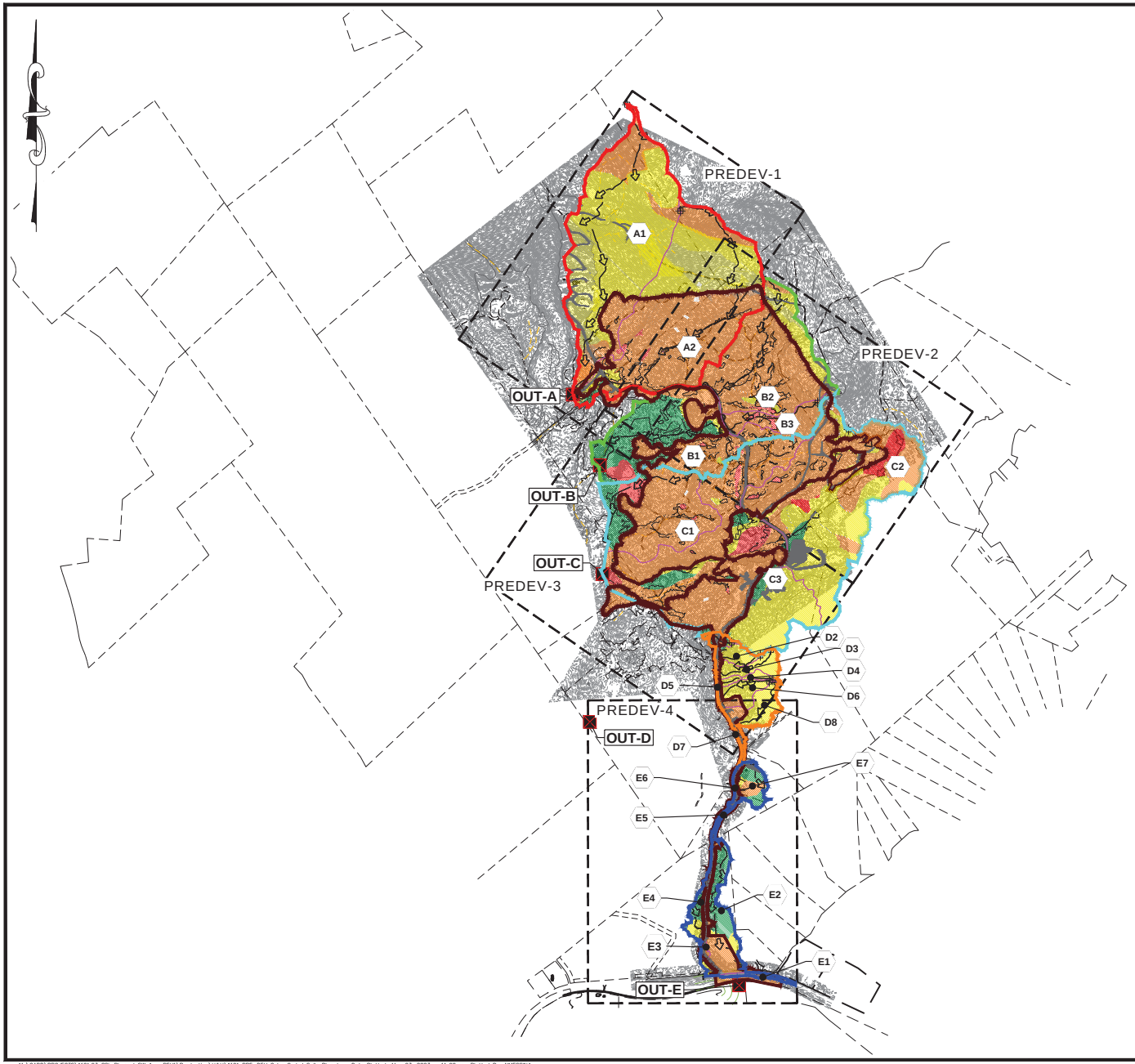

Notes:

1. Soil survey completed by Joseph W. Noel, NHCSS 17, Marc E. Jacobs, NHCSS 38, and Michael Cuomo, NHCSS 6 on in 2021 and 2022.
2. Soils outside limits of soil survey were generated from NRCS web soil mapping.

Legend:

- Existing 2' Contour
- 1440 Existing 10' Contour
- Existing Limit of Wetland
- Limits of Site Specific Survey
- Soil Type Boundaries
- Type "A" Soils
- Type "B" Soils
- Type "C" Soils
- Type "D" Soils
- Impervious Areas
- Watershed A
- Watershed B
- Watershed C
- Watershed D
- Watershed E

Soil Type Legend:

State-Wide Numerical Soils Legend

22– Colton, gravelly sandy loam
36– Adams, loamy sand
55– Hermon, sandy loam, very stony
59– Woumbek, sandy loam, very stony
61– Tunbridge-Lyman-Rock outcrop complex
72– Berkshire, fine sandy loam
73– Berkshire, fine sandy loam, very stony
76– Marlow, fine sandy loam
77– Marlow, fine sandy loam, very stony
78– Peru, fine sandy loam
79– Peru, fine sandy loam, very stony
101– Ondawa, fine sandy loam, frequently flooded
105– Rumney, fine sandy loam, frequently flooded
114– Walpole-Binghamville complex
143– Monadnock, fine sandy loam, very stony
145– Monadnock, fine sandy loam, extremely bouldery
168– Sunapee, fine sandy loam
169– Sunappe, fine sandy loam, very stony
173– Berkshire, fine sandy loam, extremely stony
247– Lyme, fine sandy loam, very stony
255– Hermon & Monadnock soils, very stony
273– Berkshire & Monadnock & Hermon soils, extremely bouldery
295– Greenwood, mucky peat
298– Pits, gravel
347– Lyme & Moosilauke soils, very stony
355– Hermon, sandy loam, extremely bouldery
395– Chocorua, mucky peat
400– Udorthents, sandy
415– Moosilauke, loam, very stony
470– Tunbridge-Peru complex, rocky
549– Peacham, mucky peat, very stony
559– Skerry, fine sandy loam, very stony
613– Croghan, loamy fine sand
614– Kinsman sand
647– Pillsbury, fine sandy loam, very stony
670– Turnbridge-Berkshire-Lyman complex
731– Peacham & Ossipee soils, very stony
895– Bucksport muck
897– Peacham, Bucksport and Rumney soils, ponded
992– Wonsqueak and Pondicherry mucks
W– Water

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drawn by: NJM
approved by: AJS
date: April 2023
project no: 1101
checked by: AJS
scale: 750' 0 1500' Scale: 1" = 750'

Granite State Landfill, LLC.
Dalton, New Hampshire

NHDES Alteration of Terrain
Permit Application

Pre-Development Drainage Diagram
Index

drawing no. PREDEV-1
sheet: 1 of 5

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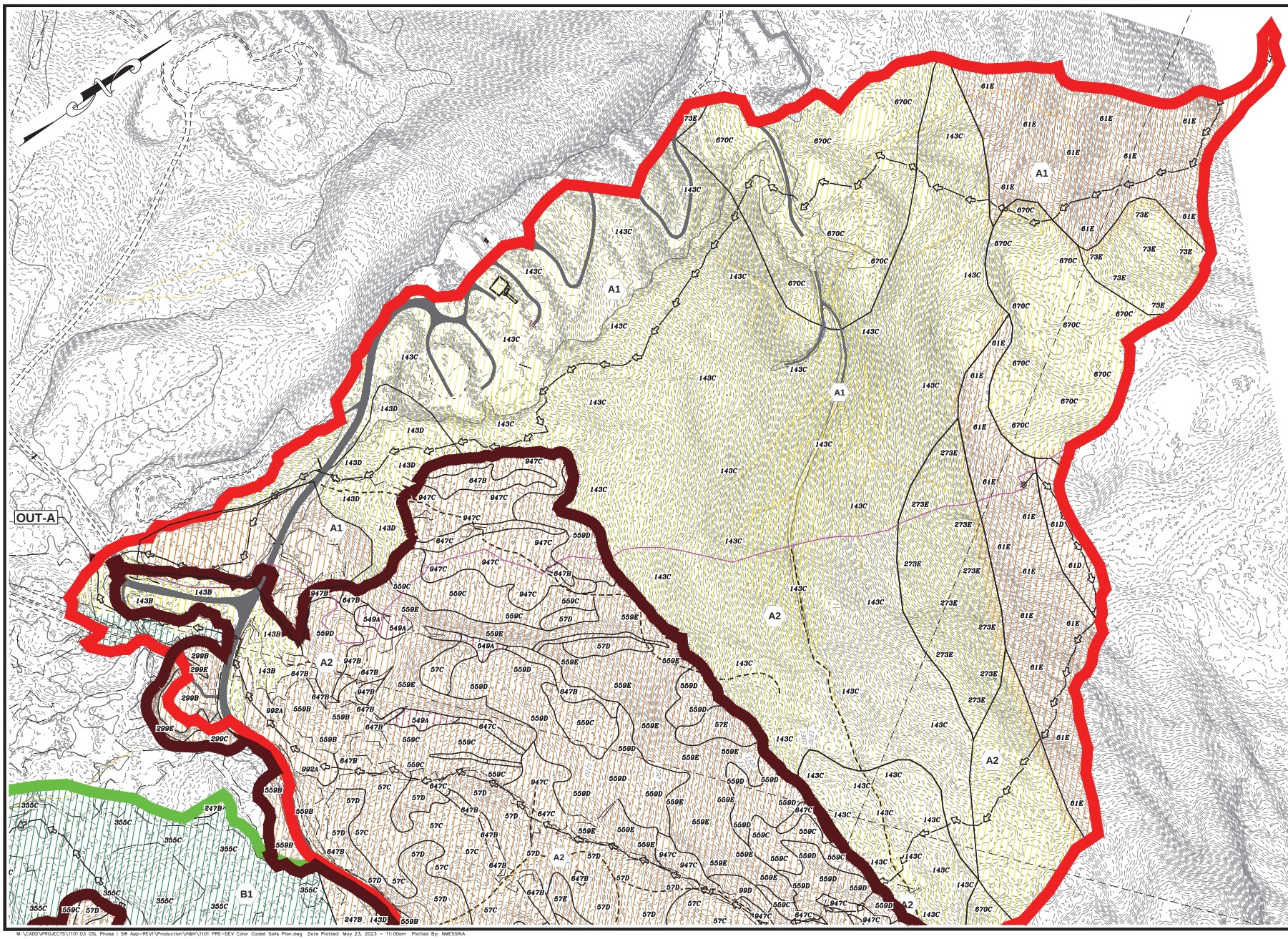

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date: April 2023
project no: 1101
checked by: AJS
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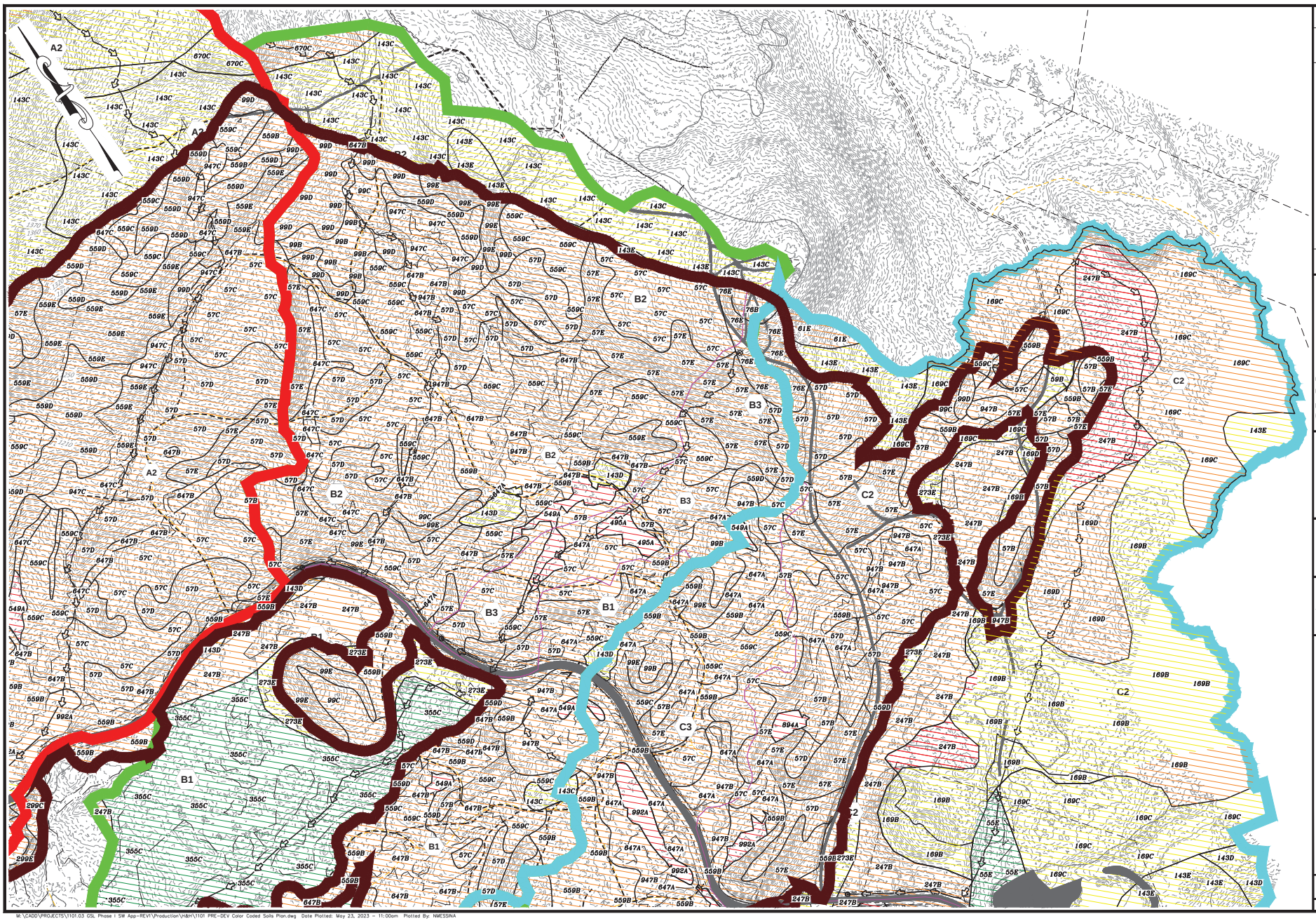
Dalton, New Hampshire

NHDES Alteration of Terrain
Permit Application

Pre-Development Drainage Diagram

drawing no. PREDEV-2

sheet: 2 of 5



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checked by: AJS
date: April 2023
project no. 1101
scale: 0 150' 300' Scale: 1" = 150'

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Dalton, New Hampshire
NHDES Alteration of Terrain Permit Application
Pre-Development Drainage Diagram

drawing no. PREDEV-3
sheet: 2 of 5

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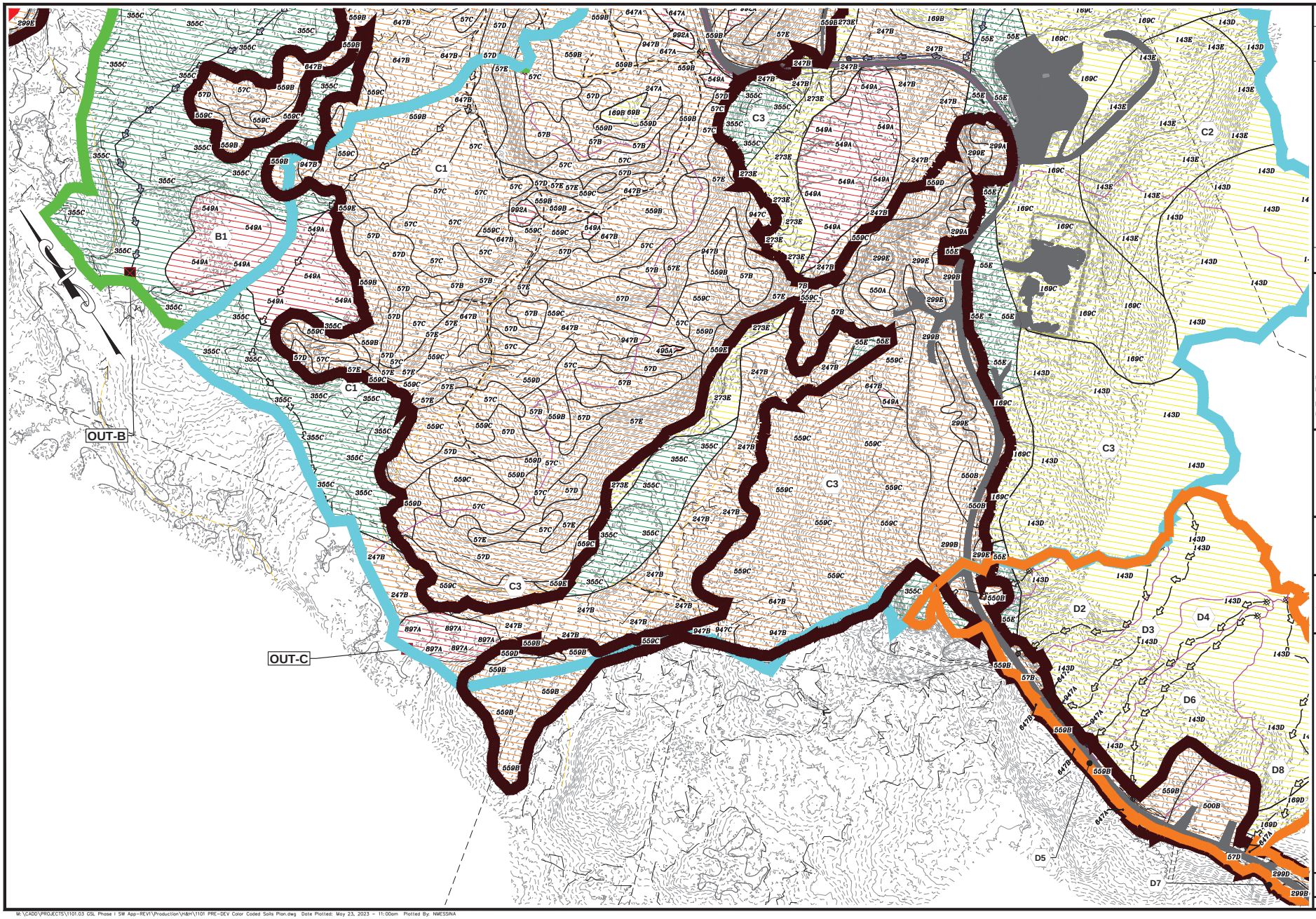

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date: April 2023
project no. 1101
checked by: AJS
scale: 150' 0 300' Scale: 1" = 150'

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Dalton, New Hampshire
NHDES Alteration of Terrain Permit Application
Pre-Development Drainage Diagram

drawing no. PREDEV-4
sheet: 4 of 5

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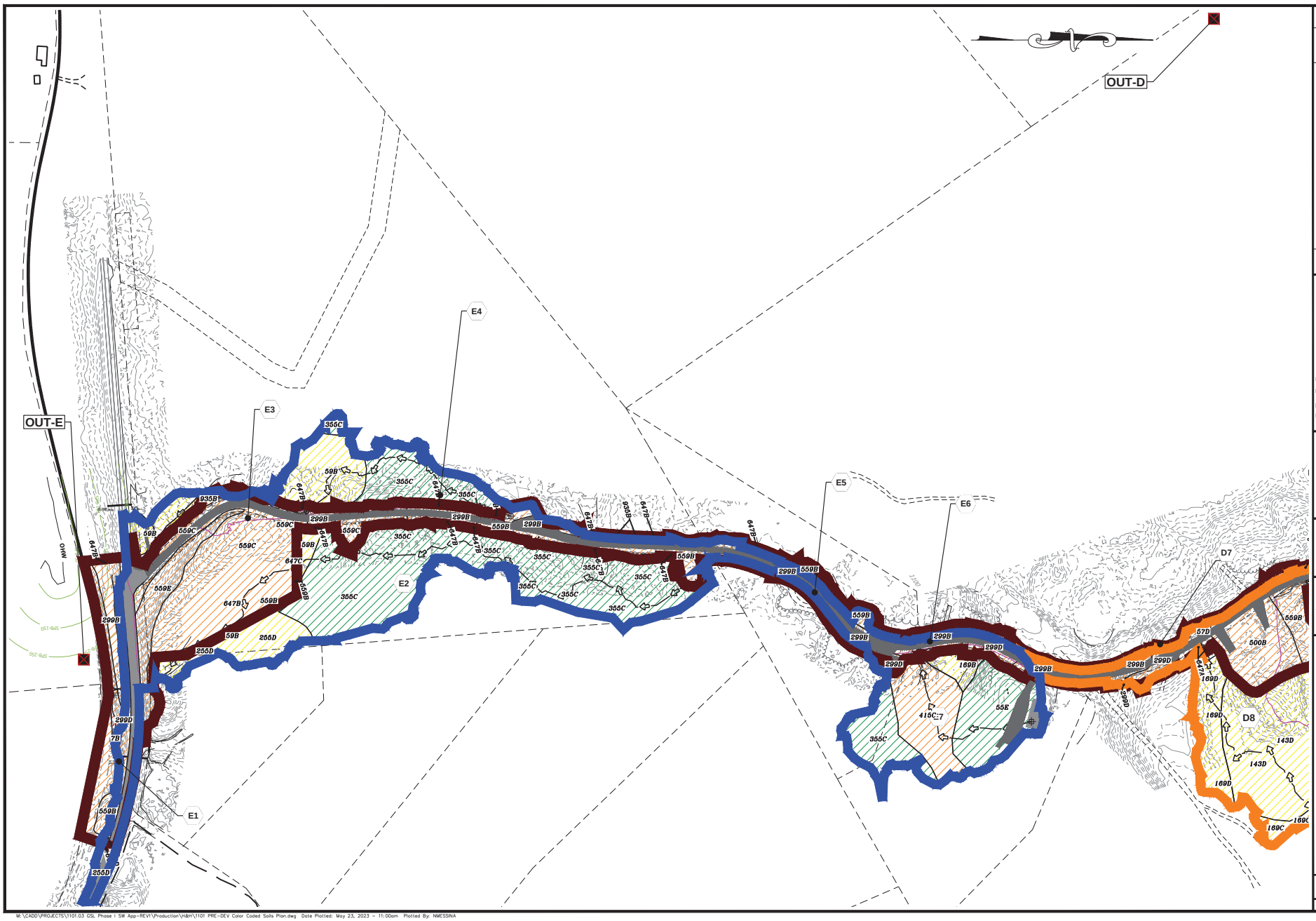

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project no: 1101
checked by: AJS
scale: 0 150' 300' Scale: 1" = 150'

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Pre-Development Drainage Diagram
Drainage Diagram

drawing no.
PREDEV-5

sheet: 5 of 5

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Appendix J.1.iii

10-Year, 24-Hour Storm Calculations (Full Calculations)

Summary for Subcatchment A1: WOODS & EX. QUARRY

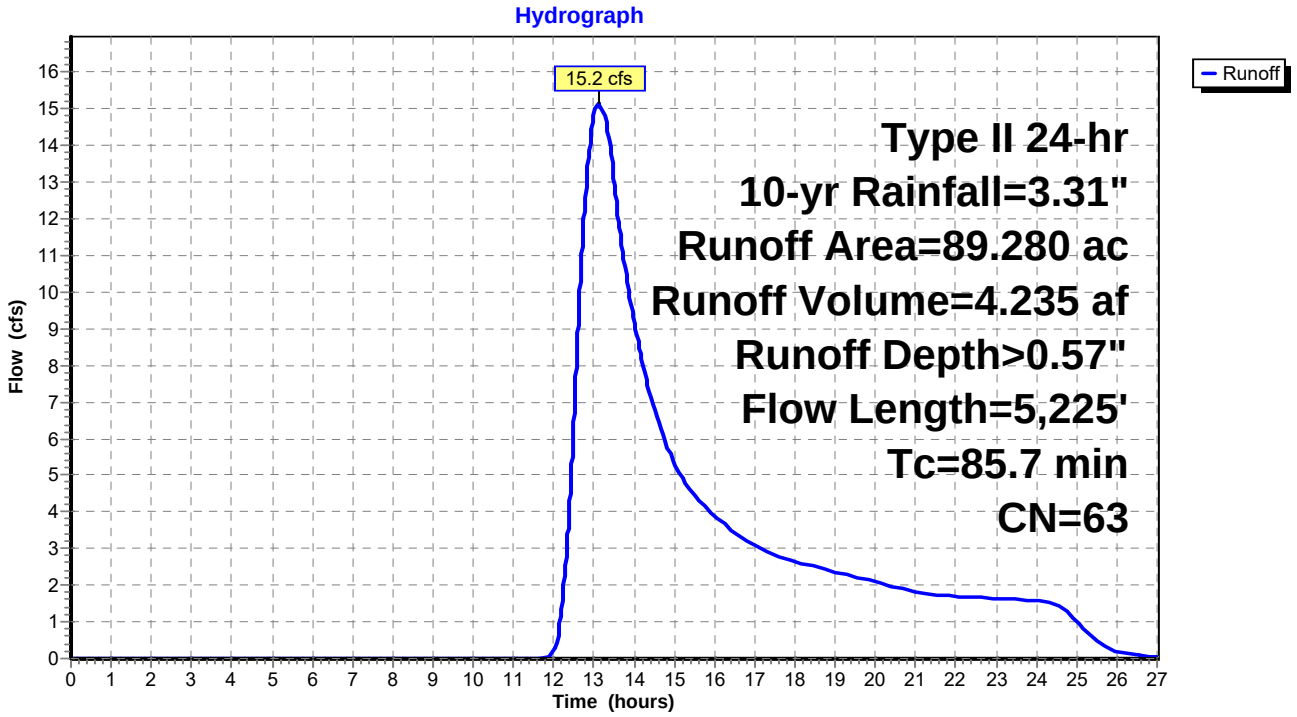
Runoff = 15.2 cfs @ 13.14 hrs, Volume= 4.235 af, Depth> 0.57"
Routed to Reach OUT-A : WETLANDS COMPLEX

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
54.380	55	Woods, Good, HSG B
18.160	70	Woods, Good, HSG C
0.130	77	Woods, Good, HSG D
1.240	96	Gravel surface, HSG B
12.560	86	Fallow, bare soil, HSG B
0.060	98	Unconnected roofs, HSG B
0.560	71	Meadow, non-grazed, HSG C
2.040	58	Meadow, non-grazed, HSG B
0.150	96	Gravel surface, HSG C
89.280	63	Weighted Average
89.220	63	99.93% Pervious Area
0.060	98	0.07% Impervious Area
0.060		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
33.3	100	0.0400	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.32"
49.5	3,400	0.2100	1.15		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.5	1,280	0.0800	14.12	282.43	**Parabolic Channel,** W=15.00' D=2.00' Area=20.0 sf Perim=15.7' n= 0.035 Earth, dense weeds
1.4	445	0.0250	5.12	136.46	**Parabolic Channel,** W=40.00' D=1.00' Area=26.7 sf Perim=40.1' n= 0.035
85.7	5,225	Total			

Subcatchment A1: WOODS & EX. QUARRY



Summary for Subcatchment A2: WOODS

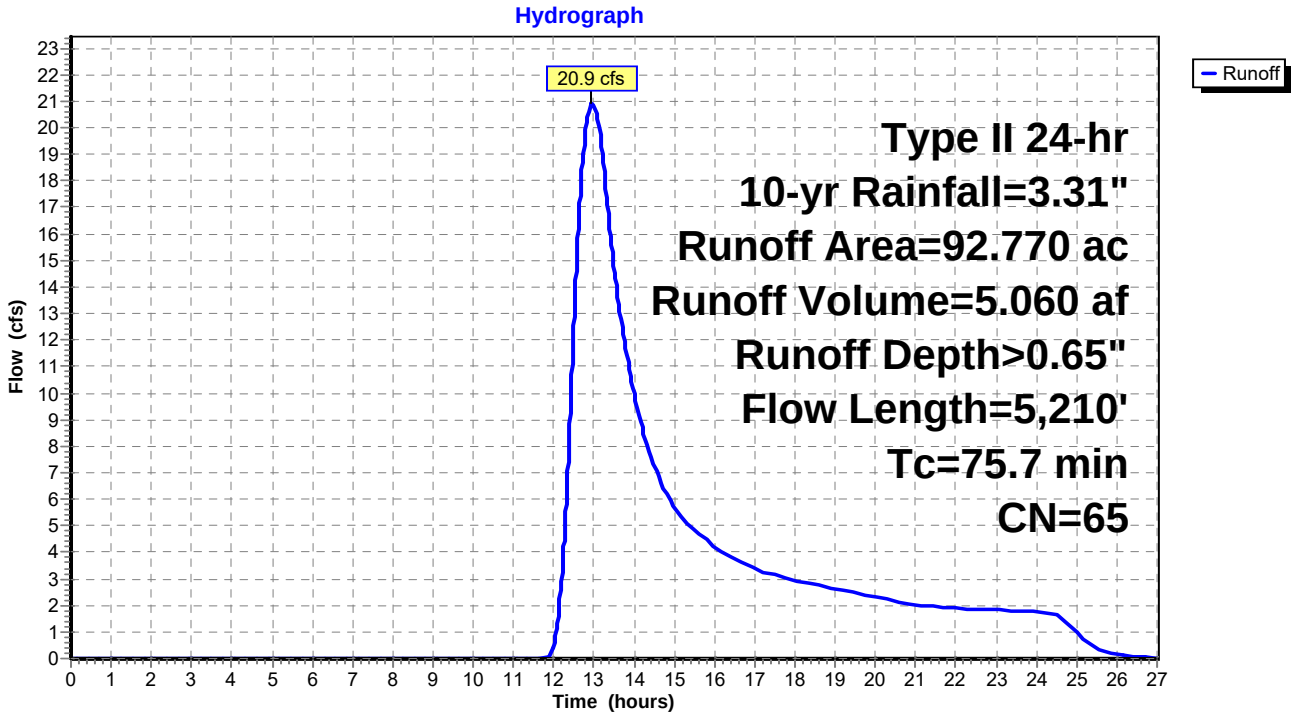
Runoff = 20.9 cfs @ 12.95 hrs, Volume= 5.060 af, Depth> 0.65"
Routed to Reach OUT-A : WETLANDS COMPLEX

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
0.480	30	Woods, Good, HSG A
30.030	55	Woods, Good, HSG B
56.130	70	Woods, Good, HSG C
0.520	77	Woods, Good, HSG D
1.530	58	Meadow, non-grazed, HSG B
0.460	30	Meadow, non-grazed, HSG A
2.710	71	Meadow, non-grazed, HSG C
0.050	96	Gravel surface, HSG A
0.560	96	Gravel surface, HSG B
0.300	96	Gravel surface, HSG C
92.770	65	Weighted Average
92.770	65	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	30	0.2000	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.32"
22.9	70	0.0500	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.32"
35.1	2,230	0.1790	1.06		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.5	1,520	0.1050	16.38	436.88	**Parabolic Channel,** W=20.00' D=2.00' Area=26.7 sf Perim=20.5' n= 0.035 Earth, dense weeds
1.5	735	0.0250	8.13	1,083.54	**Parabolic Channel,** W=100.00' D=2.00' Area=133.3 sf Perim=100.1' n= 0.035 Earth, dense weeds
8.0	625	0.0016	1.30	51.82	**Parabolic Channel,** W=60.00' D=1.00' Area=40.0 sf Perim=60.0' n= 0.035 Earth, dense weeds
75.7	5,210	Total			

Subcatchment A2: WOODS



Summary for Subcatchment B1: WOODS

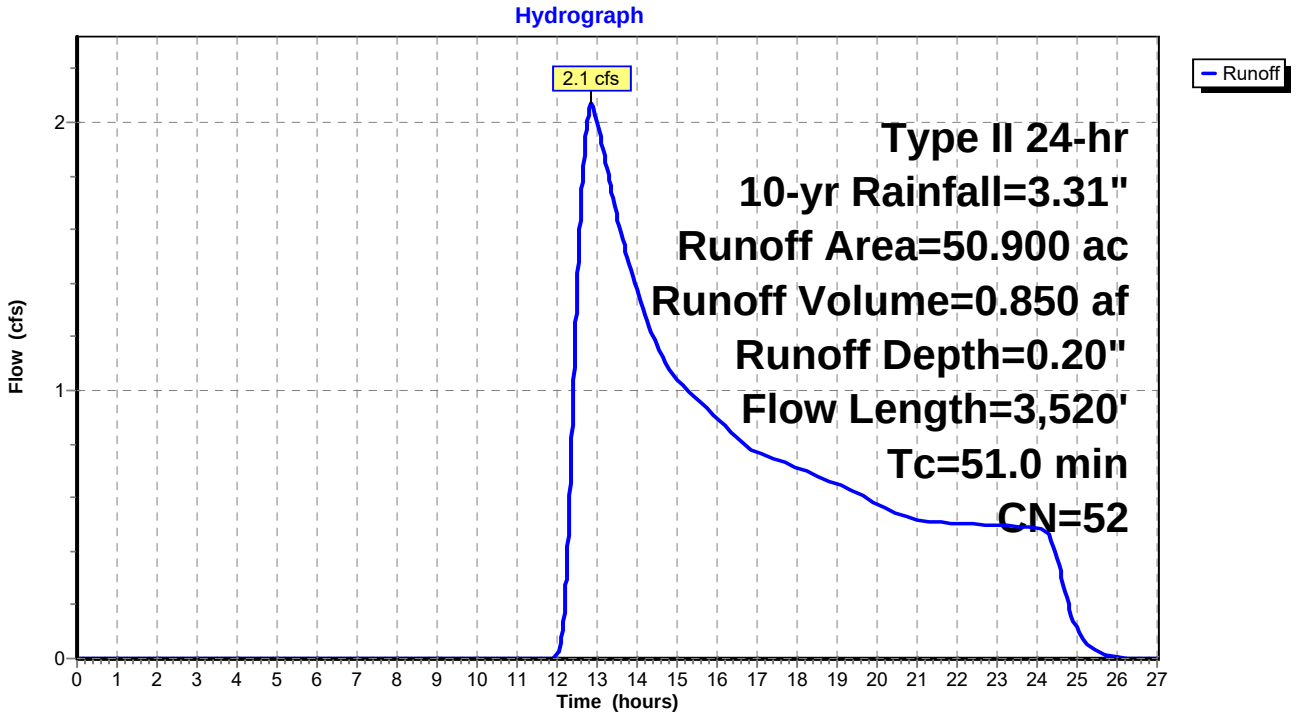
Runoff = 2.1 cfs @ 12.86 hrs, Volume= 0.850 af, Depth= 0.20"
Routed to Reach OUT-B : WETLANDS COMPLEX

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
0.580	96	Gravel surface, HSG C
2.230	30	Meadow, non-grazed, HSG A
20.790	30	Woods, Good, HSG A
1.580	78	Meadow, non-grazed, HSG D
0.980	77	Woods, Good, HSG D
1.890	55	Woods, Good, HSG B
1.320	71	Meadow, non-grazed, HSG C
21.530	70	Woods, Good, HSG C
50.900	52	Weighted Average
50.900	52	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
33.3	100	0.0400	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.32"
6.9	195	0.0350	0.47		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.7	2,105	0.0358	6.12	142.84	**Parabolic Channel,** W=35.00' D=1.00' Area=23.3 sf Perim=35.1' n= 0.035
5.1	1,120	0.0129	3.68	183.94	**Parabolic Channel,** W=75.00' D=1.00' Area=50.0 sf Perim=75.0' n= 0.035
51.0	3,520	Total			

Subcatchment B1: WOODS



Summary for Subcatchment B2: WOODS

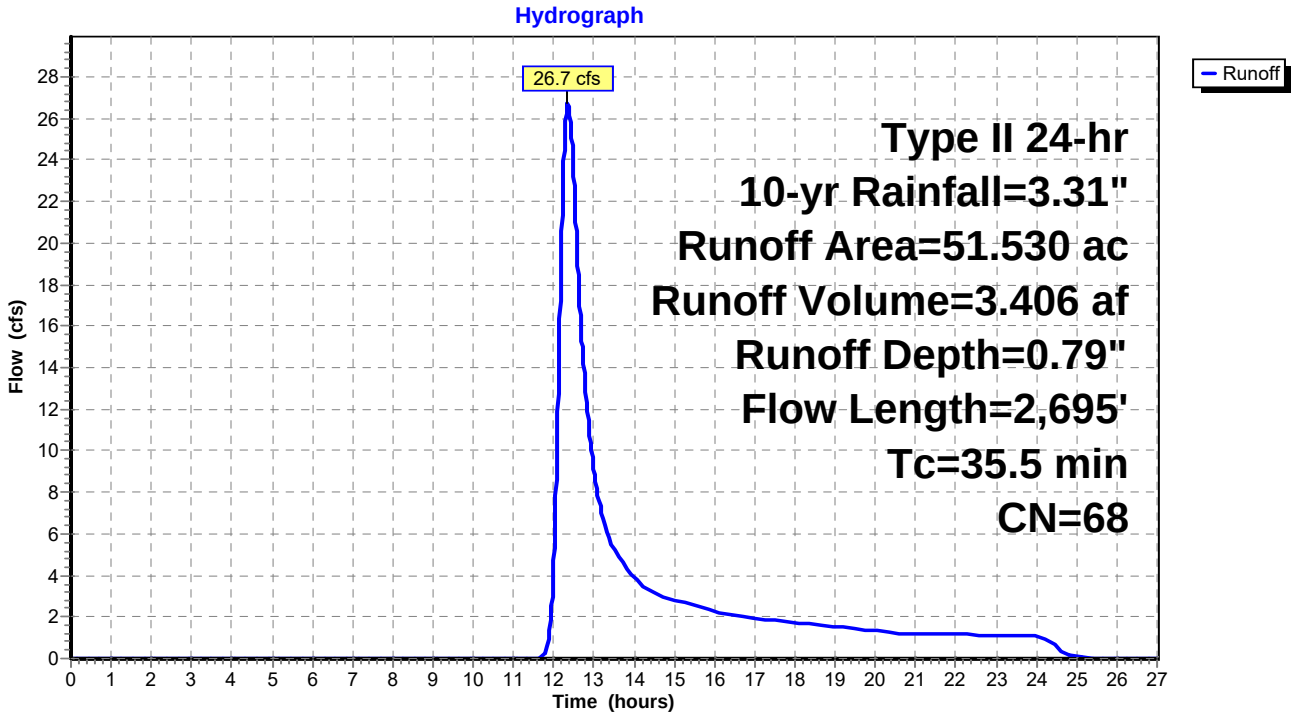
Runoff = 26.7 cfs @ 12.35 hrs, Volume= 3.406 af, Depth= 0.79"
Routed to Pond RB3 : CULVERT

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
0.110	96	Gravel surface, HSG C
0.190	96	Gravel surface, HSG B
0.450	77	Woods, Good, HSG D
8.600	71	Meadow, non-grazed, HSG C
5.490	58	Meadow, non-grazed, HSG B
4.650	55	Woods, Good, HSG B
32.040	70	Woods, Good, HSG C
51.530	68	Weighted Average
51.530	68	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.5	100	0.2700	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.32"
16.8	865	0.1175	0.86		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.5	1,505	0.0950	9.91	99.09	**Parabolic Channel,** W=15.00' D=1.00' Area=10.0 sf Perim=15.2' n= 0.035
0.7	225	0.0150	5.76	15.36	**Parabolic Channel,** W=4.00' D=1.00' Area=2.7 sf Perim=4.6' n= 0.022
35.5	2,695	Total			

Subcatchment B2: WOODS



Summary for Subcatchment B3: WOODS

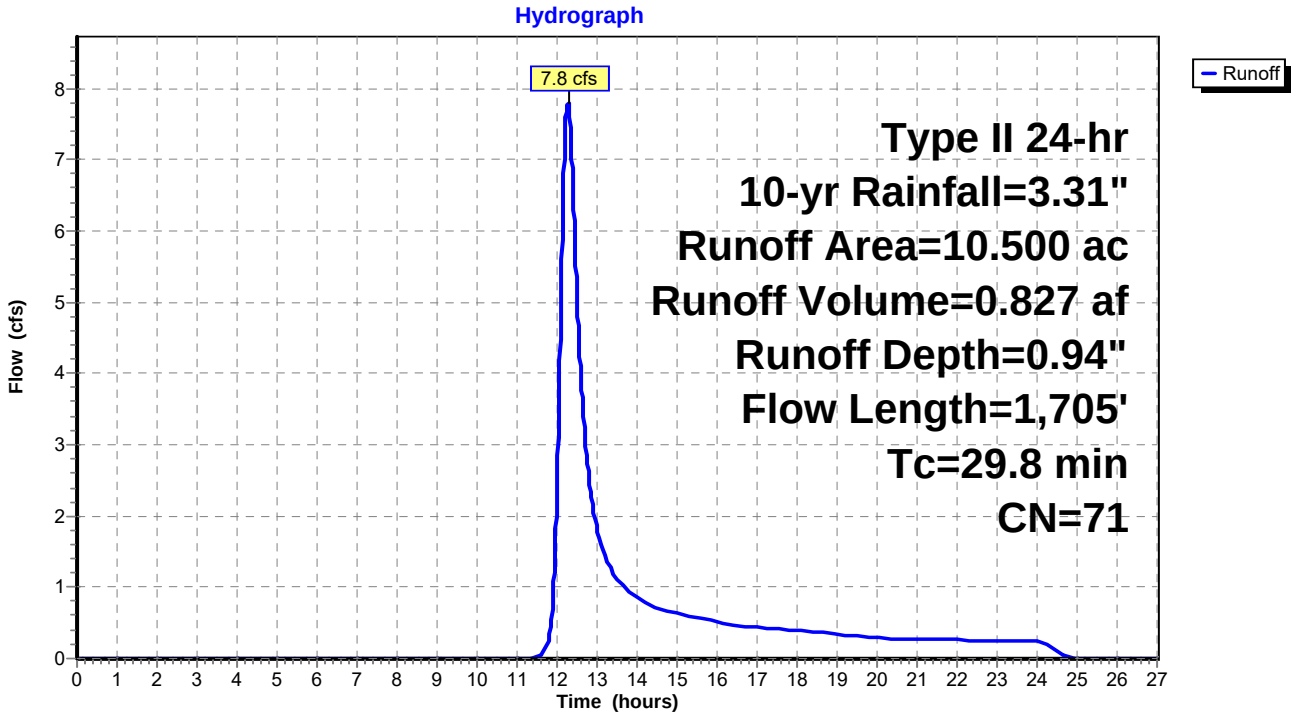
Runoff = 7.8 cfs @ 12.28 hrs, Volume= 0.827 af, Depth= 0.94"
Routed to Pond RB5 : CULVERT

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
0.180	96	Gravel surface, HSG C
0.690	77	Woods, Good, HSG D
0.040	58	Meadow, non-grazed, HSG B
0.560	71	Meadow, non-grazed, HSG C
9.030	70	Woods, Good, HSG C
10.500	71	Weighted Average
10.500	71	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	100	0.3100	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.32"
10.8	635	0.1550	0.98		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
2.5	475	0.0100	3.23	53.85	**Parabolic Channel,** W=25.00' D=1.00' Area=16.7 sf Perim=25.1' n= 0.035
1.2	290	0.1350	4.13	41.34	**Parabolic Channel,** W=15.00' D=1.00' Area=10.0 sf Perim=15.2' n= 0.100 Earth, dense brush, high stage
0.6	205	0.0125	5.26	14.02	**Parabolic Channel,** W=4.00' D=1.00' Area=2.7 sf Perim=4.6' n= 0.022
29.8	1,705	Total			

Subcatchment B3: WOODS



Summary for Subcatchment C1: WOODS

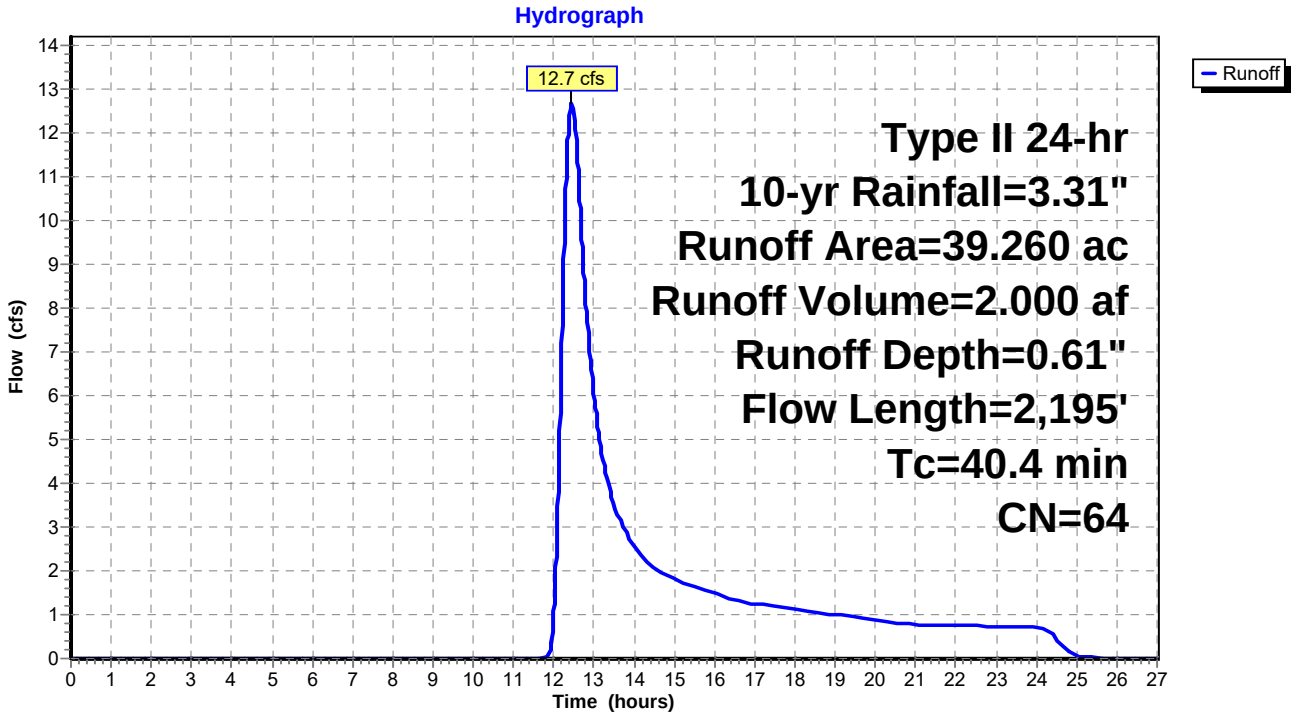
Runoff = 12.7 cfs @ 12.44 hrs, Volume= 2.000 af, Depth= 0.61"
Routed to Reach RC1 : WETLANDS

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
6.300	30	Woods, Good, HSG A
2.430	77	Woods, Good, HSG D
0.080	78	Meadow, non-grazed, HSG D
0.270	30	Meadow, non-grazed, HSG A
0.840	71	Meadow, non-grazed, HSG C
29.340	70	Woods, Good, HSG C
39.260	64	Weighted Average
39.260	64	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.0	100	0.2150	0.10		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.32"
20.3	835	0.0750	0.68		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
3.1	1,260	0.0450	6.87	228.95	**Parabolic Channel,** W=50.00' D=1.00' Area=33.3 sf Perim=50.1' n= 0.035 Earth, dense weeds
40.4	2,195	Total			

Subcatchment C1: WOODS



Summary for Subcatchment C2: WOODS & EX. ASPHALT PLANT

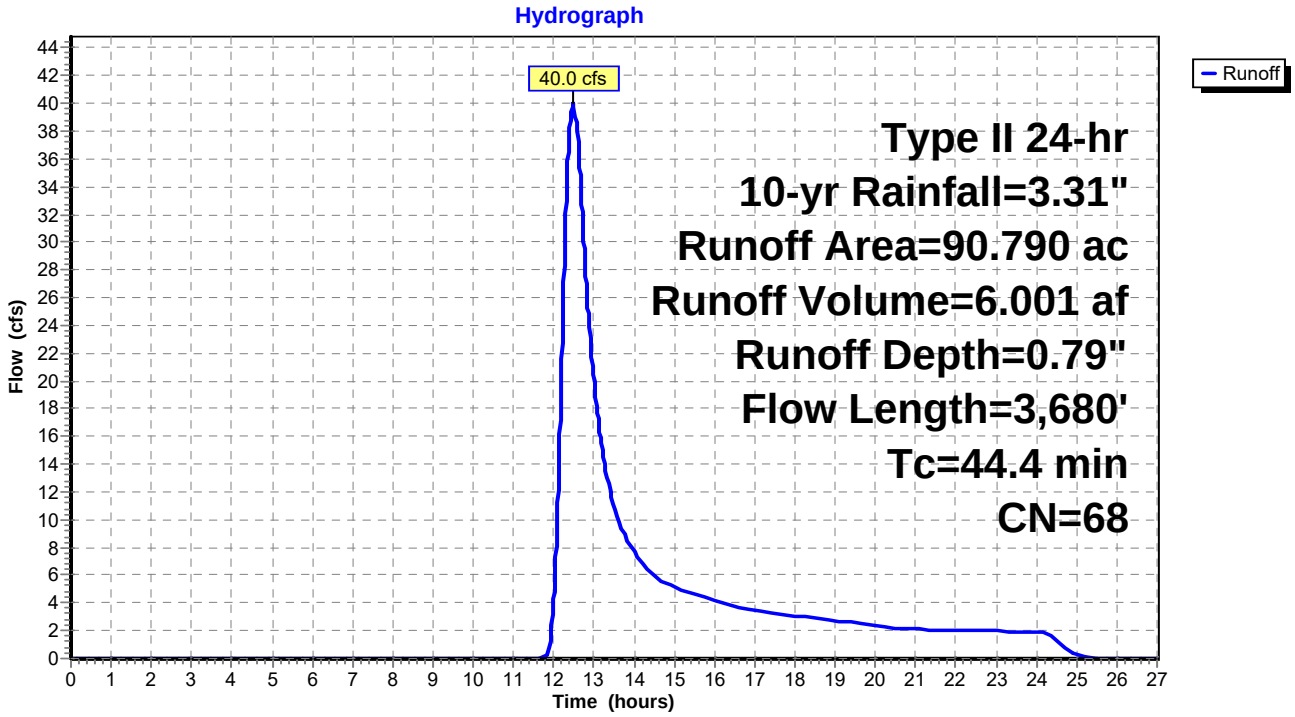
Runoff = 40.0 cfs @ 12.48 hrs, Volume= 6.001 af, Depth= 0.79"
Routed to Pond RC3 : EX. DOUGLAS DRIVE CULVERT

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
26.160	55	Woods, Good, HSG B
43.900	70	Woods, Good, HSG C
0.970	96	Gravel surface, HSG C
2.850	71	Meadow, non-grazed, HSG C
4.740	77	Woods, Good, HSG D
1.250	96	Gravel surface, HSG B
1.550	58	Meadow, non-grazed, HSG B
0.040	98	Unconnected roofs, HSG A
0.090	98	Unconnected roofs, HSG B
0.740	96	Gravel surface, HSG A
7.300	86	Fallow, bare soil, HSG B
0.930	30	Woods, Good, HSG A
0.270	78	Meadow, non-grazed, HSG D
90.790	68	Weighted Average
90.660	68	99.86% Pervious Area
0.130	98	0.14% Impervious Area
0.130		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.8	100	0.1150	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.32"
16.3	600	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
5.5	2,400	0.0200	7.24	386.23	**Parabolic Channel, wetland** W=40.00' D=2.00' Area=53.3 sf Perim=40.3' n= 0.035
0.3	190	0.0400	11.89	79.24	**Parabolic Channel, stream** W=5.00' D=2.00' Area=6.7 sf Perim=6.7' n= 0.025
0.5	390	0.0400	12.66	109.70	**Parabolic Channel, roadside swale** W=6.50' D=2.00' Area=8.7 sf Perim=7.9' n= 0.025
44.4	3,680	Total			

Subcatchment C2: WOODS & EX. ASPHALT PLANT



Summary for Subcatchment C3: WOODS & EX. QUARRY

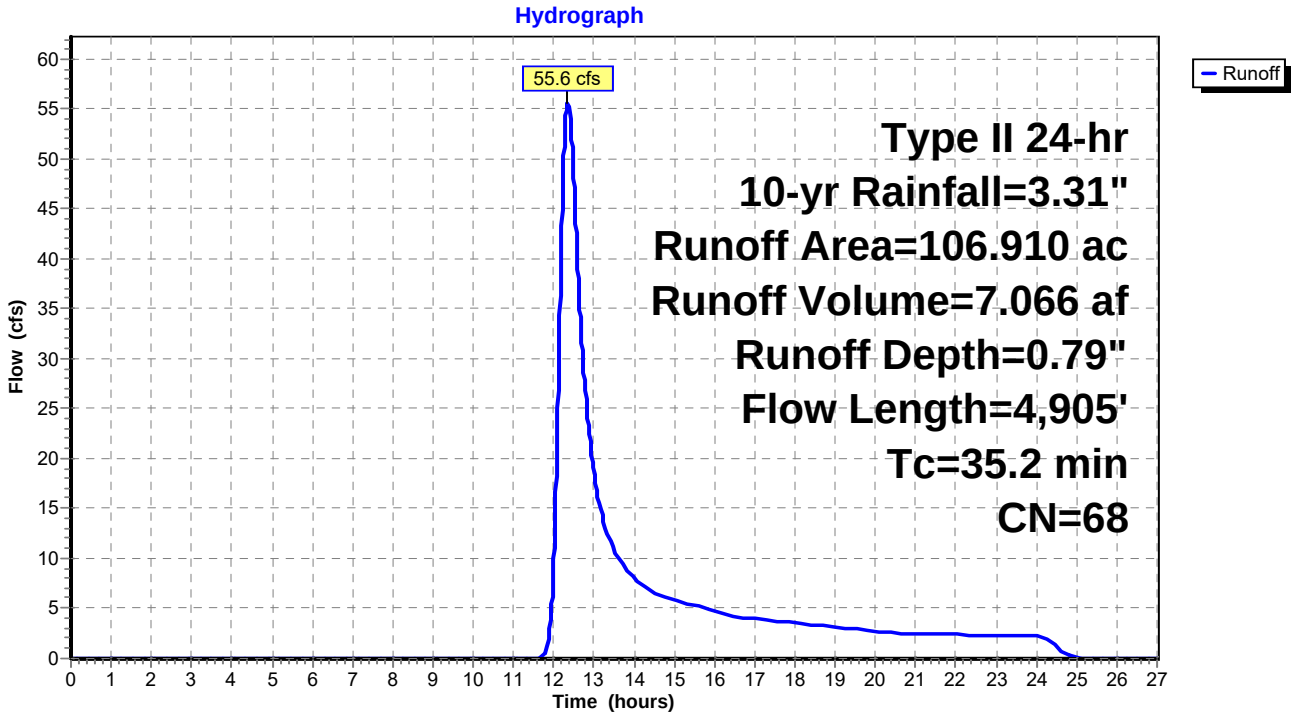
Runoff = 55.6 cfs @ 12.36 hrs, Volume= 7.066 af, Depth= 0.79"
Routed to Reach OUT-C : WETLANDS COMPLEX

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
3.520	30	Woods, Good, HSG A
17.110	55	Woods, Good, HSG B
53.240	70	Woods, Good, HSG C
3.700	77	Woods, Good, HSG D
1.000	30	Meadow, non-grazed, HSG A
5.550	58	Meadow, non-grazed, HSG B
8.030	71	Meadow, non-grazed, HSG C
2.060	78	Meadow, non-grazed, HSG D
1.850	77	Fallow, bare soil, HSG A
3.030	86	Fallow, bare soil, HSG B
5.390	91	Fallow, bare soil, HSG C
0.240	96	Gravel surface, HSG A
0.840	96	Gravel surface, HSG B
1.340	96	Gravel surface, HSG C
0.010	96	Gravel surface, HSG D
106.910	68	Weighted Average
106.910	68	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	100	0.1250	0.08		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.32"
6.4	270	0.0800	0.71		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
1.1	745	0.0500	11.31	301.47	**Parabolic Channel,** W=20.00' D=2.00' Area=26.7 sf Perim=20.5' n= 0.035
0.5	175	0.0150	5.41	28.86	**Parabolic Channel, roadside swale** W=8.00' D=1.00' Area=5.3 sf Perim=8.3' n= 0.025
0.1	40	0.0750	10.17	2.00	**Pipe Channel, culvert** 6.0" Round Area= 0.2 sf Perim= 1.6' r= 0.13' n= 0.010 PVC, smooth interior
1.4	920	0.0450	10.79	359.67	**Parabolic Channel,** W=25.00' D=2.00' Area=33.3 sf Perim=25.4' n= 0.035
4.6	2,655	0.0350	9.62	1,282.06	**Parabolic Channel,** W=100.00' D=2.00' Area=133.3 sf Perim=100.1' n= 0.035
35.2	4,905	Total			

Subcatchment C3: WOODS & EX. QUARRY



Summary for Subcatchment D1: OFF-SITE FLOW

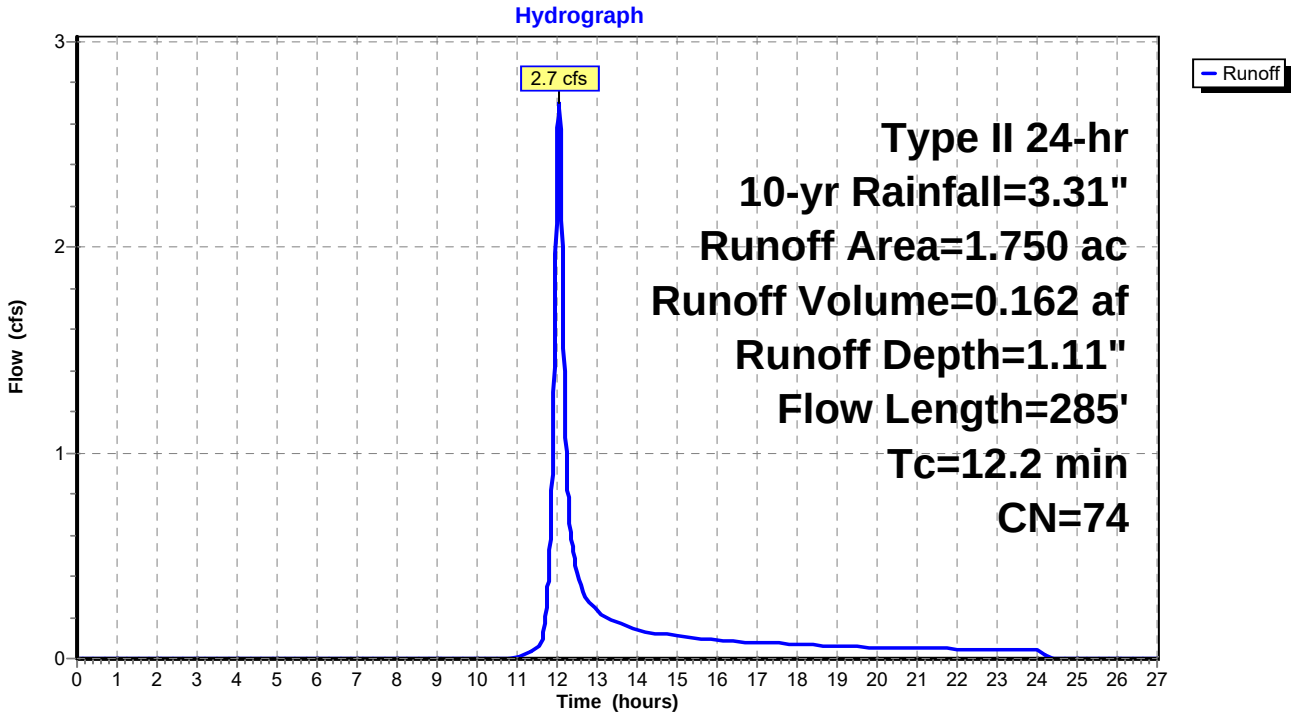
Runoff = 2.7 cfs @ 12.05 hrs, Volume= 0.162 af, Depth= 1.11"
Routed to Reach OUT-D : WETLANDS COMPLEX

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
0.080	55	Woods, Good, HSG B
0.140	58	Meadow, non-grazed, HSG B
0.210	30	Meadow, non-grazed, HSG A
0.360	96	Gravel surface, HSG C
0.550	71	Meadow, non-grazed, HSG C
0.410	91	Fallow, bare soil, HSG C
1.750	74	Weighted Average
1.750	74	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	20	0.1750	0.17		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.32"
1.0	15	0.5000	0.25		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.32"
7.7	65	0.0600	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.32"
1.3	110	0.0400	1.40		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	75	0.0800	4.55		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
12.2	285	Total			

Subcatchment D1: OFF-SITE FLOW



Summary for Subcatchment D2: WOODS & ROAD

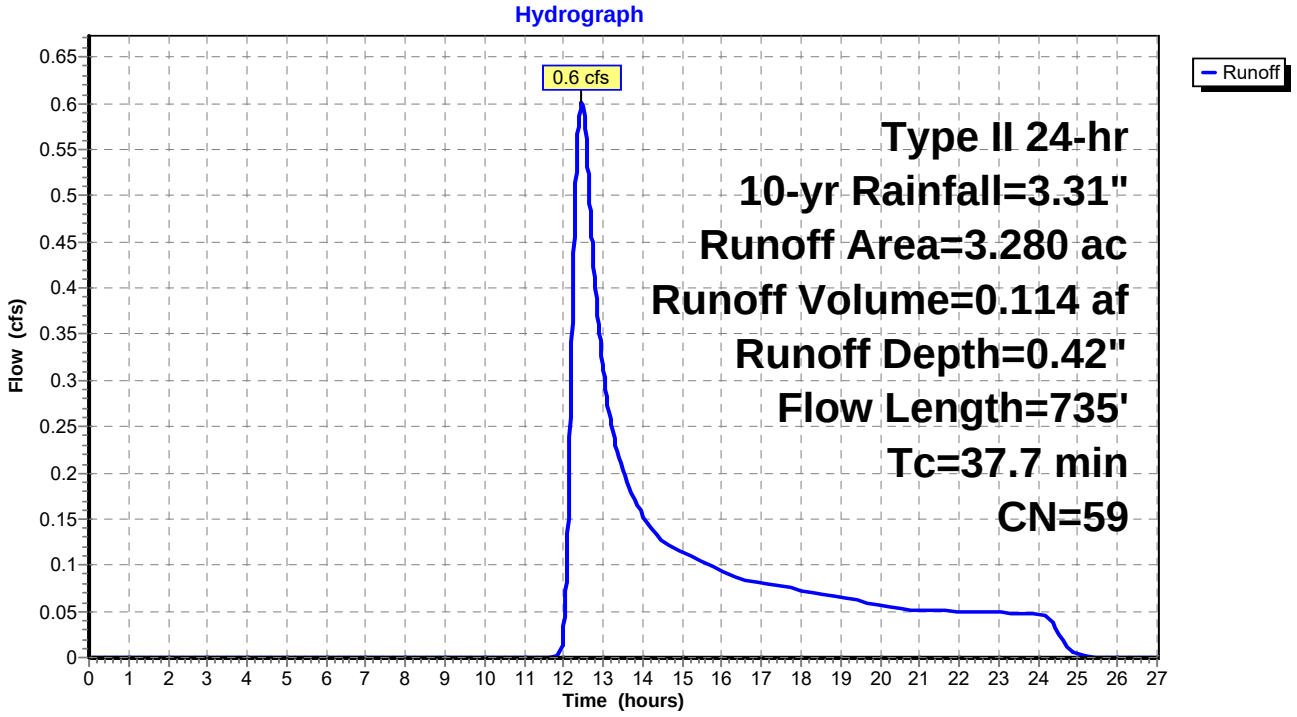
Runoff = 0.6 cfs @ 12.44 hrs, Volume= 0.114 af, Depth= 0.42"
Routed to Pond RD2 : CULVERT 60+03

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
2.690	58	Woods/grass comb., Good, HSG B
0.130	30	Woods, Good, HSG A
0.070	58	Meadow, non-grazed, HSG B
0.040	30	Meadow, non-grazed, HSG A
0.150	71	Meadow, non-grazed, HSG C
0.080	96	Gravel surface, HSG C
0.120	70	Woods, Good, HSG C
3.280	59	Weighted Average
3.280	59	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.1	100	0.0900	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.32"
13.6	635	0.0975	0.78		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
37.7	735	Total			

Subcatchment D2: WOODS & ROAD



Summary for Subcatchment D3: WOODS & ROAD

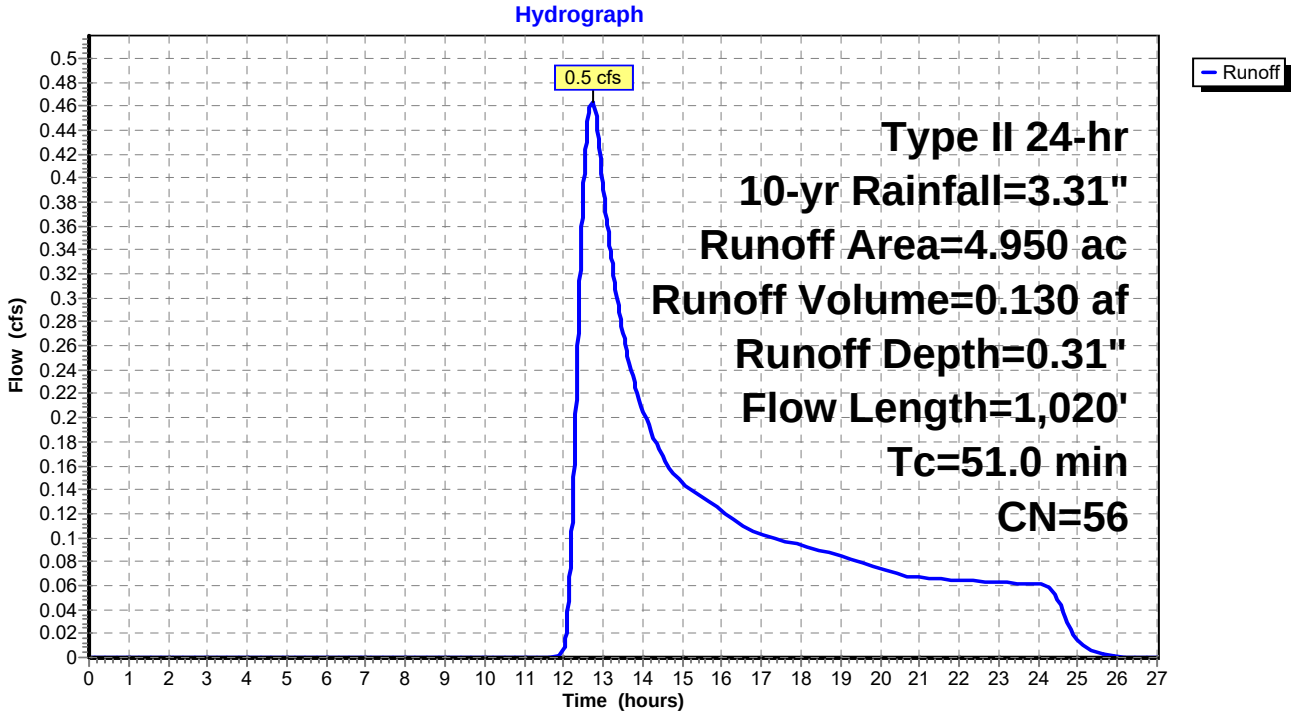
Runoff = 0.5 cfs @ 12.74 hrs, Volume= 0.130 af, Depth= 0.31"
Routed to Pond RD3 : CULVERT 58+16

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
0.120	96	Gravel surface, HSG C
4.740	55	Woods, Good, HSG B
0.060	71	Meadow, non-grazed, HSG C
0.010	78	Meadow, non-grazed, HSG D
0.020	70	Woods, Good, HSG C
4.950	56	Weighted Average
4.950	56	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.4	100	0.0650	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.32"
23.6	920	0.0675	0.65		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
51.0	1,020	Total			

Subcatchment D3: WOODS & ROAD



Summary for Subcatchment D4: WOODS

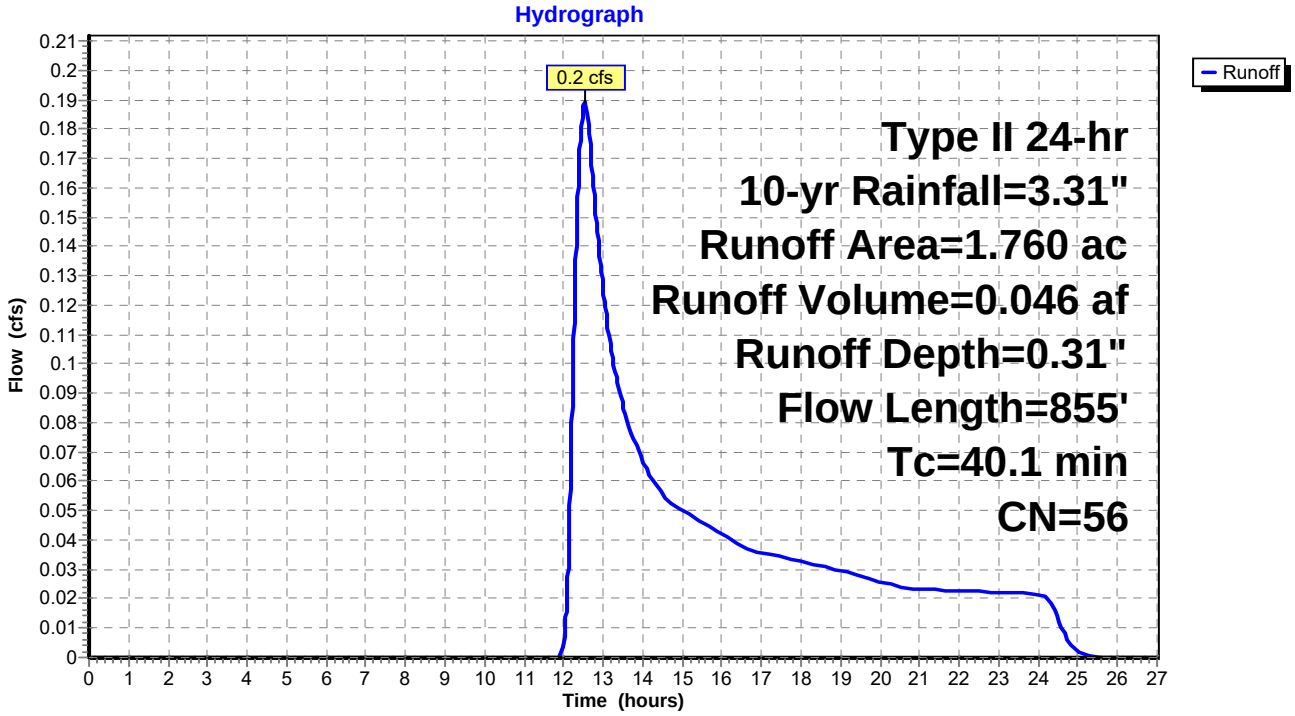
Runoff = 0.2 cfs @ 12.53 hrs, Volume= 0.046 af, Depth= 0.31"
Routed to Pond RD4 : CULVERT 56+06

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
1.690	55	Woods, Good, HSG B
0.020	71	Meadow, non-grazed, HSG C
0.020	78	Meadow, non-grazed, HSG D
0.010	77	Woods, Good, HSG D
0.020	70	Woods, Good, HSG C
1.760	56	Weighted Average
1.760	56	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.6	100	0.1050	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.32"
17.5	755	0.0825	0.72		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
40.1	855	Total			

Subcatchment D4: WOODS



Summary for Subcatchment D5: OFF-SITE FLOW

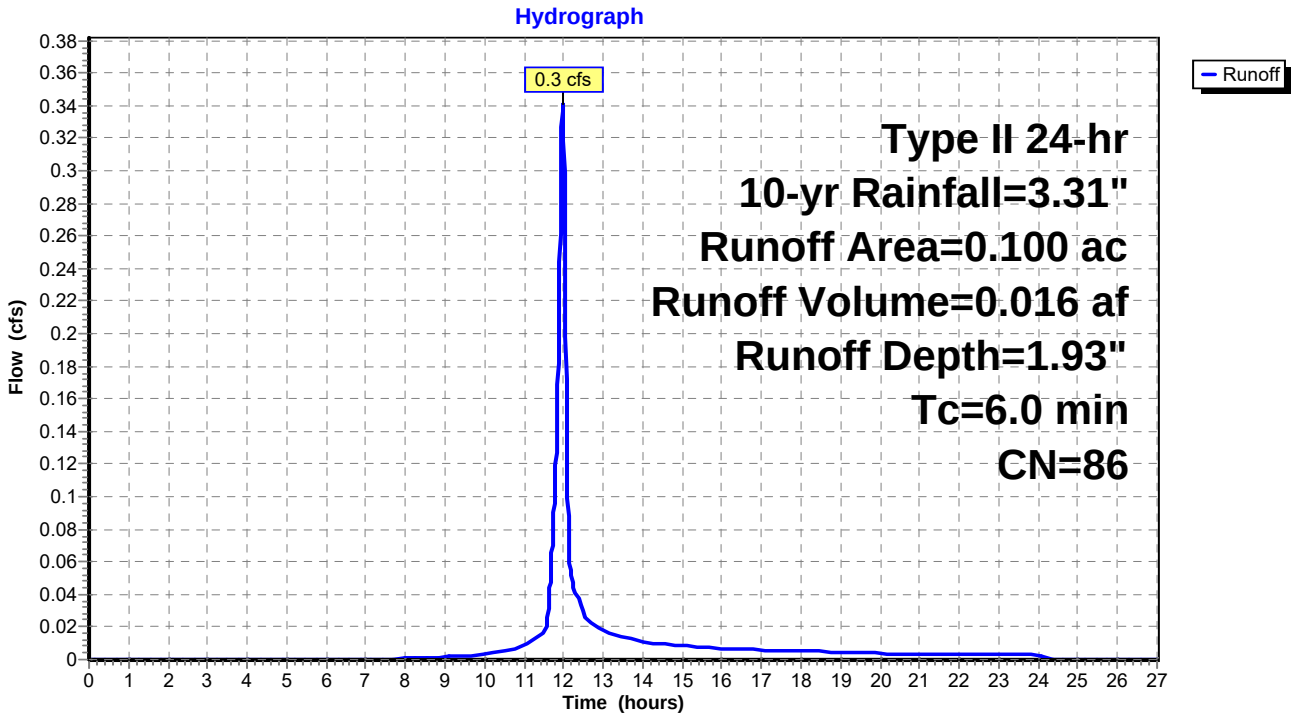
Runoff = 0.3 cfs @ 11.97 hrs, Volume= 0.016 af, Depth= 1.93"
Routed to Reach OUT-D : WETLANDS COMPLEX

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
0.060	96	Gravel surface, HSG C
0.040	71	Meadow, non-grazed, HSG C
0.100	86	Weighted Average
0.100	86	100.00% Pervious Area

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

Subcatchment D5: OFF-SITE FLOW



Summary for Subcatchment D6: WOODS & ROAD

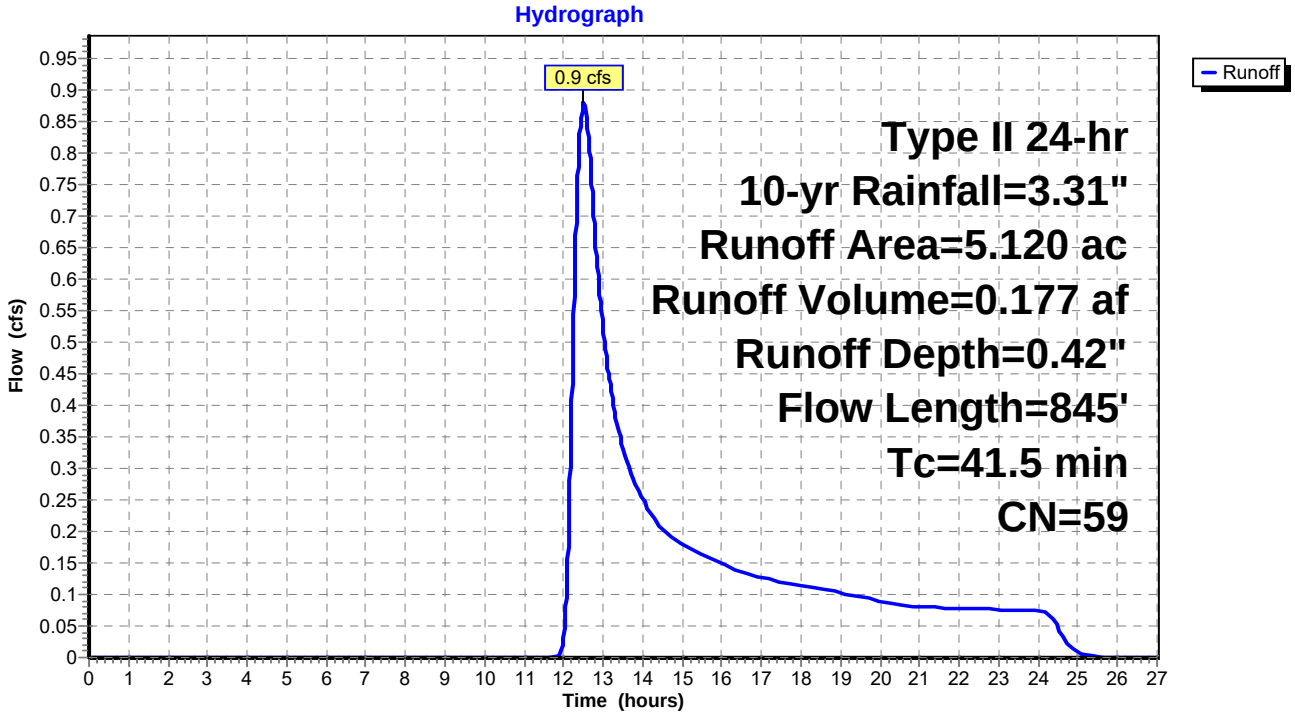
Runoff = 0.9 cfs @ 12.50 hrs, Volume= 0.177 af, Depth= 0.42"
Routed to Pond RD6 : CULVERT 53+68

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
3.470	55	Woods, Good, HSG B
0.490	58	Meadow, non-grazed, HSG B
0.360	70	Woods, Good, HSG C
0.120	96	Gravel surface, HSG C
0.680	71	Meadow, non-grazed, HSG C
5.120	59	Weighted Average
5.120	59	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.1	100	0.1600	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.32"
9.4	470	0.1100	0.83		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
13.0	275	0.0200	0.35		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
41.5	845	Total			

Subcatchment D6: WOODS & ROAD



Summary for Subcatchment D7: Off-Site Flow

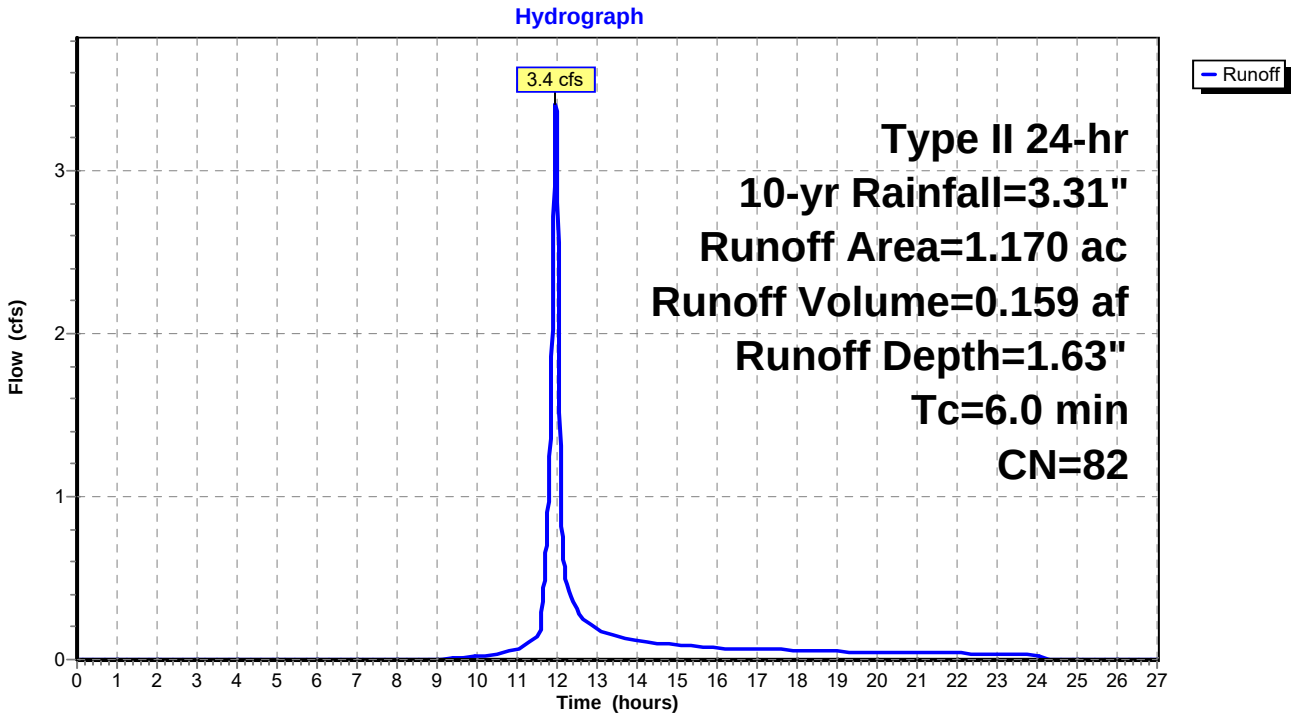
Runoff = 3.4 cfs @ 11.97 hrs, Volume= 0.159 af, Depth= 1.63"
Routed to Reach OUT-D : WETLANDS COMPLEX

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
0.520	96	Gravel surface, HSG C
0.650	71	Meadow, non-grazed, HSG C
1.170	82	Weighted Average
1.170	82	100.00% Pervious Area

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

Subcatchment D7: Off-Site Flow



Summary for Subcatchment D8: WOODS & ROAD

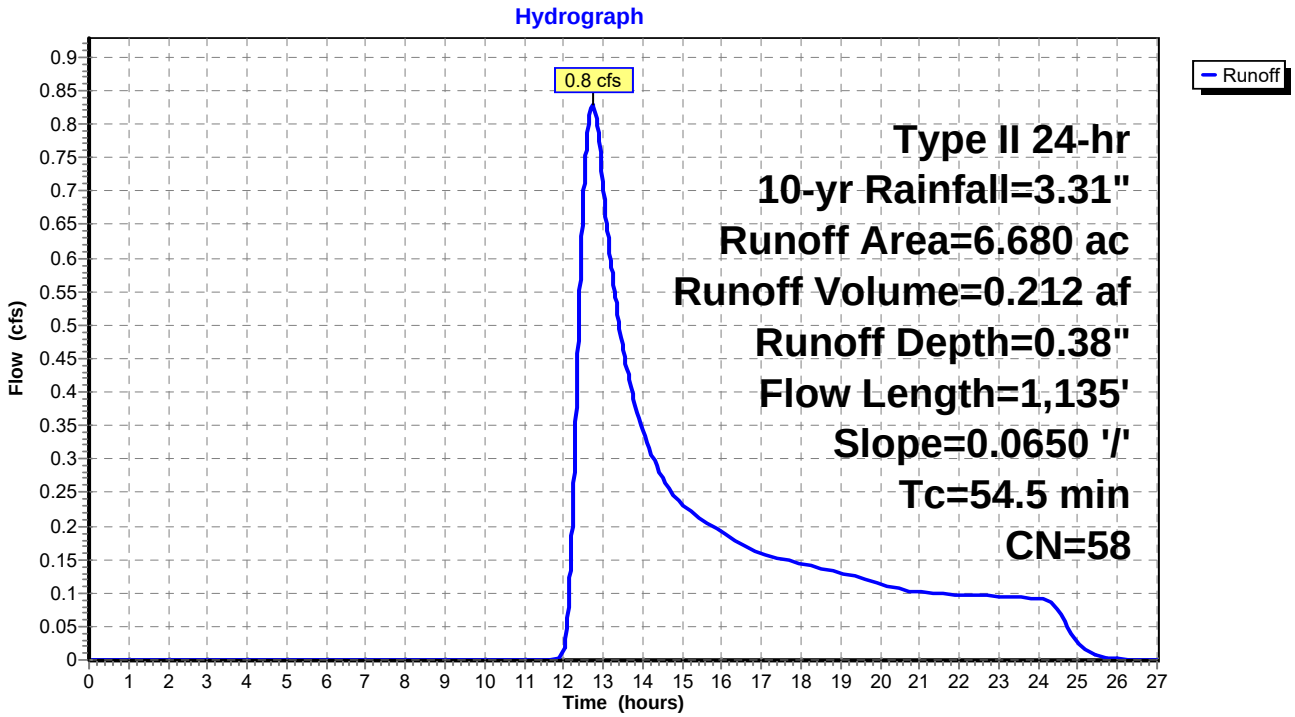
Runoff = 0.8 cfs @ 12.72 hrs, Volume= 0.212 af, Depth= 0.38"
Routed to Pond RD8 : CULVERT 49+19

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
1.240	58	Meadow, non-grazed, HSG B
4.670	55	Woods, Good, HSG B
0.170	96	Gravel surface, HSG C
0.600	71	Meadow, non-grazed, HSG C
6.680	58	Weighted Average
6.680	58	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.4	100	0.0650	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.32"
27.1	1,035	0.0650	0.64		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
54.5	1,135	Total			

Subcatchment D8: WOODS & ROAD



Summary for Subcatchment E1: ROUTE 116

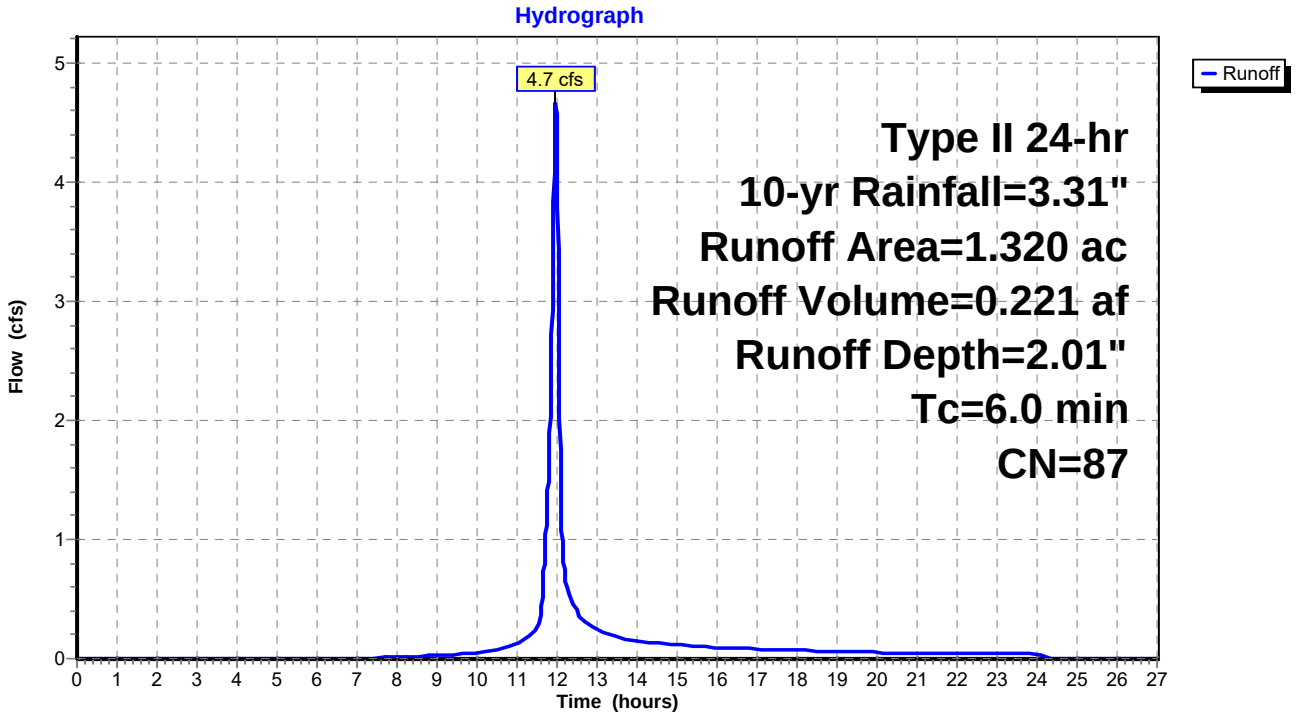
Runoff = 4.7 cfs @ 11.97 hrs, Volume= 0.221 af, Depth= 2.01"
Routed to Reach OUT-E : TO NH ROUTE 116

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
0.660	98	Paved parking, HSG C
0.140	98	Paved parking, HSG B
0.020	78	Meadow, non-grazed, HSG D
0.060	58	Meadow, non-grazed, HSG B
0.440	71	Meadow, non-grazed, HSG C
1.320	87	Weighted Average
0.520	70	39.39% Pervious Area
0.800	98	60.61% Impervious Area

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

Subcatchment E1: ROUTE 116



Summary for Subcatchment E2: WOODS & ROAD

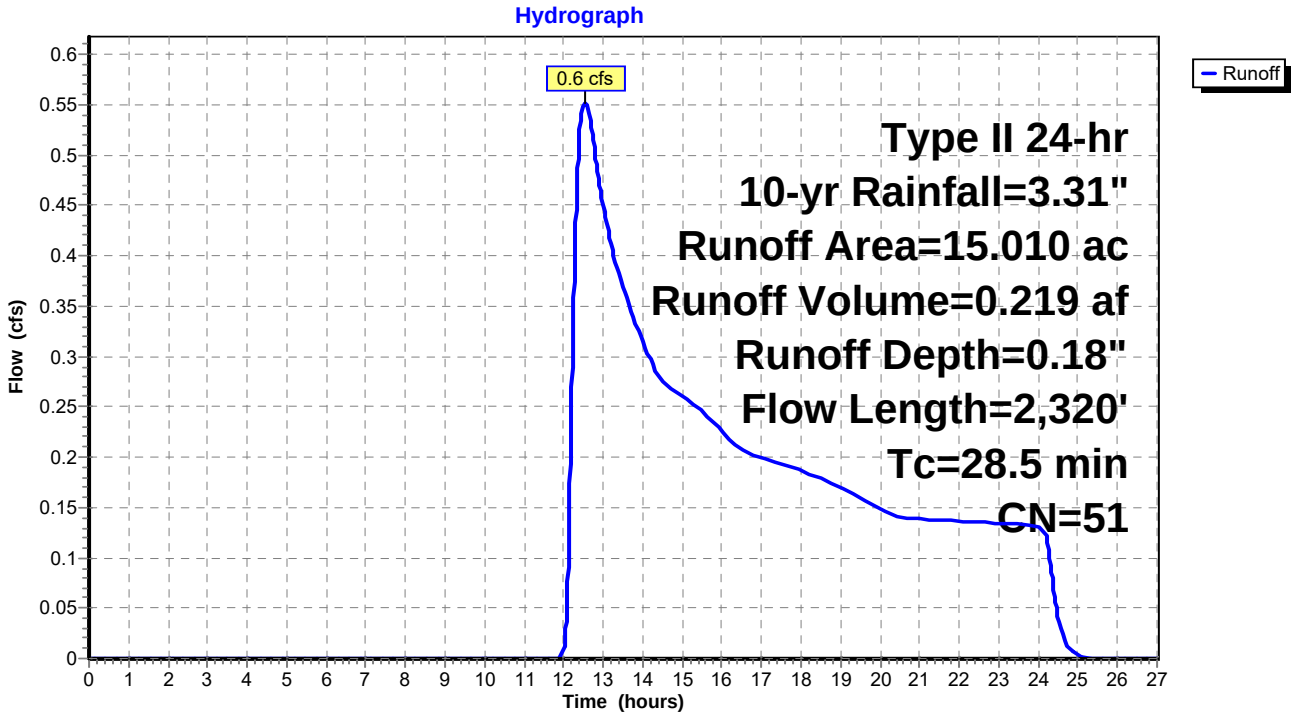
Runoff = 0.6 cfs @ 12.55 hrs, Volume= 0.219 af, Depth= 0.18"
Routed to Pond eCB1 : EX. CATCH BASIN

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
6.950	30	Woods, Good, HSG A
1.510	55	Woods, Good, HSG B
1.200	71	Meadow, non-grazed, HSG C
0.010	78	Meadow, non-grazed, HSG D
0.670	96	Gravel surface, HSG C
4.550	70	Woods, Good, HSG C
0.120	98	Paved parking, HSG C
15.010	51	Weighted Average
14.890	51	99.20% Pervious Area
0.120	98	0.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.5	30	0.3300	0.09		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.32"
20.0	70	0.0700	0.06		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.32"
3.0	2,220	0.0575	12.20	406.56	**Parabolic Channel,** W=25.00' D=2.00' Area=33.3 sf Perim=25.4' n= 0.035
28.5	2,320	Total			

Subcatchment E2: WOODS & ROAD



Summary for Subcatchment E3: OLD DOUGLAS DRIVE

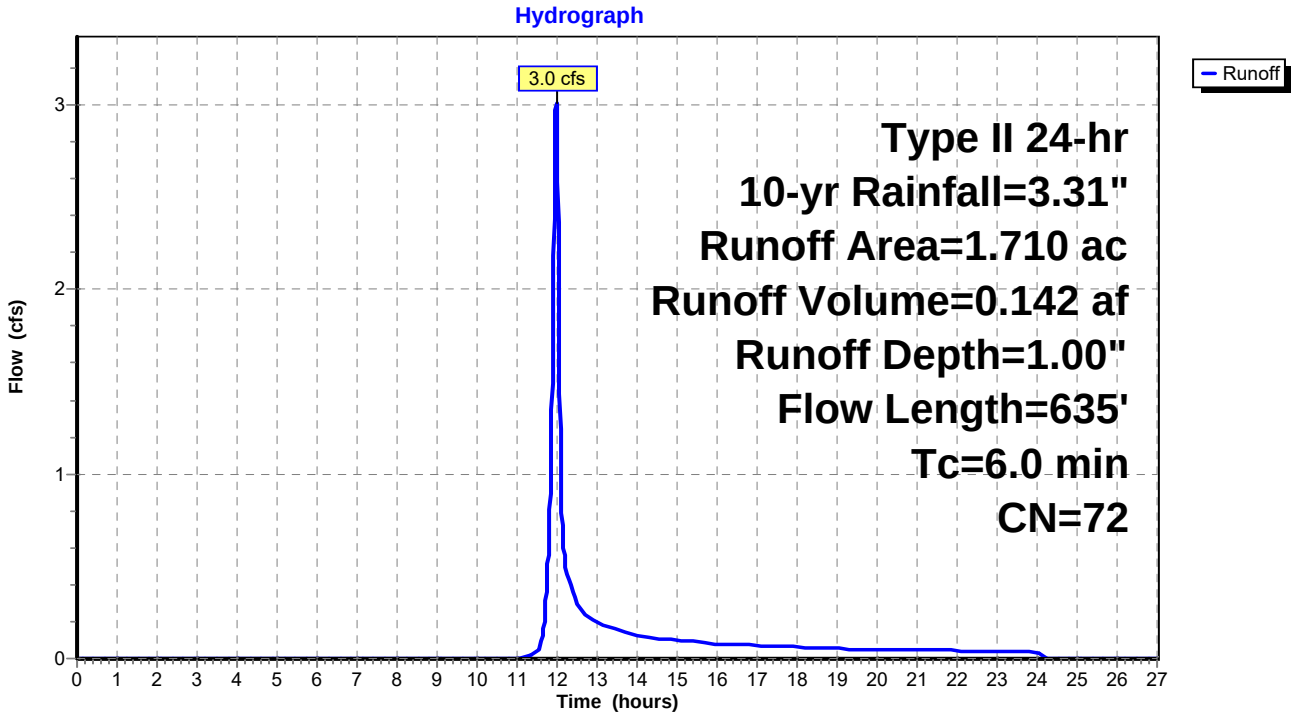
Runoff = 3.0 cfs @ 11.98 hrs, Volume= 0.142 af, Depth= 1.00"
Routed to Pond eCB2 : EX. CATCH BASIN

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
0.270	55	Woods, Good, HSG B
0.350	58	Meadow, non-grazed, HSG B
0.300	96	Gravel surface, HSG C
0.020	96	Gravel surface, HSG B
0.480	71	Meadow, non-grazed, HSG C
0.190	70	Woods, Good, HSG C
0.060	98	Paved parking, HSG B
0.040	98	Paved parking, HSG C
1.710	72	Weighted Average
1.610	70	94.15% Pervious Area
0.100	98	5.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	20	0.0500	1.22		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.32"
0.7	145	0.0600	3.67		**Shallow Concentrated Flow, ROADSIDE SWALE** Grassed Waterway Kv= 15.0 fps
0.9	470	0.0750	8.83	117.79	**Parabolic Channel, WETLAND** W=20.00' D=1.00' Area=13.3 sf Perim=20.1' n= 0.035
1.9	635	Total, Increased to minimum Tc = 6.0 min			

Subcatchment E3: OLD DOUGLAS DRIVE



Summary for Subcatchment E4: WOODS & ROAD

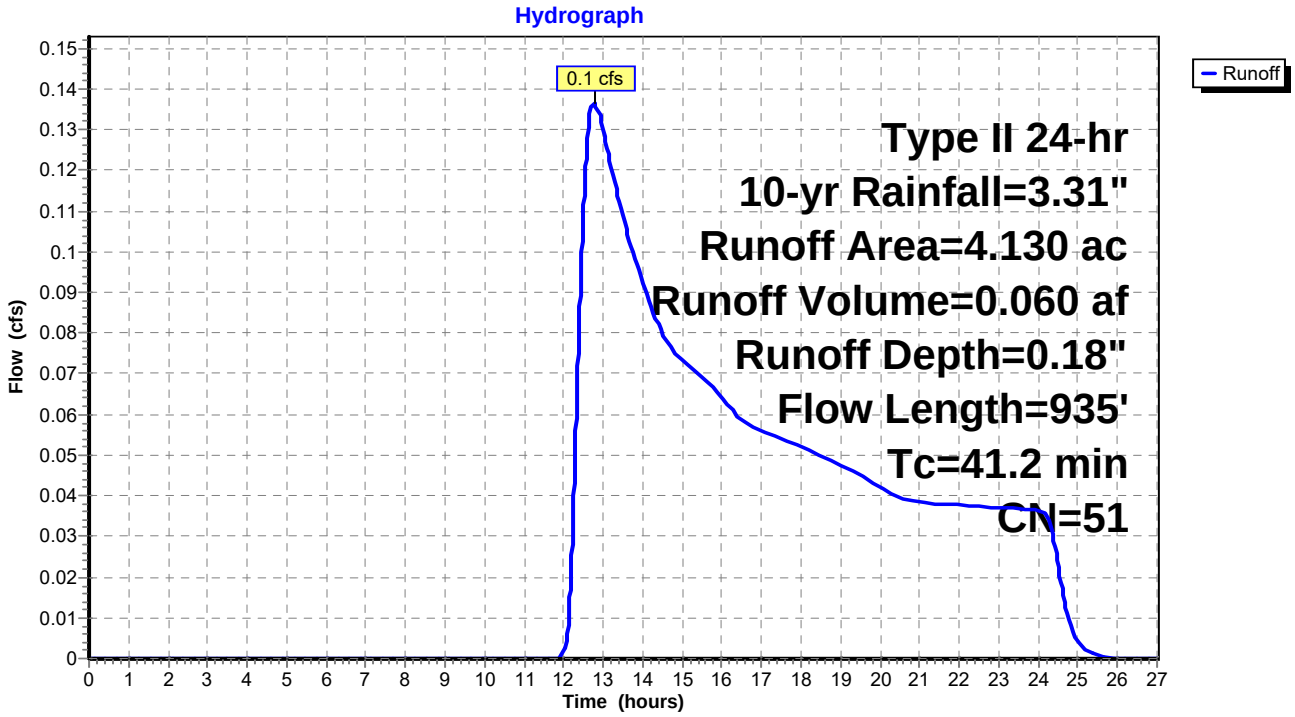
Runoff = 0.1 cfs @ 12.77 hrs, Volume= 0.060 af, Depth= 0.18"
Routed to Pond RE4 : CULVERT 16+74

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
1.660	30	Woods, Good, HSG A
1.370	55	Woods, Good, HSG B
0.300	96	Gravel surface, HSG C
0.210	70	Woods, Good, HSG C
0.010	30	Meadow, non-grazed, HSG A
0.580	71	Meadow, non-grazed, HSG C
4.130	51	Weighted Average
4.130	51	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.9	100	0.0825	0.07		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 2.32"
11.5	620	0.0325	0.90		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
4.8	215	0.0400	0.75	10.04	**Parabolic Channel,** W=20.00' D=1.00' Area=13.3 sf Perim=20.1' n= 0.300
41.2	935	Total			

Subcatchment E4: WOODS & ROAD



Summary for Subcatchment E5: WOODS & ROAD

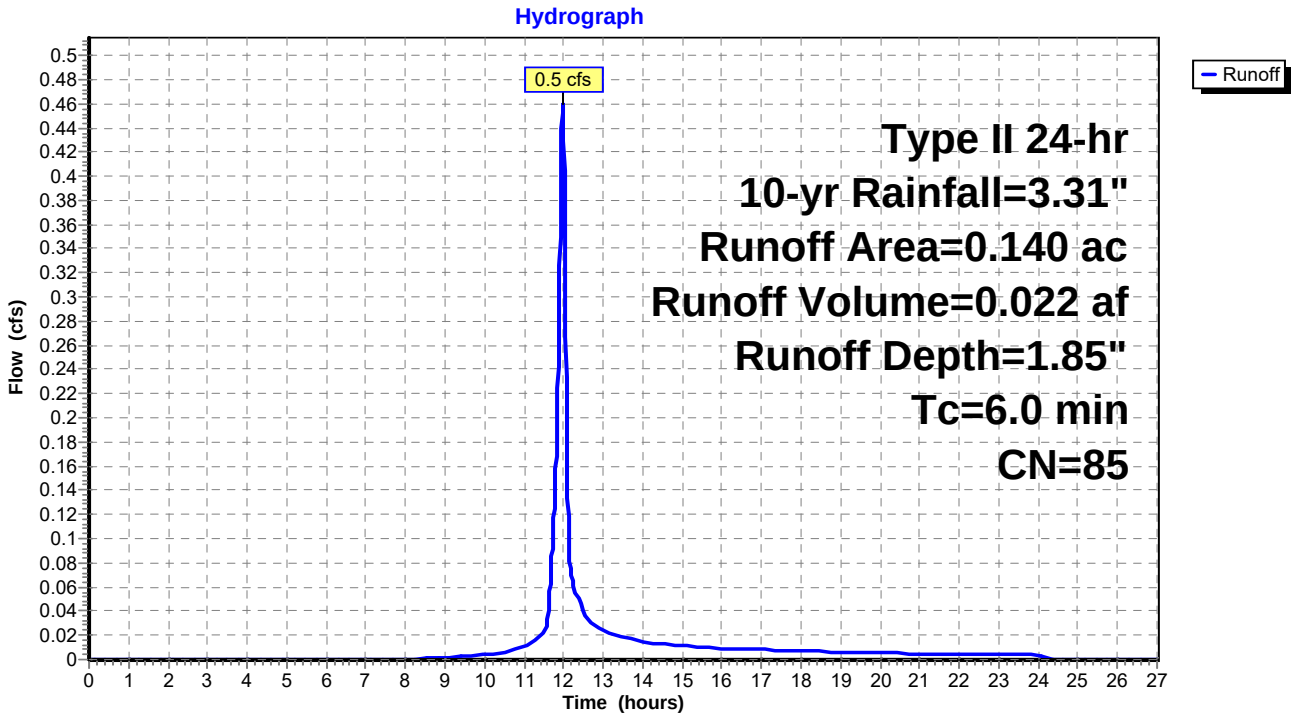
Runoff = 0.5 cfs @ 11.97 hrs, Volume= 0.022 af, Depth= 1.85"
Routed to Reach RE5 : CULVERT 34+78

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
0.080	96	Gravel surface, HSG A
0.060	71	Meadow, non-grazed, HSG C
0.140	85	Weighted Average
0.140	85	100.00% Pervious Area

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

Subcatchment E5: WOODS & ROAD



Summary for Subcatchment E6: OFF-SITE FLOW

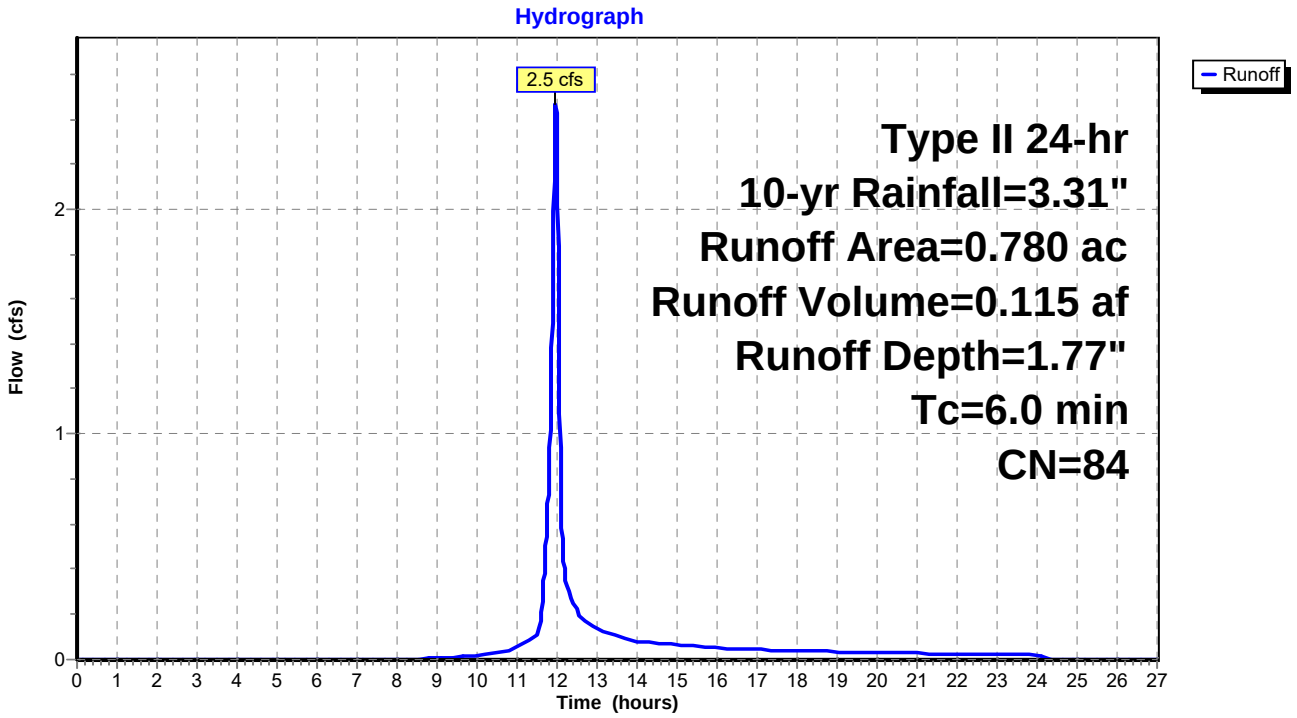
Runoff = 2.5 cfs @ 11.97 hrs, Volume= 0.115 af, Depth= 1.77"
Routed to Reach RE3 : CHANNEL IN WOODS

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
0.400	96	Gravel surface, HSG C
0.380	71	Meadow, non-grazed, HSG C
0.780	84	Weighted Average
0.780	84	100.00% Pervious Area

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

Subcatchment E6: OFF-SITE FLOW



Summary for Subcatchment E7: WOODS & ROAD

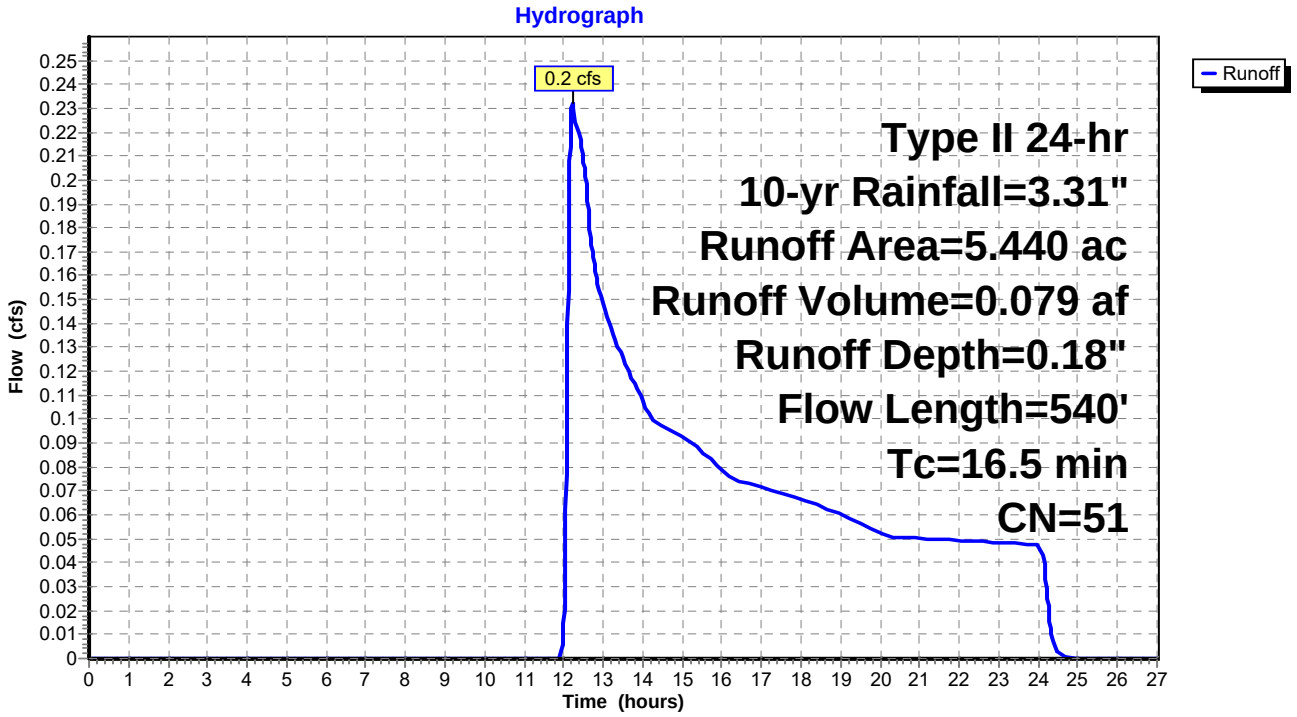
Runoff = 0.2 cfs @ 12.23 hrs, Volume= 0.079 af, Depth= 0.18"
Routed to Pond RE7 : CULVERT 39+15

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-yr Rainfall=3.31"

Area (ac)	CN	Description
0.240	96	Gravel surface, HSG A
0.090	98	Unconnected roofs, HSG A
0.010	96	Gravel surface, HSG C
1.930	30	Woods, Good, HSG A
0.770	30	Meadow, non-grazed, HSG A
0.280	55	Woods, Good, HSG B
0.070	58	Meadow, non-grazed, HSG B
0.040	78	Meadow, non-grazed, HSG D
0.540	71	Meadow, non-grazed, HSG C
1.470	70	Woods, Good, HSG C
5.440	51	Weighted Average
5.350	50	98.35% Pervious Area
0.090	98	1.65% Impervious Area
0.090		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	45	0.0500	1.44		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.32"
4.0	55	0.2200	0.23		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.32"
12.0	440	0.0600	0.61		**Shallow Concentrated Flow,** Forest w/Heavy Litter Kv= 2.5 fps
16.5	540	Total			

Subcatchment E7: WOODS & ROAD

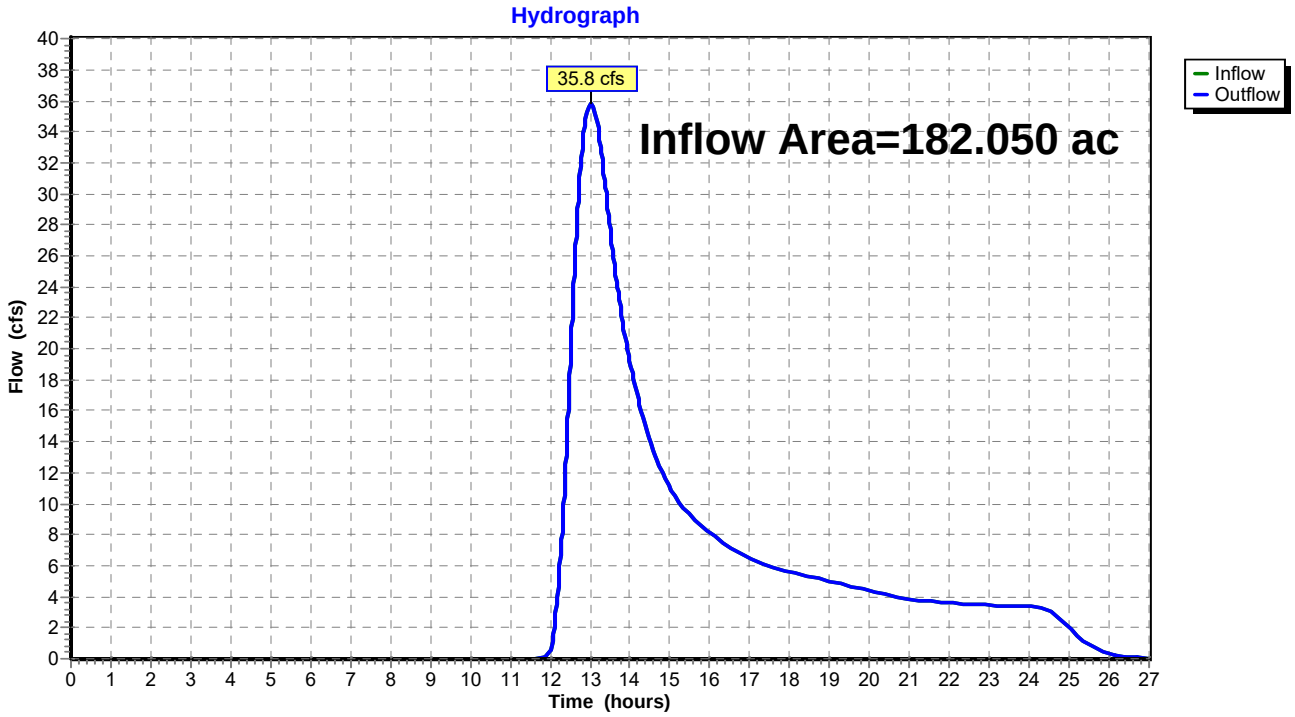


Summary for Reach OUT-A: WETLANDS COMPLEX

Inflow Area = 182.050 ac, 0.03% Impervious, Inflow Depth > 0.61" for 10-yr event
Inflow = 35.8 cfs @ 13.04 hrs, Volume= 9.295 af
Outflow = 35.8 cfs @ 13.04 hrs, Volume= 9.295 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs

Reach OUT-A: WETLANDS COMPLEX

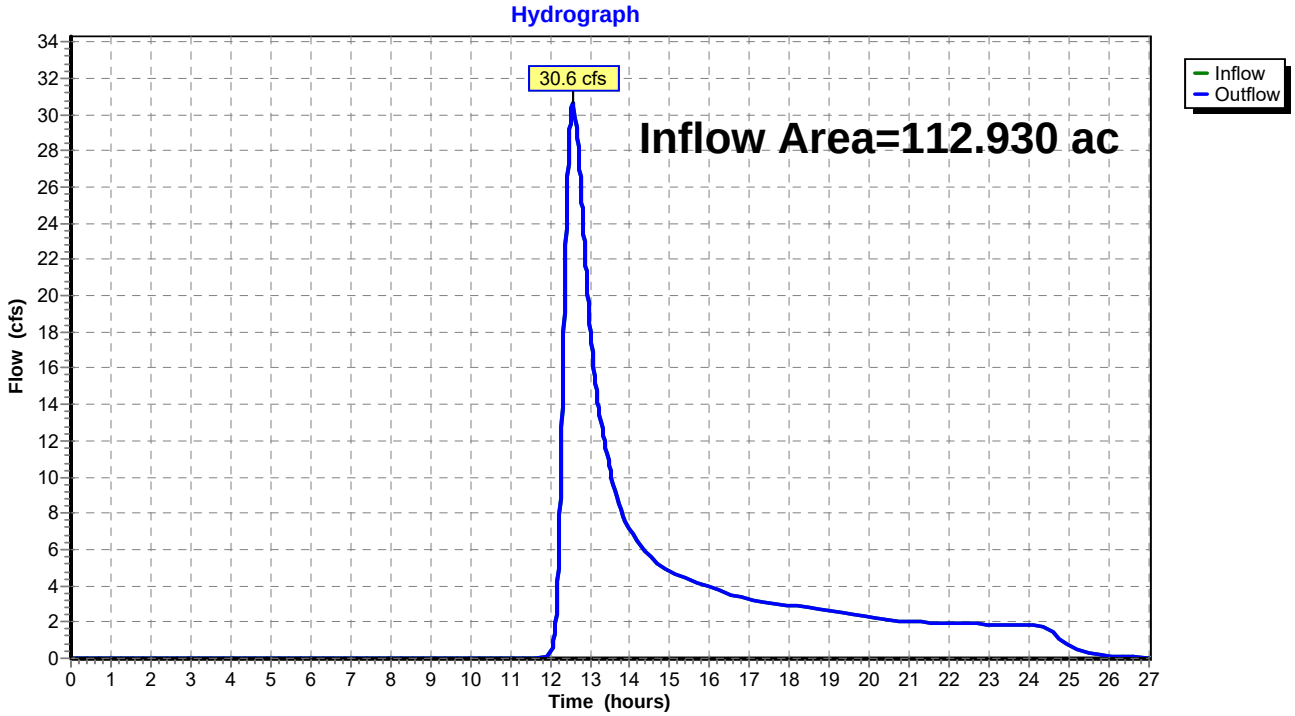


Summary for Reach OUT-B: WETLANDS COMPLEX

Inflow Area = 112.930 ac, 0.00% Impervious, Inflow Depth > 0.54" for 10-yr event
Inflow = 30.6 cfs @ 12.57 hrs, Volume= 5.078 af
Outflow = 30.6 cfs @ 12.57 hrs, Volume= 5.078 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node FDGA

Routing by Dyn-Stor-Ind method, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs

Reach OUT-B: WETLANDS COMPLEX

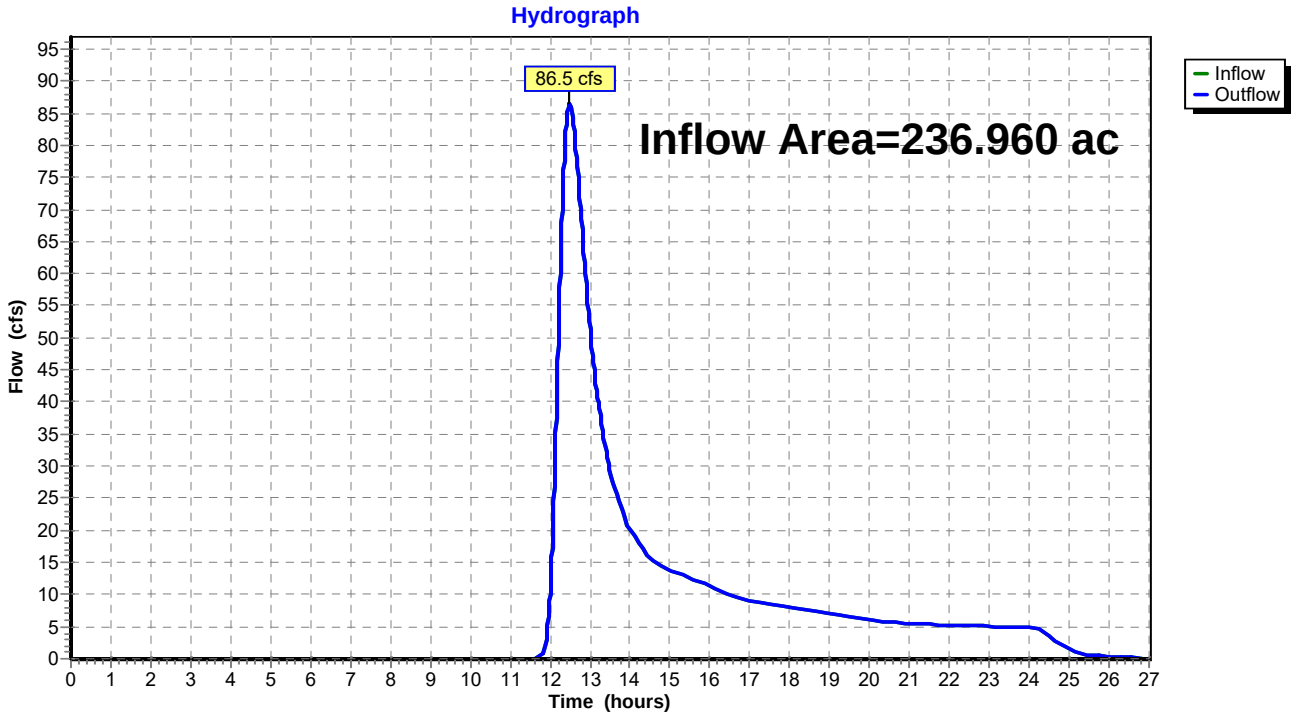


Summary for Reach OUT-C: WETLANDS COMPLEX

Inflow Area = 236.960 ac, 0.05% Impervious, Inflow Depth > 0.76" for 10-yr event
Inflow = 86.5 cfs @ 12.48 hrs, Volume= 15.056 af
Outflow = 86.5 cfs @ 12.48 hrs, Volume= 15.056 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs

Reach OUT-C: WETLANDS COMPLEX

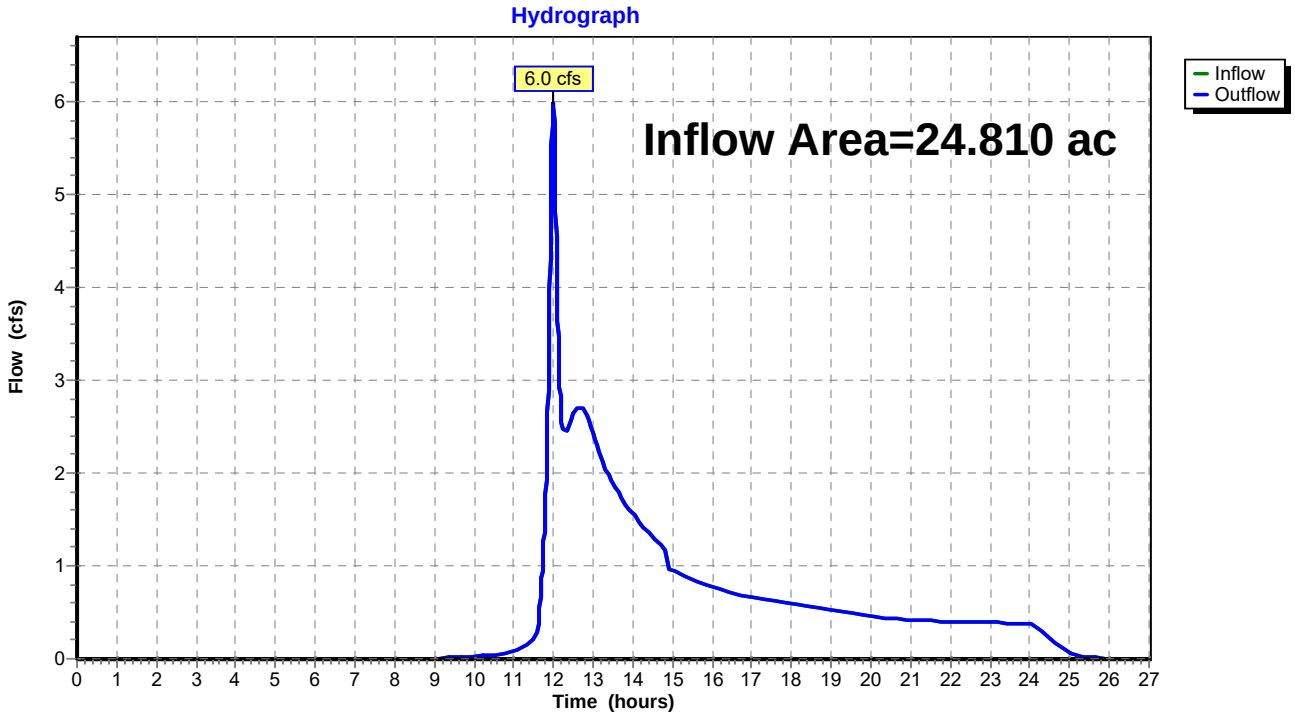


Summary for Reach OUT-D: WETLANDS COMPLEX

Inflow Area = 24.810 ac, 0.00% Impervious, Inflow Depth = 0.49" for 10-yr event
Inflow = 6.0 cfs @ 12.00 hrs, Volume= 1.016 af
Outflow = 6.0 cfs @ 12.00 hrs, Volume= 1.016 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs

Reach OUT-D: WETLANDS COMPLEX

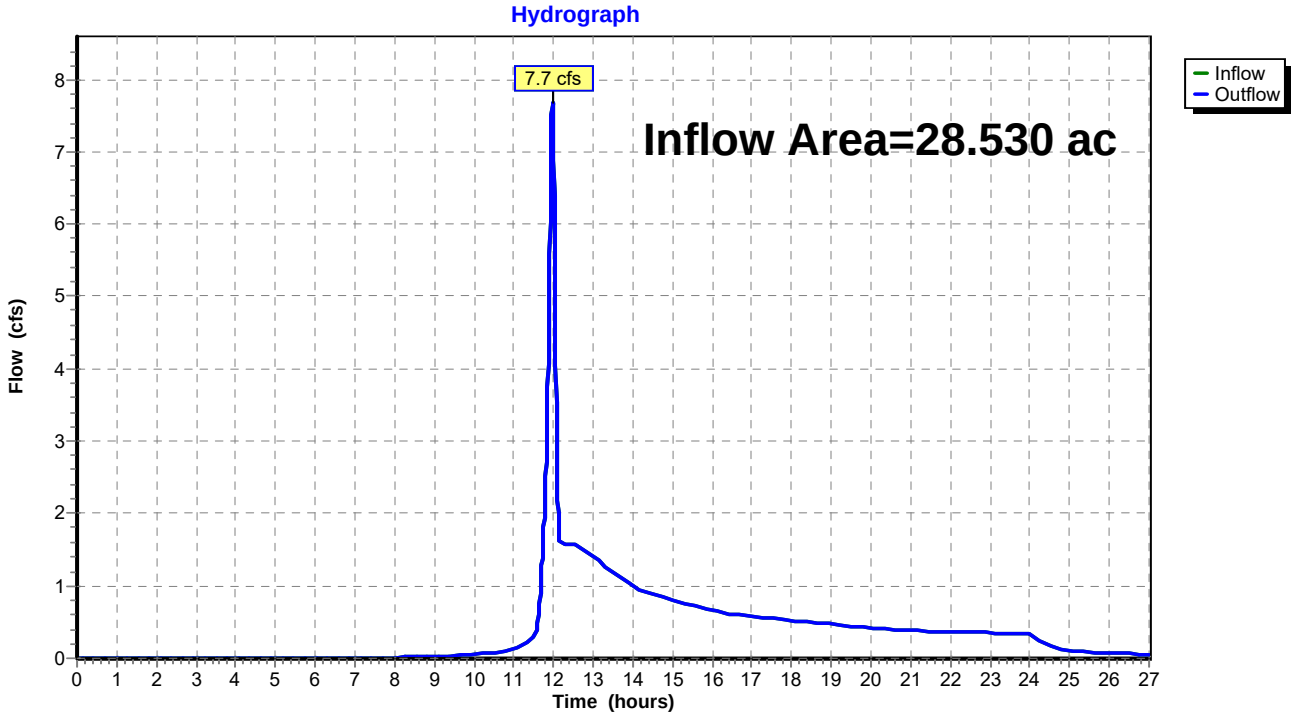


Summary for Reach OUT-E: TO NH ROUTE 116

Inflow Area = 28.530 ac, 3.89% Impervious, Inflow Depth > 0.35" for 10-yr event
Inflow = 7.7 cfs @ 11.98 hrs, Volume= 0.839 af
Outflow = 7.7 cfs @ 11.98 hrs, Volume= 0.839 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node 116 D2

Routing by Dyn-Stor-Ind method, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs

Reach OUT-E: TO NH ROUTE 116



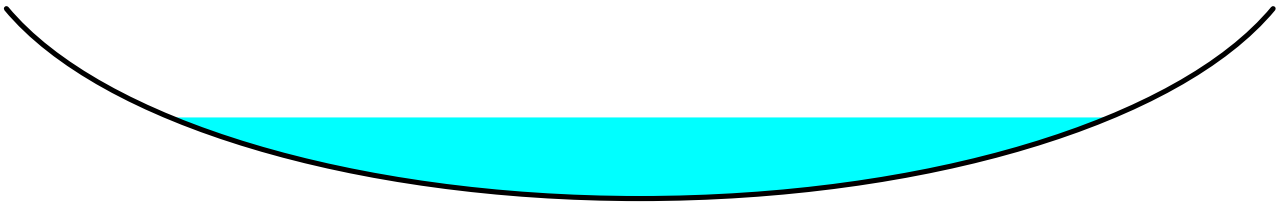
Summary for Reach RB1: WETLAND

Inflow Area = 62.030 ac, 0.00% Impervious, Inflow Depth > 0.82" for 10-yr event
Inflow = 31.9 cfs @ 12.44 hrs, Volume= 4.232 af
Outflow = 29.0 cfs @ 12.56 hrs, Volume= 4.228 af, Atten= 9%, Lag= 7.4 min
Routed to Reach OUT-B : WETLANDS COMPLEX

Routing by Dyn-Stor-Ind method, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.09 fps, Min. Travel Time= 8.9 min
Avg. Velocity = 0.92 fps, Avg. Travel Time= 20.4 min

Peak Storage= 15,580 cf @ 12.56 hrs
Average Depth at Peak Storage= 0.43' , Surface Width= 48.96'
Bank-Full Depth= 1.00' Flow Area= 50.0 sf, Capacity= 184.3 cfs

75.00' x 1.00' deep Parabolic Channel, n= 0.035
Length= 1,120.0' Slope= 0.0129 '/'
Inlet Invert= 1,080.00', Outlet Invert= 1,065.50'



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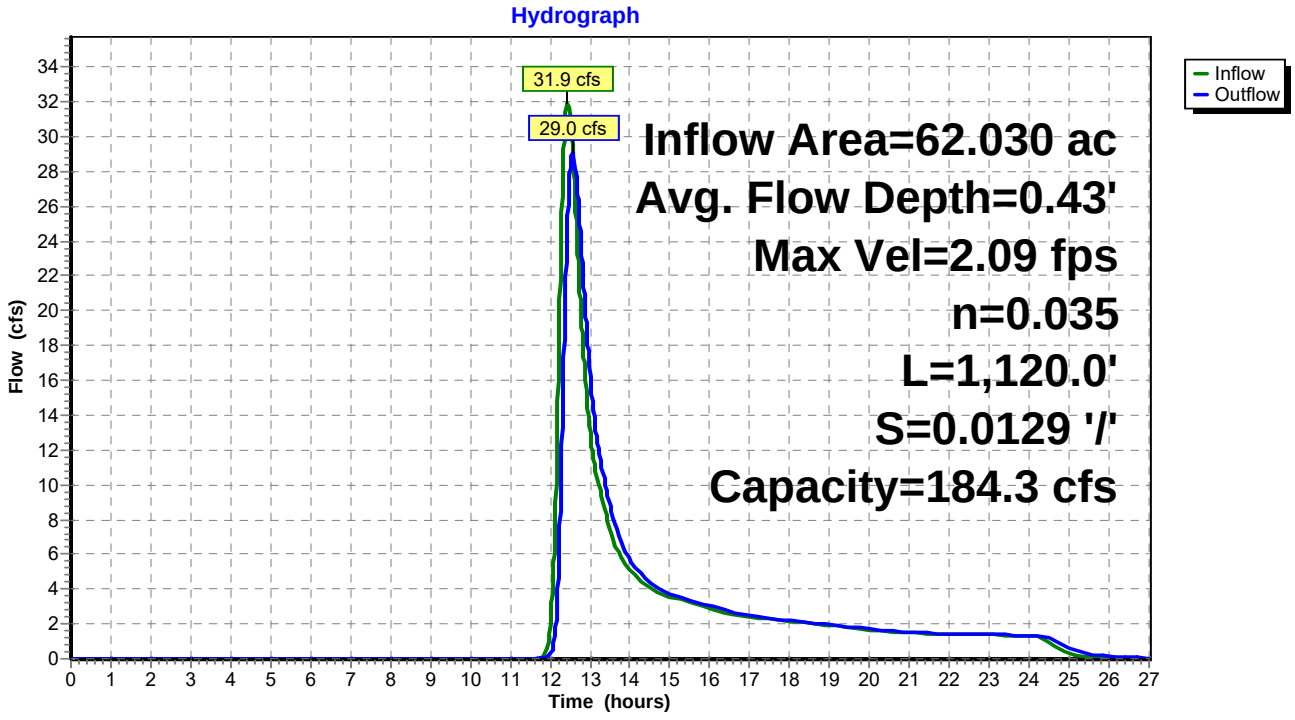
Reach RB1: WETLAND



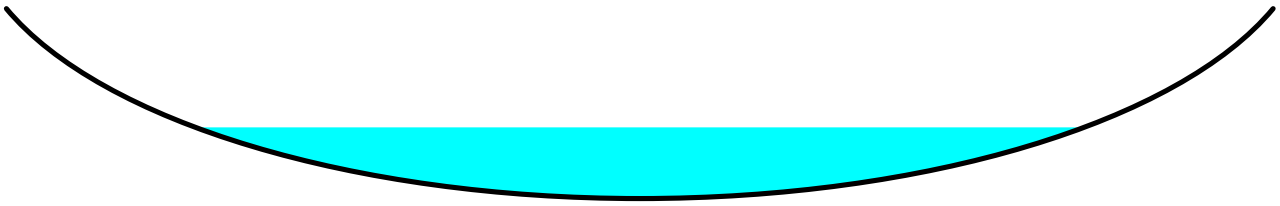
Summary for Reach RB2: WETLAND

Inflow Area = 51.530 ac, 0.00% Impervious, Inflow Depth = 0.79" for 10-yr event
Inflow = 26.7 cfs @ 12.36 hrs, Volume= 3.406 af
Outflow = 25.9 cfs @ 12.43 hrs, Volume= 3.406 af, Atten= 3%, Lag= 4.1 min
Routed to Reach RB1 : WETLAND

Routing by Dyn-Stor-Ind method, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.77 fps, Min. Travel Time= 4.7 min
Avg. Velocity = 1.58 fps, Avg. Travel Time= 11.1 min

Peak Storage= 7,243 cf @ 12.43 hrs
Average Depth at Peak Storage= 0.37' , Surface Width= 27.52'
Bank-Full Depth= 1.00' Flow Area= 30.0 sf, Capacity= 217.8 cfs

45.00' x 1.00' deep Parabolic Channel, n= 0.035
Length= 1,055.0' Slope= 0.0503 '/'
Inlet Invert= 1,133.05', Outlet Invert= 1,080.00'



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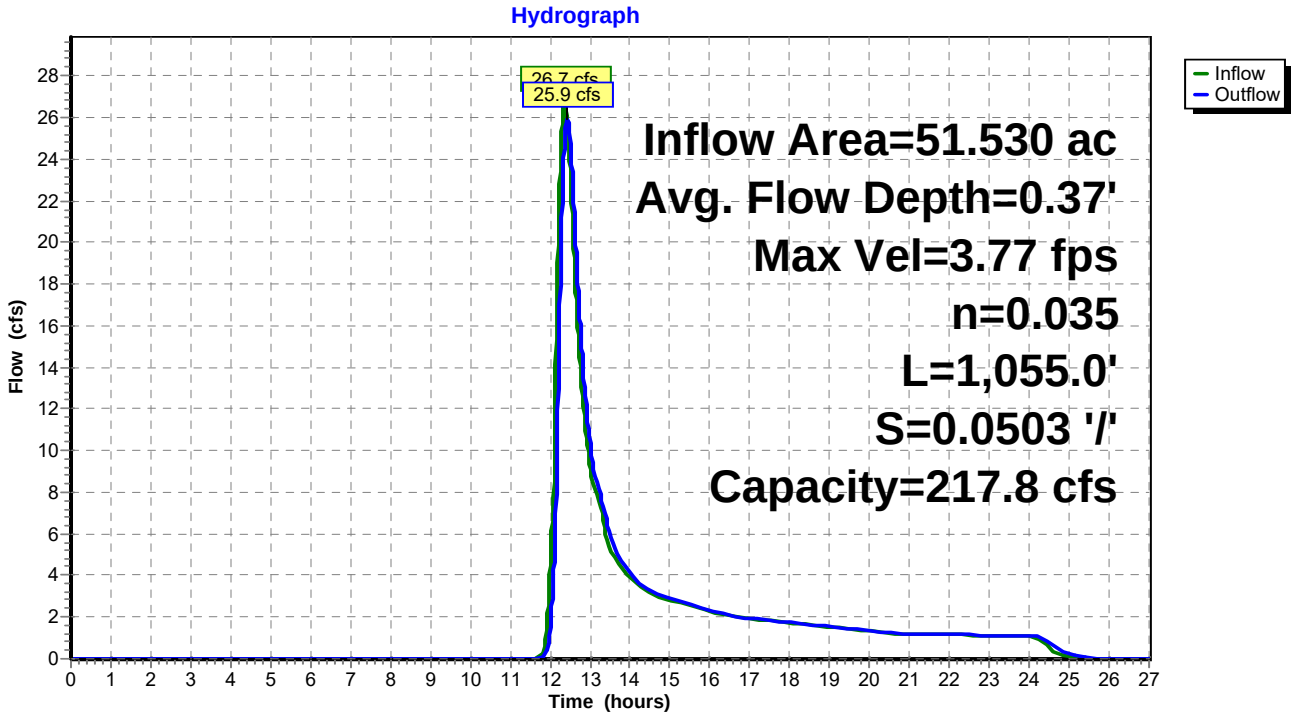
Reach RB2: WETLAND



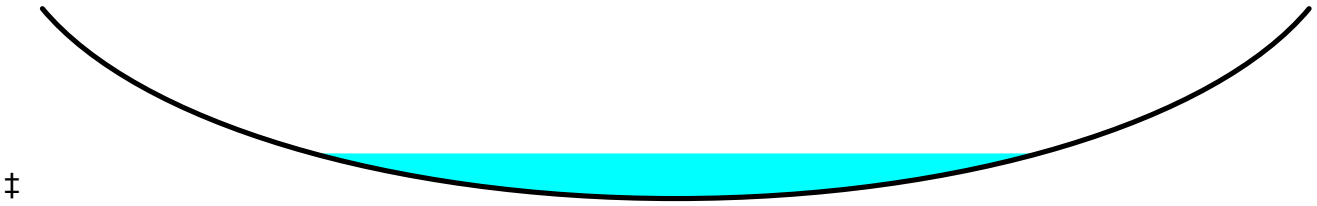
Summary for Reach RB4: WETLAND

Inflow Area = 10.500 ac, 0.00% Impervious, Inflow Depth = 0.94" for 10-yr event
Inflow = 6.9 cfs @ 12.38 hrs, Volume= 0.827 af
Outflow = 6.3 cfs @ 12.52 hrs, Volume= 0.826 af, Atten= 9%, Lag= 8.4 min
Routed to Reach RB1 : WETLAND

Routing by Dyn-Stor-Ind method, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Max. Velocity= 2.34 fps, Min. Travel Time= 11.4 min
Avg. Velocity = 0.98 fps, Avg. Travel Time= 27.2 min

Peak Storage= 4,282 cf @ 12.52 hrs
Average Depth at Peak Storage= 0.24' , Surface Width= 17.00'
Bank-Full Depth= 1.00' Flow Area= 23.3 sf, Capacity= 142.7 cfs

35.00' x 1.00' deep Parabolic Channel, n= 0.035
Length= 1,600.0' Slope= 0.0358 '/'
Inlet Invert= 1,137.20', Outlet Invert= 1,080.00'



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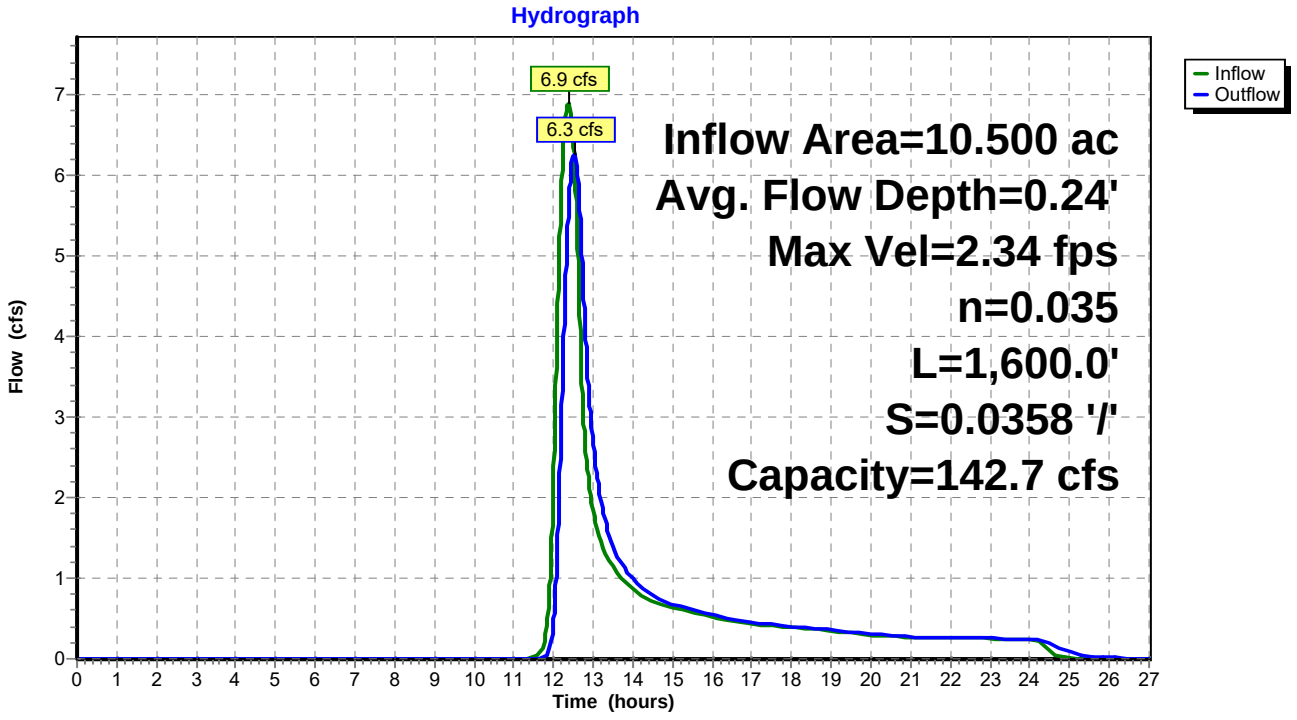
Reach RB4: WETLAND



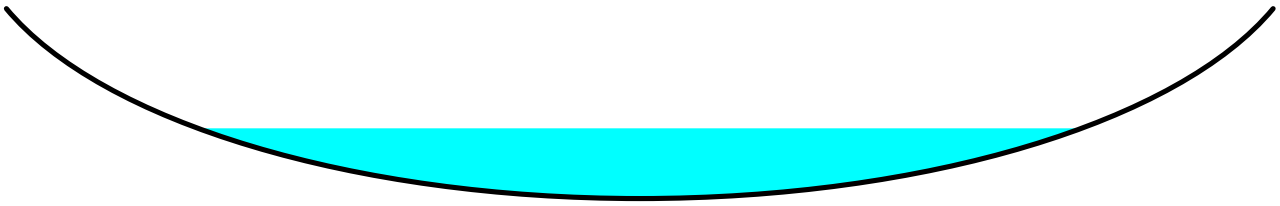
Summary for Reach RC1: WETLANDS

Inflow Area = 39.260 ac, 0.00% Impervious, Inflow Depth = 0.61" for 10-yr event
Inflow = 12.7 cfs @ 12.44 hrs, Volume= 2.000 af
Outflow = 12.3 cfs @ 12.52 hrs, Volume= 2.000 af, Atten= 3%, Lag= 5.0 min
Routed to Reach OUT-C : WETLANDS COMPLEX

Routing by Dyn-Stor-Ind method, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.66 fps, Min. Travel Time= 5.3 min
Avg. Velocity = 0.76 fps, Avg. Travel Time= 11.5 min

Peak Storage= 3,907 cf @ 12.52 hrs
Average Depth at Peak Storage= 0.37' , Surface Width= 30.33'
Bank-Full Depth= 1.00' Flow Area= 33.3 sf, Capacity= 107.5 cfs

50.00' x 1.00' deep Parabolic Channel, n= 0.035 Earth, dense weeds
Length= 525.0' Slope= 0.0099 '/'
Inlet Invert= 1,020.94', Outlet Invert= 1,015.73'



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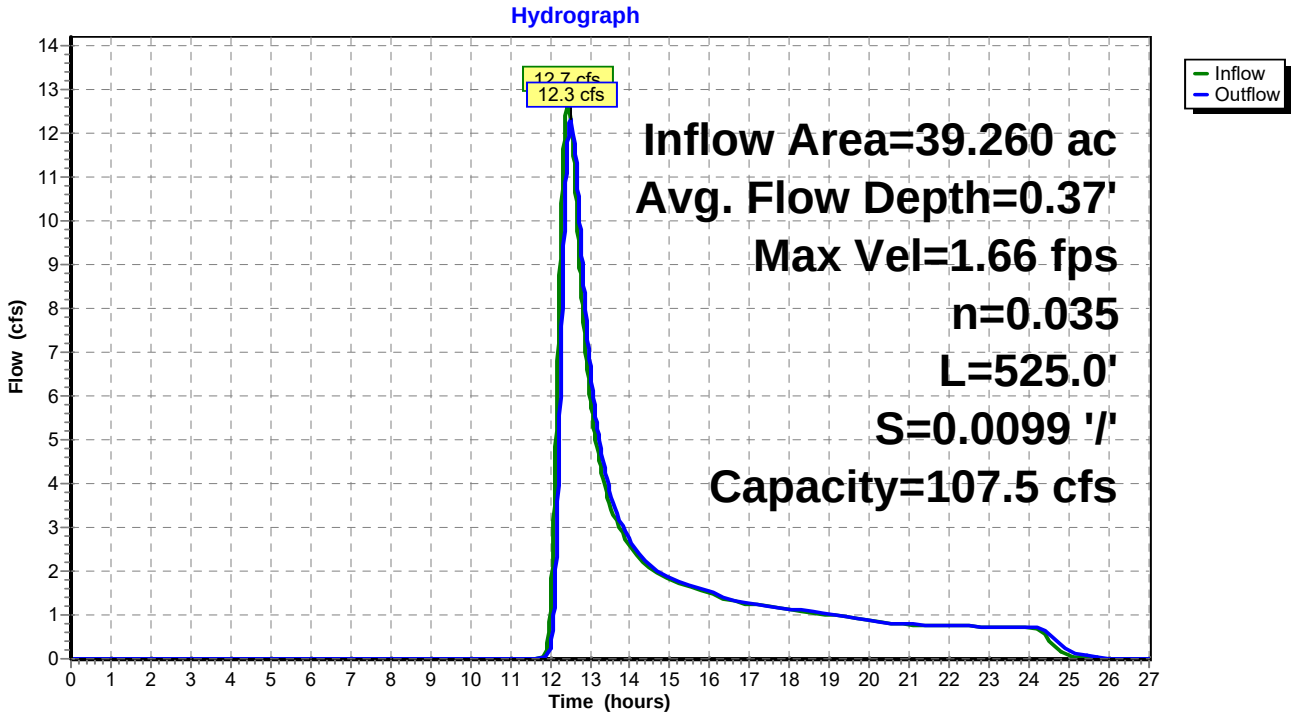
Reach RC1: WETLANDS



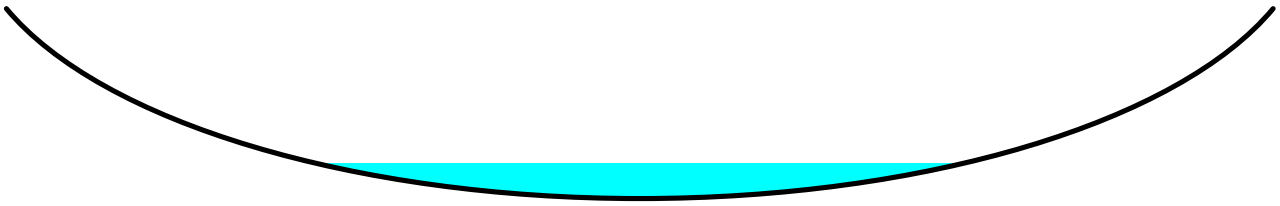
Summary for Reach RC2: WETLAND STREAM

Inflow Area = 90.790 ac, 0.14% Impervious, Inflow Depth = 0.79" for 10-yr event
Inflow = 39.9 cfs @ 12.49 hrs, Volume= 6.001 af
Outflow = 33.3 cfs @ 12.70 hrs, Volume= 5.990 af, Atten= 16%, Lag= 12.6 min
Routed to Reach OUT-C : WETLANDS COMPLEX

Routing by Dyn-Stor-Ind method, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.10 fps, Min. Travel Time= 14.9 min
Avg. Velocity = 1.49 fps, Avg. Travel Time= 30.8 min

Peak Storage= 29,717 cf @ 12.70 hrs
Average Depth at Peak Storage= 0.37' , Surface Width= 43.19'
Bank-Full Depth= 2.00' Flow Area= 133.3 sf, Capacity= 1,265.4 cfs

100.00' x 2.00' deep Parabolic Channel, n= 0.035 Earth, dense weeds
Length= 2,765.0' Slope= 0.0341 '/'
Inlet Invert= 1,110.00', Outlet Invert= 1,015.73'



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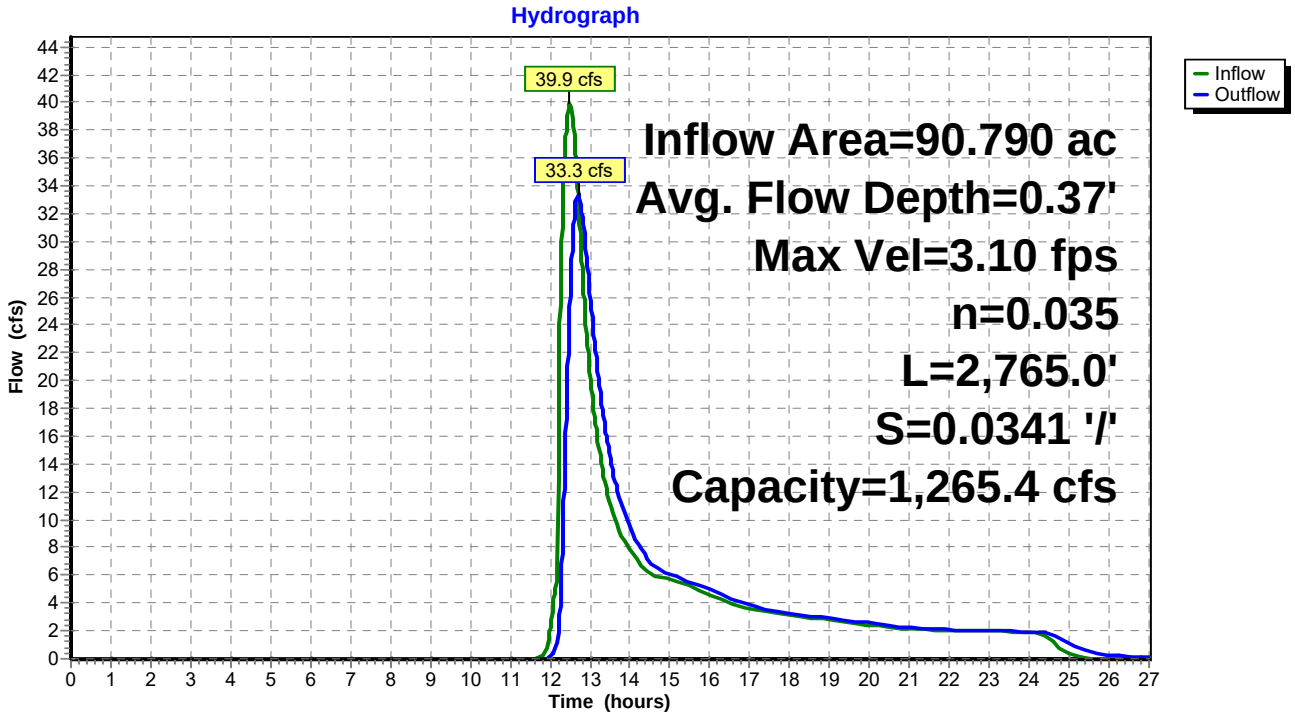
Reach RC2: WETLAND STREAM



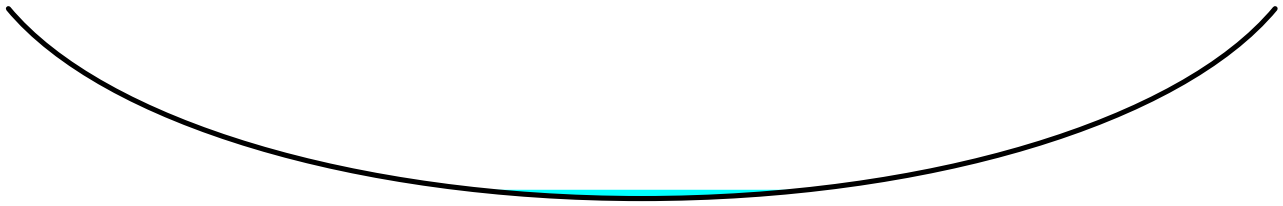
Summary for Reach RE1: CHANNEL IN WOODS

Inflow Area = 10.490 ac, 0.86% Impervious, Inflow Depth > 0.29" for 10-yr event
Inflow = 0.5 cfs @ 12.98 hrs, Volume= 0.258 af
Outflow = 0.5 cfs @ 13.10 hrs, Volume= 0.256 af, Atten= 1%, Lag= 7.4 min
Routed to Pond eCB1 : EX. CATCH BASIN

Routing by Dyn-Stor-Ind method, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.58 fps, Min. Travel Time= 9.0 min
Avg. Velocity = 1.07 fps, Avg. Travel Time= 13.3 min

Peak Storage= 278 cf @ 13.10 hrs
Average Depth at Peak Storage= 0.09' , Surface Width= 5.33'
Bank-Full Depth= 2.00' Flow Area= 33.3 sf, Capacity= 405.6 cfs

25.00' x 2.00' deep Parabolic Channel, n= 0.035 Earth, dense weeds
Length= 855.0' Slope= 0.0572 '/'
Inlet Invert= 1,034.43', Outlet Invert= 985.50'



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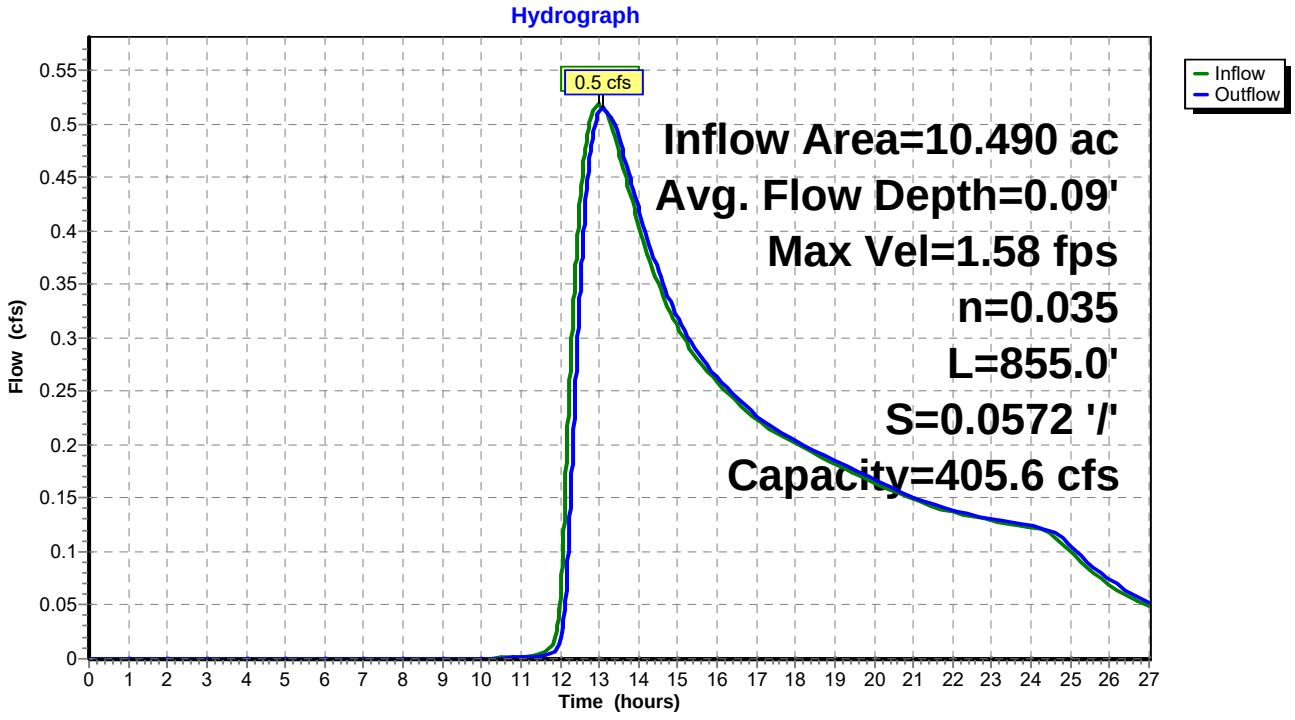
Reach RE1: CHANNEL IN WOODS



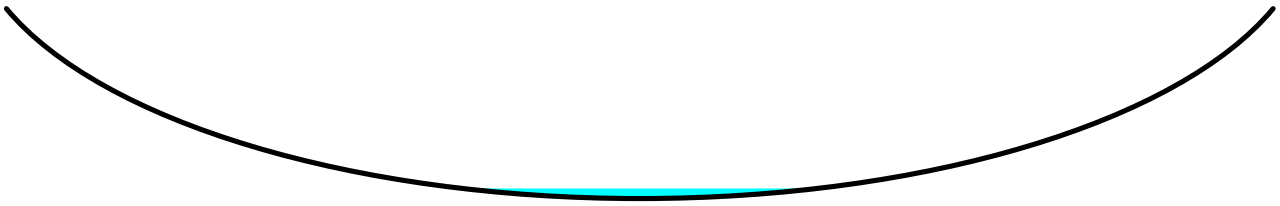
Summary for Reach RE2: CHANNEL IN WOODS

Inflow Area = 0.140 ac, 0.00% Impervious, Inflow Depth = 1.85" for 10-yr event
Inflow = 0.5 cfs @ 11.97 hrs, Volume= 0.022 af
Outflow = 0.1 cfs @ 12.11 hrs, Volume= 0.021 af, Atten= 74%, Lag= 8.3 min
Routed to Pond RE4 : CULVERT 16+74

Routing by Dyn-Stor-Ind method, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.76 fps, Min. Travel Time= 51.2 min
Avg. Velocity = 0.36 fps, Avg. Travel Time= 110.0 min

Peak Storage= 366 cf @ 12.11 hrs
Average Depth at Peak Storage= 0.05' , Surface Width= 4.54'
Bank-Full Depth= 1.00' Flow Area= 13.3 sf, Capacity= 73.0 cfs

20.00' x 1.00' deep Parabolic Channel, n= 0.035 Earth, dense weeds
Length= 2,345.0' Slope= 0.0288 '/'
Inlet Invert= 1,102.50', Outlet Invert= 1,034.97'



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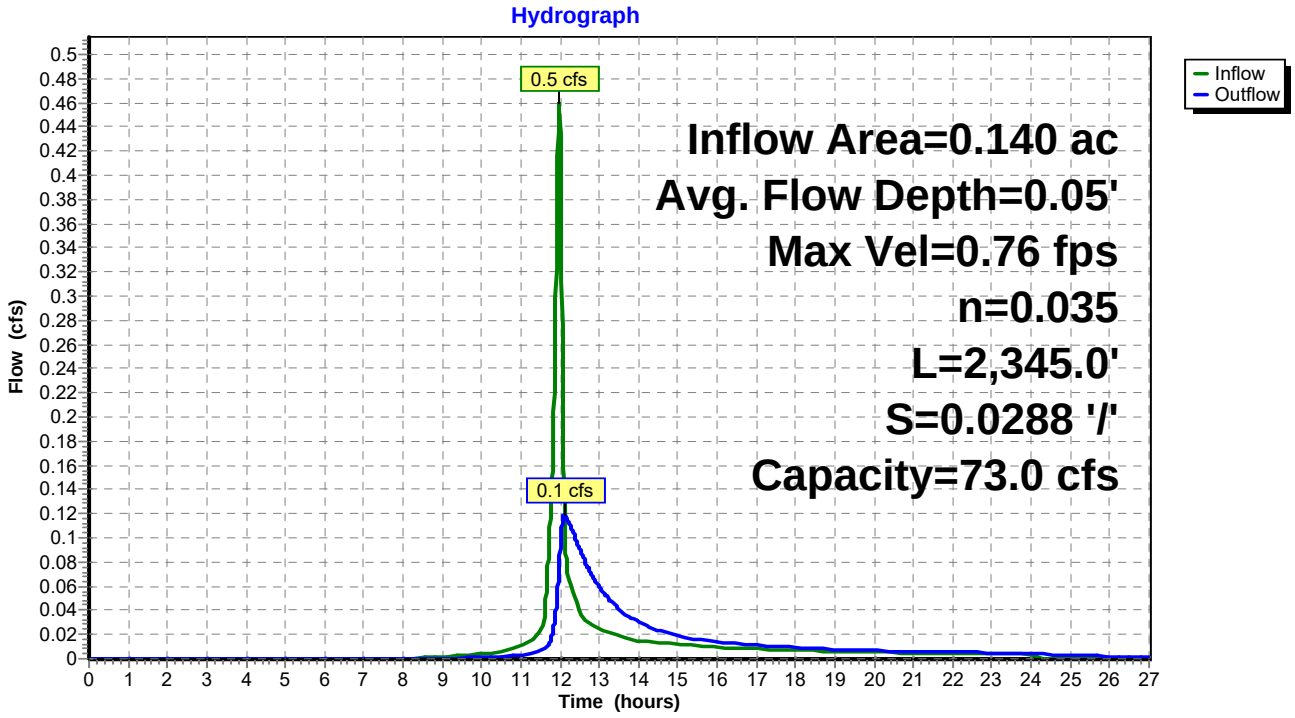
Reach RE2: CHANNEL IN WOODS



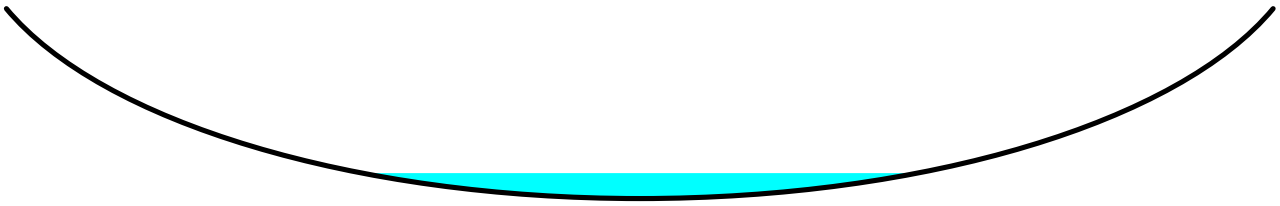
Summary for Reach RE3: CHANNEL IN WOODS

Inflow Area = 6.220 ac, 1.45% Impervious, Inflow Depth > 0.36" for 10-yr event
Inflow = 2.5 cfs @ 11.97 hrs, Volume= 0.189 af
Outflow = 0.8 cfs @ 12.09 hrs, Volume= 0.185 af, Atten= 66%, Lag= 7.0 min
Routed to Pond RE4 : CULVERT 16+74

Routing by Dyn-Stor-Ind method, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Max. Velocity= 1.29 fps, Min. Travel Time= 35.7 min
Avg. Velocity = 0.64 fps, Avg. Travel Time= 72.2 min

Peak Storage= 1,769 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.13' , Surface Width= 7.27'
Bank-Full Depth= 1.00' Flow Area= 13.3 sf, Capacity= 65.9 cfs

20.00' x 1.00' deep Parabolic Channel, n= 0.035 Earth, dense weeds
Length= 2,760.0' Slope= 0.0235 '/'
Inlet Invert= 1,099.77', Outlet Invert= 1,034.97'



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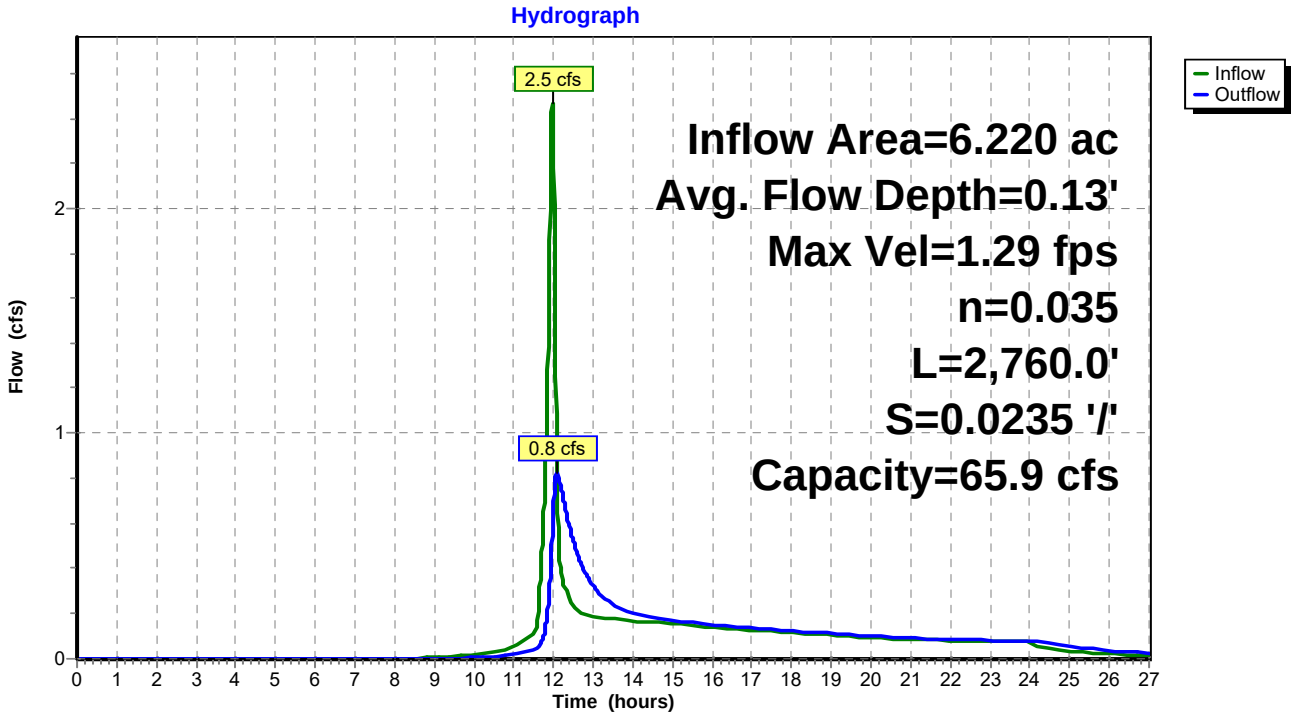
Reach RE3: CHANNEL IN WOODS



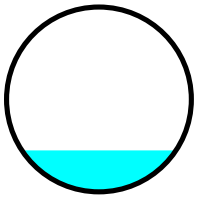
Summary for Reach RE5: CULVERT 34+78

Inflow Area = 0.140 ac, 0.00% Impervious, Inflow Depth = 1.85" for 10-yr event
Inflow = 0.5 cfs @ 11.97 hrs, Volume= 0.022 af
Outflow = 0.5 cfs @ 11.97 hrs, Volume= 0.022 af, Atten= 0%, Lag= 0.1 min
Routed to Reach RE2 : CHANNEL IN WOODS

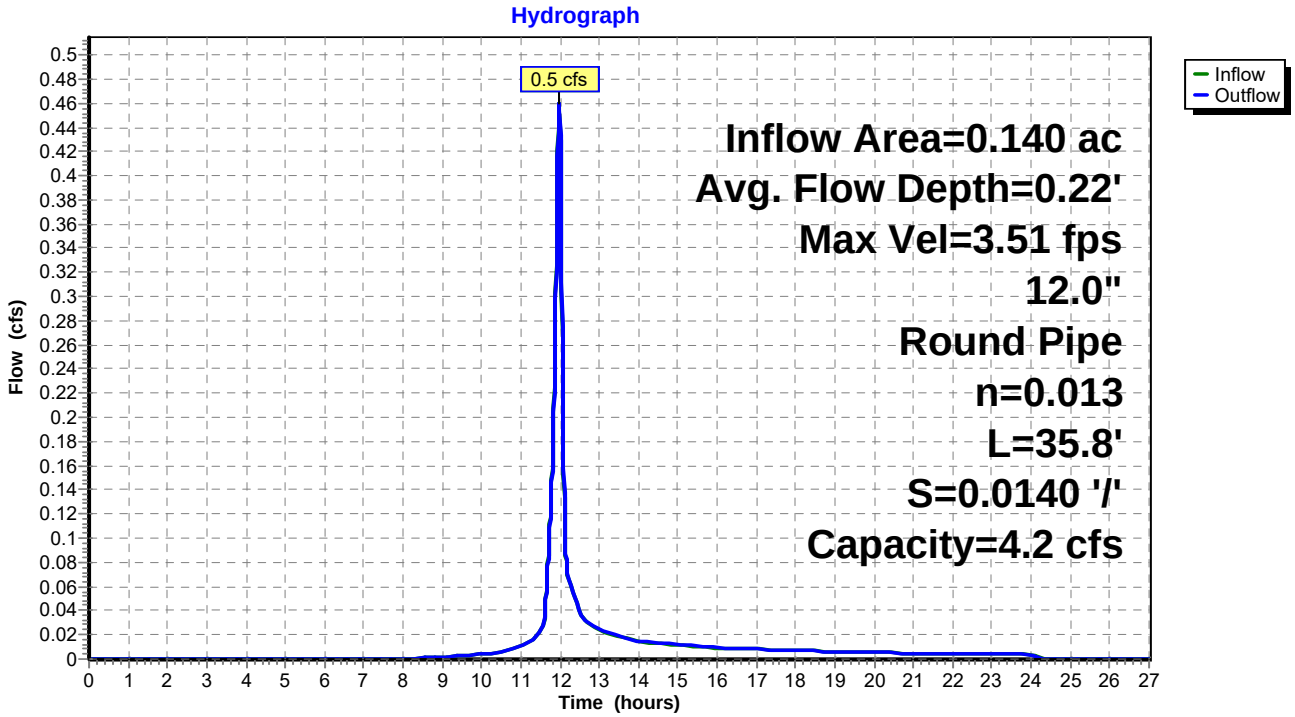
Routing by Dyn-Stor-Ind method, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.51 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.06 fps, Avg. Travel Time= 0.6 min

Peak Storage= 5 cf @ 11.97 hrs
Average Depth at Peak Storage= 0.22' , Surface Width= 0.83'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 4.2 cfs

12.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 35.8' Slope= 0.0140 '/'
Inlet Invert= 1,103.00', Outlet Invert= 1,102.50'



Reach RE5: CULVERT 34+78



Summary for Pond eCB1: EX. CATCH BASIN

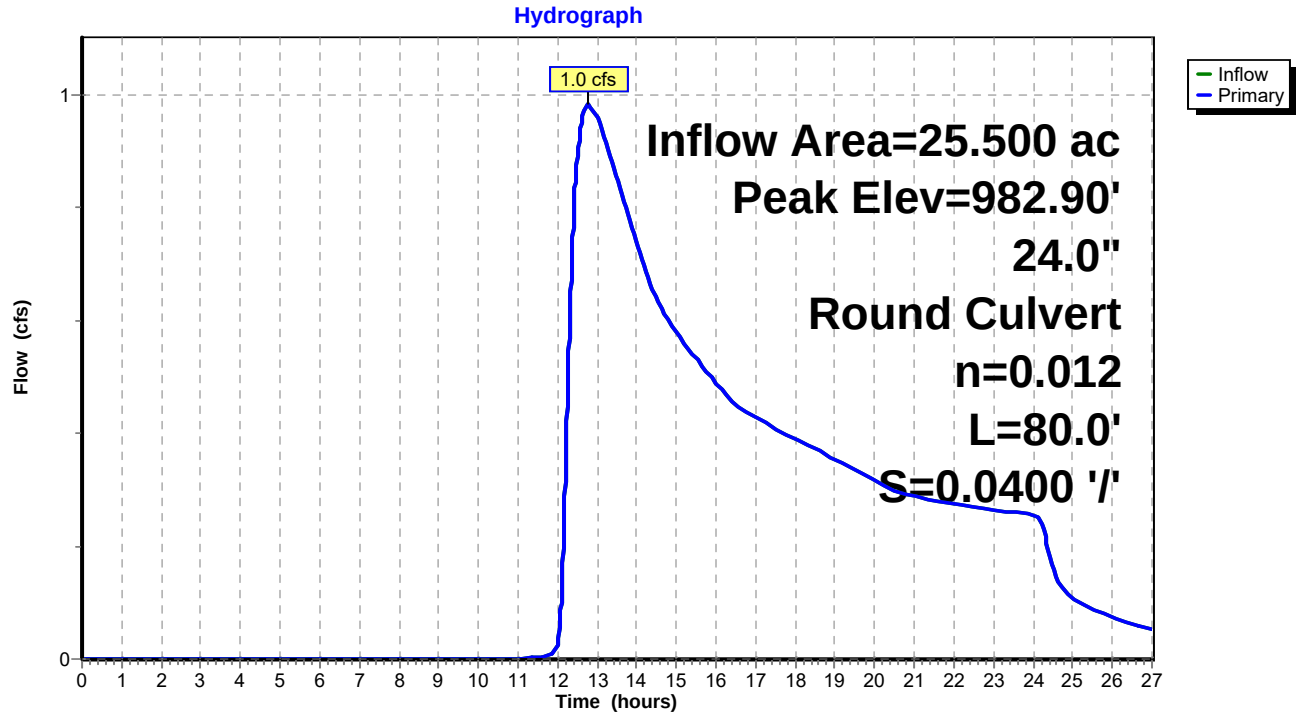
Inflow Area = 25.500 ac, 0.82% Impervious, Inflow Depth > 0.22" for 10-yr event
Inflow = 1.0 cfs @ 12.76 hrs, Volume= 0.476 af
Outflow = 1.0 cfs @ 12.76 hrs, Volume= 0.476 af, Atten= 0%, Lag= 0.0 min
Primary = 1.0 cfs @ 12.76 hrs, Volume= 0.476 af
Routed to Reach OUT-E : TO NH ROUTE 116

Routing by Dyn-Stor-Ind method, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Peak Elev= 982.90' @ 12.76 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	982.50'	**24.0" Round Culvert** L= 80.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 982.50' / 979.30' S= 0.0400 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 3.14 sf

Primary OutFlow Max=1.0 cfs @ 12.76 hrs HW=982.90' TW=0.00' (Dynamic Tailwater)
1=Culvert (Inlet Controls 1.0 cfs @ 2.17 fps)

Pond eCB1: EX. CATCH BASIN



Summary for Pond eCB2: EX. CATCH BASIN

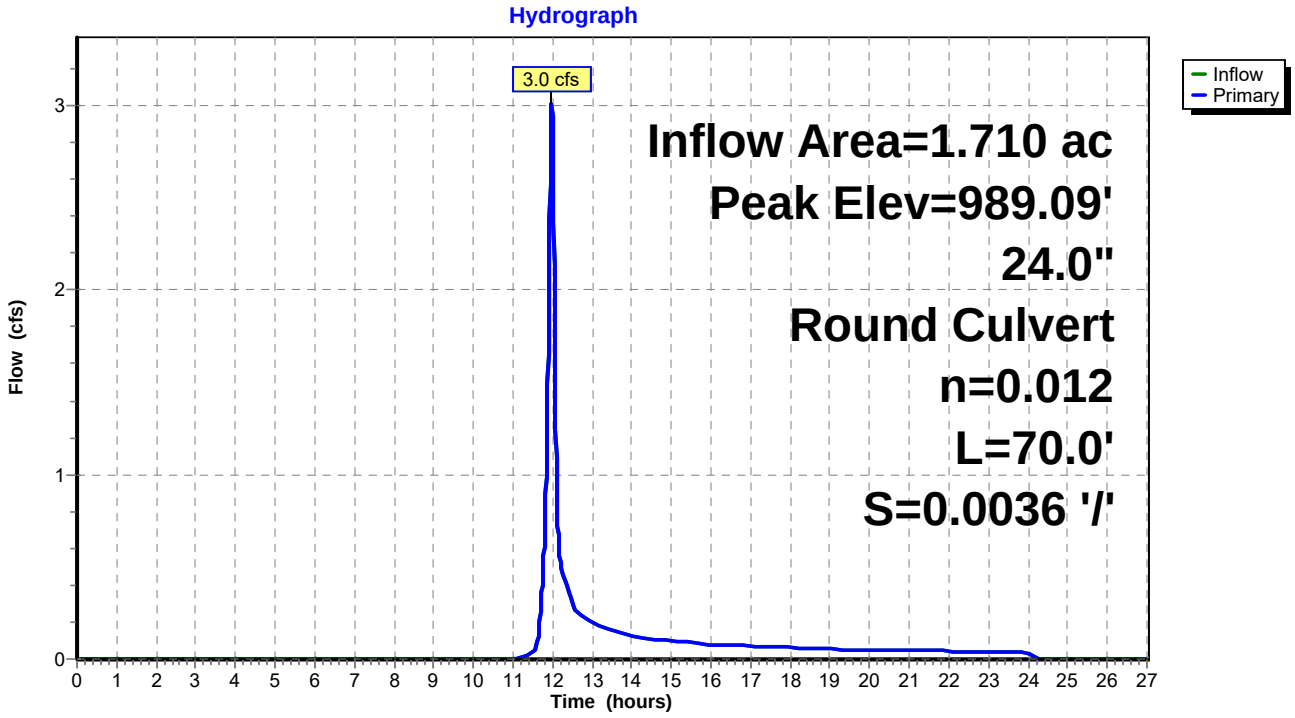
Inflow Area = 1.710 ac, 5.85% Impervious, Inflow Depth = 1.00" for 10-yr event
Inflow = 3.0 cfs @ 11.98 hrs, Volume= 0.142 af
Outflow = 3.0 cfs @ 11.98 hrs, Volume= 0.142 af, Atten= 0%, Lag= 0.0 min
Primary = 3.0 cfs @ 11.98 hrs, Volume= 0.142 af
Routed to Reach OUT-E : TO NH ROUTE 116

Routing by Dyn-Stor-Ind method, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Peak Elev= 989.09' @ 11.98 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	988.25'	**24.0" Round Culvert** L= 70.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 988.25' / 988.00' S= 0.0036 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 3.14 sf

Primary OutFlow Max=3.0 cfs @ 11.98 hrs HW=989.09' TW=0.00' (Dynamic Tailwater)
1=Culvert (Barrel Controls 3.0 cfs @ 3.54 fps)

Pond eCB2: EX. CATCH BASIN



Summary for Pond RB3: CULVERT

Inflow Area = 51.530 ac, 0.00% Impervious, Inflow Depth = 0.79" for 10-yr event
Inflow = 26.7 cfs @ 12.35 hrs, Volume= 3.406 af
Outflow = 26.7 cfs @ 12.36 hrs, Volume= 3.406 af, Atten= 0%, Lag= 0.5 min
Primary = 8.8 cfs @ 12.36 hrs, Volume= 2.677 af
Routed to Reach RB2 : WETLAND
Secondary = 17.9 cfs @ 12.36 hrs, Volume= 0.729 af
Routed to Reach RB2 : WETLAND

Routing by Dyn-Stor-Ind method, Time Span= 0.00-27.00 hrs, dt= 0.01 hrs
Peak Elev= 1,136.09' @ 12.36 hrs Surf.Area= 2,271 sf Storage= 1,450 cf

Plug-Flow detention time= 0.6 min calculated for 3.405 af (100% of inflow)
Center-of-Mass det. time= 0.6 min (905.3 - 904.7)

Volume	Invert	Avail.Storage	Storage Description
#1	1,133.25'	4,635 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,133.25	0	0	0
1,134.00	20	8	8
1,135.00	225	123	130
1,136.00	2,025	1,125	1,255
1,137.00	4,735	3,380	4,635

Device	Routing	Invert	Outlet Devices
#1	Primary	1,133.25'	**15.0" Round Culvert** L= 26.3' Ke= 0.500 Inlet / Outlet Invert= 1,133.25' / 1,132.00' S= 0.0475 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Secondary	1,135.70'	**24.0' long + 10.0 '/' SideZ x 24.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=8.8 cfs @ 12.36 hrs HW=1,136.09' TW=1,133.42' (Dynamic Tailwater)
1=Culvert (Inlet Controls 8.8 cfs @ 7.17 fps)

Secondary OutFlow Max=17.9 cfs @ 12.36 hrs HW=1,136.09' TW=1,133.42' (Dynamic Tailwater)
2=Broad-Crested Rectangular Weir (Weir Controls 17.9 cfs @ 1.64 fps)