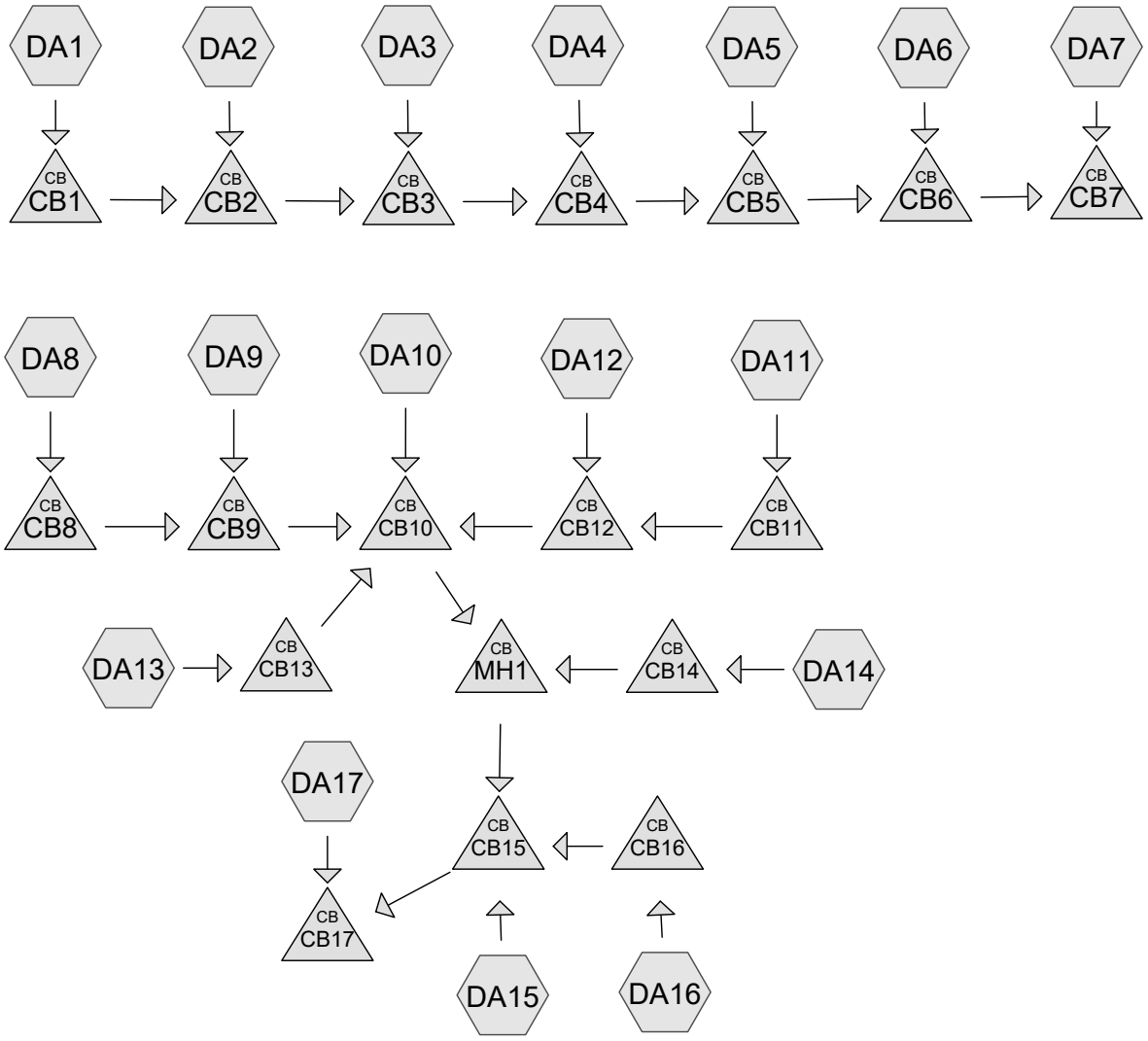


Subcat Reach Pond Link

Routing Diagram for Elmira Pump Around
Prepared by SCCM-01, Printed 4/30/2019

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.665	61	>75% Grass cover, Good, HSG B (DA1, DA10, DA11, DA12, DA13, DA14, DA15, DA16, DA17, DA2, DA4, DA5, DA6, DA7, DA8, DA9)
3.395	98	Paved parking, HSG B (DA1, DA10, DA11, DA12, DA13, DA14, DA15, DA16, DA17, DA2, DA3, DA4, DA5, DA6, DA7, DA8, DA9)
4.060	**92**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
4.060	HSG B	DA1, DA10, DA11, DA12, DA13, DA14, DA15, DA16, DA17, DA2, DA3, DA4, DA5, DA6, DA7, DA8, DA9
0.000	HSG C	
0.000	HSG D	
0.000	Other	
4.060		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.665	0.000	0.000	0.000	0.665	>75% Grass cover, Good	DA1, DA10, DA11, DA12, DA13, DA14, DA15, DA16, DA17, DA2, DA4, DA5, DA6, DA7, DA8, DA9
0.000	3.395	0.000	0.000	0.000	3.395	Paved parking	DA1, DA10, DA11, DA12, DA13, DA14, DA15, DA16, DA17, DA2, DA3, DA4, DA5, DA6, DA7, DA8, DA9
0.000	**4.060**	**0.000**	**0.000**	**0.000**	**4.060**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	CB1	851.00	850.73	32.0	0.0084	0.011	12.0	0.0	0.0
2	CB10	847.15	846.94	144.0	0.0015	0.011	15.0	0.0	0.0
3	CB11	851.97	847.71	53.0	0.0804	0.011	12.0	0.0	0.0
4	CB12	847.71	847.15	54.0	0.0104	0.011	12.0	0.0	0.0
5	CB13	847.71	847.15	33.0	0.0170	0.011	12.0	0.0	0.0
6	CB14	852.42	849.90	152.0	0.0166	0.011	12.0	0.0	0.0
7	CB15	845.91	845.28	66.0	0.0095	0.011	18.0	0.0	0.0
8	CB16	851.25	850.69	28.0	0.0200	0.011	10.0	0.0	0.0
9	CB2	850.73	850.43	27.0	0.0111	0.011	12.0	0.0	0.0
10	CB3	850.43	849.33	110.0	0.0100	0.011	12.0	0.0	0.0
11	CB4	849.33	847.49	160.0	0.0115	0.011	18.0	0.0	0.0
12	CB5	847.49	847.31	18.0	0.0100	0.011	18.0	0.0	0.0
13	CB6	847.31	847.05	25.0	0.0104	0.011	18.0	0.0	0.0
14	CB8	849.34	848.64	72.0	0.0097	0.011	12.0	0.0	0.0
15	CB9	848.59	847.15	97.0	0.0148	0.011	12.0	0.0	0.0
16	MH1	846.85	846.00	70.0	0.0121	0.011	15.0	0.0	0.0

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment DA1: Runoff Area=0.150 ac 60.00% Impervious Runoff Depth=0.68"
Flow Length=160' Tc=3.4 min CN=83 Runoff=0.18 cfs 0.009 af

Subcatchment DA10: Runoff Area=0.390 ac 79.49% Impervious Runoff Depth=1.08"
Flow Length=175' Slope=0.0100 '/' Tc=9.7 min CN=90 Runoff=0.57 cfs 0.035 af

Subcatchment DA11: Runoff Area=0.040 ac 87.50% Impervious Runoff Depth=1.30"
Flow Length=37' Slope=0.0100 '/' Tc=0.8 min CN=93 Runoff=0.09 cfs 0.004 af

Subcatchment DA12: Runoff Area=0.110 ac 81.82% Impervious Runoff Depth=1.15"
Flow Length=100' Slope=0.0110 '/' Tc=1.8 min CN=91 Runoff=0.22 cfs 0.011 af

Subcatchment DA13: Runoff Area=0.420 ac 90.48% Impervious Runoff Depth=1.38"
Flow Length=188' Slope=0.0100 '/' Tc=2.6 min CN=94 Runoff=0.98 cfs 0.048 af

Subcatchment DA14: Runoff Area=0.110 ac 72.73% Impervious Runoff Depth=0.95"
Flow Length=60' Slope=0.0100 '/' Tc=1.2 min CN=88 Runoff=0.19 cfs 0.009 af

Subcatchment DA15: Runoff Area=0.220 ac 68.18% Impervious Runoff Depth=0.83"
Flow Length=91' Slope=0.0100 '/' Tc=7.4 min CN=86 Runoff=0.27 cfs 0.015 af

Subcatchment DA16: Runoff Area=0.090 ac 66.67% Impervious Runoff Depth=0.83"
Flow Length=50' Slope=0.0100 '/' Tc=8.7 min CN=86 Runoff=0.11 cfs 0.006 af

Subcatchment DA17: Runoff Area=0.070 ac 42.86% Impervious Runoff Depth=0.44"
Flow Length=44' Slope=0.0100 '/' Tc=7.8 min CN=77 Runoff=0.04 cfs 0.003 af

Subcatchment DA2: Runoff Area=0.080 ac 50.00% Impervious Runoff Depth=0.55"
Flow Length=130' Tc=8.3 min CN=80 Runoff=0.06 cfs 0.004 af

Subcatchment DA3: Runoff Area=0.150 ac 100.00% Impervious Runoff Depth=1.75"
Flow Length=160' Slope=0.0143 '/' Tc=2.0 min CN=98 Runoff=0.40 cfs 0.022 af

Subcatchment DA4: Runoff Area=0.370 ac 97.30% Impervious Runoff Depth=1.65"
Flow Length=196' Slope=0.0143 '/' Tc=2.3 min CN=97 Runoff=0.97 cfs 0.051 af

Subcatchment DA5: Runoff Area=0.700 ac 97.14% Impervious Runoff Depth=1.65"
Flow Length=200' Slope=0.0150 '/' Tc=2.3 min CN=97 Runoff=1.83 cfs 0.096 af

Subcatchment DA6: Runoff Area=0.360 ac 94.44% Impervious Runoff Depth=1.56"
Flow Length=214' Slope=0.0150 '/' Tc=2.4 min CN=96 Runoff=0.91 cfs 0.047 af

Subcatchment DA7: Runoff Area=0.170 ac 64.71% Impervious Runoff Depth=0.78"
Flow Length=196' Slope=0.0100 '/' Tc=9.3 min CN=85 Runoff=0.18 cfs 0.011 af

Subcatchment DA8: Runoff Area=0.180 ac 66.67% Impervious Runoff Depth=0.83"
Flow Length=125' Slope=0.0172 '/' Tc=1.5 min CN=86 Runoff=0.28 cfs 0.013 af

Subcatchment DA9: Runoff Area=0.450 ac 82.22% Impervious Runoff Depth=1.15"
Flow Length=293' Slope=0.0100 '/' Tc=10.4 min CN=91 Runoff=0.67 cfs 0.043 af

Pond CB1: Peak Elev=854.03' Inflow=0.18 cfs 0.009 af
Outflow=0.18 cfs 0.009 af

Pond CB10: Peak Elev=853.05' Inflow=2.50 cfs 0.154 af
Outflow=2.50 cfs 0.154 af

Pond CB11: Peak Elev=852.11' Inflow=0.09 cfs 0.004 af
Outflow=0.09 cfs 0.004 af

Pond CB12: Peak Elev=852.51' Inflow=0.32 cfs 0.015 af
Outflow=0.32 cfs 0.015 af

Pond CB13: Peak Elev=852.96' Inflow=0.98 cfs 0.048 af
Outflow=0.98 cfs 0.048 af

Pond CB14: Peak Elev=855.46' Inflow=0.19 cfs 0.009 af
Outflow=0.19 cfs 0.009 af

Pond CB15: Peak Elev=855.53' Inflow=3.00 cfs 0.184 af
Outflow=3.00 cfs 0.184 af

Pond CB16: Peak Elev=855.27' Inflow=0.11 cfs 0.006 af
Outflow=0.11 cfs 0.006 af

Pond CB17: Peak Elev=855.60' Inflow=3.03 cfs 0.186 af
Outflow=3.03 cfs 0.186 af

Pond CB2: Peak Elev=854.68' Inflow=0.23 cfs 0.012 af
Outflow=0.23 cfs 0.012 af

Pond CB3: Peak Elev=854.44' Inflow=0.62 cfs 0.034 af
Outflow=0.62 cfs 0.034 af

Pond CB4: Peak Elev=853.67' Inflow=1.59 cfs 0.085 af
Outflow=1.59 cfs 0.085 af

Pond CB5: Peak Elev=853.16' Inflow=3.42 cfs 0.181 af
Outflow=3.42 cfs 0.181 af

Pond CB6: Peak Elev=853.56' Inflow=4.33 cfs 0.228 af
Outflow=4.33 cfs 0.228 af

Pond CB7: Peak Elev=855.49' Inflow=4.46 cfs 0.239 af
Outflow=4.46 cfs 0.239 af

Pond CB8: Peak Elev=851.95' Inflow=0.28 cfs 0.013 af
Outflow=0.28 cfs 0.013 af

Pond CB9: Peak Elev=852.24' Inflow=0.79 cfs 0.055 af
Outflow=0.79 cfs 0.055 af

Pond MH1: Peak Elev=847.68' Inflow=2.69 cfs 0.162 af
15.0" Round Culvert n=0.011 L=70.0' S=0.0121 '/' Outflow=2.69 cfs 0.162 af

Total Runoff Area = 4.060 ac Runoff Volume = 0.425 af Average Runoff Depth = 1.26"
16.38% Pervious = 0.665 ac 83.62% Impervious = 3.395 ac

Summary for Subcatchment DA1:

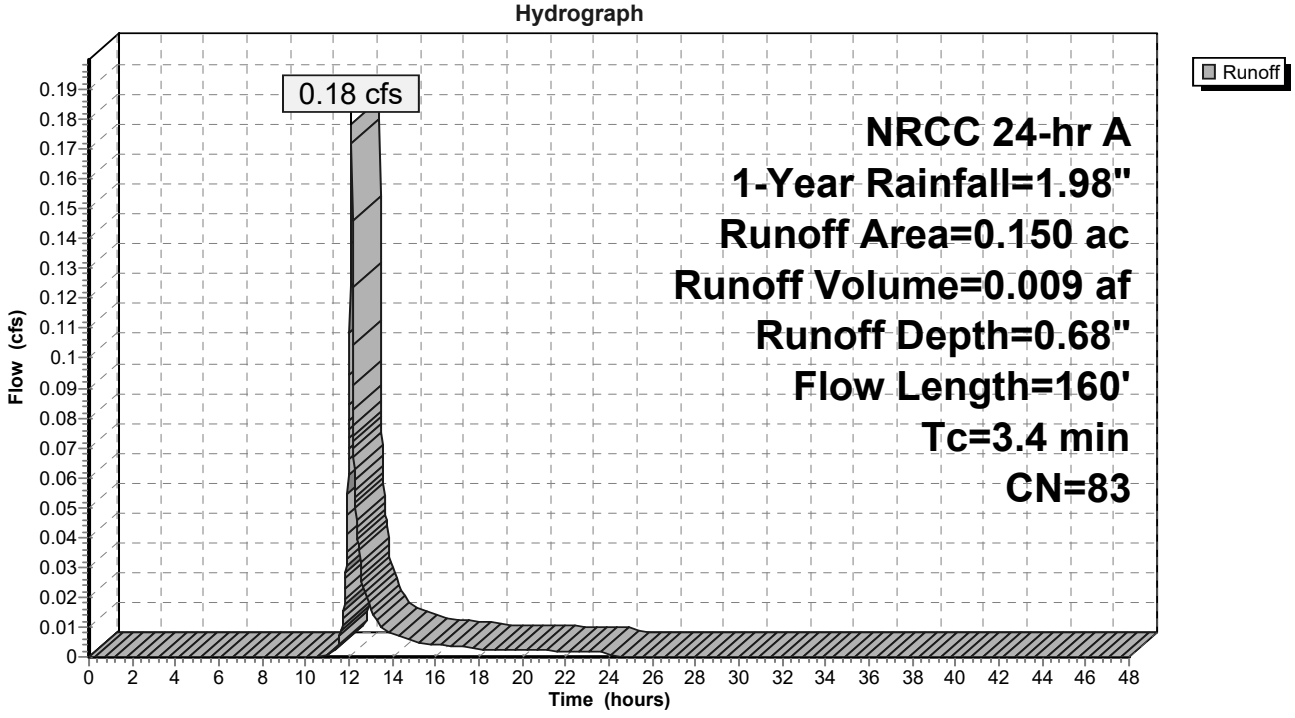
Runoff = 0.18 cfs @ 12.11 hrs, Volume= 0.009 af, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 1-Year Rainfall=1.98"

Area (ac)	CN	Description
0.060	61	>75% Grass cover, Good, HSG B
0.090	98	Paved parking, HSG B
0.150	83	Weighted Average
0.060		40.00% Pervious Area
0.090		60.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	70	0.0100	0.83		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.35"
2.0	90	0.0110	0.73		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.4	160	Total			

Subcatchment DA1:



Summary for Subcatchment DA10:

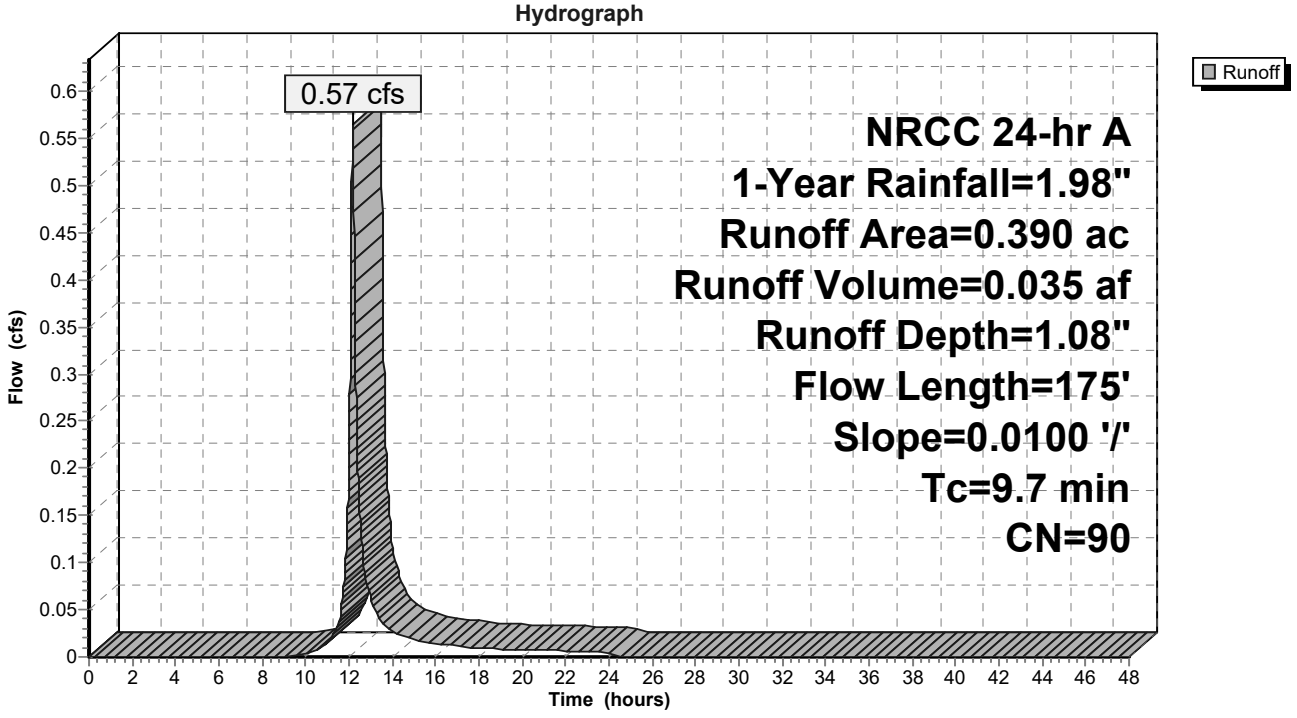
Runoff = 0.57 cfs @ 12.17 hrs, Volume= 0.035 af, Depth= 1.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 1-Year Rainfall=1.98"

Area (ac)	CN	Description
0.080	61	>75% Grass cover, Good, HSG B
0.310	98	Paved parking, HSG B
0.390	90	Weighted Average
0.080		20.51% Pervious Area
0.310		79.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	50	0.0100	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.35"
1.0	125	0.0100	2.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
9.7	175	Total			

Subcatchment DA10:



Summary for Subcatchment DA11:

[49] Hint: Tc<2dt may require smaller dt

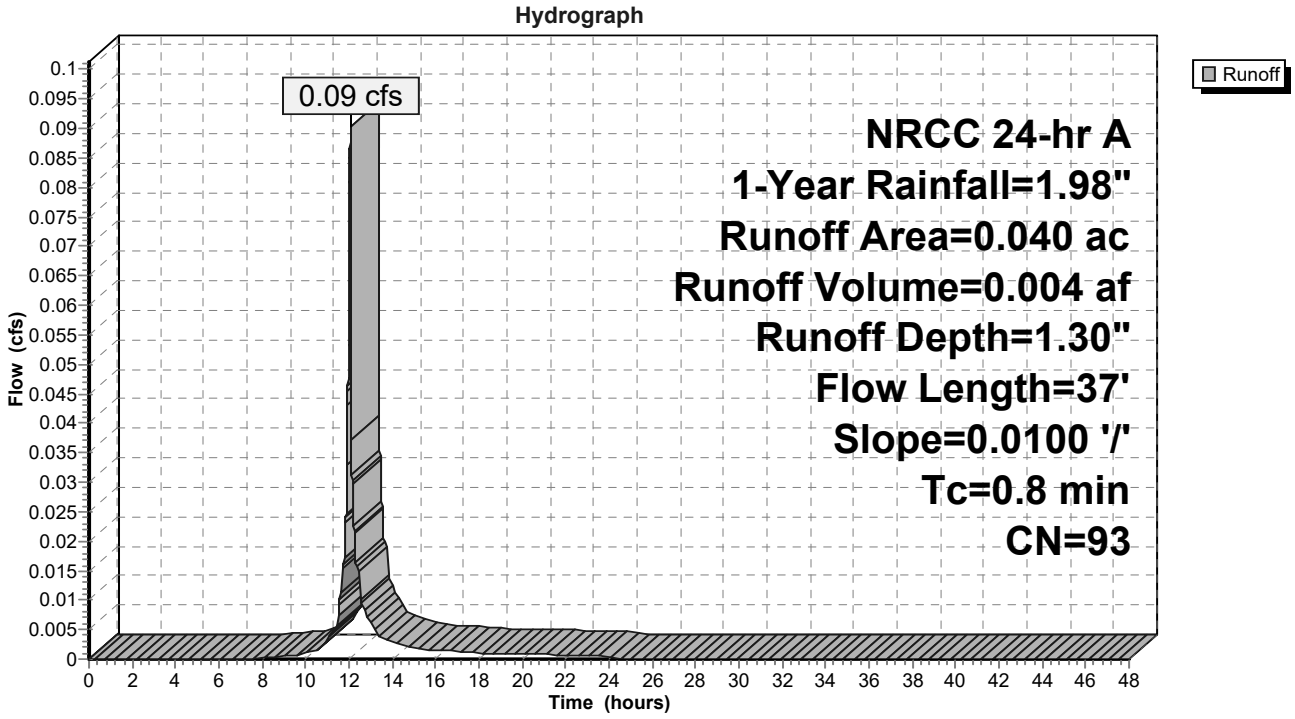
Runoff = 0.09 cfs @ 12.10 hrs, Volume= 0.004 af, Depth= 1.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 1-Year Rainfall=1.98"

Area (ac)	CN	Description
0.005	61	>75% Grass cover, Good, HSG B
0.035	98	Paved parking, HSG B
0.040	93	Weighted Average
0.005		12.50% Pervious Area
0.035		87.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	37	0.0100	0.73		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.35"

Subcatchment DA11:



Summary for Subcatchment DA12:

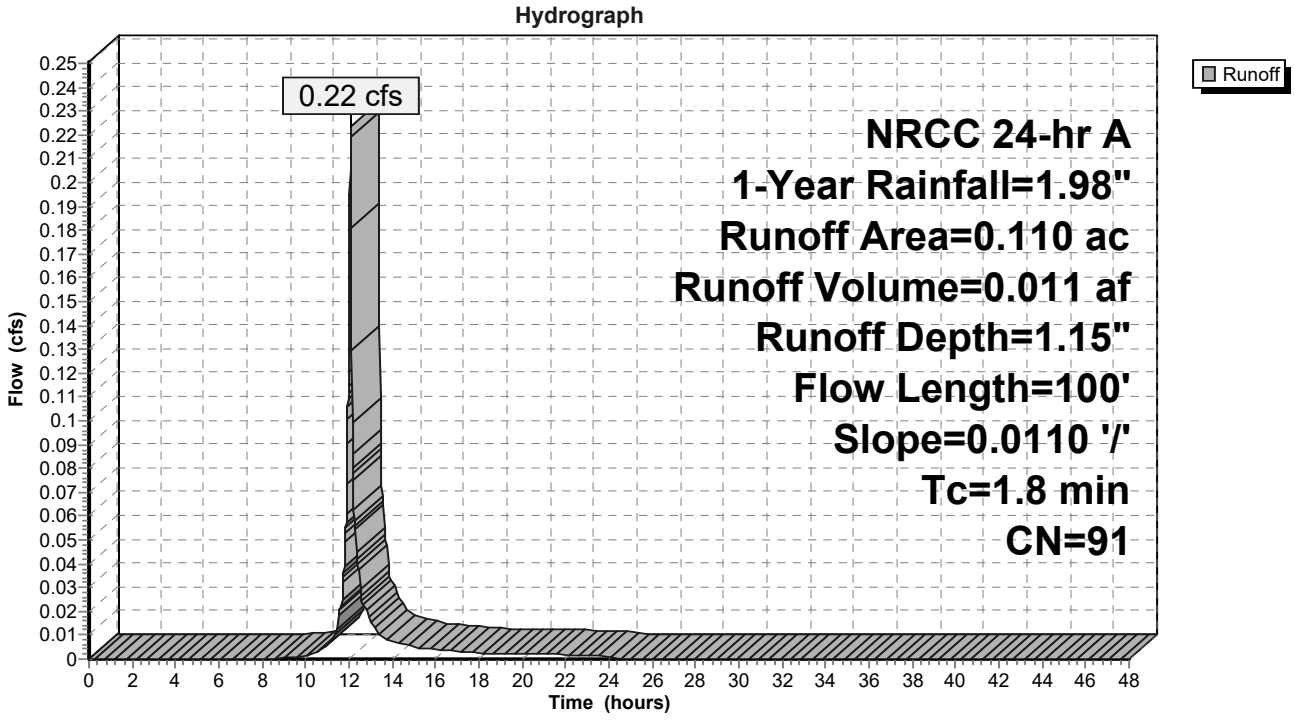
Runoff = 0.22 cfs @ 12.10 hrs, Volume= 0.011 af, Depth= 1.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 1-Year Rainfall=1.98"

Area (ac)	CN	Description
0.020	61	>75% Grass cover, Good, HSG B
0.090	98	Paved parking, HSG B
0.110	91	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	100	0.0110	0.93		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.35"

Subcatchment DA12:



Summary for Subcatchment DA13:

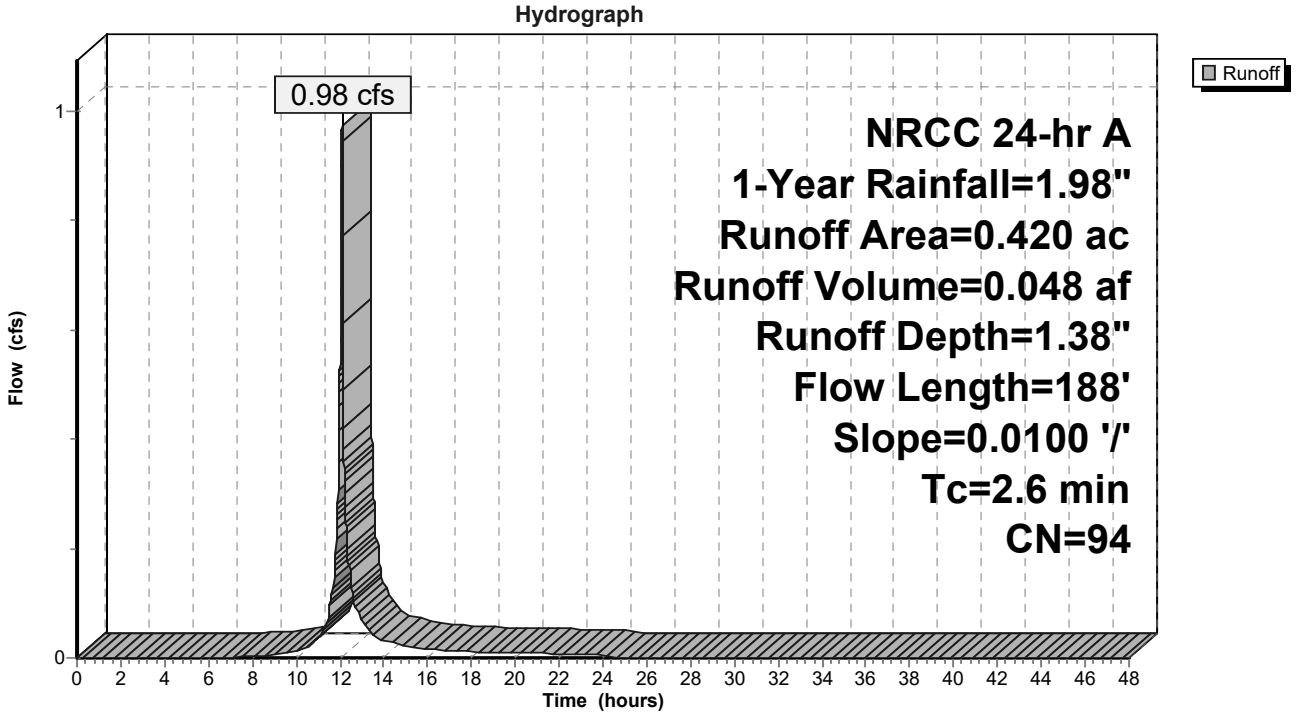
Runoff = 0.98 cfs @ 12.10 hrs, Volume= 0.048 af, Depth= 1.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 1-Year Rainfall=1.98"

Area (ac)	CN	Description
0.040	61	>75% Grass cover, Good, HSG B
0.380	98	Paved parking, HSG B
0.420	94	Weighted Average
0.040		9.52% Pervious Area
0.380		90.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	100	0.0100	0.89		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.35"
0.7	88	0.0100	2.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.6	188	Total			

Subcatchment DA13:



Summary for Subcatchment DA14:

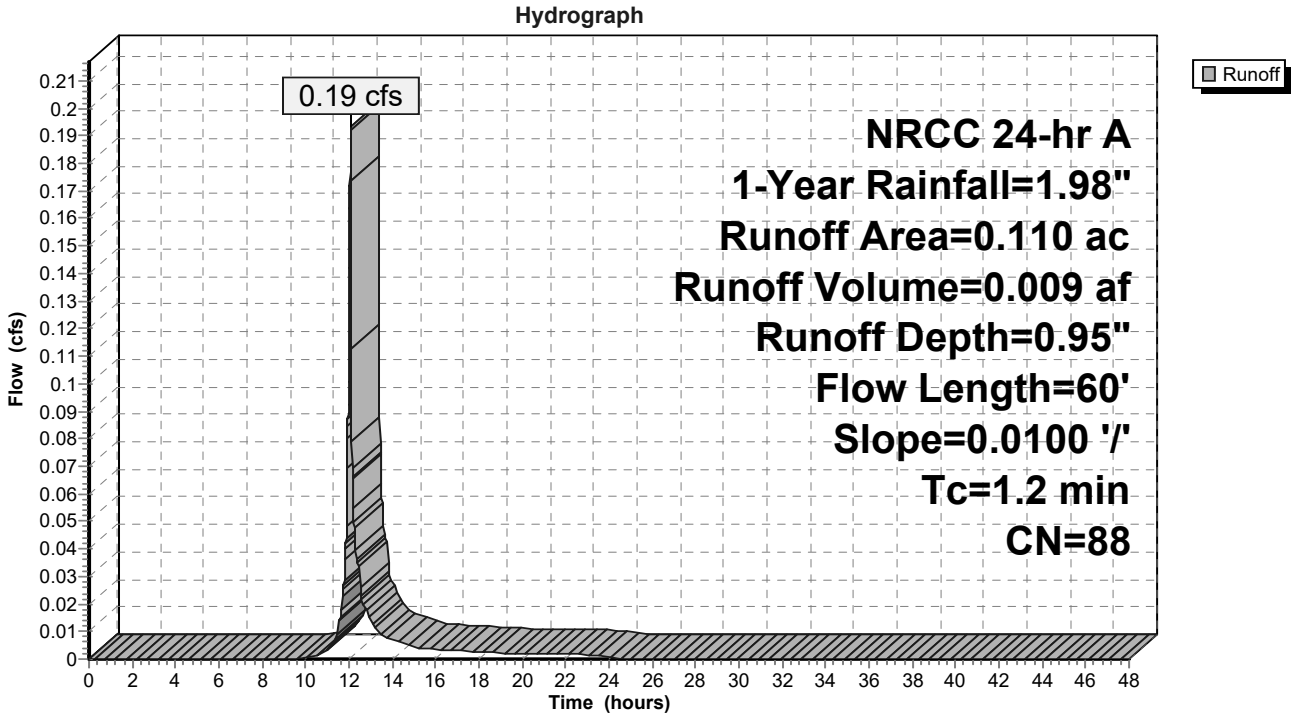
Runoff = 0.19 cfs @ 12.10 hrs, Volume= 0.009 af, Depth= 0.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 1-Year Rainfall=1.98"

Area (ac)	CN	Description
0.030	61	>75% Grass cover, Good, HSG B
0.080	98	Paved parking, HSG B
0.110	88	Weighted Average
0.030		27.27% Pervious Area
0.080		72.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	60	0.0100	0.81		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.35"

Subcatchment DA14:



Summary for Subcatchment DA15:

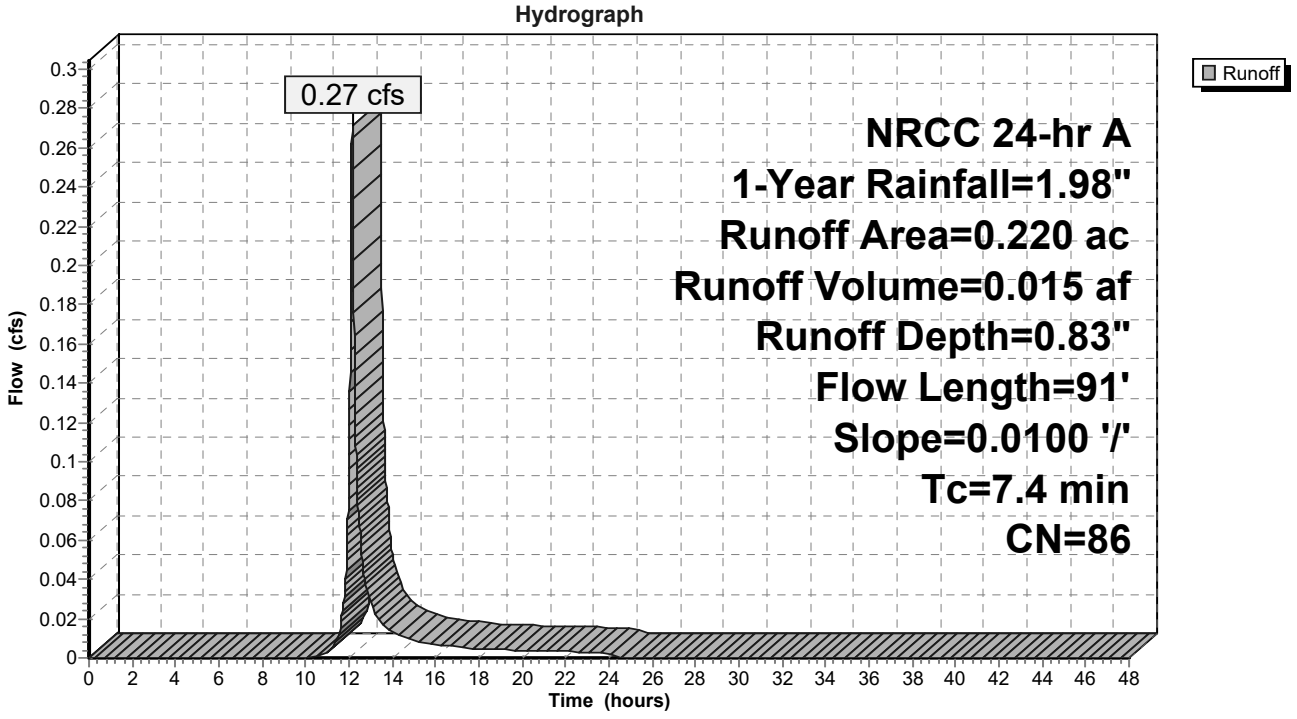
Runoff = 0.27 cfs @ 12.15 hrs, Volume= 0.015 af, Depth= 0.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 1-Year Rainfall=1.98"

Area (ac)	CN	Description
0.070	61	>75% Grass cover, Good, HSG B
0.150	98	Paved parking, HSG B
0.220	86	Weighted Average
0.070		31.82% Pervious Area
0.150		68.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	38	0.0100	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.35"
0.4	53	0.0100	2.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
7.4	91	Total			

Subcatchment DA15:



Summary for Subcatchment DA16:

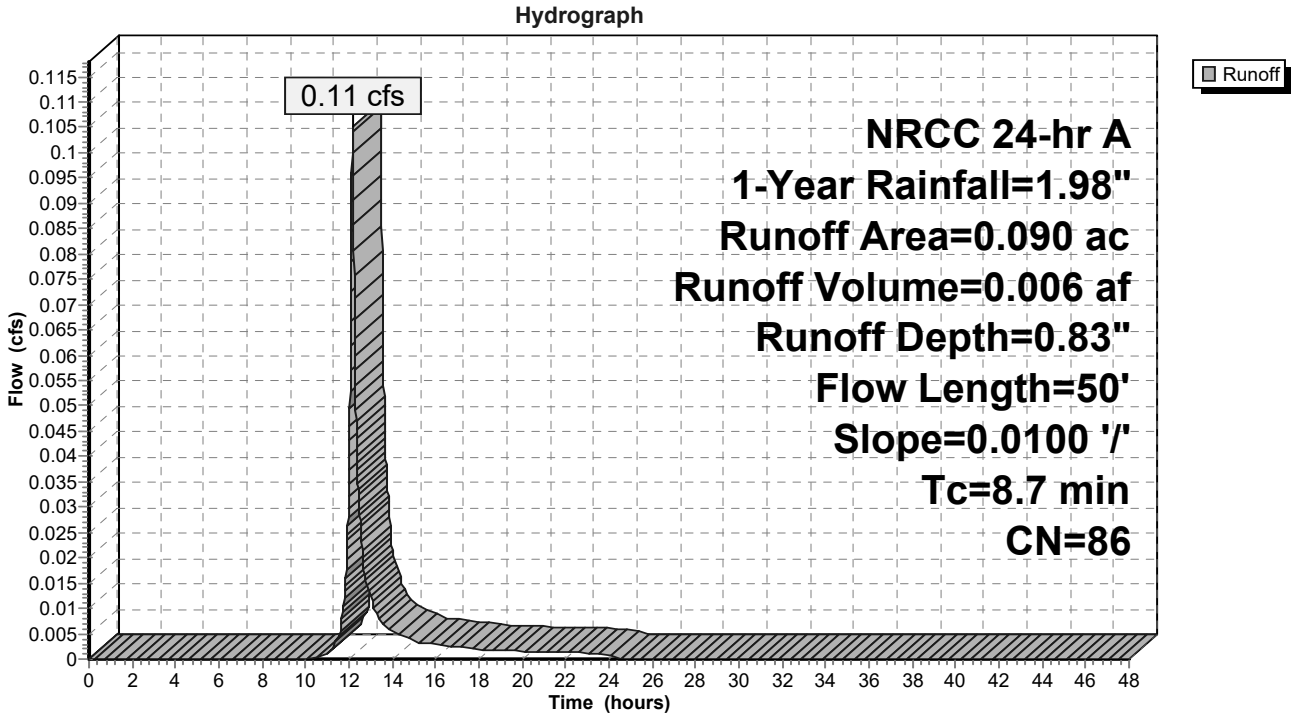
Runoff = 0.11 cfs @ 12.17 hrs, Volume= 0.006 af, Depth= 0.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 1-Year Rainfall=1.98"

Area (ac)	CN	Description
0.030	61	>75% Grass cover, Good, HSG B
0.060	98	Paved parking, HSG B
0.090	86	Weighted Average
0.030		33.33% Pervious Area
0.060		66.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	50	0.0100	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.35"

Subcatchment DA16:



Summary for Subcatchment DA17:

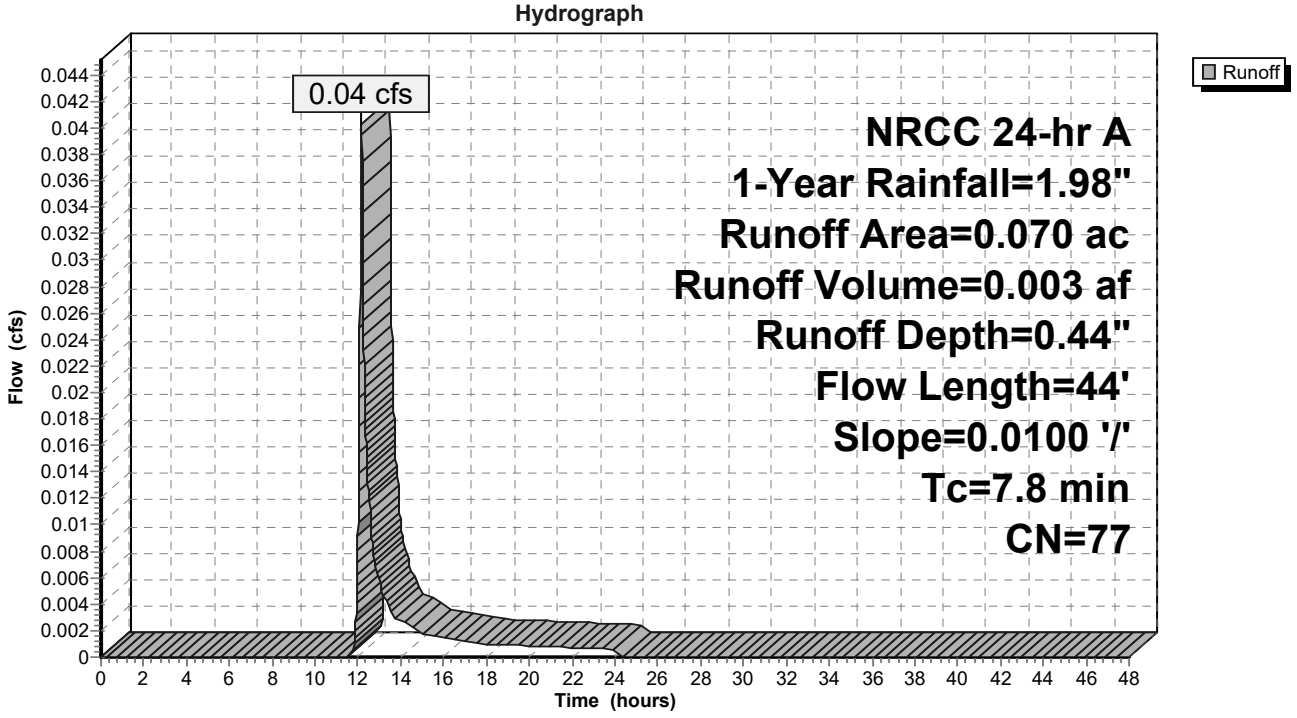
Runoff = 0.04 cfs @ 12.16 hrs, Volume= 0.003 af, Depth= 0.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 1-Year Rainfall=1.98"

Area (ac)	CN	Description
0.040	61	>75% Grass cover, Good, HSG B
0.030	98	Paved parking, HSG B
0.070	77	Weighted Average
0.040		57.14% Pervious Area
0.030		42.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	44	0.0100	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.35"

Subcatchment DA17:



Summary for Subcatchment DA2:

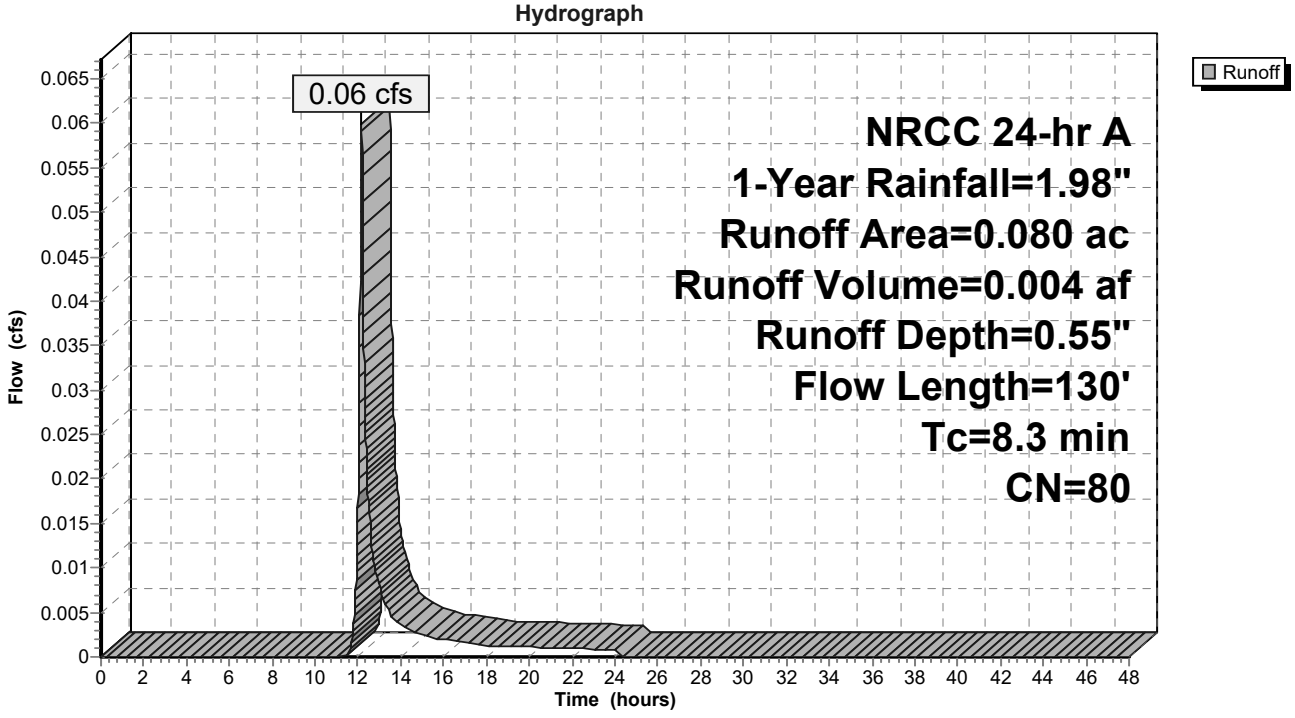
Runoff = 0.06 cfs @ 12.16 hrs, Volume= 0.004 af, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 1-Year Rainfall=1.98"

Area (ac)	CN	Description
0.040	61	>75% Grass cover, Good, HSG B
0.040	98	Paved parking, HSG B
0.080	80	Weighted Average
0.040		50.00% Pervious Area
0.040		50.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	40	0.0143	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.35"
2.0	90	0.0014	0.76		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
8.3	130	Total			

Subcatchment DA2:



Summary for Subcatchment DA3:

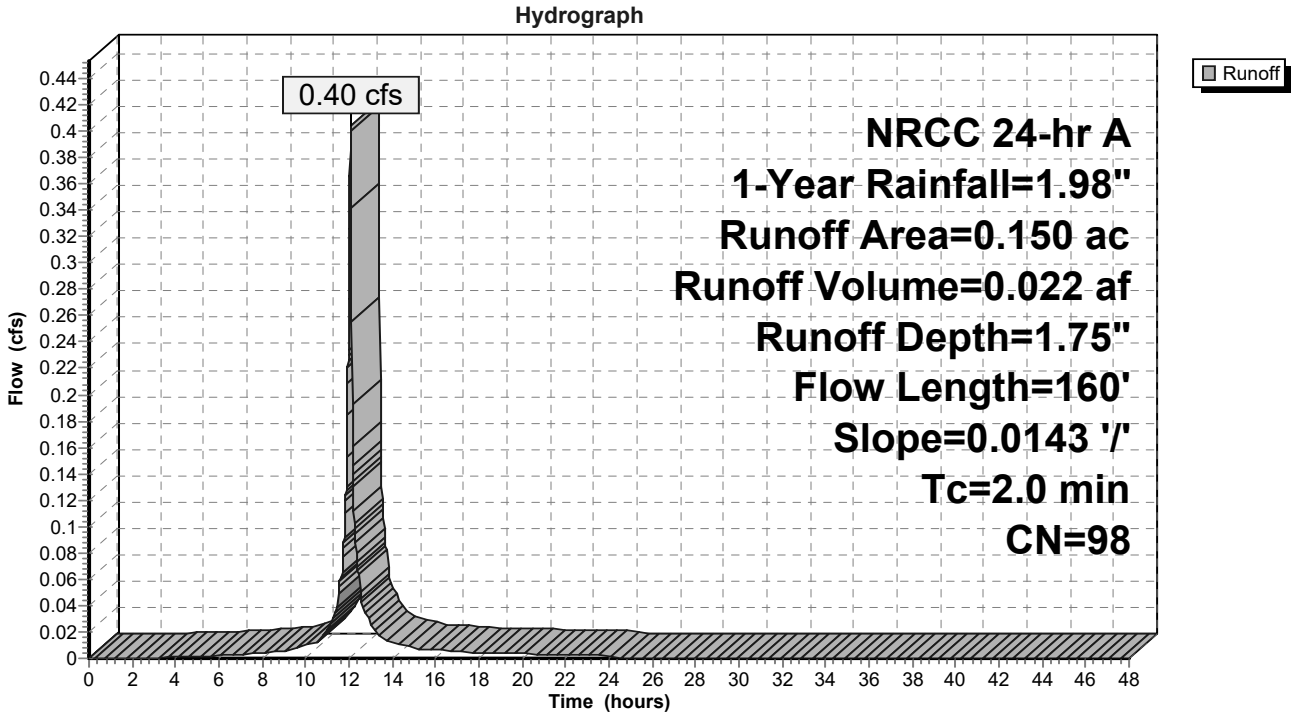
Runoff = 0.40 cfs @ 12.10 hrs, Volume= 0.022 af, Depth= 1.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 1-Year Rainfall=1.98"

Area (ac)	CN	Description
0.150	98	Paved parking, HSG B
0.150		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0143	1.03		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.35"
0.4	60	0.0143	2.43		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.0	160	Total			

Subcatchment DA3:



Summary for Subcatchment DA4:

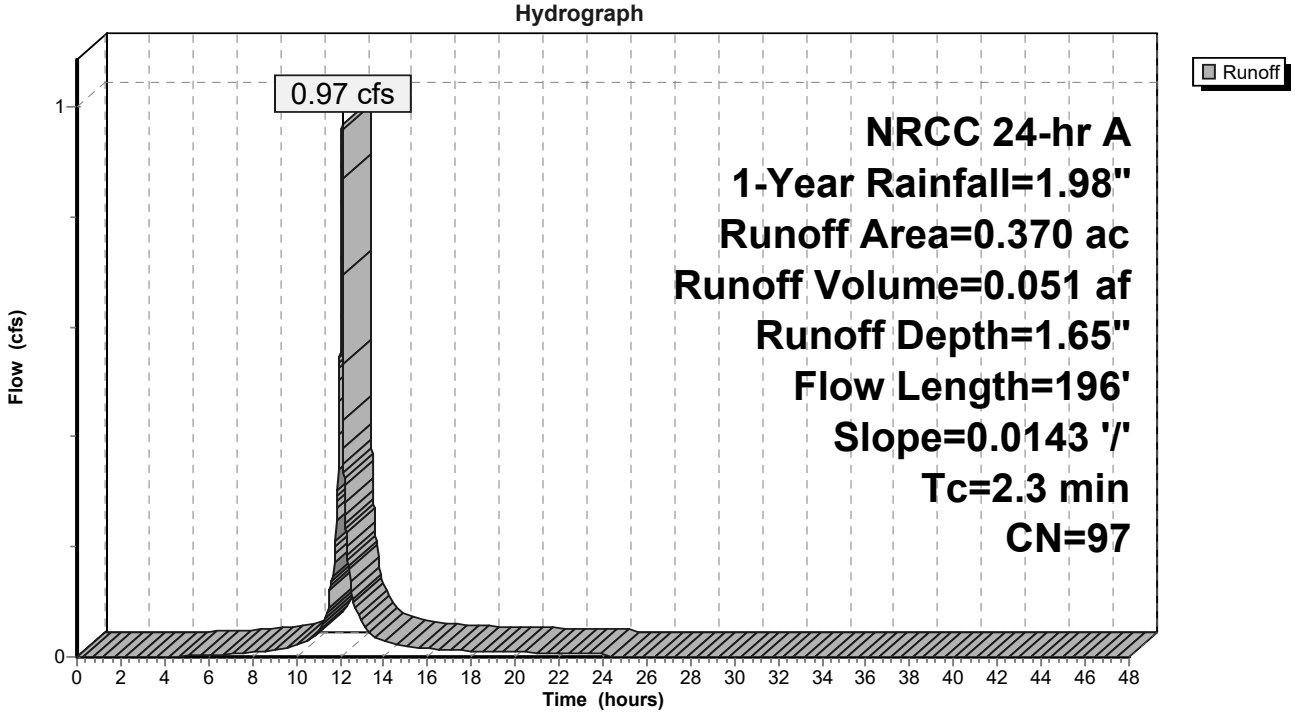
Runoff = 0.97 cfs @ 12.10 hrs, Volume= 0.051 af, Depth= 1.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 1-Year Rainfall=1.98"

Area (ac)	CN	Description
0.010	61	>75% Grass cover, Good, HSG B
0.360	98	Paved parking, HSG B
0.370	97	Weighted Average
0.010		2.70% Pervious Area
0.360		97.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0143	1.03		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.35"
0.7	96	0.0143	2.43		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.3	196	Total			

Subcatchment DA4:



Summary for Subcatchment DA5:

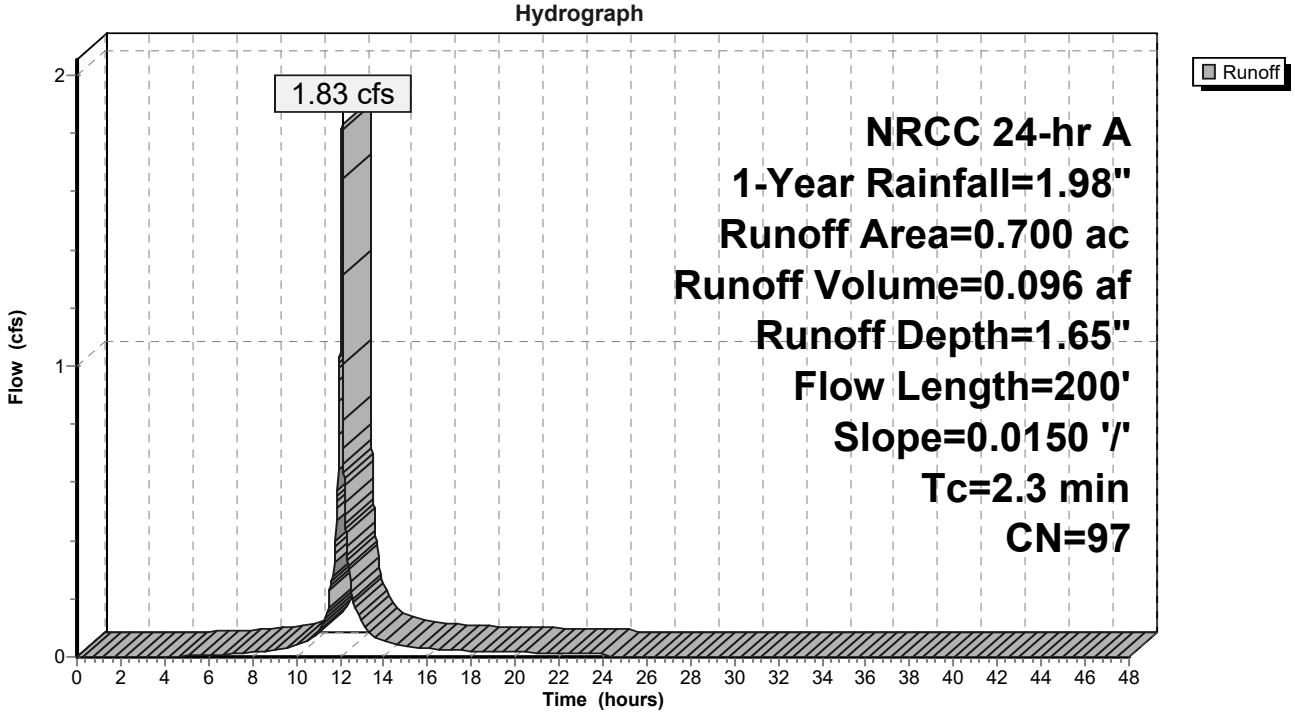
Runoff = 1.83 cfs @ 12.10 hrs, Volume= 0.096 af, Depth= 1.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 1-Year Rainfall=1.98"

Area (ac)	CN	Description
0.020	61	>75% Grass cover, Good, HSG B
0.680	98	Paved parking, HSG B
0.700	97	Weighted Average
0.020		2.86% Pervious Area
0.680		97.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0150	1.05		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.35"
0.7	100	0.0150	2.49		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.3	200	Total			

Subcatchment DA5:



Summary for Subcatchment DA6:

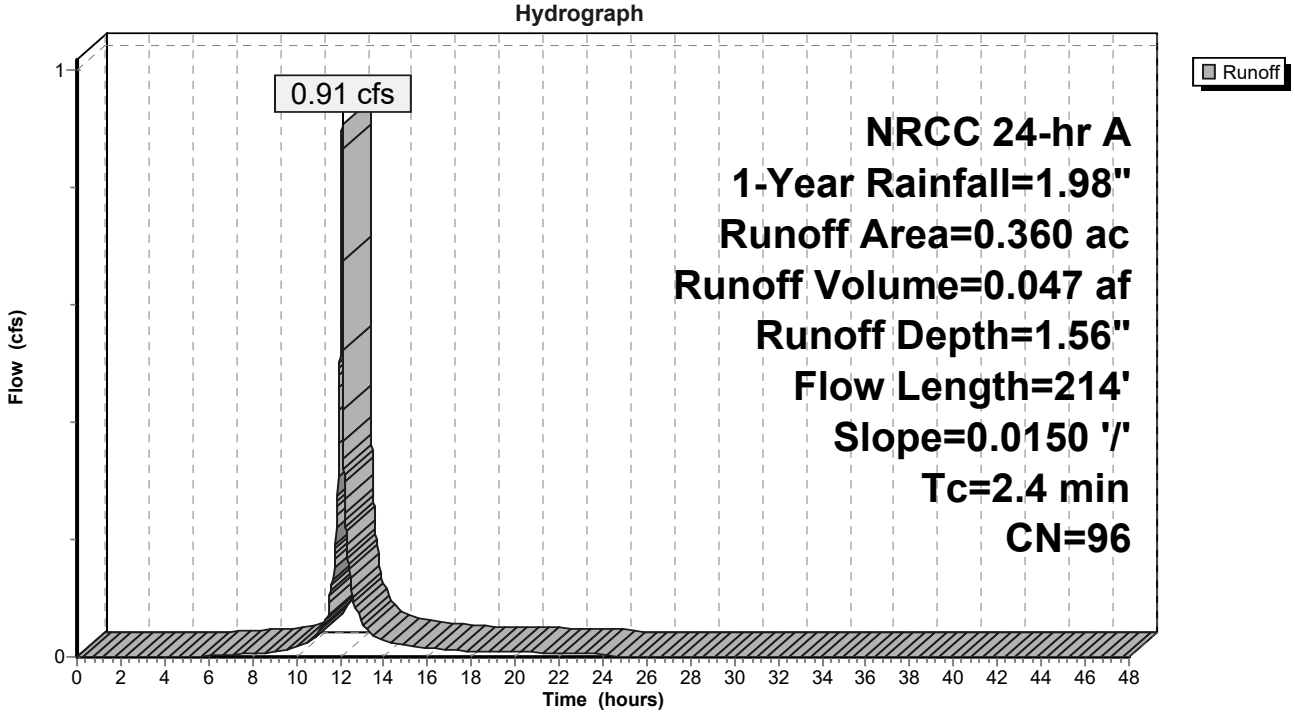
Runoff = 0.91 cfs @ 12.10 hrs, Volume= 0.047 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 1-Year Rainfall=1.98"

Area (ac)	CN	Description
0.020	61	>75% Grass cover, Good, HSG B
0.340	98	Paved parking, HSG B
0.360	96	Weighted Average
0.020		5.56% Pervious Area
0.340		94.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0150	1.05		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.35"
0.8	114	0.0150	2.49		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.4	214	Total			

Subcatchment DA6:



Summary for Subcatchment DA7:

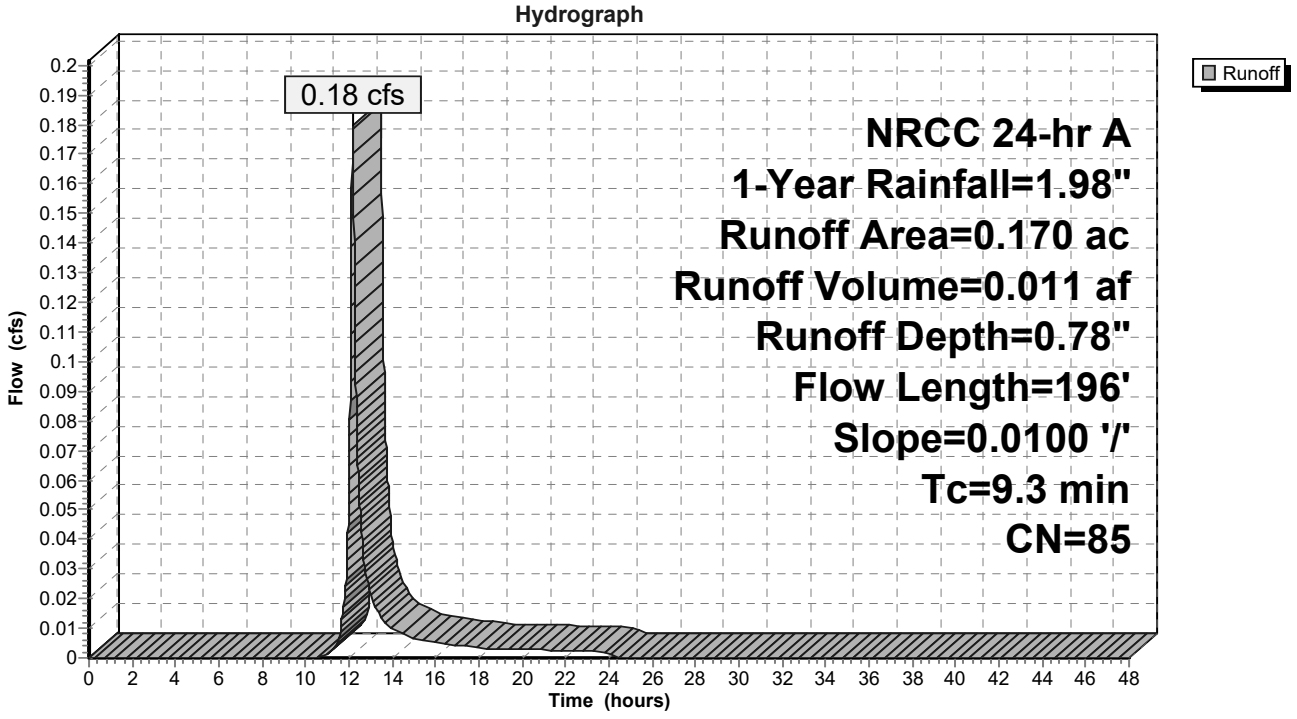
Runoff = 0.18 cfs @ 12.17 hrs, Volume= 0.011 af, Depth= 0.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 1-Year Rainfall=1.98"

Area (ac)	CN	Description
0.060	61	>75% Grass cover, Good, HSG B
0.110	98	Paved parking, HSG B
0.170	85	Weighted Average
0.060		35.29% Pervious Area
0.110		64.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	46	0.0100	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.35"
1.2	150	0.0100	2.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
9.3	196	Total			

Subcatchment DA7:



Summary for Subcatchment DA8:

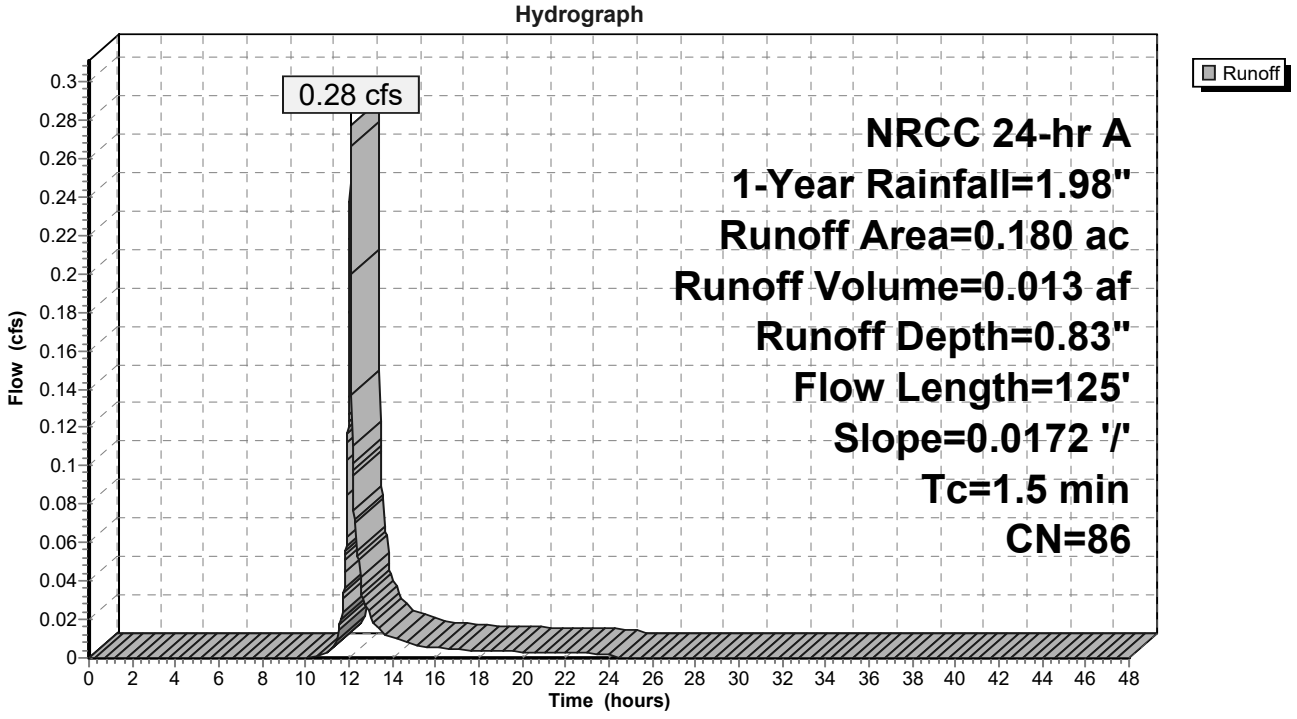
Runoff = 0.28 cfs @ 12.10 hrs, Volume= 0.013 af, Depth= 0.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 1-Year Rainfall=1.98"

Area (ac)	CN	Description
0.060	61	>75% Grass cover, Good, HSG B
0.120	98	Paved parking, HSG B
0.180	86	Weighted Average
0.060		33.33% Pervious Area
0.120		66.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	75	0.0172	1.05		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.35"
0.3	50	0.0172	2.66		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.5	125	Total			

Subcatchment DA8:



Summary for Subcatchment DA9:

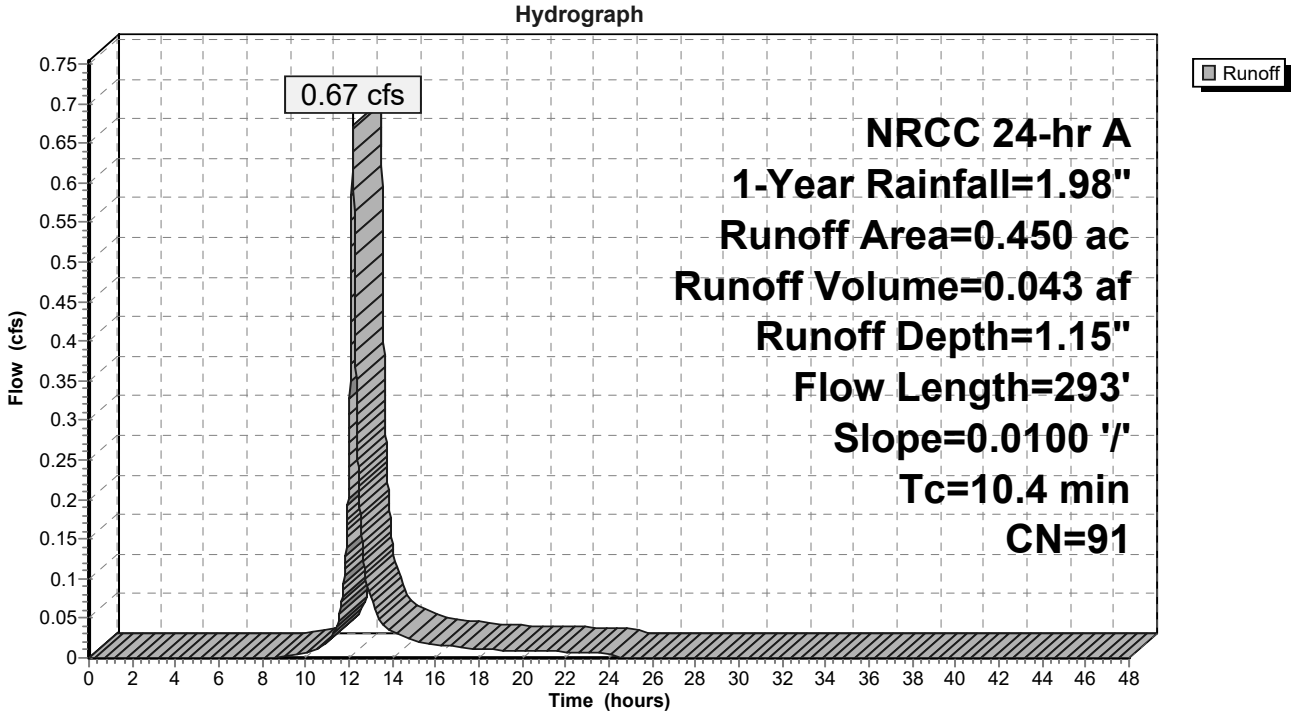
Runoff = 0.67 cfs @ 12.18 hrs, Volume= 0.043 af, Depth= 1.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 1-Year Rainfall=1.98"

Area (ac)	CN	Description
0.080	61	>75% Grass cover, Good, HSG B
0.370	98	Paved parking, HSG B
0.450	91	Weighted Average
0.080		17.78% Pervious Area
0.370		82.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	48	0.0100	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.35"
2.0	245	0.0100	2.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.4	293	Total			

Subcatchment DA9:



Summary for Pond CB1:

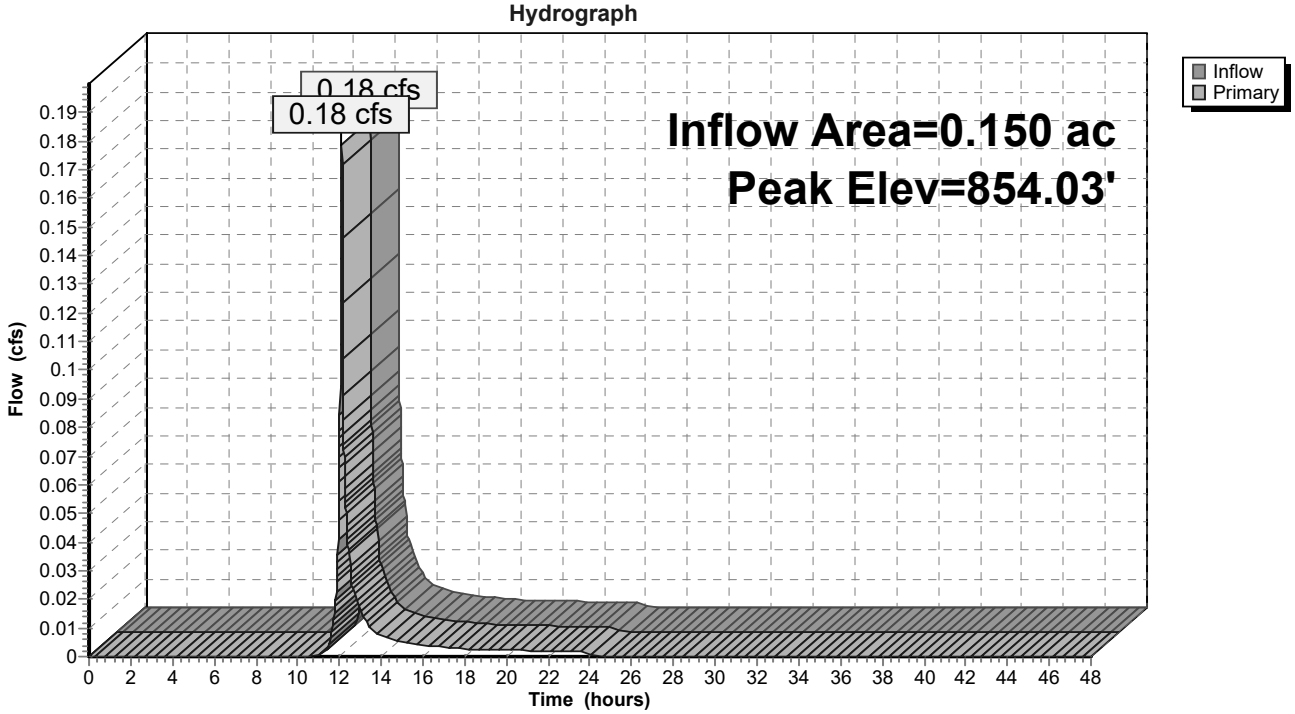
Inflow Area = 0.150 ac, 60.00% Impervious, Inflow Depth = 0.68" for 1-Year event
Inflow = 0.18 cfs @ 12.11 hrs, Volume= 0.009 af
Outflow = 0.18 cfs @ 12.11 hrs, Volume= 0.009 af, Atten= 0%, Lag= 0.0 min
Primary = 0.18 cfs @ 12.11 hrs, Volume= 0.009 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 854.03' @ 12.11 hrs
Flood Elev= 854.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	851.00'	**12.0" Round Culvert** L= 32.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 851.00' / 850.73' S= 0.0084 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	854.00'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.16 cfs @ 12.11 hrs HW=854.03' (Free Discharge)
└**1=Culvert** (Passes 0.16 cfs of 6.02 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 0.16 cfs @ 0.60 fps)

Pond CB1:



Summary for Pond CB10:

[57] Hint: Peaked at 853.05' (Flood elevation advised)
[81] Warning: Exceeded Pond CB12 by 5.13' @ 6.78 hrs
[81] Warning: Exceeded Pond CB13 by 0.10' @ 12.18 hrs
[81] Warning: Exceeded Pond CB9 by 4.25' @ 8.03 hrs

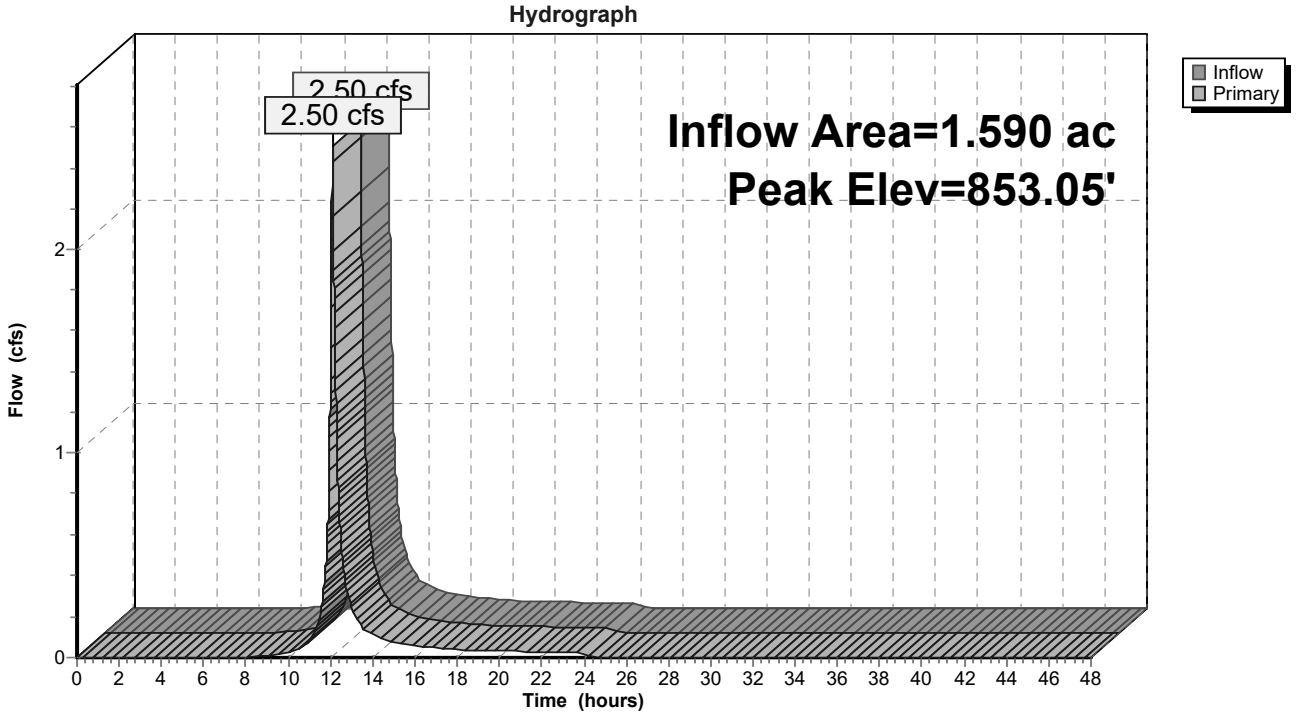
Inflow Area = 1.590 ac, 82.08% Impervious, Inflow Depth = 1.16" for 1-Year event
Inflow = 2.50 cfs @ 12.11 hrs, Volume= 0.154 af
Outflow = 2.50 cfs @ 12.11 hrs, Volume= 0.154 af, Atten= 0%, Lag= 0.0 min
Primary = 2.50 cfs @ 12.11 hrs, Volume= 0.154 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 853.05' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	847.15'	**15.0" Round Culvert** L= 144.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 847.15' / 846.94' S= 0.0015 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 1.23 sf
#2	Device 1	852.84'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=2.47 cfs @ 12.11 hrs HW=853.05' (Free Discharge)
└**1=Culvert** (Passes 2.47 cfs of 10.98 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 2.47 cfs @ 1.49 fps)

Pond CB10:



Summary for Pond CB11:

[57] Hint: Peaked at 852.11' (Flood elevation advised)

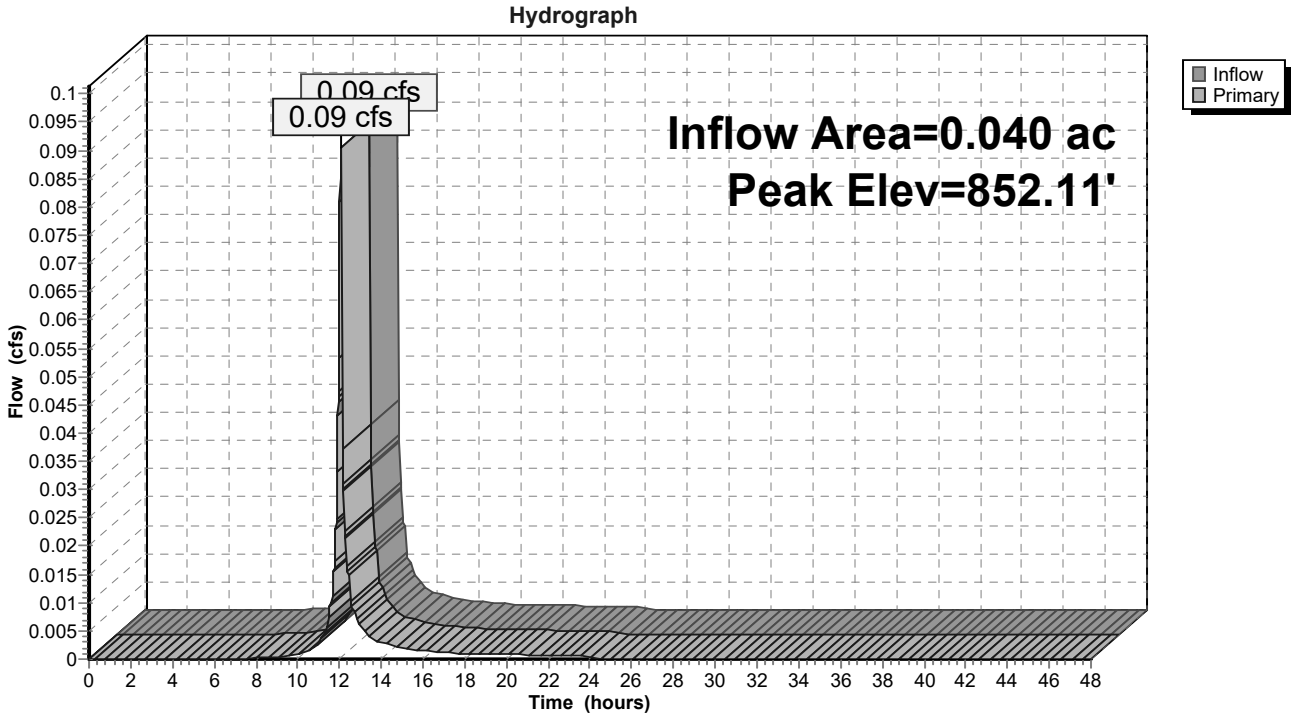
Inflow Area = 0.040 ac, 87.50% Impervious, Inflow Depth = 1.30" for 1-Year event
Inflow = 0.09 cfs @ 12.10 hrs, Volume= 0.004 af
Outflow = 0.09 cfs @ 12.10 hrs, Volume= 0.004 af, Atten= 0%, Lag= 0.0 min
Primary = 0.09 cfs @ 12.10 hrs, Volume= 0.004 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 852.11' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	851.97'	**12.0" Round Culvert** L= 53.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 851.97' / 847.71' S= 0.0804 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	851.97'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.09 cfs @ 12.10 hrs HW=852.11' (Free Discharge)
↑**1=Culvert** (Inlet Controls 0.09 cfs @ 1.29 fps)
↑**2=Orifice/Grate** (Passes 0.09 cfs of 1.43 cfs potential flow)

Pond CB11:



Summary for Pond CB12:

[57] Hint: Peaked at 852.51' (Flood elevation advised)
[81] Warning: Exceeded Pond CB11 by 0.49' @ 24.04 hrs

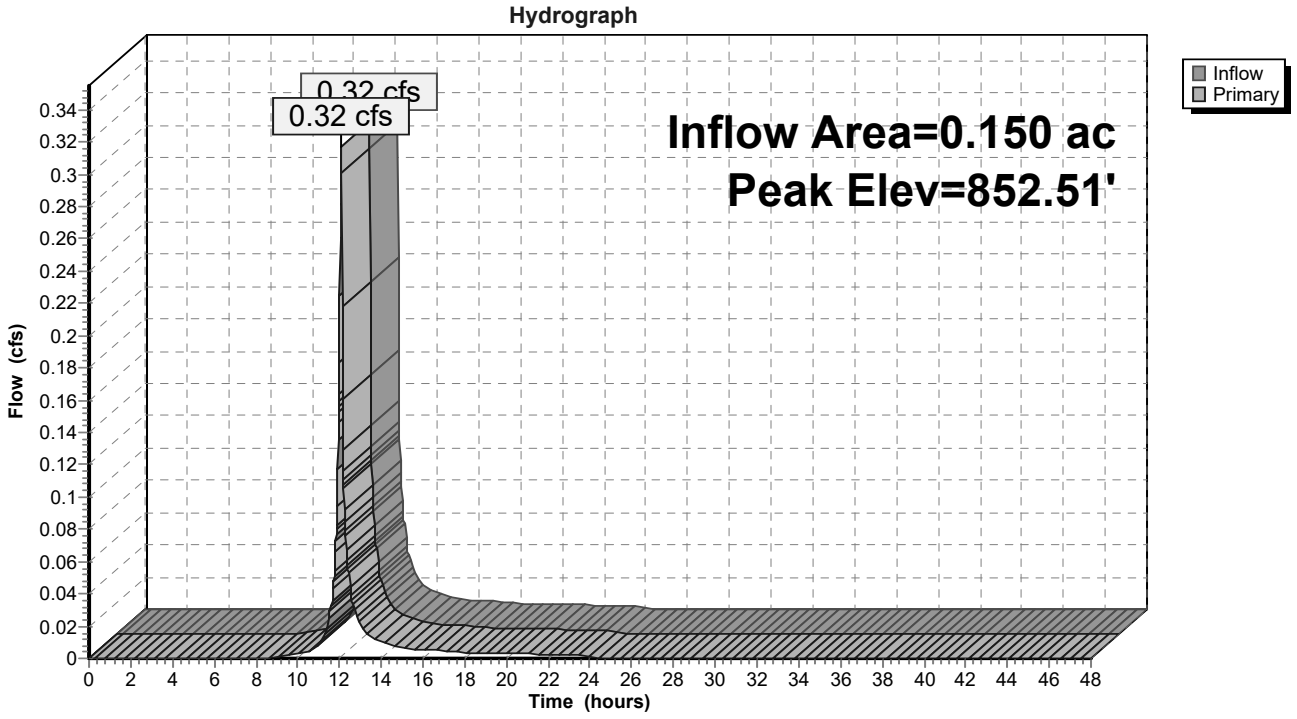
Inflow Area = 0.150 ac, 83.33% Impervious, Inflow Depth = 1.19" for 1-Year event
Inflow = 0.32 cfs @ 12.10 hrs, Volume= 0.015 af
Outflow = 0.32 cfs @ 12.10 hrs, Volume= 0.015 af, Atten= 0%, Lag= 0.0 min
Primary = 0.32 cfs @ 12.10 hrs, Volume= 0.015 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 852.51' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	847.71'	**12.0" Round Culvert** L= 54.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 847.71' / 847.15' S= 0.0104 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	852.46'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.31 cfs @ 12.10 hrs HW=852.51' (Free Discharge)
└**1=Culvert** (Passes 0.31 cfs of 7.84 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 0.31 cfs @ 0.74 fps)

Pond CB12:



Summary for Pond CB13:

[57] Hint: Peaked at 852.96' (Flood elevation advised)

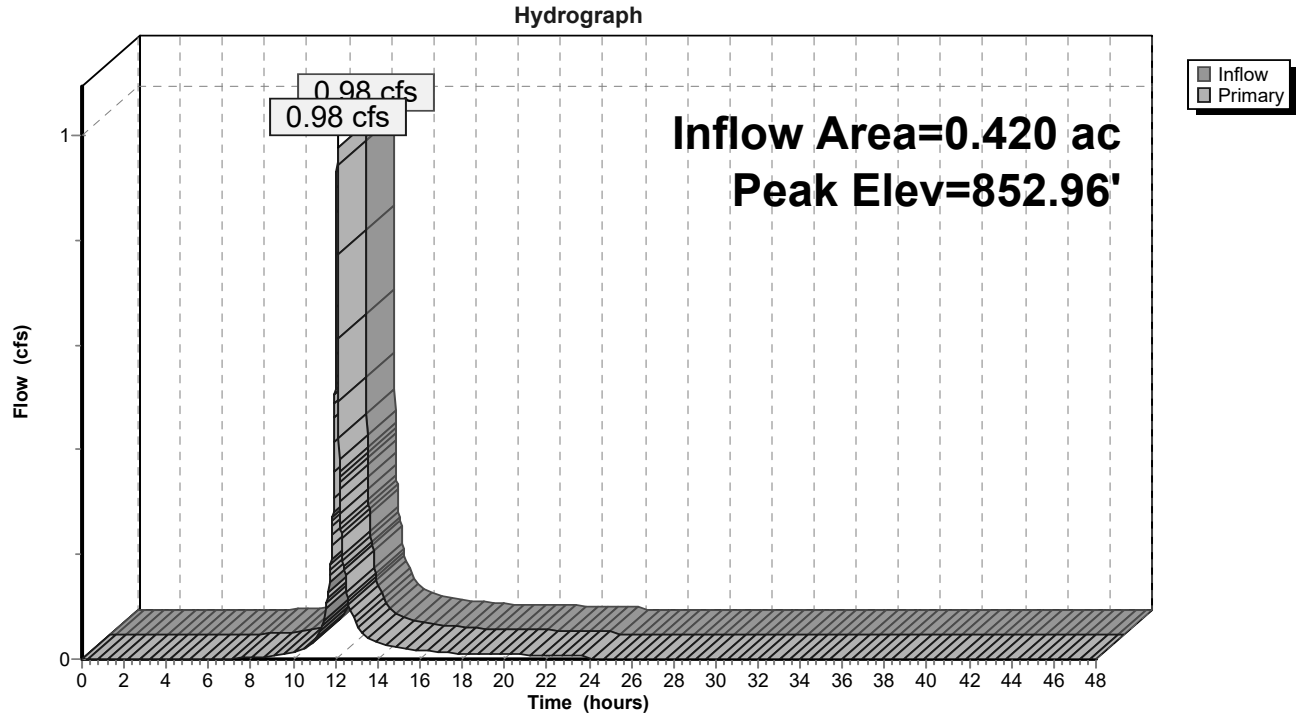
Inflow Area = 0.420 ac, 90.48% Impervious, Inflow Depth = 1.38" for 1-Year event
Inflow = 0.98 cfs @ 12.10 hrs, Volume= 0.048 af
Outflow = 0.98 cfs @ 12.10 hrs, Volume= 0.048 af, Atten= 0%, Lag= 0.0 min
Primary = 0.98 cfs @ 12.10 hrs, Volume= 0.048 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 852.96' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	847.71'	**12.0" Round Culvert** L= 33.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 847.71' / 847.15' S= 0.0170 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	852.85'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.96 cfs @ 12.10 hrs HW=852.96' (Free Discharge)
↑—**1=Culvert** (Passes 0.96 cfs of 8.24 cfs potential flow)
↑—**2=Orifice/Grate** (Weir Controls 0.96 cfs @ 1.09 fps)

Pond CB13:



Summary for Pond CB14:

[57] Hint: Peaked at 855.46' (Flood elevation advised)

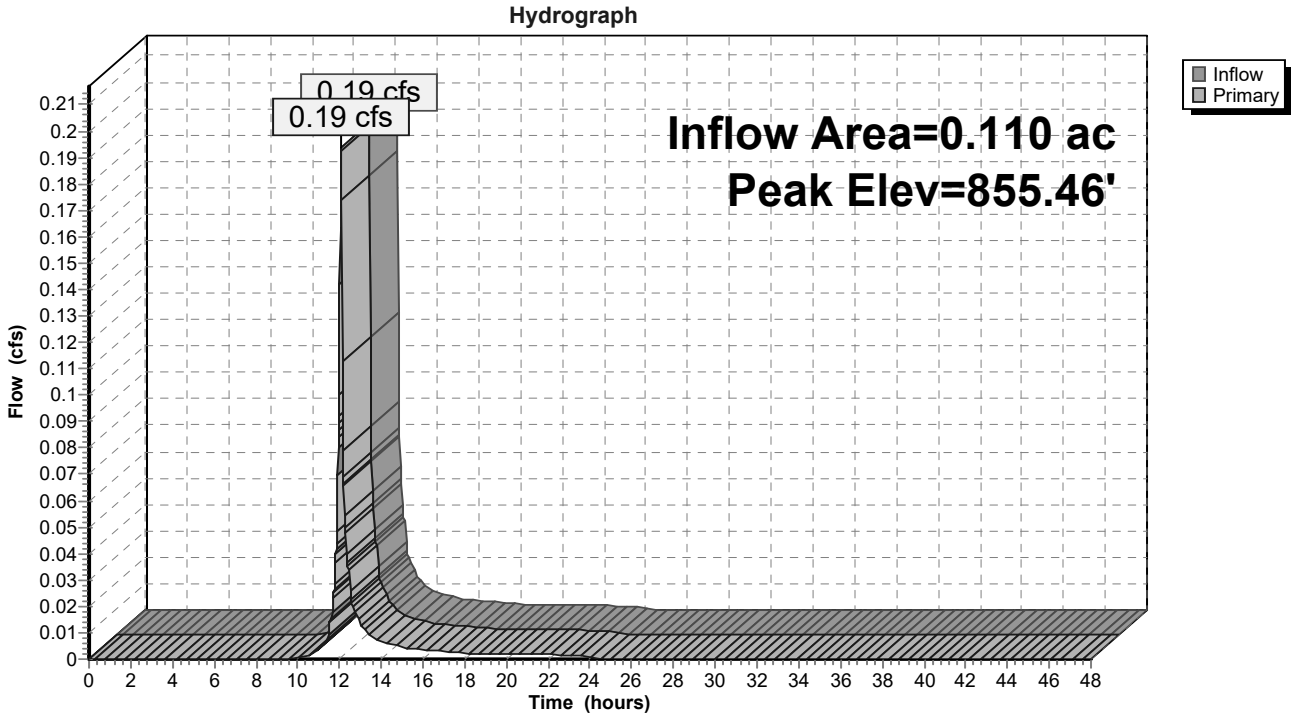
Inflow Area = 0.110 ac, 72.73% Impervious, Inflow Depth = 0.95" for 1-Year event
Inflow = 0.19 cfs @ 12.10 hrs, Volume= 0.009 af
Outflow = 0.19 cfs @ 12.10 hrs, Volume= 0.009 af, Atten= 0%, Lag= 0.0 min
Primary = 0.19 cfs @ 12.10 hrs, Volume= 0.009 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 855.46' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	852.42'	**12.0" Round Culvert** L= 152.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 852.42' / 849.90' S= 0.0166 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	855.42'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.18 cfs @ 12.10 hrs HW=855.46' (Free Discharge)
↑**1=Culvert** (Passes 0.18 cfs of 6.03 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 0.18 cfs @ 0.68 fps)

Pond CB14:



Summary for Pond CB15:

[57] Hint: Peaked at 855.53' (Flood elevation advised)
[81] Warning: Exceeded Pond CB16 by 4.00' @ 10.20 hrs
[81] Warning: Exceeded Pond MH1 by 8.40' @ 24.60 hrs

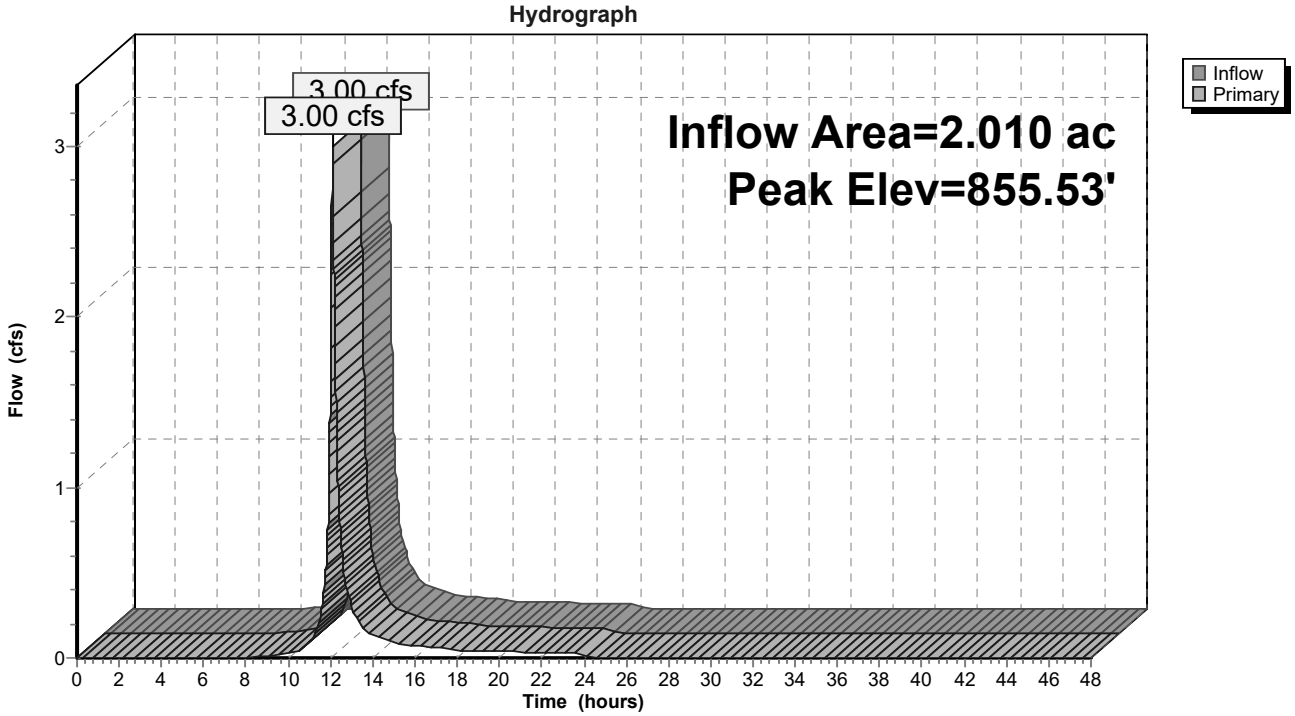
Inflow Area = 2.010 ac, 79.35% Impervious, Inflow Depth = 1.10" for 1-Year event
Inflow = 3.00 cfs @ 12.11 hrs, Volume= 0.184 af
Outflow = 3.00 cfs @ 12.11 hrs, Volume= 0.184 af, Atten= 0%, Lag= 0.0 min
Primary = 3.00 cfs @ 12.11 hrs, Volume= 0.184 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 855.53' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	845.91'	**18.0" Round Culvert** L= 66.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 845.91' / 845.28' S= 0.0095 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 1.77 sf
#2	Device 1	855.25'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=2.97 cfs @ 12.11 hrs HW=855.53' (Free Discharge)
↑**1=Culvert** (Passes 2.97 cfs of 25.33 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 2.97 cfs @ 1.72 fps)

Pond CB15:



Summary for Pond CB16:

[57] Hint: Peaked at 855.27' (Flood elevation advised)

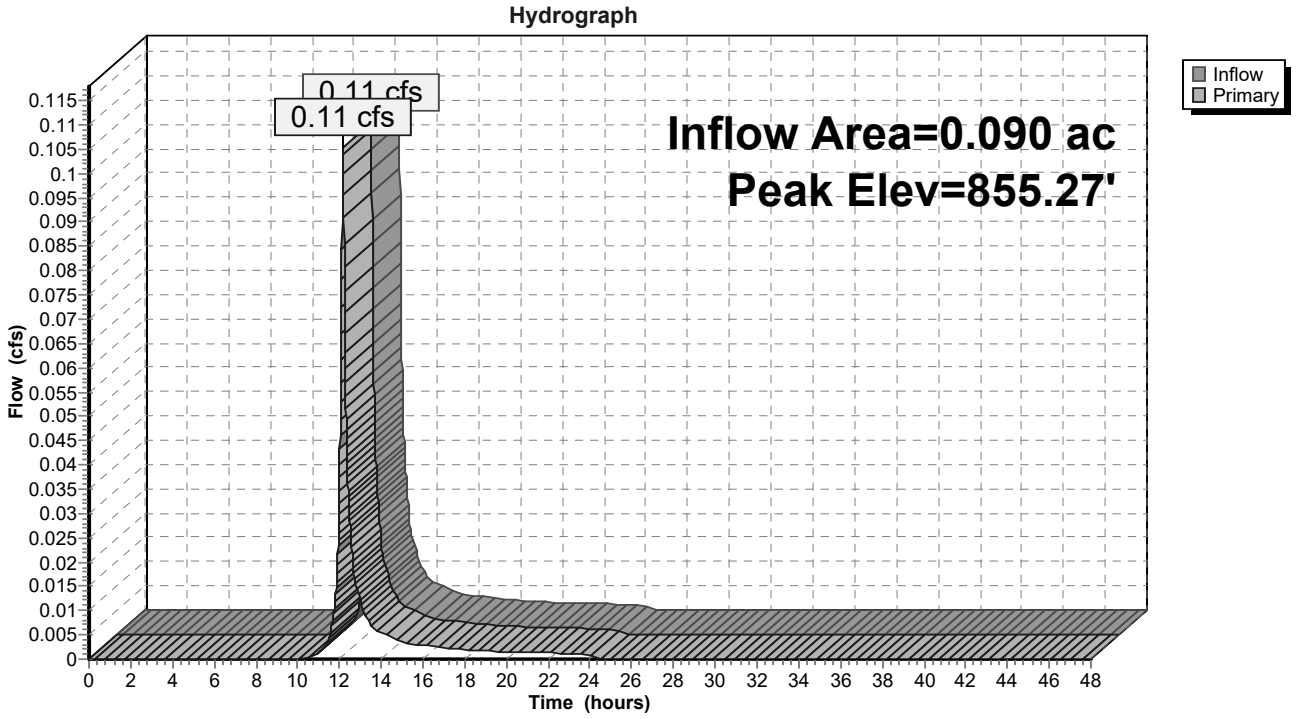
Inflow Area = 0.090 ac, 66.67% Impervious, Inflow Depth = 0.83" for 1-Year event
Inflow = 0.11 cfs @ 12.17 hrs, Volume= 0.006 af
Outflow = 0.11 cfs @ 12.17 hrs, Volume= 0.006 af, Atten= 0%, Lag= 0.0 min
Primary = 0.11 cfs @ 12.17 hrs, Volume= 0.006 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 855.27' @ 12.17 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	851.25'	**10.0" Round Culvert** L= 28.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 851.25' / 850.69' S= 0.0200 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.55 sf
#2	Device 1	855.25'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.07 cfs @ 12.17 hrs HW=855.27' (Free Discharge)
↑—**1=Culvert** (Passes 0.07 cfs of 4.99 cfs potential flow)
↑—**2=Orifice/Grate** (Weir Controls 0.07 cfs @ 0.46 fps)

Pond CB16:



Summary for Pond CB17:

[99] Warning: Min. Lift of 0.40' is below pump rating
[81] Warning: Exceeded Pond CB15 by 0.08' @ 12.11 hrs

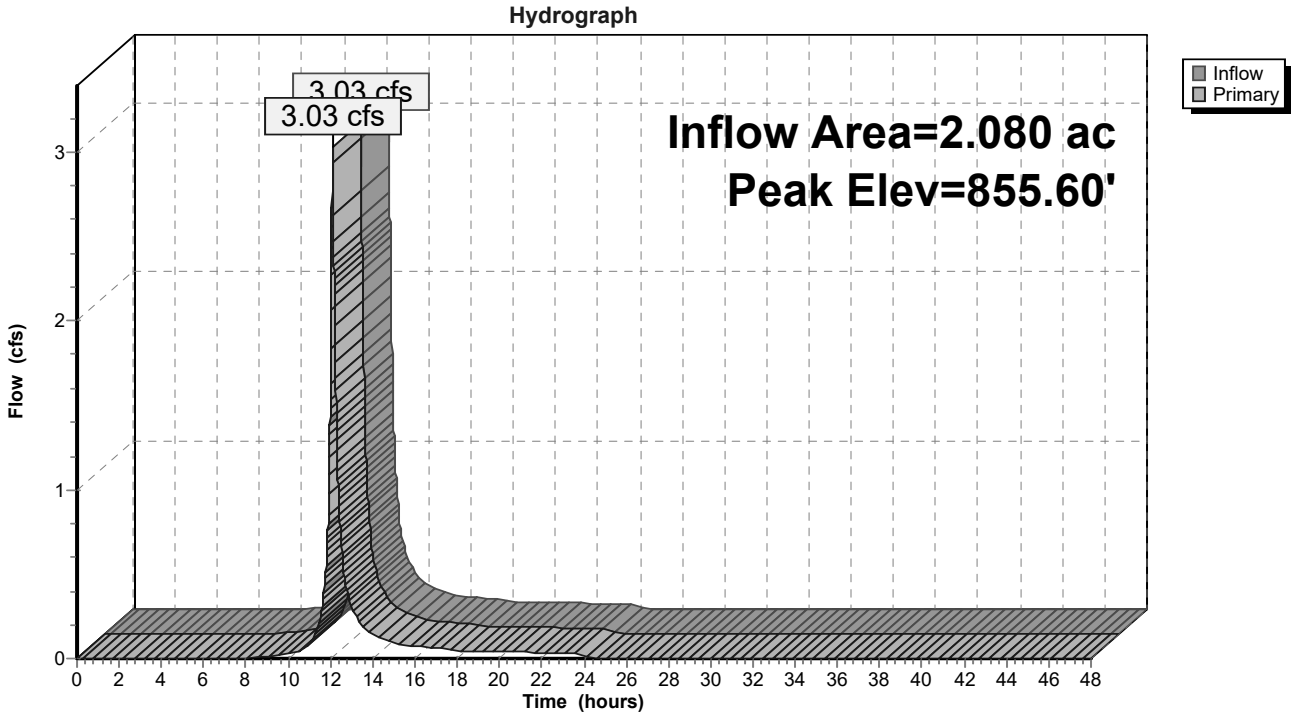
Inflow Area = 2.080 ac, 78.12% Impervious, Inflow Depth = 1.07" for 1-Year event
Inflow = 3.03 cfs @ 12.11 hrs, Volume= 0.186 af
Outflow = 3.03 cfs @ 12.11 hrs, Volume= 0.186 af, Atten= 0%, Lag= 0.0 min
Primary = 3.03 cfs @ 12.11 hrs, Volume= 0.186 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 855.60' @ 12.11 hrs
Flood Elev= 855.67'

Device	Routing	Invert	Outlet Devices
#1	Device 2	855.17'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Primary	846.00'	**Pump** Discharges@856.00' 8.0" Diam. x 180.0' Long Discharge, Hazen-Williams C= 130 Flow (gpm)= 0.0 500.0 1,000.0 1,500.0 2,000.0 2,500.0 2,600.0 Head (feet)= 168.00 150.00 133.00 115.00 90.00 60.00 45.00 -Loss (feet)= 0.00 0.91 3.29 6.97 11.87 17.95 19.30 =Lift (feet)= 168.00 149.09 129.71 108.03 78.13 42.05 25.70

Primary OutFlow Max=5.79 cfs @ 12.11 hrs HW=855.60' (Free Discharge)
↑└**2=Pump** (Pump Controls 5.79 cfs)
↑└**1=Orifice/Grate** (Passes 5.79 cfs of 5.81 cfs potential flow)

Pond CB17:


Hydrograph
3.03 cfs
3.03 cfs
Inflow Area=2.080 ac
Peak Elev=855.60'
Inflow
Primary
Flow (cfs)
0
1
2
3
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48
Time (hours)

Summary for Pond CB2:

[81] Warning: Exceeded Pond CB1 by 0.65' @ 12.18 hrs

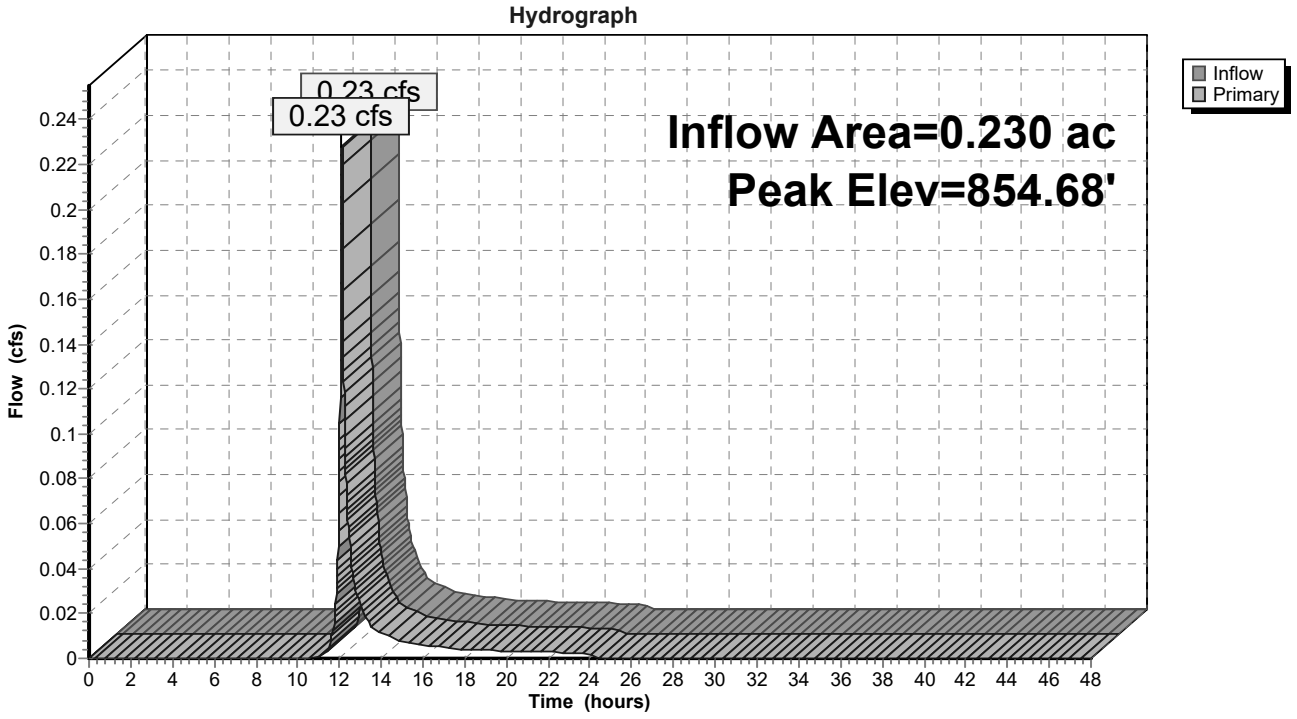
Inflow Area = 0.230 ac, 56.52% Impervious, Inflow Depth = 0.64" for 1-Year event
Inflow = 0.23 cfs @ 12.12 hrs, Volume= 0.012 af
Outflow = 0.23 cfs @ 12.12 hrs, Volume= 0.012 af, Atten= 0%, Lag= 0.0 min
Primary = 0.23 cfs @ 12.12 hrs, Volume= 0.012 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 854.68' @ 12.12 hrs
Flood Elev= 855.14'

Device	Routing	Invert	Outlet Devices
#1	Primary	850.73'	**12.0" Round Culvert** L= 27.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 850.73' / 850.43' S= 0.0111 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	854.64'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.20 cfs @ 12.12 hrs HW=854.68' (Free Discharge)
↑—**1=Culvert** (Passes 0.20 cfs of 7.02 cfs potential flow)
↑—**2=Orifice/Grate** (Weir Controls 0.20 cfs @ 0.65 fps)

Pond CB2:



Summary for Pond CB3:

[79] Warning: Submerged Pond CB2 Primary device # 1 INLET by 3.71'

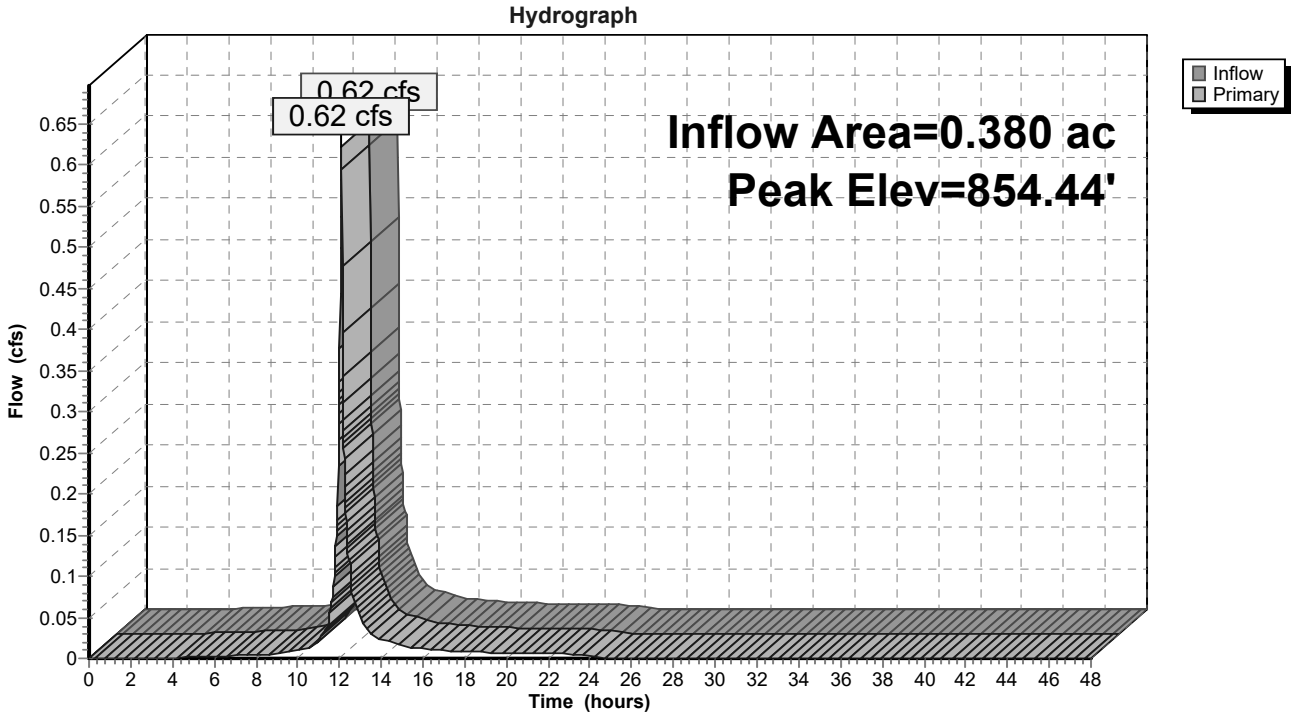
Inflow Area = 0.380 ac, 73.68% Impervious, Inflow Depth = 1.08" for 1-Year event
Inflow = 0.62 cfs @ 12.10 hrs, Volume= 0.034 af
Outflow = 0.62 cfs @ 12.10 hrs, Volume= 0.034 af, Atten= 0%, Lag= 0.0 min
Primary = 0.62 cfs @ 12.10 hrs, Volume= 0.034 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 854.44' @ 12.10 hrs
Flood Elev= 854.86'

Device	Routing	Invert	Outlet Devices
#1	Primary	850.43'	**12.0" Round Culvert** L= 110.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 850.43' / 849.33' S= 0.0100 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	854.36'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.60 cfs @ 12.10 hrs HW=854.44' (Free Discharge)
↑**1=Culvert** (Passes 0.60 cfs of 6.41 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 0.60 cfs @ 0.93 fps)

Pond CB3:



Summary for Pond CB4:

[79] Warning: Submerged Pond CB3 Primary device # 1 INLET by 3.24'

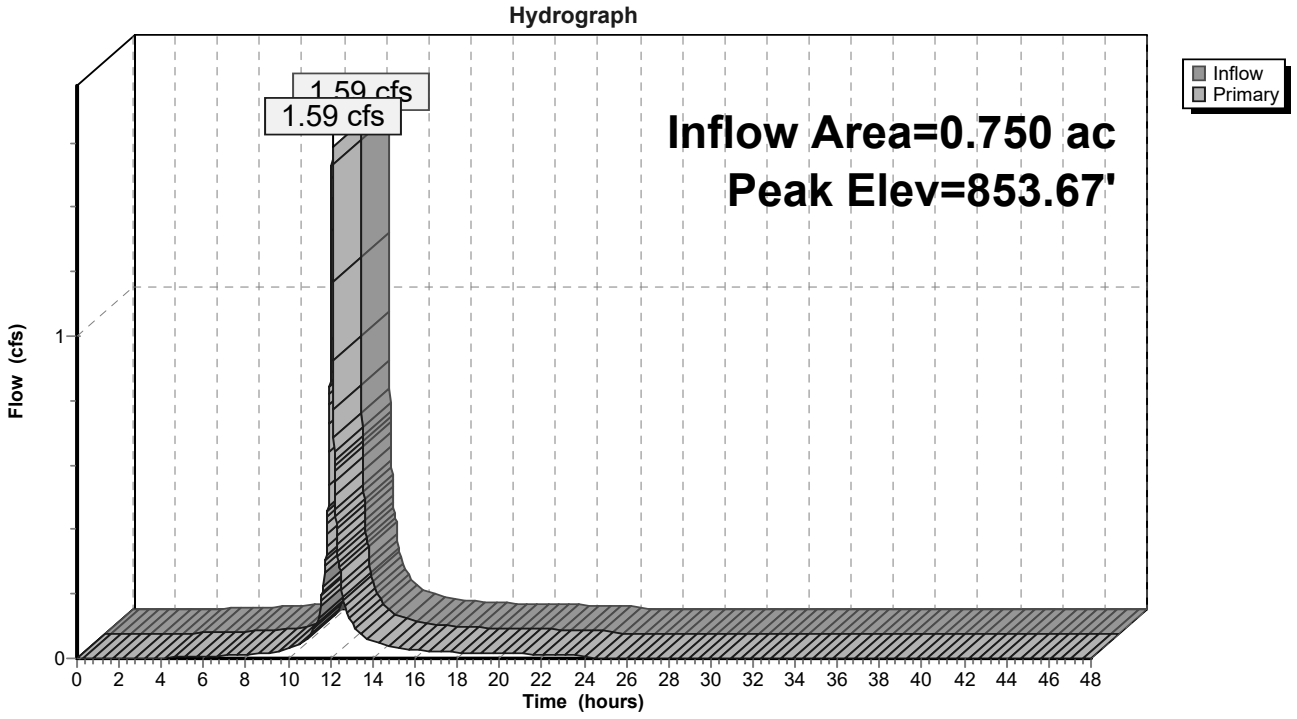
Inflow Area = 0.750 ac, 85.33% Impervious, Inflow Depth = 1.36" for 1-Year event
Inflow = 1.59 cfs @ 12.10 hrs, Volume= 0.085 af
Outflow = 1.59 cfs @ 12.10 hrs, Volume= 0.085 af, Atten= 0%, Lag= 0.0 min
Primary = 1.59 cfs @ 12.10 hrs, Volume= 0.085 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 853.67' @ 12.10 hrs
Flood Elev= 854.02'

Device	Routing	Invert	Outlet Devices
#1	Primary	849.33'	**18.0" Round Culvert** L= 160.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 849.33' / 847.49' S= 0.0115 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 1.77 sf
#2	Device 1	853.52'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.57 cfs @ 12.10 hrs HW=853.67' (Free Discharge)
↑**1=Culvert** (Passes 1.57 cfs of 16.13 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 1.57 cfs @ 1.28 fps)

Pond CB4:



Summary for Pond CB5:

[79] Warning: Submerged Pond CB4 Primary device # 1 INLET by 3.83'

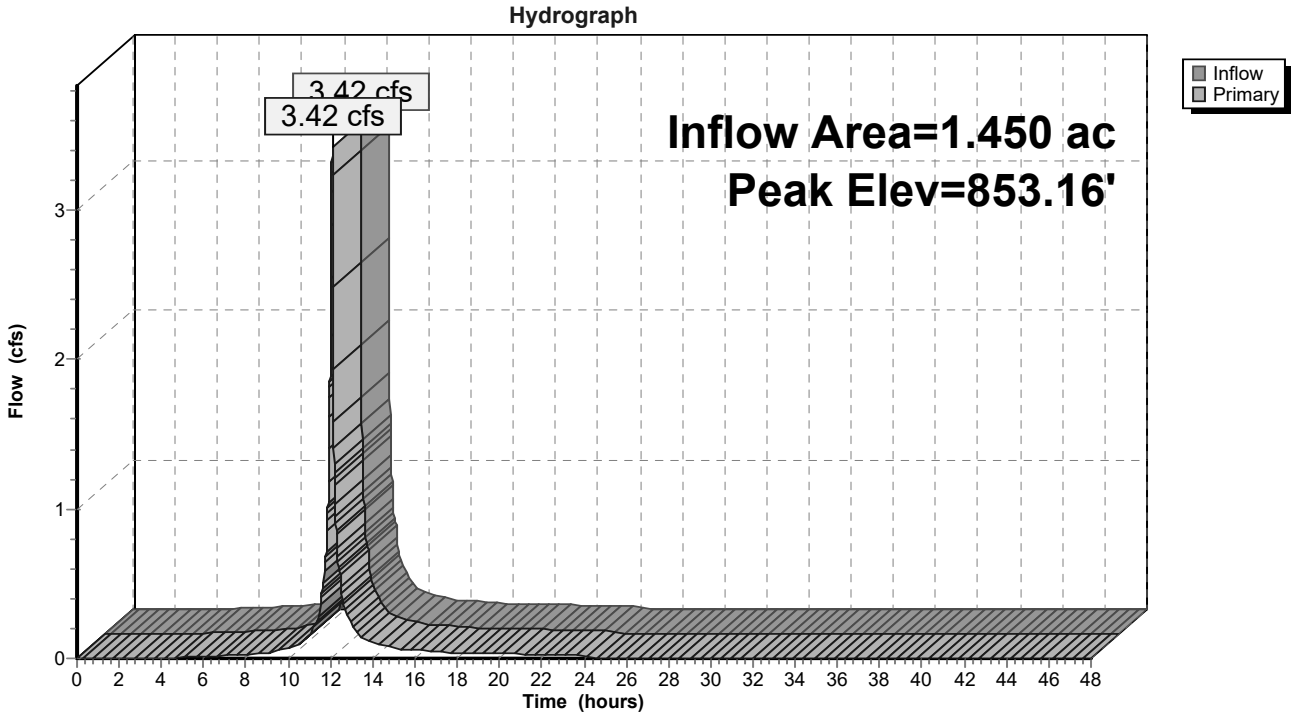
Inflow Area = 1.450 ac, 91.03% Impervious, Inflow Depth = 1.50" for 1-Year event
Inflow = 3.42 cfs @ 12.10 hrs, Volume= 0.181 af
Outflow = 3.42 cfs @ 12.10 hrs, Volume= 0.181 af, Atten= 0%, Lag= 0.0 min
Primary = 3.42 cfs @ 12.10 hrs, Volume= 0.181 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 853.16' @ 12.10 hrs
Flood Elev= 853.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	847.49'	**18.0" Round Culvert** L= 18.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 847.49' / 847.31' S= 0.0100 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 1.77 sf
#2	Device 1	852.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=3.41 cfs @ 12.10 hrs HW=853.16' (Free Discharge)
└**1=Culvert** (Passes 3.41 cfs of 18.87 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 3.41 cfs @ 1.66 fps)

Pond CB5:



Summary for Pond CB6:

[81] Warning: Exceeded Pond CB5 by 0.40' @ 12.10 hrs

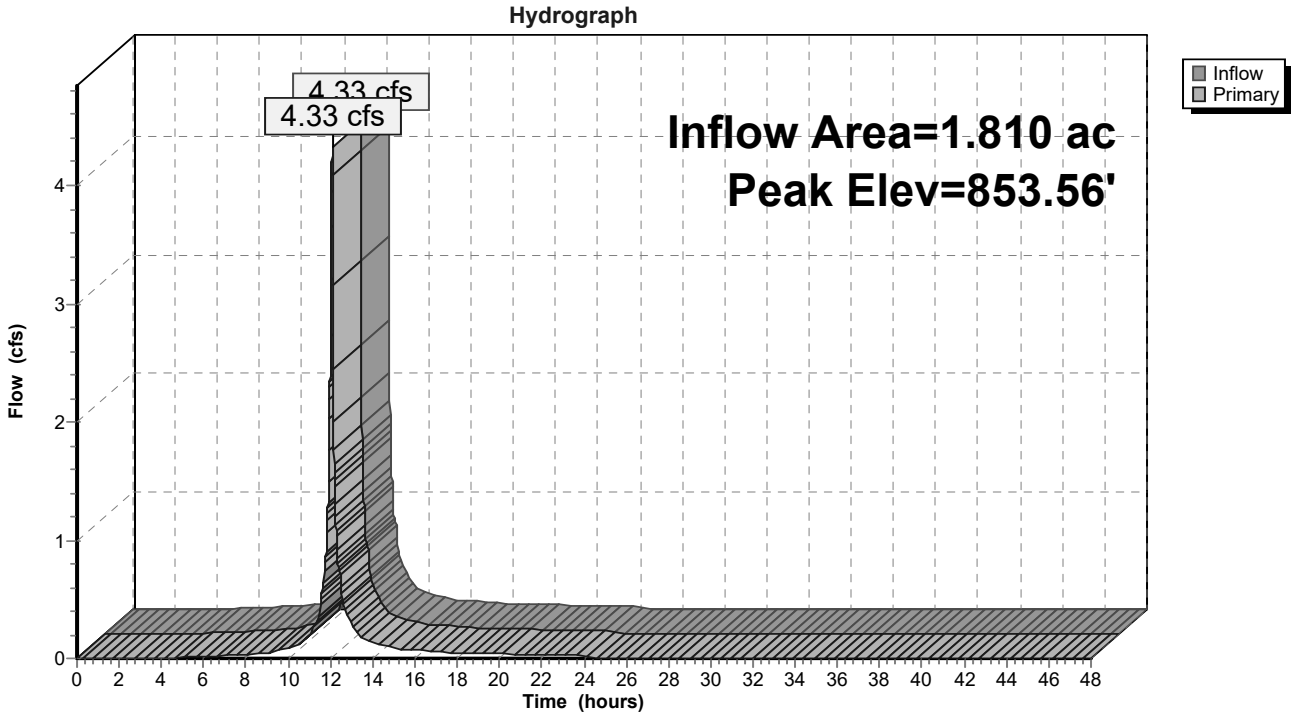
Inflow Area = 1.810 ac, 91.71% Impervious, Inflow Depth = 1.51" for 1-Year event
Inflow = 4.33 cfs @ 12.10 hrs, Volume= 0.228 af
Outflow = 4.33 cfs @ 12.10 hrs, Volume= 0.228 af, Atten= 0%, Lag= 0.0 min
Primary = 4.33 cfs @ 12.10 hrs, Volume= 0.228 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 853.56' @ 12.10 hrs
Flood Elev= 853.76'

Device	Routing	Invert	Outlet Devices
#1	Primary	847.31'	**18.0" Round Culvert** L= 25.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 847.31' / 847.05' S= 0.0104 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 1.77 sf
#2	Device 1	853.26'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=4.32 cfs @ 12.10 hrs HW=853.56' (Free Discharge)
↑**1=Culvert** (Passes 4.32 cfs of 19.96 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 4.32 cfs @ 1.79 fps)

Pond CB6:



Summary for Pond CB7:

[57] Hint: Peaked at 855.49' (Flood elevation advised)
[81] Warning: Exceeded Pond CB6 by 1.93' @ 12.10 hrs

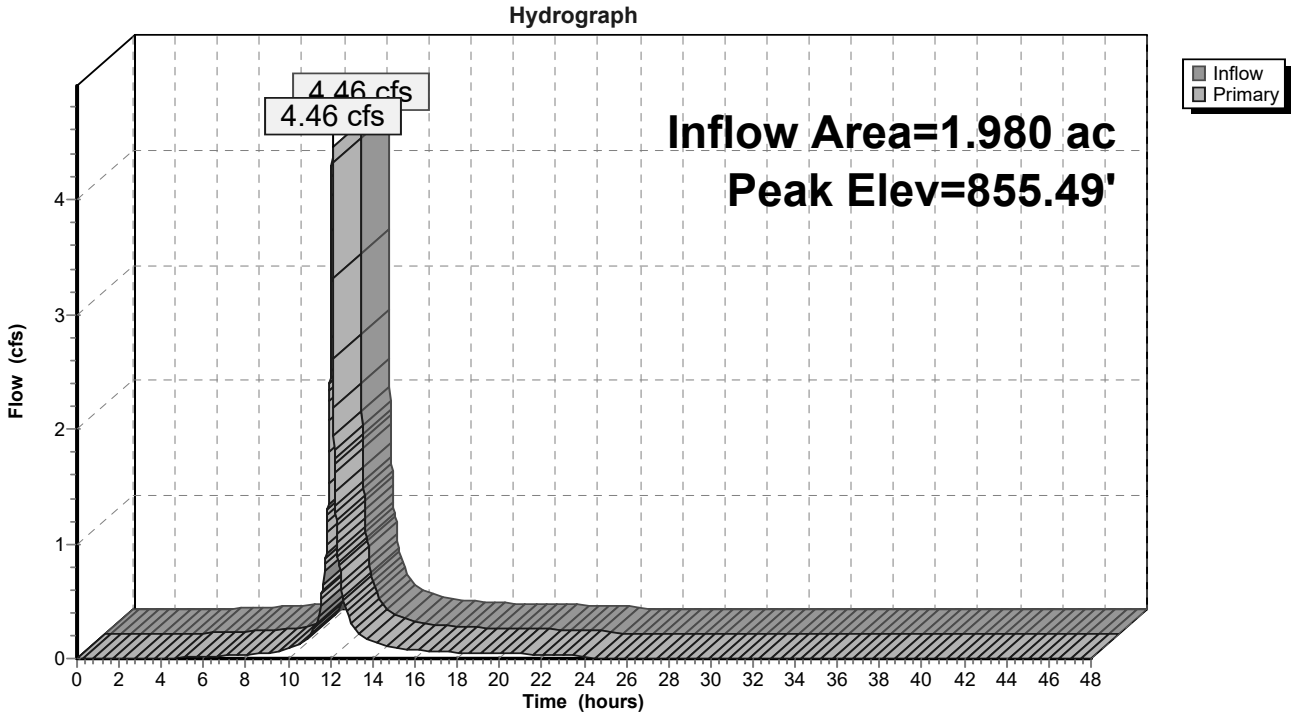
Inflow Area = 1.980 ac, 89.39% Impervious, Inflow Depth = 1.45" for 1-Year event
Inflow = 4.46 cfs @ 12.10 hrs, Volume= 0.239 af
Outflow = 4.46 cfs @ 12.10 hrs, Volume= 0.239 af, Atten= 0%, Lag= 0.0 min
Primary = 4.46 cfs @ 12.10 hrs, Volume= 0.239 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 855.49' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	848.00'	**Pump** Discharges@856.00' 8.0" Diam. x 570.0' Long Discharge, Hazen-Williams C= 130 Flow (gpm)= 0.0 500.0 1,000.0 1,500.0 2,000.0 2,500.0 2,600.0 Head (feet)= 168.00 150.00 133.00 115.00 90.00 60.00 45.00 -Loss (feet)= 0.00 2.89 10.41 22.07 37.59 56.83 61.11 =Lift (feet)= 168.00 147.11 122.59 92.93 52.41 3.17 -16.11
#2	Device 1	853.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=5.60 cfs @ 12.10 hrs HW=855.49' (Free Discharge)
↑**1=Pump** (Pump Controls 5.60 cfs)
↑**2=Orifice/Grate** (Passes 5.60 cfs of 27.16 cfs potential flow)

Pond CB7:


Hydrograph
4.46 cfs
4.46 cfs
Inflow Area=1.980 ac
Peak Elev=855.49'
Inflow
Primary
Flow (cfs)
0
1
2
3
4
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48
Time (hours)

Summary for Pond CB8:

[57] Hint: Peaked at 851.95' (Flood elevation advised)

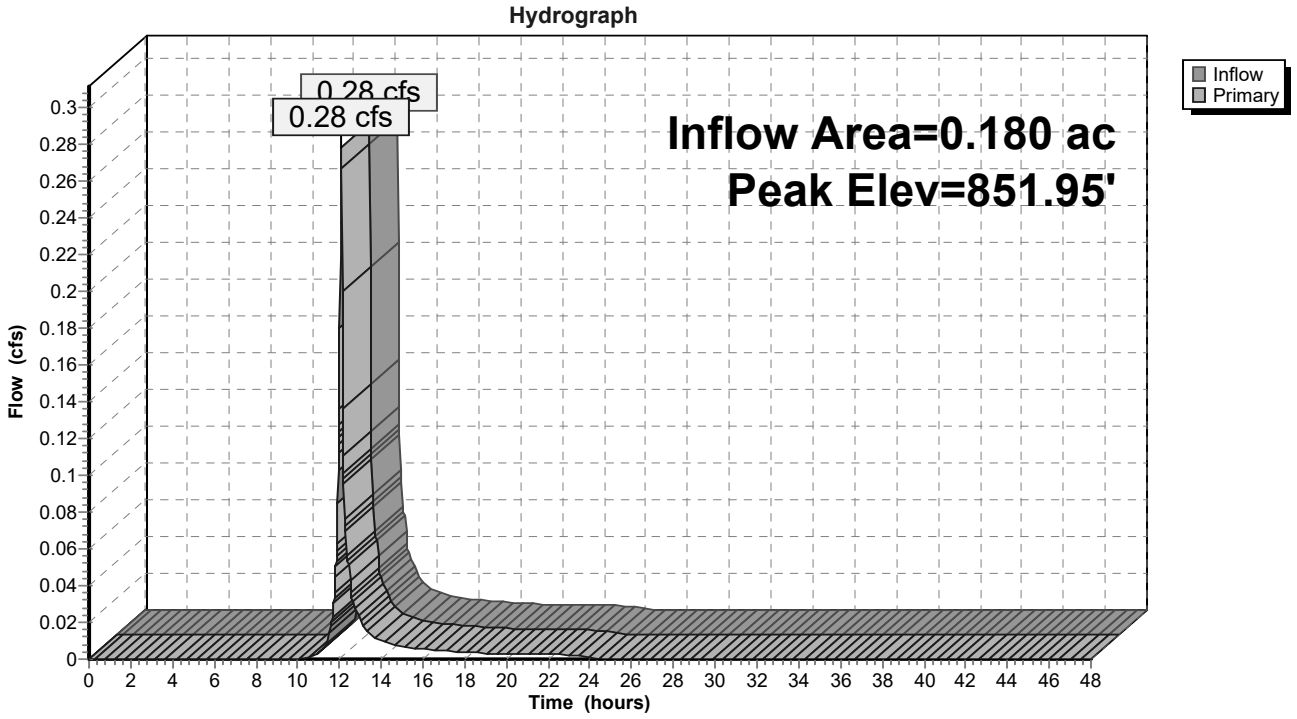
Inflow Area = 0.180 ac, 66.67% Impervious, Inflow Depth = 0.83" for 1-Year event
Inflow = 0.28 cfs @ 12.10 hrs, Volume= 0.013 af
Outflow = 0.28 cfs @ 12.10 hrs, Volume= 0.013 af, Atten= 0%, Lag= 0.0 min
Primary = 0.28 cfs @ 12.10 hrs, Volume= 0.013 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 851.95' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	849.34'	**12.0" Round Culvert** L= 72.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 849.34' / 848.64' S= 0.0097 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	851.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.27 cfs @ 12.10 hrs HW=851.95' (Free Discharge)
↑**1=Culvert** (Passes 0.27 cfs of 5.42 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 0.27 cfs @ 0.71 fps)

Pond CB8:



Summary for Pond CB9:

[57] Hint: Peaked at 852.24' (Flood elevation advised)
[81] Warning: Exceeded Pond CB8 by 2.80' @ 10.20 hrs

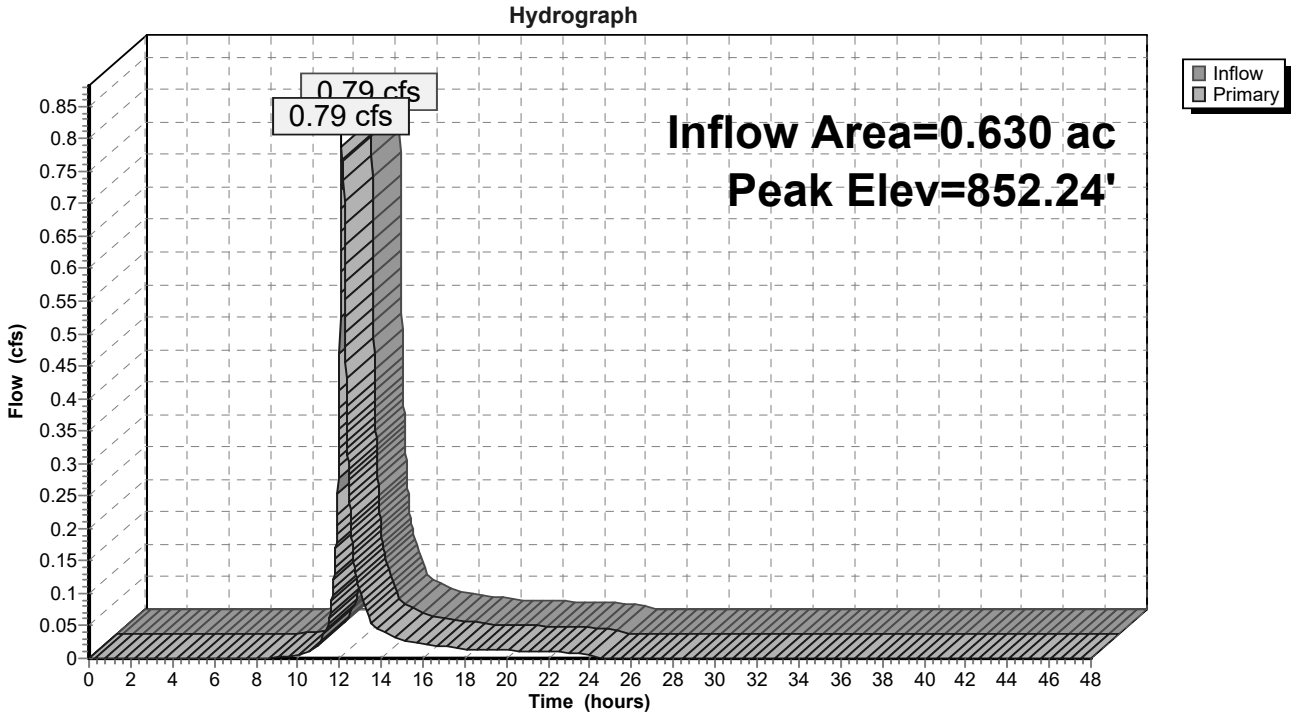
Inflow Area = 0.630 ac, 77.78% Impervious, Inflow Depth = 1.06" for 1-Year event
Inflow = 0.79 cfs @ 12.11 hrs, Volume= 0.055 af
Outflow = 0.79 cfs @ 12.11 hrs, Volume= 0.055 af, Atten= 0%, Lag= 0.0 min
Primary = 0.79 cfs @ 12.11 hrs, Volume= 0.055 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 852.24' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	848.59'	**12.0" Round Culvert** L= 97.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 848.59' / 847.15' S= 0.0148 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	852.14'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.78 cfs @ 12.11 hrs HW=852.24' (Free Discharge)
└**1=Culvert** (Passes 0.78 cfs of 6.64 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 0.78 cfs @ 1.01 fps)

Pond CB9:



Summary for Pond MH1:

[57] Hint: Peaked at 847.68' (Flood elevation advised)
[79] Warning: Submerged Pond CB10 Primary device # 1 INLET by 0.53'

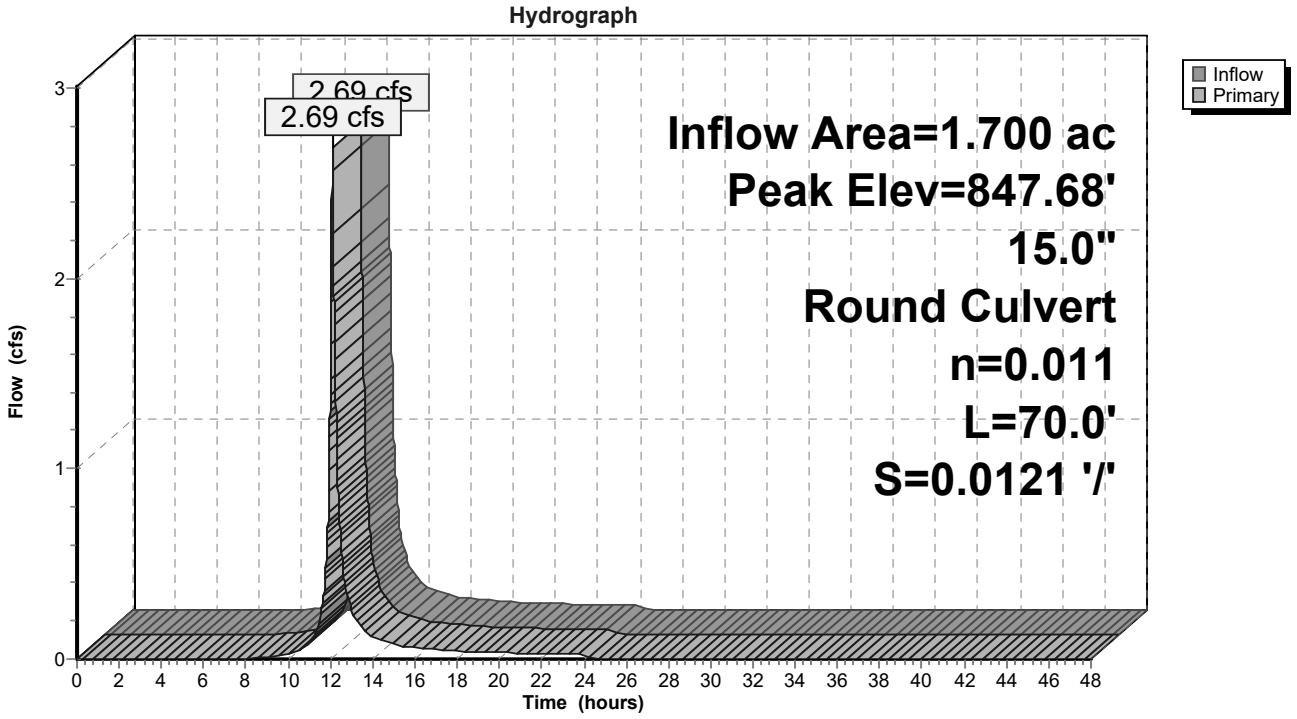
Inflow Area = 1.700 ac, 81.47% Impervious, Inflow Depth = 1.15" for 1-Year event
Inflow = 2.69 cfs @ 12.11 hrs, Volume= 0.162 af
Outflow = 2.69 cfs @ 12.11 hrs, Volume= 0.162 af, Atten= 0%, Lag= 0.0 min
Primary = 2.69 cfs @ 12.11 hrs, Volume= 0.162 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 847.68' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	846.85'	**15.0" Round Culvert** L= 70.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 846.85' / 846.00' S= 0.0121 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 1.23 sf

Primary OutFlow Max=2.67 cfs @ 12.11 hrs HW=847.68' (Free Discharge)
1=Culvert (Inlet Controls 2.67 cfs @ 3.10 fps)

Pond MH1:



Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment DA1: Runoff Area=0.150 ac 60.00% Impervious Runoff Depth=0.94"
Flow Length=160' Tc=3.4 min CN=83 Runoff=0.25 cfs 0.012 af

Subcatchment DA10: Runoff Area=0.390 ac 79.49% Impervious Runoff Depth=1.40"
Flow Length=175' Slope=0.0100 '/' Tc=9.7 min CN=90 Runoff=0.73 cfs 0.045 af

Subcatchment DA11: Runoff Area=0.040 ac 87.50% Impervious Runoff Depth=1.64"
Flow Length=37' Slope=0.0100 '/' Tc=0.8 min CN=93 Runoff=0.11 cfs 0.005 af

Subcatchment DA12: Runoff Area=0.110 ac 81.82% Impervious Runoff Depth=1.47"
Flow Length=100' Slope=0.0110 '/' Tc=1.8 min CN=91 Runoff=0.28 cfs 0.014 af

Subcatchment DA13: Runoff Area=0.420 ac 90.48% Impervious Runoff Depth=1.73"
Flow Length=188' Slope=0.0100 '/' Tc=2.6 min CN=94 Runoff=1.20 cfs 0.060 af

Subcatchment DA14: Runoff Area=0.110 ac 72.73% Impervious Runoff Depth=1.25"
Flow Length=60' Slope=0.0100 '/' Tc=1.2 min CN=88 Runoff=0.25 cfs 0.011 af

Subcatchment DA15: Runoff Area=0.220 ac 68.18% Impervious Runoff Depth=1.12"
Flow Length=91' Slope=0.0100 '/' Tc=7.4 min CN=86 Runoff=0.37 cfs 0.021 af

Subcatchment DA16: Runoff Area=0.090 ac 66.67% Impervious Runoff Depth=1.12"
Flow Length=50' Slope=0.0100 '/' Tc=8.7 min CN=86 Runoff=0.14 cfs 0.008 af

Subcatchment DA17: Runoff Area=0.070 ac 42.86% Impervious Runoff Depth=0.65"
Flow Length=44' Slope=0.0100 '/' Tc=7.8 min CN=77 Runoff=0.06 cfs 0.004 af

Subcatchment DA2: Runoff Area=0.080 ac 50.00% Impervious Runoff Depth=0.79"
Flow Length=130' Tc=8.3 min CN=80 Runoff=0.09 cfs 0.005 af

Subcatchment DA3: Runoff Area=0.150 ac 100.00% Impervious Runoff Depth=2.12"
Flow Length=160' Slope=0.0143 '/' Tc=2.0 min CN=98 Runoff=0.48 cfs 0.027 af

Subcatchment DA4: Runoff Area=0.370 ac 97.30% Impervious Runoff Depth=2.02"
Flow Length=196' Slope=0.0143 '/' Tc=2.3 min CN=97 Runoff=1.17 cfs 0.062 af

Subcatchment DA5: Runoff Area=0.700 ac 97.14% Impervious Runoff Depth=2.02"
Flow Length=200' Slope=0.0150 '/' Tc=2.3 min CN=97 Runoff=2.21 cfs 0.118 af

Subcatchment DA6: Runoff Area=0.360 ac 94.44% Impervious Runoff Depth=1.91"
Flow Length=214' Slope=0.0150 '/' Tc=2.4 min CN=96 Runoff=1.10 cfs 0.057 af

Subcatchment DA7: Runoff Area=0.170 ac 64.71% Impervious Runoff Depth=1.06"
Flow Length=196' Slope=0.0100 '/' Tc=9.3 min CN=85 Runoff=0.25 cfs 0.015 af

Subcatchment DA8: Runoff Area=0.180 ac 66.67% Impervious Runoff Depth=1.12"
Flow Length=125' Slope=0.0172 '/' Tc=1.5 min CN=86 Runoff=0.37 cfs 0.017 af

Subcatchment DA9: Runoff Area=0.450 ac 82.22% Impervious Runoff Depth=1.47"
Flow Length=293' Slope=0.0100 '/' Tc=10.4 min CN=91 Runoff=0.86 cfs 0.055 af

Pond CB1: Peak Elev=854.04' Inflow=0.25 cfs 0.012 af
Outflow=0.25 cfs 0.012 af

Pond CB10: Peak Elev=853.08' Inflow=3.19 cfs 0.197 af
Outflow=3.19 cfs 0.197 af

Pond CB11: Peak Elev=852.13' Inflow=0.11 cfs 0.005 af
Outflow=0.11 cfs 0.005 af

Pond CB12: Peak Elev=852.52' Inflow=0.40 cfs 0.019 af
Outflow=0.40 cfs 0.019 af

Pond CB13: Peak Elev=852.98' Inflow=1.20 cfs 0.060 af
Outflow=1.20 cfs 0.060 af

Pond CB14: Peak Elev=855.47' Inflow=0.25 cfs 0.011 af
Outflow=0.25 cfs 0.011 af

Pond CB15: Peak Elev=855.58' Inflow=3.85 cfs 0.237 af
Outflow=3.85 cfs 0.237 af

Pond CB16: Peak Elev=855.28' Inflow=0.14 cfs 0.008 af
Outflow=0.14 cfs 0.008 af

Pond CB17: Peak Elev=855.73' Inflow=3.90 cfs 0.241 af
Outflow=3.90 cfs 0.241 af

Pond CB2: Peak Elev=854.69' Inflow=0.32 cfs 0.017 af
Outflow=0.32 cfs 0.017 af

Pond CB3: Peak Elev=854.46' Inflow=0.80 cfs 0.044 af
Outflow=0.80 cfs 0.044 af

Pond CB4: Peak Elev=853.70' Inflow=1.96 cfs 0.106 af
Outflow=1.96 cfs 0.106 af

Pond CB5: Peak Elev=853.19' Inflow=4.16 cfs 0.223 af
Outflow=4.16 cfs 0.223 af

Pond CB6: Peak Elev=853.60' Inflow=5.27 cfs 0.281 af
Outflow=5.27 cfs 0.281 af

Pond CB7: Peak Elev=855.93' Inflow=5.45 cfs 0.296 af
Outflow=5.45 cfs 0.296 af

Pond CB8: Peak Elev=851.96' Inflow=0.37 cfs 0.017 af
Outflow=0.37 cfs 0.017 af

Pond CB9: Peak Elev=852.26' Inflow=1.03 cfs 0.072 af
Outflow=1.03 cfs 0.072 af

Pond MH1: Peak Elev=847.82' Inflow=3.41 cfs 0.208 af
15.0" Round Culvert n=0.011 L=70.0' S=0.0121 '/' Outflow=3.41 cfs 0.208 af

Total Runoff Area = 4.060 ac Runoff Volume = 0.537 af Average Runoff Depth = 1.59"
16.38% Pervious = 0.665 ac 83.62% Impervious = 3.395 ac

Summary for Subcatchment DA1:

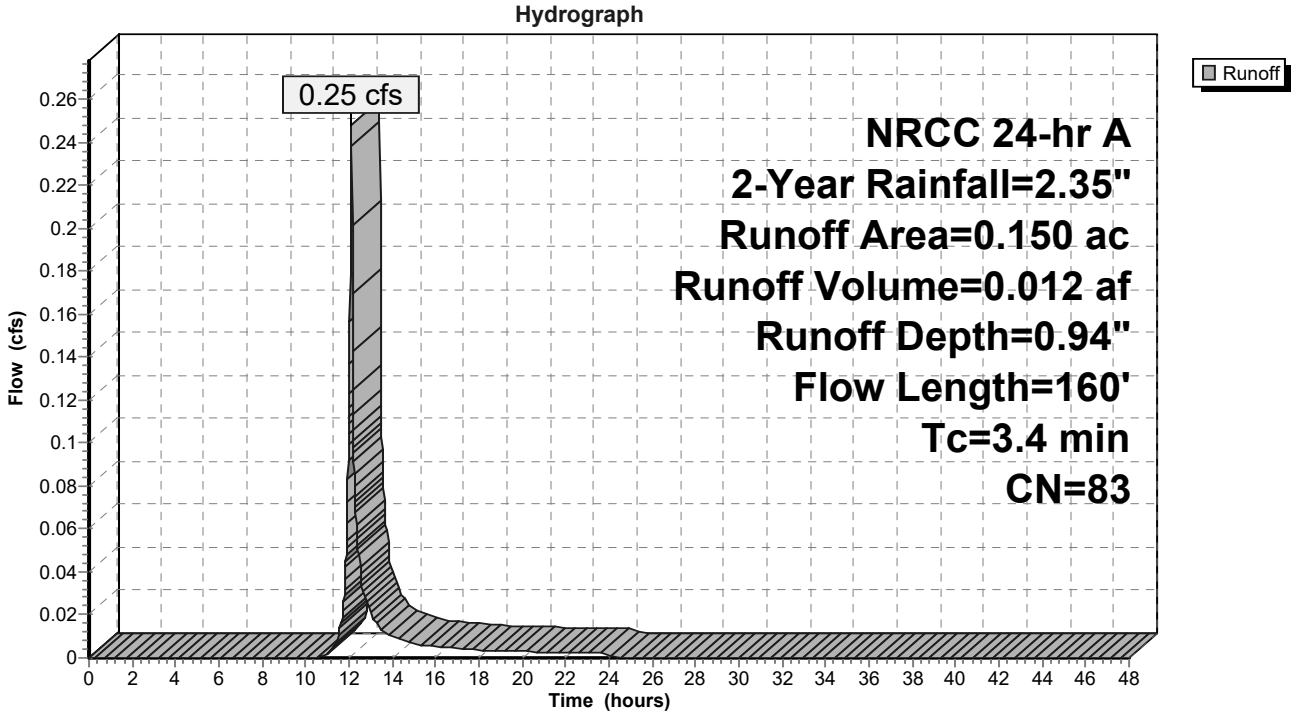
Runoff = 0.25 cfs @ 12.11 hrs, Volume= 0.012 af, Depth= 0.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 2-Year Rainfall=2.35"

Area (ac)	CN	Description
0.060	61	>75% Grass cover, Good, HSG B
0.090	98	Paved parking, HSG B
0.150	83	Weighted Average
0.060		40.00% Pervious Area
0.090		60.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	70	0.0100	0.83		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.35"
2.0	90	0.0110	0.73		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.4	160	Total			

Subcatchment DA1:



Summary for Subcatchment DA10:

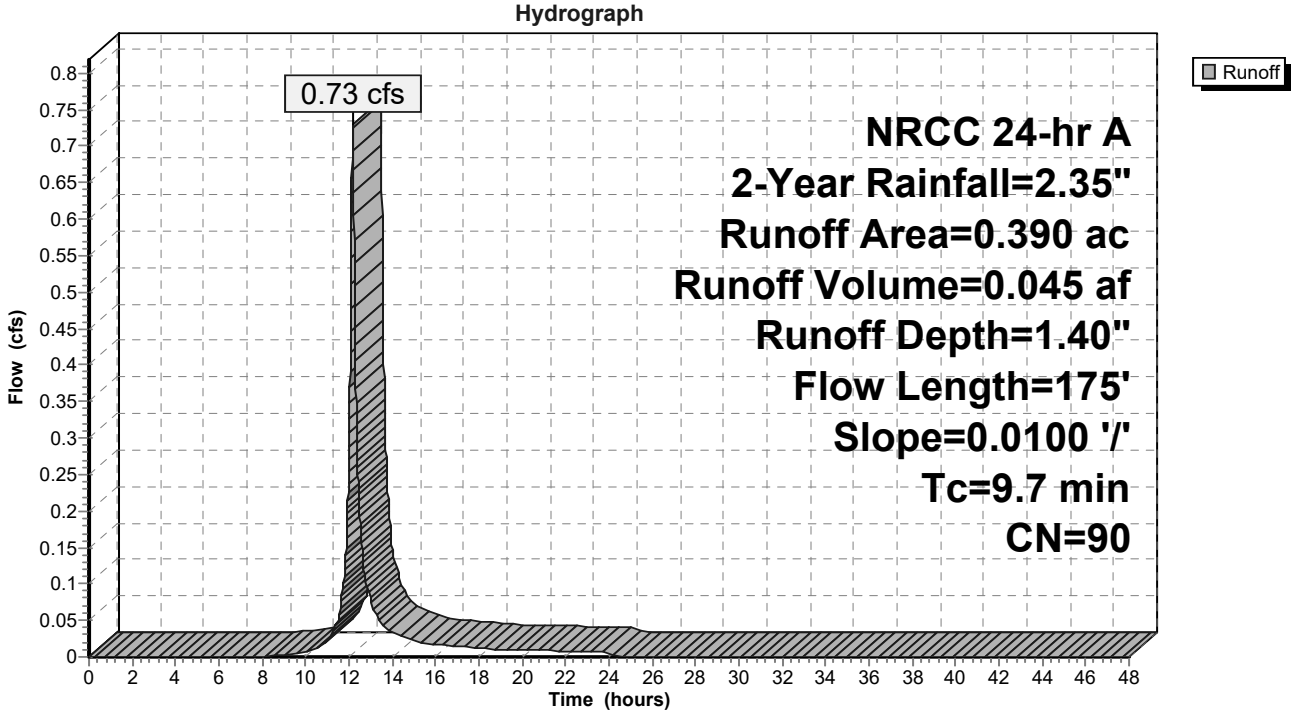
Runoff = 0.73 cfs @ 12.17 hrs, Volume= 0.045 af, Depth= 1.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 2-Year Rainfall=2.35"

Area (ac)	CN	Description
0.080	61	>75% Grass cover, Good, HSG B
0.310	98	Paved parking, HSG B
0.390	90	Weighted Average
0.080		20.51% Pervious Area
0.310		79.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	50	0.0100	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.35"
1.0	125	0.0100	2.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
9.7	175	Total			

Subcatchment DA10:



Summary for Subcatchment DA11:

[49] Hint: Tc<2dt may require smaller dt

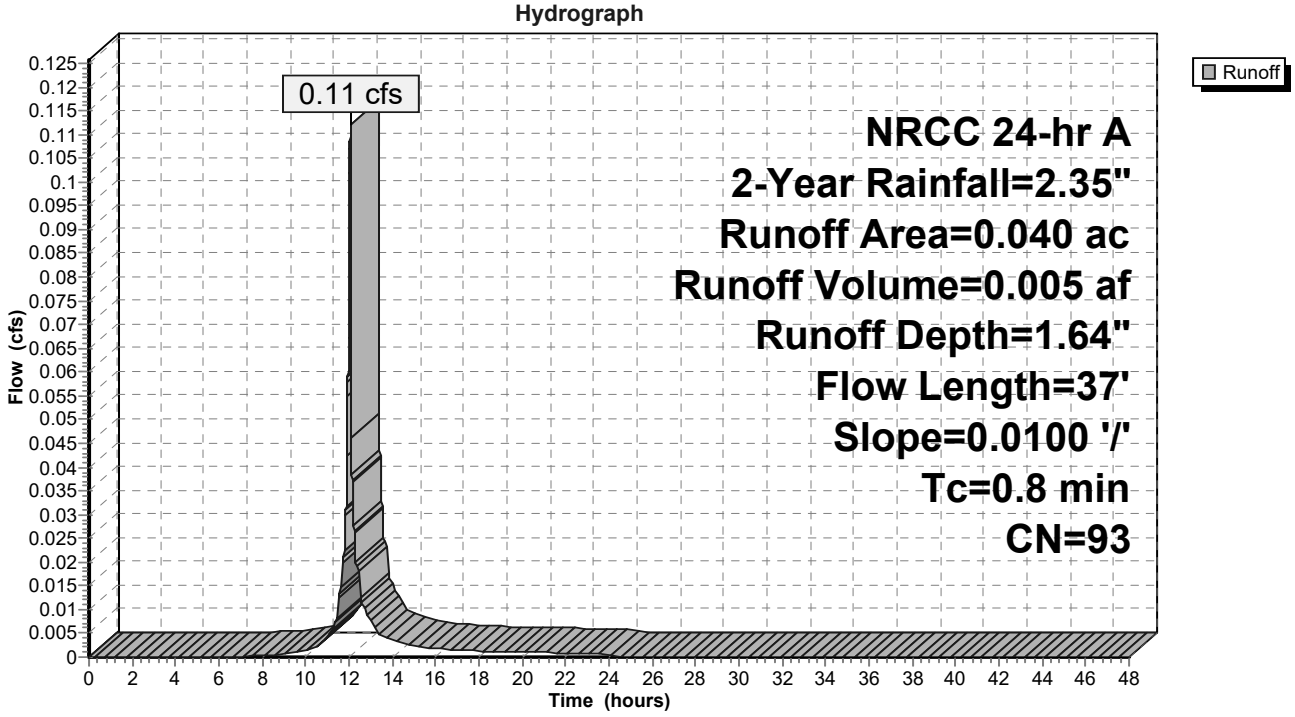
Runoff = 0.11 cfs @ 12.10 hrs, Volume= 0.005 af, Depth= 1.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 2-Year Rainfall=2.35"

Area (ac)	CN	Description
0.005	61	>75% Grass cover, Good, HSG B
0.035	98	Paved parking, HSG B
0.040	93	Weighted Average
0.005		12.50% Pervious Area
0.035		87.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	37	0.0100	0.73		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.35"

Subcatchment DA11:



Summary for Subcatchment DA12:

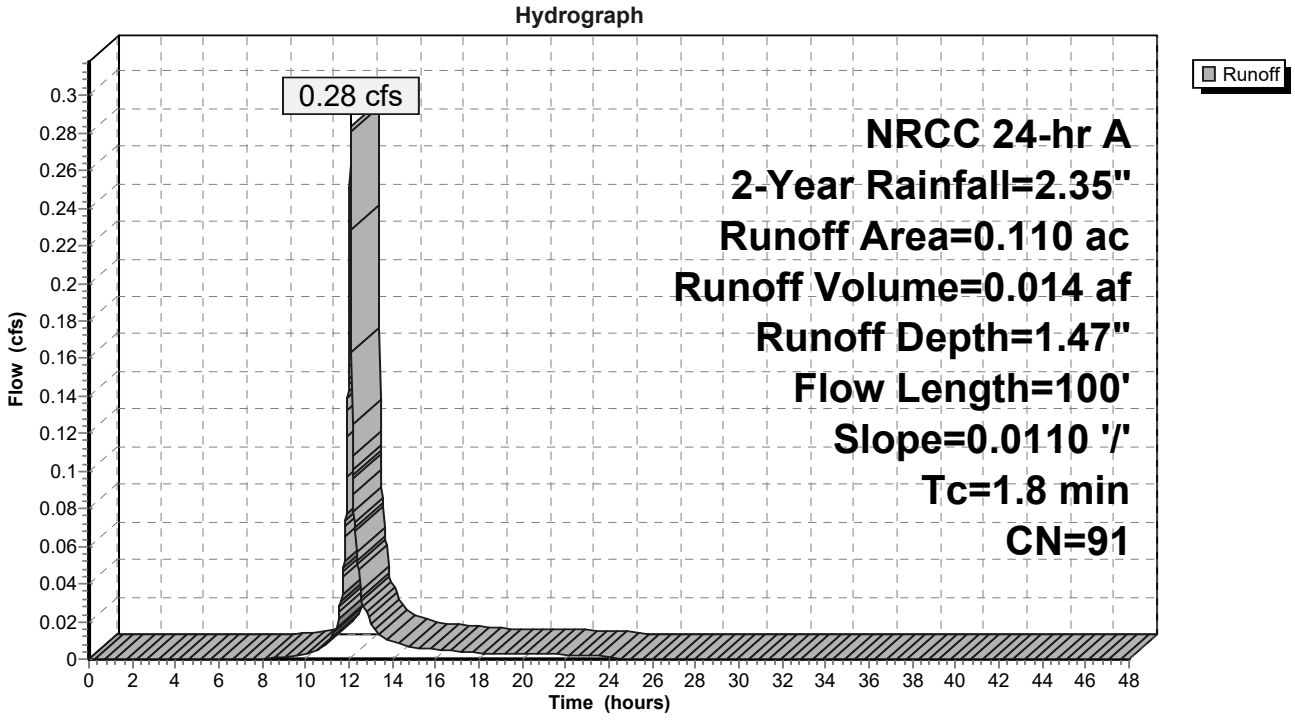
Runoff = 0.28 cfs @ 12.10 hrs, Volume= 0.014 af, Depth= 1.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 2-Year Rainfall=2.35"

Area (ac)	CN	Description
0.020	61	>75% Grass cover, Good, HSG B
0.090	98	Paved parking, HSG B
0.110	91	Weighted Average
0.020		18.18% Pervious Area
0.090		81.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	100	0.0110	0.93		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.35"

Subcatchment DA12:



Summary for Subcatchment DA13:

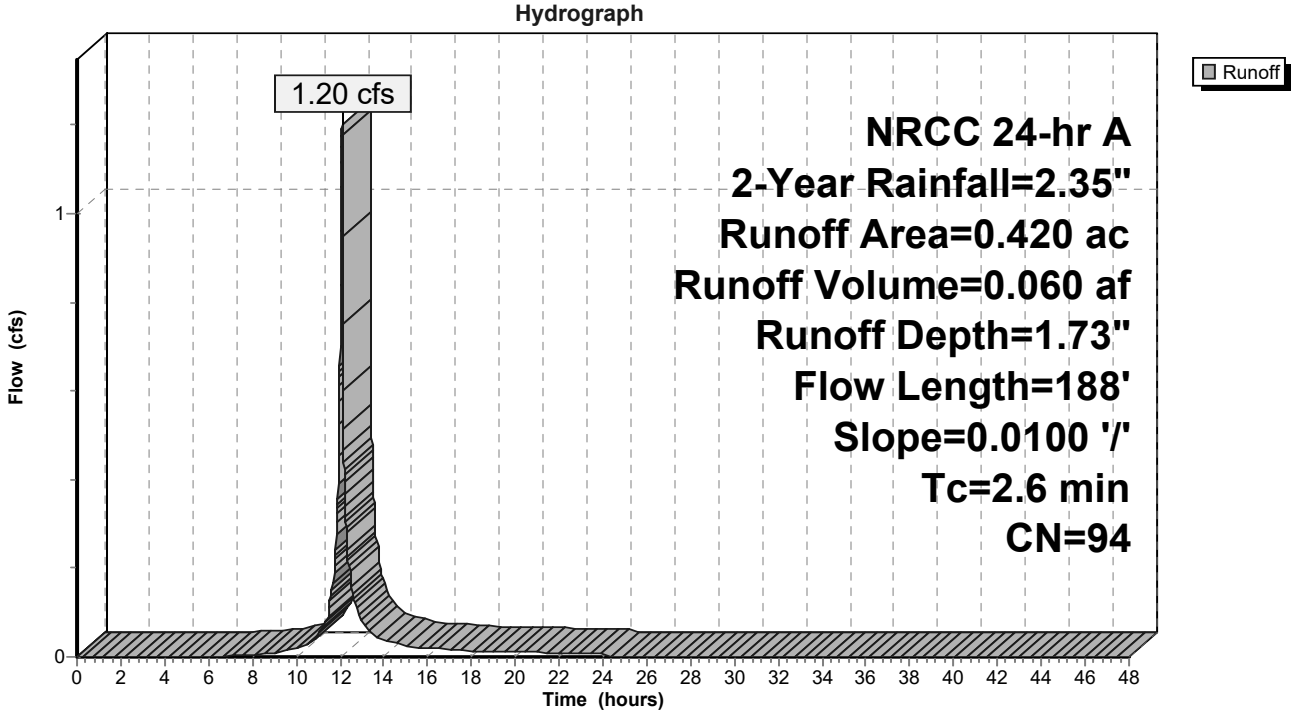
Runoff = 1.20 cfs @ 12.10 hrs, Volume= 0.060 af, Depth= 1.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 2-Year Rainfall=2.35"

Area (ac)	CN	Description
0.040	61	>75% Grass cover, Good, HSG B
0.380	98	Paved parking, HSG B
0.420	94	Weighted Average
0.040		9.52% Pervious Area
0.380		90.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	100	0.0100	0.89		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.35"
0.7	88	0.0100	2.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.6	188	Total			

Subcatchment DA13:



Summary for Subcatchment DA14:

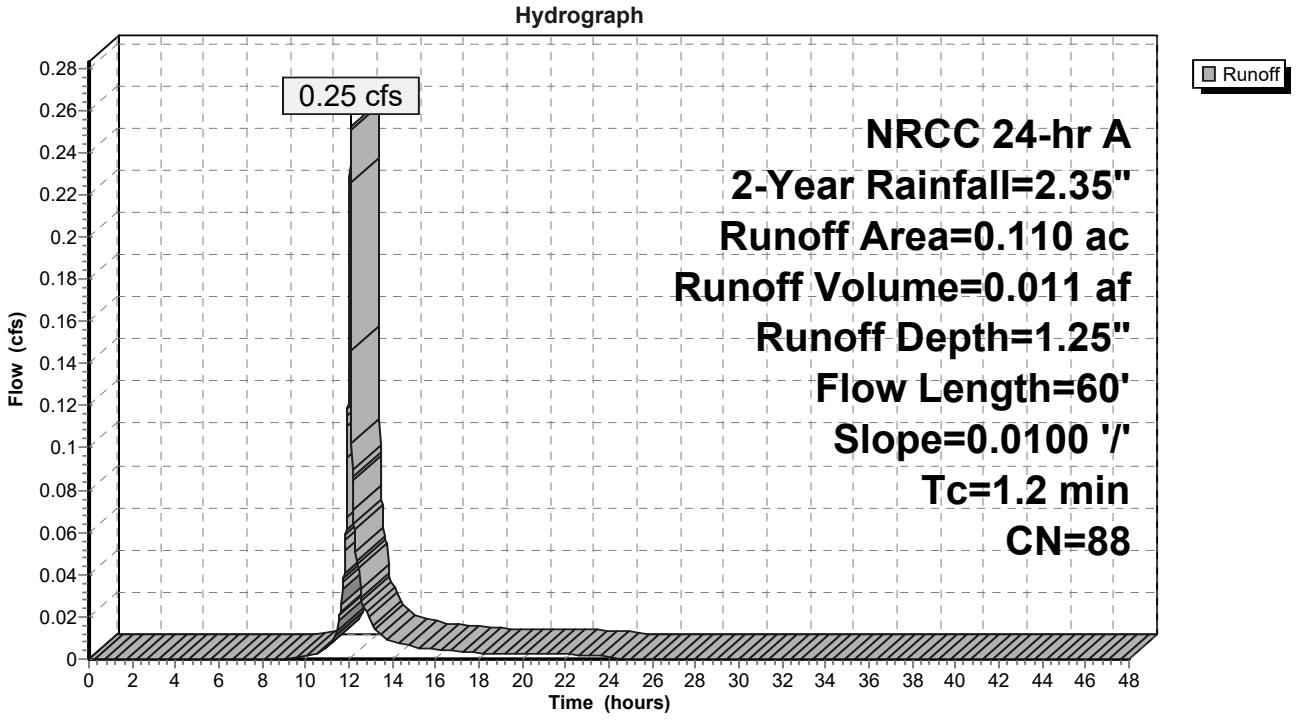
Runoff = 0.25 cfs @ 12.10 hrs, Volume= 0.011 af, Depth= 1.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 2-Year Rainfall=2.35"

Area (ac)	CN	Description
0.030	61	>75% Grass cover, Good, HSG B
0.080	98	Paved parking, HSG B
0.110	88	Weighted Average
0.030		27.27% Pervious Area
0.080		72.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	60	0.0100	0.81		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.35"

Subcatchment DA14:



Summary for Subcatchment DA15:

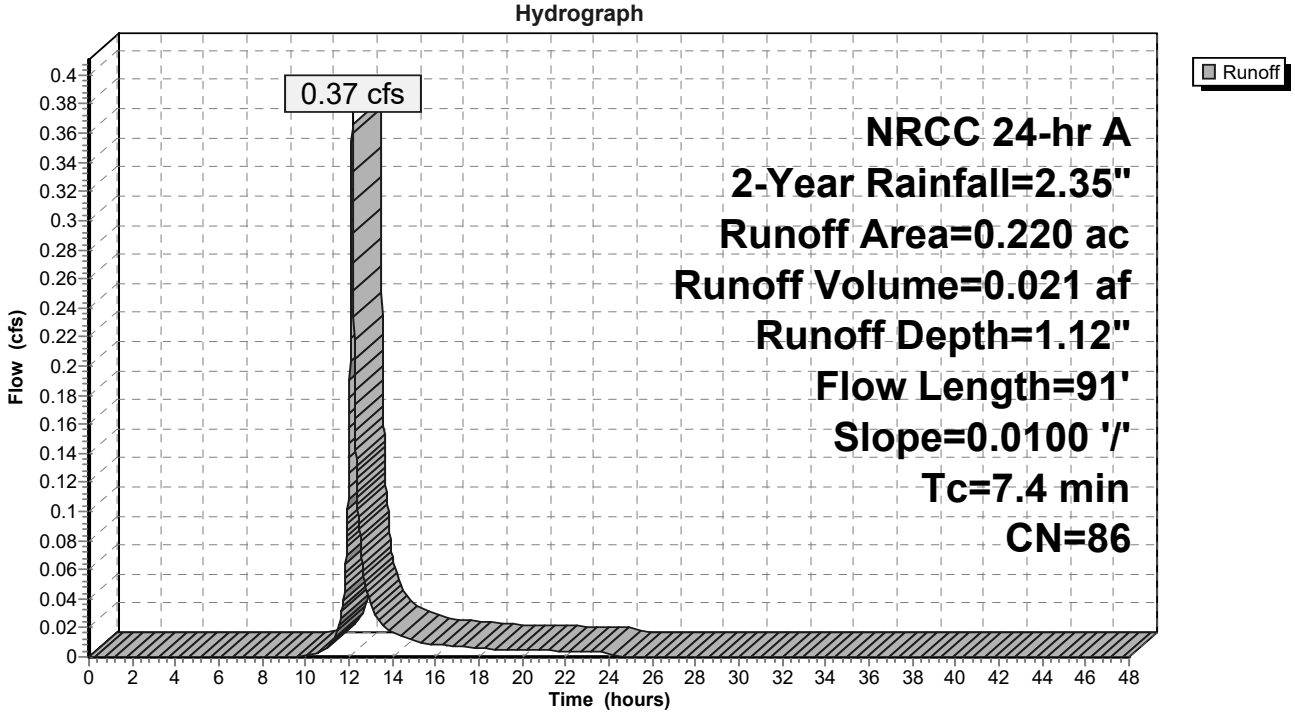
Runoff = 0.37 cfs @ 12.15 hrs, Volume= 0.021 af, Depth= 1.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 2-Year Rainfall=2.35"

Area (ac)	CN	Description
0.070	61	>75% Grass cover, Good, HSG B
0.150	98	Paved parking, HSG B
0.220	86	Weighted Average
0.070		31.82% Pervious Area
0.150		68.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	38	0.0100	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.35"
0.4	53	0.0100	2.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
7.4	91	Total			

Subcatchment DA15:



Summary for Subcatchment DA16:

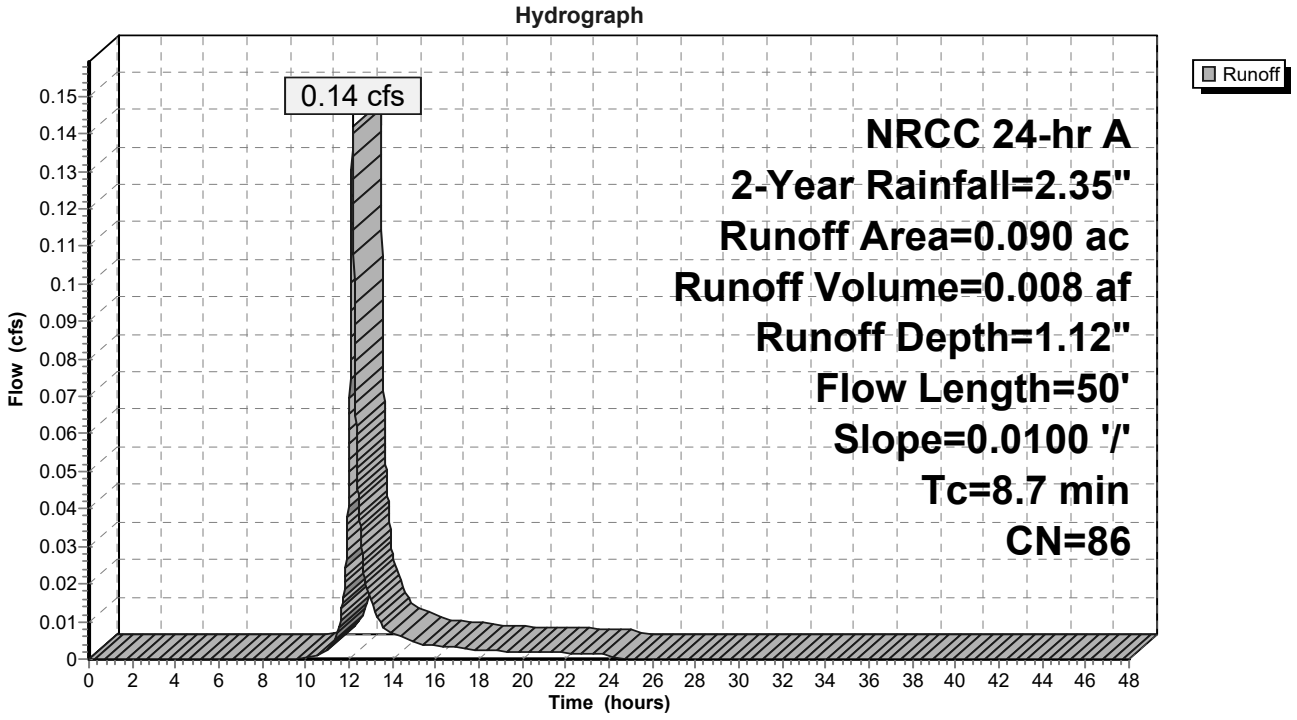
Runoff = 0.14 cfs @ 12.16 hrs, Volume= 0.008 af, Depth= 1.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 2-Year Rainfall=2.35"

Area (ac)	CN	Description
0.030	61	>75% Grass cover, Good, HSG B
0.060	98	Paved parking, HSG B
0.090	86	Weighted Average
0.030		33.33% Pervious Area
0.060		66.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	50	0.0100	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.35"

Subcatchment DA16:



Summary for Subcatchment DA17:

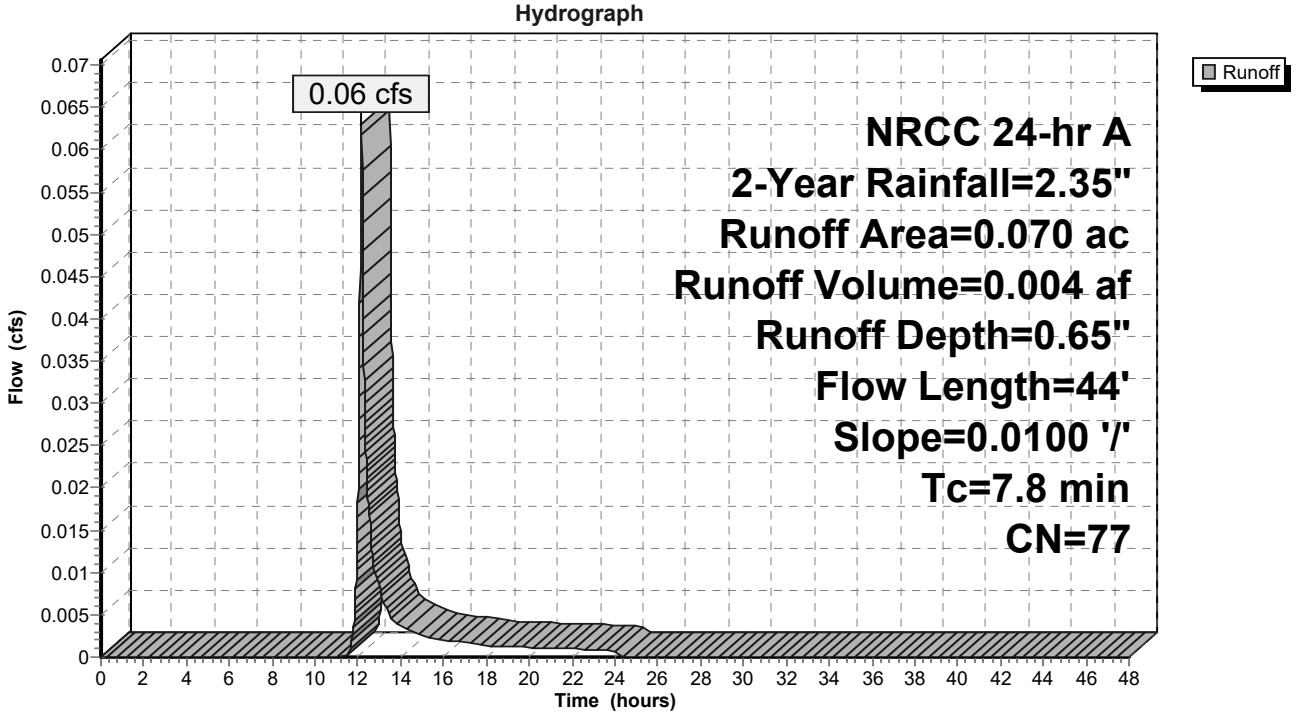
Runoff = 0.06 cfs @ 12.16 hrs, Volume= 0.004 af, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 2-Year Rainfall=2.35"

Area (ac)	CN	Description
0.040	61	>75% Grass cover, Good, HSG B
0.030	98	Paved parking, HSG B
0.070	77	Weighted Average
0.040		57.14% Pervious Area
0.030		42.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	44	0.0100	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.35"

Subcatchment DA17:



Summary for Subcatchment DA2:

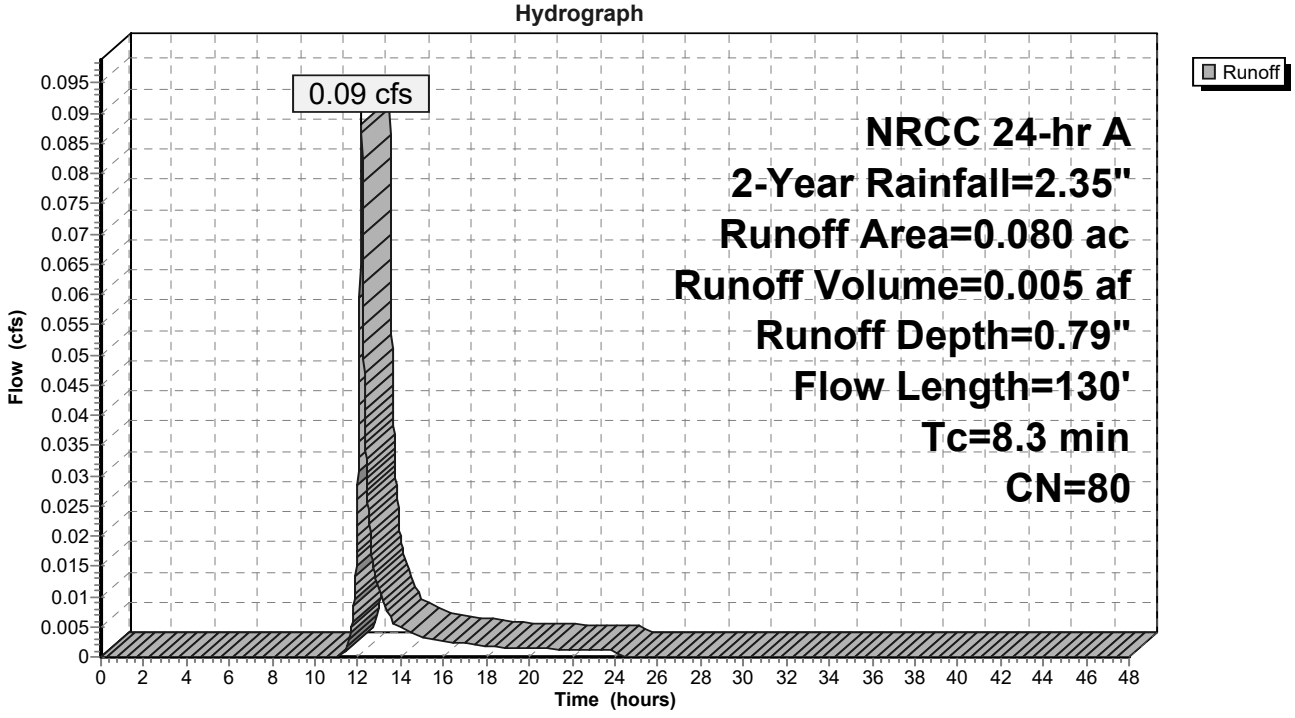
Runoff = 0.09 cfs @ 12.16 hrs, Volume= 0.005 af, Depth= 0.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 2-Year Rainfall=2.35"

Area (ac)	CN	Description
0.040	61	>75% Grass cover, Good, HSG B
0.040	98	Paved parking, HSG B
0.080	80	Weighted Average
0.040		50.00% Pervious Area
0.040		50.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	40	0.0143	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.35"
2.0	90	0.0014	0.76		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
8.3	130	Total			

Subcatchment DA2:



Summary for Subcatchment DA3:

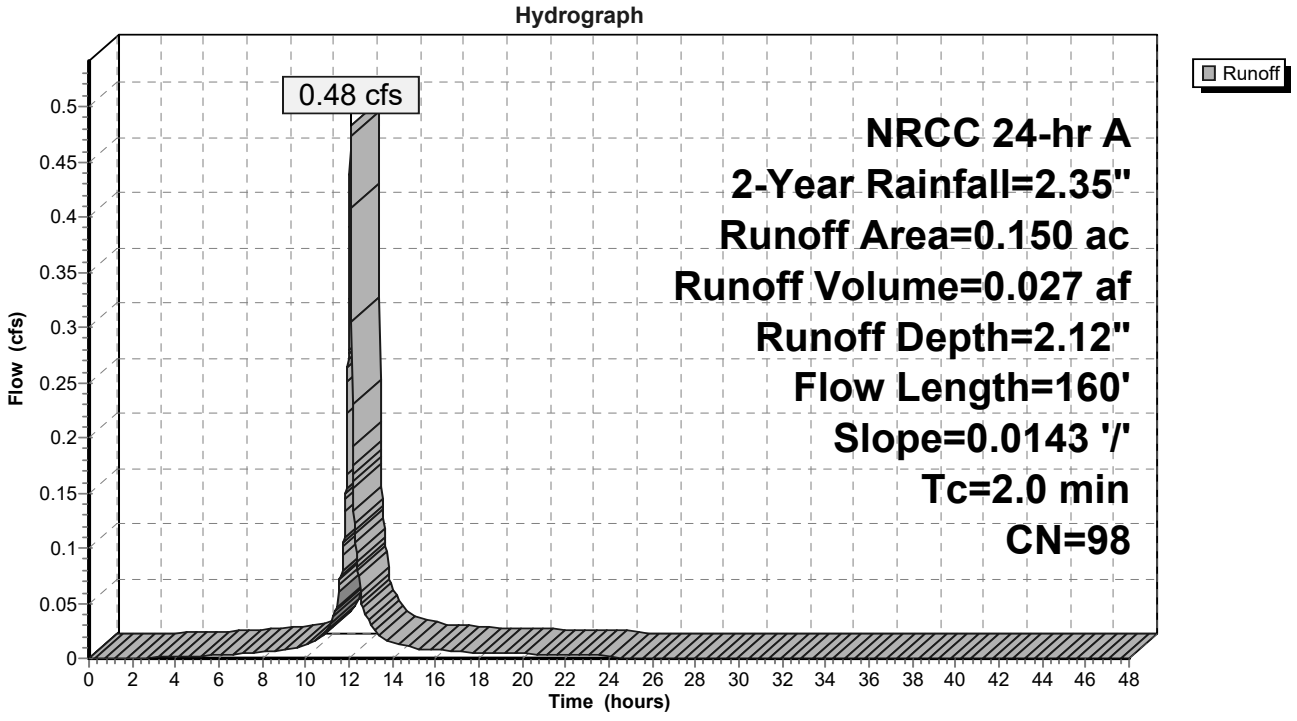
Runoff = 0.48 cfs @ 12.10 hrs, Volume= 0.027 af, Depth= 2.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 2-Year Rainfall=2.35"

Area (ac)	CN	Description
0.150	98	Paved parking, HSG B
0.150		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0143	1.03		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.35"
0.4	60	0.0143	2.43		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.0	160	Total			

Subcatchment DA3:



Summary for Subcatchment DA4:

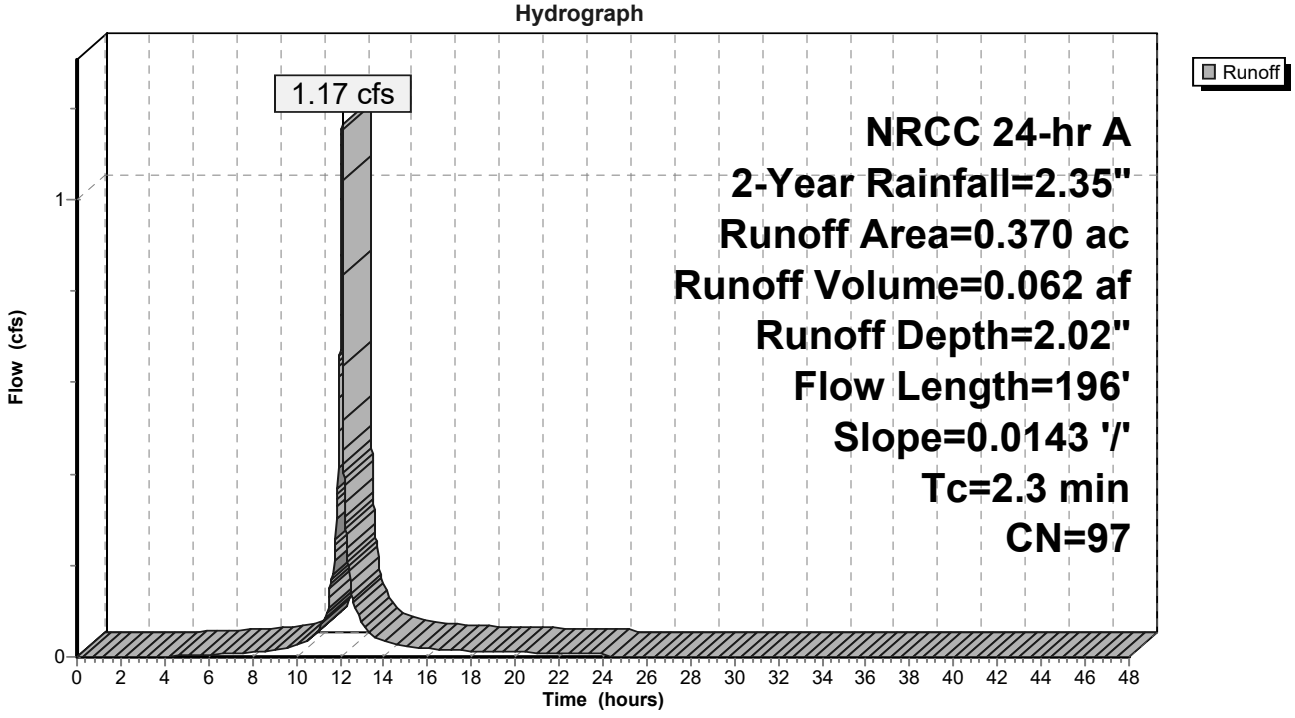
Runoff = 1.17 cfs @ 12.10 hrs, Volume= 0.062 af, Depth= 2.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 2-Year Rainfall=2.35"

Area (ac)	CN	Description
0.010	61	>75% Grass cover, Good, HSG B
0.360	98	Paved parking, HSG B
0.370	97	Weighted Average
0.010		2.70% Pervious Area
0.360		97.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0143	1.03		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.35"
0.7	96	0.0143	2.43		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.3	196	Total			

Subcatchment DA4:



Summary for Subcatchment DA5:

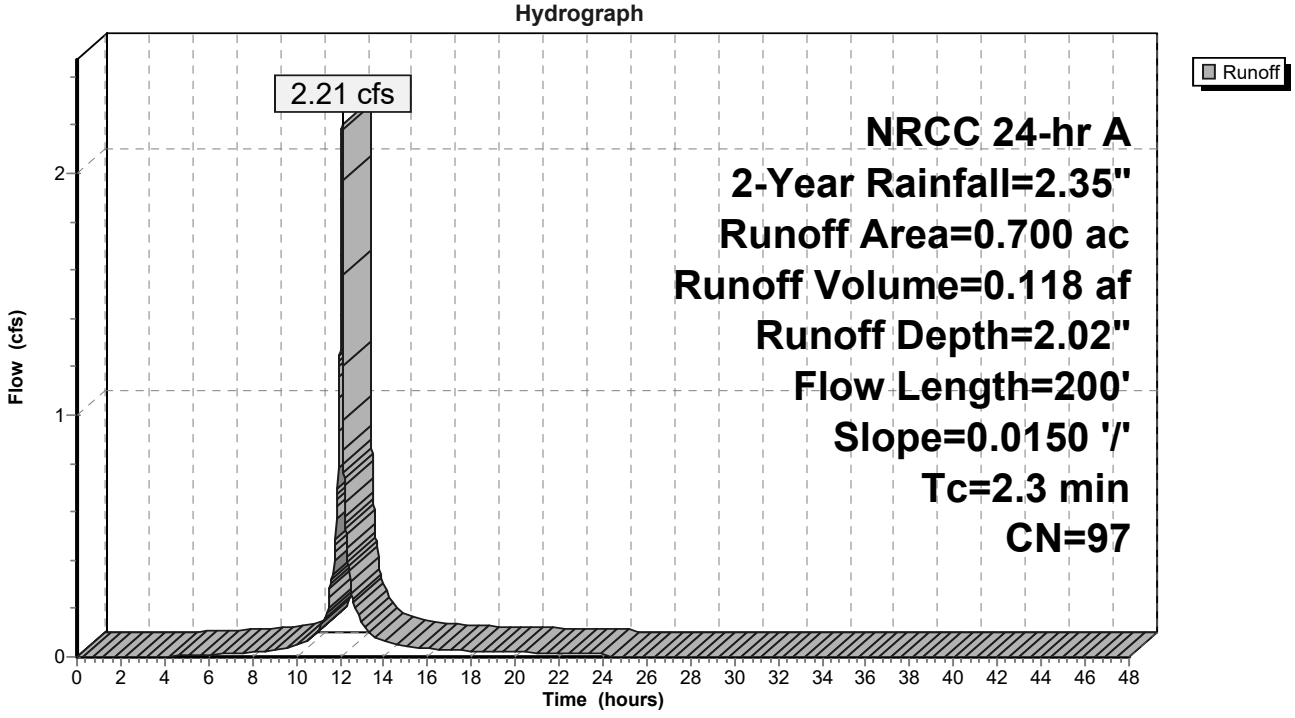
Runoff = 2.21 cfs @ 12.10 hrs, Volume= 0.118 af, Depth= 2.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 2-Year Rainfall=2.35"

Area (ac)	CN	Description
0.020	61	>75% Grass cover, Good, HSG B
0.680	98	Paved parking, HSG B
0.700	97	Weighted Average
0.020		2.86% Pervious Area
0.680		97.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0150	1.05		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.35"
0.7	100	0.0150	2.49		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.3	200	Total			

Subcatchment DA5:



Summary for Subcatchment DA6:

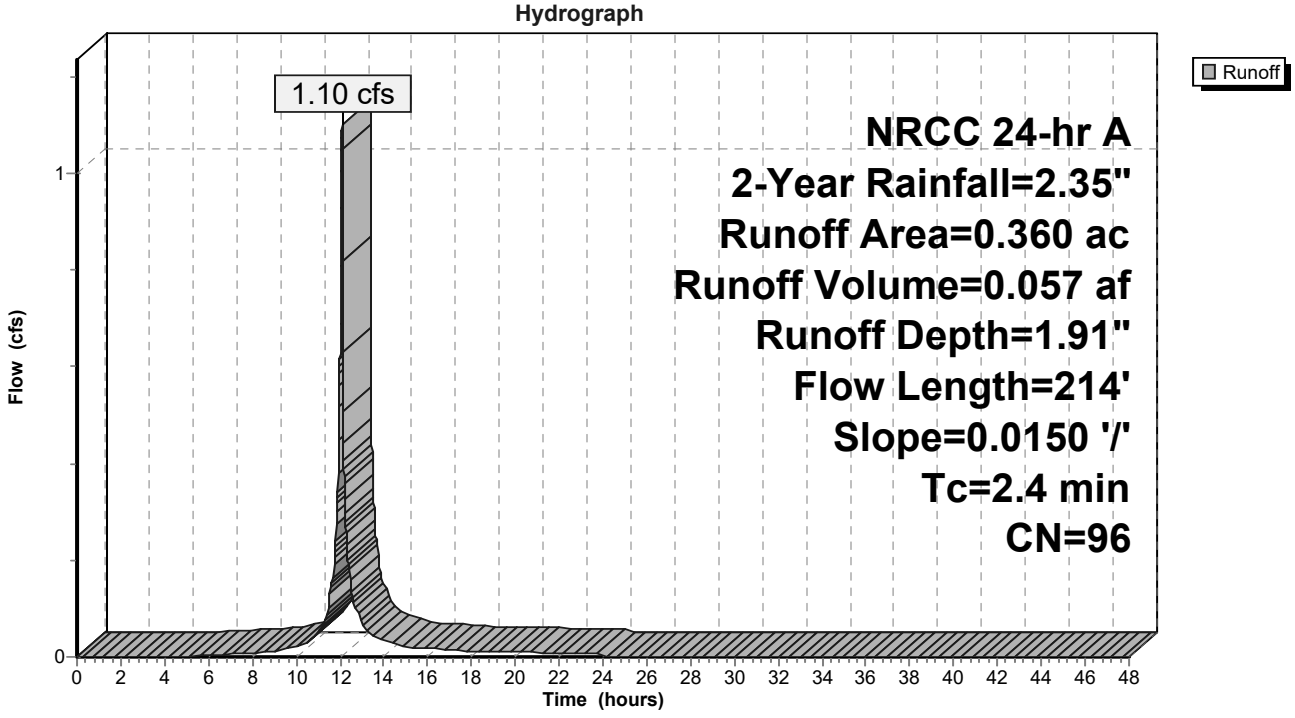
Runoff = 1.10 cfs @ 12.10 hrs, Volume= 0.057 af, Depth= 1.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 2-Year Rainfall=2.35"

Area (ac)	CN	Description
0.020	61	>75% Grass cover, Good, HSG B
0.340	98	Paved parking, HSG B
0.360	96	Weighted Average
0.020		5.56% Pervious Area
0.340		94.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.6	100	0.0150	1.05		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.35"
0.8	114	0.0150	2.49		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.4	214	Total			

Subcatchment DA6:



Summary for Subcatchment DA7:

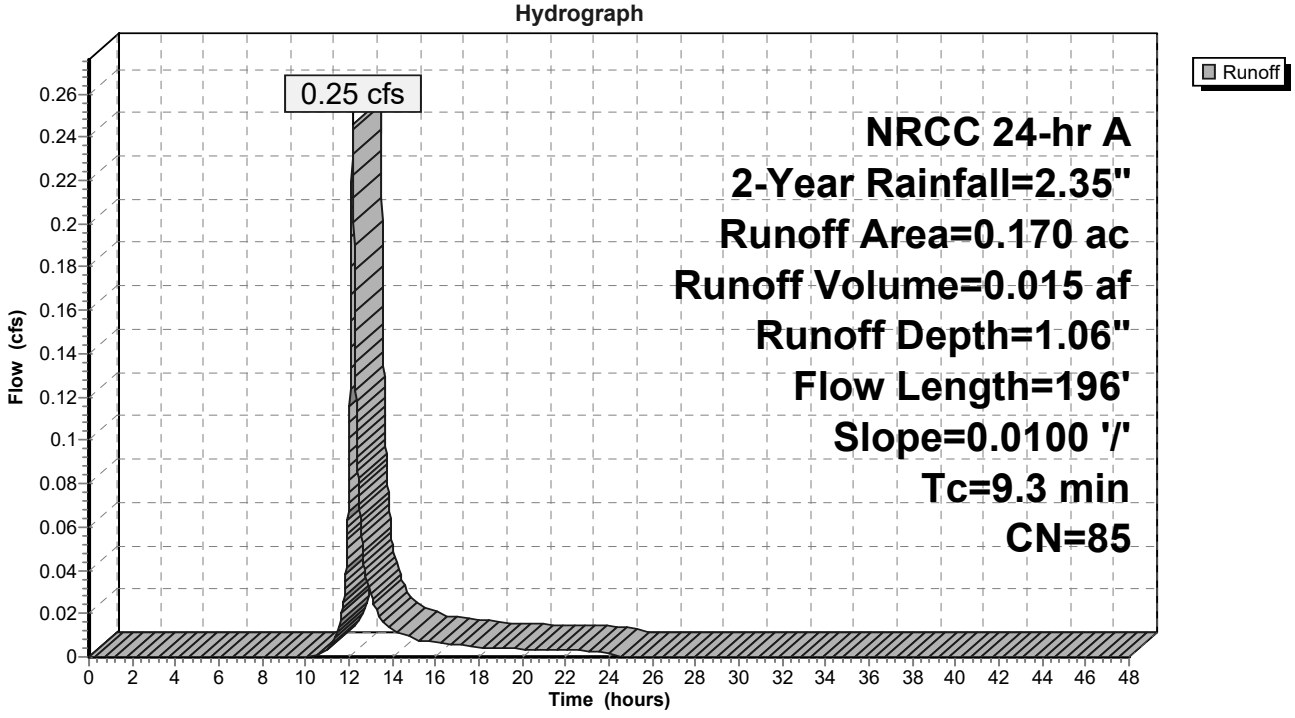
Runoff = 0.25 cfs @ 12.17 hrs, Volume= 0.015 af, Depth= 1.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 2-Year Rainfall=2.35"

Area (ac)	CN	Description
0.060	61	>75% Grass cover, Good, HSG B
0.110	98	Paved parking, HSG B
0.170	85	Weighted Average
0.060		35.29% Pervious Area
0.110		64.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	46	0.0100	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.35"
1.2	150	0.0100	2.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
9.3	196	Total			

Subcatchment DA7:



Summary for Subcatchment DA8:

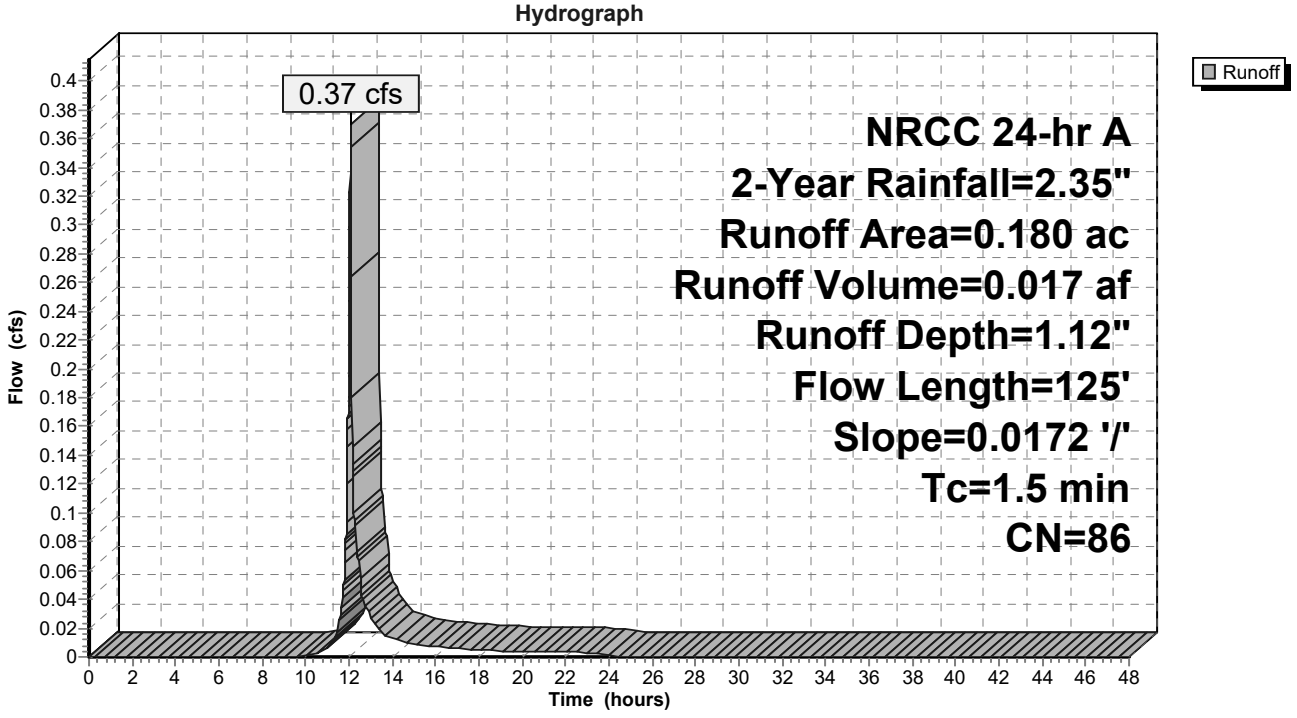
Runoff = 0.37 cfs @ 12.10 hrs, Volume= 0.017 af, Depth= 1.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 2-Year Rainfall=2.35"

Area (ac)	CN	Description
0.060	61	>75% Grass cover, Good, HSG B
0.120	98	Paved parking, HSG B
0.180	86	Weighted Average
0.060		33.33% Pervious Area
0.120		66.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	75	0.0172	1.05		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.35"
0.3	50	0.0172	2.66		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.5	125	Total			

Subcatchment DA8:



Summary for Subcatchment DA9:

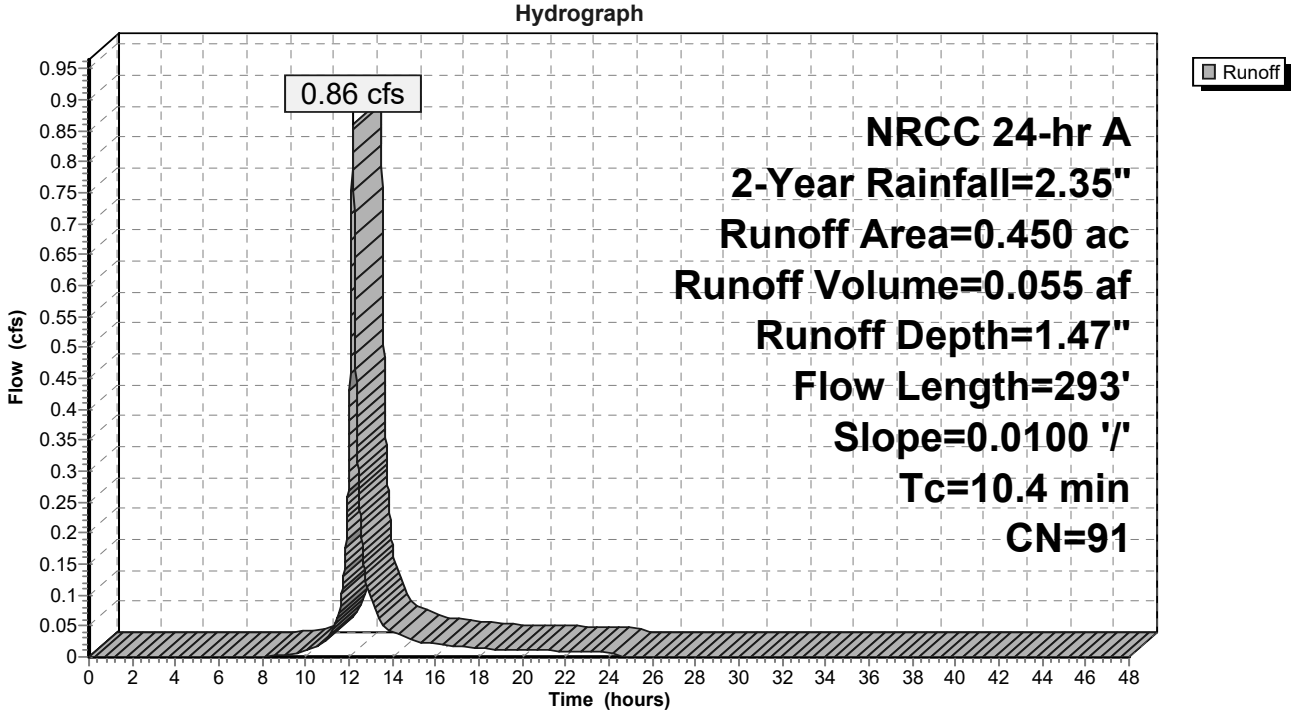
Runoff = 0.86 cfs @ 12.18 hrs, Volume= 0.055 af, Depth= 1.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
NRCC 24-hr A 2-Year Rainfall=2.35"

Area (ac)	CN	Description
0.080	61	>75% Grass cover, Good, HSG B
0.370	98	Paved parking, HSG B
0.450	91	Weighted Average
0.080		17.78% Pervious Area
0.370		82.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.4	48	0.0100	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.35"
2.0	245	0.0100	2.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.4	293	Total			

Subcatchment DA9:



Summary for Pond CB1:

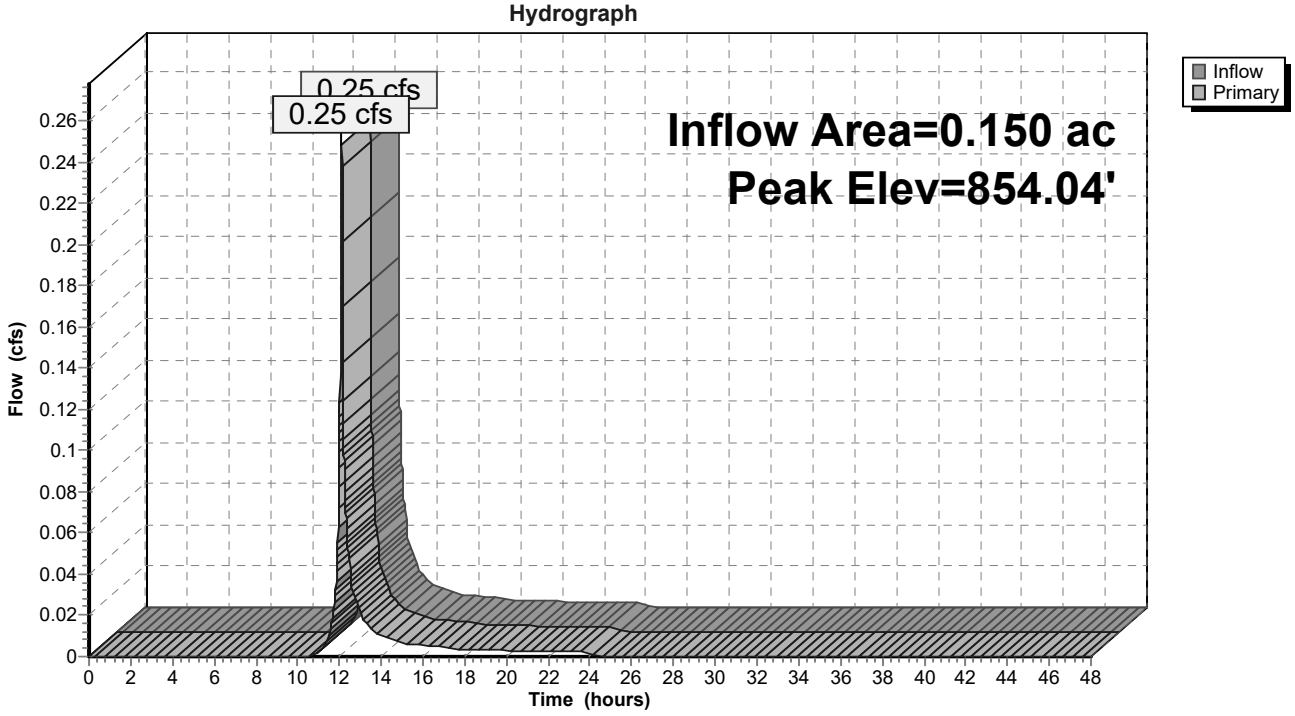
Inflow Area = 0.150 ac, 60.00% Impervious, Inflow Depth = 0.94" for 2-Year event
Inflow = 0.25 cfs @ 12.11 hrs, Volume= 0.012 af
Outflow = 0.25 cfs @ 12.11 hrs, Volume= 0.012 af, Atten= 0%, Lag= 0.0 min
Primary = 0.25 cfs @ 12.11 hrs, Volume= 0.012 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 854.04' @ 12.11 hrs
Flood Elev= 854.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	851.00'	**12.0" Round Culvert** L= 32.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 851.00' / 850.73' S= 0.0084 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	854.00'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.25 cfs @ 12.11 hrs HW=854.04' (Free Discharge)
└**1=Culvert** (Passes 0.25 cfs of 6.03 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 0.25 cfs @ 0.69 fps)

Pond CB1:



Summary for Pond CB10:

[57] Hint: Peaked at 853.08' (Flood elevation advised)
[81] Warning: Exceeded Pond CB12 by 5.13' @ 5.99 hrs
[81] Warning: Exceeded Pond CB13 by 0.12' @ 12.18 hrs
[81] Warning: Exceeded Pond CB9 by 4.25' @ 7.25 hrs

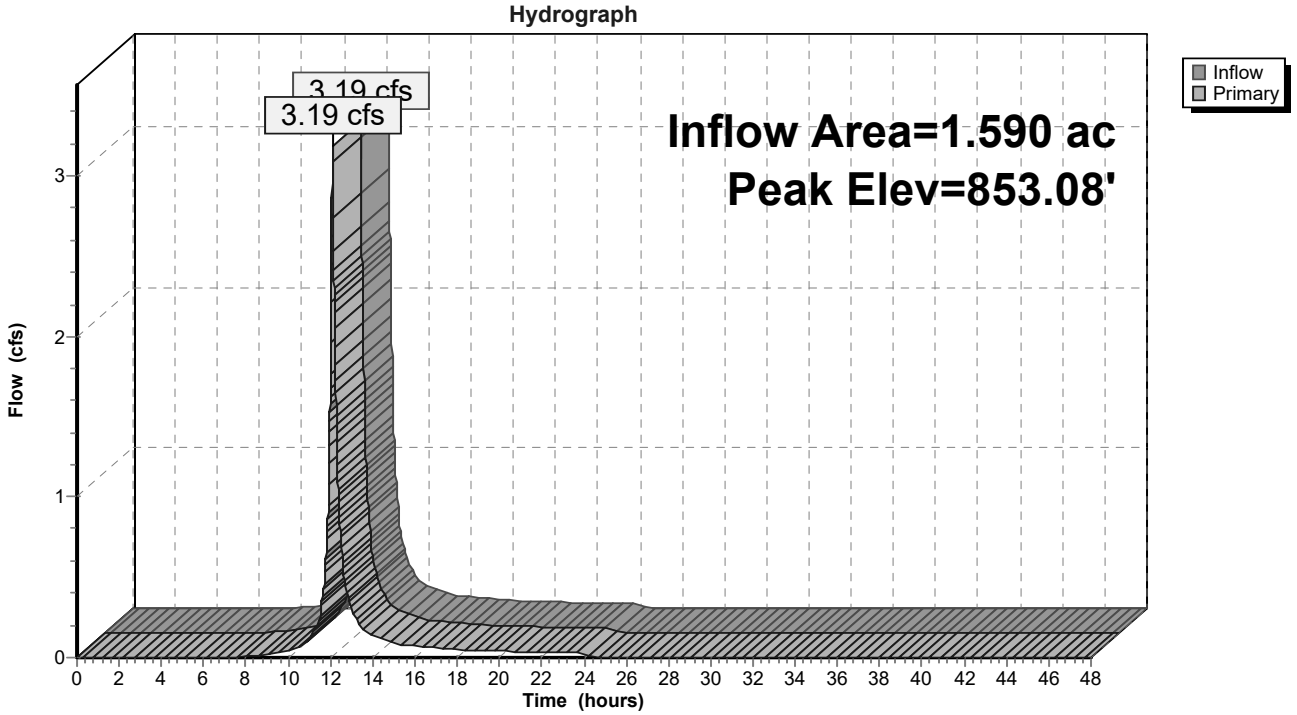
Inflow Area = 1.590 ac, 82.08% Impervious, Inflow Depth = 1.49" for 2-Year event
Inflow = 3.19 cfs @ 12.11 hrs, Volume= 0.197 af
Outflow = 3.19 cfs @ 12.11 hrs, Volume= 0.197 af, Atten= 0%, Lag= 0.0 min
Primary = 3.19 cfs @ 12.11 hrs, Volume= 0.197 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 853.08' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	847.15'	**15.0" Round Culvert** L= 144.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 847.15' / 846.94' S= 0.0015 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 1.23 sf
#2	Device 1	852.84'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=3.15 cfs @ 12.11 hrs HW=853.08' (Free Discharge)
└**1=Culvert** (Passes 3.15 cfs of 11.03 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 3.15 cfs @ 1.61 fps)

Pond CB10:



Summary for Pond CB11:

[57] Hint: Peaked at 852.13' (Flood elevation advised)

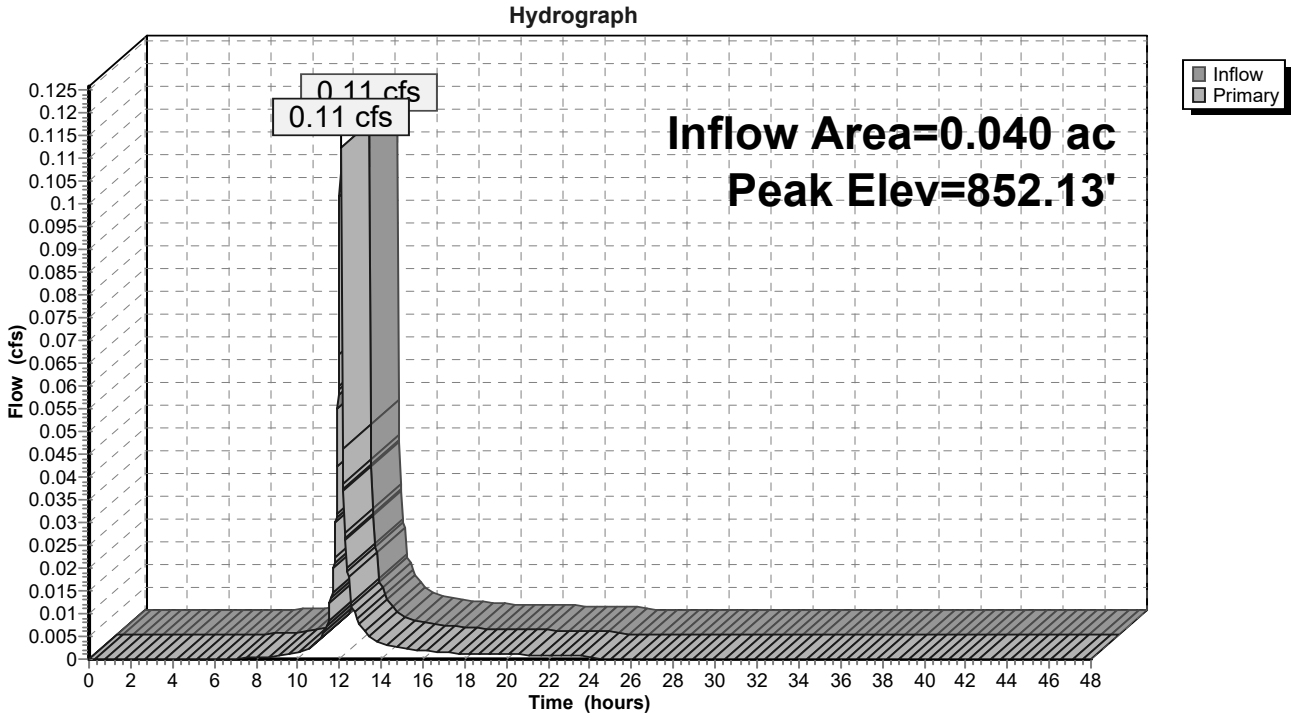
Inflow Area = 0.040 ac, 87.50% Impervious, Inflow Depth = 1.64" for 2-Year event
Inflow = 0.11 cfs @ 12.10 hrs, Volume= 0.005 af
Outflow = 0.11 cfs @ 12.10 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.0 min
Primary = 0.11 cfs @ 12.10 hrs, Volume= 0.005 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 852.13' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	851.97'	**12.0" Round Culvert** L= 53.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 851.97' / 847.71' S= 0.0804 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	851.97'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.11 cfs @ 12.10 hrs HW=852.13' (Free Discharge)
↑**1=Culvert** (Inlet Controls 0.11 cfs @ 1.37 fps)
↑**2=Orifice/Grate** (Passes 0.11 cfs of 1.69 cfs potential flow)

Pond CB11:



Summary for Pond CB12:

[57] Hint: Peaked at 852.52' (Flood elevation advised)
[81] Warning: Exceeded Pond CB11 by 0.49' @ 24.04 hrs

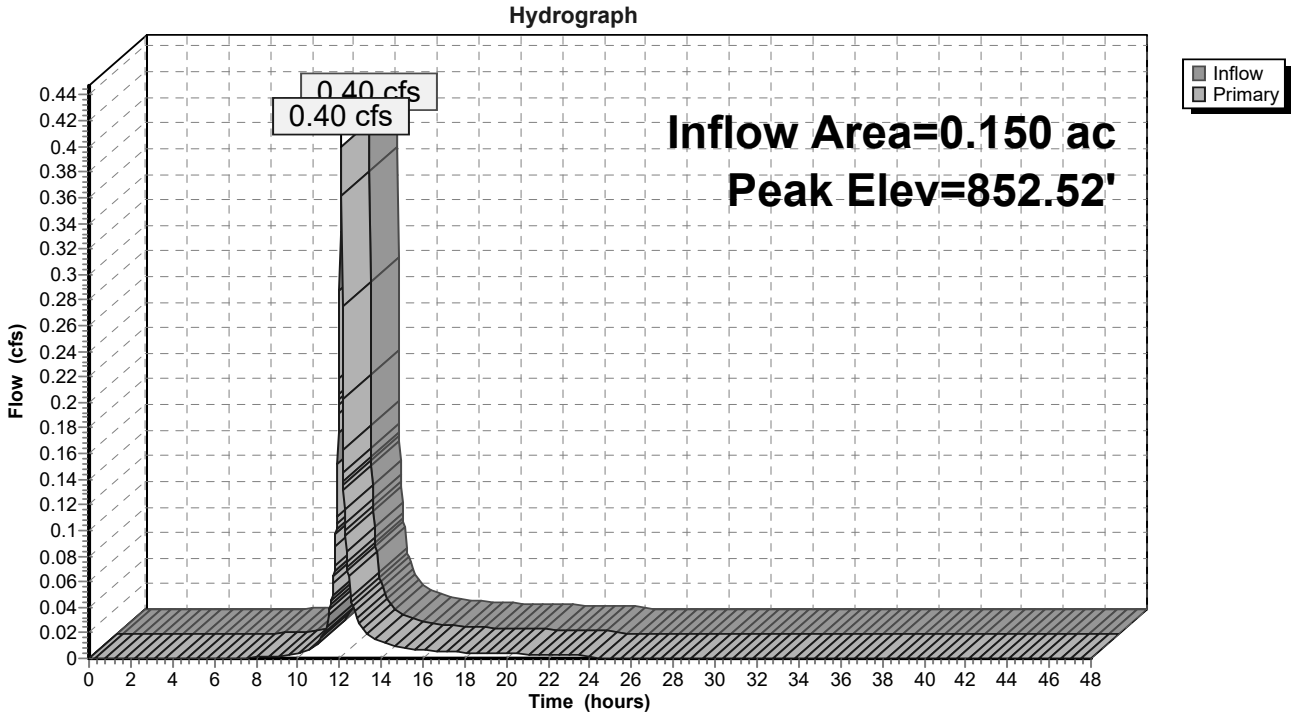
Inflow Area = 0.150 ac, 83.33% Impervious, Inflow Depth = 1.52" for 2-Year event
Inflow = 0.40 cfs @ 12.10 hrs, Volume= 0.019 af
Outflow = 0.40 cfs @ 12.10 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min
Primary = 0.40 cfs @ 12.10 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 852.52' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	847.71'	**12.0" Round Culvert** L= 54.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 847.71' / 847.15' S= 0.0104 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	852.46'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.38 cfs @ 12.10 hrs HW=852.52' (Free Discharge)
└**1=Culvert** (Passes 0.38 cfs of 7.85 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 0.38 cfs @ 0.80 fps)

Pond CB12:



Summary for Pond CB13:

[57] Hint: Peaked at 852.98' (Flood elevation advised)

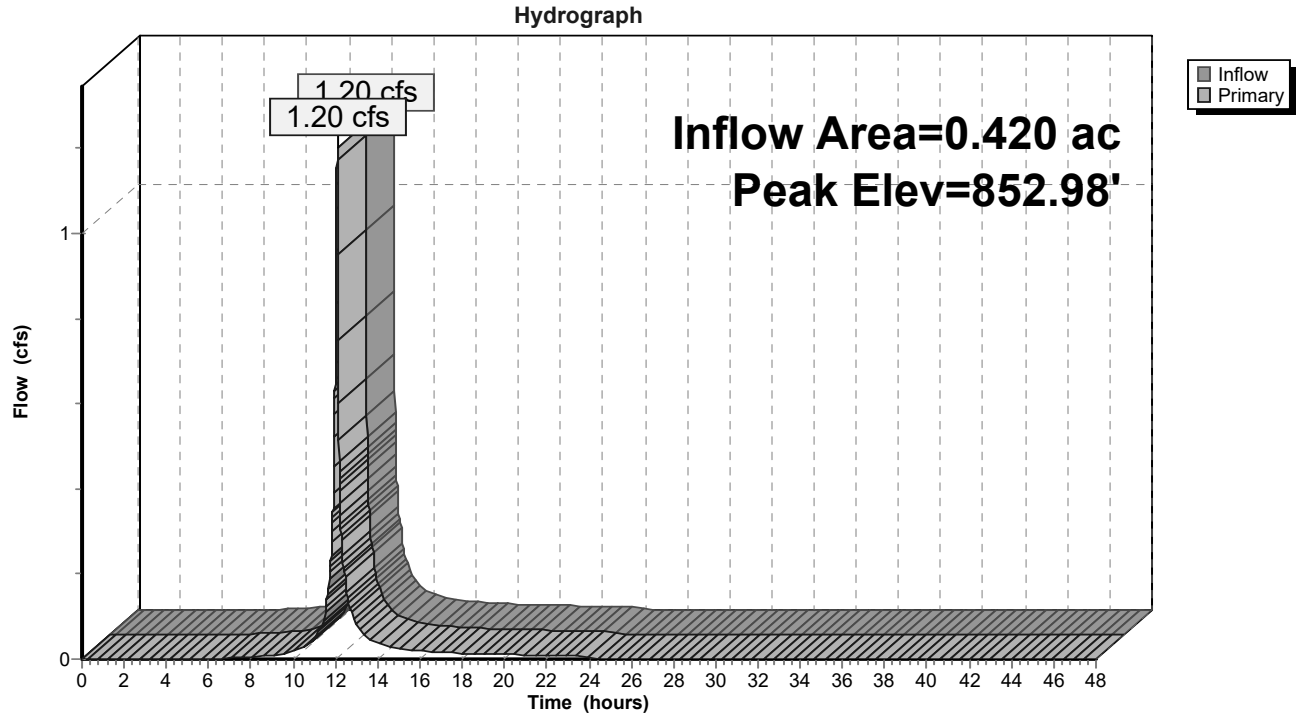
Inflow Area = 0.420 ac, 90.48% Impervious, Inflow Depth = 1.73" for 2-Year event
Inflow = 1.20 cfs @ 12.10 hrs, Volume= 0.060 af
Outflow = 1.20 cfs @ 12.10 hrs, Volume= 0.060 af, Atten= 0%, Lag= 0.0 min
Primary = 1.20 cfs @ 12.10 hrs, Volume= 0.060 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 852.98' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	847.71'	**12.0" Round Culvert** L= 33.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 847.71' / 847.15' S= 0.0170 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	852.85'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.18 cfs @ 12.10 hrs HW=852.98' (Free Discharge)
↑—**1=Culvert** (Passes 1.18 cfs of 8.26 cfs potential flow)
↑—**2=Orifice/Grate** (Weir Controls 1.18 cfs @ 1.17 fps)

Pond CB13:



Summary for Pond CB14:

[57] Hint: Peaked at 855.47' (Flood elevation advised)

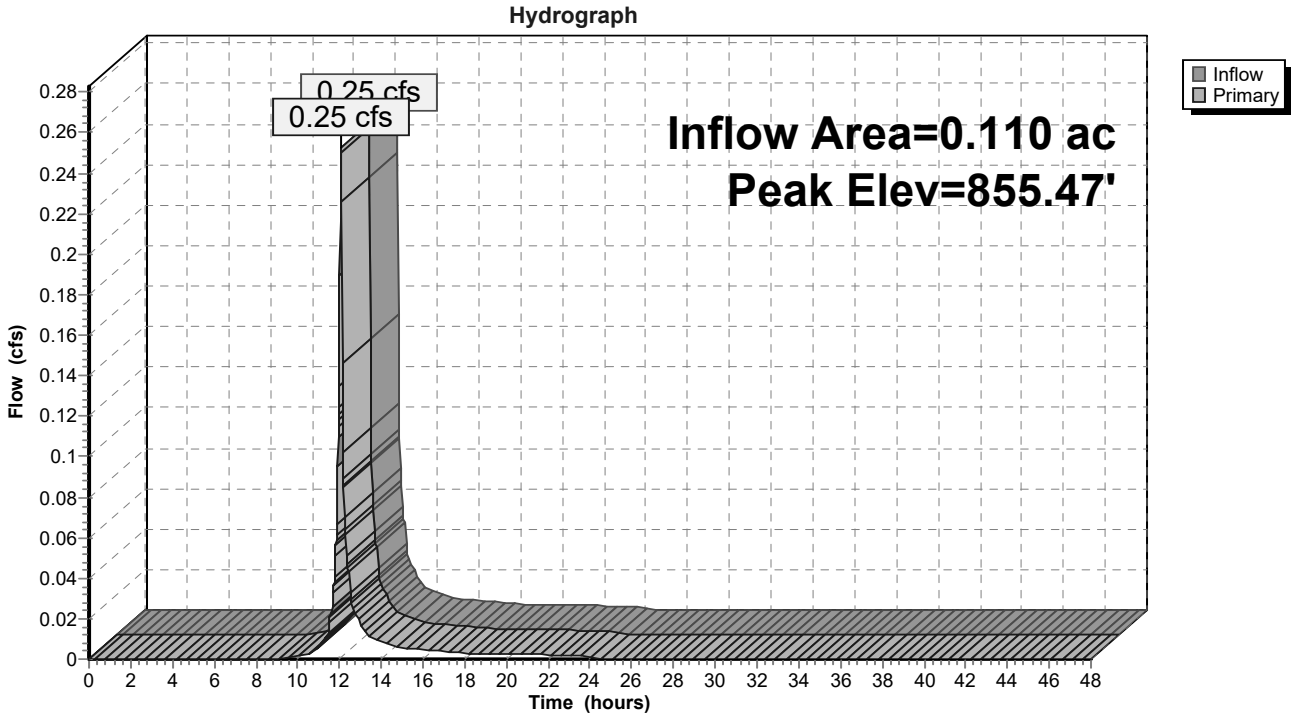
Inflow Area = 0.110 ac, 72.73% Impervious, Inflow Depth = 1.25" for 2-Year event
Inflow = 0.25 cfs @ 12.10 hrs, Volume= 0.011 af
Outflow = 0.25 cfs @ 12.10 hrs, Volume= 0.011 af, Atten= 0%, Lag= 0.0 min
Primary = 0.25 cfs @ 12.10 hrs, Volume= 0.011 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 855.47' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	852.42'	**12.0" Round Culvert** L= 152.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 852.42' / 849.90' S= 0.0166 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	855.42'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.24 cfs @ 12.10 hrs HW=855.47' (Free Discharge)
↑—**1=Culvert** (Passes 0.24 cfs of 6.04 cfs potential flow)
↑—**2=Orifice/Grate** (Weir Controls 0.24 cfs @ 0.75 fps)

Pond CB14:



Summary for Pond CB15:

[57] Hint: Peaked at 855.58' (Flood elevation advised)
[81] Warning: Exceeded Pond CB16 by 4.00' @ 9.54 hrs
[81] Warning: Exceeded Pond MH1 by 8.40' @ 24.60 hrs

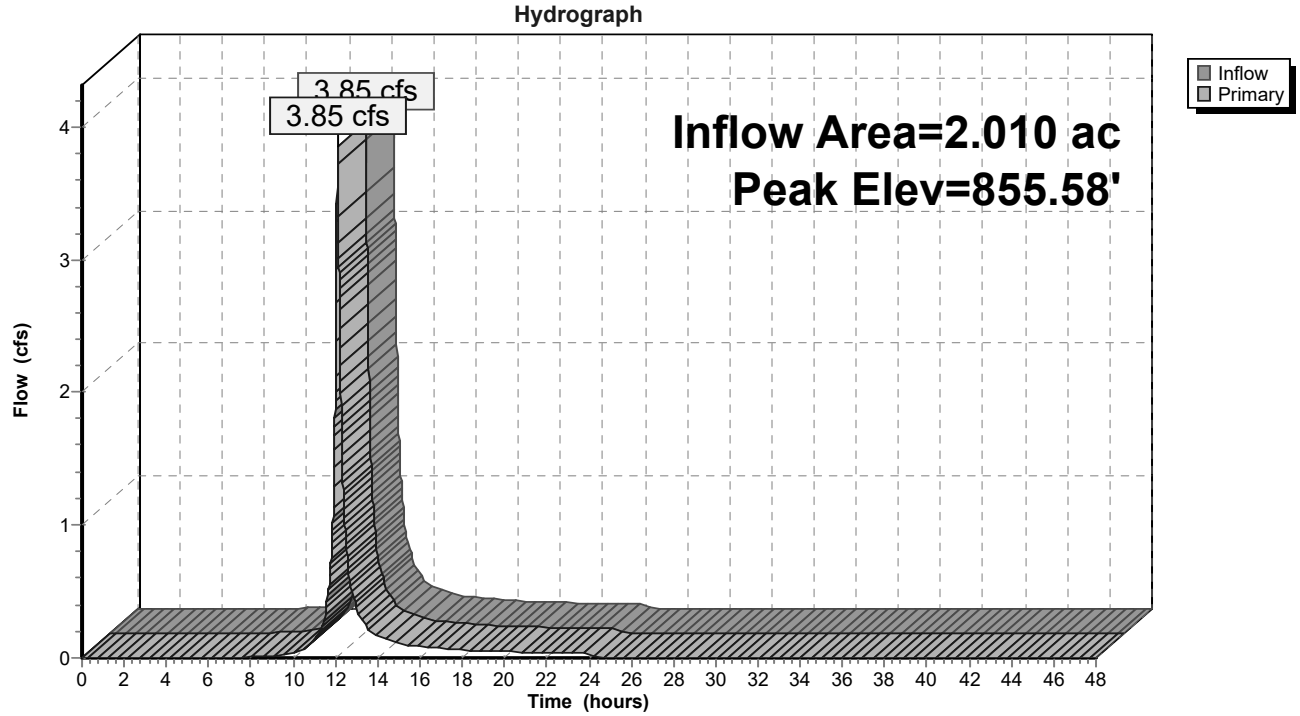
Inflow Area = 2.010 ac, 79.35% Impervious, Inflow Depth = 1.42" for 2-Year event
Inflow = 3.85 cfs @ 12.11 hrs, Volume= 0.237 af
Outflow = 3.85 cfs @ 12.11 hrs, Volume= 0.237 af, Atten= 0%, Lag= 0.0 min
Primary = 3.85 cfs @ 12.11 hrs, Volume= 0.237 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 855.58' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	845.91'	**18.0" Round Culvert** L= 66.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 845.91' / 845.28' S= 0.0095 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 1.77 sf
#2	Device 1	855.25'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=3.79 cfs @ 12.11 hrs HW=855.57' (Free Discharge)
└**1=Culvert** (Passes 3.79 cfs of 25.40 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 3.79 cfs @ 1.86 fps)

Pond CB15:



Summary for Pond CB16:

[57] Hint: Peaked at 855.28' (Flood elevation advised)

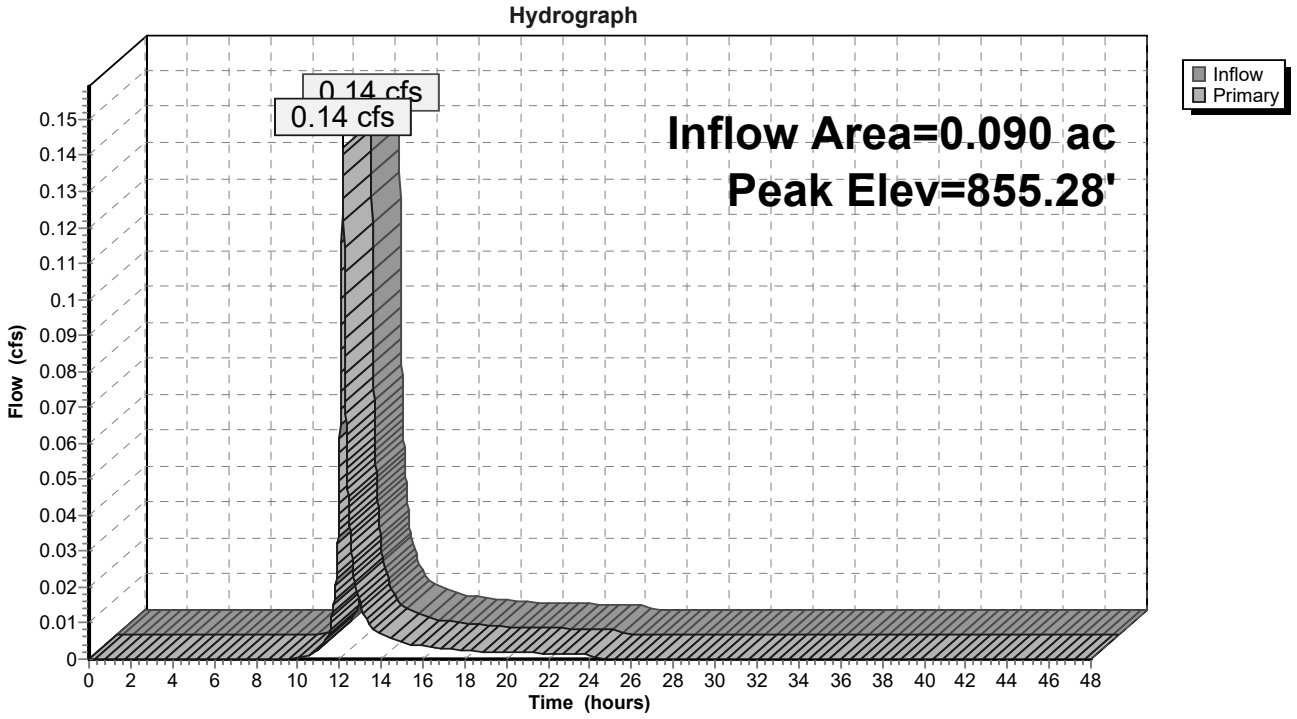
Inflow Area = 0.090 ac, 66.67% Impervious, Inflow Depth = 1.12" for 2-Year event
Inflow = 0.14 cfs @ 12.16 hrs, Volume= 0.008 af
Outflow = 0.14 cfs @ 12.16 hrs, Volume= 0.008 af, Atten= 0%, Lag= 0.0 min
Primary = 0.14 cfs @ 12.16 hrs, Volume= 0.008 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 855.28' @ 12.16 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	851.25'	**10.0" Round Culvert** L= 28.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 851.25' / 850.69' S= 0.0200 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.55 sf
#2	Device 1	855.25'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.12 cfs @ 12.16 hrs HW=855.28' (Free Discharge)
↑**1=Culvert** (Passes 0.12 cfs of 4.99 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 0.12 cfs @ 0.54 fps)

Pond CB16:



Summary for Pond CB17:

[99] Warning: Min. Lift of 0.28' is below pump rating
[58] Hint: Peaked 0.06' above defined flood level
[81] Warning: Exceeded Pond CB15 by 0.15' @ 12.11 hrs

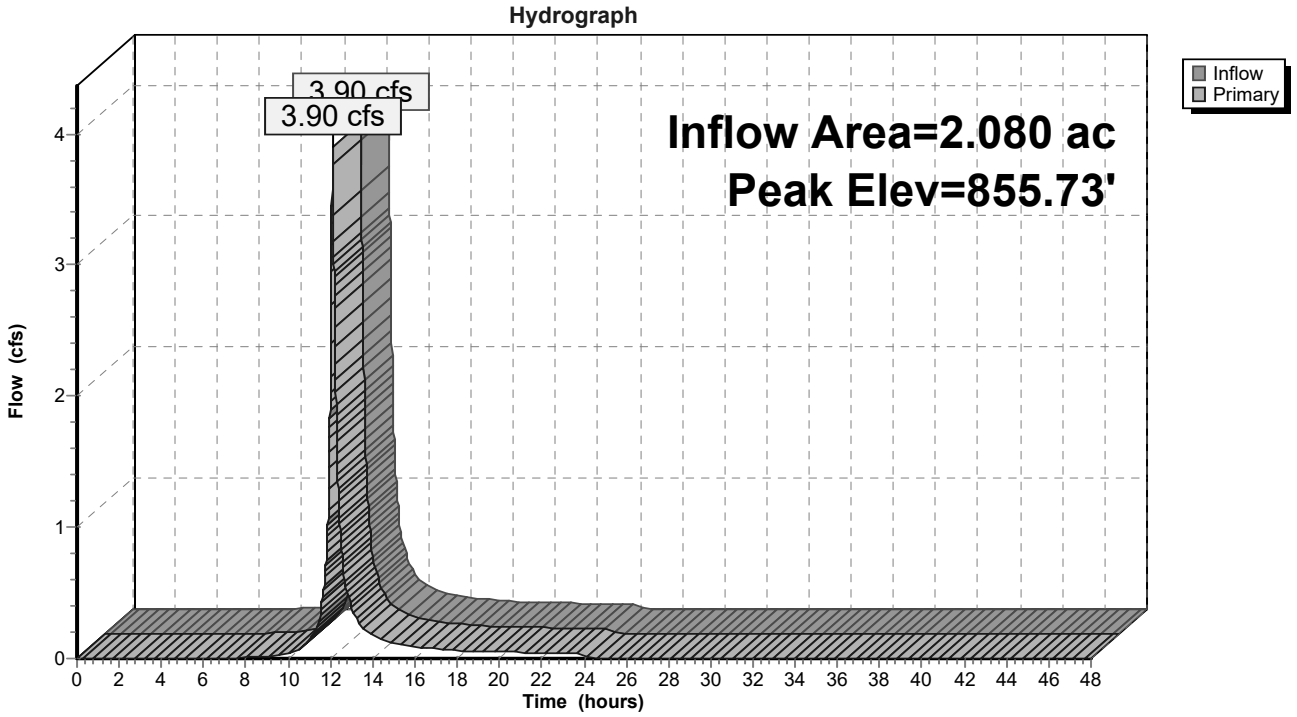
Inflow Area = 2.080 ac, 78.12% Impervious, Inflow Depth = 1.39" for 2-Year event
Inflow = 3.90 cfs @ 12.11 hrs, Volume= 0.241 af
Outflow = 3.90 cfs @ 12.11 hrs, Volume= 0.241 af, Atten= 0%, Lag= 0.0 min
Primary = 3.90 cfs @ 12.11 hrs, Volume= 0.241 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 855.73' @ 12.11 hrs
Flood Elev= 855.67'

Device	Routing	Invert	Outlet Devices
#1	Device 2	855.17'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Primary	846.00'	**Pump** Discharges@856.00' 8.0" Diam. x 180.0' Long Discharge, Hazen-Williams C= 130 Flow (gpm)= 0.0 500.0 1,000.0 1,500.0 2,000.0 2,500.0 2,600.0 Head (feet)= 168.00 150.00 133.00 115.00 90.00 60.00 45.00 -Loss (feet)= 0.00 0.91 3.29 6.97 11.87 17.95 19.30 =Lift (feet)= 168.00 149.09 129.71 108.03 78.13 42.05 25.70

Primary OutFlow Max=5.79 cfs @ 12.11 hrs HW=855.72' (Free Discharge)
↑—**2=Pump** (Pump Controls 5.79 cfs)
↑—**1=Orifice/Grate** (Passes 5.79 cfs of 8.49 cfs potential flow)

Pond CB17:


Hydrograph
3.90 cfs
3.90 cfs
Inflow Area=2.080 ac
Peak Elev=855.73'
Inflow
Primary
Flow (cfs)
0
1
2
3
4
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48
Time (hours)

Summary for Pond CB2:

[81] Warning: Exceeded Pond CB1 by 0.65' @ 12.17 hrs

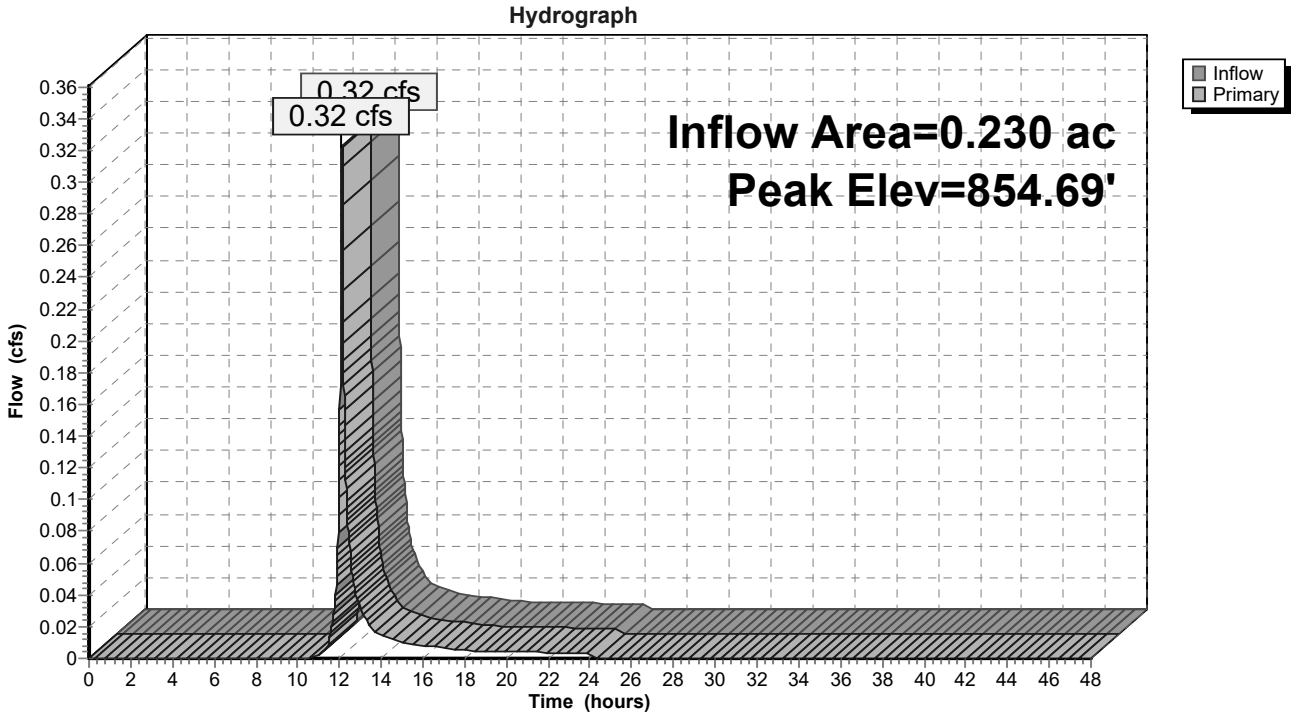
Inflow Area = 0.230 ac, 56.52% Impervious, Inflow Depth = 0.89" for 2-Year event
Inflow = 0.32 cfs @ 12.12 hrs, Volume= 0.017 af
Outflow = 0.32 cfs @ 12.12 hrs, Volume= 0.017 af, Atten= 0%, Lag= 0.0 min
Primary = 0.32 cfs @ 12.12 hrs, Volume= 0.017 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 854.69' @ 12.12 hrs
Flood Elev= 855.14'

Device	Routing	Invert	Outlet Devices
#1	Primary	850.73'	**12.0" Round Culvert** L= 27.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 850.73' / 850.43' S= 0.0111 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	854.64'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.31 cfs @ 12.12 hrs HW=854.69' (Free Discharge)
↑**1=Culvert** (Passes 0.31 cfs of 7.04 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 0.31 cfs @ 0.74 fps)

Pond CB2:



Summary for Pond CB3:

[79] Warning: Submerged Pond CB2 Primary device # 1 INLET by 3.73'

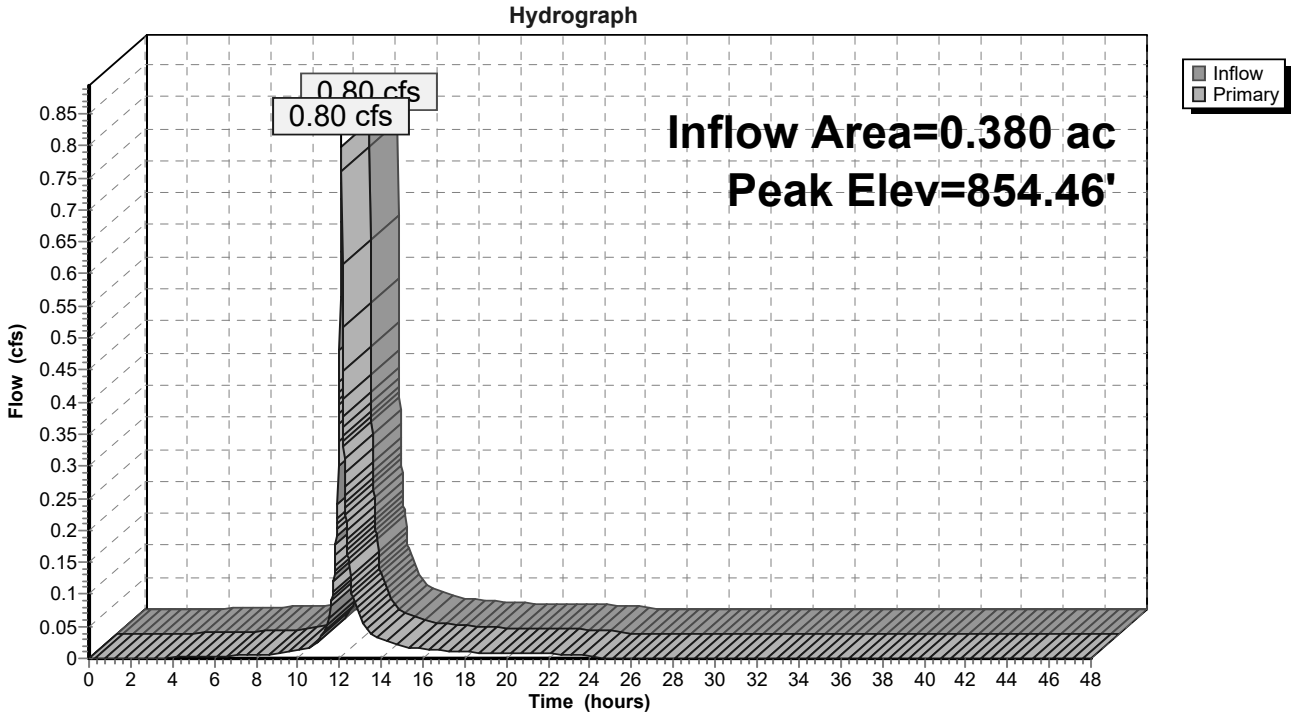
Inflow Area = 0.380 ac, 73.68% Impervious, Inflow Depth = 1.38" for 2-Year event
Inflow = 0.80 cfs @ 12.11 hrs, Volume= 0.044 af
Outflow = 0.80 cfs @ 12.11 hrs, Volume= 0.044 af, Atten= 0%, Lag= 0.0 min
Primary = 0.80 cfs @ 12.11 hrs, Volume= 0.044 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 854.46' @ 12.11 hrs
Flood Elev= 854.86'

Device	Routing	Invert	Outlet Devices
#1	Primary	850.43'	**12.0" Round Culvert** L= 110.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 850.43' / 849.33' S= 0.0100 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	854.36'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.78 cfs @ 12.11 hrs HW=854.46' (Free Discharge)
└**1=Culvert** (Passes 0.78 cfs of 6.42 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 0.78 cfs @ 1.02 fps)

Pond CB3:



Summary for Pond CB4:

[79] Warning: Submerged Pond CB3 Primary device # 1 INLET by 3.27'

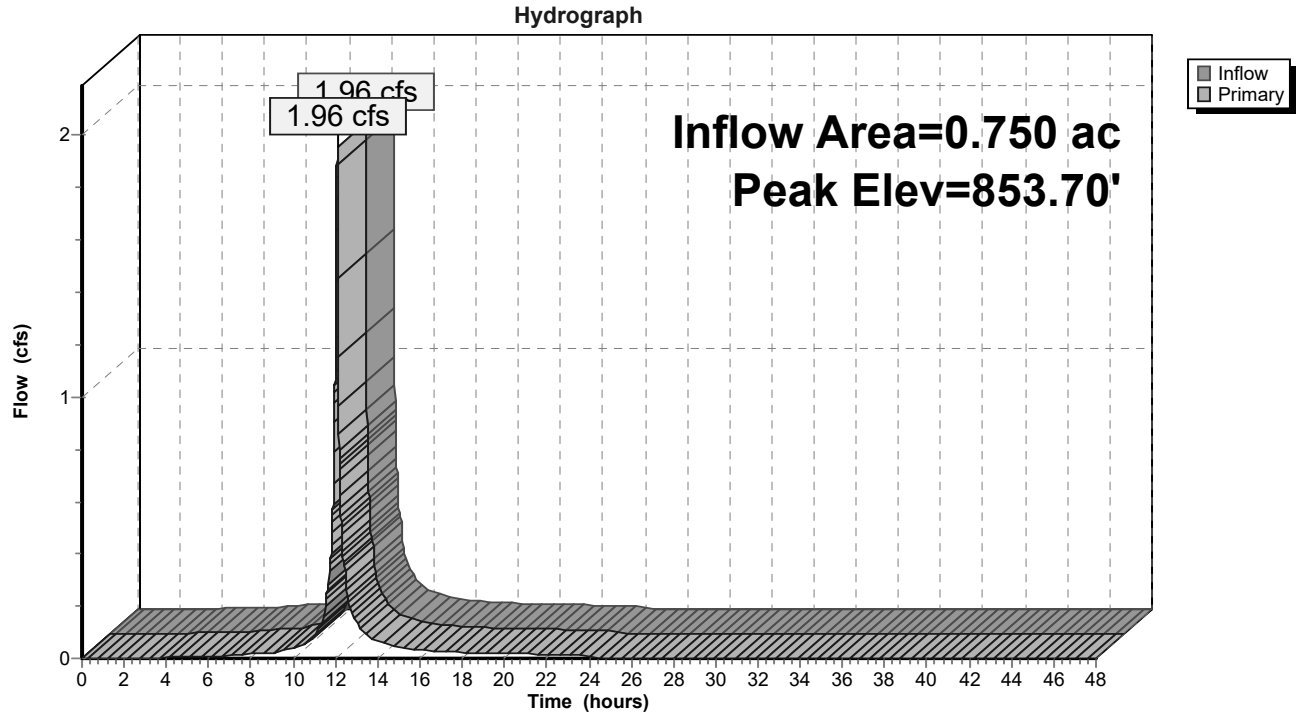
Inflow Area = 0.750 ac, 85.33% Impervious, Inflow Depth = 1.69" for 2-Year event
Inflow = 1.96 cfs @ 12.10 hrs, Volume= 0.106 af
Outflow = 1.96 cfs @ 12.10 hrs, Volume= 0.106 af, Atten= 0%, Lag= 0.0 min
Primary = 1.96 cfs @ 12.10 hrs, Volume= 0.106 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 853.70' @ 12.10 hrs
Flood Elev= 854.02'

Device	Routing	Invert	Outlet Devices
#1	Primary	849.33'	**18.0" Round Culvert** L= 160.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 849.33' / 847.49' S= 0.0115 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 1.77 sf
#2	Device 1	853.52'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.95 cfs @ 12.10 hrs HW=853.70' (Free Discharge)
└**1=Culvert** (Passes 1.95 cfs of 16.18 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 1.95 cfs @ 1.38 fps)

Pond CB4:



Summary for Pond CB5:

[79] Warning: Submerged Pond CB4 Primary device # 1 INLET by 3.86'

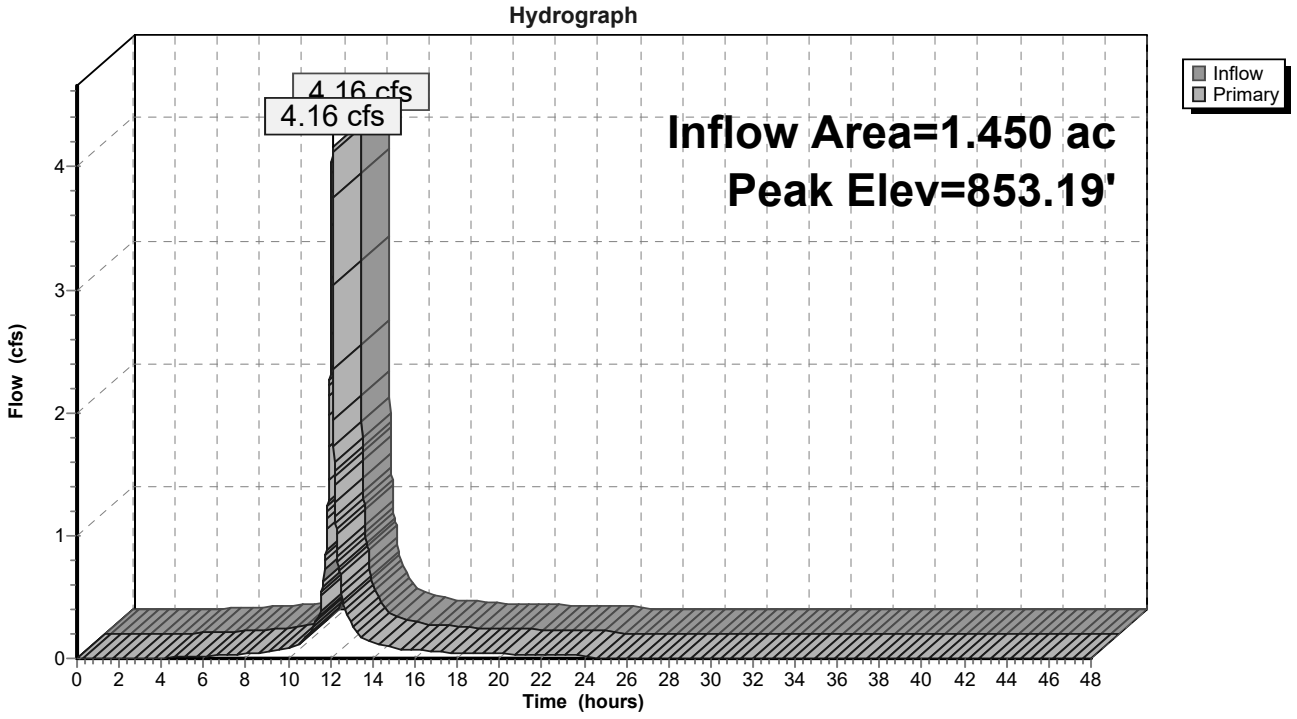
Inflow Area = 1.450 ac, 91.03% Impervious, Inflow Depth = 1.85" for 2-Year event
Inflow = 4.16 cfs @ 12.10 hrs, Volume= 0.223 af
Outflow = 4.16 cfs @ 12.10 hrs, Volume= 0.223 af, Atten= 0%, Lag= 0.0 min
Primary = 4.16 cfs @ 12.10 hrs, Volume= 0.223 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 853.19' @ 12.10 hrs
Flood Elev= 853.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	847.49'	**18.0" Round Culvert** L= 18.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 847.49' / 847.31' S= 0.0100 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 1.77 sf
#2	Device 1	852.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=4.14 cfs @ 12.10 hrs HW=853.19' (Free Discharge)
└**1=Culvert** (Passes 4.14 cfs of 18.94 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 4.14 cfs @ 1.77 fps)

Pond CB5:



Summary for Pond CB6:

[81] Warning: Exceeded Pond CB5 by 0.41' @ 12.10 hrs

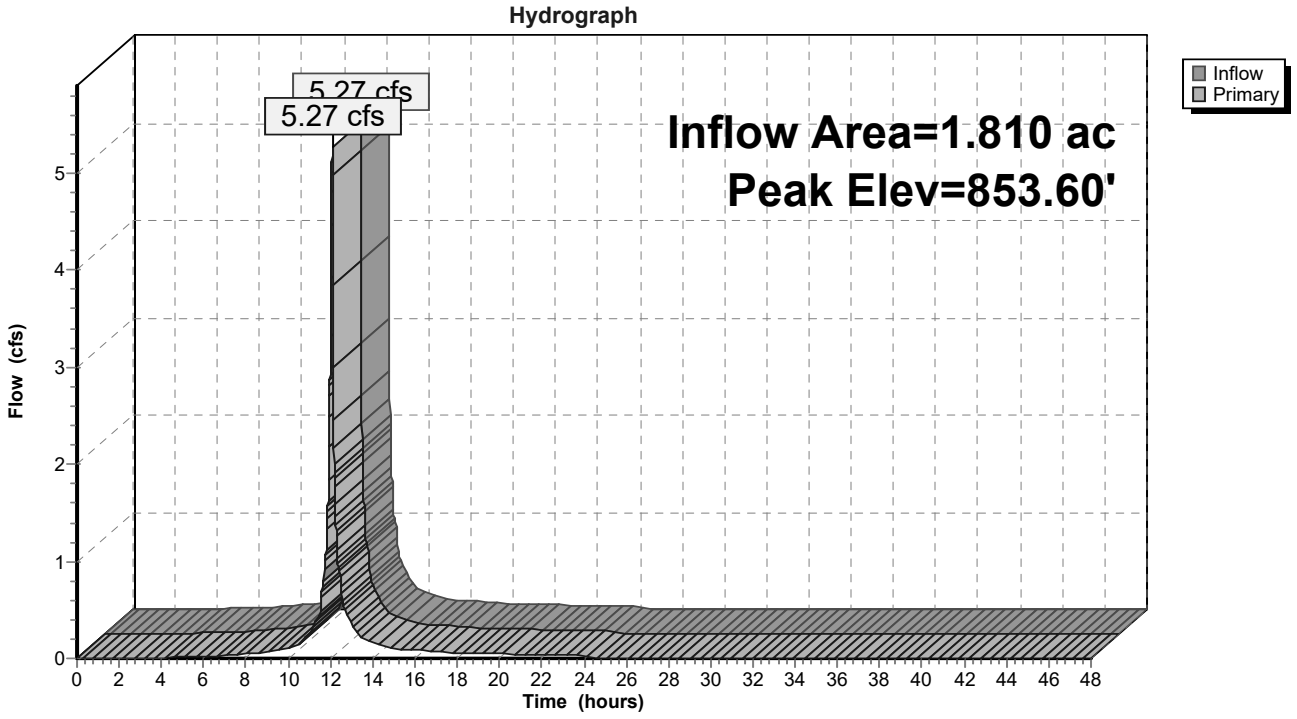
Inflow Area = 1.810 ac, 91.71% Impervious, Inflow Depth = 1.86" for 2-Year event
Inflow = 5.27 cfs @ 12.10 hrs, Volume= 0.281 af
Outflow = 5.27 cfs @ 12.10 hrs, Volume= 0.281 af, Atten= 0%, Lag= 0.0 min
Primary = 5.27 cfs @ 12.10 hrs, Volume= 0.281 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 853.60' @ 12.10 hrs
Flood Elev= 853.76'

Device	Routing	Invert	Outlet Devices
#1	Primary	847.31'	**18.0" Round Culvert** L= 25.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 847.31' / 847.05' S= 0.0104 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 1.77 sf
#2	Device 1	853.26'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=5.24 cfs @ 12.10 hrs HW=853.60' (Free Discharge)
↑**1=Culvert** (Passes 5.24 cfs of 20.03 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 5.24 cfs @ 1.91 fps)

Pond CB6:



Summary for Pond CB7:

[57] Hint: Peaked at 855.93' (Flood elevation advised)
[81] Warning: Exceeded Pond CB6 by 2.33' @ 12.10 hrs

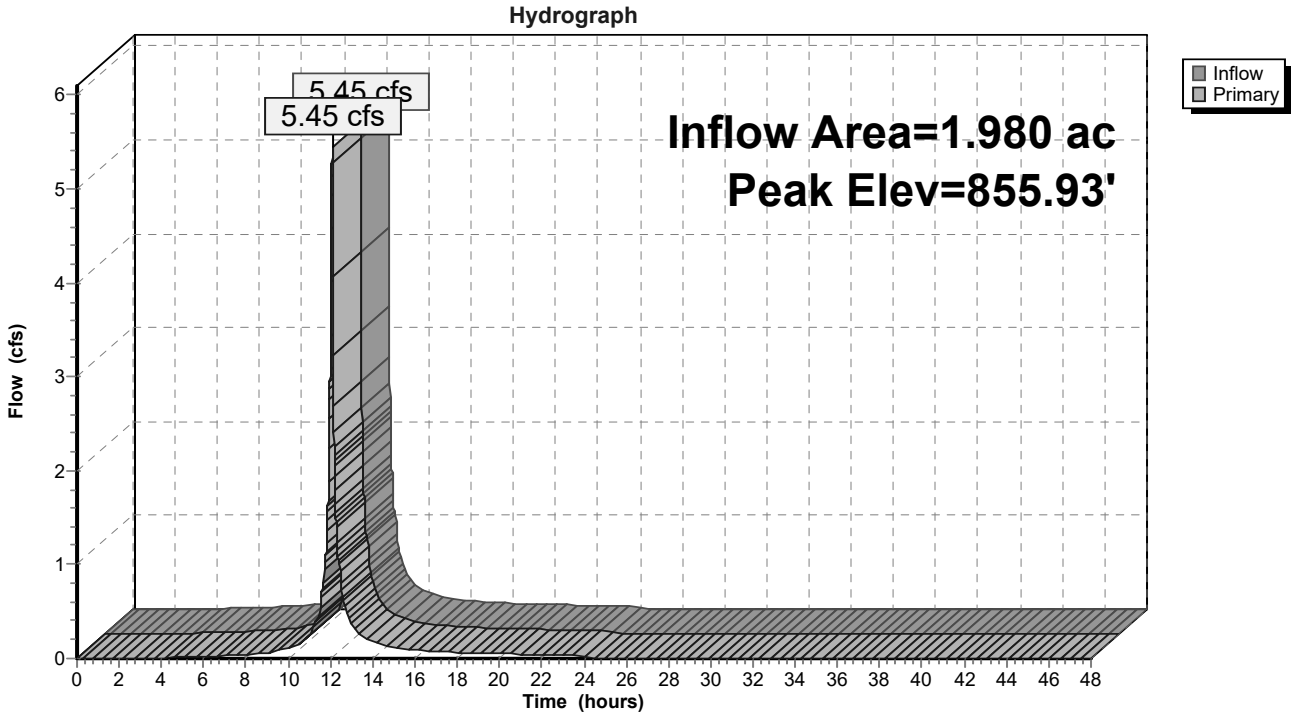
Inflow Area = 1.980 ac, 89.39% Impervious, Inflow Depth = 1.79" for 2-Year event
Inflow = 5.45 cfs @ 12.10 hrs, Volume= 0.296 af
Outflow = 5.45 cfs @ 12.10 hrs, Volume= 0.296 af, Atten= 0%, Lag= 0.0 min
Primary = 5.45 cfs @ 12.10 hrs, Volume= 0.296 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 855.93' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	848.00'	**Pump** Discharges@856.00' 8.0" Diam. x 570.0' Long Discharge, Hazen-Williams C= 130 Flow (gpm)= 0.0 500.0 1,000.0 1,500.0 2,000.0 2,500.0 2,600.0 Head (feet)= 168.00 150.00 133.00 115.00 90.00 60.00 45.00 -Loss (feet)= 0.00 2.89 10.41 22.07 37.59 56.83 61.11 =Lift (feet)= 168.00 147.11 122.59 92.93 52.41 3.17 -16.11
#2	Device 1	853.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=5.61 cfs @ 12.10 hrs HW=855.93' (Free Discharge)
↑**1=Pump** (Pump Controls 5.61 cfs)
↑**2=Orifice/Grate** (Passes 5.61 cfs of 30.01 cfs potential flow)

Pond CB7:


Hydrograph
5.45 cfs
5.45 cfs
Inflow Area=1.980 ac
Peak Elev=855.93'
Inflow
Primary
Flow (cfs)
0
1
2
3
4
5
6
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48
Time (hours)

Summary for Pond CB8:

[57] Hint: Peaked at 851.96' (Flood elevation advised)

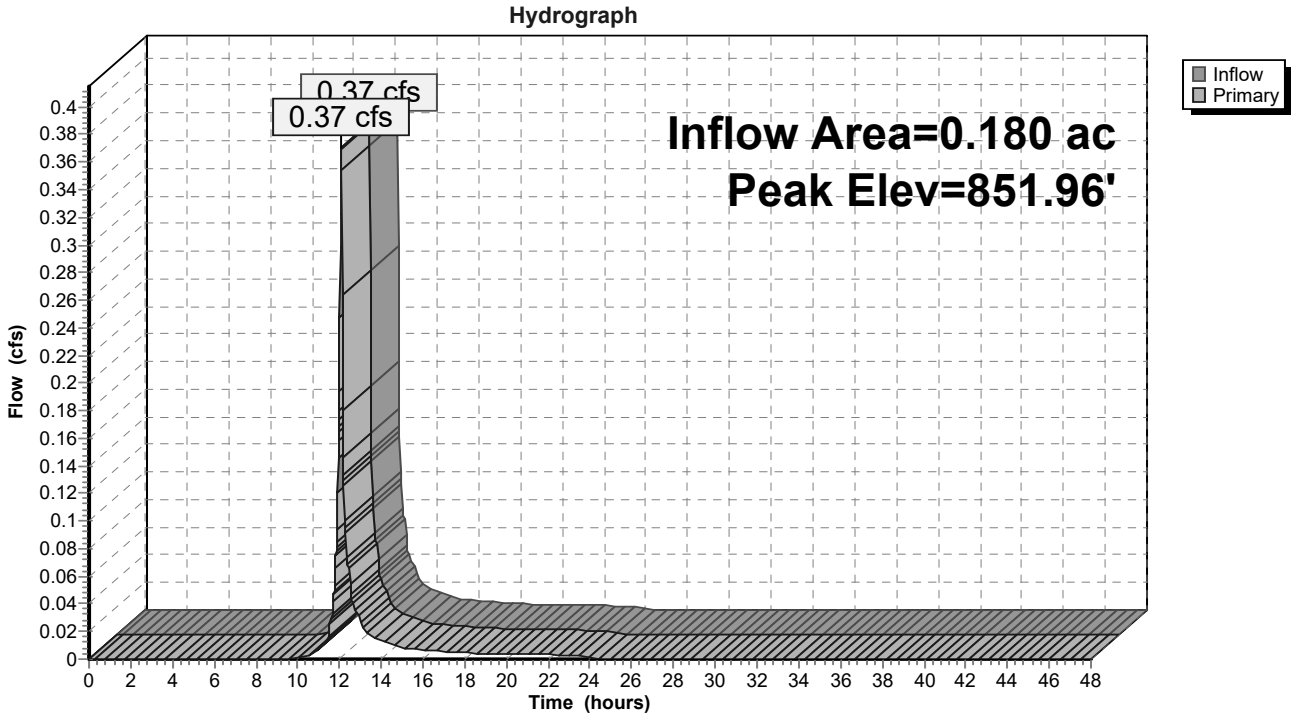
Inflow Area = 0.180 ac, 66.67% Impervious, Inflow Depth = 1.12" for 2-Year event
Inflow = 0.37 cfs @ 12.10 hrs, Volume= 0.017 af
Outflow = 0.37 cfs @ 12.10 hrs, Volume= 0.017 af, Atten= 0%, Lag= 0.0 min
Primary = 0.37 cfs @ 12.10 hrs, Volume= 0.017 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 851.96' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	849.34'	**12.0" Round Culvert** L= 72.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 849.34' / 848.64' S= 0.0097 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	851.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.36 cfs @ 12.10 hrs HW=851.96' (Free Discharge)
↑**1=Culvert** (Passes 0.36 cfs of 5.43 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 0.36 cfs @ 0.79 fps)

Pond CB8:



Summary for Pond CB9:

[57] Hint: Peaked at 852.26' (Flood elevation advised)
[81] Warning: Exceeded Pond CB8 by 2.80' @ 9.54 hrs

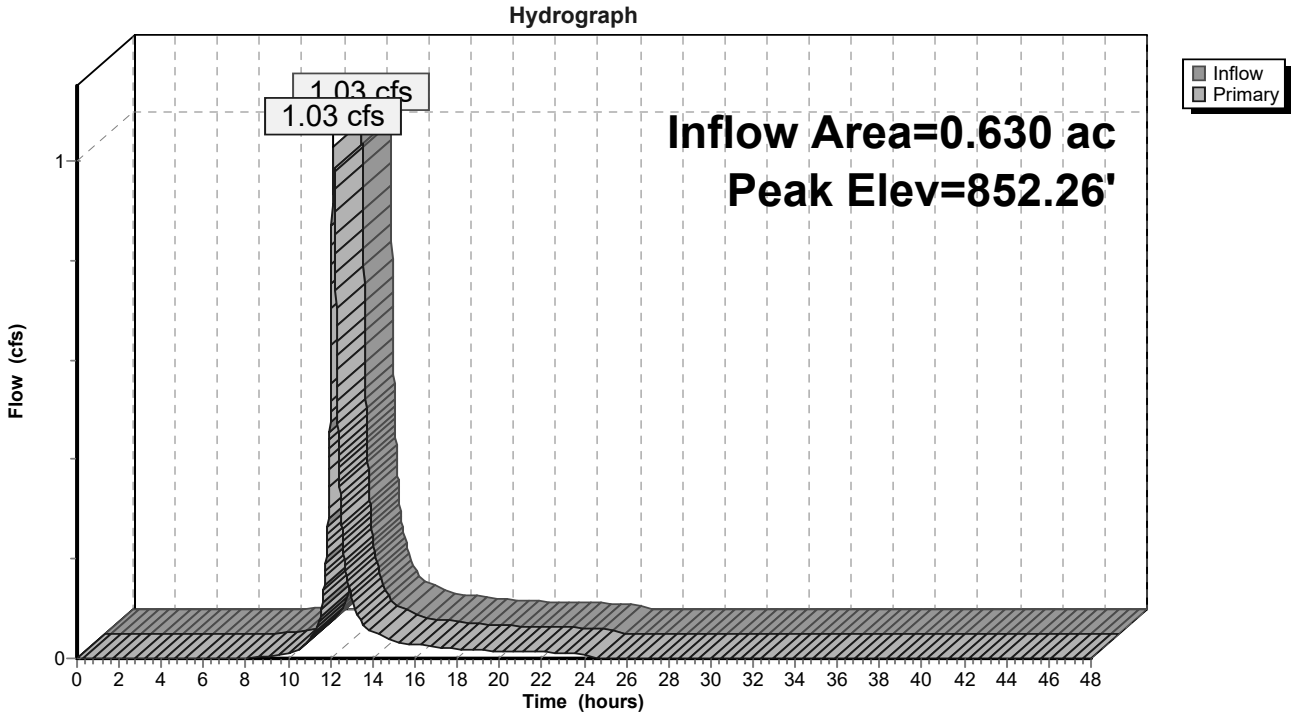
Inflow Area = 0.630 ac, 77.78% Impervious, Inflow Depth = 1.37" for 2-Year event
Inflow = 1.03 cfs @ 12.11 hrs, Volume= 0.072 af
Outflow = 1.03 cfs @ 12.11 hrs, Volume= 0.072 af, Atten= 0%, Lag= 0.0 min
Primary = 1.03 cfs @ 12.11 hrs, Volume= 0.072 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 852.26' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	848.59'	**12.0" Round Culvert** L= 97.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 848.59' / 847.15' S= 0.0148 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf
#2	Device 1	852.14'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.02 cfs @ 12.11 hrs HW=852.25' (Free Discharge)
└**1=Culvert** (Passes 1.02 cfs of 6.66 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 1.02 cfs @ 1.11 fps)

Pond CB9:



Summary for Pond MH1:

[57] Hint: Peaked at 847.82' (Flood elevation advised)
[79] Warning: Submerged Pond CB10 Primary device # 1 INLET by 0.66'

Inflow Area = 1.700 ac, 81.47% Impervious, Inflow Depth = 1.47" for 2-Year event
Inflow = 3.41 cfs @ 12.10 hrs, Volume= 0.208 af
Outflow = 3.41 cfs @ 12.10 hrs, Volume= 0.208 af, Atten= 0%, Lag= 0.0 min
Primary = 3.41 cfs @ 12.10 hrs, Volume= 0.208 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 847.82' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	846.85'	**15.0" Round Culvert** L= 70.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 846.85' / 846.00' S= 0.0121 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 1.23 sf

Primary OutFlow Max=3.40 cfs @ 12.10 hrs HW=847.81' (Free Discharge)
1=Culvert (Inlet Controls 3.40 cfs @ 3.34 fps)

Pond MH1: