

Existing Hydrology

Prepared by CDG

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NRCC 24-hr C 100-Year Rainfall=7.70"

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Summary for Reach DP-WI: Wetland Series/Stream I

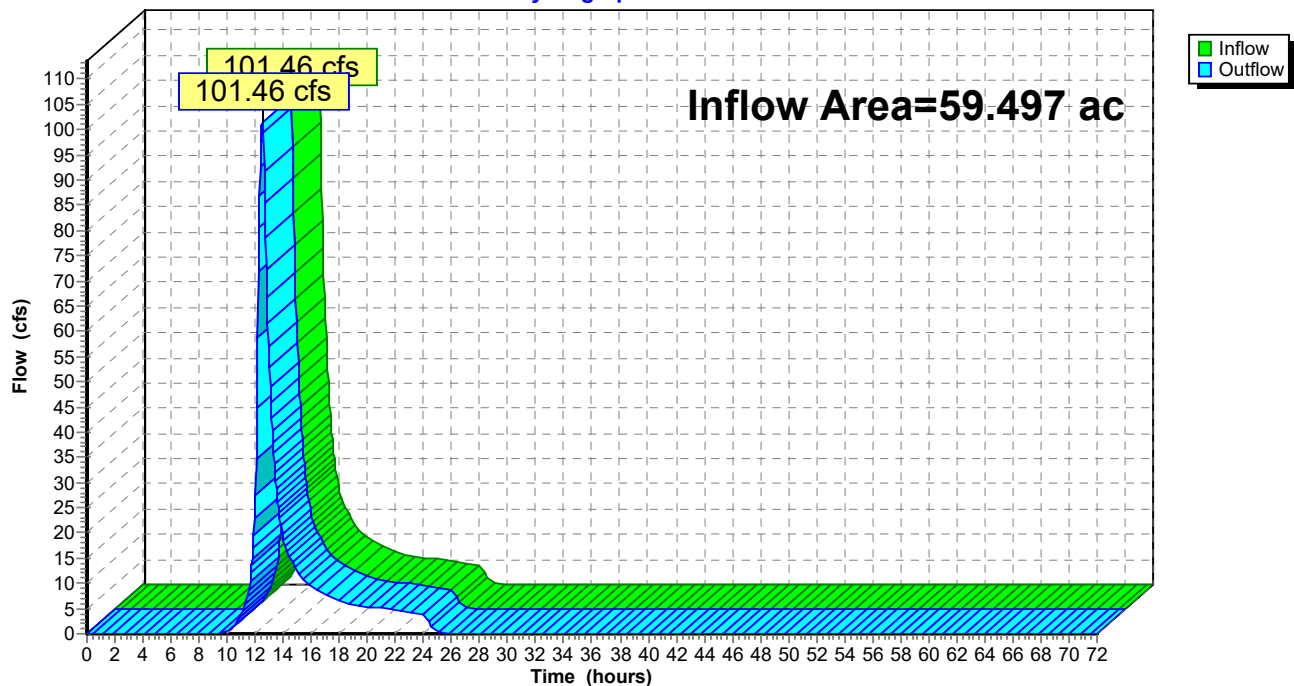
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 59.497 ac, 2.73% Impervious, Inflow Depth = 3.22" for 100-Year event
Inflow = 101.46 cfs @ 12.49 hrs, Volume= 15.947 af
Outflow = 101.46 cfs @ 12.49 hrs, Volume= 15.947 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Reach DP-WI: Wetland Series/Stream I

Hydrograph



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Summary for Pond W-N: Wetland Series N

Inflow Area = 32.842 ac, 12.95% Impervious, Inflow Depth > 2.54" for 100-Year event
 Inflow = 26.82 cfs @ 12.35 hrs, Volume= 6.944 af
 Outflow = 12.43 cfs @ 12.77 hrs, Volume= 6.856 af, Atten= 54%, Lag= 24.7 min
 Primary = 12.43 cfs @ 12.77 hrs, Volume= 6.856 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 86.94' @ 12.77 hrs Surf.Area= 28,903 sf Storage= 38,235 cf

Plug-Flow detention time= 114.1 min calculated for 6.856 af (99% of inflow)
 Center-of-Mass det. time= 80.9 min (1,629.3 - 1,548.5)

Volume	Invert	Avail.Storage	Storage Description
#1	85.50'	151,214 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
85.50	24,094	0	0	24,094
88.00	32,690	70,707	70,707	32,818
89.00	39,800	36,187	106,894	39,960
90.00	49,000	44,320	151,214	49,190

Device	Routing	Invert	Outlet Devices
#1	Primary	85.50'	24.0" Round RCP_Round 24" L= 46.2' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 85.50' / 83.90' S= 0.0346 ' S= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 3.14 sf

Primary OutFlow Max=12.42 cfs @ 12.77 hrs HW=86.94' (Free Discharge)

↑**1=RCP_Round 24"** (Inlet Controls 12.42 cfs @ 5.11 fps)

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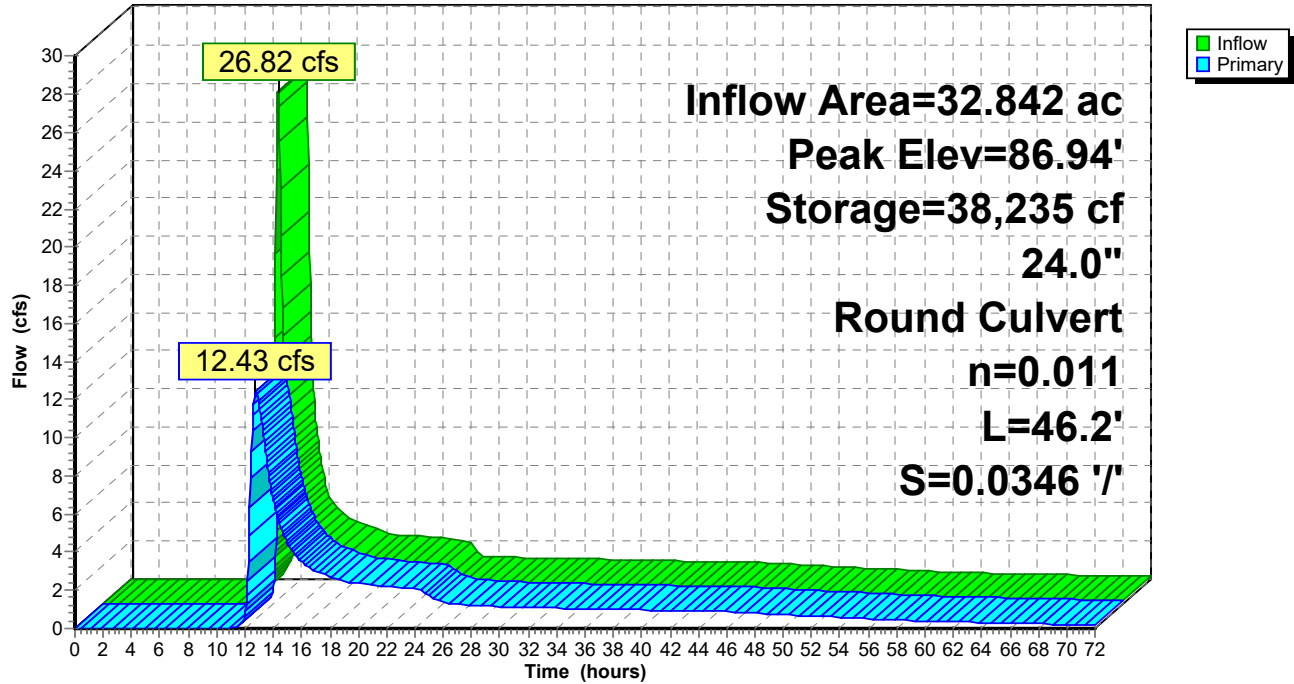
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Pond W-N: Wetland Series N

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Summary for Pond W-O: Wetland Series O

Inflow Area = 58.909 ac, 8.50% Impervious, Inflow Depth > 2.65" for 100-Year event
 Inflow = 30.12 cfs @ 12.36 hrs, Volume= 13.021 af
 Outflow = 12.19 cfs @ 12.94 hrs, Volume= 12.873 af, Atten= 60%, Lag= 34.4 min
 Primary = 12.19 cfs @ 12.94 hrs, Volume= 12.873 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 81.05' @ 12.94 hrs Surf.Area= 38,555 sf Storage= 55,148 cf

Plug-Flow detention time= 156.9 min calculated for 12.864 af (99% of inflow)
 Center-of-Mass det. time= 127.8 min (1,793.7 - 1,665.9)

Volume	Invert	Avail.Storage	Storage Description
#1	78.68'	102,529 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
78.68	16,400	0	0	16,400
80.00	20,844	24,523	24,523	20,889
81.00	37,500	28,767	53,290	37,556
82.00	62,000	49,239	102,529	62,069

Device	Routing	Invert	Outlet Devices
#1	Primary	78.68'	12.0" Round Culvert L= 172.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 78.68' / 75.00' S= 0.0214 ' S= 0.0214 ' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Primary	80.80'	20.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=12.17 cfs @ 12.94 hrs HW=81.05' (Free Discharge)

1=Culvert (Inlet Controls 4.08 cfs @ 5.20 fps)

2=Sharp-Crested Rectangular Weir (Weir Controls 8.09 cfs @ 1.63 fps)

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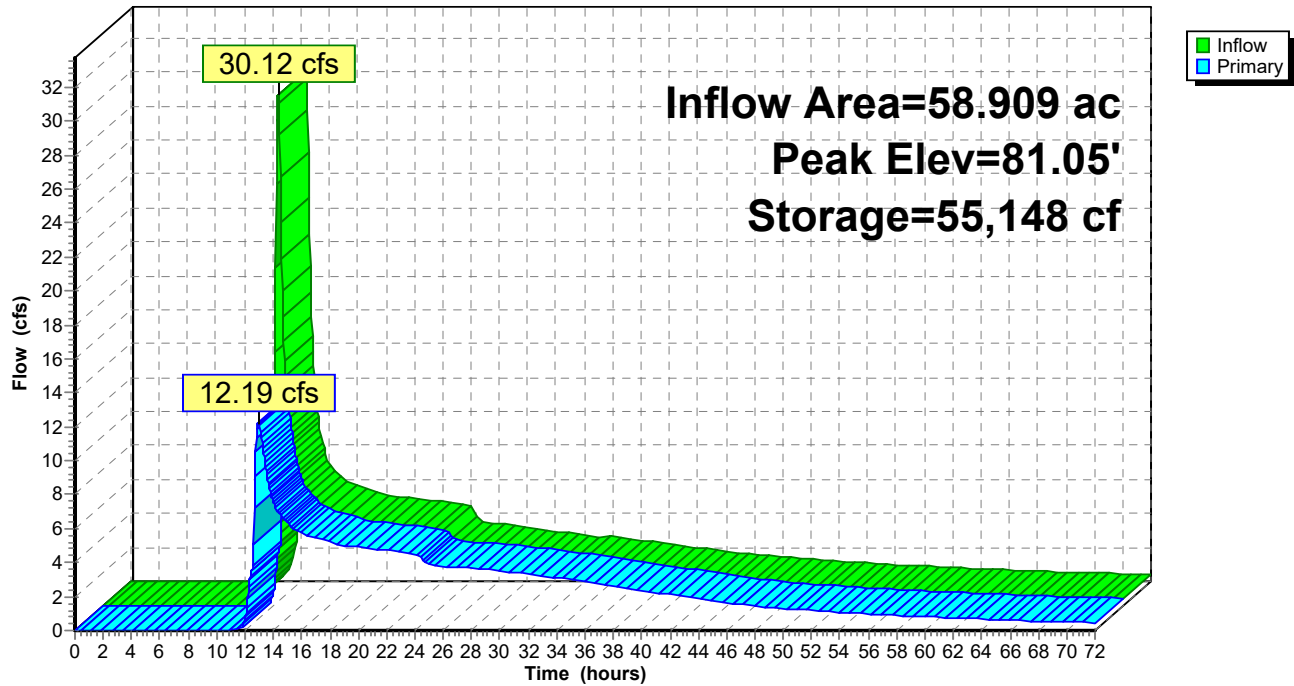
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Pond W-O: Wetland Series O

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Summary for Pond W-QP: Wetland Series Q & P

Inflow Area = 44.232 ac, 9.62% Impervious, Inflow Depth > 2.80" for 100-Year event
 Inflow = 40.54 cfs @ 12.26 hrs, Volume= 10.323 af
 Outflow = 3.67 cfs @ 18.83 hrs, Volume= 9.608 af, Atten= 91%, Lag= 394.1 min
 Primary = 3.67 cfs @ 18.83 hrs, Volume= 9.608 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 80.75' @ 18.83 hrs Surf.Area= 92,913 sf Storage= 180,096 cf

Plug-Flow detention time= 734.2 min calculated for 9.608 af (93% of inflow)
 Center-of-Mass det. time= 573.9 min (1,943.7 - 1,369.8)

Volume	Invert	Avail.Storage	Storage Description
#1	78.70'	402,154 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
78.70	82,500	0	0	82,500
83.00	105,000	402,154	402,154	105,477

Device	Routing	Invert	Outlet Devices
#1	Primary	78.70'	12.0" Round Culvert L= 20.6' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 78.70' / 78.30' S= 0.0194 ' S= 0.0194 ' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.79 sf

Primary OutFlow Max=3.67 cfs @ 18.83 hrs HW=80.75' (Free Discharge)

↑**1=Culvert** (Barrel Controls 3.67 cfs @ 4.67 fps)

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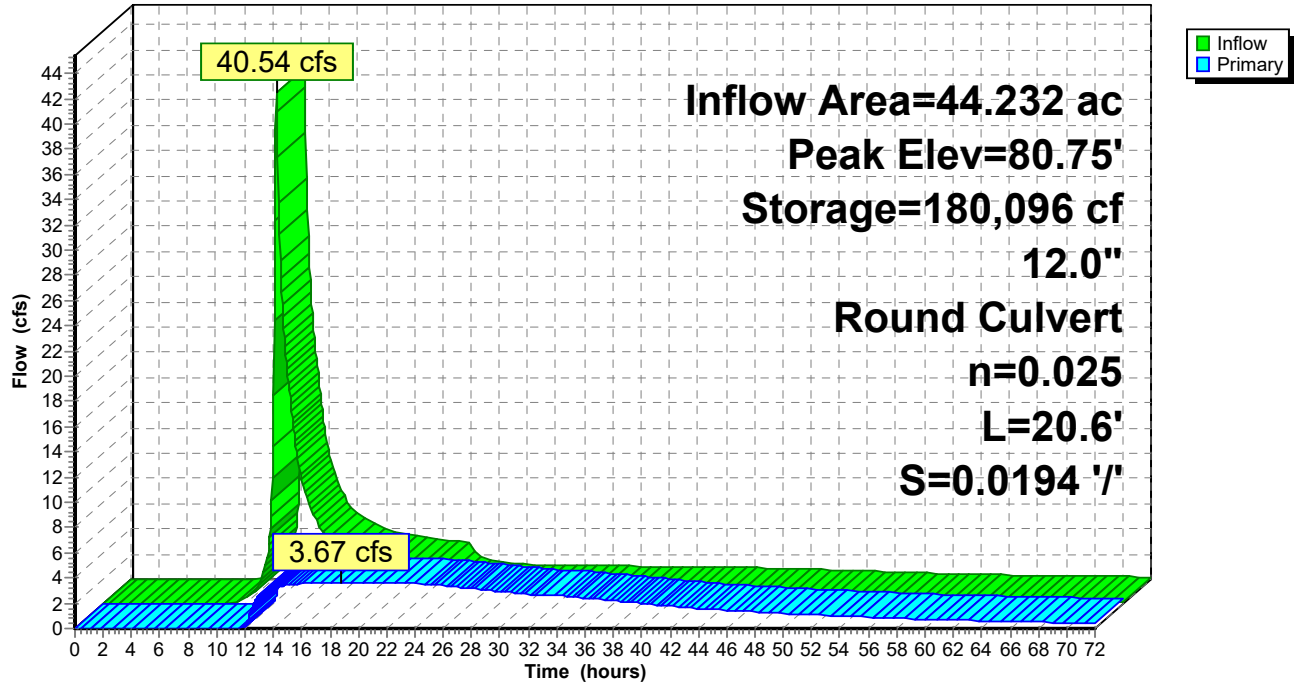
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Pond W-QP: Wetland Series Q & P

Hydrograph



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Summary for Pond W-R: Wetland Series R

Inflow Area = 19.875 ac, 21.40% Impervious, Inflow Depth = 3.76" for 100-Year event
 Inflow = 60.93 cfs @ 12.28 hrs, Volume= 6.233 af
 Outflow = 1.20 cfs @ 24.15 hrs, Volume= 3.813 af, Atten= 98%, Lag= 712.2 min
 Primary = 1.20 cfs @ 24.15 hrs, Volume= 3.813 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 88.93' @ 24.15 hrs Surf.Area= 89,999 sf Storage= 224,224 cf

Plug-Flow detention time= 1,357.0 min calculated for 3.811 af (61% of inflow)
 Center-of-Mass det. time= 1,238.7 min (2,096.1 - 857.4)

Volume	Invert	Avail.Storage	Storage Description	
#1	86.27'	521,661 cf	Custom Stage Data (Conic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
86.27	78,906	0	0	78,906
92.00	103,740	521,661	521,661	104,484

Device	Routing	Invert	Outlet Devices
#1	Primary	87.30'	8.0" Round Culvert L= 240.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 87.30' / 86.50' S= 0.0033 ' S= 0.0033 ' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.20 cfs @ 24.15 hrs HW=88.93' (Free Discharge)

↑**1=Culvert** (Barrel Controls 1.20 cfs @ 3.44 fps)

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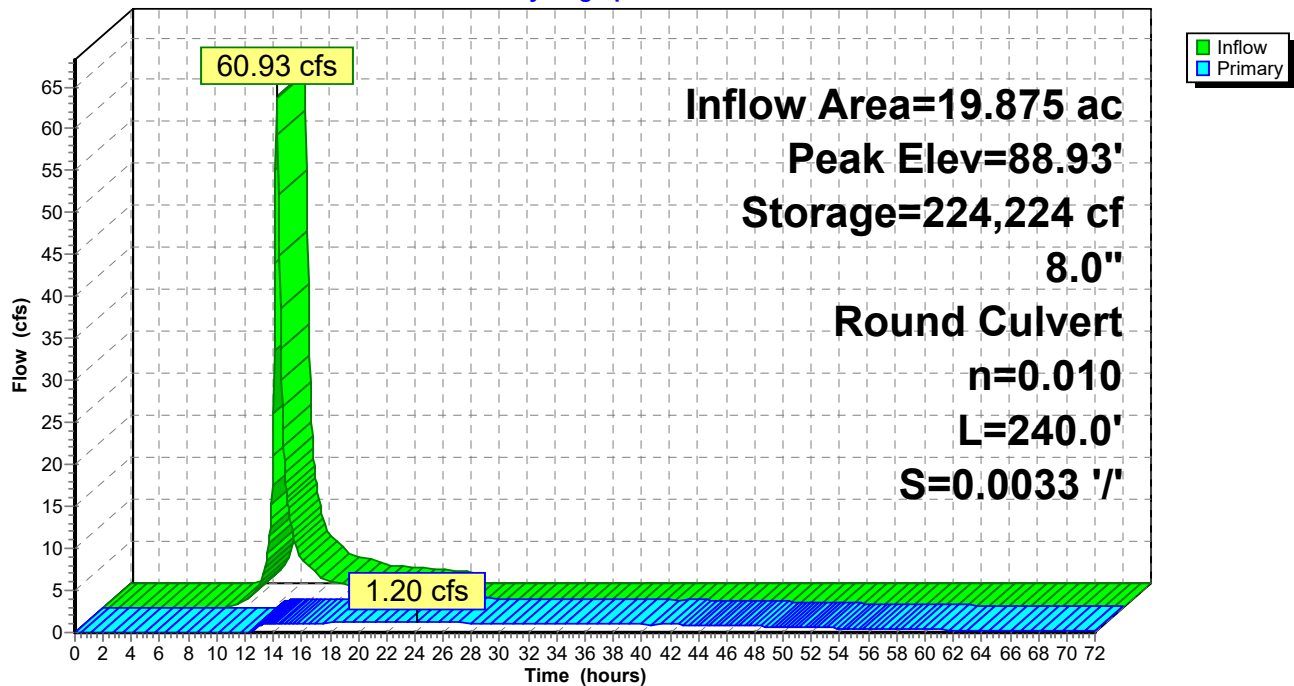
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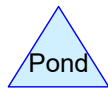
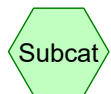
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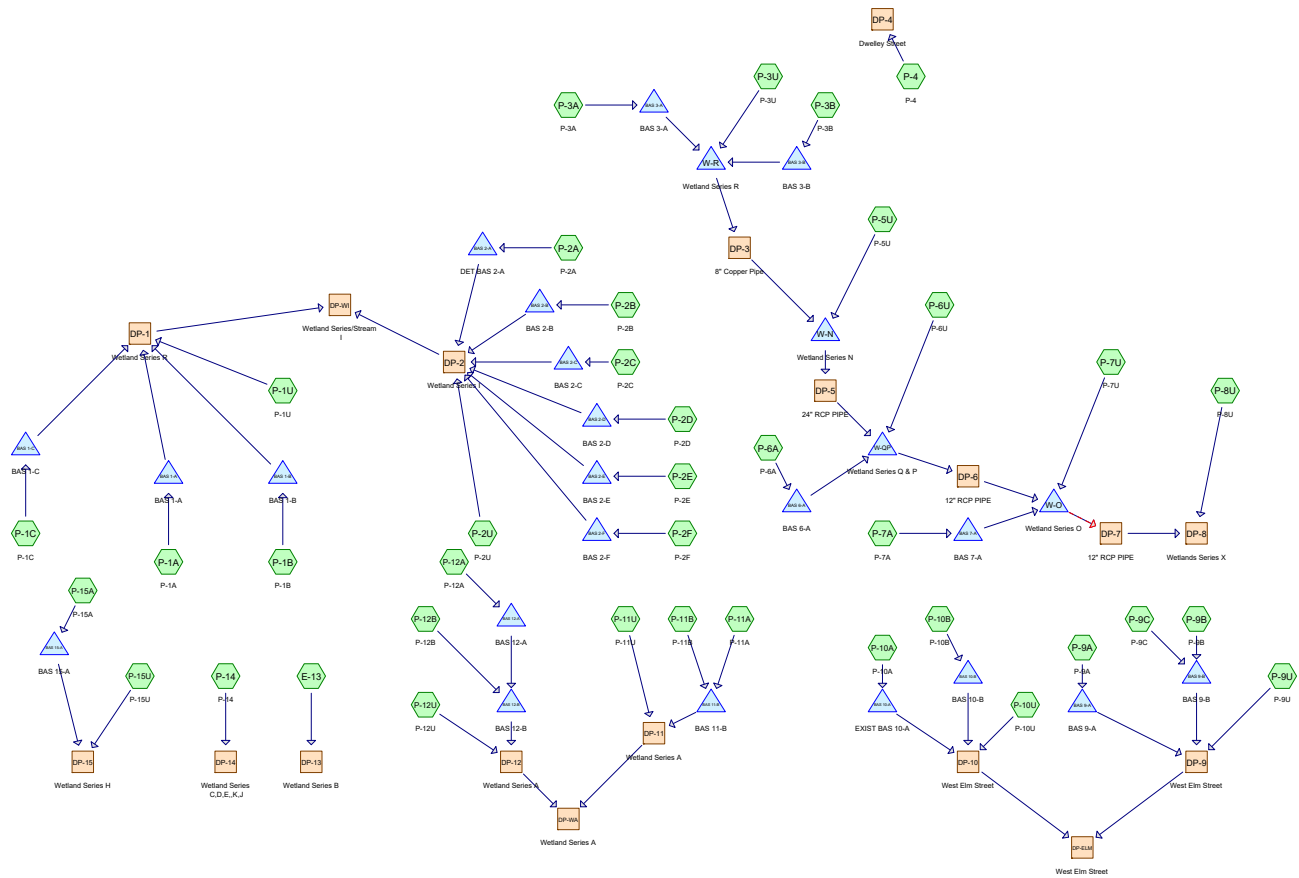
Pond W-R: Wetland Series R

Hydrograph





Routing Diagram for Proposed Hydrology
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Proposed Hydrology

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.057	98	1 unit (P-1A)
10.921	61	1/4 acre lots, 38% imp, HSG A (P-10B, P-12A, P-2A, P-2B, P-2D, P-9B)
23.179	75	1/4 acre lots, 38% imp, HSG B (P-12A, P-12B, P-2C, P-2E, P-2F, P-3A, P-3B, P-6A, P-7A)
4.800	87	1/4 acre lots, 38% imp, HSG D (P-2B, P-2C, P-2D, P-3A)
0.746	98	13 UNITS (P-3U)
0.086	98	156 LF OF ROAD (P-1C)
0.018	98	156 LF OF SIDEWALK (P-1C)
0.893	98	1620 lf of road (P-1A)
0.537	98	17 units driveway (P-1A)
0.041	98	2 UNITS DRIVEWAY (P-3U)
0.115	98	2 units roof (P-12U)
0.143	98	2.5 UNITS (P-15A)
0.258	98	4.5 UNITS (P-1U)
0.147	98	400 LF OF ROAD (P-3U)
0.184	85	500 LF GRAVEL ROAD B SOILS (P-1B)
0.072	98	630 lf of sidewalk (P-1A)
0.430	98	7.5 UNITS (P-1B)
16.091	39	>75% Grass cover, Good, HSG A (P-10A, P-10U, P-11A, P-11B, P-12A, P-12B, P-15U, P-2D, P-3U, P-4, P-5U, P-7A, P-8U, P-9A, P-9C, P-9U)
18.794	61	>75% Grass cover, Good, HSG B (P-11B, P-12A, P-12U, P-15A, P-15U, P-1A, P-1B, P-1C, P-1U, P-3U, P-5U, P-8U)
0.298	74	>75% Grass cover, Good, HSG C (P-2D)
6.161	80	>75% Grass cover, Good, HSG D (P-2D, P-3U, P-5U, P-6U, P-7U)
0.553	98	BASIN (P-15A, P-1B, P-1C, P-3A, P-3B, P-9A, P-9B)
0.363	98	EXIST Roof and Pavement (P-3U)
2.777	98	Paved parking, HSG A (P-10U, P-9C, P-9U)
0.752	98	Paved parking, HSG B (P-7U)
0.344	98	ROADS (P-9A)
0.218	98	ROOF (P-9C)
2.447	98	WETLAND, 0% imp, HSG D (P-5U, P-6U)
0.540	98	Water Surface, 0% imp, HSG A (P-7U, P-8U)
1.223	98	Wetland, HSG D (P-2U)
9.125	30	Woods, Good, HSG A (P-10A, P-10U, P-11U, P-15U, P-2D, P-3B, P-3U, P-4, P-8U, P-9A, P-9C, P-9U)
5.328	55	Woods, Good, HSG B (P-11U, P-15U, P-1A, P-1U, P-3U, P-8U)
1.669	77	Woods, Good, HSG D (P-15U, P-2D, P-3U)
15.377	32	Woods/grass comb., Good, HSG A (E-13, P-12U, P-14, P-2U, P-6U, P-7U)
31.030	58	Woods/grass comb., Good, HSG B (P-12U, P-14, P-2U, P-6U, P-7U)
20.227	72	Woods/grass comb., Good, HSG C (E-13, P-14, P-2U)
9.628	79	Woods/grass comb., Good, HSG D (P-12U, P-2U)
2.299	98	basin (P-10B, P-12A, P-12B, P-1A, P-2D, P-2E, P-2F, P-6A, P-7A)

Proposed Hydrology

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Area Listing (all nodes) (continued)

Area (acres)	CN	Description (subcatchment-numbers)
0.399	98	exist impervious (P-2D)
1.148	98	pavement parking (P-7A)
0.273	98	road with sidewalk (P-11A)
0.539	98	roof (P-10A, P-11B, P-7A, P-8U)
0.091	98	roof and pavement (P-4)
0.689	75	stone field (P-11B)
3.891	98	wetland, HSG D (P-3U)
194.904	64	TOTAL AREA

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Summary for Subcatchment E-13:

Runoff = 0.04 cfs @ 12.60 hrs, Volume= 0.018 af, Depth= 0.17"

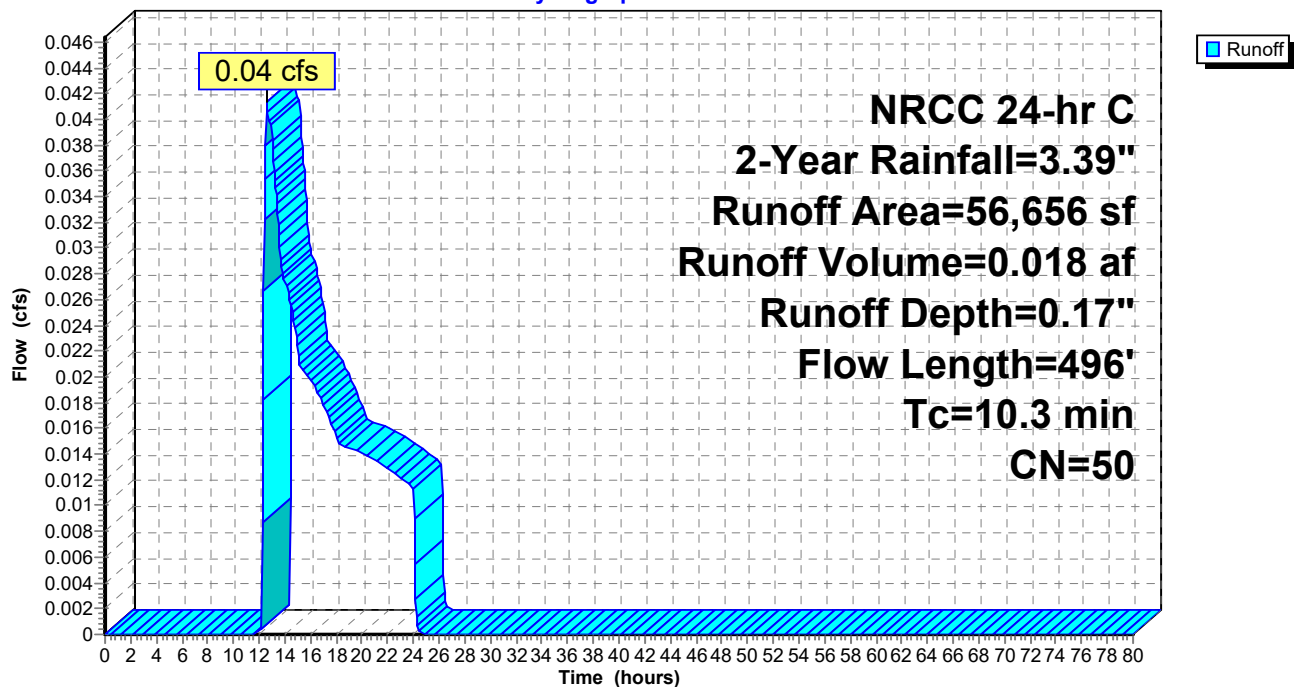
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

Area (sf)	CN	Description
30,938	32	Woods/grass comb., Good, HSG A
25,718	72	Woods/grass comb., Good, HSG C
56,656	50	Weighted Average
56,656		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	50	0.0160	0.14		Sheet Flow, Grass Grass: Short n= 0.150 P2= 3.37"
2.1	194	0.0479	1.53		Shallow Concentrated Flow, HR-C Short Grass Pasture Kv= 7.0 fps
2.2	252	0.0748	1.91		Shallow Concentrated Flow, HR-A Short Grass Pasture Kv= 7.0 fps
10.3	496	Total			

Subcatchment E-13:

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Summary for Subcatchment P-10A: P-10A

[45] Hint: Runoff=Zero

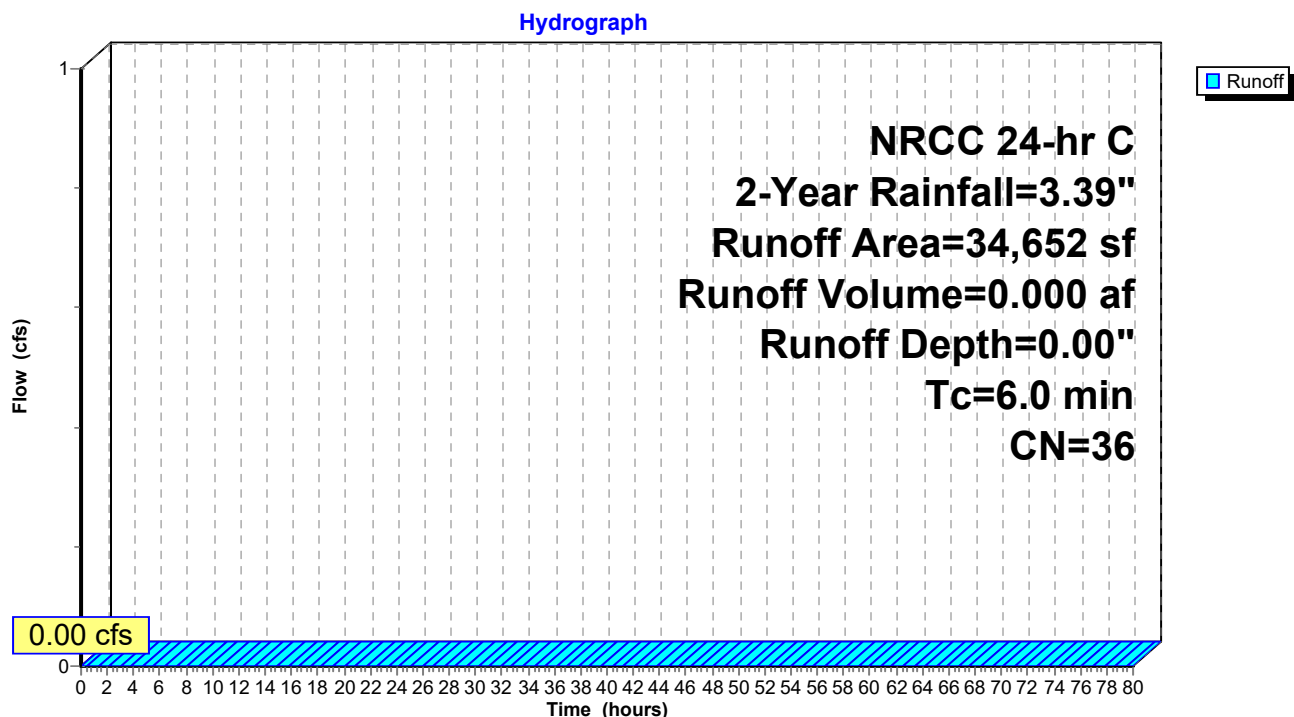
Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

	Area (sf)	CN	Description
*	2,500	98	roof
	2,500	39	>75% Grass cover, Good, HSG A
	29,652	30	Woods, Good, HSG A
	34,652	36	Weighted Average
	32,152		92.79% Pervious Area
	2,500		7.21% Impervious Area

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

Subcatchment P-10A: P-10A



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Summary for Subcatchment P-10B: P-10B

Runoff = 0.74 cfs @ 12.15 hrs, Volume= 0.063 af, Depth= 0.56"

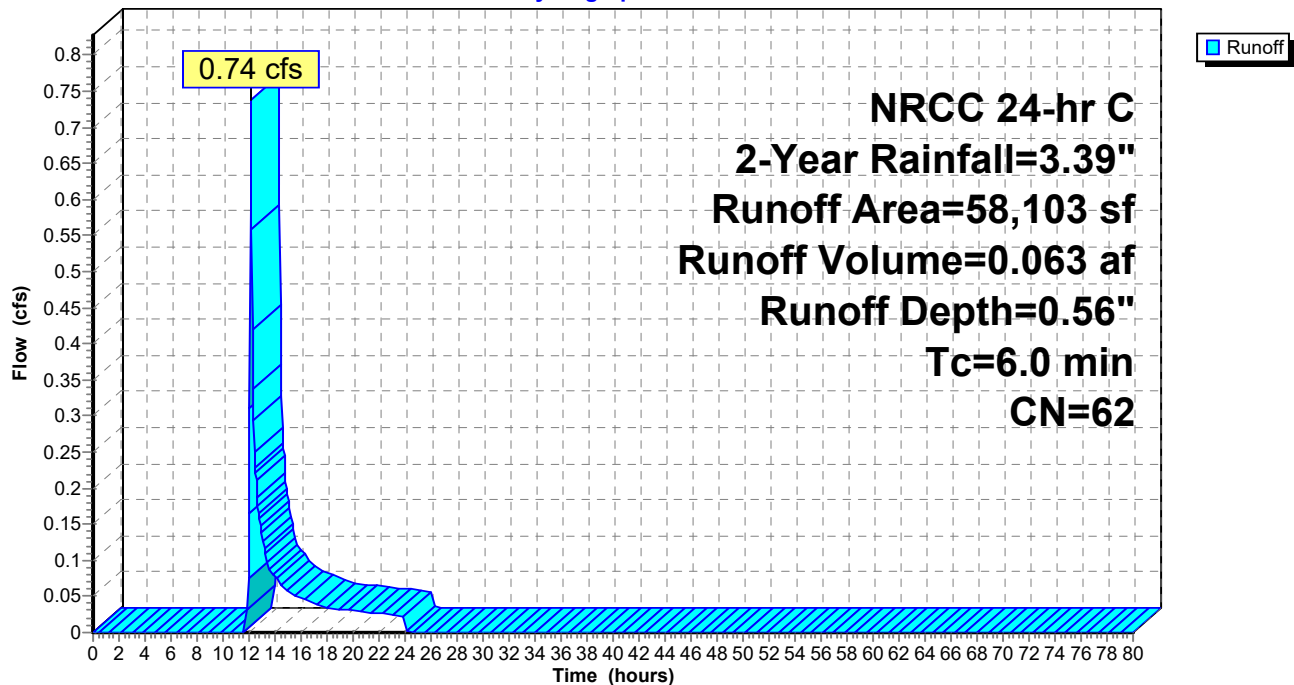
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

	Area (sf)	CN	Description
*	2,050	98	basin
	56,053	61	1/4 acre lots, 38% imp, HSG A
	58,103	62	Weighted Average
	34,753		59.81% Pervious Area
	23,350		40.19% Impervious Area

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

Subcatchment P-10B: P-10B

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Summary for Subcatchment P-10U: P-10U

[45] Hint: Runoff=Zero

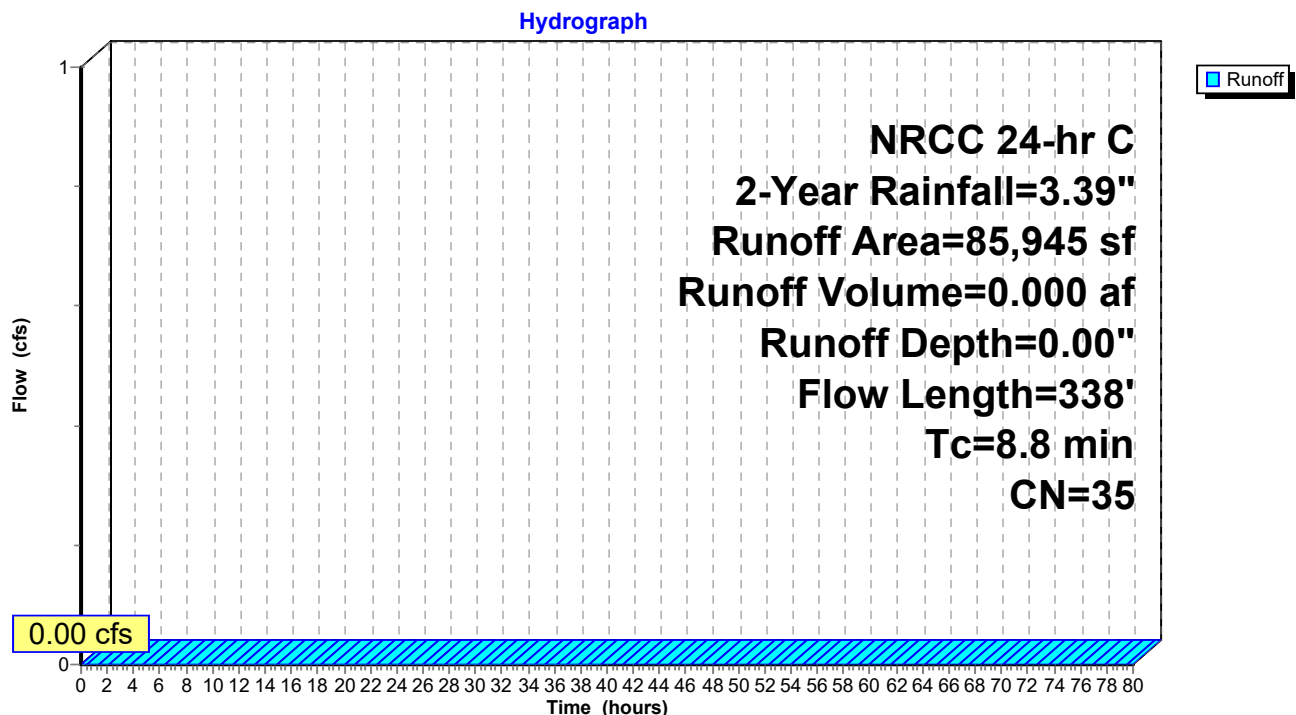
Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

Area (sf)	CN	Description
4,986	98	Paved parking, HSG A
68,659	30	Woods, Good, HSG A
12,300	39	>75% Grass cover, Good, HSG A
85,945	35	Weighted Average
80,959		94.20% Pervious Area
4,986		5.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	50	0.0784	0.12		Sheet Flow, Wooded Woods: Light underbrush n= 0.400 P2= 3.37"
1.3	138	0.1246	1.76		Shallow Concentrated Flow, Wooded Woodland Kv= 5.0 fps
0.5	150	0.0729	5.48		Shallow Concentrated Flow, Paved Paved Kv= 20.3 fps
8.8	338	Total			

Subcatchment P-10U: P-10U



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Summary for Subcatchment P-11A: P-11A

Runoff = 0.82 cfs @ 12.13 hrs, Volume= 0.056 af, Depth= 1.92"

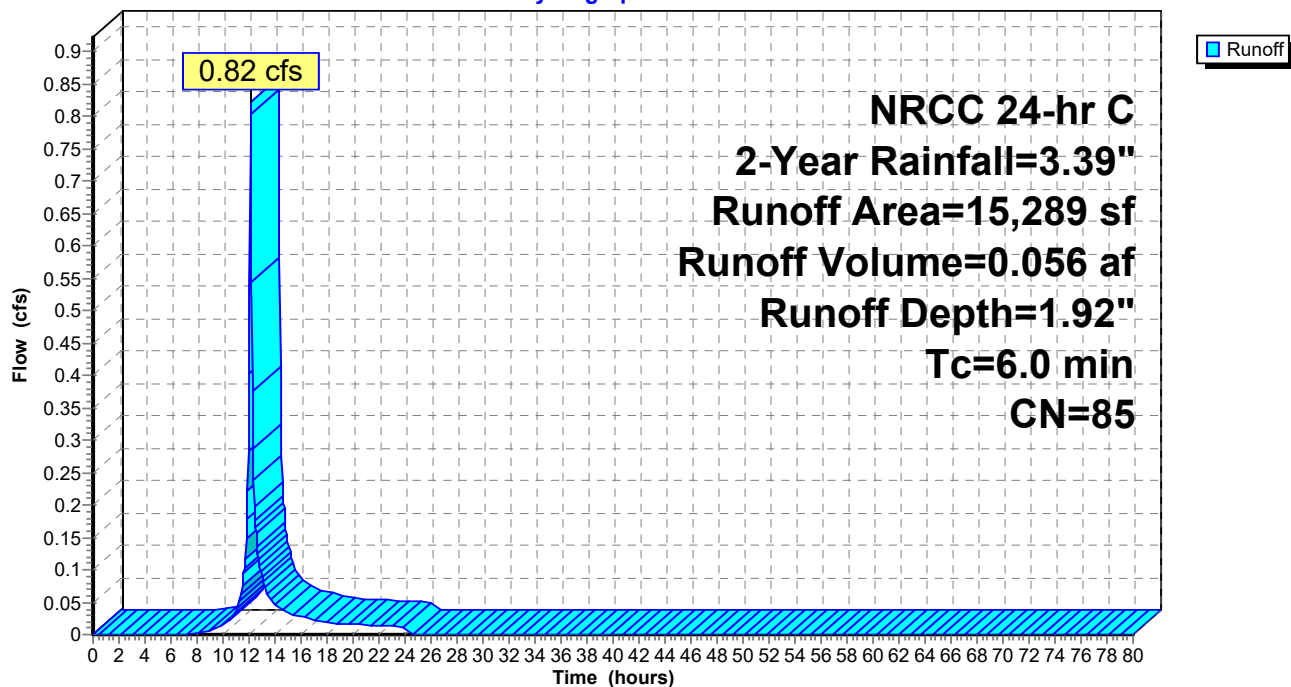
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

Area (sf)	CN	Description
3,400	39	>75% Grass cover, Good, HSG A
* 11,889	98	road with sidewalk
15,289	85	Weighted Average
3,400		22.24% Pervious Area
11,889		77.76% Impervious Area

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

Subcatchment P-11A: P-11A

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Summary for Subcatchment P-11B: P-11B

Runoff = 0.44 cfs @ 12.20 hrs, Volume= 0.092 af, Depth= 0.28"

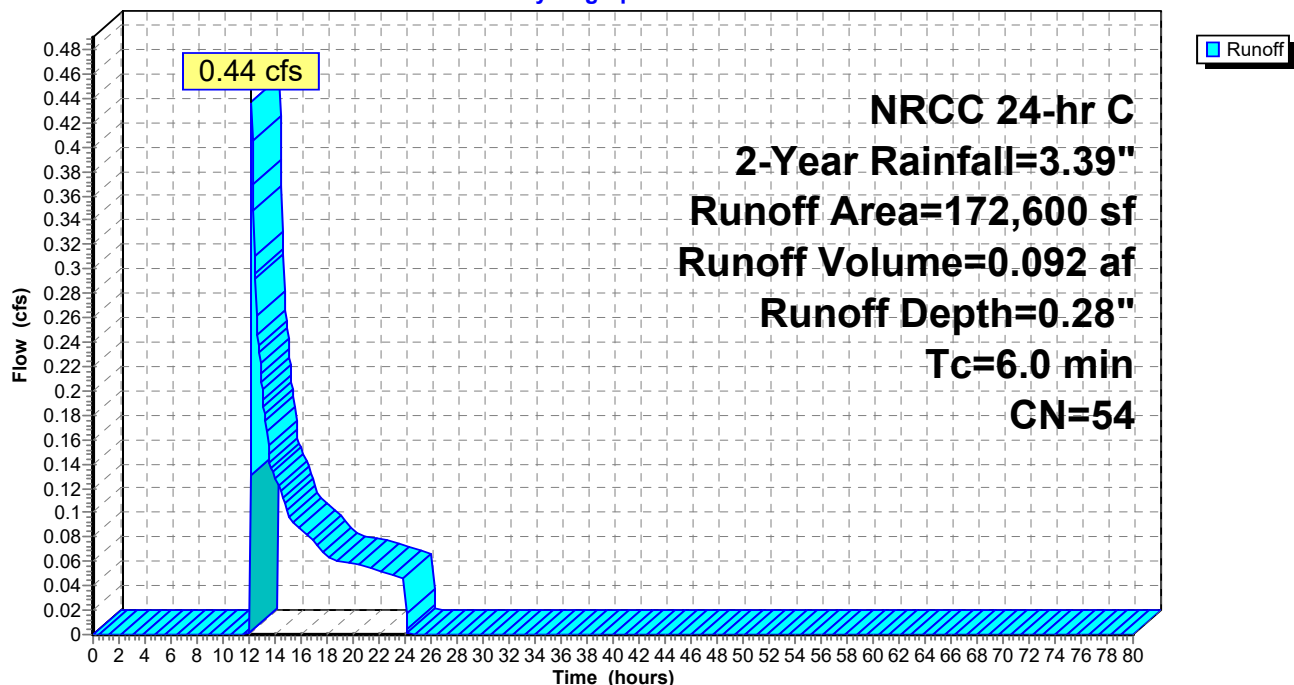
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

	Area (sf)	CN	Description
*	9,500	98	roof
	87,100	39	>75% Grass cover, Good, HSG A
	46,000	61	>75% Grass cover, Good, HSG B
*	30,000	75	stone field
	172,600	54	Weighted Average
	163,100		94.50% Pervious Area
	9,500		5.50% Impervious Area

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

Subcatchment P-11B: P-11B

Hydrograph



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NRCC 24-hr C 2-Year Rainfall=3.39"

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Summary for Subcatchment P-11U: P-11U

Runoff = 0.00 cfs @ 24.02 hrs, Volume= 0.000 af, Depth= 0.00"

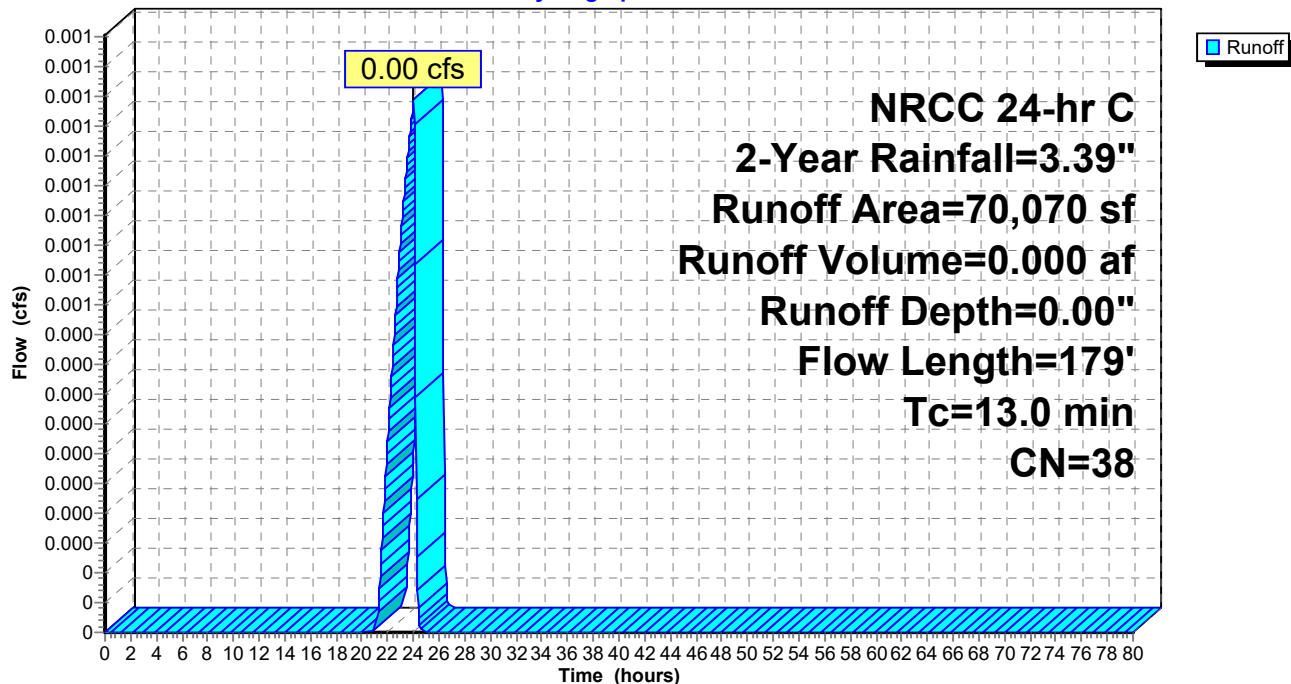
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

Area (sf)	CN	Description
23,000	55	Woods, Good, HSG B
47,070	30	Woods, Good, HSG A
70,070	38	Weighted Average
70,070		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	50	0.0880	0.07		Sheet Flow, Sheet Flow Woods: Dense underbrush n= 0.800 P2= 3.37"
1.4	129	0.0942	1.53		Shallow Concentrated Flow, HR-B Woodland Kv= 5.0 fps
13.0	179	Total			

Subcatchment P-11U: P-11U

Hydrograph



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Summary for Subcatchment P-12A: P-12A

Runoff = 6.25 cfs @ 12.14 hrs, Volume= 0.458 af, Depth= 0.84"

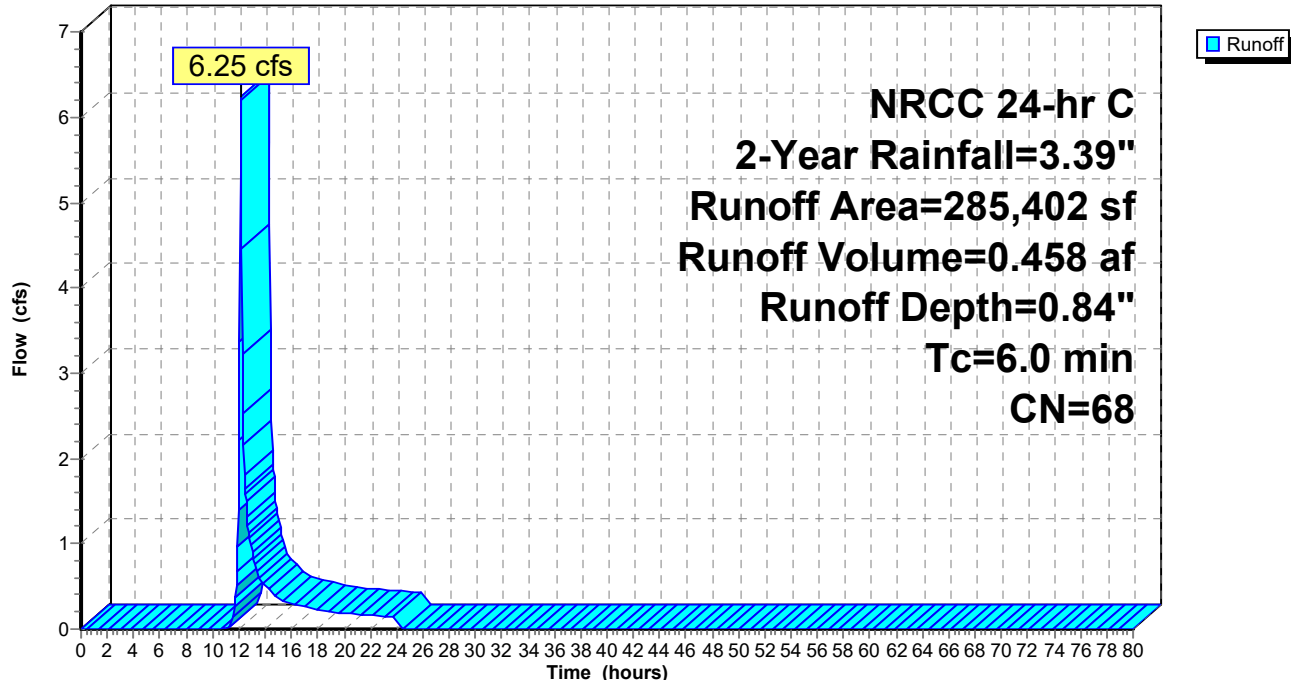
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

	Area (sf)	CN	Description
*	9,500	98	basin
	138,400	75	1/4 acre lots, 38% imp, HSG B
	33,000	61	1/4 acre lots, 38% imp, HSG A
	87,300	61	>75% Grass cover, Good, HSG B
	17,202	39	>75% Grass cover, Good, HSG A
	285,402	68	Weighted Average
	210,770		73.85% Pervious Area
	74,632		26.15% Impervious Area

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

Subcatchment P-12A: P-12A

Hydrograph



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Summary for Subcatchment P-12B: P-12B

Runoff = 1.78 cfs @ 12.16 hrs, Volume= 0.213 af, Depth= 0.38"

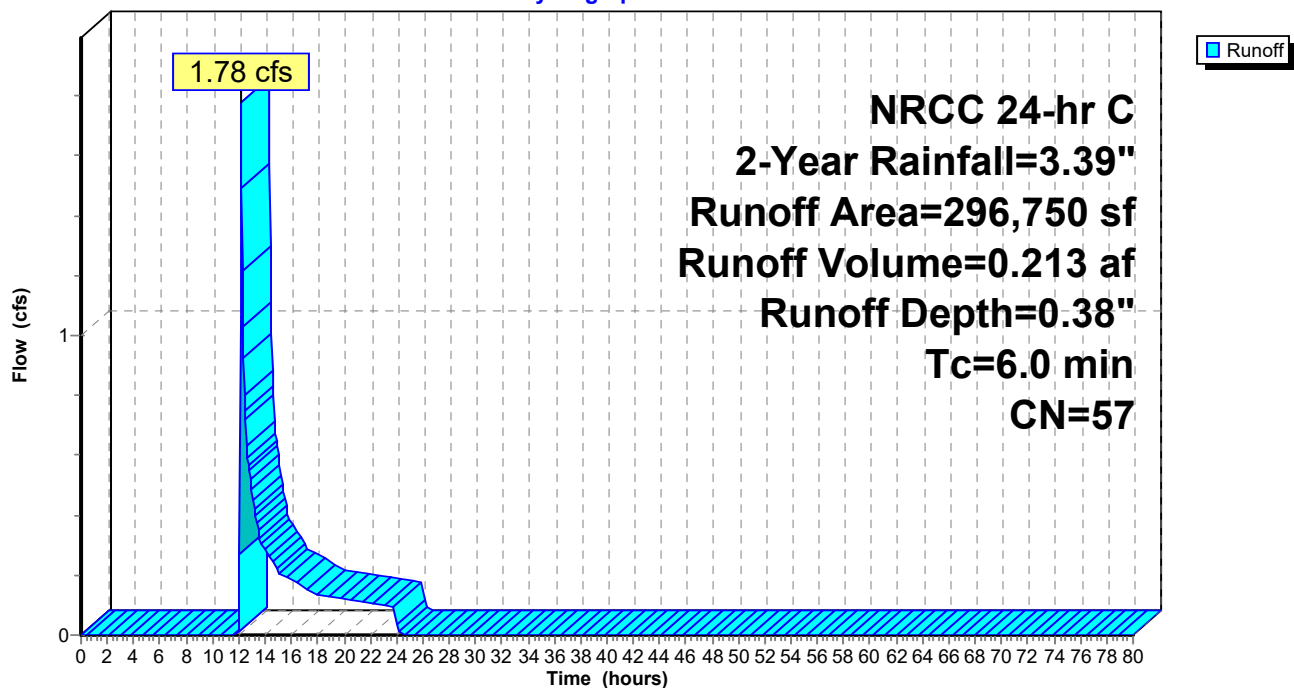
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

	Area (sf)	CN	Description
*	24,250	98	basin
	110,800	75	1/4 acre lots, 38% imp, HSG B
	161,700	39	>75% Grass cover, Good, HSG A
	296,750	57	Weighted Average
	230,396		77.64% Pervious Area
	66,354		22.36% Impervious Area

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

Subcatchment P-12B: P-12B

Hydrograph



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Summary for Subcatchment P-12U: P-12U

Runoff = 0.03 cfs @ 14.36 hrs, Volume= 0.025 af, Depth= 0.08"

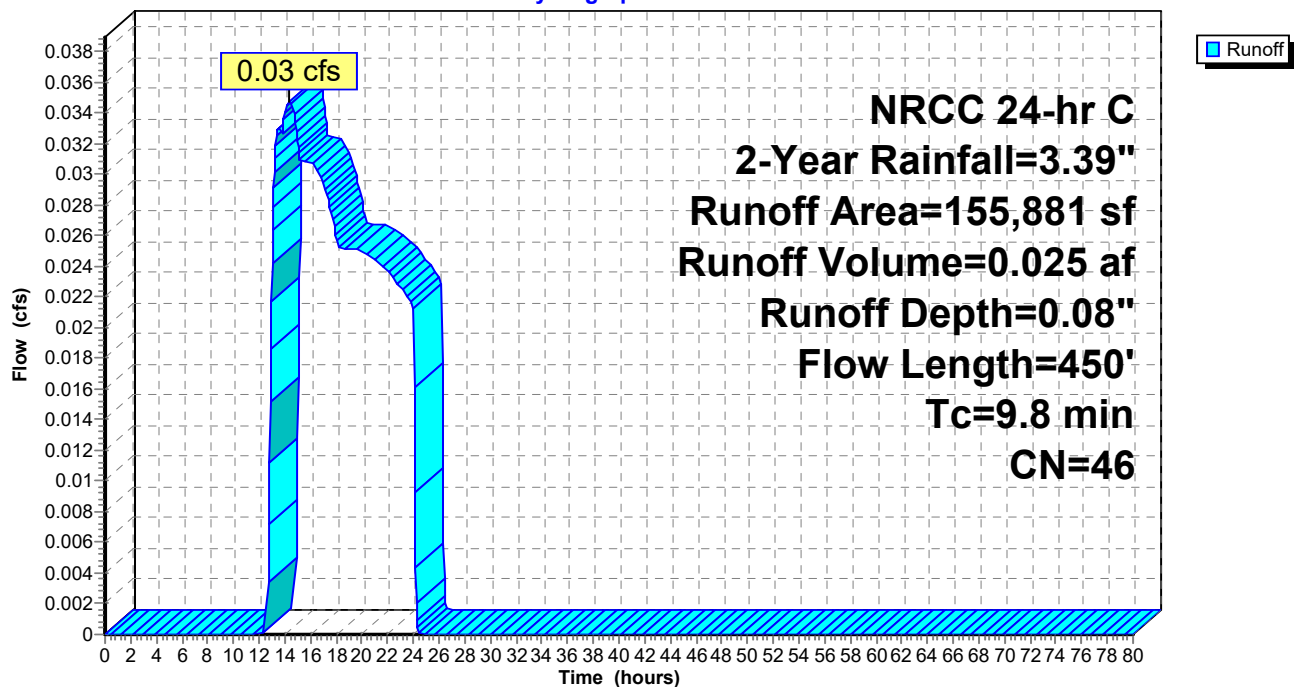
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

Area (sf)	CN	Description
80,000	32	Woods/grass comb., Good, HSG A
59,250	58	Woods/grass comb., Good, HSG B
900	79	Woods/grass comb., Good, HSG D
* 5,000	98	2 units roof
10,731	61	>75% Grass cover, Good, HSG B
155,881	46	Weighted Average
150,881		96.79% Pervious Area
5,000		3.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.9	50	0.1200	0.14		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.37"
3.9	400	0.0600	1.71		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
9.8	450	Total			

Subcatchment P-12U: P-12U

Hydrograph



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Summary for Subcatchment P-14: P-14

Runoff = 5.99 cfs @ 12.39 hrs, Volume= 1.044 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

Area (sf)	CN	Description
268,666	32	Woods/grass comb., Good, HSG A
329,442	58	Woods/grass comb., Good, HSG B
623,088	72	Woods/grass comb., Good, HSG C
1,221,196	59	Weighted Average
1,221,196		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0200	0.17		Sheet Flow, Grass Grass: Short n= 0.150 P2= 3.37"
0.8	25	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.2	185	0.0417	1.43		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.3	31	0.0470	1.52		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.5	173	0.0279	1.17		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.8	75	0.0514	1.59		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.1	181	0.0409	1.42		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.1	82	0.0343	1.30		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.7	129	0.0339	1.29		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
21.0	981	Total			

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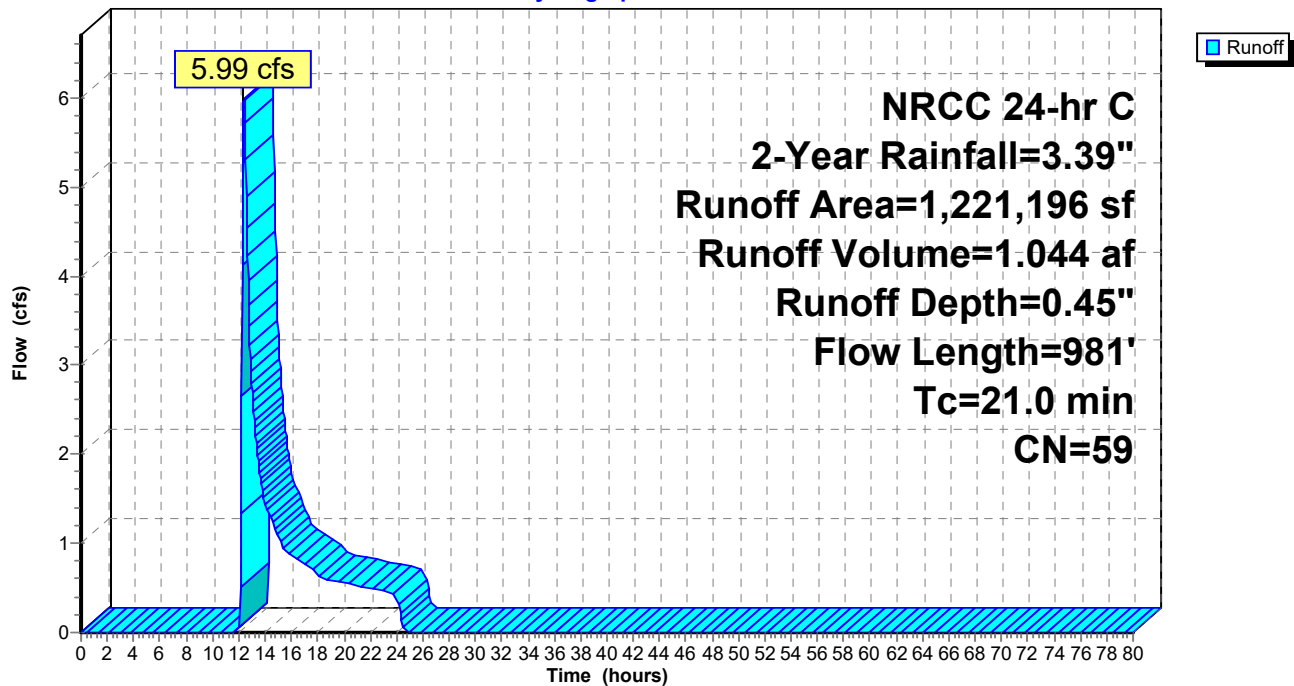
NRCC 24-hr C 2-Year Rainfall=3.39"

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Subcatchment P-14: P-14

Hydrograph



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Summary for Subcatchment P-15A: P-15A

Runoff = 0.61 cfs @ 12.14 hrs, Volume= 0.042 af, Depth= 1.29"

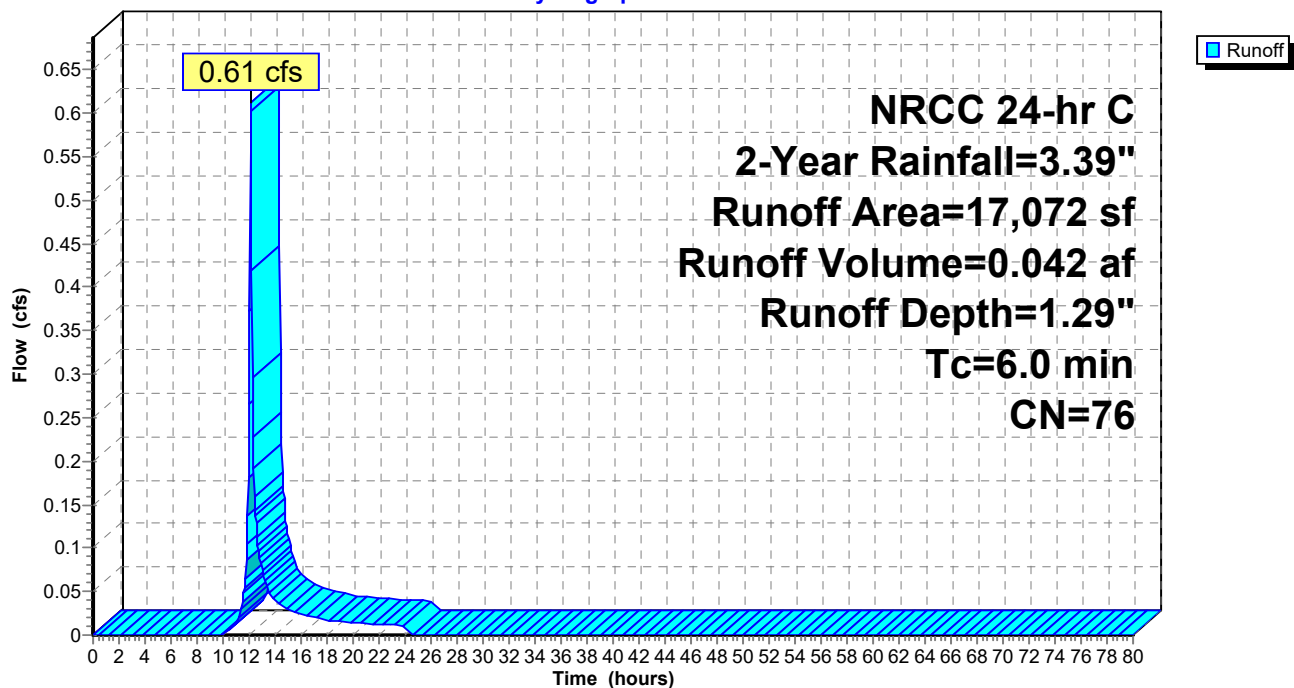
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

	Area (sf)	CN	Description
*	780	98	BASIN
*	6,250	98	2.5 UNITS
	10,042	61	>75% Grass cover, Good, HSG B
	17,072	76	Weighted Average
	10,042		58.82% Pervious Area
	7,030		41.18% Impervious Area

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

Subcatchment P-15A: P-15A

Hydrograph



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Summary for Subcatchment P-15U: P-15U

Runoff = 0.05 cfs @ 12.61 hrs, Volume= 0.024 af, Depth= 0.17"

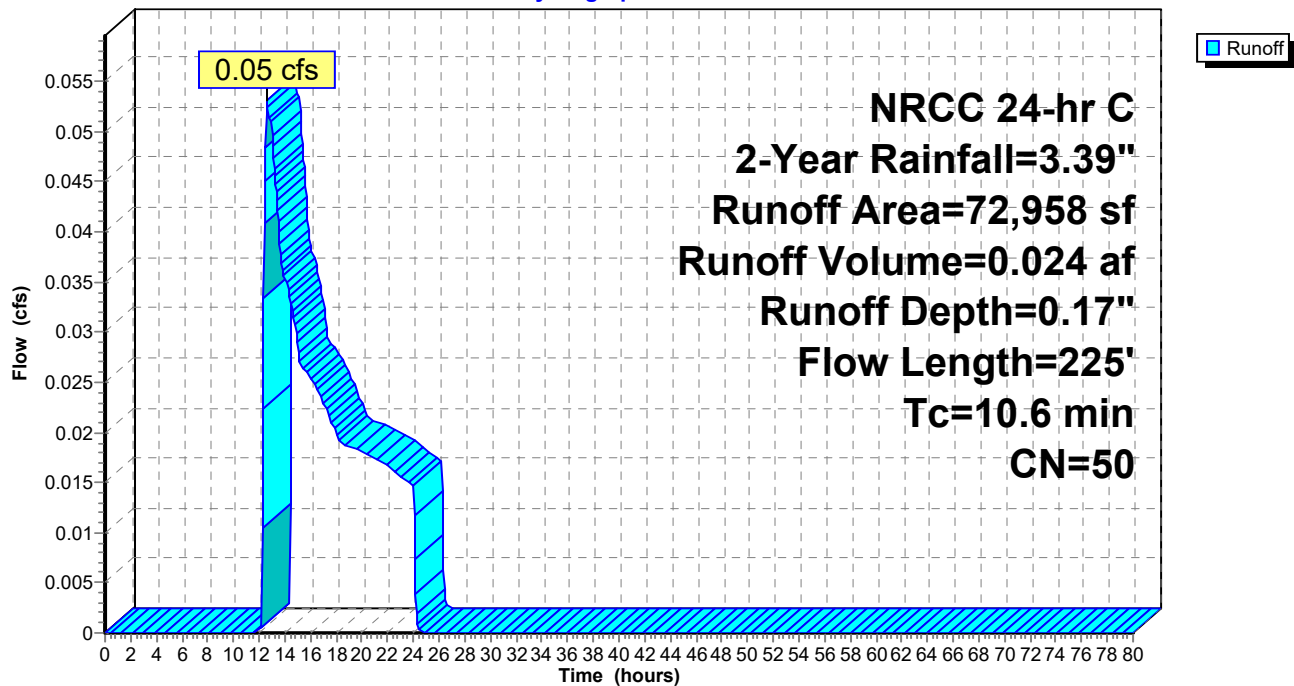
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

Area (sf)	CN	Description
13,300	55	Woods, Good, HSG B
26,658	61	>75% Grass cover, Good, HSG B
22,600	30	Woods, Good, HSG A
5,500	77	Woods, Good, HSG D
4,900	39	>75% Grass cover, Good, HSG A
72,958	50	Weighted Average
72,958		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	50	0.0500	0.10		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.37"
2.3	175	0.0650	1.27		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
10.6	225	Total			

Subcatchment P-15U: P-15U

Hydrograph



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Summary for Subcatchment P-1A: P-1A

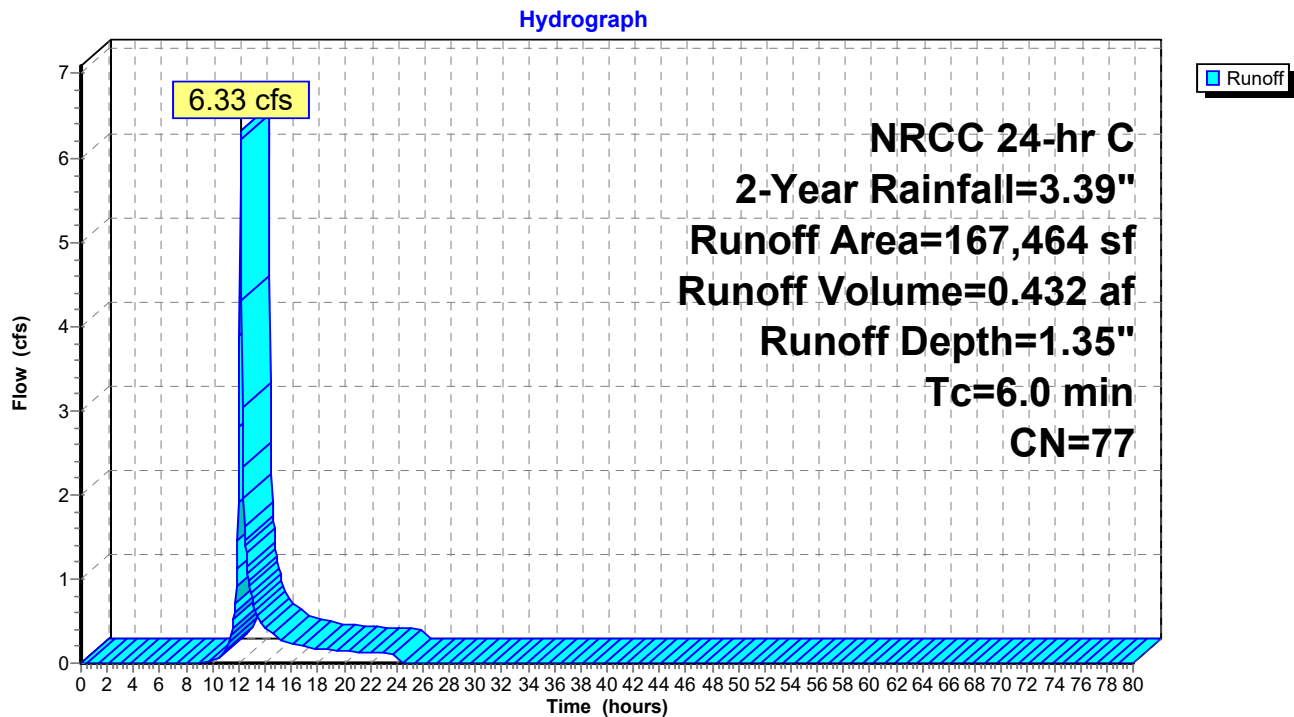
Runoff = 6.33 cfs @ 12.13 hrs, Volume= 0.432 af, Depth= 1.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

	Area (sf)	CN	Description
*	5,750	98	basin
*	38,880	98	1620 lf of road
*	3,150	98	630 lf of sidewalk
*	2,500	98	1 unit
*	23,400	98	17 units driveway
	7,380	55	Woods, Good, HSG B
	86,404	61	>75% Grass cover, Good, HSG B
	167,464	77	Weighted Average
	93,784		56.00% Pervious Area
	73,680		44.00% Impervious Area

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

Subcatchment P-1A: P-1A



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Summary for Subcatchment P-1B: P-1B

Runoff = 2.70 cfs @ 12.37 hrs, Volume= 0.364 af, Depth= 0.70"

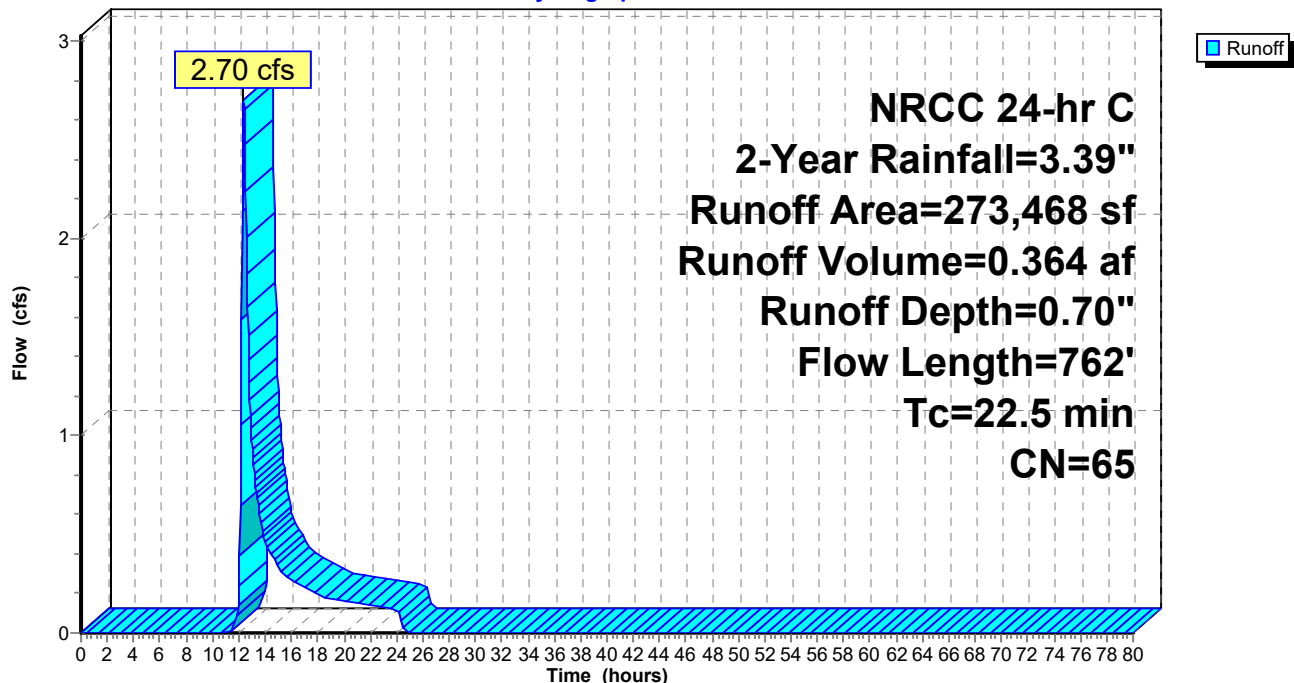
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

Area (sf)	CN	Description
* 3,150	98	BASIN
* 8,000	85	500 LF GRAVEL ROAD B SOILS
* 18,750	98	7.5 UNITS
243,568	61	>75% Grass cover, Good, HSG B
273,468	65	Weighted Average
251,568		91.99% Pervious Area
21,900		8.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.5	50	0.0200	0.15		Sheet Flow, Grass: Short n= 0.150 P2= 3.37"
17.0	712	0.0100	0.70		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
22.5	762	Total			

Subcatchment P-1B: P-1B

Hydrograph



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Summary for Subcatchment P-1C: P-1C

Runoff = 0.38 cfs @ 12.13 hrs, Volume= 0.026 af, Depth= 2.17"

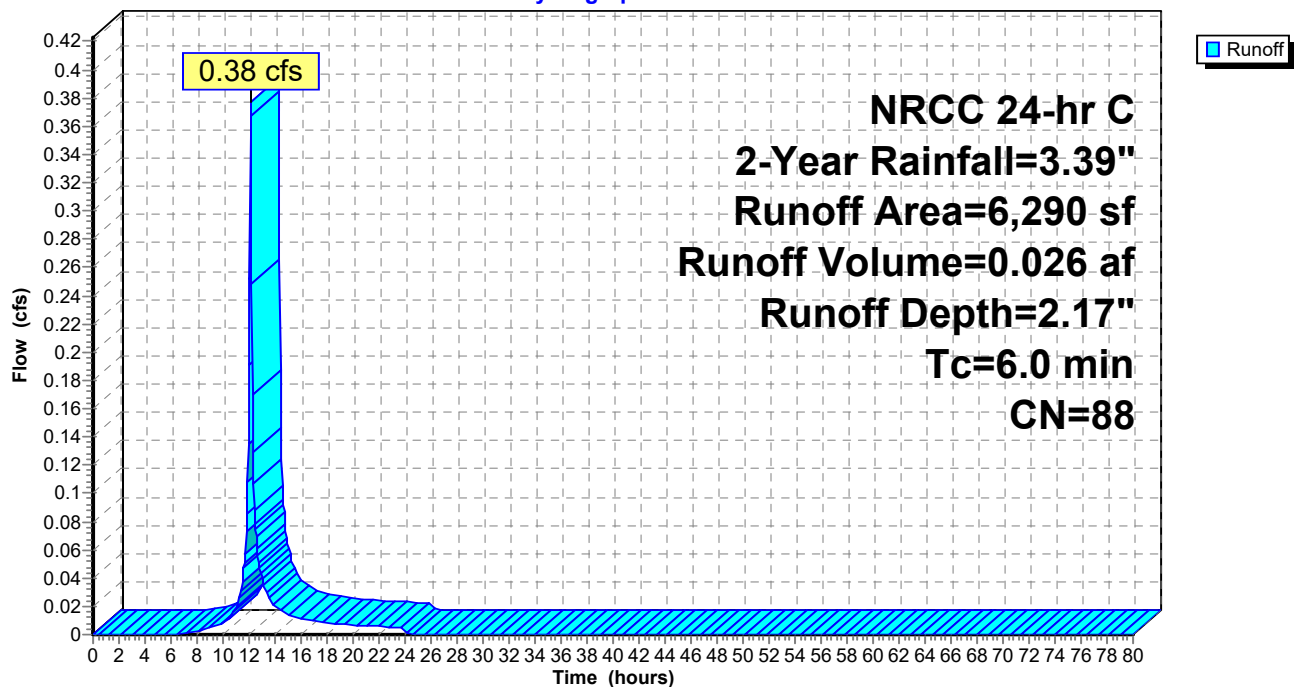
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

	Area (sf)	CN	Description
*	70	98	BASIN
*	3,744	98	156 LF OF ROAD
*	780	98	156 LF OF SIDEWALK
	1,696	61	>75% Grass cover, Good, HSG B
	6,290	88	Weighted Average
	1,696		26.96% Pervious Area
	4,594		73.04% Impervious Area

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

Subcatchment P-1C: P-1C

Hydrograph



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Summary for Subcatchment P-1U: P-1U

Runoff = 1.67 cfs @ 12.24 hrs, Volume= 0.200 af, Depth= 0.52"

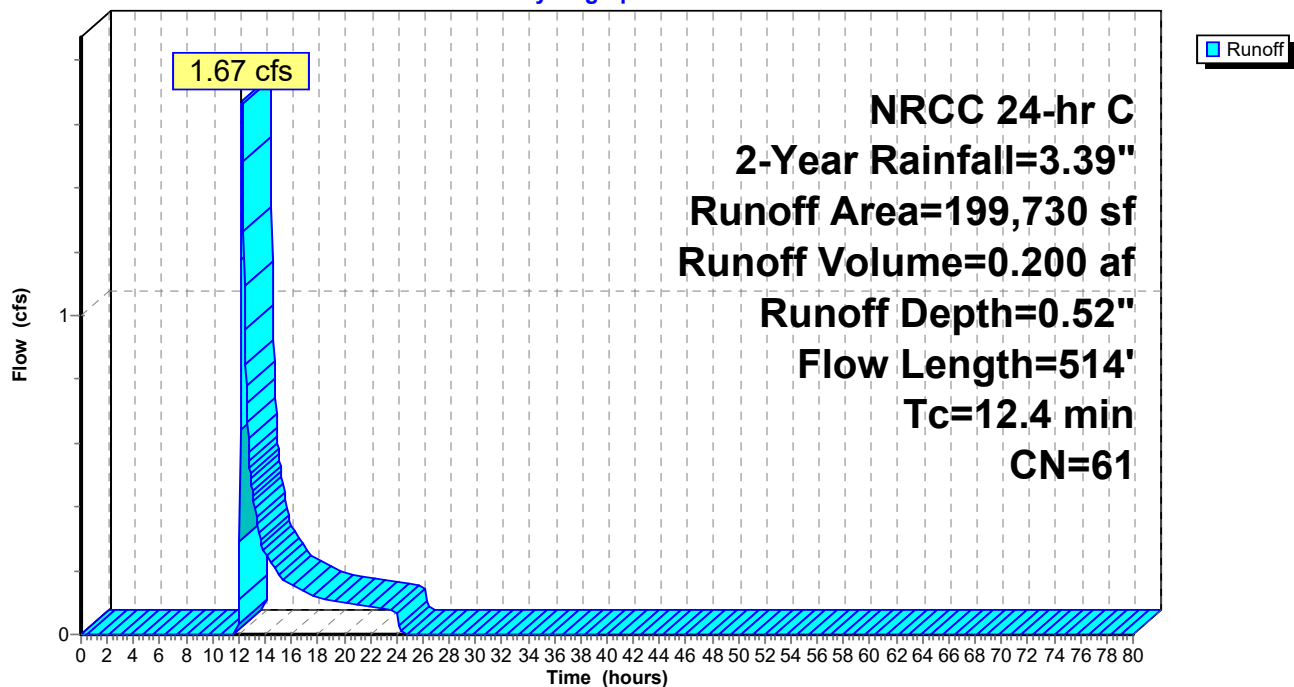
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

Area (sf)	CN	Description
108,480	61	>75% Grass cover, Good, HSG B
80,000	55	Woods, Good, HSG B
* 11,250	98	4.5 UNITS
199,730	61	Weighted Average
188,480		94.37% Pervious Area
11,250		5.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.5	50	0.1400	0.15		Sheet Flow, Wooded Woods: Light underbrush n= 0.400 P2= 3.37"
6.9	464	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
12.4	514	Total			

Subcatchment P-1U: P-1U

Hydrograph



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Summary for Subcatchment P-2A: P-2A

Runoff = 1.17 cfs @ 12.15 hrs, Volume= 0.104 af, Depth= 0.52"

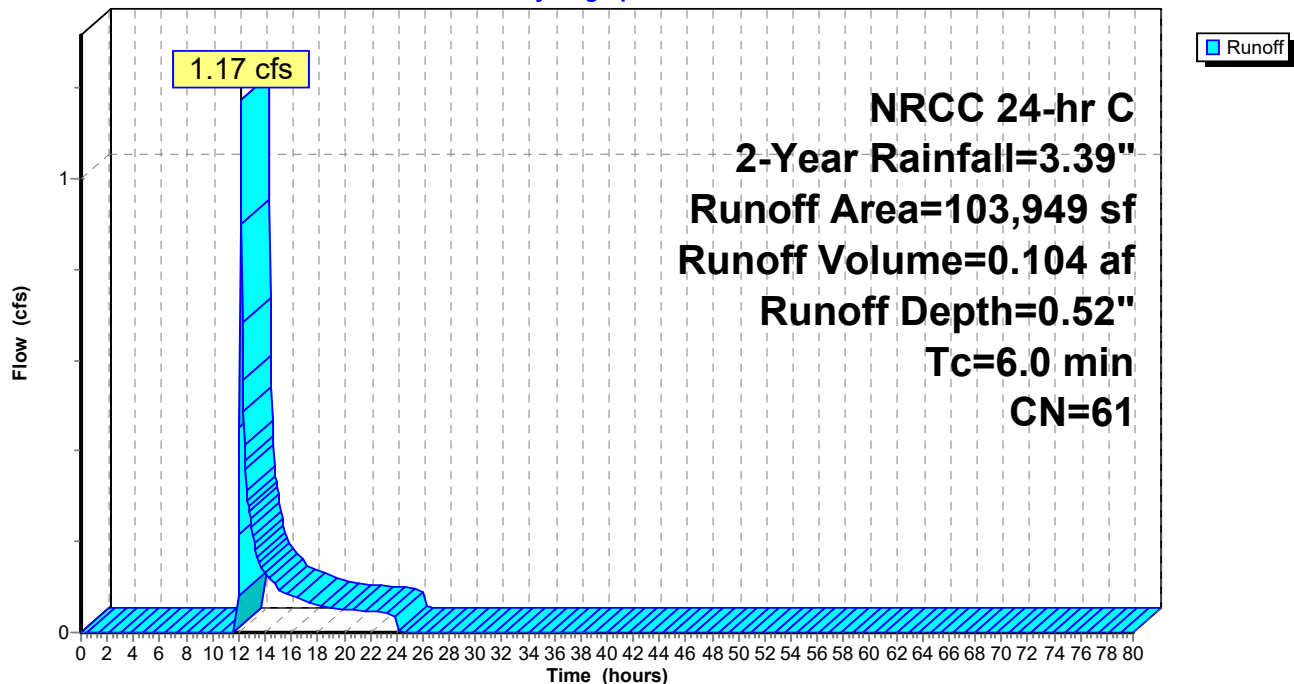
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

Area (sf)	CN	Description
103,949	61	1/4 acre lots, 38% imp, HSG A
64,448		62.00% Pervious Area
39,501		38.00% Impervious Area

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

Subcatchment P-2A: P-2A

Hydrograph



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Summary for Subcatchment P-2B: P-2B

Runoff = 1.19 cfs @ 12.14 hrs, Volume= 0.086 af, Depth= 0.89"

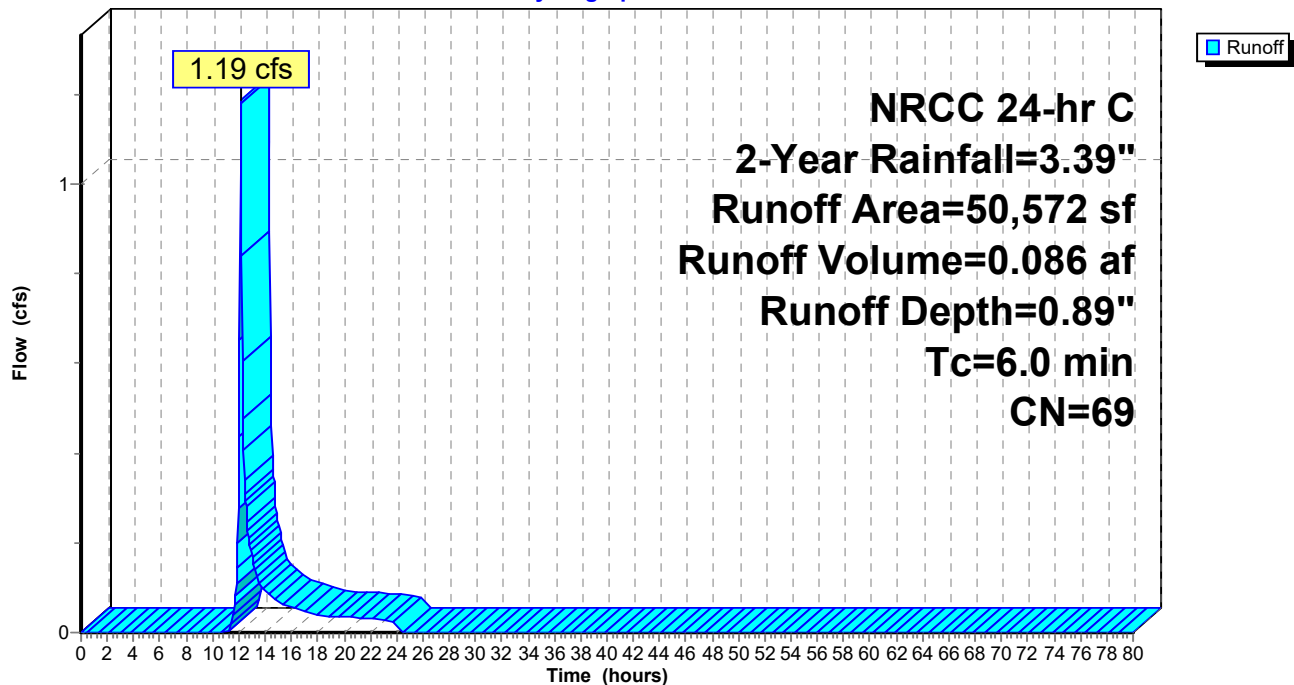
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

Area (sf)	CN	Description
34,300	61	1/4 acre lots, 38% imp, HSG A
16,272	87	1/4 acre lots, 38% imp, HSG D
50,572	69	Weighted Average
31,355		62.00% Pervious Area
19,217		38.00% Impervious Area

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

Subcatchment P-2B: P-2B

Hydrograph



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Summary for Subcatchment P-2C: P-2C

Runoff = 3.43 cfs @ 12.13 hrs, Volume= 0.234 af, Depth= 1.92"

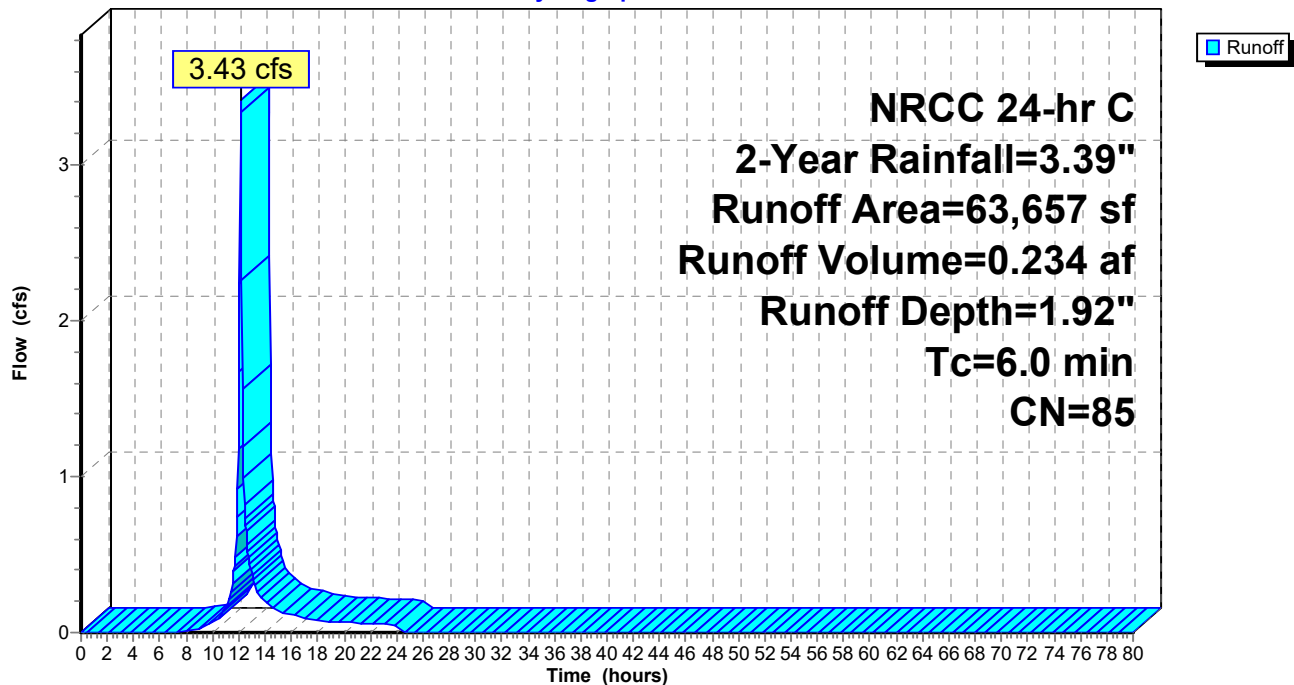
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

Area (sf)	CN	Description
54,284	87	1/4 acre lots, 38% imp, HSG D
9,373	75	1/4 acre lots, 38% imp, HSG B
63,657	85	Weighted Average
39,467		62.00% Pervious Area
24,190		38.00% Impervious Area

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

Subcatchment P-2C: P-2C

Hydrograph



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Summary for Subcatchment P-2D: P-2D

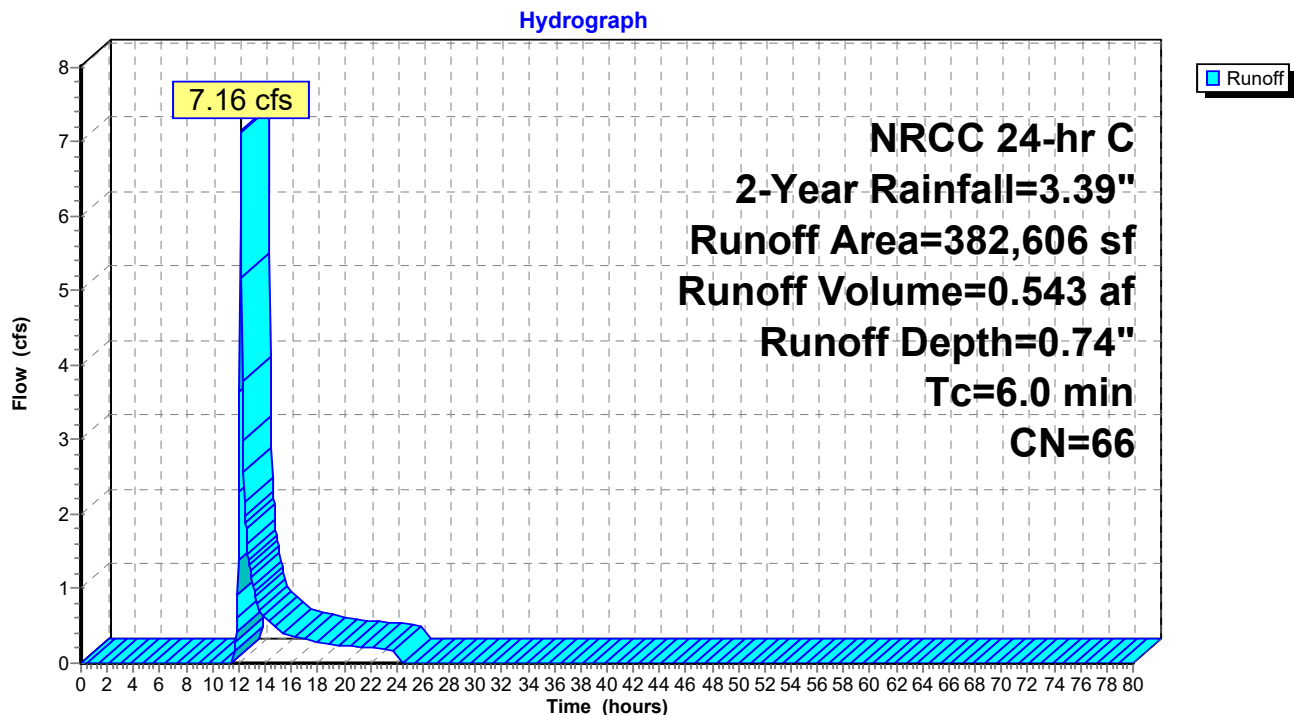
Runoff = 7.16 cfs @ 12.14 hrs, Volume= 0.543 af, Depth= 0.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

Area (sf)	CN	Description
163,640	61	1/4 acre lots, 38% imp, HSG A
82,633	87	1/4 acre lots, 38% imp, HSG D
* 15,400	98	basin
30,500	30	Woods, Good, HSG A
9,200	77	Woods, Good, HSG D
* 17,400	98	exist impervious
13,000	74	>75% Grass cover, Good, HSG C
10,000	80	>75% Grass cover, Good, HSG D
40,833	39	>75% Grass cover, Good, HSG A
382,606	66	Weighted Average
256,222		66.97% Pervious Area
126,384		33.03% Impervious Area

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

Subcatchment P-2D: P-2D



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Summary for Subcatchment P-2E: P-2E

Runoff = 4.46 cfs @ 12.13 hrs, Volume= 0.303 af, Depth= 1.41"

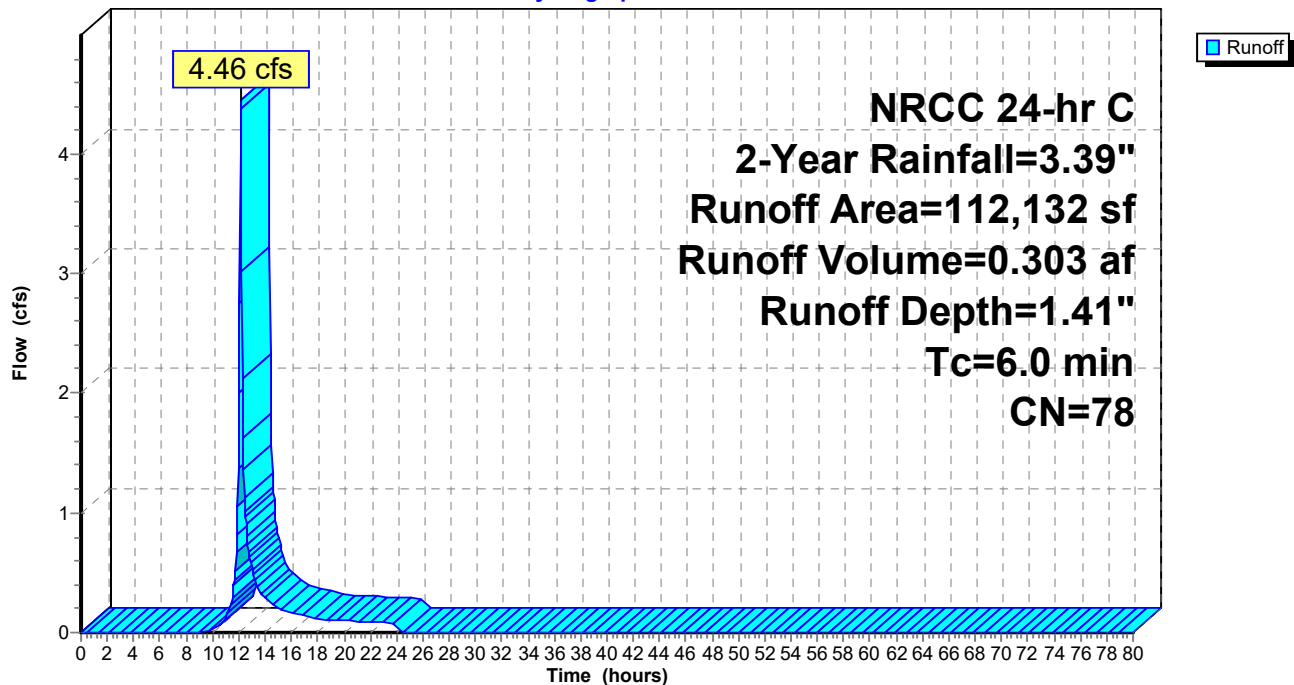
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

	Area (sf)	CN	Description
*	12,500	98	basin
	99,632	75	1/4 acre lots, 38% imp, HSG B
	112,132	78	Weighted Average
	61,772		55.09% Pervious Area
	50,360		44.91% Impervious Area

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

Subcatchment P-2E: P-2E

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Summary for Subcatchment P-2F: P-2F

Runoff = 5.09 cfs @ 12.14 hrs, Volume= 0.349 af, Depth= 1.29"

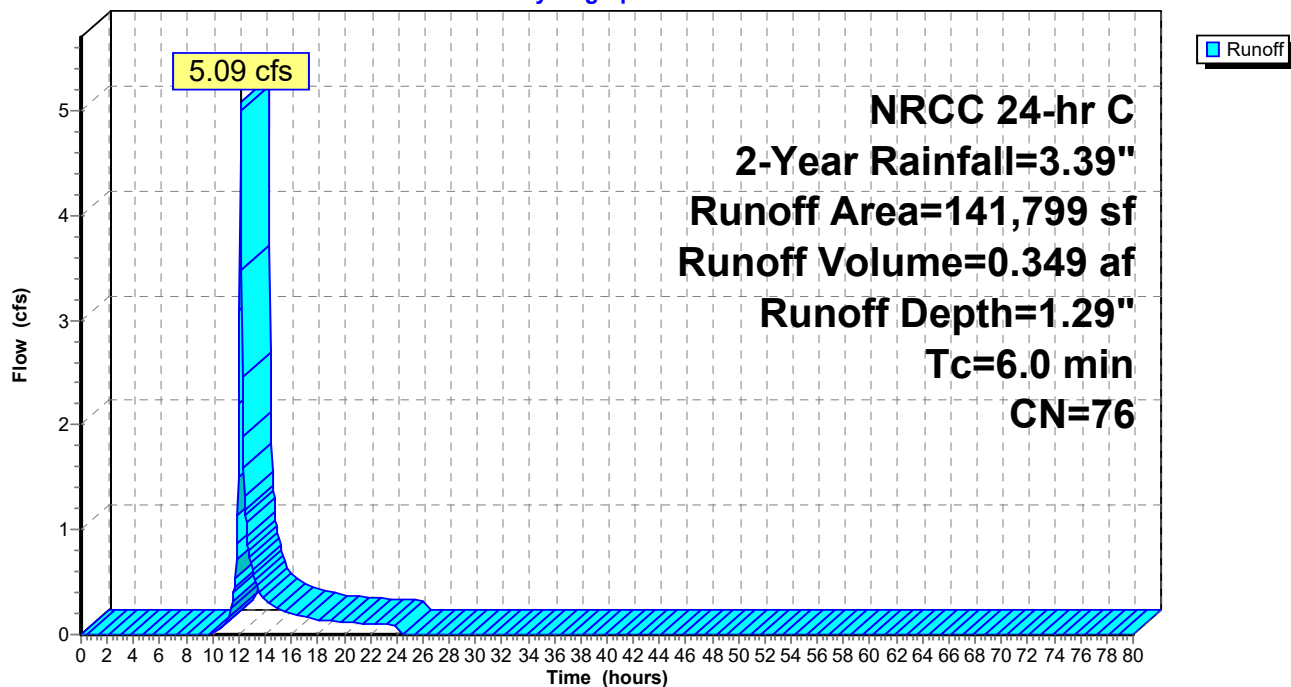
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

Area (sf)	CN	Description
134,299	75	1/4 acre lots, 38% imp, HSG B
* 7,500	98	basin
141,799	76	Weighted Average
83,265		58.72% Pervious Area
58,534		41.28% Impervious Area

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

Subcatchment P-2F: P-2F

Hydrograph



Proposed Hydrology

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NRCC 24-hr C 2-Year Rainfall=3.39"

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Summary for Subcatchment P-2U: P-2U

Runoff = 10.97 cfs @ 12.57 hrs, Volume= 1.848 af, Depth= 0.79"

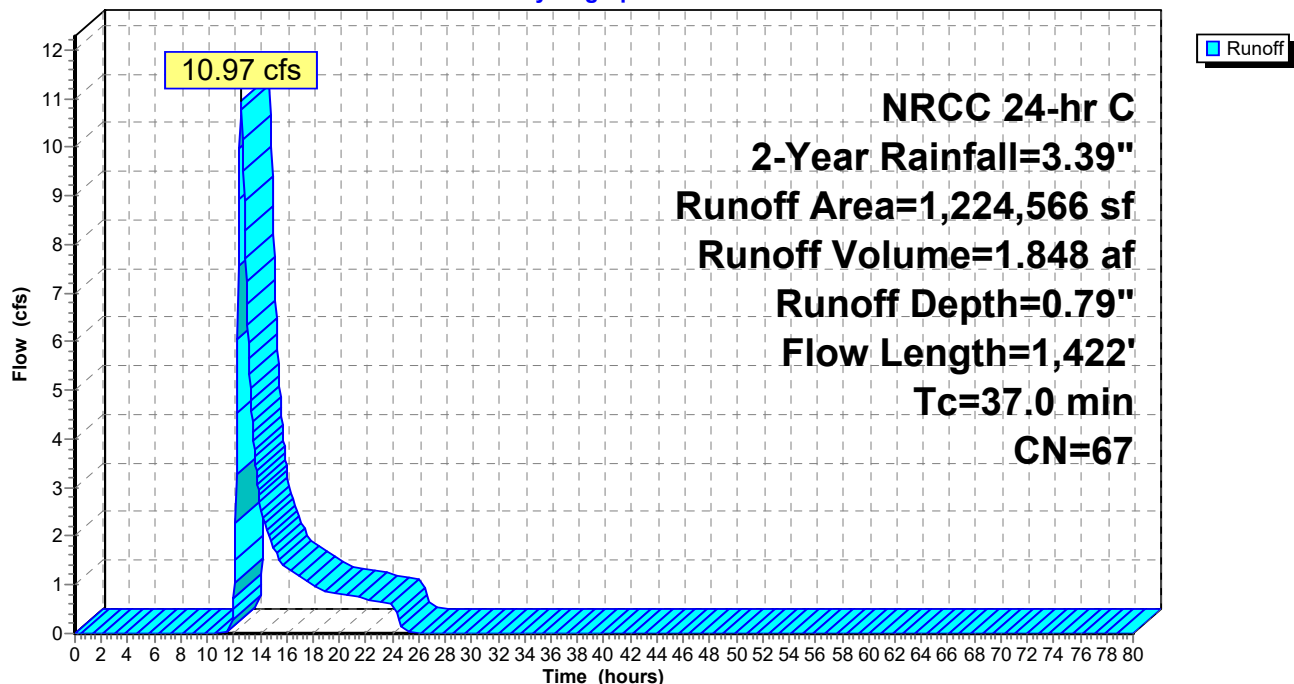
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

Area (sf)	CN	Description
126,300	32	Woods/grass comb., Good, HSG A
394,200	58	Woods/grass comb., Good, HSG B
232,300	72	Woods/grass comb., Good, HSG C
418,475	79	Woods/grass comb., Good, HSG D
* 53,291	98	Wetland, HSG D
1,224,566	67	Weighted Average
1,171,275		95.65% Pervious Area
53,291		4.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	100	0.0830	0.31		Sheet Flow, Sheet Flow Grass: Short n= 0.150 P2= 3.37"
25.9	973	0.0080	0.63		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.7	349	0.0040	1.02		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
37.0	1,422	Total			

Subcatchment P-2U: P-2U

Hydrograph



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Summary for Subcatchment P-3A: P-3A

Runoff = 4.80 cfs @ 12.13 hrs, Volume= 0.326 af, Depth= 1.77"

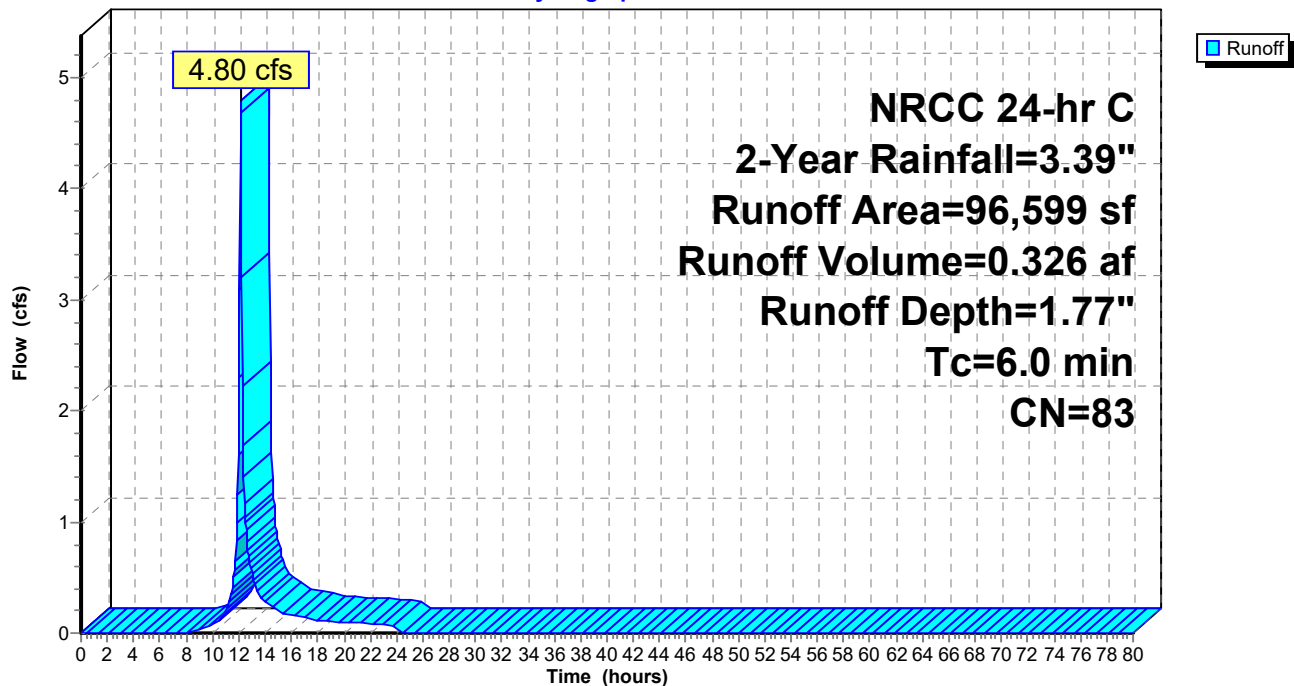
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

	Area (sf)	CN	Description
*	4,600	98	BASIN
	36,100	75	1/4 acre lots, 38% imp, HSG B
	55,899	87	1/4 acre lots, 38% imp, HSG D
	96,599	83	Weighted Average
	57,039		59.05% Pervious Area
	39,560		40.95% Impervious Area

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

Subcatchment P-3A: P-3A

Hydrograph



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NRCC 24-hr C 2-Year Rainfall=3.39"

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Summary for Subcatchment P-3B: P-3B

Runoff = 8.58 cfs @ 12.14 hrs, Volume= 0.593 af, Depth= 1.16"

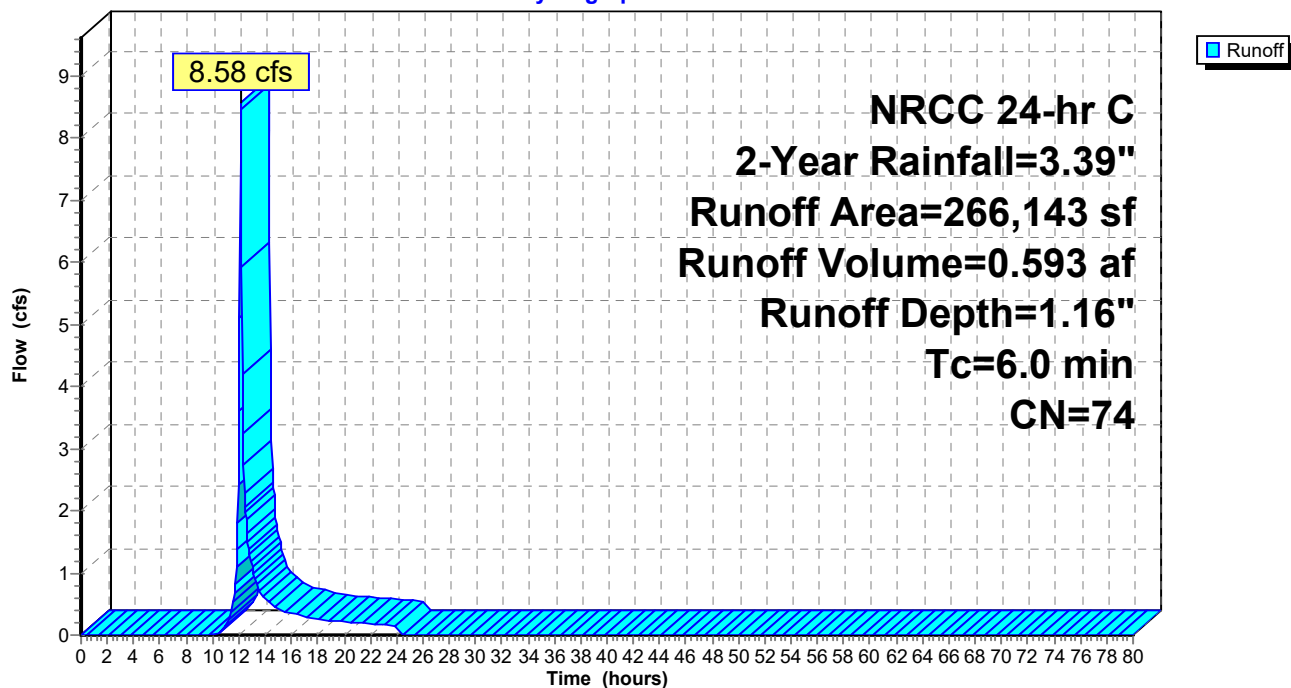
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

	Area (sf)	CN	Description
*	9,500	98	BASIN
	9,200	30	Woods, Good, HSG A
	247,443	75	1/4 acre lots, 38% imp, HSG B
	266,143	74	Weighted Average
	162,615		61.10% Pervious Area
	103,528		38.90% Impervious Area

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

Subcatchment P-3B: P-3B

Hydrograph



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Summary for Subcatchment P-3U: P-3U

Runoff = 9.79 cfs @ 12.31 hrs, Volume= 1.149 af, Depth= 0.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

	Area (sf)	CN	Description
*	169,500	98	wetland, HSG D
	108,000	30	Woods, Good, HSG A
	98,000	39	>75% Grass cover, Good, HSG A
	136,977	61	>75% Grass cover, Good, HSG B
	76,000	55	Woods, Good, HSG B
*	15,800	98	EXIST Roof and Pavement
	58,000	77	Woods, Good, HSG D
	58,000	80	>75% Grass cover, Good, HSG D
*	32,500	98	13 UNITS
*	6,400	98	400 LF OF ROAD
*	1,800	98	2 UNITS DRIVEWAY
	760,977	67	Weighted Average
	534,977		70.30% Pervious Area
	226,000		29.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	50	0.0340	0.09		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.37"
1.4	111	0.0356	1.32		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.0	59	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.1	10	0.0136	2.37		Shallow Concentrated Flow, Impervious Paved Kv= 20.3 fps
2.6	135	0.0156	0.87		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.0	120	0.0198	0.98		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.1	32	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
18.9	517	Total			

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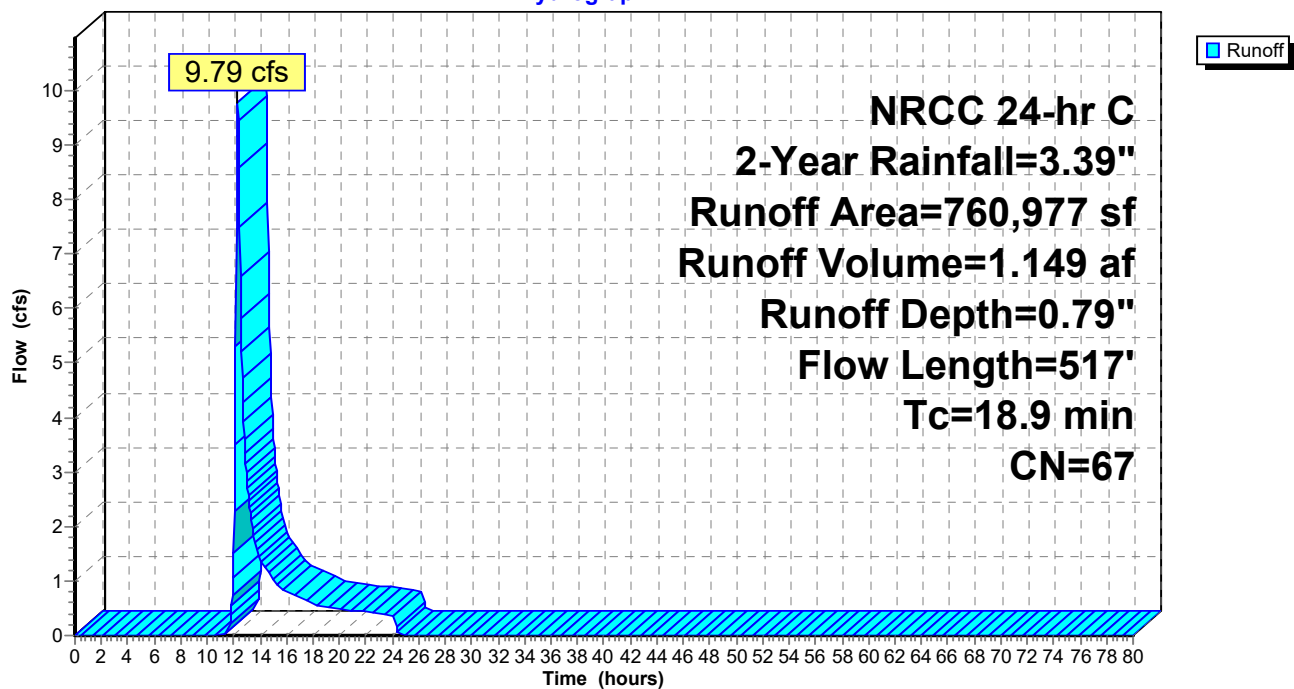
NRCC 24-hr C 2-Year Rainfall=3.39"

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Subcatchment P-3U: P-3U

Hydrograph



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Summary for Subcatchment P-4: P-4

Runoff = 0.01 cfs @ 12.87 hrs, Volume= 0.005 af, Depth= 0.15"

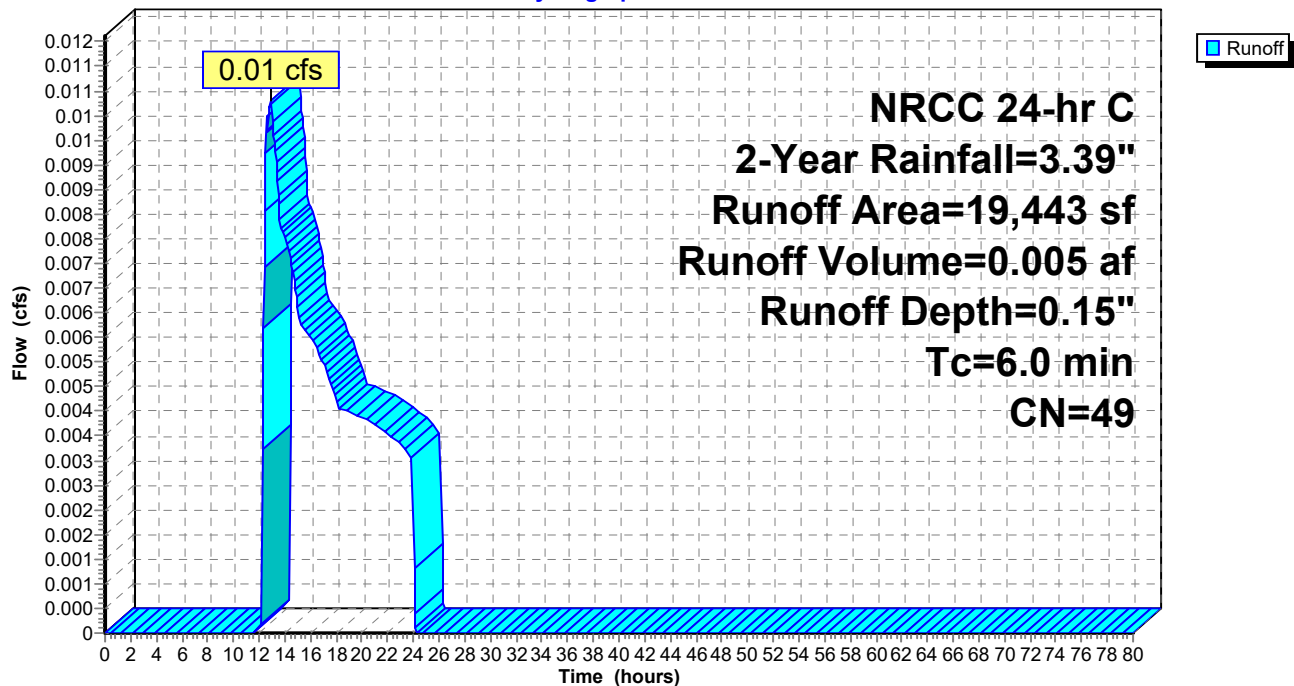
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

Area (sf)	CN	Description
5,200	30	Woods, Good, HSG A
10,262	39	>75% Grass cover, Good, HSG A
* 3,981	98	roof and pavement
19,443	49	Weighted Average
15,462		79.52% Pervious Area
3,981		20.48% Impervious Area

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

Subcatchment P-4: P-4

Hydrograph



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NRCC 24-hr C 2-Year Rainfall=3.39"

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Summary for Subcatchment P-5U: P-5U

Runoff = 2.78 cfs @ 12.24 hrs, Volume= 0.294 af, Depth= 0.70"

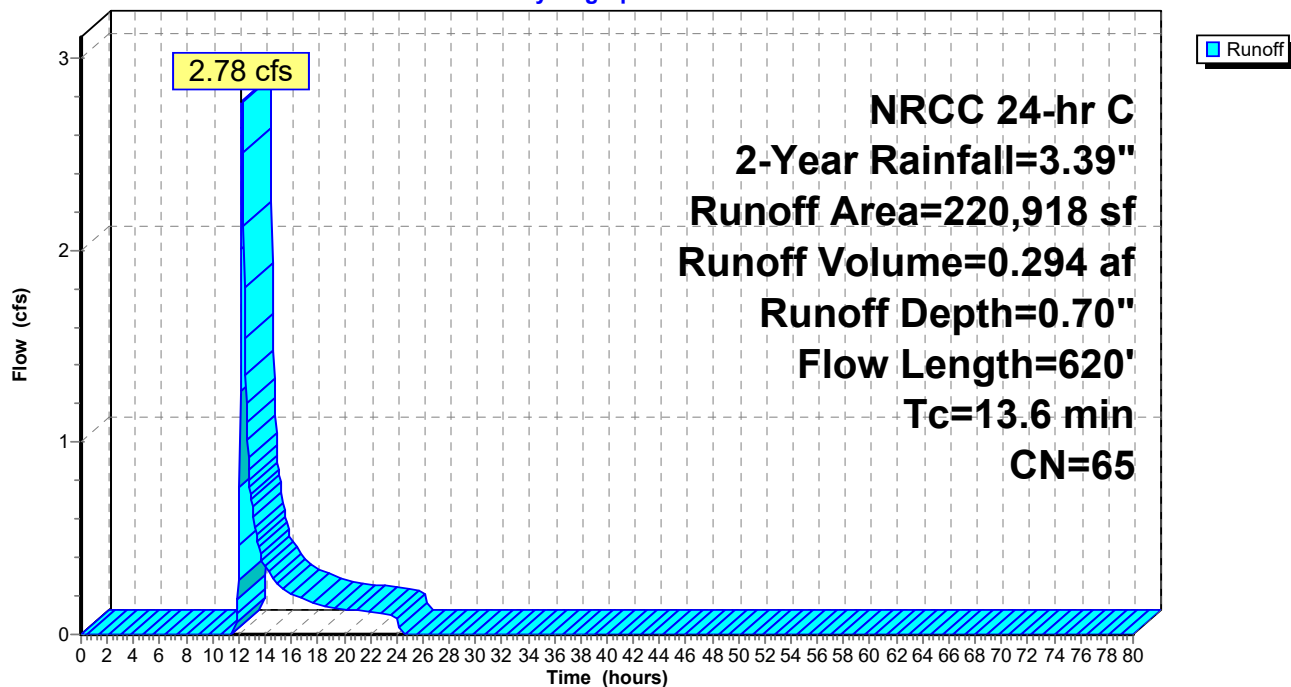
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

Area (sf)	CN	Description
83,000	39	>75% Grass cover, Good, HSG A
17,000	61	>75% Grass cover, Good, HSG B
* 24,100	98	WETLAND, 0% imp, HSG D
96,818	80	>75% Grass cover, Good, HSG D
220,918	65	Weighted Average
220,918		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	50	0.0160	0.14		Sheet Flow, Grass: Short n= 0.150 P2= 3.37"
7.6	570	0.0315	1.24		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
13.6	620	Total			

Subcatchment P-5U: P-5U

Hydrograph



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Summary for Subcatchment P-6A: P-6A

Runoff = 5.58 cfs @ 12.13 hrs, Volume= 0.381 af, Depth= 1.35"

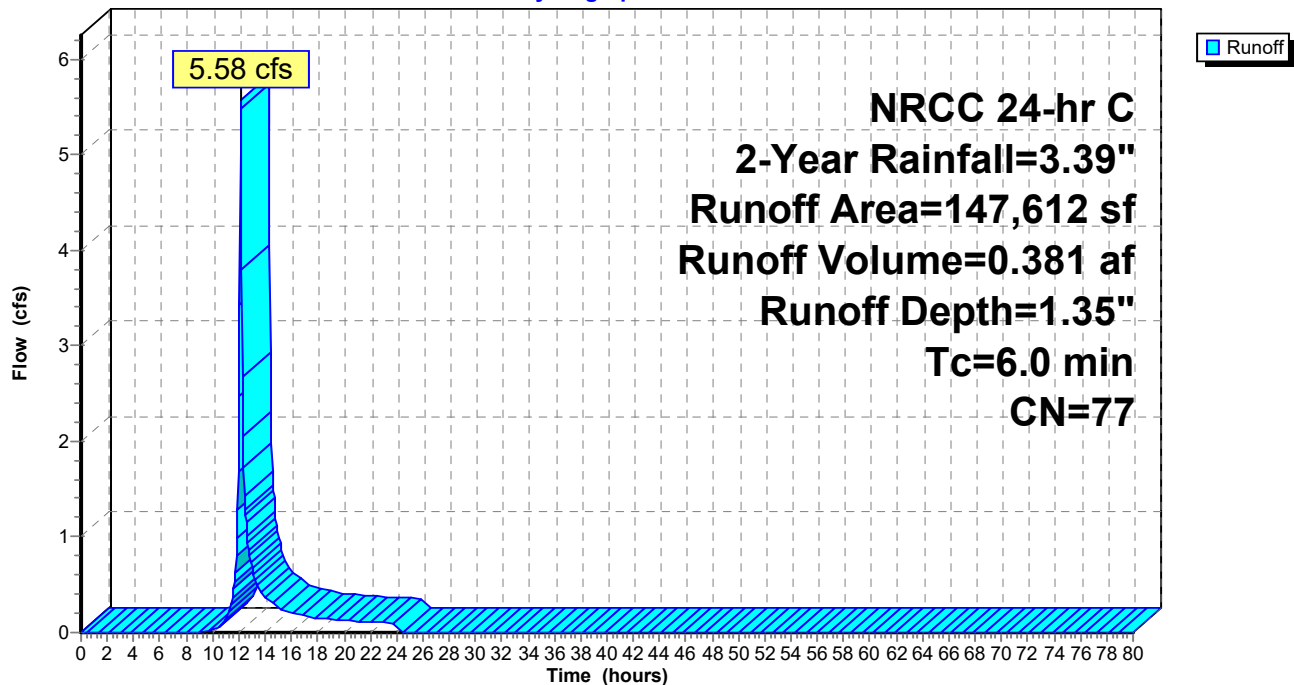
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

Area (sf)	CN	Description
134,612	75	1/4 acre lots, 38% imp, HSG B
* 13,000	98	basin
147,612	77	Weighted Average
83,459		56.54% Pervious Area
64,153		43.46% Impervious Area

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

Subcatchment P-6A: P-6A

Hydrograph



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Summary for Subcatchment P-6U: P-6U

Runoff = 5.85 cfs @ 12.24 hrs, Volume= 0.582 af, Depth= 0.84"

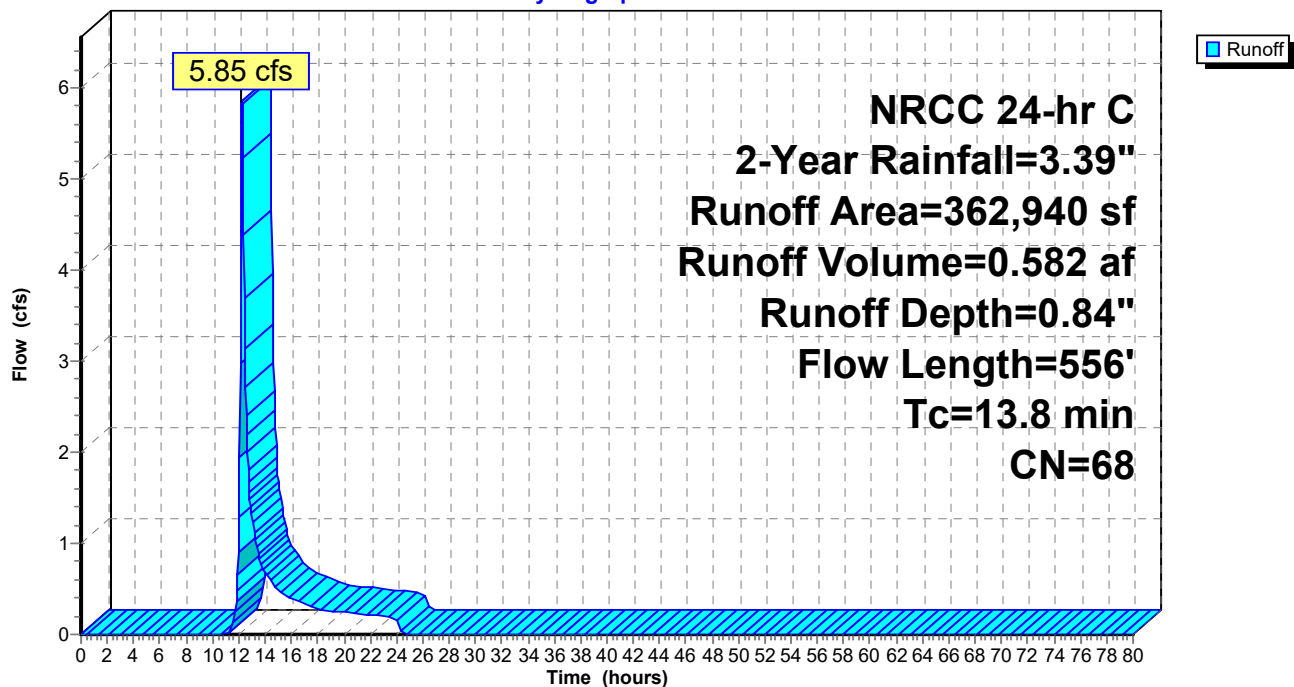
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

Area (sf)	CN	Description
45,100	32	Woods/grass comb., Good, HSG A
164,917	58	Woods/grass comb., Good, HSG B
* 82,500	98	WETLAND, 0% imp, HSG D
70,423	80	>75% Grass cover, Good, HSG D
362,940	68	Weighted Average
362,940		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0296	0.20		Sheet Flow, Grass: Short n= 0.150 P2= 3.37"
5.6	456	0.0380	1.36		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
13.8	556	Total			

Subcatchment P-6U: P-6U

Hydrograph



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Summary for Subcatchment P-7A: P-7A

Runoff = 6.60 cfs @ 12.14 hrs, Volume= 0.459 af, Depth= 1.11"

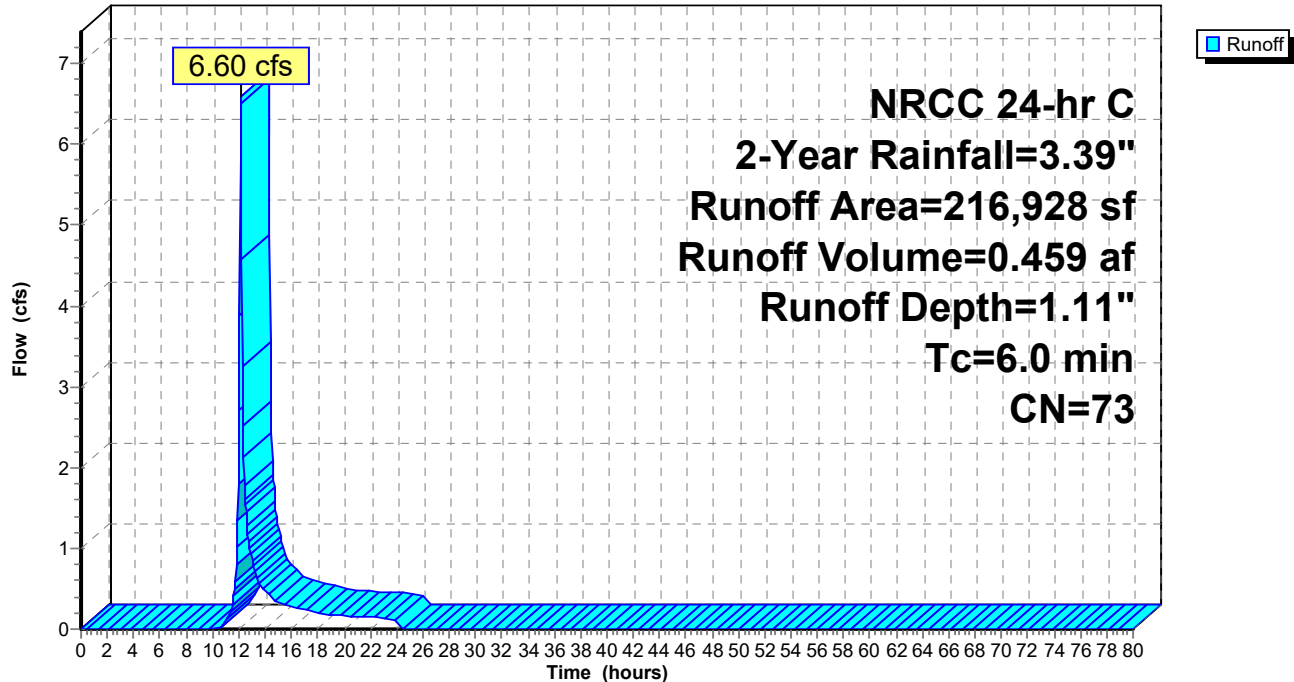
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

	Area (sf)	CN	Description
*	50,000	98	pavement parking
*	4,500	98	roof
*	10,200	98	basin
	99,000	75	1/4 acre lots, 38% imp, HSG B
	53,228	39	>75% Grass cover, Good, HSG A
	216,928	73	Weighted Average
	114,608		52.83% Pervious Area
	102,320		47.17% Impervious Area

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

Subcatchment P-7A: P-7A

Hydrograph



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Summary for Subcatchment P-7U: P-7U

Runoff = 2.00 cfs @ 12.47 hrs, Volume= 0.436 af, Depth= 0.38"

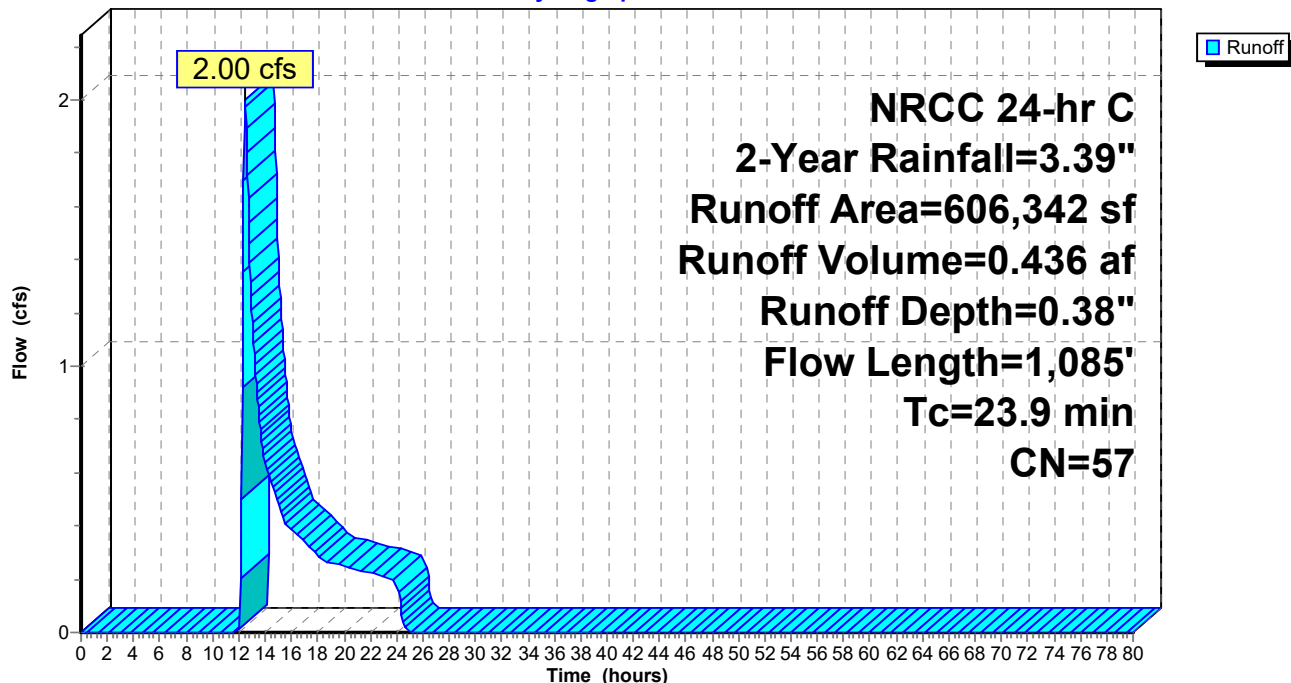
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

Area (sf)	CN	Description
32,738	98	Paved parking, HSG B
118,803	32	Woods/grass comb., Good, HSG A
403,863	58	Woods/grass comb., Good, HSG B
33,128	80	>75% Grass cover, Good, HSG D
17,810	98	Water Surface, 0% imp, HSG A
606,342	57	Weighted Average
573,604		94.60% Pervious Area
32,738		5.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0160	0.16		Sheet Flow, Grass: Short n= 0.150 P2= 3.37"
13.5	985	0.0300	1.21		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
23.9	1,085	Total			

Subcatchment P-7U: P-7U

Hydrograph



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Summary for Subcatchment P-8U: P-8U

Runoff = 0.82 cfs @ 12.18 hrs, Volume= 0.093 af, Depth= 0.45"

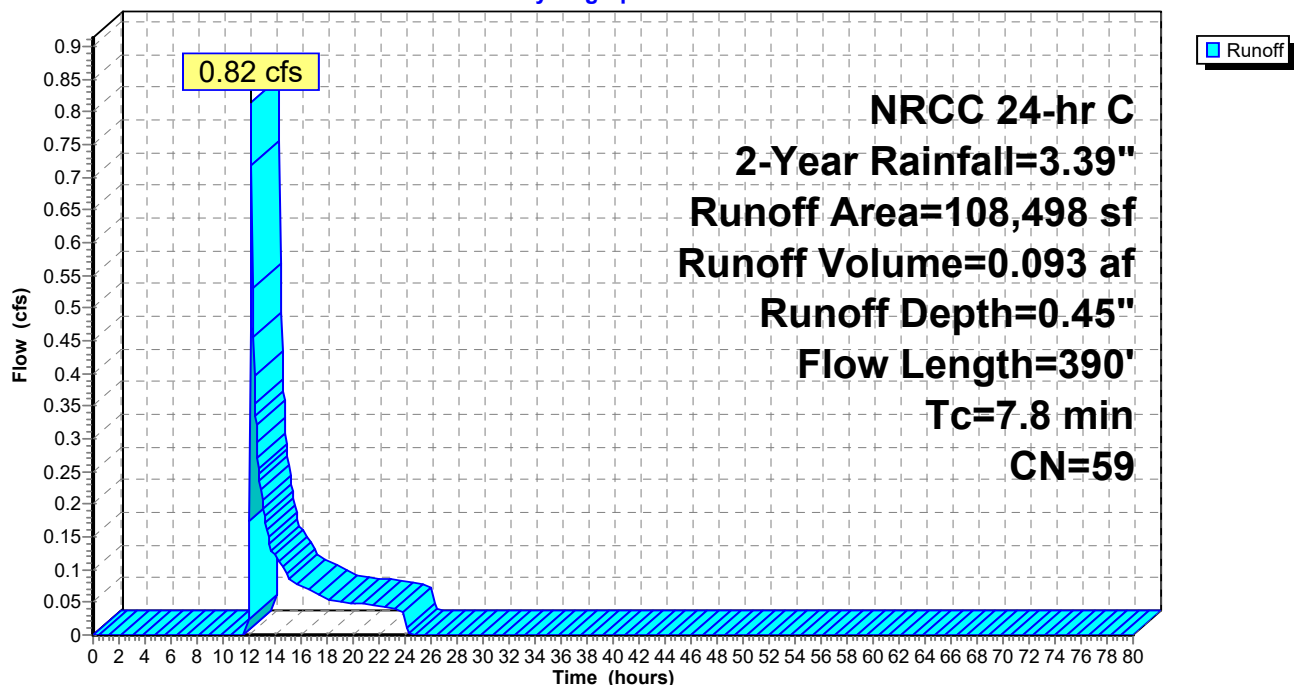
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

	Area (sf)	CN	Description
*	7,000	98	roof
	5,726	98	Water Surface, 0% imp, HSG A
	12,978	39	>75% Grass cover, Good, HSG A
	43,794	61	>75% Grass cover, Good, HSG B
	6,600	30	Woods, Good, HSG A
	32,400	55	Woods, Good, HSG B
	108,498	59	Weighted Average
	101,498		93.55% Pervious Area
	7,000		6.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	50	0.0120	0.12		Sheet Flow, Sheet Flow Grass: Short n= 0.150 P2= 3.37"
1.1	340	0.0940	4.94		Shallow Concentrated Flow, HR-A Unpaved Kv= 16.1 fps
7.8	390	Total			

Subcatchment P-8U: P-8U

Hydrograph



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Summary for Subcatchment P-9A: P-9A

Runoff = 0.09 cfs @ 12.33 hrs, Volume= 0.028 af, Depth= 0.22"

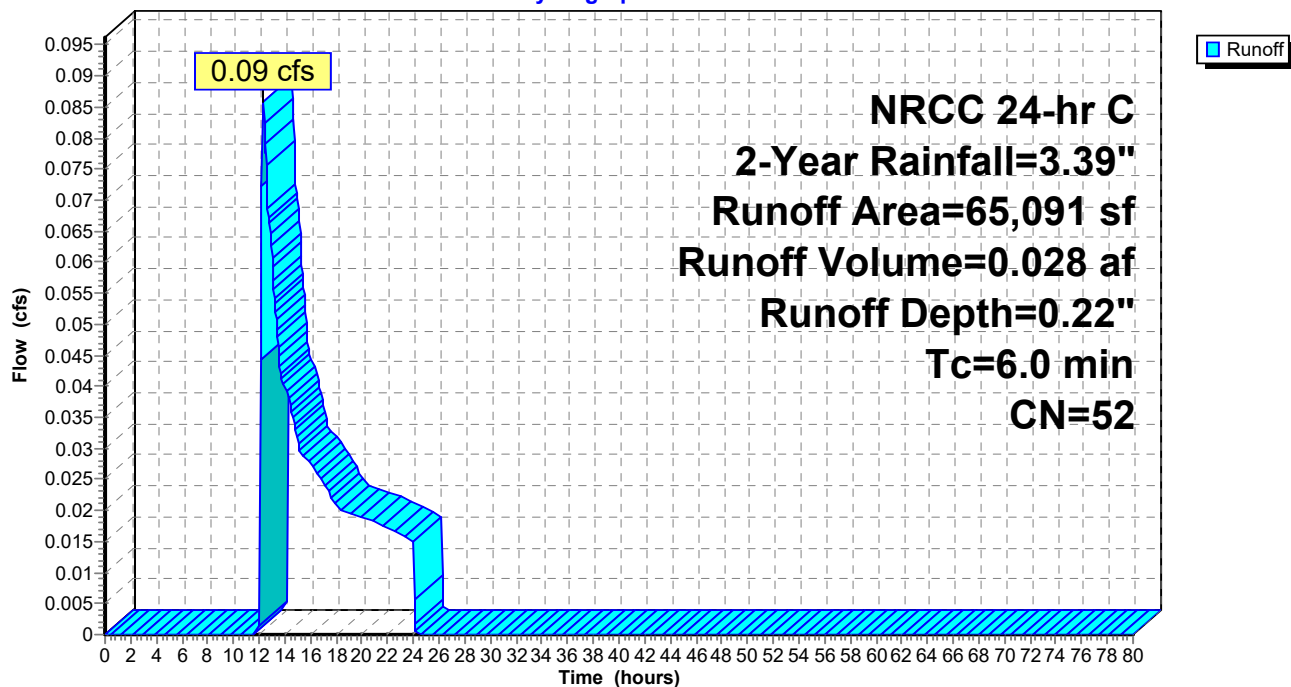
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

	Area (sf)	CN	Description
	13,200	30	Woods, Good, HSG A
*	15,000	98	ROADS
*	1,700	98	BASIN
	35,191	39	>75% Grass cover, Good, HSG A
	65,091	52	Weighted Average
	48,391		74.34% Pervious Area
	16,700		25.66% Impervious Area

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

Subcatchment P-9A: P-9A

Hydrograph



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Summary for Subcatchment P-9B: P-9B

Runoff = 1.26 cfs @ 12.15 hrs, Volume= 0.103 af, Depth= 0.61"

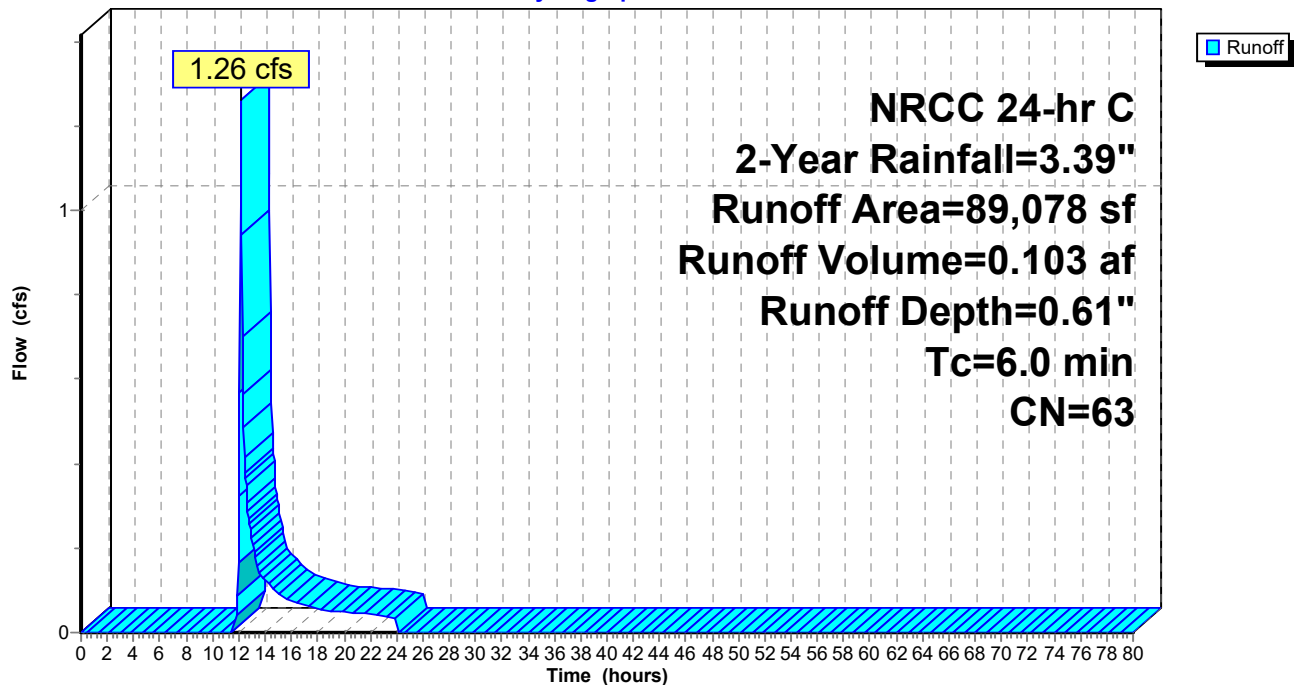
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

	Area (sf)	CN	Description
*	4,300	98	BASIN
	84,778	61	1/4 acre lots, 38% imp, HSG A
	89,078	63	Weighted Average
	52,562		59.01% Pervious Area
	36,516		40.99% Impervious Area

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

Subcatchment P-9B: P-9B

Hydrograph



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Summary for Subcatchment P-9C: P-9C

Runoff = 6.69 cfs @ 12.13 hrs, Volume= 0.456 af, Depth= 1.41"

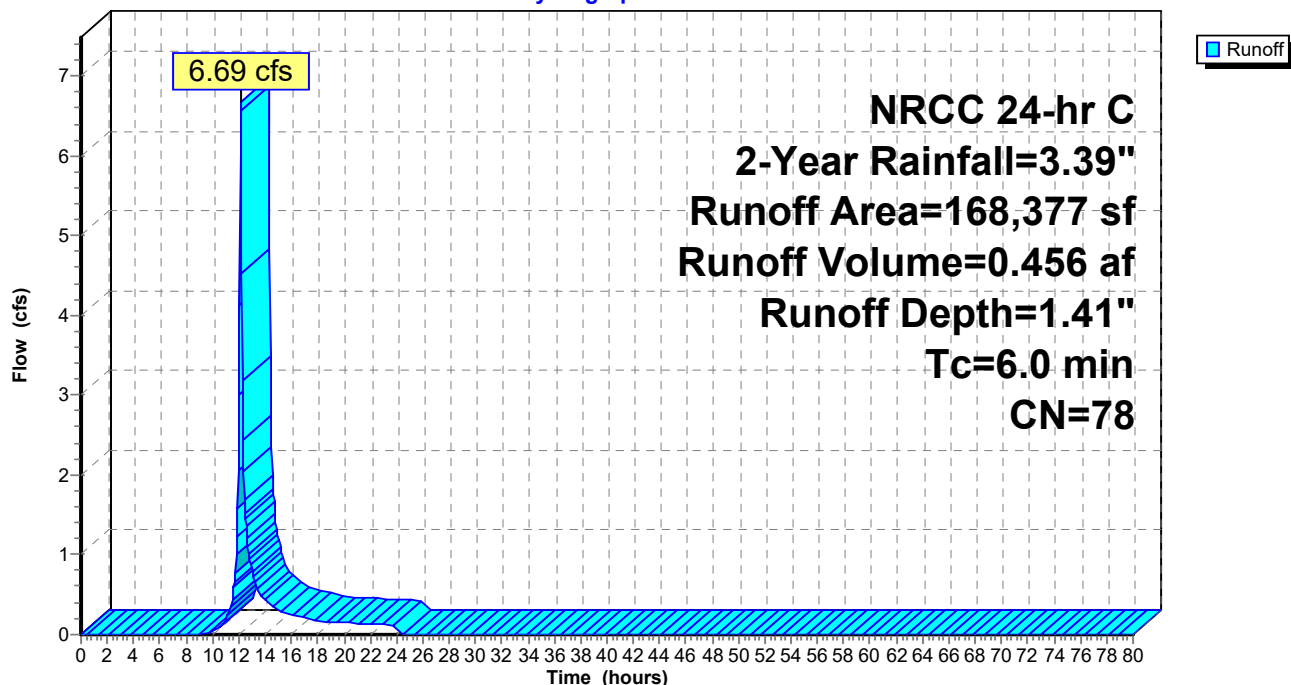
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

Area (sf)	CN	Description
20,800	30	Woods, Good, HSG A
104,000	98	Paved parking, HSG A
34,077	39	>75% Grass cover, Good, HSG A
* 9,500	98	ROOF
168,377	78	Weighted Average
54,877		32.59% Pervious Area
113,500		67.41% Impervious Area

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

Subcatchment P-9C: P-9C

Hydrograph



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Summary for Subcatchment P-9U: P-9U

Runoff = 0.01 cfs @ 21.14 hrs, Volume= 0.007 af, Depth= 0.04"

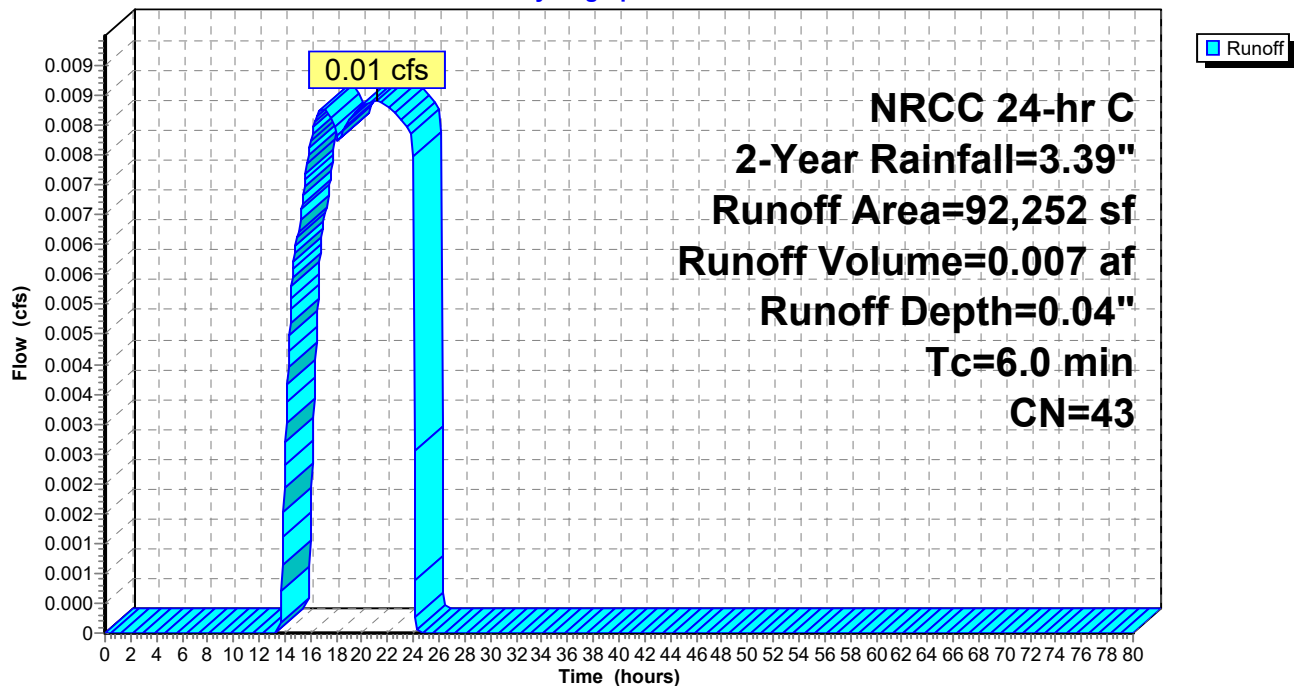
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 2-Year Rainfall=3.39"

Area (sf)	CN	Description
36,000	30	Woods, Good, HSG A
12,000	98	Paved parking, HSG A
44,252	39	>75% Grass cover, Good, HSG A
92,252	43	Weighted Average
80,252		86.99% Pervious Area
12,000		13.01% Impervious Area

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

Subcatchment P-9U: P-9U

Hydrograph



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Summary for Reach DP-1: Wetland Series R

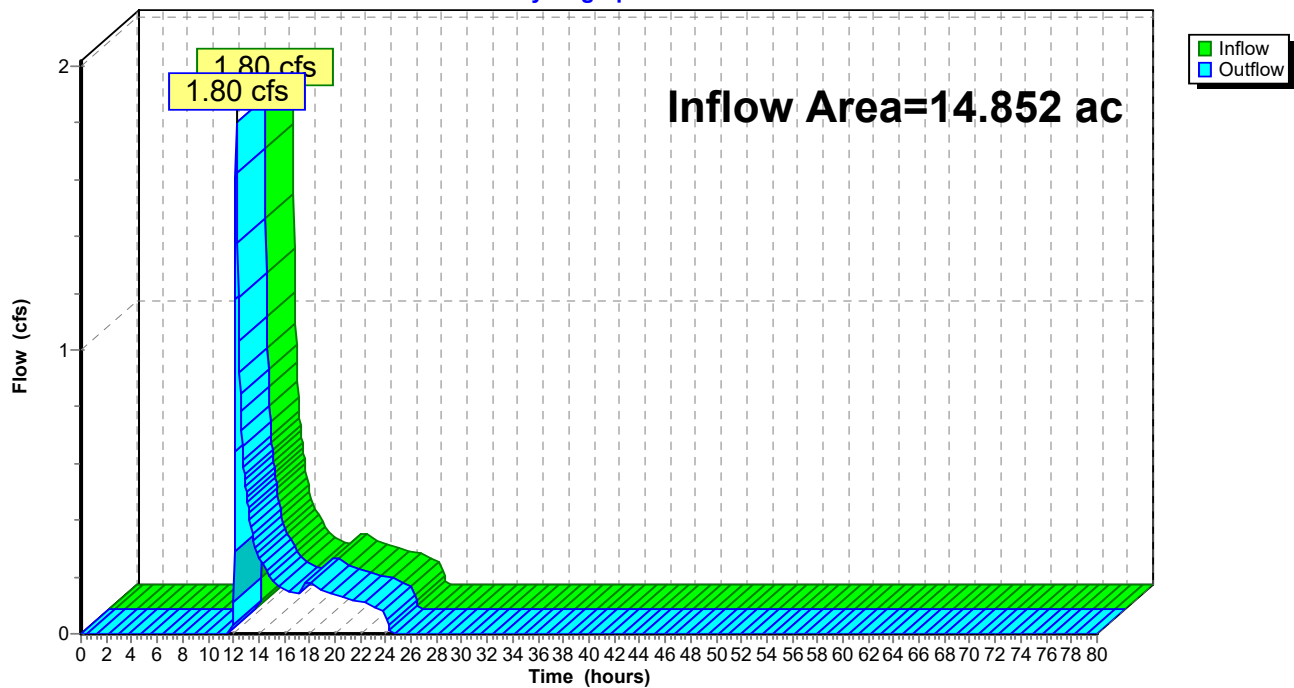
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 14.852 ac, 17.22% Impervious, Inflow Depth = 0.18" for 2-Year event
Inflow = 1.80 cfs @ 12.25 hrs, Volume= 0.226 af
Outflow = 1.80 cfs @ 12.25 hrs, Volume= 0.226 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-1: Wetland Series R

Hydrograph



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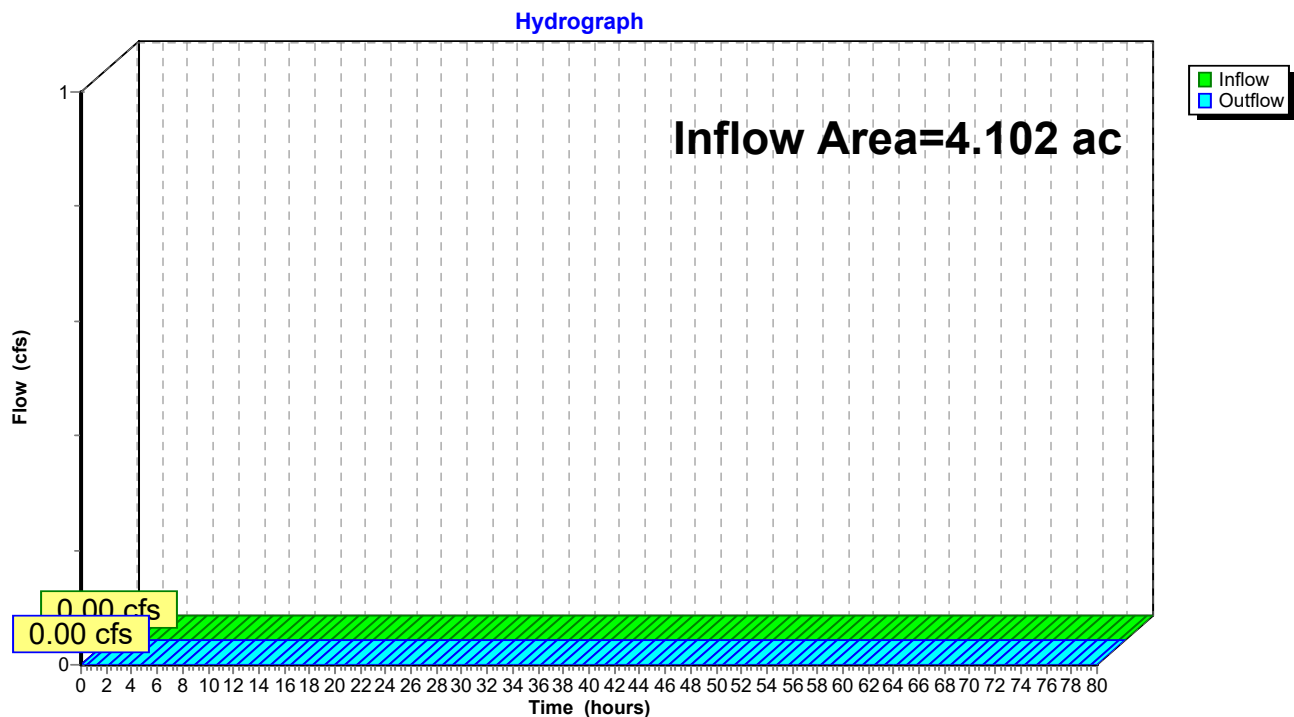
Summary for Reach DP-10: West Elm Street

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.102 ac, 17.26% Impervious, Inflow Depth = 0.00" for 2-Year event
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-10: West Elm Street



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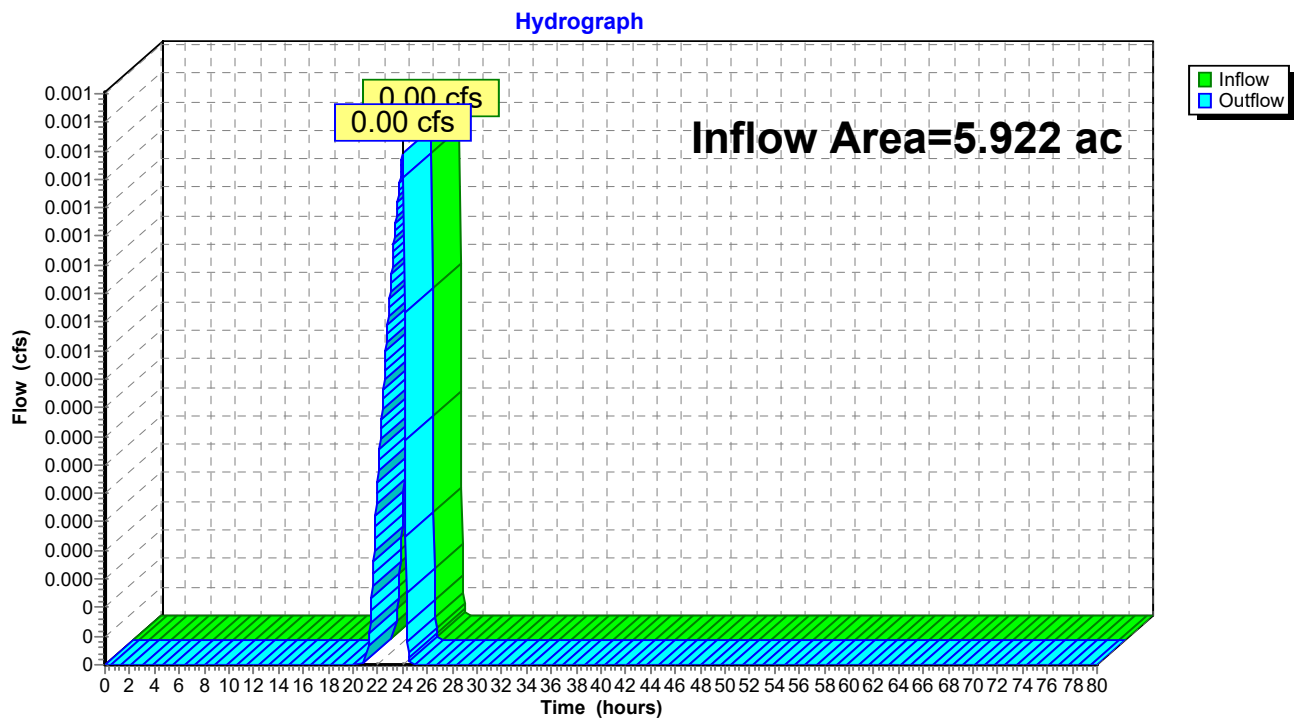
Summary for Reach DP-11: Wetland Series A

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 5.922 ac, 8.29% Impervious, Inflow Depth = 0.00" for 2-Year event
Inflow = 0.00 cfs @ 24.02 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 24.02 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-11: Wetland Series A



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Summary for Reach DP-12: Wetland Series A

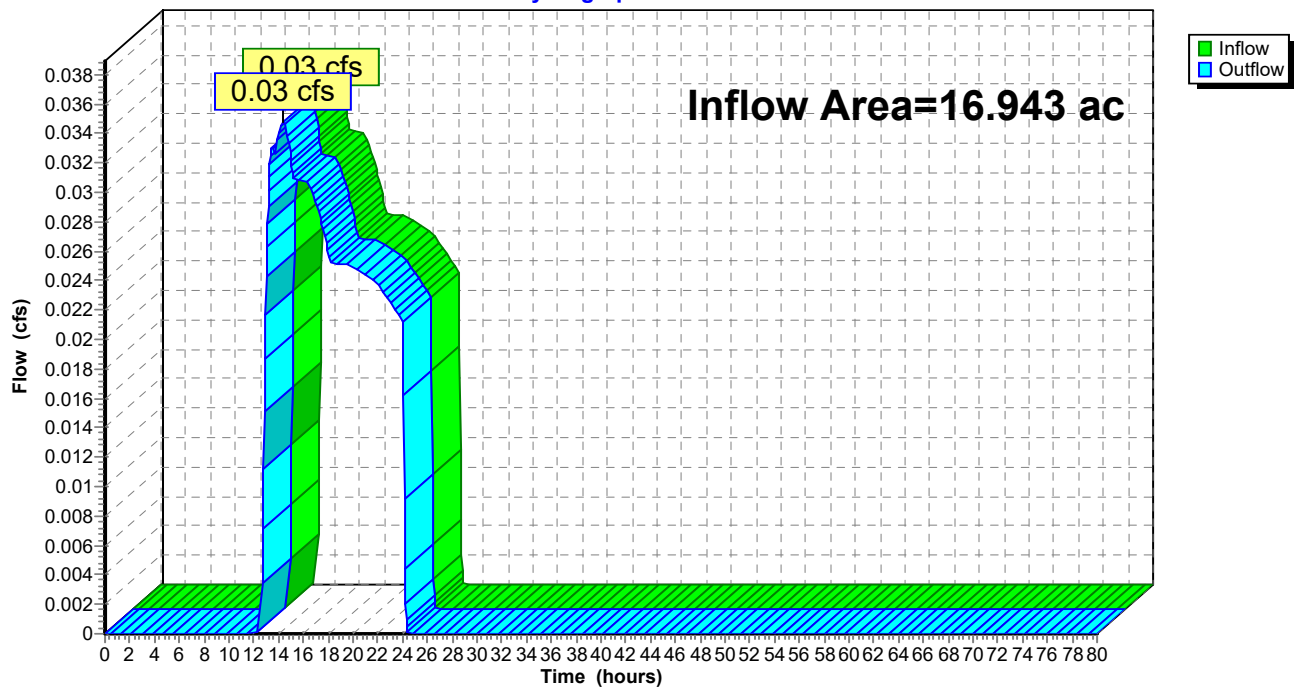
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 16.943 ac, 19.78% Impervious, Inflow Depth = 0.02" for 2-Year event
Inflow = 0.03 cfs @ 14.36 hrs, Volume= 0.025 af
Outflow = 0.03 cfs @ 14.36 hrs, Volume= 0.025 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-12: Wetland Series A

Hydrograph



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Summary for Reach DP-13: Wetland Series B

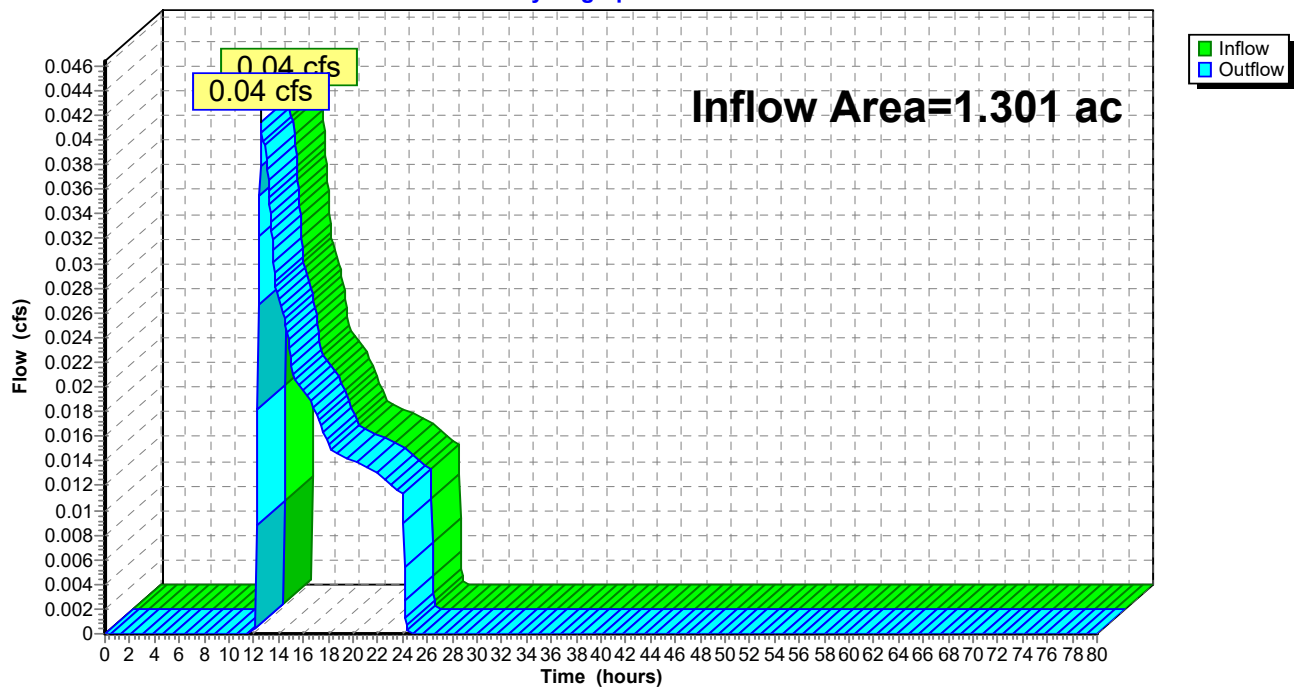
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.301 ac, 0.00% Impervious, Inflow Depth = 0.17" for 2-Year event
Inflow = 0.04 cfs @ 12.60 hrs, Volume= 0.018 af
Outflow = 0.04 cfs @ 12.60 hrs, Volume= 0.018 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-13: Wetland Series B

Hydrograph



Proposed Hydrology

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Summary for Reach DP-14: Wetland Series C,D,E,,K,J

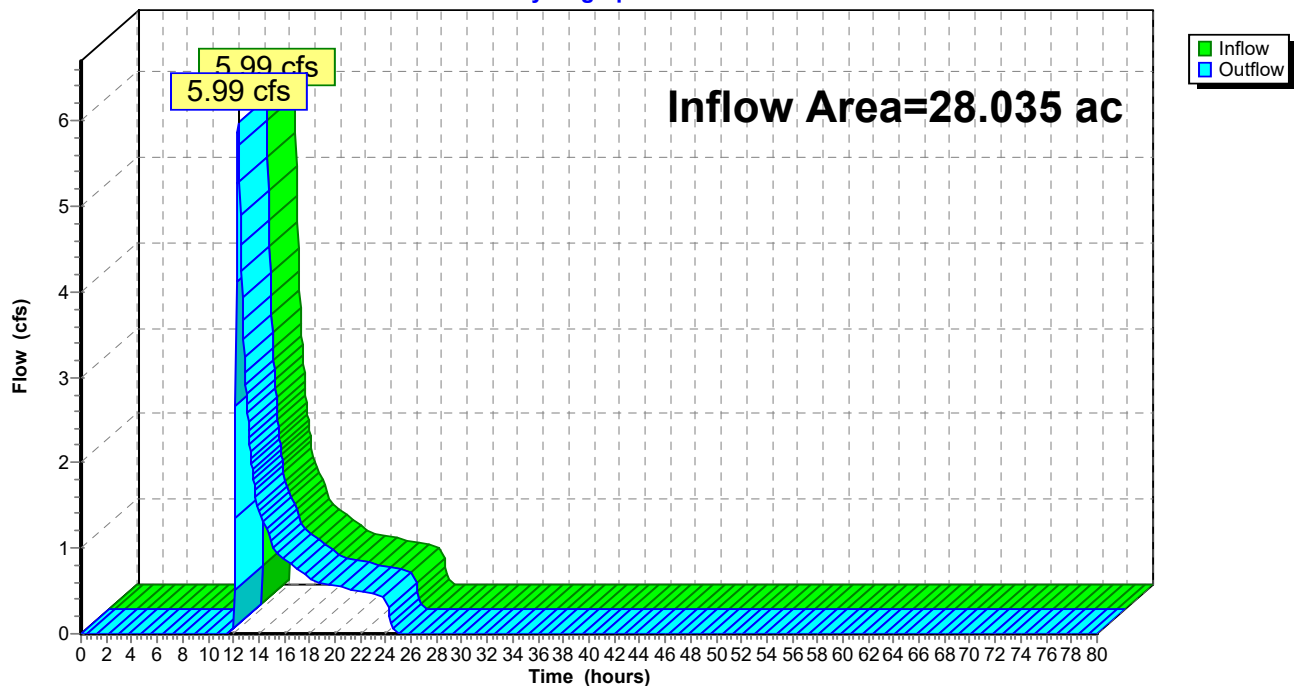
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 28.035 ac, 0.00% Impervious, Inflow Depth = 0.45" for 2-Year event
Inflow = 5.99 cfs @ 12.39 hrs, Volume= 1.044 af
Outflow = 5.99 cfs @ 12.39 hrs, Volume= 1.044 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-14: Wetland Series C,D,E,,K,J

Hydrograph



Proposed Hydrology

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Summary for Reach DP-15: Wetland Series H

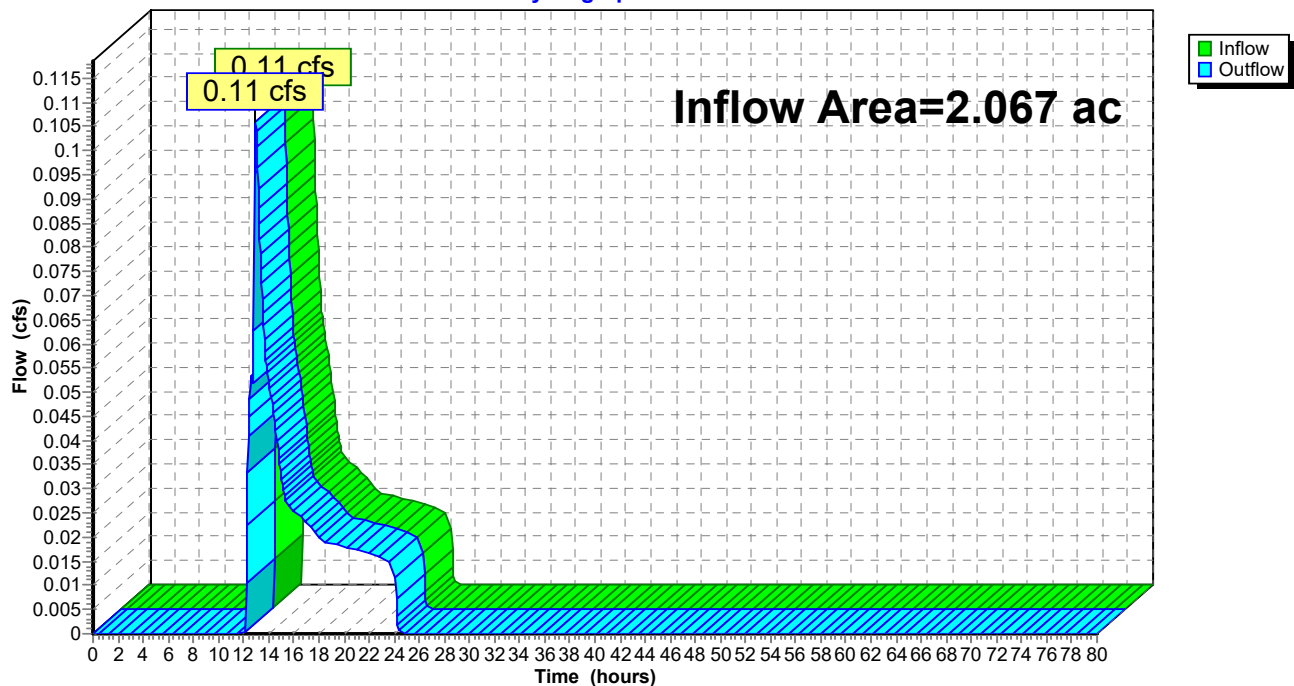
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 2.067 ac, 7.81% Impervious, Inflow Depth = 0.16" for 2-Year event
Inflow = 0.11 cfs @ 12.95 hrs, Volume= 0.028 af
Outflow = 0.11 cfs @ 12.95 hrs, Volume= 0.028 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-15: Wetland Series H

Hydrograph



Proposed Hydrology

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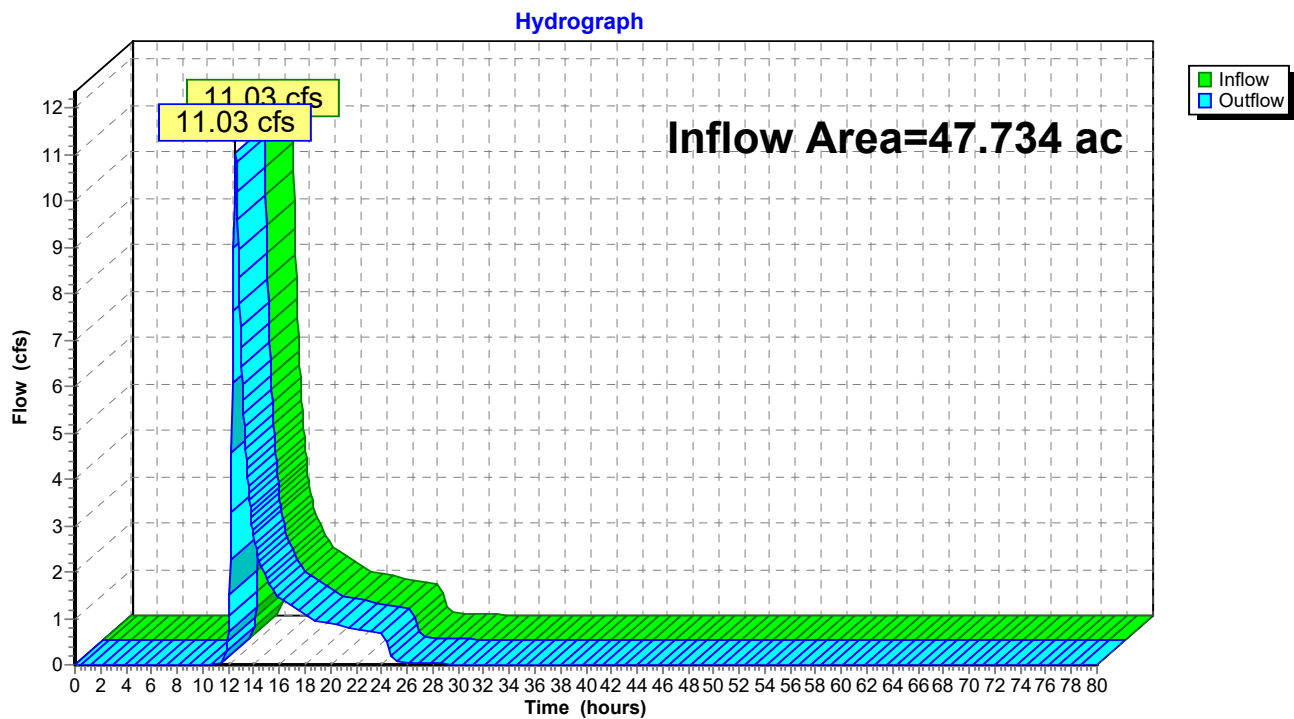
Summary for Reach DP-2: Wetland Series I

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 47.734 ac, 17.87% Impervious, Inflow Depth = 0.49" for 2-Year event
Inflow = 11.03 cfs @ 12.57 hrs, Volume= 1.952 af
Outflow = 11.03 cfs @ 12.57 hrs, Volume= 1.952 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-2: Wetland Series I



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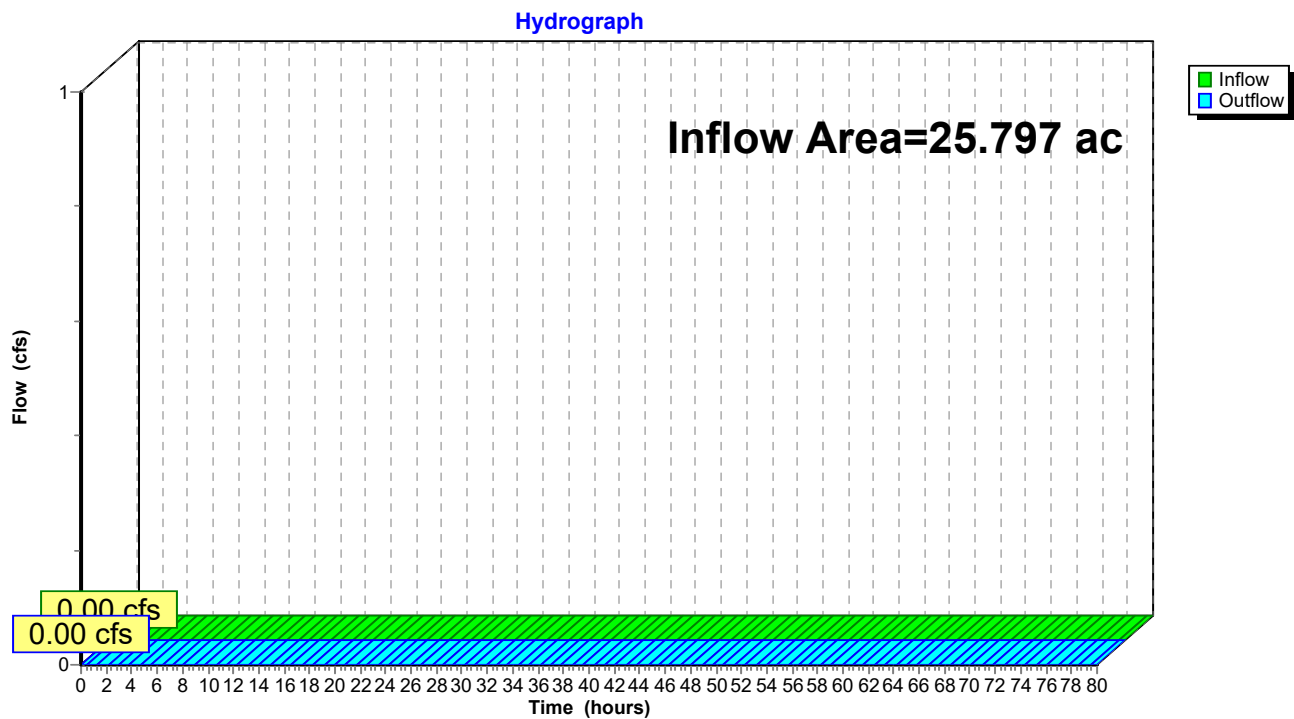
Summary for Reach DP-3: 8" Copper Pipe

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 25.797 ac, 32.85% Impervious, Inflow Depth = 0.00" for 2-Year event
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-3: 8" Copper Pipe



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Summary for Reach DP-4: Dwelley Street

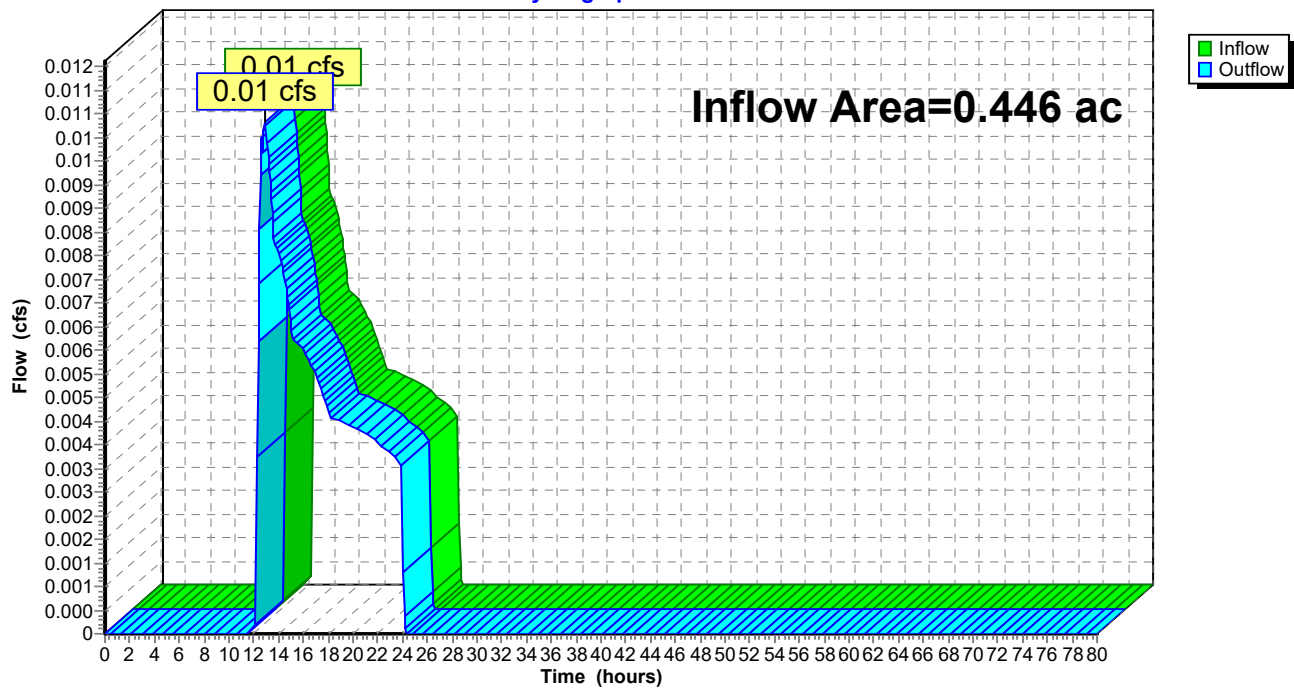
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.446 ac, 20.48% Impervious, Inflow Depth = 0.15" for 2-Year event
Inflow = 0.01 cfs @ 12.87 hrs, Volume= 0.005 af
Outflow = 0.01 cfs @ 12.87 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-4: Dwelley Street

Hydrograph



Proposed Hydrology

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Summary for Reach DP-5: 24" RCP PIPE

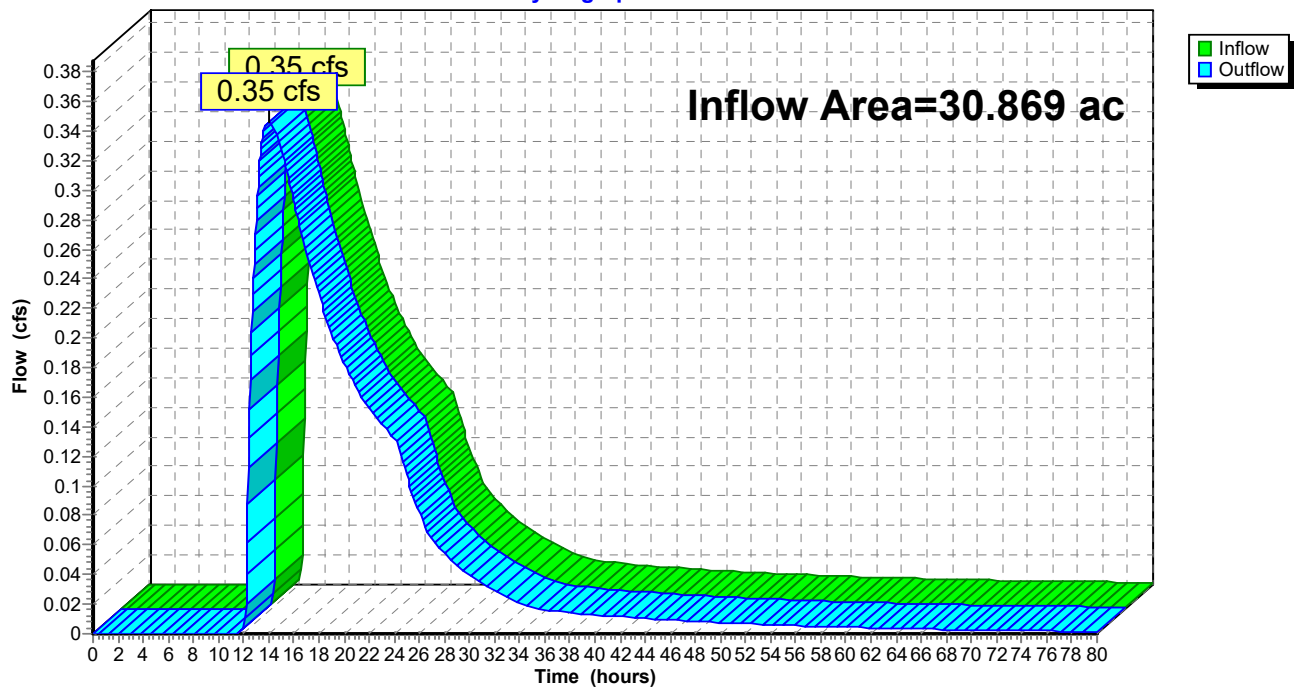
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 30.869 ac, 27.45% Impervious, Inflow Depth > 0.11" for 2-Year event
Inflow = 0.35 cfs @ 14.07 hrs, Volume= 0.291 af
Outflow = 0.35 cfs @ 14.07 hrs, Volume= 0.291 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-5: 24" RCP PIPE

Hydrograph



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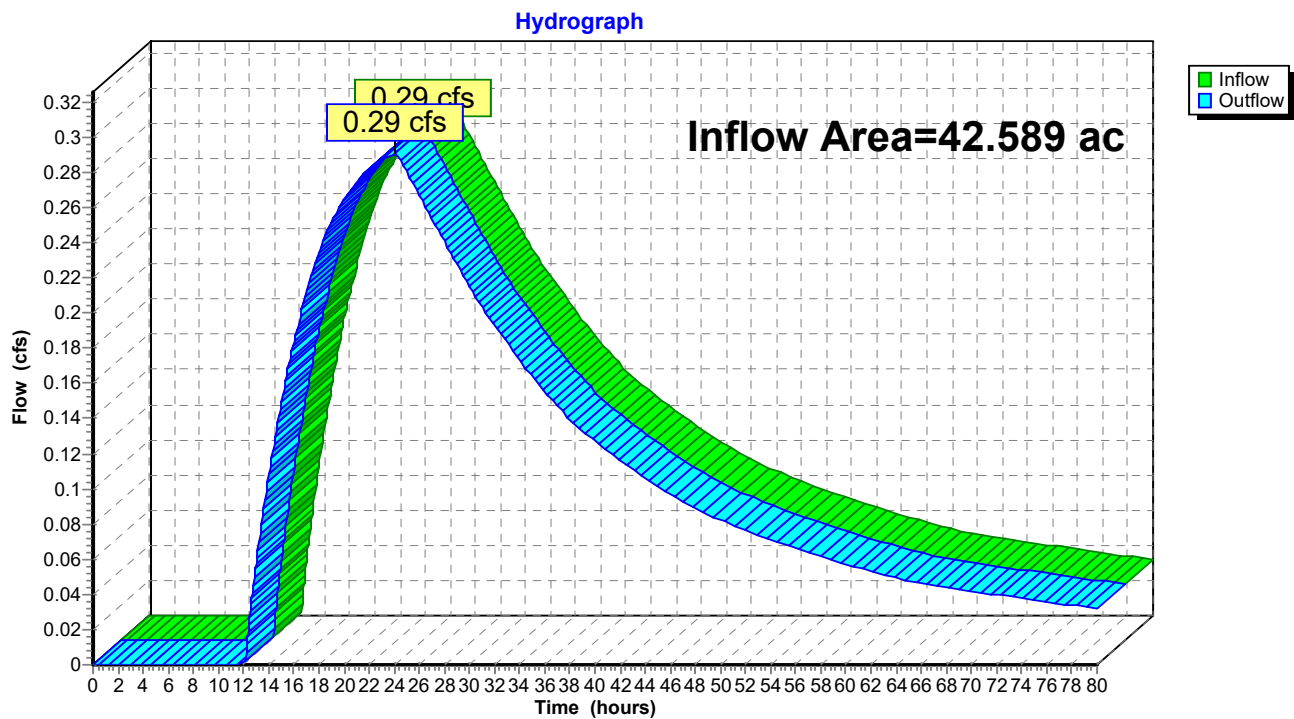
Summary for Reach DP-6: 12" RCP PIPE

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 42.589 ac, 23.35% Impervious, Inflow Depth > 0.19" for 2-Year event
Inflow = 0.29 cfs @ 24.10 hrs, Volume= 0.678 af
Outflow = 0.29 cfs @ 24.10 hrs, Volume= 0.678 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-6: 12" RCP PIPE



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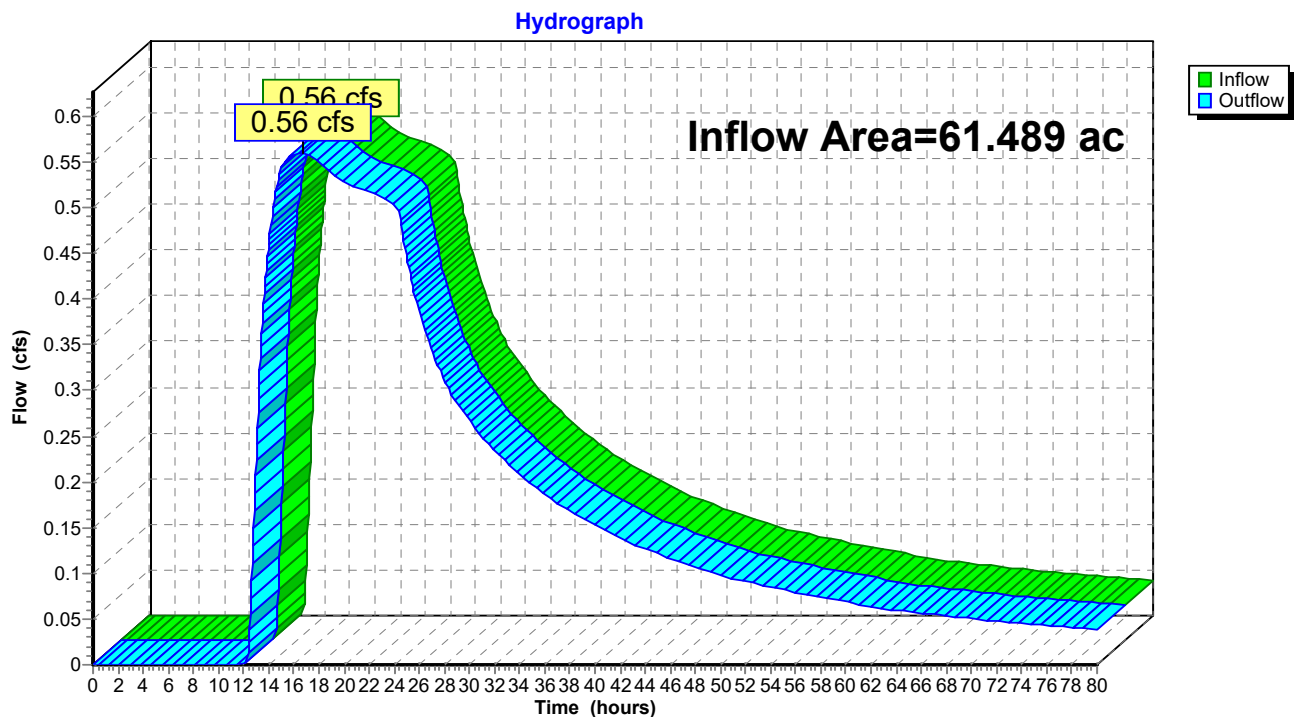
Summary for Reach DP-7: 12" RCP PIPE

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 61.489 ac, 21.22% Impervious, Inflow Depth > 0.21" for 2-Year event
Inflow = 0.56 cfs @ 16.70 hrs, Volume= 1.074 af
Outflow = 0.56 cfs @ 16.70 hrs, Volume= 1.074 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-7: 12" RCP PIPE



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Summary for Reach DP-8: Wetlands Series X

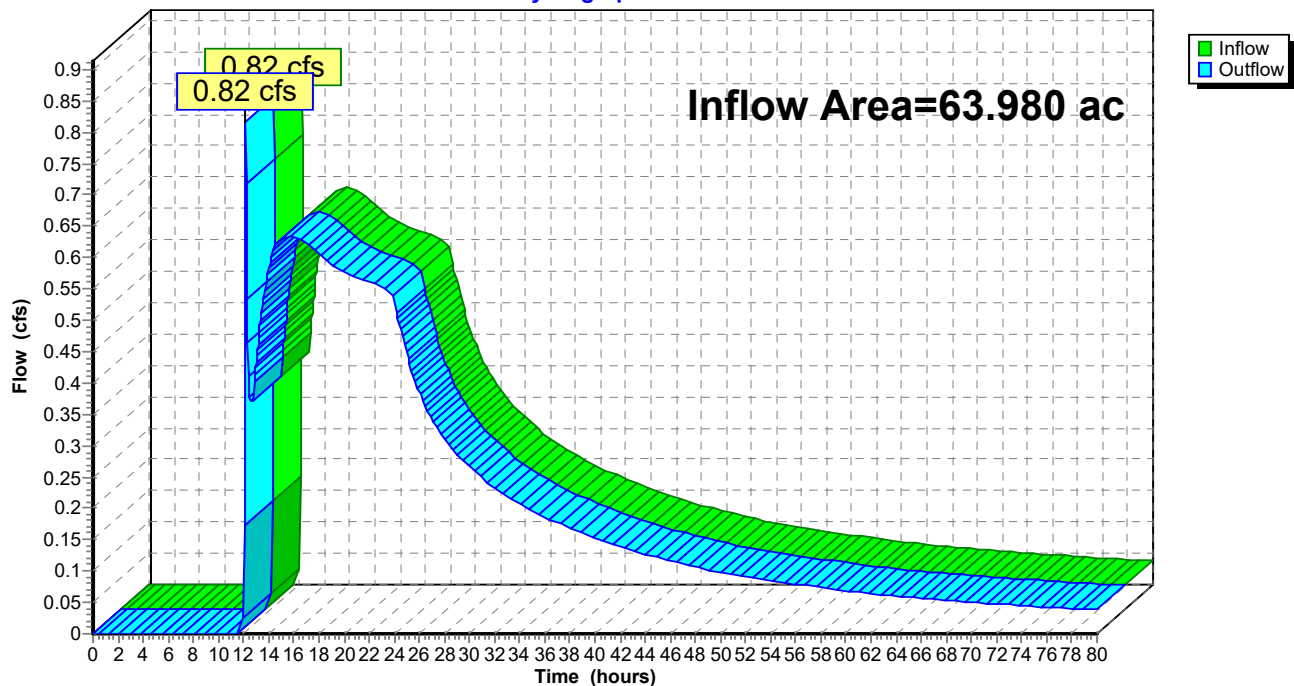
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 63.980 ac, 20.64% Impervious, Inflow Depth > 0.22" for 2-Year event
Inflow = 0.82 cfs @ 12.18 hrs, Volume= 1.167 af
Outflow = 0.82 cfs @ 12.18 hrs, Volume= 1.167 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-8: Wetlands Series X

Hydrograph



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Summary for Reach DP-9: West Elm Street

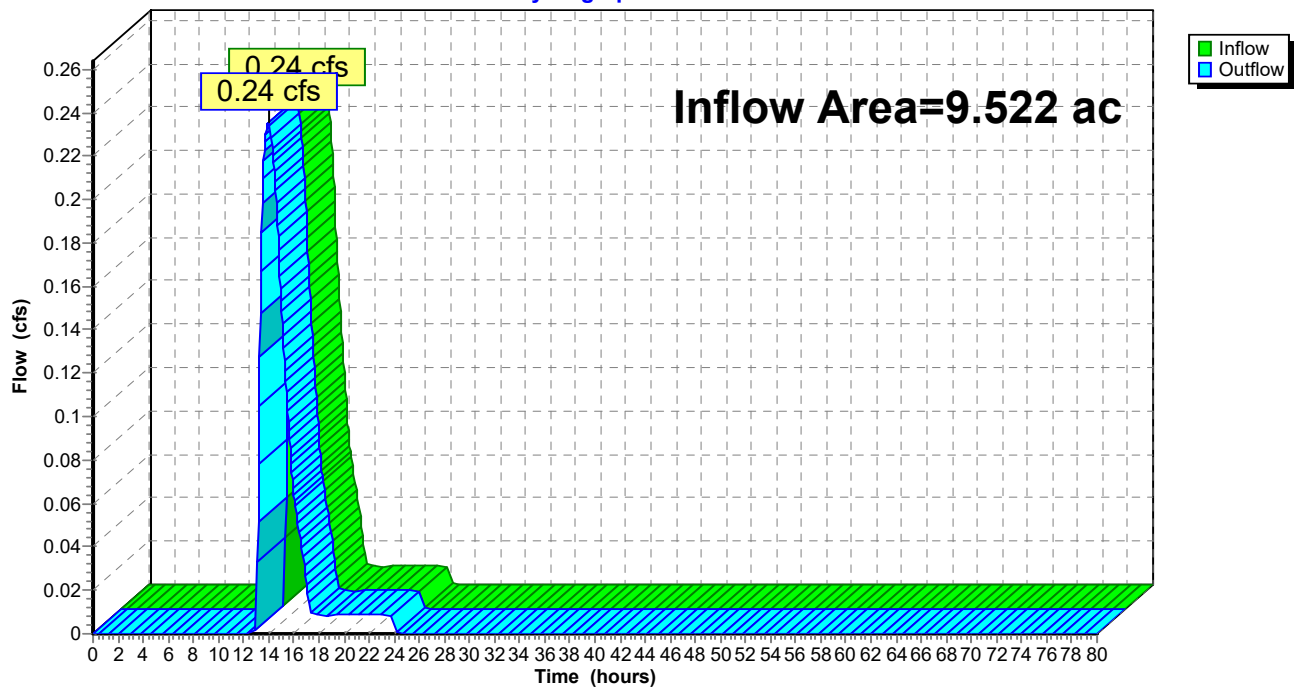
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 9.522 ac, 43.08% Impervious, Inflow Depth = 0.06" for 2-Year event
Inflow = 0.24 cfs @ 13.96 hrs, Volume= 0.048 af
Outflow = 0.24 cfs @ 13.96 hrs, Volume= 0.048 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-9: West Elm Street

Hydrograph



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Summary for Reach DP-ELM: West Elm Street

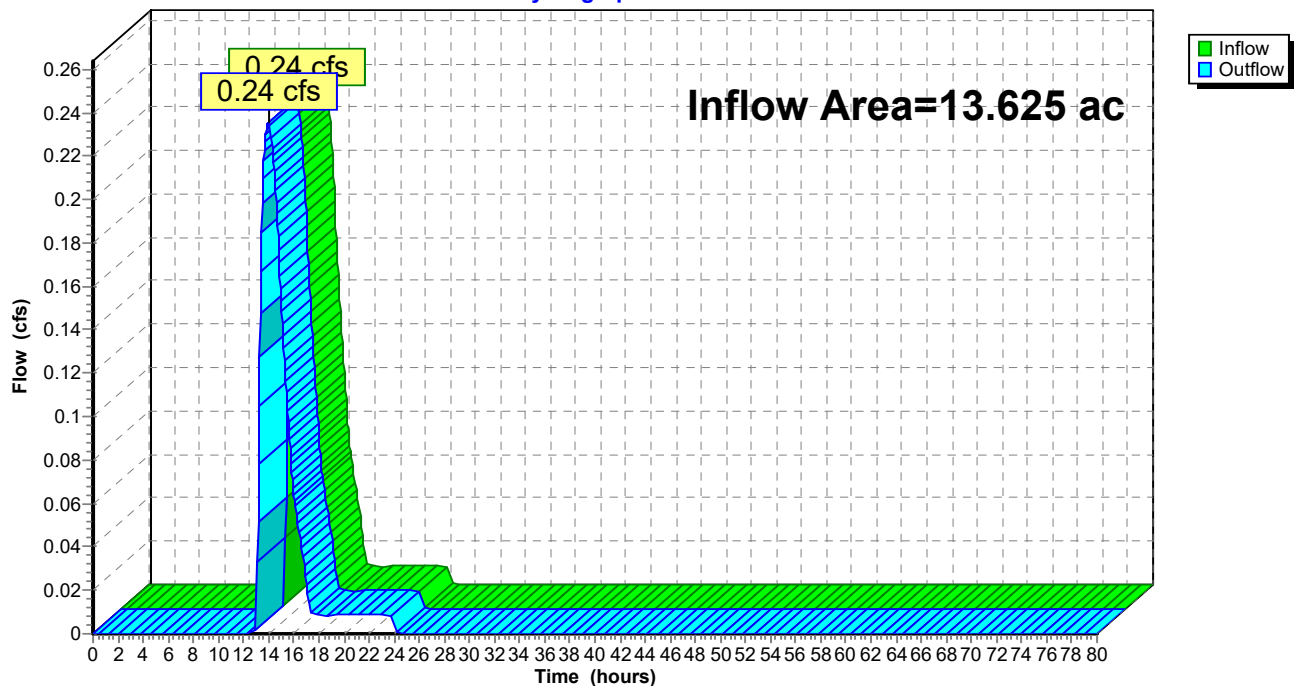
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 13.625 ac, 35.31% Impervious, Inflow Depth = 0.04" for 2-Year event
Inflow = 0.24 cfs @ 13.96 hrs, Volume= 0.048 af
Outflow = 0.24 cfs @ 13.96 hrs, Volume= 0.048 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-ELM: West Elm Street

Hydrograph



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Summary for Reach DP-WA: Wetland Series A

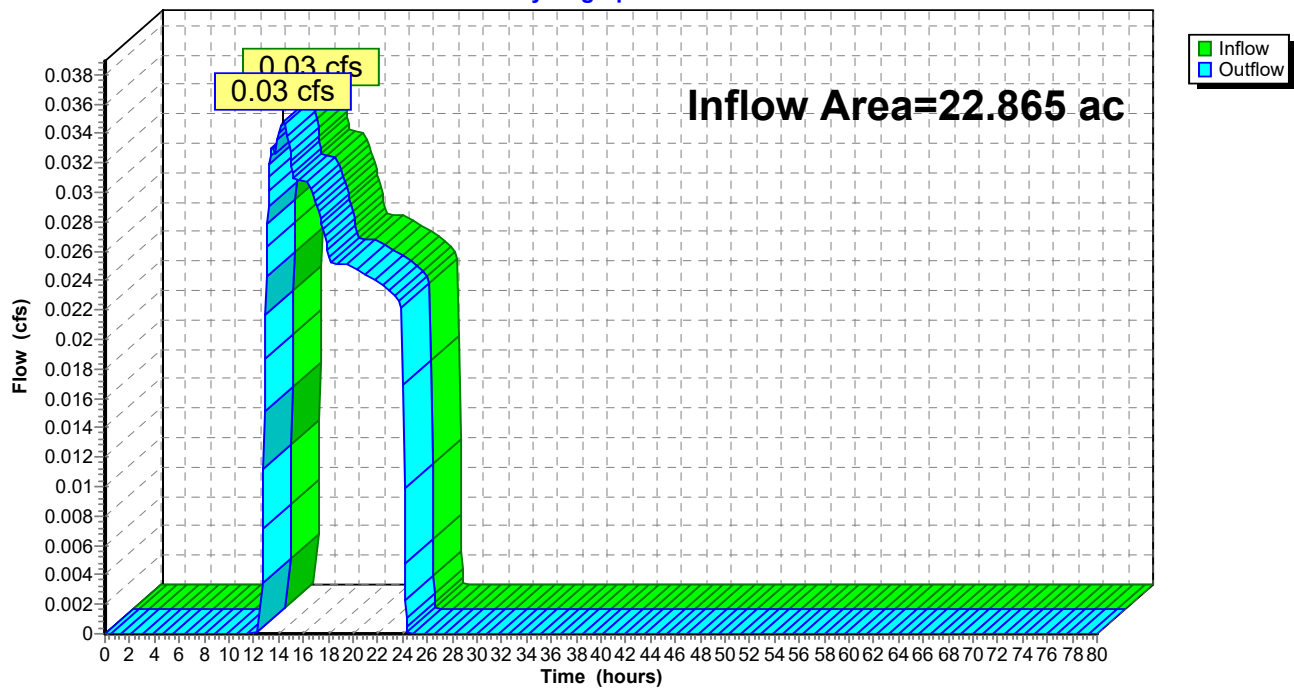
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 22.865 ac, 16.80% Impervious, Inflow Depth = 0.01" for 2-Year event
Inflow = 0.03 cfs @ 14.36 hrs, Volume= 0.025 af
Outflow = 0.03 cfs @ 14.36 hrs, Volume= 0.025 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-WA: Wetland Series A

Hydrograph



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Summary for Reach DP-WI: Wetland Series/Stream I

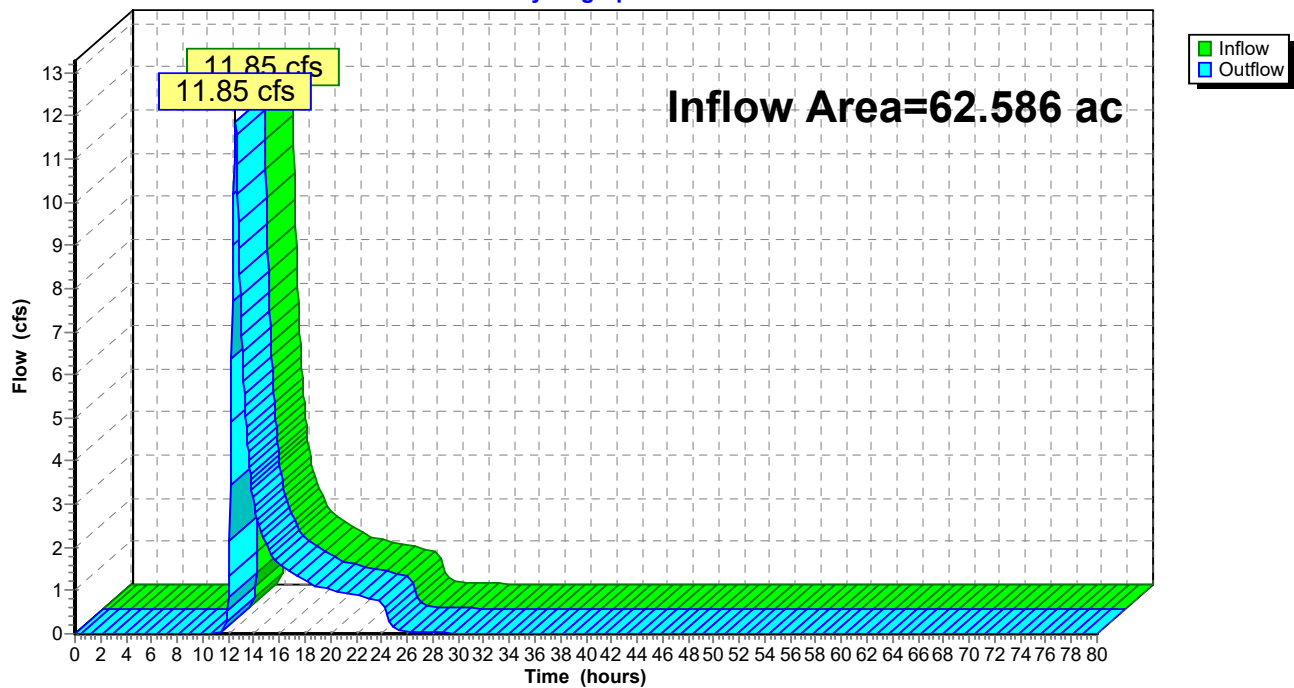
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 62.586 ac, 17.71% Impervious, Inflow Depth = 0.42" for 2-Year event
Inflow = 11.85 cfs @ 12.56 hrs, Volume= 2.178 af
Outflow = 11.85 cfs @ 12.56 hrs, Volume= 2.178 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-WI: Wetland Series/Stream I

Hydrograph



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Summary for Pond BAS 1-A: BAS 1-A

Inflow Area = 3.844 ac, 44.00% Impervious, Inflow Depth = 1.35" for 2-Year event
Inflow = 6.33 cfs @ 12.13 hrs, Volume= 0.432 af
Outflow = 0.18 cfs @ 17.54 hrs, Volume= 0.432 af, Atten= 97%, Lag= 324.3 min
Discarded = 0.18 cfs @ 17.54 hrs, Volume= 0.432 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 79.68' @ 17.54 hrs Surf.Area= 7,835 sf Storage= 11,404 cf

Plug-Flow detention time= 695.7 min calculated for 0.432 af (100% of inflow)
Center-of-Mass det. time= 695.4 min (1,556.3 - 860.9)

Volume	Invert	Avail.Storage	Storage Description
#1	78.00'	44,308 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
78.00	5,723	0	0
83.00	12,000	44,308	44,308

Device	Routing	Invert	Outlet Devices
#1	Discarded	78.00'	1.020 in/hr Exfiltration over Surface area
#2	Primary	82.85'	8.0' long x 23.0' 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

Discarded OutFlow Max=0.18 cfs @ 17.54 hrs HW=79.68' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.18 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=78.00' (Free Discharge)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Proposed Hydrology

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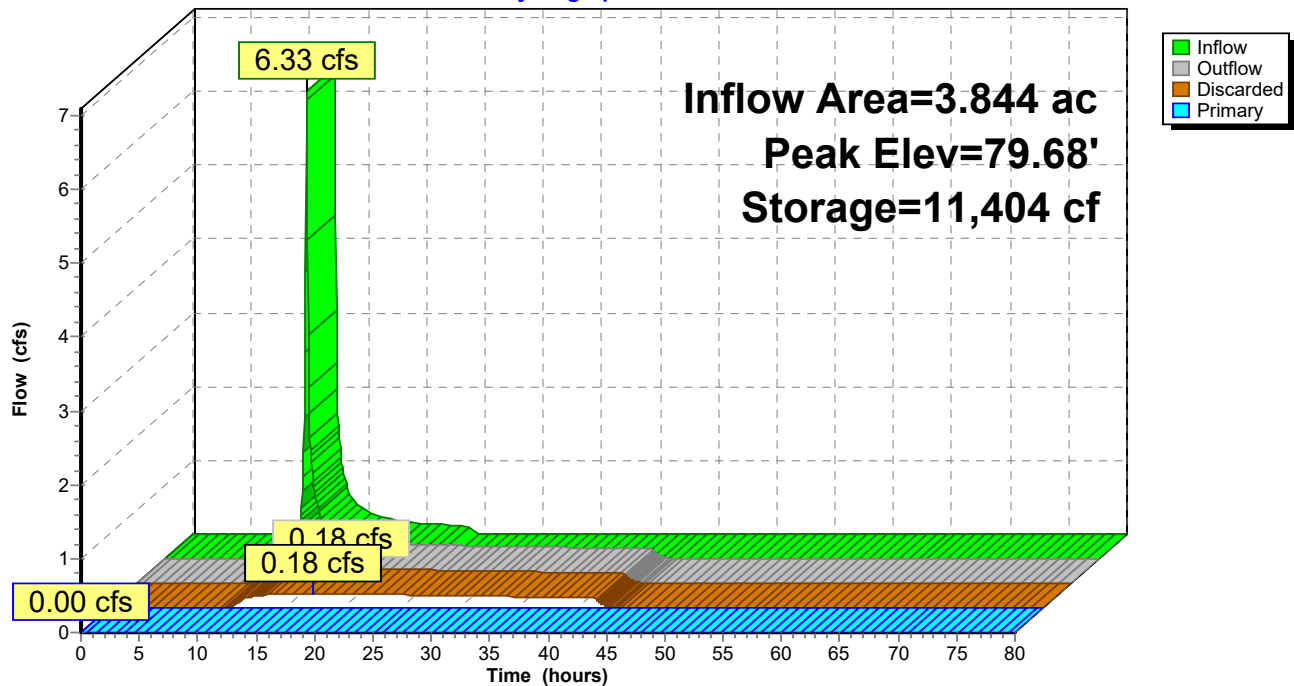
NRCC 24-hr C 2-Year Rainfall=3.39"

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Pond BAS 1-A: BAS 1-A

Hydrograph



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Summary for Pond BAS 1-B: BAS 1-B

Inflow Area = 6.278 ac, 8.01% Impervious, Inflow Depth = 0.70" for 2-Year event
Inflow = 2.70 cfs @ 12.37 hrs, Volume= 0.364 af
Outflow = 0.20 cfs @ 17.96 hrs, Volume= 0.364 af, Atten= 93%, Lag= 335.6 min
Discarded = 0.13 cfs @ 17.96 hrs, Volume= 0.345 af
Primary = 0.07 cfs @ 17.96 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 82.29' @ 17.96 hrs Surf.Area= 5,327 sf Storage= 9,716 cf

Plug-Flow detention time= 849.7 min calculated for 0.363 af (100% of inflow)
Center-of-Mass det. time= 850.2 min (1,770.9 - 920.7)

Volume	Invert	Avail.Storage	Storage Description
#1	80.00'	13,755 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	3,170	0	0
83.00	6,000	13,755	13,755

Device	Routing	Invert	Outlet Devices
#1	Discarded	80.00'	1.020 in/hr Exfiltration over Surface area
#2	Primary	82.27'	10.0' long x 23.0' 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

Discarded OutFlow Max=0.13 cfs @ 17.96 hrs HW=82.29' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.13 cfs)

Primary OutFlow Max=0.06 cfs @ 17.96 hrs HW=82.29' (Free Discharge)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 0.06 cfs @ 0.35 fps)

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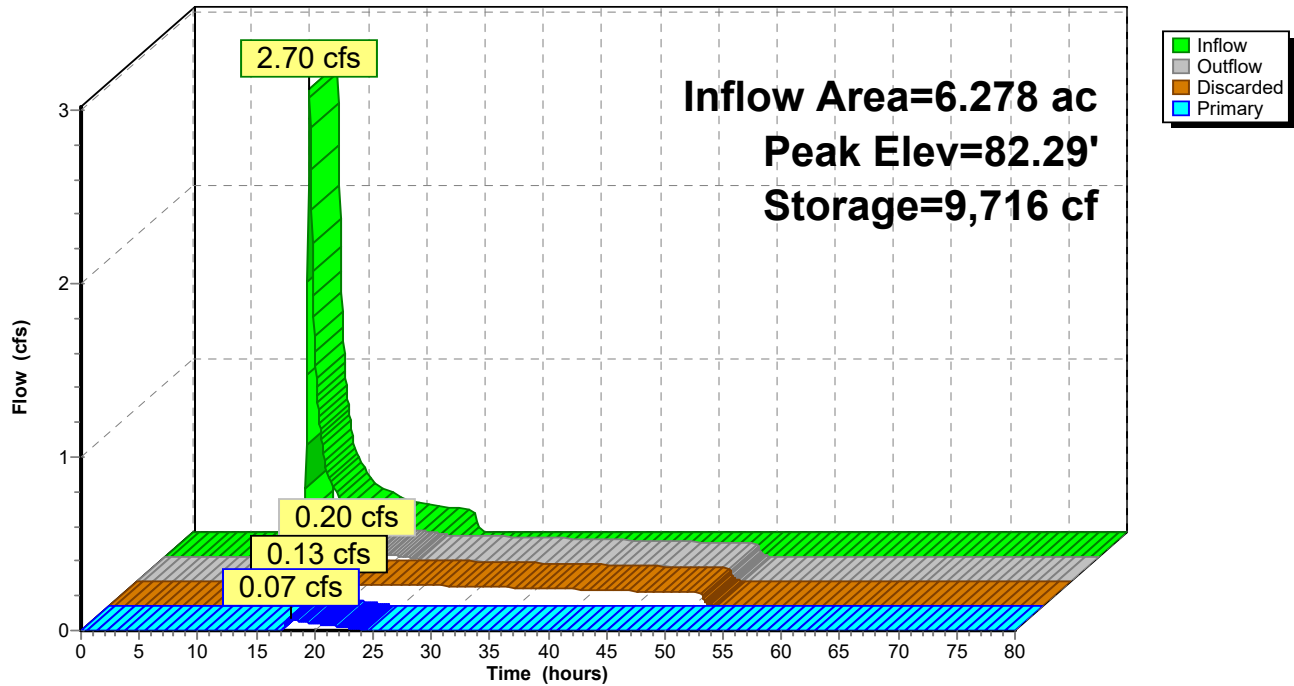
NRCC 24-hr C 2-Year Rainfall=3.39"

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Pond BAS 1-B: BAS 1-B

Hydrograph



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Summary for Pond BAS 1-C: BAS 1-C

Inflow Area = 0.144 ac, 73.04% Impervious, Inflow Depth = 2.17" for 2-Year event
Inflow = 0.38 cfs @ 12.13 hrs, Volume= 0.026 af
Outflow = 0.15 cfs @ 12.28 hrs, Volume= 0.026 af, Atten= 60%, Lag= 8.9 min
Discarded = 0.01 cfs @ 12.28 hrs, Volume= 0.019 af
Primary = 0.14 cfs @ 12.28 hrs, Volume= 0.007 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 82.85' @ 12.28 hrs Surf.Area= 426 sf Storage= 458 cf

Plug-Flow detention time= 419.6 min calculated for 0.026 af (100% of inflow)
Center-of-Mass det. time= 419.5 min (1,240.3 - 820.8)

Volume	Invert	Avail.Storage	Storage Description
#1	81.00'	525 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
81.00	70	0	0
83.00	455	525	525

Device	Routing	Invert	Outlet Devices
#1	Discarded	81.00'	1.020 in/hr Exfiltration over Surface area
#2	Primary	82.80'	5.0' long x 23.0' 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

Discarded OutFlow Max=0.01 cfs @ 12.28 hrs HW=82.85' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.14 cfs @ 12.28 hrs HW=82.85' (Free Discharge)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 0.14 cfs @ 0.58 fps)

Proposed Hydrology

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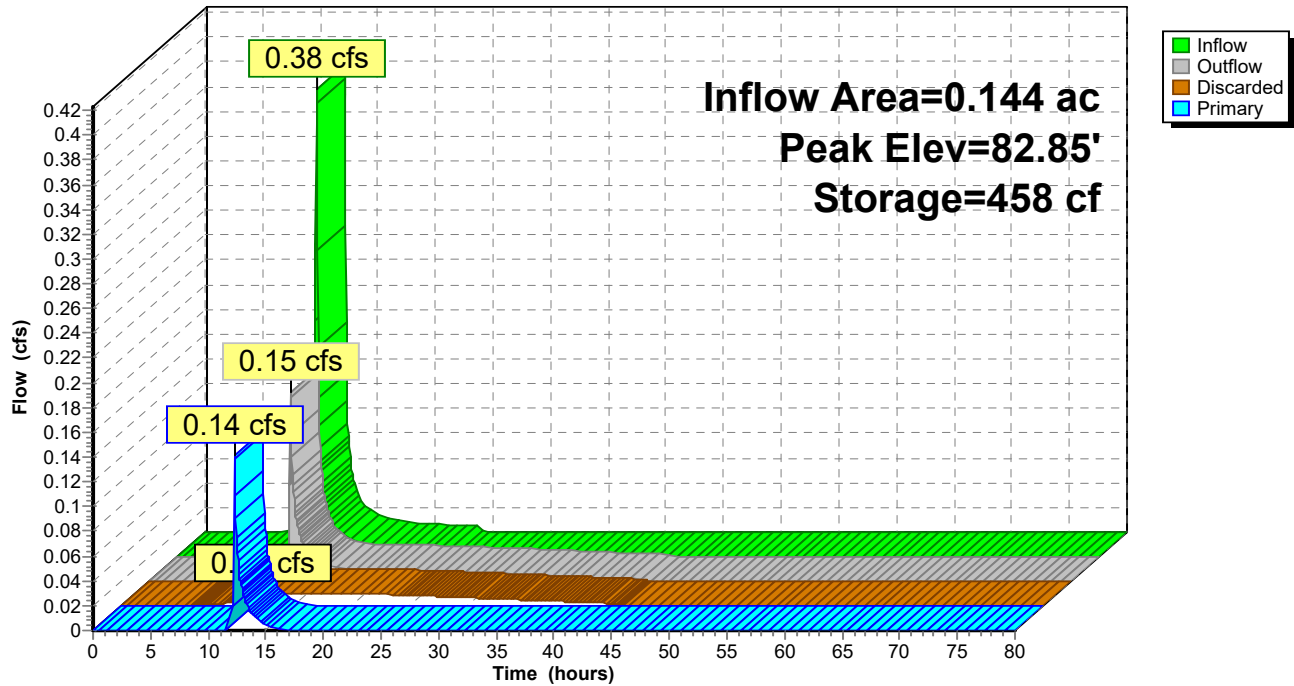
NRCC 24-hr C 2-Year Rainfall=3.39"

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Pond BAS 1-C: BAS 1-C

Hydrograph



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Summary for Pond BAS 10-A: EXIST BAS 10-A

Inflow Area = 0.796 ac, 7.21% Impervious, Inflow Depth = 0.00" for 2-Year event
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
Discarded = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Peak Elev= 54.00' @ 0.00 hrs Surf.Area= 220 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	54.00'	16,389 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.00	220	0	0	220
55.00	1,250	665	665	1,254
56.00	2,210	1,707	2,372	2,225
59.00	4,000	9,183	11,555	4,108
60.10	4,800	4,833	16,389	4,949

Device	Routing	Invert	Outlet Devices
#1	Discarded	54.00'	0.520 in/hr Exfiltration over Wetted area
#2	Primary	60.00'	15.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Discarded OutFlow Max=0.00 cfs @ 0.00 hrs HW=54.00' (Free Discharge)

↑**1=Exfiltration** (Passes 0.00 cfs of 0.00 cfs potential flow)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=54.00' (Free Discharge)

↑**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Proposed Hydrology

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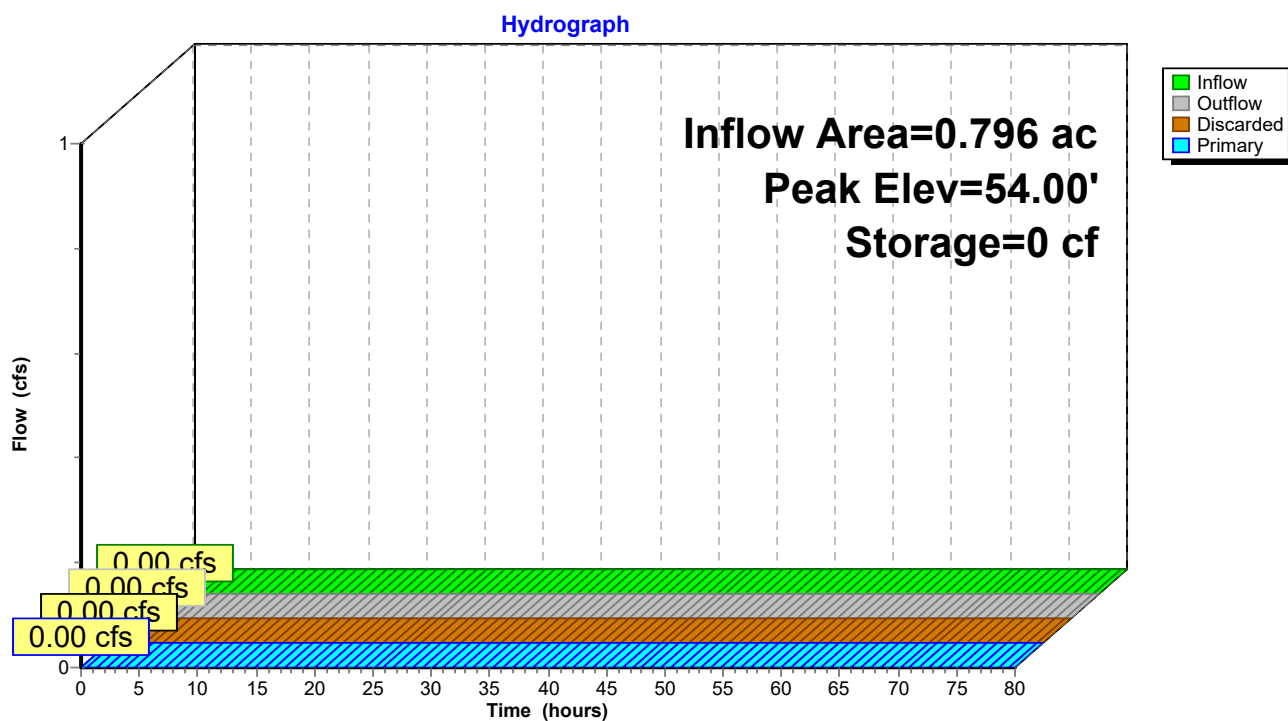
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Pond BAS 10-A: EXIST BAS 10-A



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Summary for Pond BAS 10-B: BAS 10-B

Inflow Area = 1.334 ac, 40.19% Impervious, Inflow Depth = 0.56" for 2-Year event
Inflow = 0.74 cfs @ 12.15 hrs, Volume= 0.063 af
Outflow = 0.12 cfs @ 13.09 hrs, Volume= 0.063 af, Atten= 83%, Lag= 56.8 min
Discarded = 0.12 cfs @ 13.09 hrs, Volume= 0.063 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 77.28' @ 13.09 hrs Surf.Area= 2,227 sf Storage= 603 cf

Plug-Flow detention time= 38.9 min calculated for 0.063 af (100% of inflow)
Center-of-Mass det. time= 38.8 min (958.3 - 919.5)

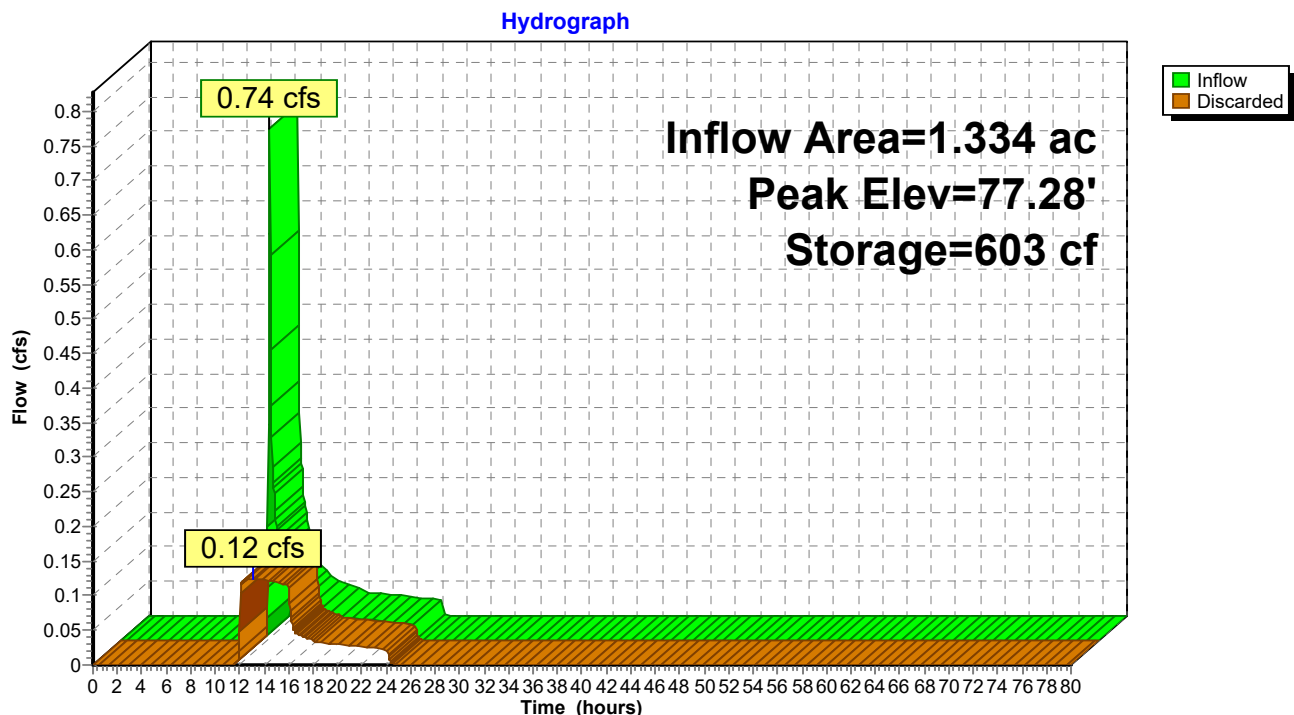
Volume	Invert	Avail.Storage	Storage Description
#1	77.00'	9,319 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
77.00	2,050	0	0	2,050
80.00	4,300	9,319	9,319	4,376

Device	Routing	Invert	Outlet Devices
#1	Discarded	77.00'	2.410 in/hr Exfiltration over Wetted area

Discarded OutFlow Max=0.12 cfs @ 13.09 hrs HW=77.28' (Free Discharge)
↑1=Exfiltration (Exfiltration Controls 0.12 cfs)

Pond BAS 10-B: BAS 10-B



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Summary for Pond BAS 11-B: BAS 11-B

Inflow Area = 4.313 ac, 11.38% Impervious, Inflow Depth = 0.41" for 2-Year event
Inflow = 1.21 cfs @ 12.15 hrs, Volume= 0.148 af
Outflow = 0.71 cfs @ 12.28 hrs, Volume= 0.148 af, Atten= 42%, Lag= 7.6 min
Discarded = 0.71 cfs @ 12.28 hrs, Volume= 0.148 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 44.02' @ 12.28 hrs Surf.Area= 30,000 sf Storage= 280 cf

Plug-Flow detention time= 3.2 min calculated for 0.148 af (100% of inflow)
Center-of-Mass det. time= 3.2 min (922.8 - 919.6)

Volume	Invert	Avail.Storage	Storage Description
#1	44.00'	12,000 cf	Custom Stage Data (Conic) Listed below (Recalc) 30,000 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
44.00	30,000	0	0	30,000
45.00	30,000	30,000	30,000	30,614

Device	Routing	Invert	Outlet Devices
#1	Discarded	44.00'	1.020 in/hr Exfiltration over Wetted area
#2	Primary	44.98'	800.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Discarded OutFlow Max=0.71 cfs @ 12.28 hrs HW=44.02' (Free Discharge)

↑**1=Exfiltration** (Exfiltration Controls 0.71 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=44.00' (Free Discharge)

↑**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Proposed Hydrology

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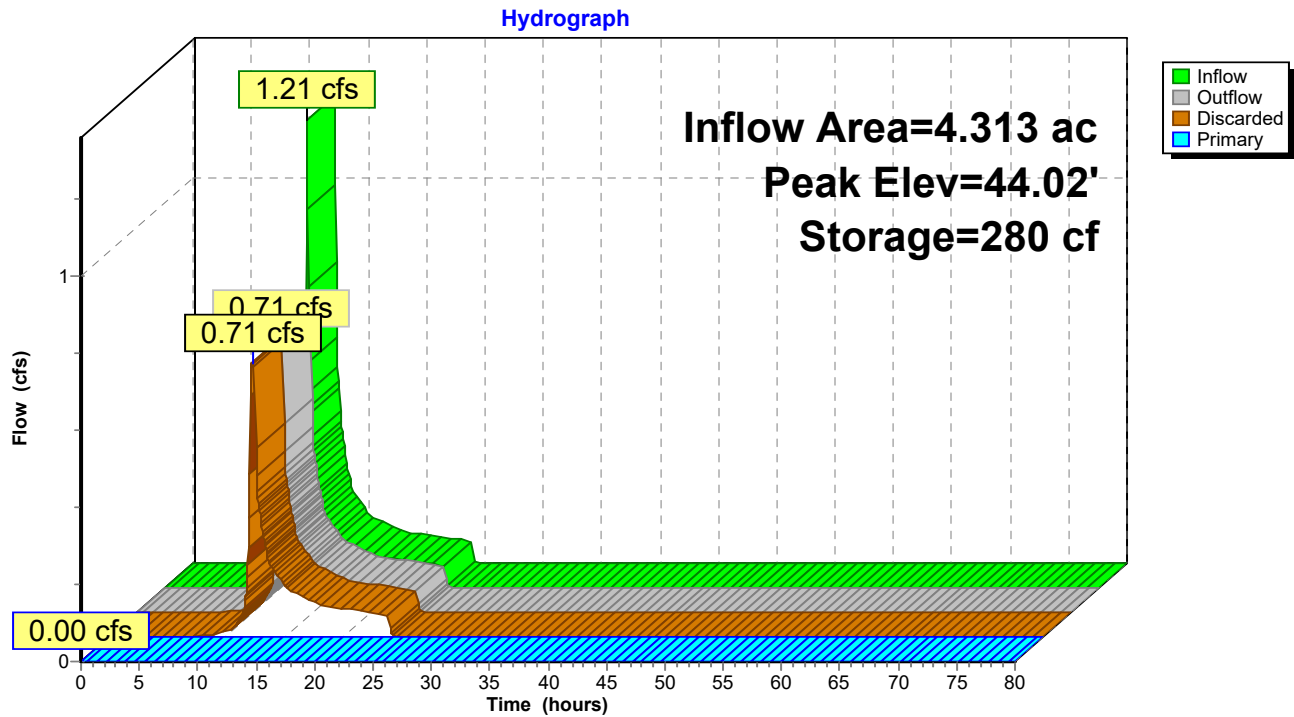
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Pond BAS 11-B: BAS 11-B



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Summary for Pond BAS 12-A: BAS 12-A

Inflow Area = 6.552 ac, 26.15% Impervious, Inflow Depth = 0.84" for 2-Year event
Inflow = 6.25 cfs @ 12.14 hrs, Volume= 0.458 af
Outflow = 0.60 cfs @ 13.55 hrs, Volume= 0.458 af, Atten= 90%, Lag= 84.7 min
Discarded = 0.60 cfs @ 13.55 hrs, Volume= 0.458 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 93.67' @ 13.55 hrs Surf.Area= 10,737 sf Storage= 6,805 cf

Plug-Flow detention time= 107.8 min calculated for 0.457 af (100% of inflow)
Center-of-Mass det. time= 107.7 min (1,000.7 - 893.0)

Volume	Invert	Avail.Storage	Storage Description
#1	93.00'	37,274 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
93.00	9,500	0	0	9,500
96.00	15,600	37,274	37,274	15,714

Device	Routing	Invert	Outlet Devices
#1	Discarded	93.00'	2.410 in/hr Exfiltration over Wetted area
#2	Primary	95.63'	10.0' long x 23.0' 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

Discarded OutFlow Max=0.60 cfs @ 13.55 hrs HW=93.67' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.60 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=93.00' (Free Discharge)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Proposed Hydrology

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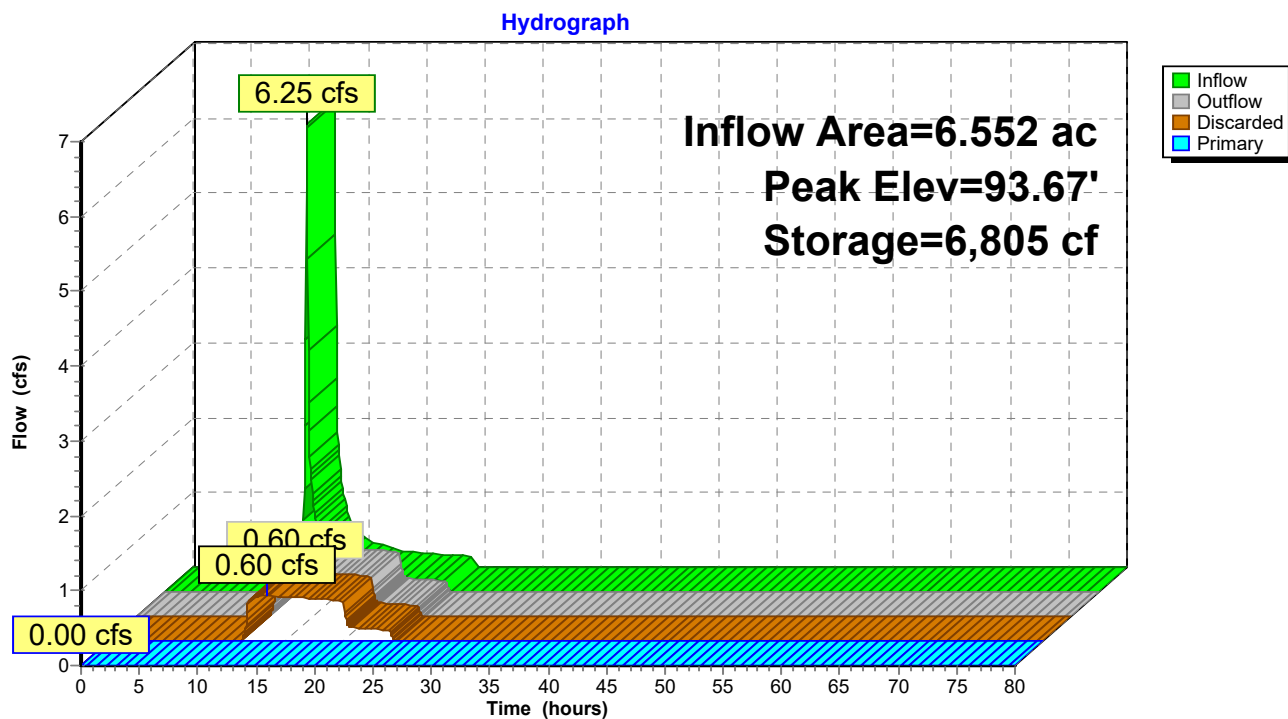
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Pond BAS 12-A: BAS 12-A



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Summary for Pond BAS 12-B: BAS 12-B

Inflow Area = 13.364 ac, 24.22% Impervious, Inflow Depth = 0.19" for 2-Year event
Inflow = 1.78 cfs @ 12.16 hrs, Volume= 0.213 af
Outflow = 0.58 cfs @ 12.69 hrs, Volume= 0.213 af, Atten= 68%, Lag= 31.5 min
Discarded = 0.58 cfs @ 12.69 hrs, Volume= 0.213 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 91.04' @ 12.69 hrs Surf.Area= 24,383 sf Storage= 1,069 cf

Plug-Flow detention time= 22.9 min calculated for 0.213 af (100% of inflow)
Center-of-Mass det. time= 23.0 min (972.0 - 949.0)

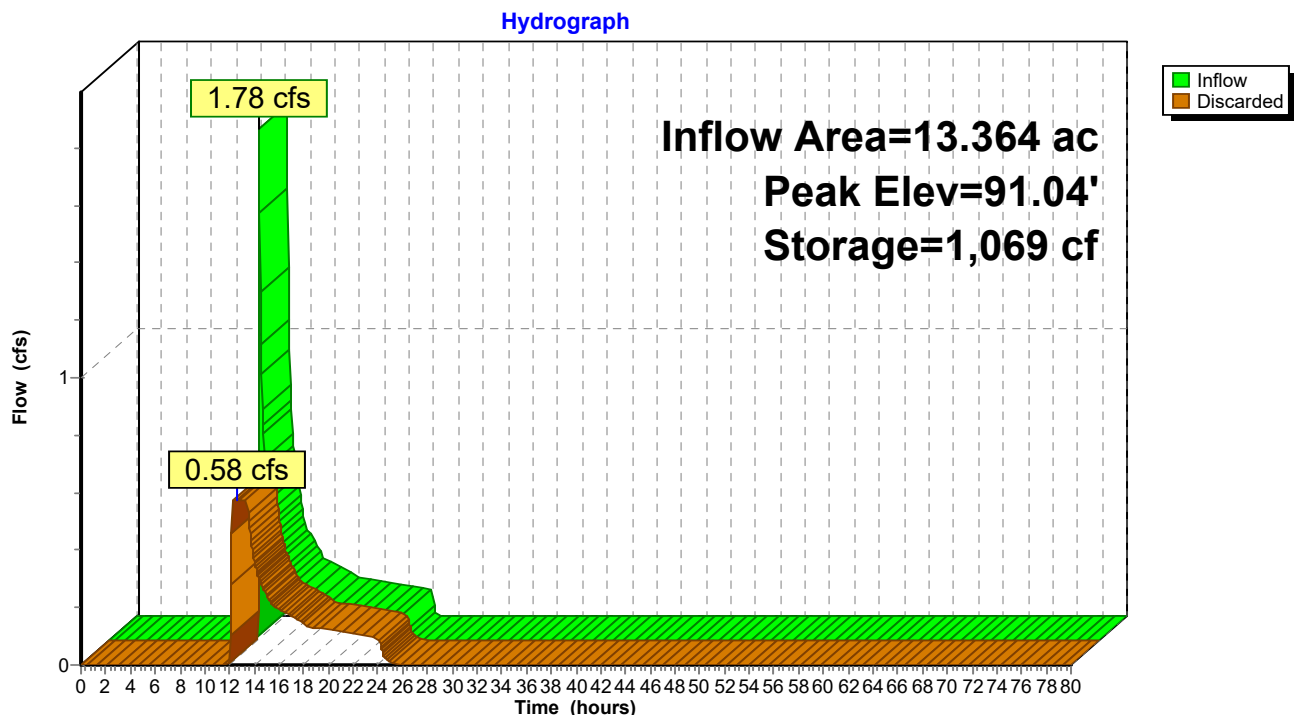
Volume	Invert	Avail.Storage	Storage Description
#1	91.00'	87,248 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
91.00	24,250	0	0	24,250
94.00	34,200	87,248	87,248	34,364

Device	Routing	Invert	Outlet Devices
#1	Discarded	91.00'	1.020 in/hr Exfiltration over Wetted area

Discarded OutFlow Max=0.58 cfs @ 12.69 hrs HW=91.04' (Free Discharge)
↑1=Exfiltration (Exfiltration Controls 0.58 cfs)

Pond BAS 12-B: BAS 12-B



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Summary for Pond BAS 15-A: BAS 15-A

Inflow Area = 0.392 ac, 41.18% Impervious, Inflow Depth = 1.29" for 2-Year event
Inflow = 0.61 cfs @ 12.14 hrs, Volume= 0.042 af
Outflow = 0.08 cfs @ 12.95 hrs, Volume= 0.042 af, Atten= 87%, Lag= 49.1 min
Discarded = 0.03 cfs @ 12.95 hrs, Volume= 0.038 af
Primary = 0.06 cfs @ 12.95 hrs, Volume= 0.004 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 82.82' @ 12.95 hrs Surf.Area= 1,094 sf Storage= 772 cf

Plug-Flow detention time= 311.5 min calculated for 0.042 af (100% of inflow)
Center-of-Mass det. time= 311.6 min (1,175.9 - 864.3)

Volume	Invert	Avail.Storage	Storage Description
#1	82.00'	980 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
82.00	800	0	0
83.00	1,160	980	980

Device	Routing	Invert	Outlet Devices
#1	Discarded	82.00'	1.020 in/hr Exfiltration over Surface area
#2	Primary	82.80'	10.0' long x 23.0' 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

Discarded OutFlow Max=0.03 cfs @ 12.95 hrs HW=82.82' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.03 cfs)

Primary OutFlow Max=0.05 cfs @ 12.95 hrs HW=82.82' (Free Discharge)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 0.05 cfs @ 0.34 fps)

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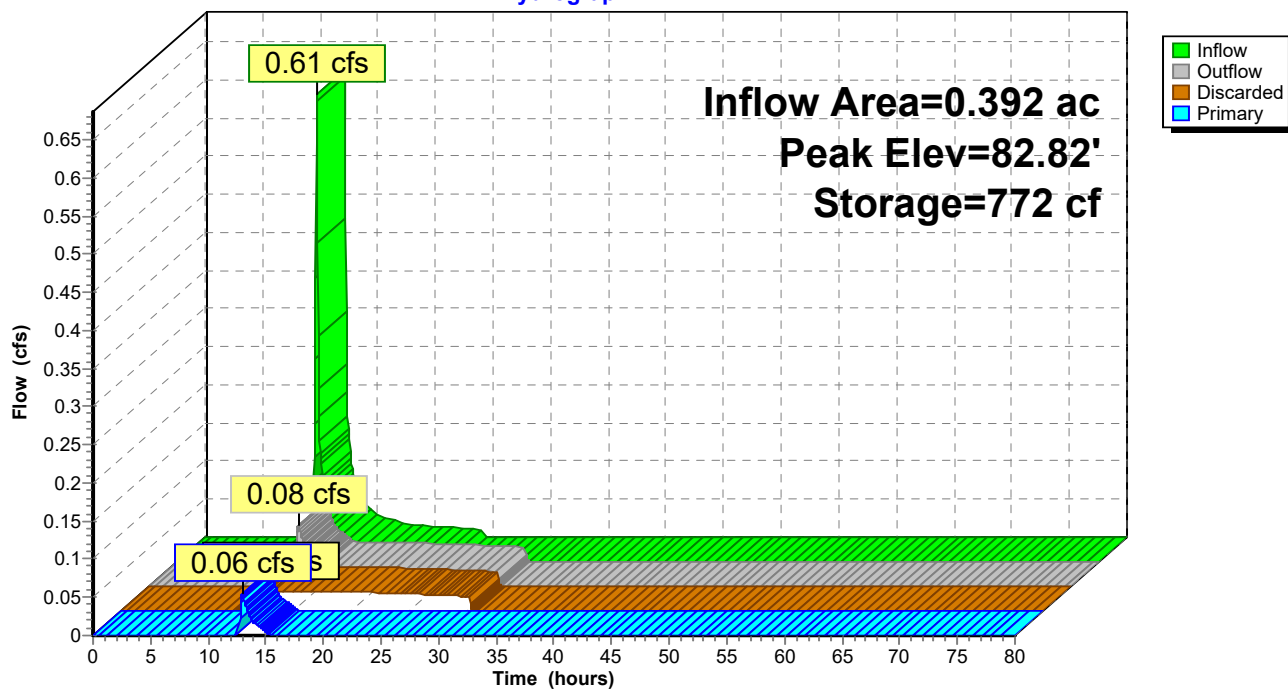
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Pond BAS 15-A: BAS 15-A

Hydrograph



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Summary for Pond BAS 2-A: DET BAS 2-A

Inflow Area = 2.386 ac, 38.00% Impervious, Inflow Depth = 0.52" for 2-Year event
Inflow = 1.17 cfs @ 12.15 hrs, Volume= 0.104 af
Outflow = 0.09 cfs @ 15.18 hrs, Volume= 0.104 af, Atten= 92%, Lag= 181.8 min
Primary = 0.09 cfs @ 15.18 hrs, Volume= 0.104 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 103.40' @ 15.18 hrs Surf.Area= 4,952 sf Storage= 1,868 cf

Plug-Flow detention time= 357.7 min calculated for 0.104 af (99% of inflow)
Center-of-Mass det. time= 356.8 min (1,281.5 - 924.7)

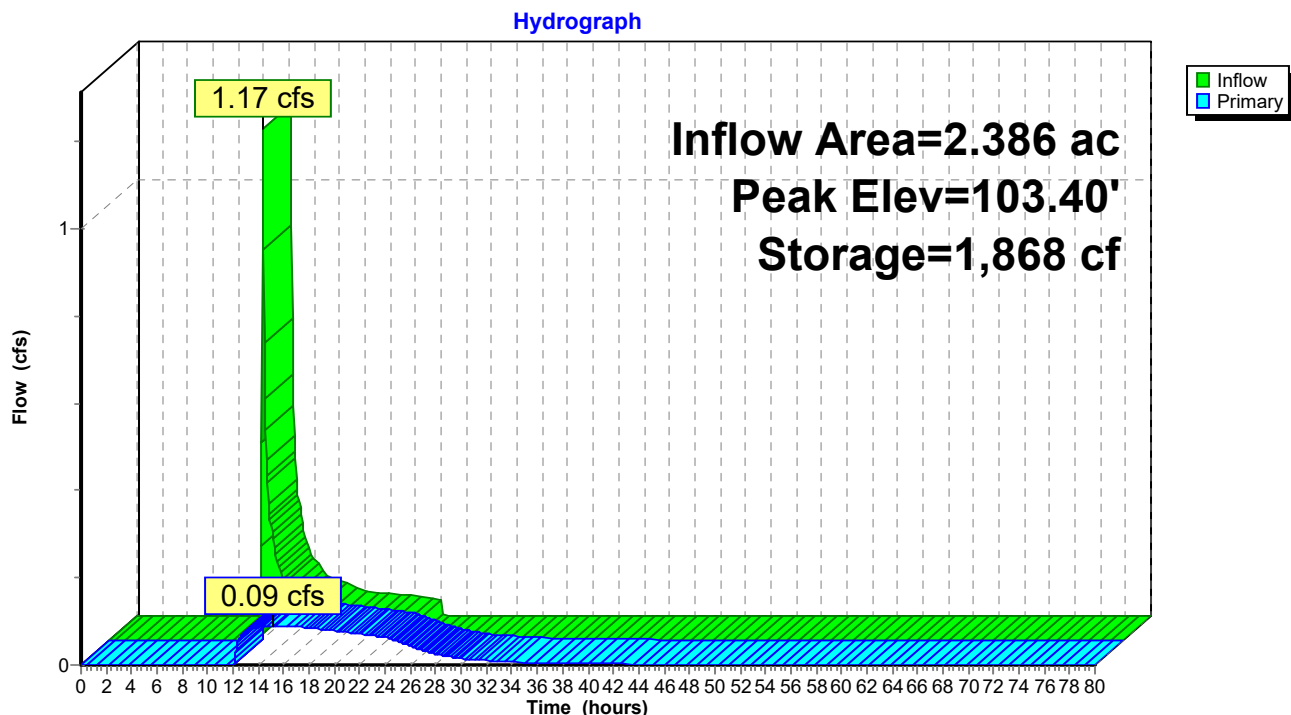
Volume	Invert	Avail.Storage	Storage Description
#1	103.00'	19,643 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
103.00	4,450	0	0	4,450
106.00	8,900	19,643	19,643	8,982

Device	Routing	Invert	Outlet Devices
#1	Primary	103.00'	2.5" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.09 cfs @ 15.18 hrs HW=103.40' (Free Discharge)
↑1=Orifice/Grate (Orifice Controls 0.09 cfs @ 2.61 fps)

Pond BAS 2-A: DET BAS 2-A



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Summary for Pond BAS 2-B: BAS 2-B

Inflow Area = 1.161 ac, 38.00% Impervious, Inflow Depth = 0.89" for 2-Year event
Inflow = 1.19 cfs @ 12.14 hrs, Volume= 0.086 af
Outflow = 0.04 cfs @ 17.86 hrs, Volume= 0.086 af, Atten= 97%, Lag= 342.9 min
Discarded = 0.04 cfs @ 17.86 hrs, Volume= 0.086 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 99.66' @ 17.86 hrs Surf.Area= 3,390 sf Storage= 2,110 cf

Plug-Flow detention time= 587.2 min calculated for 0.086 af (100% of inflow)
Center-of-Mass det. time= 587.4 min (1,476.5 - 889.1)

Volume	Invert	Avail.Storage	Storage Description
#1	99.00'	3,295 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
99.00	3,000	0	0	3,000
100.00	3,600	3,295	3,295	3,634

Device	Routing	Invert	Outlet Devices
#1	Discarded	99.00'	0.520 in/hr Exfiltration over Surface area
#2	Primary	99.73'	15.0' long x 15.0' 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

Discarded OutFlow Max=0.04 cfs @ 17.86 hrs HW=99.66' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.04 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=99.00' (Free Discharge)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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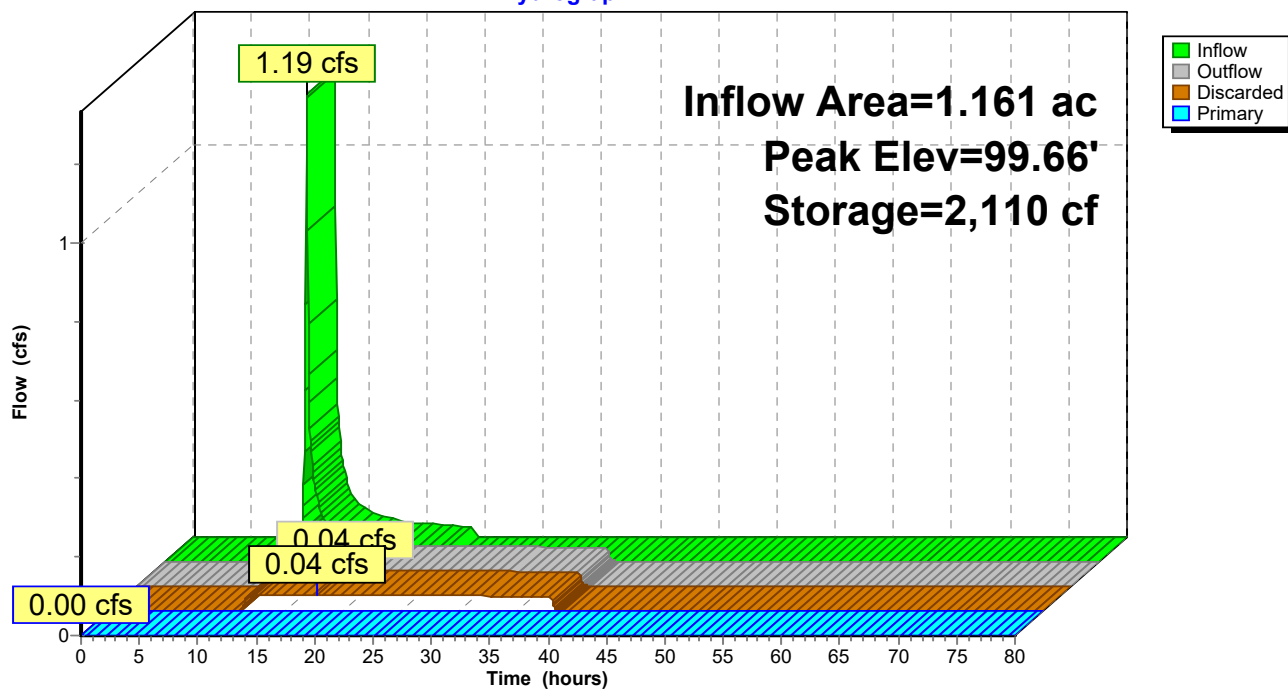
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Pond BAS 2-B: BAS 2-B

Hydrograph



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Summary for Pond BAS 2-C: BAS 2-C

Inflow Area = 1.461 ac, 38.00% Impervious, Inflow Depth = 1.92" for 2-Year event
Inflow = 3.43 cfs @ 12.13 hrs, Volume= 0.234 af
Outflow = 0.08 cfs @ 17.67 hrs, Volume= 0.234 af, Atten= 98%, Lag= 332.6 min
Discarded = 0.08 cfs @ 17.67 hrs, Volume= 0.234 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 102.43' @ 17.67 hrs Surf.Area= 3,493 sf Storage= 6,599 cf

Plug-Flow detention time= 894.1 min calculated for 0.234 af (100% of inflow)
Center-of-Mass det. time= 894.6 min (1,727.4 - 832.8)

Volume	Invert	Avail.Storage	Storage Description		
#1	100.00'	8,693 cf	Custom Stage Data (Conic) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
100.00	2,000	0	0	2,000	
103.00	3,900	8,693	8,693	3,984	

Device	Routing	Invert	Outlet Devices									
#1	Primary	102.67'	20.0' long x 23.0' 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									
#2	Discarded	100.00'	1.020 in/hr Exfiltration over Surface area									

Discarded OutFlow Max=0.08 cfs @ 17.67 hrs HW=102.43' (Free Discharge)
↑**2=Exfiltration** (Exfiltration Controls 0.08 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=100.00' (Free Discharge)
↑**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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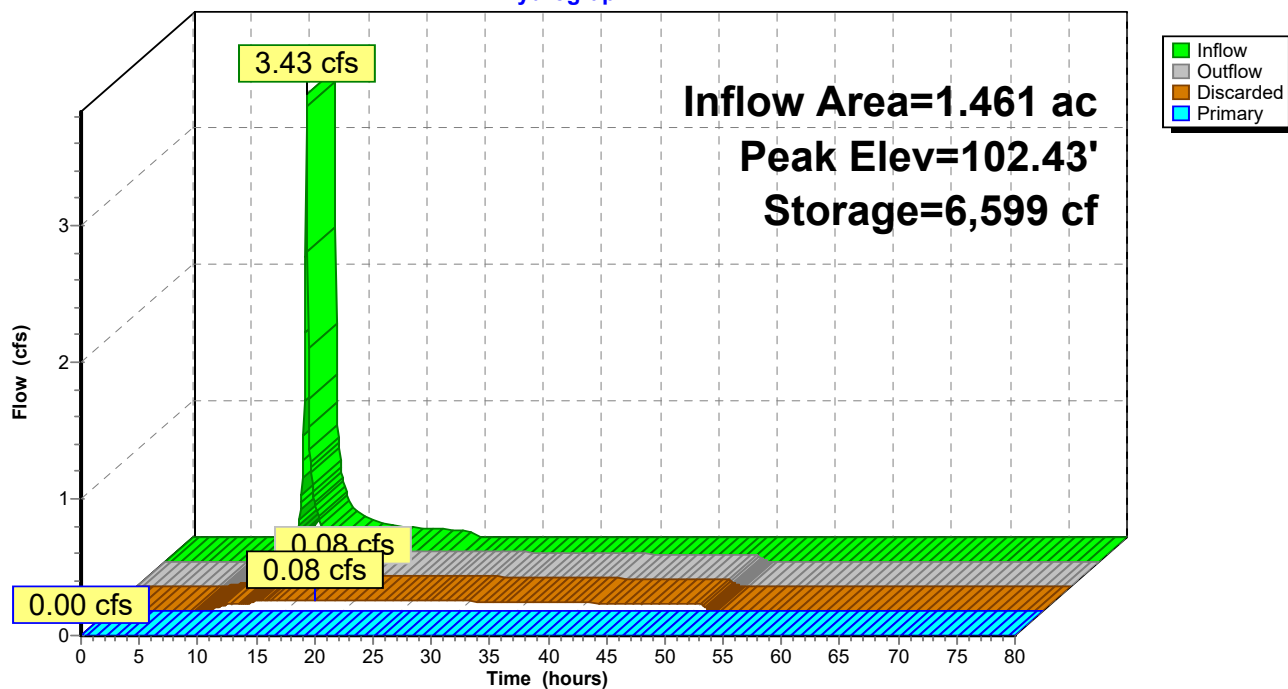
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Pond BAS 2-C: BAS 2-C

Hydrograph



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Summary for Pond BAS 2-D: BAS 2-D

Inflow Area = 8.783 ac, 33.03% Impervious, Inflow Depth = 0.74" for 2-Year event
Inflow = 7.16 cfs @ 12.14 hrs, Volume= 0.543 af
Outflow = 0.40 cfs @ 15.62 hrs, Volume= 0.543 af, Atten= 94%, Lag= 208.6 min
Discarded = 0.40 cfs @ 15.62 hrs, Volume= 0.543 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 105.67' @ 15.62 hrs Surf.Area= 16,701 sf Storage= 10,692 cf

Plug-Flow detention time= 317.2 min calculated for 0.542 af (100% of inflow)
Center-of-Mass det. time= 317.2 min (1,218.3 - 901.1)

Volume	Invert	Avail.Storage	Storage Description
#1	105.00'	78,167 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
105.00	15,400	0	0	15,400
109.00	24,000	78,167	78,167	24,225

Device	Routing	Invert	Outlet Devices
#1	Discarded	105.00'	1.020 in/hr Exfiltration over Wetted area
#2	Primary	108.80'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.40 cfs @ 15.62 hrs HW=105.67' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.40 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=105.00' (Free Discharge)
↑**2=Orifice/Grate** (Controls 0.00 cfs)

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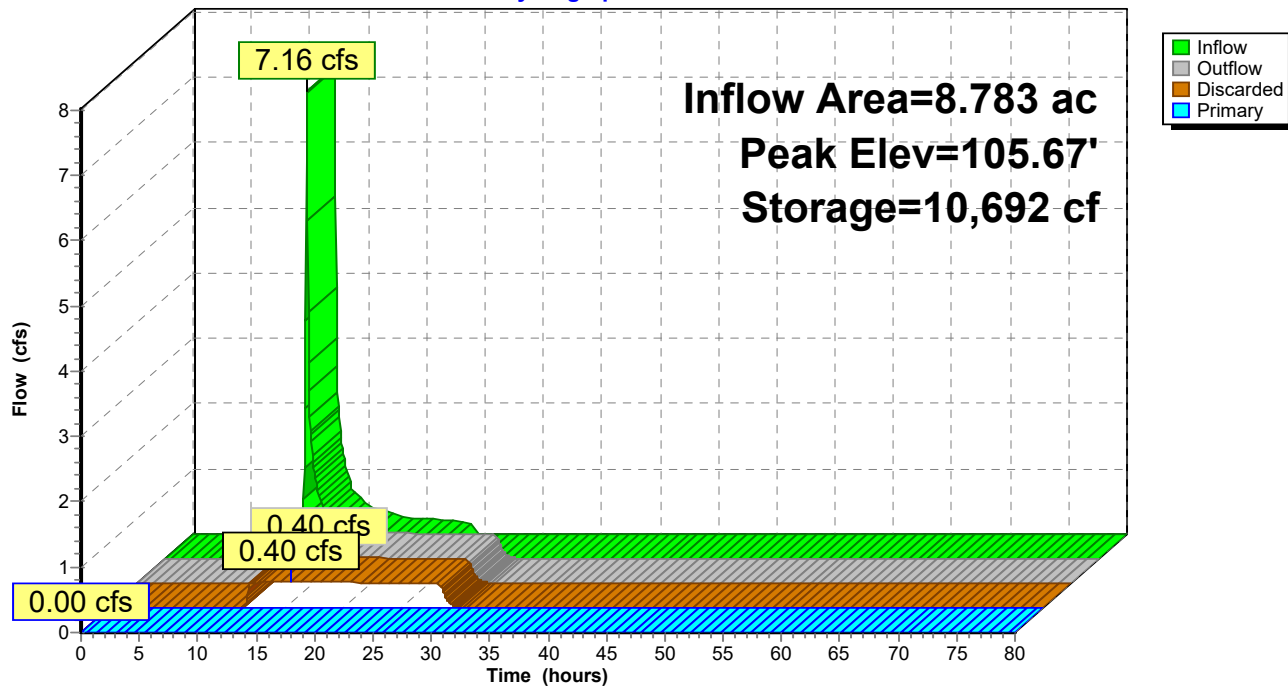
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Pond BAS 2-D: BAS 2-D

Hydrograph



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Summary for Pond BAS 2-E: BAS 2-E

Inflow Area = 2.574 ac, 44.91% Impervious, Inflow Depth = 1.41" for 2-Year event
Inflow = 4.46 cfs @ 12.13 hrs, Volume= 0.303 af
Outflow = 0.19 cfs @ 15.06 hrs, Volume= 0.303 af, Atten= 96%, Lag= 175.5 min
Discarded = 0.19 cfs @ 15.06 hrs, Volume= 0.303 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 100.42' @ 15.06 hrs Surf.Area= 16,124 sf Storage= 6,668 cf

Plug-Flow detention time= 367.3 min calculated for 0.303 af (100% of inflow)
Center-of-Mass det. time= 367.3 min (1,224.9 - 857.5)

Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	16,244 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
100.00	15,500	0	0	15,500
101.00	17,000	16,244	16,244	17,067

Device	Routing	Invert	Outlet Devices
#1	Discarded	100.00'	0.520 in/hr Exfiltration over Wetted area
#2	Primary	100.70'	20.0' long x 23.0' 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

Discarded OutFlow Max=0.19 cfs @ 15.06 hrs HW=100.42' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.19 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=100.00' (Free Discharge)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Proposed Hydrology

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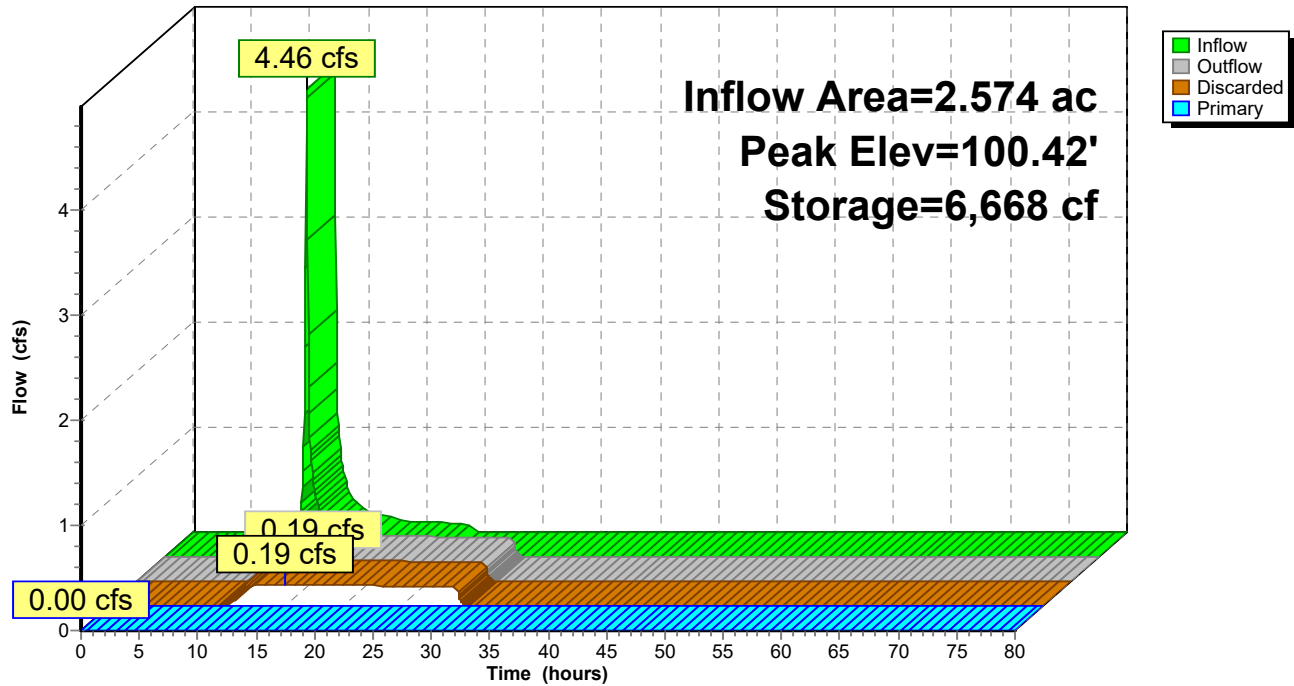
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Pond BAS 2-E: BAS 2-E

Hydrograph



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Summary for Pond BAS 2-F: BAS 2-F

Inflow Area = 3.255 ac, 41.28% Impervious, Inflow Depth = 1.29" for 2-Year event
Inflow = 5.09 cfs @ 12.14 hrs, Volume= 0.349 af
Outflow = 0.47 cfs @ 13.37 hrs, Volume= 0.349 af, Atten= 91%, Lag= 74.1 min
Discarded = 0.47 cfs @ 13.37 hrs, Volume= 0.349 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 100.69' @ 13.37 hrs Surf.Area= 8,441 sf Storage= 5,501 cf

Plug-Flow detention time= 104.3 min calculated for 0.349 af (100% of inflow)
Center-of-Mass det. time= 104.3 min (968.6 - 864.3)

Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	28,589 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
100.00	7,600	0	0	7,600
103.00	11,600	28,589	28,589	11,732

Device	Routing	Invert	Outlet Devices
#1	Discarded	100.00'	2.410 in/hr Exfiltration over Wetted area
#2	Primary	102.85'	8.0' long x 23.0' 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

Discarded OutFlow Max=0.47 cfs @ 13.37 hrs HW=100.69' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.47 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=100.00' (Free Discharge)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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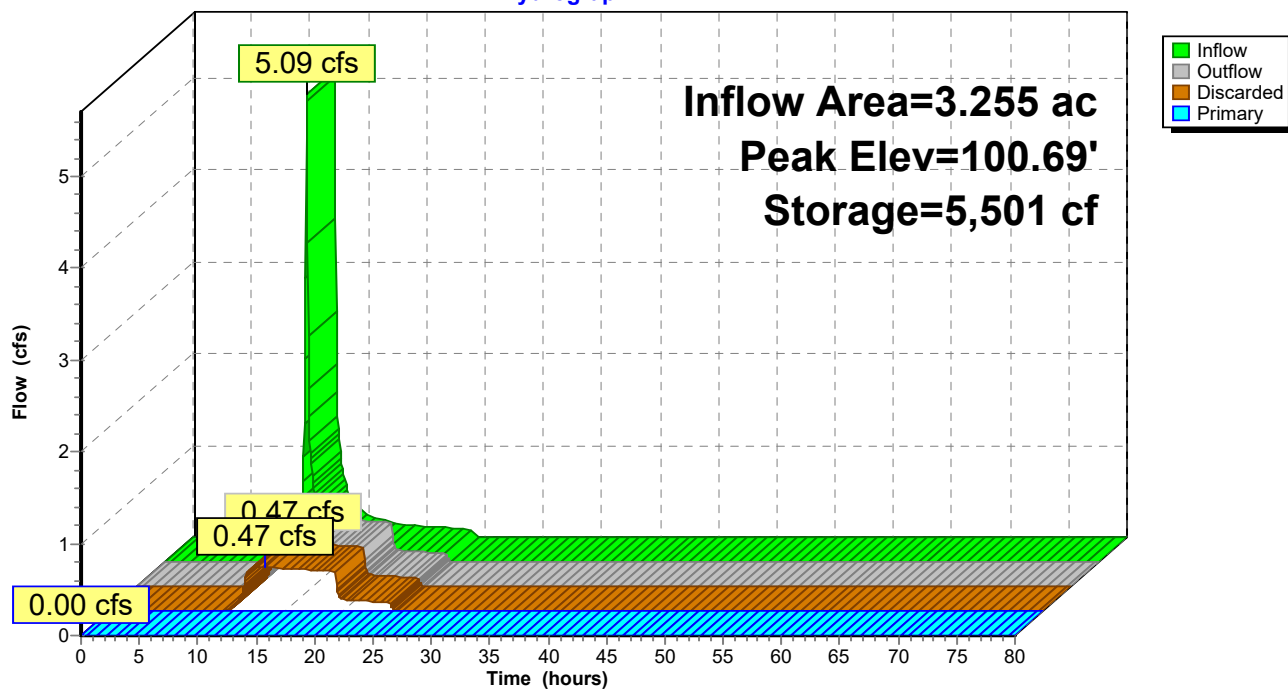
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Pond BAS 2-F: BAS 2-F

Hydrograph



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Summary for Pond BAS 3-A: BAS 3-A

Inflow Area = 2.218 ac, 40.95% Impervious, Inflow Depth = 1.77" for 2-Year event
Inflow = 4.80 cfs @ 12.13 hrs, Volume= 0.326 af
Outflow = 0.16 cfs @ 15.93 hrs, Volume= 0.326 af, Atten= 97%, Lag= 227.9 min
Discarded = 0.16 cfs @ 15.93 hrs, Volume= 0.326 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 102.42' @ 15.93 hrs Surf.Area= 6,934 sf Storage= 8,123 cf

Plug-Flow detention time= 554.5 min calculated for 0.326 af (100% of inflow)
Center-of-Mass det. time= 554.4 min (1,394.6 - 840.2)

Volume	Invert	Avail.Storage	Storage Description
#1	101.00'	21,516 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
101.00	4,600	0	0	4,600
104.00	10,100	21,516	21,516	10,172

Device	Routing	Invert	Outlet Devices
#1	Discarded	101.00'	1.020 in/hr Exfiltration over Wetted area
#2	Primary	103.80'	20.0' long x 23.0' 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

Discarded OutFlow Max=0.16 cfs @ 15.93 hrs HW=102.42' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.16 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=101.00' (Free Discharge)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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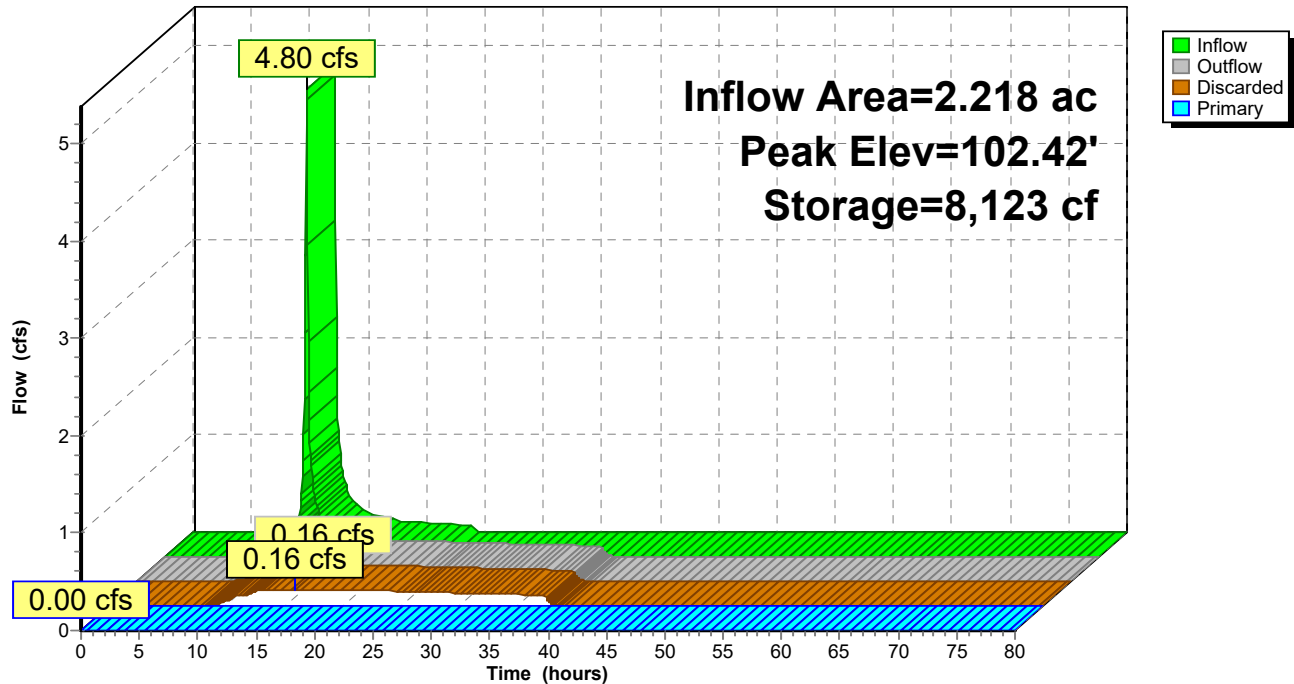
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Pond BAS 3-A: BAS 3-A

Hydrograph



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Summary for Pond BAS 3-B: BAS 3-B

Inflow Area = 6.110 ac, 38.90% Impervious, Inflow Depth = 1.16" for 2-Year event
Inflow = 8.58 cfs @ 12.14 hrs, Volume= 0.593 af
Outflow = 0.29 cfs @ 17.25 hrs, Volume= 0.593 af, Atten= 97%, Lag= 306.5 min
Discarded = 0.29 cfs @ 17.25 hrs, Volume= 0.593 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 98.38' @ 17.25 hrs Surf.Area= 12,091 sf Storage= 14,815 cf

Plug-Flow detention time= 590.0 min calculated for 0.593 af (100% of inflow)
Center-of-Mass det. time= 590.2 min (1,461.4 - 871.1)

Volume	Invert	Avail.Storage	Storage Description
#1	97.00'	53,920 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
97.00	9,500	0	0	9,500
101.00	17,900	53,920	53,920	18,059

Device	Routing	Invert	Outlet Devices
#1	Discarded	97.00'	1.020 in/hr Exfiltration over Wetted area
#2	Primary	100.70'	8.0' long x 23.0' 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

Discarded OutFlow Max=0.29 cfs @ 17.25 hrs HW=98.38' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.29 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=97.00' (Free Discharge)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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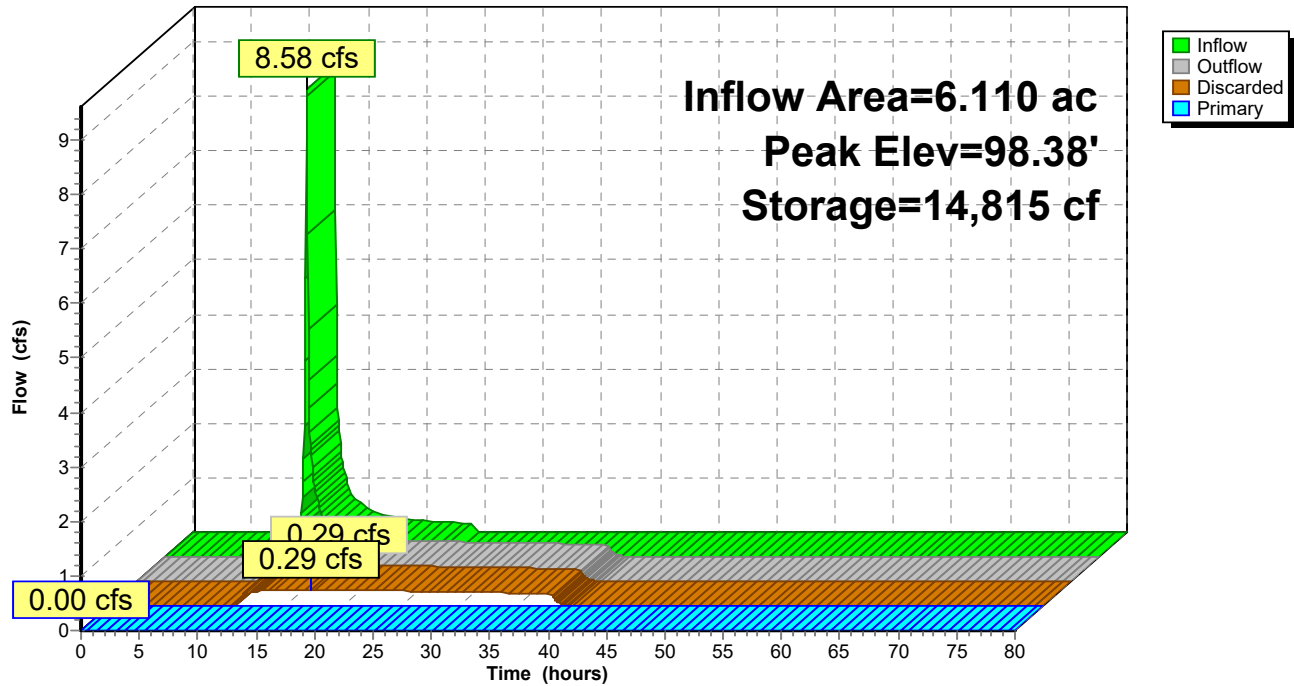
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Pond BAS 3-B: BAS 3-B

Hydrograph



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Summary for Pond BAS 6-A: BAS 6-A

Inflow Area = 3.389 ac, 43.46% Impervious, Inflow Depth = 1.35" for 2-Year event
Inflow = 5.58 cfs @ 12.13 hrs, Volume= 0.381 af
Outflow = 0.33 cfs @ 14.31 hrs, Volume= 0.381 af, Atten= 94%, Lag= 130.7 min
Discarded = 0.33 cfs @ 14.31 hrs, Volume= 0.381 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 88.55' @ 14.31 hrs Surf.Area= 14,038 sf Storage= 7,482 cf

Plug-Flow detention time= 236.0 min calculated for 0.381 af (100% of inflow)
Center-of-Mass det. time= 235.9 min (1,096.8 - 860.9)

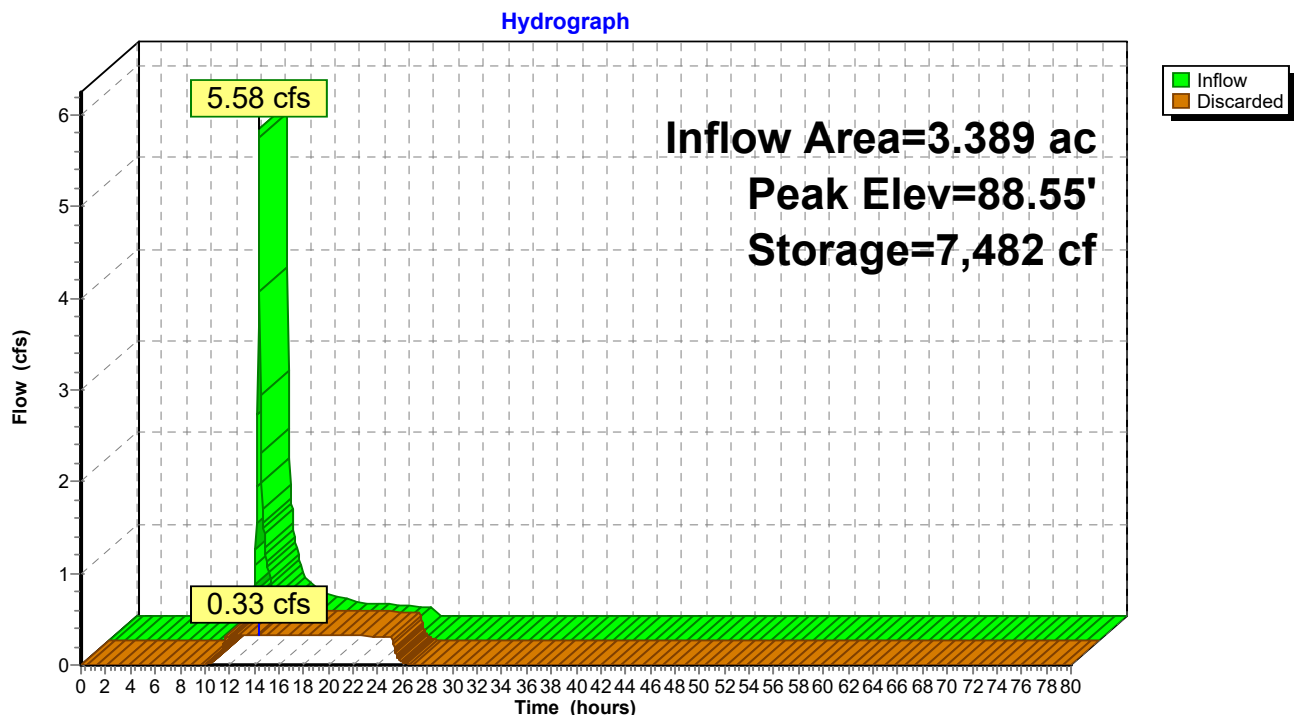
Volume	Invert	Avail.Storage	Storage Description
#1	88.00'	47,858 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
88.00	13,000	0	0	13,000
91.00	19,100	47,858	47,858	19,246

Device	Routing	Invert	Outlet Devices
#1	Discarded	88.00'	1.020 in/hr Exfiltration over Wetted area

Discarded OutFlow Max=0.33 cfs @ 14.31 hrs HW=88.55' (Free Discharge)
↑1=Exfiltration (Exfiltration Controls 0.33 cfs)

Pond BAS 6-A: BAS 6-A



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Summary for Pond BAS 7-A: BAS 7-A

Inflow Area = 4.980 ac, 47.17% Impervious, Inflow Depth = 1.11" for 2-Year event
Inflow = 6.60 cfs @ 12.14 hrs, Volume= 0.459 af
Outflow = 0.30 cfs @ 15.43 hrs, Volume= 0.459 af, Atten= 95%, Lag= 197.8 min
Discarded = 0.30 cfs @ 15.43 hrs, Volume= 0.459 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 91.88' @ 15.43 hrs Surf.Area= 12,633 sf Storage= 10,084 cf

Plug-Flow detention time= 389.4 min calculated for 0.459 af (100% of inflow)
Center-of-Mass det. time= 389.3 min (1,263.9 - 874.6)

Volume	Invert	Avail.Storage	Storage Description
#1	91.00'	43,803 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
91.00	10,200	0	0	10,200
94.00	19,500	43,803	43,803	19,588

Device	Routing	Invert	Outlet Devices
#1	Discarded	91.00'	1.020 in/hr Exfiltration over Wetted area
#2	Primary	93.87'	20.0' long x 23.0' 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

Discarded OutFlow Max=0.30 cfs @ 15.43 hrs HW=91.88' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.30 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=91.00' (Free Discharge)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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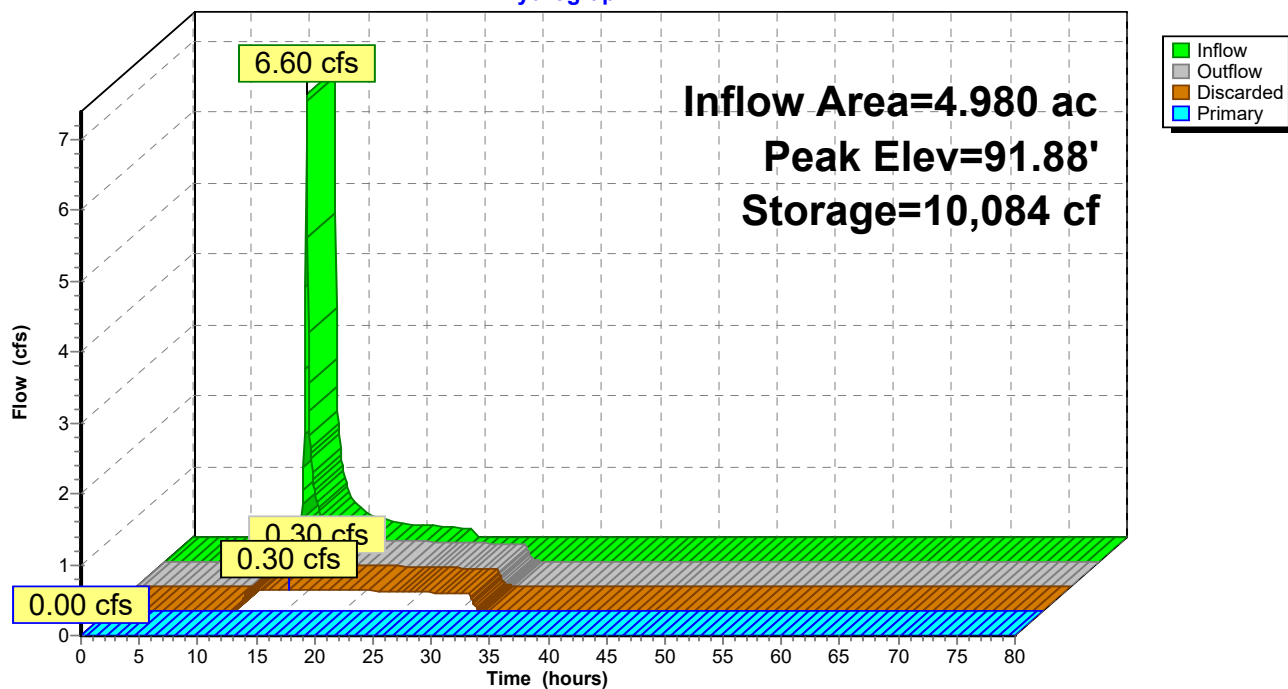
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Pond BAS 7-A: BAS 7-A

Hydrograph



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Summary for Pond BAS 9-A: BAS 9-A

Inflow Area = 1.494 ac, 25.66% Impervious, Inflow Depth = 0.22" for 2-Year event
Inflow = 0.09 cfs @ 12.33 hrs, Volume= 0.028 af
Outflow = 0.07 cfs @ 12.58 hrs, Volume= 0.028 af, Atten= 13%, Lag= 15.4 min
Discarded = 0.07 cfs @ 12.58 hrs, Volume= 0.028 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 61.02' @ 12.58 hrs Surf.Area= 1,712 sf Storage= 40 cf

Plug-Flow detention time= 8.9 min calculated for 0.028 af (100% of inflow)
Center-of-Mass det. time= 8.9 min (1,000.7 - 991.8)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	7,774 cf	Custom Stage Data (Conic) Listed below (Recalc)

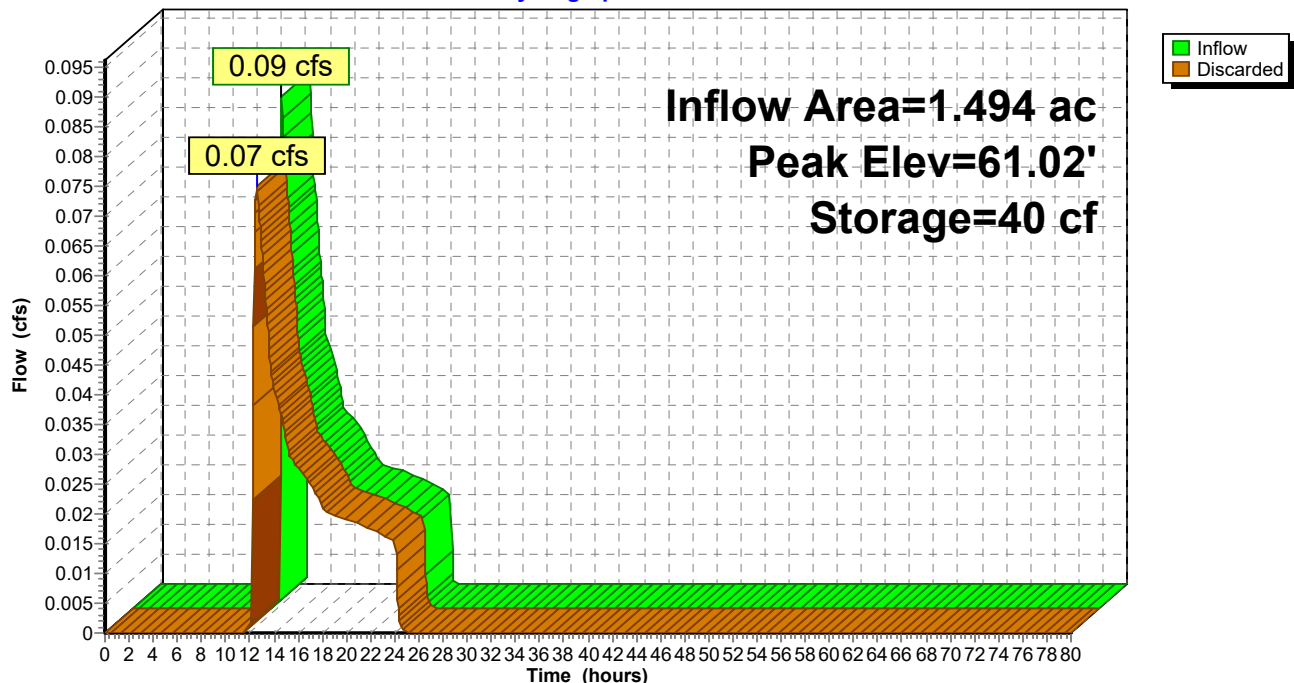
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	1,700	0	0	1,700
64.00	3,600	7,774	7,774	3,675

Device	Routing	Invert	Outlet Devices
#1	Discarded	61.00'	2.410 in/hr Exfiltration over Wetted area

Discarded OutFlow Max=0.10 cfs @ 12.58 hrs HW=61.02' (Free Discharge)
↑1=Exfiltration (Exfiltration Controls 0.10 cfs)

Pond BAS 9-A: BAS 9-A

Hydrograph



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Summary for Pond BAS 9-B: BAS 9-B

Inflow Area = 5.910 ac, 58.27% Impervious, Inflow Depth = 1.13" for 2-Year event
Inflow = 7.94 cfs @ 12.14 hrs, Volume= 0.559 af
Outflow = 0.57 cfs @ 13.92 hrs, Volume= 0.559 af, Atten= 93%, Lag= 107.1 min
Discarded = 0.33 cfs @ 13.92 hrs, Volume= 0.518 af
Primary = 0.23 cfs @ 13.92 hrs, Volume= 0.041 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 62.53' @ 13.92 hrs Surf.Area= 5,897 sf Storage= 11,567 cf

Plug-Flow detention time= 382.9 min calculated for 0.559 af (100% of inflow)
Center-of-Mass det. time= 383.0 min (1,251.1 - 868.1)

Volume	Invert	Avail.Storage	Storage Description
#1	60.00'	29,817 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
60.00	3,300	0	0	3,300
61.00	4,300	3,789	3,789	4,323
65.00	9,000	26,028	29,817	9,159

Device	Routing	Invert	Outlet Devices
#1	Discarded	60.00'	2.410 in/hr Exfiltration over Wetted area
#2	Device 3	62.40'	1.5' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#3	Primary	60.00'	18.0" Round Culvert L= 41.0' RCP, rounded edge headwall, Ke= 0.100 Inlet / Outlet Invert= 60.00' / 59.79' S= 0.0051 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 1.77 sf

Discarded OutFlow Max=0.33 cfs @ 13.92 hrs HW=62.53' (Free Discharge)

↑**1=Exfiltration** (Exfiltration Controls 0.33 cfs)

Primary OutFlow Max=0.23 cfs @ 13.92 hrs HW=62.53' (Free Discharge)

↑**3=Culvert** (Passes 0.23 cfs of 12.35 cfs potential flow)

↑**2=Sharp-Crested Rectangular Weir** (Weir Controls 0.23 cfs @ 1.19 fps)

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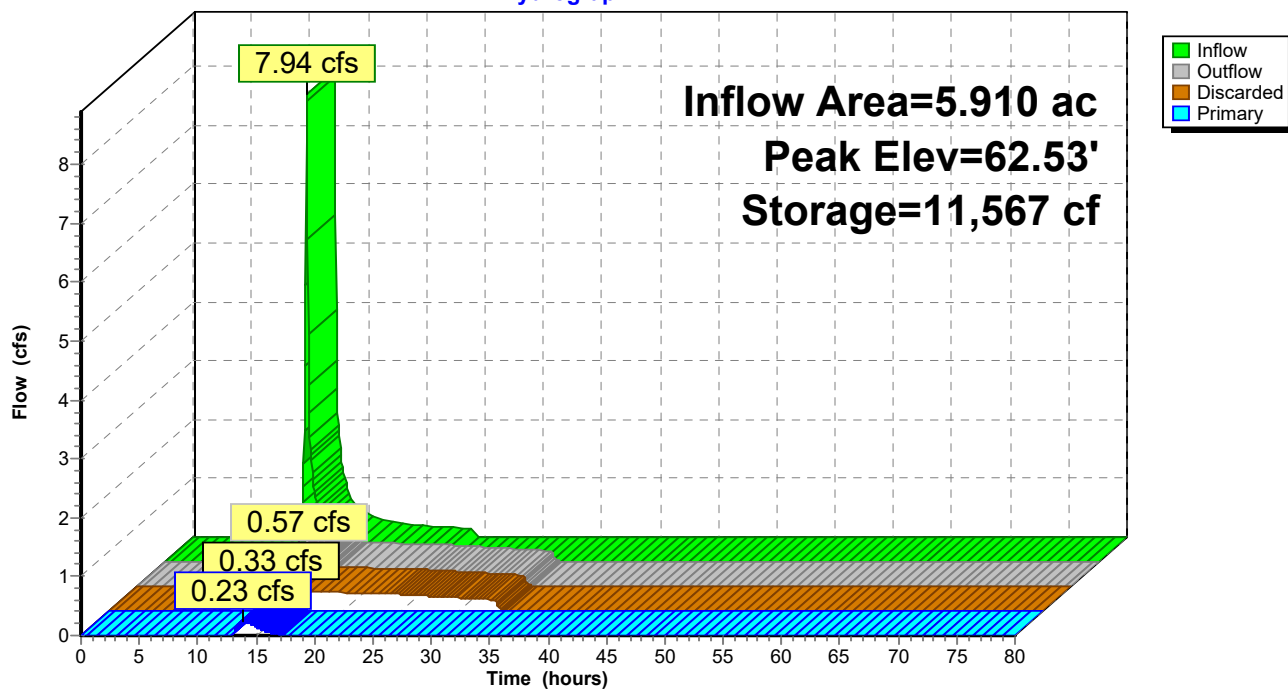
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Pond BAS 9-B: BAS 9-B

Hydrograph



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Summary for Pond W-N: Wetland Series N

Inflow Area = 30.869 ac, 27.45% Impervious, Inflow Depth = 0.11" for 2-Year event
Inflow = 2.78 cfs @ 12.24 hrs, Volume= 0.294 af
Outflow = 0.35 cfs @ 14.07 hrs, Volume= 0.291 af, Atten= 88%, Lag= 109.8 min
Primary = 0.35 cfs @ 14.07 hrs, Volume= 0.291 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 85.71' @ 14.07 hrs Surf.Area= 24,766 sf Storage= 5,131 cf

Plug-Flow detention time= 384.7 min calculated for 0.291 af (99% of inflow)
Center-of-Mass det. time= 382.2 min (1,294.7 - 912.4)

Volume	Invert	Avail.Storage	Storage Description
#1	85.50'	151,214 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
85.50	24,094	0	0	24,094
88.00	32,690	70,707	70,707	32,818
89.00	39,800	36,187	106,894	39,960
90.00	49,000	44,320	151,214	49,190

Device	Routing	Invert	Outlet Devices
#1	Primary	85.50'	24.0" Round RCP_Round 24" L= 46.2' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 85.50' / 83.90' S= 0.0346 ' S= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 3.14 sf

Primary OutFlow Max=0.34 cfs @ 14.07 hrs HW=85.71' (Free Discharge)

↑**1=RCP_Round 24"** (Inlet Controls 0.34 cfs @ 1.95 fps)

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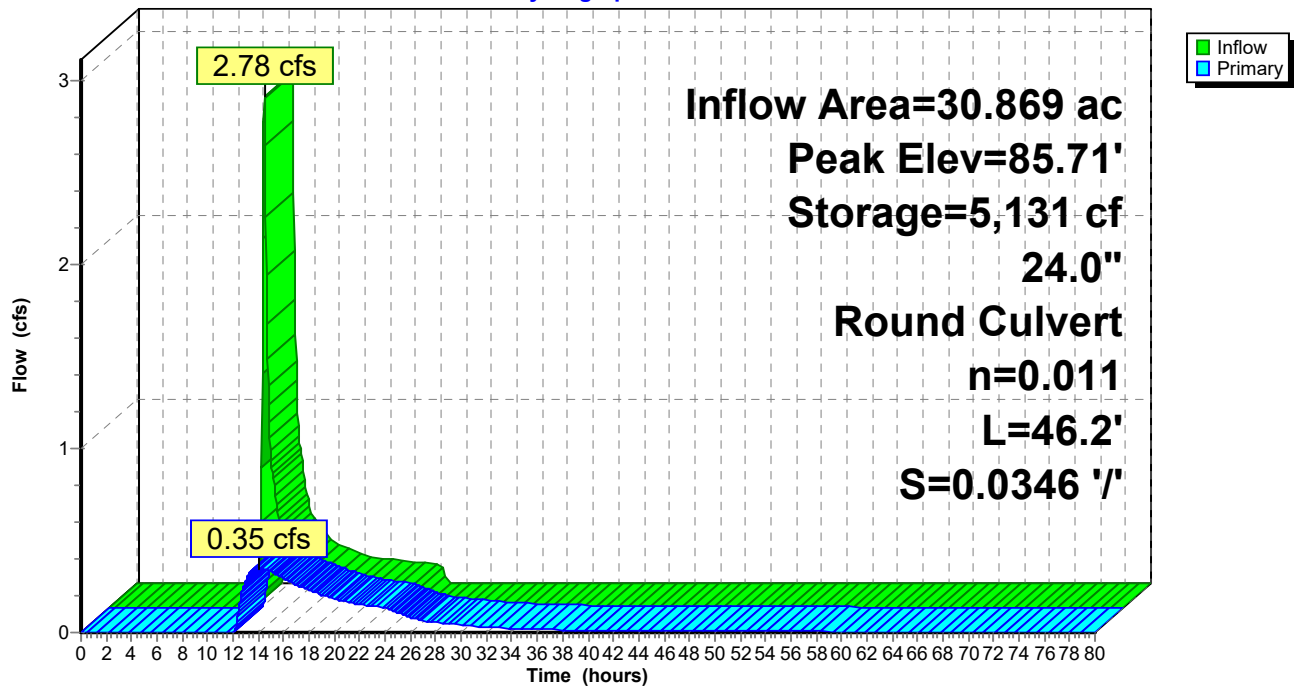
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Pond W-N: Wetland Series N

Hydrograph



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Summary for Pond W-O: Wetland Series O

Inflow Area = 61.489 ac, 21.22% Impervious, Inflow Depth > 0.22" for 2-Year event
Inflow = 2.03 cfs @ 12.47 hrs, Volume= 1.114 af
Outflow = 0.56 cfs @ 16.70 hrs, Volume= 1.074 af, Atten= 72%, Lag= 253.9 min
Primary = 0.56 cfs @ 16.70 hrs, Volume= 1.074 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 79.11' @ 16.70 hrs Surf.Area= 17,775 sf Storage= 7,274 cf

Plug-Flow detention time= 307.1 min calculated for 1.074 af (96% of inflow)
Center-of-Mass det. time= 205.8 min (1,866.5 - 1,660.7)

Volume	Invert	Avail.Storage	Storage Description
#1	78.68'	102,529 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
78.68	16,400	0	0	16,400
80.00	20,844	24,523	24,523	20,889
81.00	37,500	28,767	53,290	37,556
82.00	62,000	49,239	102,529	62,069

Device	Routing	Invert	Outlet Devices
#1	Primary	78.68'	12.0" Round Culvert L= 172.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 78.68' / 75.00' S= 0.0214 ' S= 0.0214 ' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Primary	80.80'	20.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=0.56 cfs @ 16.70 hrs HW=79.11' (Free Discharge)

1=Culvert (Inlet Controls 0.56 cfs @ 1.75 fps)
2=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

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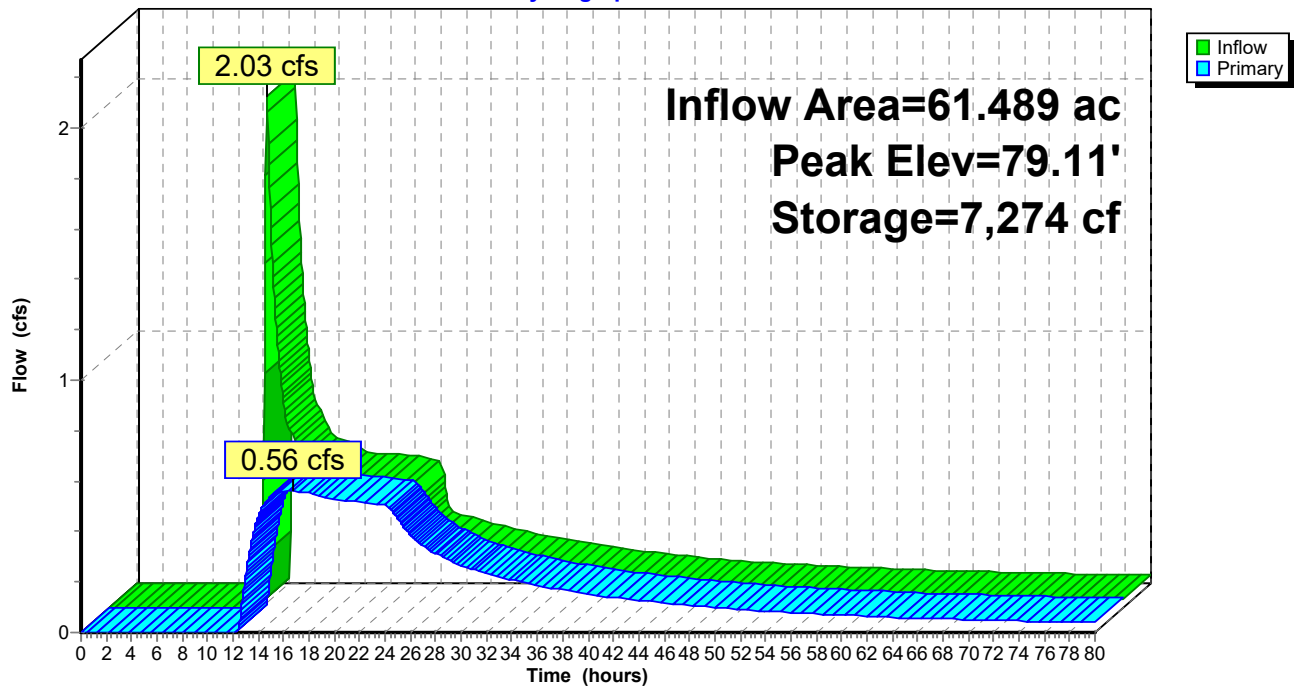
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Pond W-O: Wetland Series O

Hydrograph



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Summary for Pond W-QP: Wetland Series Q & P

Inflow Area = 42.589 ac, 23.35% Impervious, Inflow Depth > 0.25" for 2-Year event
Inflow = 5.89 cfs @ 12.24 hrs, Volume= 0.873 af
Outflow = 0.29 cfs @ 24.10 hrs, Volume= 0.678 af, Atten= 95%, Lag= 711.6 min
Primary = 0.29 cfs @ 24.10 hrs, Volume= 0.678 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 79.01' @ 24.10 hrs Surf.Area= 84,041 sf Storage= 25,978 cf

Plug-Flow detention time= 1,237.6 min calculated for 0.678 af (78% of inflow)
Center-of-Mass det. time= 1,075.3 min (2,107.2 - 1,031.8)

Volume	Invert	Avail.Storage	Storage Description
#1	78.70'	402,154 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
78.70	82,500	0	0	82,500
83.00	105,000	402,154	402,154	105,477

Device	Routing	Invert	Outlet Devices
#1	Primary	78.70'	12.0" Round Culvert L= 20.6' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 78.70' / 78.30' S= 0.0194 ' S= 0.0194 ' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.79 sf

Primary OutFlow Max=0.29 cfs @ 24.10 hrs HW=79.01' (Free Discharge)

↑**1=Culvert** (Barrel Controls 0.29 cfs @ 2.07 fps)

Proposed Hydrology

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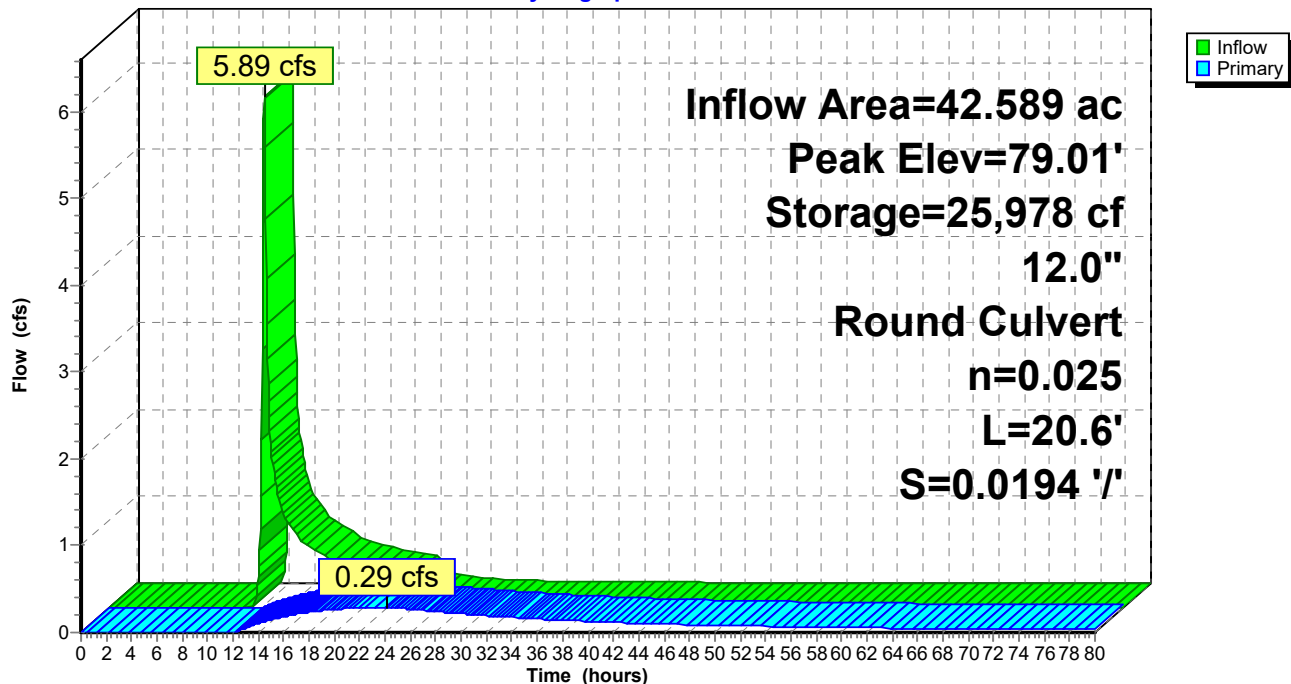
NRCC 24-hr C 2-Year Rainfall=3.39"

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Pond W-QP: Wetland Series Q & P

Hydrograph



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Summary for Pond W-R: Wetland Series R

Inflow Area = 25.797 ac, 32.85% Impervious, Inflow Depth = 0.53" for 2-Year event
Inflow = 9.79 cfs @ 12.31 hrs, Volume= 1.149 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 86.89' @ 25.10 hrs Surf.Area= 81,446 sf Storage= 50,034 cf

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

Volume	Invert	Avail.Storage	Storage Description		
#1	86.27'	521,661 cf	Custom Stage Data (Conic) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
86.27	78,906	0	0	78,906	
92.00	103,740	521,661	521,661	104,484	
Device	Routing	Invert	Outlet Devices		
#1	Primary	87.30'	8.0" Round Culvert L= 240.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 87.30' / 86.50' S= 0.0033 ' S= 0.0033 ' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf		

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=86.27' (Free Discharge)

↑**1=Culvert** (Controls 0.00 cfs)

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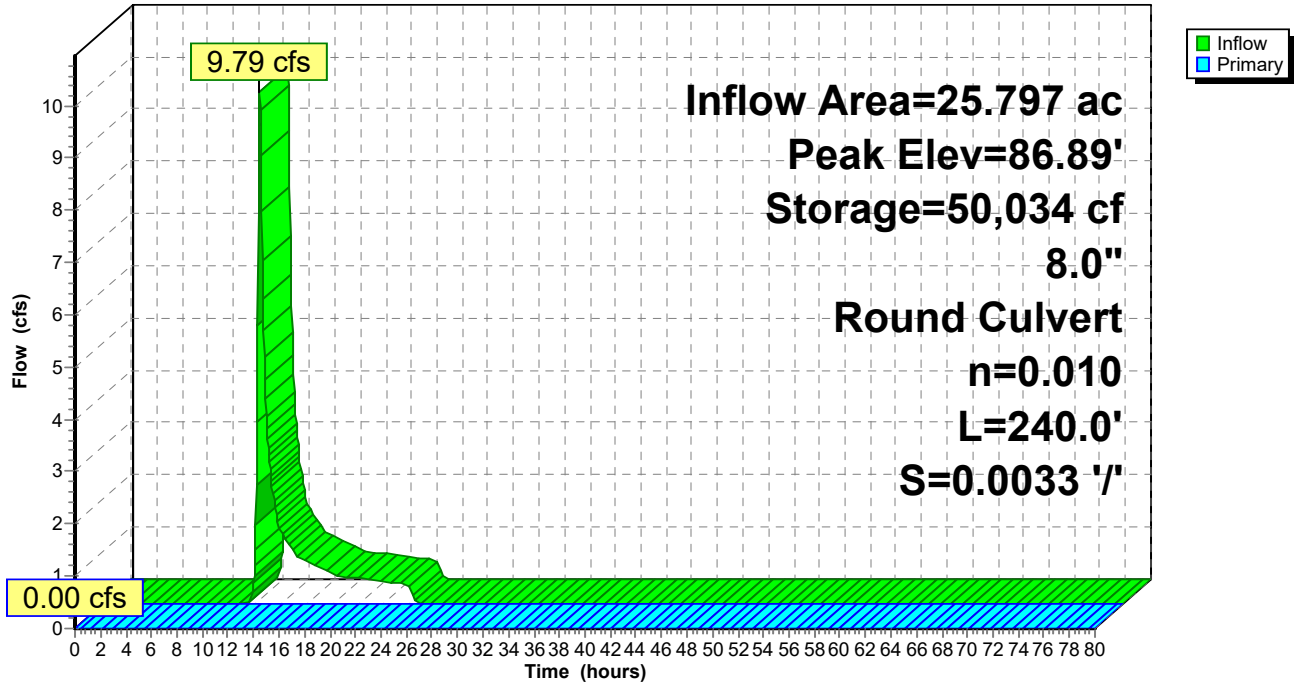
NRCC 24-hr C 2-Year Rainfall=3.39"

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Pond W-R: Wetland Series R

Hydrograph



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NRCC 24-hr C 10-Year Rainfall=5.05"

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Summary for Subcatchment E-13:

Runoff = 0.66 cfs @ 12.21 hrs, Volume= 0.077 af, Depth= 0.71"

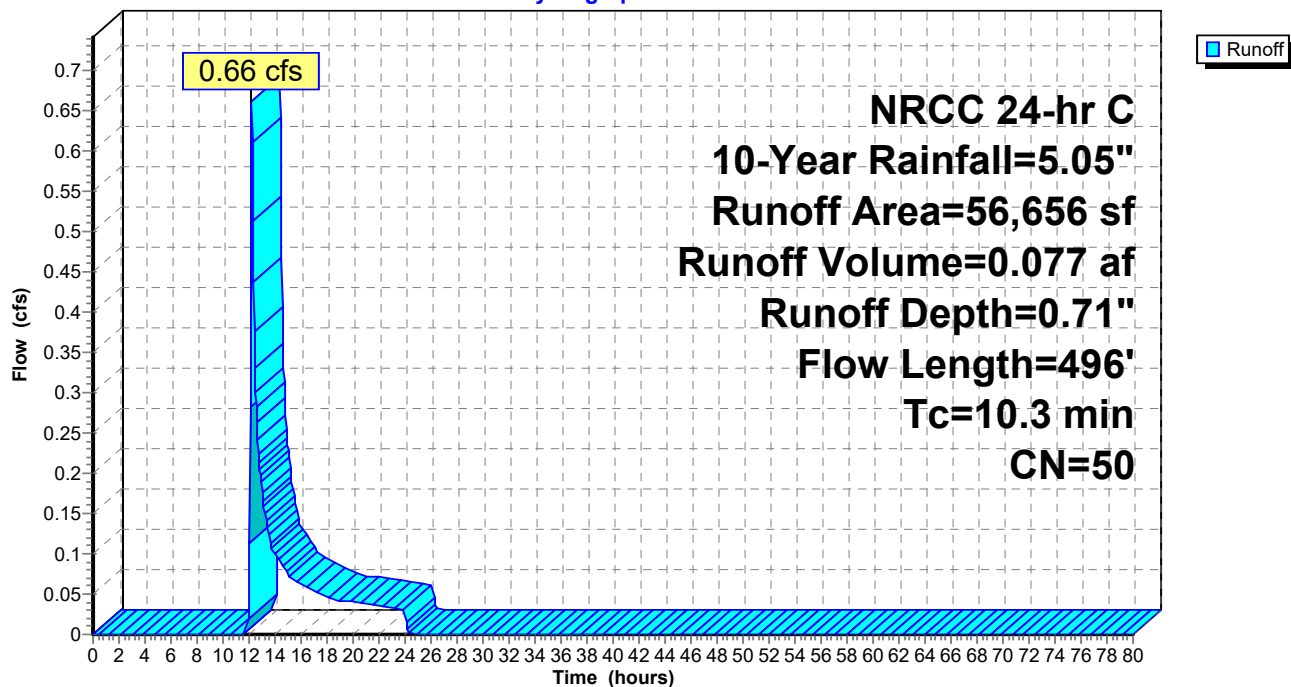
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

Area (sf)	CN	Description
30,938	32	Woods/grass comb., Good, HSG A
25,718	72	Woods/grass comb., Good, HSG C
56,656	50	Weighted Average
56,656		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	50	0.0160	0.14		Sheet Flow, Grass Grass: Short n= 0.150 P2= 3.37"
2.1	194	0.0479	1.53		Shallow Concentrated Flow, HR-C Short Grass Pasture Kv= 7.0 fps
2.2	252	0.0748	1.91		Shallow Concentrated Flow, HR-A Short Grass Pasture Kv= 7.0 fps
10.3	496	Total			

Subcatchment E-13:

Hydrograph



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Summary for Subcatchment P-10A: P-10A

Runoff = 0.01 cfs @ 14.35 hrs, Volume= 0.008 af, Depth= 0.12"

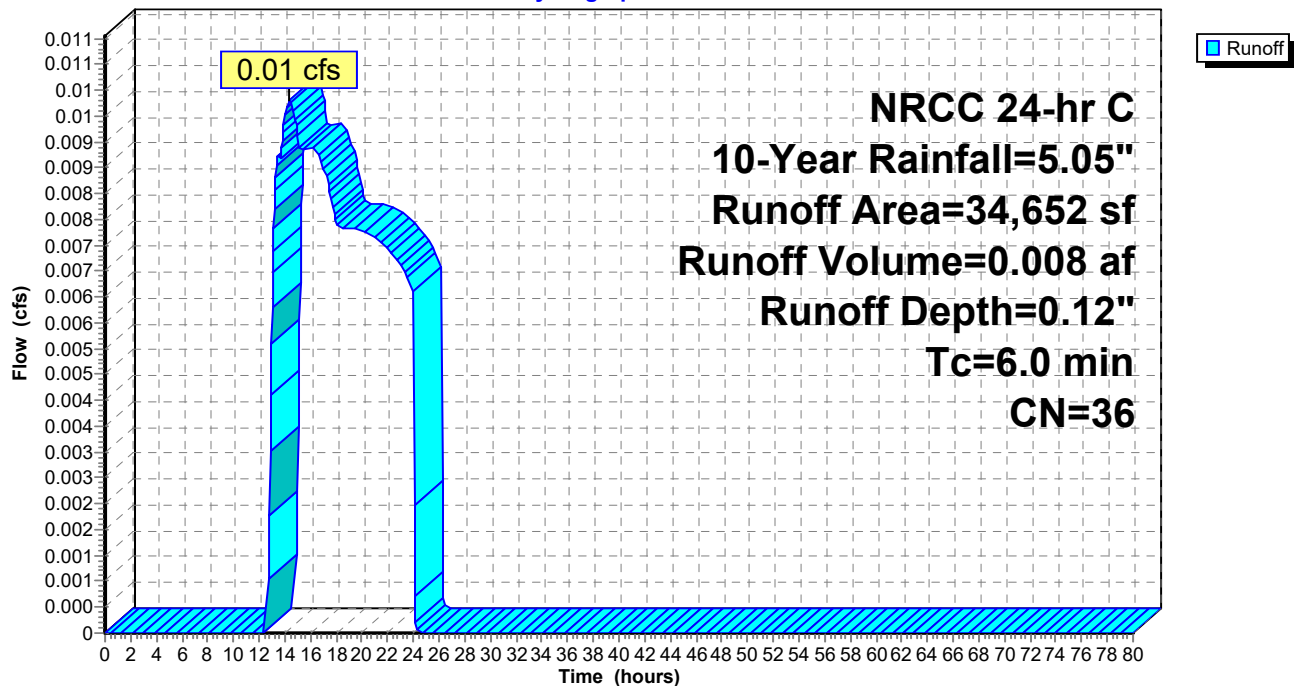
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

	Area (sf)	CN	Description
*	2,500	98	roof
	2,500	39	>75% Grass cover, Good, HSG A
	29,652	30	Woods, Good, HSG A
	34,652	36	Weighted Average
	32,152		92.79% Pervious Area
	2,500		7.21% Impervious Area

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

Subcatchment P-10A: P-10A

Hydrograph



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Summary for Subcatchment P-10B: P-10B

Runoff = 2.31 cfs @ 12.14 hrs, Volume= 0.163 af, Depth= 1.47"

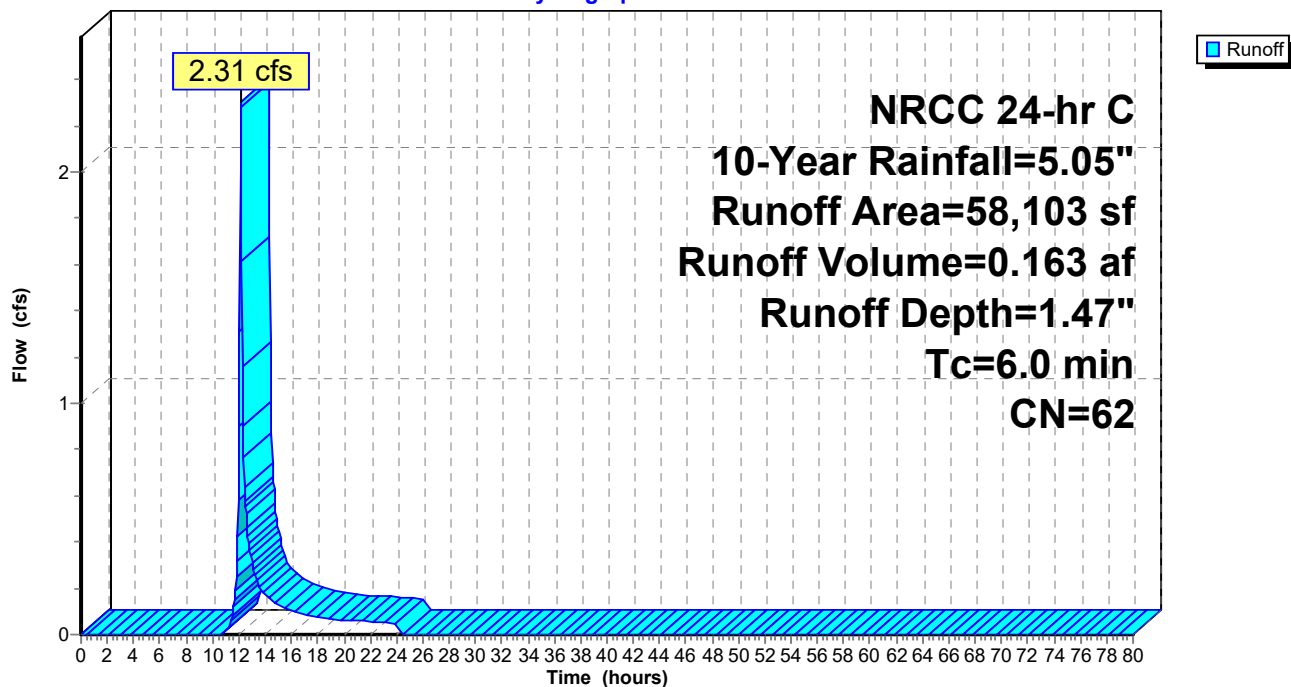
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

	Area (sf)	CN	Description
*	2,050	98	basin
	56,053	61	1/4 acre lots, 38% imp, HSG A
	58,103	62	Weighted Average
	34,753		59.81% Pervious Area
	23,350		40.19% Impervious Area

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

Subcatchment P-10B: P-10B

Hydrograph



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NRCC 24-hr C 10-Year Rainfall=5.05"

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Summary for Subcatchment P-10U: P-10U

Runoff = 0.02 cfs @ 16.28 hrs, Volume= 0.015 af, Depth= 0.09"

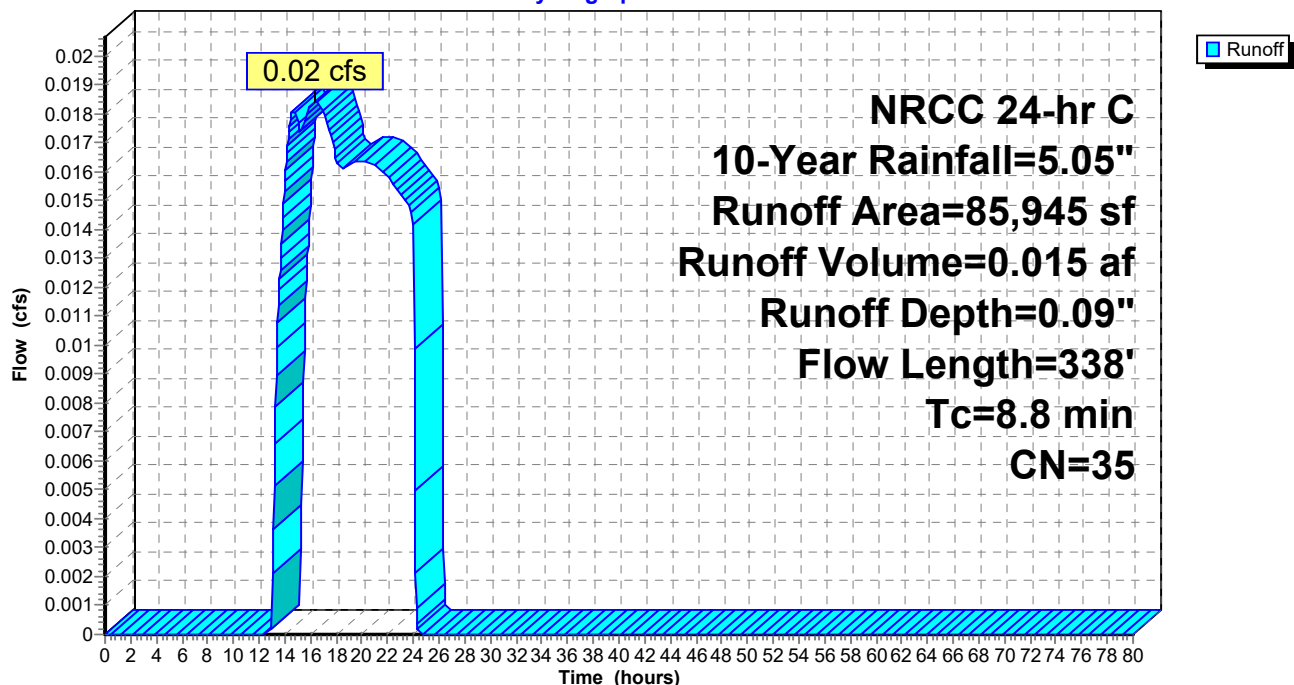
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

Area (sf)	CN	Description
4,986	98	Paved parking, HSG A
68,659	30	Woods, Good, HSG A
12,300	39	>75% Grass cover, Good, HSG A
85,945	35	Weighted Average
80,959		94.20% Pervious Area
4,986		5.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	50	0.0784	0.12		Sheet Flow, Wooded Woods: Light underbrush n= 0.400 P2= 3.37"
1.3	138	0.1246	1.76		Shallow Concentrated Flow, Wooded Woodland Kv= 5.0 fps
0.5	150	0.0729	5.48		Shallow Concentrated Flow, Paved Paved Kv= 20.3 fps
8.8	338	Total			

Subcatchment P-10U: P-10U

Hydrograph



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Summary for Subcatchment P-11A: P-11A

Runoff = 1.43 cfs @ 12.13 hrs, Volume= 0.100 af, Depth= 3.41"

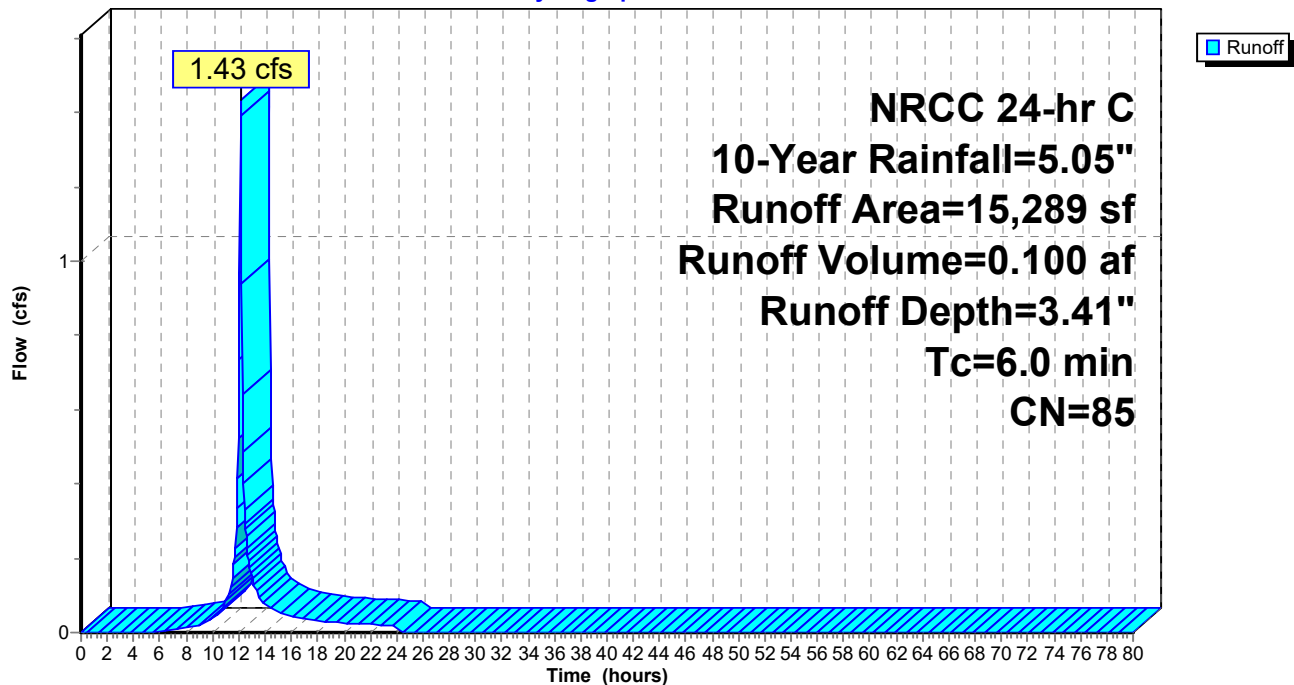
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

Area (sf)	CN	Description
3,400	39	>75% Grass cover, Good, HSG A
* 11,889	98	road with sidewalk
15,289	85	Weighted Average
3,400		22.24% Pervious Area
11,889		77.76% Impervious Area

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

Subcatchment P-11A: P-11A

Hydrograph



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Summary for Subcatchment P-11B: P-11B

Runoff = 3.88 cfs @ 12.15 hrs, Volume= 0.312 af, Depth= 0.94"

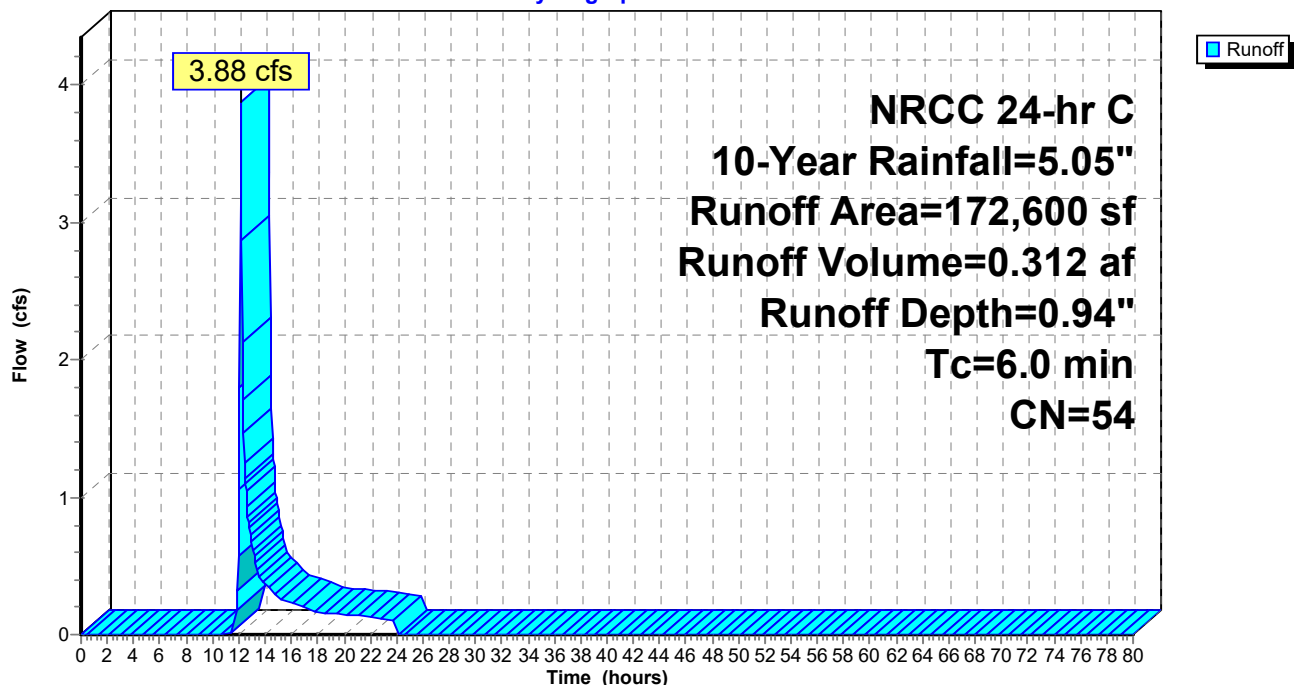
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

	Area (sf)	CN	Description
*	9,500	98	roof
	87,100	39	>75% Grass cover, Good, HSG A
	46,000	61	>75% Grass cover, Good, HSG B
*	30,000	75	stone field
	172,600	54	Weighted Average
	163,100		94.50% Pervious Area
	9,500		5.50% Impervious Area

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

Subcatchment P-11B: P-11B

Hydrograph



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Summary for Subcatchment P-11U: P-11U

Runoff = 0.04 cfs @ 13.12 hrs, Volume= 0.024 af, Depth= 0.18"

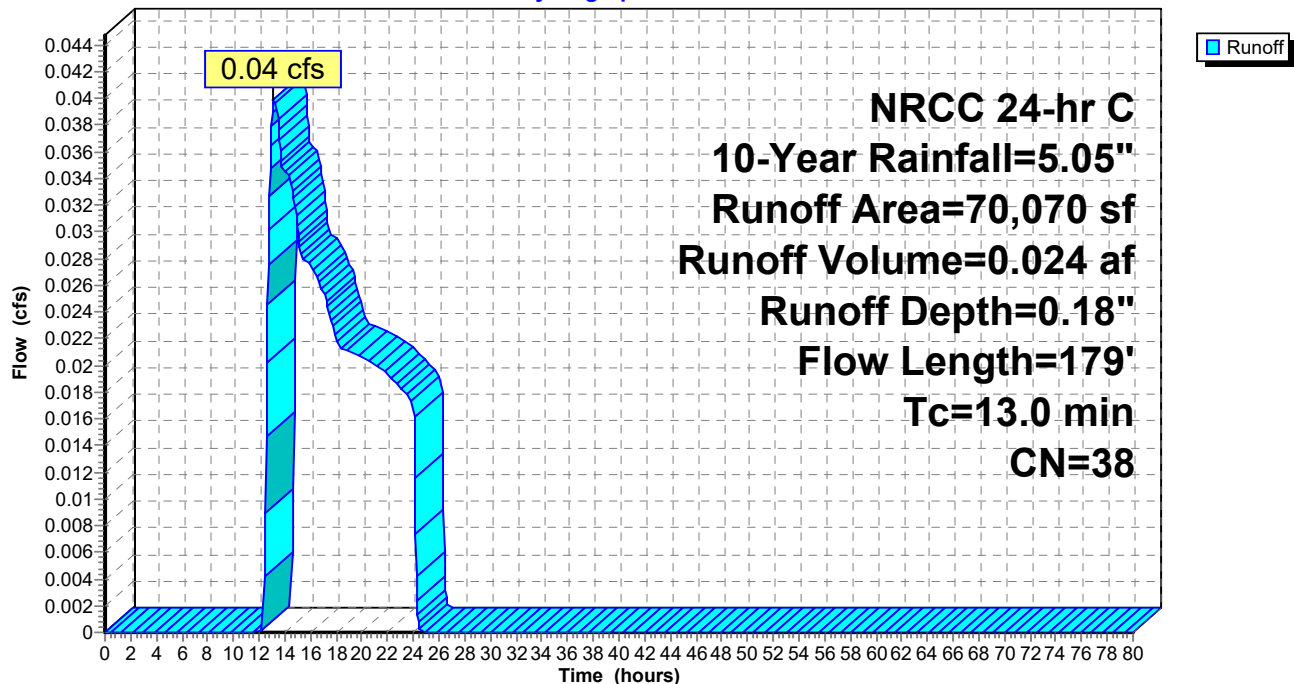
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

Area (sf)	CN	Description
23,000	55	Woods, Good, HSG B
47,070	30	Woods, Good, HSG A
70,070	38	Weighted Average
70,070		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.6	50	0.0880	0.07		Sheet Flow, Sheet Flow
					Woods: Dense underbrush n= 0.800 P2= 3.37"
1.4	129	0.0942	1.53		Shallow Concentrated Flow, HR-B
					Woodland Kv= 5.0 fps
13.0	179	Total			

Subcatchment P-11U: P-11U

Hydrograph



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Summary for Subcatchment P-12A: P-12A

Runoff = 15.27 cfs @ 12.14 hrs, Volume= 1.046 af, Depth= 1.92"

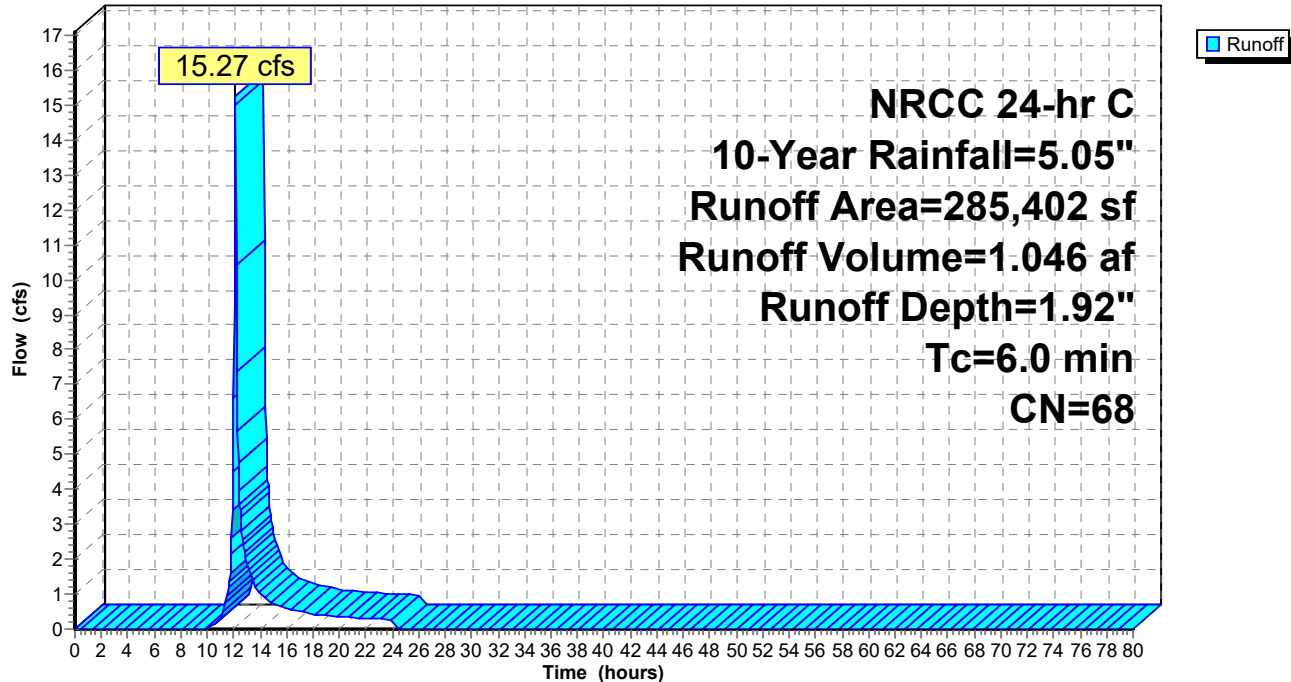
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

	Area (sf)	CN	Description
*	9,500	98	basin
	138,400	75	1/4 acre lots, 38% imp, HSG B
	33,000	61	1/4 acre lots, 38% imp, HSG A
	87,300	61	>75% Grass cover, Good, HSG B
	17,202	39	>75% Grass cover, Good, HSG A
	285,402	68	Weighted Average
	210,770		73.85% Pervious Area
	74,632		26.15% Impervious Area

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

Subcatchment P-12A: P-12A

Hydrograph



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Summary for Subcatchment P-12B: P-12B

Runoff = 8.54 cfs @ 12.14 hrs, Volume= 0.642 af, Depth= 1.13"

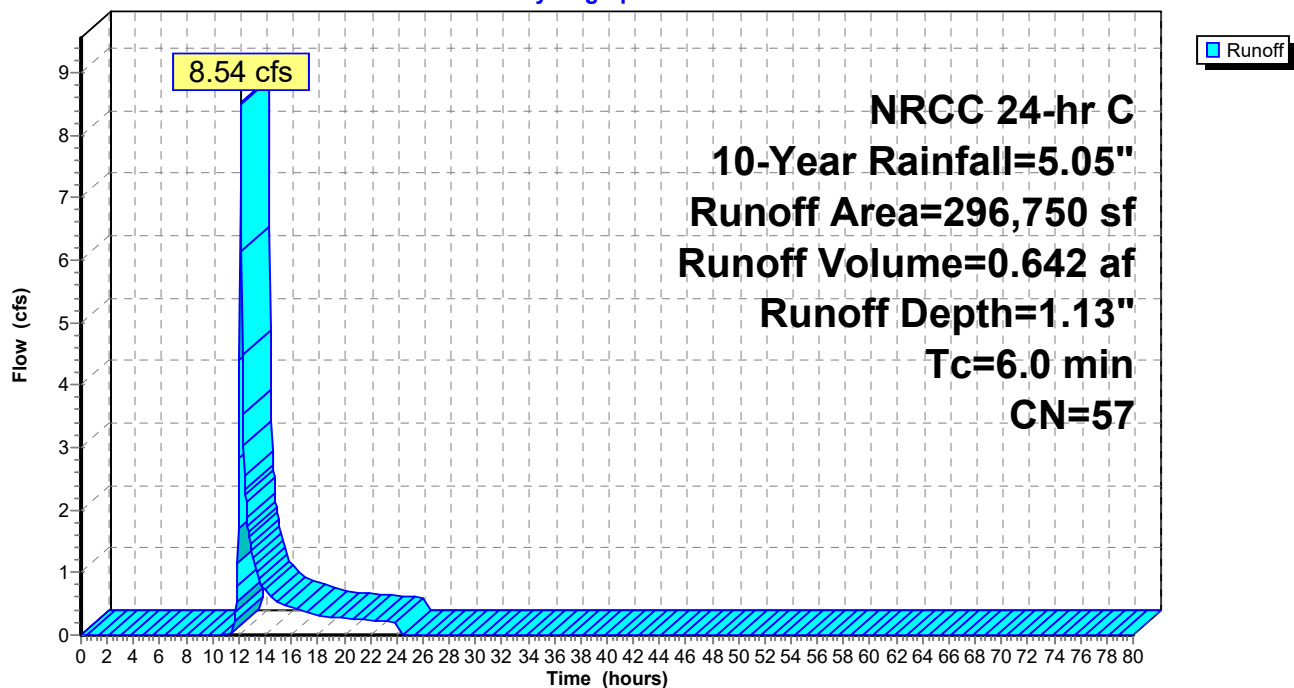
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

	Area (sf)	CN	Description
*	24,250	98	basin
	110,800	75	1/4 acre lots, 38% imp, HSG B
	161,700	39	>75% Grass cover, Good, HSG A
	296,750	57	Weighted Average
	230,396		77.64% Pervious Area
	66,354		22.36% Impervious Area

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

Subcatchment P-12B: P-12B

Hydrograph



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Summary for Subcatchment P-12U: P-12U

Runoff = 0.87 cfs @ 12.23 hrs, Volume= 0.151 af, Depth= 0.51"

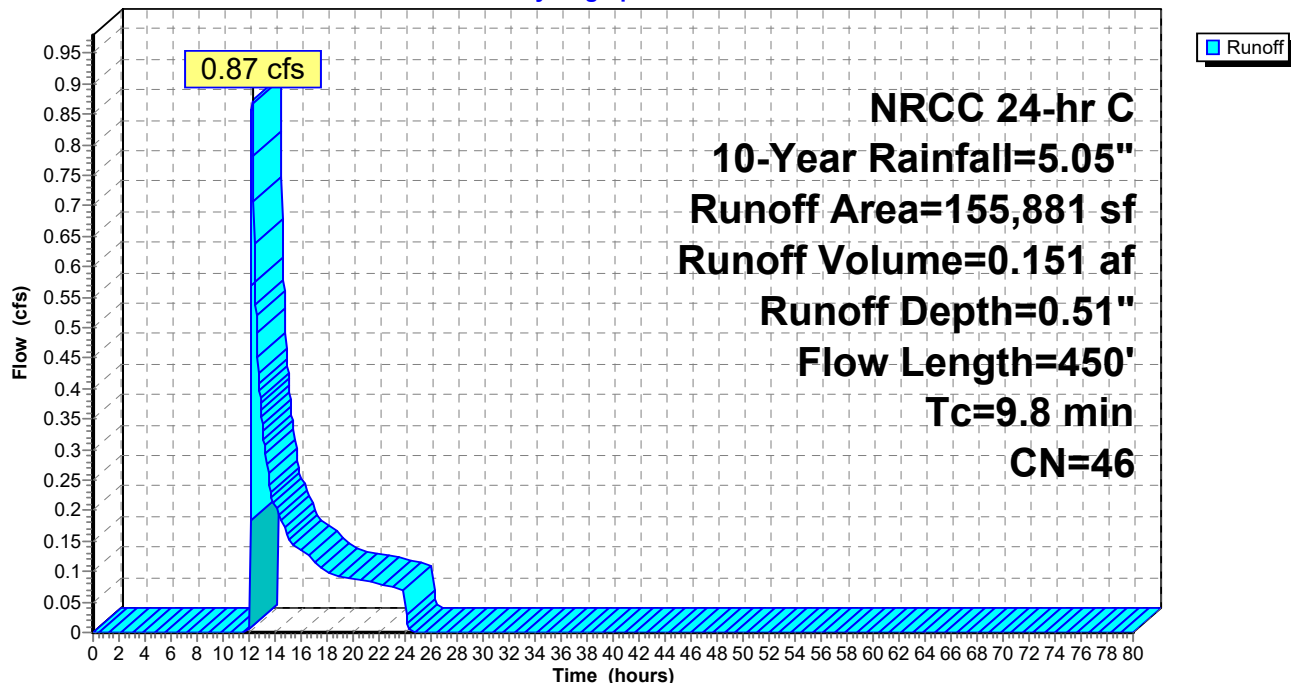
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

Area (sf)	CN	Description
80,000	32	Woods/grass comb., Good, HSG A
59,250	58	Woods/grass comb., Good, HSG B
900	79	Woods/grass comb., Good, HSG D
* 5,000	98	2 units roof
10,731	61	>75% Grass cover, Good, HSG B
155,881	46	Weighted Average
150,881		96.79% Pervious Area
5,000		3.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.9	50	0.1200	0.14		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.37"
3.9	400	0.0600	1.71		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
9.8	450	Total			

Subcatchment P-12U: P-12U

Hydrograph



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Summary for Subcatchment P-14: P-14

Runoff = 24.38 cfs @ 12.33 hrs, Volume= 2.950 af, Depth= 1.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

Area (sf)	CN	Description
268,666	32	Woods/grass comb., Good, HSG A
329,442	58	Woods/grass comb., Good, HSG B
623,088	72	Woods/grass comb., Good, HSG C
1,221,196	59	Weighted Average
1,221,196		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0200	0.17		Sheet Flow, Grass Grass: Short n= 0.150 P2= 3.37"
0.8	25	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.2	185	0.0417	1.43		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.3	31	0.0470	1.52		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.5	173	0.0279	1.17		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.8	75	0.0514	1.59		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.1	181	0.0409	1.42		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.1	82	0.0343	1.30		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.7	129	0.0339	1.29		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
21.0	981	Total			

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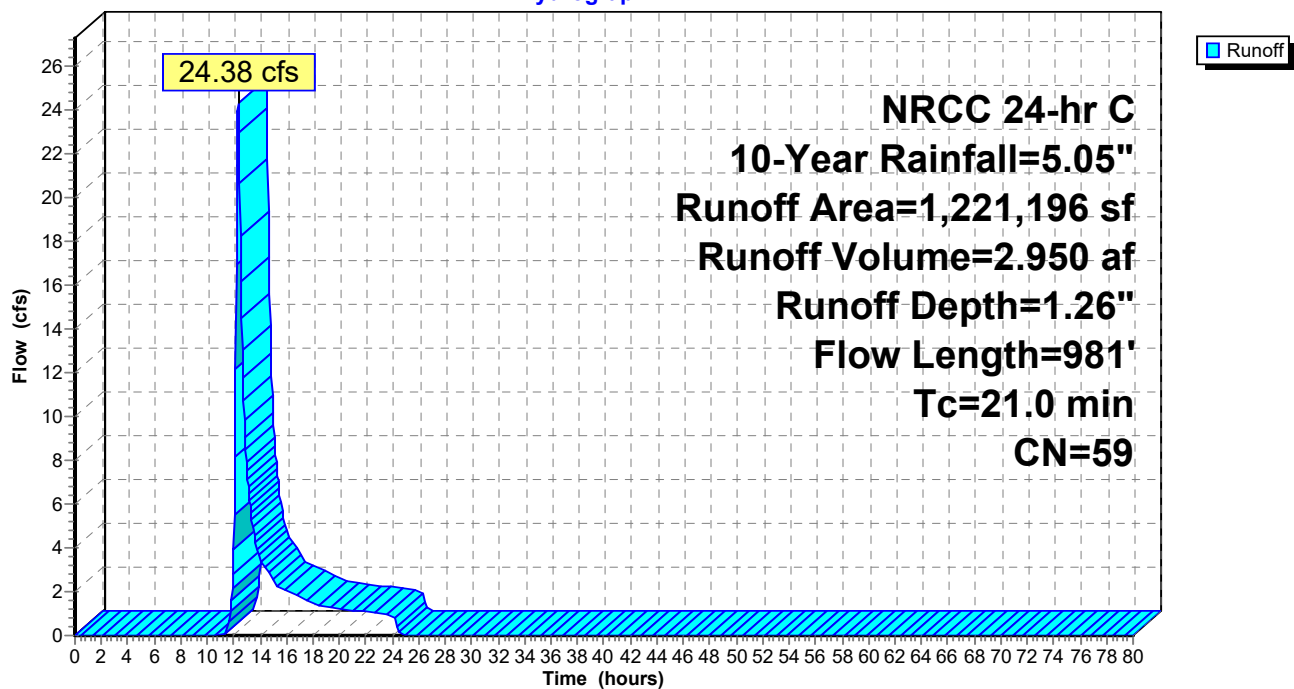
NRCC 24-hr C 10-Year Rainfall=5.05"

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Subcatchment P-14: P-14

Hydrograph



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Summary for Subcatchment P-15A: P-15A

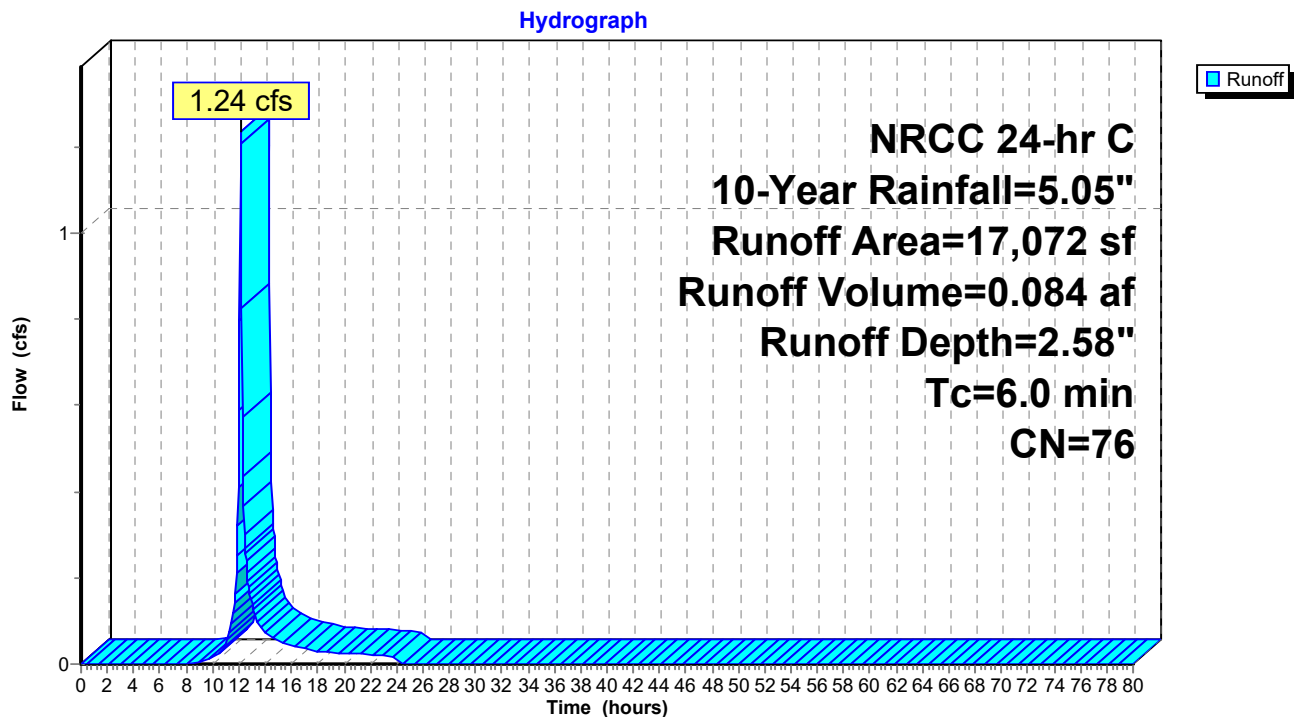
Runoff = 1.24 cfs @ 12.13 hrs, Volume= 0.084 af, Depth= 2.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

	Area (sf)	CN	Description
*	780	98	BASIN
*	6,250	98	2.5 UNITS
	10,042	61	>75% Grass cover, Good, HSG B
	17,072	76	Weighted Average
	10,042		58.82% Pervious Area
	7,030		41.18% Impervious Area

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

Subcatchment P-15A: P-15A



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NRCC 24-hr C 10-Year Rainfall=5.05"

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Summary for Subcatchment P-15U: P-15U

Runoff = 0.84 cfs @ 12.22 hrs, Volume= 0.099 af, Depth= 0.71"

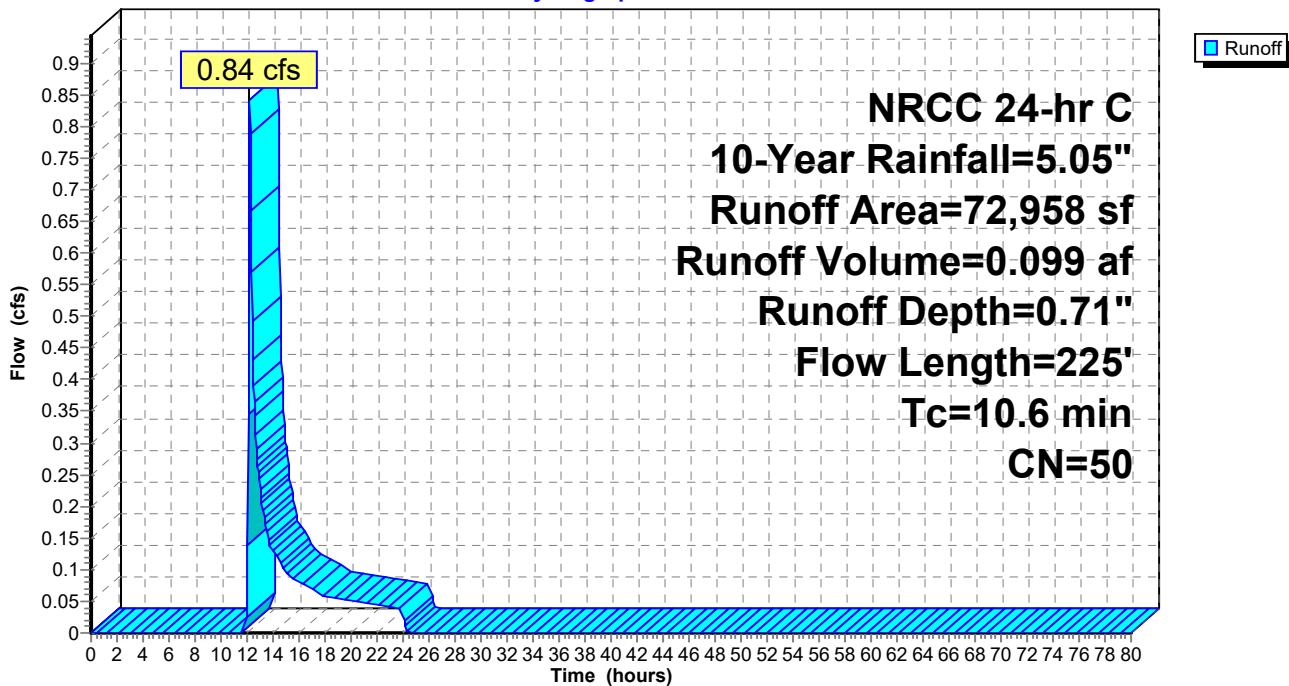
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

Area (sf)	CN	Description
13,300	55	Woods, Good, HSG B
26,658	61	>75% Grass cover, Good, HSG B
22,600	30	Woods, Good, HSG A
5,500	77	Woods, Good, HSG D
4,900	39	>75% Grass cover, Good, HSG A
72,958	50	Weighted Average
72,958		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	50	0.0500	0.10		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.37"
2.3	175	0.0650	1.27		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
10.6	225	Total			

Subcatchment P-15U: P-15U

Hydrograph



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Summary for Subcatchment P-1A: P-1A

Runoff = 12.55 cfs @ 12.13 hrs, Volume= 0.854 af, Depth= 2.66"

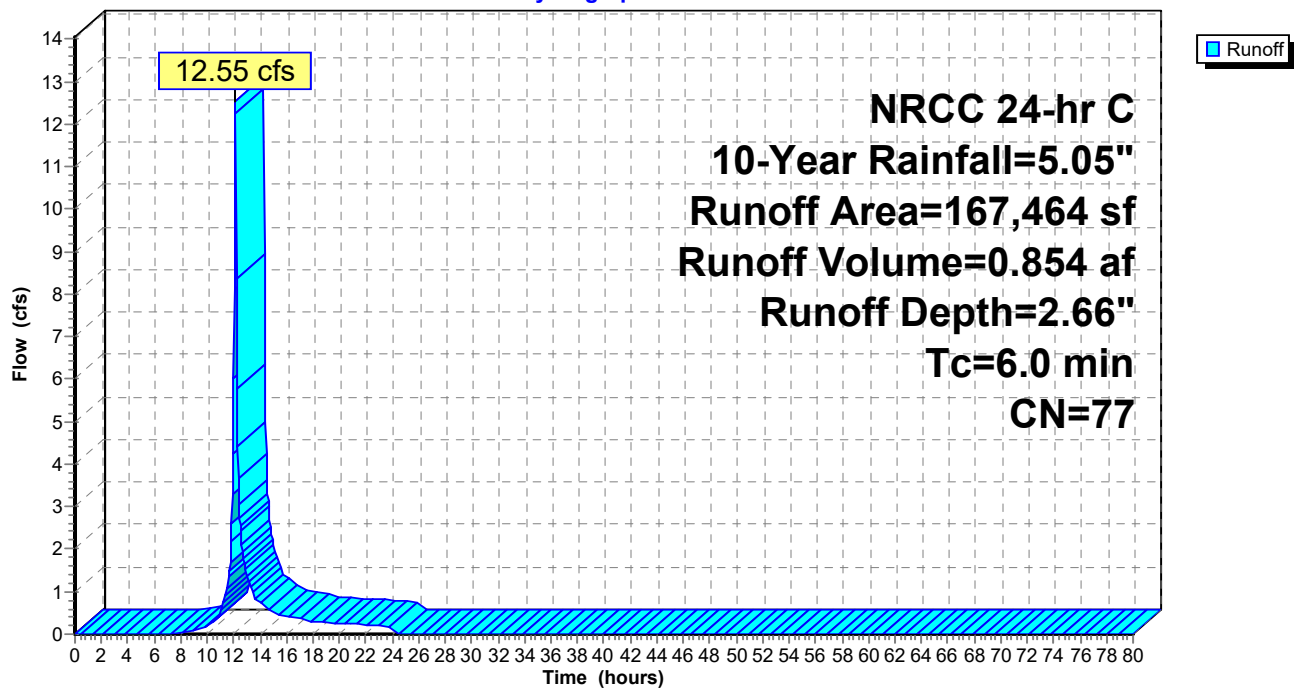
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

	Area (sf)	CN	Description
*	5,750	98	basin
*	38,880	98	1620 lf of road
*	3,150	98	630 lf of sidewalk
*	2,500	98	1 unit
*	23,400	98	17 units driveway
	7,380	55	Woods, Good, HSG B
	86,404	61	>75% Grass cover, Good, HSG B
	167,464	77	Weighted Average
	93,784		56.00% Pervious Area
	73,680		44.00% Impervious Area

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

Subcatchment P-1A: P-1A

Hydrograph



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Summary for Subcatchment P-1B: P-1B

Runoff = 7.62 cfs @ 12.34 hrs, Volume= 0.883 af, Depth= 1.69"

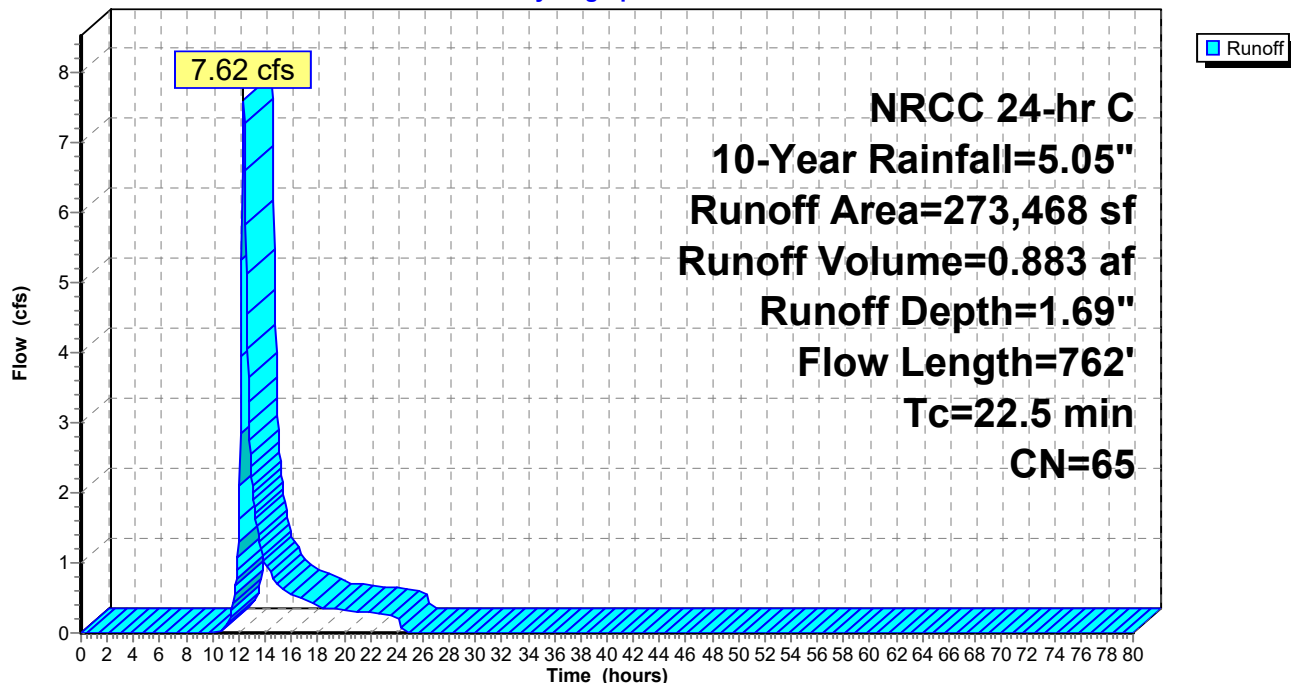
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

Area (sf)	CN	Description
* 3,150	98	BASIN
* 8,000	85	500 LF GRAVEL ROAD B SOILS
* 18,750	98	7.5 UNITS
243,568	61	>75% Grass cover, Good, HSG B
273,468	65	Weighted Average
251,568		91.99% Pervious Area
21,900		8.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.5	50	0.0200	0.15		Sheet Flow, Grass: Short n= 0.150 P2= 3.37"
17.0	712	0.0100	0.70		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
22.5	762	Total			

Subcatchment P-1B: P-1B

Hydrograph



Proposed Hydrology

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NRCC 24-hr C 10-Year Rainfall=5.05"

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Summary for Subcatchment P-1C: P-1C

Runoff = 0.63 cfs @ 12.13 hrs, Volume= 0.045 af, Depth= 3.72"

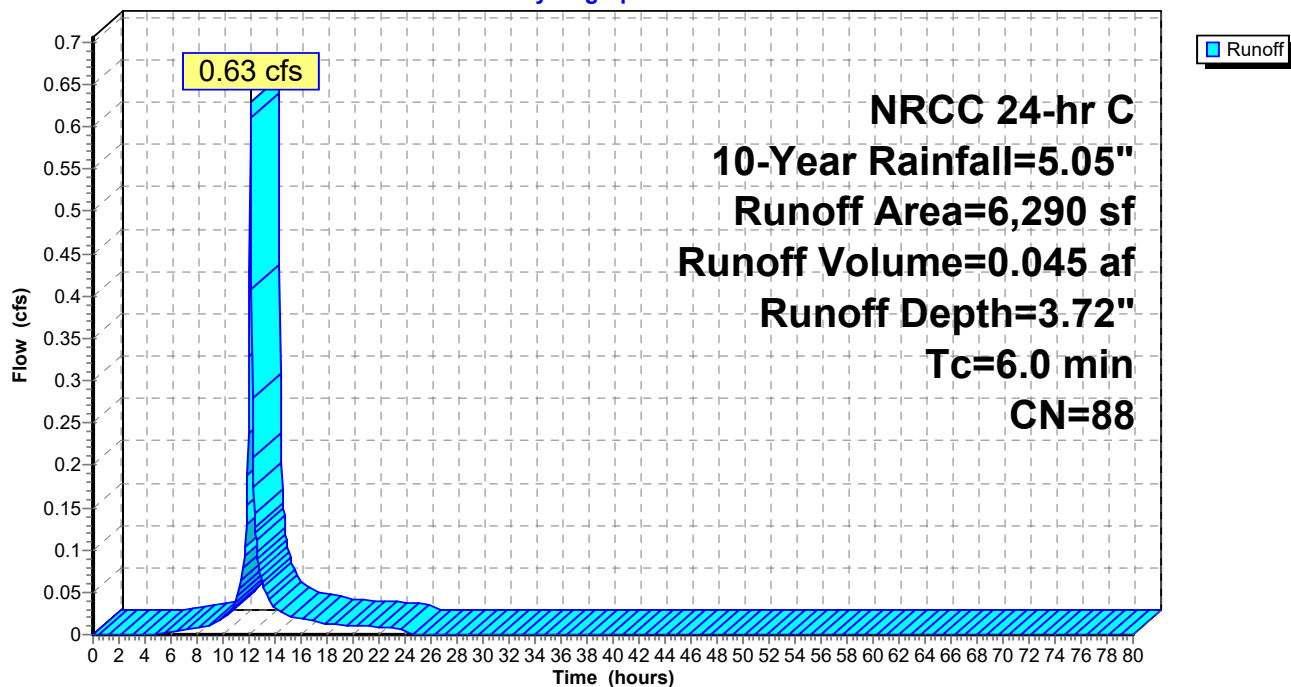
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

	Area (sf)	CN	Description
*	70	98	BASIN
*	3,744	98	156 LF OF ROAD
*	780	98	156 LF OF SIDEWALK
	1,696	61	>75% Grass cover, Good, HSG B
	6,290	88	Weighted Average
	1,696		26.96% Pervious Area
	4,594		73.04% Impervious Area

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

Subcatchment P-1C: P-1C

Hydrograph



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Summary for Subcatchment P-1U: P-1U

Runoff = 5.86 cfs @ 12.21 hrs, Volume= 0.535 af, Depth= 1.40"

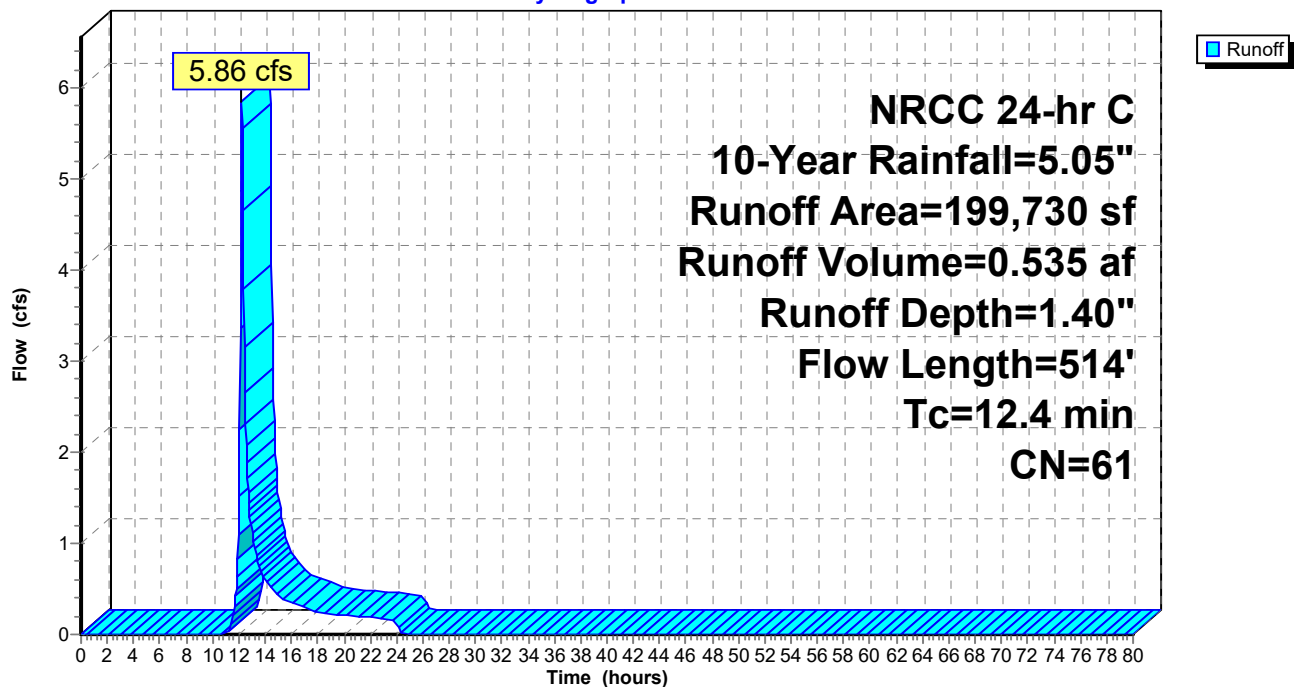
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

Area (sf)	CN	Description
108,480	61	>75% Grass cover, Good, HSG B
80,000	55	Woods, Good, HSG B
* 11,250	98	4.5 UNITS
199,730	61	Weighted Average
188,480		94.37% Pervious Area
11,250		5.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.5	50	0.1400	0.15		Sheet Flow, Wooded Woods: Light underbrush n= 0.400 P2= 3.37"
6.9	464	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
12.4	514	Total			

Subcatchment P-1U: P-1U

Hydrograph



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Summary for Subcatchment P-2A: P-2A

Runoff = 3.90 cfs @ 12.14 hrs, Volume= 0.278 af, Depth= 1.40"

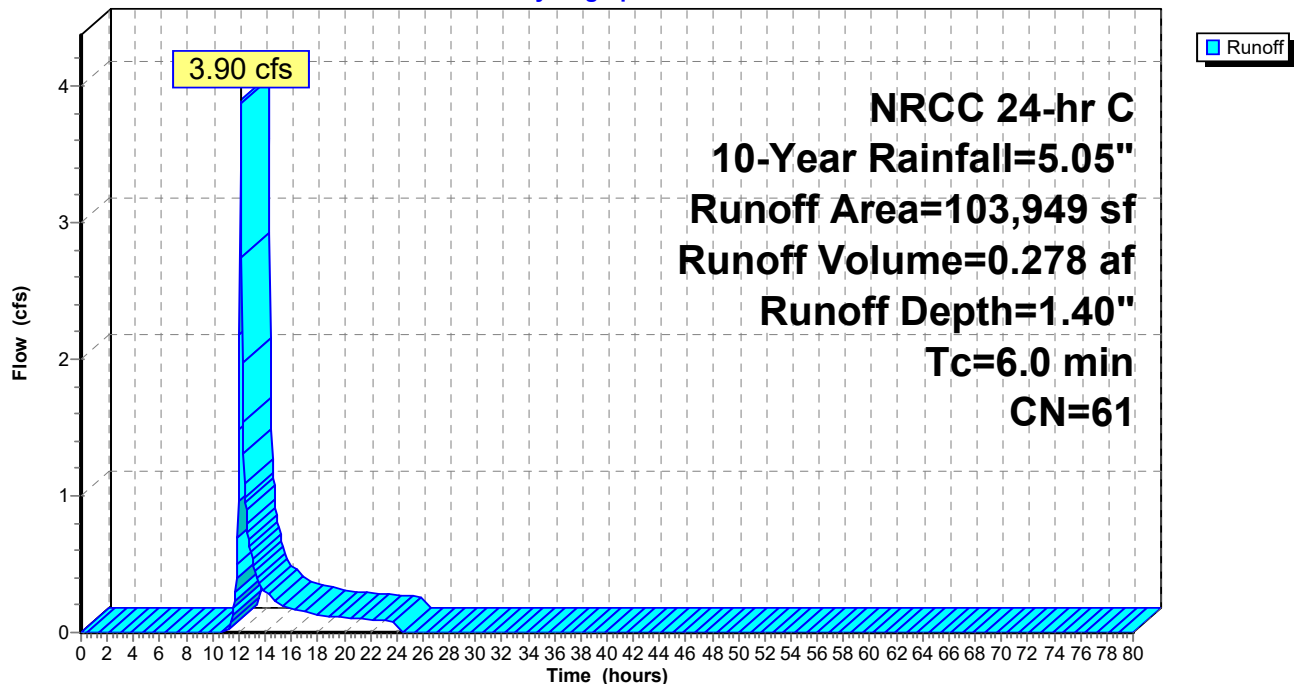
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

Area (sf)	CN	Description
103,949	61	1/4 acre lots, 38% imp, HSG A
64,448		62.00% Pervious Area
39,501		38.00% Impervious Area

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

Subcatchment P-2A: P-2A

Hydrograph



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NRCC 24-hr C 10-Year Rainfall=5.05"

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Summary for Subcatchment P-2B: P-2B

Runoff = 2.82 cfs @ 12.13 hrs, Volume= 0.193 af, Depth= 1.99"

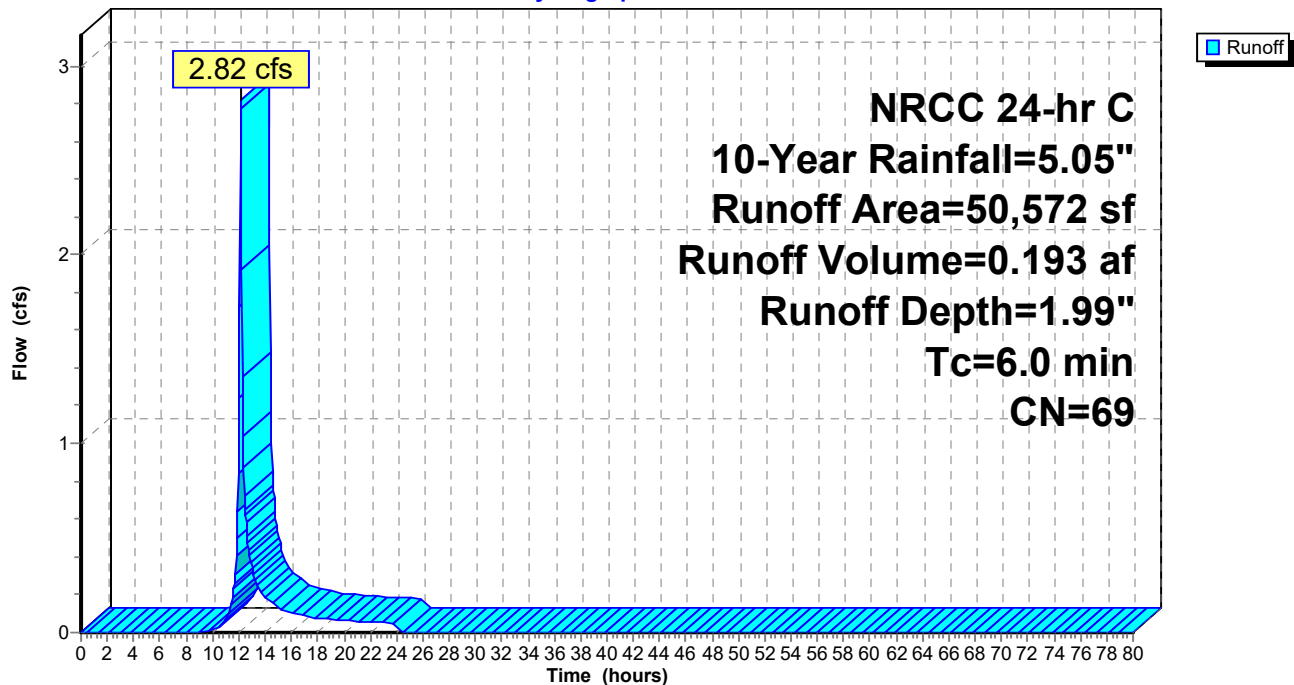
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

Area (sf)	CN	Description
34,300	61	1/4 acre lots, 38% imp, HSG A
16,272	87	1/4 acre lots, 38% imp, HSG D
50,572	69	Weighted Average
31,355		62.00% Pervious Area
19,217		38.00% Impervious Area

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

Subcatchment P-2B: P-2B

Hydrograph



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Summary for Subcatchment P-2C: P-2C

Runoff = 5.97 cfs @ 12.13 hrs, Volume= 0.416 af, Depth= 3.41"

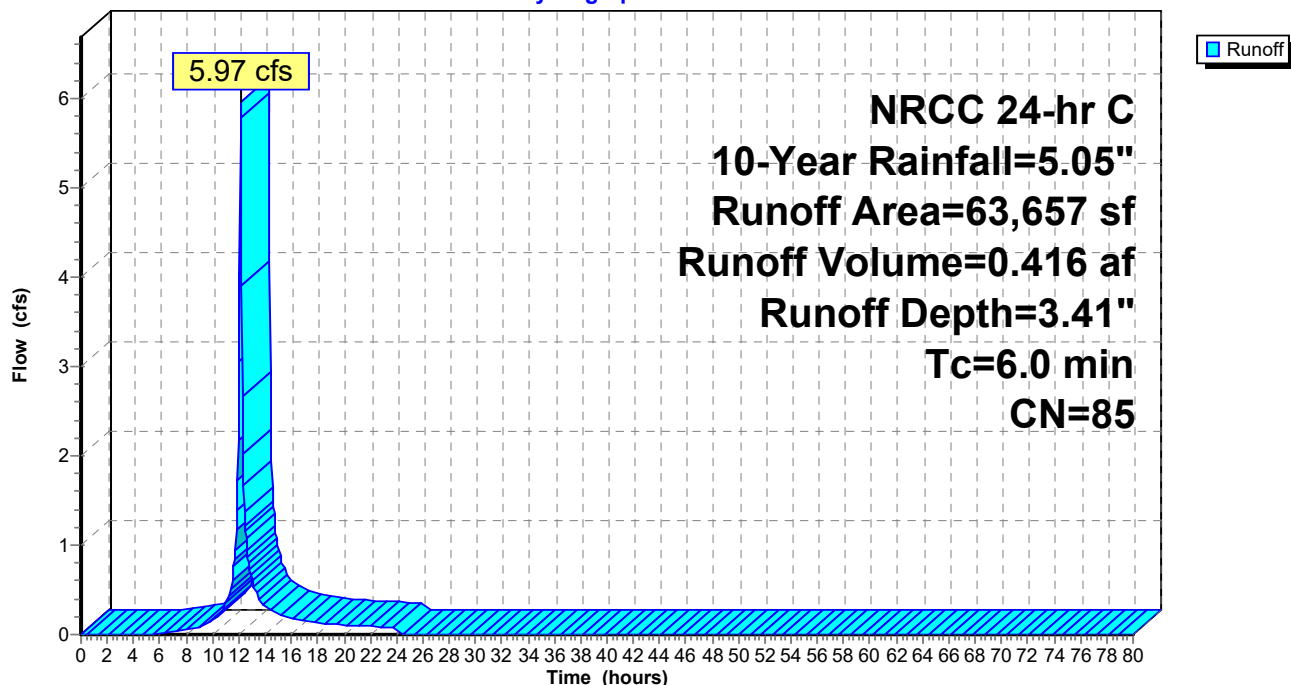
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

Area (sf)	CN	Description
54,284	87	1/4 acre lots, 38% imp, HSG D
9,373	75	1/4 acre lots, 38% imp, HSG B
63,657	85	Weighted Average
39,467		62.00% Pervious Area
24,190		38.00% Impervious Area

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

Subcatchment P-2C: P-2C

Hydrograph



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Summary for Subcatchment P-2D: P-2D

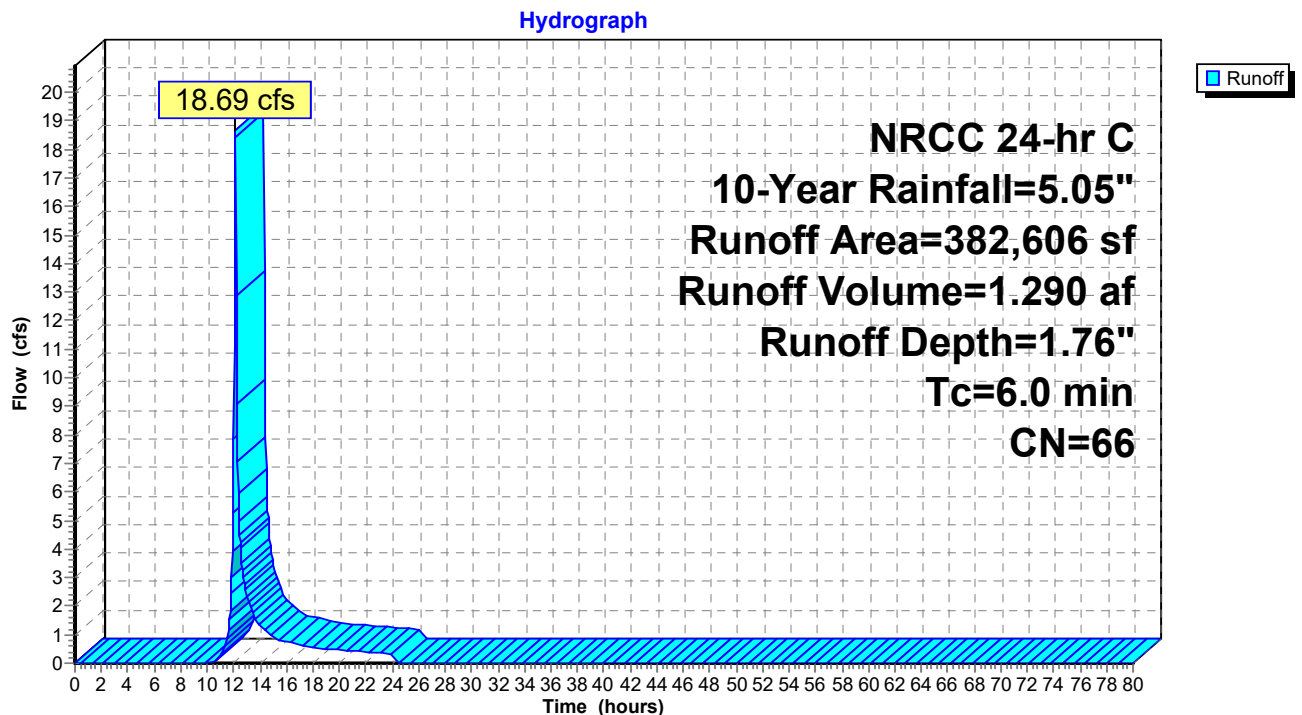
Runoff = 18.69 cfs @ 12.14 hrs, Volume= 1.290 af, Depth= 1.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

Area (sf)	CN	Description
163,640	61	1/4 acre lots, 38% imp, HSG A
82,633	87	1/4 acre lots, 38% imp, HSG D
* 15,400	98	basin
30,500	30	Woods, Good, HSG A
9,200	77	Woods, Good, HSG D
* 17,400	98	exist impervious
13,000	74	>75% Grass cover, Good, HSG C
10,000	80	>75% Grass cover, Good, HSG D
40,833	39	>75% Grass cover, Good, HSG A
382,606	66	Weighted Average
256,222		66.97% Pervious Area
126,384		33.03% Impervious Area

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

Subcatchment P-2D: P-2D



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Summary for Subcatchment P-2E: P-2E

Runoff = 8.68 cfs @ 12.13 hrs, Volume= 0.591 af, Depth= 2.75"

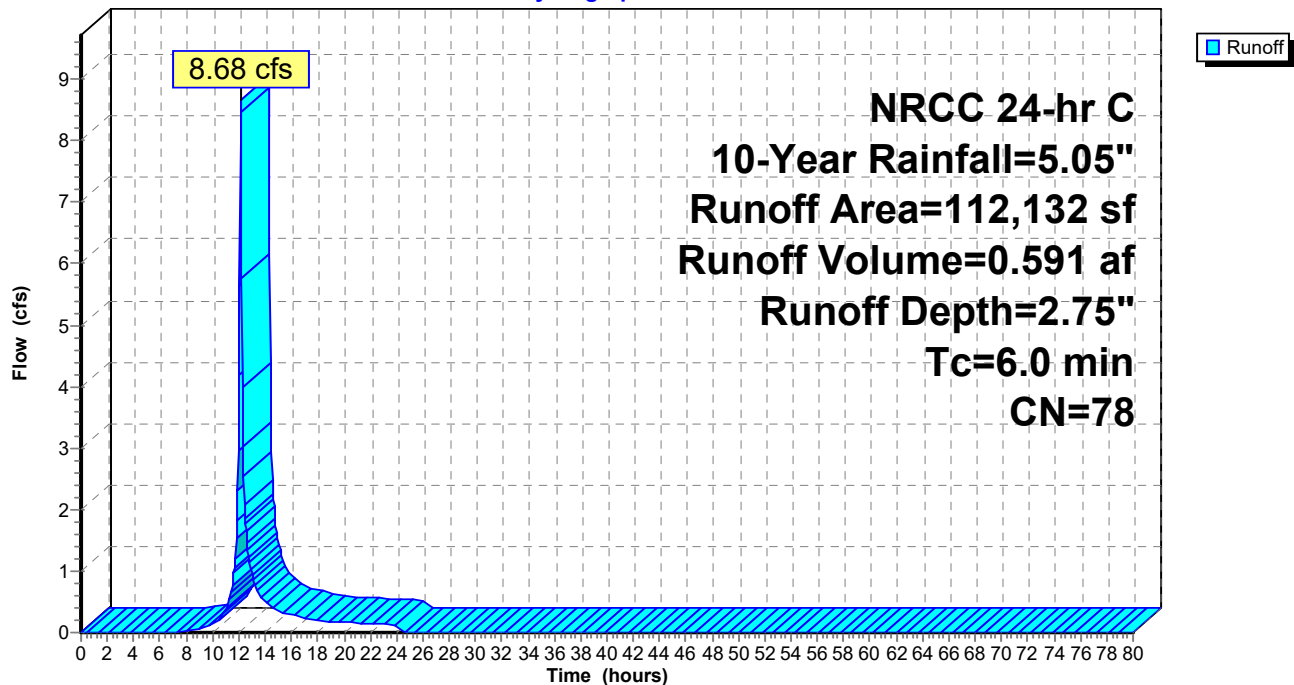
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

	Area (sf)	CN	Description
*	12,500	98	basin
	99,632	75	1/4 acre lots, 38% imp, HSG B
	112,132	78	Weighted Average
	61,772		55.09% Pervious Area
	50,360		44.91% Impervious Area

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

Subcatchment P-2E: P-2E

Hydrograph



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Summary for Subcatchment P-2F: P-2F

Runoff = 10.29 cfs @ 12.13 hrs, Volume= 0.699 af, Depth= 2.58"

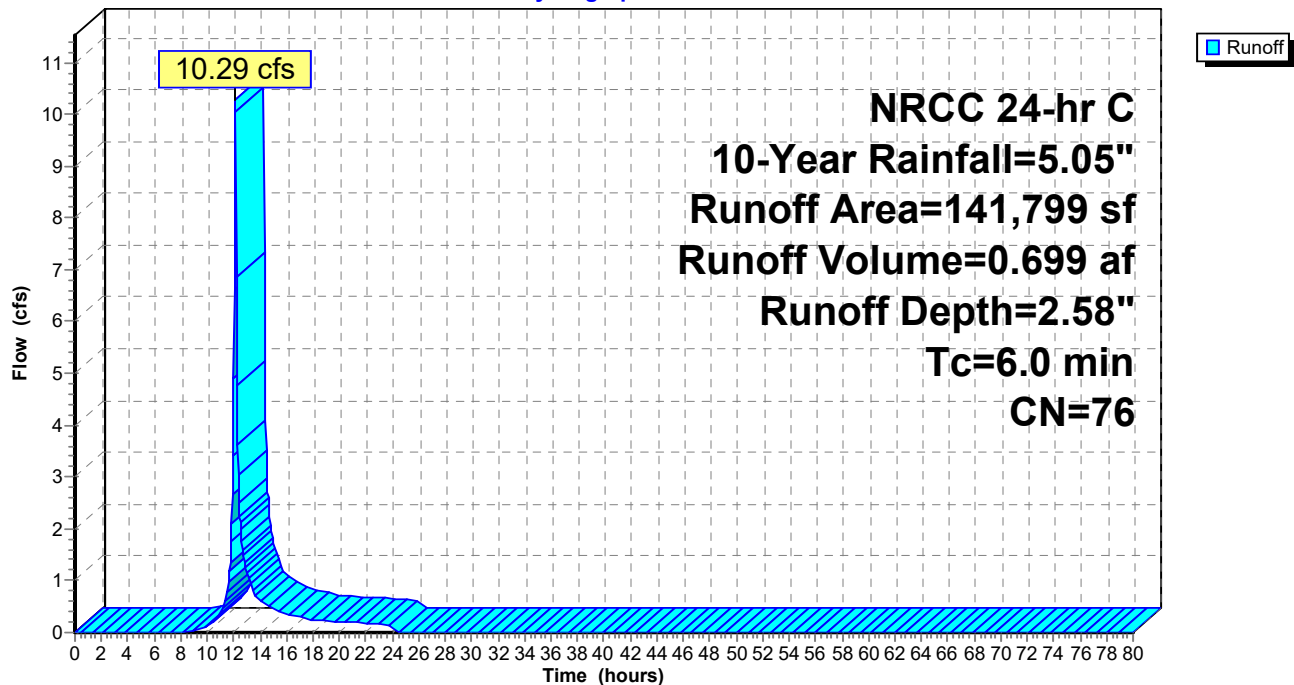
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

Area (sf)	CN	Description
134,299	75	1/4 acre lots, 38% imp, HSG B
* 7,500	98	basin
141,799	76	Weighted Average
83,265		58.72% Pervious Area
58,534		41.28% Impervious Area

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

Subcatchment P-2F: P-2F

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NRCC 24-hr C 10-Year Rainfall=5.05"

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Summary for Subcatchment P-2U: P-2U

Runoff = 28.71 cfs @ 12.54 hrs, Volume= 4.306 af, Depth= 1.84"

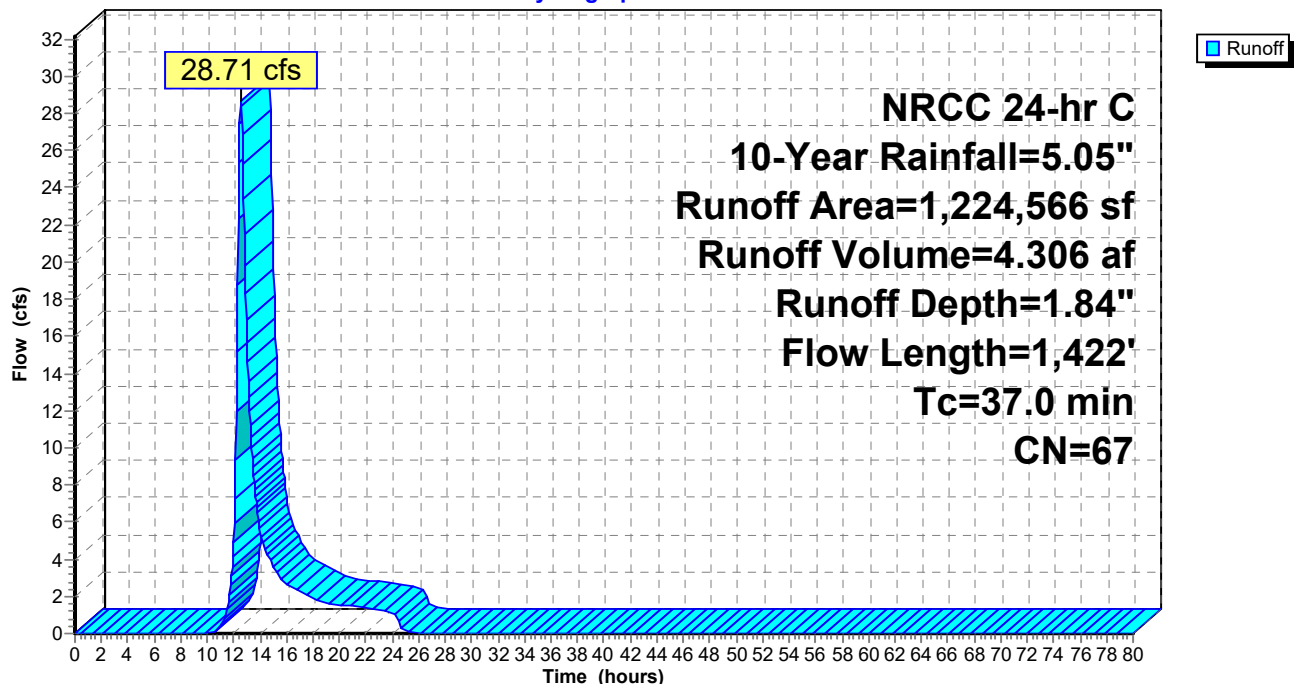
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

Area (sf)	CN	Description
126,300	32	Woods/grass comb., Good, HSG A
394,200	58	Woods/grass comb., Good, HSG B
232,300	72	Woods/grass comb., Good, HSG C
418,475	79	Woods/grass comb., Good, HSG D
* 53,291	98	Wetland, HSG D
1,224,566	67	Weighted Average
1,171,275		95.65% Pervious Area
53,291		4.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	100	0.0830	0.31		Sheet Flow, Sheet Flow Grass: Short n= 0.150 P2= 3.37"
25.9	973	0.0080	0.63		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.7	349	0.0040	1.02		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
37.0	1,422	Total			

Subcatchment P-2U: P-2U

Hydrograph



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Summary for Subcatchment P-3A: P-3A

Runoff = 8.61 cfs @ 12.13 hrs, Volume= 0.595 af, Depth= 3.22"

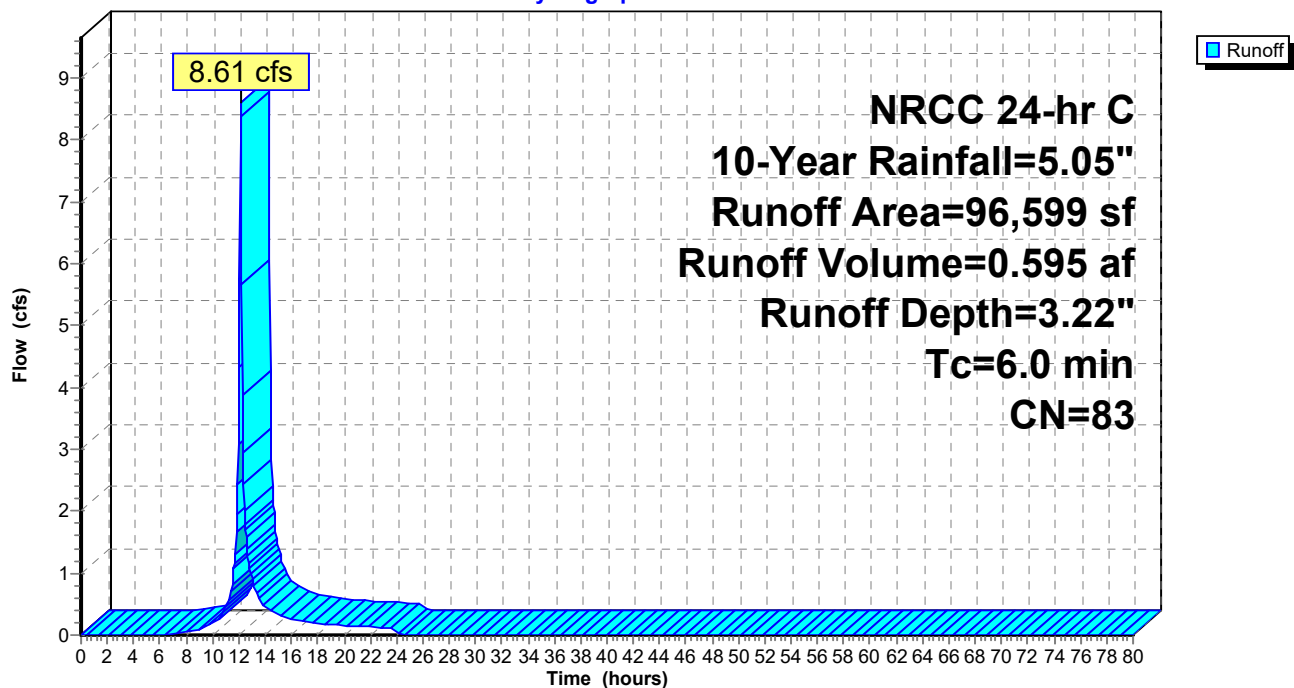
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

	Area (sf)	CN	Description
*	4,600	98	BASIN
	36,100	75	1/4 acre lots, 38% imp, HSG B
	55,899	87	1/4 acre lots, 38% imp, HSG D
	96,599	83	Weighted Average
	57,039		59.05% Pervious Area
	39,560		40.95% Impervious Area

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

Subcatchment P-3A: P-3A

Hydrograph



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Summary for Subcatchment P-3B: P-3B

Runoff = 18.03 cfs @ 12.13 hrs, Volume= 1.224 af, Depth= 2.40"

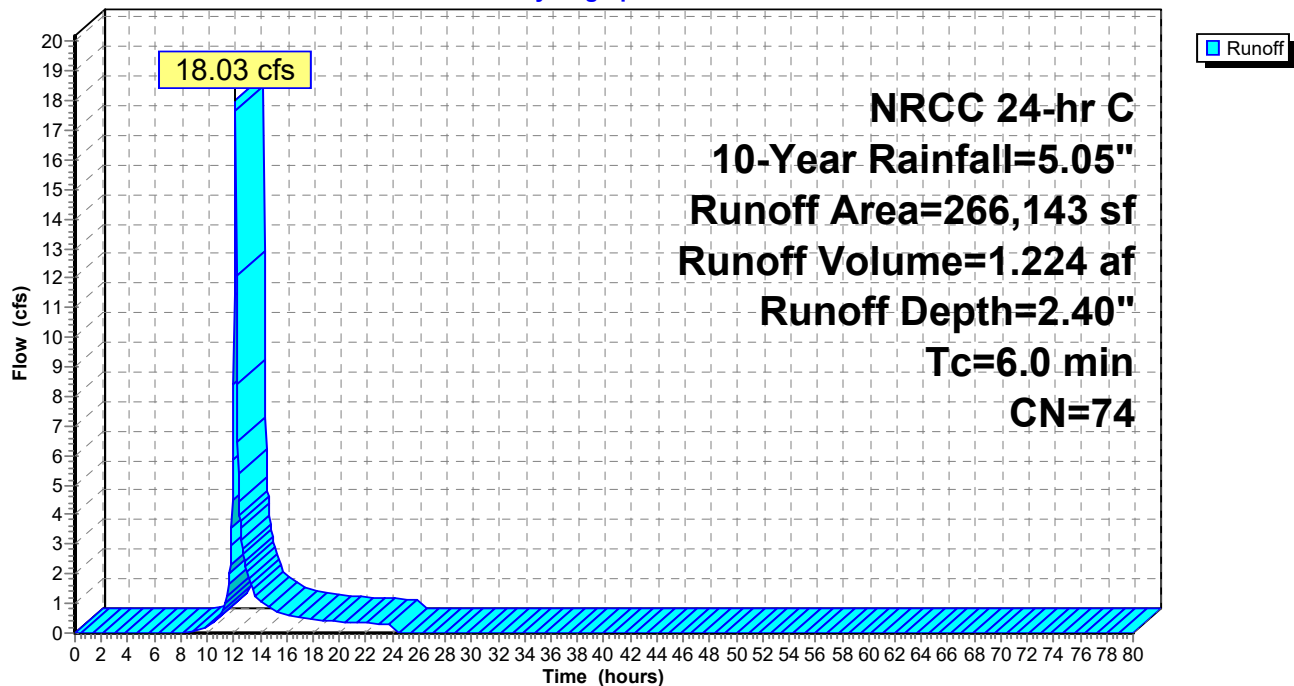
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

	Area (sf)	CN	Description
*	9,500	98	BASIN
	9,200	30	Woods, Good, HSG A
	247,443	75	1/4 acre lots, 38% imp, HSG B
	266,143	74	Weighted Average
	162,615		61.10% Pervious Area
	103,528		38.90% Impervious Area

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

Subcatchment P-3B: P-3B

Hydrograph



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Summary for Subcatchment P-3U: P-3U

Runoff = 25.43 cfs @ 12.29 hrs, Volume= 2.676 af, Depth= 1.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

	Area (sf)	CN	Description
*	169,500	98	wetland, HSG D
	108,000	30	Woods, Good, HSG A
	98,000	39	>75% Grass cover, Good, HSG A
	136,977	61	>75% Grass cover, Good, HSG B
	76,000	55	Woods, Good, HSG B
*	15,800	98	EXIST Roof and Pavement
	58,000	77	Woods, Good, HSG D
	58,000	80	>75% Grass cover, Good, HSG D
*	32,500	98	13 UNITS
*	6,400	98	400 LF OF ROAD
*	1,800	98	2 UNITS DRIVEWAY
	760,977	67	Weighted Average
	534,977		70.30% Pervious Area
	226,000		29.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	50	0.0340	0.09		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.37"
1.4	111	0.0356	1.32		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.0	59	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.1	10	0.0136	2.37		Shallow Concentrated Flow, Impervious Paved Kv= 20.3 fps
2.6	135	0.0156	0.87		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.0	120	0.0198	0.98		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.1	32	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
18.9	517	Total			

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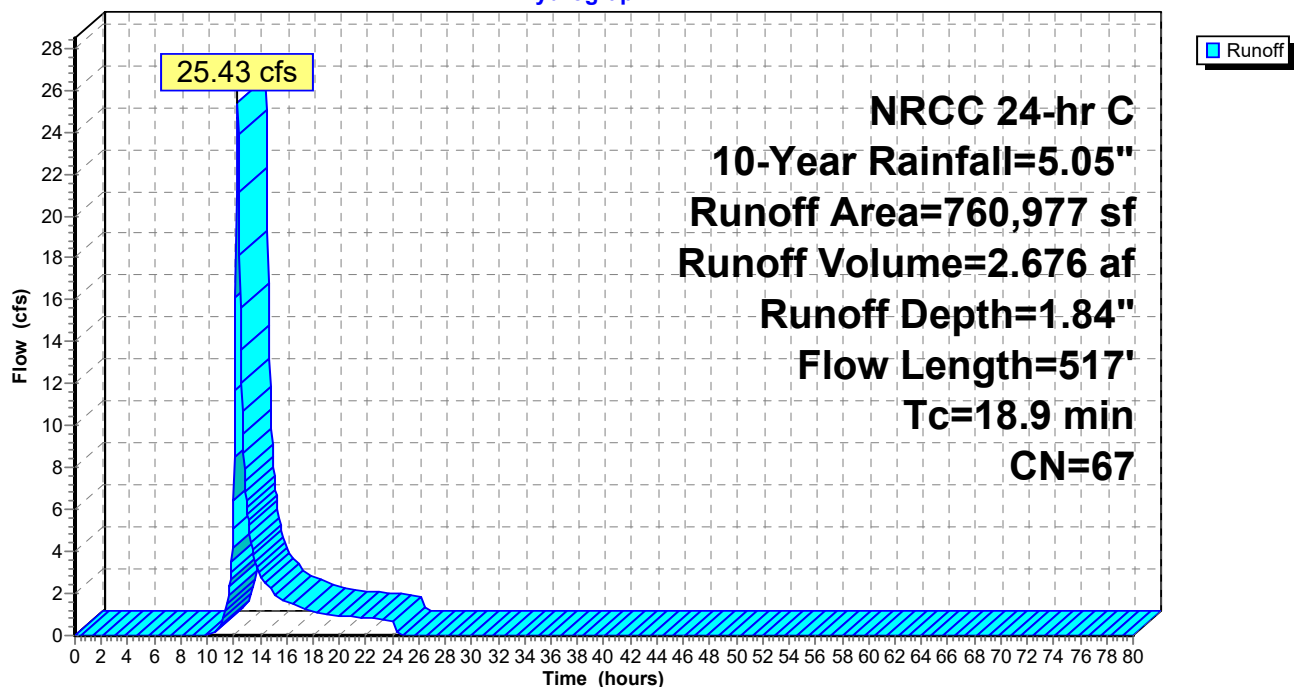
NRCC 24-hr C 10-Year Rainfall=5.05"

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Subcatchment P-3U: P-3U

Hydrograph



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Summary for Subcatchment P-4: P-4

Runoff = 0.24 cfs @ 12.15 hrs, Volume= 0.025 af, Depth= 0.66"

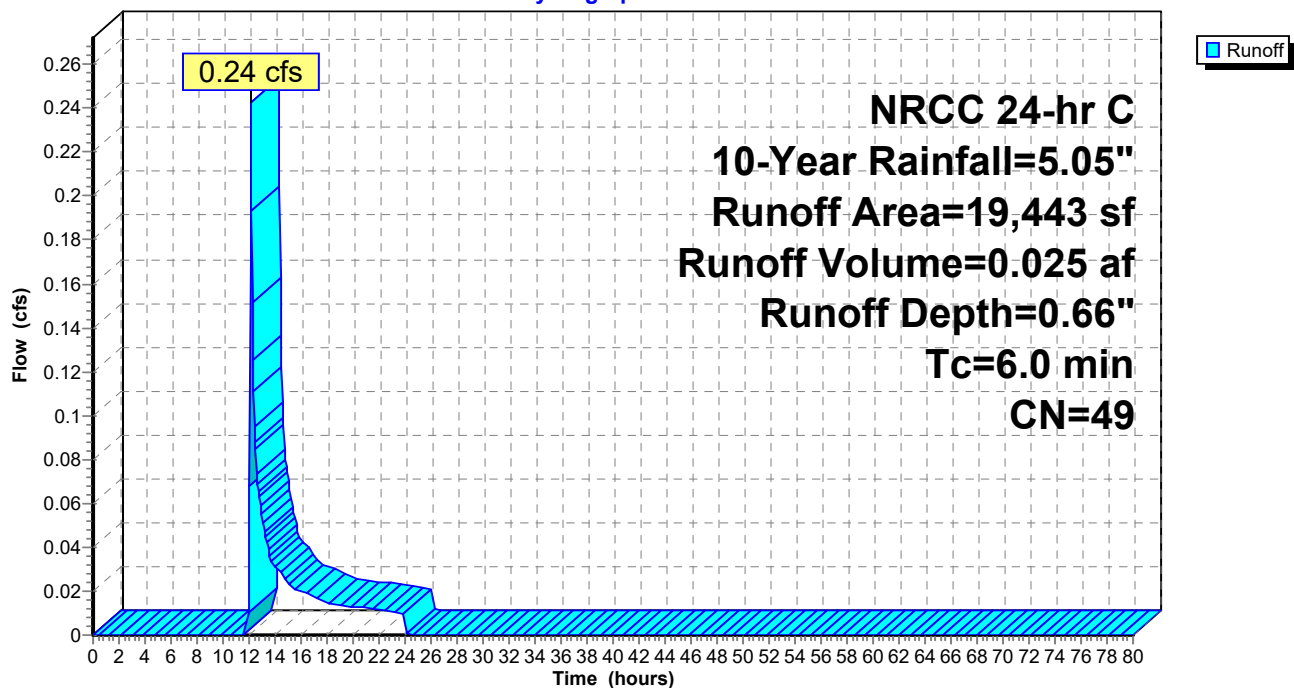
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

Area (sf)	CN	Description
5,200	30	Woods, Good, HSG A
10,262	39	>75% Grass cover, Good, HSG A
* 3,981	98	roof and pavement
19,443	49	Weighted Average
15,462		79.52% Pervious Area
3,981		20.48% Impervious Area

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

Subcatchment P-4: P-4

Hydrograph



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Summary for Subcatchment P-5U: P-5U

Runoff = 7.74 cfs @ 12.23 hrs, Volume= 0.713 af, Depth= 1.69"

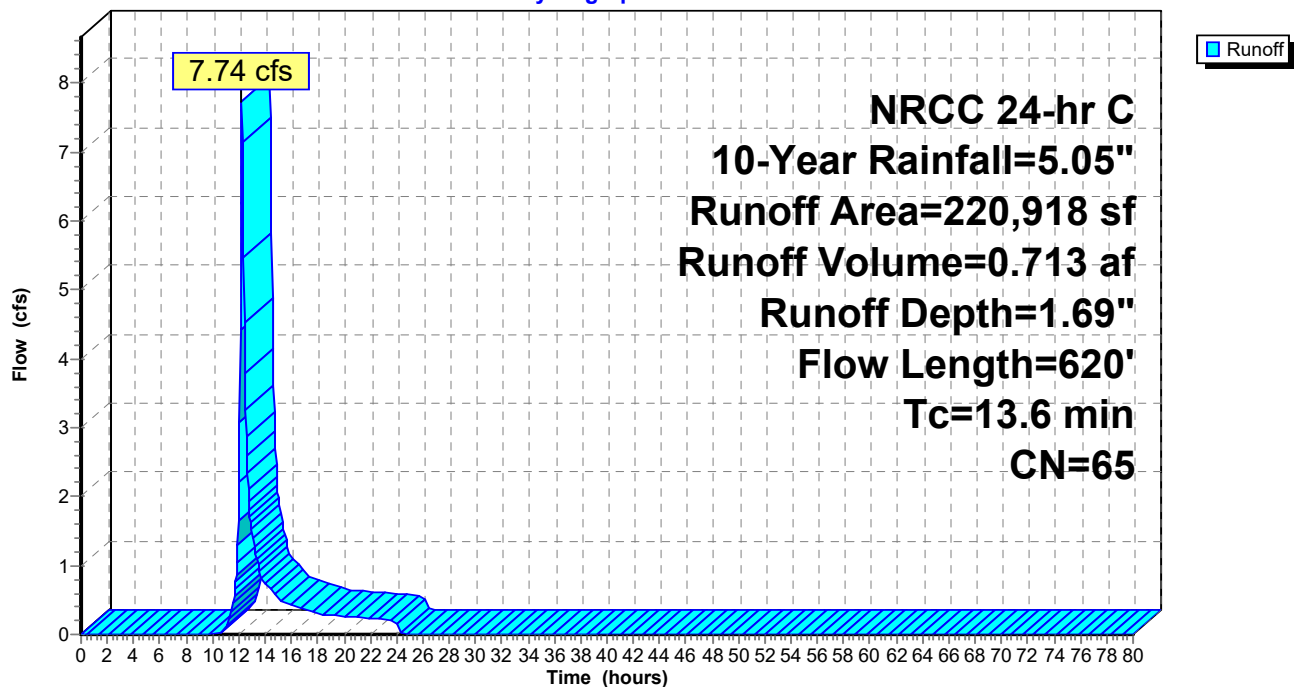
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

Area (sf)	CN	Description
83,000	39	>75% Grass cover, Good, HSG A
17,000	61	>75% Grass cover, Good, HSG B
* 24,100	98	WETLAND, 0% imp, HSG D
96,818	80	>75% Grass cover, Good, HSG D
220,918	65	Weighted Average
220,918		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	50	0.0160	0.14		Sheet Flow, Grass: Short n= 0.150 P2= 3.37"
7.6	570	0.0315	1.24		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
13.6	620	Total			

Subcatchment P-5U: P-5U

Hydrograph



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Summary for Subcatchment P-6A: P-6A

Runoff = 11.07 cfs @ 12.13 hrs, Volume= 0.753 af, Depth= 2.66"

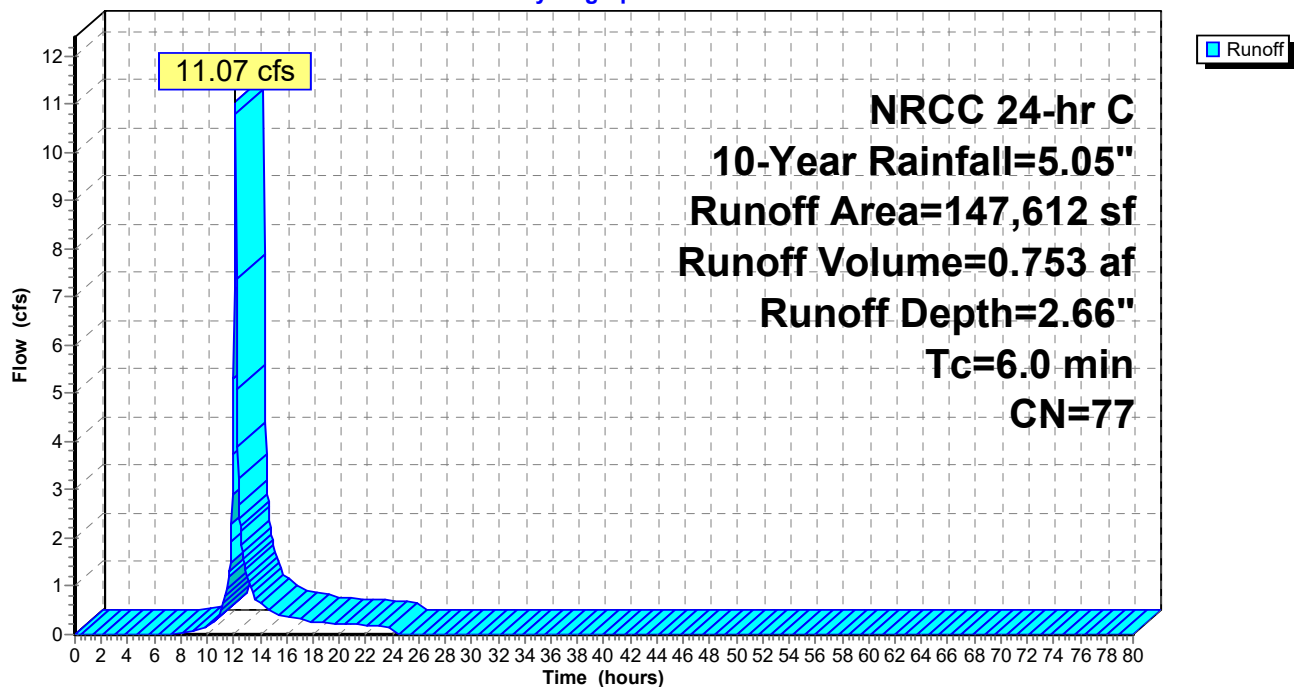
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

Area (sf)	CN	Description
134,612	75	1/4 acre lots, 38% imp, HSG B
* 13,000	98	basin
147,612	77	Weighted Average
83,459		56.54% Pervious Area
64,153		43.46% Impervious Area

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

Subcatchment P-6A: P-6A

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NRCC 24-hr C 10-Year Rainfall=5.05"

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Summary for Subcatchment P-6U: P-6U

Runoff = 14.60 cfs @ 12.23 hrs, Volume= 1.330 af, Depth= 1.92"

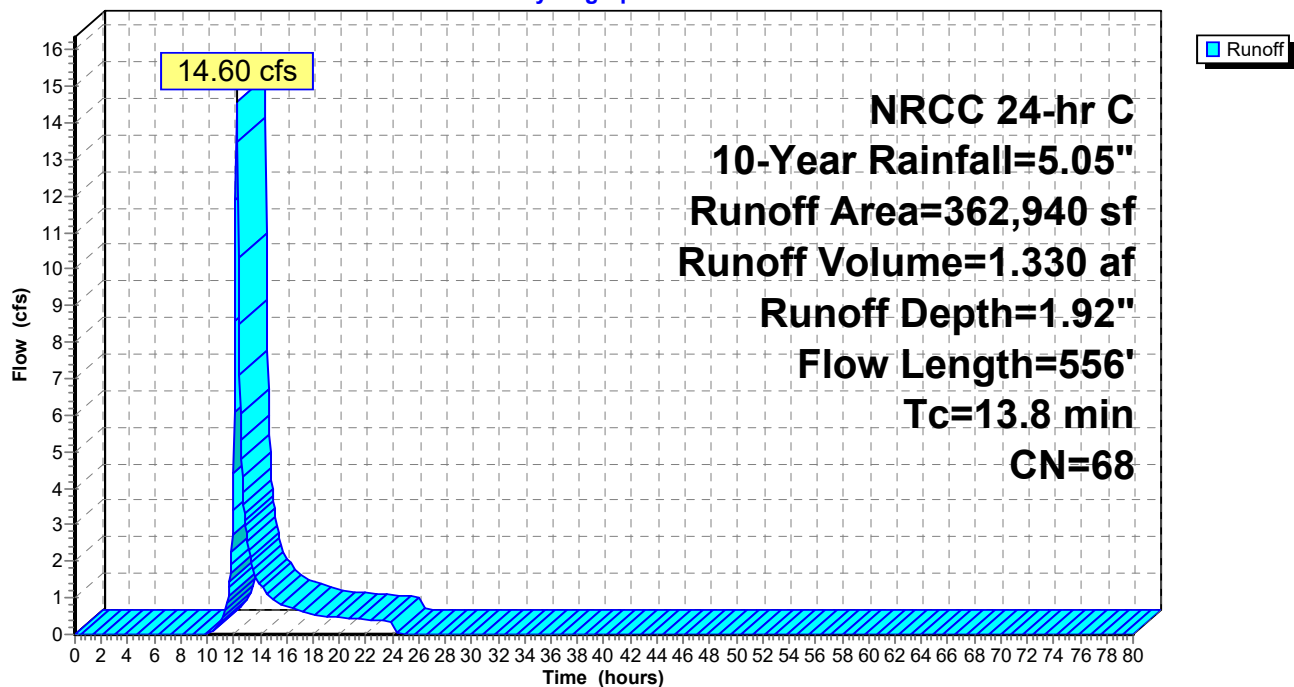
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

Area (sf)	CN	Description
45,100	32	Woods/grass comb., Good, HSG A
164,917	58	Woods/grass comb., Good, HSG B
* 82,500	98	WETLAND, 0% imp, HSG D
70,423	80	>75% Grass cover, Good, HSG D
362,940	68	Weighted Average
362,940		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0296	0.20		Sheet Flow, Grass: Short n= 0.150 P2= 3.37"
5.6	456	0.0380	1.36		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
13.8	556	Total			

Subcatchment P-6U: P-6U

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Summary for Subcatchment P-7A: P-7A

Runoff = 14.18 cfs @ 12.13 hrs, Volume= 0.963 af, Depth= 2.32"

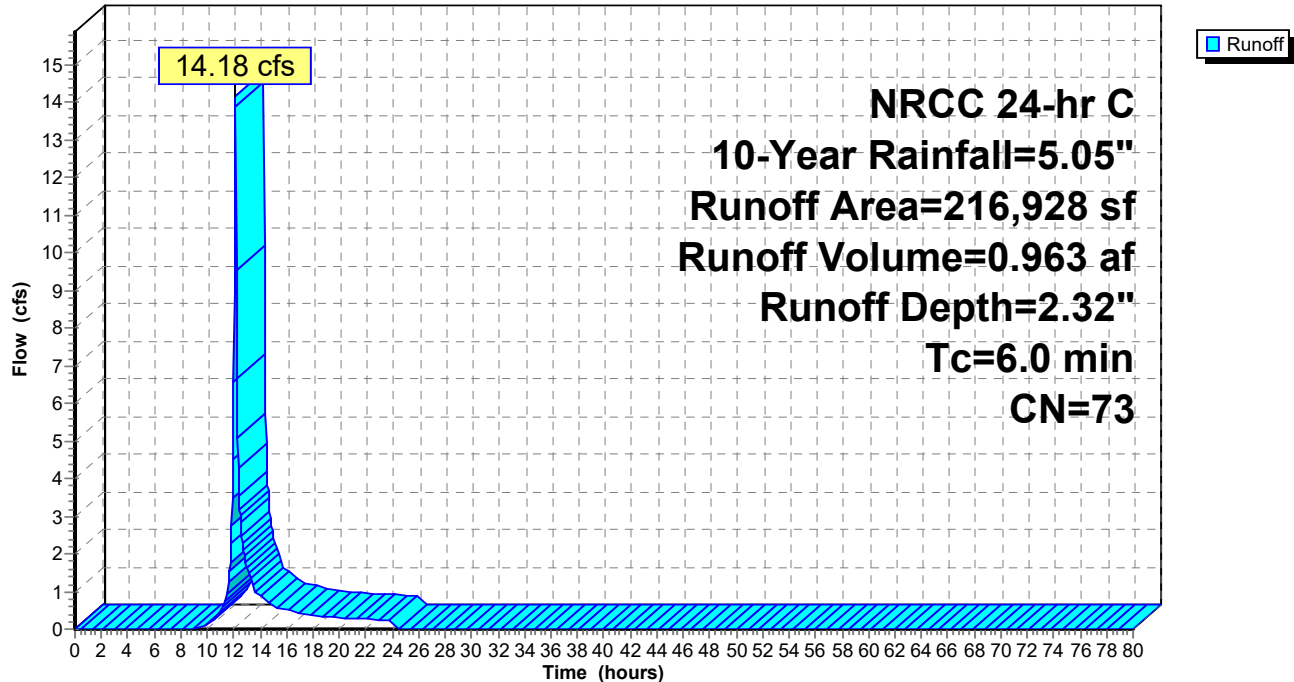
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

	Area (sf)	CN	Description
*	50,000	98	pavement parking
*	4,500	98	roof
*	10,200	98	basin
	99,000	75	1/4 acre lots, 38% imp, HSG B
	53,228	39	>75% Grass cover, Good, HSG A
	216,928	73	Weighted Average
	114,608		52.83% Pervious Area
	102,320		47.17% Impervious Area

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

Subcatchment P-7A: P-7A

Hydrograph



Proposed Hydrology

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NRCC 24-hr C 10-Year Rainfall=5.05"

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Summary for Subcatchment P-7U: P-7U

Runoff = 9.77 cfs @ 12.38 hrs, Volume= 1.312 af, Depth= 1.13"

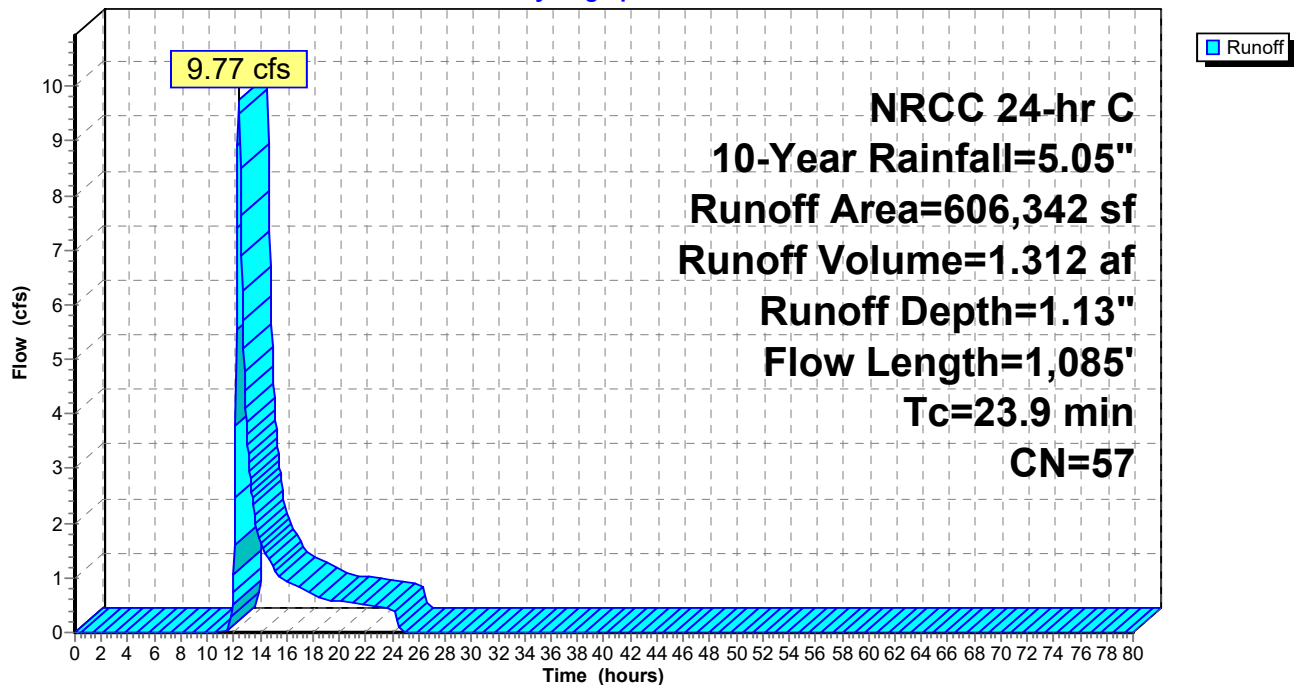
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

Area (sf)	CN	Description
32,738	98	Paved parking, HSG B
118,803	32	Woods/grass comb., Good, HSG A
403,863	58	Woods/grass comb., Good, HSG B
33,128	80	>75% Grass cover, Good, HSG D
17,810	98	Water Surface, 0% imp, HSG A
606,342	57	Weighted Average
573,604		94.60% Pervious Area
32,738		5.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0160	0.16		Sheet Flow, Grass: Short n= 0.150 P2= 3.37"
13.5	985	0.0300	1.21		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
23.9	1,085	Total			

Subcatchment P-7U: P-7U

Hydrograph



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Summary for Subcatchment P-8U: P-8U

Runoff = 3.35 cfs @ 12.16 hrs, Volume= 0.262 af, Depth= 1.26"

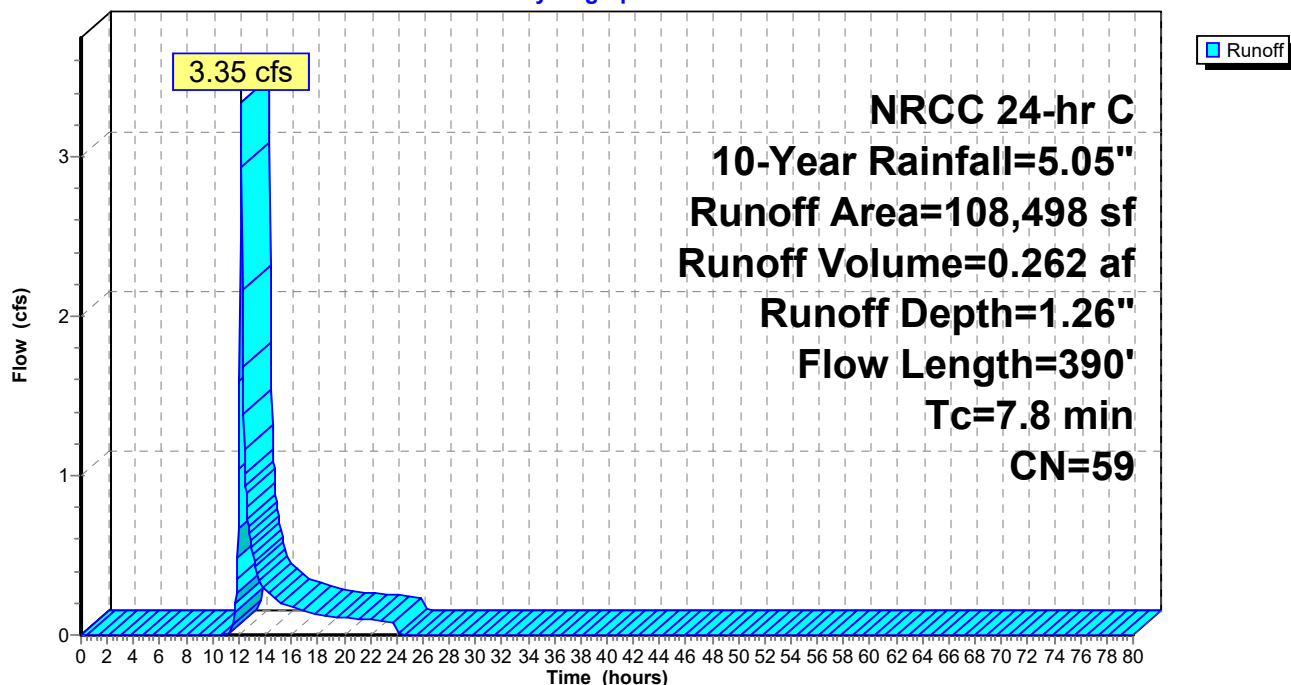
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

	Area (sf)	CN	Description
*	7,000	98	roof
	5,726	98	Water Surface, 0% imp, HSG A
	12,978	39	>75% Grass cover, Good, HSG A
	43,794	61	>75% Grass cover, Good, HSG B
	6,600	30	Woods, Good, HSG A
	32,400	55	Woods, Good, HSG B
	108,498	59	Weighted Average
	101,498		93.55% Pervious Area
	7,000		6.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	50	0.0120	0.12		Sheet Flow, Sheet Flow Grass: Short n= 0.150 P2= 3.37"
1.1	340	0.0940	4.94		Shallow Concentrated Flow, HR-A Unpaved Kv= 16.1 fps
7.8	390	Total			

Subcatchment P-8U: P-8U

Hydrograph



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Summary for Subcatchment P-9A: P-9A

Runoff = 1.20 cfs @ 12.15 hrs, Volume= 0.103 af, Depth= 0.83"

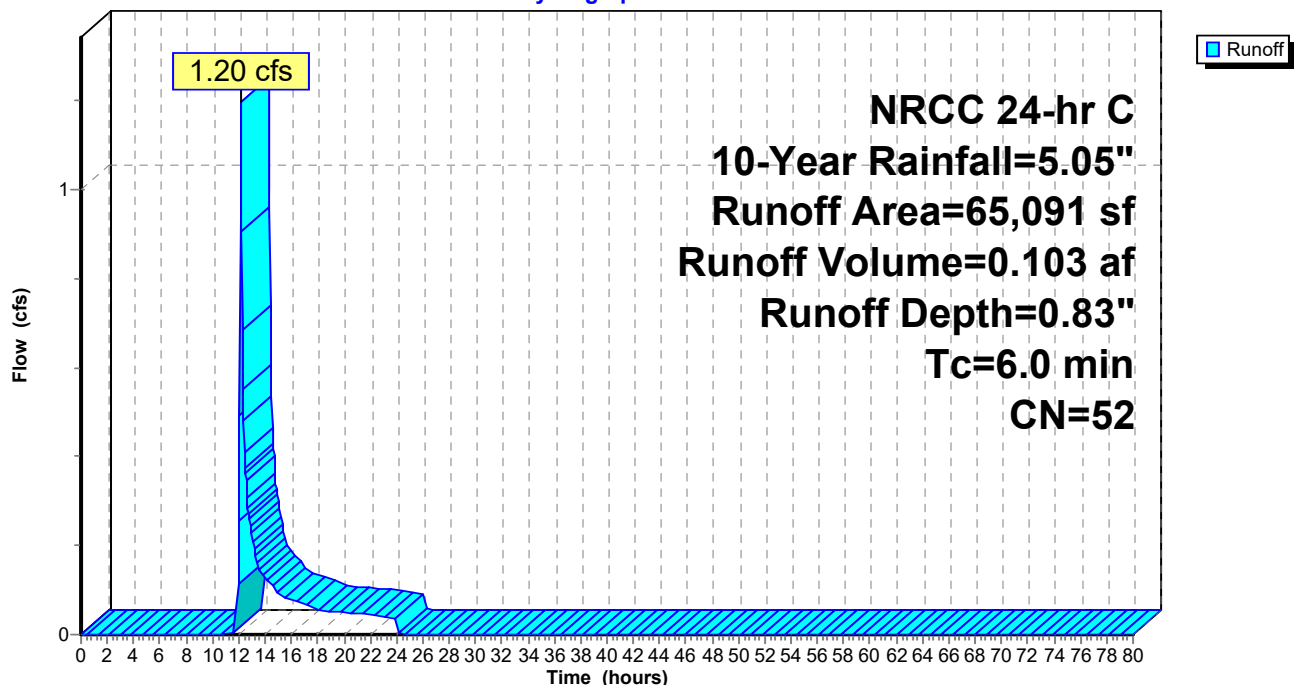
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

	Area (sf)	CN	Description
	13,200	30	Woods, Good, HSG A
*	15,000	98	ROADS
*	1,700	98	BASIN
	35,191	39	>75% Grass cover, Good, HSG A
	65,091	52	Weighted Average
	48,391		74.34% Pervious Area
	16,700		25.66% Impervious Area

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

Subcatchment P-9A: P-9A

Hydrograph



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Summary for Subcatchment P-9B: P-9B

Runoff = 3.74 cfs @ 12.14 hrs, Volume= 0.263 af, Depth= 1.54"

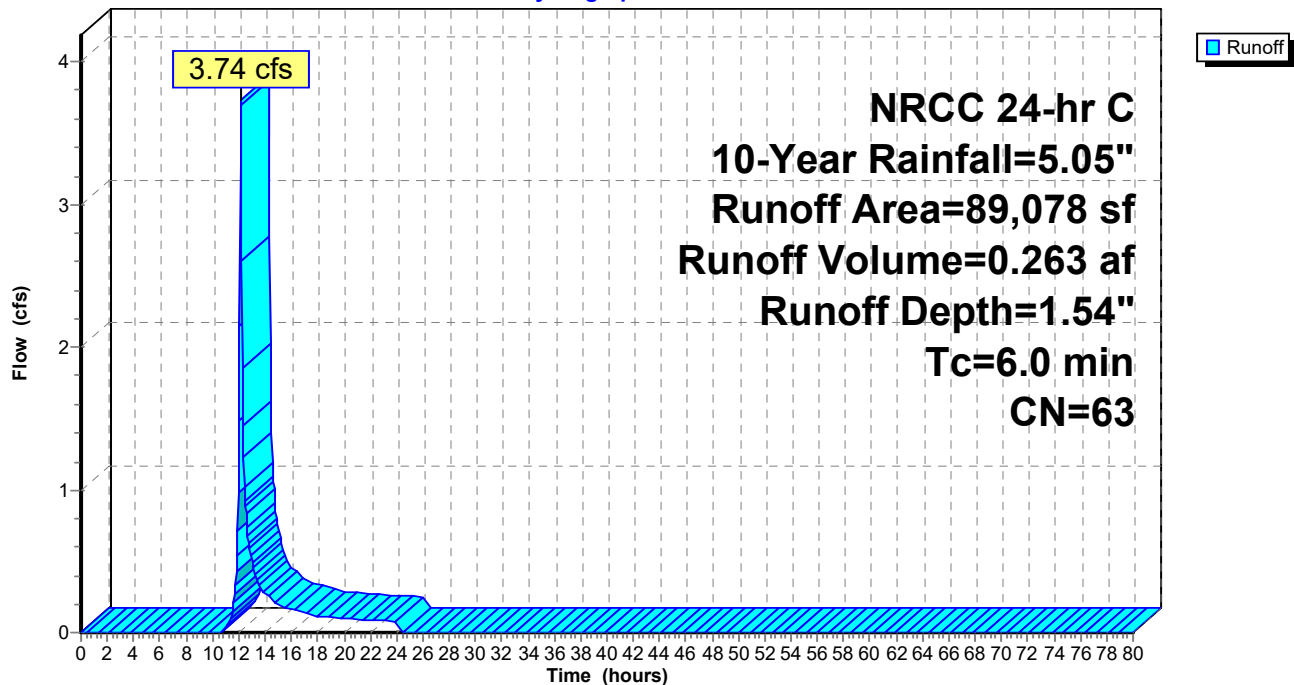
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

	Area (sf)	CN	Description
*	4,300	98	BASIN
	84,778	61	1/4 acre lots, 38% imp, HSG A
	89,078	63	Weighted Average
	52,562		59.01% Pervious Area
	36,516		40.99% Impervious Area

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

Subcatchment P-9B: P-9B

Hydrograph



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Summary for Subcatchment P-9C: P-9C

Runoff = 13.03 cfs @ 12.13 hrs, Volume= 0.887 af, Depth= 2.75"

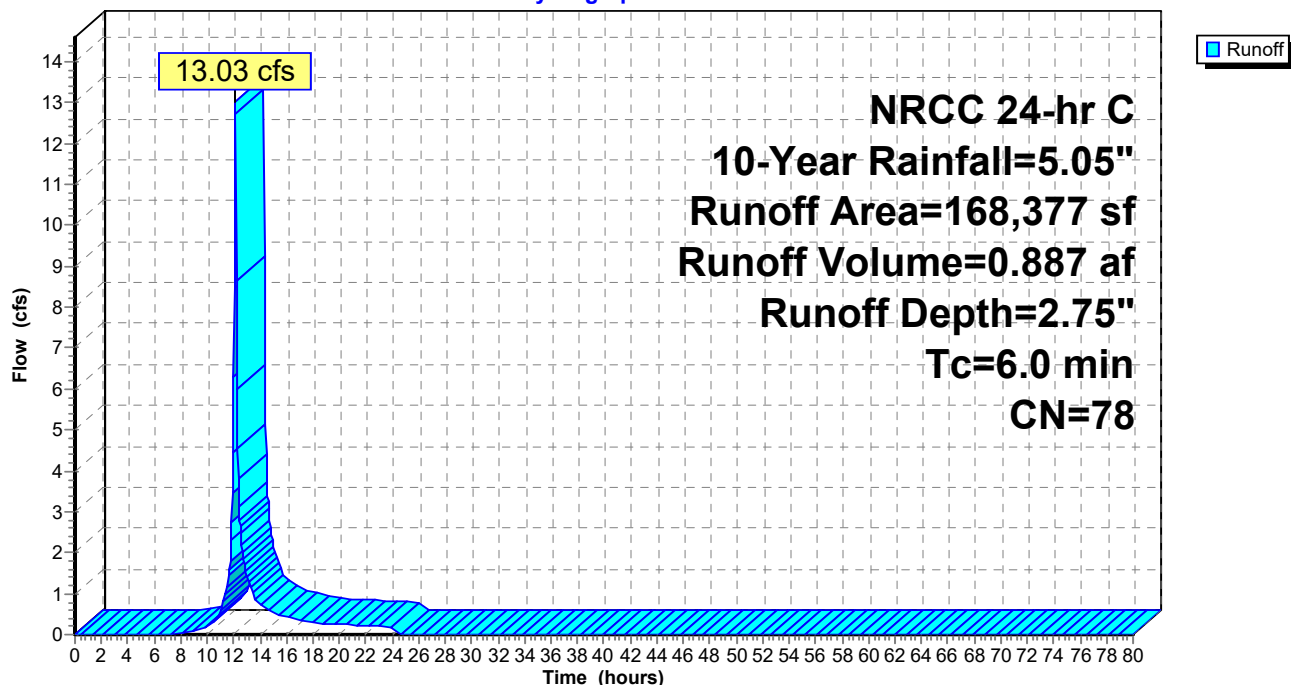
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

Area (sf)	CN	Description
20,800	30	Woods, Good, HSG A
104,000	98	Paved parking, HSG A
34,077	39	>75% Grass cover, Good, HSG A
* 9,500	98	ROOF
168,377	78	Weighted Average
54,877		32.59% Pervious Area
113,500		67.41% Impervious Area

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

Subcatchment P-9C: P-9C

Hydrograph



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Summary for Subcatchment P-9U: P-9U

Runoff = 0.24 cfs @ 12.24 hrs, Volume= 0.065 af, Depth= 0.37"

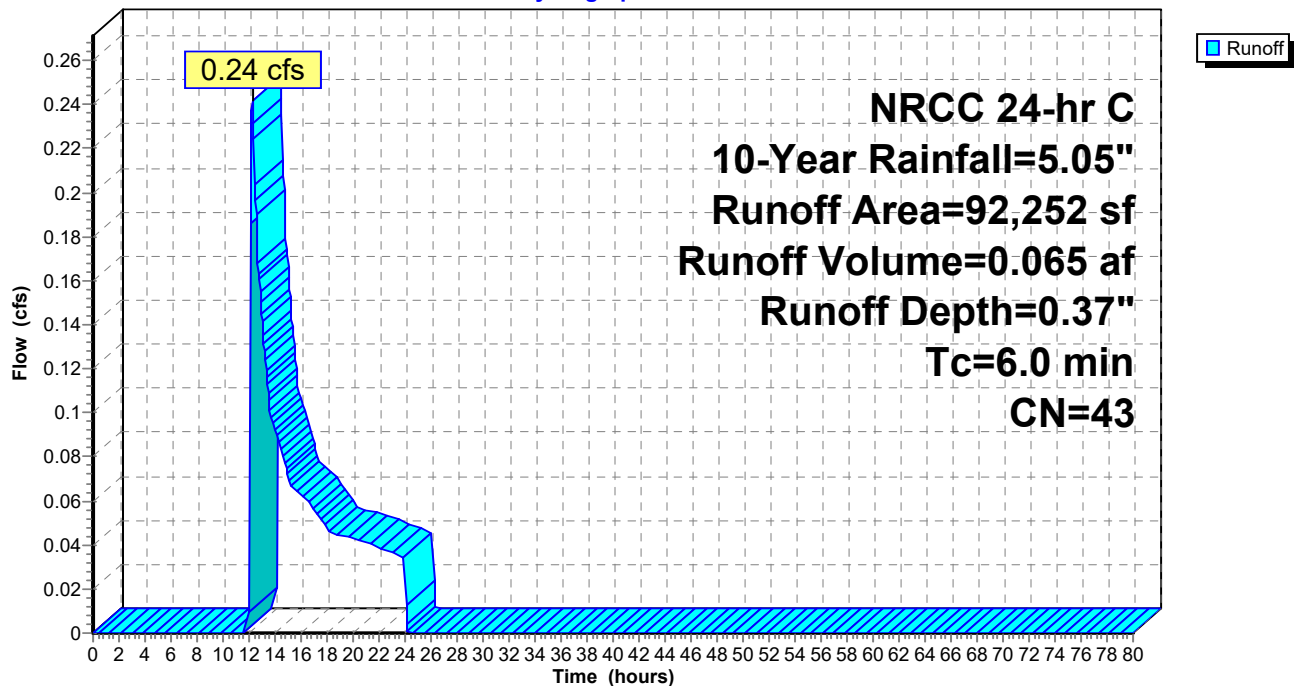
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
NRCC 24-hr C 10-Year Rainfall=5.05"

Area (sf)	CN	Description
36,000	30	Woods, Good, HSG A
12,000	98	Paved parking, HSG A
44,252	39	>75% Grass cover, Good, HSG A
92,252	43	Weighted Average
80,252		86.99% Pervious Area
12,000		13.01% Impervious Area

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

Subcatchment P-9U: P-9U

Hydrograph



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Summary for Reach DP-1: Wetland Series R

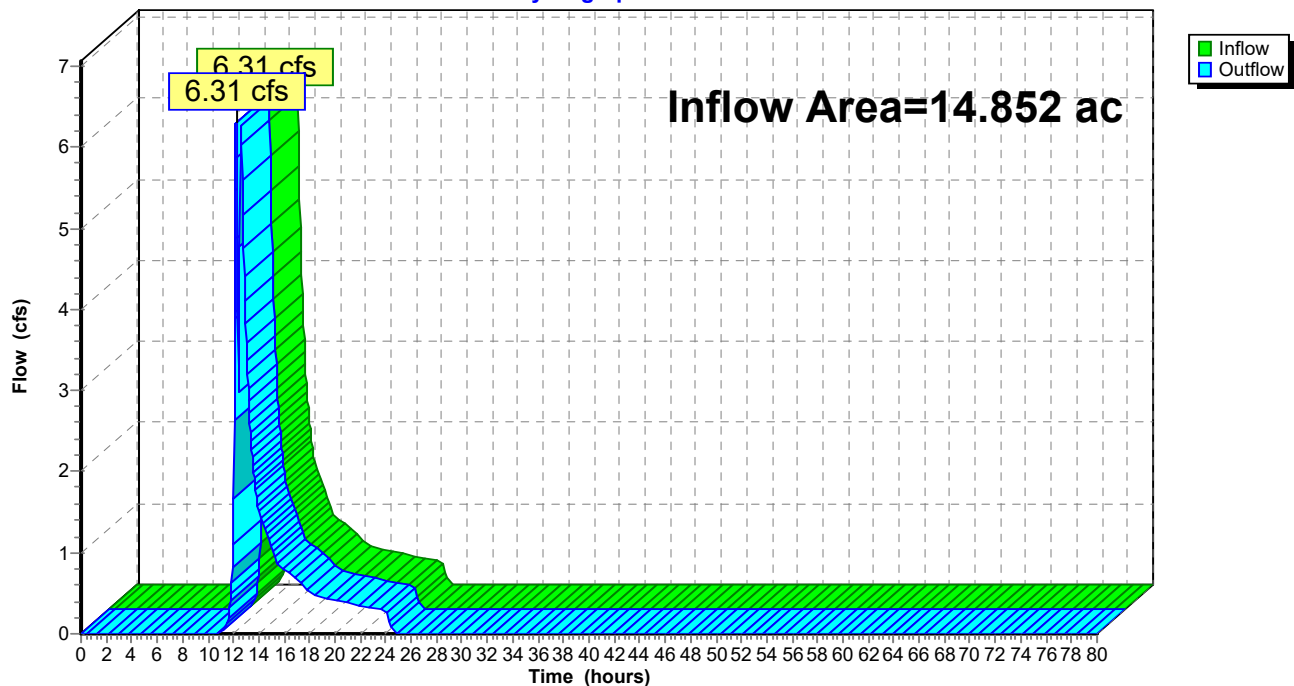
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 14.852 ac, 17.22% Impervious, Inflow Depth = 0.87" for 10-Year event
Inflow = 6.31 cfs @ 12.21 hrs, Volume= 1.082 af
Outflow = 6.31 cfs @ 12.21 hrs, Volume= 1.082 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-1: Wetland Series R

Hydrograph



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Summary for Reach DP-10: West Elm Street

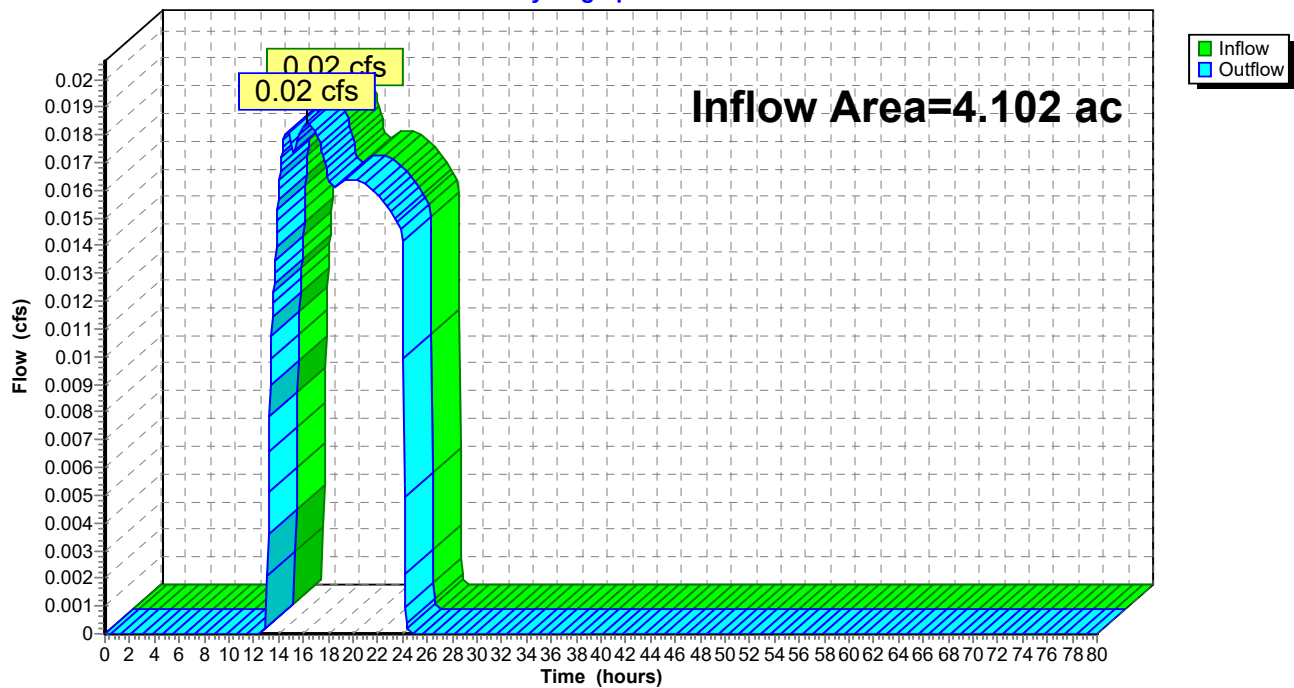
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.102 ac, 17.26% Impervious, Inflow Depth = 0.04" for 10-Year event
Inflow = 0.02 cfs @ 16.28 hrs, Volume= 0.015 af
Outflow = 0.02 cfs @ 16.28 hrs, Volume= 0.015 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-10: West Elm Street

Hydrograph



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Summary for Reach DP-11: Wetland Series A

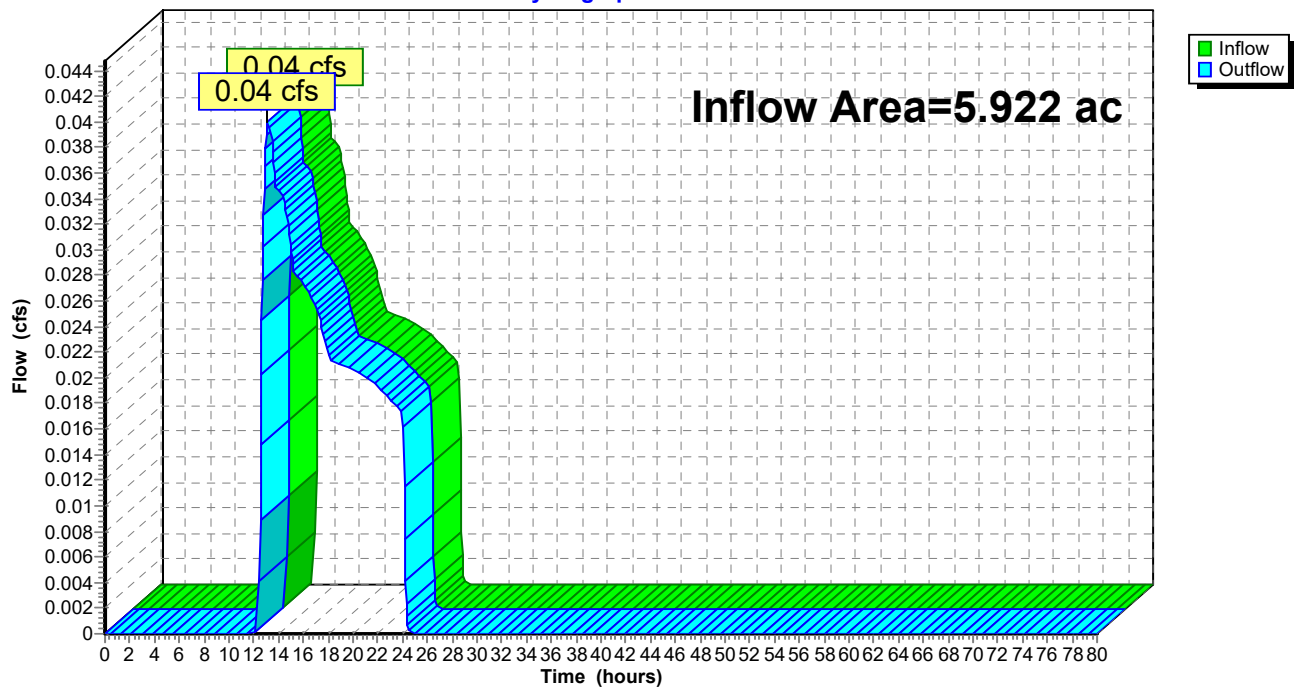
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 5.922 ac, 8.29% Impervious, Inflow Depth = 0.05" for 10-Year event
Inflow = 0.04 cfs @ 13.12 hrs, Volume= 0.024 af
Outflow = 0.04 cfs @ 13.12 hrs, Volume= 0.024 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-11: Wetland Series A

Hydrograph



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Summary for Reach DP-12: Wetland Series A

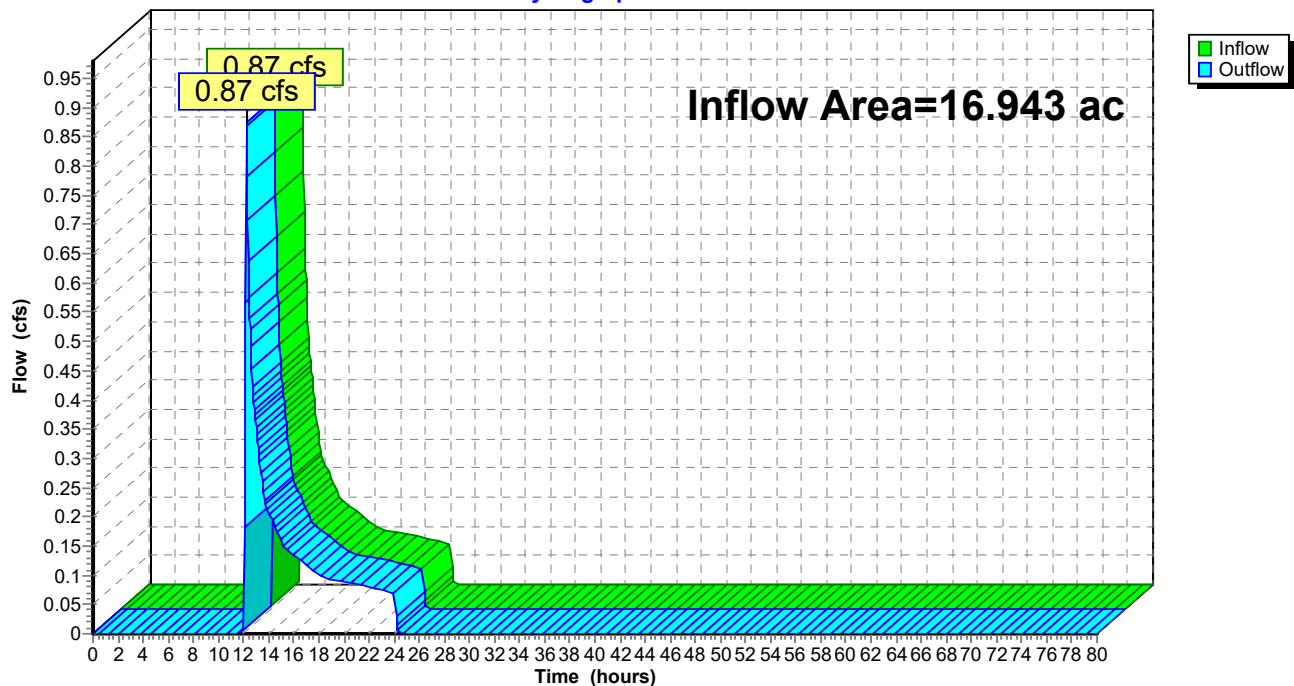
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 16.943 ac, 19.78% Impervious, Inflow Depth = 0.11" for 10-Year event
Inflow = 0.87 cfs @ 12.23 hrs, Volume= 0.151 af
Outflow = 0.87 cfs @ 12.23 hrs, Volume= 0.151 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-12: Wetland Series A

Hydrograph



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Summary for Reach DP-13: Wetland Series B

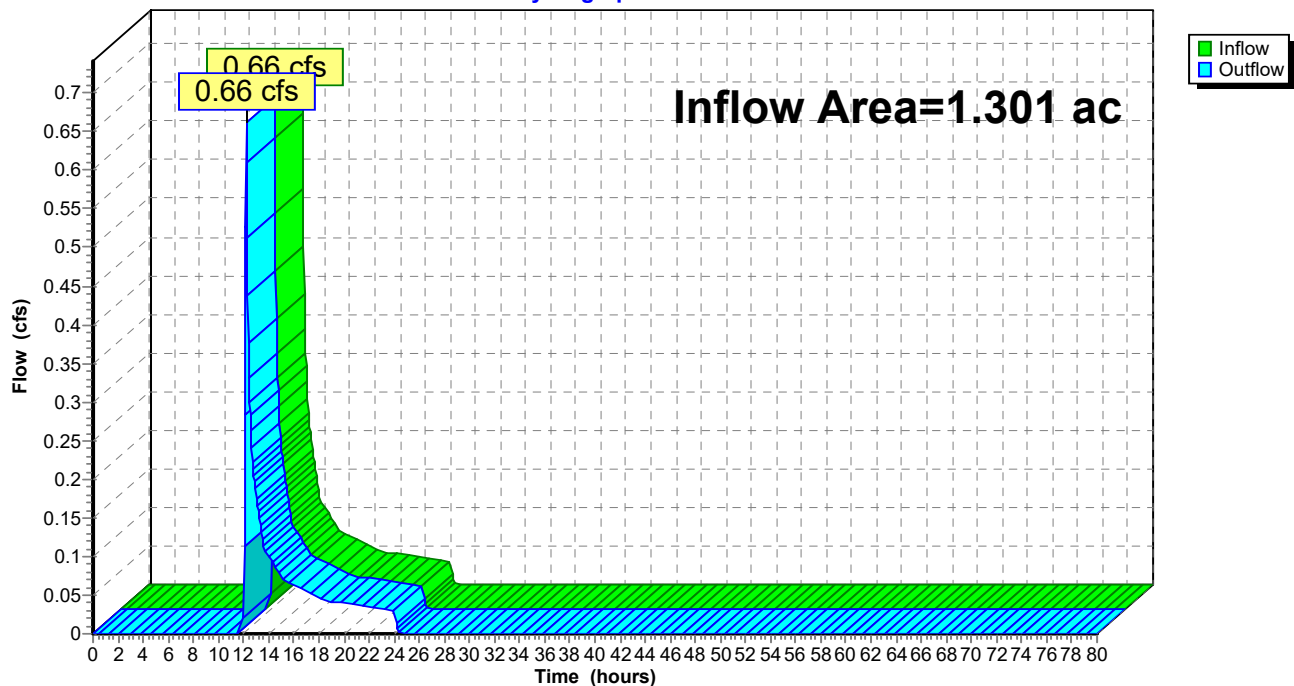
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.301 ac, 0.00% Impervious, Inflow Depth = 0.71" for 10-Year event
Inflow = 0.66 cfs @ 12.21 hrs, Volume= 0.077 af
Outflow = 0.66 cfs @ 12.21 hrs, Volume= 0.077 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-13: Wetland Series B

Hydrograph



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Summary for Reach DP-14: Wetland Series C,D,E,,K,J

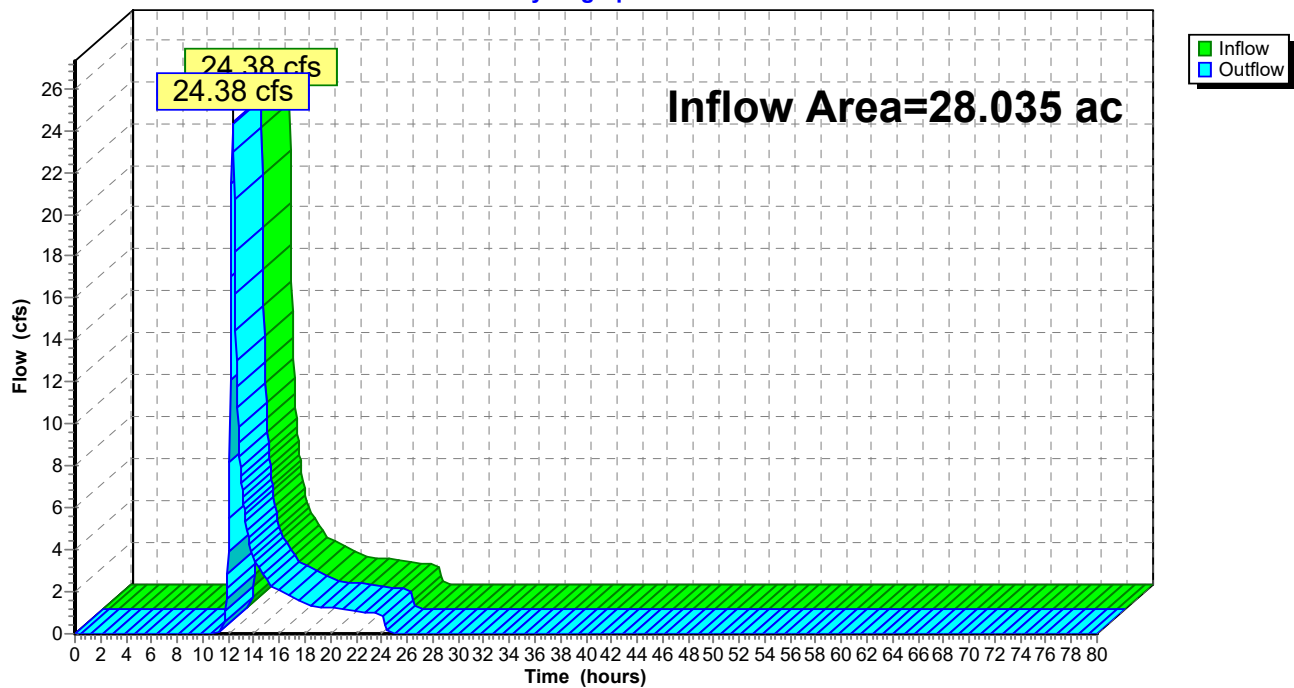
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 28.035 ac, 0.00% Impervious, Inflow Depth = 1.26" for 10-Year event
Inflow = 24.38 cfs @ 12.33 hrs, Volume= 2.950 af
Outflow = 24.38 cfs @ 12.33 hrs, Volume= 2.950 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-14: Wetland Series C,D,E,,K,J

Hydrograph



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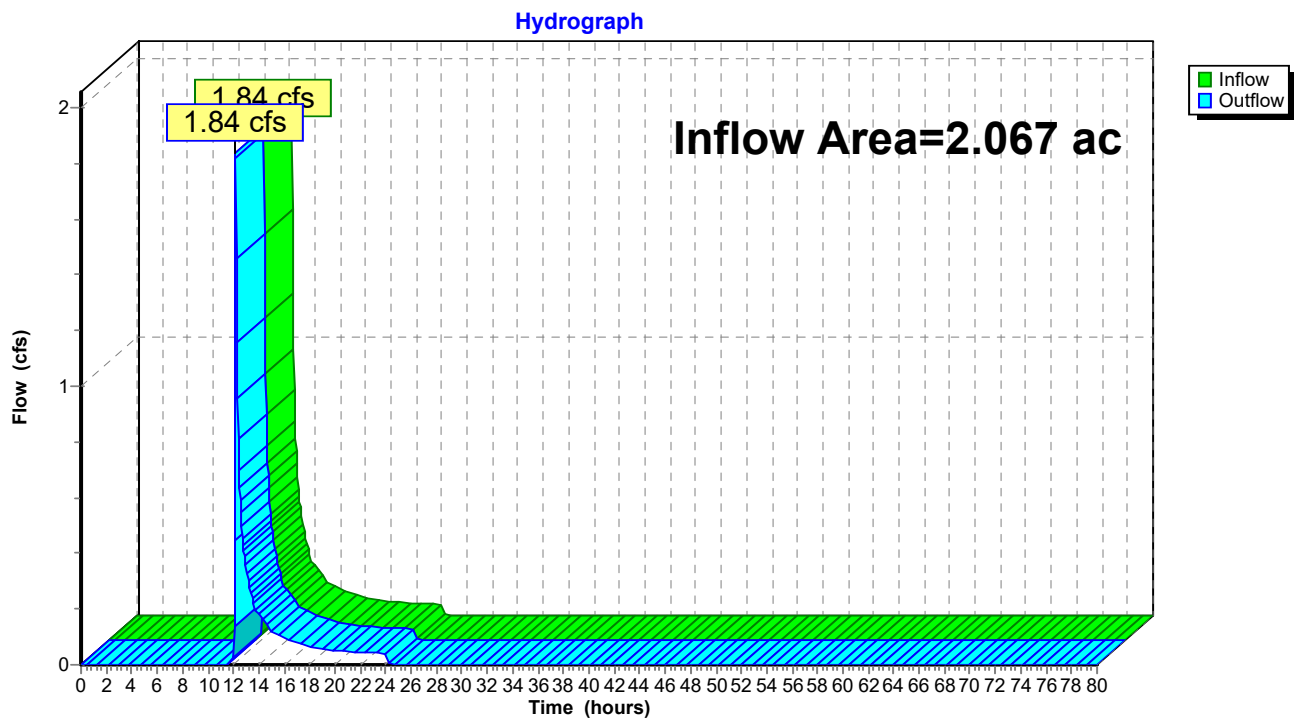
Summary for Reach DP-15: Wetland Series H

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 2.067 ac, 7.81% Impervious, Inflow Depth = 0.80" for 10-Year event
Inflow = 1.84 cfs @ 12.19 hrs, Volume= 0.138 af
Outflow = 1.84 cfs @ 12.19 hrs, Volume= 0.138 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-15: Wetland Series H



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Summary for Reach DP-2: Wetland Series I

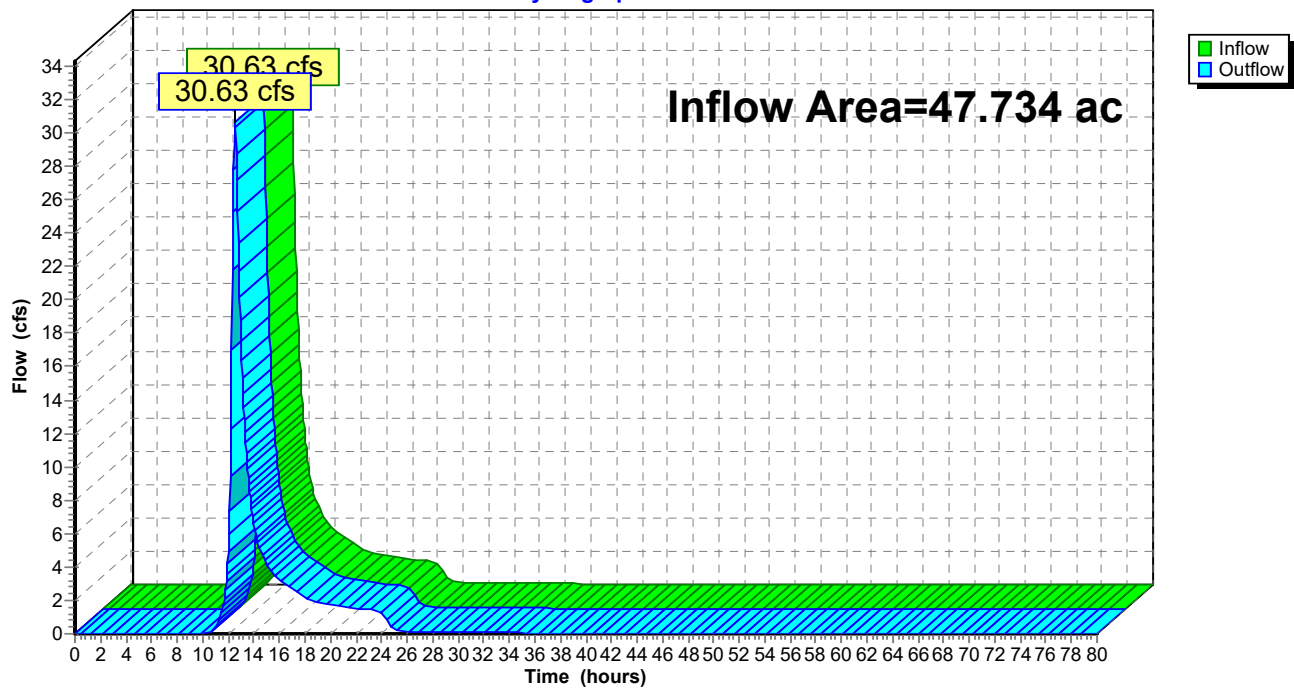
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 47.734 ac, 17.87% Impervious, Inflow Depth = 1.24" for 10-Year event
Inflow = 30.63 cfs @ 12.54 hrs, Volume= 4.930 af
Outflow = 30.63 cfs @ 12.54 hrs, Volume= 4.930 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-2: Wetland Series I

Hydrograph



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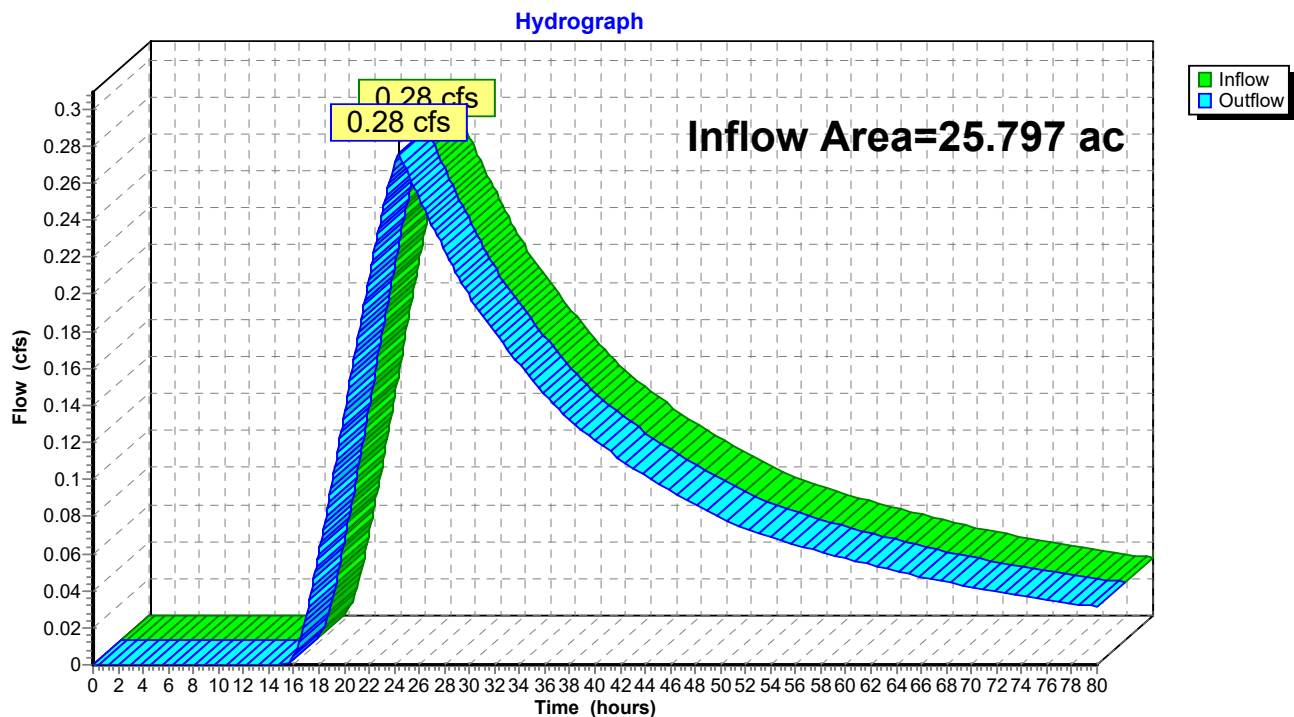
Summary for Reach DP-3: 8" Copper Pipe

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 25.797 ac, 32.85% Impervious, Inflow Depth > 0.25" for 10-Year event
Inflow = 0.28 cfs @ 24.30 hrs, Volume= 0.544 af
Outflow = 0.28 cfs @ 24.30 hrs, Volume= 0.544 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-3: 8" Copper Pipe



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Summary for Reach DP-4: Dwelley Street

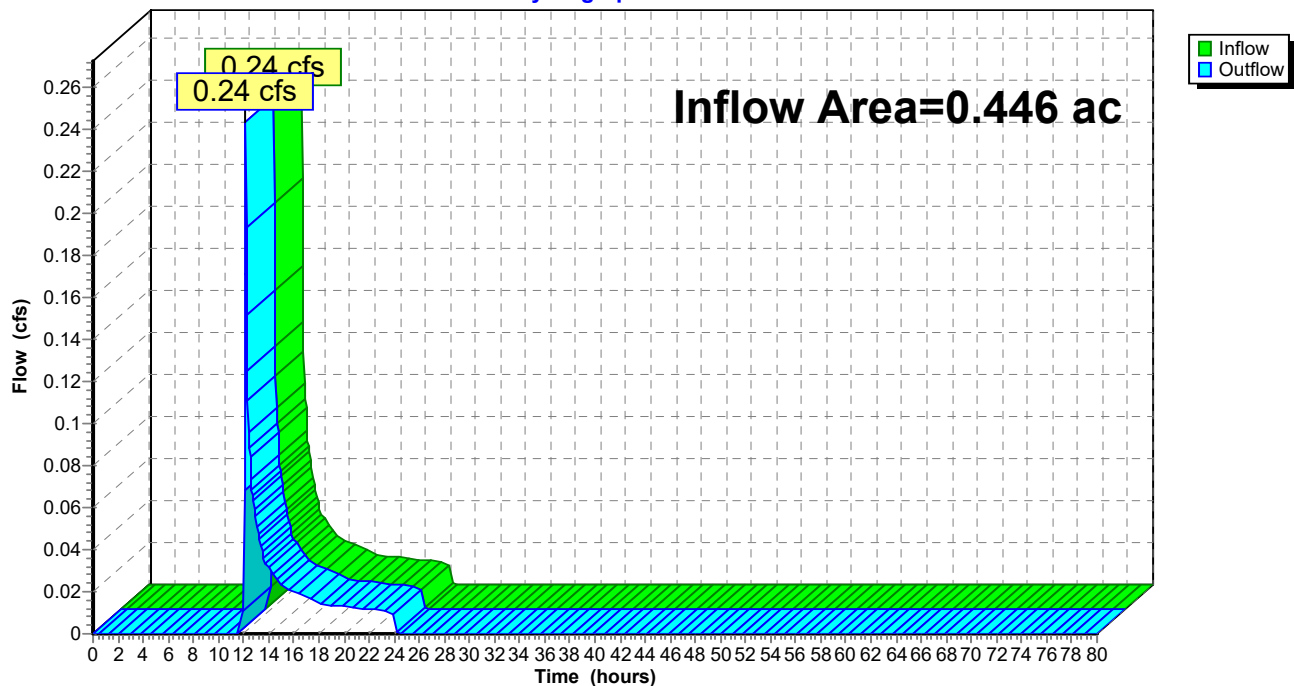
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.446 ac, 20.48% Impervious, Inflow Depth = 0.66" for 10-Year event
Inflow = 0.24 cfs @ 12.15 hrs, Volume= 0.025 af
Outflow = 0.24 cfs @ 12.15 hrs, Volume= 0.025 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-4: Dwelley Street

Hydrograph



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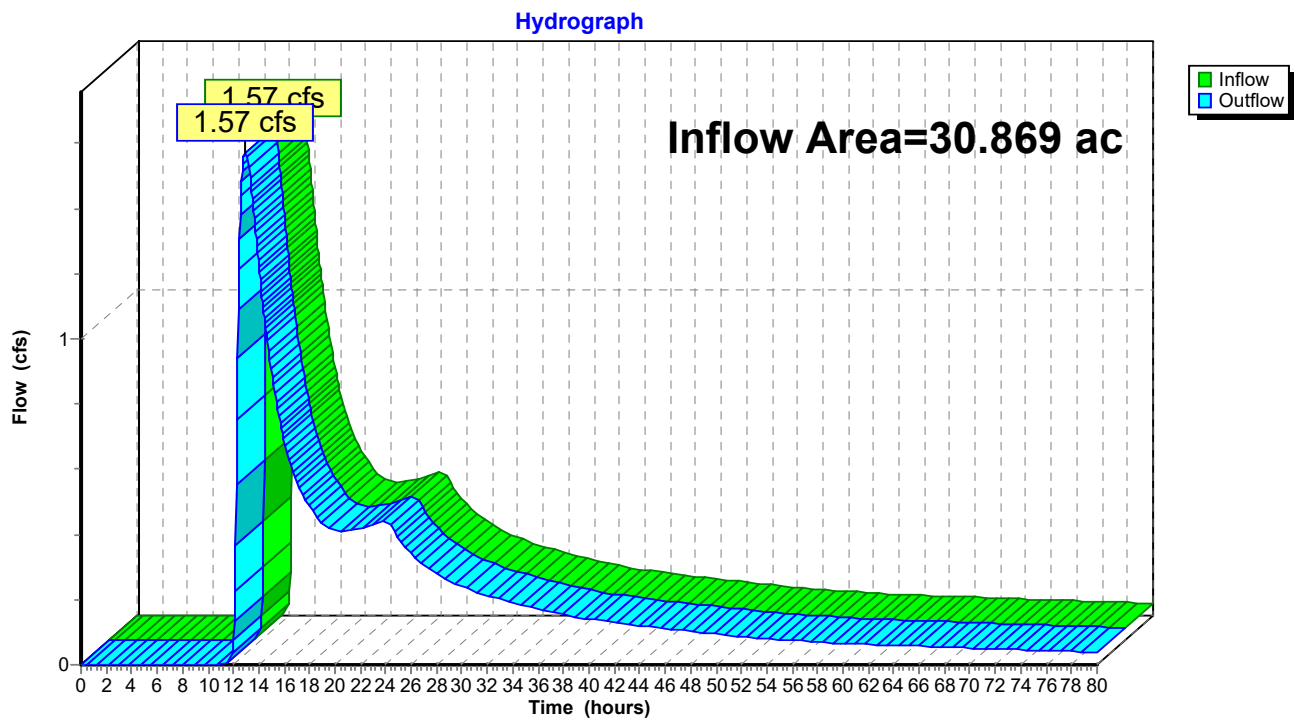
Summary for Reach DP-5: 24" RCP PIPE

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 30.869 ac, 27.45% Impervious, Inflow Depth > 0.47" for 10-Year event
Inflow = 1.57 cfs @ 12.94 hrs, Volume= 1.220 af
Outflow = 1.57 cfs @ 12.94 hrs, Volume= 1.220 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-5: 24" RCP PIPE



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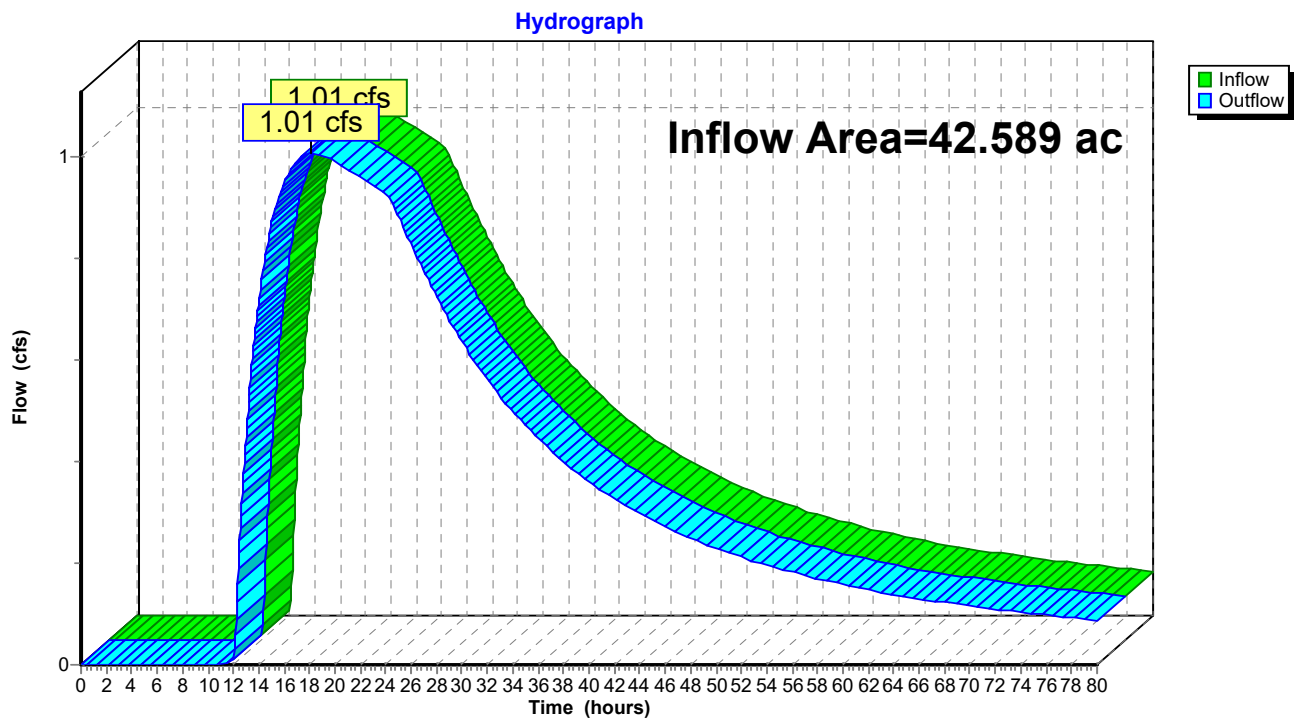
Summary for Reach DP-6: 12" RCP PIPE

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 42.589 ac, 23.35% Impervious, Inflow Depth > 0.63" for 10-Year event
Inflow = 1.01 cfs @ 18.12 hrs, Volume= 2.226 af
Outflow = 1.01 cfs @ 18.12 hrs, Volume= 2.226 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-6: 12" RCP PIPE



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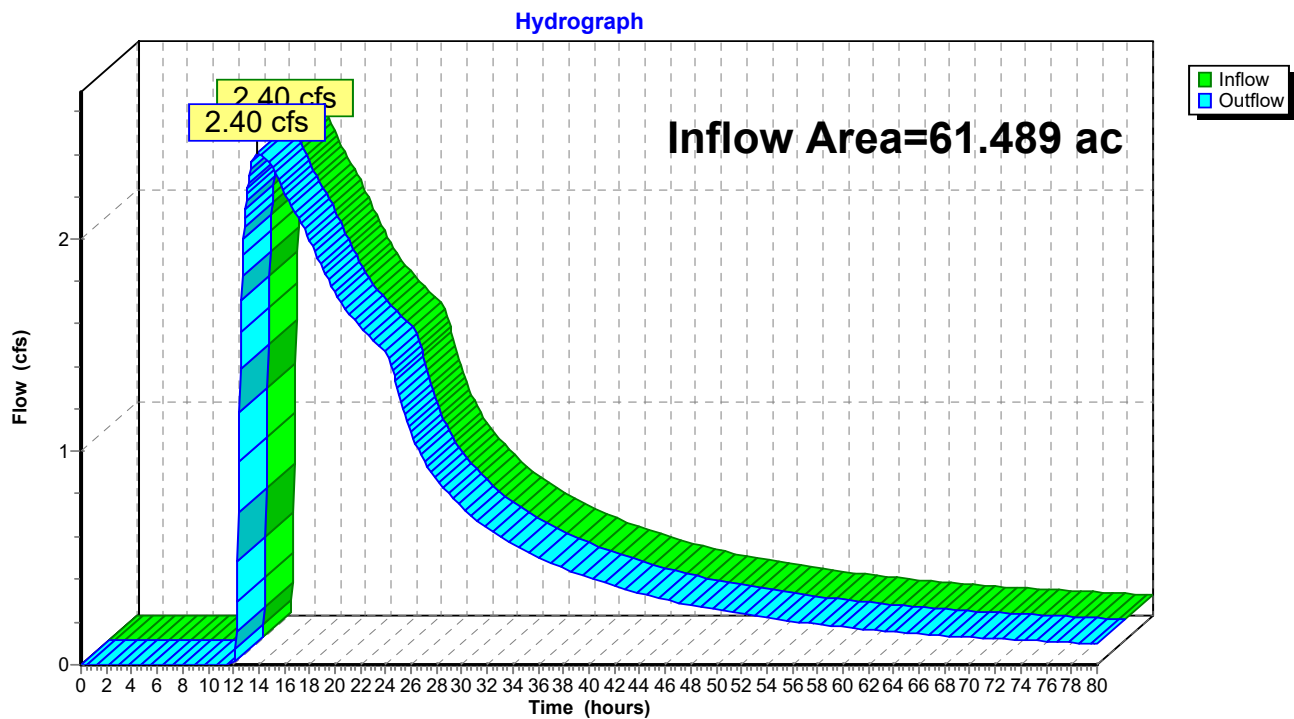
Summary for Reach DP-7: 12" RCP PIPE

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 61.489 ac, 21.22% Impervious, Inflow Depth > 0.68" for 10-Year event
Inflow = 2.40 cfs @ 13.92 hrs, Volume= 3.473 af
Outflow = 2.40 cfs @ 13.92 hrs, Volume= 3.473 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-7: 12" RCP PIPE



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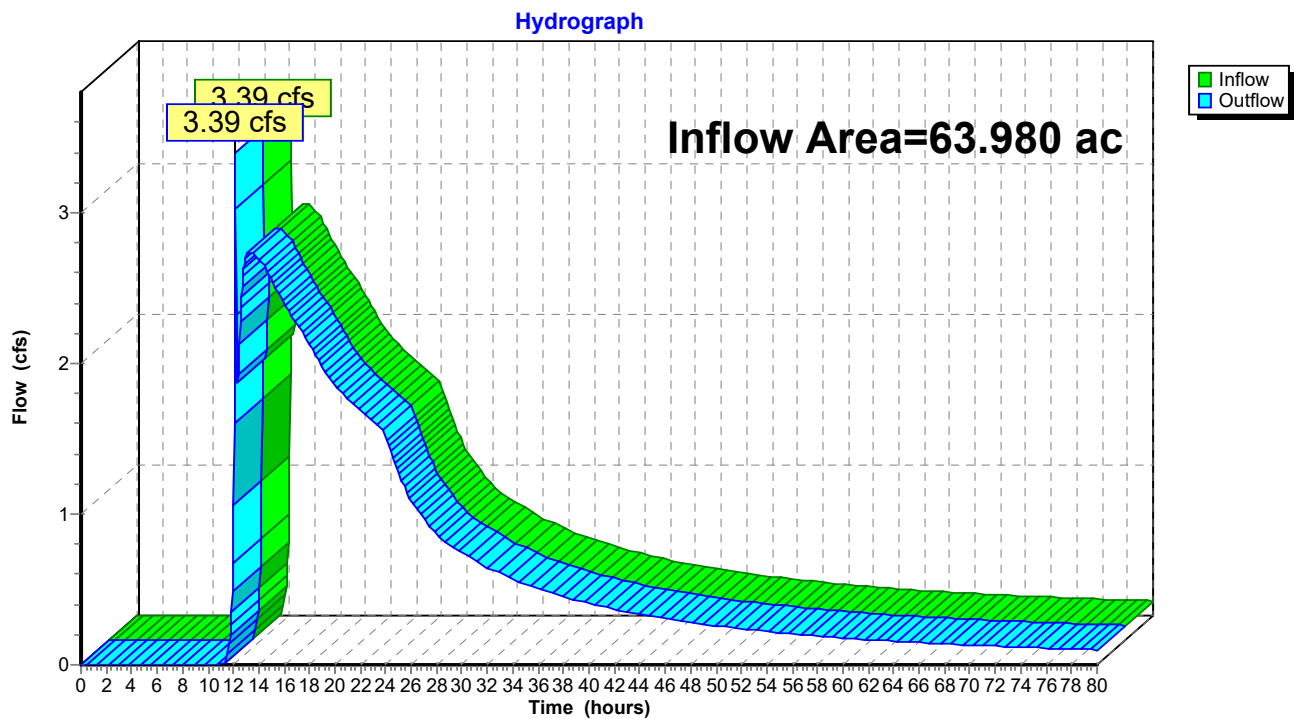
Summary for Reach DP-8: Wetlands Series X

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 63.980 ac, 20.64% Impervious, Inflow Depth > 0.70" for 10-Year event
Inflow = 3.39 cfs @ 12.16 hrs, Volume= 3.735 af
Outflow = 3.39 cfs @ 12.16 hrs, Volume= 3.735 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-8: Wetlands Series X



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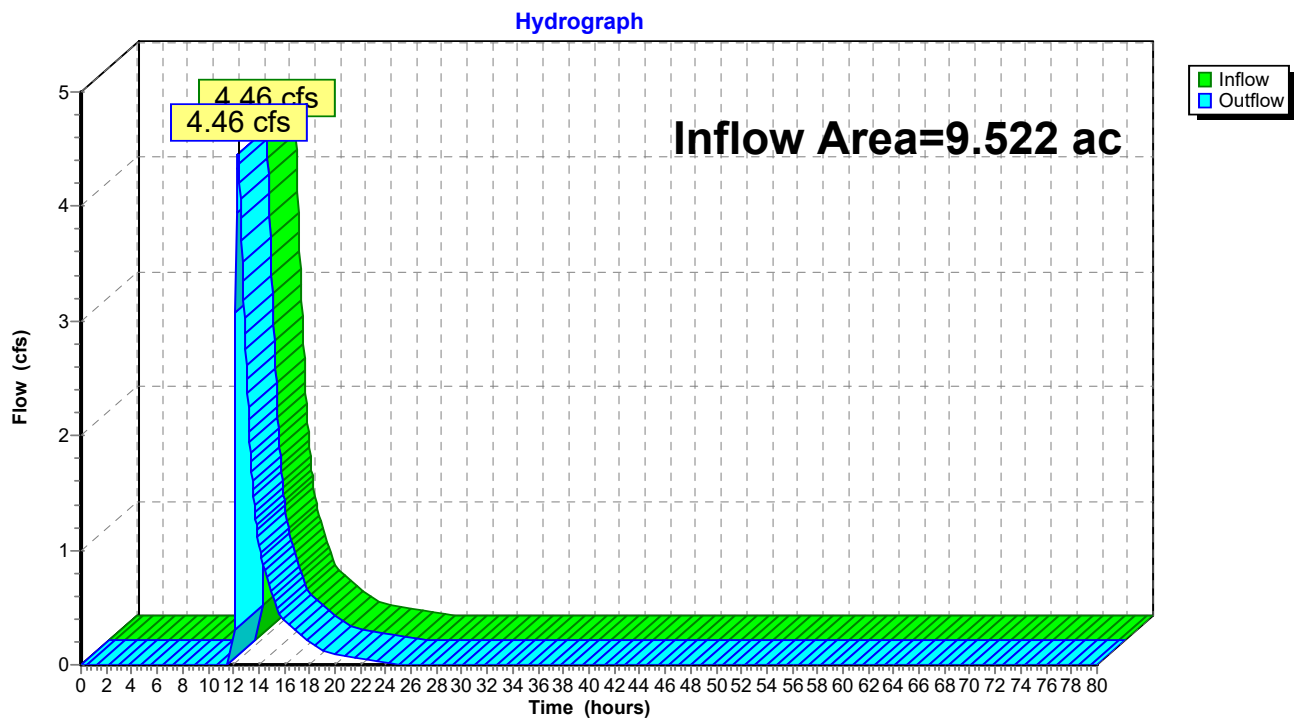
Summary for Reach DP-9: West Elm Street

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 9.522 ac, 43.08% Impervious, Inflow Depth = 0.74" for 10-Year event
Inflow = 4.46 cfs @ 12.37 hrs, Volume= 0.590 af
Outflow = 4.46 cfs @ 12.37 hrs, Volume= 0.590 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-9: West Elm Street



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Summary for Reach DP-ELM: West Elm Street

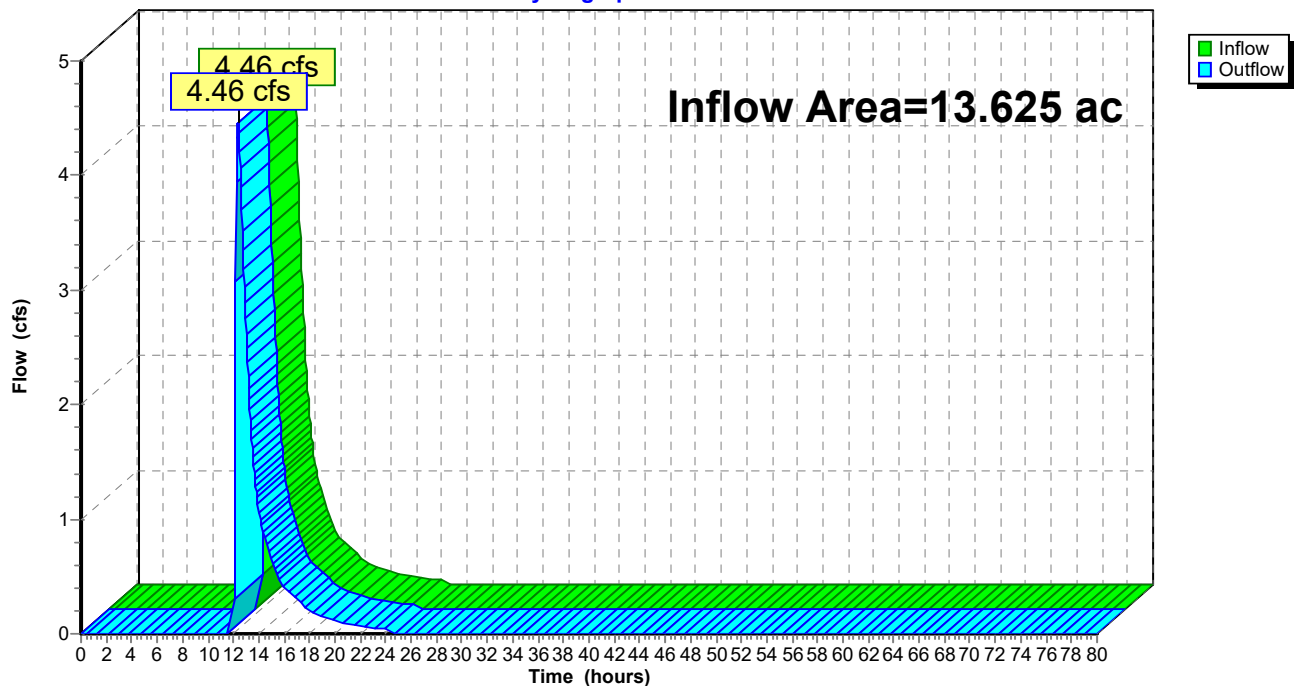
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 13.625 ac, 35.31% Impervious, Inflow Depth = 0.53" for 10-Year event
Inflow = 4.46 cfs @ 12.37 hrs, Volume= 0.604 af
Outflow = 4.46 cfs @ 12.37 hrs, Volume= 0.604 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-ELM: West Elm Street

Hydrograph



Proposed Hydrology

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Summary for Reach DP-WA: Wetland Series A

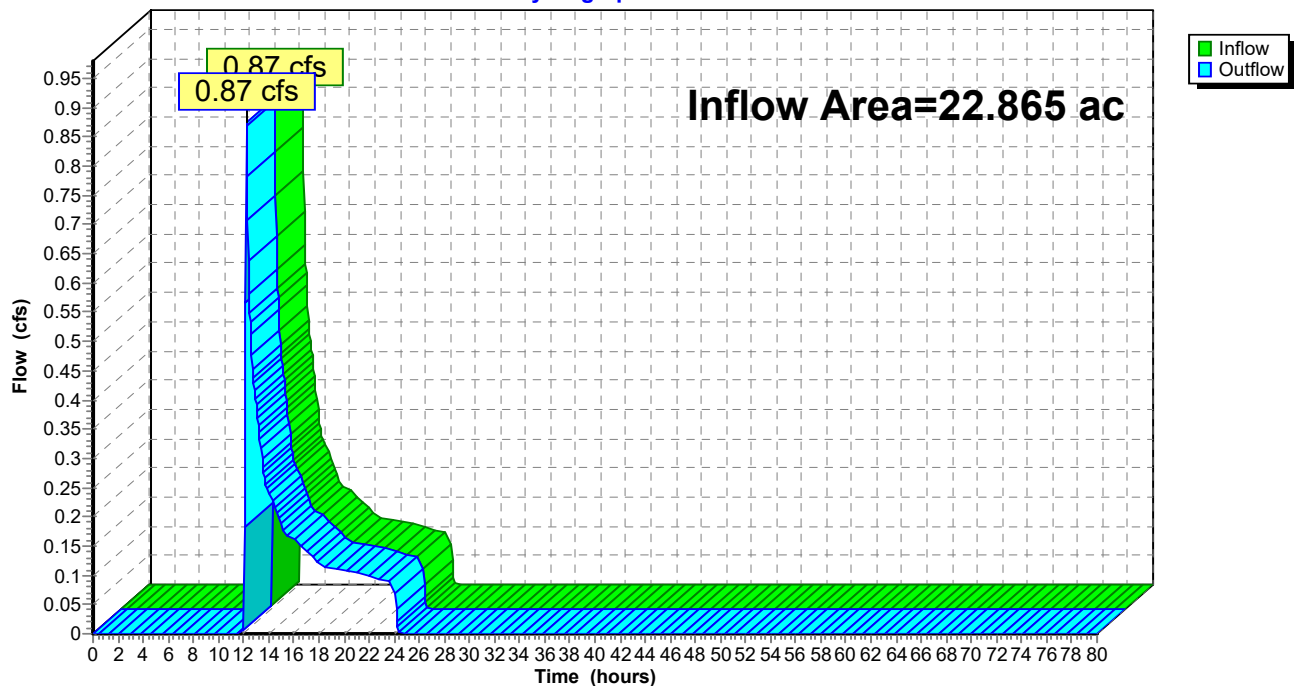
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 22.865 ac, 16.80% Impervious, Inflow Depth = 0.09" for 10-Year event
Inflow = 0.87 cfs @ 12.23 hrs, Volume= 0.174 af
Outflow = 0.87 cfs @ 12.23 hrs, Volume= 0.174 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-WA: Wetland Series A

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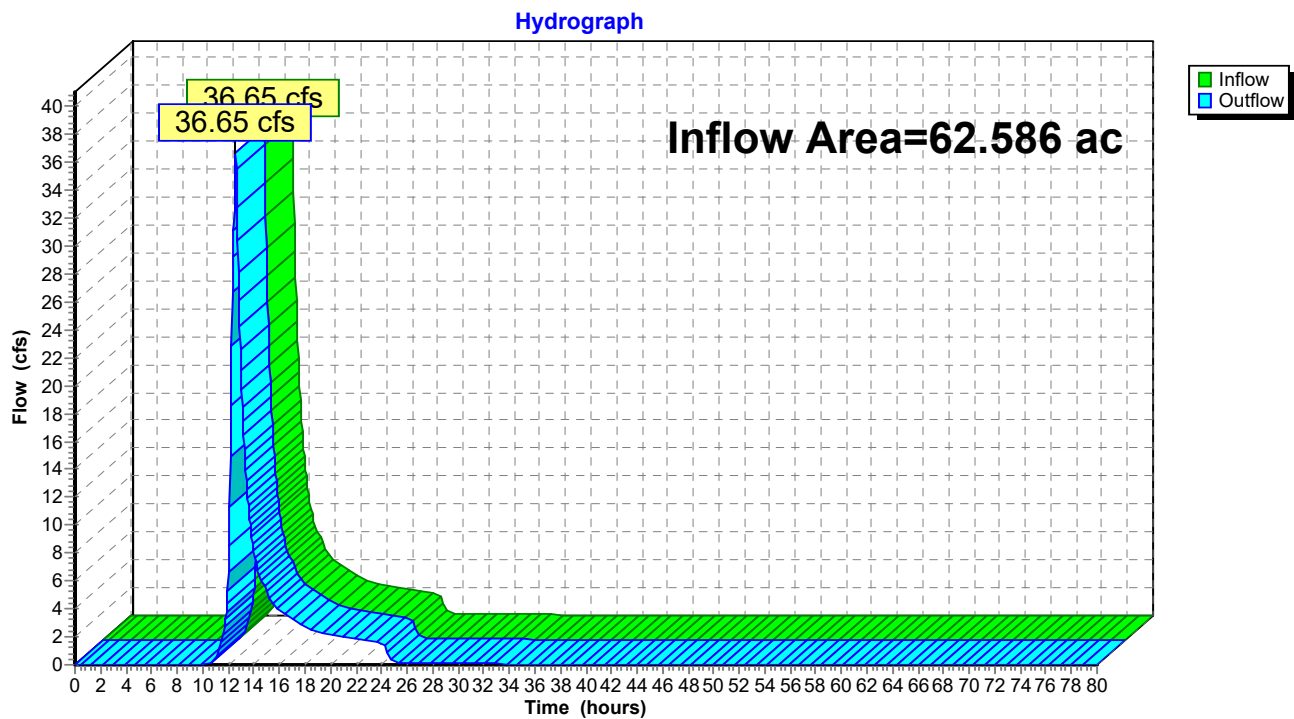
Summary for Reach DP-WI: Wetland Series/Stream I

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 62.586 ac, 17.71% Impervious, Inflow Depth = 1.15" for 10-Year event
Inflow = 36.65 cfs @ 12.57 hrs, Volume= 6.011 af
Outflow = 36.65 cfs @ 12.57 hrs, Volume= 6.011 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Reach DP-WI: Wetland Series/Stream I



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Summary for Pond BAS 1-A: BAS 1-A

Inflow Area = 3.844 ac, 44.00% Impervious, Inflow Depth = 2.66" for 10-Year event
Inflow = 12.55 cfs @ 12.13 hrs, Volume= 0.854 af
Outflow = 0.23 cfs @ 20.98 hrs, Volume= 0.854 af, Atten= 98%, Lag= 530.8 min
Discarded = 0.23 cfs @ 20.98 hrs, Volume= 0.854 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 81.34' @ 20.98 hrs Surf.Area= 9,922 sf Storage= 26,161 cf

Plug-Flow detention time= 1,222.3 min calculated for 0.853 af (100% of inflow)
Center-of-Mass det. time= 1,223.1 min (2,062.2 - 839.1)

Volume	Invert	Avail.Storage	Storage Description
#1	78.00'	44,308 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
78.00	5,723	0	0
83.00	12,000	44,308	44,308

Device	Routing	Invert	Outlet Devices
#1	Discarded	78.00'	1.020 in/hr Exfiltration over Surface area
#2	Primary	82.85'	8.0' long x 23.0' 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

Discarded OutFlow Max=0.23 cfs @ 20.98 hrs HW=81.34' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.23 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=78.00' (Free Discharge)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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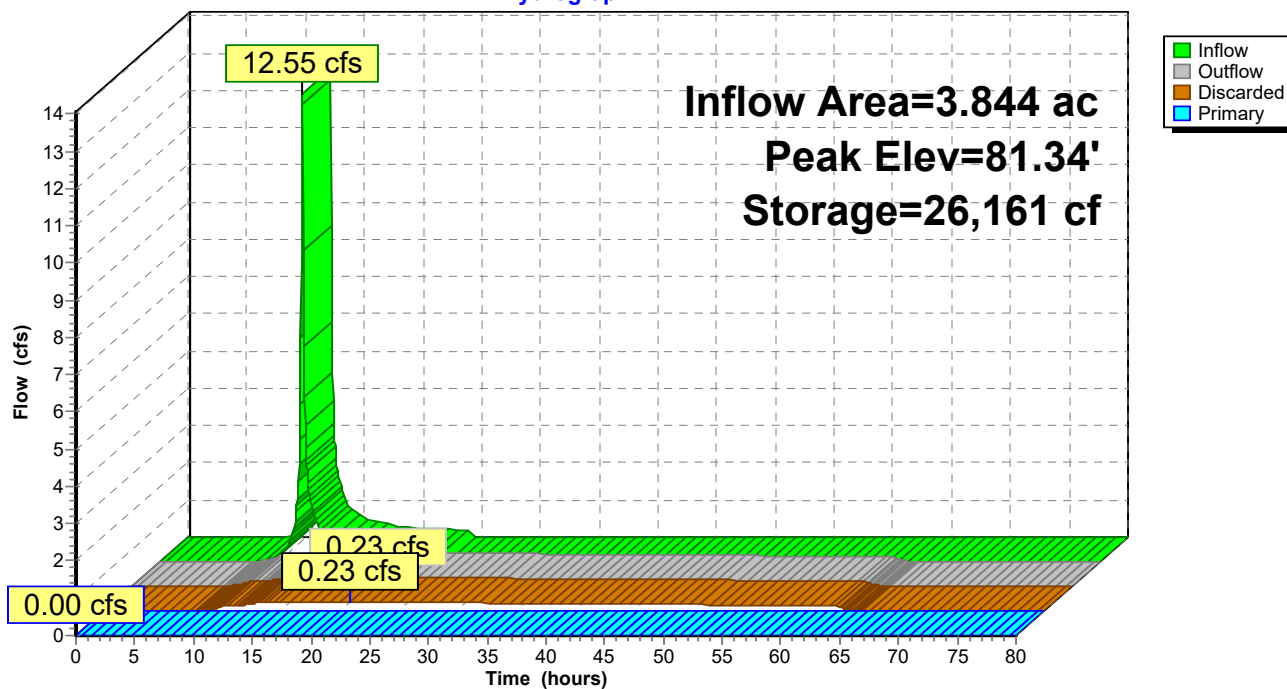
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Pond BAS 1-A: BAS 1-A

Hydrograph



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Summary for Pond BAS 1-B: BAS 1-B

Inflow Area = 6.278 ac, 8.01% Impervious, Inflow Depth = 1.69" for 10-Year event
Inflow = 7.62 cfs @ 12.34 hrs, Volume= 0.883 af
Outflow = 4.44 cfs @ 12.62 hrs, Volume= 0.883 af, Atten= 42%, Lag= 16.7 min
Discarded = 0.13 cfs @ 12.62 hrs, Volume= 0.359 af
Primary = 4.31 cfs @ 12.62 hrs, Volume= 0.524 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 82.56' @ 12.62 hrs Surf.Area= 5,589 sf Storage= 11,233 cf

Plug-Flow detention time= 377.0 min calculated for 0.883 af (100% of inflow)
Center-of-Mass det. time= 376.9 min (1,265.2 - 888.3)

Volume	Invert	Avail.Storage	Storage Description
#1	80.00'	13,755 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
80.00	3,170	0	0
83.00	6,000	13,755	13,755

Device	Routing	Invert	Outlet Devices
#1	Discarded	80.00'	1.020 in/hr Exfiltration over Surface area
#2	Primary	82.27'	10.0' long x 23.0' 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

Discarded OutFlow Max=0.13 cfs @ 12.62 hrs HW=82.56' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.13 cfs)

Primary OutFlow Max=4.24 cfs @ 12.62 hrs HW=82.56' (Free Discharge)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 4.24 cfs @ 1.45 fps)

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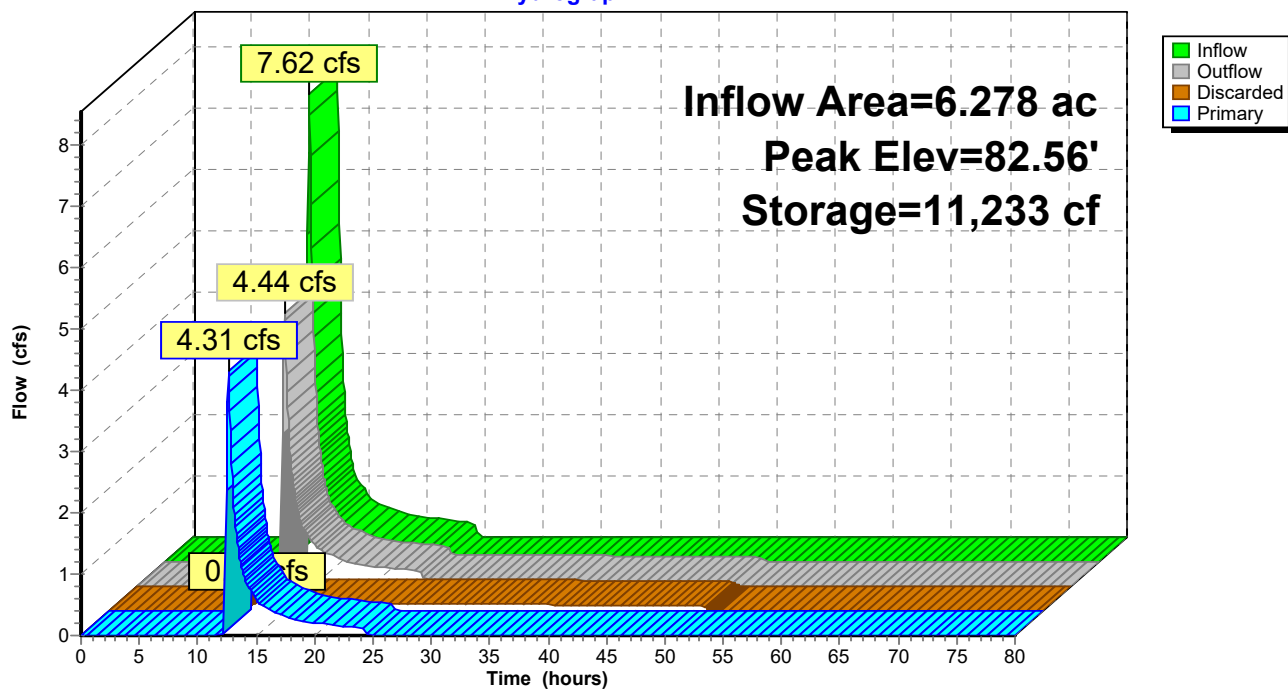
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Pond BAS 1-B: BAS 1-B

Hydrograph



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Summary for Pond BAS 1-C: BAS 1-C

Inflow Area = 0.144 ac, 73.04% Impervious, Inflow Depth = 3.72" for 10-Year event
Inflow = 0.63 cfs @ 12.13 hrs, Volume= 0.045 af
Outflow = 0.62 cfs @ 12.15 hrs, Volume= 0.045 af, Atten= 2%, Lag= 1.0 min
Discarded = 0.01 cfs @ 12.15 hrs, Volume= 0.022 af
Primary = 0.61 cfs @ 12.15 hrs, Volume= 0.023 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 82.93' @ 12.15 hrs Surf.Area= 441 sf Storage= 492 cf

Plug-Flow detention time= 283.7 min calculated for 0.045 af (100% of inflow)
Center-of-Mass det. time= 283.6 min (1,087.5 - 803.9)

Volume	Invert	Avail.Storage	Storage Description
#1	81.00'	525 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
81.00	70	0	0
83.00	455	525	525

Device	Routing	Invert	Outlet Devices
#1	Discarded	81.00'	1.020 in/hr Exfiltration over Surface area
#2	Primary	82.80'	5.0' long x 23.0' 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

Discarded OutFlow Max=0.01 cfs @ 12.15 hrs HW=82.93' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.60 cfs @ 12.15 hrs HW=82.93' (Free Discharge)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 0.60 cfs @ 0.95 fps)

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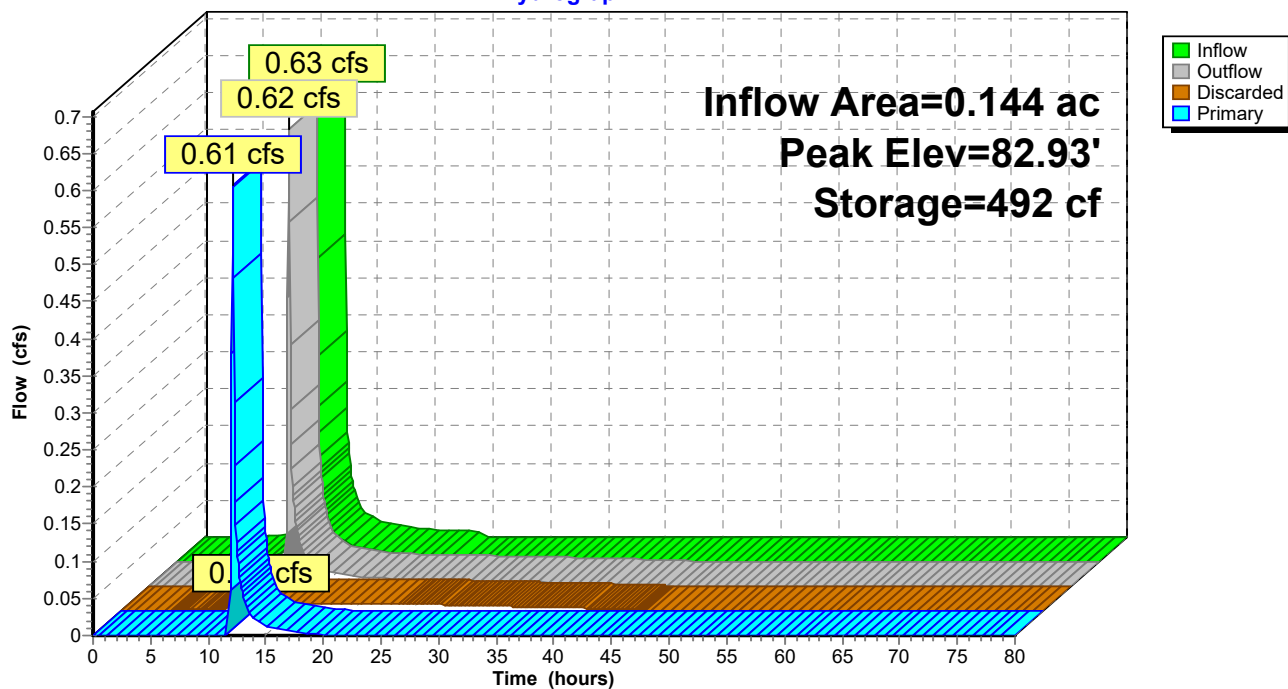
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Pond BAS 1-C: BAS 1-C

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Summary for Pond BAS 10-A: EXIST BAS 10-A

Inflow Area = 0.796 ac, 7.21% Impervious, Inflow Depth = 0.12" for 10-Year event
Inflow = 0.01 cfs @ 14.35 hrs, Volume= 0.008 af
Outflow = 0.01 cfs @ 24.03 hrs, Volume= 0.008 af, Atten= 41%, Lag= 580.6 min
Discarded = 0.01 cfs @ 24.03 hrs, Volume= 0.008 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 54.38' @ 24.03 hrs Surf.Area= 508 sf Storage= 133 cf

Plug-Flow detention time= 268.9 min calculated for 0.008 af (100% of inflow)
Center-of-Mass det. time= 269.2 min (1,358.1 - 1,088.8)

Volume	Invert	Avail.Storage	Storage Description
#1	54.00'	16,389 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.00	220	0	0	220
55.00	1,250	665	665	1,254
56.00	2,210	1,707	2,372	2,225
59.00	4,000	9,183	11,555	4,108
60.10	4,800	4,833	16,389	4,949

Device	Routing	Invert	Outlet Devices
#1	Discarded	54.00'	0.520 in/hr Exfiltration over Wetted area
#2	Primary	60.00'	15.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Discarded OutFlow Max=0.01 cfs @ 24.03 hrs HW=54.37' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=54.00' (Free Discharge)
↑**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Proposed Hydrology

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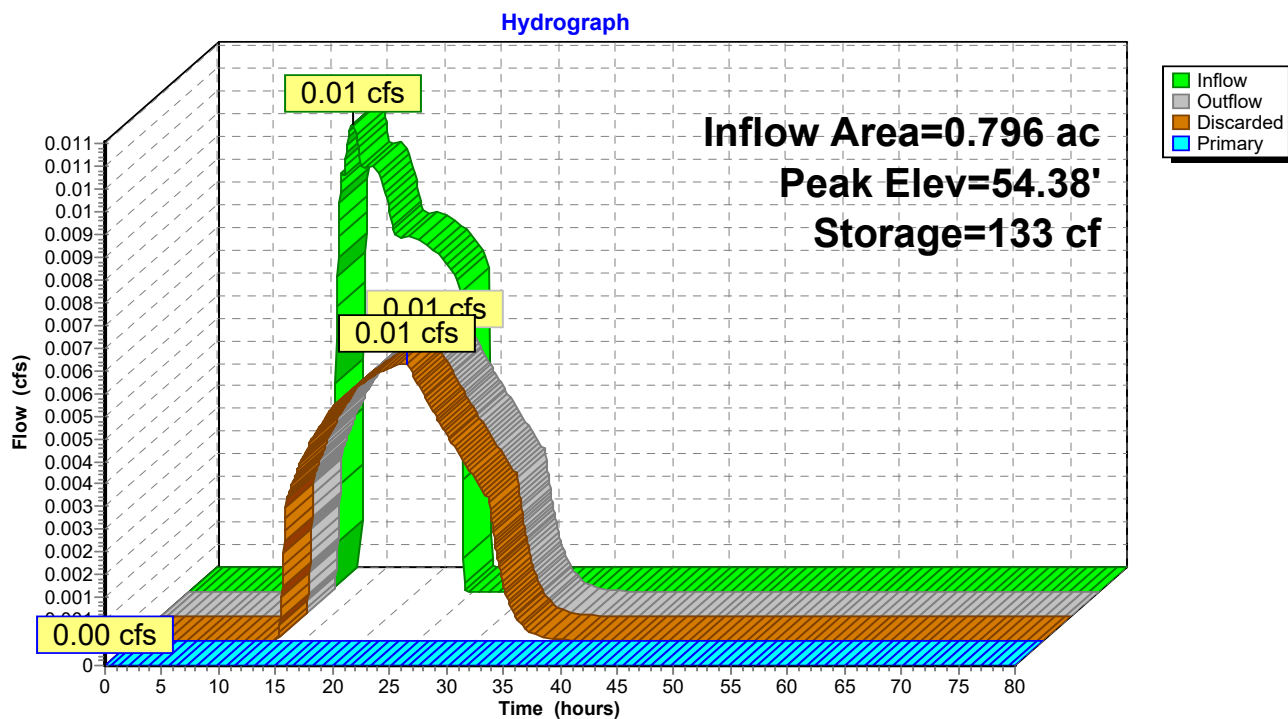
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Pond BAS 10-A: EXIST BAS 10-A



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Summary for Pond BAS 10-B: BAS 10-B

Inflow Area = 1.334 ac, 40.19% Impervious, Inflow Depth = 1.47" for 10-Year event
Inflow = 2.31 cfs @ 12.14 hrs, Volume= 0.163 af
Outflow = 0.16 cfs @ 14.25 hrs, Volume= 0.163 af, Atten= 93%, Lag= 126.5 min
Discarded = 0.16 cfs @ 14.25 hrs, Volume= 0.163 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 78.21' @ 14.25 hrs Surf.Area= 2,856 sf Storage= 2,946 cf

Plug-Flow detention time= 205.9 min calculated for 0.163 af (100% of inflow)
Center-of-Mass det. time= 205.8 min (1,088.1 - 882.2)

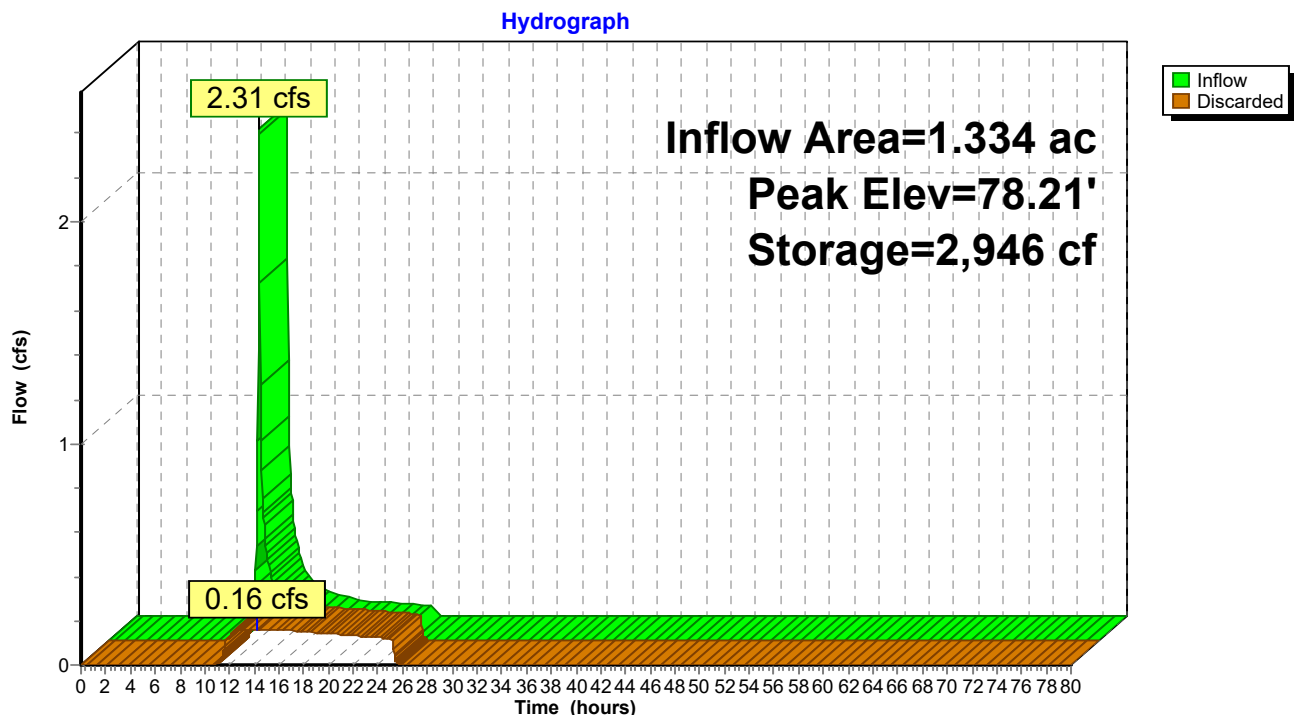
Volume	Invert	Avail.Storage	Storage Description
#1	77.00'	9,319 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
77.00	2,050	0	0	2,050
80.00	4,300	9,319	9,319	4,376

Device	Routing	Invert	Outlet Devices
#1	Discarded	77.00'	2.410 in/hr Exfiltration over Wetted area

Discarded OutFlow Max=0.16 cfs @ 14.25 hrs HW=78.21' (Free Discharge)
↑1=Exfiltration (Exfiltration Controls 0.16 cfs)

Pond BAS 10-B: BAS 10-B



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Summary for Pond BAS 11-B: BAS 11-B

Inflow Area = 4.313 ac, 11.38% Impervious, Inflow Depth = 1.14" for 10-Year event
Inflow = 5.29 cfs @ 12.14 hrs, Volume= 0.411 af
Outflow = 0.71 cfs @ 13.14 hrs, Volume= 0.411 af, Atten= 87%, Lag= 59.9 min
Discarded = 0.71 cfs @ 13.14 hrs, Volume= 0.411 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 44.38' @ 13.14 hrs Surf.Area= 30,000 sf Storage= 4,567 cf

Plug-Flow detention time= 48.0 min calculated for 0.411 af (100% of inflow)
Center-of-Mass det. time= 47.9 min (936.0 - 888.1)

Volume	Invert	Avail.Storage	Storage Description
#1	44.00'	12,000 cf	Custom Stage Data (Conic) Listed below (Recalc) 30,000 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
44.00	30,000	0	0	30,000
45.00	30,000	30,000	30,000	30,614

Device	Routing	Invert	Outlet Devices
#1	Discarded	44.00'	1.020 in/hr Exfiltration over Wetted area
#2	Primary	44.98'	800.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Discarded OutFlow Max=0.71 cfs @ 13.14 hrs HW=44.38' (Free Discharge)

↑**1=Exfiltration** (Exfiltration Controls 0.71 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=44.00' (Free Discharge)

↑**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

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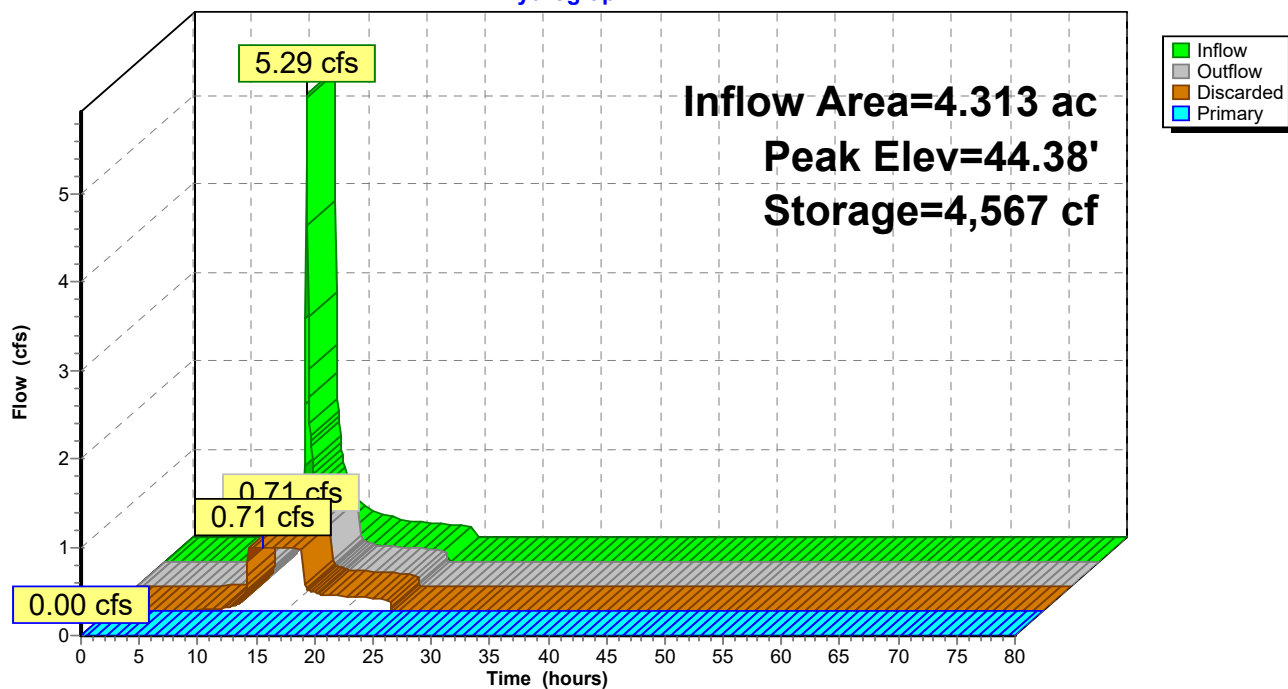
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Pond BAS 11-B: BAS 11-B

Hydrograph



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Summary for Pond BAS 12-A: BAS 12-A

Inflow Area = 6.552 ac, 26.15% Impervious, Inflow Depth = 1.92" for 10-Year event
Inflow = 15.27 cfs @ 12.14 hrs, Volume= 1.046 af
Outflow = 0.75 cfs @ 14.90 hrs, Volume= 1.046 af, Atten= 95%, Lag= 165.6 min
Discarded = 0.75 cfs @ 14.90 hrs, Volume= 1.046 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 94.97' @ 14.90 hrs Surf.Area= 13,334 sf Storage= 22,372 cf

Plug-Flow detention time= 342.1 min calculated for 1.045 af (100% of inflow)
Center-of-Mass det. time= 342.1 min (1,206.4 - 864.3)

Volume	Invert	Avail.Storage	Storage Description
#1	93.00'	37,274 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
93.00	9,500	0	0	9,500
96.00	15,600	37,274	37,274	15,714

Device	Routing	Invert	Outlet Devices
#1	Discarded	93.00'	2.410 in/hr Exfiltration over Wetted area
#2	Primary	95.63'	10.0' long x 23.0' 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

Discarded OutFlow Max=0.75 cfs @ 14.90 hrs HW=94.97' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.75 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=93.00' (Free Discharge)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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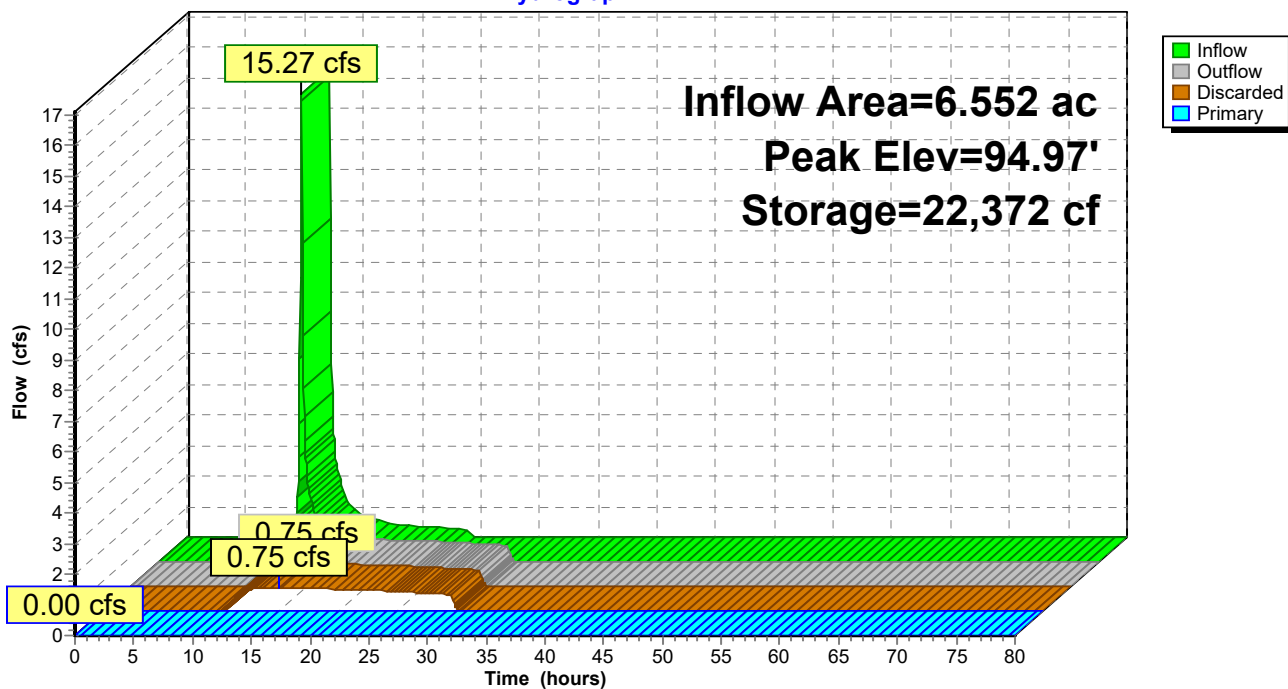
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Pond BAS 12-A: BAS 12-A

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Summary for Pond BAS 12-B: BAS 12-B

Inflow Area = 13.364 ac, 24.22% Impervious, Inflow Depth = 0.58" for 10-Year event
Inflow = 8.54 cfs @ 12.14 hrs, Volume= 0.642 af
Outflow = 0.61 cfs @ 14.62 hrs, Volume= 0.642 af, Atten= 93%, Lag= 148.8 min
Discarded = 0.61 cfs @ 14.62 hrs, Volume= 0.642 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 91.45' @ 14.62 hrs Surf.Area= 25,626 sf Storage= 11,158 cf

Plug-Flow detention time= 202.0 min calculated for 0.642 af (100% of inflow)
Center-of-Mass det. time= 201.9 min (1,101.4 - 899.5)

Volume	Invert	Avail.Storage	Storage Description
#1	91.00'	87,248 cf	Custom Stage Data (Conic) Listed below (Recalc)

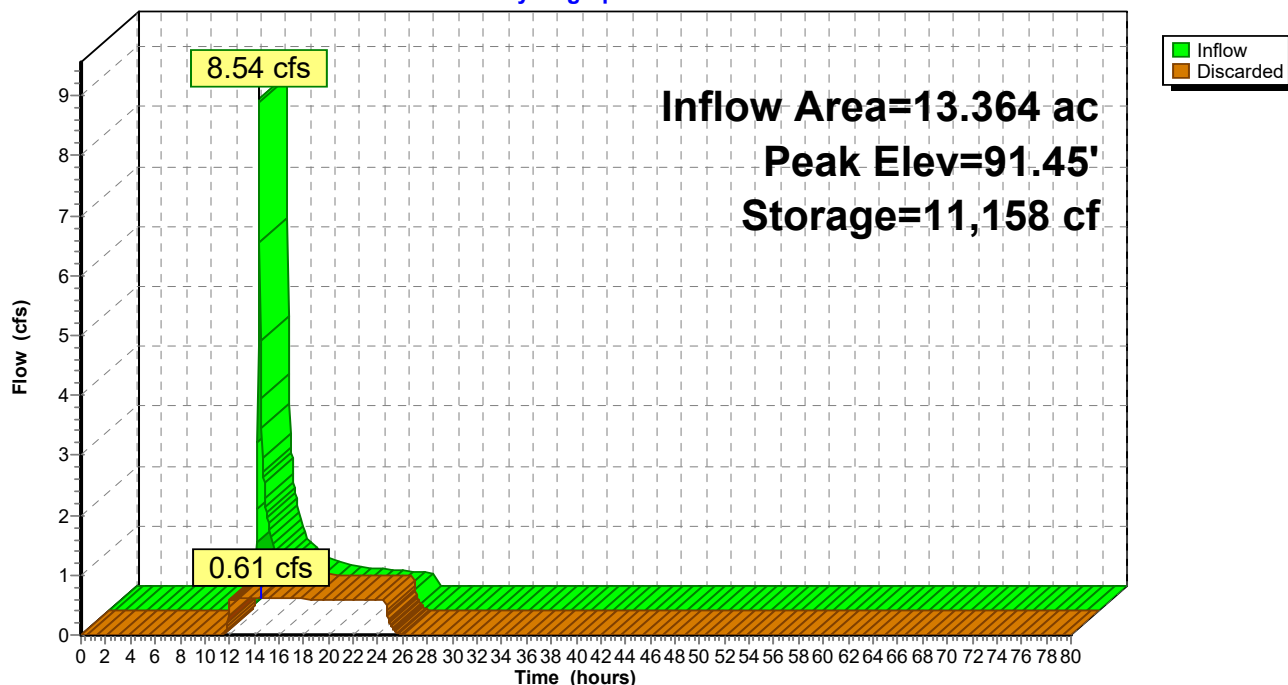
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
91.00	24,250	0	0	24,250
94.00	34,200	87,248	87,248	34,364

Device	Routing	Invert	Outlet Devices
#1	Discarded	91.00'	1.020 in/hr Exfiltration over Wetted area

Discarded OutFlow Max=0.61 cfs @ 14.62 hrs HW=91.45' (Free Discharge)
↑1=Exfiltration (Exfiltration Controls 0.61 cfs)

Pond BAS 12-B: BAS 12-B

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Summary for Pond BAS 15-A: BAS 15-A

Inflow Area = 0.392 ac, 41.18% Impervious, Inflow Depth = 2.58" for 10-Year event
Inflow = 1.24 cfs @ 12.13 hrs, Volume= 0.084 af
Outflow = 1.18 cfs @ 12.17 hrs, Volume= 0.084 af, Atten= 4%, Lag= 2.4 min
Discarded = 0.03 cfs @ 12.17 hrs, Volume= 0.046 af
Primary = 1.16 cfs @ 12.17 hrs, Volume= 0.038 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 82.93' @ 12.17 hrs Surf.Area= 1,133 sf Storage= 895 cf

Plug-Flow detention time= 200.4 min calculated for 0.084 af (100% of inflow)
Center-of-Mass det. time= 200.6 min (1,042.5 - 842.0)

Volume	Invert	Avail.Storage	Storage Description
#1	82.00'	980 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
82.00	800	0	0
83.00	1,160	980	980

Device	Routing	Invert	Outlet Devices
#1	Discarded	82.00'	1.020 in/hr Exfiltration over Surface area
#2	Primary	82.80'	10.0' long x 23.0' 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

Discarded OutFlow Max=0.03 cfs @ 12.17 hrs HW=82.91' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.03 cfs)

Primary OutFlow Max=1.03 cfs @ 12.17 hrs HW=82.91' (Free Discharge)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 1.03 cfs @ 0.90 fps)

Proposed Hydrology

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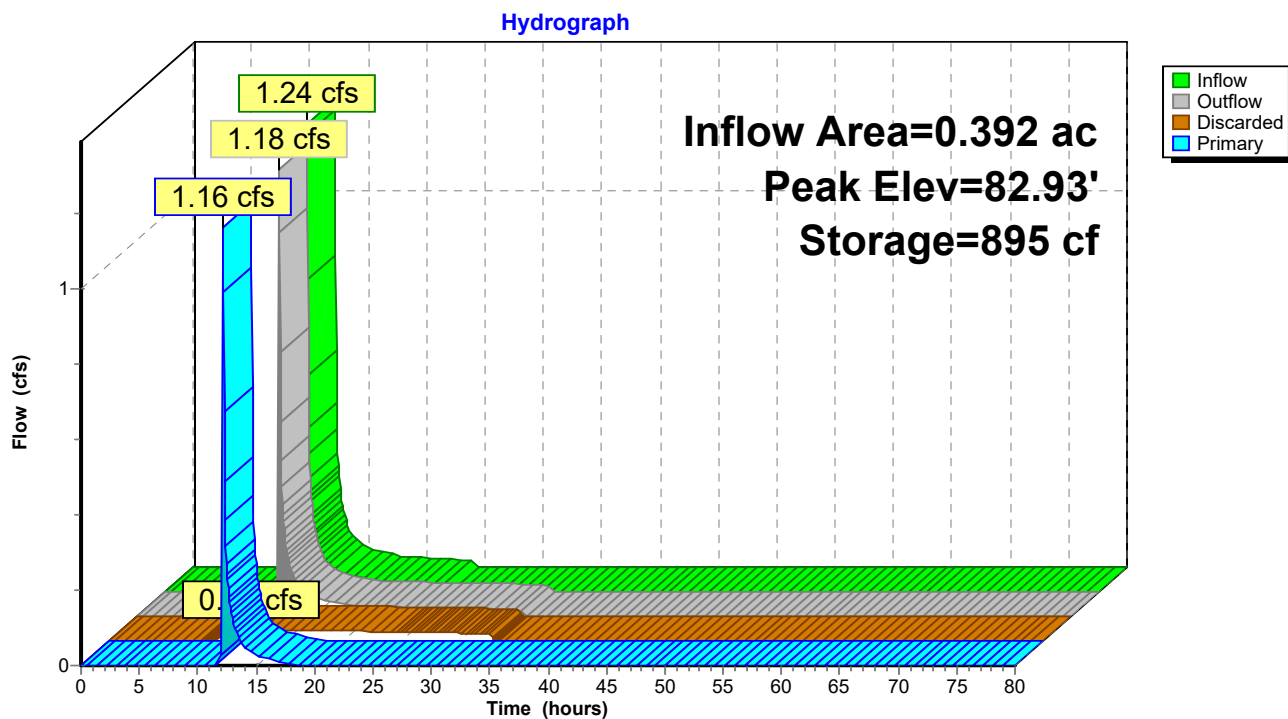
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Pond BAS 15-A: BAS 15-A



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Summary for Pond BAS 2-A: DET BAS 2-A

Inflow Area = 2.386 ac, 38.00% Impervious, Inflow Depth = 1.40" for 10-Year event
Inflow = 3.90 cfs @ 12.14 hrs, Volume= 0.278 af
Outflow = 0.17 cfs @ 16.17 hrs, Volume= 0.277 af, Atten= 96%, Lag= 241.7 min
Primary = 0.17 cfs @ 16.17 hrs, Volume= 0.277 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 104.23' @ 16.17 hrs Surf.Area= 6,088 sf Storage= 6,449 cf

Plug-Flow detention time= 516.0 min calculated for 0.277 af (100% of inflow)
Center-of-Mass det. time= 514.3 min (1,399.8 - 885.5)

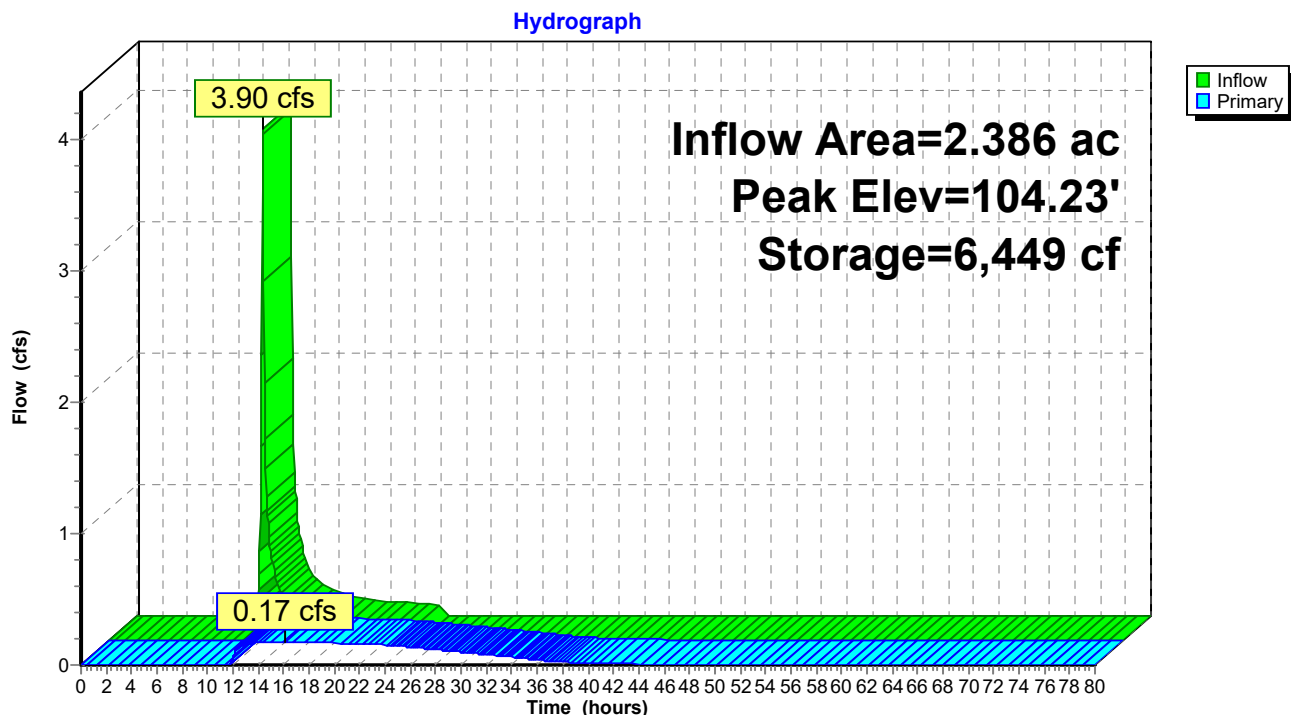
Volume	Invert	Avail.Storage	Storage Description
#1	103.00'	19,643 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
103.00	4,450	0	0	4,450
106.00	8,900	19,643	19,643	8,982

Device	Routing	Invert	Outlet Devices
#1	Primary	103.00'	2.5" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.17 cfs @ 16.17 hrs HW=104.23' (Free Discharge)
↑1=Orifice/Grate (Orifice Controls 0.17 cfs @ 5.11 fps)

Pond BAS 2-A: DET BAS 2-A



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Summary for Pond BAS 2-B: BAS 2-B

Inflow Area = 1.161 ac, 38.00% Impervious, Inflow Depth = 1.99" for 10-Year event
Inflow = 2.82 cfs @ 12.13 hrs, Volume= 0.193 af
Outflow = 1.10 cfs @ 12.31 hrs, Volume= 0.193 af, Atten= 61%, Lag= 10.4 min
Discarded = 0.04 cfs @ 12.31 hrs, Volume= 0.100 af
Primary = 1.06 cfs @ 12.31 hrs, Volume= 0.093 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 99.82' @ 12.31 hrs Surf.Area= 3,487 sf Storage= 2,652 cf

Plug-Flow detention time= 345.9 min calculated for 0.193 af (100% of inflow)
Center-of-Mass det. time= 346.3 min (1,207.8 - 861.5)

Volume	Invert	Avail.Storage	Storage Description
#1	99.00'	3,295 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
99.00	3,000	0	0	3,000
100.00	3,600	3,295	3,295	3,634

Device	Routing	Invert	Outlet Devices
#1	Discarded	99.00'	0.520 in/hr Exfiltration over Surface area
#2	Primary	99.73'	15.0' long x 15.0' 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

Discarded OutFlow Max=0.04 cfs @ 12.31 hrs HW=99.82' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.04 cfs)

Primary OutFlow Max=1.04 cfs @ 12.31 hrs HW=99.82' (Free Discharge)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 1.04 cfs @ 0.79 fps)

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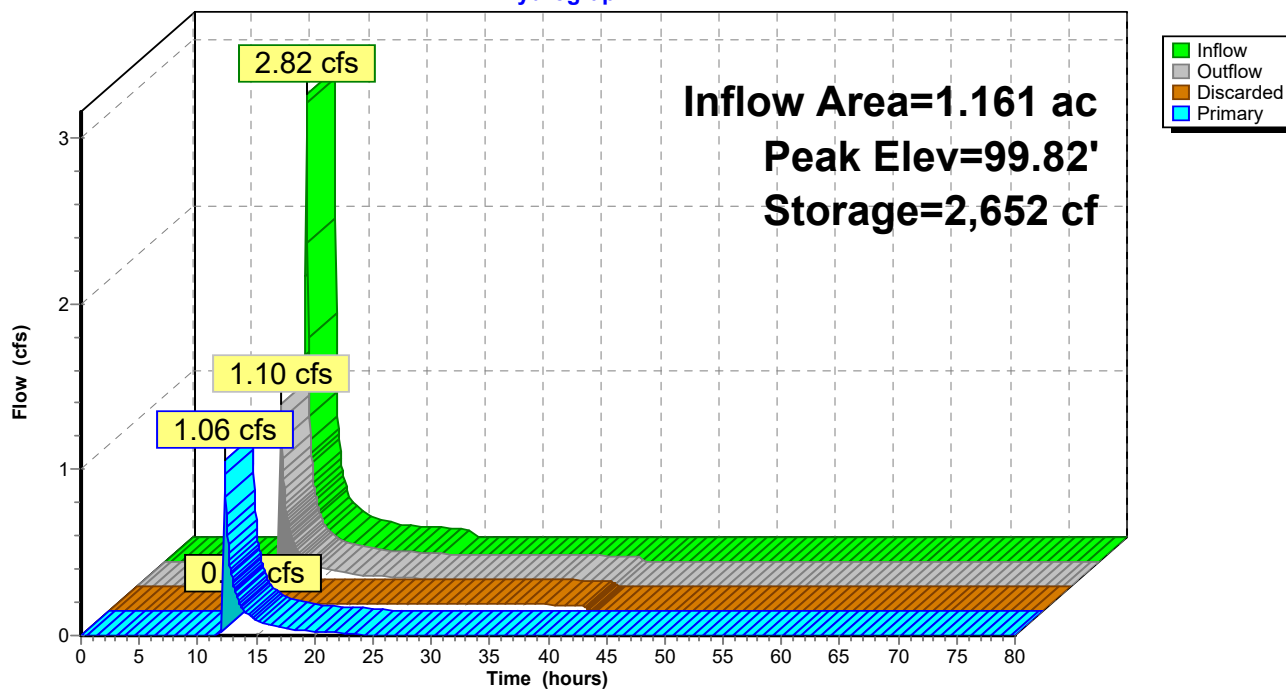
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Pond BAS 2-B: BAS 2-B

Hydrograph



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Summary for Pond BAS 2-C: BAS 2-C

Inflow Area = 1.461 ac, 38.00% Impervious, Inflow Depth = 3.41" for 10-Year event
Inflow = 5.97 cfs @ 12.13 hrs, Volume= 0.416 af
Outflow = 2.03 cfs @ 12.32 hrs, Volume= 0.416 af, Atten= 66%, Lag= 11.6 min
Discarded = 0.09 cfs @ 12.32 hrs, Volume= 0.277 af
Primary = 1.94 cfs @ 12.32 hrs, Volume= 0.138 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 102.78' @ 12.32 hrs Surf.Area= 3,739 sf Storage= 7,851 cf

Plug-Flow detention time= 654.1 min calculated for 0.416 af (100% of inflow)
Center-of-Mass det. time= 654.9 min (1,469.5 - 814.6)

Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	8,693 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
100.00	2,000	0	0	2,000
103.00	3,900	8,693	8,693	3,984

Device	Routing	Invert	Outlet Devices
#1	Primary	102.67'	20.0' long x 23.0' 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
#2	Discarded	100.00'	1.020 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.09 cfs @ 12.32 hrs HW=102.77' (Free Discharge)
↑**2=Exfiltration** (Exfiltration Controls 0.09 cfs)

Primary OutFlow Max=1.79 cfs @ 12.32 hrs HW=102.77' (Free Discharge)
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 1.79 cfs @ 0.86 fps)

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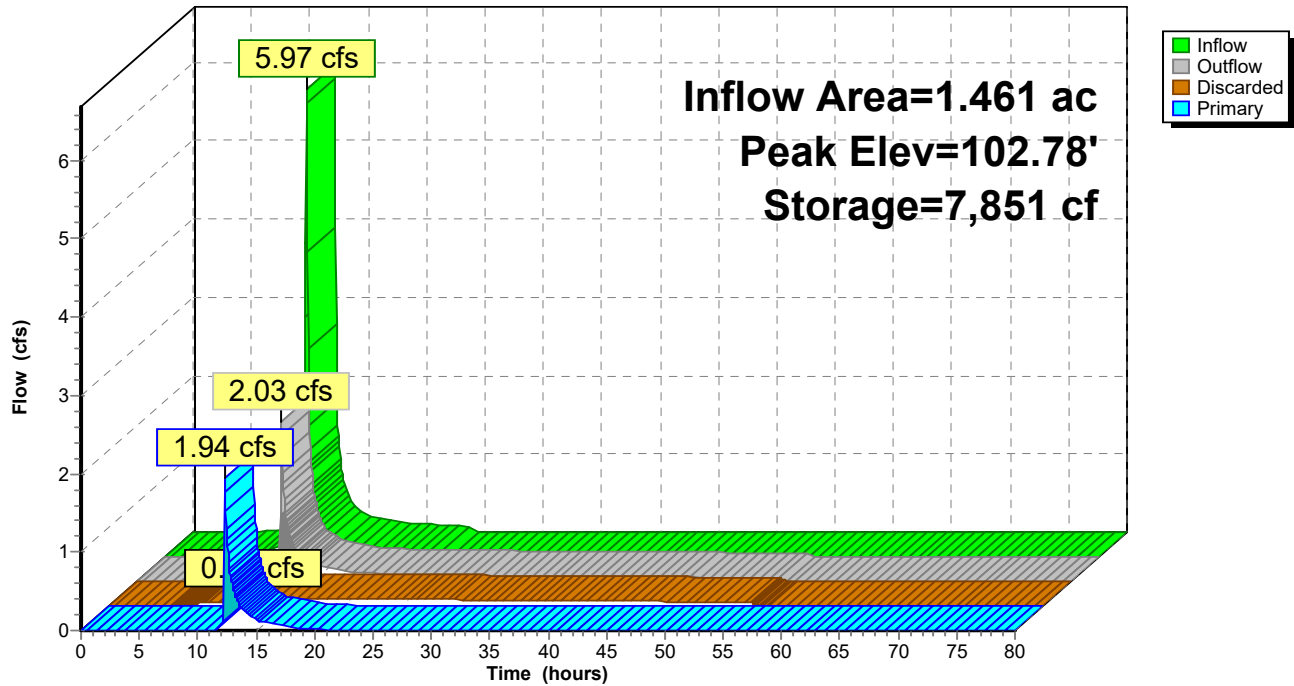
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Pond BAS 2-C: BAS 2-C

Hydrograph



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Summary for Pond BAS 2-D: BAS 2-D

Inflow Area = 8.783 ac, 33.03% Impervious, Inflow Depth = 1.76" for 10-Year event
Inflow = 18.69 cfs @ 12.14 hrs, Volume= 1.290 af
Outflow = 0.47 cfs @ 19.81 hrs, Volume= 1.290 af, Atten= 98%, Lag= 460.5 min
Discarded = 0.47 cfs @ 19.81 hrs, Volume= 1.290 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 107.06' @ 19.81 hrs Surf.Area= 19,590 sf Storage= 35,941 cf

Plug-Flow detention time= 855.1 min calculated for 1.290 af (100% of inflow)
Center-of-Mass det. time= 854.9 min (1,725.0 - 870.1)

Volume	Invert	Avail.Storage	Storage Description
#1	105.00'	78,167 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
105.00	15,400	0	0	15,400
109.00	24,000	78,167	78,167	24,225

Device	Routing	Invert	Outlet Devices
#1	Discarded	105.00'	1.020 in/hr Exfiltration over Wetted area
#2	Primary	108.80'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.47 cfs @ 19.81 hrs HW=107.06' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.47 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=105.00' (Free Discharge)
↑**2=Orifice/Grate** (Controls 0.00 cfs)

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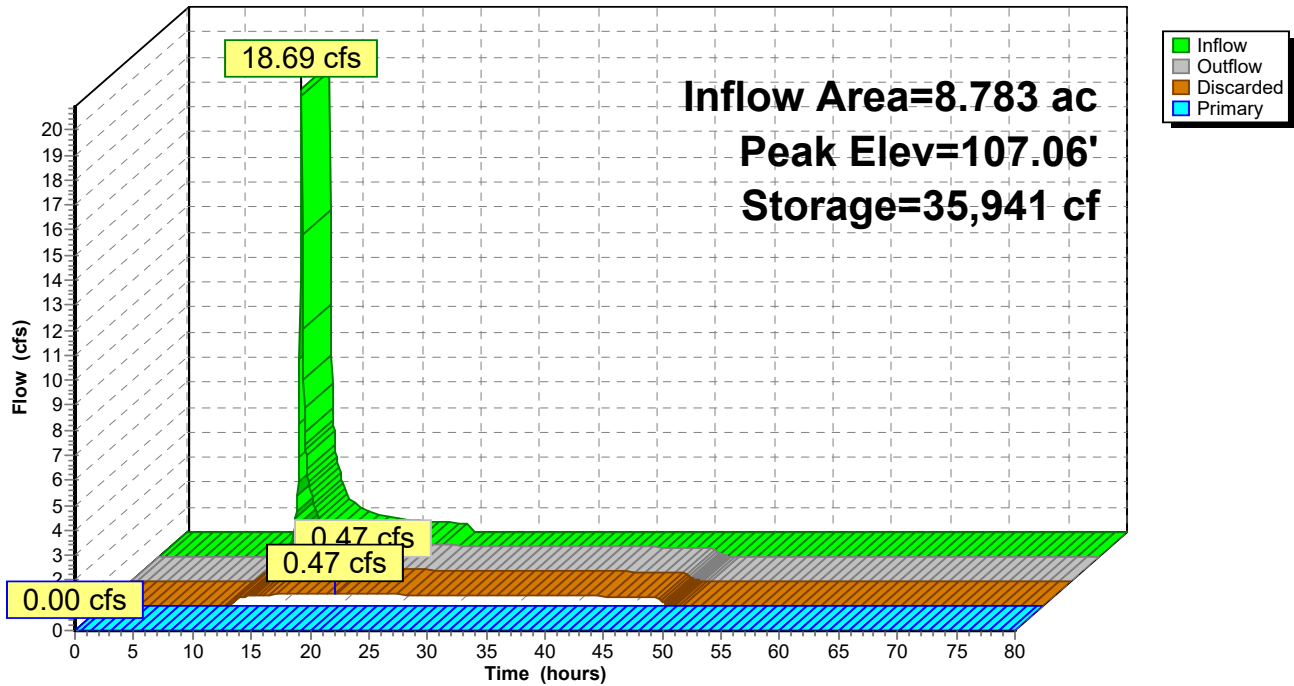
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Pond BAS 2-D: BAS 2-D

Hydrograph



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Summary for Pond BAS 2-E: BAS 2-E

Inflow Area = 2.574 ac, 44.91% Impervious, Inflow Depth = 2.75" for 10-Year event
Inflow = 8.68 cfs @ 12.13 hrs, Volume= 0.591 af
Outflow = 0.96 cfs @ 13.01 hrs, Volume= 0.591 af, Atten= 89%, Lag= 52.7 min
Discarded = 0.20 cfs @ 13.01 hrs, Volume= 0.475 af
Primary = 0.76 cfs @ 13.01 hrs, Volume= 0.115 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 100.76' @ 13.01 hrs Surf.Area= 16,632 sf Storage= 12,184 cf

Plug-Flow detention time= 495.8 min calculated for 0.590 af (100% of inflow)
Center-of-Mass det. time= 496.1 min (1,332.4 - 836.3)

Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	16,244 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
100.00	15,500	0	0	15,500
101.00	17,000	16,244	16,244	17,067

Device	Routing	Invert	Outlet Devices
#1	Discarded	100.00'	0.520 in/hr Exfiltration over Wetted area
#2	Primary	100.70'	20.0' long x 23.0' 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

Discarded OutFlow Max=0.20 cfs @ 13.01 hrs HW=100.76' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.20 cfs)

Primary OutFlow Max=0.76 cfs @ 13.01 hrs HW=100.76' (Free Discharge)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 0.76 cfs @ 0.65 fps)

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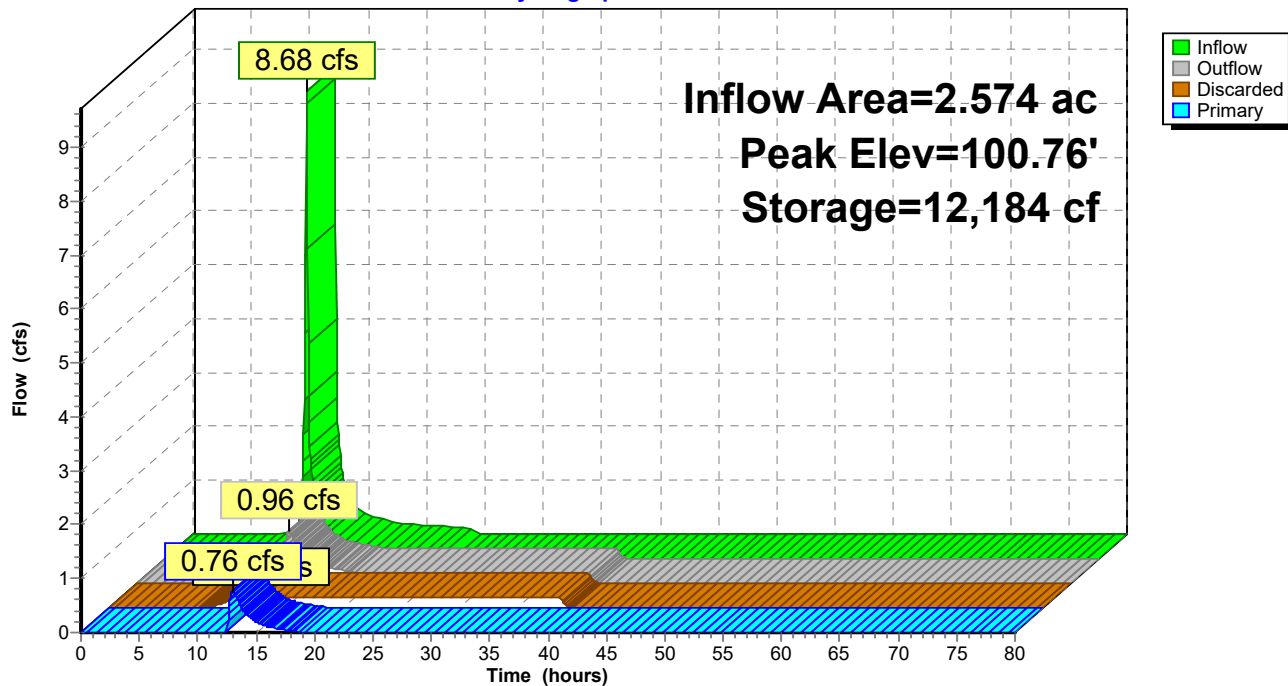
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Pond BAS 2-E: BAS 2-E

Hydrograph



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Summary for Pond BAS 2-F: BAS 2-F

Inflow Area = 3.255 ac, 41.28% Impervious, Inflow Depth = 2.58" for 10-Year event
Inflow = 10.29 cfs @ 12.13 hrs, Volume= 0.699 af
Outflow = 0.55 cfs @ 14.35 hrs, Volume= 0.699 af, Atten= 95%, Lag= 133.4 min
Discarded = 0.55 cfs @ 14.35 hrs, Volume= 0.699 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs
Peak Elev= 101.67' @ 14.35 hrs Surf.Area= 9,727 sf Storage= 14,457 cf

Plug-Flow detention time= 279.5 min calculated for 0.699 af (100% of inflow)
Center-of-Mass det. time= 279.4 min (1,121.4 - 842.0)

Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	28,589 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
100.00	7,600	0	0	7,600
103.00	11,600	28,589	28,589	11,732

Device	Routing	Invert	Outlet Devices
#1	Discarded	100.00'	2.410 in/hr Exfiltration over Wetted area
#2	Primary	102.85'	8.0' long x 23.0' 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

Discarded OutFlow Max=0.55 cfs @ 14.35 hrs HW=101.67' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.55 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=100.00' (Free Discharge)
↑**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)