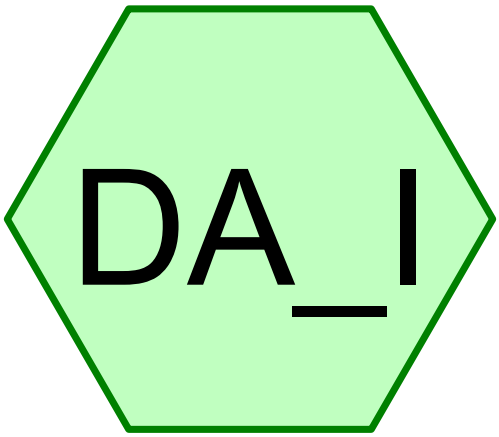


Subcat DA_I

Subcat Reach Pond Link

Routing Diagram for Existing_Condition
Prepared by Hewlett-Packard Company, Printed 5/29/2018

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.989	39	>75% Grass cover, Good, HSG A (DA_I)
0.058	61	>75% Grass cover, Good, HSG B (DA_I)
0.335	80	>75% Grass cover, Good, HSG D (DA_I)
1.951	98	Paved Parking, HSG A (DA_I)
0.140	98	Paved Parking, HSG B (DA_I)
0.019	98	Paved Parking, HSG D (DA_I)
2.435	30	Woods, Good, HSG A (DA_I)
0.072	55	Woods, Good, HSG B (DA_I)
0.339	77	Woods, Good, HSG D (DA_I)
6.337	**60**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
5.374	HSG A	DA_I
0.270	HSG B	DA_I
0.000	HSG C	
0.692	HSG D	DA_I
0.000	Other	
6.337		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.989	0.058	0.000	0.335	0.000	1.382	>75% Grass cover, Good	DA_I
1.951	0.140	0.000	0.019	0.000	2.110	Paved Parking	DA_I
2.435	0.072	0.000	0.339	0.000	2.846	Woods, Good	DA_I
5.374	**0.270**	**0.000**	**0.692**	**0.000**	**6.337**	**TOTAL AREA**	

Time span=0.00-50.00 hrs, dt=0.05 hrs, 1001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment DA_I: Subcat DA_I Runoff Area=6.337 ac 33.30% Impervious Runoff Depth=1.12"
Flow Length=683' Slope=0.0023 '/' Tc=84.2 min CN=WQ Runoff=2.80 cfs 0.592 af

Total Runoff Area = 6.337 ac Runoff Volume = 0.592 af Average Runoff Depth = 1.12"
66.70% Pervious = 4.227 ac 33.30% Impervious = 2.110 ac

Summary for Subcatchment DA_I: Subcat DA_I

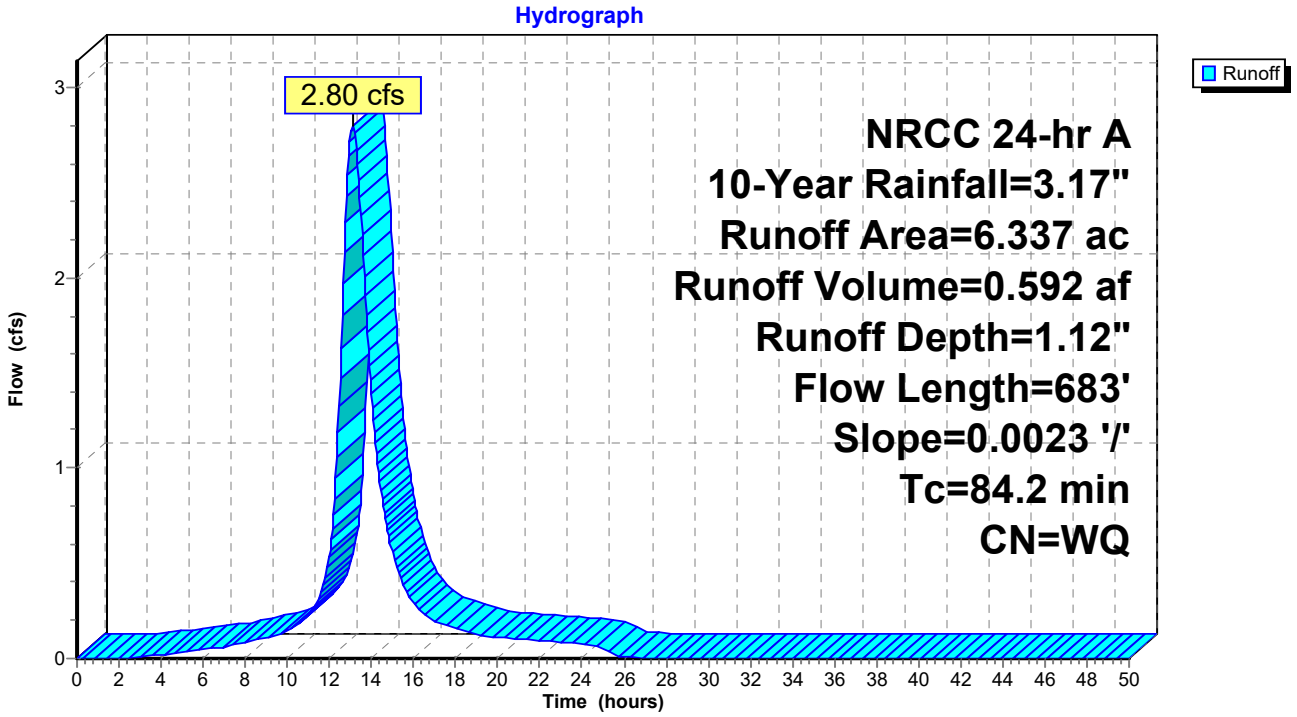
Runoff = 2.80 cfs @ 13.10 hrs, Volume= 0.592 af, Depth= 1.12"

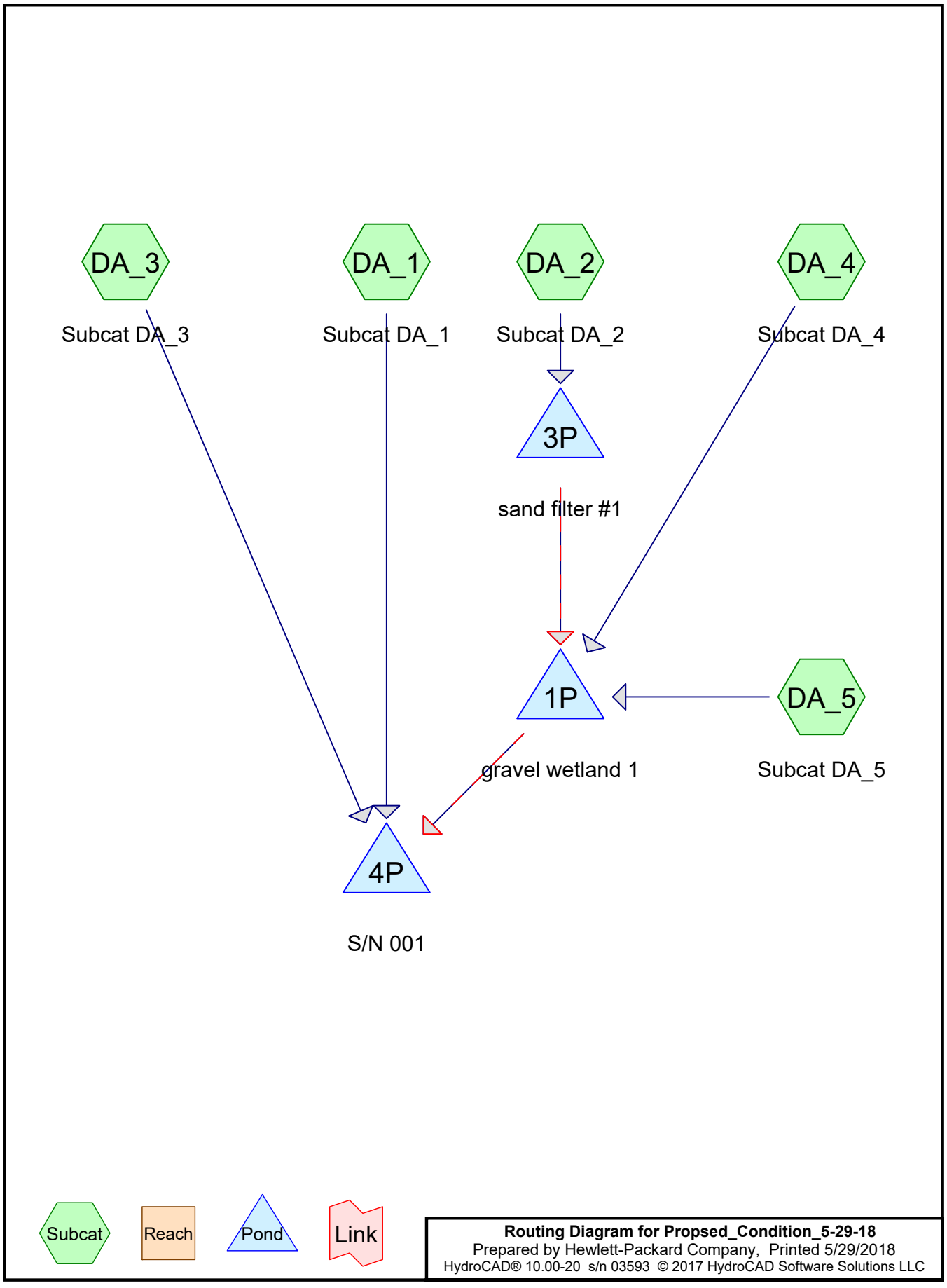
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-50.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 10-Year Rainfall=3.17"

Area (ac)	CN	Description
0.884	39	>75% Grass cover, Good, HSG A
0.058	61	>75% Grass cover, Good, HSG B
0.335	80	>75% Grass cover, Good, HSG D
0.105	39	>75% Grass cover, Good, HSG A
1.951	98	Paved Parking, HSG A
0.140	98	Paved Parking, HSG B
0.019	98	Paved Parking, HSG D
1.939	30	Woods, Good, HSG A
0.072	55	Woods, Good, HSG B
0.339	77	Woods, Good, HSG D
0.496	30	Woods, Good, HSG A
6.337		Weighted Average
4.227		66.70% Pervious Area
2.110		33.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
84.2	683	0.0023	0.14		**Lag/CN Method,** Contour Length= 640' Interval= 1'

Subcatchment DA_I: Subcat DA_I





Routing Diagram for Propsed_Condition_5-29-18
Prepared by Hewlett-Packard Company, Printed 5/29/2018

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.210	39	>75% Grass cover, Good, HSG A (DA_1, DA_2, DA_3, DA_4, DA_5)
0.121	61	>75% Grass cover, Good, HSG B (DA_5)
0.099	80	>75% Grass cover, Good, HSG D (DA_2, DA_3, DA_4)
2.604	98	Paved Parking, HSG A (DA_1, DA_2, DA_3, DA_4, DA_5)
0.076	98	Paved Parking, HSG B (DA_4, DA_5)
0.133	98	Paved Parking, HSG D (DA_2, DA_3, DA_4)
0.960	30	Woods, Good, HSG A (DA_3)
0.073	55	Woods, Good, HSG B (DA_5)
0.460	77	Woods, Good, HSG D (DA_3)
6.337	**64**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
4.773	HSG A	DA_1, DA_2, DA_3, DA_4, DA_5
0.270	HSG B	DA_4, DA_5
0.000	HSG C	
0.693	HSG D	DA_2, DA_3, DA_4
0.601	Other	DA_3
6.337		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
1.210	0.121	0.000	0.099	0.000	1.430	>75% Grass cover, Good	DA_1, DA_2, DA_3, DA_4, DA_5
2.604	0.076	0.000	0.133	0.000	2.813	Paved Parking	DA_1, DA_2, DA_3, DA_4, DA_5
0.960	0.073	0.000	0.460	0.601	2.094	Woods, Good	DA_3, DA_5
4.773	**0.270**	**0.000**	**0.693**	**0.601**	**6.337**	**TOTAL AREA**	

Time span=0.00-100.00 hrs, dt=0.05 hrs, 2001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment DA_1: Subcat DA_1 Runoff Area=0.248 ac 99.77% Impervious Runoff Depth=1.75"
Flow Length=308' Slope=0.0039 '/' Tc=9.4 min CN=WQ Runoff=0.52 cfs 0.036 af

Subcatchment DA_2: Subcat DA_2 Runoff Area=0.842 ac 65.80% Impervious Runoff Depth=1.20"
Flow Length=358' Slope=0.0056 '/' Tc=18.0 min CN=WQ Runoff=0.95 cfs 0.084 af

Subcatchment DA_3: Subcat DA_3 Runoff Area=2.282 ac 0.27% Impervious Runoff Depth=0.10"
Flow Length=180' Slope=0.0056 '/' Tc=38.2 min CN=WQ Runoff=0.14 cfs 0.019 af

Subcatchment DA_4: Subcat DA_4 Runoff Area=0.288 ac 98.82% Impervious Runoff Depth=1.74"
Flow Length=31' Slope=0.0048 '/' Tc=1.4 min CN=WQ Runoff=0.77 cfs 0.042 af

Subcatchment DA_5: Subcat DA_5 Runoff Area=2.676 ac 64.28% Impervious Runoff Depth=1.13"
Flow Length=533' Slope=0.0030 '/' Tc=37.3 min CN=WQ Runoff=1.98 cfs 0.252 af

Pond 1P: gravel wetland 1 Peak Elev=3.52' Storage=9,860 cf Inflow=2.18 cfs 0.378 af
Primary=0.16 cfs 0.378 af Secondary=0.00 cfs 0.000 af Outflow=0.16 cfs 0.378 af

Pond 3P: sand filter #1 Peak Elev=1.42' Storage=1,946 cf Inflow=0.95 cfs 0.084 af
Outflow=0.09 cfs 0.084 af

Pond 4P: S/N 001 Inflow=0.65 cfs 0.433 af
Primary=0.65 cfs 0.433 af

Total Runoff Area = 6.337 ac Runoff Volume = 0.433 af Average Runoff Depth = 0.82"
55.61% Pervious = 3.524 ac 44.39% Impervious = 2.813 ac

Summary for Subcatchment DA_1: Subcat DA_1

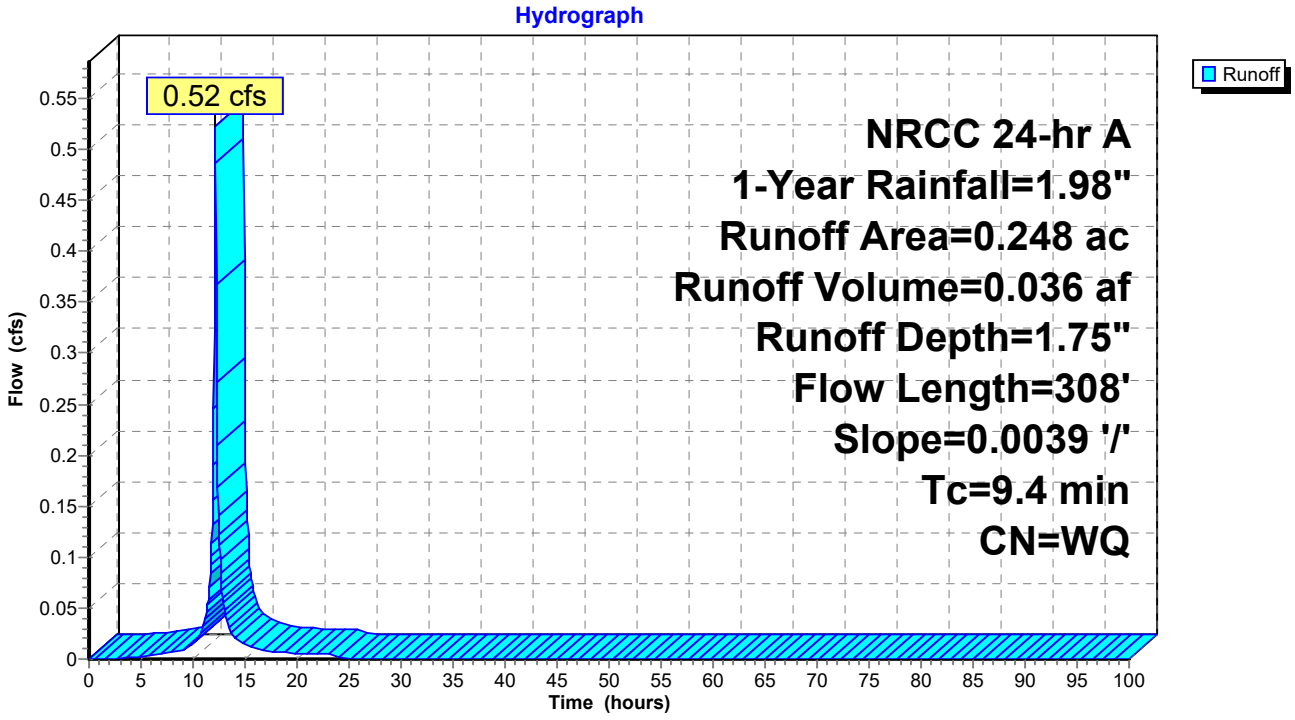
Runoff = 0.52 cfs @ 12.16 hrs, Volume= 0.036 af, Depth= 1.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 1-Year Rainfall=1.98"

Area (ac)	CN	Description
0.001	39	>75% Grass cover, Good, HSG A
0.248	98	Paved Parking, HSG A
0.248		Weighted Average
0.001		0.23% Pervious Area
0.248		99.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	308	0.0039	0.55		**Lag/CN Method,** Contour Length= 42' Interval= 1'

Subcatchment DA_1: Subcat DA_1



Summary for Subcatchment DA_2: Subcat DA_2

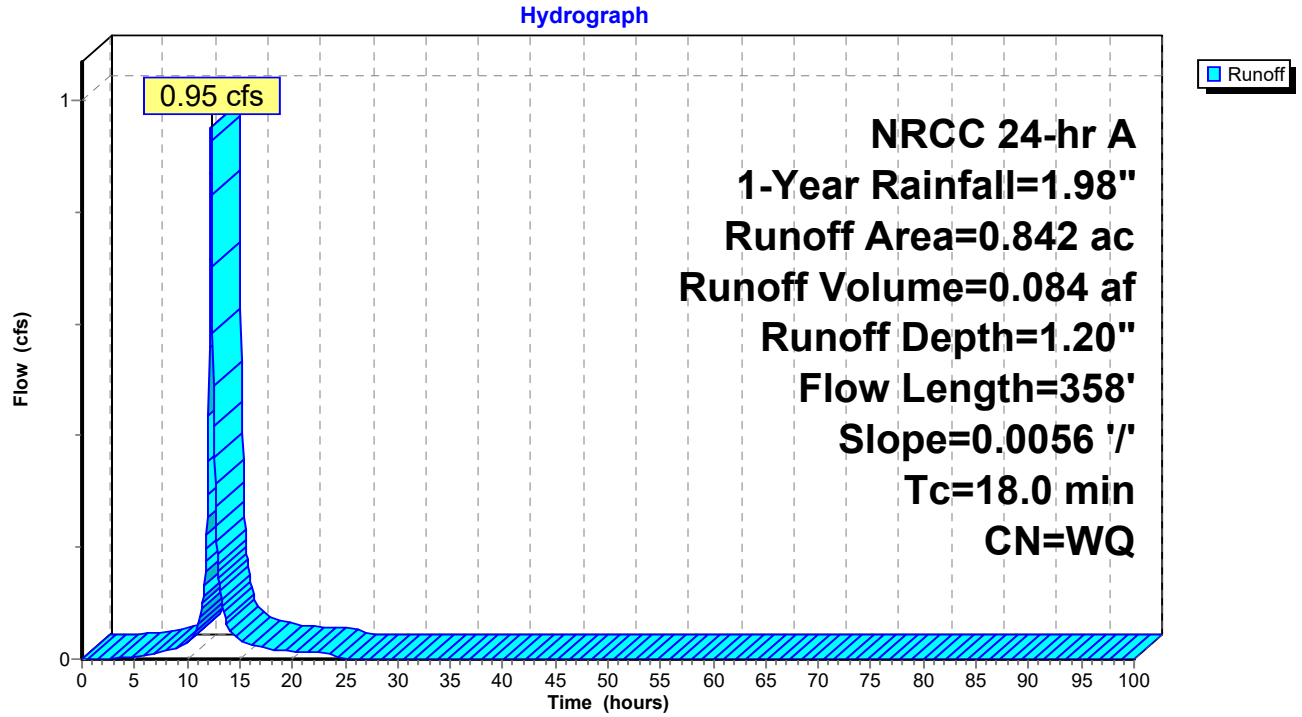
Runoff = 0.95 cfs @ 12.26 hrs, Volume= 0.084 af, Depth= 1.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 1-Year Rainfall=1.98"

Area (ac)	CN	Description
0.216	39	>75% Grass cover, Good, HSG A
0.072	80	>75% Grass cover, Good, HSG D
0.442	98	Paved Parking, HSG A
0.112	98	Paved Parking, HSG D
0.842		Weighted Average
0.288		34.20% Pervious Area
0.554		65.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.0	358	0.0056	0.33		**Lag/CN Method,** Contour Length= 206' Interval= 1'

Subcatchment DA_2: Subcat DA_2



Summary for Subcatchment DA_3: Subcat DA_3

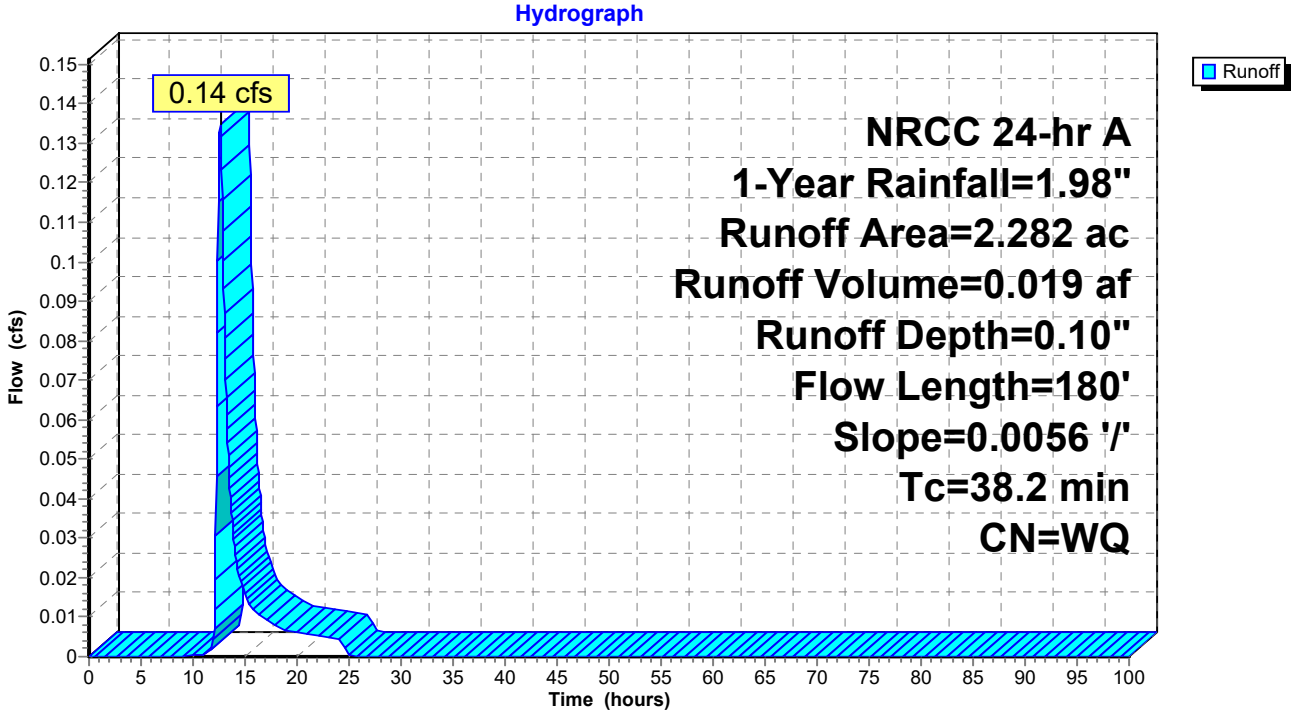
Runoff = 0.14 cfs @ 12.61 hrs, Volume= 0.019 af, Depth= 0.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 1-Year Rainfall=1.98"

Area (ac)	CN	Description
0.229	39	>75% Grass cover, Good, HSG A
0.027	80	>75% Grass cover, Good, HSG D
0.005	98	Paved Parking, HSG A
0.002	98	Paved Parking, HSG D
0.960	30	Woods, Good, HSG A
0.460	77	Woods, Good, HSG D
0.601	0	Woods, Good, HSG not rated
2.282		Weighted Average
2.276		99.73% Pervious Area
0.006		0.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.2	180	0.0056	0.08		**Lag/CN Method,** Contour Length= 557' Interval= 1'

Subcatchment DA_3: Subcat DA_3



Summary for Subcatchment DA_4: Subcat DA_4

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

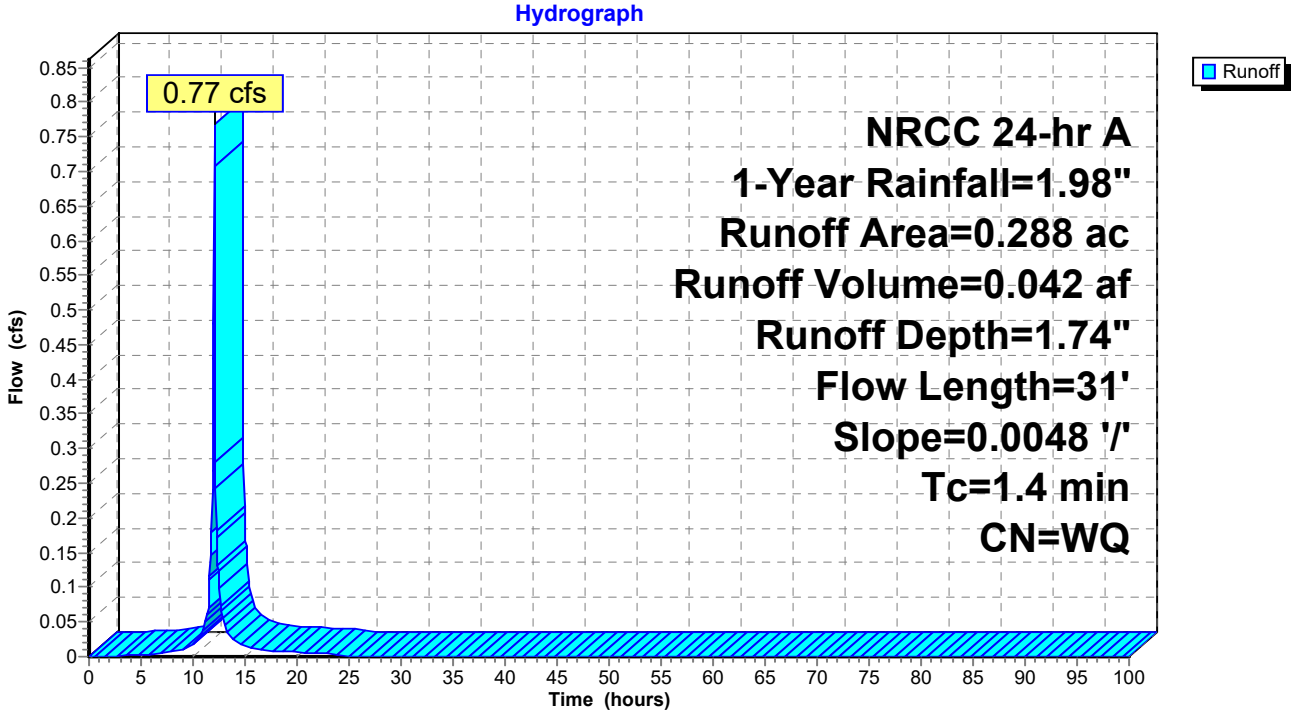
Runoff = 0.77 cfs @ 12.07 hrs, Volume= 0.042 af, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 1-Year Rainfall=1.98"

Area (ac)	CN	Description
0.003	39	>75% Grass cover, Good, HSG A
0.001	80	>75% Grass cover, Good, HSG D
0.260	98	Paved Parking, HSG A
0.005	98	Paved Parking, HSG B
0.020	98	Paved Parking, HSG D
0.288		Weighted Average
0.003		1.18% Pervious Area
0.285		98.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	31	0.0048	0.36		**Lag/CN Method,** Contour Length= 60' Interval= 1'

Subcatchment DA_4: Subcat DA_4



Summary for Subcatchment DA_5: Subcat DA_5

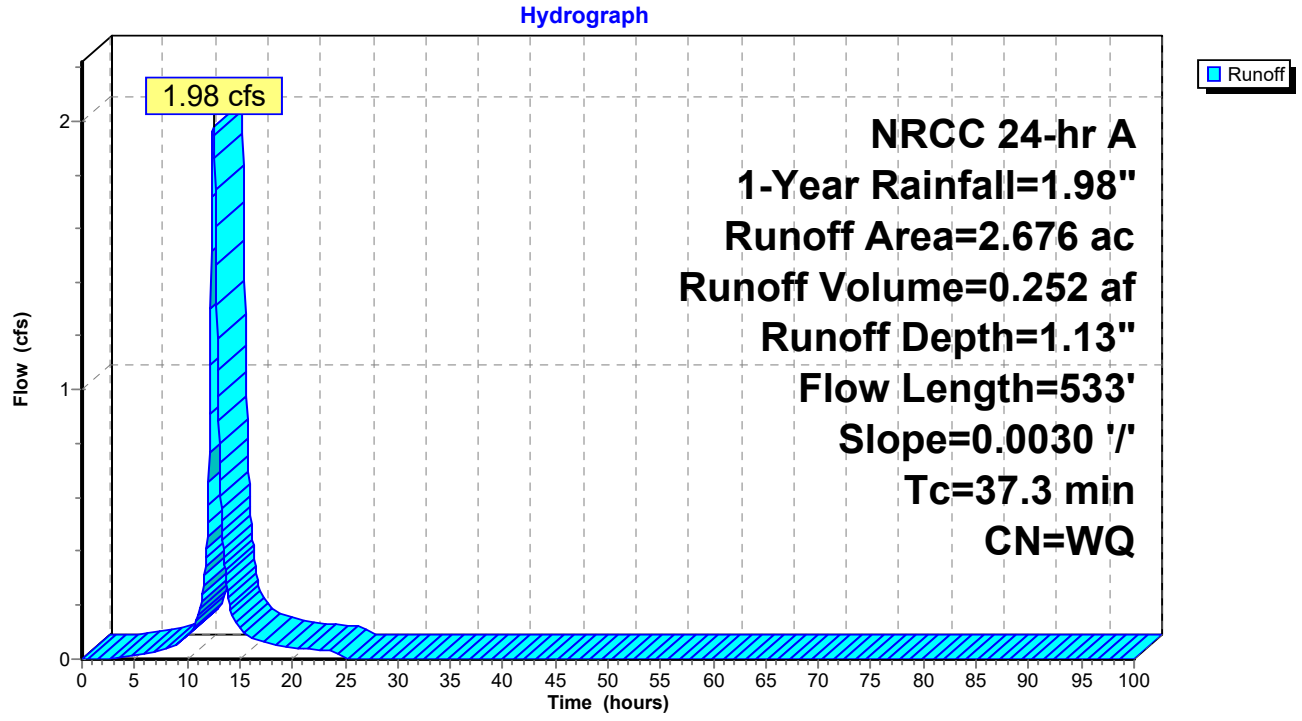
Runoff = 1.98 cfs @ 12.49 hrs, Volume= 0.252 af, Depth= 1.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 1-Year Rainfall=1.98"

Area (ac)	CN	Description
0.762	39	>75% Grass cover, Good, HSG A
0.121	61	>75% Grass cover, Good, HSG B
1.649	98	Paved Parking, HSG A
0.071	98	Paved Parking, HSG B
0.000	30	Woods, Good, HSG A
0.073	55	Woods, Good, HSG B
2.676		Weighted Average
0.956		35.72% Pervious Area
1.720		64.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
37.3	533	0.0030	0.24		**Lag/CN Method,** Contour Length= 349' Interval= 1'

Subcatchment DA_5: Subcat DA_5



Summary for Pond 1P: gravel wetland 1

[78] Warning: Submerged Pond 3P Primary device # 1 by 3.52'
[81] Warning: Exceeded Pond 3P by 2.94' @ 26.40 hrs

Inflow Area = 3.806 ac, 67.23% Impervious, Inflow Depth = 1.19" for 1-Year event
Inflow = 2.18 cfs @ 12.48 hrs, Volume= 0.378 af
Outflow = 0.16 cfs @ 16.76 hrs, Volume= 0.378 af, Atten= 93%, Lag= 256.3 min
Primary = 0.16 cfs @ 16.76 hrs, Volume= 0.378 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Peak Elev= 3.52' @ 16.76 hrs Surf.Area= 4,156 sf Storage= 9,860 cf

Plug-Flow detention time= 744.1 min calculated for 0.378 af (100% of inflow)
Center-of-Mass det. time= 743.8 min (1,583.5 - 839.7)

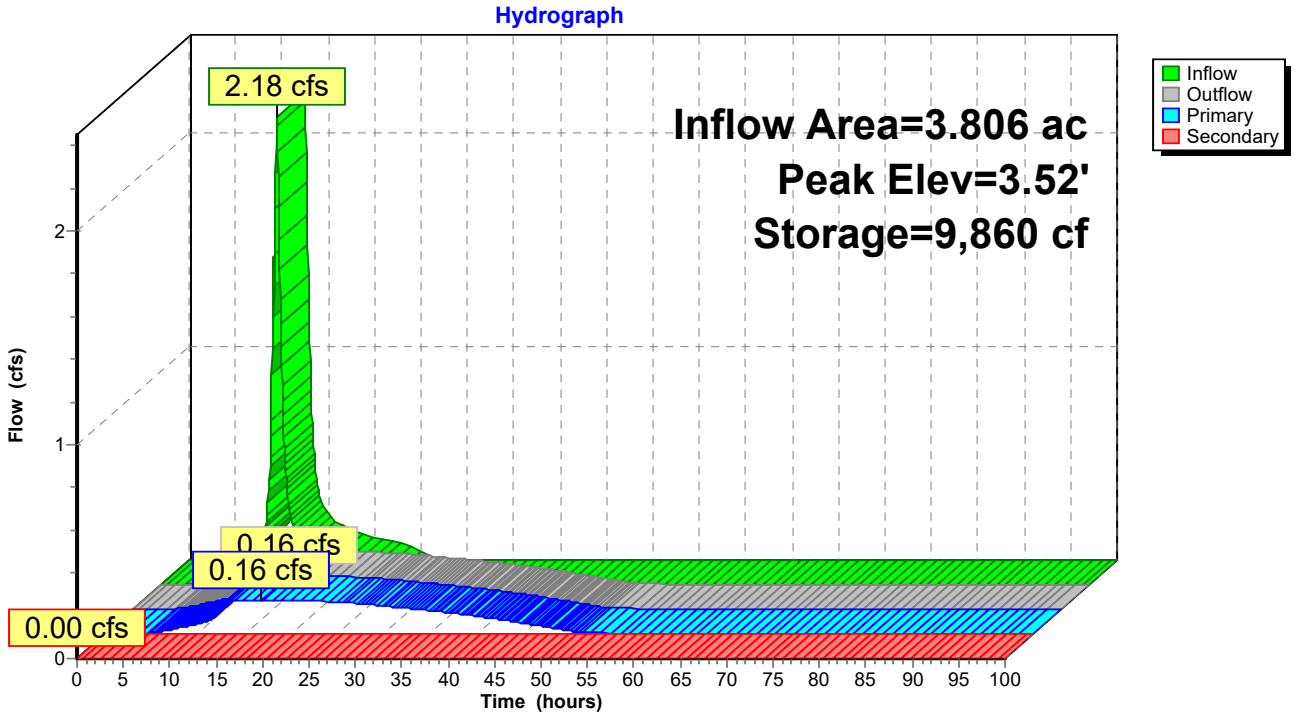
Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	23,384 cf	**20.00'W x 80.00'L x 6.06'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**1.8" Vert. Orifice/Grate** C= 0.600
#2	Primary	4.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	5.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.16 cfs @ 16.76 hrs HW=3.52' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.16 cfs @ 8.93 fps)
└**2=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=0.00' (Free Discharge)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: gravel wetland 1



Summary for Pond 3P: sand filter #1

Inflow Area = 0.842 ac, 65.80% Impervious, Inflow Depth = 1.20" for 1-Year event
Inflow = 0.95 cfs @ 12.26 hrs, Volume= 0.084 af
Outflow = 0.09 cfs @ 13.39 hrs, Volume= 0.084 af, Atten= 91%, Lag= 67.8 min
Primary = 0.09 cfs @ 13.39 hrs, Volume= 0.084 af

Routing by Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Peak Elev= 1.42' @ 13.39 hrs Surf.Area= 2,197 sf Storage= 1,946 cf

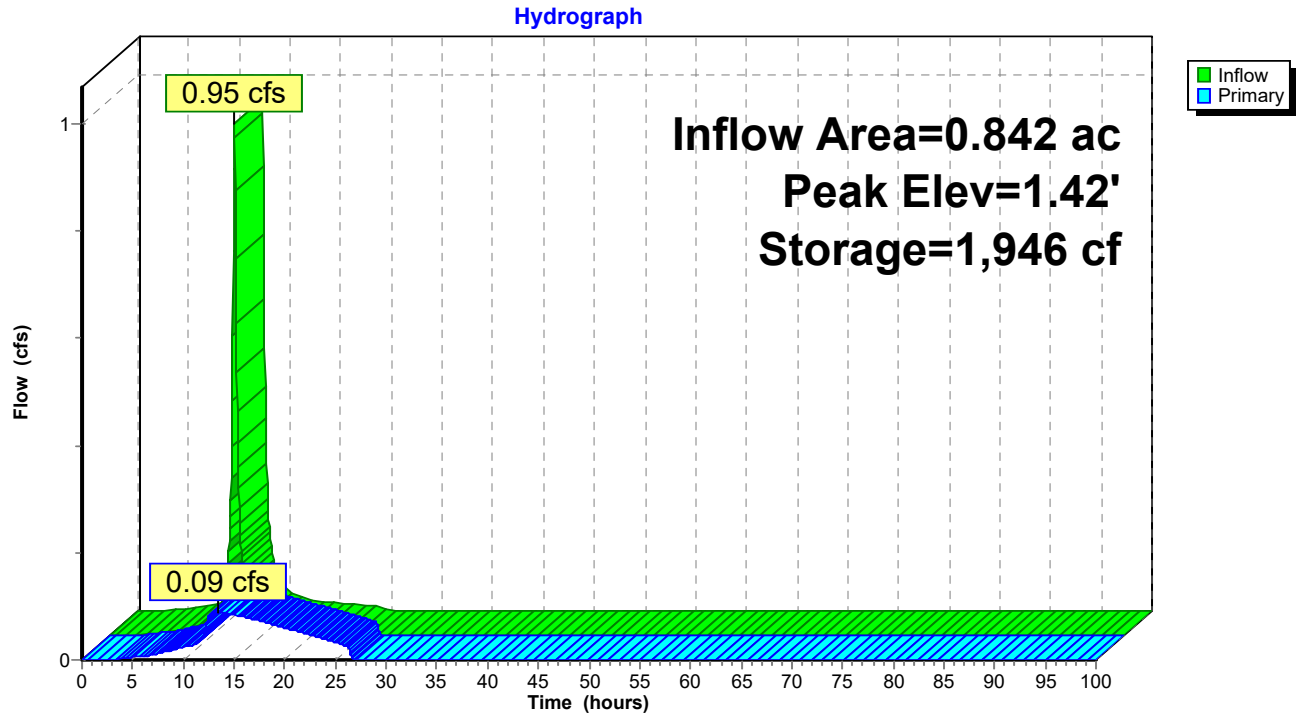
Plug-Flow detention time= 232.1 min calculated for 0.084 af (100% of inflow)
Center-of-Mass det. time= 232.0 min (1,012.0 - 780.0)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	3,431 cf	**2.00'W x 281.00'L x 2.00'H Prismatoid Z=2.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**1.750 in/hr Exfiltration over Surface area**
#2	Primary	1.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.09 cfs @ 13.39 hrs HW=1.42' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.09 cfs)
2=Orifice/Grate (Controls 0.00 cfs)

Pond 3P: sand filter #1



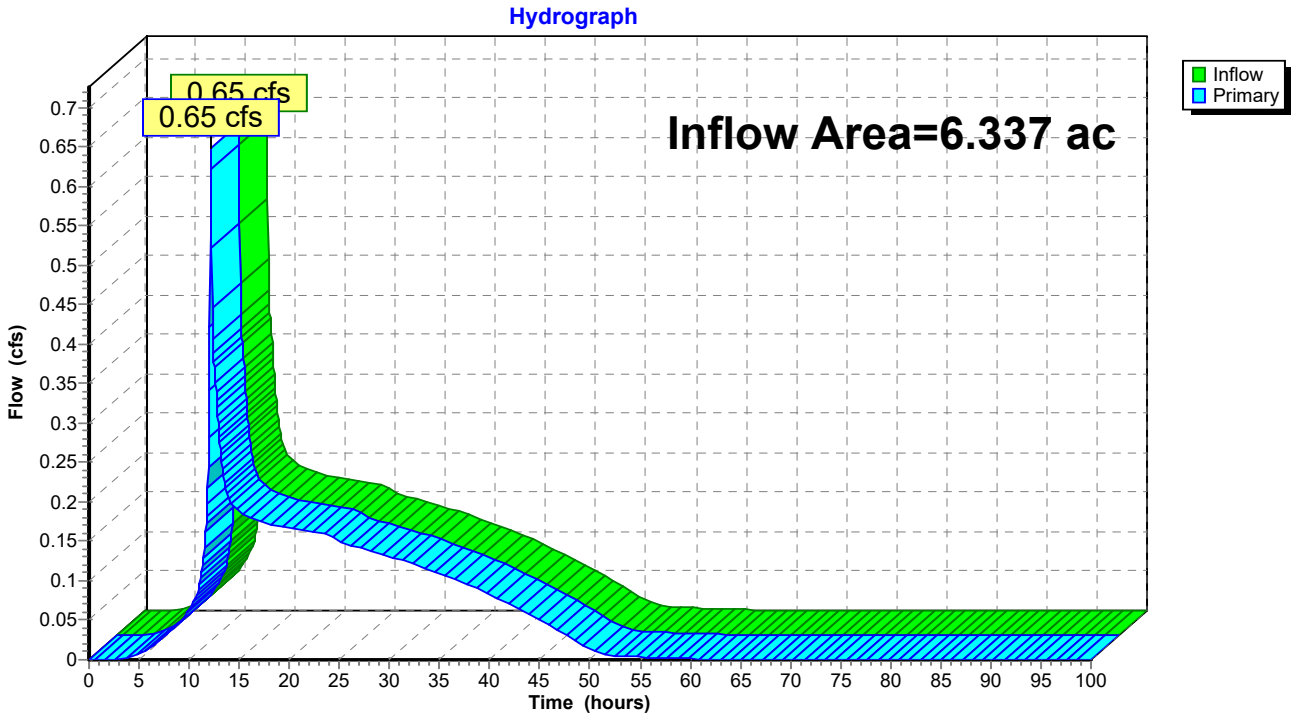
Summary for Pond 4P: S/N 001

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

Inflow Area = 6.337 ac, 44.39% Impervious, Inflow Depth = 0.82" for 1-Year event
Inflow = 0.65 cfs @ 12.17 hrs, Volume= 0.433 af
Primary = 0.65 cfs @ 12.17 hrs, Volume= 0.433 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs

Pond 4P: S/N 001



Time span=0.00-100.00 hrs, dt=0.05 hrs, 2001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment DA_1: Subcat DA_1 Runoff Area=0.248 ac 99.77% Impervious Runoff Depth=2.93"
Flow Length=308' Slope=0.0039 '/' Tc=9.4 min CN=WQ Runoff=0.85 cfs 0.061 af

Subcatchment DA_2: Subcat DA_2 Runoff Area=0.842 ac 65.80% Impervious Runoff Depth=2.05"
Flow Length=358' Slope=0.0056 '/' Tc=18.0 min CN=WQ Runoff=1.60 cfs 0.144 af

Subcatchment DA_3: Subcat DA_3 Runoff Area=2.282 ac 0.27% Impervious Runoff Depth=0.26"
Flow Length=180' Slope=0.0056 '/' Tc=38.2 min CN=WQ Runoff=0.40 cfs 0.050 af

Subcatchment DA_4: Subcat DA_4 Runoff Area=0.288 ac 98.82% Impervious Runoff Depth=2.91"
Flow Length=31' Slope=0.0048 '/' Tc=1.4 min CN=WQ Runoff=1.25 cfs 0.070 af

Subcatchment DA_5: Subcat DA_5 Runoff Area=2.676 ac 64.28% Impervious Runoff Depth=1.91"
Flow Length=533' Slope=0.0030 '/' Tc=37.3 min CN=WQ Runoff=3.27 cfs 0.427 af

Pond 1P: gravel wetland 1 Peak Elev=4.64' Storage=15,089 cf Inflow=4.46 cfs 0.641 af
Primary=1.29 cfs 0.641 af Secondary=0.00 cfs 0.000 af Outflow=1.29 cfs 0.641 af

Pond 3P: sand filter #1 Peak Elev=1.63' Storage=2,433 cf Inflow=1.60 cfs 0.144 af
Outflow=1.02 cfs 0.144 af

Pond 4P: S/N 001 Inflow=1.52 cfs 0.751 af
Primary=1.52 cfs 0.751 af

Total Runoff Area = 6.337 ac Runoff Volume = 0.751 af Average Runoff Depth = 1.42"
55.61% Pervious = 3.524 ac 44.39% Impervious = 2.813 ac

Summary for Subcatchment DA_1: Subcat DA_1

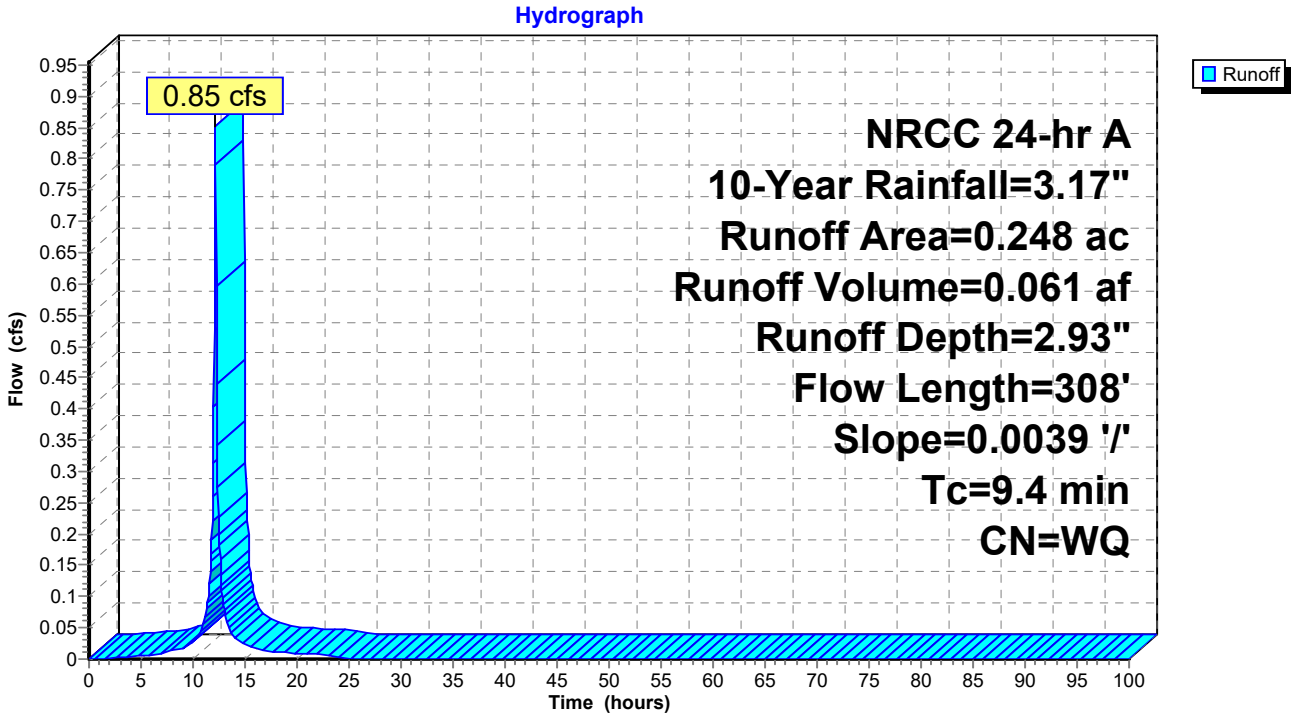
Runoff = 0.85 cfs @ 12.16 hrs, Volume= 0.061 af, Depth= 2.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 10-Year Rainfall=3.17"

Area (ac)	CN	Description
0.001	39	>75% Grass cover, Good, HSG A
0.248	98	Paved Parking, HSG A
0.248		Weighted Average
0.001		0.23% Pervious Area
0.248		99.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	308	0.0039	0.55		**Lag/CN Method,** Contour Length= 42' Interval= 1'

Subcatchment DA_1: Subcat DA_1



Summary for Subcatchment DA_2: Subcat DA_2

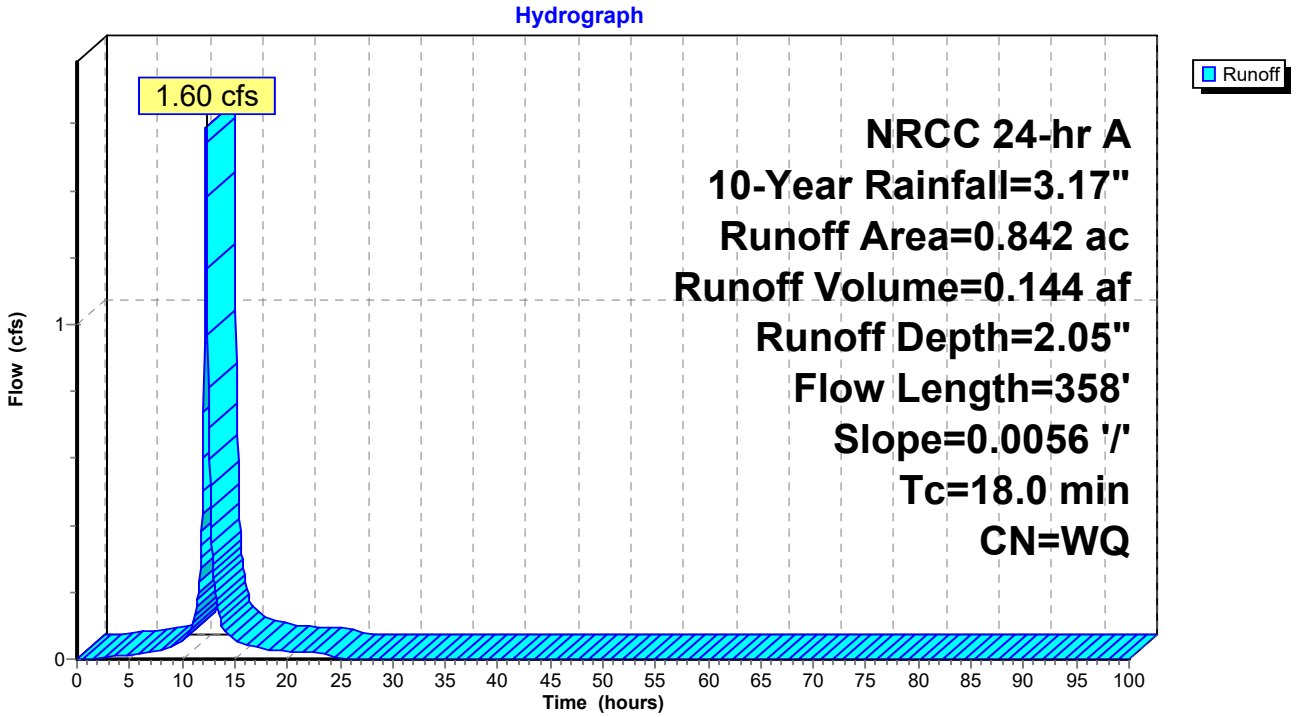
Runoff = 1.60 cfs @ 12.26 hrs, Volume= 0.144 af, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 10-Year Rainfall=3.17"

Area (ac)	CN	Description
0.216	39	>75% Grass cover, Good, HSG A
0.072	80	>75% Grass cover, Good, HSG D
0.442	98	Paved Parking, HSG A
0.112	98	Paved Parking, HSG D
0.842		Weighted Average
0.288		34.20% Pervious Area
0.554		65.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.0	358	0.0056	0.33		**Lag/CN Method,** Contour Length= 206' Interval= 1'

Subcatchment DA_2: Subcat DA_2



Summary for Subcatchment DA_3: Subcat DA_3

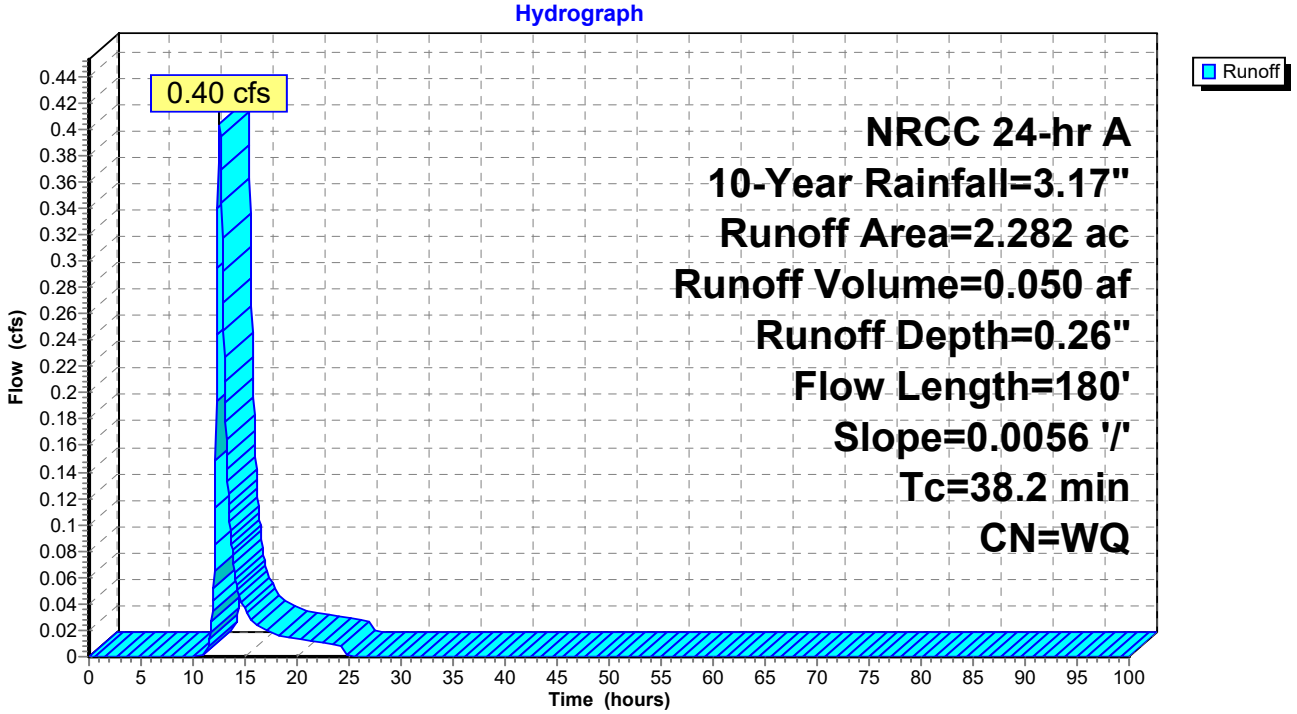
Runoff = 0.40 cfs @ 12.56 hrs, Volume= 0.050 af, Depth= 0.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 10-Year Rainfall=3.17"

Area (ac)	CN	Description
0.229	39	>75% Grass cover, Good, HSG A
0.027	80	>75% Grass cover, Good, HSG D
0.005	98	Paved Parking, HSG A
0.002	98	Paved Parking, HSG D
0.960	30	Woods, Good, HSG A
0.460	77	Woods, Good, HSG D
0.601	0	Woods, Good, HSG not rated
2.282		Weighted Average
2.276		99.73% Pervious Area
0.006		0.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.2	180	0.0056	0.08		**Lag/CN Method,** Contour Length= 557' Interval= 1'

Subcatchment DA_3: Subcat DA_3



Summary for Subcatchment DA_4: Subcat DA_4

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

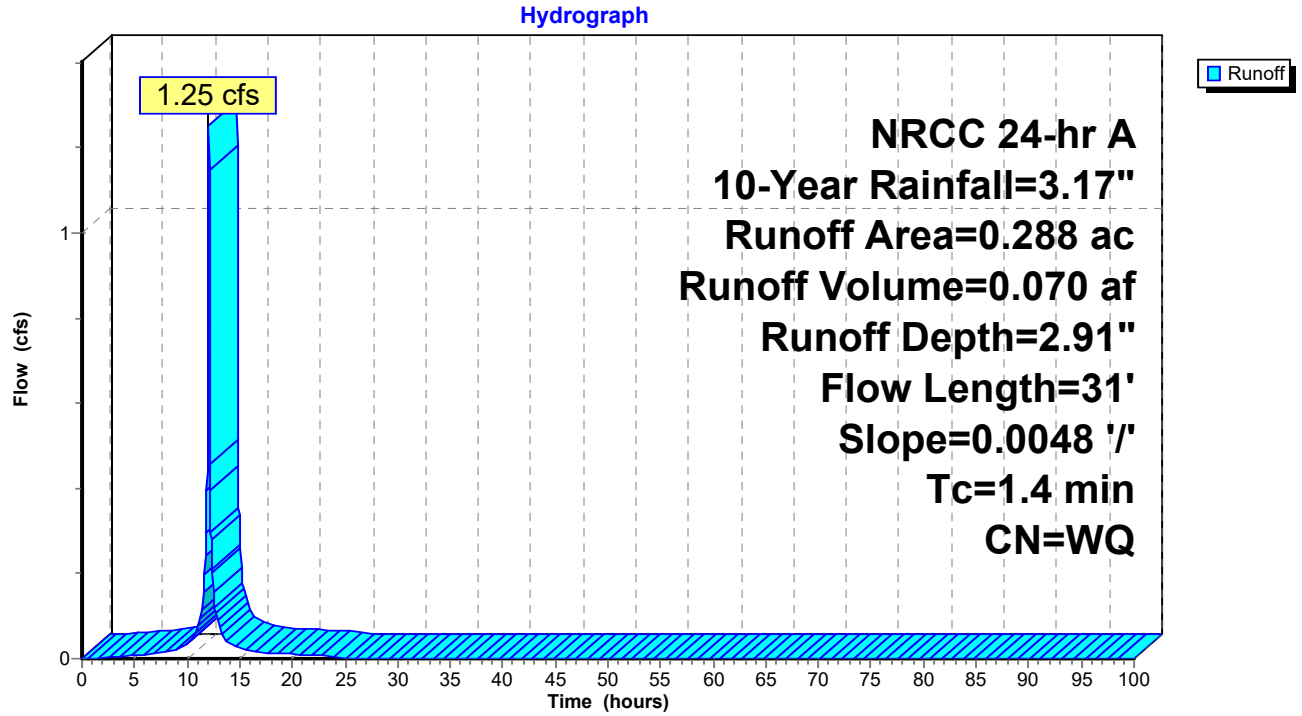
Runoff = 1.25 cfs @ 12.07 hrs, Volume= 0.070 af, Depth= 2.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 10-Year Rainfall=3.17"

Area (ac)	CN	Description
0.003	39	>75% Grass cover, Good, HSG A
0.001	80	>75% Grass cover, Good, HSG D
0.260	98	Paved Parking, HSG A
0.005	98	Paved Parking, HSG B
0.020	98	Paved Parking, HSG D
0.288		Weighted Average
0.003		1.18% Pervious Area
0.285		98.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	31	0.0048	0.36		**Lag/CN Method,** Contour Length= 60' Interval= 1'

Subcatchment DA_4: Subcat DA_4



Summary for Subcatchment DA_5: Subcat DA_5

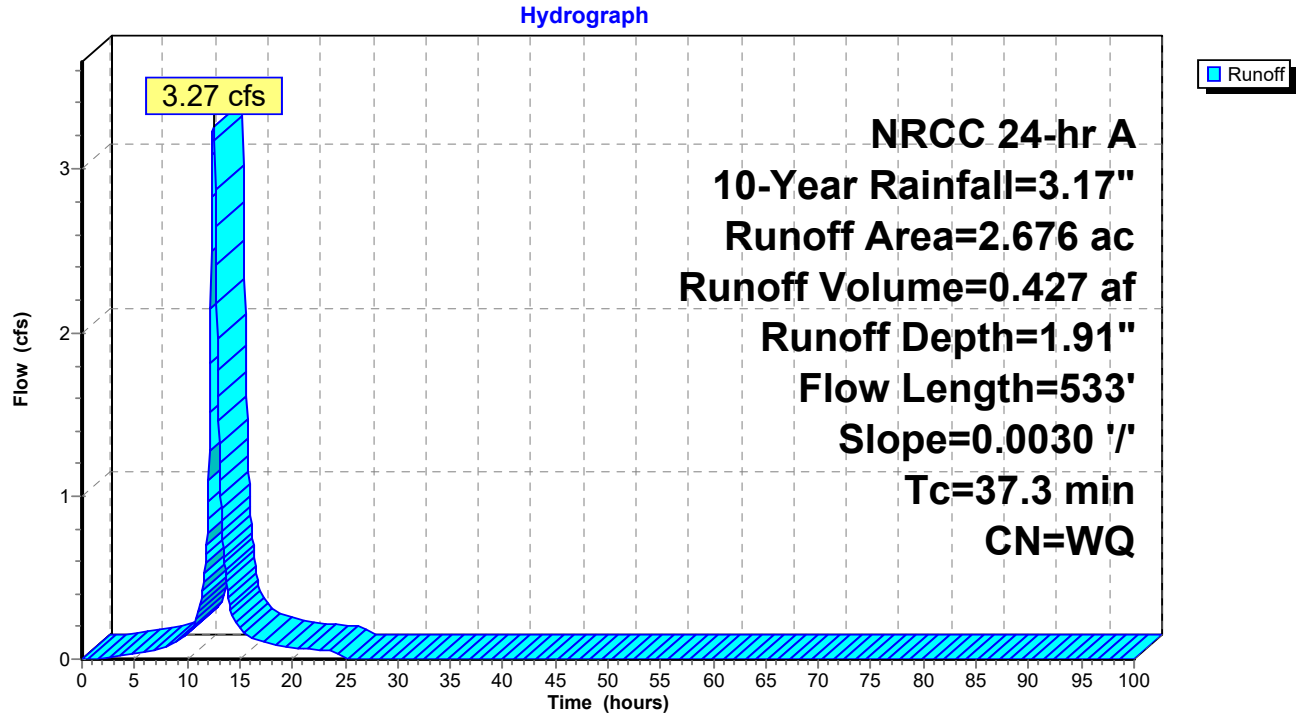
Runoff = 3.27 cfs @ 12.49 hrs, Volume= 0.427 af, Depth= 1.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 10-Year Rainfall=3.17"

Area (ac)	CN	Description
0.762	39	>75% Grass cover, Good, HSG A
0.121	61	>75% Grass cover, Good, HSG B
1.649	98	Paved Parking, HSG A
0.071	98	Paved Parking, HSG B
0.000	30	Woods, Good, HSG A
0.073	55	Woods, Good, HSG B
2.676		Weighted Average
0.956		35.72% Pervious Area
1.720		64.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
37.3	533	0.0030	0.24		**Lag/CN Method,** Contour Length= 349' Interval= 1'

Subcatchment DA_5: Subcat DA_5



Summary for Pond 1P: gravel wetland 1

[78] Warning: Submerged Pond 3P Primary device # 1 by 4.64'
[81] Warning: Exceeded Pond 3P by 3.90' @ 28.35 hrs

Inflow Area = 3.806 ac, 67.23% Impervious, Inflow Depth = 2.02" for 10-Year event
Inflow = 4.46 cfs @ 12.47 hrs, Volume= 0.641 af
Outflow = 1.29 cfs @ 13.20 hrs, Volume= 0.641 af, Atten= 71%, Lag= 44.2 min
Primary = 1.29 cfs @ 13.20 hrs, Volume= 0.641 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Peak Elev= 4.64' @ 13.20 hrs Surf.Area= 5,160 sf Storage= 15,089 cf

Plug-Flow detention time= 793.6 min calculated for 0.641 af (100% of inflow)
Center-of-Mass det. time= 793.3 min (1,615.6 - 822.3)

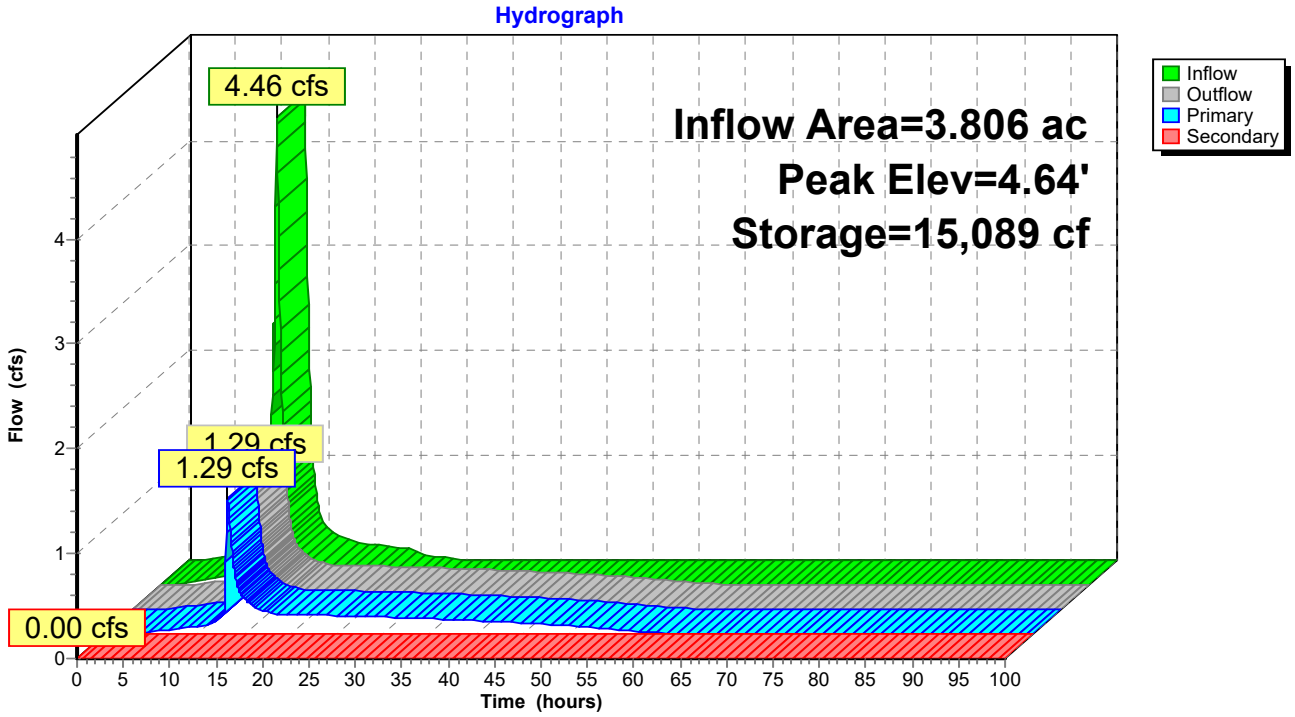
Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	23,384 cf	**20.00'W x 80.00'L x 6.06'H Prismatoid Z=3.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**1.8" Vert. Orifice/Grate** C= 0.600
#2	Primary	4.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Secondary	5.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=1.27 cfs @ 13.20 hrs HW=4.64' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.18 cfs @ 10.29 fps)
└**2=Orifice/Grate** (Weir Controls 1.09 cfs @ 1.23 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=0.00' (Free Discharge)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: gravel wetland 1



Summary for Pond 3P: sand filter #1

Inflow Area = 0.842 ac, 65.80% Impervious, Inflow Depth = 2.05" for 10-Year event
Inflow = 1.60 cfs @ 12.26 hrs, Volume= 0.144 af
Outflow = 1.02 cfs @ 12.45 hrs, Volume= 0.144 af, Atten= 36%, Lag= 11.2 min
Primary = 1.02 cfs @ 12.45 hrs, Volume= 0.144 af

Routing by Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Peak Elev= 1.63' @ 12.45 hrs Surf.Area= 2,445 sf Storage= 2,433 cf

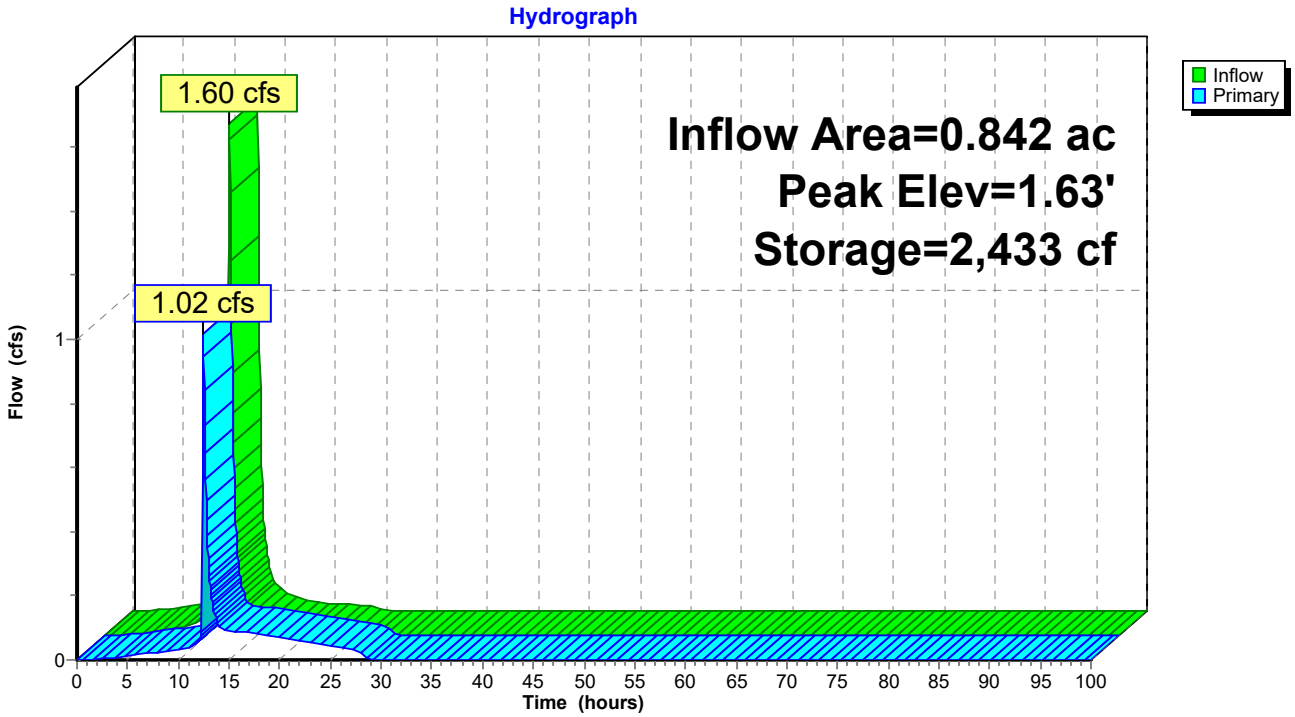
Plug-Flow detention time= 192.4 min calculated for 0.144 af (100% of inflow)
Center-of-Mass det. time= 192.4 min (963.2 - 770.8)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	3,431 cf	**2.00'W x 281.00'L x 2.00'H Prismatoid Z=2.0**

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**1.750 in/hr Exfiltration over Surface area**
#2	Primary	1.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.02 cfs @ 12.45 hrs HW=1.63' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.10 cfs)
└**2=Orifice/Grate** (Weir Controls 0.92 cfs @ 1.16 fps)

Pond 3P: sand filter #1



Summary for Pond 4P: S/N 001

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

Inflow Area = 6.337 ac, 44.39% Impervious, Inflow Depth = 1.42" for 10-Year event
Inflow = 1.52 cfs @ 13.18 hrs, Volume= 0.751 af
Primary = 1.52 cfs @ 13.18 hrs, Volume= 0.751 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs

Pond 4P: S/N 001