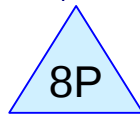


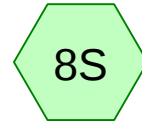
PRE-WET



CONT



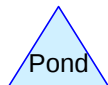
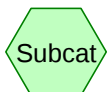
BIORETENTION



UNC



POST-WET



Routing Diagram for 670 METACOM-REV2

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670 METACOM-REV2

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.662	74	>75% Grass cover, Good, HSG C (8S, 9S, 10S)
0.293	96	Gravel surface, HSG C (9S)
0.207	98	Paved parking, HSG C (9S, 10S)
0.080	98	Roofs, HSG C (10S)
0.017	98	Sidewalk (10S)
0.015	98	Town Concrete sidewalk, HSG C (8S)
0.154	70	Woods, Good, HSG C (8S, 9S)
1.428	83	TOTAL AREA

670 METACOM-REV2

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
1.411	HSG C	8S, 9S, 10S
0.000	HSG D	
0.017	Other	10S
1.428		TOTAL AREA

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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	0.000	0.662	0.000	0.000	0.662	>75% Grass cover, Good	8S, 9S, 10S
0.000	0.000	0.293	0.000	0.000	0.293	Gravel surface	9S
0.000	0.000	0.207	0.000	0.000	0.207	Paved parking	9S, 10S
0.000	0.000	0.080	0.000	0.000	0.080	Roofs	10S
0.000	0.000	0.000	0.000	0.017	0.017	Sidewalk	10S
0.000	0.000	0.015	0.000	0.000	0.015	Town Concrete sidewalk	8S
0.000	0.000	0.154	0.000	0.000	0.154	Woods, Good	8S, 9S
0.000	0.000	1.411	0.000	0.017	1.428	TOTAL AREA	

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Type III 24-hr 2-yr Rainfall=3.30"

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Time span=0.00-30.00 hrs, dt=0.03 hrs, 1001 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 8S: UNC

Runoff Area=7,996 sf 7.95% Impervious Runoff Depth=1.10"

Tc=6.0 min CN=74 Runoff=0.23 cfs 0.017 af

Subcatchment 9S: PRE-WET

Runoff Area=31,096 sf 0.75% Impervious Runoff Depth=1.69"

Flow Length=149' Slope=0.0170 '/' Tc=20.5 min CN=83 Runoff=0.94 cfs 0.101 af

Subcatchment 10S: CONT

Runoff Area=23,100 sf 56.32% Impervious Runoff Depth=2.09"

Tc=6.0 min CN=88 Runoff=1.29 cfs 0.092 af

Pond 8P: BIORETENTION

Peak Elev=116.42' Storage=2,072 cf Inflow=1.29 cfs 0.092 af

Discarded=0.06 cfs 0.092 af Primary=0.00 cfs 0.000 af Outflow=0.06 cfs 0.092 af

Link 7L: POST-WET

Inflow=0.23 cfs 0.017 af

Primary=0.23 cfs 0.017 af

Total Runoff Area = 1.428 ac Runoff Volume = 0.210 af Average Runoff Depth = 1.76"**77.68% Pervious = 1.109 ac 22.32% Impervious = 0.319 ac**

670 METACOM-REV2

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Type III 24-hr 2-yr Rainfall=3.30"

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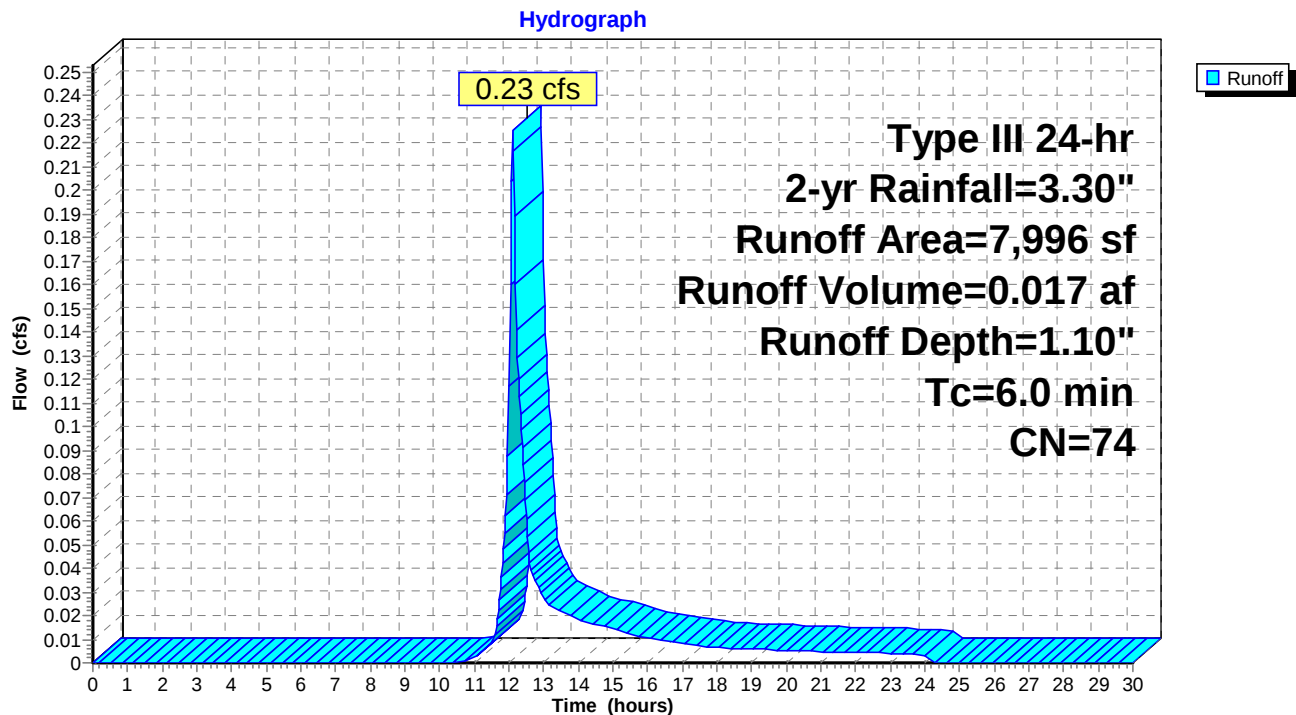
Summary for Subcatchment 8S: UNC

Runoff = 0.23 cfs @ 12.10 hrs, Volume= 0.017 af, Depth= 1.10"
Routed to Link 7L : POST-WET

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 2-yr Rainfall=3.30"

	Area (sf)	CN	Description
*	636	98	Town Concrete sidewalk, HSG C
	3,625	74	>75% Grass cover, Good, HSG C
	3,735	70	Woods, Good, HSG C
	7,996	74	Weighted Average
	7,360	72	92.05% Pervious Area
	636	98	7.95% Impervious Area

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

Subcatchment 8S: UNC

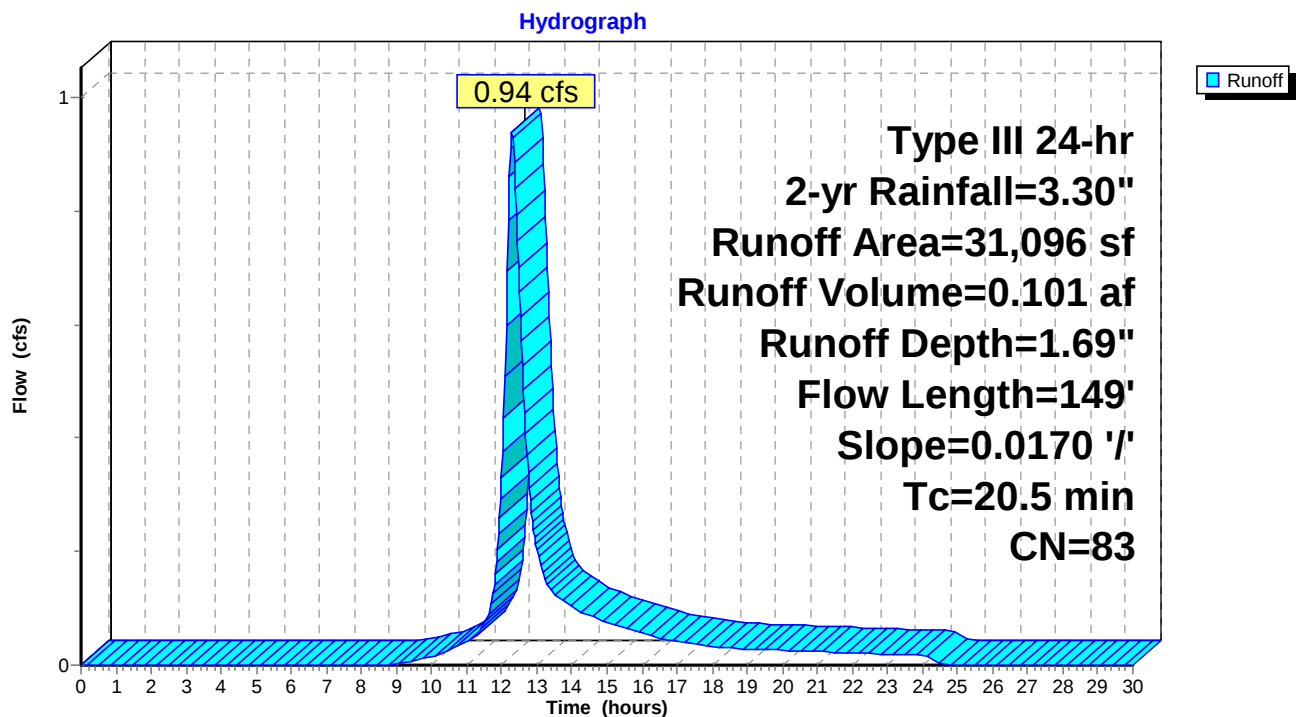
Summary for Subcatchment 9S: PRE-WET

Runoff = 0.94 cfs @ 12.29 hrs, Volume= 0.101 af, Depth= 1.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
233	98	Paved parking, HSG C
12,750	96	Gravel surface, HSG C
15,124	74	>75% Grass cover, Good, HSG C
2,989	70	Woods, Good, HSG C
31,096	83	Weighted Average
30,863	83	99.25% Pervious Area
233	98	0.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.5	149	0.0170	0.12		Sheet Flow, Grass: Dense n= 0.240 P2= 3.33"

Subcatchment 9S: PRE-WET

Summary for Subcatchment 10S: CONT

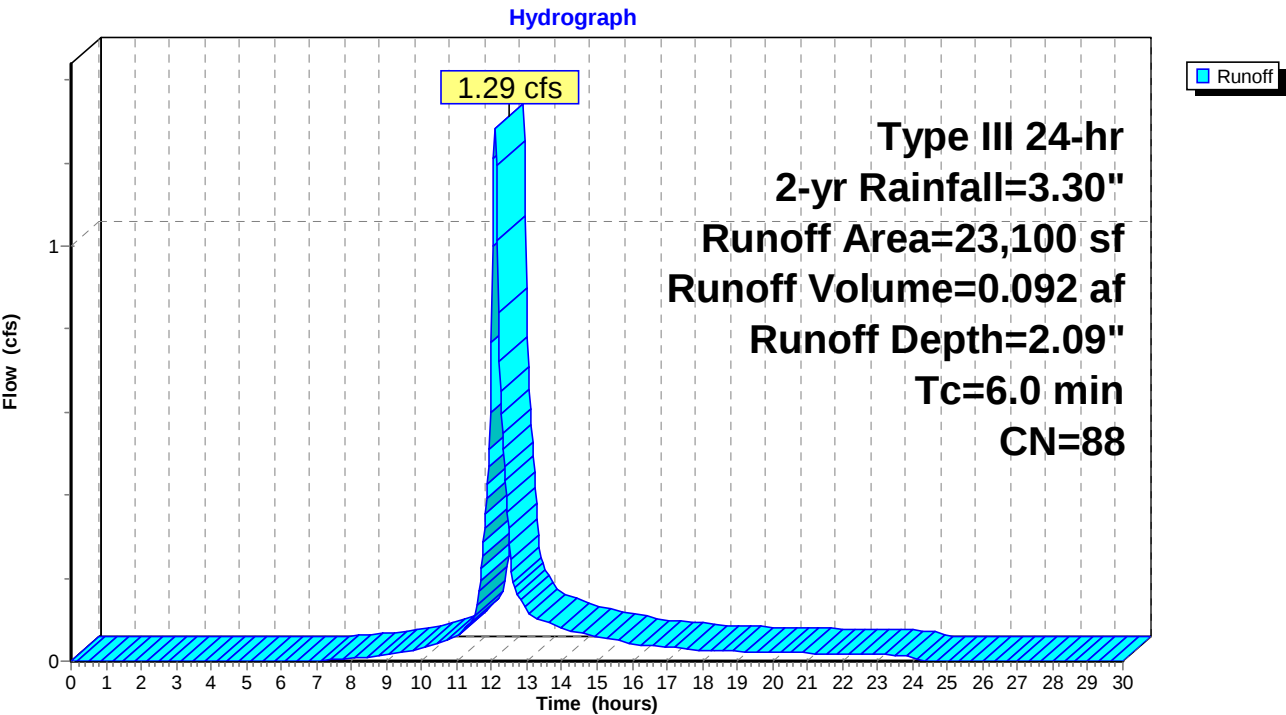
Runoff = 1.29 cfs @ 12.09 hrs, Volume= 0.092 af, Depth= 2.09"
Routed to Pond 8P : BIORETENTION

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
Type III 24-hr 2-yr Rainfall=3.30"

	Area (sf)	CN	Description
	3,500	98	Roofs, HSG C
	8,788	98	Paved parking, HSG C
*	723	98	Sidewalk
	10,089	74	>75% Grass cover, Good, HSG C
	23,100	88	Weighted Average
	10,089	74	43.68% Pervious Area
	13,011	98	56.32% Impervious Area

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

Subcatchment 10S: CONT



Summary for Pond 8P: BIORETENTION

Inflow Area = 0.530 ac, 56.32% Impervious, Inflow Depth = 2.09" for 2-yr event
 Inflow = 1.29 cfs @ 12.09 hrs, Volume= 0.092 af
 Outflow = 0.06 cfs @ 14.80 hrs, Volume= 0.092 af, Atten= 95%, Lag= 162.8 min
 Discarded = 0.06 cfs @ 14.80 hrs, Volume= 0.092 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link 7L : POST-WET

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs
 Peak Elev= 116.42' @ 14.80 hrs Surf.Area= 5,455 sf Storage= 2,072 cf

Plug-Flow detention time= 334.8 min calculated for 0.092 af (100% of inflow)
 Center-of-Mass det. time= 334.8 min (1,148.6 - 813.8)

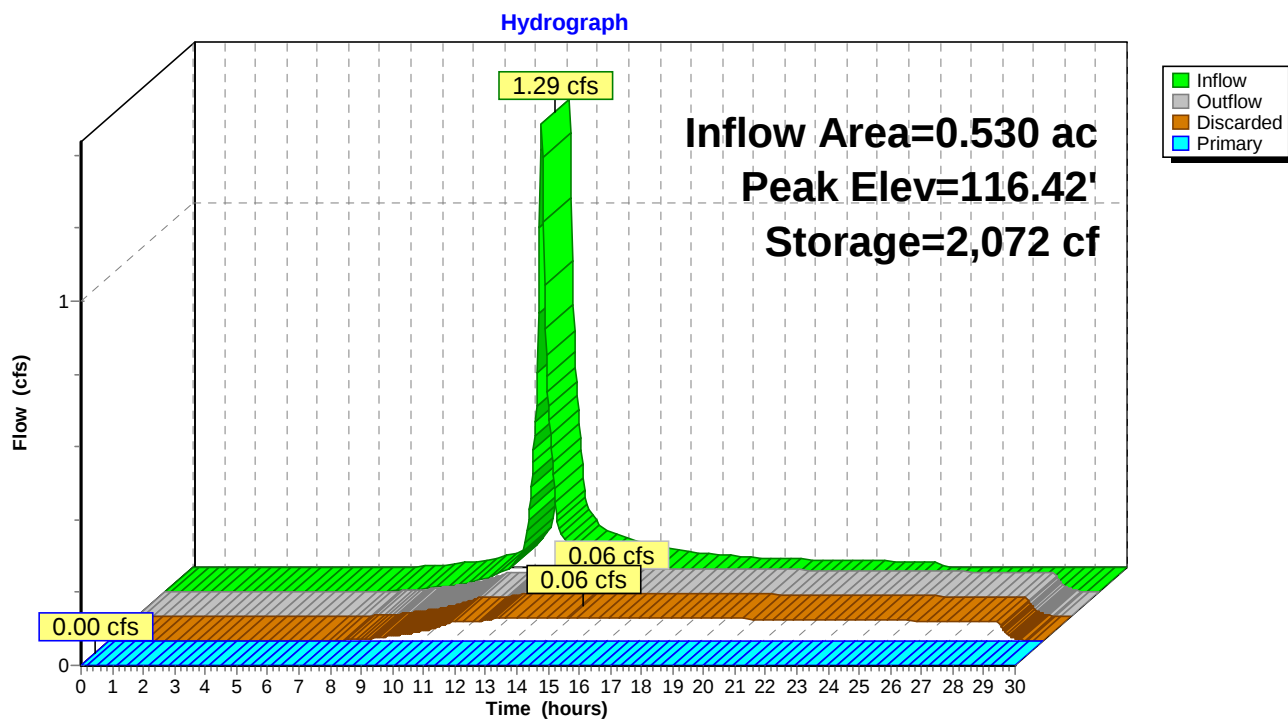
Volume	Invert	Avail.Storage	Storage Description
#1	116.00'	5,650 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
116.00	4,470	0	0
117.00	6,829	5,650	5,650

Device	Routing	Invert	Outlet Devices
#1	Discarded	116.00'	0.500 in/hr Exfiltration over Surface area
#2	Primary	116.60'	10.0' long x 2.0' 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
			Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88
			2.85 3.07 3.20 3.32

Discarded OutFlow Max=0.06 cfs @ 14.80 hrs HW=116.42' (Free Discharge)
 ↑ **1=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=116.00' (Free Discharge)
 ↑ **2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 8P: BIORETENTION

Summary for Link 7L: POST-WET

Inflow Area = 0.714 ac, 43.89% Impervious, Inflow Depth = 0.28" for 2-yr event
Inflow = 0.23 cfs @ 12.10 hrs, Volume= 0.017 af
Primary = 0.23 cfs @ 12.10 hrs, Volume= 0.017 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.03 hrs

Link 7L: POST-WET

Hydrograph

