

Summary for Pond B-31: Basin #31

Inflow Area = 0.648 ac, 58.68% Impervious, Inflow Depth = 4.56" for Future 10 yr event
 Inflow = 2.93 cfs @ 12.17 hrs, Volume= 0.246 af
 Outflow = 1.81 cfs @ 12.30 hrs, Volume= 0.210 af, Atten= 38%, Lag= 7.8 min
 Primary = 1.81 cfs @ 12.30 hrs, Volume= 0.210 af
 Routed to Link PDA-3 : Proposed Drainage Area #3

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 194.66' @ 12.30 hrs Surf.Area= 3,016 sf Storage= 4,783 cf

Plug-Flow detention time= 271.4 min calculated for 0.210 af (85% of inflow)
 Center-of-Mass det. time= 203.5 min (977.6 - 774.1)

Volume	Invert	Avail.Storage	Storage Description
#1	192.30'	9,453 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
192.30	0	0	0
193.00	1,944	680	680
194.00	2,566	2,255	2,935
195.00	3,245	2,906	5,841
196.00	3,980	3,613	9,453

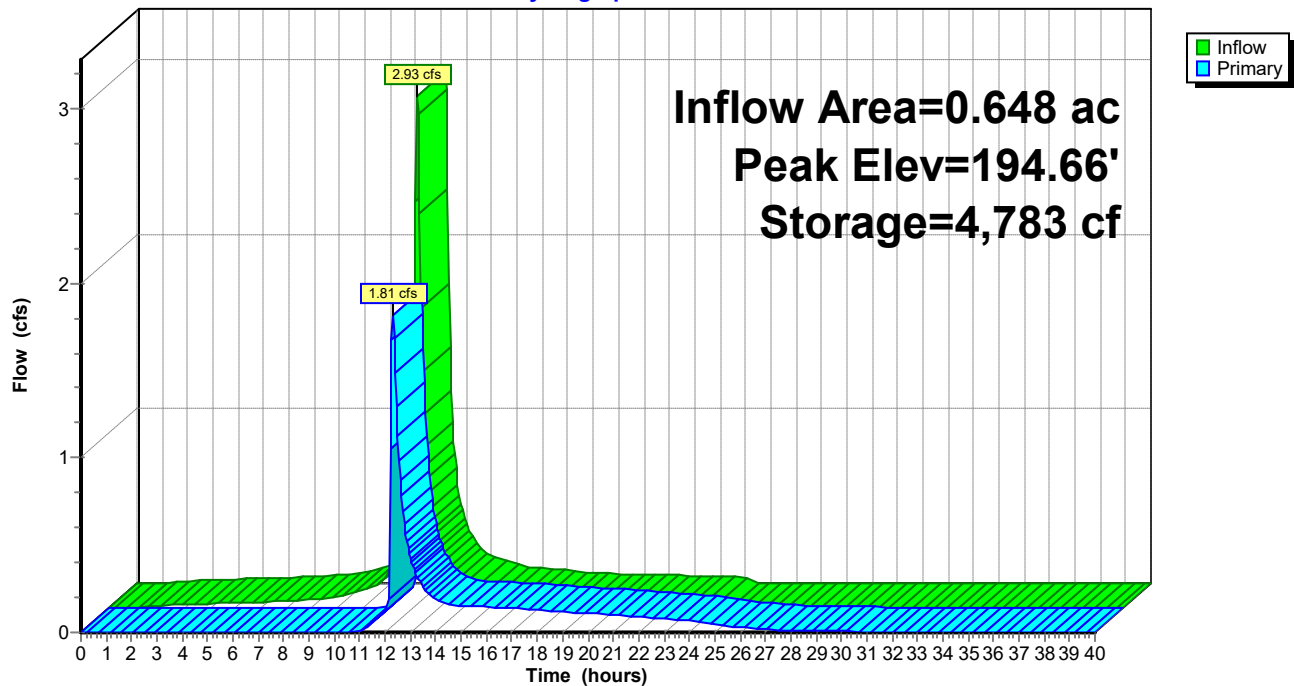
Device	Routing	Invert	Outlet Devices
#1	Primary	191.65'	18.0" Round Culvert L= 126.0' Ke= 0.500 Inlet / Outlet Invert= 191.65' / 188.00' S= 0.0290 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	193.41'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	194.41'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	194.98'	50.0' long + 3.0 ' / SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=1.81 cfs @ 12.30 hrs HW=194.66' (Free Discharge)

1=Culvert (Passes 1.81 cfs of 12.80 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.18 cfs @ 5.16 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 1.63 cfs @ 1.64 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-31: Basin #31

Hydrograph



Summary for Pond B-32: Basin #32

Inflow Area = 2.018 ac, 68.11% Impervious, Inflow Depth = 4.80" for Future 10 yr event
 Inflow = 9.51 cfs @ 12.17 hrs, Volume= 0.807 af
 Outflow = 7.44 cfs @ 12.25 hrs, Volume= 0.684 af, Atten= 22%, Lag= 5.1 min
 Primary = 7.44 cfs @ 12.25 hrs, Volume= 0.684 af
 Routed to Link PDA-3 : Proposed Drainage Area #3

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 196.40' @ 12.25 hrs Surf.Area= 3,927 sf Storage= 9,917 cf

Plug-Flow detention time= 138.1 min calculated for 0.683 af (85% of inflow)
 Center-of-Mass det. time= 68.9 min (836.6 - 767.7)

Volume	Invert	Avail.Storage	Storage Description
#1	192.30'	17,202 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
192.30	0	0	0
193.00	1,675	586	586
194.00	2,256	1,966	2,552
195.00	2,913	2,585	5,136
196.00	3,621	3,267	8,403
197.00	4,385	4,003	12,406
198.00	5,206	4,796	17,202

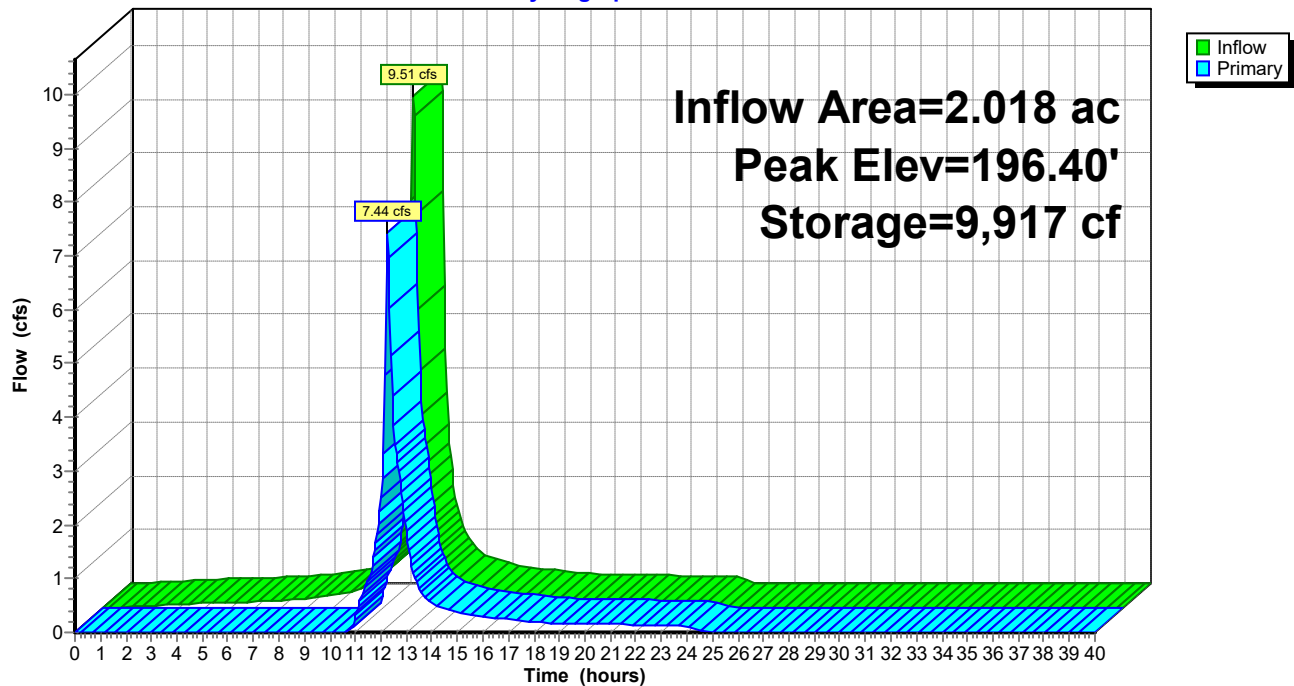
Device	Routing	Invert	Outlet Devices
#1	Primary	190.65'	18.0" Round Culvert L= 182.0' Ke= 0.500 Inlet / Outlet Invert= 190.65' / 188.00' S= 0.0146 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	195.08'	33.0" W x 3.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	196.00'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	197.00'	50.0' long + 3.0' /' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=7.38 cfs @ 12.25 hrs HW=196.40' (Free Discharge)

1=Culvert (Passes 7.38 cfs of 16.95 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 4.18 cfs @ 5.21 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 3.21 cfs @ 2.06 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-32: Basin #32

Hydrograph



Summary for Pond B-33: Basin #33

Inflow Area = 1.922 ac, 57.65% Impervious, Inflow Depth = 4.53" for Future 10 yr event
 Inflow = 8.66 cfs @ 12.17 hrs, Volume= 0.726 af
 Outflow = 5.86 cfs @ 12.28 hrs, Volume= 0.624 af, Atten= 32%, Lag= 6.5 min
 Primary = 5.86 cfs @ 12.28 hrs, Volume= 0.624 af
 Routed to Link PDA-3 : Proposed Drainage Area #3

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 189.39' @ 12.28 hrs Surf.Area= 5,039 sf Storage= 10,487 cf

Plug-Flow detention time= 142.9 min calculated for 0.624 af (86% of inflow)
 Center-of-Mass det. time= 76.5 min (851.4 - 774.9)

Volume	Invert	Avail.Storage	Storage Description
#1	186.30'	19,860 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
186.30	0	0	0
187.00	2,936	1,028	1,028
188.00	3,763	3,350	4,377
189.00	4,665	4,214	8,591
190.00	5,621	5,143	13,734
191.00	6,631	6,126	19,860

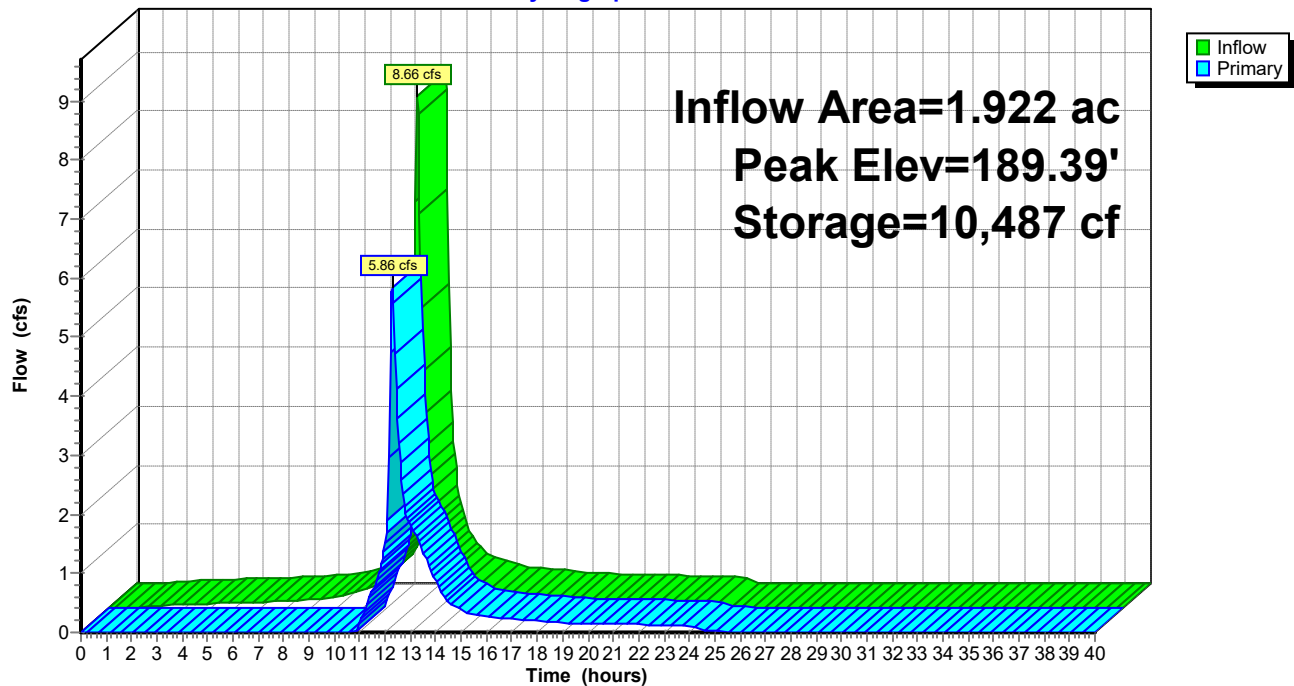
Device	Routing	Invert	Outlet Devices
#1	Primary	185.65'	18.0" Round Culvert L= 91.0' Ke= 0.500 Inlet / Outlet Invert= 185.65' / 185.00' S= 0.0071 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	188.01'	25.0" W x 2.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	188.97'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	190.00'	50.0' long + 3.0 ' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=5.79 cfs @ 12.28 hrs HW=189.39' (Free Discharge)

1=Culvert (Passes 5.79 cfs of 13.54 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 2.36 cfs @ 5.43 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 3.44 cfs @ 2.11 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-33: Basin #33

Hydrograph



Summary for Pond B-34: Basin #34

Inflow Area = 2.636 ac, 39.08% Impervious, Inflow Depth = 4.06" for Future 10 yr event
 Inflow = 10.93 cfs @ 12.17 hrs, Volume= 0.891 af
 Outflow = 6.27 cfs @ 12.32 hrs, Volume= 0.791 af, Atten= 43%, Lag= 8.6 min
 Primary = 6.27 cfs @ 12.32 hrs, Volume= 0.791 af
 Routed to Link PDA-3 : Proposed Drainage Area #3

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 193.00' @ 12.32 hrs Surf.Area= 7,286 sf Storage= 14,352 cf

Plug-Flow detention time= 149.5 min calculated for 0.791 af (89% of inflow)
 Center-of-Mass det. time= 92.7 min (882.7 - 789.9)

Volume	Invert	Avail.Storage	Storage Description
#1	190.30'	31,516 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
190.30	0	0	0
191.00	5,237	1,833	1,833
192.00	6,228	5,733	7,565
193.00	7,281	6,755	14,320
194.00	8,398	7,840	22,159
195.00	10,316	9,357	31,516

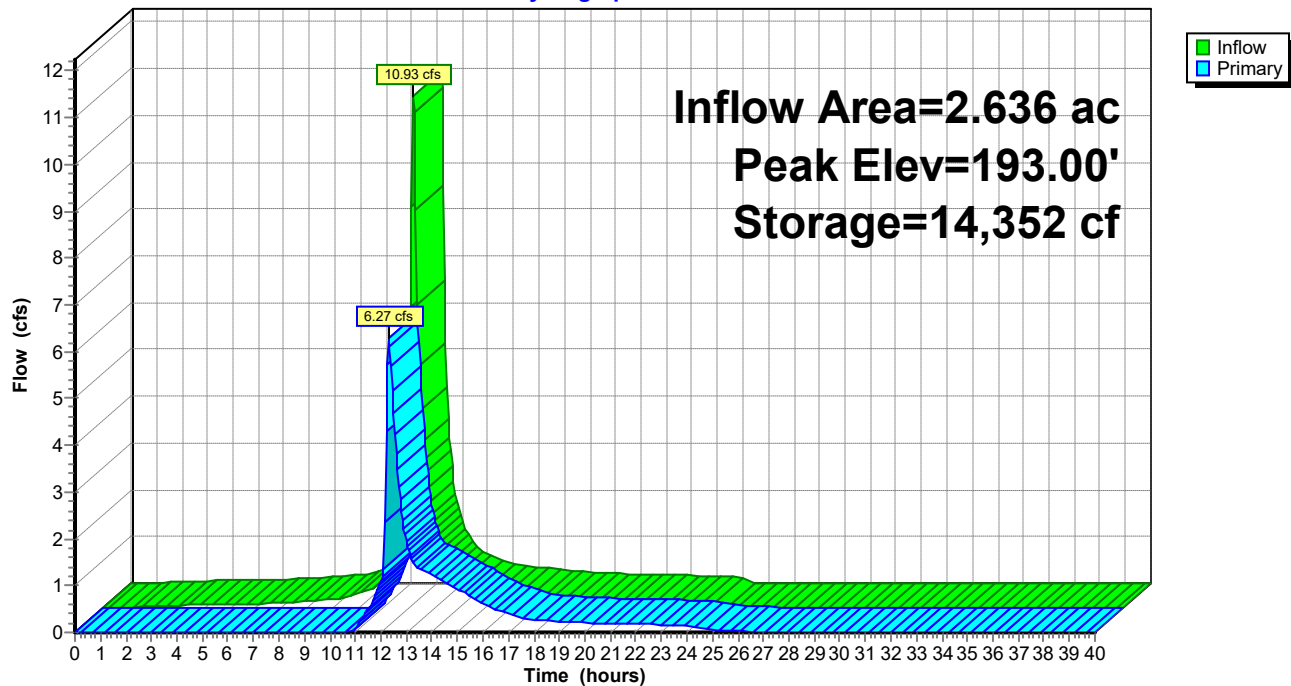
Device	Routing	Invert	Outlet Devices
#1	Primary	189.65'	18.0" Round Culvert L= 100.0' Ke= 0.500 Inlet / Outlet Invert= 189.65' / 189.15' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	191.46'	17.0" W x 2.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	192.50'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	193.99'	50.0' long + 3.0' /' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=6.20 cfs @ 12.32 hrs HW=193.00' (Free Discharge)

1=Culvert (Passes 6.20 cfs of 11.91 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 1.70 cfs @ 5.77 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 4.50 cfs @ 2.31 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-34: Basin #34

Hydrograph



Summary for Pond B-35: Basin #35

Inflow Area = 2.652 ac, 50.90% Impervious, Inflow Depth = 4.36" for Future 10 yr event
 Inflow = 11.60 cfs @ 12.17 hrs, Volume= 0.963 af
 Outflow = 8.74 cfs @ 12.26 hrs, Volume= 0.838 af, Atten= 25%, Lag= 5.4 min
 Primary = 8.74 cfs @ 12.26 hrs, Volume= 0.838 af
 Routed to Link PDA-3 : Proposed Drainage Area #3

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 192.73' @ 12.26 hrs Surf.Area= 5,413 sf Storage= 11,139 cf

Plug-Flow detention time= 126.3 min calculated for 0.838 af (87% of inflow)
 Center-of-Mass det. time= 62.7 min (842.7 - 780.0)

Volume	Invert	Avail.Storage	Storage Description
#1	189.80'	26,431 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
189.80	0	0	0
190.00	2,647	265	265
191.00	3,593	3,120	3,385
192.00	4,618	4,106	7,490
193.00	5,711	5,165	12,655
194.00	6,871	6,291	18,946
195.00	8,099	7,485	26,431

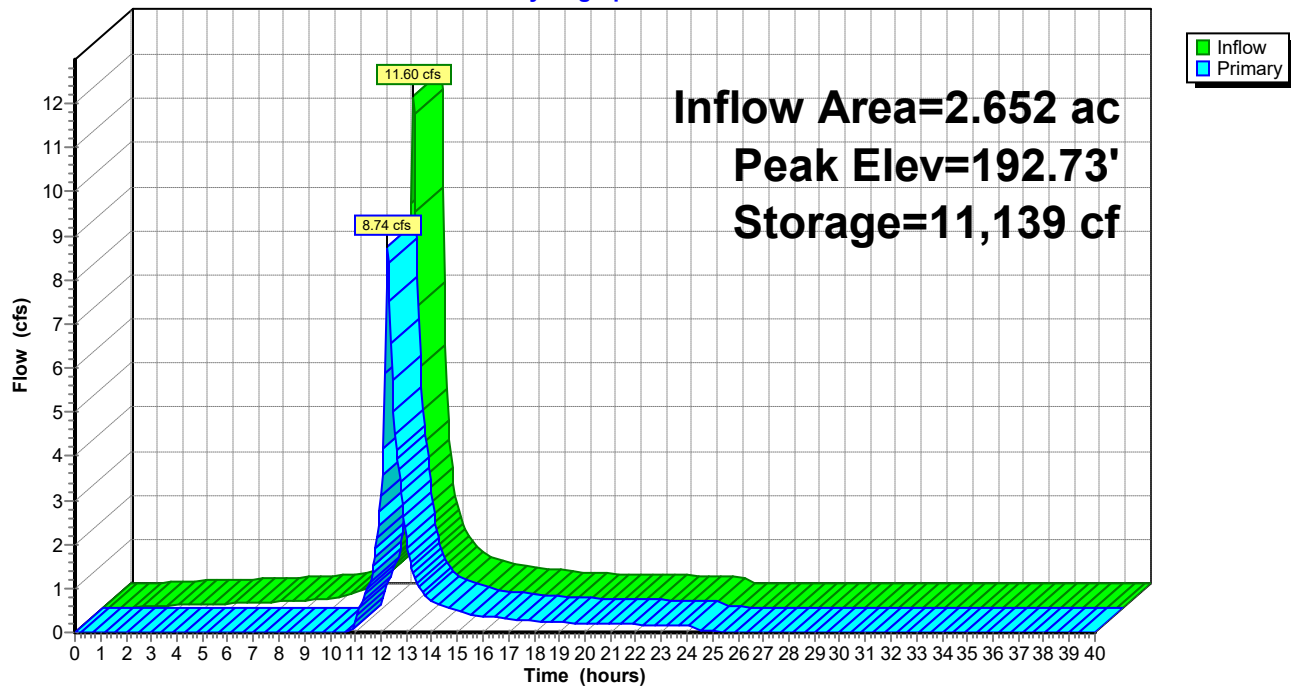
Device	Routing	Invert	Outlet Devices
#1	Primary	189.80'	18.0" Round Culvert L= 103.0' Ke= 0.500 Inlet / Outlet Invert= 189.80' / 189.30' S= 0.0049 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	191.54'	36.0" W x 4.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	192.32'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	194.00'	50.0' long + 3.0' /' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=8.63 cfs @ 12.26 hrs HW=192.72' (Free Discharge)

1=Culvert (Passes 8.63 cfs of 10.68 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 5.39 cfs @ 4.79 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 3.24 cfs @ 2.07 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-35: Basin #35

Hydrograph



Summary for Pond B-36: Basin #36

Inflow Area = 2.614 ac, 60.98% Impervious, Inflow Depth = 4.62" for Future 10 yr event
 Inflow = 11.95 cfs @ 12.17 hrs, Volume= 1.006 af
 Outflow = 5.80 cfs @ 12.35 hrs, Volume= 0.860 af, Atten= 51%, Lag= 10.5 min
 Primary = 5.80 cfs @ 12.35 hrs, Volume= 0.860 af
 Routed to Link PDA-3 : Proposed Drainage Area #3

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 193.05' @ 12.35 hrs Surf.Area= 9,836 sf Storage= 18,780 cf

Plug-Flow detention time= 186.7 min calculated for 0.860 af (86% of inflow)
 Center-of-Mass det. time= 119.0 min (891.5 - 772.5)

Volume	Invert	Avail.Storage	Storage Description
#1	190.50'	40,832 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
190.50	0	0	0
191.00	6,879	1,720	1,720
192.00	8,280	7,580	9,299
193.00	9,767	9,024	18,323
194.00	11,253	10,510	28,833
195.00	12,746	12,000	40,832

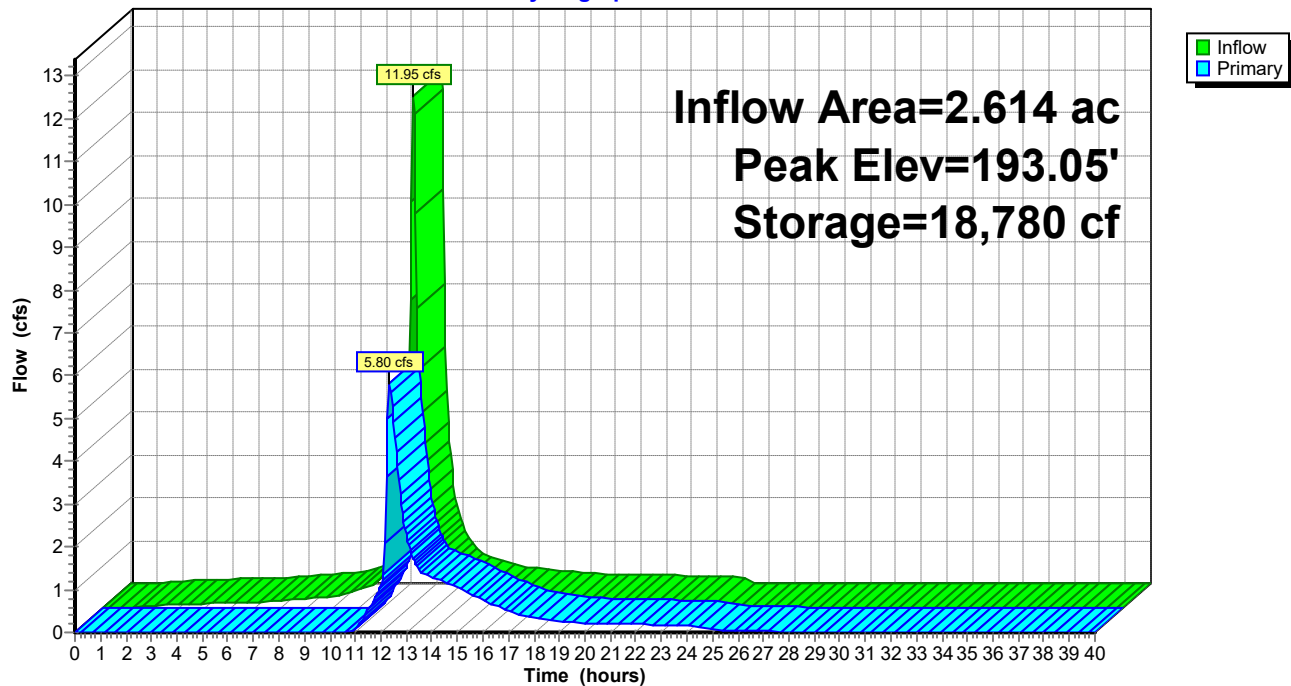
Device	Routing	Invert	Outlet Devices
#1	Primary	190.50'	18.0" Round Culvert L= 82.0' Ke= 0.500 Inlet / Outlet Invert= 190.50' / 190.10' S= 0.0049 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	191.63'	18.0" W x 2.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	192.58'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	194.00'	50.0' long + 3.0' /' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=5.79 cfs @ 12.35 hrs HW=193.05' (Free Discharge)

1=Culvert (Passes 5.79 cfs of 9.85 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 1.72 cfs @ 5.51 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 4.06 cfs @ 2.23 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-36: Basin #36

Hydrograph



Summary for Pond B-37: Basin #37

Inflow Area = 2.756 ac, 35.78% Impervious, Inflow Depth = 3.97" for Future 10 yr event
 Inflow = 11.25 cfs @ 12.17 hrs, Volume= 0.912 af
 Outflow = 4.80 cfs @ 12.38 hrs, Volume= 0.759 af, Atten= 57%, Lag= 12.3 min
 Primary = 4.80 cfs @ 12.38 hrs, Volume= 0.759 af
 Routed to Link PDA-3 : Proposed Drainage Area #3

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 195.74' @ 12.38 hrs Surf.Area= 10,162 sf Storage= 18,249 cf

Plug-Flow detention time= 367.7 min calculated for 0.758 af (83% of inflow)
 Center-of-Mass det. time= 294.5 min (1,087.5 - 793.0)

Volume	Invert	Avail.Storage	Storage Description
#1	193.30'	45,026 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
193.30	0	0	0
194.00	7,747	2,711	2,711
195.00	9,114	8,431	11,142
196.00	10,536	9,825	20,967
197.00	12,016	11,276	32,243
198.00	13,551	12,784	45,026

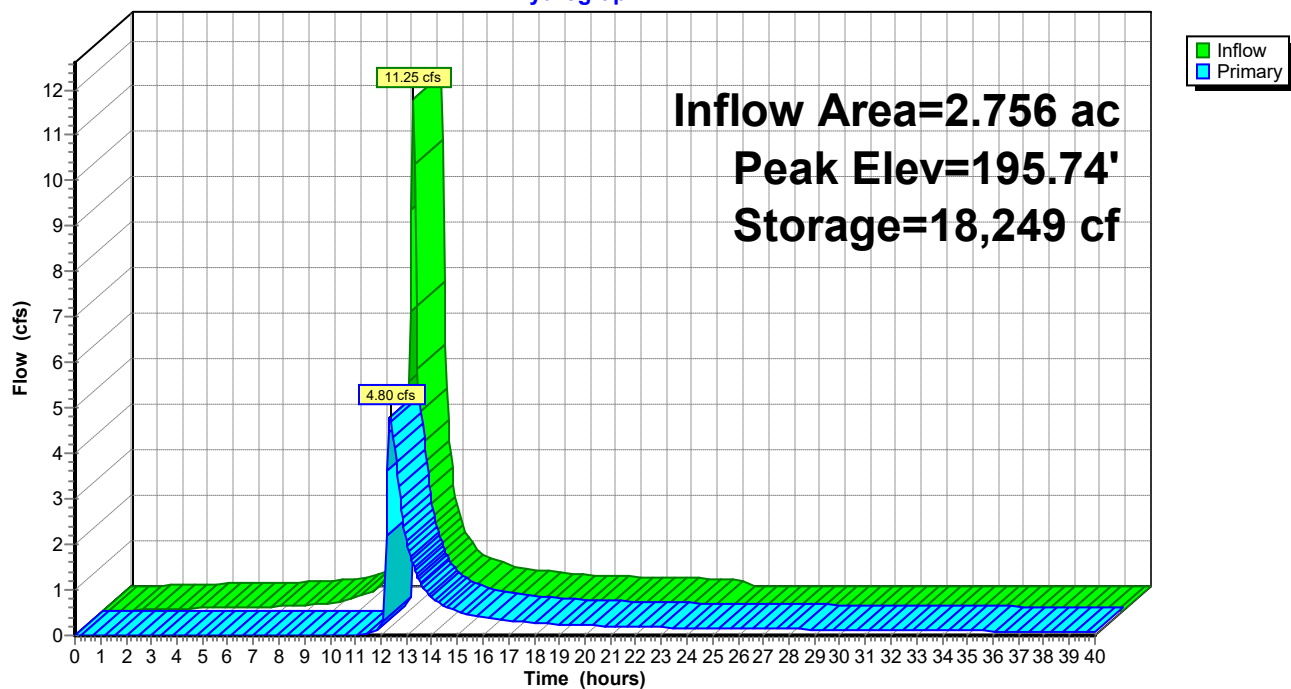
Device	Routing	Invert	Outlet Devices
#1	Primary	192.65'	18.0" Round Culvert L= 265.0' Ke= 0.500 Inlet / Outlet Invert= 192.65' / 191.33' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	194.20'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	195.23'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	196.84'	50.0' long + 3.0' /' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=4.78 cfs @ 12.38 hrs HW=195.74' (Free Discharge)

1=Culvert (Passes 4.78 cfs of 9.60 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.20 cfs @ 5.76 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 4.58 cfs @ 2.33 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-37: Basin #37

Hydrograph



Summary for Pond B-38: Basin #38

Inflow Area = 2.142 ac, 34.77% Impervious, Inflow Depth = 3.95" for Future 10 yr event
 Inflow = 8.70 cfs @ 12.17 hrs, Volume= 0.705 af
 Outflow = 3.40 cfs @ 12.41 hrs, Volume= 0.605 af, Atten= 61%, Lag= 13.9 min
 Primary = 3.40 cfs @ 12.41 hrs, Volume= 0.605 af
 Routed to Link PDA-3 : Proposed Drainage Area #3

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 207.12' @ 12.41 hrs Surf.Area= 7,016 sf Storage= 14,613 cf

Plug-Flow detention time= 424.4 min calculated for 0.604 af (86% of inflow)
 Center-of-Mass det. time= 359.0 min (1,152.9 - 794.0)

Volume	Invert	Avail.Storage	Storage Description
#1	204.30'	29,525 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
204.30	0	0	0
205.00	5,096	1,784	1,784
206.00	5,966	5,531	7,315
207.00	6,893	6,430	13,744
208.00	7,876	7,385	21,129
209.00	8,916	8,396	29,525

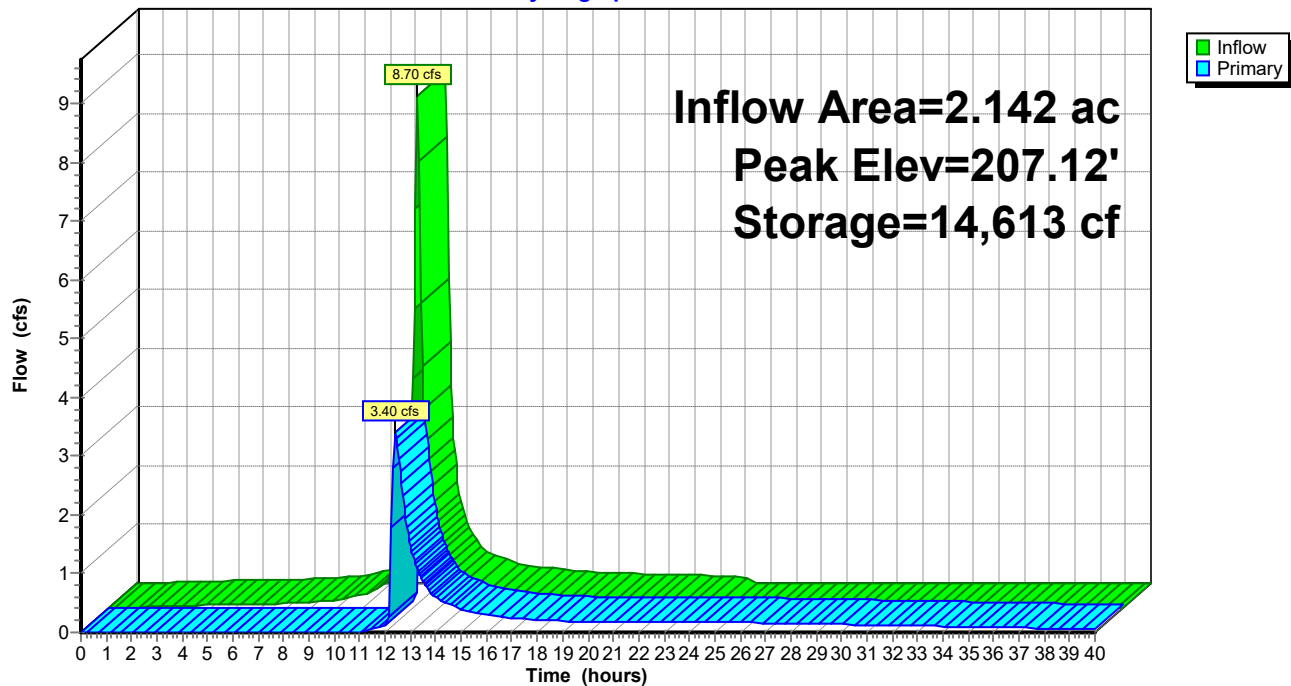
Device	Routing	Invert	Outlet Devices
#1	Primary	204.30'	18.0" Round Culvert L= 33.0' Ke= 0.500 Inlet / Outlet Invert= 204.30' / 204.13' S= 0.0052 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	205.28'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	206.73'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	207.91'	50.0' long + 3.0 ' / SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=3.39 cfs @ 12.41 hrs HW=207.12' (Free Discharge)

1=Culvert (Passes 3.39 cfs of 11.95 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.22 cfs @ 6.35 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 3.17 cfs @ 2.05 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-38: Basin #38

Hydrograph



Summary for Pond B-39: Basin #39

Inflow Area = 1.768 ac, 41.30% Impervious, Inflow Depth = 4.11" for Future 10 yr event
 Inflow = 7.40 cfs @ 12.17 hrs, Volume= 0.606 af
 Outflow = 5.31 cfs @ 12.27 hrs, Volume= 0.535 af, Atten= 28%, Lag= 6.0 min
 Primary = 5.31 cfs @ 12.27 hrs, Volume= 0.535 af
 Routed to Link PDA-3 : Proposed Drainage Area #3

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 203.38' @ 12.27 hrs Surf.Area= 4,123 sf Storage= 9,397 cf

Plug-Flow detention time= 158.1 min calculated for 0.534 af (88% of inflow)
 Center-of-Mass det. time= 101.0 min (889.0 - 788.0)

Volume	Invert	Avail.Storage	Storage Description
#1	200.30'	16,777 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
200.30	0	0	0
201.00	2,928	1,025	1,025
202.00	3,408	3,168	4,193
203.00	3,917	3,663	7,855
204.00	4,454	4,186	12,041
205.00	5,019	4,737	16,777

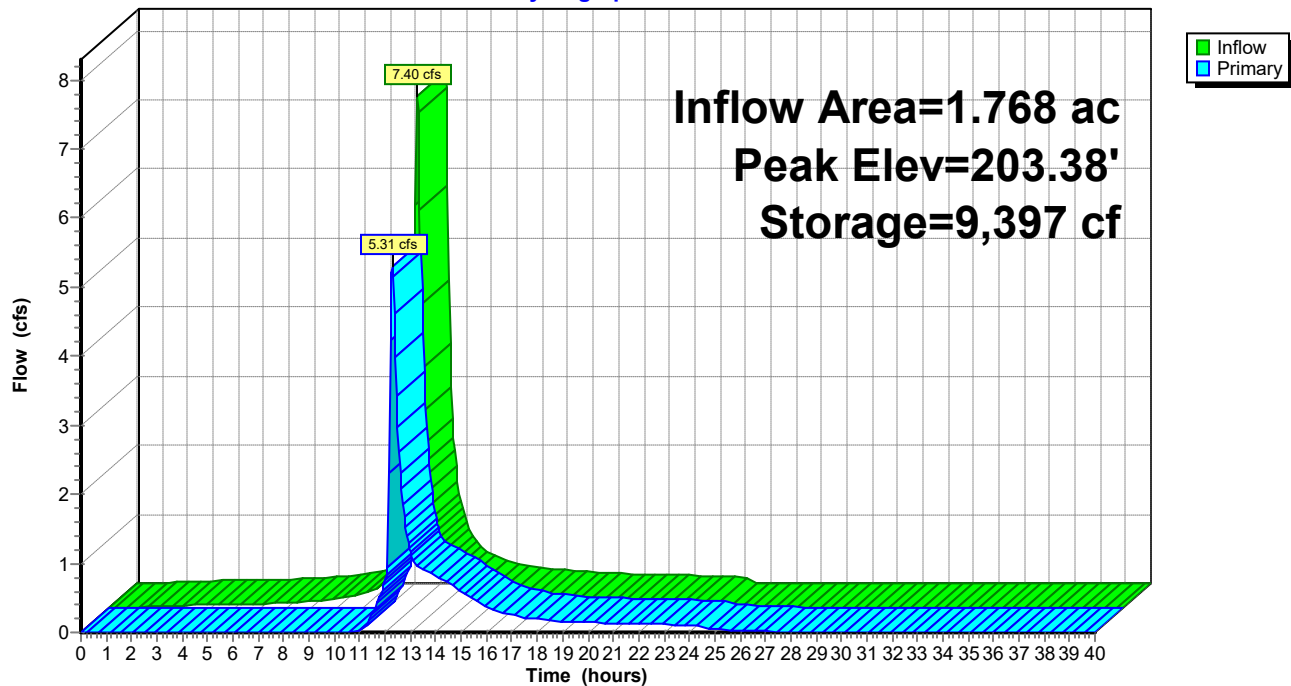
Device	Routing	Invert	Outlet Devices
#1	Primary	200.30'	18.0" Round Culvert L= 38.0' Ke= 0.500 Inlet / Outlet Invert= 200.30' / 200.11' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	201.66'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	202.91'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	203.95'	50.0' long + 3.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=5.18 cfs @ 12.27 hrs HW=203.37' (Free Discharge)

1=Culvert (Passes 5.18 cfs of 12.71 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 1.14 cfs @ 5.83 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 4.03 cfs @ 2.23 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-39: Basin #39

Hydrograph



Summary for Pond B-40: Basin #40

Inflow Area = 1.399 ac, 47.75% Impervious, Inflow Depth = 4.28" for Future 10 yr event
 Inflow = 6.04 cfs @ 12.17 hrs, Volume= 0.499 af
 Outflow = 3.13 cfs @ 12.33 hrs, Volume= 0.431 af, Atten= 48%, Lag= 9.7 min
 Primary = 3.13 cfs @ 12.33 hrs, Volume= 0.431 af
 Routed to Link PDA-3 : Proposed Drainage Area #3

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 204.24' @ 12.33 hrs Surf.Area= 4,361 sf Storage= 10,053 cf

Plug-Flow detention time= 366.6 min calculated for 0.431 af (86% of inflow)
 Center-of-Mass det. time= 301.9 min (1,084.3 - 782.5)

Volume	Invert	Avail.Storage	Storage Description
#1	201.30'	18,339 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
201.30	0	0	0
202.00	3,521	1,232	1,232
203.00	3,886	3,704	4,936
204.00	4,266	4,076	9,012
205.00	4,660	4,463	13,475
206.00	5,069	4,865	18,339

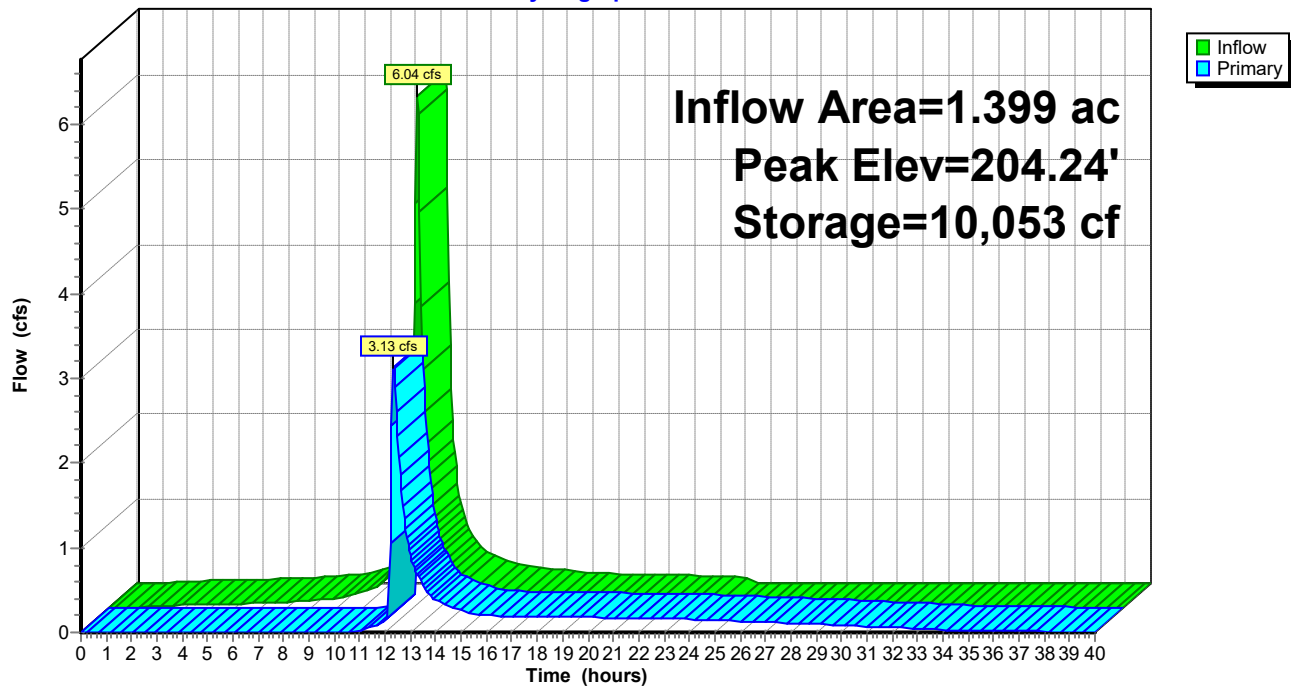
Device	Routing	Invert	Outlet Devices
#1	Primary	201.30'	18.0" Round Culvert L= 38.0' Ke= 0.500 Inlet / Outlet Invert= 201.30' / 201.11' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	202.42'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	203.87'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	204.80'	50.0' long + 3.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=3.09 cfs @ 12.33 hrs HW=204.24' (Free Discharge)

1=Culvert (Passes 3.09 cfs of 12.22 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.21 cfs @ 6.31 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 2.88 cfs @ 1.99 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-40: Basin #40

Hydrograph



Summary for Pond B-41: Basin #41

Inflow Area = 2.072 ac, 22.25% Impervious, Inflow Depth = 3.63" for Future 10 yr event
 Inflow = 7.91 cfs @ 12.17 hrs, Volume= 0.626 af
 Outflow = 3.81 cfs @ 12.36 hrs, Volume= 0.567 af, Atten= 52%, Lag= 11.0 min
 Primary = 3.81 cfs @ 12.36 hrs, Volume= 0.567 af
 Routed to Link PDA-4 : Proposed Drainage Area #4

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 184.56' @ 12.36 hrs Surf.Area= 5,224 sf Storage= 11,638 cf

Plug-Flow detention time= 359.2 min calculated for 0.567 af (91% of inflow)
 Center-of-Mass det. time= 309.9 min (1,116.9 - 807.0)

Volume	Invert	Avail.Storage	Storage Description
#1	181.85'	23,005 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
181.85	0	0	0
182.00	3,695	277	277
183.00	4,265	3,980	4,257
184.00	4,870	4,568	8,825
185.00	5,505	5,188	14,012
186.00	6,153	5,829	19,841
186.50	6,502	3,164	23,005

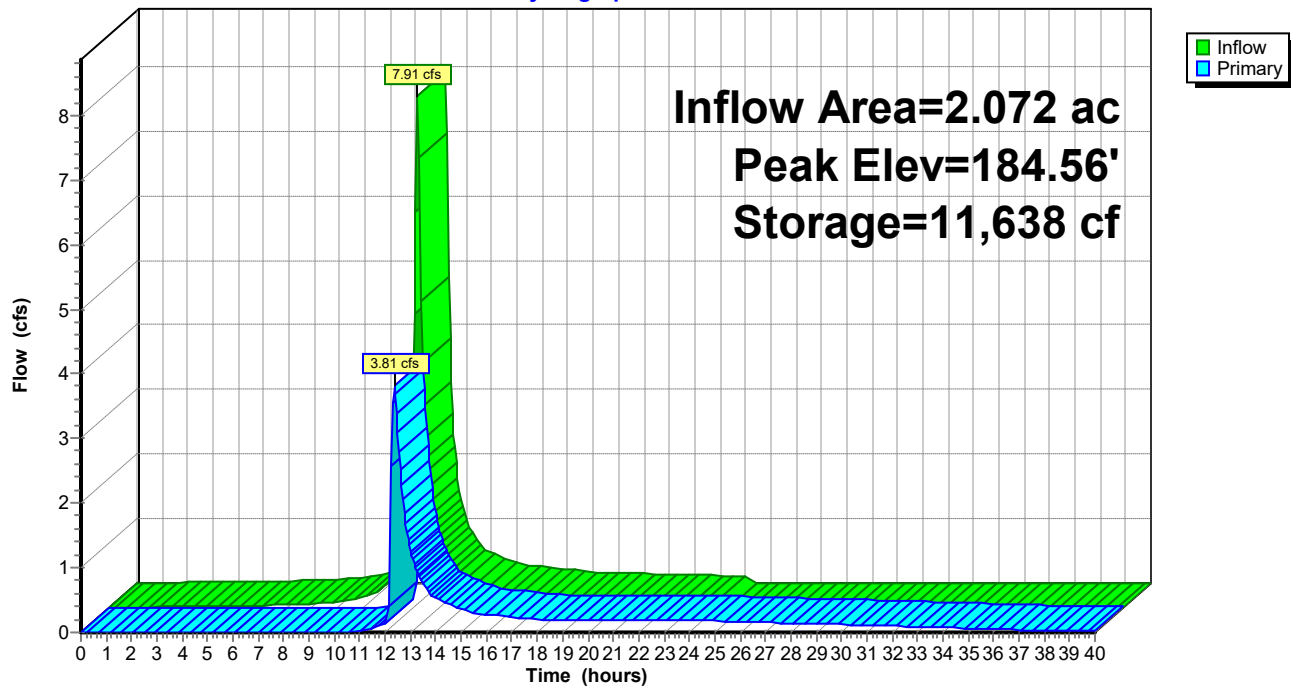
Device	Routing	Invert	Outlet Devices
#1	Primary	181.85'	18.0" Round Culvert L= 59.0' Ke= 0.500 Inlet / Outlet Invert= 181.85' / 181.55' S= 0.0051 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	182.50'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	184.13'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	185.39'	50.0' long + 3.0' /' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=3.78 cfs @ 12.36 hrs HW=184.56' (Free Discharge)

1=Culvert (Passes 3.78 cfs of 10.83 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.23 cfs @ 6.73 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 3.55 cfs @ 2.13 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-41: Basin #41

Hydrograph



Summary for Pond B-42: Basin #42

Inflow Area = 2.335 ac, 53.70% Impervious, Inflow Depth = 4.43" for Future 10 yr event
 Inflow = 10.35 cfs @ 12.17 hrs, Volume= 0.862 af
 Outflow = 7.23 cfs @ 12.27 hrs, Volume= 0.747 af, Atten= 30%, Lag= 6.2 min
 Primary = 7.23 cfs @ 12.27 hrs, Volume= 0.747 af
 Routed to Link PDA-4 : Proposed Drainage Area #4

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 184.56' @ 12.27 hrs Surf.Area= 4,729 sf Storage= 13,114 cf

Plug-Flow detention time= 147.5 min calculated for 0.747 af (87% of inflow)
 Center-of-Mass det. time= 82.9 min (860.7 - 777.8)

Volume	Invert	Avail.Storage	Storage Description
#1	180.96'	26,637 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
180.96	0	0	0
181.00	2,684	54	54
182.00	3,211	2,948	3,001
183.00	3,774	3,493	6,494
184.00	4,373	4,074	10,567
185.00	5,009	4,691	15,258
186.00	5,680	5,345	20,603
187.00	6,389	6,035	26,637

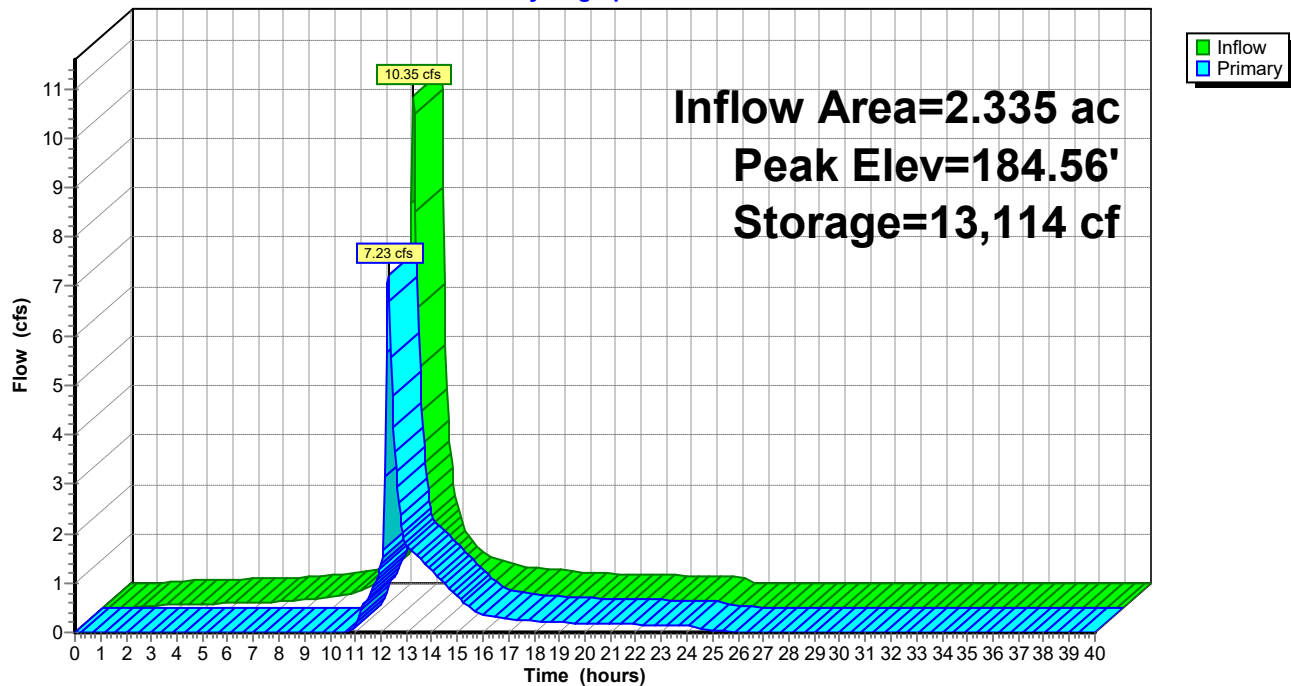
Device	Routing	Invert	Outlet Devices
#1	Primary	181.96'	18.0" Round Culvert L= 192.0' Ke= 0.500 Inlet / Outlet Invert= 181.96' / 181.00' S= 0.0050 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	182.60'	18.0" W x 2.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	184.01'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	185.99'	50.0' long + 3.0 ' / SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=7.05 cfs @ 12.27 hrs HW=184.55' (Free Discharge)

- 1=Culvert (Passes 7.05 cfs of 9.06 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 2.04 cfs @ 6.54 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 5.01 cfs @ 2.40 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-42: Basin #42

Hydrograph



Summary for Pond B-43: Basin #43

Inflow Area = 2.400 ac, 43.75% Impervious, Inflow Depth = 4.18" for Future 10 yr event
 Inflow = 10.17 cfs @ 12.17 hrs, Volume= 0.835 af
 Outflow = 6.41 cfs @ 12.30 hrs, Volume= 0.735 af, Atten= 37%, Lag= 7.5 min
 Primary = 6.41 cfs @ 12.30 hrs, Volume= 0.735 af
 Routed to Link PDA-4 : Proposed Drainage Area #4

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 179.06' @ 12.30 hrs Surf.Area= 6,247 sf Storage= 12,404 cf

Plug-Flow detention time= 137.1 min calculated for 0.734 af (88% of inflow)
 Center-of-Mass det. time= 78.3 min (864.1 - 785.8)

Volume	Invert	Avail.Storage	Storage Description
#1	176.35'	26,392 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
176.35	0	0	0
177.00	4,447	1,445	1,445
178.00	5,292	4,870	6,315
179.00	6,194	5,743	12,058
180.00	7,153	6,674	18,731
181.00	8,168	7,661	26,392

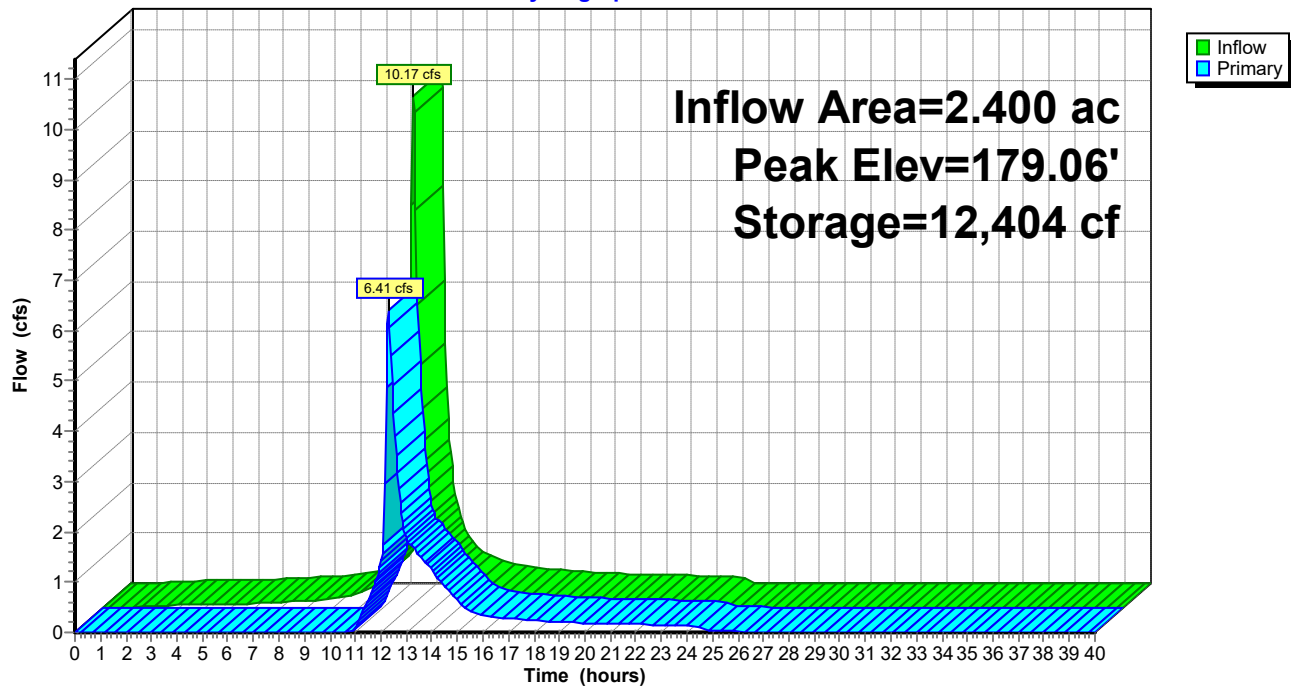
Device	Routing	Invert	Outlet Devices
#1	Primary	176.65'	18.0" Round Culvert L= 62.0' Ke= 0.500 Inlet / Outlet Invert= 176.65' / 176.00' S= 0.0105 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	177.62'	23.0" W x 2.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	178.58'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	180.00'	50.0' long + 3.0' /' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=6.39 cfs @ 12.30 hrs HW=179.05' (Free Discharge)

1=Culvert (Passes 6.39 cfs of 10.89 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 2.22 cfs @ 5.55 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 4.17 cfs @ 2.25 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-43: Basin #43

Hydrograph



Summary for Pond B-44: Basin #44

Inflow Area = 2.419 ac, 40.67% Impervious, Inflow Depth = 4.10" for Future 10 yr event
 Inflow = 10.10 cfs @ 12.17 hrs, Volume= 0.826 af
 Outflow = 5.57 cfs @ 12.32 hrs, Volume= 0.728 af, Atten= 45%, Lag= 9.0 min
 Primary = 5.57 cfs @ 12.32 hrs, Volume= 0.728 af
 Routed to Link PDA-4 : Proposed Drainage Area #4

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 168.12' @ 12.32 hrs Surf.Area= 6,932 sf Storage= 14,860 cf

Plug-Flow detention time= 201.0 min calculated for 0.727 af (88% of inflow)
 Center-of-Mass det. time= 143.3 min (931.8 - 788.5)

Volume	Invert	Avail.Storage	Storage Description
#1	165.30'	29,351 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.30	0	0	0
166.00	5,359	1,876	1,876
167.00	6,079	5,719	7,595
168.00	6,838	6,459	14,053
169.00	7,638	7,238	21,291
170.00	8,481	8,060	29,351

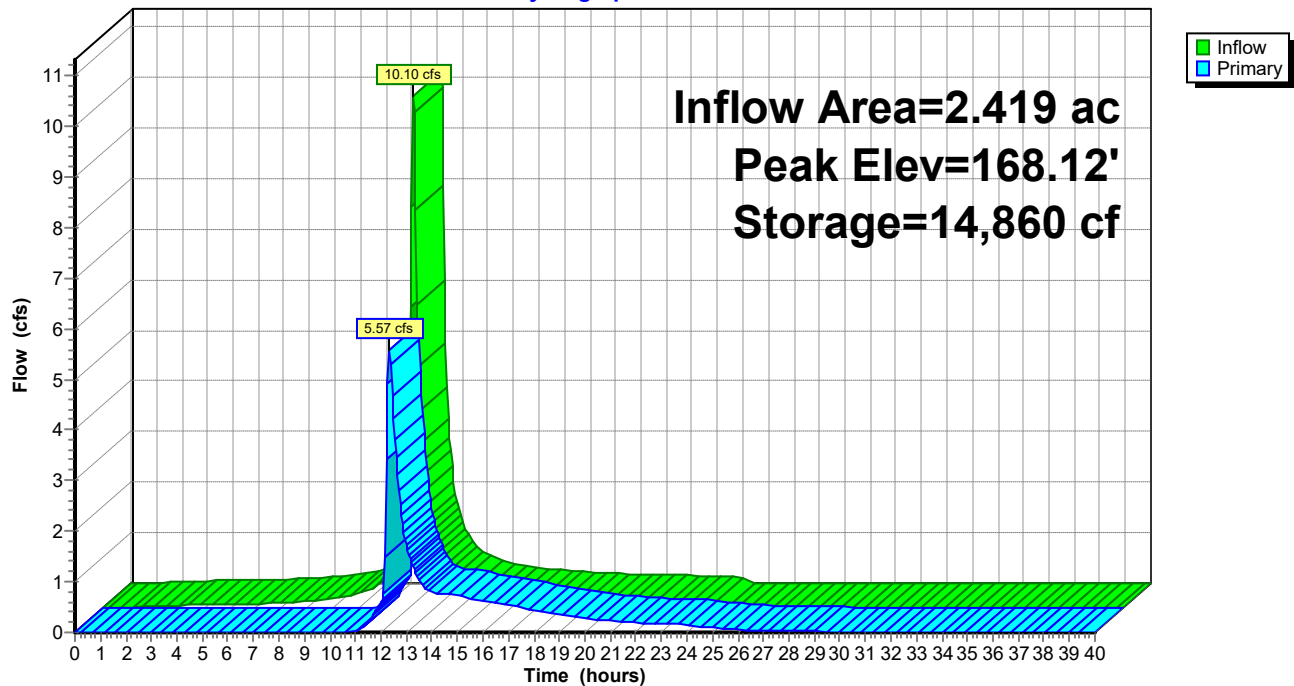
Device	Routing	Invert	Outlet Devices
#1	Primary	165.30'	18.0" Round Culvert L= 41.0' Ke= 0.500 Inlet / Outlet Invert= 165.30' / 164.00' S= 0.0317 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	166.41'	5.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	167.61'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	168.98'	50.0' long + 3.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=5.49 cfs @ 12.32 hrs HW=168.11' (Free Discharge)

1=Culvert (Passes 5.49 cfs of 12.22 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.96 cfs @ 5.84 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 4.53 cfs @ 2.32 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-44: Basin #44

Hydrograph



Summary for Pond B-45: Basin #45

Inflow Area = 1.794 ac, 71.18% Impervious, Inflow Depth = 4.88" for Future 10 yr event
 Inflow = 8.56 cfs @ 12.17 hrs, Volume= 0.729 af
 Outflow = 4.31 cfs @ 12.34 hrs, Volume= 0.611 af, Atten= 50%, Lag= 10.0 min
 Primary = 4.31 cfs @ 12.34 hrs, Volume= 0.611 af
 Routed to Link PDA-4 : Proposed Drainage Area #4

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 169.32' @ 12.34 hrs Surf.Area= 5,470 sf Storage= 15,675 cf

Plug-Flow detention time= 366.8 min calculated for 0.611 af (84% of inflow)
 Center-of-Mass det. time= 294.6 min (1,060.3 - 765.7)

Volume	Invert	Avail.Storage	Storage Description
#1	165.30'	25,900 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.30	0	0	0
166.00	3,339	1,169	1,169
167.00	3,939	3,639	4,808
168.00	4,573	4,256	9,064
169.00	5,245	4,909	13,973
170.00	5,954	5,600	19,572
171.00	6,702	6,328	25,900

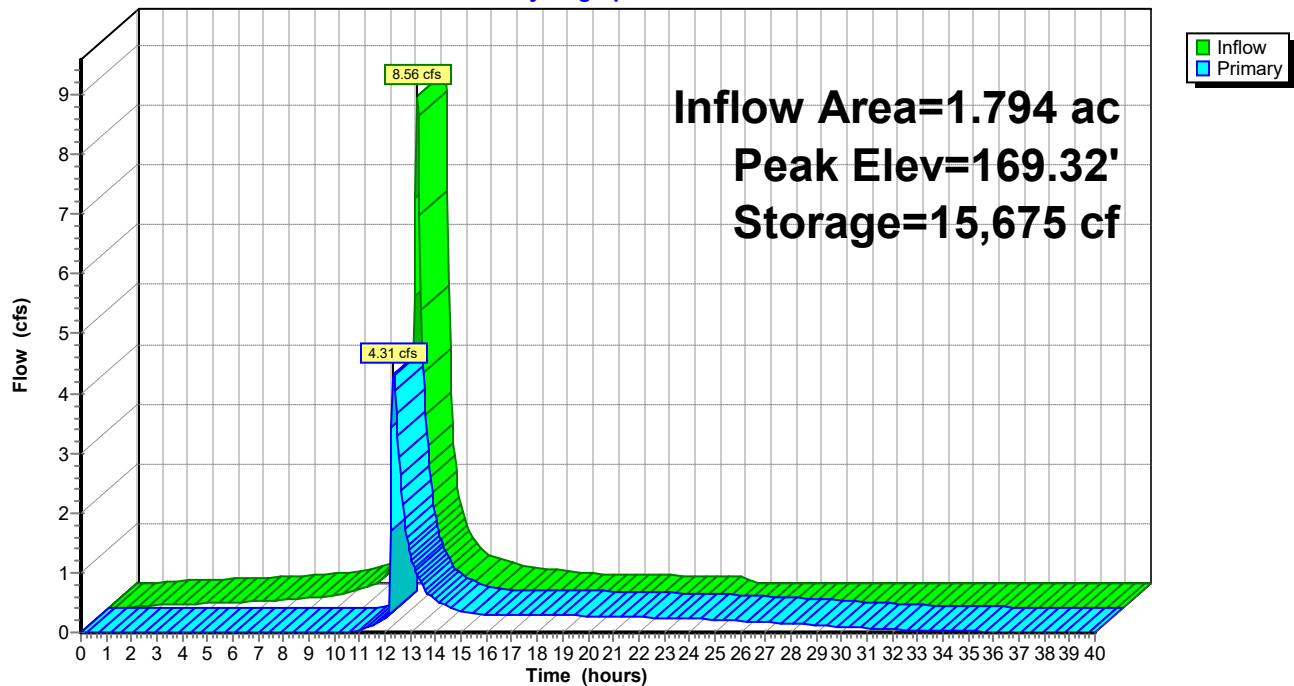
Device	Routing	Invert	Outlet Devices
#1	Primary	165.30'	18.0" Round Culvert L= 40.0' Ke= 0.500 Inlet / Outlet Invert= 165.30' / 164.00' S= 0.0325 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	167.04'	3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	168.86'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	169.97'	50.0' long + 3.0' /' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=4.27 cfs @ 12.34 hrs HW=169.32' (Free Discharge)

1=Culvert (Passes 4.27 cfs of 15.37 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.35 cfs @ 7.06 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 3.92 cfs @ 2.21 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-45: Basin #45

Hydrograph



Summary for Pond B-46: Basin #46

Inflow Area = 3.287 ac, 37.82% Impervious, Inflow Depth = 4.02" for Future 10 yr event
 Inflow = 13.55 cfs @ 12.17 hrs, Volume= 1.102 af
 Outflow = 1.54 cfs @ 13.08 hrs, Volume= 0.706 af, Atten= 89%, Lag= 54.3 min
 Primary = 1.54 cfs @ 13.08 hrs, Volume= 0.706 af
 Routed to Link PDA-4 : Proposed Drainage Area #4

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 184.68' @ 13.08 hrs Surf.Area= 29,696 sf Storage= 29,360 cf

Plug-Flow detention time= 478.0 min calculated for 0.705 af (64% of inflow)
 Center-of-Mass det. time= 370.6 min (1,161.7 - 791.1)

Volume	Invert	Avail.Storage	Storage Description
#1	183.30'	141,657 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
183.30	0	0	0
184.00	28,088	9,831	9,831
185.00	30,467	29,278	39,108
186.00	32,902	31,685	70,793
187.00	35,393	34,148	104,940
188.00	38,040	36,717	141,657

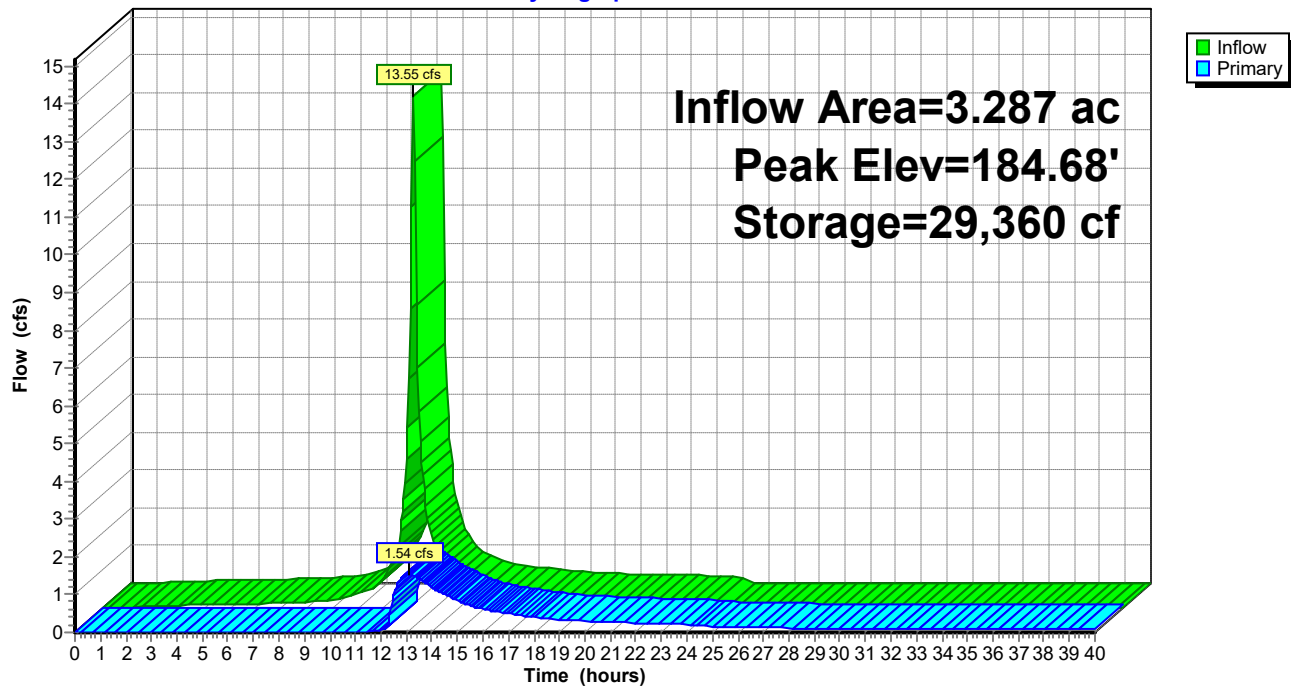
Device	Routing	Invert	Outlet Devices
#1	Primary	182.65'	18.0" Round Culvert L= 65.0' Ke= 0.500 Inlet / Outlet Invert= 182.65' / 176.00' S= 0.1023 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	183.82'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	184.45'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	185.38'	50.0' long + 3.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=1.53 cfs @ 13.08 hrs HW=184.68' (Free Discharge)

- 1=Culvert (Passes 1.53 cfs of 9.61 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.14 cfs @ 4.17 fps)
- 3=Sharp-Crested Rectangular Weir (Weir Controls 1.39 cfs @ 1.55 fps)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-46: Basin #46

Hydrograph



Summary for Pond B-47: Basin #47

Inflow Area = 2.981 ac, 32.75% Impervious, Inflow Depth = 3.90" for Future 10 yr event
 Inflow = 11.99 cfs @ 12.17 hrs, Volume= 0.968 af
 Outflow = 1.73 cfs @ 12.85 hrs, Volume= 0.668 af, Atten= 86%, Lag= 40.9 min
 Primary = 1.73 cfs @ 12.85 hrs, Volume= 0.668 af
 Routed to Link PDA-4 : Proposed Drainage Area #4

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 189.77' @ 12.85 hrs Surf.Area= 22,800 sf Storage= 24,368 cf

Plug-Flow detention time= 461.9 min calculated for 0.668 af (69% of inflow)
 Center-of-Mass det. time= 361.3 min (1,157.2 - 795.9)

Volume	Invert	Avail.Storage	Storage Description
#1	188.30'	80,305 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
188.30	0	0	0
189.00	21,318	7,461	7,461
190.00	23,252	22,285	29,746
191.00	25,242	24,247	53,993
192.00	27,382	26,312	80,305

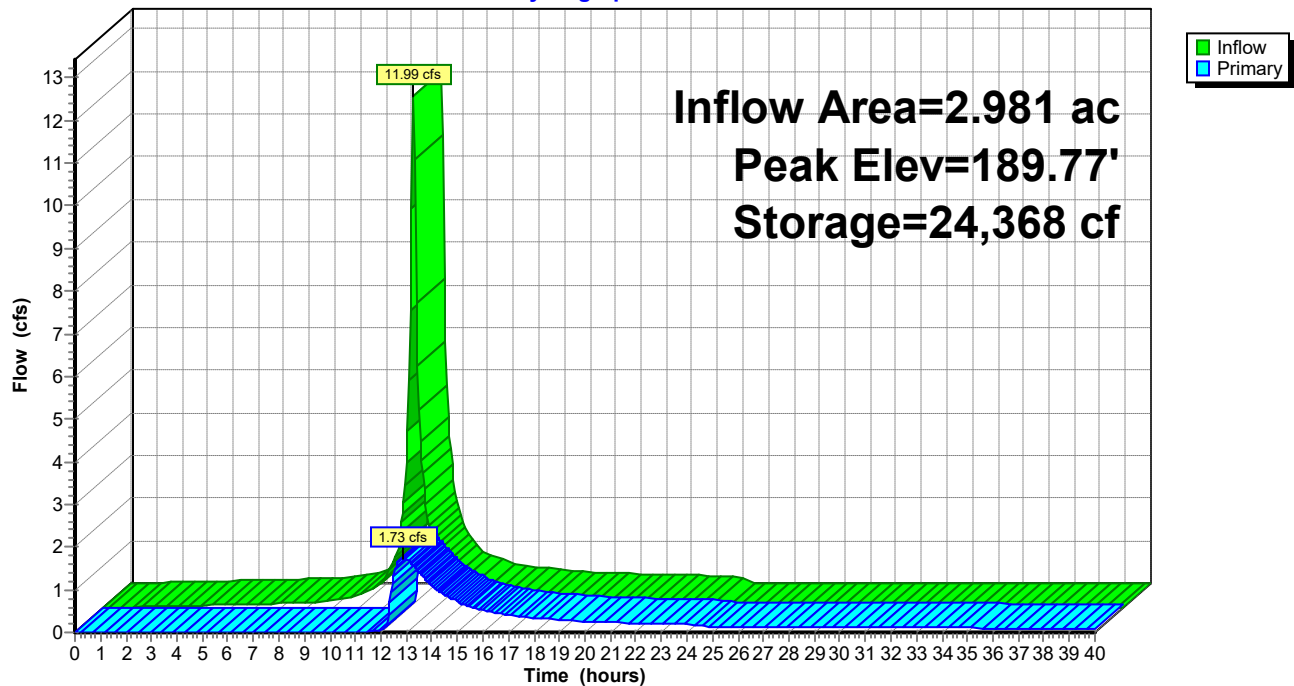
Device	Routing	Invert	Outlet Devices
#1	Primary	187.65'	18.0" Round Culvert L= 62.0' Ke= 0.500 Inlet / Outlet Invert= 187.65' / 184.00' S= 0.0589 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	188.84'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	189.52'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	190.51'	50.0' long + 3.0 ' / SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=1.73 cfs @ 12.85 hrs HW=189.77' (Free Discharge)

1=Culvert (Passes 1.73 cfs of 9.95 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.15 cfs @ 4.37 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 1.58 cfs @ 1.62 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-47: Basin #47

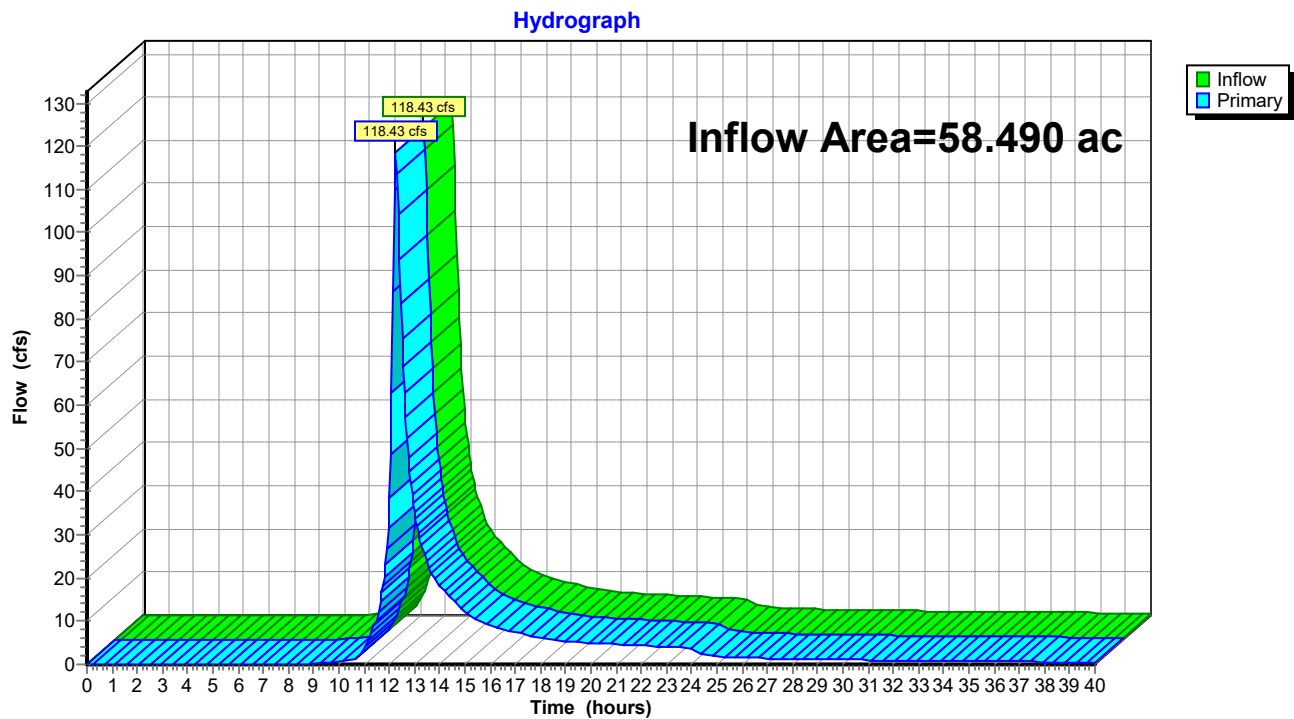
Hydrograph



Summary for Link DP-2: Design Pont #2 (Jacobs Creek)

Inflow Area = 58.490 ac, 30.70% Impervious, Inflow Depth > 3.31" for Future 10 yr event
Inflow = 118.43 cfs @ 12.26 hrs, Volume= 16.142 af
Primary = 118.43 cfs @ 12.26 hrs, Volume= 16.142 af, Atten= 0%, Lag= 0.0 min

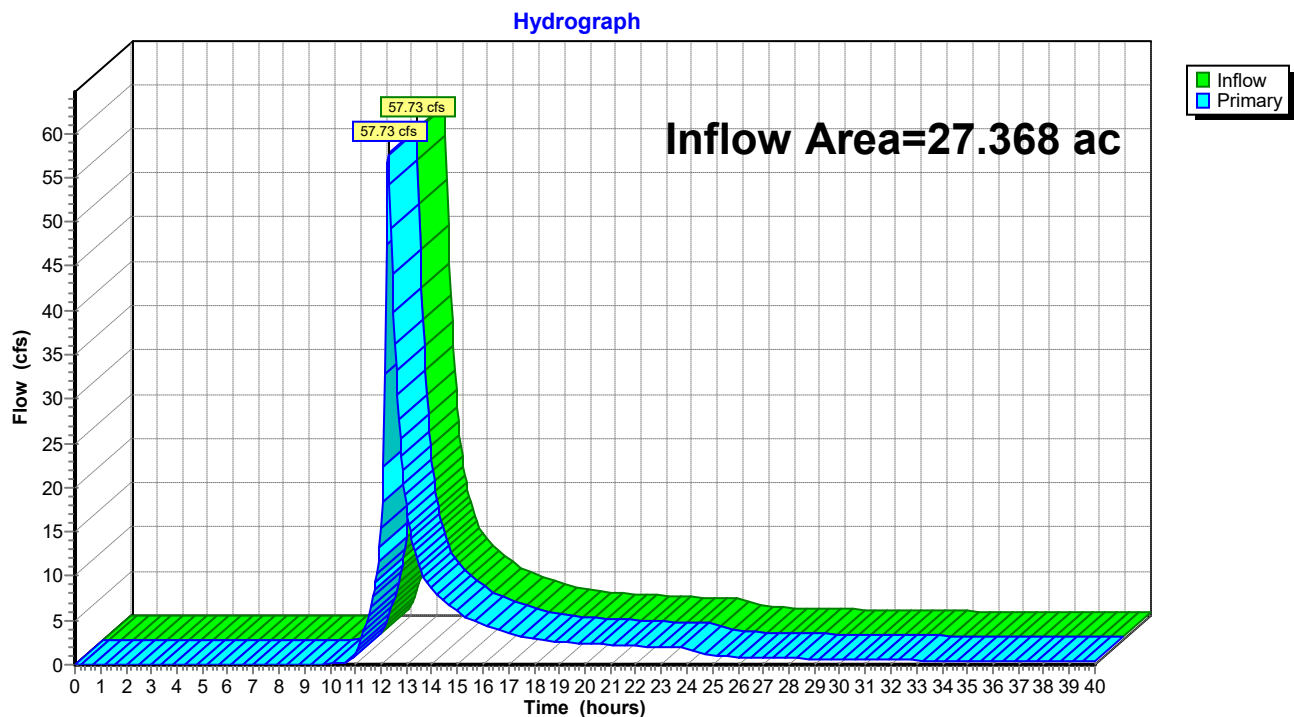
Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

Link DP-2: Design Pont #2 (Jacobs Creek)

Summary for Link PDA-3: Proposed Drainage Area #3

Inflow Area = 27.368 ac, 39.13% Impervious, Inflow Depth > 3.44" for Future 10 yr event
Inflow = 57.73 cfs @ 12.29 hrs, Volume= 7.854 af
Primary = 57.73 cfs @ 12.29 hrs, Volume= 7.854 af, Atten= 0%, Lag= 0.0 min
Routed to Link DP-2 : Design Pont #2 (Jacobs Creek)

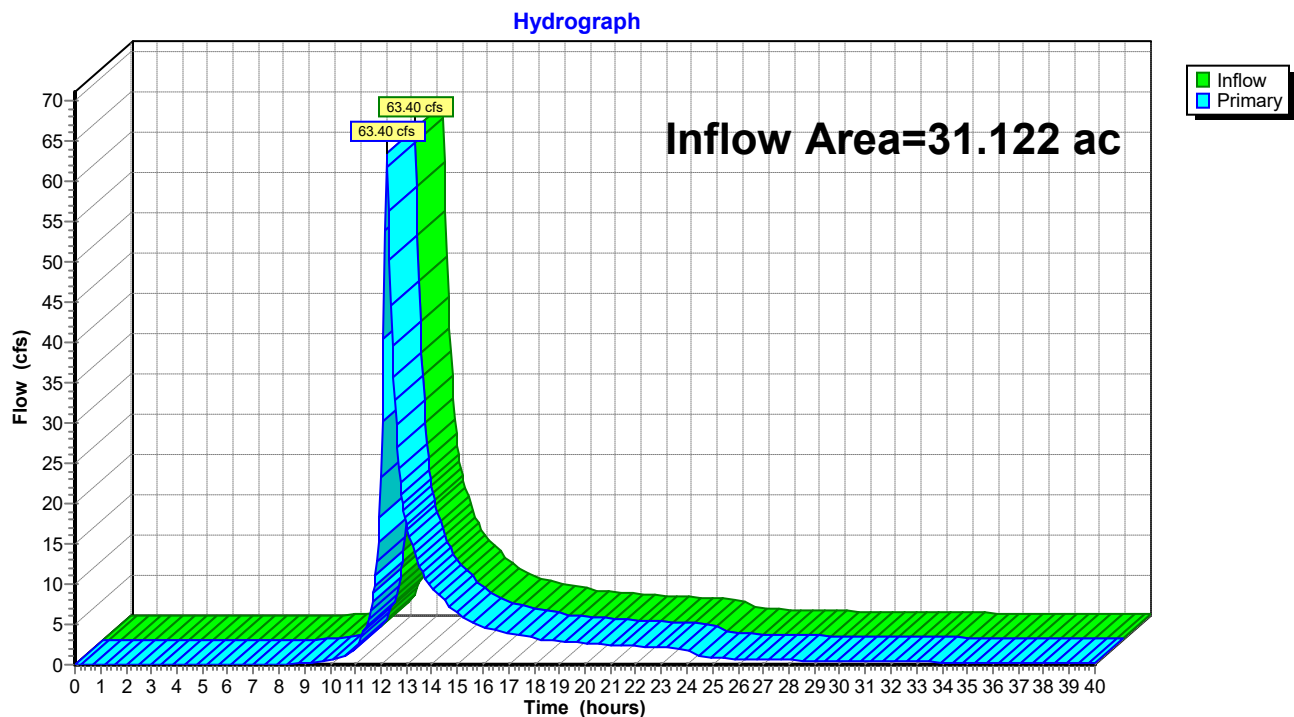
Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

Link PDA-3: Proposed Drainage Area #3

Summary for Link PDA-4: Proposed Drainage Area #4

Inflow Area = 31.122 ac, 23.28% Impervious, Inflow Depth > 3.20" for Future 10 yr event
Inflow = 63.40 cfs @ 12.22 hrs, Volume= 8.288 af
Primary = 63.40 cfs @ 12.22 hrs, Volume= 8.288 af, Atten= 0%, Lag= 0.0 min
Routed to Link DP-2 : Design Pont #2 (Jacobs Creek)

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

Link PDA-4: Proposed Drainage Area #4

Summary for Subcatchment 29I: PDA-29 (impervious)

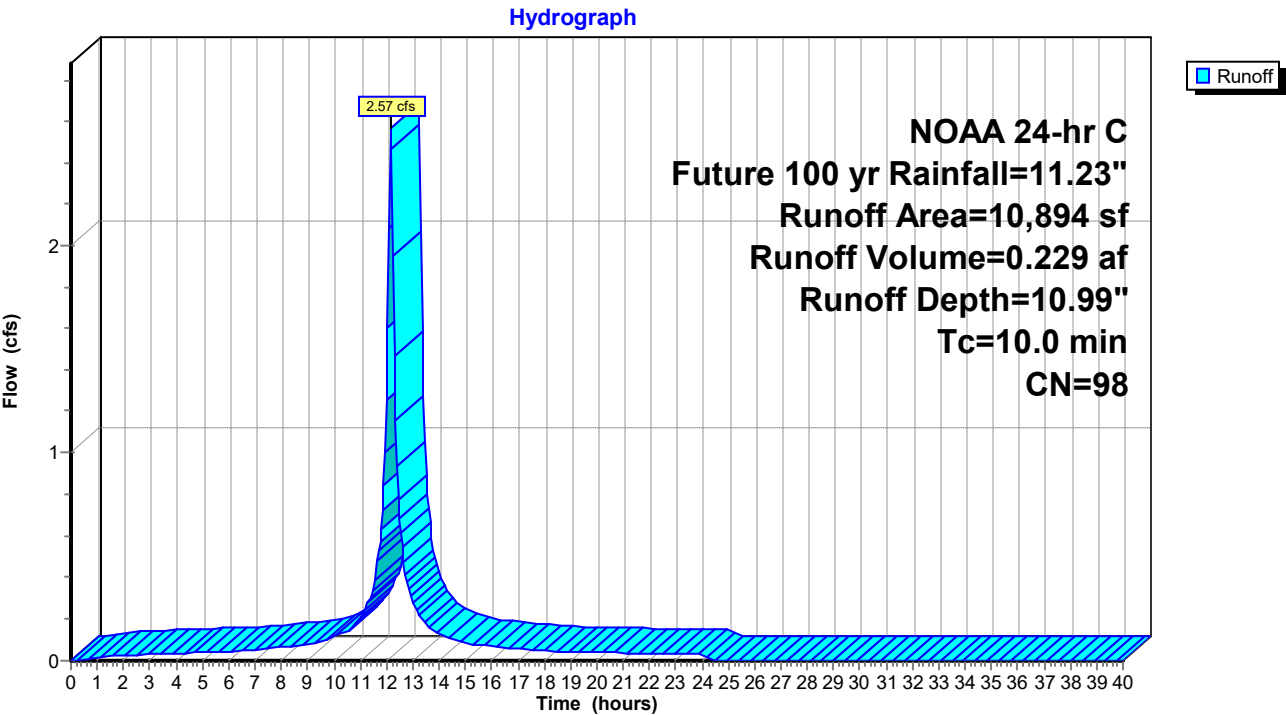
Runoff = 2.57 cfs @ 12.17 hrs, Volume= 0.229 af, Depth=10.99"
Routed to Pond B-29 : Basin #29

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
NOAA 24-hr C Future 100 yr Rainfall=11.23"

	Area (sf)	CN	Description
*	8,631	98	Pavement, HSG C
*	2,263	98	Concrete, HSC C
	10,894	98	Weighted Average
	10,894		100.00% Impervious Area

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

Subcatchment 29I: PDA-29 (impervious)



Summary for Subcatchment 29P: PDA-29 (pervious)

Runoff = 3.06 cfs @ 12.17 hrs, Volume= 0.236 af, Depth= 7.89"
 Routed to Pond B-29 : Basin #29

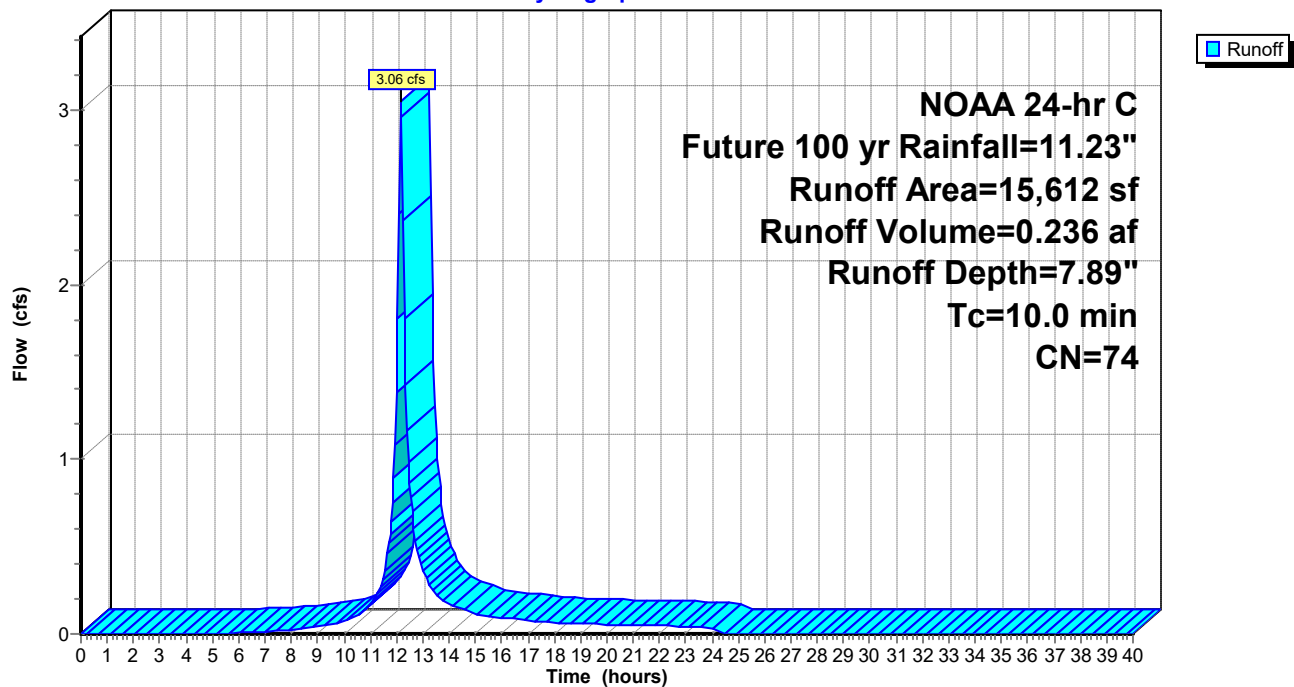
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (sf)	CN	Description
15,612	74	>75% Grass cover, Good, HSG C
15,612		100.00% Pervious Area

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

Subcatchment 29P: PDA-29 (pervious)

Hydrograph



Summary for Subcatchment 30I: PDA-30 (impervious)

Runoff = 5.07 cfs @ 12.17 hrs, Volume= 0.452 af, Depth=10.99"
 Routed to Pond B-30 : Basin #30

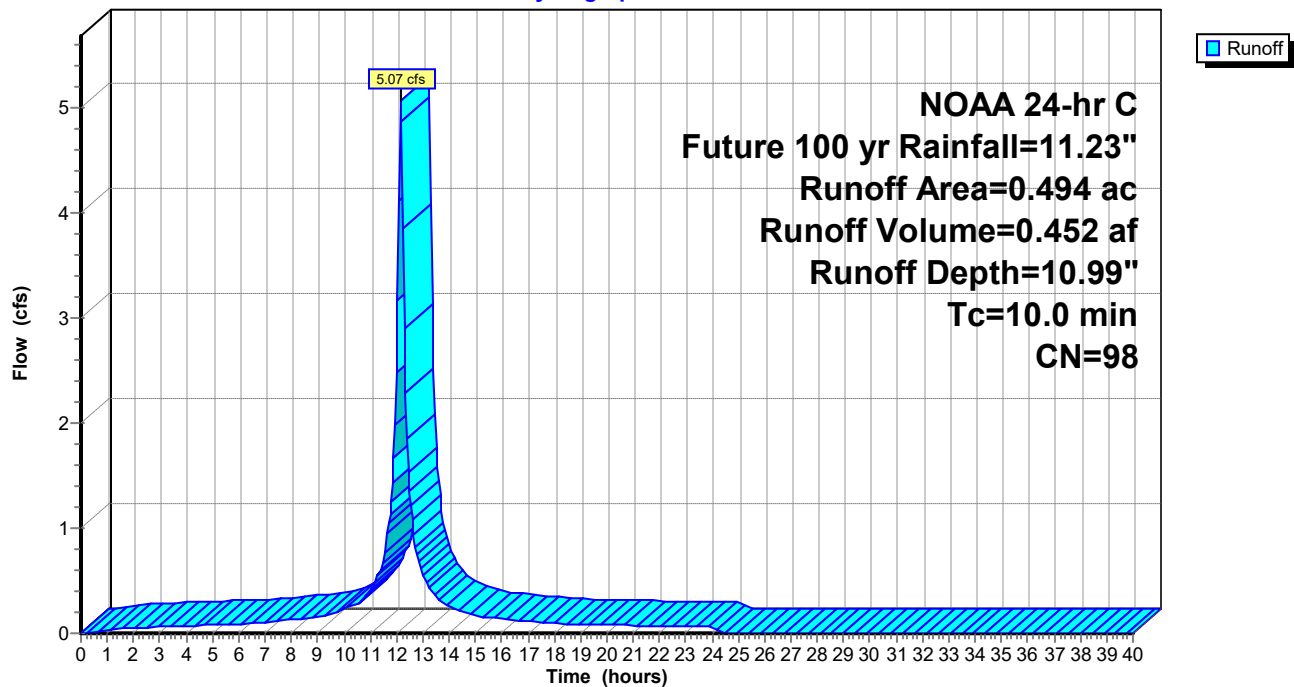
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (ac)	CN	Description
* 0.232	98	Pavement, HSG C
* 0.257	98	Roof, HSG C
* 0.005	98	Concrete, HSC C
0.494	98	Weighted Average
0.494		100.00% Impervious Area

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

Subcatchment 30I: PDA-30 (impervious)

Hydrograph



Summary for Subcatchment 30P: PDA-30 (pervious)

Runoff = 20.30 cfs @ 12.17 hrs, Volume= 1.565 af, Depth= 7.89"
 Routed to Pond B-30 : Basin #30

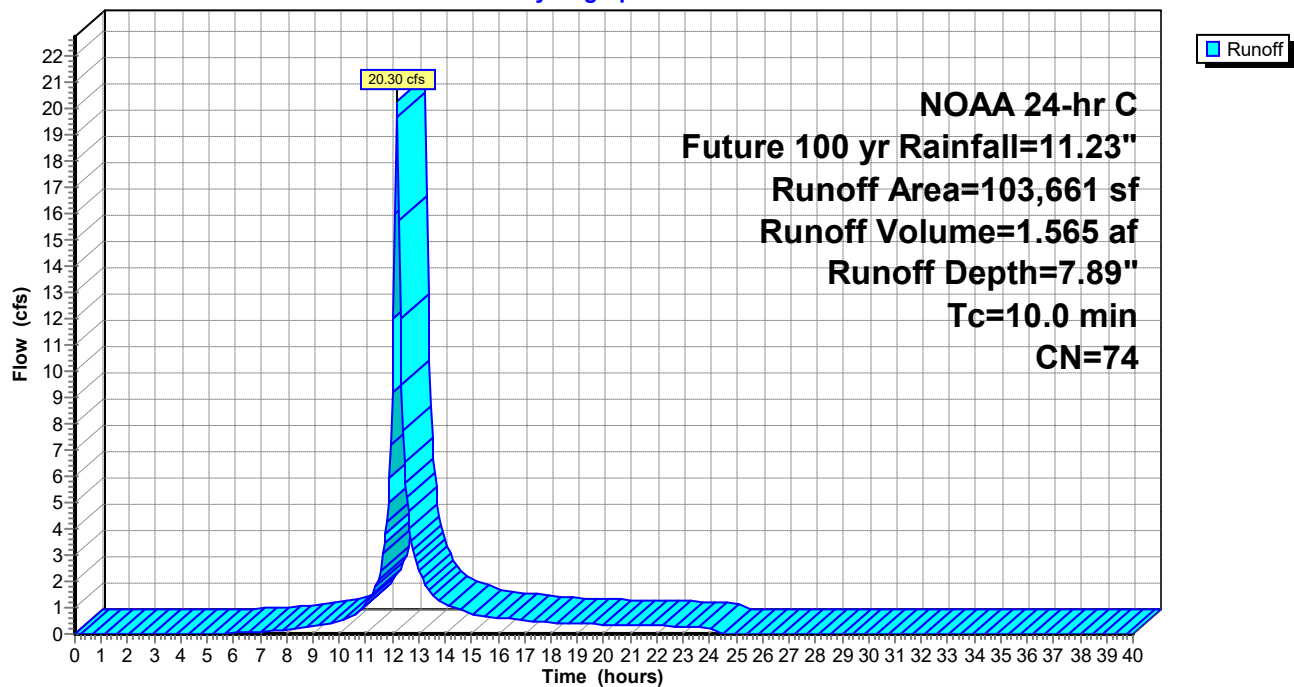
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (sf)	CN	Description
103,661	74	>75% Grass cover, Good, HSG C
103,661		100.00% Pervious Area

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

Subcatchment 30P: PDA-30 (pervious)

Hydrograph



Summary for Subcatchment 31I: PDA-31 (impervious)

Runoff = 3.90 cfs @ 12.17 hrs, Volume= 0.348 af, Depth=10.99"
 Routed to Pond B-31 : Basin #31

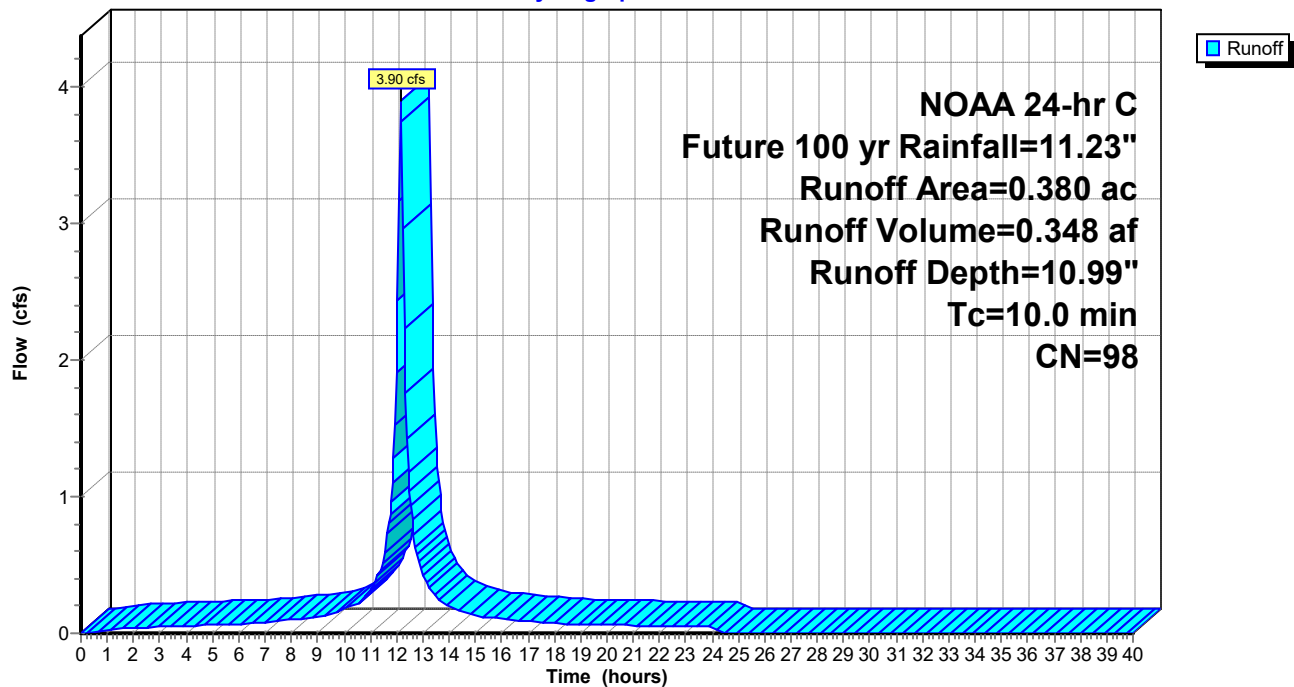
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (ac)	CN	Description
* 0.174	98	Pavement, HSG C
* 0.193	98	Roof, HSG C
* 0.013	98	Concrete, HSC C
0.380	98	Weighted Average
0.380		100.00% Impervious Area

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

Subcatchment 31I: PDA-31 (impervious)

Hydrograph



Summary for Subcatchment 31P: PDA-31 (pervious)

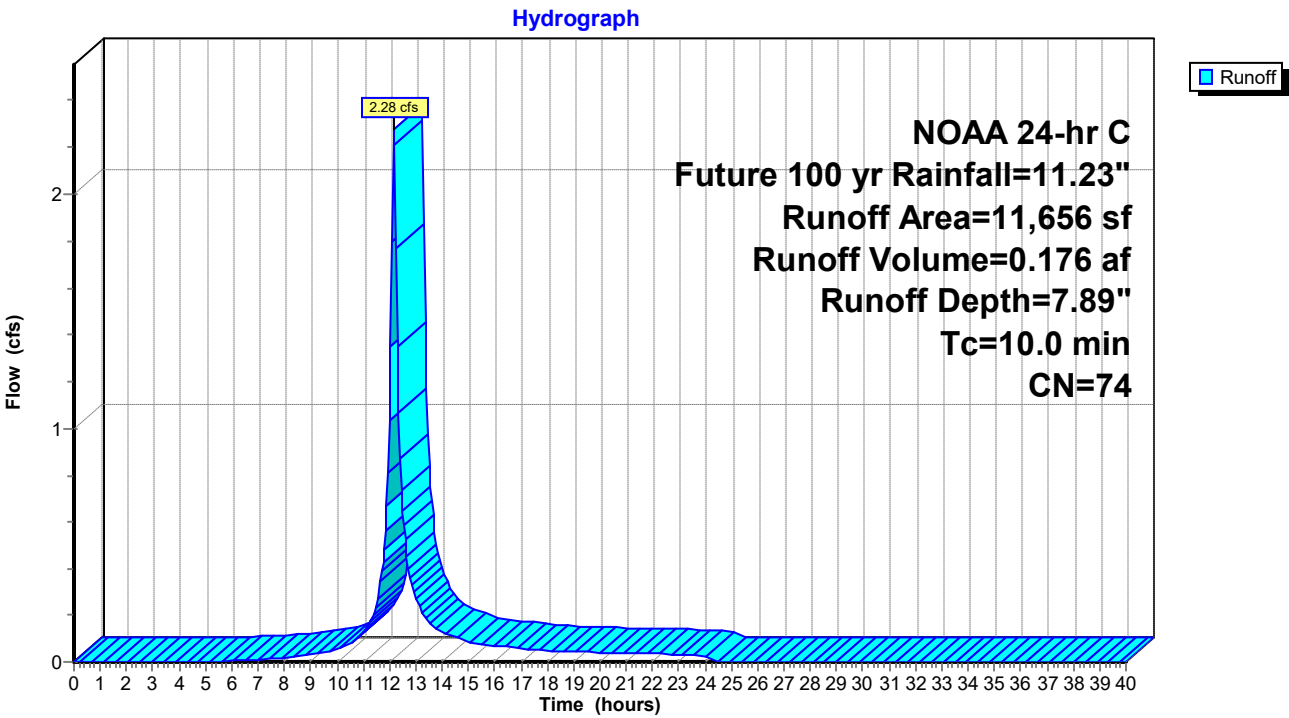
Runoff = 2.28 cfs @ 12.17 hrs, Volume= 0.176 af, Depth= 7.89"
Routed to Pond B-31 : Basin #31

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (sf)	CN	Description
11,656	74	>75% Grass cover, Good, HSG C
11,656		100.00% Pervious Area

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

Subcatchment 31P: PDA-31 (pervious)



Summary for Subcatchment 32I: PDA-32 (impervious)

Runoff = 14.12 cfs @ 12.17 hrs, Volume= 1.259 af, Depth=10.99"
 Routed to Pond B-32 : Basin #32

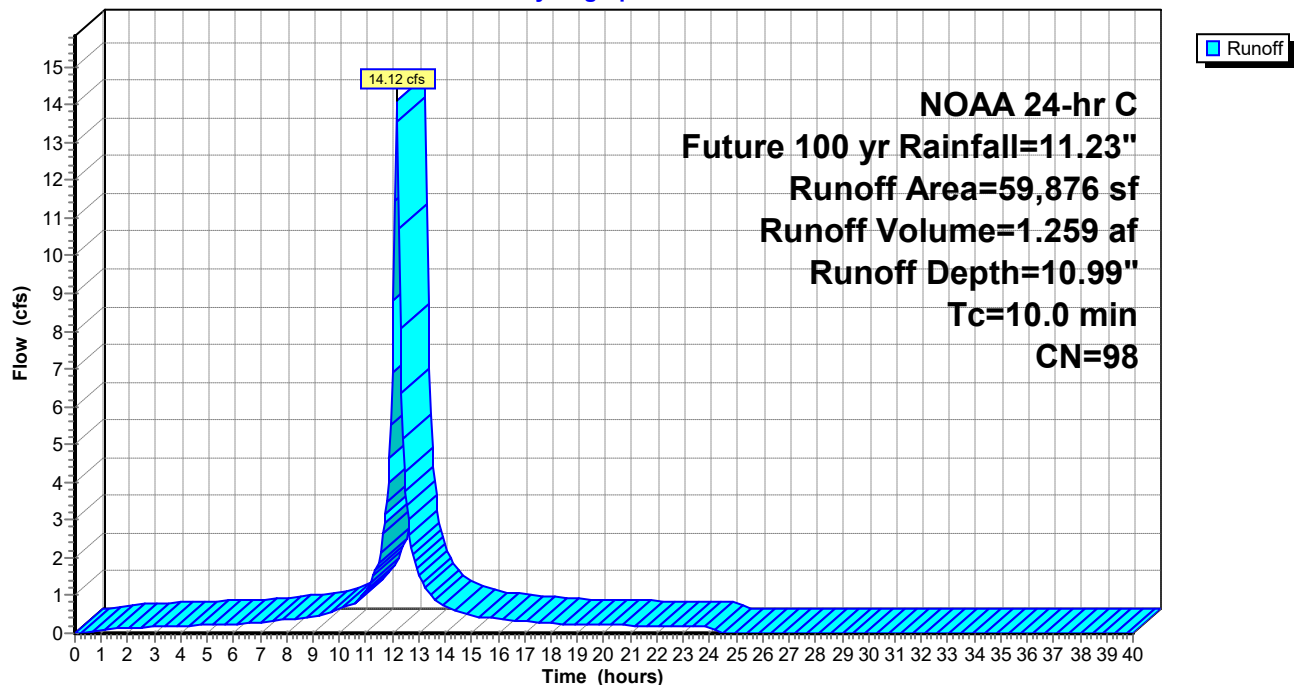
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

	Area (sf)	CN	Description
*	20,550	98	Pavement, HSG C
*	36,400	98	Roof, HSG C
*	2,926	98	Concrete, HSC C
	59,876	98	Weighted Average
	59,876		100.00% Impervious Area

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

Subcatchment 32I: PDA-32 (impervious)

Hydrograph



Summary for Subcatchment 32P: PDA-32 (pervious)

Runoff = 5.49 cfs @ 12.17 hrs, Volume= 0.423 af, Depth= 7.89"
 Routed to Pond B-32 : Basin #32

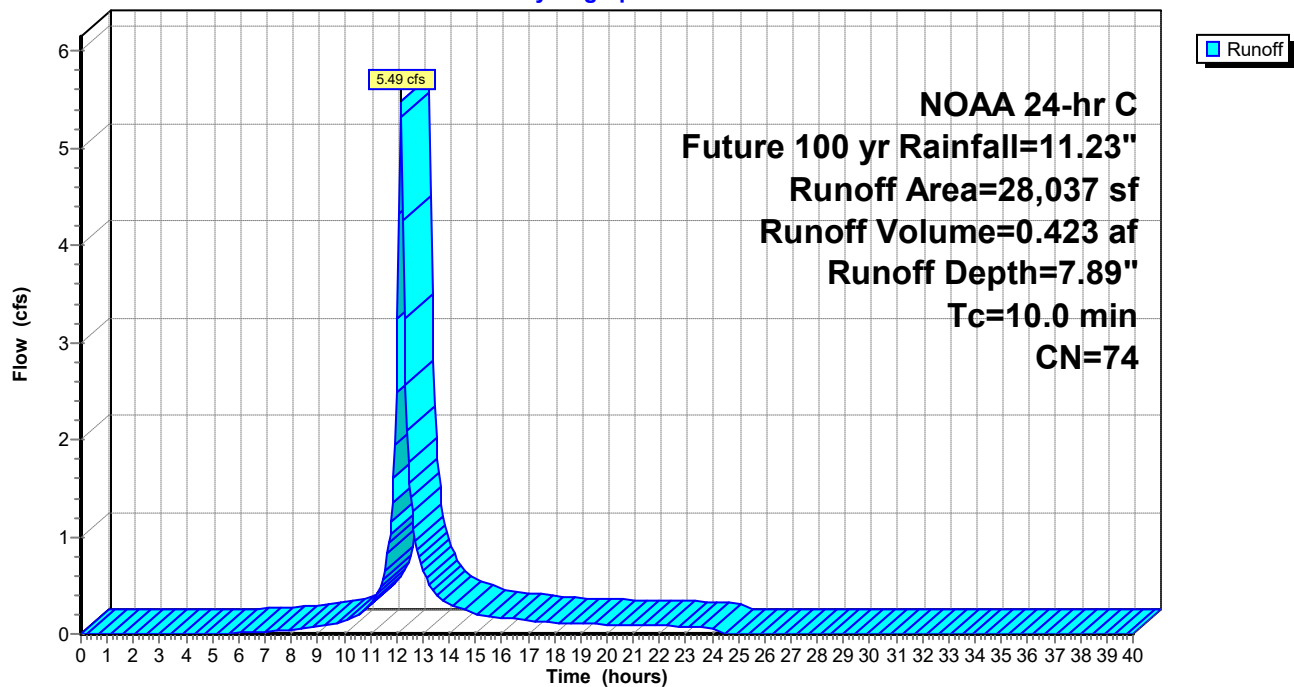
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (sf)	CN	Description
28,037	74	>75% Grass cover, Good, HSG C
28,037		100.00% Pervious Area

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

Subcatchment 32P: PDA-32 (pervious)

Hydrograph



Summary for Subcatchment 33I: PDA-33 (impervious)

Runoff = 11.38 cfs @ 12.17 hrs, Volume= 1.015 af, Depth=10.99"
 Routed to Pond B-33 : Basin #33

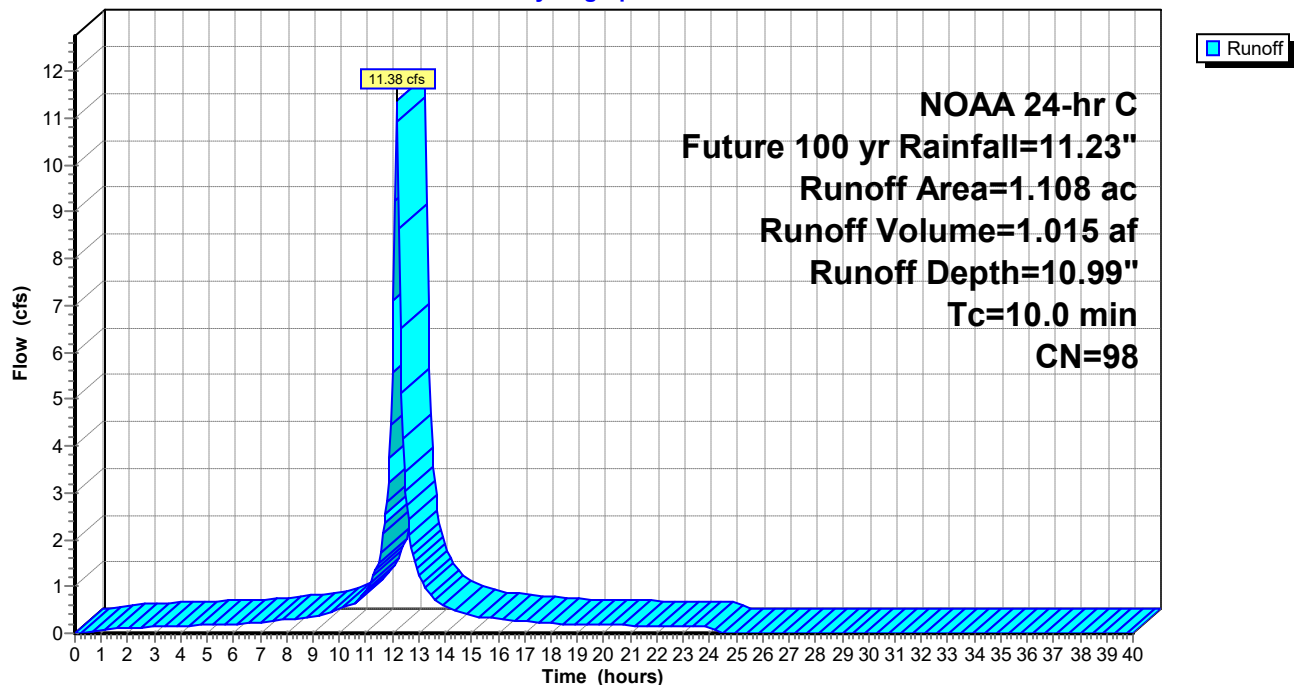
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (ac)	CN	Description
* 0.523	98	Pavement, HSG C
* 0.514	98	Roof, HSG C
* 0.071	98	Concrete, HSC C
1.108	98	Weighted Average
1.108		100.00% Impervious Area

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

Subcatchment 33I: PDA-33 (impervious)

Hydrograph



Summary for Subcatchment 33P: PDA-33 (pervious)

Runoff = 6.94 cfs @ 12.17 hrs, Volume= 0.535 af, Depth= 7.89"
 Routed to Pond B-33 : Basin #33

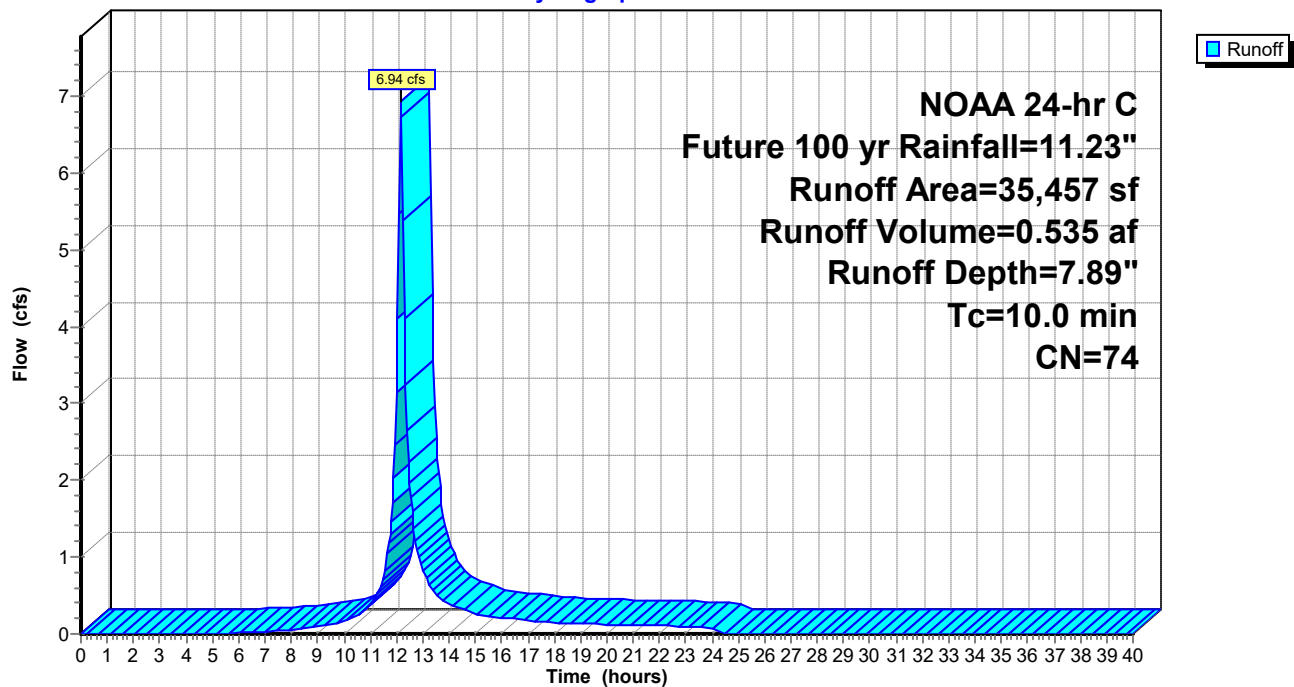
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (sf)	CN	Description
35,457	74	>75% Grass cover, Good, HSG C
35,457		100.00% Pervious Area

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

Subcatchment 33P: PDA-33 (pervious)

Hydrograph



Summary for Subcatchment 34I: PDA-34 (impervious)

Runoff = 10.58 cfs @ 12.17 hrs, Volume= 0.943 af, Depth=10.99"
 Routed to Pond B-34 : Basin #34

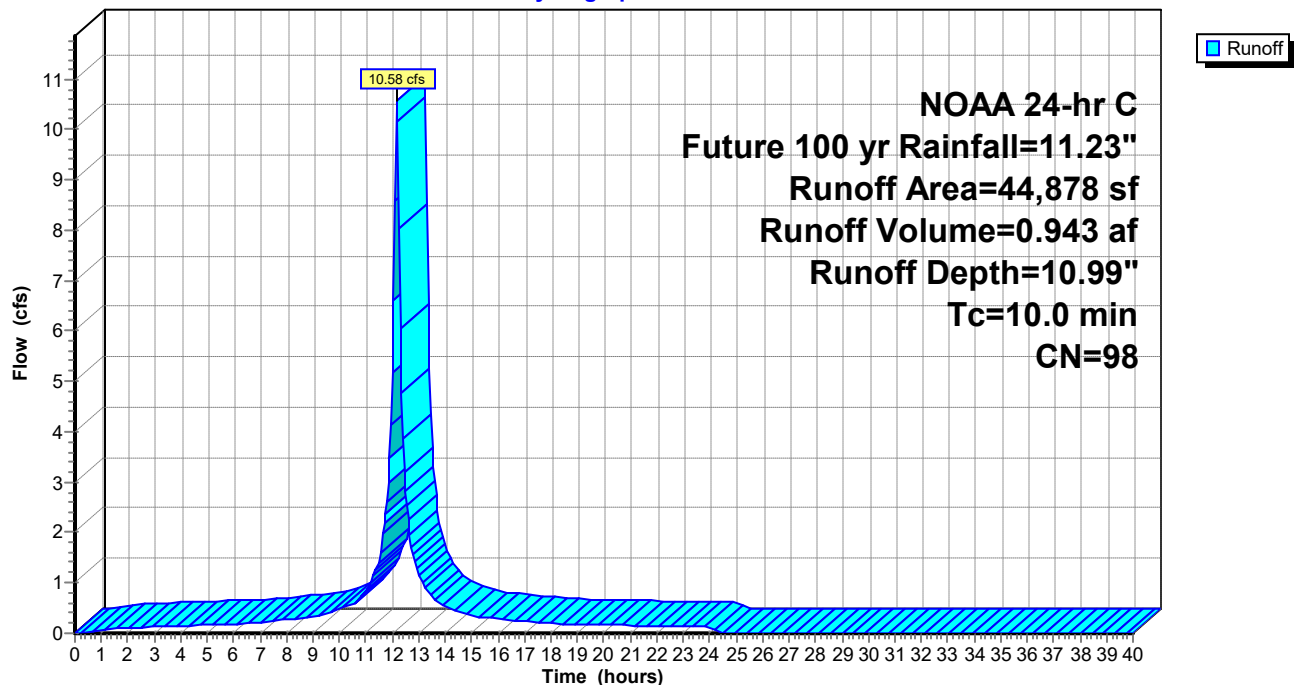
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

	Area (sf)	CN	Description
*	22,287	98	Pavement, HSG C
*	12,132	98	Roof, HSG C
*	10,459	98	Concrete, HSC C
	44,878	98	Weighted Average
	44,878		100.00% Impervious Area

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

Subcatchment 34I: PDA-34 (impervious)

Hydrograph



Summary for Subcatchment 34P: PDA-34 (pervious)

Runoff = 13.70 cfs @ 12.17 hrs, Volume= 1.056 af, Depth= 7.89"
 Routed to Pond B-34 : Basin #34

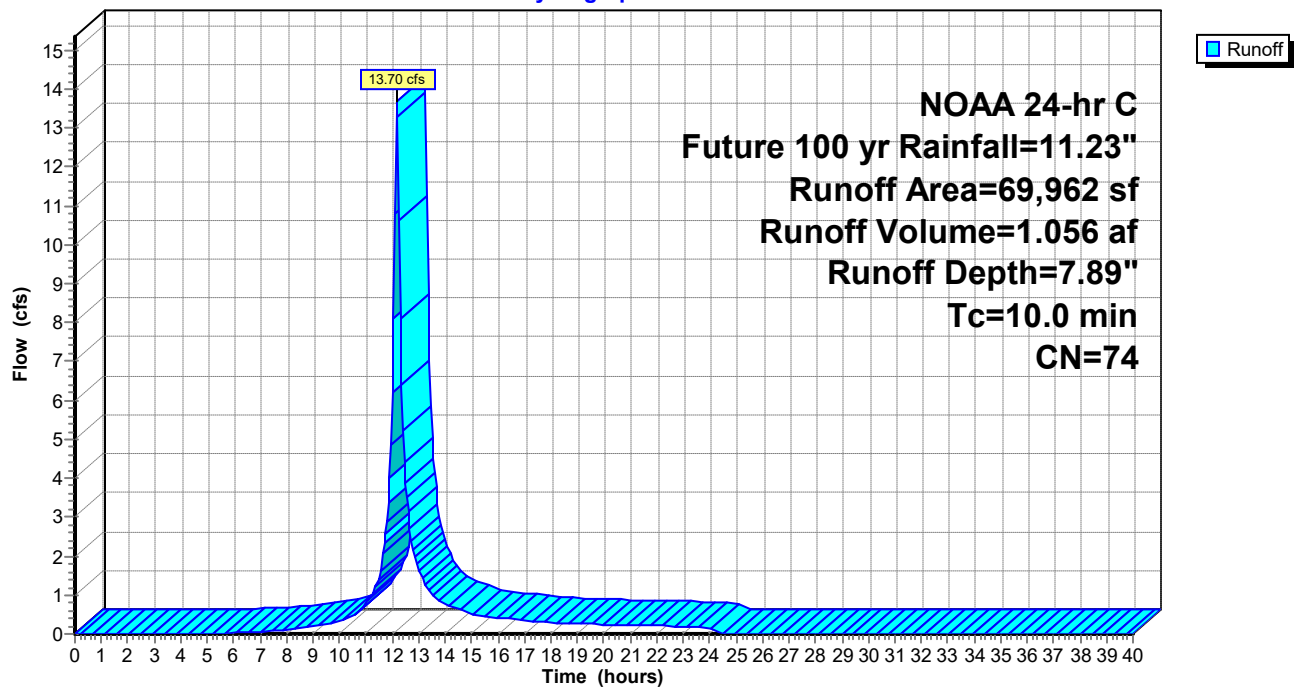
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (sf)	CN	Description
69,962	74	>75% Grass cover, Good, HSG C
69,962		100.00% Pervious Area

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

Subcatchment 34P: PDA-34 (pervious)

Hydrograph



Summary for Subcatchment 35I: PDA-35 (impervious)

Runoff = 13.87 cfs @ 12.17 hrs, Volume= 1.236 af, Depth=10.99"
 Routed to Pond B-35 : Basin #35

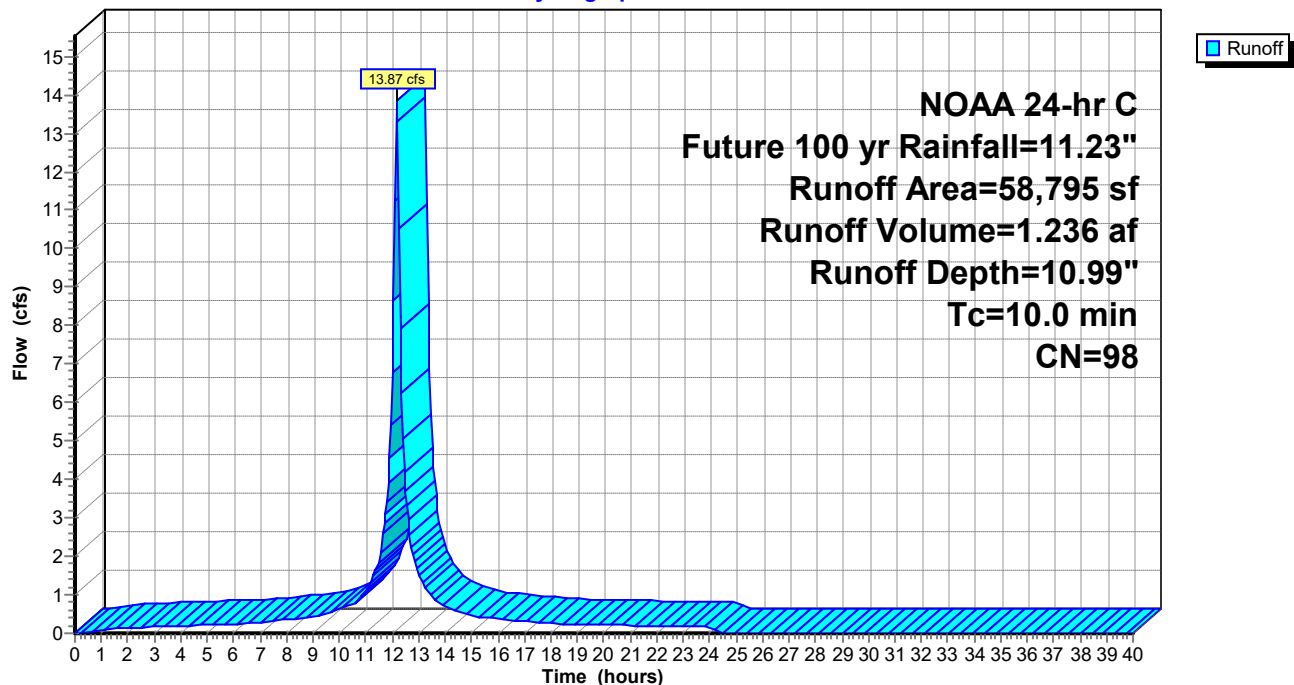
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

	Area (sf)	CN	Description
*	24,645	98	Pavement, HSG C
*	24,265	98	Roof, HSG C
*	9,885	98	Concrete, HSC C
	58,795	98	Weighted Average
	58,795		100.00% Impervious Area

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

Subcatchment 35I: PDA-35 (impervious)

Hydrograph



Summary for Subcatchment 35P: PDA-35 (pervious)

Runoff = 11.11 cfs @ 12.17 hrs, Volume= 0.856 af, Depth= 7.89"
 Routed to Pond B-35 : Basin #35

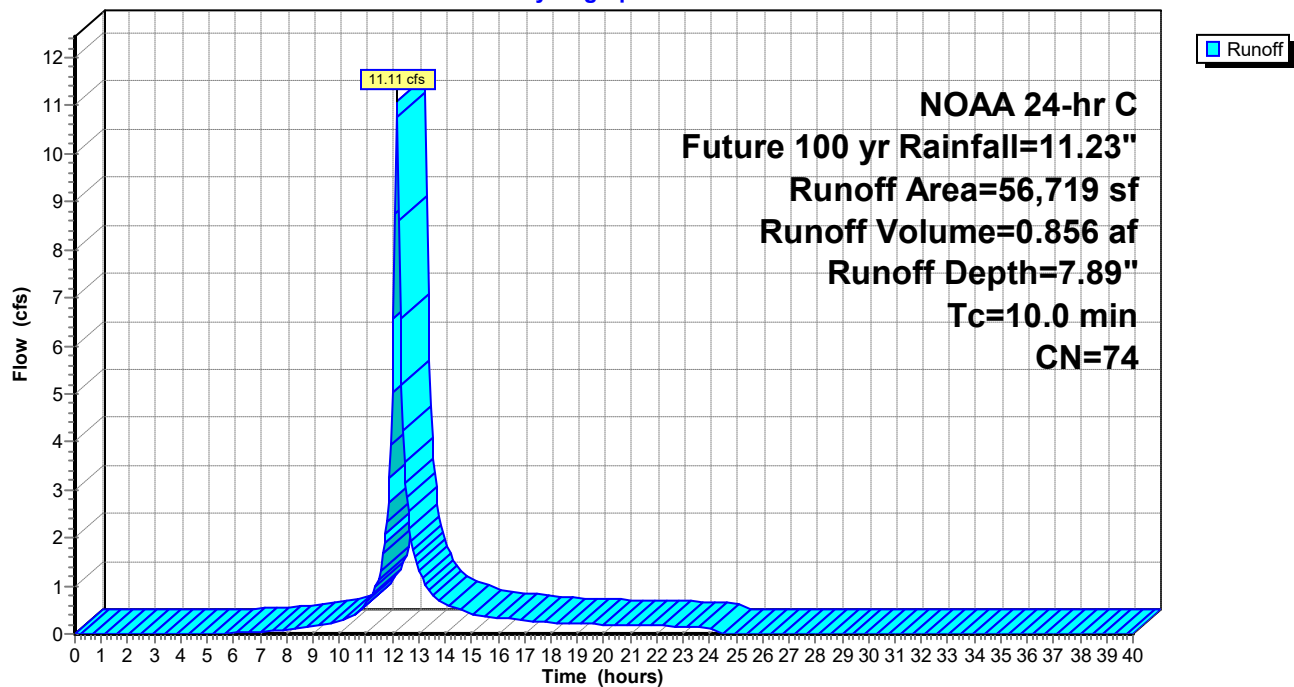
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (sf)	CN	Description
56,719	74	>75% Grass cover, Good, HSG C
56,719		100.00% Pervious Area

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

Subcatchment 35P: PDA-35 (pervious)

Hydrograph



Summary for Subcatchment 36I: PDA-36 (impervious)

Runoff = 16.37 cfs @ 12.17 hrs, Volume= 1.460 af, Depth=10.99"
 Routed to Pond B-36 : Basin #36

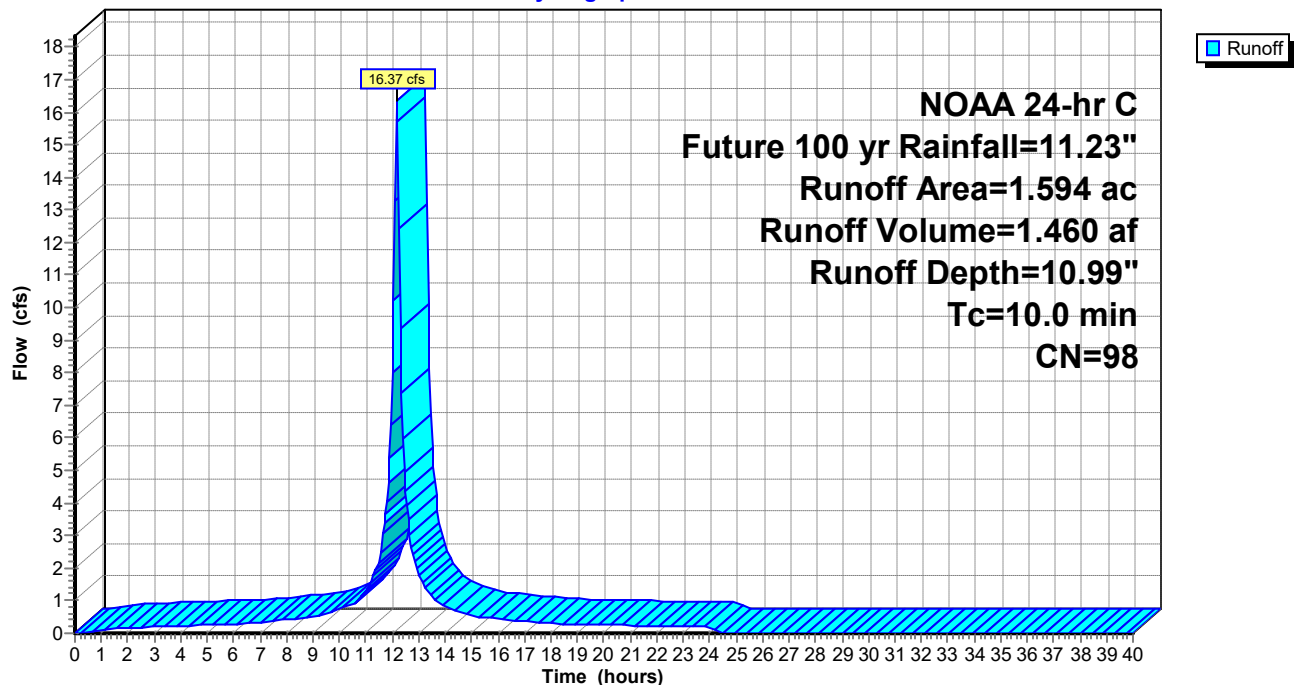
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (ac)	CN	Description
* 1.066	98	Pavement, HSG C
* 0.279	98	Roof, HSG C
* 0.249	98	Concrete, HSC C
1.594	98	Weighted Average
1.594		100.00% Impervious Area

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

Subcatchment 36I: PDA-36 (impervious)

Hydrograph



Summary for Subcatchment 36P: PDA-36 (pervious)

Runoff = 8.70 cfs @ 12.17 hrs, Volume= 0.671 af, Depth= 7.89"
 Routed to Pond B-36 : Basin #36

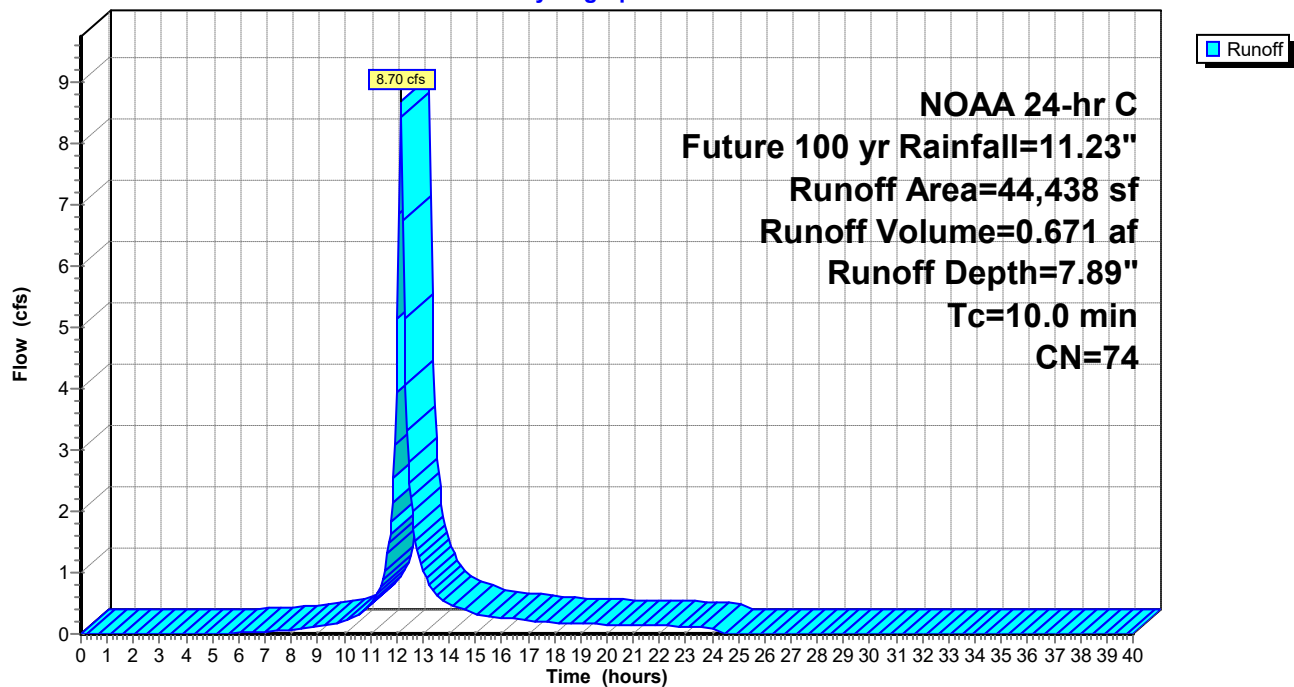
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (sf)	CN	Description
44,438	74	>75% Grass cover, Good, HSG C
44,438		100.00% Pervious Area

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

Subcatchment 36P: PDA-36 (pervious)

Hydrograph



Summary for Subcatchment 37I: PDA-37 (impervious)

Runoff = 10.13 cfs @ 12.17 hrs, Volume= 0.903 af, Depth=10.99"
 Routed to Pond B-37 : Basin #37

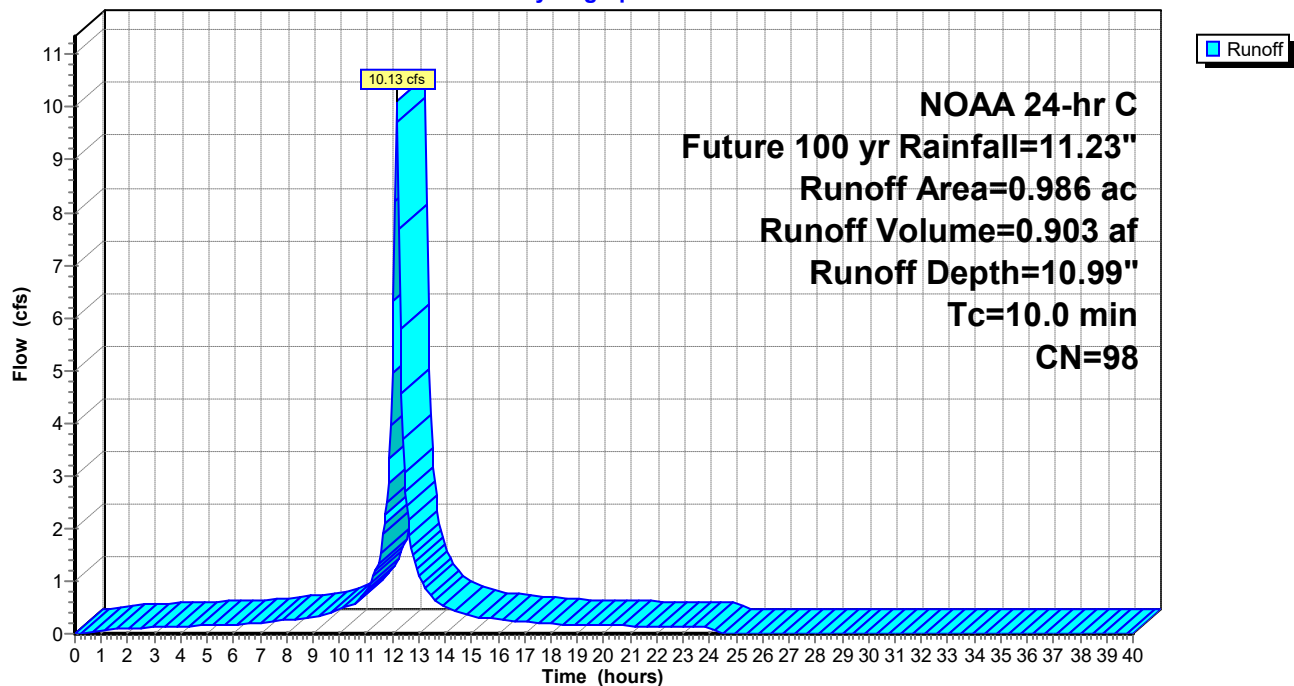
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (ac)	CN	Description
* 0.714	98	Pavement, HSG C
* 0.272	98	Concrete, HSC C
0.986	98	Weighted Average
0.986		100.00% Impervious Area

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

Subcatchment 37I: PDA-37 (impervious)

Hydrograph



Summary for Subcatchment 37P: PDA-37 (pervious)

Runoff = 15.10 cfs @ 12.17 hrs, Volume= 1.164 af, Depth= 7.89"
 Routed to Pond B-37 : Basin #37

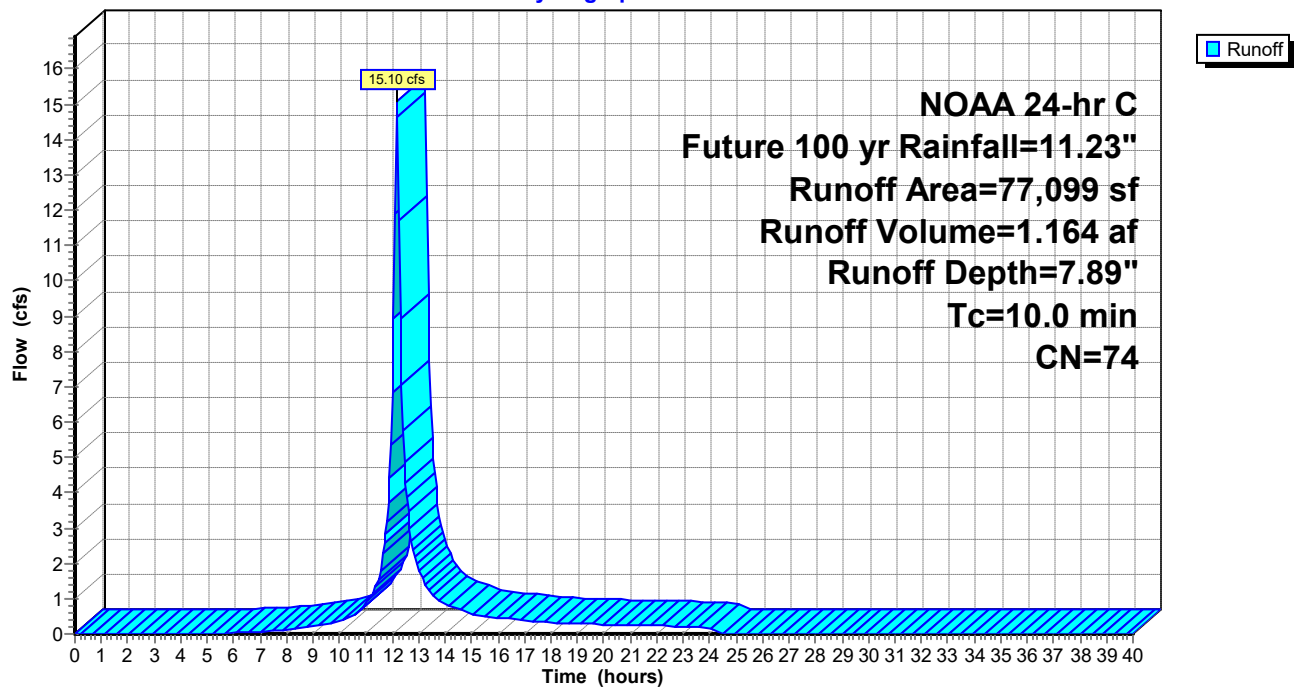
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (sf)	CN	Description
77,099	74	>75% Grass cover, Good, HSG C
77,099		100.00% Pervious Area

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

Subcatchment 37P: PDA-37 (pervious)

Hydrograph



Summary for Subcatchment 38I: PDA-38 (impervious)

Runoff = 7.65 cfs @ 12.17 hrs, Volume= 0.682 af, Depth=10.99"
 Routed to Pond B-38 : Basin #38

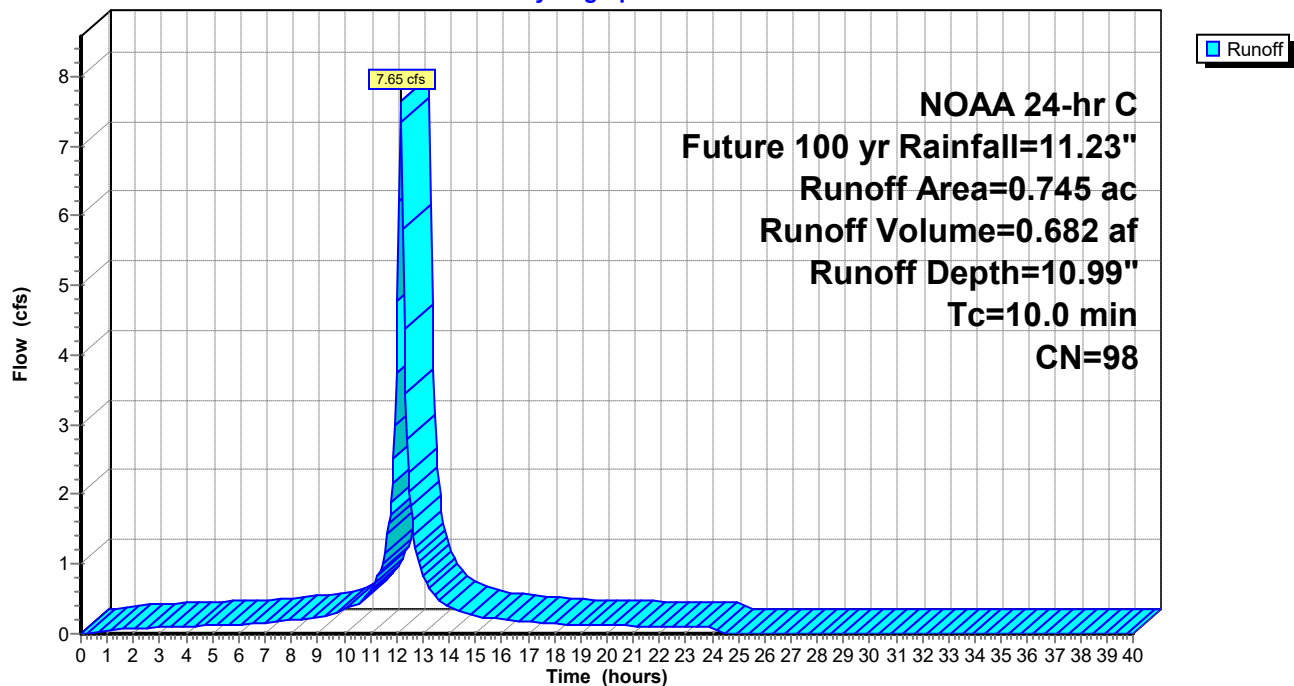
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (ac)	CN	Description
* 0.567	98	Roof, HSG C
* 0.178	98	Concrete, HSC C
0.745	98	Weighted Average
0.745		100.00% Impervious Area

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

Subcatchment 38I: PDA-38 (impervious)

Hydrograph



Summary for Subcatchment 38P: PDA-38 (pervious)

Runoff = 11.92 cfs @ 12.17 hrs, Volume= 0.919 af, Depth= 7.89"
 Routed to Pond B-38 : Basin #38

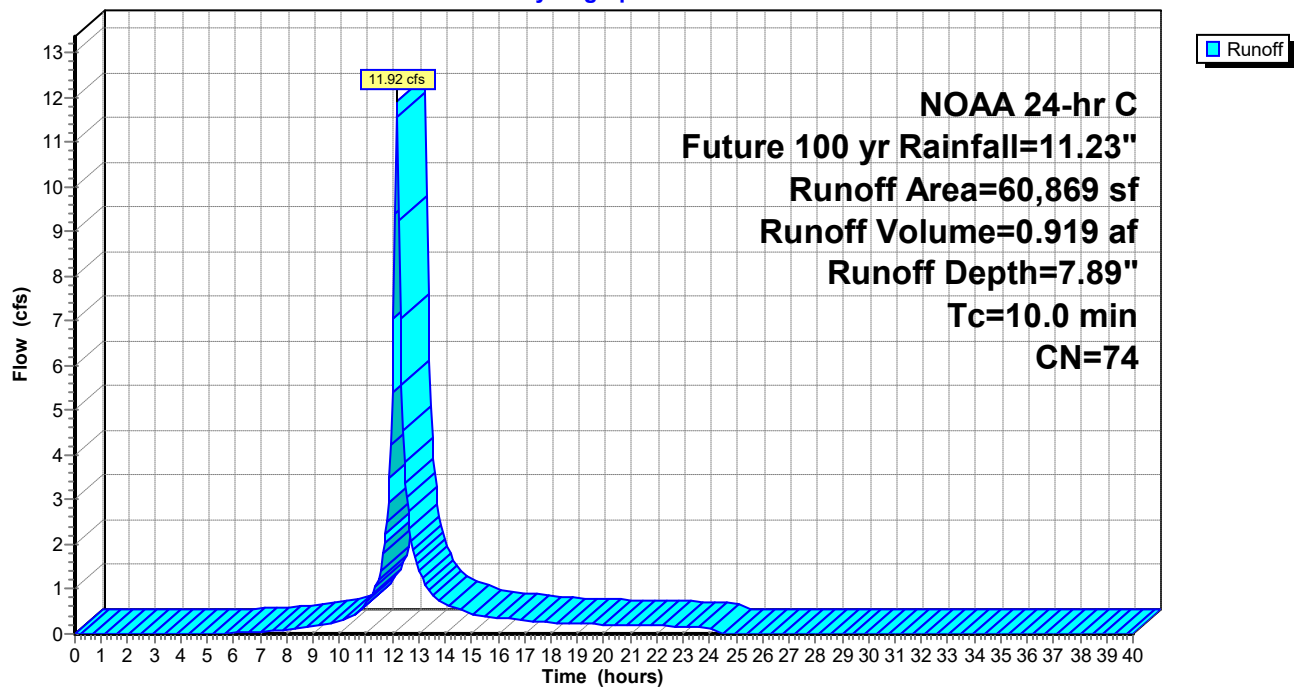
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (sf)	CN	Description
60,869	74	>75% Grass cover, Good, HSG C
60,869		100.00% Pervious Area

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

Subcatchment 38P: PDA-38 (pervious)

Hydrograph



Summary for Subcatchment 39I: PDA-39 (impervious)

Runoff = 7.50 cfs @ 12.17 hrs, Volume= 0.668 af, Depth=10.99"
 Routed to Pond B-39 : Basin #39

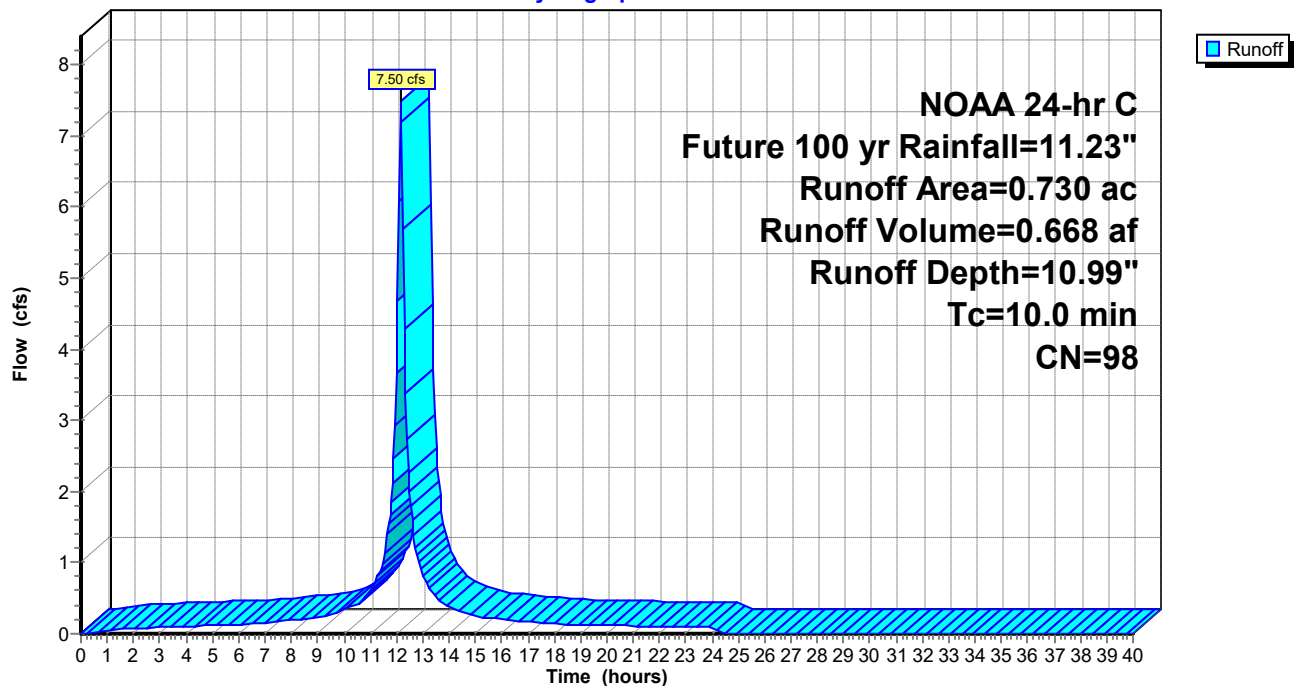
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (ac)	CN	Description
* 0.567	98	Roof, HSG C
* 0.163	98	Concrete, HSC C
0.730	98	Weighted Average
0.730		100.00% Impervious Area

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

Subcatchment 39I: PDA-39 (impervious)

Hydrograph



Summary for Subcatchment 39P: PDA-39 (pervious)

Runoff = 8.85 cfs @ 12.17 hrs, Volume= 0.682 af, Depth= 7.89"
 Routed to Pond B-39 : Basin #39

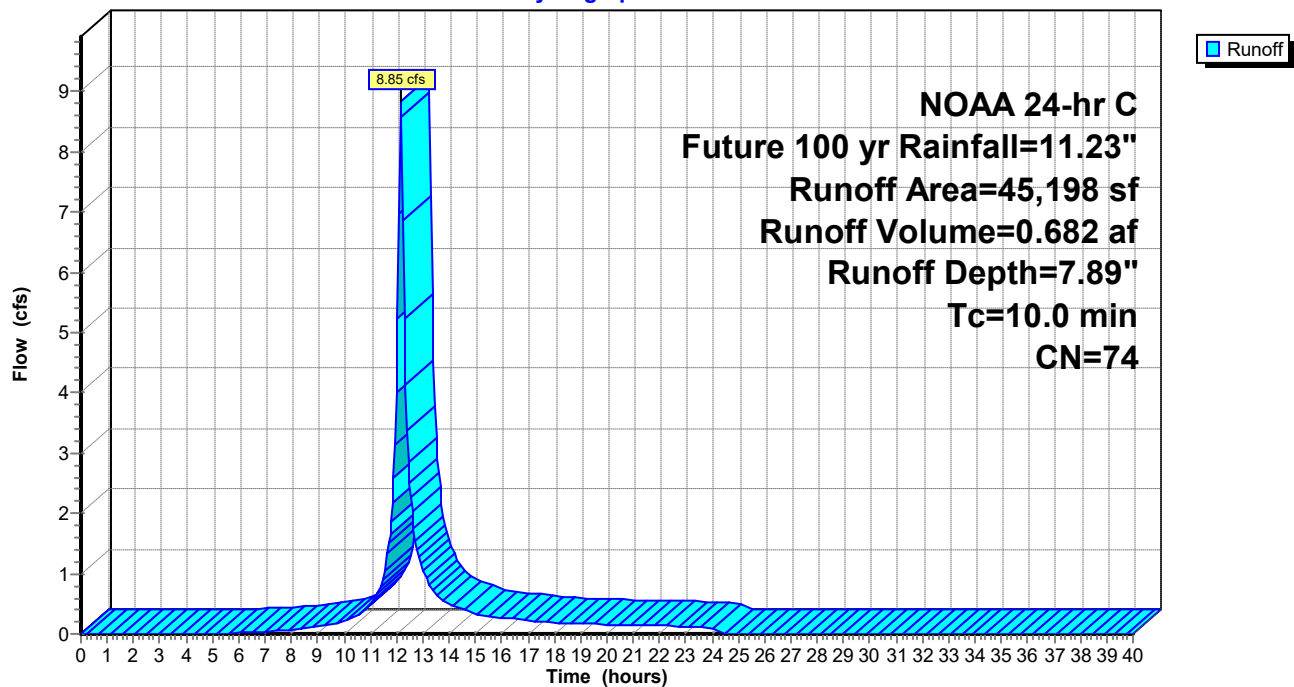
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (sf)	CN	Description
45,198	74	>75% Grass cover, Good, HSG C
45,198		100.00% Pervious Area

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

Subcatchment 39P: PDA-39 (pervious)

Hydrograph



Summary for Subcatchment 40I: PDA-40 (impervious)

Runoff = 6.86 cfs @ 12.17 hrs, Volume= 0.612 af, Depth=10.99"
 Routed to Pond B-40 : Basin #40

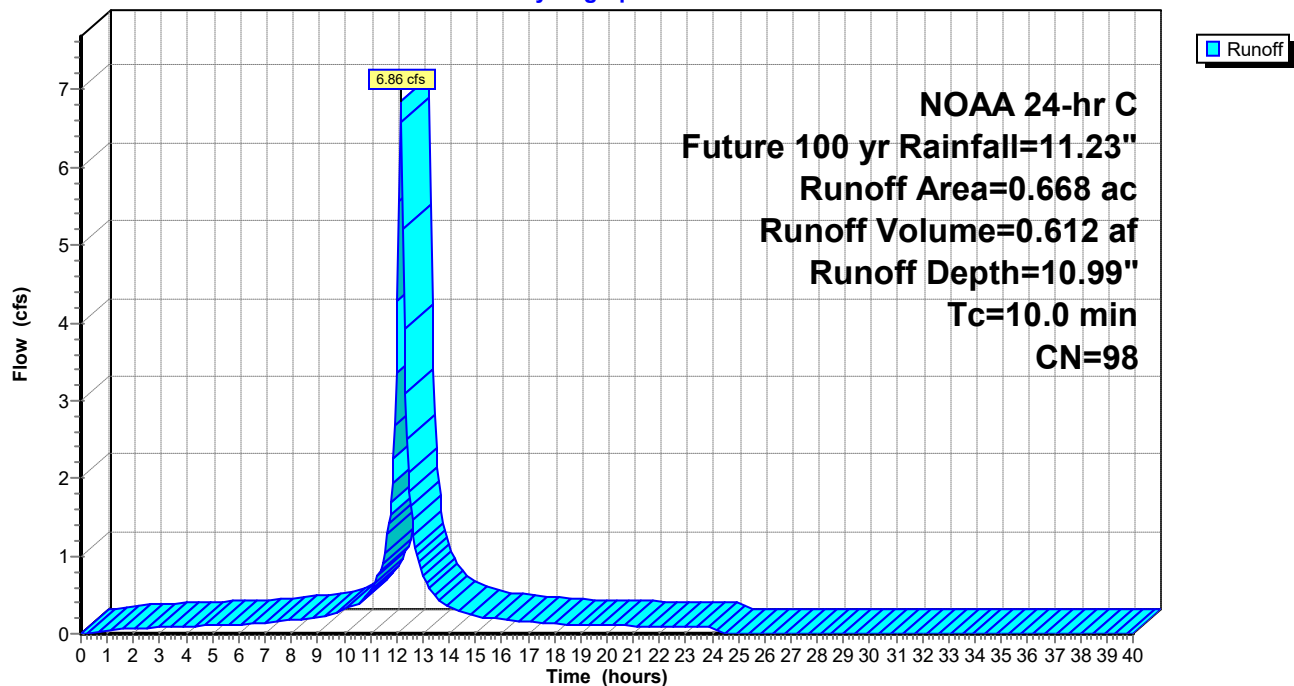
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (ac)	CN	Description
* 0.567	98	Roof, HSG C
* 0.101	98	Concrete, HSC C
0.668	98	Weighted Average
0.668		100.00% Impervious Area

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

Subcatchment 40I: PDA-40 (impervious)

Hydrograph



Summary for Subcatchment 40P: PDA-40 (pervious)

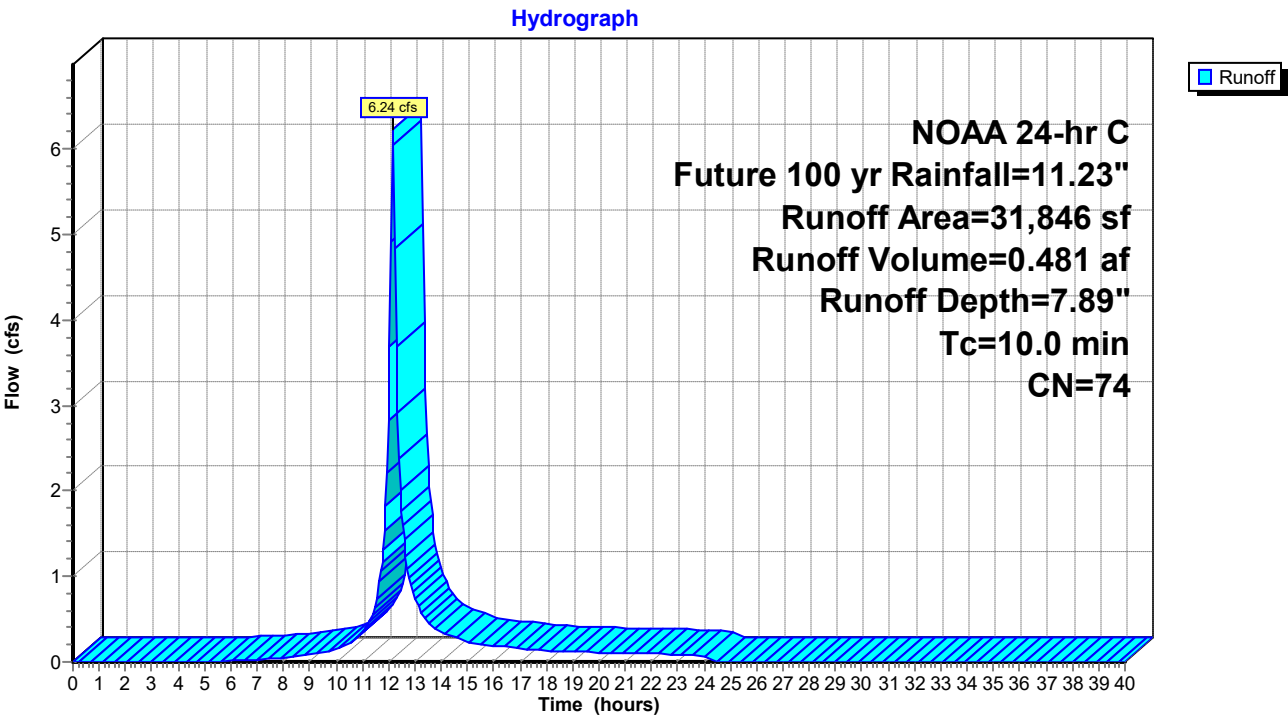
Runoff = 6.24 cfs @ 12.17 hrs, Volume= 0.481 af, Depth= 7.89"
Routed to Pond B-40 : Basin #40

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (sf)	CN	Description
31,846	74	>75% Grass cover, Good, HSG C
31,846		100.00% Pervious Area

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

Subcatchment 40P: PDA-40 (pervious)



Summary for Subcatchment 41I: PDA-41 (impervious)

Runoff = 4.74 cfs @ 12.17 hrs, Volume= 0.422 af, Depth=10.99"
 Routed to Pond B-41 : Basin #41

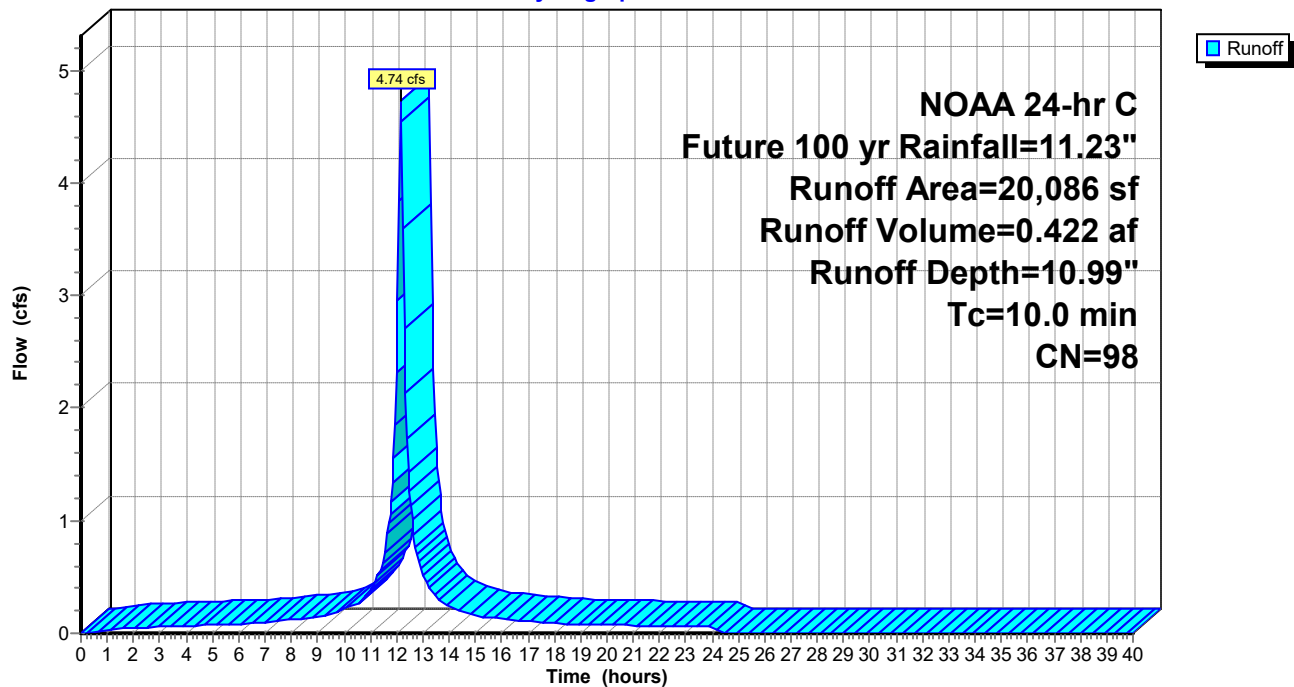
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

	Area (sf)	CN	Description
*	5,108	98	Pavement, HSG C
*	14,000	98	Roof, HSG C
*	978	98	Concrete, HSC C
	20,086	98	Weighted Average
	20,086		100.00% Impervious Area

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

Subcatchment 41I: PDA-41 (impervious)

Hydrograph



Summary for Subcatchment 41P: PDA-41 (pervious)

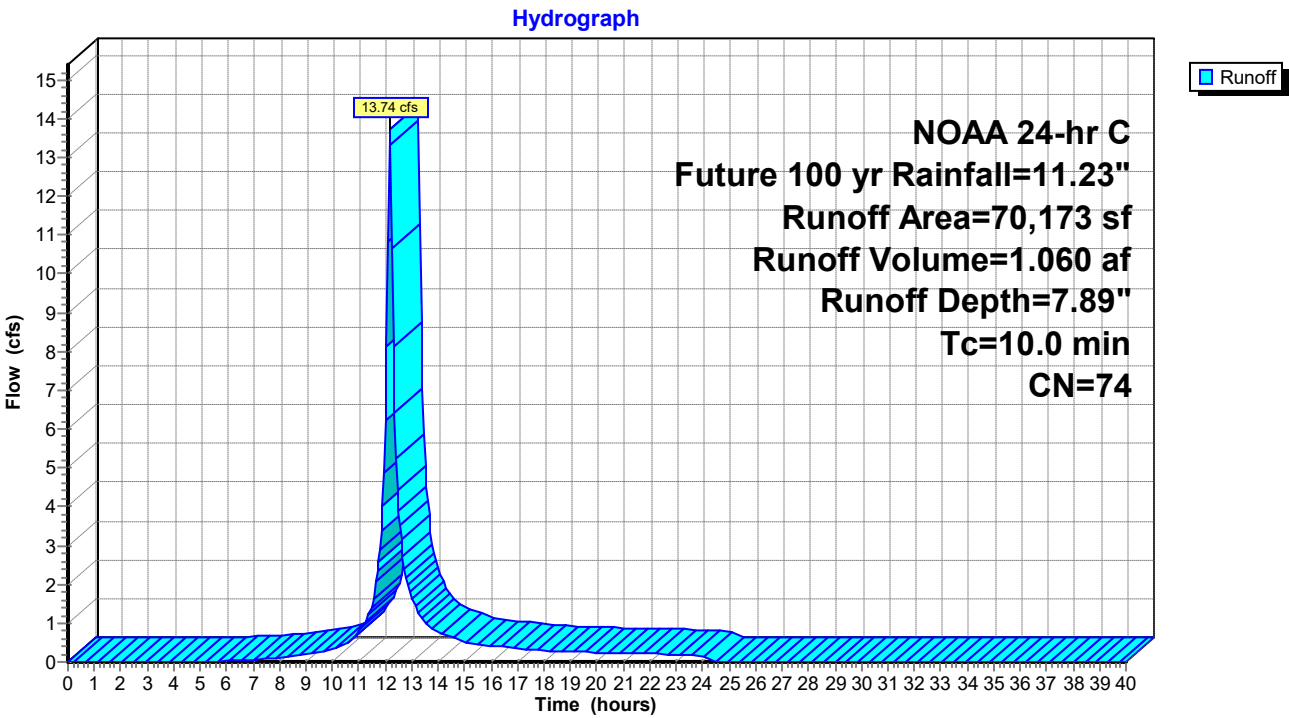
Runoff = 13.74 cfs @ 12.17 hrs, Volume= 1.060 af, Depth= 7.89"
Routed to Pond B-41 : Basin #41

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (sf)	CN	Description
70,173	74	>75% Grass cover, Good, HSG C
70,173		100.00% Pervious Area

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

Subcatchment 41P: PDA-41 (pervious)



Summary for Subcatchment 42I: PDA-42 (impervious)

Runoff = 12.88 cfs @ 12.17 hrs, Volume= 1.148 af, Depth=10.99"
 Routed to Pond B-42 : Basin #42

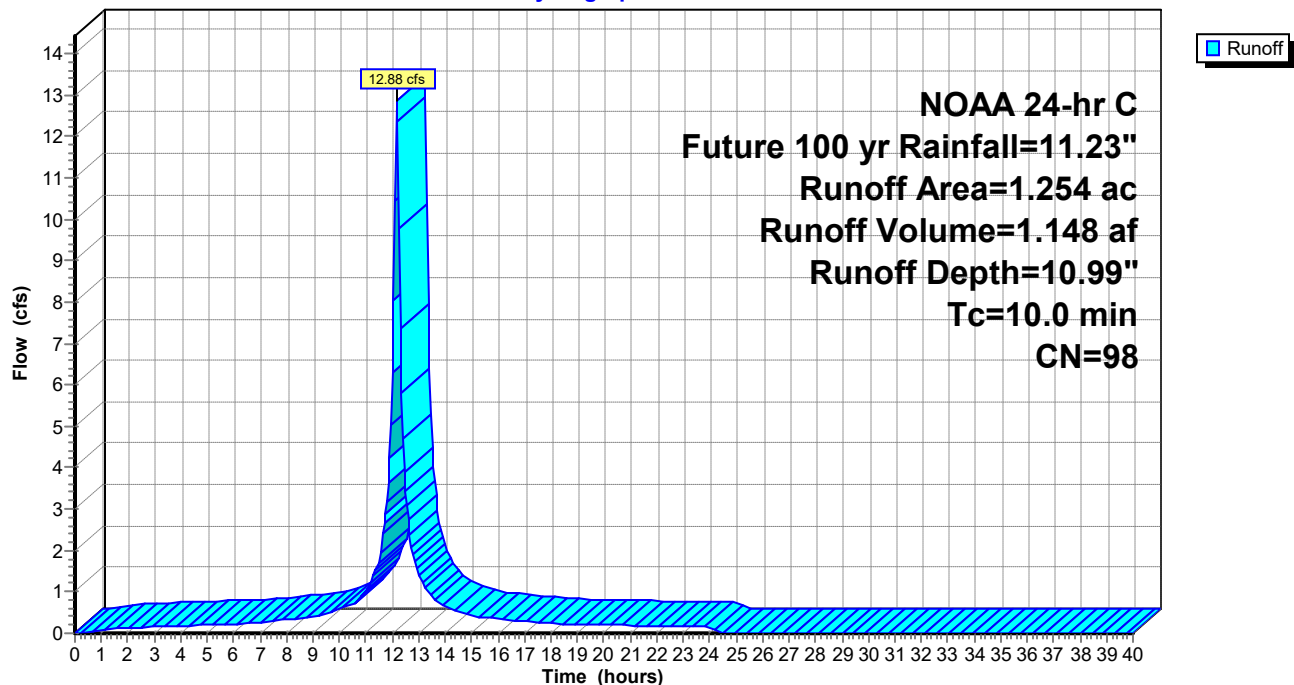
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (ac)	CN	Description
* 0.410	98	Pavement, HSG C
* 0.836	98	Roof, HSG C
* 0.008	98	Concrete, HSC C
1.254	98	Weighted Average
1.254		100.00% Impervious Area

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

Subcatchment 42I: PDA-42 (impervious)

Hydrograph



Summary for Subcatchment 42P: PDA-42 (pervious)

Runoff = 9.22 cfs @ 12.17 hrs, Volume= 0.711 af, Depth= 7.89"
 Routed to Pond B-42 : Basin #42

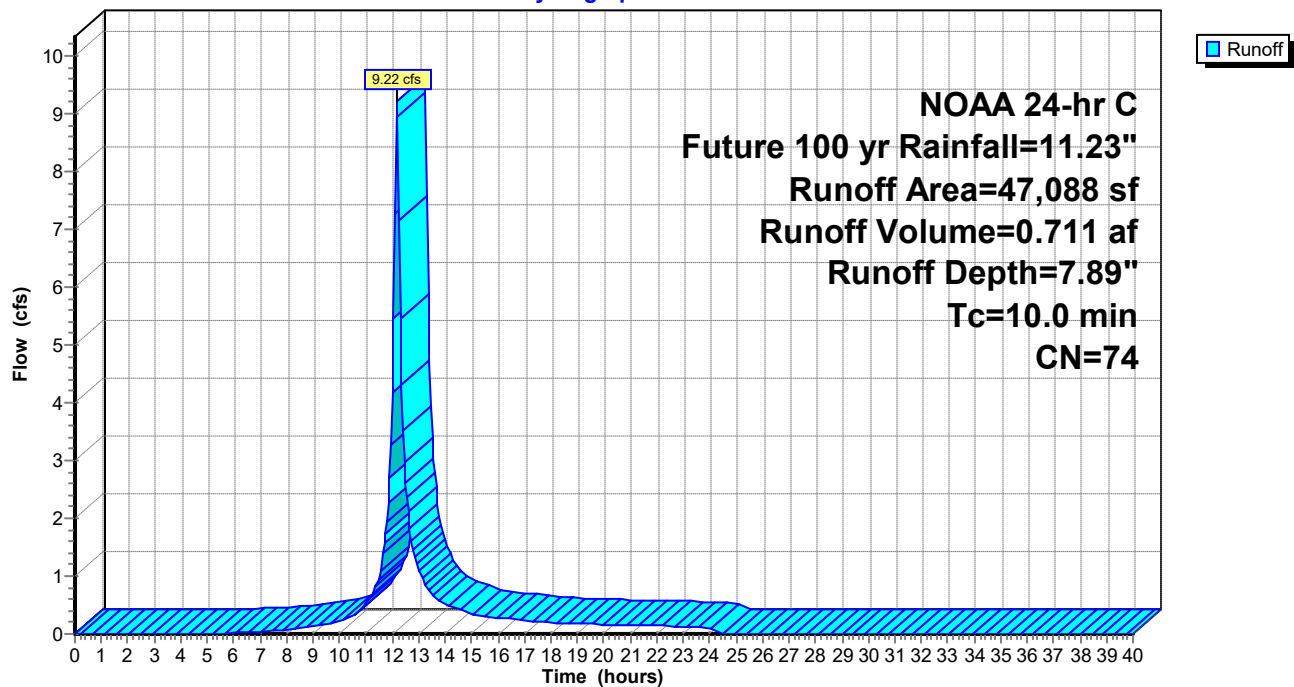
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (sf)	CN	Description
47,088	74	>75% Grass cover, Good, HSG C
47,088		100.00% Pervious Area

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

Subcatchment 42P: PDA-42 (pervious)

Hydrograph



Summary for Subcatchment 43I: PDA-43 (impervious)

Runoff = 10.79 cfs @ 12.17 hrs, Volume= 0.962 af, Depth=10.99"
 Routed to Pond B-43 : Basin #43

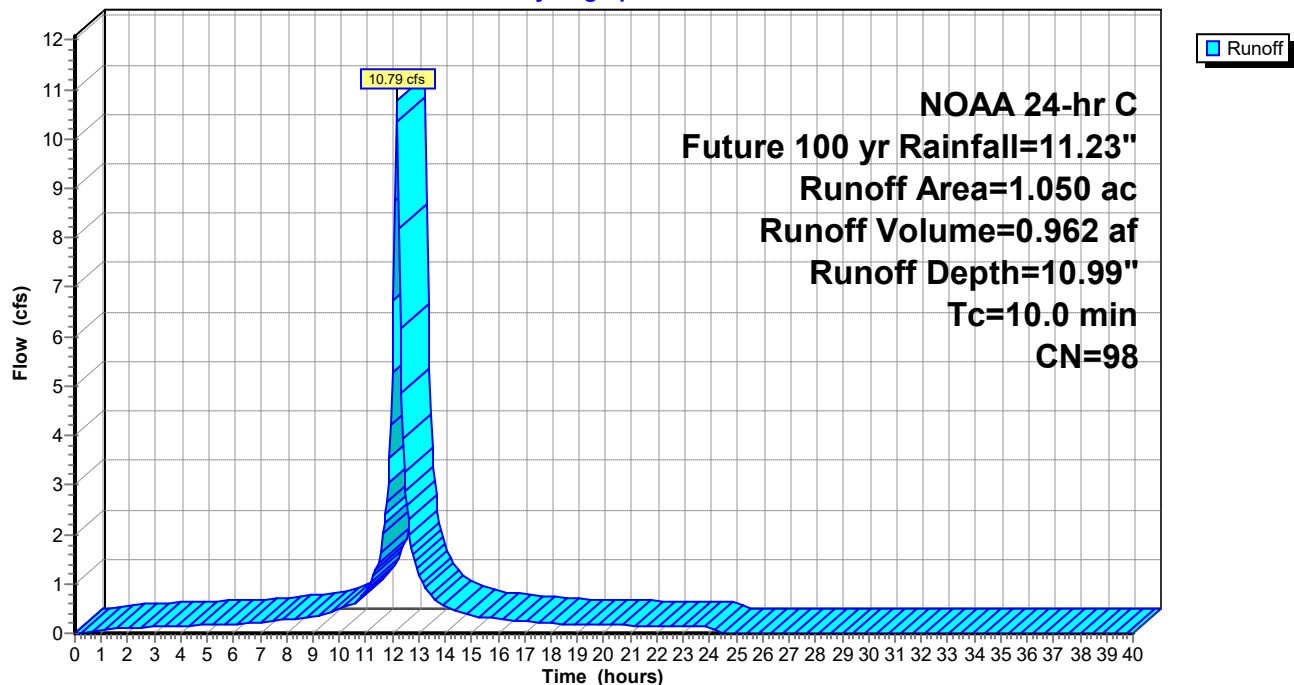
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (ac)	CN	Description
* 0.381	98	Pavement, HSG C
* 0.627	98	Roof, HSG C
* 0.042	98	Concrete, HSC C
1.050	98	Weighted Average
1.050		100.00% Impervious Area

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

Subcatchment 43I: PDA-43 (impervious)

Hydrograph



Summary for Subcatchment 43P: PDA-43 (pervious)

Runoff = 11.52 cfs @ 12.17 hrs, Volume= 0.888 af, Depth= 7.89"
 Routed to Pond B-43 : Basin #43

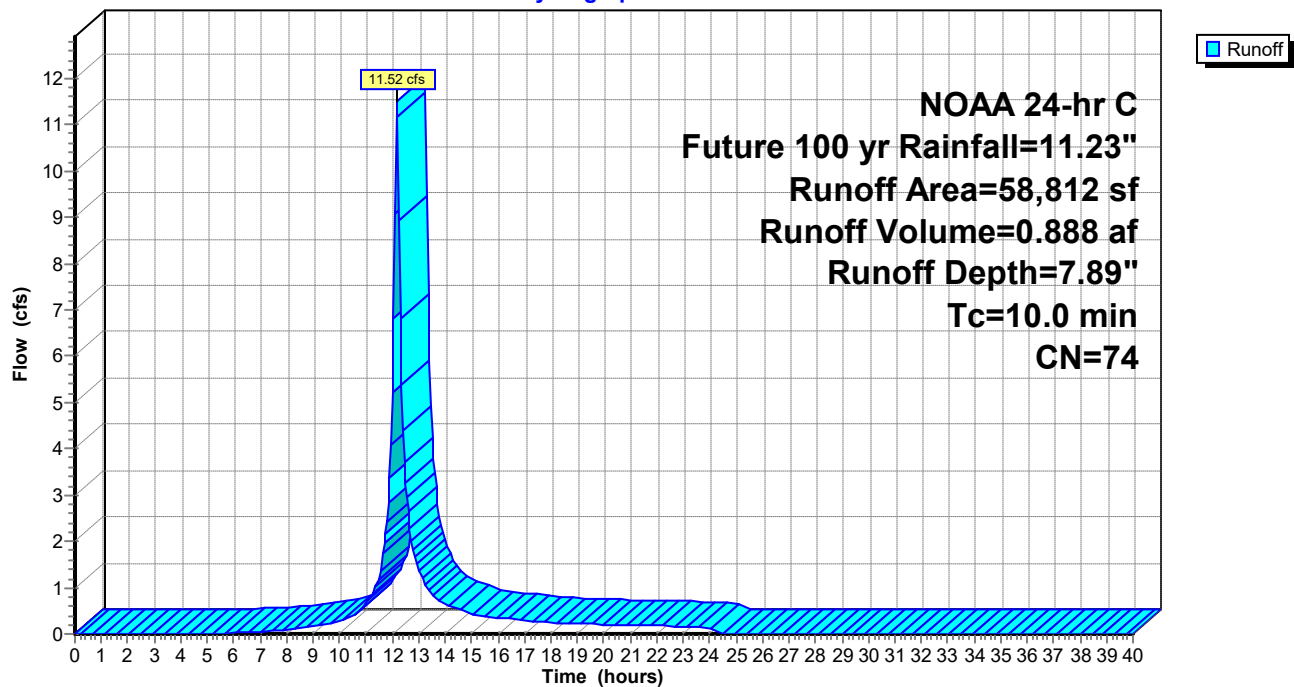
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (sf)	CN	Description
58,812	74	>75% Grass cover, Good, HSG C
58,812		100.00% Pervious Area

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

Subcatchment 43P: PDA-43 (pervious)

Hydrograph



Summary for Subcatchment 44I: PDA-44 (impervious)

Runoff = 10.11 cfs @ 12.17 hrs, Volume= 0.901 af, Depth=10.99"
 Routed to Pond B-44 : Basin #44

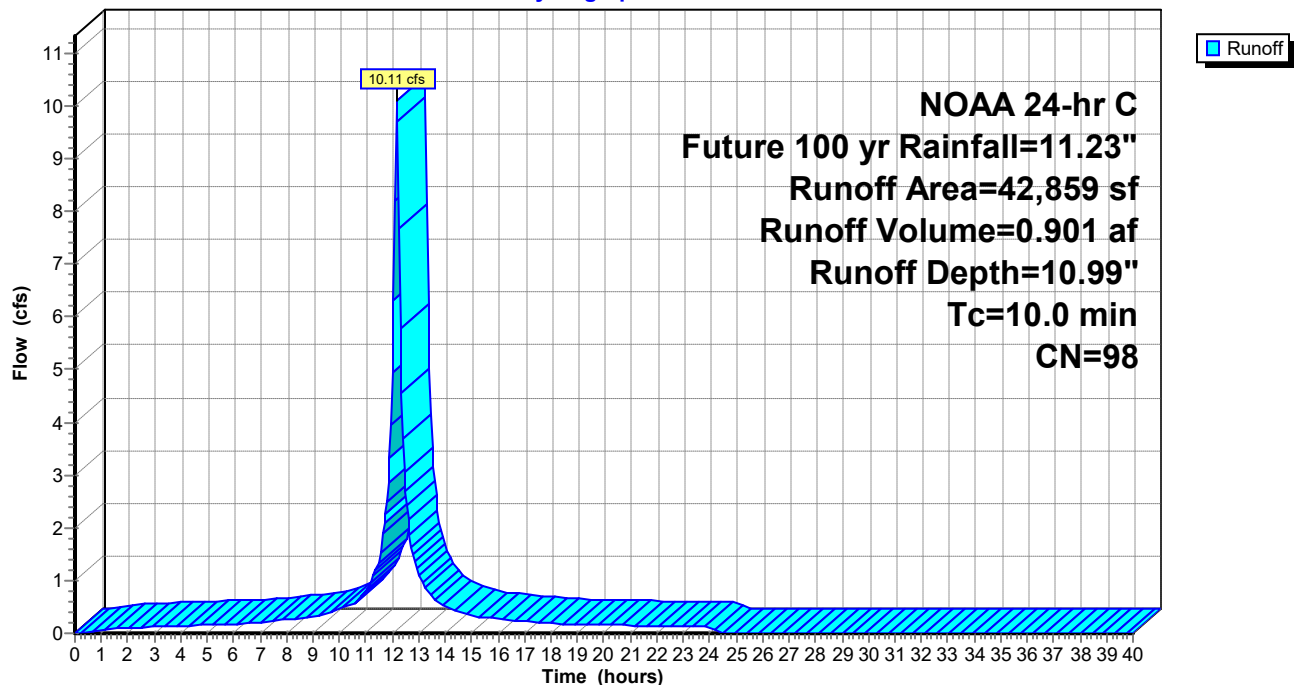
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

	Area (sf)	CN	Description
*	26,369	98	Pavement, HSG C
*	13,650	98	Roof, HSG C
*	2,840	98	Concrete, HSC C
	42,859	98	Weighted Average
	42,859		100.00% Impervious Area

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

Subcatchment 44I: PDA-44 (impervious)

Hydrograph



Summary for Subcatchment 44P: PDA-44 (pervious)

Runoff = 12.24 cfs @ 12.17 hrs, Volume= 0.944 af, Depth= 7.89"
 Routed to Pond B-44 : Basin #44

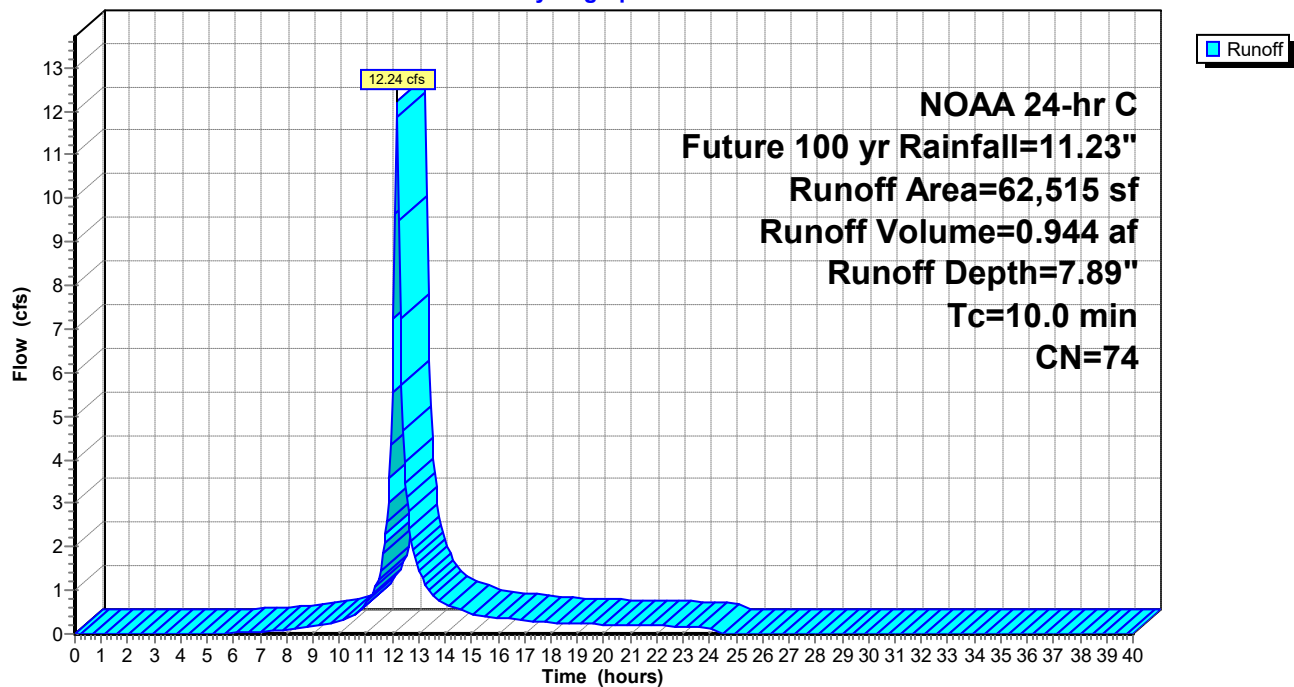
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (sf)	CN	Description
62,515	74	>75% Grass cover, Good, HSG C
62,515		100.00% Pervious Area

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

Subcatchment 44P: PDA-44 (pervious)

Hydrograph



Summary for Subcatchment 45I: PDA-45 (impervious)

Runoff = 13.12 cfs @ 12.17 hrs, Volume= 1.169 af, Depth=10.99"
 Routed to Pond B-45 : Basin #45

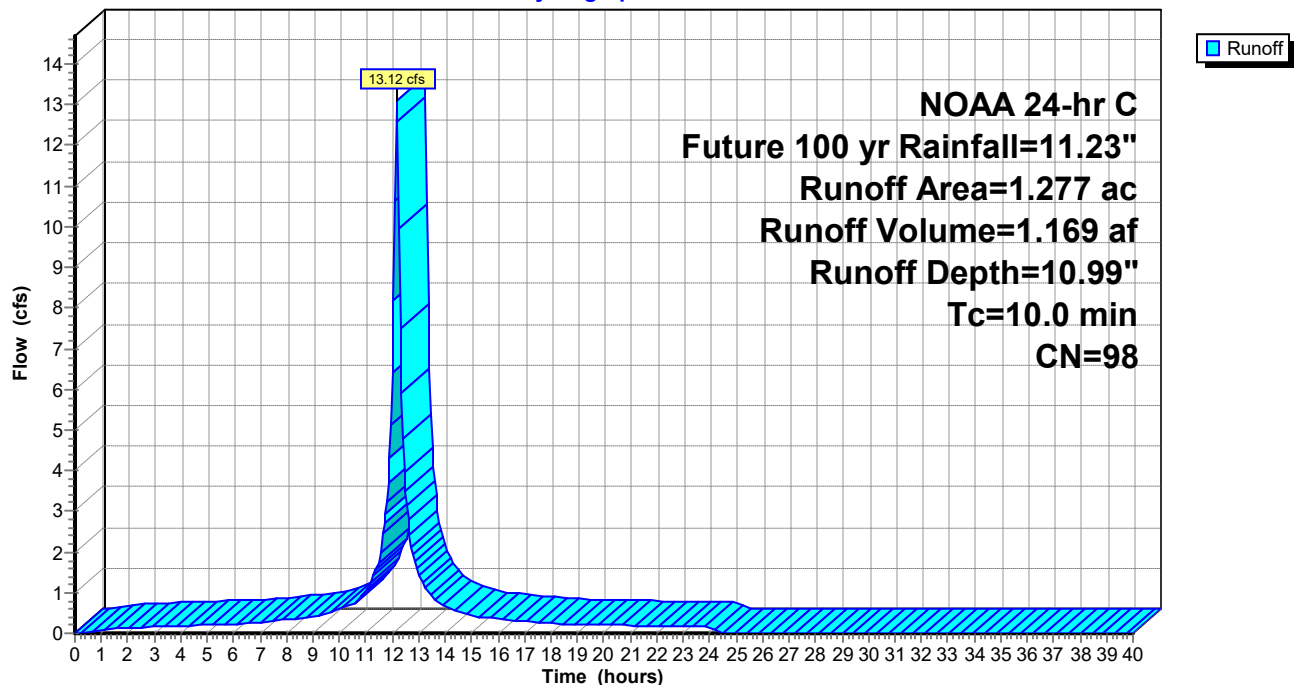
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (ac)	CN	Description
* 0.305	98	Pavement, HSG C
* 0.940	98	Roof, HSG C
* 0.032	98	Concrete, HSG C
1.277	98	Weighted Average
1.277		100.00% Impervious Area

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

Subcatchment 45I: PDA-45 (impervious)

Hydrograph



Summary for Subcatchment 45P: PDA-45 (pervious)

Runoff = 4.41 cfs @ 12.17 hrs, Volume= 0.340 af, Depth= 7.89"
 Routed to Pond B-45 : Basin #45

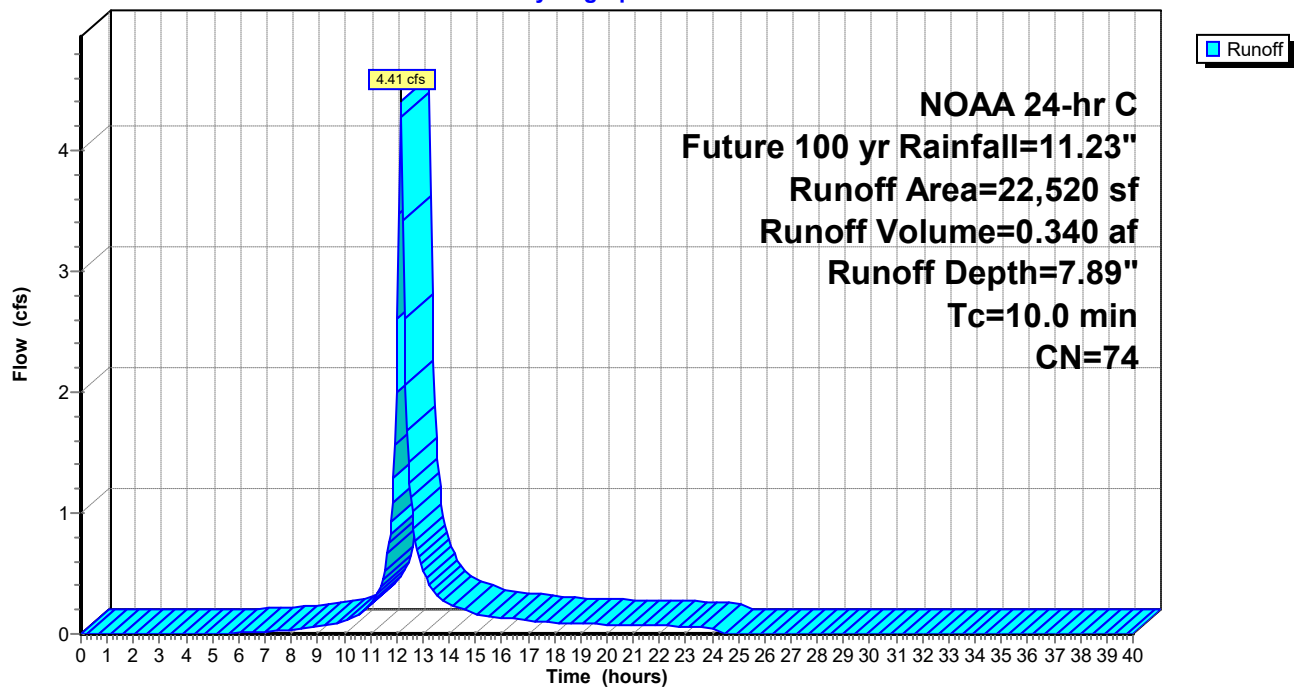
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (sf)	CN	Description
22,520	74	>75% Grass cover, Good, HSG C
22,520		100.00% Pervious Area

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

Subcatchment 45P: PDA-45 (pervious)

Hydrograph



Summary for Subcatchment 46I: PDA-46 (impervious)

Runoff = 12.77 cfs @ 12.17 hrs, Volume= 1.138 af, Depth=10.99"
 Routed to Pond B-46 : Basin #46

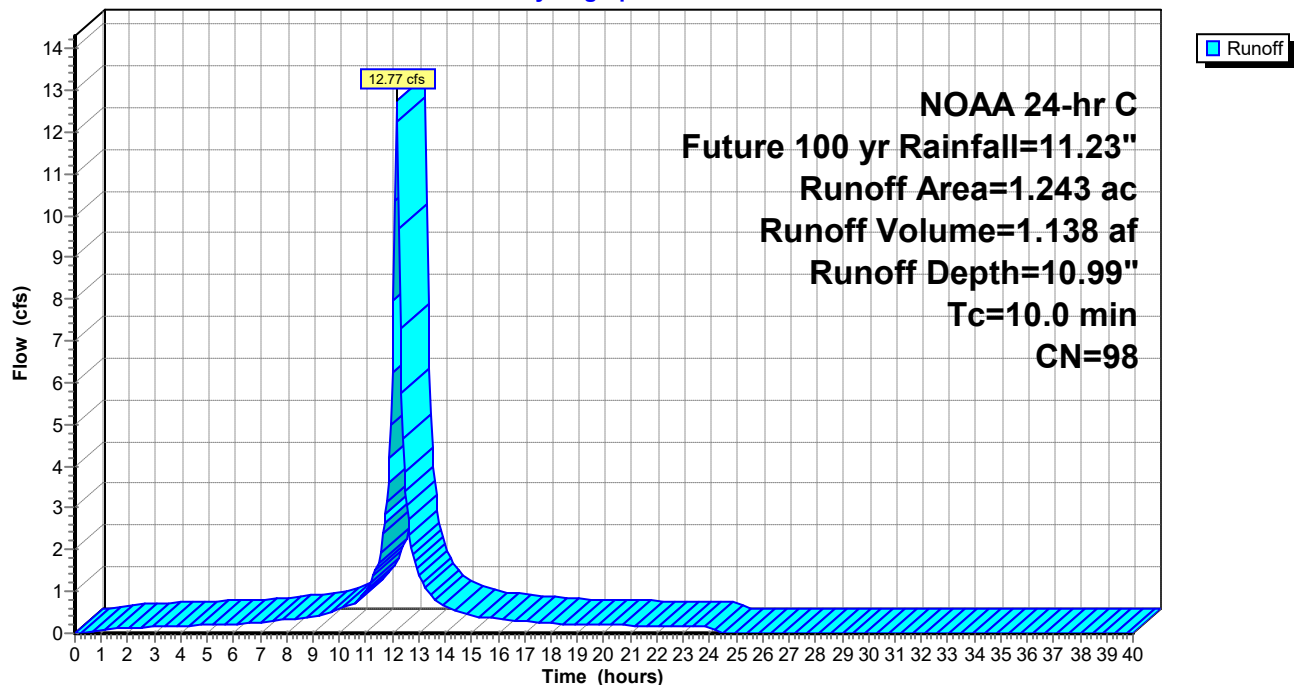
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (ac)	CN	Description
* 0.540	98	Pavement, HSG C
* 0.627	98	Roof, HSG C
* 0.076	98	Concrete, HSG C
1.243	98	Weighted Average
1.243		100.00% Impervious Area

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

Subcatchment 46I: PDA-46 (impervious)

Hydrograph



Summary for Subcatchment 46P: PDA-46 (pervious)

Runoff = 17.44 cfs @ 12.17 hrs, Volume= 1.344 af, Depth= 7.89"
 Routed to Pond B-46 : Basin #46

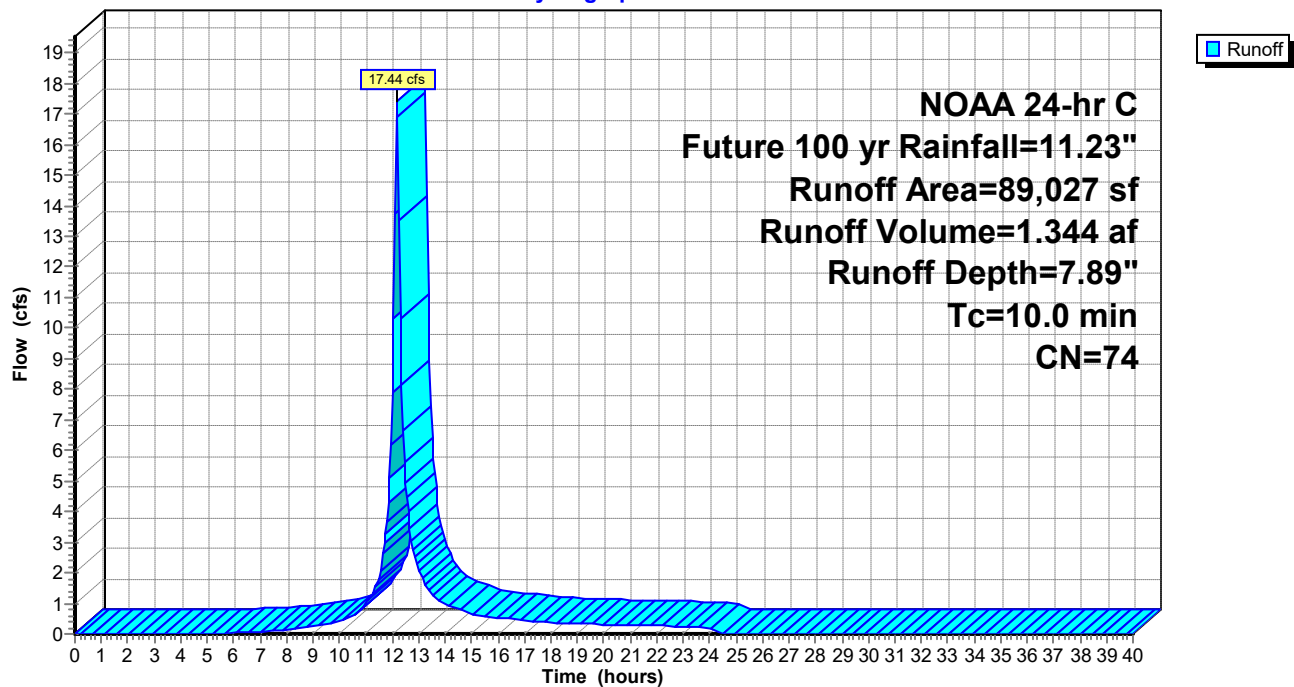
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (sf)	CN	Description
89,027	74	>75% Grass cover, Good, HSG C
89,027		100.00% Pervious Area

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

Subcatchment 46P: PDA-46 (pervious)

Hydrograph



Summary for Subcatchment 47I: PDA-47 (impervious)

Runoff = 10.03 cfs @ 12.17 hrs, Volume= 0.894 af, Depth=10.99"
 Routed to Pond B-47 : Basin #47

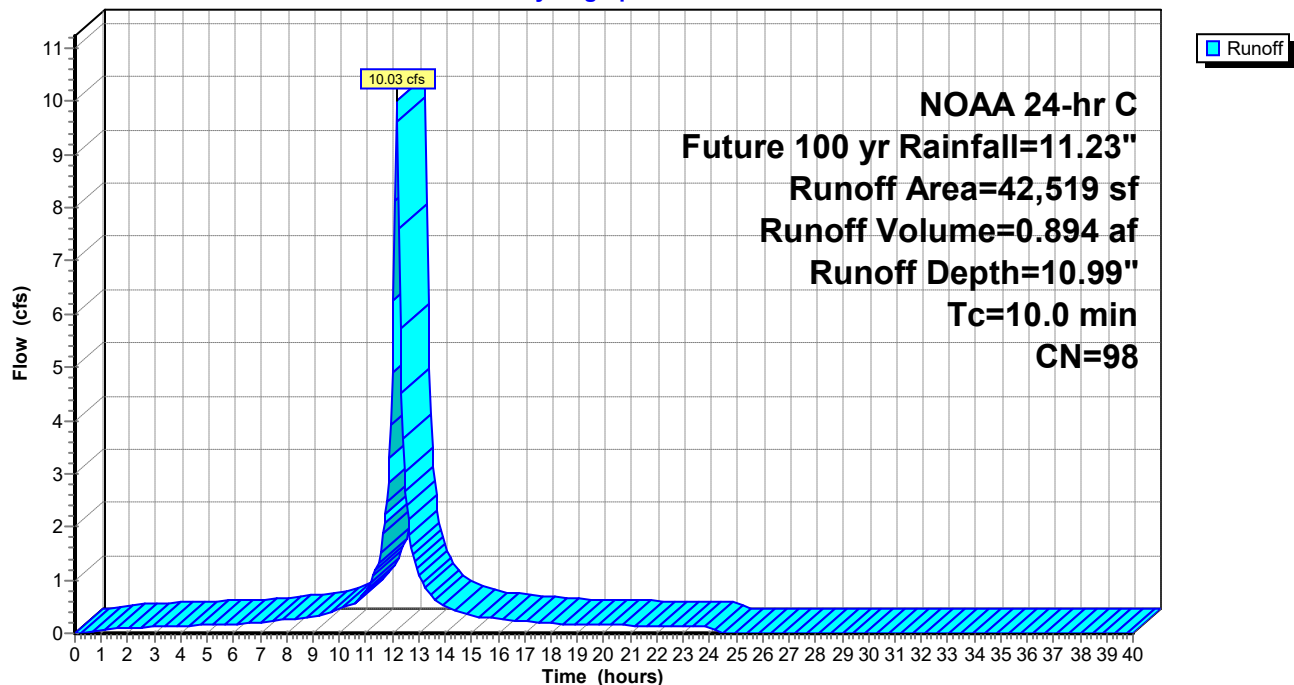
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

	Area (sf)	CN	Description
*	18,165	98	Pavement, HSG C
*	22,400	98	Roof, HSG C
*	1,954	98	Concrete, HSG C
	42,519	98	Weighted Average
	42,519		100.00% Impervious Area

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

Subcatchment 47I: PDA-47 (impervious)

Hydrograph



Summary for Subcatchment 47P: PDA-47 (pervious)

Runoff = 17.10 cfs @ 12.17 hrs, Volume= 1.319 af, Depth= 7.89"
 Routed to Pond B-47 : Basin #47

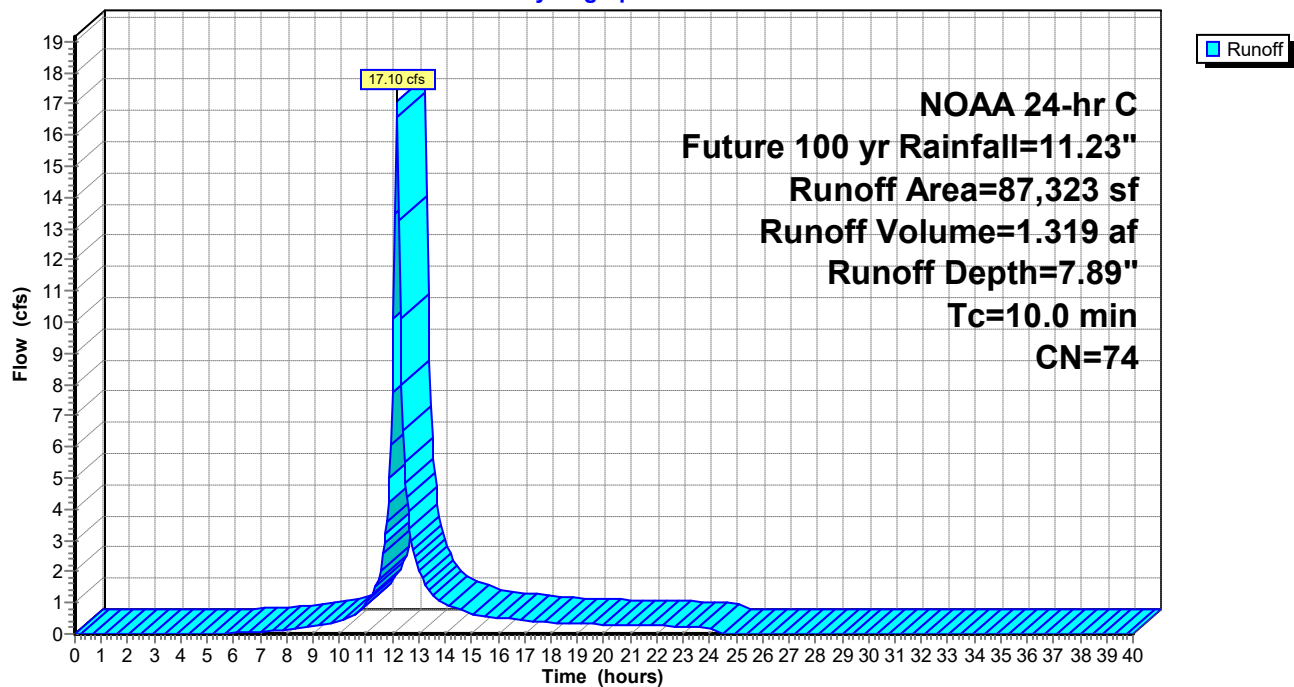
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (sf)	CN	Description
87,323	74	>75% Grass cover, Good, HSG C
87,323		100.00% Pervious Area

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

Subcatchment 47P: PDA-47 (pervious)

Hydrograph



Summary for Subcatchment UPDA-3: PDA-3 (undetained)

Runoff = 28.41 cfs @ 12.17 hrs, Volume= 2.191 af, Depth= 7.89"

Routed to Link PDA-3 : Proposed Drainage Area #3

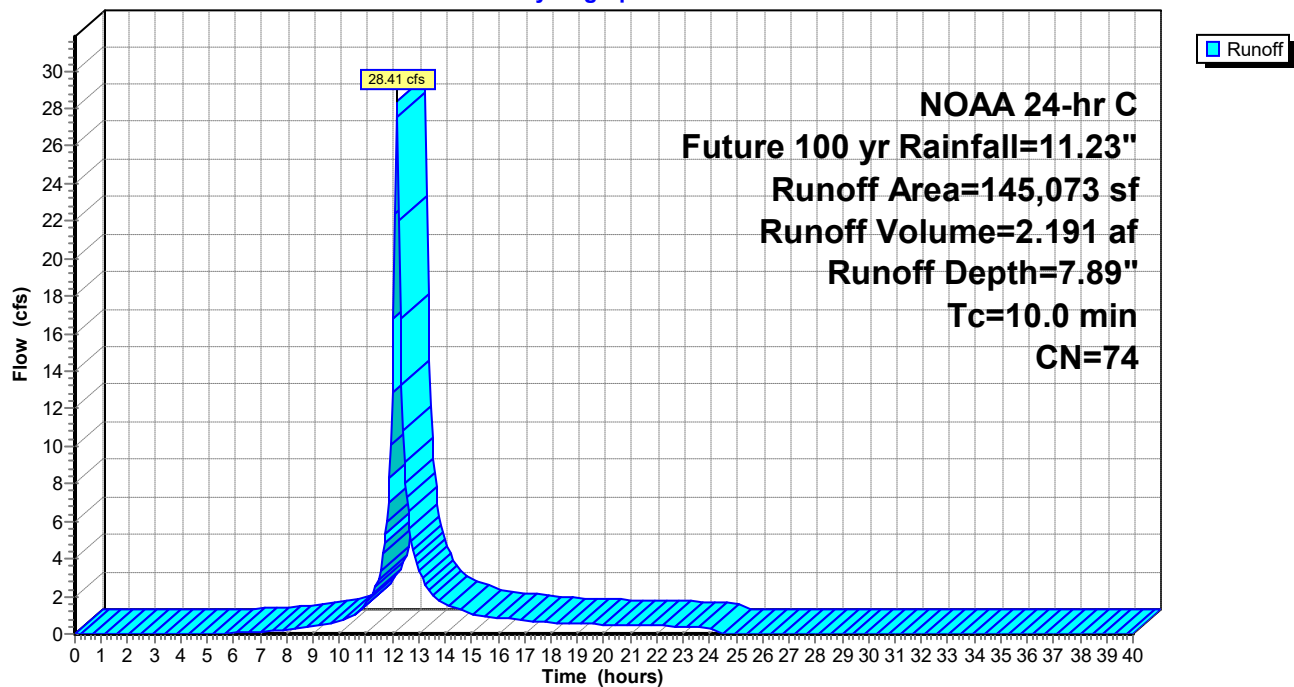
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (sf)	CN	Description
145,073	74	>75% Grass cover, Good, HSG C
145,073		100.00% Pervious Area

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

Subcatchment UPDA-3: PDA-3 (undetained)

Hydrograph



Summary for Subcatchment UPDA-4: PDA-4 (undetained)

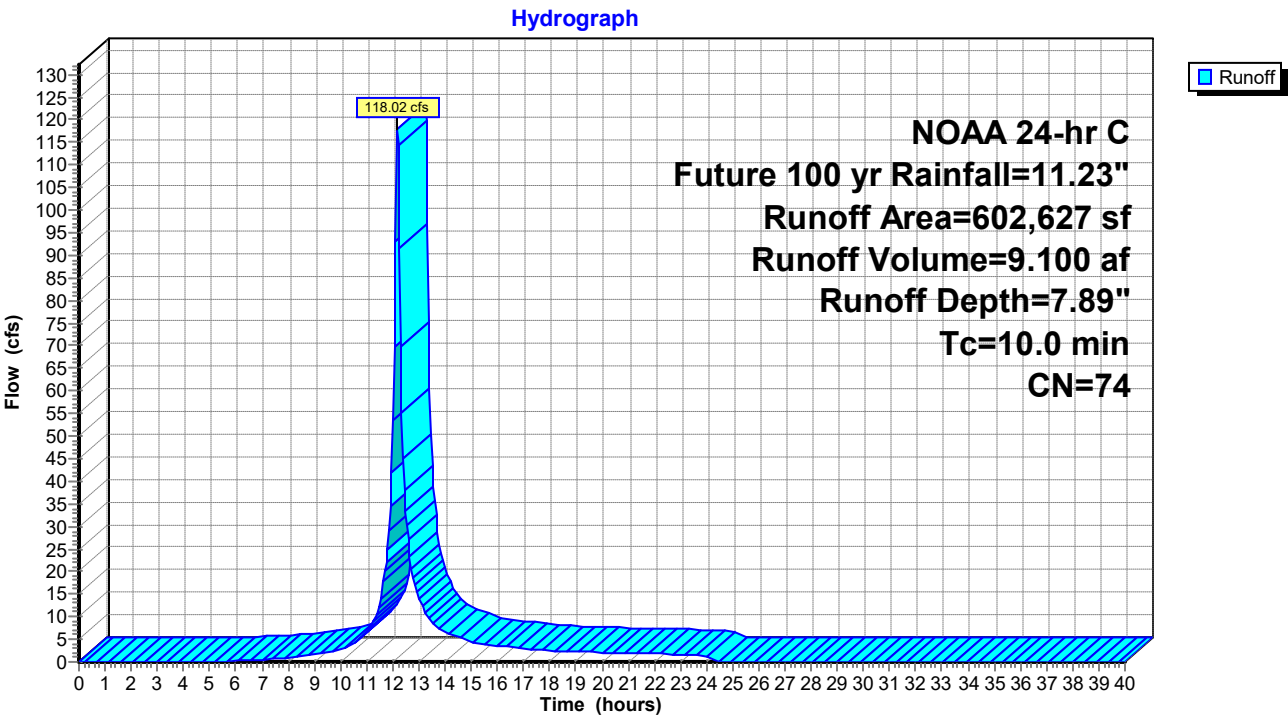
Runoff = 118.02 cfs @ 12.17 hrs, Volume= 9.100 af, Depth= 7.89"
Routed to Link PDA-4 : Proposed Drainage Area #4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
NOAA 24-hr C Future 100 yr Rainfall=11.23"

Area (sf)	CN	Description
602,627	74	>75% Grass cover, Good, HSG C
602,627		100.00% Pervious Area

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

Subcatchment UPDA-4: PDA-4 (undetained)



Summary for Pond B-29: Basin #29

Inflow Area = 0.608 ac, 41.10% Impervious, Inflow Depth = 9.17" for Future 100 yr event
 Inflow = 5.63 cfs @ 12.17 hrs, Volume= 0.465 af
 Outflow = 2.51 cfs @ 12.36 hrs, Volume= 0.428 af, Atten= 55%, Lag= 11.6 min
 Primary = 2.51 cfs @ 12.36 hrs, Volume= 0.428 af
 Routed to Link PDA-3 : Proposed Drainage Area #3

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 187.99' @ 12.36 hrs Surf.Area= 7,518 sf Storage= 9,442 cf

Plug-Flow detention time= 379.5 min calculated for 0.427 af (92% of inflow)
 Center-of-Mass det. time= 336.9 min (1,113.0 - 776.0)

Volume	Invert	Avail.Storage	Storage Description
#1	186.30'	17,435 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
186.30	0	0	0
187.00	6,769	2,369	2,369
188.00	7,526	7,148	9,517
189.00	8,311	7,919	17,435

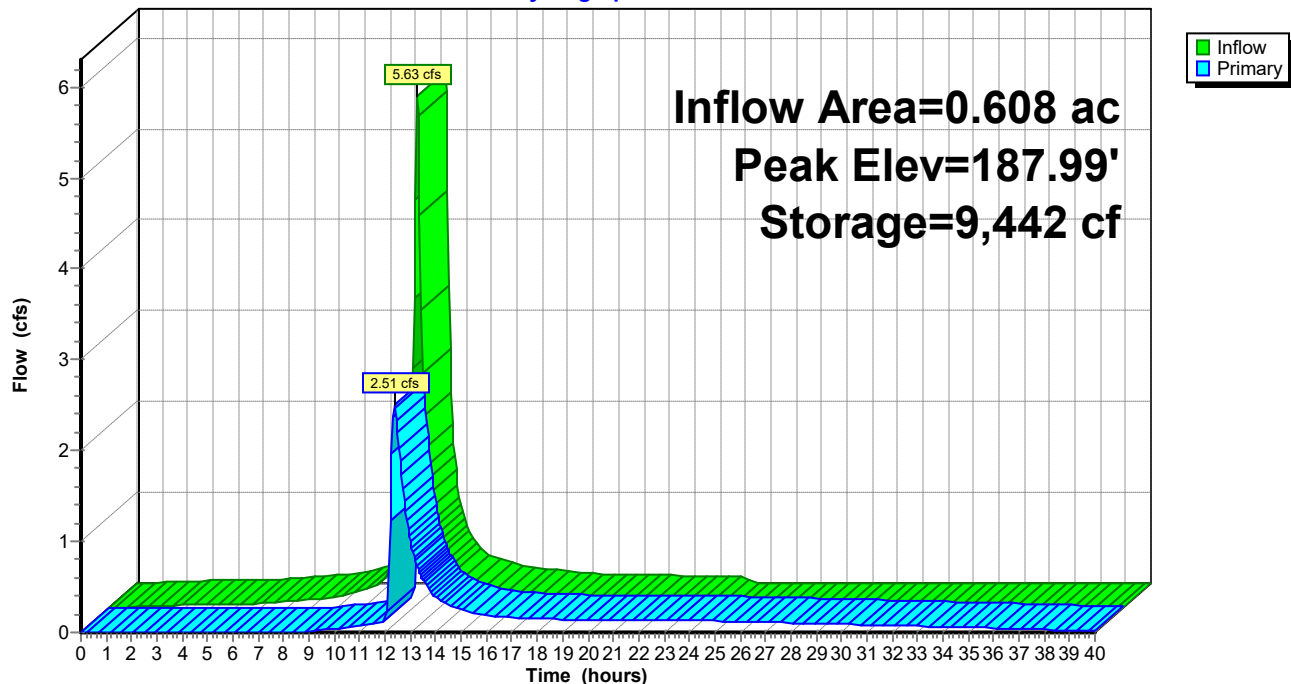
Device	Routing	Invert	Outlet Devices
#1	Primary	185.65'	18.0" Round Culvert L= 177.0' Ke= 0.500 Inlet / Outlet Invert= 185.65' / 182.00' S= 0.0206 '/ Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	186.77'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	187.67'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	188.00'	50.0' long + 3.0' /' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=2.49 cfs @ 12.36 hrs HW=187.99' (Free Discharge)

1=Culvert (Passes 2.49 cfs of 10.72 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.17 cfs @ 5.08 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 2.31 cfs @ 1.85 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-29: Basin #29

Hydrograph



Summary for Pond B-30: Basin #30

Inflow Area = 2.874 ac, 17.19% Impervious, Inflow Depth = 8.43" for Future 100 yr event
 Inflow = 25.37 cfs @ 12.17 hrs, Volume= 2.018 af
 Outflow = 9.96 cfs @ 12.40 hrs, Volume= 1.618 af, Atten= 61%, Lag= 13.5 min
 Primary = 9.96 cfs @ 12.40 hrs, Volume= 1.618 af
 Routed to Link PDA-3 : Proposed Drainage Area #3

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 178.99' @ 12.40 hrs Surf.Area= 14,964 sf Storage= 41,196 cf

Plug-Flow detention time= 349.9 min calculated for 1.618 af (80% of inflow)
 Center-of-Mass det. time= 270.2 min (1,064.4 - 794.3)

Volume	Invert	Avail.Storage	Storage Description
#1	175.30'	57,146 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
175.30	0	0	0
176.00	10,254	3,589	3,589
177.00	11,773	11,014	14,602
178.00	13,346	12,560	27,162
179.00	14,978	14,162	41,324
180.00	16,667	15,823	57,146

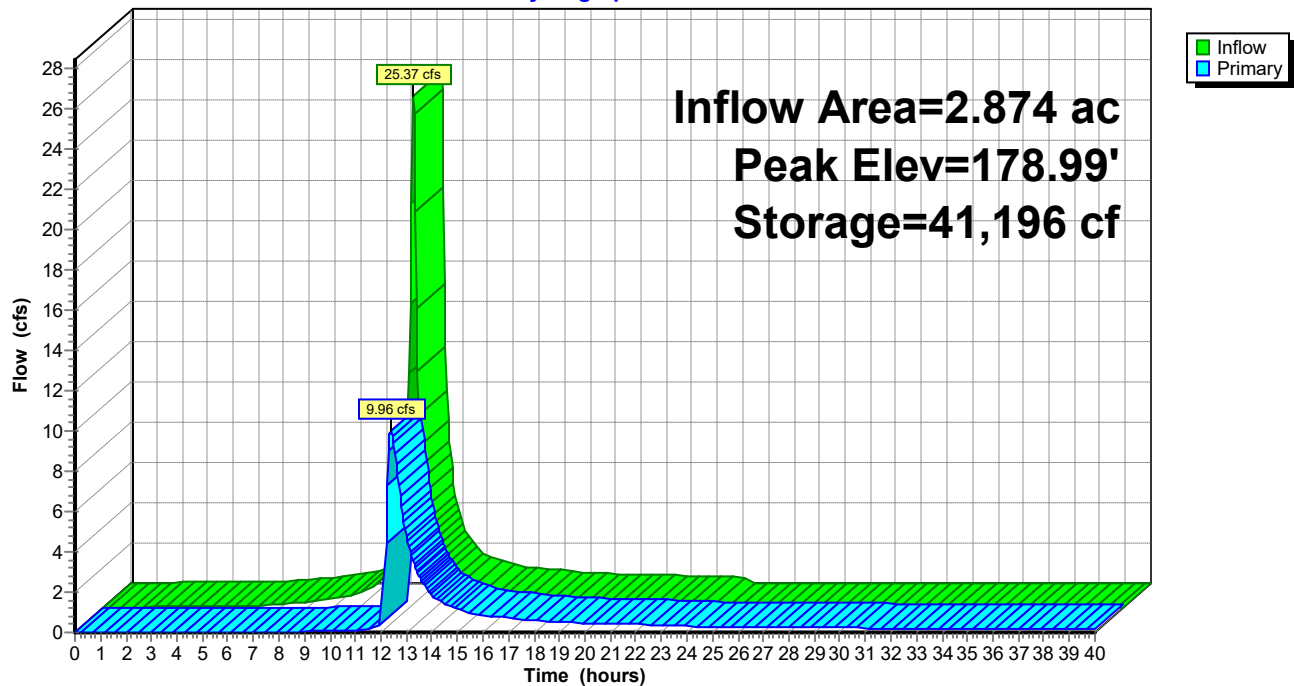
Device	Routing	Invert	Outlet Devices
#1	Primary	174.65'	18.0" Round Culvert L= 86.0' Ke= 0.500 Inlet / Outlet Invert= 174.65' / 174.00' S= 0.0076 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	175.89'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	178.15'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	179.00'	50.0' long + 3.0 ' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=9.95 cfs @ 12.40 hrs HW=178.99' (Free Discharge)

1=Culvert (Passes 9.95 cfs of 15.12 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.28 cfs @ 8.34 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 9.66 cfs @ 3.00 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-30: Basin #30

Hydrograph



Summary for Pond B-31: Basin #31

Inflow Area = 0.648 ac, 58.68% Impervious, Inflow Depth = 9.71" for Future 100 yr event
 Inflow = 6.19 cfs @ 12.17 hrs, Volume= 0.524 af
 Outflow = 5.48 cfs @ 12.22 hrs, Volume= 0.488 af, Atten= 11%, Lag= 3.2 min
 Primary = 5.48 cfs @ 12.22 hrs, Volume= 0.488 af
 Routed to Link PDA-3 : Proposed Drainage Area #3

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 194.97' @ 12.22 hrs Surf.Area= 3,223 sf Storage= 5,734 cf

Plug-Flow detention time= 175.9 min calculated for 0.488 af (93% of inflow)
 Center-of-Mass det. time= 136.8 min (901.2 - 764.4)

Volume	Invert	Avail.Storage	Storage Description
#1	192.30'	9,453 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
192.30	0	0	0
193.00	1,944	680	680
194.00	2,566	2,255	2,935
195.00	3,245	2,906	5,841
196.00	3,980	3,613	9,453

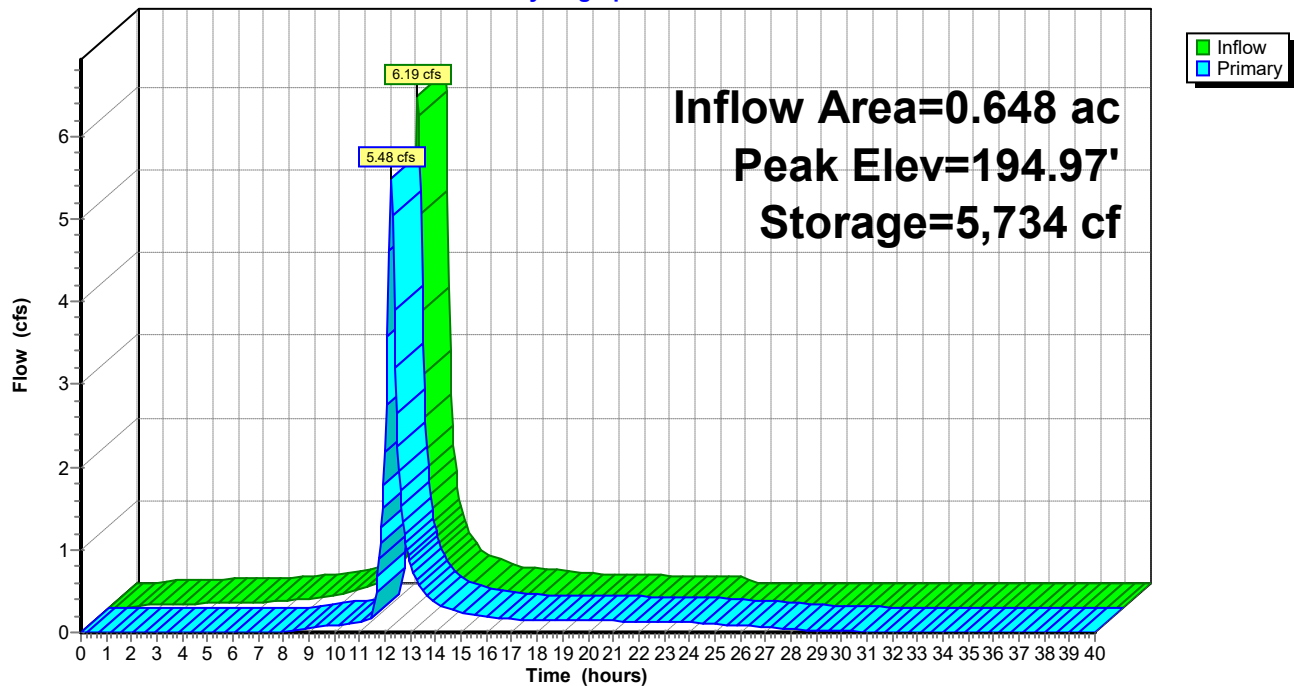
Device	Routing	Invert	Outlet Devices
#1	Primary	191.65'	18.0" Round Culvert L= 126.0' Ke= 0.500 Inlet / Outlet Invert= 191.65' / 188.00' S= 0.0290 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	193.41'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	194.41'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	194.98'	50.0' long + 3.0 ' / SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=5.38 cfs @ 12.22 hrs HW=194.96' (Free Discharge)

1=Culvert (Passes 5.38 cfs of 13.61 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.20 cfs @ 5.79 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 5.18 cfs @ 2.42 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-31: Basin #31

Hydrograph



Summary for Pond B-32: Basin #32

Inflow Area = 2.018 ac, 68.11% Impervious, Inflow Depth = 10.00" for Future 100 yr event
 Inflow = 19.61 cfs @ 12.17 hrs, Volume= 1.682 af
 Outflow = 17.42 cfs @ 12.22 hrs, Volume= 1.559 af, Atten= 11%, Lag= 3.2 min
 Primary = 17.42 cfs @ 12.22 hrs, Volume= 1.559 af
 Routed to Link PDA-3 : Proposed Drainage Area #3

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 196.99' @ 12.22 hrs Surf.Area= 4,380 sf Storage= 12,375 cf

Plug-Flow detention time= 88.8 min calculated for 1.557 af (93% of inflow)
 Center-of-Mass det. time= 47.9 min (806.6 - 758.7)

Volume	Invert	Avail.Storage	Storage Description
#1	192.30'	17,202 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
192.30	0	0	0
193.00	1,675	586	586
194.00	2,256	1,966	2,552
195.00	2,913	2,585	5,136
196.00	3,621	3,267	8,403
197.00	4,385	4,003	12,406
198.00	5,206	4,796	17,202

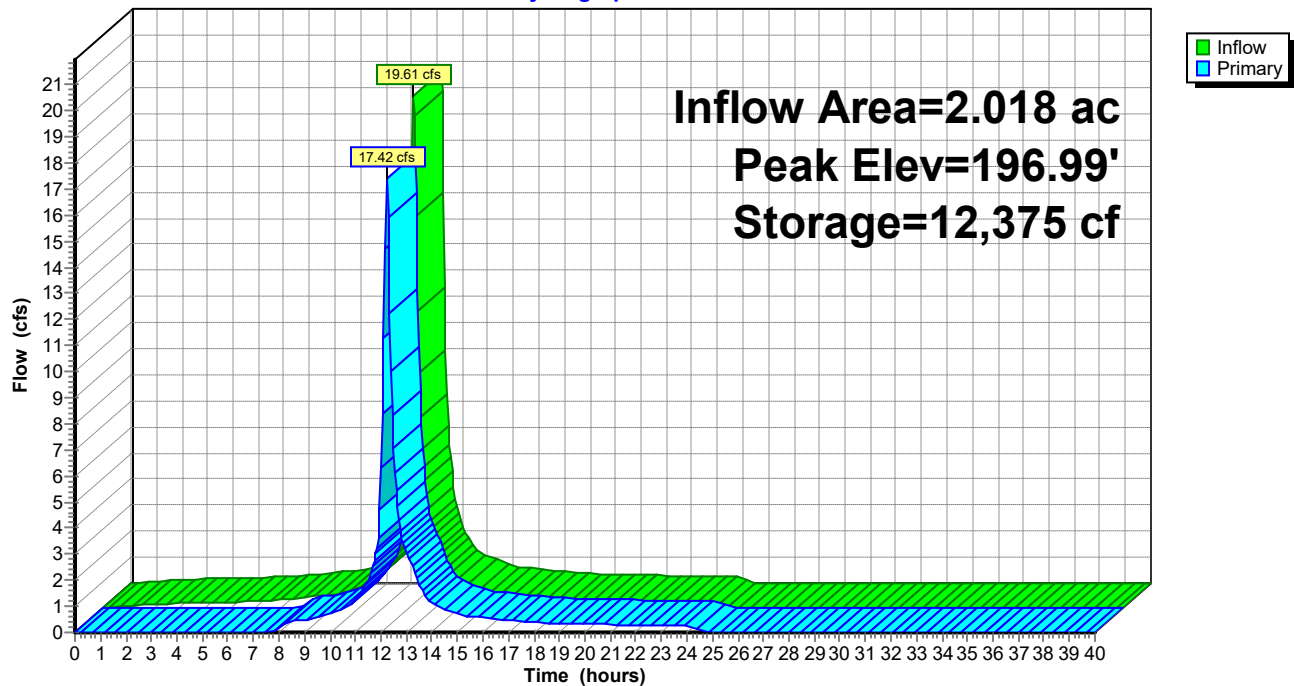
Device	Routing	Invert	Outlet Devices
#1	Primary	190.65'	18.0" Round Culvert L= 182.0' Ke= 0.500 Inlet / Outlet Invert= 190.65' / 188.00' S= 0.0146 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	195.08'	33.0" W x 3.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	196.00'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	197.00'	50.0' long + 3.0' /' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=17.10 cfs @ 12.22 hrs HW=196.98' (Free Discharge)

1=Culvert (Passes 17.10 cfs of 17.65 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 5.11 cfs @ 6.37 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 11.99 cfs @ 3.23 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-32: Basin #32

Hydrograph



Summary for Pond B-33: Basin #33

Inflow Area = 1.922 ac, 57.65% Impervious, Inflow Depth = 9.68" for Future 100 yr event
 Inflow = 18.32 cfs @ 12.17 hrs, Volume= 1.550 af
 Outflow = 14.93 cfs @ 12.23 hrs, Volume= 1.449 af, Atten= 19%, Lag= 3.9 min
 Primary = 14.93 cfs @ 12.23 hrs, Volume= 1.449 af
 Routed to Link PDA-3 : Proposed Drainage Area #3

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 189.99' @ 12.24 hrs Surf.Area= 5,614 sf Storage= 13,692 cf

Plug-Flow detention time= 91.3 min calculated for 1.449 af (93% of inflow)
 Center-of-Mass det. time= 53.5 min (818.5 - 765.1)

Volume	Invert	Avail.Storage	Storage Description
#1	186.30'	19,860 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
186.30	0	0	0
187.00	2,936	1,028	1,028
188.00	3,763	3,350	4,377
189.00	4,665	4,214	8,591
190.00	5,621	5,143	13,734
191.00	6,631	6,126	19,860

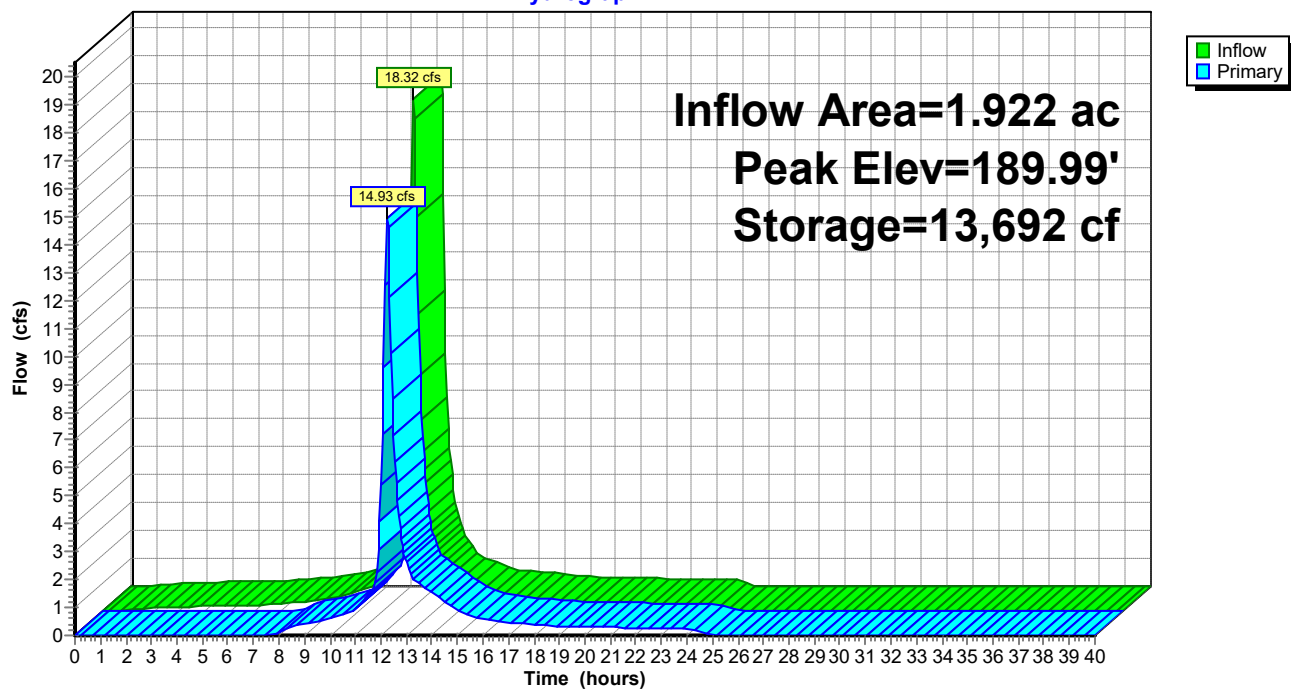
Device	Routing	Invert	Outlet Devices
#1	Primary	185.65'	18.0" Round Culvert L= 91.0' Ke= 0.500 Inlet / Outlet Invert= 185.65' / 185.00' S= 0.0071 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	188.01'	25.0" W x 2.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	188.97'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	190.00'	50.0' long + 3.0' /' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=14.87 cfs @ 12.23 hrs HW=189.98' (Free Discharge)

- 1=Culvert (Barrel Controls 14.87 cfs @ 8.42 fps)
- 2=Orifice/Grate (Passes < 2.85 cfs potential flow)
- 3=Sharp-Crested Rectangular Weir (Passes < 12.61 cfs potential flow)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-33: Basin #33

Hydrograph



Summary for Pond B-34: Basin #34

Inflow Area = 2.636 ac, 39.08% Impervious, Inflow Depth = 9.10" for Future 100 yr event
 Inflow = 24.28 cfs @ 12.17 hrs, Volume= 2.000 af
 Outflow = 14.19 cfs @ 12.31 hrs, Volume= 1.900 af, Atten= 42%, Lag= 8.1 min
 Primary = 14.19 cfs @ 12.31 hrs, Volume= 1.900 af
 Routed to Link PDA-3 : Proposed Drainage Area #3

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 193.98' @ 12.31 hrs Surf.Area= 8,377 sf Storage= 22,001 cf

Plug-Flow detention time= 94.2 min calculated for 1.898 af (95% of inflow)
 Center-of-Mass det. time= 65.6 min (843.0 - 777.5)

Volume	Invert	Avail.Storage	Storage Description
#1	190.30'	31,516 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
190.30	0	0	0
191.00	5,237	1,833	1,833
192.00	6,228	5,733	7,565
193.00	7,281	6,755	14,320
194.00	8,398	7,840	22,159
195.00	10,316	9,357	31,516

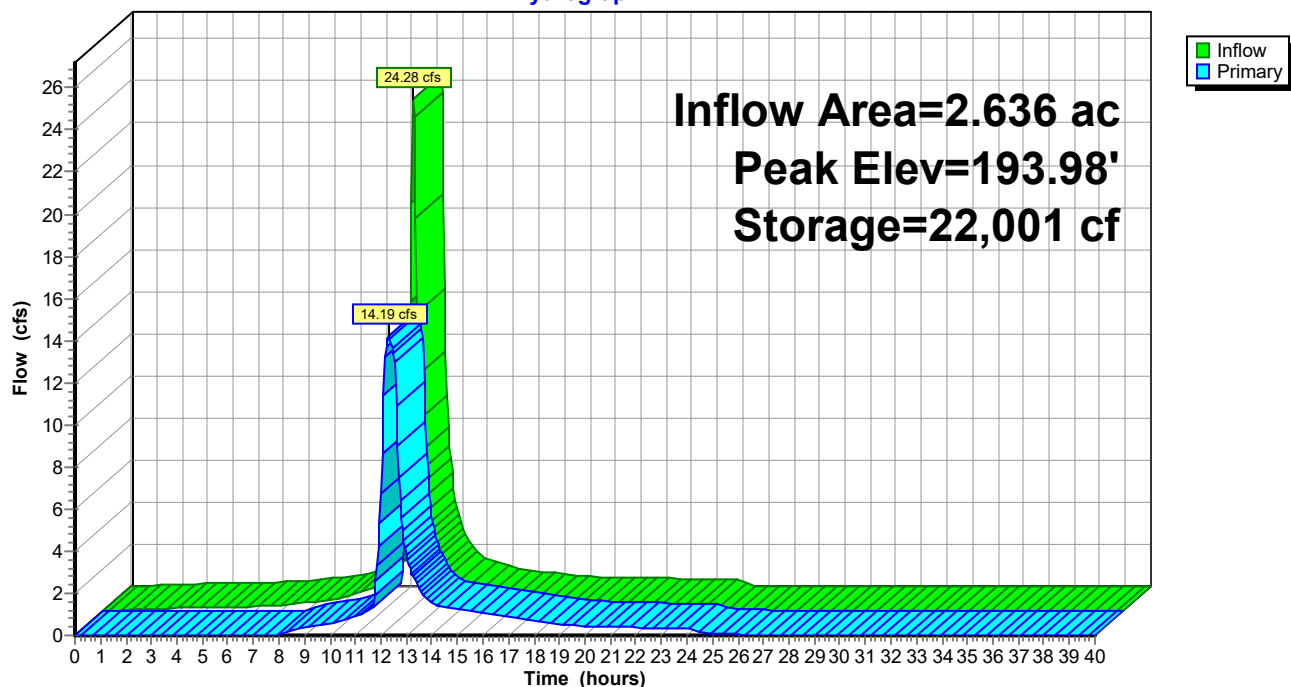
Device	Routing	Invert	Outlet Devices
#1	Primary	189.65'	18.0" Round Culvert L= 100.0' Ke= 0.500 Inlet / Outlet Invert= 189.65' / 189.15' S= 0.0050 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	191.46'	17.0" W x 2.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	192.50'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	193.99'	50.0' long + 3.0 ' / SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=14.18 cfs @ 12.31 hrs HW=193.98' (Free Discharge)

1=Culvert (Barrel Controls 14.18 cfs @ 8.02 fps)
 2=Orifice/Grate (Passes < 2.21 cfs potential flow)
 3=Sharp-Crested Rectangular Weir (Passes < 21.75 cfs potential flow)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-34: Basin #34

Hydrograph



Summary for Pond B-35: Basin #35

Inflow Area = 2.652 ac, 50.90% Impervious, Inflow Depth = 9.47" for Future 100 yr event
 Inflow = 24.97 cfs @ 12.17 hrs, Volume= 2.092 af
 Outflow = 13.76 cfs @ 12.32 hrs, Volume= 1.967 af, Atten= 45%, Lag= 8.7 min
 Primary = 13.76 cfs @ 12.32 hrs, Volume= 1.967 af
 Routed to Link PDA-3 : Proposed Drainage Area #3

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 193.99' @ 12.32 hrs Surf.Area= 6,857 sf Storage= 18,862 cf

Plug-Flow detention time= 78.8 min calculated for 1.964 af (94% of inflow)
 Center-of-Mass det. time= 44.5 min (813.9 - 769.4)

Volume	Invert	Avail.Storage	Storage Description
#1	189.80'	26,431 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
189.80	0	0	0
190.00	2,647	265	265
191.00	3,593	3,120	3,385
192.00	4,618	4,106	7,490
193.00	5,711	5,165	12,655
194.00	6,871	6,291	18,946
195.00	8,099	7,485	26,431

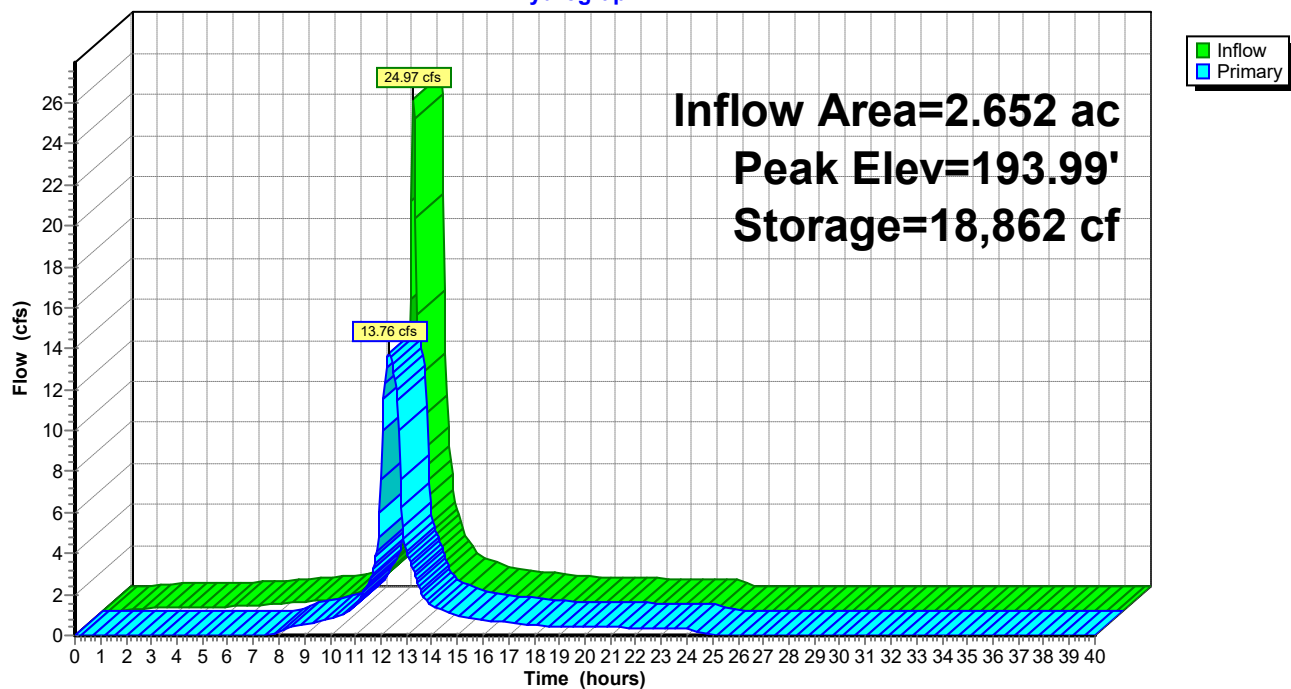
Device	Routing	Invert	Outlet Devices
#1	Primary	189.80'	18.0" Round Culvert L= 103.0' Ke= 0.500 Inlet / Outlet Invert= 189.80' / 189.30' S= 0.0049 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	191.54'	36.0" W x 4.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	192.32'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	194.00'	50.0' long + 3.0 ' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=13.74 cfs @ 12.32 hrs HW=193.98' (Free Discharge)

1=Culvert (Barrel Controls 13.74 cfs @ 7.78 fps)
 2=Orifice/Grate (Passes < 8.12 cfs potential flow)
 3=Sharp-Crested Rectangular Weir (Passes < 25.58 cfs potential flow)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-35: Basin #35

Hydrograph



Summary for Pond B-36: Basin #36

Inflow Area = 2.614 ac, 60.98% Impervious, Inflow Depth = 9.78" for Future 100 yr event
 Inflow = 25.07 cfs @ 12.17 hrs, Volume= 2.131 af
 Outflow = 12.65 cfs @ 12.33 hrs, Volume= 1.985 af, Atten= 50%, Lag= 9.7 min
 Primary = 12.65 cfs @ 12.33 hrs, Volume= 1.985 af
 Routed to Link PDA-3 : Proposed Drainage Area #3

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 193.99' @ 12.33 hrs Surf.Area= 11,232 sf Storage= 28,675 cf

Plug-Flow detention time= 125.5 min calculated for 1.985 af (93% of inflow)
 Center-of-Mass det. time= 86.5 min (849.5 - 763.0)

Volume	Invert	Avail.Storage	Storage Description
#1	190.50'	40,832 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
190.50	0	0	0
191.00	6,879	1,720	1,720
192.00	8,280	7,580	9,299
193.00	9,767	9,024	18,323
194.00	11,253	10,510	28,833
195.00	12,746	12,000	40,832

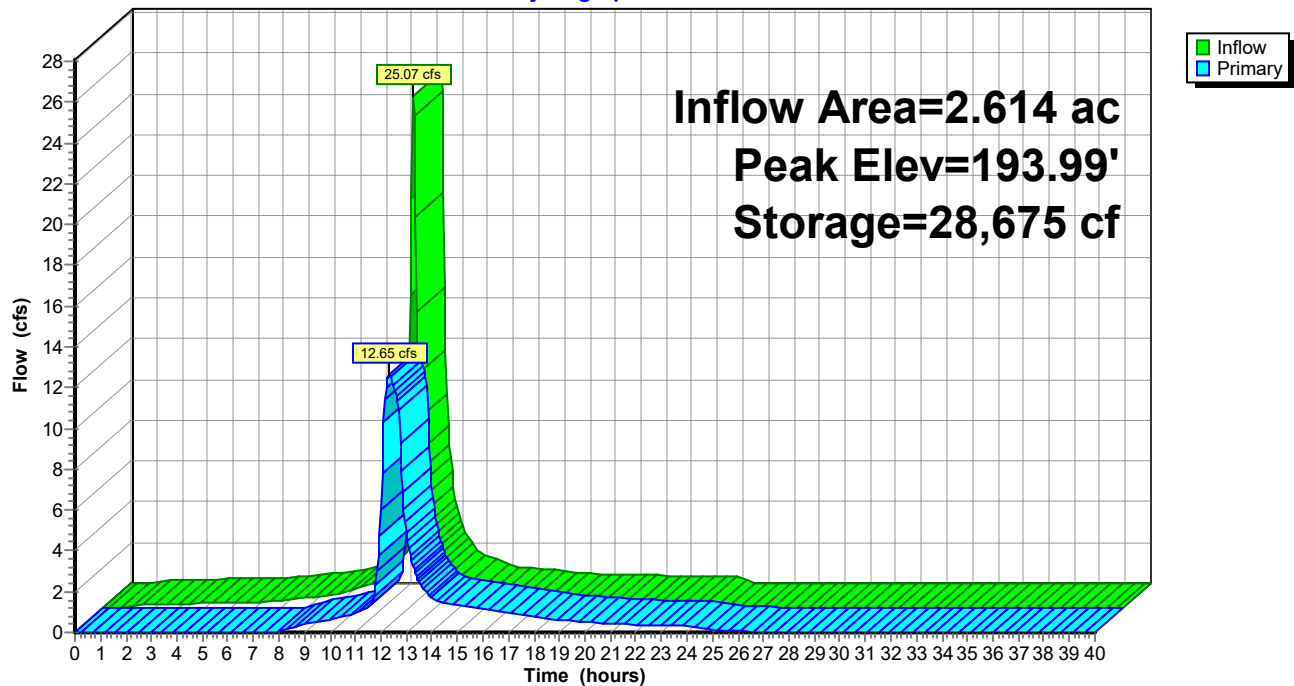
Device	Routing	Invert	Outlet Devices
#1	Primary	190.50'	18.0" Round Culvert L= 82.0' Ke= 0.500 Inlet / Outlet Invert= 190.50' / 190.10' S= 0.0049 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	191.63'	18.0" W x 2.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	192.58'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	194.00'	50.0' long + 3.0' /' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=12.63 cfs @ 12.33 hrs HW=193.98' (Free Discharge)

1=Culvert (Barrel Controls 12.63 cfs @ 7.15 fps)
 2=Orifice/Grate (Passes < 2.26 cfs potential flow)
 3=Sharp-Crested Rectangular Weir (Passes < 20.17 cfs potential flow)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-36: Basin #36

Hydrograph



Summary for Pond B-37: Basin #37

Inflow Area = 2.756 ac, 35.78% Impervious, Inflow Depth = 9.00" for Future 100 yr event
 Inflow = 25.22 cfs @ 12.17 hrs, Volume= 2.067 af
 Outflow = 11.26 cfs @ 12.36 hrs, Volume= 1.910 af, Atten= 55%, Lag= 11.4 min
 Primary = 11.26 cfs @ 12.36 hrs, Volume= 1.910 af
 Routed to Link PDA-3 : Proposed Drainage Area #3

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 196.83' @ 12.36 hrs Surf.Area= 11,766 sf Storage= 30,238 cf

Plug-Flow detention time= 189.0 min calculated for 1.907 af (92% of inflow)
 Center-of-Mass det. time= 148.6 min (928.4 - 779.8)

Volume	Invert	Avail.Storage	Storage Description
#1	193.30'	45,026 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
193.30	0	0	0
194.00	7,747	2,711	2,711
195.00	9,114	8,431	11,142
196.00	10,536	9,825	20,967
197.00	12,016	11,276	32,243
198.00	13,551	12,784	45,026

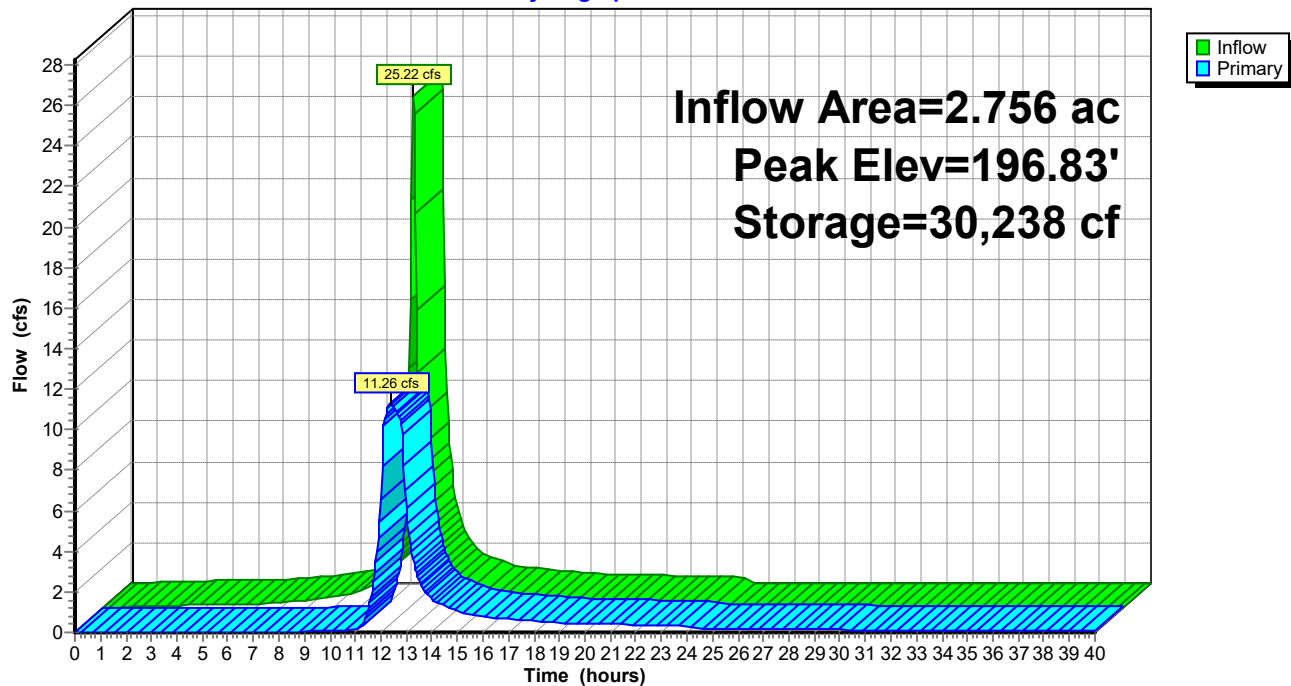
Device	Routing	Invert	Outlet Devices
#1	Primary	192.65'	18.0" Round Culvert L= 265.0' Ke= 0.500 Inlet / Outlet Invert= 192.65' / 191.33' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	194.20'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	195.23'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	196.84'	50.0' long + 3.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=11.26 cfs @ 12.36 hrs HW=196.83' (Free Discharge)

1=Culvert (Barrel Controls 11.26 cfs @ 6.37 fps)
 2=Orifice/Grate (Passes < 0.26 cfs potential flow)
 3=Sharp-Crested Rectangular Weir (Passes < 24.31 cfs potential flow)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-37: Basin #37

Hydrograph



Summary for Pond B-38: Basin #38

Inflow Area = 2.142 ac, 34.77% Impervious, Inflow Depth = 8.97" for Future 100 yr event
 Inflow = 19.57 cfs @ 12.17 hrs, Volume= 1.601 af
 Outflow = 14.36 cfs @ 12.26 hrs, Volume= 1.495 af, Atten= 27%, Lag= 5.4 min
 Primary = 14.36 cfs @ 12.26 hrs, Volume= 1.495 af
 Routed to Link PDA-3 : Proposed Drainage Area #3

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 207.90' @ 12.26 hrs Surf.Area= 7,775 sf Storage= 20,328 cf

Plug-Flow detention time= 213.2 min calculated for 1.495 af (93% of inflow)
 Center-of-Mass det. time= 175.9 min (956.4 - 780.6)

Volume	Invert	Avail.Storage	Storage Description
#1	204.30'	29,525 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
204.30	0	0	0
205.00	5,096	1,784	1,784
206.00	5,966	5,531	7,315
207.00	6,893	6,430	13,744
208.00	7,876	7,385	21,129
209.00	8,916	8,396	29,525

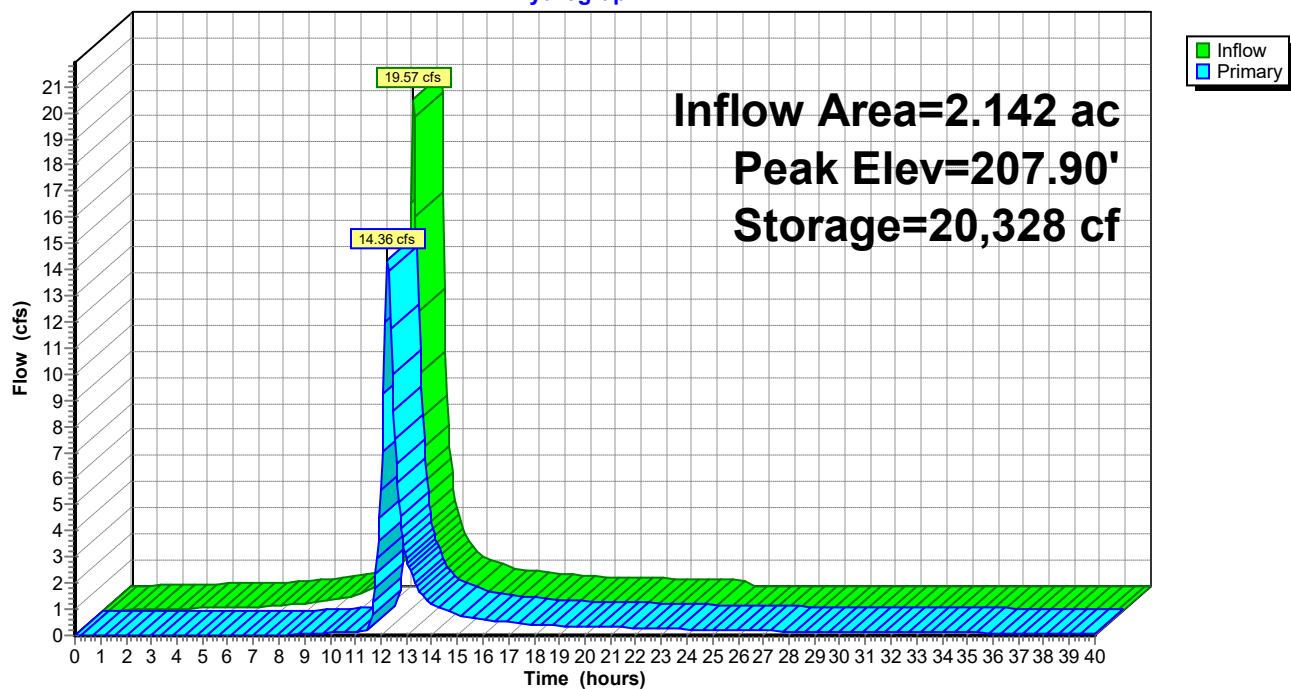
Device	Routing	Invert	Outlet Devices
#1	Primary	204.30'	18.0" Round Culvert L= 33.0' Ke= 0.500 Inlet / Outlet Invert= 204.30' / 204.13' S= 0.0052 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	205.28'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	206.73'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	207.91'	50.0' long + 3.0 ' / SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=14.34 cfs @ 12.26 hrs HW=207.89' (Free Discharge)

1=Culvert (Inlet Controls 14.34 cfs @ 8.11 fps)
 2=Orifice/Grate (Passes < 0.26 cfs potential flow)
 3=Sharp-Crested Rectangular Weir (Passes < 15.40 cfs potential flow)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-38: Basin #38

Hydrograph



Summary for Pond B-39: Basin #39

Inflow Area = 1.768 ac, 41.30% Impervious, Inflow Depth = 9.17" for Future 100 yr event
 Inflow = 16.35 cfs @ 12.17 hrs, Volume= 1.351 af
 Outflow = 14.35 cfs @ 12.23 hrs, Volume= 1.280 af, Atten= 12%, Lag= 3.3 min
 Primary = 14.35 cfs @ 12.23 hrs, Volume= 1.280 af
 Routed to Link PDA-3 : Proposed Drainage Area #3

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 203.94' @ 12.23 hrs Surf.Area= 4,423 sf Storage= 11,784 cf

Plug-Flow detention time= 99.0 min calculated for 1.280 af (95% of inflow)
 Center-of-Mass det. time= 68.2 min (844.1 - 775.9)

Volume	Invert	Avail.Storage	Storage Description
#1	200.30'	16,777 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
200.30	0	0	0
201.00	2,928	1,025	1,025
202.00	3,408	3,168	4,193
203.00	3,917	3,663	7,855
204.00	4,454	4,186	12,041
205.00	5,019	4,737	16,777

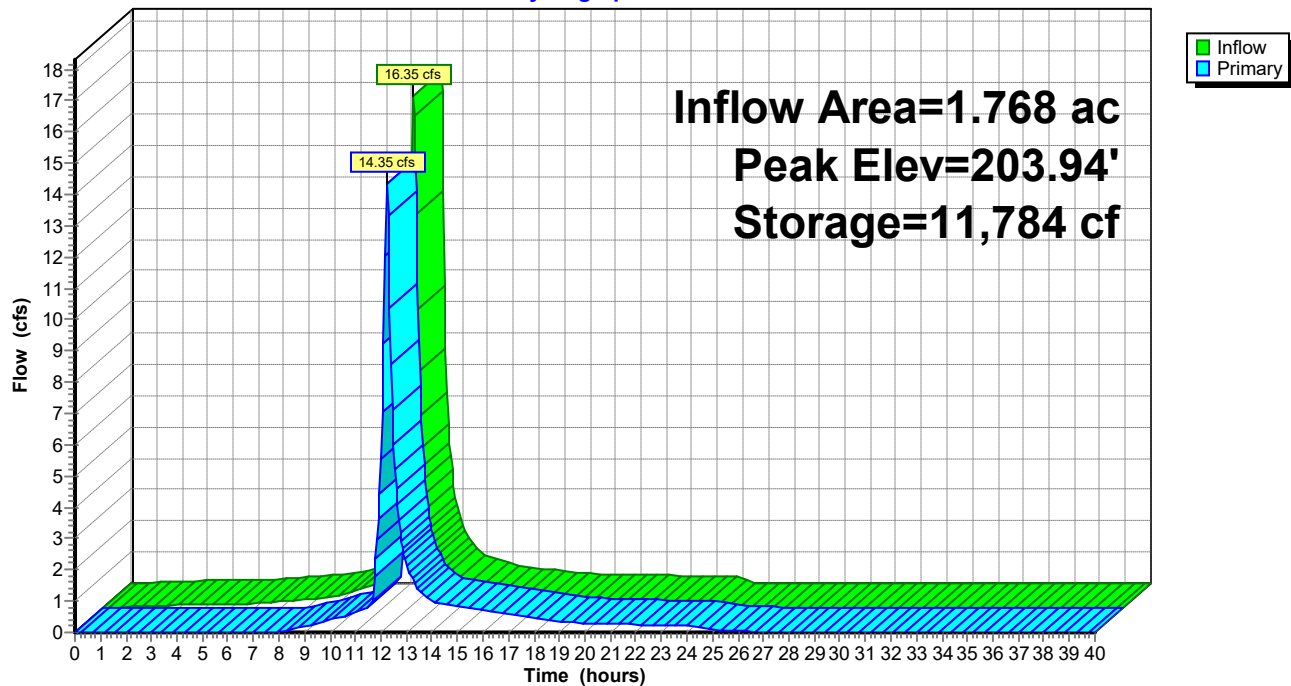
Device	Routing	Invert	Outlet Devices
#1	Primary	200.30'	18.0" Round Culvert L= 38.0' Ke= 0.500 Inlet / Outlet Invert= 200.30' / 200.11' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	201.66'	6.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	202.91'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	203.95'	50.0' long + 3.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=14.14 cfs @ 12.23 hrs HW=203.93' (Free Discharge)

1=Culvert (Passes 14.14 cfs of 14.44 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 1.34 cfs @ 6.84 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 12.79 cfs @ 3.30 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-39: Basin #39

Hydrograph



Summary for Pond B-40: Basin #40

Inflow Area = 1.399 ac, 47.75% Impervious, Inflow Depth = 9.37" for Future 100 yr event
 Inflow = 13.10 cfs @ 12.17 hrs, Volume= 1.093 af
 Outflow = 11.31 cfs @ 12.23 hrs, Volume= 1.023 af, Atten= 14%, Lag= 3.6 min
 Primary = 11.31 cfs @ 12.23 hrs, Volume= 1.023 af
 Routed to Link PDA-3 : Proposed Drainage Area #3

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 204.79' @ 12.23 hrs Surf.Area= 4,578 sf Storage= 12,519 cf

Plug-Flow detention time= 210.1 min calculated for 1.022 af (94% of inflow)
 Center-of-Mass det. time= 174.9 min (946.4 - 771.5)

Volume	Invert	Avail.Storage	Storage Description
#1	201.30'	18,339 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
201.30	0	0	0
202.00	3,521	1,232	1,232
203.00	3,886	3,704	4,936
204.00	4,266	4,076	9,012
205.00	4,660	4,463	13,475
206.00	5,069	4,865	18,339

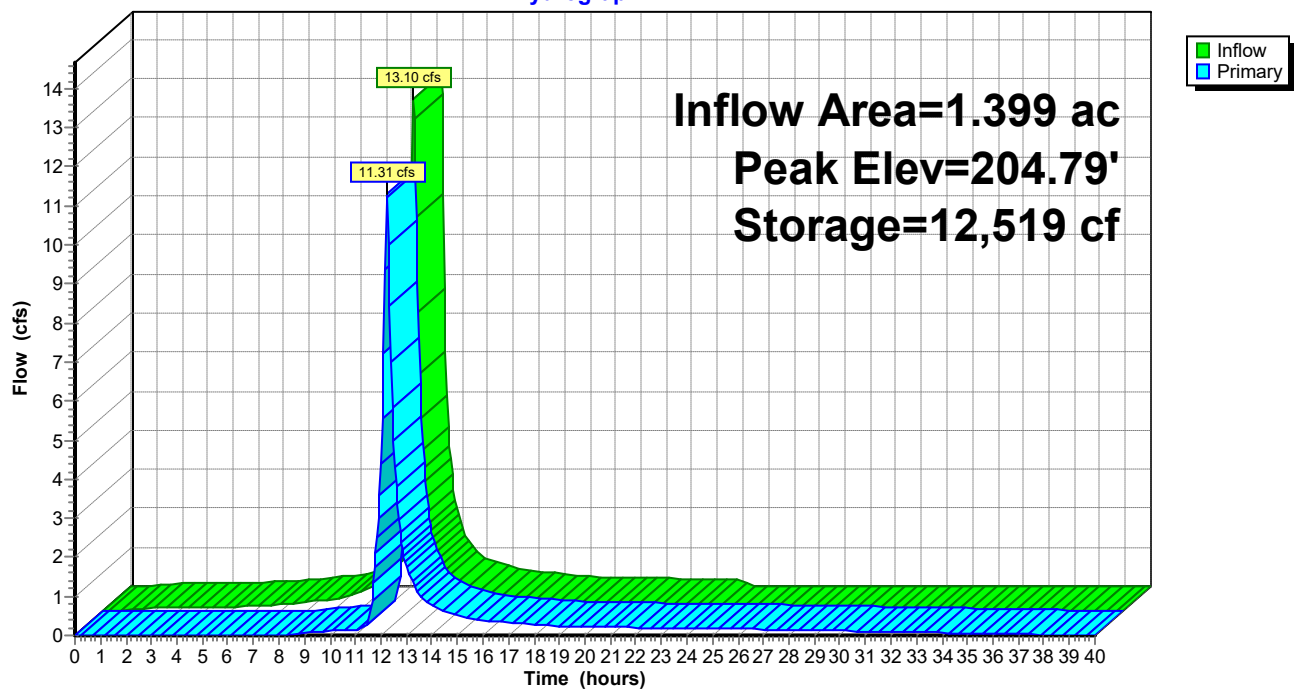
Device	Routing	Invert	Outlet Devices
#1	Primary	201.30'	18.0" Round Culvert L= 38.0' Ke= 0.500 Inlet / Outlet Invert= 201.30' / 201.11' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	202.42'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	203.87'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	204.80'	50.0' long + 3.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=11.15 cfs @ 12.23 hrs HW=204.78' (Free Discharge)

1=Culvert (Passes 11.15 cfs of 14.07 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.25 cfs @ 7.24 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 10.90 cfs @ 3.13 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-40: Basin #40

Hydrograph



Summary for Pond B-41: Basin #41

Inflow Area = 2.072 ac, 22.25% Impervious, Inflow Depth = 8.58" for Future 100 yr event
 Inflow = 18.48 cfs @ 12.17 hrs, Volume= 1.482 af
 Outflow = 13.48 cfs @ 12.26 hrs, Volume= 1.419 af, Atten= 27%, Lag= 5.5 min
 Primary = 13.48 cfs @ 12.26 hrs, Volume= 1.419 af
 Routed to Link PDA-4 : Proposed Drainage Area #4

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 185.38' @ 12.26 hrs Surf.Area= 5,752 sf Storage= 16,160 cf

Plug-Flow detention time= 180.9 min calculated for 1.419 af (96% of inflow)
 Center-of-Mass det. time= 156.0 min (946.1 - 790.1)

Volume	Invert	Avail.Storage	Storage Description
#1	181.85'	23,005 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
181.85	0	0	0
182.00	3,695	277	277
183.00	4,265	3,980	4,257
184.00	4,870	4,568	8,825
185.00	5,505	5,188	14,012
186.00	6,153	5,829	19,841
186.50	6,502	3,164	23,005

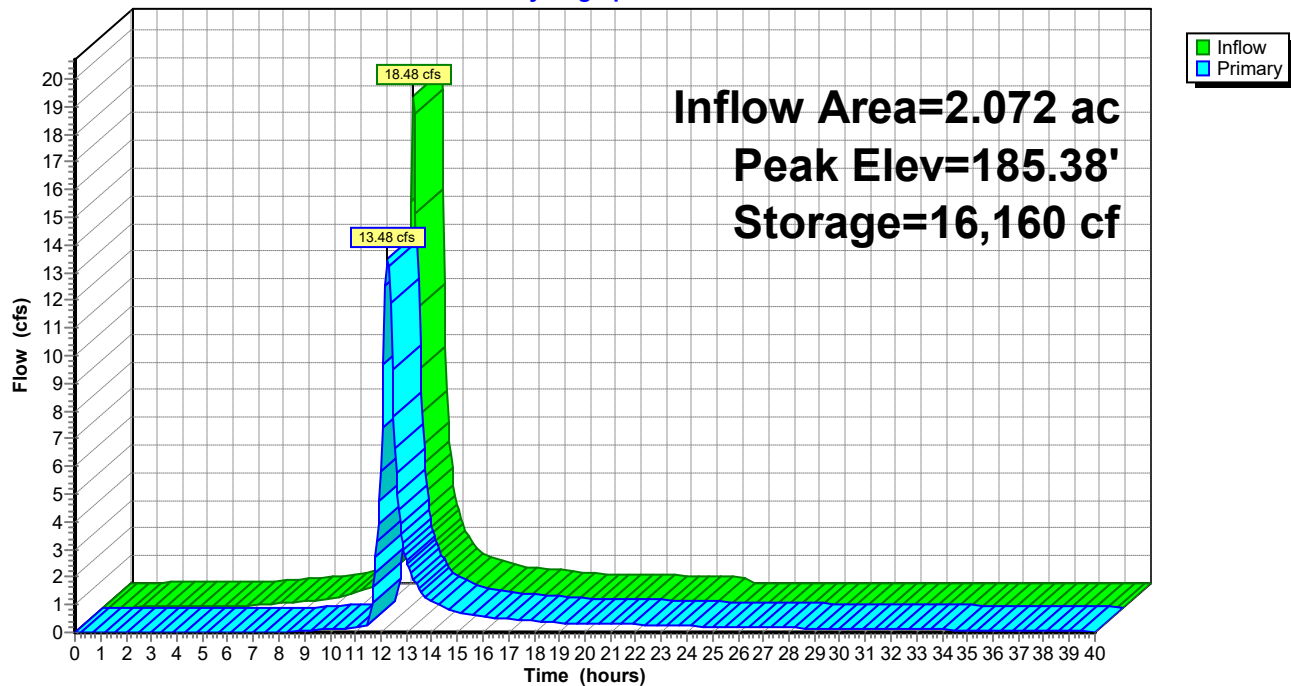
Device	Routing	Invert	Outlet Devices
#1	Primary	181.85'	18.0" Round Culvert L= 59.0' Ke= 0.500 Inlet / Outlet Invert= 181.85' / 181.55' S= 0.0051 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	182.50'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	184.13'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	185.39'	50.0' long + 3.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=13.45 cfs @ 12.26 hrs HW=185.37' (Free Discharge)

1=Culvert (Barrel Controls 13.45 cfs @ 7.61 fps)
 2=Orifice/Grate (Passes < 0.27 cfs potential flow)
 3=Sharp-Crested Rectangular Weir (Passes < 16.96 cfs potential flow)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-41: Basin #41

Hydrograph



Summary for Pond B-42: Basin #42

Inflow Area = 2.335 ac, 53.70% Impervious, Inflow Depth = 9.56" for Future 100 yr event
 Inflow = 22.10 cfs @ 12.17 hrs, Volume= 1.859 af
 Outflow = 11.82 cfs @ 12.32 hrs, Volume= 1.744 af, Atten= 47%, Lag= 9.0 min
 Primary = 11.82 cfs @ 12.32 hrs, Volume= 1.744 af
 Routed to Link PDA-4 : Proposed Drainage Area #4

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 185.98' @ 12.32 hrs Surf.Area= 5,667 sf Storage= 20,493 cf

Plug-Flow detention time= 95.3 min calculated for 1.742 af (94% of inflow)
 Center-of-Mass det. time= 60.0 min (827.5 - 767.6)

Volume	Invert	Avail.Storage	Storage Description
#1	180.96'	26,637 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
180.96	0	0	0
181.00	2,684	54	54
182.00	3,211	2,948	3,001
183.00	3,774	3,493	6,494
184.00	4,373	4,074	10,567
185.00	5,009	4,691	15,258
186.00	5,680	5,345	20,603
187.00	6,389	6,035	26,637

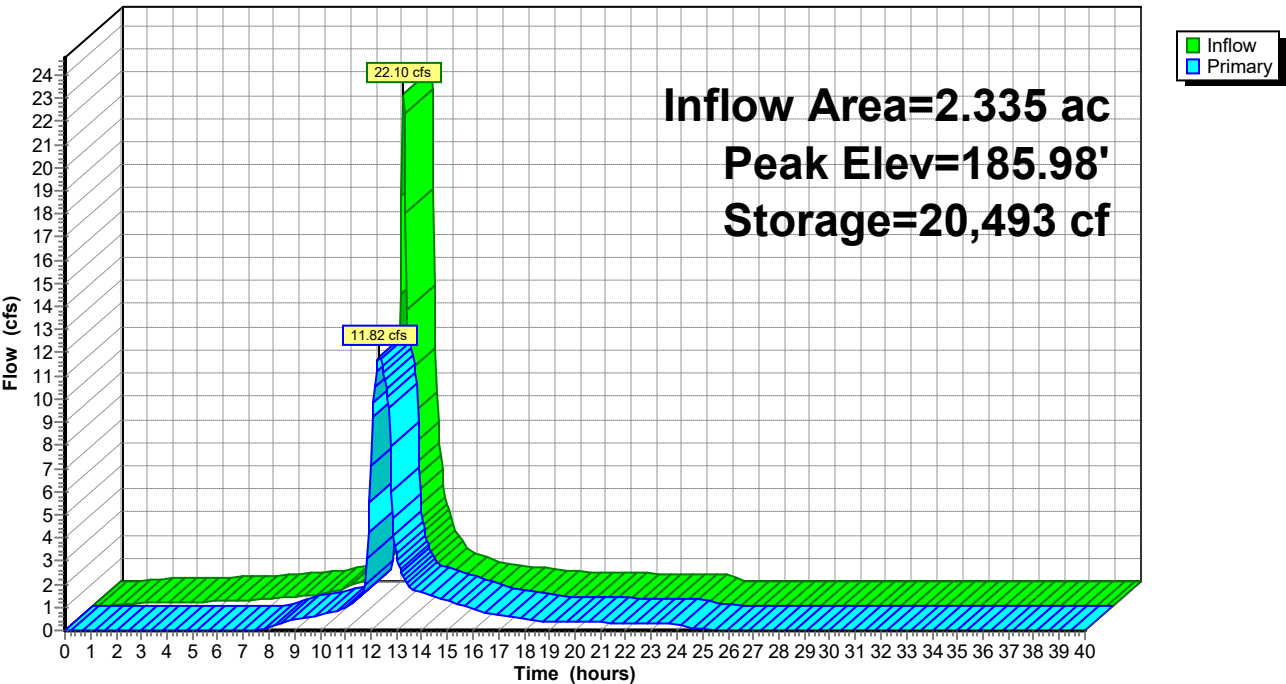
Device	Routing	Invert	Outlet Devices
#1	Primary	181.96'	18.0" Round Culvert L= 192.0' Ke= 0.500 Inlet / Outlet Invert= 181.96' / 181.00' S= 0.0050 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	182.60'	18.0" W x 2.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	184.01'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	185.99'	50.0' long + 3.0 ' / SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=11.80 cfs @ 12.32 hrs HW=185.97' (Free Discharge)

- 1=Culvert (Barrel Controls 11.80 cfs @ 6.68 fps)
- 2=Orifice/Grate (Passes < 2.72 cfs potential flow)
- 3=Sharp-Crested Rectangular Weir (Passes < 32.31 cfs potential flow)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-42: Basin #42

Hydrograph



Summary for Pond B-43: Basin #43

Inflow Area = 2.400 ac, 43.75% Impervious, Inflow Depth = 9.25" for Future 100 yr event
 Inflow = 22.30 cfs @ 12.17 hrs, Volume= 1.850 af
 Outflow = 13.70 cfs @ 12.30 hrs, Volume= 1.749 af, Atten= 39%, Lag= 7.5 min
 Primary = 13.70 cfs @ 12.30 hrs, Volume= 1.749 af
 Routed to Link PDA-4 : Proposed Drainage Area #4

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 179.99' @ 12.30 hrs Surf.Area= 7,146 sf Storage= 18,676 cf

Plug-Flow detention time= 86.2 min calculated for 1.747 af (94% of inflow)
 Center-of-Mass det. time= 55.1 min (829.3 - 774.2)

Volume	Invert	Avail.Storage	Storage Description
#1	176.35'	26,392 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
176.35	0	0	0
177.00	4,447	1,445	1,445
178.00	5,292	4,870	6,315
179.00	6,194	5,743	12,058
180.00	7,153	6,674	18,731
181.00	8,168	7,661	26,392

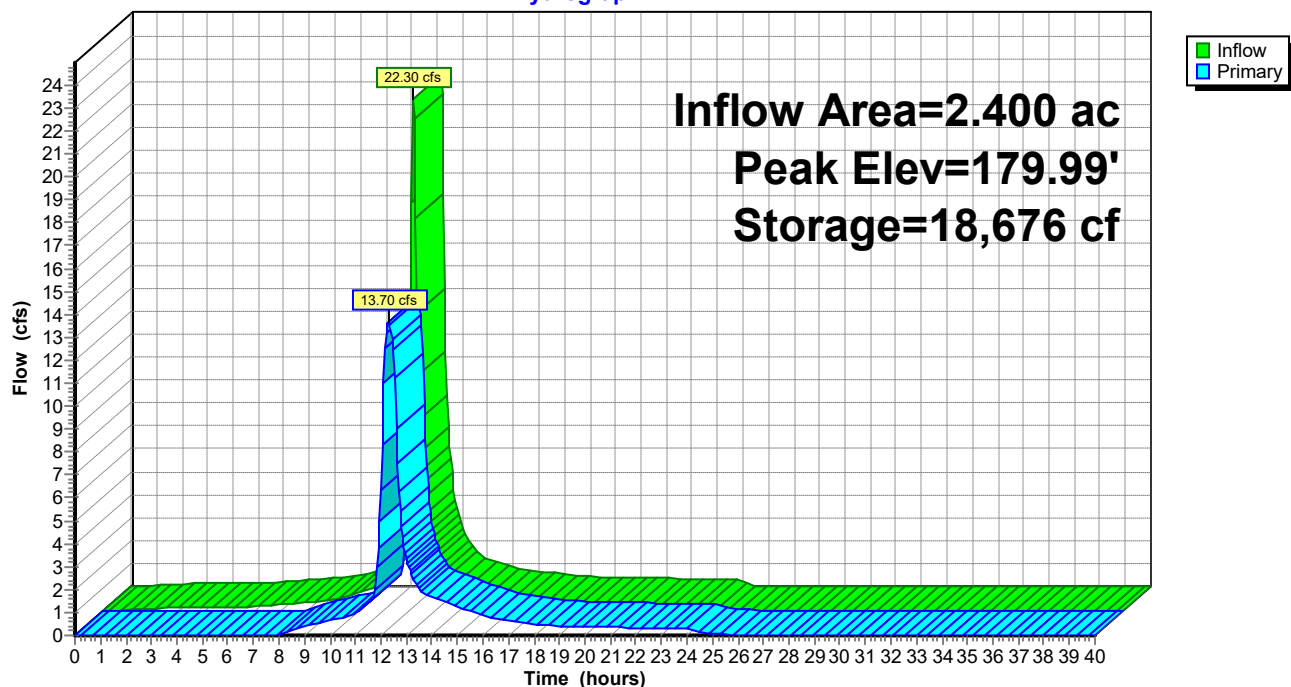
Device	Routing	Invert	Outlet Devices
#1	Primary	176.65'	18.0" Round Culvert L= 62.0' Ke= 0.500 Inlet / Outlet Invert= 176.65' / 176.00' S= 0.0105 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	177.62'	23.0" W x 2.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	178.58'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	180.00'	50.0' long + 3.0' /' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=13.69 cfs @ 12.30 hrs HW=179.99' (Free Discharge)

1=Culvert (Inlet Controls 13.69 cfs @ 7.75 fps)
 2=Orifice/Grate (Passes < 2.89 cfs potential flow)
 3=Sharp-Crested Rectangular Weir (Passes < 20.33 cfs potential flow)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-43: Basin #43

Hydrograph



Summary for Pond B-44: Basin #44

Inflow Area = 2.419 ac, 40.67% Impervious, Inflow Depth = 9.15" for Future 100 yr event
 Inflow = 22.35 cfs @ 12.17 hrs, Volume= 1.845 af
 Outflow = 14.55 cfs @ 12.28 hrs, Volume= 1.746 af, Atten= 35%, Lag= 6.8 min
 Primary = 14.55 cfs @ 12.28 hrs, Volume= 1.746 af
 Routed to Link PDA-4 : Proposed Drainage Area #4

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 168.97' @ 12.28 hrs Surf.Area= 7,617 sf Storage= 21,087 cf

Plug-Flow detention time= 128.4 min calculated for 1.746 af (95% of inflow)
 Center-of-Mass det. time= 97.3 min (873.7 - 776.3)

Volume	Invert	Avail.Storage	Storage Description
#1	165.30'	29,351 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.30	0	0	0
166.00	5,359	1,876	1,876
167.00	6,079	5,719	7,595
168.00	6,838	6,459	14,053
169.00	7,638	7,238	21,291
170.00	8,481	8,060	29,351

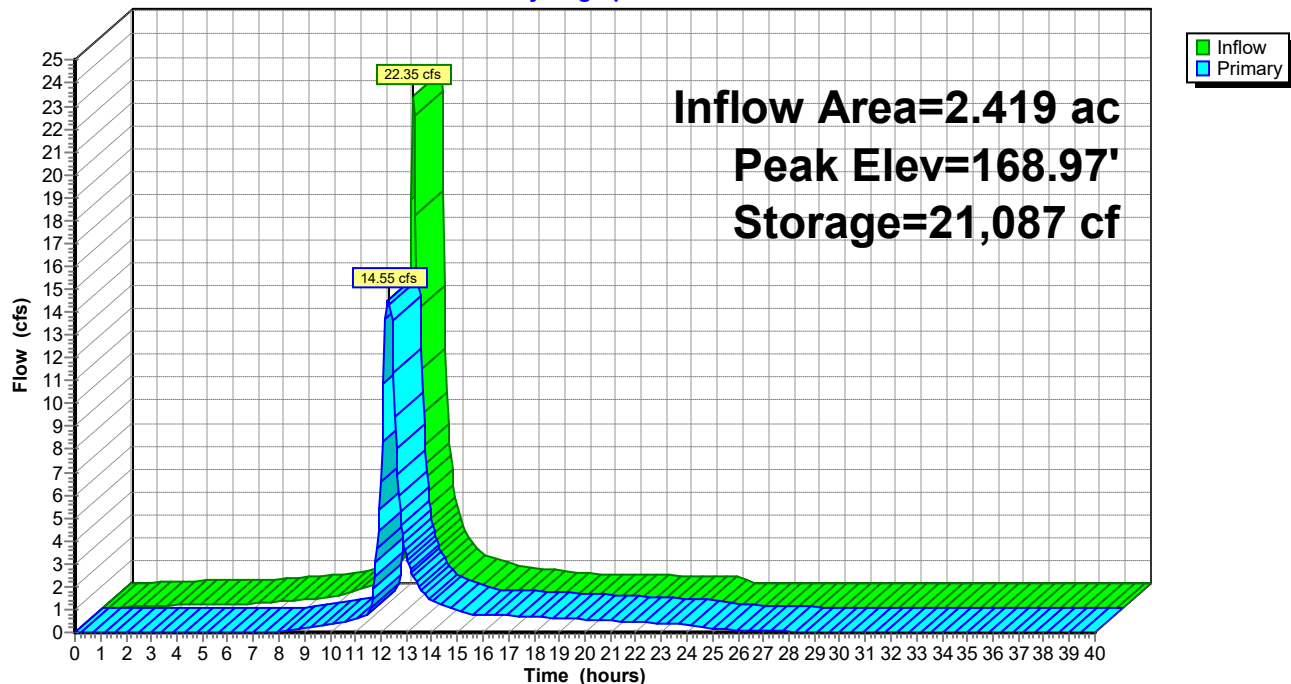
Device	Routing	Invert	Outlet Devices
#1	Primary	165.30'	18.0" Round Culvert L= 41.0' Ke= 0.500 Inlet / Outlet Invert= 165.30' / 164.00' S= 0.0317 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	166.41'	5.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	167.61'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	168.98'	50.0' long + 3.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=14.53 cfs @ 12.28 hrs HW=168.96' (Free Discharge)

1=Culvert (Inlet Controls 14.53 cfs @ 8.22 fps)
 2=Orifice/Grate (Passes < 1.21 cfs potential flow)
 3=Sharp-Crested Rectangular Weir (Passes < 19.22 cfs potential flow)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-44: Basin #44

Hydrograph



Summary for Pond B-45: Basin #45

Inflow Area = 1.794 ac, 71.18% Impervious, Inflow Depth = 10.10" for Future 100 yr event
 Inflow = 17.53 cfs @ 12.17 hrs, Volume= 1.509 af
 Outflow = 14.67 cfs @ 12.24 hrs, Volume= 1.389 af, Atten= 16%, Lag= 4.1 min
 Primary = 14.67 cfs @ 12.24 hrs, Volume= 1.389 af
 Routed to Link PDA-4 : Proposed Drainage Area #4

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 169.96' @ 12.24 hrs Surf.Area= 5,926 sf Storage= 19,338 cf

Plug-Flow detention time= 229.4 min calculated for 1.388 af (92% of inflow)
 Center-of-Mass det. time= 186.6 min (943.5 - 756.9)

Volume	Invert	Avail.Storage	Storage Description
#1	165.30'	25,900 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.30	0	0	0
166.00	3,339	1,169	1,169
167.00	3,939	3,639	4,808
168.00	4,573	4,256	9,064
169.00	5,245	4,909	13,973
170.00	5,954	5,600	19,572
171.00	6,702	6,328	25,900

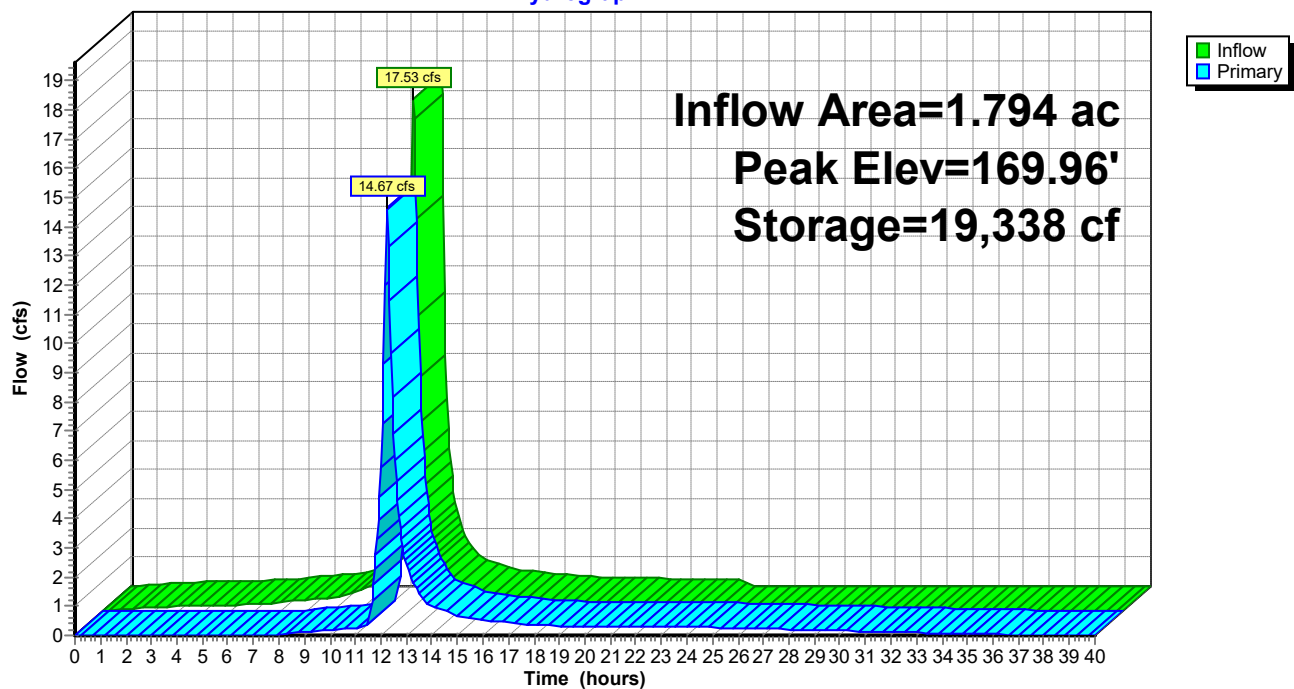
Device	Routing	Invert	Outlet Devices
#1	Primary	165.30'	18.0" Round Culvert L= 40.0' Ke= 0.500 Inlet / Outlet Invert= 165.30' / 164.00' S= 0.0325 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	167.04'	3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	168.86'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	169.97'	50.0' long + 3.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=14.50 cfs @ 12.24 hrs HW=169.95' (Free Discharge)

1=Culvert (Passes 14.50 cfs of 16.81 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.39 cfs @ 8.04 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 14.11 cfs @ 3.42 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-45: Basin #45

Hydrograph



Summary for Pond B-46: Basin #46

Inflow Area = 3.287 ac, 37.82% Impervious, Inflow Depth = 9.06" for Future 100 yr event
 Inflow = 30.20 cfs @ 12.17 hrs, Volume= 2.483 af
 Outflow = 11.29 cfs @ 12.41 hrs, Volume= 2.076 af, Atten= 63%, Lag= 14.1 min
 Primary = 11.29 cfs @ 12.41 hrs, Volume= 2.076 af
 Routed to Link PDA-4 : Proposed Drainage Area #4

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 185.37' @ 12.41 hrs Surf.Area= 31,379 sf Storage= 50,692 cf

Plug-Flow detention time= 252.0 min calculated for 2.076 af (84% of inflow)
 Center-of-Mass det. time= 180.0 min (958.3 - 778.4)

Volume	Invert	Avail.Storage	Storage Description
#1	183.30'	141,657 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
183.30	0	0	0
184.00	28,088	9,831	9,831
185.00	30,467	29,278	39,108
186.00	32,902	31,685	70,793
187.00	35,393	34,148	104,940
188.00	38,040	36,717	141,657

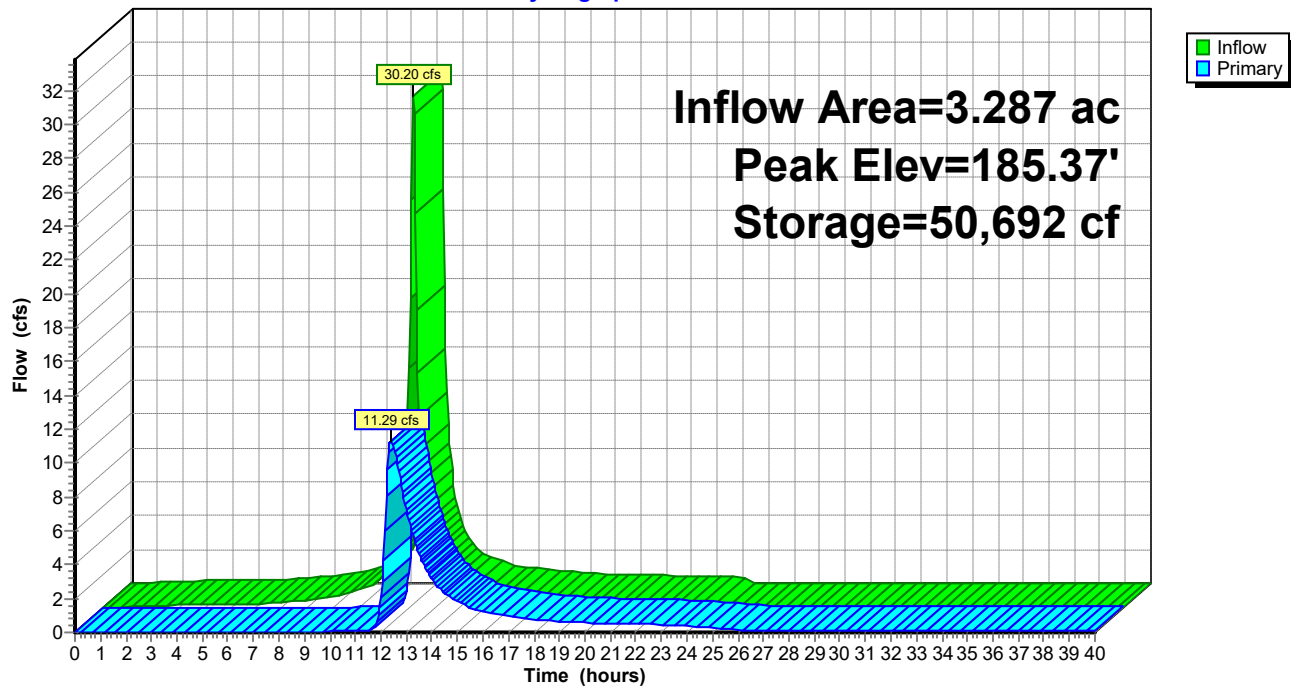
Device	Routing	Invert	Outlet Devices
#1	Primary	182.65'	18.0" Round Culvert L= 65.0' Ke= 0.500 Inlet / Outlet Invert= 182.65' / 176.00' S= 0.1023 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	183.82'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	184.45'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	185.38'	50.0' long + 3.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=11.28 cfs @ 12.41 hrs HW=185.37' (Free Discharge)

- 1=Culvert (Passes 11.28 cfs of 11.95 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.20 cfs @ 5.80 fps)
- 3=Sharp-Crested Rectangular Weir (Weir Controls 11.08 cfs @ 3.14 fps)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-46: Basin #46

Hydrograph



Summary for Pond B-47: Basin #47

Inflow Area = 2.981 ac, 32.75% Impervious, Inflow Depth = 8.91" for Future 100 yr event
 Inflow = 27.12 cfs @ 12.17 hrs, Volume= 2.212 af
 Outflow = 12.19 cfs @ 12.36 hrs, Volume= 1.905 af, Atten= 55%, Lag= 11.4 min
 Primary = 12.19 cfs @ 12.36 hrs, Volume= 1.905 af
 Routed to Link PDA-4 : Proposed Drainage Area #4

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 190.50' @ 12.36 hrs Surf.Area= 24,244 sf Storage= 41,586 cf

Plug-Flow detention time= 236.1 min calculated for 1.905 af (86% of inflow)
 Center-of-Mass det. time= 171.3 min (953.4 - 782.1)

Volume	Invert	Avail.Storage	Storage Description
#1	188.30'	80,305 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
188.30	0	0	0
189.00	21,318	7,461	7,461
190.00	23,252	22,285	29,746
191.00	25,242	24,247	53,993
192.00	27,382	26,312	80,305

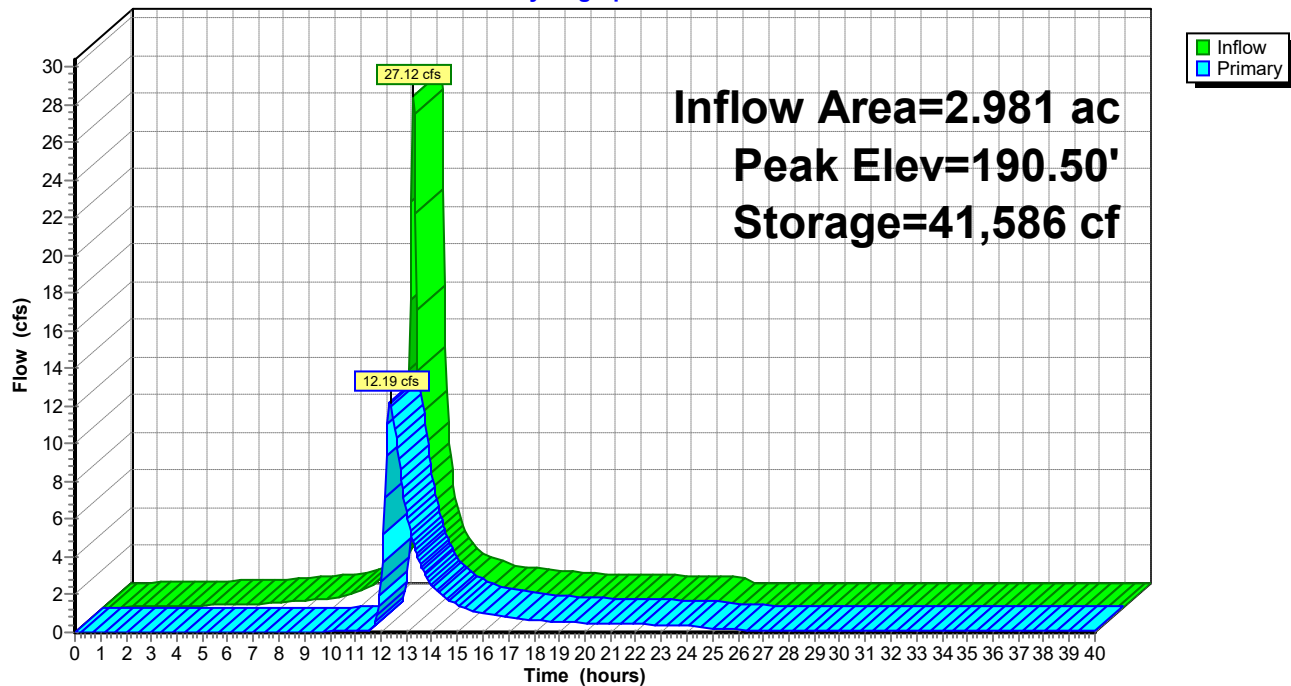
Device	Routing	Invert	Outlet Devices
#1	Primary	187.65'	18.0" Round Culvert L= 62.0' Ke= 0.500 Inlet / Outlet Invert= 187.65' / 184.00' S= 0.0589 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	188.84'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	189.52'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	190.51'	50.0' long + 3.0 ' / SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=12.21 cfs @ 12.36 hrs HW=190.50' (Free Discharge)

1=Culvert (Passes 12.21 cfs of 12.32 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.20 cfs @ 6.00 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 12.01 cfs @ 3.23 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-47: Basin #47

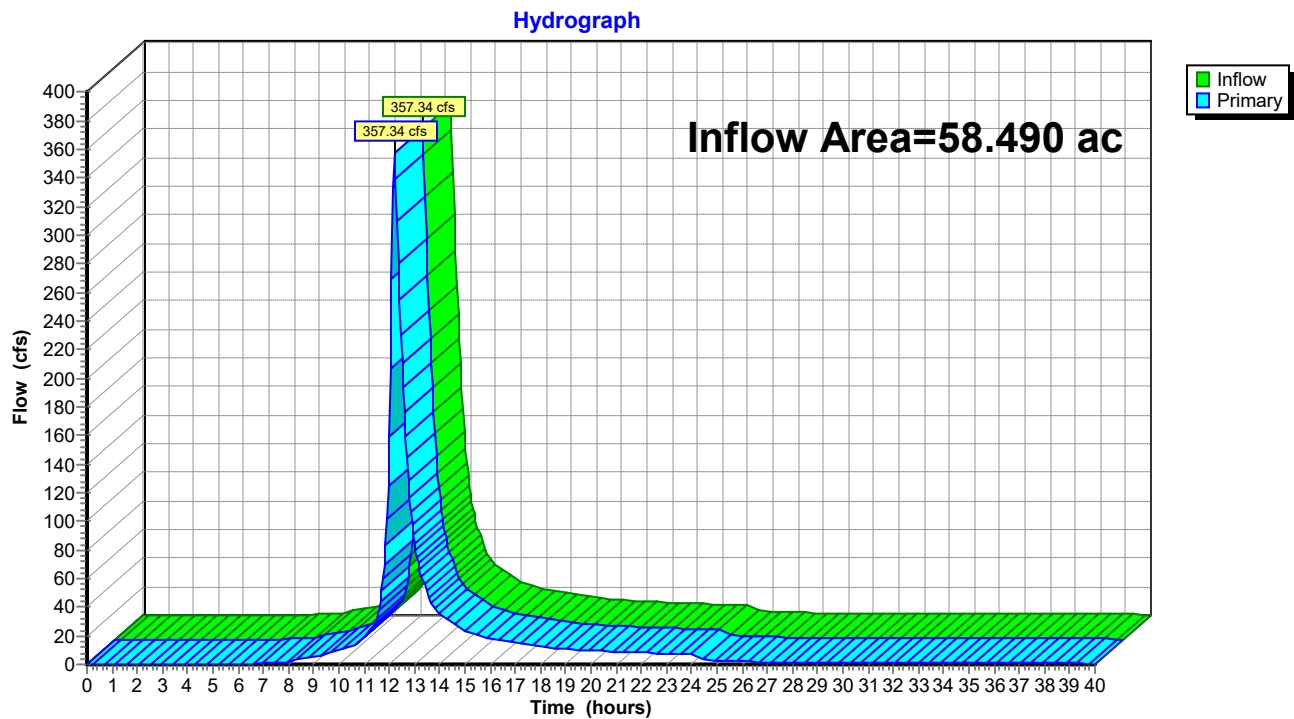
Hydrograph



Summary for Link DP-2: Design Pont #2 (Jacobs Creek)

Inflow Area = 58.490 ac, 30.70% Impervious, Inflow Depth > 8.29" for Future 100 yr event
Inflow = 357.34 cfs @ 12.20 hrs, Volume= 40.420 af
Primary = 357.34 cfs @ 12.20 hrs, Volume= 40.420 af, Atten= 0%, Lag= 0.0 min

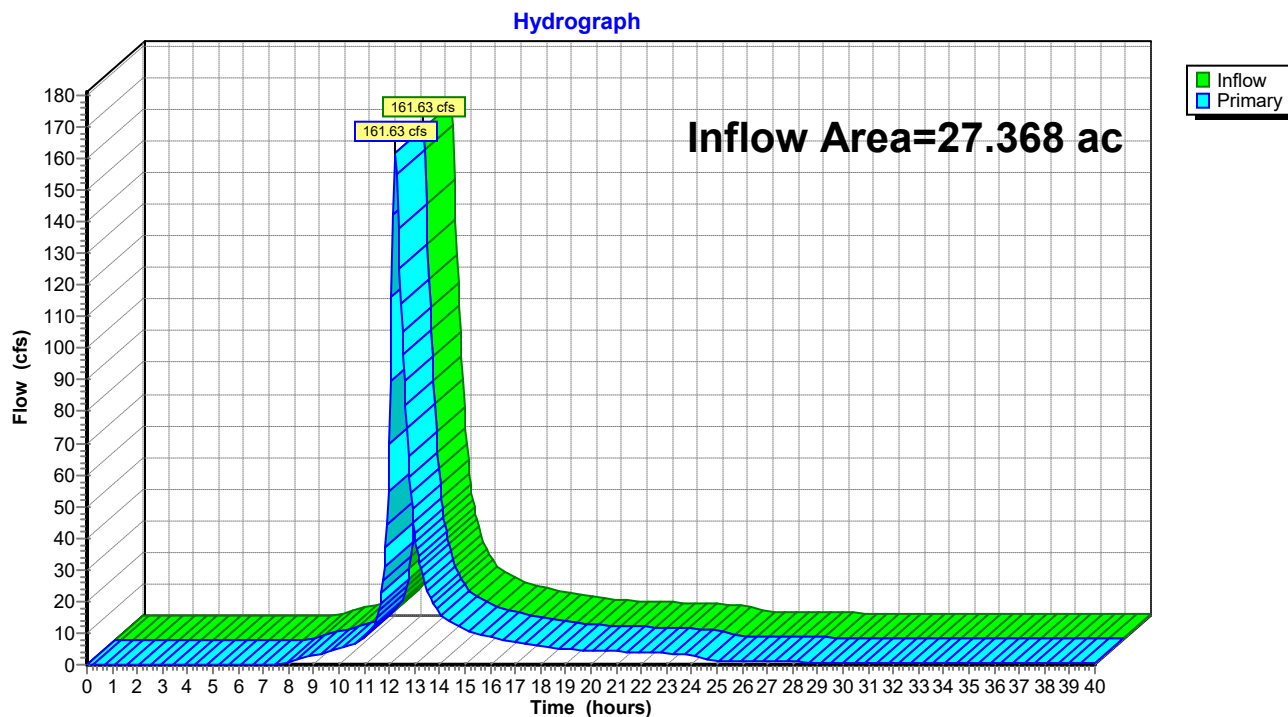
Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

Link DP-2: Design Pont #2 (Jacobs Creek)

Summary for Link PDA-3: Proposed Drainage Area #3

Inflow Area = 27.368 ac, 39.13% Impervious, Inflow Depth > 8.46" for Future 100 yr event
Inflow = 161.63 cfs @ 12.22 hrs, Volume= 19.290 af
Primary = 161.63 cfs @ 12.22 hrs, Volume= 19.290 af, Atten= 0%, Lag= 0.0 min
Routed to Link DP-2 : Design Pont #2 (Jacobs Creek)

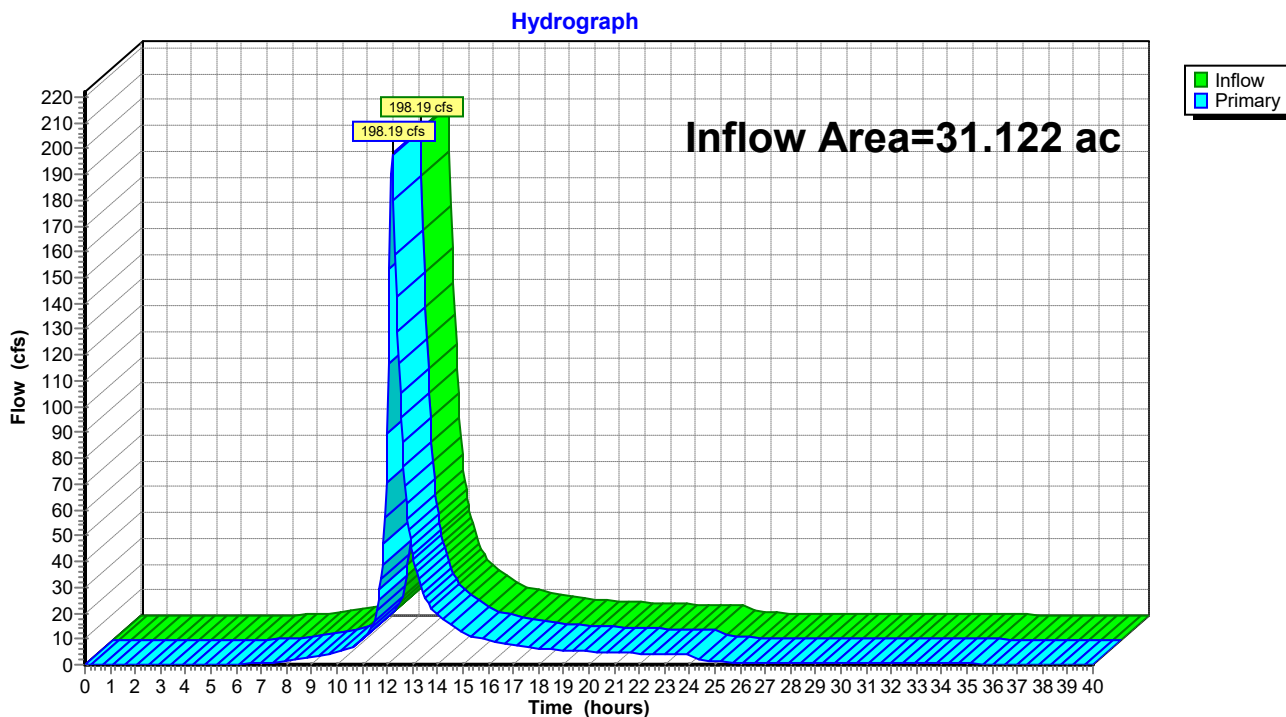
Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

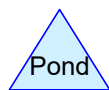
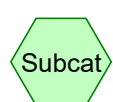
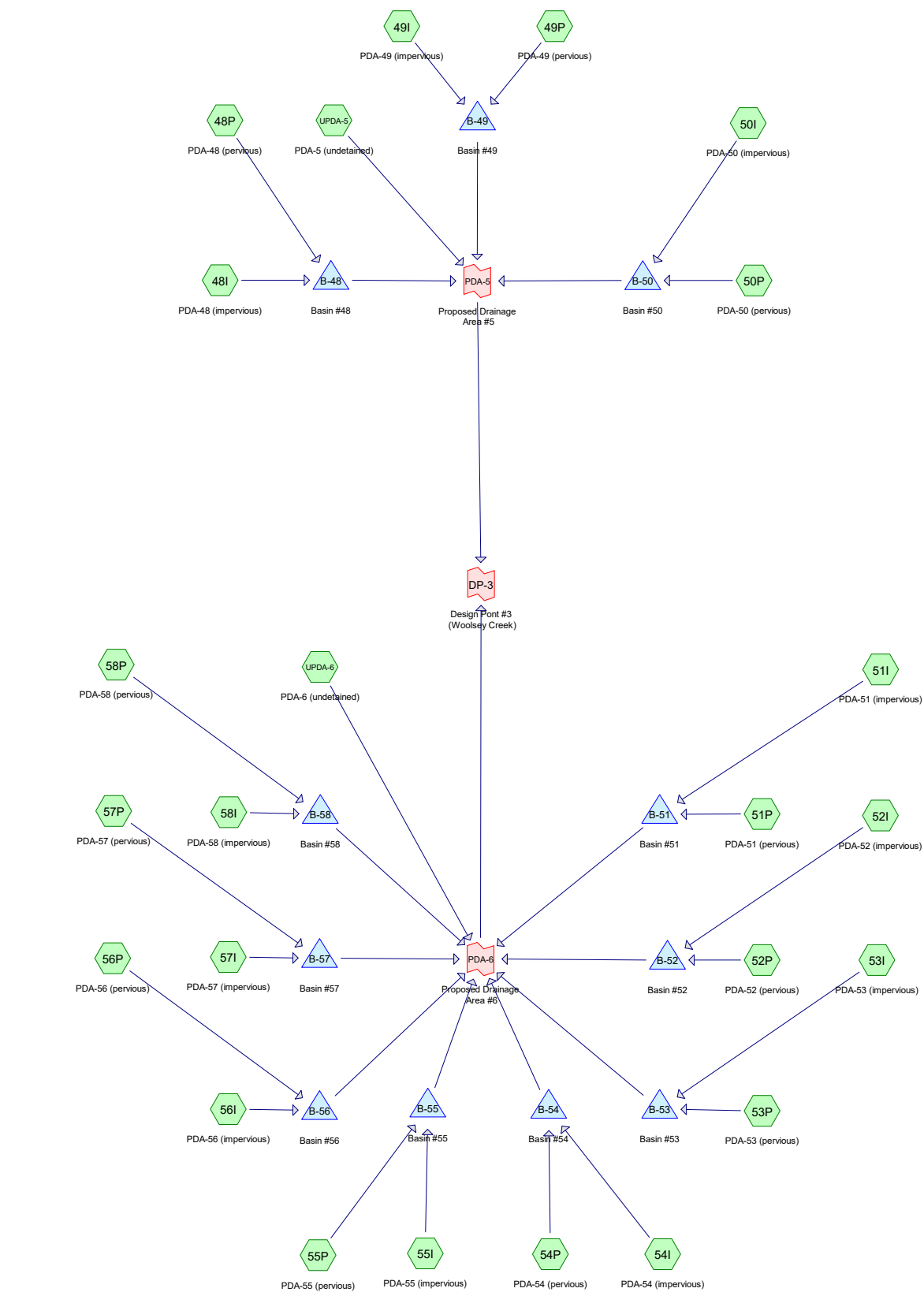
Link PDA-3: Proposed Drainage Area #3

Summary for Link PDA-4: Proposed Drainage Area #4

Inflow Area = 31.122 ac, 23.28% Impervious, Inflow Depth > 8.15" for Future 100 yr event
Inflow = 198.19 cfs @ 12.19 hrs, Volume= 21.130 af
Primary = 198.19 cfs @ 12.19 hrs, Volume= 21.130 af, Atten= 0%, Lag= 0.0 min
Routed to Link DP-2 : Design Pont #2 (Jacobs Creek)

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

Link PDA-4: Proposed Drainage Area #4



Routing Diagram for 2024-06-25 Proposed- 081391
 Prepared by Bowman Consulting Group, Printed 6/25/2024
 HydroCAD® 10.20-3c s/n 09435 © 2023 HydroCAD Software Solutions LLC

2024-06-25 Proposed- 081391

Prepared by Bowman Consulting Group

Printed 6/25/2024

HydroCAD® 10.20-3c s/n 09435 © 2023 HydroCAD Software Solutions LLC

Page 2

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
53.061	74	>75% Grass cover, Good, HSG C (48P, 49P, 50P, 51P, 52P, 53P, 54P, 55P, 56P, 57P, 58P, UPDA-5, UPDA-6)
0.658	98	Concrete, HSG C (48I, 49I, 50I, 52I, 53I, 54I, 55I, 57I, 58I)
4.504	98	Pavement, HSG C (48I, 49I, 50I, 52I, 53I, 54I, 55I, 57I)
6.355	98	Roof, HSG C (48I, 49I, 50I, 51I, 52I, 53I, 54I, 55I, 56I, 57I, 58I)

Summary for Subcatchment 48I: PDA-48 (impervious)

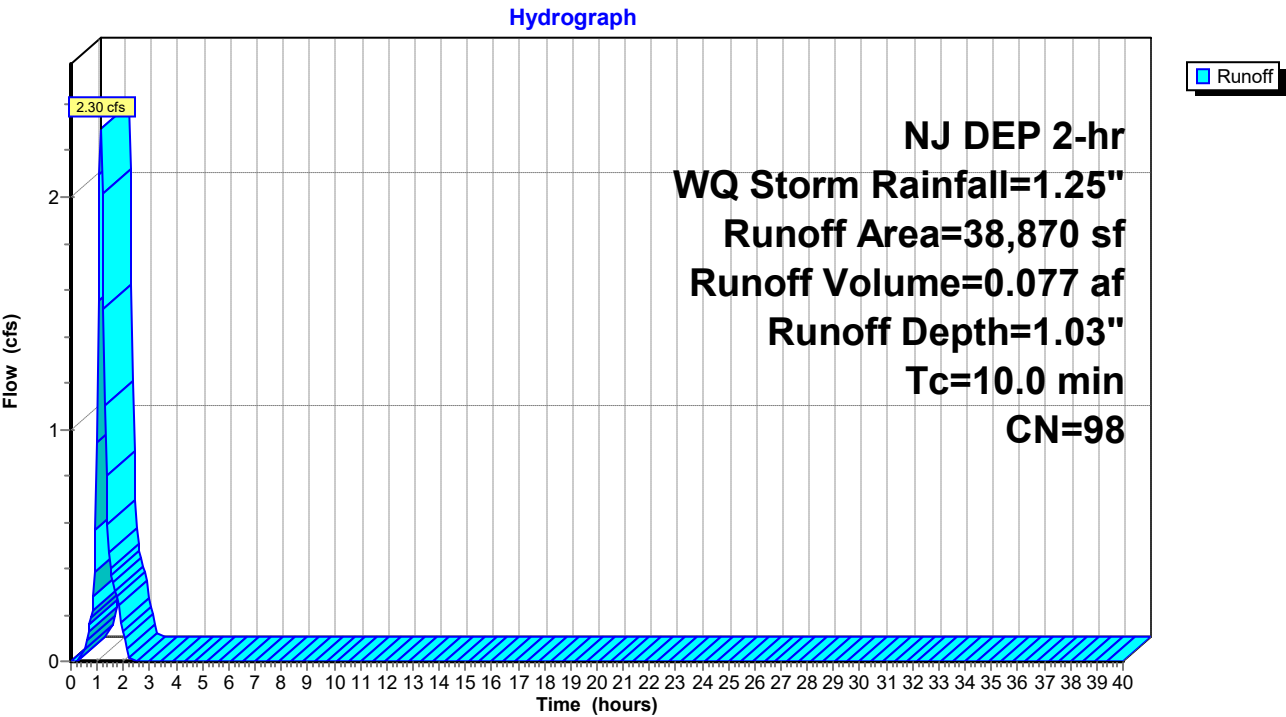
Runoff = 2.30 cfs @ 1.15 hrs, Volume= 0.077 af, Depth= 1.03"
Routed to Pond B-48 : Basin #48

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr WQ Storm Rainfall=1.25"

	Area (sf)	CN	Description
*	16,283	98	Pavement, HSG C
*	21,350	98	Roof, HSG C
*	1,237	98	Concrete, HSG C
	38,870	98	Weighted Average
	38,870		100.00% Impervious Area

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

Subcatchment 48I: PDA-48 (impervious)



Summary for Subcatchment 48P: PDA-48 (pervious)

Runoff = 0.20 cfs @ 1.27 hrs, Volume= 0.009 af, Depth= 0.07"
Routed to Pond B-48 : Basin #48

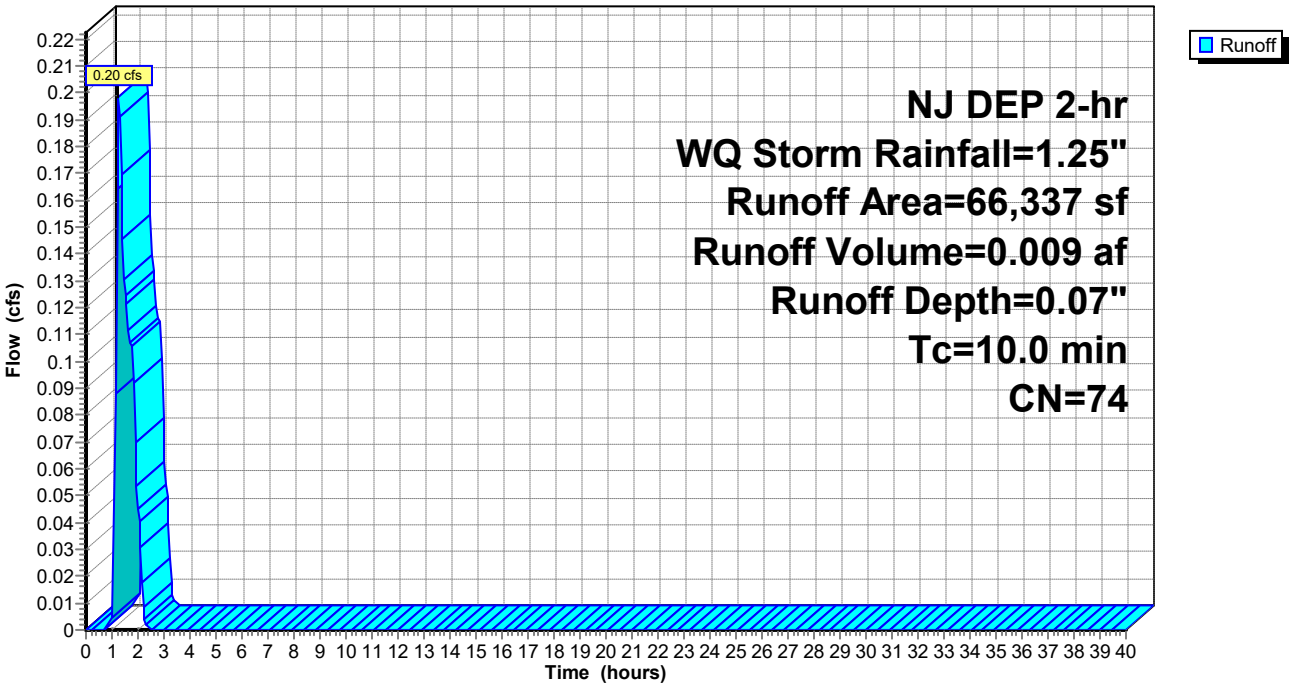
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (sf)	CN	Description
66,337	74	>75% Grass cover, Good, HSG C
66,337		100.00% Pervious Area

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

Subcatchment 48P: PDA-48 (pervious)

Hydrograph



Summary for Subcatchment 49I: PDA-49 (impervious)

Runoff = 3.74 cfs @ 1.15 hrs, Volume= 0.125 af, Depth= 1.03"
 Routed to Pond B-49 : Basin #49

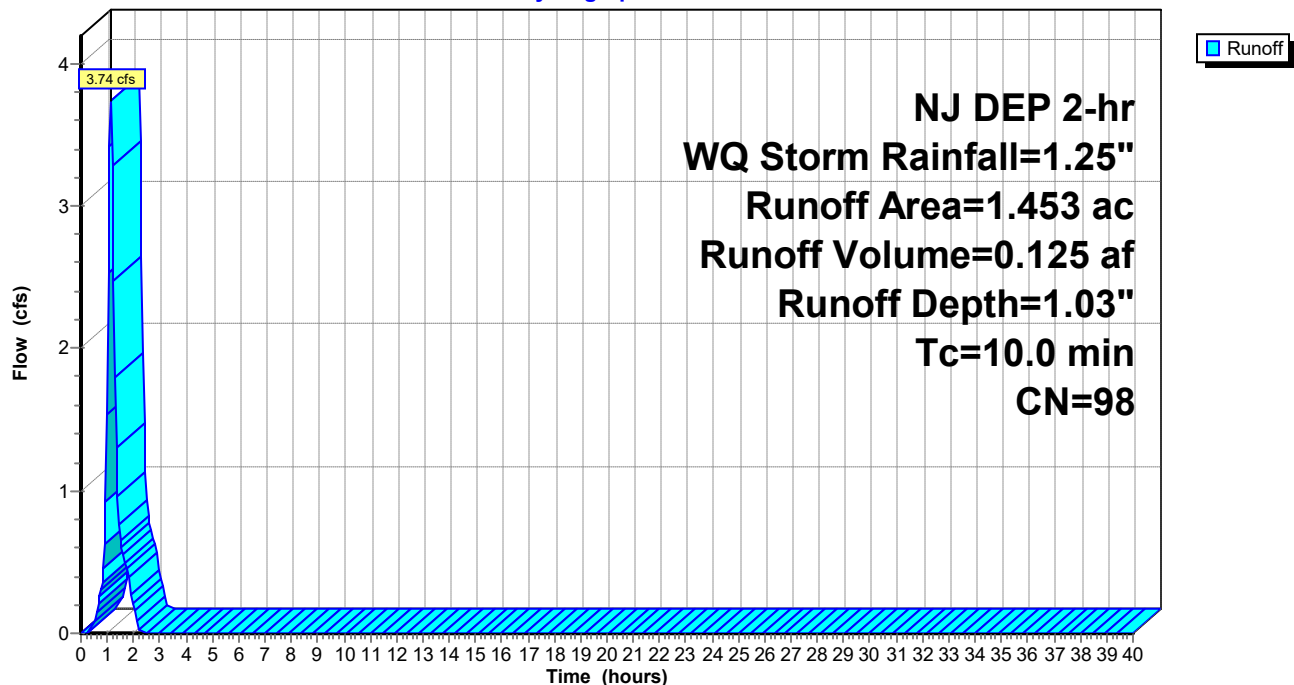
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (ac)	CN	Description
* 0.454	98	Pavement, HSG C
* 0.940	98	Roof, HSG C
* 0.059	98	Concrete, HSG C
1.453	98	Weighted Average
1.453		100.00% Impervious Area

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

Subcatchment 49I: PDA-49 (impervious)

Hydrograph



Summary for Subcatchment 49P: PDA-49 (pervious)

Runoff = 0.16 cfs @ 1.27 hrs, Volume= 0.008 af, Depth= 0.07"
 Routed to Pond B-49 : Basin #49

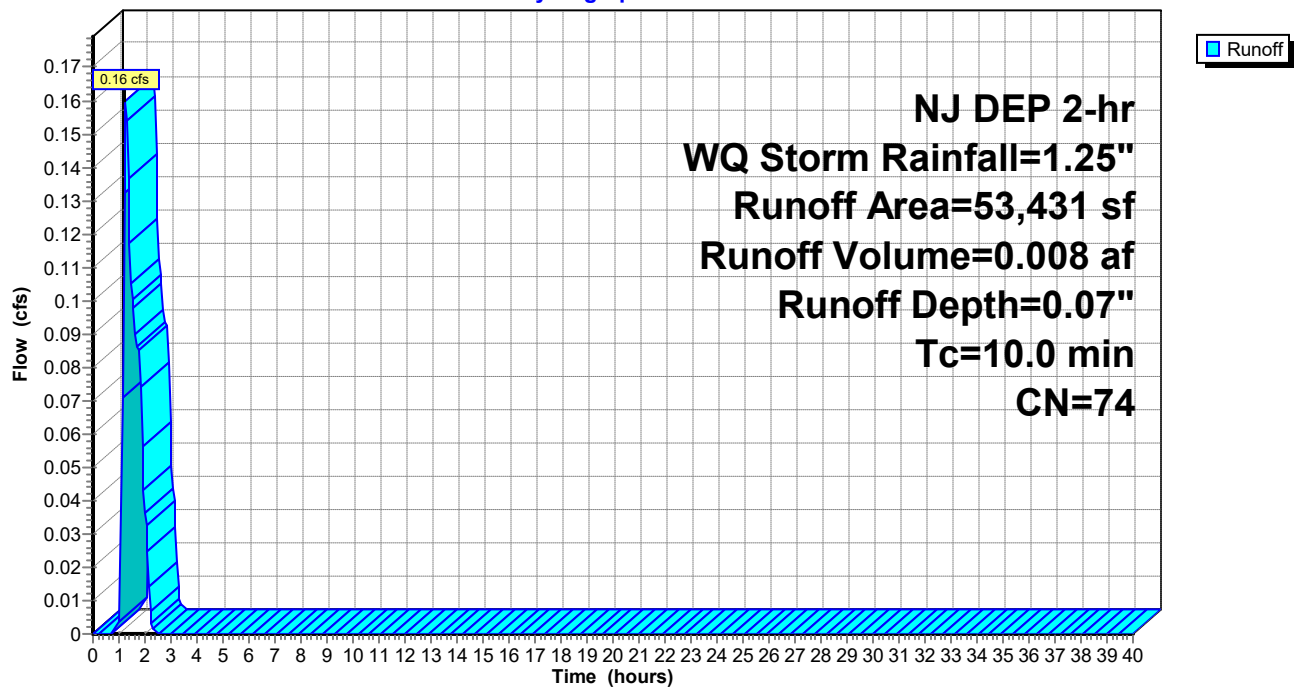
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (sf)	CN	Description
53,431	74	>75% Grass cover, Good, HSG C
53,431		100.00% Pervious Area

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

Subcatchment 49P: PDA-49 (pervious)

Hydrograph



Summary for Subcatchment 50I: PDA-50 (impervious)

Runoff = 3.23 cfs @ 1.15 hrs, Volume= 0.108 af, Depth= 1.03"
 Routed to Pond B-50 : Basin #50

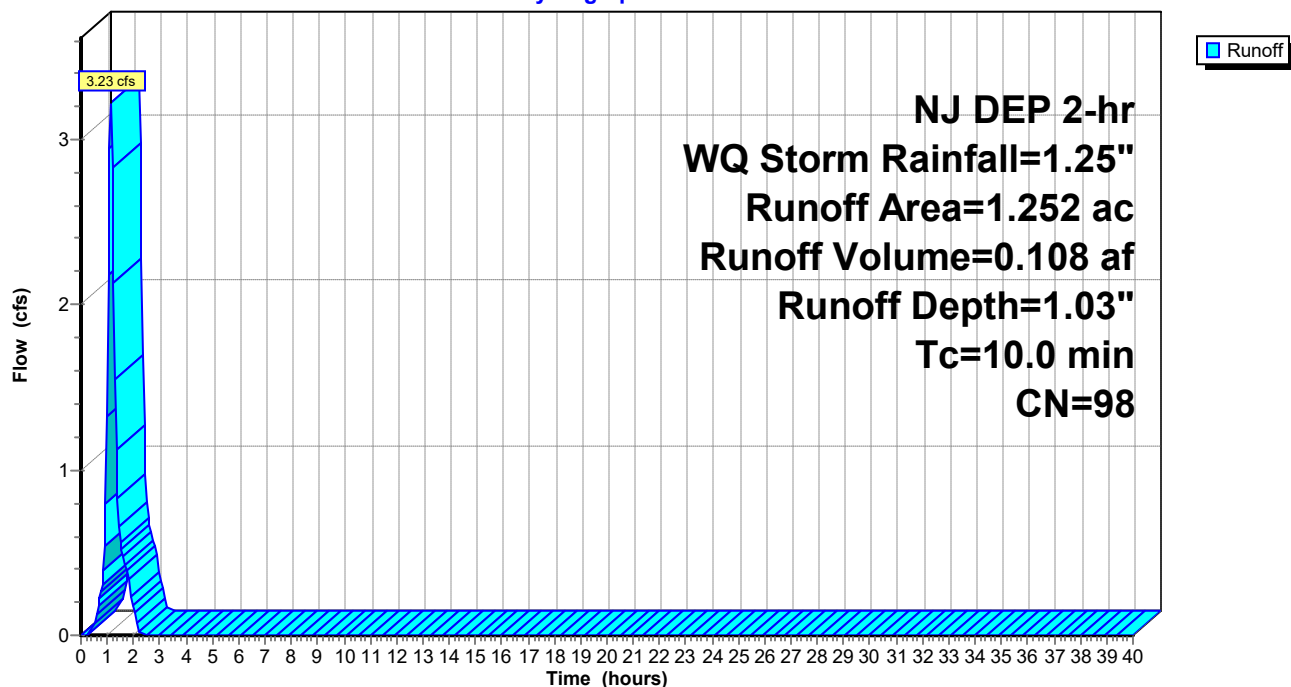
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (ac)	CN	Description
* 0.633	98	Pavement, HSG C
* 0.546	98	Roof, HSG C
* 0.073	98	Concrete, HSG C
1.252	98	Weighted Average
1.252		100.00% Impervious Area

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

Subcatchment 50I: PDA-50 (impervious)

Hydrograph



Summary for Subcatchment 50P: PDA-50 (pervious)

Runoff = 0.18 cfs @ 1.27 hrs, Volume= 0.009 af, Depth= 0.07"
 Routed to Pond B-50 : Basin #50

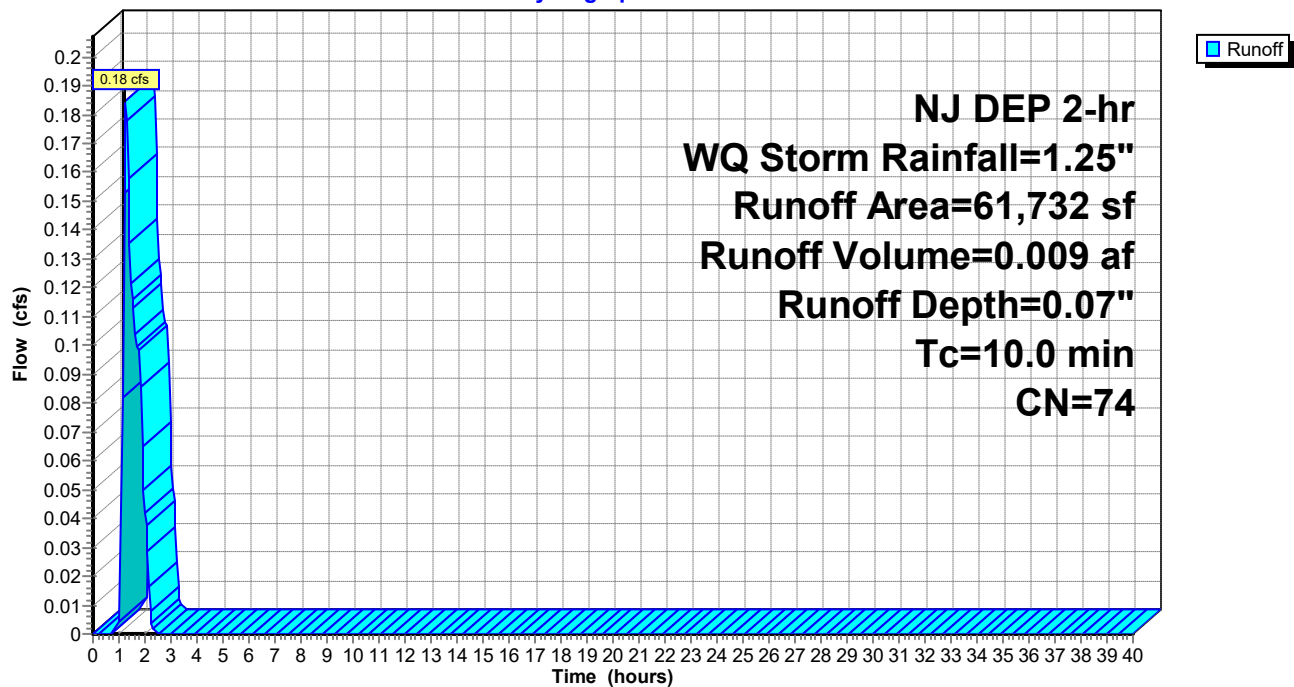
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (sf)	CN	Description
61,732	74	>75% Grass cover, Good, HSG C
61,732		100.00% Pervious Area

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

Subcatchment 50P: PDA-50 (pervious)

Hydrograph



Summary for Subcatchment 51I: PDA-51 (impervious)

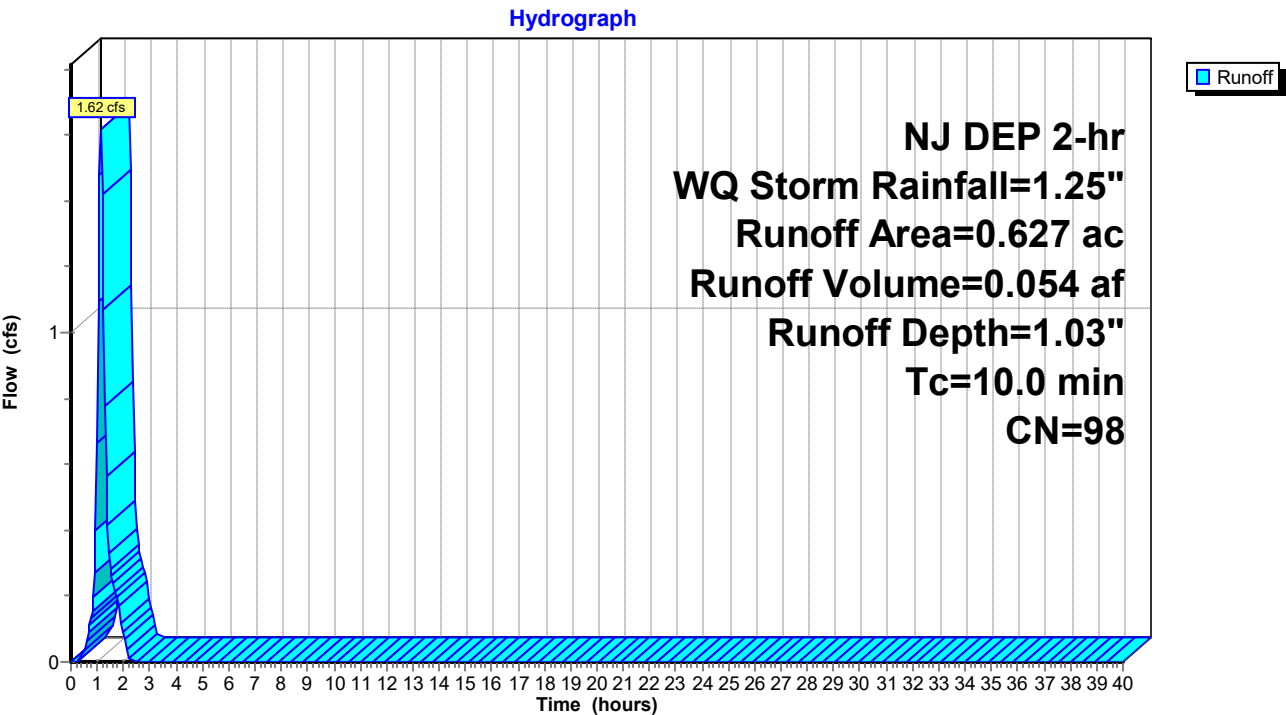
Runoff = 1.62 cfs @ 1.15 hrs, Volume= 0.054 af, Depth= 1.03"
Routed to Pond B-51 : Basin #51

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (ac)	CN	Description
* 0.627	98	Roof, HSG C
0.627		100.00% Impervious Area

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

Subcatchment 51I: PDA-51 (impervious)



Summary for Subcatchment 51P: PDA-51 (pervious)

Runoff = 0.13 cfs @ 1.27 hrs, Volume= 0.006 af, Depth= 0.07"
 Routed to Pond B-51 : Basin #51

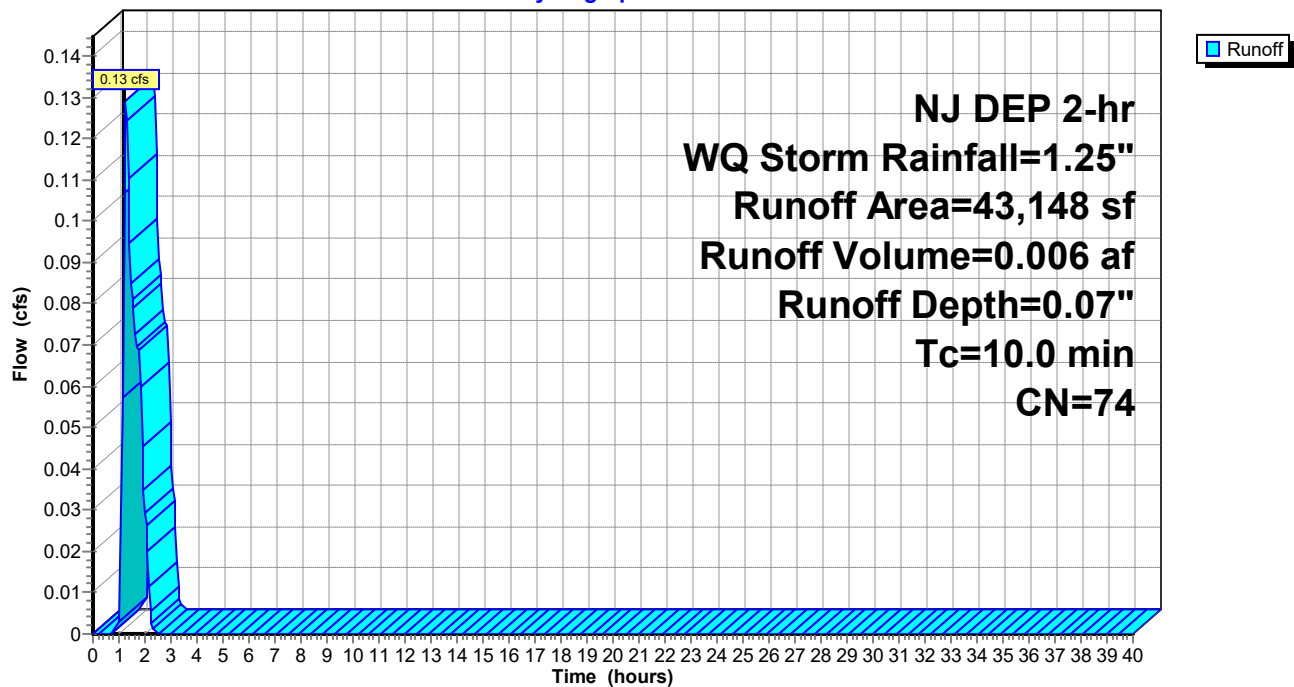
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (sf)	CN	Description
43,148	74	>75% Grass cover, Good, HSG C
43,148		100.00% Pervious Area

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

Subcatchment 51P: PDA-51 (pervious)

Hydrograph



Summary for Subcatchment 52I: PDA-52 (impervious)

Runoff = 2.71 cfs @ 1.15 hrs, Volume= 0.091 af, Depth= 1.03"
 Routed to Pond B-52 : Basin #52

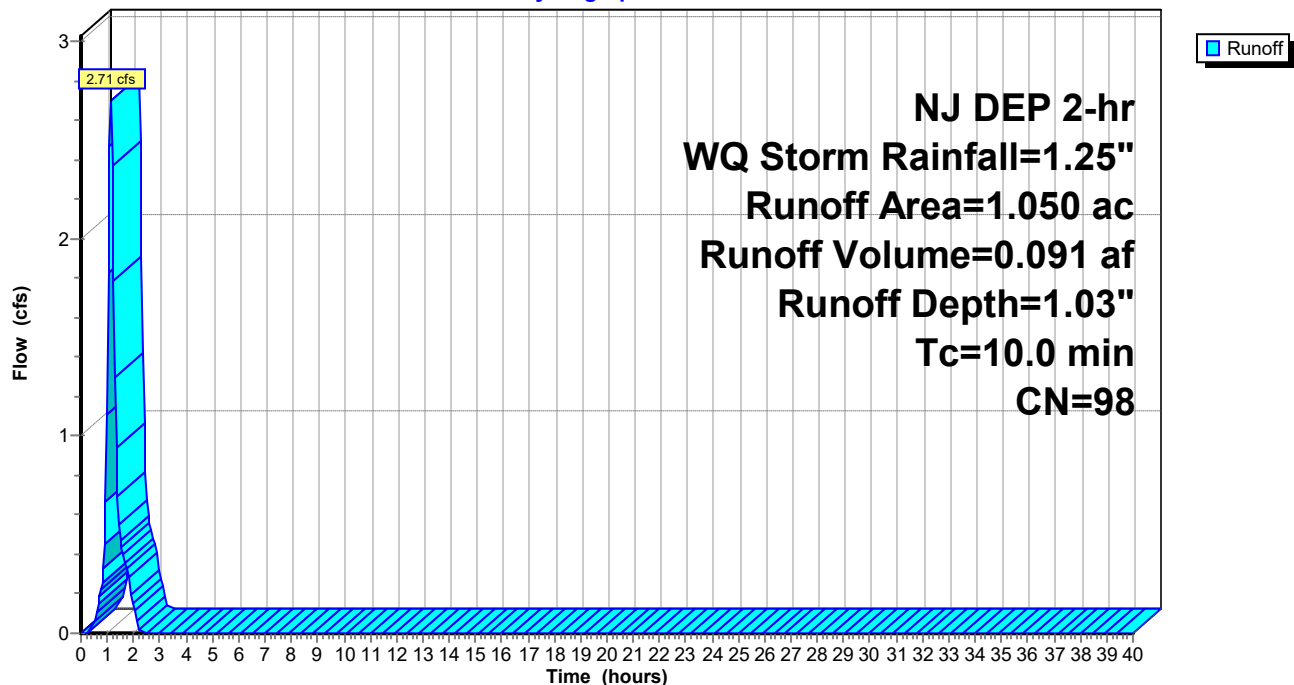
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (ac)	CN	Description
* 0.350	98	Pavement, HSG C
* 0.659	98	Roof, HSG C
* 0.041	98	Concrete, HSG C
1.050	98	Weighted Average
1.050		100.00% Impervious Area

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

Subcatchment 52I: PDA-52 (impervious)

Hydrograph



Summary for Subcatchment 52P: PDA-52 (pervious)

Runoff = 0.19 cfs @ 1.27 hrs, Volume= 0.009 af, Depth= 0.07"
 Routed to Pond B-52 : Basin #52

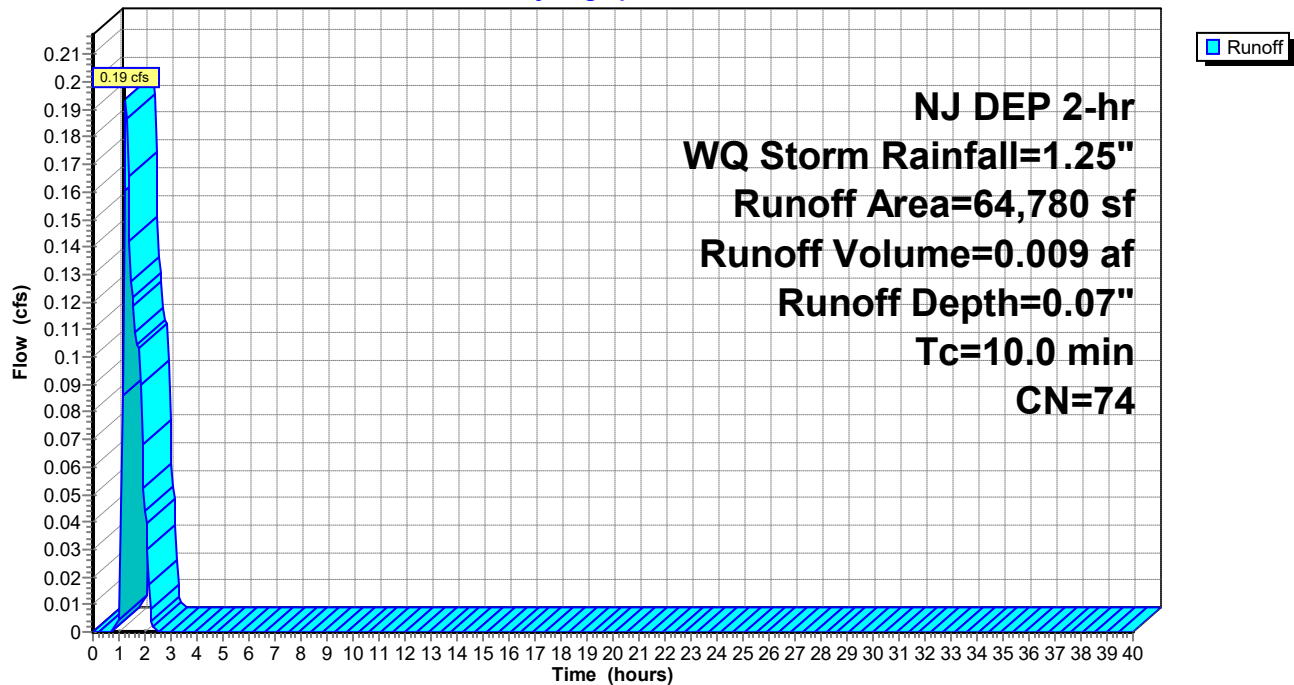
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (sf)	CN	Description
64,780	74	>75% Grass cover, Good, HSG C
64,780		100.00% Pervious Area

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

Subcatchment 52P: PDA-52 (pervious)

Hydrograph



Summary for Subcatchment 53I: PDA-53 (impervious)

Runoff = 3.13 cfs @ 1.15 hrs, Volume= 0.105 af, Depth= 1.03"
 Routed to Pond B-53 : Basin #53

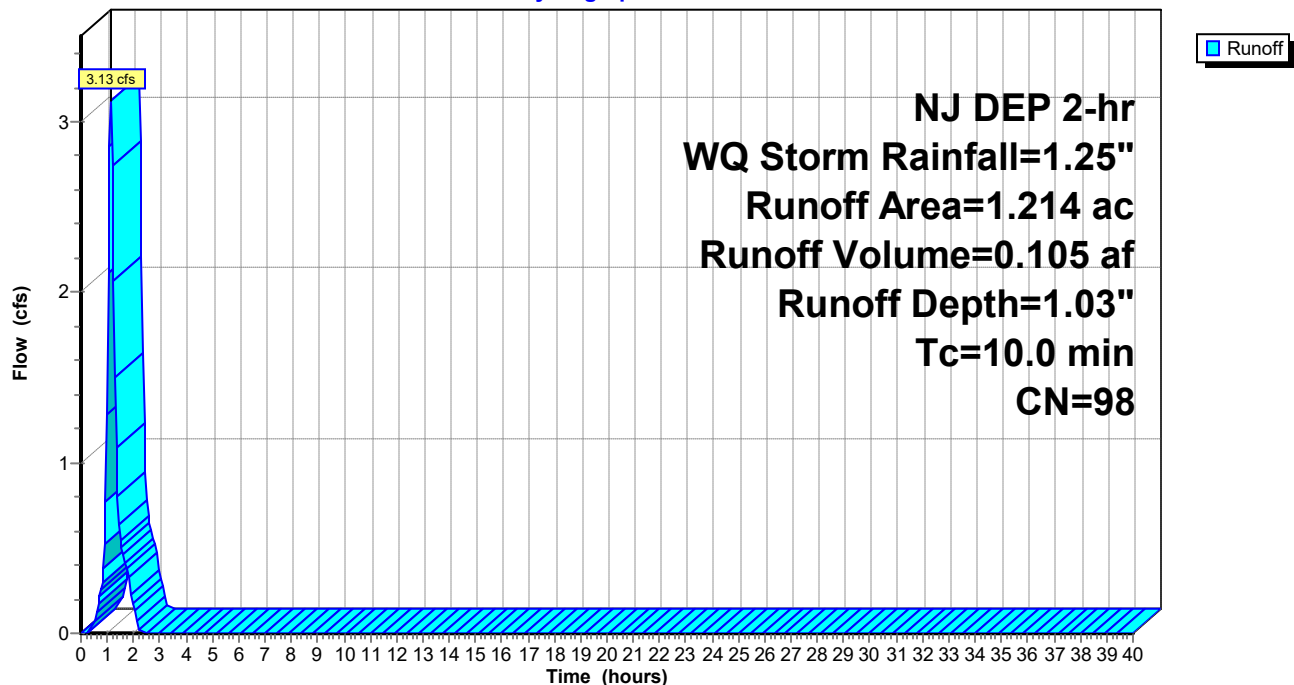
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (ac)	CN	Description
* 0.628	98	Pavement, HSG C
* 0.450	98	Roof, HSG C
* 0.136	98	Concrete, HSG C
1.214	98	Weighted Average
1.214		100.00% Impervious Area

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

Subcatchment 53I: PDA-53 (impervious)

Hydrograph



Summary for Subcatchment 53P: PDA-53 (pervious)

Runoff = 0.17 cfs @ 1.27 hrs, Volume= 0.008 af, Depth= 0.07"
 Routed to Pond B-53 : Basin #53

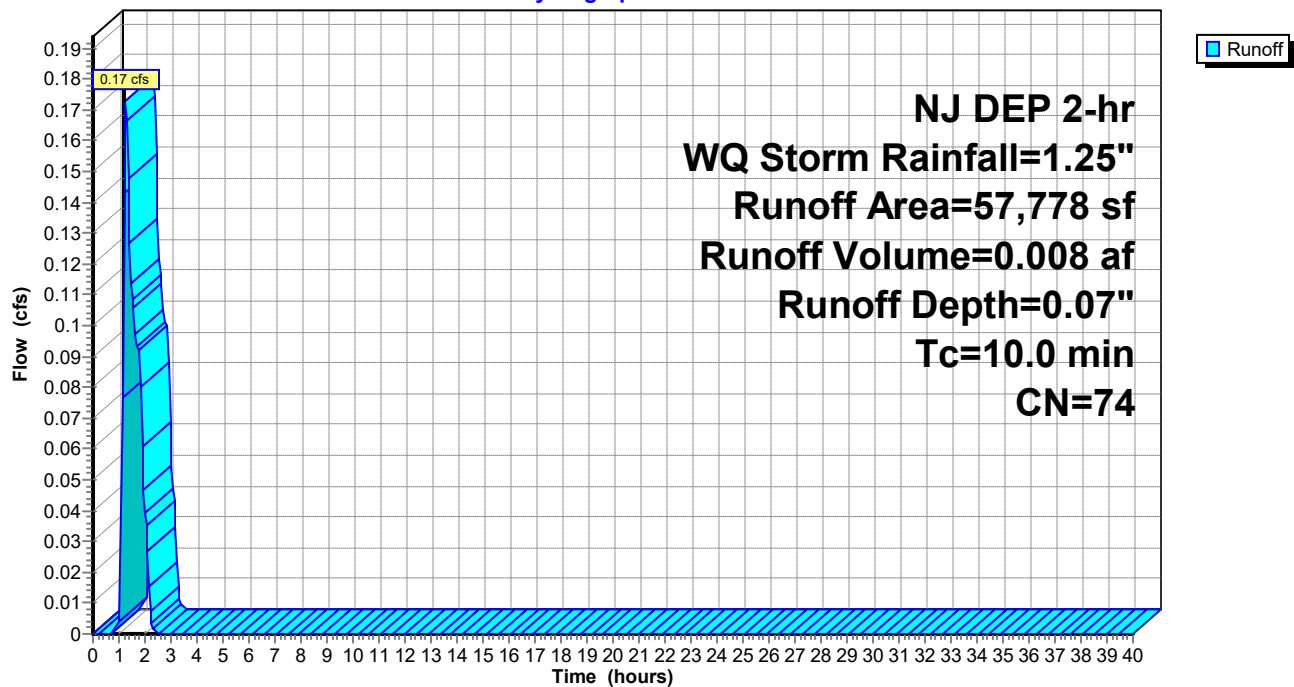
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (sf)	CN	Description
57,778	74	>75% Grass cover, Good, HSG C
57,778		100.00% Pervious Area

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

Subcatchment 53P: PDA-53 (pervious)

Hydrograph



Summary for Subcatchment 54I: PDA-54 (impervious)

Runoff = 4.00 cfs @ 1.15 hrs, Volume= 0.134 af, Depth= 1.03"
 Routed to Pond B-54 : Basin #54

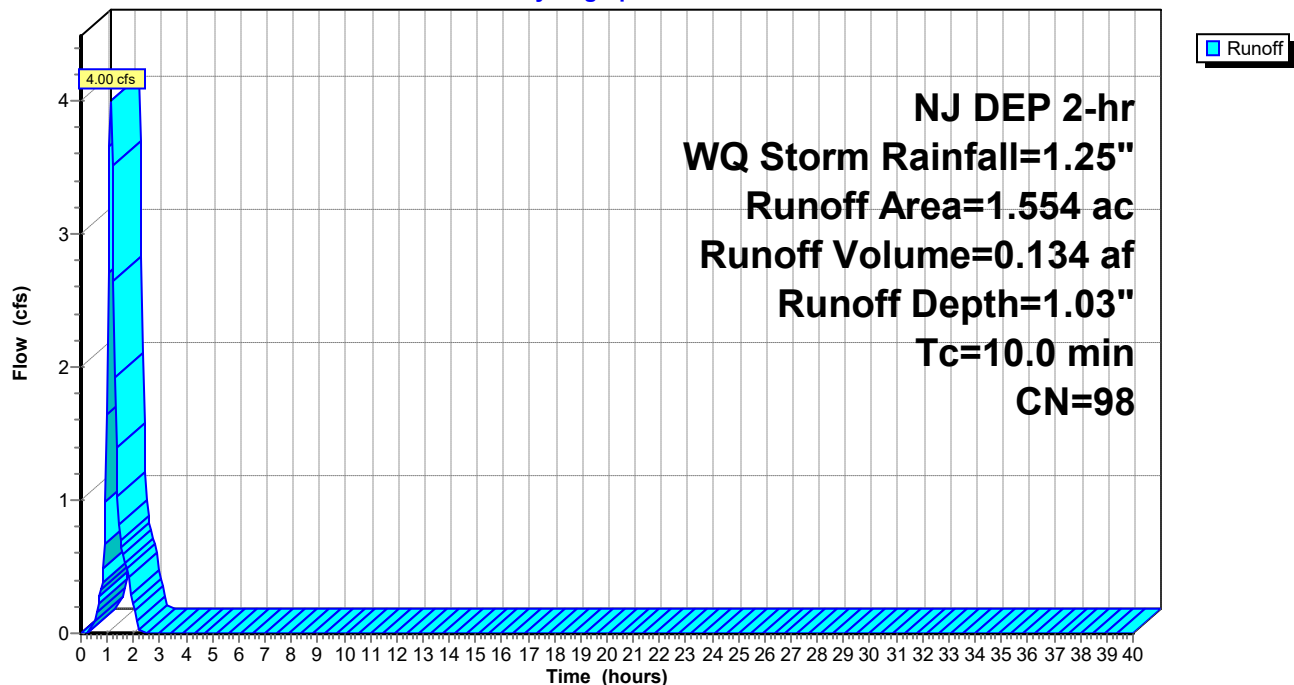
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (ac)	CN	Description
* 0.983	98	Pavement, HSG C
* 0.361	98	Roof, HSG C
* 0.210	98	Concrete, HSG C
1.554	98	Weighted Average
1.554		100.00% Impervious Area

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

Subcatchment 54I: PDA-54 (impervious)

Hydrograph



Summary for Subcatchment 54P: PDA-54 (pervious)

Runoff = 0.13 cfs @ 1.27 hrs, Volume= 0.006 af, Depth= 0.07"
 Routed to Pond B-54 : Basin #54

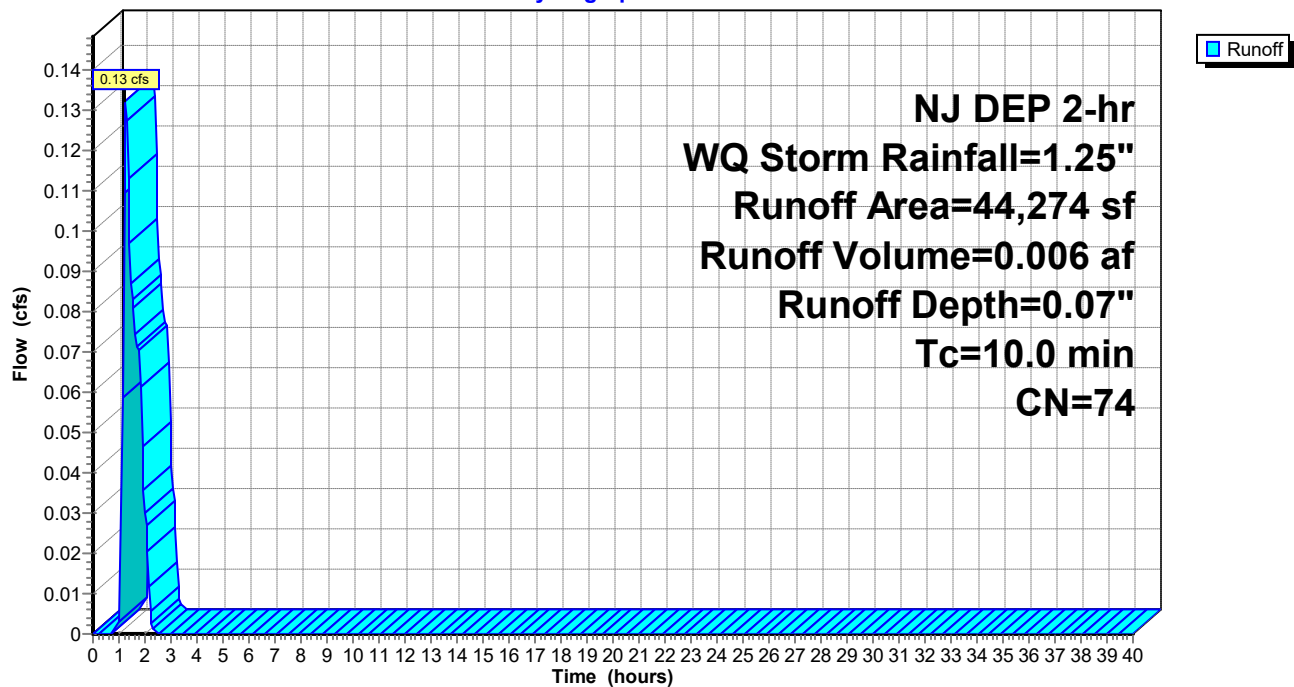
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (sf)	CN	Description
44,274	74	>75% Grass cover, Good, HSG C
44,274		100.00% Pervious Area

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

Subcatchment 54P: PDA-54 (pervious)

Hydrograph



Summary for Subcatchment 55I: PDA-55 (impervious)

Runoff = 2.59 cfs @ 1.15 hrs, Volume= 0.087 af, Depth= 1.03"
 Routed to Pond B-55 : Basin #55

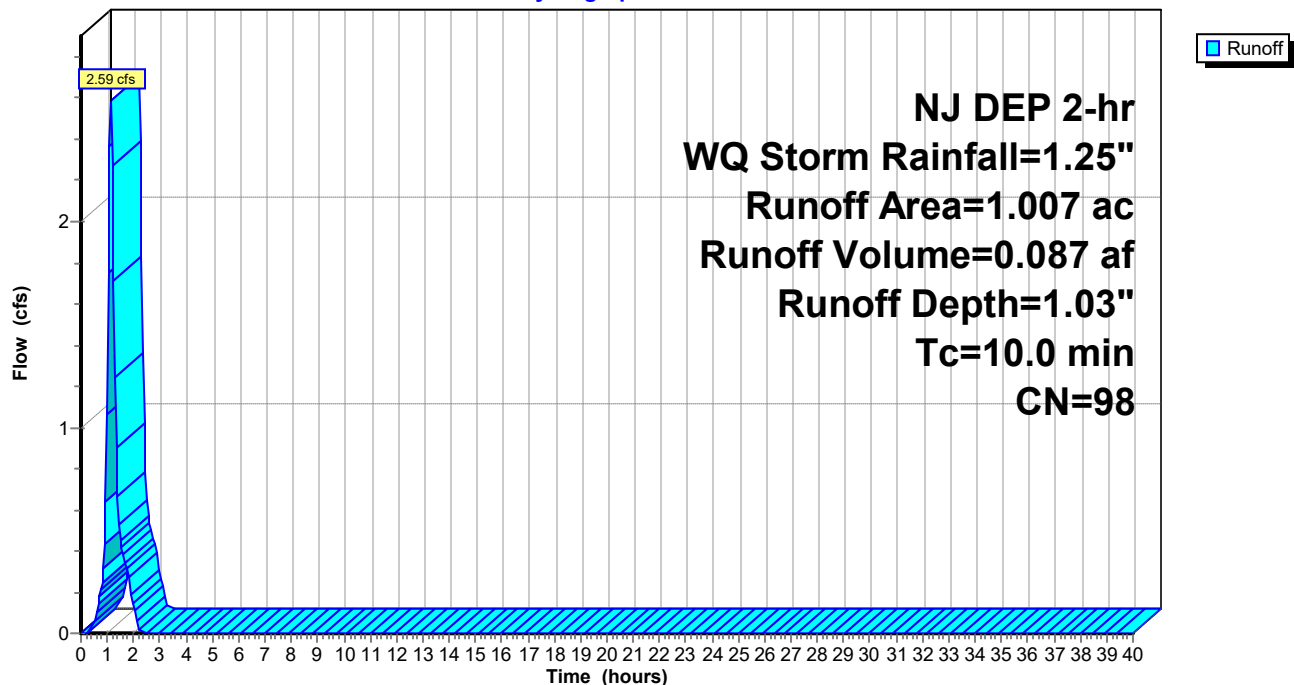
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (ac)	CN	Description
* 0.771	98	Pavement, HSG C
* 0.169	98	Roof, HSG C
* 0.067	98	Concrete, HSG C
1.007	98	Weighted Average
1.007		100.00% Impervious Area

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

Subcatchment 55I: PDA-55 (impervious)

Hydrograph



Summary for Subcatchment 55P: PDA-55 (pervious)

Runoff = 0.13 cfs @ 1.27 hrs, Volume= 0.006 af, Depth= 0.07"
 Routed to Pond B-55 : Basin #55

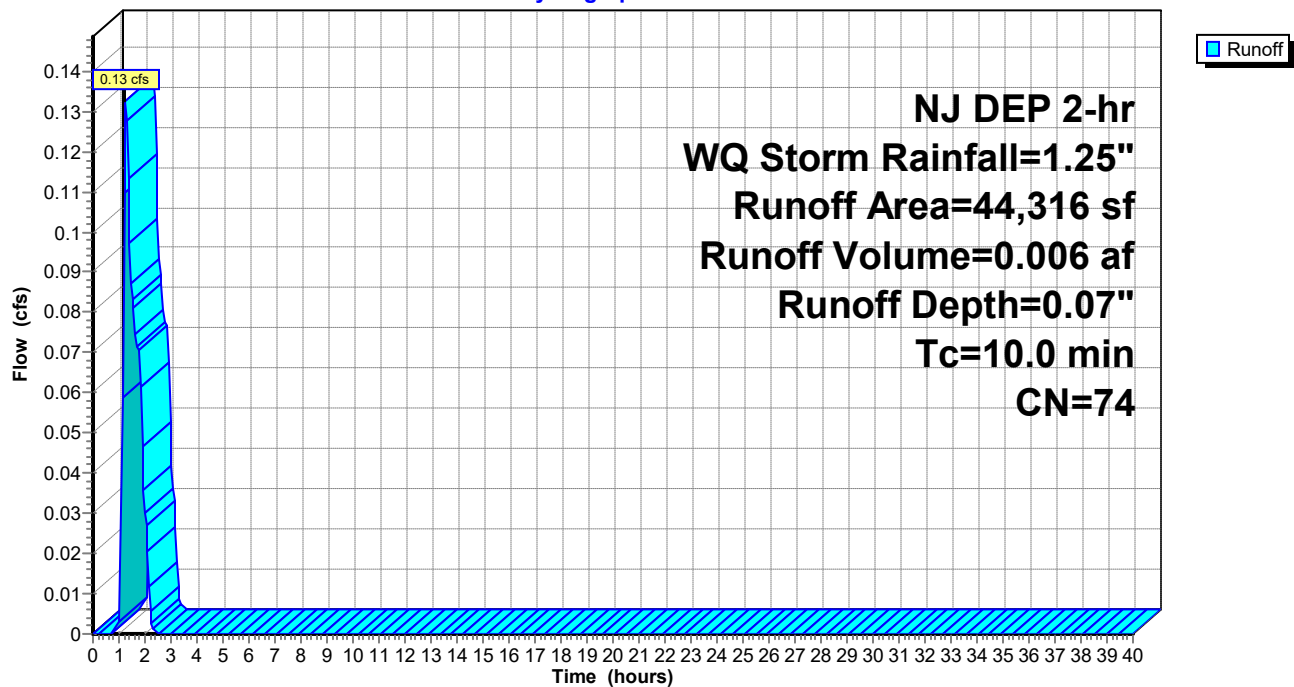
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (sf)	CN	Description
44,316	74	>75% Grass cover, Good, HSG C
44,316		100.00% Pervious Area

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

Subcatchment 55P: PDA-55 (pervious)

Hydrograph



Summary for Subcatchment 56I: PDA-56 (impervious)

Runoff = 2.67 cfs @ 1.15 hrs, Volume= 0.089 af, Depth= 1.03"
 Routed to Pond B-56 : Basin #56

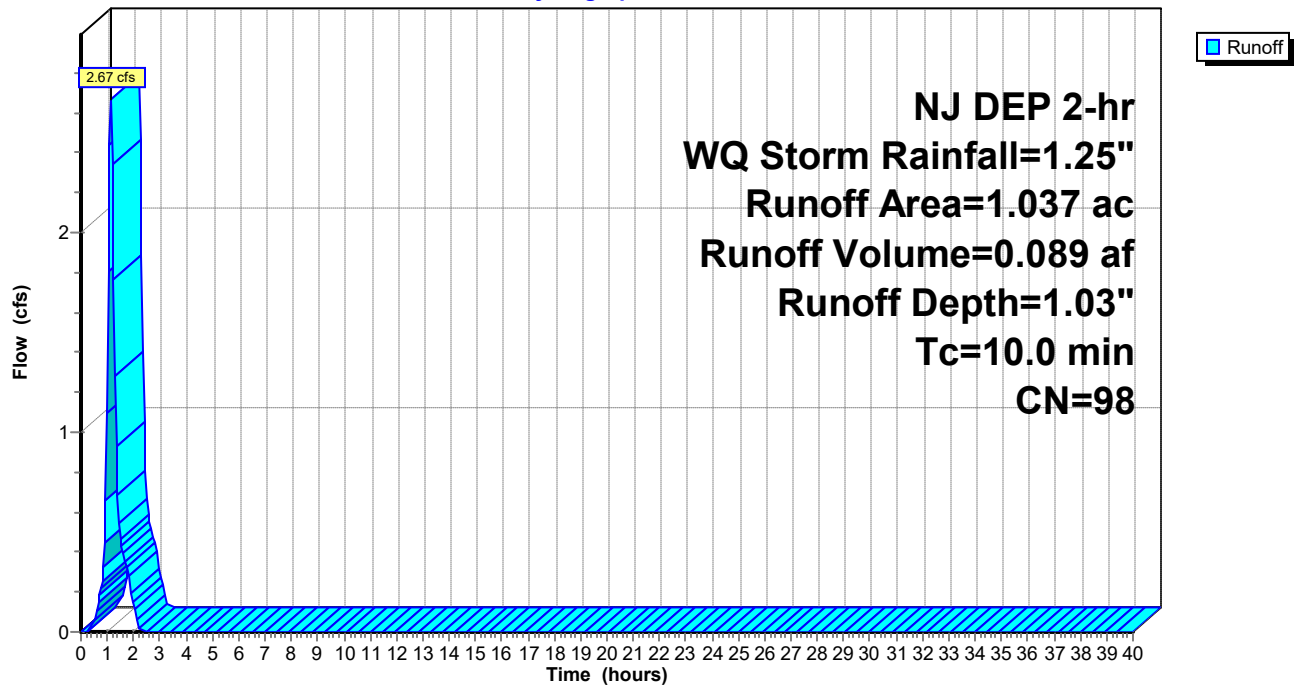
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (ac)	CN	Description
* 1.037	98	Roof, HSG C
1.037		100.00% Impervious Area

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

Subcatchment 56I: PDA-56 (impervious)

Hydrograph



Summary for Subcatchment 56P: PDA-56 (pervious)

Runoff = 0.17 cfs @ 1.27 hrs, Volume= 0.008 af, Depth= 0.07"
Routed to Pond B-56 : Basin #56

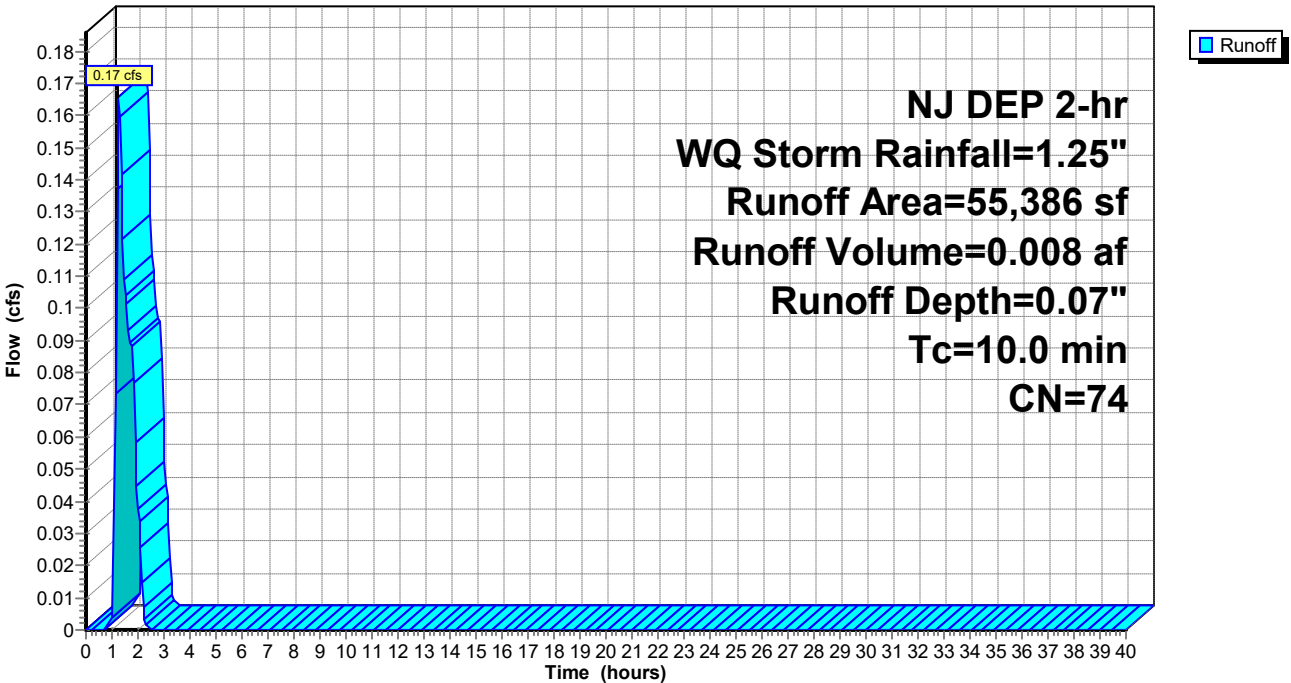
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (sf)	CN	Description
55,386	74	>75% Grass cover, Good, HSG C
55,386		100.00% Pervious Area

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

Subcatchment 56P: PDA-56 (pervious)

Hydrograph



Summary for Subcatchment 57I: PDA-57 (impervious)

Runoff = 1.72 cfs @ 1.15 hrs, Volume= 0.057 af, Depth= 1.03"
 Routed to Pond B-57 : Basin #57

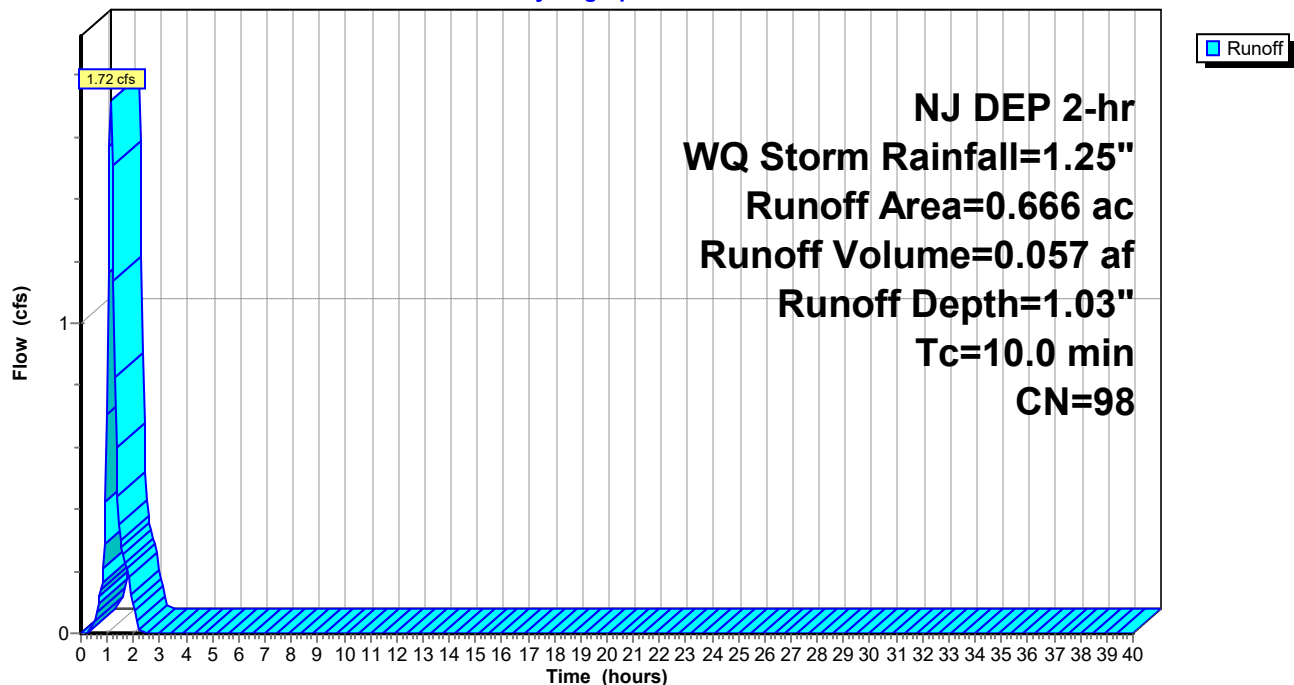
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (ac)	CN	Description
* 0.311	98	Pavement, HSG C
* 0.313	98	Roof, HSG C
* 0.042	98	Concrete, HSG C
0.666	98	Weighted Average
0.666		100.00% Impervious Area

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

Subcatchment 57I: PDA-57 (impervious)

Hydrograph



Summary for Subcatchment 57P: PDA-57 (pervious)

Runoff = 0.08 cfs @ 1.27 hrs, Volume= 0.004 af, Depth= 0.07"
Routed to Pond B-57 : Basin #57

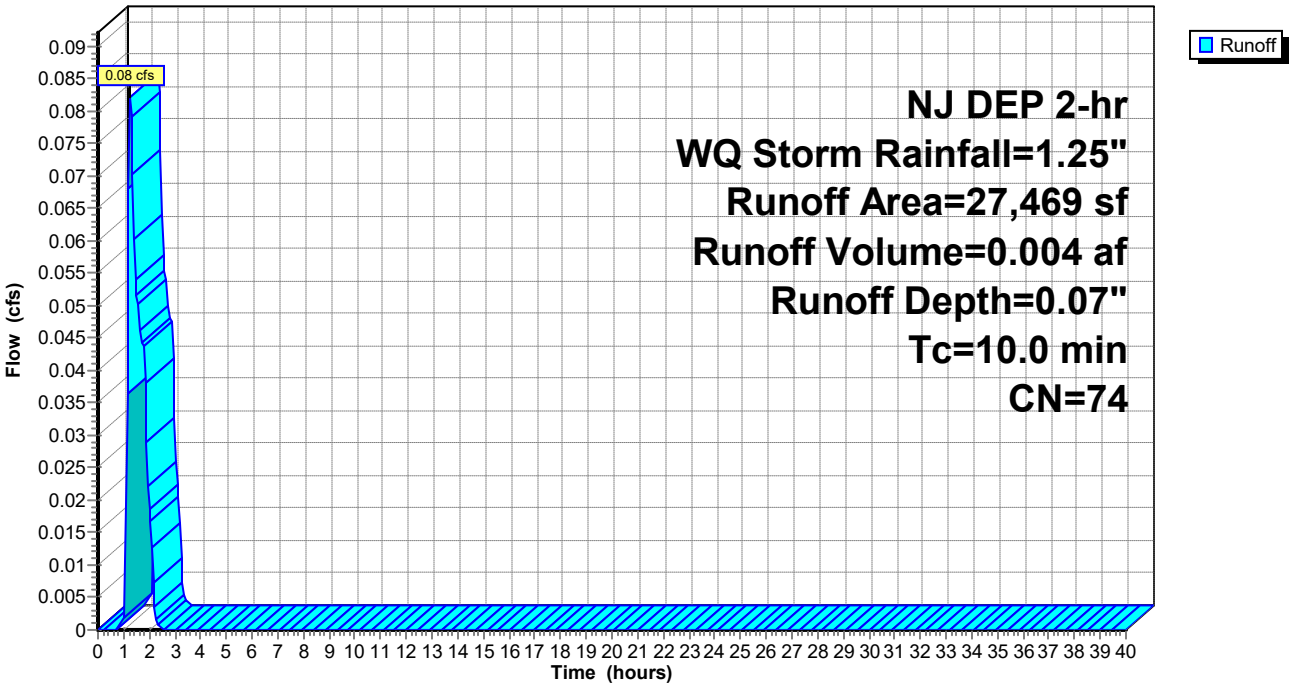
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (sf)	CN	Description
27,469	74	>75% Grass cover, Good, HSG C
27,469		100.00% Pervious Area

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

Subcatchment 57P: PDA-57 (pervious)

Hydrograph



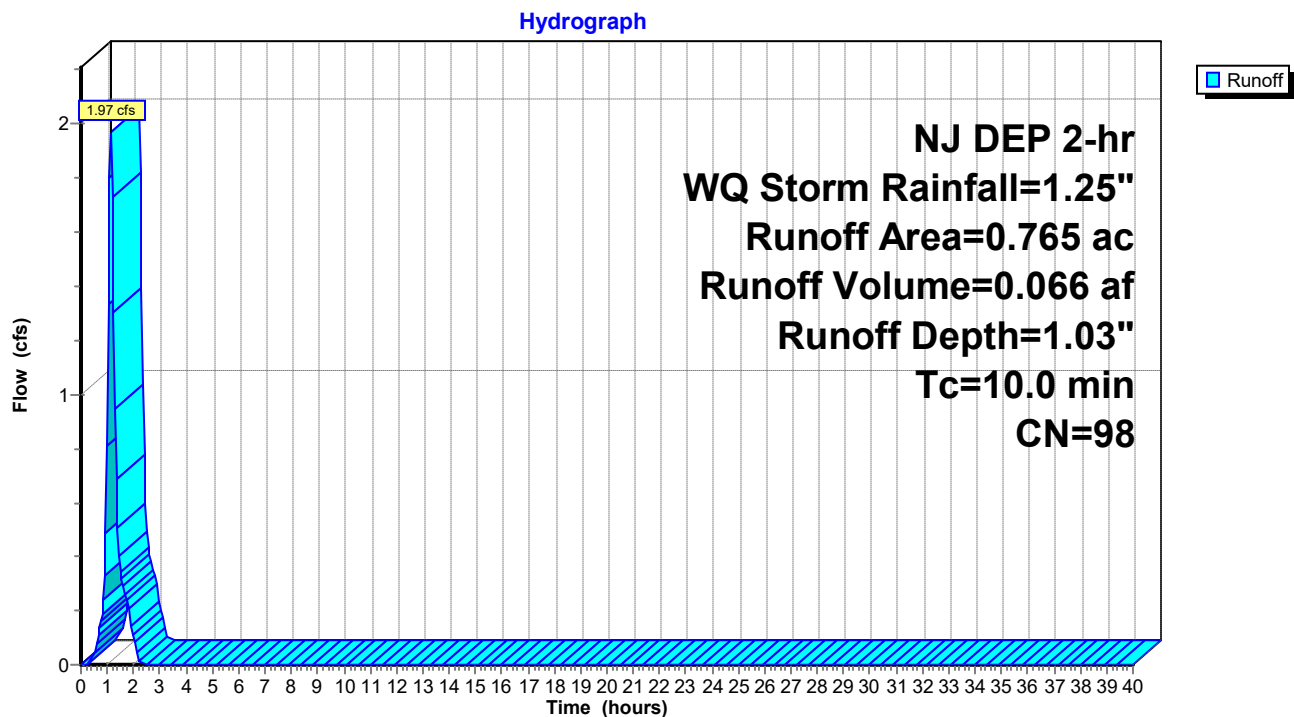
Summary for Subcatchment 58I: PDA-58 (impervious)

Runoff = 1.97 cfs @ 1.15 hrs, Volume= 0.066 af, Depth= 1.03"
 Routed to Pond B-58 : Basin #58

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (ac)	CN	Description
* 0.763	98	Roof, HSG C
* 0.002	98	Concrete, HSG C
0.765	98	Weighted Average
0.765		100.00% Impervious Area

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

Subcatchment 58I: PDA-58 (impervious)

Summary for Subcatchment 58P: PDA-58 (pervious)

Runoff = 0.21 cfs @ 1.27 hrs, Volume= 0.010 af, Depth= 0.07"
 Routed to Pond B-58 : Basin #58

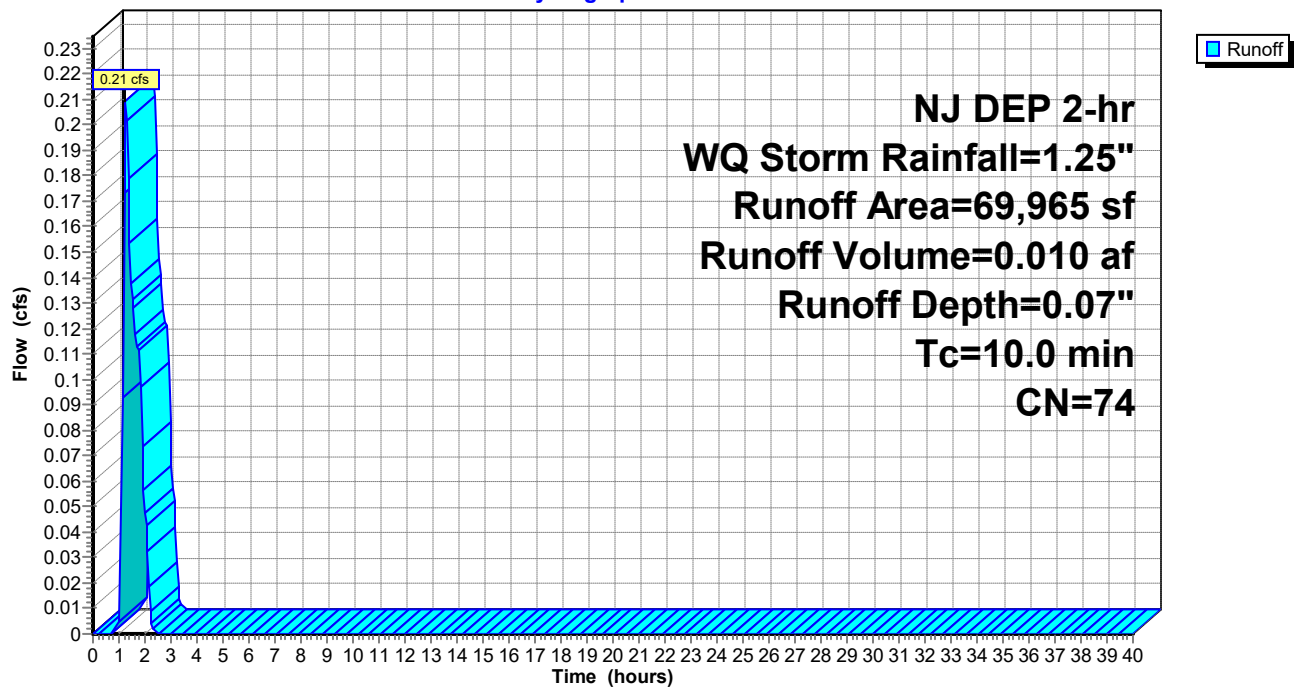
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (sf)	CN	Description
69,965	74	>75% Grass cover, Good, HSG C
69,965		100.00% Pervious Area

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

Subcatchment 58P: PDA-58 (pervious)

Hydrograph



Summary for Subcatchment UPDA-5: PDA-5 (undetained)

Runoff = 0.08 cfs @ 1.27 hrs, Volume= 0.004 af, Depth= 0.07"
Routed to Link PDA-5 : Proposed Drainage Area #5

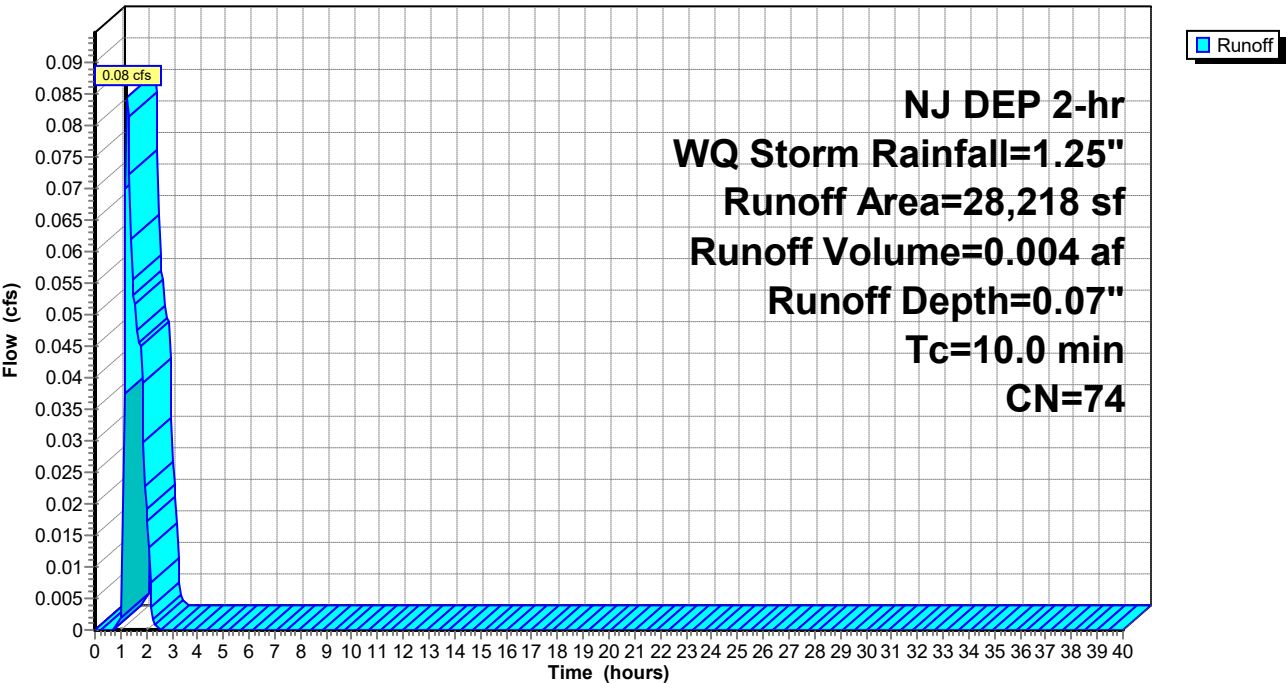
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (sf)	CN	Description
28,218	74	>75% Grass cover, Good, HSG C
28,218		100.00% Pervious Area

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

Subcatchment UPDA-5: PDA-5 (undetained)

Hydrograph



Summary for Subcatchment UPDA-6: PDA-6 (undetained)

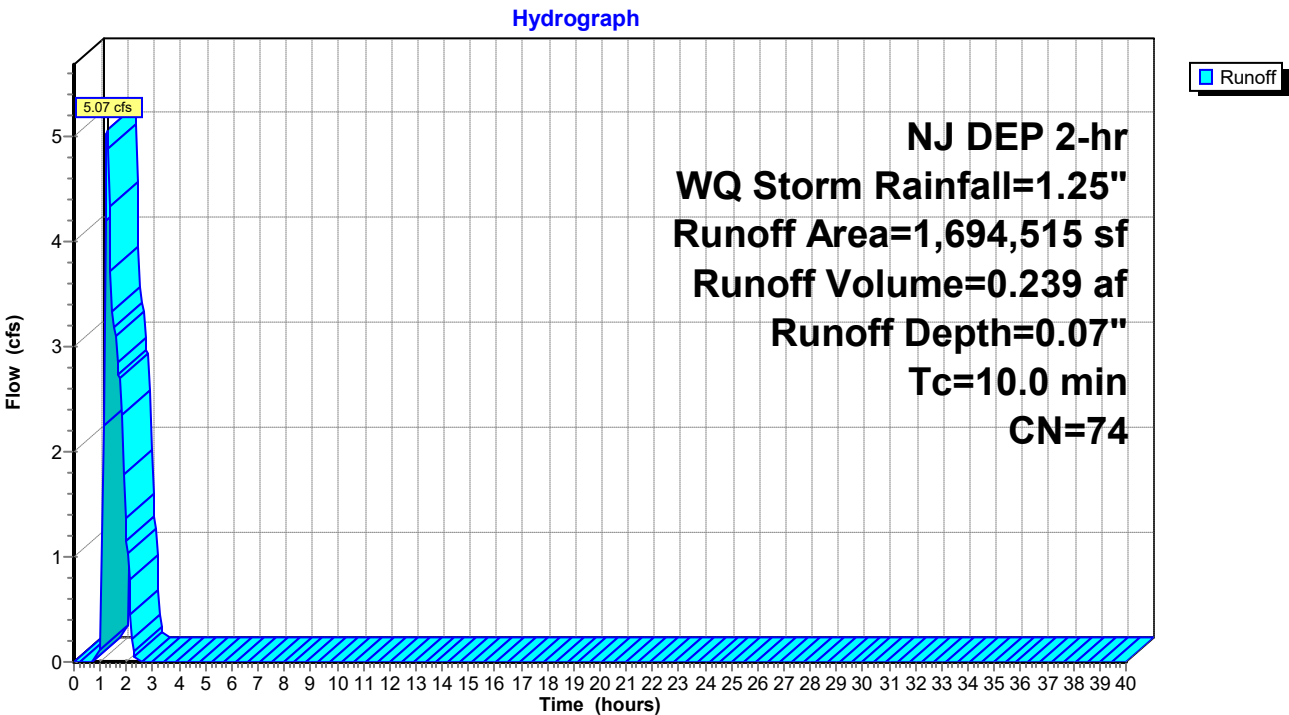
Runoff = 5.07 cfs @ 1.27 hrs, Volume= 0.239 af, Depth= 0.07"
Routed to Link PDA-6 : Proposed Drainage Area #6

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr WQ Storm Rainfall=1.25"

Area (sf)	CN	Description
1,694,515	74	>75% Grass cover, Good, HSG C
1,694,515		100.00% Pervious Area

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

Subcatchment UPDA-6: PDA-6 (undetained)



Summary for Pond B-48: Basin #48

Inflow Area = 2.415 ac, 36.95% Impervious, Inflow Depth = 0.43" for WQ Storm event
 Inflow = 2.39 cfs @ 1.15 hrs, Volume= 0.086 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
 Routed to Link PDA-5 : Proposed Drainage Area #5

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 187.25' @ 2.60 hrs Surf.Area= 11,817 sf Storage= 3,759 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	186.85'	81,173 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
186.85	0	0	0
187.00	11,678	876	876
188.00	12,246	11,962	12,838
189.00	12,814	12,530	25,368
190.00	13,382	13,098	38,466
191.00	13,951	13,667	52,132
192.00	14,520	14,236	66,368
193.00	15,090	14,805	81,173

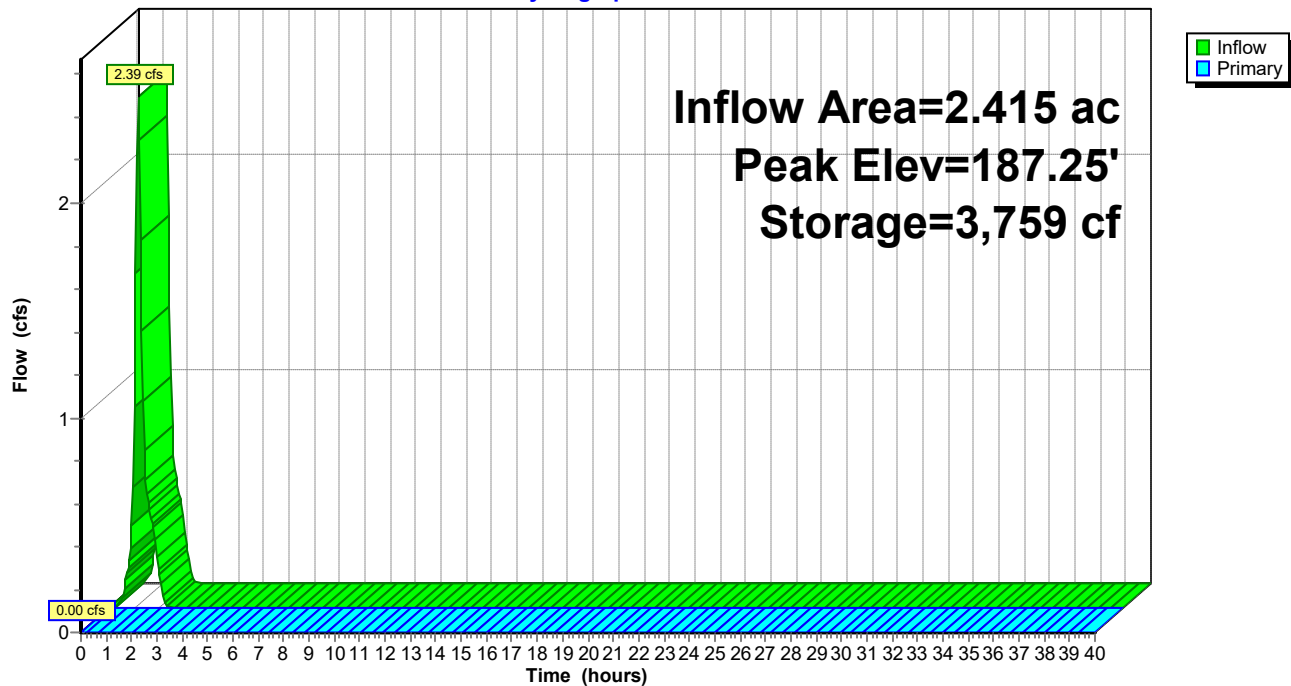
Device	Routing	Invert	Outlet Devices
#1	Primary	186.85'	18.0" Round Culvert L= 121.0' Ke= 0.500 Inlet / Outlet Invert= 186.85' / 186.25' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	187.26'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	188.75'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	189.46'	50.0' long + 3.0 ' /' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=186.85' (Free Discharge)

- 1=Culvert (Controls 0.00 cfs)
- 2=Orifice/Grate (Controls 0.00 cfs)
- 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-48: Basin #48

Hydrograph



Summary for Pond B-49: Basin #49

Inflow Area = 2.680 ac, 54.22% Impervious, Inflow Depth = 0.59" for WQ Storm event
 Inflow = 3.81 cfs @ 1.15 hrs, Volume= 0.133 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
 Routed to Link PDA-5 : Proposed Drainage Area #5

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 183.63' @ 2.60 hrs Surf.Area= 7,373 sf Storage= 5,785 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	182.60'	55,030 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
182.60	0	0	0
183.00	6,698	1,340	1,340
184.00	7,766	7,232	8,572
185.00	8,867	8,317	16,888
186.00	10,002	9,435	26,323
187.00	11,172	10,587	36,910
188.00	12,378	11,775	48,685
188.50	13,004	6,346	55,030

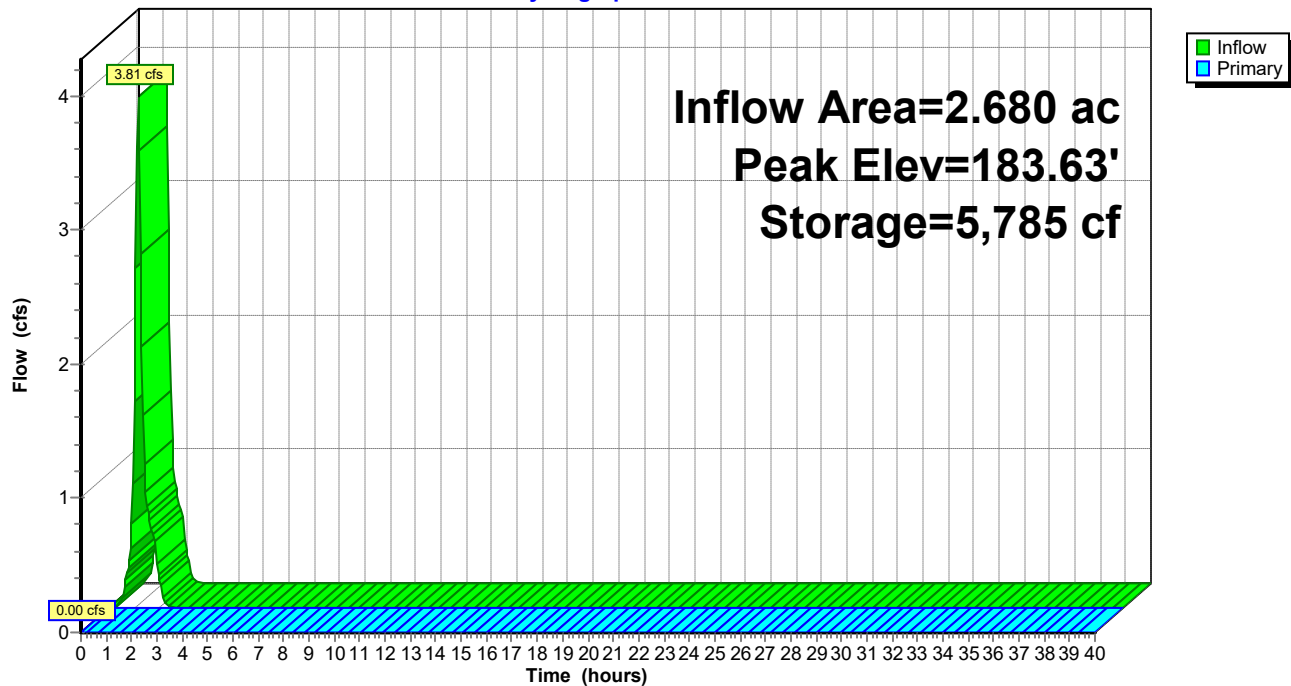
Device	Routing	Invert	Outlet Devices
#1	Primary	182.60'	18.0" Round Culvert L= 112.0' Ke= 0.500 Inlet / Outlet Invert= 182.60' / 182.00' S= 0.0054 '/ Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	183.64'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	185.25'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	186.75'	50.0' long + 3.0' /' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=182.60' (Free Discharge)

- 1=Culvert (Controls 0.00 cfs)
- 2=Orifice/Grate (Controls 0.00 cfs)
- 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-49: Basin #49

Hydrograph



Summary for Pond B-50: Basin #50

Inflow Area = 2.669 ac, 46.91% Impervious, Inflow Depth = 0.52" for WQ Storm event
 Inflow = 3.30 cfs @ 1.15 hrs, Volume= 0.117 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
 Routed to Link PDA-5 : Proposed Drainage Area #5

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 184.22' @ 2.60 hrs Surf.Area= 9,096 sf Storage= 5,081 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	183.30'	56,291 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
183.30	0	0	0
184.00	8,805	3,082	3,082
185.00	10,108	9,457	12,538
186.00	11,448	10,778	23,316
187.00	12,826	12,137	35,453
188.00	14,244	13,535	48,988
188.50	14,966	7,303	56,291

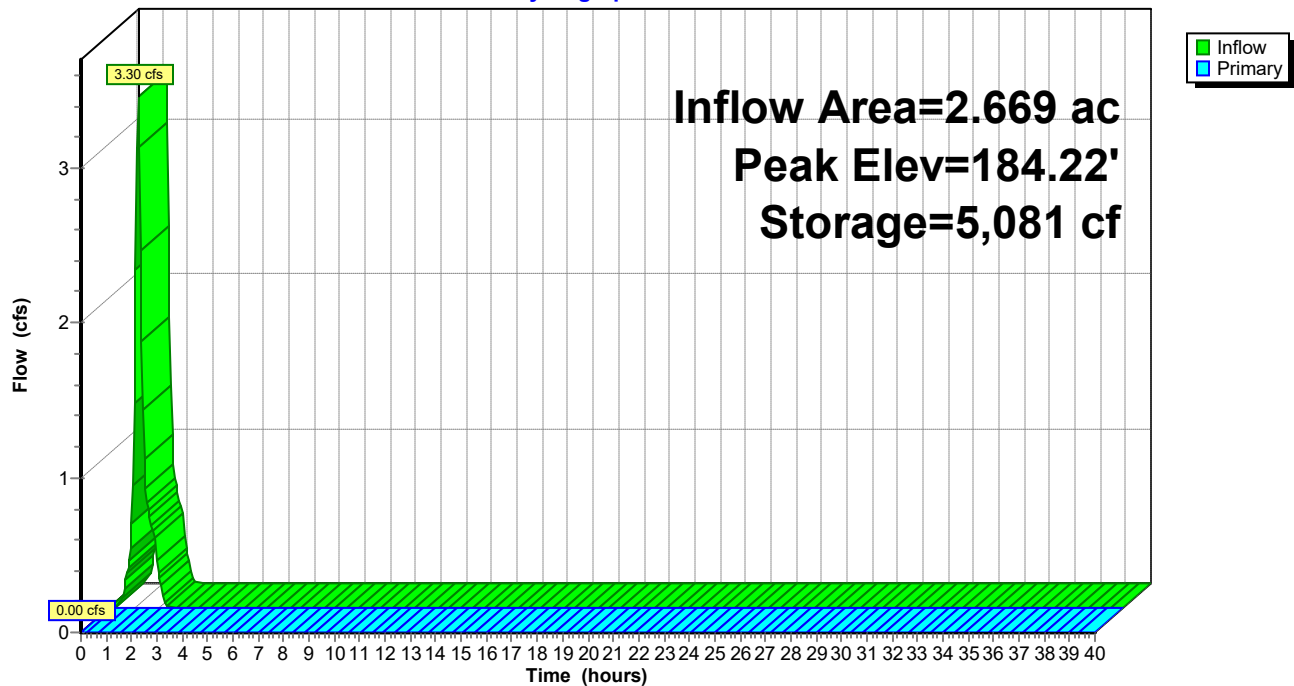
Device	Routing	Invert	Outlet Devices
#1	Primary	183.17'	18.0" Round Culvert L= 23.0' Ke= 0.500 Inlet / Outlet Invert= 183.17' / 183.05' S= 0.0052 ' /' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	184.23'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	185.53'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	186.82'	50.0' long + 3.0 ' /' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=183.30' (Free Discharge)

1=Culvert (Passes 0.00 cfs of 0.06 cfs potential flow)
 2=Orifice/Grate (Controls 0.00 cfs)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-50: Basin #50

Hydrograph



Summary for Pond B-51: Basin #51

Inflow Area = 1.618 ac, 38.76% Impervious, Inflow Depth = 0.45" for WQ Storm event
 Inflow = 1.67 cfs @ 1.15 hrs, Volume= 0.060 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
 Routed to Link PDA-6 : Proposed Drainage Area #6

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 188.05' @ 2.60 hrs Surf.Area= 2,853 sf Storage= 2,620 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	186.86'	16,158 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
186.86	0	0	0
187.00	1,882	132	132
188.00	2,798	2,340	2,472
189.00	3,853	3,326	5,797
190.00	5,083	4,468	10,265
191.00	6,703	5,893	16,158

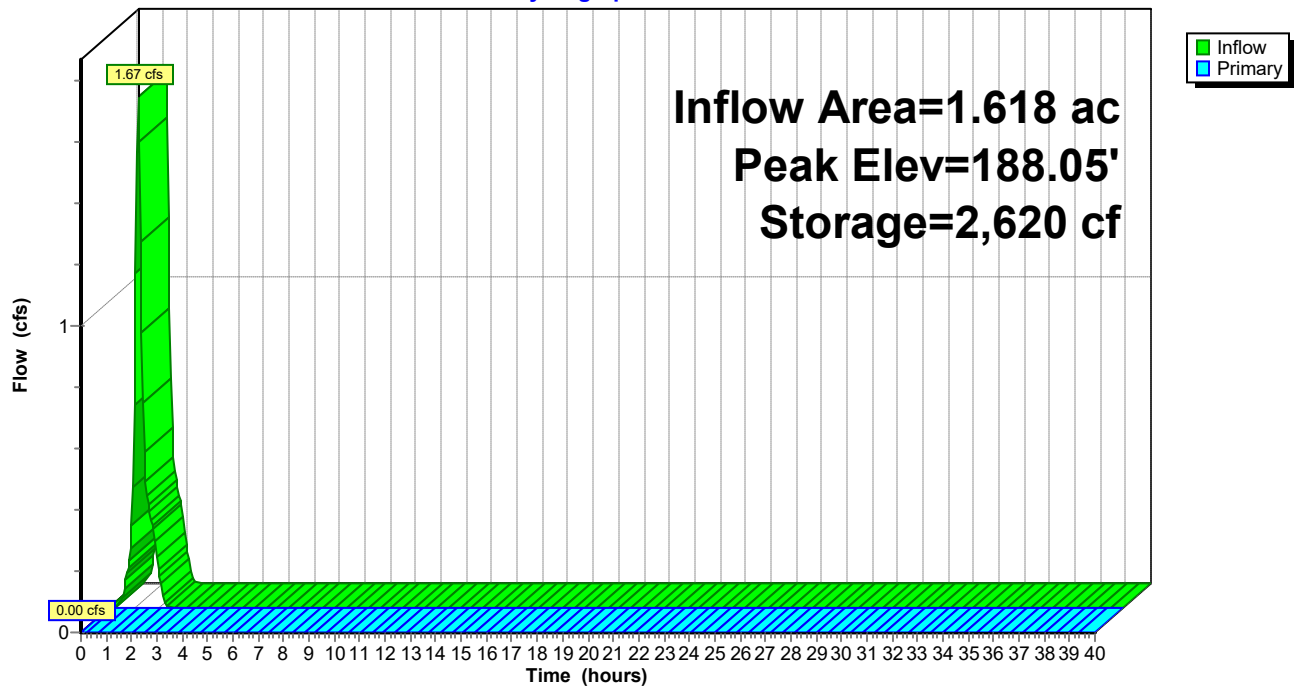
Device	Routing	Invert	Outlet Devices
#1	Primary	186.86'	18.0" Round Culvert L= 172.0' Ke= 0.500 Inlet / Outlet Invert= 186.86' / 186.00' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	188.06'	20.0" W x 8.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	188.68'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	189.71'	50.0' long + 3.0' /' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=186.86' (Free Discharge)

1=Culvert (Controls 0.00 cfs)
 2=Orifice/Grate (Controls 0.00 cfs)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-51: Basin #51

Hydrograph



Summary for Pond B-52: Basin #52

Inflow Area = 2.537 ac, 41.39% Impervious, Inflow Depth = 0.47" for WQ Storm event
 Inflow = 2.79 cfs @ 1.15 hrs, Volume= 0.100 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
 Routed to Link PDA-6 : Proposed Drainage Area #6

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 194.02' @ 2.60 hrs Surf.Area= 3,592 sf Storage= 4,341 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	192.30'	23,897 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
192.30	0	0	0
193.00	2,920	1,022	1,022
194.00	3,579	3,250	4,271
195.00	4,239	3,909	8,180
196.00	4,898	4,569	12,749
197.00	5,558	5,228	17,977
198.00	6,282	5,920	23,897

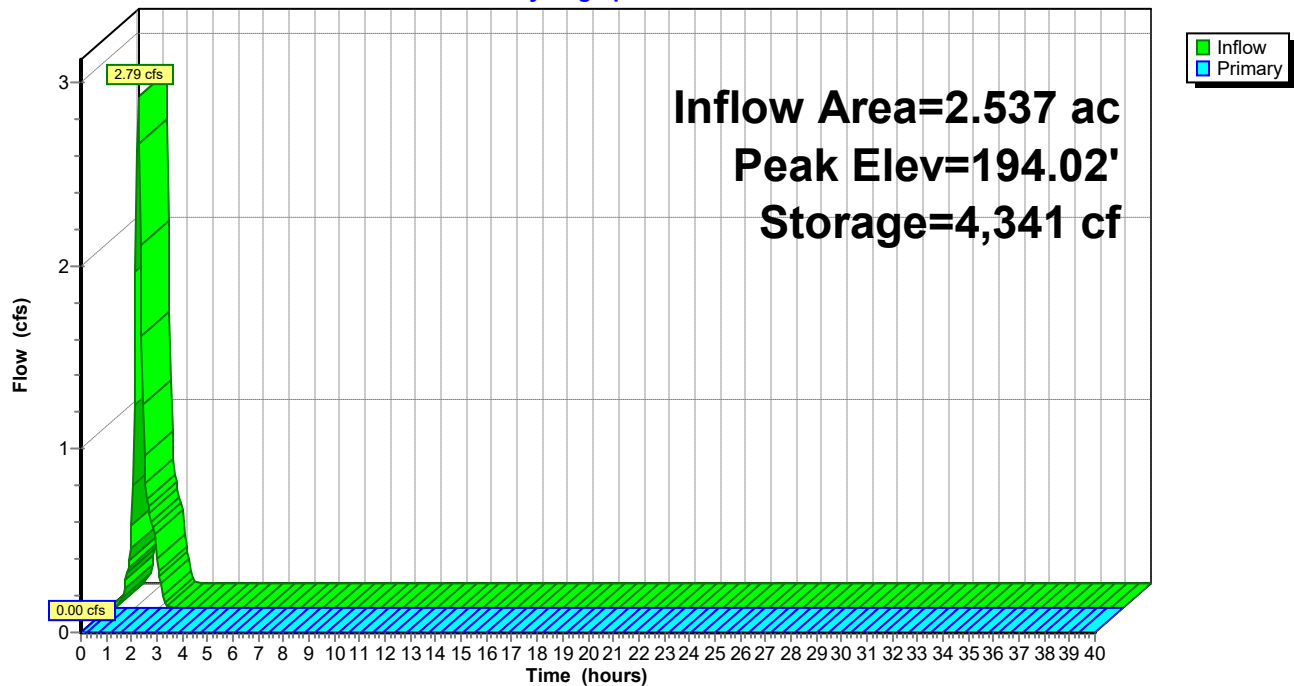
Device	Routing	Invert	Outlet Devices
#1	Primary	192.00'	18.0" Round Culvert L= 163.0' Ke= 0.500 Inlet / Outlet Invert= 192.00' / 191.00' S= 0.0061 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	194.03'	24.0" W x 2.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	195.24'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	196.99'	50.0' long + 3.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=192.30' (Free Discharge)

1=Culvert (Passes 0.00 cfs of 0.39 cfs potential flow)
 2=Orifice/Grate (Controls 0.00 cfs)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-52: Basin #52

Hydrograph



Summary for Pond B-53: Basin #53

Inflow Area = 2.540 ac, 47.79% Impervious, Inflow Depth = 0.53" for WQ Storm event
 Inflow = 3.20 cfs @ 1.15 hrs, Volume= 0.113 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
 Routed to Link PDA-6 : Proposed Drainage Area #6

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 201.01' @ 2.60 hrs Surf.Area= 4,704 sf Storage= 4,914 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	199.75'	33,011 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
199.75	0	0	0
200.00	4,035	504	504
201.00	4,695	4,365	4,869
202.00	5,685	5,190	10,059
203.00	6,015	5,850	15,909
204.00	6,676	6,346	22,255
205.00	7,336	7,006	29,261
205.50	7,666	3,751	33,011

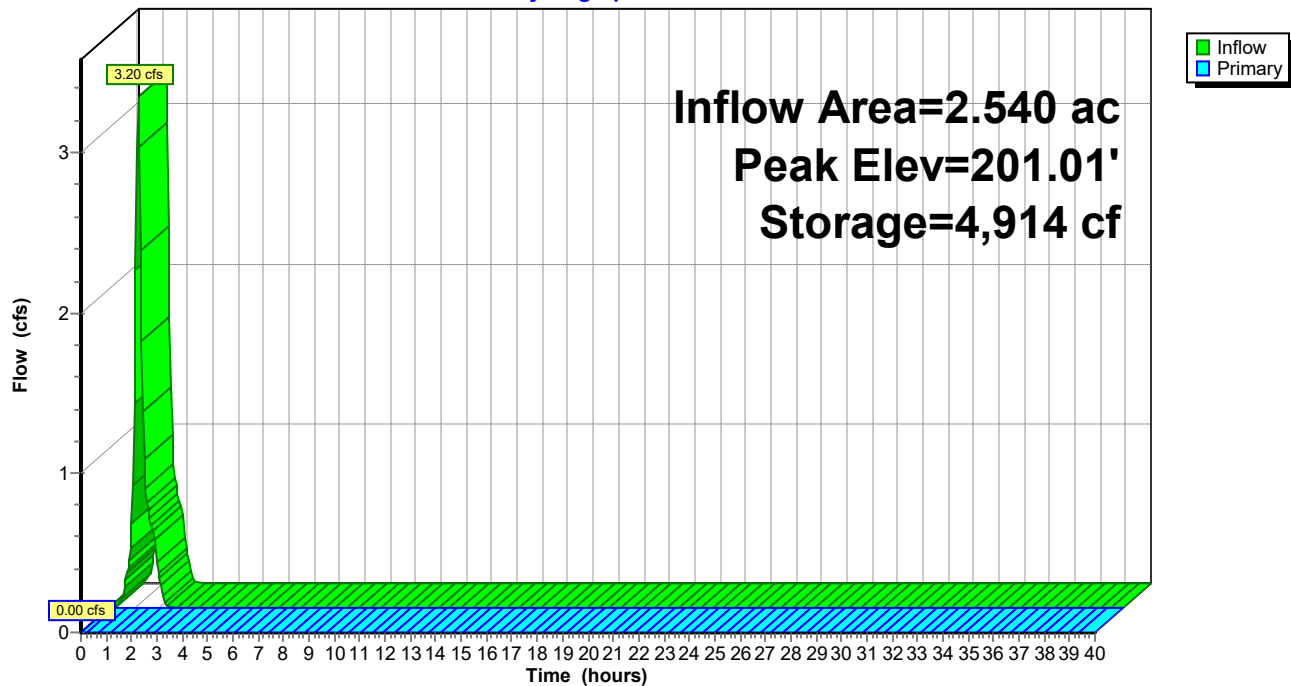
Device	Routing	Invert	Outlet Devices
#1	Primary	198.75'	18.0" Round Culvert L= 122.0' Ke= 0.500 Inlet / Outlet Invert= 198.75' / 198.00' S= 0.0061 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	201.02'	3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	202.94'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	204.43'	50.0' long + 3.0 ' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=199.75' (Free Discharge)

1=Culvert (Passes 0.00 cfs of 3.67 cfs potential flow)
 2=Orifice/Grate (Controls 0.00 cfs)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-53: Basin #53

Hydrograph



Summary for Pond B-54: Basin #54

Inflow Area = 2.570 ac, 60.46% Impervious, Inflow Depth = 0.65" for WQ Storm event
 Inflow = 4.06 cfs @ 1.15 hrs, Volume= 0.140 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
 Routed to Link PDA-6 : Proposed Drainage Area #6

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 201.39' @ 2.60 hrs Surf.Area= 4,699 sf Storage= 6,108 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	199.89'	30,982 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
199.89	0	0	0
200.00	3,780	208	208
201.00	4,440	4,110	4,318
202.00	5,100	4,770	9,088
203.00	5,760	5,430	14,518
204.00	6,421	6,091	20,608
205.00	7,081	6,751	27,359
205.50	7,411	3,623	30,982

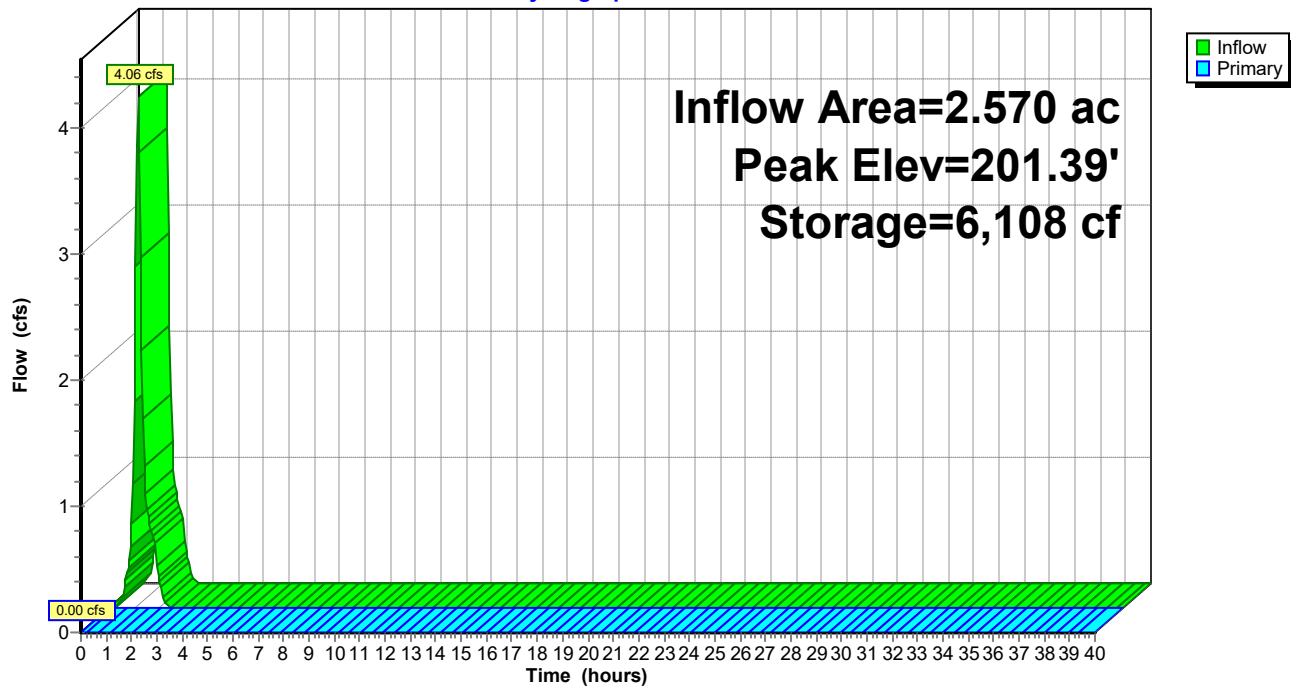
Device	Routing	Invert	Outlet Devices
#1	Primary	198.89'	18.0" Round Culvert L= 178.0' Ke= 0.500 Inlet / Outlet Invert= 198.89' / 198.00' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	201.40'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	203.70'	4.0' long 1 2 End Contraction(s)
#4	Primary	204.47'	50.0' long + 3.0 '/' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=199.89' (Free Discharge)

1=Culvert (Passes 0.00 cfs of 3.47 cfs potential flow)
 2=Orifice/Grate (Controls 0.00 cfs)
 3=1 (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-54: Basin #54

Hydrograph



Summary for Pond B-55: Basin #55

Inflow Area = 2.024 ac, 49.74% Impervious, Inflow Depth = 0.55" for WQ Storm event
 Inflow = 2.65 cfs @ 1.15 hrs, Volume= 0.093 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
 Routed to Link PDA-6 : Proposed Drainage Area #6

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 192.70' @ 2.60 hrs Surf.Area= 4,600 sf Storage= 4,054 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	191.56'	22,010 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
191.56	0	0	0
192.00	4,250	935	935
193.00	4,746	4,498	5,433
194.00	5,257	5,002	10,434
195.00	5,784	5,521	15,955
196.00	6,327	6,056	22,010

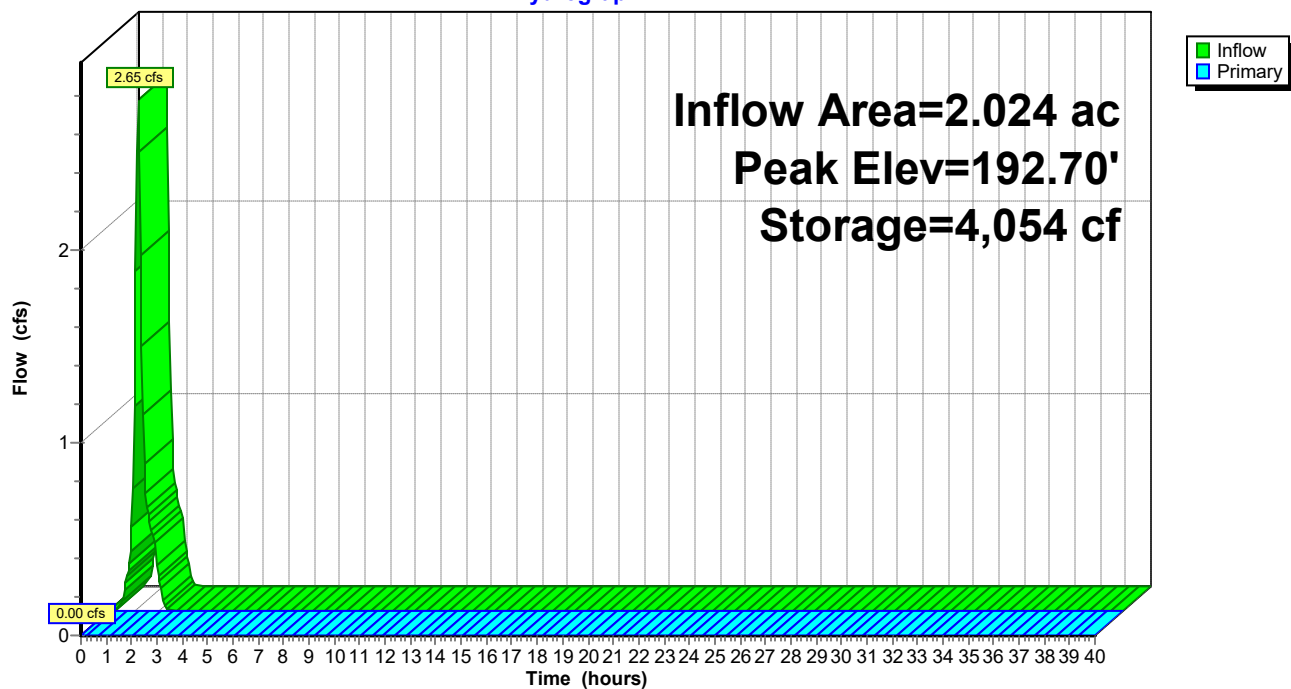
Device	Routing	Invert	Outlet Devices
#1	Primary	191.56'	18.0" Round Culvert L= 112.0' Ke= 0.500 Inlet / Outlet Invert= 191.56' / 191.00' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	192.71'	22.0" W x 2.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	193.63'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	194.99'	50.0' long + 3.0' /' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=191.56' (Free Discharge)

1=Culvert (Controls 0.00 cfs)
 2=Orifice/Grate (Controls 0.00 cfs)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-55: Basin #55

Hydrograph



Summary for Pond B-56: Basin #56

Inflow Area = 2.308 ac, 44.92% Impervious, Inflow Depth = 0.51" for WQ Storm event
 Inflow = 2.74 cfs @ 1.15 hrs, Volume= 0.097 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
 Routed to Link PDA-6 : Proposed Drainage Area #6

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 192.61' @ 2.60 hrs Surf.Area= 5,308 sf Storage= 4,235 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	191.57'	25,032 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
191.57	0	0	0
192.00	5,021	1,080	1,080
193.00	5,490	5,256	6,335
194.00	5,976	5,733	12,068
195.00	6,478	6,227	18,295
196.00	6,995	6,737	25,032

Device	Routing	Invert	Outlet Devices
#1	Primary	191.57'	18.0" Round Culvert L= 29.0' Ke= 0.500 Inlet / Outlet Invert= 191.57' / 191.42' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	192.62'	19.0" W x 2.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	193.60'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	194.99'	50.0' long + 3.0' /' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=191.57' (Free Discharge)

1=Culvert (Controls 0.00 cfs)
 2=Orifice/Grate (Controls 0.00 cfs)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-56: Basin #56

Hydrograph

