



TOWNSHIP of HOPEWELL
MERCER COUNTY

201 WASHINGTON CROSSING – PENNINGTON ROAD
TITUSVILLE, NEW JERSEY 08560-1410

PROJECT / APPLICATION

BLOCK:

LOT:

ADDRESS:

PROJECT NAME:

**REPORTS AND SUPPORTING
DOCUMENTS**

STORMWATER MANAGEMENT - FILE 3

Summary for Pond B-23: Basin #23

Inflow Area = 1.511 ac, 66.64% Impervious, Inflow Depth = 4.06" for Current 10 yr event
 Inflow = 6.04 cfs @ 12.17 hrs, Volume= 0.511 af
 Outflow = 2.69 cfs @ 12.36 hrs, Volume= 0.416 af, Atten= 55%, Lag= 11.6 min
 Primary = 2.69 cfs @ 12.36 hrs, Volume= 0.416 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 146.39' @ 12.36 hrs Surf.Area= 6,942 sf Storage= 10,555 cf

Plug-Flow detention time= 231.6 min calculated for 0.416 af (82% of inflow)
 Center-of-Mass det. time= 153.5 min (924.1 - 770.6)

Volume	Invert	Avail.Storage	Storage Description
#1	144.30'	23,175 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
144.30	0	0	0
145.00	5,512	1,929	1,929
146.00	6,527	6,020	7,949
147.00	7,599	7,063	15,012
148.00	8,727	8,163	23,175

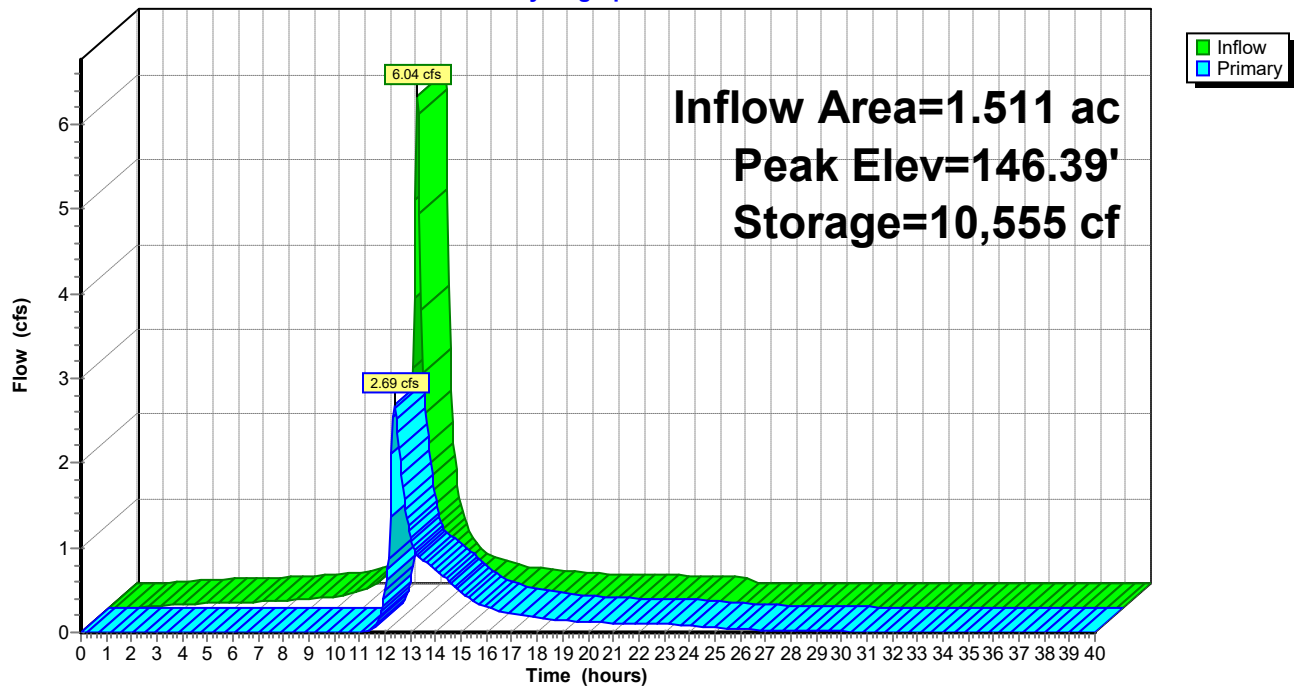
Device	Routing	Invert	Outlet Devices
#1	Primary	144.30'	18.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 144.30' / 144.00' S= 0.0115 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	145.36'	7.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	146.14'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	147.00'	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=2.67 cfs @ 12.36 hrs HW=146.39' (Free Discharge)

1=Culvert (Passes 2.67 cfs of 9.49 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 1.10 cfs @ 4.12 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 1.57 cfs @ 1.62 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-23: Basin #23

Hydrograph



Summary for Pond B-24: Basin #24

Inflow Area = 2.739 ac, 44.80% Impervious, Inflow Depth = 3.53" for Current 10 yr event
 Inflow = 9.78 cfs @ 12.17 hrs, Volume= 0.805 af
 Outflow = 3.10 cfs @ 12.46 hrs, Volume= 0.681 af, Atten= 68%, Lag= 17.5 min
 Primary = 3.10 cfs @ 12.46 hrs, Volume= 0.681 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 146.81' @ 12.46 hrs Surf.Area= 9,160 sf Storage= 17,498 cf

Plug-Flow detention time= 286.0 min calculated for 0.681 af (85% of inflow)
 Center-of-Mass det. time= 215.1 min (1,002.3 - 787.1)

Volume	Invert	Avail.Storage	Storage Description
#1	144.30'	40,061 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
144.30	0	0	0
145.00	7,331	2,566	2,566
146.00	8,327	7,829	10,395
147.00	9,353	8,840	19,235
148.00	10,406	9,880	29,114
149.00	11,488	10,947	40,061

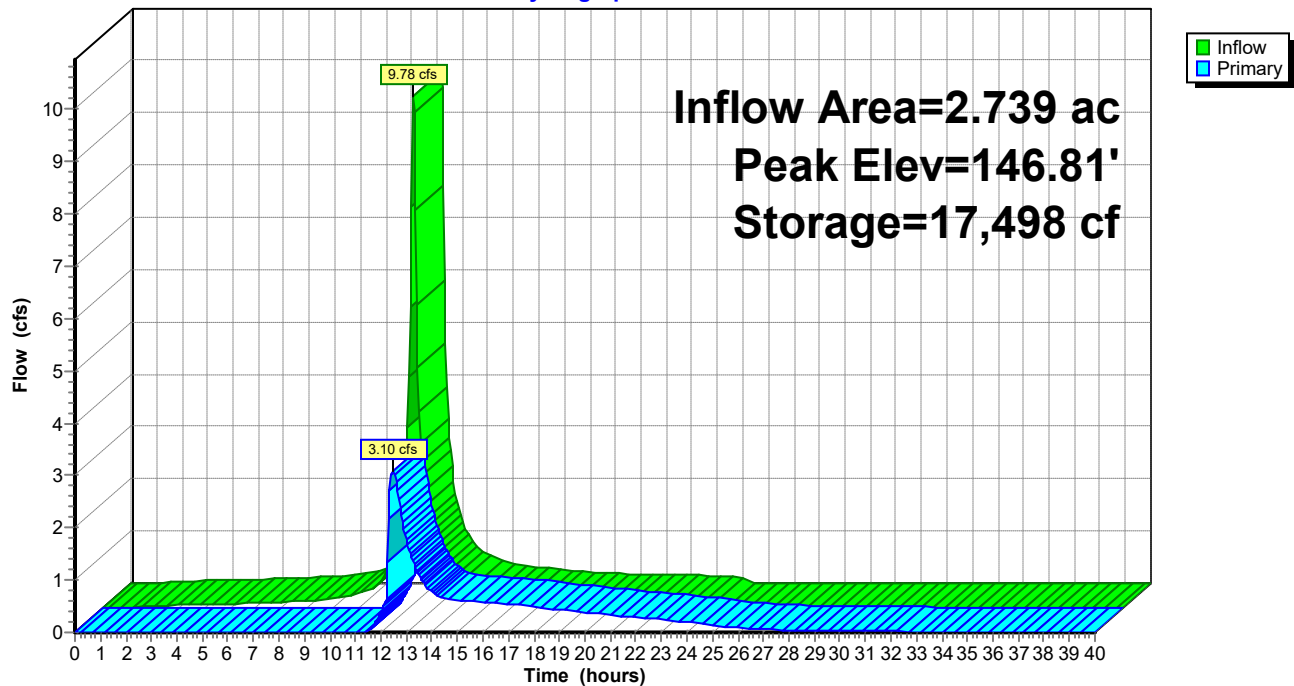
Device	Routing	Invert	Outlet Devices
#1	Primary	144.30'	18.0" Round Culvert L= 59.0' Ke= 0.500 Inlet / Outlet Invert= 144.30' / 144.00' S= 0.0051 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	145.34'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	146.49'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	147.99'	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=3.08 cfs @ 12.46 hrs HW=146.81' (Free Discharge)

1=Culvert (Passes 3.08 cfs of 10.11 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.74 cfs @ 5.41 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 2.34 cfs @ 1.85 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-24: Basin #24

Hydrograph



Summary for Pond B-25: Basin #25

Inflow Area = 2.736 ac, 43.02% Impervious, Inflow Depth = 3.48" for Current 10 yr event
 Inflow = 9.67 cfs @ 12.17 hrs, Volume= 0.795 af
 Outflow = 3.52 cfs @ 12.42 hrs, Volume= 0.679 af, Atten= 64%, Lag= 14.9 min
 Primary = 3.52 cfs @ 12.42 hrs, Volume= 0.679 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 146.57' @ 12.42 hrs Surf.Area= 7,029 sf Storage= 16,703 cf

Plug-Flow detention time= 272.8 min calculated for 0.678 af (85% of inflow)
 Center-of-Mass det. time= 206.1 min (994.8 - 788.7)

Volume	Invert	Avail.Storage	Storage Description
#1	143.30'	36,587 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
143.30	0	0	0
144.00	4,702	1,646	1,646
145.00	5,584	5,143	6,789
146.00	6,492	6,038	12,827
147.00	7,428	6,960	19,787
148.00	8,393	7,911	27,697
149.00	9,386	8,890	36,587

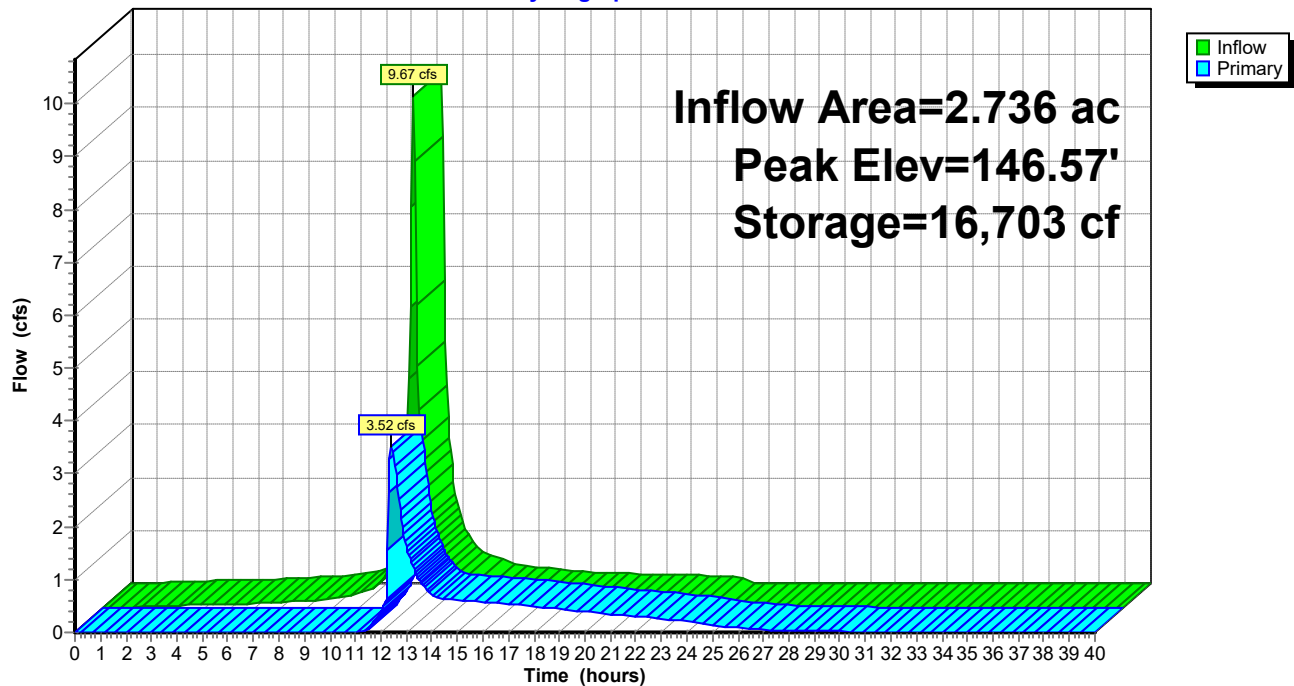
Device	Routing	Invert	Outlet Devices
#1	Primary	143.30'	18.0" Round Culvert L= 186.0' Ke= 0.500 Inlet / Outlet Invert= 143.30' / 142.00' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	144.65'	4.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	146.21'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	147.96'	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=3.48 cfs @ 12.42 hrs HW=146.57' (Free Discharge)

1=Culvert (Passes 3.48 cfs of 11.22 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.70 cfs @ 6.34 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 2.78 cfs @ 1.96 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-25: Basin #25

Hydrograph



Summary for Pond B-26: Basin #26

Inflow Area = 2.687 ac, 36.06% Impervious, Inflow Depth = 3.32" for Current 10 yr event
 Inflow = 9.14 cfs @ 12.17 hrs, Volume= 0.743 af
 Outflow = 2.56 cfs @ 12.52 hrs, Volume= 0.634 af, Atten= 72%, Lag= 20.9 min
 Primary = 2.56 cfs @ 12.52 hrs, Volume= 0.634 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 146.40' @ 12.52 hrs Surf.Area= 6,761 sf Storage= 16,656 cf

Plug-Flow detention time= 438.9 min calculated for 0.634 af (85% of inflow)
 Center-of-Mass det. time= 370.5 min (1,165.8 - 795.2)

Volume	Invert	Avail.Storage	Storage Description
#1	143.30'	36,073 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
143.30	0	0	0
144.00	5,522	1,933	1,933
145.00	6,025	5,774	7,706
146.00	6,547	6,286	13,992
147.00	7,081	6,814	20,806
148.00	7,630	7,356	28,162
149.00	8,193	7,912	36,073

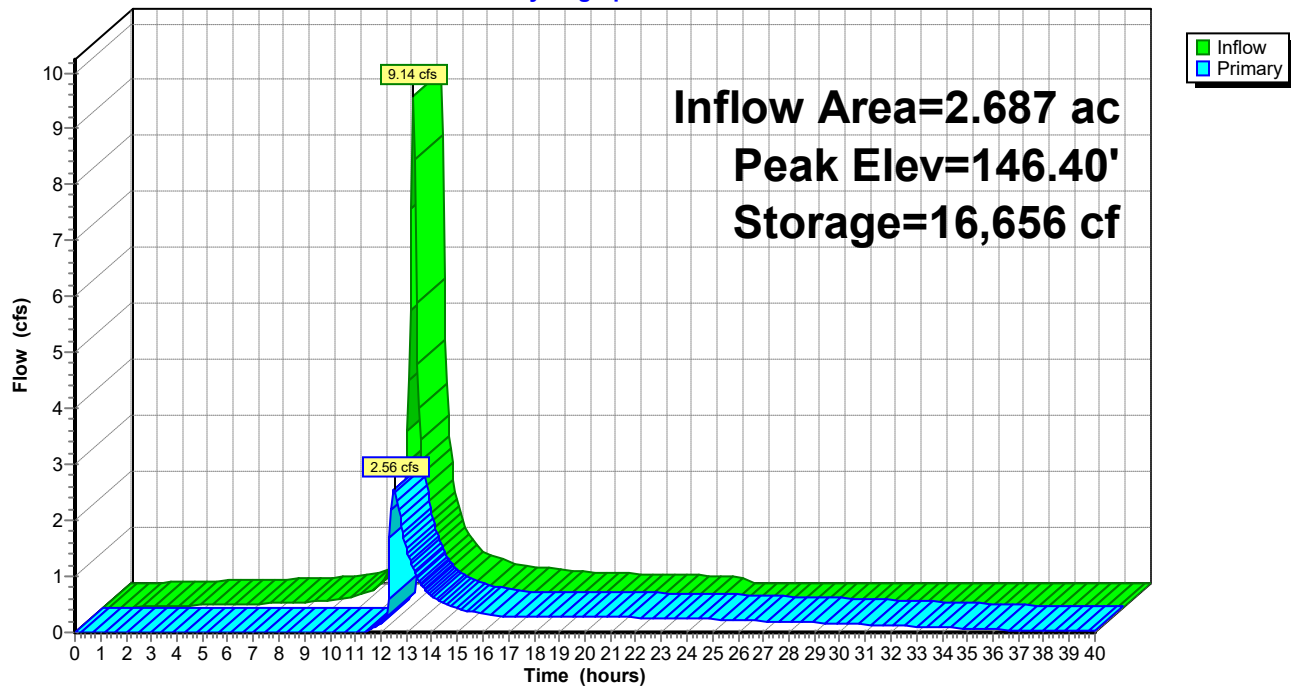
Device	Routing	Invert	Outlet Devices
#1	Primary	143.30'	18.0" Round Culvert L= 234.0' Ke= 0.500 Inlet / Outlet Invert= 143.30' / 142.00' S= 0.0056 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	144.40'	3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	146.09'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	147.98'	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=2.54 cfs @ 12.52 hrs HW=146.40' (Free Discharge)

- 1=Culvert (Passes 2.54 cfs of 10.04 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.32 cfs @ 6.59 fps)
- 3=Sharp-Crested Rectangular Weir (Weir Controls 2.21 cfs @ 1.82 fps)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-26: Basin #26

Hydrograph



Summary for Pond B-27: Basin #27

Inflow Area = 2.414 ac, 48.22% Impervious, Inflow Depth = 3.61" for Current 10 yr event
 Inflow = 8.78 cfs @ 12.17 hrs, Volume= 0.726 af
 Outflow = 7.34 cfs @ 12.24 hrs, Volume= 0.618 af, Atten= 16%, Lag= 4.2 min
 Primary = 7.34 cfs @ 12.24 hrs, Volume= 0.618 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 185.21' @ 12.24 hrs Surf.Area= 3,289 sf Storage= 7,916 cf

Plug-Flow detention time= 130.5 min calculated for 0.617 af (85% of inflow)
 Center-of-Mass det. time= 61.8 min (846.0 - 784.2)

Volume	Invert	Avail.Storage	Storage Description
#1	180.30'	14,865 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
180.30	0	0	0
181.00	245	86	86
182.00	1,153	699	785
183.00	1,819	1,486	2,271
184.00	2,484	2,152	4,422
185.00	3,149	2,817	7,239
186.00	3,813	3,481	10,720
187.00	4,478	4,146	14,865

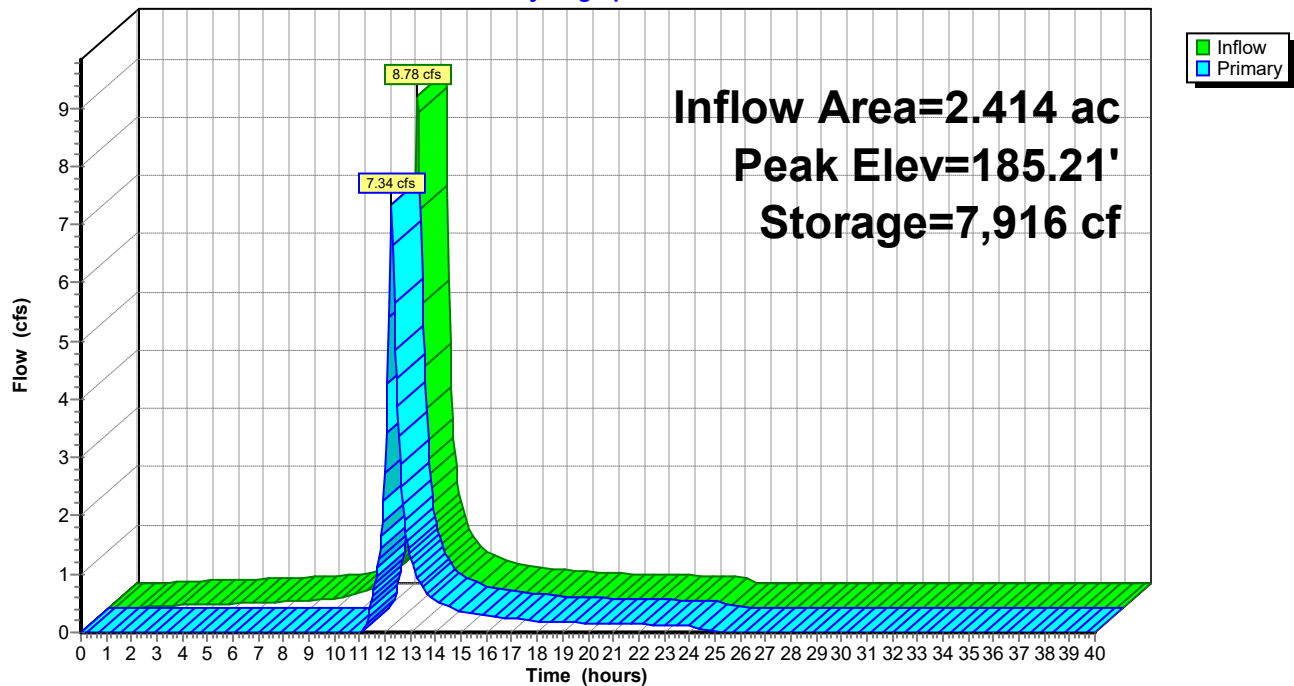
Device	Routing	Invert	Outlet Devices
#1	Primary	179.65'	18.0" Round Culvert L= 194.0' Ke= 0.500 Inlet / Outlet Invert= 179.65' / 170.25' S= 0.0485 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	184.12'	26.0" W x 7.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	184.96'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	186.00'	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=7.26 cfs @ 12.24 hrs HW=185.21' (Free Discharge)

- 1=Culvert (Passes 7.26 cfs of 18.65 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 5.69 cfs @ 4.20 fps)
- 3=Sharp-Crested Rectangular Weir (Weir Controls 1.57 cfs @ 1.62 fps)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-27: Basin #27

Hydrograph



Summary for Pond B-28: Basin #28

Inflow Area = 1.917 ac, 53.99% Impervious, Inflow Depth = 3.75" for Current 10 yr event
 Inflow = 7.19 cfs @ 12.17 hrs, Volume= 0.599 af
 Outflow = 6.29 cfs @ 12.23 hrs, Volume= 0.504 af, Atten= 13%, Lag= 3.4 min
 Primary = 6.29 cfs @ 12.23 hrs, Volume= 0.504 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 179.24' @ 12.23 hrs Surf.Area= 3,468 sf Storage= 6,657 cf

Plug-Flow detention time= 138.3 min calculated for 0.504 af (84% of inflow)
 Center-of-Mass det. time= 65.9 min (845.5 - 779.6)

Volume	Invert	Avail.Storage	Storage Description
#1	176.30'	13,936 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
176.30	0	0	0
177.00	1,909	668	668
178.00	2,585	2,247	2,915
179.00	3,292	2,939	5,854
180.00	4,033	3,663	9,516
181.00	4,806	4,420	13,936

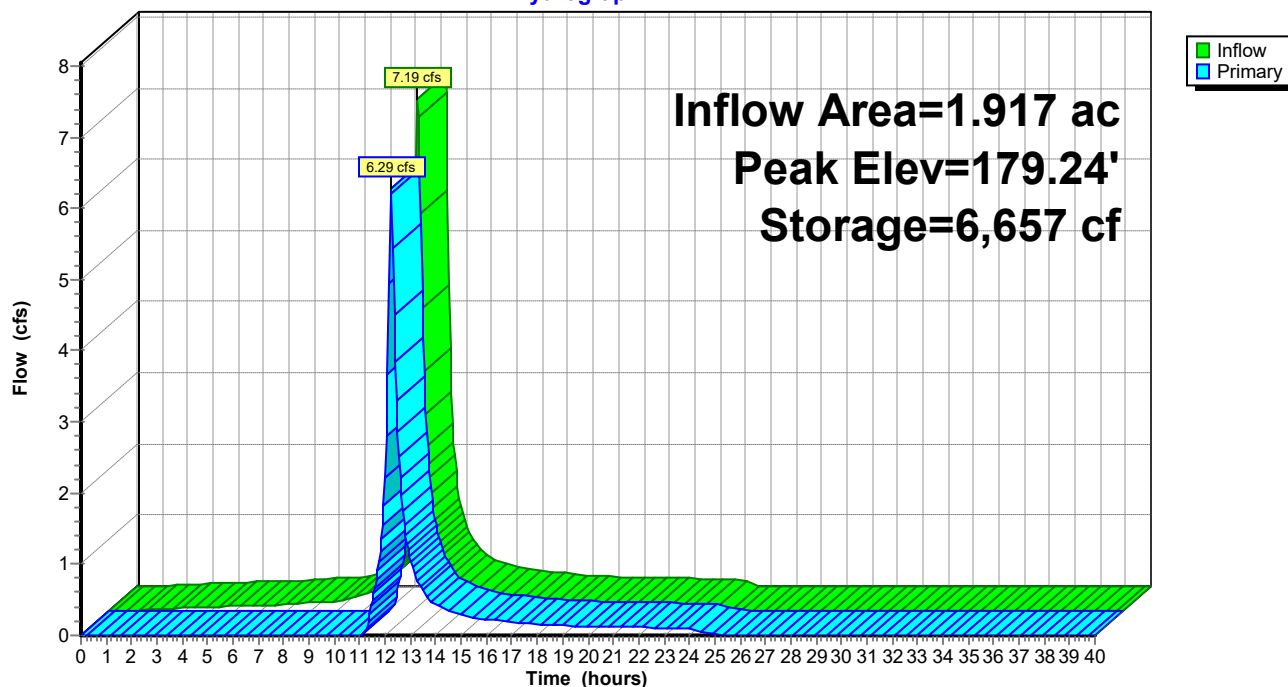
Device	Routing	Invert	Outlet Devices
#1	Primary	175.65'	18.0" Round Culvert L= 186.0' Ke= 0.500 Inlet / Outlet Invert= 175.65' / 168.80' S= 0.0368 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	178.45'	30.0" W x 9.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	179.09'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	179.84'	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=6.19 cfs @ 12.23 hrs HW=179.23' (Free Discharge)

1=Culvert (Passes 6.19 cfs of 14.32 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 5.50 cfs @ 2.93 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 0.69 cfs @ 1.23 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-28: Basin #28

Hydrograph



Summary for Pond B-3: Basin #3

Inflow Area = 2.904 ac, 42.80% Impervious, Inflow Depth = 3.48" for Current 10 yr event
 Inflow = 10.26 cfs @ 12.17 hrs, Volume= 0.842 af
 Outflow = 0.95 cfs @ 13.27 hrs, Volume= 0.441 af, Atten= 91%, Lag= 66.1 min
 Primary = 0.95 cfs @ 13.27 hrs, Volume= 0.441 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 214.66' @ 13.27 hrs Surf.Area= 14,775 sf Storage= 23,990 cf

Plug-Flow detention time= 528.8 min calculated for 0.441 af (52% of inflow)
 Center-of-Mass det. time= 405.0 min (1,193.9 - 788.9)

Volume	Invert	Avail.Storage	Storage Description
#1	212.30'	67,257 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
212.30	0	0	0
213.00	9,992	3,497	3,497
214.00	12,803	11,398	14,895
215.00	15,792	14,298	29,192
216.00	18,977	17,385	46,577
217.00	22,384	20,681	67,257

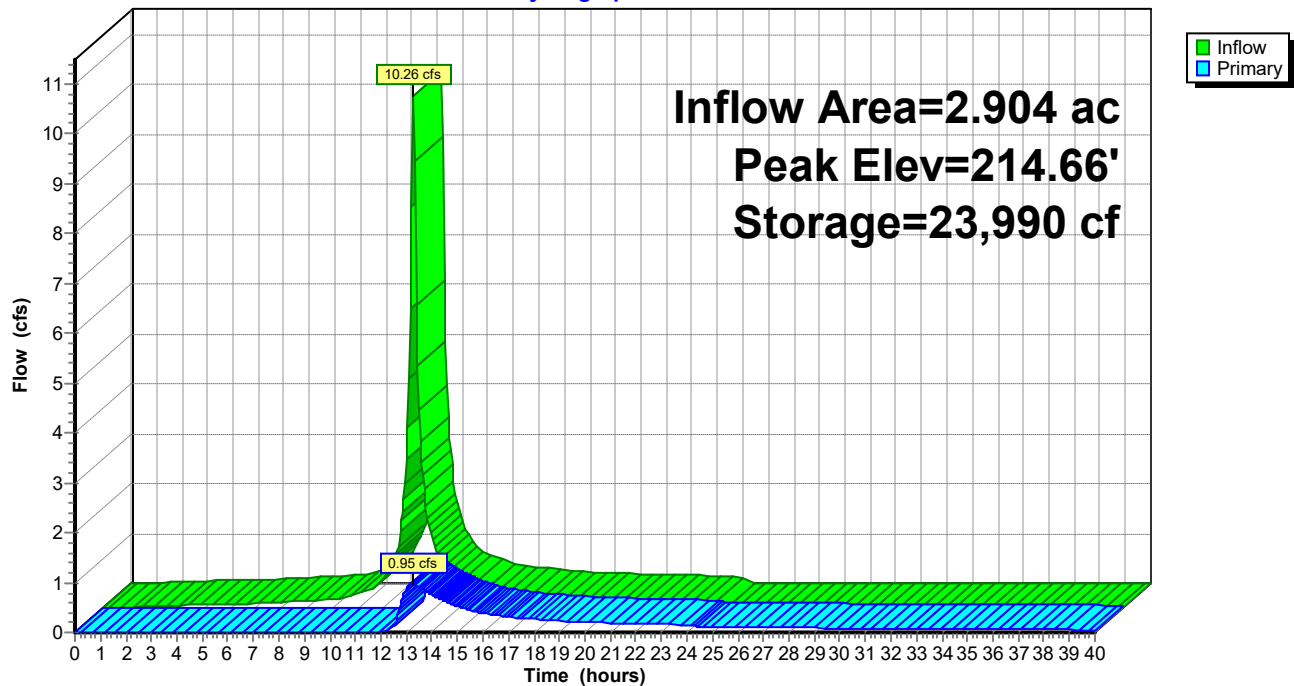
Device	Routing	Invert	Outlet Devices
#1	Primary	212.65'	18.0" Round Culvert L= 122.0' Ke= 0.500 Inlet / Outlet Invert= 212.65' / 204.00' S= 0.0709 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	214.00'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	214.50'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	215.70'	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=0.95 cfs @ 13.27 hrs HW=214.66' (Free Discharge)

1=Culvert (Passes 0.95 cfs of 9.55 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.12 cfs @ 3.59 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 0.83 cfs @ 1.31 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-3: Basin #3

Hydrograph



Summary for Pond B-4: Basin #4

Inflow Area = 2.725 ac, 24.99% Impervious, Inflow Depth = 3.05" for Current 10 yr event
 Inflow = 8.68 cfs @ 12.17 hrs, Volume= 0.692 af
 Outflow = 1.66 cfs @ 12.68 hrs, Volume= 0.552 af, Atten= 81%, Lag= 30.6 min
 Primary = 1.66 cfs @ 12.68 hrs, Volume= 0.552 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 201.61' @ 12.68 hrs Surf.Area= 9,560 sf Storage= 16,265 cf

Plug-Flow detention time= 514.5 min calculated for 0.552 af (80% of inflow)
 Center-of-Mass det. time= 430.7 min (1,237.9 - 807.1)

Volume	Invert	Avail.Storage	Storage Description
#1	199.30'	72,824 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
199.30	0	0	0
200.00	7,419	2,597	2,597
201.00	8,712	8,066	10,662
202.00	10,094	9,403	20,065
203.00	11,557	10,826	30,891
204.00	13,100	12,329	43,219
205.00	14,725	13,913	57,132
206.00	16,659	15,692	72,824

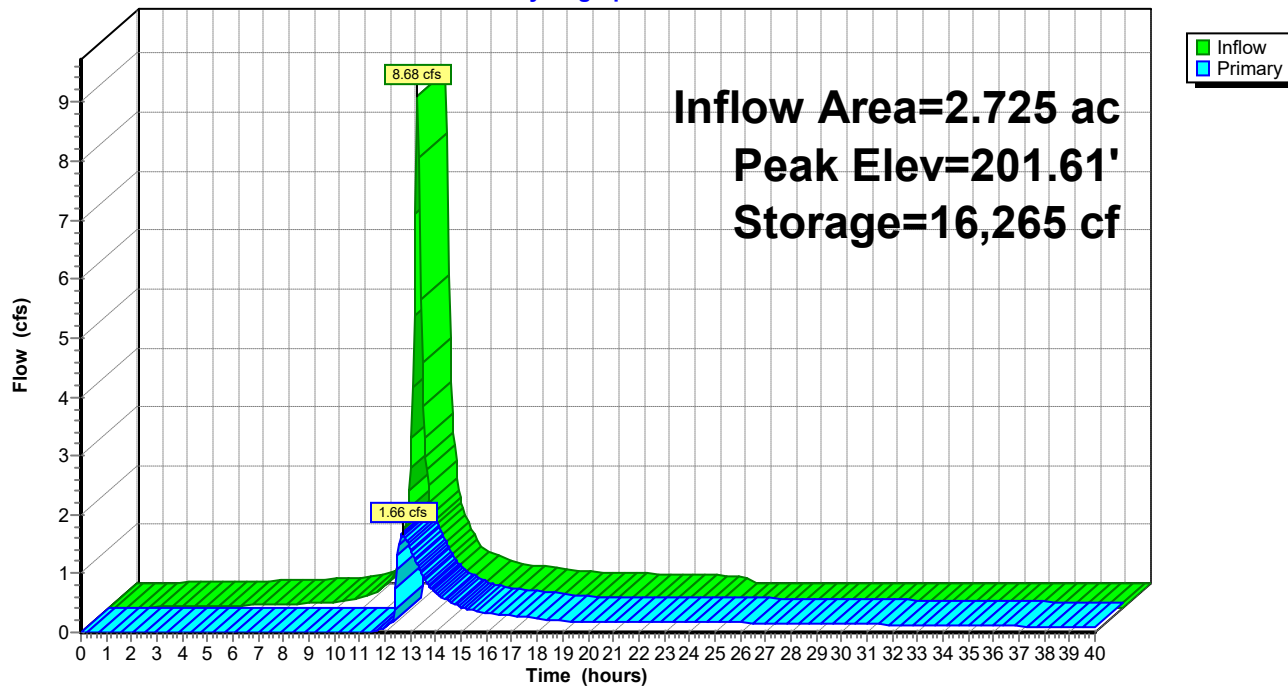
Device	Routing	Invert	Outlet Devices
#1	Primary	198.65'	18.0" Round Culvert L= 58.0' Ke= 0.500 Inlet / Outlet Invert= 198.65' / 198.00' S= 0.0112 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	200.08'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	201.38'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	202.68'	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=1.65 cfs @ 12.68 hrs HW=201.61' (Free Discharge)

- 1=Culvert (Passes 1.65 cfs of 12.66 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.20 cfs @ 5.76 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 1.45 cfs @ 1.58 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-4: Basin #4

Hydrograph



Summary for Pond B-5: Basin #5

Inflow Area = 1.419 ac, 34.60% Impervious, Inflow Depth = 3.28" for Current 10 yr event
 Inflow = 4.79 cfs @ 12.17 hrs, Volume= 0.388 af
 Outflow = 0.71 cfs @ 12.84 hrs, Volume= 0.303 af, Atten= 85%, Lag= 39.8 min
 Primary = 0.71 cfs @ 12.84 hrs, Volume= 0.303 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 200.47' @ 12.84 hrs Surf.Area= 12,185 sf Storage= 9,726 cf

Plug-Flow detention time= 529.3 min calculated for 0.303 af (78% of inflow)
 Center-of-Mass det. time= 441.9 min (1,238.6 - 796.7)

Volume	Invert	Avail.Storage	Storage Description
#1	199.30'	96,047 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
199.30	0	0	0
200.00	11,631	4,071	4,071
201.00	12,798	12,215	16,285
202.00	14,009	13,404	29,689
203.00	15,262	14,636	44,324
204.00	16,558	15,910	60,234
205.00	17,896	17,227	77,461
206.00	19,275	18,586	96,047

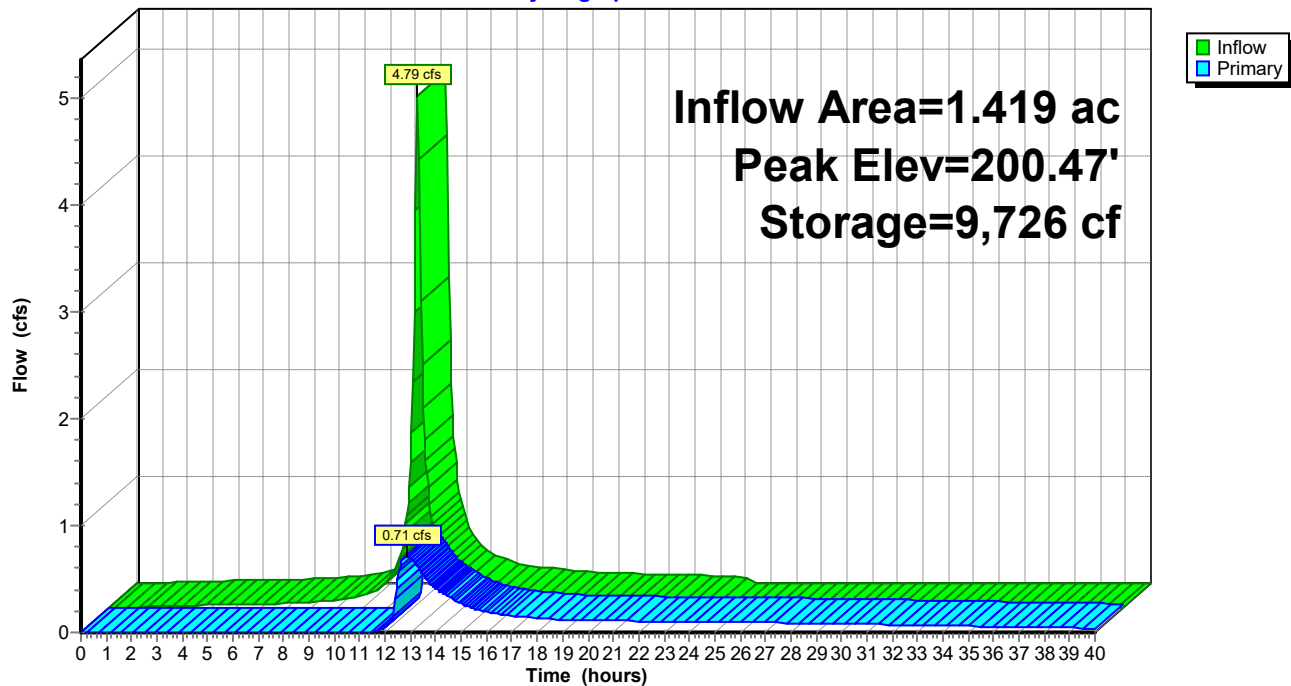
Device	Routing	Invert	Outlet Devices
#1	Primary	198.65'	18.0" Round Culvert L= 70.0' Ke= 0.500 Inlet / Outlet Invert= 198.65' / 196.00' S= 0.0379 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	199.81'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	200.35'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	201.07'	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=0.70 cfs @ 12.84 hrs HW=200.47' (Free Discharge)

- 1=Culvert (Passes 0.70 cfs of 8.82 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.12 cfs @ 3.61 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 0.57 cfs @ 1.16 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-5: Basin #5

Hydrograph



Summary for Pond B-6: Basin #6

Inflow Area = 1.191 ac, 58.27% Impervious, Inflow Depth = 3.85" for Current 10 yr event
 Inflow = 4.56 cfs @ 12.17 hrs, Volume= 0.382 af
 Outflow = 1.15 cfs @ 12.56 hrs, Volume= 0.308 af, Atten= 75%, Lag= 23.1 min
 Primary = 1.15 cfs @ 12.56 hrs, Volume= 0.308 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 200.28' @ 12.56 hrs Surf.Area= 6,255 sf Storage= 9,322 cf

Plug-Flow detention time= 472.1 min calculated for 0.308 af (80% of inflow)
 Center-of-Mass det. time= 392.6 min (1,168.9 - 776.4)

Volume	Invert	Avail.Storage	Storage Description
#1	198.30'	37,655 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
198.30	0	0	0
199.00	5,389	1,886	1,886
200.00	6,060	5,725	7,611
201.00	6,761	6,411	14,021
202.00	7,490	7,126	21,147
203.00	8,247	7,869	29,015
204.00	9,032	8,640	37,655

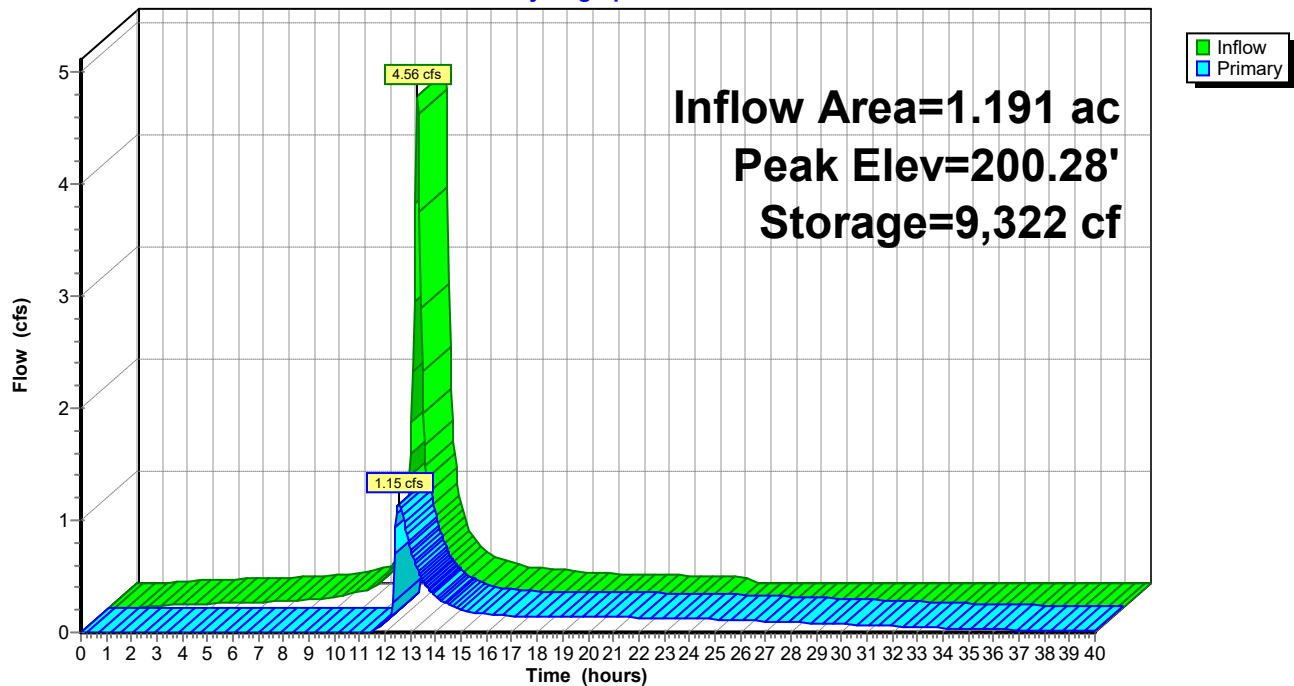
Device	Routing	Invert	Outlet Devices
#1	Primary	197.65'	18.0" Round Culvert L= 627.0' Ke= 0.500 Inlet / Outlet Invert= 197.65' / 194.00' S= 0.0058 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	199.17'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	200.10'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	200.89'	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=1.14 cfs @ 12.56 hrs HW=200.28' (Free Discharge)

1=Culvert (Passes 1.14 cfs of 8.61 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.16 cfs @ 4.82 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 0.97 cfs @ 1.38 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-6: Basin #6

Hydrograph



Summary for Pond B-7: Basin #7

Inflow Area = 1.564 ac, 62.85% Impervious, Inflow Depth = 3.96" for Current 10 yr event
 Inflow = 6.13 cfs @ 12.17 hrs, Volume= 0.517 af
 Outflow = 1.05 cfs @ 12.70 hrs, Volume= 0.383 af, Atten= 83%, Lag= 31.9 min
 Primary = 1.05 cfs @ 12.70 hrs, Volume= 0.383 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 208.16' @ 12.70 hrs Surf.Area= 10,360 sf Storage= 13,582 cf

Plug-Flow detention time= 563.0 min calculated for 0.383 af (74% of inflow)
 Center-of-Mass det. time= 469.8 min (1,242.9 - 773.1)

Volume	Invert	Avail.Storage	Storage Description
#1	206.47'	48,130 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
206.47	0	0	0
207.00	8,989	2,382	2,382
208.00	10,166	9,578	11,960
209.00	11,395	10,781	22,740
210.00	12,681	12,038	34,778
211.00	14,023	13,352	48,130

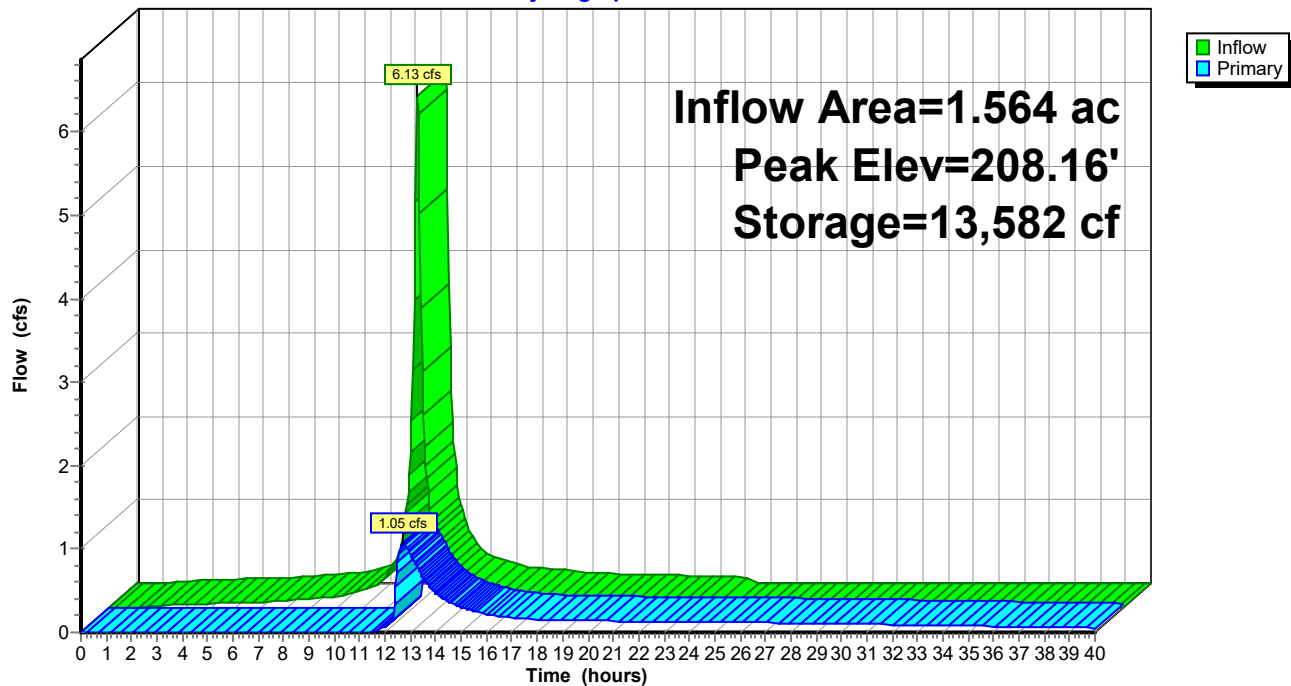
Device	Routing	Invert	Outlet Devices
#1	Primary	206.47'	18.0" Round Culvert L= 94.0' Ke= 0.500 Inlet / Outlet Invert= 206.47' / 206.00' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	207.17'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	207.99'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	208.86'	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=1.05 cfs @ 12.70 hrs HW=208.16' (Free Discharge)

1=Culvert (Passes 1.05 cfs of 7.17 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.15 cfs @ 4.53 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 0.89 cfs @ 1.34 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-7: Basin #7

Hydrograph



Summary for Pond B-8: Basin #8

Inflow Area = 2.546 ac, 37.27% Impervious, Inflow Depth = 3.35" for Current 10 yr event
 Inflow = 8.72 cfs @ 12.17 hrs, Volume= 0.710 af
 Outflow = 1.13 cfs @ 12.97 hrs, Volume= 0.496 af, Atten= 87%, Lag= 47.7 min
 Primary = 1.13 cfs @ 12.97 hrs, Volume= 0.496 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 180.01' @ 12.97 hrs Surf.Area= 14,281 sf Storage= 18,529 cf

Plug-Flow detention time= 555.0 min calculated for 0.496 af (70% of inflow)
 Center-of-Mass det. time= 454.7 min (1,248.7 - 794.1)

Volume	Invert	Avail.Storage	Storage Description
#1	178.30'	49,028 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
178.30	0	0	0
179.00	13,283	4,649	4,649
180.00	14,274	13,779	18,428
181.00	15,293	14,784	33,211
182.00	16,341	15,817	49,028

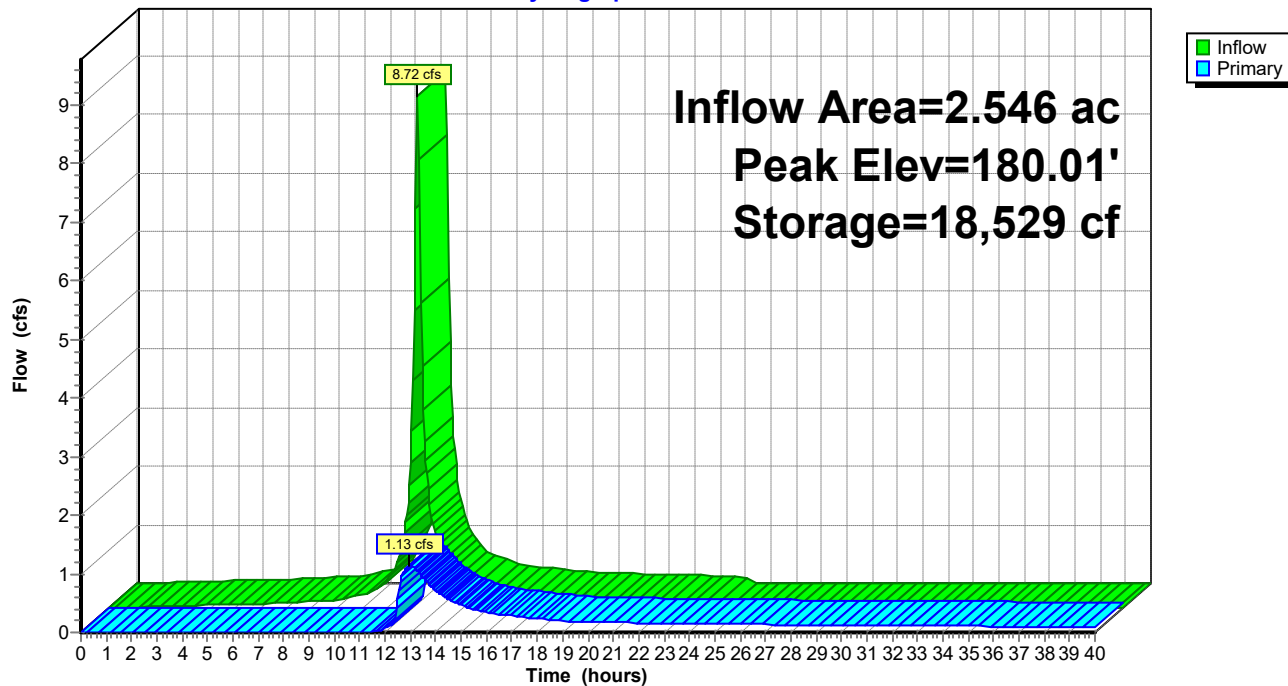
Device	Routing	Invert	Outlet Devices
#1	Primary	178.23'	18.0" Round Culvert L= 46.0' Ke= 0.500 Inlet / Outlet Invert= 178.23' / 178.00' S= 0.0050 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	178.95'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	179.83'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	180.83'	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=1.13 cfs @ 12.97 hrs HW=180.01' (Free Discharge)

1=Culvert (Passes 1.13 cfs of 7.44 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.16 cfs @ 4.70 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 0.97 cfs @ 1.38 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-8: Basin #8

Hydrograph



Summary for Pond B-9: Basin #9

Inflow Area = 1.503 ac, 52.63% Impervious, Inflow Depth = 3.72" for Current 10 yr event
 Inflow = 5.59 cfs @ 12.17 hrs, Volume= 0.466 af
 Outflow = 0.87 cfs @ 12.77 hrs, Volume= 0.346 af, Atten= 84%, Lag= 35.7 min
 Primary = 0.87 cfs @ 12.77 hrs, Volume= 0.346 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 179.76' @ 12.77 hrs Surf.Area= 11,462 sf Storage= 12,145 cf

Plug-Flow detention time= 553.5 min calculated for 0.345 af (74% of inflow)
 Center-of-Mass det. time= 461.1 min (1,241.8 - 780.7)

Volume	Invert	Avail.Storage	Storage Description
#1	178.30'	40,392 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
178.30	0	0	0
179.00	10,720	3,752	3,752
180.00	11,700	11,210	14,962
181.00	12,708	12,204	27,166
182.00	13,745	13,227	40,392

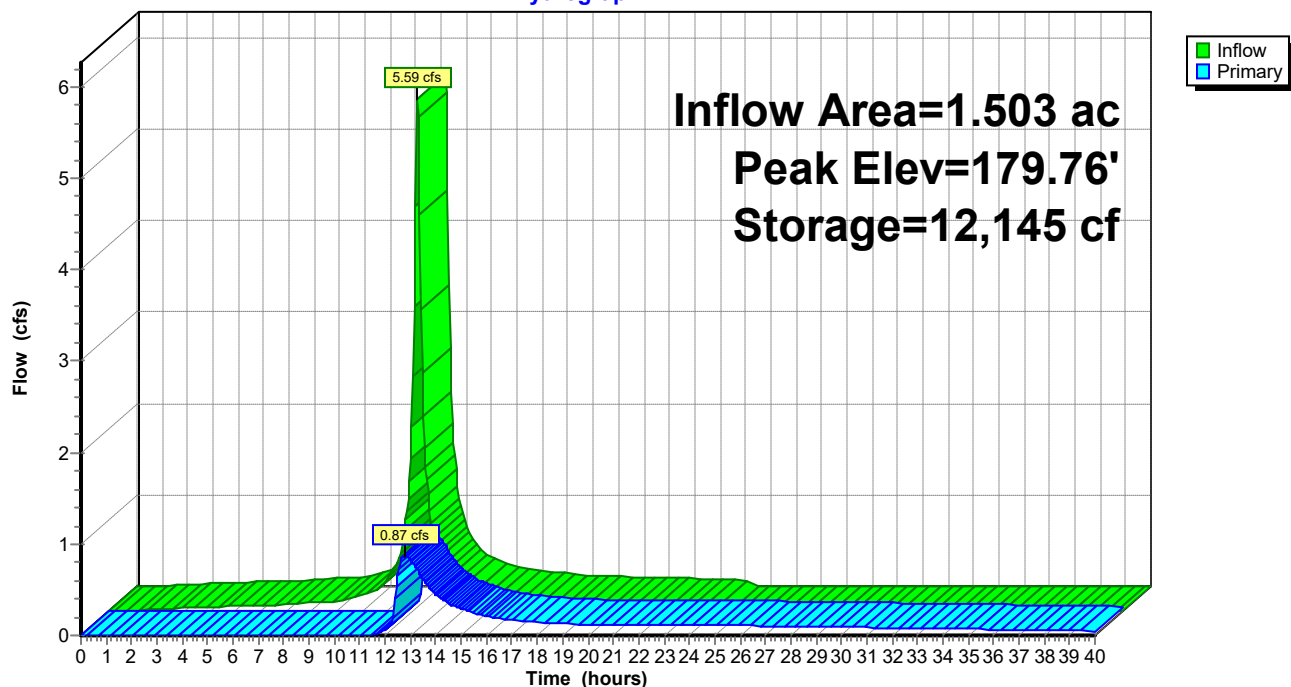
Device	Routing	Invert	Outlet Devices
#1	Primary	178.23'	18.0" Round Culvert L= 45.0' Ke= 0.500 Inlet / Outlet Invert= 178.23' / 178.00' S= 0.0051 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	178.95'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	179.61'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	180.31'	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=0.87 cfs @ 12.77 hrs HW=179.76' (Free Discharge)

1=Culvert (Passes 0.87 cfs of 6.21 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.14 cfs @ 4.04 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 0.73 cfs @ 1.25 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-9: Basin #9

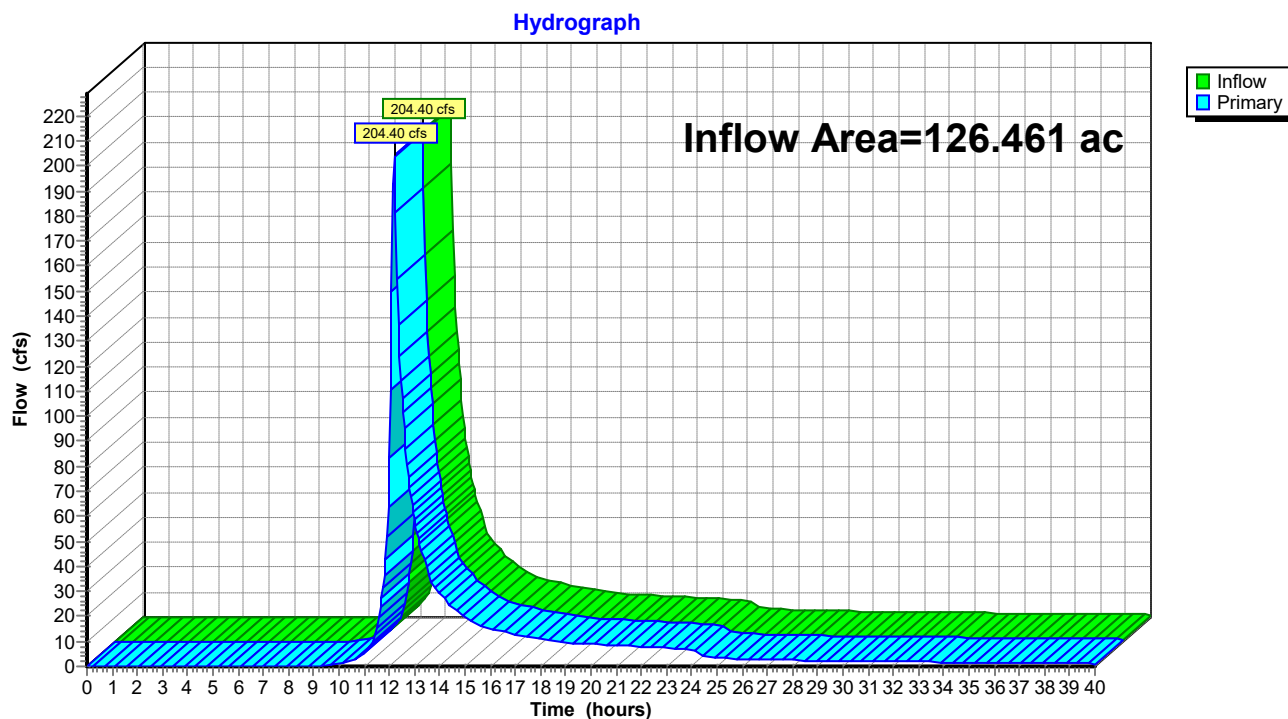
Hydrograph



Summary for Link DP-1: Design Pont #1 (Ewing Creek)

Inflow Area = 126.461 ac, 21.23% Impervious, Inflow Depth > 2.59" for Current 10 yr event
Inflow = 204.40 cfs @ 12.19 hrs, Volume= 27.293 af
Primary = 204.40 cfs @ 12.19 hrs, Volume= 27.293 af, Atten= 0%, Lag= 0.0 min

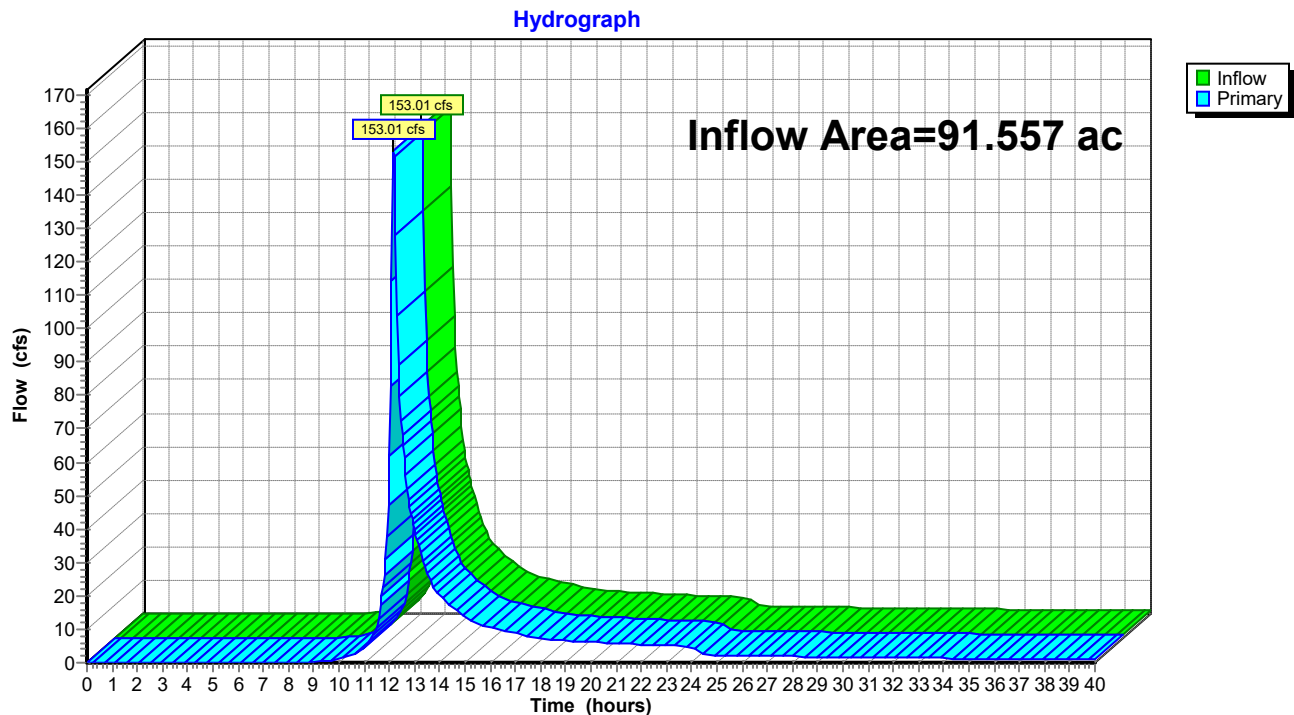
Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

Link DP-1: Design Pont #1 (Ewing Creek)

Summary for Link PDA-1: Proposed Drainage Area #1

Inflow Area = 91.557 ac, 16.93% Impervious, Inflow Depth > 2.51" for Current 10 yr event
Inflow = 153.01 cfs @ 12.18 hrs, Volume= 19.121 af
Primary = 153.01 cfs @ 12.18 hrs, Volume= 19.121 af, Atten= 0%, Lag= 0.0 min
Routed to Link DP-1 : Design Pont #1 (Ewing Creek)

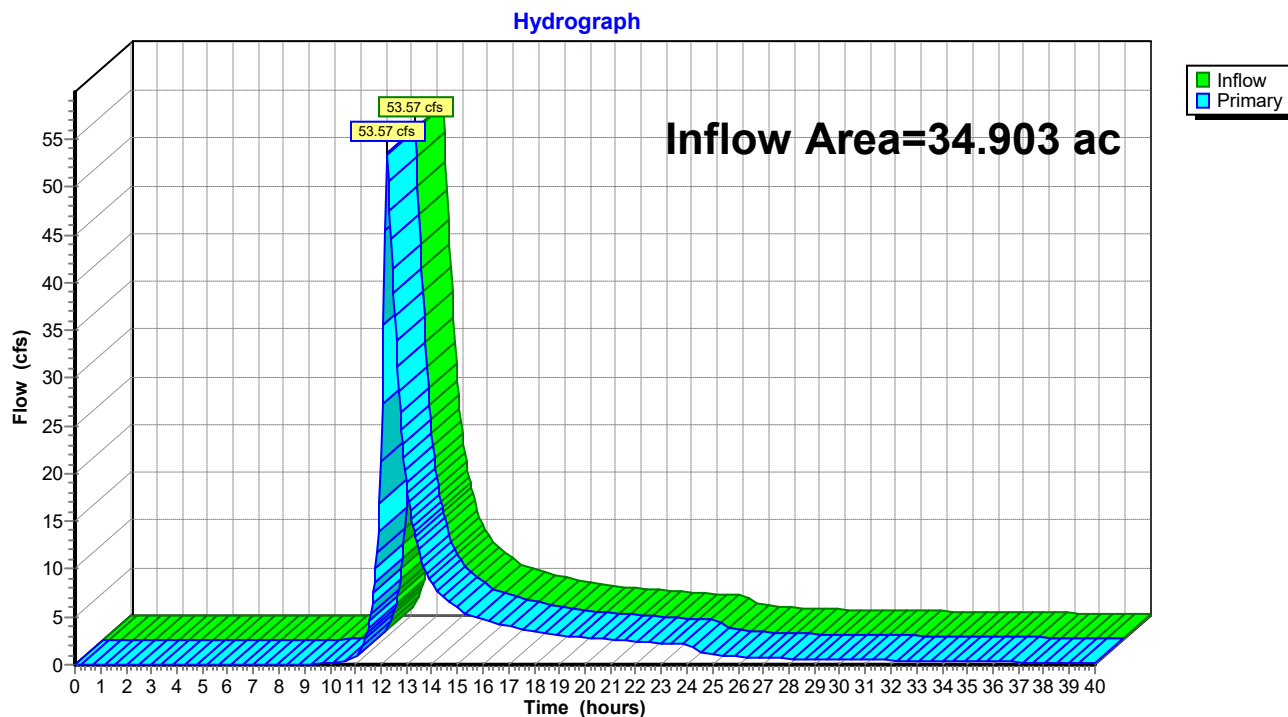
Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

Link PDA-1: Proposed Drainage Area #1

Summary for Link PDA-2: Proposed Drainage Area #2

Inflow Area = 34.903 ac, 32.51% Impervious, Inflow Depth > 2.81" for Current 10 yr event
Inflow = 53.57 cfs @ 12.24 hrs, Volume= 8.172 af
Primary = 53.57 cfs @ 12.24 hrs, Volume= 8.172 af, Atten= 0%, Lag= 0.0 min
Routed to Link DP-1 : Design Pont #1 (Ewing Creek)

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

Link PDA-2: Proposed Drainage Area #2

Summary for Subcatchment 1I: PDA-1 (impervious)

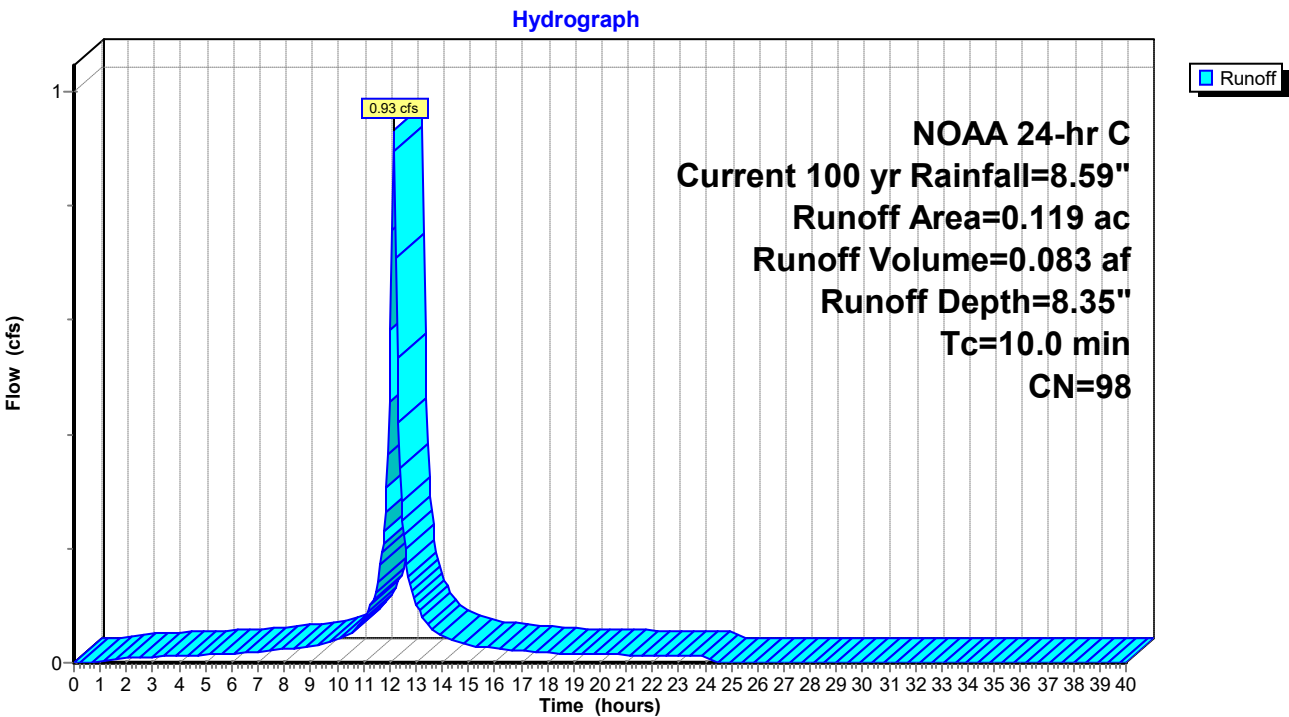
Runoff = 0.93 cfs @ 12.17 hrs, Volume= 0.083 af, Depth= 8.35"
Routed to Pond B-1 : Basin #1

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.115	98	Pavement, HSG C
* 0.004	98	Concrete, HSG C
0.119	98	Weighted Average
0.119		100.00% Impervious Area

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

Subcatchment 1I: PDA-1 (impervious)



Summary for Subcatchment 1P: PDA-1 (pervious)

Runoff = 14.15 cfs @ 12.17 hrs, Volume= 1.076 af, Depth= 5.46"
 Routed to Pond B-1 : Basin #1

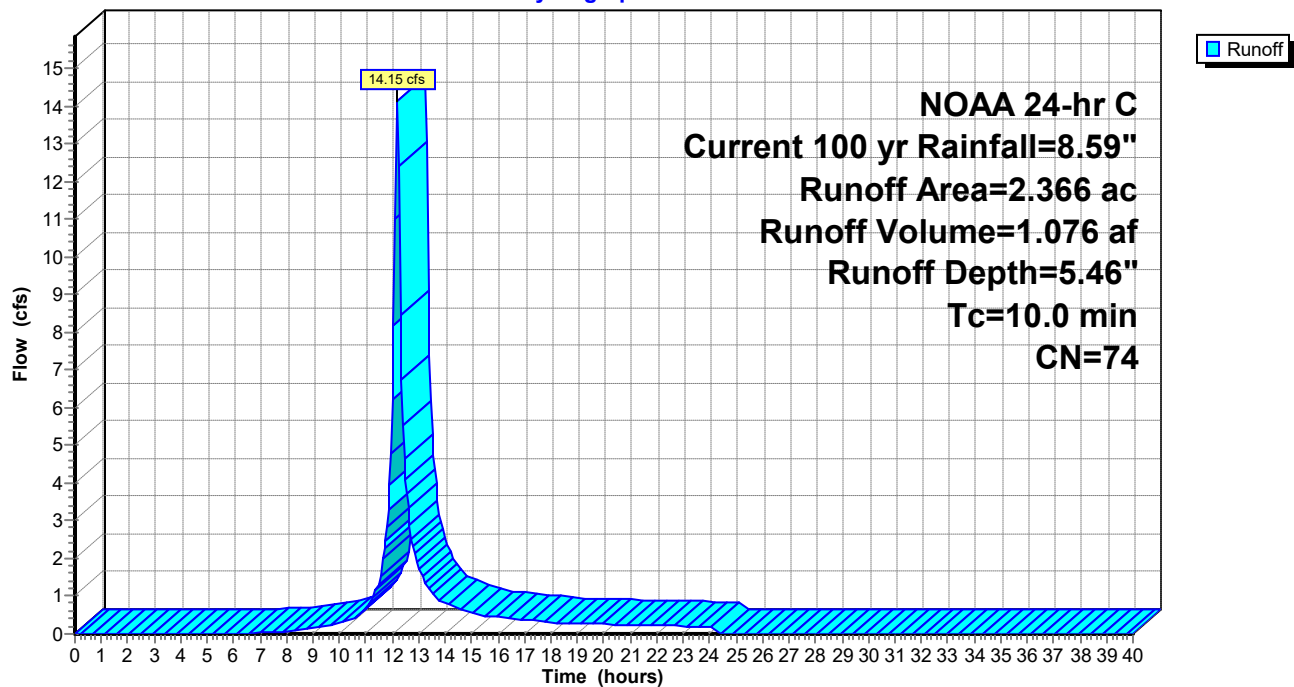
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
2.366	74	>75% Grass cover, Good, HSG C
2.366		100.00% Pervious Area

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

Subcatchment 1P: PDA-1 (pervious)

Hydrograph



Summary for Subcatchment 2I: PDA-2 (impervious)

Runoff = 6.36 cfs @ 12.17 hrs, Volume= 0.564 af, Depth= 8.35"
 Routed to Pond B-2 : Basin #2

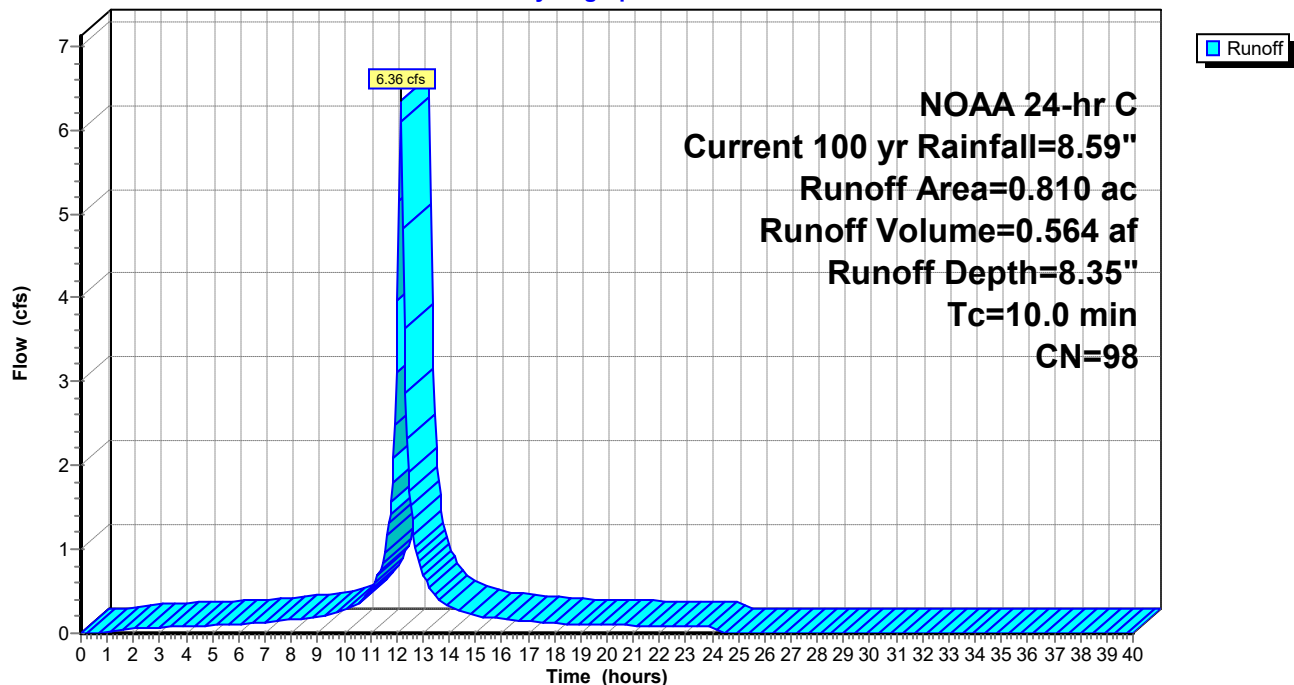
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.490	98	Roof, HSG C
* 0.269	98	Pavement, HSG C
* 0.051	98	Concrete, HSG C
0.810	98	Weighted Average
0.810		100.00% Impervious Area

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

Subcatchment 2I: PDA-2 (impervious)

Hydrograph



Summary for Subcatchment 2P: PDA-2 (pervious)

Runoff = 6.31 cfs @ 12.17 hrs, Volume= 0.480 af, Depth= 5.46"
 Routed to Pond B-2 : Basin #2

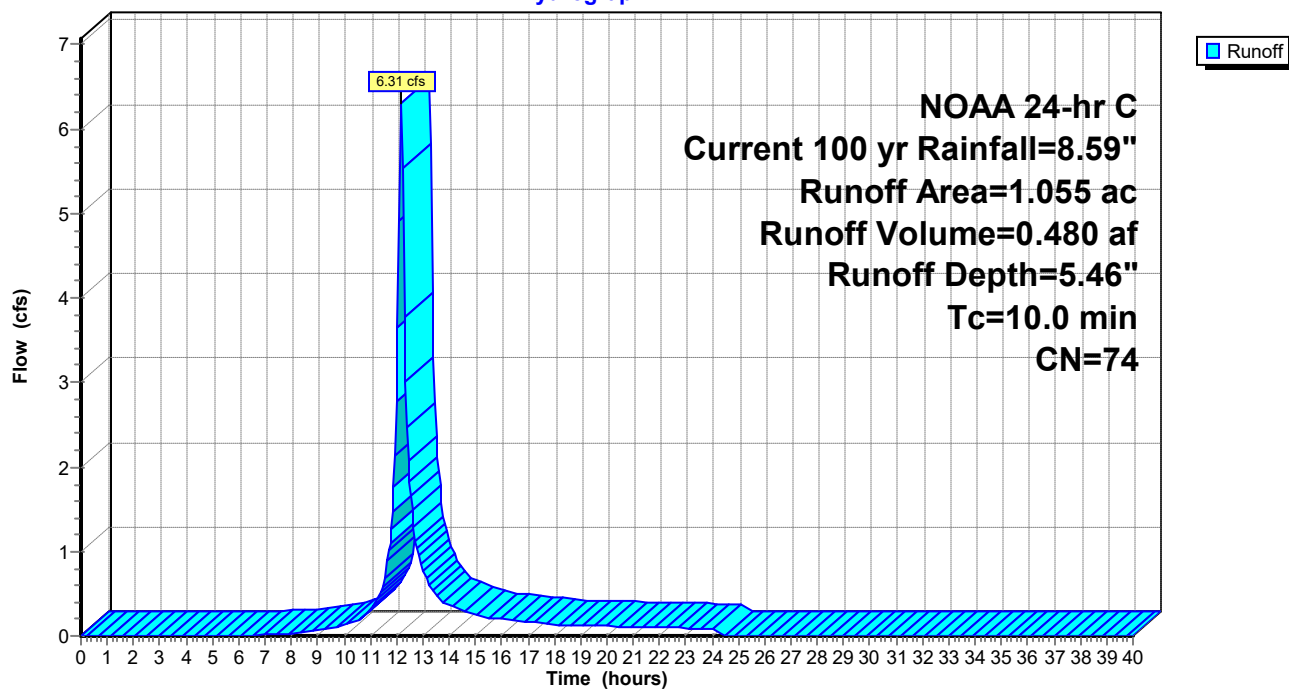
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
1.055	74	>75% Grass cover, Good, HSG C
1.055		100.00% Pervious Area

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

Subcatchment 2P: PDA-2 (pervious)

Hydrograph



Summary for Subcatchment 3I: PDA-3 (impervious)

Runoff = 9.76 cfs @ 12.17 hrs, Volume= 0.865 af, Depth= 8.35"
 Routed to Pond B-3 : Basin #3

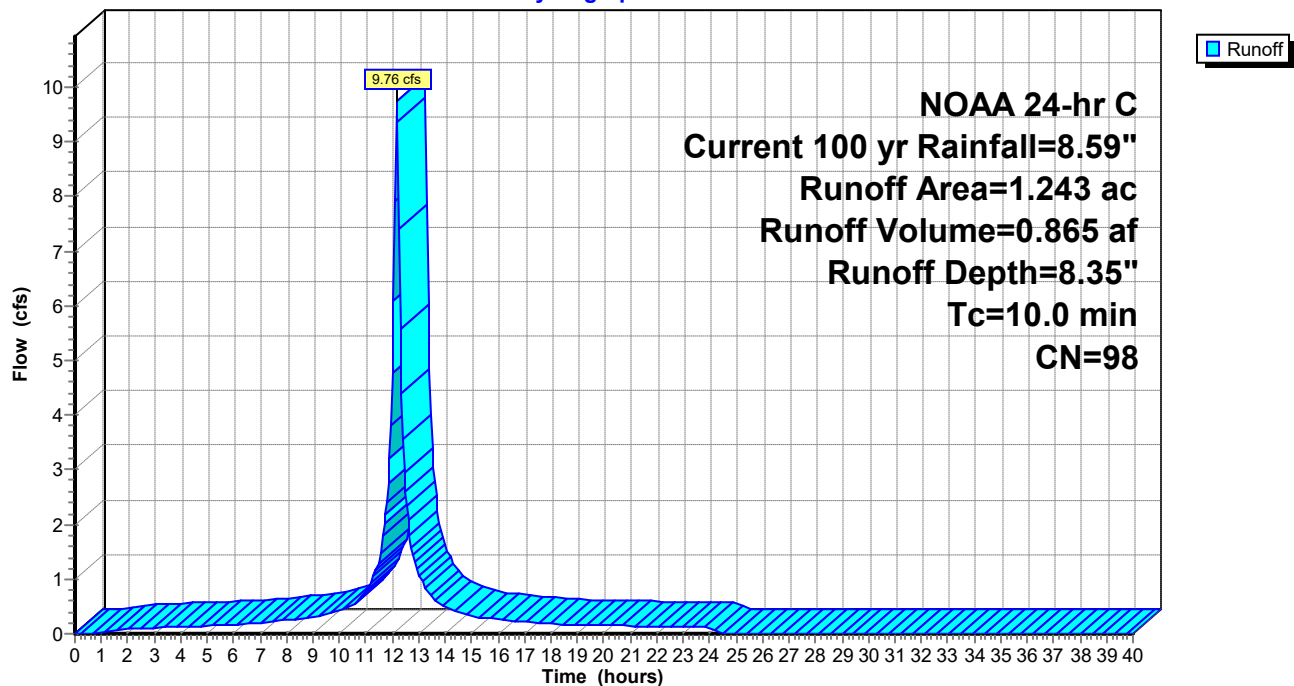
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 1.162	98	Pavement, HSG C
* 0.081	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 3I: PDA-3 (impervious)

Hydrograph



Summary for Subcatchment 3P: PDA-3 (pervious)

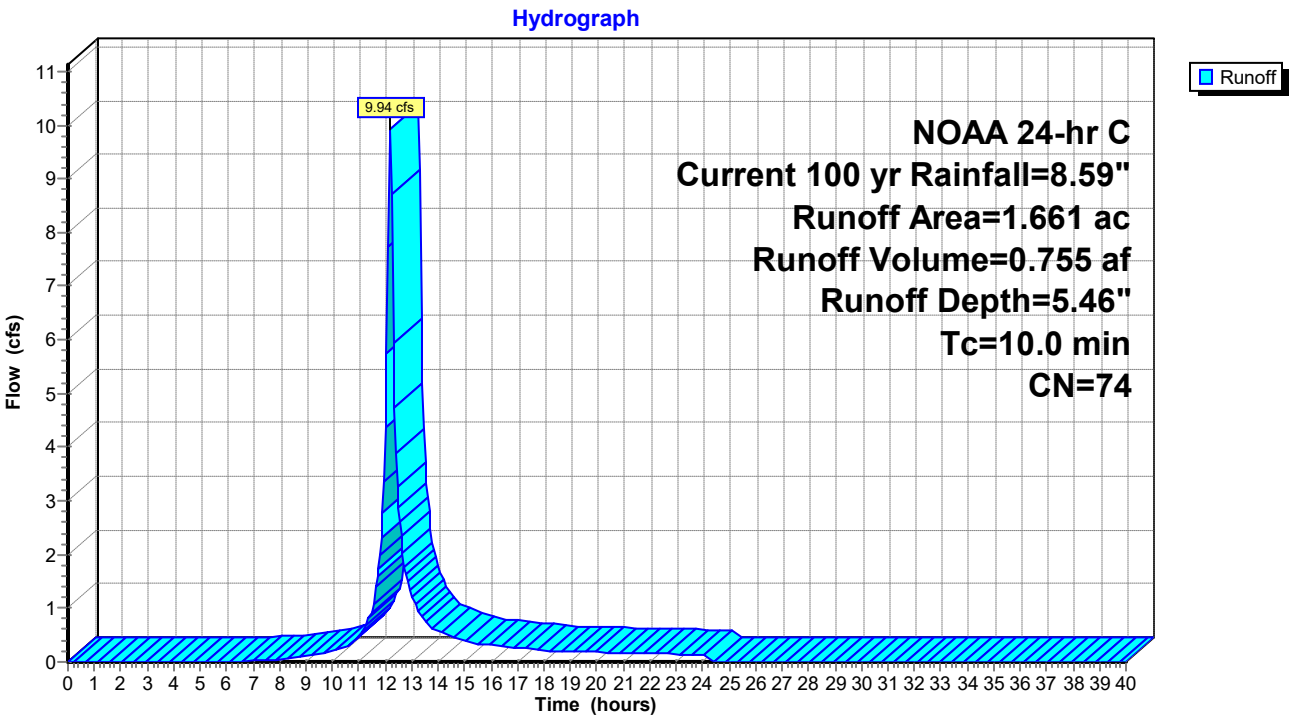
Runoff = 9.94 cfs @ 12.17 hrs, Volume= 0.755 af, Depth= 5.46"
Routed to Pond B-3 : Basin #3

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
1.661	74	>75% Grass cover, Good, HSG C
1.661		100.00% Pervious Area

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

Subcatchment 3P: PDA-3 (pervious)



Summary for Subcatchment 4I: PDA-4 (impervious)

Runoff = 5.35 cfs @ 12.17 hrs, Volume= 0.474 af, Depth= 8.35"
 Routed to Pond B-4 : Basin #4

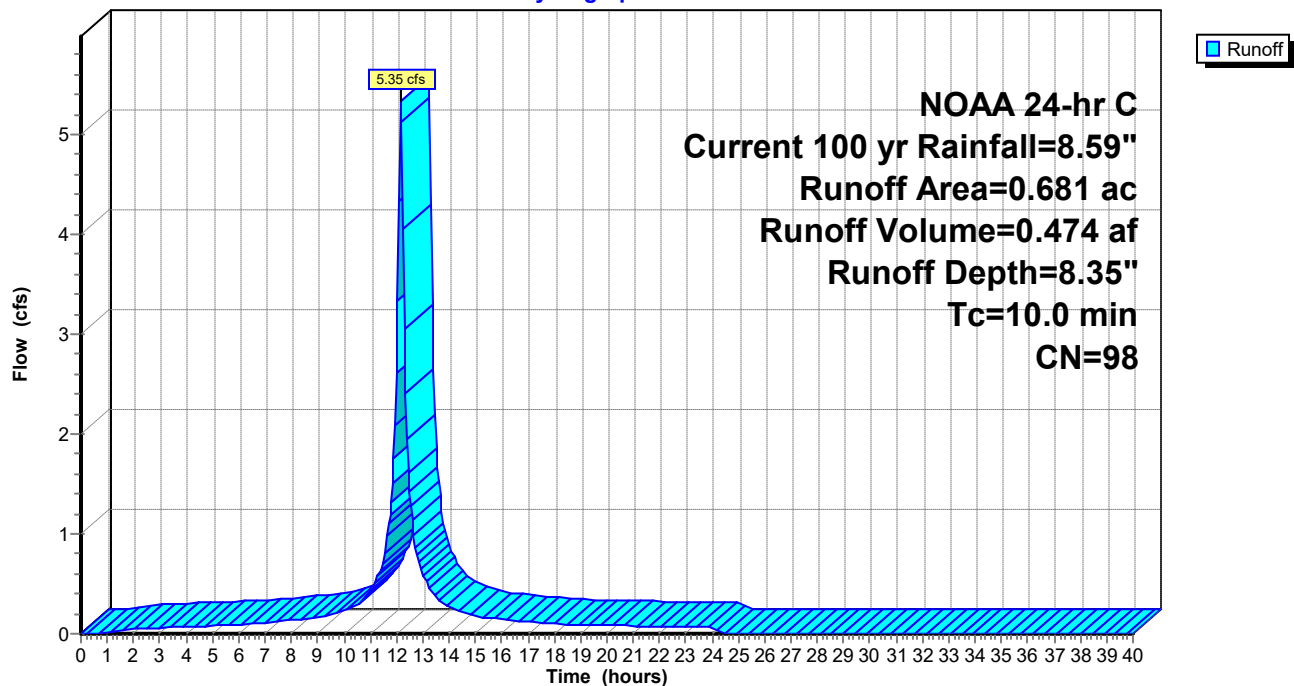
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.433	98	Pavement, HSG C
* 0.248	98	Concrete, HSG C
0.681	98	Weighted Average
0.681		100.00% Impervious Area

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

Subcatchment 4I: PDA-4 (impervious)

Hydrograph



Summary for Subcatchment 4P: PDA-4 (pervious)

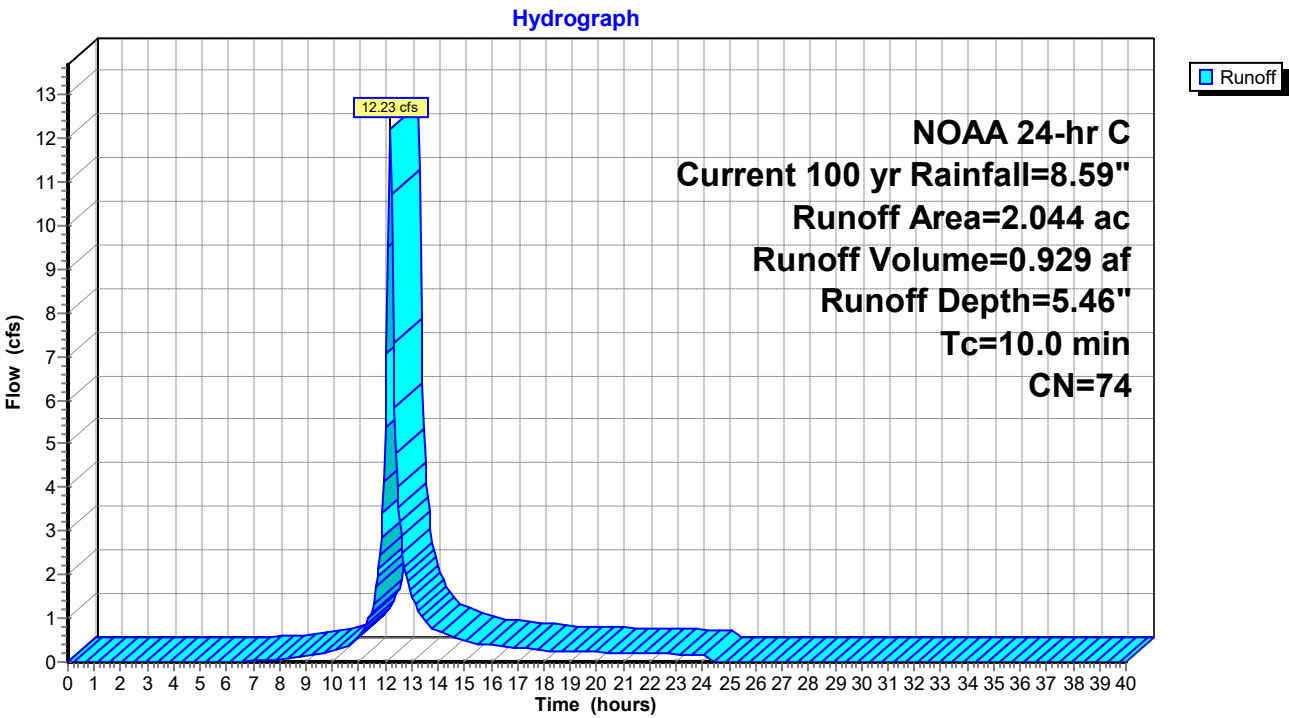
Runoff = 12.23 cfs @ 12.17 hrs, Volume= 0.929 af, Depth= 5.46"
Routed to Pond B-4 : Basin #4

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
2.044	74	>75% Grass cover, Good, HSG C
2.044		100.00% Pervious Area

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

Subcatchment 4P: PDA-4 (pervious)



Summary for Subcatchment 5I: PDA-5 (impervious)

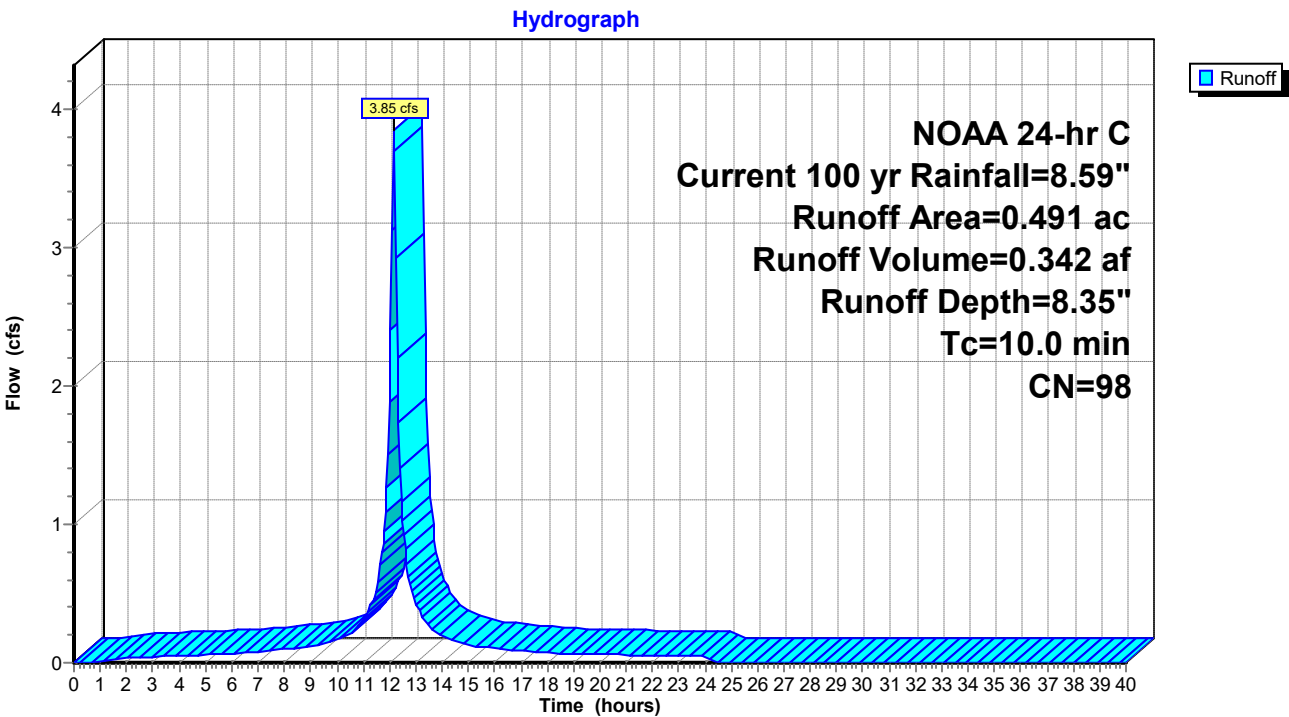
Runoff = 3.85 cfs @ 12.17 hrs, Volume= 0.342 af, Depth= 8.35"
Routed to Pond B-5 : Basin #5

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.393	98	Pavement, HSG C
* 0.098	98	Concrete, HSG C
0.491	98	Weighted Average
0.491		100.00% Impervious Area

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

Subcatchment 5I: PDA-5 (impervious)



Summary for Subcatchment 5P: PDA-5 (pervious)

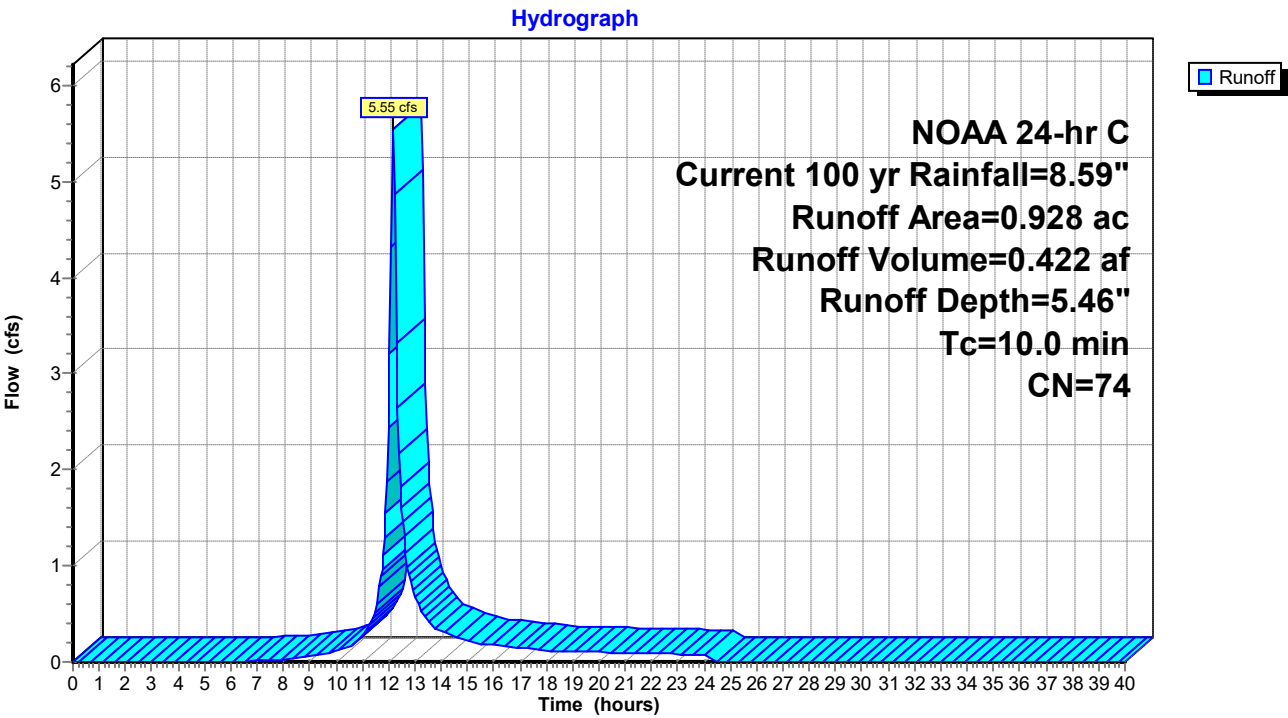
Runoff = 5.55 cfs @ 12.17 hrs, Volume= 0.422 af, Depth= 5.46"
Routed to Pond B-5 : Basin #5

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
0.928	74	>75% Grass cover, Good, HSG C
0.928		100.00% Pervious Area

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

Subcatchment 5P: PDA-5 (pervious)



Summary for Subcatchment 6I: PDA-6 (impervious)

Runoff = 5.45 cfs @ 12.17 hrs, Volume= 0.483 af, Depth= 8.35"
 Routed to Pond B-6 : Basin #6

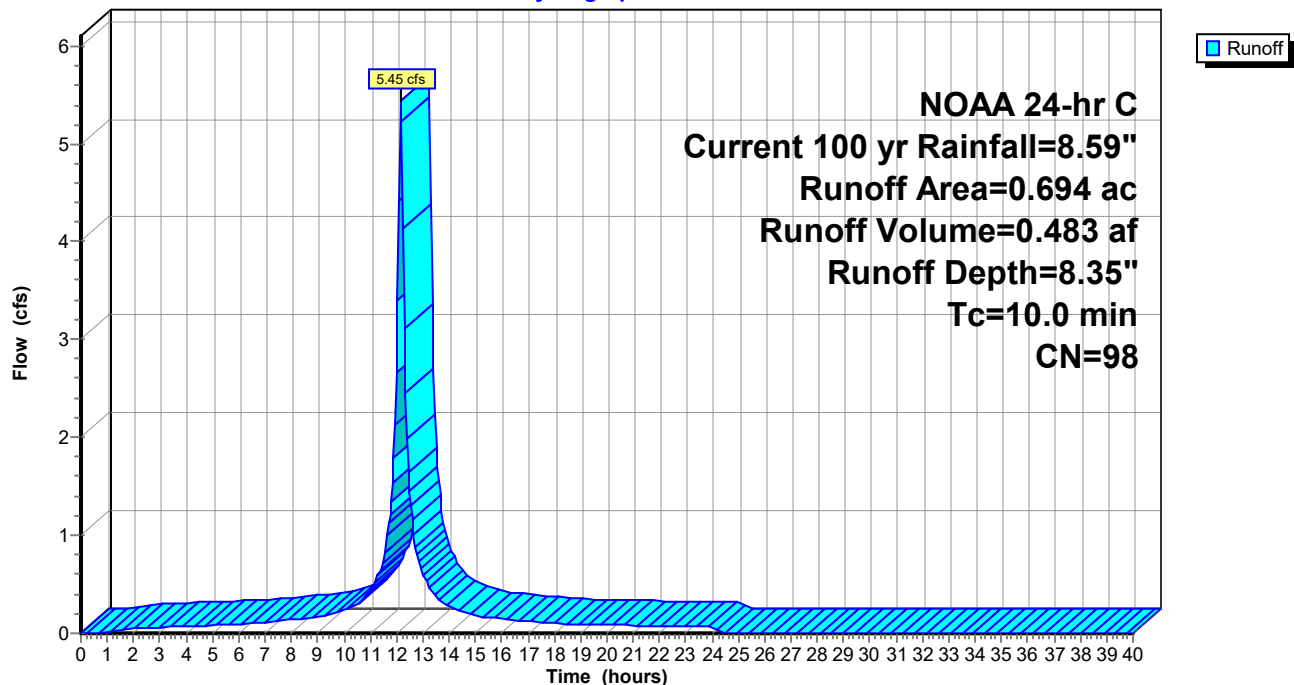
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.459	98	Pavement, HSG C
* 0.129	98	Roof, HSG C
* 0.106	98	Concrete, HSG C
0.694	98	Weighted Average
0.694		100.00% Impervious Area

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

Subcatchment 6I: PDA-6 (impervious)

Hydrograph



Summary for Subcatchment 6P: PDA-6 (pervious)

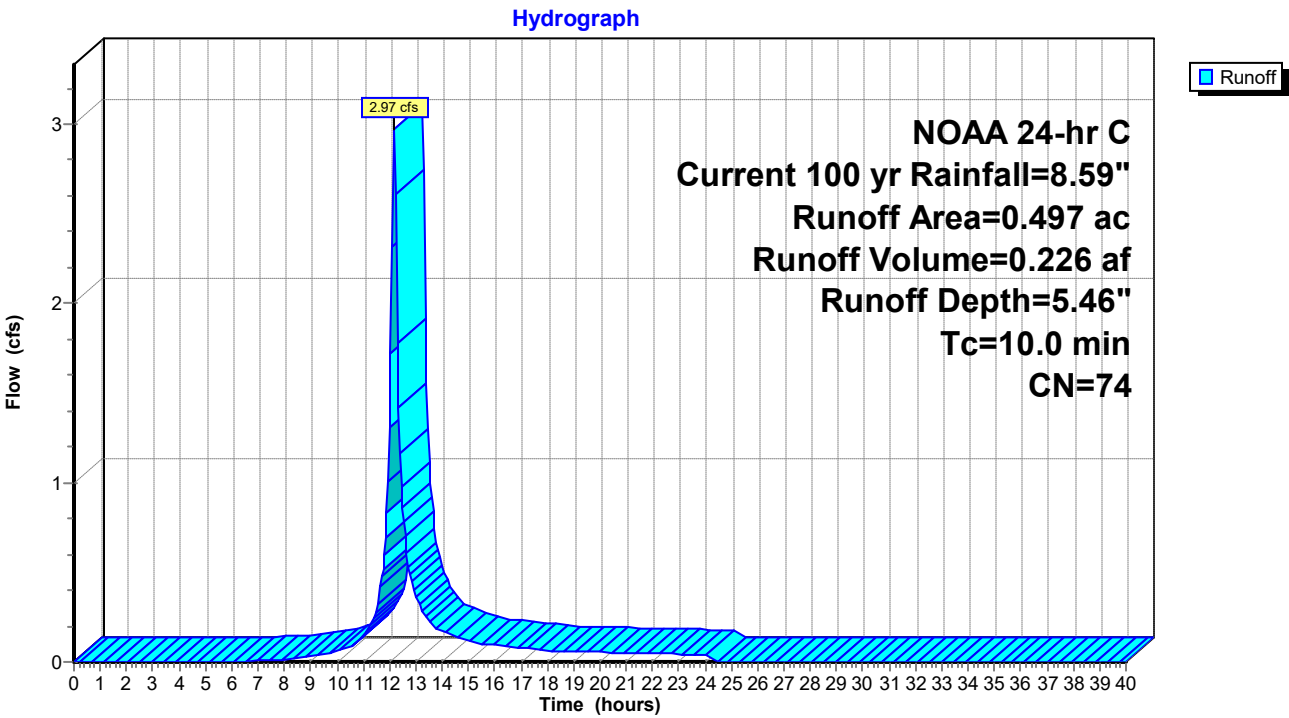
Runoff = 2.97 cfs @ 12.17 hrs, Volume= 0.226 af, Depth= 5.46"
Routed to Pond B-6 : Basin #6

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
0.497	74	>75% Grass cover, Good, HSG C
0.497		100.00% Pervious Area

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

Subcatchment 6P: PDA-6 (pervious)



Summary for Subcatchment 7I: PDA-7 (impervious)

Runoff = 7.72 cfs @ 12.17 hrs, Volume= 0.684 af, Depth= 8.35"
 Routed to Pond B-7 : Basin #7

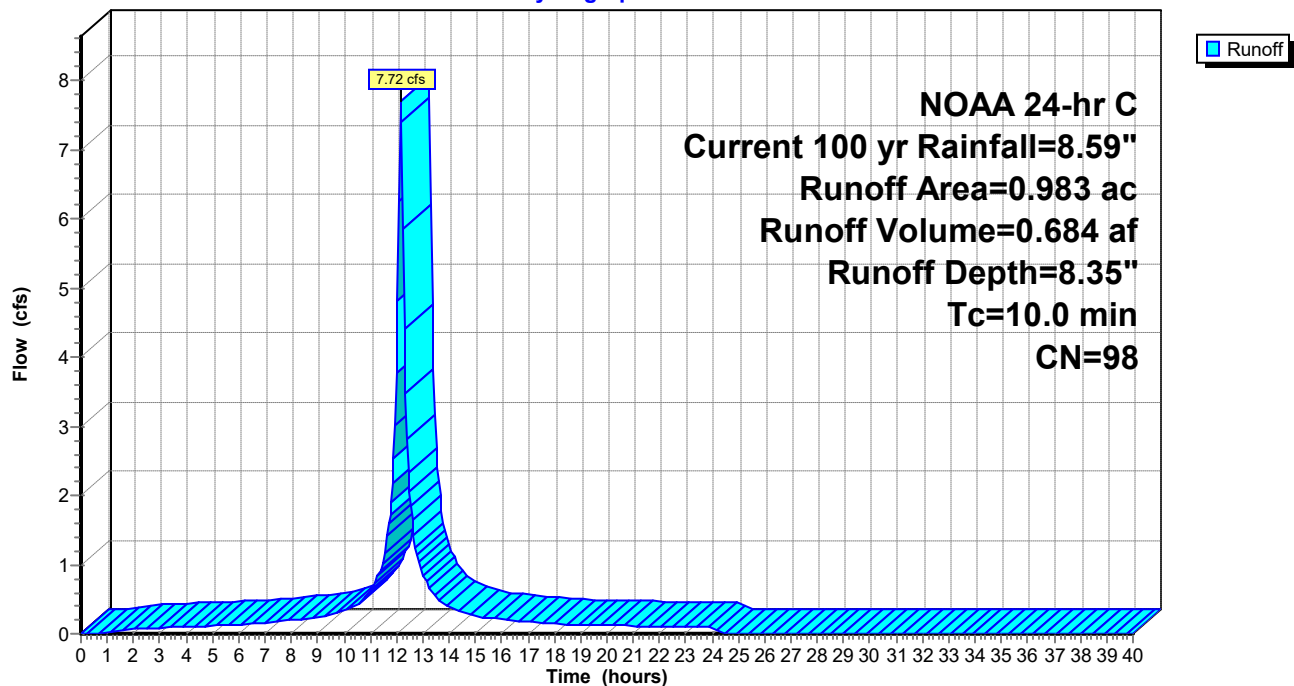
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.886	98	Pavement, HSG C
* 0.097	98	Concrete, HSG C
0.983	98	Weighted Average
0.983		100.00% Impervious Area

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

Subcatchment 7I: PDA-7 (impervious)

Hydrograph



Summary for Subcatchment 7P: PDA-7 (pervious)

Runoff = 3.48 cfs @ 12.17 hrs, Volume= 0.264 af, Depth= 5.46"
 Routed to Pond B-7 : Basin #7

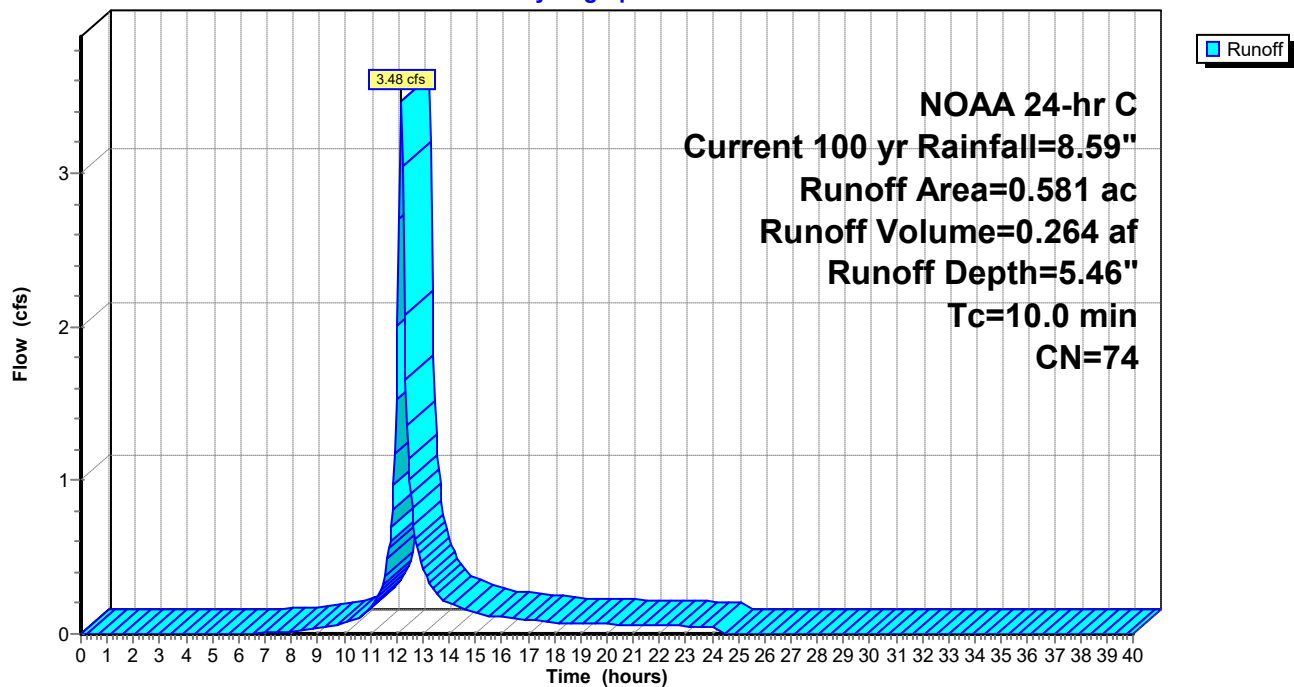
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
0.581	74	>75% Grass cover, Good, HSG C
0.581		100.00% Pervious Area

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

Subcatchment 7P: PDA-7 (pervious)

Hydrograph



Summary for Subcatchment 8I: PDA-8 (impervious)

Runoff = 7.45 cfs @ 12.17 hrs, Volume= 0.660 af, Depth= 8.35"
 Routed to Pond B-8 : Basin #8

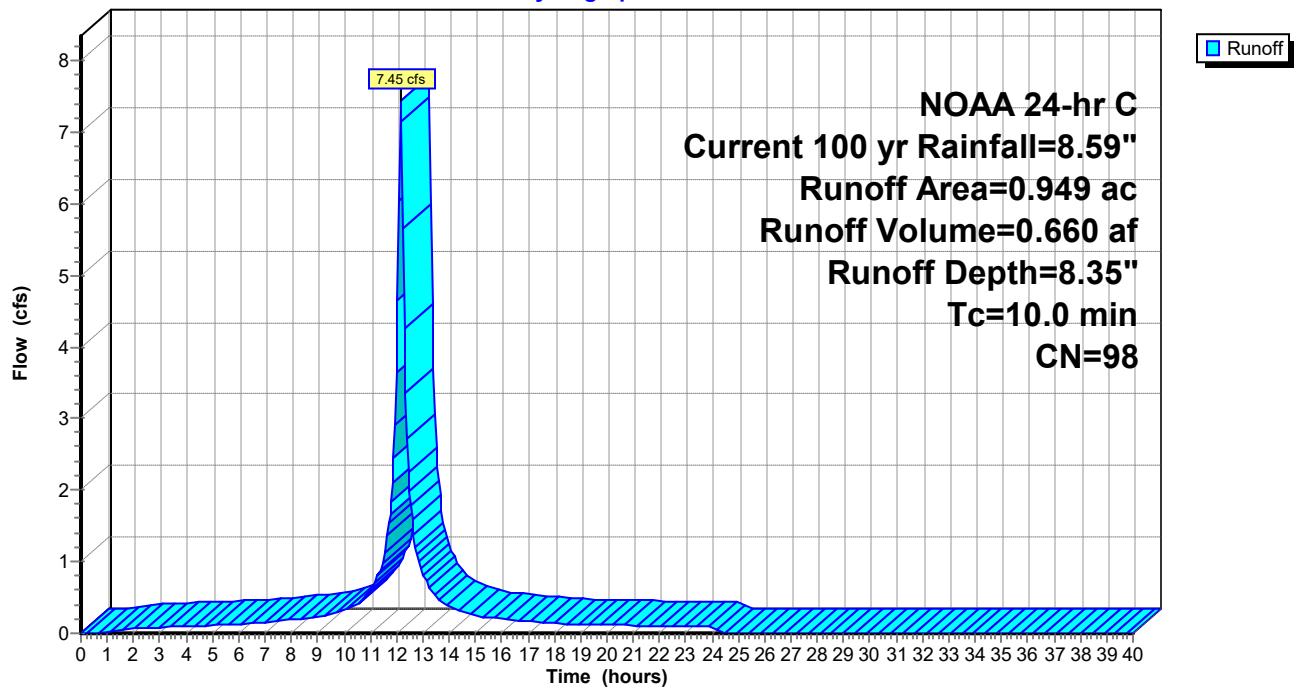
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.300	98	Pavement, HSG C
* 0.643	98	Roof, HSG C
* 0.006	98	Concrete, HSG C
0.949	98	Weighted Average
0.949		100.00% Impervious Area

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

Subcatchment 8I: PDA-8 (impervious)

Hydrograph



Summary for Subcatchment 8P: PDA-8 (pervious)

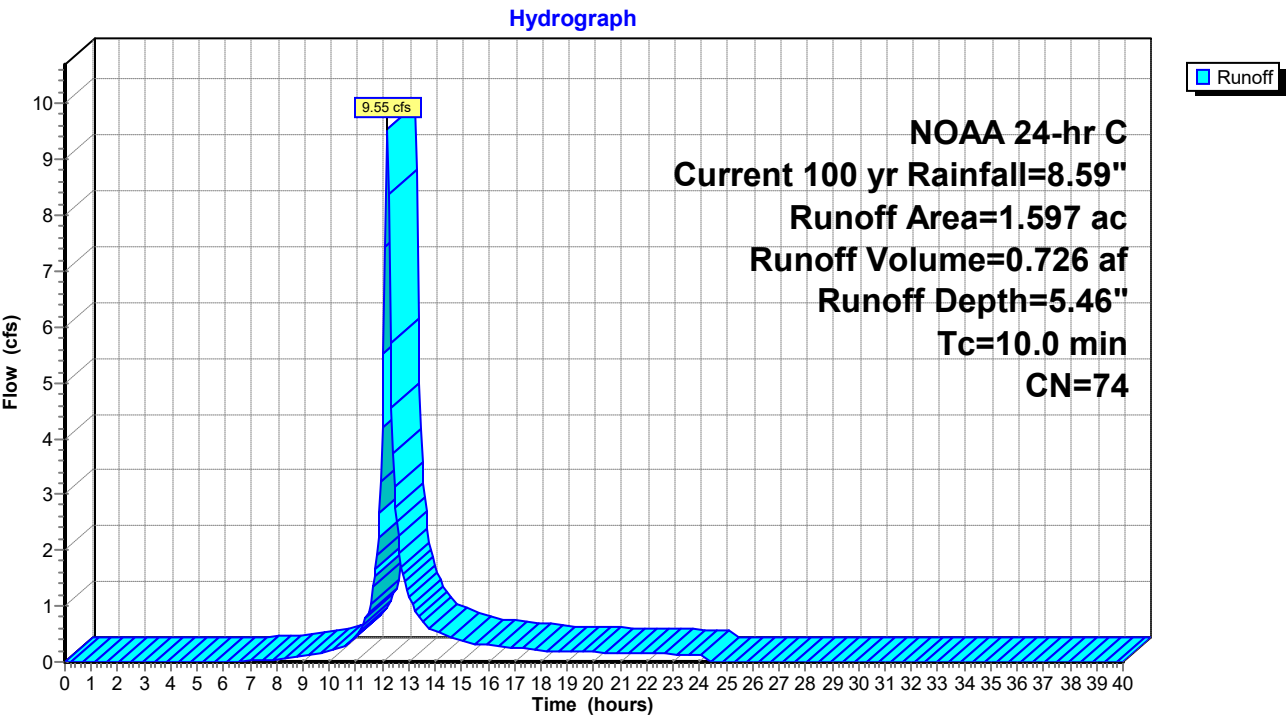
Runoff = 9.55 cfs @ 12.17 hrs, Volume= 0.726 af, Depth= 5.46"
Routed to Pond B-8 : Basin #8

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
1.597	74	>75% Grass cover, Good, HSG C
1.597		100.00% Pervious Area

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

Subcatchment 8P: PDA-8 (pervious)



Summary for Subcatchment 9I: PDA-9 (impervious)

Runoff = 6.21 cfs @ 12.17 hrs, Volume= 0.550 af, Depth= 8.35"
 Routed to Pond B-9 : Basin #9

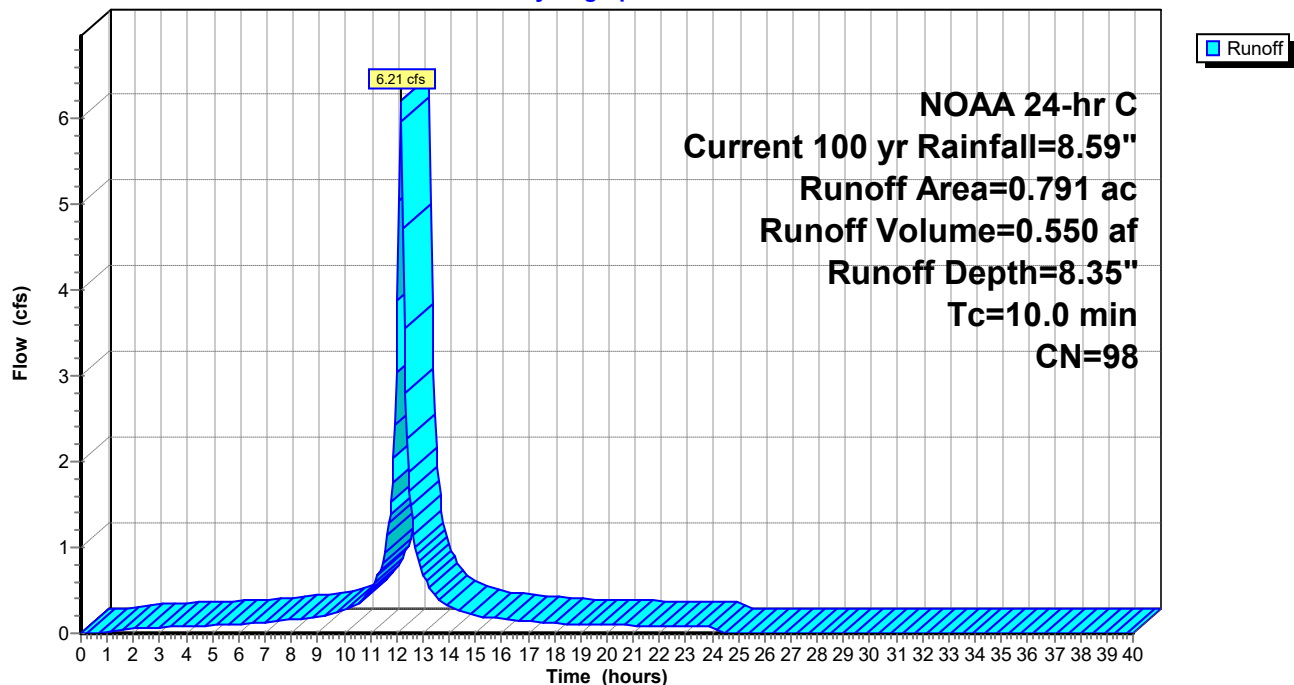
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.286	98	Pavement, HSG C
* 0.450	98	Roof, HSG C
* 0.055	98	Concrete, HSG C
0.791	98	Weighted Average
0.791		100.00% Impervious Area

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

Subcatchment 9I: PDA-9 (impervious)

Hydrograph



Summary for Subcatchment 9P: PDA-9 (pervious)

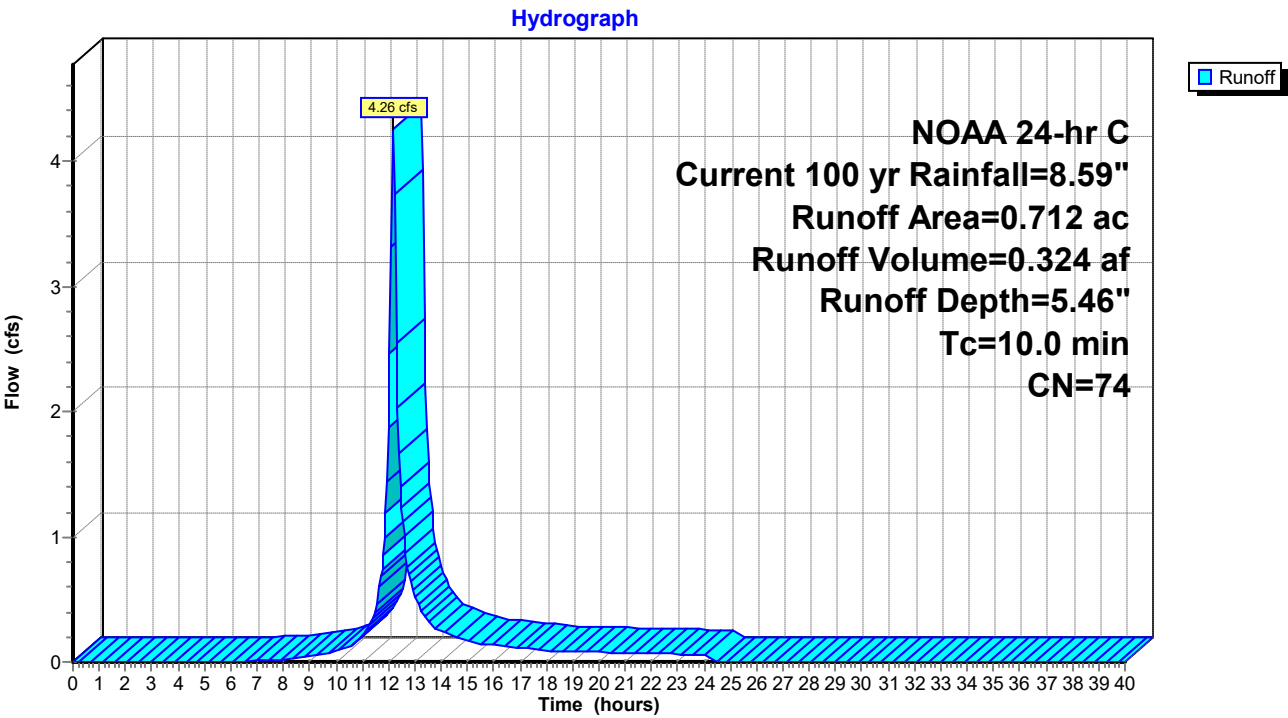
Runoff = 4.26 cfs @ 12.17 hrs, Volume= 0.324 af, Depth= 5.46"
Routed to Pond B-9 : Basin #9

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
0.712	74	>75% Grass cover, Good, HSG C
0.712		100.00% Pervious Area

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

Subcatchment 9P: PDA-9 (pervious)



Summary for Subcatchment 10I: PDA-10 (impervious)

Runoff = 7.44 cfs @ 12.17 hrs, Volume= 0.660 af, Depth= 8.35"
 Routed to Pond B-10 : Basin #10

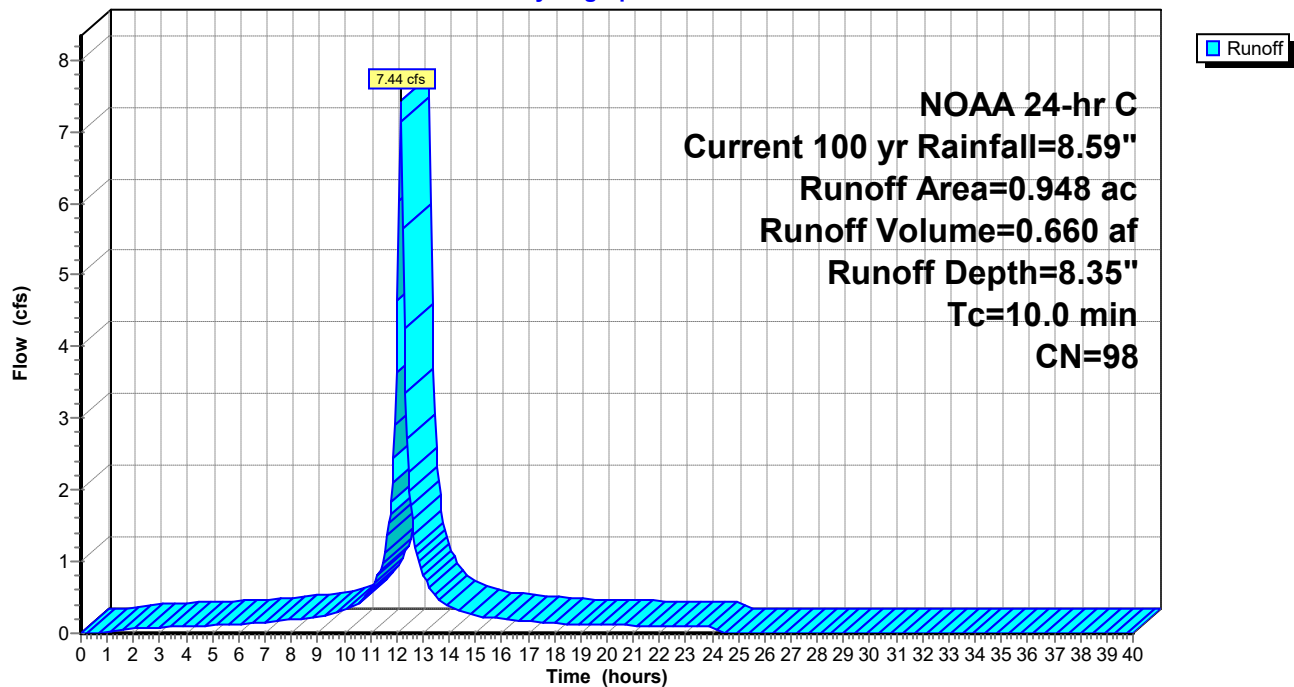
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.570	98	Pavement, HSG C
* 0.321	98	Roof, HSG C
* 0.057	98	Concrete, HSG C
0.948	98	Weighted Average
0.948		100.00% Impervious Area

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

Subcatchment 10I: PDA-10 (impervious)

Hydrograph



Summary for Subcatchment 10P: PDA-10 (pervious)

Runoff = 4.34 cfs @ 12.17 hrs, Volume= 0.330 af, Depth= 5.46"
 Routed to Pond B-10 : Basin #10

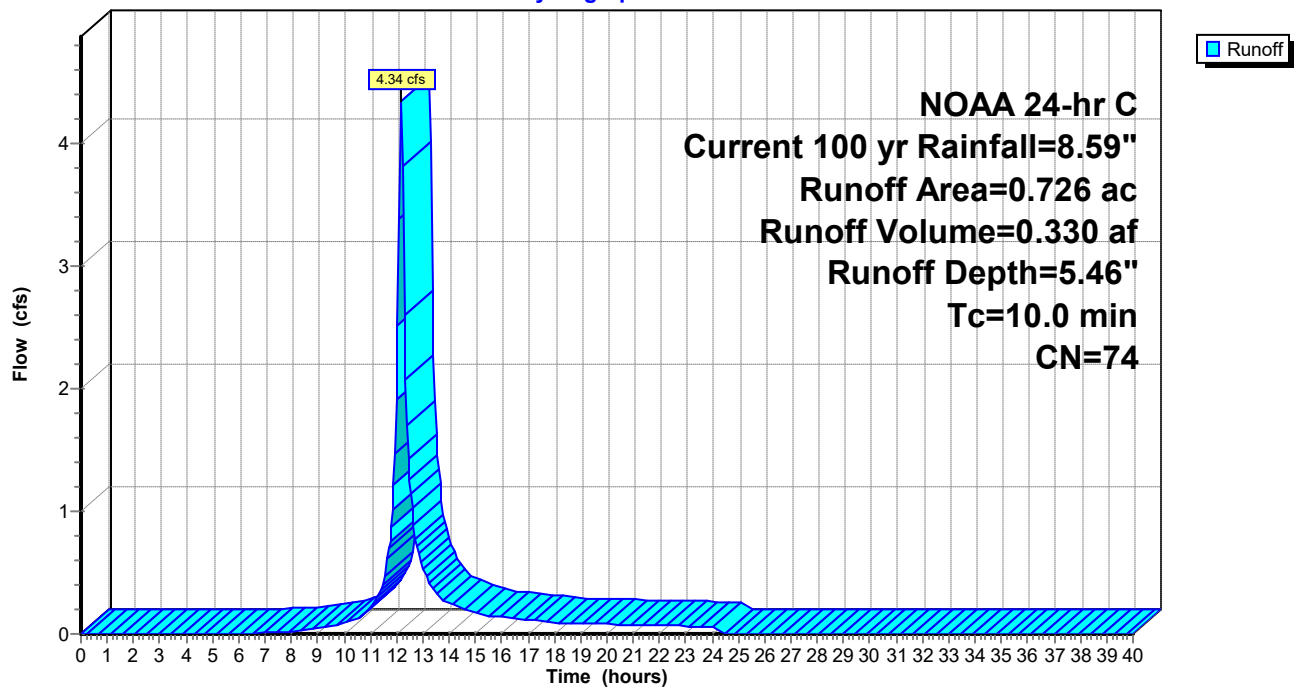
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
0.726	74	>75% Grass cover, Good, HSG C
0.726		100.00% Pervious Area

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

Subcatchment 10P: PDA-10 (pervious)

Hydrograph



Summary for Subcatchment 11I: PDA-11 (impervious)

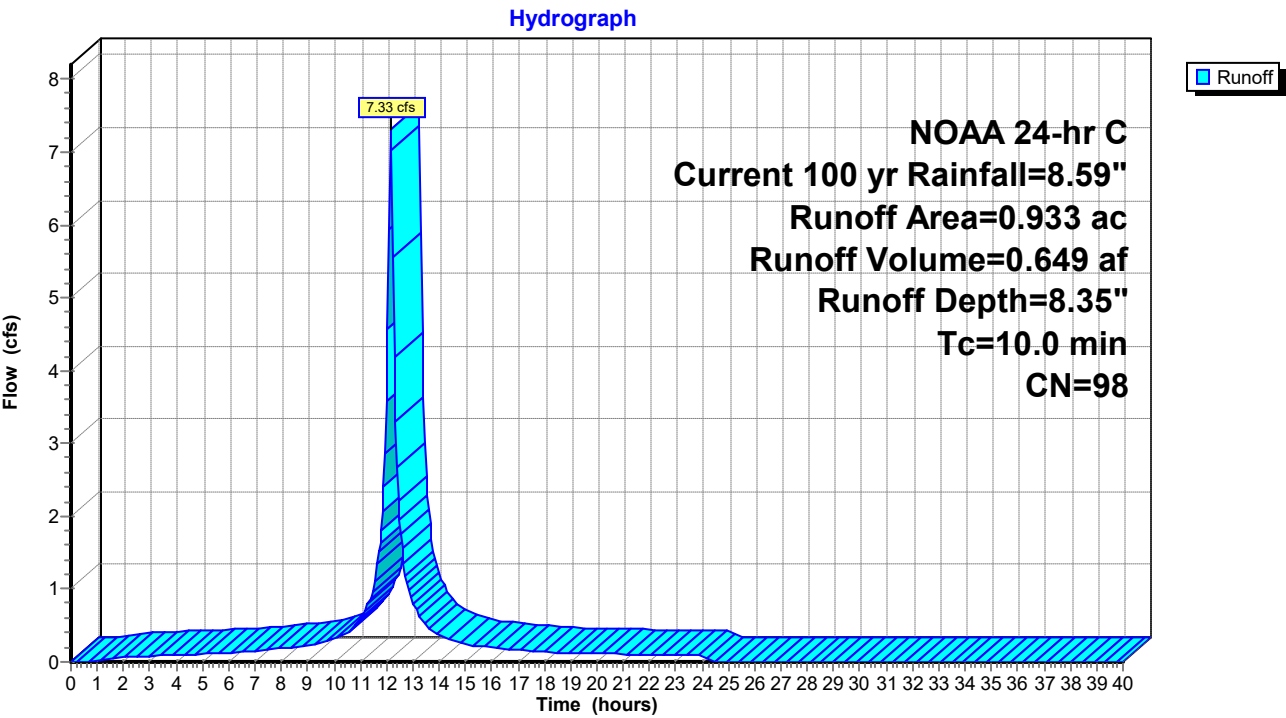
Runoff = 7.33 cfs @ 12.17 hrs, Volume= 0.649 af, Depth= 8.35"
Routed to Pond B-11 : Basin #11

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.933	98	Concrete, HSG C
0.933		100.00% Impervious Area

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

Subcatchment 11I: PDA-11 (impervious)



Summary for Subcatchment 11P: PDA-11 (pervious)

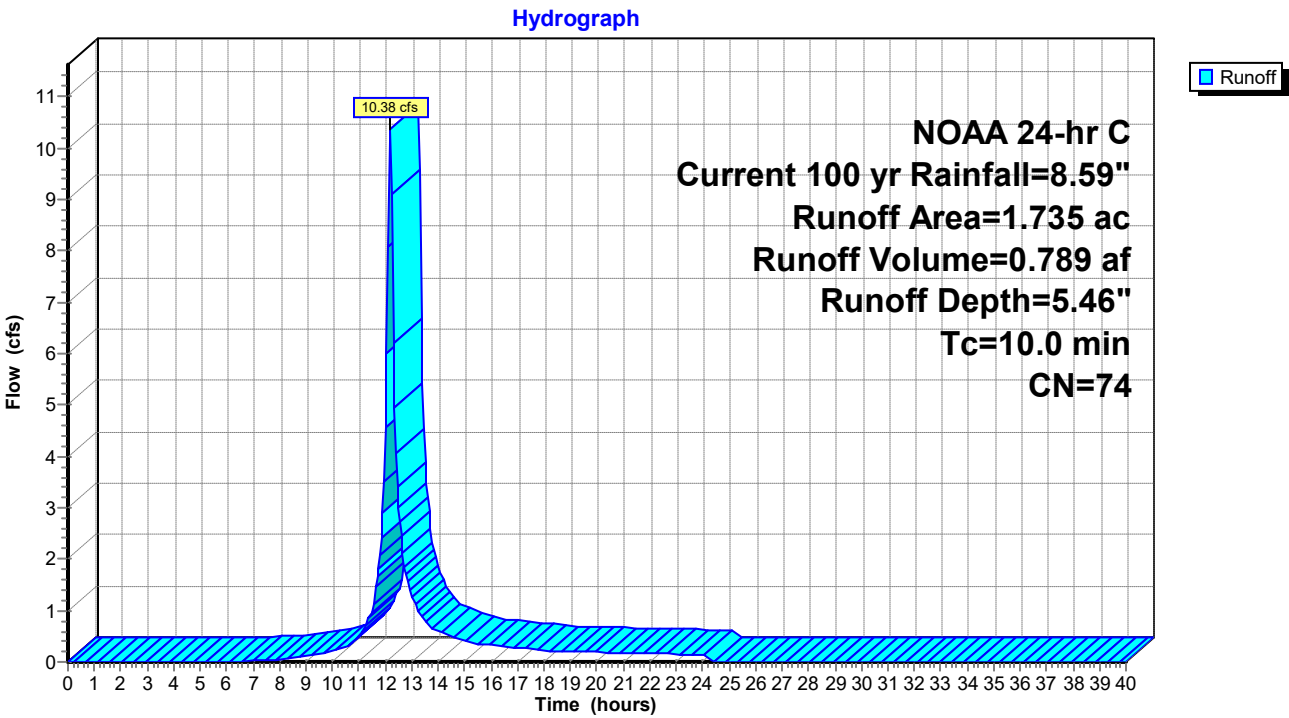
Runoff = 10.38 cfs @ 12.17 hrs, Volume= 0.789 af, Depth= 5.46"
Routed to Pond B-11 : Basin #11

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
1.735	74	>75% Grass cover, Good, HSG C
1.735		100.00% Pervious Area

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

Subcatchment 11P: PDA-11 (pervious)



Summary for Subcatchment 12I: PDA-12 (impervious)

Runoff = 10.75 cfs @ 12.17 hrs, Volume= 0.953 af, Depth= 8.35"
 Routed to Pond B-12 : Basin #12

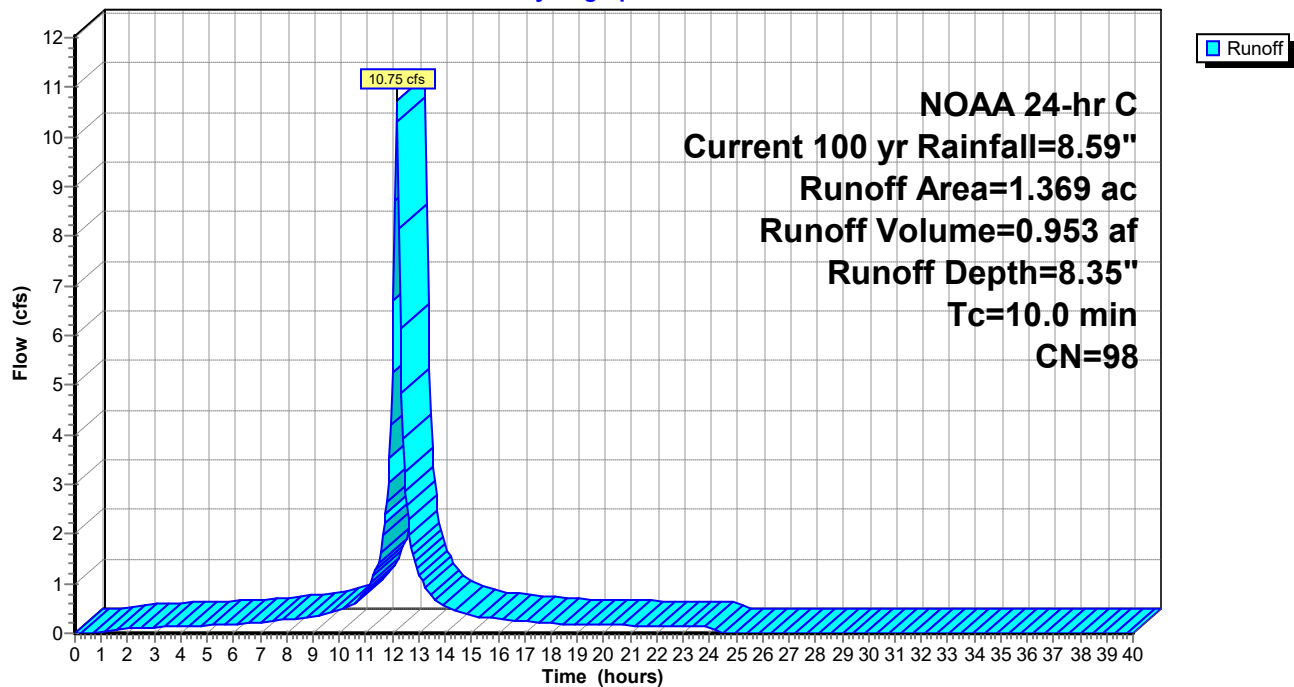
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.559	98	Pavement, HSG C
* 0.707	98	Roof, HSG C
* 0.103	98	Concrete, HSG C
1.369	98	Weighted Average
1.369		100.00% Impervious Area

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

Subcatchment 12I: PDA-12 (impervious)

Hydrograph



Summary for Subcatchment 12P: PDA-12 (pervious)

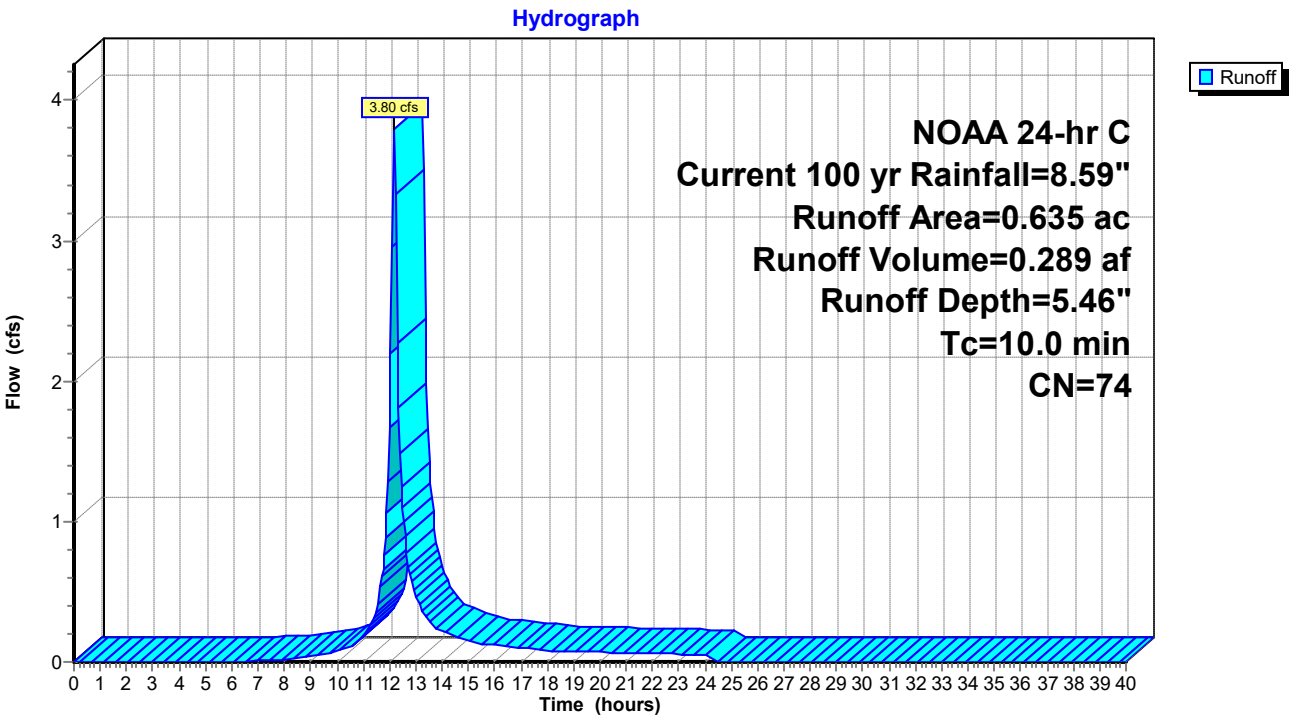
Runoff = 3.80 cfs @ 12.17 hrs, Volume= 0.289 af, Depth= 5.46"
Routed to Pond B-12 : Basin #12

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
0.635	74	>75% Grass cover, Good, HSG C
0.635		100.00% Pervious Area

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

Subcatchment 12P: PDA-12 (pervious)



Summary for Subcatchment 13I: PDA-13 (impervious)

Runoff = 11.52 cfs @ 12.17 hrs, Volume= 1.021 af, Depth= 8.35"
 Routed to Pond B-13 : Basin #13

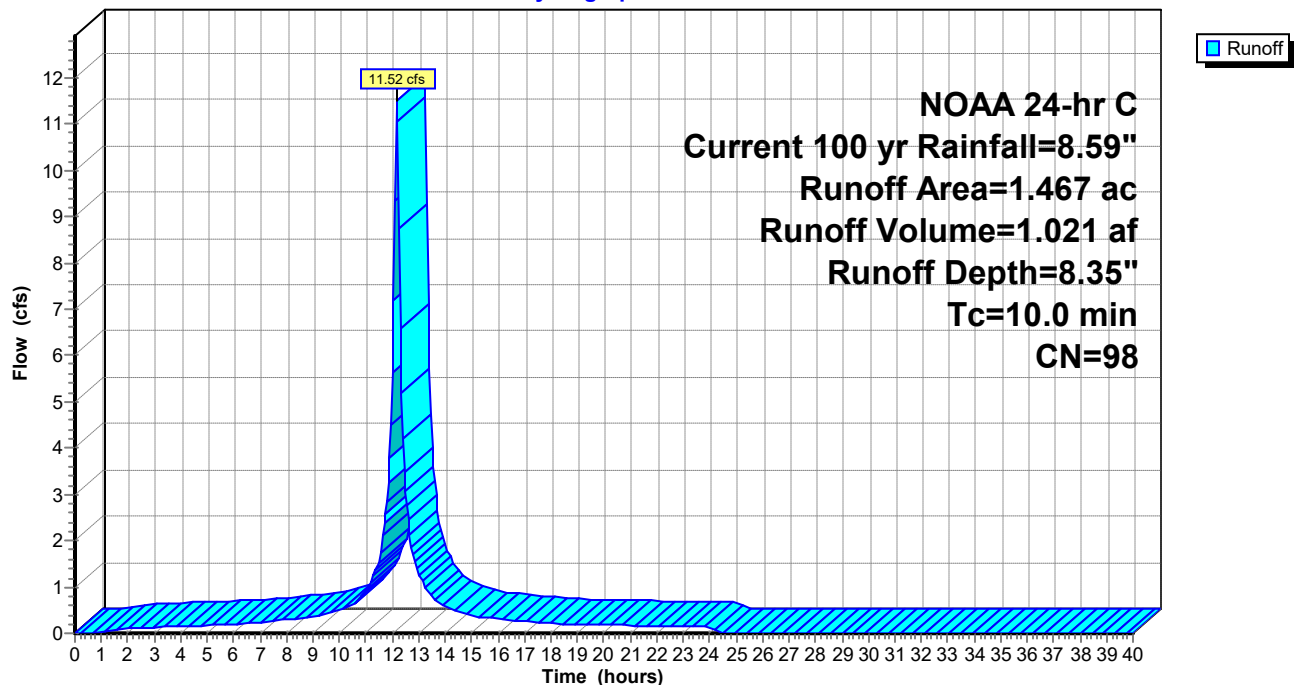
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.678	98	Pavement, HSG C
* 0.707	98	Roof, HSG C
* 0.082	98	Concrete, HSG C
1.467	98	Weighted Average
1.467		100.00% Impervious Area

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

Subcatchment 13I: PDA-13 (impervious)

Hydrograph



Summary for Subcatchment 13P: PDA-13 (pervious)

Runoff = 5.28 cfs @ 12.17 hrs, Volume= 0.402 af, Depth= 5.46"
 Routed to Pond B-13 : Basin #13

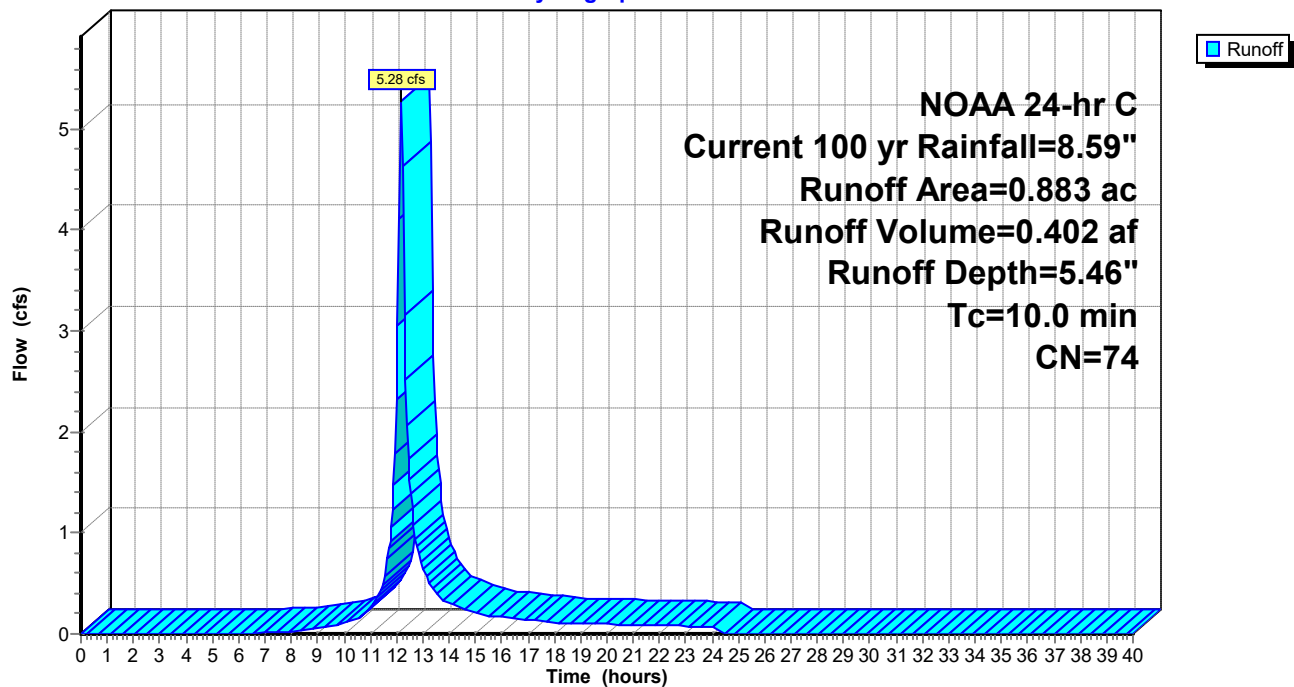
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
0.883	74	>75% Grass cover, Good, HSG C
0.883		100.00% Pervious Area

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

Subcatchment 13P: PDA-13 (pervious)

Hydrograph



Summary for Subcatchment 14I: PDA-14 (impervious)

Runoff = 3.99 cfs @ 12.17 hrs, Volume= 0.353 af, Depth= 8.35"
 Routed to Pond B-14 : Basin #14

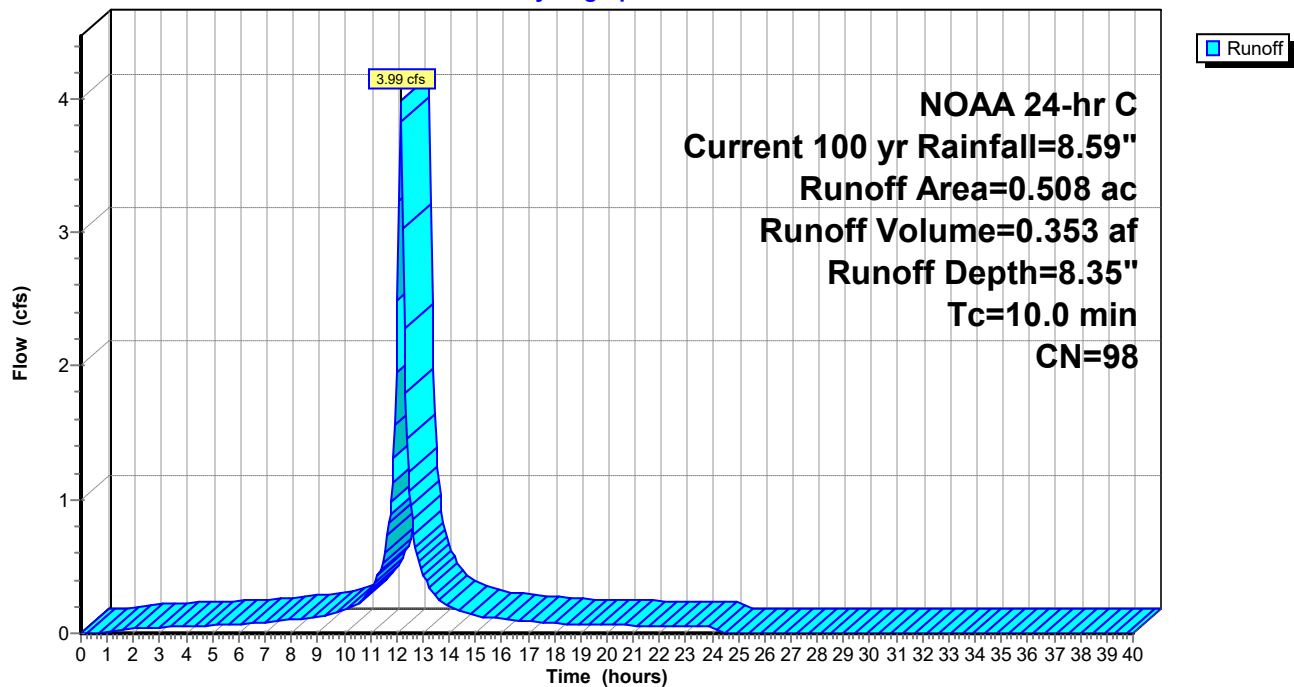
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.308	98	Pavement, HSG C
* 0.064	98	Roof, HSG C
* 0.136	98	Concrete, HSG C
0.508	98	Weighted Average
0.508		100.00% Impervious Area

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

Subcatchment 14I: PDA-14 (impervious)

Hydrograph



Summary for Subcatchment 14P: PDA-14 (pervious)

Runoff = 9.81 cfs @ 12.17 hrs, Volume= 0.746 af, Depth= 5.46"
Routed to Pond B-14 : Basin #14

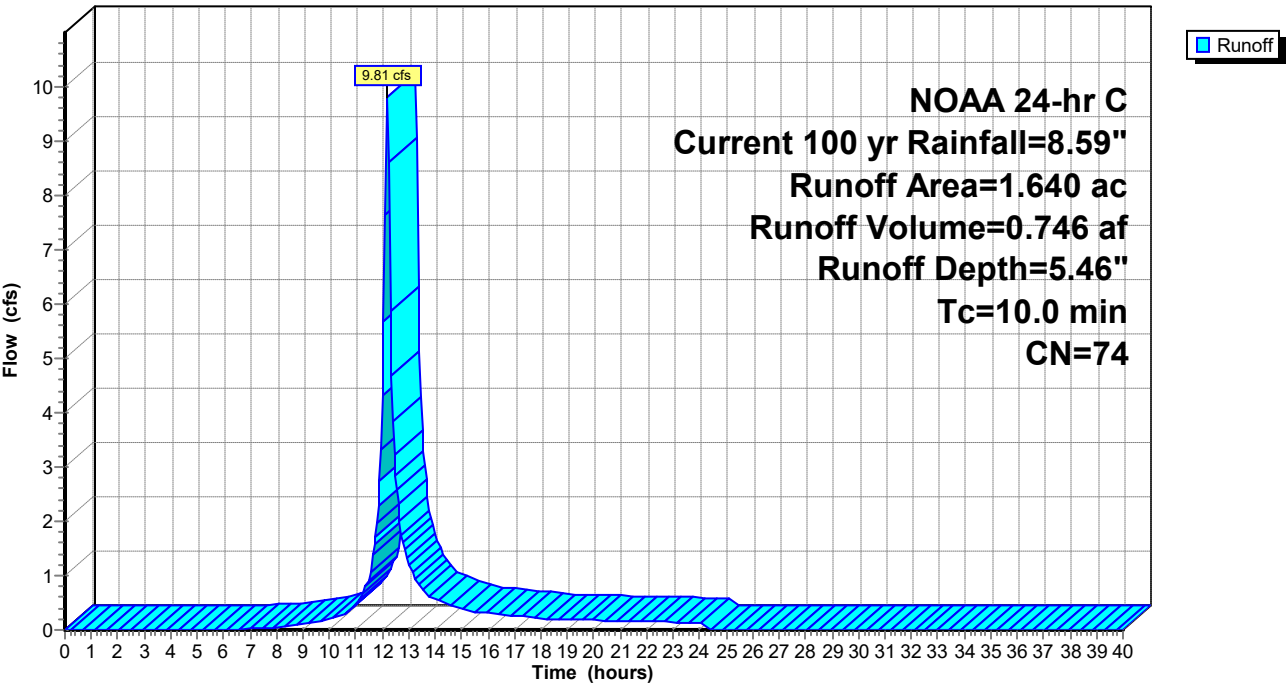
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
1.640	74	>75% Grass cover, Good, HSG C
1.640		100.00% Pervious Area

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

Subcatchment 14P: PDA-14 (pervious)

Hydrograph



Summary for Subcatchment 15I: PDA-15 (impervious)

Runoff = 10.91 cfs @ 12.17 hrs, Volume= 0.966 af, Depth= 8.35"
 Routed to Pond B-15 : Basin #15

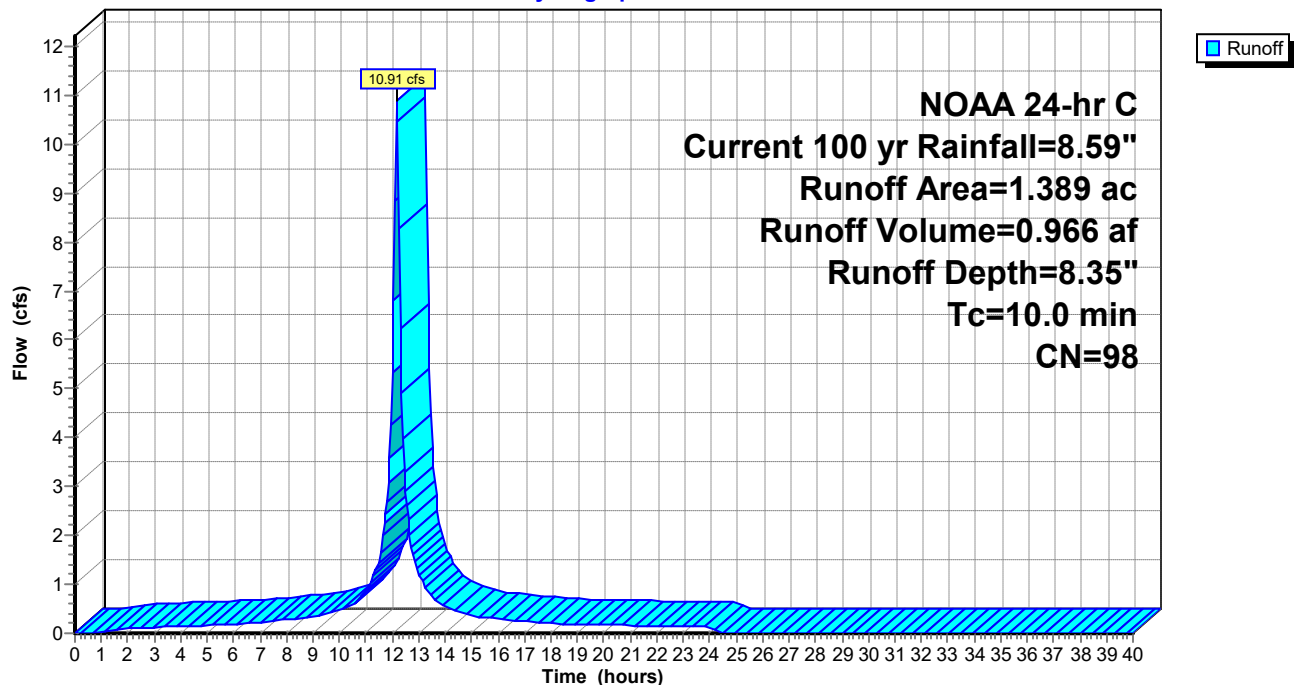
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.501	98	Pavement, HSG C
* 0.836	98	Roof, HSG C
* 0.052	98	Concrete, HSG C
1.389	98	Weighted Average
1.389		100.00% Impervious Area

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

Subcatchment 15I: PDA-15 (impervious)

Hydrograph



Summary for Subcatchment 15P: PDA-15 (pervious)

Runoff = 5.84 cfs @ 12.17 hrs, Volume= 0.444 af, Depth= 5.46"
 Routed to Pond B-15 : Basin #15

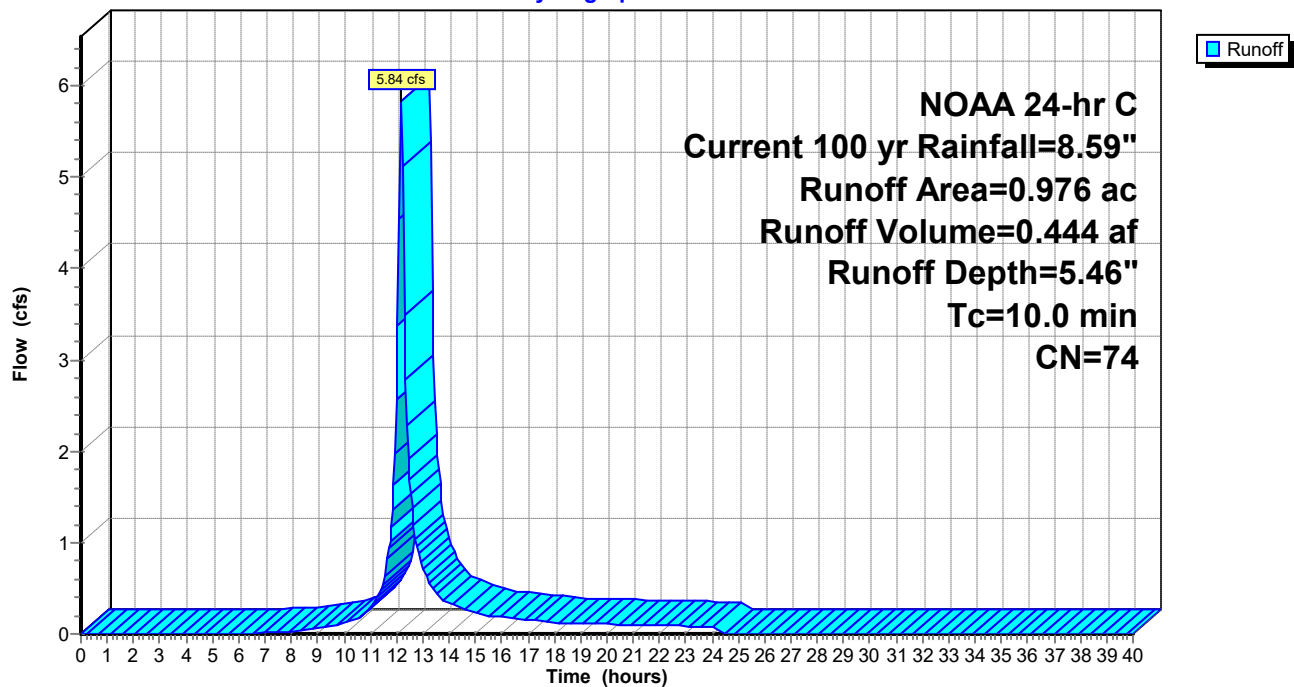
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
0.976	74	>75% Grass cover, Good, HSG C
0.976		100.00% Pervious Area

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

Subcatchment 15P: PDA-15 (pervious)

Hydrograph



Summary for Subcatchment 16I: PDA-16 (impervious)

Runoff = 9.15 cfs @ 12.17 hrs, Volume= 0.811 af, Depth= 8.35"
 Routed to Pond B-16 : Basin #16

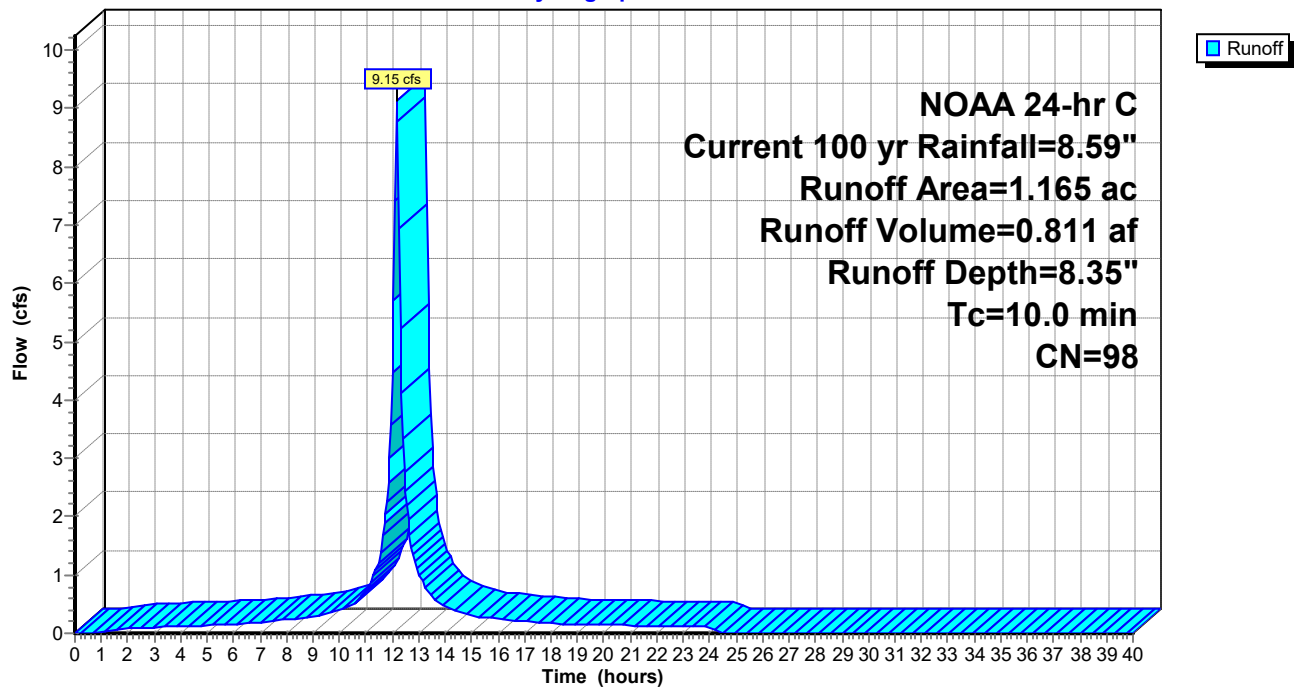
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.712	98	Pavement, HSG C
* 0.386	98	Roof, HSG C
* 0.067	98	Concrete, HSG C
1.165	98	Weighted Average
1.165		100.00% Impervious Area

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

Subcatchment 16I: PDA-16 (impervious)

Hydrograph



Summary for Subcatchment 16P: PDA-16 (pervious)

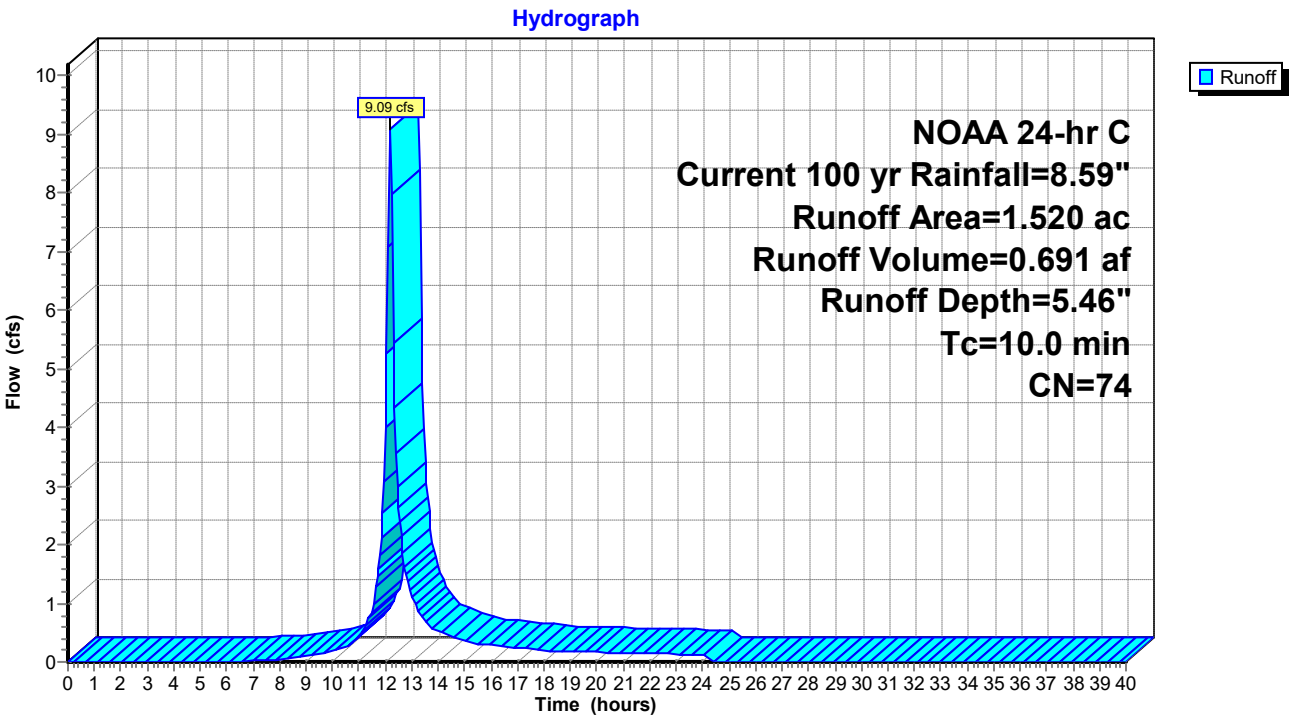
Runoff = 9.09 cfs @ 12.17 hrs, Volume= 0.691 af, Depth= 5.46"
Routed to Pond B-16 : Basin #16

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
1.520	74	>75% Grass cover, Good, HSG C
1.520		100.00% Pervious Area

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

Subcatchment 16P: PDA-16 (pervious)



Summary for Subcatchment 17I: PDA-17 (impervious)

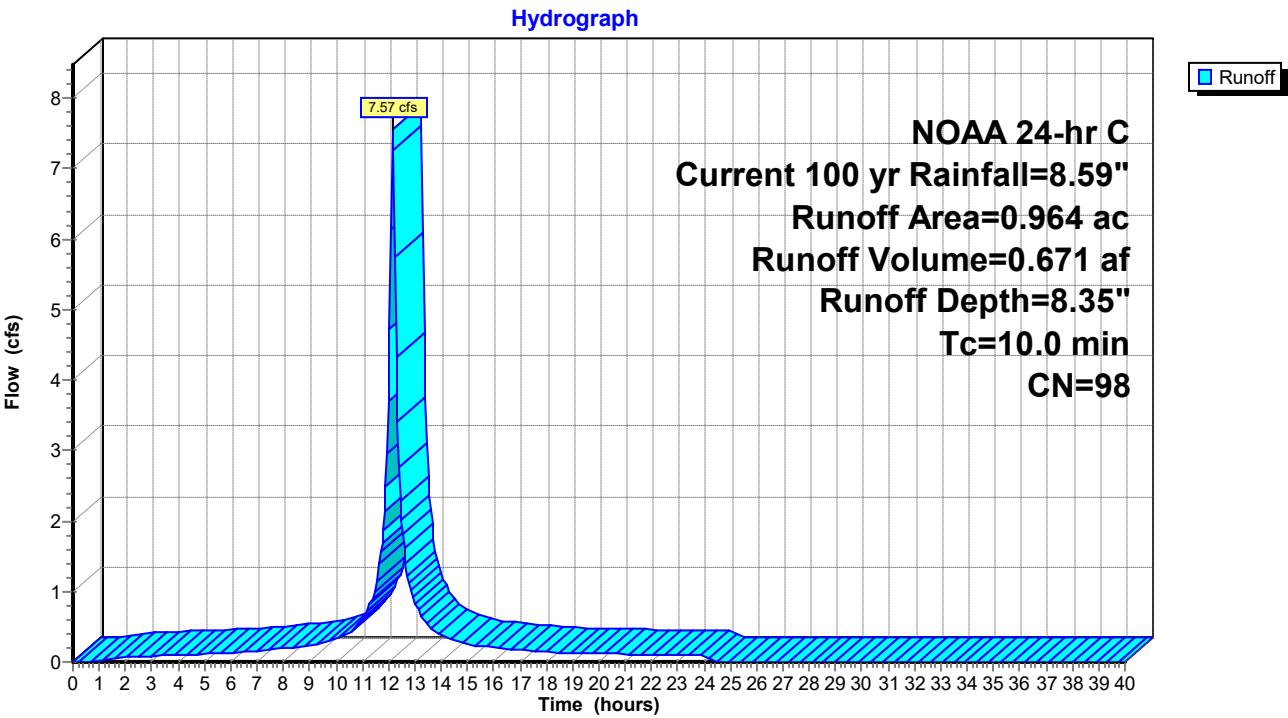
Runoff = 7.57 cfs @ 12.17 hrs, Volume= 0.671 af, Depth= 8.35"
Routed to Pond B-17 : Basin #17

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.964	98	Roof, HSG C
0.964		100.00% Impervious Area

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

Subcatchment 17I: PDA-17 (impervious)



Summary for Subcatchment 17P: PDA-17 (pervious)

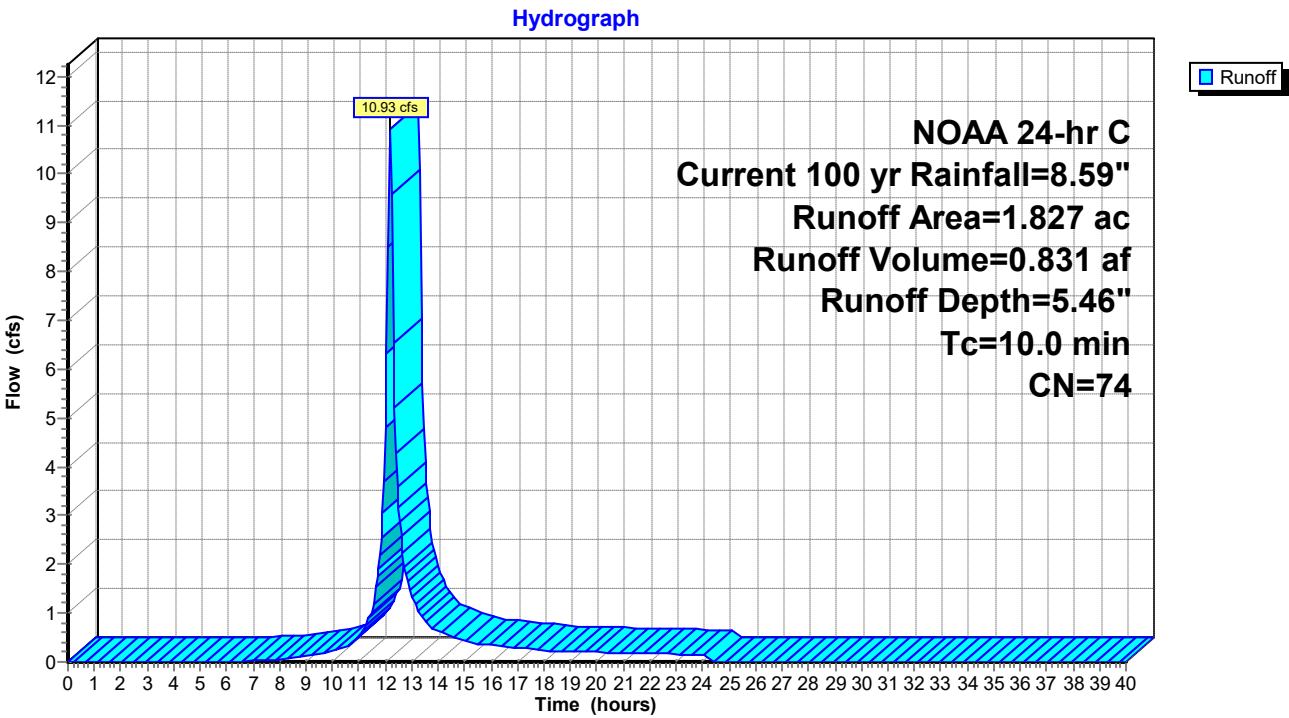
Runoff = 10.93 cfs @ 12.17 hrs, Volume= 0.831 af, Depth= 5.46"
Routed to Pond B-17 : Basin #17

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
1.827	74	>75% Grass cover, Good, HSG C
1.827		100.00% Pervious Area

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

Subcatchment 17P: PDA-17 (pervious)



Summary for Subcatchment 18I: PDA-18 (impervious)

Runoff = 9.18 cfs @ 12.17 hrs, Volume= 0.813 af, Depth= 8.35"
 Routed to Pond B-18 : Basin #18

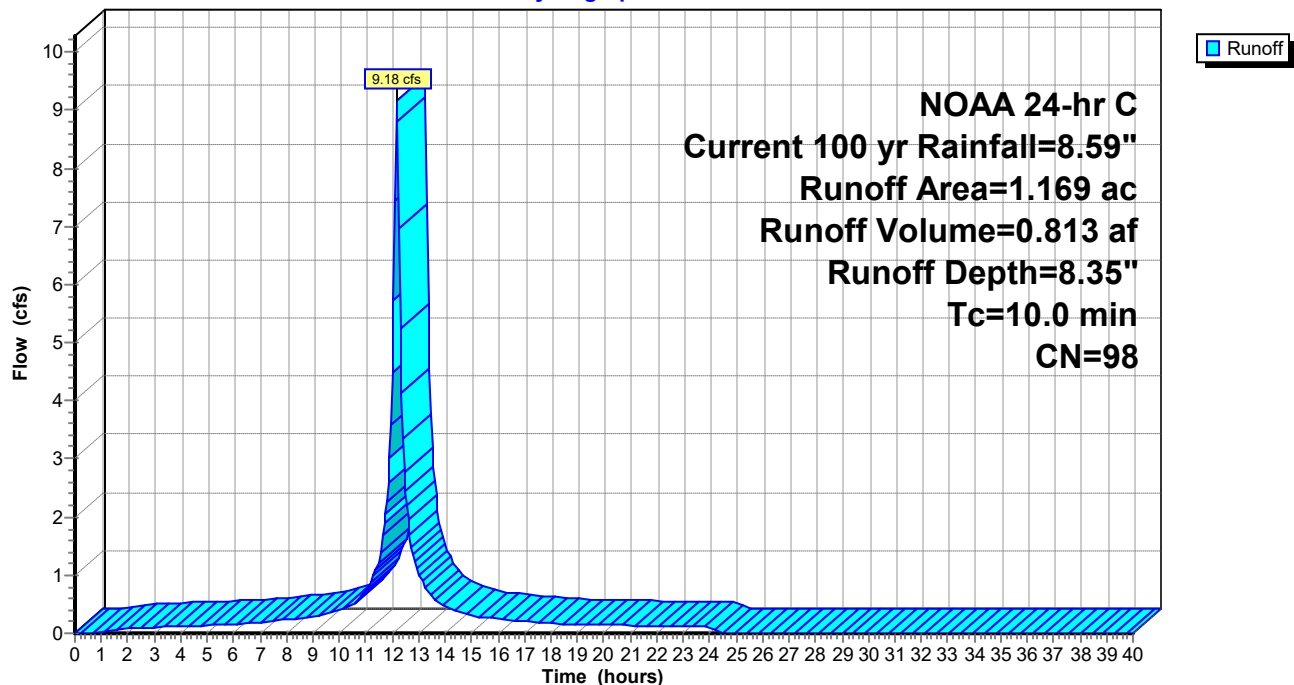
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.474	98	Pavement, HSG C
* 0.643	98	Roof, HSG C
* 0.052	98	Concrete, HSG C
1.169	98	Weighted Average
1.169		100.00% Impervious Area

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

Subcatchment 18I: PDA-18 (impervious)

Hydrograph



Summary for Subcatchment 18P: PDA-18 (pervious)

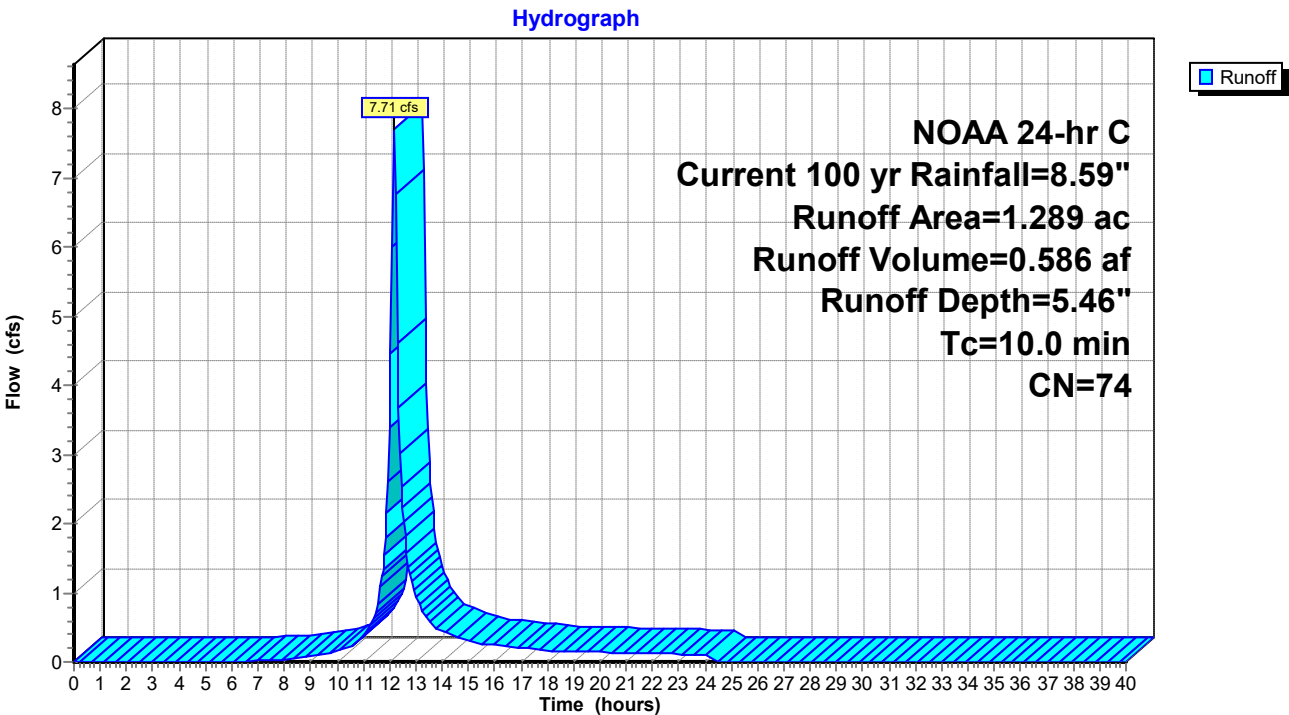
Runoff = 7.71 cfs @ 12.17 hrs, Volume= 0.586 af, Depth= 5.46"
Routed to Pond B-18 : Basin #18

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
1.289	74	>75% Grass cover, Good, HSG C
1.289		100.00% Pervious Area

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

Subcatchment 18P: PDA-18 (pervious)



Summary for Subcatchment 19I: PDA-19 (impervious)

Runoff = 2.99 cfs @ 12.17 hrs, Volume= 0.265 af, Depth= 8.35"
 Routed to Pond B-19 : Basin #19

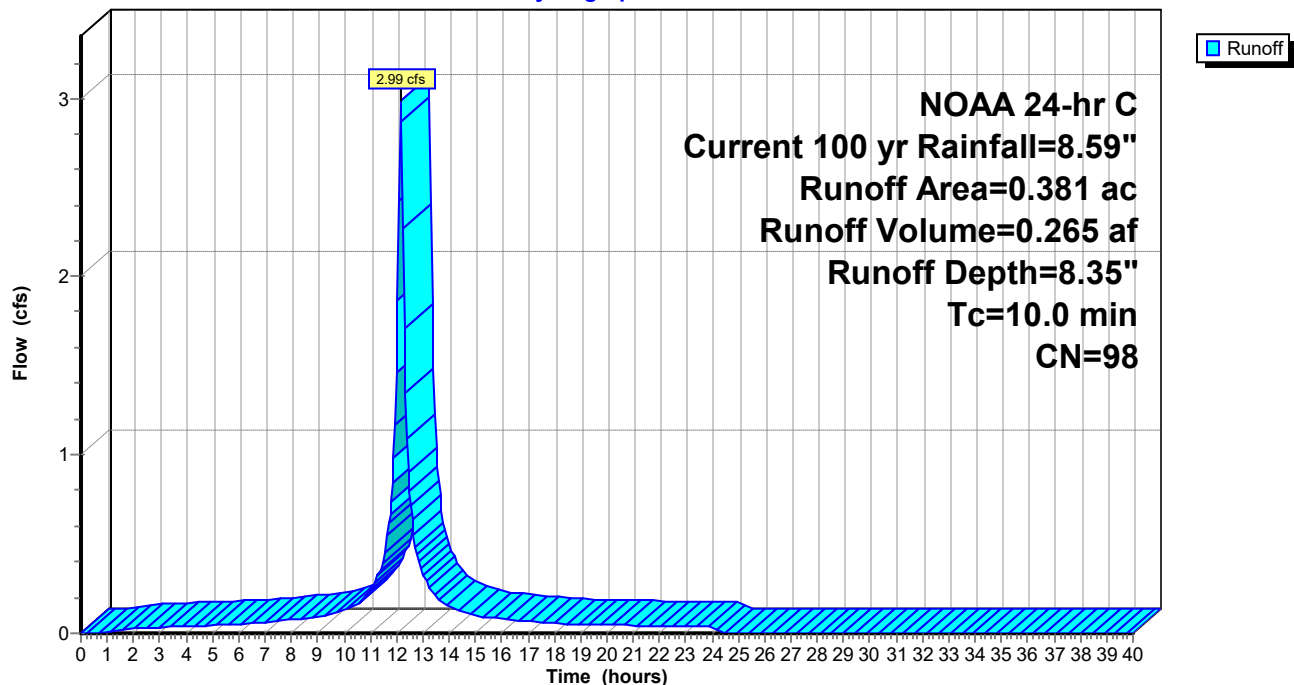
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.167	98	Pavement, HSG C
* 0.193	98	Roof, HSG C
* 0.021	98	Concrete, HSG C
0.381	98	Weighted Average
0.381		100.00% Impervious Area

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

Subcatchment 19I: PDA-19 (impervious)

Hydrograph



Summary for Subcatchment 19P: PDA-19 (pervious)

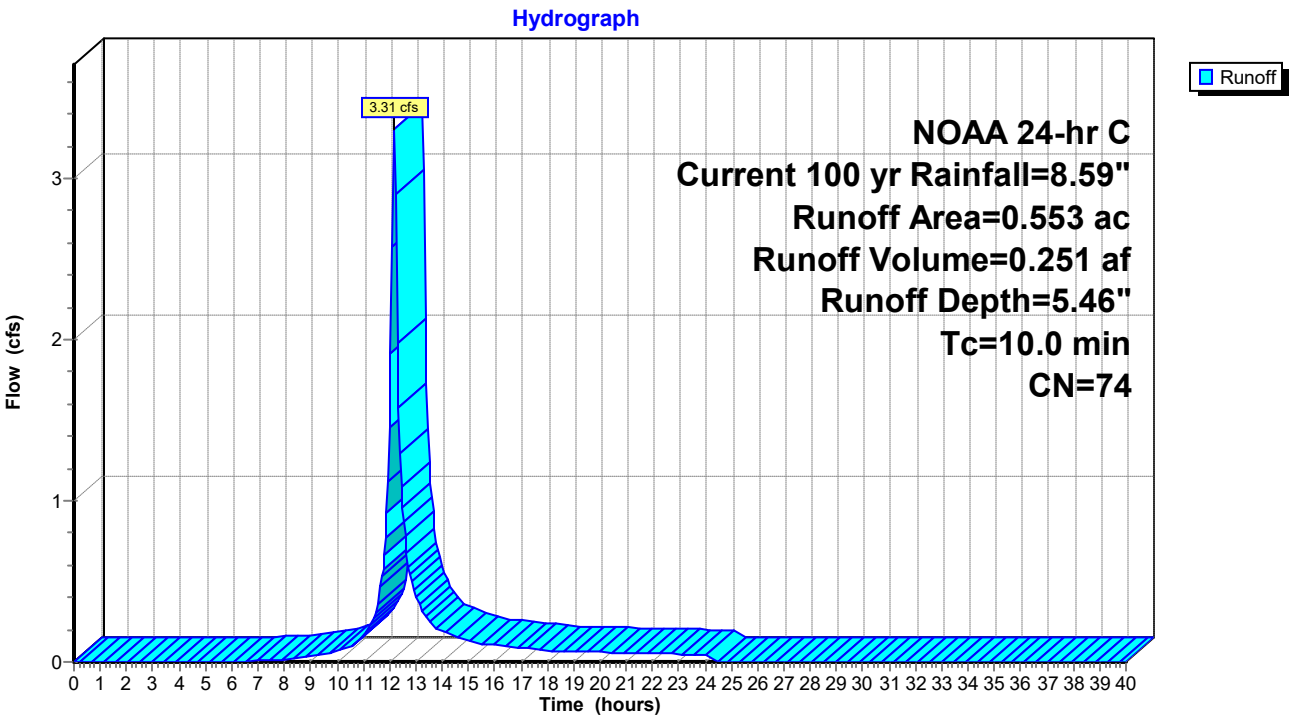
Runoff = 3.31 cfs @ 12.17 hrs, Volume= 0.251 af, Depth= 5.46"
Routed to Pond B-19 : Basin #19

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
0.553	74	>75% Grass cover, Good, HSG C
0.553		100.00% Pervious Area

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

Subcatchment 19P: PDA-19 (pervious)



Summary for Subcatchment 20I: PDA-20 (impervious)

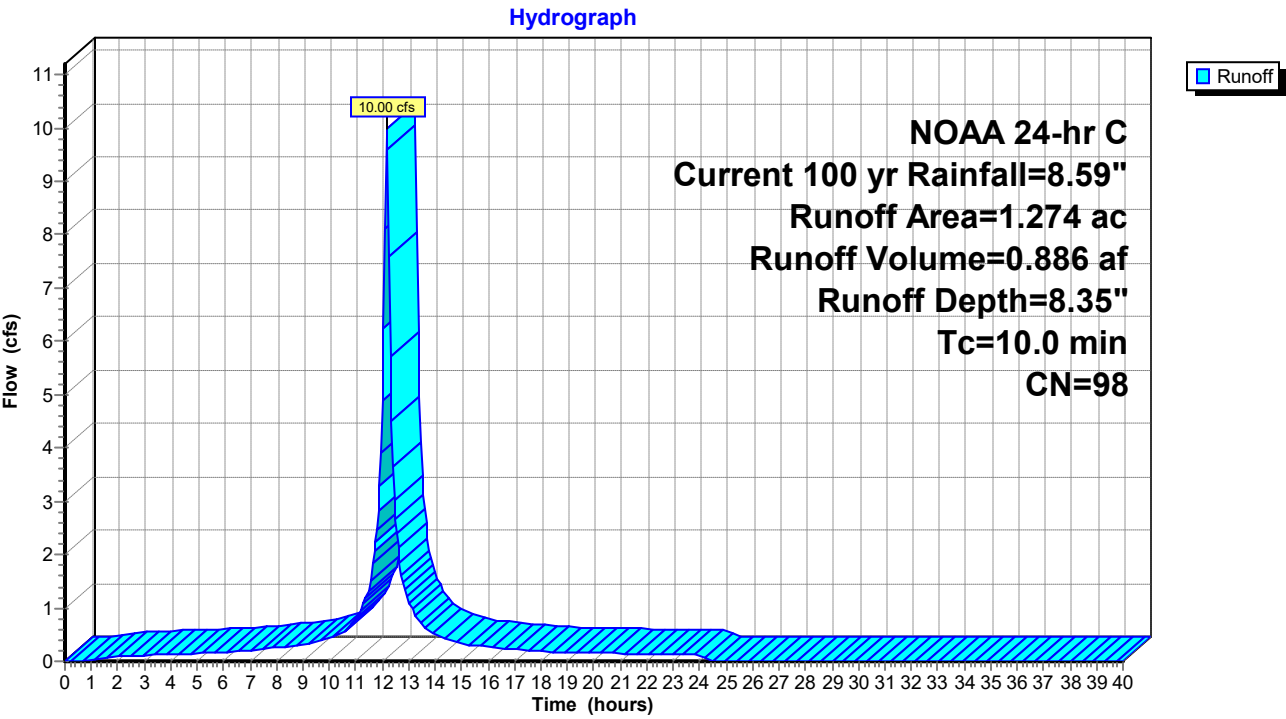
Runoff = 10.00 cfs @ 12.17 hrs, Volume= 0.886 af, Depth= 8.35"
Routed to Pond B-20 : Basin #20

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.500	98	Pavement, HSG C
* 0.707	98	Roof, HSG C
* 0.067	98	Concrete, HSC C
1.274	98	Weighted Average
1.274		100.00% Impervious Area

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

Subcatchment 20I: PDA-20 (impervious)



Summary for Subcatchment 20P: PDA-20 (pervious)

Runoff = 8.40 cfs @ 12.17 hrs, Volume= 0.639 af, Depth= 5.46"
 Routed to Pond B-20 : Basin #20

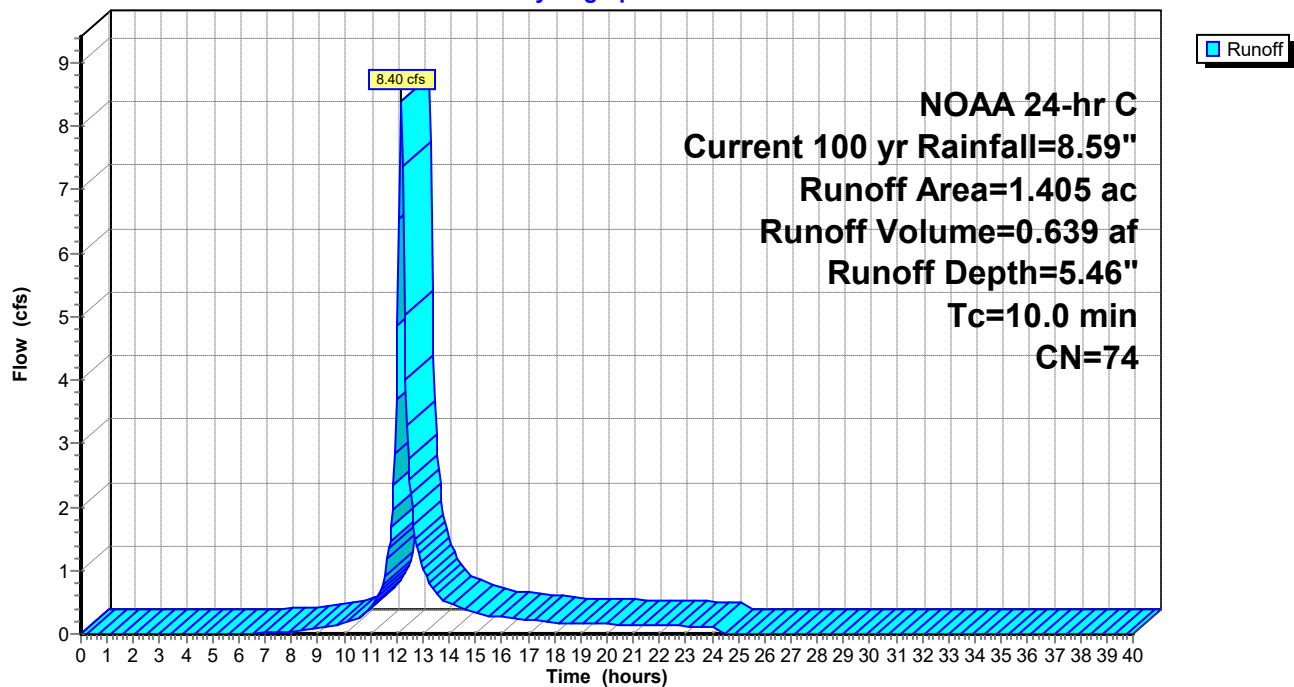
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
1.405	74	>75% Grass cover, Good, HSG C
1.405		100.00% Pervious Area

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

Subcatchment 20P: PDA-20 (pervious)

Hydrograph



Summary for Subcatchment 21I: PDA-21 (impervious)

Runoff = 8.75 cfs @ 12.17 hrs, Volume= 0.776 af, Depth= 8.35"
 Routed to Pond B-21 : Basin #21

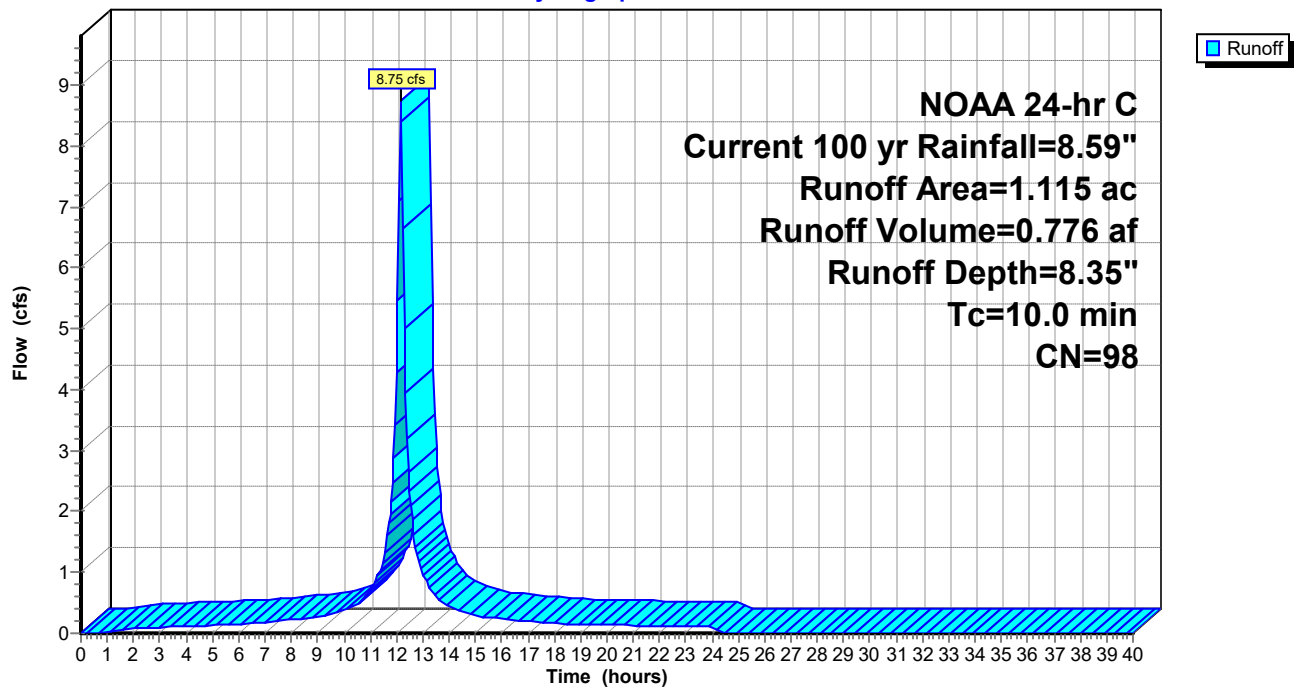
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.556	98	Pavement, HSG C
* 0.514	98	Roof, HSG C
* 0.045	98	Concrete, HSC C
1.115	98	Weighted Average
1.115		100.00% Impervious Area

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

Subcatchment 21I: PDA-21 (impervious)

Hydrograph



Summary for Subcatchment 21P: PDA-21 (pervious)

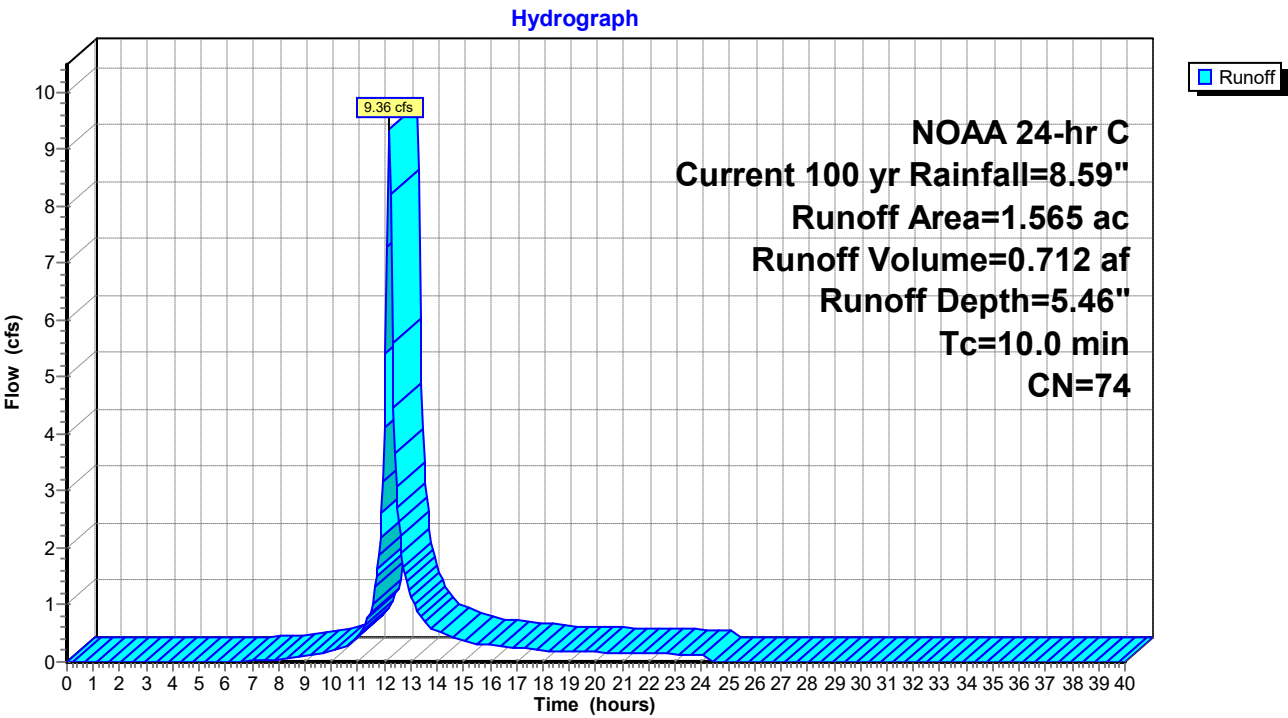
Runoff = 9.36 cfs @ 12.17 hrs, Volume= 0.712 af, Depth= 5.46"
Routed to Pond B-21 : Basin #21

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
1.565	74	>75% Grass cover, Good, HSG C
1.565		100.00% Pervious Area

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

Subcatchment 21P: PDA-21 (pervious)



Summary for Subcatchment 22I: PDA-22 (impervious)

Runoff = 6.50 cfs @ 12.17 hrs, Volume= 0.576 af, Depth= 8.35"
 Routed to Pond B-22 : Basin #22

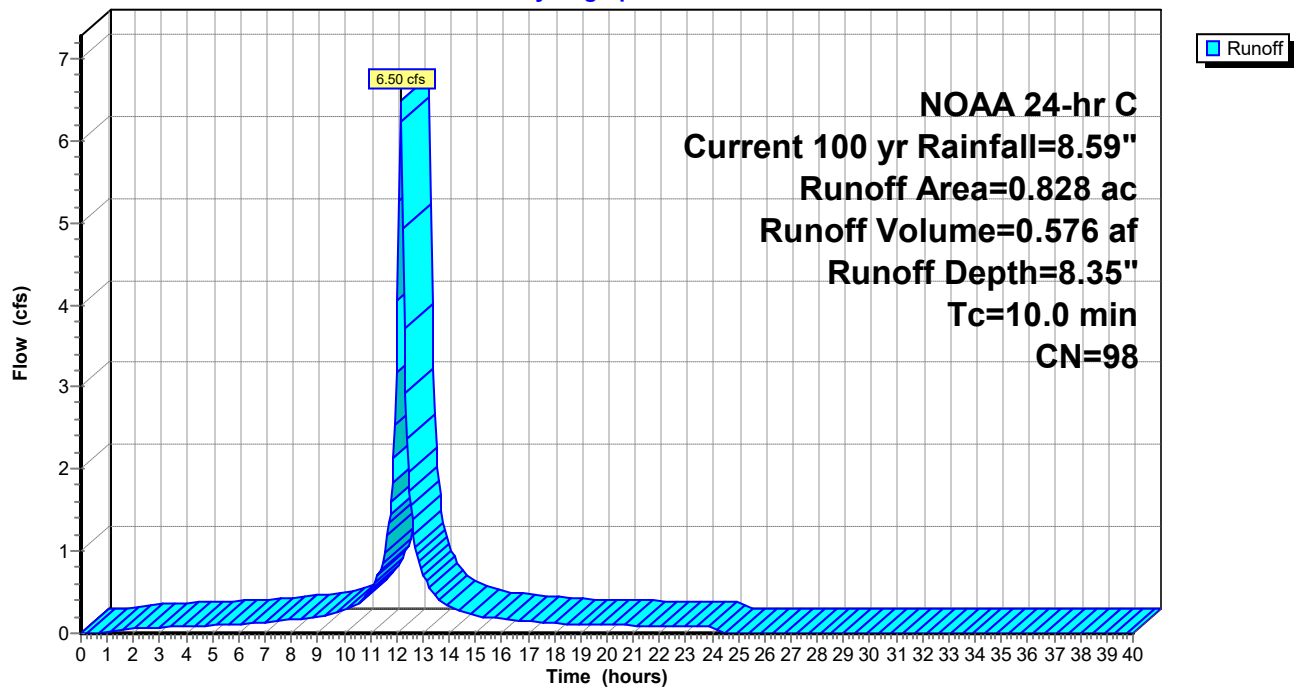
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.372	98	Pavement, HSG C
* 0.386	98	Roof, HSG C
* 0.070	98	Concrete, HSC C
0.828	98	Weighted Average
0.828		100.00% Impervious Area

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

Subcatchment 22I: PDA-22 (impervious)

Hydrograph



Summary for Subcatchment 22P: PDA-22 (pervious)

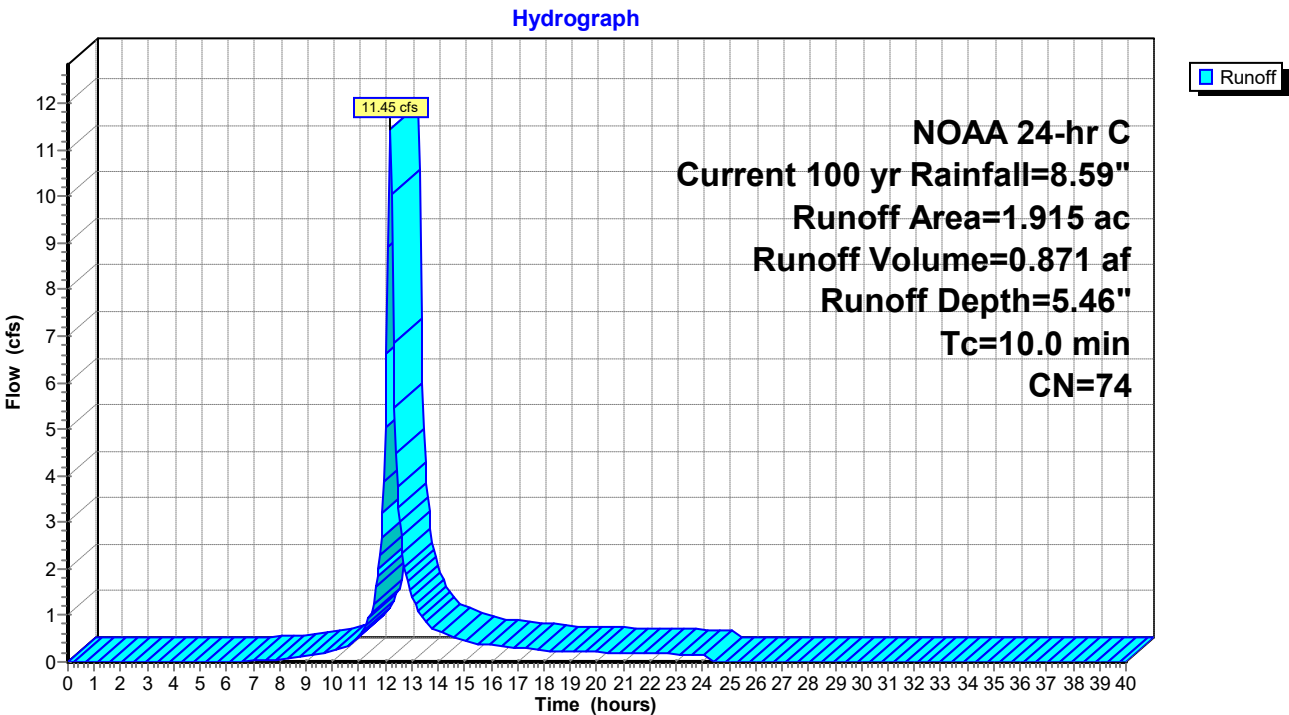
Runoff = 11.45 cfs @ 12.17 hrs, Volume= 0.871 af, Depth= 5.46"
Routed to Pond B-22 : Basin #22

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
1.915	74	>75% Grass cover, Good, HSG C
1.915		100.00% Pervious Area

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

Subcatchment 22P: PDA-22 (pervious)



Summary for Subcatchment 23I: PDA-23 (impervious)

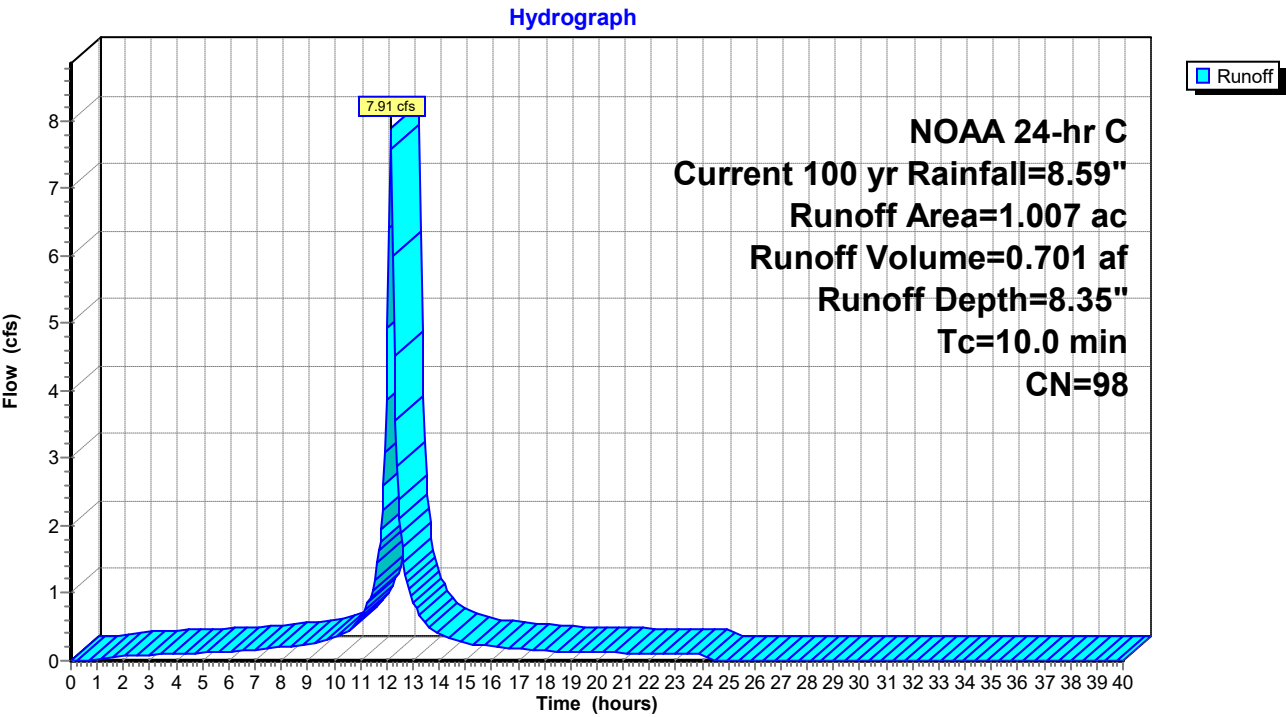
Runoff = 7.91 cfs @ 12.17 hrs, Volume= 0.701 af, Depth= 8.35"
Routed to Pond B-23 : Basin #23

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.987	98	Pavement, HSG C
* 0.020	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 23I: PDA-23 (impervious)



Summary for Subcatchment 23P: PDA-23 (pervious)

Runoff = 3.01 cfs @ 12.17 hrs, Volume= 0.229 af, Depth= 5.46"
 Routed to Pond B-23 : Basin #23

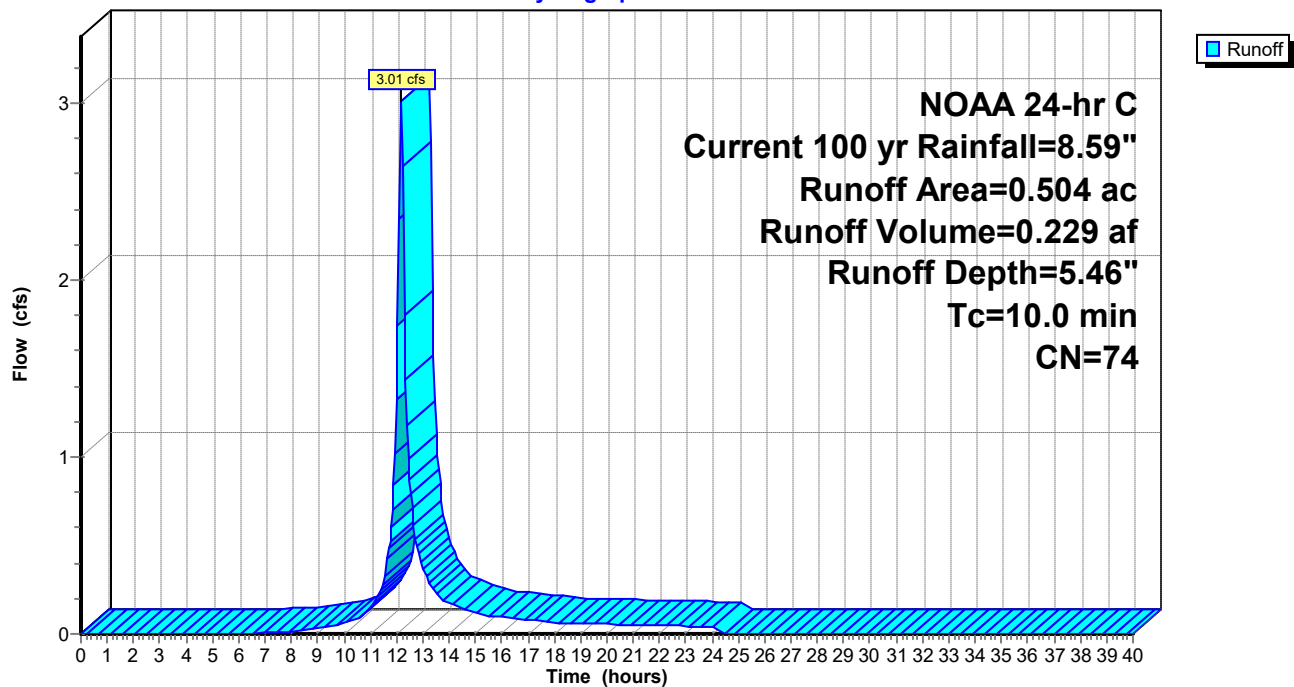
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
0.504	74	>75% Grass cover, Good, HSG C
0.504		100.00% Pervious Area

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

Subcatchment 23P: PDA-23 (pervious)

Hydrograph



Summary for Subcatchment 24I: PDA-24 (impervious)

Runoff = 9.63 cfs @ 12.17 hrs, Volume= 0.854 af, Depth= 8.35"
 Routed to Pond B-24 : Basin #24

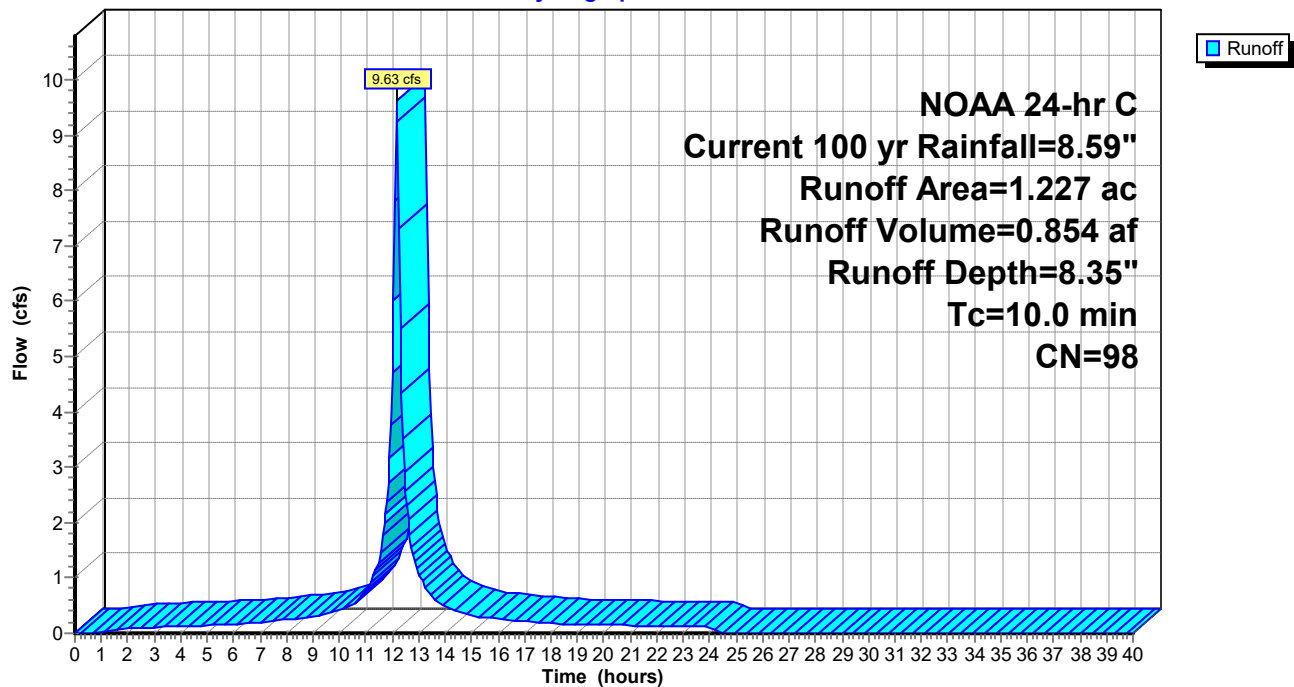
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.525	98	Pavement, HSG C
* 0.643	98	Roof, HSG C
* 0.059	98	Concrete, HSC C
1.227	98	Weighted Average
1.227		100.00% Impervious Area

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

Subcatchment 24I: PDA-24 (impervious)

Hydrograph



Summary for Subcatchment 24P: PDA-24 (pervious)

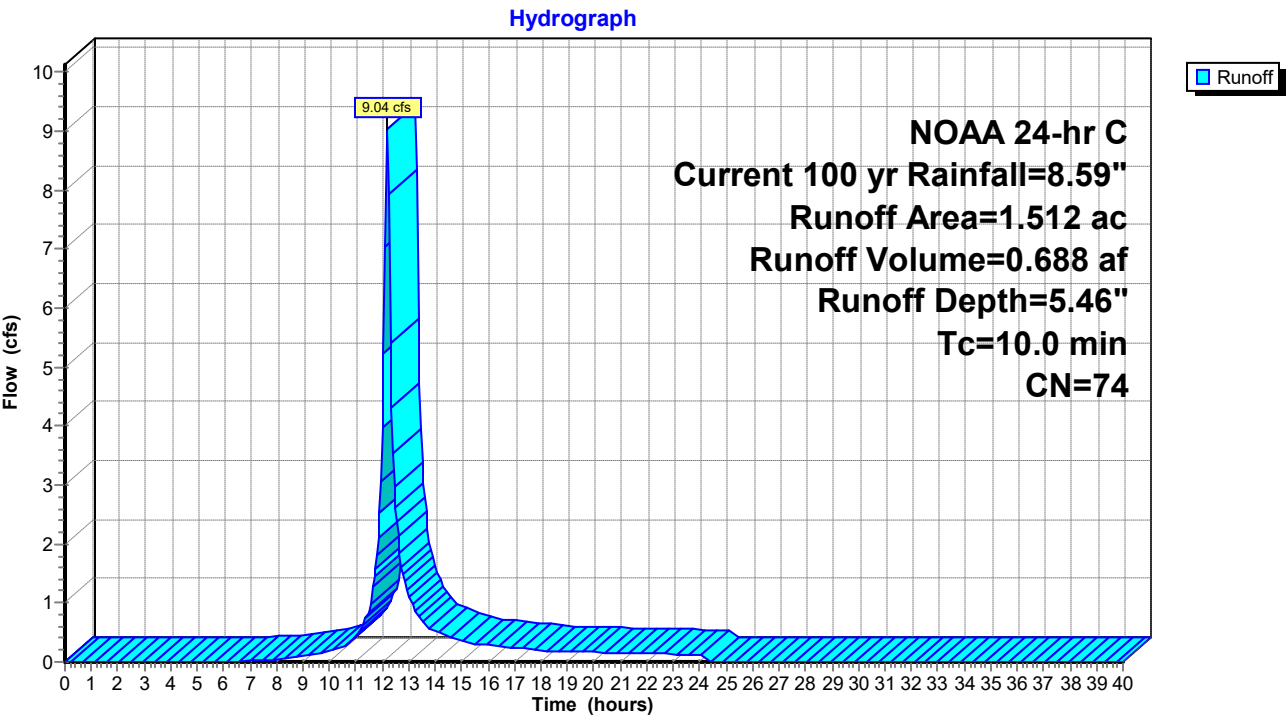
Runoff = 9.04 cfs @ 12.17 hrs, Volume= 0.688 af, Depth= 5.46"
Routed to Pond B-24 : Basin #24

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
1.512	74	>75% Grass cover, Good, HSG C
1.512		100.00% Pervious Area

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

Subcatchment 24P: PDA-24 (pervious)



Summary for Subcatchment 25I: PDA-25 (impervious)

Runoff = 9.24 cfs @ 12.17 hrs, Volume= 0.819 af, Depth= 8.35"
 Routed to Pond B-25 : Basin #25

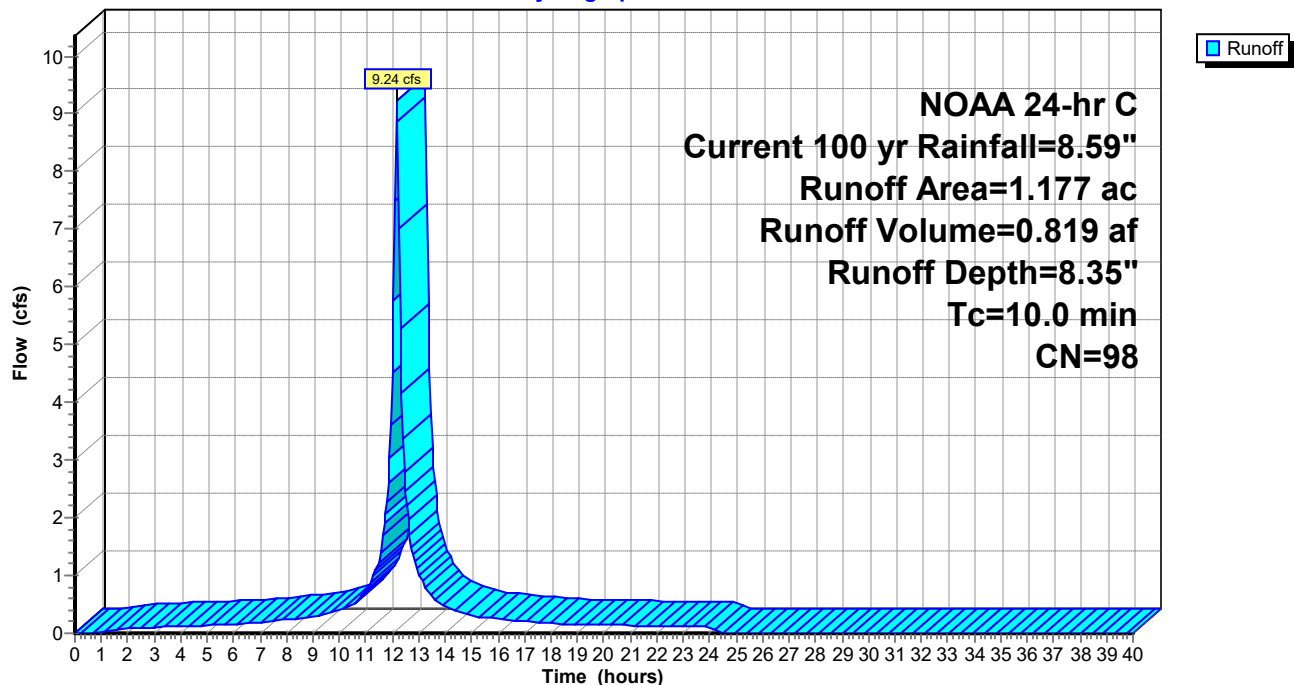
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.573	98	Pavement, HSG C
* 0.514	98	Roof, HSG C
* 0.090	98	Concrete, HSC C
1.177	98	Weighted Average
1.177		100.00% Impervious Area

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

Subcatchment 25I: PDA-25 (impervious)

Hydrograph



Summary for Subcatchment 25P: PDA-25 (pervious)

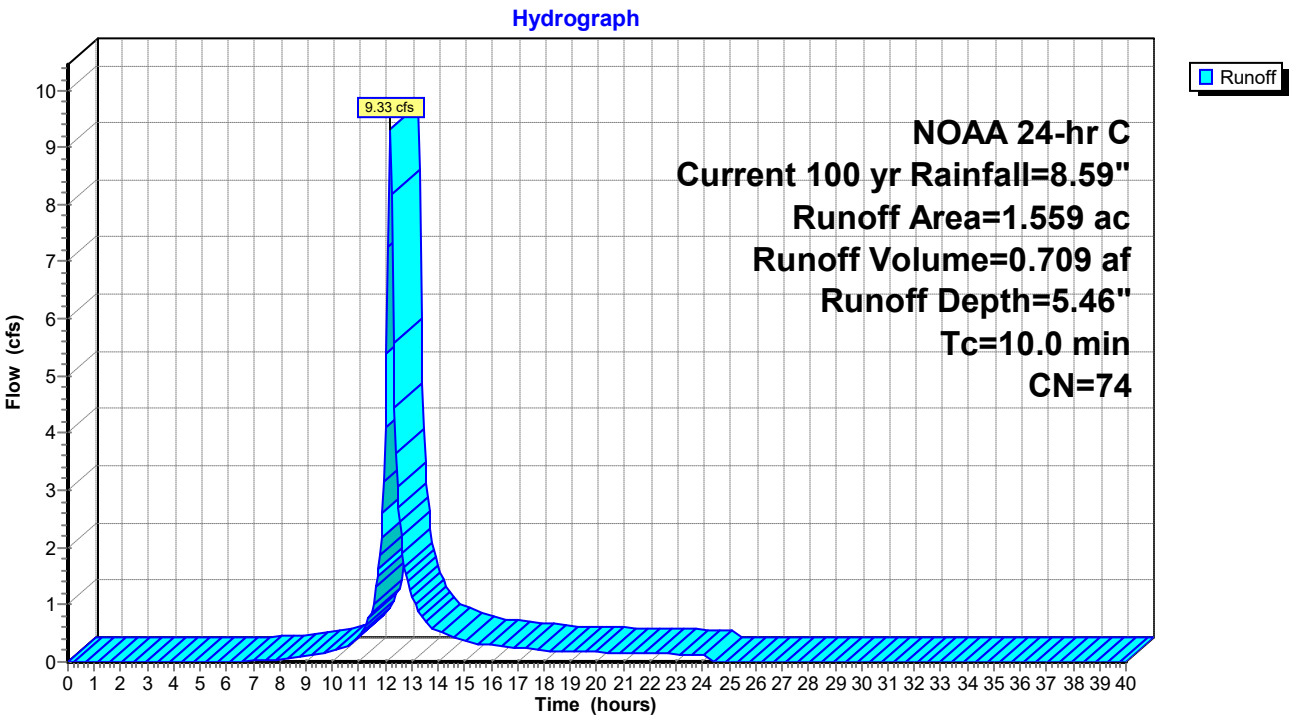
Runoff = 9.33 cfs @ 12.17 hrs, Volume= 0.709 af, Depth= 5.46"
Routed to Pond B-25 : Basin #25

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
1.559	74	>75% Grass cover, Good, HSG C
1.559		100.00% Pervious Area

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

Subcatchment 25P: PDA-25 (pervious)



Summary for Subcatchment 26I: PDA-26 (impervious)

Runoff = 7.61 cfs @ 12.17 hrs, Volume= 0.674 af, Depth= 8.35"
 Routed to Pond B-26 : Basin #26

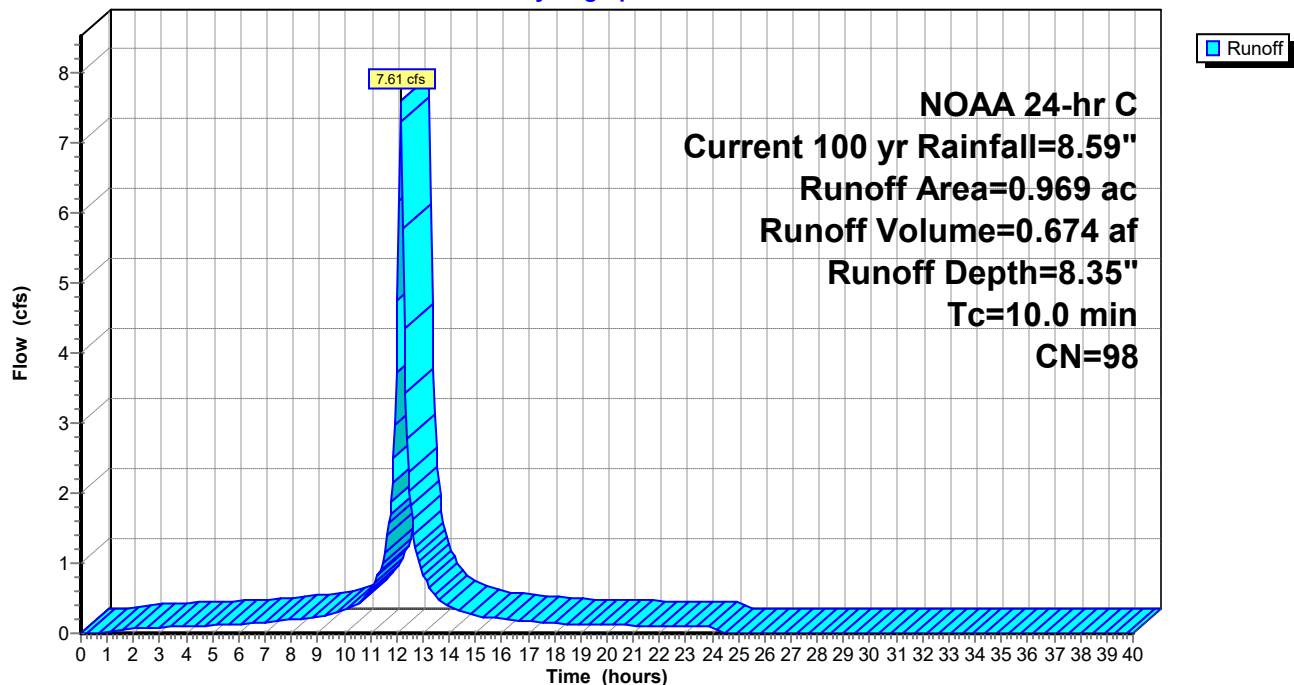
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.277	98	Pavement, HSG C
* 0.687	98	Roof, HSG C
* 0.005	98	Concrete, HSC C
0.969	98	Weighted Average
0.969		100.00% Impervious Area

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

Subcatchment 26I: PDA-26 (impervious)

Hydrograph



Summary for Subcatchment 26P: PDA-26 (pervious)

Runoff = 10.28 cfs @ 12.17 hrs, Volume= 0.781 af, Depth= 5.46"
 Routed to Pond B-26 : Basin #26

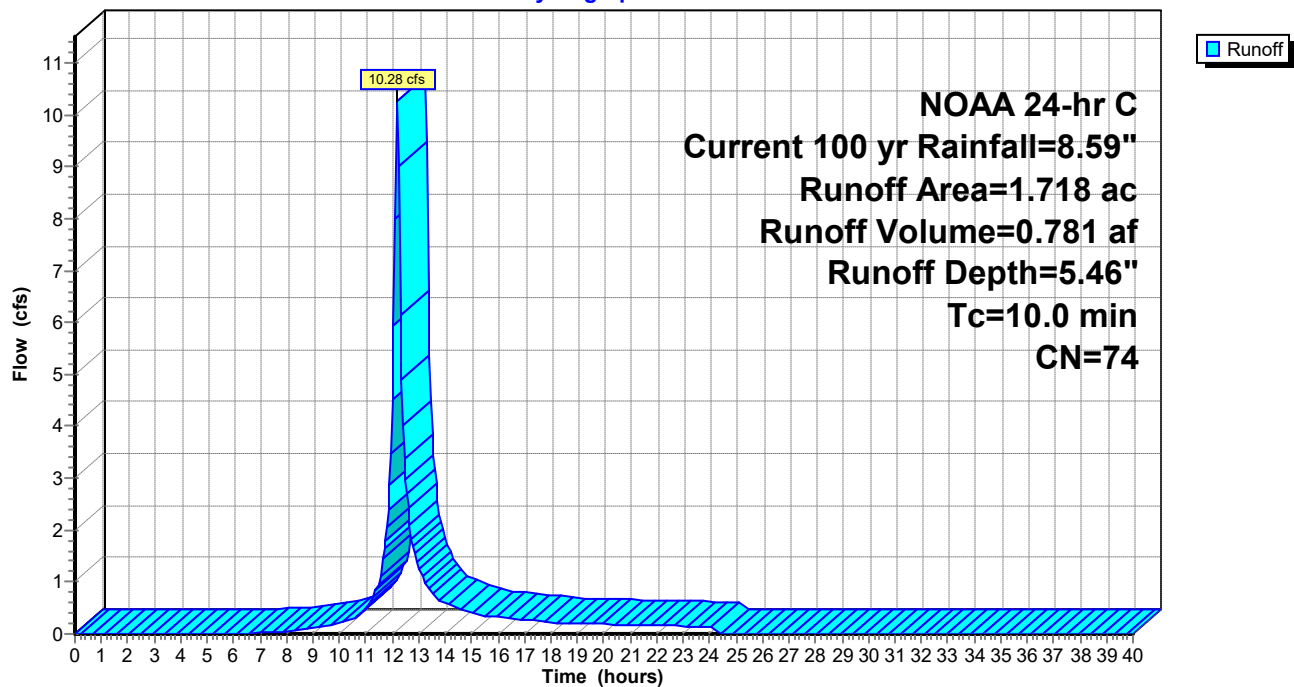
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
1.718	74	>75% Grass cover, Good, HSG C
1.718		100.00% Pervious Area

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

Subcatchment 26P: PDA-26 (pervious)

Hydrograph



Summary for Subcatchment 27I: PDA-27 (impervious)

Runoff = 9.14 cfs @ 12.17 hrs, Volume= 0.810 af, Depth= 8.35"
 Routed to Pond B-27 : Basin #27

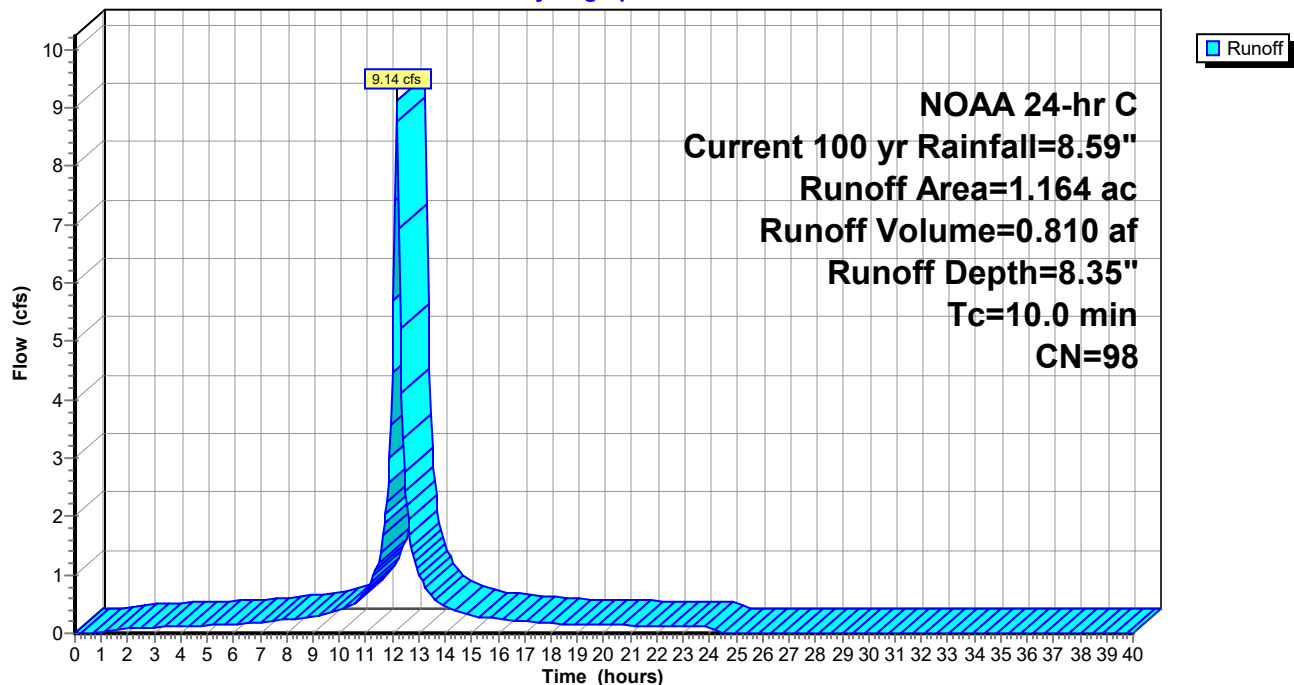
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.410	98	Pavement, HSG C
* 0.707	98	Roof, HSG C
* 0.047	98	Concrete, HSC C
1.164	98	Weighted Average
1.164		100.00% Impervious Area

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

Subcatchment 27I: PDA-27 (impervious)

Hydrograph



Summary for Subcatchment 27P: PDA-27 (pervious)

Runoff = 7.48 cfs @ 12.17 hrs, Volume= 0.568 af, Depth= 5.46"
 Routed to Pond B-27 : Basin #27

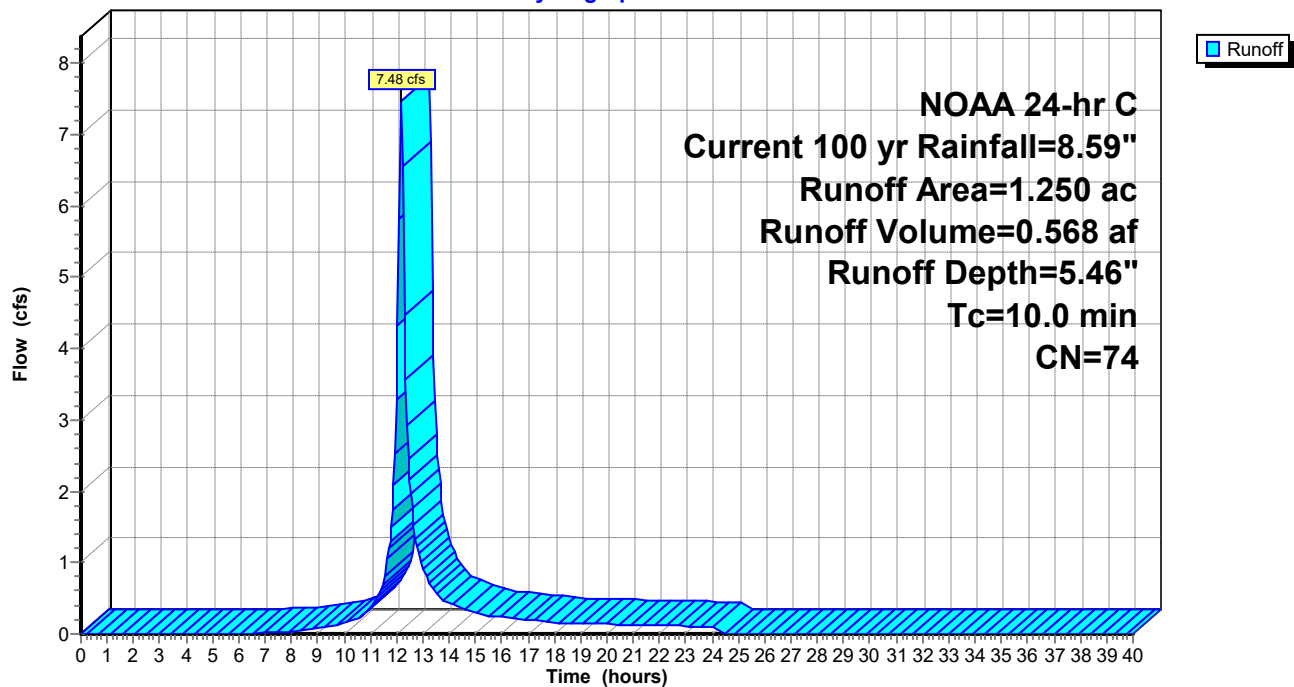
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
1.250	74	>75% Grass cover, Good, HSG C
1.250		100.00% Pervious Area

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

Subcatchment 27P: PDA-27 (pervious)

Hydrograph



Summary for Subcatchment 28I: PDA-28 (impervious)

Runoff = 8.13 cfs @ 12.17 hrs, Volume= 0.720 af, Depth= 8.35"
 Routed to Pond B-28 : Basin #28

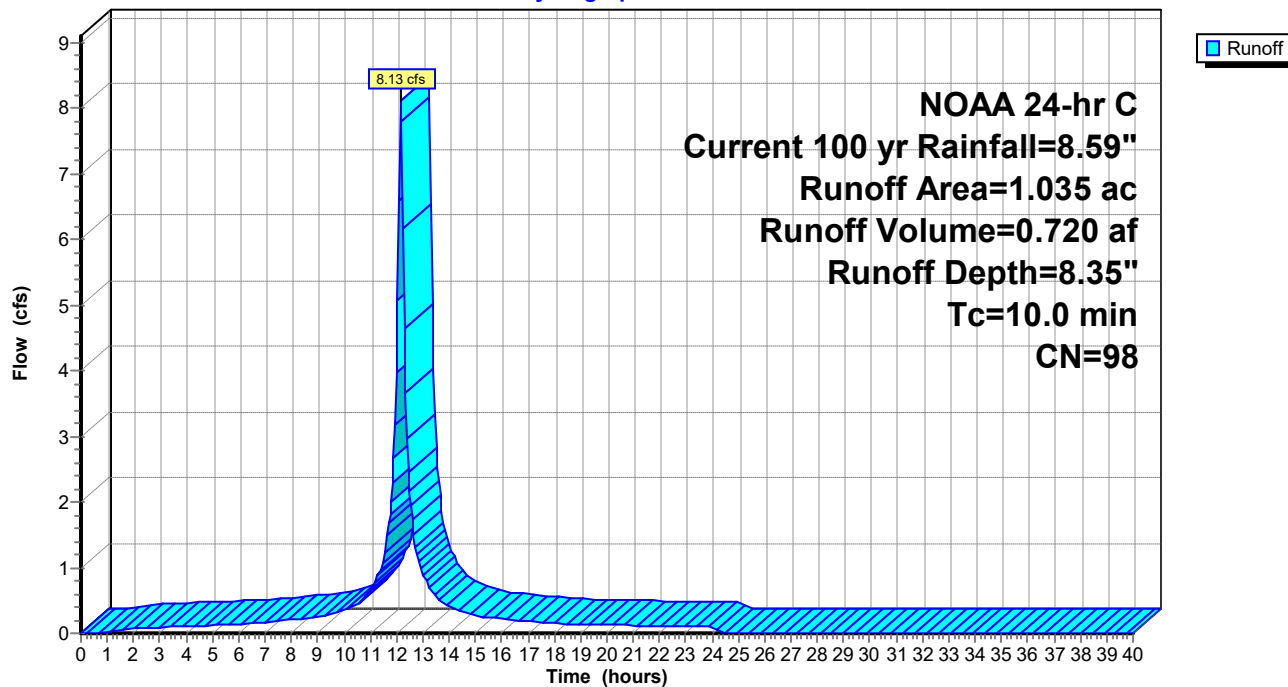
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
* 0.179	98	Pavement, HSG C
* 0.836	98	Roof, HSG C
* 0.020	98	Concrete, HSC C
1.035	98	Weighted Average
1.035		100.00% Impervious Area

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

Subcatchment 28I: PDA-28 (impervious)

Hydrograph



Summary for Subcatchment 28P: PDA-28 (pervious)

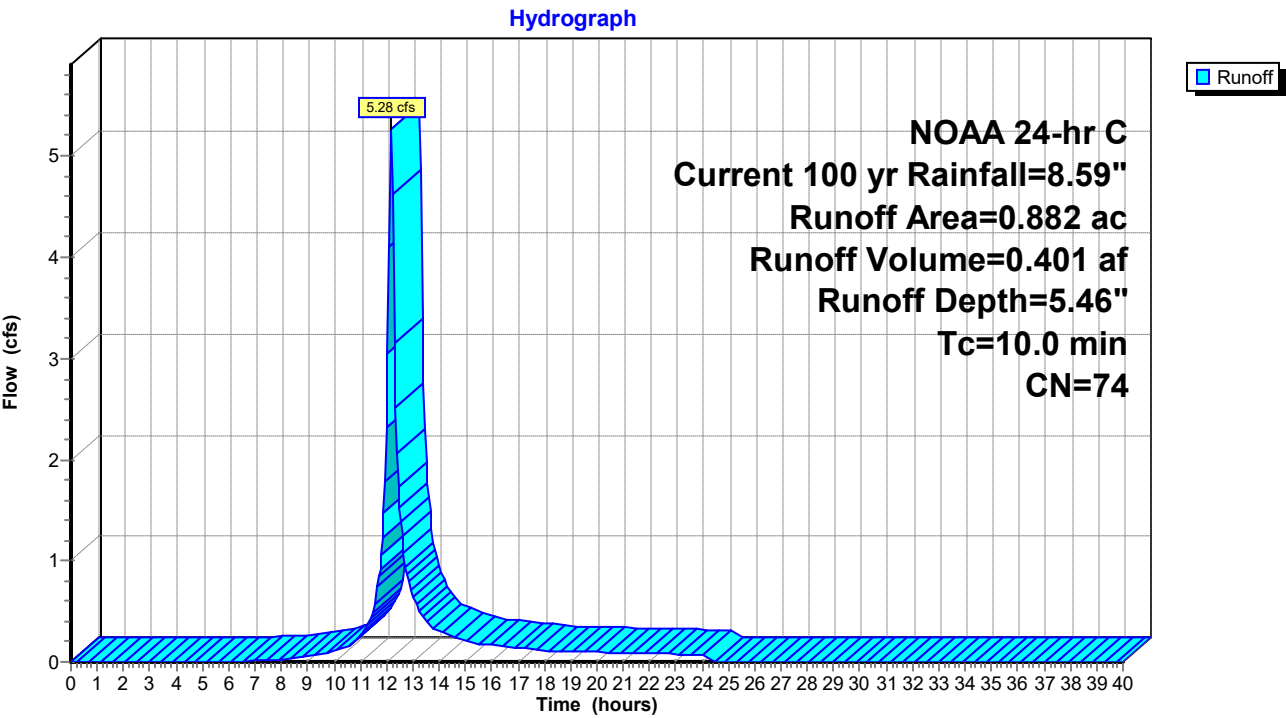
Runoff = 5.28 cfs @ 12.17 hrs, Volume= 0.401 af, Depth= 5.46"
Routed to Pond B-28 : Basin #28

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 Current 100 yr Rainfall=8.59"

Area (ac)	CN	Description
0.882	74	>75% Grass cover, Good, HSG C
0.882		100.00% Pervious Area

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

Subcatchment 28P: PDA-28 (pervious)



Summary for Subcatchment UPDA-1: PDA-1 (undetained)

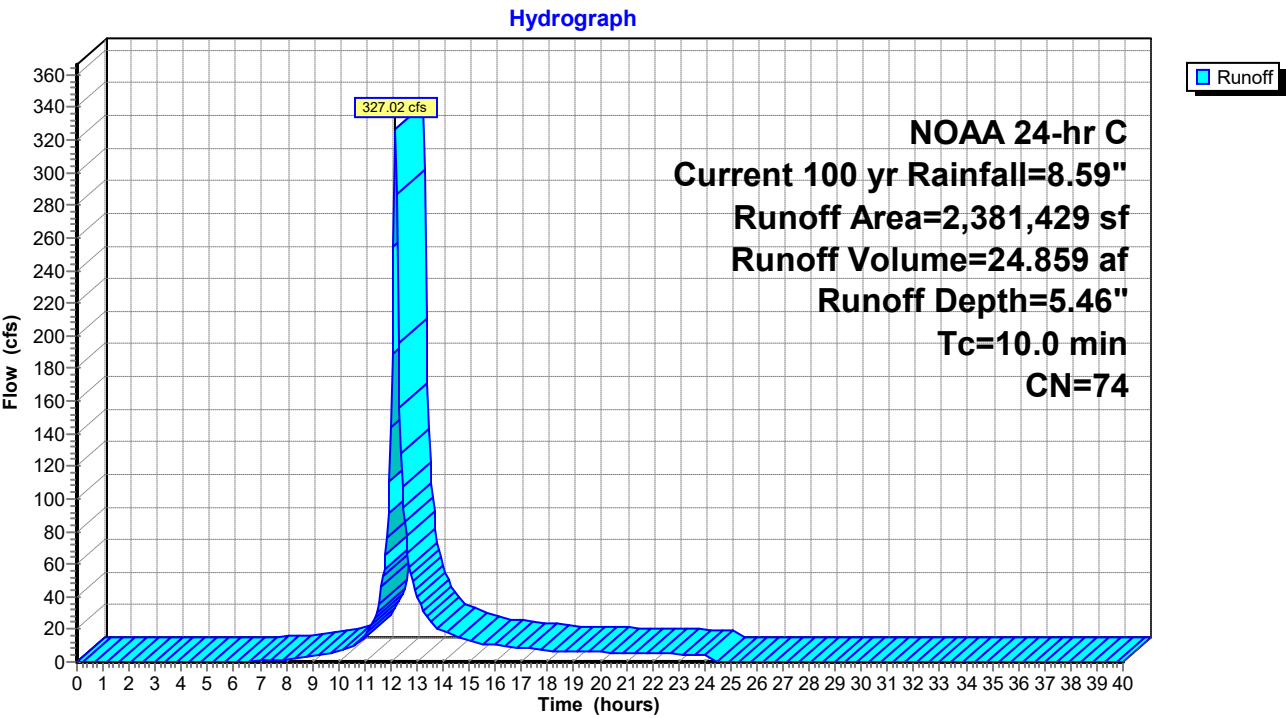
Runoff = 327.02 cfs @ 12.17 hrs, Volume= 24.859 af, Depth= 5.46"
Routed to Link PDA-1 : Proposed Drainage Area #1

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 Current 100 yr Rainfall=8.59"

Area (sf)	CN	Description
2,381,429	74	>75% Grass cover, Good, HSG C
2,381,429		100.00% Pervious Area

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

Subcatchment UPDA-1: PDA-1 (undetained)



Summary for Subcatchment UPDA-2: PDA-2 (undetained)

Runoff = 56.26 cfs @ 12.17 hrs, Volume= 4.277 af, Depth= 5.46"

Routed to Link PDA-2 : Proposed Drainage Area #2

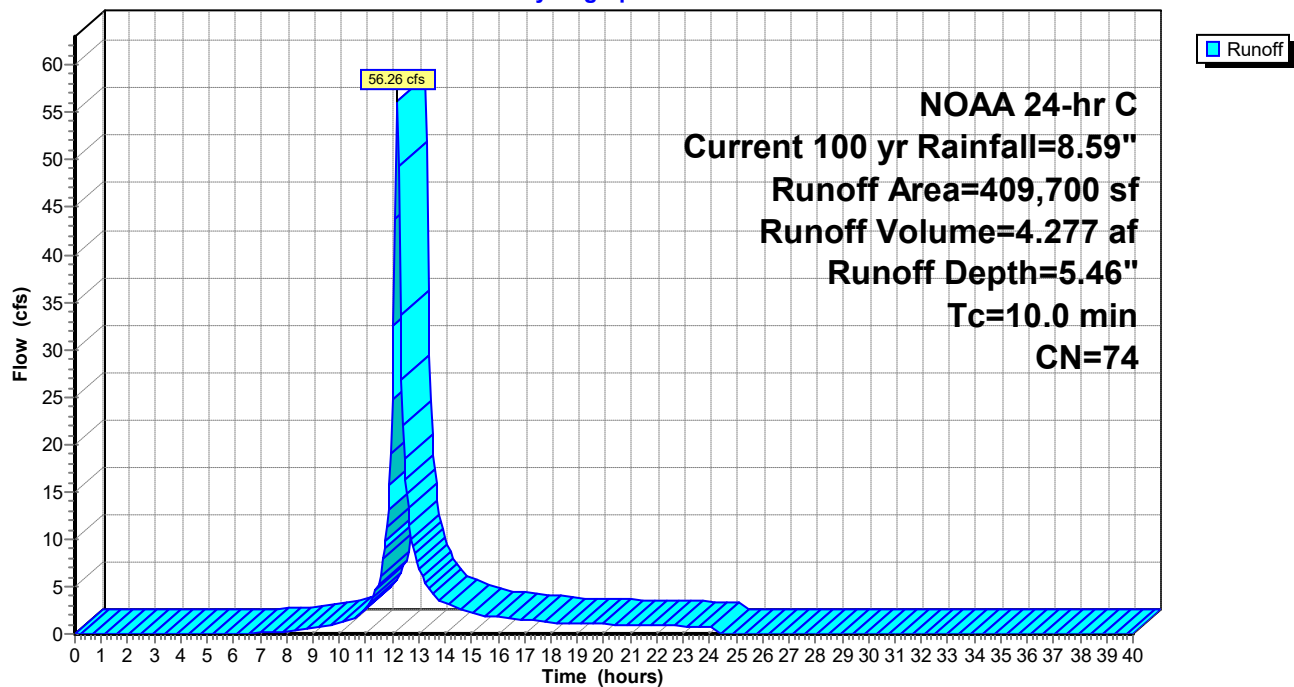
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Current 100 yr Rainfall=8.59"

Area (sf)	CN	Description
409,700	74	>75% Grass cover, Good, HSG C
409,700		100.00% Pervious Area

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

Subcatchment UPDA-2: PDA-2 (undetained)

Hydrograph



Summary for Pond B-1: Basin #1

Inflow Area = 2.485 ac, 4.79% Impervious, Inflow Depth = 5.60" for Current 100 yr event
 Inflow = 15.09 cfs @ 12.17 hrs, Volume= 1.159 af
 Outflow = 8.34 cfs @ 12.32 hrs, Volume= 1.001 af, Atten= 45%, Lag= 8.9 min
 Primary = 8.34 cfs @ 12.32 hrs, Volume= 1.001 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 210.42' @ 12.32 hrs Surf.Area= 11,544 sf Storage= 18,981 cf

Plug-Flow detention time= 216.6 min calculated for 1.001 af (86% of inflow)
 Center-of-Mass det. time= 153.4 min (968.2 - 814.8)

Volume	Invert	Avail.Storage	Storage Description
#1	208.30'	38,468 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
208.30	0	0	0
209.00	10,187	3,565	3,565
210.00	11,133	10,660	14,225
211.00	12,113	11,623	25,848
212.00	13,126	12,620	38,468

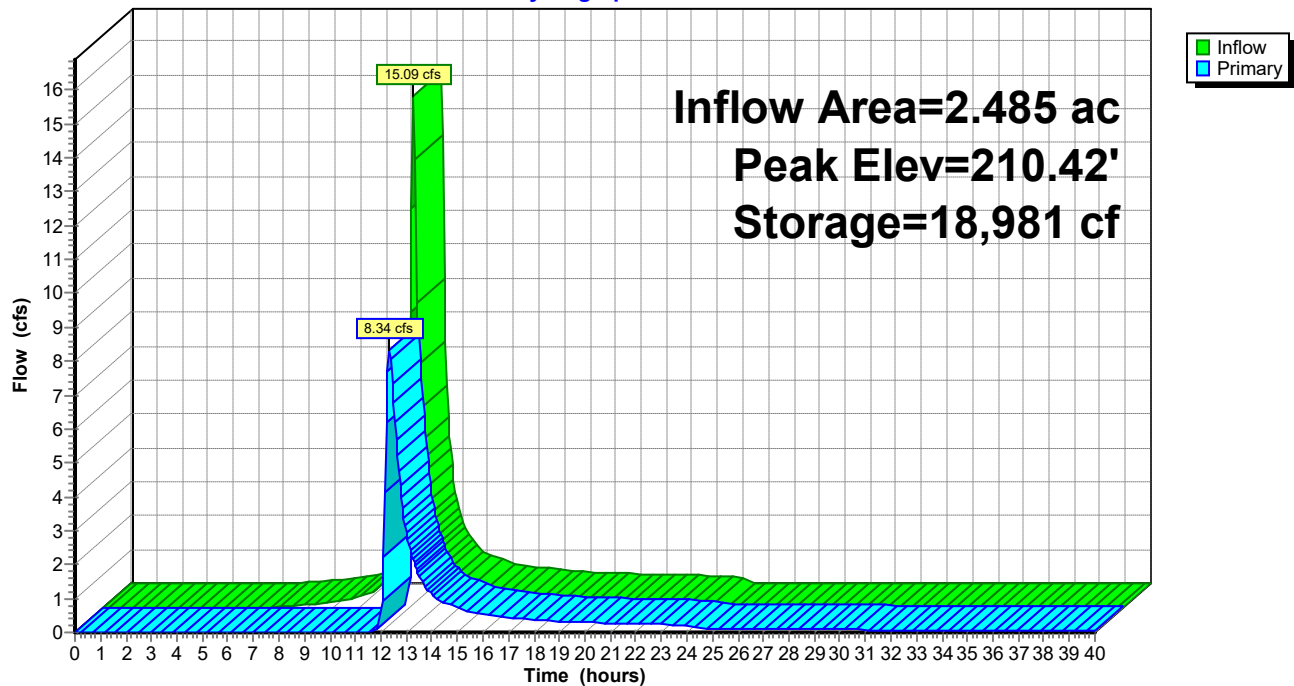
Device	Routing	Invert	Outlet Devices
#1	Primary	207.65'	18.0" Round Culvert L= 276.0' Ke= 0.500 Inlet / Outlet Invert= 207.65' / 204.00' S= 0.0132 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	209.17'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	209.67'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	210.80'	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=8.26 cfs @ 12.32 hrs HW=210.41' (Free Discharge)

1=Culvert (Passes 8.26 cfs of 12.08 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.18 cfs @ 5.14 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 8.09 cfs @ 2.82 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-1: Basin #1

Hydrograph



Summary for Pond B-10: Basin #10

Inflow Area = 1.674 ac, 56.63% Impervious, Inflow Depth = 7.10" for Current 100 yr event
 Inflow = 11.78 cfs @ 12.17 hrs, Volume= 0.990 af
 Outflow = 8.93 cfs @ 12.26 hrs, Volume= 0.885 af, Atten= 24%, Lag= 5.3 min
 Primary = 8.93 cfs @ 12.26 hrs, Volume= 0.885 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 181.77' @ 12.26 hrs Surf.Area= 6,510 sf Storage= 16,269 cf

Plug-Flow detention time= 307.9 min calculated for 0.885 af (89% of inflow)
 Center-of-Mass det. time= 253.5 min (1,023.3 - 769.8)

Volume	Invert	Avail.Storage	Storage Description
#1	178.30'	24,949 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
178.30	0	0	0
179.00	4,220	1,477	1,477
180.00	5,003	4,612	6,088
181.00	5,833	5,418	11,506
182.00	6,710	6,272	17,778
183.00	7,633	7,172	24,949

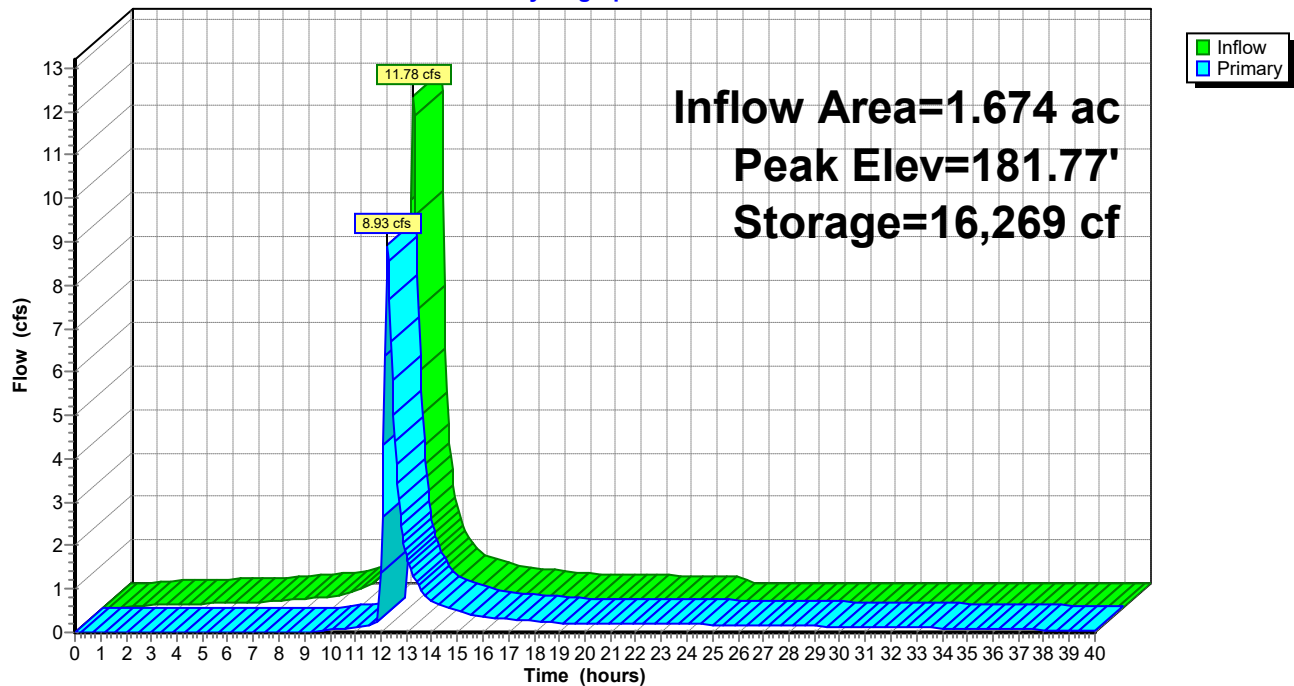
Device	Routing	Invert	Outlet Devices
#1	Primary	177.65'	18.0" Round Culvert L= 52.0' Ke= 0.500 Inlet / Outlet Invert= 177.65' / 176.00' S= 0.0317 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	179.53'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	180.99'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	181.86'	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=8.85 cfs @ 12.26 hrs HW=181.77' (Free Discharge)

- 1=Culvert (Passes 8.85 cfs of 15.61 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.24 cfs @ 7.03 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 8.61 cfs @ 2.88 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-10: Basin #10

Hydrograph



Summary for Pond B-11: Basin #11

Inflow Area = 2.668 ac, 34.97% Impervious, Inflow Depth = 6.47" for Current 100 yr event
 Inflow = 17.70 cfs @ 12.17 hrs, Volume= 1.438 af
 Outflow = 13.25 cfs @ 12.26 hrs, Volume= 1.298 af, Atten= 25%, Lag= 5.5 min
 Primary = 13.25 cfs @ 12.26 hrs, Volume= 1.298 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 183.38' @ 12.26 hrs Surf.Area= 7,467 sf Storage= 22,237 cf

Plug-Flow detention time= 281.7 min calculated for 1.298 af (90% of inflow)
 Center-of-Mass det. time= 230.9 min (1,017.0 - 786.1)

Volume	Invert	Avail.Storage	Storage Description
#1	179.30'	44,897 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
179.30	0	0	0
180.00	4,780	1,673	1,673
181.00	5,522	5,151	6,824
182.00	6,306	5,914	12,738
183.00	7,135	6,721	19,458
184.00	8,007	7,571	27,029
185.00	8,923	8,465	35,494
186.00	9,882	9,403	44,897

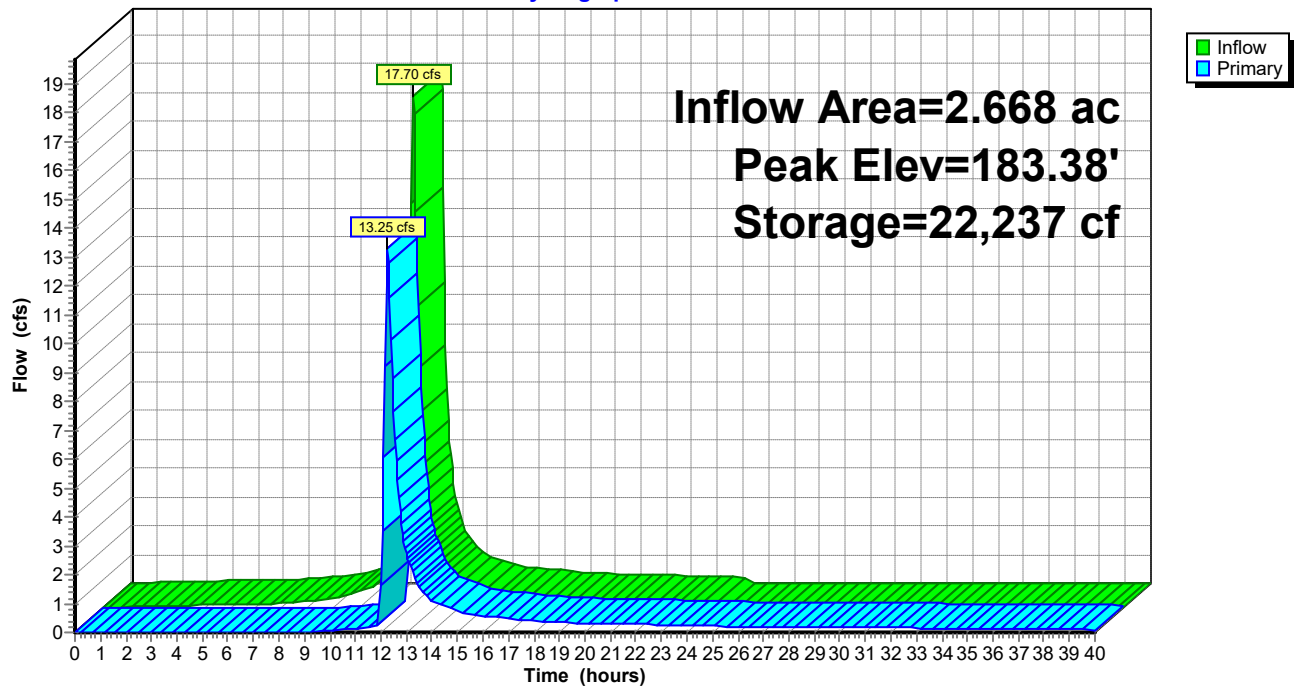
Device	Routing	Invert	Outlet Devices
#1	Primary	178.65'	18.0" Round Culvert L= 131.0' Ke= 0.500 Inlet / Outlet Invert= 178.65' / 178.00' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	180.47'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	182.35'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	183.91'	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=13.10 cfs @ 12.26 hrs HW=183.37' (Free Discharge)

- 1=Culvert (Passes 13.10 cfs of 14.14 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.27 cfs @ 8.05 fps)
- 3=Sharp-Crested Rectangular Weir (Weir Controls 12.83 cfs @ 3.31 fps)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-11: Basin #11

Hydrograph



Summary for Pond B-12: Basin #12

Inflow Area = 2.004 ac, 68.31% Impervious, Inflow Depth = 7.43" for Current 100 yr event
 Inflow = 14.54 cfs @ 12.17 hrs, Volume= 1.241 af
 Outflow = 11.31 cfs @ 12.25 hrs, Volume= 1.117 af, Atten= 22%, Lag= 5.0 min
 Primary = 11.31 cfs @ 12.25 hrs, Volume= 1.117 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 203.70' @ 12.25 hrs Surf.Area= 6,647 sf Storage= 16,774 cf

Plug-Flow detention time= 151.5 min calculated for 1.115 af (90% of inflow)
 Center-of-Mass det. time= 100.4 min (862.6 - 762.2)

Volume	Invert	Avail.Storage	Storage Description
#1	200.30'	26,105 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	4,623	1,618	1,618
202.00	5,350	4,987	6,605
203.00	6,105	5,728	12,332
204.00	6,883	6,494	18,826
205.00	7,674	7,279	26,105

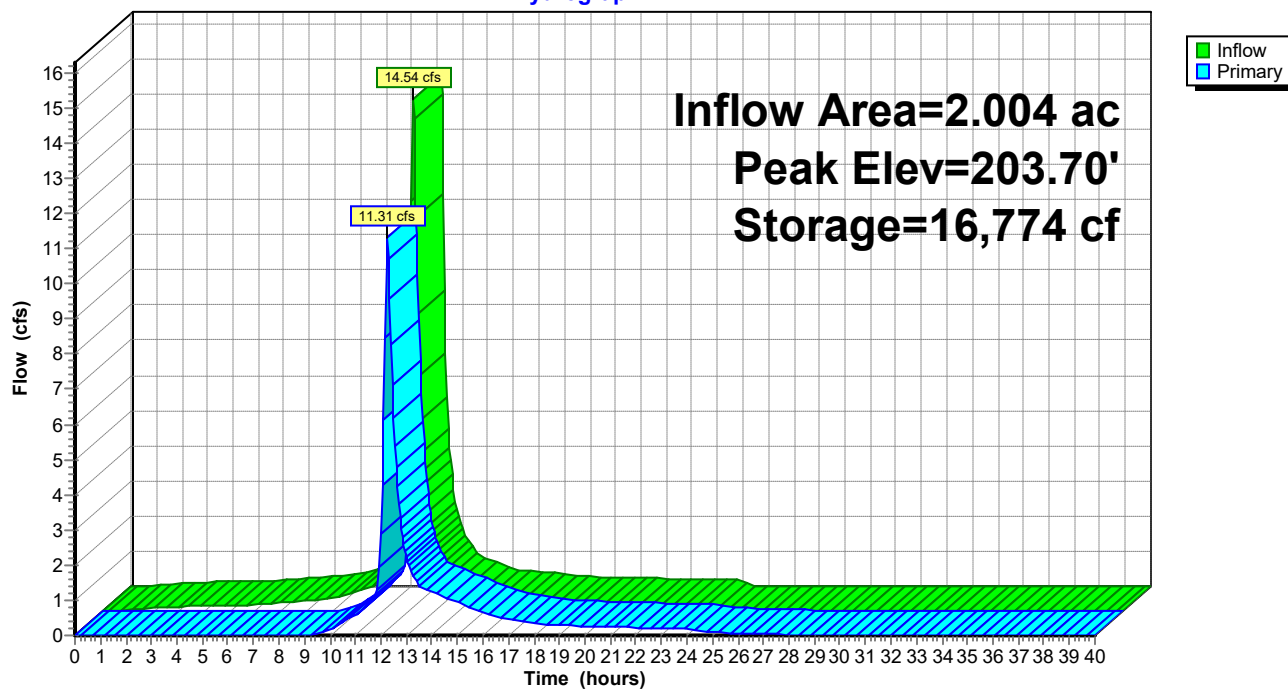
Device	Routing	Invert	Outlet Devices
#1	Primary	199.65'	18.0" Round Culvert L= 238.0' Ke= 0.500 Inlet / Outlet Invert= 199.65' / 195.50' S= 0.0174 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	201.76'	7.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	202.87'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	203.96'	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 @ 12.25 hrs HW=203.69' (Free Discharge)

1=Culvert (Passes 11.26 cfs of 15.17 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 1.88 cfs @ 6.13 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 9.38 cfs @ 2.97 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-12: Basin #12

Hydrograph



Summary for Pond B-13: Basin #13

Inflow Area = 2.350 ac, 62.43% Impervious, Inflow Depth = 7.26" for Current 100 yr event
 Inflow = 16.80 cfs @ 12.17 hrs, Volume= 1.422 af
 Outflow = 10.56 cfs @ 12.29 hrs, Volume= 1.195 af, Atten= 37%, Lag= 7.4 min
 Primary = 10.56 cfs @ 12.29 hrs, Volume= 1.195 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 194.63' @ 12.29 hrs Surf.Area= 10,201 sf Storage= 26,662 cf

Plug-Flow detention time= 329.3 min calculated for 1.195 af (84% of inflow)
 Center-of-Mass det. time= 257.7 min (1,023.7 - 765.9)

Volume	Invert	Avail.Storage	Storage Description
#1	191.30'	41,458 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
191.30	0	0	0
192.00	7,975	2,791	2,791
193.00	8,804	8,390	11,181
194.00	9,654	9,229	20,410
195.00	10,522	10,088	30,498
196.00	11,399	10,961	41,458

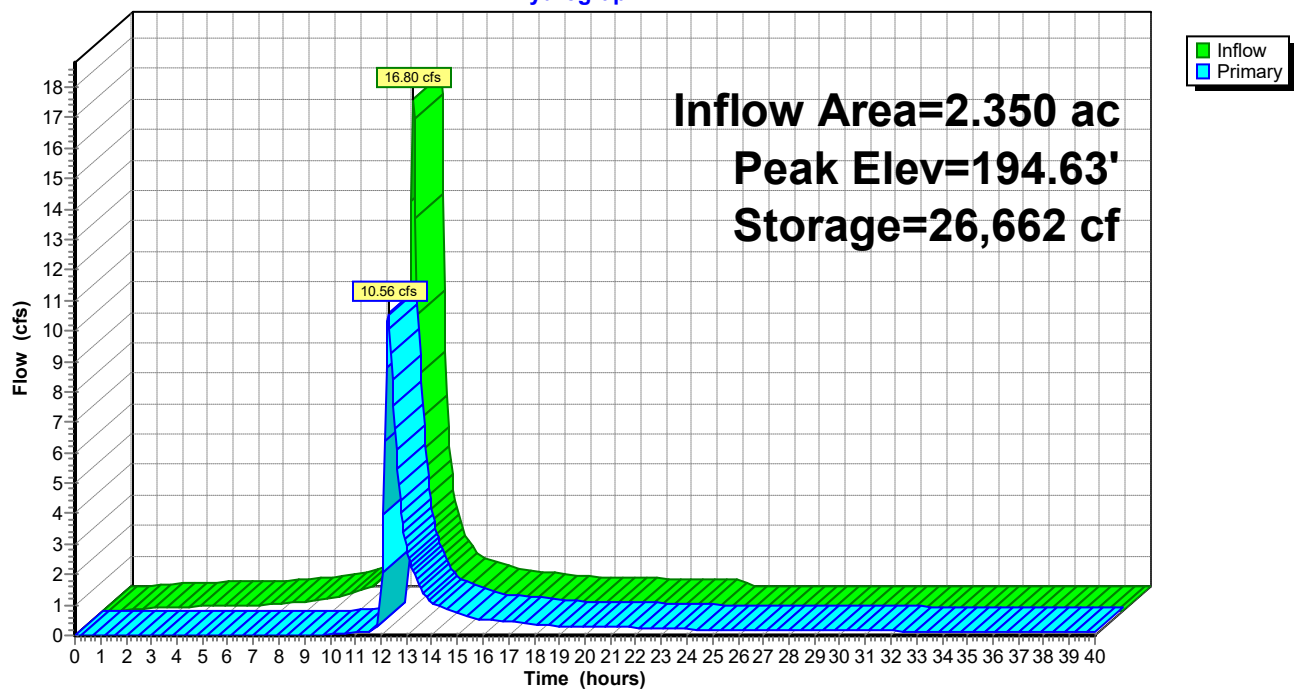
Device	Routing	Invert	Outlet Devices
#1	Primary	190.65'	18.0" Round Culvert L= 57.0' Ke= 0.500 Inlet / Outlet Invert= 190.65' / 188.00' S= 0.0465 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	192.37'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	193.75'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	194.96'	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=10.51 cfs @ 12.29 hrs HW=194.63' (Free Discharge)

1=Culvert (Passes 10.51 cfs of 15.29 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.24 cfs @ 7.06 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 10.27 cfs @ 3.06 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-13: Basin #13

Hydrograph



Summary for Pond B-14: Basin #14

Inflow Area = 2.148 ac, 23.65% Impervious, Inflow Depth = 6.14" for Current 100 yr event
 Inflow = 13.79 cfs @ 12.17 hrs, Volume= 1.099 af
 Outflow = 10.07 cfs @ 12.27 hrs, Volume= 1.011 af, Atten= 27%, Lag= 5.7 min
 Primary = 10.07 cfs @ 12.27 hrs, Volume= 1.011 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 194.12' @ 12.27 hrs Surf.Area= 7,226 sf Storage= 16,436 cf

Plug-Flow detention time= 256.4 min calculated for 1.010 af (92% of inflow)
 Center-of-Mass det. time= 214.5 min (1,010.4 - 795.9)

Volume	Invert	Avail.Storage	Storage Description
#1	191.30'	30,883 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
191.30	0	0	0
192.00	6,224	2,178	2,178
193.00	6,689	6,457	8,635
194.00	7,167	6,928	15,563
195.00	7,657	7,412	22,975
196.00	8,160	7,909	30,883

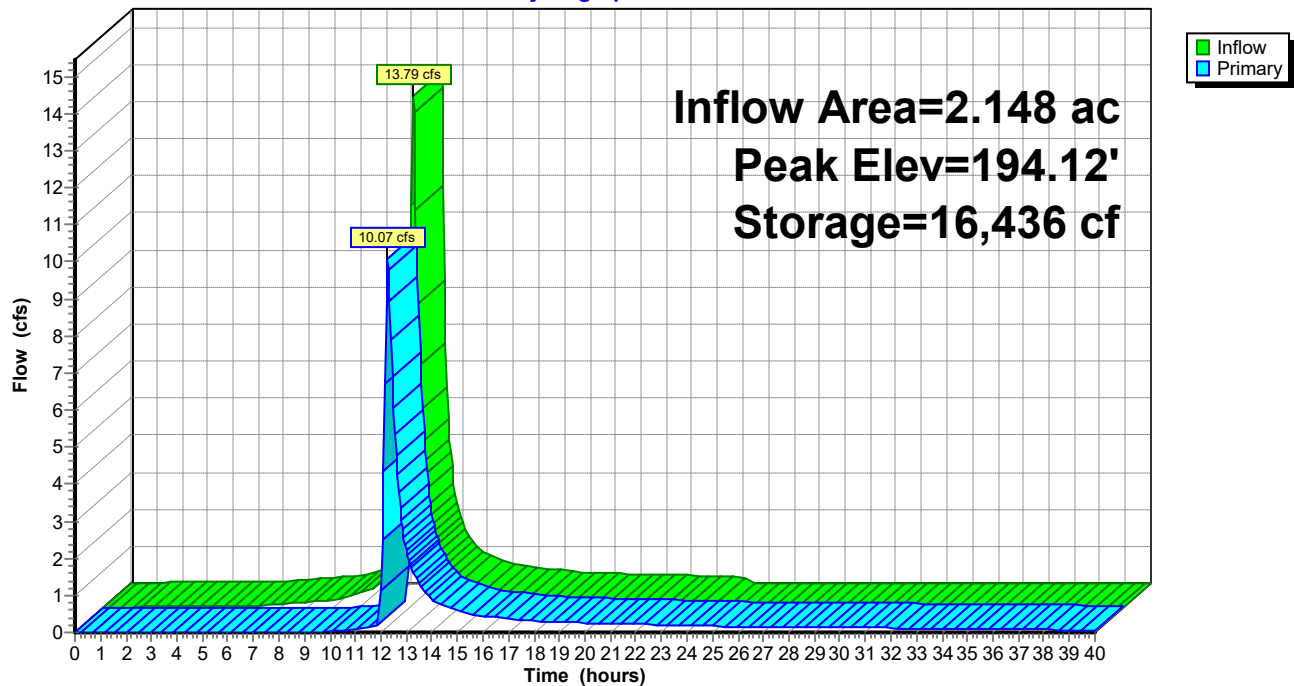
Device	Routing	Invert	Outlet Devices
#1	Primary	190.65'	18.0" Round Culvert L= 194.0' Ke= 0.500 Inlet / Outlet Invert= 190.65' / 188.00' S= 0.0137 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	192.04'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	193.27'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	194.44'	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=9.92 cfs @ 12.27 hrs HW=194.11' (Free Discharge)

- 1=Culvert (Passes 9.92 cfs of 13.56 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.23 cfs @ 6.76 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 9.69 cfs @ 3.00 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-14: Basin #14

Hydrograph



Summary for Pond B-15: Basin #15

Inflow Area = 2.365 ac, 58.73% Impervious, Inflow Depth = 7.16" for Current 100 yr event
 Inflow = 16.74 cfs @ 12.17 hrs, Volume= 1.410 af
 Outflow = 13.76 cfs @ 12.24 hrs, Volume= 1.282 af, Atten= 18%, Lag= 4.4 min
 Primary = 13.76 cfs @ 12.24 hrs, Volume= 1.282 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 199.56' @ 12.24 hrs Surf.Area= 5,731 sf Storage= 17,995 cf

Plug-Flow detention time= 144.6 min calculated for 1.282 af (91% of inflow)
 Center-of-Mass det. time= 96.1 min (864.5 - 768.4)

Volume	Invert	Avail.Storage	Storage Description
#1	195.30'	26,898 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
195.30	0	0	0
196.00	3,706	1,297	1,297
197.00	4,236	3,971	5,268
198.00	4,795	4,516	9,784
199.00	5,384	5,090	14,873
200.00	6,002	5,693	20,566
201.00	6,662	6,332	26,898

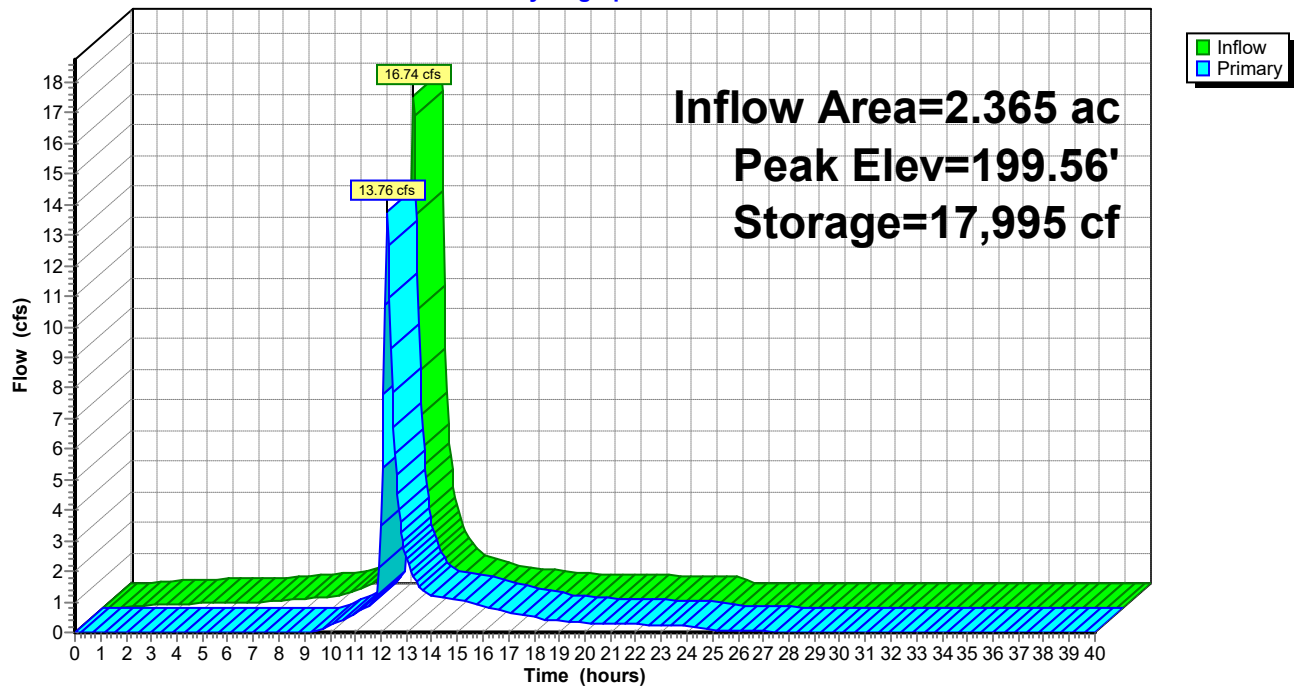
Device	Routing	Invert	Outlet Devices
#1	Primary	194.65'	18.0" Round Culvert L= 203.0' Ke= 0.500 Inlet / Outlet Invert= 194.65' / 192.00' S= 0.0131 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	197.06'	6.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	198.58'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	200.00'	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=13.65 cfs @ 12.24 hrs HW=199.56' (Free Discharge)

1=Culvert (Passes 13.65 cfs of 15.29 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 1.66 cfs @ 7.18 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 12.00 cfs @ 3.23 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-15: Basin #15

Hydrograph



Summary for Pond B-16: Basin #16

Inflow Area = 2.685 ac, 43.39% Impervious, Inflow Depth = 6.71" for Current 100 yr event
 Inflow = 18.23 cfs @ 12.17 hrs, Volume= 1.502 af
 Outflow = 10.40 cfs @ 12.31 hrs, Volume= 1.272 af, Atten= 43%, Lag= 8.5 min
 Primary = 10.40 cfs @ 12.31 hrs, Volume= 1.272 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 180.18' @ 12.31 hrs Surf.Area= 12,124 sf Storage= 27,783 cf

Plug-Flow detention time= 301.7 min calculated for 1.271 af (85% of inflow)
 Center-of-Mass det. time= 233.6 min (1,013.0 - 779.4)

Volume	Invert	Avail.Storage	Storage Description
#1	177.30'	51,430 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
177.30	0	0	0
178.00	10,122	3,543	3,543
179.00	11,022	10,572	14,115
180.00	11,951	11,487	25,601
181.00	12,907	12,429	38,030
182.00	13,893	13,400	51,430

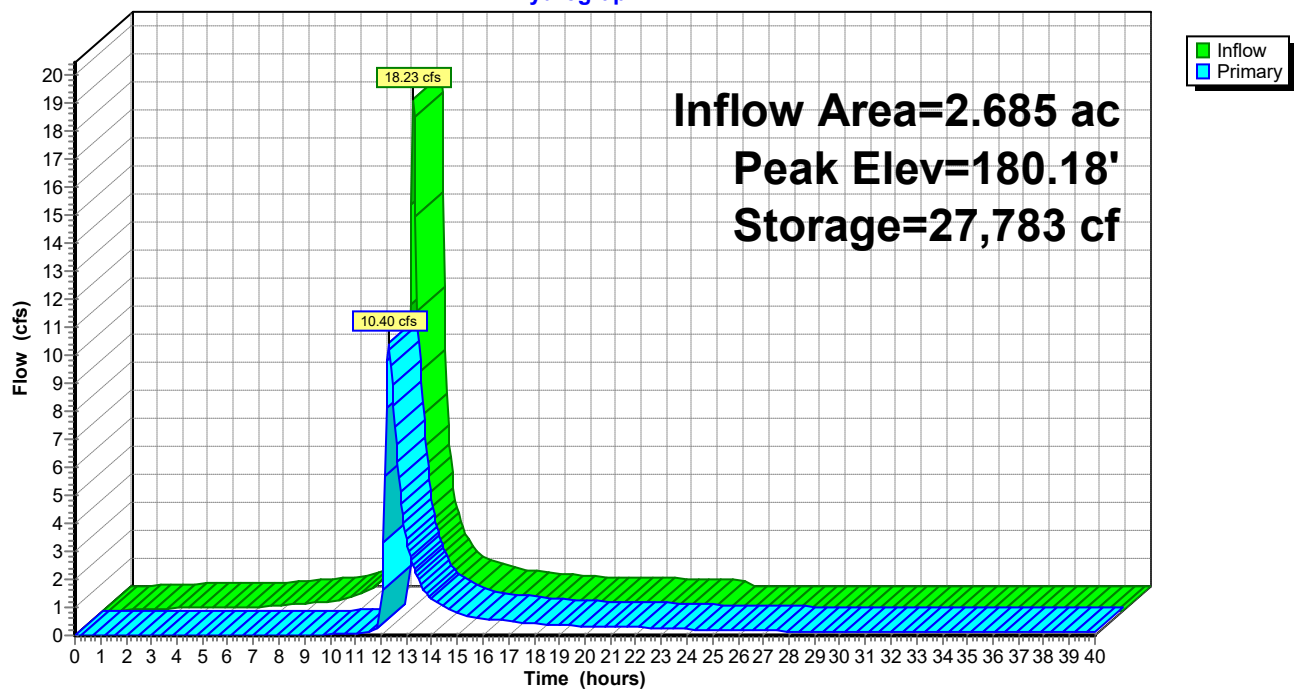
Device	Routing	Invert	Outlet Devices
#1	Primary	176.65'	18.0" Round Culvert L= 53.0' Ke= 0.500 Inlet / Outlet Invert= 176.65' / 172.00' S= 0.0877 ' S= 0.0877 ' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	178.13'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	179.31'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	180.57'	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=10.33 cfs @ 12.31 hrs HW=180.18' (Free Discharge)

1=Culvert (Passes 10.33 cfs of 14.18 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.23 cfs @ 6.71 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 10.10 cfs @ 3.04 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-16: Basin #16

Hydrograph



Summary for Pond B-17: Basin #17

Inflow Area = 2.791 ac, 34.54% Impervious, Inflow Depth = 6.46" for Current 100 yr event
 Inflow = 18.49 cfs @ 12.17 hrs, Volume= 1.502 af
 Outflow = 8.23 cfs @ 12.37 hrs, Volume= 1.257 af, Atten= 55%, Lag= 11.7 min
 Primary = 8.23 cfs @ 12.37 hrs, Volume= 1.257 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 180.57' @ 12.37 hrs Surf.Area= 17,257 sf Storage= 29,372 cf

Plug-Flow detention time= 295.7 min calculated for 1.257 af (84% of inflow)
 Center-of-Mass det. time= 223.5 min (1,009.9 - 786.4)

Volume	Invert	Avail.Storage	Storage Description
#1	178.30'	77,758 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
178.30	0	0	0
179.00	13,952	4,883	4,883
180.00	16,036	14,994	19,877
181.00	18,176	17,106	36,983
182.00	20,373	19,275	56,258
183.00	22,627	21,500	77,758

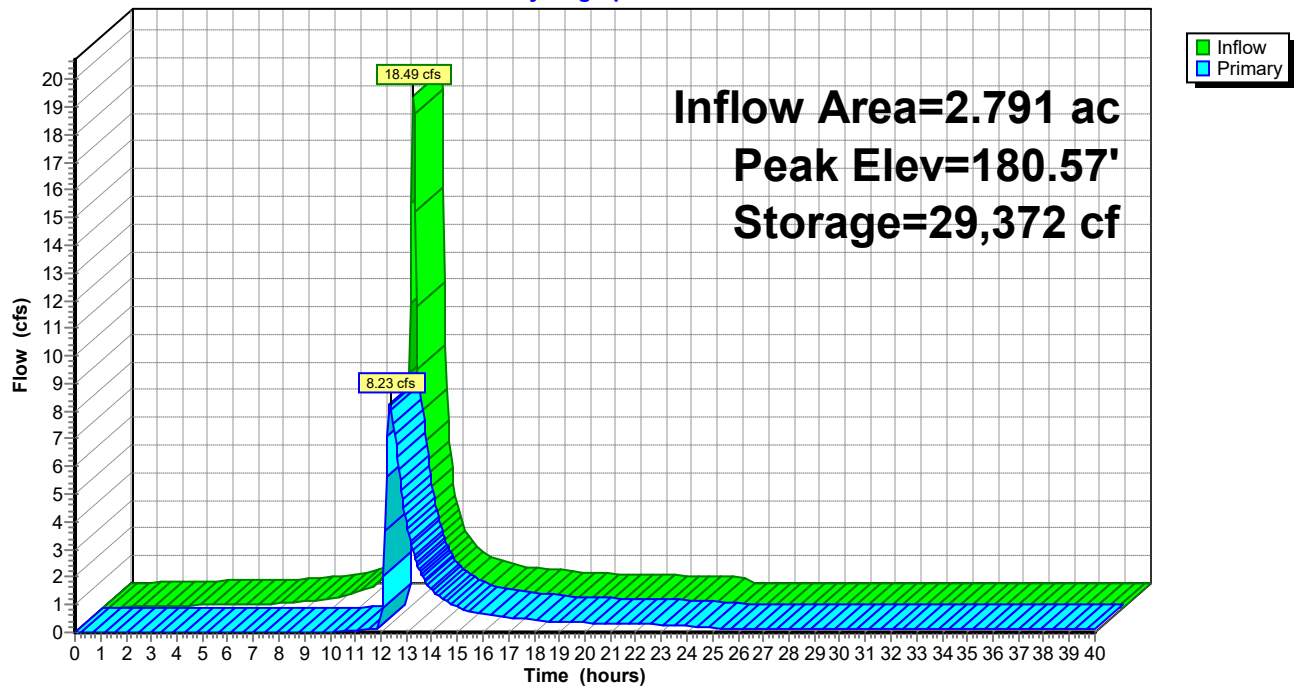
Device	Routing	Invert	Outlet Devices
#1	Primary	177.65'	18.0" Round Culvert L= 40.0' Ke= 0.500 Inlet / Outlet Invert= 177.65' / 177.00' S= 0.0163 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	178.95'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	179.83'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	180.93'	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=8.19 cfs @ 12.37 hrs HW=180.57' (Free Discharge)

1=Culvert (Passes 8.19 cfs of 12.53 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.20 cfs @ 5.92 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 7.99 cfs @ 2.81 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-17: Basin #17

Hydrograph



Summary for Pond B-18: Basin #18

Inflow Area = 2.458 ac, 47.56% Impervious, Inflow Depth = 6.83" for Current 100 yr event
 Inflow = 16.88 cfs @ 12.17 hrs, Volume= 1.400 af
 Outflow = 14.79 cfs @ 12.23 hrs, Volume= 1.290 af, Atten= 12%, Lag= 3.3 min
 Primary = 14.79 cfs @ 12.23 hrs, Volume= 1.290 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 199.34' @ 12.23 hrs Surf.Area= 4,048 sf Storage= 11,053 cf

Plug-Flow detention time= 90.7 min calculated for 1.288 af (92% of inflow)
 Center-of-Mass det. time= 48.2 min (824.4 - 776.3)

Volume	Invert	Avail.Storage	Storage Description
#1	194.65'	18,838 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
194.65	0	0	0
195.00	1,068	187	187
196.00	1,693	1,381	1,567
197.00	2,352	2,023	3,590
198.00	3,059	2,706	6,295
199.00	3,788	3,424	9,719
200.00	4,551	4,170	13,888
201.00	5,348	4,950	18,838

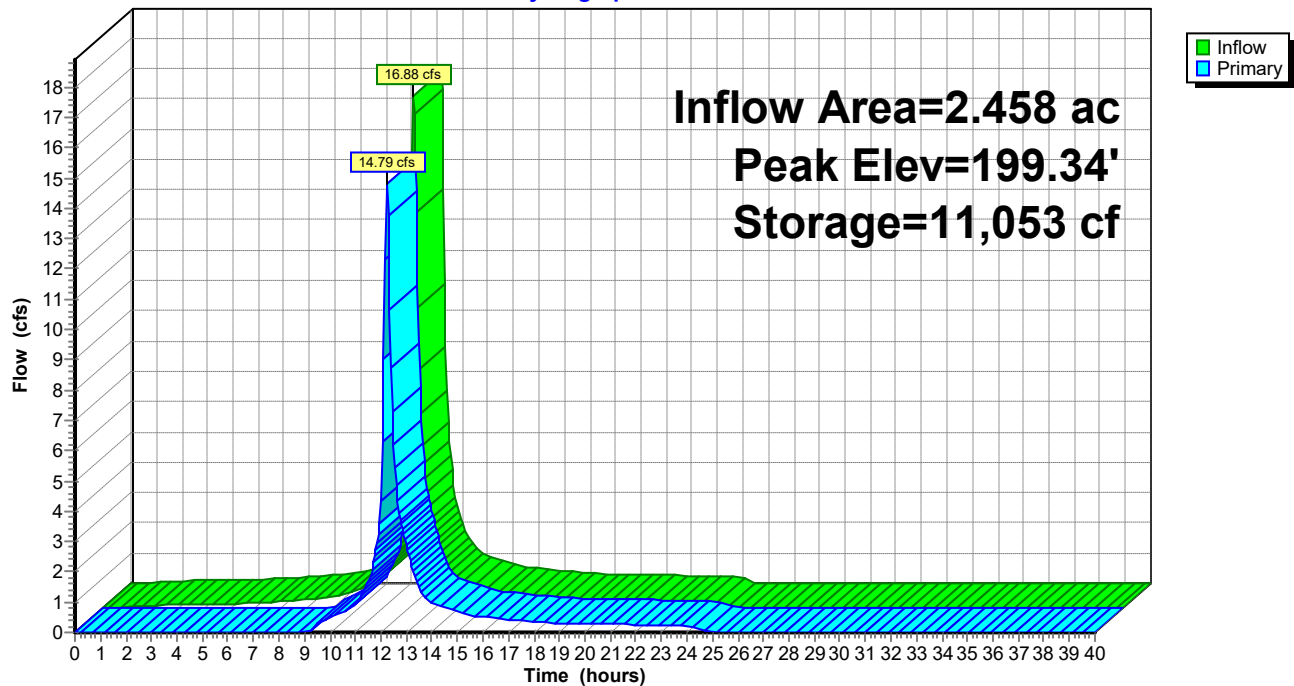
Device	Routing	Invert	Outlet Devices
#1	Primary	194.65'	18.0" Round Culvert L= 102.0' Ke= 0.500 Inlet / Outlet Invert= 194.65' / 194.14' S= 0.0050 ' / S= 0.0050 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	197.47'	20.0" W x 6.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	198.51'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	200.00'	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=14.73 cfs @ 12.23 hrs HW=199.33' (Free Discharge)

- 1=Culvert (Passes 14.73 cfs of 14.84 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 5.47 cfs @ 6.06 fps)
- 3=Sharp-Crested Rectangular Weir (Weir Controls 9.27 cfs @ 2.96 fps)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-18: Basin #18

Hydrograph



Summary for Pond B-19: Basin #19

Inflow Area = 0.934 ac, 40.79% Impervious, Inflow Depth = 6.64" for Current 100 yr event
 Inflow = 6.30 cfs @ 12.17 hrs, Volume= 0.517 af
 Outflow = 5.41 cfs @ 12.23 hrs, Volume= 0.479 af, Atten= 14%, Lag= 3.7 min
 Primary = 5.41 cfs @ 12.23 hrs, Volume= 0.479 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 203.82' @ 12.23 hrs Surf.Area= 3,532 sf Storage= 6,010 cf

Plug-Flow detention time= 133.2 min calculated for 0.478 af (93% of inflow)
 Center-of-Mass det. time= 94.0 min (875.4 - 781.4)

Volume	Invert	Avail.Storage	Storage Description
#1	201.30'	10,696 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	2,224	778	778
203.00	2,930	2,577	3,355
204.00	3,663	3,297	6,652
205.00	4,425	4,044	10,696

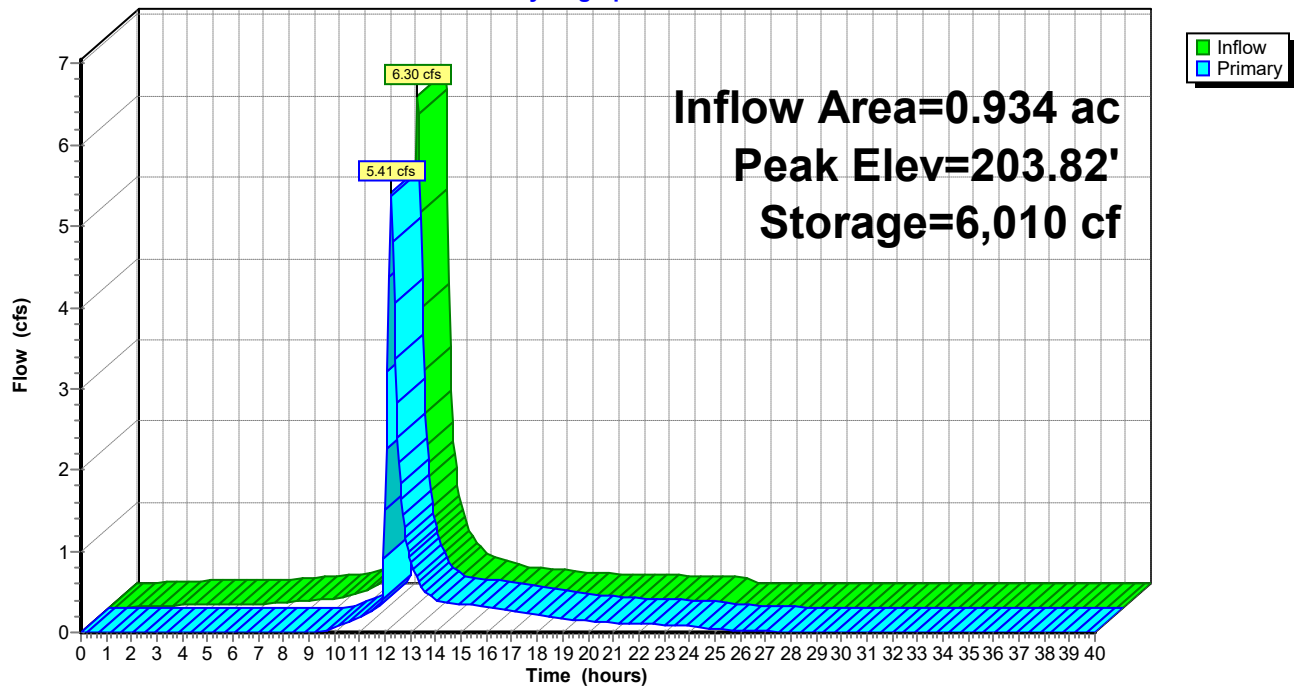
Device	Routing	Invert	Outlet Devices
#1	Primary	200.65'	18.0" Round Culvert L= 214.0' Ke= 0.500 Inlet / Outlet Invert= 200.65' / 199.57' S= 0.0050 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	202.35'	4.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	203.29'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	203.98'	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=5.34 cfs @ 12.23 hrs HW=203.82' (Free Discharge)

1=Culvert (Passes 5.34 cfs of 10.10 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.48 cfs @ 5.49 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 4.86 cfs @ 2.37 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-19: Basin #19

Hydrograph



Summary for Pond B-2: Basin #2

Inflow Area = 1.865 ac, 43.43% Impervious, Inflow Depth = 6.71" for Current 100 yr event
 Inflow = 12.67 cfs @ 12.17 hrs, Volume= 1.043 af
 Outflow = 8.36 cfs @ 12.28 hrs, Volume= 0.953 af, Atten= 34%, Lag= 6.8 min
 Primary = 8.36 cfs @ 12.28 hrs, Volume= 0.953 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 210.74' @ 12.28 hrs Surf.Area= 9,137 sf Storage= 17,061 cf

Plug-Flow detention time= 245.4 min calculated for 0.952 af (91% of inflow)
 Center-of-Mass det. time= 200.2 min (979.5 - 779.3)

Volume	Invert	Avail.Storage	Storage Description
#1	208.30'	29,385 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
208.30	0	0	0
209.00	7,501	2,625	2,625
210.00	8,431	7,966	10,591
211.00	9,390	8,911	19,502
212.00	10,376	9,883	29,385

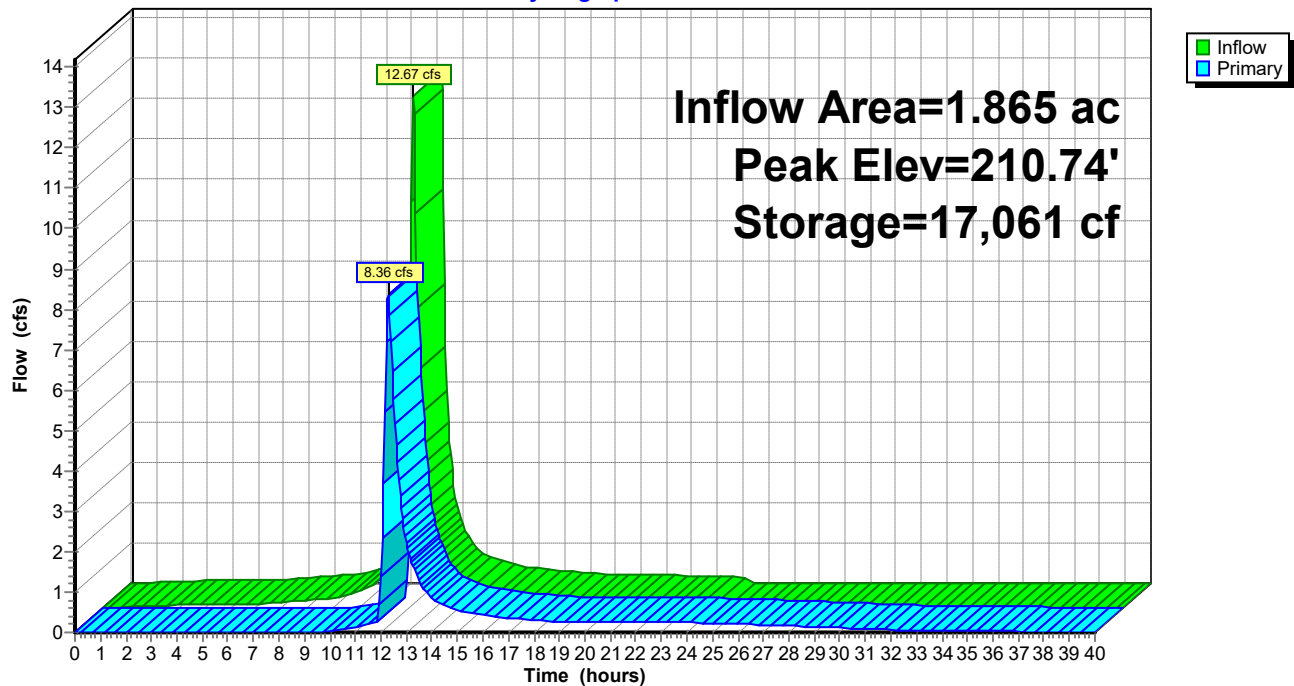
Device	Routing	Invert	Outlet Devices
#1	Primary	207.65'	18.0" Round Culvert L= 202.0' Ke= 0.500 Inlet / Outlet Invert= 207.65' / 204.00' S= 0.0181 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	209.10'	3.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	210.00'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	211.00'	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=8.29 cfs @ 12.28 hrs HW=210.73' (Free Discharge)

1=Culvert (Passes 8.29 cfs of 13.00 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.39 cfs @ 5.87 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 7.90 cfs @ 2.80 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-2: Basin #2

Hydrograph



Summary for Pond B-20: Basin #20

Inflow Area = 2.679 ac, 47.56% Impervious, Inflow Depth = 6.83" for Current 100 yr event
 Inflow = 18.40 cfs @ 12.17 hrs, Volume= 1.525 af
 Outflow = 9.47 cfs @ 12.33 hrs, Volume= 1.405 af, Atten= 49%, Lag= 9.5 min
 Primary = 9.47 cfs @ 12.33 hrs, Volume= 1.405 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 153.59' @ 12.33 hrs Surf.Area= 8,003 sf Storage= 18,361 cf

Plug-Flow detention time= 108.7 min calculated for 1.403 af (92% of inflow)
 Center-of-Mass det. time= 66.2 min (842.5 - 776.3)

Volume	Invert	Avail.Storage	Storage Description
#1	150.87'	35,230 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
150.87	0	0	0
151.00	5,926	385	385
152.00	6,706	6,316	6,701
153.00	7,514	7,110	13,811
154.00	8,347	7,931	21,742
155.00	9,205	8,776	30,518
155.50	9,643	4,712	35,230

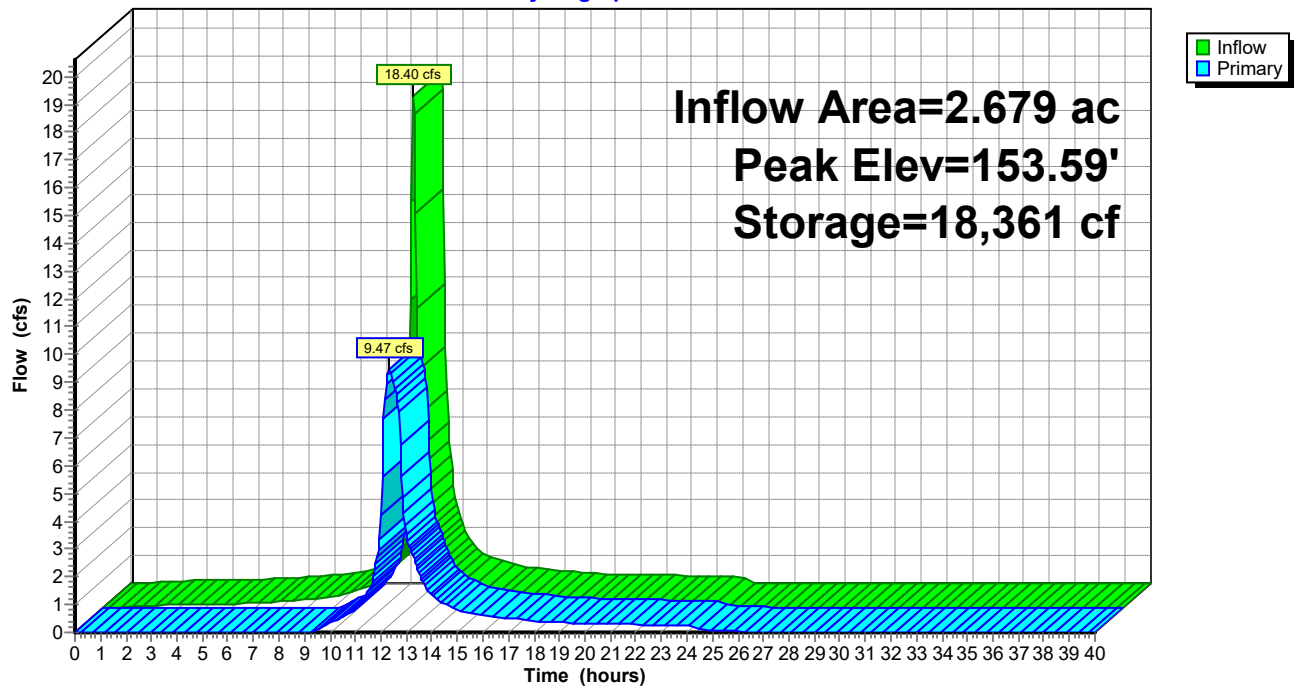
Device	Routing	Invert	Outlet Devices
#1	Primary	150.87'	18.0" Round Culvert L= 174.0' Ke= 0.500 Inlet / Outlet Invert= 150.87' / 150.00' S= 0.0050 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	151.78'	20.0" W x 7.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	152.53'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	154.32'	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=9.46 cfs @ 12.33 hrs HW=153.58' (Free Discharge)

1=Culvert (Barrel Controls 9.46 cfs @ 5.35 fps)
 2=Orifice/Grate (Passes < 5.74 cfs potential flow)
 3=Sharp-Crested Rectangular Weir (Passes < 13.36 cfs potential flow)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-20: Basin #20

Hydrograph



Summary for Pond B-21: Basin #21

Inflow Area = 2.680 ac, 41.60% Impervious, Inflow Depth = 6.66" for Current 100 yr event
 Inflow = 18.11 cfs @ 12.17 hrs, Volume= 1.487 af
 Outflow = 11.52 cfs @ 12.29 hrs, Volume= 1.317 af, Atten= 36%, Lag= 7.1 min
 Primary = 11.52 cfs @ 12.29 hrs, Volume= 1.317 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 153.69' @ 12.29 hrs Surf.Area= 8,556 sf Storage= 24,720 cf

Plug-Flow detention time= 295.1 min calculated for 1.316 af (88% of inflow)
 Center-of-Mass det. time= 239.2 min (1,020.0 - 780.8)

Volume	Invert	Avail.Storage	Storage Description
#1	149.90'	42,109 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
149.90	0	0	0
150.00	4,848	242	242
151.00	5,776	5,312	5,554
152.00	6,761	6,269	11,823
153.00	7,802	7,282	19,104
154.00	8,900	8,351	27,455
155.00	10,054	9,477	36,932
155.50	10,653	5,177	42,109

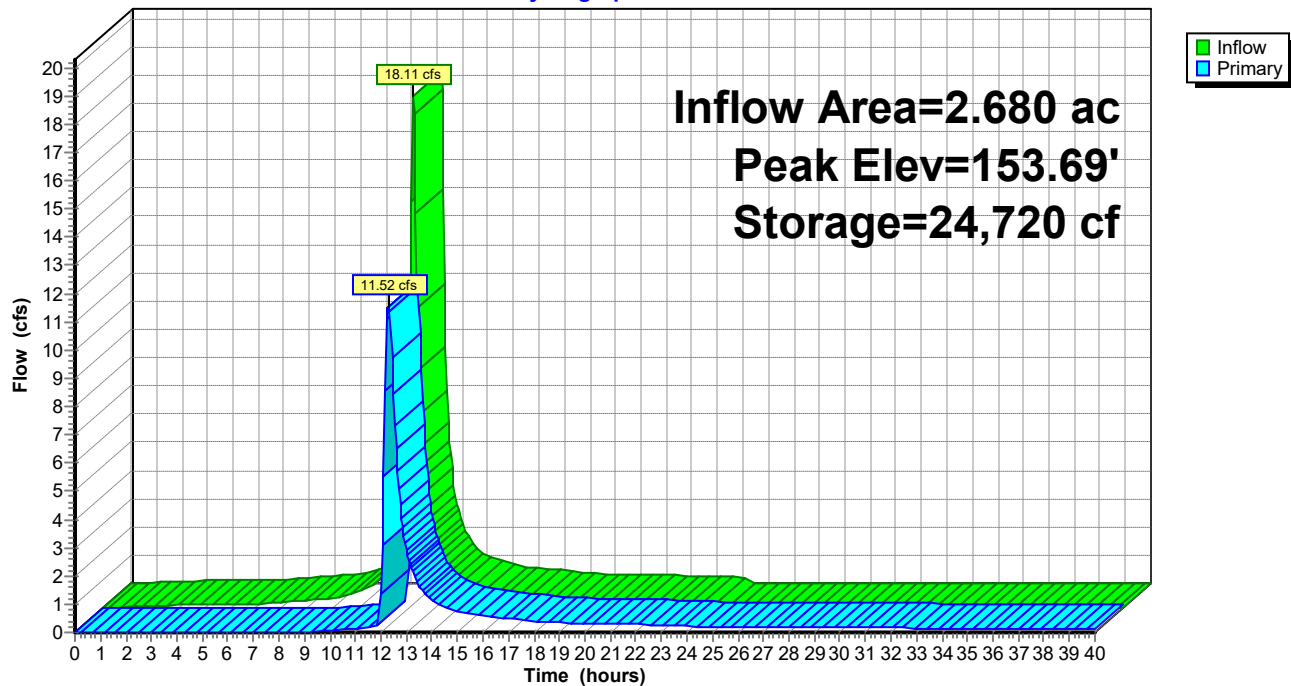
Device	Routing	Invert	Outlet Devices
#1	Primary	149.90'	18.0" Round Culvert L= 182.0' Ke= 0.500 Inlet / Outlet Invert= 149.90' / 149.00' S= 0.0049 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	150.84'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	152.65'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	154.16'	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=11.51 cfs @ 12.29 hrs HW=153.68' (Free Discharge)

- 1=Culvert (Barrel Controls 11.51 cfs @ 6.51 fps)
 2=Orifice/Grate (Passes < 0.27 cfs potential flow)
 3=Sharp-Crested Rectangular Weir (Passes < 13.00 cfs potential flow)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-21: Basin #21

Hydrograph



Summary for Pond B-22: Basin #22

Inflow Area = 2.743 ac, 30.19% Impervious, Inflow Depth = 6.33" for Current 100 yr event
 Inflow = 17.95 cfs @ 12.17 hrs, Volume= 1.447 af
 Outflow = 11.51 cfs @ 12.29 hrs, Volume= 1.287 af, Atten= 36%, Lag= 7.1 min
 Primary = 11.51 cfs @ 12.29 hrs, Volume= 1.287 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 150.59' @ 12.29 hrs Surf.Area= 9,660 sf Storage= 23,788 cf

Plug-Flow detention time= 278.6 min calculated for 1.287 af (89% of inflow)
 Center-of-Mass det. time= 223.2 min (1,013.3 - 790.1)

Volume	Invert	Avail.Storage	Storage Description
#1	147.30'	50,528 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
147.30	0	0	0
148.00	6,928	2,425	2,425
149.00	7,937	7,433	9,857
150.00	9,003	8,470	18,327
151.00	10,125	9,564	27,891
152.00	11,304	10,715	38,606
153.00	12,540	11,922	50,528

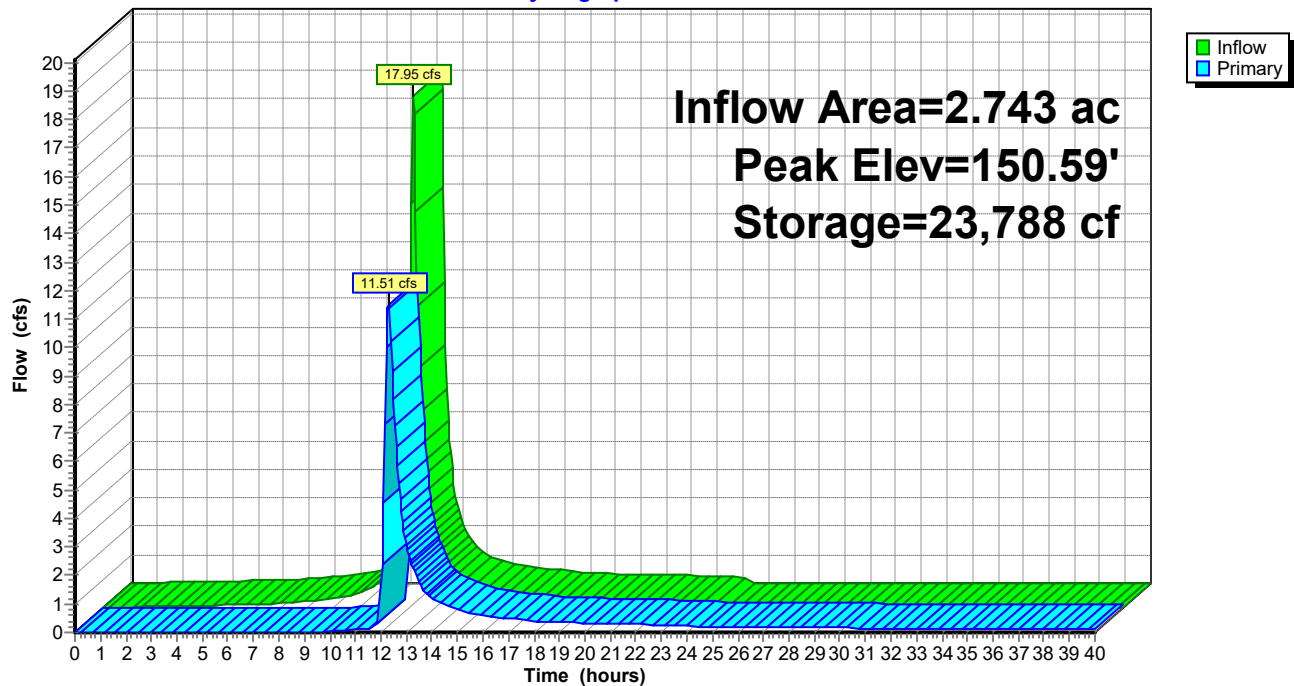
Device	Routing	Invert	Outlet Devices
#1	Primary	147.30'	18.0" Round Culvert L= 169.0' Ke= 0.500 Inlet / Outlet Invert= 147.30' / 146.00' S= 0.0077 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	148.18'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	149.63'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	151.18'	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=11.62 cfs @ 12.29 hrs HW=150.58' (Free Discharge)

- 1=Culvert (Barrel Controls 11.62 cfs @ 6.57 fps)
- 2=Orifice/Grate (Passes < 0.25 cfs potential flow)
- 3=Sharp-Crested Rectangular Weir (Passes < 11.55 cfs potential flow)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-22: Basin #22

Hydrograph



Summary for Pond B-23: Basin #23

Inflow Area = 1.511 ac, 66.64% Impervious, Inflow Depth = 7.38" for Current 100 yr event
 Inflow = 10.92 cfs @ 12.17 hrs, Volume= 0.930 af
 Outflow = 7.98 cfs @ 12.26 hrs, Volume= 0.835 af, Atten= 27%, Lag= 5.7 min
 Primary = 7.98 cfs @ 12.26 hrs, Volume= 0.835 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 146.79' @ 12.26 hrs Surf.Area= 7,372 sf Storage= 13,429 cf

Plug-Flow detention time= 164.8 min calculated for 0.835 af (90% of inflow)
 Center-of-Mass det. time= 111.9 min (875.1 - 763.2)

Volume	Invert	Avail.Storage	Storage Description
#1	144.30'	23,175 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
144.30	0	0	0
145.00	5,512	1,929	1,929
146.00	6,527	6,020	7,949
147.00	7,599	7,063	15,012
148.00	8,727	8,163	23,175

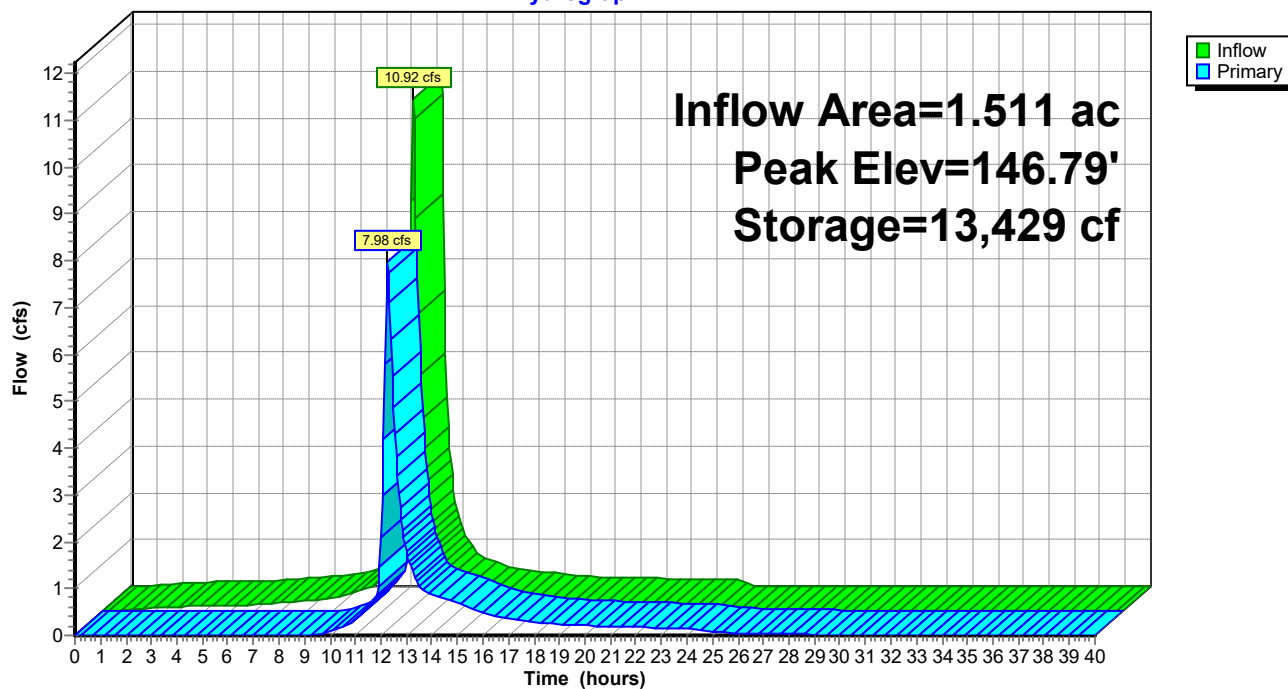
Device	Routing	Invert	Outlet Devices
#1	Primary	144.30'	18.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 144.30' / 144.00' S= 0.0115 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	145.36'	7.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	146.14'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	147.00'	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=7.89 cfs @ 12.26 hrs HW=146.78' (Free Discharge)

1=Culvert (Passes 7.89 cfs of 11.20 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 1.37 cfs @ 5.12 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 6.52 cfs @ 2.62 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-23: Basin #23

Hydrograph



Summary for Pond B-24: Basin #24

Inflow Area = 2.739 ac, 44.80% Impervious, Inflow Depth = 6.75" for Current 100 yr event
 Inflow = 18.67 cfs @ 12.17 hrs, Volume= 1.541 af
 Outflow = 12.41 cfs @ 12.28 hrs, Volume= 1.416 af, Atten= 34%, Lag= 6.4 min
 Primary = 12.41 cfs @ 12.28 hrs, Volume= 1.416 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 147.47' @ 12.28 hrs Surf.Area= 9,843 sf Storage= 23,705 cf

Plug-Flow detention time= 193.4 min calculated for 1.414 af (92% of inflow)
 Center-of-Mass det. time= 150.4 min (928.7 - 778.3)

Volume	Invert	Avail.Storage	Storage Description
#1	144.30'	40,061 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
144.30	0	0	0
145.00	7,331	2,566	2,566
146.00	8,327	7,829	10,395
147.00	9,353	8,840	19,235
148.00	10,406	9,880	29,114
149.00	11,488	10,947	40,061

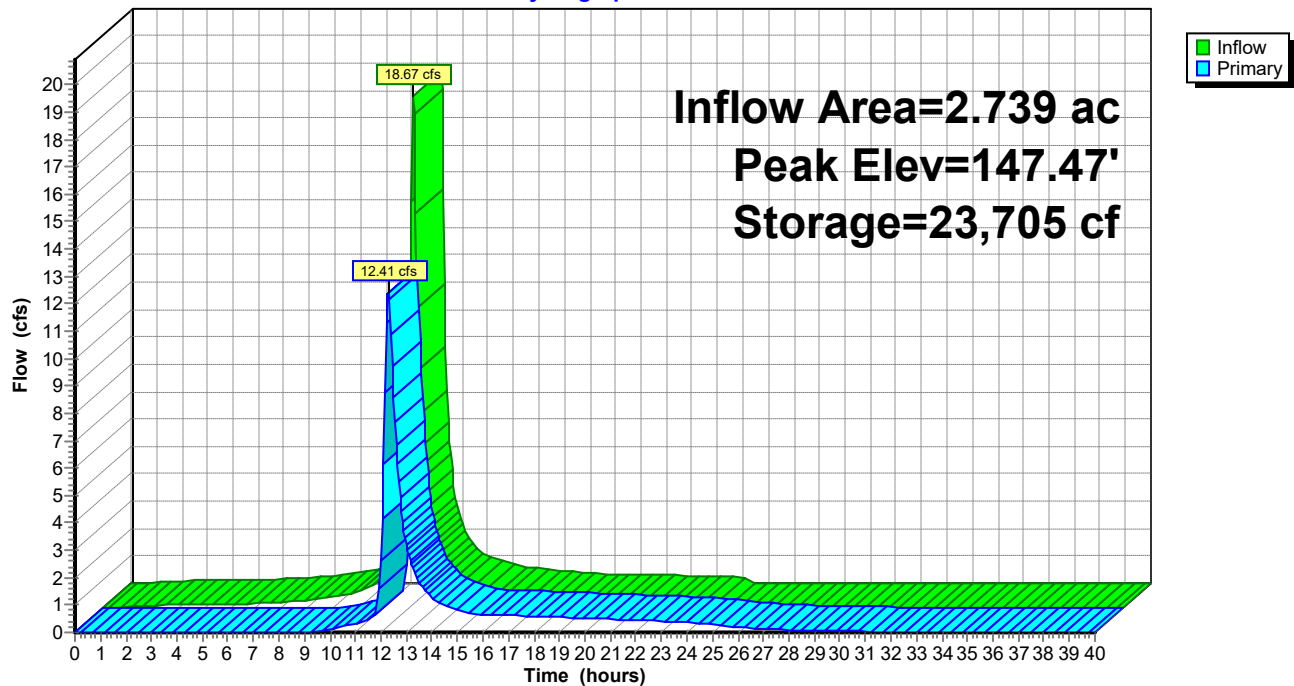
Device	Routing	Invert	Outlet Devices
#1	Primary	144.30'	18.0" Round Culvert L= 59.0' Ke= 0.500 Inlet / Outlet Invert= 144.30' / 144.00' S= 0.0051 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	145.34'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	146.49'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	147.99'	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=12.36 cfs @ 12.28 hrs HW=147.46' (Free Discharge)

1=Culvert (Barrel Controls 12.36 cfs @ 6.99 fps)
 2=Orifice/Grate (Passes < 0.91 cfs potential flow)
 3=Sharp-Crested Rectangular Weir (Passes < 11.88 cfs potential flow)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-24: Basin #24

Hydrograph



Summary for Pond B-25: Basin #25

Inflow Area = 2.736 ac, 43.02% Impervious, Inflow Depth = 6.70" for Current 100 yr event
 Inflow = 18.56 cfs @ 12.17 hrs, Volume= 1.528 af
 Outflow = 12.49 cfs @ 12.28 hrs, Volume= 1.412 af, Atten= 33%, Lag= 6.4 min
 Primary = 12.49 cfs @ 12.28 hrs, Volume= 1.412 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 147.30' @ 12.28 hrs Surf.Area= 7,719 sf Storage= 22,071 cf

Plug-Flow detention time= 186.1 min calculated for 1.410 af (92% of inflow)
 Center-of-Mass det. time= 145.4 min (925.1 - 779.7)

Volume	Invert	Avail.Storage	Storage Description
#1	143.30'	36,587 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
143.30	0	0	0
144.00	4,702	1,646	1,646
145.00	5,584	5,143	6,789
146.00	6,492	6,038	12,827
147.00	7,428	6,960	19,787
148.00	8,393	7,911	27,697
149.00	9,386	8,890	36,587

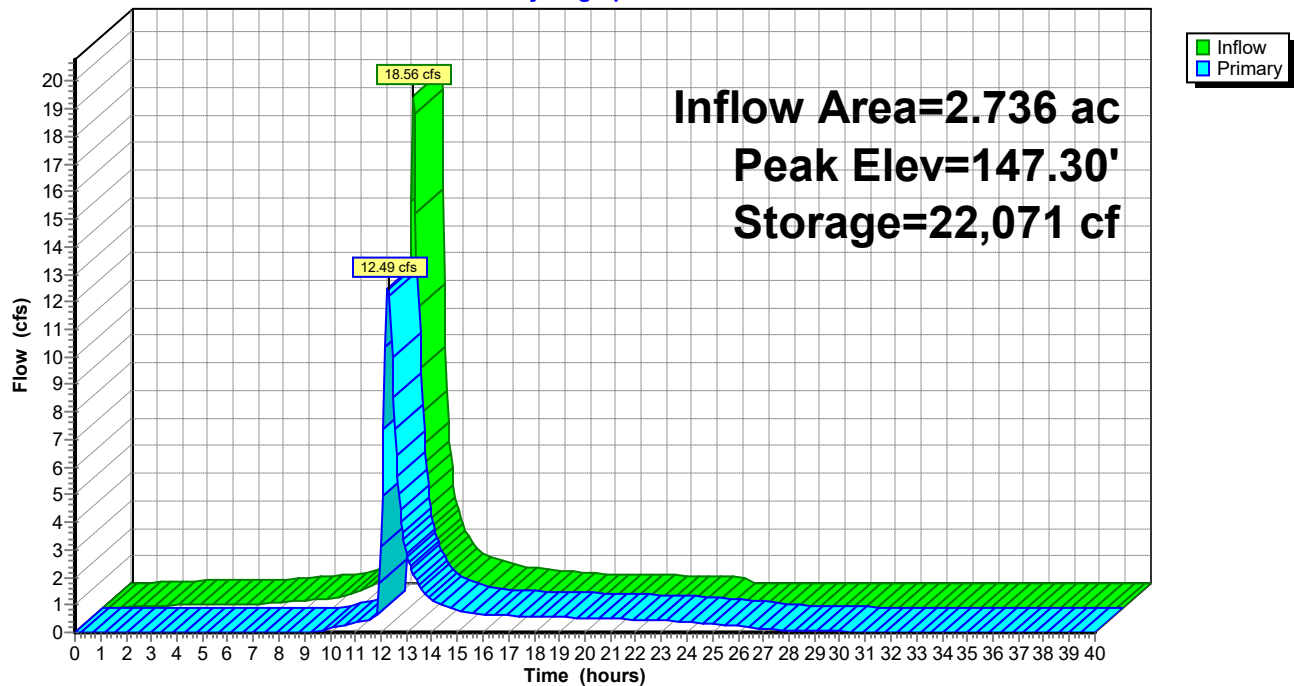
Device	Routing	Invert	Outlet Devices
#1	Primary	143.30'	18.0" Round Culvert L= 186.0' Ke= 0.500 Inlet / Outlet Invert= 143.30' / 142.00' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	144.65'	4.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	146.21'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	147.96'	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=12.48 cfs @ 12.28 hrs HW=147.29' (Free Discharge)

1=Culvert (Barrel Controls 12.48 cfs @ 7.06 fps)
 2=Orifice/Grate (Passes < 0.83 cfs potential flow)
 3=Sharp-Crested Rectangular Weir (Passes < 13.95 cfs potential flow)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-25: Basin #25

Hydrograph



Summary for Pond B-26: Basin #26

Inflow Area = 2.687 ac, 36.06% Impervious, Inflow Depth = 6.50" for Current 100 yr event
 Inflow = 17.88 cfs @ 12.17 hrs, Volume= 1.455 af
 Outflow = 11.38 cfs @ 12.29 hrs, Volume= 1.341 af, Atten= 36%, Lag= 7.1 min
 Primary = 11.38 cfs @ 12.29 hrs, Volume= 1.341 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 147.22' @ 12.29 hrs Surf.Area= 7,202 sf Storage= 22,381 cf

Plug-Flow detention time= 265.3 min calculated for 1.341 af (92% of inflow)
 Center-of-Mass det. time= 222.7 min (1,007.8 - 785.2)

Volume	Invert	Avail.Storage	Storage Description
#1	143.30'	36,073 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
143.30	0	0	0
144.00	5,522	1,933	1,933
145.00	6,025	5,774	7,706
146.00	6,547	6,286	13,992
147.00	7,081	6,814	20,806
148.00	7,630	7,356	28,162
149.00	8,193	7,912	36,073

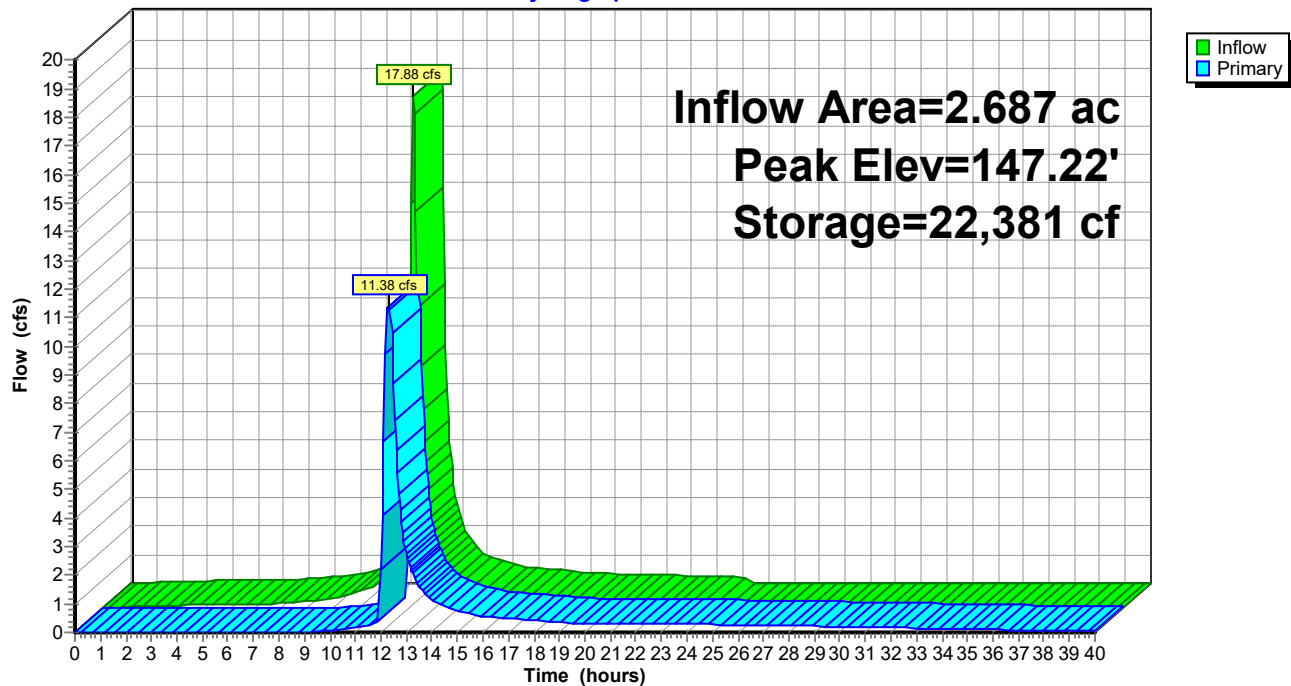
Device	Routing	Invert	Outlet Devices
#1	Primary	143.30'	18.0" Round Culvert L= 234.0' Ke= 0.500 Inlet / Outlet Invert= 143.30' / 142.00' S= 0.0056 '/ Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	144.40'	3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	146.09'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	147.98'	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=11.37 cfs @ 12.29 hrs HW=147.21' (Free Discharge)

- 1=Culvert (Barrel Controls 11.37 cfs @ 6.43 fps)
- 2=Orifice/Grate (Passes < 0.39 cfs potential flow)
- 3=Sharp-Crested Rectangular Weir (Passes < 14.73 cfs potential flow)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-26: Basin #26

Hydrograph



Summary for Pond B-27: Basin #27

Inflow Area = 2.414 ac, 48.22% Impervious, Inflow Depth = 6.85" for Current 100 yr event
 Inflow = 16.61 cfs @ 12.17 hrs, Volume= 1.378 af
 Outflow = 15.05 cfs @ 12.22 hrs, Volume= 1.270 af, Atten= 9%, Lag= 2.9 min
 Primary = 15.05 cfs @ 12.22 hrs, Volume= 1.270 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 185.68' @ 12.22 hrs Surf.Area= 3,604 sf Storage= 9,551 cf

Plug-Flow detention time= 88.6 min calculated for 1.270 af (92% of inflow)
 Center-of-Mass det. time= 45.1 min (820.9 - 775.8)

Volume	Invert	Avail.Storage	Storage Description
#1	180.30'	14,865 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
180.30	0	0	0
181.00	245	86	86
182.00	1,153	699	785
183.00	1,819	1,486	2,271
184.00	2,484	2,152	4,422
185.00	3,149	2,817	7,239
186.00	3,813	3,481	10,720
187.00	4,478	4,146	14,865

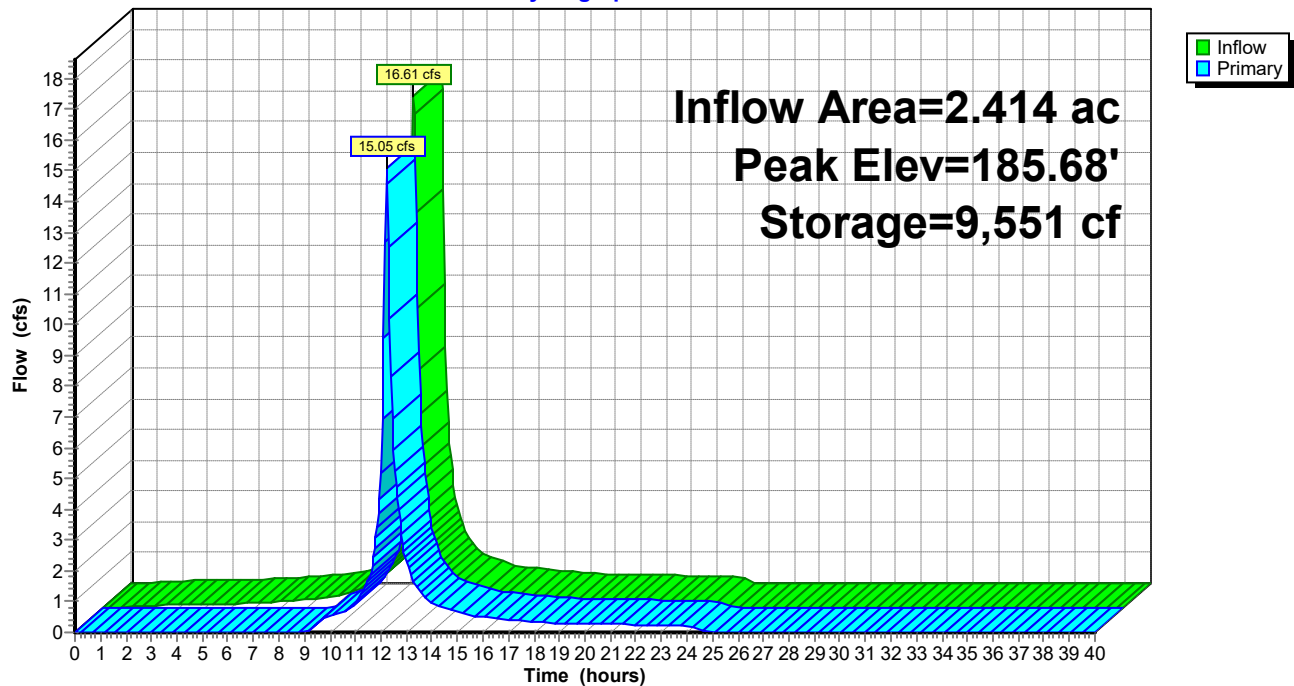
Device	Routing	Invert	Outlet Devices
#1	Primary	179.65'	18.0" Round Culvert L= 194.0' Ke= 0.500 Inlet / Outlet Invert= 179.65' / 170.25' S= 0.0485 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	184.12'	26.0" W x 7.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	184.96'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	186.00'	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=14.76 cfs @ 12.22 hrs HW=185.67' (Free Discharge)

- 1=Culvert (Passes 14.76 cfs of 19.53 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 7.23 cfs @ 5.34 fps)
- 3=Sharp-Crested Rectangular Weir (Weir Controls 7.53 cfs @ 2.75 fps)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-27: Basin #27

Hydrograph



Summary for Pond B-28: Basin #28

Inflow Area = 1.917 ac, 53.99% Impervious, Inflow Depth = 7.02" for Current 100 yr event
 Inflow = 13.40 cfs @ 12.17 hrs, Volume= 1.121 af
 Outflow = 12.14 cfs @ 12.22 hrs, Volume= 1.026 af, Atten= 9%, Lag= 2.9 min
 Primary = 12.14 cfs @ 12.22 hrs, Volume= 1.026 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 179.58' @ 12.22 hrs Surf.Area= 3,722 sf Storage= 7,889 cf

Plug-Flow detention time= 94.1 min calculated for 1.025 af (91% of inflow)
 Center-of-Mass det. time= 48.5 min (820.1 - 771.6)

Volume	Invert	Avail.Storage	Storage Description
#1	176.30'	13,936 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
176.30	0	0	0
177.00	1,909	668	668
178.00	2,585	2,247	2,915
179.00	3,292	2,939	5,854
180.00	4,033	3,663	9,516
181.00	4,806	4,420	13,936

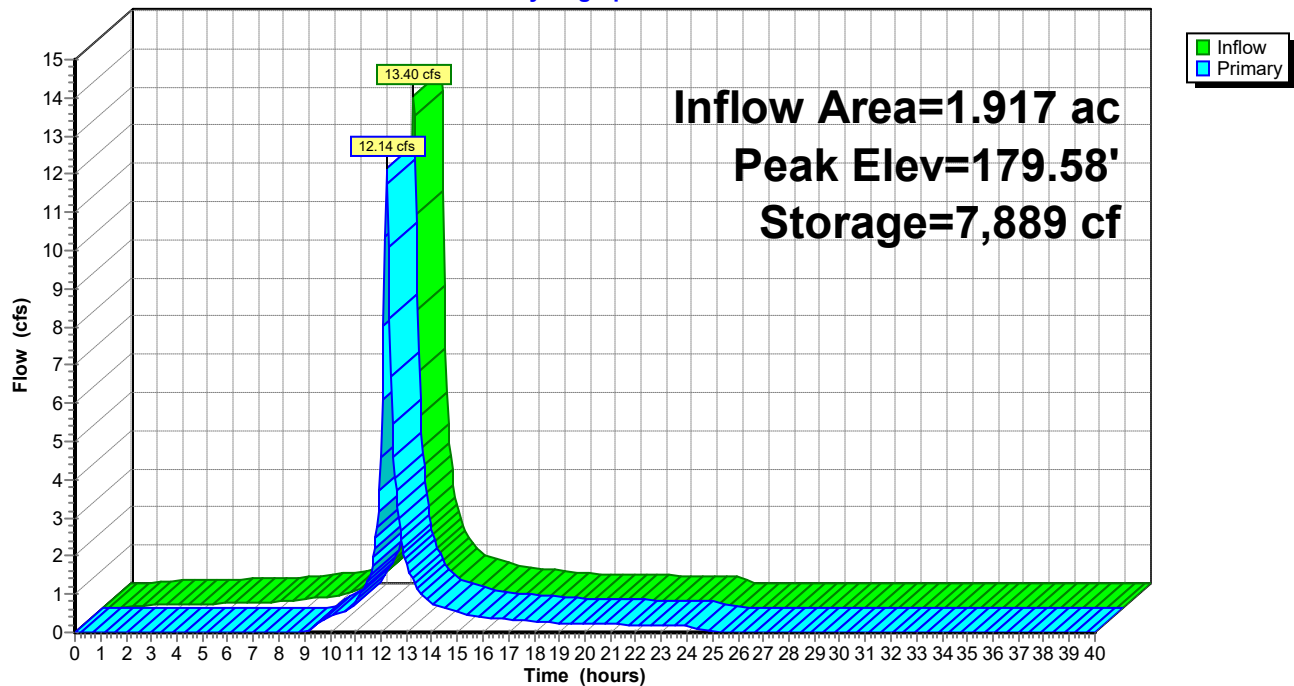
Device	Routing	Invert	Outlet Devices
#1	Primary	175.65'	18.0" Round Culvert L= 186.0' Ke= 0.500 Inlet / Outlet Invert= 175.65' / 168.80' S= 0.0368 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	178.45'	30.0" W x 9.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	179.09'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	179.84'	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=11.92 cfs @ 12.22 hrs HW=179.57' (Free Discharge)

1=Culvert (Passes 11.92 cfs of 15.15 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 7.70 cfs @ 4.10 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 4.22 cfs @ 2.26 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-28: Basin #28

Hydrograph



Summary for Pond B-3: Basin #3

Inflow Area = 2.904 ac, 42.80% Impervious, Inflow Depth = 6.69" for Current 100 yr event
 Inflow = 19.69 cfs @ 12.17 hrs, Volume= 1.620 af
 Outflow = 8.66 cfs @ 12.37 hrs, Volume= 1.217 af, Atten= 56%, Lag= 11.8 min
 Primary = 8.66 cfs @ 12.37 hrs, Volume= 1.217 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 215.27' @ 12.37 hrs Surf.Area= 16,649 sf Storage= 33,556 cf

Plug-Flow detention time= 280.9 min calculated for 1.217 af (75% of inflow)
 Center-of-Mass det. time= 190.2 min (970.0 - 779.8)

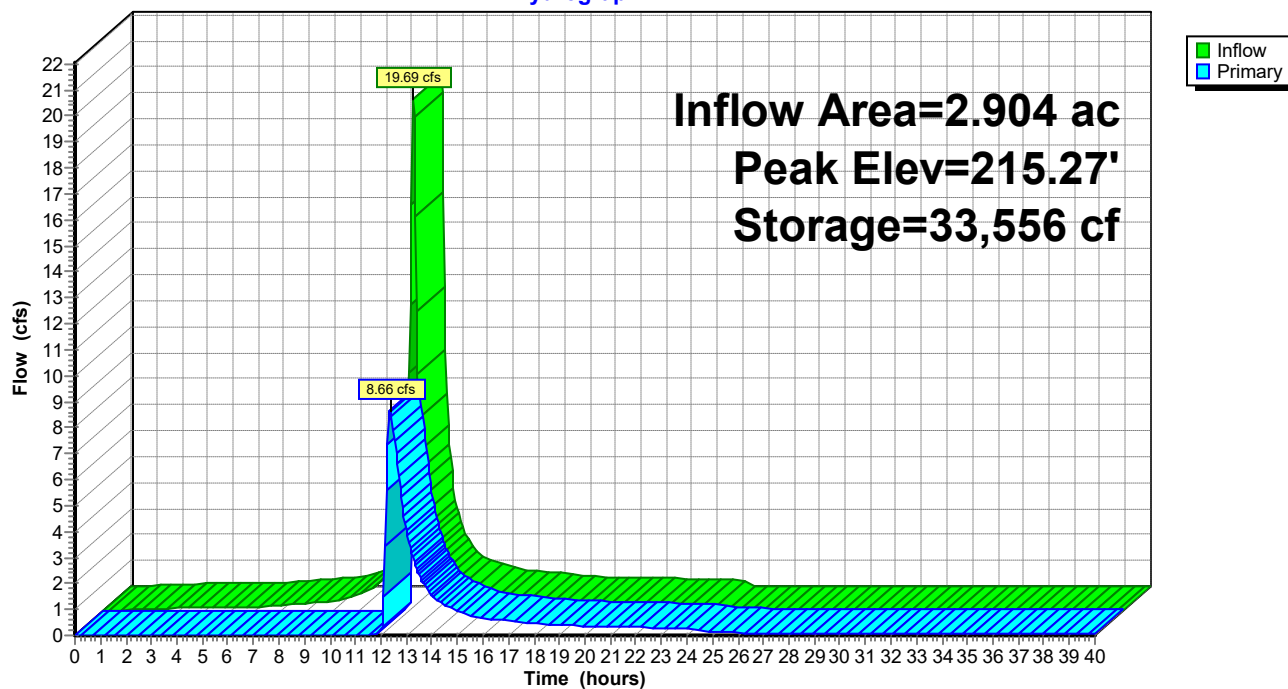
Volume	Invert	Avail.Storage	Storage Description
#1	212.30'	67,257 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
212.30	0	0	0
213.00	9,992	3,497	3,497
214.00	12,803	11,398	14,895
215.00	15,792	14,298	29,192
216.00	18,977	17,385	46,577
217.00	22,384	20,681	67,257

Device	Routing	Invert	Outlet Devices
#1	Primary	212.65'	18.0" Round Culvert L= 122.0' Ke= 0.500 Inlet / Outlet Invert= 212.65' / 204.00' S= 0.0709 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	214.00'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	214.50'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	215.70'	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=8.62 cfs @ 12.37 hrs HW=215.27' (Free Discharge)

1=Culvert (Passes 8.62 cfs of 11.62 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.18 cfs @ 5.19 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 8.44 cfs @ 2.86 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-3: Basin #3**Hydrograph**

Summary for Pond B-4: Basin #4

Inflow Area = 2.725 ac, 24.99% Impervious, Inflow Depth = 6.18" for Current 100 yr event
 Inflow = 17.57 cfs @ 12.17 hrs, Volume= 1.403 af
 Outflow = 11.03 cfs @ 12.30 hrs, Volume= 1.256 af, Atten= 37%, Lag= 7.5 min
 Primary = 11.03 cfs @ 12.30 hrs, Volume= 1.256 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 202.29' @ 12.30 hrs Surf.Area= 10,514 sf Storage= 23,022 cf

Plug-Flow detention time= 268.0 min calculated for 1.255 af (89% of inflow)
 Center-of-Mass det. time= 216.2 min (1,010.8 - 794.6)

Volume	Invert	Avail.Storage	Storage Description
#1	199.30'	72,824 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
199.30	0	0	0
200.00	7,419	2,597	2,597
201.00	8,712	8,066	10,662
202.00	10,094	9,403	20,065
203.00	11,557	10,826	30,891
204.00	13,100	12,329	43,219
205.00	14,725	13,913	57,132
206.00	16,659	15,692	72,824

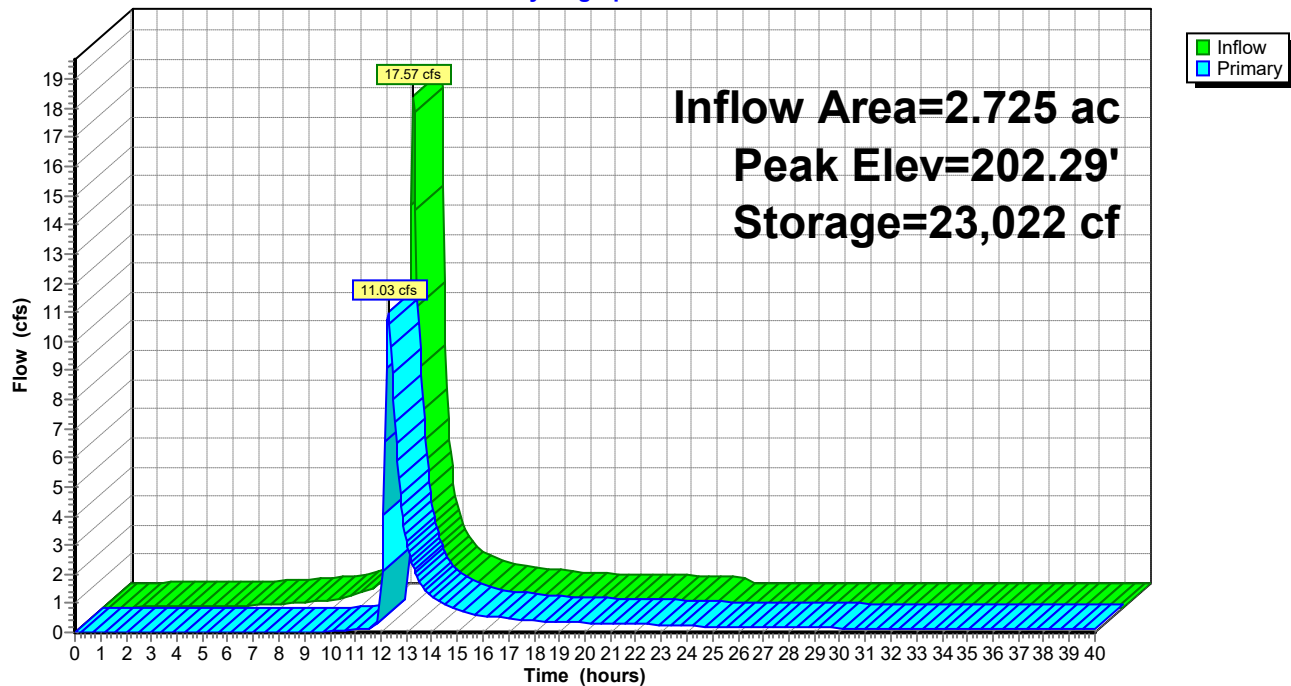
Device	Routing	Invert	Outlet Devices
#1	Primary	198.65'	18.0" Round Culvert L= 58.0' Ke= 0.500 Inlet / Outlet Invert= 198.65' / 198.00' S= 0.0112 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	200.08'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	201.38'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	202.68'	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=11.00 cfs @ 12.30 hrs HW=202.29' (Free Discharge)

- 1=Culvert (Passes 11.00 cfs of 14.45 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.24 cfs @ 6.98 fps)
- 3=Sharp-Crested Rectangular Weir (Weir Controls 10.76 cfs @ 3.11 fps)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-4: Basin #4

Hydrograph



Summary for Pond B-5: Basin #5

Inflow Area = 1.419 ac, 34.60% Impervious, Inflow Depth = 6.46" for Current 100 yr event
 Inflow = 9.40 cfs @ 12.17 hrs, Volume= 0.764 af
 Outflow = 4.59 cfs @ 12.35 hrs, Volume= 0.673 af, Atten= 51%, Lag= 10.5 min
 Primary = 4.59 cfs @ 12.35 hrs, Volume= 0.673 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 200.84' @ 12.35 hrs Surf.Area= 12,616 sf Storage= 14,301 cf

Plug-Flow detention time= 293.4 min calculated for 0.672 af (88% of inflow)
 Center-of-Mass det. time= 236.4 min (1,022.7 - 786.4)

Volume	Invert	Avail.Storage	Storage Description
#1	199.30'	96,047 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
199.30	0	0	0
200.00	11,631	4,071	4,071
201.00	12,798	12,215	16,285
202.00	14,009	13,404	29,689
203.00	15,262	14,636	44,324
204.00	16,558	15,910	60,234
205.00	17,896	17,227	77,461
206.00	19,275	18,586	96,047

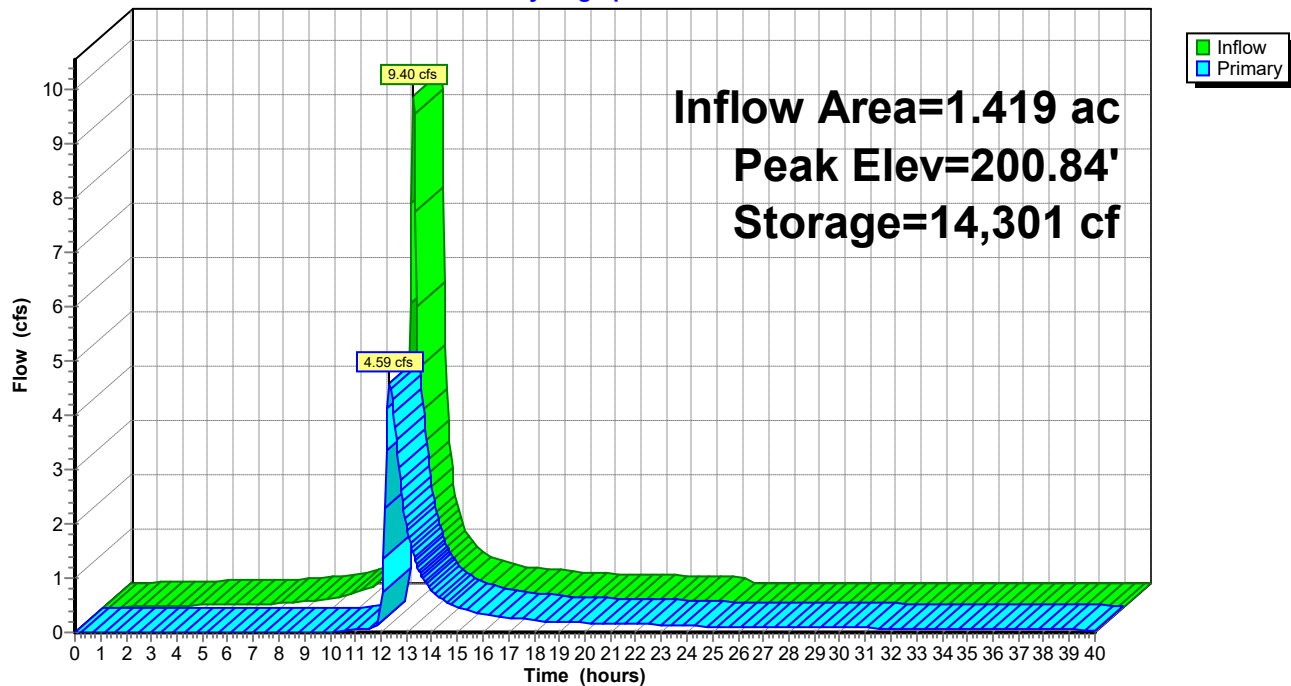
Device	Routing	Invert	Outlet Devices
#1	Primary	198.65'	18.0" Round Culvert L= 70.0' Ke= 0.500 Inlet / Outlet Invert= 198.65' / 196.00' S= 0.0379 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	199.81'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	200.35'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	201.07'	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=4.58 cfs @ 12.35 hrs HW=200.84' (Free Discharge)

- 1=Culvert (Passes 4.58 cfs of 10.22 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.16 cfs @ 4.64 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 4.42 cfs @ 2.30 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-5: Basin #5

Hydrograph



Summary for Pond B-6: Basin #6

Inflow Area = 1.191 ac, 58.27% Impervious, Inflow Depth = 7.14" for Current 100 yr event
 Inflow = 8.42 cfs @ 12.17 hrs, Volume= 0.709 af
 Outflow = 6.08 cfs @ 12.27 hrs, Volume= 0.631 af, Atten= 28%, Lag= 5.8 min
 Primary = 6.08 cfs @ 12.27 hrs, Volume= 0.631 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 200.70' @ 12.27 hrs Surf.Area= 6,550 sf Storage= 12,018 cf

Plug-Flow detention time= 300.5 min calculated for 0.631 af (89% of inflow)
 Center-of-Mass det. time= 244.8 min (1,013.5 - 768.7)

Volume	Invert	Avail.Storage	Storage Description
#1	198.30'	37,655 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
198.30	0	0	0
199.00	5,389	1,886	1,886
200.00	6,060	5,725	7,611
201.00	6,761	6,411	14,021
202.00	7,490	7,126	21,147
203.00	8,247	7,869	29,015
204.00	9,032	8,640	37,655

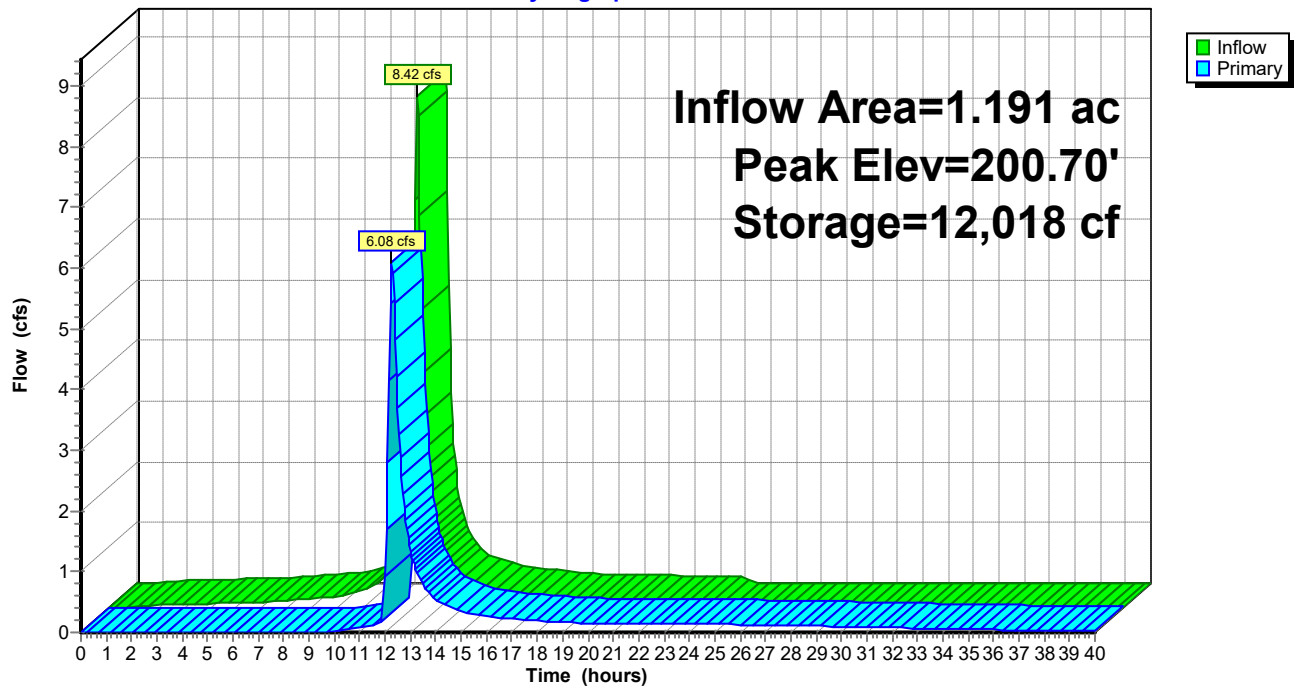
Device	Routing	Invert	Outlet Devices
#1	Primary	197.65'	18.0" Round Culvert L= 627.0' Ke= 0.500 Inlet / Outlet Invert= 197.65' / 194.00' S= 0.0058 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	199.17'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	200.10'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	200.89'	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=6.00 cfs @ 12.27 hrs HW=200.69' (Free Discharge)

1=Culvert (Passes 6.00 cfs of 8.97 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.20 cfs @ 5.74 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 5.80 cfs @ 2.52 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-6: Basin #6

Hydrograph



Summary for Pond B-7: Basin #7

Inflow Area = 1.564 ac, 62.85% Impervious, Inflow Depth = 7.28" for Current 100 yr event
 Inflow = 11.19 cfs @ 12.17 hrs, Volume= 0.948 af
 Outflow = 6.35 cfs @ 12.31 hrs, Volume= 0.806 af, Atten= 43%, Lag= 8.5 min
 Primary = 6.35 cfs @ 12.31 hrs, Volume= 0.806 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 208.61' @ 12.31 hrs Surf.Area= 10,913 sf Storage= 18,370 cf

Plug-Flow detention time= 332.1 min calculated for 0.806 af (85% of inflow)
 Center-of-Mass det. time= 263.3 min (1,029.0 - 765.7)

Volume	Invert	Avail.Storage	Storage Description
#1	206.47'	48,130 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
206.47	0	0	0
207.00	8,989	2,382	2,382
208.00	10,166	9,578	11,960
209.00	11,395	10,781	22,740
210.00	12,681	12,038	34,778
211.00	14,023	13,352	48,130

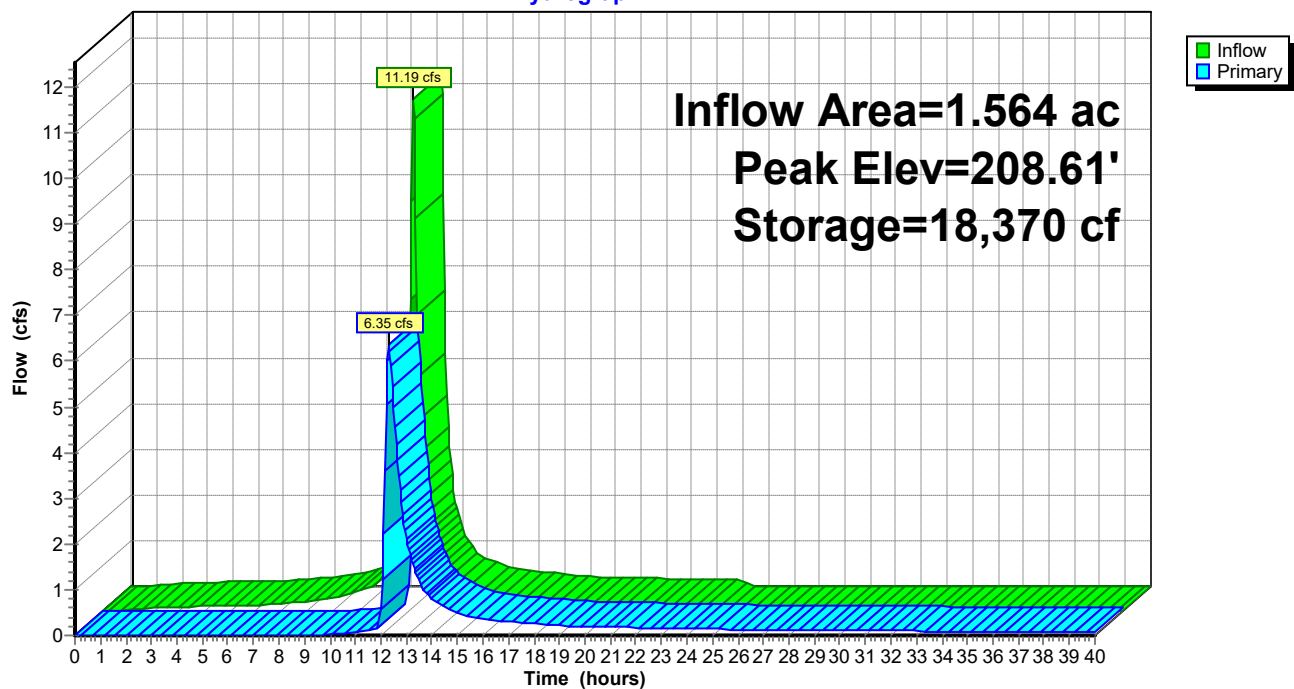
Device	Routing	Invert	Outlet Devices
#1	Primary	206.47'	18.0" Round Culvert L= 94.0' Ke= 0.500 Inlet / Outlet Invert= 206.47' / 206.00' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	207.17'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	207.99'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	208.86'	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=6.31 cfs @ 12.31 hrs HW=208.61' (Free Discharge)

1=Culvert (Passes 6.31 cfs of 8.31 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.19 cfs @ 5.56 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 6.12 cfs @ 2.57 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-7: Basin #7

Hydrograph



Summary for Pond B-8: Basin #8

Inflow Area = 2.546 ac, 37.27% Impervious, Inflow Depth = 6.54" for Current 100 yr event
 Inflow = 17.00 cfs @ 12.17 hrs, Volume= 1.387 af
 Outflow = 8.19 cfs @ 12.35 hrs, Volume= 1.167 af, Atten= 52%, Lag= 10.6 min
 Primary = 8.19 cfs @ 12.35 hrs, Volume= 1.167 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 180.57' @ 12.35 hrs Surf.Area= 14,853 sf Storage= 26,698 cf

Plug-Flow detention time= 298.3 min calculated for 1.165 af (84% of inflow)
 Center-of-Mass det. time= 228.7 min (1,012.9 - 784.2)

Volume	Invert	Avail.Storage	Storage Description
#1	178.30'	49,028 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
178.30	0	0	0
179.00	13,283	4,649	4,649
180.00	14,274	13,779	18,428
181.00	15,293	14,784	33,211
182.00	16,341	15,817	49,028

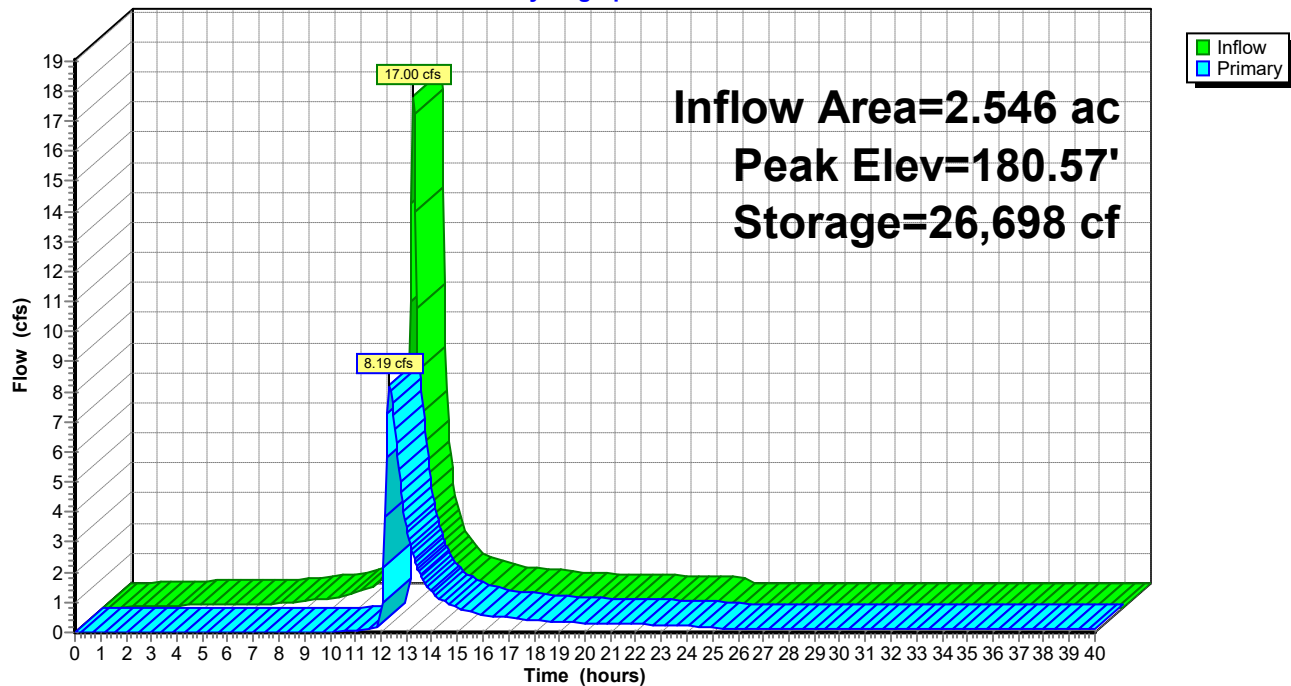
Device	Routing	Invert	Outlet Devices
#1	Primary	178.23'	18.0" Round Culvert L= 46.0' Ke= 0.500 Inlet / Outlet Invert= 178.23' / 178.00' S= 0.0050 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	178.95'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	179.83'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	180.83'	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=8.18 cfs @ 12.35 hrs HW=180.57' (Free Discharge)

1=Culvert (Passes 8.18 cfs of 9.58 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.20 cfs @ 5.92 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 7.98 cfs @ 2.81 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-8: Basin #8

Hydrograph



Summary for Pond B-9: Basin #9

Inflow Area = 1.503 ac, 52.63% Impervious, Inflow Depth = 6.98" for Current 100 yr event
 Inflow = 10.47 cfs @ 12.17 hrs, Volume= 0.874 af
 Outflow = 5.48 cfs @ 12.33 hrs, Volume= 0.748 af, Atten= 48%, Lag= 9.3 min
 Primary = 5.48 cfs @ 12.33 hrs, Volume= 0.748 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 180.17' @ 12.33 hrs Surf.Area= 11,869 sf Storage= 16,943 cf

Plug-Flow detention time= 318.5 min calculated for 0.747 af (85% of inflow)
 Center-of-Mass det. time= 252.7 min (1,025.3 - 772.6)

Volume	Invert	Avail.Storage	Storage Description
#1	178.30'	40,392 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
178.30	0	0	0
179.00	10,720	3,752	3,752
180.00	11,700	11,210	14,962
181.00	12,708	12,204	27,166
182.00	13,745	13,227	40,392

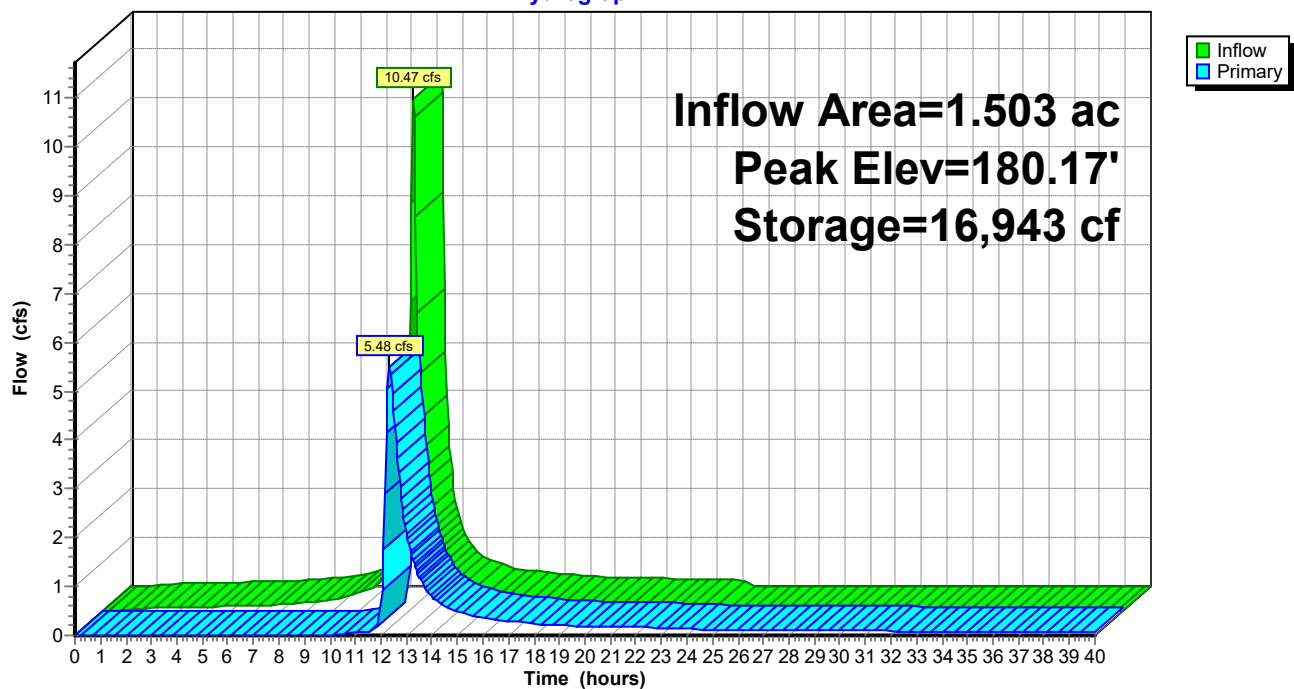
Device	Routing	Invert	Outlet Devices
#1	Primary	178.23'	18.0" Round Culvert L= 45.0' Ke= 0.500 Inlet / Outlet Invert= 178.23' / 178.00' S= 0.0051 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	178.95'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	179.61'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	180.31'	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=5.45 cfs @ 12.33 hrs HW=180.17' (Free Discharge)

1=Culvert (Passes 5.45 cfs of 7.99 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.17 cfs @ 5.08 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 5.27 cfs @ 2.44 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-9: Basin #9

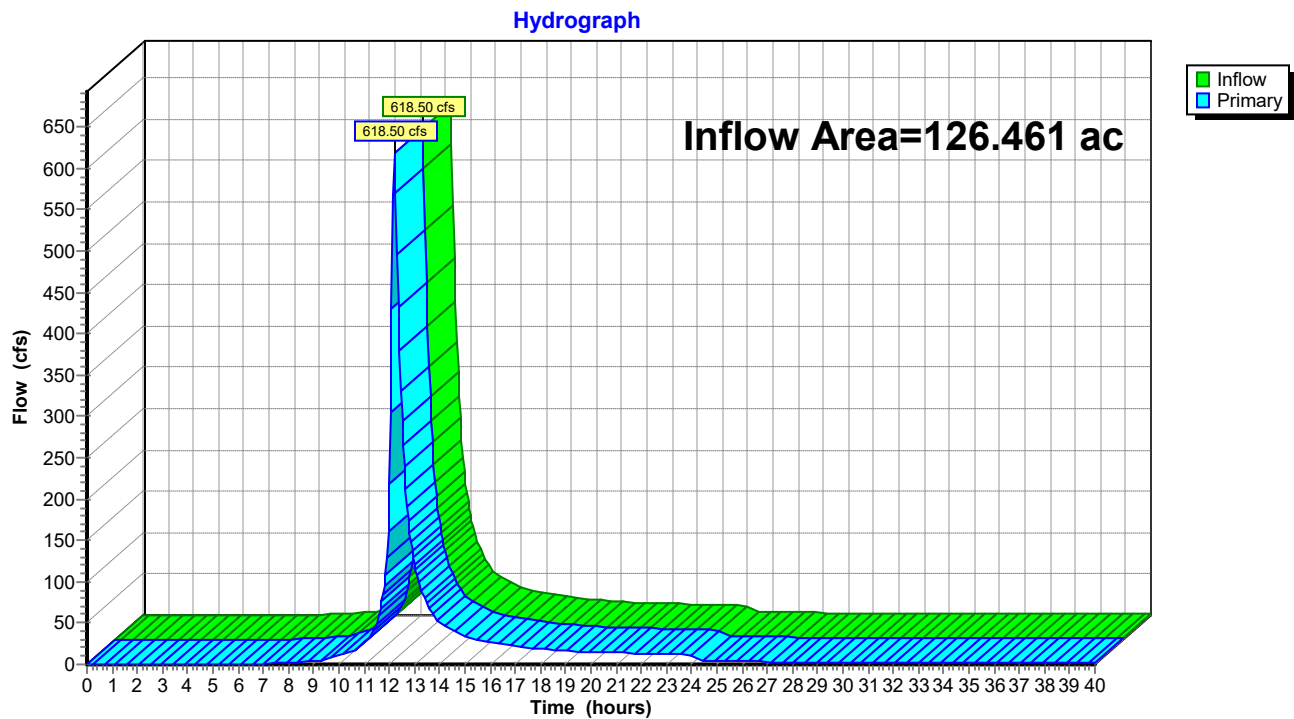
Hydrograph



Summary for Link DP-1: Design Pont #1 (Ewing Creek)

Inflow Area = 126.461 ac, 21.23% Impervious, Inflow Depth > 5.69" for Current 100 yr event
Inflow = 618.50 cfs @ 12.20 hrs, Volume= 59.982 af
Primary = 618.50 cfs @ 12.20 hrs, Volume= 59.982 af, Atten= 0%, Lag= 0.0 min

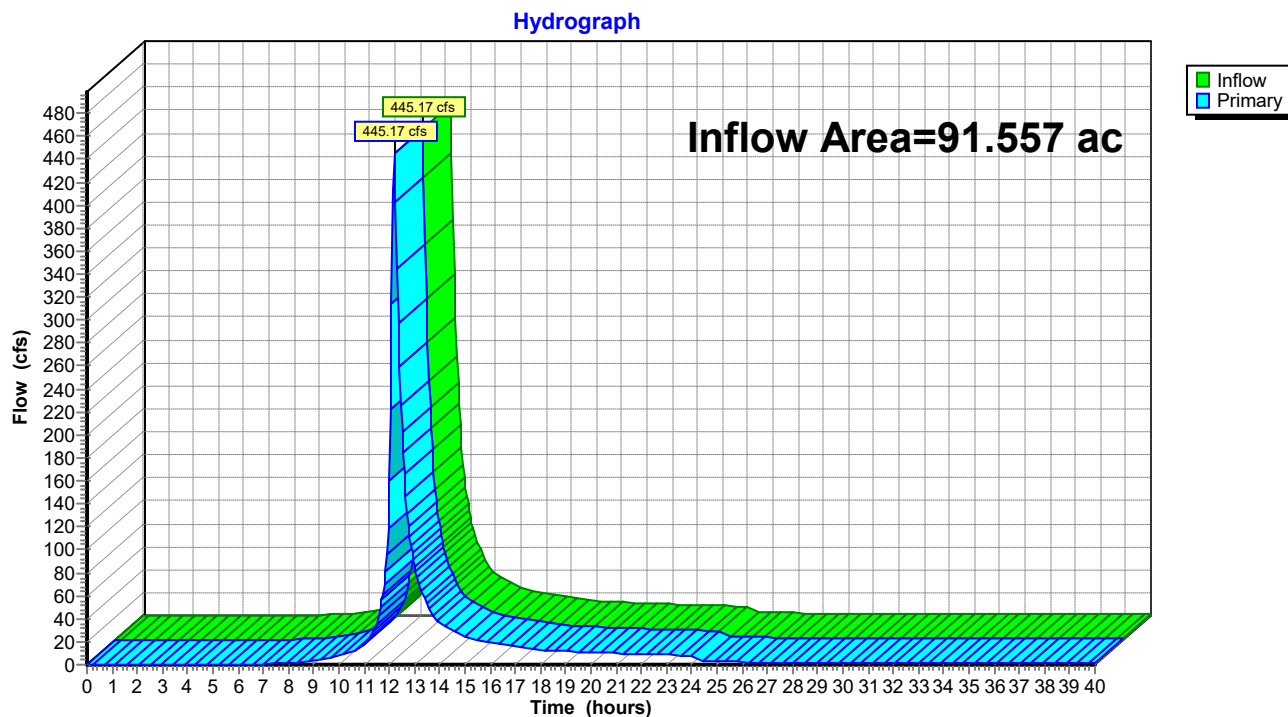
Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

Link DP-1: Design Pont #1 (Ewing Creek)

Summary for Link PDA-1: Proposed Drainage Area #1

Inflow Area = 91.557 ac, 16.93% Impervious, Inflow Depth > 5.59" for Current 100 yr event
Inflow = 445.17 cfs @ 12.20 hrs, Volume= 42.627 af
Primary = 445.17 cfs @ 12.20 hrs, Volume= 42.627 af, Atten= 0%, Lag= 0.0 min
Routed to Link DP-1 : Design Pont #1 (Ewing Creek)

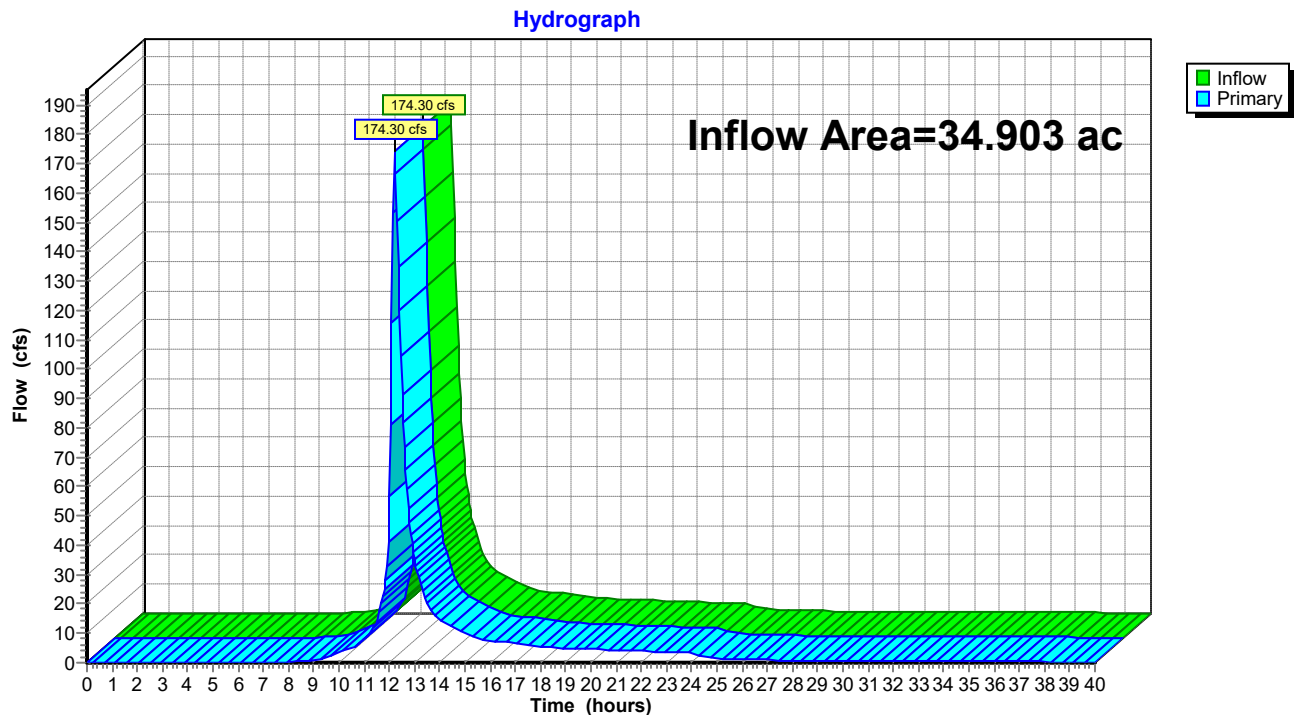
Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

Link PDA-1: Proposed Drainage Area #1

Summary for Link PDA-2: Proposed Drainage Area #2

Inflow Area = 34.903 ac, 32.51% Impervious, Inflow Depth > 5.97" for Current 100 yr event
Inflow = 174.30 cfs @ 12.21 hrs, Volume= 17.355 af
Primary = 174.30 cfs @ 12.21 hrs, Volume= 17.355 af, Atten= 0%, Lag= 0.0 min
Routed to Link DP-1 : Design Pont #1 (Ewing Creek)

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

Link PDA-2: Proposed Drainage Area #2

Summary for Subcatchment 1I: PDA-1 (impervious)

Runoff = 0.42 cfs @ 12.17 hrs, Volume= 0.036 af, Depth= 3.62"
 Routed to Pond B-1 : Basin #1

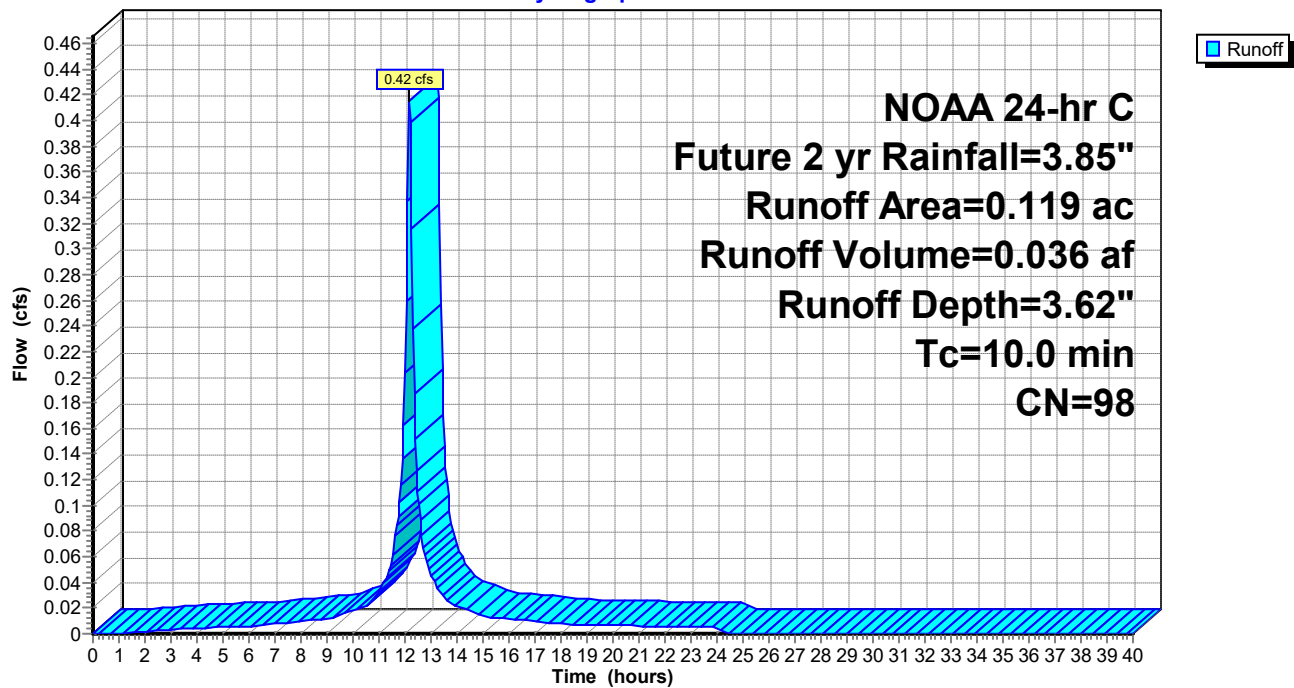
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.115	98	Pavement, HSG C
* 0.004	98	Concrete, HSG C
0.119	98	Weighted Average
0.119		100.00% Impervious Area

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

Subcatchment 1I: PDA-1 (impervious)

Hydrograph



Summary for Subcatchment 1P: PDA-1 (pervious)

Runoff = 3.84 cfs @ 12.18 hrs, Volume= 0.293 af, Depth= 1.49"
 Routed to Pond B-1 : Basin #1

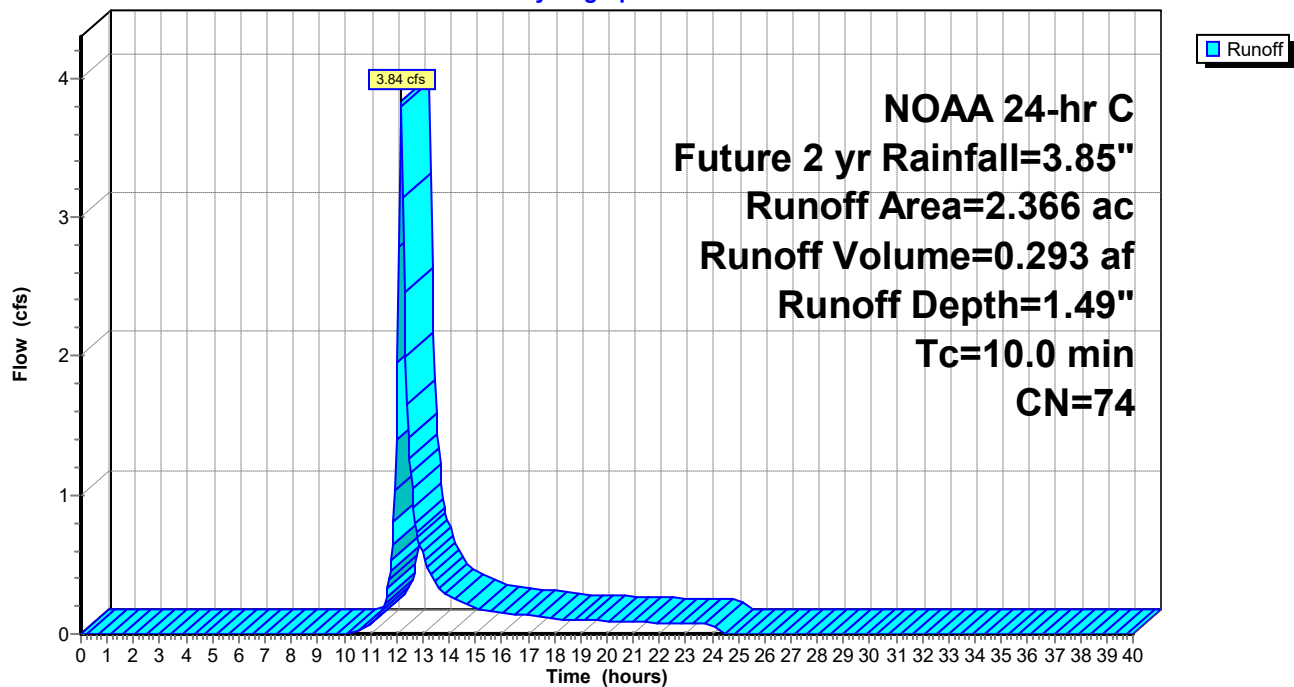
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
2.366	74	>75% Grass cover, Good, HSG C
2.366		100.00% Pervious Area

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

Subcatchment 1P: PDA-1 (pervious)

Hydrograph



Summary for Subcatchment 2I: PDA-2 (impervious)

Runoff = 2.83 cfs @ 12.17 hrs, Volume= 0.244 af, Depth= 3.62"
 Routed to Pond B-2 : Basin #2

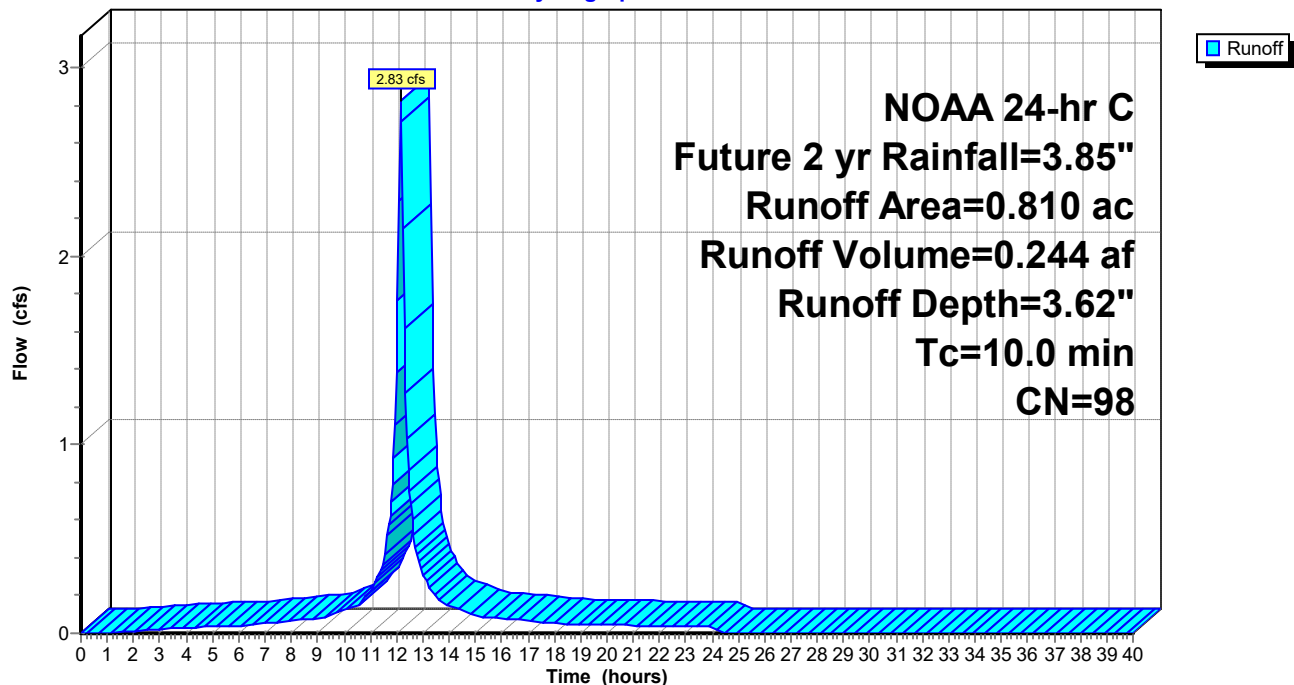
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.490	98	Roof, HSG C
* 0.269	98	Pavement, HSG C
* 0.051	98	Concrete, HSG C
0.810	98	Weighted Average
0.810		100.00% Impervious Area

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

Subcatchment 2I: PDA-2 (impervious)

Hydrograph



Summary for Subcatchment 2P: PDA-2 (pervious)

Runoff = 1.71 cfs @ 12.18 hrs, Volume= 0.131 af, Depth= 1.49"
 Routed to Pond B-2 : Basin #2

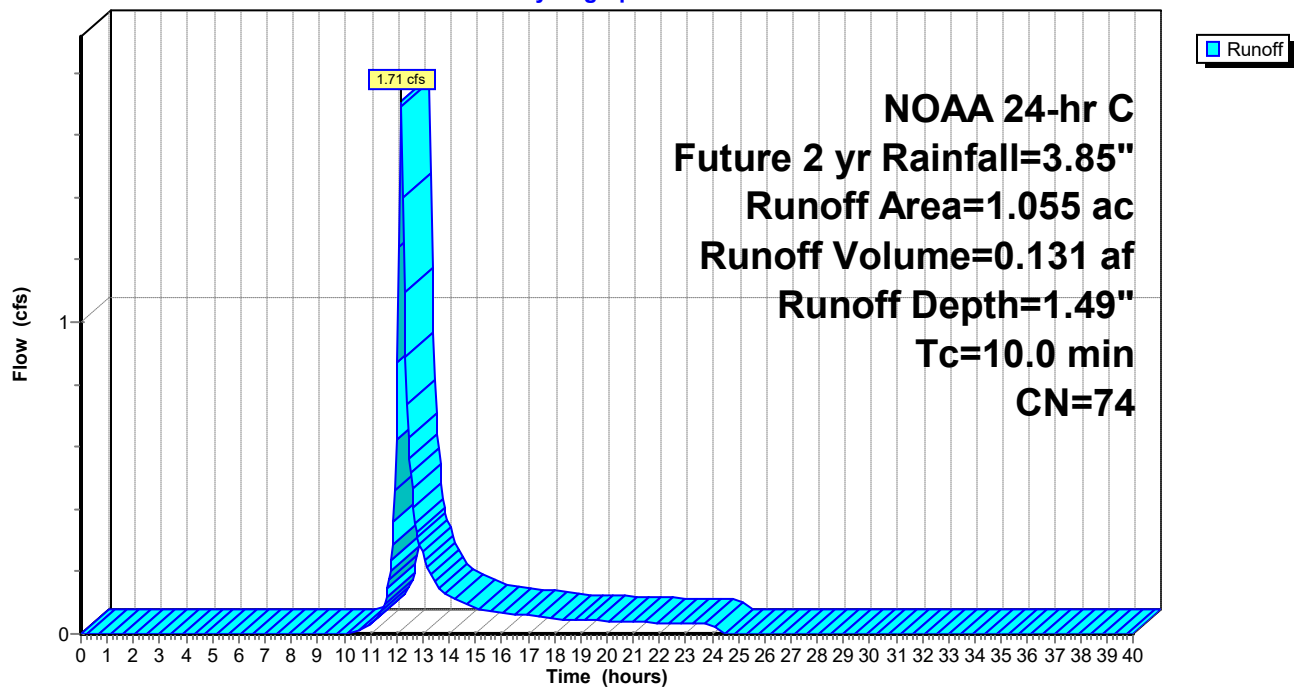
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
1.055	74	>75% Grass cover, Good, HSG C
1.055		100.00% Pervious Area

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

Subcatchment 2P: PDA-2 (pervious)

Hydrograph



Summary for Subcatchment 3I: PDA-3 (impervious)

Runoff = 4.34 cfs @ 12.17 hrs, Volume= 0.375 af, Depth= 3.62"
 Routed to Pond B-3 : Basin #3

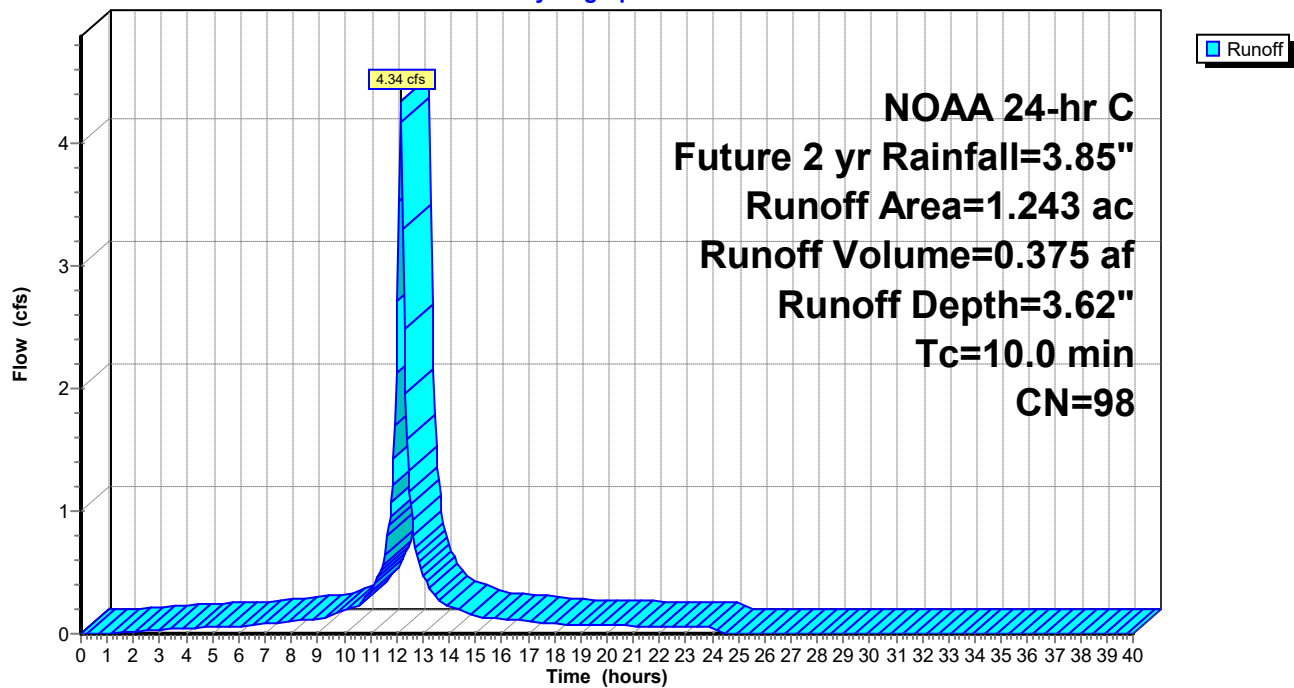
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 1.162	98	Pavement, HSG C
* 0.081	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 3I: PDA-3 (impervious)

Hydrograph



Summary for Subcatchment 3P: PDA-3 (pervious)

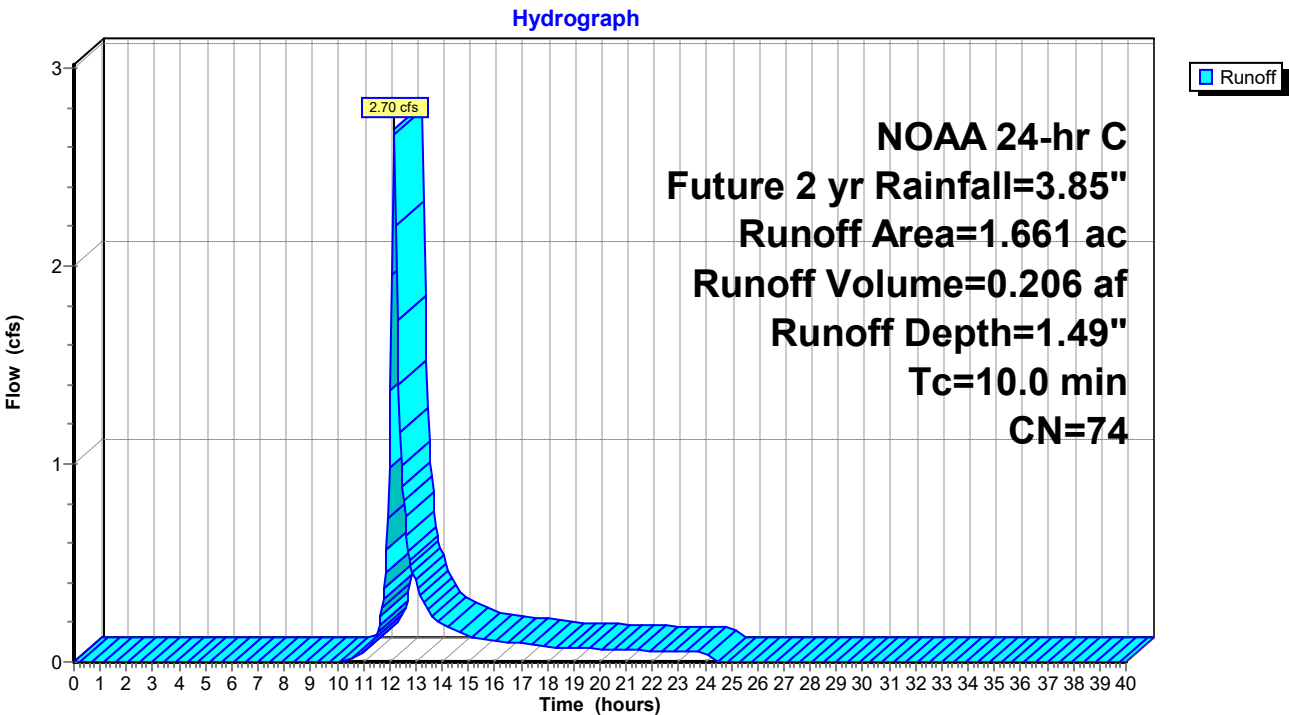
Runoff = 2.70 cfs @ 12.18 hrs, Volume= 0.206 af, Depth= 1.49"
Routed to Pond B-3 : Basin #3

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 2 yr Rainfall=3.85"

Area (ac)	CN	Description
1.661	74	>75% Grass cover, Good, HSG C
1.661		100.00% Pervious Area

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

Subcatchment 3P: PDA-3 (pervious)



Summary for Subcatchment 4I: PDA-4 (impervious)

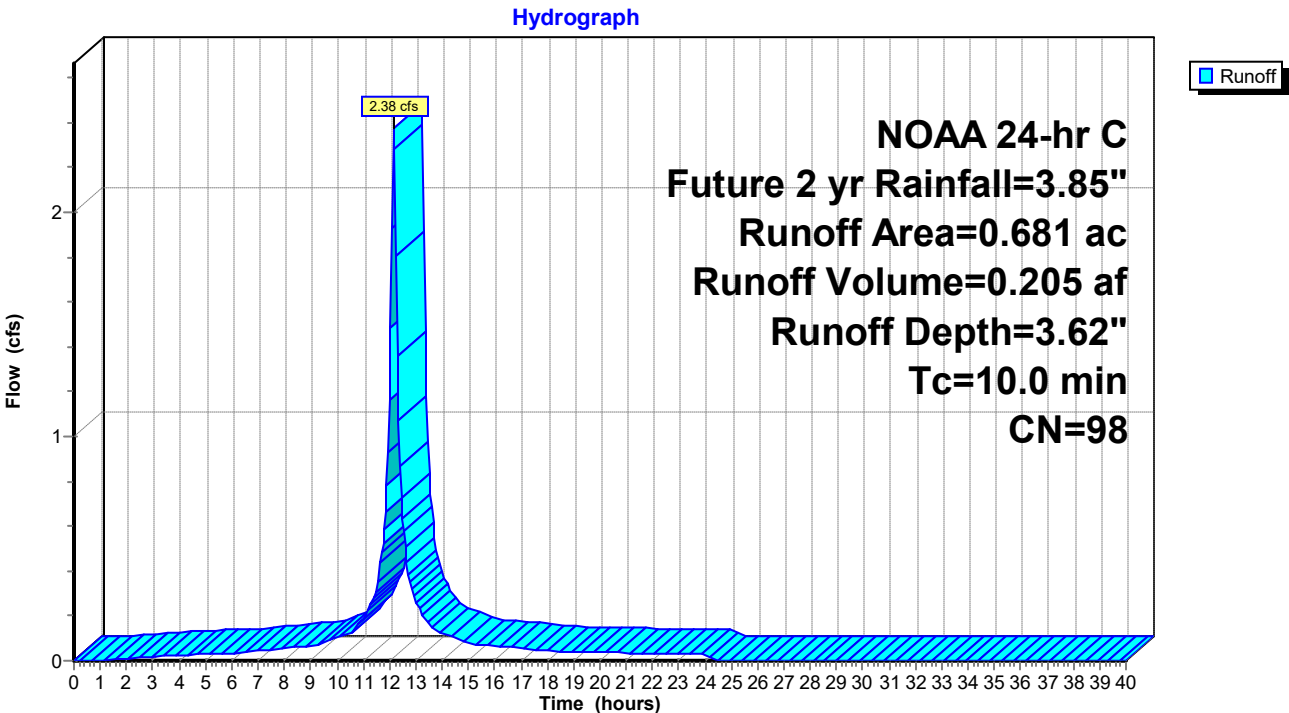
Runoff = 2.38 cfs @ 12.17 hrs, Volume= 0.205 af, Depth= 3.62"
Routed to Pond B-4 : Basin #4

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 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.433	98	Pavement, HSG C
* 0.248	98	Concrete, HSG C
0.681	98	Weighted Average
0.681		100.00% Impervious Area

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

Subcatchment 4I: PDA-4 (impervious)



Summary for Subcatchment 4P: PDA-4 (pervious)

Runoff = 3.32 cfs @ 12.18 hrs, Volume= 0.253 af, Depth= 1.49"
 Routed to Pond B-4 : Basin #4

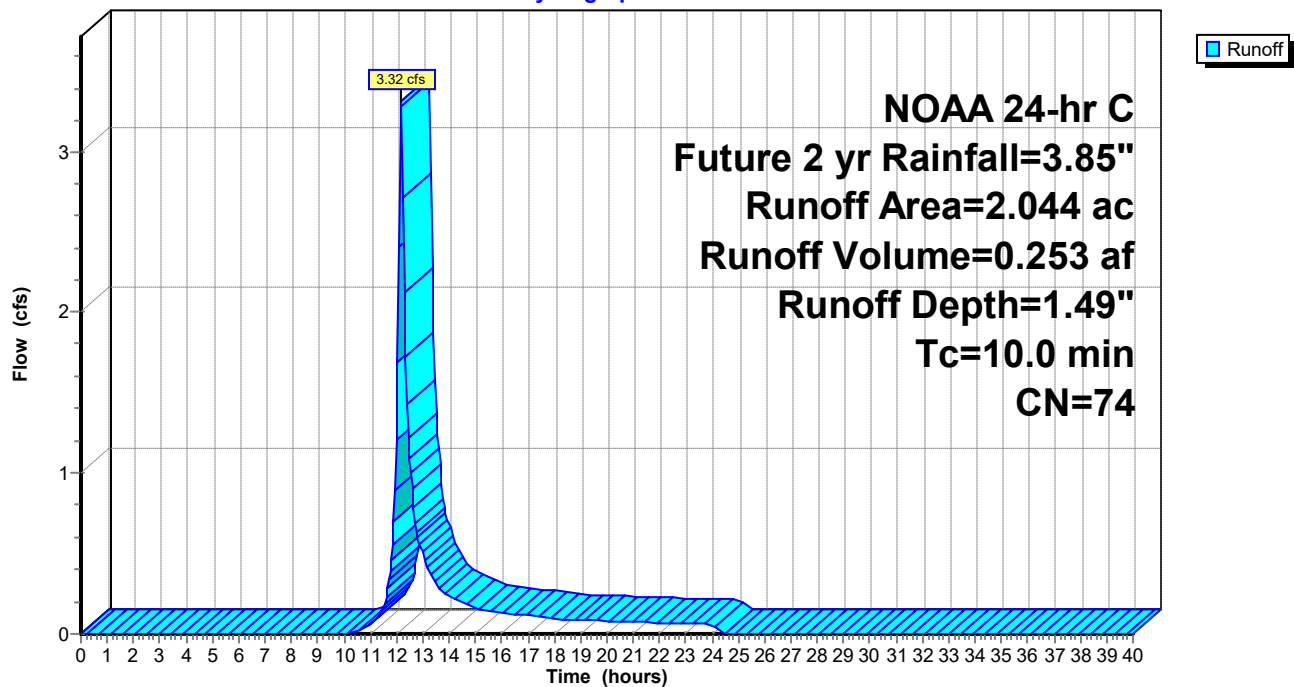
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
2.044	74	>75% Grass cover, Good, HSG C
2.044		100.00% Pervious Area

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

Subcatchment 4P: PDA-4 (pervious)

Hydrograph



Summary for Subcatchment 5I: PDA-5 (impervious)

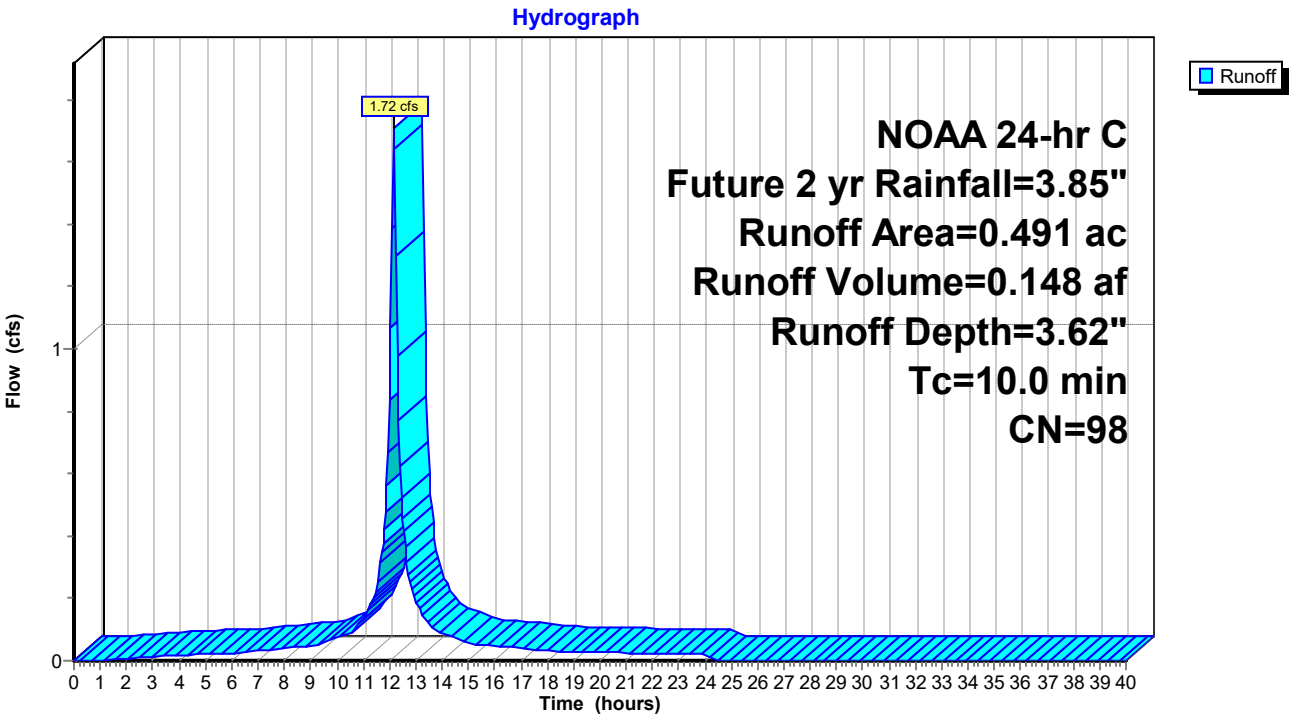
Runoff = 1.72 cfs @ 12.17 hrs, Volume= 0.148 af, Depth= 3.62"
Routed to Pond B-5 : Basin #5

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 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.393	98	Pavement, HSG C
* 0.098	98	Concrete, HSG C
0.491	98	Weighted Average
0.491		100.00% Impervious Area

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

Subcatchment 5I: PDA-5 (impervious)



Summary for Subcatchment 5P: PDA-5 (pervious)

Runoff = 1.51 cfs @ 12.18 hrs, Volume= 0.115 af, Depth= 1.49"
 Routed to Pond B-5 : Basin #5

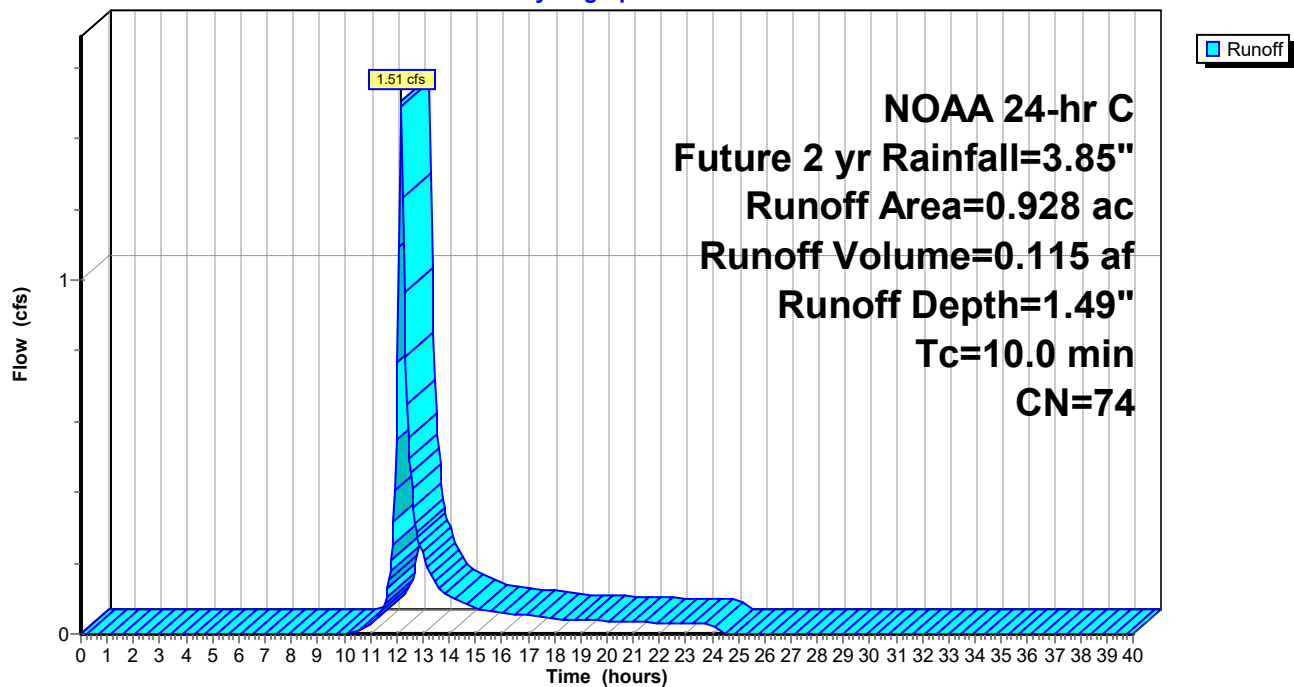
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
0.928	74	>75% Grass cover, Good, HSG C
0.928		100.00% Pervious Area

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

Subcatchment 5P: PDA-5 (pervious)

Hydrograph



Summary for Subcatchment 6I: PDA-6 (impervious)

Runoff = 2.42 cfs @ 12.17 hrs, Volume= 0.209 af, Depth= 3.62"
 Routed to Pond B-6 : Basin #6

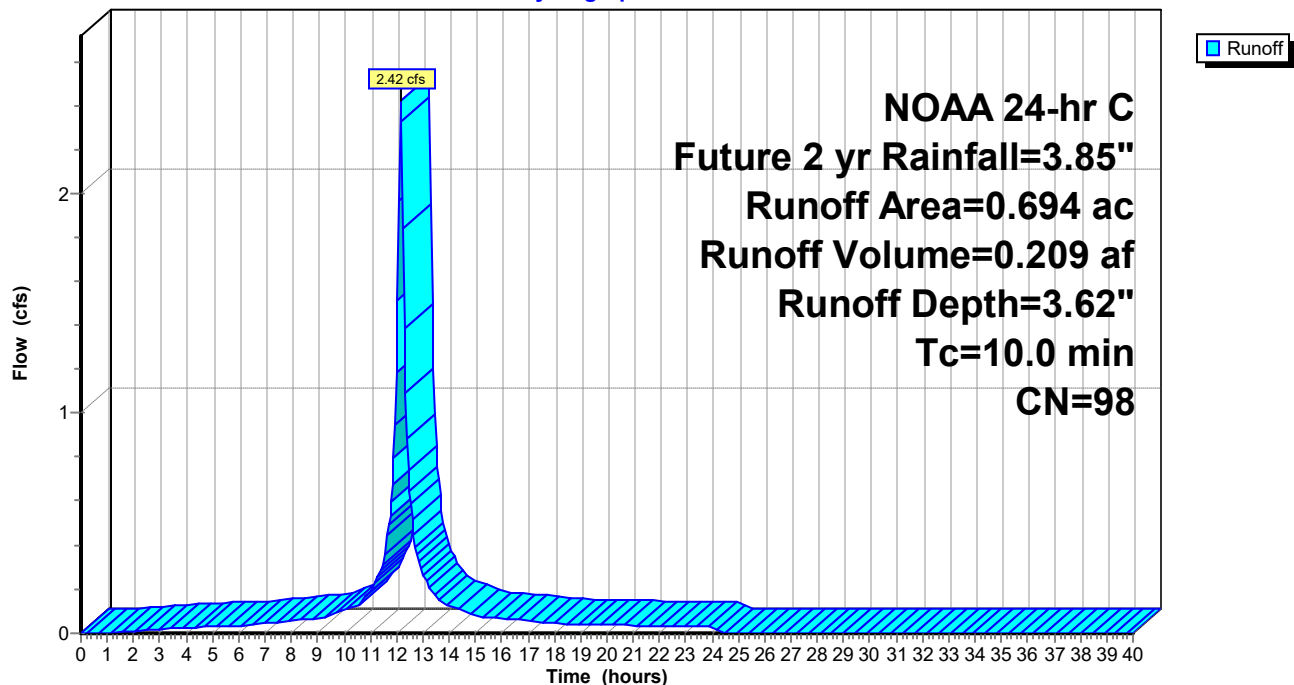
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.459	98	Pavement, HSG C
* 0.129	98	Roof, HSG C
* 0.106	98	Concrete, HSG C
0.694	98	Weighted Average
0.694		100.00% Impervious Area

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

Subcatchment 6I: PDA-6 (impervious)

Hydrograph



Summary for Subcatchment 6P: PDA-6 (pervious)

Runoff = 0.81 cfs @ 12.18 hrs, Volume= 0.062 af, Depth= 1.49"
 Routed to Pond B-6 : Basin #6

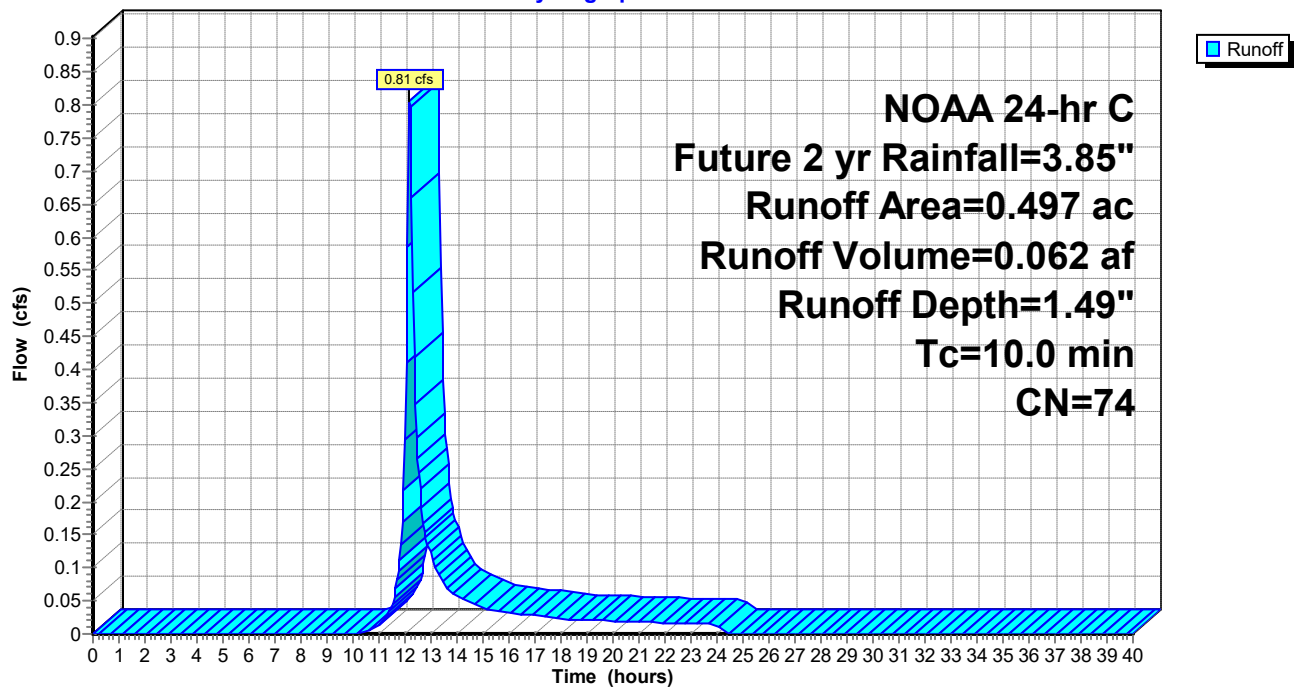
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
0.497	74	>75% Grass cover, Good, HSG C
0.497		100.00% Pervious Area

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

Subcatchment 6P: PDA-6 (pervious)

Hydrograph



Summary for Subcatchment 7I: PDA-7 (impervious)

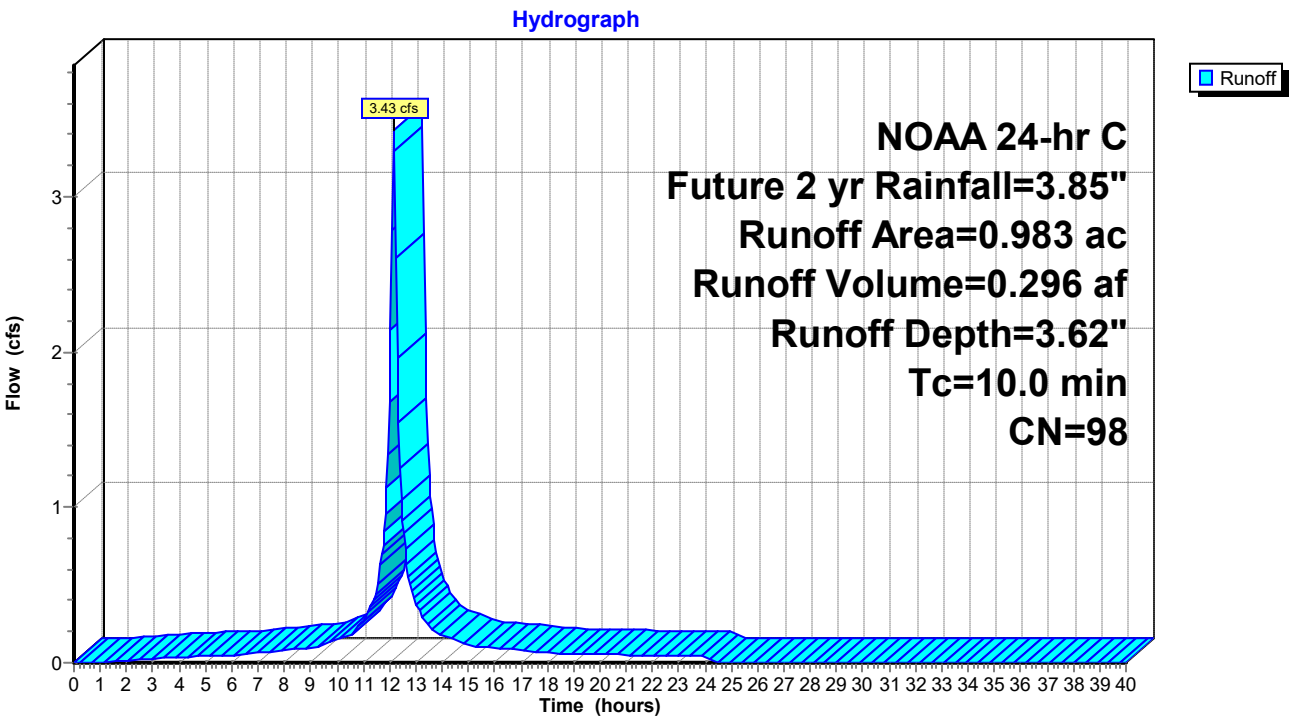
Runoff = 3.43 cfs @ 12.17 hrs, Volume= 0.296 af, Depth= 3.62"
Routed to Pond B-7 : Basin #7

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 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.886	98	Pavement, HSG C
* 0.097	98	Concrete, HSG C
0.983	98	Weighted Average
0.983		100.00% Impervious Area

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

Subcatchment 7I: PDA-7 (impervious)



Summary for Subcatchment 7P: PDA-7 (pervious)

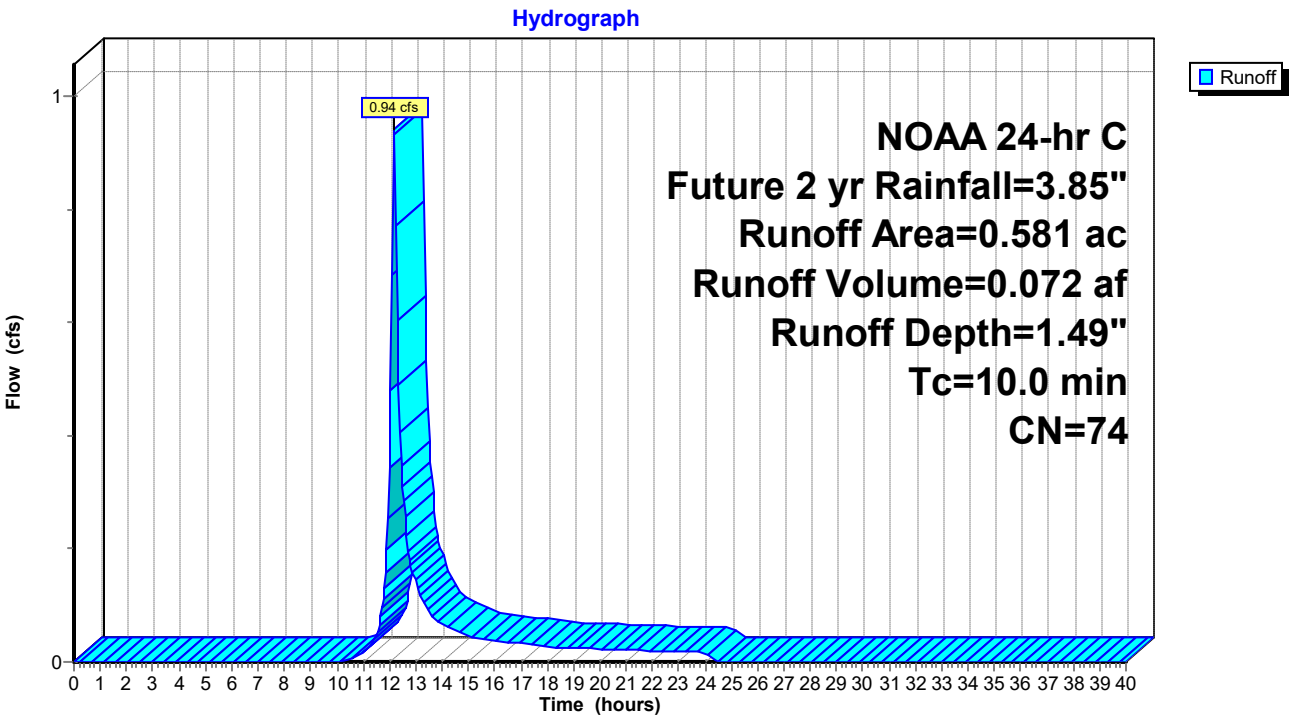
Runoff = 0.94 cfs @ 12.18 hrs, Volume= 0.072 af, Depth= 1.49"
Routed to Pond B-7 : Basin #7

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 2 yr Rainfall=3.85"

Area (ac)	CN	Description
0.581	74	>75% Grass cover, Good, HSG C
0.581		100.00% Pervious Area

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

Subcatchment 7P: PDA-7 (pervious)



Summary for Subcatchment 8I: PDA-8 (impervious)

Runoff = 3.31 cfs @ 12.17 hrs, Volume= 0.286 af, Depth= 3.62"
 Routed to Pond B-8 : Basin #8

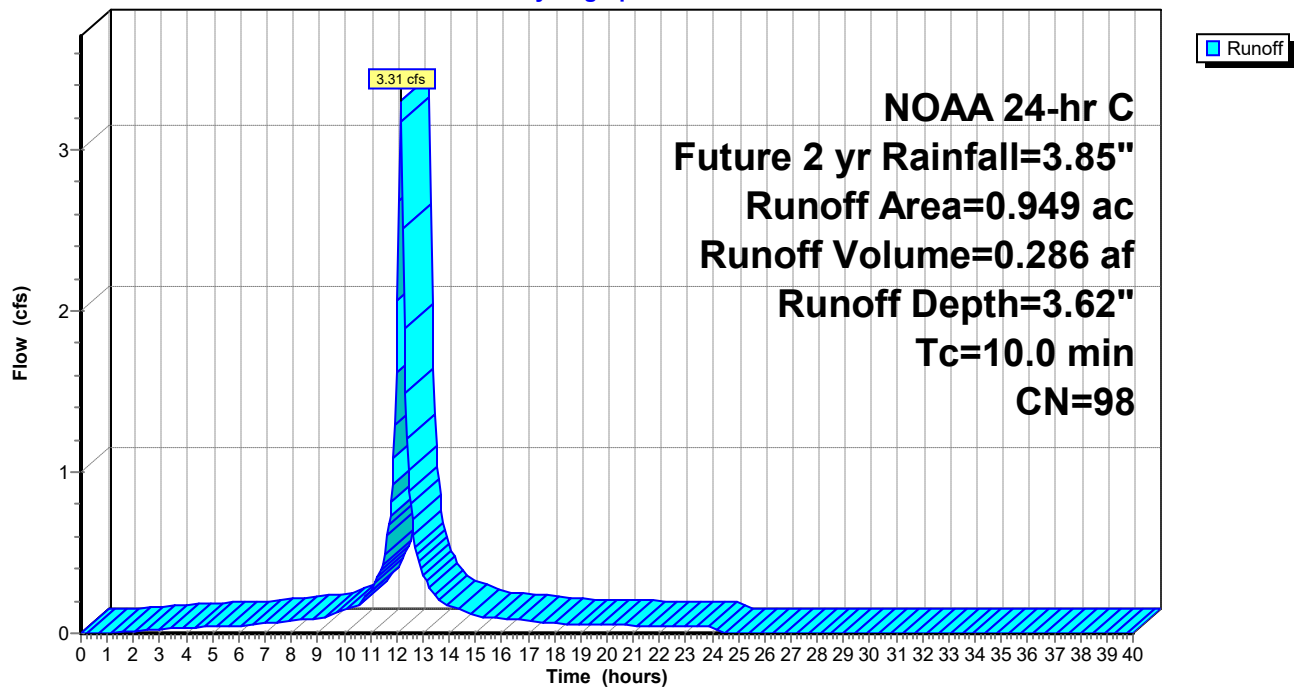
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.300	98	Pavement, HSG C
* 0.643	98	Roof, HSG C
* 0.006	98	Concrete, HSG C
0.949	98	Weighted Average
0.949		100.00% Impervious Area

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

Subcatchment 8I: PDA-8 (impervious)

Hydrograph



Summary for Subcatchment 8P: PDA-8 (pervious)

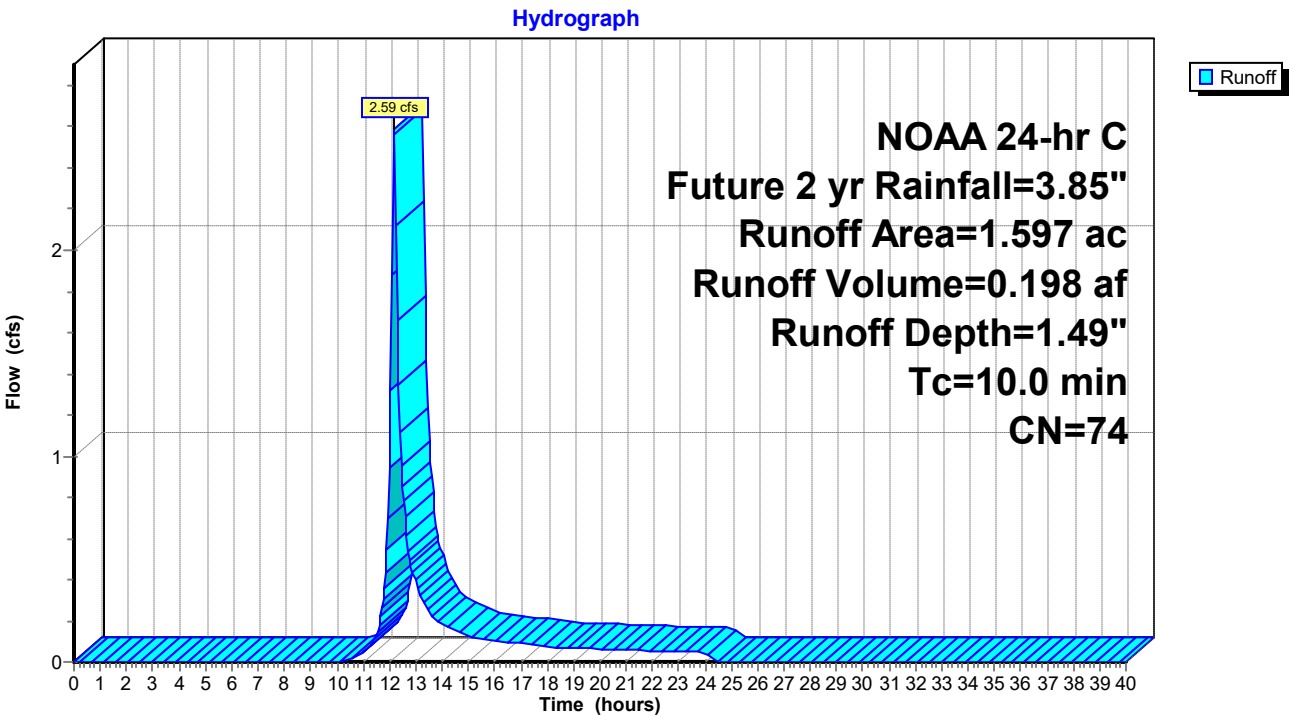
Runoff = 2.59 cfs @ 12.18 hrs, Volume= 0.198 af, Depth= 1.49"
Routed to Pond B-8 : Basin #8

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 2 yr Rainfall=3.85"

Area (ac)	CN	Description
1.597	74	>75% Grass cover, Good, HSG C
1.597		100.00% Pervious Area

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

Subcatchment 8P: PDA-8 (pervious)



Summary for Subcatchment 9I: PDA-9 (impervious)

Runoff = 2.76 cfs @ 12.17 hrs, Volume= 0.238 af, Depth= 3.62"
 Routed to Pond B-9 : Basin #9

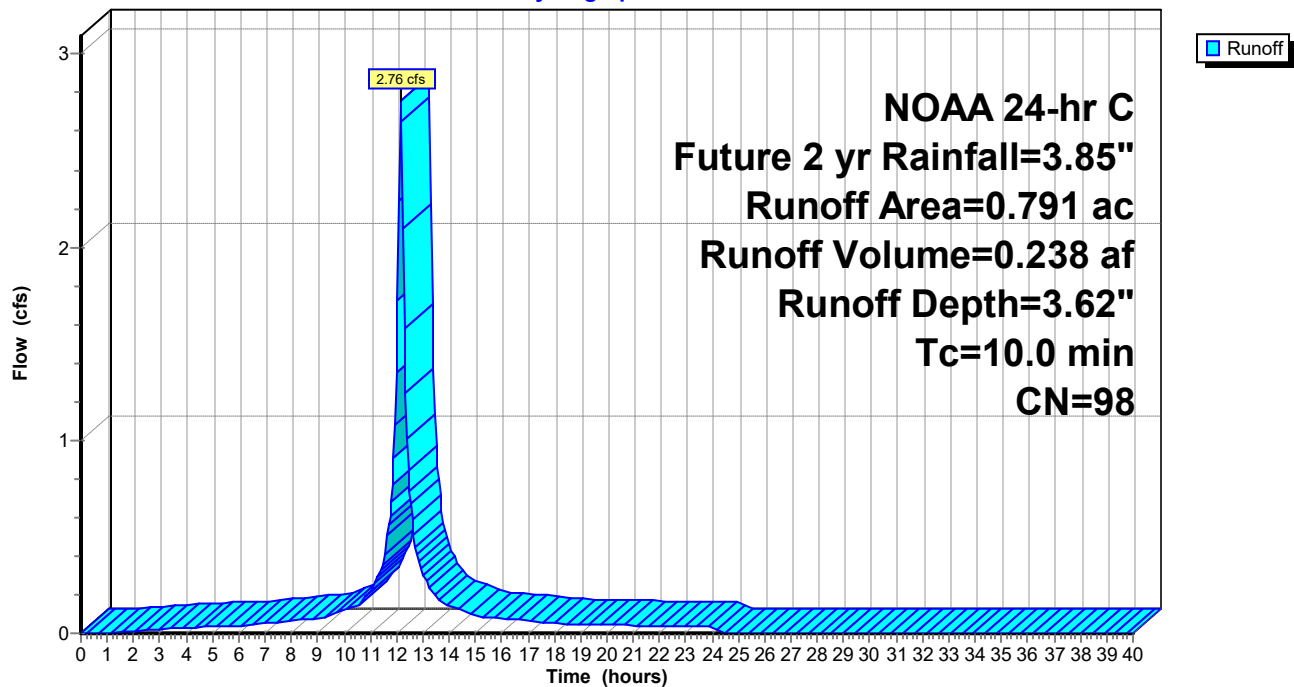
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.286	98	Pavement, HSG C
* 0.450	98	Roof, HSG C
* 0.055	98	Concrete, HSG C
0.791	98	Weighted Average
0.791		100.00% Impervious Area

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

Subcatchment 9I: PDA-9 (impervious)

Hydrograph



Summary for Subcatchment 9P: PDA-9 (pervious)

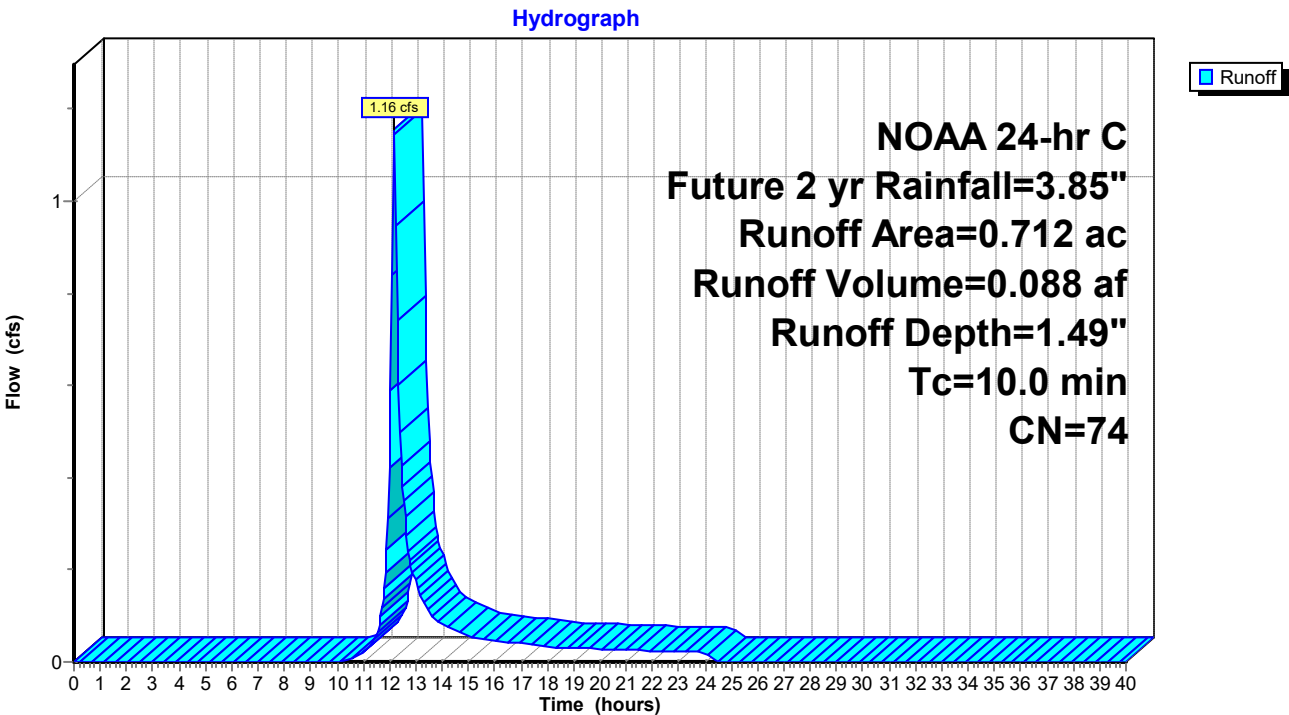
Runoff = 1.16 cfs @ 12.18 hrs, Volume= 0.088 af, Depth= 1.49"
Routed to Pond B-9 : Basin #9

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 2 yr Rainfall=3.85"

Area (ac)	CN	Description
0.712	74	>75% Grass cover, Good, HSG C
0.712		100.00% Pervious Area

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

Subcatchment 9P: PDA-9 (pervious)



Summary for Subcatchment 10I: PDA-10 (impervious)

Runoff = 3.31 cfs @ 12.17 hrs, Volume= 0.286 af, Depth= 3.62"
 Routed to Pond B-10 : Basin #10

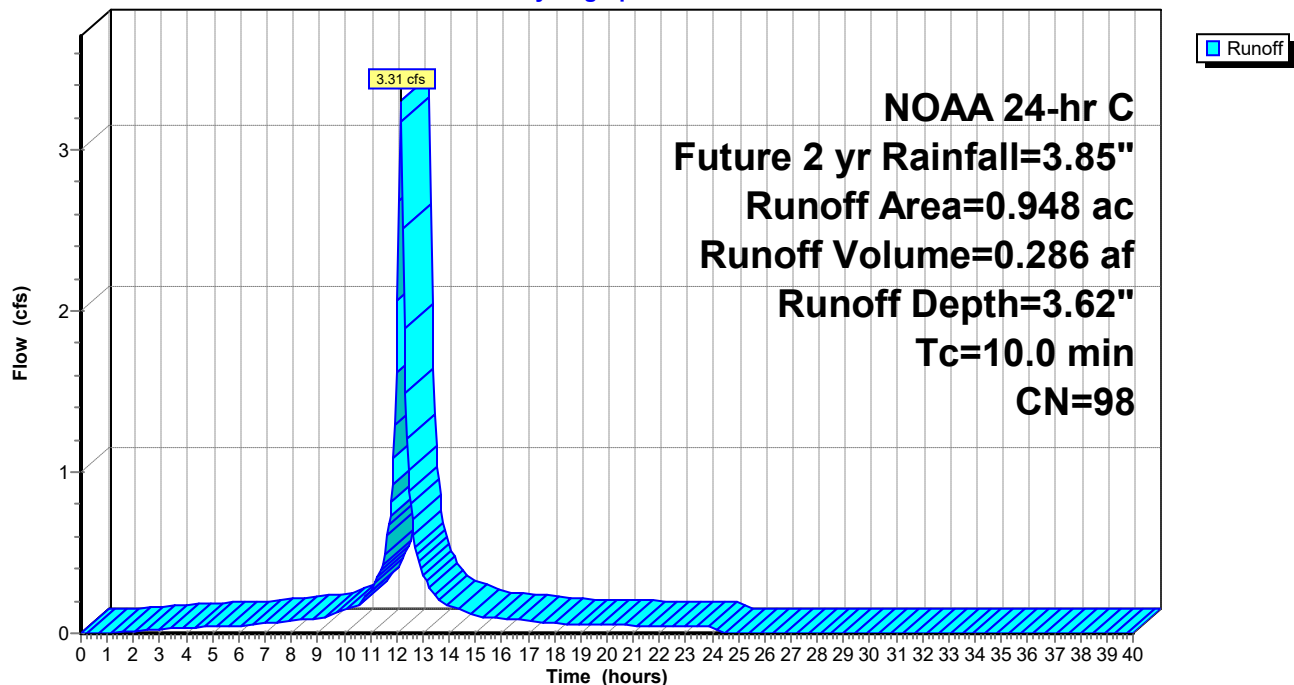
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.570	98	Pavement, HSG C
* 0.321	98	Roof, HSG C
* 0.057	98	Concrete, HSG C
0.948	98	Weighted Average
0.948		100.00% Impervious Area

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

Subcatchment 10I: PDA-10 (impervious)

Hydrograph



Summary for Subcatchment 10P: PDA-10 (pervious)

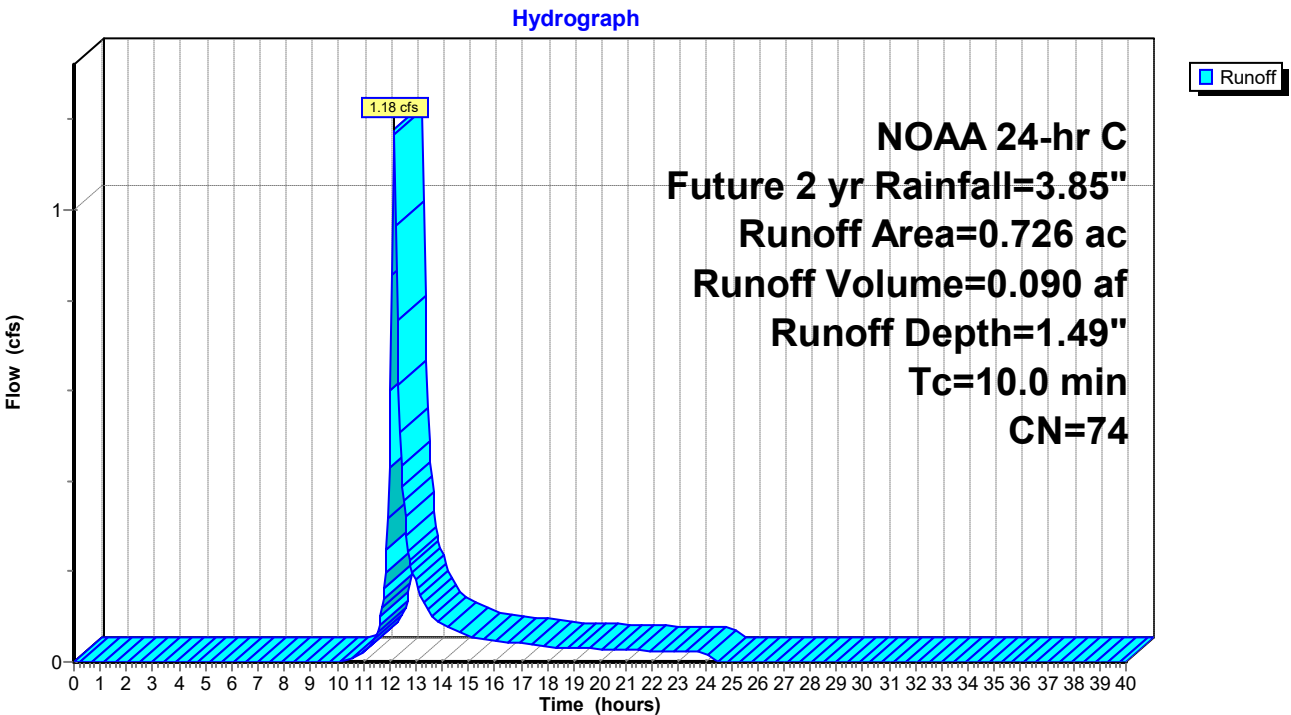
Runoff = 1.18 cfs @ 12.18 hrs, Volume= 0.090 af, Depth= 1.49"
Routed to Pond B-10 : Basin #10

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 2 yr Rainfall=3.85"

Area (ac)	CN	Description
0.726	74	>75% Grass cover, Good, HSG C
0.726		100.00% Pervious Area

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

Subcatchment 10P: PDA-10 (pervious)



Summary for Subcatchment 11I: PDA-11 (impervious)

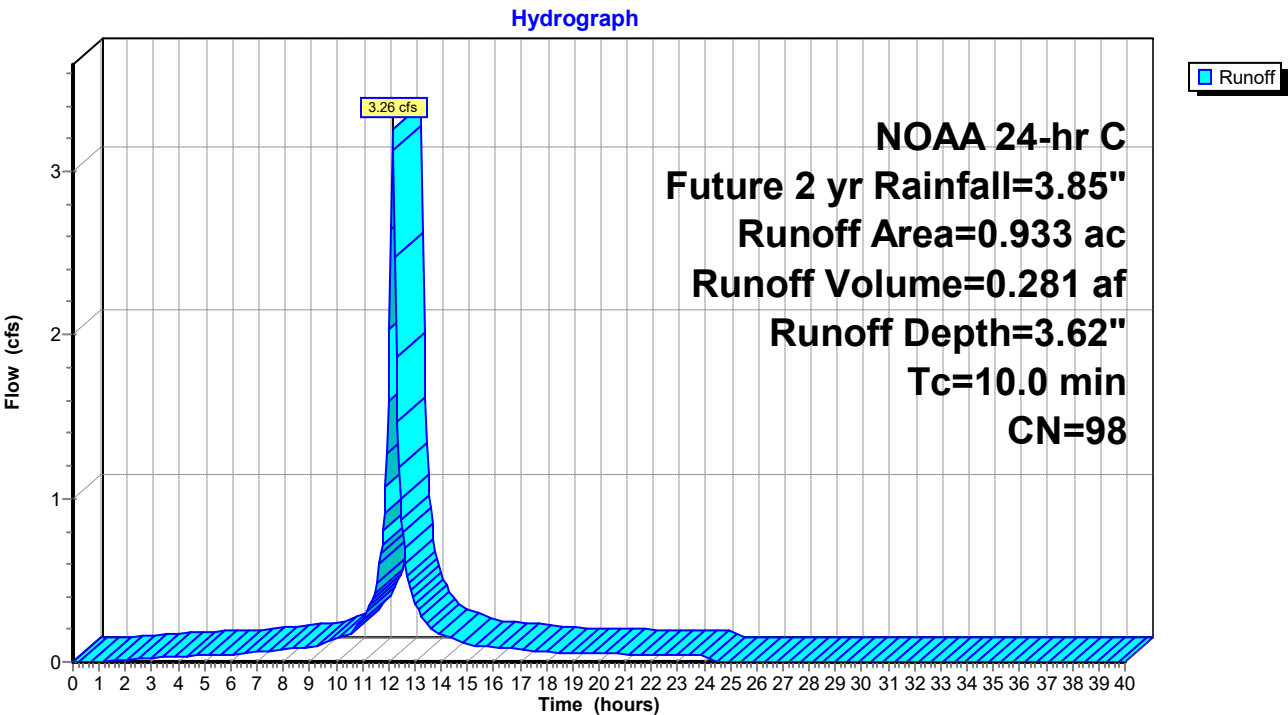
Runoff = 3.26 cfs @ 12.17 hrs, Volume= 0.281 af, Depth= 3.62"
Routed to Pond B-11 : Basin #11

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 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.933	98	Concrete, HSG C
0.933		100.00% Impervious Area

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

Subcatchment 11I: PDA-11 (impervious)



Summary for Subcatchment 11P: PDA-11 (pervious)

Runoff = 2.82 cfs @ 12.18 hrs, Volume= 0.215 af, Depth= 1.49"
 Routed to Pond B-11 : Basin #11

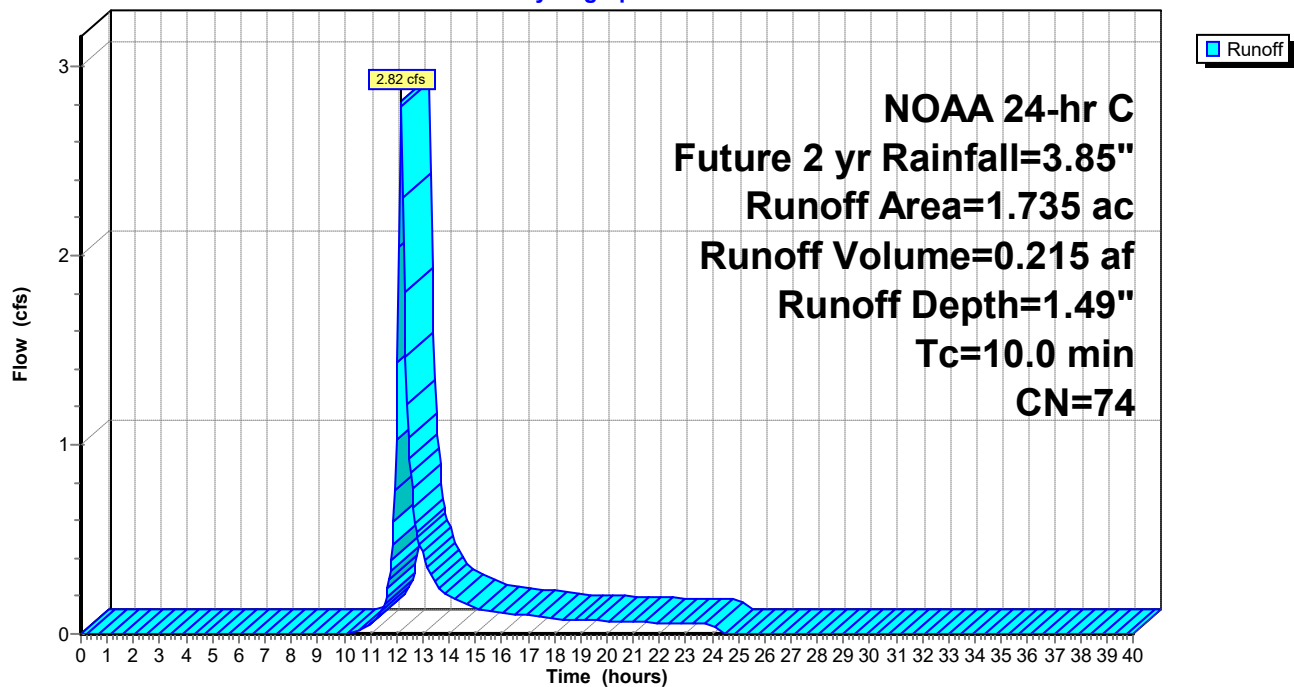
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
1.735	74	>75% Grass cover, Good, HSG C
1.735		100.00% Pervious Area

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

Subcatchment 11P: PDA-11 (pervious)

Hydrograph



Summary for Subcatchment 12I: PDA-12 (impervious)

Runoff = 4.78 cfs @ 12.17 hrs, Volume= 0.412 af, Depth= 3.62"
 Routed to Pond B-12 : Basin #12

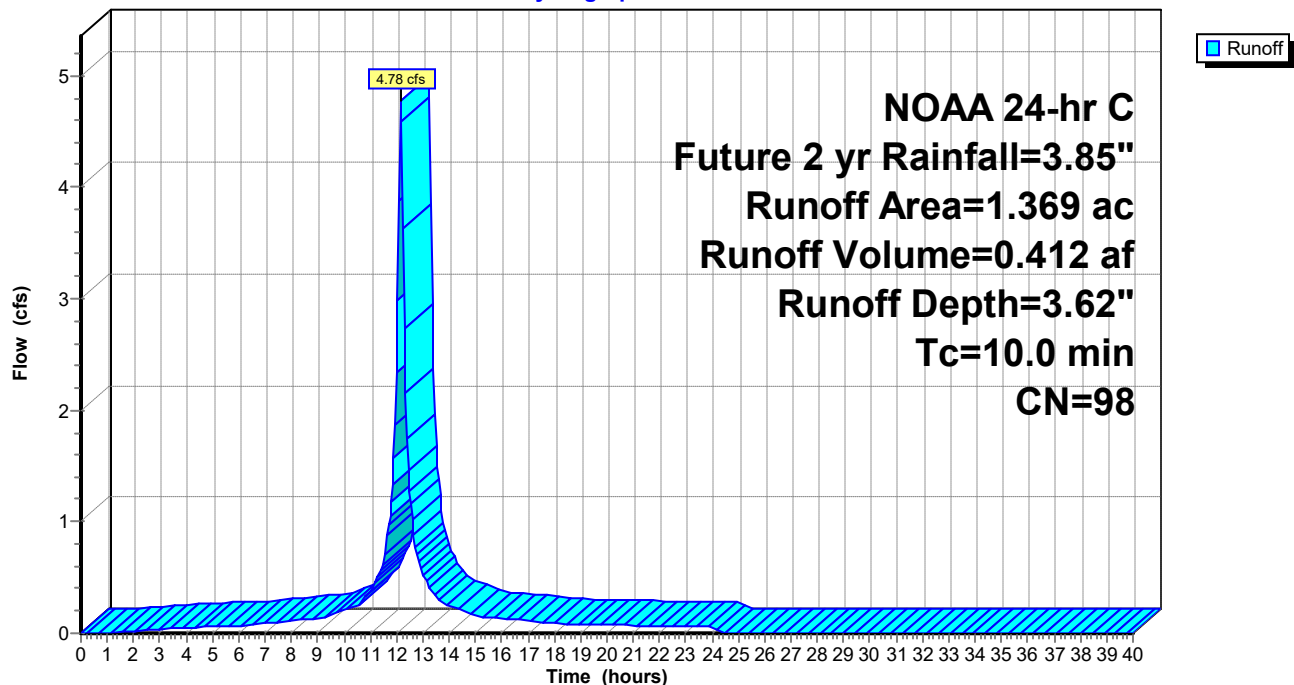
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.559	98	Pavement, HSG C
* 0.707	98	Roof, HSG C
* 0.103	98	Concrete, HSG C
1.369	98	Weighted Average
1.369		100.00% Impervious Area

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

Subcatchment 12I: PDA-12 (impervious)

Hydrograph



Summary for Subcatchment 12P: PDA-12 (pervious)

Runoff = 1.03 cfs @ 12.18 hrs, Volume= 0.079 af, Depth= 1.49"
 Routed to Pond B-12 : Basin #12

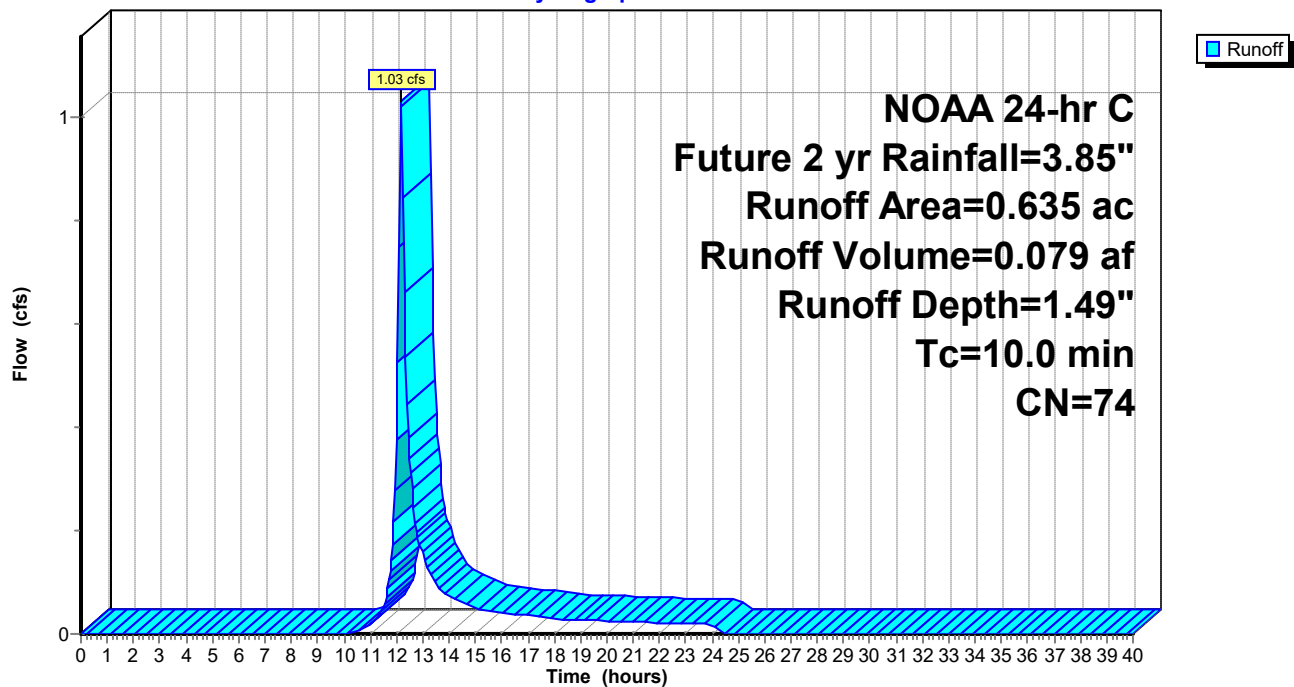
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
0.635	74	>75% Grass cover, Good, HSG C
0.635		100.00% Pervious Area

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

Subcatchment 12P: PDA-12 (pervious)

Hydrograph



Summary for Subcatchment 13I: PDA-13 (impervious)

Runoff = 5.12 cfs @ 12.17 hrs, Volume= 0.442 af, Depth= 3.62"
 Routed to Pond B-13 : Basin #13

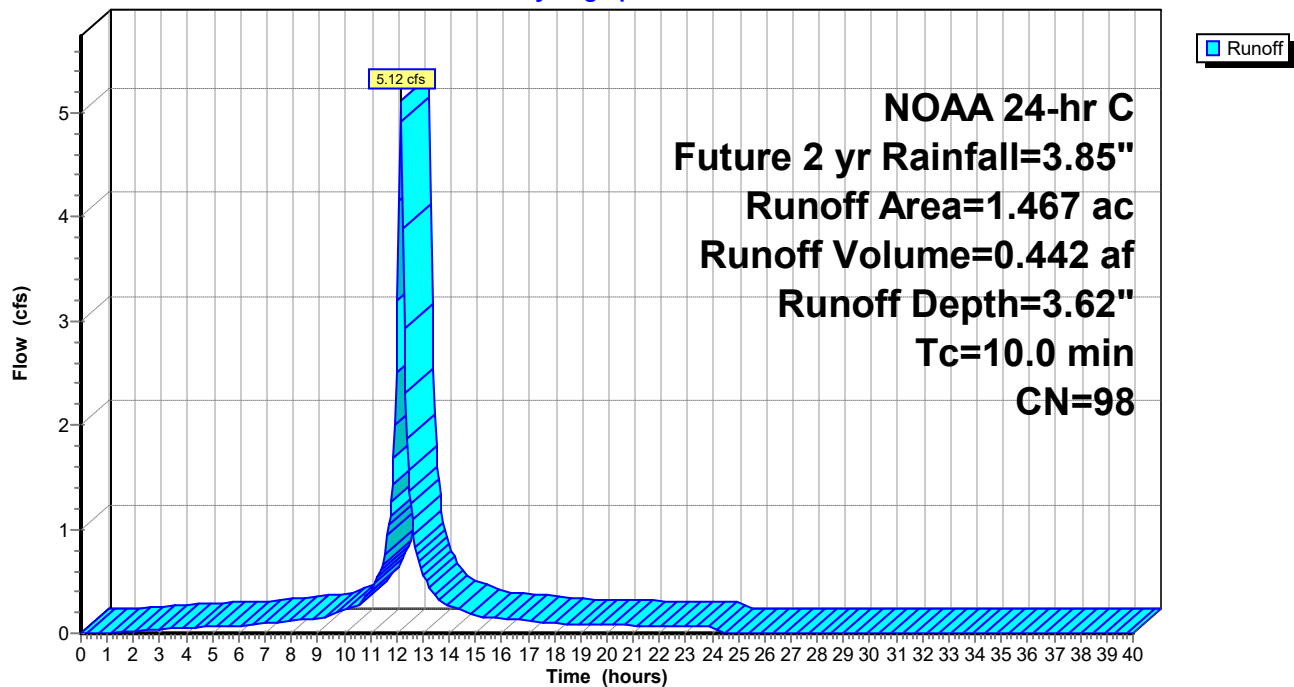
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.678	98	Pavement, HSG C
* 0.707	98	Roof, HSG C
* 0.082	98	Concrete, HSG C
1.467	98	Weighted Average
1.467		100.00% Impervious Area

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

Subcatchment 13I: PDA-13 (impervious)

Hydrograph



Summary for Subcatchment 13P: PDA-13 (pervious)

Runoff = 1.43 cfs @ 12.18 hrs, Volume= 0.109 af, Depth= 1.49"
 Routed to Pond B-13 : Basin #13

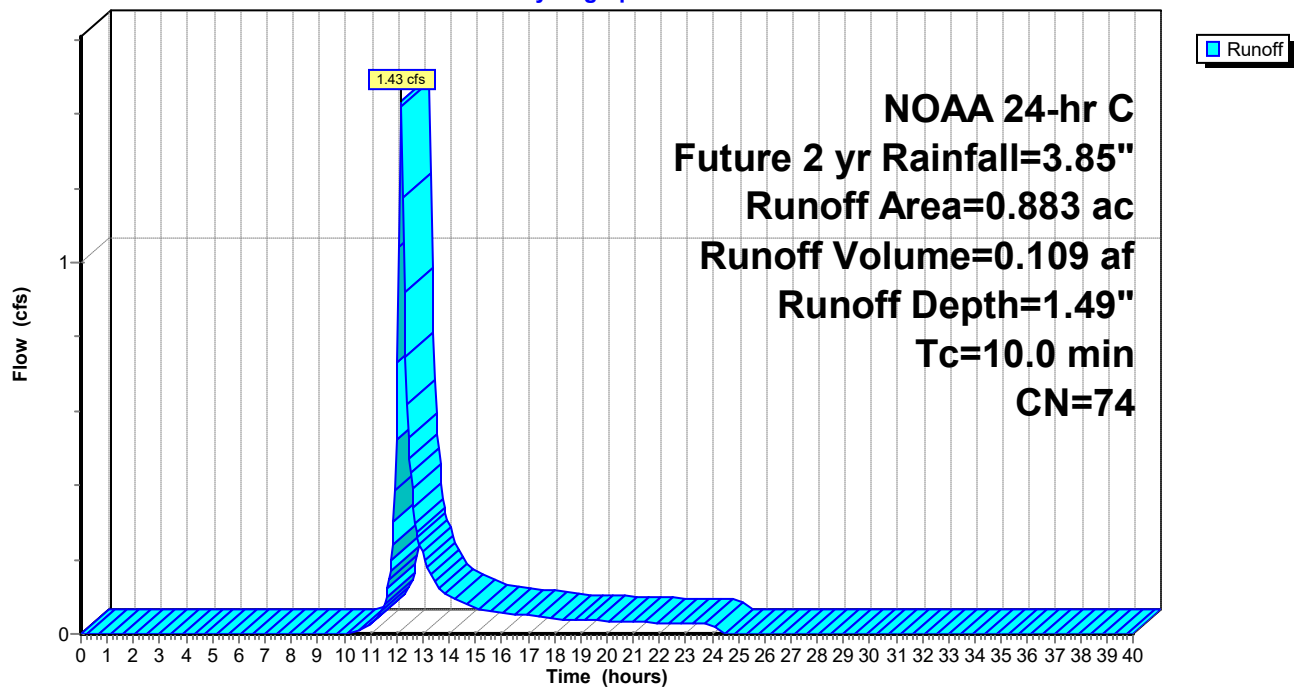
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
0.883	74	>75% Grass cover, Good, HSG C
0.883		100.00% Pervious Area

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

Subcatchment 13P: PDA-13 (pervious)

Hydrograph



Summary for Subcatchment 14I: PDA-14 (impervious)

Runoff = 1.77 cfs @ 12.17 hrs, Volume= 0.153 af, Depth= 3.62"
 Routed to Pond B-14 : Basin #14

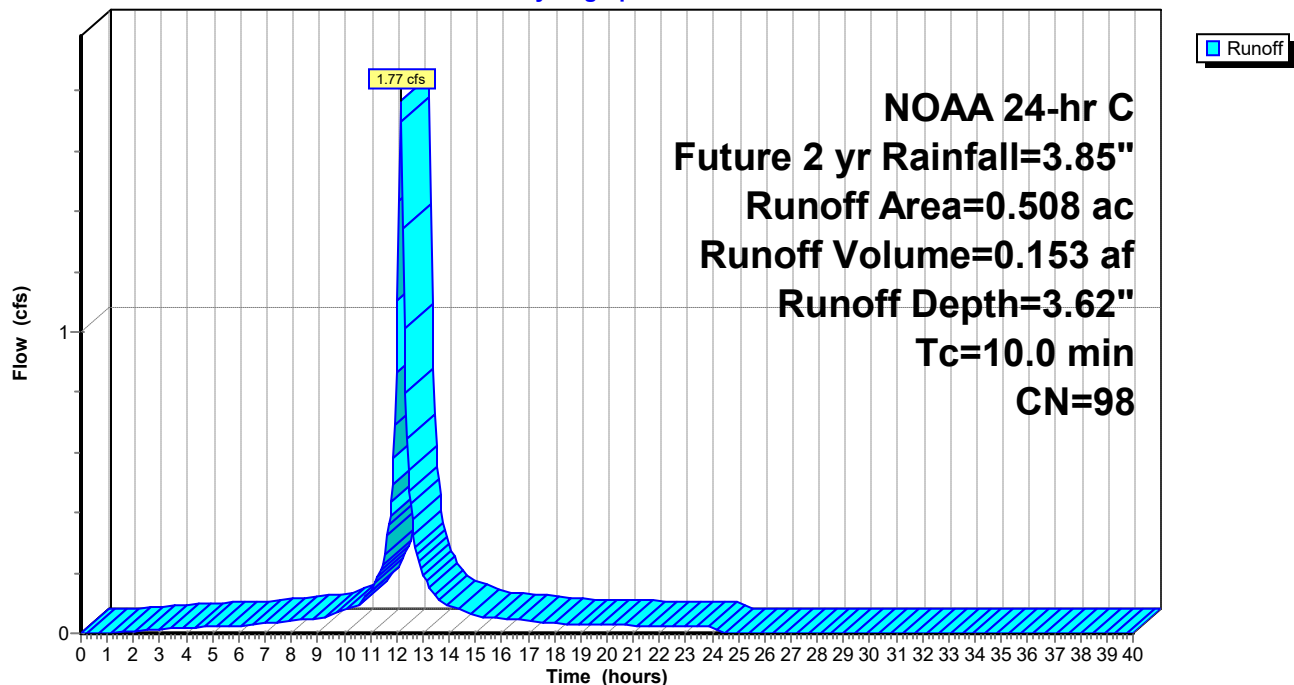
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.308	98	Pavement, HSG C
* 0.064	98	Roof, HSG C
* 0.136	98	Concrete, HSG C
0.508	98	Weighted Average
0.508		100.00% Impervious Area

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

Subcatchment 14I: PDA-14 (impervious)

Hydrograph



Summary for Subcatchment 14P: PDA-14 (pervious)

Runoff = 2.66 cfs @ 12.18 hrs, Volume= 0.203 af, Depth= 1.49"
 Routed to Pond B-14 : Basin #14

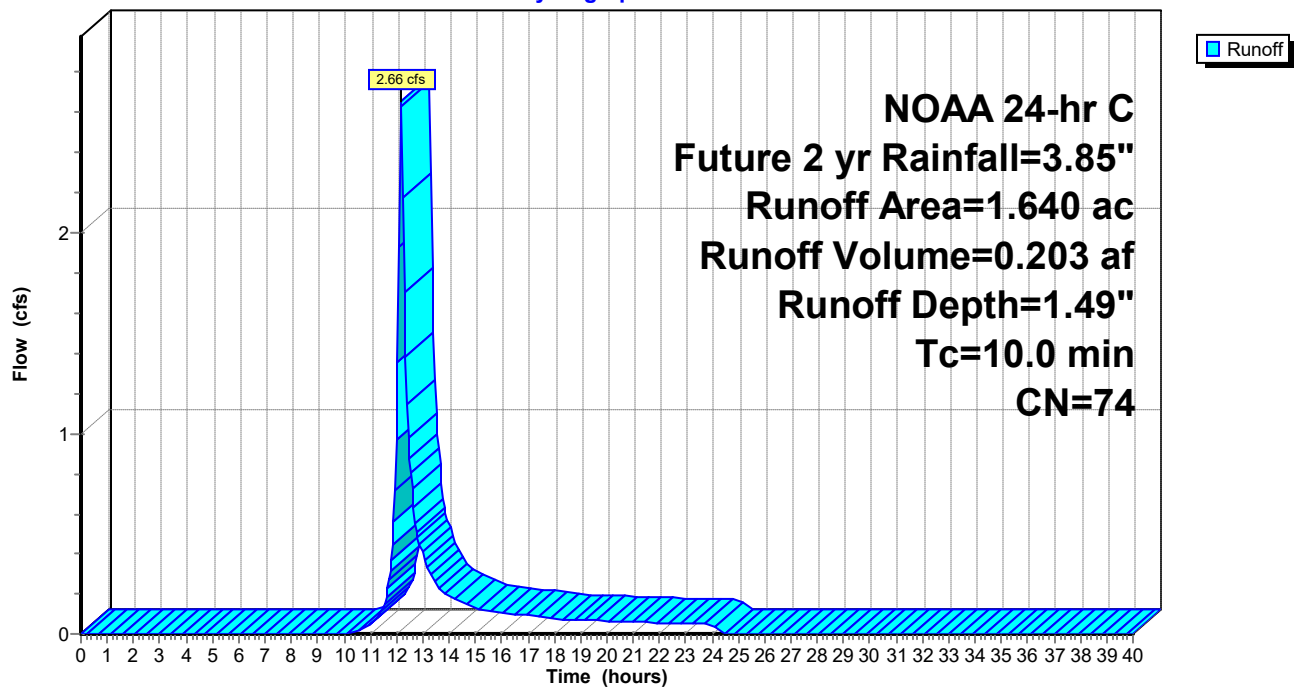
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
1.640	74	>75% Grass cover, Good, HSG C
1.640		100.00% Pervious Area

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

Subcatchment 14P: PDA-14 (pervious)

Hydrograph



Summary for Subcatchment 15I: PDA-15 (impervious)

Runoff = 4.85 cfs @ 12.17 hrs, Volume= 0.418 af, Depth= 3.62"
 Routed to Pond B-15 : Basin #15

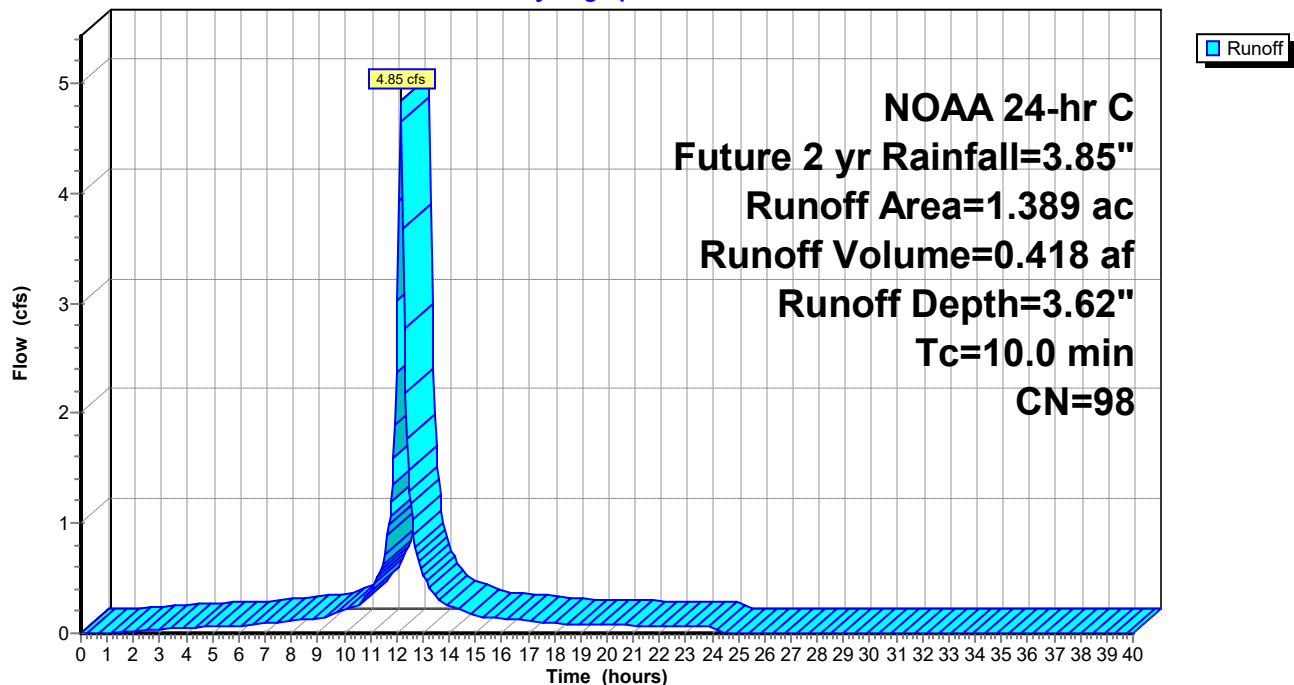
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.501	98	Pavement, HSG C
* 0.836	98	Roof, HSG C
* 0.052	98	Concrete, HSG C
1.389	98	Weighted Average
1.389		100.00% Impervious Area

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

Subcatchment 15I: PDA-15 (impervious)

Hydrograph



Summary for Subcatchment 15P: PDA-15 (pervious)

Runoff = 1.58 cfs @ 12.18 hrs, Volume= 0.121 af, Depth= 1.49"
 Routed to Pond B-15 : Basin #15

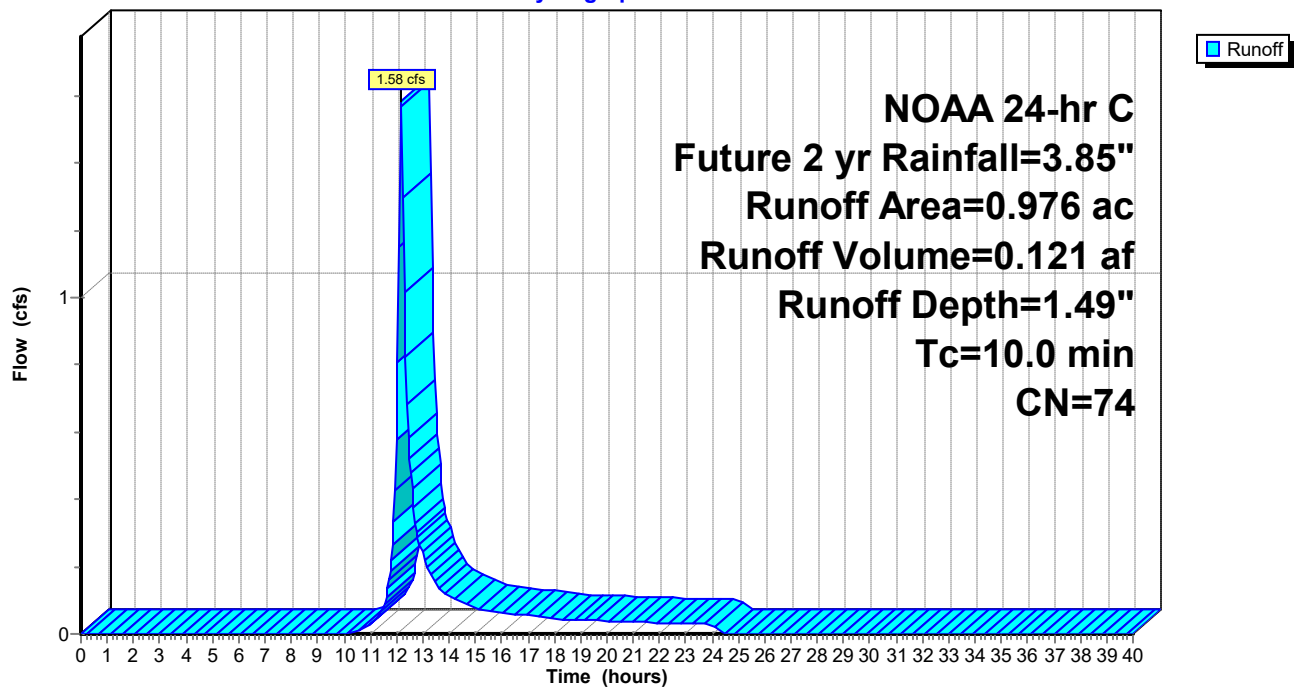
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
0.976	74	>75% Grass cover, Good, HSG C
0.976		100.00% Pervious Area

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

Subcatchment 15P: PDA-15 (pervious)

Hydrograph



Summary for Subcatchment 16I: PDA-16 (impervious)

Runoff = 4.07 cfs @ 12.17 hrs, Volume= 0.351 af, Depth= 3.62"
 Routed to Pond B-16 : Basin #16

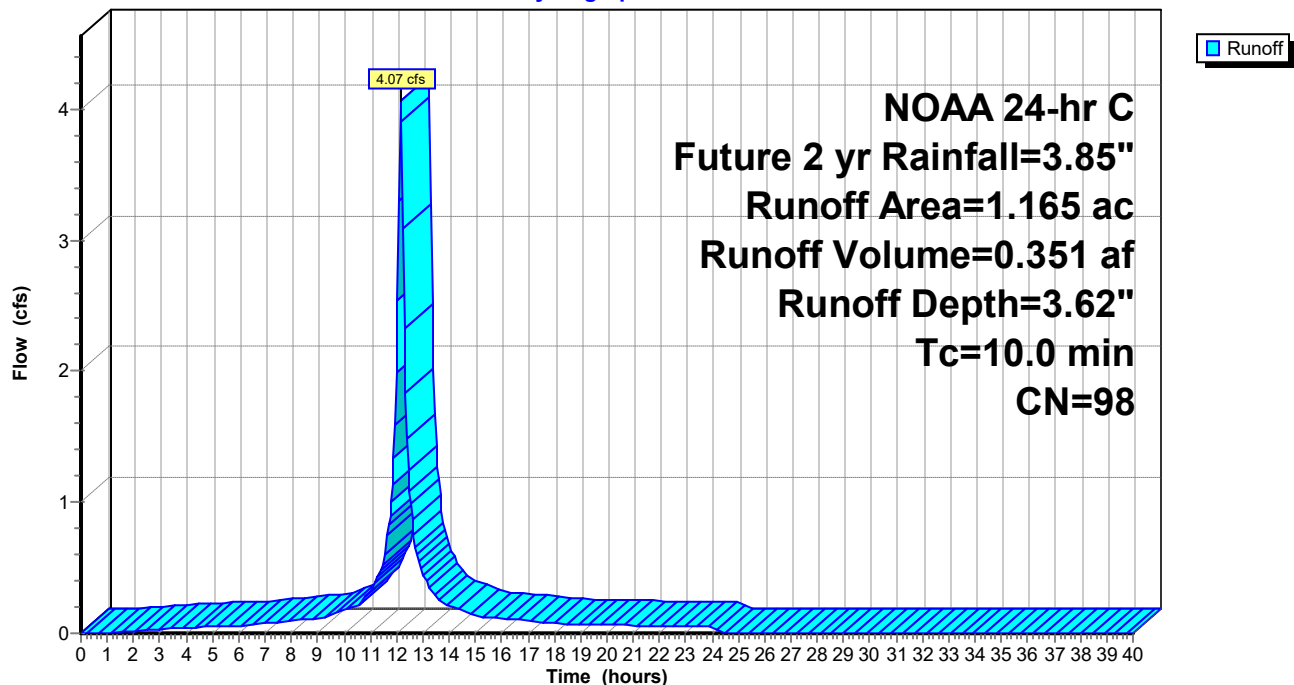
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.712	98	Pavement, HSG C
* 0.386	98	Roof, HSG C
* 0.067	98	Concrete, HSG C
1.165	98	Weighted Average
1.165		100.00% Impervious Area

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

Subcatchment 16I: PDA-16 (impervious)

Hydrograph



Summary for Subcatchment 16P: PDA-16 (pervious)

Runoff = 2.47 cfs @ 12.18 hrs, Volume= 0.188 af, Depth= 1.49"
 Routed to Pond B-16 : Basin #16

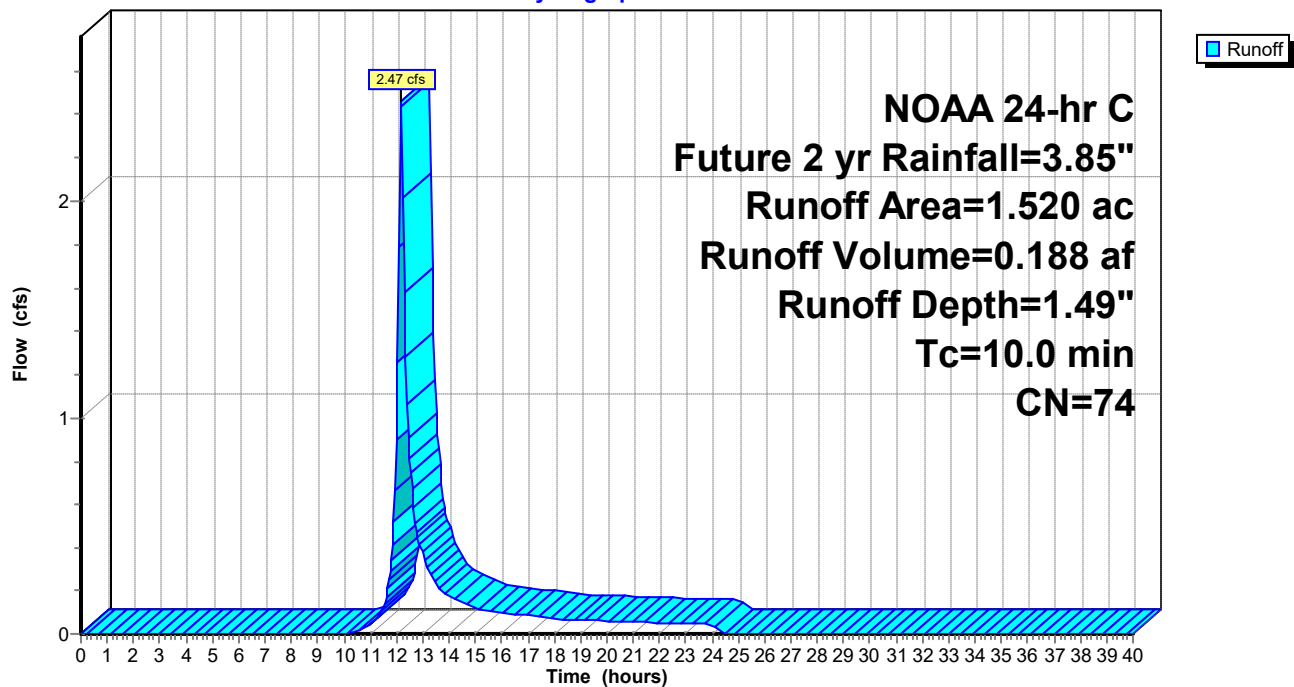
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
1.520	74	>75% Grass cover, Good, HSG C
1.520		100.00% Pervious Area

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

Subcatchment 16P: PDA-16 (pervious)

Hydrograph



Summary for Subcatchment 17I: PDA-17 (impervious)

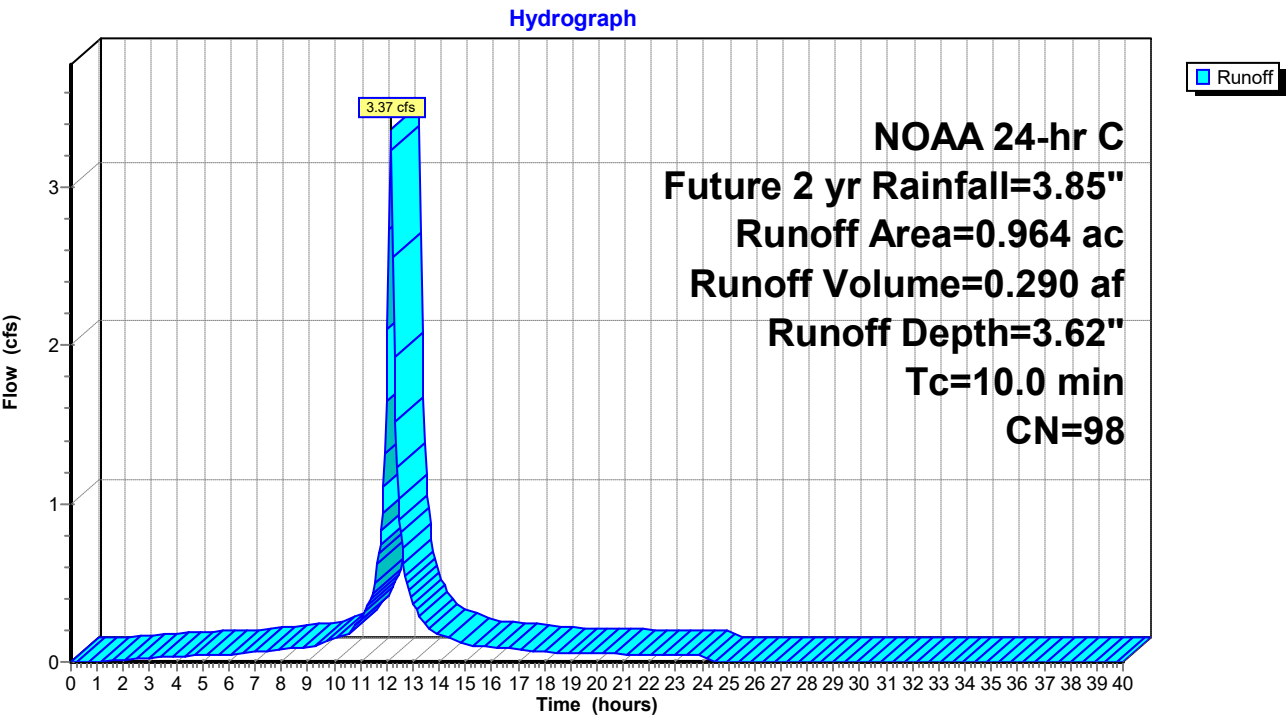
Runoff = 3.37 cfs @ 12.17 hrs, Volume= 0.290 af, Depth= 3.62"
Routed to Pond B-17 : Basin #17

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 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.964	98	Roof, HSG C
0.964		100.00% Impervious Area

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

Subcatchment 17I: PDA-17 (impervious)



Summary for Subcatchment 17P: PDA-17 (pervious)

Runoff = 2.97 cfs @ 12.18 hrs, Volume= 0.226 af, Depth= 1.49"
Routed to Pond B-17 : Basin #17

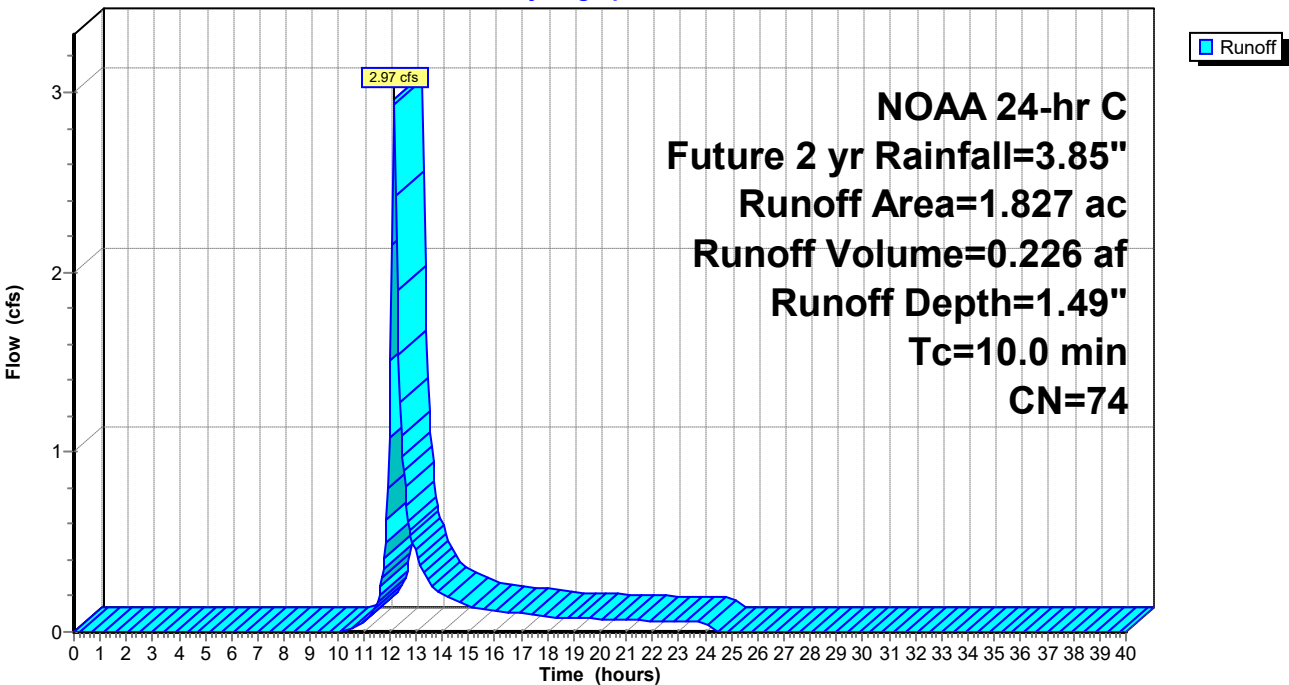
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
1.827	74	>75% Grass cover, Good, HSG C
1.827		100.00% Pervious Area

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

Subcatchment 17P: PDA-17 (pervious)

Hydrograph



Summary for Subcatchment 18I: PDA-18 (impervious)

Runoff = 4.08 cfs @ 12.17 hrs, Volume= 0.352 af, Depth= 3.62"
 Routed to Pond B-18 : Basin #18

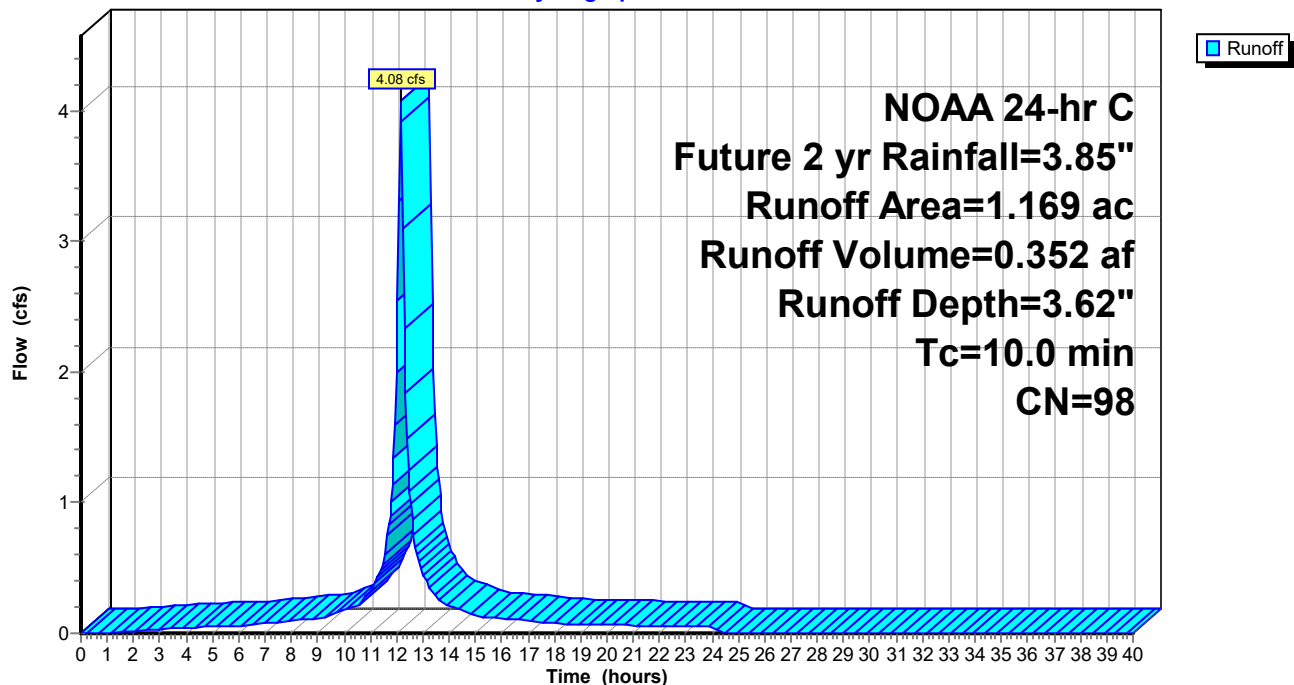
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.474	98	Pavement, HSG C
* 0.643	98	Roof, HSG C
* 0.052	98	Concrete, HSG C
1.169	98	Weighted Average
1.169		100.00% Impervious Area

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

Subcatchment 18I: PDA-18 (impervious)

Hydrograph



Summary for Subcatchment 18P: PDA-18 (pervious)

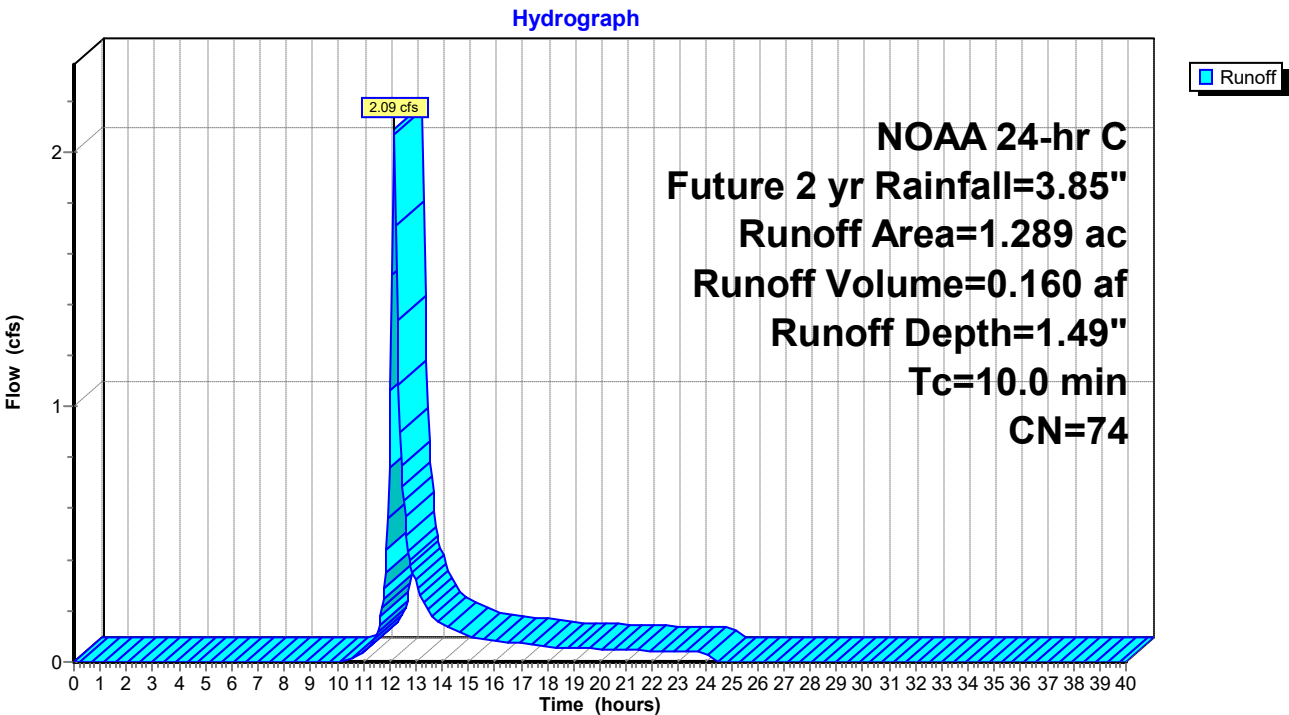
Runoff = 2.09 cfs @ 12.18 hrs, Volume= 0.160 af, Depth= 1.49"
Routed to Pond B-18 : Basin #18

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 2 yr Rainfall=3.85"

Area (ac)	CN	Description
1.289	74	>75% Grass cover, Good, HSG C
1.289		100.00% Pervious Area

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

Subcatchment 18P: PDA-18 (pervious)



Summary for Subcatchment 19I: PDA-19 (impervious)

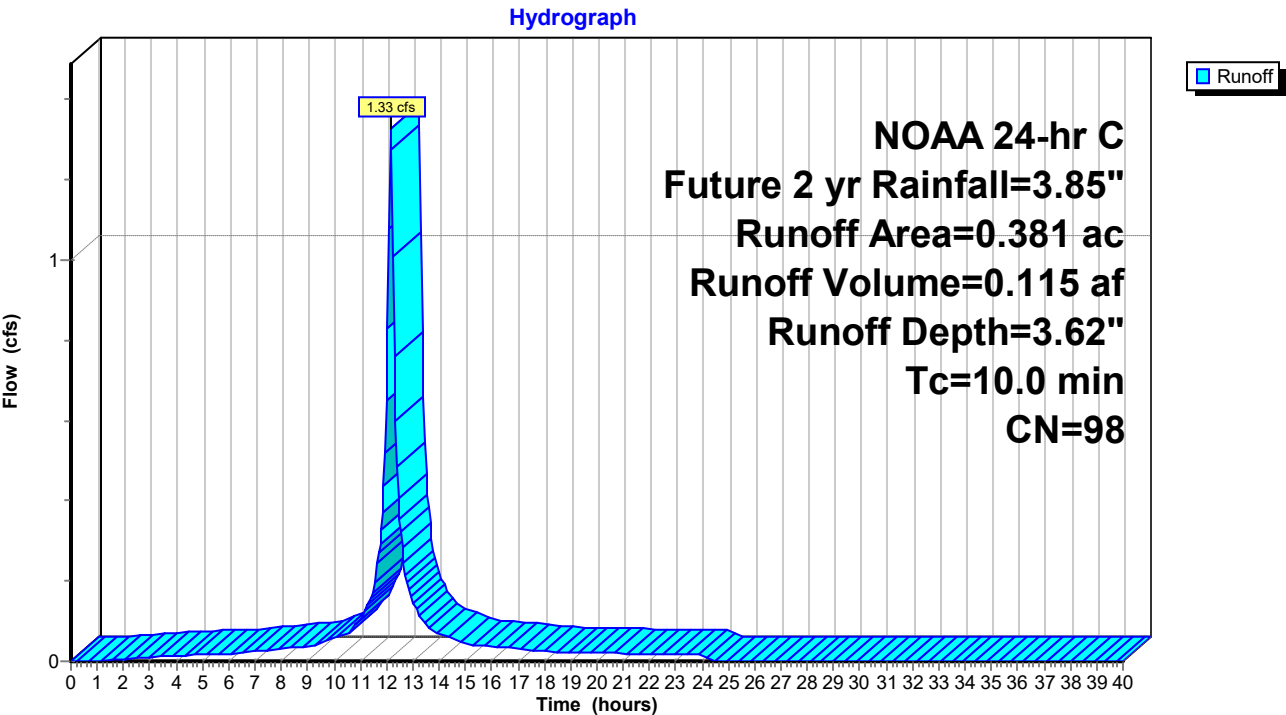
Runoff = 1.33 cfs @ 12.17 hrs, Volume= 0.115 af, Depth= 3.62"
Routed to Pond B-19 : Basin #19

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 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.167	98	Pavement, HSG C
* 0.193	98	Roof, HSG C
* 0.021	98	Concrete, HSG C
0.381	98	Weighted Average
0.381		100.00% Impervious Area

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

Subcatchment 19I: PDA-19 (impervious)



Summary for Subcatchment 19P: PDA-19 (pervious)

Runoff = 0.90 cfs @ 12.18 hrs, Volume= 0.069 af, Depth= 1.49"
 Routed to Pond B-19 : Basin #19

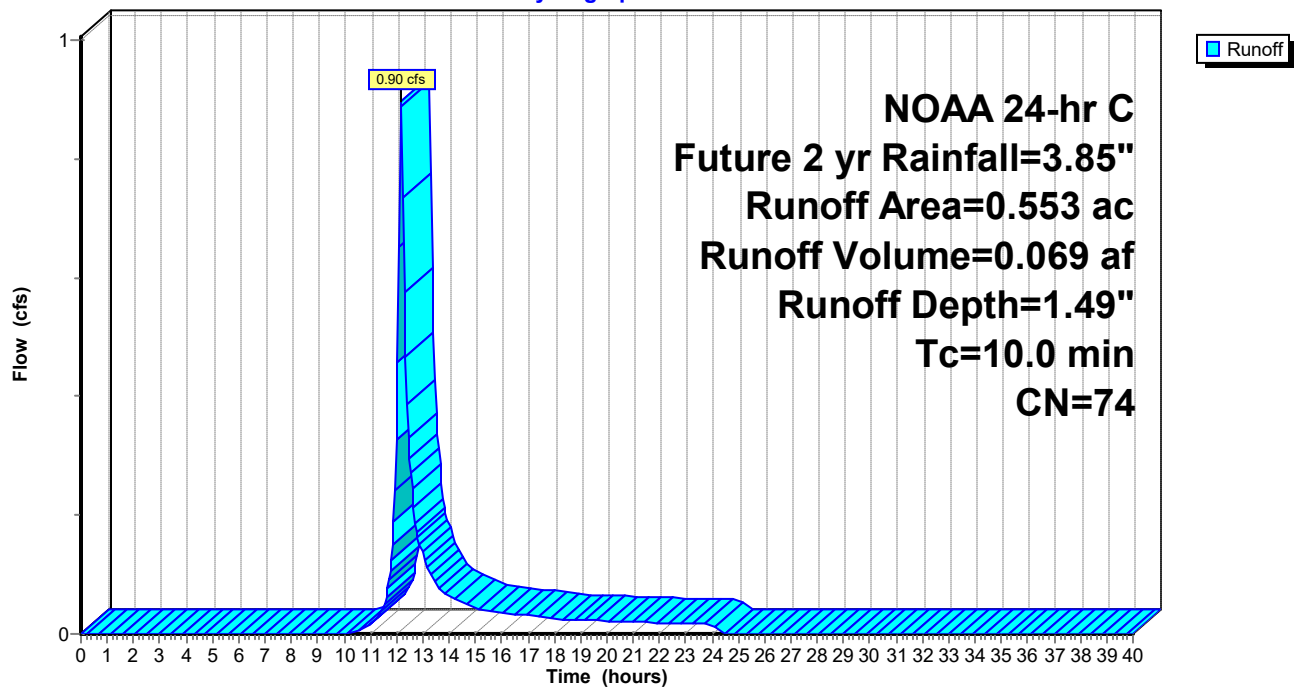
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
0.553	74	>75% Grass cover, Good, HSG C
0.553		100.00% Pervious Area

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

Subcatchment 19P: PDA-19 (pervious)

Hydrograph



Summary for Subcatchment 20I: PDA-20 (impervious)

Runoff = 4.45 cfs @ 12.17 hrs, Volume= 0.384 af, Depth= 3.62"
 Routed to Pond B-20 : Basin #20

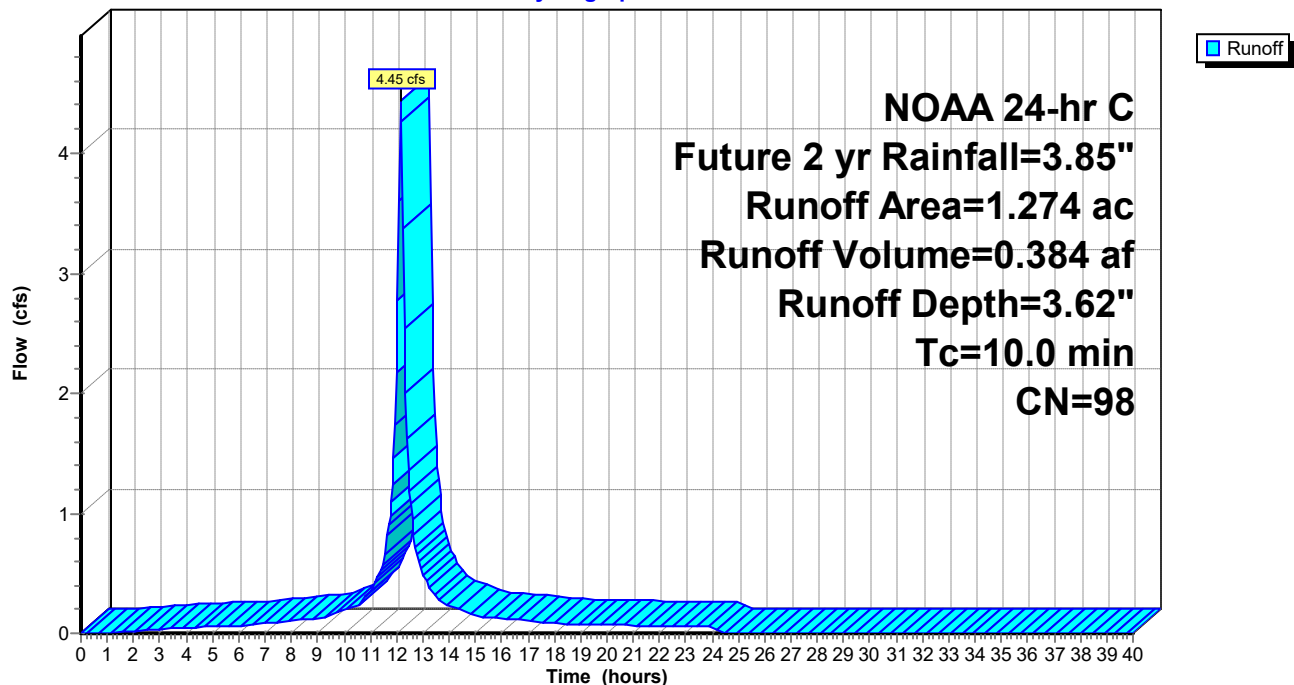
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.500	98	Pavement, HSG C
* 0.707	98	Roof, HSG C
* 0.067	98	Concrete, HSC C
1.274	98	Weighted Average
1.274		100.00% Impervious Area

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

Subcatchment 20I: PDA-20 (impervious)

Hydrograph



Summary for Subcatchment 20P: PDA-20 (pervious)

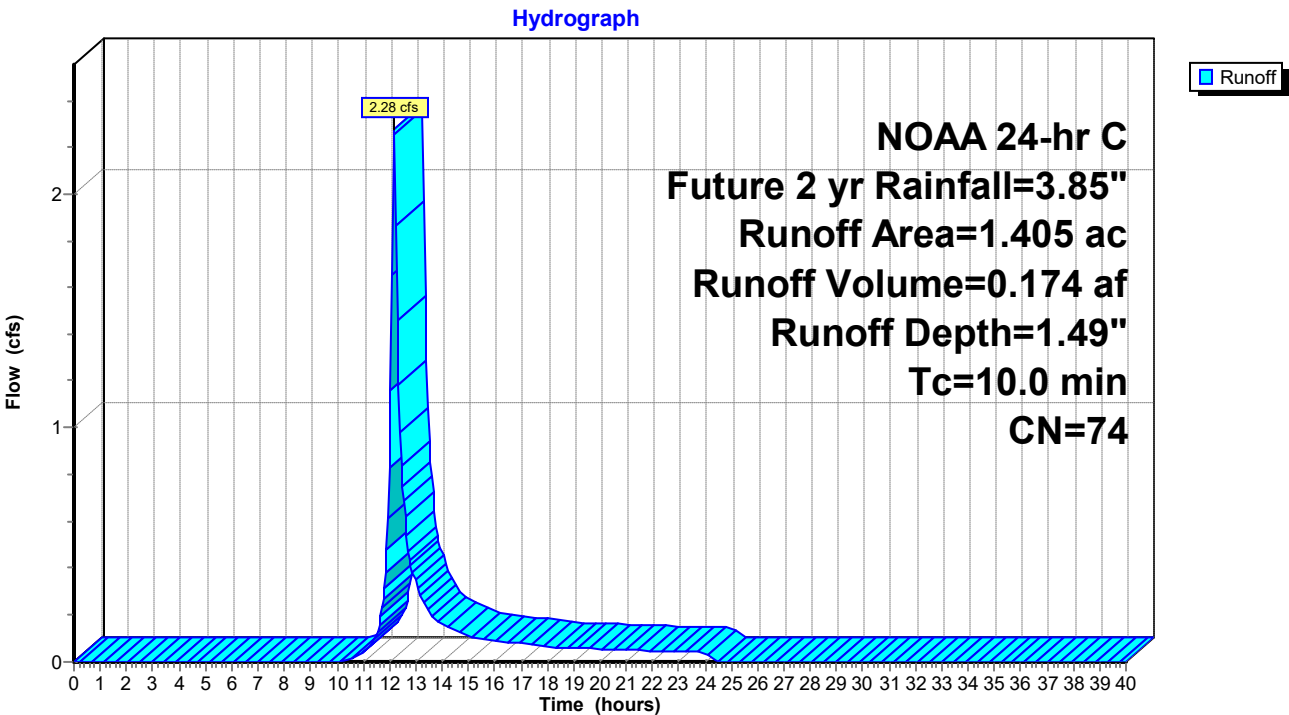
Runoff = 2.28 cfs @ 12.18 hrs, Volume= 0.174 af, Depth= 1.49"
Routed to Pond B-20 : Basin #20

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 2 yr Rainfall=3.85"

Area (ac)	CN	Description
1.405	74	>75% Grass cover, Good, HSG C
1.405		100.00% Pervious Area

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

Subcatchment 20P: PDA-20 (pervious)



Summary for Subcatchment 21I: PDA-21 (impervious)

Runoff = 3.89 cfs @ 12.17 hrs, Volume= 0.336 af, Depth= 3.62"
 Routed to Pond B-21 : Basin #21

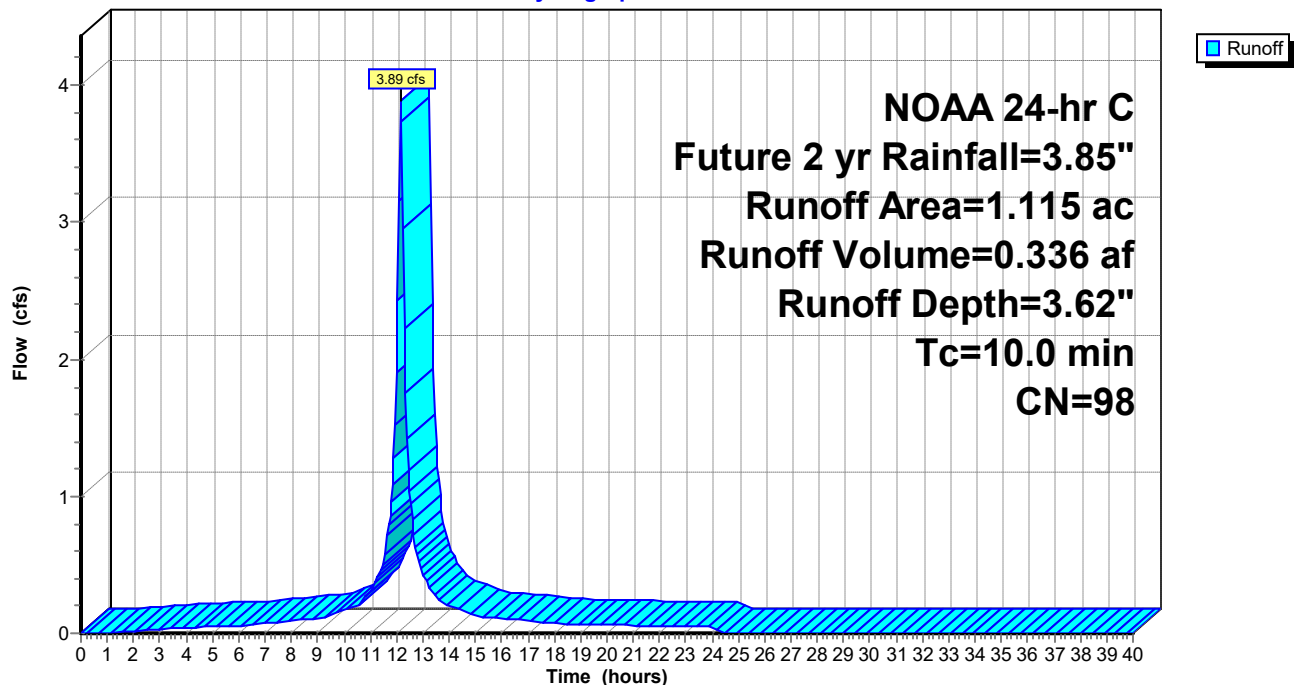
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.556	98	Pavement, HSG C
* 0.514	98	Roof, HSG C
* 0.045	98	Concrete, HSC C
1.115	98	Weighted Average
1.115		100.00% Impervious Area

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

Subcatchment 21I: PDA-21 (impervious)

Hydrograph



Summary for Subcatchment 21P: PDA-21 (pervious)

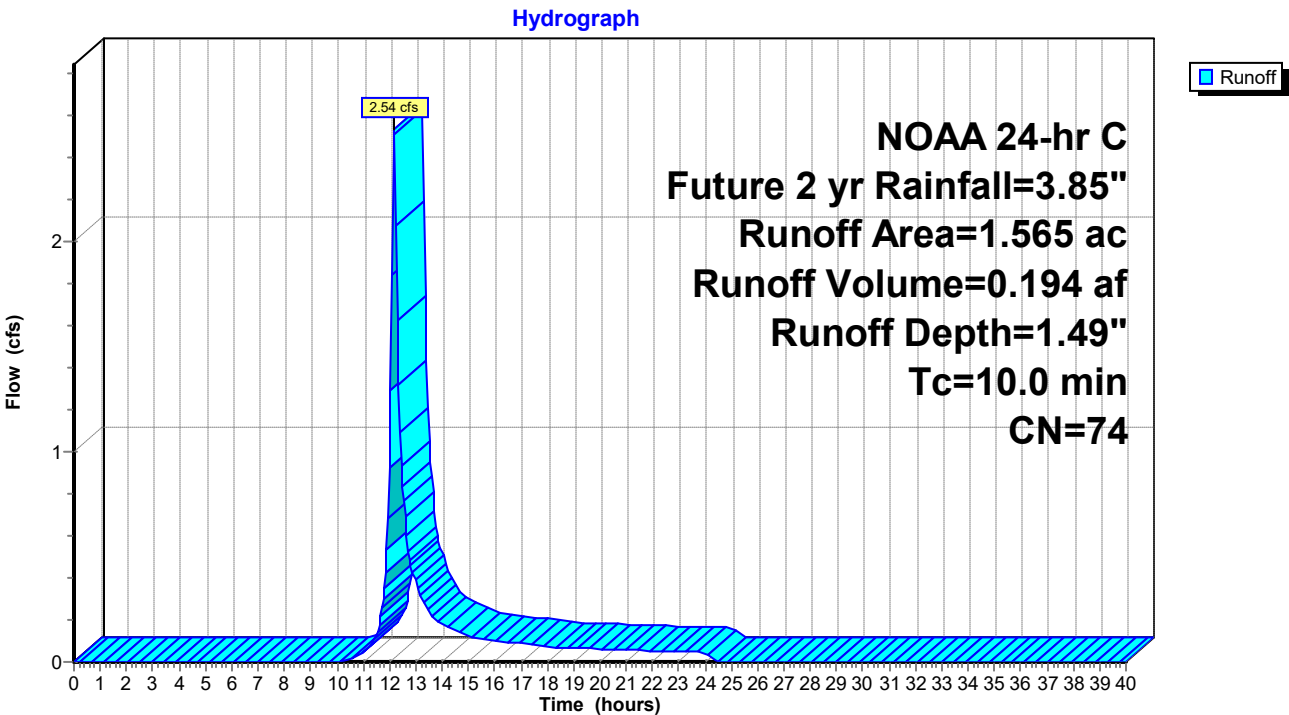
Runoff = 2.54 cfs @ 12.18 hrs, Volume= 0.194 af, Depth= 1.49"
Routed to Pond B-21 : Basin #21

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 2 yr Rainfall=3.85"

Area (ac)	CN	Description
1.565	74	>75% Grass cover, Good, HSG C
1.565		100.00% Pervious Area

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

Subcatchment 21P: PDA-21 (pervious)



Summary for Subcatchment 22I: PDA-22 (impervious)

Runoff = 2.89 cfs @ 12.17 hrs, Volume= 0.249 af, Depth= 3.62"
 Routed to Pond B-22 : Basin #22

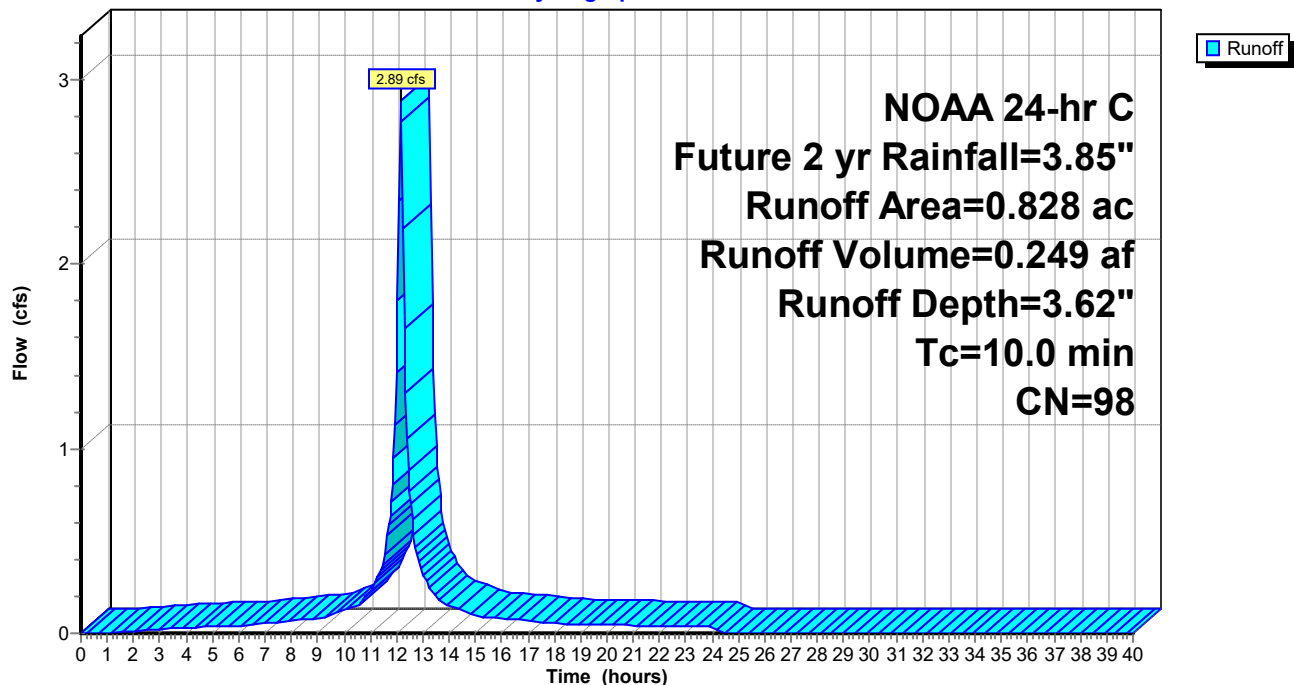
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.372	98	Pavement, HSG C
* 0.386	98	Roof, HSG C
* 0.070	98	Concrete, HSC C
0.828	98	Weighted Average
0.828		100.00% Impervious Area

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

Subcatchment 22I: PDA-22 (impervious)

Hydrograph



Summary for Subcatchment 22P: PDA-22 (pervious)

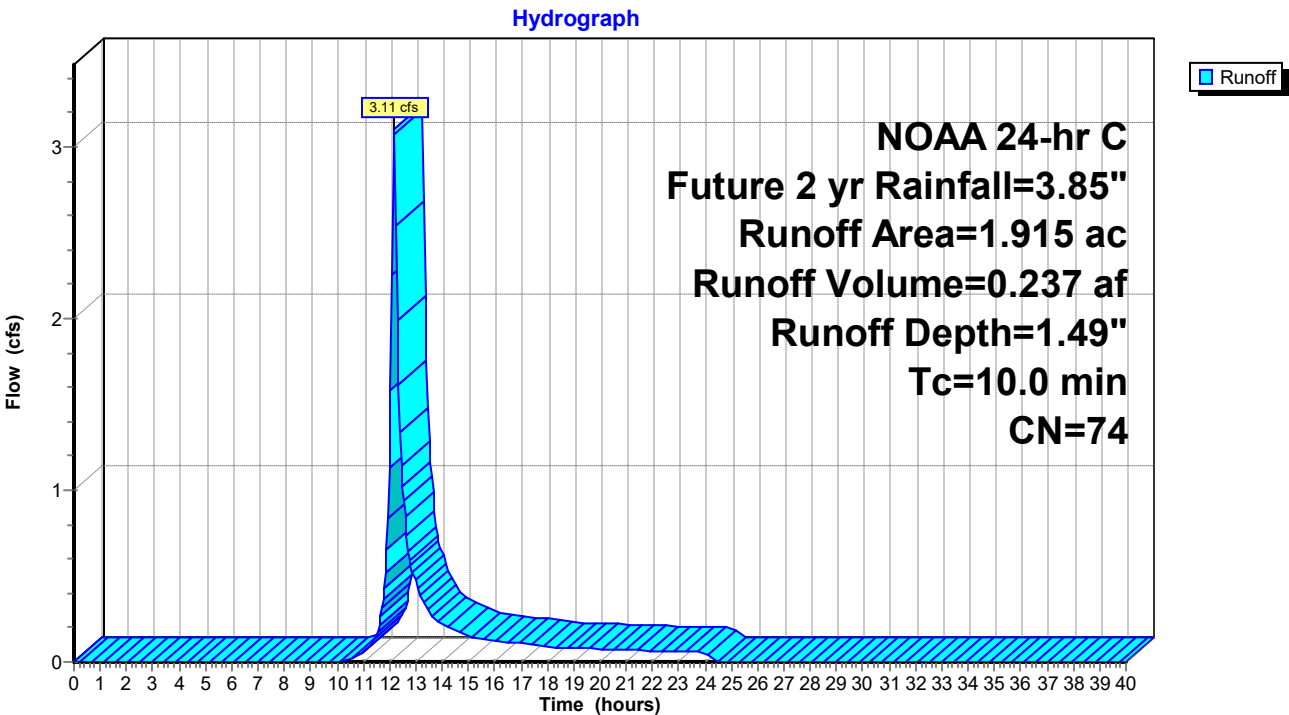
Runoff = 3.11 cfs @ 12.18 hrs, Volume= 0.237 af, Depth= 1.49"
Routed to Pond B-22 : Basin #22

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 2 yr Rainfall=3.85"

Area (ac)	CN	Description
1.915	74	>75% Grass cover, Good, HSG C
1.915		100.00% Pervious Area

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

Subcatchment 22P: PDA-22 (pervious)



Summary for Subcatchment 23I: PDA-23 (impervious)

Runoff = 3.52 cfs @ 12.17 hrs, Volume= 0.303 af, Depth= 3.62"
 Routed to Pond B-23 : Basin #23

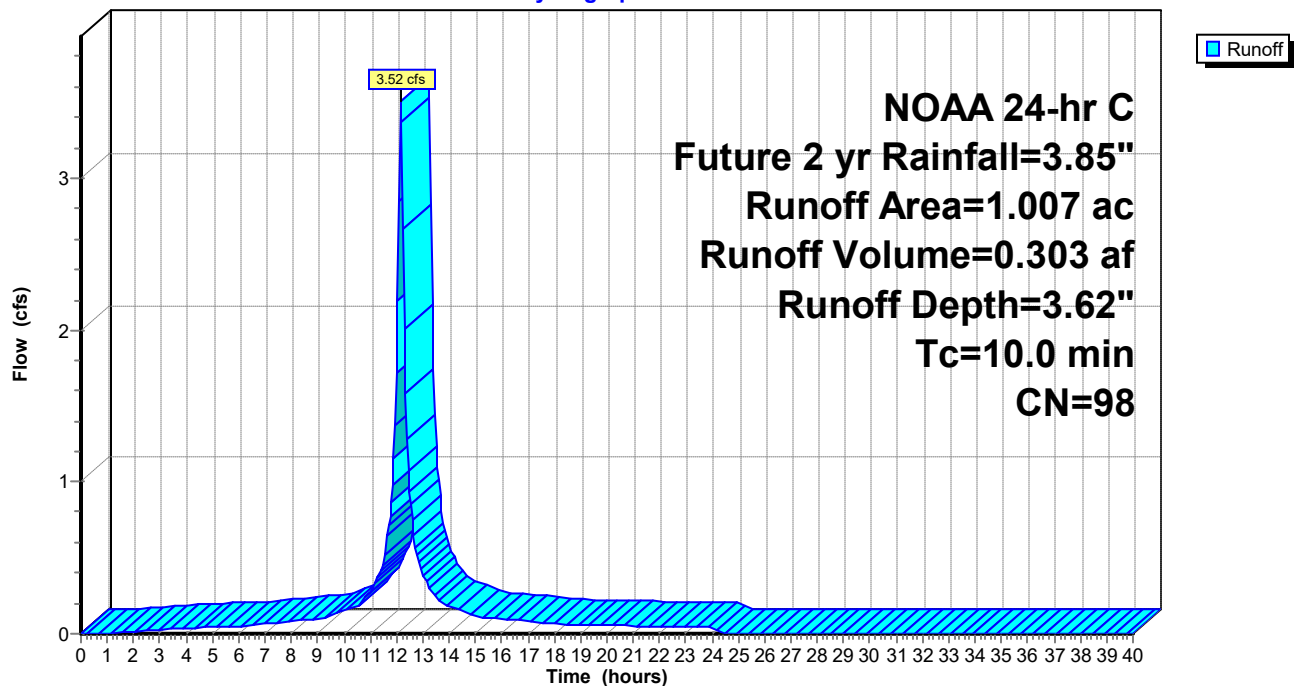
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.987	98	Pavement, HSG C
* 0.020	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 23I: PDA-23 (impervious)

Hydrograph



Summary for Subcatchment 23P: PDA-23 (pervious)

Runoff = 0.82 cfs @ 12.18 hrs, Volume= 0.062 af, Depth= 1.49"
 Routed to Pond B-23 : Basin #23

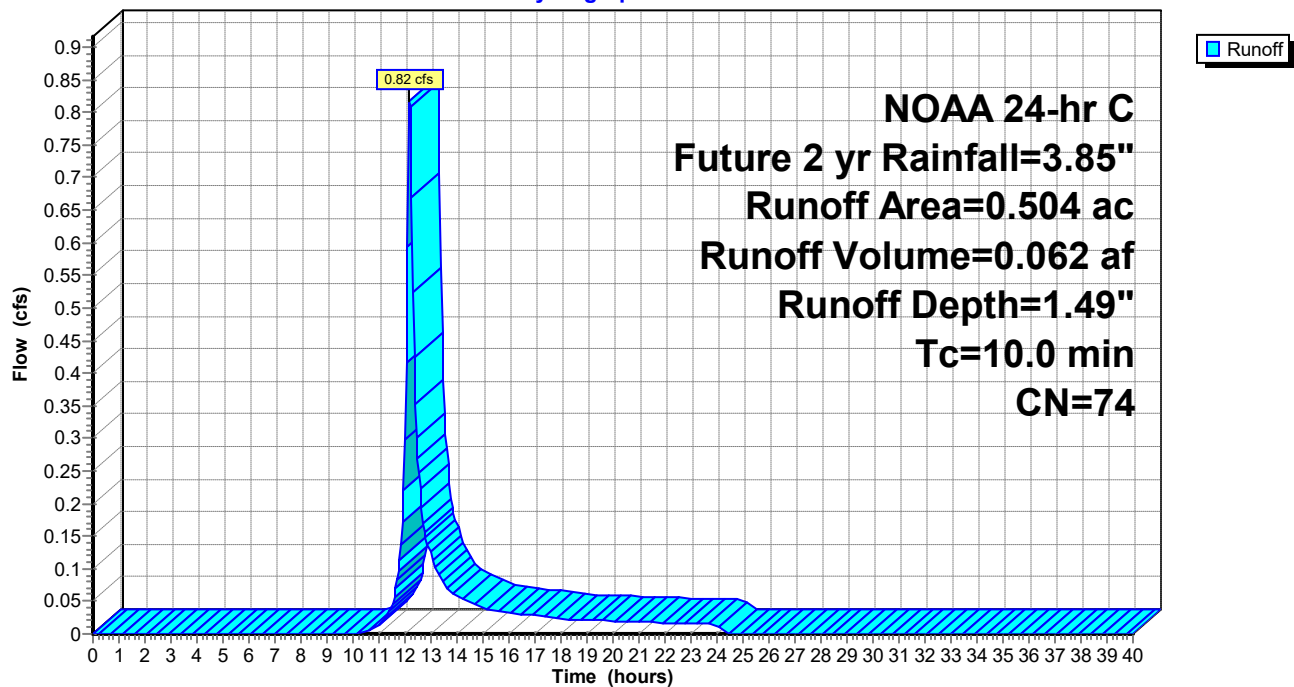
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
0.504	74	>75% Grass cover, Good, HSG C
0.504		100.00% Pervious Area

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

Subcatchment 23P: PDA-23 (pervious)

Hydrograph



Summary for Subcatchment 24I: PDA-24 (impervious)

Runoff = 4.29 cfs @ 12.17 hrs, Volume= 0.370 af, Depth= 3.62"
 Routed to Pond B-24 : Basin #24

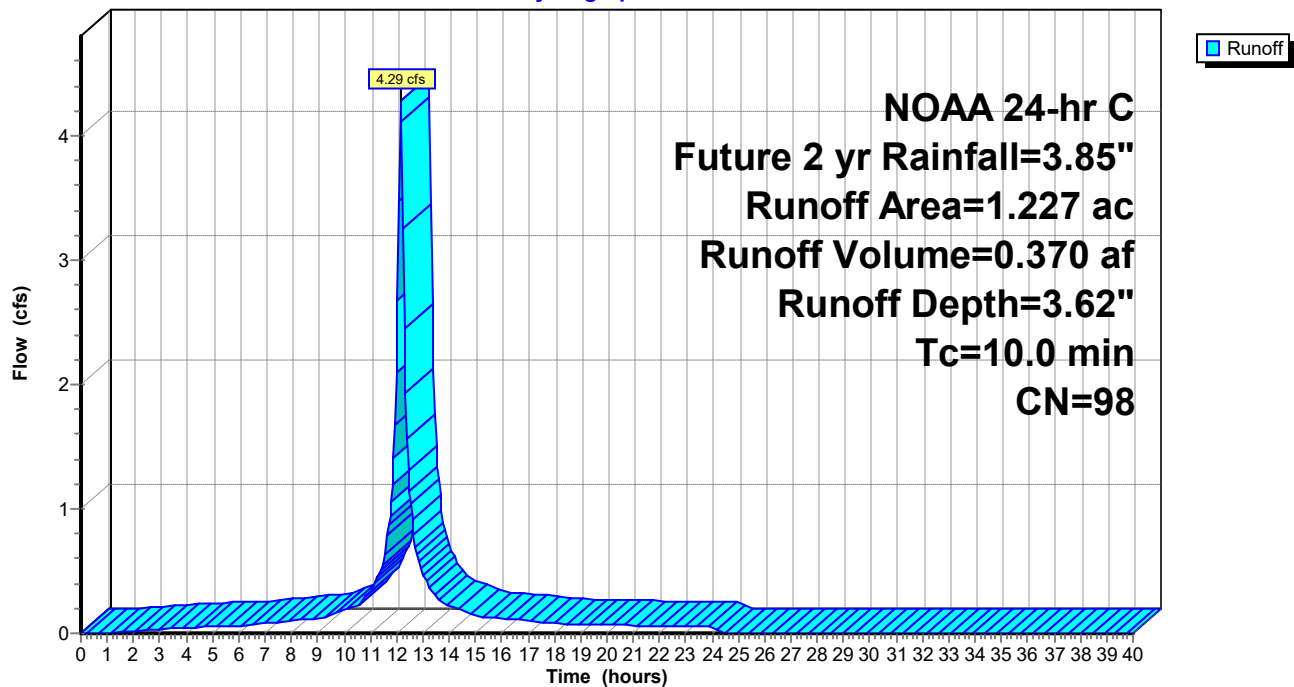
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.525	98	Pavement, HSG C
* 0.643	98	Roof, HSG C
* 0.059	98	Concrete, HSC C
1.227	98	Weighted Average
1.227		100.00% Impervious Area

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

Subcatchment 24I: PDA-24 (impervious)

Hydrograph



Summary for Subcatchment 24P: PDA-24 (pervious)

Runoff = 2.45 cfs @ 12.18 hrs, Volume= 0.187 af, Depth= 1.49"
 Routed to Pond B-24 : Basin #24

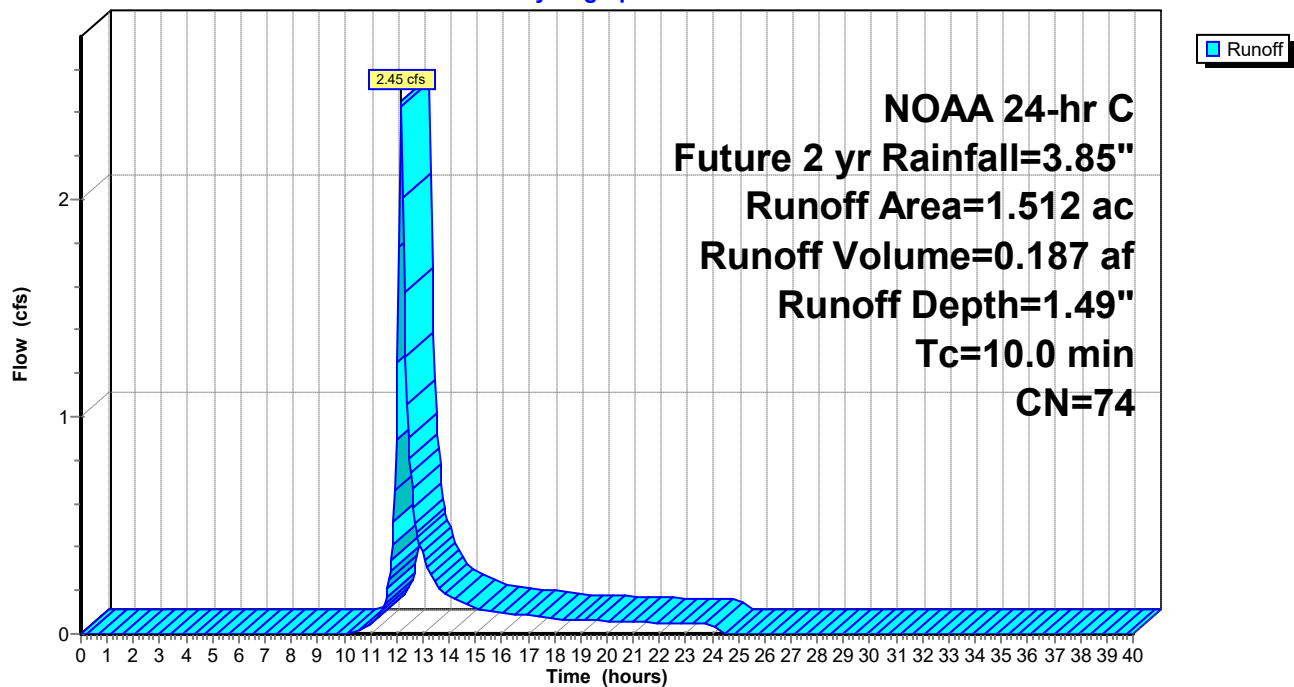
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
1.512	74	>75% Grass cover, Good, HSG C
1.512		100.00% Pervious Area

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

Subcatchment 24P: PDA-24 (pervious)

Hydrograph



Summary for Subcatchment 25I: PDA-25 (impervious)

Runoff = 4.11 cfs @ 12.17 hrs, Volume= 0.355 af, Depth= 3.62"
 Routed to Pond B-25 : Basin #25

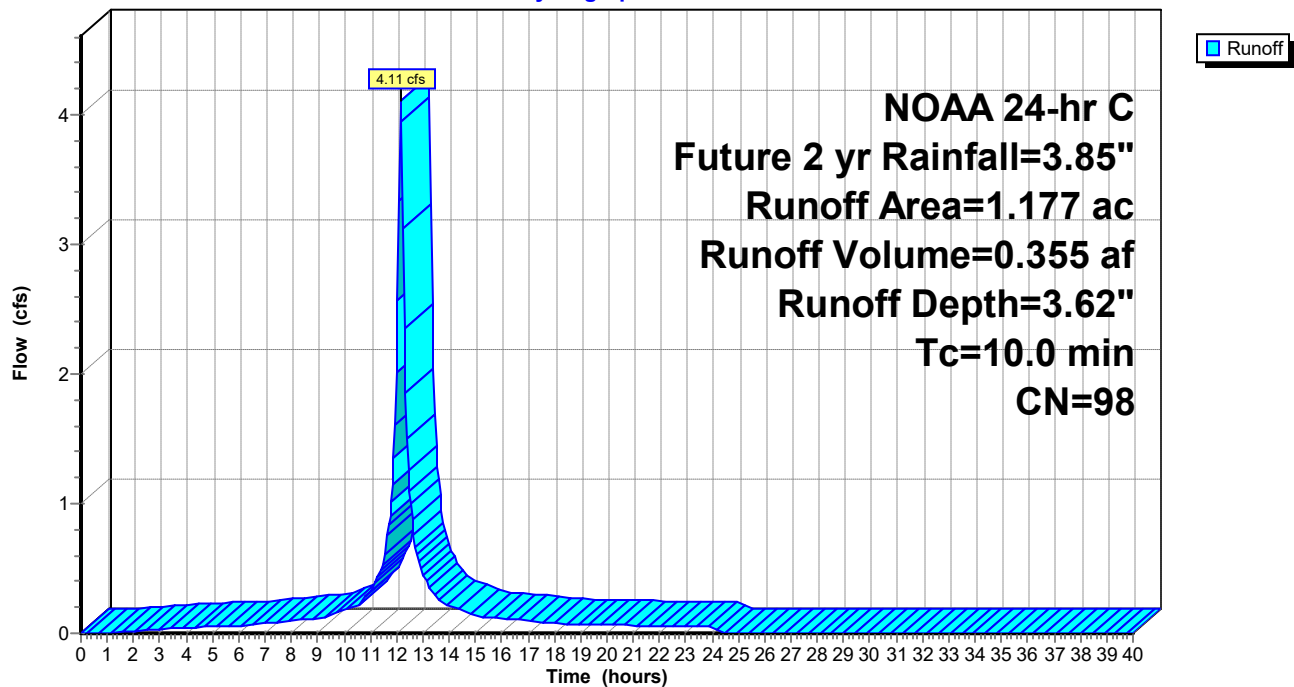
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.573	98	Pavement, HSG C
* 0.514	98	Roof, HSG C
* 0.090	98	Concrete, HSC C
1.177	98	Weighted Average
1.177		100.00% Impervious Area

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

Subcatchment 25I: PDA-25 (impervious)

Hydrograph



Summary for Subcatchment 25P: PDA-25 (pervious)

Runoff = 2.53 cfs @ 12.18 hrs, Volume= 0.193 af, Depth= 1.49"
 Routed to Pond B-25 : Basin #25

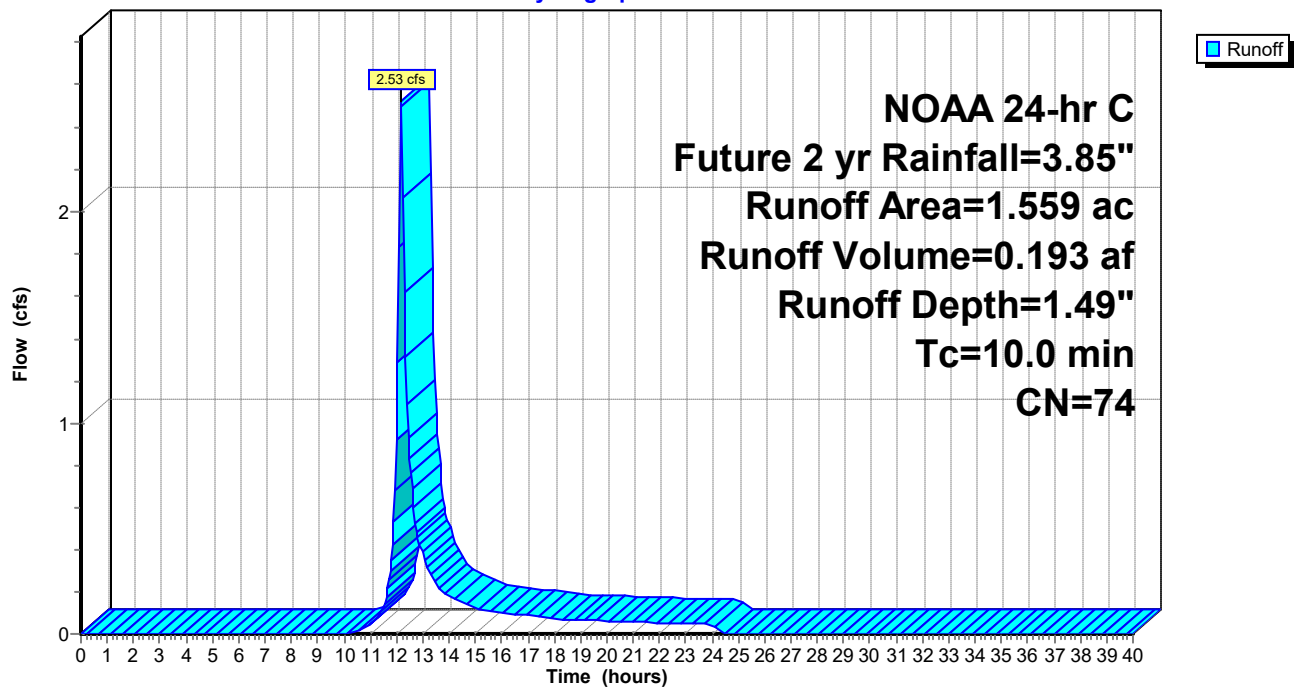
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
1.559	74	>75% Grass cover, Good, HSG C
1.559		100.00% Pervious Area

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

Subcatchment 25P: PDA-25 (pervious)

Hydrograph



Summary for Subcatchment 26I: PDA-26 (impervious)

Runoff = 3.38 cfs @ 12.17 hrs, Volume= 0.292 af, Depth= 3.62"
 Routed to Pond B-26 : Basin #26

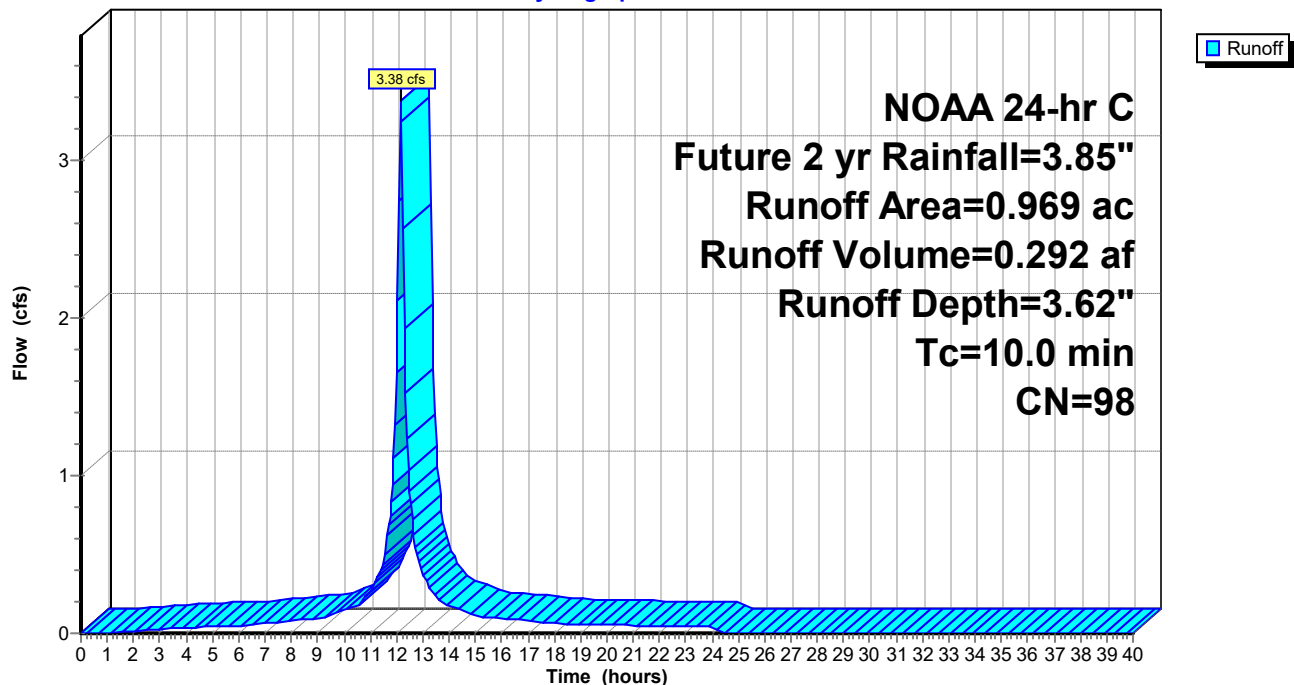
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.277	98	Pavement, HSG C
* 0.687	98	Roof, HSG C
* 0.005	98	Concrete, HSC C
0.969	98	Weighted Average
0.969		100.00% Impervious Area

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

Subcatchment 26I: PDA-26 (impervious)

Hydrograph



Summary for Subcatchment 26P: PDA-26 (pervious)

Runoff = 2.79 cfs @ 12.18 hrs, Volume= 0.213 af, Depth= 1.49"
Routed to Pond B-26 : Basin #26

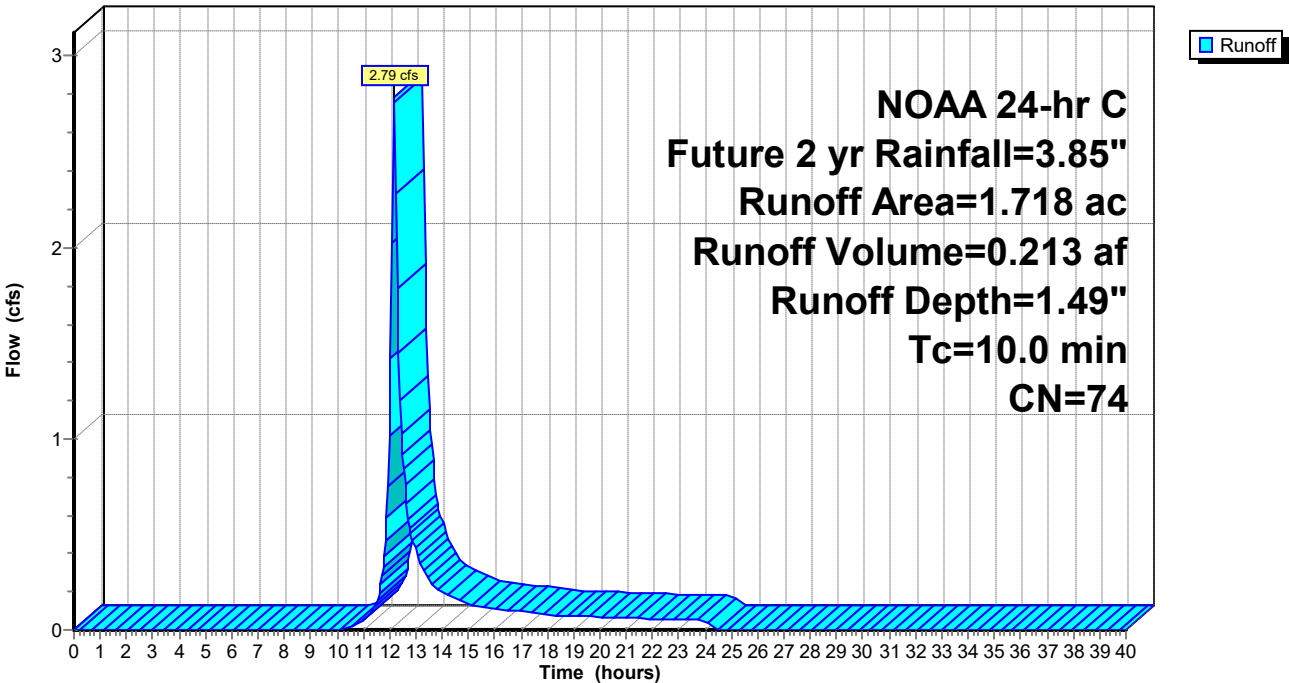
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
1.718	74	>75% Grass cover, Good, HSG C
1.718		100.00% Pervious Area

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

Subcatchment 26P: PDA-26 (pervious)

Hydrograph



Summary for Subcatchment 27I: PDA-27 (impervious)

Runoff = 4.07 cfs @ 12.17 hrs, Volume= 0.351 af, Depth= 3.62"
 Routed to Pond B-27 : Basin #27

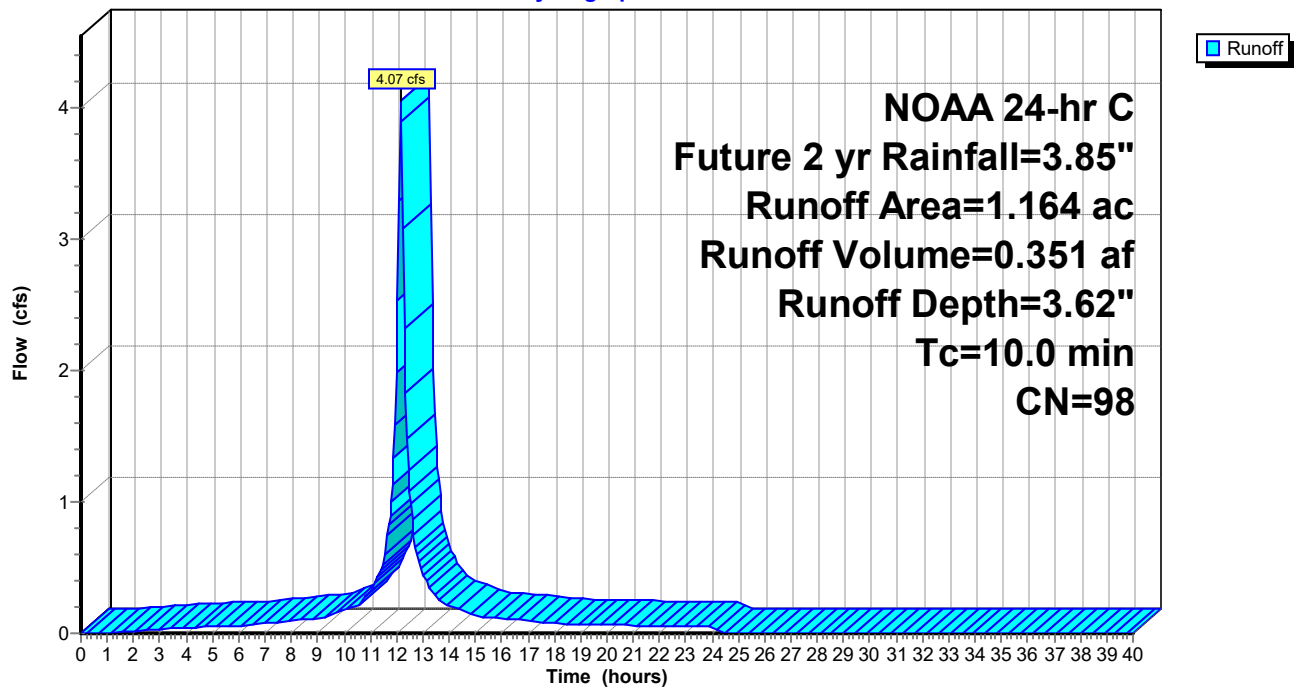
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.410	98	Pavement, HSG C
* 0.707	98	Roof, HSG C
* 0.047	98	Concrete, HSC C
1.164	98	Weighted Average
1.164		100.00% Impervious Area

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

Subcatchment 27I: PDA-27 (impervious)

Hydrograph



Summary for Subcatchment 27P: PDA-27 (pervious)

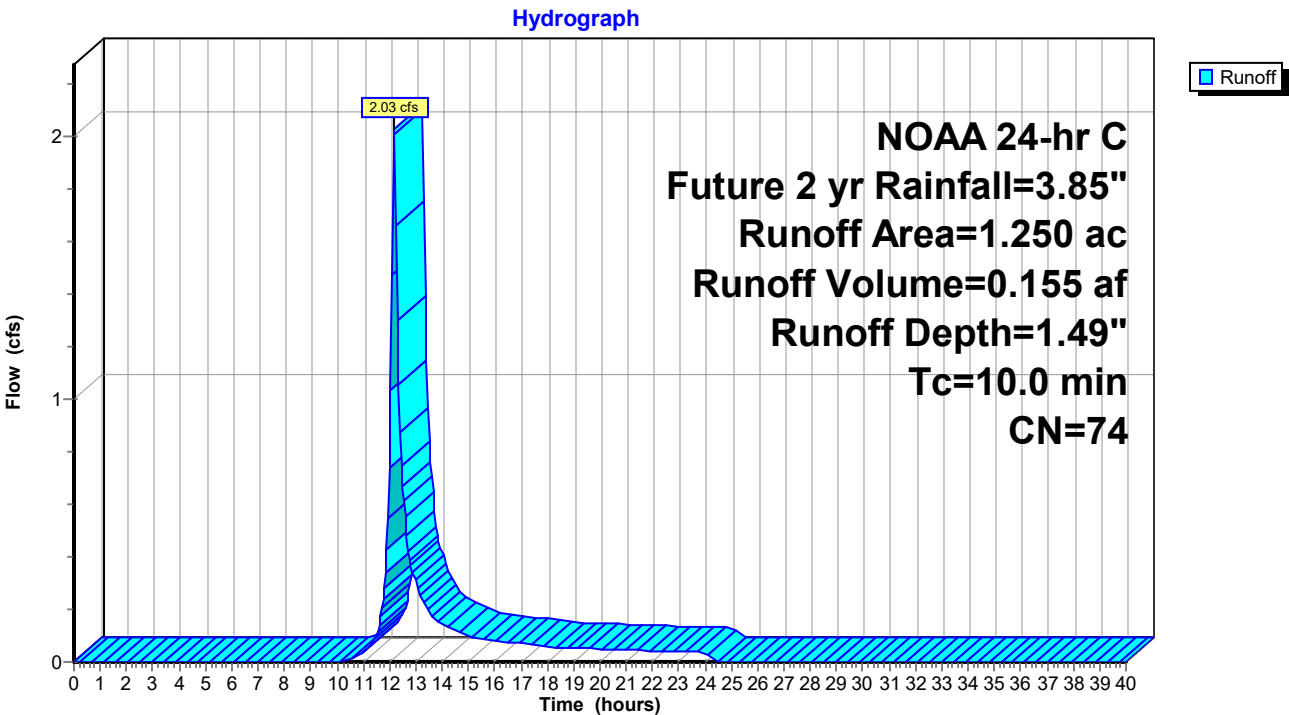
Runoff = 2.03 cfs @ 12.18 hrs, Volume= 0.155 af, Depth= 1.49"
Routed to Pond B-27 : Basin #27

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 2 yr Rainfall=3.85"

Area (ac)	CN	Description
1.250	74	>75% Grass cover, Good, HSG C
1.250		100.00% Pervious Area

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

Subcatchment 27P: PDA-27 (pervious)



Summary for Subcatchment 28I: PDA-28 (impervious)

Runoff = 3.62 cfs @ 12.17 hrs, Volume= 0.312 af, Depth= 3.62"
 Routed to Pond B-28 : Basin #28

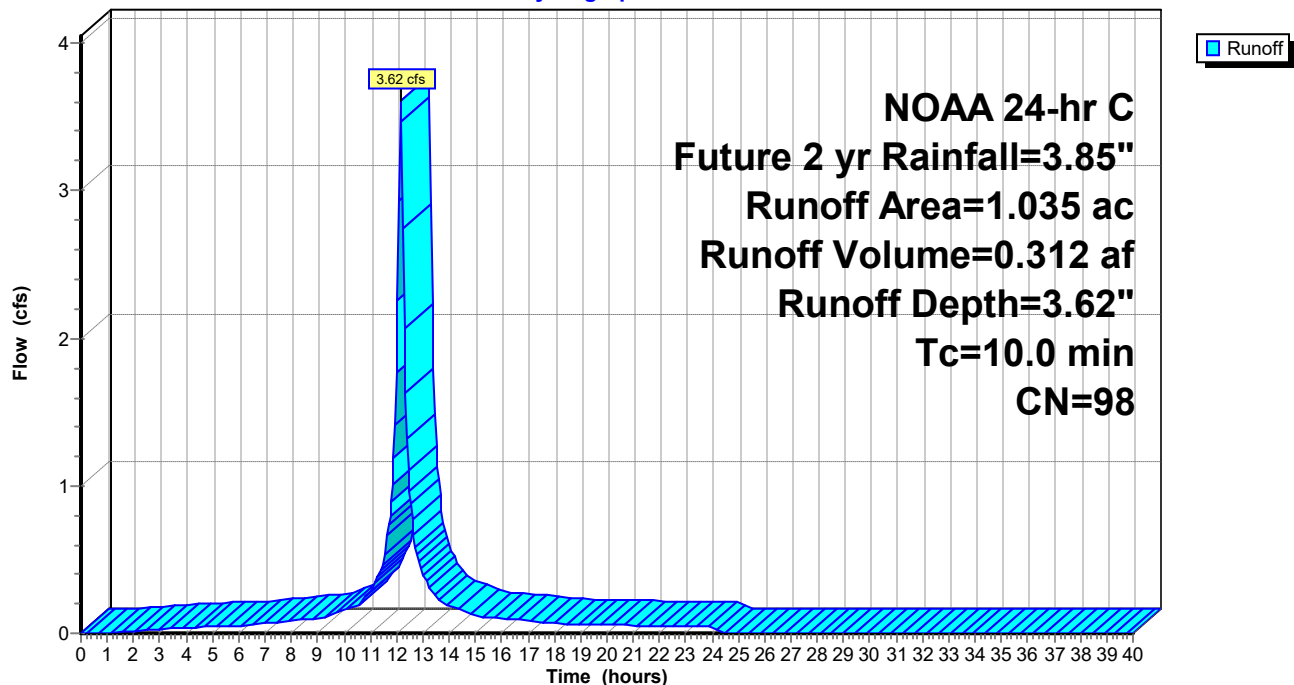
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
* 0.179	98	Pavement, HSG C
* 0.836	98	Roof, HSG C
* 0.020	98	Concrete, HSC C
1.035	98	Weighted Average
1.035		100.00% Impervious Area

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

Subcatchment 28I: PDA-28 (impervious)

Hydrograph



Summary for Subcatchment 28P: PDA-28 (pervious)

Runoff = 1.43 cfs @ 12.18 hrs, Volume= 0.109 af, Depth= 1.49"
 Routed to Pond B-28 : Basin #28

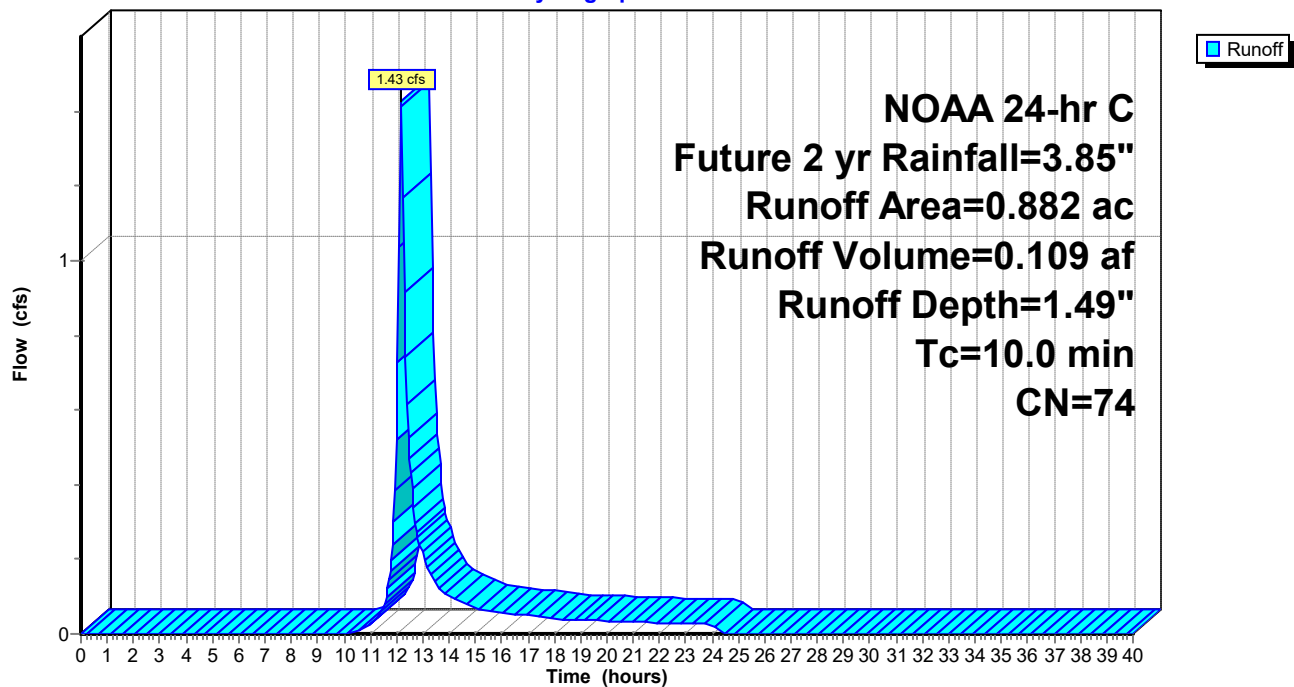
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 2 yr Rainfall=3.85"

Area (ac)	CN	Description
0.882	74	>75% Grass cover, Good, HSG C
0.882		100.00% Pervious Area

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

Subcatchment 28P: PDA-28 (pervious)

Hydrograph



Summary for Subcatchment UPDA-1: PDA-1 (undetained)

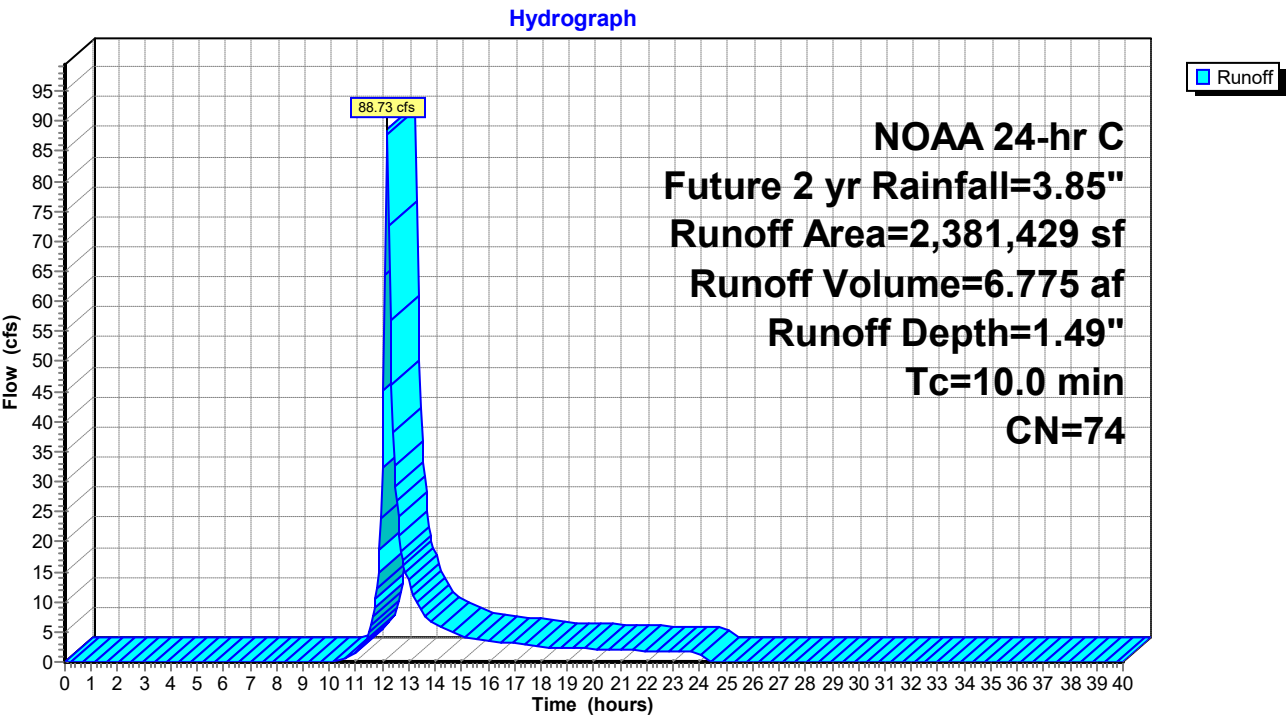
Runoff = 88.73 cfs @ 12.18 hrs, Volume= 6.775 af, Depth= 1.49"
Routed to Link PDA-1 : Proposed Drainage Area #1

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 2 yr Rainfall=3.85"

Area (sf)	CN	Description
2,381,429	74	>75% Grass cover, Good, HSG C
2,381,429		100.00% Pervious Area

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

Subcatchment UPDA-1: PDA-1 (undetained)



Summary for Subcatchment UPDA-2: PDA-2 (undetained)

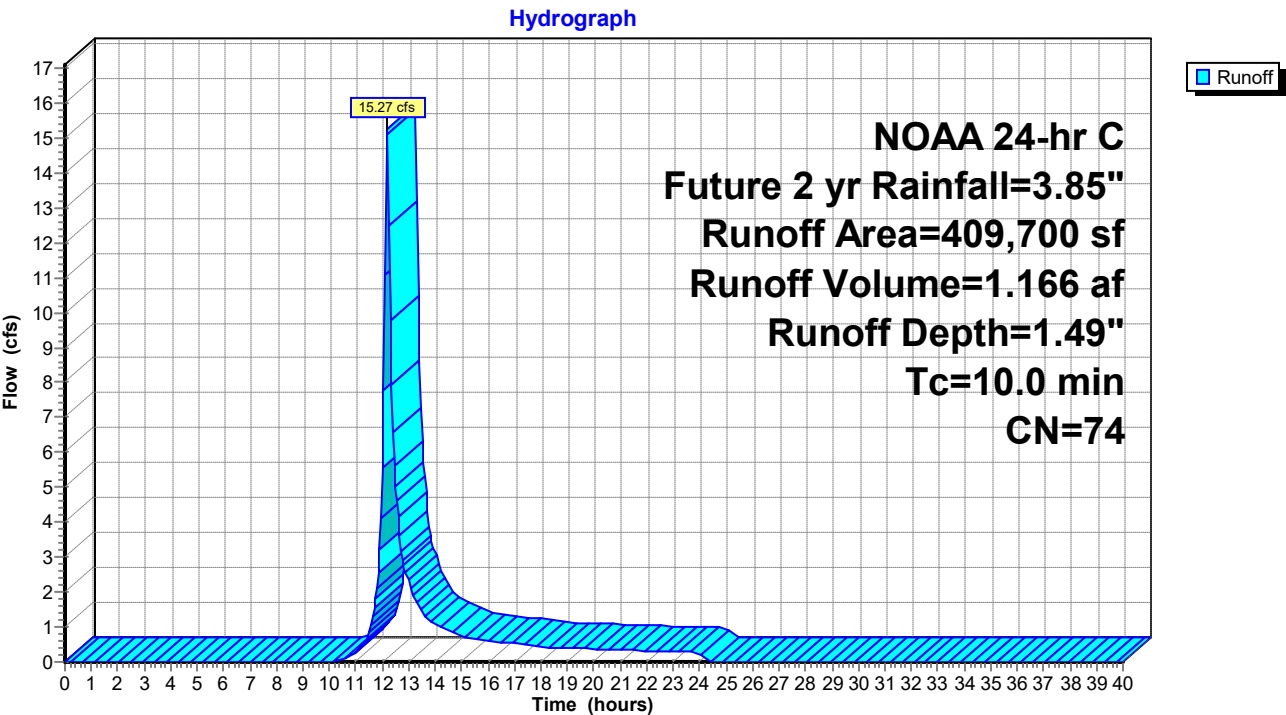
Runoff = 15.27 cfs @ 12.18 hrs, Volume= 1.166 af, Depth= 1.49"
Routed to Link PDA-2 : Proposed Drainage Area #2

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 2 yr Rainfall=3.85"

Area (sf)	CN	Description
409,700	74	>75% Grass cover, Good, HSG C
409,700		100.00% Pervious Area

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

Subcatchment UPDA-2: PDA-2 (undetained)



Summary for Pond B-1: Basin #1

Inflow Area = 2.485 ac, 4.79% Impervious, Inflow Depth = 1.59" for Future 2 yr event
 Inflow = 4.25 cfs @ 12.18 hrs, Volume= 0.329 af
 Outflow = 0.10 cfs @ 19.49 hrs, Volume= 0.176 af, Atten= 98%, Lag= 438.8 min
 Primary = 0.10 cfs @ 19.49 hrs, Volume= 0.176 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 209.66' @ 19.49 hrs Surf.Area= 10,814 sf Storage= 10,525 cf

Plug-Flow detention time= 734.3 min calculated for 0.176 af (53% of inflow)
 Center-of-Mass det. time= 608.0 min (1,455.3 - 847.3)

Volume	Invert	Avail.Storage	Storage Description
#1	208.30'	38,468 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
208.30	0	0	0
209.00	10,187	3,565	3,565
210.00	11,133	10,660	14,225
211.00	12,113	11,623	25,848
212.00	13,126	12,620	38,468

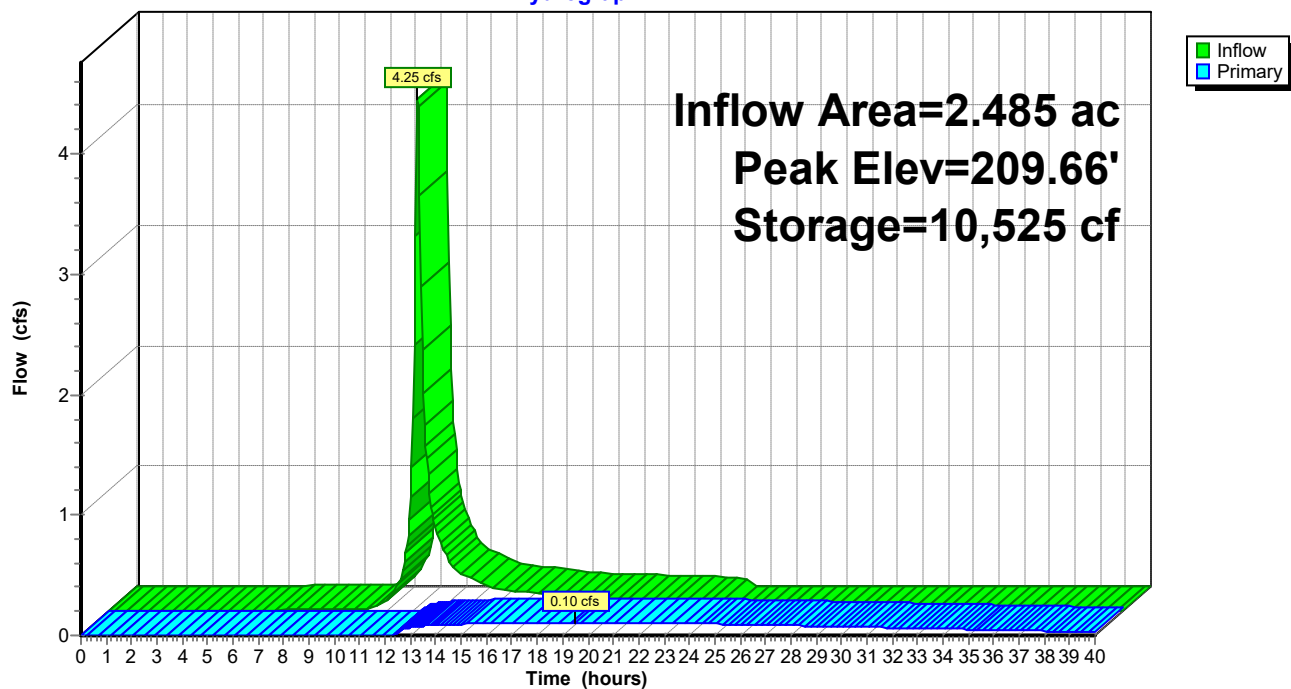
Device	Routing	Invert	Outlet Devices
#1	Primary	207.65'	18.0" Round Culvert L= 276.0' Ke= 0.500 Inlet / Outlet Invert= 207.65' / 204.00' S= 0.0132 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	209.17'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	209.67'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	210.80'	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=0.10 cfs @ 19.49 hrs HW=209.66' (Free Discharge)

1=Culvert (Passes 0.10 cfs of 9.56 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.10 cfs @ 3.00 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-1: Basin #1

Hydrograph



Summary for Pond B-10: Basin #10

Inflow Area = 1.674 ac, 56.63% Impervious, Inflow Depth = 2.69" for Future 2 yr event
 Inflow = 4.48 cfs @ 12.17 hrs, Volume= 0.376 af
 Outflow = 0.19 cfs @ 14.78 hrs, Volume= 0.278 af, Atten= 96%, Lag= 156.3 min
 Primary = 0.19 cfs @ 14.78 hrs, Volume= 0.278 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 180.98' @ 14.78 hrs Surf.Area= 5,818 sf Storage= 11,401 cf

Plug-Flow detention time= 645.3 min calculated for 0.278 af (74% of inflow)
 Center-of-Mass det. time= 552.3 min (1,333.9 - 781.6)

Volume	Invert	Avail.Storage	Storage Description
#1	178.30'	24,949 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
178.30	0	0	0
179.00	4,220	1,477	1,477
180.00	5,003	4,612	6,088
181.00	5,833	5,418	11,506
182.00	6,710	6,272	17,778
183.00	7,633	7,172	24,949

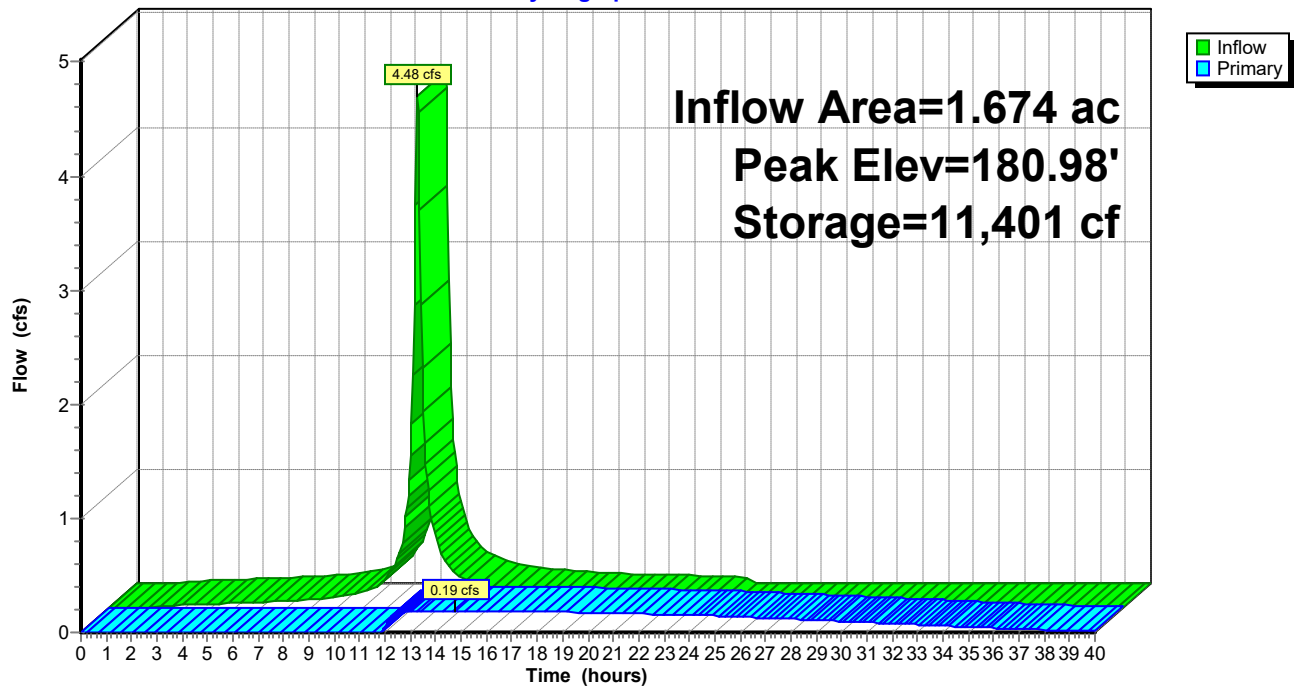
Device	Routing	Invert	Outlet Devices
#1	Primary	177.65'	18.0" Round Culvert L= 52.0' Ke= 0.500 Inlet / Outlet Invert= 177.65' / 176.00' S= 0.0317 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	179.53'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	180.99'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	181.86'	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=0.19 cfs @ 14.78 hrs HW=180.98' (Free Discharge)

1=Culvert (Passes 0.19 cfs of 13.67 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.19 cfs @ 5.59 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-10: Basin #10

Hydrograph



Summary for Pond B-11: Basin #11

Inflow Area = 2.668 ac, 34.97% Impervious, Inflow Depth = 2.23" for Future 2 yr event
 Inflow = 6.07 cfs @ 12.17 hrs, Volume= 0.496 af
 Outflow = 0.22 cfs @ 15.51 hrs, Volume= 0.376 af, Atten= 96%, Lag= 199.8 min
 Primary = 0.22 cfs @ 15.51 hrs, Volume= 0.376 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 182.35' @ 15.51 hrs Surf.Area= 6,593 sf Storage= 14,967 cf

Plug-Flow detention time= 714.1 min calculated for 0.376 af (76% of inflow)
 Center-of-Mass det. time= 621.9 min (1,423.0 - 801.1)

Volume	Invert	Avail.Storage	Storage Description
#1	179.30'	44,897 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
179.30	0	0	0
180.00	4,780	1,673	1,673
181.00	5,522	5,151	6,824
182.00	6,306	5,914	12,738
183.00	7,135	6,721	19,458
184.00	8,007	7,571	27,029
185.00	8,923	8,465	35,494
186.00	9,882	9,403	44,897

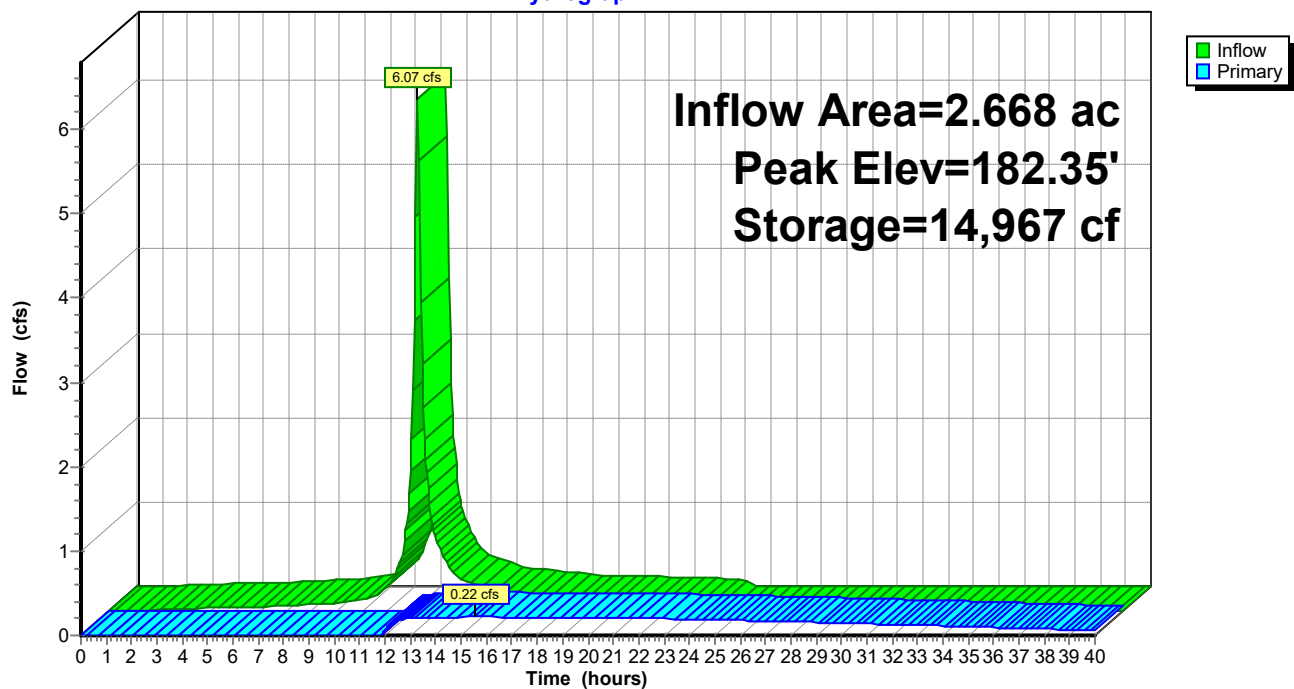
Device	Routing	Invert	Outlet Devices
#1	Primary	178.65'	18.0" Round Culvert L= 131.0' Ke= 0.500 Inlet / Outlet Invert= 178.65' / 178.00' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	180.47'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	182.35'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	183.91'	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=0.22 cfs @ 15.51 hrs HW=182.35' (Free Discharge)

- 1=Culvert (Passes 0.22 cfs of 12.12 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.22 cfs @ 6.41 fps)
- 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-11: Basin #11

Hydrograph



Summary for Pond B-12: Basin #12

Inflow Area = 2.004 ac, 68.31% Impervious, Inflow Depth = 2.94" for Future 2 yr event
 Inflow = 5.81 cfs @ 12.17 hrs, Volume= 0.491 af
 Outflow = 1.31 cfs @ 12.60 hrs, Volume= 0.367 af, Atten= 77%, Lag= 25.5 min
 Primary = 1.31 cfs @ 12.60 hrs, Volume= 0.367 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 202.86' @ 12.60 hrs Surf.Area= 6,000 sf Storage= 11,490 cf

Plug-Flow detention time= 255.2 min calculated for 0.367 af (75% of inflow)
 Center-of-Mass det. time= 163.2 min (936.7 - 773.6)

Volume	Invert	Avail.Storage	Storage Description
#1	200.30'	26,105 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	4,623	1,618	1,618
202.00	5,350	4,987	6,605
203.00	6,105	5,728	12,332
204.00	6,883	6,494	18,826
205.00	7,674	7,279	26,105

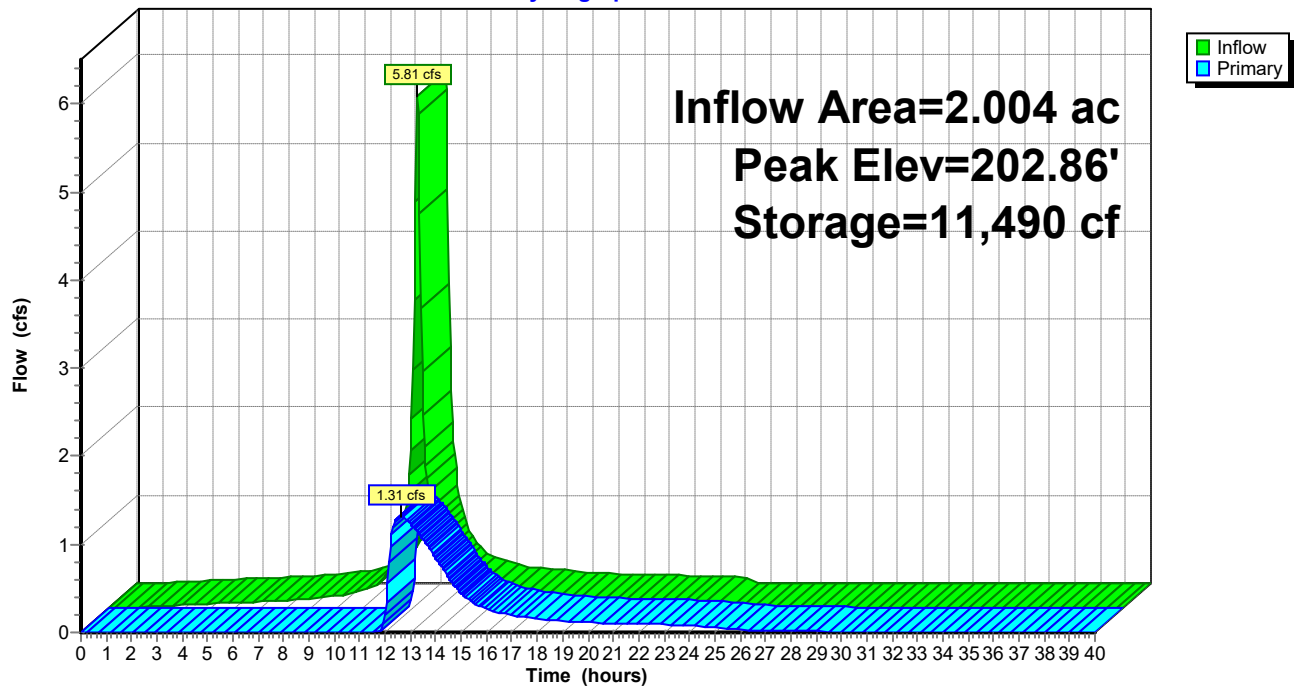
Device	Routing	Invert	Outlet Devices
#1	Primary	199.65'	18.0" Round Culvert L= 238.0' Ke= 0.500 Inlet / Outlet Invert= 199.65' / 195.50' S= 0.0174 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	201.76'	7.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	202.87'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	203.96'	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=1.31 cfs @ 12.60 hrs HW=202.86' (Free Discharge)

1=Culvert (Passes 1.31 cfs of 13.35 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 1.31 cfs @ 4.28 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-12: Basin #12

Hydrograph



Summary for Pond B-13: Basin #13

Inflow Area = 2.350 ac, 62.43% Impervious, Inflow Depth = 2.82" for Future 2 yr event
 Inflow = 6.55 cfs @ 12.17 hrs, Volume= 0.551 af
 Outflow = 0.18 cfs @ 16.45 hrs, Volume= 0.346 af, Atten= 97%, Lag= 256.6 min
 Primary = 0.18 cfs @ 16.45 hrs, Volume= 0.346 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 193.74' @ 16.45 hrs Surf.Area= 9,436 sf Storage= 17,964 cf

Plug-Flow detention time= 801.4 min calculated for 0.346 af (63% of inflow)
 Center-of-Mass det. time= 692.1 min (1,469.5 - 777.4)

Volume	Invert	Avail.Storage	Storage Description
#1	191.30'	41,458 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
191.30	0	0	0
192.00	7,975	2,791	2,791
193.00	8,804	8,390	11,181
194.00	9,654	9,229	20,410
195.00	10,522	10,088	30,498
196.00	11,399	10,961	41,458

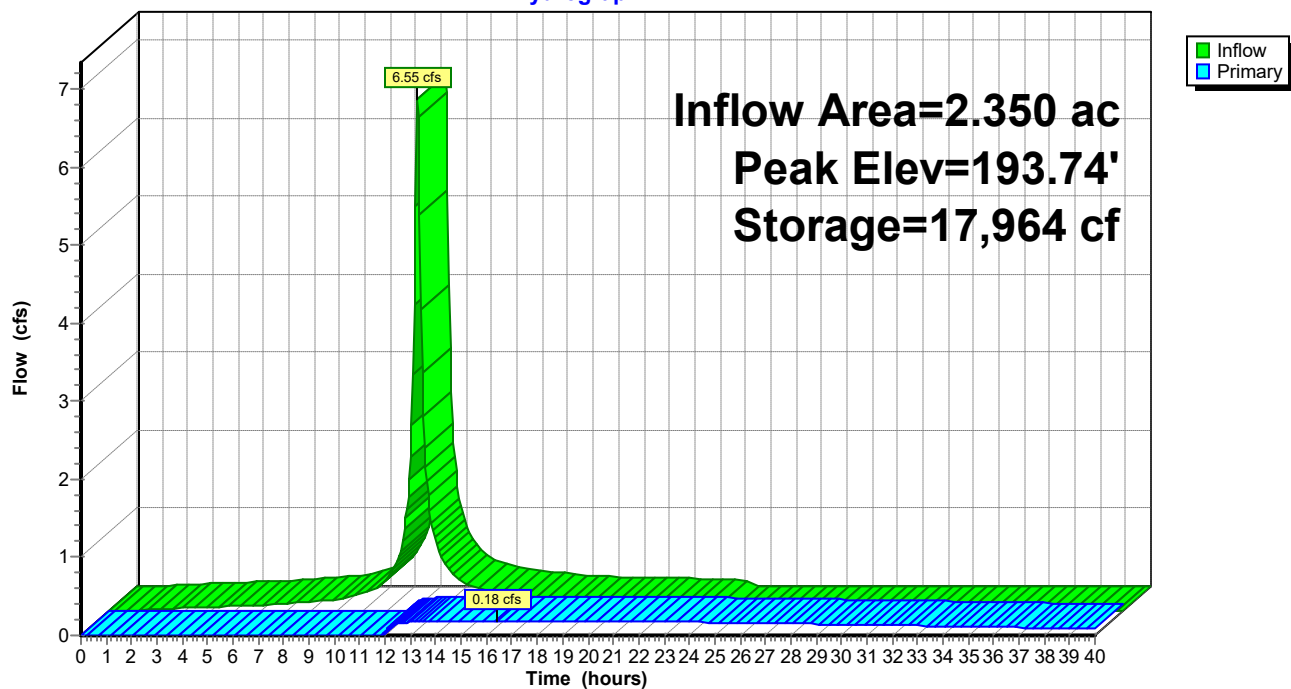
Device	Routing	Invert	Outlet Devices
#1	Primary	190.65'	18.0" Round Culvert L= 57.0' Ke= 0.500 Inlet / Outlet Invert= 190.65' / 188.00' S= 0.0465 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	192.37'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	193.75'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	194.96'	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=0.18 cfs @ 16.45 hrs HW=193.74' (Free Discharge)

1=Culvert (Passes 0.18 cfs of 13.03 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.18 cfs @ 5.43 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-13: Basin #13

Hydrograph



Summary for Pond B-14: Basin #14

Inflow Area = 2.148 ac, 23.65% Impervious, Inflow Depth = 1.99" for Future 2 yr event
 Inflow = 4.42 cfs @ 12.18 hrs, Volume= 0.356 af
 Outflow = 0.17 cfs @ 15.28 hrs, Volume= 0.281 af, Atten= 96%, Lag= 186.4 min
 Primary = 0.17 cfs @ 15.28 hrs, Volume= 0.281 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 193.26' @ 15.28 hrs Surf.Area= 6,812 sf Storage= 10,372 cf

Plug-Flow detention time= 665.9 min calculated for 0.281 af (79% of inflow)
 Center-of-Mass det. time= 578.1 min (1,393.1 - 814.9)

Volume	Invert	Avail.Storage	Storage Description
#1	191.30'	30,883 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
191.30	0	0	0
192.00	6,224	2,178	2,178
193.00	6,689	6,457	8,635
194.00	7,167	6,928	15,563
195.00	7,657	7,412	22,975
196.00	8,160	7,909	30,883

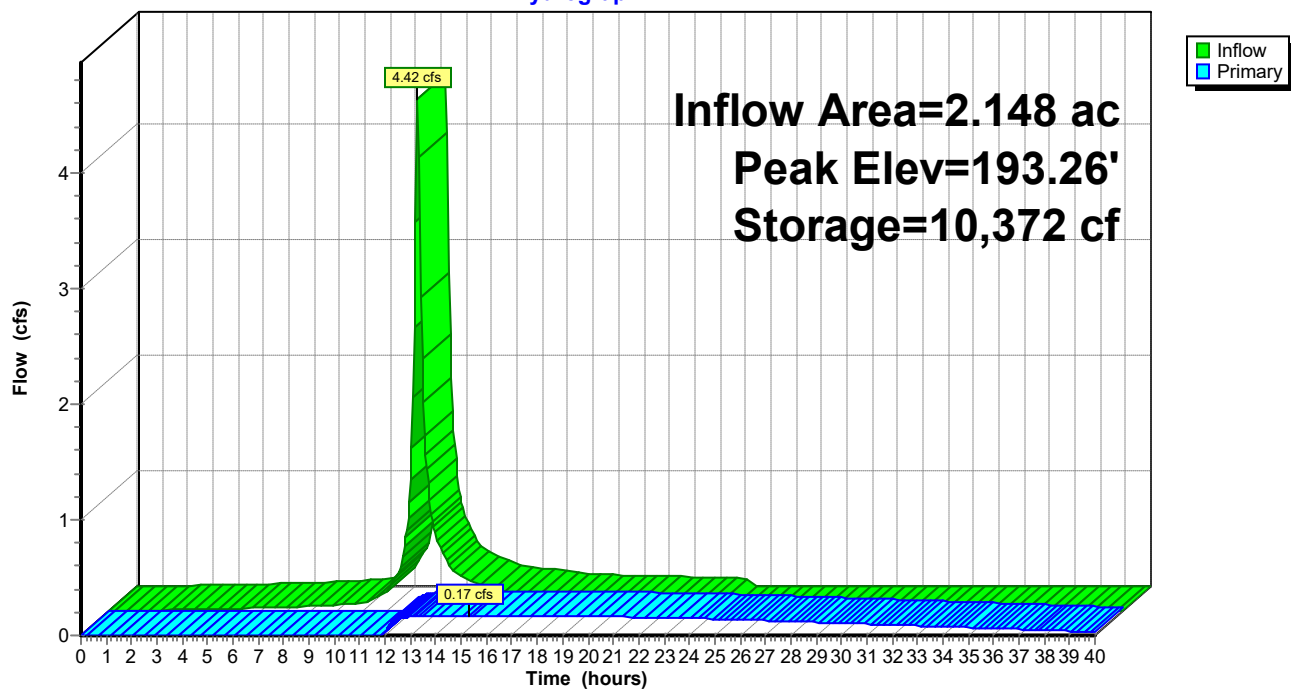
Device	Routing	Invert	Outlet Devices
#1	Primary	190.65'	18.0" Round Culvert L= 194.0' Ke= 0.500 Inlet / Outlet Invert= 190.65' / 188.00' S= 0.0137 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	192.04'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	193.27'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	194.44'	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=0.17 cfs @ 15.28 hrs HW=193.26' (Free Discharge)

1=Culvert (Passes 0.17 cfs of 11.60 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.17 cfs @ 5.08 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-14: Basin #14

Hydrograph



Summary for Pond B-15: Basin #15

Inflow Area = 2.365 ac, 58.73% Impervious, Inflow Depth = 2.74" for Future 2 yr event
 Inflow = 6.43 cfs @ 12.17 hrs, Volume= 0.539 af
 Outflow = 1.24 cfs @ 12.66 hrs, Volume= 0.411 af, Atten= 81%, Lag= 29.4 min
 Primary = 1.24 cfs @ 12.66 hrs, Volume= 0.411 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 198.57' @ 12.66 hrs Surf.Area= 5,132 sf Storage= 12,626 cf

Plug-Flow detention time= 248.5 min calculated for 0.411 af (76% of inflow)
 Center-of-Mass det. time= 158.4 min (938.4 - 780.0)

Volume	Invert	Avail.Storage	Storage Description
#1	195.30'	26,898 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
195.30	0	0	0
196.00	3,706	1,297	1,297
197.00	4,236	3,971	5,268
198.00	4,795	4,516	9,784
199.00	5,384	5,090	14,873
200.00	6,002	5,693	20,566
201.00	6,662	6,332	26,898

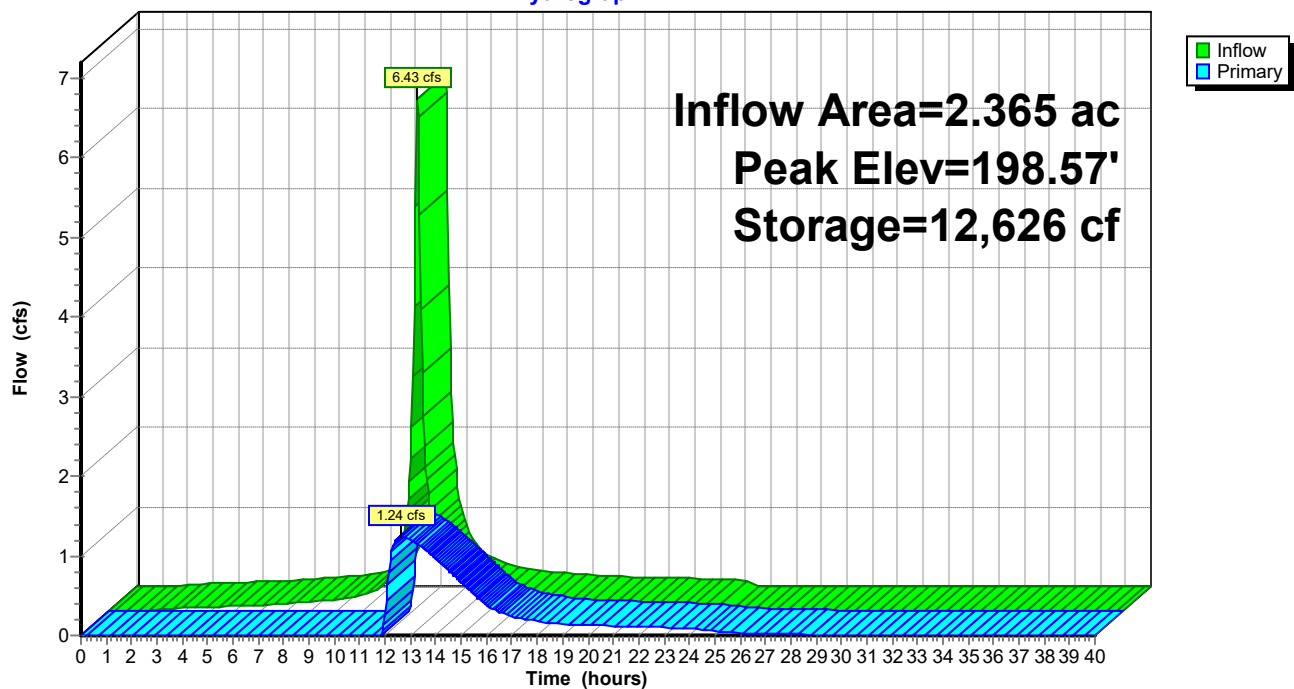
Device	Routing	Invert	Outlet Devices
#1	Primary	194.65'	18.0" Round Culvert L= 203.0' Ke= 0.500 Inlet / Outlet Invert= 194.65' / 192.00' S= 0.0131 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	197.06'	6.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	198.58'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	200.00'	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=1.24 cfs @ 12.66 hrs HW=198.57' (Free Discharge)

1=Culvert (Passes 1.24 cfs of 13.99 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 1.24 cfs @ 5.36 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-15: Basin #15

Hydrograph



Summary for Pond B-16: Basin #16

Inflow Area = 2.685 ac, 43.39% Impervious, Inflow Depth = 2.41" for Future 2 yr event
 Inflow = 6.53 cfs @ 12.17 hrs, Volume= 0.539 af
 Outflow = 0.17 cfs @ 17.27 hrs, Volume= 0.330 af, Atten= 97%, Lag= 305.9 min
 Primary = 0.17 cfs @ 17.27 hrs, Volume= 0.330 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 179.30' @ 17.27 hrs Surf.Area= 11,305 sf Storage= 17,519 cf

Plug-Flow detention time= 811.2 min calculated for 0.330 af (61% of inflow)
 Center-of-Mass det. time= 696.3 min (1,488.9 - 792.6)

Volume	Invert	Avail.Storage	Storage Description
#1	177.30'	51,430 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
177.30	0	0	0
178.00	10,122	3,543	3,543
179.00	11,022	10,572	14,115
180.00	11,951	11,487	25,601
181.00	12,907	12,429	38,030
182.00	13,893	13,400	51,430

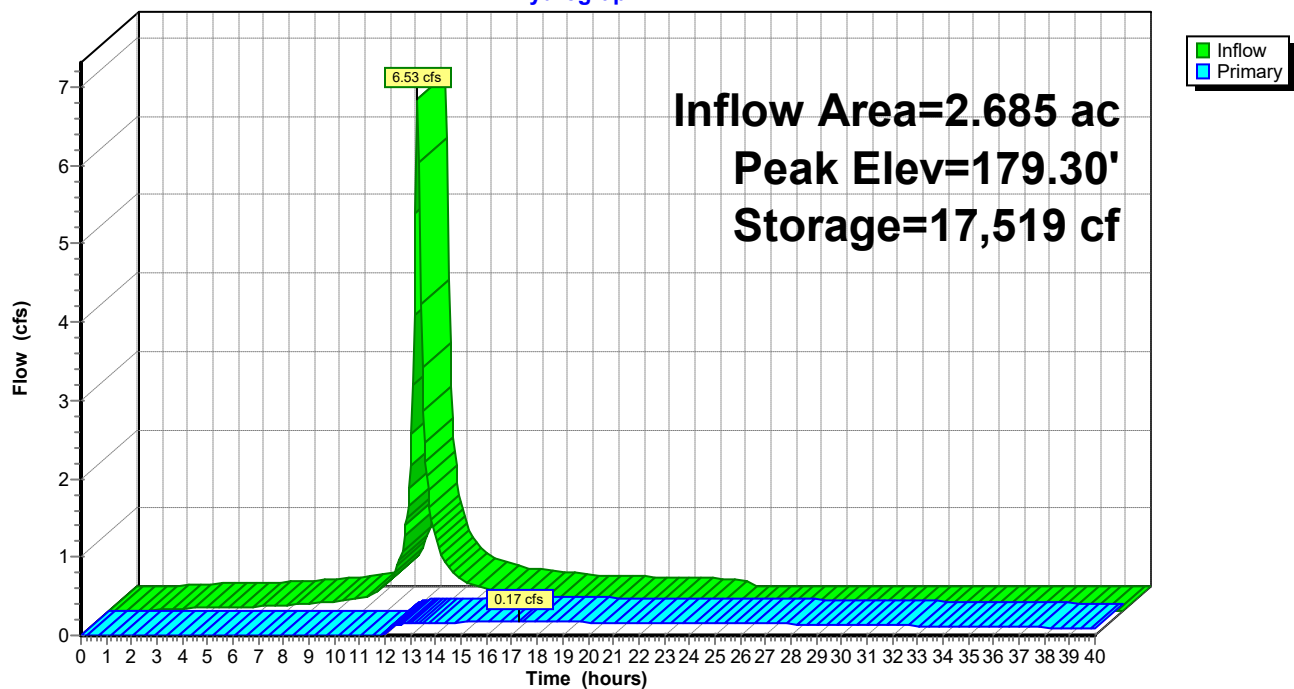
Device	Routing	Invert	Outlet Devices
#1	Primary	176.65'	18.0" Round Culvert L= 53.0' Ke= 0.500 Inlet / Outlet Invert= 176.65' / 172.00' S= 0.0877 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	178.13'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	179.31'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	180.57'	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=0.17 cfs @ 17.27 hrs HW=179.30' (Free Discharge)

1=Culvert (Passes 0.17 cfs of 11.74 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.17 cfs @ 4.98 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-16: Basin #16

Hydrograph



Summary for Pond B-17: Basin #17

Inflow Area = 2.791 ac, 34.54% Impervious, Inflow Depth = 2.22" for Future 2 yr event
 Inflow = 6.32 cfs @ 12.17 hrs, Volume= 0.517 af
 Outflow = 0.14 cfs @ 18.07 hrs, Volume= 0.289 af, Atten= 98%, Lag= 353.9 min
 Primary = 0.14 cfs @ 18.07 hrs, Volume= 0.289 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 179.82' @ 18.07 hrs Surf.Area= 15,666 sf Storage= 17,060 cf

Plug-Flow detention time= 830.6 min calculated for 0.289 af (56% of inflow)
 Center-of-Mass det. time= 708.2 min (1,509.8 - 801.6)

Volume	Invert	Avail.Storage	Storage Description
#1	178.30'	77,758 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
178.30	0	0	0
179.00	13,952	4,883	4,883
180.00	16,036	14,994	19,877
181.00	18,176	17,106	36,983
182.00	20,373	19,275	56,258
183.00	22,627	21,500	77,758

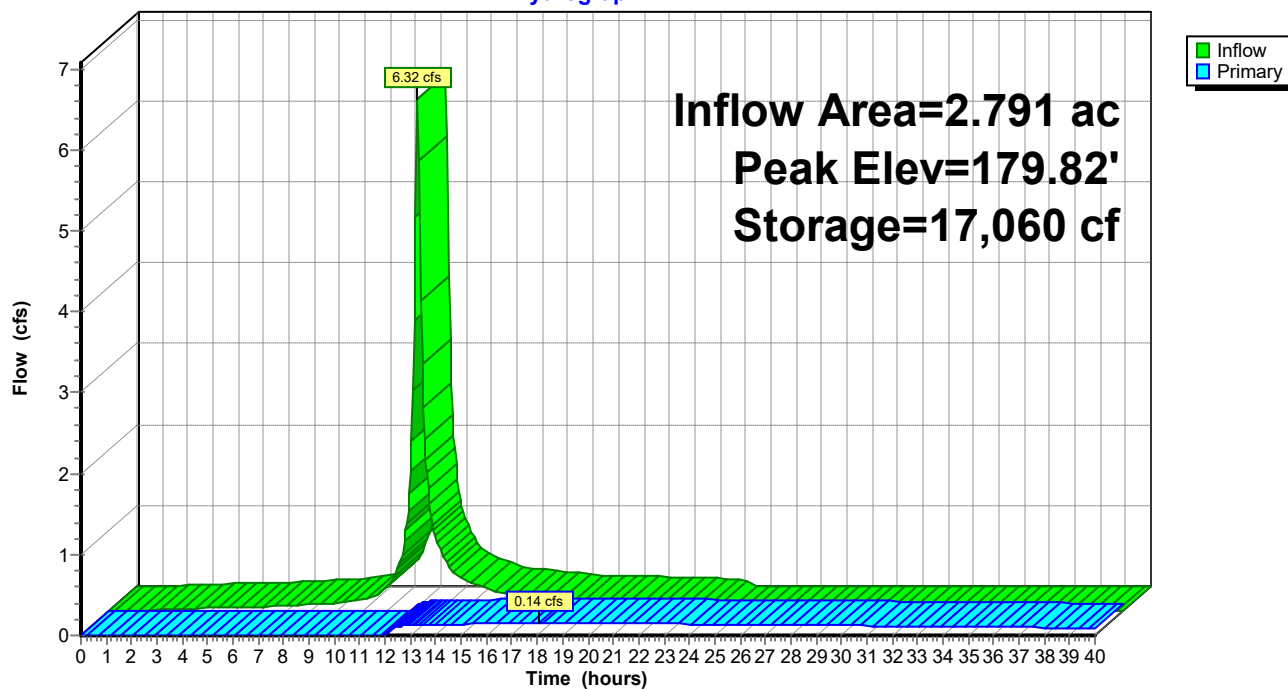
Device	Routing	Invert	Outlet Devices
#1	Primary	177.65'	18.0" Round Culvert L= 40.0' Ke= 0.500 Inlet / Outlet Invert= 177.65' / 177.00' S= 0.0163 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	178.95'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	179.83'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	180.93'	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=0.14 cfs @ 18.07 hrs HW=179.82' (Free Discharge)

1=Culvert (Passes 0.14 cfs of 10.15 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.14 cfs @ 4.22 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-17: Basin #17

Hydrograph



Summary for Pond B-18: Basin #18

Inflow Area = 2.458 ac, 47.56% Impervious, Inflow Depth = 2.50" for Future 2 yr event
 Inflow = 6.17 cfs @ 12.17 hrs, Volume= 0.512 af
 Outflow = 3.77 cfs @ 12.30 hrs, Volume= 0.402 af, Atten= 39%, Lag= 7.7 min
 Primary = 3.77 cfs @ 12.30 hrs, Volume= 0.402 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 198.50' @ 12.30 hrs Surf.Area= 3,423 sf Storage= 7,915 cf

Plug-Flow detention time= 165.6 min calculated for 0.402 af (79% of inflow)
 Center-of-Mass det. time= 78.7 min (867.5 - 788.9)

Volume	Invert	Avail.Storage	Storage Description
#1	194.65'	18,838 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
194.65	0	0	0
195.00	1,068	187	187
196.00	1,693	1,381	1,567
197.00	2,352	2,023	3,590
198.00	3,059	2,706	6,295
199.00	3,788	3,424	9,719
200.00	4,551	4,170	13,888
201.00	5,348	4,950	18,838

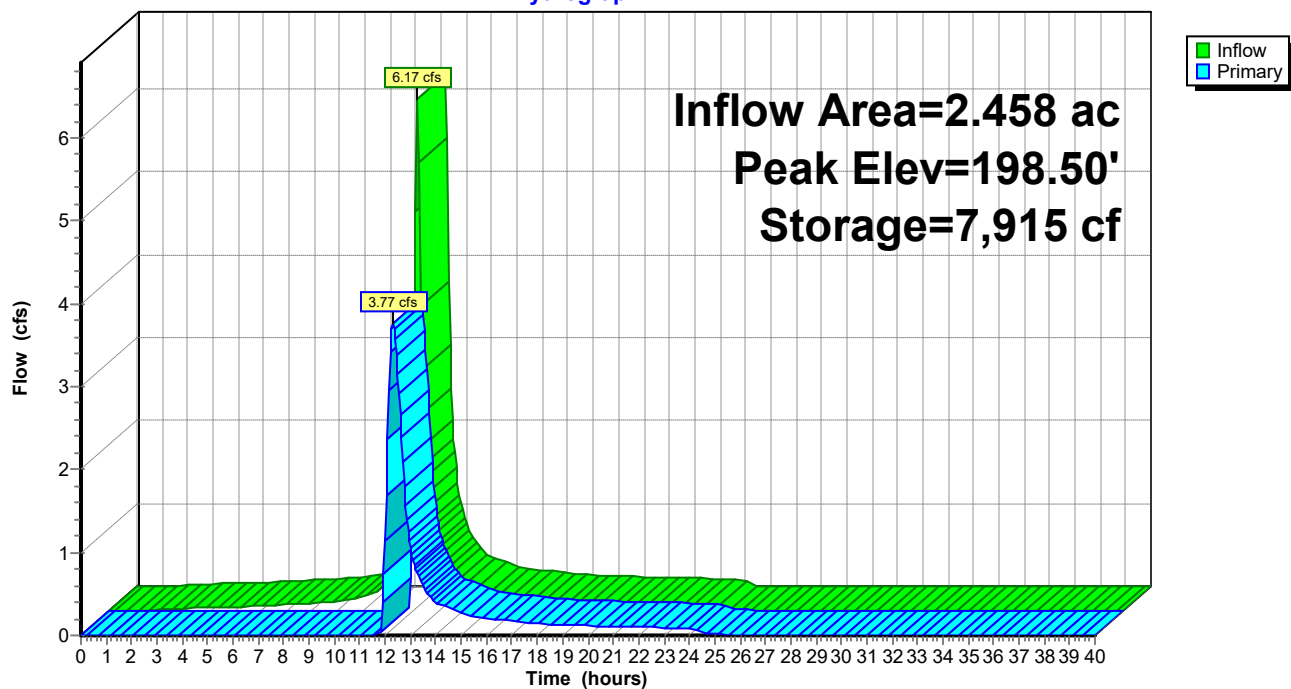
Device	Routing	Invert	Outlet Devices
#1	Primary	194.65'	18.0" Round Culvert L= 102.0' Ke= 0.500 Inlet / Outlet Invert= 194.65' / 194.14' S= 0.0050 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	197.47'	20.0" W x 6.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	198.51'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	200.00'	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=3.76 cfs @ 12.30 hrs HW=198.50' (Free Discharge)

1=Culvert (Passes 3.76 cfs of 13.07 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 3.76 cfs @ 4.17 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-18: Basin #18

Hydrograph



Summary for Pond B-19: Basin #19

Inflow Area = 0.934 ac, 40.79% Impervious, Inflow Depth = 2.36" for Future 2 yr event
 Inflow = 2.22 cfs @ 12.17 hrs, Volume= 0.183 af
 Outflow = 0.37 cfs @ 12.76 hrs, Volume= 0.146 af, Atten= 84%, Lag= 35.1 min
 Primary = 0.37 cfs @ 12.76 hrs, Volume= 0.146 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 203.28' @ 12.76 hrs Surf.Area= 3,133 sf Storage= 4,196 cf

Plug-Flow detention time= 248.3 min calculated for 0.146 af (80% of inflow)
 Center-of-Mass det. time= 163.5 min (958.6 - 795.1)

Volume	Invert	Avail.Storage	Storage Description
#1	201.30'	10,696 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	2,224	778	778
203.00	2,930	2,577	3,355
204.00	3,663	3,297	6,652
205.00	4,425	4,044	10,696

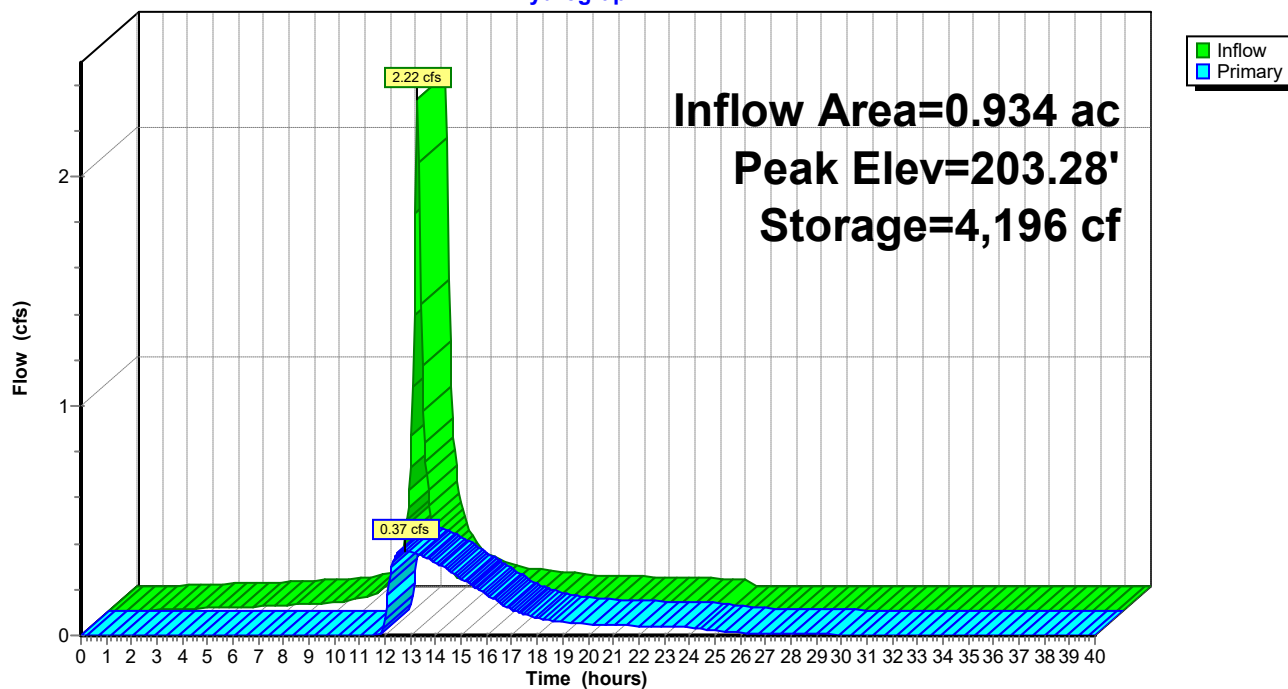
Device	Routing	Invert	Outlet Devices
#1	Primary	200.65'	18.0" Round Culvert L= 214.0' Ke= 0.500 Inlet / Outlet Invert= 200.65' / 199.57' S= 0.0050 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	202.35'	4.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	203.29'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	203.98'	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=0.37 cfs @ 12.76 hrs HW=203.28' (Free Discharge)

1=Culvert (Passes 0.37 cfs of 9.06 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.37 cfs @ 4.20 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-19: Basin #19

Hydrograph



Summary for Pond B-2: Basin #2

Inflow Area = 1.865 ac, 43.43% Impervious, Inflow Depth = 2.41" for Future 2 yr event
 Inflow = 4.53 cfs @ 12.17 hrs, Volume= 0.375 af
 Outflow = 0.28 cfs @ 13.88 hrs, Volume= 0.287 af, Atten= 94%, Lag= 102.4 min
 Primary = 0.28 cfs @ 13.88 hrs, Volume= 0.287 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 209.99' @ 13.88 hrs Surf.Area= 8,421 sf Storage= 10,499 cf

Plug-Flow detention time= 483.7 min calculated for 0.287 af (77% of inflow)
 Center-of-Mass det. time= 394.2 min (1,186.8 - 792.6)

Volume	Invert	Avail.Storage	Storage Description
#1	208.30'	29,385 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
208.30	0	0	0
209.00	7,501	2,625	2,625
210.00	8,431	7,966	10,591
211.00	9,390	8,911	19,502
212.00	10,376	9,883	29,385

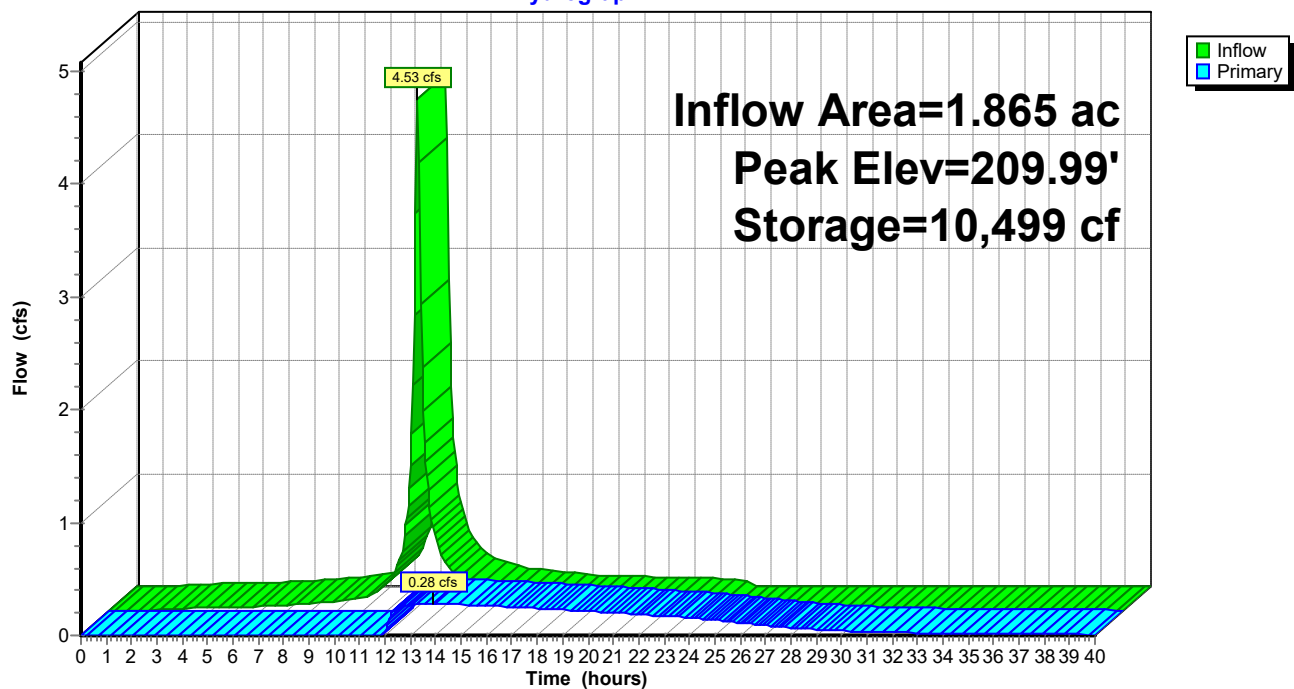
Device	Routing	Invert	Outlet Devices
#1	Primary	207.65'	18.0" Round Culvert L= 202.0' Ke= 0.500 Inlet / Outlet Invert= 207.65' / 204.00' S= 0.0181 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	209.10'	3.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	210.00'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	211.00'	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=0.28 cfs @ 13.88 hrs HW=209.99' (Free Discharge)

1=Culvert (Passes 0.28 cfs of 10.73 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.28 cfs @ 4.15 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-2: Basin #2

Hydrograph



Summary for Pond B-20: Basin #20

Inflow Area = 2.679 ac, 47.56% Impervious, Inflow Depth = 2.50" for Future 2 yr event
 Inflow = 6.72 cfs @ 12.17 hrs, Volume= 0.558 af
 Outflow = 3.07 cfs @ 12.36 hrs, Volume= 0.438 af, Atten= 54%, Lag= 11.4 min
 Primary = 3.07 cfs @ 12.36 hrs, Volume= 0.438 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 152.52' @ 12.36 hrs Surf.Area= 7,125 sf Storage= 10,289 cf

Plug-Flow detention time= 189.9 min calculated for 0.437 af (78% of inflow)
 Center-of-Mass det. time= 104.2 min (893.1 - 788.9)

Volume	Invert	Avail.Storage	Storage Description
#1	150.87'	35,230 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
150.87	0	0	0
151.00	5,926	385	385
152.00	6,706	6,316	6,701
153.00	7,514	7,110	13,811
154.00	8,347	7,931	21,742
155.00	9,205	8,776	30,518
155.50	9,643	4,712	35,230

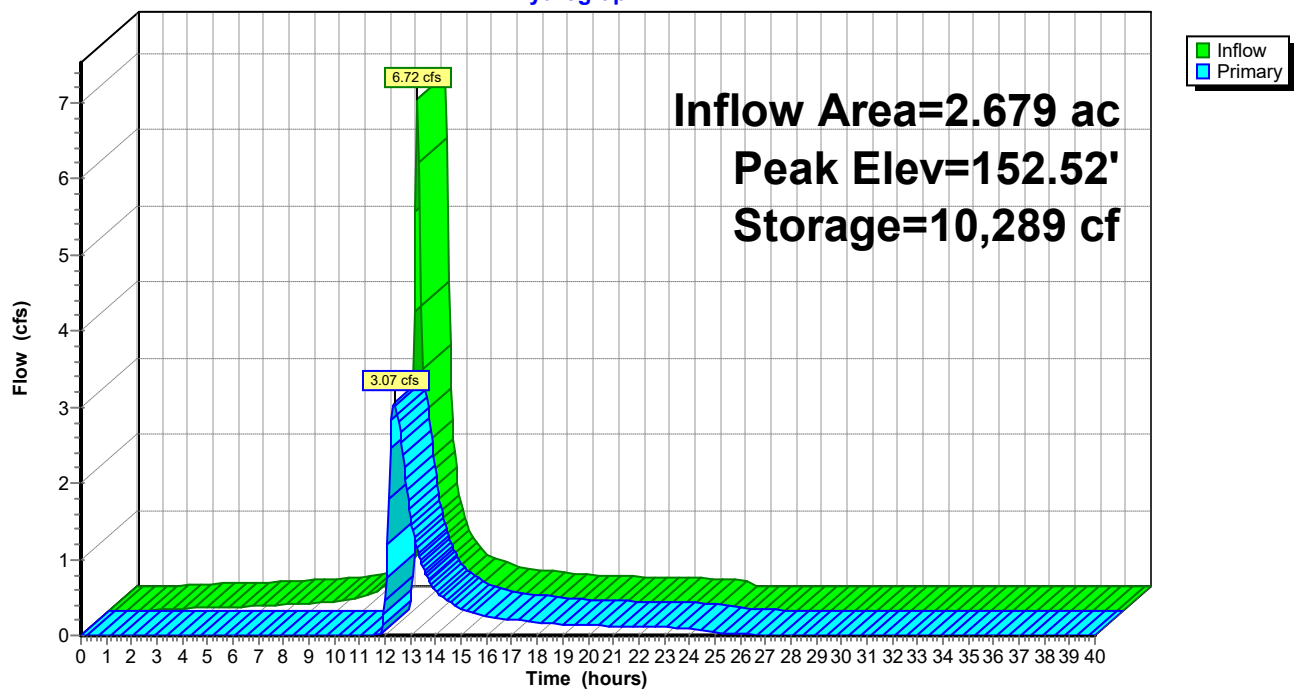
Device	Routing	Invert	Outlet Devices
#1	Primary	150.87'	18.0" Round Culvert L= 174.0' Ke= 0.500 Inlet / Outlet Invert= 150.87' / 150.00' S= 0.0050 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	151.78'	20.0" W x 7.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	152.53'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	154.32'	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=3.06 cfs @ 12.36 hrs HW=152.52' (Free Discharge)

1=Culvert (Passes 3.06 cfs of 7.12 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 3.06 cfs @ 3.15 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-20: Basin #20

Hydrograph



Summary for Pond B-21: Basin #21

Inflow Area = 2.680 ac, 41.60% Impervious, Inflow Depth = 2.37" for Future 2 yr event
 Inflow = 6.42 cfs @ 12.17 hrs, Volume= 0.530 af
 Outflow = 0.21 cfs @ 15.86 hrs, Volume= 0.383 af, Atten= 97%, Lag= 221.1 min
 Primary = 0.21 cfs @ 15.86 hrs, Volume= 0.383 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 152.64' @ 15.86 hrs Surf.Area= 7,430 sf Storage= 16,382 cf

Plug-Flow detention time= 748.0 min calculated for 0.383 af (72% of inflow)
 Center-of-Mass det. time= 648.8 min (1,443.1 - 794.3)

Volume	Invert	Avail.Storage	Storage Description
#1	149.90'	42,109 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
149.90	0	0	0
150.00	4,848	242	242
151.00	5,776	5,312	5,554
152.00	6,761	6,269	11,823
153.00	7,802	7,282	19,104
154.00	8,900	8,351	27,455
155.00	10,054	9,477	36,932
155.50	10,653	5,177	42,109

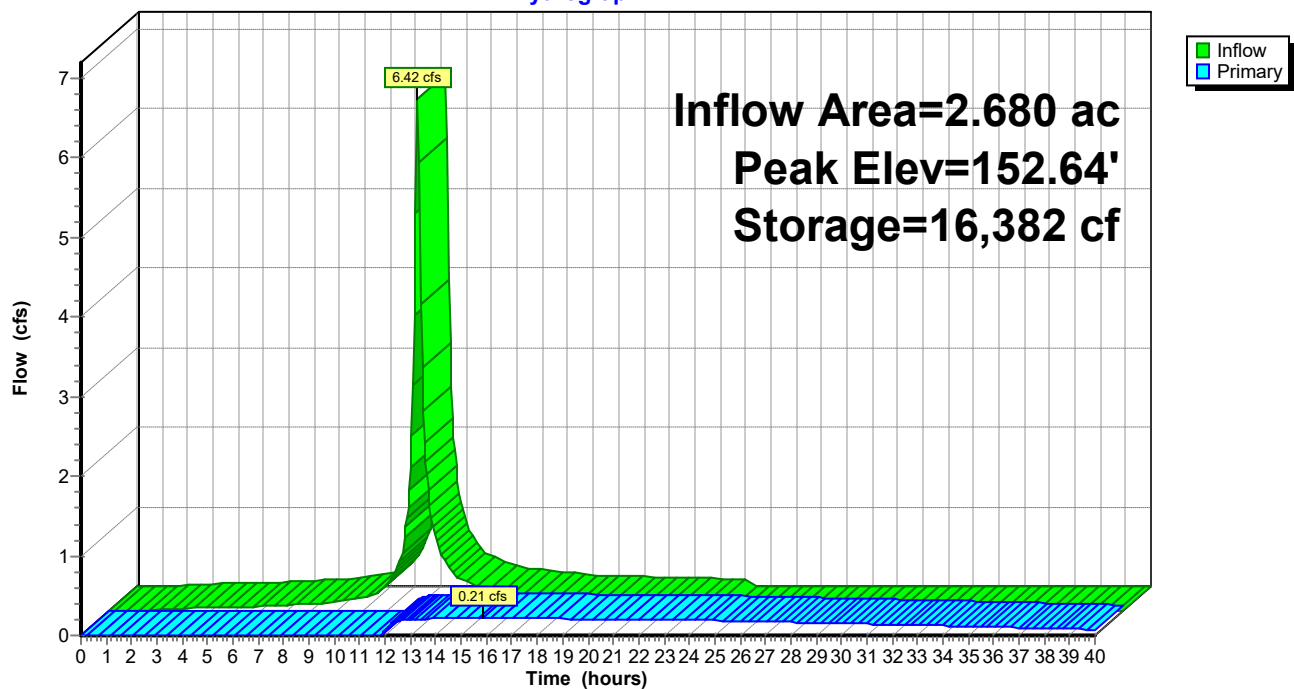
Device	Routing	Invert	Outlet Devices
#1	Primary	149.90'	18.0" Round Culvert L= 182.0' Ke= 0.500 Inlet / Outlet Invert= 149.90' / 149.00' S= 0.0049 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	150.84'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	152.65'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	154.16'	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=0.21 cfs @ 15.86 hrs HW=152.64' (Free Discharge)

- 1=Culvert (Passes 0.21 cfs of 9.45 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.21 cfs @ 6.27 fps)
- 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-21: Basin #21

Hydrograph



Summary for Pond B-22: Basin #22

Inflow Area = 2.743 ac, 30.19% Impervious, Inflow Depth = 2.13" for Future 2 yr event
 Inflow = 5.98 cfs @ 12.18 hrs, Volume= 0.487 af
 Outflow = 0.19 cfs @ 16.49 hrs, Volume= 0.348 af, Atten= 97%, Lag= 259.1 min
 Primary = 0.19 cfs @ 16.49 hrs, Volume= 0.348 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 149.62' @ 16.49 hrs Surf.Area= 8,595 sf Storage= 14,956 cf

Plug-Flow detention time= 754.1 min calculated for 0.348 af (72% of inflow)
 Center-of-Mass det. time= 652.3 min (1,458.9 - 806.6)

Volume	Invert	Avail.Storage	Storage Description
#1	147.30'	50,528 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
147.30	0	0	0
148.00	6,928	2,425	2,425
149.00	7,937	7,433	9,857
150.00	9,003	8,470	18,327
151.00	10,125	9,564	27,891
152.00	11,304	10,715	38,606
153.00	12,540	11,922	50,528

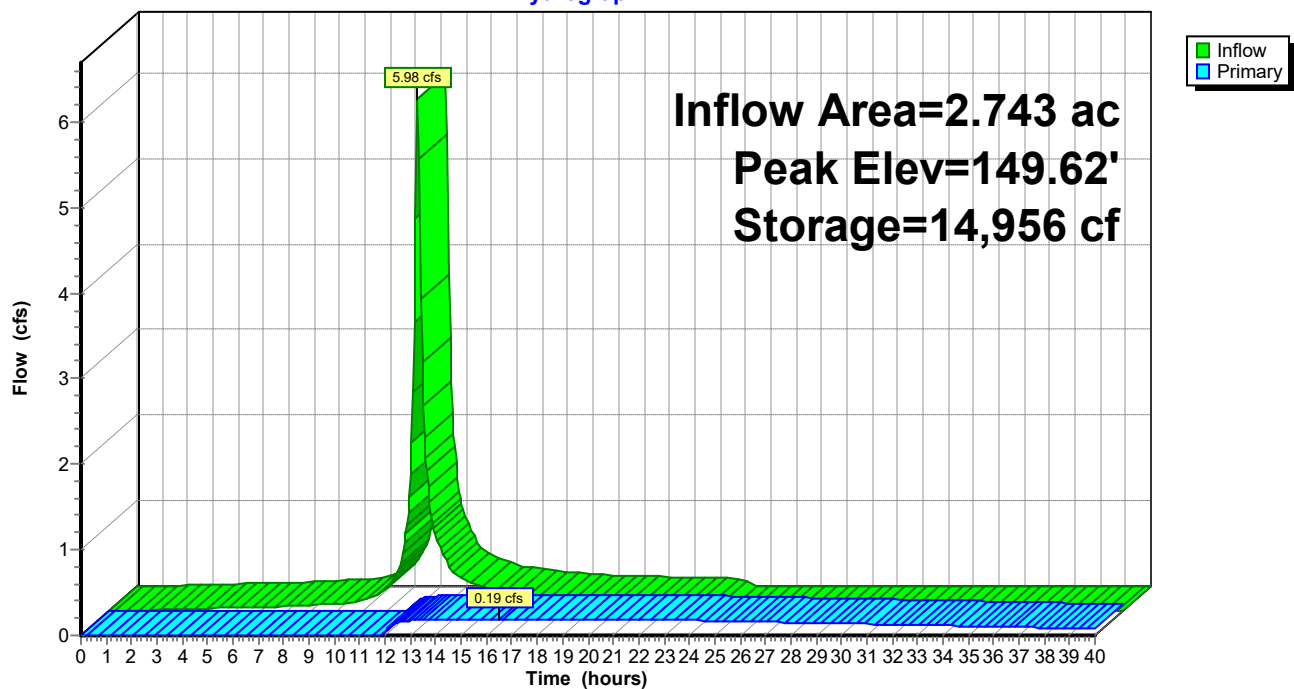
Device	Routing	Invert	Outlet Devices
#1	Primary	147.30'	18.0" Round Culvert L= 169.0' Ke= 0.500 Inlet / Outlet Invert= 147.30' / 146.00' S= 0.0077 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	148.18'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	149.63'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	151.18'	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=0.19 cfs @ 16.49 hrs HW=149.62' (Free Discharge)

1=Culvert (Passes 0.19 cfs of 9.63 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.19 cfs @ 5.56 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-22: Basin #22

Hydrograph



Summary for Pond B-23: Basin #23

Inflow Area = 1.511 ac, 66.64% Impervious, Inflow Depth = 2.91" for Future 2 yr event
 Inflow = 4.33 cfs @ 12.17 hrs, Volume= 0.366 af
 Outflow = 0.89 cfs @ 12.63 hrs, Volume= 0.272 af, Atten= 80%, Lag= 27.7 min
 Primary = 0.89 cfs @ 12.63 hrs, Volume= 0.272 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 146.13' @ 12.63 hrs Surf.Area= 6,663 sf Storage= 8,788 cf

Plug-Flow detention time= 277.4 min calculated for 0.271 af (74% of inflow)
 Center-of-Mass det. time= 186.1 min (960.7 - 774.6)

Volume	Invert	Avail.Storage	Storage Description
#1	144.30'	23,175 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
144.30	0	0	0
145.00	5,512	1,929	1,929
146.00	6,527	6,020	7,949
147.00	7,599	7,063	15,012
148.00	8,727	8,163	23,175

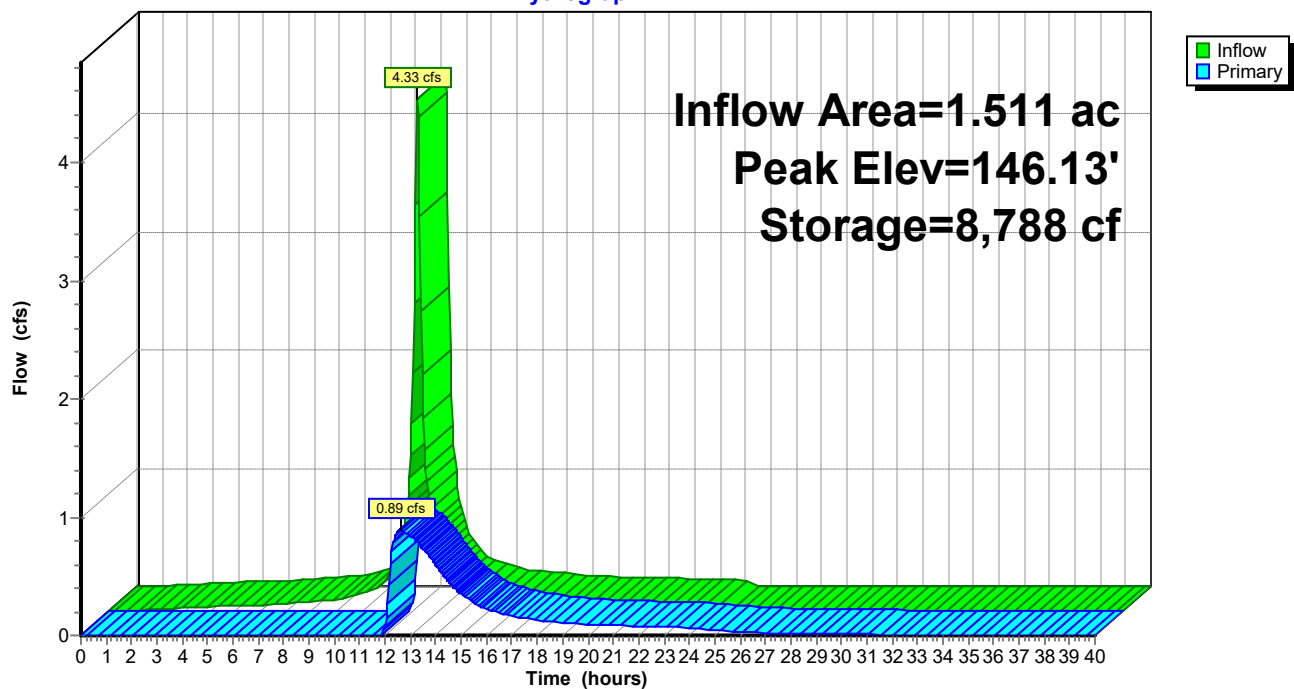
Device	Routing	Invert	Outlet Devices
#1	Primary	144.30'	18.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 144.30' / 144.00' S= 0.0115 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	145.36'	7.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	146.14'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	147.00'	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=0.89 cfs @ 12.63 hrs HW=146.13' (Free Discharge)

1=Culvert (Passes 0.89 cfs of 8.62 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.89 cfs @ 3.32 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-23: Basin #23

Hydrograph



Summary for Pond B-24: Basin #24

Inflow Area = 2.739 ac, 44.80% Impervious, Inflow Depth = 2.44" for Future 2 yr event
 Inflow = 6.73 cfs @ 12.17 hrs, Volume= 0.557 af
 Outflow = 0.63 cfs @ 13.28 hrs, Volume= 0.433 af, Atten= 91%, Lag= 66.7 min
 Primary = 0.63 cfs @ 13.28 hrs, Volume= 0.433 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 146.48' @ 13.28 hrs Surf.Area= 8,820 sf Storage= 14,515 cf

Plug-Flow detention time= 355.8 min calculated for 0.433 af (78% of inflow)
 Center-of-Mass det. time= 267.2 min (1,058.5 - 791.3)

Volume	Invert	Avail.Storage	Storage Description
#1	144.30'	40,061 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
144.30	0	0	0
145.00	7,331	2,566	2,566
146.00	8,327	7,829	10,395
147.00	9,353	8,840	19,235
148.00	10,406	9,880	29,114
149.00	11,488	10,947	40,061

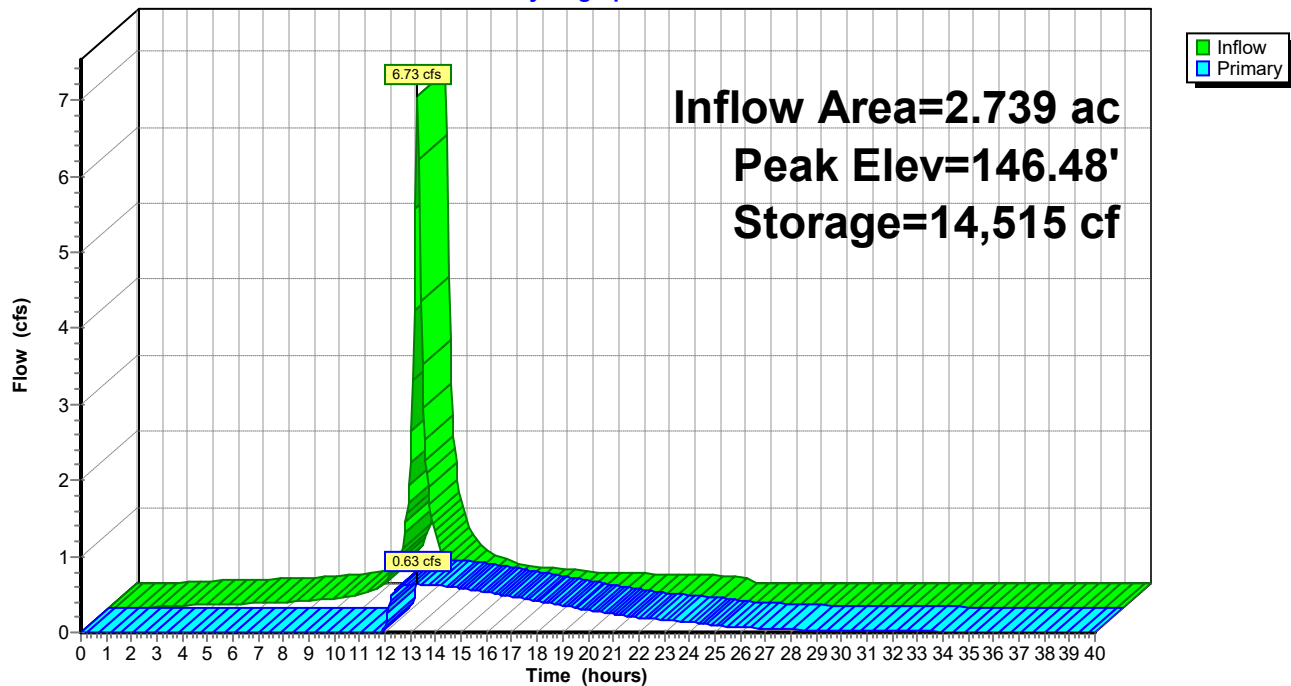
Device	Routing	Invert	Outlet Devices
#1	Primary	144.30'	18.0" Round Culvert L= 59.0' Ke= 0.500 Inlet / Outlet Invert= 144.30' / 144.00' S= 0.0051 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	145.34'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	146.49'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	147.99'	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=0.63 cfs @ 13.28 hrs HW=146.48' (Free Discharge)

1=Culvert (Passes 0.63 cfs of 8.74 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.63 cfs @ 4.65 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-24: Basin #24

Hydrograph



Summary for Pond B-25: Basin #25

Inflow Area = 2.736 ac, 43.02% Impervious, Inflow Depth = 2.40" for Future 2 yr event
 Inflow = 6.63 cfs @ 12.17 hrs, Volume= 0.548 af
 Outflow = 0.62 cfs @ 13.30 hrs, Volume= 0.432 af, Atten= 91%, Lag= 67.5 min
 Primary = 0.62 cfs @ 13.30 hrs, Volume= 0.432 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 146.20' @ 13.30 hrs Surf.Area= 6,681 sf Storage= 14,155 cf

Plug-Flow detention time= 342.0 min calculated for 0.432 af (79% of inflow)
 Center-of-Mass det. time= 256.0 min (1,049.0 - 793.0)

Volume	Invert	Avail.Storage	Storage Description
#1	143.30'	36,587 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
143.30	0	0	0
144.00	4,702	1,646	1,646
145.00	5,584	5,143	6,789
146.00	6,492	6,038	12,827
147.00	7,428	6,960	19,787
148.00	8,393	7,911	27,697
149.00	9,386	8,890	36,587

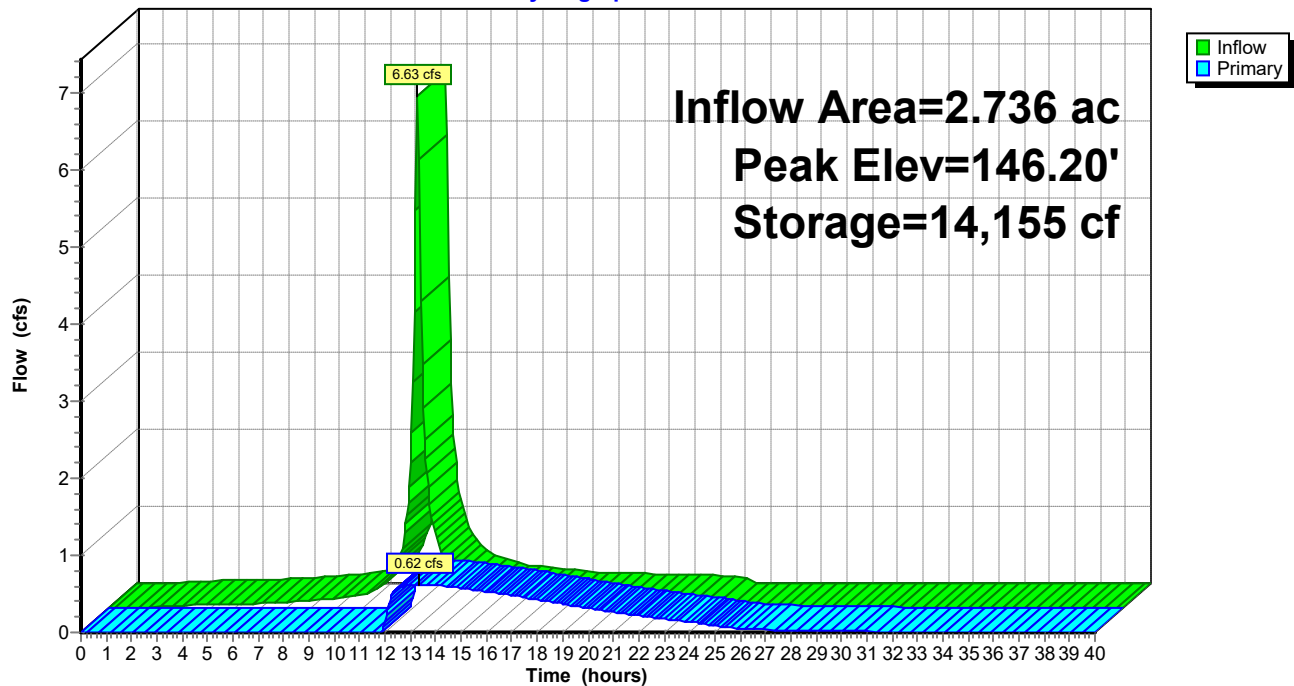
Device	Routing	Invert	Outlet Devices
#1	Primary	143.30'	18.0" Round Culvert L= 186.0' Ke= 0.500 Inlet / Outlet Invert= 143.30' / 142.00' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	144.65'	4.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	146.21'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	147.96'	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=0.62 cfs @ 13.30 hrs HW=146.20' (Free Discharge)

1=Culvert (Passes 0.62 cfs of 10.53 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.62 cfs @ 5.62 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-25: Basin #25

Hydrograph



Summary for Pond B-26: Basin #26

Inflow Area = 2.687 ac, 36.06% Impervious, Inflow Depth = 2.25" for Future 2 yr event
 Inflow = 6.16 cfs @ 12.17 hrs, Volume= 0.505 af
 Outflow = 0.29 cfs @ 14.67 hrs, Volume= 0.398 af, Atten= 95%, Lag= 149.4 min
 Primary = 0.29 cfs @ 14.67 hrs, Volume= 0.398 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 146.08' @ 14.67 hrs Surf.Area= 6,590 sf Storage= 14,518 cf

Plug-Flow detention time= 580.4 min calculated for 0.398 af (79% of inflow)
 Center-of-Mass det. time= 493.8 min (1,293.7 - 799.9)

Volume	Invert	Avail.Storage	Storage Description
#1	143.30'	36,073 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
143.30	0	0	0
144.00	5,522	1,933	1,933
145.00	6,025	5,774	7,706
146.00	6,547	6,286	13,992
147.00	7,081	6,814	20,806
148.00	7,630	7,356	28,162
149.00	8,193	7,912	36,073

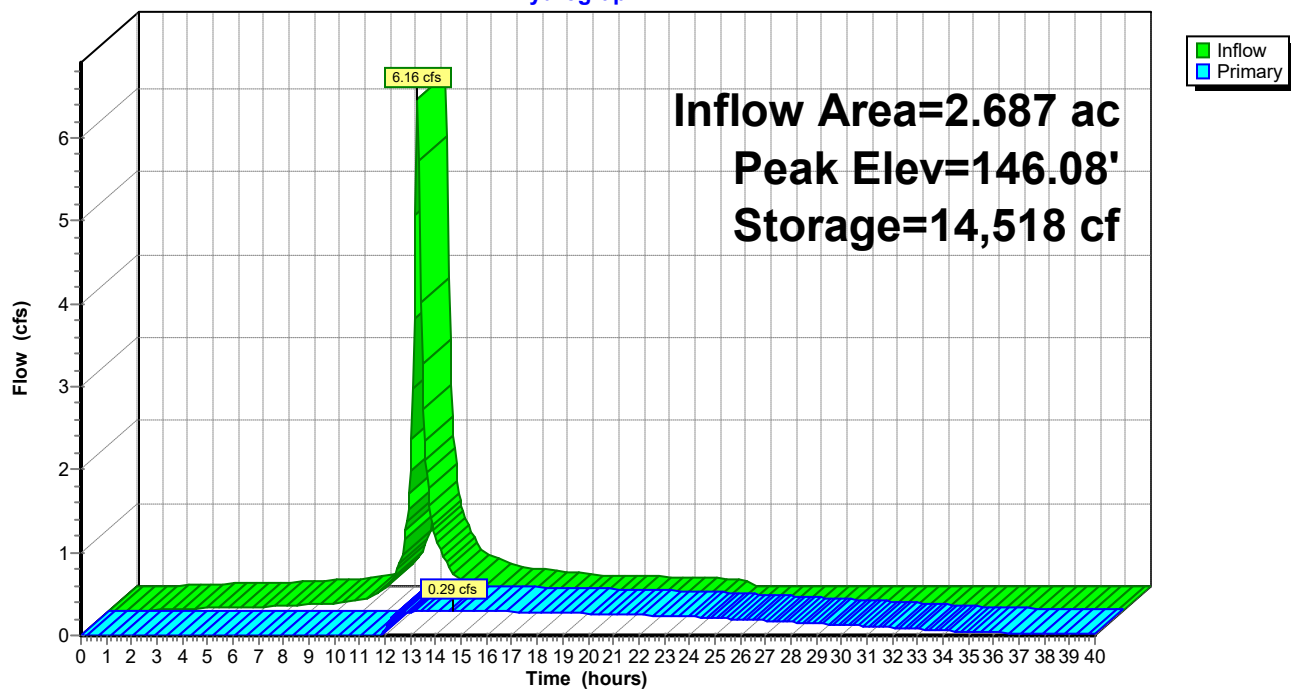
Device	Routing	Invert	Outlet Devices
#1	Primary	143.30'	18.0" Round Culvert L= 234.0' Ke= 0.500 Inlet / Outlet Invert= 143.30' / 142.00' S= 0.0056 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	144.40'	3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	146.09'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	147.98'	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=0.29 cfs @ 14.67 hrs HW=146.08' (Free Discharge)

1=Culvert (Passes 0.29 cfs of 9.48 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.29 cfs @ 6.00 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-26: Basin #26

Hydrograph



Summary for Pond B-27: Basin #27

Inflow Area = 2.414 ac, 48.22% Impervious, Inflow Depth = 2.51" for Future 2 yr event
 Inflow = 6.09 cfs @ 12.17 hrs, Volume= 0.506 af
 Outflow = 4.62 cfs @ 12.26 hrs, Volume= 0.397 af, Atten= 24%, Lag= 5.2 min
 Primary = 4.62 cfs @ 12.26 hrs, Volume= 0.397 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 184.95' @ 12.26 hrs Surf.Area= 3,117 sf Storage= 7,086 cf

Plug-Flow detention time= 161.3 min calculated for 0.397 af (79% of inflow)
 Center-of-Mass det. time= 74.5 min (862.8 - 788.3)

Volume	Invert	Avail.Storage	Storage Description
#1	180.30'	14,865 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
180.30	0	0	0
181.00	245	86	86
182.00	1,153	699	785
183.00	1,819	1,486	2,271
184.00	2,484	2,152	4,422
185.00	3,149	2,817	7,239
186.00	3,813	3,481	10,720
187.00	4,478	4,146	14,865

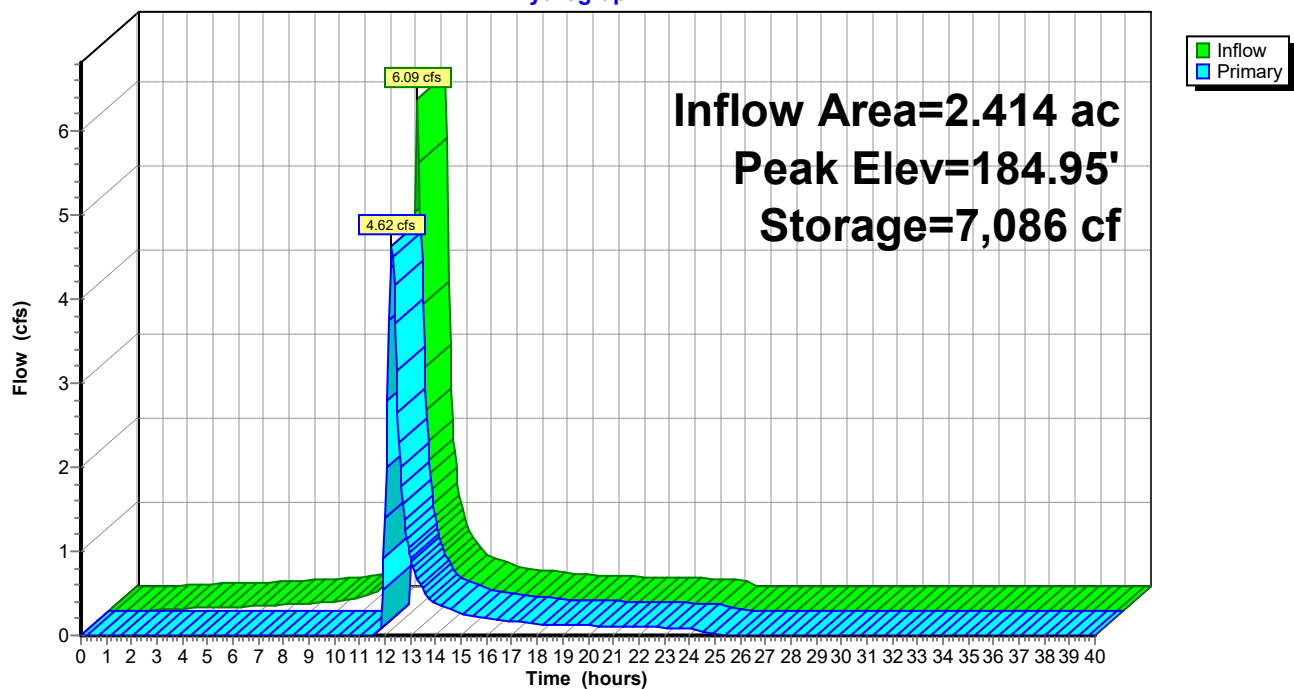
Device	Routing	Invert	Outlet Devices
#1	Primary	179.65'	18.0" Round Culvert L= 194.0' Ke= 0.500 Inlet / Outlet Invert= 179.65' / 170.25' S= 0.0485 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	184.12'	26.0" W x 7.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	184.96'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	186.00'	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=4.59 cfs @ 12.26 hrs HW=184.95' (Free Discharge)

- 1=Culvert (Passes 4.59 cfs of 18.14 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 4.59 cfs @ 3.39 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-27: Basin #27

Hydrograph



Summary for Pond B-28: Basin #28

Inflow Area = 1.917 ac, 53.99% Impervious, Inflow Depth = 2.64" for Future 2 yr event
 Inflow = 5.04 cfs @ 12.17 hrs, Volume= 0.421 af
 Outflow = 4.04 cfs @ 12.25 hrs, Volume= 0.326 af, Atten= 20%, Lag= 4.7 min
 Primary = 4.04 cfs @ 12.25 hrs, Volume= 0.326 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 179.08' @ 12.25 hrs Surf.Area= 3,354 sf Storage= 6,130 cf

Plug-Flow detention time= 167.8 min calculated for 0.326 af (77% of inflow)
 Center-of-Mass det. time= 79.0 min (862.6 - 783.6)

Volume	Invert	Avail.Storage	Storage Description
#1	176.30'	13,936 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
176.30	0	0	0
177.00	1,909	668	668
178.00	2,585	2,247	2,915
179.00	3,292	2,939	5,854
180.00	4,033	3,663	9,516
181.00	4,806	4,420	13,936

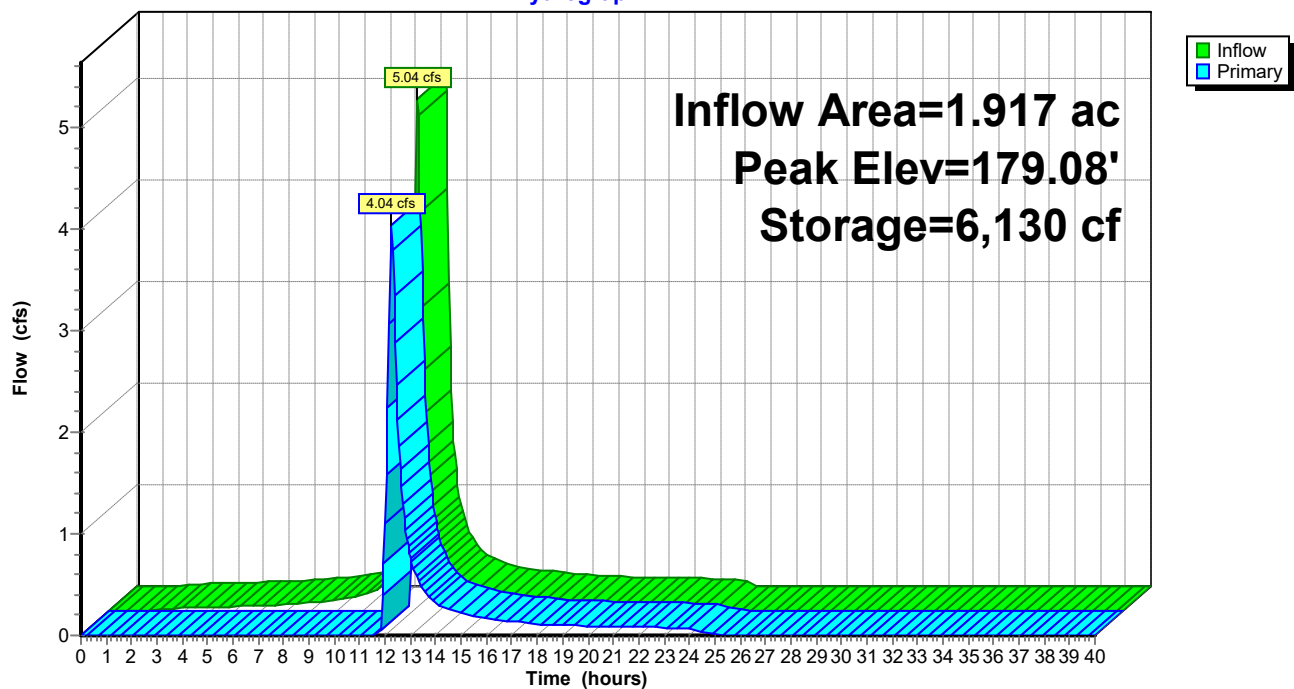
Device	Routing	Invert	Outlet Devices
#1	Primary	175.65'	18.0" Round Culvert L= 186.0' Ke= 0.500 Inlet / Outlet Invert= 175.65' / 168.80' S= 0.0368 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	178.45'	30.0" W x 9.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	179.09'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	179.84'	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=4.04 cfs @ 12.25 hrs HW=179.08' (Free Discharge)

1=Culvert (Passes 4.04 cfs of 13.94 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 4.04 cfs @ 2.55 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-28: Basin #28

Hydrograph



Summary for Pond B-3: Basin #3

Inflow Area = 2.904 ac, 42.80% Impervious, Inflow Depth = 2.40" for Future 2 yr event
 Inflow = 7.03 cfs @ 12.17 hrs, Volume= 0.580 af
 Outflow = 0.10 cfs @ 23.54 hrs, Volume= 0.183 af, Atten= 99%, Lag= 682.1 min
 Primary = 0.10 cfs @ 23.54 hrs, Volume= 0.183 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 214.49' @ 23.54 hrs Surf.Area= 14,272 sf Storage= 21,546 cf

Plug-Flow detention time= 900.6 min calculated for 0.183 af (32% of inflow)
 Center-of-Mass det. time= 730.9 min (1,524.1 - 793.2)

Volume	Invert	Avail.Storage	Storage Description
#1	212.30'	67,257 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
212.30	0	0	0
213.00	9,992	3,497	3,497
214.00	12,803	11,398	14,895
215.00	15,792	14,298	29,192
216.00	18,977	17,385	46,577
217.00	22,384	20,681	67,257

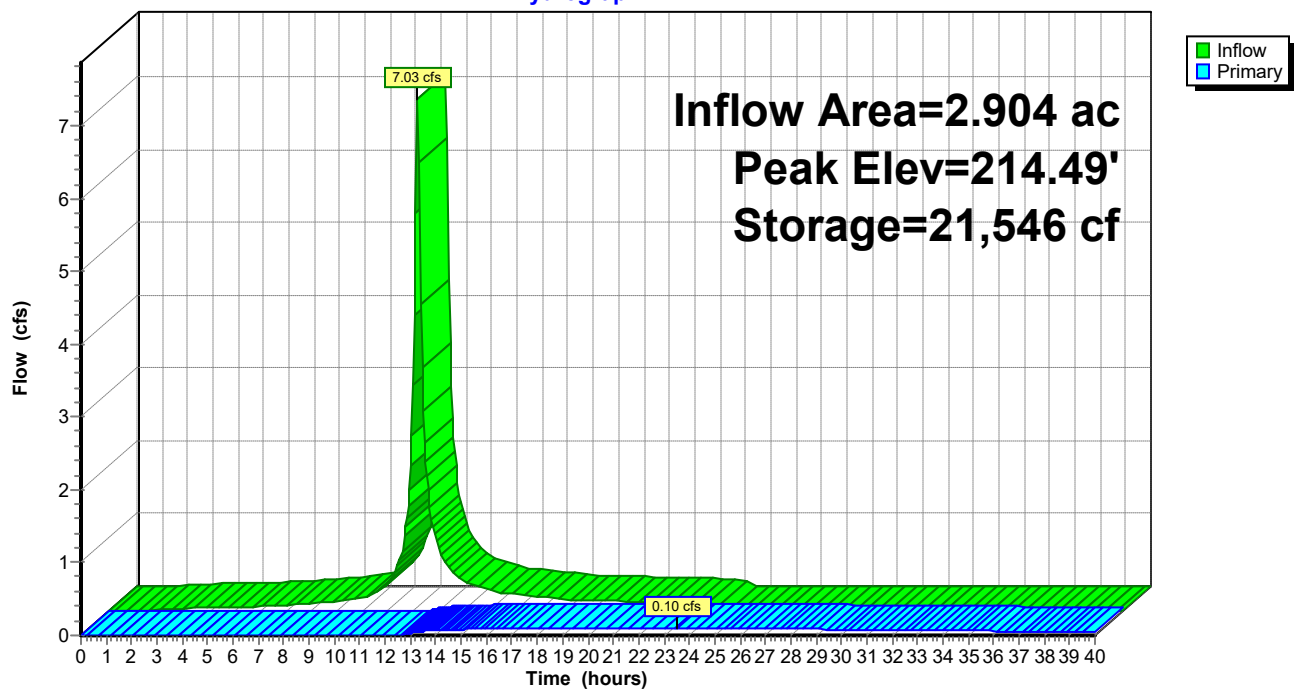
Device	Routing	Invert	Outlet Devices
#1	Primary	212.65'	18.0" Round Culvert L= 122.0' Ke= 0.500 Inlet / Outlet Invert= 212.65' / 204.00' S= 0.0709 ' /' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	214.00'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	214.50'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	215.70'	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=0.10 cfs @ 23.54 hrs HW=214.49' (Free Discharge)

1=Culvert (Passes 0.10 cfs of 8.89 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.10 cfs @ 3.00 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-3: Basin #3

Hydrograph



Summary for Pond B-4: Basin #4

Inflow Area = 2.725 ac, 24.99% Impervious, Inflow Depth = 2.02" for Future 2 yr event
 Inflow = 5.68 cfs @ 12.18 hrs, Volume= 0.458 af
 Outflow = 0.18 cfs @ 16.68 hrs, Volume= 0.330 af, Atten= 97%, Lag= 270.1 min
 Primary = 0.18 cfs @ 16.68 hrs, Volume= 0.330 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 201.37' @ 16.68 hrs Surf.Area= 9,224 sf Storage= 13,986 cf

Plug-Flow detention time= 749.5 min calculated for 0.330 af (72% of inflow)
 Center-of-Mass det. time= 649.1 min (1,462.2 - 813.1)

Volume	Invert	Avail.Storage	Storage Description
#1	199.30'	72,824 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
199.30	0	0	0
200.00	7,419	2,597	2,597
201.00	8,712	8,066	10,662
202.00	10,094	9,403	20,065
203.00	11,557	10,826	30,891
204.00	13,100	12,329	43,219
205.00	14,725	13,913	57,132
206.00	16,659	15,692	72,824

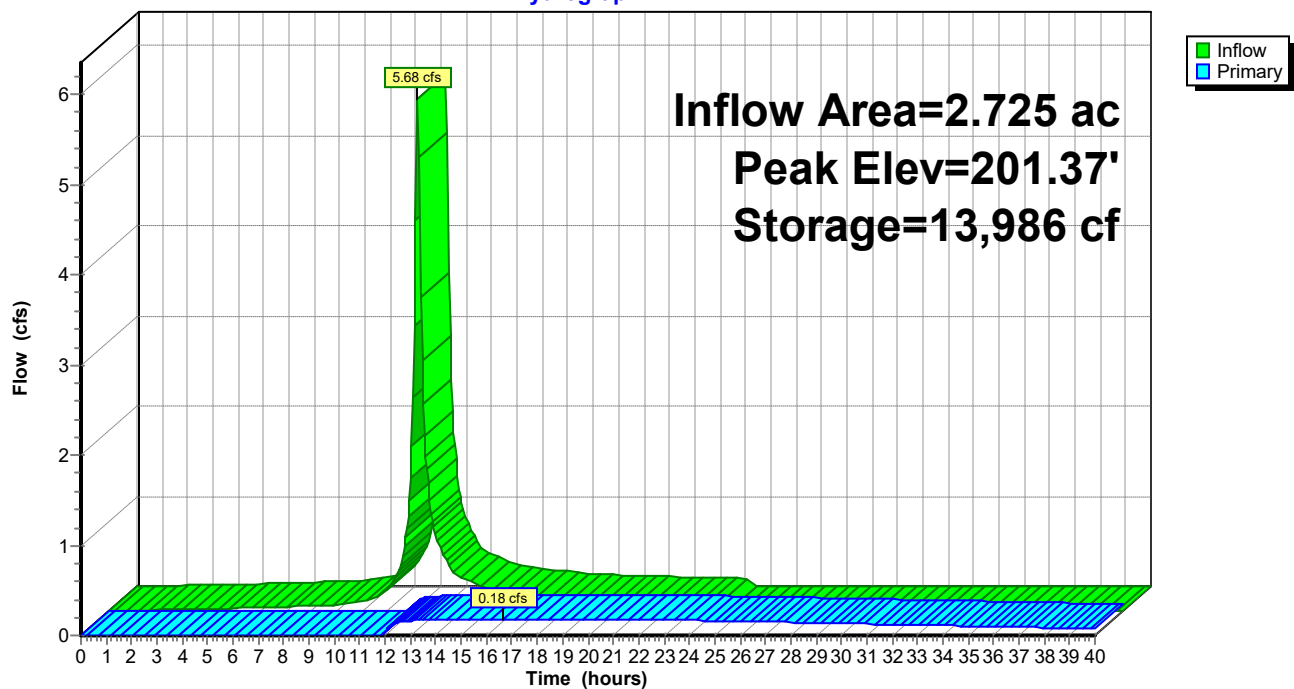
Device	Routing	Invert	Outlet Devices
#1	Primary	198.65'	18.0" Round Culvert L= 58.0' Ke= 0.500 Inlet / Outlet Invert= 198.65' / 198.00' S= 0.0112 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	200.08'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	201.38'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	202.68'	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=0.18 cfs @ 16.68 hrs HW=201.37' (Free Discharge)

- 1=Culvert (Passes 0.18 cfs of 11.94 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.18 cfs @ 5.24 fps)
- 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-4: Basin #4

Hydrograph



Summary for Pond B-5: Basin #5

Inflow Area = 1.419 ac, 34.60% Impervious, Inflow Depth = 2.22" for Future 2 yr event
 Inflow = 3.22 cfs @ 12.17 hrs, Volume= 0.263 af
 Outflow = 0.11 cfs @ 16.06 hrs, Volume= 0.183 af, Atten= 97%, Lag= 232.9 min
 Primary = 0.11 cfs @ 16.06 hrs, Volume= 0.183 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 200.34' @ 16.06 hrs Surf.Area= 12,027 sf Storage= 8,081 cf

Plug-Flow detention time= 728.2 min calculated for 0.183 af (70% of inflow)
 Center-of-Mass det. time= 624.1 min (1,425.6 - 801.5)

Volume	Invert	Avail.Storage	Storage Description
#1	199.30'	96,047 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
199.30	0	0	0
200.00	11,631	4,071	4,071
201.00	12,798	12,215	16,285
202.00	14,009	13,404	29,689
203.00	15,262	14,636	44,324
204.00	16,558	15,910	60,234
205.00	17,896	17,227	77,461
206.00	19,275	18,586	96,047

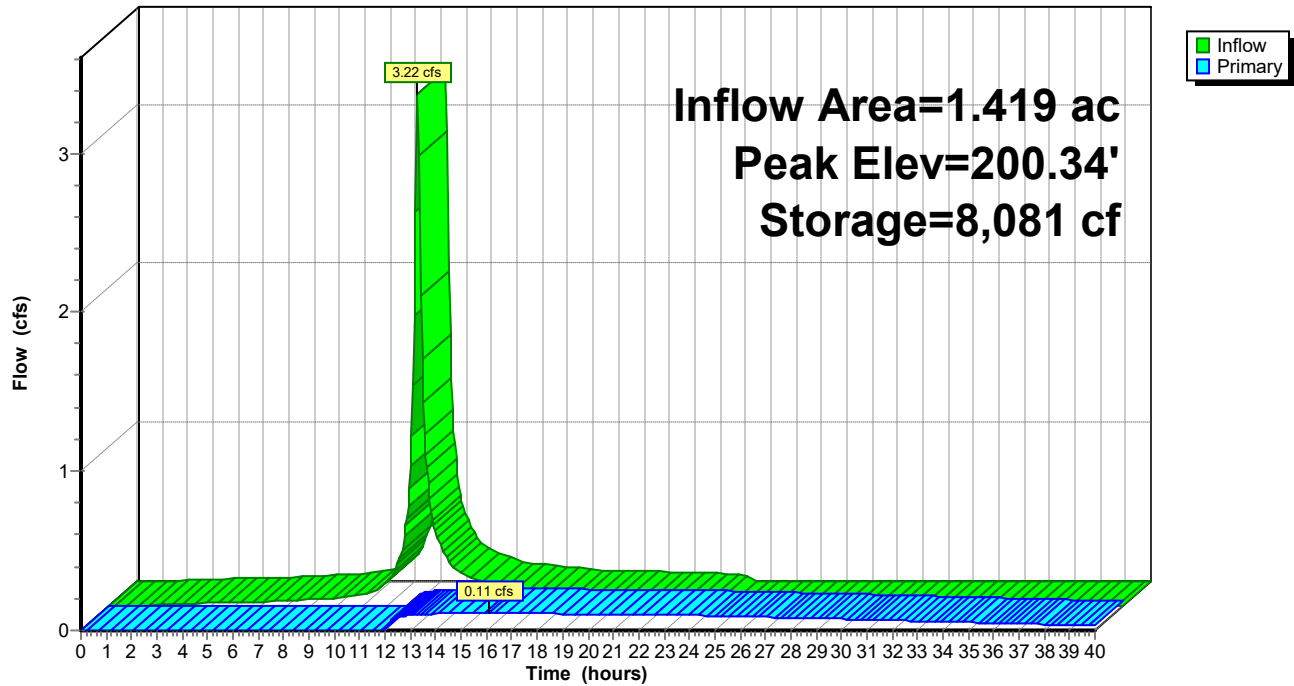
Device	Routing	Invert	Outlet Devices
#1	Primary	198.65'	18.0" Round Culvert L= 70.0' Ke= 0.500 Inlet / Outlet Invert= 198.65' / 196.00' S= 0.0379 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	199.81'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	200.35'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	201.07'	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=0.11 cfs @ 16.06 hrs HW=200.34' (Free Discharge)

- 1=Culvert (Passes 0.11 cfs of 8.25 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.11 cfs @ 3.14 fps)
- 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-5: Basin #5

Hydrograph



Summary for Pond B-6: Basin #6

Inflow Area = 1.191 ac, 58.27% Impervious, Inflow Depth = 2.73" for Future 2 yr event
 Inflow = 3.23 cfs @ 12.17 hrs, Volume= 0.271 af
 Outflow = 0.15 cfs @ 14.58 hrs, Volume= 0.198 af, Atten= 95%, Lag= 144.5 min
 Primary = 0.15 cfs @ 14.58 hrs, Volume= 0.198 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 200.09' @ 14.58 hrs Surf.Area= 6,122 sf Storage= 8,148 cf

Plug-Flow detention time= 607.5 min calculated for 0.197 af (73% of inflow)
 Center-of-Mass det. time= 512.8 min (1,293.2 - 780.4)

Volume	Invert	Avail.Storage	Storage Description
#1	198.30'	37,655 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
198.30	0	0	0
199.00	5,389	1,886	1,886
200.00	6,060	5,725	7,611
201.00	6,761	6,411	14,021
202.00	7,490	7,126	21,147
203.00	8,247	7,869	29,015
204.00	9,032	8,640	37,655

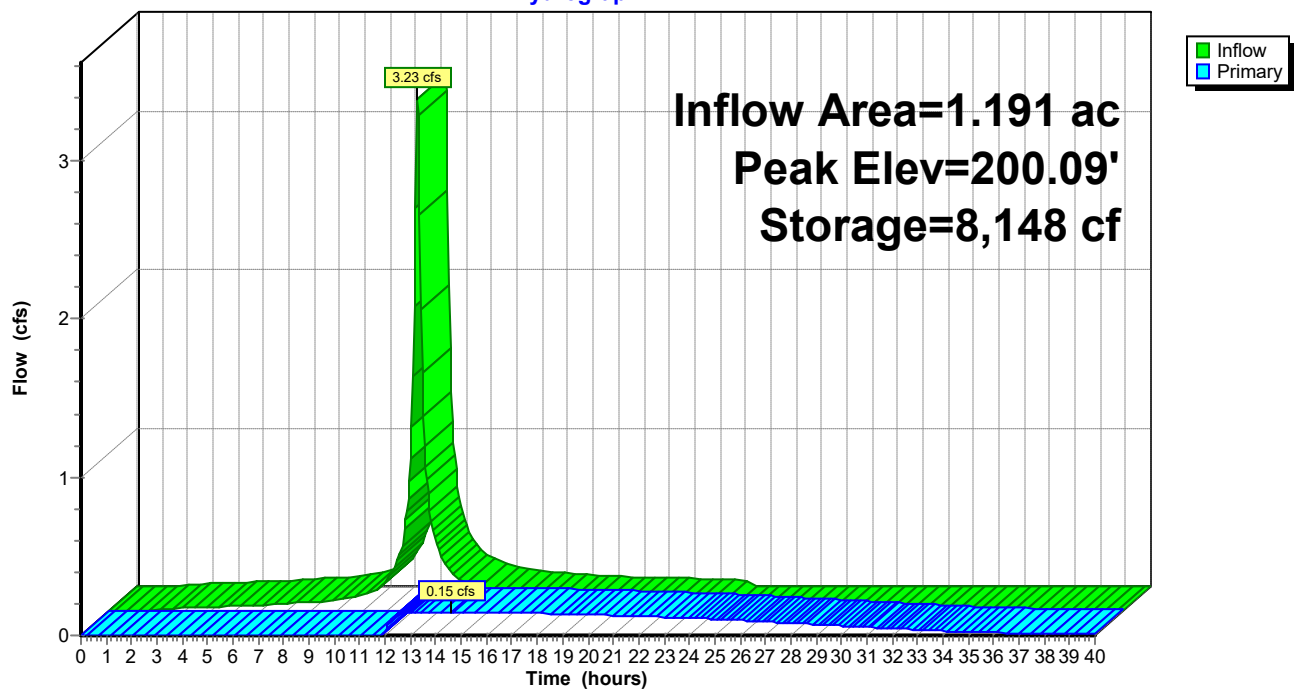
Device	Routing	Invert	Outlet Devices
#1	Primary	197.65'	18.0" Round Culvert L= 627.0' Ke= 0.500 Inlet / Outlet Invert= 197.65' / 194.00' S= 0.0058 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	199.17'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	200.10'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	200.89'	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=0.15 cfs @ 14.58 hrs HW=200.09' (Free Discharge)

1=Culvert (Passes 0.15 cfs of 8.44 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.15 cfs @ 4.34 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-6: Basin #6

Hydrograph



Summary for Pond B-7: Basin #7

Inflow Area = 1.564 ac, 62.85% Impervious, Inflow Depth = 2.82" for Future 2 yr event
 Inflow = 4.37 cfs @ 12.17 hrs, Volume= 0.368 af
 Outflow = 0.14 cfs @ 15.72 hrs, Volume= 0.241 af, Atten= 97%, Lag= 213.0 min
 Primary = 0.14 cfs @ 15.72 hrs, Volume= 0.241 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 207.98' @ 15.72 hrs Surf.Area= 10,148 sf Storage= 11,801 cf

Plug-Flow detention time= 762.8 min calculated for 0.241 af (65% of inflow)
 Center-of-Mass det. time= 656.1 min (1,433.2 - 777.1)

Volume	Invert	Avail.Storage	Storage Description
#1	206.47'	48,130 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
206.47	0	0	0
207.00	8,989	2,382	2,382
208.00	10,166	9,578	11,960
209.00	11,395	10,781	22,740
210.00	12,681	12,038	34,778
211.00	14,023	13,352	48,130

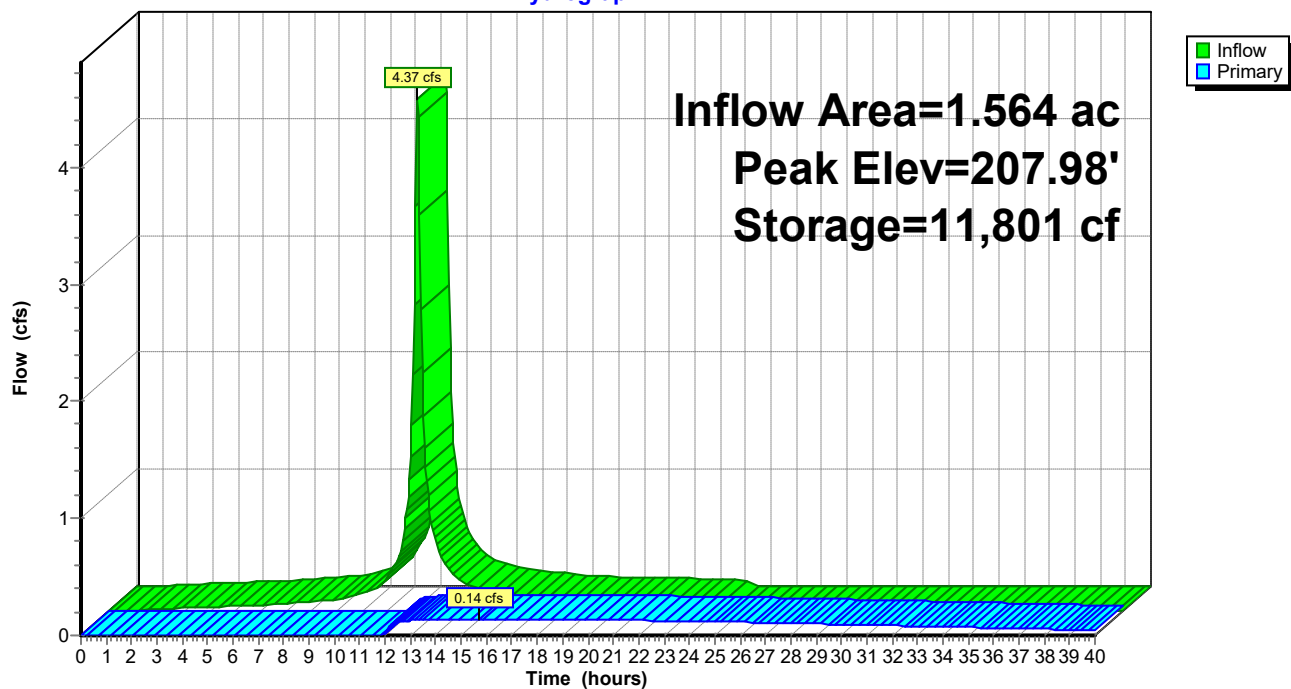
Device	Routing	Invert	Outlet Devices
#1	Primary	206.47'	18.0" Round Culvert L= 94.0' Ke= 0.500 Inlet / Outlet Invert= 206.47' / 206.00' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	207.17'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	207.99'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	208.86'	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=0.14 cfs @ 15.72 hrs HW=207.98' (Free Discharge)

1=Culvert (Passes 0.14 cfs of 6.30 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.14 cfs @ 4.06 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-7: Basin #7

Hydrograph



Summary for Pond B-8: Basin #8

Inflow Area = 2.546 ac, 37.27% Impervious, Inflow Depth = 2.28" for Future 2 yr event
 Inflow = 5.90 cfs @ 12.17 hrs, Volume= 0.484 af
 Outflow = 0.14 cfs @ 17.73 hrs, Volume= 0.283 af, Atten= 98%, Lag= 333.3 min
 Primary = 0.14 cfs @ 17.73 hrs, Volume= 0.283 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 179.82' @ 17.73 hrs Surf.Area= 14,092 sf Storage= 15,826 cf

Plug-Flow detention time= 818.6 min calculated for 0.282 af (58% of inflow)
 Center-of-Mass det. time= 700.6 min (1,499.2 - 798.7)

Volume	Invert	Avail.Storage	Storage Description
#1	178.30'	49,028 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
178.30	0	0	0
179.00	13,283	4,649	4,649
180.00	14,274	13,779	18,428
181.00	15,293	14,784	33,211
182.00	16,341	15,817	49,028

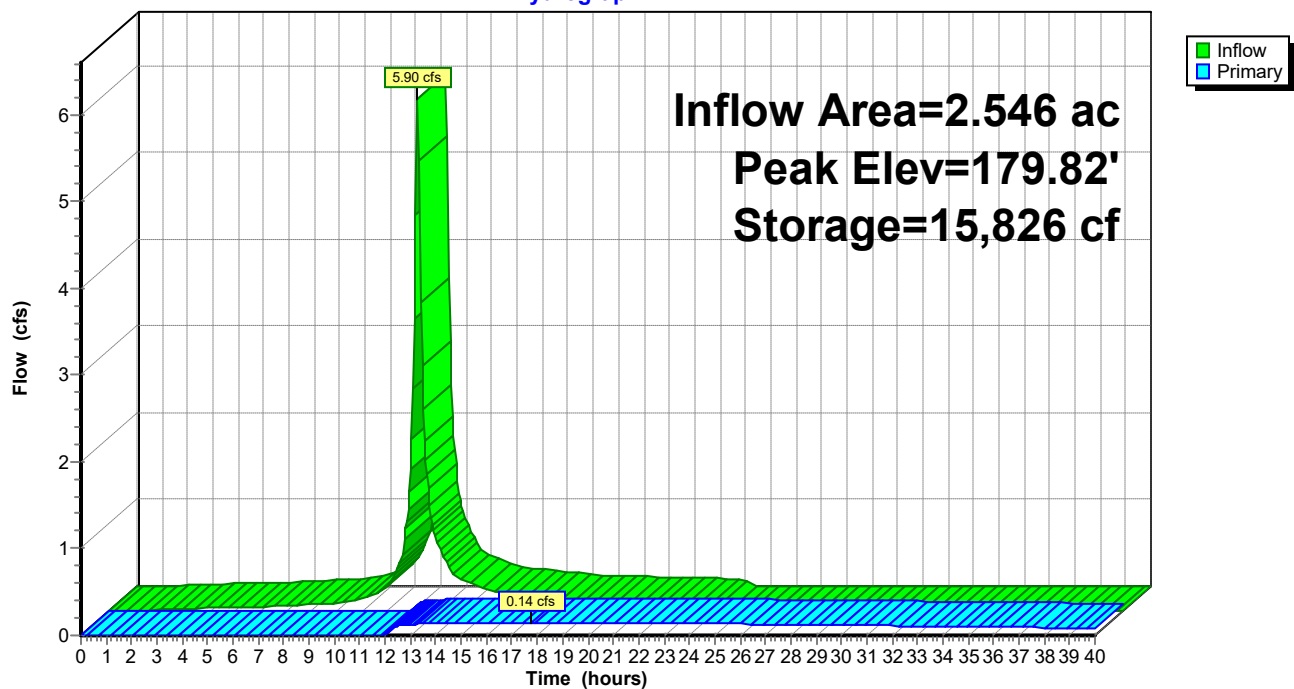
Device	Routing	Invert	Outlet Devices
#1	Primary	178.23'	18.0" Round Culvert L= 46.0' Ke= 0.500 Inlet / Outlet Invert= 178.23' / 178.00' S= 0.0050 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	178.95'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	179.83'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	180.83'	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=0.14 cfs @ 17.73 hrs HW=179.82' (Free Discharge)

1=Culvert (Passes 0.14 cfs of 6.52 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.14 cfs @ 4.20 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-8: Basin #8

Hydrograph



Summary for Pond B-9: Basin #9

Inflow Area = 1.503 ac, 52.63% Impervious, Inflow Depth = 2.61" for Future 2 yr event
 Inflow = 3.91 cfs @ 12.17 hrs, Volume= 0.327 af
 Outflow = 0.12 cfs @ 16.05 hrs, Volume= 0.213 af, Atten= 97%, Lag= 232.8 min
 Primary = 0.12 cfs @ 16.05 hrs, Volume= 0.213 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 179.60' @ 16.05 hrs Surf.Area= 11,311 sf Storage= 10,398 cf

Plug-Flow detention time= 760.5 min calculated for 0.213 af (65% of inflow)
 Center-of-Mass det. time= 652.2 min (1,436.9 - 784.7)

Volume	Invert	Avail.Storage	Storage Description
#1	178.30'	40,392 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
178.30	0	0	0
179.00	10,720	3,752	3,752
180.00	11,700	11,210	14,962
181.00	12,708	12,204	27,166
182.00	13,745	13,227	40,392

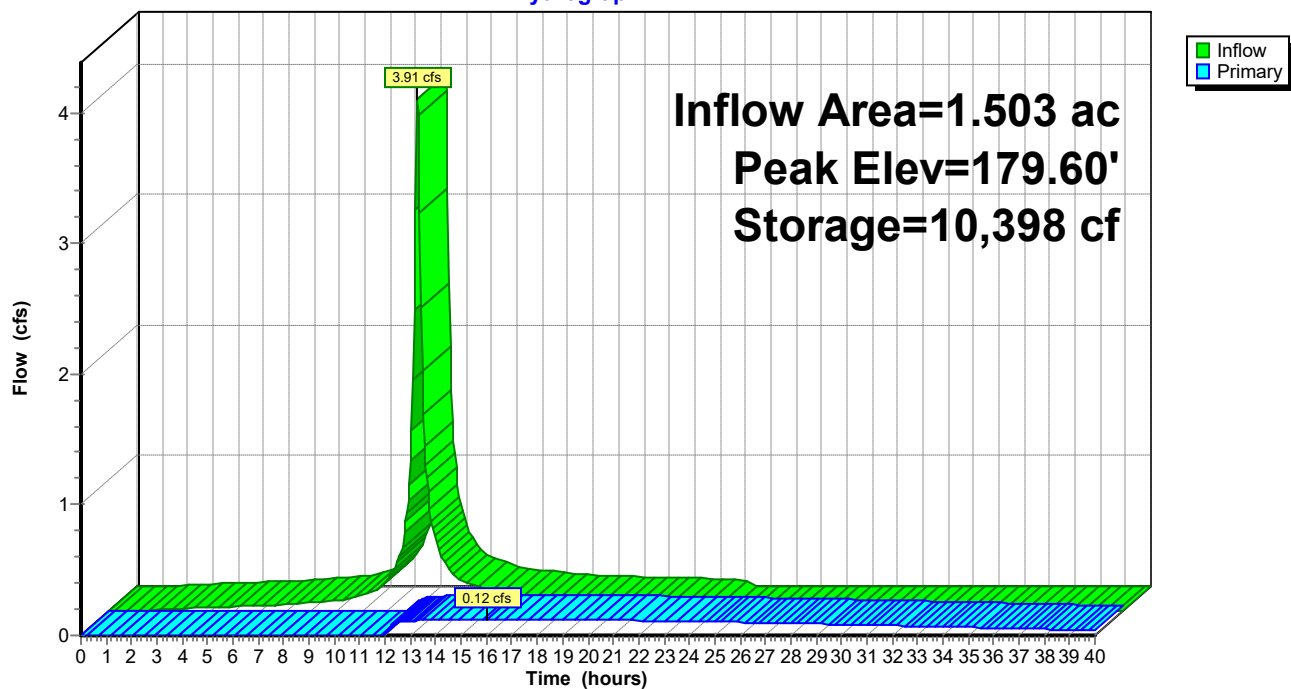
Device	Routing	Invert	Outlet Devices
#1	Primary	178.23'	18.0" Round Culvert L= 45.0' Ke= 0.500 Inlet / Outlet Invert= 178.23' / 178.00' S= 0.0051 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	178.95'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	179.61'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	180.31'	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=0.12 cfs @ 16.05 hrs HW=179.60' (Free Discharge)

1=Culvert (Passes 0.12 cfs of 5.35 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.12 cfs @ 3.57 fps)
 3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-9: Basin #9

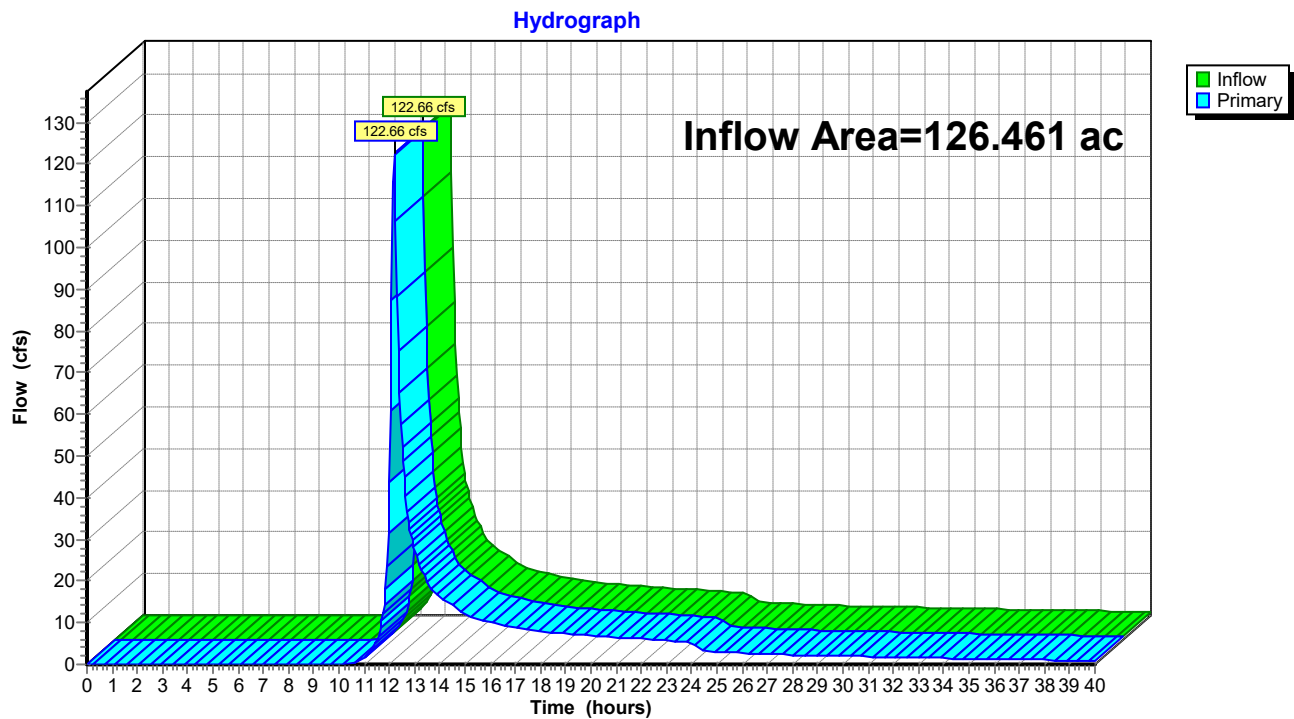
Hydrograph



Summary for Link DP-1: Design Pont #1 (Ewing Creek)

Inflow Area = 126.461 ac, 21.23% Impervious, Inflow Depth > 1.58" for Future 2 yr event
Inflow = 122.66 cfs @ 12.19 hrs, Volume= 16.689 af
Primary = 122.66 cfs @ 12.19 hrs, Volume= 16.689 af, Atten= 0%, Lag= 0.0 min

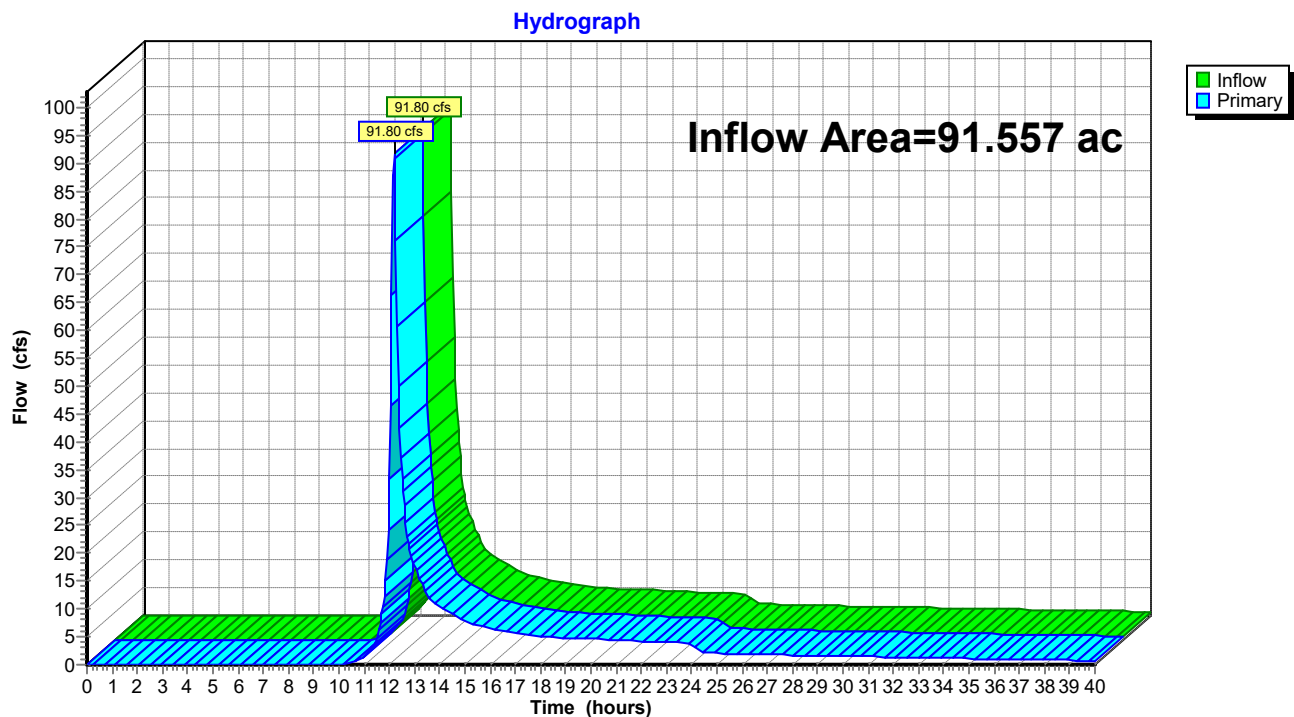
Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

Link DP-1: Design Pont #1 (Ewing Creek)

Summary for Link PDA-1: Proposed Drainage Area #1

Inflow Area = 91.557 ac, 16.93% Impervious, Inflow Depth > 1.51" for Future 2 yr event
Inflow = 91.80 cfs @ 12.18 hrs, Volume= 11.548 af
Primary = 91.80 cfs @ 12.18 hrs, Volume= 11.548 af, Atten= 0%, Lag= 0.0 min
Routed to Link DP-1 : Design Pont #1 (Ewing Creek)

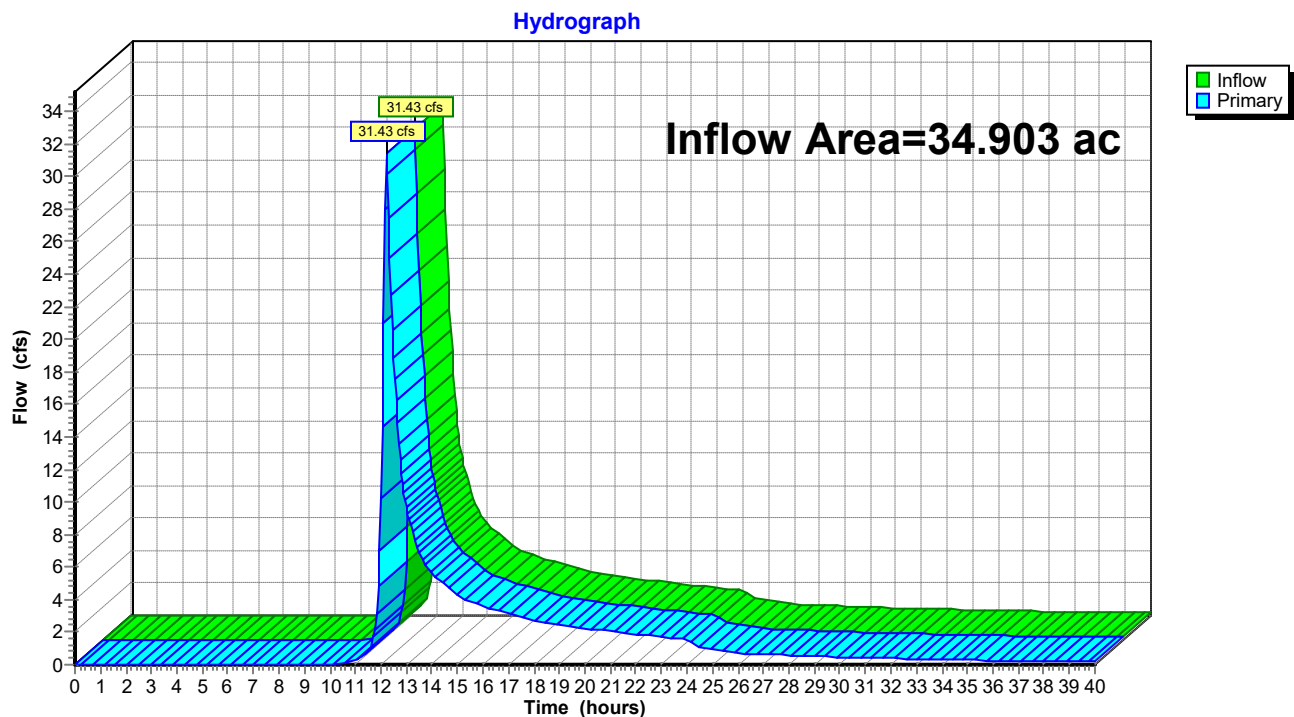
Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

Link PDA-1: Proposed Drainage Area #1

Summary for Link PDA-2: Proposed Drainage Area #2

Inflow Area = 34.903 ac, 32.51% Impervious, Inflow Depth > 1.77" for Future 2 yr event
Inflow = 31.43 cfs @ 12.21 hrs, Volume= 5.140 af
Primary = 31.43 cfs @ 12.21 hrs, Volume= 5.140 af, Atten= 0%, Lag= 0.0 min
Routed to Link DP-1 : Design Pont #1 (Ewing Creek)

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

Link PDA-2: Proposed Drainage Area #2

Summary for Subcatchment 1I: PDA-1 (impervious)

Runoff = 0.63 cfs @ 12.17 hrs, Volume= 0.056 af, Depth= 5.61"
 Routed to Pond B-1 : Basin #1

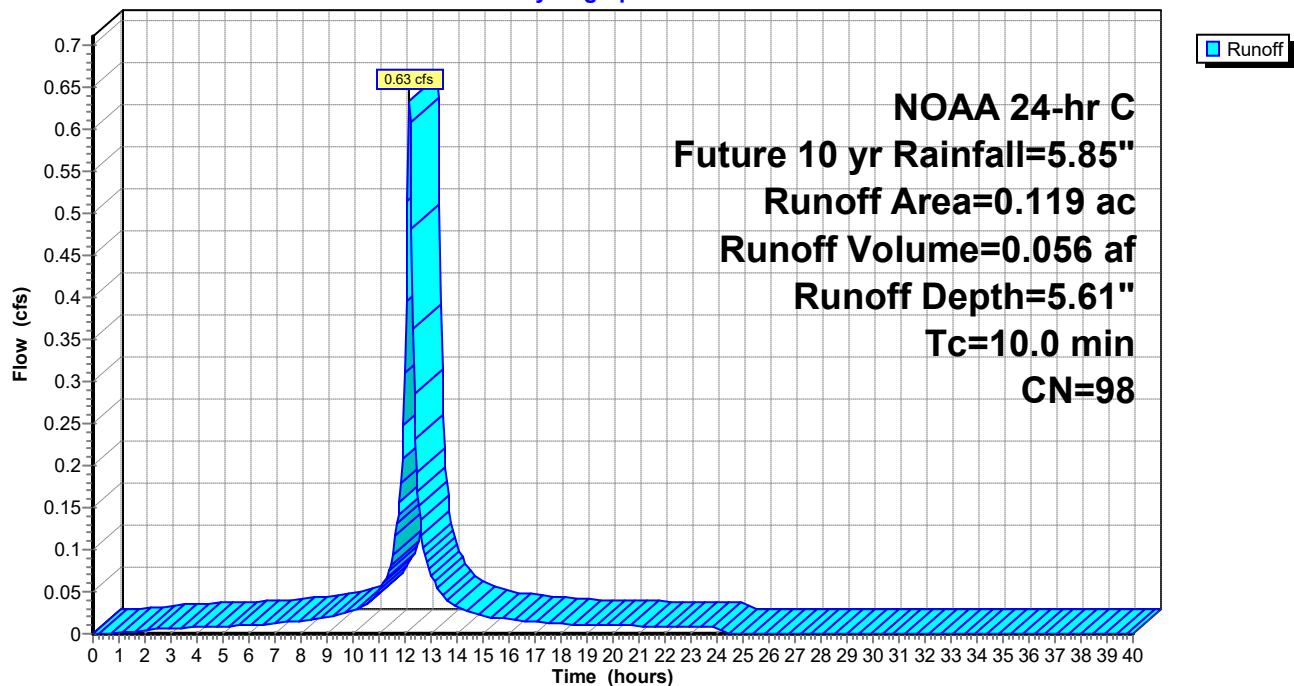
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.115	98	Pavement, HSG C
* 0.004	98	Concrete, HSG C
0.119	98	Weighted Average
0.119		100.00% Impervious Area

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

Subcatchment 1I: PDA-1 (impervious)

Hydrograph



Summary for Subcatchment 1P: PDA-1 (pervious)

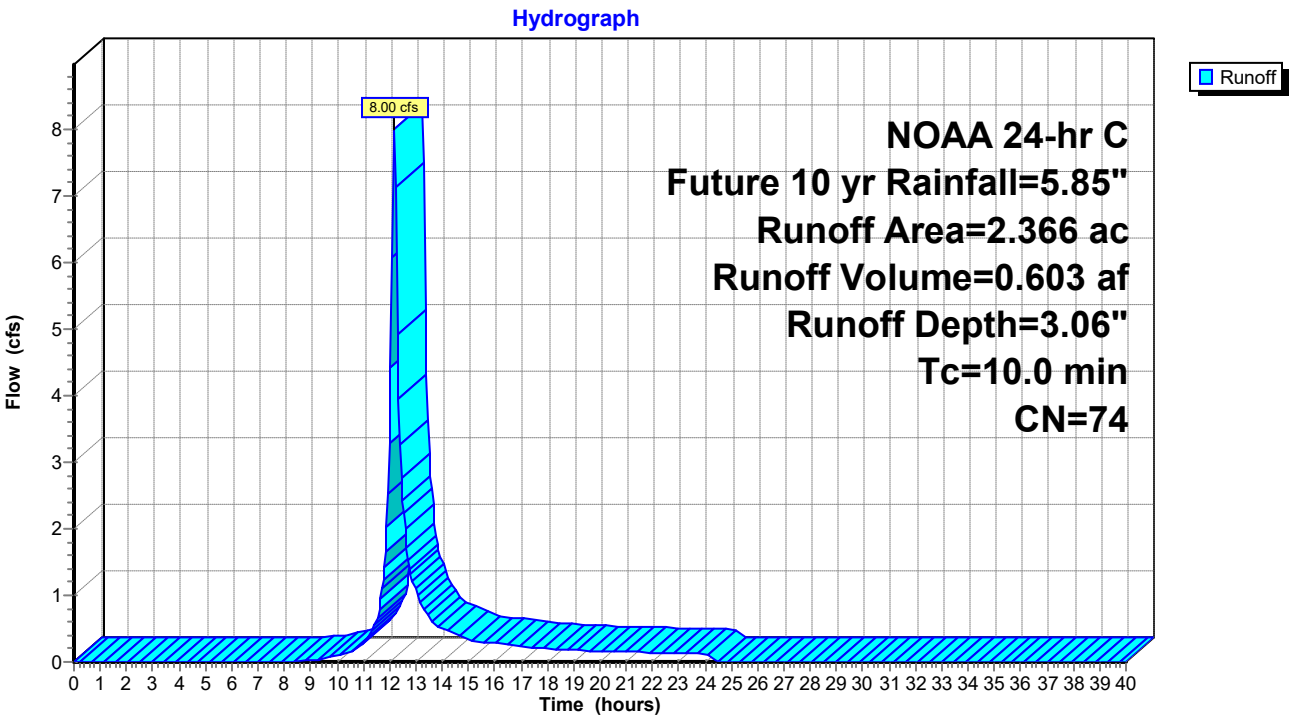
Runoff = 8.00 cfs @ 12.18 hrs, Volume= 0.603 af, Depth= 3.06"
Routed to Pond B-1 : Basin #1

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
2.366	74	>75% Grass cover, Good, HSG C
2.366		100.00% Pervious Area

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

Subcatchment 1P: PDA-1 (pervious)



Summary for Subcatchment 2I: PDA-2 (impervious)

Runoff = 4.32 cfs @ 12.17 hrs, Volume= 0.379 af, Depth= 5.61"
 Routed to Pond B-2 : Basin #2

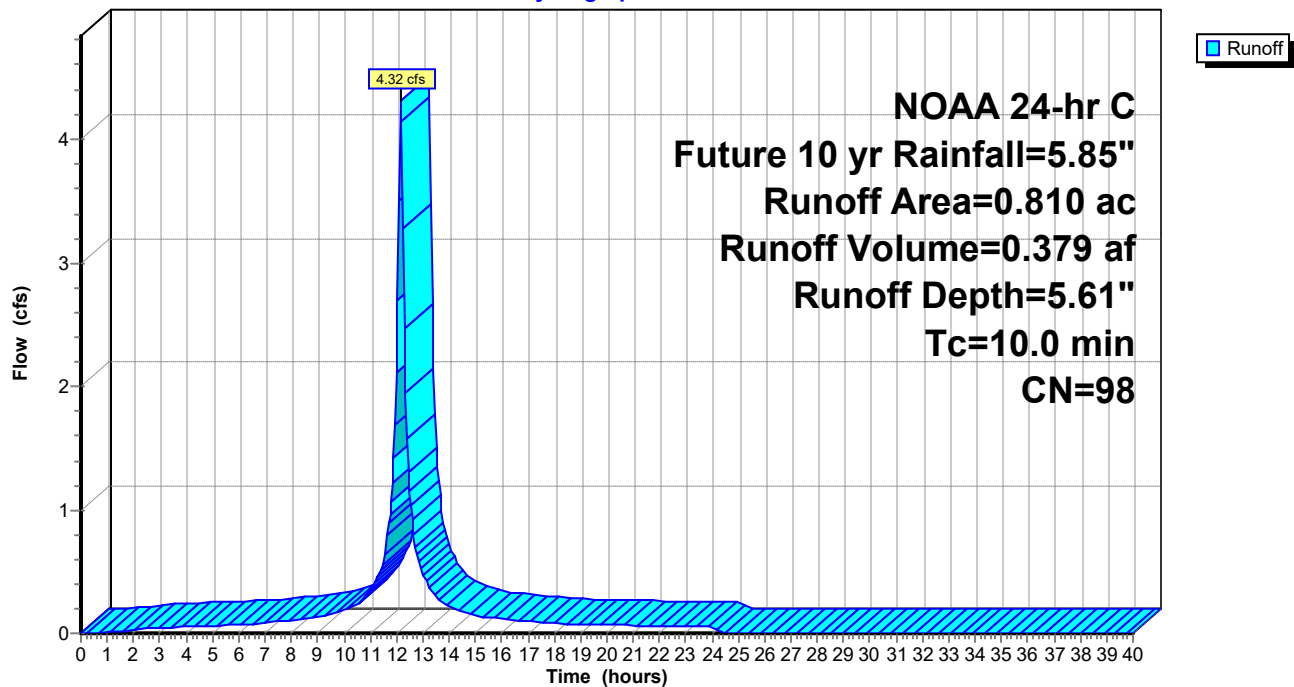
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.490	98	Roof, HSG C
* 0.269	98	Pavement, HSG C
* 0.051	98	Concrete, HSG C
0.810	98	Weighted Average
0.810		100.00% Impervious Area

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

Subcatchment 2I: PDA-2 (impervious)

Hydrograph



Summary for Subcatchment 2P: PDA-2 (pervious)

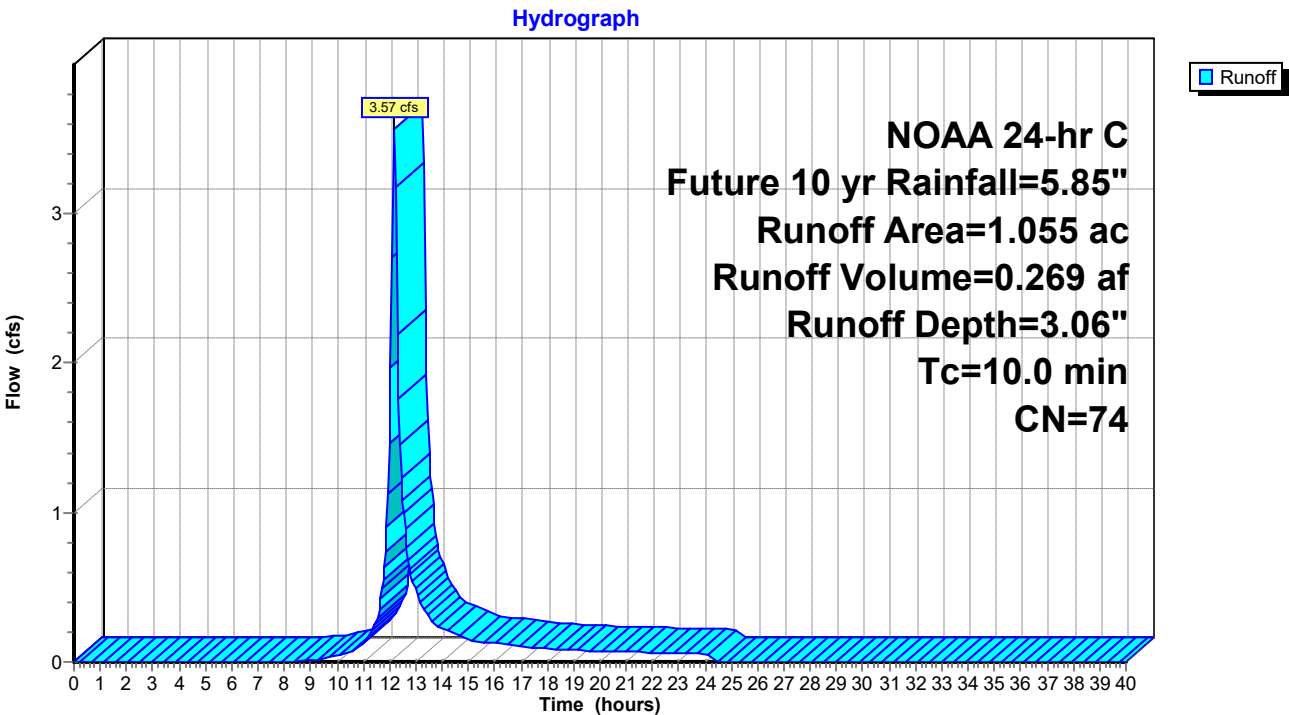
Runoff = 3.57 cfs @ 12.18 hrs, Volume= 0.269 af, Depth= 3.06"
Routed to Pond B-2 : Basin #2

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
1.055	74	>75% Grass cover, Good, HSG C
1.055		100.00% Pervious Area

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

Subcatchment 2P: PDA-2 (pervious)



Summary for Subcatchment 3I: PDA-3 (impervious)

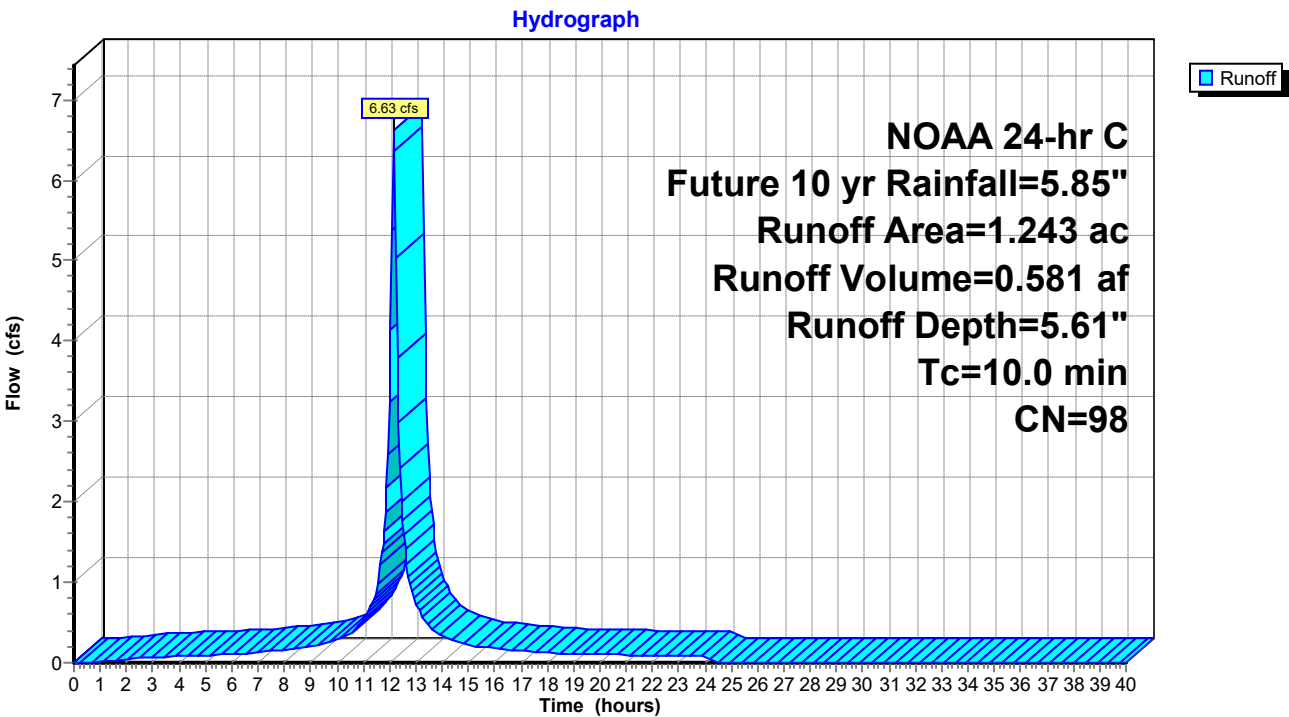
Runoff = 6.63 cfs @ 12.17 hrs, Volume= 0.581 af, Depth= 5.61"
Routed to Pond B-3 : Basin #3

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 1.162	98	Pavement, HSG C
* 0.081	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 3I: PDA-3 (impervious)



Summary for Subcatchment 3P: PDA-3 (pervious)

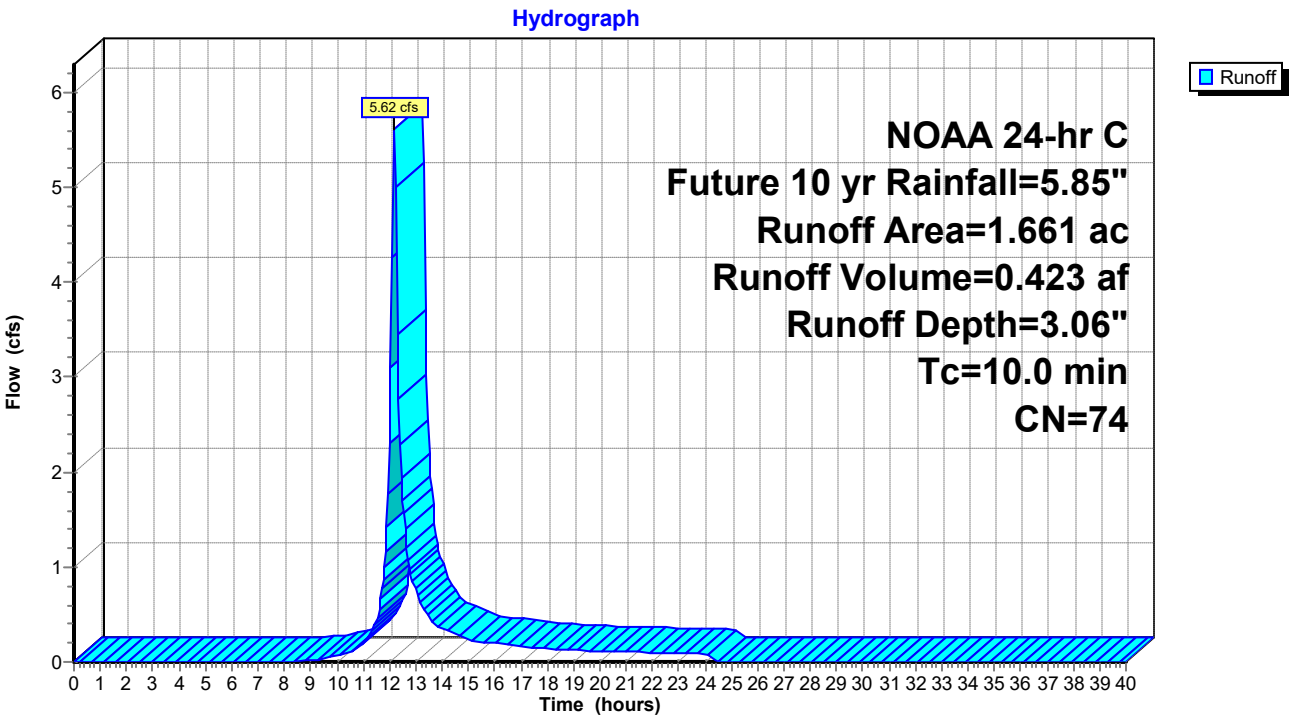
Runoff = 5.62 cfs @ 12.18 hrs, Volume= 0.423 af, Depth= 3.06"
Routed to Pond B-3 : Basin #3

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
1.661	74	>75% Grass cover, Good, HSG C
1.661		100.00% Pervious Area

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

Subcatchment 3P: PDA-3 (pervious)



Summary for Subcatchment 4I: PDA-4 (impervious)

Runoff = 3.63 cfs @ 12.17 hrs, Volume= 0.318 af, Depth= 5.61"
 Routed to Pond B-4 : Basin #4

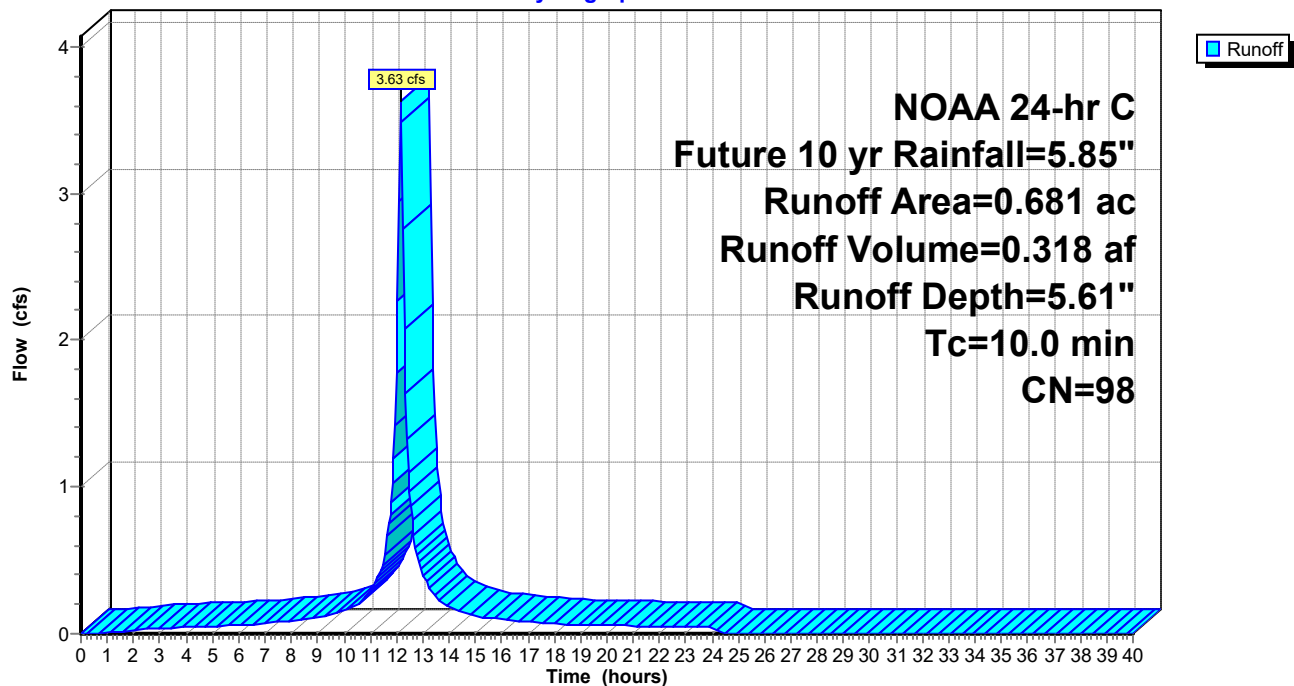
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.433	98	Pavement, HSG C
* 0.248	98	Concrete, HSG C
0.681	98	Weighted Average
0.681		100.00% Impervious Area

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

Subcatchment 4I: PDA-4 (impervious)

Hydrograph



Summary for Subcatchment 4P: PDA-4 (pervious)

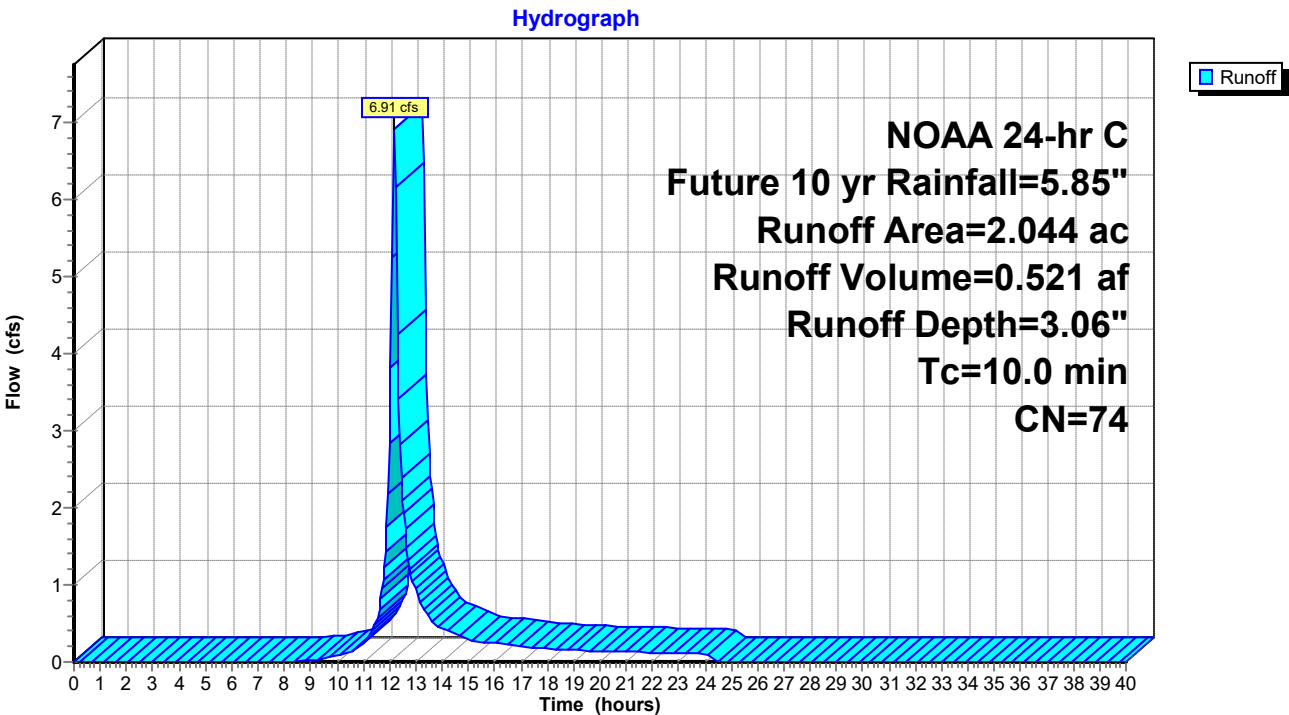
Runoff = 6.91 cfs @ 12.18 hrs, Volume= 0.521 af, Depth= 3.06"
Routed to Pond B-4 : Basin #4

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
2.044	74	>75% Grass cover, Good, HSG C
2.044		100.00% Pervious Area

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

Subcatchment 4P: PDA-4 (pervious)



Summary for Subcatchment 5I: PDA-5 (impervious)

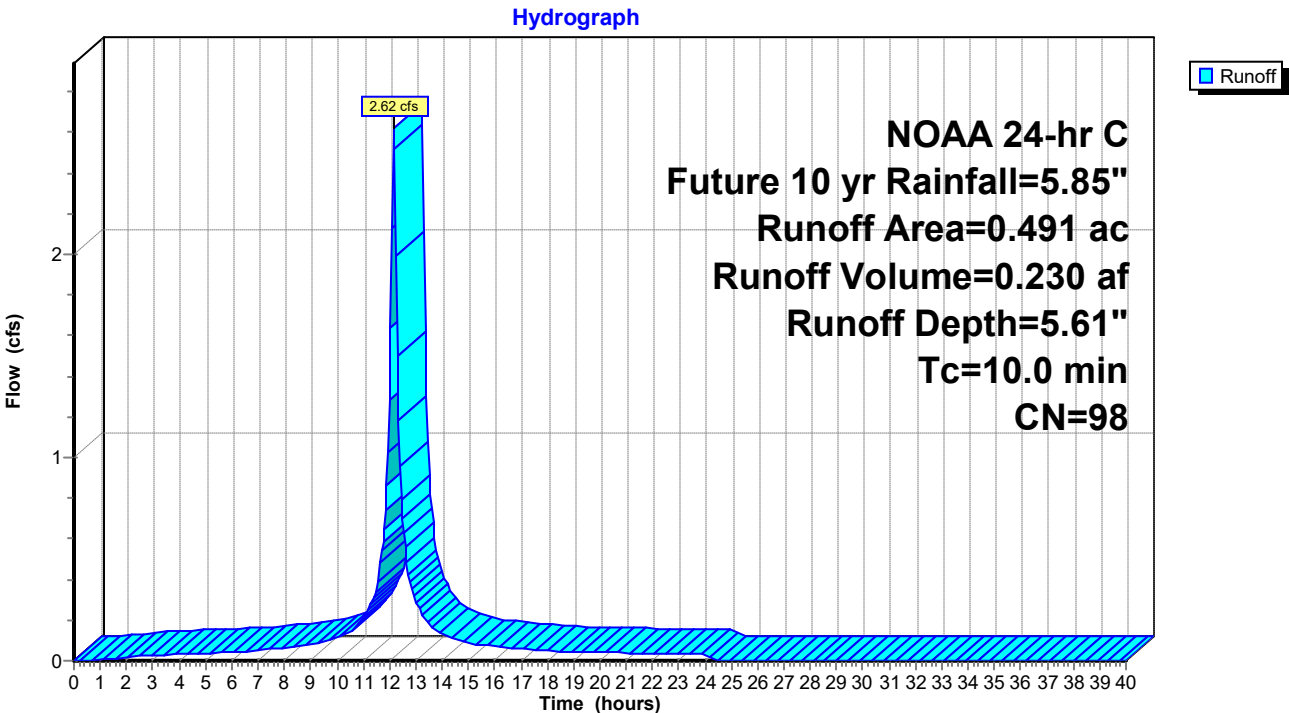
Runoff = 2.62 cfs @ 12.17 hrs, Volume= 0.230 af, Depth= 5.61"
Routed to Pond B-5 : Basin #5

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.393	98	Pavement, HSG C
* 0.098	98	Concrete, HSG C
0.491	98	Weighted Average
0.491		100.00% Impervious Area

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

Subcatchment 5I: PDA-5 (impervious)



Summary for Subcatchment 5P: PDA-5 (pervious)

Runoff = 3.14 cfs @ 12.18 hrs, Volume= 0.237 af, Depth= 3.06"
 Routed to Pond B-5 : Basin #5

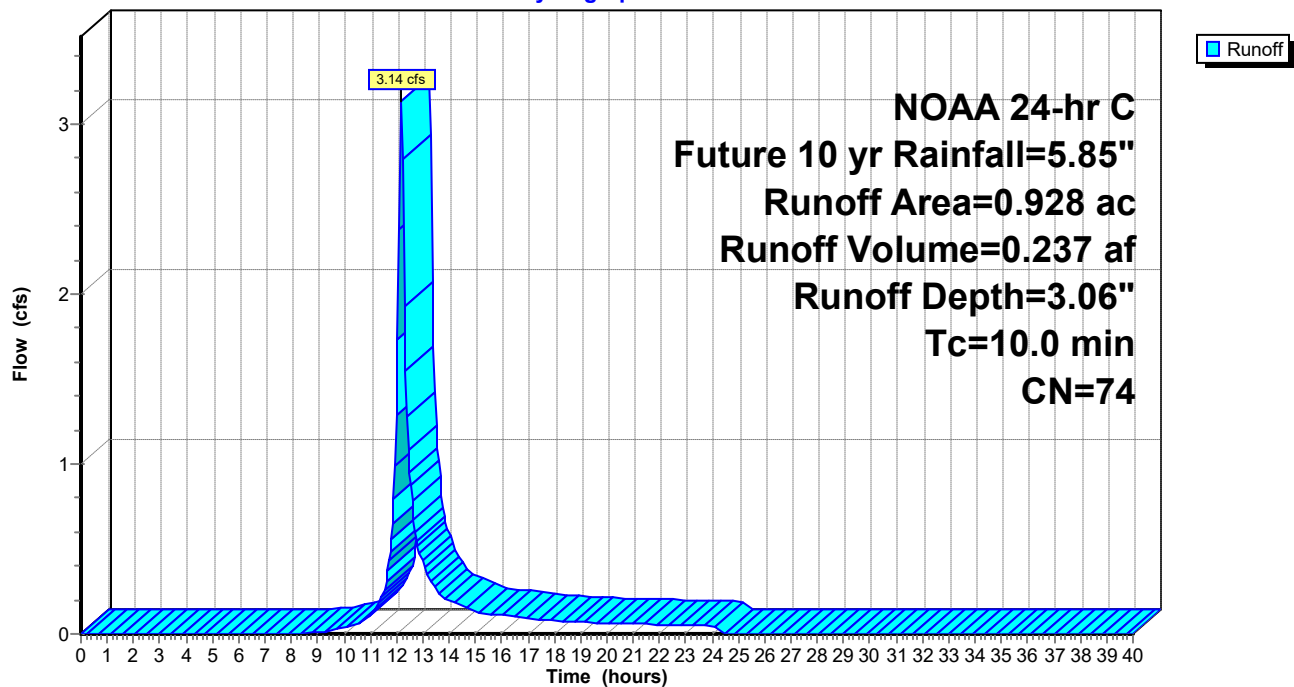
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
0.928	74	>75% Grass cover, Good, HSG C
0.928		100.00% Pervious Area

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

Subcatchment 5P: PDA-5 (pervious)

Hydrograph



Summary for Subcatchment 6I: PDA-6 (impervious)

Runoff = 3.70 cfs @ 12.17 hrs, Volume= 0.325 af, Depth= 5.61"
 Routed to Pond B-6 : Basin #6

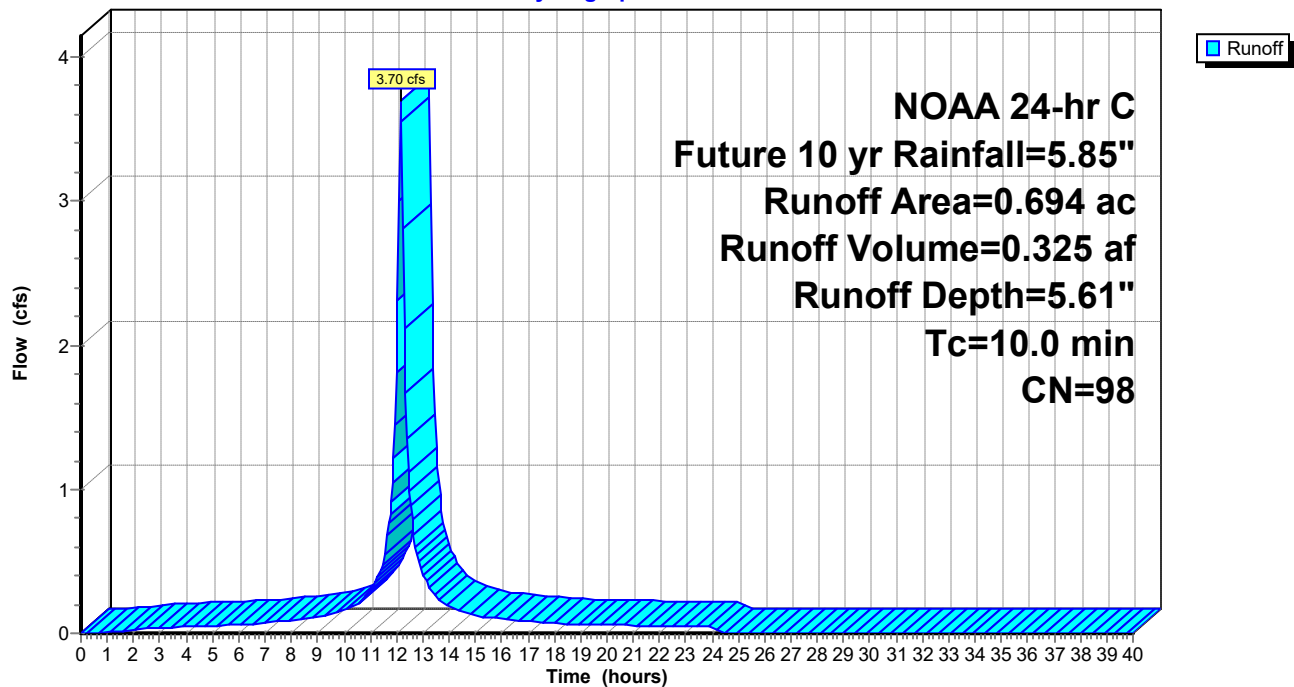
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.459	98	Pavement, HSG C
* 0.129	98	Roof, HSG C
* 0.106	98	Concrete, HSG C
0.694	98	Weighted Average
0.694		100.00% Impervious Area

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

Subcatchment 6I: PDA-6 (impervious)

Hydrograph



Summary for Subcatchment 6P: PDA-6 (pervious)

Runoff = 1.68 cfs @ 12.18 hrs, Volume= 0.127 af, Depth= 3.06"
 Routed to Pond B-6 : Basin #6

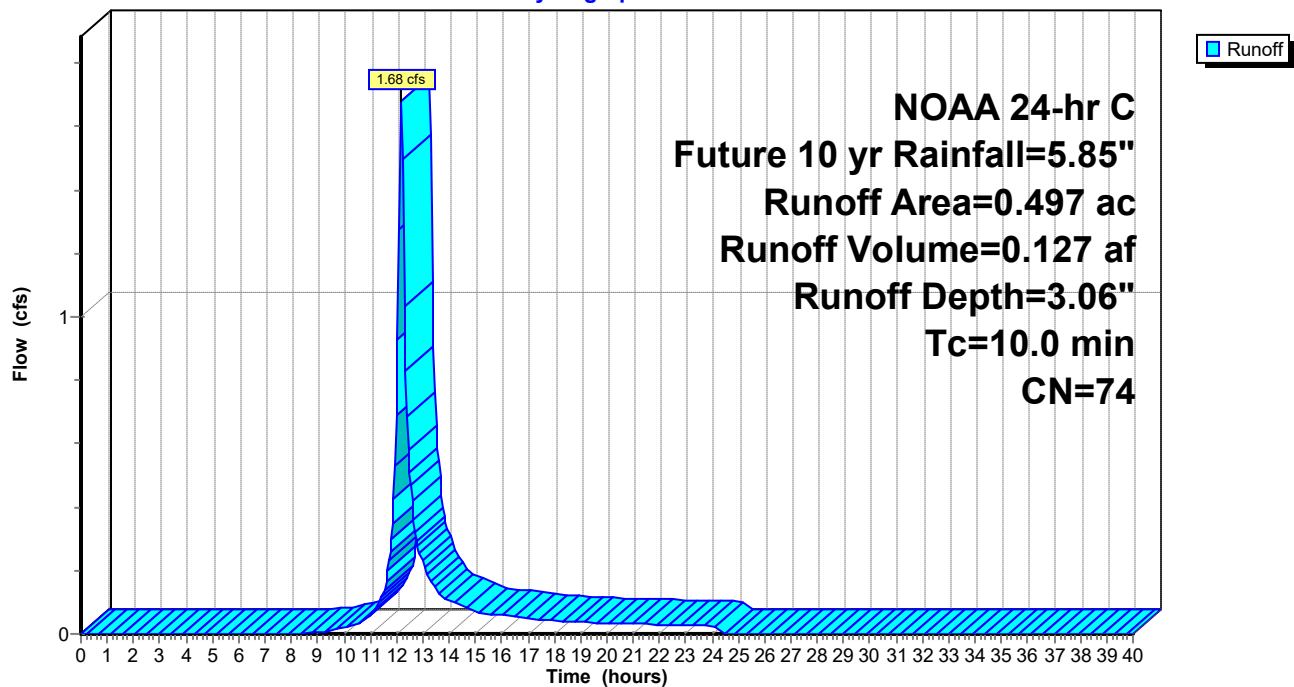
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
0.497	74	>75% Grass cover, Good, HSG C
0.497		100.00% Pervious Area

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

Subcatchment 6P: PDA-6 (pervious)

Hydrograph



Summary for Subcatchment 7I: PDA-7 (impervious)

Runoff = 5.24 cfs @ 12.17 hrs, Volume= 0.460 af, Depth= 5.61"
 Routed to Pond B-7 : Basin #7

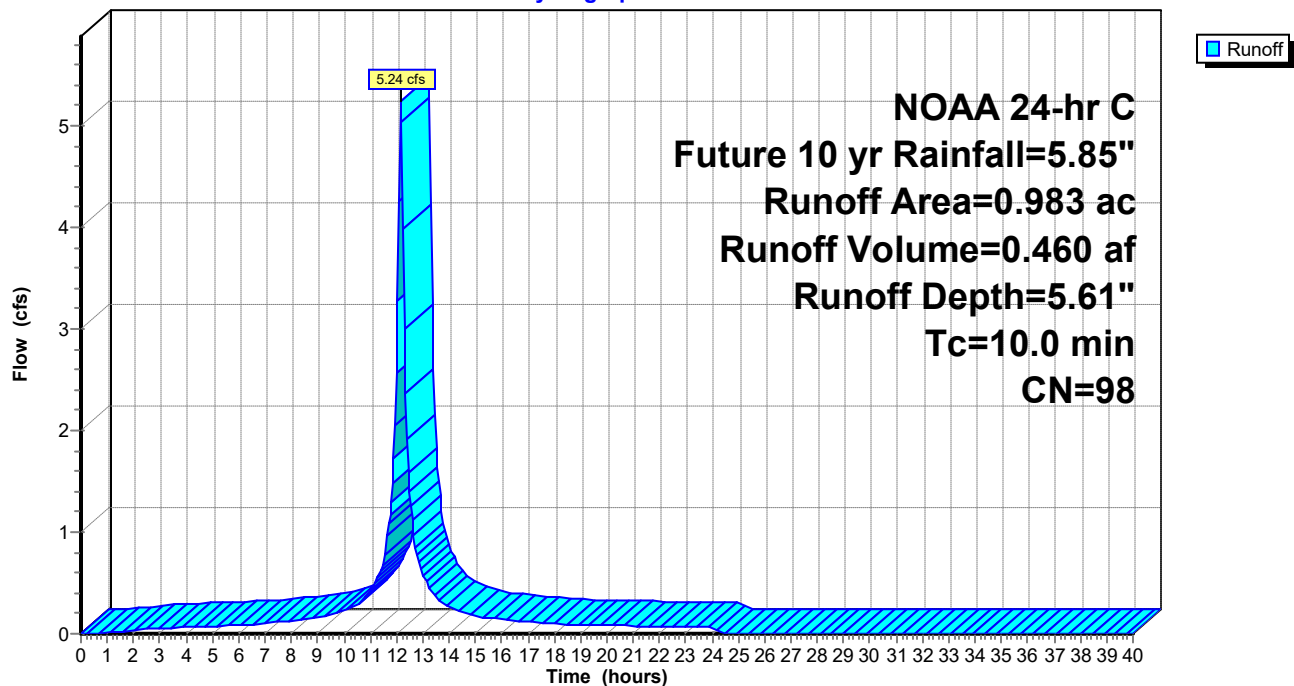
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.886	98	Pavement, HSG C
* 0.097	98	Concrete, HSG C
0.983	98	Weighted Average
0.983		100.00% Impervious Area

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

Subcatchment 7I: PDA-7 (impervious)

Hydrograph



Summary for Subcatchment 7P: PDA-7 (pervious)

Runoff = 1.96 cfs @ 12.18 hrs, Volume= 0.148 af, Depth= 3.06"
 Routed to Pond B-7 : Basin #7

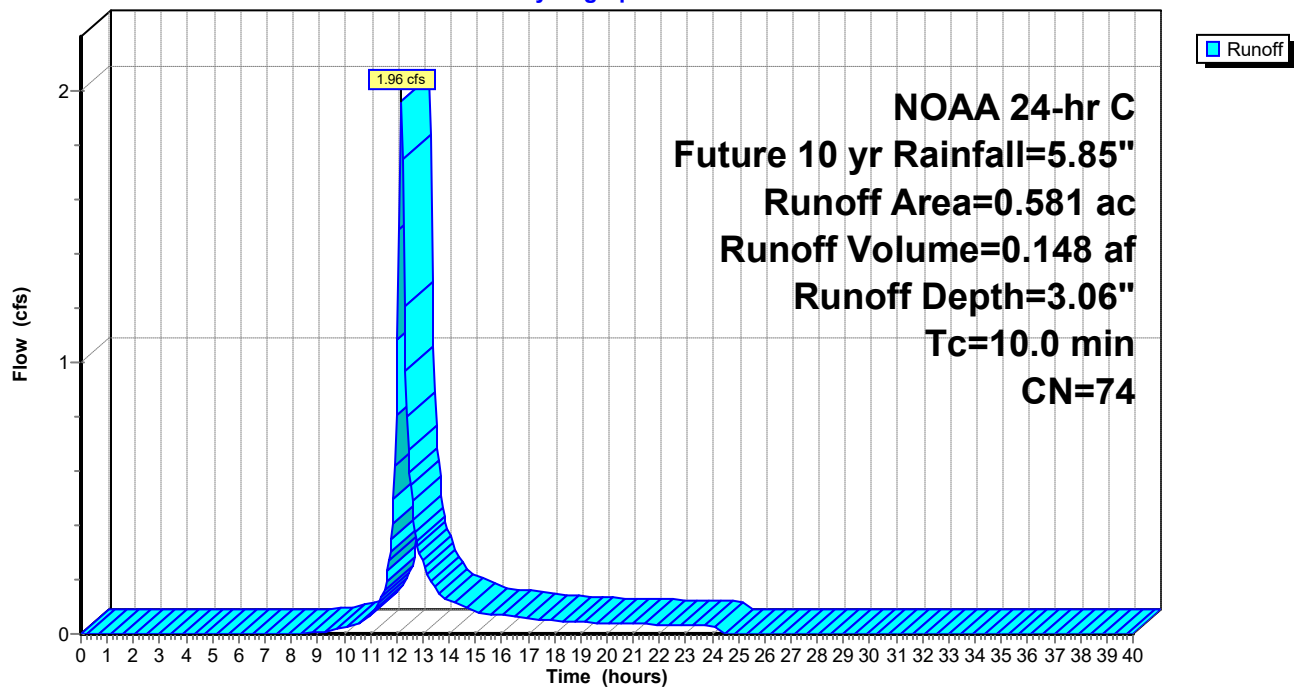
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
0.581	74	>75% Grass cover, Good, HSG C
0.581		100.00% Pervious Area

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

Subcatchment 7P: PDA-7 (pervious)

Hydrograph



Summary for Subcatchment 8I: PDA-8 (impervious)

Runoff = 5.06 cfs @ 12.17 hrs, Volume= 0.444 af, Depth= 5.61"
 Routed to Pond B-8 : Basin #8

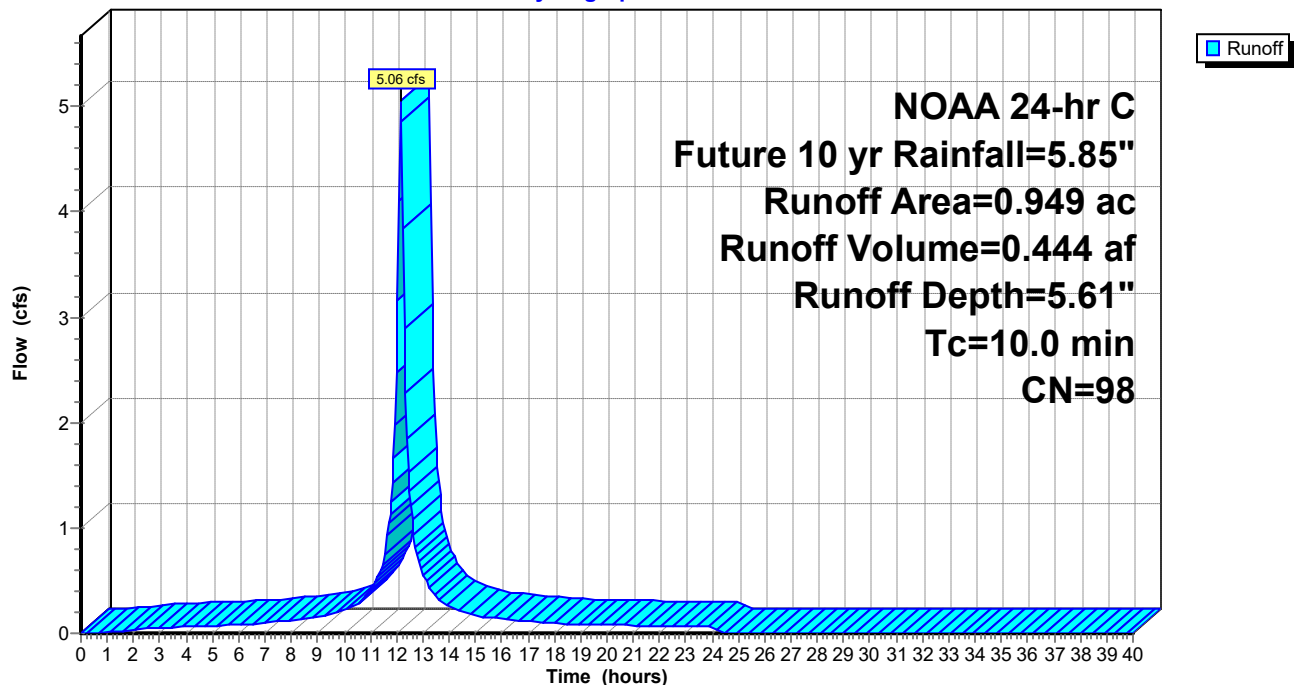
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.300	98	Pavement, HSG C
* 0.643	98	Roof, HSG C
* 0.006	98	Concrete, HSG C
0.949	98	Weighted Average
0.949		100.00% Impervious Area

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

Subcatchment 8I: PDA-8 (impervious)

Hydrograph



Summary for Subcatchment 8P: PDA-8 (pervious)

Runoff = 5.40 cfs @ 12.18 hrs, Volume= 0.407 af, Depth= 3.06"
 Routed to Pond B-8 : Basin #8

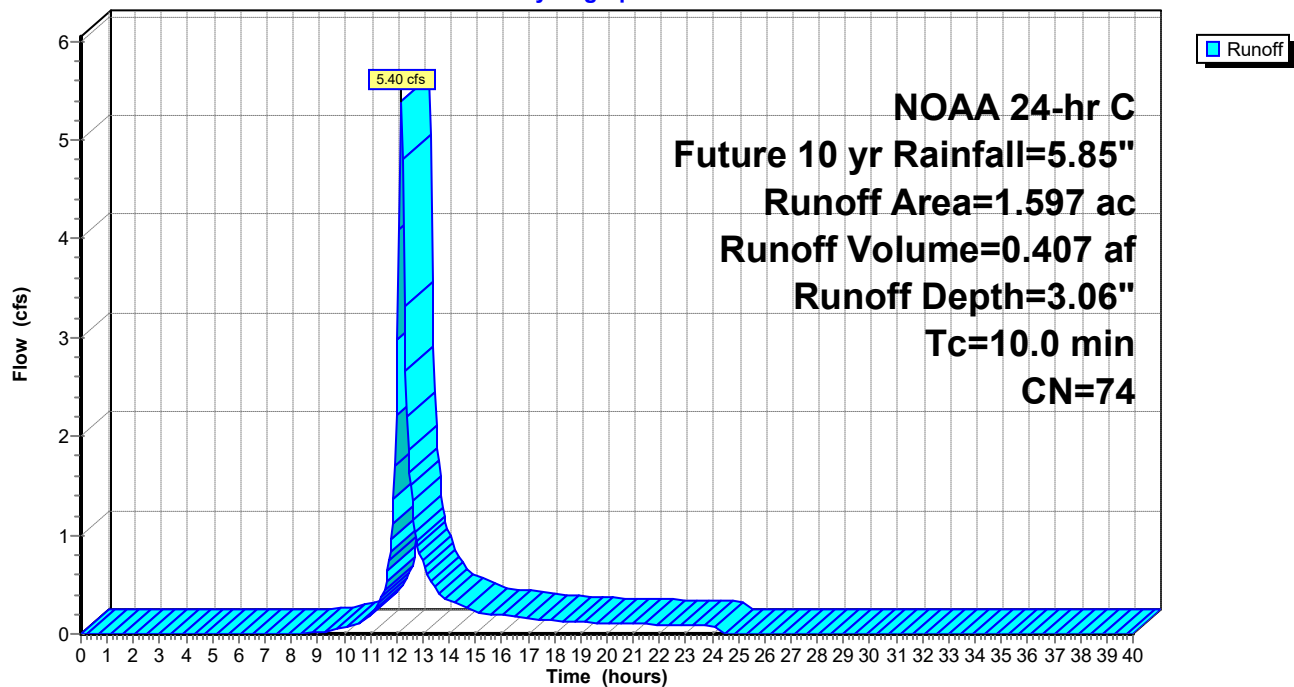
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
1.597	74	>75% Grass cover, Good, HSG C
1.597		100.00% Pervious Area

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

Subcatchment 8P: PDA-8 (pervious)

Hydrograph



Summary for Subcatchment 9I: PDA-9 (impervious)

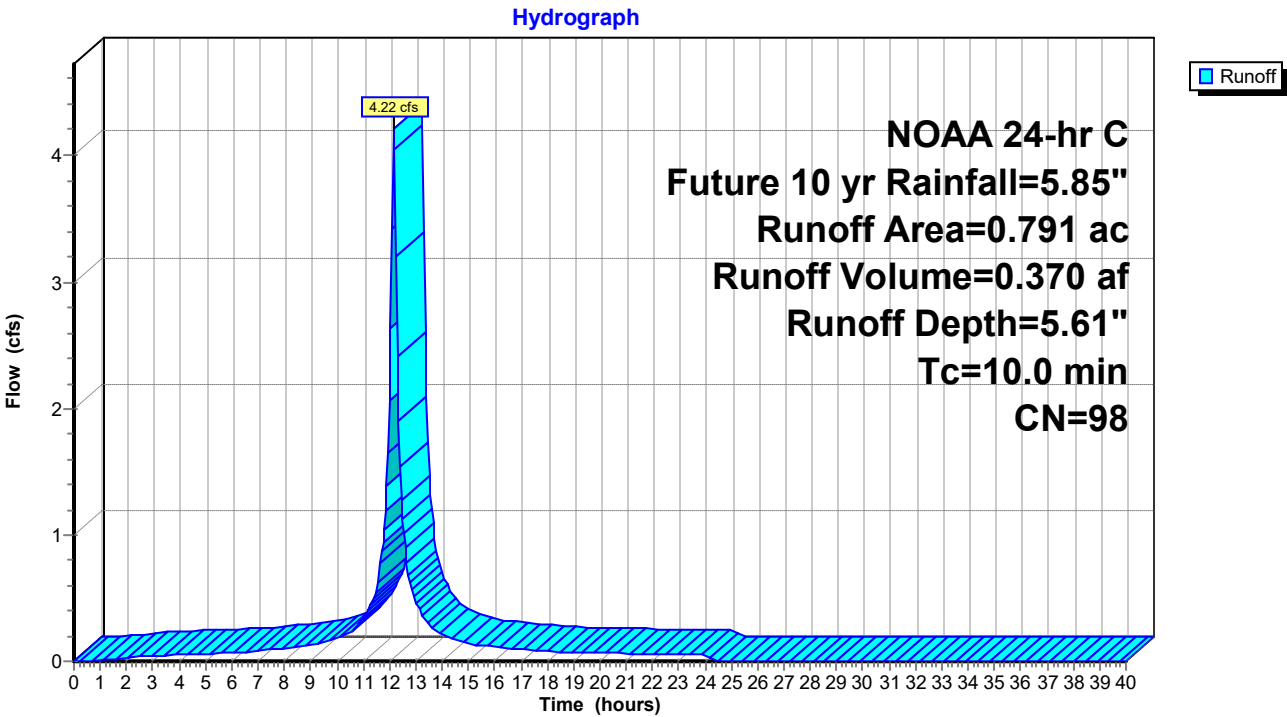
Runoff = 4.22 cfs @ 12.17 hrs, Volume= 0.370 af, Depth= 5.61"
Routed to Pond B-9 : Basin #9

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.286	98	Pavement, HSG C
* 0.450	98	Roof, HSG C
* 0.055	98	Concrete, HSG C
0.791	98	Weighted Average
0.791		100.00% Impervious Area

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

Subcatchment 9I: PDA-9 (impervious)



Summary for Subcatchment 9P: PDA-9 (pervious)

Runoff = 2.41 cfs @ 12.18 hrs, Volume= 0.182 af, Depth= 3.06"
 Routed to Pond B-9 : Basin #9

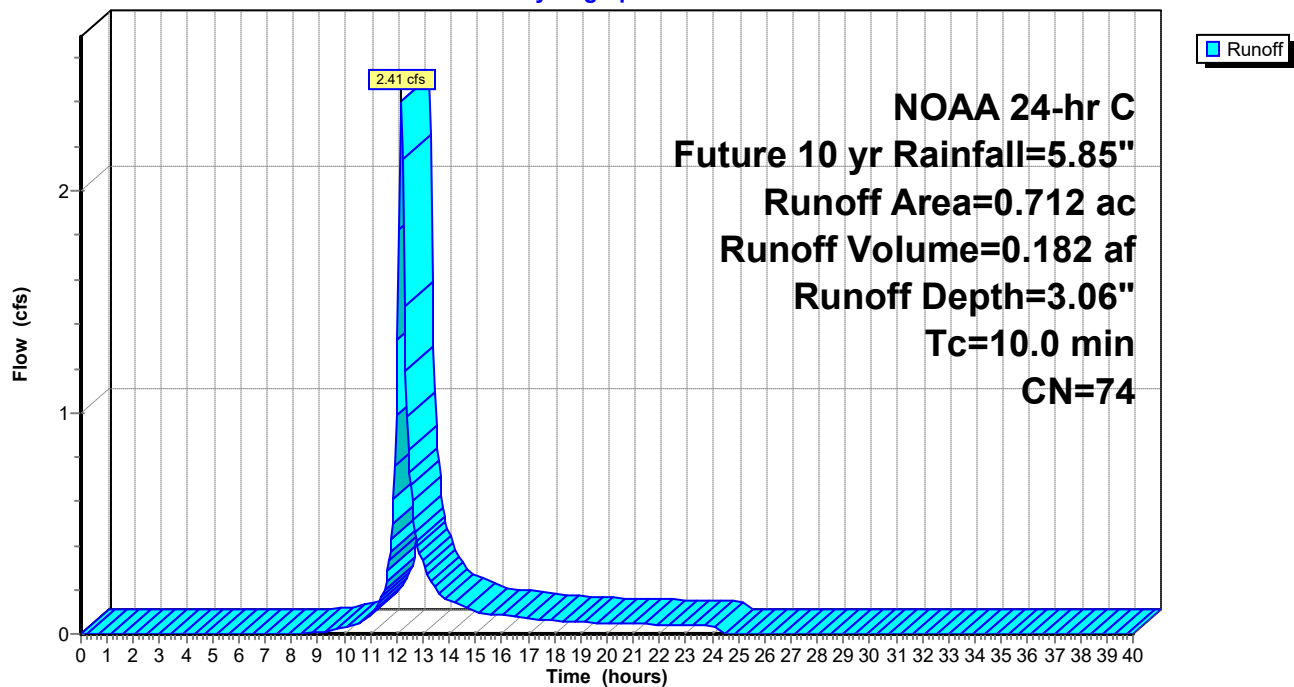
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
0.712	74	>75% Grass cover, Good, HSG C
0.712		100.00% Pervious Area

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

Subcatchment 9P: PDA-9 (pervious)

Hydrograph



Summary for Subcatchment 10I: PDA-10 (impervious)

Runoff = 5.06 cfs @ 12.17 hrs, Volume= 0.443 af, Depth= 5.61"
 Routed to Pond B-10 : Basin #10

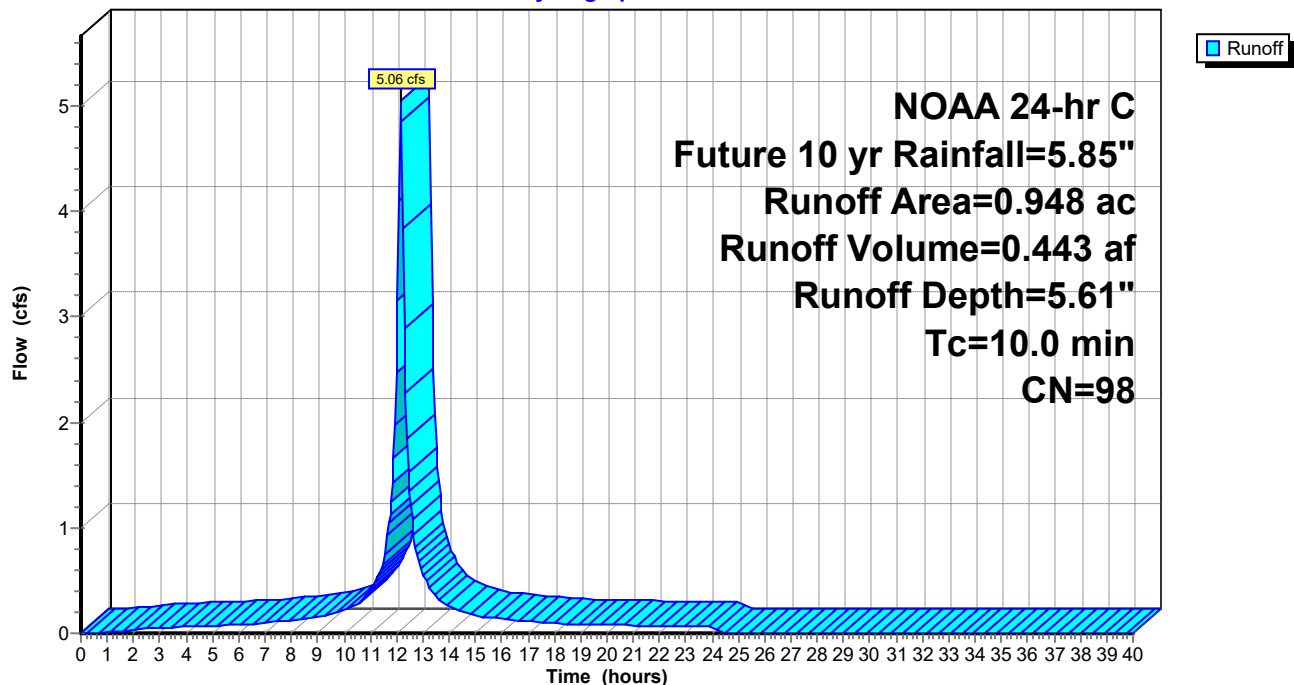
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.570	98	Pavement, HSG C
* 0.321	98	Roof, HSG C
* 0.057	98	Concrete, HSG C
0.948	98	Weighted Average
0.948		100.00% Impervious Area

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

Subcatchment 10I: PDA-10 (impervious)

Hydrograph



Summary for Subcatchment 10P: PDA-10 (pervious)

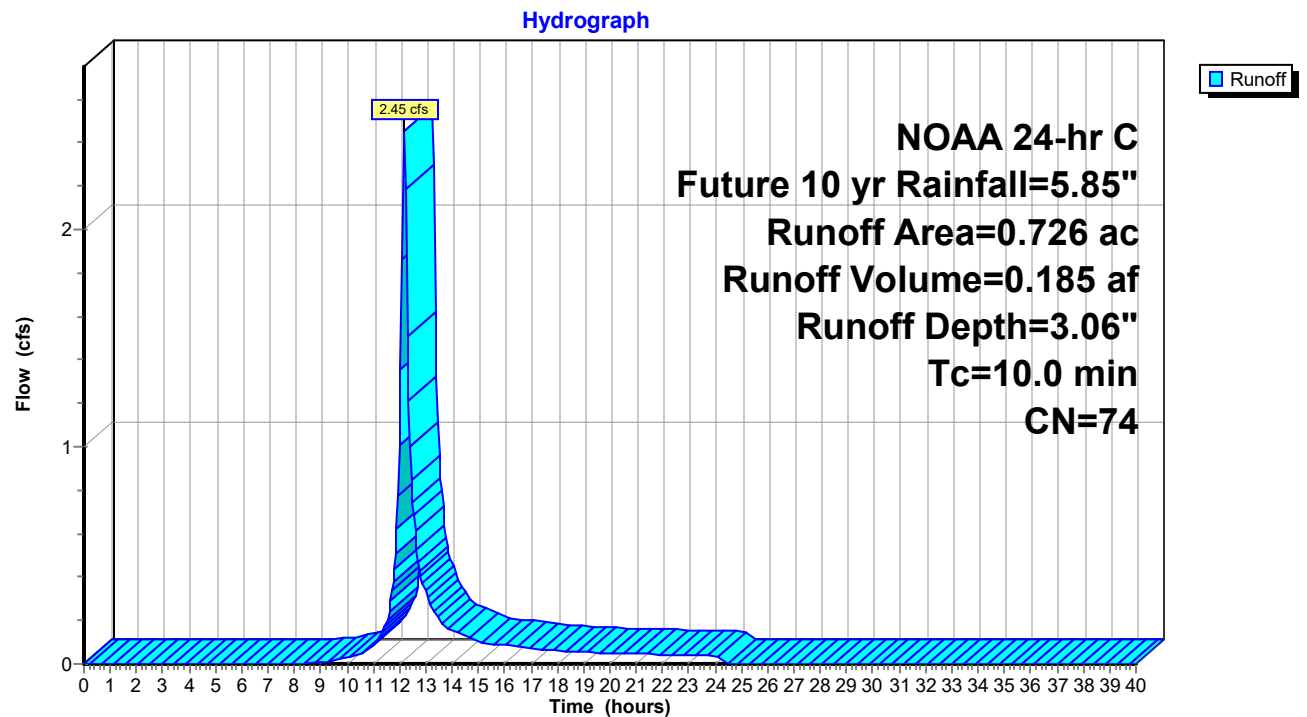
Runoff = 2.45 cfs @ 12.18 hrs, Volume= 0.185 af, Depth= 3.06"
Routed to Pond B-10 : Basin #10

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
0.726	74	>75% Grass cover, Good, HSG C
0.726		100.00% Pervious Area

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

Subcatchment 10P: PDA-10 (pervious)



Summary for Subcatchment 11I: PDA-11 (impervious)

Runoff = 4.98 cfs @ 12.17 hrs, Volume= 0.436 af, Depth= 5.61"
 Routed to Pond B-11 : Basin #11

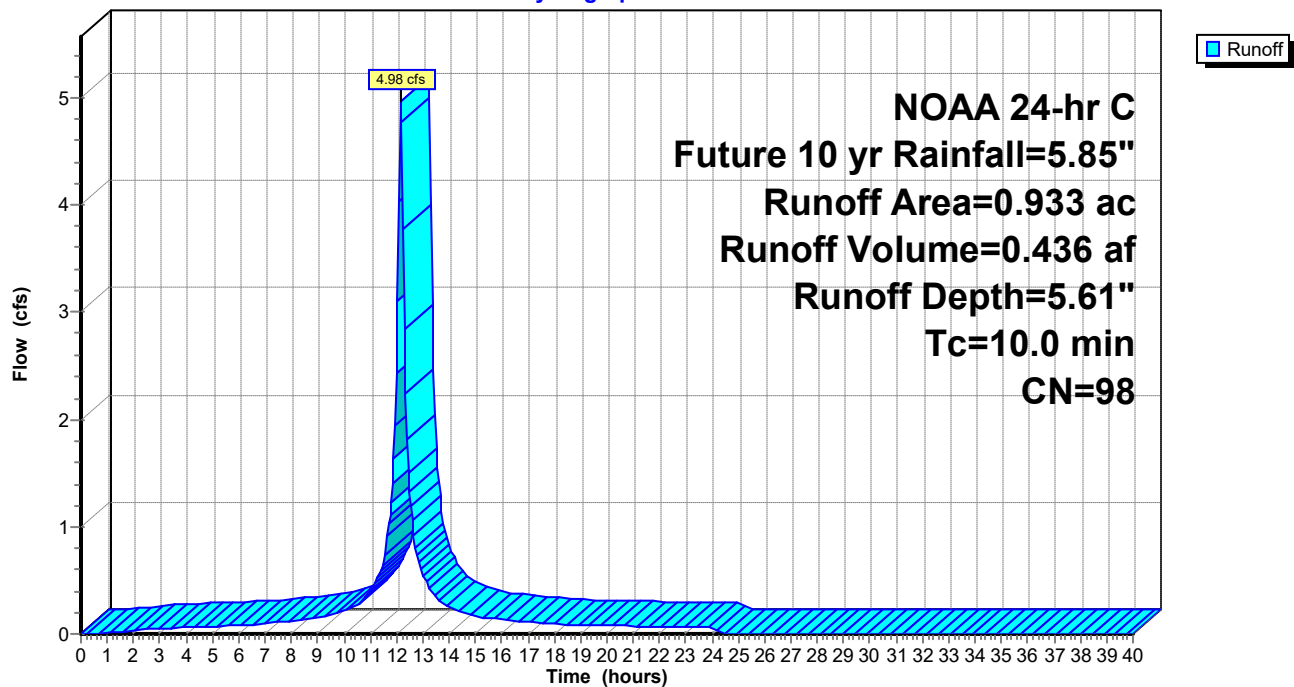
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.933	98	Concrete, HSG C
0.933		100.00% Impervious Area

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

Subcatchment 11I: PDA-11 (impervious)

Hydrograph



Summary for Subcatchment 11P: PDA-11 (pervious)

Runoff = 5.87 cfs @ 12.18 hrs, Volume= 0.442 af, Depth= 3.06"
 Routed to Pond B-11 : Basin #11

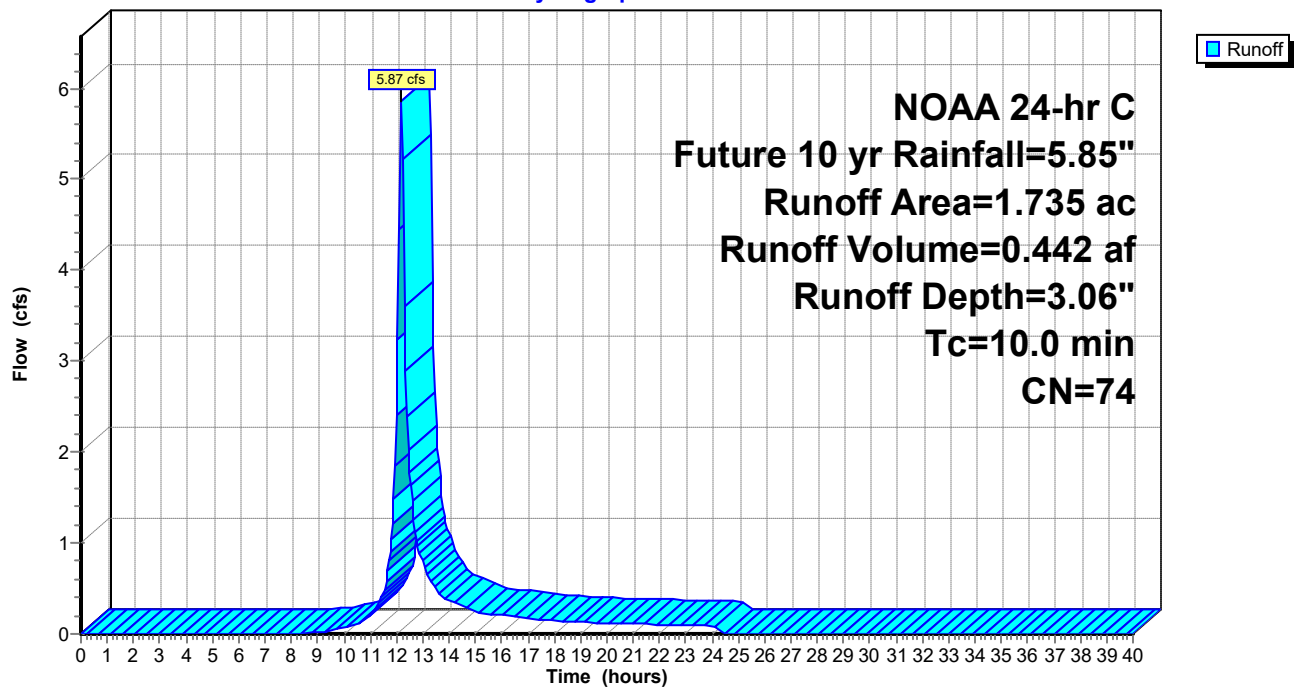
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
1.735	74	>75% Grass cover, Good, HSG C
1.735		100.00% Pervious Area

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

Subcatchment 11P: PDA-11 (pervious)

Hydrograph



Summary for Subcatchment 12I: PDA-12 (impervious)

Runoff = 7.30 cfs @ 12.17 hrs, Volume= 0.640 af, Depth= 5.61"
 Routed to Pond B-12 : Basin #12

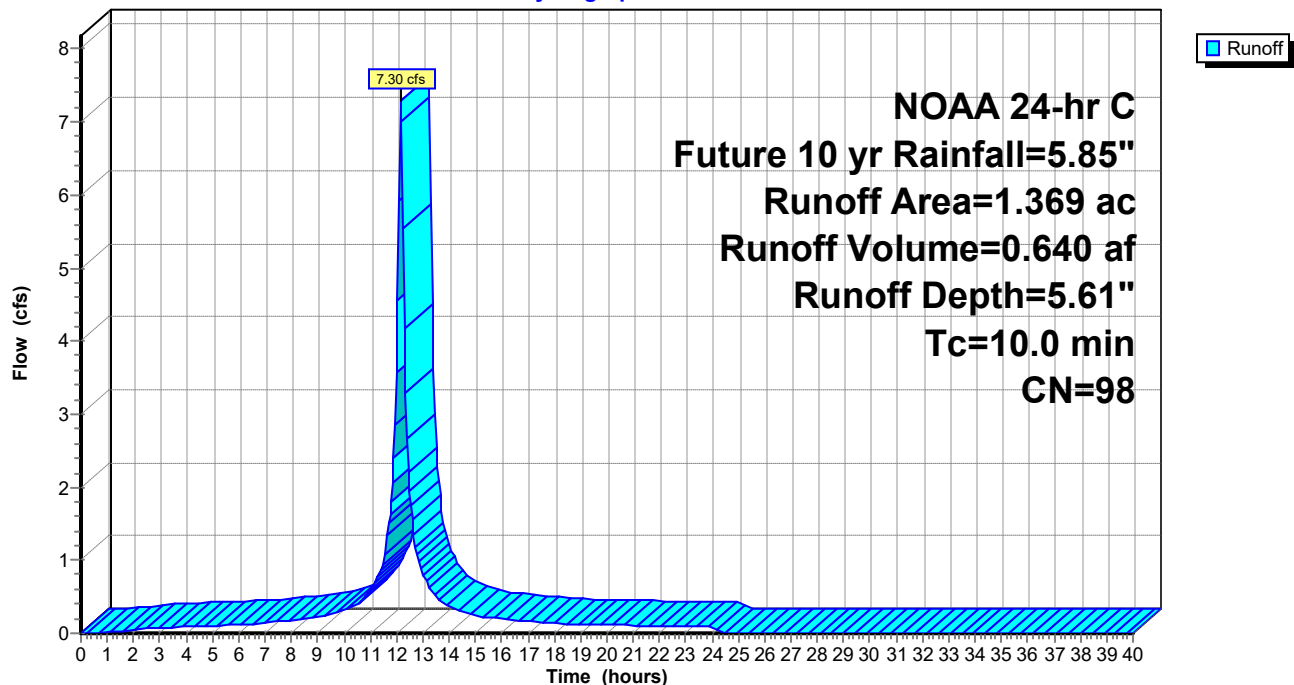
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.559	98	Pavement, HSG C
* 0.707	98	Roof, HSG C
* 0.103	98	Concrete, HSG C
1.369	98	Weighted Average
1.369		100.00% Impervious Area

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

Subcatchment 12I: PDA-12 (impervious)

Hydrograph



Summary for Subcatchment 12P: PDA-12 (pervious)

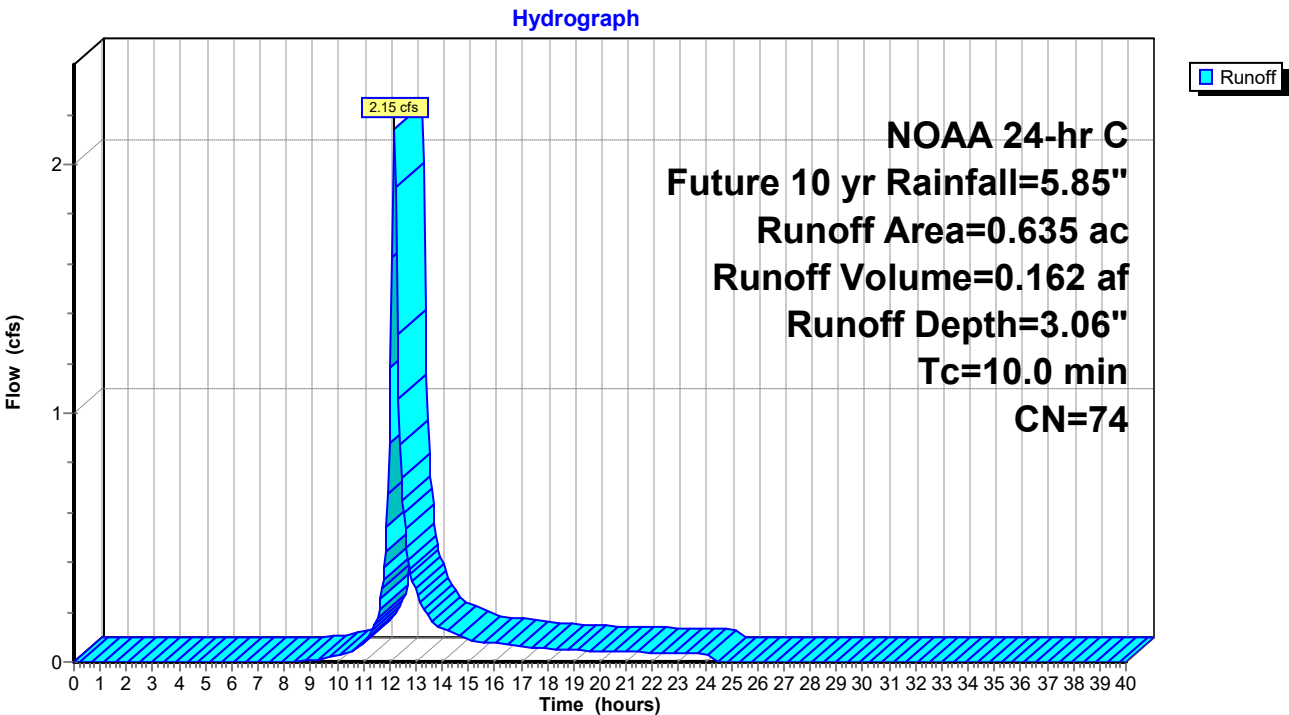
Runoff = 2.15 cfs @ 12.18 hrs, Volume= 0.162 af, Depth= 3.06"
Routed to Pond B-12 : Basin #12

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
0.635	74	>75% Grass cover, Good, HSG C
0.635		100.00% Pervious Area

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

Subcatchment 12P: PDA-12 (pervious)



Summary for Subcatchment 13I: PDA-13 (impervious)

Runoff = 7.83 cfs @ 12.17 hrs, Volume= 0.686 af, Depth= 5.61"
 Routed to Pond B-13 : Basin #13

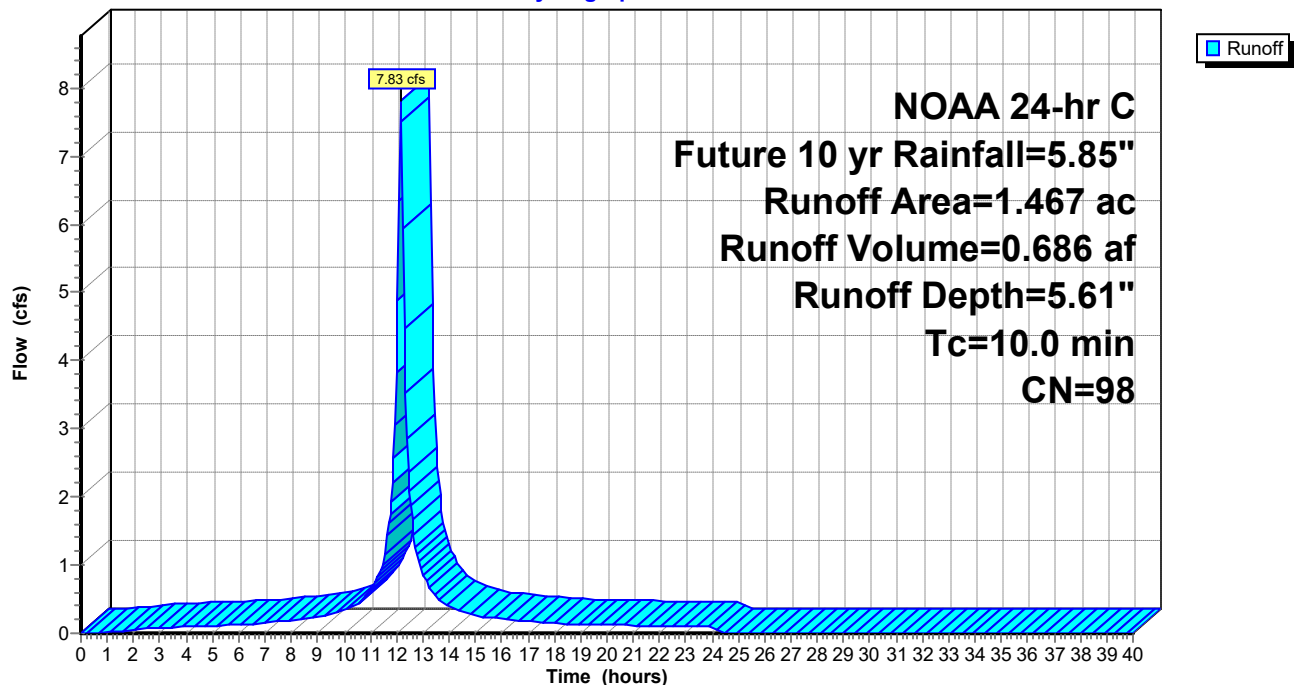
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.678	98	Pavement, HSG C
* 0.707	98	Roof, HSG C
* 0.082	98	Concrete, HSG C
1.467	98	Weighted Average
1.467		100.00% Impervious Area

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

Subcatchment 13I: PDA-13 (impervious)

Hydrograph



Summary for Subcatchment 13P: PDA-13 (pervious)

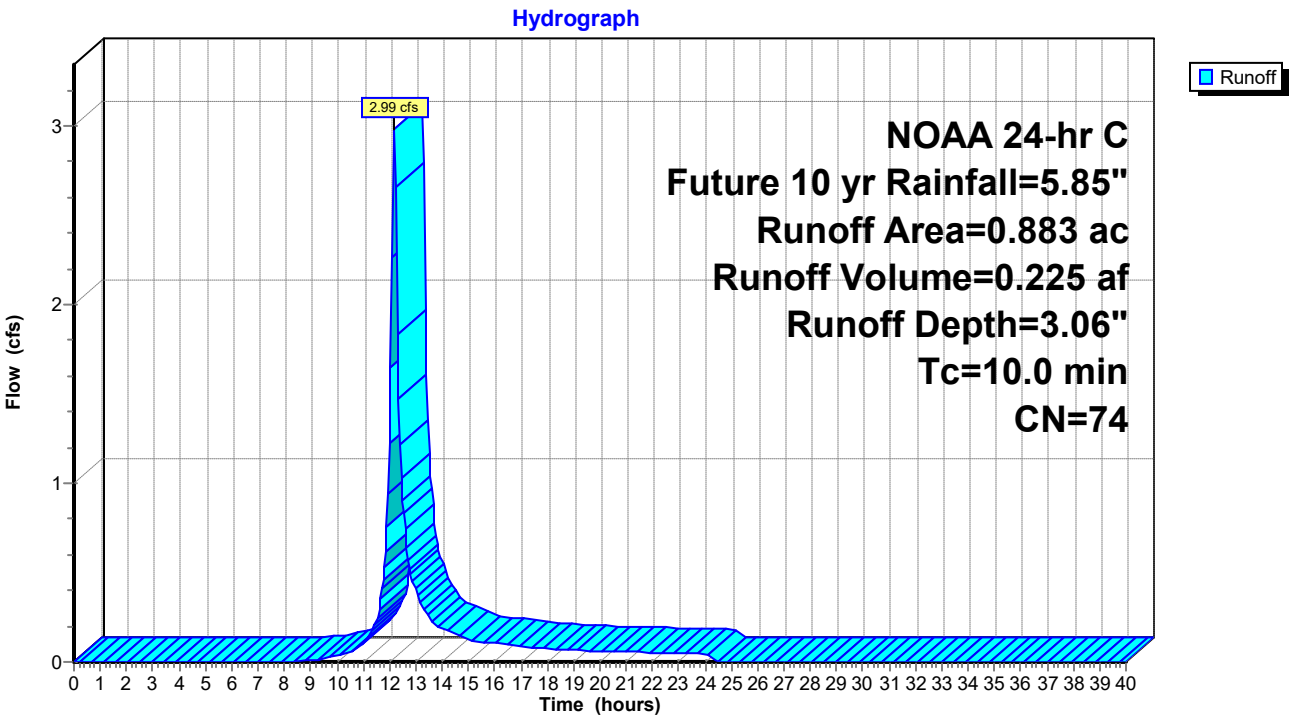
Runoff = 2.99 cfs @ 12.18 hrs, Volume= 0.225 af, Depth= 3.06"
Routed to Pond B-13 : Basin #13

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
0.883	74	>75% Grass cover, Good, HSG C
0.883		100.00% Pervious Area

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

Subcatchment 13P: PDA-13 (pervious)



Summary for Subcatchment 14I: PDA-14 (impervious)

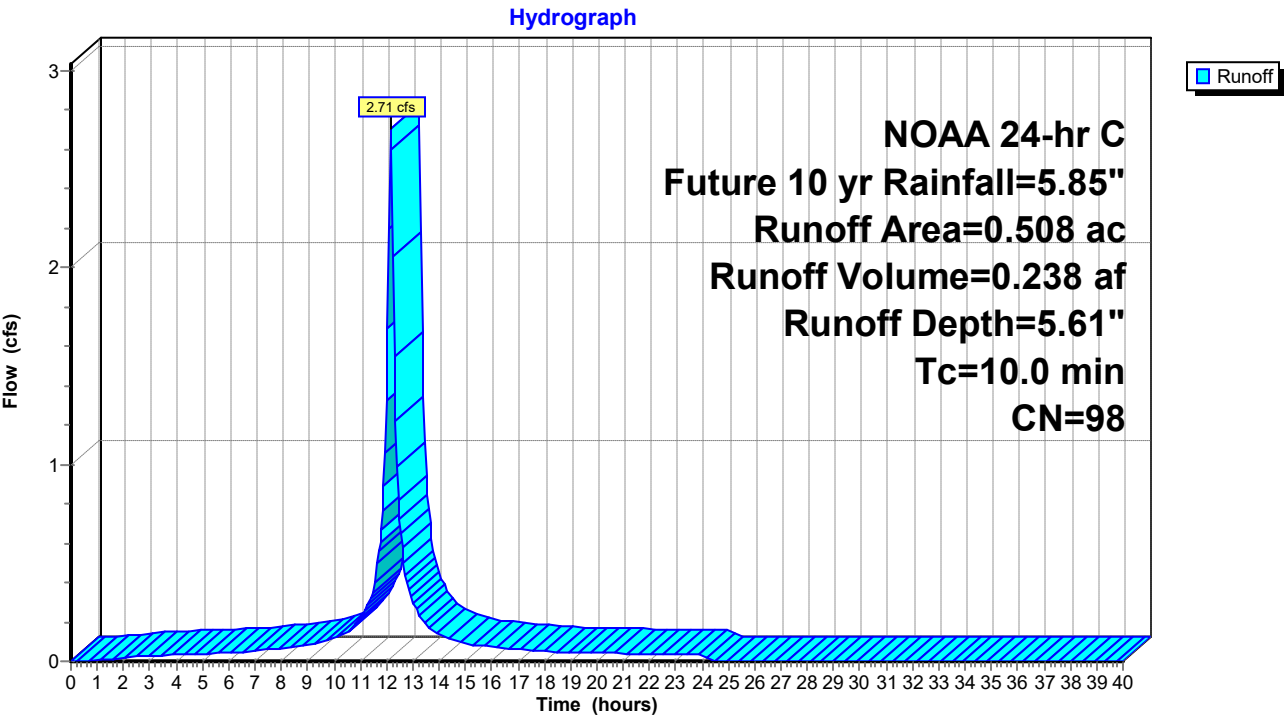
Runoff = 2.71 cfs @ 12.17 hrs, Volume= 0.238 af, Depth= 5.61"
Routed to Pond B-14 : Basin #14

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.308	98	Pavement, HSG C
* 0.064	98	Roof, HSG C
* 0.136	98	Concrete, HSG C
0.508	98	Weighted Average
0.508		100.00% Impervious Area

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

Subcatchment 14I: PDA-14 (impervious)



Summary for Subcatchment 14P: PDA-14 (pervious)

Runoff = 5.55 cfs @ 12.18 hrs, Volume= 0.418 af, Depth= 3.06"
 Routed to Pond B-14 : Basin #14

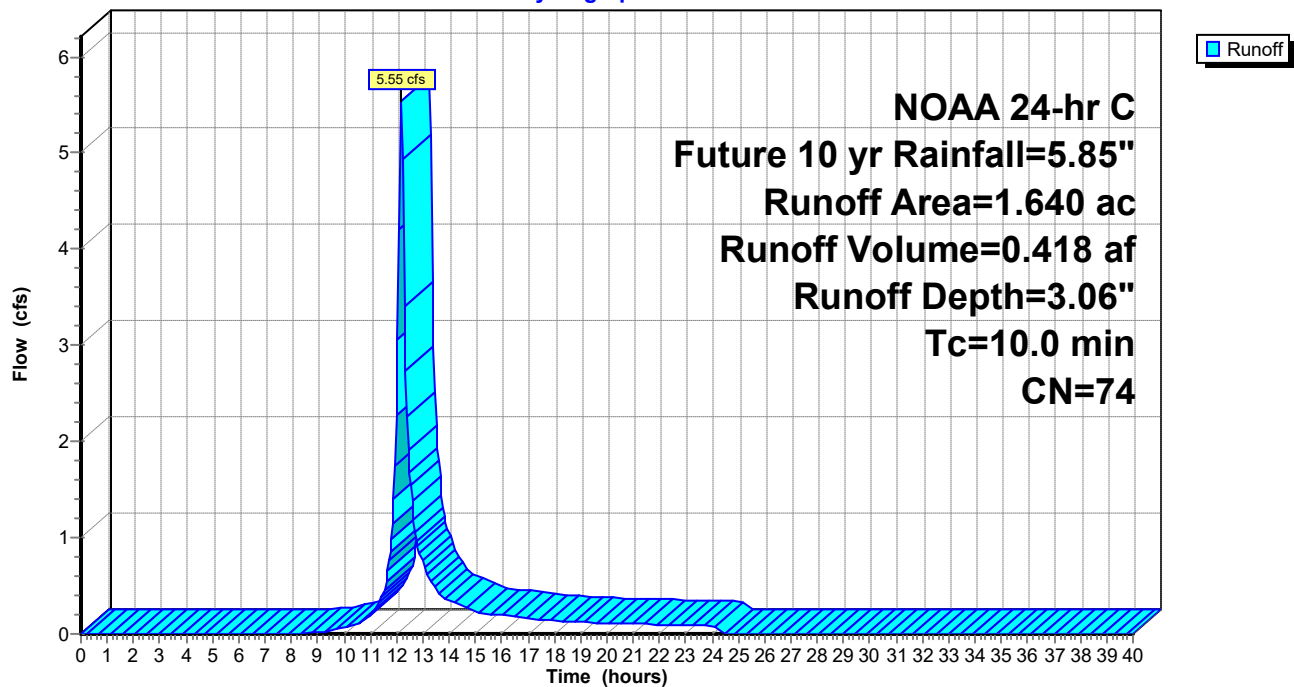
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
1.640	74	>75% Grass cover, Good, HSG C
1.640		100.00% Pervious Area

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

Subcatchment 14P: PDA-14 (pervious)

Hydrograph



Summary for Subcatchment 15I: PDA-15 (impervious)

Runoff = 7.41 cfs @ 12.17 hrs, Volume= 0.650 af, Depth= 5.61"
 Routed to Pond B-15 : Basin #15

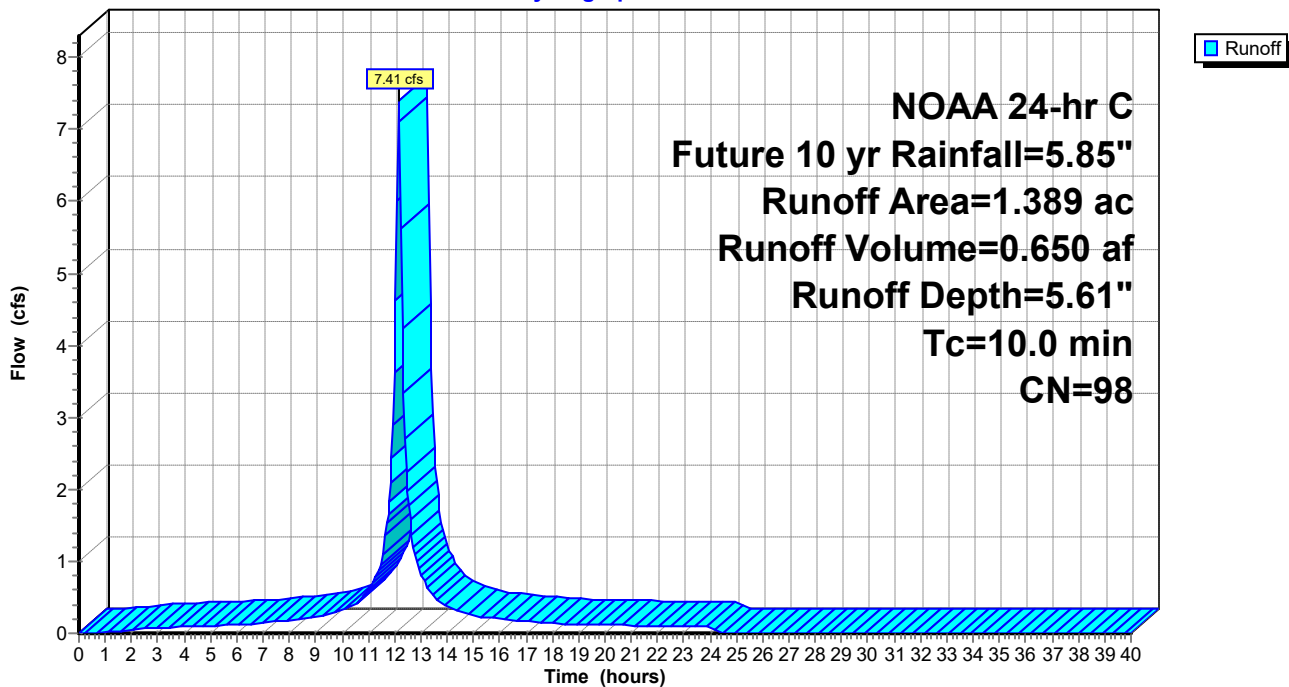
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.501	98	Pavement, HSG C
* 0.836	98	Roof, HSG C
* 0.052	98	Concrete, HSG C
1.389	98	Weighted Average
1.389		100.00% Impervious Area

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

Subcatchment 15I: PDA-15 (impervious)

Hydrograph



Summary for Subcatchment 15P: PDA-15 (pervious)

Runoff = 3.30 cfs @ 12.18 hrs, Volume= 0.249 af, Depth= 3.06"
 Routed to Pond B-15 : Basin #15

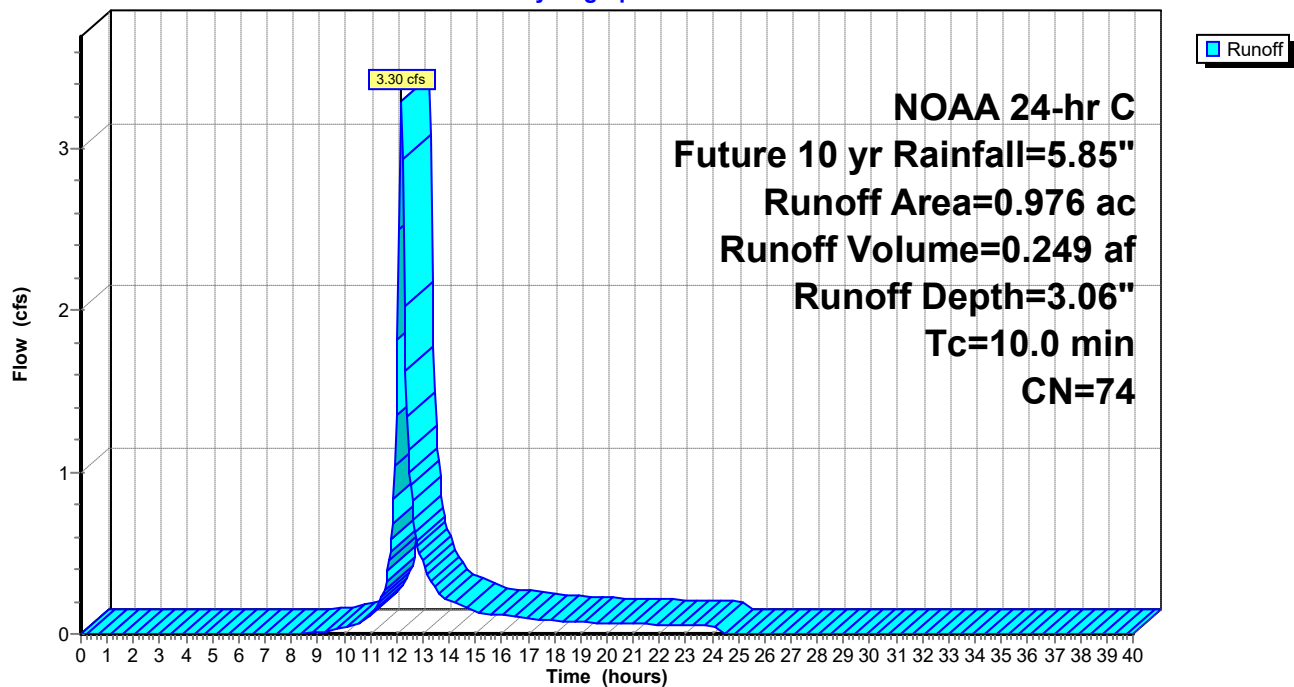
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
0.976	74	>75% Grass cover, Good, HSG C
0.976		100.00% Pervious Area

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

Subcatchment 15P: PDA-15 (pervious)

Hydrograph



Summary for Subcatchment 16I: PDA-16 (impervious)

Runoff = 6.22 cfs @ 12.17 hrs, Volume= 0.545 af, Depth= 5.61"
 Routed to Pond B-16 : Basin #16

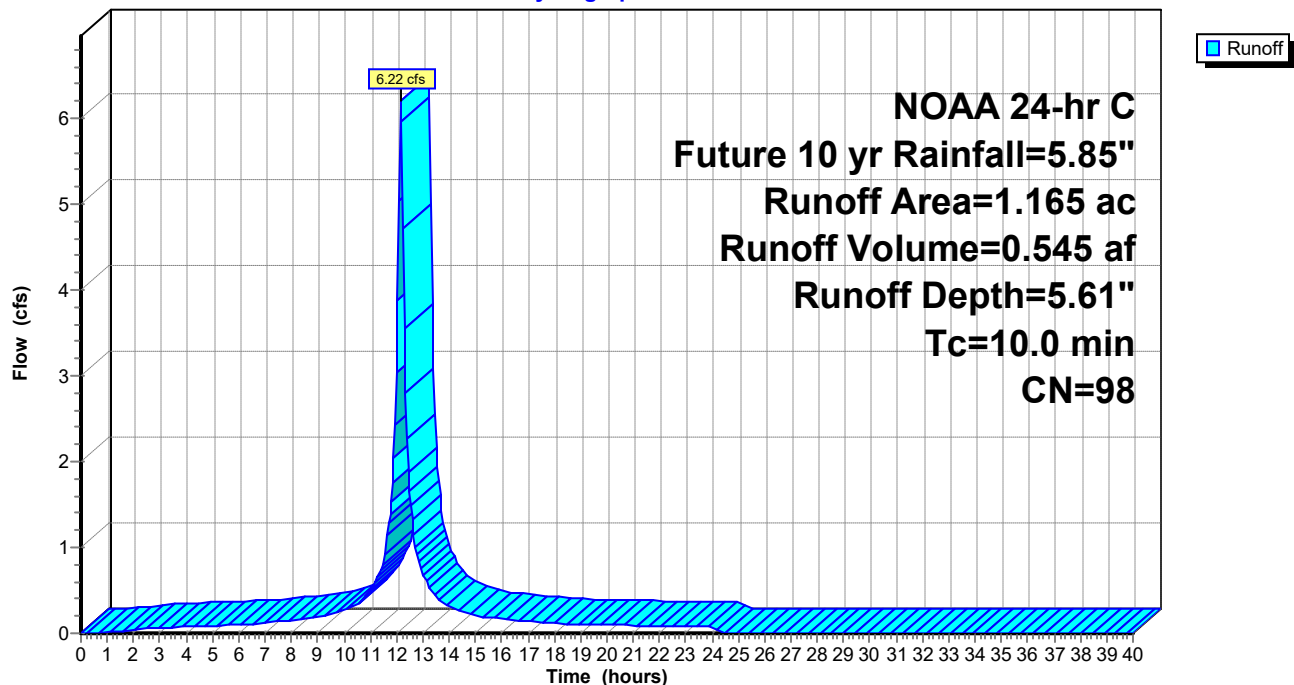
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.712	98	Pavement, HSG C
* 0.386	98	Roof, HSG C
* 0.067	98	Concrete, HSG C
1.165	98	Weighted Average
1.165		100.00% Impervious Area

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

Subcatchment 16I: PDA-16 (impervious)

Hydrograph



Summary for Subcatchment 16P: PDA-16 (pervious)

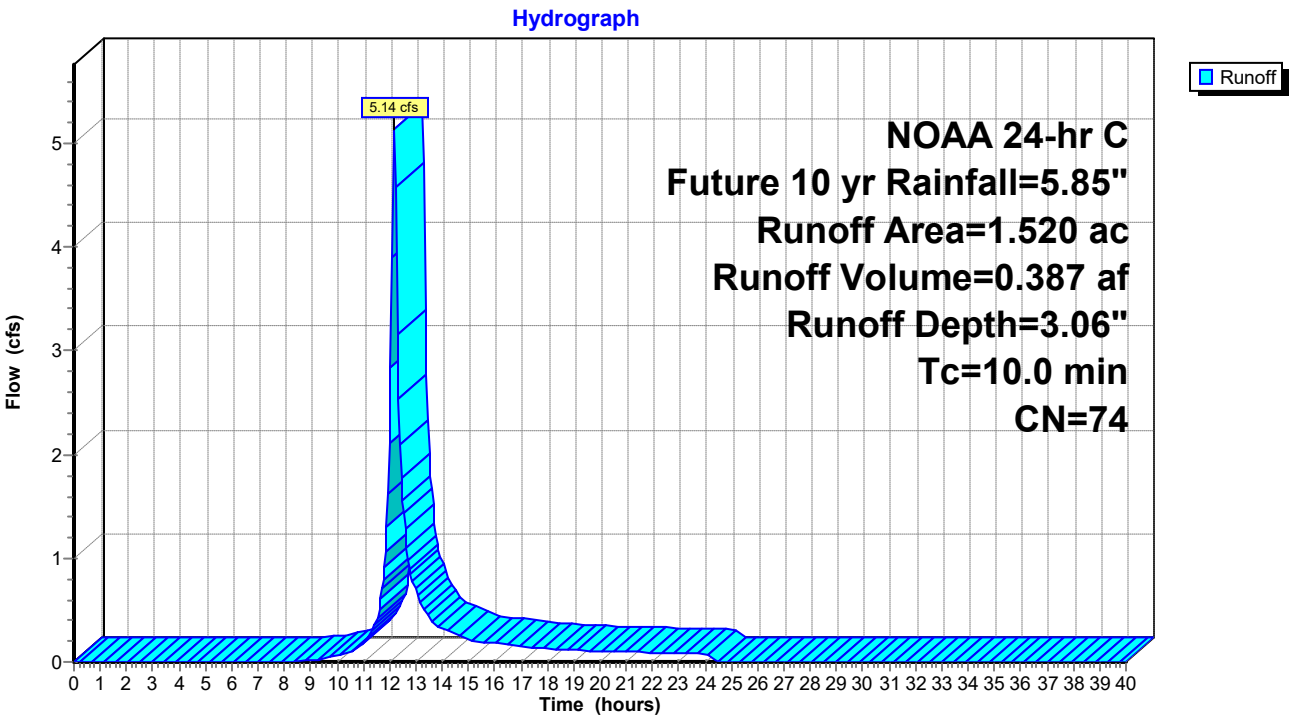
Runoff = 5.14 cfs @ 12.18 hrs, Volume= 0.387 af, Depth= 3.06"
Routed to Pond B-16 : Basin #16

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
1.520	74	>75% Grass cover, Good, HSG C
1.520		100.00% Pervious Area

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

Subcatchment 16P: PDA-16 (pervious)



Summary for Subcatchment 17I: PDA-17 (impervious)

Runoff = 5.14 cfs @ 12.17 hrs, Volume= 0.451 af, Depth= 5.61"
 Routed to Pond B-17 : Basin #17

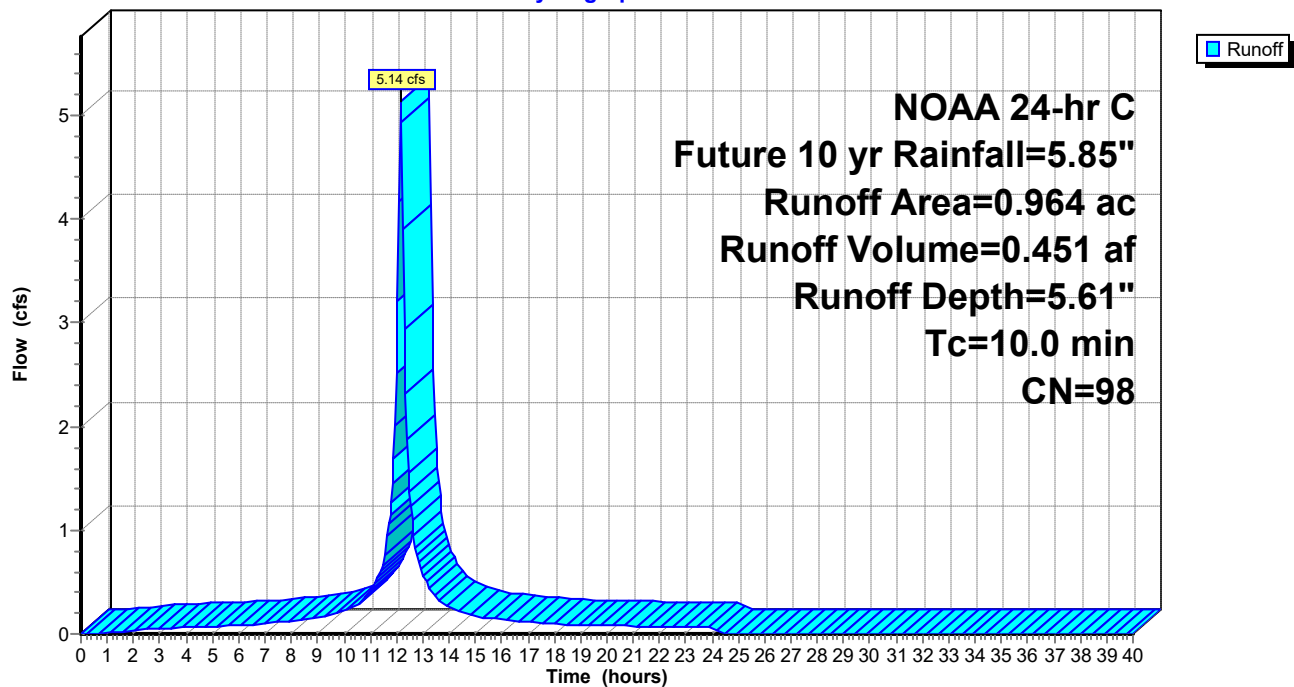
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.964	98	Roof, HSG C
0.964		100.00% Impervious Area

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

Subcatchment 17I: PDA-17 (impervious)

Hydrograph



Summary for Subcatchment 17P: PDA-17 (pervious)

Runoff = 6.18 cfs @ 12.18 hrs, Volume= 0.466 af, Depth= 3.06"
 Routed to Pond B-17 : Basin #17

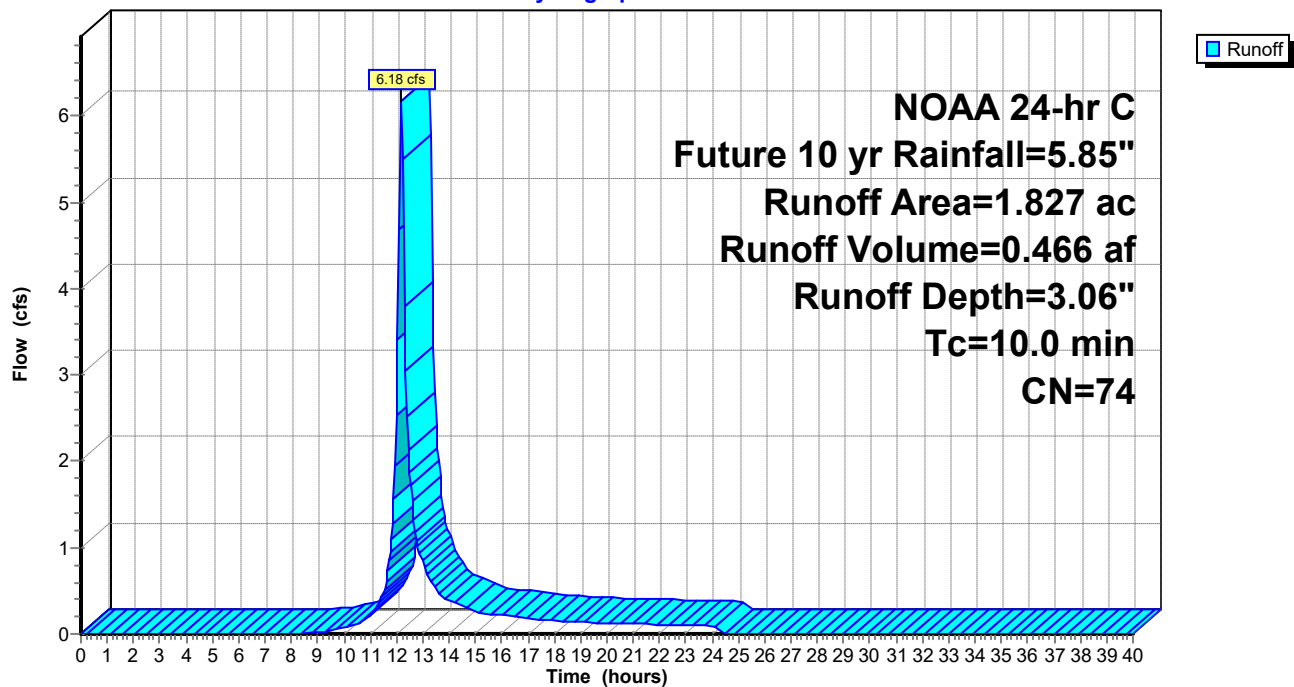
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
1.827	74	>75% Grass cover, Good, HSG C
1.827		100.00% Pervious Area

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

Subcatchment 17P: PDA-17 (pervious)

Hydrograph



Summary for Subcatchment 18I: PDA-18 (impervious)

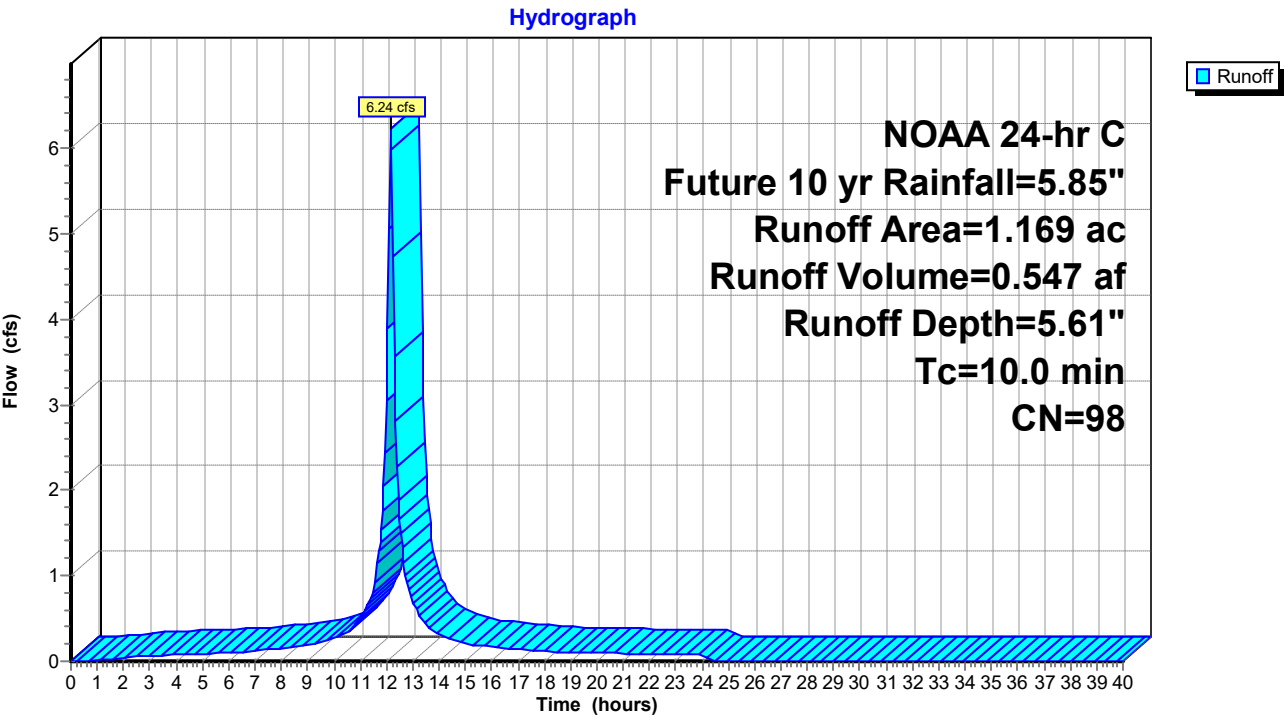
Runoff = 6.24 cfs @ 12.17 hrs, Volume= 0.547 af, Depth= 5.61"
Routed to Pond B-18 : Basin #18

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.474	98	Pavement, HSG C
* 0.643	98	Roof, HSG C
* 0.052	98	Concrete, HSG C
1.169	98	Weighted Average
1.169		100.00% Impervious Area

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

Subcatchment 18I: PDA-18 (impervious)



Summary for Subcatchment 18P: PDA-18 (pervious)

Runoff = 4.36 cfs @ 12.18 hrs, Volume= 0.329 af, Depth= 3.06"
 Routed to Pond B-18 : Basin #18

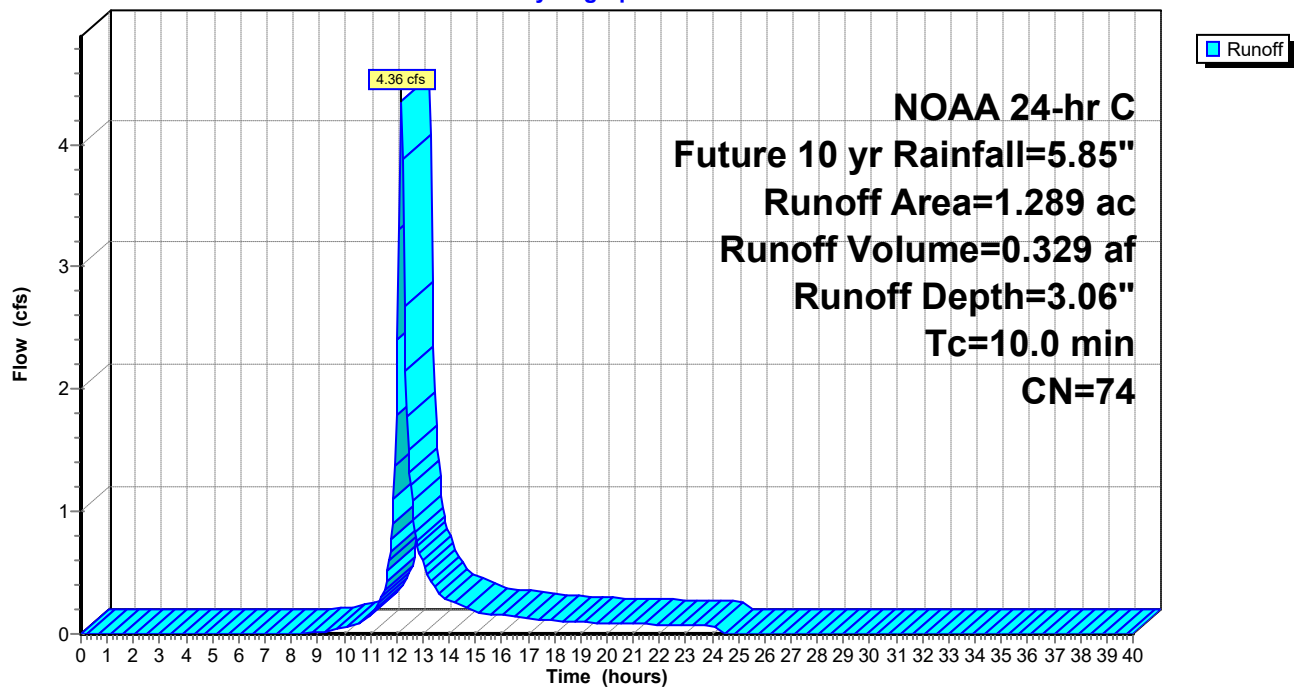
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
1.289	74	>75% Grass cover, Good, HSG C
1.289		100.00% Pervious Area

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

Subcatchment 18P: PDA-18 (pervious)

Hydrograph



Summary for Subcatchment 19I: PDA-19 (impervious)

Runoff = 2.03 cfs @ 12.17 hrs, Volume= 0.178 af, Depth= 5.61"
 Routed to Pond B-19 : Basin #19

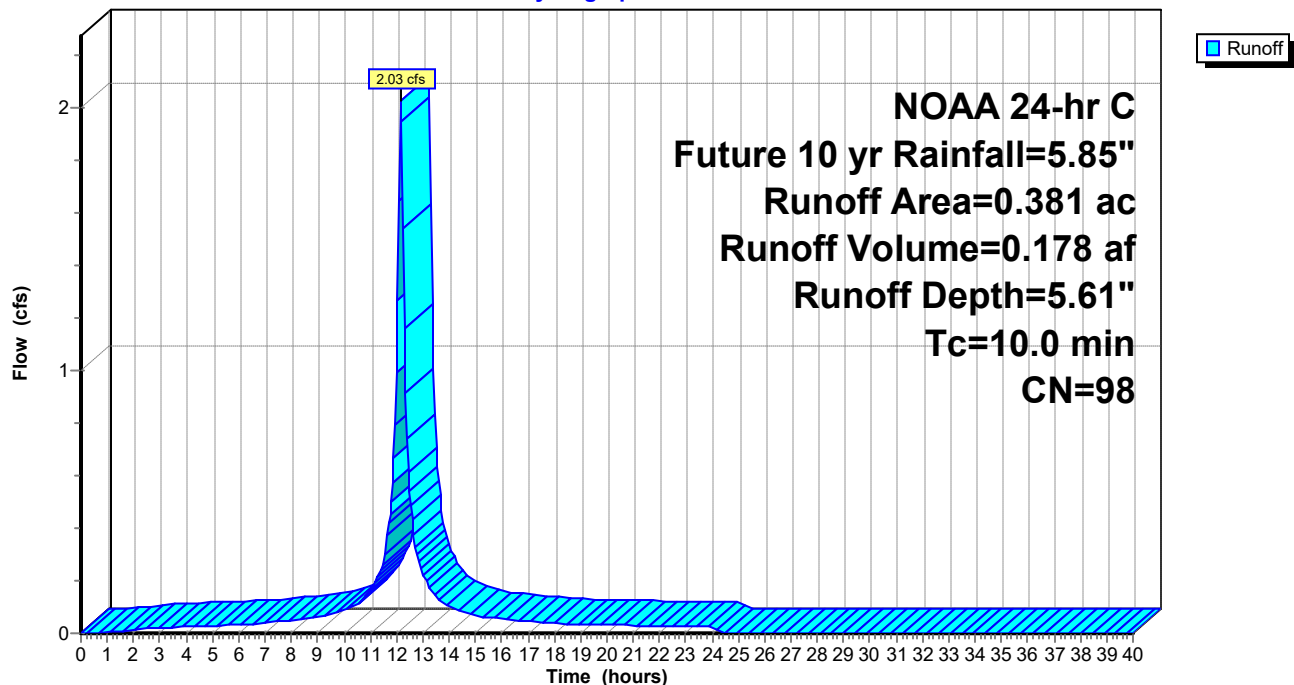
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.167	98	Pavement, HSG C
* 0.193	98	Roof, HSG C
* 0.021	98	Concrete, HSG C
0.381	98	Weighted Average
0.381		100.00% Impervious Area

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

Subcatchment 19I: PDA-19 (impervious)

Hydrograph



Summary for Subcatchment 19P: PDA-19 (pervious)

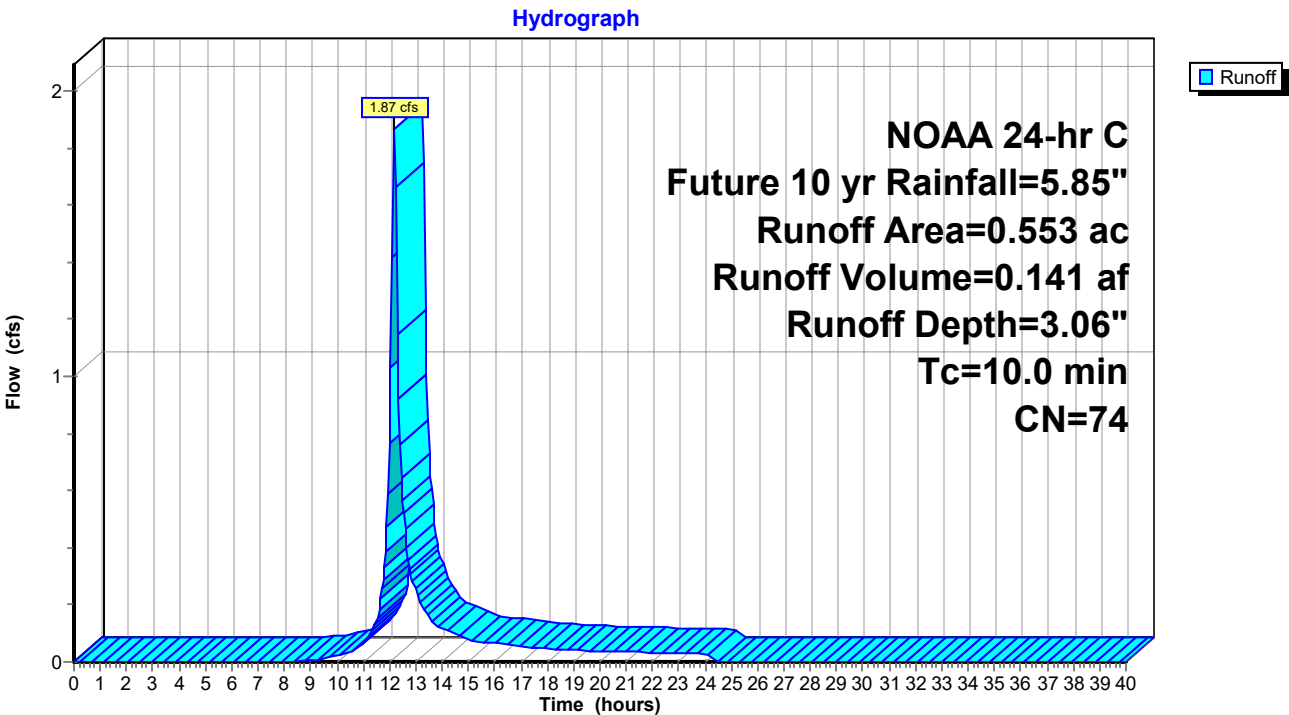
Runoff = 1.87 cfs @ 12.18 hrs, Volume= 0.141 af, Depth= 3.06"
Routed to Pond B-19 : Basin #19

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
0.553	74	>75% Grass cover, Good, HSG C
0.553		100.00% Pervious Area

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

Subcatchment 19P: PDA-19 (pervious)



Summary for Subcatchment 20I: PDA-20 (impervious)

Runoff = 6.80 cfs @ 12.17 hrs, Volume= 0.596 af, Depth= 5.61"
 Routed to Pond B-20 : Basin #20

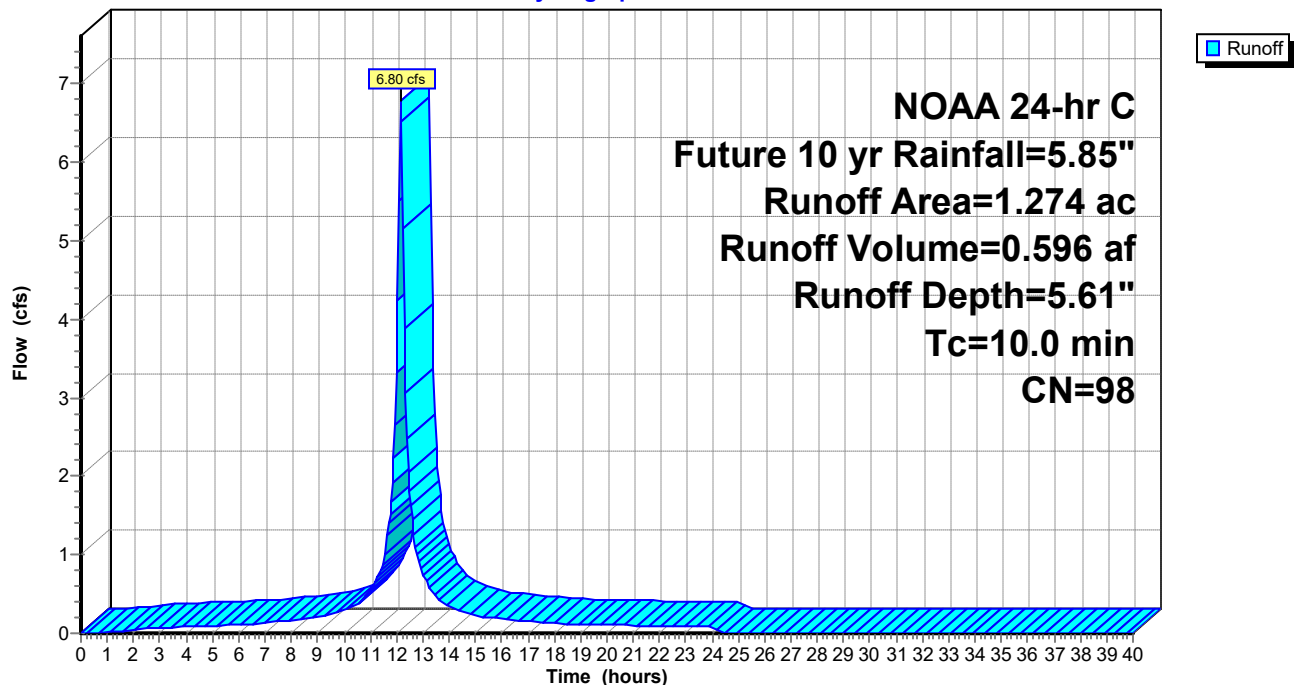
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.500	98	Pavement, HSG C
* 0.707	98	Roof, HSG C
* 0.067	98	Concrete, HSC C
1.274	98	Weighted Average
1.274		100.00% Impervious Area

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

Subcatchment 20I: PDA-20 (impervious)

Hydrograph



Summary for Subcatchment 20P: PDA-20 (pervious)

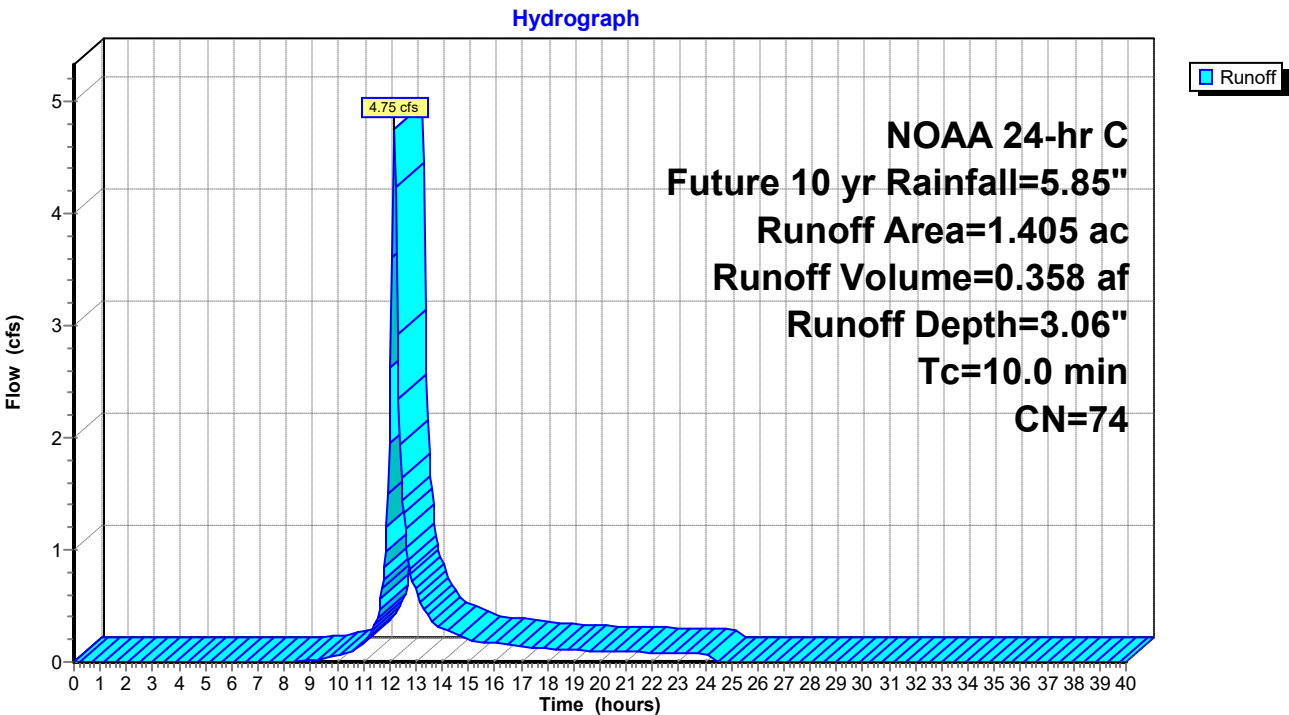
Runoff = 4.75 cfs @ 12.18 hrs, Volume= 0.358 af, Depth= 3.06"
Routed to Pond B-20 : Basin #20

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
1.405	74	>75% Grass cover, Good, HSG C
1.405		100.00% Pervious Area

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

Subcatchment 20P: PDA-20 (pervious)



Summary for Subcatchment 21I: PDA-21 (impervious)

Runoff = 5.95 cfs @ 12.17 hrs, Volume= 0.521 af, Depth= 5.61"
 Routed to Pond B-21 : Basin #21

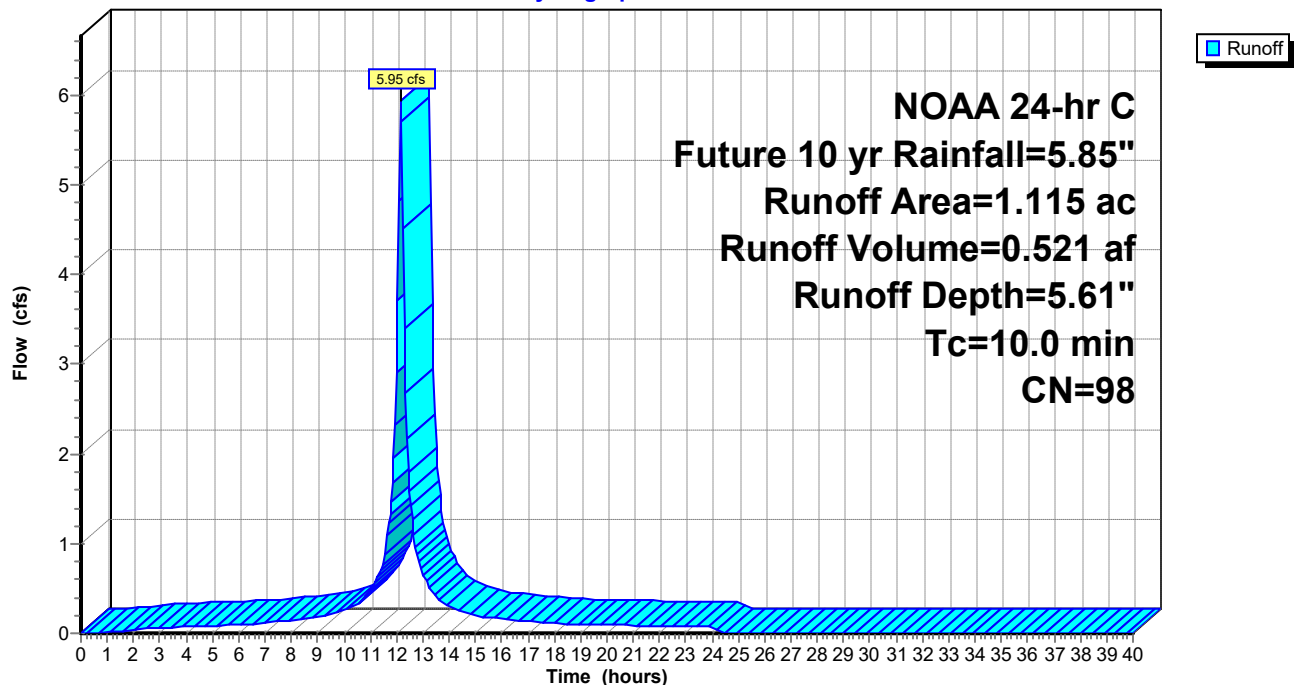
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.556	98	Pavement, HSG C
* 0.514	98	Roof, HSG C
* 0.045	98	Concrete, HSC C
1.115	98	Weighted Average
1.115		100.00% Impervious Area

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

Subcatchment 21I: PDA-21 (impervious)

Hydrograph



Summary for Subcatchment 21P: PDA-21 (pervious)

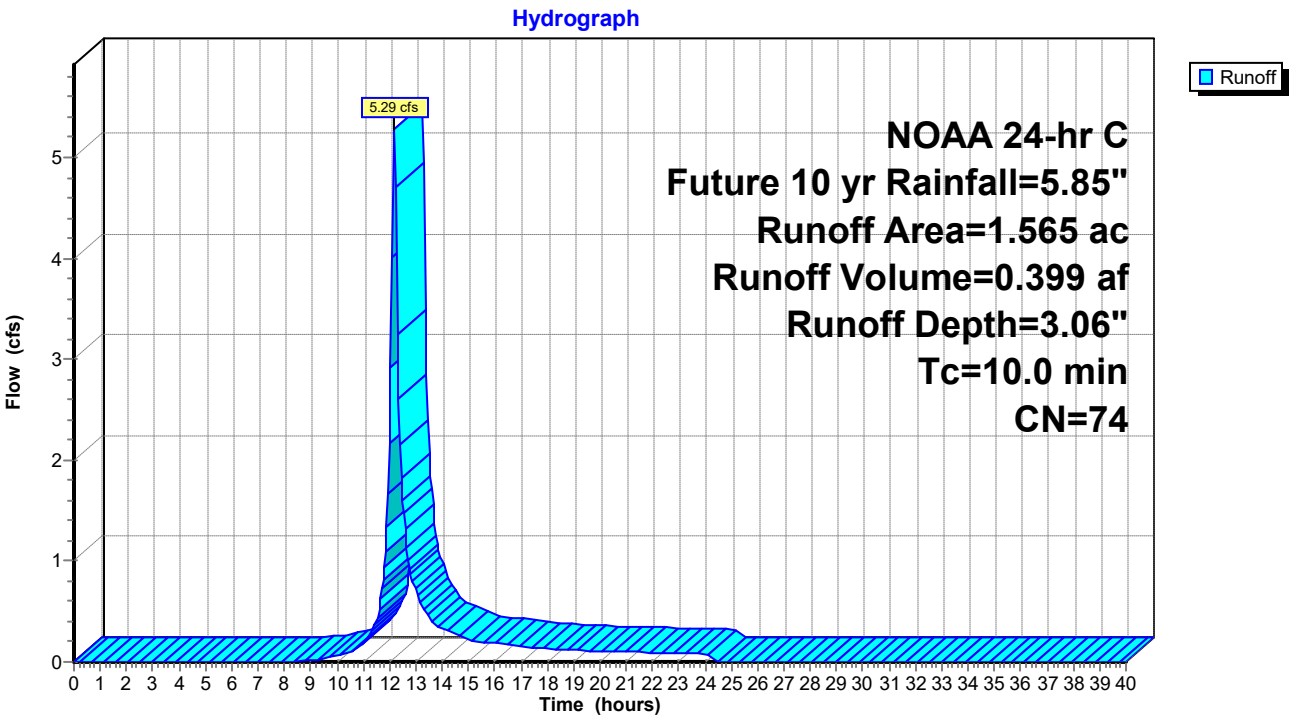
Runoff = 5.29 cfs @ 12.18 hrs, Volume= 0.399 af, Depth= 3.06"
Routed to Pond B-21 : Basin #21

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
1.565	74	>75% Grass cover, Good, HSG C
1.565		100.00% Pervious Area

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

Subcatchment 21P: PDA-21 (pervious)



Summary for Subcatchment 22I: PDA-22 (impervious)

Runoff = 4.42 cfs @ 12.17 hrs, Volume= 0.387 af, Depth= 5.61"
 Routed to Pond B-22 : Basin #22

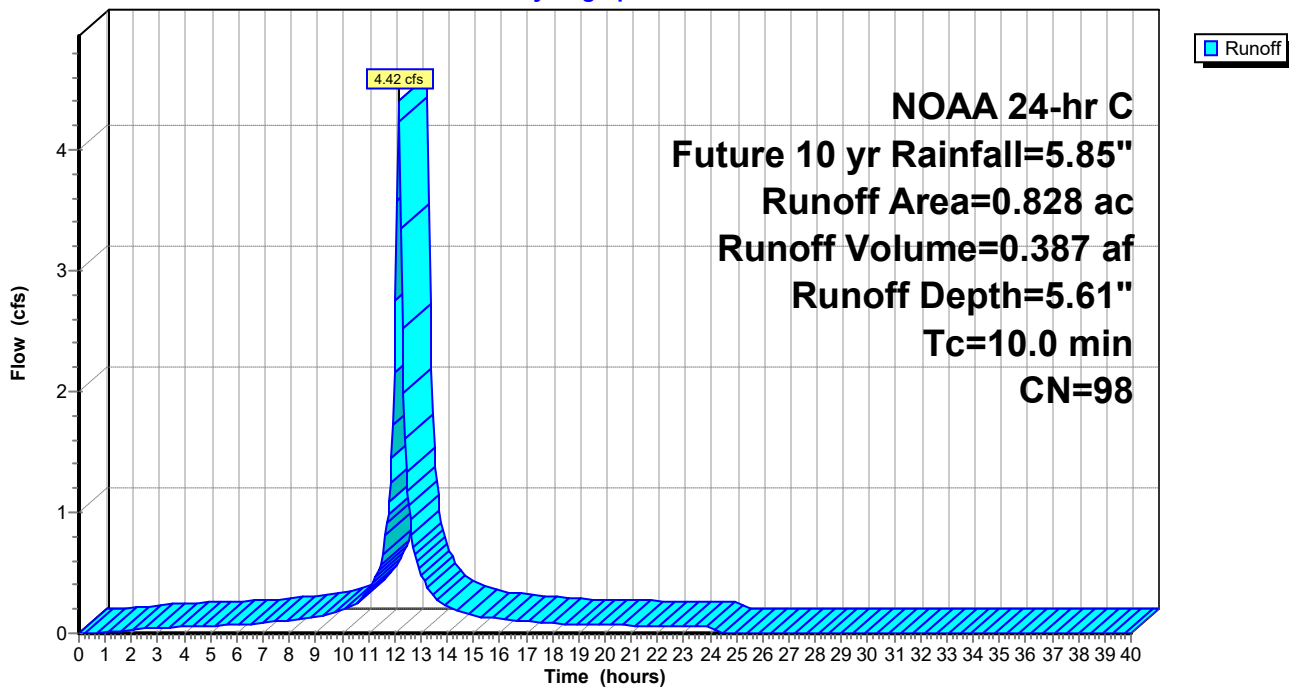
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.372	98	Pavement, HSG C
* 0.386	98	Roof, HSG C
* 0.070	98	Concrete, HSC C
0.828	98	Weighted Average
0.828		100.00% Impervious Area

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

Subcatchment 22I: PDA-22 (impervious)

Hydrograph



Summary for Subcatchment 22P: PDA-22 (pervious)

Runoff = 6.47 cfs @ 12.18 hrs, Volume= 0.488 af, Depth= 3.06"
 Routed to Pond B-22 : Basin #22

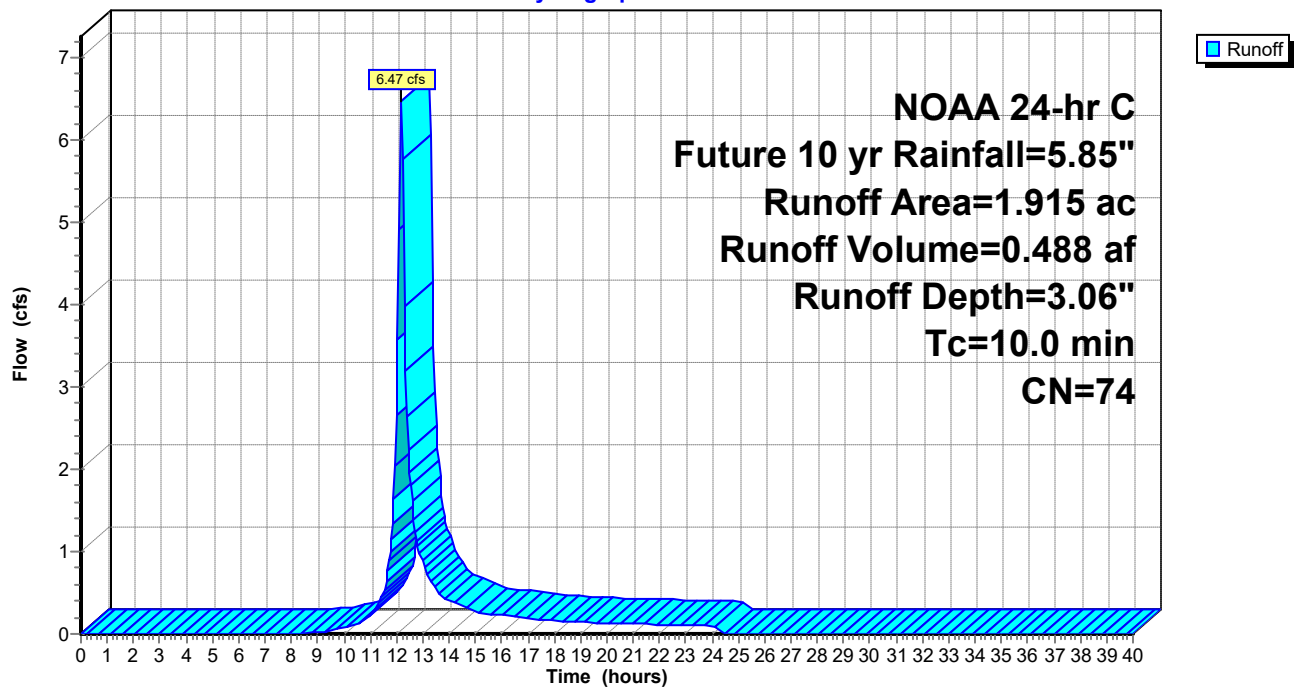
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
1.915	74	>75% Grass cover, Good, HSG C
1.915		100.00% Pervious Area

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

Subcatchment 22P: PDA-22 (pervious)

Hydrograph



Summary for Subcatchment 23I: PDA-23 (impervious)

Runoff = 5.37 cfs @ 12.17 hrs, Volume= 0.471 af, Depth= 5.61"
 Routed to Pond B-23 : Basin #23

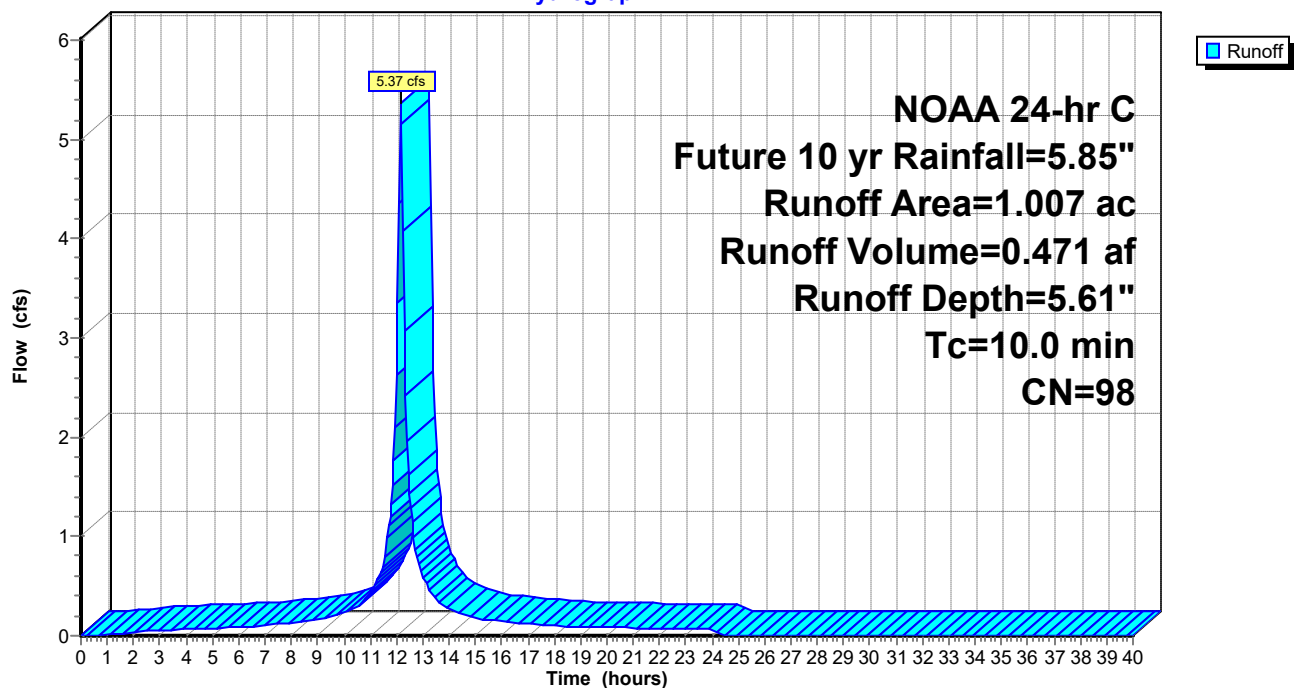
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.987	98	Pavement, HSG C
* 0.020	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 23I: PDA-23 (impervious)

Hydrograph



Summary for Subcatchment 23P: PDA-23 (pervious)

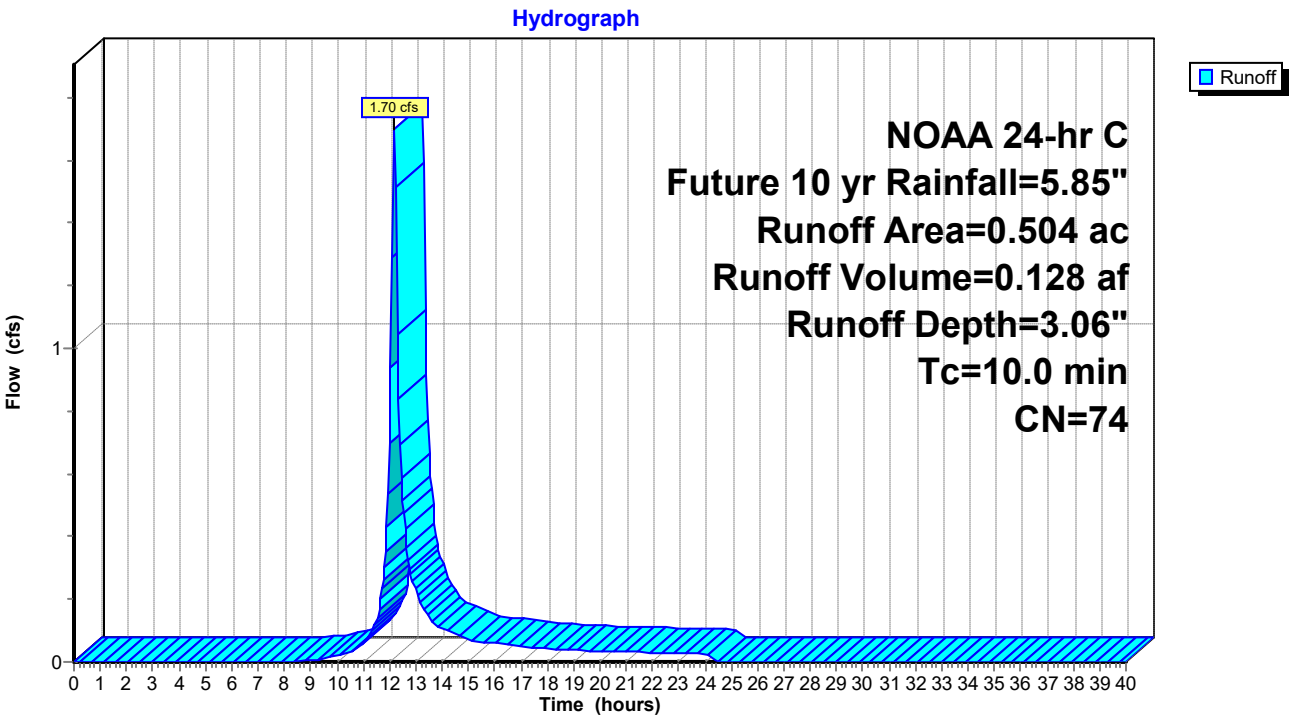
Runoff = 1.70 cfs @ 12.18 hrs, Volume= 0.128 af, Depth= 3.06"
Routed to Pond B-23 : Basin #23

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
0.504	74	>75% Grass cover, Good, HSG C
0.504		100.00% Pervious Area

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

Subcatchment 23P: PDA-23 (pervious)



Summary for Subcatchment 24I: PDA-24 (impervious)

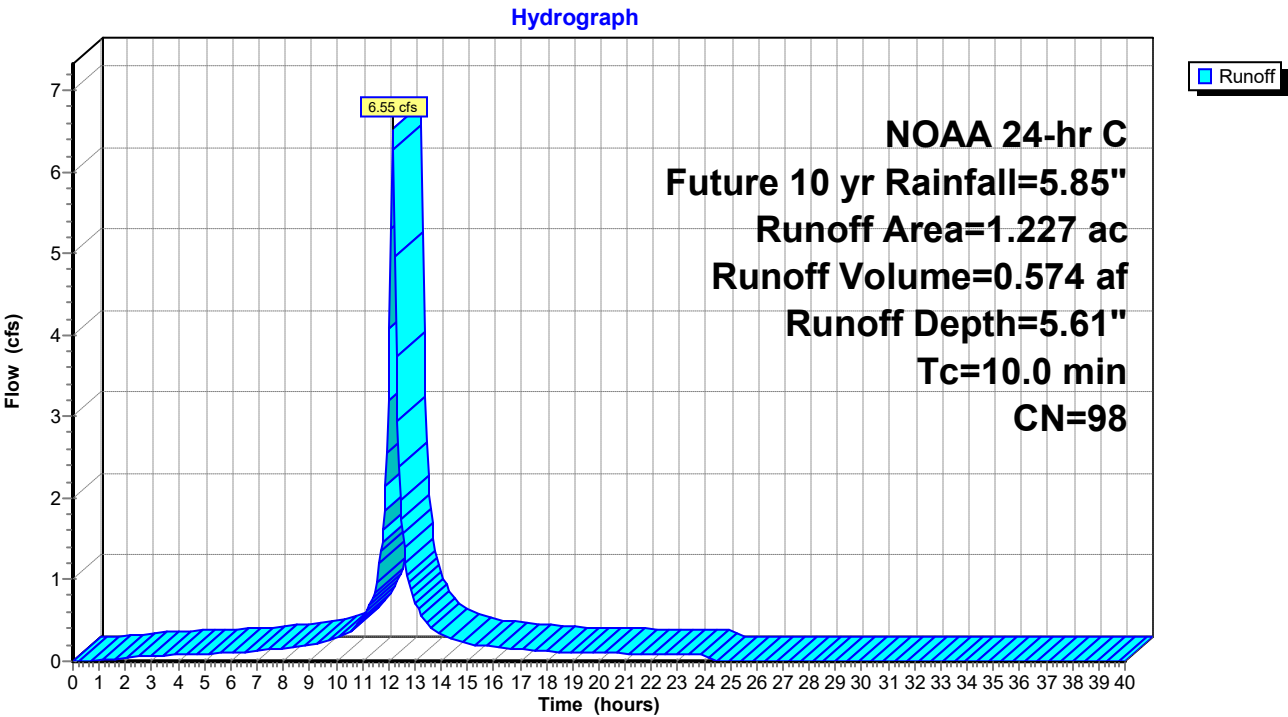
Runoff = 6.55 cfs @ 12.17 hrs, Volume= 0.574 af, Depth= 5.61"
Routed to Pond B-24 : Basin #24

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.525	98	Pavement, HSG C
* 0.643	98	Roof, HSG C
* 0.059	98	Concrete, HSC C
1.227	98	Weighted Average
1.227		100.00% Impervious Area

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

Subcatchment 24I: PDA-24 (impervious)



Summary for Subcatchment 24P: PDA-24 (pervious)

Runoff = 5.11 cfs @ 12.18 hrs, Volume= 0.385 af, Depth= 3.06"
 Routed to Pond B-24 : Basin #24

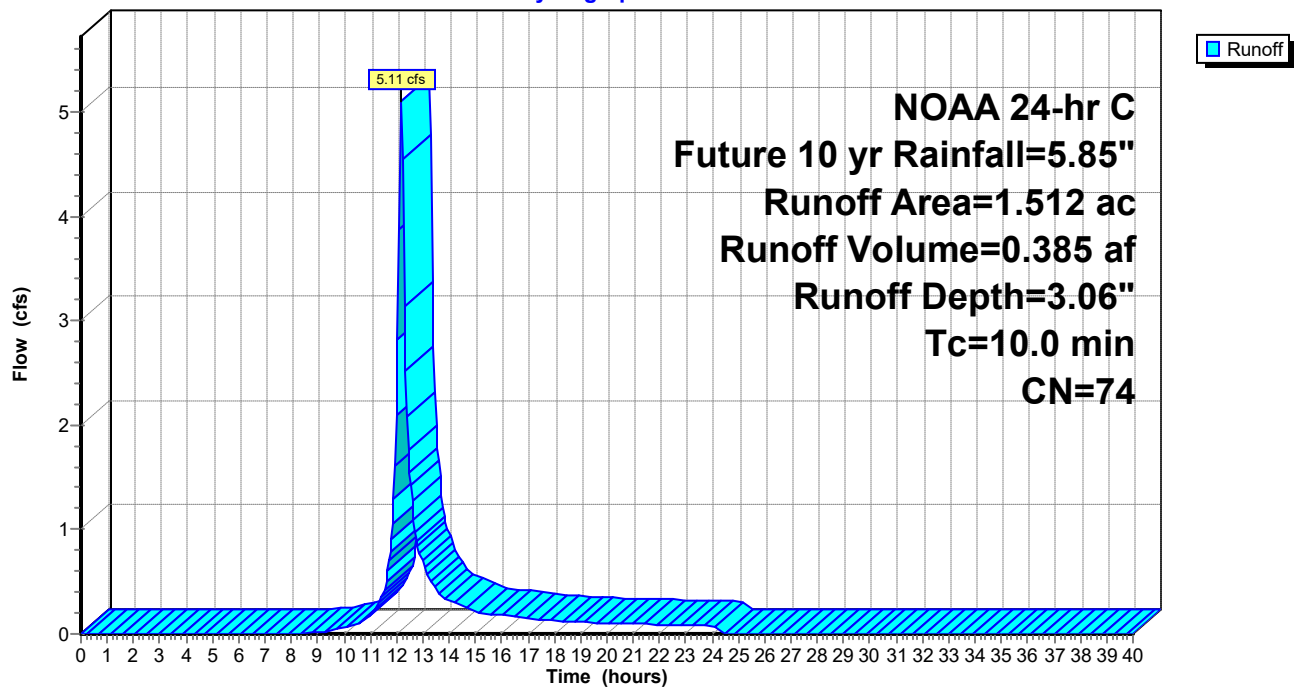
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
1.512	74	>75% Grass cover, Good, HSG C
1.512		100.00% Pervious Area

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

Subcatchment 24P: PDA-24 (pervious)

Hydrograph



Summary for Subcatchment 25I: PDA-25 (impervious)

Runoff = 6.28 cfs @ 12.17 hrs, Volume= 0.550 af, Depth= 5.61"
 Routed to Pond B-25 : Basin #25

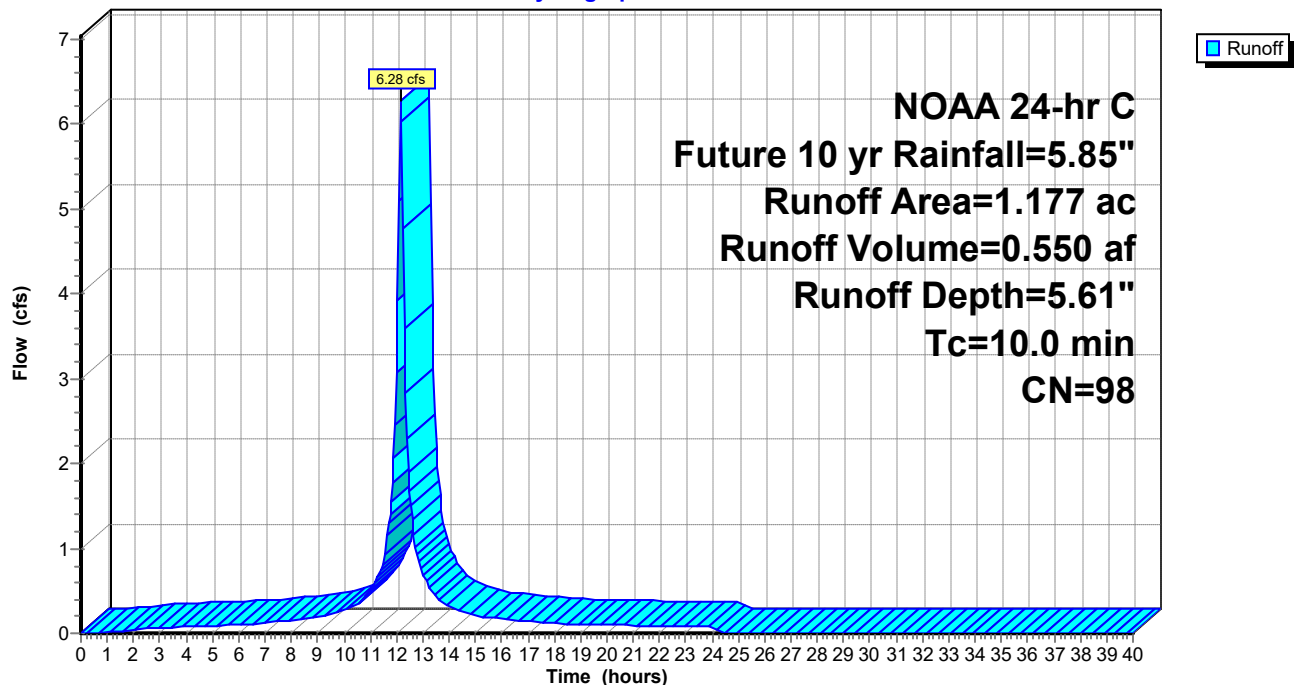
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.573	98	Pavement, HSG C
* 0.514	98	Roof, HSG C
* 0.090	98	Concrete, HSC C
1.177	98	Weighted Average
1.177		100.00% Impervious Area

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

Subcatchment 25I: PDA-25 (impervious)

Hydrograph



Summary for Subcatchment 25P: PDA-25 (pervious)

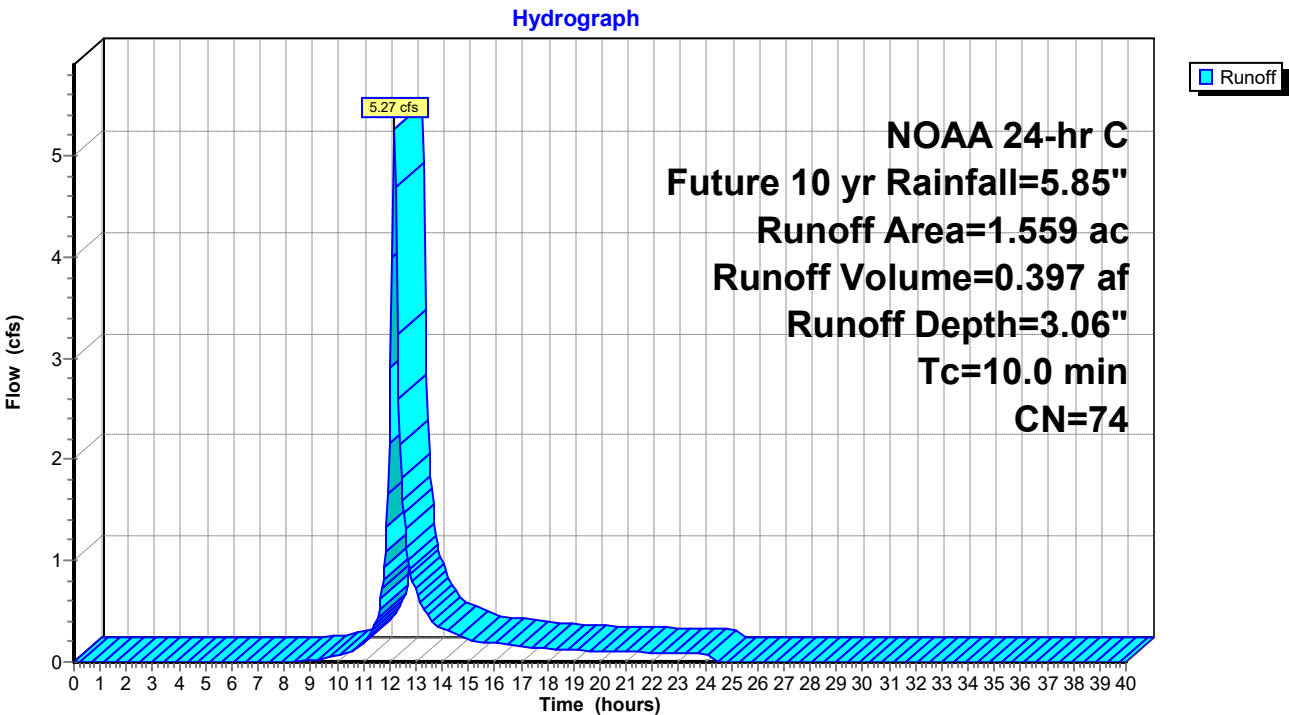
Runoff = 5.27 cfs @ 12.18 hrs, Volume= 0.397 af, Depth= 3.06"
Routed to Pond B-25 : Basin #25

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
1.559	74	>75% Grass cover, Good, HSG C
1.559		100.00% Pervious Area

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

Subcatchment 25P: PDA-25 (pervious)



Summary for Subcatchment 26I: PDA-26 (impervious)

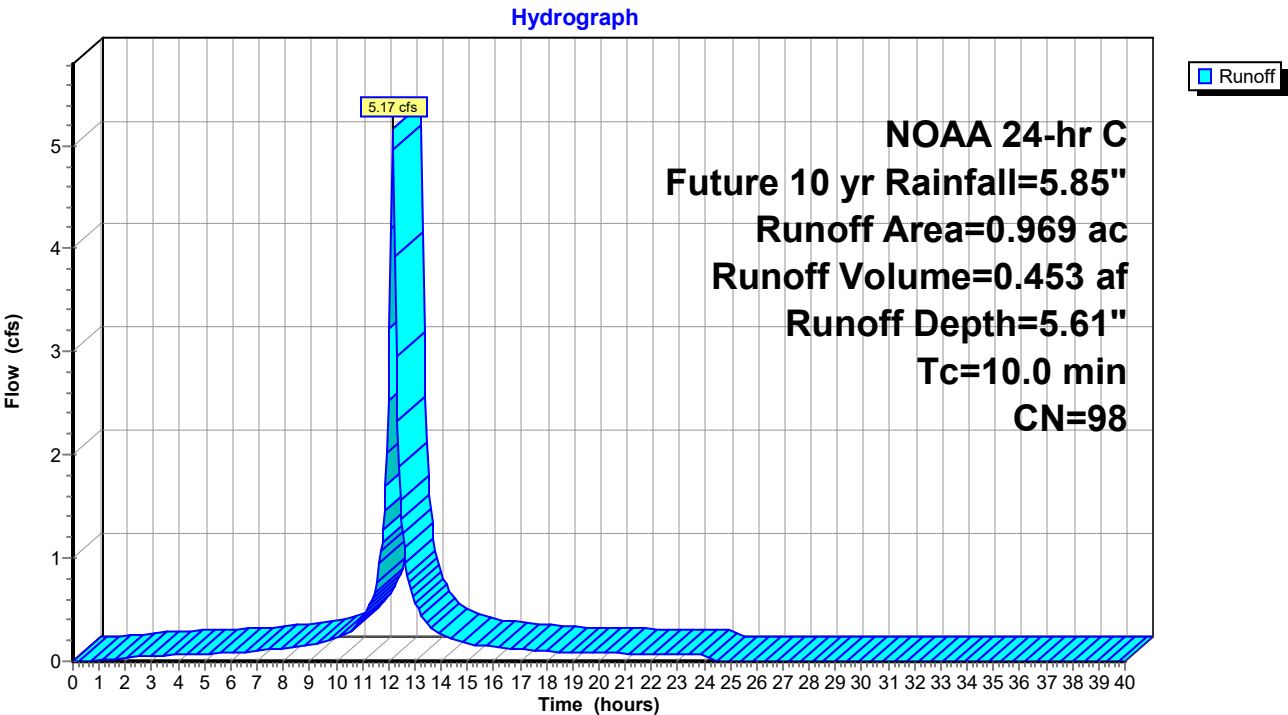
Runoff = 5.17 cfs @ 12.17 hrs, Volume= 0.453 af, Depth= 5.61"
Routed to Pond B-26 : Basin #26

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.277	98	Pavement, HSG C
* 0.687	98	Roof, HSG C
* 0.005	98	Concrete, HSC C
0.969	98	Weighted Average
0.969		100.00% Impervious Area

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

Subcatchment 26I: PDA-26 (impervious)



Summary for Subcatchment 26P: PDA-26 (pervious)

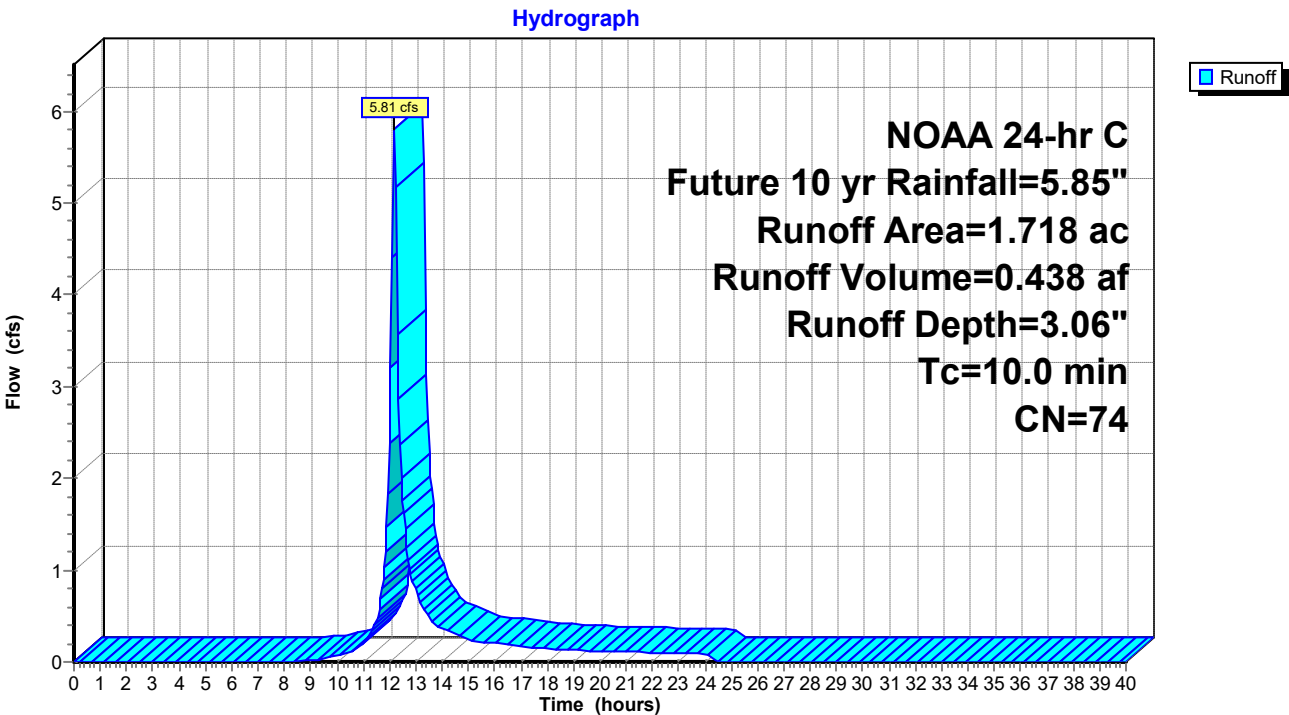
Runoff = 5.81 cfs @ 12.18 hrs, Volume= 0.438 af, Depth= 3.06"
Routed to Pond B-26 : Basin #26

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
1.718	74	>75% Grass cover, Good, HSG C
1.718		100.00% Pervious Area

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

Subcatchment 26P: PDA-26 (pervious)



Summary for Subcatchment 27I: PDA-27 (impervious)

Runoff = 6.21 cfs @ 12.17 hrs, Volume= 0.544 af, Depth= 5.61"
 Routed to Pond B-27 : Basin #27

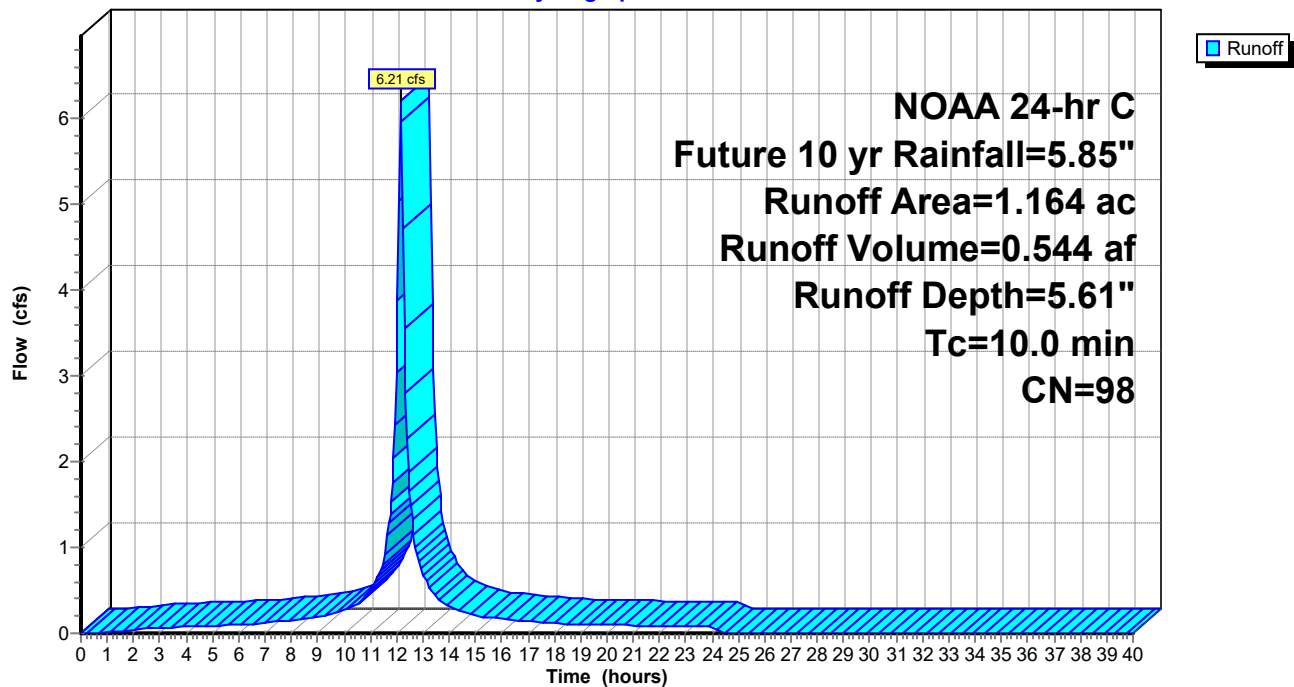
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.410	98	Pavement, HSG C
* 0.707	98	Roof, HSG C
* 0.047	98	Concrete, HSC C
1.164	98	Weighted Average
1.164		100.00% Impervious Area

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

Subcatchment 27I: PDA-27 (impervious)

Hydrograph



Summary for Subcatchment 27P: PDA-27 (pervious)

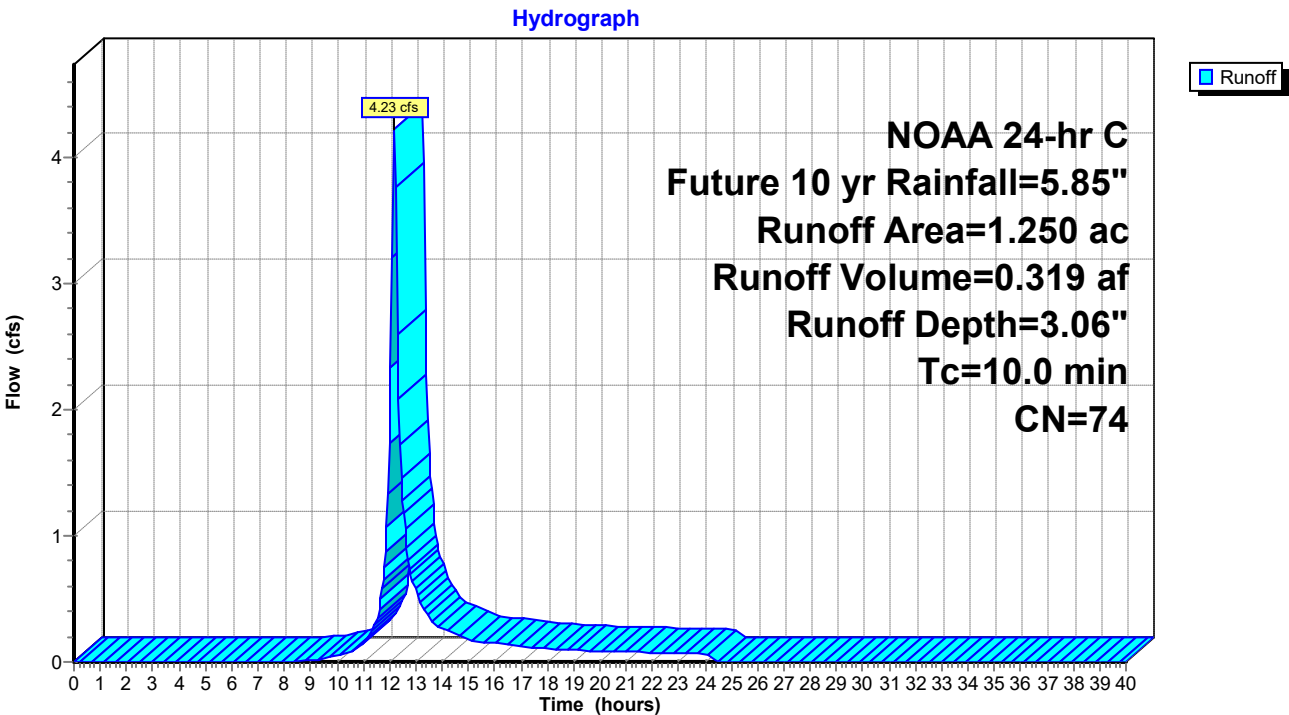
Runoff = 4.23 cfs @ 12.18 hrs, Volume= 0.319 af, Depth= 3.06"
Routed to Pond B-27 : Basin #27

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
1.250	74	>75% Grass cover, Good, HSG C
1.250		100.00% Pervious Area

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

Subcatchment 27P: PDA-27 (pervious)



Summary for Subcatchment 28I: PDA-28 (impervious)

Runoff = 5.52 cfs @ 12.17 hrs, Volume= 0.484 af, Depth= 5.61"
 Routed to Pond B-28 : Basin #28

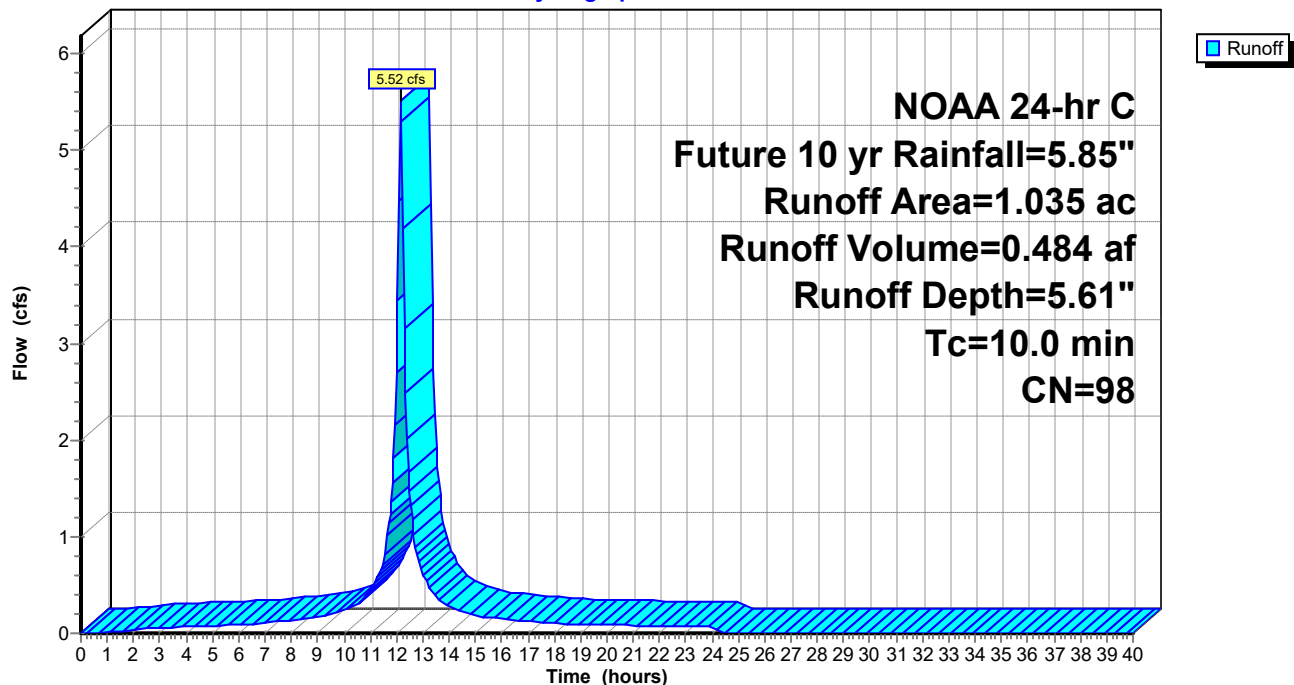
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 NOAA 24-hr C Future 10 yr Rainfall=5.85"

Area (ac)	CN	Description
* 0.179	98	Pavement, HSG C
* 0.836	98	Roof, HSG C
* 0.020	98	Concrete, HSC C
1.035	98	Weighted Average
1.035		100.00% Impervious Area

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

Subcatchment 28I: PDA-28 (impervious)

Hydrograph



Summary for Subcatchment 28P: PDA-28 (pervious)

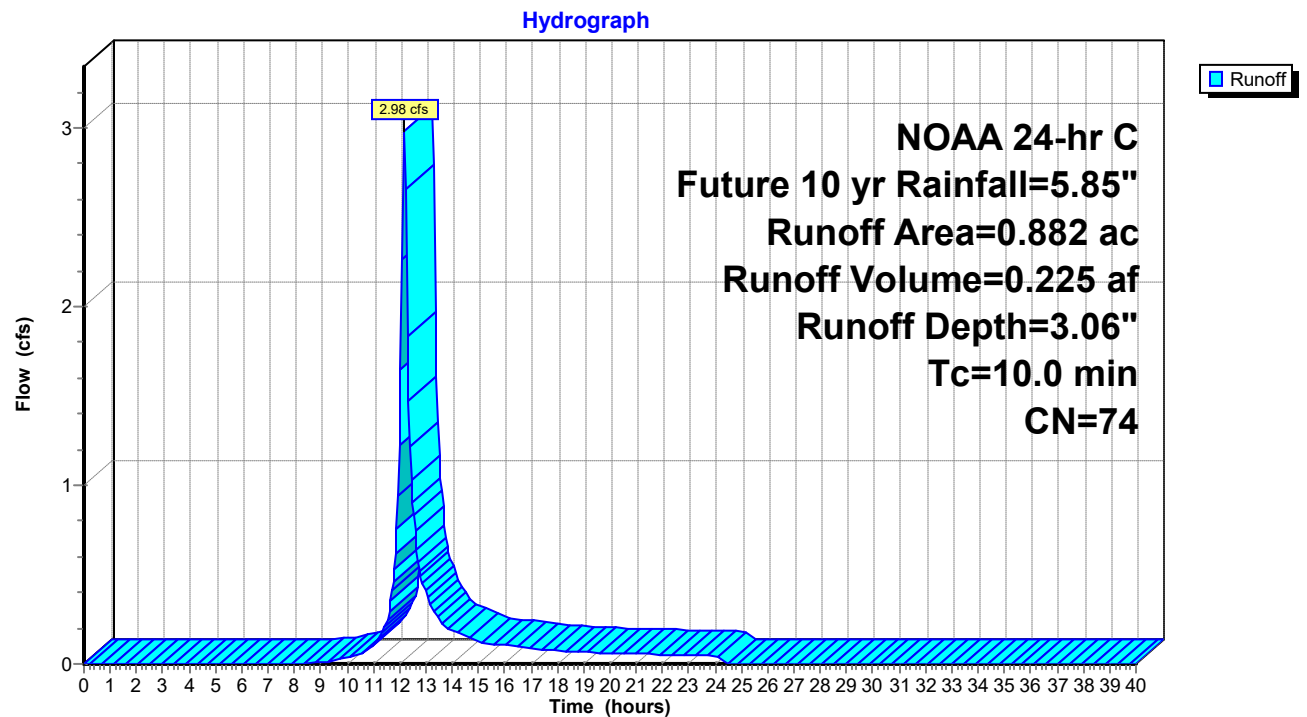
Runoff = 2.98 cfs @ 12.18 hrs, Volume= 0.225 af, Depth= 3.06"
Routed to Pond B-28 : Basin #28

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 10 yr Rainfall=5.85"

Area (ac)	CN	Description
0.882	74	>75% Grass cover, Good, HSG C
0.882		100.00% Pervious Area

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

Subcatchment 28P: PDA-28 (pervious)



Summary for Subcatchment UPDA-1: PDA-1 (undetained)

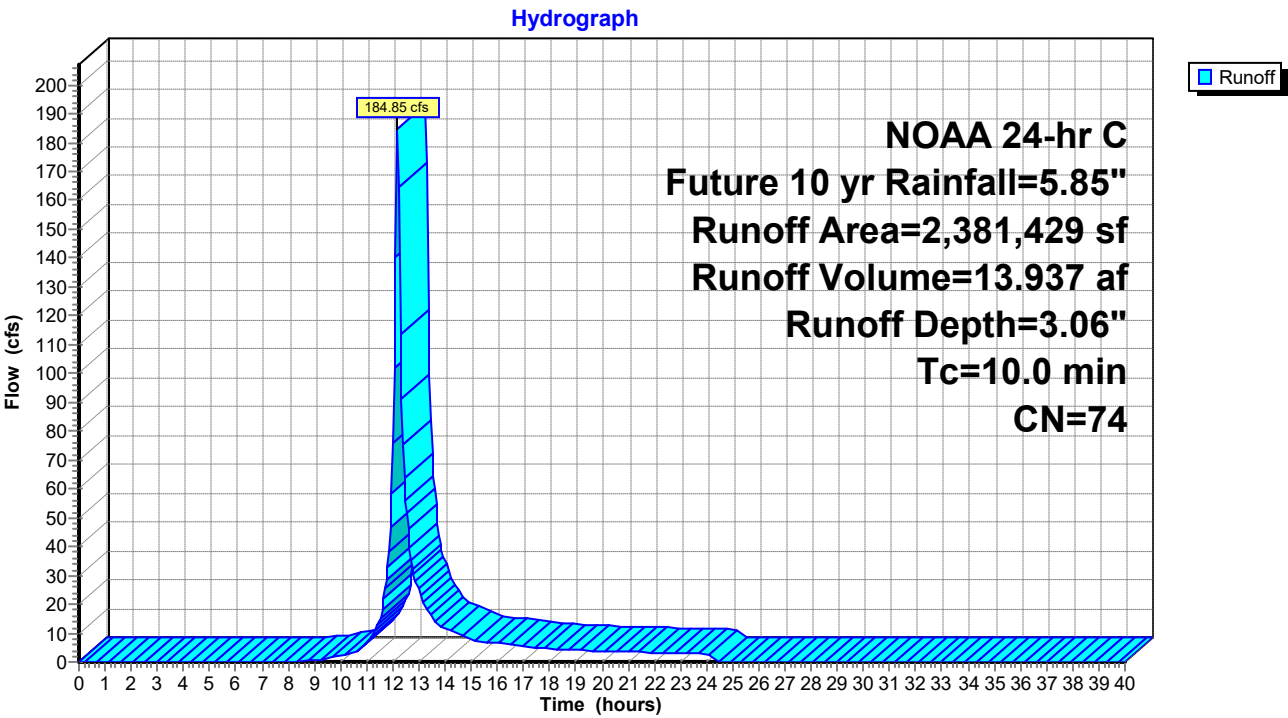
Runoff = 184.85 cfs @ 12.18 hrs, Volume= 13.937 af, Depth= 3.06"
Routed to Link PDA-1 : Proposed Drainage Area #1

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 10 yr Rainfall=5.85"

Area (sf)	CN	Description
2,381,429	74	>75% Grass cover, Good, HSG C
2,381,429		100.00% Pervious Area

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

Subcatchment UPDA-1: PDA-1 (undetained)



Summary for Subcatchment UPDA-2: PDA-2 (undetained)

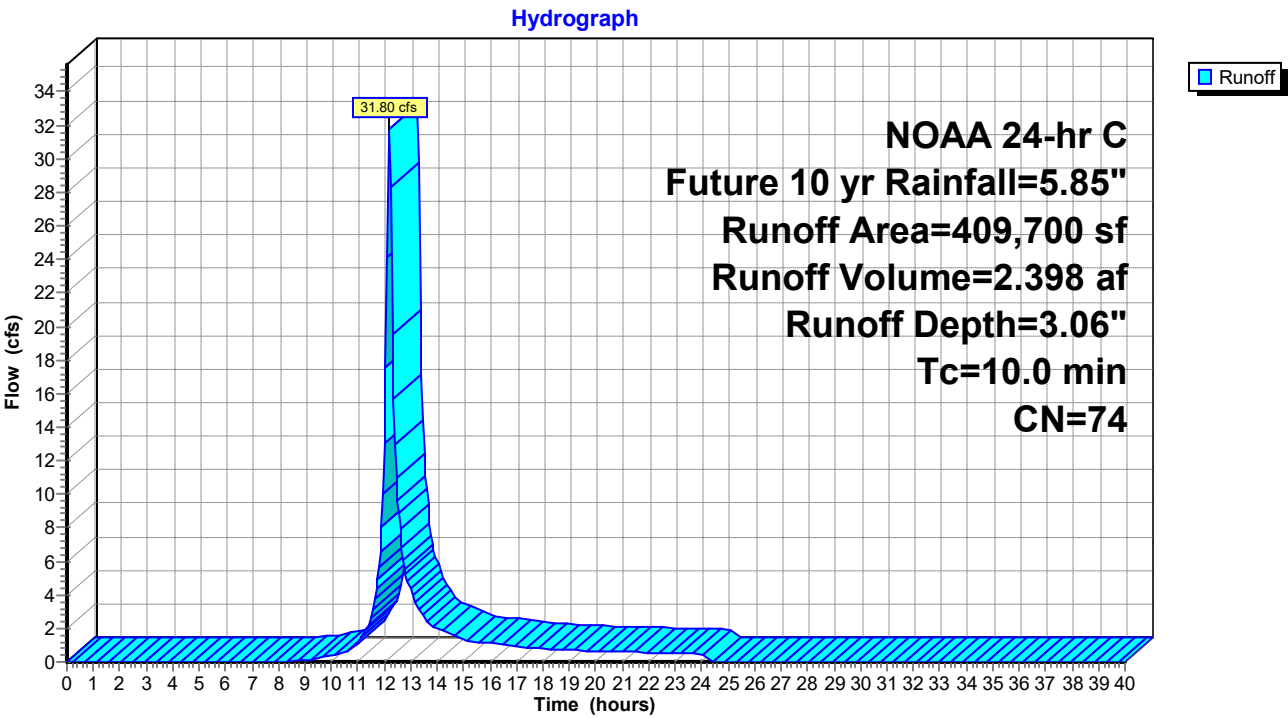
Runoff = 31.80 cfs @ 12.18 hrs, Volume= 2.398 af, Depth= 3.06"
Routed to Link PDA-2 : Proposed Drainage Area #2

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 10 yr Rainfall=5.85"

Area (sf)	CN	Description
409,700	74	>75% Grass cover, Good, HSG C
409,700		100.00% Pervious Area

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

Subcatchment UPDA-2: PDA-2 (undetained)



Summary for Pond B-1: Basin #1

Inflow Area = 2.485 ac, 4.79% Impervious, Inflow Depth = 3.18" for Future 10 yr event
 Inflow = 8.63 cfs @ 12.18 hrs, Volume= 0.659 af
 Outflow = 2.09 cfs @ 12.61 hrs, Volume= 0.502 af, Atten= 76%, Lag= 25.9 min
 Primary = 2.09 cfs @ 12.61 hrs, Volume= 0.502 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 209.95' @ 12.61 hrs Surf.Area= 11,089 sf Storage= 13,711 cf

Plug-Flow detention time= 356.5 min calculated for 0.502 af (76% of inflow)
 Center-of-Mass det. time= 266.0 min (1,095.7 - 829.6)

Volume	Invert	Avail.Storage	Storage Description
#1	208.30'	38,468 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
208.30	0	0	0
209.00	10,187	3,565	3,565
210.00	11,133	10,660	14,225
211.00	12,113	11,623	25,848
212.00	13,126	12,620	38,468

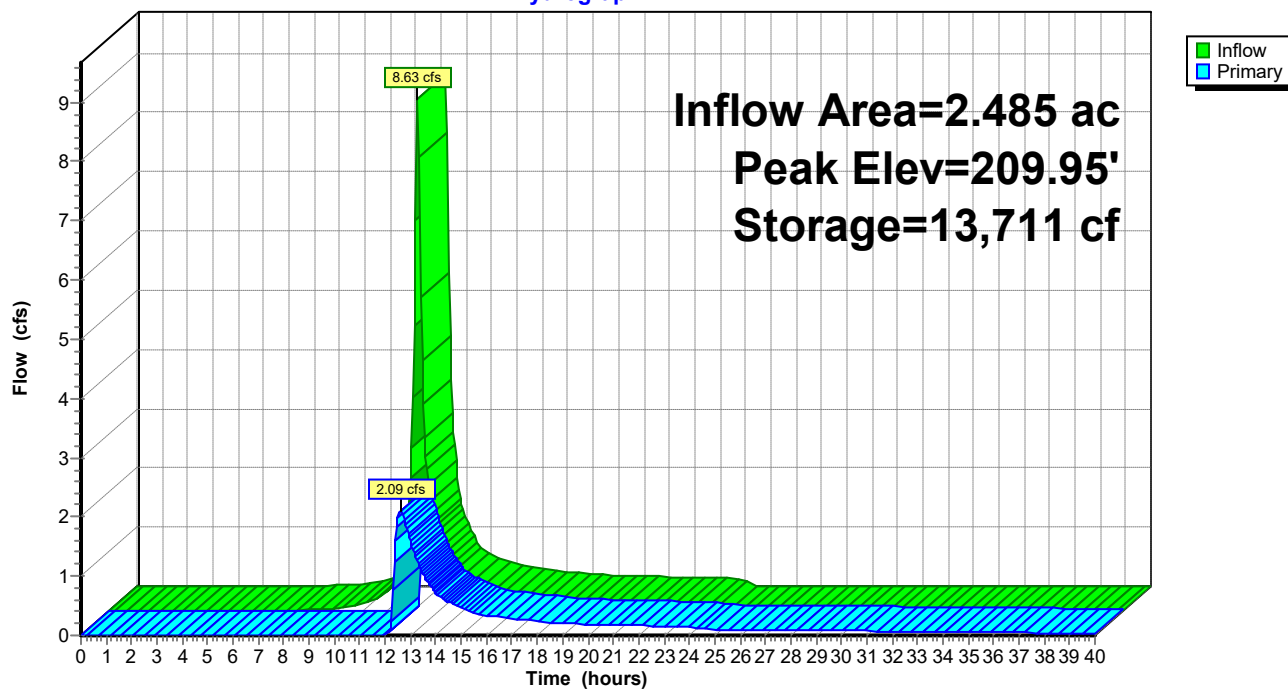
Device	Routing	Invert	Outlet Devices
#1	Primary	207.65'	18.0" Round Culvert L= 276.0' Ke= 0.500 Inlet / Outlet Invert= 207.65' / 204.00' S= 0.0132 ' /' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	209.17'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	209.67'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	210.80'	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=2.08 cfs @ 12.61 hrs HW=209.95' (Free Discharge)

1=Culvert (Passes 2.08 cfs of 10.61 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.14 cfs @ 3.97 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 1.95 cfs @ 1.74 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-1: Basin #1

Hydrograph



Summary for Pond B-10: Basin #10

Inflow Area = 1.674 ac, 56.63% Impervious, Inflow Depth = 4.50" for Future 10 yr event
 Inflow = 7.51 cfs @ 12.17 hrs, Volume= 0.628 af
 Outflow = 3.17 cfs @ 12.38 hrs, Volume= 0.528 af, Atten= 58%, Lag= 12.3 min
 Primary = 3.17 cfs @ 12.38 hrs, Volume= 0.528 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 181.37' @ 12.38 hrs Surf.Area= 6,153 sf Storage= 13,695 cf

Plug-Flow detention time= 436.0 min calculated for 0.528 af (84% of inflow)
 Center-of-Mass det. time= 364.0 min (1,139.6 - 775.6)

Volume	Invert	Avail.Storage	Storage Description
#1	178.30'	24,949 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
178.30	0	0	0
179.00	4,220	1,477	1,477
180.00	5,003	4,612	6,088
181.00	5,833	5,418	11,506
182.00	6,710	6,272	17,778
183.00	7,633	7,172	24,949

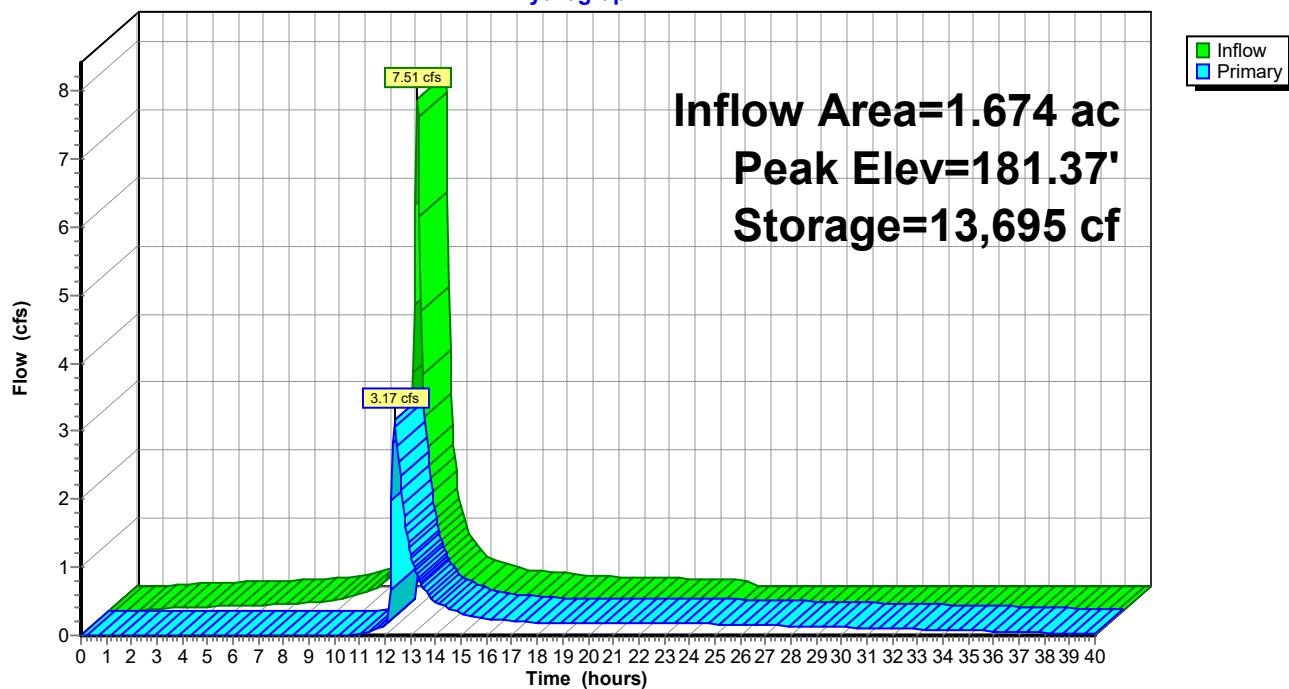
Device	Routing	Invert	Outlet Devices
#1	Primary	177.65'	18.0" Round Culvert L= 52.0' Ke= 0.500 Inlet / Outlet Invert= 177.65' / 176.00' S= 0.0317 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	179.53'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	180.99'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	181.86'	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=3.15 cfs @ 12.38 hrs HW=181.36' (Free Discharge)

1=Culvert (Passes 3.15 cfs of 14.65 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.22 cfs @ 6.33 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 2.93 cfs @ 2.00 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-10: Basin #10

Hydrograph



Summary for Pond B-11: Basin #11

Inflow Area = 2.668 ac, 34.97% Impervious, Inflow Depth = 3.95" for Future 10 yr event
 Inflow = 10.85 cfs @ 12.17 hrs, Volume= 0.879 af
 Outflow = 4.35 cfs @ 12.40 hrs, Volume= 0.745 af, Atten= 60%, Lag= 13.5 min
 Primary = 4.35 cfs @ 12.40 hrs, Volume= 0.745 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 182.82' @ 12.40 hrs Surf.Area= 6,985 sf Storage= 18,180 cf

Plug-Flow detention time= 434.7 min calculated for 0.745 af (85% of inflow)
 Center-of-Mass det. time= 364.8 min (1,158.6 - 793.8)

Volume	Invert	Avail.Storage	Storage Description
#1	179.30'	44,897 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
179.30	0	0	0
180.00	4,780	1,673	1,673
181.00	5,522	5,151	6,824
182.00	6,306	5,914	12,738
183.00	7,135	6,721	19,458
184.00	8,007	7,571	27,029
185.00	8,923	8,465	35,494
186.00	9,882	9,403	44,897

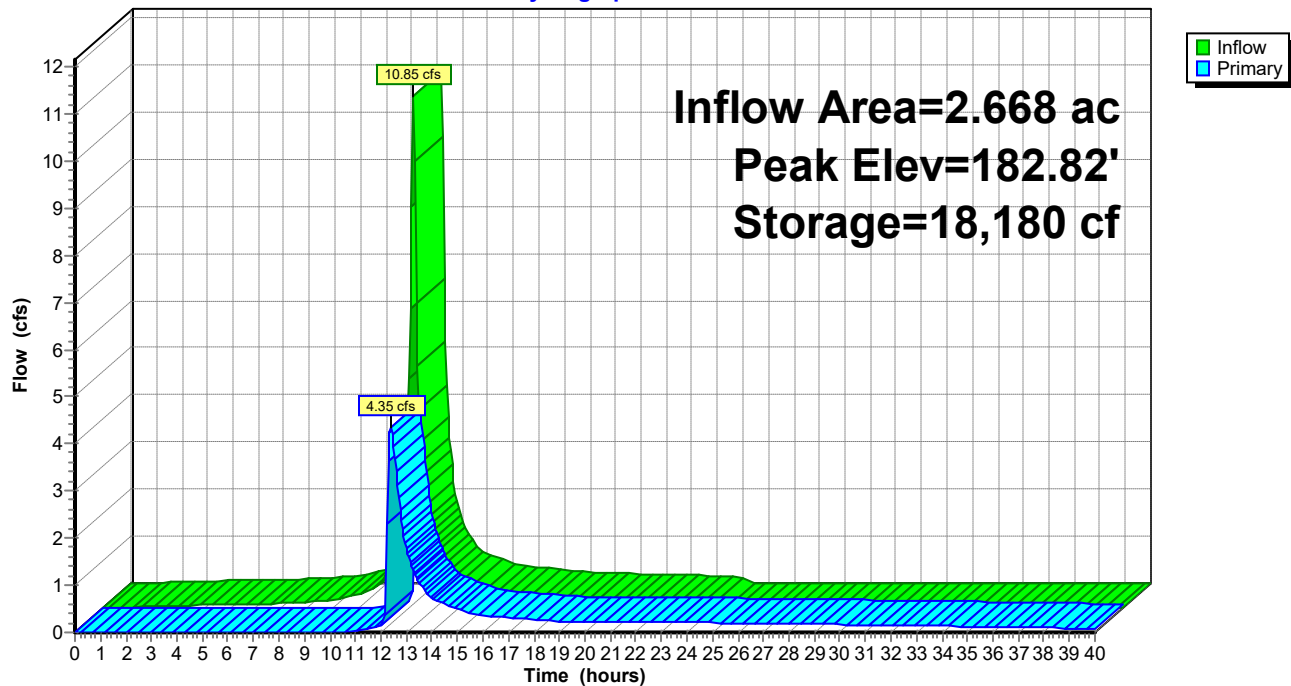
Device	Routing	Invert	Outlet Devices
#1	Primary	178.65'	18.0" Round Culvert L= 131.0' Ke= 0.500 Inlet / Outlet Invert= 178.65' / 178.00' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	180.47'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	182.35'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	183.91'	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=4.34 cfs @ 12.40 hrs HW=182.82' (Free Discharge)

- 1=Culvert (Passes 4.34 cfs of 13.09 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.25 cfs @ 7.21 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 4.10 cfs @ 2.24 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-11: Basin #11

Hydrograph



Summary for Pond B-12: Basin #12

Inflow Area = 2.004 ac, 68.31% Impervious, Inflow Depth = 4.80" for Future 10 yr event
 Inflow = 9.45 cfs @ 12.17 hrs, Volume= 0.802 af
 Outflow = 5.80 cfs @ 12.30 hrs, Volume= 0.677 af, Atten= 39%, Lag= 7.8 min
 Primary = 5.80 cfs @ 12.30 hrs, Volume= 0.677 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 203.34' @ 12.30 hrs Surf.Area= 6,371 sf Storage= 14,462 cf

Plug-Flow detention time= 195.3 min calculated for 0.677 af (84% of inflow)
 Center-of-Mass det. time= 124.8 min (892.3 - 767.5)

Volume	Invert	Avail.Storage	Storage Description
#1	200.30'	26,105 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	4,623	1,618	1,618
202.00	5,350	4,987	6,605
203.00	6,105	5,728	12,332
204.00	6,883	6,494	18,826
205.00	7,674	7,279	26,105

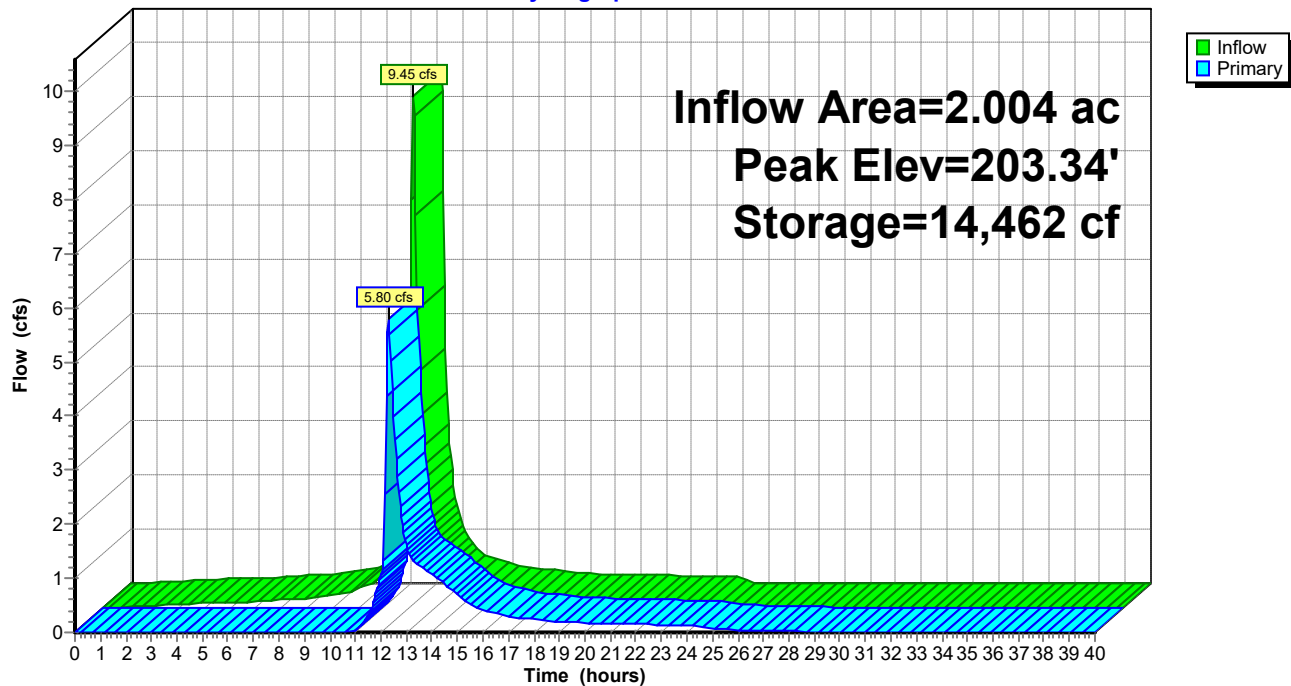
Device	Routing	Invert	Outlet Devices
#1	Primary	199.65'	18.0" Round Culvert L= 238.0' Ke= 0.500 Inlet / Outlet Invert= 199.65' / 195.50' S= 0.0174 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	201.76'	7.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	202.87'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	203.96'	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=5.80 cfs @ 12.30 hrs HW=203.34' (Free Discharge)

1=Culvert (Passes 5.80 cfs of 14.59 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 1.66 cfs @ 5.42 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 4.13 cfs @ 2.24 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-12: Basin #12

Hydrograph



Summary for Pond B-13: Basin #13

Inflow Area = 2.350 ac, 62.43% Impervious, Inflow Depth = 4.65" for Future 10 yr event
 Inflow = 10.81 cfs @ 12.17 hrs, Volume= 0.911 af
 Outflow = 3.25 cfs @ 12.47 hrs, Volume= 0.690 af, Atten= 70%, Lag= 18.1 min
 Primary = 3.25 cfs @ 12.47 hrs, Volume= 0.690 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 194.13' @ 12.47 hrs Surf.Area= 9,769 sf Storage= 21,696 cf

Plug-Flow detention time= 488.4 min calculated for 0.689 af (76% of inflow)
 Center-of-Mass det. time= 399.6 min (1,171.1 - 771.5)

Volume	Invert	Avail.Storage	Storage Description
#1	191.30'	41,458 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
191.30	0	0	0
192.00	7,975	2,791	2,791
193.00	8,804	8,390	11,181
194.00	9,654	9,229	20,410
195.00	10,522	10,088	30,498
196.00	11,399	10,961	41,458

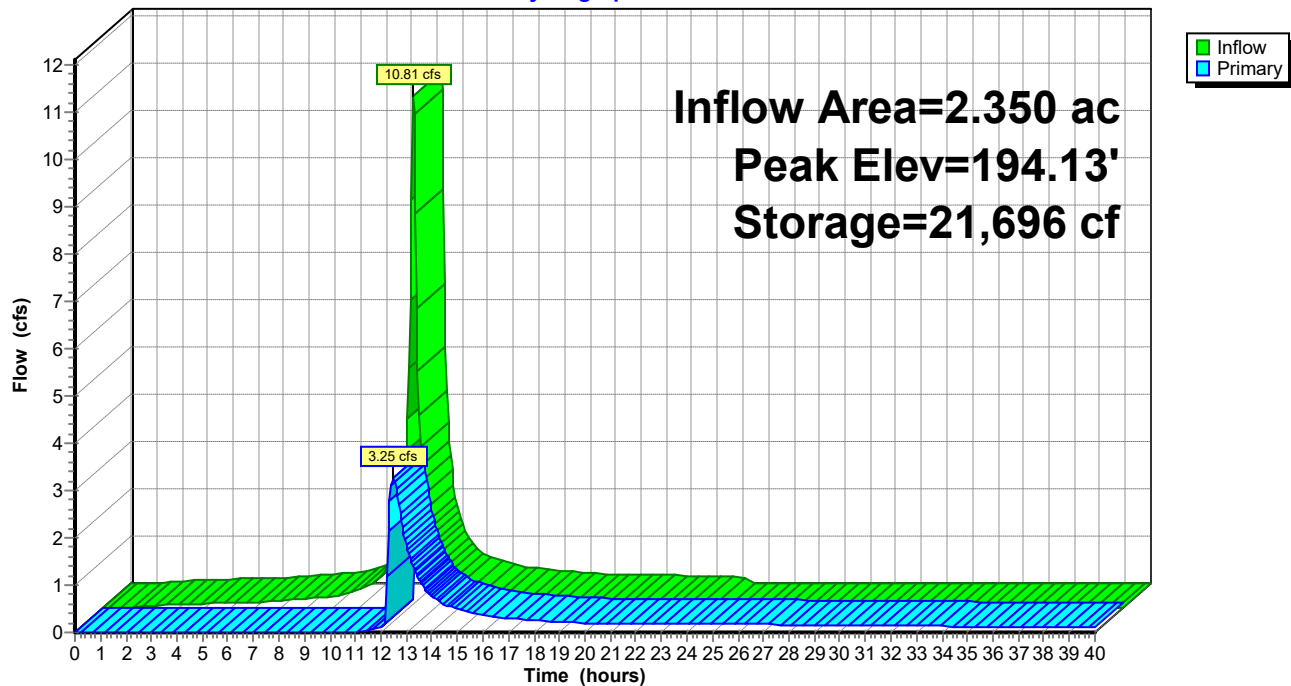
Device	Routing	Invert	Outlet Devices
#1	Primary	190.65'	18.0" Round Culvert L= 57.0' Ke= 0.500 Inlet / Outlet Invert= 190.65' / 188.00' S= 0.0465 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	192.37'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	193.75'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	194.96'	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=3.23 cfs @ 12.47 hrs HW=194.13' (Free Discharge)

- 1=Culvert (Passes 3.23 cfs of 14.06 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.21 cfs @ 6.20 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 3.02 cfs @ 2.02 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-13: Basin #13

Hydrograph



Summary for Pond B-14: Basin #14

Inflow Area = 2.148 ac, 23.65% Impervious, Inflow Depth = 3.66" for Future 10 yr event
 Inflow = 8.26 cfs @ 12.17 hrs, Volume= 0.656 af
 Outflow = 3.18 cfs @ 12.41 hrs, Volume= 0.572 af, Atten= 62%, Lag= 14.3 min
 Primary = 3.18 cfs @ 12.41 hrs, Volume= 0.572 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 193.65' @ 12.41 hrs Surf.Area= 6,998 sf Storage= 13,064 cf

Plug-Flow detention time= 402.3 min calculated for 0.571 af (87% of inflow)
 Center-of-Mass det. time= 341.5 min (1,147.0 - 805.4)

Volume	Invert	Avail.Storage	Storage Description
#1	191.30'	30,883 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
191.30	0	0	0
192.00	6,224	2,178	2,178
193.00	6,689	6,457	8,635
194.00	7,167	6,928	15,563
195.00	7,657	7,412	22,975
196.00	8,160	7,909	30,883

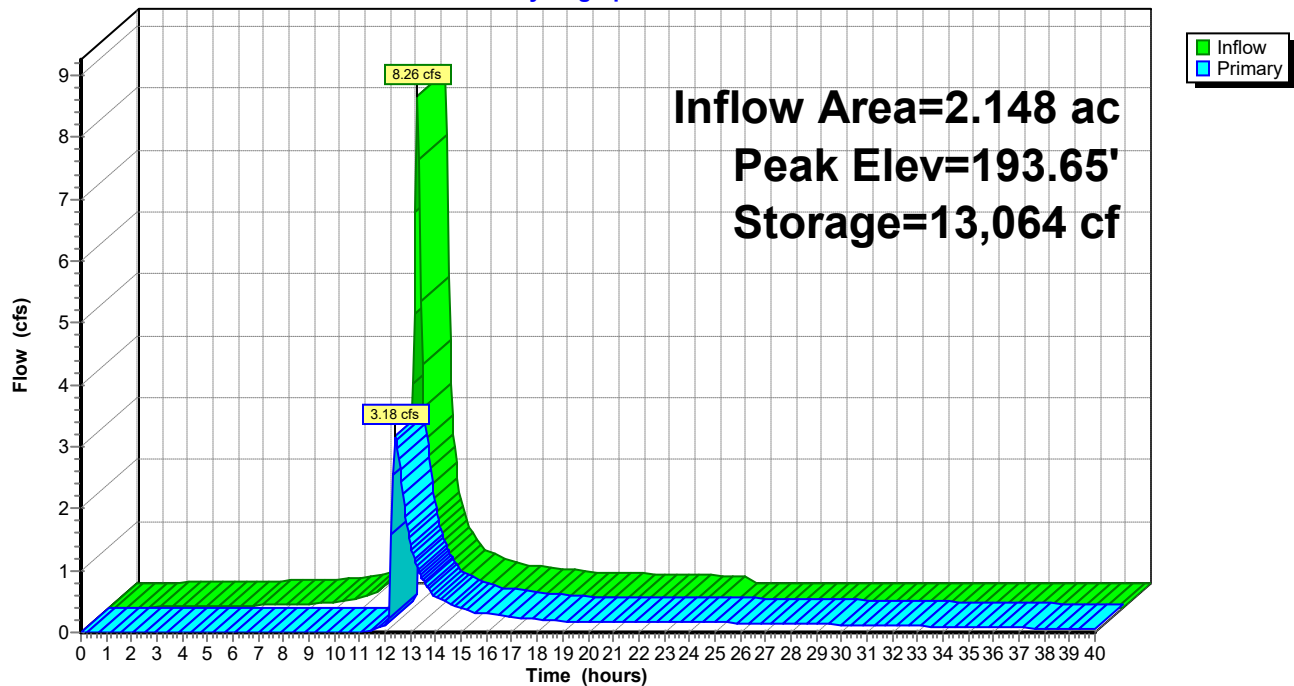
Device	Routing	Invert	Outlet Devices
#1	Primary	190.65'	18.0" Round Culvert L= 194.0' Ke= 0.500 Inlet / Outlet Invert= 190.65' / 188.00' S= 0.0137 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	192.04'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	193.27'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	194.44'	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=3.16 cfs @ 12.41 hrs HW=193.65' (Free Discharge)

1=Culvert (Passes 3.16 cfs of 12.75 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.20 cfs @ 5.90 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 2.95 cfs @ 2.00 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-14: Basin #14

Hydrograph



Summary for Pond B-15: Basin #15

Inflow Area = 2.365 ac, 58.73% Impervious, Inflow Depth = 4.56" for Future 10 yr event
 Inflow = 10.71 cfs @ 12.17 hrs, Volume= 0.898 af
 Outflow = 6.93 cfs @ 12.29 hrs, Volume= 0.770 af, Atten= 35%, Lag= 7.2 min
 Primary = 6.93 cfs @ 12.29 hrs, Volume= 0.770 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 199.15' @ 12.29 hrs Surf.Area= 5,475 sf Storage= 15,672 cf

Plug-Flow detention time= 185.4 min calculated for 0.769 af (86% of inflow)
 Center-of-Mass det. time= 120.0 min (894.0 - 774.1)

Volume	Invert	Avail.Storage	Storage Description
#1	195.30'	26,898 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
195.30	0	0	0
196.00	3,706	1,297	1,297
197.00	4,236	3,971	5,268
198.00	4,795	4,516	9,784
199.00	5,384	5,090	14,873
200.00	6,002	5,693	20,566
201.00	6,662	6,332	26,898

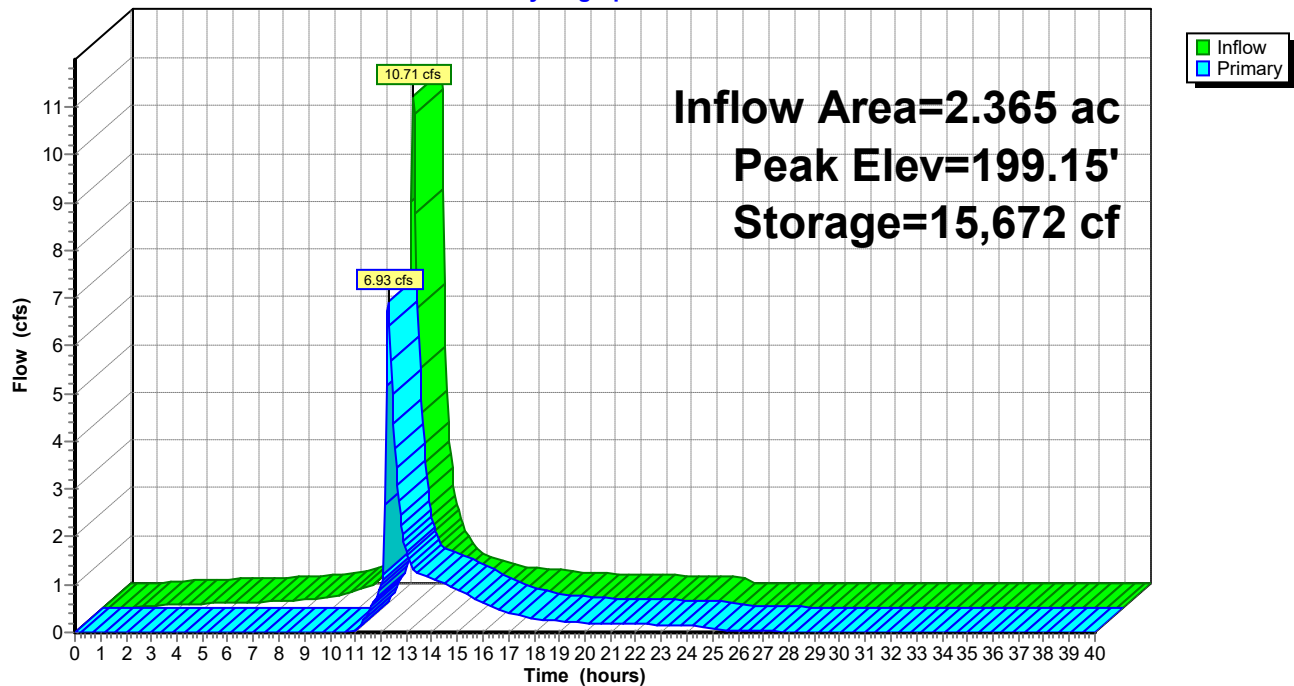
Device	Routing	Invert	Outlet Devices
#1	Primary	194.65'	18.0" Round Culvert L= 203.0' Ke= 0.500 Inlet / Outlet Invert= 194.65' / 192.00' S= 0.0131 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	197.06'	6.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	198.58'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	200.00'	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=6.87 cfs @ 12.29 hrs HW=199.14' (Free Discharge)

1=Culvert (Passes 6.87 cfs of 14.76 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 1.49 cfs @ 6.48 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 5.37 cfs @ 2.45 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-15: Basin #15

Hydrograph



Summary for Pond B-16: Basin #16

Inflow Area = 2.685 ac, 43.39% Impervious, Inflow Depth = 4.17" for Future 10 yr event
 Inflow = 11.36 cfs @ 12.17 hrs, Volume= 0.932 af
 Outflow = 2.98 cfs @ 12.54 hrs, Volume= 0.706 af, Atten= 74%, Lag= 22.2 min
 Primary = 2.98 cfs @ 12.54 hrs, Volume= 0.706 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 179.67' @ 12.54 hrs Surf.Area= 11,645 sf Storage= 21,714 cf

Plug-Flow detention time= 465.6 min calculated for 0.706 af (76% of inflow)
 Center-of-Mass det. time= 374.7 min (1,160.8 - 786.1)

Volume	Invert	Avail.Storage	Storage Description
#1	177.30'	51,430 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
177.30	0	0	0
178.00	10,122	3,543	3,543
179.00	11,022	10,572	14,115
180.00	11,951	11,487	25,601
181.00	12,907	12,429	38,030
182.00	13,893	13,400	51,430

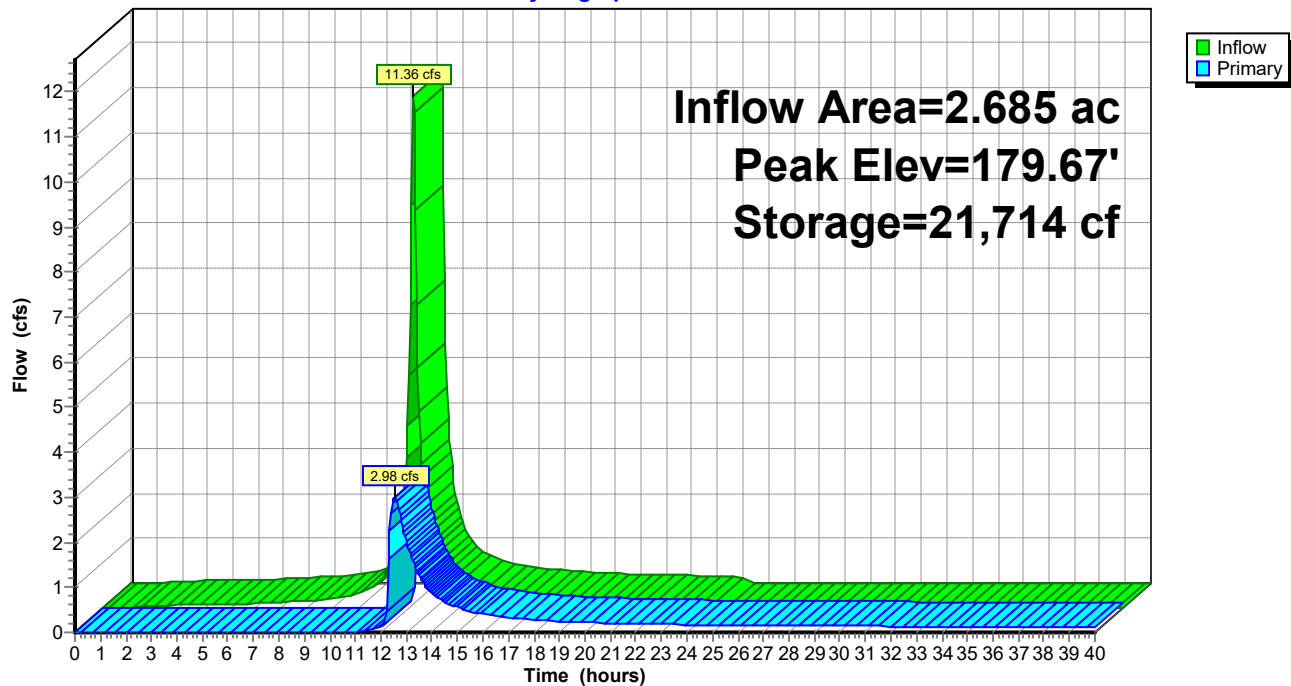
Device	Routing	Invert	Outlet Devices
#1	Primary	176.65'	18.0" Round Culvert L= 53.0' Ke= 0.500 Inlet / Outlet Invert= 176.65' / 172.00' S= 0.0877 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	178.13'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	179.31'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	180.57'	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=2.97 cfs @ 12.54 hrs HW=179.67' (Free Discharge)

1=Culvert (Passes 2.97 cfs of 12.82 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.20 cfs @ 5.77 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 2.78 cfs @ 1.96 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-16: Basin #16

Hydrograph



Summary for Pond B-17: Basin #17

Inflow Area = 2.791 ac, 34.54% Impervious, Inflow Depth = 3.94" for Future 10 yr event
 Inflow = 11.32 cfs @ 12.17 hrs, Volume= 0.917 af
 Outflow = 2.26 cfs @ 12.66 hrs, Volume= 0.676 af, Atten= 80%, Lag= 29.0 min
 Primary = 2.26 cfs @ 12.66 hrs, Volume= 0.676 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 180.13' @ 12.66 hrs Surf.Area= 16,309 sf Storage= 21,939 cf

Plug-Flow detention time= 456.6 min calculated for 0.675 af (74% of inflow)
 Center-of-Mass det. time= 363.1 min (1,157.3 - 794.2)

Volume	Invert	Avail.Storage	Storage Description
#1	178.30'	77,758 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
178.30	0	0	0
179.00	13,952	4,883	4,883
180.00	16,036	14,994	19,877
181.00	18,176	17,106	36,983
182.00	20,373	19,275	56,258
183.00	22,627	21,500	77,758

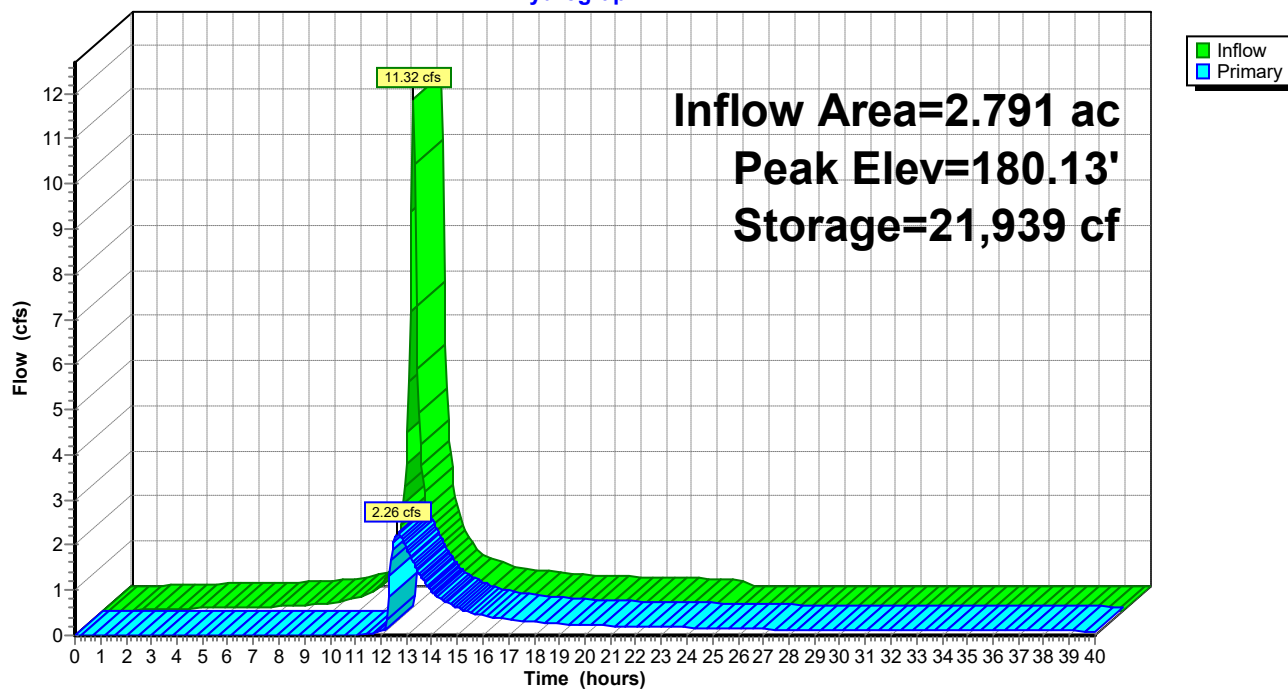
Device	Routing	Invert	Outlet Devices
#1	Primary	177.65'	18.0" Round Culvert L= 40.0' Ke= 0.500 Inlet / Outlet Invert= 177.65' / 177.00' S= 0.0163 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	178.95'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	179.83'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	180.93'	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=2.26 cfs @ 12.66 hrs HW=180.13' (Free Discharge)

1=Culvert (Passes 2.26 cfs of 11.18 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.17 cfs @ 4.99 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 2.09 cfs @ 1.78 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-17: Basin #17

Hydrograph



Summary for Pond B-18: Basin #18

Inflow Area = 2.458 ac, 47.56% Impervious, Inflow Depth = 4.27" for Future 10 yr event
 Inflow = 10.60 cfs @ 12.17 hrs, Volume= 0.875 af
 Outflow = 8.66 cfs @ 12.25 hrs, Volume= 0.766 af, Atten= 18%, Lag= 4.6 min
 Primary = 8.66 cfs @ 12.25 hrs, Volume= 0.766 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 198.96' @ 12.25 hrs Surf.Area= 3,759 sf Storage= 9,569 cf

Plug-Flow detention time= 121.2 min calculated for 0.765 af (87% of inflow)
 Center-of-Mass det. time= 60.5 min (843.1 - 782.6)

Volume	Invert	Avail.Storage	Storage Description
#1	194.65'	18,838 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
194.65	0	0	0
195.00	1,068	187	187
196.00	1,693	1,381	1,567
197.00	2,352	2,023	3,590
198.00	3,059	2,706	6,295
199.00	3,788	3,424	9,719
200.00	4,551	4,170	13,888
201.00	5,348	4,950	18,838

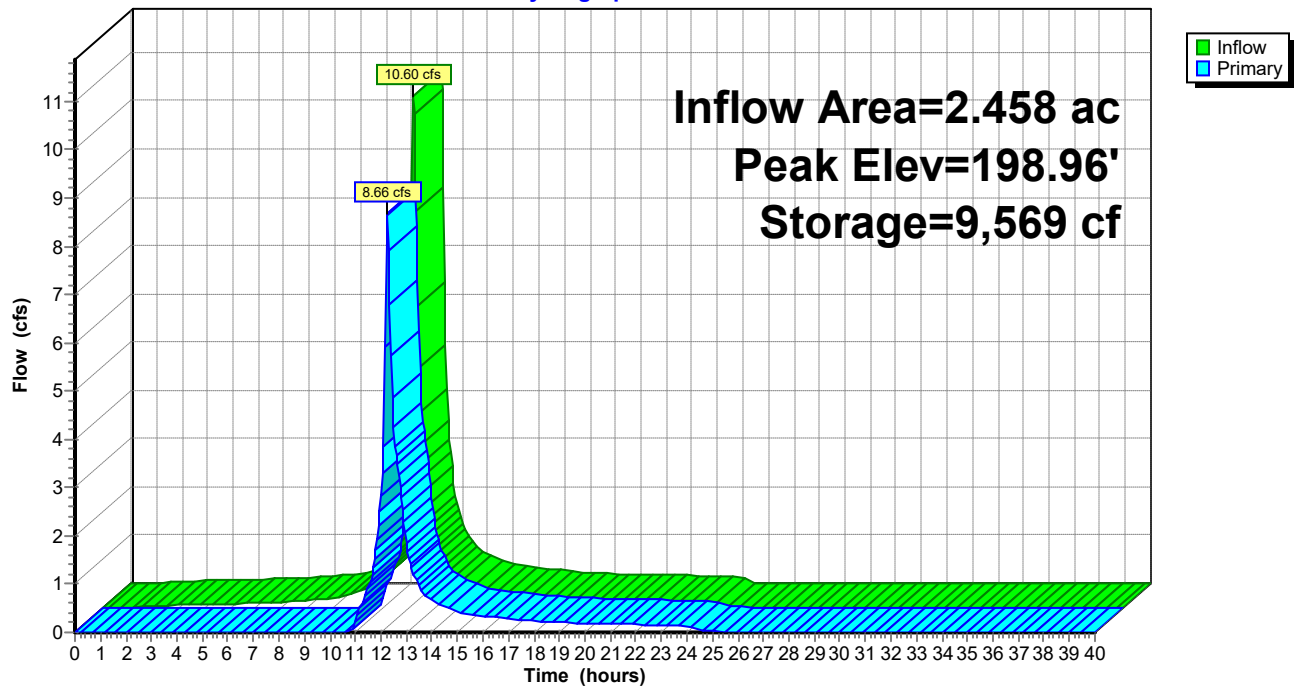
Device	Routing	Invert	Outlet Devices
#1	Primary	194.65'	18.0" Round Culvert L= 102.0' Ke= 0.500 Inlet / Outlet Invert= 194.65' / 194.14' S= 0.0050 ' / S= 0.0050 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	197.47'	20.0" W x 6.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	198.51'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	200.00'	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=8.62 cfs @ 12.25 hrs HW=198.96' (Free Discharge)

- 1=Culvert (Passes 8.62 cfs of 14.08 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 4.79 cfs @ 5.30 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 3.84 cfs @ 2.19 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-18: Basin #18

Hydrograph



Summary for Pond B-19: Basin #19

Inflow Area = 0.934 ac, 40.79% Impervious, Inflow Depth = 4.10" for Future 10 yr event
 Inflow = 3.90 cfs @ 12.17 hrs, Volume= 0.319 af
 Outflow = 2.66 cfs @ 12.28 hrs, Volume= 0.282 af, Atten= 32%, Lag= 6.5 min
 Primary = 2.66 cfs @ 12.28 hrs, Volume= 0.282 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 203.60' @ 12.28 hrs Surf.Area= 3,370 sf Storage= 5,244 cf

Plug-Flow detention time= 176.6 min calculated for 0.281 af (88% of inflow)
 Center-of-Mass det. time= 119.4 min (907.8 - 788.4)

Volume	Invert	Avail.Storage	Storage Description
#1	201.30'	10,696 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	2,224	778	778
203.00	2,930	2,577	3,355
204.00	3,663	3,297	6,652
205.00	4,425	4,044	10,696

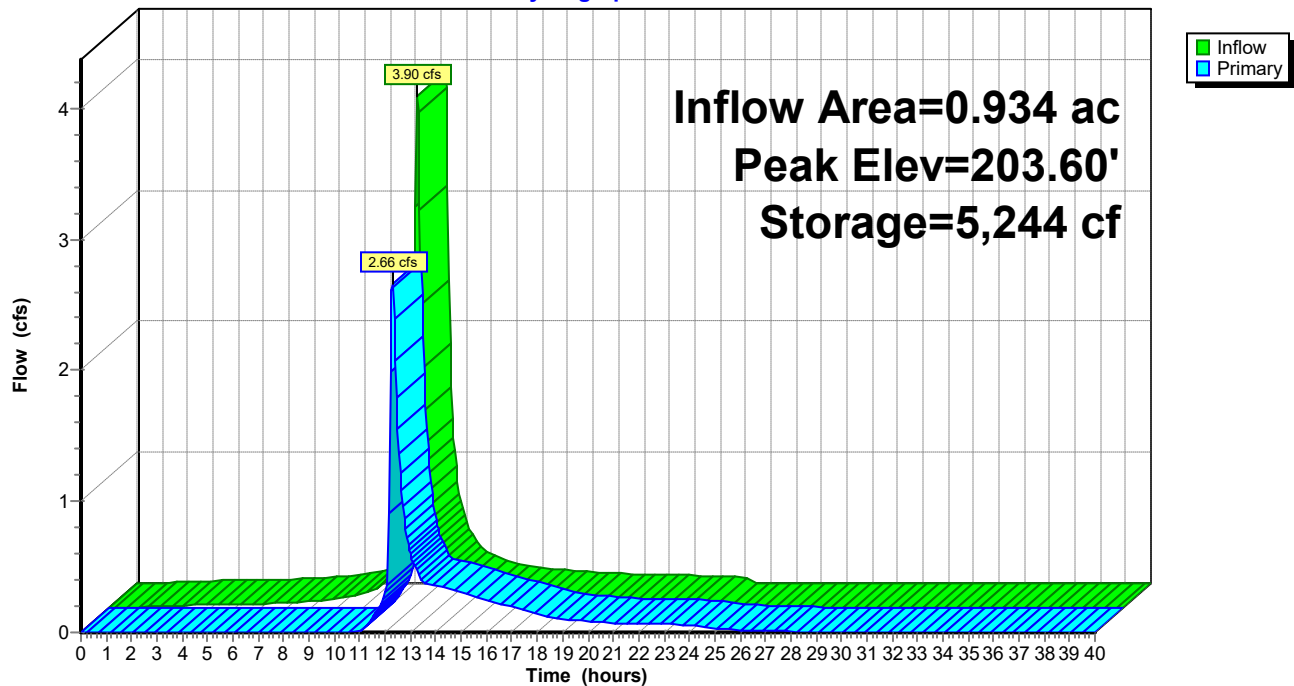
Device	Routing	Invert	Outlet Devices
#1	Primary	200.65'	18.0" Round Culvert L= 214.0' Ke= 0.500 Inlet / Outlet Invert= 200.65' / 199.57' S= 0.0050 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	202.35'	4.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	203.29'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	203.98'	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=2.62 cfs @ 12.28 hrs HW=203.60' (Free Discharge)

1=Culvert (Passes 2.62 cfs of 9.69 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.44 cfs @ 5.00 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 2.19 cfs @ 1.81 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-19: Basin #19

Hydrograph



Summary for Pond B-2: Basin #2

Inflow Area = 1.865 ac, 43.43% Impervious, Inflow Depth = 4.17" for Future 10 yr event
 Inflow = 7.89 cfs @ 12.17 hrs, Volume= 0.648 af
 Outflow = 3.01 cfs @ 12.41 hrs, Volume= 0.559 af, Atten= 62%, Lag= 14.1 min
 Primary = 3.01 cfs @ 12.41 hrs, Volume= 0.559 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 210.35' @ 12.41 hrs Surf.Area= 8,767 sf Storage= 13,608 cf

Plug-Flow detention time= 337.9 min calculated for 0.559 af (86% of inflow)
 Center-of-Mass det. time= 272.6 min (1,058.7 - 786.1)

Volume	Invert	Avail.Storage	Storage Description
#1	208.30'	29,385 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
208.30	0	0	0
209.00	7,501	2,625	2,625
210.00	8,431	7,966	10,591
211.00	9,390	8,911	19,502
212.00	10,376	9,883	29,385

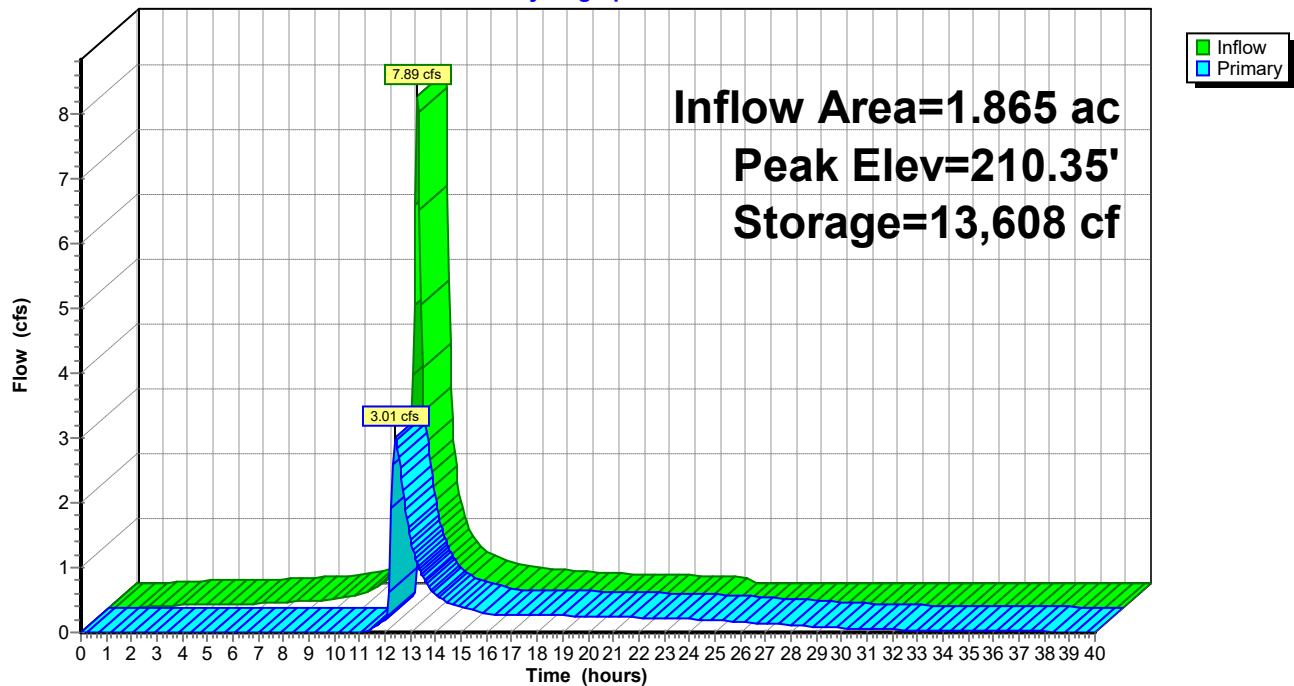
Device	Routing	Invert	Outlet Devices
#1	Primary	207.65'	18.0" Round Culvert L= 202.0' Ke= 0.500 Inlet / Outlet Invert= 207.65' / 204.00' S= 0.0181 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	209.10'	3.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	210.00'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	211.00'	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=3.00 cfs @ 12.41 hrs HW=210.35' (Free Discharge)

1=Culvert (Passes 3.00 cfs of 11.88 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.34 cfs @ 5.06 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 2.66 cfs @ 1.93 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-2: Basin #2

Hydrograph



Summary for Pond B-20: Basin #20

Inflow Area = 2.679 ac, 47.56% Impervious, Inflow Depth = 4.27" for Future 10 yr event
 Inflow = 11.55 cfs @ 12.17 hrs, Volume= 0.954 af
 Outflow = 7.71 cfs @ 12.28 hrs, Volume= 0.834 af, Atten= 33%, Lag= 6.7 min
 Primary = 7.71 cfs @ 12.28 hrs, Volume= 0.834 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 152.94' @ 12.28 hrs Surf.Area= 7,466 sf Storage= 13,363 cf

Plug-Flow detention time= 140.8 min calculated for 0.833 af (87% of inflow)
 Center-of-Mass det. time= 80.1 min (862.8 - 782.6)

Volume	Invert	Avail.Storage	Storage Description
#1	150.87'	35,230 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
150.87	0	0	0
151.00	5,926	385	385
152.00	6,706	6,316	6,701
153.00	7,514	7,110	13,811
154.00	8,347	7,931	21,742
155.00	9,205	8,776	30,518
155.50	9,643	4,712	35,230

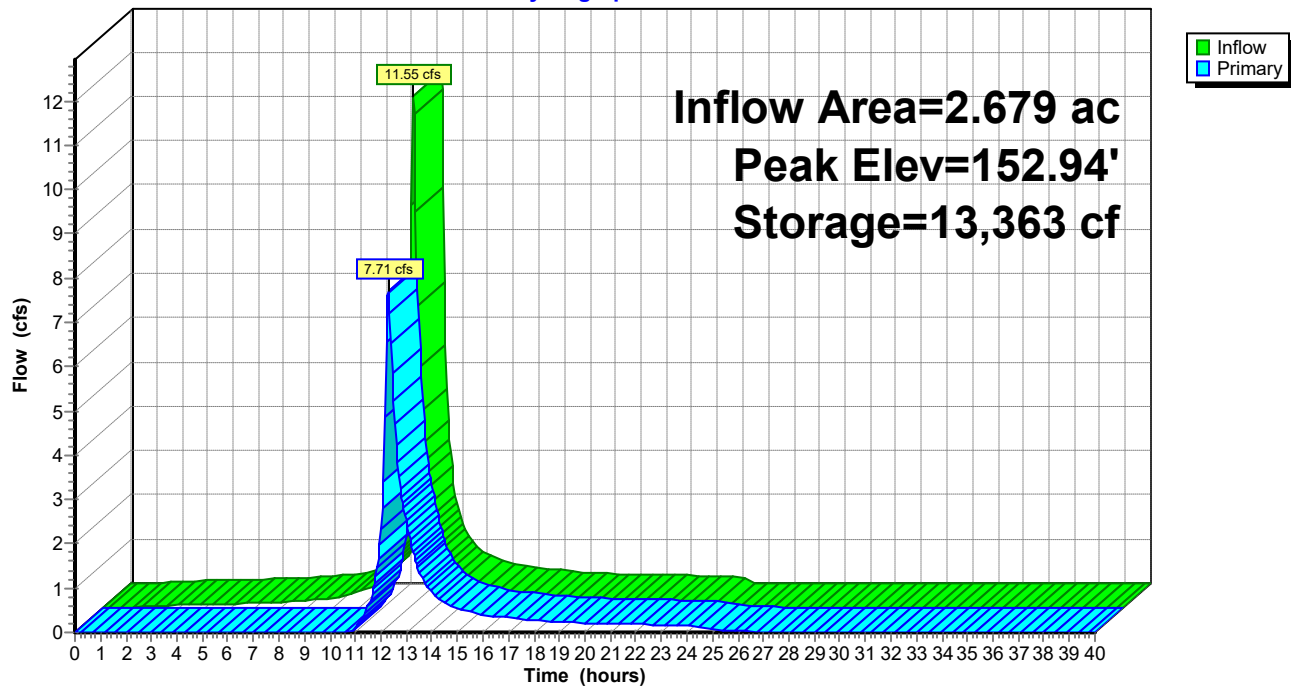
Device	Routing	Invert	Outlet Devices
#1	Primary	150.87'	18.0" Round Culvert L= 174.0' Ke= 0.500 Inlet / Outlet Invert= 150.87' / 150.00' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	151.78'	20.0" W x 7.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	152.53'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	154.32'	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=7.64 cfs @ 12.28 hrs HW=152.94' (Free Discharge)

1=Culvert (Passes 7.64 cfs of 7.85 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 4.33 cfs @ 4.45 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 3.31 cfs @ 2.08 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-20: Basin #20

Hydrograph



Summary for Pond B-21: Basin #21

Inflow Area = 2.680 ac, 41.60% Impervious, Inflow Depth = 4.12" for Future 10 yr event
 Inflow = 11.24 cfs @ 12.17 hrs, Volume= 0.920 af
 Outflow = 4.12 cfs @ 12.42 hrs, Volume= 0.757 af, Atten= 63%, Lag= 14.8 min
 Primary = 4.12 cfs @ 12.42 hrs, Volume= 0.757 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 153.10' @ 12.42 hrs Surf.Area= 7,914 sf Storage= 19,904 cf

Plug-Flow detention time= 454.1 min calculated for 0.757 af (82% of inflow)
 Center-of-Mass det. time= 377.1 min (1,164.8 - 787.7)

Volume	Invert	Avail.Storage	Storage Description
#1	149.90'	42,109 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
149.90	0	0	0
150.00	4,848	242	242
151.00	5,776	5,312	5,554
152.00	6,761	6,269	11,823
153.00	7,802	7,282	19,104
154.00	8,900	8,351	27,455
155.00	10,054	9,477	36,932
155.50	10,653	5,177	42,109

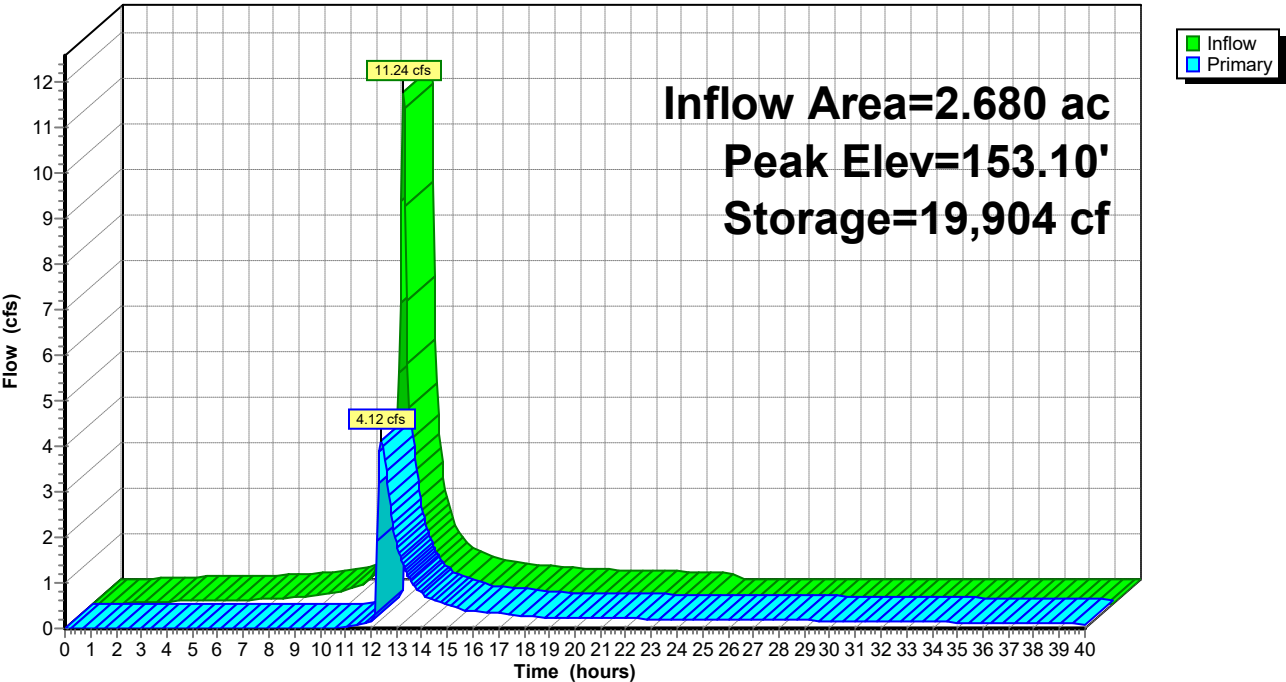
Device	Routing	Invert	Outlet Devices
#1	Primary	149.90'	18.0" Round Culvert L= 182.0' Ke= 0.500 Inlet / Outlet Invert= 149.90' / 149.00' S= 0.0049 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	150.84'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	152.65'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	154.16'	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=4.09 cfs @ 12.42 hrs HW=153.10' (Free Discharge)

- 1=Culvert (Passes 4.09 cfs of 10.41 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.24 cfs @ 7.07 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 3.85 cfs @ 2.19 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-21: Basin #21

Hydrograph



Summary for Pond B-22: Basin #22

Inflow Area = 2.743 ac, 30.19% Impervious, Inflow Depth = 3.83" for Future 10 yr event
 Inflow = 10.90 cfs @ 12.17 hrs, Volume= 0.875 af
 Outflow = 3.55 cfs @ 12.46 hrs, Volume= 0.720 af, Atten= 67%, Lag= 17.2 min
 Primary = 3.55 cfs @ 12.46 hrs, Volume= 0.720 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 150.04' @ 12.46 hrs Surf.Area= 9,045 sf Storage= 18,663 cf

Plug-Flow detention time= 438.9 min calculated for 0.720 af (82% of inflow)
 Center-of-Mass det. time= 361.8 min (1,160.3 - 798.5)

Volume	Invert	Avail.Storage	Storage Description
#1	147.30'	50,528 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
147.30	0	0	0
148.00	6,928	2,425	2,425
149.00	7,937	7,433	9,857
150.00	9,003	8,470	18,327
151.00	10,125	9,564	27,891
152.00	11,304	10,715	38,606
153.00	12,540	11,922	50,528

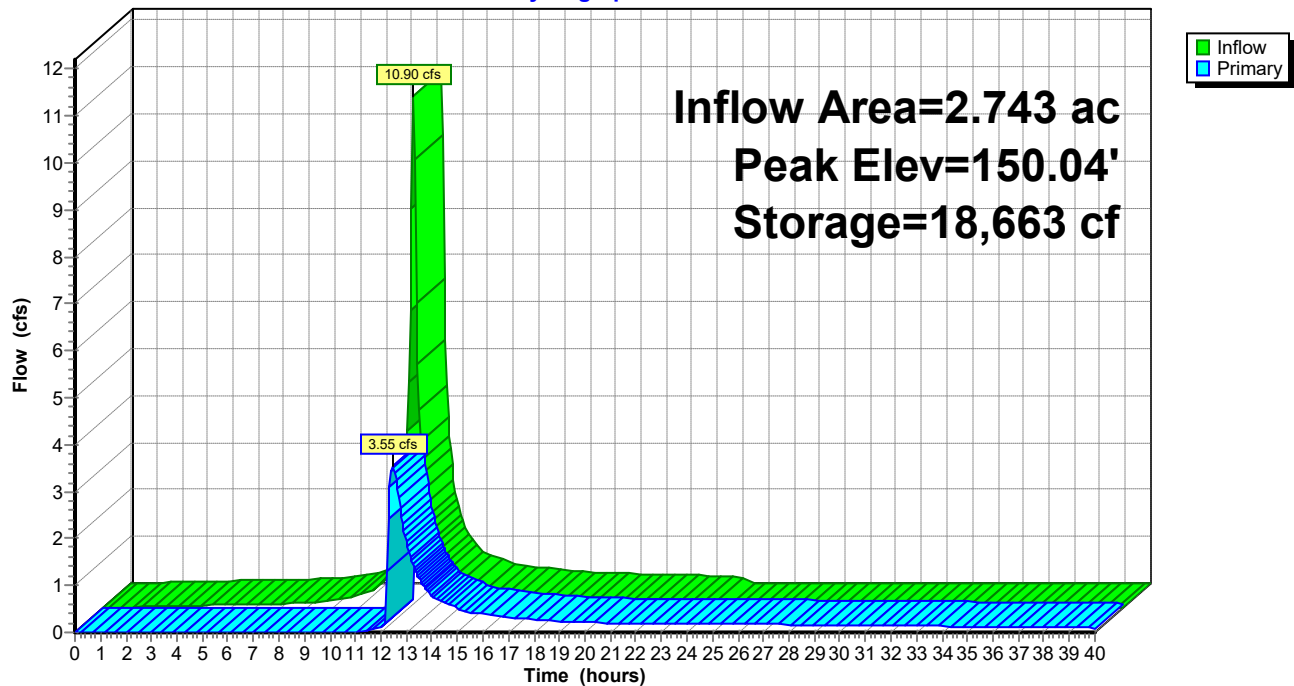
Device	Routing	Invert	Outlet Devices
#1	Primary	147.30'	18.0" Round Culvert L= 169.0' Ke= 0.500 Inlet / Outlet Invert= 147.30' / 146.00' S= 0.0077 ' / Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	148.18'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	149.63'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	151.18'	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=3.54 cfs @ 12.46 hrs HW=150.04' (Free Discharge)

- 1=Culvert (Passes 3.54 cfs of 10.54 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.22 cfs @ 6.37 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 3.32 cfs @ 2.08 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-22: Basin #22

Hydrograph



Summary for Pond B-23: Basin #23

Inflow Area = 1.511 ac, 66.64% Impervious, Inflow Depth = 4.76" for Future 10 yr event
 Inflow = 7.08 cfs @ 12.17 hrs, Volume= 0.599 af
 Outflow = 3.95 cfs @ 12.32 hrs, Volume= 0.505 af, Atten= 44%, Lag= 8.7 min
 Primary = 3.95 cfs @ 12.32 hrs, Volume= 0.505 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 146.50' @ 12.32 hrs Surf.Area= 7,062 sf Storage= 11,342 cf

Plug-Flow detention time= 209.9 min calculated for 0.504 af (84% of inflow)
 Center-of-Mass det. time= 140.3 min (908.9 - 768.6)

Volume	Invert	Avail.Storage	Storage Description
#1	144.30'	23,175 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
144.30	0	0	0
145.00	5,512	1,929	1,929
146.00	6,527	6,020	7,949
147.00	7,599	7,063	15,012
148.00	8,727	8,163	23,175

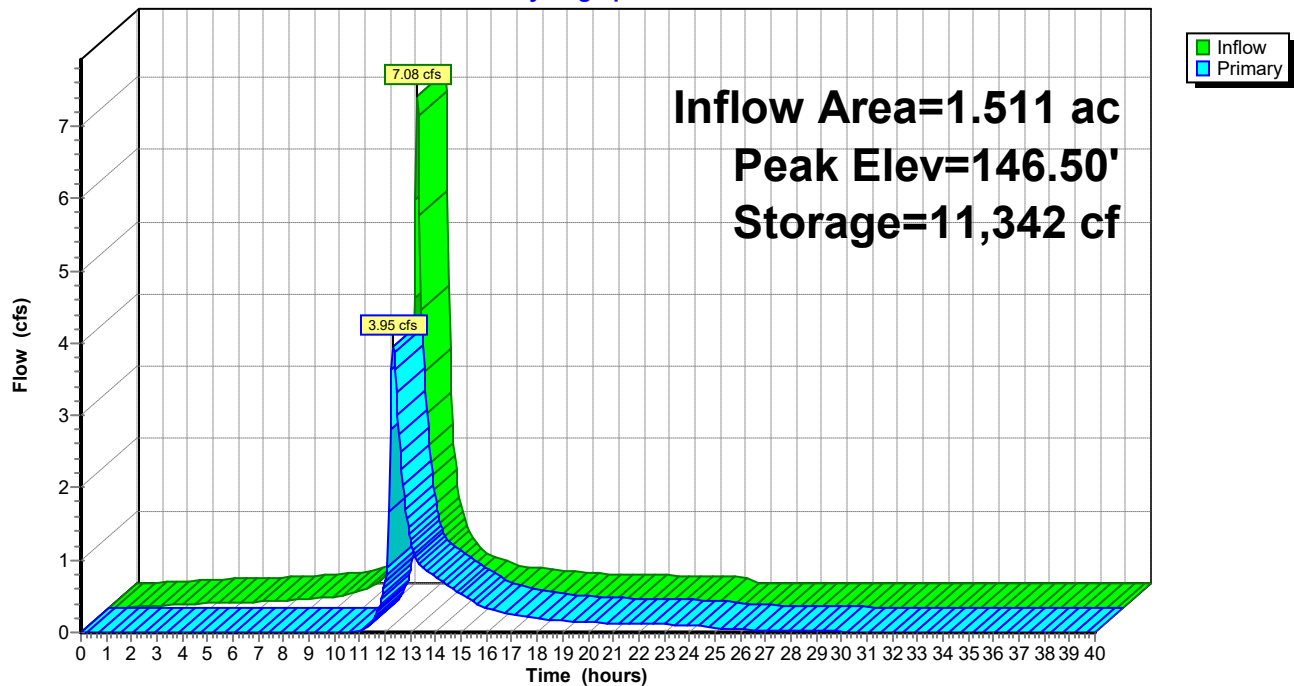
Device	Routing	Invert	Outlet Devices
#1	Primary	144.30'	18.0" Round Culvert L= 26.0' Ke= 0.500 Inlet / Outlet Invert= 144.30' / 144.00' S= 0.0115 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	145.36'	7.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	146.14'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	147.00'	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=3.91 cfs @ 12.32 hrs HW=146.50' (Free Discharge)

1=Culvert (Passes 3.91 cfs of 10.07 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 1.18 cfs @ 4.42 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 2.73 cfs @ 1.95 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-23: Basin #23

Hydrograph



Summary for Pond B-24: Basin #24

Inflow Area = 2.739 ac, 44.80% Impervious, Inflow Depth = 4.20" for Future 10 yr event
 Inflow = 11.66 cfs @ 12.17 hrs, Volume= 0.959 af
 Outflow = 5.18 cfs @ 12.37 hrs, Volume= 0.834 af, Atten= 56%, Lag= 11.8 min
 Primary = 5.18 cfs @ 12.37 hrs, Volume= 0.834 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 146.98' @ 12.37 hrs Surf.Area= 9,334 sf Storage= 19,063 cf

Plug-Flow detention time= 256.5 min calculated for 0.834 af (87% of inflow)
 Center-of-Mass det. time= 193.5 min (978.5 - 784.9)

Volume	Invert	Avail.Storage	Storage Description
#1	144.30'	40,061 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
144.30	0	0	0
145.00	7,331	2,566	2,566
146.00	8,327	7,829	10,395
147.00	9,353	8,840	19,235
148.00	10,406	9,880	29,114
149.00	11,488	10,947	40,061

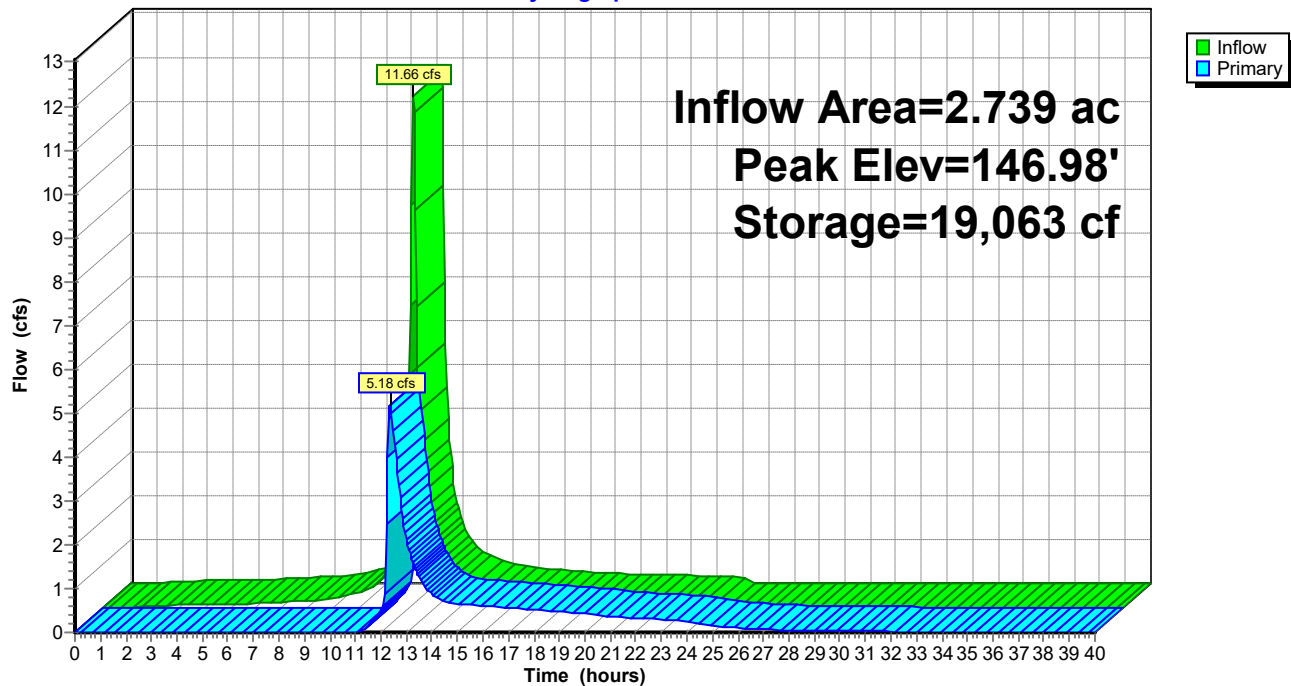
Device	Routing	Invert	Outlet Devices
#1	Primary	144.30'	18.0" Round Culvert L= 59.0' Ke= 0.500 Inlet / Outlet Invert= 144.30' / 144.00' S= 0.0051 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	145.34'	5.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	146.49'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	147.99'	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=5.14 cfs @ 12.37 hrs HW=146.98' (Free Discharge)

1=Culvert (Passes 5.14 cfs of 10.74 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.79 cfs @ 5.76 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 4.36 cfs @ 2.29 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-24: Basin #24

Hydrograph



Summary for Pond B-25: Basin #25

Inflow Area = 2.736 ac, 43.02% Impervious, Inflow Depth = 4.16" for Future 10 yr event
 Inflow = 11.55 cfs @ 12.17 hrs, Volume= 0.948 af
 Outflow = 5.90 cfs @ 12.34 hrs, Volume= 0.832 af, Atten= 49%, Lag= 9.9 min
 Primary = 5.90 cfs @ 12.34 hrs, Volume= 0.832 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 146.76' @ 12.34 hrs Surf.Area= 7,202 sf Storage= 18,018 cf

Plug-Flow detention time= 246.2 min calculated for 0.832 af (88% of inflow)
 Center-of-Mass det. time= 186.0 min (972.5 - 786.5)

Volume	Invert	Avail.Storage	Storage Description
#1	143.30'	36,587 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
143.30	0	0	0
144.00	4,702	1,646	1,646
145.00	5,584	5,143	6,789
146.00	6,492	6,038	12,827
147.00	7,428	6,960	19,787
148.00	8,393	7,911	27,697
149.00	9,386	8,890	36,587

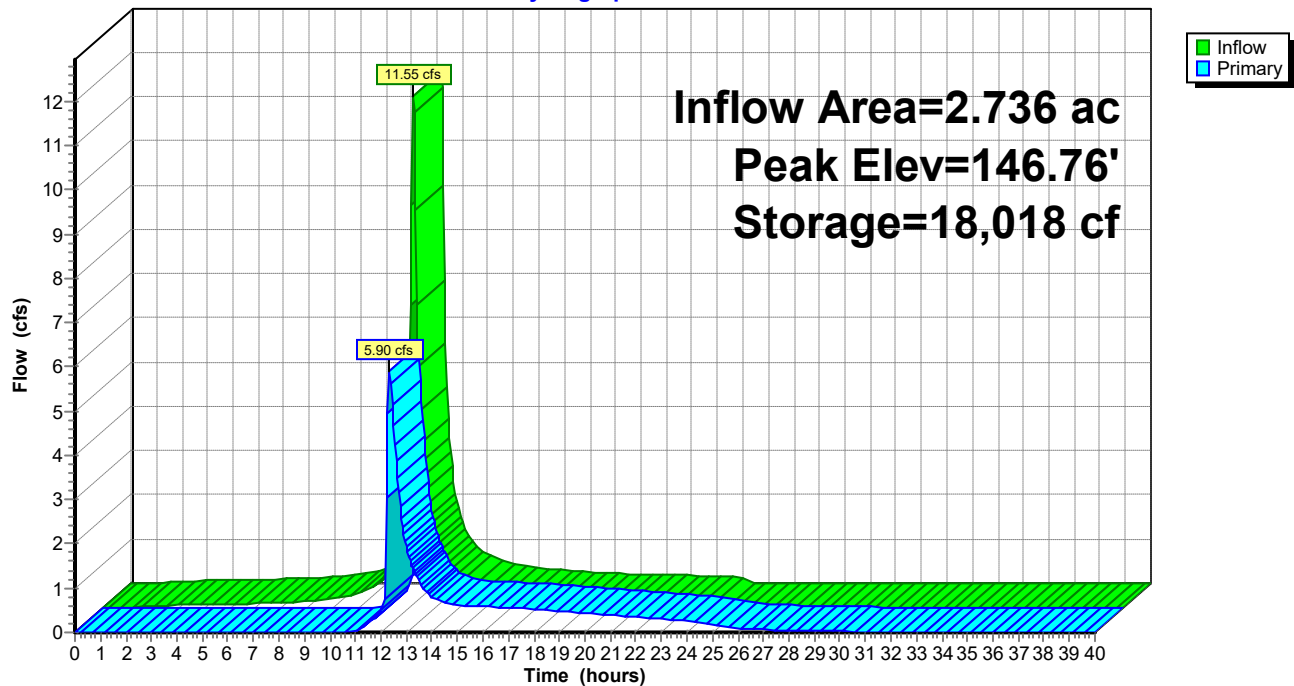
Device	Routing	Invert	Outlet Devices
#1	Primary	143.30'	18.0" Round Culvert L= 186.0' Ke= 0.500 Inlet / Outlet Invert= 143.30' / 142.00' S= 0.0070 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	144.65'	4.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	146.21'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	147.96'	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=5.86 cfs @ 12.34 hrs HW=146.76' (Free Discharge)

- 1=Culvert (Passes 5.86 cfs of 11.56 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.74 cfs @ 6.67 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 5.13 cfs @ 2.42 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-25: Basin #25

Hydrograph



Summary for Pond B-26: Basin #26

Inflow Area = 2.687 ac, 36.06% Impervious, Inflow Depth = 3.98" for Future 10 yr event
 Inflow = 10.98 cfs @ 12.17 hrs, Volume= 0.891 af
 Outflow = 4.84 cfs @ 12.37 hrs, Volume= 0.781 af, Atten= 56%, Lag= 12.0 min
 Primary = 4.84 cfs @ 12.37 hrs, Volume= 0.781 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 146.59' @ 12.37 hrs Surf.Area= 6,862 sf Storage= 17,942 cf

Plug-Flow detention time= 381.3 min calculated for 0.780 af (88% of inflow)
 Center-of-Mass det. time= 322.0 min (1,114.7 - 792.7)

Volume	Invert	Avail.Storage	Storage Description
#1	143.30'	36,073 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
143.30	0	0	0
144.00	5,522	1,933	1,933
145.00	6,025	5,774	7,706
146.00	6,547	6,286	13,992
147.00	7,081	6,814	20,806
148.00	7,630	7,356	28,162
149.00	8,193	7,912	36,073

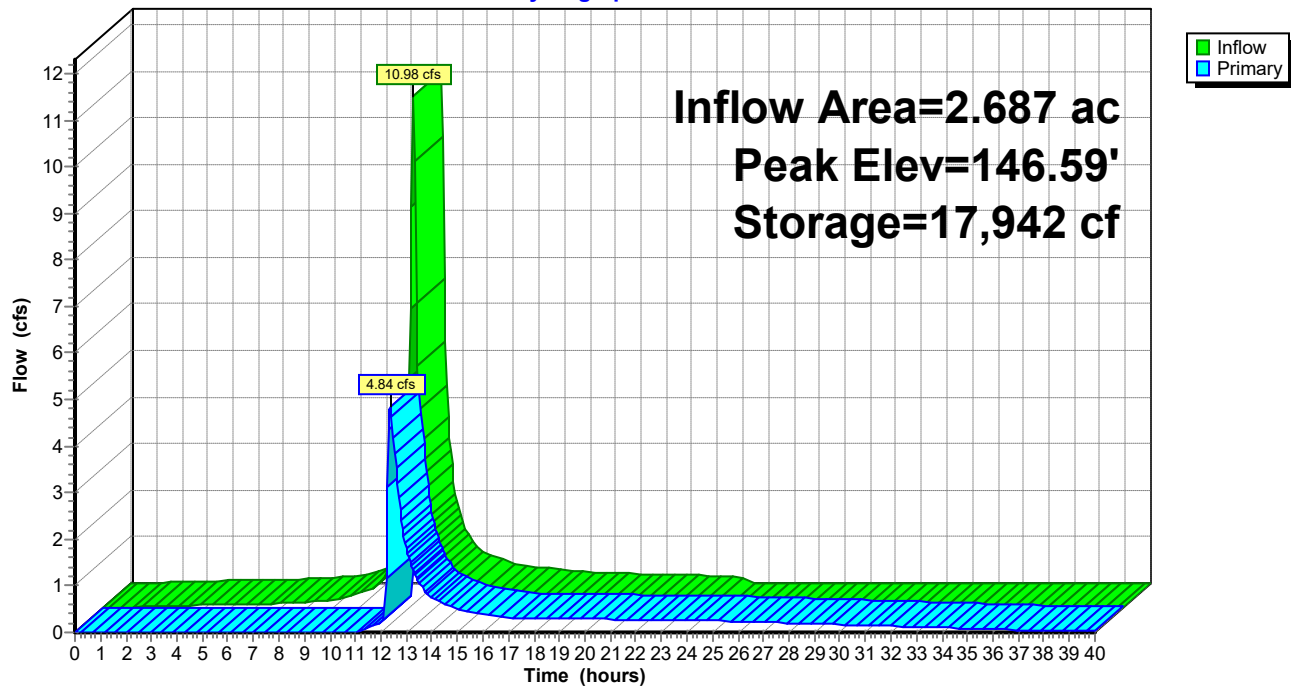
Device	Routing	Invert	Outlet Devices
#1	Primary	143.30'	18.0" Round Culvert L= 234.0' Ke= 0.500 Inlet / Outlet Invert= 143.30' / 142.00' S= 0.0056 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	144.40'	3.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	146.09'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	147.98'	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=4.78 cfs @ 12.37 hrs HW=146.58' (Free Discharge)

- 1=Culvert (Passes 4.78 cfs of 10.36 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.34 cfs @ 6.91 fps)
- 3=Sharp-Crested Rectangular Weir (Weir Controls 4.44 cfs @ 2.30 fps)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-26: Basin #26

Hydrograph



Summary for Pond B-27: Basin #27

Inflow Area = 2.414 ac, 48.22% Impervious, Inflow Depth = 4.29" for Future 10 yr event
 Inflow = 10.44 cfs @ 12.17 hrs, Volume= 0.863 af
 Outflow = 9.00 cfs @ 12.23 hrs, Volume= 0.755 af, Atten= 14%, Lag= 3.7 min
 Primary = 9.00 cfs @ 12.23 hrs, Volume= 0.755 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 185.33' @ 12.23 hrs Surf.Area= 3,367 sf Storage= 8,307 cf

Plug-Flow detention time= 118.7 min calculated for 0.755 af (87% of inflow)
 Center-of-Mass det. time= 56.9 min (839.0 - 782.1)

Volume	Invert	Avail.Storage	Storage Description
#1	180.30'	14,865 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
180.30	0	0	0
181.00	245	86	86
182.00	1,153	699	785
183.00	1,819	1,486	2,271
184.00	2,484	2,152	4,422
185.00	3,149	2,817	7,239
186.00	3,813	3,481	10,720
187.00	4,478	4,146	14,865

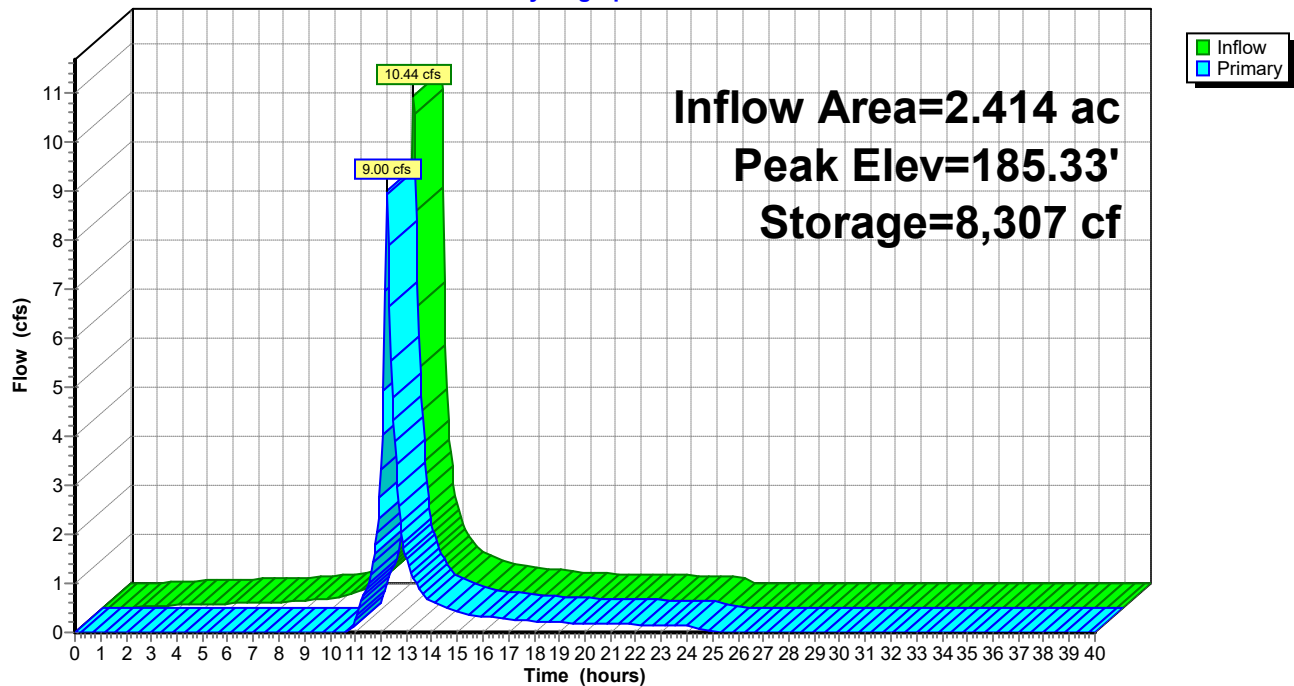
Device	Routing	Invert	Outlet Devices
#1	Primary	179.65'	18.0" Round Culvert L= 194.0' Ke= 0.500 Inlet / Outlet Invert= 179.65' / 170.25' S= 0.0485 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	184.12'	26.0" W x 7.5" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	184.96'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	186.00'	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=8.86 cfs @ 12.23 hrs HW=185.32' (Free Discharge)

- 1=Culvert (Passes 8.86 cfs of 18.87 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 6.10 cfs @ 4.51 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 2.76 cfs @ 1.96 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-27: Basin #27

Hydrograph



Summary for Pond B-28: Basin #28

Inflow Area = 1.917 ac, 53.99% Impervious, Inflow Depth = 4.44" for Future 10 yr event
 Inflow = 8.50 cfs @ 12.17 hrs, Volume= 0.709 af
 Outflow = 7.57 cfs @ 12.22 hrs, Volume= 0.614 af, Atten= 11%, Lag= 3.2 min
 Primary = 7.57 cfs @ 12.22 hrs, Volume= 0.614 af
 Routed to Link PDA-2 : Proposed Drainage Area #2

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 179.32' @ 12.22 hrs Surf.Area= 3,528 sf Storage= 6,939 cf

Plug-Flow detention time= 124.6 min calculated for 0.613 af (86% of inflow)
 Center-of-Mass det. time= 60.8 min (838.4 - 777.6)

Volume	Invert	Avail.Storage	Storage Description
#1	176.30'	13,936 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
176.30	0	0	0
177.00	1,909	668	668
178.00	2,585	2,247	2,915
179.00	3,292	2,939	5,854
180.00	4,033	3,663	9,516
181.00	4,806	4,420	13,936

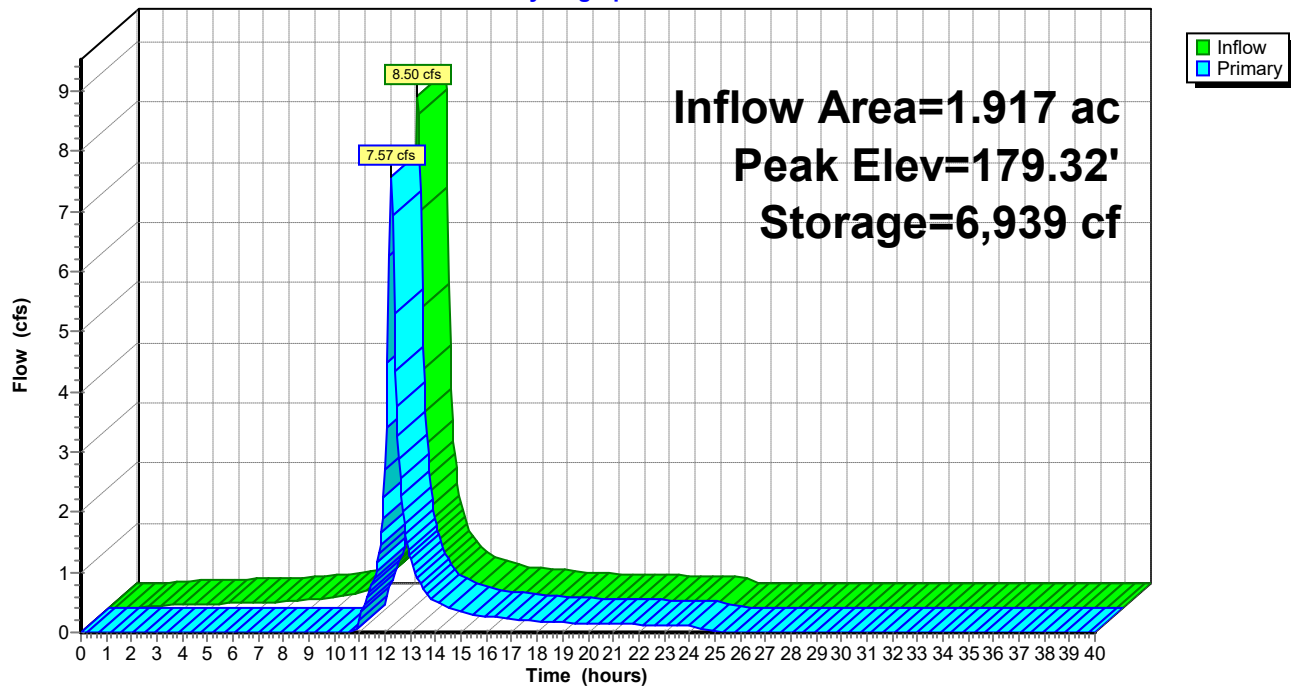
Device	Routing	Invert	Outlet Devices
#1	Primary	175.65'	18.0" Round Culvert L= 186.0' Ke= 0.500 Inlet / Outlet Invert= 175.65' / 168.80' S= 0.0368 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	178.45'	30.0" W x 9.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	179.09'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	179.84'	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=7.42 cfs @ 12.22 hrs HW=179.31' (Free Discharge)

- 1=Culvert (Passes 7.42 cfs of 14.51 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 6.10 cfs @ 3.25 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 1.32 cfs @ 1.53 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-28: Basin #28

Hydrograph



Summary for Pond B-3: Basin #3

Inflow Area = 2.904 ac, 42.80% Impervious, Inflow Depth = 4.15" for Future 10 yr event
 Inflow = 12.25 cfs @ 12.17 hrs, Volume= 1.005 af
 Outflow = 2.05 cfs @ 12.72 hrs, Volume= 0.603 af, Atten= 83%, Lag= 33.1 min
 Primary = 2.05 cfs @ 12.72 hrs, Volume= 0.603 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 214.78' @ 12.72 hrs Surf.Area= 15,135 sf Storage= 25,794 cf

Plug-Flow detention time= 430.8 min calculated for 0.603 af (60% of inflow)
 Center-of-Mass det. time= 316.9 min (1,103.5 - 786.6)

Volume	Invert	Avail.Storage	Storage Description
#1	212.30'	67,257 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
212.30	0	0	0
213.00	9,992	3,497	3,497
214.00	12,803	11,398	14,895
215.00	15,792	14,298	29,192
216.00	18,977	17,385	46,577
217.00	22,384	20,681	67,257

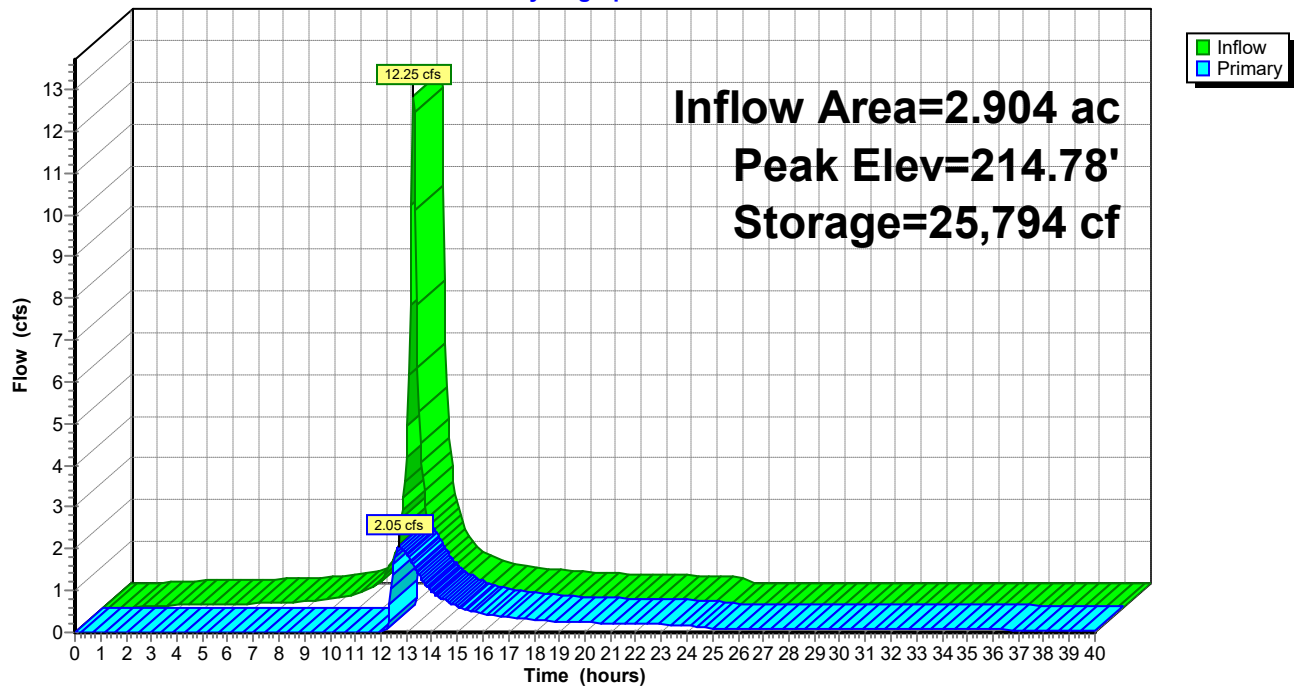
Device	Routing	Invert	Outlet Devices
#1	Primary	212.65'	18.0" Round Culvert L= 122.0' Ke= 0.500 Inlet / Outlet Invert= 212.65' / 204.00' S= 0.0709 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	214.00'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	214.50'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	215.70'	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=2.04 cfs @ 12.72 hrs HW=214.78' (Free Discharge)

1=Culvert (Passes 2.04 cfs of 10.00 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.13 cfs @ 3.96 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 1.91 cfs @ 1.73 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-3: Basin #3

Hydrograph



Summary for Pond B-4: Basin #4

Inflow Area = 2.725 ac, 24.99% Impervious, Inflow Depth = 3.70" for Future 10 yr event
 Inflow = 10.55 cfs @ 12.17 hrs, Volume= 0.840 af
 Outflow = 3.25 cfs @ 12.48 hrs, Volume= 0.696 af, Atten= 69%, Lag= 18.3 min
 Primary = 3.25 cfs @ 12.48 hrs, Volume= 0.696 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 201.76' @ 12.48 hrs Surf.Area= 9,767 sf Storage= 17,713 cf

Plug-Flow detention time= 428.2 min calculated for 0.696 af (83% of inflow)
 Center-of-Mass det. time= 352.9 min (1,156.9 - 804.0)

Volume	Invert	Avail.Storage	Storage Description
#1	199.30'	72,824 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
199.30	0	0	0
200.00	7,419	2,597	2,597
201.00	8,712	8,066	10,662
202.00	10,094	9,403	20,065
203.00	11,557	10,826	30,891
204.00	13,100	12,329	43,219
205.00	14,725	13,913	57,132
206.00	16,659	15,692	72,824

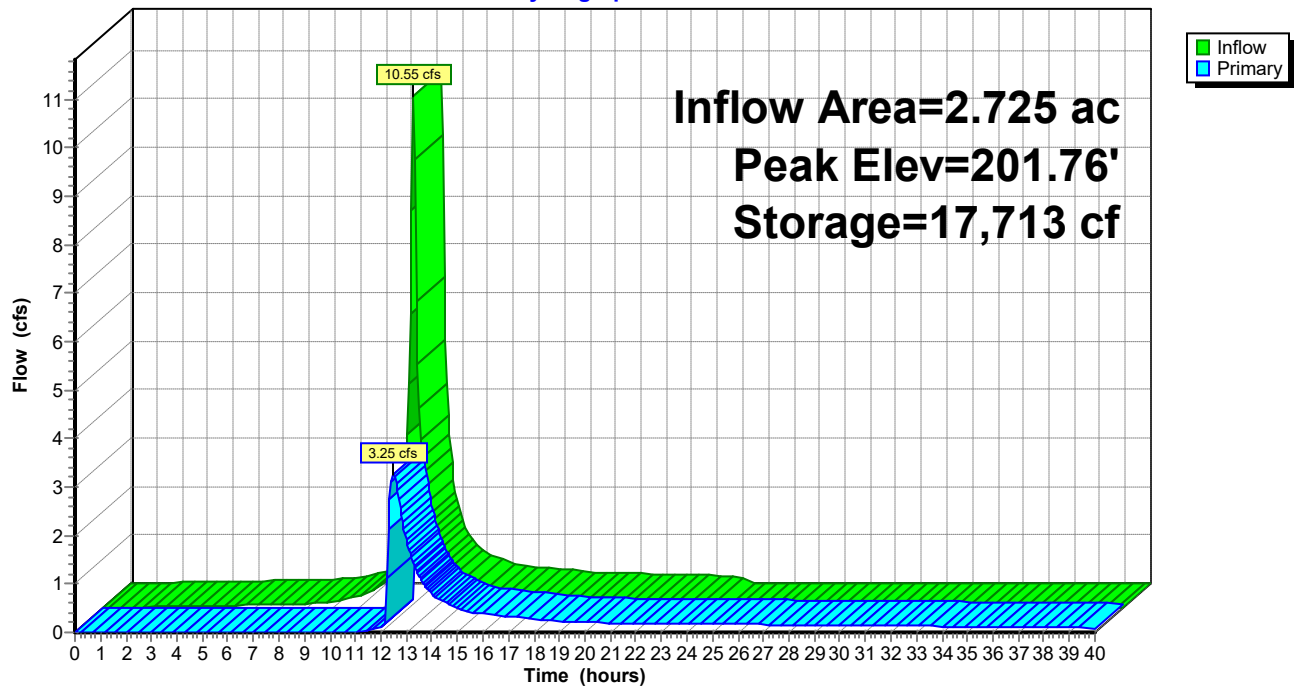
Device	Routing	Invert	Outlet Devices
#1	Primary	198.65'	18.0" Round Culvert L= 58.0' Ke= 0.500 Inlet / Outlet Invert= 198.65' / 198.00' S= 0.0112 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	200.08'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	201.38'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	202.68'	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=3.24 cfs @ 12.48 hrs HW=201.76' (Free Discharge)

- 1=Culvert (Passes 3.24 cfs of 13.08 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.21 cfs @ 6.05 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 3.03 cfs @ 2.02 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-4: Basin #4

Hydrograph



Summary for Pond B-5: Basin #5

Inflow Area = 1.419 ac, 34.60% Impervious, Inflow Depth = 3.94" for Future 10 yr event
 Inflow = 5.76 cfs @ 12.17 hrs, Volume= 0.466 af
 Outflow = 1.35 cfs @ 12.60 hrs, Volume= 0.379 af, Atten= 76%, Lag= 25.4 min
 Primary = 1.35 cfs @ 12.60 hrs, Volume= 0.379 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 200.56' @ 12.60 hrs Surf.Area= 12,280 sf Storage= 10,723 cf

Plug-Flow detention time= 449.3 min calculated for 0.379 af (81% of inflow)
 Center-of-Mass det. time= 369.9 min (1,164.0 - 794.1)

Volume	Invert	Avail.Storage	Storage Description
#1	199.30'	96,047 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
199.30	0	0	0
200.00	11,631	4,071	4,071
201.00	12,798	12,215	16,285
202.00	14,009	13,404	29,689
203.00	15,262	14,636	44,324
204.00	16,558	15,910	60,234
205.00	17,896	17,227	77,461
206.00	19,275	18,586	96,047

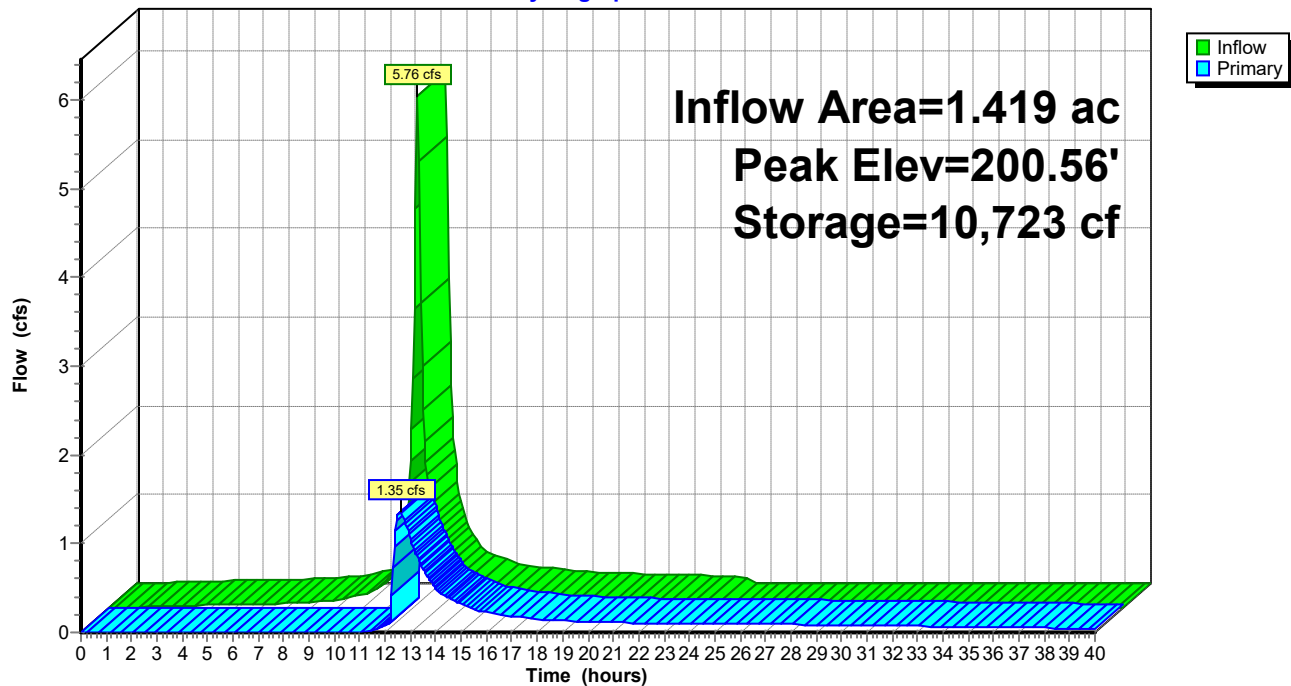
Device	Routing	Invert	Outlet Devices
#1	Primary	198.65'	18.0" Round Culvert L= 70.0' Ke= 0.500 Inlet / Outlet Invert= 198.65' / 196.00' S= 0.0379 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	199.81'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	200.35'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	201.07'	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=1.34 cfs @ 12.60 hrs HW=200.56' (Free Discharge)

- 1=Culvert (Passes 1.34 cfs of 9.15 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.13 cfs @ 3.86 fps)
- 3=Sharp-Crested Rectangular Weir (Weir Controls 1.21 cfs @ 1.49 fps)
- 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-5: Basin #5

Hydrograph



Summary for Pond B-6: Basin #6

Inflow Area = 1.191 ac, 58.27% Impervious, Inflow Depth = 4.55" for Future 10 yr event
 Inflow = 5.38 cfs @ 12.17 hrs, Volume= 0.451 af
 Outflow = 2.13 cfs @ 12.40 hrs, Volume= 0.376 af, Atten= 60%, Lag= 13.5 min
 Primary = 2.13 cfs @ 12.40 hrs, Volume= 0.376 af
 Routed to Link PDA-1 : Proposed Drainage Area #1

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
 Peak Elev= 200.38' @ 12.40 hrs Surf.Area= 6,329 sf Storage= 9,987 cf

Plug-Flow detention time= 416.4 min calculated for 0.376 af (83% of inflow)
 Center-of-Mass det. time= 344.0 min (1,118.4 - 774.4)

Volume	Invert	Avail.Storage	Storage Description
#1	198.30'	37,655 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
198.30	0	0	0
199.00	5,389	1,886	1,886
200.00	6,060	5,725	7,611
201.00	6,761	6,411	14,021
202.00	7,490	7,126	21,147
203.00	8,247	7,869	29,015
204.00	9,032	8,640	37,655

Device	Routing	Invert	Outlet Devices
#1	Primary	197.65'	18.0" Round Culvert L= 627.0' Ke= 0.500 Inlet / Outlet Invert= 197.65' / 194.00' S= 0.0058 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	199.17'	2.5" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	200.10'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#4	Primary	200.89'	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=2.12 cfs @ 12.40 hrs HW=200.38' (Free Discharge)

1=Culvert (Passes 2.12 cfs of 8.70 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.17 cfs @ 5.07 fps)
 3=Sharp-Crested Rectangular Weir (Weir Controls 1.94 cfs @ 1.74 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond B-6: Basin #6

Hydrograph

