion Swale #1	8.231	1	30	521.5	0.77%	5:1
Diversion Swale #2	2.205	1	66	385	1.88%	5:1

Calculations have been completed under the 5-year intensity storm per Table 15-1 of the Standards for Soil Erosion and Sediment Control in New Jersey. The diversion swales have been adequately designed to provide stability in the bare condition and have sufficient capacity to convey the generated stormwater runoff to the proposed sediment basin.

The maximum velocity is less than or equal to 2 fps when analyzed under the 5-year design storm in accordance with Table 15-2 of the Standards for Soil Erosion and Sediment Control in New Jersey. Design calculations computed through the HydroCAD software are included in Appendix A while profiles and cross sections for each can be found in the Soil Erosion and Sediment Control Notes and Details.



Sediment Basin Flows

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Page 2

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	WQ	NJ DEP 2-hr		Default	2.00	1	1.25	2
2	2 yr	NOAA 24-hr	D	Default	24.00	1	3.31	2
3	5 yr	NOAA 24-hr	D	Default	24.00	1	4.25	2
4	10 yr	NOAA 24-hr	D	Default	24.00	1	5.06	2
5	25 yr	NOAA 24-hr	D	Default	24.00	1	6.28	2

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Page 3

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.340	77	Fallow, bare soil, HSG A (DS2-P)
1.693	86	Fallow, bare soil, HSG B (DS2-P, SB-P)
12.153	91	Fallow, bare soil, HSG C (DS1-P, DS2-P, SB-P)
0.824	98	Unconnected pavement, HSG C (DS1-I, SB-I)
15.010	91	TOTAL AREA

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Page 4

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.340	HSG A	DS2-P
1.693	HSG B	DS2-P, SB-P
12.977	HSG C	DS1-I, DS1-P, DS2-P, SB-I, SB-P
0.000	HSG D	
0.000	Other	
15.010		TOTAL AREA

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Page 5

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.340	1.693	12.153	0.000	0.000	14.186	Fallow, bare soil	DS1-P, DS2-P, SB-P
0.000	0.000	0.824	0.000	0.000	0.824	Unconnected pavement	DS1-I, SB-I
0.340	1.693	12.977	0.000	0.000	15.010	TOTAL AREA	

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NJ DEP 2-hr WQ Rainfall=1.25"

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Page 6

Summary for Subcatchment DS1-I: DIVERSION SWALE #1 DRAINAGE AREA (Impervious)

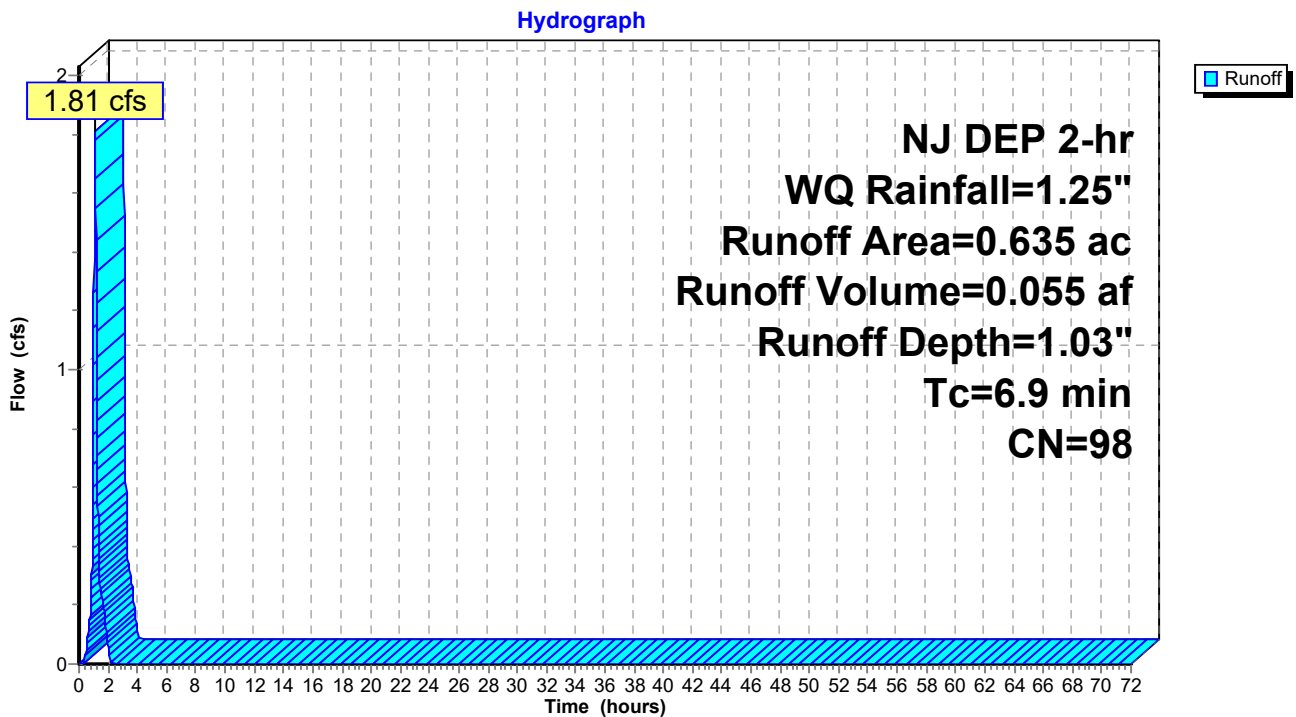
Runoff = 1.81 cfs @ 1.11 hrs, Volume= 0.055 af, Depth= 1.03"
 Routed to Reach DS1 : DIVERSION SWALE #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NJ DEP 2-hr WQ Rainfall=1.25"

Area (ac)	CN	Description
0.635	98	Unconnected pavement, HSG C
0.635		100.00% Impervious Area
0.635		100.00% Unconnected

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

Subcatchment DS1-I: DIVERSION SWALE #1 DRAINAGE AREA (Impervious)



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NJ DEP 2-hr WQ Rainfall=1.25"

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Page 7

Hydrograph for Subcatchment DS1-I: DIVERSION SWALE #1 DRAINAGE AREA (Impervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	1.25	1.03	0.00
1.00	0.63	0.43	1.02	54.00	1.25	1.03	0.00
2.00	1.25	1.03	0.06	55.00	1.25	1.03	0.00
3.00	1.25	1.03	0.00	56.00	1.25	1.03	0.00
4.00	1.25	1.03	0.00	57.00	1.25	1.03	0.00
5.00	1.25	1.03	0.00	58.00	1.25	1.03	0.00
6.00	1.25	1.03	0.00	59.00	1.25	1.03	0.00
7.00	1.25	1.03	0.00	60.00	1.25	1.03	0.00
8.00	1.25	1.03	0.00	61.00	1.25	1.03	0.00
9.00	1.25	1.03	0.00	62.00	1.25	1.03	0.00
10.00	1.25	1.03	0.00	63.00	1.25	1.03	0.00
11.00	1.25	1.03	0.00	64.00	1.25	1.03	0.00
12.00	1.25	1.03	0.00	65.00	1.25	1.03	0.00
13.00	1.25	1.03	0.00	66.00	1.25	1.03	0.00
14.00	1.25	1.03	0.00	67.00	1.25	1.03	0.00
15.00	1.25	1.03	0.00	68.00	1.25	1.03	0.00
16.00	1.25	1.03	0.00	69.00	1.25	1.03	0.00
17.00	1.25	1.03	0.00	70.00	1.25	1.03	0.00
18.00	1.25	1.03	0.00	71.00	1.25	1.03	0.00
19.00	1.25	1.03	0.00	72.00	1.25	1.03	0.00
20.00	1.25	1.03	0.00				
21.00	1.25	1.03	0.00				
22.00	1.25	1.03	0.00				
23.00	1.25	1.03	0.00				
24.00	1.25	1.03	0.00				
25.00	1.25	1.03	0.00				
26.00	1.25	1.03	0.00				
27.00	1.25	1.03	0.00				
28.00	1.25	1.03	0.00				
29.00	1.25	1.03	0.00				
30.00	1.25	1.03	0.00				
31.00	1.25	1.03	0.00				
32.00	1.25	1.03	0.00				
33.00	1.25	1.03	0.00				
34.00	1.25	1.03	0.00				
35.00	1.25	1.03	0.00				
36.00	1.25	1.03	0.00				
37.00	1.25	1.03	0.00				
38.00	1.25	1.03	0.00				
39.00	1.25	1.03	0.00				
40.00	1.25	1.03	0.00				
41.00	1.25	1.03	0.00				
42.00	1.25	1.03	0.00				
43.00	1.25	1.03	0.00				
44.00	1.25	1.03	0.00				
45.00	1.25	1.03	0.00				
46.00	1.25	1.03	0.00				
47.00	1.25	1.03	0.00				
48.00	1.25	1.03	0.00				
49.00	1.25	1.03	0.00				
50.00	1.25	1.03	0.00				
51.00	1.25	1.03	0.00				
52.00	1.25	1.03	0.00				

Sediment Basin Flows

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NJ DEP 2-hr WQ Rainfall=1.25"

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Page 8

Summary for Subcatchment DS1-P: DIVERSION SWALE #1 DRAINAGE AREA (Pervious)

Runoff = 12.51 cfs @ 1.13 hrs, Volume= 0.343 af, Depth= 0.54"
 Routed to Reach DS1 : DIVERSION SWALE #1

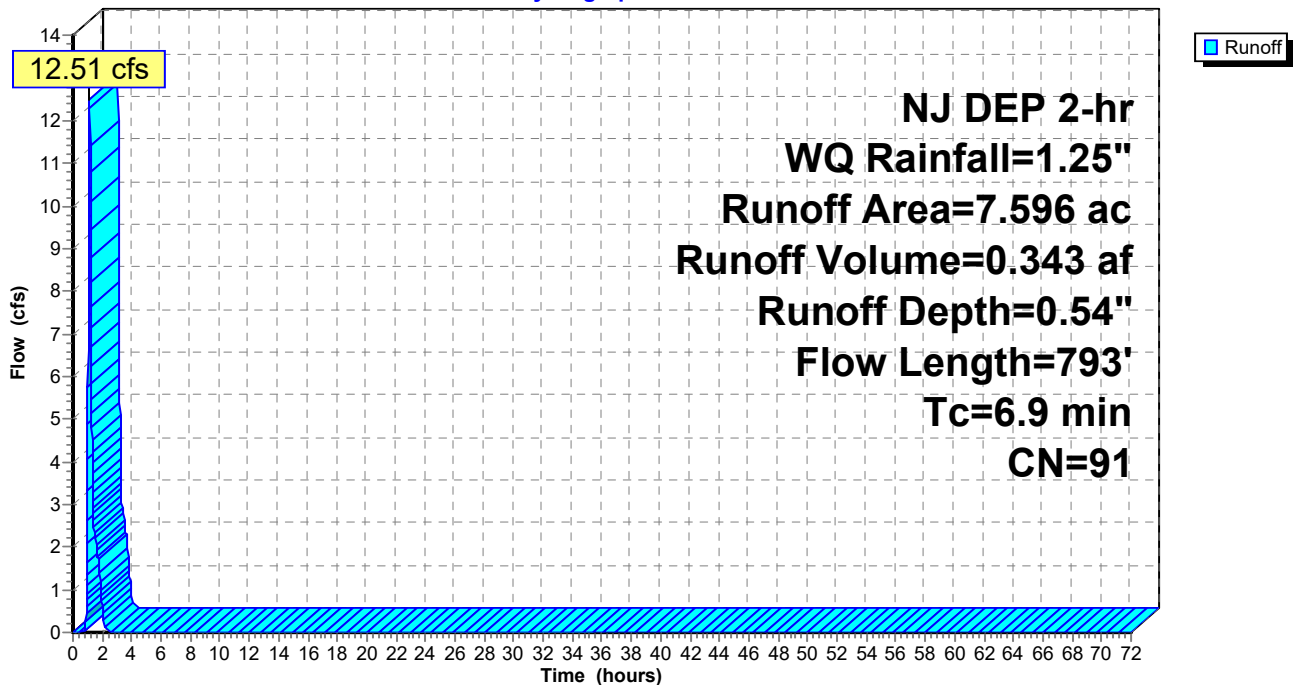
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NJ DEP 2-hr WQ Rainfall=1.25"

Area (ac)	CN	Description
7.596	91	Fallow, bare soil, HSG C
7.596		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	100	0.0250	1.53		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.31"
5.1	466	0.0230	1.52		Shallow Concentrated Flow, B-C Nearly Bare & Untilled Kv= 10.0 fps
0.7	227	0.0077	5.65	401.45	Channel Flow, C-D Area= 71.0 sf Perim= 76.2' r= 0.93' n= 0.022 Earth, clean & straight
6.9	793	Total			

Subcatchment DS1-P: DIVERSION SWALE #1 DRAINAGE AREA (Pervious)

Hydrograph



Sediment Basin Flows

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NJ DEP 2-hr WQ Rainfall=1.25"

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Page 9

Hydrograph for Subcatchment DS1-P: DIVERSION SWALE #1 DRAINAGE AREA (Pervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	1.25	0.54	0.00
1.00	0.63	0.13	4.07	54.00	1.25	0.54	0.00
2.00	1.25	0.54	0.60	55.00	1.25	0.54	0.00
3.00	1.25	0.54	0.00	56.00	1.25	0.54	0.00
4.00	1.25	0.54	0.00	57.00	1.25	0.54	0.00
5.00	1.25	0.54	0.00	58.00	1.25	0.54	0.00
6.00	1.25	0.54	0.00	59.00	1.25	0.54	0.00
7.00	1.25	0.54	0.00	60.00	1.25	0.54	0.00
8.00	1.25	0.54	0.00	61.00	1.25	0.54	0.00
9.00	1.25	0.54	0.00	62.00	1.25	0.54	0.00
10.00	1.25	0.54	0.00	63.00	1.25	0.54	0.00
11.00	1.25	0.54	0.00	64.00	1.25	0.54	0.00
12.00	1.25	0.54	0.00	65.00	1.25	0.54	0.00
13.00	1.25	0.54	0.00	66.00	1.25	0.54	0.00
14.00	1.25	0.54	0.00	67.00	1.25	0.54	0.00
15.00	1.25	0.54	0.00	68.00	1.25	0.54	0.00
16.00	1.25	0.54	0.00	69.00	1.25	0.54	0.00
17.00	1.25	0.54	0.00	70.00	1.25	0.54	0.00
18.00	1.25	0.54	0.00	71.00	1.25	0.54	0.00
19.00	1.25	0.54	0.00	72.00	1.25	0.54	0.00
20.00	1.25	0.54	0.00				
21.00	1.25	0.54	0.00				
22.00	1.25	0.54	0.00				
23.00	1.25	0.54	0.00				
24.00	1.25	0.54	0.00				
25.00	1.25	0.54	0.00				
26.00	1.25	0.54	0.00				
27.00	1.25	0.54	0.00				
28.00	1.25	0.54	0.00				
29.00	1.25	0.54	0.00				
30.00	1.25	0.54	0.00				
31.00	1.25	0.54	0.00				
32.00	1.25	0.54	0.00				
33.00	1.25	0.54	0.00				
34.00	1.25	0.54	0.00				
35.00	1.25	0.54	0.00				
36.00	1.25	0.54	0.00				
37.00	1.25	0.54	0.00				
38.00	1.25	0.54	0.00				
39.00	1.25	0.54	0.00				
40.00	1.25	0.54	0.00				
41.00	1.25	0.54	0.00				
42.00	1.25	0.54	0.00				
43.00	1.25	0.54	0.00				
44.00	1.25	0.54	0.00				
45.00	1.25	0.54	0.00				
46.00	1.25	0.54	0.00				
47.00	1.25	0.54	0.00				
48.00	1.25	0.54	0.00				
49.00	1.25	0.54	0.00				
50.00	1.25	0.54	0.00				
51.00	1.25	0.54	0.00				
52.00	1.25	0.54	0.00				

Sediment Basin Flows

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NJ DEP 2-hr WQ Rainfall=1.25"

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Page 10

Summary for Subcatchment DS2-P: DIVERSION SWALE #2 DRAINAGE AREA (Pervious)

Runoff = 1.94 cfs @ 1.17 hrs, Volume= 0.062 af, Depth= 0.33"
 Routed to Reach DS2 : DIVERSION SWALE #2

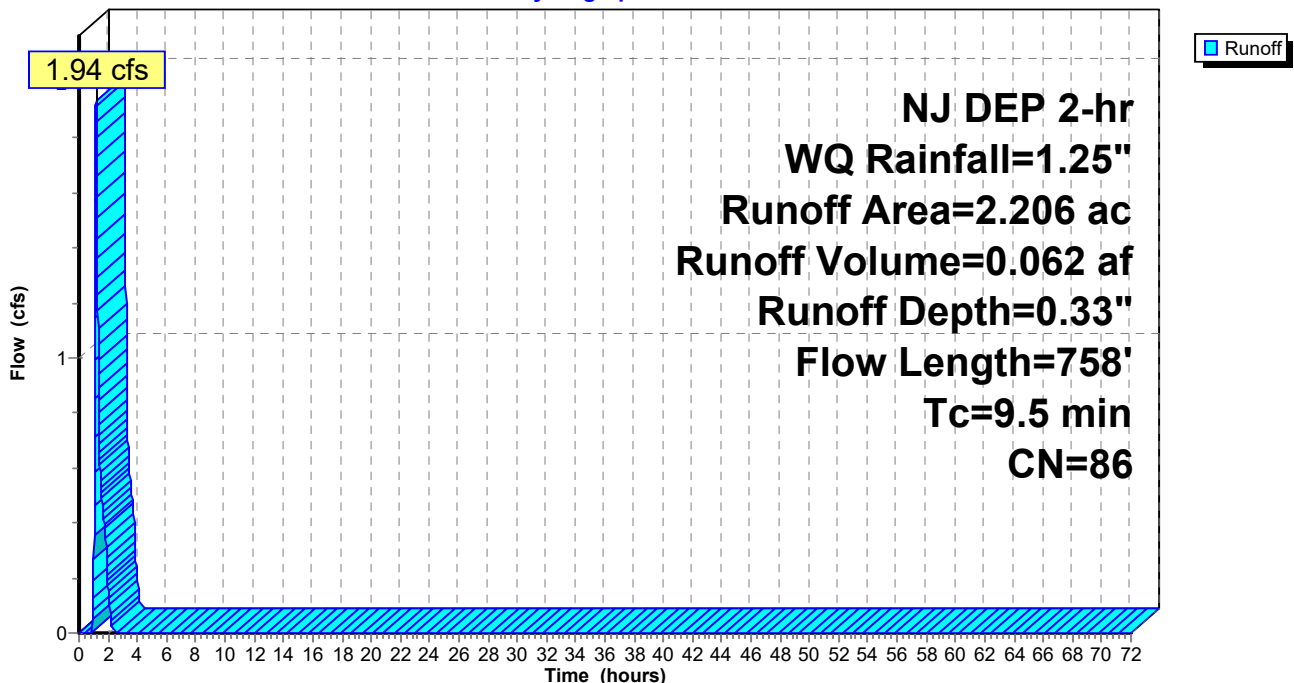
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NJ DEP 2-hr WQ Rainfall=1.25"

Area (ac)	CN	Description
0.340	77	Fallow, bare soil, HSG A
1.450	86	Fallow, bare soil, HSG B
0.416	91	Fallow, bare soil, HSG C
2.206	86	Weighted Average
2.206		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.1	100	0.0385	0.54		Sheet Flow, A-B Fallow n= 0.050 P2= 3.31"
6.0	445	0.0152	1.23		Shallow Concentrated Flow, B-C Nearly Bare & Untilled Kv= 10.0 fps
0.4	213	0.0188	8.44	295.55	Channel Flow, C-D Area= 35.0 sf Perim= 40.2' r= 0.87' n= 0.022 Earth, clean & straight
9.5	758	Total			

Subcatchment DS2-P: DIVERSION SWALE #2 DRAINAGE AREA (Pervious)

Hydrograph



Sediment Basin Flows

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NJ DEP 2-hr WQ Rainfall=1.25"

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Page 11

Hydrograph for Subcatchment DS2-P: DIVERSION SWALE #2 DRAINAGE AREA (Pervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	1.25	0.33	0.00
1.00	0.63	0.05	0.13	54.00	1.25	0.33	0.00
2.00	1.25	0.33	0.15	55.00	1.25	0.33	0.00
3.00	1.25	0.33	0.00	56.00	1.25	0.33	0.00
4.00	1.25	0.33	0.00	57.00	1.25	0.33	0.00
5.00	1.25	0.33	0.00	58.00	1.25	0.33	0.00
6.00	1.25	0.33	0.00	59.00	1.25	0.33	0.00
7.00	1.25	0.33	0.00	60.00	1.25	0.33	0.00
8.00	1.25	0.33	0.00	61.00	1.25	0.33	0.00
9.00	1.25	0.33	0.00	62.00	1.25	0.33	0.00
10.00	1.25	0.33	0.00	63.00	1.25	0.33	0.00
11.00	1.25	0.33	0.00	64.00	1.25	0.33	0.00
12.00	1.25	0.33	0.00	65.00	1.25	0.33	0.00
13.00	1.25	0.33	0.00	66.00	1.25	0.33	0.00
14.00	1.25	0.33	0.00	67.00	1.25	0.33	0.00
15.00	1.25	0.33	0.00	68.00	1.25	0.33	0.00
16.00	1.25	0.33	0.00	69.00	1.25	0.33	0.00
17.00	1.25	0.33	0.00	70.00	1.25	0.33	0.00
18.00	1.25	0.33	0.00	71.00	1.25	0.33	0.00
19.00	1.25	0.33	0.00	72.00	1.25	0.33	0.00
20.00	1.25	0.33	0.00				
21.00	1.25	0.33	0.00				
22.00	1.25	0.33	0.00				
23.00	1.25	0.33	0.00				
24.00	1.25	0.33	0.00				
25.00	1.25	0.33	0.00				
26.00	1.25	0.33	0.00				
27.00	1.25	0.33	0.00				
28.00	1.25	0.33	0.00				
29.00	1.25	0.33	0.00				
30.00	1.25	0.33	0.00				
31.00	1.25	0.33	0.00				
32.00	1.25	0.33	0.00				
33.00	1.25	0.33	0.00				
34.00	1.25	0.33	0.00				
35.00	1.25	0.33	0.00				
36.00	1.25	0.33	0.00				
37.00	1.25	0.33	0.00				
38.00	1.25	0.33	0.00				
39.00	1.25	0.33	0.00				
40.00	1.25	0.33	0.00				
41.00	1.25	0.33	0.00				
42.00	1.25	0.33	0.00				
43.00	1.25	0.33	0.00				
44.00	1.25	0.33	0.00				
45.00	1.25	0.33	0.00				
46.00	1.25	0.33	0.00				
47.00	1.25	0.33	0.00				
48.00	1.25	0.33	0.00				
49.00	1.25	0.33	0.00				
50.00	1.25	0.33	0.00				
51.00	1.25	0.33	0.00				
52.00	1.25	0.33	0.00				

Sediment Basin Flows

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NJ DEP 2-hr WQ Rainfall=1.25"

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Page 12

Summary for Subcatchment SB-I: SEDIMENT BASIN DRAINAGE AREA (Impervious)

Runoff = 0.52 cfs @ 1.13 hrs, Volume= 0.016 af, Depth= 1.03"
 Routed to Pond SB : SEDIMENT BASIN

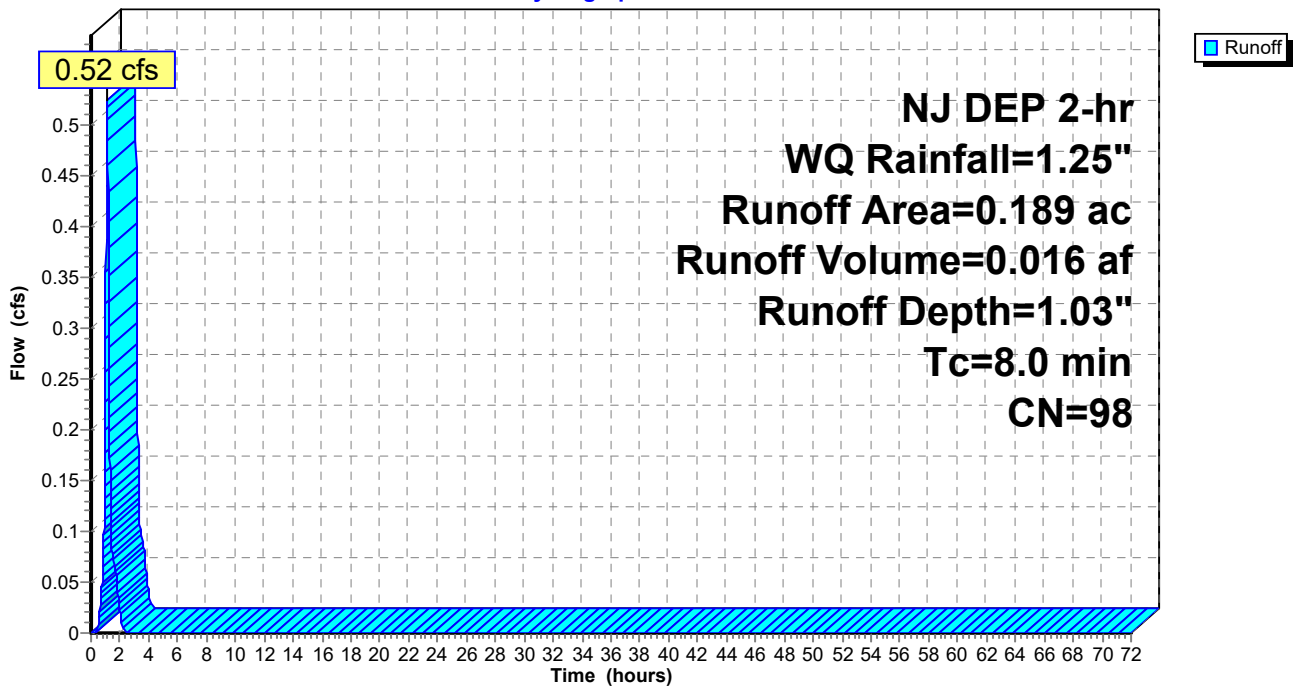
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NJ DEP 2-hr WQ Rainfall=1.25"

Area (ac)	CN	Description
0.189	98	Unconnected pavement, HSG C
0.189		100.00% Impervious Area
0.189		100.00% Unconnected

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

Subcatchment SB-I: SEDIMENT BASIN DRAINAGE AREA (Impervious)

Hydrograph



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NJ DEP 2-hr WQ Rainfall=1.25"

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Page 13

Hydrograph for Subcatchment SB-I: SEDIMENT BASIN DRAINAGE AREA (Impervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	1.25	1.03	0.00
1.00	0.63	0.43	0.26	54.00	1.25	1.03	0.00
2.00	1.25	1.03	0.02	55.00	1.25	1.03	0.00
3.00	1.25	1.03	0.00	56.00	1.25	1.03	0.00
4.00	1.25	1.03	0.00	57.00	1.25	1.03	0.00
5.00	1.25	1.03	0.00	58.00	1.25	1.03	0.00
6.00	1.25	1.03	0.00	59.00	1.25	1.03	0.00
7.00	1.25	1.03	0.00	60.00	1.25	1.03	0.00
8.00	1.25	1.03	0.00	61.00	1.25	1.03	0.00
9.00	1.25	1.03	0.00	62.00	1.25	1.03	0.00
10.00	1.25	1.03	0.00	63.00	1.25	1.03	0.00
11.00	1.25	1.03	0.00	64.00	1.25	1.03	0.00
12.00	1.25	1.03	0.00	65.00	1.25	1.03	0.00
13.00	1.25	1.03	0.00	66.00	1.25	1.03	0.00
14.00	1.25	1.03	0.00	67.00	1.25	1.03	0.00
15.00	1.25	1.03	0.00	68.00	1.25	1.03	0.00
16.00	1.25	1.03	0.00	69.00	1.25	1.03	0.00
17.00	1.25	1.03	0.00	70.00	1.25	1.03	0.00
18.00	1.25	1.03	0.00	71.00	1.25	1.03	0.00
19.00	1.25	1.03	0.00	72.00	1.25	1.03	0.00
20.00	1.25	1.03	0.00				
21.00	1.25	1.03	0.00				
22.00	1.25	1.03	0.00				
23.00	1.25	1.03	0.00				
24.00	1.25	1.03	0.00				
25.00	1.25	1.03	0.00				
26.00	1.25	1.03	0.00				
27.00	1.25	1.03	0.00				
28.00	1.25	1.03	0.00				
29.00	1.25	1.03	0.00				
30.00	1.25	1.03	0.00				
31.00	1.25	1.03	0.00				
32.00	1.25	1.03	0.00				
33.00	1.25	1.03	0.00				
34.00	1.25	1.03	0.00				
35.00	1.25	1.03	0.00				
36.00	1.25	1.03	0.00				
37.00	1.25	1.03	0.00				
38.00	1.25	1.03	0.00				
39.00	1.25	1.03	0.00				
40.00	1.25	1.03	0.00				
41.00	1.25	1.03	0.00				
42.00	1.25	1.03	0.00				
43.00	1.25	1.03	0.00				
44.00	1.25	1.03	0.00				
45.00	1.25	1.03	0.00				
46.00	1.25	1.03	0.00				
47.00	1.25	1.03	0.00				
48.00	1.25	1.03	0.00				
49.00	1.25	1.03	0.00				
50.00	1.25	1.03	0.00				
51.00	1.25	1.03	0.00				
52.00	1.25	1.03	0.00				

Sediment Basin Flows

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NJ DEP 2-hr WQ Rainfall=1.25"

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Page 14

Summary for Subcatchment SB-P: SEDIMENT BASIN DRAINAGE AREA (Pervious)

Runoff = 6.91 cfs @ 1.14 hrs, Volume= 0.198 af, Depth= 0.54"
 Routed to Pond SB : SEDIMENT BASIN

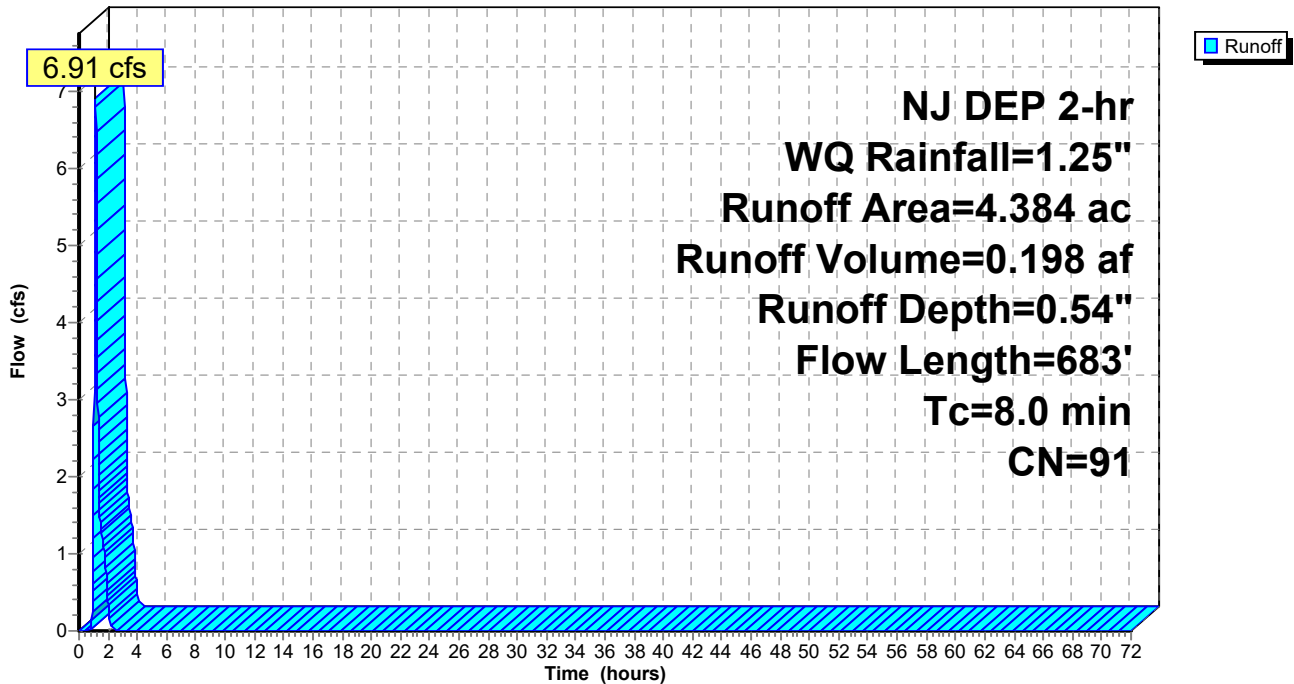
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NJ DEP 2-hr WQ Rainfall=1.25"

Area (ac)	CN	Description
0.243	86	Fallow, bare soil, HSG B
4.141	91	Fallow, bare soil, HSG C
4.384	91	Weighted Average
4.384		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0200	1.40		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.31"
6.8	583	0.0202	1.42		Shallow Concentrated Flow, B-C Nearly Bare & Untilled Kv= 10.0 fps
8.0	683	Total			

Subcatchment SB-P: SEDIMENT BASIN DRAINAGE AREA (Pervious)

Hydrograph



Sediment Basin Flows

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NJ DEP 2-hr WQ Rainfall=1.25"

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Page 15

Hydrograph for Subcatchment SB-P: SEDIMENT BASIN DRAINAGE AREA (Pervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	1.25	0.54	0.00
1.00	0.63	0.13	1.84	54.00	1.25	0.54	0.00
2.00	1.25	0.54	0.36	55.00	1.25	0.54	0.00
3.00	1.25	0.54	0.00	56.00	1.25	0.54	0.00
4.00	1.25	0.54	0.00	57.00	1.25	0.54	0.00
5.00	1.25	0.54	0.00	58.00	1.25	0.54	0.00
6.00	1.25	0.54	0.00	59.00	1.25	0.54	0.00
7.00	1.25	0.54	0.00	60.00	1.25	0.54	0.00
8.00	1.25	0.54	0.00	61.00	1.25	0.54	0.00
9.00	1.25	0.54	0.00	62.00	1.25	0.54	0.00
10.00	1.25	0.54	0.00	63.00	1.25	0.54	0.00
11.00	1.25	0.54	0.00	64.00	1.25	0.54	0.00
12.00	1.25	0.54	0.00	65.00	1.25	0.54	0.00
13.00	1.25	0.54	0.00	66.00	1.25	0.54	0.00
14.00	1.25	0.54	0.00	67.00	1.25	0.54	0.00
15.00	1.25	0.54	0.00	68.00	1.25	0.54	0.00
16.00	1.25	0.54	0.00	69.00	1.25	0.54	0.00
17.00	1.25	0.54	0.00	70.00	1.25	0.54	0.00
18.00	1.25	0.54	0.00	71.00	1.25	0.54	0.00
19.00	1.25	0.54	0.00	72.00	1.25	0.54	0.00
20.00	1.25	0.54	0.00				
21.00	1.25	0.54	0.00				
22.00	1.25	0.54	0.00				
23.00	1.25	0.54	0.00				
24.00	1.25	0.54	0.00				
25.00	1.25	0.54	0.00				
26.00	1.25	0.54	0.00				
27.00	1.25	0.54	0.00				
28.00	1.25	0.54	0.00				
29.00	1.25	0.54	0.00				
30.00	1.25	0.54	0.00				
31.00	1.25	0.54	0.00				
32.00	1.25	0.54	0.00				
33.00	1.25	0.54	0.00				
34.00	1.25	0.54	0.00				
35.00	1.25	0.54	0.00				
36.00	1.25	0.54	0.00				
37.00	1.25	0.54	0.00				
38.00	1.25	0.54	0.00				
39.00	1.25	0.54	0.00				
40.00	1.25	0.54	0.00				
41.00	1.25	0.54	0.00				
42.00	1.25	0.54	0.00				
43.00	1.25	0.54	0.00				
44.00	1.25	0.54	0.00				
45.00	1.25	0.54	0.00				
46.00	1.25	0.54	0.00				
47.00	1.25	0.54	0.00				
48.00	1.25	0.54	0.00				
49.00	1.25	0.54	0.00				
50.00	1.25	0.54	0.00				
51.00	1.25	0.54	0.00				
52.00	1.25	0.54	0.00				

Sediment Basin Flows

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NJ DEP 2-hr WQ Rainfall=1.25"

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Page 16

Summary for Reach DS1: DIVERSION SWALE #1

Inflow Area = 8.231 ac, 7.71% Impervious, Inflow Depth = 0.58" for WQ event
Inflow = 14.30 cfs @ 1.13 hrs, Volume= 0.398 af
Outflow = 11.37 cfs @ 1.18 hrs, Volume= 0.398 af, Atten= 20%, Lag= 3.2 min
Routed to Pond SB : SEDIMENT BASIN

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Max. Velocity= 1.43 fps, Min. Travel Time= 6.1 min
Avg. Velocity = 0.54 fps, Avg. Travel Time= 16.1 min

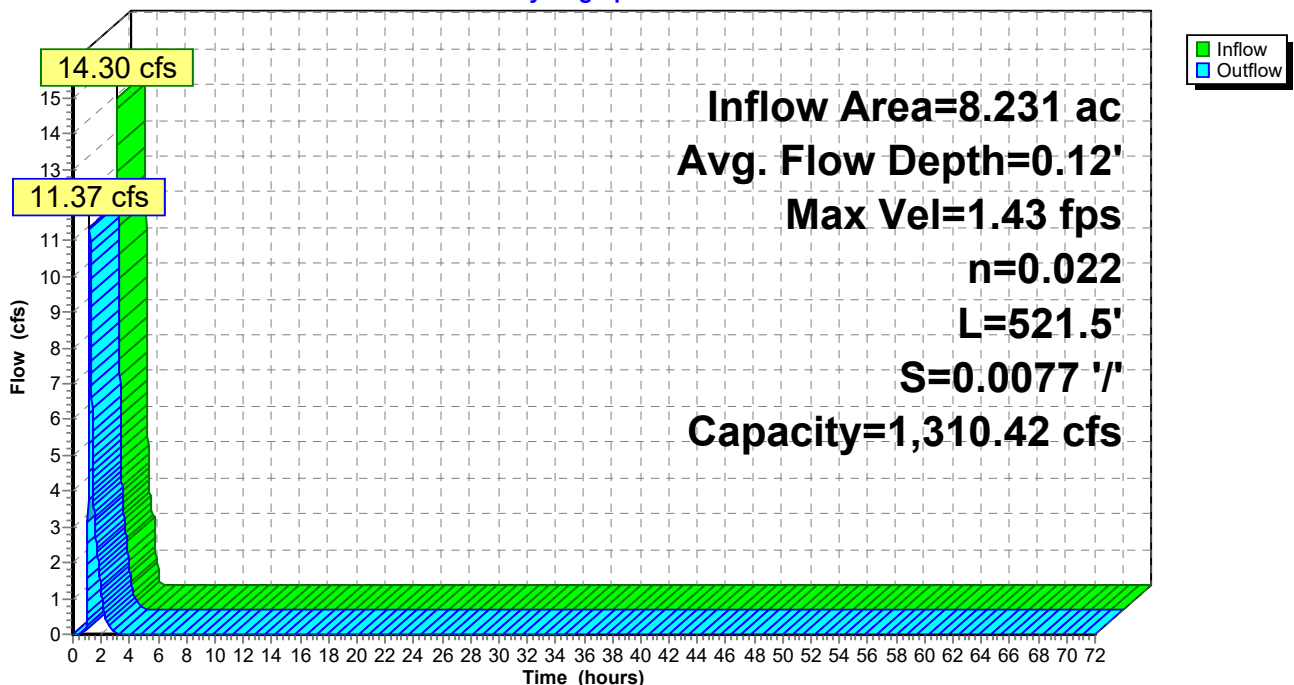
Peak Storage= 4,154 cf @ 1.18 hrs
Average Depth at Peak Storage= 0.12' , Surface Width= 67.20'
Bank-Full Depth= 2.00' Flow Area= 152.0 sf, Capacity= 1,310.42 cfs

66.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 5.0 ' / ' Top Width= 86.00'
Length= 521.5' Slope= 0.0077 ' / '
Inlet Invert= 87.00', Outlet Invert= 83.00'



Reach DS1: DIVERSION SWALE #1

Hydrograph



Sediment Basin Flows

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NJ DEP 2-hr WQ Rainfall=1.25"

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Page 17

Hydrograph for Reach DS1: DIVERSION SWALE #1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
0.00	0.00	0	87.00	0.00
2.00	0.67	1,030	87.03	1.19
4.00	0.00	3	87.00	0.00
6.00	0.00	0	87.00	0.00
8.00	0.00	0	87.00	0.00
10.00	0.00	0	87.00	0.00
12.00	0.00	0	87.00	0.00
14.00	0.00	0	87.00	0.00
16.00	0.00	0	87.00	0.00
18.00	0.00	0	87.00	0.00
20.00	0.00	0	87.00	0.00
22.00	0.00	0	87.00	0.00
24.00	0.00	0	87.00	0.00
26.00	0.00	0	87.00	0.00
28.00	0.00	0	87.00	0.00
30.00	0.00	0	87.00	0.00
32.00	0.00	0	87.00	0.00
34.00	0.00	0	87.00	0.00
36.00	0.00	0	87.00	0.00
38.00	0.00	0	87.00	0.00
40.00	0.00	0	87.00	0.00
42.00	0.00	0	87.00	0.00
44.00	0.00	0	87.00	0.00
46.00	0.00	0	87.00	0.00
48.00	0.00	0	87.00	0.00
50.00	0.00	0	87.00	0.00
52.00	0.00	0	87.00	0.00
54.00	0.00	0	87.00	0.00
56.00	0.00	0	87.00	0.00
58.00	0.00	0	87.00	0.00
60.00	0.00	0	87.00	0.00
62.00	0.00	0	87.00	0.00
64.00	0.00	0	87.00	0.00
66.00	0.00	0	87.00	0.00
68.00	0.00	0	87.00	0.00
70.00	0.00	0	87.00	0.00
72.00	0.00	0	87.00	0.00

Sediment Basin Flows

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Page 18

Summary for Reach DS2: DIVERSION SWALE #2

Inflow Area = 2.206 ac, 0.00% Impervious, Inflow Depth = 0.33" for WQ event
Inflow = 1.94 cfs @ 1.17 hrs, Volume= 0.062 af
Outflow = 1.82 cfs @ 1.21 hrs, Volume= 0.062 af, Atten= 6%, Lag= 2.1 min
Routed to Pond SB : SEDIMENT BASIN

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Max. Velocity= 1.23 fps, Min. Travel Time= 2.9 min
Avg. Velocity = 0.59 fps, Avg. Travel Time= 6.0 min

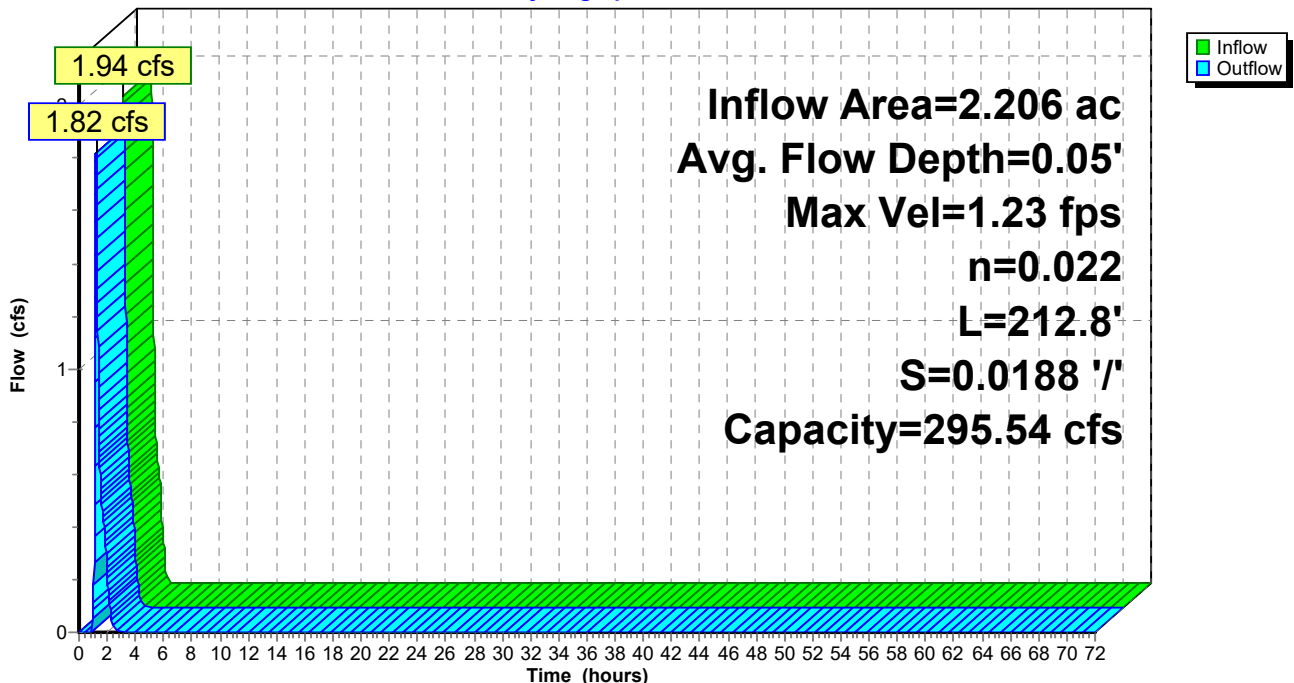
Peak Storage= 314 cf @ 1.21 hrs
Average Depth at Peak Storage= 0.05' , Surface Width= 30.49'
Bank-Full Depth= 1.00' Flow Area= 35.0 sf, Capacity= 295.54 cfs

30.00' x 1.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 5.0 '/' Top Width= 40.00'
Length= 212.8' Slope= 0.0188 '/'
Inlet Invert= 87.00', Outlet Invert= 83.00'



Reach DS2: DIVERSION SWALE #2

Hydrograph



Sediment Basin Flows

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Page 19

Hydrograph for Reach DS2: DIVERSION SWALE #2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
0.00	0.00	0	87.00	0.00
2.00	0.15	81	87.01	0.20
4.00	0.00	0	87.00	0.00
6.00	0.00	0	87.00	0.00
8.00	0.00	0	87.00	0.00
10.00	0.00	0	87.00	0.00
12.00	0.00	0	87.00	0.00
14.00	0.00	0	87.00	0.00
16.00	0.00	0	87.00	0.00
18.00	0.00	0	87.00	0.00
20.00	0.00	0	87.00	0.00
22.00	0.00	0	87.00	0.00
24.00	0.00	0	87.00	0.00
26.00	0.00	0	87.00	0.00
28.00	0.00	0	87.00	0.00
30.00	0.00	0	87.00	0.00
32.00	0.00	0	87.00	0.00
34.00	0.00	0	87.00	0.00
36.00	0.00	0	87.00	0.00
38.00	0.00	0	87.00	0.00
40.00	0.00	0	87.00	0.00
42.00	0.00	0	87.00	0.00
44.00	0.00	0	87.00	0.00
46.00	0.00	0	87.00	0.00
48.00	0.00	0	87.00	0.00
50.00	0.00	0	87.00	0.00
52.00	0.00	0	87.00	0.00
54.00	0.00	0	87.00	0.00
56.00	0.00	0	87.00	0.00
58.00	0.00	0	87.00	0.00
60.00	0.00	0	87.00	0.00
62.00	0.00	0	87.00	0.00
64.00	0.00	0	87.00	0.00
66.00	0.00	0	87.00	0.00
68.00	0.00	0	87.00	0.00
70.00	0.00	0	87.00	0.00
72.00	0.00	0	87.00	0.00

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Page 20

Summary for Pond SB: SEDIMENT BASIN

Inflow Area = 15.010 ac, 5.49% Impervious, Inflow Depth = 0.54" for WQ event
 Inflow = 19.90 cfs @ 1.17 hrs, Volume= 0.674 af
 Outflow = 1.13 cfs @ 1.09 hrs, Volume= 0.674 af, Atten= 94%, Lag= 0.0 min
 Primary = 1.13 cfs @ 1.09 hrs, Volume= 0.674 af
 Routed to Pond SP1 : Study Point 1
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Pond SP1 : Study Point 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 83.48' @ 2.11 hrs Surf.Area= 1.122 ac Storage= 0.536 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 185.5 min (268.5 - 83.0)

Volume	Invert	Avail.Storage	Storage Description
#1	83.00'	4.960 af	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
83.00	1.086	0.000	0.000
84.00	1.161	1.124	1.124
85.00	1.239	1.200	2.323
86.00	1.318	1.278	3.602
87.00	1.398	1.358	4.960

Device	Routing	Invert	Outlet Devices
#1	Primary	82.00'	12.0" Round Culvert L= 51.2' Box, 30-75° wingwalls, square crown, Ke= 0.400 Inlet / Outlet Invert= 82.00' / 81.24' S= 0.0148 1' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.79 sf
#2	Device 1	83.00'	1.134 cfs Skimmer
#3	Device 1	84.19'	24.0" Horiz. Principal Spillway (Riser) C= 0.600 Limited to weir flow at low heads
#4	Secondary	86.50'	10.0' long x 11.5' breadth Emergency Spillway Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.55 2.60 2.70 2.67 2.67 2.67 2.66 2.64

Primary OutFlow Max=1.13 cfs @ 1.09 hrs HW=83.05' TW=0.00' (Dynamic Tailwater)

- ↑ 1=Culvert (Passes 1.13 cfs of 2.99 cfs potential flow)
- ↑ 2=Skimmer (Constant Controls 1.13 cfs)
- ↑ 3=Principal Spillway (Riser) (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=83.00' TW=0.00' (Dynamic Tailwater)

- ↑ 4=Emergency Spillway (Controls 0.00 cfs)

Sediment Basin Flows

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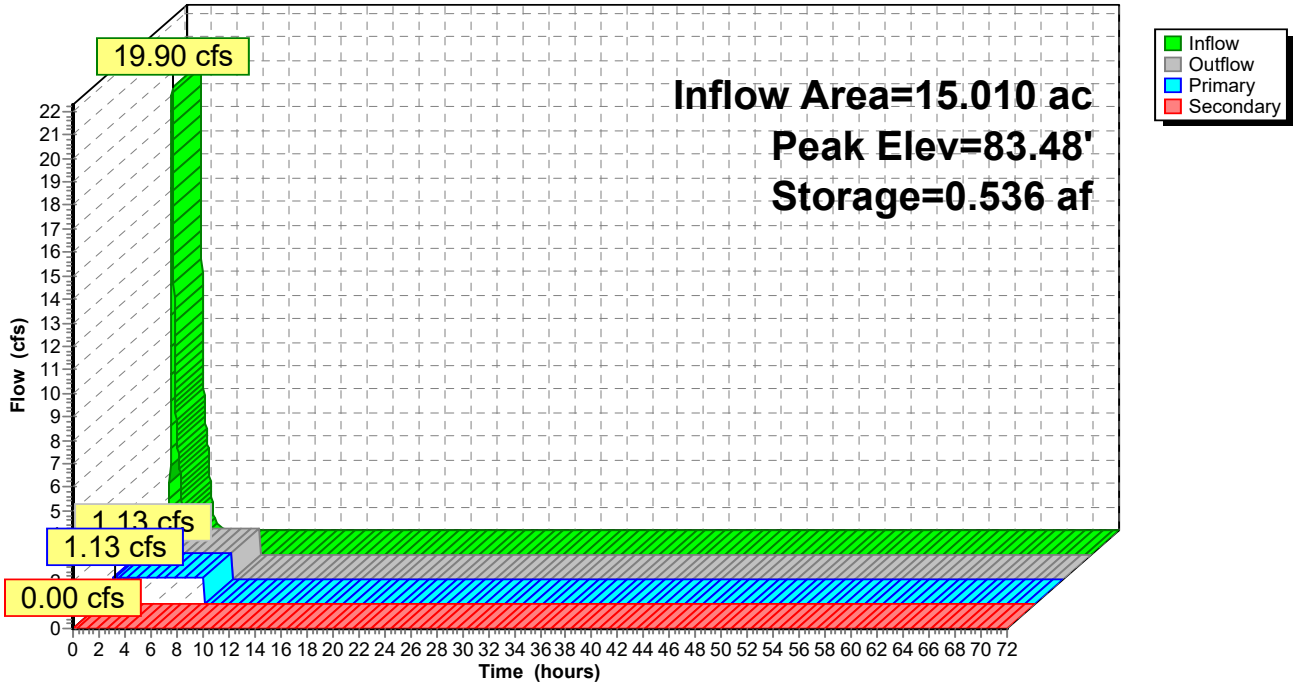
NJ DEP 2-hr WQ Rainfall=1.25"

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Page 21

Pond SB: SEDIMENT BASIN

Hydrograph



Sediment Basin Flows

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Page 22

Hydrograph for Pond SB: SEDIMENT BASIN

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0.000	83.00	0.00	0.00	0.00
2.00	1.78	0.532	83.48	1.13	1.13	0.00
4.00	0.00	0.381	83.35	1.13	1.13	0.00
6.00	0.00	0.194	83.18	1.13	1.13	0.00
8.00	0.00	0.007	83.01	1.13	1.13	0.00
10.00	0.00	0.000	83.00	0.00	0.00	0.00
12.00	0.00	0.000	83.00	0.00	0.00	0.00
14.00	0.00	0.000	83.00	0.00	0.00	0.00
16.00	0.00	0.000	83.00	0.00	0.00	0.00
18.00	0.00	0.000	83.00	0.00	0.00	0.00
20.00	0.00	0.000	83.00	0.00	0.00	0.00
22.00	0.00	0.000	83.00	0.00	0.00	0.00
24.00	0.00	0.000	83.00	0.00	0.00	0.00
26.00	0.00	0.000	83.00	0.00	0.00	0.00
28.00	0.00	0.000	83.00	0.00	0.00	0.00
30.00	0.00	0.000	83.00	0.00	0.00	0.00
32.00	0.00	0.000	83.00	0.00	0.00	0.00
34.00	0.00	0.000	83.00	0.00	0.00	0.00
36.00	0.00	0.000	83.00	0.00	0.00	0.00
38.00	0.00	0.000	83.00	0.00	0.00	0.00
40.00	0.00	0.000	83.00	0.00	0.00	0.00
42.00	0.00	0.000	83.00	0.00	0.00	0.00
44.00	0.00	0.000	83.00	0.00	0.00	0.00
46.00	0.00	0.000	83.00	0.00	0.00	0.00
48.00	0.00	0.000	83.00	0.00	0.00	0.00
50.00	0.00	0.000	83.00	0.00	0.00	0.00
52.00	0.00	0.000	83.00	0.00	0.00	0.00
54.00	0.00	0.000	83.00	0.00	0.00	0.00
56.00	0.00	0.000	83.00	0.00	0.00	0.00
58.00	0.00	0.000	83.00	0.00	0.00	0.00
60.00	0.00	0.000	83.00	0.00	0.00	0.00
62.00	0.00	0.000	83.00	0.00	0.00	0.00
64.00	0.00	0.000	83.00	0.00	0.00	0.00
66.00	0.00	0.000	83.00	0.00	0.00	0.00
68.00	0.00	0.000	83.00	0.00	0.00	0.00
70.00	0.00	0.000	83.00	0.00	0.00	0.00
72.00	0.00	0.000	83.00	0.00	0.00	0.00

Sediment Basin Flows

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NJ DEP 2-hr WQ Rainfall=1.25"

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Page 23

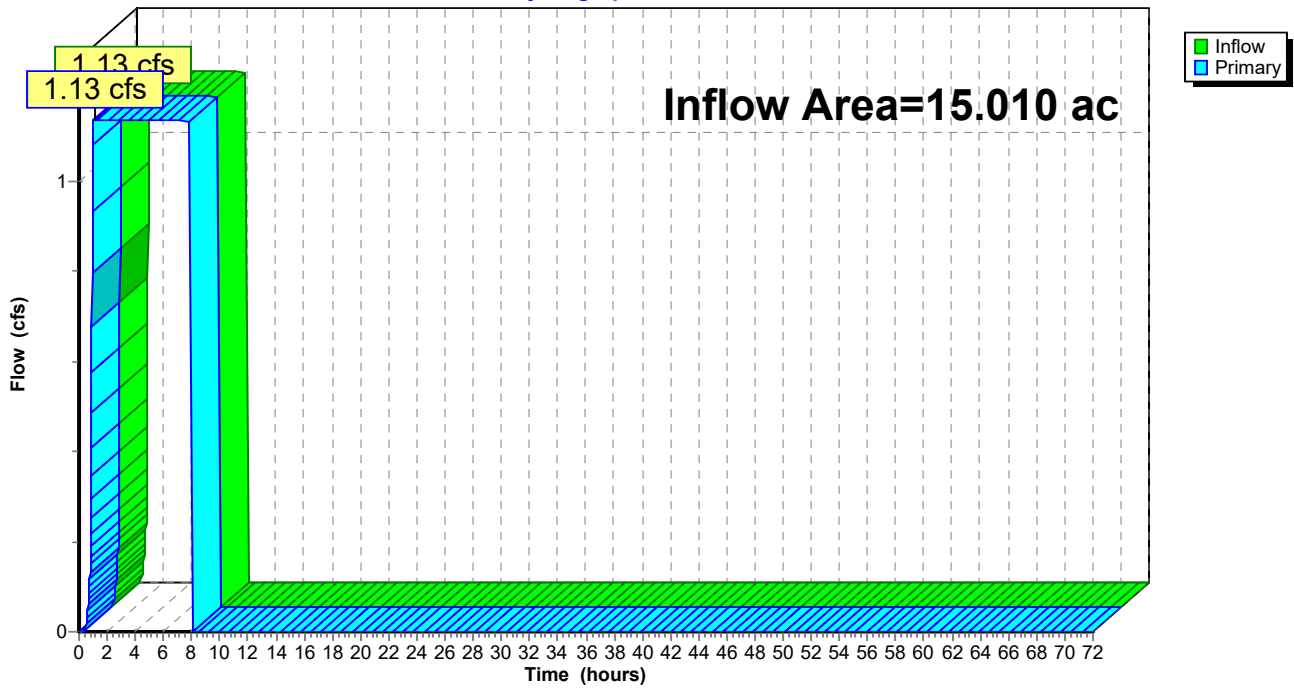
Summary for Pond SP1: Study Point 1

Inflow Area = 15.010 ac, 5.49% Impervious, Inflow Depth = 0.54" for WQ event
Inflow = 1.13 cfs @ 1.09 hrs, Volume= 0.674 af
Primary = 1.13 cfs @ 1.09 hrs, Volume= 0.674 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2

Pond SP1: Study Point 1

Hydrograph



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Page 24

Hydrograph for Pond SP1: Study Point 1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00		0.00	53.00	0.00		0.00
1.00	1.13		1.13	54.00	0.00		0.00
2.00	1.13		1.13	55.00	0.00		0.00
3.00	1.13		1.13	56.00	0.00		0.00
4.00	1.13		1.13	57.00	0.00		0.00
5.00	1.13		1.13	58.00	0.00		0.00
6.00	1.13		1.13	59.00	0.00		0.00
7.00	1.13		1.13	60.00	0.00		0.00
8.00	1.13		1.13	61.00	0.00		0.00
9.00	0.00		0.00	62.00	0.00		0.00
10.00	0.00		0.00	63.00	0.00		0.00
11.00	0.00		0.00	64.00	0.00		0.00
12.00	0.00		0.00	65.00	0.00		0.00
13.00	0.00		0.00	66.00	0.00		0.00
14.00	0.00		0.00	67.00	0.00		0.00
15.00	0.00		0.00	68.00	0.00		0.00
16.00	0.00		0.00	69.00	0.00		0.00
17.00	0.00		0.00	70.00	0.00		0.00
18.00	0.00		0.00	71.00	0.00		0.00
19.00	0.00		0.00	72.00	0.00		0.00
20.00	0.00		0.00				
21.00	0.00		0.00				
22.00	0.00		0.00				
23.00	0.00		0.00				
24.00	0.00		0.00				
25.00	0.00		0.00				
26.00	0.00		0.00				
27.00	0.00		0.00				
28.00	0.00		0.00				
29.00	0.00		0.00				
30.00	0.00		0.00				
31.00	0.00		0.00				
32.00	0.00		0.00				
33.00	0.00		0.00				
34.00	0.00		0.00				
35.00	0.00		0.00				
36.00	0.00		0.00				
37.00	0.00		0.00				
38.00	0.00		0.00				
39.00	0.00		0.00				
40.00	0.00		0.00				
41.00	0.00		0.00				
42.00	0.00		0.00				
43.00	0.00		0.00				
44.00	0.00		0.00				
45.00	0.00		0.00				
46.00	0.00		0.00				
47.00	0.00		0.00				
48.00	0.00		0.00				
49.00	0.00		0.00				
50.00	0.00		0.00				
51.00	0.00		0.00				
52.00	0.00		0.00				

Sediment Basin Flows

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NOAA 24-hr D 2 yr Rainfall=3.31"

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Page 25

Summary for Subcatchment DS1-I: DIVERSION SWALE #1 DRAINAGE AREA (Impervious)

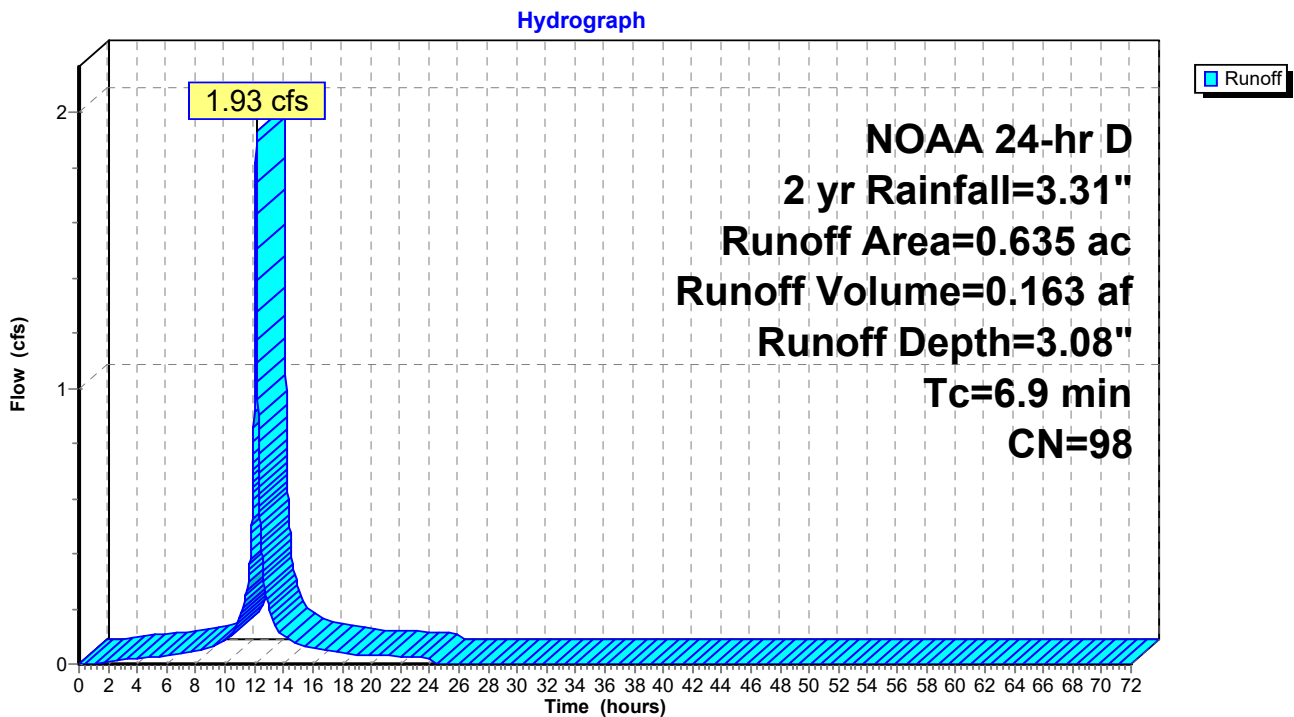
Runoff = 1.93 cfs @ 12.14 hrs, Volume= 0.163 af, Depth= 3.08"
 Routed to Reach DS1 : DIVERSION SWALE #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 2 yr Rainfall=3.31"

Area (ac)	CN	Description
0.635	98	Unconnected pavement, HSG C
0.635		100.00% Impervious Area
0.635		100.00% Unconnected

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

Subcatchment DS1-I: DIVERSION SWALE #1 DRAINAGE AREA (Impervious)



Sediment Basin Flows

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NOAA 24-hr D 2 yr Rainfall=3.31"

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Page 26

Hydrograph for Subcatchment DS1-I: DIVERSION SWALE #1 DRAINAGE AREA (Impervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	3.31	3.08	0.00
1.00	0.04	0.00	0.00	54.00	3.31	3.08	0.00
2.00	0.08	0.01	0.01	55.00	3.31	3.08	0.00
3.00	0.12	0.02	0.01	56.00	3.31	3.08	0.00
4.00	0.17	0.05	0.02	57.00	3.31	3.08	0.00
5.00	0.23	0.09	0.02	58.00	3.31	3.08	0.00
6.00	0.28	0.13	0.03	59.00	3.31	3.08	0.00
7.00	0.35	0.19	0.04	60.00	3.31	3.08	0.00
8.00	0.43	0.25	0.05	61.00	3.31	3.08	0.00
9.00	0.53	0.34	0.06	62.00	3.31	3.08	0.00
10.00	0.66	0.46	0.09	63.00	3.31	3.08	0.00
11.00	0.86	0.66	0.16	64.00	3.31	3.08	0.00
12.00	1.59	1.36	1.03	65.00	3.31	3.08	0.00
13.00	2.45	2.22	0.21	66.00	3.31	3.08	0.00
14.00	2.65	2.42	0.10	67.00	3.31	3.08	0.00
15.00	2.78	2.55	0.07	68.00	3.31	3.08	0.00
16.00	2.88	2.65	0.06	69.00	3.31	3.08	0.00
17.00	2.96	2.73	0.05	70.00	3.31	3.08	0.00
18.00	3.03	2.80	0.04	71.00	3.31	3.08	0.00
19.00	3.08	2.85	0.03	72.00	3.31	3.08	0.00
20.00	3.14	2.90	0.03				
21.00	3.19	2.95	0.03				
22.00	3.23	3.00	0.03				
23.00	3.27	3.04	0.03				
24.00	3.31	3.08	0.02				
25.00	3.31	3.08	0.00				
26.00	3.31	3.08	0.00				
27.00	3.31	3.08	0.00				
28.00	3.31	3.08	0.00				
29.00	3.31	3.08	0.00				
30.00	3.31	3.08	0.00				
31.00	3.31	3.08	0.00				
32.00	3.31	3.08	0.00				
33.00	3.31	3.08	0.00				
34.00	3.31	3.08	0.00				
35.00	3.31	3.08	0.00				
36.00	3.31	3.08	0.00				
37.00	3.31	3.08	0.00				
38.00	3.31	3.08	0.00				
39.00	3.31	3.08	0.00				
40.00	3.31	3.08	0.00				
41.00	3.31	3.08	0.00				
42.00	3.31	3.08	0.00				
43.00	3.31	3.08	0.00				
44.00	3.31	3.08	0.00				
45.00	3.31	3.08	0.00				
46.00	3.31	3.08	0.00				
47.00	3.31	3.08	0.00				
48.00	3.31	3.08	0.00				
49.00	3.31	3.08	0.00				
50.00	3.31	3.08	0.00				
51.00	3.31	3.08	0.00				
52.00	3.31	3.08	0.00				

Sediment Basin Flows

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NOAA 24-hr D 2 yr Rainfall=3.31"

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Page 27

Summary for Subcatchment DS1-P: DIVERSION SWALE #1 DRAINAGE AREA (Pervious)

Runoff = 19.78 cfs @ 12.14 hrs, Volume= 1.495 af, Depth= 2.36"
 Routed to Reach DS1 : DIVERSION SWALE #1

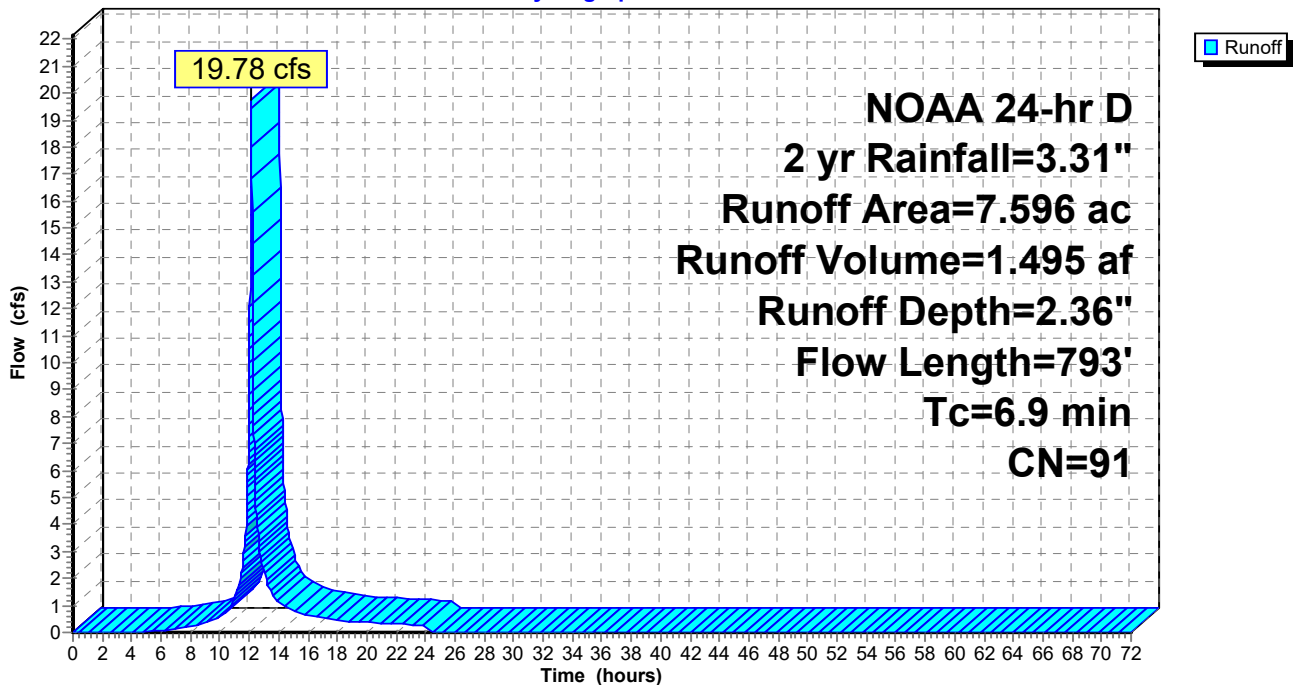
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 2 yr Rainfall=3.31"

Area (ac)	CN	Description
7.596	91	Fallow, bare soil, HSG C
7.596		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	100	0.0250	1.53		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.31"
5.1	466	0.0230	1.52		Shallow Concentrated Flow, B-C Nearly Bare & Untilled Kv= 10.0 fps
0.7	227	0.0077	5.65	401.45	Channel Flow, C-D Area= 71.0 sf Perim= 76.2' r= 0.93' n= 0.022 Earth, clean & straight
6.9	793	Total			

Subcatchment DS1-P: DIVERSION SWALE #1 DRAINAGE AREA (Pervious)

Hydrograph



Sediment Basin Flows

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Page 28

Hydrograph for Subcatchment DS1-P: DIVERSION SWALE #1 DRAINAGE AREA (Pervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	3.31	2.36	0.00
1.00	0.04	0.00	0.00	54.00	3.31	2.36	0.00
2.00	0.08	0.00	0.00	55.00	3.31	2.36	0.00
3.00	0.12	0.00	0.00	56.00	3.31	2.36	0.00
4.00	0.17	0.00	0.00	57.00	3.31	2.36	0.00
5.00	0.23	0.00	0.02	58.00	3.31	2.36	0.00
6.00	0.28	0.01	0.06	59.00	3.31	2.36	0.00
7.00	0.35	0.02	0.13	60.00	3.31	2.36	0.00
8.00	0.43	0.04	0.22	61.00	3.31	2.36	0.00
9.00	0.53	0.08	0.33	62.00	3.31	2.36	0.00
10.00	0.66	0.15	0.61	63.00	3.31	2.36	0.00
11.00	0.86	0.27	1.28	64.00	3.31	2.36	0.00
12.00	1.59	0.81	9.98	65.00	3.31	2.36	0.00
13.00	2.45	1.56	2.28	66.00	3.31	2.36	0.00
14.00	2.65	1.75	1.14	67.00	3.31	2.36	0.00
15.00	2.78	1.87	0.78	68.00	3.31	2.36	0.00
16.00	2.88	1.96	0.64	69.00	3.31	2.36	0.00
17.00	2.96	2.04	0.53	70.00	3.31	2.36	0.00
18.00	3.03	2.10	0.43	71.00	3.31	2.36	0.00
19.00	3.08	2.15	0.39	72.00	3.31	2.36	0.00
20.00	3.14	2.20	0.37				
21.00	3.19	2.24	0.34				
22.00	3.23	2.29	0.32				
23.00	3.27	2.33	0.29				
24.00	3.31	2.36	0.26				
25.00	3.31	2.36	0.00				
26.00	3.31	2.36	0.00				
27.00	3.31	2.36	0.00				
28.00	3.31	2.36	0.00				
29.00	3.31	2.36	0.00				
30.00	3.31	2.36	0.00				
31.00	3.31	2.36	0.00				
32.00	3.31	2.36	0.00				
33.00	3.31	2.36	0.00				
34.00	3.31	2.36	0.00				
35.00	3.31	2.36	0.00				
36.00	3.31	2.36	0.00				
37.00	3.31	2.36	0.00				
38.00	3.31	2.36	0.00				
39.00	3.31	2.36	0.00				
40.00	3.31	2.36	0.00				
41.00	3.31	2.36	0.00				
42.00	3.31	2.36	0.00				
43.00	3.31	2.36	0.00				
44.00	3.31	2.36	0.00				
45.00	3.31	2.36	0.00				
46.00	3.31	2.36	0.00				
47.00	3.31	2.36	0.00				
48.00	3.31	2.36	0.00				
49.00	3.31	2.36	0.00				
50.00	3.31	2.36	0.00				
51.00	3.31	2.36	0.00				
52.00	3.31	2.36	0.00				

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NOAA 24-hr D 2 yr Rainfall=3.31"

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Page 29

Summary for Subcatchment DS2-P: DIVERSION SWALE #2 DRAINAGE AREA (Pervious)

Runoff = 4.38 cfs @ 12.17 hrs, Volume= 0.355 af, Depth= 1.93"
 Routed to Reach DS2 : DIVERSION SWALE #2

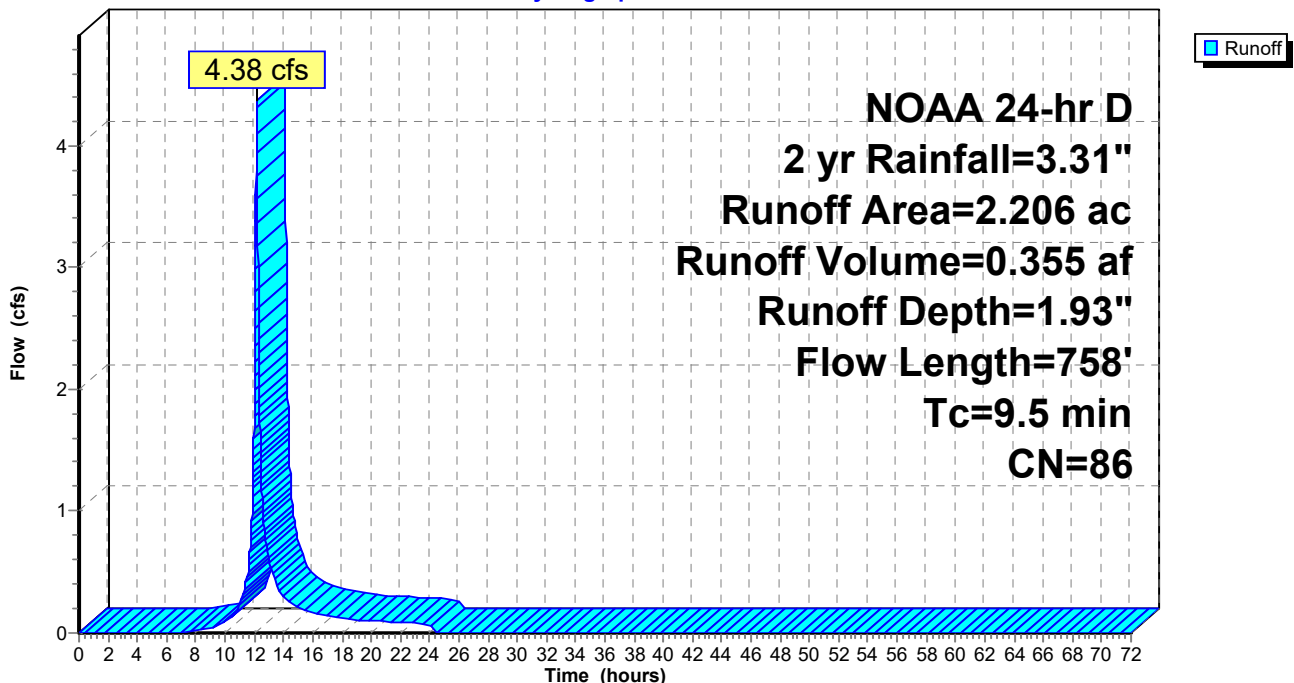
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 2 yr Rainfall=3.31"

Area (ac)	CN	Description
0.340	77	Fallow, bare soil, HSG A
1.450	86	Fallow, bare soil, HSG B
0.416	91	Fallow, bare soil, HSG C
2.206	86	Weighted Average
2.206		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.1	100	0.0385	0.54		Sheet Flow, A-B Fallow n= 0.050 P2= 3.31"
6.0	445	0.0152	1.23		Shallow Concentrated Flow, B-C Nearly Bare & Untilled Kv= 10.0 fps
0.4	213	0.0188	8.44	295.55	Channel Flow, C-D Area= 35.0 sf Perim= 40.2' r= 0.87' n= 0.022 Earth, clean & straight
9.5	758	Total			

Subcatchment DS2-P: DIVERSION SWALE #2 DRAINAGE AREA (Pervious)

Hydrograph



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NOAA 24-hr D 2 yr Rainfall=3.31"

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Page 30

Hydrograph for Subcatchment DS2-P: DIVERSION SWALE #2 DRAINAGE AREA (Pervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	3.31	1.93	0.00
1.00	0.04	0.00	0.00	54.00	3.31	1.93	0.00
2.00	0.08	0.00	0.00	55.00	3.31	1.93	0.00
3.00	0.12	0.00	0.00	56.00	3.31	1.93	0.00
4.00	0.17	0.00	0.00	57.00	3.31	1.93	0.00
5.00	0.23	0.00	0.00	58.00	3.31	1.93	0.00
6.00	0.28	0.00	0.00	59.00	3.31	1.93	0.00
7.00	0.35	0.00	0.00	60.00	3.31	1.93	0.00
8.00	0.43	0.01	0.02	61.00	3.31	1.93	0.00
9.00	0.53	0.02	0.04	62.00	3.31	1.93	0.00
10.00	0.66	0.06	0.10	63.00	3.31	1.93	0.00
11.00	0.86	0.13	0.24	64.00	3.31	1.93	0.00
12.00	1.59	0.55	1.89	65.00	3.31	1.93	0.00
13.00	2.45	1.20	0.62	66.00	3.31	1.93	0.00
14.00	2.65	1.37	0.30	67.00	3.31	1.93	0.00
15.00	2.78	1.48	0.21	68.00	3.31	1.93	0.00
16.00	2.88	1.56	0.17	69.00	3.31	1.93	0.00
17.00	2.96	1.63	0.14	70.00	3.31	1.93	0.00
18.00	3.03	1.69	0.12	71.00	3.31	1.93	0.00
19.00	3.08	1.73	0.11	72.00	3.31	1.93	0.00
20.00	3.14	1.78	0.10				
21.00	3.19	1.82	0.09				
22.00	3.23	1.86	0.09				
23.00	3.27	1.90	0.08				
24.00	3.31	1.93	0.07				
25.00	3.31	1.93	0.00				
26.00	3.31	1.93	0.00				
27.00	3.31	1.93	0.00				
28.00	3.31	1.93	0.00				
29.00	3.31	1.93	0.00				
30.00	3.31	1.93	0.00				
31.00	3.31	1.93	0.00				
32.00	3.31	1.93	0.00				
33.00	3.31	1.93	0.00				
34.00	3.31	1.93	0.00				
35.00	3.31	1.93	0.00				
36.00	3.31	1.93	0.00				
37.00	3.31	1.93	0.00				
38.00	3.31	1.93	0.00				
39.00	3.31	1.93	0.00				
40.00	3.31	1.93	0.00				
41.00	3.31	1.93	0.00				
42.00	3.31	1.93	0.00				
43.00	3.31	1.93	0.00				
44.00	3.31	1.93	0.00				
45.00	3.31	1.93	0.00				
46.00	3.31	1.93	0.00				
47.00	3.31	1.93	0.00				
48.00	3.31	1.93	0.00				
49.00	3.31	1.93	0.00				
50.00	3.31	1.93	0.00				
51.00	3.31	1.93	0.00				
52.00	3.31	1.93	0.00				

Sediment Basin Flows

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NOAA 24-hr D 2 yr Rainfall=3.31"

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Page 31

Summary for Subcatchment SB-I: SEDIMENT BASIN DRAINAGE AREA (Impervious)

Runoff = 0.55 cfs @ 12.15 hrs, Volume= 0.048 af, Depth= 3.08"
 Routed to Pond SB : SEDIMENT BASIN

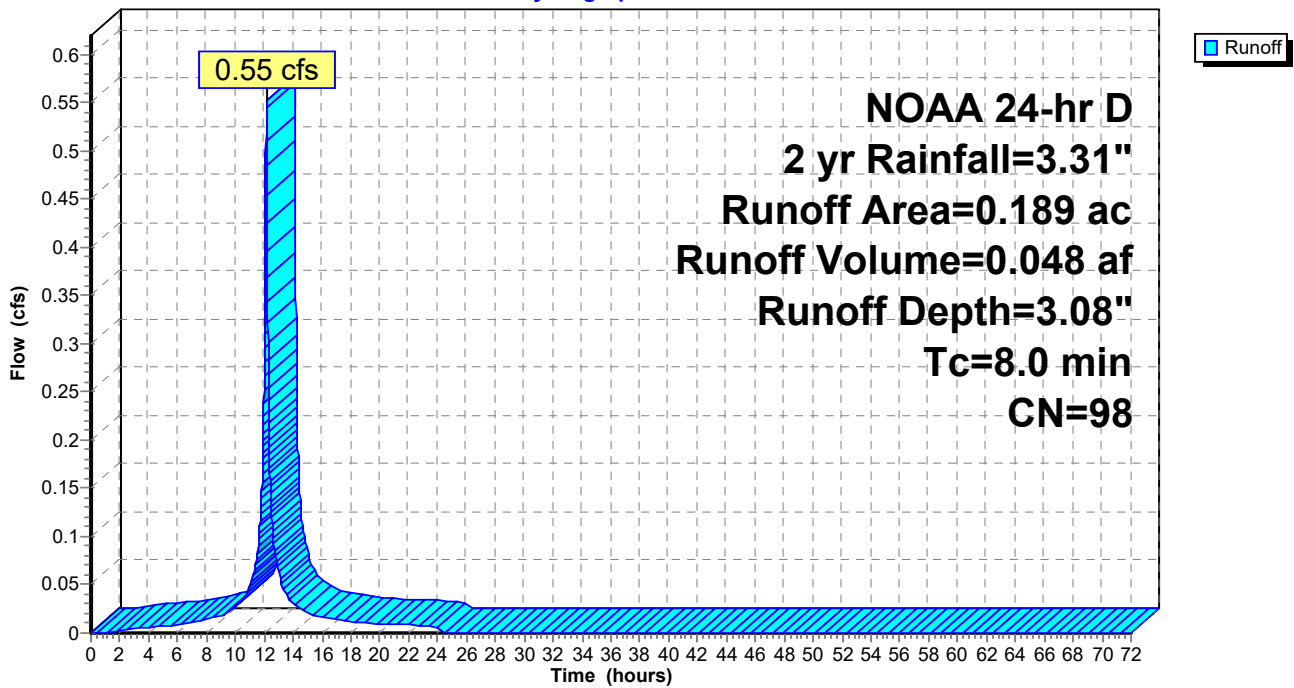
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 2 yr Rainfall=3.31"

Area (ac)	CN	Description
0.189	98	Unconnected pavement, HSG C
0.189		100.00% Impervious Area
0.189		100.00% Unconnected

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

Subcatchment SB-I: SEDIMENT BASIN DRAINAGE AREA (Impervious)

Hydrograph



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Page 32

Hydrograph for Subcatchment SB-I: SEDIMENT BASIN DRAINAGE AREA (Impervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	3.31	3.08	0.00
1.00	0.04	0.00	0.00	54.00	3.31	3.08	0.00
2.00	0.08	0.01	0.00	55.00	3.31	3.08	0.00
3.00	0.12	0.02	0.00	56.00	3.31	3.08	0.00
4.00	0.17	0.05	0.01	57.00	3.31	3.08	0.00
5.00	0.23	0.09	0.01	58.00	3.31	3.08	0.00
6.00	0.28	0.13	0.01	59.00	3.31	3.08	0.00
7.00	0.35	0.19	0.01	60.00	3.31	3.08	0.00
8.00	0.43	0.25	0.01	61.00	3.31	3.08	0.00
9.00	0.53	0.34	0.02	62.00	3.31	3.08	0.00
10.00	0.66	0.46	0.03	63.00	3.31	3.08	0.00
11.00	0.86	0.66	0.05	64.00	3.31	3.08	0.00
12.00	1.59	1.36	0.28	65.00	3.31	3.08	0.00
13.00	2.45	2.22	0.06	66.00	3.31	3.08	0.00
14.00	2.65	2.42	0.03	67.00	3.31	3.08	0.00
15.00	2.78	2.55	0.02	68.00	3.31	3.08	0.00
16.00	2.88	2.65	0.02	69.00	3.31	3.08	0.00
17.00	2.96	2.73	0.01	70.00	3.31	3.08	0.00
18.00	3.03	2.80	0.01	71.00	3.31	3.08	0.00
19.00	3.08	2.85	0.01	72.00	3.31	3.08	0.00
20.00	3.14	2.90	0.01				
21.00	3.19	2.95	0.01				
22.00	3.23	3.00	0.01				
23.00	3.27	3.04	0.01				
24.00	3.31	3.08	0.01				
25.00	3.31	3.08	0.00				
26.00	3.31	3.08	0.00				
27.00	3.31	3.08	0.00				
28.00	3.31	3.08	0.00				
29.00	3.31	3.08	0.00				
30.00	3.31	3.08	0.00				
31.00	3.31	3.08	0.00				
32.00	3.31	3.08	0.00				
33.00	3.31	3.08	0.00				
34.00	3.31	3.08	0.00				
35.00	3.31	3.08	0.00				
36.00	3.31	3.08	0.00				
37.00	3.31	3.08	0.00				
38.00	3.31	3.08	0.00				
39.00	3.31	3.08	0.00				
40.00	3.31	3.08	0.00				
41.00	3.31	3.08	0.00				
42.00	3.31	3.08	0.00				
43.00	3.31	3.08	0.00				
44.00	3.31	3.08	0.00				
45.00	3.31	3.08	0.00				
46.00	3.31	3.08	0.00				
47.00	3.31	3.08	0.00				
48.00	3.31	3.08	0.00				
49.00	3.31	3.08	0.00				
50.00	3.31	3.08	0.00				
51.00	3.31	3.08	0.00				
52.00	3.31	3.08	0.00				

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Page 33

Summary for Subcatchment SB-P: SEDIMENT BASIN DRAINAGE AREA (Pervious)

Runoff = 10.95 cfs @ 12.15 hrs, Volume= 0.863 af, Depth= 2.36"
 Routed to Pond SB : SEDIMENT BASIN

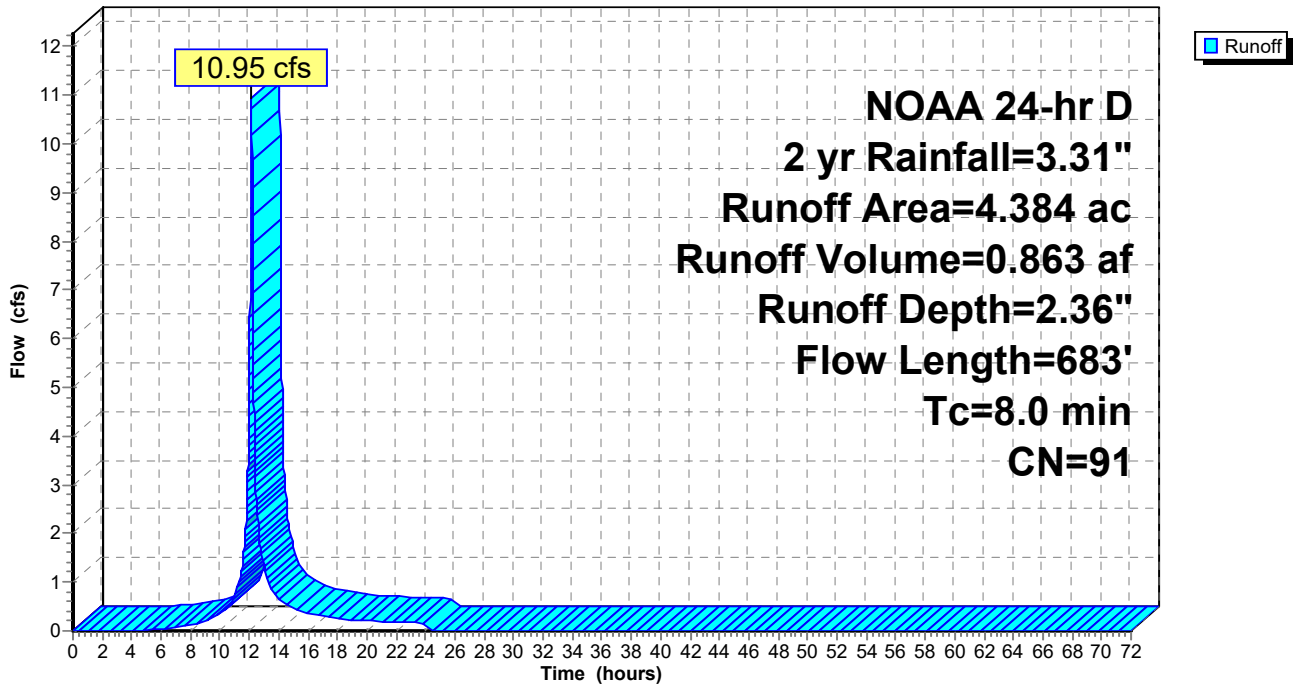
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 2 yr Rainfall=3.31"

Area (ac)	CN	Description
0.243	86	Fallow, bare soil, HSG B
4.141	91	Fallow, bare soil, HSG C
4.384	91	Weighted Average
4.384		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0200	1.40		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.31"
6.8	583	0.0202	1.42		Shallow Concentrated Flow, B-C Nearly Bare & Untilled Kv= 10.0 fps
8.0	683	Total			

Subcatchment SB-P: SEDIMENT BASIN DRAINAGE AREA (Pervious)

Hydrograph



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Page 34

Hydrograph for Subcatchment SB-P: SEDIMENT BASIN DRAINAGE AREA (Pervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	3.31	2.36	0.00
1.00	0.04	0.00	0.00	54.00	3.31	2.36	0.00
2.00	0.08	0.00	0.00	55.00	3.31	2.36	0.00
3.00	0.12	0.00	0.00	56.00	3.31	2.36	0.00
4.00	0.17	0.00	0.00	57.00	3.31	2.36	0.00
5.00	0.23	0.00	0.01	58.00	3.31	2.36	0.00
6.00	0.28	0.01	0.04	59.00	3.31	2.36	0.00
7.00	0.35	0.02	0.07	60.00	3.31	2.36	0.00
8.00	0.43	0.04	0.13	61.00	3.31	2.36	0.00
9.00	0.53	0.08	0.19	62.00	3.31	2.36	0.00
10.00	0.66	0.15	0.35	63.00	3.31	2.36	0.00
11.00	0.86	0.27	0.73	64.00	3.31	2.36	0.00
12.00	1.59	0.81	5.27	65.00	3.31	2.36	0.00
13.00	2.45	1.56	1.34	66.00	3.31	2.36	0.00
14.00	2.65	1.75	0.66	67.00	3.31	2.36	0.00
15.00	2.78	1.87	0.45	68.00	3.31	2.36	0.00
16.00	2.88	1.96	0.37	69.00	3.31	2.36	0.00
17.00	2.96	2.04	0.31	70.00	3.31	2.36	0.00
18.00	3.03	2.10	0.25	71.00	3.31	2.36	0.00
19.00	3.08	2.15	0.23	72.00	3.31	2.36	0.00
20.00	3.14	2.20	0.21				
21.00	3.19	2.24	0.20				
22.00	3.23	2.29	0.18				
23.00	3.27	2.33	0.17				
24.00	3.31	2.36	0.15				
25.00	3.31	2.36	0.00				
26.00	3.31	2.36	0.00				
27.00	3.31	2.36	0.00				
28.00	3.31	2.36	0.00				
29.00	3.31	2.36	0.00				
30.00	3.31	2.36	0.00				
31.00	3.31	2.36	0.00				
32.00	3.31	2.36	0.00				
33.00	3.31	2.36	0.00				
34.00	3.31	2.36	0.00				
35.00	3.31	2.36	0.00				
36.00	3.31	2.36	0.00				
37.00	3.31	2.36	0.00				
38.00	3.31	2.36	0.00				
39.00	3.31	2.36	0.00				
40.00	3.31	2.36	0.00				
41.00	3.31	2.36	0.00				
42.00	3.31	2.36	0.00				
43.00	3.31	2.36	0.00				
44.00	3.31	2.36	0.00				
45.00	3.31	2.36	0.00				
46.00	3.31	2.36	0.00				
47.00	3.31	2.36	0.00				
48.00	3.31	2.36	0.00				
49.00	3.31	2.36	0.00				
50.00	3.31	2.36	0.00				
51.00	3.31	2.36	0.00				
52.00	3.31	2.36	0.00				

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Page 35

Summary for Reach DS1: DIVERSION SWALE #1

Inflow Area = 8.231 ac, 7.71% Impervious, Inflow Depth = 2.42" for 2 yr event
Inflow = 21.71 cfs @ 12.14 hrs, Volume= 1.658 af
Outflow = 19.16 cfs @ 12.17 hrs, Volume= 1.658 af, Atten= 12%, Lag= 2.1 min
Routed to Pond SB : SEDIMENT BASIN

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Max. Velocity= 1.75 fps, Min. Travel Time= 5.0 min
Avg. Velocity = 0.50 fps, Avg. Travel Time= 17.3 min

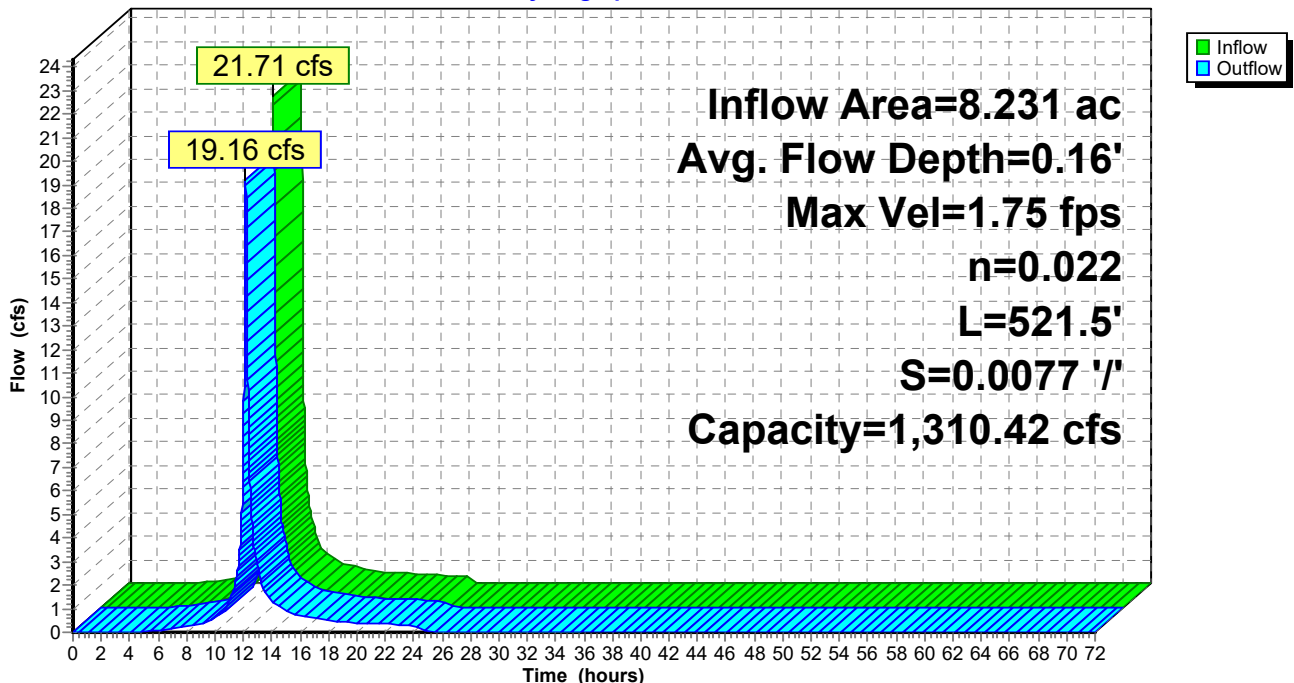
Peak Storage= 5,693 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.16' , Surface Width= 67.63'
Bank-Full Depth= 2.00' Flow Area= 152.0 sf, Capacity= 1,310.42 cfs

66.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 5.0 '/' Top Width= 86.00'
Length= 521.5' Slope= 0.0077 '/'
Inlet Invert= 87.00', Outlet Invert= 83.00'



Reach DS1: DIVERSION SWALE #1

Hydrograph



Sediment Basin Flows

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Page 36

Hydrograph for Reach DS1: DIVERSION SWALE #1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
0.00	0.00	0	87.00	0.00
2.00	0.01	6	87.00	0.00
4.00	0.02	22	87.00	0.02
6.00	0.09	91	87.00	0.08
8.00	0.27	282	87.01	0.24
10.00	0.70	705	87.02	0.60
12.00	11.01	3,317	87.10	7.86
14.00	1.24	1,102	87.03	1.32
16.00	0.69	765	87.02	0.71
18.00	0.47	605	87.02	0.51
20.00	0.40	490	87.01	0.41
22.00	0.34	422	87.01	0.35
24.00	0.29	354	87.01	0.30
26.00	0.00	1	87.00	0.00
28.00	0.00	0	87.00	0.00
30.00	0.00	0	87.00	0.00
32.00	0.00	0	87.00	0.00
34.00	0.00	0	87.00	0.00
36.00	0.00	0	87.00	0.00
38.00	0.00	0	87.00	0.00
40.00	0.00	0	87.00	0.00
42.00	0.00	0	87.00	0.00
44.00	0.00	0	87.00	0.00
46.00	0.00	0	87.00	0.00
48.00	0.00	0	87.00	0.00
50.00	0.00	0	87.00	0.00
52.00	0.00	0	87.00	0.00
54.00	0.00	0	87.00	0.00
56.00	0.00	0	87.00	0.00
58.00	0.00	0	87.00	0.00
60.00	0.00	0	87.00	0.00
62.00	0.00	0	87.00	0.00
64.00	0.00	0	87.00	0.00
66.00	0.00	0	87.00	0.00
68.00	0.00	0	87.00	0.00
70.00	0.00	0	87.00	0.00
72.00	0.00	0	87.00	0.00

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Page 37

Summary for Reach DS2: DIVERSION SWALE #2

Inflow Area = 2.206 ac, 0.00% Impervious, Inflow Depth = 1.93" for 2 yr event
Inflow = 4.38 cfs @ 12.17 hrs, Volume= 0.355 af
Outflow = 4.26 cfs @ 12.19 hrs, Volume= 0.355 af, Atten= 3%, Lag= 1.2 min
Routed to Pond SB : SEDIMENT BASIN

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Max. Velocity= 1.72 fps, Min. Travel Time= 2.1 min
Avg. Velocity = 0.52 fps, Avg. Travel Time= 6.8 min

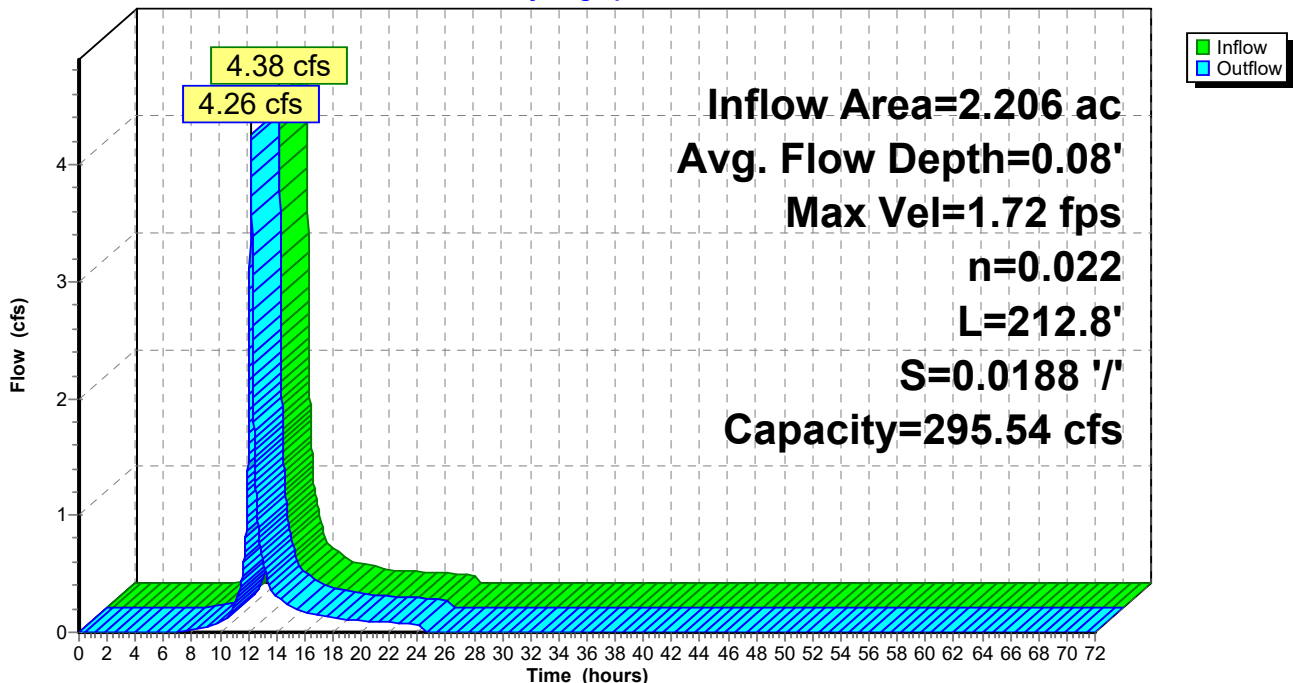
Peak Storage= 526 cf @ 12.19 hrs
Average Depth at Peak Storage= 0.08' , Surface Width= 30.81'
Bank-Full Depth= 1.00' Flow Area= 35.0 sf, Capacity= 295.54 cfs

30.00' x 1.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 5.0 '/ Top Width= 40.00'
Length= 212.8' Slope= 0.0188 '/
Inlet Invert= 87.00', Outlet Invert= 83.00'



Reach DS2: DIVERSION SWALE #2

Hydrograph



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Page 38

Hydrograph for Reach DS2: DIVERSION SWALE #2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
0.00	0.00	0	87.00	0.00
2.00	0.00	0	87.00	0.00
4.00	0.00	0	87.00	0.00
6.00	0.00	0	87.00	0.00
8.00	0.02	8	87.00	0.02
10.00	0.10	44	87.01	0.09
12.00	1.89	292	87.05	1.62
14.00	0.30	105	87.02	0.31
16.00	0.17	74	87.01	0.17
18.00	0.12	59	87.01	0.12
20.00	0.10	49	87.01	0.10
22.00	0.09	43	87.01	0.09
24.00	0.07	36	87.01	0.07
26.00	0.00	0	87.00	0.00
28.00	0.00	0	87.00	0.00
30.00	0.00	0	87.00	0.00
32.00	0.00	0	87.00	0.00
34.00	0.00	0	87.00	0.00
36.00	0.00	0	87.00	0.00
38.00	0.00	0	87.00	0.00
40.00	0.00	0	87.00	0.00
42.00	0.00	0	87.00	0.00
44.00	0.00	0	87.00	0.00
46.00	0.00	0	87.00	0.00
48.00	0.00	0	87.00	0.00
50.00	0.00	0	87.00	0.00
52.00	0.00	0	87.00	0.00
54.00	0.00	0	87.00	0.00
56.00	0.00	0	87.00	0.00
58.00	0.00	0	87.00	0.00
60.00	0.00	0	87.00	0.00
62.00	0.00	0	87.00	0.00
64.00	0.00	0	87.00	0.00
66.00	0.00	0	87.00	0.00
68.00	0.00	0	87.00	0.00
70.00	0.00	0	87.00	0.00
72.00	0.00	0	87.00	0.00

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Page 39

Summary for Pond SB: SEDIMENT BASIN

Inflow Area = 15.010 ac, 5.49% Impervious, Inflow Depth = 2.34" for 2 yr event
 Inflow = 34.46 cfs @ 12.17 hrs, Volume= 2.924 af
 Outflow = 2.24 cfs @ 14.11 hrs, Volume= 2.924 af, Atten= 94%, Lag= 116.7 min
 Primary = 2.24 cfs @ 14.11 hrs, Volume= 2.924 af
 Routed to Pond SP1 : Study Point 1
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Pond SP1 : Study Point 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 84.33' @ 14.11 hrs Surf.Area= 1.187 ac Storage= 1.514 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 483.3 min (1,299.2 - 815.9)

Volume	Invert	Avail.Storage	Storage Description
#1	83.00'	4.960 af	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
83.00	1.086	0.000	0.000
84.00	1.161	1.124	1.124
85.00	1.239	1.200	2.323
86.00	1.318	1.278	3.602
87.00	1.398	1.358	4.960

Device	Routing	Invert	Outlet Devices
#1	Primary	82.00'	12.0" Round Culvert L= 51.2' Box, 30-75° wingwalls, square crown, Ke= 0.400 Inlet / Outlet Invert= 82.00' / 81.24' S= 0.0148 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.79 sf
#2	Device 1	83.00'	1.134 cfs Skimmer
#3	Device 1	84.19'	24.0" Horiz. Principal Spillway (Riser) C= 0.600 Limited to weir flow at low heads
#4	Secondary	86.50'	10.0' long x 11.5' breadth Emergency Spillway Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.55 2.60 2.70 2.67 2.67 2.67 2.66 2.64

Primary OutFlow Max=2.24 cfs @ 14.11 hrs HW=84.33' TW=0.00' (Dynamic Tailwater)

- ↑ 1=Culvert (Passes 2.24 cfs of 5.48 cfs potential flow)
- ↑ 2=Skimmer (Constant Controls 1.13 cfs)
- ↑ 3=Principal Spillway (Riser) (Weir Controls 1.11 cfs @ 1.23 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=83.00' TW=0.00' (Dynamic Tailwater)

- ↑ 4=Emergency Spillway (Controls 0.00 cfs)

Sediment Basin Flows

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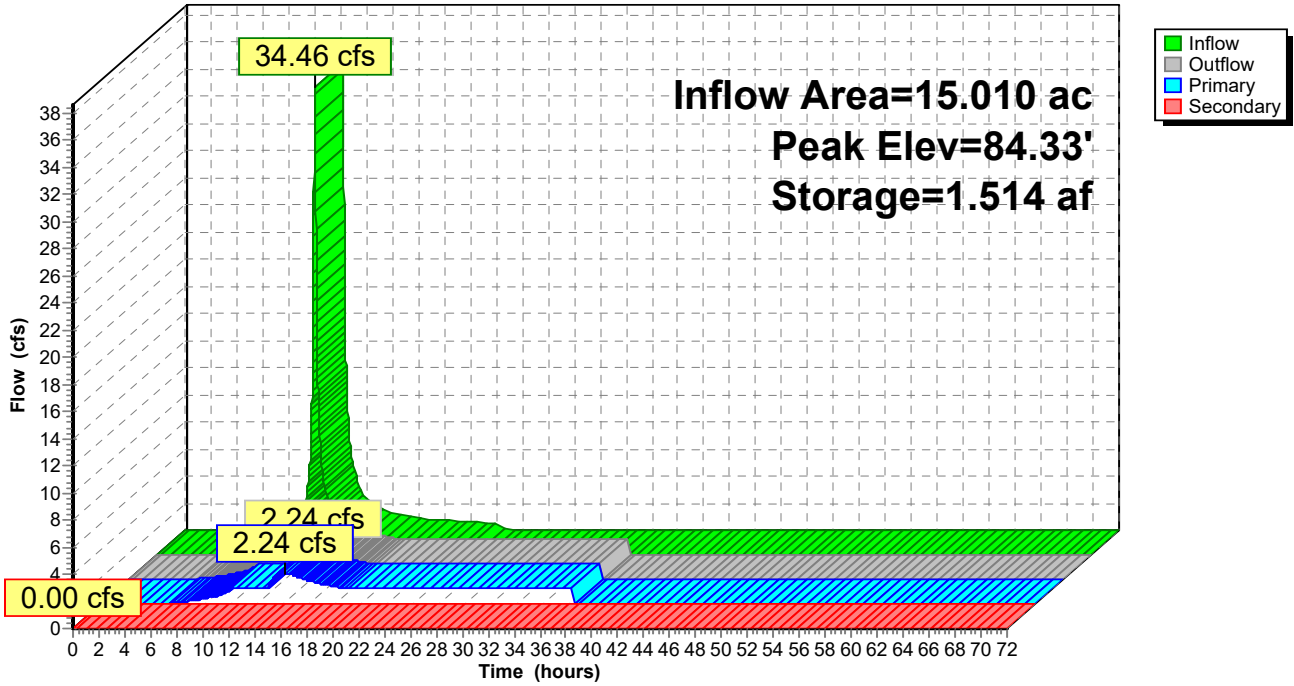
NOAA 24-hr D 2 yr Rainfall=3.31"

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Page 40

Pond SB: SEDIMENT BASIN

Hydrograph



Sediment Basin Flows

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Page 41

Hydrograph for Pond SB: SEDIMENT BASIN

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0.000	83.00	0.00	0.00	0.00
2.00	0.01	0.000	83.00	0.01	0.01	0.00
4.00	0.02	0.000	83.00	0.02	0.02	0.00
6.00	0.12	0.000	83.00	0.12	0.12	0.00
8.00	0.39	0.000	83.00	0.39	0.39	0.00
10.00	1.07	0.000	83.00	1.06	1.06	0.00
12.00	15.03	0.363	83.33	1.13	1.13	0.00
14.00	2.33	1.513	84.33	2.24	2.24	0.00
16.00	1.27	1.455	84.28	1.71	1.71	0.00
18.00	0.89	1.389	84.23	1.28	1.28	0.00
20.00	0.73	1.325	84.17	1.13	1.13	0.00
22.00	0.63	1.250	84.11	1.13	1.13	0.00
24.00	0.53	1.158	84.03	1.13	1.13	0.00
26.00	0.00	0.985	83.88	1.13	1.13	0.00
28.00	0.00	0.797	83.72	1.13	1.13	0.00
30.00	0.00	0.610	83.55	1.13	1.13	0.00
32.00	0.00	0.422	83.38	1.13	1.13	0.00
34.00	0.00	0.235	83.21	1.13	1.13	0.00
36.00	0.00	0.048	83.04	1.13	1.13	0.00
38.00	0.00	0.000	83.00	0.00	0.00	0.00
40.00	0.00	0.000	83.00	0.00	0.00	0.00
42.00	0.00	0.000	83.00	0.00	0.00	0.00
44.00	0.00	0.000	83.00	0.00	0.00	0.00
46.00	0.00	0.000	83.00	0.00	0.00	0.00
48.00	0.00	0.000	83.00	0.00	0.00	0.00
50.00	0.00	0.000	83.00	0.00	0.00	0.00
52.00	0.00	0.000	83.00	0.00	0.00	0.00
54.00	0.00	0.000	83.00	0.00	0.00	0.00
56.00	0.00	0.000	83.00	0.00	0.00	0.00
58.00	0.00	0.000	83.00	0.00	0.00	0.00
60.00	0.00	0.000	83.00	0.00	0.00	0.00
62.00	0.00	0.000	83.00	0.00	0.00	0.00
64.00	0.00	0.000	83.00	0.00	0.00	0.00
66.00	0.00	0.000	83.00	0.00	0.00	0.00
68.00	0.00	0.000	83.00	0.00	0.00	0.00
70.00	0.00	0.000	83.00	0.00	0.00	0.00
72.00	0.00	0.000	83.00	0.00	0.00	0.00

Sediment Basin Flows

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Page 42

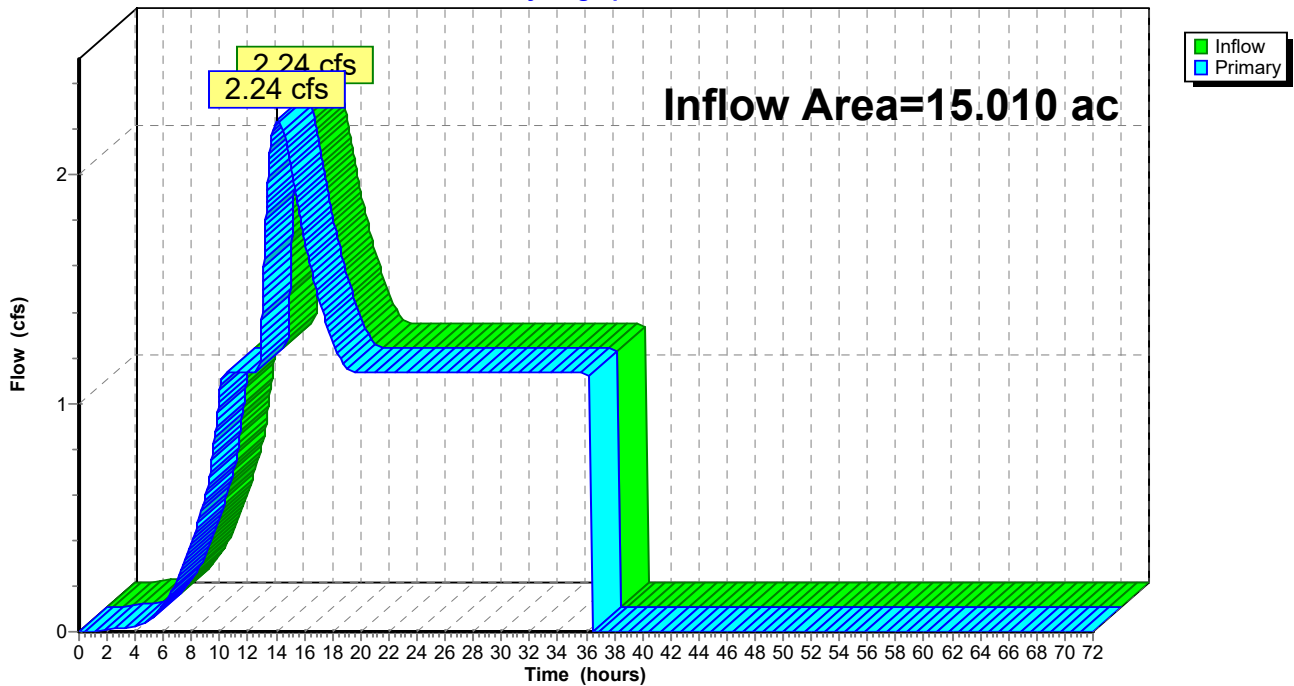
Summary for Pond SP1: Study Point 1

Inflow Area = 15.010 ac, 5.49% Impervious, Inflow Depth = 2.34" for 2 yr event
Inflow = 2.24 cfs @ 14.11 hrs, Volume= 2.924 af
Primary = 2.24 cfs @ 14.11 hrs, Volume= 2.924 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2

Pond SP1: Study Point 1

Hydrograph



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Page 43

Hydrograph for Pond SP1: Study Point 1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00		0.00	53.00	0.00		0.00
1.00	0.00		0.00	54.00	0.00		0.00
2.00	0.01		0.01	55.00	0.00		0.00
3.00	0.02		0.02	56.00	0.00		0.00
4.00	0.02		0.02	57.00	0.00		0.00
5.00	0.05		0.05	58.00	0.00		0.00
6.00	0.12		0.12	59.00	0.00		0.00
7.00	0.23		0.23	60.00	0.00		0.00
8.00	0.39		0.39	61.00	0.00		0.00
9.00	0.60		0.60	62.00	0.00		0.00
10.00	1.06		1.06	63.00	0.00		0.00
11.00	1.13		1.13	64.00	0.00		0.00
12.00	1.13		1.13	65.00	0.00		0.00
13.00	1.39		1.39	66.00	0.00		0.00
14.00	2.24		2.24	67.00	0.00		0.00
15.00	2.06		2.06	68.00	0.00		0.00
16.00	1.71		1.71	69.00	0.00		0.00
17.00	1.47		1.47	70.00	0.00		0.00
18.00	1.28		1.28	71.00	0.00		0.00
19.00	1.15		1.15	72.00	0.00		0.00
20.00	1.13		1.13				
21.00	1.13		1.13				
22.00	1.13		1.13				
23.00	1.13		1.13				
24.00	1.13		1.13				
25.00	1.13		1.13				
26.00	1.13		1.13				
27.00	1.13		1.13				
28.00	1.13		1.13				
29.00	1.13		1.13				
30.00	1.13		1.13				
31.00	1.13		1.13				
32.00	1.13		1.13				
33.00	1.13		1.13				
34.00	1.13		1.13				
35.00	1.13		1.13				
36.00	1.13		1.13				
37.00	0.00		0.00				
38.00	0.00		0.00				
39.00	0.00		0.00				
40.00	0.00		0.00				
41.00	0.00		0.00				
42.00	0.00		0.00				
43.00	0.00		0.00				
44.00	0.00		0.00				
45.00	0.00		0.00				
46.00	0.00		0.00				
47.00	0.00		0.00				
48.00	0.00		0.00				
49.00	0.00		0.00				
50.00	0.00		0.00				
51.00	0.00		0.00				
52.00	0.00		0.00				

Sediment Basin Flows

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NOAA 24-hr D 5 yr Rainfall=4.25"

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Page 44

Summary for Subcatchment DS1-I: DIVERSION SWALE #1 DRAINAGE AREA (Impervious)

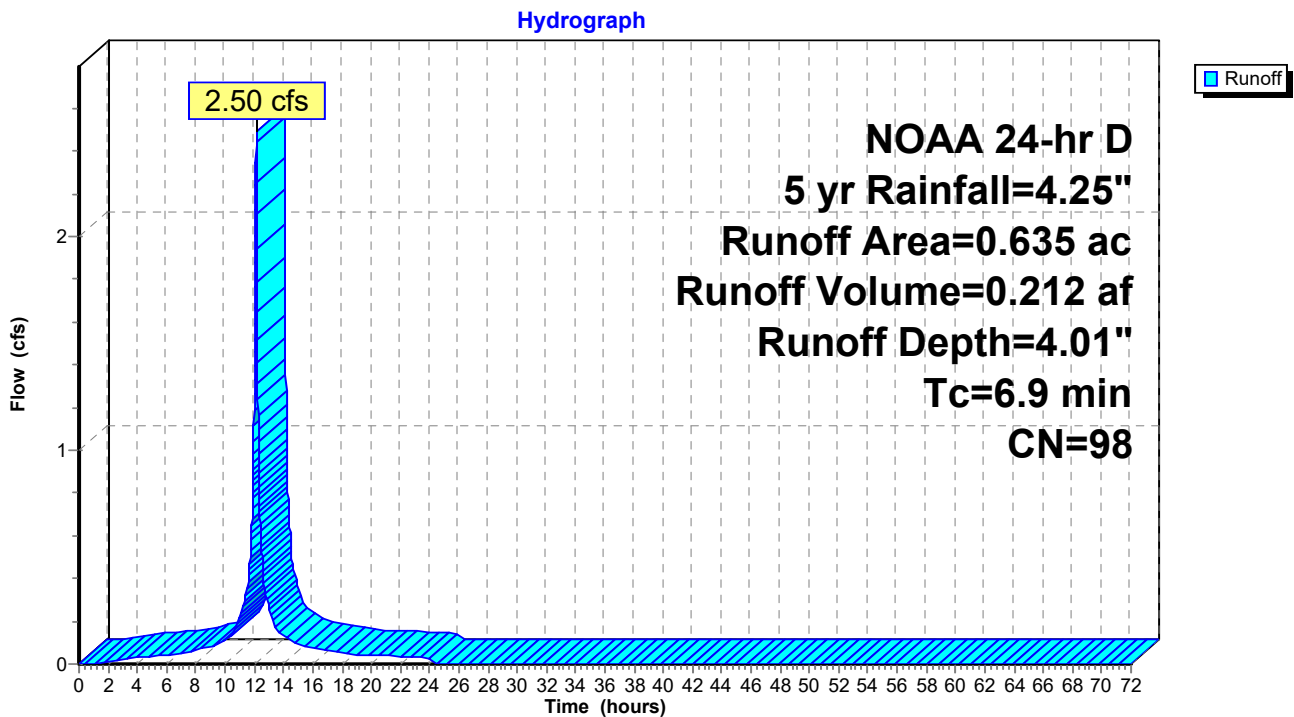
Runoff = 2.50 cfs @ 12.14 hrs, Volume= 0.212 af, Depth= 4.01"
Routed to Reach DS1 : DIVERSION SWALE #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
NOAA 24-hr D 5 yr Rainfall=4.25"

Area (ac)	CN	Description
0.635	98	Unconnected pavement, HSG C
0.635		100.00% Impervious Area
0.635		100.00% Unconnected

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

Subcatchment DS1-I: DIVERSION SWALE #1 DRAINAGE AREA (Impervious)



Sediment Basin Flows

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NOAA 24-hr D 5 yr Rainfall=4.25"

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Page 45

Hydrograph for Subcatchment DS1-I: DIVERSION SWALE #1 DRAINAGE AREA (Impervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	4.25	4.01	0.00
1.00	0.05	0.00	0.00	54.00	4.25	4.01	0.00
2.00	0.10	0.01	0.01	55.00	4.25	4.01	0.00
3.00	0.16	0.04	0.02	56.00	4.25	4.01	0.00
4.00	0.22	0.09	0.03	57.00	4.25	4.01	0.00
5.00	0.29	0.14	0.04	58.00	4.25	4.01	0.00
6.00	0.36	0.20	0.04	59.00	4.25	4.01	0.00
7.00	0.45	0.27	0.05	60.00	4.25	4.01	0.00
8.00	0.55	0.36	0.07	61.00	4.25	4.01	0.00
9.00	0.67	0.48	0.08	62.00	4.25	4.01	0.00
10.00	0.84	0.64	0.12	63.00	4.25	4.01	0.00
11.00	1.10	0.89	0.21	64.00	4.25	4.01	0.00
12.00	2.04	1.81	1.33	65.00	4.25	4.01	0.00
13.00	3.15	2.91	0.27	66.00	4.25	4.01	0.00
14.00	3.41	3.17	0.13	67.00	4.25	4.01	0.00
15.00	3.58	3.34	0.09	68.00	4.25	4.01	0.00
16.00	3.70	3.46	0.07	69.00	4.25	4.01	0.00
17.00	3.80	3.57	0.06	70.00	4.25	4.01	0.00
18.00	3.89	3.65	0.05	71.00	4.25	4.01	0.00
19.00	3.96	3.72	0.04	72.00	4.25	4.01	0.00
20.00	4.03	3.79	0.04				
21.00	4.09	3.85	0.04				
22.00	4.15	3.91	0.04				
23.00	4.20	3.97	0.03				
24.00	4.25	4.01	0.03				
25.00	4.25	4.01	0.00				
26.00	4.25	4.01	0.00				
27.00	4.25	4.01	0.00				
28.00	4.25	4.01	0.00				
29.00	4.25	4.01	0.00				
30.00	4.25	4.01	0.00				
31.00	4.25	4.01	0.00				
32.00	4.25	4.01	0.00				
33.00	4.25	4.01	0.00				
34.00	4.25	4.01	0.00				
35.00	4.25	4.01	0.00				
36.00	4.25	4.01	0.00				
37.00	4.25	4.01	0.00				
38.00	4.25	4.01	0.00				
39.00	4.25	4.01	0.00				
40.00	4.25	4.01	0.00				
41.00	4.25	4.01	0.00				
42.00	4.25	4.01	0.00				
43.00	4.25	4.01	0.00				
44.00	4.25	4.01	0.00				
45.00	4.25	4.01	0.00				
46.00	4.25	4.01	0.00				
47.00	4.25	4.01	0.00				
48.00	4.25	4.01	0.00				
49.00	4.25	4.01	0.00				
50.00	4.25	4.01	0.00				
51.00	4.25	4.01	0.00				
52.00	4.25	4.01	0.00				

Sediment Basin Flows

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NOAA 24-hr D 5 yr Rainfall=4.25"

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Page 46

Summary for Subcatchment DS1-P: DIVERSION SWALE #1 DRAINAGE AREA (Pervious)

Runoff = 26.79 cfs @ 12.14 hrs, Volume= 2.062 af, Depth= 3.26"
 Routed to Reach DS1 : DIVERSION SWALE #1

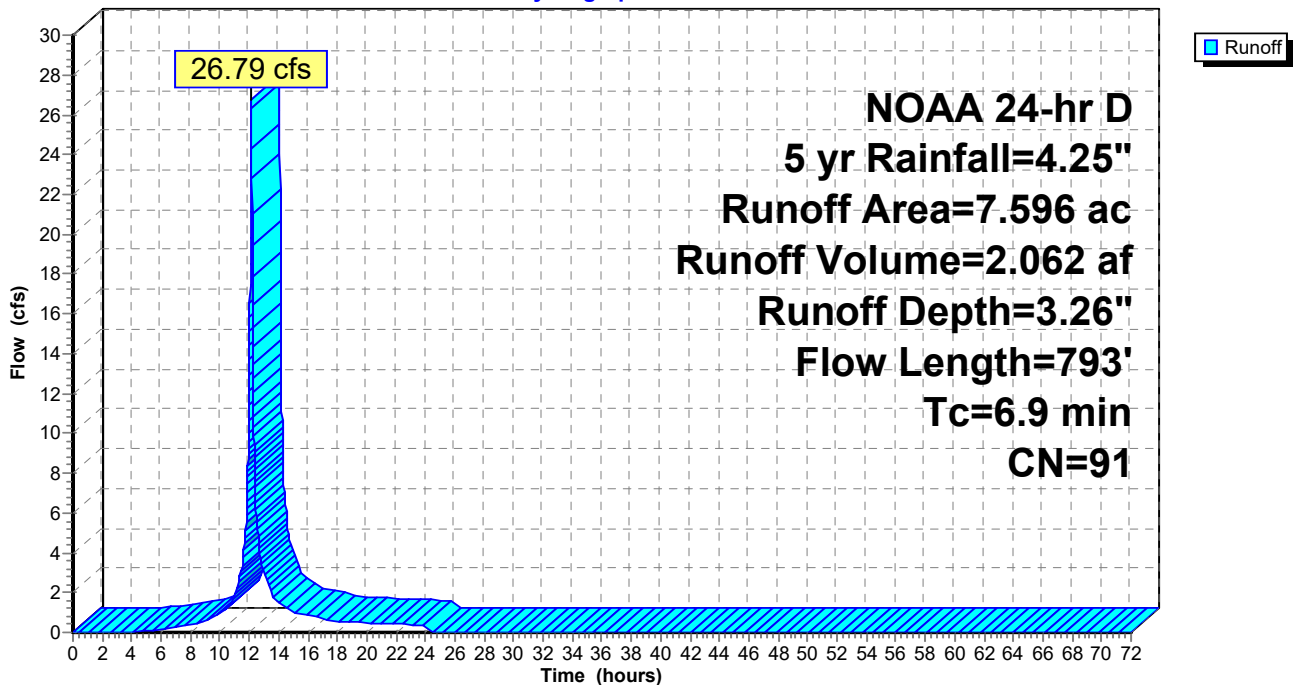
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 5 yr Rainfall=4.25"

Area (ac)	CN	Description
7.596	91	Fallow, bare soil, HSG C
7.596		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	100	0.0250	1.53		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.31"
5.1	466	0.0230	1.52		Shallow Concentrated Flow, B-C Nearly Bare & Untilled Kv= 10.0 fps
0.7	227	0.0077	5.65	401.45	Channel Flow, C-D Area= 71.0 sf Perim= 76.2' r= 0.93' n= 0.022 Earth, clean & straight
6.9	793	Total			

Subcatchment DS1-P: DIVERSION SWALE #1 DRAINAGE AREA (Pervious)

Hydrograph



Sediment Basin Flows

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NOAA 24-hr D 5 yr Rainfall=4.25"

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Page 47

Hydrograph for Subcatchment DS1-P: DIVERSION SWALE #1 DRAINAGE AREA (Pervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	4.25	3.26	0.00
1.00	0.05	0.00	0.00	54.00	4.25	3.26	0.00
2.00	0.10	0.00	0.00	55.00	4.25	3.26	0.00
3.00	0.16	0.00	0.00	56.00	4.25	3.26	0.00
4.00	0.22	0.00	0.02	57.00	4.25	3.26	0.00
5.00	0.29	0.01	0.08	58.00	4.25	3.26	0.00
6.00	0.36	0.02	0.15	59.00	4.25	3.26	0.00
7.00	0.45	0.05	0.25	60.00	4.25	3.26	0.00
8.00	0.55	0.09	0.38	61.00	4.25	3.26	0.00
9.00	0.67	0.15	0.53	62.00	4.25	3.26	0.00
10.00	0.84	0.25	0.93	63.00	4.25	3.26	0.00
11.00	1.10	0.43	1.88	64.00	4.25	3.26	0.00
12.00	2.04	1.20	13.74	65.00	4.25	3.26	0.00
13.00	3.15	2.21	3.02	66.00	4.25	3.26	0.00
14.00	3.41	2.45	1.51	67.00	4.25	3.26	0.00
15.00	3.58	2.61	1.03	68.00	4.25	3.26	0.00
16.00	3.70	2.73	0.84	69.00	4.25	3.26	0.00
17.00	3.80	2.83	0.70	70.00	4.25	3.26	0.00
18.00	3.89	2.91	0.57	71.00	4.25	3.26	0.00
19.00	3.96	2.98	0.52	72.00	4.25	3.26	0.00
20.00	4.03	3.04	0.48				
21.00	4.09	3.10	0.45				
22.00	4.15	3.16	0.41				
23.00	4.20	3.21	0.38				
24.00	4.25	3.26	0.35				
25.00	4.25	3.26	0.00				
26.00	4.25	3.26	0.00				
27.00	4.25	3.26	0.00				
28.00	4.25	3.26	0.00				
29.00	4.25	3.26	0.00				
30.00	4.25	3.26	0.00				
31.00	4.25	3.26	0.00				
32.00	4.25	3.26	0.00				
33.00	4.25	3.26	0.00				
34.00	4.25	3.26	0.00				
35.00	4.25	3.26	0.00				
36.00	4.25	3.26	0.00				
37.00	4.25	3.26	0.00				
38.00	4.25	3.26	0.00				
39.00	4.25	3.26	0.00				
40.00	4.25	3.26	0.00				
41.00	4.25	3.26	0.00				
42.00	4.25	3.26	0.00				
43.00	4.25	3.26	0.00				
44.00	4.25	3.26	0.00				
45.00	4.25	3.26	0.00				
46.00	4.25	3.26	0.00				
47.00	4.25	3.26	0.00				
48.00	4.25	3.26	0.00				
49.00	4.25	3.26	0.00				
50.00	4.25	3.26	0.00				
51.00	4.25	3.26	0.00				
52.00	4.25	3.26	0.00				

Sediment Basin Flows

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NOAA 24-hr D 5 yr Rainfall=4.25"

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Page 48

Summary for Subcatchment DS2-P: DIVERSION SWALE #2 DRAINAGE AREA (Pervious)

Runoff = 6.22 cfs @ 12.17 hrs, Volume= 0.510 af, Depth= 2.77"
 Routed to Reach DS2 : DIVERSION SWALE #2

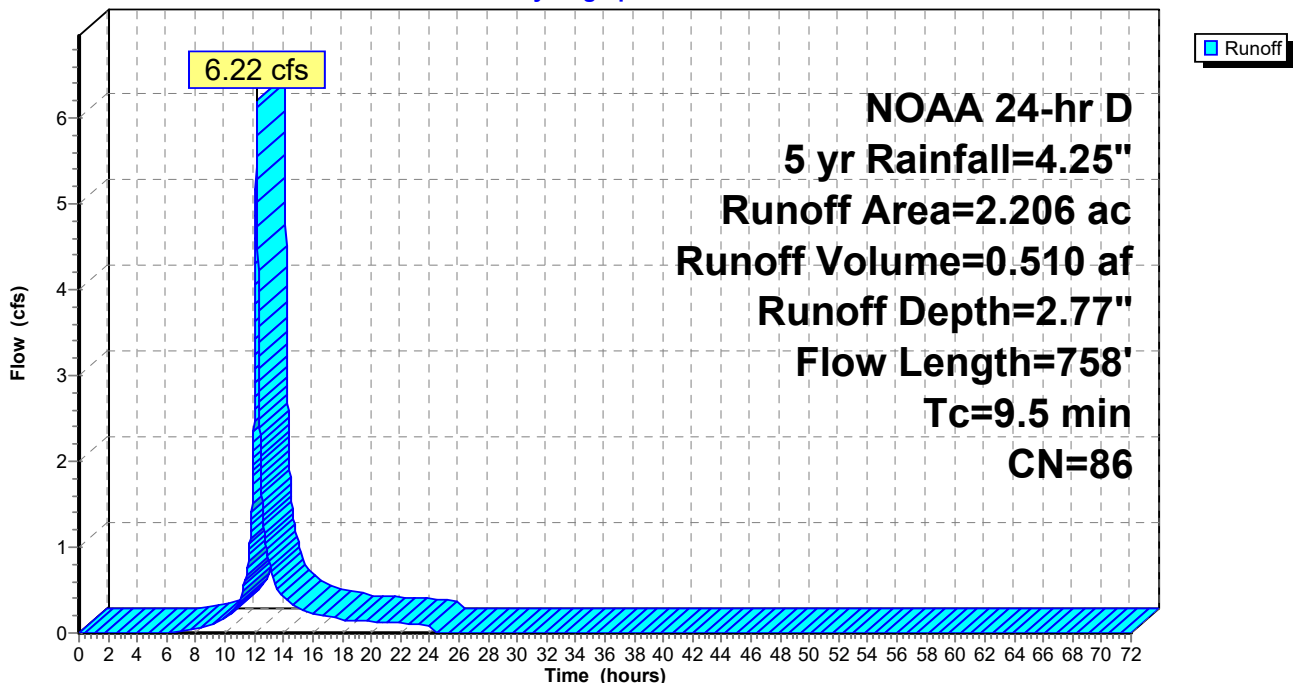
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 5 yr Rainfall=4.25"

Area (ac)	CN	Description
0.340	77	Fallow, bare soil, HSG A
1.450	86	Fallow, bare soil, HSG B
0.416	91	Fallow, bare soil, HSG C
2.206	86	Weighted Average
2.206		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.1	100	0.0385	0.54		Sheet Flow, A-B Fallow n= 0.050 P2= 3.31"
6.0	445	0.0152	1.23		Shallow Concentrated Flow, B-C Nearly Bare & Untilled Kv= 10.0 fps
0.4	213	0.0188	8.44	295.55	Channel Flow, C-D Area= 35.0 sf Perim= 40.2' r= 0.87' n= 0.022 Earth, clean & straight
9.5	758	Total			

Subcatchment DS2-P: DIVERSION SWALE #2 DRAINAGE AREA (Pervious)

Hydrograph



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NOAA 24-hr D 5 yr Rainfall=4.25"

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Page 49

Hydrograph for Subcatchment DS2-P: DIVERSION SWALE #2 DRAINAGE AREA (Pervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	4.25	2.77	0.00
1.00	0.05	0.00	0.00	54.00	4.25	2.77	0.00
2.00	0.10	0.00	0.00	55.00	4.25	2.77	0.00
3.00	0.16	0.00	0.00	56.00	4.25	2.77	0.00
4.00	0.22	0.00	0.00	57.00	4.25	2.77	0.00
5.00	0.29	0.00	0.00	58.00	4.25	2.77	0.00
6.00	0.36	0.00	0.01	59.00	4.25	2.77	0.00
7.00	0.45	0.01	0.02	60.00	4.25	2.77	0.00
8.00	0.55	0.03	0.05	61.00	4.25	2.77	0.00
9.00	0.67	0.06	0.09	62.00	4.25	2.77	0.00
10.00	0.84	0.12	0.17	63.00	4.25	2.77	0.00
11.00	1.10	0.25	0.39	64.00	4.25	2.77	0.00
12.00	2.04	0.88	2.77	65.00	4.25	2.77	0.00
13.00	3.15	1.79	0.84	66.00	4.25	2.77	0.00
14.00	3.41	2.02	0.41	67.00	4.25	2.77	0.00
15.00	3.58	2.17	0.29	68.00	4.25	2.77	0.00
16.00	3.70	2.27	0.23	69.00	4.25	2.77	0.00
17.00	3.80	2.37	0.19	70.00	4.25	2.77	0.00
18.00	3.89	2.44	0.16	71.00	4.25	2.77	0.00
19.00	3.96	2.51	0.14	72.00	4.25	2.77	0.00
20.00	4.03	2.57	0.13				
21.00	4.09	2.63	0.12				
22.00	4.15	2.68	0.11				
23.00	4.20	2.73	0.11				
24.00	4.25	2.77	0.10				
25.00	4.25	2.77	0.00				
26.00	4.25	2.77	0.00				
27.00	4.25	2.77	0.00				
28.00	4.25	2.77	0.00				
29.00	4.25	2.77	0.00				
30.00	4.25	2.77	0.00				
31.00	4.25	2.77	0.00				
32.00	4.25	2.77	0.00				
33.00	4.25	2.77	0.00				
34.00	4.25	2.77	0.00				
35.00	4.25	2.77	0.00				
36.00	4.25	2.77	0.00				
37.00	4.25	2.77	0.00				
38.00	4.25	2.77	0.00				
39.00	4.25	2.77	0.00				
40.00	4.25	2.77	0.00				
41.00	4.25	2.77	0.00				
42.00	4.25	2.77	0.00				
43.00	4.25	2.77	0.00				
44.00	4.25	2.77	0.00				
45.00	4.25	2.77	0.00				
46.00	4.25	2.77	0.00				
47.00	4.25	2.77	0.00				
48.00	4.25	2.77	0.00				
49.00	4.25	2.77	0.00				
50.00	4.25	2.77	0.00				
51.00	4.25	2.77	0.00				
52.00	4.25	2.77	0.00				

Sediment Basin Flows

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NOAA 24-hr D 5 yr Rainfall=4.25"

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Page 50

Summary for Subcatchment SB-I: SEDIMENT BASIN DRAINAGE AREA (Impervious)

Runoff = 0.71 cfs @ 12.15 hrs, Volume= 0.063 af, Depth= 4.01"
 Routed to Pond SB : SEDIMENT BASIN

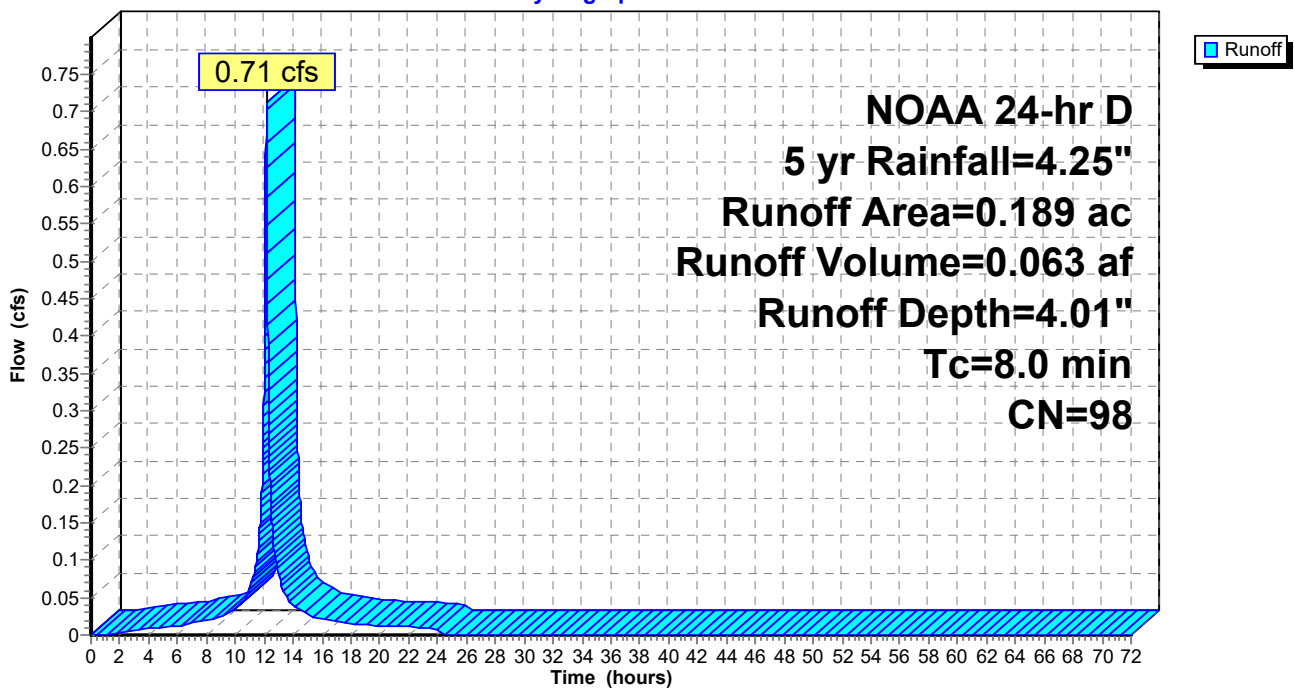
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 5 yr Rainfall=4.25"

Area (ac)	CN	Description
0.189	98	Unconnected pavement, HSG C
0.189		100.00% Impervious Area
0.189		100.00% Unconnected

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

Subcatchment SB-I: SEDIMENT BASIN DRAINAGE AREA (Impervious)

Hydrograph



Sediment Basin Flows

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Page 51

Hydrograph for Subcatchment SB-I: SEDIMENT BASIN DRAINAGE AREA (Impervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	4.25	4.01	0.00
1.00	0.05	0.00	0.00	54.00	4.25	4.01	0.00
2.00	0.10	0.01	0.00	55.00	4.25	4.01	0.00
3.00	0.16	0.04	0.01	56.00	4.25	4.01	0.00
4.00	0.22	0.09	0.01	57.00	4.25	4.01	0.00
5.00	0.29	0.14	0.01	58.00	4.25	4.01	0.00
6.00	0.36	0.20	0.01	59.00	4.25	4.01	0.00
7.00	0.45	0.27	0.02	60.00	4.25	4.01	0.00
8.00	0.55	0.36	0.02	61.00	4.25	4.01	0.00
9.00	0.67	0.48	0.02	62.00	4.25	4.01	0.00
10.00	0.84	0.64	0.04	63.00	4.25	4.01	0.00
11.00	1.10	0.89	0.06	64.00	4.25	4.01	0.00
12.00	2.04	1.81	0.36	65.00	4.25	4.01	0.00
13.00	3.15	2.91	0.08	66.00	4.25	4.01	0.00
14.00	3.41	3.17	0.04	67.00	4.25	4.01	0.00
15.00	3.58	3.34	0.03	68.00	4.25	4.01	0.00
16.00	3.70	3.46	0.02	69.00	4.25	4.01	0.00
17.00	3.80	3.57	0.02	70.00	4.25	4.01	0.00
18.00	3.89	3.65	0.01	71.00	4.25	4.01	0.00
19.00	3.96	3.72	0.01	72.00	4.25	4.01	0.00
20.00	4.03	3.79	0.01				
21.00	4.09	3.85	0.01				
22.00	4.15	3.91	0.01				
23.00	4.20	3.97	0.01				
24.00	4.25	4.01	0.01				
25.00	4.25	4.01	0.00				
26.00	4.25	4.01	0.00				
27.00	4.25	4.01	0.00				
28.00	4.25	4.01	0.00				
29.00	4.25	4.01	0.00				
30.00	4.25	4.01	0.00				
31.00	4.25	4.01	0.00				
32.00	4.25	4.01	0.00				
33.00	4.25	4.01	0.00				
34.00	4.25	4.01	0.00				
35.00	4.25	4.01	0.00				
36.00	4.25	4.01	0.00				
37.00	4.25	4.01	0.00				
38.00	4.25	4.01	0.00				
39.00	4.25	4.01	0.00				
40.00	4.25	4.01	0.00				
41.00	4.25	4.01	0.00				
42.00	4.25	4.01	0.00				
43.00	4.25	4.01	0.00				
44.00	4.25	4.01	0.00				
45.00	4.25	4.01	0.00				
46.00	4.25	4.01	0.00				
47.00	4.25	4.01	0.00				
48.00	4.25	4.01	0.00				
49.00	4.25	4.01	0.00				
50.00	4.25	4.01	0.00				
51.00	4.25	4.01	0.00				
52.00	4.25	4.01	0.00				

Sediment Basin Flows

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Page 52

Summary for Subcatchment SB-P: SEDIMENT BASIN DRAINAGE AREA (Pervious)

Runoff = 14.84 cfs @ 12.15 hrs, Volume= 1.190 af, Depth= 3.26"
 Routed to Pond SB : SEDIMENT BASIN

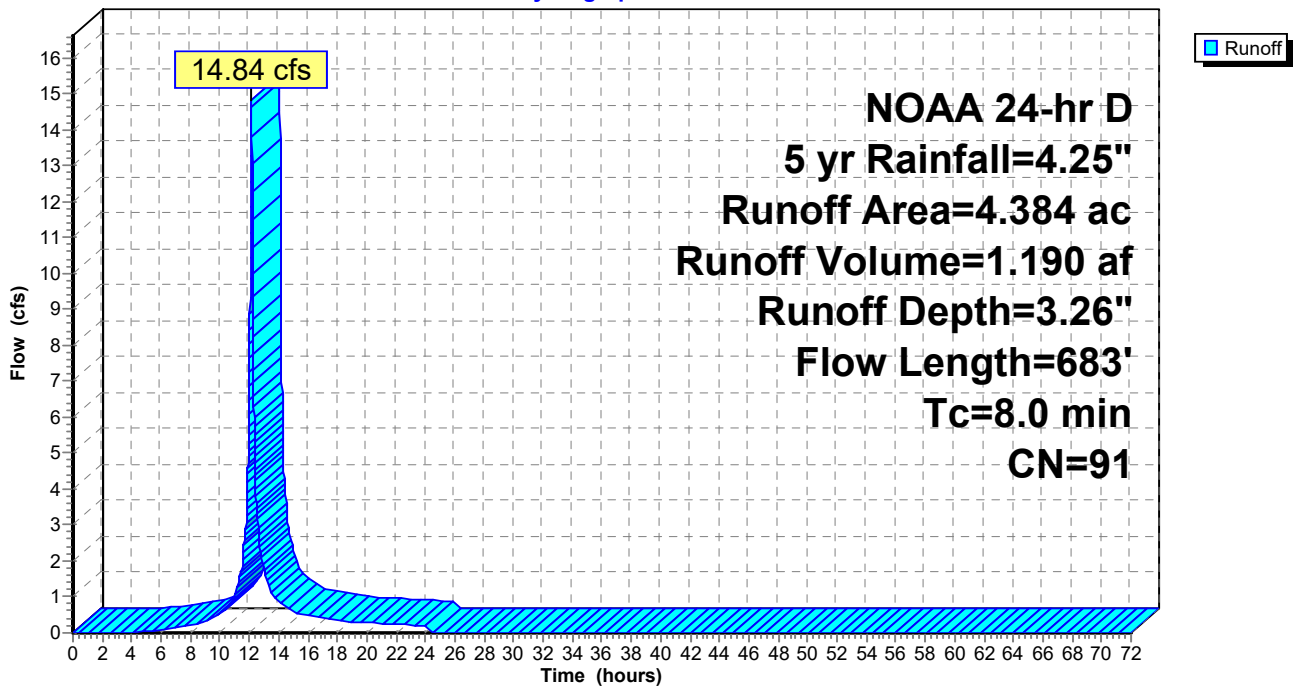
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 5 yr Rainfall=4.25"

Area (ac)	CN	Description
0.243	86	Fallow, bare soil, HSG B
4.141	91	Fallow, bare soil, HSG C
4.384	91	Weighted Average
4.384		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0200	1.40		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.31"
6.8	583	0.0202	1.42		Shallow Concentrated Flow, B-C Nearly Bare & Untilled Kv= 10.0 fps
8.0	683	Total			

Subcatchment SB-P: SEDIMENT BASIN DRAINAGE AREA (Pervious)

Hydrograph



Sediment Basin Flows

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Page 53

Hydrograph for Subcatchment SB-P: SEDIMENT BASIN DRAINAGE AREA (Pervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	4.25	3.26	0.00
1.00	0.05	0.00	0.00	54.00	4.25	3.26	0.00
2.00	0.10	0.00	0.00	55.00	4.25	3.26	0.00
3.00	0.16	0.00	0.00	56.00	4.25	3.26	0.00
4.00	0.22	0.00	0.01	57.00	4.25	3.26	0.00
5.00	0.29	0.01	0.05	58.00	4.25	3.26	0.00
6.00	0.36	0.02	0.08	59.00	4.25	3.26	0.00
7.00	0.45	0.05	0.14	60.00	4.25	3.26	0.00
8.00	0.55	0.09	0.22	61.00	4.25	3.26	0.00
9.00	0.67	0.15	0.31	62.00	4.25	3.26	0.00
10.00	0.84	0.25	0.53	63.00	4.25	3.26	0.00
11.00	1.10	0.43	1.07	64.00	4.25	3.26	0.00
12.00	2.04	1.20	7.26	65.00	4.25	3.26	0.00
13.00	3.15	2.21	1.78	66.00	4.25	3.26	0.00
14.00	3.41	2.45	0.88	67.00	4.25	3.26	0.00
15.00	3.58	2.61	0.60	68.00	4.25	3.26	0.00
16.00	3.70	2.73	0.49	69.00	4.25	3.26	0.00
17.00	3.80	2.83	0.41	70.00	4.25	3.26	0.00
18.00	3.89	2.91	0.33	71.00	4.25	3.26	0.00
19.00	3.96	2.98	0.30	72.00	4.25	3.26	0.00
20.00	4.03	3.04	0.28				
21.00	4.09	3.10	0.26				
22.00	4.15	3.16	0.24				
23.00	4.20	3.21	0.22				
24.00	4.25	3.26	0.20				
25.00	4.25	3.26	0.00				
26.00	4.25	3.26	0.00				
27.00	4.25	3.26	0.00				
28.00	4.25	3.26	0.00				
29.00	4.25	3.26	0.00				
30.00	4.25	3.26	0.00				
31.00	4.25	3.26	0.00				
32.00	4.25	3.26	0.00				
33.00	4.25	3.26	0.00				
34.00	4.25	3.26	0.00				
35.00	4.25	3.26	0.00				
36.00	4.25	3.26	0.00				
37.00	4.25	3.26	0.00				
38.00	4.25	3.26	0.00				
39.00	4.25	3.26	0.00				
40.00	4.25	3.26	0.00				
41.00	4.25	3.26	0.00				
42.00	4.25	3.26	0.00				
43.00	4.25	3.26	0.00				
44.00	4.25	3.26	0.00				
45.00	4.25	3.26	0.00				
46.00	4.25	3.26	0.00				
47.00	4.25	3.26	0.00				
48.00	4.25	3.26	0.00				
49.00	4.25	3.26	0.00				
50.00	4.25	3.26	0.00				
51.00	4.25	3.26	0.00				
52.00	4.25	3.26	0.00				

Sediment Basin Flows

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Page 54

Summary for Reach DS1: DIVERSION SWALE #1

Inflow Area = 8.231 ac, 7.71% Impervious, Inflow Depth = 3.32" for 5 yr event
Inflow = 29.29 cfs @ 12.14 hrs, Volume= 2.274 af
Outflow = 26.38 cfs @ 12.17 hrs, Volume= 2.274 af, Atten= 10%, Lag= 1.9 min
Routed to Pond SB : SEDIMENT BASIN

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Max. Velocity= 1.99 fps, Min. Travel Time= 4.4 min
Avg. Velocity = 0.53 fps, Avg. Travel Time= 16.4 min

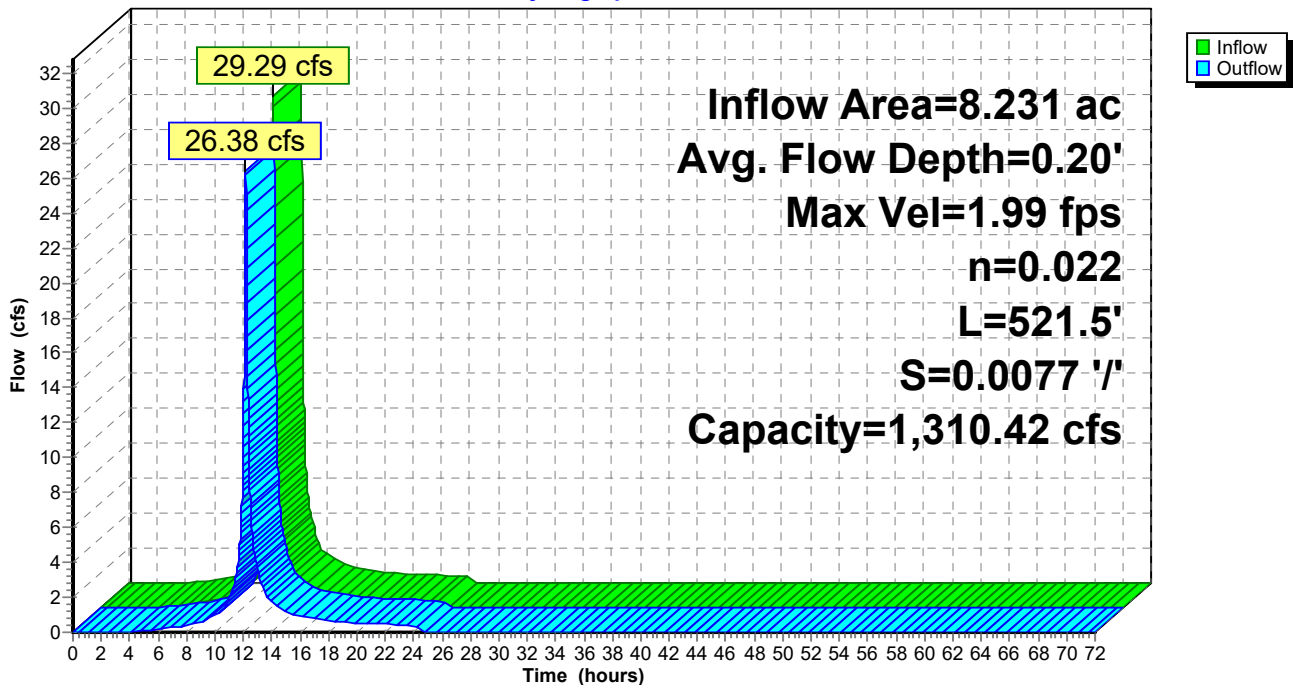
Peak Storage= 6,914 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.20' , Surface Width= 67.98'
Bank-Full Depth= 2.00' Flow Area= 152.0 sf, Capacity= 1,310.42 cfs

66.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 5.0 '/' Top Width= 86.00'
Length= 521.5' Slope= 0.0077 '/'
Inlet Invert= 87.00', Outlet Invert= 83.00'



Reach DS1: DIVERSION SWALE #1

Hydrograph



Sediment Basin Flows

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Page 55

Hydrograph for Reach DS1: DIVERSION SWALE #1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
0.00	0.00	0	87.00	0.00
2.00	0.01	12	87.00	0.01
4.00	0.05	40	87.00	0.03
6.00	0.19	194	87.01	0.16
8.00	0.45	476	87.01	0.40
10.00	1.05	910	87.03	0.98
12.00	15.07	4,107	87.12	11.17
14.00	1.64	1,326	87.04	1.73
16.00	0.91	888	87.03	0.94
18.00	0.62	724	87.02	0.64
20.00	0.52	642	87.02	0.54
22.00	0.45	553	87.02	0.46
24.00	0.38	463	87.01	0.39
26.00	0.00	2	87.00	0.00
28.00	0.00	0	87.00	0.00
30.00	0.00	0	87.00	0.00
32.00	0.00	0	87.00	0.00
34.00	0.00	0	87.00	0.00
36.00	0.00	0	87.00	0.00
38.00	0.00	0	87.00	0.00
40.00	0.00	0	87.00	0.00
42.00	0.00	0	87.00	0.00
44.00	0.00	0	87.00	0.00
46.00	0.00	0	87.00	0.00
48.00	0.00	0	87.00	0.00
50.00	0.00	0	87.00	0.00
52.00	0.00	0	87.00	0.00
54.00	0.00	0	87.00	0.00
56.00	0.00	0	87.00	0.00
58.00	0.00	0	87.00	0.00
60.00	0.00	0	87.00	0.00
62.00	0.00	0	87.00	0.00
64.00	0.00	0	87.00	0.00
66.00	0.00	0	87.00	0.00
68.00	0.00	0	87.00	0.00
70.00	0.00	0	87.00	0.00
72.00	0.00	0	87.00	0.00

Sediment Basin Flows

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Page 56

Summary for Reach DS2: DIVERSION SWALE #2

Inflow Area = 2.206 ac, 0.00% Impervious, Inflow Depth = 2.77" for 5 yr event
Inflow = 6.22 cfs @ 12.17 hrs, Volume= 0.510 af
Outflow = 6.09 cfs @ 12.18 hrs, Volume= 0.510 af, Atten= 2%, Lag= 1.0 min
Routed to Pond SB : SEDIMENT BASIN

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Max. Velocity= 1.98 fps, Min. Travel Time= 1.8 min
Avg. Velocity = 0.56 fps, Avg. Travel Time= 6.4 min

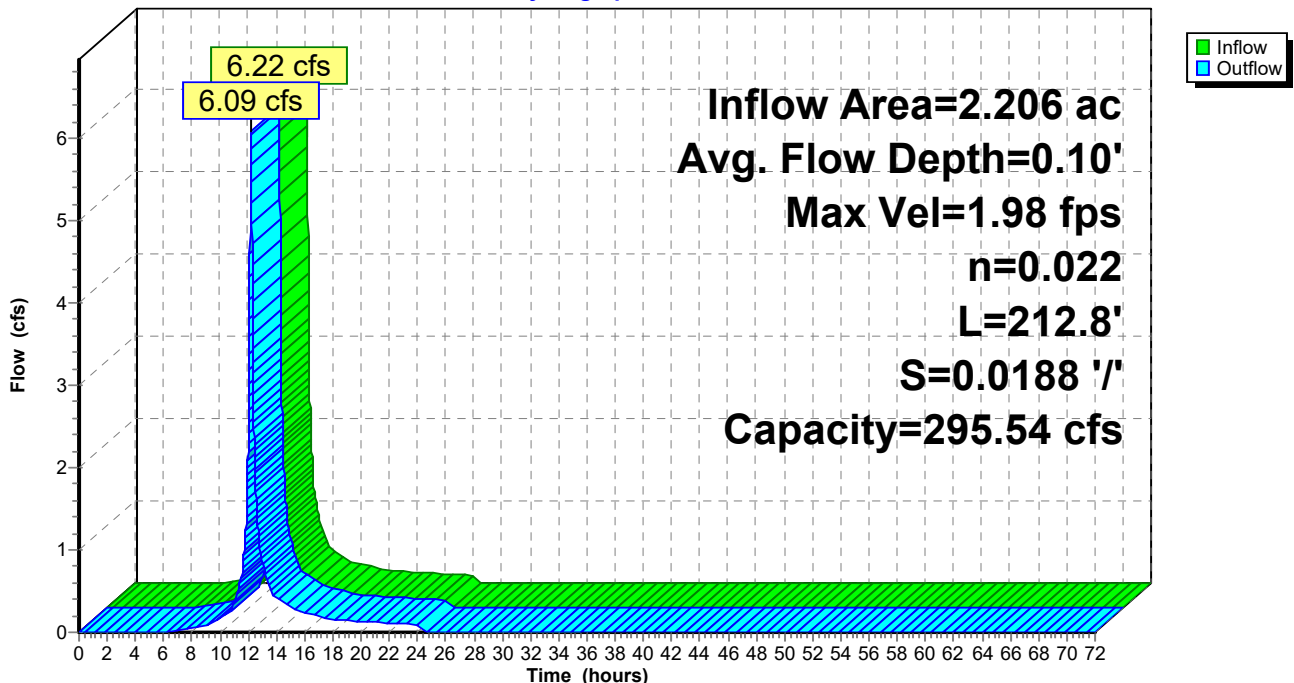
Peak Storage= 654 cf @ 12.18 hrs
Average Depth at Peak Storage= 0.10' , Surface Width= 31.01'
Bank-Full Depth= 1.00' Flow Area= 35.0 sf, Capacity= 295.54 cfs

30.00' x 1.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 5.0 '/' Top Width= 40.00'
Length= 212.8' Slope= 0.0188 '/'
Inlet Invert= 87.00', Outlet Invert= 83.00'



Reach DS2: DIVERSION SWALE #2

Hydrograph



Sediment Basin Flows

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Page 57

Hydrograph for Reach DS2: DIVERSION SWALE #2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
0.00	0.00	0	87.00	0.00
2.00	0.00	0	87.00	0.00
4.00	0.00	0	87.00	0.00
6.00	0.01	2	87.00	0.00
8.00	0.05	24	87.00	0.05
10.00	0.17	73	87.01	0.17
12.00	2.77	373	87.06	2.42
14.00	0.41	130	87.02	0.42
16.00	0.23	88	87.01	0.23
18.00	0.16	71	87.01	0.16
20.00	0.13	65	87.01	0.13
22.00	0.11	57	87.01	0.12
24.00	0.10	48	87.01	0.10
26.00	0.00	0	87.00	0.00
28.00	0.00	0	87.00	0.00
30.00	0.00	0	87.00	0.00
32.00	0.00	0	87.00	0.00
34.00	0.00	0	87.00	0.00
36.00	0.00	0	87.00	0.00
38.00	0.00	0	87.00	0.00
40.00	0.00	0	87.00	0.00
42.00	0.00	0	87.00	0.00
44.00	0.00	0	87.00	0.00
46.00	0.00	0	87.00	0.00
48.00	0.00	0	87.00	0.00
50.00	0.00	0	87.00	0.00
52.00	0.00	0	87.00	0.00
54.00	0.00	0	87.00	0.00
56.00	0.00	0	87.00	0.00
58.00	0.00	0	87.00	0.00
60.00	0.00	0	87.00	0.00
62.00	0.00	0	87.00	0.00
64.00	0.00	0	87.00	0.00
66.00	0.00	0	87.00	0.00
68.00	0.00	0	87.00	0.00
70.00	0.00	0	87.00	0.00
72.00	0.00	0	87.00	0.00

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Page 58

Summary for Pond SB: SEDIMENT BASIN

Inflow Area = 15.010 ac, 5.49% Impervious, Inflow Depth = 3.23" for 5 yr event
 Inflow = 47.51 cfs @ 12.16 hrs, Volume= 4.037 af
 Outflow = 5.83 cfs @ 13.09 hrs, Volume= 4.037 af, Atten= 88%, Lag= 55.5 min
 Primary = 5.83 cfs @ 13.09 hrs, Volume= 4.037 af
 Routed to Pond SP1 : Study Point 1
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Pond SP1 : Study Point 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 84.61' @ 13.09 hrs Surf.Area= 1.209 ac Storage= 1.850 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 400.4 min (1,206.1 - 805.8)

Volume	Invert	Avail.Storage	Storage Description
#1	83.00'	4.960 af	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
83.00	1.086	0.000	0.000
84.00	1.161	1.124	1.124
85.00	1.239	1.200	2.323
86.00	1.318	1.278	3.602
87.00	1.398	1.358	4.960

Device	Routing	Invert	Outlet Devices
#1	Primary	82.00'	12.0" Round Culvert L= 51.2' Box, 30-75° wingwalls, square crown, Ke= 0.400 Inlet / Outlet Invert= 82.00' / 81.24' S= 0.0148 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.79 sf
#2	Device 1	83.00'	1.134 cfs Skimmer
#3	Device 1	84.19'	24.0" Horiz. Principal Spillway (Riser) C= 0.600 Limited to weir flow at low heads
#4	Secondary	86.50'	10.0' long x 11.5' breadth Emergency Spillway Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.55 2.60 2.70 2.67 2.67 2.67 2.66 2.64

Primary OutFlow Max=5.83 cfs @ 13.09 hrs HW=84.61' TW=0.00' (Dynamic Tailwater)

- ↑ 1=Culvert (Barrel Controls 5.83 cfs @ 7.43 fps)
- ↑ 2=Skimmer (Passes < 1.13 cfs potential flow)
- ↑ 3=Principal Spillway (Riser) (Passes < 5.65 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=83.00' TW=0.00' (Dynamic Tailwater)

- ↑ 4=Emergency Spillway (Controls 0.00 cfs)

Sediment Basin Flows

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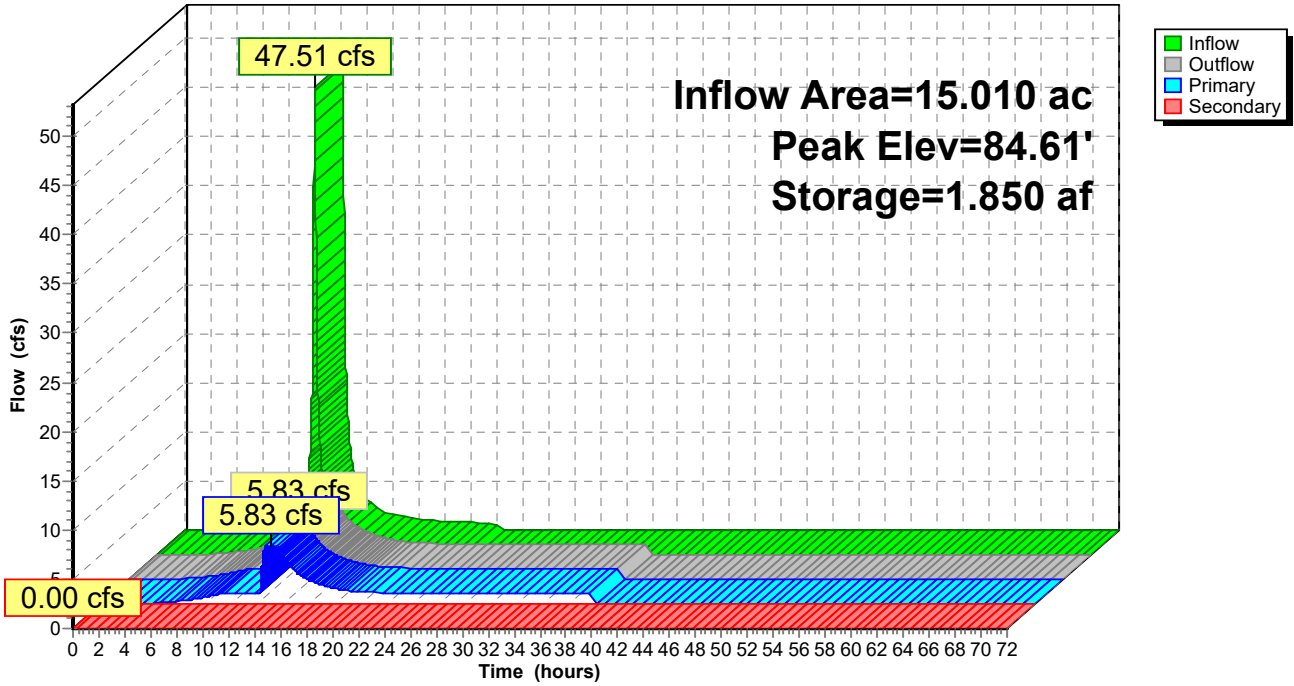
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Page 59

Pond SB: SEDIMENT BASIN

Hydrograph



Sediment Basin Flows

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Page 60

Hydrograph for Pond SB: SEDIMENT BASIN

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0.000	83.00	0.00	0.00	0.00
2.00	0.01	0.000	83.00	0.01	0.01	0.00
4.00	0.05	0.000	83.00	0.05	0.05	0.00
6.00	0.26	0.000	83.00	0.26	0.26	0.00
8.00	0.68	0.000	83.00	0.68	0.68	0.00
10.00	1.71	0.017	83.02	1.13	1.13	0.00
12.00	21.22	0.631	83.57	1.13	1.13	0.00
14.00	3.06	1.732	84.52	4.95	4.95	0.00
16.00	1.68	1.531	84.35	2.41	2.41	0.00
18.00	1.14	1.441	84.27	1.61	1.61	0.00
20.00	0.96	1.381	84.22	1.24	1.24	0.00
22.00	0.83	1.336	84.18	1.13	1.13	0.00
24.00	0.69	1.274	84.13	1.13	1.13	0.00
26.00	0.00	1.104	83.98	1.13	1.13	0.00
28.00	0.00	0.917	83.82	1.13	1.13	0.00
30.00	0.00	0.730	83.66	1.13	1.13	0.00
32.00	0.00	0.542	83.49	1.13	1.13	0.00
34.00	0.00	0.355	83.32	1.13	1.13	0.00
36.00	0.00	0.167	83.15	1.13	1.13	0.00
38.00	0.00	0.000	83.00	0.00	0.00	0.00
40.00	0.00	0.000	83.00	0.00	0.00	0.00
42.00	0.00	0.000	83.00	0.00	0.00	0.00
44.00	0.00	0.000	83.00	0.00	0.00	0.00
46.00	0.00	0.000	83.00	0.00	0.00	0.00
48.00	0.00	0.000	83.00	0.00	0.00	0.00
50.00	0.00	0.000	83.00	0.00	0.00	0.00
52.00	0.00	0.000	83.00	0.00	0.00	0.00
54.00	0.00	0.000	83.00	0.00	0.00	0.00
56.00	0.00	0.000	83.00	0.00	0.00	0.00
58.00	0.00	0.000	83.00	0.00	0.00	0.00
60.00	0.00	0.000	83.00	0.00	0.00	0.00
62.00	0.00	0.000	83.00	0.00	0.00	0.00
64.00	0.00	0.000	83.00	0.00	0.00	0.00
66.00	0.00	0.000	83.00	0.00	0.00	0.00
68.00	0.00	0.000	83.00	0.00	0.00	0.00
70.00	0.00	0.000	83.00	0.00	0.00	0.00
72.00	0.00	0.000	83.00	0.00	0.00	0.00

Sediment Basin Flows

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NOAA 24-hr D 5 yr Rainfall=4.25"

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Page 61

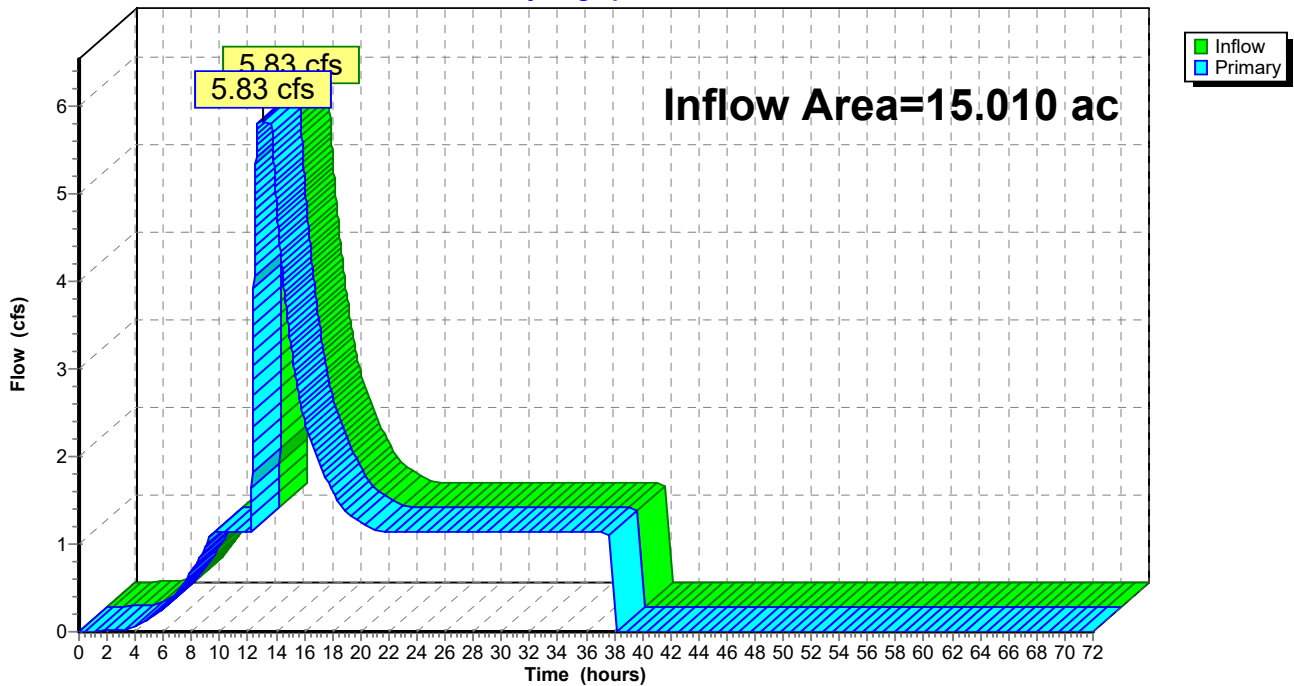
Summary for Pond SP1: Study Point 1

Inflow Area = 15.010 ac, 5.49% Impervious, Inflow Depth = 3.23" for 5 yr event
Inflow = 5.83 cfs @ 13.09 hrs, Volume= 4.037 af
Primary = 5.83 cfs @ 13.09 hrs, Volume= 4.037 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2

Pond SP1: Study Point 1

Hydrograph



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Page 62

Hydrograph for Pond SP1: Study Point 1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00		0.00	53.00	0.00		0.00
1.00	0.00		0.00	54.00	0.00		0.00
2.00	0.01		0.01	55.00	0.00		0.00
3.00	0.03		0.03	56.00	0.00		0.00
4.00	0.05		0.05	57.00	0.00		0.00
5.00	0.15		0.15	58.00	0.00		0.00
6.00	0.26		0.26	59.00	0.00		0.00
7.00	0.44		0.44	60.00	0.00		0.00
8.00	0.68		0.68	61.00	0.00		0.00
9.00	0.97		0.97	62.00	0.00		0.00
10.00	1.13		1.13	63.00	0.00		0.00
11.00	1.13		1.13	64.00	0.00		0.00
12.00	1.13		1.13	65.00	0.00		0.00
13.00	5.83		5.83	66.00	0.00		0.00
14.00	4.95		4.95	67.00	0.00		0.00
15.00	3.33		3.33	68.00	0.00		0.00
16.00	2.41		2.41	69.00	0.00		0.00
17.00	1.93		1.93	70.00	0.00		0.00
18.00	1.61		1.61	71.00	0.00		0.00
19.00	1.38		1.38	72.00	0.00		0.00
20.00	1.24		1.24				
21.00	1.16		1.16				
22.00	1.13		1.13				
23.00	1.13		1.13				
24.00	1.13		1.13				
25.00	1.13		1.13				
26.00	1.13		1.13				
27.00	1.13		1.13				
28.00	1.13		1.13				
29.00	1.13		1.13				
30.00	1.13		1.13				
31.00	1.13		1.13				
32.00	1.13		1.13				
33.00	1.13		1.13				
34.00	1.13		1.13				
35.00	1.13		1.13				
36.00	1.13		1.13				
37.00	1.13		1.13				
38.00	0.00		0.00				
39.00	0.00		0.00				
40.00	0.00		0.00				
41.00	0.00		0.00				
42.00	0.00		0.00				
43.00	0.00		0.00				
44.00	0.00		0.00				
45.00	0.00		0.00				
46.00	0.00		0.00				
47.00	0.00		0.00				
48.00	0.00		0.00				
49.00	0.00		0.00				
50.00	0.00		0.00				
51.00	0.00		0.00				
52.00	0.00		0.00				

Sediment Basin Flows

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NOAA 24-hr D 10 yr Rainfall=5.06"

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Page 63

Summary for Subcatchment DS1-I: DIVERSION SWALE #1 DRAINAGE AREA (Impervious)

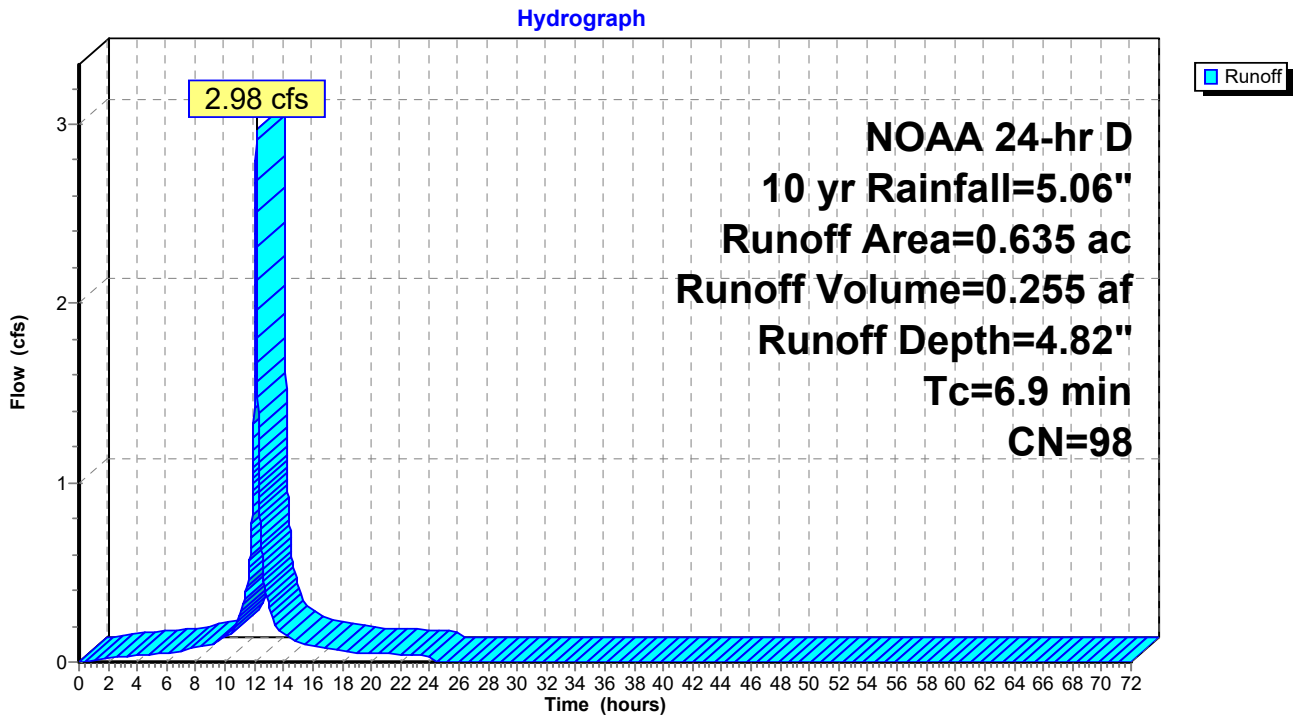
Runoff = 2.98 cfs @ 12.14 hrs, Volume= 0.255 af, Depth= 4.82"
 Routed to Reach DS1 : DIVERSION SWALE #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 10 yr Rainfall=5.06"

Area (ac)	CN	Description
0.635	98	Unconnected pavement, HSG C
0.635		100.00% Impervious Area
0.635		100.00% Unconnected

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

Subcatchment DS1-I: DIVERSION SWALE #1 DRAINAGE AREA (Impervious)



Sediment Basin Flows

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NOAA 24-hr D 10 yr Rainfall=5.06"

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Page 64

Hydrograph for Subcatchment DS1-I: DIVERSION SWALE #1 DRAINAGE AREA (Impervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	5.06	4.82	0.00
1.00	0.06	0.00	0.00	54.00	5.06	4.82	0.00
2.00	0.12	0.02	0.02	55.00	5.06	4.82	0.00
3.00	0.19	0.06	0.03	56.00	5.06	4.82	0.00
4.00	0.27	0.12	0.04	57.00	5.06	4.82	0.00
5.00	0.35	0.18	0.04	58.00	5.06	4.82	0.00
6.00	0.43	0.26	0.05	59.00	5.06	4.82	0.00
7.00	0.53	0.35	0.06	60.00	5.06	4.82	0.00
8.00	0.66	0.46	0.08	61.00	5.06	4.82	0.00
9.00	0.80	0.60	0.09	62.00	5.06	4.82	0.00
10.00	1.00	0.79	0.14	63.00	5.06	4.82	0.00
11.00	1.32	1.10	0.26	64.00	5.06	4.82	0.00
12.00	2.42	2.20	1.59	65.00	5.06	4.82	0.00
13.00	3.74	3.51	0.32	66.00	5.06	4.82	0.00
14.00	4.06	3.82	0.16	67.00	5.06	4.82	0.00
15.00	4.26	4.02	0.11	68.00	5.06	4.82	0.00
16.00	4.40	4.17	0.09	69.00	5.06	4.82	0.00
17.00	4.53	4.29	0.07	70.00	5.06	4.82	0.00
18.00	4.63	4.39	0.06	71.00	5.06	4.82	0.00
19.00	4.71	4.48	0.05	72.00	5.06	4.82	0.00
20.00	4.79	4.56	0.05				
21.00	4.87	4.63	0.05				
22.00	4.94	4.70	0.04				
23.00	5.00	4.77	0.04				
24.00	5.06	4.82	0.04				
25.00	5.06	4.82	0.00				
26.00	5.06	4.82	0.00				
27.00	5.06	4.82	0.00				
28.00	5.06	4.82	0.00				
29.00	5.06	4.82	0.00				
30.00	5.06	4.82	0.00				
31.00	5.06	4.82	0.00				
32.00	5.06	4.82	0.00				
33.00	5.06	4.82	0.00				
34.00	5.06	4.82	0.00				
35.00	5.06	4.82	0.00				
36.00	5.06	4.82	0.00				
37.00	5.06	4.82	0.00				
38.00	5.06	4.82	0.00				
39.00	5.06	4.82	0.00				
40.00	5.06	4.82	0.00				
41.00	5.06	4.82	0.00				
42.00	5.06	4.82	0.00				
43.00	5.06	4.82	0.00				
44.00	5.06	4.82	0.00				
45.00	5.06	4.82	0.00				
46.00	5.06	4.82	0.00				
47.00	5.06	4.82	0.00				
48.00	5.06	4.82	0.00				
49.00	5.06	4.82	0.00				
50.00	5.06	4.82	0.00				
51.00	5.06	4.82	0.00				
52.00	5.06	4.82	0.00				

Sediment Basin Flows

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NOAA 24-hr D 10 yr Rainfall=5.06"

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Page 65

Summary for Subcatchment DS1-P: DIVERSION SWALE #1 DRAINAGE AREA (Pervious)

Runoff = 32.80 cfs @ 12.14 hrs, Volume= 2.558 af, Depth= 4.04"
 Routed to Reach DS1 : DIVERSION SWALE #1

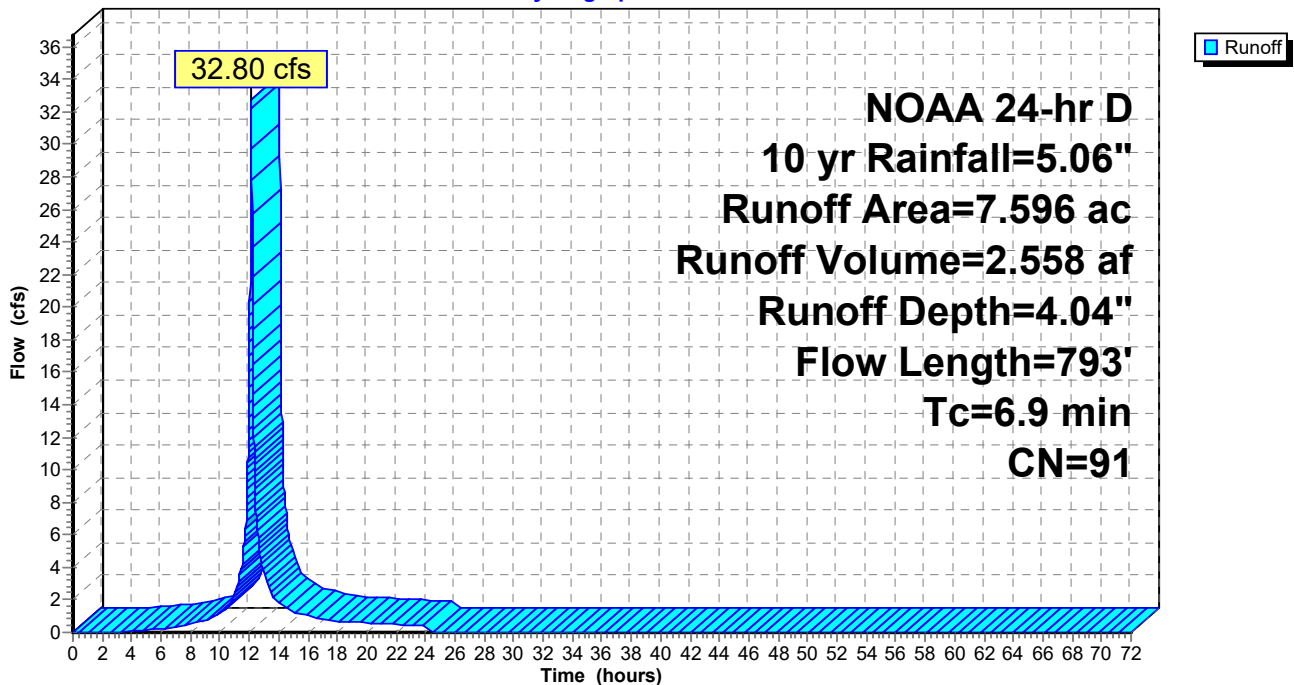
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 10 yr Rainfall=5.06"

Area (ac)	CN	Description
7.596	91	Fallow, bare soil, HSG C
7.596		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	100	0.0250	1.53		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.31"
5.1	466	0.0230	1.52		Shallow Concentrated Flow, B-C Nearly Bare & Untilled Kv= 10.0 fps
0.7	227	0.0077	5.65	401.45	Channel Flow, C-D Area= 71.0 sf Perim= 76.2' r= 0.93' n= 0.022 Earth, clean & straight
6.9	793	Total			

Subcatchment DS1-P: DIVERSION SWALE #1 DRAINAGE AREA (Pervious)

Hydrograph



Sediment Basin Flows

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NOAA 24-hr D 10 yr Rainfall=5.06"

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Page 66

Hydrograph for Subcatchment DS1-P: DIVERSION SWALE #1 DRAINAGE AREA (Pervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	5.06	4.04	0.00
1.00	0.06	0.00	0.00	54.00	5.06	4.04	0.00
2.00	0.12	0.00	0.00	55.00	5.06	4.04	0.00
3.00	0.19	0.00	0.00	56.00	5.06	4.04	0.00
4.00	0.27	0.00	0.07	57.00	5.06	4.04	0.00
5.00	0.35	0.02	0.15	58.00	5.06	4.04	0.00
6.00	0.43	0.04	0.23	59.00	5.06	4.04	0.00
7.00	0.53	0.08	0.36	60.00	5.06	4.04	0.00
8.00	0.66	0.15	0.53	61.00	5.06	4.04	0.00
9.00	0.80	0.23	0.72	62.00	5.06	4.04	0.00
10.00	1.00	0.36	1.22	63.00	5.06	4.04	0.00
11.00	1.32	0.59	2.40	64.00	5.06	4.04	0.00
12.00	2.42	1.54	16.97	65.00	5.06	4.04	0.00
13.00	3.74	2.77	3.66	66.00	5.06	4.04	0.00
14.00	4.06	3.07	1.82	67.00	5.06	4.04	0.00
15.00	4.26	3.26	1.24	68.00	5.06	4.04	0.00
16.00	4.40	3.40	1.01	69.00	5.06	4.04	0.00
17.00	4.53	3.52	0.85	70.00	5.06	4.04	0.00
18.00	4.63	3.62	0.68	71.00	5.06	4.04	0.00
19.00	4.71	3.70	0.62	72.00	5.06	4.04	0.00
20.00	4.79	3.78	0.58				
21.00	4.87	3.86	0.54				
22.00	4.94	3.92	0.50				
23.00	5.00	3.98	0.46				
24.00	5.06	4.04	0.42				
25.00	5.06	4.04	0.00				
26.00	5.06	4.04	0.00				
27.00	5.06	4.04	0.00				
28.00	5.06	4.04	0.00				
29.00	5.06	4.04	0.00				
30.00	5.06	4.04	0.00				
31.00	5.06	4.04	0.00				
32.00	5.06	4.04	0.00				
33.00	5.06	4.04	0.00				
34.00	5.06	4.04	0.00				
35.00	5.06	4.04	0.00				
36.00	5.06	4.04	0.00				
37.00	5.06	4.04	0.00				
38.00	5.06	4.04	0.00				
39.00	5.06	4.04	0.00				
40.00	5.06	4.04	0.00				
41.00	5.06	4.04	0.00				
42.00	5.06	4.04	0.00				
43.00	5.06	4.04	0.00				
44.00	5.06	4.04	0.00				
45.00	5.06	4.04	0.00				
46.00	5.06	4.04	0.00				
47.00	5.06	4.04	0.00				
48.00	5.06	4.04	0.00				
49.00	5.06	4.04	0.00				
50.00	5.06	4.04	0.00				
51.00	5.06	4.04	0.00				
52.00	5.06	4.04	0.00				

Sediment Basin Flows

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Page 67

Summary for Subcatchment DS2-P: DIVERSION SWALE #2 DRAINAGE AREA (Pervious)

Runoff = 7.83 cfs @ 12.17 hrs, Volume= 0.648 af, Depth= 3.52"
 Routed to Reach DS2 : DIVERSION SWALE #2

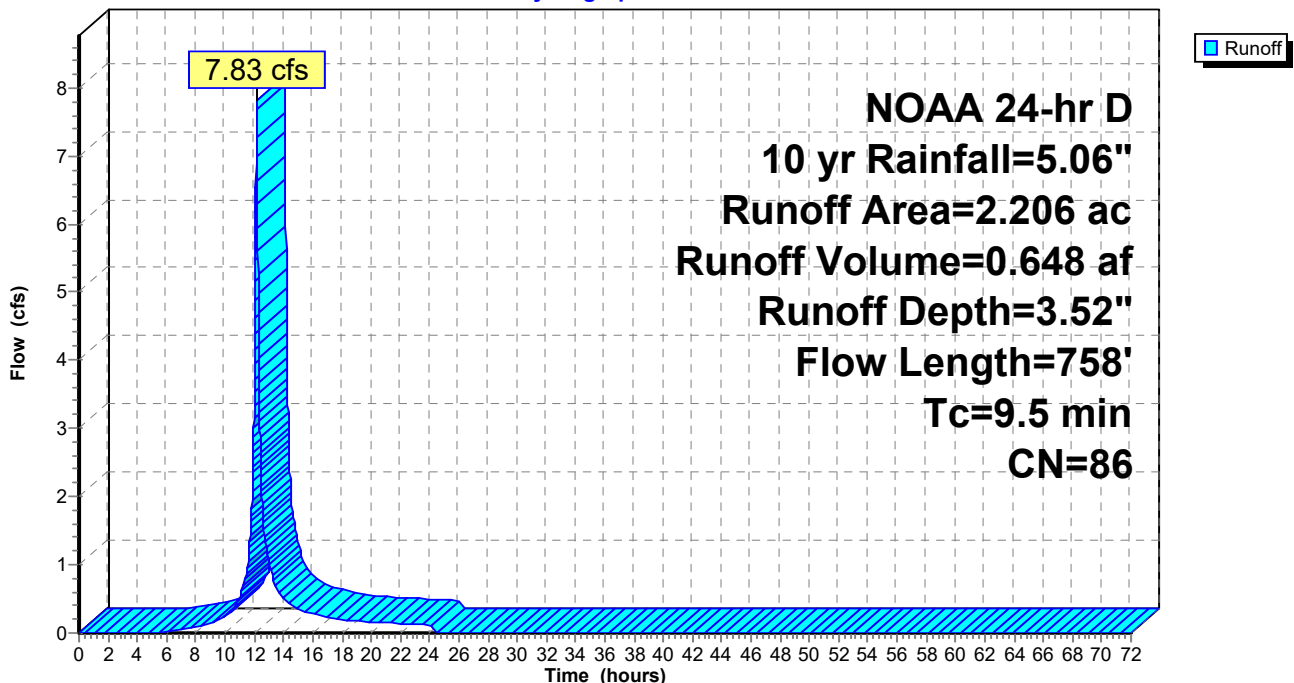
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 10 yr Rainfall=5.06"

Area (ac)	CN	Description
0.340	77	Fallow, bare soil, HSG A
1.450	86	Fallow, bare soil, HSG B
0.416	91	Fallow, bare soil, HSG C
2.206	86	Weighted Average
2.206		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.1	100	0.0385	0.54		Sheet Flow, A-B Fallow n= 0.050 P2= 3.31"
6.0	445	0.0152	1.23		Shallow Concentrated Flow, B-C Nearly Bare & Untilled Kv= 10.0 fps
0.4	213	0.0188	8.44	295.55	Channel Flow, C-D Area= 35.0 sf Perim= 40.2' r= 0.87' n= 0.022 Earth, clean & straight
9.5	758	Total			

Subcatchment DS2-P: DIVERSION SWALE #2 DRAINAGE AREA (Pervious)

Hydrograph



Sediment Basin Flows

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NOAA 24-hr D 10 yr Rainfall=5.06"

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Page 68

Hydrograph for Subcatchment DS2-P: DIVERSION SWALE #2 DRAINAGE AREA (Pervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	5.06	3.52	0.00
1.00	0.06	0.00	0.00	54.00	5.06	3.52	0.00
2.00	0.12	0.00	0.00	55.00	5.06	3.52	0.00
3.00	0.19	0.00	0.00	56.00	5.06	3.52	0.00
4.00	0.27	0.00	0.00	57.00	5.06	3.52	0.00
5.00	0.35	0.00	0.00	58.00	5.06	3.52	0.00
6.00	0.43	0.01	0.02	59.00	5.06	3.52	0.00
7.00	0.53	0.02	0.05	60.00	5.06	3.52	0.00
8.00	0.66	0.06	0.09	61.00	5.06	3.52	0.00
9.00	0.80	0.11	0.13	62.00	5.06	3.52	0.00
10.00	1.00	0.20	0.25	63.00	5.06	3.52	0.00
11.00	1.32	0.37	0.52	64.00	5.06	3.52	0.00
12.00	2.42	1.18	3.54	65.00	5.06	3.52	0.00
13.00	3.74	2.32	1.04	66.00	5.06	3.52	0.00
14.00	4.06	2.60	0.51	67.00	5.06	3.52	0.00
15.00	4.26	2.78	0.35	68.00	5.06	3.52	0.00
16.00	4.40	2.91	0.28	69.00	5.06	3.52	0.00
17.00	4.53	3.03	0.24	70.00	5.06	3.52	0.00
18.00	4.63	3.12	0.19	71.00	5.06	3.52	0.00
19.00	4.71	3.20	0.17	72.00	5.06	3.52	0.00
20.00	4.79	3.28	0.16				
21.00	4.87	3.35	0.15				
22.00	4.94	3.41	0.14				
23.00	5.00	3.47	0.13				
24.00	5.06	3.52	0.12				
25.00	5.06	3.52	0.00				
26.00	5.06	3.52	0.00				
27.00	5.06	3.52	0.00				
28.00	5.06	3.52	0.00				
29.00	5.06	3.52	0.00				
30.00	5.06	3.52	0.00				
31.00	5.06	3.52	0.00				
32.00	5.06	3.52	0.00				
33.00	5.06	3.52	0.00				
34.00	5.06	3.52	0.00				
35.00	5.06	3.52	0.00				
36.00	5.06	3.52	0.00				
37.00	5.06	3.52	0.00				
38.00	5.06	3.52	0.00				
39.00	5.06	3.52	0.00				
40.00	5.06	3.52	0.00				
41.00	5.06	3.52	0.00				
42.00	5.06	3.52	0.00				
43.00	5.06	3.52	0.00				
44.00	5.06	3.52	0.00				
45.00	5.06	3.52	0.00				
46.00	5.06	3.52	0.00				
47.00	5.06	3.52	0.00				
48.00	5.06	3.52	0.00				
49.00	5.06	3.52	0.00				
50.00	5.06	3.52	0.00				
51.00	5.06	3.52	0.00				
52.00	5.06	3.52	0.00				

Sediment Basin Flows

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NOAA 24-hr D 10 yr Rainfall=5.06"

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Page 69

Summary for Subcatchment SB-I: SEDIMENT BASIN DRAINAGE AREA (Impervious)

Runoff = 0.85 cfs @ 12.15 hrs, Volume= 0.076 af, Depth= 4.82"
 Routed to Pond SB : SEDIMENT BASIN

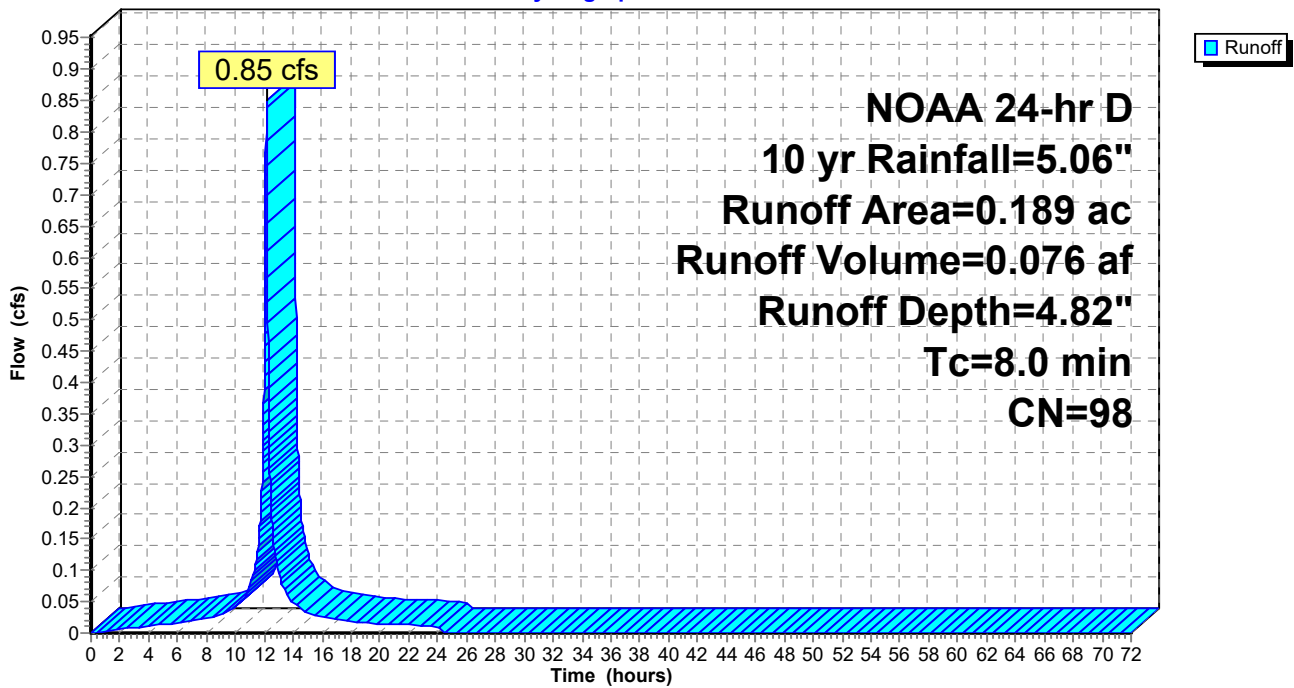
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 10 yr Rainfall=5.06"

Area (ac)	CN	Description
0.189	98	Unconnected pavement, HSG C
0.189		100.00% Impervious Area
0.189		100.00% Unconnected

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

Subcatchment SB-I: SEDIMENT BASIN DRAINAGE AREA (Impervious)

Hydrograph



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NOAA 24-hr D 10 yr Rainfall=5.06"

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Page 70

Hydrograph for Subcatchment SB-I: SEDIMENT BASIN DRAINAGE AREA (Impervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	5.06	4.82	0.00
1.00	0.06	0.00	0.00	54.00	5.06	4.82	0.00
2.00	0.12	0.02	0.01	55.00	5.06	4.82	0.00
3.00	0.19	0.06	0.01	56.00	5.06	4.82	0.00
4.00	0.27	0.12	0.01	57.00	5.06	4.82	0.00
5.00	0.35	0.18	0.01	58.00	5.06	4.82	0.00
6.00	0.43	0.26	0.01	59.00	5.06	4.82	0.00
7.00	0.53	0.35	0.02	60.00	5.06	4.82	0.00
8.00	0.66	0.46	0.02	61.00	5.06	4.82	0.00
9.00	0.80	0.60	0.03	62.00	5.06	4.82	0.00
10.00	1.00	0.79	0.04	63.00	5.06	4.82	0.00
11.00	1.32	1.10	0.07	64.00	5.06	4.82	0.00
12.00	2.42	2.20	0.43	65.00	5.06	4.82	0.00
13.00	3.74	3.51	0.10	66.00	5.06	4.82	0.00
14.00	4.06	3.82	0.05	67.00	5.06	4.82	0.00
15.00	4.26	4.02	0.03	68.00	5.06	4.82	0.00
16.00	4.40	4.17	0.03	69.00	5.06	4.82	0.00
17.00	4.53	4.29	0.02	70.00	5.06	4.82	0.00
18.00	4.63	4.39	0.02	71.00	5.06	4.82	0.00
19.00	4.71	4.48	0.02	72.00	5.06	4.82	0.00
20.00	4.79	4.56	0.01				
21.00	4.87	4.63	0.01				
22.00	4.94	4.70	0.01				
23.00	5.00	4.77	0.01				
24.00	5.06	4.82	0.01				
25.00	5.06	4.82	0.00				
26.00	5.06	4.82	0.00				
27.00	5.06	4.82	0.00				
28.00	5.06	4.82	0.00				
29.00	5.06	4.82	0.00				
30.00	5.06	4.82	0.00				
31.00	5.06	4.82	0.00				
32.00	5.06	4.82	0.00				
33.00	5.06	4.82	0.00				
34.00	5.06	4.82	0.00				
35.00	5.06	4.82	0.00				
36.00	5.06	4.82	0.00				
37.00	5.06	4.82	0.00				
38.00	5.06	4.82	0.00				
39.00	5.06	4.82	0.00				
40.00	5.06	4.82	0.00				
41.00	5.06	4.82	0.00				
42.00	5.06	4.82	0.00				
43.00	5.06	4.82	0.00				
44.00	5.06	4.82	0.00				
45.00	5.06	4.82	0.00				
46.00	5.06	4.82	0.00				
47.00	5.06	4.82	0.00				
48.00	5.06	4.82	0.00				
49.00	5.06	4.82	0.00				
50.00	5.06	4.82	0.00				
51.00	5.06	4.82	0.00				
52.00	5.06	4.82	0.00				

Sediment Basin Flows

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NOAA 24-hr D 10 yr Rainfall=5.06"

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Page 71

Summary for Subcatchment SB-P: SEDIMENT BASIN DRAINAGE AREA (Pervious)

Runoff = 18.18 cfs @ 12.15 hrs, Volume= 1.476 af, Depth= 4.04"
 Routed to Pond SB : SEDIMENT BASIN

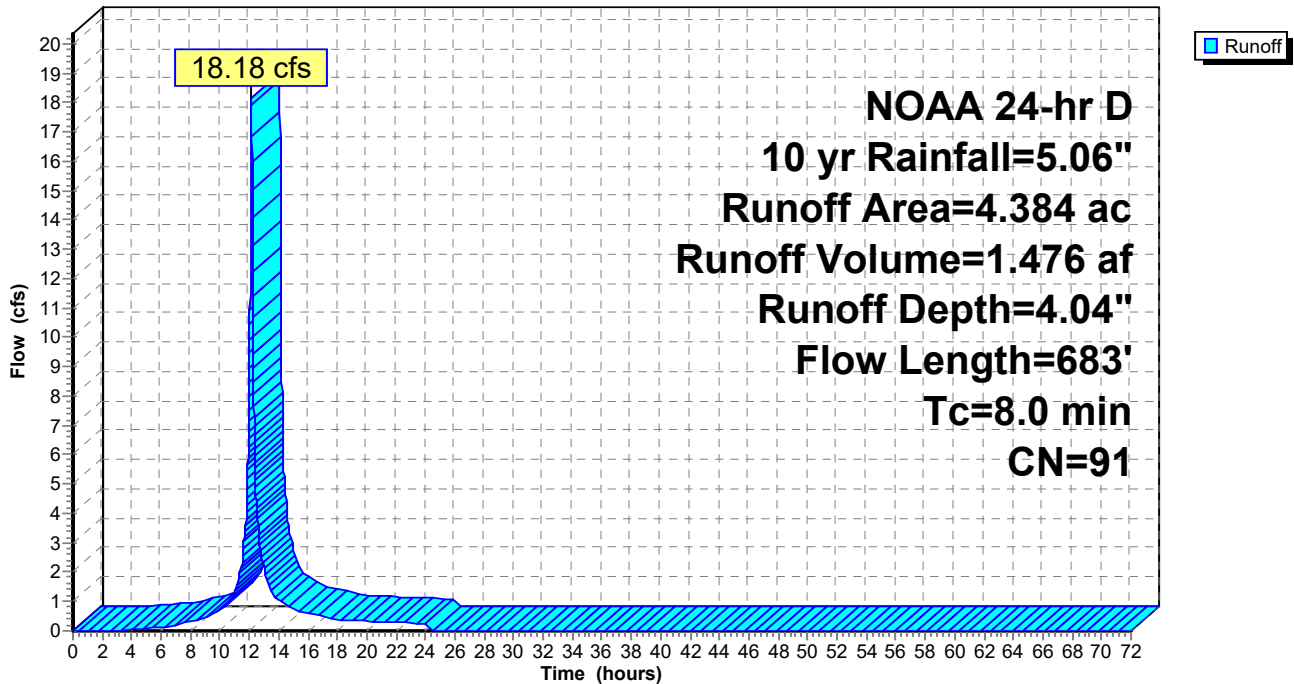
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 10 yr Rainfall=5.06"

Area (ac)	CN	Description
0.243	86	Fallow, bare soil, HSG B
4.141	91	Fallow, bare soil, HSG C
4.384	91	Weighted Average
4.384		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0200	1.40		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.31"
6.8	583	0.0202	1.42		Shallow Concentrated Flow, B-C Nearly Bare & Untilled Kv= 10.0 fps
8.0	683	Total			

Subcatchment SB-P: SEDIMENT BASIN DRAINAGE AREA (Pervious)

Hydrograph



Sediment Basin Flows

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Page 72

Hydrograph for Subcatchment SB-P: SEDIMENT BASIN DRAINAGE AREA (Pervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	5.06	4.04	0.00
1.00	0.06	0.00	0.00	54.00	5.06	4.04	0.00
2.00	0.12	0.00	0.00	55.00	5.06	4.04	0.00
3.00	0.19	0.00	0.00	56.00	5.06	4.04	0.00
4.00	0.27	0.00	0.04	57.00	5.06	4.04	0.00
5.00	0.35	0.02	0.08	58.00	5.06	4.04	0.00
6.00	0.43	0.04	0.13	59.00	5.06	4.04	0.00
7.00	0.53	0.08	0.21	60.00	5.06	4.04	0.00
8.00	0.66	0.15	0.30	61.00	5.06	4.04	0.00
9.00	0.80	0.23	0.41	62.00	5.06	4.04	0.00
10.00	1.00	0.36	0.70	63.00	5.06	4.04	0.00
11.00	1.32	0.59	1.36	64.00	5.06	4.04	0.00
12.00	2.42	1.54	8.98	65.00	5.06	4.04	0.00
13.00	3.74	2.77	2.15	66.00	5.06	4.04	0.00
14.00	4.06	3.07	1.06	67.00	5.06	4.04	0.00
15.00	4.26	3.26	0.72	68.00	5.06	4.04	0.00
16.00	4.40	3.40	0.59	69.00	5.06	4.04	0.00
17.00	4.53	3.52	0.49	70.00	5.06	4.04	0.00
18.00	4.63	3.62	0.40	71.00	5.06	4.04	0.00
19.00	4.71	3.70	0.36	72.00	5.06	4.04	0.00
20.00	4.79	3.78	0.34				
21.00	4.87	3.86	0.31				
22.00	4.94	3.92	0.29				
23.00	5.00	3.98	0.26				
24.00	5.06	4.04	0.24				
25.00	5.06	4.04	0.00				
26.00	5.06	4.04	0.00				
27.00	5.06	4.04	0.00				
28.00	5.06	4.04	0.00				
29.00	5.06	4.04	0.00				
30.00	5.06	4.04	0.00				
31.00	5.06	4.04	0.00				
32.00	5.06	4.04	0.00				
33.00	5.06	4.04	0.00				
34.00	5.06	4.04	0.00				
35.00	5.06	4.04	0.00				
36.00	5.06	4.04	0.00				
37.00	5.06	4.04	0.00				
38.00	5.06	4.04	0.00				
39.00	5.06	4.04	0.00				
40.00	5.06	4.04	0.00				
41.00	5.06	4.04	0.00				
42.00	5.06	4.04	0.00				
43.00	5.06	4.04	0.00				
44.00	5.06	4.04	0.00				
45.00	5.06	4.04	0.00				
46.00	5.06	4.04	0.00				
47.00	5.06	4.04	0.00				
48.00	5.06	4.04	0.00				
49.00	5.06	4.04	0.00				
50.00	5.06	4.04	0.00				
51.00	5.06	4.04	0.00				
52.00	5.06	4.04	0.00				

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Page 73

Summary for Reach DS1: DIVERSION SWALE #1

Inflow Area = 8.231 ac, 7.71% Impervious, Inflow Depth = 4.10" for 10 yr event
Inflow = 35.77 cfs @ 12.14 hrs, Volume= 2.813 af
Outflow = 32.63 cfs @ 12.17 hrs, Volume= 2.813 af, Atten= 9%, Lag= 1.8 min
Routed to Pond SB : SEDIMENT BASIN

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Max. Velocity= 2.16 fps, Min. Travel Time= 4.0 min
Avg. Velocity = 0.55 fps, Avg. Travel Time= 15.7 min

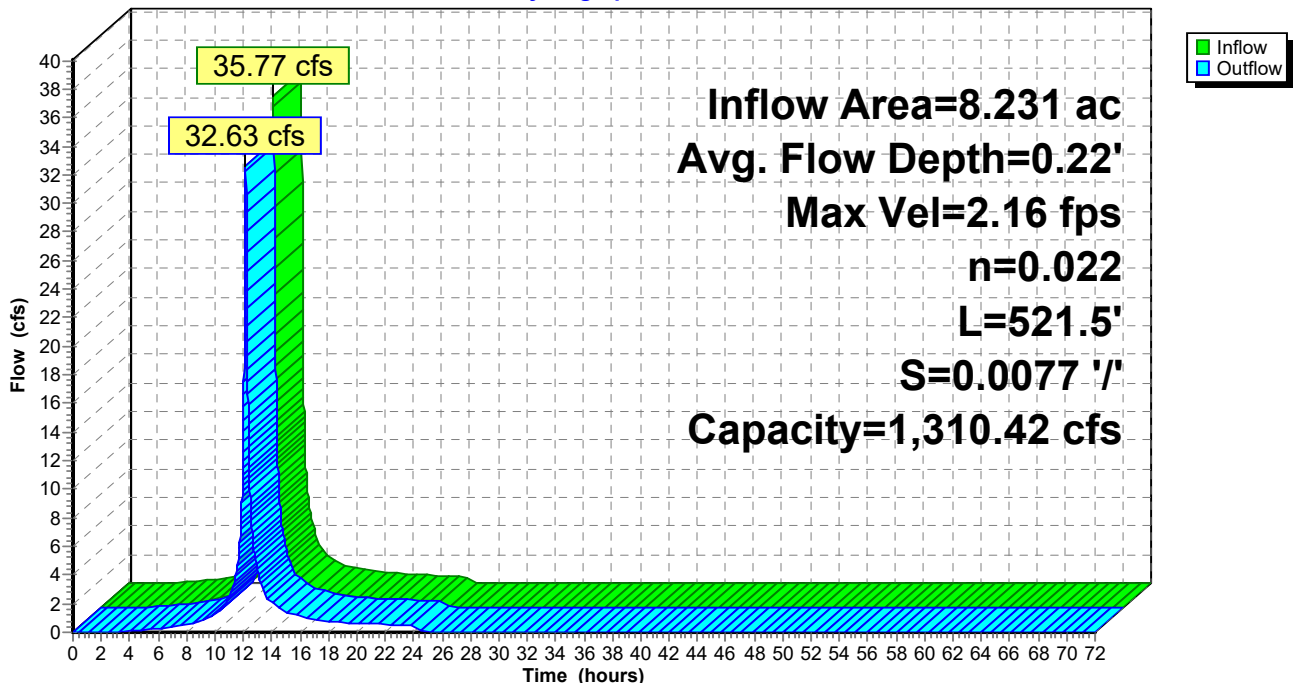
Peak Storage= 7,866 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.22', Surface Width= 68.25'
Bank-Full Depth= 2.00' Flow Area= 152.0 sf, Capacity= 1,310.42 cfs

66.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 5.0 '/' Top Width= 86.00'
Length= 521.5' Slope= 0.0077 '/'
Inlet Invert= 87.00', Outlet Invert= 83.00'



Reach DS1: DIVERSION SWALE #1

Hydrograph



Sediment Basin Flows

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Page 74

Hydrograph for Reach DS1: DIVERSION SWALE #1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
0.00	0.00	0	87.00	0.00
2.00	0.02	18	87.00	0.01
4.00	0.10	90	87.00	0.08
6.00	0.28	297	87.01	0.25
8.00	0.61	657	87.02	0.55
10.00	1.37	1,074	87.03	1.27
12.00	18.56	4,723	87.14	14.09
14.00	1.98	1,472	87.04	2.06
16.00	1.10	994	87.03	1.13
18.00	0.74	796	87.02	0.77
20.00	0.63	723	87.02	0.64
22.00	0.54	664	87.02	0.55
24.00	0.45	557	87.02	0.47
26.00	0.00	2	87.00	0.00
28.00	0.00	0	87.00	0.00
30.00	0.00	0	87.00	0.00
32.00	0.00	0	87.00	0.00
34.00	0.00	0	87.00	0.00
36.00	0.00	0	87.00	0.00
38.00	0.00	0	87.00	0.00
40.00	0.00	0	87.00	0.00
42.00	0.00	0	87.00	0.00
44.00	0.00	0	87.00	0.00
46.00	0.00	0	87.00	0.00
48.00	0.00	0	87.00	0.00
50.00	0.00	0	87.00	0.00
52.00	0.00	0	87.00	0.00
54.00	0.00	0	87.00	0.00
56.00	0.00	0	87.00	0.00
58.00	0.00	0	87.00	0.00
60.00	0.00	0	87.00	0.00
62.00	0.00	0	87.00	0.00
64.00	0.00	0	87.00	0.00
66.00	0.00	0	87.00	0.00
68.00	0.00	0	87.00	0.00
70.00	0.00	0	87.00	0.00
72.00	0.00	0	87.00	0.00

Sediment Basin Flows

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Page 75

Summary for Reach DS2: DIVERSION SWALE #2

Inflow Area = 2.206 ac, 0.00% Impervious, Inflow Depth = 3.52" for 10 yr event
Inflow = 7.83 cfs @ 12.17 hrs, Volume= 0.648 af
Outflow = 7.69 cfs @ 12.18 hrs, Volume= 0.648 af, Atten= 2%, Lag= 0.9 min
Routed to Pond SB : SEDIMENT BASIN

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Max. Velocity= 2.17 fps, Min. Travel Time= 1.6 min
Avg. Velocity = 0.59 fps, Avg. Travel Time= 6.0 min

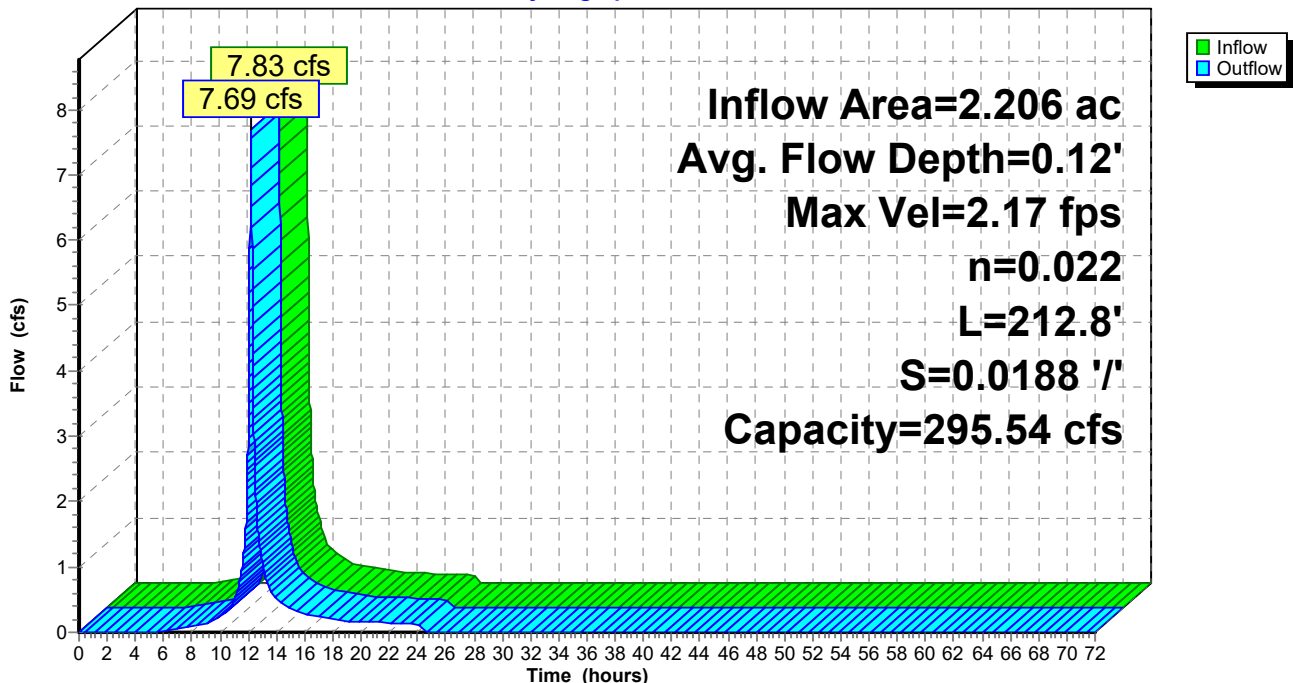
Peak Storage= 753 cf @ 12.18 hrs
Average Depth at Peak Storage= 0.12' , Surface Width= 31.16'
Bank-Full Depth= 1.00' Flow Area= 35.0 sf, Capacity= 295.54 cfs

30.00' x 1.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 5.0 '/' Top Width= 40.00'
Length= 212.8' Slope= 0.0188 '/'
Inlet Invert= 87.00', Outlet Invert= 83.00'



Reach DS2: DIVERSION SWALE #2

Hydrograph



Sediment Basin Flows

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Page 76

Hydrograph for Reach DS2: DIVERSION SWALE #2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
0.00	0.00	0	87.00	0.00
2.00	0.00	0	87.00	0.00
4.00	0.00	0	87.00	0.00
6.00	0.02	9	87.00	0.02
8.00	0.09	40	87.01	0.08
10.00	0.25	89	87.01	0.24
12.00	3.54	437	87.07	3.15
14.00	0.51	145	87.02	0.52
16.00	0.28	100	87.02	0.28
18.00	0.19	79	87.01	0.19
20.00	0.16	72	87.01	0.16
22.00	0.14	66	87.01	0.14
24.00	0.12	58	87.01	0.12
26.00	0.00	0	87.00	0.00
28.00	0.00	0	87.00	0.00
30.00	0.00	0	87.00	0.00
32.00	0.00	0	87.00	0.00
34.00	0.00	0	87.00	0.00
36.00	0.00	0	87.00	0.00
38.00	0.00	0	87.00	0.00
40.00	0.00	0	87.00	0.00
42.00	0.00	0	87.00	0.00
44.00	0.00	0	87.00	0.00
46.00	0.00	0	87.00	0.00
48.00	0.00	0	87.00	0.00
50.00	0.00	0	87.00	0.00
52.00	0.00	0	87.00	0.00
54.00	0.00	0	87.00	0.00
56.00	0.00	0	87.00	0.00
58.00	0.00	0	87.00	0.00
60.00	0.00	0	87.00	0.00
62.00	0.00	0	87.00	0.00
64.00	0.00	0	87.00	0.00
66.00	0.00	0	87.00	0.00
68.00	0.00	0	87.00	0.00
70.00	0.00	0	87.00	0.00
72.00	0.00	0	87.00	0.00

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Page 77

Summary for Pond SB: SEDIMENT BASIN

Inflow Area = 15.010 ac, 5.49% Impervious, Inflow Depth = 4.01" for 10 yr event
 Inflow = 58.79 cfs @ 12.16 hrs, Volume= 5.012 af
 Outflow = 6.33 cfs @ 13.19 hrs, Volume= 5.013 af, Atten= 89%, Lag= 61.7 min
 Primary = 6.33 cfs @ 13.19 hrs, Volume= 5.013 af
 Routed to Pond SP1 : Study Point 1
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Pond SP1 : Study Point 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 85.03' @ 13.19 hrs Surf.Area= 1.241 ac Storage= 2.361 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 363.0 min (1,162.1 - 799.1)

Volume	Invert	Avail.Storage	Storage Description
#1	83.00'	4.960 af	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
83.00	1.086	0.000	0.000
84.00	1.161	1.124	1.124
85.00	1.239	1.200	2.323
86.00	1.318	1.278	3.602
87.00	1.398	1.358	4.960

Device	Routing	Invert	Outlet Devices
#1	Primary	82.00'	12.0" Round Culvert L= 51.2' Box, 30-75° wingwalls, square crown, Ke= 0.400 Inlet / Outlet Invert= 82.00' / 81.24' S= 0.0148 1/8" Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.79 sf
#2	Device 1	83.00'	1.134 cfs Skimmer
#3	Device 1	84.19'	24.0" Horiz. Principal Spillway (Riser) C= 0.600 Limited to weir flow at low heads
#4	Secondary	86.50'	10.0' long x 11.5' breadth Emergency Spillway Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.55 2.60 2.70 2.67 2.67 2.67 2.66 2.64

Primary OutFlow Max=6.33 cfs @ 13.19 hrs HW=85.03' TW=0.00' (Dynamic Tailwater)

- ↑ **1=Culvert** (Barrel Controls 6.33 cfs @ 8.05 fps)
- ↑ **2=Skimmer** (Passes < 1.13 cfs potential flow)
- ↑ **3=Principal Spillway (Riser)** (Passes < 13.87 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=83.00' TW=0.00' (Dynamic Tailwater)

- ↑ **4=Emergency Spillway** (Controls 0.00 cfs)

Sediment Basin Flows

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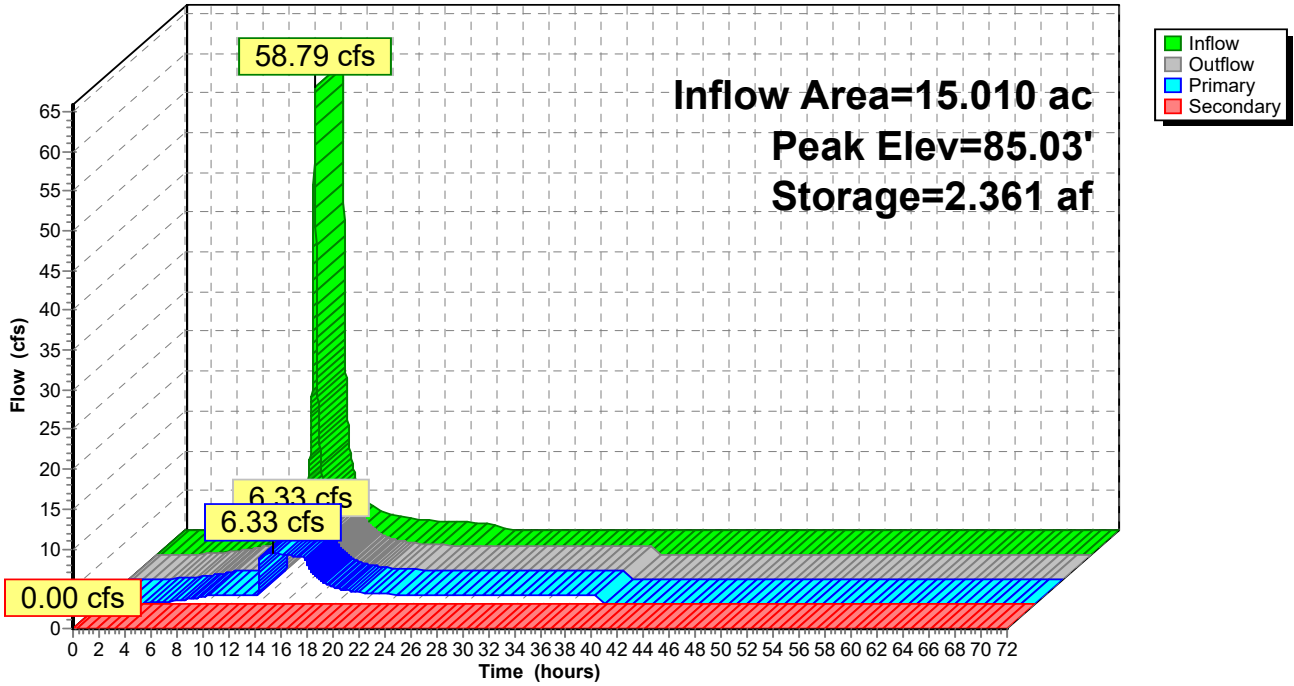
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Page 78

Pond SB: SEDIMENT BASIN

Hydrograph



Sediment Basin Flows

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Page 79

Hydrograph for Pond SB: SEDIMENT BASIN

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0.000	83.00	0.00	0.00	0.00
2.00	0.02	0.000	83.00	0.02	0.02	0.00
4.00	0.12	0.000	83.00	0.12	0.12	0.00
6.00	0.41	0.000	83.00	0.41	0.41	0.00
8.00	0.96	0.000	83.00	0.96	0.96	0.00
10.00	2.25	0.057	83.05	1.13	1.13	0.00
12.00	26.65	0.893	83.80	1.13	1.13	0.00
14.00	3.68	2.256	84.95	6.23	6.23	0.00
16.00	2.02	1.720	84.50	4.77	4.77	0.00
18.00	1.38	1.499	84.32	2.09	2.09	0.00
20.00	1.15	1.420	84.25	1.46	1.46	0.00
22.00	1.00	1.377	84.22	1.23	1.23	0.00
24.00	0.83	1.336	84.18	1.13	1.13	0.00
26.00	0.00	1.171	84.04	1.13	1.13	0.00
28.00	0.00	0.983	83.88	1.13	1.13	0.00
30.00	0.00	0.796	83.72	1.13	1.13	0.00
32.00	0.00	0.608	83.55	1.13	1.13	0.00
34.00	0.00	0.421	83.38	1.13	1.13	0.00
36.00	0.00	0.233	83.21	1.13	1.13	0.00
38.00	0.00	0.046	83.04	1.13	1.13	0.00
40.00	0.00	0.000	83.00	0.00	0.00	0.00
42.00	0.00	0.000	83.00	0.00	0.00	0.00
44.00	0.00	0.000	83.00	0.00	0.00	0.00
46.00	0.00	0.000	83.00	0.00	0.00	0.00
48.00	0.00	0.000	83.00	0.00	0.00	0.00
50.00	0.00	0.000	83.00	0.00	0.00	0.00
52.00	0.00	0.000	83.00	0.00	0.00	0.00
54.00	0.00	0.000	83.00	0.00	0.00	0.00
56.00	0.00	0.000	83.00	0.00	0.00	0.00
58.00	0.00	0.000	83.00	0.00	0.00	0.00
60.00	0.00	0.000	83.00	0.00	0.00	0.00
62.00	0.00	0.000	83.00	0.00	0.00	0.00
64.00	0.00	0.000	83.00	0.00	0.00	0.00
66.00	0.00	0.000	83.00	0.00	0.00	0.00
68.00	0.00	0.000	83.00	0.00	0.00	0.00
70.00	0.00	0.000	83.00	0.00	0.00	0.00
72.00	0.00	0.000	83.00	0.00	0.00	0.00

Sediment Basin Flows

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NOAA 24-hr D 10 yr Rainfall=5.06"

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Page 80

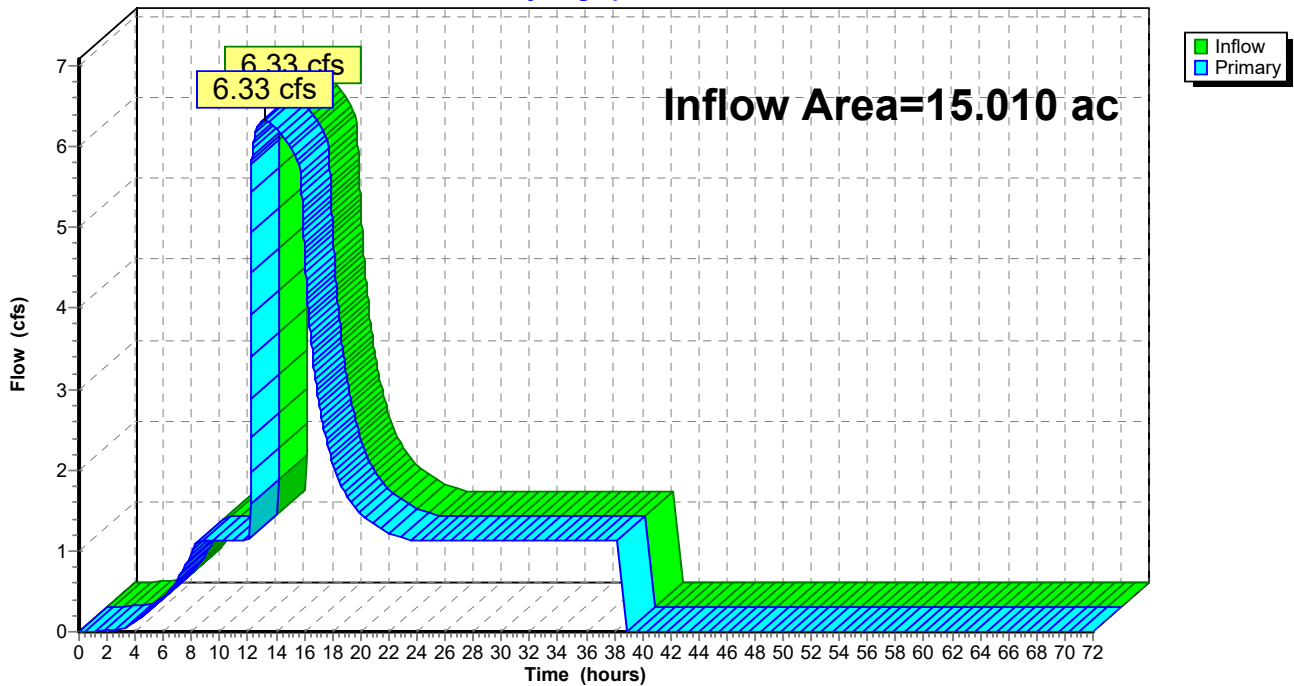
Summary for Pond SP1: Study Point 1

Inflow Area = 15.010 ac, 5.49% Impervious, Inflow Depth = 4.01" for 10 yr event
Inflow = 6.33 cfs @ 13.19 hrs, Volume= 5.013 af
Primary = 6.33 cfs @ 13.19 hrs, Volume= 5.013 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2

Pond SP1: Study Point 1

Hydrograph



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Page 81

Hydrograph for Pond SP1: Study Point 1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00		0.00	53.00	0.00		0.00
1.00	0.00		0.00	54.00	0.00		0.00
2.00	0.02		0.02	55.00	0.00		0.00
3.00	0.04		0.04	56.00	0.00		0.00
4.00	0.12		0.12	57.00	0.00		0.00
5.00	0.26		0.26	58.00	0.00		0.00
6.00	0.41		0.41	59.00	0.00		0.00
7.00	0.65		0.65	60.00	0.00		0.00
8.00	0.96		0.96	61.00	0.00		0.00
9.00	1.13		1.13	62.00	0.00		0.00
10.00	1.13		1.13	63.00	0.00		0.00
11.00	1.13		1.13	64.00	0.00		0.00
12.00	1.13		1.13	65.00	0.00		0.00
13.00	6.32		6.32	66.00	0.00		0.00
14.00	6.23		6.23	67.00	0.00		0.00
15.00	5.99		5.99	68.00	0.00		0.00
16.00	4.77		4.77	69.00	0.00		0.00
17.00	2.86		2.86	70.00	0.00		0.00
18.00	2.09		2.09	71.00	0.00		0.00
19.00	1.68		1.68	72.00	0.00		0.00
20.00	1.46		1.46				
21.00	1.32		1.32				
22.00	1.23		1.23				
23.00	1.16		1.16				
24.00	1.13		1.13				
25.00	1.13		1.13				
26.00	1.13		1.13				
27.00	1.13		1.13				
28.00	1.13		1.13				
29.00	1.13		1.13				
30.00	1.13		1.13				
31.00	1.13		1.13				
32.00	1.13		1.13				
33.00	1.13		1.13				
34.00	1.13		1.13				
35.00	1.13		1.13				
36.00	1.13		1.13				
37.00	1.13		1.13				
38.00	1.13		1.13				
39.00	0.00		0.00				
40.00	0.00		0.00				
41.00	0.00		0.00				
42.00	0.00		0.00				
43.00	0.00		0.00				
44.00	0.00		0.00				
45.00	0.00		0.00				
46.00	0.00		0.00				
47.00	0.00		0.00				
48.00	0.00		0.00				
49.00	0.00		0.00				
50.00	0.00		0.00				
51.00	0.00		0.00				
52.00	0.00		0.00				

Sediment Basin Flows

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Page 82

Summary for Subcatchment DS1-I: DIVERSION SWALE #1 DRAINAGE AREA (Impervious)

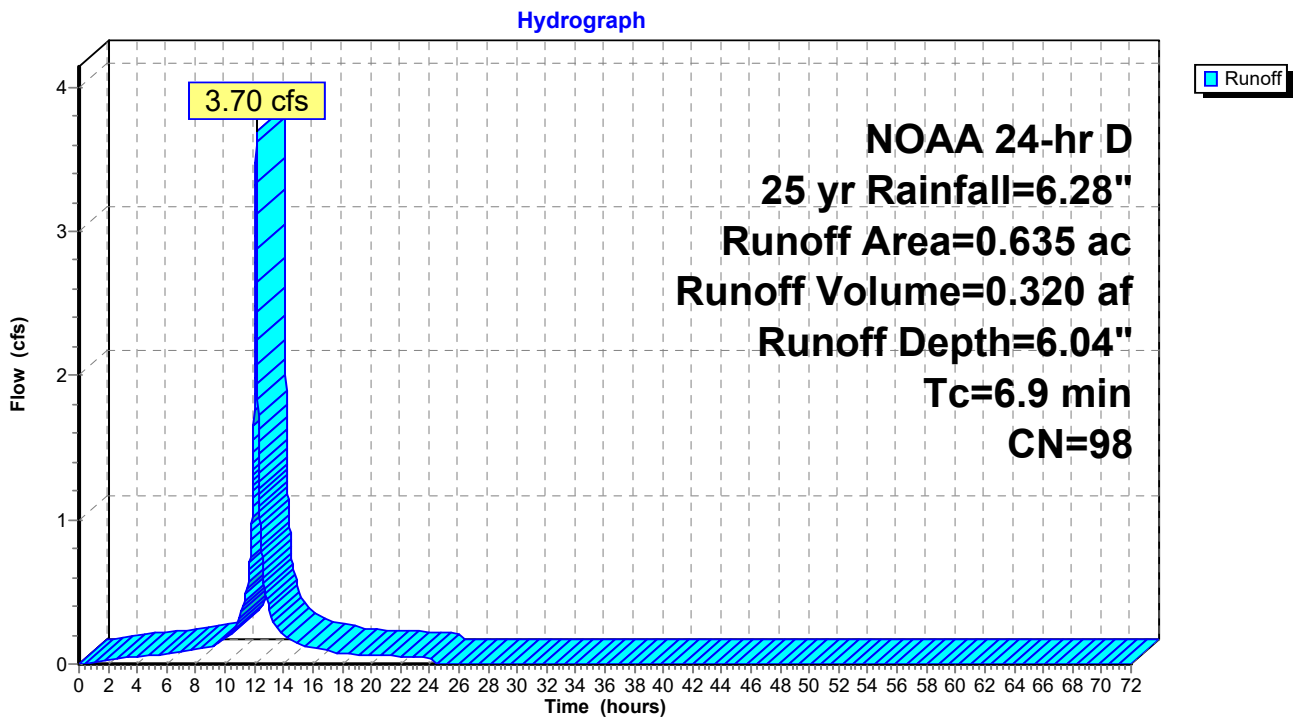
Runoff = 3.70 cfs @ 12.14 hrs, Volume= 0.320 af, Depth= 6.04"
 Routed to Reach DS1 : DIVERSION SWALE #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 25 yr Rainfall=6.28"

Area (ac)	CN	Description
0.635	98	Unconnected pavement, HSG C
0.635		100.00% Impervious Area
0.635		100.00% Unconnected

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

Subcatchment DS1-I: DIVERSION SWALE #1 DRAINAGE AREA (Impervious)



Sediment Basin Flows

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NOAA 24-hr D 25 yr Rainfall=6.28"

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Page 83

Hydrograph for Subcatchment DS1-I: DIVERSION SWALE #1 DRAINAGE AREA (Impervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	6.28	6.04	0.00
1.00	0.07	0.00	0.01	54.00	6.28	6.04	0.00
2.00	0.15	0.04	0.03	55.00	6.28	6.04	0.00
3.00	0.24	0.10	0.04	56.00	6.28	6.04	0.00
4.00	0.33	0.17	0.05	57.00	6.28	6.04	0.00
5.00	0.43	0.25	0.06	58.00	6.28	6.04	0.00
6.00	0.54	0.35	0.06	59.00	6.28	6.04	0.00
7.00	0.66	0.47	0.08	60.00	6.28	6.04	0.00
8.00	0.81	0.61	0.10	61.00	6.28	6.04	0.00
9.00	1.00	0.79	0.12	62.00	6.28	6.04	0.00
10.00	1.24	1.03	0.18	63.00	6.28	6.04	0.00
11.00	1.63	1.41	0.32	64.00	6.28	6.04	0.00
12.00	3.01	2.78	1.98	65.00	6.28	6.04	0.00
13.00	4.65	4.41	0.40	66.00	6.28	6.04	0.00
14.00	5.04	4.80	0.20	67.00	6.28	6.04	0.00
15.00	5.28	5.05	0.13	68.00	6.28	6.04	0.00
16.00	5.47	5.23	0.11	69.00	6.28	6.04	0.00
17.00	5.62	5.38	0.09	70.00	6.28	6.04	0.00
18.00	5.74	5.51	0.07	71.00	6.28	6.04	0.00
19.00	5.85	5.61	0.07	72.00	6.28	6.04	0.00
20.00	5.95	5.71	0.06				
21.00	6.04	5.81	0.06				
22.00	6.13	5.89	0.05				
23.00	6.21	5.97	0.05				
24.00	6.28	6.04	0.04				
25.00	6.28	6.04	0.00				
26.00	6.28	6.04	0.00				
27.00	6.28	6.04	0.00				
28.00	6.28	6.04	0.00				
29.00	6.28	6.04	0.00				
30.00	6.28	6.04	0.00				
31.00	6.28	6.04	0.00				
32.00	6.28	6.04	0.00				
33.00	6.28	6.04	0.00				
34.00	6.28	6.04	0.00				
35.00	6.28	6.04	0.00				
36.00	6.28	6.04	0.00				
37.00	6.28	6.04	0.00				
38.00	6.28	6.04	0.00				
39.00	6.28	6.04	0.00				
40.00	6.28	6.04	0.00				
41.00	6.28	6.04	0.00				
42.00	6.28	6.04	0.00				
43.00	6.28	6.04	0.00				
44.00	6.28	6.04	0.00				
45.00	6.28	6.04	0.00				
46.00	6.28	6.04	0.00				
47.00	6.28	6.04	0.00				
48.00	6.28	6.04	0.00				
49.00	6.28	6.04	0.00				
50.00	6.28	6.04	0.00				
51.00	6.28	6.04	0.00				
52.00	6.28	6.04	0.00				

Sediment Basin Flows

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NOAA 24-hr D 25 yr Rainfall=6.28"

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Page 84

Summary for Subcatchment DS1-P: DIVERSION SWALE #1 DRAINAGE AREA (Pervious)

Runoff = 41.78 cfs @ 12.14 hrs, Volume= 3.312 af, Depth= 5.23"
 Routed to Reach DS1 : DIVERSION SWALE #1

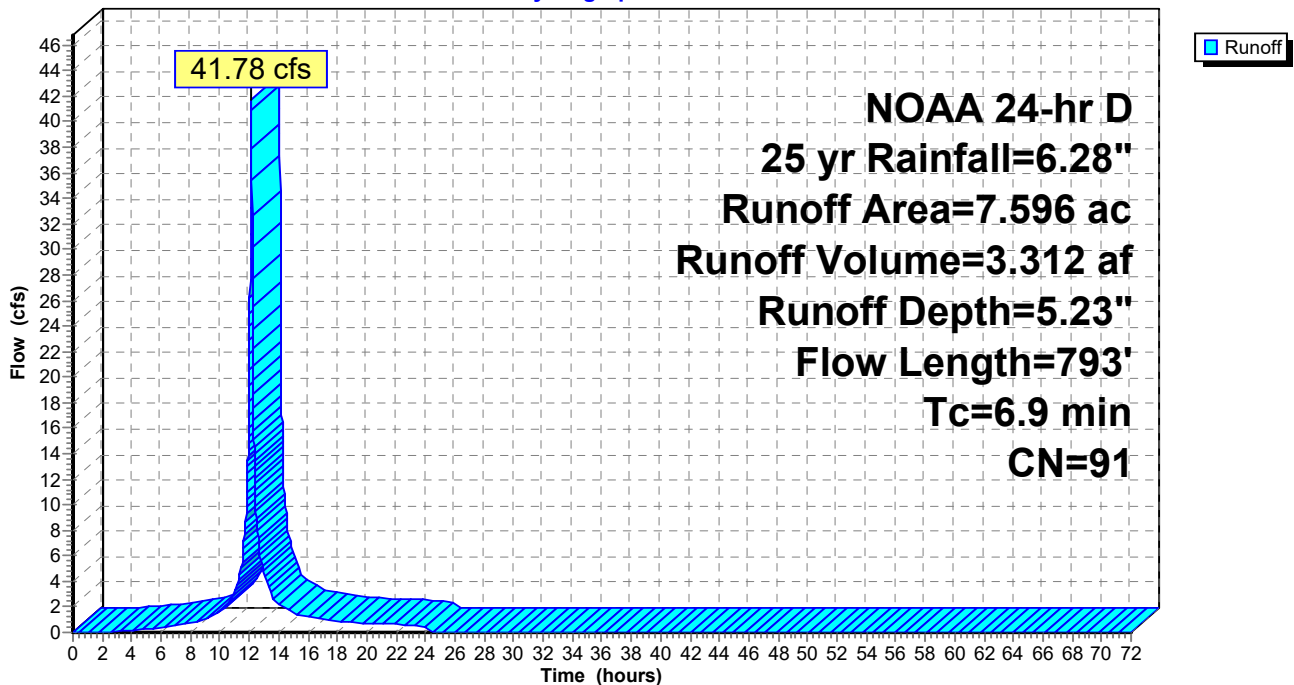
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 25 yr Rainfall=6.28"

Area (ac)	CN	Description
7.596	91	Fallow, bare soil, HSG C
7.596		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	100	0.0250	1.53		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.31"
5.1	466	0.0230	1.52		Shallow Concentrated Flow, B-C Nearly Bare & Untilled Kv= 10.0 fps
0.7	227	0.0077	5.65	401.45	Channel Flow, C-D Area= 71.0 sf Perim= 76.2' r= 0.93' n= 0.022 Earth, clean & straight
6.9	793	Total			

Subcatchment DS1-P: DIVERSION SWALE #1 DRAINAGE AREA (Pervious)

Hydrograph



Sediment Basin Flows

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Page 85

Hydrograph for Subcatchment DS1-P: DIVERSION SWALE #1 DRAINAGE AREA (Pervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	6.28	5.23	0.00
1.00	0.07	0.00	0.00	54.00	6.28	5.23	0.00
2.00	0.15	0.00	0.00	55.00	6.28	5.23	0.00
3.00	0.24	0.00	0.04	56.00	6.28	5.23	0.00
4.00	0.33	0.02	0.15	57.00	6.28	5.23	0.00
5.00	0.43	0.04	0.26	58.00	6.28	5.23	0.00
6.00	0.54	0.09	0.36	59.00	6.28	5.23	0.00
7.00	0.66	0.15	0.55	60.00	6.28	5.23	0.00
8.00	0.81	0.24	0.77	61.00	6.28	5.23	0.00
9.00	1.00	0.36	1.01	62.00	6.28	5.23	0.00
10.00	1.24	0.54	1.67	63.00	6.28	5.23	0.00
11.00	1.63	0.85	3.20	64.00	6.28	5.23	0.00
12.00	3.01	2.08	21.82	65.00	6.28	5.23	0.00
13.00	4.65	3.64	4.61	66.00	6.28	5.23	0.00
14.00	5.04	4.02	2.29	67.00	6.28	5.23	0.00
15.00	5.28	4.26	1.56	68.00	6.28	5.23	0.00
16.00	5.47	4.43	1.27	69.00	6.28	5.23	0.00
17.00	5.62	4.58	1.06	70.00	6.28	5.23	0.00
18.00	5.74	4.71	0.86	71.00	6.28	5.23	0.00
19.00	5.85	4.81	0.78	72.00	6.28	5.23	0.00
20.00	5.95	4.91	0.73				
21.00	6.04	5.00	0.68				
22.00	6.13	5.08	0.62				
23.00	6.21	5.16	0.57				
24.00	6.28	5.23	0.52				
25.00	6.28	5.23	0.00				
26.00	6.28	5.23	0.00				
27.00	6.28	5.23	0.00				
28.00	6.28	5.23	0.00				
29.00	6.28	5.23	0.00				
30.00	6.28	5.23	0.00				
31.00	6.28	5.23	0.00				
32.00	6.28	5.23	0.00				
33.00	6.28	5.23	0.00				
34.00	6.28	5.23	0.00				
35.00	6.28	5.23	0.00				
36.00	6.28	5.23	0.00				
37.00	6.28	5.23	0.00				
38.00	6.28	5.23	0.00				
39.00	6.28	5.23	0.00				
40.00	6.28	5.23	0.00				
41.00	6.28	5.23	0.00				
42.00	6.28	5.23	0.00				
43.00	6.28	5.23	0.00				
44.00	6.28	5.23	0.00				
45.00	6.28	5.23	0.00				
46.00	6.28	5.23	0.00				
47.00	6.28	5.23	0.00				
48.00	6.28	5.23	0.00				
49.00	6.28	5.23	0.00				
50.00	6.28	5.23	0.00				
51.00	6.28	5.23	0.00				
52.00	6.28	5.23	0.00				

Sediment Basin Flows

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Page 86

Summary for Subcatchment DS2-P: DIVERSION SWALE #2 DRAINAGE AREA (Pervious)

Runoff = 10.24 cfs @ 12.17 hrs, Volume= 0.860 af, Depth= 4.68"
 Routed to Reach DS2 : DIVERSION SWALE #2

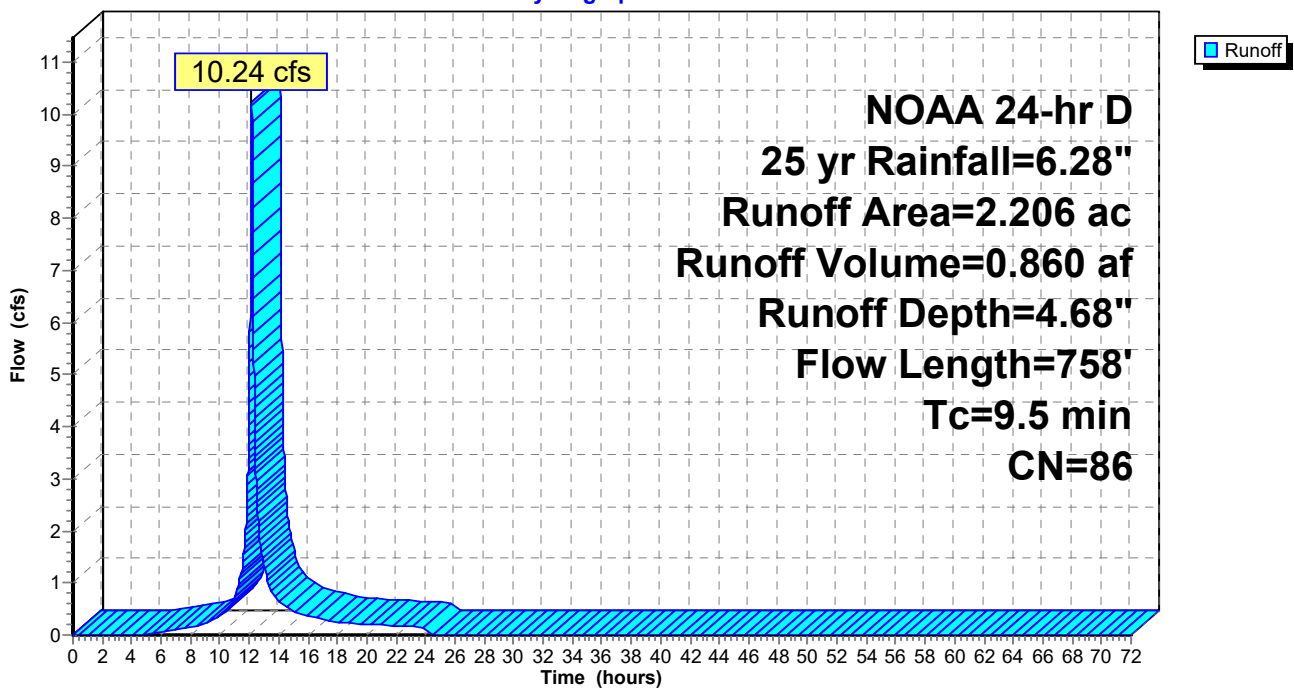
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 25 yr Rainfall=6.28"

Area (ac)	CN	Description
0.340	77	Fallow, bare soil, HSG A
1.450	86	Fallow, bare soil, HSG B
0.416	91	Fallow, bare soil, HSG C
2.206	86	Weighted Average
2.206		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.1	100	0.0385	0.54		Sheet Flow, A-B Fallow n= 0.050 P2= 3.31"
6.0	445	0.0152	1.23		Shallow Concentrated Flow, B-C Nearly Bare & Untilled Kv= 10.0 fps
0.4	213	0.0188	8.44	295.55	Channel Flow, C-D Area= 35.0 sf Perim= 40.2' r= 0.87' n= 0.022 Earth, clean & straight
9.5	758	Total			

Subcatchment DS2-P: DIVERSION SWALE #2 DRAINAGE AREA (Pervious)

Hydrograph



Sediment Basin Flows

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NOAA 24-hr D 25 yr Rainfall=6.28"

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Page 87

Hydrograph for Subcatchment DS2-P: DIVERSION SWALE #2 DRAINAGE AREA (Pervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	6.28	4.68	0.00
1.00	0.07	0.00	0.00	54.00	6.28	4.68	0.00
2.00	0.15	0.00	0.00	55.00	6.28	4.68	0.00
3.00	0.24	0.00	0.00	56.00	6.28	4.68	0.00
4.00	0.33	0.00	0.00	57.00	6.28	4.68	0.00
5.00	0.43	0.01	0.02	58.00	6.28	4.68	0.00
6.00	0.54	0.02	0.05	59.00	6.28	4.68	0.00
7.00	0.66	0.06	0.09	60.00	6.28	4.68	0.00
8.00	0.81	0.11	0.14	61.00	6.28	4.68	0.00
9.00	1.00	0.20	0.21	62.00	6.28	4.68	0.00
10.00	1.24	0.33	0.36	63.00	6.28	4.68	0.00
11.00	1.63	0.58	0.74	64.00	6.28	4.68	0.00
12.00	3.01	1.67	4.72	65.00	6.28	4.68	0.00
13.00	4.65	3.14	1.34	66.00	6.28	4.68	0.00
14.00	5.04	3.50	0.65	67.00	6.28	4.68	0.00
15.00	5.28	3.73	0.45	68.00	6.28	4.68	0.00
16.00	5.47	3.90	0.36	69.00	6.28	4.68	0.00
17.00	5.62	4.05	0.30	70.00	6.28	4.68	0.00
18.00	5.74	4.17	0.24	71.00	6.28	4.68	0.00
19.00	5.85	4.27	0.22	72.00	6.28	4.68	0.00
20.00	5.95	4.36	0.21				
21.00	6.04	4.45	0.19				
22.00	6.13	4.53	0.18				
23.00	6.21	4.61	0.16				
24.00	6.28	4.68	0.15				
25.00	6.28	4.68	0.00				
26.00	6.28	4.68	0.00				
27.00	6.28	4.68	0.00				
28.00	6.28	4.68	0.00				
29.00	6.28	4.68	0.00				
30.00	6.28	4.68	0.00				
31.00	6.28	4.68	0.00				
32.00	6.28	4.68	0.00				
33.00	6.28	4.68	0.00				
34.00	6.28	4.68	0.00				
35.00	6.28	4.68	0.00				
36.00	6.28	4.68	0.00				
37.00	6.28	4.68	0.00				
38.00	6.28	4.68	0.00				
39.00	6.28	4.68	0.00				
40.00	6.28	4.68	0.00				
41.00	6.28	4.68	0.00				
42.00	6.28	4.68	0.00				
43.00	6.28	4.68	0.00				
44.00	6.28	4.68	0.00				
45.00	6.28	4.68	0.00				
46.00	6.28	4.68	0.00				
47.00	6.28	4.68	0.00				
48.00	6.28	4.68	0.00				
49.00	6.28	4.68	0.00				
50.00	6.28	4.68	0.00				
51.00	6.28	4.68	0.00				
52.00	6.28	4.68	0.00				

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Page 88

Summary for Subcatchment SB-I: SEDIMENT BASIN DRAINAGE AREA (Impervious)

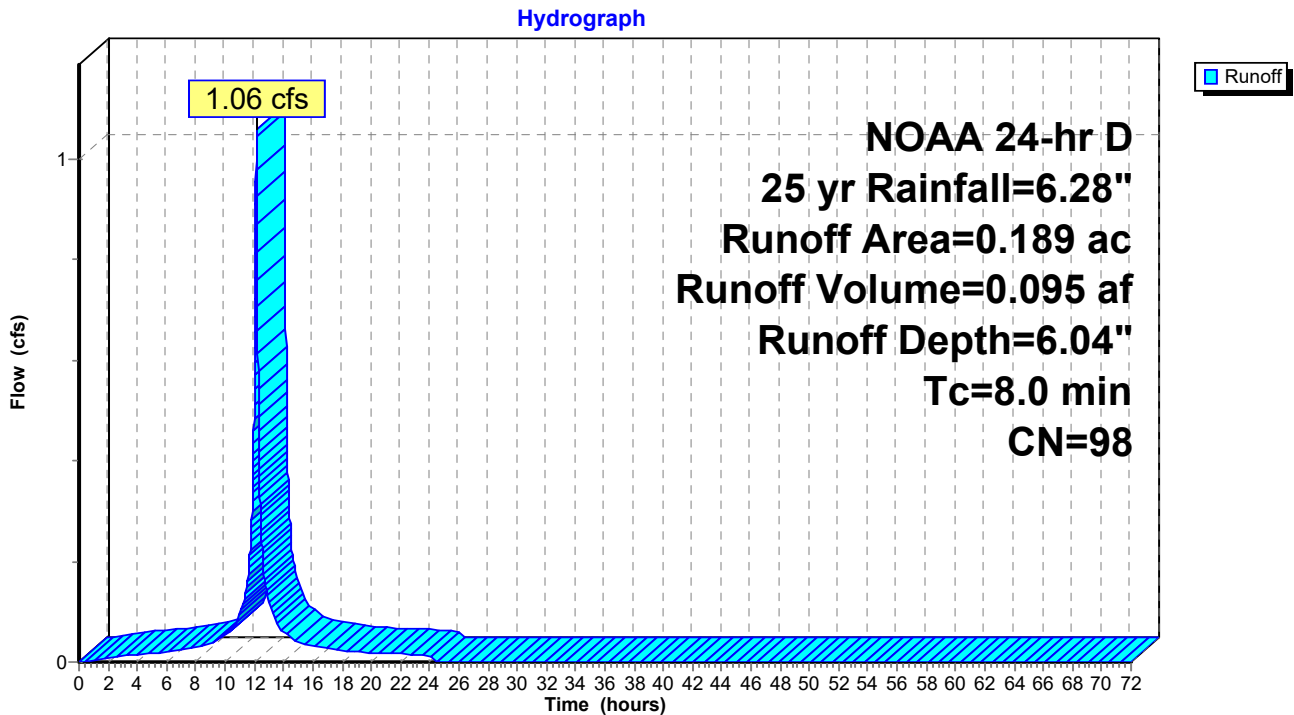
Runoff = 1.06 cfs @ 12.15 hrs, Volume= 0.095 af, Depth= 6.04"
 Routed to Pond SB : SEDIMENT BASIN

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 25 yr Rainfall=6.28"

Area (ac)	CN	Description
0.189	98	Unconnected pavement, HSG C
0.189		100.00% Impervious Area
0.189		100.00% Unconnected

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

Subcatchment SB-I: SEDIMENT BASIN DRAINAGE AREA (Impervious)



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NOAA 24-hr D 25 yr Rainfall=6.28"

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Page 89

Hydrograph for Subcatchment SB-I: SEDIMENT BASIN DRAINAGE AREA (Impervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	6.28	6.04	0.00
1.00	0.07	0.00	0.00	54.00	6.28	6.04	0.00
2.00	0.15	0.04	0.01	55.00	6.28	6.04	0.00
3.00	0.24	0.10	0.01	56.00	6.28	6.04	0.00
4.00	0.33	0.17	0.01	57.00	6.28	6.04	0.00
5.00	0.43	0.25	0.02	58.00	6.28	6.04	0.00
6.00	0.54	0.35	0.02	59.00	6.28	6.04	0.00
7.00	0.66	0.47	0.02	60.00	6.28	6.04	0.00
8.00	0.81	0.61	0.03	61.00	6.28	6.04	0.00
9.00	1.00	0.79	0.04	62.00	6.28	6.04	0.00
10.00	1.24	1.03	0.05	63.00	6.28	6.04	0.00
11.00	1.63	1.41	0.09	64.00	6.28	6.04	0.00
12.00	3.01	2.78	0.54	65.00	6.28	6.04	0.00
13.00	4.65	4.41	0.12	66.00	6.28	6.04	0.00
14.00	5.04	4.80	0.06	67.00	6.28	6.04	0.00
15.00	5.28	5.05	0.04	68.00	6.28	6.04	0.00
16.00	5.47	5.23	0.03	69.00	6.28	6.04	0.00
17.00	5.62	5.38	0.03	70.00	6.28	6.04	0.00
18.00	5.74	5.51	0.02	71.00	6.28	6.04	0.00
19.00	5.85	5.61	0.02	72.00	6.28	6.04	0.00
20.00	5.95	5.71	0.02				
21.00	6.04	5.81	0.02				
22.00	6.13	5.89	0.02				
23.00	6.21	5.97	0.01				
24.00	6.28	6.04	0.01				
25.00	6.28	6.04	0.00				
26.00	6.28	6.04	0.00				
27.00	6.28	6.04	0.00				
28.00	6.28	6.04	0.00				
29.00	6.28	6.04	0.00				
30.00	6.28	6.04	0.00				
31.00	6.28	6.04	0.00				
32.00	6.28	6.04	0.00				
33.00	6.28	6.04	0.00				
34.00	6.28	6.04	0.00				
35.00	6.28	6.04	0.00				
36.00	6.28	6.04	0.00				
37.00	6.28	6.04	0.00				
38.00	6.28	6.04	0.00				
39.00	6.28	6.04	0.00				
40.00	6.28	6.04	0.00				
41.00	6.28	6.04	0.00				
42.00	6.28	6.04	0.00				
43.00	6.28	6.04	0.00				
44.00	6.28	6.04	0.00				
45.00	6.28	6.04	0.00				
46.00	6.28	6.04	0.00				
47.00	6.28	6.04	0.00				
48.00	6.28	6.04	0.00				
49.00	6.28	6.04	0.00				
50.00	6.28	6.04	0.00				
51.00	6.28	6.04	0.00				
52.00	6.28	6.04	0.00				

Sediment Basin Flows

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NOAA 24-hr D 25 yr Rainfall=6.28"

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Page 90

Summary for Subcatchment SB-P: SEDIMENT BASIN DRAINAGE AREA (Pervious)

Runoff = 23.16 cfs @ 12.15 hrs, Volume= 1.911 af, Depth= 5.23"
 Routed to Pond SB : SEDIMENT BASIN

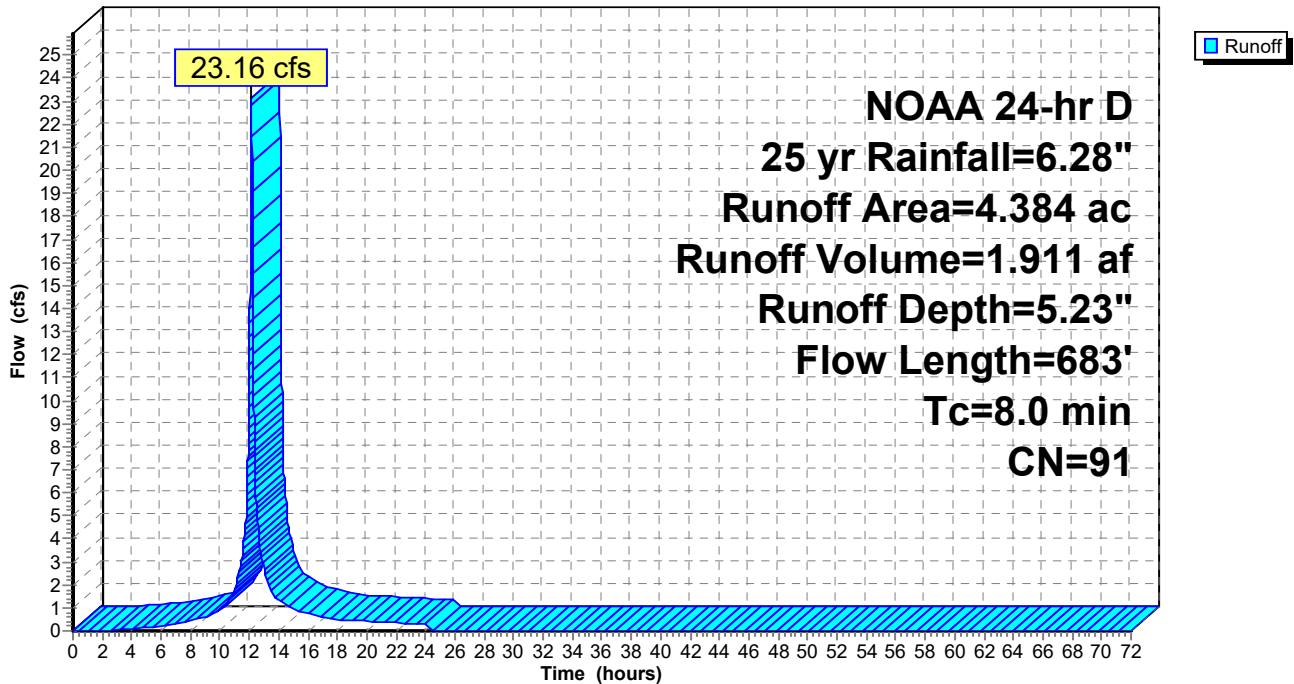
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 NOAA 24-hr D 25 yr Rainfall=6.28"

Area (ac)	CN	Description
0.243	86	Fallow, bare soil, HSG B
4.141	91	Fallow, bare soil, HSG C
4.384	91	Weighted Average
4.384		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0200	1.40		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.31"
6.8	583	0.0202	1.42		Shallow Concentrated Flow, B-C Nearly Bare & Untilled Kv= 10.0 fps
8.0	683	Total			

Subcatchment SB-P: SEDIMENT BASIN DRAINAGE AREA (Pervious)

Hydrograph



Sediment Basin Flows

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Page 91

Hydrograph for Subcatchment SB-P: SEDIMENT BASIN DRAINAGE AREA (Pervious)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	53.00	6.28	5.23	0.00
1.00	0.07	0.00	0.00	54.00	6.28	5.23	0.00
2.00	0.15	0.00	0.00	55.00	6.28	5.23	0.00
3.00	0.24	0.00	0.02	56.00	6.28	5.23	0.00
4.00	0.33	0.02	0.09	57.00	6.28	5.23	0.00
5.00	0.43	0.04	0.15	58.00	6.28	5.23	0.00
6.00	0.54	0.09	0.21	59.00	6.28	5.23	0.00
7.00	0.66	0.15	0.32	60.00	6.28	5.23	0.00
8.00	0.81	0.24	0.44	61.00	6.28	5.23	0.00
9.00	1.00	0.36	0.58	62.00	6.28	5.23	0.00
10.00	1.24	0.54	0.96	63.00	6.28	5.23	0.00
11.00	1.63	0.85	1.82	64.00	6.28	5.23	0.00
12.00	3.01	2.08	11.55	65.00	6.28	5.23	0.00
13.00	4.65	3.64	2.71	66.00	6.28	5.23	0.00
14.00	5.04	4.02	1.33	67.00	6.28	5.23	0.00
15.00	5.28	4.26	0.91	68.00	6.28	5.23	0.00
16.00	5.47	4.43	0.74	69.00	6.28	5.23	0.00
17.00	5.62	4.58	0.62	70.00	6.28	5.23	0.00
18.00	5.74	4.71	0.50	71.00	6.28	5.23	0.00
19.00	5.85	4.81	0.45	72.00	6.28	5.23	0.00
20.00	5.95	4.91	0.42				
21.00	6.04	5.00	0.39				
22.00	6.13	5.08	0.36				
23.00	6.21	5.16	0.33				
24.00	6.28	5.23	0.30				
25.00	6.28	5.23	0.00				
26.00	6.28	5.23	0.00				
27.00	6.28	5.23	0.00				
28.00	6.28	5.23	0.00				
29.00	6.28	5.23	0.00				
30.00	6.28	5.23	0.00				
31.00	6.28	5.23	0.00				
32.00	6.28	5.23	0.00				
33.00	6.28	5.23	0.00				
34.00	6.28	5.23	0.00				
35.00	6.28	5.23	0.00				
36.00	6.28	5.23	0.00				
37.00	6.28	5.23	0.00				
38.00	6.28	5.23	0.00				
39.00	6.28	5.23	0.00				
40.00	6.28	5.23	0.00				
41.00	6.28	5.23	0.00				
42.00	6.28	5.23	0.00				
43.00	6.28	5.23	0.00				
44.00	6.28	5.23	0.00				
45.00	6.28	5.23	0.00				
46.00	6.28	5.23	0.00				
47.00	6.28	5.23	0.00				
48.00	6.28	5.23	0.00				
49.00	6.28	5.23	0.00				
50.00	6.28	5.23	0.00				
51.00	6.28	5.23	0.00				
52.00	6.28	5.23	0.00				

Sediment Basin Flows

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Page 92

Summary for Reach DS1: DIVERSION SWALE #1

Inflow Area = 8.231 ac, 7.71% Impervious, Inflow Depth = 5.29" for 25 yr event
Inflow = 45.48 cfs @ 12.14 hrs, Volume= 3.631 af
Outflow = 41.99 cfs @ 12.17 hrs, Volume= 3.631 af, Atten= 8%, Lag= 1.7 min
Routed to Pond SB : SEDIMENT BASIN

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Max. Velocity= 2.39 fps, Min. Travel Time= 3.6 min
Avg. Velocity = 0.59 fps, Avg. Travel Time= 14.7 min

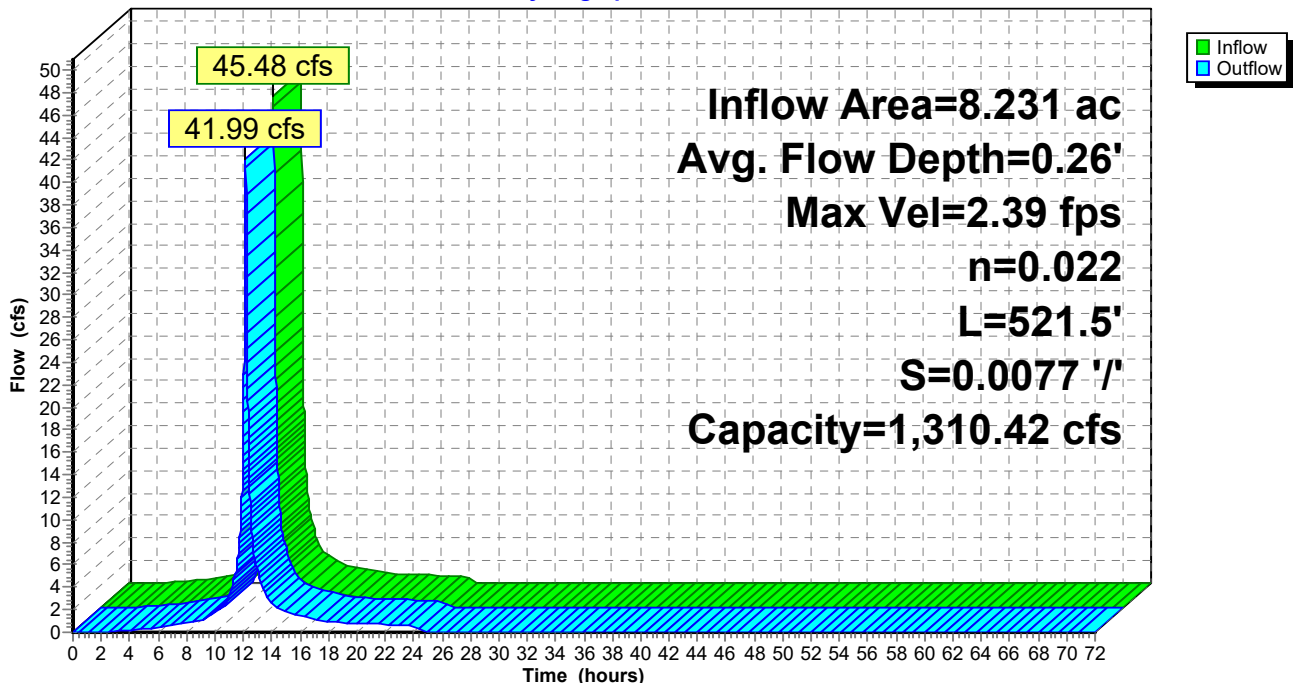
Peak Storage= 9,175 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.26' , Surface Width= 68.61'
Bank-Full Depth= 2.00' Flow Area= 152.0 sf, Capacity= 1,310.42 cfs

66.00' x 2.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 5.0 '/' Top Width= 86.00'
Length= 521.5' Slope= 0.0077 '/'
Inlet Invert= 87.00', Outlet Invert= 83.00'



Reach DS1: DIVERSION SWALE #1

Hydrograph



Sediment Basin Flows

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Page 93

Hydrograph for Reach DS1: DIVERSION SWALE #1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
0.00	0.00	0	87.00	0.00
2.00	0.03	28	87.00	0.02
4.00	0.20	194	87.01	0.16
6.00	0.43	470	87.01	0.39
8.00	0.87	832	87.02	0.83
10.00	1.85	1,326	87.04	1.73
12.00	23.79	5,572	87.16	18.47
14.00	2.49	1,680	87.05	2.59
16.00	1.38	1,153	87.03	1.42
18.00	0.93	904	87.03	0.96
20.00	0.79	812	87.02	0.80
22.00	0.68	750	87.02	0.69
24.00	0.57	687	87.02	0.57
26.00	0.00	2	87.00	0.00
28.00	0.00	0	87.00	0.00
30.00	0.00	0	87.00	0.00
32.00	0.00	0	87.00	0.00
34.00	0.00	0	87.00	0.00
36.00	0.00	0	87.00	0.00
38.00	0.00	0	87.00	0.00
40.00	0.00	0	87.00	0.00
42.00	0.00	0	87.00	0.00
44.00	0.00	0	87.00	0.00
46.00	0.00	0	87.00	0.00
48.00	0.00	0	87.00	0.00
50.00	0.00	0	87.00	0.00
52.00	0.00	0	87.00	0.00
54.00	0.00	0	87.00	0.00
56.00	0.00	0	87.00	0.00
58.00	0.00	0	87.00	0.00
60.00	0.00	0	87.00	0.00
62.00	0.00	0	87.00	0.00
64.00	0.00	0	87.00	0.00
66.00	0.00	0	87.00	0.00
68.00	0.00	0	87.00	0.00
70.00	0.00	0	87.00	0.00
72.00	0.00	0	87.00	0.00

Sediment Basin Flows

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Page 94

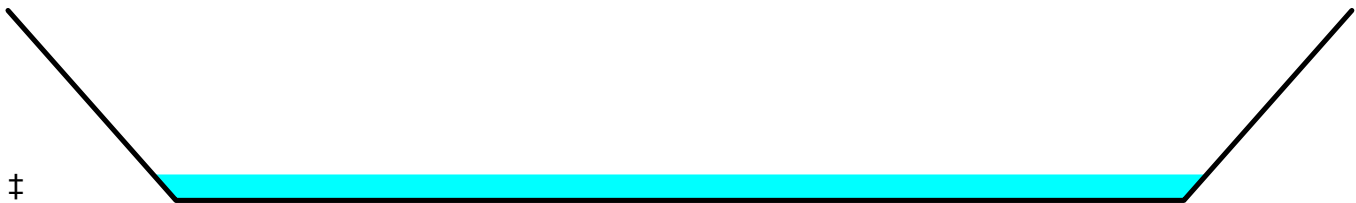
Summary for Reach DS2: DIVERSION SWALE #2

Inflow Area = 2.206 ac, 0.00% Impervious, Inflow Depth = 4.68" for 25 yr event
Inflow = 10.24 cfs @ 12.17 hrs, Volume= 0.860 af
Outflow = 10.10 cfs @ 12.18 hrs, Volume= 0.860 af, Atten= 1%, Lag= 0.8 min
Routed to Pond SB : SEDIMENT BASIN

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Max. Velocity= 2.42 fps, Min. Travel Time= 1.5 min
Avg. Velocity = 0.64 fps, Avg. Travel Time= 5.6 min

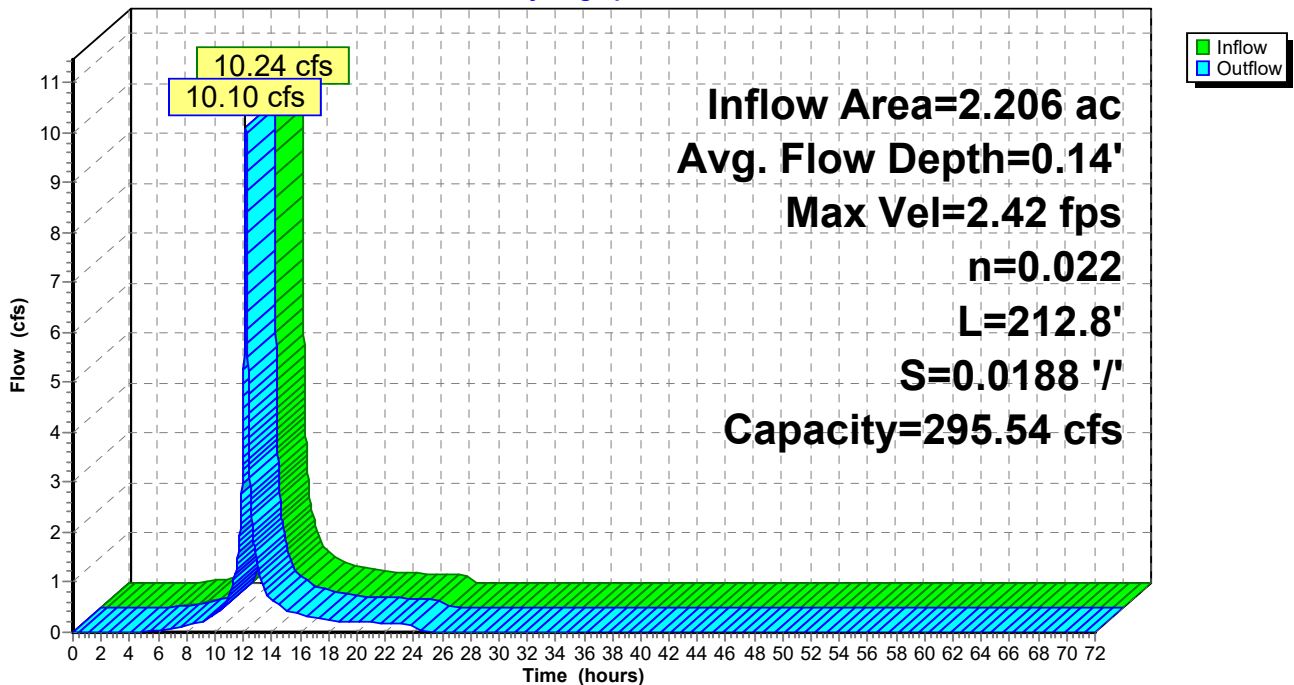
Peak Storage= 889 cf @ 12.18 hrs
Average Depth at Peak Storage= 0.14' , Surface Width= 31.36'
Bank-Full Depth= 1.00' Flow Area= 35.0 sf, Capacity= 295.54 cfs

30.00' x 1.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 5.0 '/' Top Width= 40.00'
Length= 212.8' Slope= 0.0188 '/'
Inlet Invert= 87.00', Outlet Invert= 83.00'



Reach DS2: DIVERSION SWALE #2

Hydrograph



Sediment Basin Flows

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Page 95

Hydrograph for Reach DS2: DIVERSION SWALE #2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
0.00	0.00	0	87.00	0.00
2.00	0.00	0	87.00	0.00
4.00	0.00	0	87.00	0.00
6.00	0.05	23	87.00	0.05
8.00	0.14	66	87.01	0.14
10.00	0.36	115	87.02	0.35
12.00	4.72	525	87.08	4.25
14.00	0.65	169	87.03	0.66
16.00	0.36	117	87.02	0.36
18.00	0.24	91	87.01	0.25
20.00	0.21	82	87.01	0.21
22.00	0.18	75	87.01	0.18
24.00	0.15	68	87.01	0.15
26.00	0.00	0	87.00	0.00
28.00	0.00	0	87.00	0.00
30.00	0.00	0	87.00	0.00
32.00	0.00	0	87.00	0.00
34.00	0.00	0	87.00	0.00
36.00	0.00	0	87.00	0.00
38.00	0.00	0	87.00	0.00
40.00	0.00	0	87.00	0.00
42.00	0.00	0	87.00	0.00
44.00	0.00	0	87.00	0.00
46.00	0.00	0	87.00	0.00
48.00	0.00	0	87.00	0.00
50.00	0.00	0	87.00	0.00
52.00	0.00	0	87.00	0.00
54.00	0.00	0	87.00	0.00
56.00	0.00	0	87.00	0.00
58.00	0.00	0	87.00	0.00
60.00	0.00	0	87.00	0.00
62.00	0.00	0	87.00	0.00
64.00	0.00	0	87.00	0.00
66.00	0.00	0	87.00	0.00
68.00	0.00	0	87.00	0.00
70.00	0.00	0	87.00	0.00
72.00	0.00	0	87.00	0.00

Sediment Basin Flows

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Page 96

Summary for Pond SB: SEDIMENT BASIN

Inflow Area = 15.010 ac, 5.49% Impervious, Inflow Depth = 5.19" for 25 yr event
 Inflow = 75.69 cfs @ 12.16 hrs, Volume= 6.497 af
 Outflow = 7.07 cfs @ 13.34 hrs, Volume= 6.498 af, Atten= 91%, Lag= 70.5 min
 Primary = 7.07 cfs @ 13.34 hrs, Volume= 6.498 af
 Routed to Pond SP1 : Study Point 1
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Pond SP1 : Study Point 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
 Peak Elev= 85.73' @ 13.34 hrs Surf.Area= 1.296 ac Storage= 3.245 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 342.9 min (1,134.2 - 791.3)

Volume	Invert	Avail.Storage	Storage Description
#1	83.00'	4.960 af	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
83.00	1.086	0.000	0.000
84.00	1.161	1.124	1.124
85.00	1.239	1.200	2.323
86.00	1.318	1.278	3.602
87.00	1.398	1.358	4.960

Device	Routing	Invert	Outlet Devices
#1	Primary	82.00'	12.0" Round Culvert L= 51.2' Box, 30-75° wingwalls, square crown, Ke= 0.400 Inlet / Outlet Invert= 82.00' / 81.24' S= 0.0148 1/8" Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.79 sf
#2	Device 1	83.00'	1.134 cfs Skimmer
#3	Device 1	84.19'	24.0" Horiz. Principal Spillway (Riser) C= 0.600 Limited to weir flow at low heads
#4	Secondary	86.50'	10.0' long x 11.5' breadth Emergency Spillway Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.55 2.60 2.70 2.67 2.67 2.67 2.66 2.64

Primary OutFlow Max=7.07 cfs @ 13.34 hrs HW=85.73' TW=0.00' (Dynamic Tailwater)

- ↑ 1=Culvert (Barrel Controls 7.07 cfs @ 9.00 fps)
- ↑ 2=Skimmer (Passes < 1.13 cfs potential flow)
- ↑ 3=Principal Spillway (Riser) (Passes < 18.75 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=83.00' TW=0.00' (Dynamic Tailwater)

- ↑ 4=Emergency Spillway (Controls 0.00 cfs)

Sediment Basin Flows

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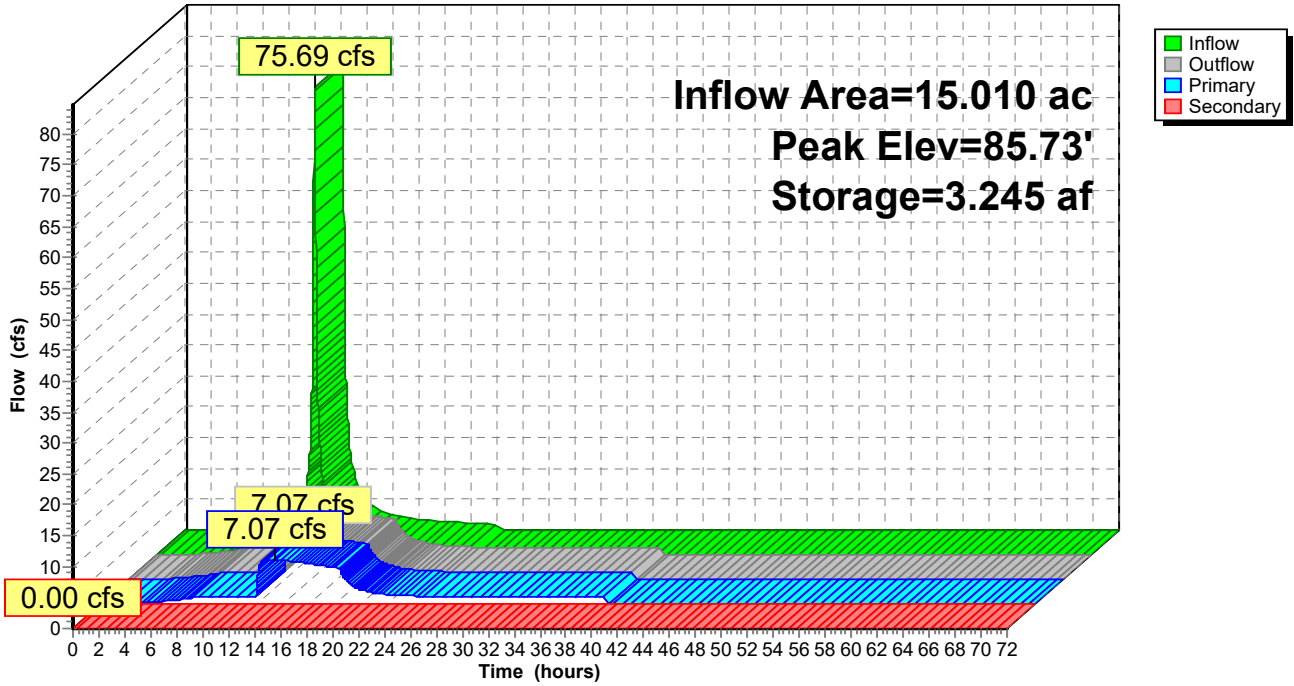
NOAA 24-hr D 25 yr Rainfall=6.28"

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Page 97

Pond SB: SEDIMENT BASIN

Hydrograph



Sediment Basin Flows

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Page 98

Hydrograph for Pond SB: SEDIMENT BASIN

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0.000	83.00	0.00	0.00	0.00
2.00	0.03	0.000	83.00	0.03	0.03	0.00
4.00	0.26	0.000	83.00	0.26	0.26	0.00
6.00	0.67	0.000	83.00	0.67	0.67	0.00
8.00	1.44	0.009	83.01	1.13	1.13	0.00
10.00	3.09	0.162	83.15	1.13	1.13	0.00
12.00	34.81	1.337	84.18	1.13	1.13	0.00
14.00	4.64	3.164	85.66	7.01	7.01	0.00
16.00	2.55	2.595	85.22	6.53	6.53	0.00
18.00	1.73	1.919	84.67	5.90	5.90	0.00
20.00	1.44	1.523	84.34	2.33	2.33	0.00
22.00	1.24	1.436	84.27	1.57	1.57	0.00
24.00	1.04	1.390	84.23	1.29	1.29	0.00
26.00	0.00	1.226	84.09	1.13	1.13	0.00
28.00	0.00	1.038	83.93	1.13	1.13	0.00
30.00	0.00	0.851	83.76	1.13	1.13	0.00
32.00	0.00	0.663	83.60	1.13	1.13	0.00
34.00	0.00	0.476	83.43	1.13	1.13	0.00
36.00	0.00	0.288	83.26	1.13	1.13	0.00
38.00	0.00	0.101	83.09	1.13	1.13	0.00
40.00	0.00	0.000	83.00	0.00	0.00	0.00
42.00	0.00	0.000	83.00	0.00	0.00	0.00
44.00	0.00	0.000	83.00	0.00	0.00	0.00
46.00	0.00	0.000	83.00	0.00	0.00	0.00
48.00	0.00	0.000	83.00	0.00	0.00	0.00
50.00	0.00	0.000	83.00	0.00	0.00	0.00
52.00	0.00	0.000	83.00	0.00	0.00	0.00
54.00	0.00	0.000	83.00	0.00	0.00	0.00
56.00	0.00	0.000	83.00	0.00	0.00	0.00
58.00	0.00	0.000	83.00	0.00	0.00	0.00
60.00	0.00	0.000	83.00	0.00	0.00	0.00
62.00	0.00	0.000	83.00	0.00	0.00	0.00
64.00	0.00	0.000	83.00	0.00	0.00	0.00
66.00	0.00	0.000	83.00	0.00	0.00	0.00
68.00	0.00	0.000	83.00	0.00	0.00	0.00
70.00	0.00	0.000	83.00	0.00	0.00	0.00
72.00	0.00	0.000	83.00	0.00	0.00	0.00

Sediment Basin Flows

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NOAA 24-hr D 25 yr Rainfall=6.28"

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Page 99

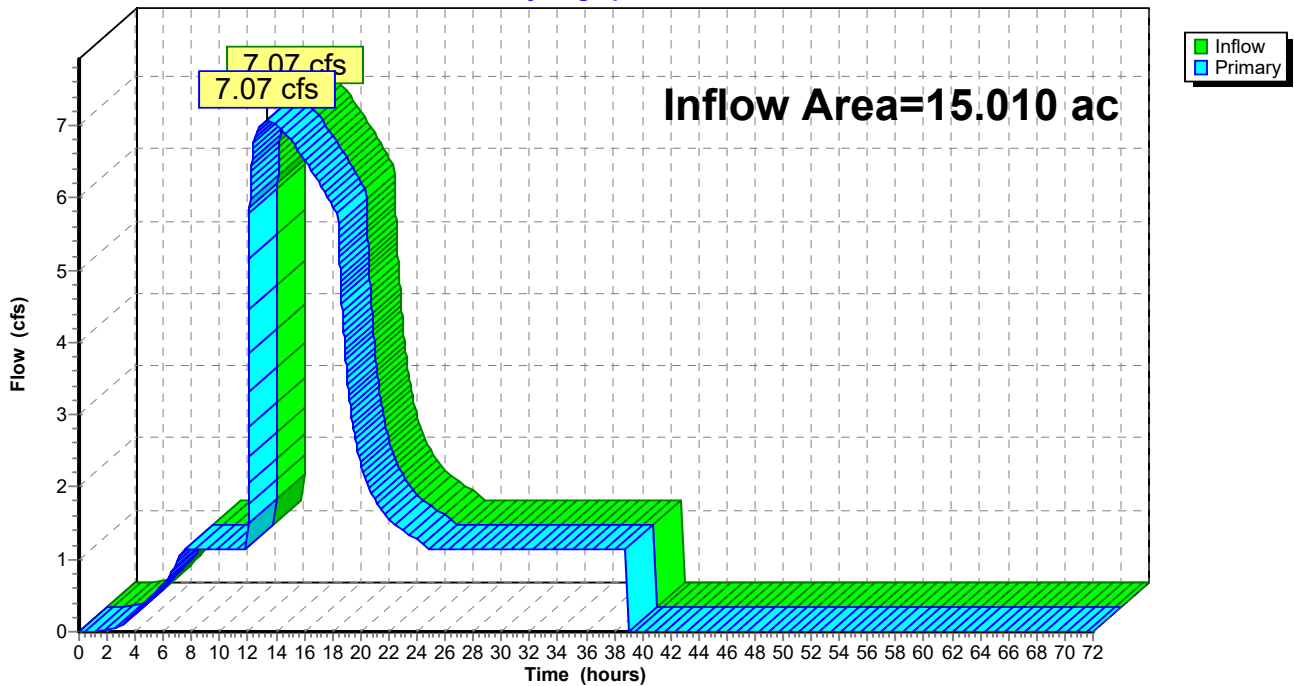
Summary for Pond SP1: Study Point 1

Inflow Area = 15.010 ac, 5.49% Impervious, Inflow Depth = 5.19" for 25 yr event
Inflow = 7.07 cfs @ 13.34 hrs, Volume= 6.498 af
Primary = 7.07 cfs @ 13.34 hrs, Volume= 6.498 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2

Pond SP1: Study Point 1

Hydrograph



Sediment Basin Flows

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Page 100

Hydrograph for Pond SP1: Study Point 1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00		0.00	53.00	0.00		0.00
1.00	0.01		0.01	54.00	0.00		0.00
2.00	0.03		0.03	55.00	0.00		0.00
3.00	0.09		0.09	56.00	0.00		0.00
4.00	0.26		0.26	57.00	0.00		0.00
5.00	0.47		0.47	58.00	0.00		0.00
6.00	0.67		0.67	59.00	0.00		0.00
7.00	0.99		0.99	60.00	0.00		0.00
8.00	1.13		1.13	61.00	0.00		0.00
9.00	1.13		1.13	62.00	0.00		0.00
10.00	1.13		1.13	63.00	0.00		0.00
11.00	1.13		1.13	64.00	0.00		0.00
12.00	1.13		1.13	65.00	0.00		0.00
13.00	7.05		7.05	66.00	0.00		0.00
14.00	7.01		7.01	67.00	0.00		0.00
15.00	6.81		6.81	68.00	0.00		0.00
16.00	6.53		6.53	69.00	0.00		0.00
17.00	6.23		6.23	70.00	0.00		0.00
18.00	5.90		5.90	71.00	0.00		0.00
19.00	3.62		3.62	72.00	0.00		0.00
20.00	2.33		2.33				
21.00	1.83		1.83				
22.00	1.57		1.57				
23.00	1.41		1.41				
24.00	1.29		1.29				
25.00	1.13		1.13				
26.00	1.13		1.13				
27.00	1.13		1.13				
28.00	1.13		1.13				
29.00	1.13		1.13				
30.00	1.13		1.13				
31.00	1.13		1.13				
32.00	1.13		1.13				
33.00	1.13		1.13				
34.00	1.13		1.13				
35.00	1.13		1.13				
36.00	1.13		1.13				
37.00	1.13		1.13				
38.00	1.13		1.13				
39.00	1.13		1.13				
40.00	0.00		0.00				
41.00	0.00		0.00				
42.00	0.00		0.00				
43.00	0.00		0.00				
44.00	0.00		0.00				
45.00	0.00		0.00				
46.00	0.00		0.00				
47.00	0.00		0.00				
48.00	0.00		0.00				
49.00	0.00		0.00				
50.00	0.00		0.00				
51.00	0.00		0.00				
52.00	0.00		0.00				

Sediment Basin Flows

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Multi-Event Tables

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Page 101

Events for Subcatchment DS1-I: DIVERSION SWALE #1 DRAINAGE AREA (Impervious)

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
WQ	1.25	1.81	0.055	1.03
2 yr	3.31	1.93	0.163	3.08
5 yr	4.25	2.50	0.212	4.01
10 yr	5.06	2.98	0.255	4.82
25 yr	6.28	3.70	0.320	6.04

Sediment Basin Flows

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Multi-Event Tables

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Page 102

Events for Subcatchment DS1-P: DIVERSION SWALE #1 DRAINAGE AREA (Pervious)

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
WQ	1.25	12.51	0.343	0.54
2 yr	3.31	19.78	1.495	2.36
5 yr	4.25	26.79	2.062	3.26
10 yr	5.06	32.80	2.558	4.04
25 yr	6.28	41.78	3.312	5.23

Sediment Basin Flows

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Multi-Event Tables

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Page 103

Events for Subcatchment DS2-P: DIVERSION SWALE #2 DRAINAGE AREA (Pervious)

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
WQ	1.25	1.94	0.062	0.33
2 yr	3.31	4.38	0.355	1.93
5 yr	4.25	6.22	0.510	2.77
10 yr	5.06	7.83	0.648	3.52
25 yr	6.28	10.24	0.860	4.68

Sediment Basin Flows

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Page 104

Events for Subcatchment SB-I: SEDIMENT BASIN DRAINAGE AREA (Impervious)

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
WQ	1.25	0.52	0.016	1.03
2 yr	3.31	0.55	0.048	3.08
5 yr	4.25	0.71	0.063	4.01
10 yr	5.06	0.85	0.076	4.82
25 yr	6.28	1.06	0.095	6.04

Sediment Basin Flows

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Page 105

Events for Subcatchment SB-P: SEDIMENT BASIN DRAINAGE AREA (Pervious)

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
WQ	1.25	6.91	0.198	0.54
2 yr	3.31	10.95	0.863	2.36
5 yr	4.25	14.84	1.190	3.26
10 yr	5.06	18.18	1.476	4.04
25 yr	6.28	23.16	1.911	5.23

Sediment Basin Flows

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Page 106

Events for Reach DS1: DIVERSION SWALE #1

Event	Inflow (cfs)	Outflow (cfs)	Elevation (feet)	Storage (cubic-feet)
WQ	14.30	11.37	87.12	4,154
2 yr	21.71	19.16	87.16	5,693
5 yr	29.29	26.38	87.20	6,914
10 yr	35.77	32.63	87.22	7,866
25 yr	45.48	41.99	87.26	9,175

Sediment Basin Flows

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Page 107

Events for Reach DS2: DIVERSION SWALE #2

Event	Inflow (cfs)	Outflow (cfs)	Elevation (feet)	Storage (cubic-feet)
WQ	1.94	1.82	87.05	314
2 yr	4.38	4.26	87.08	526
5 yr	6.22	6.09	87.10	654
10 yr	7.83	7.69	87.12	753
25 yr	10.24	10.10	87.14	889

Sediment Basin Flows

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Page 108

Events for Pond SB: SEDIMENT BASIN

Event	Inflow (cfs)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Elevation (feet)	Storage (acre-feet)
WQ	19.90	1.13	1.13	0.00	83.48	0.536
2 yr	34.46	2.24	2.24	0.00	84.33	1.514
5 yr	47.51	5.83	5.83	0.00	84.61	1.850
10 yr	58.79	6.33	6.33	0.00	85.03	2.361
25 yr	75.69	7.07	7.07	0.00	85.73	3.245

Sediment Basin Flows

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Page 109

Events for Pond SP1: Study Point 1

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)	Storage (acre-feet)
WQ	1.13	1.13	0.00	0.000
2 yr	2.24	2.24	0.00	0.000
5 yr	5.83	5.83	0.00	0.000
10 yr	6.33	6.33	0.00	0.000
25 yr	7.07	7.07	0.00	0.000