La Crosse Engineering & Surveying Co., Inc.

SEWERS
WATER
STREETS
SURVEYS
PLATTING

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September 28, 2021

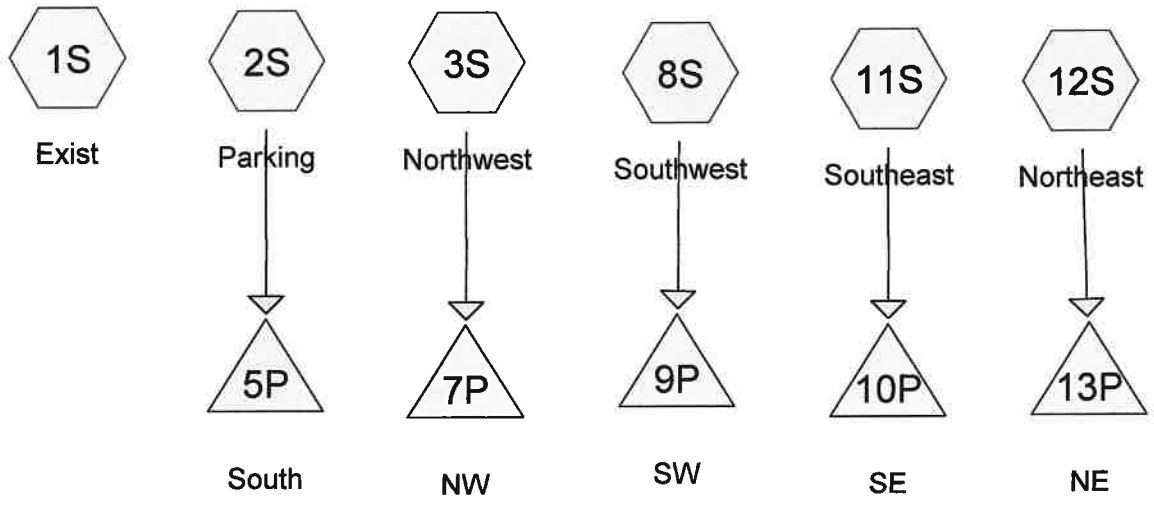
Steve Schlict
624 Jackson St., La Crosse, WI

Storm water Management
Steve Schlict is a proposing a building at the above location in La Crosse. A 1,728 sq. ft. building with parking adjacent to proposed building. The existing buildings were razed years ago to make way for the proposed complex. The drainage for the proposed building will be collected in the green areas, or rain gardens. These areas will be built to infiltrate. During larger storms (100 year), the discharge will be minimal and will discharge directly into the City system. The main discharge will be from the parking stalls, with a row of paver block being utilized for discharge control. The detail and layout is included on the grading/erosion plan. The computations are attached.

Storm event (yr)	Existing discharge (1S) to alley catch basin (cfs)	Proposed discharge (3P) to catch basin (cfs)
1	0.26	0.11
2	0.35	0.18
5	0.57	0.22
10	0.69	0.26
25	0.57	0.30
100	1.17	0.42

TSS removal

I have attached the WinSlamm calculations for the proposed storm chamber. Since the site is a redevelopment site, the removal rate of 40% is accomplished by these infiltration areas. As the WinSlamm computations show, the removal rate is 100%



Subcat Reach Pond Link

Routing Diagram for Schlict

Prepared by La Crosse Engineering & Surveying Co., Inc., Printed 9/27/2021

Project Notes

Rainfall events imported from "Sawyer_res.hcp"

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	10 yr	Type II 24-hr		Default	24.00	1	4.30	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.005	69	50-75% Grass cover, Fair, HSG B (2S)
0.207	79	<50% Grass cover, Poor, HSG B (1S)
0.116	61	>75% Grass cover, Good, HSG B (3S, 8S, 11S, 12S)
0.048	98	Paved parking, HSG B (2S, 3S, 8S, 11S, 12S)
0.046	98	Unconnected roofs, HSG B (3S, 8S, 11S, 12S)
0.422	**78**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.422	HSG B	1S, 2S, 3S, 8S, 11S, 12S
0.000	HSG C	
0.000	HSG D	
0.000	Other	
0.422		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.005	0.000	0.000	0.000	0.005	50-75% Grass cover, Fair	2S
0.000	0.207	0.000	0.000	0.000	0.207	<50% Grass cover, Poor	1S
0.000	0.116	0.000	0.000	0.000	0.116	>75% Grass cover, Good	3S, 8S, 11S, 12S
0.000	0.048	0.000	0.000	0.000	0.048	Paved parking	2S, 3S, 8S, 11S, 12S
0.000	0.046	0.000	0.000	0.000	0.046	Unconnected roofs	3S, 8S, 11S, 12S
0.000	**0.422**	**0.000**	**0.000**	**0.000**	**0.422**	**TOTAL AREA**	

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Exist Runoff Area=9,025 sf 0.00% Impervious Runoff Depth>2.03"
Tc=10.0 min CN=79 Runoff=0.69 cfs 0.035 af

Subcatchment 2S: Parking Runoff Area=1,950 sf 89.74% Impervious Runoff Depth>3.48"
Tc=3.0 min CN=95 Runoff=0.28 cfs 0.013 af

Subcatchment 3S: Northwest Runoff Area=1,842 sf 32.03% Impervious Runoff Depth>1.59"
Tc=10.0 min CN=73 Runoff=0.11 cfs 0.006 af

Subcatchment 8S: Southwest Runoff Area=2,030 sf 29.06% Impervious Runoff Depth>1.20"
Tc=10.0 min UI Adjusted CN=67 Runoff=0.09 cfs 0.005 af

Subcatchment 11S: Southeast Runoff Area=1,785 sf 33.05% Impervious Runoff Depth>1.59"
Tc=10.0 min CN=73 Runoff=0.11 cfs 0.005 af

Subcatchment 12S: Northeast Runoff Area=1,742 sf 33.87% Impervious Runoff Depth>1.66"
Tc=10.0 min CN=74 Runoff=0.11 cfs 0.006 af

Pond 5P: South Peak Elev=668.49' Storage=92 cf Inflow=0.28 cfs 0.013 af
Discarded=0.02 cfs 0.009 af Primary=0.26 cfs 0.004 af Outflow=0.27 cfs 0.013 af

Pond 7P: NW Peak Elev=667.94' Storage=100 cf Inflow=0.11 cfs 0.006 af
Discarded=0.02 cfs 0.006 af Primary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.006 af

Pond 9P: SW Peak Elev=667.80' Storage=76 cf Inflow=0.09 cfs 0.005 af
Discarded=0.01 cfs 0.005 af Primary=0.00 cfs 0.000 af Outflow=0.01 cfs 0.005 af

Pond 10P: SE Peak Elev=667.92' Storage=96 cf Inflow=0.11 cfs 0.005 af
Discarded=0.01 cfs 0.005 af Primary=0.00 cfs 0.000 af Outflow=0.01 cfs 0.005 af

Pond 13P: NE Peak Elev=667.94' Storage=99 cf Inflow=0.11 cfs 0.006 af
Discarded=0.02 cfs 0.006 af Primary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.006 af

Total Runoff Area = 0.422 ac Runoff Volume = 0.069 af Average Runoff Depth = 1.97"
77.63% Pervious = 0.327 ac 22.37% Impervious = 0.094 ac

Summary for Subcatchment 1S: Exist

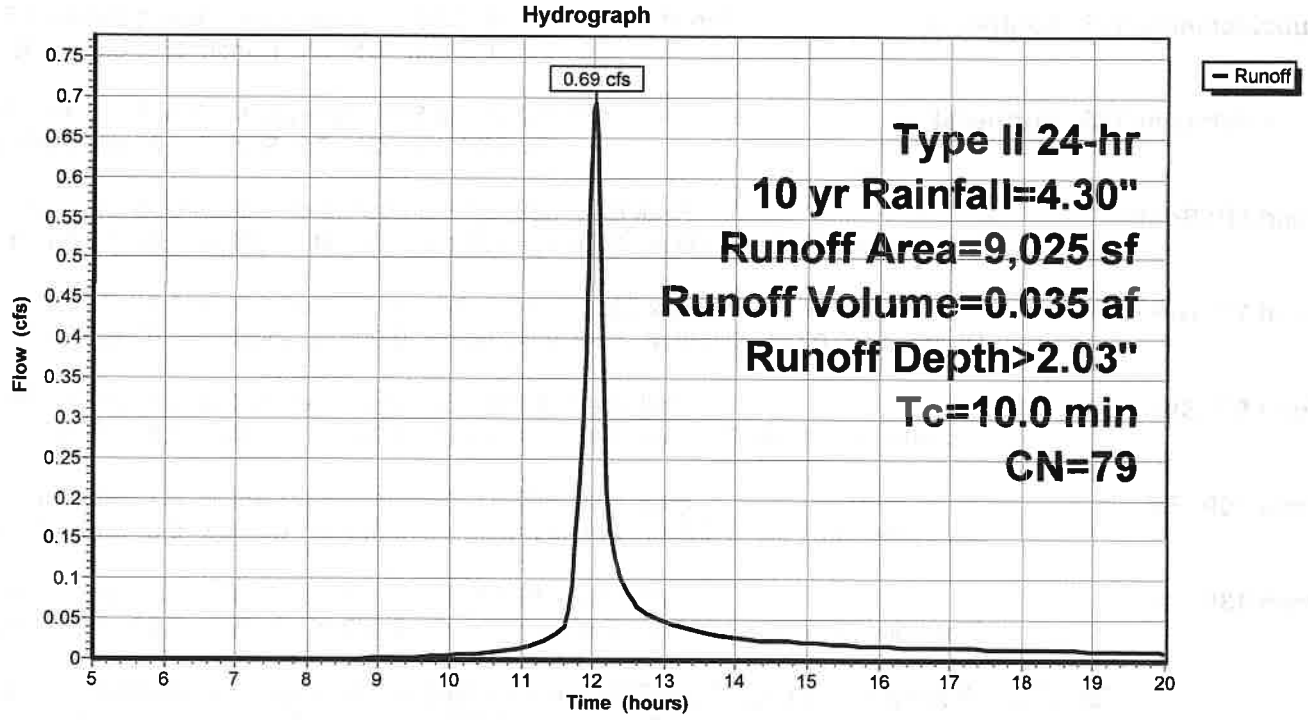
Runoff = 0.69 cfs @ 12.02 hrs, Volume= 0.035 af, Depth> 2.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10 yr Rainfall=4.30"

Area (sf)	CN	Description
9,025	79	<50% Grass cover, Poor, HSG B
9,025		100.00% Pervious Area

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

Subcatchment 1S: Exist



Summary for Subcatchment 2S: Parking

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

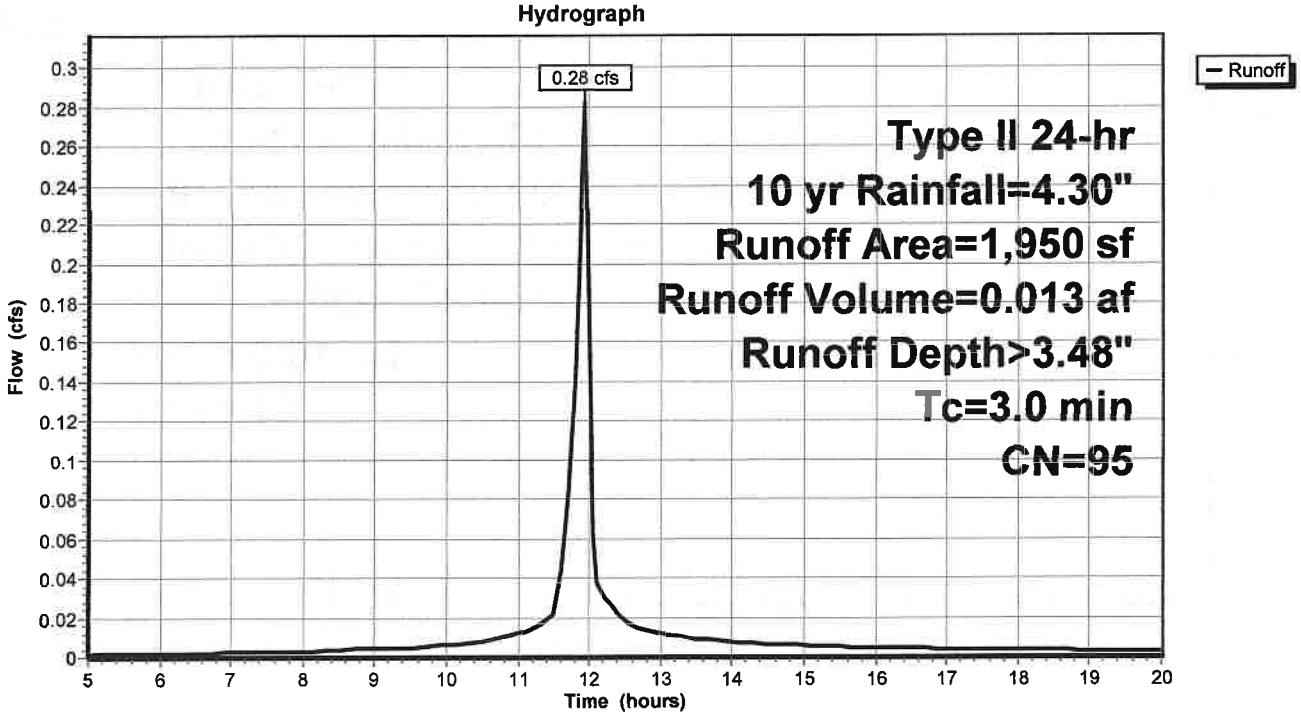
Runoff = 0.28 cfs @ 11.93 hrs, Volume= 0.013 af, Depth> 3.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10 yr Rainfall=4.30"

Area (sf)	CN	Description
1,750	98	Paved parking, HSG B
200	69	50-75% Grass cover, Fair, HSG B
1,950	95	Weighted Average
200		10.26% Pervious Area
1,750		89.74% Impervious Area

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

Subcatchment 2S: Parking



Summary for Subcatchment 3S: Northwest

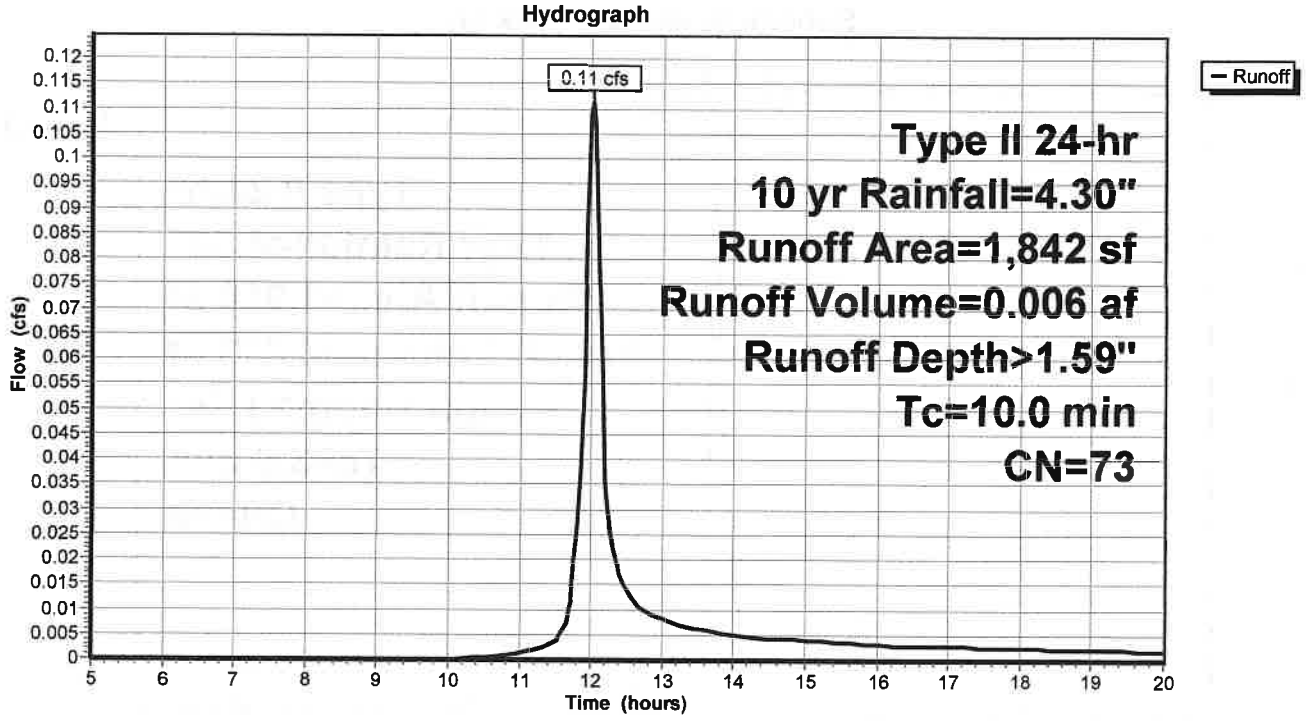
Runoff = 0.11 cfs @ 12.02 hrs, Volume= 0.006 af, Depth> 1.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10 yr Rainfall=4.30"

Area (sf)	CN	Description
500	98	Unconnected roofs, HSG B
90	98	Paved parking, HSG B
1,252	61	>75% Grass cover, Good, HSG B
1,842	73	Weighted Average
1,252		67.97% Pervious Area
590		32.03% Impervious Area
500		84.75% Unconnected

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

Subcatchment 3S: Northwest



Summary for Subcatchment 8S: Southwest

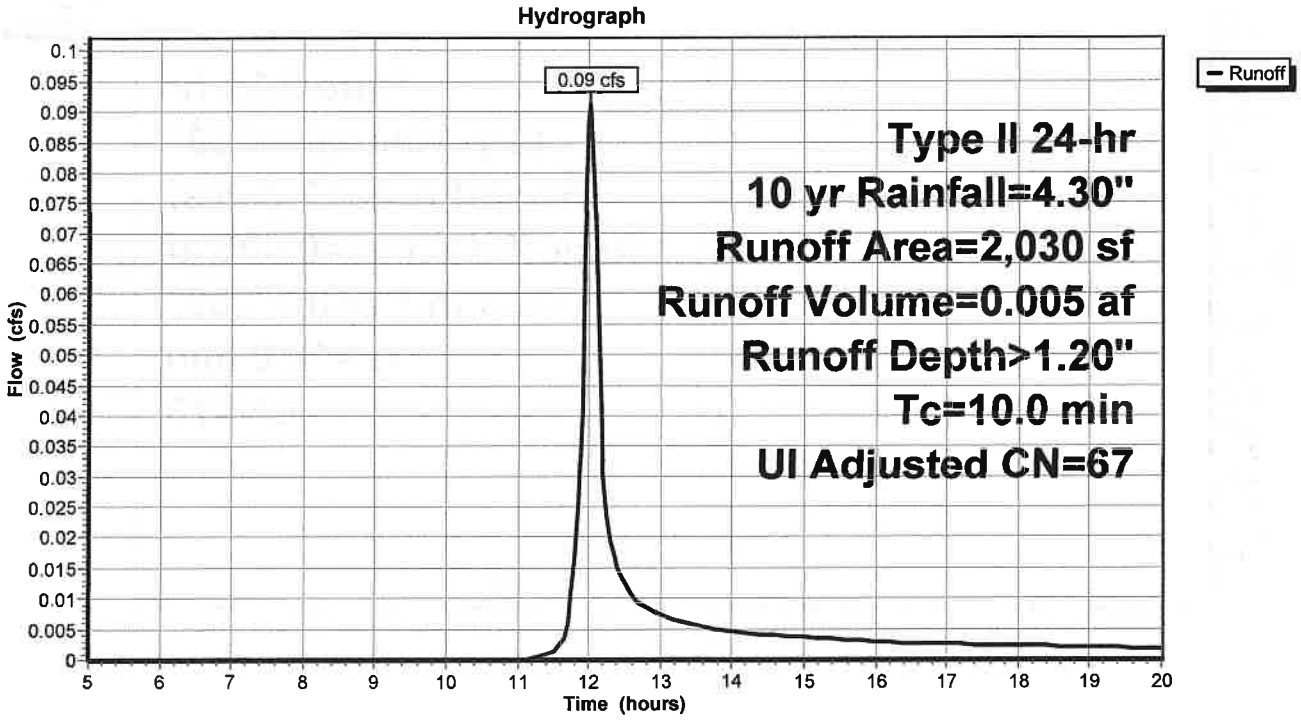
Runoff = 0.09 cfs @ 12.03 hrs, Volume= 0.005 af, Depth> 1.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10 yr Rainfall=4.30"

Area (sf)	CN	Adj	Description
500	98		Unconnected roofs, HSG B
90	98		Paved parking, HSG B
1,440	61		>75% Grass cover, Good, HSG B
2,030	72	67	Weighted Average, UI Adjusted
1,440			70.94% Pervious Area
590			29.06% Impervious Area
500			84.75% Unconnected

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

Subcatchment 8S: Southwest



Summary for Subcatchment 11S: Southeast

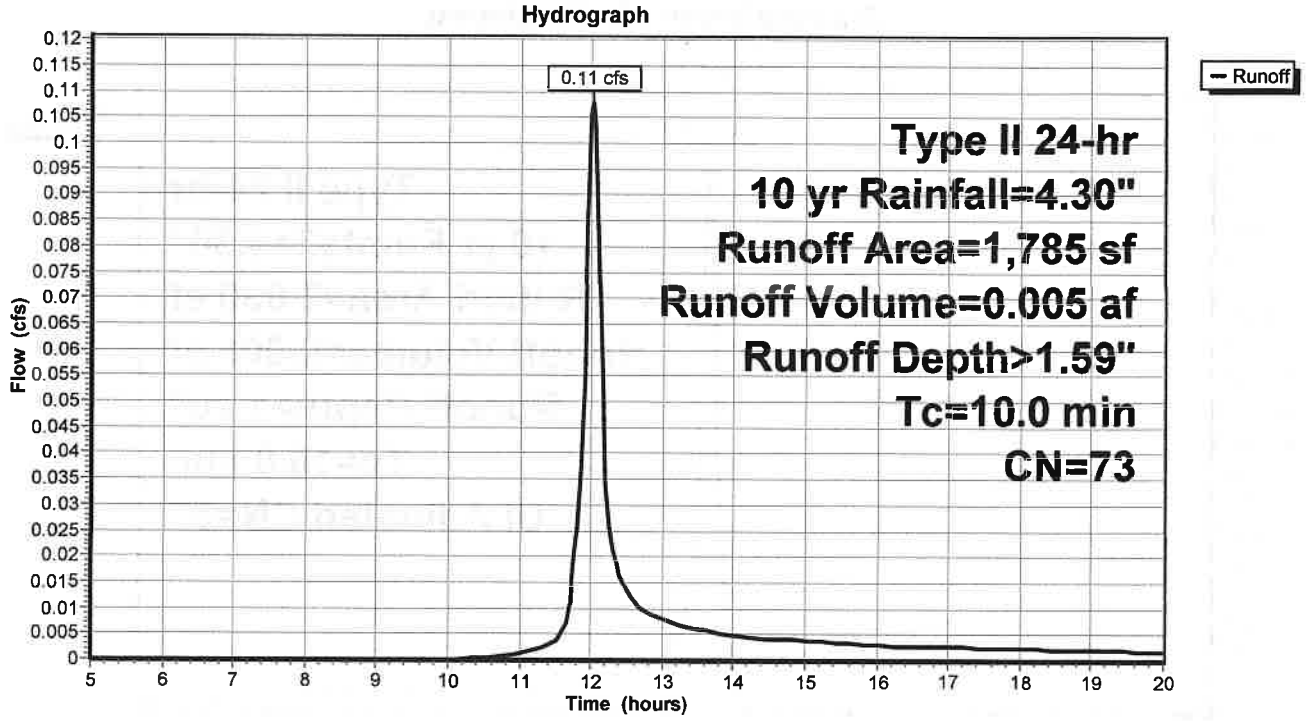
Runoff = 0.11 cfs @ 12.02 hrs, Volume= 0.005 af, Depth> 1.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10 yr Rainfall=4.30"

Area (sf)	CN	Description
500	98	Unconnected roofs, HSG B
90	98	Paved parking, HSG B
1,195	61	>75% Grass cover, Good, HSG B
1,785	73	Weighted Average
1,195		66.95% Pervious Area
590		33.05% Impervious Area
500		84.75% Unconnected

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

Subcatchment 11S: Southeast



Summary for Subcatchment 12S: Northeast

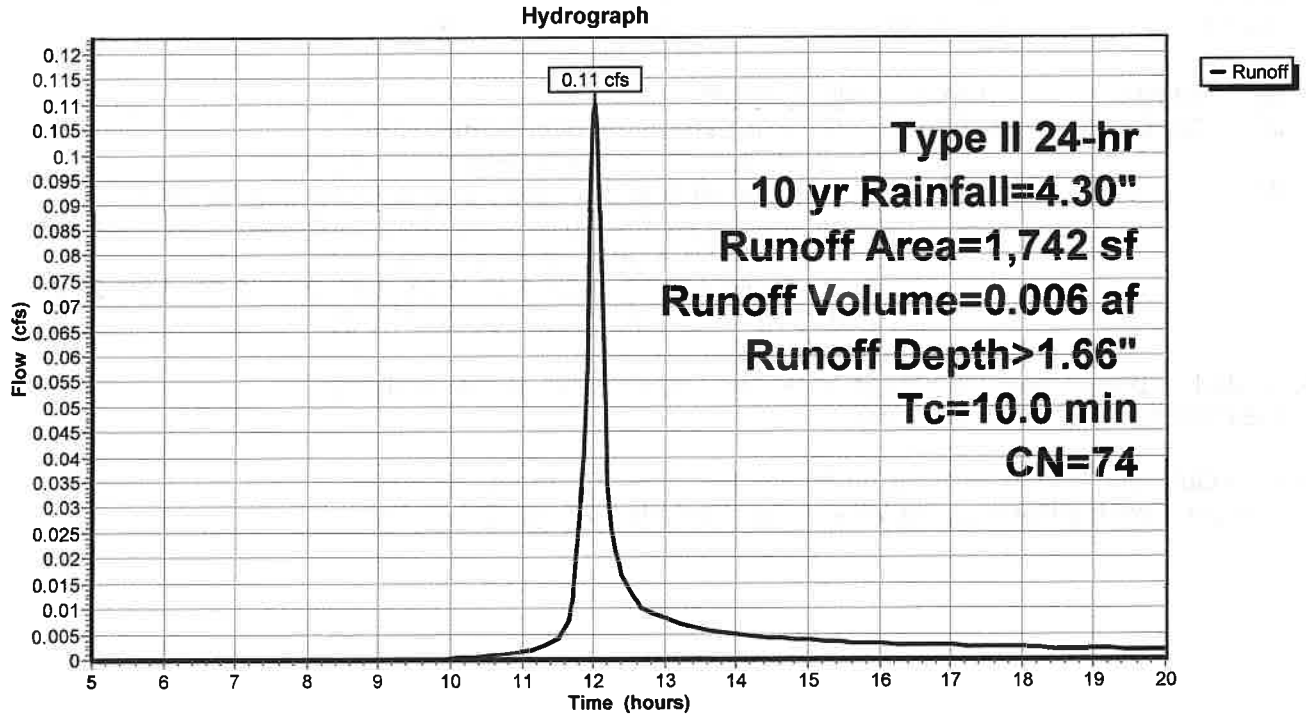
Runoff = 0.11 cfs @ 12.02 hrs, Volume= 0.006 af, Depth> 1.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10 yr Rainfall=4.30"

Area (sf)	CN	Description
500	98	Unconnected roofs, HSG B
90	98	Paved parking, HSG B
1,152	61	>75% Grass cover, Good, HSG B
1,742	74	Weighted Average
1,152		66.13% Pervious Area
590		33.87% Impervious Area
500		84.75% Unconnected

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

Subcatchment 12S: Northeast



Summary for Pond 5P: South

[82] Warning: Early inflow requires earlier time span

Inflow Area = 0.045 ac, 89.74% Impervious, Inflow Depth > 3.48" for 10 yr event
Inflow = 0.28 cfs @ 11.93 hrs, Volume= 0.013 af
Outflow = 0.27 cfs @ 11.94 hrs, Volume= 0.013 af, Atten= 3%, Lag= 0.5 min
Discarded = 0.02 cfs @ 11.94 hrs, Volume= 0.009 af
Primary = 0.26 cfs @ 11.94 hrs, Volume= 0.004 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 668.49' @ 11.94 hrs Surf.Area= 223 sf Storage= 92 cf

Plug-Flow detention time= 29.7 min calculated for 0.013 af (100% of inflow)
Center-of-Mass det. time= 29.6 min (768.7 - 739.1)

Volume	Invert	Avail.Storage	Storage Description
#1	667.80'	292 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

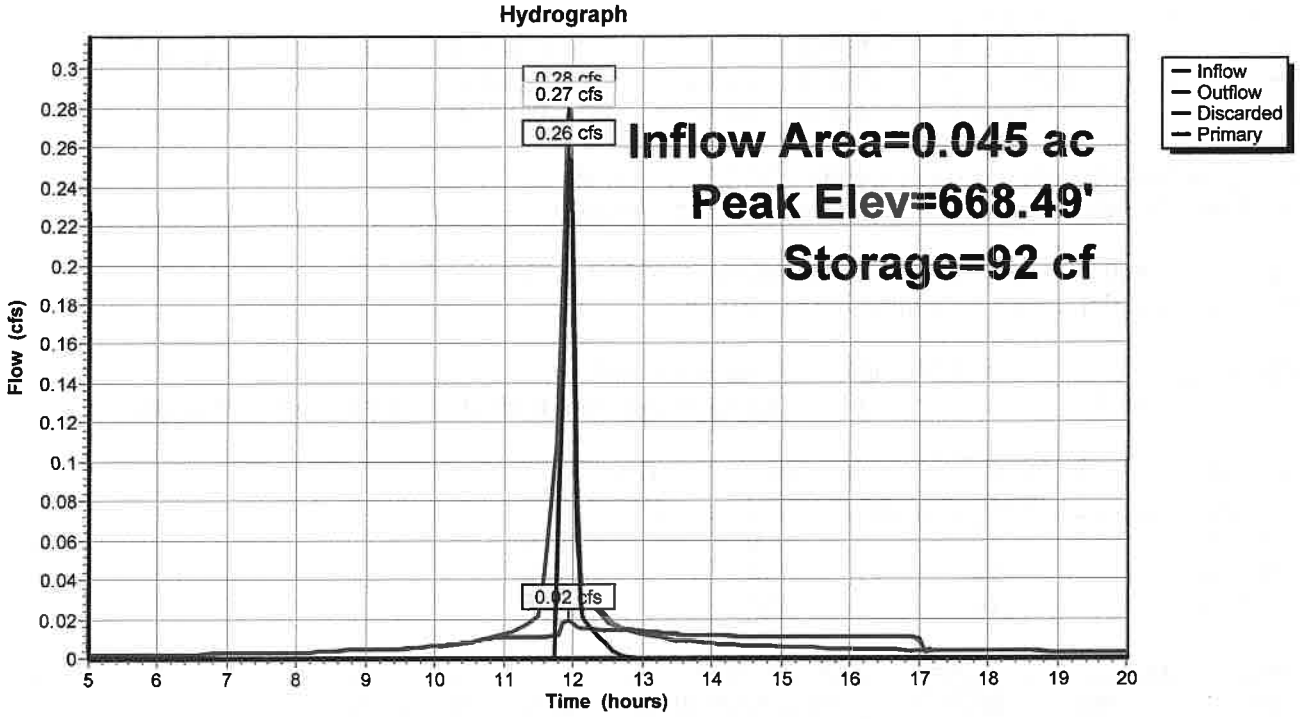
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.80	130	0.0	0	0
667.85	130	30.0	2	2
668.35	130	100.0	65	67
669.00	563	100.0	225	292

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.80'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 650.00'
#2	Primary	668.40'	**4.0' long x 4.0' 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) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Discarded OutFlow Max=0.02 cfs @ 11.94 hrs HW=668.49' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=0.25 cfs @ 11.94 hrs HW=668.49' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Weir Controls 0.25 cfs @ 0.70 fps)

Pond 5P: South



Summary for Pond 7P: NW

Inflow Area = 0.042 ac, 32.03% Impervious, Inflow Depth > 1.59" for 10 yr event
Inflow = 0.11 cfs @ 12.02 hrs, Volume= 0.006 af
Outflow = 0.02 cfs @ 12.46 hrs, Volume= 0.006 af, Atten= 86%, Lag= 26.6 min
Discarded = 0.02 cfs @ 12.46 hrs, Volume= 0.006 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 667.94' @ 12.46 hrs Surf.Area= 176 sf Storage= 100 cf

Plug-Flow detention time= 69.7 min calculated for 0.006 af (100% of inflow)
Center-of-Mass det. time= 69.2 min (870.8 - 801.5)

Volume	Invert	Avail.Storage	Storage Description
#1	667.00'	236 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

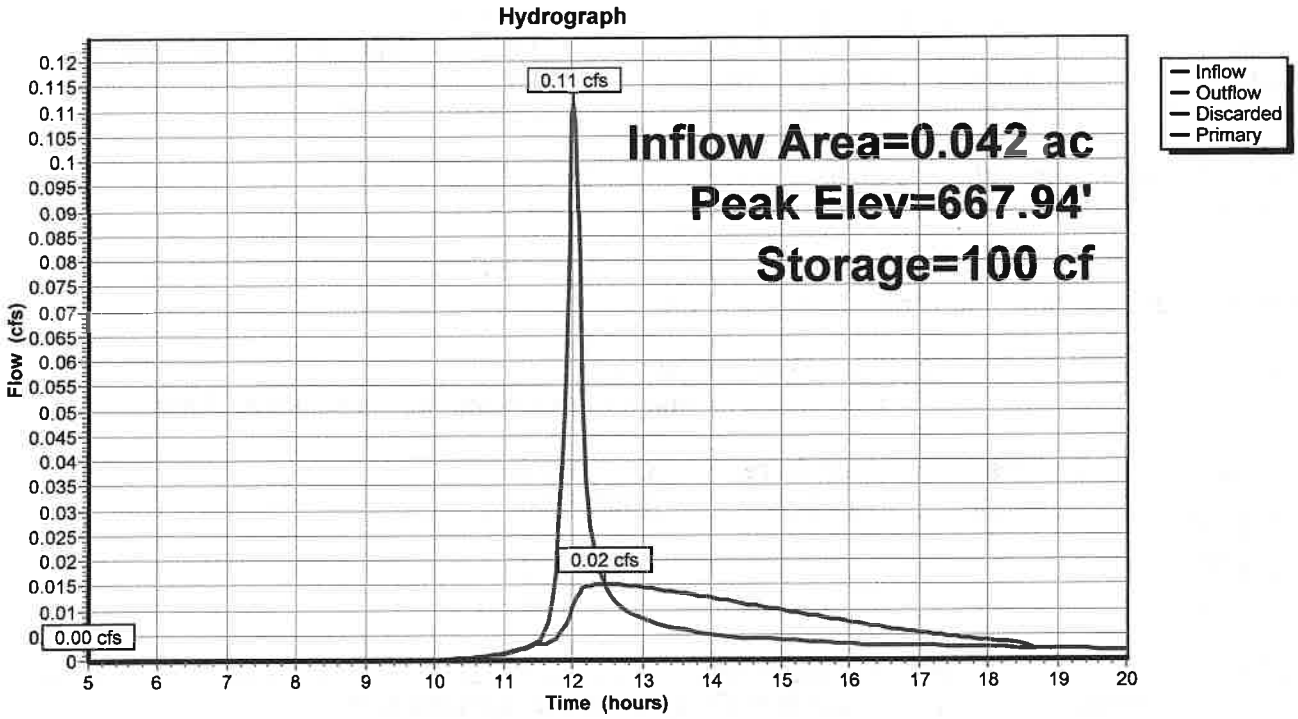
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.00	35	0	0
668.00	185	110	110
668.50	320	126	236

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 648.00'
#2	Primary	668.35'	**6.0' long 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

Discarded OutFlow Max=0.02 cfs @ 12.46 hrs HW=667.94' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=667.00' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 7P: NW


Hydrograph
Inflow Area=0.042 ac
Peak Elev=667.94'
Storage=100 cf
0.11 cfs
0.02 cfs
0.00 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0.12
0.115
0.11
0.105
0.1
0.095
0.09
0.085
0.08
0.075
0.07
0.065
0.06
0.055
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0
5
6
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Summary for Pond 9P: SW

Inflow Area = 0.047 ac, 29.06% Impervious, Inflow Depth > 1.20" for 10 yr event
Inflow = 0.09 cfs @ 12.03 hrs, Volume= 0.005 af
Outflow = 0.01 cfs @ 12.47 hrs, Volume= 0.005 af, Atten= 85%, Lag= 26.8 min
Discarded = 0.01 cfs @ 12.47 hrs, Volume= 0.005 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 667.80' @ 12.47 hrs Surf.Area= 155 sf Storage= 76 cf

Plug-Flow detention time= 60.4 min calculated for 0.005 af (100% of inflow)
Center-of-Mass det. time= 59.7 min (873.2 - 813.5)

Volume	Invert	Avail.Storage	Storage Description
#1	667.00'	236 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

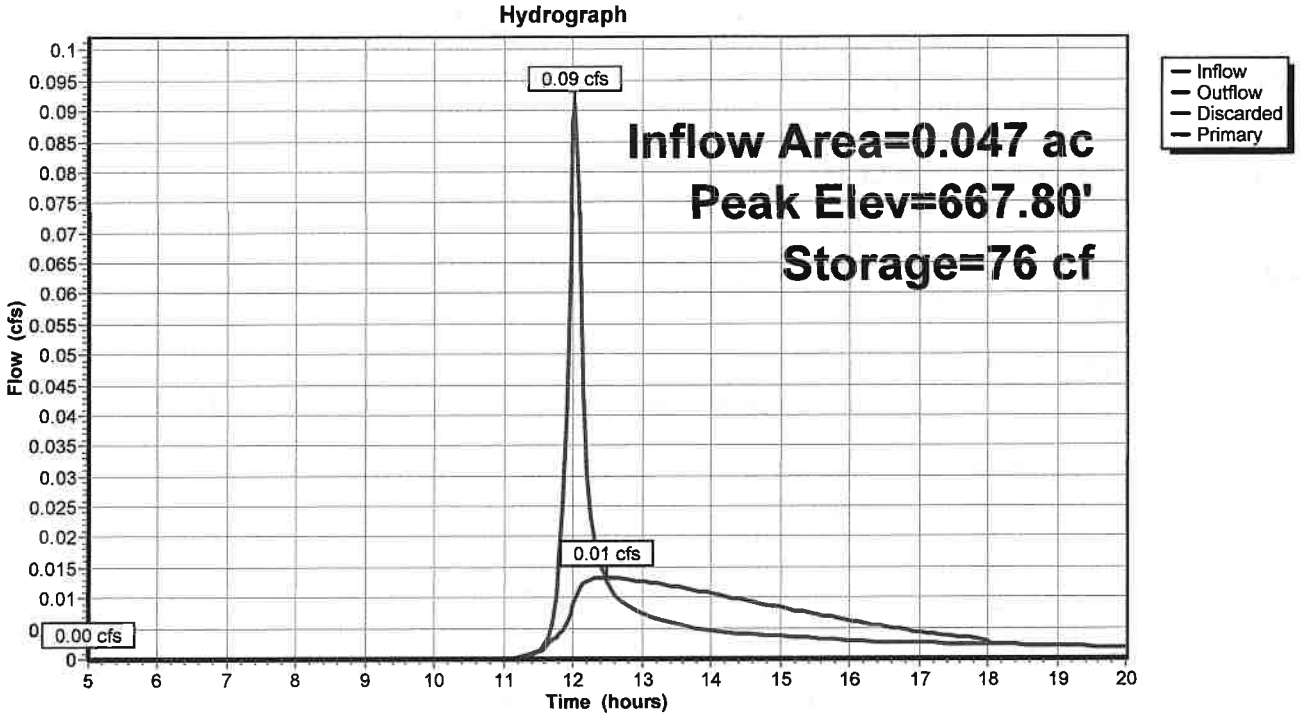
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.00	35	0	0
668.00	185	110	110
668.50	320	126	236

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 648.00'
#2	Primary	668.35'	**6.0' long 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

Discarded OutFlow Max=0.01 cfs @ 12.47 hrs HW=667.80' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=667.00' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9P: SW


Hydrograph
Inflow Area=0.047 ac
Peak Elev=667.80'
Storage=76 cf
0.09 cfs
0.01 cfs
0.00 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0.1
0.095
0.09
0.085
0.08
0.075
0.07
0.065
0.06
0.055
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0
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Summary for Pond 10P: SE

Inflow Area = 0.041 ac, 33.05% Impervious, Inflow Depth > 1.59" for 10 yr event
Inflow = 0.11 cfs @ 12.02 hrs, Volume= 0.005 af
Outflow = 0.01 cfs @ 12.46 hrs, Volume= 0.005 af, Atten= 86%, Lag= 26.2 min
Discarded = 0.01 cfs @ 12.46 hrs, Volume= 0.005 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 667.92' @ 12.46 hrs Surf.Area= 173 sf Storage= 96 cf

Plug-Flow detention time= 68.3 min calculated for 0.005 af (100% of inflow)
Center-of-Mass det. time= 67.6 min (869.1 - 801.5)

Volume	Invert	Avail.Storage	Storage Description
#1	667.00'	236 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

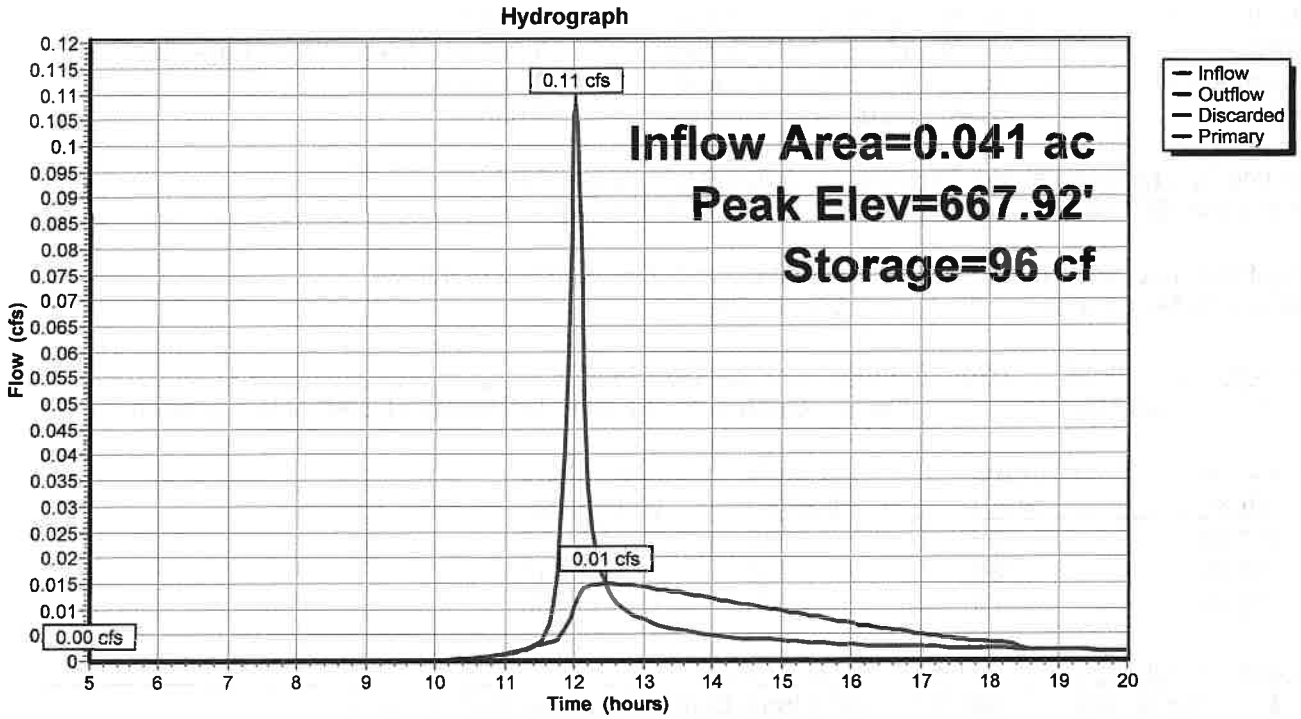
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.00	35	0	0
668.00	185	110	110
668.50	320	126	236

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 648.00'
#2	Primary	668.35'	**6.0' long 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

Discarded OutFlow Max=0.01 cfs @ 12.46 hrs HW=667.92' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=667.00' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 10P: SE


Hydrograph
Inflow Area=0.041 ac
Peak Elev=667.92'
Storage=96 cf
0.11 cfs
0.01 cfs
0.00 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0.12
0.115
0.11
0.105
0.1
0.095
0.09
0.085
0.08
0.075
0.07
0.065
0.06
0.055
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0
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Summary for Pond 13P: NE

Inflow Area = 0.040 ac, 33.87% Impervious, Inflow Depth > 1.66" for 10 yr event
Inflow = 0.11 cfs @ 12.02 hrs, Volume= 0.006 af
Outflow = 0.02 cfs @ 12.45 hrs, Volume= 0.006 af, Atten= 86%, Lag= 26.0 min
Discarded = 0.02 cfs @ 12.45 hrs, Volume= 0.006 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 667.94' @ 12.45 hrs Surf.Area= 176 sf Storage= 99 cf

Plug-Flow detention time= 69.1 min calculated for 0.006 af (100% of inflow)
Center-of-Mass det. time= 68.4 min (868.0 - 799.6)

Volume	Invert	Avail.Storage	Storage Description
#1	667.00'	236 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.00	35	0	0
668.00	185	110	110
668.50	320	126	236

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 648.00'
#2	Primary	668.35'	**6.0' long 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

Discarded OutFlow Max=0.02 cfs @ 12.45 hrs HW=667.94' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=667.00' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 13P: NE

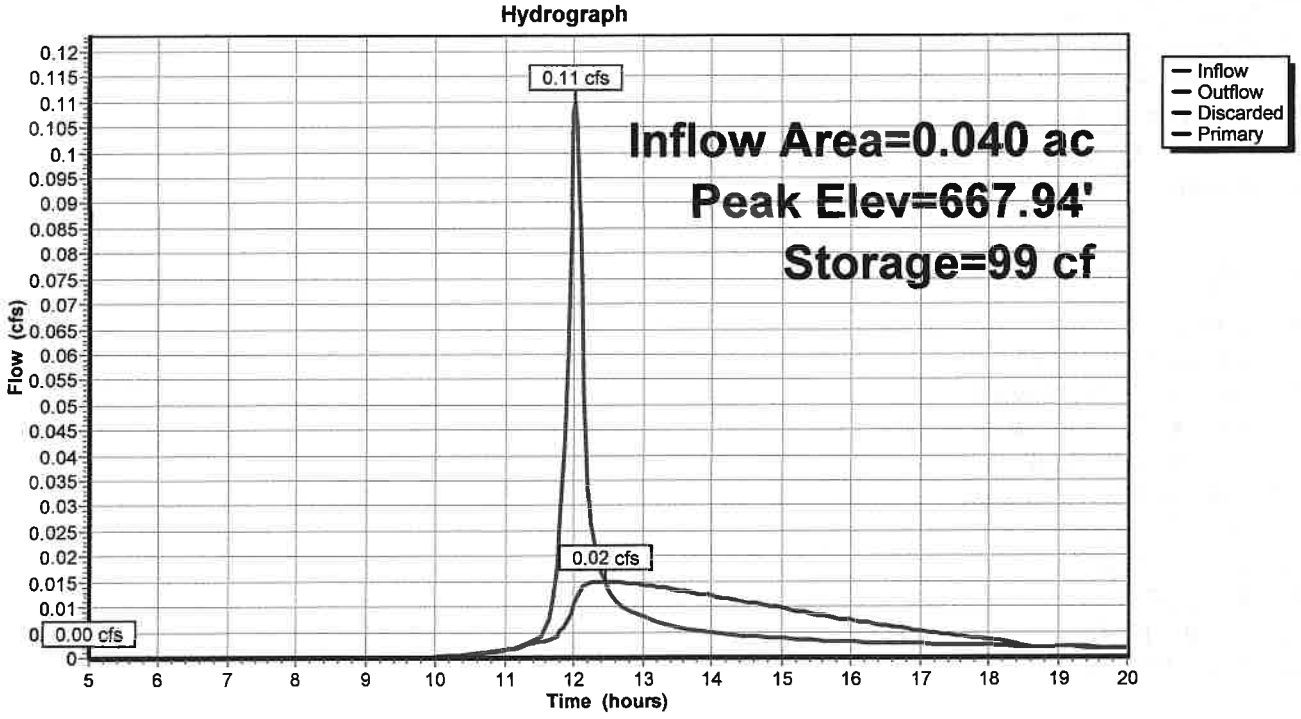
Hydrograph
Inflow Area=0.040 ac
Peak Elev=667.94'
Storage=99 cf
0.11 cfs
0.02 cfs
0.00 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0.12
0.115
0.11
0.105
0.1
0.095
0.09
0.085
0.08
0.075
0.07
0.065
0.06
0.055
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
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TABLE OF CONTENTS

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.005	0.000	0.000	0.000	0.005	50-75% Grass cover, Fair	2S
0.000	0.207	0.000	0.000	0.000	0.207	<50% Grass cover, Poor	1S
0.000	0.116	0.000	0.000	0.000	0.116	>75% Grass cover, Good	3S, 8S, 11S, 12S
0.000	0.048	0.000	0.000	0.000	0.048	Paved parking	2S, 3S, 8S, 11S, 12S
0.000	0.046	0.000	0.000	0.000	0.046	Unconnected roofs	3S, 8S, 11S, 12S
0.000	**0.422**	**0.000**	**0.000**	**0.000**	**0.422**	**TOTAL AREA**	

Summary for Subcatchment 1S: Exist

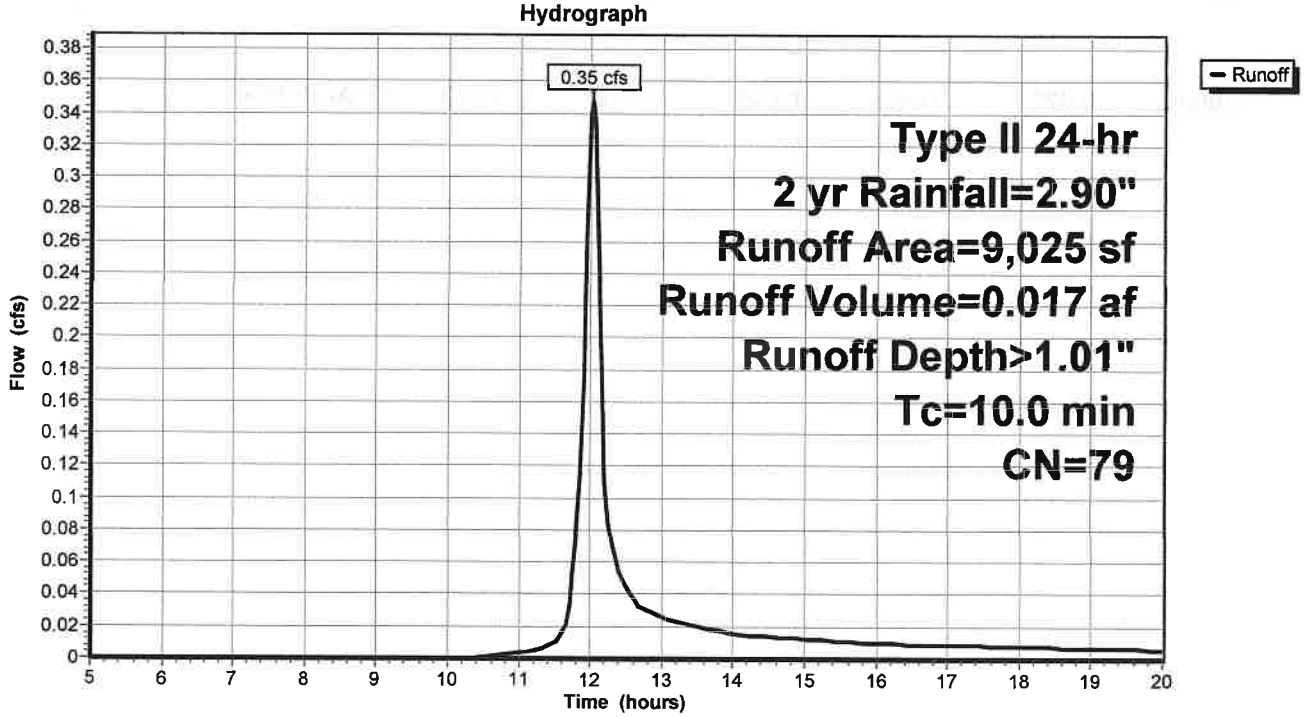
Runoff = 0.35 cfs @ 12.02 hrs, Volume= 0.017 af, Depth> 1.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2 yr Rainfall=2.90"

Area (sf)	CN	Description
9,025	79	<50% Grass cover, Poor, HSG B
9,025		100.00% Pervious Area

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

Subcatchment 1S: Exist



Summary for Subcatchment 2S: Parking

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

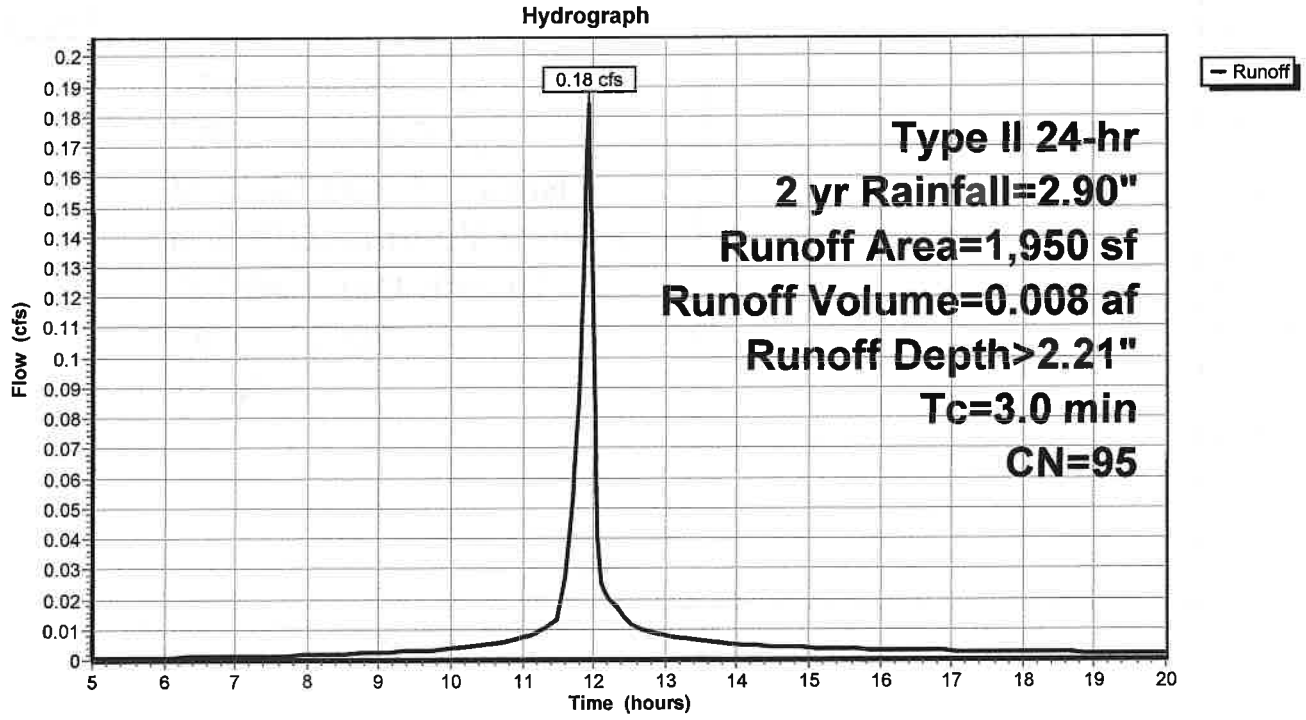
Runoff = 0.18 cfs @ 11.93 hrs, Volume= 0.008 af, Depth> 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2 yr Rainfall=2.90"

Area (sf)	CN	Description
1,750	98	Paved parking, HSG B
200	69	50-75% Grass cover, Fair, HSG B
1,950	95	Weighted Average
200		10.26% Pervious Area
1,750		89.74% Impervious Area

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

Subcatchment 2S: Parking



Summary for Subcatchment 3S: Northwest

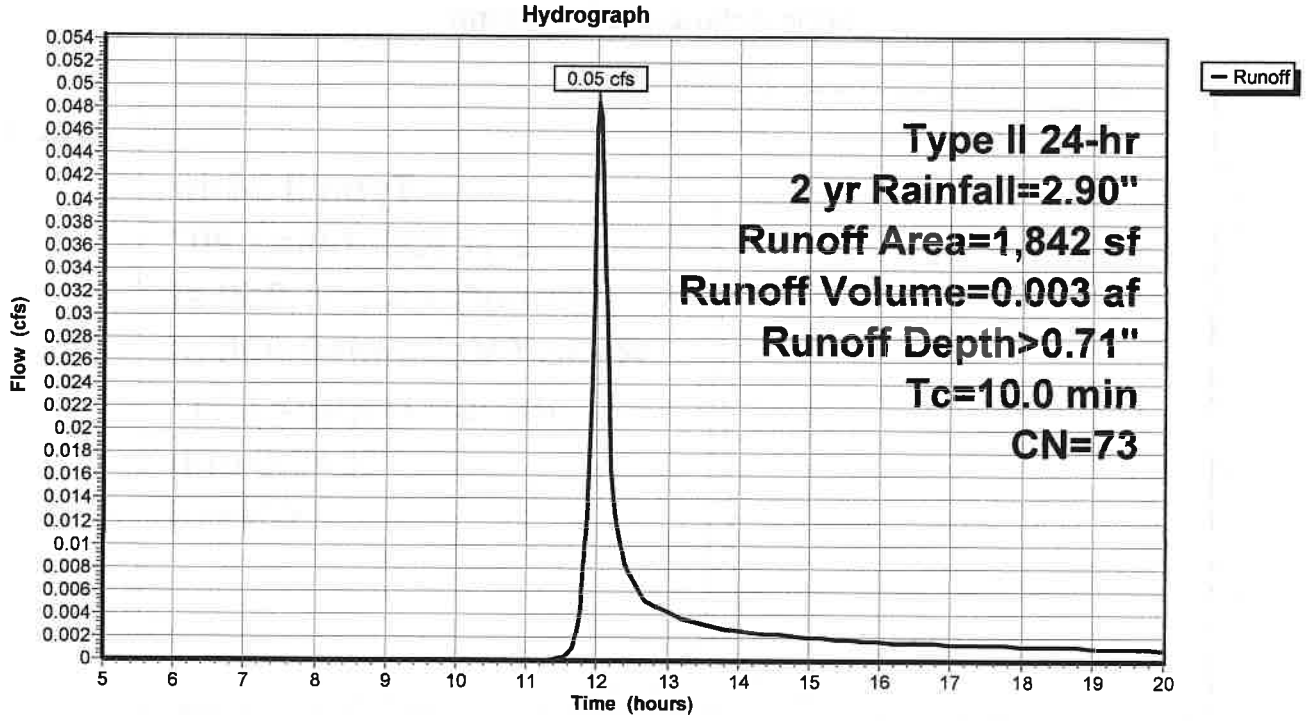
Runoff = 0.05 cfs @ 12.03 hrs, Volume= 0.003 af, Depth> 0.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2 yr Rainfall=2.90"

Area (sf)	CN	Description
500	98	Unconnected roofs, HSG B
90	98	Paved parking, HSG B
1,252	61	>75% Grass cover, Good, HSG B
1,842	73	Weighted Average
1,252		67.97% Pervious Area
590		32.03% Impervious Area
500		84.75% Unconnected

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

Subcatchment 3S: Northwest



Summary for Subcatchment 8S: Southwest

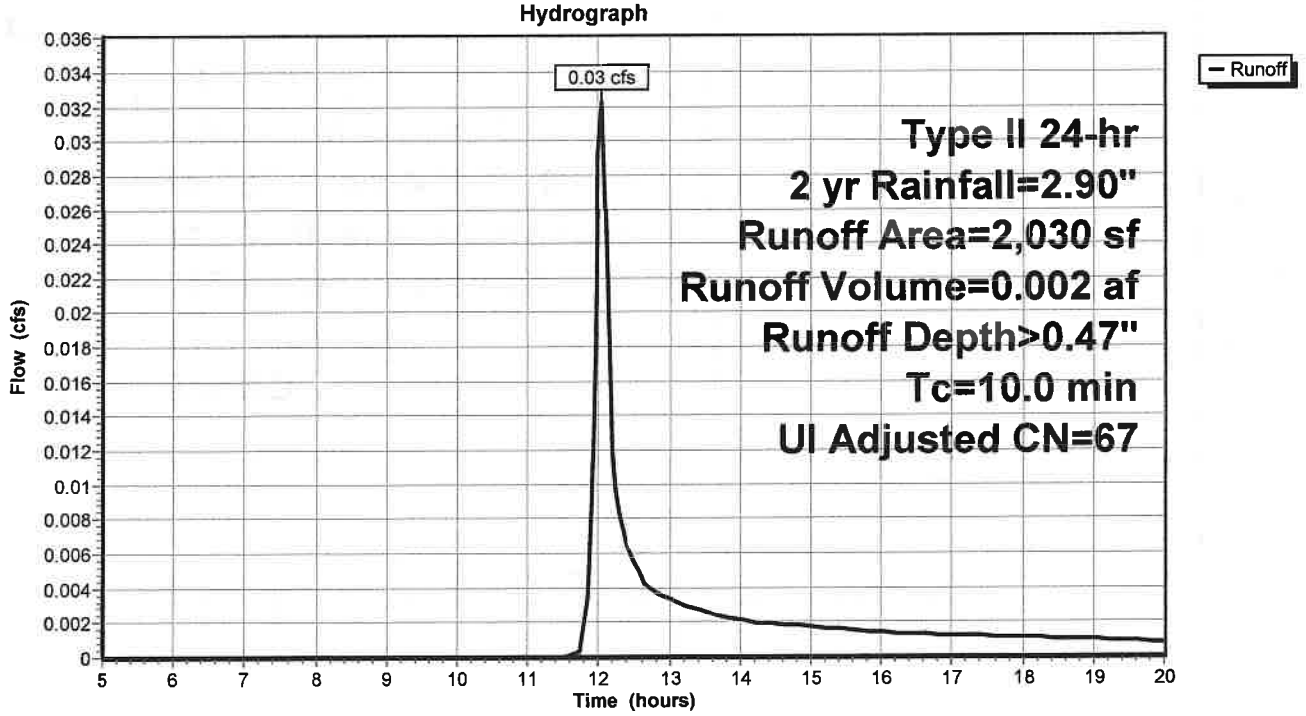
Runoff = 0.03 cfs @ 12.04 hrs, Volume= 0.002 af, Depth> 0.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2 yr Rainfall=2.90"

Area (sf)	CN	Adj	Description
500	98		Unconnected roofs, HSG B
90	98		Paved parking, HSG B
1,440	61		>75% Grass cover, Good, HSG B
2,030	72	67	Weighted Average, UI Adjusted
1,440			70.94% Pervious Area
590			29.06% Impervious Area
500			84.75% Unconnected

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

Subcatchment 8S: Southwest



Summary for Subcatchment 11S: Southeast

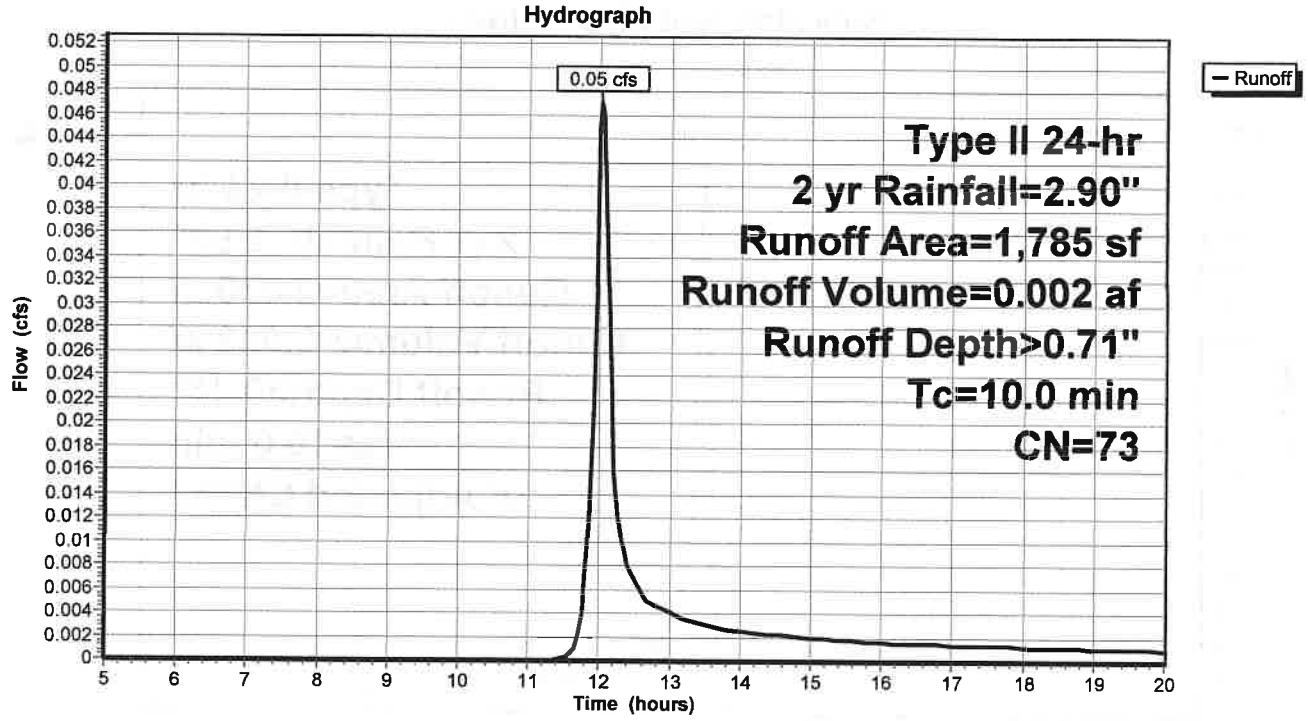
Runoff = 0.05 cfs @ 12.03 hrs, Volume= 0.002 af, Depth> 0.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2 yr Rainfall=2.90"

Area (sf)	CN	Description
500	98	Unconnected roofs, HSG B
90	98	Paved parking, HSG B
1,195	61	>75% Grass cover, Good, HSG B
1,785	73	Weighted Average
1,195		66.95% Pervious Area
590		33.05% Impervious Area
500		84.75% Unconnected

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

Subcatchment 11S: Southeast



Summary for Subcatchment 12S: Northeast

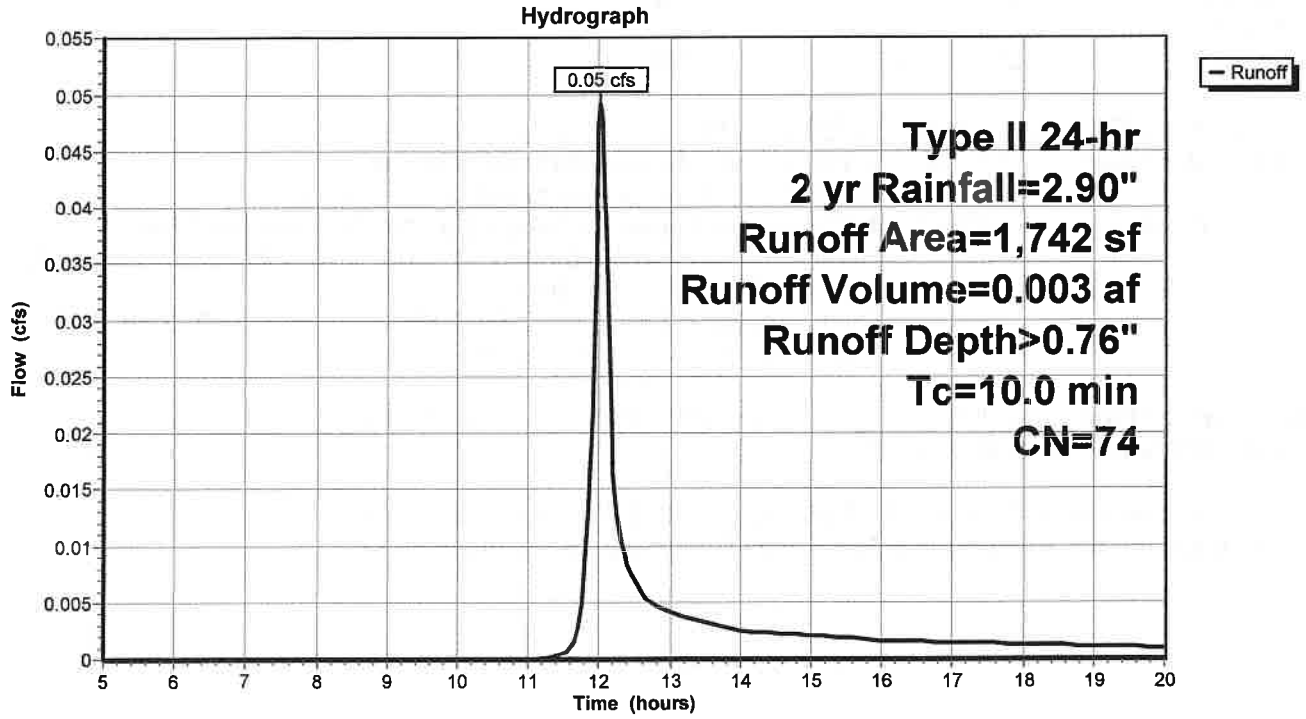
Runoff = 0.05 cfs @ 12.03 hrs, Volume= 0.003 af, Depth> 0.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2 yr Rainfall=2.90"

Area (sf)	CN	Description
500	98	Unconnected roofs, HSG B
90	98	Paved parking, HSG B
1,152	61	>75% Grass cover, Good, HSG B
1,742	74	Weighted Average
1,152		66.13% Pervious Area
590		33.87% Impervious Area
500		84.75% Unconnected

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

Subcatchment 12S: Northeast



Summary for Pond 5P: South

[82] Warning: Early inflow requires earlier time span
[88] Warning: Qout>Qin may require smaller dt or Finer Routing

Inflow Area =	0.045 ac, 89.74% Impervious, Inflow Depth > 2.21"	for 2 yr event		
Inflow =	0.18 cfs @ 11.93 hrs, Volume=	0.008 af		
Outflow =	0.20 cfs @ 11.96 hrs, Volume=	0.008 af, Atten= 0%, Lag= 1.8 min		
Discarded =	0.02 cfs @ 11.96 hrs, Volume=	0.007 af		
Primary =	0.18 cfs @ 11.96 hrs, Volume=	0.002 af		

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 668.47' @ 11.96 hrs Surf.Area= 212 sf Storage= 88 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 34.0 min (780.6 - 746.7)

Volume	Invert	Avail.Storage	Storage Description
#1	667.80'	292 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

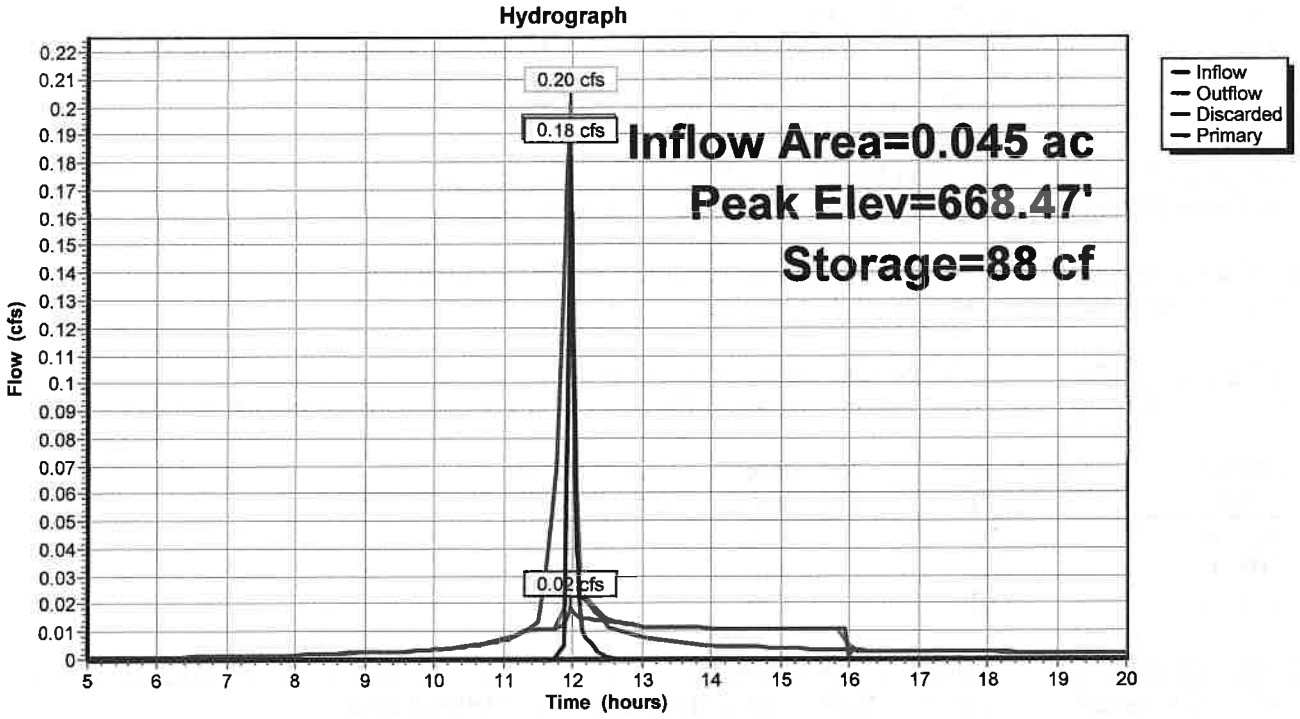
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.80	130	0.0	0	0
667.85	130	30.0	2	2
668.35	130	100.0	65	67
669.00	563	100.0	225	292

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.80'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 650.00'
#2	Primary	668.40'	**4.0' long x 4.0' 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) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Discarded OutFlow Max=0.02 cfs @ 11.96 hrs HW=668.47' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=0.16 cfs @ 11.96 hrs HW=668.47' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Weir Controls 0.16 cfs @ 0.61 fps)

Pond 5P: South



Summary for Pond 7P: NW

Inflow Area = 0.042 ac, 32.03% Impervious, Inflow Depth > 0.71" for 2 yr event
Inflow = 0.05 cfs @ 12.03 hrs, Volume= 0.003 af
Outflow = 0.01 cfs @ 12.36 hrs, Volume= 0.003 af, Atten= 81%, Lag= 19.9 min
Discarded = 0.01 cfs @ 12.36 hrs, Volume= 0.003 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 667.49' @ 12.36 hrs Surf.Area= 109 sf Storage= 35 cf

Plug-Flow detention time= 35.3 min calculated for 0.002 af (100% of inflow)
Center-of-Mass det. time= 34.6 min (853.3 - 818.7)

Volume	Invert	Avail.Storage	Storage Description
#1	667.00'	236 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

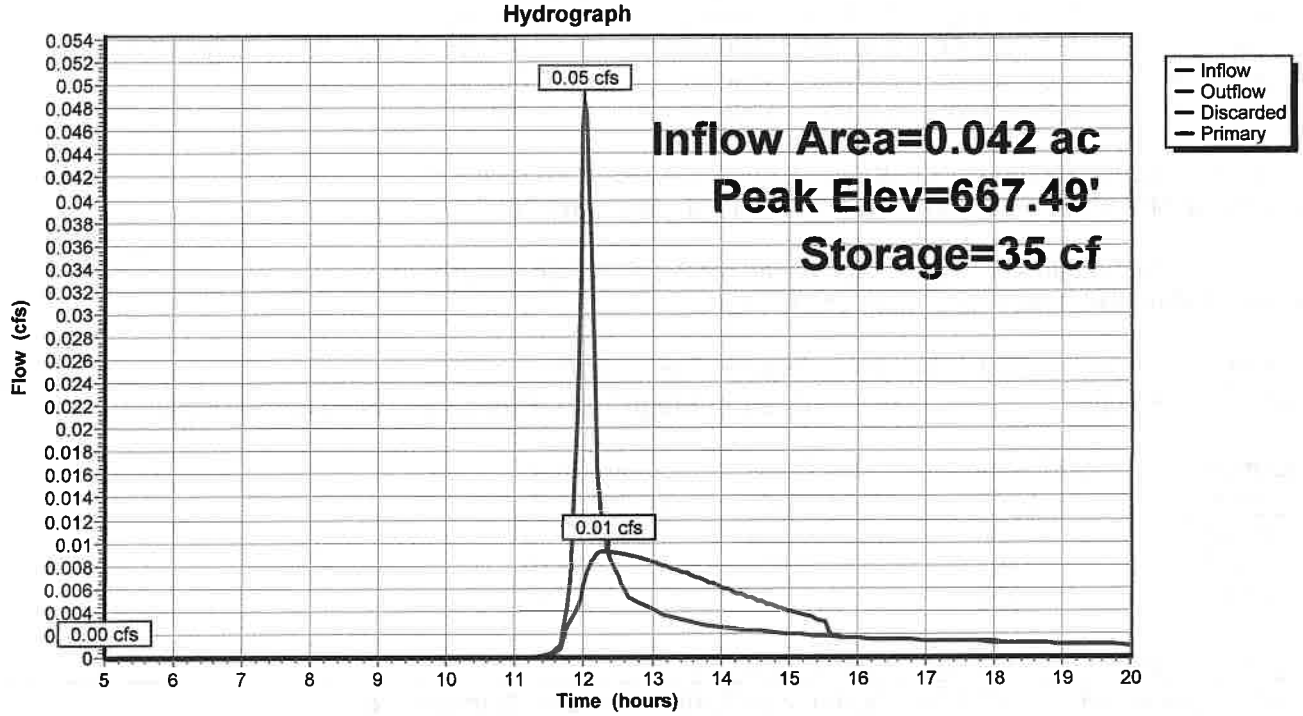
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.00	35	0	0
668.00	185	110	110
668.50	320	126	236

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 648.00'
#2	Primary	668.35'	**6.0' long 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

Discarded OutFlow Max=0.01 cfs @ 12.36 hrs HW=667.49' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=667.00' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 7P: NW


Hydrograph
Inflow Area=0.042 ac
Peak Elev=667.49'
Storage=35 cf
0.05 cfs
0.01 cfs
0.00 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0.054
0.052
0.05
0.048
0.046
0.044
0.042
0.04
0.038
0.036
0.034
0.032
0.03
0.028
0.026
0.024
0.022
0.02
0.018
0.016
0.014
0.012
0.01
0.008
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Summary for Pond 9P: SW

Inflow Area = 0.047 ac, 29.06% Impervious, Inflow Depth > 0.47" for 2 yr event
Inflow = 0.03 cfs @ 12.04 hrs, Volume= 0.002 af
Outflow = 0.01 cfs @ 12.36 hrs, Volume= 0.002 af, Atten= 78%, Lag= 19.1 min
Discarded = 0.01 cfs @ 12.36 hrs, Volume= 0.002 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 667.33' @ 12.36 hrs Surf.Area= 85 sf Storage= 20 cf

Plug-Flow detention time= 23.2 min calculated for 0.002 af (99% of inflow)
Center-of-Mass det. time= 22.5 min (858.6 - 836.1)

Volume	Invert	Avail.Storage	Storage Description
#1	667.00'	236 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

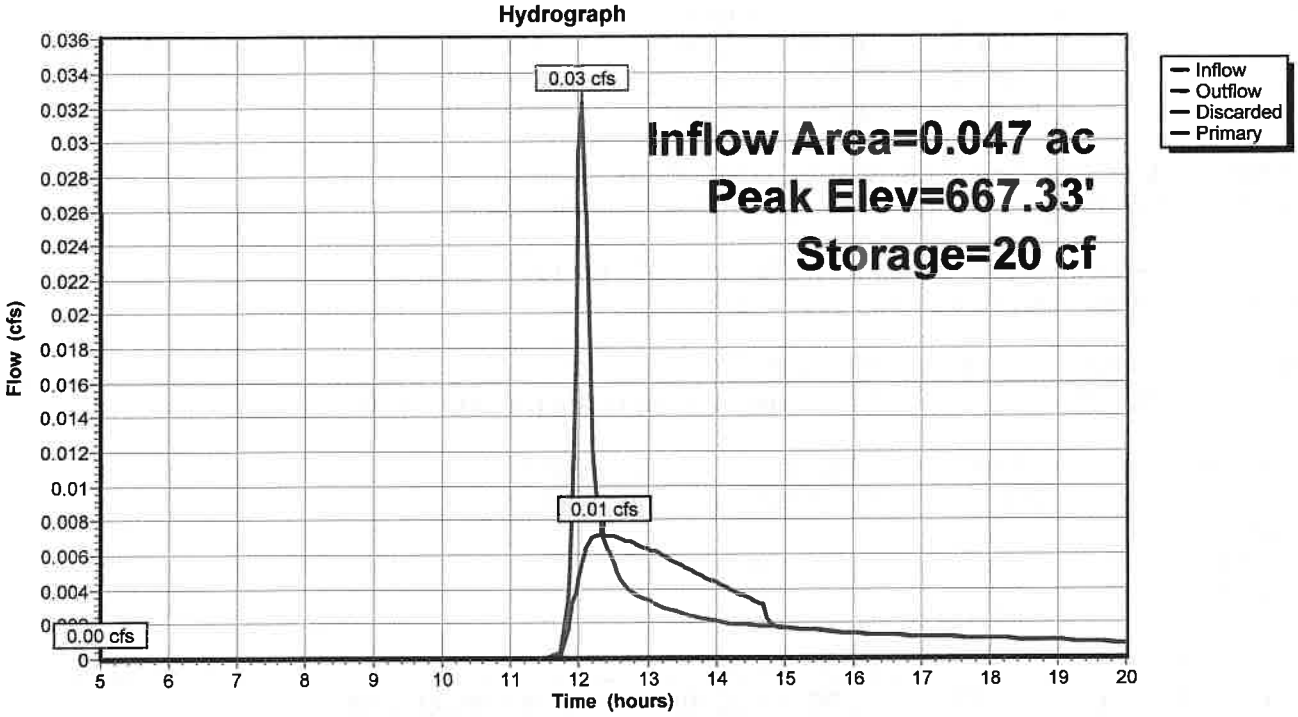
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.00	35	0	0
668.00	185	110	110
668.50	320	126	236

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 648.00'
#2	Primary	668.35'	**6.0' long 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

Discarded OutFlow Max=0.01 cfs @ 12.36 hrs HW=667.33' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=667.00' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9P: SW


Hydrograph
Inflow Area=0.047 ac
Peak Elev=667.33'
Storage=20 cf
0.03 cfs
0.01 cfs
0.00 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0.036
0.034
0.032
0.03
0.028
0.026
0.024
0.022
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
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Summary for Pond 10P: SE

Inflow Area = 0.041 ac, 33.05% Impervious, Inflow Depth > 0.71" for 2 yr event
Inflow = 0.05 cfs @ 12.03 hrs, Volume= 0.002 af
Outflow = 0.01 cfs @ 12.36 hrs, Volume= 0.002 af, Atten= 81%, Lag= 19.6 min
Discarded = 0.01 cfs @ 12.36 hrs, Volume= 0.002 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 667.48' @ 12.36 hrs Surf.Area= 107 sf Storage= 34 cf

Plug-Flow detention time= 34.2 min calculated for 0.002 af (100% of inflow)
Center-of-Mass det. time= 33.6 min (852.3 - 818.7)

Volume	Invert	Avail.Storage	Storage Description
#1	667.00'	236 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

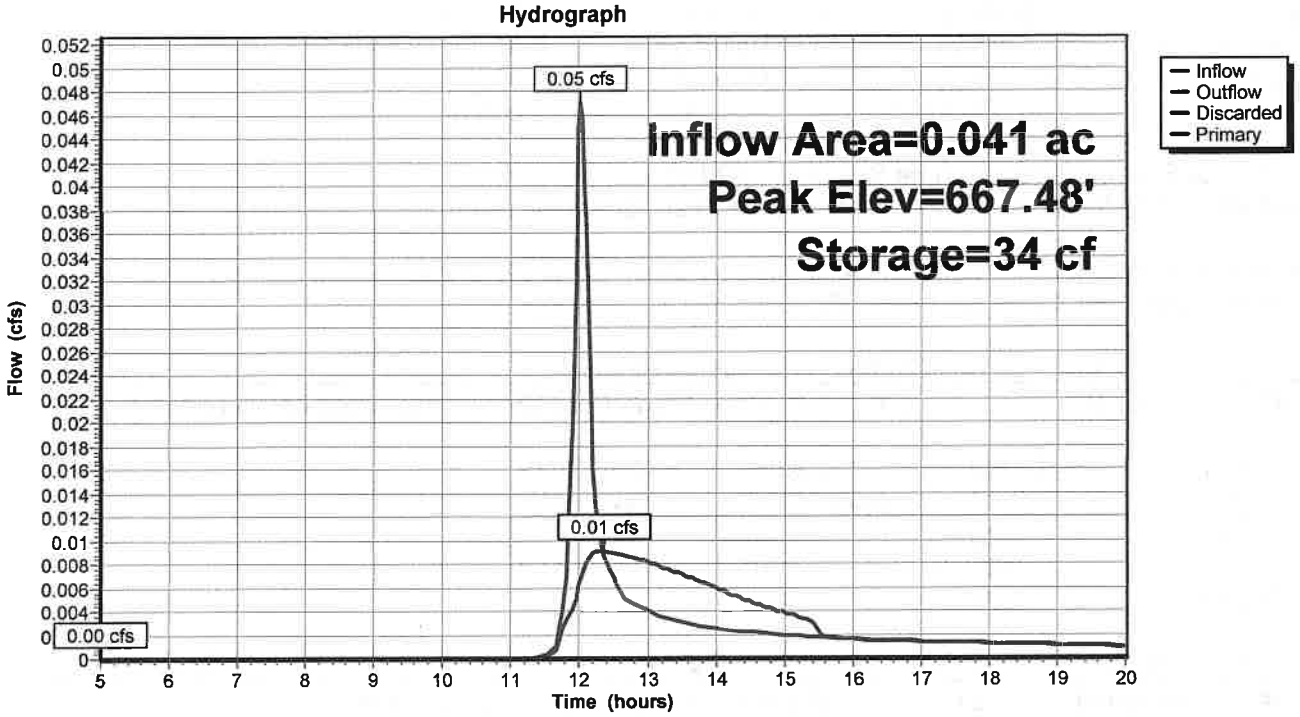
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.00	35	0	0
668.00	185	110	110
668.50	320	126	236

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 648.00'
#2	Primary	668.35'	**6.0' long 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

Discarded OutFlow Max=0.01 cfs @ 12.36 hrs HW=667.48' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=667.00' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 10P: SE


Hydrograph
Inflow Area=0.041 ac
Peak Elev=667.48'
Storage=34 cf
0.05 cfs
0.01 cfs
0.00 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0.052
0.05
0.048
0.046
0.044
0.042
0.04
0.038
0.036
0.034
0.032
0.03
0.028
0.026
0.024
0.022
0.02
0.018
0.016
0.014
0.012
0.01
0.008
0.006
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Summary for Pond 13P: NE

Inflow Area = 0.040 ac, 33.87% Impervious, Inflow Depth > 0.76" for 2 yr event
Inflow = 0.05 cfs @ 12.03 hrs, Volume= 0.003 af
Outflow = 0.01 cfs @ 12.35 hrs, Volume= 0.003 af, Atten= 81%, Lag= 19.6 min
Discarded = 0.01 cfs @ 12.35 hrs, Volume= 0.003 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 667.50' @ 12.35 hrs Surf.Area= 110 sf Storage= 36 cf

Plug-Flow detention time= 35.8 min calculated for 0.003 af (100% of inflow)
Center-of-Mass det. time= 35.1 min (851.3 - 816.2)

Volume	Invert	Avail.Storage	Storage Description
#1	667.00'	236 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

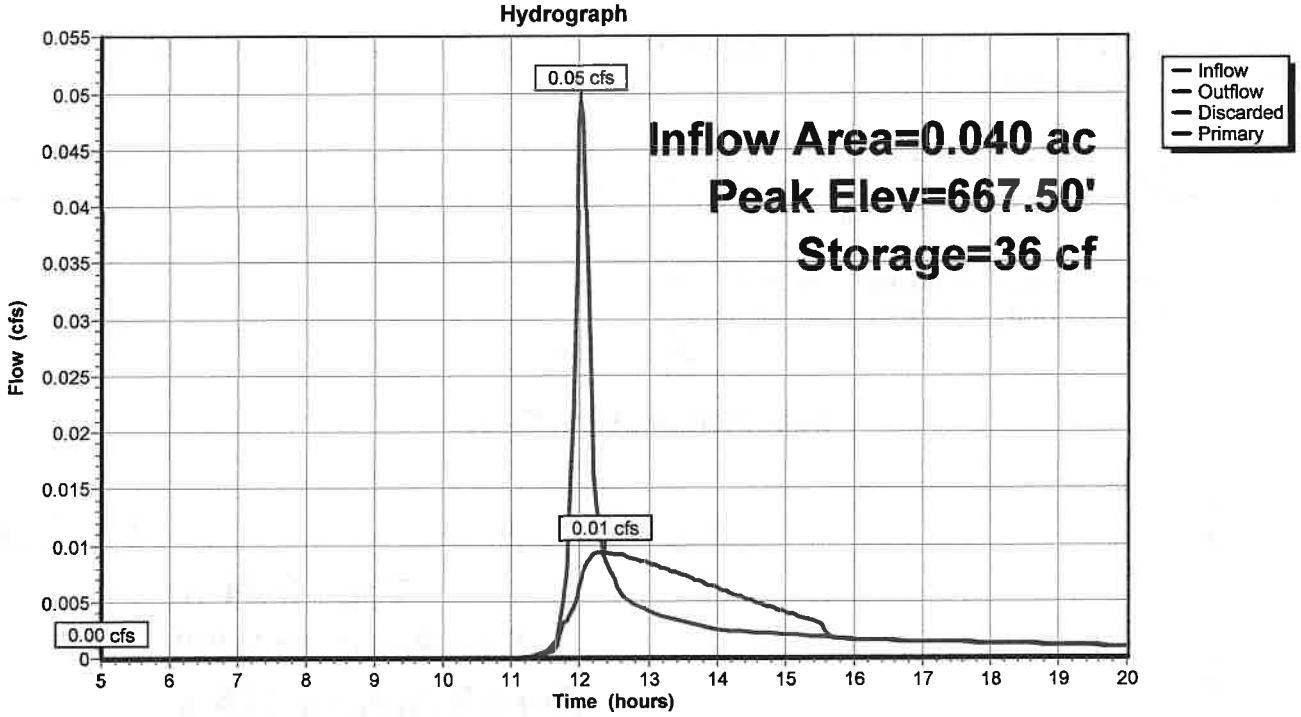
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.00	35	0	0
668.00	185	110	110
668.50	320	126	236

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 648.00'
#2	Primary	668.35'	**6.0' long 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

Discarded OutFlow Max=0.01 cfs @ 12.35 hrs HW=667.50' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=667.00' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 13P: NE


Hydrograph
Inflow Area=0.040 ac
Peak Elev=667.50'
Storage=36 cf
0.05 cfs
0.01 cfs
0.00 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0.055
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
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Summary for Subcatchment 1S: Exist

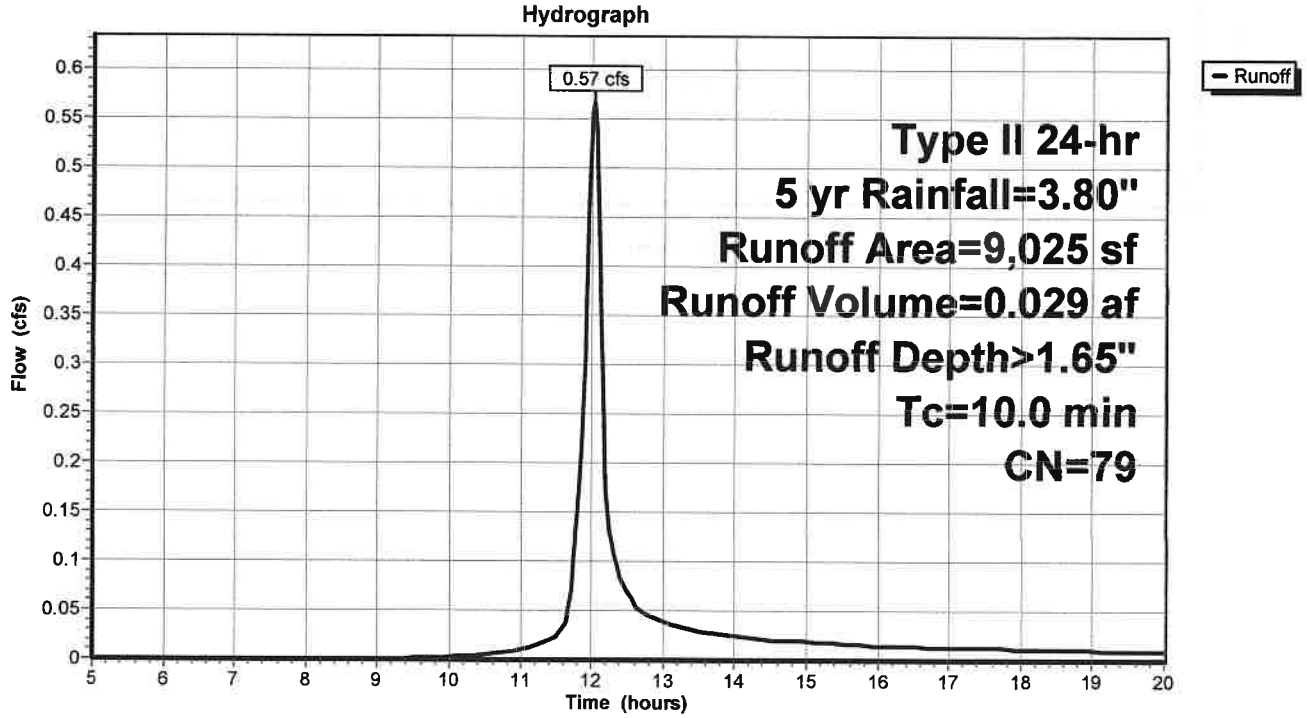
Runoff = 0.57 cfs @ 12.02 hrs, Volume= 0.029 af, Depth> 1.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 5 yr Rainfall=3.80"

Area (sf)	CN	Description
9,025	79	<50% Grass cover, Poor, HSG B
9,025		100.00% Pervious Area

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

Subcatchment 1S: Exist



Summary for Subcatchment 2S: Parking

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

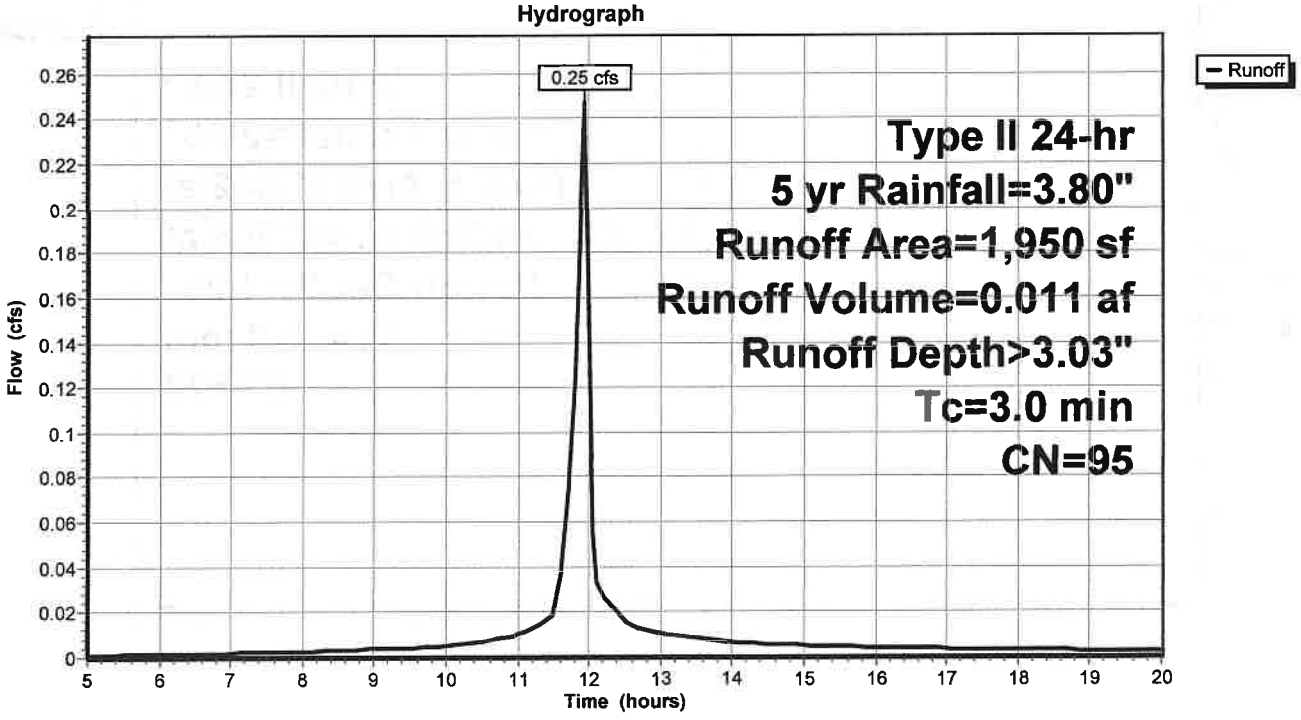
Runoff = 0.25 cfs @ 11.93 hrs, Volume= 0.011 af, Depth> 3.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 5 yr Rainfall=3.80"

Area (sf)	CN	Description
1,750	98	Paved parking, HSG B
200	69	50-75% Grass cover, Fair, HSG B
1,950	95	Weighted Average
200		10.26% Pervious Area
1,750		89.74% Impervious Area

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

Subcatchment 2S: Parking



Summary for Subcatchment 3S: Northwest

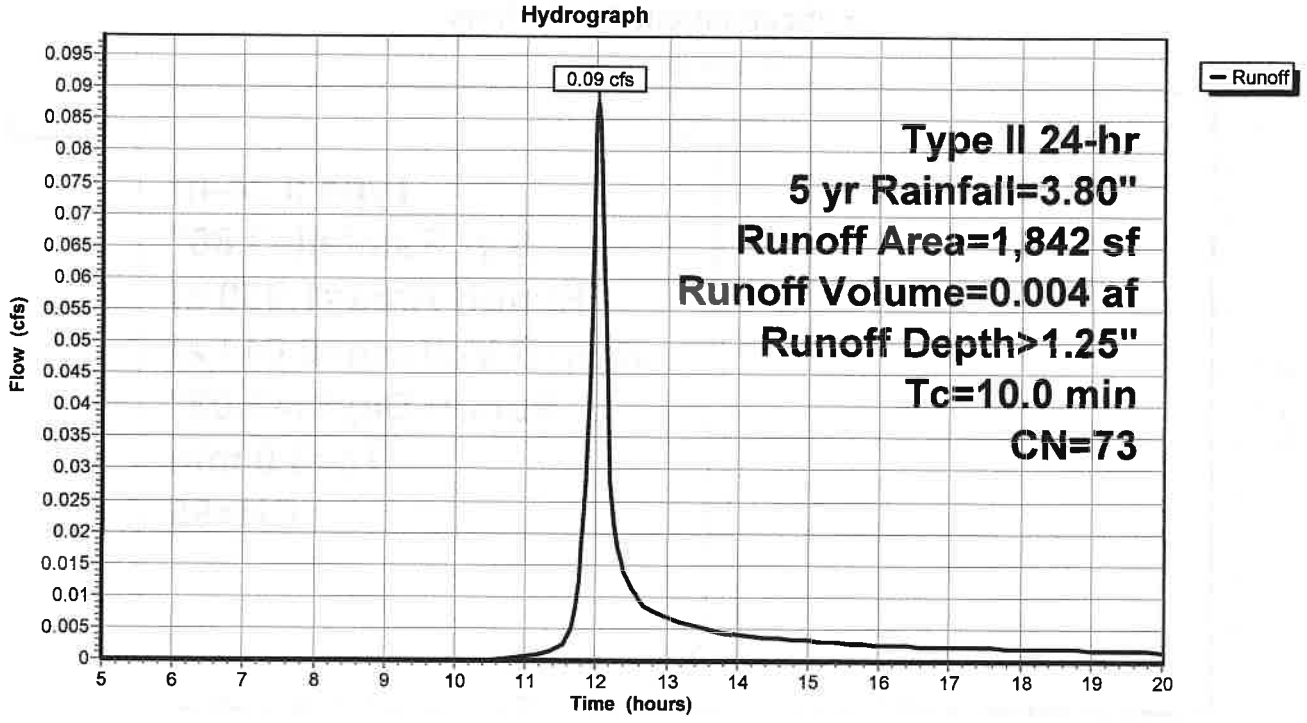
Runoff = 0.09 cfs @ 12.02 hrs, Volume= 0.004 af, Depth> 1.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 5 yr Rainfall=3.80"

Area (sf)	CN	Description
500	98	Unconnected roofs, HSG B
90	98	Paved parking, HSG B
1,252	61	>75% Grass cover, Good, HSG B
1,842	73	Weighted Average
1,252		67.97% Pervious Area
590		32.03% Impervious Area
500		84.75% Unconnected

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

Subcatchment 3S: Northwest



Summary for Subcatchment 8S: Southwest

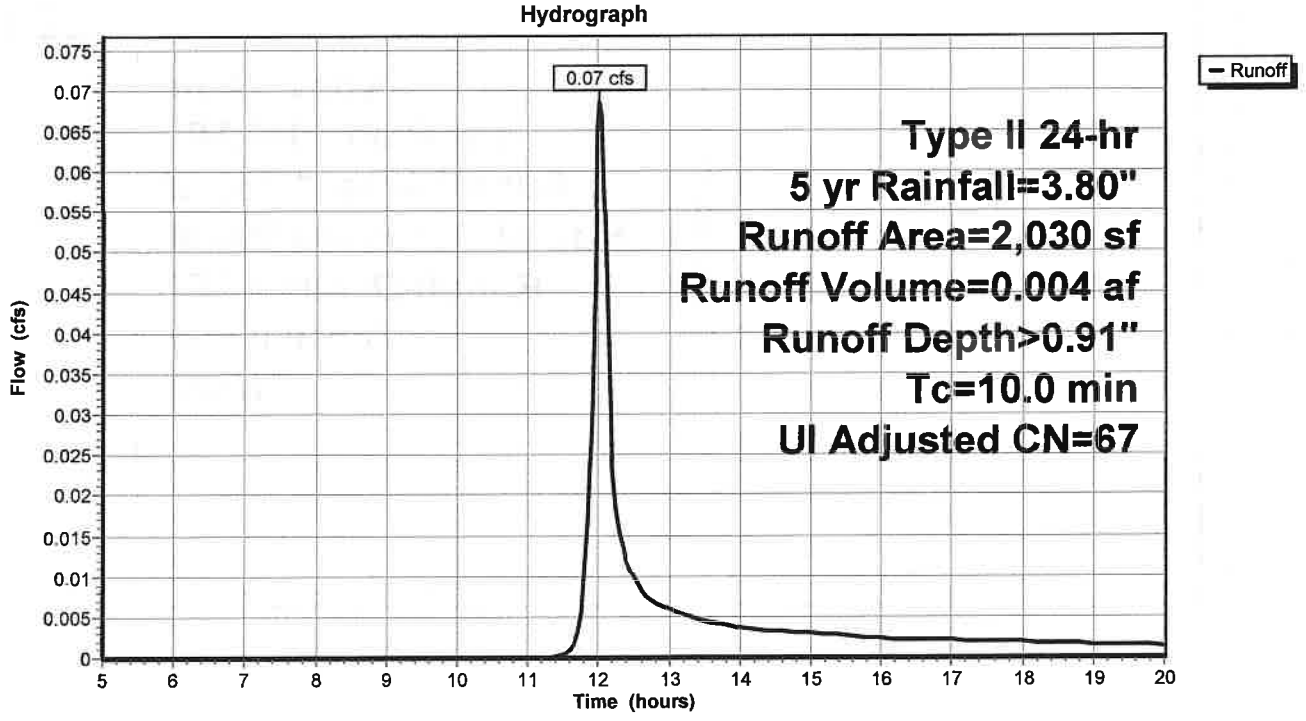
Runoff = 0.07 cfs @ 12.03 hrs, Volume= 0.004 af, Depth> 0.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 5 yr Rainfall=3.80"

Area (sf)	CN	Adj	Description
500	98		Unconnected roofs, HSG B
90	98		Paved parking, HSG B
1,440	61		>75% Grass cover, Good, HSG B
2,030	72	67	Weighted Average, UI Adjusted
1,440			70.94% Pervious Area
590			29.06% Impervious Area
500			84.75% Unconnected

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

Subcatchment 8S: Southwest



Summary for Subcatchment 11S: Southeast

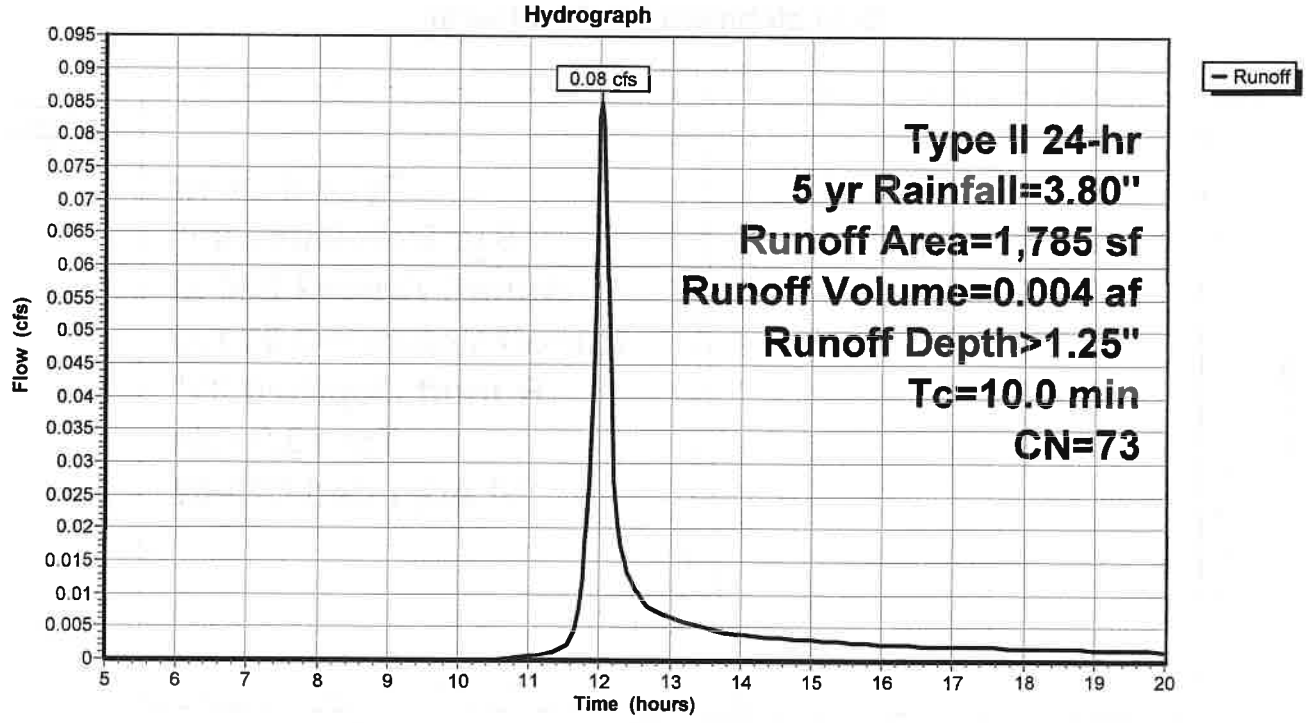
Runoff = 0.08 cfs @ 12.02 hrs, Volume= 0.004 af, Depth> 1.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 5 yr Rainfall=3.80"

Area (sf)	CN	Description
500	98	Unconnected roofs, HSG B
90	98	Paved parking, HSG B
1,195	61	>75% Grass cover, Good, HSG B
1,785	73	Weighted Average
1,195		66.95% Pervious Area
590		33.05% Impervious Area
500		84.75% Unconnected

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

Subcatchment 11S: Southeast



Summary for Subcatchment 12S: Northeast

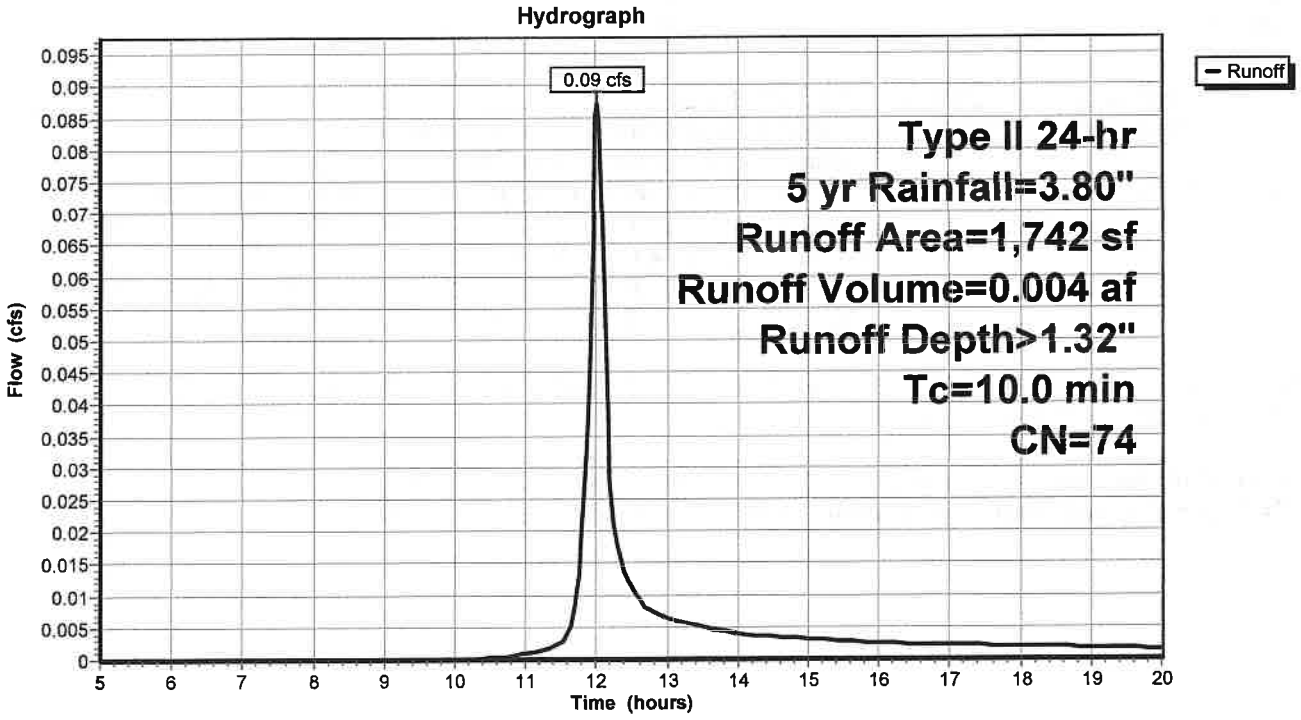
Runoff = 0.09 cfs @ 12.02 hrs, Volume= 0.004 af, Depth> 1.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 5 yr Rainfall=3.80"

Area (sf)	CN	Description
500	98	Unconnected roofs, HSG B
90	98	Paved parking, HSG B
1,152	61	>75% Grass cover, Good, HSG B
1,742	74	Weighted Average
1,152		66.13% Pervious Area
590		33.87% Impervious Area
500		84.75% Unconnected

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

Subcatchment 12S: Northeast



Summary for Pond 5P: South

[82] Warning: Early inflow requires earlier time span

Inflow Area = 0.045 ac, 89.74% Impervious, Inflow Depth > 3.03" for 5 yr event
Inflow = 0.25 cfs @ 11.93 hrs, Volume= 0.011 af
Outflow = 0.24 cfs @ 11.93 hrs, Volume= 0.011 af, Atten= 3%, Lag= 0.0 min
Discarded = 0.02 cfs @ 11.93 hrs, Volume= 0.008 af
Primary = 0.22 cfs @ 11.93 hrs, Volume= 0.003 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 668.48' @ 11.93 hrs Surf.Area= 217 sf Storage= 90 cf

Plug-Flow detention time= 30.9 min calculated for 0.011 af (100% of inflow)
Center-of-Mass det. time= 30.7 min (771.9 - 741.2)

Volume	Invert	Avail.Storage	Storage Description
#1	667.80'	292 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

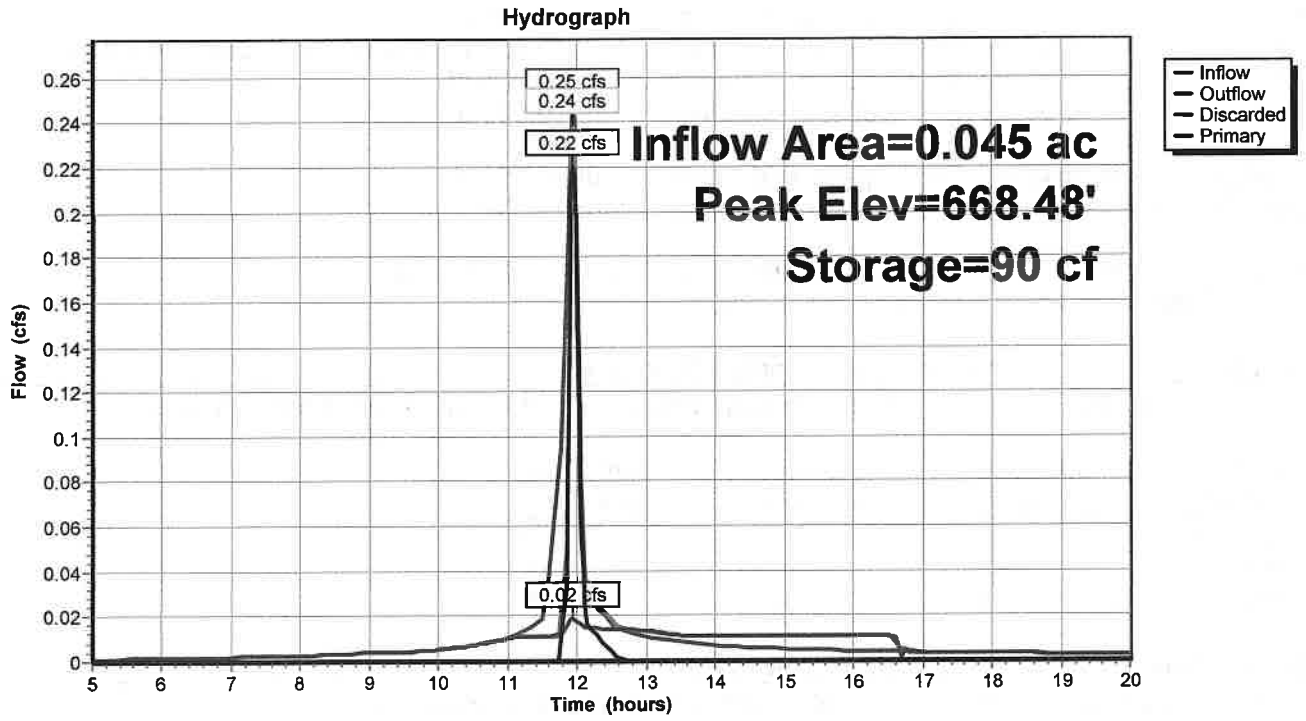
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.80	130	0.0	0	0
667.85	130	30.0	2	2
668.35	130	100.0	65	67
669.00	563	100.0	225	292

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.80'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 650.00'
#2	Primary	668.40'	**4.0' long x 4.0' 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) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Discarded OutFlow Max=0.02 cfs @ 11.93 hrs HW=668.48' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=0.21 cfs @ 11.93 hrs HW=668.48' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Weir Controls 0.21 cfs @ 0.67 fps)

Pond 5P: South



Summary for Pond 7P: NW

Inflow Area = 0.042 ac, 32.03% Impervious, Inflow Depth > 1.25" for 5 yr event
Inflow = 0.09 cfs @ 12.02 hrs, Volume= 0.004 af
Outflow = 0.01 cfs @ 12.43 hrs, Volume= 0.004 af, Atten= 85%, Lag= 24.5 min
Discarded = 0.01 cfs @ 12.43 hrs, Volume= 0.004 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 667.79' @ 12.43 hrs Surf.Area= 153 sf Storage= 74 cf

Plug-Flow detention time= 58.1 min calculated for 0.004 af (100% of inflow)
Center-of-Mass det. time= 57.6 min (864.0 - 806.5)

Volume	Invert	Avail.Storage	Storage Description
#1	667.00'	236 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

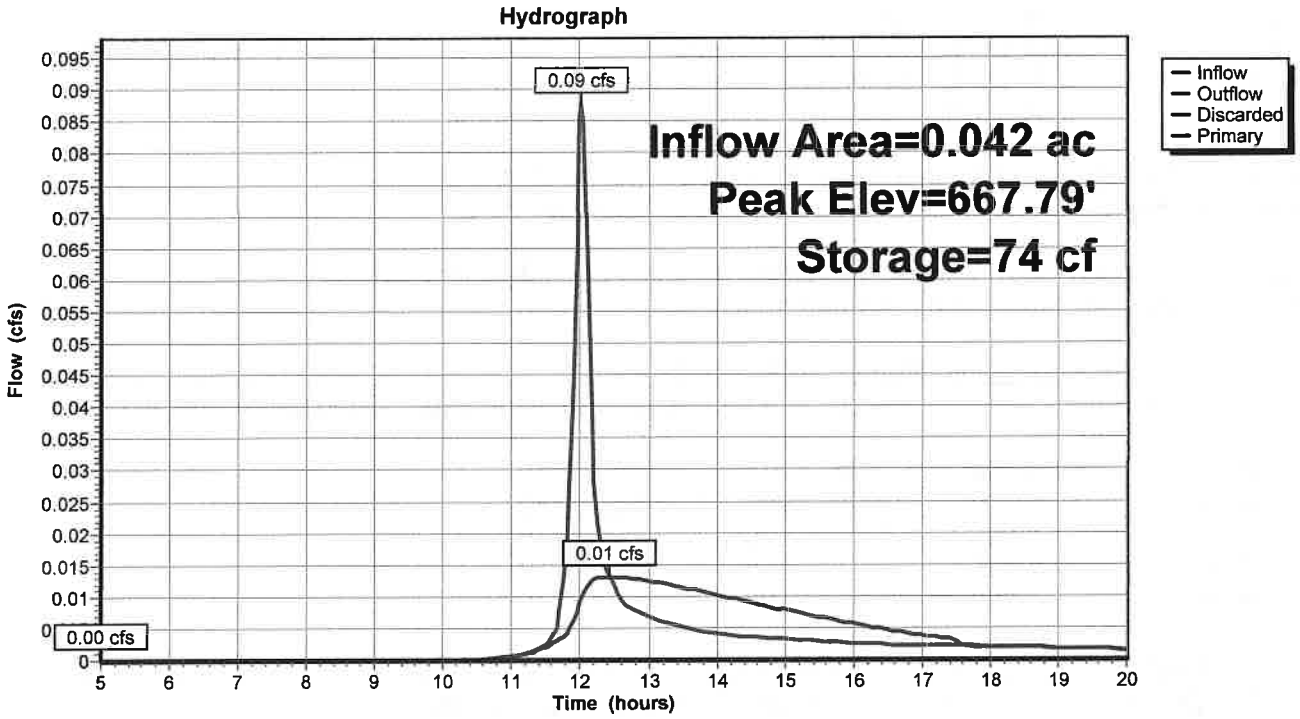
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.00	35	0	0
668.00	185	110	110
668.50	320	126	236

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 648.00'
#2	Primary	668.35'	**6.0' long 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

Discarded OutFlow Max=0.01 cfs @ 12.43 hrs HW=667.79' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=667.00' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 7P: NW


Hydrograph
Inflow Area=0.042 ac
Peak Elev=667.79'
Storage=74 cf
0.09 cfs
0.01 cfs
0.00 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0.095
0.09
0.085
0.08
0.075
0.07
0.065
0.06
0.055
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
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Summary for Pond 9P: SW

Inflow Area = 0.047 ac, 29.06% Impervious, Inflow Depth > 0.91" for 5 yr event
Inflow = 0.07 cfs @ 12.03 hrs, Volume= 0.004 af
Outflow = 0.01 cfs @ 12.44 hrs, Volume= 0.004 af, Atten= 84%, Lag= 24.5 min
Discarded = 0.01 cfs @ 12.44 hrs, Volume= 0.004 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 667.64' @ 12.44 hrs Surf.Area= 131 sf Storage= 53 cf

Plug-Flow detention time= 47.6 min calculated for 0.004 af (100% of inflow)
Center-of-Mass det. time= 46.8 min (866.4 - 819.5)

Volume	Invert	Avail.Storage	Storage Description
#1	667.00'	236 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

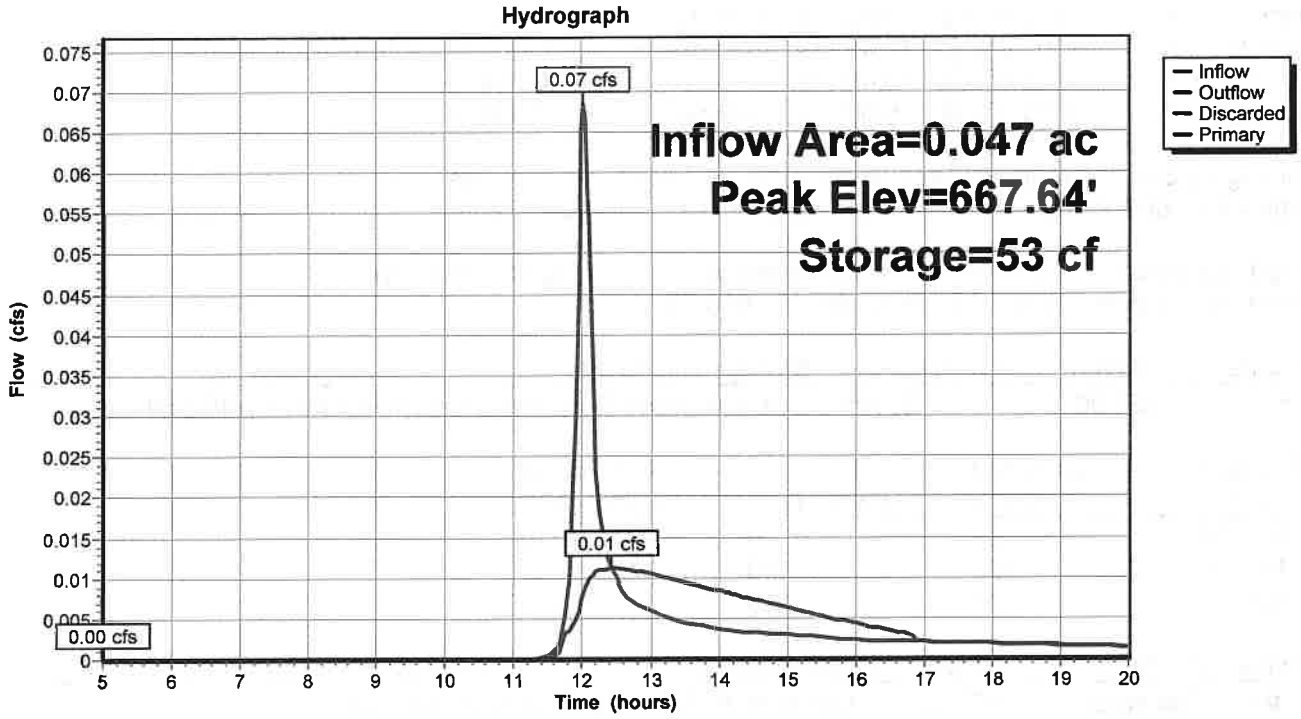
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.00	35	0	0
668.00	185	110	110
668.50	320	126	236

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 648.00'
#2	Primary	668.35'	**6.0' long 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

Discarded OutFlow Max=0.01 cfs @ 12.44 hrs HW=667.64' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=667.00' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9P: SW


Hydrograph
Inflow Area=0.047 ac
Peak Elev=667.64'
Storage=53 cf
0.07 cfs
0.01 cfs
0.00 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0.075
0.07
0.065
0.06
0.055
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
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Summary for Pond 10P: SE

Inflow Area = 0.041 ac, 33.05% Impervious, Inflow Depth > 1.25" for 5 yr event
Inflow = 0.08 cfs @ 12.02 hrs, Volume= 0.004 af
Outflow = 0.01 cfs @ 12.42 hrs, Volume= 0.004 af, Atten= 85%, Lag= 24.1 min
Discarded = 0.01 cfs @ 12.42 hrs, Volume= 0.004 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 667.77' @ 12.42 hrs Surf.Area= 151 sf Storage= 72 cf

Plug-Flow detention time= 56.8 min calculated for 0.004 af (100% of inflow)
Center-of-Mass det. time= 56.1 min (862.6 - 806.5)

Volume	Invert	Avail.Storage	Storage Description
#1	667.00'	236 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

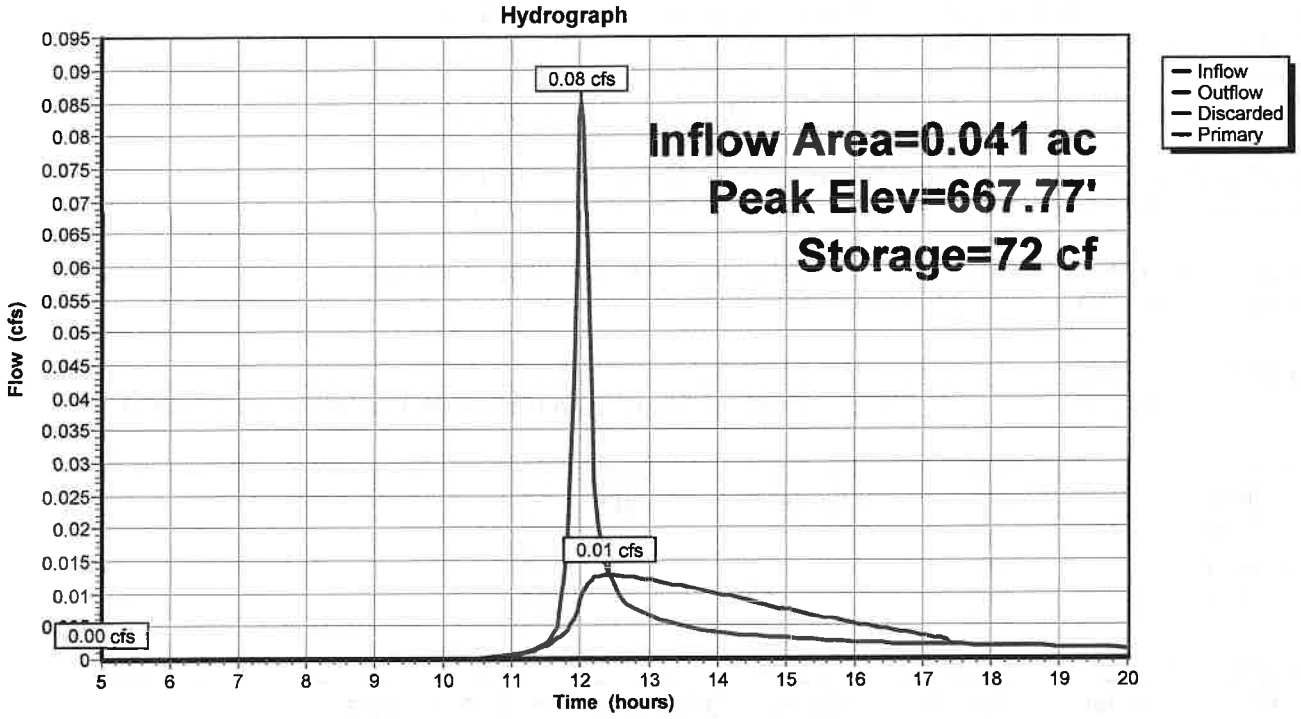
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.00	35	0	0
668.00	185	110	110
668.50	320	126	236

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 648.00'
#2	Primary	668.35'	**6.0' long 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

Discarded OutFlow Max=0.01 cfs @ 12.42 hrs HW=667.77' (Free Discharge)
└**1=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=667.00' (Free Discharge)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 10P: SE


Hydrograph
Inflow Area=0.041 ac
Peak Elev=667.77'
Storage=72 cf
0.08 cfs
0.01 cfs
0.00 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0.095
0.09
0.085
0.08
0.075
0.07
0.065
0.06
0.055
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
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Summary for Pond 13P: NE

Inflow Area = 0.040 ac, 33.87% Impervious, Inflow Depth > 1.32" for 5 yr event
Inflow = 0.09 cfs @ 12.02 hrs, Volume= 0.004 af
Outflow = 0.01 cfs @ 12.42 hrs, Volume= 0.004 af, Atten= 85%, Lag= 24.0 min
Discarded = 0.01 cfs @ 12.42 hrs, Volume= 0.004 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 667.79' @ 12.42 hrs Surf.Area= 153 sf Storage= 74 cf

Plug-Flow detention time= 57.7 min calculated for 0.004 af (100% of inflow)
Center-of-Mass det. time= 57.2 min (861.6 - 804.4)

Volume	Invert	Avail.Storage	Storage Description
#1	667.00'	236 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

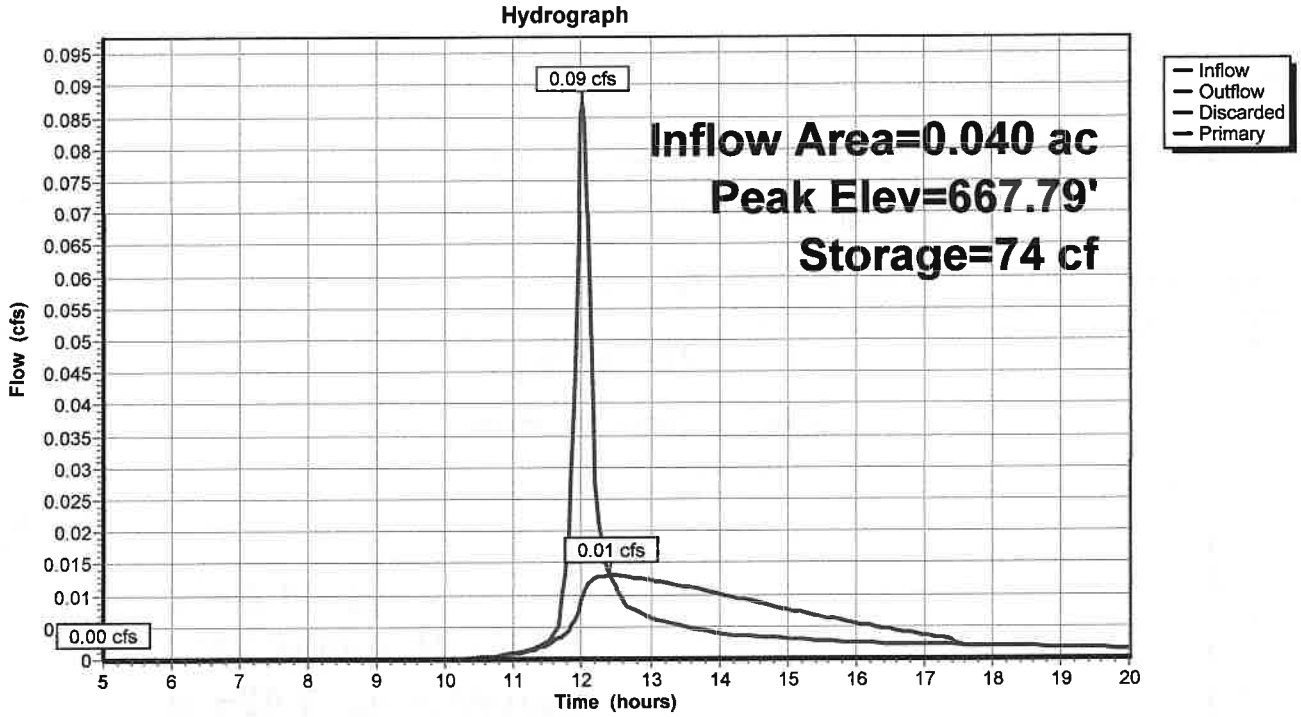
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.00	35	0	0
668.00	185	110	110
668.50	320	126	236

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 648.00'
#2	Primary	668.35'	**6.0' long 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

Discarded OutFlow Max=0.01 cfs @ 12.42 hrs HW=667.79' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=667.00' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 13P: NE


Hydrograph
Inflow Area=0.040 ac
Peak Elev=667.79'
Storage=74 cf
0.09 cfs
0.01 cfs
0.00 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0.095
0.09
0.085
0.08
0.075
0.07
0.065
0.06
0.055
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
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Summary for Subcatchment 1S: Exist

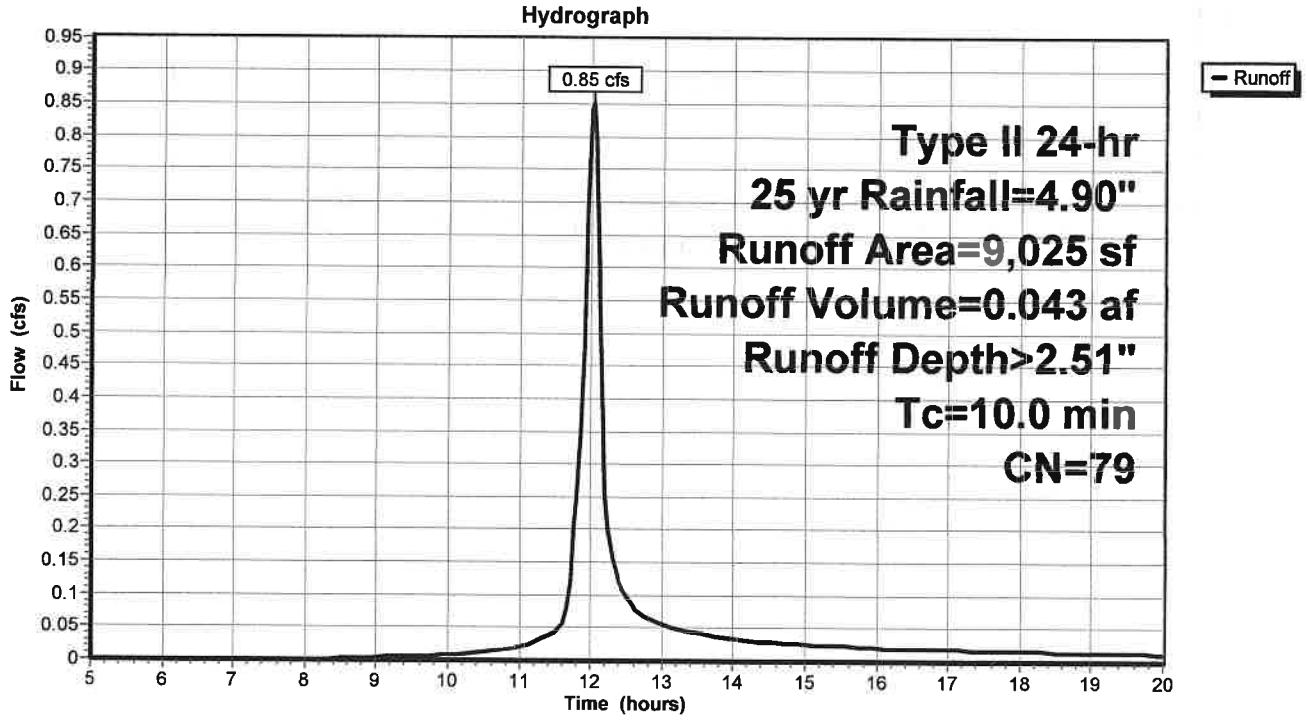
Runoff = 0.85 cfs @ 12.02 hrs, Volume= 0.043 af, Depth> 2.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25 yr Rainfall=4.90"

Area (sf)	CN	Description
9,025	79	<50% Grass cover, Poor, HSG B
9,025		100.00% Pervious Area

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

Subcatchment 1S: Exist



Summary for Subcatchment 2S: Parking

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

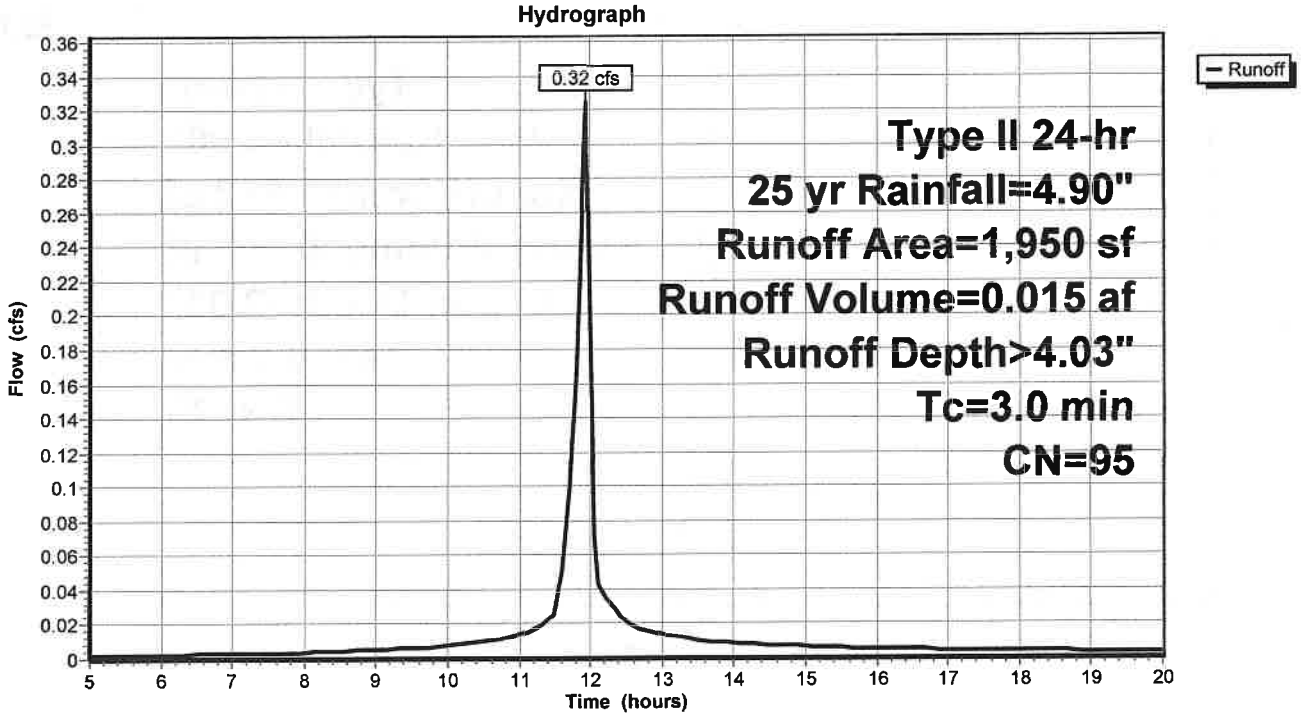
Runoff = 0.32 cfs @ 11.93 hrs, Volume= 0.015 af, Depth> 4.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25 yr Rainfall=4.90"

Area (sf)	CN	Description
1,750	98	Paved parking, HSG B
200	69	50-75% Grass cover, Fair, HSG B
1,950	95	Weighted Average
200		10.26% Pervious Area
1,750		89.74% Impervious Area

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

Subcatchment 2S: Parking



Summary for Subcatchment 3S: Northwest

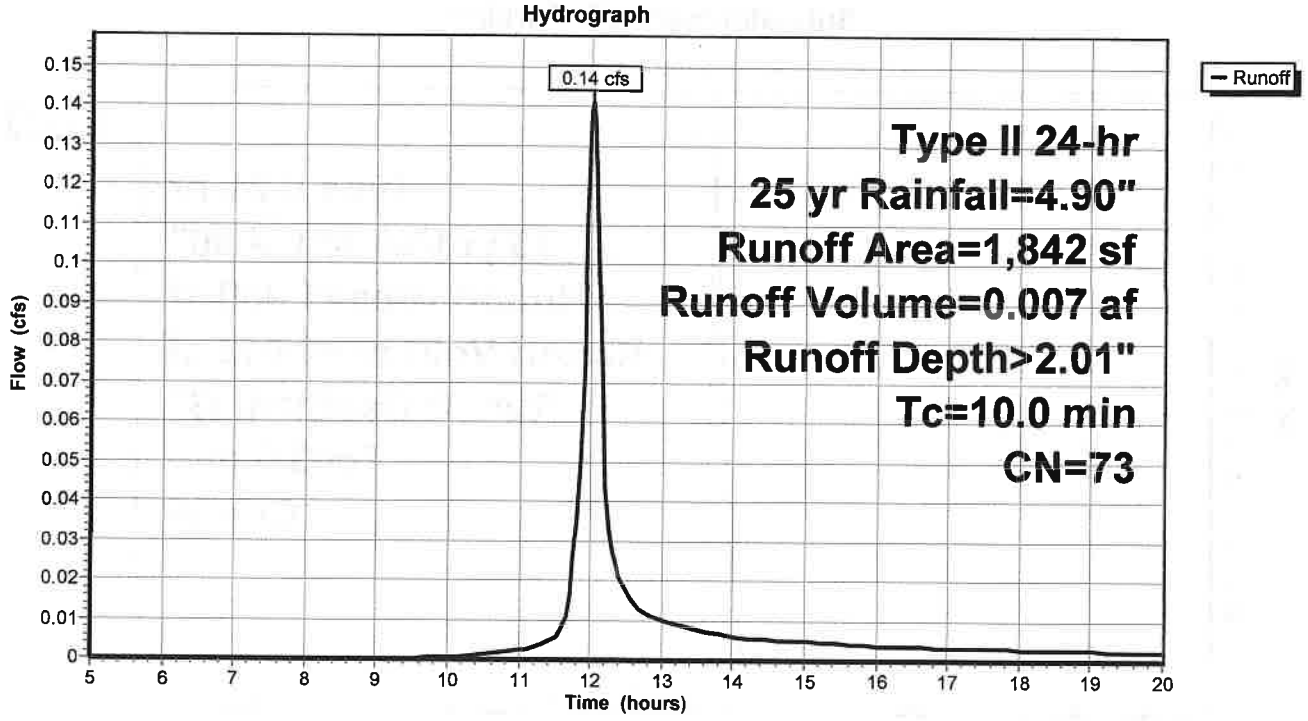
Runoff = 0.14 cfs @ 12.02 hrs, Volume= 0.007 af, Depth> 2.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25 yr Rainfall=4.90"

Area (sf)	CN	Description
500	98	Unconnected roofs, HSG B
90	98	Paved parking, HSG B
1,252	61	>75% Grass cover, Good, HSG B
1,842	73	Weighted Average
1,252		67.97% Pervious Area
590		32.03% Impervious Area
500		84.75% Unconnected

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

Subcatchment 3S: Northwest



Summary for Subcatchment 8S: Southwest

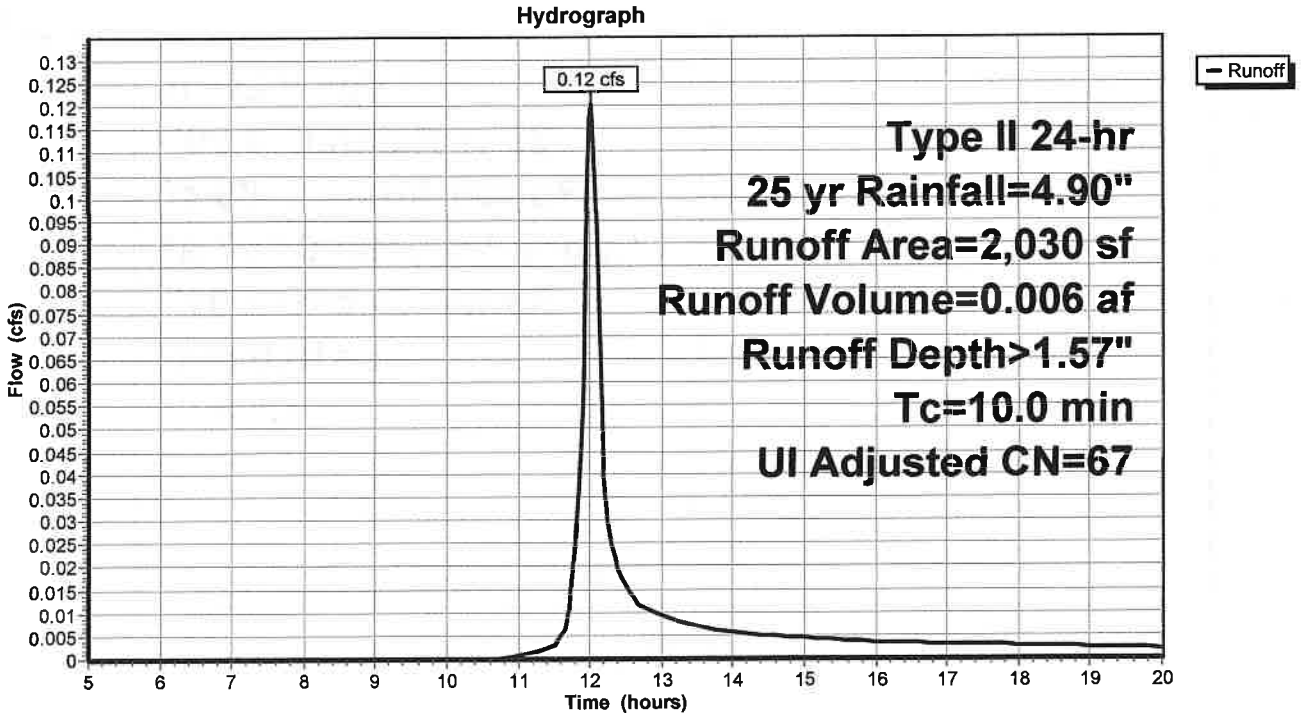
Runoff = 0.12 cfs @ 12.02 hrs, Volume= 0.006 af, Depth> 1.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25 yr Rainfall=4.90"

Area (sf)	CN	Adj	Description
500	98		Unconnected roofs, HSG B
90	98		Paved parking, HSG B
1,440	61		>75% Grass cover, Good, HSG B
2,030	72	67	Weighted Average, UI Adjusted
1,440			70.94% Pervious Area
590			29.06% Impervious Area
500			84.75% Unconnected

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

Subcatchment 8S: Southwest



Summary for Subcatchment 11S: Southeast

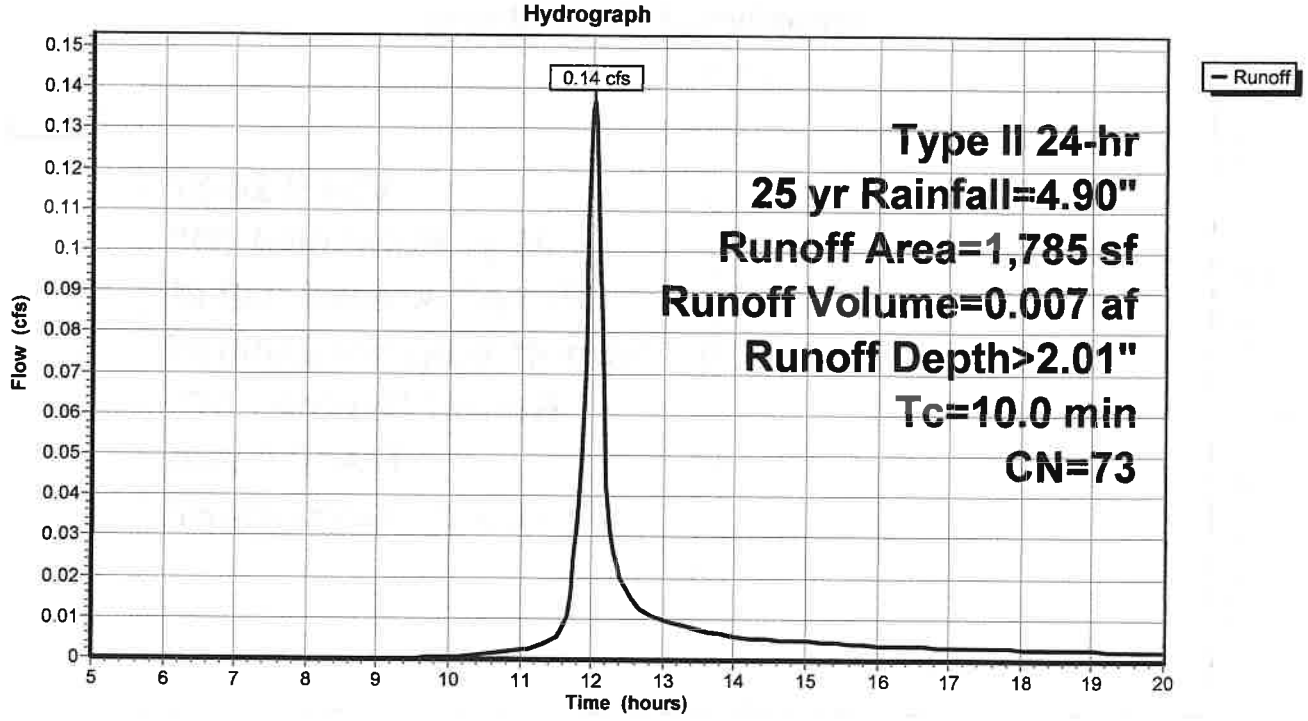
Runoff = 0.14 cfs @ 12.02 hrs, Volume= 0.007 af, Depth> 2.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25 yr Rainfall=4.90"

Area (sf)	CN	Description
500	98	Unconnected roofs, HSG B
90	98	Paved parking, HSG B
1,195	61	>75% Grass cover, Good, HSG B
1,785	73	Weighted Average
1,195		66.95% Pervious Area
590		33.05% Impervious Area
500		84.75% Unconnected

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

Subcatchment 11S: Southeast



Summary for Subcatchment 12S: Northeast

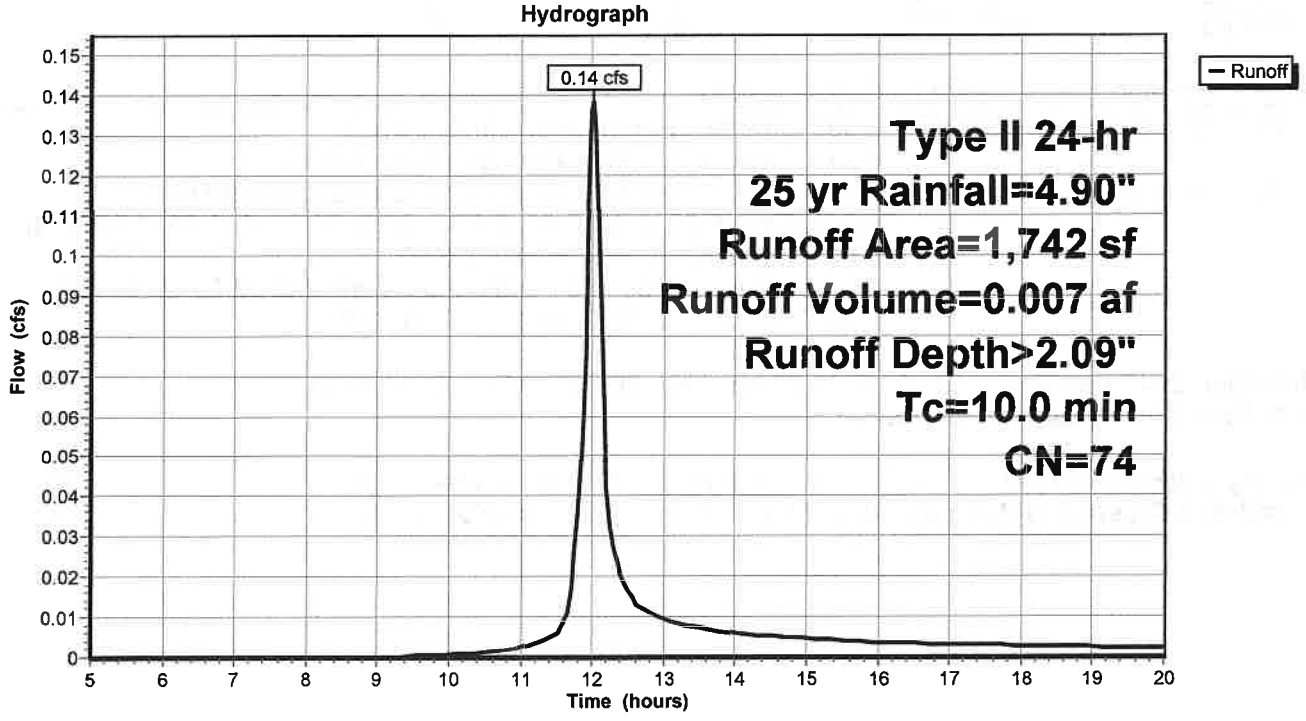
Runoff = 0.14 cfs @ 12.02 hrs, Volume= 0.007 af, Depth> 2.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25 yr Rainfall=4.90"

Area (sf)	CN	Description
500	98	Unconnected roofs, HSG B
90	98	Paved parking, HSG B
1,152	61	>75% Grass cover, Good, HSG B
1,742	74	Weighted Average
1,152		66.13% Pervious Area
590		33.87% Impervious Area
500		84.75% Unconnected

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

Subcatchment 12S: Northeast



Summary for Pond 5P: South

[82] Warning: Early inflow requires earlier time span

Inflow Area = 0.045 ac, 89.74% Impervious, Inflow Depth > 4.03" for 25 yr event
Inflow = 0.32 cfs @ 11.93 hrs, Volume= 0.015 af
Outflow = 0.32 cfs @ 11.94 hrs, Volume= 0.015 af, Atten= 2%, Lag= 0.7 min
Discarded = 0.02 cfs @ 11.94 hrs, Volume= 0.010 af
Primary = 0.30 cfs @ 11.94 hrs, Volume= 0.005 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 668.50' @ 11.94 hrs Surf.Area= 229 sf Storage= 94 cf

Plug-Flow detention time= 28.8 min calculated for 0.015 af (100% of inflow)
Center-of-Mass det. time= 28.7 min (765.7 - 737.1)

Volume	Invert	Avail.Storage	Storage Description
#1	667.80'	292 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

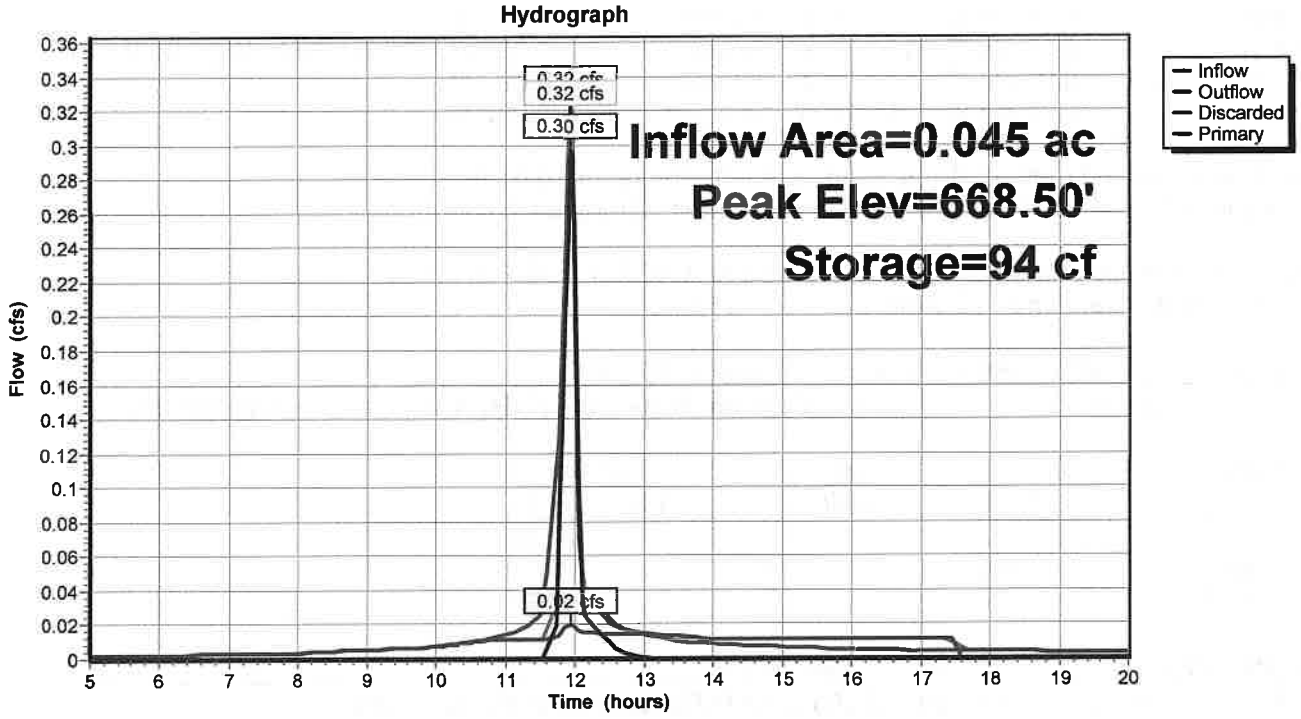
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.80	130	0.0	0	0
667.85	130	30.0	2	2
668.35	130	100.0	65	67
669.00	563	100.0	225	292

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.80'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 650.00'
#2	Primary	668.40'	**4.0' long x 4.0' 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) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Discarded OutFlow Max=0.02 cfs @ 11.94 hrs HW=668.50' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=0.29 cfs @ 11.94 hrs HW=668.50' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Weir Controls 0.29 cfs @ 0.74 fps)

Pond 5P: South



Summary for Pond 7P: NW

Inflow Area = 0.042 ac, 32.03% Impervious, Inflow Depth > 2.01" for 25 yr event
Inflow = 0.14 cfs @ 12.02 hrs, Volume= 0.007 af
Outflow = 0.02 cfs @ 12.47 hrs, Volume= 0.007 af, Atten= 87%, Lag= 26.9 min
Discarded = 0.02 cfs @ 12.47 hrs, Volume= 0.007 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 668.11' @ 12.47 hrs Surf.Area= 214 sf Storage= 132 cf

Plug-Flow detention time= 81.4 min calculated for 0.007 af (100% of inflow)
Center-of-Mass det. time= 80.9 min (877.5 - 796.6)

Volume	Invert	Avail.Storage	Storage Description
#1	667.00'	236 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

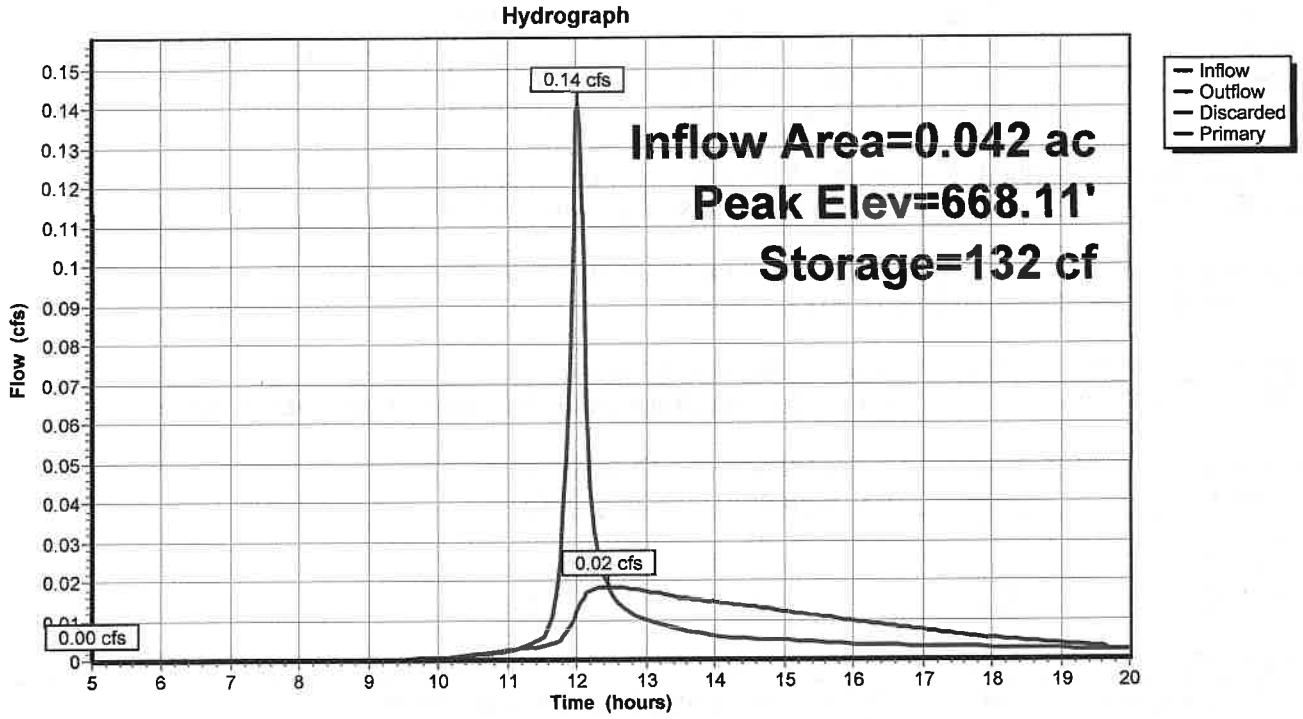
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.00	35	0	0
668.00	185	110	110
668.50	320	126	236

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 648.00'
#2	Primary	668.35'	**6.0' long 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

Discarded OutFlow Max=0.02 cfs @ 12.47 hrs HW=668.11' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=667.00' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 7P: NW


Hydrograph
Inflow Area=0.042 ac
Peak Elev=668.11'
Storage=132 cf
0.14 cfs
0.02 cfs
0.00 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0.15
0.14
0.13
0.12
0.11
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0
5
6
7
8
9
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11
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Summary for Pond 9P: SW

Inflow Area = 0.047 ac, 29.06% Impervious, Inflow Depth > 1.57" for 25 yr event
Inflow = 0.12 cfs @ 12.02 hrs, Volume= 0.006 af
Outflow = 0.02 cfs @ 12.51 hrs, Volume= 0.006 af, Atten= 87%, Lag= 29.1 min
Discarded = 0.02 cfs @ 12.51 hrs, Volume= 0.006 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 667.99' @ 12.51 hrs Surf.Area= 183 sf Storage= 107 cf

Plug-Flow detention time= 75.0 min calculated for 0.006 af (100% of inflow)
Center-of-Mass det. time= 74.2 min (882.0 - 807.8)

Volume	Invert	Avail.Storage	Storage Description
#1	667.00'	236 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

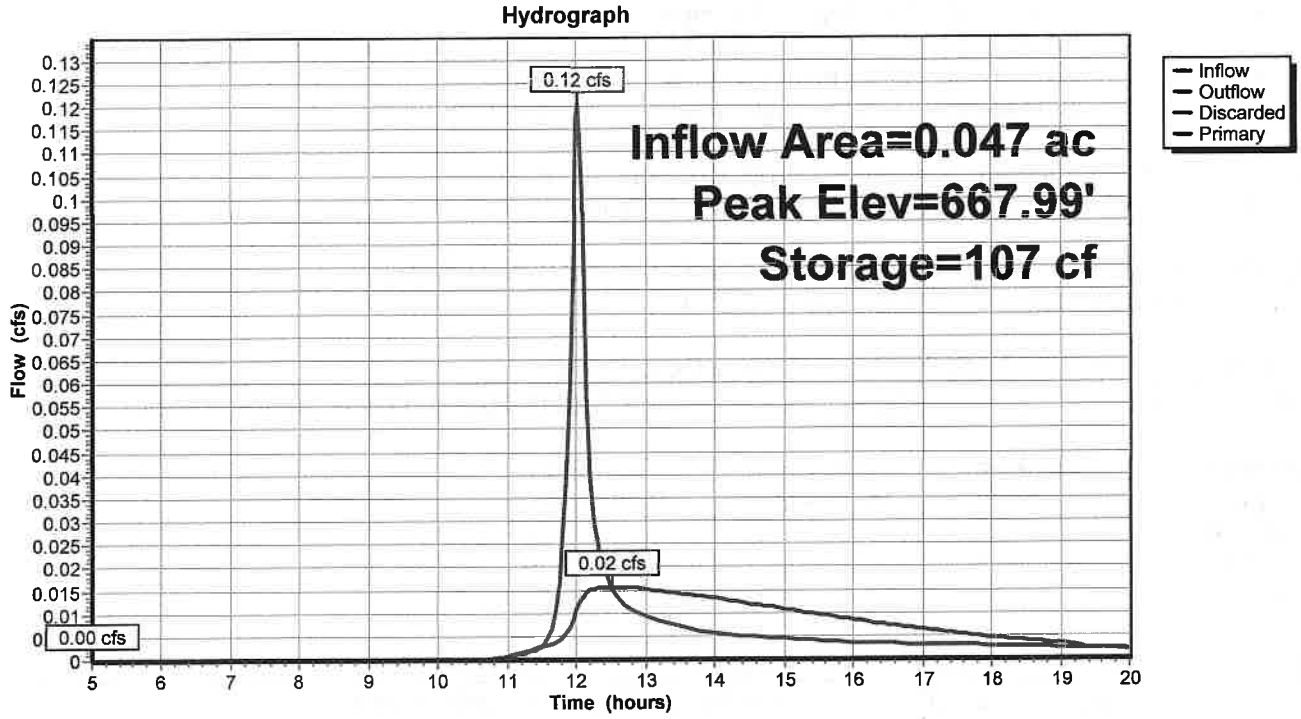
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.00	35	0	0
668.00	185	110	110
668.50	320	126	236

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 648.00'
#2	Primary	668.35'	**6.0' long 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

Discarded OutFlow Max=0.02 cfs @ 12.51 hrs HW=667.99' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=667.00' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9P: SW


Hydrograph
Inflow Area=0.047 ac
Peak Elev=667.99'
Storage=107 cf
0.12 cfs
0.02 cfs
0.00 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0.13
0.125
0.12
0.115
0.11
0.105
0.1
0.095
0.09
0.085
0.08
0.075
0.07
0.065
0.06
0.055
0.05
0.045
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0.035
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0.02
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Summary for Pond 10P: SE

Inflow Area = 0.041 ac, 33.05% Impervious, Inflow Depth > 2.01" for 25 yr event
Inflow = 0.14 cfs @ 12.02 hrs, Volume= 0.007 af
Outflow = 0.02 cfs @ 12.47 hrs, Volume= 0.007 af, Atten= 87%, Lag= 26.8 min
Discarded = 0.02 cfs @ 12.47 hrs, Volume= 0.007 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 668.09' @ 12.47 hrs Surf.Area= 209 sf Storage= 127 cf

Plug-Flow detention time= 80.1 min calculated for 0.007 af (100% of inflow)
Center-of-Mass det. time= 79.4 min (876.0 - 796.6)

Volume	Invert	Avail.Storage	Storage Description
#1	667.00'	236 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

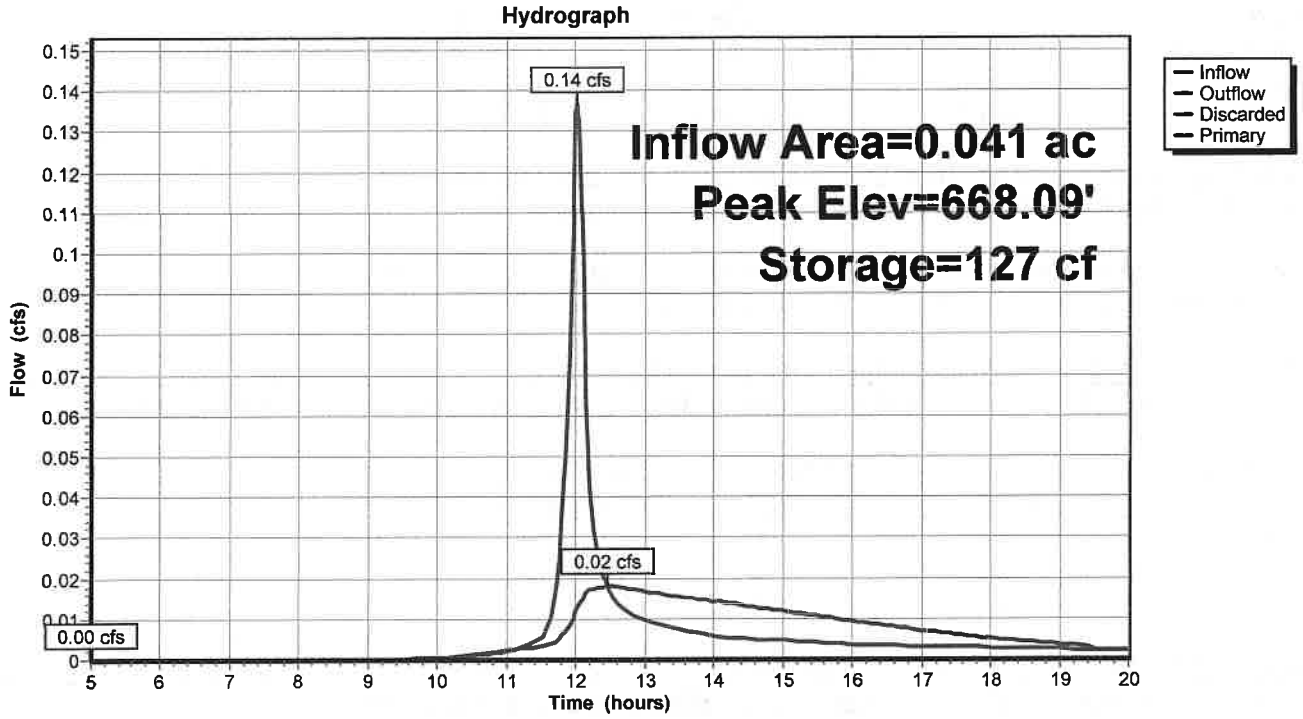
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.00	35	0	0
668.00	185	110	110
668.50	320	126	236

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 648.00'
#2	Primary	668.35'	**6.0' long 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

Discarded OutFlow Max=0.02 cfs @ 12.47 hrs HW=668.09' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=667.00' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 10P: SE


Hydrograph
Inflow Area=0.041 ac
Peak Elev=668.09'
Storage=127 cf
0.14 cfs
0.02 cfs
0.00 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0.15
0.14
0.13
0.12
0.11
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
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Summary for Pond 13P: NE

Inflow Area = 0.040 ac, 33.87% Impervious, Inflow Depth > 2.09" for 25 yr event
Inflow = 0.14 cfs @ 12.02 hrs, Volume= 0.007 af
Outflow = 0.02 cfs @ 12.46 hrs, Volume= 0.007 af, Atten= 87%, Lag= 26.5 min
Discarded = 0.02 cfs @ 12.46 hrs, Volume= 0.007 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 668.10' @ 12.46 hrs Surf.Area= 212 sf Storage= 130 cf

Plug-Flow detention time= 80.5 min calculated for 0.007 af (100% of inflow)
Center-of-Mass det. time= 79.8 min (874.5 - 794.7)

Volume	Invert	Avail.Storage	Storage Description
#1	667.00'	236 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

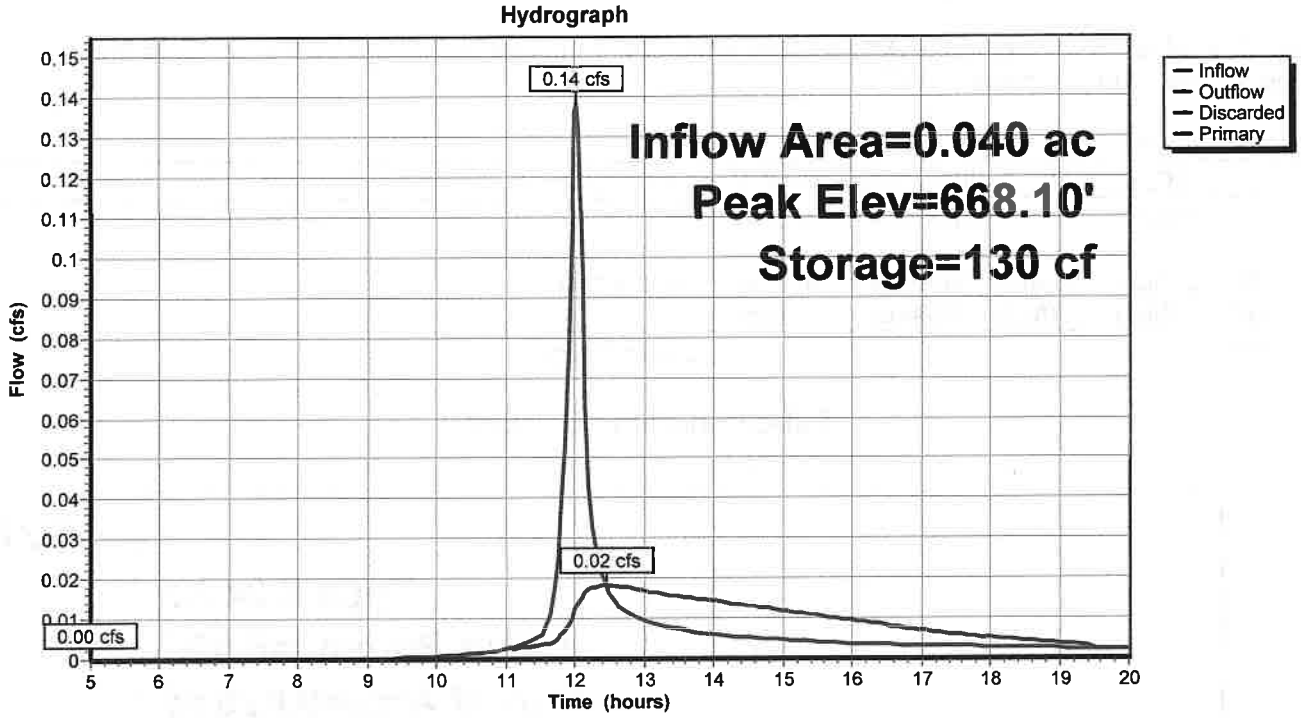
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.00	35	0	0
668.00	185	110	110
668.50	320	126	236

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 648.00'
#2	Primary	668.35'	**6.0' long 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

Discarded OutFlow Max=0.02 cfs @ 12.46 hrs HW=668.10' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=667.00' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 13P: NE


Hydrograph
Inflow Area=0.040 ac
Peak Elev=668.10'
Storage=130 cf
0.14 cfs
0.02 cfs
0.00 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0.15
0.14
0.13
0.12
0.11
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
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Summary for Subcatchment 1S: Exist

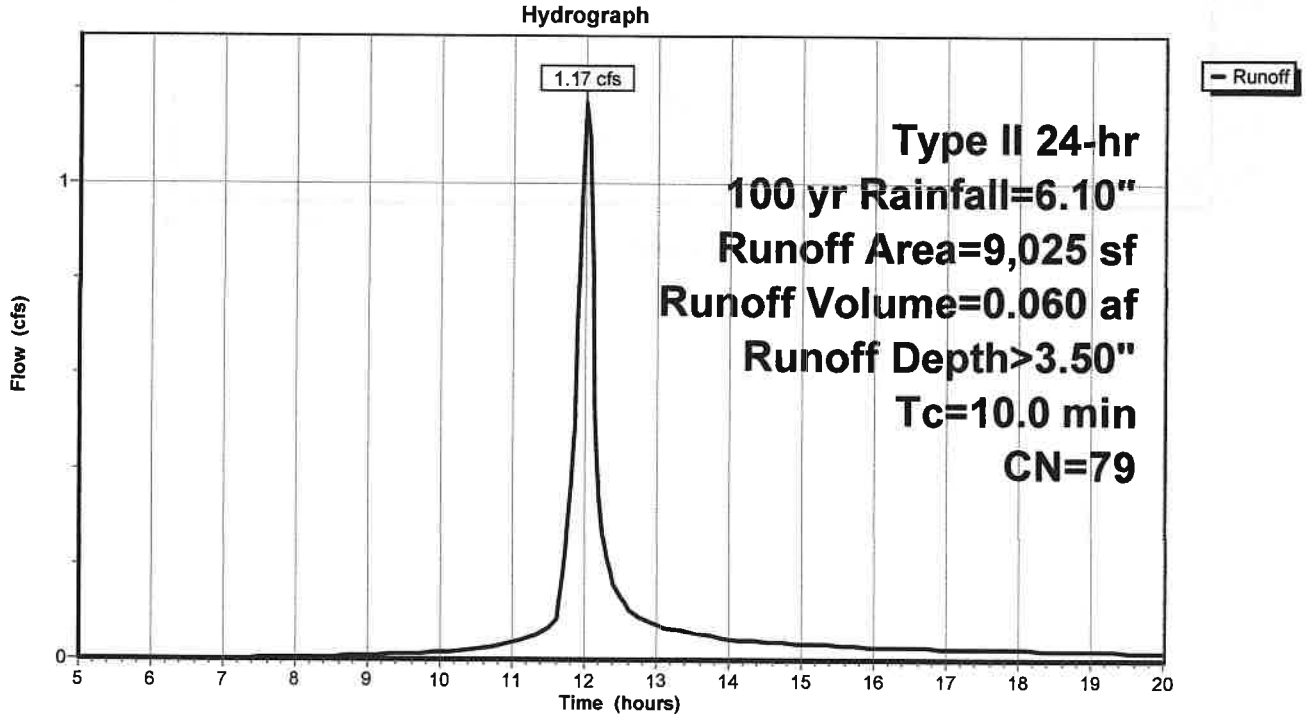
Runoff = 1.17 cfs @ 12.01 hrs, Volume= 0.060 af, Depth> 3.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100 yr Rainfall=6.10"

Area (sf)	CN	Description
9,025	79	<50% Grass cover, Poor, HSG B
9,025		100.00% Pervious Area

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

Subcatchment 1S: Exist



Summary for Subcatchment 2S: Parking

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

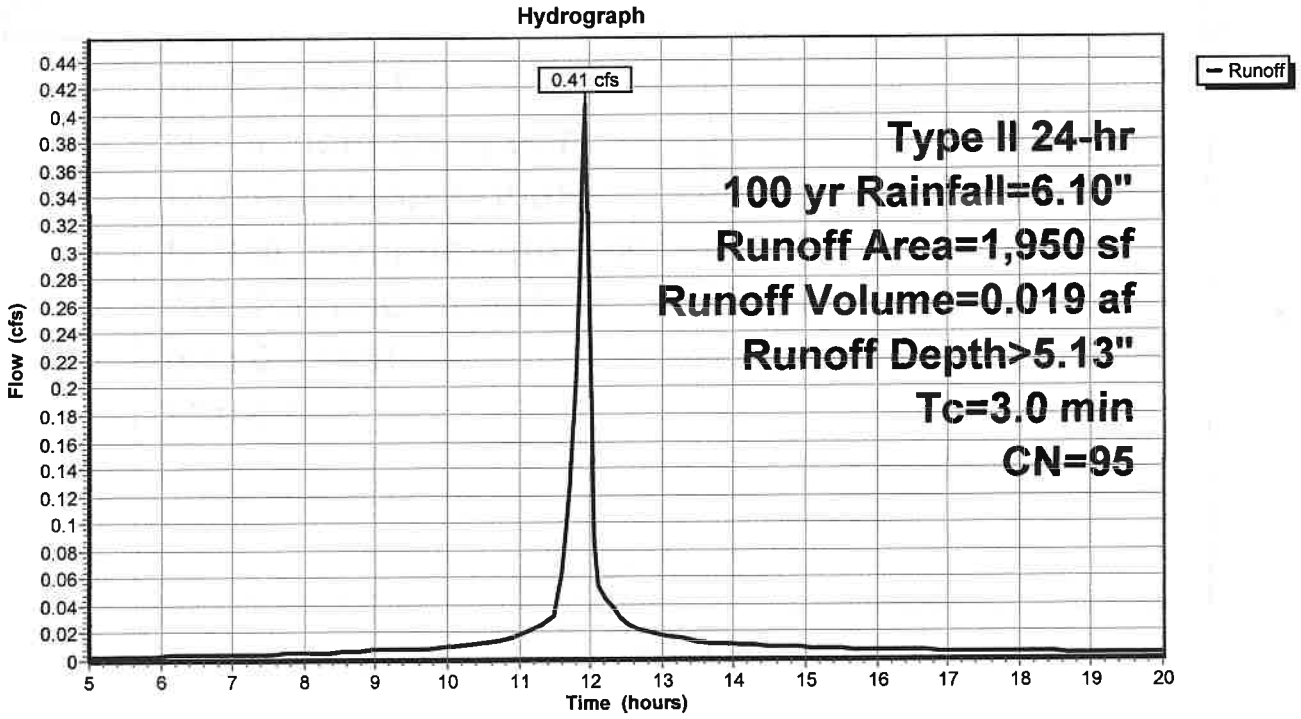
Runoff = 0.41 cfs @ 11.93 hrs, Volume= 0.019 af, Depth> 5.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100 yr Rainfall=6.10"

Area (sf)	CN	Description
1,750	98	Paved parking, HSG B
200	69	50-75% Grass cover, Fair, HSG B
1,950	95	Weighted Average
200		10.26% Pervious Area
1,750		89.74% Impervious Area

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

Subcatchment 2S: Parking



Summary for Subcatchment 3S: Northwest

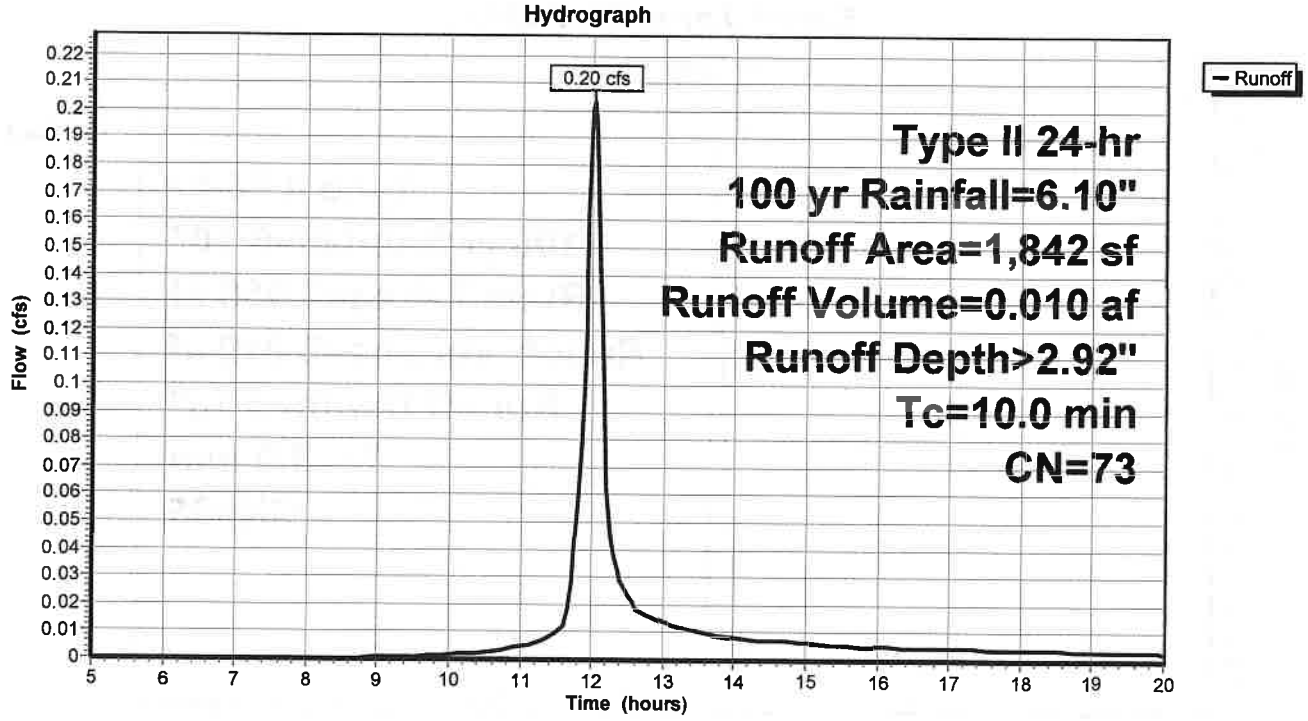
Runoff = 0.20 cfs @ 12.02 hrs, Volume= 0.010 af, Depth> 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100 yr Rainfall=6.10"

Area (sf)	CN	Description
500	98	Unconnected roofs, HSG B
90	98	Paved parking, HSG B
1,252	61	>75% Grass cover, Good, HSG B
1,842	73	Weighted Average
1,252		67.97% Pervious Area
590		32.03% Impervious Area
500		84.75% Unconnected

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

Subcatchment 3S: Northwest



Summary for Subcatchment 8S: Southwest

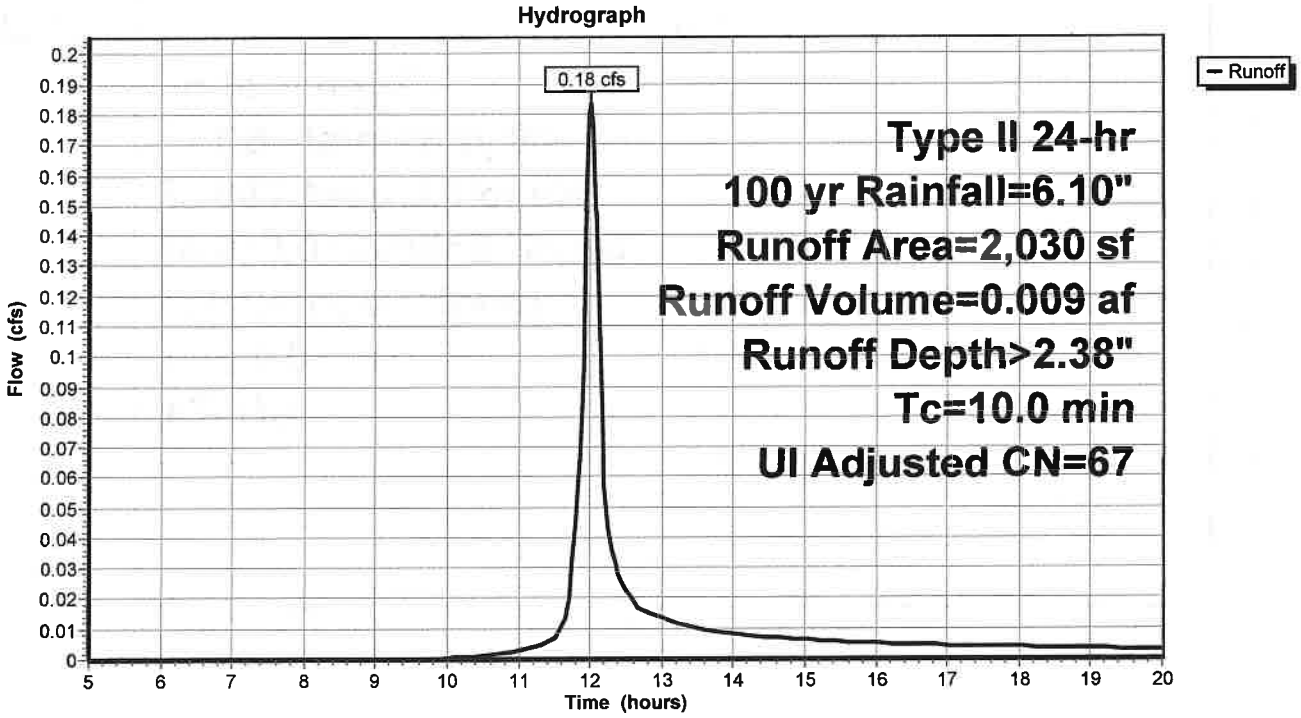
Runoff = 0.18 cfs @ 12.02 hrs, Volume= 0.009 af, Depth> 2.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100 yr Rainfall=6.10"

Area (sf)	CN	Adj	Description
500	98		Unconnected roofs, HSG B
90	98		Paved parking, HSG B
1,440	61		>75% Grass cover, Good, HSG B
2,030	72	67	Weighted Average, UI Adjusted
1,440			70.94% Pervious Area
590			29.06% Impervious Area
500			84.75% Unconnected

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

Subcatchment 8S: Southwest



Summary for Subcatchment 11S: Southeast

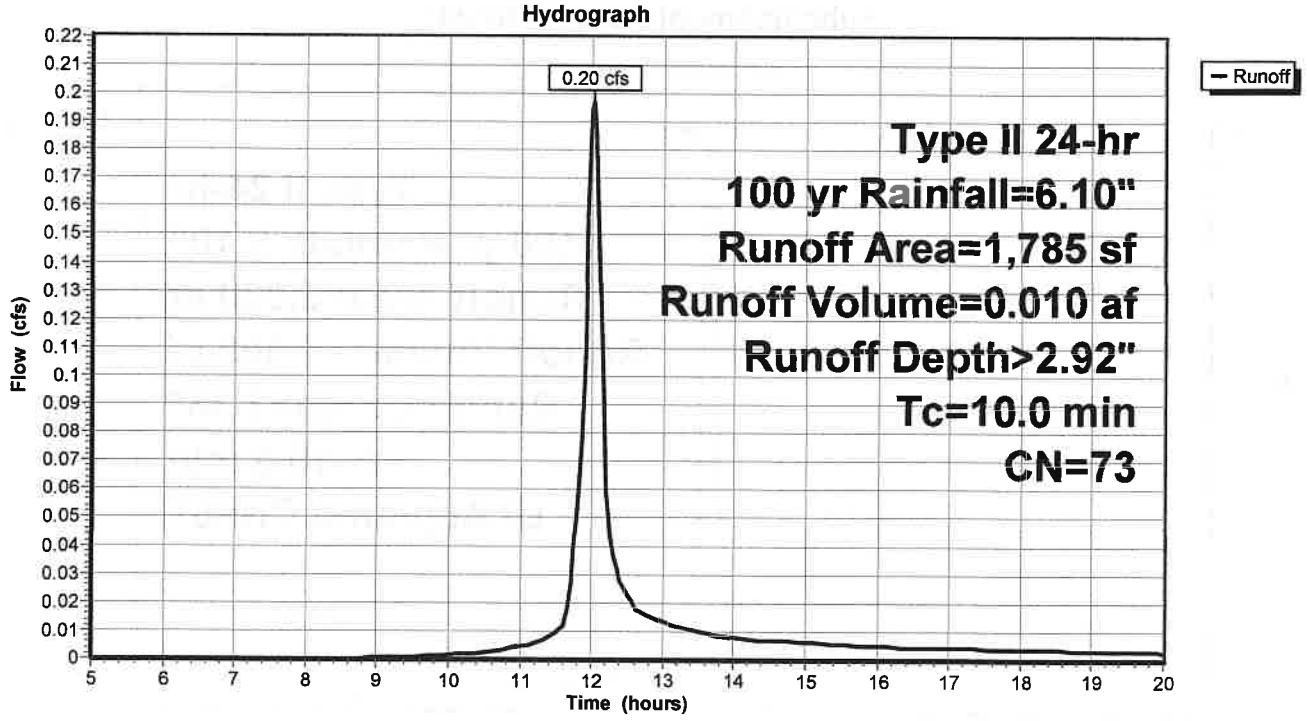
Runoff = 0.20 cfs @ 12.02 hrs, Volume= 0.010 af, Depth> 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100 yr Rainfall=6.10"

Area (sf)	CN	Description
500	98	Unconnected roofs, HSG B
90	98	Paved parking, HSG B
1,195	61	>75% Grass cover, Good, HSG B
1,785	73	Weighted Average
1,195		66.95% Pervious Area
590		33.05% Impervious Area
500		84.75% Unconnected

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

Subcatchment 11S: Southeast



Summary for Subcatchment 12S: Northeast

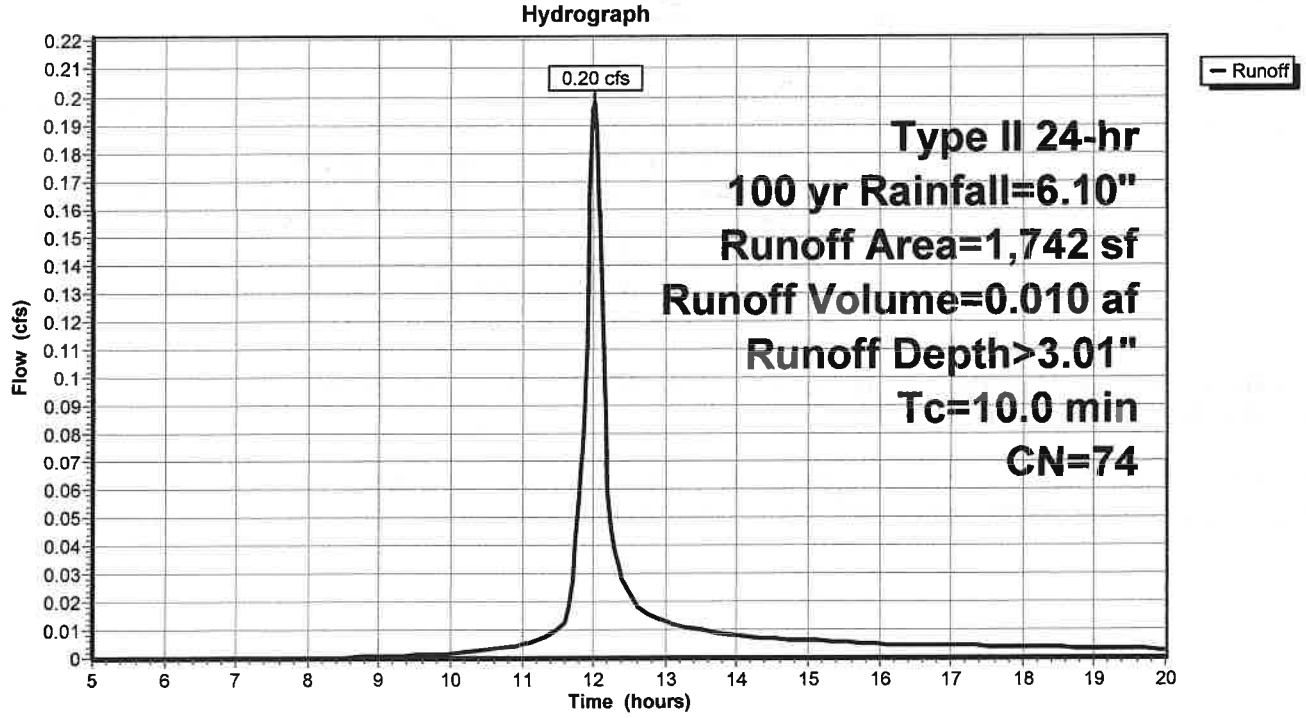
Runoff = 0.20 cfs @ 12.02 hrs, Volume= 0.010 af, Depth> 3.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100 yr Rainfall=6.10"

Area (sf)	CN	Description
500	98	Unconnected roofs, HSG B
90	98	Paved parking, HSG B
1,152	61	>75% Grass cover, Good, HSG B
1,742	74	Weighted Average
1,152		66.13% Pervious Area
590		33.87% Impervious Area
500		84.75% Unconnected

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

Subcatchment 12S: Northeast



Summary for Pond 5P: South

[82] Warning: Early inflow requires earlier time span

Inflow Area = 0.045 ac, 89.74% Impervious, Inflow Depth > 5.13" for 100 yr event
Inflow = 0.41 cfs @ 11.93 hrs, Volume= 0.019 af
Outflow = 0.40 cfs @ 11.94 hrs, Volume= 0.019 af, Atten= 2%, Lag= 0.6 min
Discarded = 0.02 cfs @ 11.94 hrs, Volume= 0.011 af
Primary = 0.38 cfs @ 11.94 hrs, Volume= 0.008 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 668.52' @ 11.94 hrs Surf.Area= 241 sf Storage= 98 cf

Plug-Flow detention time= 27.9 min calculated for 0.019 af (100% of inflow)
Center-of-Mass det. time= 27.8 min (761.9 - 734.1)

Volume	Invert	Avail.Storage	Storage Description
#1	667.80'	292 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

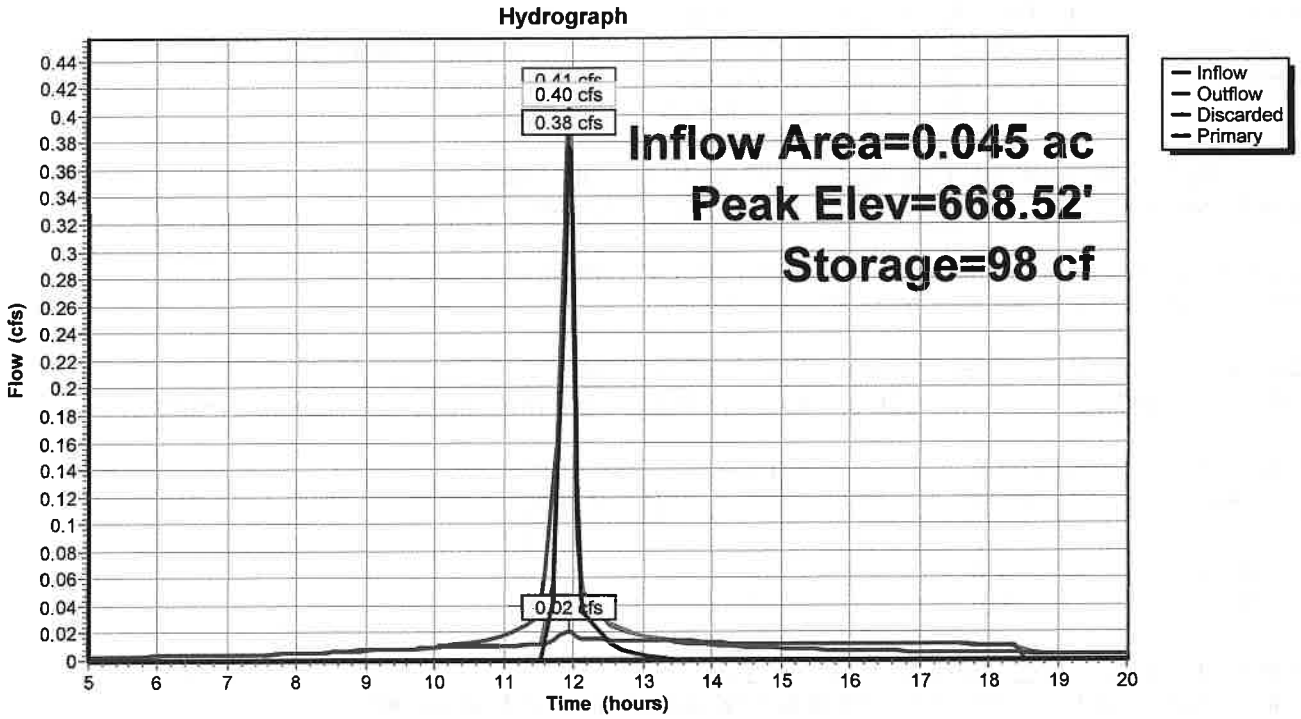
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.80	130	0.0	0	0
667.85	130	30.0	2	2
668.35	130	100.0	65	67
669.00	563	100.0	225	292

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.80'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 650.00'
#2	Primary	668.40'	**4.0' long x 4.0' 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) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Discarded OutFlow Max=0.02 cfs @ 11.94 hrs HW=668.51' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=0.37 cfs @ 11.94 hrs HW=668.51' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Weir Controls 0.37 cfs @ 0.80 fps)

Pond 5P: South



Summary for Pond 7P: NW

Inflow Area = 0.042 ac, 32.03% Impervious, Inflow Depth > 2.92" for 100 yr event
Inflow = 0.20 cfs @ 12.02 hrs, Volume= 0.010 af
Outflow = 0.04 cfs @ 12.30 hrs, Volume= 0.010 af, Atten= 80%, Lag= 16.8 min
Discarded = 0.02 cfs @ 12.30 hrs, Volume= 0.010 af
Primary = 0.02 cfs @ 12.30 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 668.36' @ 12.30 hrs Surf.Area= 282 sf Storage= 194 cf

Plug-Flow detention time= 94.8 min calculated for 0.010 af (99% of inflow)
Center-of-Mass det. time= 89.1 min (877.9 - 788.8)

Volume	Invert	Avail.Storage	Storage Description
#1	667.00'	236 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

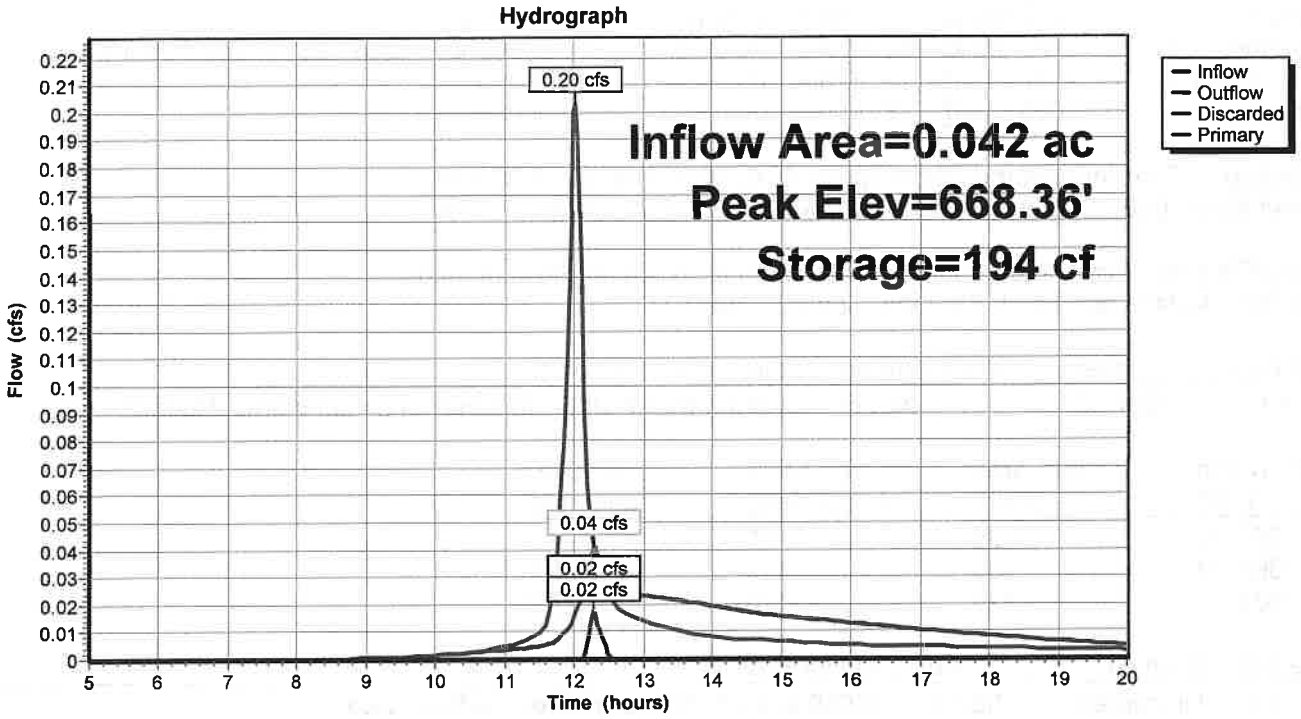
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.00	35	0	0
668.00	185	110	110
668.50	320	126	236

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 648.00'
#2	Primary	668.35'	**6.0' long 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

Discarded OutFlow Max=0.02 cfs @ 12.30 hrs HW=668.36' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=0.01 cfs @ 12.30 hrs HW=668.36' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Weir Controls 0.01 cfs @ 0.23 fps)

Pond 7P: NW


Hydrograph
Inflow Area=0.042 ac
Peak Elev=668.36'
Storage=194 cf
0.20 cfs
0.04 cfs
0.02 cfs
0.02 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.1
0.11
0.12
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Summary for Pond 9P: SW

Inflow Area = 0.047 ac, 29.06% Impervious, Inflow Depth > 2.38" for 100 yr event
Inflow = 0.18 cfs @ 12.02 hrs, Volume= 0.009 af
Outflow = 0.02 cfs @ 12.50 hrs, Volume= 0.009 af, Atten= 88%, Lag= 29.1 min
Discarded = 0.02 cfs @ 12.50 hrs, Volume= 0.009 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 668.29' @ 12.50 hrs Surf.Area= 263 sf Storage= 175 cf

Plug-Flow detention time= 95.4 min calculated for 0.009 af (98% of inflow)
Center-of-Mass det. time= 89.9 min (889.0 - 799.1)

Volume	Invert	Avail.Storage	Storage Description
#1	667.00'	236 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

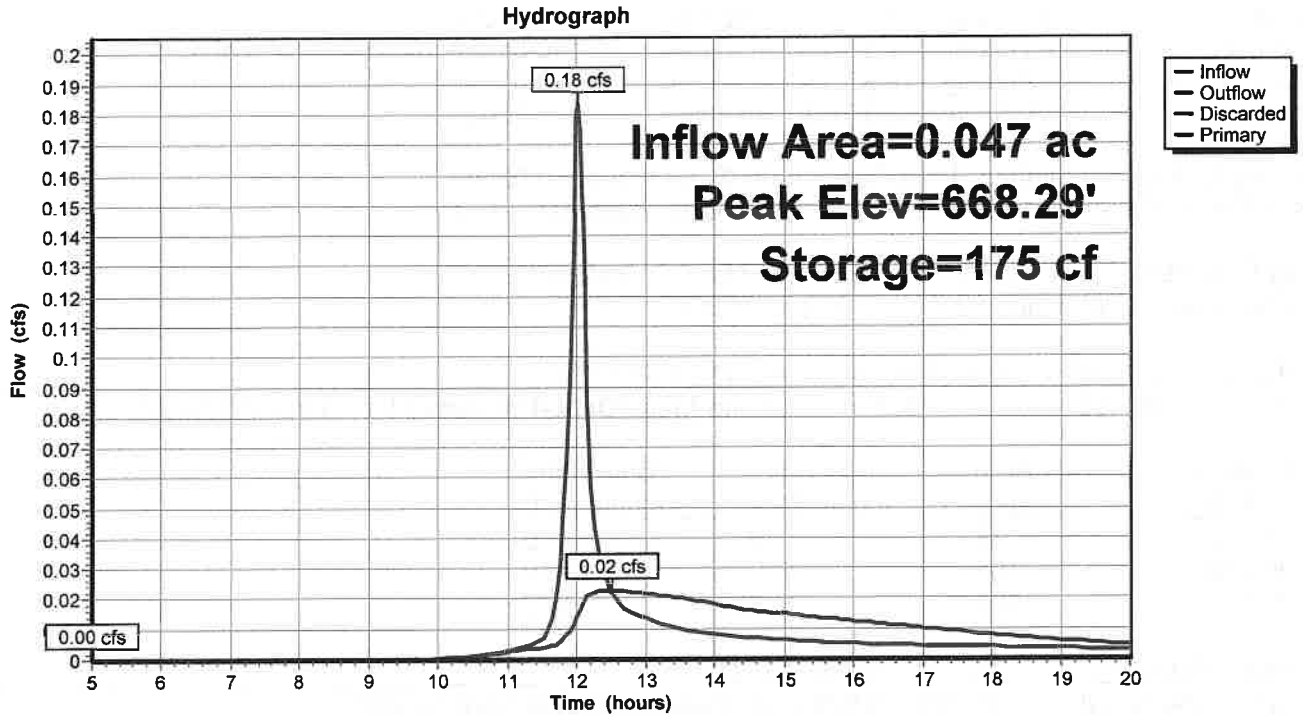
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.00	35	0	0
668.00	185	110	110
668.50	320	126	236

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 648.00'
#2	Primary	668.35'	**6.0' long 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

Discarded OutFlow Max=0.02 cfs @ 12.50 hrs HW=668.29' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=667.00' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9P: SW


Hydrograph
Inflow Area=0.047 ac
Peak Elev=668.29'
Storage=175 cf
0.18 cfs
0.02 cfs
0.00 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.1
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Summary for Pond 10P: SE

Inflow Area = 0.041 ac, 33.05% Impervious, Inflow Depth > 2.92" for 100 yr event
Inflow = 0.20 cfs @ 12.02 hrs, Volume= 0.010 af
Outflow = 0.03 cfs @ 12.37 hrs, Volume= 0.010 af, Atten= 84%, Lag= 21.3 min
Discarded = 0.02 cfs @ 12.37 hrs, Volume= 0.010 af
Primary = 0.01 cfs @ 12.37 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 668.35' @ 12.37 hrs Surf.Area= 281 sf Storage= 192 cf

Plug-Flow detention time= 96.0 min calculated for 0.010 af (98% of inflow)
Center-of-Mass det. time= 90.7 min (879.5 - 788.8)

Volume	Invert	Avail.Storage	Storage Description
#1	667.00'	236 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

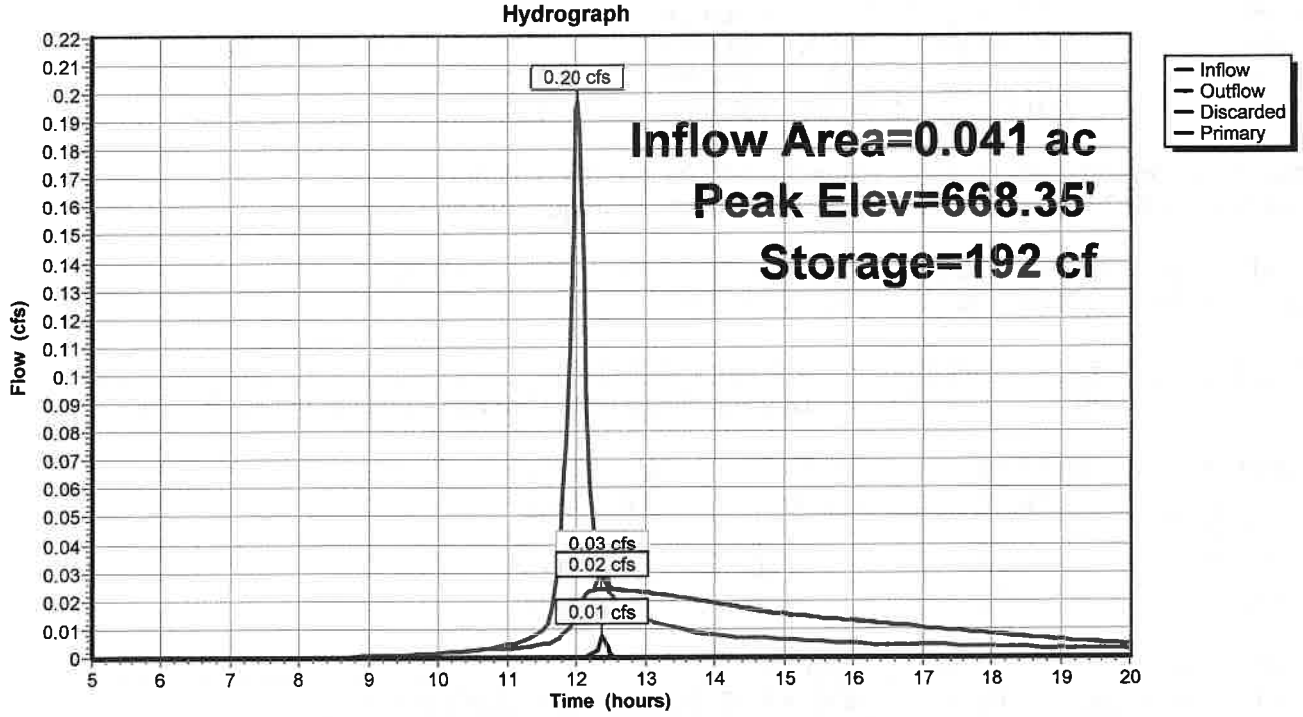
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.00	35	0	0
668.00	185	110	110
668.50	320	126	236

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 648.00'
#2	Primary	668.35'	**6.0' long 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

Discarded OutFlow Max=0.02 cfs @ 12.37 hrs HW=668.35' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=0.00 cfs @ 12.37 hrs HW=668.35' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Weir Controls 0.00 cfs @ 0.14 fps)

Pond 10P: SE


Hydrograph
Inflow Area=0.041 ac
Peak Elev=668.35'
Storage=192 cf
0.20 cfs
0.03 cfs
0.02 cfs
0.01 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.1
0.11
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Summary for Pond 13P: NE

Inflow Area = 0.040 ac, 33.87% Impervious, Inflow Depth > 3.01" for 100 yr event
Inflow = 0.20 cfs @ 12.02 hrs, Volume= 0.010 af
Outflow = 0.03 cfs @ 12.34 hrs, Volume= 0.010 af, Atten= 83%, Lag= 19.5 min
Discarded = 0.02 cfs @ 12.34 hrs, Volume= 0.010 af
Primary = 0.01 cfs @ 12.34 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 668.36' @ 12.34 hrs Surf.Area= 281 sf Storage= 193 cf

Plug-Flow detention time= 95.0 min calculated for 0.010 af (99% of inflow)
Center-of-Mass det. time= 90.1 min (877.1 - 787.0)

Volume	Invert	Avail.Storage	Storage Description
#1	667.00'	236 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

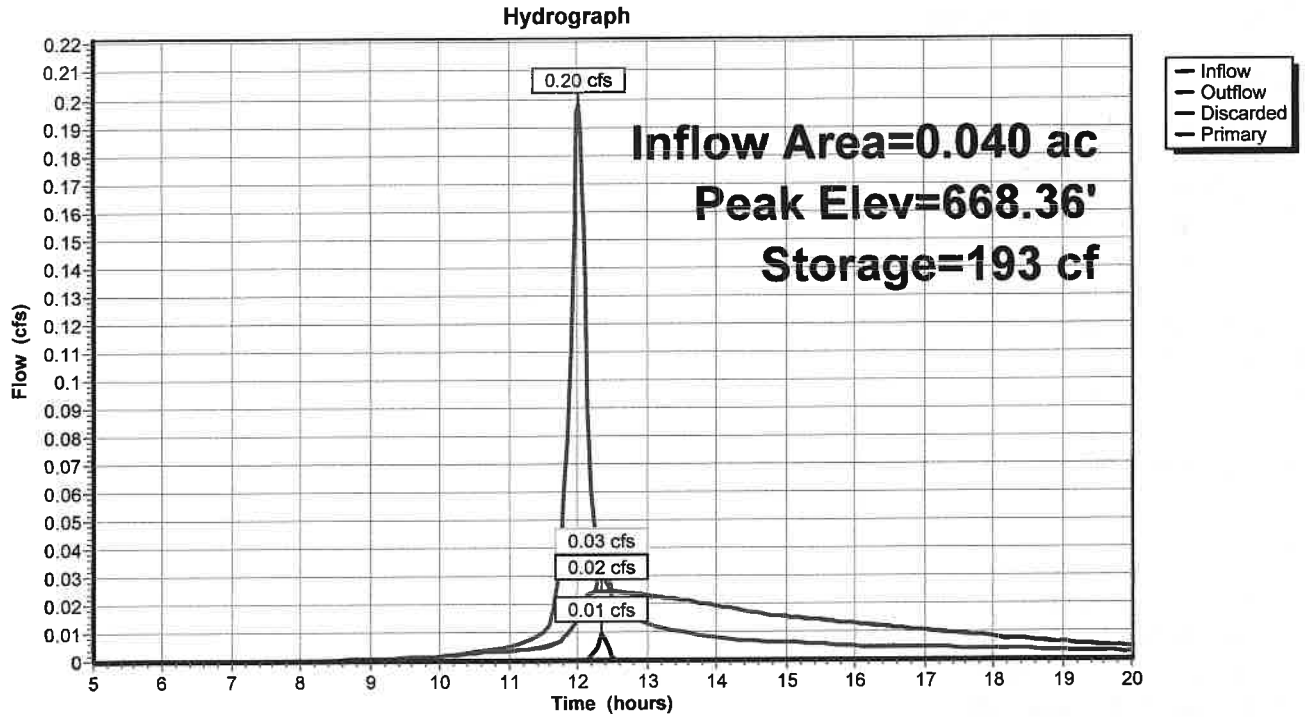
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
667.00	35	0	0
668.00	185	110	110
668.50	320	126	236

Device	Routing	Invert	Outlet Devices
#1	Discarded	667.00'	**3.600 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 648.00'
#2	Primary	668.35'	**6.0' long 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

Discarded OutFlow Max=0.02 cfs @ 12.34 hrs HW=668.36' (Free Discharge)
↑—**1=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=0.01 cfs @ 12.34 hrs HW=668.36' (Free Discharge)
↑—**2=Broad-Crested Rectangular Weir** (Weir Controls 0.01 cfs @ 0.17 fps)

Pond 13P: NE


Hydrograph
Inflow Area=0.040 ac
Peak Elev=668.36'
Storage=193 cf
0.20 cfs
0.03 cfs
0.02 cfs
0.01 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.1
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0.12
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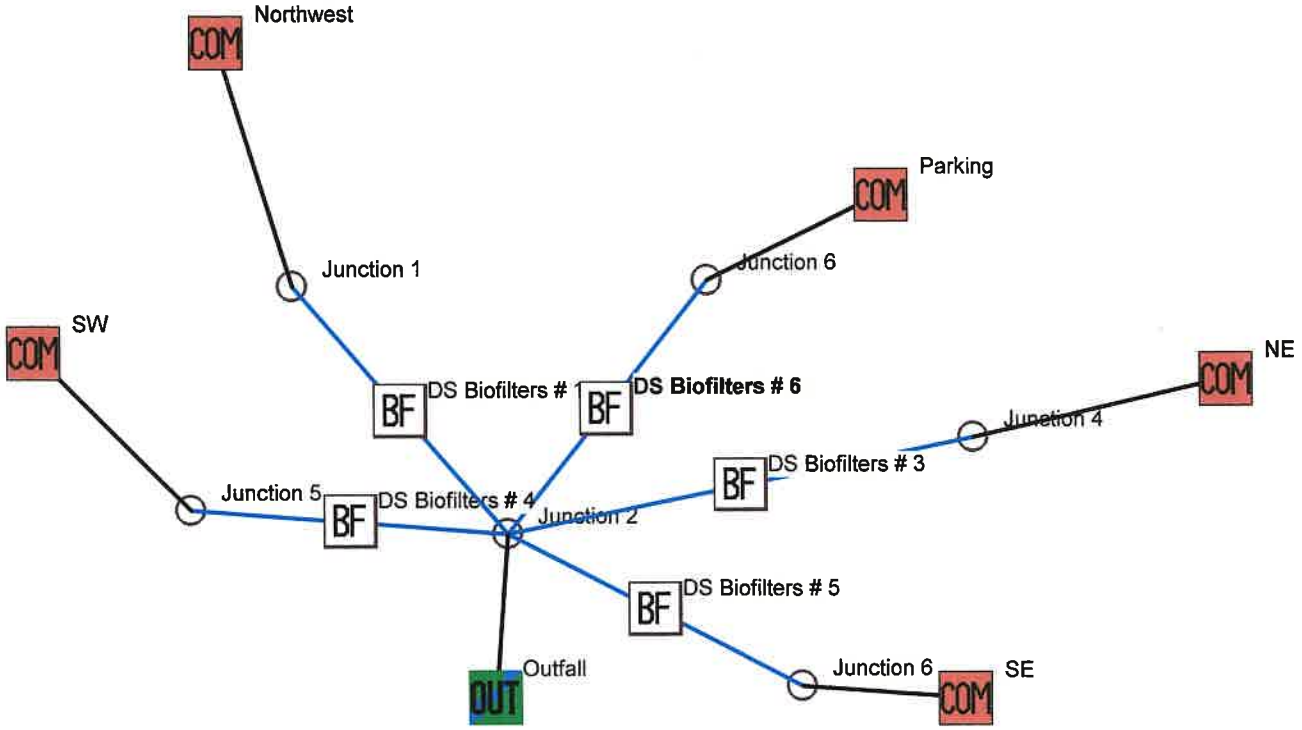
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Parking
COM
Junction 1
Junction 6
SW
COM
NE
COM
BF
DS Biofilters # 1
BF
DS Biofilters # 6
Junction 4
BF
DS Biofilters # 3
Junction 5
BF
DS Biofilters # 4
Junction 2
BF
DS Biofilters # 5
Outfall
OUT
Junction 6
SE
COM

Data file name: \\Hilby2\F\projects\Schlict_Jackson\Schlict.mdb
WinSLAMM Version 10.4.1
Rain file name: C:\WinSLAMM Files\Rain Files\WisReg - Madison WI 1981.RAN
Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name: C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppdx
Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
Seed for random number generator: -42
Study period starting date: 03/12/81 Study period ending date: 12/02/81
Start of Winter Season: 12/02 End of Winter Season: 03/12
Date: 09-27-2021 Time: 16:39:36
Site information: 7th & Jackson

LU# 1 - Commercial: Northwest Total area (ac): 0.042
1 - Roofs 1: 0.011 ac. Pitched Disconnected Normal Sandy PSD File: C:\WinSLAMM Files\NURP.cpz
25 - Driveways 1: 0.002 ac. Disconnected Normal Sandy PSD File: C:\WinSLAMM Files\NURP.cpz
45 - Large Landscaped Areas 1: 0.029 ac. Normal Sandy PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 2 - Commercial: Parking Total area (ac): 0.043
13 - Paved Parking 1: 0.040 ac. Connected PSD File: C:\WinSLAMM Files\NURP.cpz
51 - Small Landscaped Areas 1: 0.003 ac. Normal Sandy PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 3 - Commercial: NE Total area (ac): 0.039
1 - Roofs 1: 0.011 ac. Pitched Disconnected Normal Sandy PSD File: C:\WinSLAMM Files\NURP.cpz
25 - Driveways 1: 0.002 ac. Disconnected Normal Sandy PSD File: C:\WinSLAMM Files\NURP.cpz
45 - Large Landscaped Areas 1: 0.026 ac. Normal Sandy PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 4 - Commercial: SW Total area (ac): 0.046
1 - Roofs 1: 0.011 ac. Pitched Disconnected Normal Sandy PSD File: C:\WinSLAMM Files\NURP.cpz
25 - Driveways 1: 0.002 ac. Disconnected Normal Sandy PSD File: C:\WinSLAMM Files\NURP.cpz
45 - Large Landscaped Areas 1: 0.033 ac. Normal Sandy PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 5 - Commercial: SE Total area (ac): 0.040
1 - Roofs 1: 0.011 ac. Pitched Disconnected Normal Sandy PSD File: C:\WinSLAMM Files\NURP.cpz
25 - Driveways 1: 0.002 ac. Disconnected Normal Sandy PSD File: C:\WinSLAMM Files\NURP.cpz
45 - Large Landscaped Areas 1: 0.027 ac. Normal Sandy PSD File: C:\WinSLAMM Files\NURP.cpz

Control Practice 1: Biofilter CP# 1 (DS) - DS Biofilters # 1
1. Top area (square feet) = 320
2. Bottom aea (square feet) = 35
3. Depth (ft): 1.5
4. Biofilter width (ft) - for Cost Purposes Only: 10
5. Infiltration rate (in/hr) = 3.63
6. Random infiltration rate generation? No
7. Infiltration rate fraction (side): 1
8. Infiltration rate fraction (bottom): 1
9. Depth of biofilter that is rock filled (ft) 0
10. Porosity of rock filled volume = 0
11. Engineered soil infiltration rate: 0
12. Engineered soil depth (ft) = 0
13. Engineered soil porosity = 0
14. Percent solids reduction due to flow through engineered soil = 0
15. Biofilter peak to average flow ratio = 3.8
16. Number of biofiltration control devices = 1
17. Particle size distribution file: Not needed - calculated by program
18. Initial water surface elevation (ft): 0

Soil Data Soil Type Fraction in Eng. Soil

Biofilter Outlet/Discharge Characteristics:
Outlet type: Broad Crested Weir
1. Weir crest length (ft): 4
2. Weir crest width (ft): 5
3. Height of datum to bottom of weir opening: 1.35

Control Practice 2: Biofilter CP# 2 (DS) - DS Biofilters # 3

1. Top area (square feet) = 320
2. Bottom aea (square feet) = 35
3. Depth (ft): 1.5
4. Biofilter width (ft) - for Cost Purposes Only: 10
5. Infiltration rate (in/hr) = 3.63
6. Random infiltration rate generation? No
7. Infiltration rate fraction (side): 1
8. Infiltration rate fraction (bottom): 1
9. Depth of biofilter that is rock filled (ft) 0
10. Porosity of rock filled volume = 0
11. Engineered soil infiltration rate: 0
12. Engineered soil depth (ft) = 0
13. Engineered soil porosity = 0
14. Percent solids reduction due to flow through engineered soil = 0
15. Biofilter peak to average flow ratio = 3.8
16. Number of biofiltration control devices = 1
17. Particle size distribution file: Not needed - calculated by program
18. Initial water surface elevation (ft): 0

Soil Data Soil Type Fraction in Eng. Soil

Biofilter Outlet/Discharge Characteristics:

Outlet type: Broad Crested Weir

1. Weir crest length (ft): 4
2. Weir crest width (ft): 5
3. Height of datum to bottom of weir opening: 1.35

Control Practice 3: Biofilter CP# 3 (DS) - DS Biofilters # 4

1. Top area (square feet) = 320
2. Bottom aea (square feet) = 35
3. Depth (ft): 1.5
4. Biofilter width (ft) - for Cost Purposes Only: 10
5. Infiltration rate (in/hr) = 3.63
6. Random infiltration rate generation? No
7. Infiltration rate fraction (side): 1
8. Infiltration rate fraction (bottom): 1
9. Depth of biofilter that is rock filled (ft) 0
10. Porosity of rock filled volume = 0
11. Engineered soil infiltration rate: 0
12. Engineered soil depth (ft) = 0
13. Engineered soil porosity = 0
14. Percent solids reduction due to flow through engineered soil = 0
15. Biofilter peak to average flow ratio = 3.8
16. Number of biofiltration control devices = 1
17. Particle size distribution file: Not needed - calculated by program
18. Initial water surface elevation (ft): 0

Soil Data Soil Type Fraction in Eng. Soil

Biofilter Outlet/Discharge Characteristics:

Outlet type: Broad Crested Weir

1. Weir crest length (ft): 4
2. Weir crest width (ft): 5
3. Height of datum to bottom of weir opening: 1.35

Control Practice 4: Biofilter CP# 4 (DS) - DS Biofilters # 5

1. Top area (square feet) = 320
2. Bottom aea (square feet) = 35
3. Depth (ft): 1.5
4. Biofilter width (ft) - for Cost Purposes Only: 10
5. Infiltration rate (in/hr) = 3.63
6. Random infiltration rate generation? No
7. Infiltration rate fraction (side): 1
8. Infiltration rate fraction (bottom): 1
9. Depth of biofilter that is rock filled (ft) 0
10. Porosity of rock filled volume = 0
11. Engineered soil infiltration rate: 0
12. Engineered soil depth (ft) = 0
13. Engineered soil porosity = 0
14. Percent solids reduction due to flow through engineered soil = 0
15. Biofilter peak to average flow ratio = 3.8
16. Number of biofiltration control devices = 1
17. Particle size distribution file: Not needed - calculated by program
18. Initial water surface elevation (ft): 0

Soil Data Soil Type Fraction in Eng. Soil

Biofilter Outlet/Discharge Characteristics:

Outlet type: Broad Crested Weir

1. Weir crest length (ft): 4
2. Weir crest width (ft): 5
3. Height of datum to bottom of weir opening: 1.35

Control Practice 5: Biofilter CP# 5 (DS) - DS Biofilters # 6

1. Top area (square feet) = 130
2. Bottom aea (square feet) = 130
3. Depth (ft): 1.1
4. Biofilter width (ft) - for Cost Purposes Only: 10
5. Infiltration rate (in/hr) = 3.63
6. Random infiltration rate generation? No
7. Infiltration rate fraction (side): 1
8. Infiltration rate fraction (bottom): 1
9. Depth of biofilter that is rock filled (ft) 0
10. Porosity of rock filled volume = 0
11. Engineered soil infiltration rate: 0
12. Engineered soil depth (ft) = 0
13. Engineered soil porosity = 0
14. Percent solids reduction due to flow through engineered soil = 0
15. Biofilter peak to average flow ratio = 3.8
16. Number of biofiltration control devices = 1
17. Particle size distribution file: Not needed - calculated by program
18. Initial water surface elevation (ft): 0

Soil Data Soil Type Fraction in Eng. Soil

Biofilter Outlet/Discharge Characteristics:

Outlet type: Broad Crested Weir

1. Weir crest length (ft): 5
2. Weir crest width (ft): 5
3. Height of datum to bottom of weir opening: 1

SLAMM for Windows Version 10.4.1

Data file name: \\Hilby2\F\projects\Schlict_Jackson\Schlict.mdb
WinSLAMM Version 10.4.1
Rain file name: C:\WinSLAMM Files\Rain Files\WisReg - Madison WI 1981.RAN
Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name: C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppdx
Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
Seed for random number generator: -42
Study period starting date: 03/12/81 Study period ending date: 12/02/81
Start of Winter Season: 12/02 End of Winter Season: 03/12
Model Run Start Date: 03/12/81 Model Run End Date: 12/02/81
Date of run: 09-27-2021 Time of run: 16:39:19
Total Area Modeled (acres): 0.210
Years in Model Run: 0.68

	Runoff Volume (cu ft)	Percent Runoff Volume Reduction	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Particulate Solids Reduction
Total of all Land Uses without Controls:	3215	-	132.4	26.58	-
Outfall Total with Controls:	0	100.00%	0	0	100.00%
Annualized Total After Outfall Controls:	0			0	