RAUCH inc.
Engineering | Survey | Architecture | Environmental

BRIDGEVILLE AUTOZONE

SUSSEX COUNTY, DELAWARE

July 25, 2025

Stormwater Management Update

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SITE NARRATIVE

Rauch, Inc. has prepared a detailed storm water management update for the construction of an AutoZone pad site in the Heritage Commercial Centre, in Bridgeville, Delaware. Included in this submittal are copies of the entire storm water management updated plan, the approved total site storm water management maps (originally approved and AutoZone developed), the original HydroCAD report from when the Heritage Commercial Centre was designed and approved, and a HydroCAD update, confirming that the developed AutoZone pad site meets the site design SWM goals.

Following approval of the Heritage Commercial Centre master plan, the Sussex Conservation District and Rauch, Inc. came to an agreement as to how the project's pad sites could be reviewed in future Phases and how to be represent future site uses.

A presubmittal meeting was held with the Sussex SCD on 6/9/25 and the following notes and assumptions were considered in the preparation of the AutoZone SWM update.

- The site is located within a commercial shopping center that has 3 previously designed/approved/constructed DelDOT entrances. SCD reviewed the master SWM plan when the Walgreens project was submitted in 2009. A wet pond was designed at this time that was sized to manage SWM for not only the Walgreens but additional future development. The proposed AutoZone is entirely within the pond's drainage area, planned for future commercial development.
- Rauch will prepare and submit a SWM analysis for the SCD to confirm that the proposed AutoZone is equal or less impervious than the plan that was submitted in 2009.
- Rauch will submit a new HydroCAD report that confirms that flow rates to the original study point have been met or reduced.
- SCD would prefer that Asbuilt pond data is used in the updated HydroCad analysis and report.
- Developer should return the SWM facilities to the original storage capacity by removing overgrowth and other invasive vegetation.
- Maintenance of these facilities should be shown in a proposed sequence of construction.
- Maintenance and inspections fees will need to be paid. John Justice will send the fees to Rauch.
- SCD would like to see additional outfall protection located at the pond outlet structure to prevent sediment laden water from leaving site.
- Rauch will specify inlet protection on existing inlets.
- SCD confirmed that no additional BMP's will be required if the design reduces flowrates to study point.

It should be noted that Rauch reviewed as-built pond information confirmed that the original pond was built in accordance with the approved plans. Since 2009, as noted by the SCD, the pond has become over grown with invasive vegetation and the pond in it's existing state most likely has less available storage because of this. Following clearing of this vegetation, the pond will be restored to its original storage capacity and the engineer will prepare an updated as-built of the pond, if requested by the SCD.

Rauch has prepared an updated HydroCAD report that confirms that the developed AutoZone pad site will meet the original flow rates to Study Point #1, as shown on the enclosed drainage maps. See the below table for a comparison of flow rates to Study Point #1, as well as wet pond elevations.

ORIGINAL APPROVED		
	Total discharge to Study Point #1	**Pond Surface Elevation**
2 yr Storm	2.49 cfs	38.73'
10 yr Storm	5.34 cfs	39.76'
100 yr Storm	NA	40.68'
Max Allowable Flow Rate	7.63 cfs	NA
AUTOZONE PROPOSED		
	Total discharge to Study Point #1	**Pond Surface Elevation**
2 yr Storm	2.49 cfs	38.80'
10 yr Storm	5.34 cfs	39.78'
100 yr Storm	NA	40.61'
Max Allowable Flow Rate	7.63 cfs	NA

Water quality was addressed in the previously approved SWM master plan through 48 hour detention in the wet extended detention (ED) pond systems. The WQ storm was evaluated in the enclosed original SWM calculations to verify that all or a portion of the RPv storm (2.7") was detained for 48 hours. With the development of the AutoZone pad, the existing SWM wet pond will be restored to its design storage capacity, by removal of invasive vegetation and the pond will operate as it did when approved in 2009.

Del Dot issued entrance permits to the site when Phase 1 Section 1 was approved in 2009. The developed site will require a Letter of No Contention (LONC), which indicated that the site is being developed as originally considered. We have submitted an entrance application, which is currently undergoing review. Del Dot has not indicated that there are any existing drainage issues with the site.

If you have any questions, comments, or require further clarification, please feel free to contact Casey Rauch by e-mail at casey@raucheng.com or by telephone at (410) 770 – 9081.

ORIGINAL APPROVED HYDROCAD REPORT

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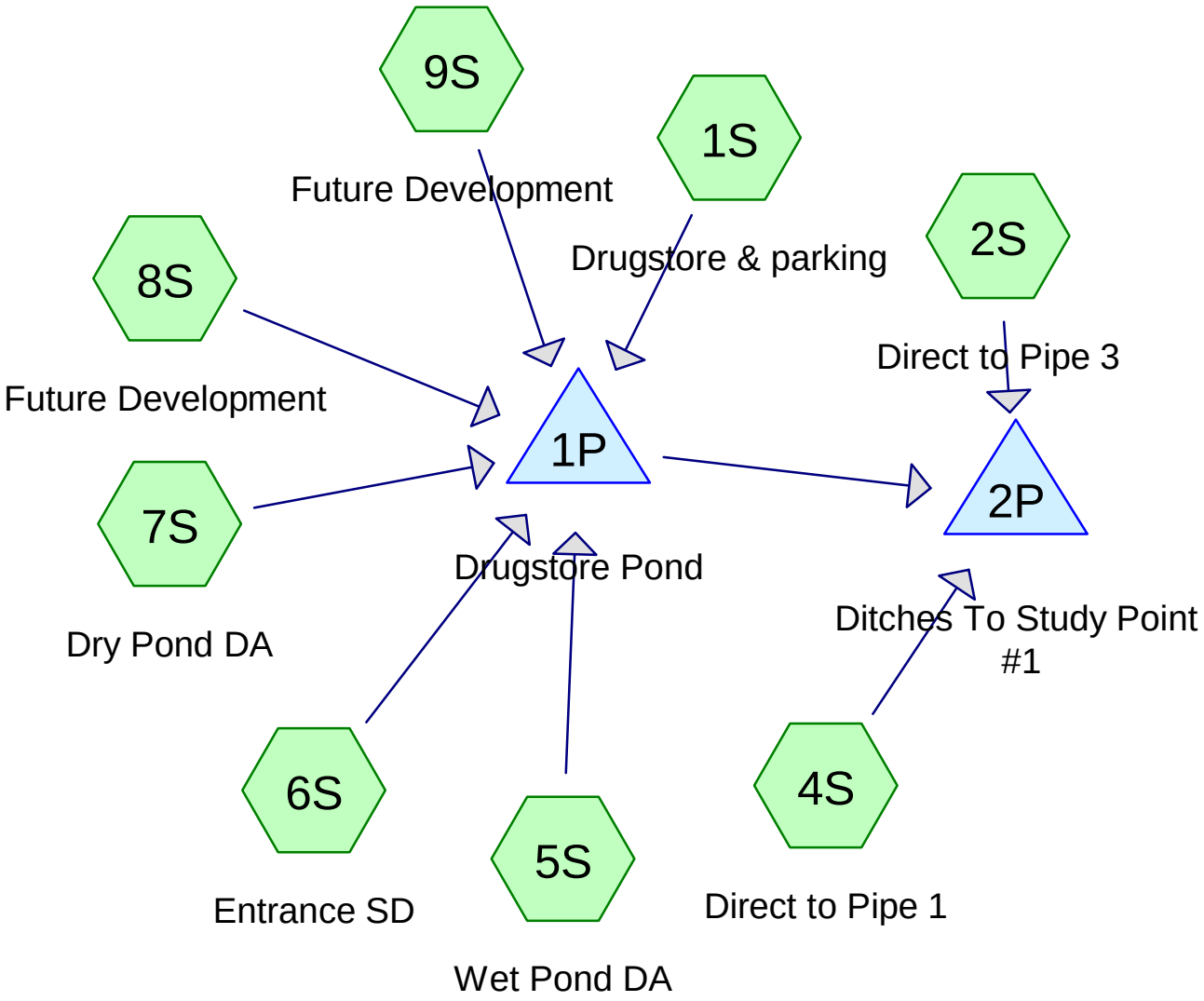


Subcat Reach Pond Link

Routing Diagram for BV Commercial Full Design Additional Storage 2_4_09
Prepared by {enter your company name here}, Printed 7/23/2025
HydroCAD® 10.00-26 s/n 02413 © 2020 HydroCAD Software Solutions LLC

Summary for Subcatchment 1S: Drugstore & parking

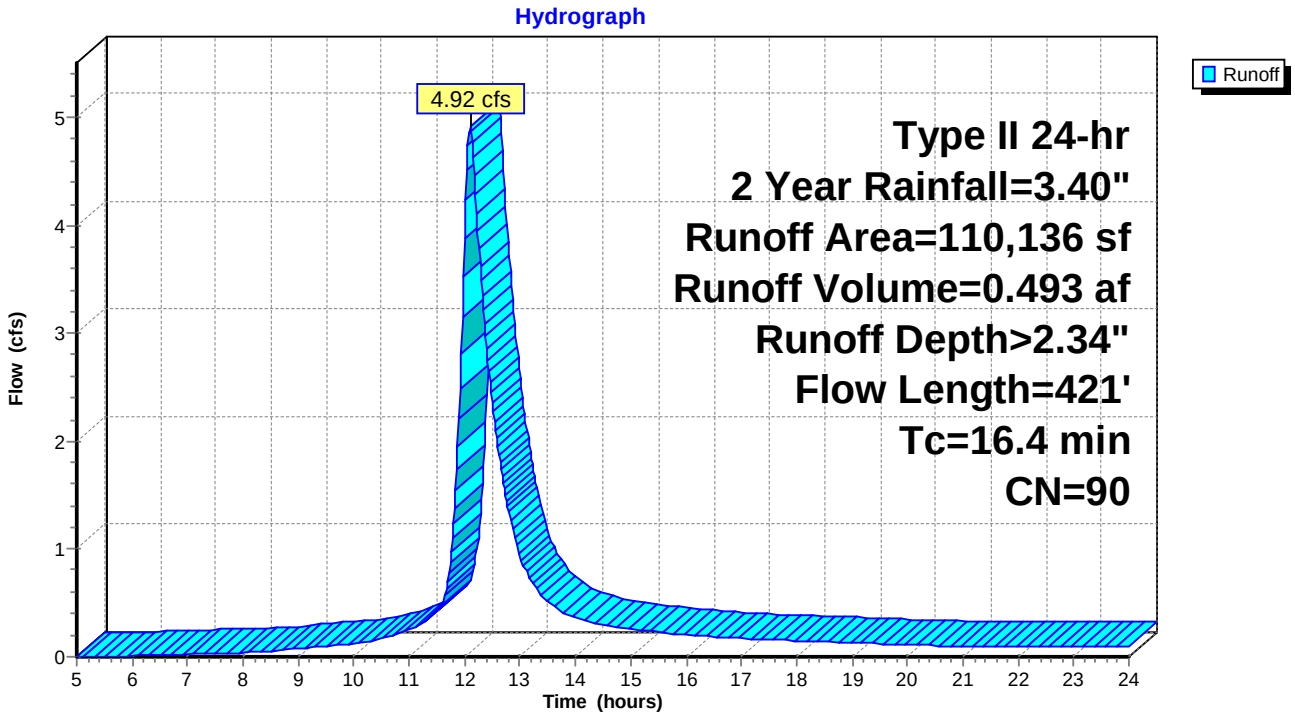
Runoff = 4.92 cfs @ 12.10 hrs, Volume= 0.493 af, Depth> 2.34"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 2 Year Rainfall=3.40"

Area (sf)	CN	Description
86,762	98	Paved roads w/curbs & sewers
23,374	61	>75% Grass cover, Good, HSG B
110,136	90	Weighted Average
23,374		21.22% Pervious Area
86,762		78.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.3	100	0.0086	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
3.1	321	0.0007	1.70	3.01	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
16.4	421	Total			

Subcatchment 1S: Drugstore & parking



Hydrograph for Subcatchment 1S: Drugstore & parking

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00
5.20	0.23	0.00	0.00
5.40	0.24	0.00	0.00
5.60	0.25	0.00	0.00
5.80	0.26	0.00	0.00
6.00	0.27	0.00	0.01
6.20	0.28	0.00	0.01
6.40	0.30	0.00	0.01
6.60	0.31	0.01	0.02
6.80	0.32	0.01	0.02
7.00	0.34	0.01	0.02
7.20	0.35	0.01	0.03
7.40	0.36	0.02	0.03
7.60	0.38	0.02	0.03
7.80	0.39	0.02	0.04
8.00	0.41	0.03	0.04
8.20	0.42	0.03	0.05
8.40	0.44	0.04	0.05
8.60	0.46	0.04	0.06
8.80	0.48	0.05	0.07
9.00	0.50	0.06	0.08
9.20	0.52	0.06	0.09
9.40	0.54	0.07	0.10
9.60	0.57	0.08	0.10
9.80	0.59	0.09	0.11
10.00	0.62	0.10	0.12
10.20	0.64	0.12	0.14
10.40	0.68	0.13	0.16
10.60	0.71	0.15	0.19
10.80	0.75	0.17	0.22
11.00	0.80	0.20	0.26
11.20	0.85	0.23	0.31
11.40	0.92	0.27	0.38
11.60	1.04	0.35	0.49
11.80	1.46	0.66	1.23
12.00	2.25	1.31	**3.89**
12.20	2.38	1.42	**4.29**
12.40	2.47	1.50	2.86
12.60	2.53	1.56	1.95
12.80	2.58	1.60	1.34
13.00	2.62	1.64	0.95
13.20	2.66	1.68	0.70
13.40	2.70	1.71	0.56
13.60	2.73	1.74	0.47
13.80	2.76	1.77	0.40
14.00	2.79	1.79	0.36
14.20	2.81	1.81	0.33
14.40	2.84	1.83	0.31
14.60	2.86	1.86	0.29
14.80	2.88	1.88	0.27
15.00	2.90	1.89	0.26
15.20	2.92	1.91	0.25
15.40	2.94	1.93	0.24
15.60	2.96	1.95	0.23
15.80	2.98	1.96	0.22
16.00	2.99	1.98	0.21
16.20	3.01	1.99	0.20
16.40	3.02	2.00	0.19
16.60	3.04	2.02	0.18
16.80	3.05	2.03	0.18
17.00	3.07	2.04	0.17
17.20	3.08	2.06	0.17
17.40	3.09	2.07	0.16
17.60	3.11	2.08	0.16
17.80	3.12	2.09	0.16
18.00	3.13	2.11	0.15
18.20	3.14	2.12	0.15
18.40	3.16	2.13	0.14
18.60	3.17	2.14	0.14
18.80	3.18	2.15	0.14
19.00	3.19	2.16	0.13
19.20	3.20	2.17	0.13
19.40	3.21	2.18	0.12
19.60	3.22	2.19	0.12
19.80	3.23	2.19	0.12
20.00	3.24	2.20	0.11
20.20	3.25	2.21	0.11
20.40	3.25	2.22	0.11
20.60	3.26	2.23	0.10
20.80	3.27	2.24	0.10
21.00	3.28	2.24	0.10
21.20	3.29	2.25	0.10
21.40	3.30	2.26	0.10
21.60	3.31	2.27	0.10
21.80	3.31	2.27	0.10
22.00	3.32	2.28	0.10
22.20	3.33	2.29	0.10
22.40	3.34	2.30	0.10
22.60	3.35	2.30	0.10
22.80	3.35	2.31	0.10
23.00	3.36	2.32	0.09
23.20	3.37	2.33	0.09
23.40	3.38	2.33	0.09
23.60	3.38	2.34	0.09
23.80	3.39	2.35	0.09
24.00	**3.40**	**2.35**	0.09

Summary for Subcatchment 2S: Direct to Pipe 3

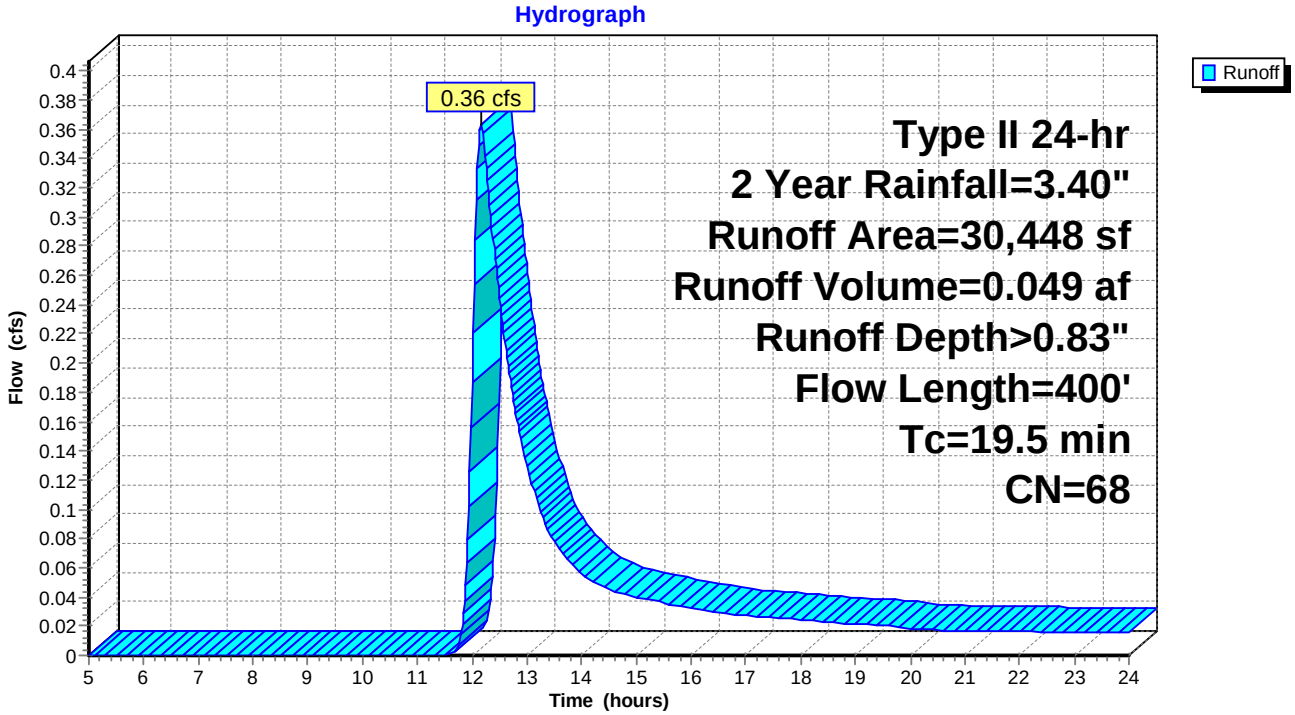
Runoff = 0.36 cfs @ 12.17 hrs, Volume= 0.049 af, Depth> 0.83"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 2 Year Rainfall=3.40"

Area (sf)	CN	Description
5,873	98	Paved roads w/curbs & sewers
24,575	61	>75% Grass cover, Good, HSG B
30,448	68	Weighted Average
24,575		80.71% Pervious Area
5,873		19.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.5	100	0.0050	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
3.0	300	0.0126	1.68		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
19.5	400	Total			

Subcatchment 2S: Direct to Pipe 3



Hydrograph for Subcatchment 2S: Direct to Pipe 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00
5.20	0.23	0.00	0.00
5.40	0.24	0.00	0.00
5.60	0.25	0.00	0.00
5.80	0.26	0.00	0.00
6.00	0.27	0.00	0.00
6.20	0.28	0.00	0.00
6.40	0.30	0.00	0.00
6.60	0.31	0.00	0.00
6.80	0.32	0.00	0.00
7.00	0.34	0.00	0.00
7.20	0.35	0.00	0.00
7.40	0.36	0.00	0.00
7.60	0.38	0.00	0.00
7.80	0.39	0.00	0.00
8.00	0.41	0.00	0.00
8.20	0.42	0.00	0.00
8.40	0.44	0.00	0.00
8.60	0.46	0.00	0.00
8.80	0.48	0.00	0.00
9.00	0.50	0.00	0.00
9.20	0.52	0.00	0.00
9.40	0.54	0.00	0.00
9.60	0.57	0.00	0.00
9.80	0.59	0.00	0.00
10.00	0.62	0.00	0.00
10.20	0.64	0.00	0.00
10.40	0.68	0.00	0.00
10.60	0.71	0.00	0.00
10.80	0.75	0.00	0.00
11.00	0.80	0.00	0.00
11.20	0.85	0.00	0.00
11.40	0.92	0.00	0.00
11.60	1.04	0.00	0.00
11.80	1.46	0.05	0.02
12.00	2.25	0.29	**0.19**
12.20	2.38	0.34	**0.36**
12.40	2.47	0.37	0.28
12.60	2.53	0.40	0.21
12.80	2.58	0.42	0.17
13.00	2.62	0.44	0.13
13.20	2.66	0.46	0.10
13.40	2.70	0.48	0.08
13.60	2.73	0.49	0.07
13.80	2.76	0.51	0.06
14.00	2.79	0.52	0.06
14.20	2.81	0.53	0.05
14.40	2.84	0.54	0.05
14.60	2.86	0.56	0.04
14.80	2.88	0.57	0.04
15.00	2.90	0.58	0.04
15.20	2.92	0.59	0.04
15.40	2.94	0.60	0.04
15.60	2.96	0.61	0.04
15.80	2.98	0.61	0.03
16.00	2.99	0.62	0.03
16.20	3.01	0.63	0.03
16.40	3.02	0.64	0.03
16.60	3.04	0.65	0.03
16.80	3.05	0.65	0.03
17.00	3.07	0.66	0.03
17.20	3.08	0.67	0.03
17.40	3.09	0.68	0.03
17.60	3.11	0.68	0.03
17.80	3.12	0.69	0.02
18.00	3.13	0.70	0.02
18.20	3.14	0.70	0.02
18.40	3.16	0.71	0.02
18.60	3.17	0.71	0.02
18.80	3.18	0.72	0.02
19.00	3.19	0.73	0.02
19.20	3.20	0.73	0.02
19.40	3.21	0.74	0.02
19.60	3.22	0.74	0.02
19.80	3.23	0.75	0.02
20.00	3.24	0.75	0.02
20.20	3.25	0.76	0.02
20.40	3.25	0.76	0.02
20.60	3.26	0.77	0.02
20.80	3.27	0.77	0.02
21.00	3.28	0.78	0.02
21.20	3.29	0.78	0.02
21.40	3.30	0.79	0.02
21.60	3.31	0.79	0.02
21.80	3.31	0.80	0.02
22.00	3.32	0.80	0.02
22.20	3.33	0.80	0.02
22.40	3.34	0.81	0.02
22.60	3.35	0.81	0.02
22.80	3.35	0.82	0.02
23.00	3.36	0.82	0.02
23.20	3.37	0.83	0.02
23.40	3.38	0.83	0.02
23.60	3.38	0.84	0.02
23.80	3.39	0.84	0.02
24.00	**3.40**	**0.84**	0.02

Summary for Subcatchment 4S: Direct to Pipe 1

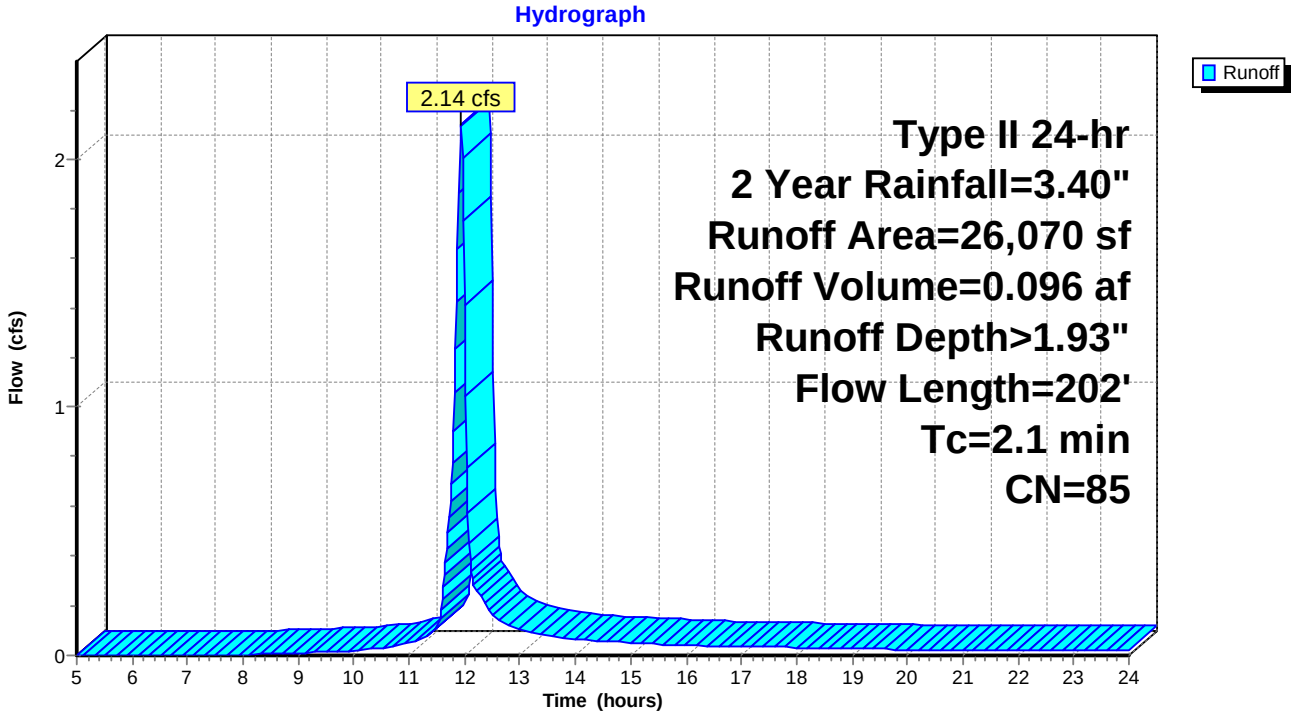
Runoff = 2.14 cfs @ 11.94 hrs, Volume= 0.096 af, Depth> 1.93"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 2 Year Rainfall=3.40"

Area (sf)	CN	Description
16,602	98	Paved roads w/curbs & sewers
9,468	61	>75% Grass cover, Good, HSG B
26,070	85	Weighted Average
9,468		36.32% Pervious Area
16,602		63.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	70	0.0600	2.05		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.40"
1.5	132	0.0052	1.46		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.1	202	Total			

Subcatchment 4S: Direct to Pipe 1



Hydrograph for Subcatchment 4S: Direct to Pipe 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00
5.20	0.23	0.00	0.00
5.40	0.24	0.00	0.00
5.60	0.25	0.00	0.00
5.80	0.26	0.00	0.00
6.00	0.27	0.00	0.00
6.20	0.28	0.00	0.00
6.40	0.30	0.00	0.00
6.60	0.31	0.00	0.00
6.80	0.32	0.00	0.00
7.00	0.34	0.00	0.00
7.20	0.35	0.00	0.00
7.40	0.36	0.00	0.00
7.60	0.38	0.00	0.00
7.80	0.39	0.00	0.00
8.00	0.41	0.00	0.00
8.20	0.42	0.00	0.00
8.40	0.44	0.00	0.00
8.60	0.46	0.01	0.01
8.80	0.48	0.01	0.01
9.00	0.50	0.01	0.01
9.20	0.52	0.01	0.01
9.40	0.54	0.02	0.01
9.60	0.57	0.02	0.01
9.80	0.59	0.03	0.02
10.00	0.62	0.03	0.02
10.20	0.64	0.04	0.02
10.40	0.68	0.05	0.03
10.60	0.71	0.06	0.03
10.80	0.75	0.07	0.04
11.00	0.80	0.09	0.05
11.20	0.85	0.11	0.07
11.40	0.92	0.14	0.09
11.60	1.04	0.19	0.23
11.80	1.46	0.43	**0.90**
12.00	2.25	0.99	**1.41**
12.20	2.38	1.08	0.27
12.40	2.47	1.15	0.20
12.60	2.53	1.20	0.14
12.80	2.58	1.24	0.12
13.00	2.62	1.28	0.11
13.20	2.66	1.31	0.09
13.40	2.70	1.34	0.09
13.60	2.73	1.37	0.08
13.80	2.76	1.39	0.07
14.00	2.79	1.41	0.06
14.20	2.81	1.43	0.06
14.40	2.84	1.45	0.06
14.60	2.86	1.47	0.06
14.80	2.88	1.49	0.05
15.00	2.90	1.51	0.05
15.20	2.92	1.52	0.05
15.40	2.94	1.54	0.05
15.60	2.96	1.55	0.04
15.80	2.98	1.57	0.04
16.00	2.99	1.58	0.04
16.20	3.01	1.59	0.04
16.40	3.02	1.61	0.04
16.60	3.04	1.62	0.04
16.80	3.05	1.63	0.04
17.00	3.07	1.64	0.04
17.20	3.08	1.66	0.03
17.40	3.09	1.67	0.03
17.60	3.11	1.68	0.03
17.80	3.12	1.69	0.03
18.00	3.13	1.70	0.03
18.20	3.14	1.71	0.03
18.40	3.16	1.72	0.03
18.60	3.17	1.73	0.03
18.80	3.18	1.74	0.03
19.00	3.19	1.75	0.03
19.20	3.20	1.76	0.03
19.40	3.21	1.77	0.03
19.60	3.22	1.77	0.02
19.80	3.23	1.78	0.02
20.00	3.24	1.79	0.02
20.20	3.25	1.80	0.02
20.40	3.25	1.80	0.02
20.60	3.26	1.81	0.02
20.80	3.27	1.82	0.02
21.00	3.28	1.83	0.02
21.20	3.29	1.83	0.02
21.40	3.30	1.84	0.02
21.60	3.31	1.85	0.02
21.80	3.31	1.85	0.02
22.00	3.32	1.86	0.02
22.20	3.33	1.87	0.02
22.40	3.34	1.88	0.02
22.60	3.35	1.88	0.02
22.80	3.35	1.89	0.02
23.00	3.36	1.90	0.02
23.20	3.37	1.90	0.02
23.40	3.38	1.91	0.02
23.60	3.38	1.92	0.02
23.80	3.39	1.92	0.02
24.00	**3.40**	**1.93**	0.02

Summary for Subcatchment 5S: Wet Pond DA

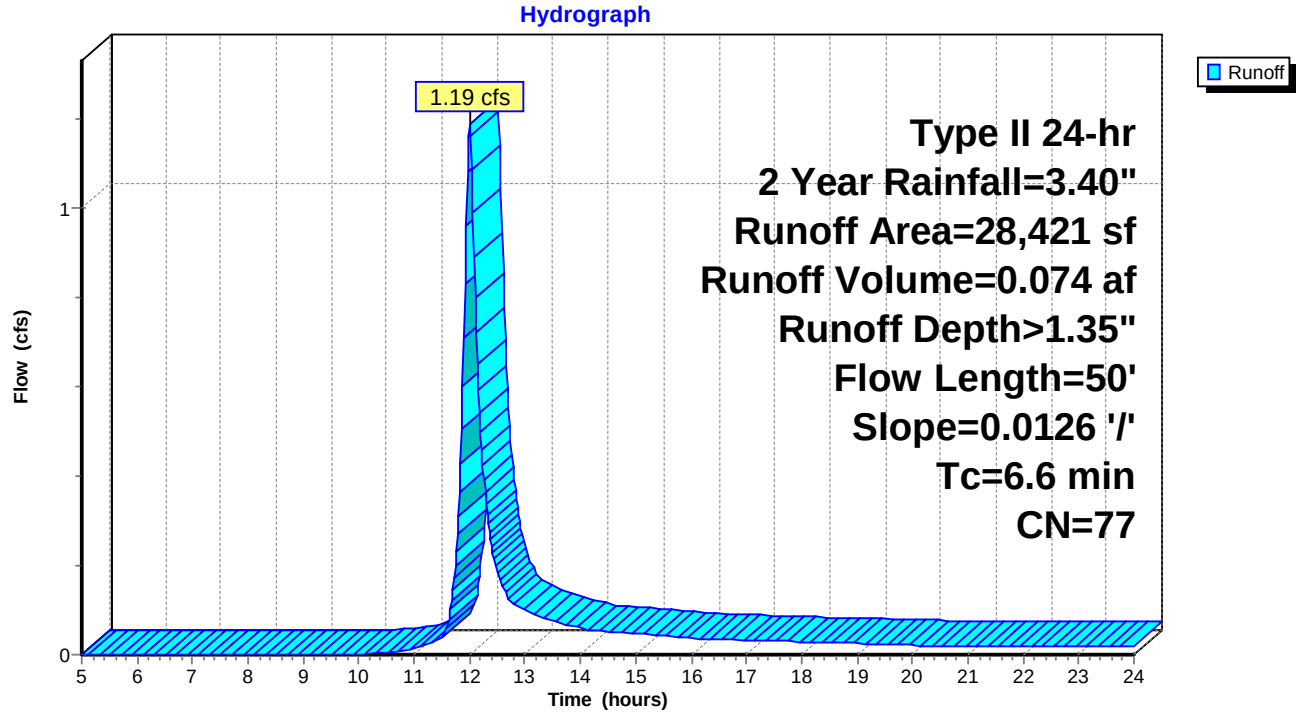
Runoff = 1.19 cfs @ 12.00 hrs, Volume= 0.074 af, Depth> 1.35"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 2 Year Rainfall=3.40"

	Area (sf)	CN	Description
*	12,422	98	Water Surface
	15,999	61	>75% Grass cover, Good, HSG B
	28,421	77	Weighted Average
	15,999		56.29% Pervious Area
	12,422		43.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	50	0.0126	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"

Subcatchment 5S: Wet Pond DA



Hydrograph for Subcatchment 5S: Wet Pond DA

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00	15.80	2.98	1.05	0.04
5.20	0.23	0.00	0.00	16.00	2.99	1.07	0.04
5.40	0.24	0.00	0.00	16.20	3.01	1.08	0.04
5.60	0.25	0.00	0.00	16.40	3.02	1.09	0.03
5.80	0.26	0.00	0.00	16.60	3.04	1.10	0.03
6.00	0.27	0.00	0.00	16.80	3.05	1.11	0.03
6.20	0.28	0.00	0.00	17.00	3.07	1.12	0.03
6.40	0.30	0.00	0.00	17.20	3.08	1.13	0.03
6.60	0.31	0.00	0.00	17.40	3.09	1.14	0.03
6.80	0.32	0.00	0.00	17.60	3.11	1.15	0.03
7.00	0.34	0.00	0.00	17.80	3.12	1.15	0.03
7.20	0.35	0.00	0.00	18.00	3.13	1.16	0.03
7.40	0.36	0.00	0.00	18.20	3.14	1.17	0.03
7.60	0.38	0.00	0.00	18.40	3.16	1.18	0.03
7.80	0.39	0.00	0.00	18.60	3.17	1.19	0.03
8.00	0.41	0.00	0.00	18.80	3.18	1.20	0.03
8.20	0.42	0.00	0.00	19.00	3.19	1.20	0.03
8.40	0.44	0.00	0.00	19.20	3.20	1.21	0.02
8.60	0.46	0.00	0.00	19.40	3.21	1.22	0.02
8.80	0.48	0.00	0.00	19.60	3.22	1.22	0.02
9.00	0.50	0.00	0.00	19.80	3.23	1.23	0.02
9.20	0.52	0.00	0.00	20.00	3.24	1.24	0.02
9.40	0.54	0.00	0.00	20.20	3.25	1.24	0.02
9.60	0.57	0.00	0.00	20.40	3.25	1.25	0.02
9.80	0.59	0.00	0.00	20.60	3.26	1.26	0.02
10.00	0.62	0.00	0.00	20.80	3.27	1.26	0.02
10.20	0.64	0.00	0.00	21.00	3.28	1.27	0.02
10.40	0.68	0.00	0.00	21.20	3.29	1.28	0.02
10.60	0.71	0.00	0.01	21.40	3.30	1.28	0.02
10.80	0.75	0.01	0.01	21.60	3.31	1.29	0.02
11.00	0.80	0.01	0.01	21.80	3.31	1.29	0.02
11.20	0.85	0.02	0.02	22.00	3.32	1.30	0.02
11.40	0.92	0.03	0.03	22.20	3.33	1.31	0.02
11.60	1.04	0.06	0.06	22.40	3.34	1.31	0.02
11.80	1.46	0.20	0.31	22.60	3.35	1.32	0.02
12.00	2.25	0.59	**1.19**	22.80	3.35	1.32	0.02
12.20	2.38	0.66	0.50	23.00	3.36	1.33	0.02
12.40	2.47	0.72	0.24	23.20	3.37	1.33	0.02
12.60	2.53	0.76	0.15	23.40	3.38	1.34	0.02
12.80	2.58	0.79	0.12	23.60	3.38	1.35	0.02
13.00	2.62	0.82	0.10	23.80	3.39	1.35	0.02
13.20	2.66	0.85	0.09	24.00	**3.40**	**1.36**	0.02
13.40	2.70	0.87	0.08				
13.60	2.73	0.89	0.07				
13.80	2.76	0.91	0.07				
14.00	2.79	0.93	0.06				
14.20	2.81	0.94	0.06				
14.40	2.84	0.96	0.05				
14.60	2.86	0.97	0.05				
14.80	2.88	0.99	0.05				
15.00	2.90	1.00	0.05				
15.20	2.92	1.02	0.05				
15.40	2.94	1.03	0.04				
15.60	2.96	1.04	0.04				

Summary for Subcatchment 6S: Entrance SD

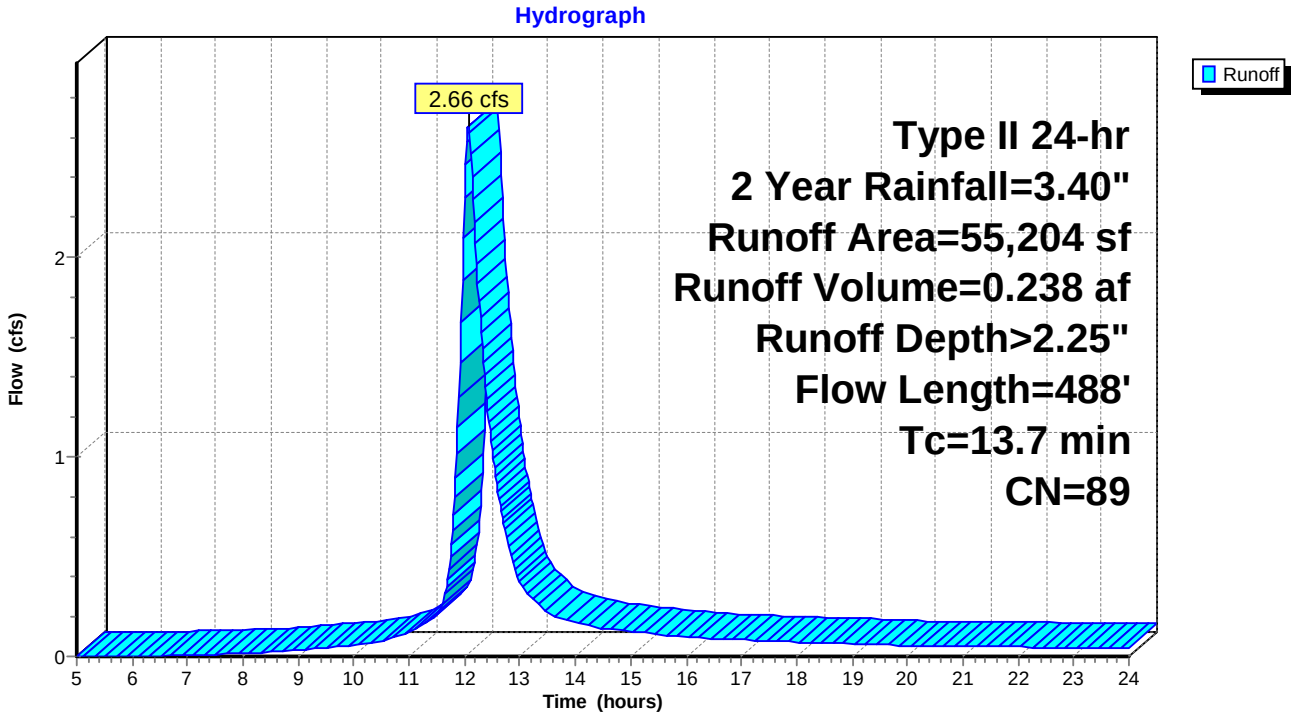
Runoff = 2.66 cfs @ 12.07 hrs, Volume= 0.238 af, Depth> 2.25"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 2 Year Rainfall=3.40"

Area (sf)	CN	Description
42,497	98	Paved roads w/curbs & sewers
12,707	61	>75% Grass cover, Good, HSG B
55,204	89	Weighted Average
12,707		23.02% Pervious Area
42,497		76.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	50	0.0050	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
3.2	263	0.0081	1.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.0	175	0.0025	2.85	3.50	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012 Concrete pipe, finished
13.7	488	Total			

Subcatchment 6S: Entrance SD



Hydrograph for Subcatchment 6S: Entrance SD

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00
5.20	0.23	0.00	0.00
5.40	0.24	0.00	0.00
5.60	0.25	0.00	0.00
5.80	0.26	0.00	0.00
6.00	0.27	0.00	0.00
6.20	0.28	0.00	0.00
6.40	0.30	0.00	0.00
6.60	0.31	0.00	0.01
6.80	0.32	0.00	0.01
7.00	0.34	0.01	0.01
7.20	0.35	0.01	0.01
7.40	0.36	0.01	0.01
7.60	0.38	0.01	0.01
7.80	0.39	0.02	0.02
8.00	0.41	0.02	0.02
8.20	0.42	0.02	0.02
8.40	0.44	0.03	0.02
8.60	0.46	0.03	0.03
8.80	0.48	0.04	0.03
9.00	0.50	0.04	0.03
9.20	0.52	0.05	0.04
9.40	0.54	0.06	0.04
9.60	0.57	0.07	0.05
9.80	0.59	0.07	0.05
10.00	0.62	0.08	0.06
10.20	0.64	0.10	0.07
10.40	0.68	0.11	0.08
10.60	0.71	0.13	0.09
10.80	0.75	0.15	0.10
11.00	0.80	0.17	0.12
11.20	0.85	0.20	0.15
11.40	0.92	0.24	0.19
11.60	1.04	0.31	0.25
11.80	1.46	0.60	0.71
12.00	2.25	1.24	**2.30**
12.20	2.38	1.35	**2.07**
12.40	2.47	1.42	1.29
12.60	2.53	1.48	0.83
12.80	2.58	1.52	0.54
13.00	2.62	1.56	0.38
13.20	2.66	1.60	0.30
13.40	2.70	1.63	0.24
13.60	2.73	1.66	0.21
13.80	2.76	1.69	0.19
14.00	2.79	1.71	0.17
14.20	2.81	1.73	0.16
14.40	2.84	1.75	0.15
14.60	2.86	1.77	0.14
14.80	2.88	1.79	0.13
15.00	2.90	1.81	0.13
15.20	2.92	1.83	0.12
15.40	2.94	1.85	0.12
15.60	2.96	1.86	0.11
15.80	2.98	1.88	0.11
16.00	2.99	1.89	0.10
16.20	3.01	1.91	0.09
16.40	3.02	1.92	0.09
16.60	3.04	1.93	0.09
16.80	3.05	1.95	0.09
17.00	3.07	1.96	0.08
17.20	3.08	1.97	0.08
17.40	3.09	1.98	0.08
17.60	3.11	2.00	0.08
17.80	3.12	2.01	0.08
18.00	3.13	2.02	0.07
18.20	3.14	2.03	0.07
18.40	3.16	2.04	0.07
18.60	3.17	2.05	0.07
18.80	3.18	2.06	0.07
19.00	3.19	2.07	0.06
19.20	3.20	2.08	0.06
19.40	3.21	2.09	0.06
19.60	3.22	2.10	0.06
19.80	3.23	2.11	0.06
20.00	3.24	2.12	0.06
20.20	3.25	2.12	0.05
20.40	3.25	2.13	0.05
20.60	3.26	2.14	0.05
20.80	3.27	2.15	0.05
21.00	3.28	2.15	0.05
21.20	3.29	2.16	0.05
21.40	3.30	2.17	0.05
21.60	3.31	2.18	0.05
21.80	3.31	2.19	0.05
22.00	3.32	2.19	0.05
22.20	3.33	2.20	0.05
22.40	3.34	2.21	0.05
22.60	3.35	2.22	0.05
22.80	3.35	2.22	0.05
23.00	3.36	2.23	0.05
23.20	3.37	2.24	0.05
23.40	3.38	2.24	0.05
23.60	3.38	2.25	0.05
23.80	3.39	2.26	0.05
24.00	**3.40**	**2.26**	0.04

Summary for Subcatchment 7S: Dry Pond DA

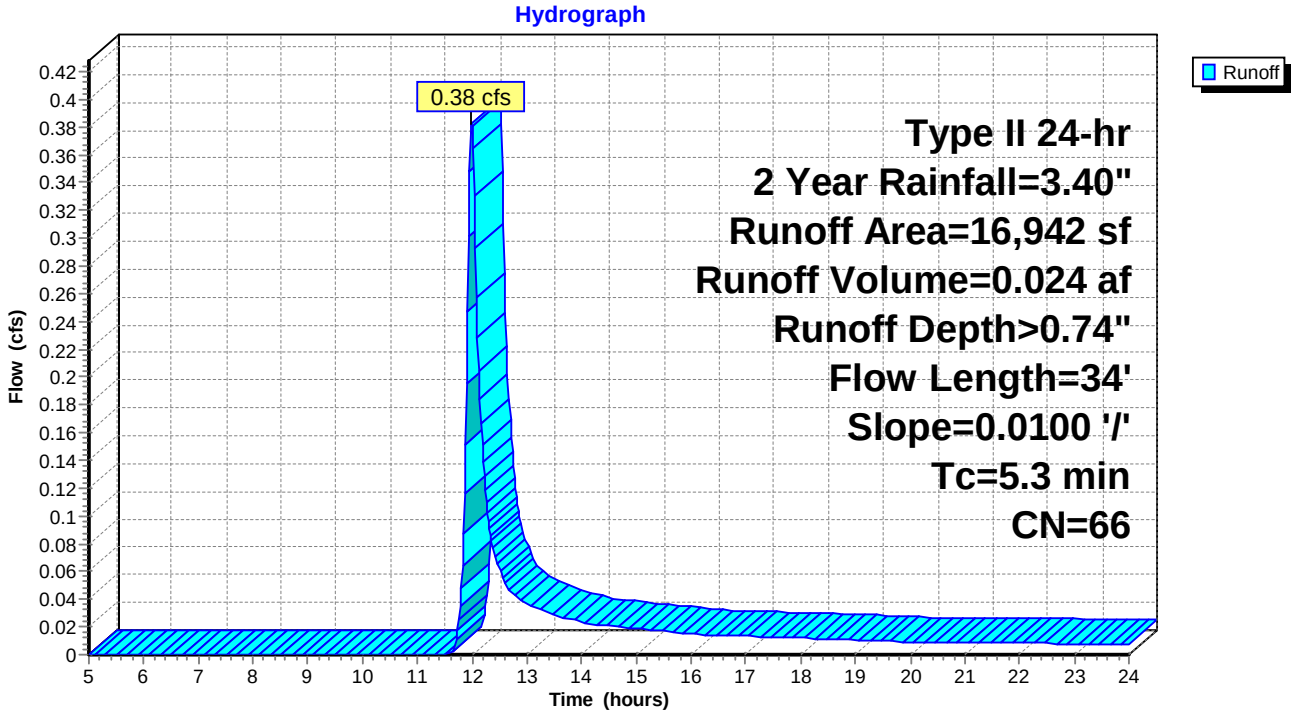
Runoff = 0.38 cfs @ 11.99 hrs, Volume= 0.024 af, Depth> 0.74"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 2 Year Rainfall=3.40"

	Area (sf)	CN	Description
	14,592	61	>75% Grass cover, Good, HSG B
*	2,350	98	Impervious Areas
	16,942	66	Weighted Average
	14,592		86.13% Pervious Area
	2,350		13.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	34	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"

Subcatchment 7S: Dry Pond DA



Hydrograph for Subcatchment 7S: Dry Pond DA

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00
5.20	0.23	0.00	0.00
5.40	0.24	0.00	0.00
5.60	0.25	0.00	0.00
5.80	0.26	0.00	0.00
6.00	0.27	0.00	0.00
6.20	0.28	0.00	0.00
6.40	0.30	0.00	0.00
6.60	0.31	0.00	0.00
6.80	0.32	0.00	0.00
7.00	0.34	0.00	0.00
7.20	0.35	0.00	0.00
7.40	0.36	0.00	0.00
7.60	0.38	0.00	0.00
7.80	0.39	0.00	0.00
8.00	0.41	0.00	0.00
8.20	0.42	0.00	0.00
8.40	0.44	0.00	0.00
8.60	0.46	0.00	0.00
8.80	0.48	0.00	0.00
9.00	0.50	0.00	0.00
9.20	0.52	0.00	0.00
9.40	0.54	0.00	0.00
9.60	0.57	0.00	0.00
9.80	0.59	0.00	0.00
10.00	0.62	0.00	0.00
10.20	0.64	0.00	0.00
10.40	0.68	0.00	0.00
10.60	0.71	0.00	0.00
10.80	0.75	0.00	0.00
11.00	0.80	0.00	0.00
11.20	0.85	0.00	0.00
11.40	0.92	0.00	0.00
11.60	1.04	0.00	0.00
11.80	1.46	0.03	0.05
12.00	2.25	0.23	**0.38**
12.20	2.38	0.28	0.14
12.40	2.47	0.31	0.07
12.60	2.53	0.34	0.05
12.80	2.58	0.36	0.04
13.00	2.62	0.38	0.04
13.20	2.66	0.39	0.03
13.40	2.70	0.41	0.03
13.60	2.73	0.42	0.03
13.80	2.76	0.44	0.03
14.00	2.79	0.45	0.02
14.20	2.81	0.46	0.02
14.40	2.84	0.47	0.02
14.60	2.86	0.48	0.02
14.80	2.88	0.49	0.02
15.00	2.90	0.50	0.02
15.20	2.92	0.51	0.02
15.40	2.94	0.52	0.02
15.60	2.96	0.53	0.02
15.80	2.98	0.53	0.02
16.00	2.99	0.54	0.02
16.20	3.01	0.55	0.01
16.40	3.02	0.56	0.01
16.60	3.04	0.56	0.01
16.80	3.05	0.57	0.01
17.00	3.07	0.58	0.01
17.20	3.08	0.58	0.01
17.40	3.09	0.59	0.01
17.60	3.11	0.60	0.01
17.80	3.12	0.60	0.01
18.00	3.13	0.61	0.01
18.20	3.14	0.61	0.01
18.40	3.16	0.62	0.01
18.60	3.17	0.63	0.01
18.80	3.18	0.63	0.01
19.00	3.19	0.64	0.01
19.20	3.20	0.64	0.01
19.40	3.21	0.65	0.01
19.60	3.22	0.65	0.01
19.80	3.23	0.66	0.01
20.00	3.24	0.66	0.01
20.20	3.25	0.67	0.01
20.40	3.25	0.67	0.01
20.60	3.26	0.68	0.01
20.80	3.27	0.68	0.01
21.00	3.28	0.68	0.01
21.20	3.29	0.69	0.01
21.40	3.30	0.69	0.01
21.60	3.31	0.70	0.01
21.80	3.31	0.70	0.01
22.00	3.32	0.71	0.01
22.20	3.33	0.71	0.01
22.40	3.34	0.71	0.01
22.60	3.35	0.72	0.01
22.80	3.35	0.72	0.01
23.00	3.36	0.73	0.01
23.20	3.37	0.73	0.01
23.40	3.38	0.73	0.01
23.60	3.38	0.74	0.01
23.80	3.39	0.74	0.01
24.00	**3.40**	**0.75**	0.01

Summary for Subcatchment 8S: Future Development

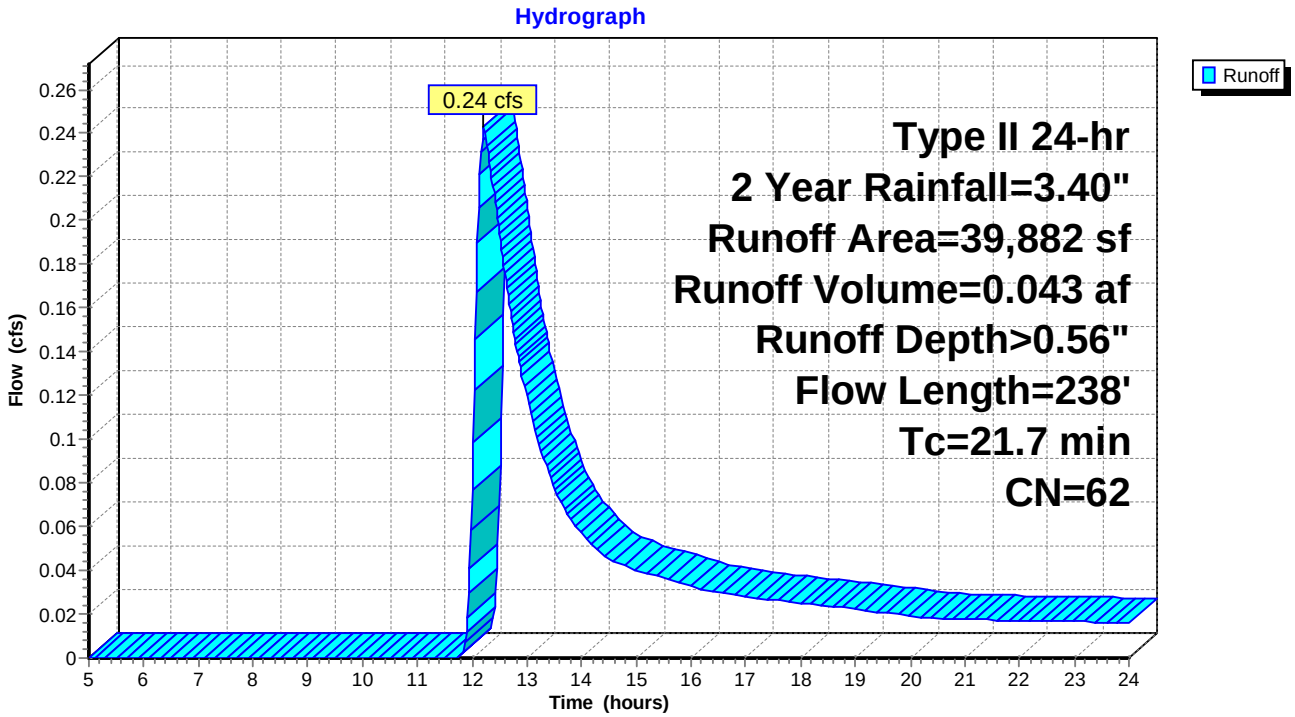
Runoff = 0.24 cfs @ 12.21 hrs, Volume= 0.043 af, Depth> 0.56"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 2 Year Rainfall=3.40"

Area (sf)	CN	Description
35,607	61	>75% Grass cover, Good, HSG B
4,275	74	>75% Grass cover, Good, HSG C
39,882	62	Weighted Average
39,882		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	100	0.0034	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
2.4	138	0.0036	0.97		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
21.7	238	Total			

Subcatchment 8S: Future Development



Hydrograph for Subcatchment 8S: Future Development

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00
5.20	0.23	0.00	0.00
5.40	0.24	0.00	0.00
5.60	0.25	0.00	0.00
5.80	0.26	0.00	0.00
6.00	0.27	0.00	0.00
6.20	0.28	0.00	0.00
6.40	0.30	0.00	0.00
6.60	0.31	0.00	0.00
6.80	0.32	0.00	0.00
7.00	0.34	0.00	0.00
7.20	0.35	0.00	0.00
7.40	0.36	0.00	0.00
7.60	0.38	0.00	0.00
7.80	0.39	0.00	0.00
8.00	0.41	0.00	0.00
8.20	0.42	0.00	0.00
8.40	0.44	0.00	0.00
8.60	0.46	0.00	0.00
8.80	0.48	0.00	0.00
9.00	0.50	0.00	0.00
9.20	0.52	0.00	0.00
9.40	0.54	0.00	0.00
9.60	0.57	0.00	0.00
9.80	0.59	0.00	0.00
10.00	0.62	0.00	0.00
10.20	0.64	0.00	0.00
10.40	0.68	0.00	0.00
10.60	0.71	0.00	0.00
10.80	0.75	0.00	0.00
11.00	0.80	0.00	0.00
11.20	0.85	0.00	0.00
11.40	0.92	0.00	0.00
11.60	1.04	0.00	0.00
11.80	1.46	0.01	0.00
12.00	2.25	0.15	0.08
12.20	2.38	0.18	**0.24**
12.40	2.47	0.21	0.21
12.60	2.53	0.23	0.18
12.80	2.58	0.24	0.14
13.00	2.62	0.26	0.12
13.20	2.66	0.27	0.10
13.40	2.70	0.29	0.08
13.60	2.73	0.30	0.07
13.80	2.76	0.31	0.06
14.00	2.79	0.32	0.06
14.20	2.81	0.33	0.05
14.40	2.84	0.34	0.05
14.60	2.86	0.34	0.04
14.80	2.88	0.35	0.04
15.00	2.90	0.36	0.04
15.20	2.92	0.37	0.04
15.40	2.94	0.37	0.04
15.60	2.96	0.38	0.04
15.80	2.98	0.39	0.03
16.00	2.99	0.40	0.03
16.20	3.01	0.40	0.03
16.40	3.02	0.41	0.03
16.60	3.04	0.41	0.03
16.80	3.05	0.42	0.03
17.00	3.07	0.42	0.03
17.20	3.08	0.43	0.03
17.40	3.09	0.44	0.03
17.60	3.11	0.44	0.03
17.80	3.12	0.45	0.03
18.00	3.13	0.45	0.03
18.20	3.14	0.46	0.02
18.40	3.16	0.46	0.02
18.60	3.17	0.47	0.02
18.80	3.18	0.47	0.02
19.00	3.19	0.48	0.02
19.20	3.20	0.48	0.02
19.40	3.21	0.48	0.02
19.60	3.22	0.49	0.02
19.80	3.23	0.49	0.02
20.00	3.24	0.50	0.02
20.20	3.25	0.50	0.02
20.40	3.25	0.50	0.02
20.60	3.26	0.51	0.02
20.80	3.27	0.51	0.02
21.00	3.28	0.52	0.02
21.20	3.29	0.52	0.02
21.40	3.30	0.52	0.02
21.60	3.31	0.53	0.02
21.80	3.31	0.53	0.02
22.00	3.32	0.53	0.02
22.20	3.33	0.54	0.02
22.40	3.34	0.54	0.02
22.60	3.35	0.54	0.02
22.80	3.35	0.55	0.02
23.00	3.36	0.55	0.02
23.20	3.37	0.56	0.02
23.40	3.38	0.56	0.02
23.60	3.38	0.56	0.02
23.80	3.39	0.57	0.02
24.00	**3.40**	**0.57**	0.02

Summary for Subcatchment 9S: Future Development

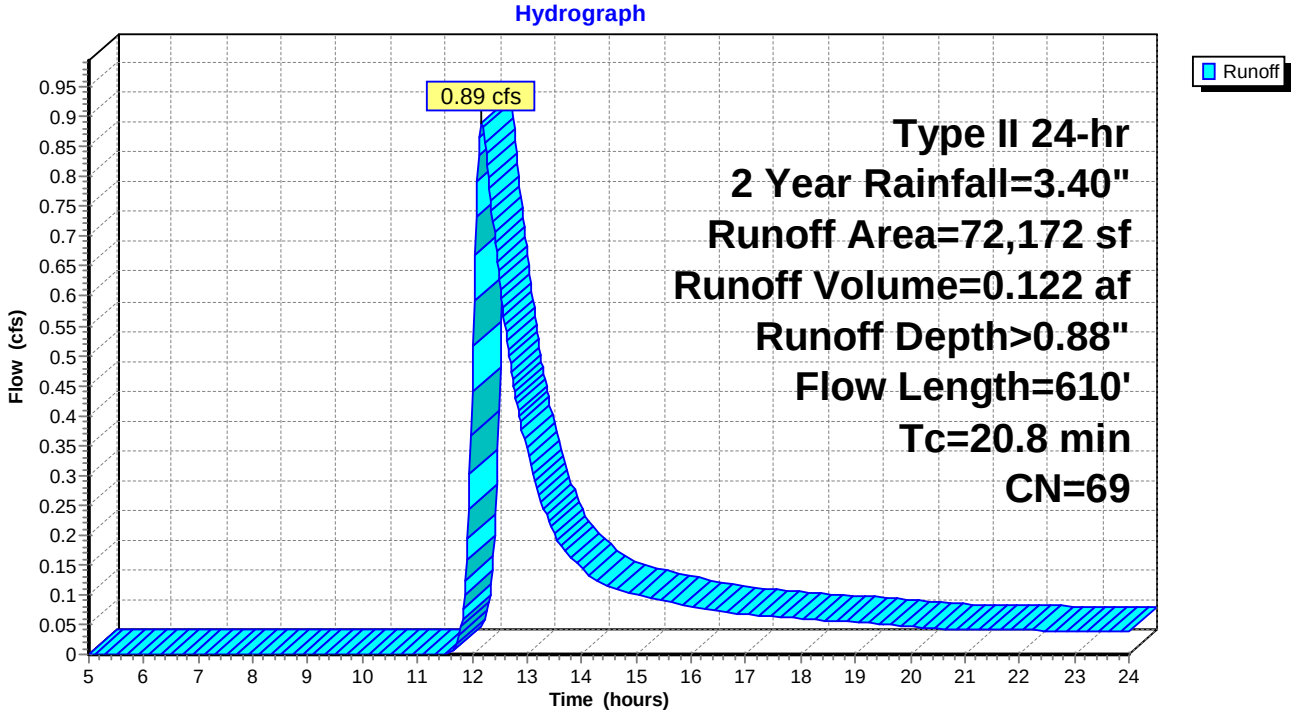
Runoff = 0.89 cfs @ 12.18 hrs, Volume= 0.122 af, Depth> 0.88"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 2 Year Rainfall=3.40"

Area (sf)	CN	Description
27,748	61	>75% Grass cover, Good, HSG B
44,424	74	>75% Grass cover, Good, HSG C
72,172	69	Weighted Average
72,172		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.9	100	0.0055	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
1.1	121	0.0119	1.76		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
1.2	119	0.0122	1.66		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
2.6	270	0.0007	1.70	3.01	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
20.8	610	Total			

Subcatchment 9S: Future Development



Hydrograph for Subcatchment 9S: Future Development

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00
5.20	0.23	0.00	0.00
5.40	0.24	0.00	0.00
5.60	0.25	0.00	0.00
5.80	0.26	0.00	0.00
6.00	0.27	0.00	0.00
6.20	0.28	0.00	0.00
6.40	0.30	0.00	0.00
6.60	0.31	0.00	0.00
6.80	0.32	0.00	0.00
7.00	0.34	0.00	0.00
7.20	0.35	0.00	0.00
7.40	0.36	0.00	0.00
7.60	0.38	0.00	0.00
7.80	0.39	0.00	0.00
8.00	0.41	0.00	0.00
8.20	0.42	0.00	0.00
8.40	0.44	0.00	0.00
8.60	0.46	0.00	0.00
8.80	0.48	0.00	0.00
9.00	0.50	0.00	0.00
9.20	0.52	0.00	0.00
9.40	0.54	0.00	0.00
9.60	0.57	0.00	0.00
9.80	0.59	0.00	0.00
10.00	0.62	0.00	0.00
10.20	0.64	0.00	0.00
10.40	0.68	0.00	0.00
10.60	0.71	0.00	0.00
10.80	0.75	0.00	0.00
11.00	0.80	0.00	0.00
11.20	0.85	0.00	0.00
11.40	0.92	0.00	0.00
11.60	1.04	0.00	0.00
11.80	1.46	0.06	0.05
12.00	2.25	0.31	**0.44**
12.20	2.38	0.37	**0.89**
12.40	2.47	0.41	0.71
12.60	2.53	0.43	0.55
12.80	2.58	0.46	0.43
13.00	2.62	0.48	0.34
13.20	2.66	0.50	0.27
13.40	2.70	0.52	0.22
13.60	2.73	0.53	0.19
13.80	2.76	0.55	0.16
14.00	2.79	0.56	0.14
14.20	2.81	0.57	0.13
14.40	2.84	0.58	0.12
14.60	2.86	0.60	0.11
14.80	2.88	0.61	0.10
15.00	2.90	0.62	0.10
15.20	2.92	0.63	0.10
15.40	2.94	0.64	0.09
15.60	2.96	0.65	0.09
15.80	2.98	0.66	0.08
16.00	2.99	0.67	0.08
16.20	3.01	0.67	0.08
16.40	3.02	0.68	0.07
16.60	3.04	0.69	0.07
16.80	3.05	0.70	0.07
17.00	3.07	0.71	0.07
17.20	3.08	0.71	0.07
17.40	3.09	0.72	0.06
17.60	3.11	0.73	0.06
17.80	3.12	0.73	0.06
18.00	3.13	0.74	0.06
18.20	3.14	0.75	0.06
18.40	3.16	0.75	0.06
18.60	3.17	0.76	0.06
18.80	3.18	0.77	0.05
19.00	3.19	0.77	0.05
19.20	3.20	0.78	0.05
19.40	3.21	0.78	0.05
19.60	3.22	0.79	0.05
19.80	3.23	0.80	0.05
20.00	3.24	0.80	0.05
20.20	3.25	0.81	0.04
20.40	3.25	0.81	0.04
20.60	3.26	0.82	0.04
20.80	3.27	0.82	0.04
21.00	3.28	0.83	0.04
21.20	3.29	0.83	0.04
21.40	3.30	0.83	0.04
21.60	3.31	0.84	0.04
21.80	3.31	0.84	0.04
22.00	3.32	0.85	0.04
22.20	3.33	0.85	0.04
22.40	3.34	0.86	0.04
22.60	3.35	0.86	0.04
22.80	3.35	0.87	0.04
23.00	3.36	0.87	0.04
23.20	3.37	0.88	0.04
23.40	3.38	0.88	0.04
23.60	3.38	0.89	0.04
23.80	3.39	0.89	0.04
24.00	**3.40**	**0.89**	0.04

Summary for Pond 1P: Drugstore Pond

Inflow Area = 7.409 ac, 44.63% Impervious, Inflow Depth > 1.61" for 2 Year event
Inflow = 9.56 cfs @ 12.08 hrs, Volume= 0.993 af
Outflow = 1.50 cfs @ 13.19 hrs, Volume= 0.850 af, Atten= 84%, Lag= 66.7 min
Primary = 1.50 cfs @ 13.19 hrs, Volume= 0.850 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Peak Elev= 38.73' @ 13.19 hrs Surf.Area= 20,884 sf Storage= 21,404 cf

Plug-Flow detention time= 210.4 min calculated for 0.850 af (86% of inflow)
Center-of-Mass det. time= 144.4 min (979.0 - 834.6)

Volume	Invert	Avail.Storage	Storage Description
#1	37.60'	65,002 cf	**Wet Storage (Prismatic)** Listed below
#2	37.60'	25,745 cf	**Dry Storage (Prismatic)** Listed below (Recalc)
		90,747 cf	Total Available Storage

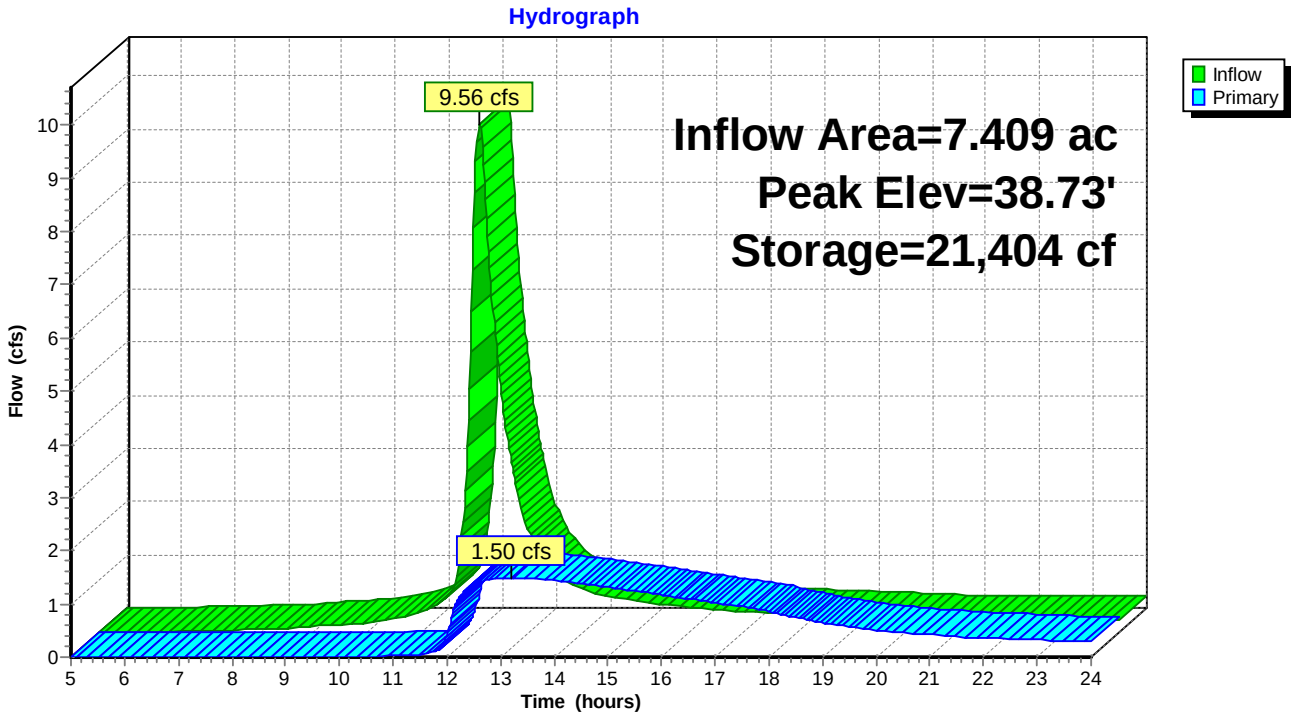
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
37.60	11,480	0	0
38.00	12,768	4,850	4,850
39.00	14,767	13,768	18,617
40.00	16,874	15,821	34,438
41.00	19,082	17,978	52,416
41.63	20,874	12,586	65,002

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
37.60	4,912	0	0
38.00	5,602	2,103	2,103
39.00	7,065	6,334	8,436
40.00	8,629	7,847	16,283
41.00	10,294	9,462	25,745

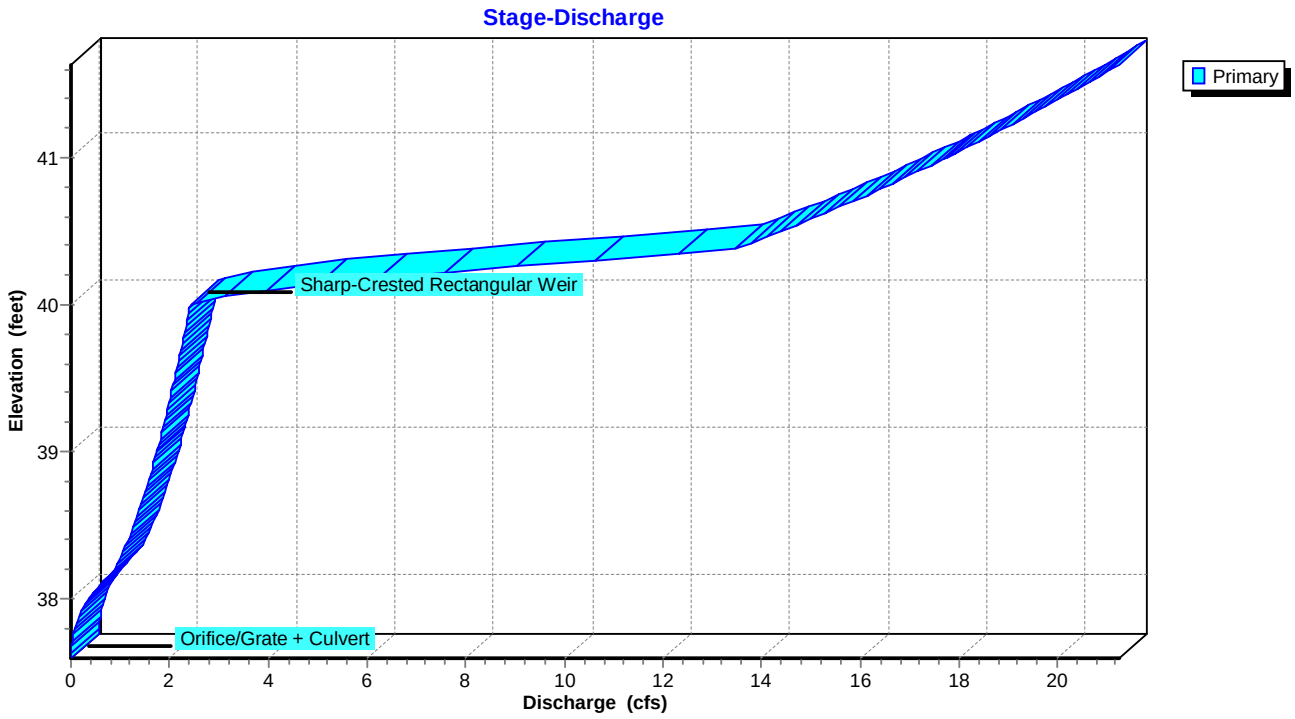
Device	Routing	Invert	Outlet Devices
#1	Device 3	37.60'	**8.0" Vert. Orifice/Grate** C= 0.600
#2	Device 3	40.00'	**15.0' long x 0.67' rise Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Primary	37.60'	**24.0" Round Culvert** L= 136.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 37.60' / 37.54' S= 0.0004 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 3.14 sf

Primary OutFlow Max=1.50 cfs @ 13.19 hrs HW=38.73' (Free Discharge)
└**3=Culvert** (Passes 1.50 cfs of 3.32 cfs potential flow)
  ├**1=Orifice/Grate** (Orifice Controls 1.50 cfs @ 4.29 fps)
  └**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: Drugstore Pond



Pond 1P: Drugstore Pond



Hydrograph for Pond 1P: Drugstore Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	37.60	0.00
5.40	0.00	0	37.60	0.00
5.80	0.00	3	37.60	0.00
6.20	0.01	14	37.60	0.00
6.60	0.02	38	37.60	0.00
7.00	0.03	76	37.60	0.00
7.40	0.04	128	37.61	0.00
7.80	0.05	197	37.61	0.00
8.20	0.07	282	37.62	0.00
8.60	0.09	388	37.62	0.00
9.00	0.11	528	37.63	0.00
9.40	0.14	707	37.64	0.00
9.80	0.16	918	37.65	0.00
10.20	0.21	1,173	37.67	0.01
10.60	0.28	1,506	37.69	0.01
11.00	0.39	1,960	37.71	0.02
11.40	0.60	2,614	37.75	0.04
11.80	**2.35**	4,004	37.83	0.11
12.20	**8.12**	13,324	38.32	1.05
12.60	3.71	19,506	38.63	1.41
13.00	1.92	**21,266**	**38.72**	**1.49**
13.40	1.22	**21,297**	**38.72**	**1.49**
13.80	0.91	20,680	38.69	1.46
14.20	0.74	19,788	38.65	1.42
14.60	0.65	18,776	38.60	1.37
15.00	0.59	17,739	38.55	1.31
15.40	0.54	16,705	38.49	1.26
15.80	0.50	15,683	38.44	1.20
16.20	0.45	14,677	38.39	1.14
16.60	0.42	13,704	38.34	1.08
17.00	0.40	12,785	38.30	1.01
17.40	0.38	11,926	38.25	0.96
17.80	0.36	11,126	38.21	0.90
18.20	0.34	10,405	38.18	0.81
18.60	0.33	9,788	38.15	0.72
19.00	0.31	9,265	38.12	0.64
19.40	0.29	8,814	38.10	0.58
19.80	0.27	8,419	38.08	0.53
20.20	0.26	8,065	38.06	0.49
20.60	0.25	7,751	38.04	0.45
21.00	0.24	7,476	38.03	0.42
21.40	0.24	7,237	38.01	0.39
21.80	0.23	7,028	38.00	0.37
22.20	0.23	6,845	37.99	0.35
22.60	0.23	6,684	37.98	0.33
23.00	0.22	6,542	37.98	0.32
23.40	0.22	6,415	37.97	0.30
23.80	0.22	6,302	37.96	0.29

Stage-Area-Storage for Pond 1P: Drugstore Pond

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
37.60	0	40.30	58,778
37.65	854	40.35	60,135
37.70	1,712	40.40	61,497
37.75	2,575	40.45	62,863
37.80	3,442	40.50	64,233
37.85	4,313	40.55	65,607
37.90	5,188	40.60	66,985
37.95	6,068	40.65	68,367
38.00	6,952	40.70	69,754
38.05	7,923	40.75	71,144
38.10	8,897	40.80	72,539
38.15	9,874	40.85	73,938
38.20	10,856	40.90	75,342
38.25	11,840	40.95	76,749
38.30	12,829	41.00	78,160
38.35	13,821	41.05	79,159
38.40	14,817	41.10	80,158
38.45	15,817	41.15	81,157
38.50	16,820	41.20	82,156
38.55	17,827	41.25	83,155
38.60	18,837	41.30	84,154
38.65	19,852	41.35	85,153
38.70	20,869	41.40	86,152
38.75	21,891	41.45	87,151
38.80	22,916	41.50	88,149
38.85	23,945	41.55	89,148
38.90	24,977	41.60	**90,147**
38.95	26,014		
39.00	27,053		
39.05	28,200		
39.10	29,350		
39.15	30,504		
39.20	31,662		
39.25	32,824		
39.30	33,989		
39.35	35,159		
39.40	36,333		
39.45	37,510		
39.50	38,692		
39.55	39,877		
39.60	41,066		
39.65	42,259		
39.70	43,456		
39.75	44,657		
39.80	45,862		
39.85	47,071		
39.90	48,284		
39.95	49,500		
40.00	50,721		
40.05	52,053		
40.10	53,390		
40.15	54,731		
40.20	56,076		
40.25	57,425		

Summary for Pond 2P: Ditches To Study Point #1

Inflow Area = 8.707 ac, 43.90% Impervious, Inflow Depth > 1.37" for 2 Year event
Inflow = 2.49 cfs @ 11.94 hrs, Volume= 0.995 af
Outflow = 1.79 cfs @ 12.02 hrs, Volume= 0.990 af, Atten= 28%, Lag= 4.5 min
Primary = 1.79 cfs @ 12.02 hrs, Volume= 0.990 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Peak Elev= 37.95' @ 12.02 hrs Surf.Area= 2,028 sf Storage= 841 cf

Plug-Flow detention time= 8.1 min calculated for 0.990 af (100% of inflow)
Center-of-Mass det. time= 6.2 min (965.4 - 959.2)

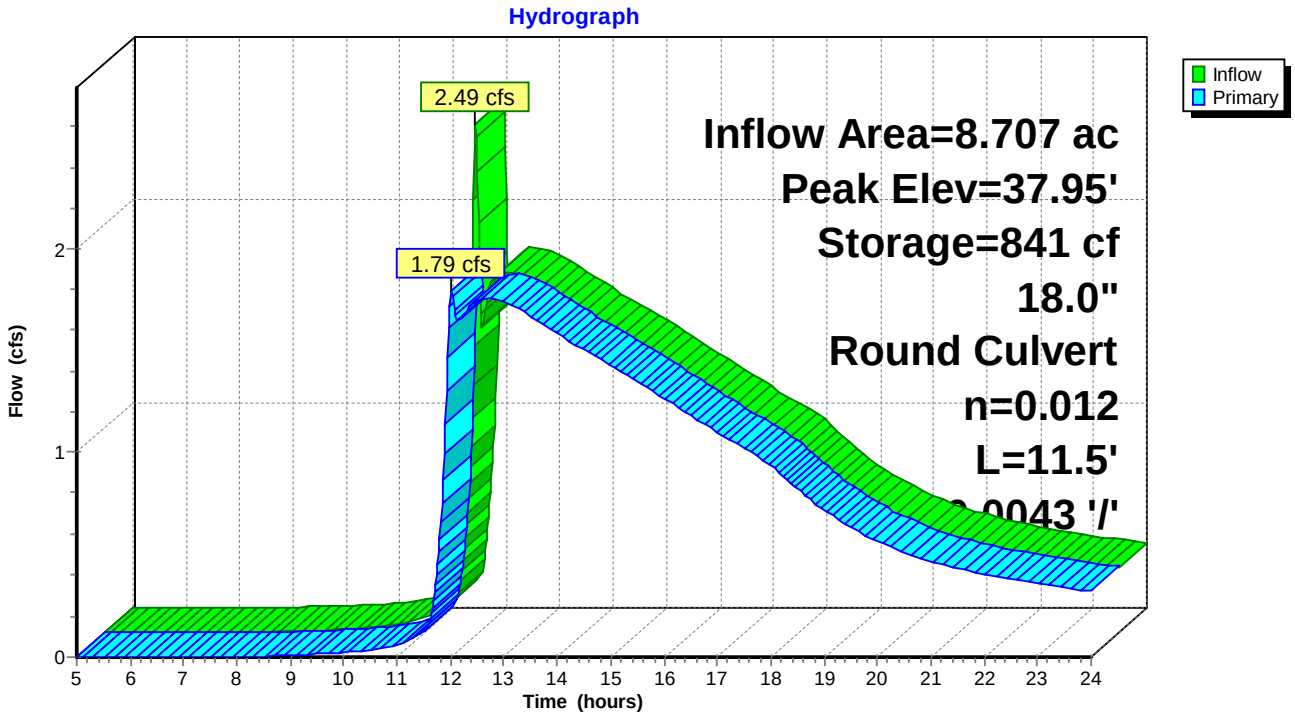
Volume	Invert	Avail.Storage	Storage Description
#1	37.20'	40,784 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
37.20	222	0	0
38.00	2,154	950	950
39.00	6,487	4,321	5,271
40.00	14,191	10,339	15,610
41.00	36,158	25,175	40,784

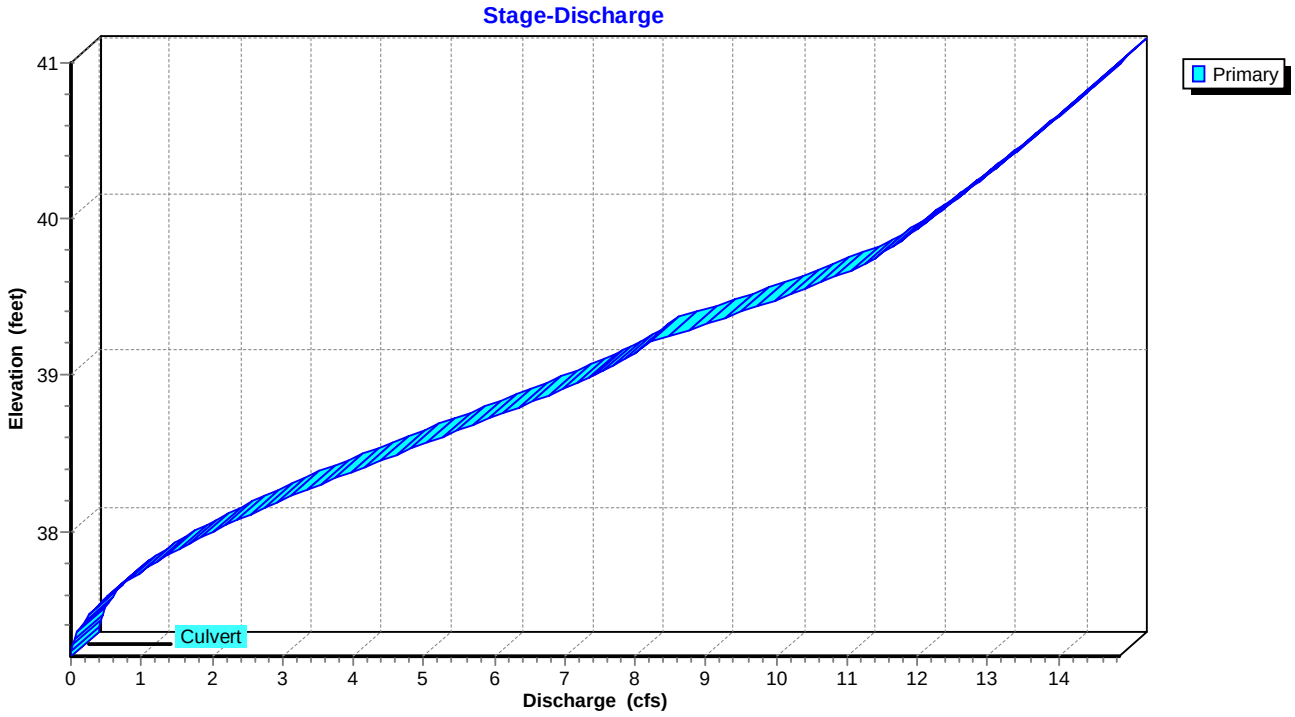
Device	Routing	Invert	Outlet Devices
#1	Primary	37.20'	**18.0" Round Culvert** L= 11.5' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 37.20' / 37.15' S= 0.0043 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=1.79 cfs @ 12.02 hrs HW=37.95' (Free Discharge)
↑**1=Culvert** (Barrel Controls 1.79 cfs @ 2.96 fps)

Pond 2P: Ditches To Study Point #1



Pond 2P: Ditches To Study Point #1



Hydrograph for Pond 2P: Ditches To Study Point #1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	37.20	0.00
5.40	0.00	0	37.20	0.00
5.80	0.00	0	37.20	0.00
6.20	0.00	0	37.20	0.00
6.60	0.00	0	37.20	0.00
7.00	0.00	0	37.20	0.00
7.40	0.00	1	37.20	0.00
7.80	0.00	2	37.21	0.00
8.20	0.00	5	37.22	0.00
8.60	0.01	8	37.23	0.00
9.00	0.01	13	37.25	0.01
9.40	0.01	17	37.26	0.01
9.80	0.02	21	37.27	0.02
10.20	0.03	27	37.28	0.03
10.60	0.05	36	37.30	0.04
11.00	0.07	50	37.33	0.06
11.40	0.13	74	37.37	0.11
11.80	**1.03**	**291**	**37.61**	**0.58**
12.20	**1.68**	**775**	**37.91**	**1.65**
12.60	1.76	826	37.94	1.75
13.00	1.73	820	37.94	1.74
13.40	1.66	792	37.92	1.68
13.80	1.60	762	37.91	1.62
14.20	1.53	731	37.89	1.55
14.60	1.47	703	37.88	1.49
15.00	1.41	674	37.86	1.43
15.40	1.34	645	37.84	1.36
15.80	1.28	615	37.83	1.30
16.20	1.21	585	37.81	1.23
16.60	1.14	554	37.79	1.16
17.00	1.08	525	37.77	1.10
17.40	1.02	497	37.76	1.04
17.80	0.95	468	37.74	0.97
18.20	0.86	432	37.71	0.89
18.60	0.77	391	37.68	0.80
19.00	0.69	354	37.66	0.72
19.40	0.63	323	37.63	0.65
19.80	0.57	297	37.61	0.59
20.20	0.53	276	37.59	0.54
20.60	0.49	257	37.58	0.50
21.00	0.46	242	37.56	0.47
21.40	0.43	229	37.55	0.44
21.80	0.41	218	37.54	0.41
22.20	0.39	208	37.53	0.39
22.60	0.37	200	37.52	0.37
23.00	0.35	192	37.52	0.36
23.40	0.34	186	37.51	0.34
23.80	0.33	180	37.50	0.33

Stage-Area-Storage for Pond 2P: Ditches To Study Point #1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
37.20	222	0
37.25	343	14
37.30	464	34
37.35	584	60
37.40	705	93
37.45	826	131
37.50	946	175
37.55	1,067	226
37.60	1,188	282
37.65	1,309	344
37.70	1,430	413
37.75	1,550	487
37.80	1,671	568
37.85	1,792	654
37.90	1,913	747
37.95	2,033	846
38.00	2,154	950
38.05	2,371	1,064
38.10	2,587	1,187
38.15	2,804	1,322
38.20	3,021	1,468
38.25	3,237	1,624
38.30	3,454	1,792
38.35	3,671	1,970
38.40	3,887	2,159
38.45	4,104	2,358
38.50	4,321	2,569
38.55	4,537	2,790
38.60	4,754	3,023
38.65	4,970	3,266
38.70	5,187	3,520
38.75	5,404	3,785
38.80	5,620	4,060
38.85	5,837	4,347
38.90	6,054	4,644
38.95	6,270	4,952
39.00	6,487	5,271
39.05	6,872	5,605
39.10	7,257	5,958
39.15	7,643	6,331
39.20	8,028	6,722
39.25	8,413	7,133
39.30	8,798	7,564
39.35	9,183	8,013
39.40	9,569	8,482
39.45	9,954	8,970
39.50	10,339	9,477
39.55	10,724	10,004
39.60	11,109	10,550
39.65	11,495	11,115
39.70	11,880	11,699
39.75	12,265	12,303
39.80	12,650	12,926
39.85	13,035	13,568
39.90	13,421	14,229
39.95	13,806	14,910
40.00	14,191	15,610
40.05	15,289	16,347
40.10	16,388	17,139
40.15	17,486	17,986
40.20	18,584	18,887
40.25	19,683	19,844
40.30	20,781	20,856
40.35	21,879	21,922
40.40	22,978	23,044
40.45	24,076	24,220
40.50	25,175	25,451
40.55	26,273	26,737
40.60	27,371	28,079
40.65	28,470	29,475
40.70	29,568	30,926
40.75	30,666	32,431
40.80	31,765	33,992
40.85	32,863	35,608
40.90	33,961	37,278
40.95	35,060	39,004
41.00	**36,158**	**40,784**

Summary for Subcatchment 1S: Drugstore & parking

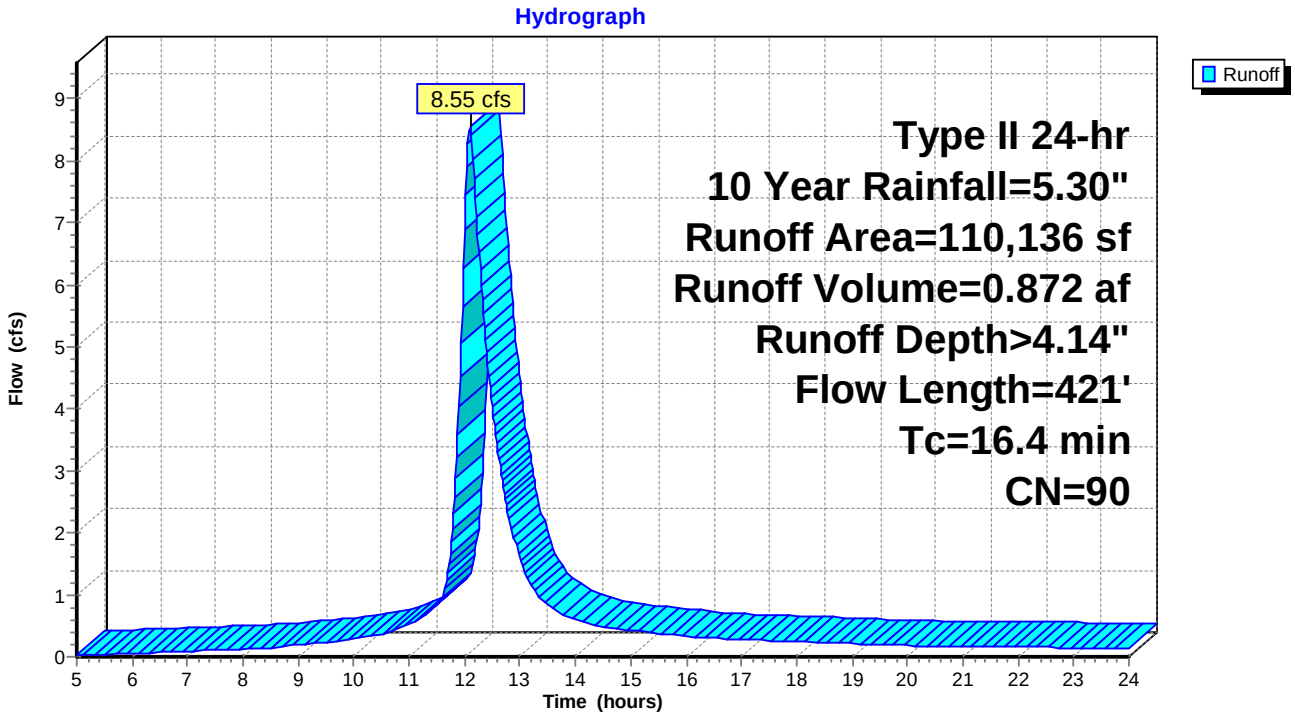
Runoff = 8.55 cfs @ 12.10 hrs, Volume= 0.872 af, Depth> 4.14"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 10 Year Rainfall=5.30"

Area (sf)	CN	Description
86,762	98	Paved roads w/curbs & sewers
23,374	61	>75% Grass cover, Good, HSG B
110,136	90	Weighted Average
23,374		21.22% Pervious Area
86,762		78.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.3	100	0.0086	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
3.1	321	0.0007	1.70	3.01	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
16.4	421	Total			

Subcatchment 1S: Drugstore & parking



Hydrograph for Subcatchment 1S: Drugstore & parking

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.01	0.03
5.20	0.35	0.01	0.03
5.40	0.37	0.02	0.04
5.60	0.39	0.02	0.04
5.80	0.41	0.03	0.05
6.00	0.42	0.03	0.06
6.20	0.44	0.04	0.06
6.40	0.46	0.04	0.07
6.60	0.48	0.05	0.08
6.80	0.50	0.06	0.08
7.00	0.52	0.06	0.09
7.20	0.55	0.07	0.10
7.40	0.57	0.08	0.10
7.60	0.59	0.09	0.11
7.80	0.61	0.10	0.12
8.00	0.64	0.11	0.12
8.20	0.66	0.12	0.13
8.40	0.69	0.14	0.14
8.60	0.72	0.15	0.16
8.80	0.75	0.17	0.18
9.00	0.78	0.19	0.20
9.20	0.81	0.21	0.22
9.40	0.85	0.22	0.23
9.60	0.88	0.25	0.24
9.80	0.92	0.27	0.26
10.00	0.96	0.29	0.28
10.20	1.00	0.32	0.31
10.40	1.05	0.36	0.35
10.60	1.11	0.39	0.40
10.80	1.17	0.44	0.46
11.00	1.25	0.49	0.53
11.20	1.33	0.55	0.62
11.40	1.44	0.64	0.76
11.60	1.63	0.78	0.97
11.80	2.28	1.34	2.31
12.00	3.51	2.46	**6.89**
12.20	3.70	2.64	**7.40**
12.40	3.84	2.77	4.90
12.60	3.94	2.86	3.31
12.80	4.02	2.94	2.27
13.00	4.09	3.01	1.59
13.20	4.15	3.06	1.16
13.40	4.21	3.12	0.93
13.60	4.26	3.17	0.78
13.80	4.30	3.21	0.67
14.00	4.35	3.25	0.60
14.20	4.38	3.29	0.54
14.40	4.42	3.32	0.50
14.60	4.46	3.35	0.47
14.80	4.49	3.39	0.45
15.00	4.52	3.42	0.43
15.20	4.55	3.45	0.41
15.40	4.58	3.48	0.39
15.60	4.61	3.50	0.37
15.80	4.64	3.53	0.35
16.00	4.66	3.55	0.34
16.20	4.69	3.58	0.32
16.40	4.71	3.60	0.31
16.60	4.73	3.62	0.30
16.80	4.76	3.64	0.29
17.00	4.78	3.66	0.28
17.20	4.80	3.68	0.27
17.40	4.82	3.70	0.27
17.60	4.84	3.72	0.26
17.80	4.86	3.74	0.25
18.00	4.88	3.76	0.25
18.20	4.90	3.78	0.24
18.40	4.92	3.80	0.23
18.60	4.94	3.81	0.23
18.80	4.95	3.83	0.22
19.00	4.97	3.85	0.22
19.20	4.99	3.86	0.21
19.40	5.00	3.88	0.20
19.60	5.02	3.89	0.20
19.80	5.03	3.91	0.19
20.00	5.05	3.92	0.18
20.20	5.06	3.93	0.18
20.40	5.07	3.95	0.17
20.60	5.09	3.96	0.17
20.80	5.10	3.97	0.17
21.00	5.11	3.99	0.17
21.20	5.13	4.00	0.16
21.40	5.14	4.01	0.16
21.60	5.15	4.02	0.16
21.80	5.17	4.04	0.16
22.00	5.18	4.05	0.16
22.20	5.19	4.06	0.16
22.40	5.20	4.07	0.16
22.60	5.22	4.08	0.16
22.80	5.23	4.10	0.15
23.00	5.24	4.11	0.15
23.20	5.25	4.12	0.15
23.40	5.26	4.13	0.15
23.60	5.28	4.14	0.15
23.80	5.29	4.15	0.15
24.00	**5.30**	**4.17**	0.15

Summary for Subcatchment 2S: Direct to Pipe 3

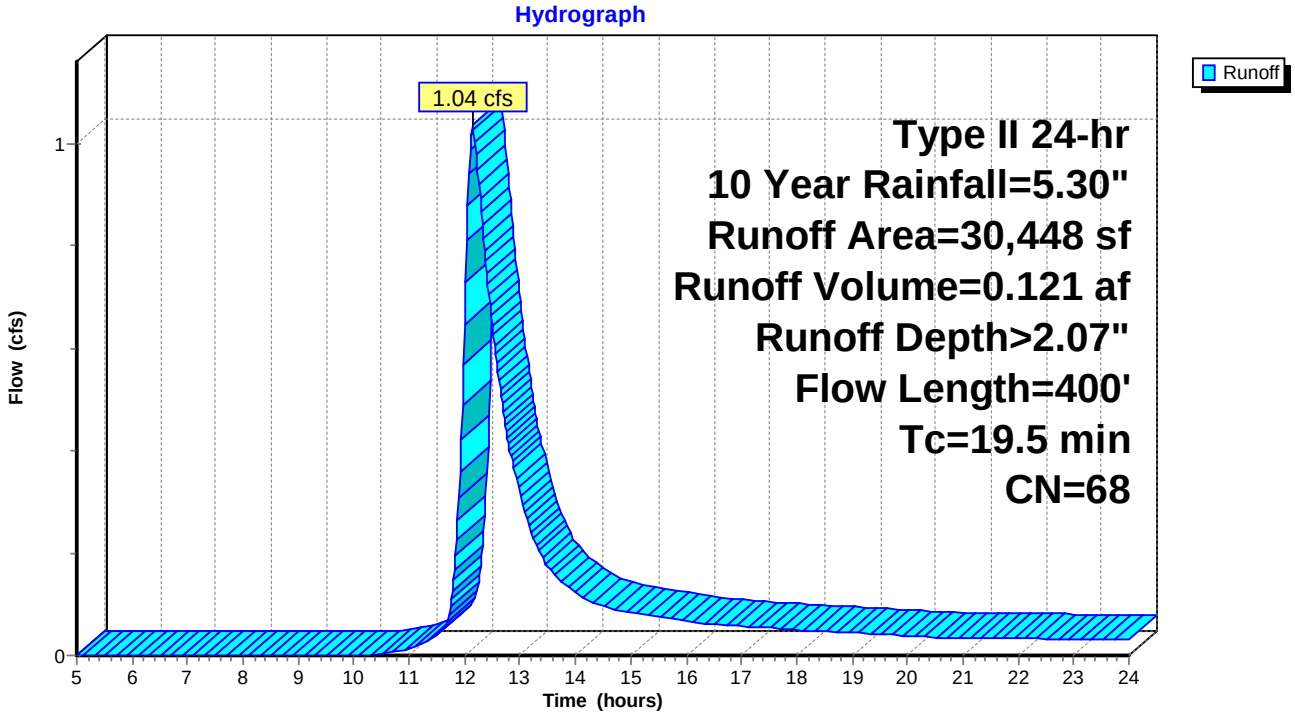
Runoff = 1.04 cfs @ 12.15 hrs, Volume= 0.121 af, Depth> 2.07"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 10 Year Rainfall=5.30"

Area (sf)	CN	Description
5,873	98	Paved roads w/curbs & sewers
24,575	61	>75% Grass cover, Good, HSG B
30,448	68	Weighted Average
24,575		80.71% Pervious Area
5,873		19.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.5	100	0.0050	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
3.0	300	0.0126	1.68		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
19.5	400	Total			

Subcatchment 2S: Direct to Pipe 3



Hydrograph for Subcatchment 2S: Direct to Pipe 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.20	0.35	0.00	0.00
5.40	0.37	0.00	0.00
5.60	0.39	0.00	0.00
5.80	0.41	0.00	0.00
6.00	0.42	0.00	0.00
6.20	0.44	0.00	0.00
6.40	0.46	0.00	0.00
6.60	0.48	0.00	0.00
6.80	0.50	0.00	0.00
7.00	0.52	0.00	0.00
7.20	0.55	0.00	0.00
7.40	0.57	0.00	0.00
7.60	0.59	0.00	0.00
7.80	0.61	0.00	0.00
8.00	0.64	0.00	0.00
8.20	0.66	0.00	0.00
8.40	0.69	0.00	0.00
8.60	0.72	0.00	0.00
8.80	0.75	0.00	0.00
9.00	0.78	0.00	0.00
9.20	0.81	0.00	0.00
9.40	0.85	0.00	0.00
9.60	0.88	0.00	0.00
9.80	0.92	0.00	0.00
10.00	0.96	0.00	0.00
10.20	1.00	0.00	0.00
10.40	1.05	0.00	0.00
10.60	1.11	0.01	0.00
10.80	1.17	0.01	0.01
11.00	1.25	0.02	0.01
11.20	1.33	0.03	0.02
11.40	1.44	0.05	0.03
11.60	1.63	0.09	0.05
11.80	2.28	0.30	0.15
12.00	3.51	0.91	**0.65**
12.20	3.70	1.02	**1.00**
12.40	3.84	1.11	0.75
12.60	3.94	1.17	0.55
12.80	4.02	1.22	0.41
13.00	4.09	1.26	0.32
13.20	4.15	1.30	0.24
13.40	4.21	1.34	0.19
13.60	4.26	1.37	0.16
13.80	4.30	1.40	0.14
14.00	4.35	1.43	0.12
14.20	4.38	1.45	0.11
14.40	4.42	1.48	0.10
14.60	4.46	1.50	0.09
14.80	4.49	1.53	0.09
15.00	4.52	1.55	0.08
15.20	4.55	1.57	0.08
15.40	4.58	1.59	0.08
15.60	4.61	1.61	0.07
15.80	4.64	1.63	0.07
16.00	4.66	1.64	0.07
16.20	4.69	1.66	0.06
16.40	4.71	1.68	0.06
16.60	4.73	1.69	0.06
16.80	4.76	1.71	0.06
17.00	4.78	1.72	0.06
17.20	4.80	1.74	0.06
17.40	4.82	1.75	0.05
17.60	4.84	1.77	0.05
17.80	4.86	1.78	0.05
18.00	4.88	1.80	0.05
18.20	4.90	1.81	0.05
18.40	4.92	1.82	0.05
18.60	4.94	1.83	0.05
18.80	4.95	1.85	0.05
19.00	4.97	1.86	0.04
19.20	4.99	1.87	0.04
19.40	5.00	1.88	0.04
19.60	5.02	1.89	0.04
19.80	5.03	1.90	0.04
20.00	5.05	1.91	0.04
20.20	5.06	1.92	0.04
20.40	5.07	1.93	0.04
20.60	5.09	1.94	0.04
20.80	5.10	1.95	0.03
21.00	5.11	1.96	0.03
21.20	5.13	1.97	0.03
21.40	5.14	1.98	0.03
21.60	5.15	1.99	0.03
21.80	5.17	2.00	0.03
22.00	5.18	2.01	0.03
22.20	5.19	2.02	0.03
22.40	5.20	2.03	0.03
22.60	5.22	2.03	0.03
22.80	5.23	2.04	0.03
23.00	5.24	2.05	0.03
23.20	5.25	2.06	0.03
23.40	5.26	2.07	0.03
23.60	5.28	2.08	0.03
23.80	5.29	2.09	0.03
24.00	**5.30**	**2.10**	0.03

Summary for Subcatchment 4S: Direct to Pipe 1

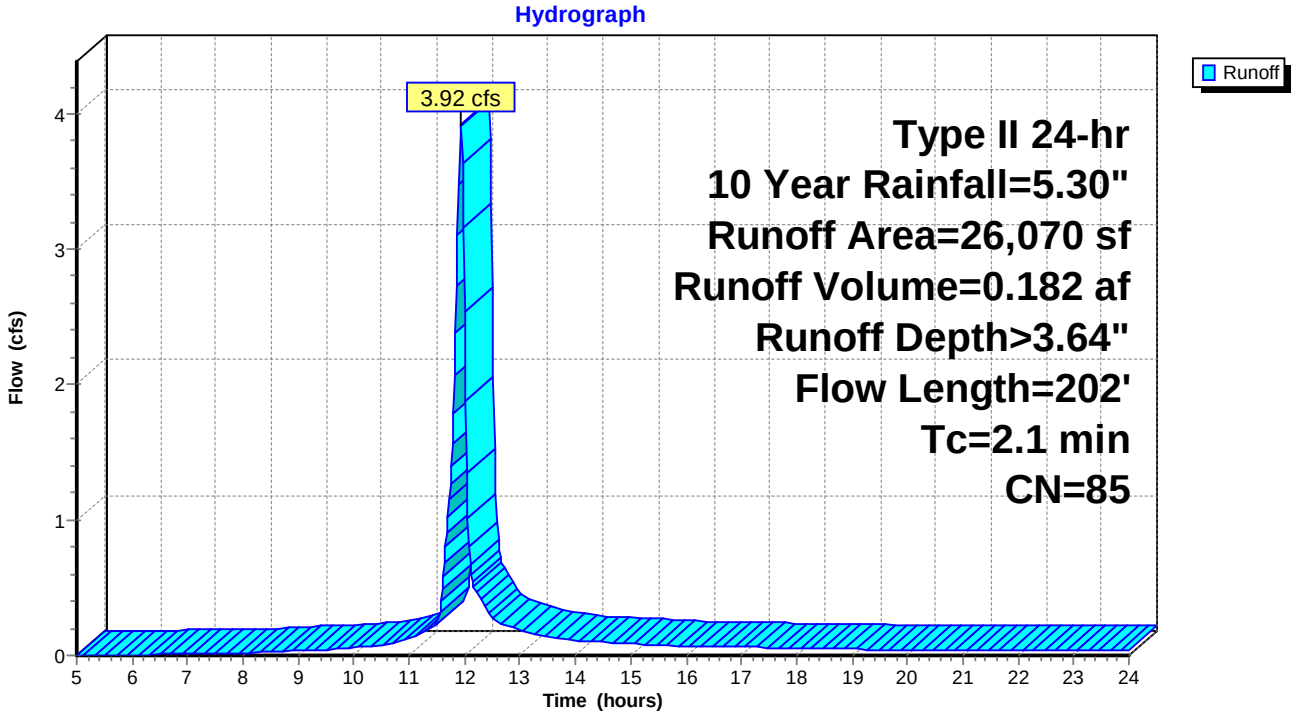
Runoff = 3.92 cfs @ 11.93 hrs, Volume= 0.182 af, Depth> 3.64"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 10 Year Rainfall=5.30"

Area (sf)	CN	Description
16,602	98	Paved roads w/curbs & sewers
9,468	61	>75% Grass cover, Good, HSG B
26,070	85	Weighted Average
9,468		36.32% Pervious Area
16,602		63.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	70	0.0600	2.05		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.40"
1.5	132	0.0052	1.46		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.1	202	Total			

Subcatchment 4S: Direct to Pipe 1



Hydrograph for Subcatchment 4S: Direct to Pipe 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00	15.80	4.64	3.04	0.07
5.20	0.35	0.00	0.00	16.00	4.66	3.06	0.07
5.40	0.37	0.00	0.00	16.20	4.69	3.08	0.07
5.60	0.39	0.00	0.00	16.40	4.71	3.10	0.06
5.80	0.41	0.00	0.00	16.60	4.73	3.12	0.06
6.00	0.42	0.00	0.00	16.80	4.76	3.14	0.06
6.20	0.44	0.00	0.01	17.00	4.78	3.16	0.06
6.40	0.46	0.01	0.01	17.20	4.80	3.18	0.06
6.60	0.48	0.01	0.01	17.40	4.82	3.20	0.06
6.80	0.50	0.01	0.01	17.60	4.84	3.22	0.06
7.00	0.52	0.02	0.01	17.80	4.86	3.24	0.05
7.20	0.55	0.02	0.01	18.00	4.88	3.26	0.05
7.40	0.57	0.02	0.01	18.20	4.90	3.28	0.05
7.60	0.59	0.03	0.01	18.40	4.92	3.29	0.05
7.80	0.61	0.03	0.02	18.60	4.94	3.31	0.05
8.00	0.64	0.04	0.02	18.80	4.95	3.32	0.05
8.20	0.66	0.05	0.02	19.00	4.97	3.34	0.05
8.40	0.69	0.05	0.02	19.20	4.99	3.36	0.04
8.60	0.72	0.06	0.03	19.40	5.00	3.37	0.04
8.80	0.75	0.07	0.03	19.60	5.02	3.38	0.04
9.00	0.78	0.08	0.03	19.80	5.03	3.40	0.04
9.20	0.81	0.10	0.04	20.00	5.05	3.41	0.04
9.40	0.85	0.11	0.04	20.20	5.06	3.42	0.04
9.60	0.88	0.12	0.04	20.40	5.07	3.44	0.04
9.80	0.92	0.14	0.05	20.60	5.09	3.45	0.04
10.00	0.96	0.16	0.06	20.80	5.10	3.46	0.04
10.20	1.00	0.18	0.06	21.00	5.11	3.47	0.04
10.40	1.05	0.20	0.07	21.20	5.13	3.49	0.04
10.60	1.11	0.23	0.09	21.40	5.14	3.50	0.04
10.80	1.17	0.26	0.10	21.60	5.15	3.51	0.04
11.00	1.25	0.30	0.12	21.80	5.17	3.52	0.04
11.20	1.33	0.35	0.16	22.00	5.18	3.53	0.04
11.40	1.44	0.41	0.20	22.20	5.19	3.54	0.04
11.60	1.63	0.53	0.49	22.40	5.20	3.56	0.04
11.80	2.28	1.01	**1.79**	22.60	5.22	3.57	0.03
12.00	3.51	2.03	**2.54**	22.80	5.23	3.58	0.03
12.20	3.70	2.19	0.47	23.00	5.24	3.59	0.03
12.40	3.84	2.32	0.35	23.20	5.25	3.60	0.03
12.60	3.94	2.40	0.24	23.40	5.26	3.61	0.03
12.80	4.02	2.48	0.21	23.60	5.28	3.62	0.03
13.00	4.09	2.54	0.18	23.80	5.29	3.64	0.03
13.20	4.15	2.60	0.16	24.00	**5.30**	**3.65**	0.03
13.40	4.21	2.65	0.15				
13.60	4.26	2.69	0.13				
13.80	4.30	2.73	0.12				
14.00	4.35	2.77	0.11				
14.20	4.38	2.80	0.10				
14.40	4.42	2.84	0.10				
14.60	4.46	2.87	0.10				
14.80	4.49	2.90	0.09				
15.00	4.52	2.93	0.09				
15.20	4.55	2.96	0.08				
15.40	4.58	2.99	0.08				
15.60	4.61	3.01	0.08				

Summary for Subcatchment 5S: Wet Pond DA

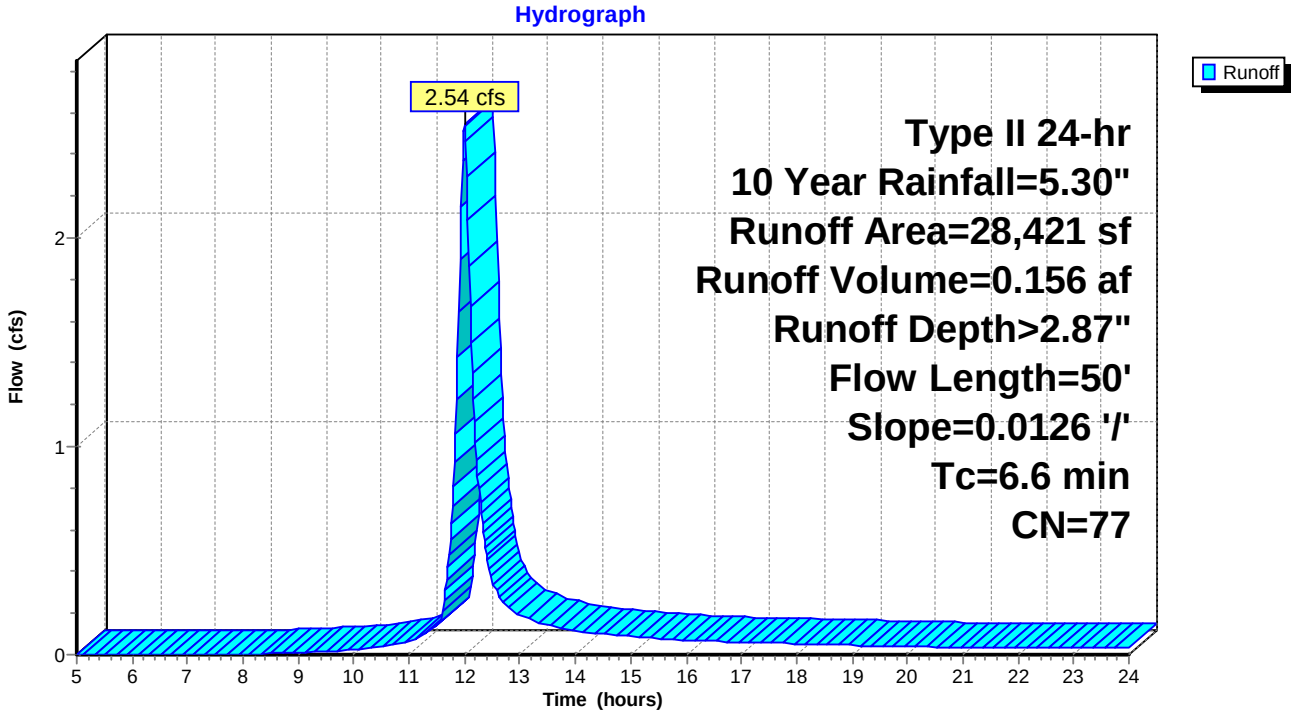
Runoff = 2.54 cfs @ 12.00 hrs, Volume= 0.156 af, Depth> 2.87"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 10 Year Rainfall=5.30"

	Area (sf)	CN	Description
*	12,422	98	Water Surface
	15,999	61	>75% Grass cover, Good, HSG B
	28,421	77	Weighted Average
	15,999		56.29% Pervious Area
	12,422		43.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	50	0.0126	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"

Subcatchment 5S: Wet Pond DA



Hydrograph for Subcatchment 5S: Wet Pond DA

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.20	0.35	0.00	0.00
5.40	0.37	0.00	0.00
5.60	0.39	0.00	0.00
5.80	0.41	0.00	0.00
6.00	0.42	0.00	0.00
6.20	0.44	0.00	0.00
6.40	0.46	0.00	0.00
6.60	0.48	0.00	0.00
6.80	0.50	0.00	0.00
7.00	0.52	0.00	0.00
7.20	0.55	0.00	0.00
7.40	0.57	0.00	0.00
7.60	0.59	0.00	0.00
7.80	0.61	0.00	0.00
8.00	0.64	0.00	0.00
8.20	0.66	0.00	0.00
8.40	0.69	0.00	0.00
8.60	0.72	0.00	0.01
8.80	0.75	0.01	0.01
9.00	0.78	0.01	0.01
9.20	0.81	0.01	0.01
9.40	0.85	0.02	0.01
9.60	0.88	0.02	0.02
9.80	0.92	0.03	0.02
10.00	0.96	0.04	0.02
10.20	1.00	0.05	0.03
10.40	1.05	0.06	0.04
10.60	1.11	0.08	0.04
10.80	1.17	0.09	0.06
11.00	1.25	0.12	0.07
11.20	1.33	0.14	0.09
11.40	1.44	0.18	0.12
11.60	1.63	0.26	0.19
11.80	2.28	0.61	0.81
12.00	3.51	1.44	**2.54**
12.20	3.70	1.58	1.02
12.40	3.84	1.69	0.48
12.60	3.94	1.77	0.29
12.80	4.02	1.83	0.22
13.00	4.09	1.88	0.19
13.20	4.15	1.93	0.17
13.40	4.21	1.98	0.15
13.60	4.26	2.02	0.14
13.80	4.30	2.05	0.12
14.00	4.35	2.09	0.11
14.20	4.38	2.12	0.10
14.40	4.42	2.15	0.10
14.60	4.46	2.18	0.10
14.80	4.49	2.20	0.09
15.00	4.52	2.23	0.09
15.20	4.55	2.26	0.08
15.40	4.58	2.28	0.08
15.60	4.61	2.30	0.08
15.80	4.64	2.32	0.07
16.00	4.66	2.34	0.07
16.20	4.69	2.36	0.07
16.40	4.71	2.38	0.06
16.60	4.73	2.40	0.06
16.80	4.76	2.42	0.06
17.00	4.78	2.44	0.06
17.20	4.80	2.46	0.06
17.40	4.82	2.47	0.06
17.60	4.84	2.49	0.06
17.80	4.86	2.51	0.05
18.00	4.88	2.52	0.05
18.20	4.90	2.54	0.05
18.40	4.92	2.55	0.05
18.60	4.94	2.57	0.05
18.80	4.95	2.58	0.05
19.00	4.97	2.60	0.05
19.20	4.99	2.61	0.04
19.40	5.00	2.62	0.04
19.60	5.02	2.64	0.04
19.80	5.03	2.65	0.04
20.00	5.05	2.66	0.04
20.20	5.06	2.67	0.04
20.40	5.07	2.68	0.04
20.60	5.09	2.70	0.04
20.80	5.10	2.71	0.04
21.00	5.11	2.72	0.04
21.20	5.13	2.73	0.04
21.40	5.14	2.74	0.04
21.60	5.15	2.75	0.04
21.80	5.17	2.76	0.04
22.00	5.18	2.77	0.04
22.20	5.19	2.78	0.04
22.40	5.20	2.79	0.04
22.60	5.22	2.80	0.03
22.80	5.23	2.81	0.03
23.00	5.24	2.83	0.03
23.20	5.25	2.84	0.03
23.40	5.26	2.85	0.03
23.60	5.28	2.86	0.03
23.80	5.29	2.87	0.03
24.00	**5.30**	**2.88**	0.03

Summary for Subcatchment 6S: Entrance SD

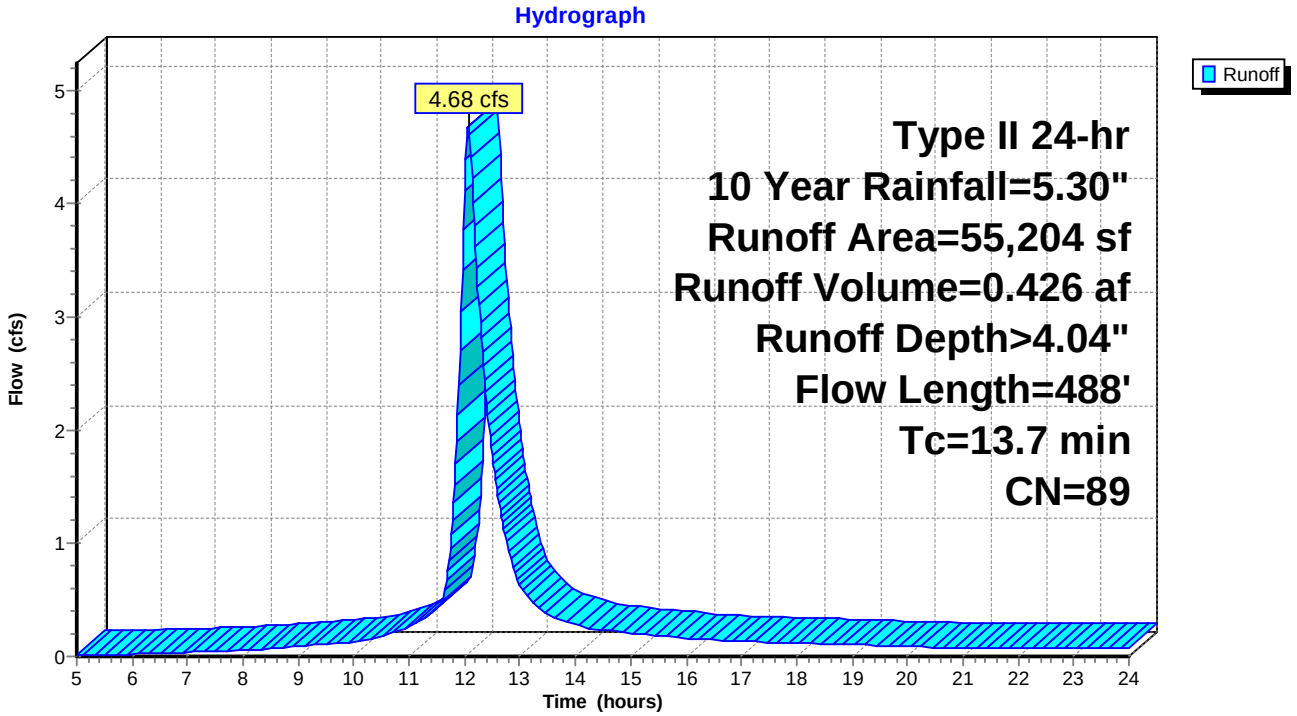
Runoff = 4.68 cfs @ 12.07 hrs, Volume= 0.426 af, Depth> 4.04"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 10 Year Rainfall=5.30"

Area (sf)	CN	Description
42,497	98	Paved roads w/curbs & sewers
12,707	61	>75% Grass cover, Good, HSG B
55,204	89	Weighted Average
12,707		23.02% Pervious Area
42,497		76.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	50	0.0050	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
3.2	263	0.0081	1.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.0	175	0.0025	2.85	3.50	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012 Concrete pipe, finished
13.7	488	Total			

Subcatchment 6S: Entrance SD



Hydrograph for Subcatchment 6S: Entrance SD

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.01	0.01
5.20	0.35	0.01	0.01
5.40	0.37	0.01	0.01
5.60	0.39	0.01	0.02
5.80	0.41	0.02	0.02
6.00	0.42	0.02	0.02
6.20	0.44	0.03	0.03
6.40	0.46	0.03	0.03
6.60	0.48	0.04	0.03
6.80	0.50	0.04	0.04
7.00	0.52	0.05	0.04
7.20	0.55	0.06	0.04
7.40	0.57	0.07	0.05
7.60	0.59	0.07	0.05
7.80	0.61	0.08	0.05
8.00	0.64	0.09	0.06
8.20	0.66	0.10	0.06
8.40	0.69	0.12	0.07
8.60	0.72	0.13	0.07
8.80	0.75	0.14	0.08
9.00	0.78	0.16	0.09
9.20	0.81	0.18	0.10
9.40	0.85	0.20	0.11
9.60	0.88	0.22	0.11
9.80	0.92	0.24	0.12
10.00	0.96	0.26	0.14
10.20	1.00	0.29	0.15
10.40	1.05	0.32	0.17
10.60	1.11	0.35	0.20
10.80	1.17	0.40	0.23
11.00	1.25	0.45	0.26
11.20	1.33	0.51	0.31
11.40	1.44	0.58	0.39
11.60	1.63	0.73	0.50
11.80	2.28	1.27	1.36
12.00	3.51	2.37	**4.11**
12.20	3.70	2.55	**3.61**
12.40	3.84	2.68	2.23
12.60	3.94	2.77	1.42
12.80	4.02	2.84	0.92
13.00	4.09	2.91	0.63
13.20	4.15	2.97	0.49
13.40	4.21	3.02	0.40
13.60	4.26	3.07	0.35
13.80	4.30	3.11	0.31
14.00	4.35	3.15	0.28
14.20	4.38	3.19	0.26
14.40	4.42	3.22	0.24
14.60	4.46	3.25	0.23
14.80	4.49	3.29	0.22
15.00	4.52	3.32	0.21
15.20	4.55	3.35	0.20
15.40	4.58	3.38	0.19
15.60	4.61	3.40	0.18
15.80	4.64	3.43	0.17
16.00	4.66	3.45	0.16
16.20	4.69	3.47	0.16
16.40	4.71	3.50	0.15
16.60	4.73	3.52	0.15
16.80	4.76	3.54	0.14
17.00	4.78	3.56	0.14
17.20	4.80	3.58	0.13
17.40	4.82	3.60	0.13
17.60	4.84	3.62	0.13
17.80	4.86	3.64	0.13
18.00	4.88	3.66	0.12
18.20	4.90	3.68	0.12
18.40	4.92	3.69	0.12
18.60	4.94	3.71	0.11
18.80	4.95	3.73	0.11
19.00	4.97	3.74	0.11
19.20	4.99	3.76	0.10
19.40	5.00	3.77	0.10
19.60	5.02	3.79	0.10
19.80	5.03	3.80	0.09
20.00	5.05	3.82	0.09
20.20	5.06	3.83	0.09
20.40	5.07	3.84	0.09
20.60	5.09	3.85	0.08
20.80	5.10	3.87	0.08
21.00	5.11	3.88	0.08
21.20	5.13	3.89	0.08
21.40	5.14	3.91	0.08
21.60	5.15	3.92	0.08
21.80	5.17	3.93	0.08
22.00	5.18	3.94	0.08
22.20	5.19	3.95	0.08
22.40	5.20	3.97	0.08
22.60	5.22	3.98	0.08
22.80	5.23	3.99	0.08
23.00	5.24	4.00	0.08
23.20	5.25	4.01	0.08
23.40	5.26	4.03	0.07
23.60	5.28	4.04	0.07
23.80	5.29	4.05	0.07
24.00	**5.30**	**4.06**	0.07

Summary for Subcatchment 7S: Dry Pond DA

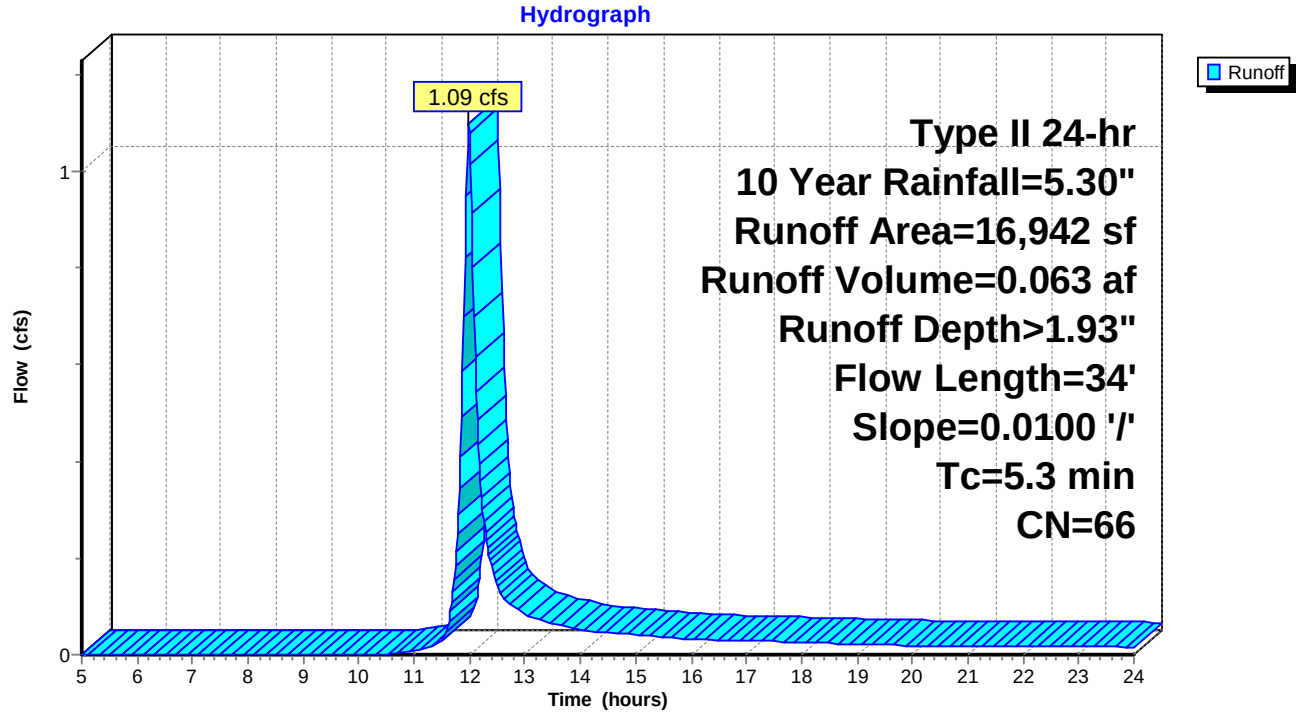
Runoff = 1.09 cfs @ 11.99 hrs, Volume= 0.063 af, Depth> 1.93"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 10 Year Rainfall=5.30"

	Area (sf)	CN	Description
	14,592	61	>75% Grass cover, Good, HSG B
*	2,350	98	Impervious Areas
	16,942	66	Weighted Average
	14,592		86.13% Pervious Area
	2,350		13.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	34	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"

Subcatchment 7S: Dry Pond DA



Hydrograph for Subcatchment 7S: Dry Pond DA

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.20	0.35	0.00	0.00
5.40	0.37	0.00	0.00
5.60	0.39	0.00	0.00
5.80	0.41	0.00	0.00
6.00	0.42	0.00	0.00
6.20	0.44	0.00	0.00
6.40	0.46	0.00	0.00
6.60	0.48	0.00	0.00
6.80	0.50	0.00	0.00
7.00	0.52	0.00	0.00
7.20	0.55	0.00	0.00
7.40	0.57	0.00	0.00
7.60	0.59	0.00	0.00
7.80	0.61	0.00	0.00
8.00	0.64	0.00	0.00
8.20	0.66	0.00	0.00
8.40	0.69	0.00	0.00
8.60	0.72	0.00	0.00
8.80	0.75	0.00	0.00
9.00	0.78	0.00	0.00
9.20	0.81	0.00	0.00
9.40	0.85	0.00	0.00
9.60	0.88	0.00	0.00
9.80	0.92	0.00	0.00
10.00	0.96	0.00	0.00
10.20	1.00	0.00	0.00
10.40	1.05	0.00	0.00
10.60	1.11	0.00	0.00
10.80	1.17	0.00	0.00
11.00	1.25	0.01	0.01
11.20	1.33	0.02	0.01
11.40	1.44	0.03	0.02
11.60	1.63	0.06	0.05
11.80	2.28	0.25	**0.29**
12.00	3.51	0.81	**1.08**
12.20	3.70	0.91	0.36
12.40	3.84	0.99	0.18
12.60	3.94	1.05	0.12
12.80	4.02	1.10	0.10
13.00	4.09	1.14	0.09
13.20	4.15	1.18	0.08
13.40	4.21	1.21	0.07
13.60	4.26	1.24	0.06
13.80	4.30	1.27	0.06
14.00	4.35	1.30	0.05
14.20	4.38	1.32	0.05
14.40	4.42	1.35	0.05
14.60	4.46	1.37	0.04
14.80	4.49	1.39	0.04
15.00	4.52	1.41	0.04
15.20	4.55	1.43	0.04
15.40	4.58	1.45	0.04
15.60	4.61	1.47	0.04
15.80	4.64	1.49	0.03
16.00	4.66	1.50	0.03
16.20	4.69	1.52	0.03
16.40	4.71	1.53	0.03
16.60	4.73	1.55	0.03
16.80	4.76	1.56	0.03
17.00	4.78	1.58	0.03
17.20	4.80	1.59	0.03
17.40	4.82	1.61	0.03
17.60	4.84	1.62	0.03
17.80	4.86	1.63	0.03
18.00	4.88	1.65	0.03
18.20	4.90	1.66	0.02
18.40	4.92	1.67	0.02
18.60	4.94	1.68	0.02
18.80	4.95	1.70	0.02
19.00	4.97	1.71	0.02
19.20	4.99	1.72	0.02
19.40	5.00	1.73	0.02
19.60	5.02	1.74	0.02
19.80	5.03	1.75	0.02
20.00	5.05	1.76	0.02
20.20	5.06	1.77	0.02
20.40	5.07	1.78	0.02
20.60	5.09	1.79	0.02
20.80	5.10	1.80	0.02
21.00	5.11	1.81	0.02
21.20	5.13	1.81	0.02
21.40	5.14	1.82	0.02
21.60	5.15	1.83	0.02
21.80	5.17	1.84	0.02
22.00	5.18	1.85	0.02
22.20	5.19	1.86	0.02
22.40	5.20	1.87	0.02
22.60	5.22	1.88	0.02
22.80	5.23	1.88	0.02
23.00	5.24	1.89	0.02
23.20	5.25	1.90	0.02
23.40	5.26	1.91	0.02
23.60	5.28	1.92	0.02
23.80	5.29	1.93	0.02
24.00	**5.30**	**1.94**	0.02

Summary for Subcatchment 8S: Future Development

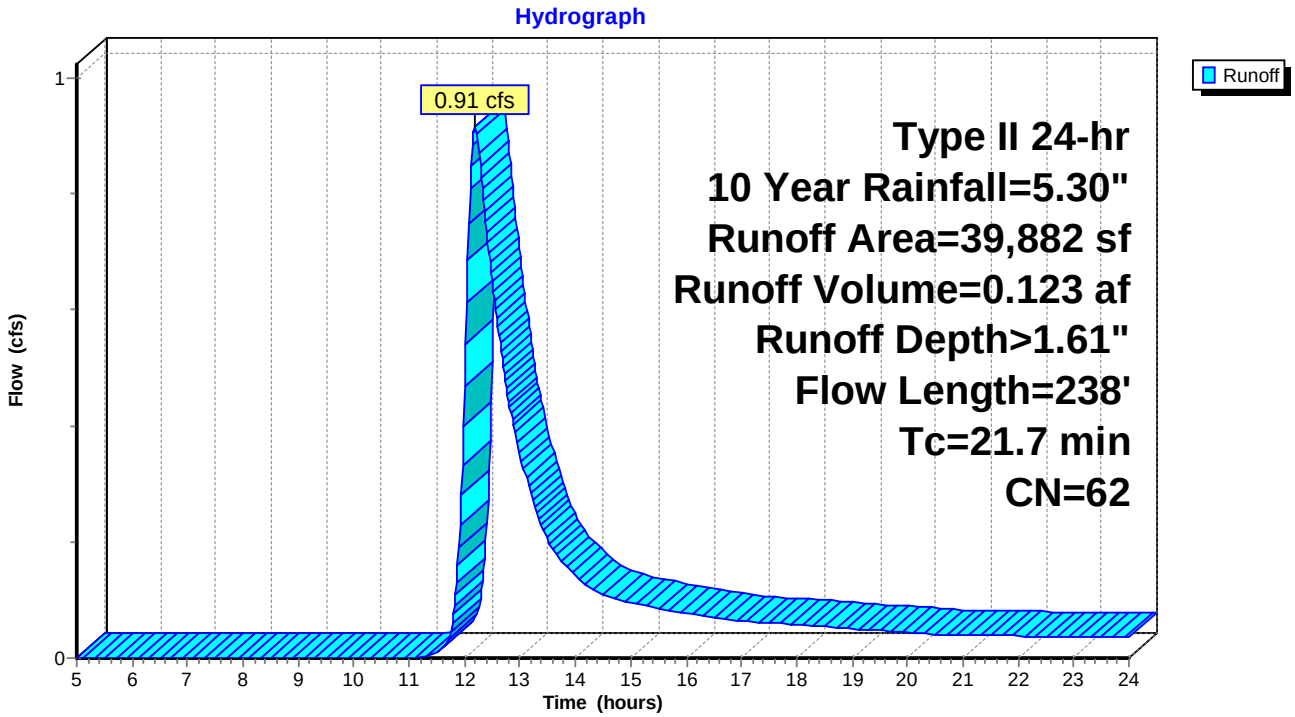
Runoff = 0.91 cfs @ 12.19 hrs, Volume= 0.123 af, Depth> 1.61"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 10 Year Rainfall=5.30"

Area (sf)	CN	Description
35,607	61	>75% Grass cover, Good, HSG B
4,275	74	>75% Grass cover, Good, HSG C
39,882	62	Weighted Average
39,882		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	100	0.0034	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
2.4	138	0.0036	0.97		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
21.7	238	Total			

Subcatchment 8S: Future Development



Hydrograph for Subcatchment 8S: Future Development

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.20	0.35	0.00	0.00
5.40	0.37	0.00	0.00
5.60	0.39	0.00	0.00
5.80	0.41	0.00	0.00
6.00	0.42	0.00	0.00
6.20	0.44	0.00	0.00
6.40	0.46	0.00	0.00
6.60	0.48	0.00	0.00
6.80	0.50	0.00	0.00
7.00	0.52	0.00	0.00
7.20	0.55	0.00	0.00
7.40	0.57	0.00	0.00
7.60	0.59	0.00	0.00
7.80	0.61	0.00	0.00
8.00	0.64	0.00	0.00
8.20	0.66	0.00	0.00
8.40	0.69	0.00	0.00
8.60	0.72	0.00	0.00
8.80	0.75	0.00	0.00
9.00	0.78	0.00	0.00
9.20	0.81	0.00	0.00
9.40	0.85	0.00	0.00
9.60	0.88	0.00	0.00
9.80	0.92	0.00	0.00
10.00	0.96	0.00	0.00
10.20	1.00	0.00	0.00
10.40	1.05	0.00	0.00
10.60	1.11	0.00	0.00
10.80	1.17	0.00	0.00
11.00	1.25	0.00	0.00
11.20	1.33	0.00	0.00
11.40	1.44	0.01	0.00
11.60	1.63	0.02	0.02
11.80	2.28	0.16	0.07
12.00	3.51	0.62	0.47
12.20	3.70	0.71	**0.91**
12.40	3.84	0.78	0.73
12.60	3.94	0.83	0.57
12.80	4.02	0.88	0.44
13.00	4.09	0.91	0.35
13.20	4.15	0.95	0.28
13.40	4.21	0.98	0.23
13.60	4.26	1.00	0.19
13.80	4.30	1.03	0.16
14.00	4.35	1.05	0.14
14.20	4.38	1.07	0.13
14.40	4.42	1.10	0.11
14.60	4.46	1.12	0.11
14.80	4.49	1.13	0.10
15.00	4.52	1.15	0.10
15.20	4.55	1.17	0.09
15.40	4.58	1.19	0.09
15.60	4.61	1.21	0.08
15.80	4.64	1.22	0.08
16.00	4.66	1.24	0.08
16.20	4.69	1.25	0.07
16.40	4.71	1.26	0.07
16.60	4.73	1.28	0.07
16.80	4.76	1.29	0.07
17.00	4.78	1.30	0.06
17.20	4.80	1.32	0.06
17.40	4.82	1.33	0.06
17.60	4.84	1.34	0.06
17.80	4.86	1.35	0.06
18.00	4.88	1.37	0.06
18.20	4.90	1.38	0.06
18.40	4.92	1.39	0.05
18.60	4.94	1.40	0.05
18.80	4.95	1.41	0.05
19.00	4.97	1.42	0.05
19.20	4.99	1.43	0.05
19.40	5.00	1.44	0.05
19.60	5.02	1.45	0.05
19.80	5.03	1.46	0.04
20.00	5.05	1.47	0.04
20.20	5.06	1.48	0.04
20.40	5.07	1.48	0.04
20.60	5.09	1.49	0.04
20.80	5.10	1.50	0.04
21.00	5.11	1.51	0.04
21.20	5.13	1.52	0.04
21.40	5.14	1.53	0.04
21.60	5.15	1.53	0.04
21.80	5.17	1.54	0.04
22.00	5.18	1.55	0.04
22.20	5.19	1.56	0.04
22.40	5.20	1.57	0.04
22.60	5.22	1.57	0.04
22.80	5.23	1.58	0.04
23.00	5.24	1.59	0.04
23.20	5.25	1.60	0.04
23.40	5.26	1.60	0.04
23.60	5.28	1.61	0.04
23.80	5.29	1.62	0.04
24.00	**5.30**	**1.63**	0.04

Summary for Subcatchment 9S: Future Development

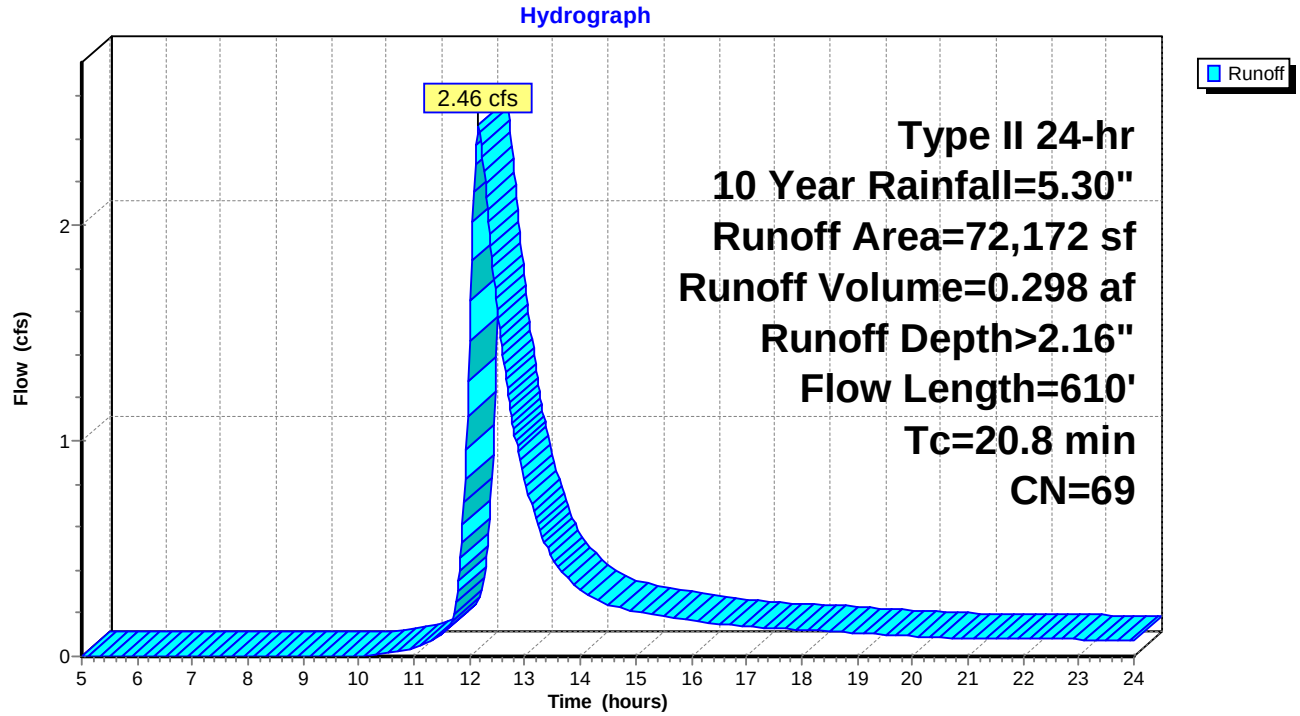
Runoff = 2.46 cfs @ 12.16 hrs, Volume= 0.298 af, Depth> 2.16"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 10 Year Rainfall=5.30"

Area (sf)	CN	Description
27,748	61	>75% Grass cover, Good, HSG B
44,424	74	>75% Grass cover, Good, HSG C
72,172	69	Weighted Average
72,172		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.9	100	0.0055	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
1.1	121	0.0119	1.76		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
1.2	119	0.0122	1.66		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
2.6	270	0.0007	1.70	3.01	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
20.8	610	Total			

Subcatchment 9S: Future Development



Hydrograph for Subcatchment 9S: Future Development

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.20	0.35	0.00	0.00
5.40	0.37	0.00	0.00
5.60	0.39	0.00	0.00
5.80	0.41	0.00	0.00
6.00	0.42	0.00	0.00
6.20	0.44	0.00	0.00
6.40	0.46	0.00	0.00
6.60	0.48	0.00	0.00
6.80	0.50	0.00	0.00
7.00	0.52	0.00	0.00
7.20	0.55	0.00	0.00
7.40	0.57	0.00	0.00
7.60	0.59	0.00	0.00
7.80	0.61	0.00	0.00
8.00	0.64	0.00	0.00
8.20	0.66	0.00	0.00
8.40	0.69	0.00	0.00
8.60	0.72	0.00	0.00
8.80	0.75	0.00	0.00
9.00	0.78	0.00	0.00
9.20	0.81	0.00	0.00
9.40	0.85	0.00	0.00
9.60	0.88	0.00	0.00
9.80	0.92	0.00	0.00
10.00	0.96	0.00	0.00
10.20	1.00	0.00	0.00
10.40	1.05	0.01	0.01
10.60	1.11	0.01	0.02
10.80	1.17	0.02	0.03
11.00	1.25	0.02	0.04
11.20	1.33	0.04	0.06
11.40	1.44	0.06	0.08
11.60	1.63	0.10	0.13
11.80	2.28	0.33	0.35
12.00	3.51	0.96	**1.47**
12.20	3.70	1.08	**2.42**
12.40	3.84	1.17	1.85
12.60	3.94	1.23	1.40
12.80	4.02	1.28	1.05
13.00	4.09	1.33	0.81
13.20	4.15	1.37	0.64
13.40	4.21	1.40	0.50
13.60	4.26	1.44	0.41
13.80	4.30	1.47	0.35
14.00	4.35	1.50	0.31
14.20	4.38	1.52	0.27
14.40	4.42	1.55	0.25
14.60	4.46	1.57	0.23
14.80	4.49	1.60	0.22
15.00	4.52	1.62	0.21
15.20	4.55	1.64	0.20
15.40	4.58	1.66	0.19
15.60	4.61	1.68	0.18
15.80	4.64	1.70	0.17
16.00	4.66	1.72	0.17
16.20	4.69	1.73	0.16
16.40	4.71	1.75	0.15
16.60	4.73	1.77	0.15
16.80	4.76	1.78	0.14
17.00	4.78	1.80	0.14
17.20	4.80	1.81	0.13
17.40	4.82	1.83	0.13
17.60	4.84	1.84	0.13
17.80	4.86	1.86	0.13
18.00	4.88	1.87	0.12
18.20	4.90	1.89	0.12
18.40	4.92	1.90	0.12
18.60	4.94	1.91	0.11
18.80	4.95	1.92	0.11
19.00	4.97	1.94	0.11
19.20	4.99	1.95	0.10
19.40	5.00	1.96	0.10
19.60	5.02	1.97	0.10
19.80	5.03	1.98	0.10
20.00	5.05	1.99	0.09
20.20	5.06	2.00	0.09
20.40	5.07	2.01	0.09
20.60	5.09	2.02	0.09
20.80	5.10	2.03	0.08
21.00	5.11	2.04	0.08
21.20	5.13	2.05	0.08
21.40	5.14	2.06	0.08
21.60	5.15	2.07	0.08
21.80	5.17	2.08	0.08
22.00	5.18	2.09	0.08
22.20	5.19	2.10	0.08
22.40	5.20	2.11	0.08
22.60	5.22	2.12	0.08
22.80	5.23	2.12	0.08
23.00	5.24	2.13	0.08
23.20	5.25	2.14	0.08
23.40	5.26	2.15	0.08
23.60	5.28	2.16	0.08
23.80	5.29	2.17	0.07
24.00	**5.30**	**2.18**	0.07

Summary for Pond 1P: Drugstore Pond

Inflow Area = 7.409 ac, 44.63% Impervious, Inflow Depth > 3.14" for 10 Year event
Inflow = 18.59 cfs @ 12.08 hrs, Volume= 1.937 af
Outflow = 2.27 cfs @ 13.40 hrs, Volume= 1.704 af, Atten= 88%, Lag= 79.6 min
Primary = 2.27 cfs @ 13.40 hrs, Volume= 1.704 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Peak Elev= 39.76' @ 13.40 hrs Surf.Area= 24,638 sf Storage= 45,006 cf

Plug-Flow detention time= 253.8 min calculated for 1.704 af (88% of inflow)
Center-of-Mass det. time= 196.4 min (1,016.6 - 820.2)

Volume	Invert	Avail.Storage	Storage Description
#1	37.60'	65,002 cf	**Wet Storage (Prismatic)** Listed below
#2	37.60'	25,745 cf	**Dry Storage (Prismatic)** Listed below (Recalc)
		90,747 cf	Total Available Storage

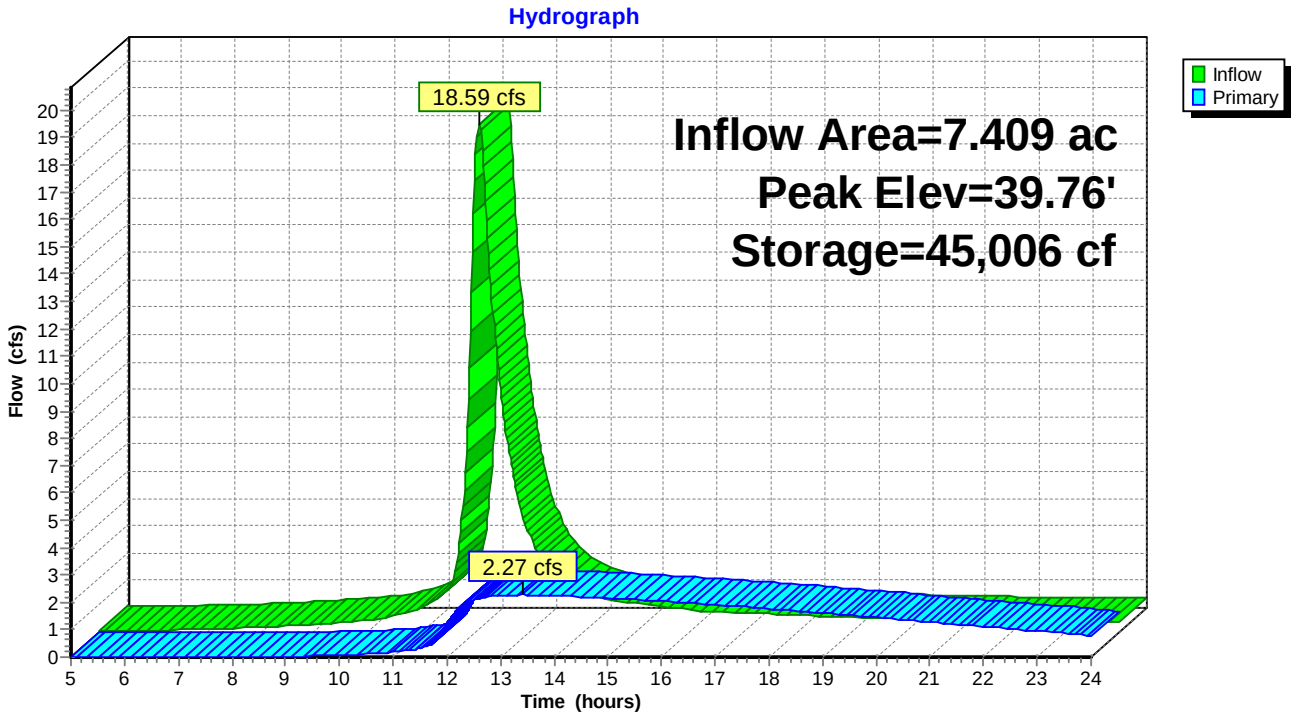
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
37.60	11,480	0	0
38.00	12,768	4,850	4,850
39.00	14,767	13,768	18,617
40.00	16,874	15,821	34,438
41.00	19,082	17,978	52,416
41.63	20,874	12,586	65,002

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
37.60	4,912	0	0
38.00	5,602	2,103	2,103
39.00	7,065	6,334	8,436
40.00	8,629	7,847	16,283
41.00	10,294	9,462	25,745

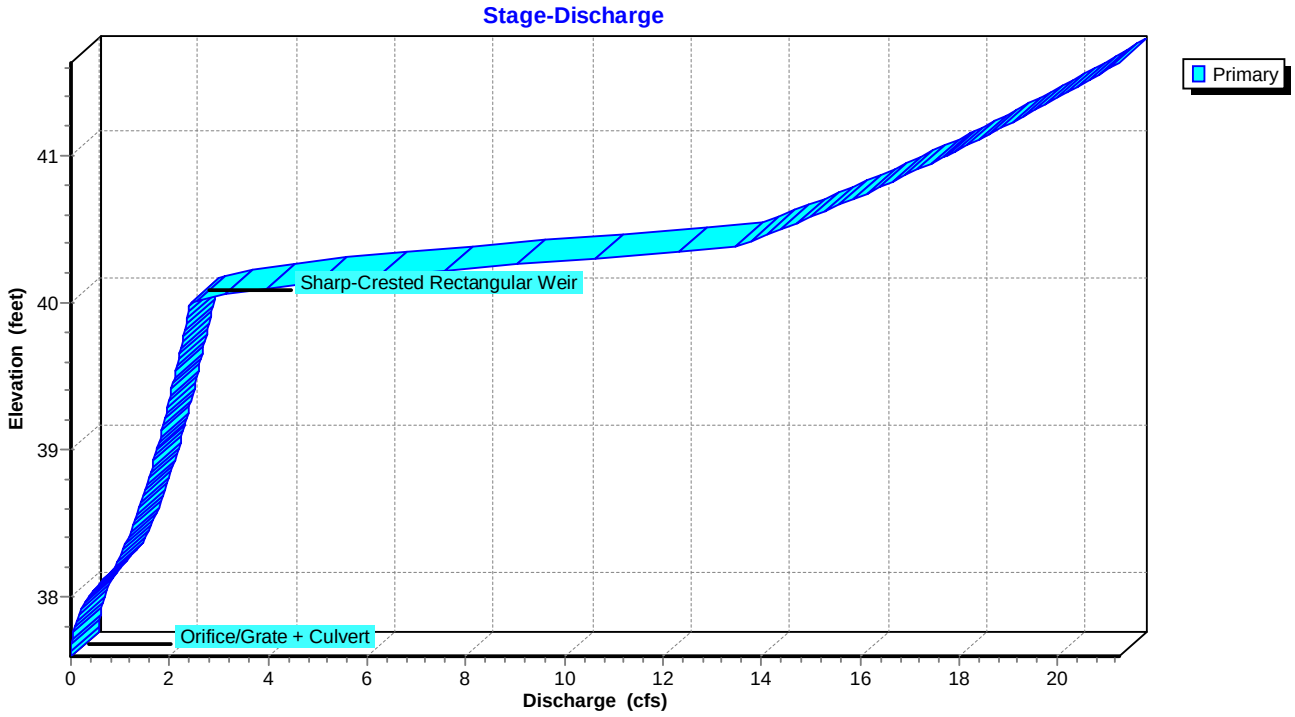
Device	Routing	Invert	Outlet Devices
#1	Device 3	37.60'	**8.0" Vert. Orifice/Grate** C= 0.600
#2	Device 3	40.00'	**15.0' long x 0.67' rise Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Primary	37.60'	**24.0" Round Culvert** L= 136.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 37.60' / 37.54' S= 0.0004 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 3.14 sf

Primary OutFlow Max=2.27 cfs @ 13.40 hrs HW=39.76' (Free Discharge)
└**3=Culvert** (Passes 2.27 cfs of 10.52 cfs potential flow)
  ├**1=Orifice/Grate** (Orifice Controls 2.27 cfs @ 6.52 fps)
  └**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: Drugstore Pond



Pond 1P: Drugstore Pond



Hydrograph for Pond 1P: Drugstore Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.04	1	37.60	0.00
5.40	0.05	63	37.60	0.00
5.80	0.07	150	37.61	0.00
6.20	0.09	263	37.62	0.00
6.60	0.11	403	37.62	0.00
7.00	0.13	570	37.63	0.00
7.40	0.15	766	37.64	0.00
7.80	0.17	990	37.66	0.01
8.20	0.19	1,242	37.67	0.01
8.60	0.24	1,537	37.69	0.01
9.00	0.30	1,900	37.71	0.02
9.40	0.36	2,338	37.74	0.03
9.80	0.40	2,823	37.76	0.05
10.20	0.50	3,377	37.80	0.07
10.60	0.66	4,070	37.84	0.11
11.00	0.91	4,983	37.89	0.17
11.40	1.38	6,262	37.96	0.29
11.80	**5.19**	9,048	38.11	0.62
12.20	**15.73**	27,354	39.01	1.75
12.60	7.11	39,940	39.55	2.14
13.00	3.66	44,145	39.73	2.25
13.40	2.28	**45,006**	**39.76**	**2.27**
13.80	1.67	44,534	39.74	2.26
14.20	1.35	43,458	39.70	2.23
14.60	1.18	42,071	39.64	2.20
15.00	1.07	40,551	39.58	2.16
15.40	0.98	38,952	39.51	2.11
15.80	0.89	37,289	39.44	2.06
16.20	0.80	35,570	39.37	2.01
16.60	0.75	33,821	39.29	1.96
17.00	0.71	32,086	39.22	1.91
17.40	0.68	30,380	39.14	1.85
17.80	0.64	28,708	39.07	1.79
18.20	0.61	27,071	39.00	1.74
18.60	0.58	25,475	38.92	1.67
19.00	0.55	23,925	38.85	1.61
19.40	0.52	22,423	38.78	1.54
19.80	0.48	20,968	38.70	1.48
20.20	0.45	19,564	38.64	1.41
20.60	0.43	18,221	38.57	1.34
21.00	0.43	16,959	38.51	1.27
21.40	0.42	15,782	38.45	1.21
21.80	0.41	14,691	38.39	1.14
22.20	0.41	13,685	38.34	1.08
22.60	0.40	12,762	38.30	1.01
23.00	0.39	11,916	38.25	0.96
23.40	0.39	11,143	38.21	0.90
23.80	0.38	10,459	38.18	0.82

Stage-Area-Storage for Pond 1P: Drugstore Pond

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
37.60	0	40.30	58,778
37.65	854	40.35	60,135
37.70	1,712	40.40	61,497
37.75	2,575	40.45	62,863
37.80	3,442	40.50	64,233
37.85	4,313	40.55	65,607
37.90	5,188	40.60	66,985
37.95	6,068	40.65	68,367
38.00	6,952	40.70	69,754
38.05	7,923	40.75	71,144
38.10	8,897	40.80	72,539
38.15	9,874	40.85	73,938
38.20	10,856	40.90	75,342
38.25	11,840	40.95	76,749
38.30	12,829	41.00	78,160
38.35	13,821	41.05	79,159
38.40	14,817	41.10	80,158
38.45	15,817	41.15	81,157
38.50	16,820	41.20	82,156
38.55	17,827	41.25	83,155
38.60	18,837	41.30	84,154
38.65	19,852	41.35	85,153
38.70	20,869	41.40	86,152
38.75	21,891	41.45	87,151
38.80	22,916	41.50	88,149
38.85	23,945	41.55	89,148
38.90	24,977	41.60	**90,147**
38.95	26,014		
39.00	27,053		
39.05	28,200		
39.10	29,350		
39.15	30,504		
39.20	31,662		
39.25	32,824		
39.30	33,989		
39.35	35,159		
39.40	36,333		
39.45	37,510		
39.50	38,692		
39.55	39,877		
39.60	41,066		
39.65	42,259		
39.70	43,456		
39.75	44,657		
39.80	45,862		
39.85	47,071		
39.90	48,284		
39.95	49,500		
40.00	50,721		
40.05	52,053		
40.10	53,390		
40.15	54,731		
40.20	56,076		
40.25	57,425		

Summary for Pond 2P: Ditches To Study Point #1

Inflow Area = 8.707 ac, 43.90% Impervious, Inflow Depth > 2.77" for 10 Year event
Inflow = 5.34 cfs @ 11.94 hrs, Volume= 2.006 af
Outflow = 3.76 cfs @ 12.03 hrs, Volume= 1.997 af, Atten= 30%, Lag= 5.1 min
Primary = 3.76 cfs @ 12.03 hrs, Volume= 1.997 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Peak Elev= 38.34' @ 12.03 hrs Surf.Area= 3,634 sf Storage= 1,939 cf

Plug-Flow detention time= 8.0 min calculated for 1.995 af (99% of inflow)
Center-of-Mass det. time= 5.8 min (993.7 - 987.8)

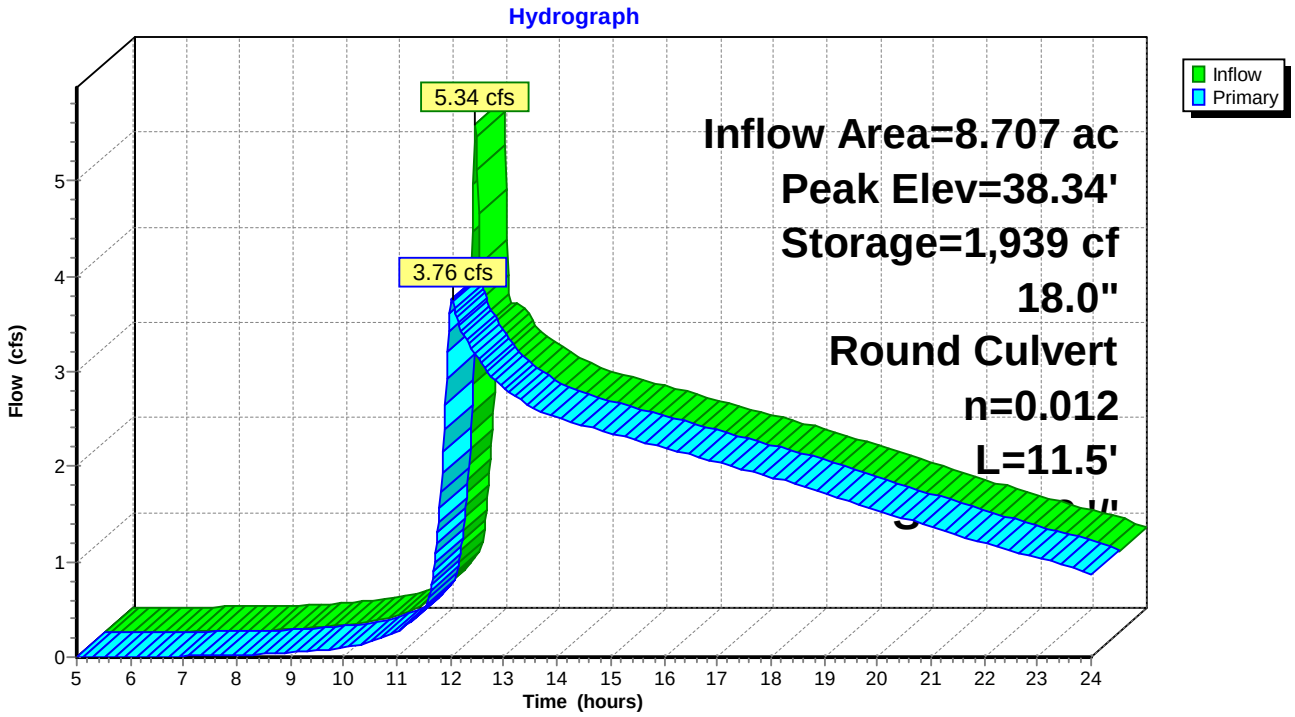
Volume	Invert	Avail.Storage	Storage Description
#1	37.20'	40,784 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
37.20	222	0	0
38.00	2,154	950	950
39.00	6,487	4,321	5,271
40.00	14,191	10,339	15,610
41.00	36,158	25,175	40,784

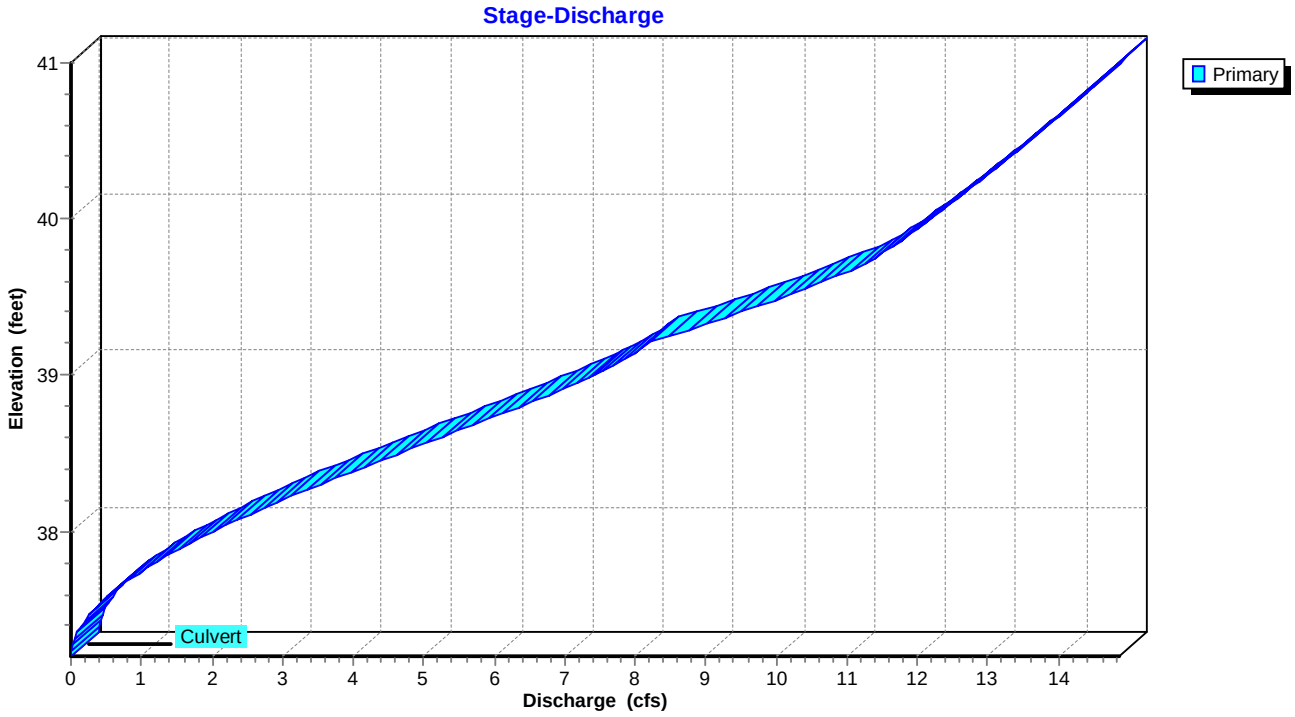
Device	Routing	Invert	Outlet Devices
#1	Primary	37.20'	**18.0" Round Culvert** L= 11.5' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 37.20' / 37.15' S= 0.0043 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=3.75 cfs @ 12.03 hrs HW=38.34' (Free Discharge)
1=Culvert (Barrel Controls 3.75 cfs @ 3.60 fps)

Pond 2P: Ditches To Study Point #1



Pond 2P: Ditches To Study Point #1



Hydrograph for Pond 2P: Ditches To Study Point #1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	37.20	0.00
5.40	0.00	0	37.20	0.00
5.80	0.00	2	37.21	0.00
6.20	0.01	6	37.22	0.00
6.60	0.01	11	37.24	0.01
7.00	0.01	15	37.25	0.01
7.40	0.02	18	37.26	0.01
7.80	0.02	22	37.27	0.02
8.20	0.03	27	37.28	0.02
8.60	0.04	33	37.30	0.03
9.00	0.06	42	37.32	0.05
9.40	0.07	51	37.33	0.06
9.80	0.10	63	37.35	0.09
10.20	0.14	81	37.38	0.12
10.60	0.20	109	37.42	0.18
11.00	0.31	153	37.48	0.27
11.40	0.52	234	37.56	0.45
11.80	**2.55**	**739**	**37.90**	**1.57**
12.20	**3.22**	**1,731**	**38.28**	**3.43**
12.60	2.94	1,509	38.21	3.07
13.00	2.75	1,370	38.17	2.83
13.40	2.61	1,281	38.13	2.66
13.80	2.52	1,222	38.11	2.56
14.20	2.45	1,178	38.10	2.47
14.60	2.39	1,144	38.08	2.41
15.00	2.33	1,114	38.07	2.35
15.40	2.27	1,084	38.06	2.29
15.80	2.21	1,053	38.05	2.23
16.20	2.14	1,021	38.03	2.16
16.60	2.08	991	38.02	2.10
17.00	2.02	962	38.01	2.04
17.40	1.96	933	37.99	1.98
17.80	1.90	904	37.98	1.92
18.20	1.84	874	37.96	1.86
18.60	1.77	843	37.95	1.79
19.00	1.70	810	37.93	1.72
19.40	1.63	777	37.92	1.65
19.80	1.56	744	37.90	1.58
20.20	1.48	711	37.88	1.51
20.60	1.41	678	37.86	1.44
21.00	1.34	646	37.85	1.37
21.40	1.28	615	37.83	1.30
21.80	1.21	585	37.81	1.23
22.20	1.14	555	37.79	1.16
22.60	1.08	526	37.77	1.10
23.00	1.02	499	37.76	1.04
23.40	0.96	472	37.74	0.98
23.80	0.88	438	37.72	0.91

Stage-Area-Storage for Pond 2P: Ditches To Study Point #1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
37.20	222	0
37.25	343	14
37.30	464	34
37.35	584	60
37.40	705	93
37.45	826	131
37.50	946	175
37.55	1,067	226
37.60	1,188	282
37.65	1,309	344
37.70	1,430	413
37.75	1,550	487
37.80	1,671	568
37.85	1,792	654
37.90	1,913	747
37.95	2,033	846
38.00	2,154	950
38.05	2,371	1,064
38.10	2,587	1,187
38.15	2,804	1,322
38.20	3,021	1,468
38.25	3,237	1,624
38.30	3,454	1,792
38.35	3,671	1,970
38.40	3,887	2,159
38.45	4,104	2,358
38.50	4,321	2,569
38.55	4,537	2,790
38.60	4,754	3,023
38.65	4,970	3,266
38.70	5,187	3,520
38.75	5,404	3,785
38.80	5,620	4,060
38.85	5,837	4,347
38.90	6,054	4,644
38.95	6,270	4,952
39.00	6,487	5,271
39.05	6,872	5,605
39.10	7,257	5,958
39.15	7,643	6,331
39.20	8,028	6,722
39.25	8,413	7,133
39.30	8,798	7,564
39.35	9,183	8,013
39.40	9,569	8,482
39.45	9,954	8,970
39.50	10,339	9,477
39.55	10,724	10,004
39.60	11,109	10,550
39.65	11,495	11,115
39.70	11,880	11,699
39.75	12,265	12,303
39.80	12,650	12,926
39.85	13,035	13,568
39.90	13,421	14,229
39.95	13,806	14,910
40.00	14,191	15,610
40.05	15,289	16,347
40.10	16,388	17,139
40.15	17,486	17,986
40.20	18,584	18,887
40.25	19,683	19,844
40.30	20,781	20,856
40.35	21,879	21,922
40.40	22,978	23,044
40.45	24,076	24,220
40.50	25,175	25,451
40.55	26,273	26,737
40.60	27,371	28,079
40.65	28,470	29,475
40.70	29,568	30,926
40.75	30,666	32,431
40.80	31,765	33,992
40.85	32,863	35,608
40.90	33,961	37,278
40.95	35,060	39,004
41.00	**36,158**	**40,784**

Summary for Subcatchment 1S: Drugstore & parking

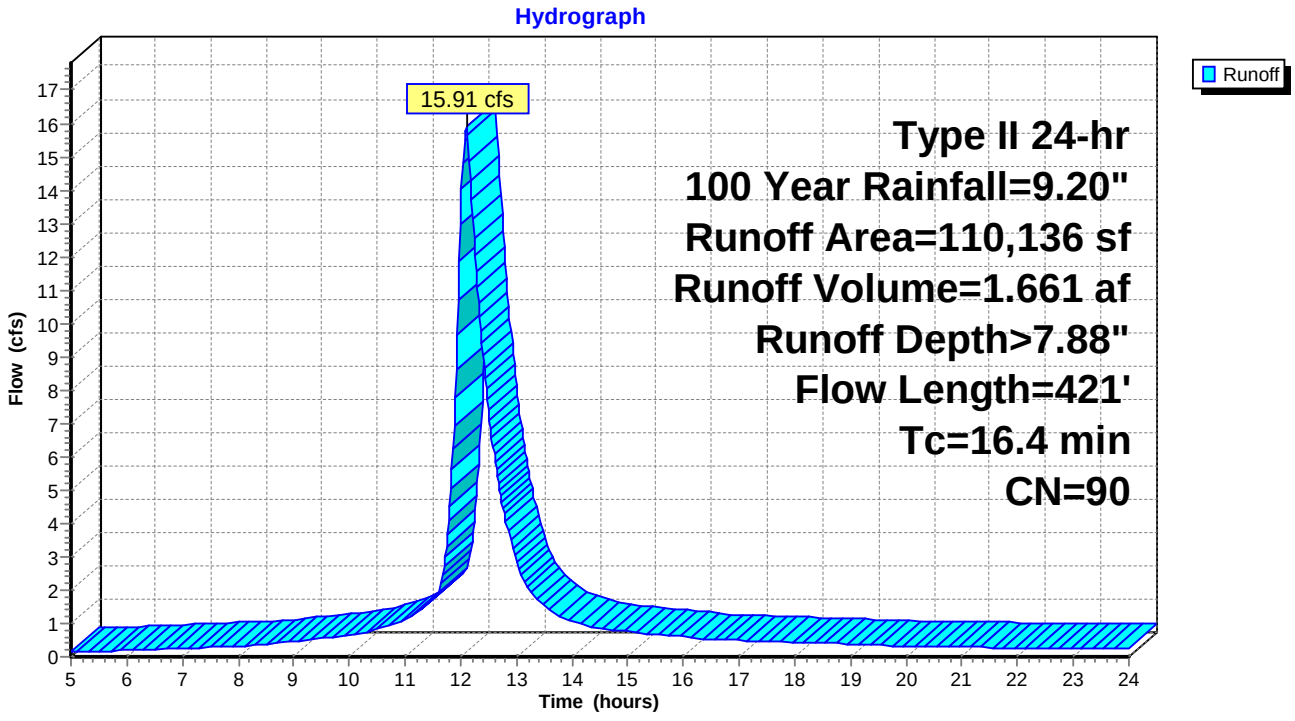
Runoff = 15.91 cfs @ 12.10 hrs, Volume= 1.661 af, Depth> 7.88"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 100 Year Rainfall=9.20"

Area (sf)	CN	Description
86,762	98	Paved roads w/curbs & sewers
23,374	61	>75% Grass cover, Good, HSG B
110,136	90	Weighted Average
23,374		21.22% Pervious Area
86,762		78.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.3	100	0.0086	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
3.1	321	0.0007	1.70	3.01	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
16.4	421	Total			

Subcatchment 1S: Drugstore & parking



Hydrograph for Subcatchment 1S: Drugstore & parking

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.58	0.09	0.13
5.20	0.61	0.10	0.15
5.40	0.64	0.11	0.16
5.60	0.67	0.13	0.17
5.80	0.70	0.15	0.18
6.00	0.74	0.16	0.20
6.20	0.77	0.18	0.21
6.40	0.80	0.20	0.22
6.60	0.84	0.22	0.24
6.80	0.87	0.24	0.25
7.00	0.91	0.26	0.26
7.20	0.95	0.29	0.28
7.40	0.99	0.31	0.29
7.60	1.02	0.34	0.30
7.80	1.06	0.36	0.32
8.00	1.10	0.39	0.33
8.20	1.15	0.42	0.34
8.40	1.19	0.45	0.37
8.60	1.24	0.49	0.40
8.80	1.30	0.53	0.44
9.00	1.35	0.57	0.48
9.20	1.41	0.61	0.52
9.40	1.47	0.66	0.55
9.60	1.53	0.71	0.56
9.80	1.59	0.76	0.59
10.00	1.67	0.82	0.64
10.20	1.74	0.88	0.70
10.40	1.83	0.95	0.77
10.60	1.93	1.03	0.87
10.80	2.04	1.13	0.98
11.00	2.16	1.23	1.12
11.20	2.31	1.36	1.30
11.40	2.50	1.53	1.57
11.60	2.82	1.82	1.96
11.80	3.96	2.88	4.54
12.00	6.10	4.94	**12.98**
12.20	6.43	5.26	**13.72**
12.40	6.67	5.50	9.03
12.60	6.84	5.67	6.08
12.80	6.98	5.80	4.14
13.00	7.10	5.92	2.88
13.20	7.21	6.03	2.09
13.40	7.31	6.12	1.68
13.60	7.39	6.21	1.40
13.80	7.47	6.29	1.19
14.00	7.54	6.36	1.07
14.20	7.61	6.42	0.97
14.40	7.68	6.49	0.89
14.60	7.74	6.55	0.84
14.80	7.80	6.60	0.80
15.00	7.85	6.66	0.76
15.20	7.91	6.71	0.73
15.40	7.96	6.76	0.70
15.60	8.01	6.81	0.66
15.80	8.05	6.86	0.63
16.00	8.10	6.90	0.60
16.20	8.14	6.94	0.57
16.40	8.18	6.98	0.54
16.60	8.22	7.02	0.53
16.80	8.26	7.06	0.51
17.00	8.30	7.10	0.50
17.20	8.33	7.13	0.49
17.40	8.37	7.17	0.48
17.60	8.41	7.20	0.46
17.80	8.44	7.24	0.45
18.00	8.47	7.27	0.44
18.20	8.51	7.30	0.43
18.40	8.54	7.34	0.42
18.60	8.57	7.37	0.41
18.80	8.60	7.40	0.39
19.00	8.63	7.42	0.38
19.20	8.66	7.45	0.37
19.40	8.68	7.48	0.36
19.60	8.71	7.50	0.35
19.80	8.73	7.53	0.34
20.00	8.76	7.55	0.33
20.20	8.78	7.58	0.31
20.40	8.81	7.60	0.31
20.60	8.83	7.62	0.30
20.80	8.85	7.65	0.30
21.00	8.88	7.67	0.29
21.20	8.90	7.69	0.29
21.40	8.92	7.71	0.29
21.60	8.94	7.74	0.29
21.80	8.97	7.76	0.29
22.00	8.99	7.78	0.28
22.20	9.01	7.80	0.28
22.40	9.03	7.82	0.28
22.60	9.05	7.84	0.28
22.80	9.08	7.87	0.27
23.00	9.10	7.89	0.27
23.20	9.12	7.91	0.27
23.40	9.14	7.93	0.27
23.60	9.16	7.95	0.26
23.80	9.18	7.97	0.26
24.00	**9.20**	**7.99**	0.26

Summary for Subcatchment 2S: Direct to Pipe 3

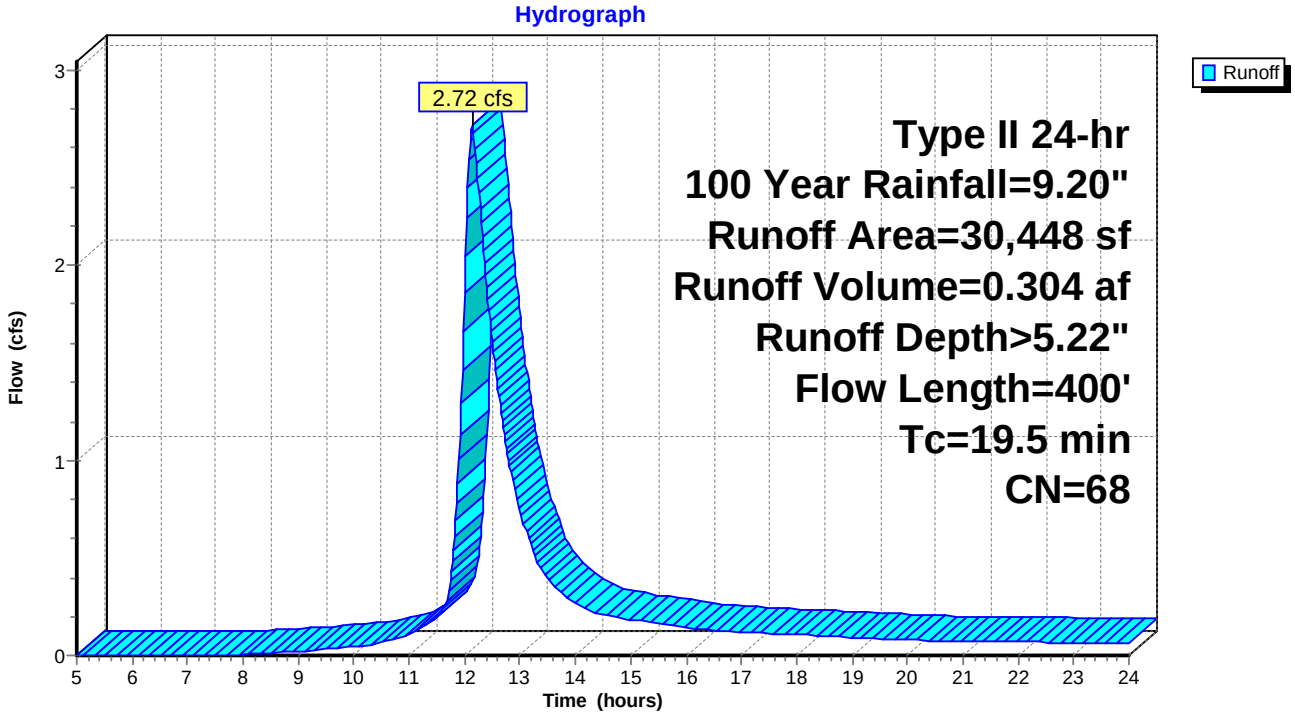
Runoff = 2.72 cfs @ 12.14 hrs, Volume= 0.304 af, Depth> 5.22"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 100 Year Rainfall=9.20"

Area (sf)	CN	Description
5,873	98	Paved roads w/curbs & sewers
24,575	61	>75% Grass cover, Good, HSG B
30,448	68	Weighted Average
24,575		80.71% Pervious Area
5,873		19.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.5	100	0.0050	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
3.0	300	0.0126	1.68		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
19.5	400	Total			

Subcatchment 2S: Direct to Pipe 3



Hydrograph for Subcatchment 2S: Direct to Pipe 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.58	0.00	0.00
5.20	0.61	0.00	0.00
5.40	0.64	0.00	0.00
5.60	0.67	0.00	0.00
5.80	0.70	0.00	0.00
6.00	0.74	0.00	0.00
6.20	0.77	0.00	0.00
6.40	0.80	0.00	0.00
6.60	0.84	0.00	0.00
6.80	0.87	0.00	0.00
7.00	0.91	0.00	0.00
7.20	0.95	0.00	0.00
7.40	0.99	0.00	0.00
7.60	1.02	0.00	0.00
7.80	1.06	0.00	0.00
8.00	1.10	0.01	0.00
8.20	1.15	0.01	0.01
8.40	1.19	0.01	0.01
8.60	1.24	0.02	0.01
8.80	1.30	0.02	0.02
9.00	1.35	0.03	0.02
9.20	1.41	0.04	0.02
9.40	1.47	0.05	0.03
9.60	1.53	0.07	0.03
9.80	1.59	0.08	0.04
10.00	1.67	0.10	0.04
10.20	1.74	0.12	0.05
10.40	1.83	0.14	0.06
10.60	1.93	0.17	0.07
10.80	2.04	0.21	0.09
11.00	2.16	0.25	0.11
11.20	2.31	0.31	0.14
11.40	2.50	0.39	0.17
11.60	2.82	0.54	0.23
11.80	3.96	1.18	0.54
12.00	6.10	2.70	**1.86**
12.20	6.43	2.95	**2.60**
12.40	6.67	3.15	1.88
12.60	6.84	3.28	1.37
12.80	6.98	3.39	1.00
13.00	7.10	3.49	0.75
13.20	7.21	3.58	0.56
13.40	7.31	3.66	0.43
13.60	7.39	3.73	0.36
13.80	7.47	3.80	0.31
14.00	7.54	3.86	0.27
14.20	7.61	3.91	0.24
14.40	7.68	3.96	0.22
14.60	7.74	4.02	0.20
14.80	7.80	4.06	0.19
15.00	7.85	4.11	0.18
15.20	7.91	4.16	0.17
15.40	7.96	4.20	0.17
15.60	8.01	4.24	0.16
15.80	8.05	4.28	0.15
16.00	8.10	4.32	0.14
16.20	8.14	4.35	0.14
16.40	8.18	4.39	0.13
16.60	8.22	4.42	0.13
16.80	8.26	4.45	0.12
17.00	8.30	4.49	0.12
17.20	8.33	4.52	0.12
17.40	8.37	4.55	0.11
17.60	8.41	4.58	0.11
17.80	8.44	4.61	0.11
18.00	8.47	4.64	0.11
18.20	8.51	4.66	0.10
18.40	8.54	4.69	0.10
18.60	8.57	4.72	0.10
18.80	8.60	4.74	0.10
19.00	8.63	4.77	0.09
19.20	8.66	4.79	0.09
19.40	8.68	4.81	0.09
19.60	8.71	4.84	0.08
19.80	8.73	4.86	0.08
20.00	8.76	4.88	0.08
20.20	8.78	4.90	0.08
20.40	8.81	4.92	0.07
20.60	8.83	4.94	0.07
20.80	8.85	4.96	0.07
21.00	8.88	4.98	0.07
21.20	8.90	5.00	0.07
21.40	8.92	5.02	0.07
21.60	8.94	5.04	0.07
21.80	8.97	5.06	0.07
22.00	8.99	5.08	0.07
22.20	9.01	5.10	0.07
22.40	9.03	5.12	0.07
22.60	9.05	5.13	0.07
22.80	9.08	5.15	0.07
23.00	9.10	5.17	0.07
23.20	9.12	5.19	0.07
23.40	9.14	5.21	0.06
23.60	9.16	5.23	0.06
23.80	9.18	5.24	0.06
24.00	**9.20**	**5.26**	0.06

Summary for Subcatchment 4S: Direct to Pipe 1

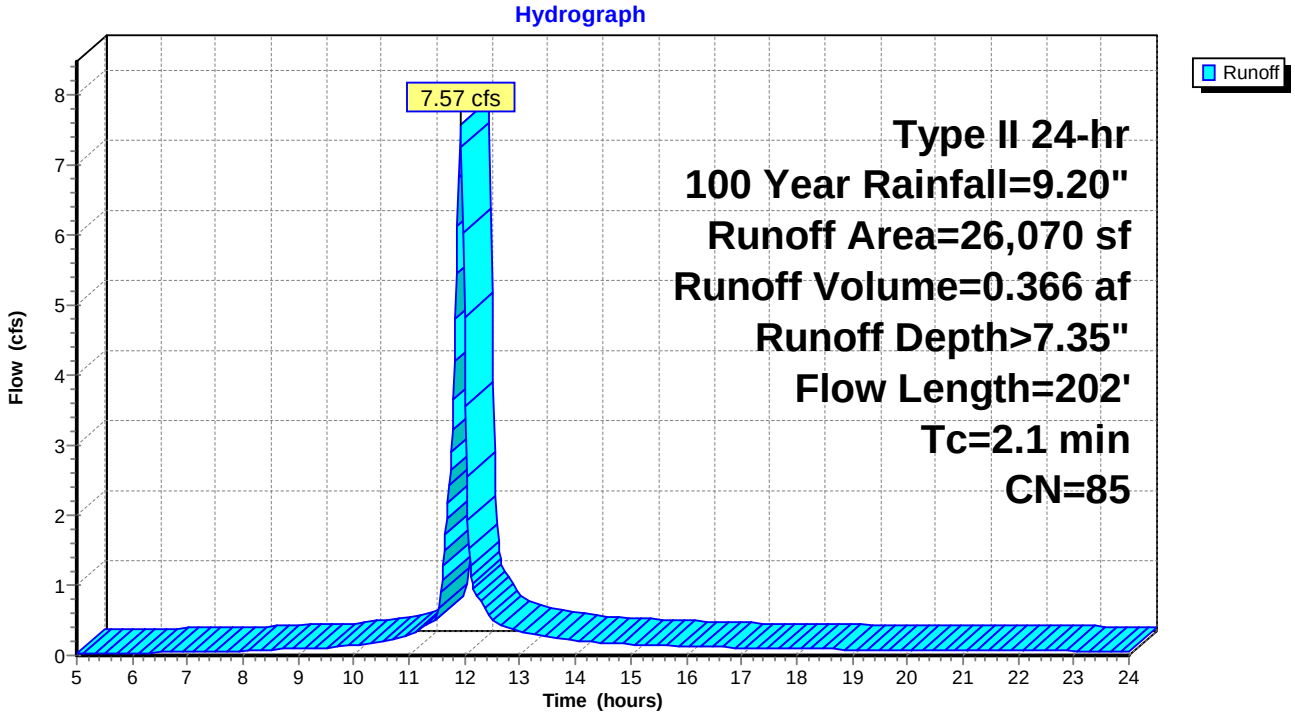
Runoff = 7.57 cfs @ 11.93 hrs, Volume= 0.366 af, Depth> 7.35"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 100 Year Rainfall=9.20"

Area (sf)	CN	Description
16,602	98	Paved roads w/curbs & sewers
9,468	61	>75% Grass cover, Good, HSG B
26,070	85	Weighted Average
9,468		36.32% Pervious Area
16,602		63.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	70	0.0600	2.05		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.40"
1.5	132	0.0052	1.46		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.1	202	Total			

Subcatchment 4S: Direct to Pipe 1



Hydrograph for Subcatchment 4S: Direct to Pipe 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.58	0.03	0.02
5.20	0.61	0.03	0.02
5.40	0.64	0.04	0.02
5.60	0.67	0.05	0.03
5.80	0.70	0.06	0.03
6.00	0.74	0.07	0.03
6.20	0.77	0.08	0.03
6.40	0.80	0.09	0.04
6.60	0.84	0.10	0.04
6.80	0.87	0.12	0.04
7.00	0.91	0.13	0.05
7.20	0.95	0.15	0.05
7.40	0.99	0.17	0.05
7.60	1.02	0.19	0.06
7.80	1.06	0.20	0.06
8.00	1.10	0.22	0.06
8.20	1.15	0.25	0.07
8.40	1.19	0.27	0.08
8.60	1.24	0.30	0.08
8.80	1.30	0.33	0.09
9.00	1.35	0.36	0.10
9.20	1.41	0.40	0.11
9.40	1.47	0.43	0.11
9.60	1.53	0.47	0.12
9.80	1.59	0.51	0.13
10.00	1.67	0.56	0.14
10.20	1.74	0.61	0.16
10.40	1.83	0.67	0.19
10.60	1.93	0.74	0.21
10.80	2.04	0.82	0.25
11.00	2.16	0.92	0.29
11.20	2.31	1.03	0.37
11.40	2.50	1.18	0.46
11.60	2.82	1.44	1.08
11.80	3.96	2.43	**3.66**
12.00	6.10	4.40	**4.84**
12.20	6.43	4.71	0.89
12.40	6.67	4.94	0.64
12.60	6.84	5.10	0.45
12.80	6.98	5.23	0.39
13.00	7.10	5.35	0.34
13.20	7.21	5.45	0.30
13.40	7.31	5.55	0.27
13.60	7.39	5.63	0.25
13.80	7.47	5.71	0.22
14.00	7.54	5.77	0.20
14.20	7.61	5.84	0.19
14.40	7.68	5.90	0.18
14.60	7.74	5.96	0.18
14.80	7.80	6.02	0.17
15.00	7.85	6.07	0.16
15.20	7.91	6.12	0.16
15.40	7.96	6.17	0.15
15.60	8.01	6.22	0.14
15.80	8.05	6.26	0.13
16.00	8.10	6.31	0.13
16.20	8.14	6.35	0.12
16.40	8.18	6.39	0.12
16.60	8.22	6.42	0.12
16.80	8.26	6.46	0.11
17.00	8.30	6.50	0.11
17.20	8.33	6.54	0.11
17.40	8.37	6.57	0.11
17.60	8.41	6.60	0.10
17.80	8.44	6.64	0.10
18.00	8.47	6.67	0.10
18.20	8.51	6.70	0.09
18.40	8.54	6.73	0.09
18.60	8.57	6.76	0.09
18.80	8.60	6.79	0.09
19.00	8.63	6.82	0.08
19.20	8.66	6.85	0.08
19.40	8.68	6.87	0.08
19.60	8.71	6.90	0.08
19.80	8.73	6.92	0.07
20.00	8.76	6.95	0.07
20.20	8.78	6.97	0.07
20.40	8.81	6.99	0.07
20.60	8.83	7.02	0.07
20.80	8.85	7.04	0.07
21.00	8.88	7.06	0.07
21.20	8.90	7.08	0.07
21.40	8.92	7.11	0.07
21.60	8.94	7.13	0.07
21.80	8.97	7.15	0.07
22.00	8.99	7.17	0.06
22.20	9.01	7.19	0.06
22.40	9.03	7.21	0.06
22.60	9.05	7.23	0.06
22.80	9.08	7.25	0.06
23.00	9.10	7.28	0.06
23.20	9.12	7.30	0.06
23.40	9.14	7.32	0.06
23.60	9.16	7.34	0.06
23.80	9.18	7.36	0.06
24.00	**9.20**	**7.38**	0.06

Summary for Subcatchment 5S: Wet Pond DA

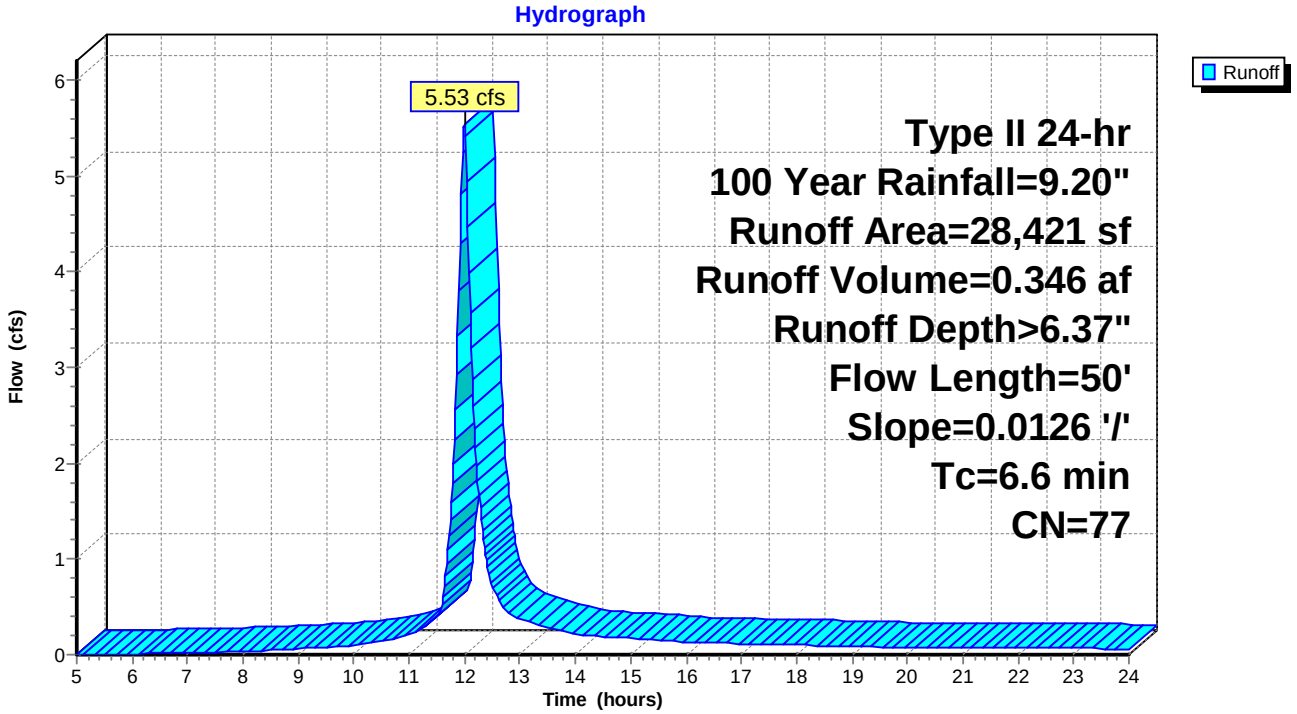
Runoff = 5.53 cfs @ 11.99 hrs, Volume= 0.346 af, Depth> 6.37"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 100 Year Rainfall=9.20"

	Area (sf)	CN	Description
*	12,422	98	Water Surface
	15,999	61	>75% Grass cover, Good, HSG B
	28,421	77	Weighted Average
	15,999		56.29% Pervious Area
	12,422		43.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	50	0.0126	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"

Subcatchment 5S: Wet Pond DA



Hydrograph for Subcatchment 5S: Wet Pond DA

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.58	0.00	0.00
5.20	0.61	0.00	0.00
5.40	0.64	0.00	0.00
5.60	0.67	0.00	0.00
5.80	0.70	0.00	0.01
6.00	0.74	0.01	0.01
6.20	0.77	0.01	0.01
6.40	0.80	0.01	0.01
6.60	0.84	0.02	0.01
6.80	0.87	0.02	0.02
7.00	0.91	0.03	0.02
7.20	0.95	0.04	0.02
7.40	0.99	0.04	0.03
7.60	1.02	0.05	0.03
7.80	1.06	0.06	0.03
8.00	1.10	0.07	0.03
8.20	1.15	0.09	0.04
8.40	1.19	0.10	0.04
8.60	1.24	0.11	0.05
8.80	1.30	0.13	0.06
9.00	1.35	0.15	0.06
9.20	1.41	0.17	0.07
9.40	1.47	0.20	0.07
9.60	1.53	0.22	0.08
9.80	1.59	0.25	0.09
10.00	1.67	0.28	0.10
10.20	1.74	0.32	0.11
10.40	1.83	0.36	0.13
10.60	1.93	0.41	0.15
10.80	2.04	0.47	0.18
11.00	2.16	0.54	0.22
11.20	2.31	0.63	0.27
11.40	2.50	0.74	0.34
11.60	2.82	0.95	0.53
11.80	3.96	1.78	2.00
12.00	6.10	3.57	**5.52**
12.20	6.43	3.85	2.15
12.40	6.67	4.07	0.98
12.60	6.84	4.22	0.58
12.80	6.98	4.35	0.45
13.00	7.10	4.46	0.38
13.20	7.21	4.55	0.33
13.40	7.31	4.64	0.30
13.60	7.39	4.72	0.27
13.80	7.47	4.79	0.24
14.00	7.54	4.86	0.22
14.20	7.61	4.92	0.20
14.40	7.68	4.98	0.20
14.60	7.74	5.03	0.19
14.80	7.80	5.09	0.18
15.00	7.85	5.14	0.17
15.20	7.91	5.19	0.16
15.40	7.96	5.24	0.16
15.60	8.01	5.28	0.15
15.80	8.05	5.32	0.14
16.00	8.10	5.36	0.13
16.20	8.14	5.40	0.13
16.40	8.18	5.44	0.12
16.60	8.22	5.48	0.12
16.80	8.26	5.51	0.12
17.00	8.30	5.55	0.12
17.20	8.33	5.58	0.11
17.40	8.37	5.61	0.11
17.60	8.41	5.65	0.11
17.80	8.44	5.68	0.11
18.00	8.47	5.71	0.10
18.20	8.51	5.74	0.10
18.40	8.54	5.77	0.10
18.60	8.57	5.80	0.09
18.80	8.60	5.83	0.09
19.00	8.63	5.85	0.09
19.20	8.66	5.88	0.09
19.40	8.68	5.90	0.08
19.60	8.71	5.93	0.08
19.80	8.73	5.95	0.08
20.00	8.76	5.97	0.08
20.20	8.78	6.00	0.07
20.40	8.81	6.02	0.07
20.60	8.83	6.04	0.07
20.80	8.85	6.06	0.07
21.00	8.88	6.08	0.07
21.20	8.90	6.10	0.07
21.40	8.92	6.13	0.07
21.60	8.94	6.15	0.07
21.80	8.97	6.17	0.07
22.00	8.99	6.19	0.07
22.20	9.01	6.21	0.07
22.40	9.03	6.23	0.07
22.60	9.05	6.25	0.07
22.80	9.08	6.27	0.07
23.00	9.10	6.29	0.07
23.20	9.12	6.31	0.06
23.40	9.14	6.33	0.06
23.60	9.16	6.35	0.06
23.80	9.18	6.37	0.06
24.00	**9.20**	**6.39**	0.06

Summary for Subcatchment 6S: Entrance SD

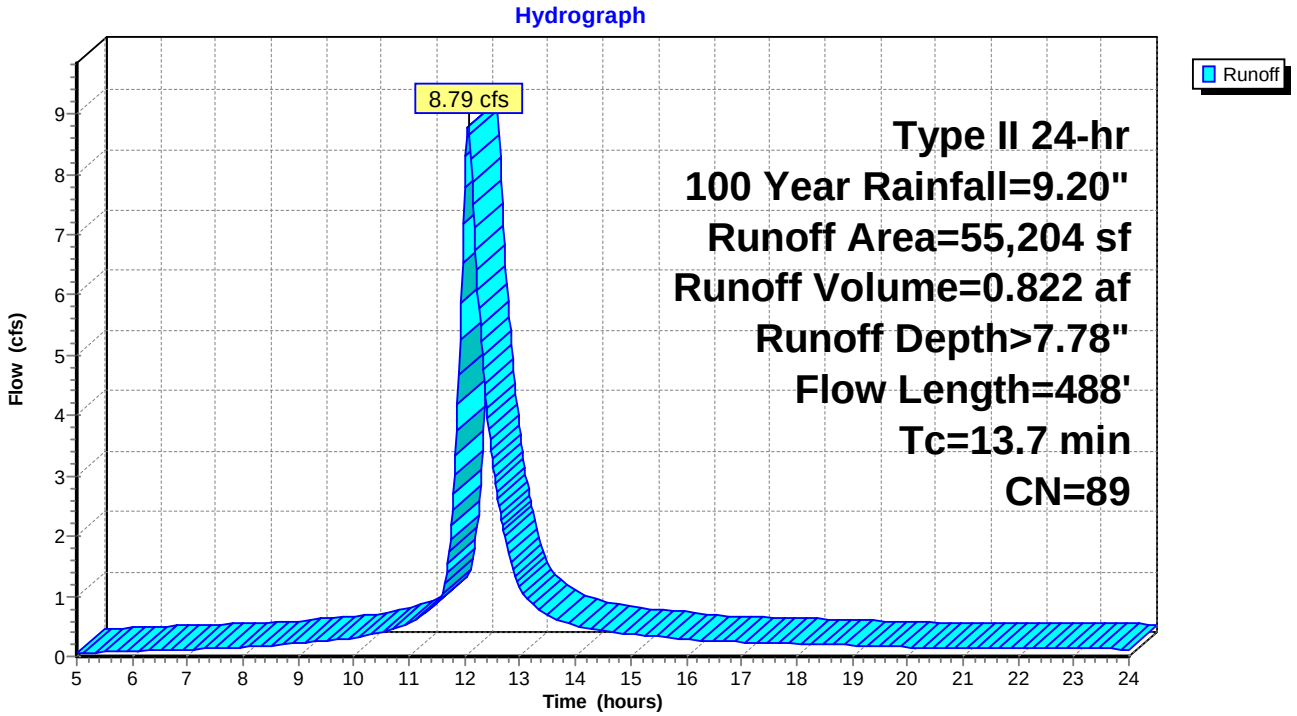
Runoff = 8.79 cfs @ 12.07 hrs, Volume= 0.822 af, Depth> 7.78"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 100 Year Rainfall=9.20"

Area (sf)	CN	Description
42,497	98	Paved roads w/curbs & sewers
12,707	61	>75% Grass cover, Good, HSG B
55,204	89	Weighted Average
12,707		23.02% Pervious Area
42,497		76.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	50	0.0050	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
3.2	263	0.0081	1.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.0	175	0.0025	2.85	3.50	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012 Concrete pipe, finished
13.7	488	Total			

Subcatchment 6S: Entrance SD



Hydrograph for Subcatchment 6S: Entrance SD

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.58	0.07	0.06	15.80	8.05	6.74	0.31
5.20	0.61	0.08	0.07	16.00	8.10	6.78	0.29
5.40	0.64	0.09	0.07	16.20	8.14	6.82	0.28
5.60	0.67	0.11	0.08	16.40	8.18	6.86	0.27
5.80	0.70	0.12	0.09	16.60	8.22	6.90	0.26
6.00	0.74	0.14	0.09	16.80	8.26	6.94	0.25
6.20	0.77	0.16	0.10	17.00	8.30	6.98	0.25
6.40	0.80	0.17	0.10	17.20	8.33	7.01	0.24
6.60	0.84	0.19	0.11	17.40	8.37	7.05	0.24
6.80	0.87	0.21	0.12	17.60	8.41	7.08	0.23
7.00	0.91	0.23	0.12	17.80	8.44	7.12	0.22
7.20	0.95	0.25	0.13	18.00	8.47	7.15	0.22
7.40	0.99	0.28	0.14	18.20	8.51	7.18	0.21
7.60	1.02	0.30	0.14	18.40	8.54	7.21	0.21
7.80	1.06	0.32	0.15	18.60	8.57	7.25	0.20
8.00	1.10	0.35	0.16	18.80	8.60	7.27	0.20
8.20	1.15	0.38	0.16	19.00	8.63	7.30	0.19
8.40	1.19	0.41	0.18	19.20	8.66	7.33	0.18
8.60	1.24	0.44	0.19	19.40	8.68	7.36	0.18
8.80	1.30	0.48	0.21	19.60	8.71	7.38	0.17
9.00	1.35	0.52	0.23	19.80	8.73	7.41	0.17
9.20	1.41	0.56	0.25	20.00	8.76	7.43	0.16
9.40	1.47	0.61	0.27	20.20	8.78	7.46	0.16
9.60	1.53	0.65	0.28	20.40	8.81	7.48	0.15
9.80	1.59	0.70	0.29	20.60	8.83	7.50	0.15
10.00	1.67	0.76	0.31	20.80	8.85	7.52	0.15
10.20	1.74	0.82	0.35	21.00	8.88	7.55	0.15
10.40	1.83	0.89	0.39	21.20	8.90	7.57	0.15
10.60	1.93	0.97	0.44	21.40	8.92	7.59	0.14
10.80	2.04	1.06	0.50	21.60	8.94	7.61	0.14
11.00	2.16	1.16	0.57	21.80	8.97	7.64	0.14
11.20	2.31	1.29	0.66	22.00	8.99	7.66	0.14
11.40	2.50	1.45	0.81	22.20	9.01	7.68	0.14
11.60	2.82	1.74	1.03	22.40	9.03	7.70	0.14
11.80	3.96	2.79	2.71	22.60	9.05	7.72	0.14
12.00	6.10	4.83	**7.79**	22.80	9.08	7.74	0.14
12.20	6.43	5.15	**6.75**	23.00	9.10	7.76	0.14
12.40	6.67	5.39	4.13	23.20	9.12	7.79	0.13
12.60	6.84	5.55	2.62	23.40	9.14	7.81	0.13
12.80	6.98	5.69	1.67	23.60	9.16	7.83	0.13
13.00	7.10	5.81	1.15	23.80	9.18	7.85	0.13
13.20	7.21	5.91	0.89	24.00	**9.20**	**7.87**	0.13
13.40	7.31	6.01	0.73				
13.60	7.39	6.09	0.63				
13.80	7.47	6.17	0.57				
14.00	7.54	6.24	0.51				
14.20	7.61	6.31	0.47				
14.40	7.68	6.37	0.43				
14.60	7.74	6.43	0.41				
14.80	7.80	6.49	0.39				
15.00	7.85	6.54	0.37				
15.20	7.91	6.59	0.36				
15.40	7.96	6.65	0.34				
15.60	8.01	6.69	0.33				

Summary for Subcatchment 7S: Dry Pond DA

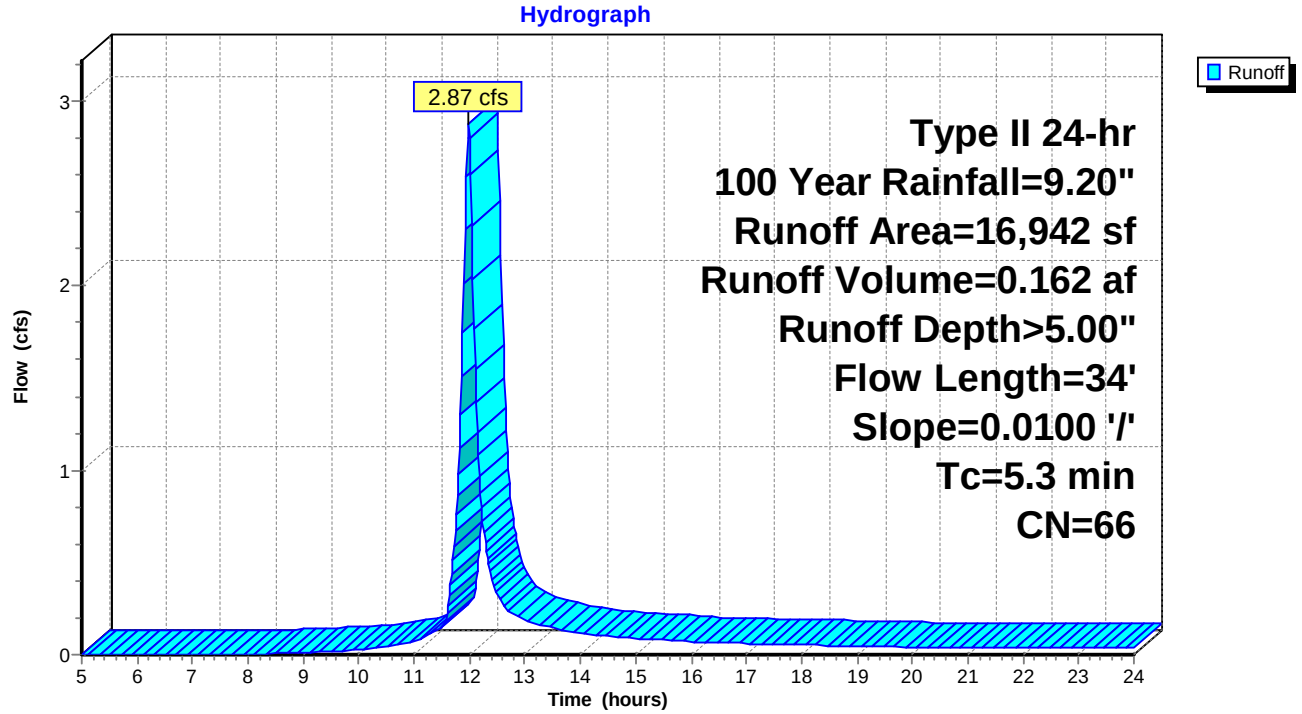
Runoff = 2.87 cfs @ 11.98 hrs, Volume= 0.162 af, Depth> 5.00"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 100 Year Rainfall=9.20"

	Area (sf)	CN	Description
	14,592	61	>75% Grass cover, Good, HSG B
*	2,350	98	Impervious Areas
	16,942	66	Weighted Average
	14,592		86.13% Pervious Area
	2,350		13.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	34	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"

Subcatchment 7S: Dry Pond DA



Hydrograph for Subcatchment 7S: Dry Pond DA

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.58	0.00	0.00
5.20	0.61	0.00	0.00
5.40	0.64	0.00	0.00
5.60	0.67	0.00	0.00
5.80	0.70	0.00	0.00
6.00	0.74	0.00	0.00
6.20	0.77	0.00	0.00
6.40	0.80	0.00	0.00
6.60	0.84	0.00	0.00
6.80	0.87	0.00	0.00
7.00	0.91	0.00	0.00
7.20	0.95	0.00	0.00
7.40	0.99	0.00	0.00
7.60	1.02	0.00	0.00
7.80	1.06	0.00	0.00
8.00	1.10	0.00	0.00
8.20	1.15	0.00	0.00
8.40	1.19	0.00	0.00
8.60	1.24	0.01	0.01
8.80	1.30	0.01	0.01
9.00	1.35	0.02	0.01
9.20	1.41	0.03	0.01
9.40	1.47	0.03	0.02
9.60	1.53	0.04	0.02
9.80	1.59	0.06	0.02
10.00	1.67	0.07	0.03
10.20	1.74	0.09	0.03
10.40	1.83	0.11	0.04
10.60	1.93	0.13	0.05
10.80	2.04	0.16	0.06
11.00	2.16	0.20	0.07
11.20	2.31	0.26	0.10
11.40	2.50	0.33	0.13
11.60	2.82	0.46	0.23
11.80	3.96	1.06	**0.98**
12.00	6.10	2.51	**2.80**
12.20	6.43	2.76	0.88
12.40	6.67	2.95	0.42
12.60	6.84	3.08	0.27
12.80	6.98	3.19	0.22
13.00	7.10	3.29	0.19
13.20	7.21	3.37	0.17
13.40	7.31	3.45	0.15
13.60	7.39	3.52	0.14
13.80	7.47	3.58	0.13
14.00	7.54	3.64	0.12
14.20	7.61	3.69	0.11
14.40	7.68	3.74	0.10
14.60	7.74	3.79	0.10
14.80	7.80	3.84	0.09
15.00	7.85	3.89	0.09
15.20	7.91	3.93	0.09
15.40	7.96	3.97	0.08
15.60	8.01	4.01	0.08
15.80	8.05	4.05	0.07
16.00	8.10	4.09	0.07
16.20	8.14	4.12	0.07
16.40	8.18	4.15	0.07
16.60	8.22	4.19	0.07
16.80	8.26	4.22	0.06
17.00	8.30	4.25	0.06
17.20	8.33	4.28	0.06
17.40	8.37	4.31	0.06
17.60	8.41	4.34	0.06
17.80	8.44	4.37	0.06
18.00	8.47	4.40	0.06
18.20	8.51	4.43	0.05
18.40	8.54	4.45	0.05
18.60	8.57	4.48	0.05
18.80	8.60	4.50	0.05
19.00	8.63	4.53	0.05
19.20	8.66	4.55	0.05
19.40	8.68	4.57	0.04
19.60	8.71	4.60	0.04
19.80	8.73	4.62	0.04
20.00	8.76	4.64	0.04
20.20	8.78	4.66	0.04
20.40	8.81	4.68	0.04
20.60	8.83	4.70	0.04
20.80	8.85	4.72	0.04
21.00	8.88	4.74	0.04
21.20	8.90	4.76	0.04
21.40	8.92	4.77	0.04
21.60	8.94	4.79	0.04
21.80	8.97	4.81	0.04
22.00	8.99	4.83	0.04
22.20	9.01	4.85	0.04
22.40	9.03	4.87	0.04
22.60	9.05	4.89	0.04
22.80	9.08	4.90	0.04
23.00	9.10	4.92	0.04
23.20	9.12	4.94	0.04
23.40	9.14	4.96	0.03
23.60	9.16	4.98	0.03
23.80	9.18	4.99	0.03
24.00	**9.20**	**5.01**	0.03

Summary for Subcatchment 8S: Future Development

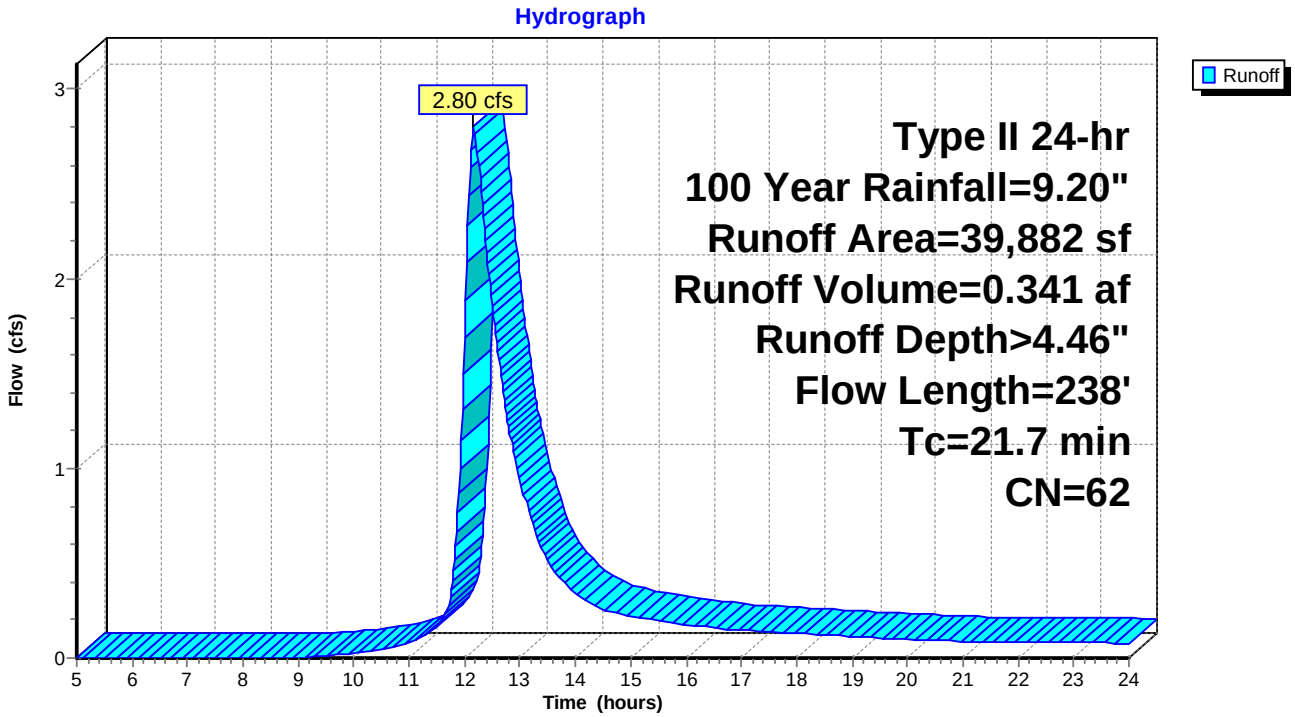
Runoff = 2.80 cfs @ 12.17 hrs, Volume= 0.341 af, Depth> 4.46"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 100 Year Rainfall=9.20"

Area (sf)	CN	Description
35,607	61	>75% Grass cover, Good, HSG B
4,275	74	>75% Grass cover, Good, HSG C
39,882	62	Weighted Average
39,882		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	100	0.0034	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
2.4	138	0.0036	0.97		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
21.7	238	Total			

Subcatchment 8S: Future Development



Hydrograph for Subcatchment 8S: Future Development

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.58	0.00	0.00
5.20	0.61	0.00	0.00
5.40	0.64	0.00	0.00
5.60	0.67	0.00	0.00
5.80	0.70	0.00	0.00
6.00	0.74	0.00	0.00
6.20	0.77	0.00	0.00
6.40	0.80	0.00	0.00
6.60	0.84	0.00	0.00
6.80	0.87	0.00	0.00
7.00	0.91	0.00	0.00
7.20	0.95	0.00	0.00
7.40	0.99	0.00	0.00
7.60	1.02	0.00	0.00
7.80	1.06	0.00	0.00
8.00	1.10	0.00	0.00
8.20	1.15	0.00	0.00
8.40	1.19	0.00	0.00
8.60	1.24	0.00	0.00
8.80	1.30	0.00	0.00
9.00	1.35	0.00	0.00
9.20	1.41	0.01	0.00
9.40	1.47	0.01	0.01
9.60	1.53	0.01	0.01
9.80	1.59	0.02	0.02
10.00	1.67	0.03	0.02
10.20	1.74	0.04	0.03
10.40	1.83	0.05	0.04
10.60	1.93	0.07	0.05
10.80	2.04	0.09	0.06
11.00	2.16	0.12	0.08
11.20	2.31	0.16	0.11
11.40	2.50	0.22	0.14
11.60	2.82	0.33	0.20
11.80	3.96	0.85	0.46
12.00	6.10	2.16	**1.69**
12.20	6.43	2.39	**2.77**
12.40	6.67	2.56	2.14
12.60	6.84	2.68	1.62
12.80	6.98	2.79	1.22
13.00	7.10	2.88	0.94
13.20	7.21	2.96	0.73
13.40	7.31	3.03	0.58
13.60	7.39	3.09	0.46
13.80	7.47	3.15	0.39
14.00	7.54	3.21	0.34
14.20	7.61	3.26	0.30
14.40	7.68	3.31	0.27
14.60	7.74	3.35	0.25
14.80	7.80	3.40	0.23
15.00	7.85	3.44	0.22
15.20	7.91	3.48	0.21
15.40	7.96	3.52	0.20
15.60	8.01	3.56	0.19
15.80	8.05	3.60	0.19
16.00	8.10	3.63	0.18
16.20	8.14	3.66	0.17
16.40	8.18	3.70	0.16
16.60	8.22	3.73	0.15
16.80	8.26	3.76	0.15
17.00	8.30	3.79	0.15
17.20	8.33	3.82	0.14
17.40	8.37	3.85	0.14
17.60	8.41	3.87	0.14
17.80	8.44	3.90	0.13
18.00	8.47	3.93	0.13
18.20	8.51	3.95	0.13
18.40	8.54	3.98	0.12
18.60	8.57	4.00	0.12
18.80	8.60	4.03	0.12
19.00	8.63	4.05	0.11
19.20	8.66	4.07	0.11
19.40	8.68	4.09	0.11
19.60	8.71	4.11	0.10
19.80	8.73	4.13	0.10
20.00	8.76	4.15	0.10
20.20	8.78	4.17	0.09
20.40	8.81	4.19	0.09
20.60	8.83	4.21	0.09
20.80	8.85	4.23	0.09
21.00	8.88	4.25	0.09
21.20	8.90	4.27	0.09
21.40	8.92	4.28	0.09
21.60	8.94	4.30	0.09
21.80	8.97	4.32	0.08
22.00	8.99	4.34	0.08
22.20	9.01	4.36	0.08
22.40	9.03	4.37	0.08
22.60	9.05	4.39	0.08
22.80	9.08	4.41	0.08
23.00	9.10	4.42	0.08
23.20	9.12	4.44	0.08
23.40	9.14	4.46	0.08
23.60	9.16	4.48	0.08
23.80	9.18	4.49	0.08
24.00	**9.20**	**4.51**	0.08

Summary for Subcatchment 9S: Future Development

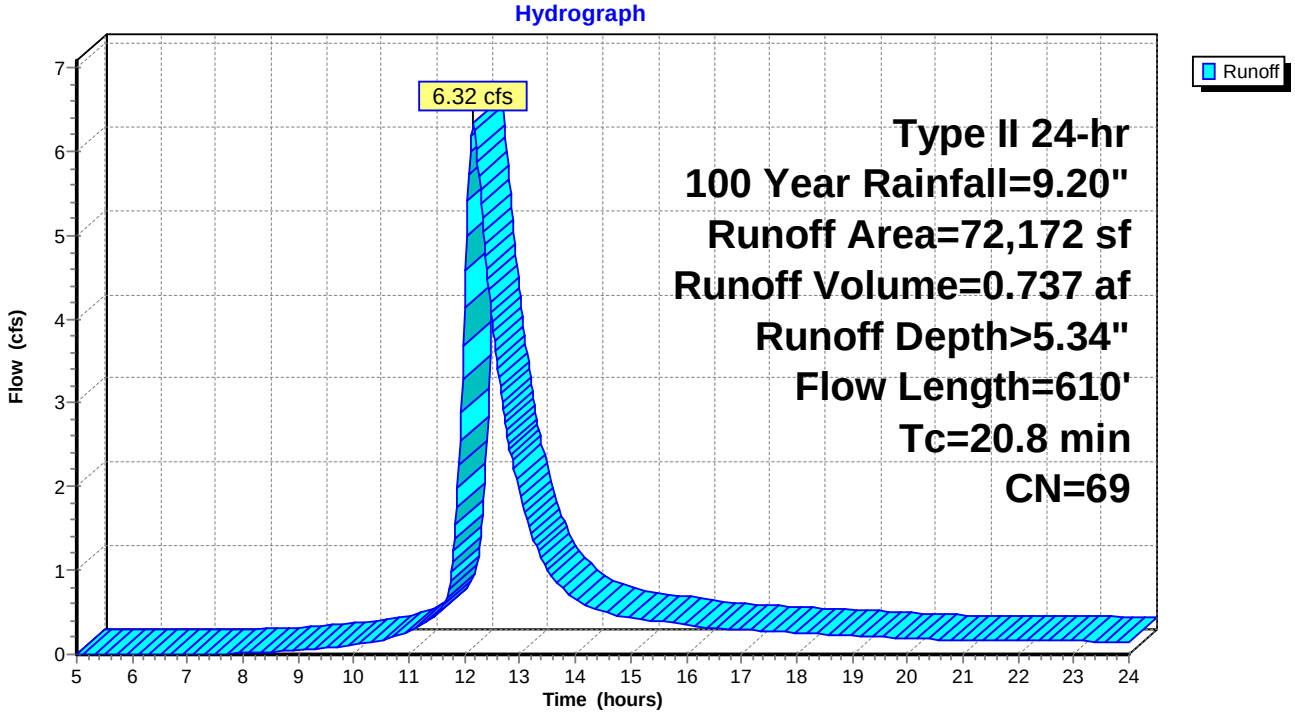
Runoff = 6.32 cfs @ 12.16 hrs, Volume= 0.737 af, Depth> 5.34"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 100 Year Rainfall=9.20"

Area (sf)	CN	Description
27,748	61	>75% Grass cover, Good, HSG B
44,424	74	>75% Grass cover, Good, HSG C
72,172	69	Weighted Average
72,172		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.9	100	0.0055	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
1.1	121	0.0119	1.76		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
1.2	119	0.0122	1.66		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
2.6	270	0.0007	1.70	3.01	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
20.8	610	Total			

Subcatchment 9S: Future Development



Hydrograph for Subcatchment 9S: Future Development

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.58	0.00	0.00
5.20	0.61	0.00	0.00
5.40	0.64	0.00	0.00
5.60	0.67	0.00	0.00
5.80	0.70	0.00	0.00
6.00	0.74	0.00	0.00
6.20	0.77	0.00	0.00
6.40	0.80	0.00	0.00
6.60	0.84	0.00	0.00
6.80	0.87	0.00	0.00
7.00	0.91	0.00	0.00
7.20	0.95	0.00	0.00
7.40	0.99	0.00	0.00
7.60	1.02	0.00	0.01
7.80	1.06	0.01	0.01
8.00	1.10	0.01	0.01
8.20	1.15	0.01	0.02
8.40	1.19	0.02	0.03
8.60	1.24	0.02	0.03
8.80	1.30	0.03	0.04
9.00	1.35	0.04	0.05
9.20	1.41	0.05	0.07
9.40	1.47	0.06	0.08
9.60	1.53	0.08	0.09
9.80	1.59	0.09	0.10
10.00	1.67	0.11	0.11
10.20	1.74	0.13	0.13
10.40	1.83	0.16	0.16
10.60	1.93	0.19	0.19
10.80	2.04	0.23	0.22
11.00	2.16	0.28	0.27
11.20	2.31	0.34	0.33
11.40	2.50	0.42	0.42
11.60	2.82	0.58	0.55
11.80	3.96	1.24	1.24
12.00	6.10	2.79	**4.13**
12.20	6.43	3.05	**6.17**
12.40	6.67	3.25	4.60
12.60	6.84	3.38	3.40
12.80	6.98	3.50	2.52
13.00	7.10	3.60	1.91
13.20	7.21	3.69	1.46
13.40	7.31	3.77	1.13
13.60	7.39	3.84	0.91
13.80	7.47	3.90	0.77
14.00	7.54	3.96	0.67
14.20	7.61	4.02	0.58
14.40	7.68	4.07	0.53
14.60	7.74	4.13	0.49
14.80	7.80	4.18	0.47
15.00	7.85	4.22	0.44
15.20	7.91	4.27	0.42
15.40	7.96	4.31	0.40
15.60	8.01	4.35	0.38
15.80	8.05	4.39	0.37
16.00	8.10	4.43	0.35
16.20	8.14	4.47	0.33
16.40	8.18	4.50	0.32
16.60	8.22	4.54	0.31
16.80	8.26	4.57	0.30
17.00	8.30	4.60	0.29
17.20	8.33	4.63	0.28
17.40	8.37	4.67	0.27
17.60	8.41	4.70	0.27
17.80	8.44	4.73	0.26
18.00	8.47	4.75	0.26
18.20	8.51	4.78	0.25
18.40	8.54	4.81	0.24
18.60	8.57	4.84	0.24
18.80	8.60	4.86	0.23
19.00	8.63	4.89	0.22
19.20	8.66	4.91	0.22
19.40	8.68	4.94	0.21
19.60	8.71	4.96	0.20
19.80	8.73	4.98	0.20
20.00	8.76	5.00	0.19
20.20	8.78	5.02	0.18
20.40	8.81	5.04	0.18
20.60	8.83	5.06	0.18
20.80	8.85	5.08	0.17
21.00	8.88	5.10	0.17
21.20	8.90	5.12	0.17
21.40	8.92	5.14	0.17
21.60	8.94	5.16	0.17
21.80	8.97	5.18	0.17
22.00	8.99	5.20	0.16
22.20	9.01	5.22	0.16
22.40	9.03	5.24	0.16
22.60	9.05	5.26	0.16
22.80	9.08	5.28	0.16
23.00	9.10	5.30	0.16
23.20	9.12	5.31	0.16
23.40	9.14	5.33	0.16
23.60	9.16	5.35	0.15
23.80	9.18	5.37	0.15
24.00	**9.20**	**5.39**	0.15

Summary for Pond 1P: Drugstore Pond

Inflow Area = 7.409 ac, 44.63% Impervious, Inflow Depth > 6.59" for 100 Year event
Inflow = 38.52 cfs @ 12.07 hrs, Volume= 4.069 af
Outflow = 15.69 cfs @ 12.56 hrs, Volume= 3.588 af, Atten= 59%, Lag= 29.5 min
Primary = 15.69 cfs @ 12.56 hrs, Volume= 3.588 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Peak Elev= 40.68' @ 12.56 hrs Surf.Area= 28,138 sf Storage= 69,206 cf

Plug-Flow detention time= 179.1 min calculated for 3.584 af (88% of inflow)
Center-of-Mass det. time= 122.9 min (928.6 - 805.7)

Volume	Invert	Avail.Storage	Storage Description
#1	37.60'	65,002 cf	**Wet Storage (Prismatic)** Listed below
#2	37.60'	25,745 cf	**Dry Storage (Prismatic)** Listed below (Recalc)
		90,747 cf	Total Available Storage

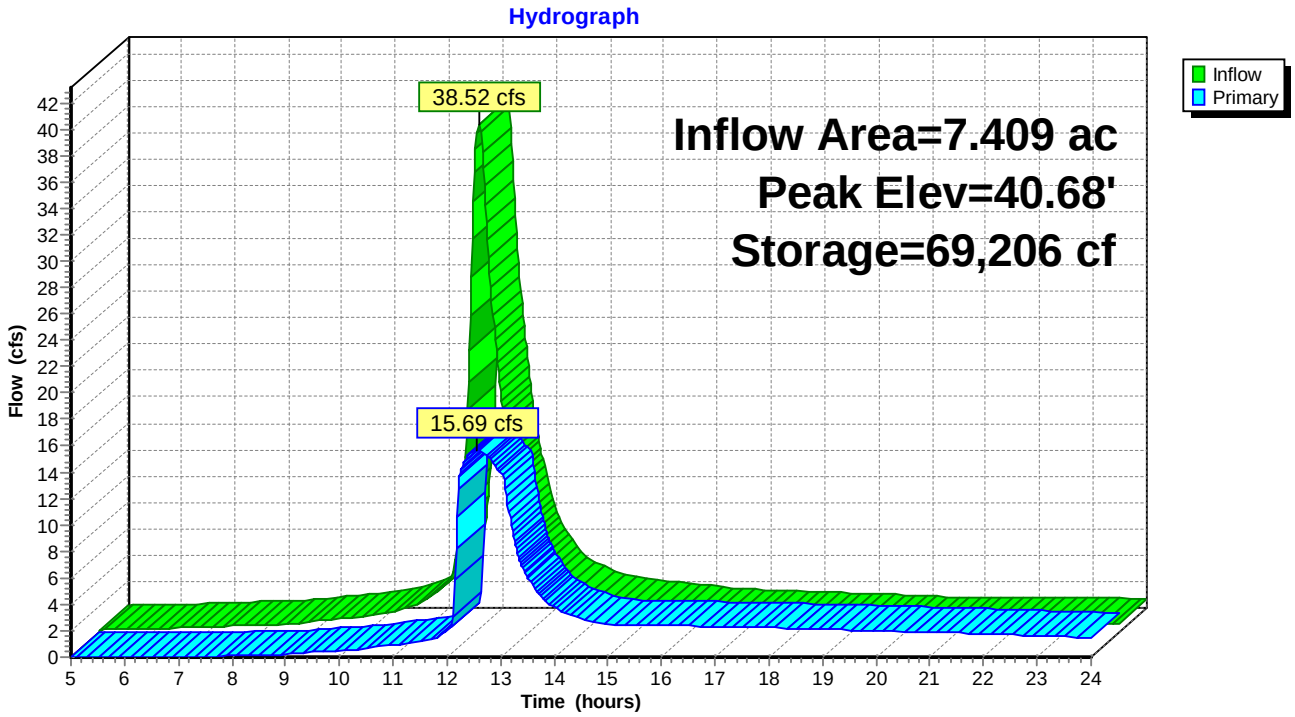
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
37.60	11,480	0	0
38.00	12,768	4,850	4,850
39.00	14,767	13,768	18,617
40.00	16,874	15,821	34,438
41.00	19,082	17,978	52,416
41.63	20,874	12,586	65,002

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
37.60	4,912	0	0
38.00	5,602	2,103	2,103
39.00	7,065	6,334	8,436
40.00	8,629	7,847	16,283
41.00	10,294	9,462	25,745

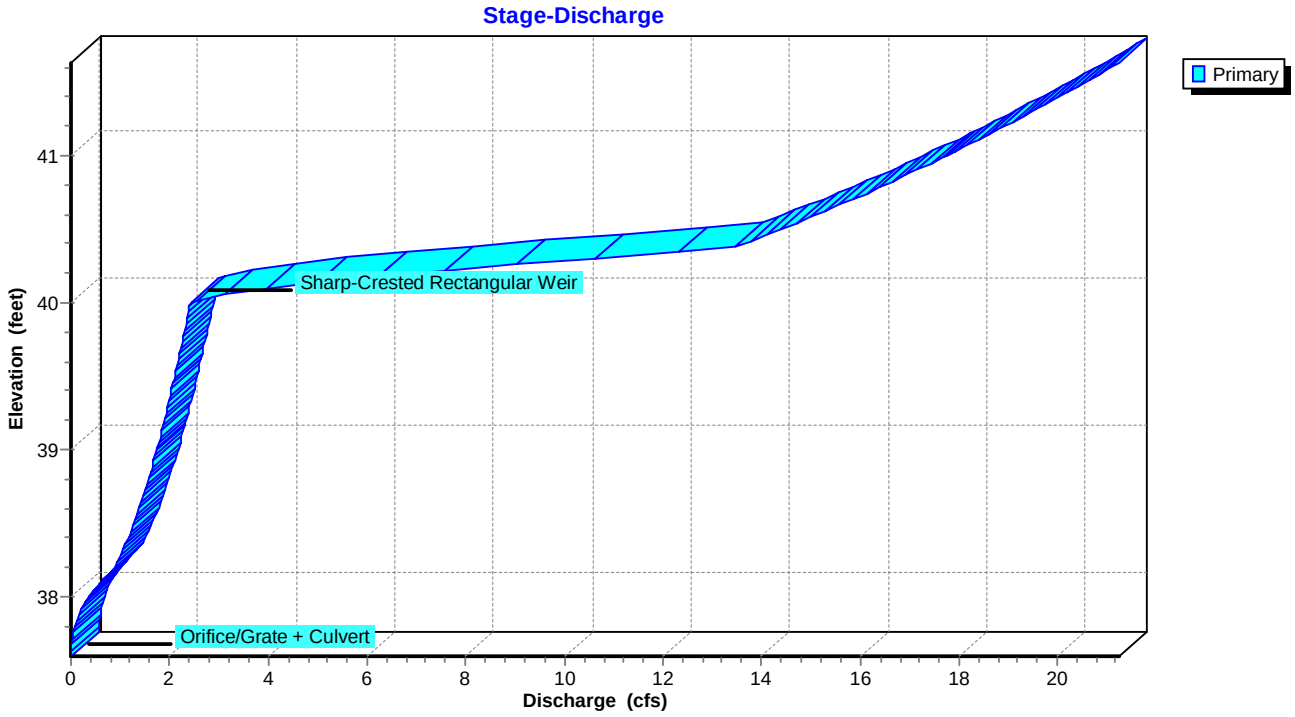
Device	Routing	Invert	Outlet Devices
#1	Device 3	37.60'	**8.0" Vert. Orifice/Grate** C= 0.600
#2	Device 3	40.00'	**15.0' long x 0.67' rise Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Primary	37.60'	**24.0" Round Culvert** L= 136.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 37.60' / 37.54' S= 0.0004 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 3.14 sf

Primary OutFlow Max=15.69 cfs @ 12.56 hrs HW=40.68' (Free Discharge)
└**3=Culvert** (Barrel Controls 15.69 cfs @ 4.99 fps)
  ├**1=Orifice/Grate** (Passes < 2.79 cfs potential flow)
  └**2=Sharp-Crested Rectangular Weir** (Passes < 27.22 cfs potential flow)

Pond 1P: Drugstore Pond



Pond 1P: Drugstore Pond



Hydrograph for Pond 1P: Drugstore Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.20	7	37.60	0.00
5.40	0.23	314	37.62	0.00
5.80	0.28	678	37.64	0.00
6.20	0.32	1,100	37.66	0.01
6.60	0.36	1,576	37.69	0.01
7.00	0.41	2,102	37.72	0.02
7.40	0.45	2,673	37.76	0.04
7.80	0.51	3,284	37.79	0.07
8.20	0.57	3,934	37.83	0.10
8.60	0.68	4,649	37.87	0.15
9.00	0.84	5,484	37.92	0.21
9.40	0.99	6,439	37.97	0.31
9.80	1.11	7,421	38.02	0.41
10.20	1.35	8,497	38.08	0.54
10.60	1.74	9,807	38.15	0.72
11.00	2.34	11,516	38.23	0.93
11.40	3.42	14,103	38.36	1.10
11.80	**11.92**	20,372	38.68	1.45
12.20	**32.43**	**58,806**	**40.30**	**10.66**
12.60	14.57	**69,127**	**40.68**	**15.67**
13.00	7.45	62,626	40.44	13.95
13.40	4.56	56,071	40.20	6.92
13.80	3.29	53,776	40.11	4.40
14.20	2.63	52,527	40.07	3.34
14.60	2.28	51,659	40.04	2.80
15.00	2.07	51,008	40.01	2.49
15.40	1.88	50,349	39.98	2.41
15.80	1.71	49,484	39.95	2.39
16.20	1.54	48,405	39.90	2.36
16.60	1.43	47,165	39.85	2.33
17.00	1.36	45,844	39.80	2.30
17.40	1.29	44,474	39.74	2.26
17.80	1.23	43,065	39.68	2.22
18.20	1.17	41,621	39.62	2.18
18.60	1.11	40,145	39.56	2.14
19.00	1.05	38,638	39.50	2.10
19.40	0.98	37,104	39.43	2.06
19.80	0.92	35,544	39.37	2.01
20.20	0.86	33,963	39.30	1.96
20.60	0.83	32,383	39.23	1.91
21.00	0.81	30,839	39.16	1.86
21.40	0.80	29,344	39.10	1.82
21.80	0.78	27,902	39.04	1.77
22.20	0.77	26,514	38.97	1.71
22.60	0.76	25,184	38.91	1.66
23.00	0.75	23,914	38.85	1.61
23.40	0.73	22,702	38.79	1.56
23.80	0.72	21,547	38.73	1.50

Stage-Area-Storage for Pond 1P: Drugstore Pond

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
37.60	0	40.30	58,778
37.65	854	40.35	60,135
37.70	1,712	40.40	61,497
37.75	2,575	40.45	62,863
37.80	3,442	40.50	64,233
37.85	4,313	40.55	65,607
37.90	5,188	40.60	66,985
37.95	6,068	40.65	68,367
38.00	6,952	40.70	69,754
38.05	7,923	40.75	71,144
38.10	8,897	40.80	72,539
38.15	9,874	40.85	73,938
38.20	10,856	40.90	75,342
38.25	11,840	40.95	76,749
38.30	12,829	41.00	78,160
38.35	13,821	41.05	79,159
38.40	14,817	41.10	80,158
38.45	15,817	41.15	81,157
38.50	16,820	41.20	82,156
38.55	17,827	41.25	83,155
38.60	18,837	41.30	84,154
38.65	19,852	41.35	85,153
38.70	20,869	41.40	86,152
38.75	21,891	41.45	87,151
38.80	22,916	41.50	88,149
38.85	23,945	41.55	89,148
38.90	24,977	41.60	**90,147**
38.95	26,014		
39.00	27,053		
39.05	28,200		
39.10	29,350		
39.15	30,504		
39.20	31,662		
39.25	32,824		
39.30	33,989		
39.35	35,159		
39.40	36,333		
39.45	37,510		
39.50	38,692		
39.55	39,877		
39.60	41,066		
39.65	42,259		
39.70	43,456		
39.75	44,657		
39.80	45,862		
39.85	47,071		
39.90	48,284		
39.95	49,500		
40.00	50,721		
40.05	52,053		
40.10	53,390		
40.15	54,731		
40.20	56,076		
40.25	57,425		

Summary for Pond 2P: Ditches To Study Point #1

Inflow Area = 8.707 ac, 43.90% Impervious, Inflow Depth > 5.87" for 100 Year event
Inflow = 17.84 cfs @ 12.44 hrs, Volume= 4.258 af
Outflow = 13.10 cfs @ 13.12 hrs, Volume= 4.241 af, Atten= 27%, Lag= 41.1 min
Primary = 13.10 cfs @ 13.12 hrs, Volume= 4.241 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Peak Elev= 40.32' @ 13.12 hrs Surf.Area= 21,212 sf Storage= 21,268 cf

Plug-Flow detention time= 13.8 min calculated for 4.241 af (100% of inflow)
Center-of-Mass det. time= 11.6 min (921.2 - 909.5)

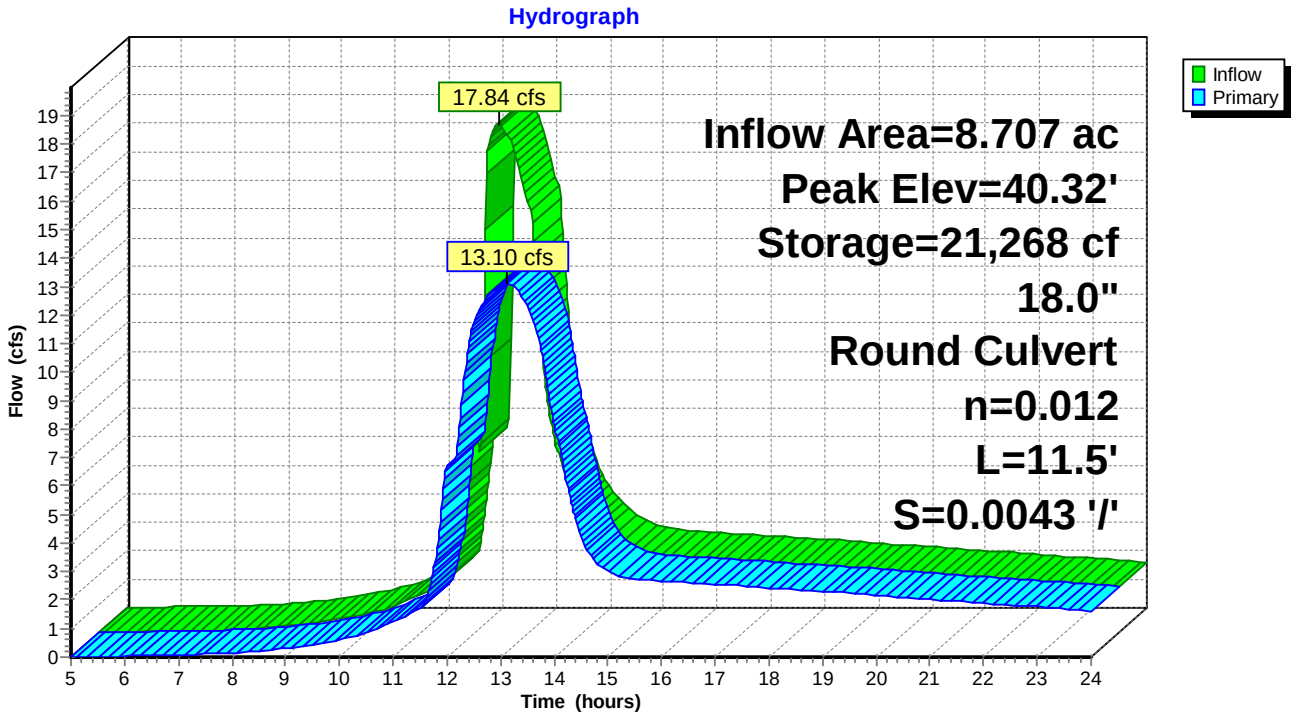
Volume	Invert	Avail.Storage	Storage Description
#1	37.20'	40,784 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
37.20	222	0	0
38.00	2,154	950	950
39.00	6,487	4,321	5,271
40.00	14,191	10,339	15,610
41.00	36,158	25,175	40,784

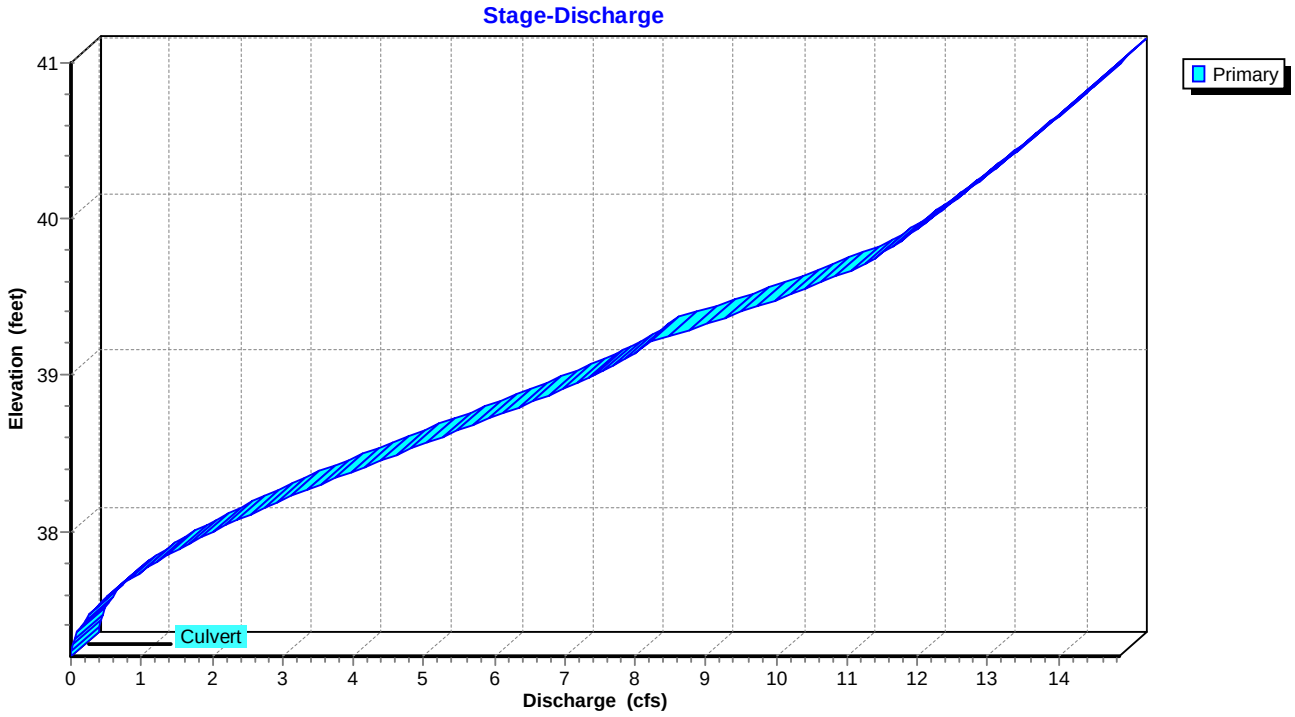
Device	Routing	Invert	Outlet Devices
#1	Primary	37.20'	**18.0" Round Culvert** L= 11.5' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 37.20' / 37.15' S= 0.0043 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=13.10 cfs @ 13.12 hrs HW=40.32' (Free Discharge)
1=Culvert (Inlet Controls 13.10 cfs @ 7.41 fps)

Pond 2P: Ditches To Study Point #1



Pond 2P: Ditches To Study Point #1



Hydrograph for Pond 2P: Ditches To Study Point #1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.02	1	37.20	0.00
5.40	0.02	20	37.27	0.02
5.80	0.03	29	37.29	0.03
6.20	0.04	35	37.30	0.04
6.60	0.05	42	37.32	0.05
7.00	0.07	51	37.33	0.06
7.40	0.10	63	37.35	0.09
7.80	0.13	79	37.38	0.12
8.20	0.18	100	37.41	0.16
8.60	0.24	129	37.45	0.22
9.00	0.34	169	37.49	0.31
9.40	0.44	216	37.54	0.41
9.80	0.58	273	37.59	0.54
10.20	0.76	346	37.65	0.70
10.60	1.01	448	37.72	0.93
11.00	1.33	586	37.81	1.23
11.40	1.74	752	37.90	1.60
11.80	5.65	1,805	38.30	3.55
12.20	**14.14**	5,224	38.99	7.38
12.60	**17.49**	15,346	39.98	12.13
13.00	15.03	**20,716**	**40.29**	**13.02**
13.40	7.62	**18,176**	**40.16**	**12.65**
13.80	4.93	9,951	39.54	10.35
14.20	3.77	4,165	38.82	6.48
14.60	3.18	1,993	38.36	3.84
15.00	2.84	1,474	38.20	3.01
15.40	2.72	1,335	38.15	2.76
15.80	2.67	1,296	38.14	2.69
16.20	2.62	1,266	38.13	2.64
16.60	2.57	1,240	38.12	2.59
17.00	2.53	1,215	38.11	2.54
17.40	2.48	1,191	38.10	2.50
17.80	2.43	1,166	38.09	2.45
18.20	2.38	1,140	38.08	2.40
18.60	2.33	1,114	38.07	2.35
19.00	2.28	1,087	38.06	2.30
19.40	2.22	1,060	38.05	2.24
19.80	2.17	1,032	38.04	2.19
20.20	2.11	1,004	38.02	2.13
20.60	2.06	977	38.01	2.07
21.00	2.00	951	38.00	2.02
21.40	1.95	926	37.99	1.97
21.80	1.90	902	37.98	1.92
22.20	1.85	877	37.97	1.86
22.60	1.79	851	37.95	1.81
23.00	1.74	826	37.94	1.75
23.40	1.68	800	37.93	1.70
23.80	1.63	775	37.91	1.64

Stage-Area-Storage for Pond 2P: Ditches To Study Point #1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
37.20	222	0
37.25	343	14
37.30	464	34
37.35	584	60
37.40	705	93
37.45	826	131
37.50	946	175
37.55	1,067	226
37.60	1,188	282
37.65	1,309	344
37.70	1,430	413
37.75	1,550	487
37.80	1,671	568
37.85	1,792	654
37.90	1,913	747
37.95	2,033	846
38.00	2,154	950
38.05	2,371	1,064
38.10	2,587	1,187
38.15	2,804	1,322
38.20	3,021	1,468
38.25	3,237	1,624
38.30	3,454	1,792
38.35	3,671	1,970
38.40	3,887	2,159
38.45	4,104	2,358
38.50	4,321	2,569
38.55	4,537	2,790
38.60	4,754	3,023
38.65	4,970	3,266
38.70	5,187	3,520
38.75	5,404	3,785
38.80	5,620	4,060
38.85	5,837	4,347
38.90	6,054	4,644
38.95	6,270	4,952
39.00	6,487	5,271
39.05	6,872	5,605
39.10	7,257	5,958
39.15	7,643	6,331
39.20	8,028	6,722
39.25	8,413	7,133
39.30	8,798	7,564
39.35	9,183	8,013
39.40	9,569	8,482
39.45	9,954	8,970
39.50	10,339	9,477
39.55	10,724	10,004
39.60	11,109	10,550
39.65	11,495	11,115
39.70	11,880	11,699
39.75	12,265	12,303
39.80	12,650	12,926
39.85	13,035	13,568
39.90	13,421	14,229
39.95	13,806	14,910
40.00	14,191	15,610
40.05	15,289	16,347
40.10	16,388	17,139
40.15	17,486	17,986
40.20	18,584	18,887
40.25	19,683	19,844
40.30	20,781	20,856
40.35	21,879	21,922
40.40	22,978	23,044
40.45	24,076	24,220
40.50	25,175	25,451
40.55	26,273	26,737
40.60	27,371	28,079
40.65	28,470	29,475
40.70	29,568	30,926
40.75	30,666	32,431
40.80	31,765	33,992
40.85	32,863	35,608
40.90	33,961	37,278
40.95	35,060	39,004
41.00	**36,158**	**40,784**

HydroCAD Update with Pr. AutoZone

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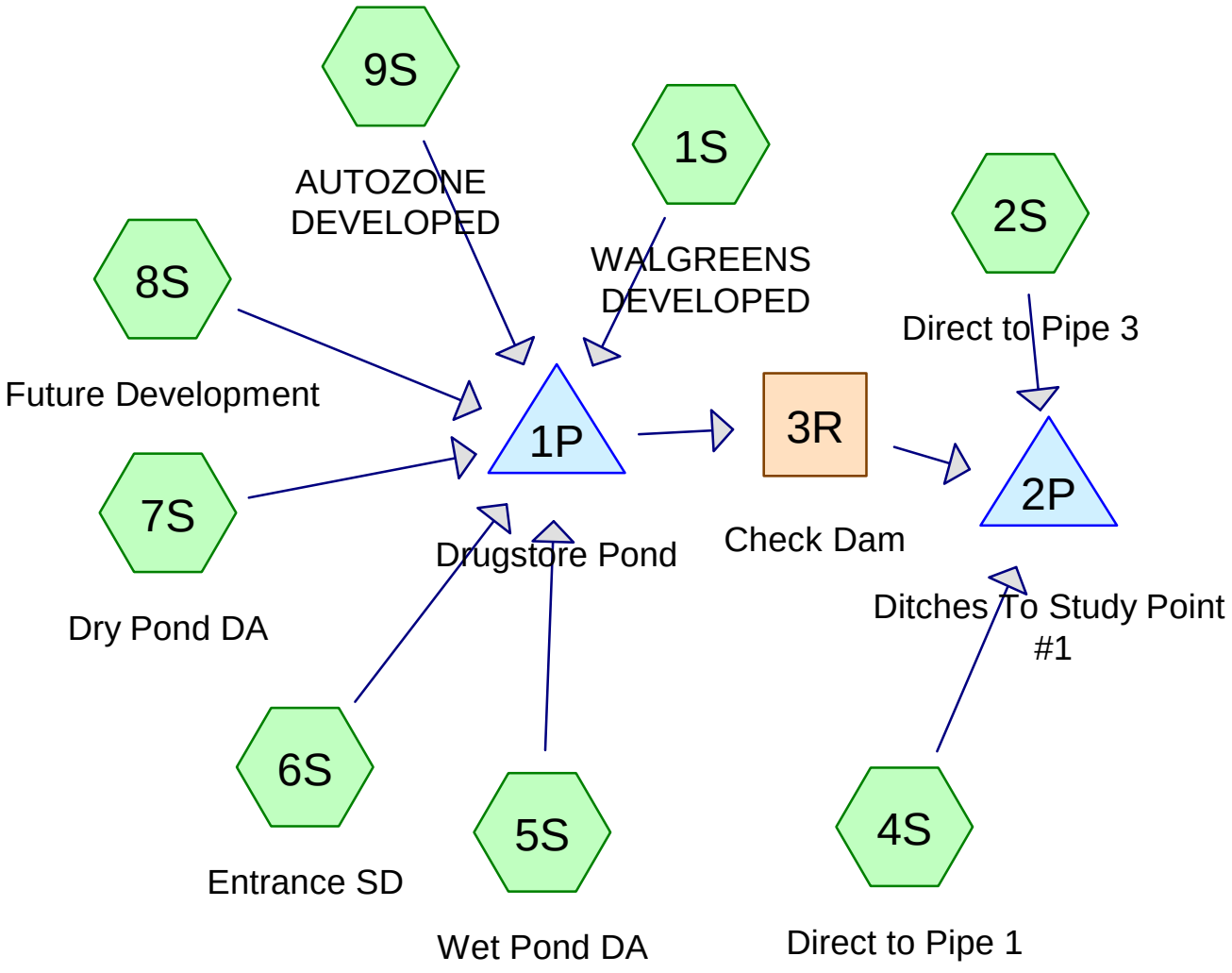


Subcat Reach Pond Link

Routing Diagram for BV Commercial Full Design Additional Storage-REV-6-19-25

Prepared by {enter your company name here}, Printed 7/23/2025

Summary for Subcatchment 1S: WALGREENS DEVELOPED

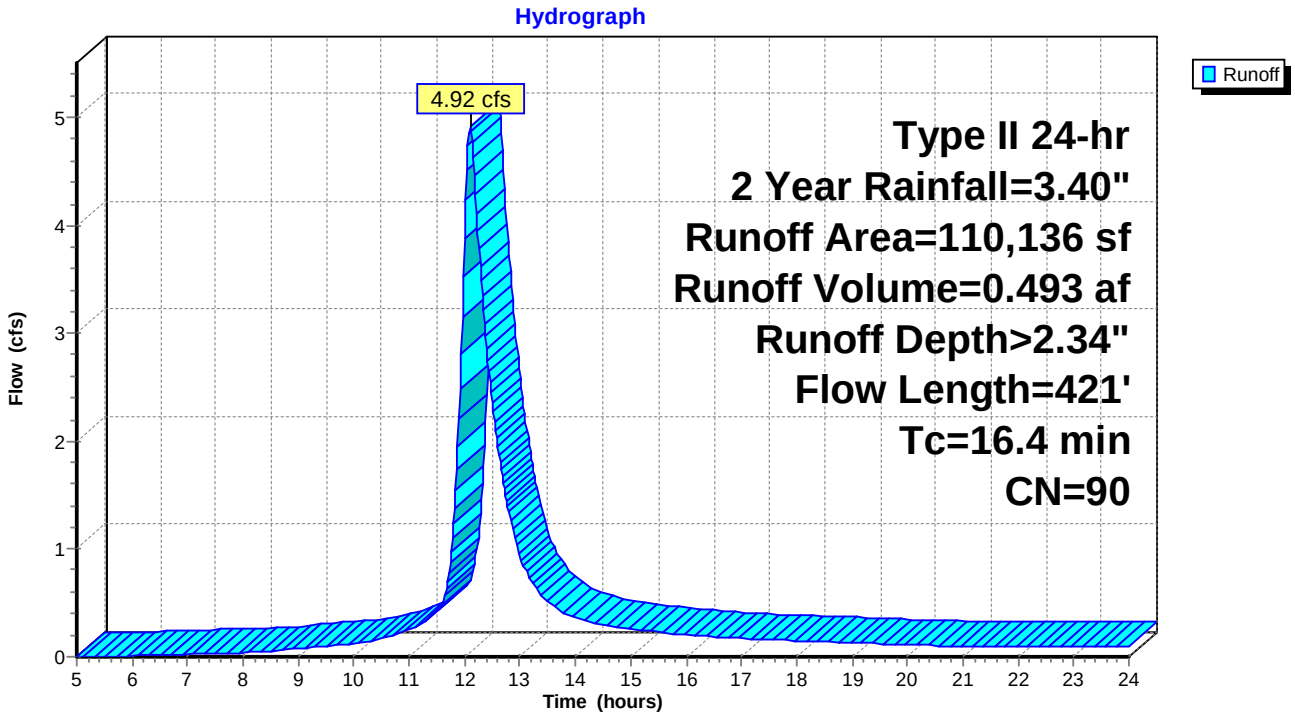
Runoff = 4.92 cfs @ 12.10 hrs, Volume= 0.493 af, Depth> 2.34"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 2 Year Rainfall=3.40"

Area (sf)	CN	Description
86,762	98	Paved roads w/curbs & sewers
23,374	61	>75% Grass cover, Good, HSG B
110,136	90	Weighted Average
23,374		21.22% Pervious Area
86,762		78.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.3	100	0.0086	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
3.1	321	0.0007	1.70	3.01	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
16.4	421	Total			

Subcatchment 1S: WALGREENS DEVELOPED



Hydrograph for Subcatchment 1S: WALGREENS DEVELOPED

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00
5.20	0.23	0.00	0.00
5.40	0.24	0.00	0.00
5.60	0.25	0.00	0.00
5.80	0.26	0.00	0.00
6.00	0.27	0.00	0.01
6.20	0.28	0.00	0.01
6.40	0.30	0.00	0.01
6.60	0.31	0.01	0.02
6.80	0.32	0.01	0.02
7.00	0.34	0.01	0.02
7.20	0.35	0.01	0.03
7.40	0.36	0.02	0.03
7.60	0.38	0.02	0.03
7.80	0.39	0.02	0.04
8.00	0.41	0.03	0.04
8.20	0.42	0.03	0.05
8.40	0.44	0.04	0.05
8.60	0.46	0.04	0.06
8.80	0.48	0.05	0.07
9.00	0.50	0.06	0.08
9.20	0.52	0.06	0.09
9.40	0.54	0.07	0.10
9.60	0.57	0.08	0.10
9.80	0.59	0.09	0.11
10.00	0.62	0.10	0.12
10.20	0.64	0.12	0.14
10.40	0.68	0.13	0.16
10.60	0.71	0.15	0.19
10.80	0.75	0.17	0.22
11.00	0.80	0.20	0.26
11.20	0.85	0.23	0.31
11.40	0.92	0.27	0.38
11.60	1.04	0.35	0.49
11.80	1.46	0.66	1.23
12.00	2.25	1.31	**3.89**
12.20	2.38	1.42	**4.29**
12.40	2.47	1.50	2.86
12.60	2.53	1.56	1.95
12.80	2.58	1.60	1.34
13.00	2.62	1.64	0.95
13.20	2.66	1.68	0.70
13.40	2.70	1.71	0.56
13.60	2.73	1.74	0.47
13.80	2.76	1.77	0.40
14.00	2.79	1.79	0.36
14.20	2.81	1.81	0.33
14.40	2.84	1.83	0.31
14.60	2.86	1.86	0.29
14.80	2.88	1.88	0.27
15.00	2.90	1.89	0.26
15.20	2.92	1.91	0.25
15.40	2.94	1.93	0.24
15.60	2.96	1.95	0.23
15.80	2.98	1.96	0.22
16.00	2.99	1.98	0.21
16.20	3.01	1.99	0.20
16.40	3.02	2.00	0.19
16.60	3.04	2.02	0.18
16.80	3.05	2.03	0.18
17.00	3.07	2.04	0.17
17.20	3.08	2.06	0.17
17.40	3.09	2.07	0.16
17.60	3.11	2.08	0.16
17.80	3.12	2.09	0.16
18.00	3.13	2.11	0.15
18.20	3.14	2.12	0.15
18.40	3.16	2.13	0.14
18.60	3.17	2.14	0.14
18.80	3.18	2.15	0.14
19.00	3.19	2.16	0.13
19.20	3.20	2.17	0.13
19.40	3.21	2.18	0.12
19.60	3.22	2.19	0.12
19.80	3.23	2.19	0.12
20.00	3.24	2.20	0.11
20.20	3.25	2.21	0.11
20.40	3.25	2.22	0.11
20.60	3.26	2.23	0.10
20.80	3.27	2.24	0.10
21.00	3.28	2.24	0.10
21.20	3.29	2.25	0.10
21.40	3.30	2.26	0.10
21.60	3.31	2.27	0.10
21.80	3.31	2.27	0.10
22.00	3.32	2.28	0.10
22.20	3.33	2.29	0.10
22.40	3.34	2.30	0.10
22.60	3.35	2.30	0.10
22.80	3.35	2.31	0.10
23.00	3.36	2.32	0.09
23.20	3.37	2.33	0.09
23.40	3.38	2.33	0.09
23.60	3.38	2.34	0.09
23.80	3.39	2.35	0.09
24.00	**3.40**	**2.35**	0.09

Summary for Subcatchment 2S: Direct to Pipe 3

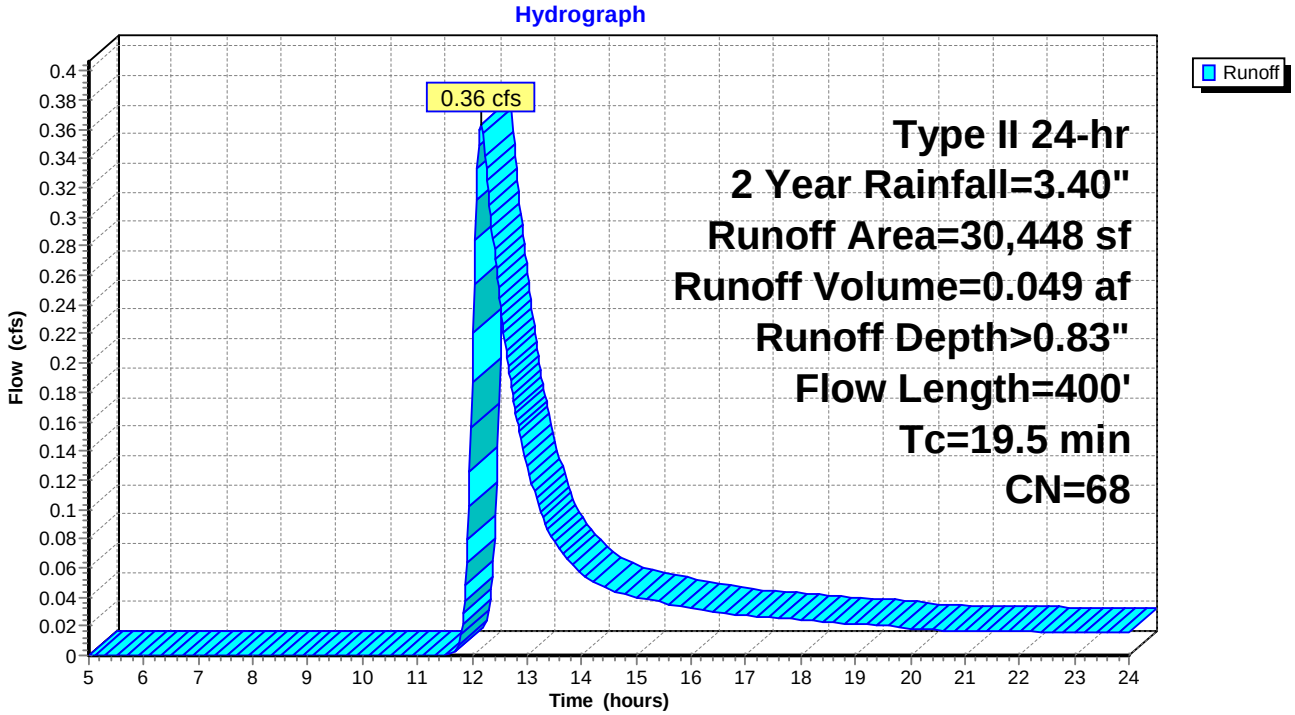
Runoff = 0.36 cfs @ 12.17 hrs, Volume= 0.049 af, Depth> 0.83"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 2 Year Rainfall=3.40"

Area (sf)	CN	Description
5,873	98	Paved roads w/curbs & sewers
24,575	61	>75% Grass cover, Good, HSG B
30,448	68	Weighted Average
24,575		80.71% Pervious Area
5,873		19.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.5	100	0.0050	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
3.0	300	0.0126	1.68		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
19.5	400	Total			

Subcatchment 2S: Direct to Pipe 3



Hydrograph for Subcatchment 2S: Direct to Pipe 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00
5.20	0.23	0.00	0.00
5.40	0.24	0.00	0.00
5.60	0.25	0.00	0.00
5.80	0.26	0.00	0.00
6.00	0.27	0.00	0.00
6.20	0.28	0.00	0.00
6.40	0.30	0.00	0.00
6.60	0.31	0.00	0.00
6.80	0.32	0.00	0.00
7.00	0.34	0.00	0.00
7.20	0.35	0.00	0.00
7.40	0.36	0.00	0.00
7.60	0.38	0.00	0.00
7.80	0.39	0.00	0.00
8.00	0.41	0.00	0.00
8.20	0.42	0.00	0.00
8.40	0.44	0.00	0.00
8.60	0.46	0.00	0.00
8.80	0.48	0.00	0.00
9.00	0.50	0.00	0.00
9.20	0.52	0.00	0.00
9.40	0.54	0.00	0.00
9.60	0.57	0.00	0.00
9.80	0.59	0.00	0.00
10.00	0.62	0.00	0.00
10.20	0.64	0.00	0.00
10.40	0.68	0.00	0.00
10.60	0.71	0.00	0.00
10.80	0.75	0.00	0.00
11.00	0.80	0.00	0.00
11.20	0.85	0.00	0.00
11.40	0.92	0.00	0.00
11.60	1.04	0.00	0.00
11.80	1.46	0.05	0.02
12.00	2.25	0.29	**0.19**
12.20	2.38	0.34	**0.36**
12.40	2.47	0.37	0.28
12.60	2.53	0.40	0.21
12.80	2.58	0.42	0.17
13.00	2.62	0.44	0.13
13.20	2.66	0.46	0.10
13.40	2.70	0.48	0.08
13.60	2.73	0.49	0.07
13.80	2.76	0.51	0.06
14.00	2.79	0.52	0.06
14.20	2.81	0.53	0.05
14.40	2.84	0.54	0.05
14.60	2.86	0.56	0.04
14.80	2.88	0.57	0.04
15.00	2.90	0.58	0.04
15.20	2.92	0.59	0.04
15.40	2.94	0.60	0.04
15.60	2.96	0.61	0.04
15.80	2.98	0.61	0.03
16.00	2.99	0.62	0.03
16.20	3.01	0.63	0.03
16.40	3.02	0.64	0.03
16.60	3.04	0.65	0.03
16.80	3.05	0.65	0.03
17.00	3.07	0.66	0.03
17.20	3.08	0.67	0.03
17.40	3.09	0.68	0.03
17.60	3.11	0.68	0.03
17.80	3.12	0.69	0.02
18.00	3.13	0.70	0.02
18.20	3.14	0.70	0.02
18.40	3.16	0.71	0.02
18.60	3.17	0.71	0.02
18.80	3.18	0.72	0.02
19.00	3.19	0.73	0.02
19.20	3.20	0.73	0.02
19.40	3.21	0.74	0.02
19.60	3.22	0.74	0.02
19.80	3.23	0.75	0.02
20.00	3.24	0.75	0.02
20.20	3.25	0.76	0.02
20.40	3.25	0.76	0.02
20.60	3.26	0.77	0.02
20.80	3.27	0.77	0.02
21.00	3.28	0.78	0.02
21.20	3.29	0.78	0.02
21.40	3.30	0.79	0.02
21.60	3.31	0.79	0.02
21.80	3.31	0.80	0.02
22.00	3.32	0.80	0.02
22.20	3.33	0.80	0.02
22.40	3.34	0.81	0.02
22.60	3.35	0.81	0.02
22.80	3.35	0.82	0.02
23.00	3.36	0.82	0.02
23.20	3.37	0.83	0.02
23.40	3.38	0.83	0.02
23.60	3.38	0.84	0.02
23.80	3.39	0.84	0.02
24.00	**3.40**	**0.84**	0.02

Summary for Subcatchment 4S: Direct to Pipe 1

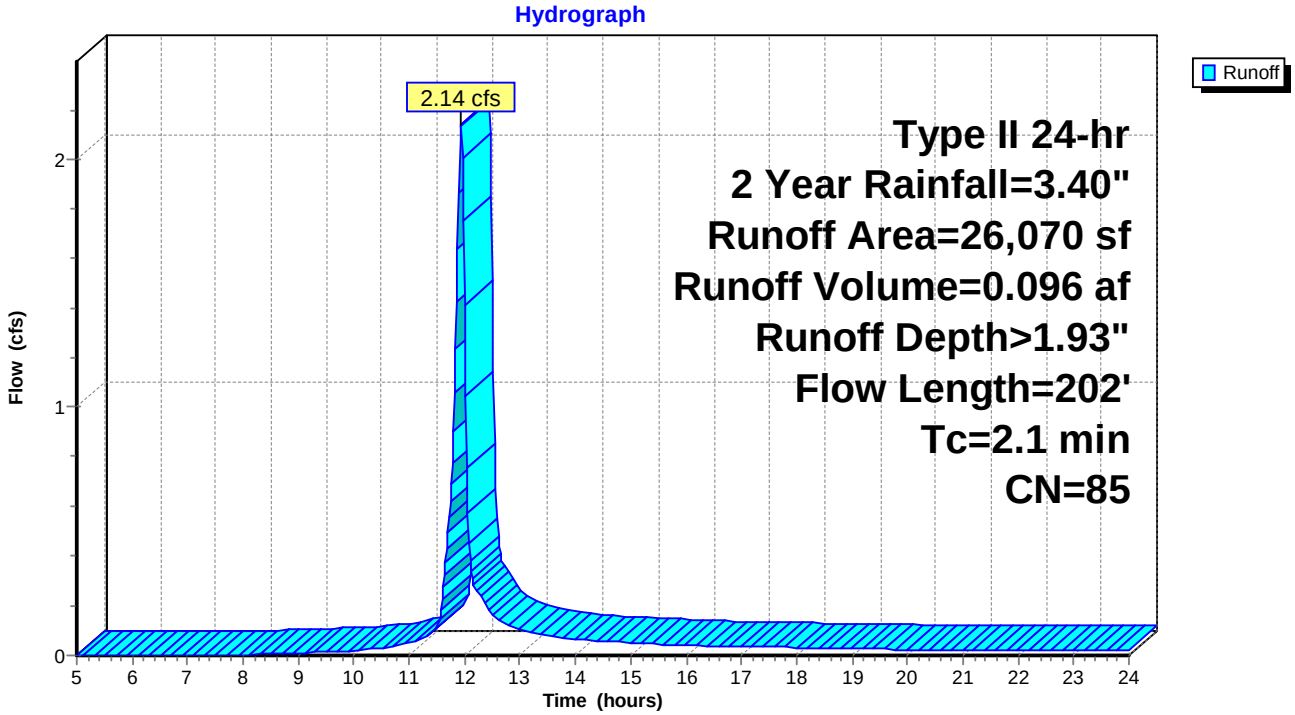
Runoff = 2.14 cfs @ 11.94 hrs, Volume= 0.096 af, Depth> 1.93"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 2 Year Rainfall=3.40"

Area (sf)	CN	Description
16,602	98	Paved roads w/curbs & sewers
9,468	61	>75% Grass cover, Good, HSG B
26,070	85	Weighted Average
9,468		36.32% Pervious Area
16,602		63.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	70	0.0600	2.05		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.40"
1.5	132	0.0052	1.46		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.1	202	Total			

Subcatchment 4S: Direct to Pipe 1



Hydrograph for Subcatchment 4S: Direct to Pipe 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00	15.80	2.98	1.57	0.04
5.20	0.23	0.00	0.00	16.00	2.99	1.58	0.04
5.40	0.24	0.00	0.00	16.20	3.01	1.59	0.04
5.60	0.25	0.00	0.00	16.40	3.02	1.61	0.04
5.80	0.26	0.00	0.00	16.60	3.04	1.62	0.04
6.00	0.27	0.00	0.00	16.80	3.05	1.63	0.04
6.20	0.28	0.00	0.00	17.00	3.07	1.64	0.04
6.40	0.30	0.00	0.00	17.20	3.08	1.66	0.03
6.60	0.31	0.00	0.00	17.40	3.09	1.67	0.03
6.80	0.32	0.00	0.00	17.60	3.11	1.68	0.03
7.00	0.34	0.00	0.00	17.80	3.12	1.69	0.03
7.20	0.35	0.00	0.00	18.00	3.13	1.70	0.03
7.40	0.36	0.00	0.00	18.20	3.14	1.71	0.03
7.60	0.38	0.00	0.00	18.40	3.16	1.72	0.03
7.80	0.39	0.00	0.00	18.60	3.17	1.73	0.03
8.00	0.41	0.00	0.00	18.80	3.18	1.74	0.03
8.20	0.42	0.00	0.00	19.00	3.19	1.75	0.03
8.40	0.44	0.00	0.00	19.20	3.20	1.76	0.03
8.60	0.46	0.01	0.01	19.40	3.21	1.77	0.03
8.80	0.48	0.01	0.01	19.60	3.22	1.77	0.02
9.00	0.50	0.01	0.01	19.80	3.23	1.78	0.02
9.20	0.52	0.01	0.01	20.00	3.24	1.79	0.02
9.40	0.54	0.02	0.01	20.20	3.25	1.80	0.02
9.60	0.57	0.02	0.01	20.40	3.25	1.80	0.02
9.80	0.59	0.03	0.02	20.60	3.26	1.81	0.02
10.00	0.62	0.03	0.02	20.80	3.27	1.82	0.02
10.20	0.64	0.04	0.02	21.00	3.28	1.83	0.02
10.40	0.68	0.05	0.03	21.20	3.29	1.83	0.02
10.60	0.71	0.06	0.03	21.40	3.30	1.84	0.02
10.80	0.75	0.07	0.04	21.60	3.31	1.85	0.02
11.00	0.80	0.09	0.05	21.80	3.31	1.85	0.02
11.20	0.85	0.11	0.07	22.00	3.32	1.86	0.02
11.40	0.92	0.14	0.09	22.20	3.33	1.87	0.02
11.60	1.04	0.19	0.23	22.40	3.34	1.88	0.02
11.80	1.46	0.43	**0.90**	22.60	3.35	1.88	0.02
12.00	2.25	0.99	**1.41**	22.80	3.35	1.89	0.02
12.20	2.38	1.08	0.27	23.00	3.36	1.90	0.02
12.40	2.47	1.15	0.20	23.20	3.37	1.90	0.02
12.60	2.53	1.20	0.14	23.40	3.38	1.91	0.02
12.80	2.58	1.24	0.12	23.60	3.38	1.92	0.02
13.00	2.62	1.28	0.11	23.80	3.39	1.92	0.02
13.20	2.66	1.31	0.09	24.00	**3.40**	**1.93**	0.02
13.40	2.70	1.34	0.09				
13.60	2.73	1.37	0.08				
13.80	2.76	1.39	0.07				
14.00	2.79	1.41	0.06				
14.20	2.81	1.43	0.06				
14.40	2.84	1.45	0.06				
14.60	2.86	1.47	0.06				
14.80	2.88	1.49	0.05				
15.00	2.90	1.51	0.05				
15.20	2.92	1.52	0.05				
15.40	2.94	1.54	0.05				
15.60	2.96	1.55	0.04				

Summary for Subcatchment 5S: Wet Pond DA

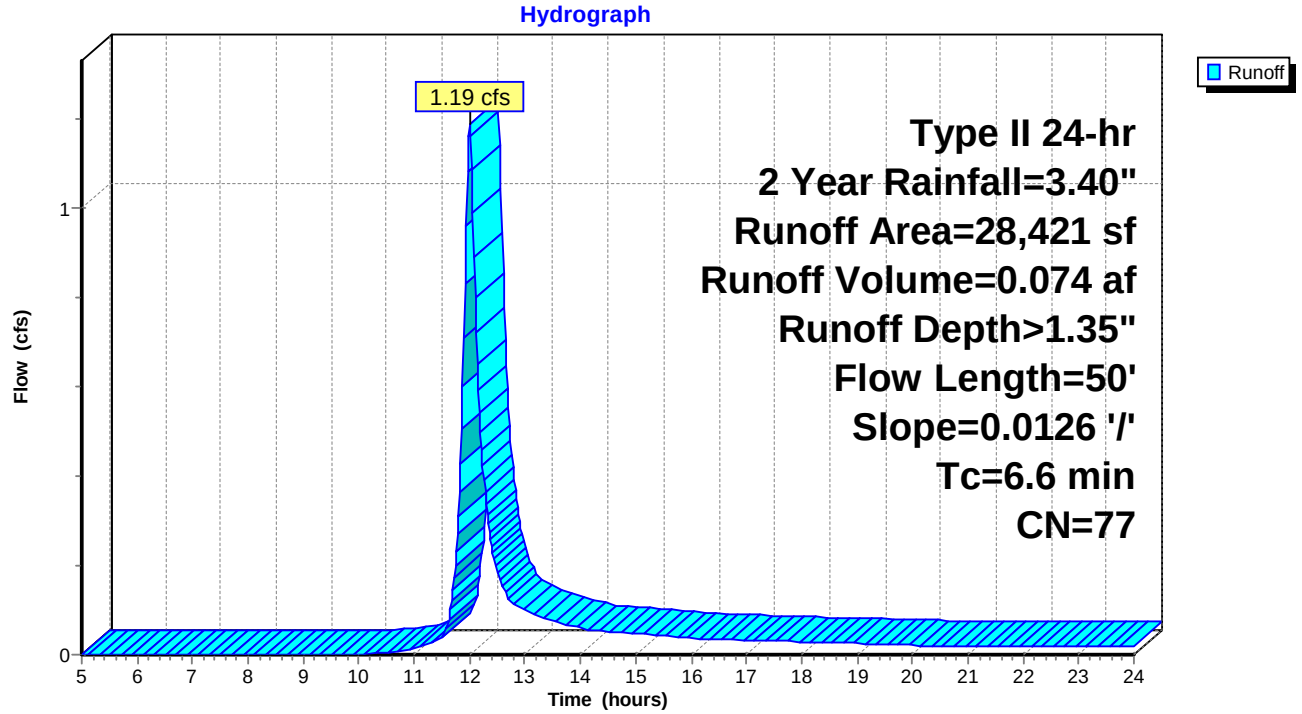
Runoff = 1.19 cfs @ 12.00 hrs, Volume= 0.074 af, Depth> 1.35"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 2 Year Rainfall=3.40"

	Area (sf)	CN	Description
*	12,422	98	Water Surface
	15,999	61	>75% Grass cover, Good, HSG B
	28,421	77	Weighted Average
	15,999		56.29% Pervious Area
	12,422		43.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	50	0.0126	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"

Subcatchment 5S: Wet Pond DA



Hydrograph for Subcatchment 5S: Wet Pond DA

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00
5.20	0.23	0.00	0.00
5.40	0.24	0.00	0.00
5.60	0.25	0.00	0.00
5.80	0.26	0.00	0.00
6.00	0.27	0.00	0.00
6.20	0.28	0.00	0.00
6.40	0.30	0.00	0.00
6.60	0.31	0.00	0.00
6.80	0.32	0.00	0.00
7.00	0.34	0.00	0.00
7.20	0.35	0.00	0.00
7.40	0.36	0.00	0.00
7.60	0.38	0.00	0.00
7.80	0.39	0.00	0.00
8.00	0.41	0.00	0.00
8.20	0.42	0.00	0.00
8.40	0.44	0.00	0.00
8.60	0.46	0.00	0.00
8.80	0.48	0.00	0.00
9.00	0.50	0.00	0.00
9.20	0.52	0.00	0.00
9.40	0.54	0.00	0.00
9.60	0.57	0.00	0.00
9.80	0.59	0.00	0.00
10.00	0.62	0.00	0.00
10.20	0.64	0.00	0.00
10.40	0.68	0.00	0.00
10.60	0.71	0.00	0.01
10.80	0.75	0.01	0.01
11.00	0.80	0.01	0.01
11.20	0.85	0.02	0.02
11.40	0.92	0.03	0.03
11.60	1.04	0.06	0.06
11.80	1.46	0.20	0.31
12.00	2.25	0.59	**1.19**
12.20	2.38	0.66	0.50
12.40	2.47	0.72	0.24
12.60	2.53	0.76	0.15
12.80	2.58	0.79	0.12
13.00	2.62	0.82	0.10
13.20	2.66	0.85	0.09
13.40	2.70	0.87	0.08
13.60	2.73	0.89	0.07
13.80	2.76	0.91	0.07
14.00	2.79	0.93	0.06
14.20	2.81	0.94	0.06
14.40	2.84	0.96	0.05
14.60	2.86	0.97	0.05
14.80	2.88	0.99	0.05
15.00	2.90	1.00	0.05
15.20	2.92	1.02	0.05
15.40	2.94	1.03	0.04
15.60	2.96	1.04	0.04
15.80	2.98	1.05	0.04
16.00	2.99	1.07	0.04
16.20	3.01	1.08	0.04
16.40	3.02	1.09	0.03
16.60	3.04	1.10	0.03
16.80	3.05	1.11	0.03
17.00	3.07	1.12	0.03
17.20	3.08	1.13	0.03
17.40	3.09	1.14	0.03
17.60	3.11	1.15	0.03
17.80	3.12	1.15	0.03
18.00	3.13	1.16	0.03
18.20	3.14	1.17	0.03
18.40	3.16	1.18	0.03
18.60	3.17	1.19	0.03
18.80	3.18	1.20	0.03
19.00	3.19	1.20	0.03
19.20	3.20	1.21	0.02
19.40	3.21	1.22	0.02
19.60	3.22	1.22	0.02
19.80	3.23	1.23	0.02
20.00	3.24	1.24	0.02
20.20	3.25	1.24	0.02
20.40	3.25	1.25	0.02
20.60	3.26	1.26	0.02
20.80	3.27	1.26	0.02
21.00	3.28	1.27	0.02
21.20	3.29	1.28	0.02
21.40	3.30	1.28	0.02
21.60	3.31	1.29	0.02
21.80	3.31	1.29	0.02
22.00	3.32	1.30	0.02
22.20	3.33	1.31	0.02
22.40	3.34	1.31	0.02
22.60	3.35	1.32	0.02
22.80	3.35	1.32	0.02
23.00	3.36	1.33	0.02
23.20	3.37	1.33	0.02
23.40	3.38	1.34	0.02
23.60	3.38	1.35	0.02
23.80	3.39	1.35	0.02
24.00	**3.40**	**1.36**	0.02

Summary for Subcatchment 6S: Entrance SD

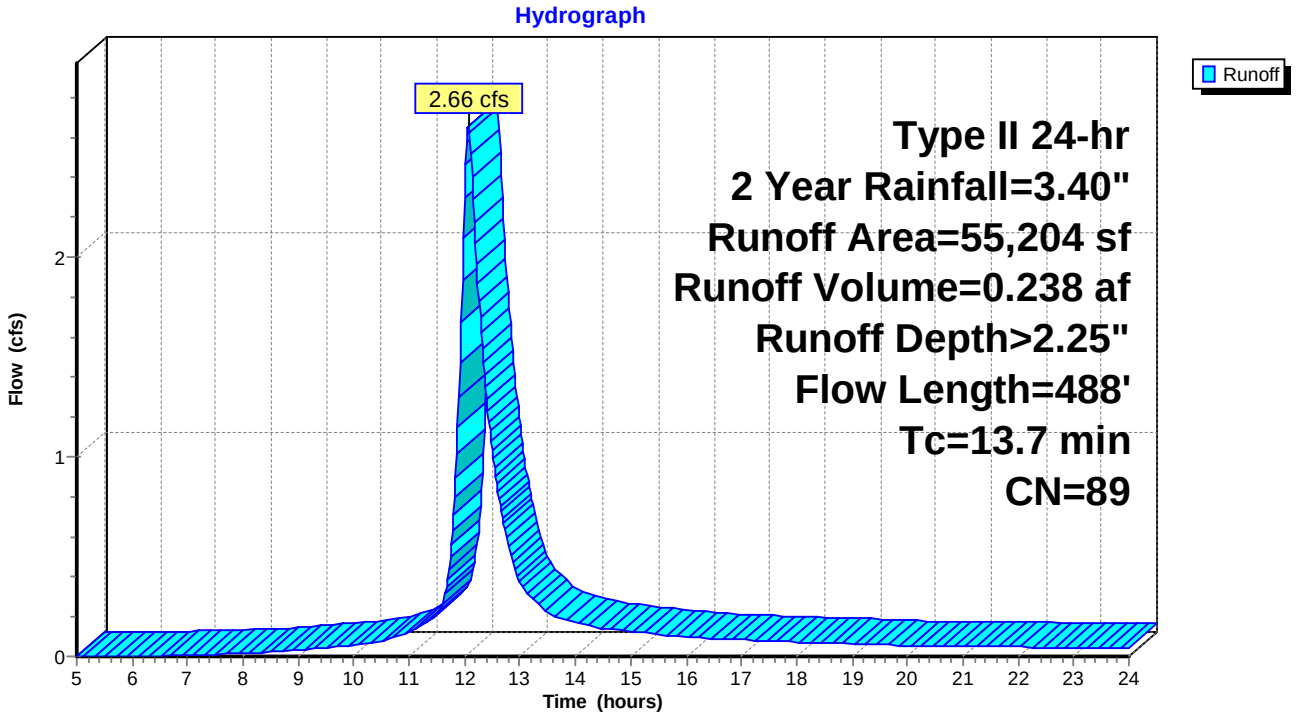
Runoff = 2.66 cfs @ 12.07 hrs, Volume= 0.238 af, Depth> 2.25"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 2 Year Rainfall=3.40"

Area (sf)	CN	Description
42,497	98	Paved roads w/curbs & sewers
12,707	61	>75% Grass cover, Good, HSG B
55,204	89	Weighted Average
12,707		23.02% Pervious Area
42,497		76.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	50	0.0050	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
3.2	263	0.0081	1.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.0	175	0.0025	2.85	3.50	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012 Concrete pipe, finished
13.7	488	Total			

Subcatchment 6S: Entrance SD



Hydrograph for Subcatchment 6S: Entrance SD

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00
5.20	0.23	0.00	0.00
5.40	0.24	0.00	0.00
5.60	0.25	0.00	0.00
5.80	0.26	0.00	0.00
6.00	0.27	0.00	0.00
6.20	0.28	0.00	0.00
6.40	0.30	0.00	0.00
6.60	0.31	0.00	0.01
6.80	0.32	0.00	0.01
7.00	0.34	0.01	0.01
7.20	0.35	0.01	0.01
7.40	0.36	0.01	0.01
7.60	0.38	0.01	0.01
7.80	0.39	0.02	0.02
8.00	0.41	0.02	0.02
8.20	0.42	0.02	0.02
8.40	0.44	0.03	0.02
8.60	0.46	0.03	0.03
8.80	0.48	0.04	0.03
9.00	0.50	0.04	0.03
9.20	0.52	0.05	0.04
9.40	0.54	0.06	0.04
9.60	0.57	0.07	0.05
9.80	0.59	0.07	0.05
10.00	0.62	0.08	0.06
10.20	0.64	0.10	0.07
10.40	0.68	0.11	0.08
10.60	0.71	0.13	0.09
10.80	0.75	0.15	0.10
11.00	0.80	0.17	0.12
11.20	0.85	0.20	0.15
11.40	0.92	0.24	0.19
11.60	1.04	0.31	0.25
11.80	1.46	0.60	0.71
12.00	2.25	1.24	**2.30**
12.20	2.38	1.35	**2.07**
12.40	2.47	1.42	1.29
12.60	2.53	1.48	0.83
12.80	2.58	1.52	0.54
13.00	2.62	1.56	0.38
13.20	2.66	1.60	0.30
13.40	2.70	1.63	0.24
13.60	2.73	1.66	0.21
13.80	2.76	1.69	0.19
14.00	2.79	1.71	0.17
14.20	2.81	1.73	0.16
14.40	2.84	1.75	0.15
14.60	2.86	1.77	0.14
14.80	2.88	1.79	0.13
15.00	2.90	1.81	0.13
15.20	2.92	1.83	0.12
15.40	2.94	1.85	0.12
15.60	2.96	1.86	0.11
15.80	2.98	1.88	0.11
16.00	2.99	1.89	0.10
16.20	3.01	1.91	0.09
16.40	3.02	1.92	0.09
16.60	3.04	1.93	0.09
16.80	3.05	1.95	0.09
17.00	3.07	1.96	0.08
17.20	3.08	1.97	0.08
17.40	3.09	1.98	0.08
17.60	3.11	2.00	0.08
17.80	3.12	2.01	0.08
18.00	3.13	2.02	0.07
18.20	3.14	2.03	0.07
18.40	3.16	2.04	0.07
18.60	3.17	2.05	0.07
18.80	3.18	2.06	0.07
19.00	3.19	2.07	0.06
19.20	3.20	2.08	0.06
19.40	3.21	2.09	0.06
19.60	3.22	2.10	0.06
19.80	3.23	2.11	0.06
20.00	3.24	2.12	0.06
20.20	3.25	2.12	0.05
20.40	3.25	2.13	0.05
20.60	3.26	2.14	0.05
20.80	3.27	2.15	0.05
21.00	3.28	2.15	0.05
21.20	3.29	2.16	0.05
21.40	3.30	2.17	0.05
21.60	3.31	2.18	0.05
21.80	3.31	2.19	0.05
22.00	3.32	2.19	0.05
22.20	3.33	2.20	0.05
22.40	3.34	2.21	0.05
22.60	3.35	2.22	0.05
22.80	3.35	2.22	0.05
23.00	3.36	2.23	0.05
23.20	3.37	2.24	0.05
23.40	3.38	2.24	0.05
23.60	3.38	2.25	0.05
23.80	3.39	2.26	0.05
24.00	**3.40**	**2.26**	0.04

Summary for Subcatchment 7S: Dry Pond DA

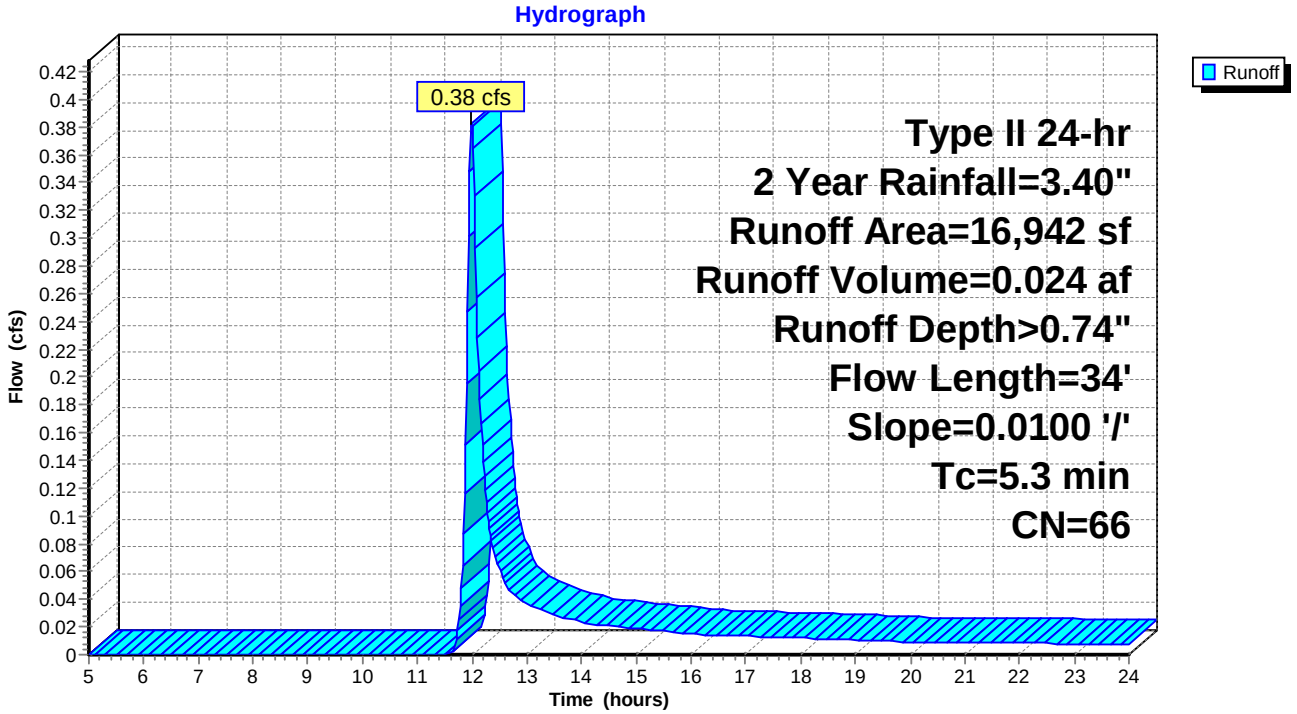
Runoff = 0.38 cfs @ 11.99 hrs, Volume= 0.024 af, Depth> 0.74"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 2 Year Rainfall=3.40"

	Area (sf)	CN	Description
	14,592	61	>75% Grass cover, Good, HSG B
*	2,350	98	Impervious Areas
	16,942	66	Weighted Average
	14,592		86.13% Pervious Area
	2,350		13.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	34	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"

Subcatchment 7S: Dry Pond DA



Hydrograph for Subcatchment 7S: Dry Pond DA

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00	15.80	2.98	0.53	0.02
5.20	0.23	0.00	0.00	16.00	2.99	0.54	0.02
5.40	0.24	0.00	0.00	16.20	3.01	0.55	0.01
5.60	0.25	0.00	0.00	16.40	3.02	0.56	0.01
5.80	0.26	0.00	0.00	16.60	3.04	0.56	0.01
6.00	0.27	0.00	0.00	16.80	3.05	0.57	0.01
6.20	0.28	0.00	0.00	17.00	3.07	0.58	0.01
6.40	0.30	0.00	0.00	17.20	3.08	0.58	0.01
6.60	0.31	0.00	0.00	17.40	3.09	0.59	0.01
6.80	0.32	0.00	0.00	17.60	3.11	0.60	0.01
7.00	0.34	0.00	0.00	17.80	3.12	0.60	0.01
7.20	0.35	0.00	0.00	18.00	3.13	0.61	0.01
7.40	0.36	0.00	0.00	18.20	3.14	0.61	0.01
7.60	0.38	0.00	0.00	18.40	3.16	0.62	0.01
7.80	0.39	0.00	0.00	18.60	3.17	0.63	0.01
8.00	0.41	0.00	0.00	18.80	3.18	0.63	0.01
8.20	0.42	0.00	0.00	19.00	3.19	0.64	0.01
8.40	0.44	0.00	0.00	19.20	3.20	0.64	0.01
8.60	0.46	0.00	0.00	19.40	3.21	0.65	0.01
8.80	0.48	0.00	0.00	19.60	3.22	0.65	0.01
9.00	0.50	0.00	0.00	19.80	3.23	0.66	0.01
9.20	0.52	0.00	0.00	20.00	3.24	0.66	0.01
9.40	0.54	0.00	0.00	20.20	3.25	0.67	0.01
9.60	0.57	0.00	0.00	20.40	3.25	0.67	0.01
9.80	0.59	0.00	0.00	20.60	3.26	0.68	0.01
10.00	0.62	0.00	0.00	20.80	3.27	0.68	0.01
10.20	0.64	0.00	0.00	21.00	3.28	0.68	0.01
10.40	0.68	0.00	0.00	21.20	3.29	0.69	0.01
10.60	0.71	0.00	0.00	21.40	3.30	0.69	0.01
10.80	0.75	0.00	0.00	21.60	3.31	0.70	0.01
11.00	0.80	0.00	0.00	21.80	3.31	0.70	0.01
11.20	0.85	0.00	0.00	22.00	3.32	0.71	0.01
11.40	0.92	0.00	0.00	22.20	3.33	0.71	0.01
11.60	1.04	0.00	0.00	22.40	3.34	0.71	0.01
11.80	1.46	0.03	0.05	22.60	3.35	0.72	0.01
12.00	2.25	0.23	**0.38**	22.80	3.35	0.72	0.01
12.20	2.38	0.28	0.14	23.00	3.36	0.73	0.01
12.40	2.47	0.31	0.07	23.20	3.37	0.73	0.01
12.60	2.53	0.34	0.05	23.40	3.38	0.73	0.01
12.80	2.58	0.36	0.04	23.60	3.38	0.74	0.01
13.00	2.62	0.38	0.04	23.80	3.39	0.74	0.01
13.20	2.66	0.39	0.03	24.00	**3.40**	**0.75**	0.01
13.40	2.70	0.41	0.03				
13.60	2.73	0.42	0.03				
13.80	2.76	0.44	0.03				
14.00	2.79	0.45	0.02				
14.20	2.81	0.46	0.02				
14.40	2.84	0.47	0.02				
14.60	2.86	0.48	0.02				
14.80	2.88	0.49	0.02				
15.00	2.90	0.50	0.02				
15.20	2.92	0.51	0.02				
15.40	2.94	0.52	0.02				
15.60	2.96	0.53	0.02				

Summary for Subcatchment 8S: Future Development

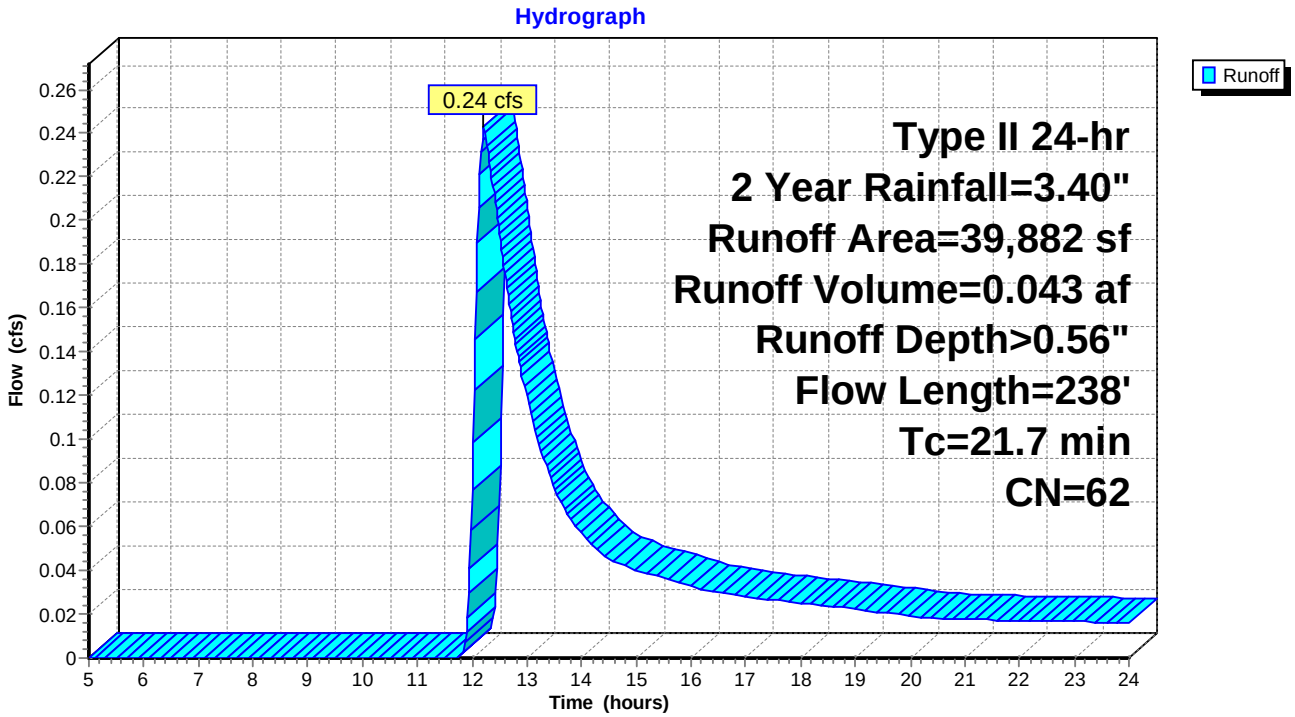
Runoff = 0.24 cfs @ 12.21 hrs, Volume= 0.043 af, Depth> 0.56"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 2 Year Rainfall=3.40"

Area (sf)	CN	Description
35,607	61	>75% Grass cover, Good, HSG B
4,275	74	>75% Grass cover, Good, HSG C
39,882	62	Weighted Average
39,882		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	100	0.0034	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
2.4	138	0.0036	0.97		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
21.7	238	Total			

Subcatchment 8S: Future Development



Hydrograph for Subcatchment 8S: Future Development

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00
5.20	0.23	0.00	0.00
5.40	0.24	0.00	0.00
5.60	0.25	0.00	0.00
5.80	0.26	0.00	0.00
6.00	0.27	0.00	0.00
6.20	0.28	0.00	0.00
6.40	0.30	0.00	0.00
6.60	0.31	0.00	0.00
6.80	0.32	0.00	0.00
7.00	0.34	0.00	0.00
7.20	0.35	0.00	0.00
7.40	0.36	0.00	0.00
7.60	0.38	0.00	0.00
7.80	0.39	0.00	0.00
8.00	0.41	0.00	0.00
8.20	0.42	0.00	0.00
8.40	0.44	0.00	0.00
8.60	0.46	0.00	0.00
8.80	0.48	0.00	0.00
9.00	0.50	0.00	0.00
9.20	0.52	0.00	0.00
9.40	0.54	0.00	0.00
9.60	0.57	0.00	0.00
9.80	0.59	0.00	0.00
10.00	0.62	0.00	0.00
10.20	0.64	0.00	0.00
10.40	0.68	0.00	0.00
10.60	0.71	0.00	0.00
10.80	0.75	0.00	0.00
11.00	0.80	0.00	0.00
11.20	0.85	0.00	0.00
11.40	0.92	0.00	0.00
11.60	1.04	0.00	0.00
11.80	1.46	0.01	0.00
12.00	2.25	0.15	0.08
12.20	2.38	0.18	**0.24**
12.40	2.47	0.21	0.21
12.60	2.53	0.23	0.18
12.80	2.58	0.24	0.14
13.00	2.62	0.26	0.12
13.20	2.66	0.27	0.10
13.40	2.70	0.29	0.08
13.60	2.73	0.30	0.07
13.80	2.76	0.31	0.06
14.00	2.79	0.32	0.06
14.20	2.81	0.33	0.05
14.40	2.84	0.34	0.05
14.60	2.86	0.34	0.04
14.80	2.88	0.35	0.04
15.00	2.90	0.36	0.04
15.20	2.92	0.37	0.04
15.40	2.94	0.37	0.04
15.60	2.96	0.38	0.04
15.80	2.98	0.39	0.03
16.00	2.99	0.40	0.03
16.20	3.01	0.40	0.03
16.40	3.02	0.41	0.03
16.60	3.04	0.41	0.03
16.80	3.05	0.42	0.03
17.00	3.07	0.42	0.03
17.20	3.08	0.43	0.03
17.40	3.09	0.44	0.03
17.60	3.11	0.44	0.03
17.80	3.12	0.45	0.03
18.00	3.13	0.45	0.03
18.20	3.14	0.46	0.02
18.40	3.16	0.46	0.02
18.60	3.17	0.47	0.02
18.80	3.18	0.47	0.02
19.00	3.19	0.48	0.02
19.20	3.20	0.48	0.02
19.40	3.21	0.48	0.02
19.60	3.22	0.49	0.02
19.80	3.23	0.49	0.02
20.00	3.24	0.50	0.02
20.20	3.25	0.50	0.02
20.40	3.25	0.50	0.02
20.60	3.26	0.51	0.02
20.80	3.27	0.51	0.02
21.00	3.28	0.52	0.02
21.20	3.29	0.52	0.02
21.40	3.30	0.52	0.02
21.60	3.31	0.53	0.02
21.80	3.31	0.53	0.02
22.00	3.32	0.53	0.02
22.20	3.33	0.54	0.02
22.40	3.34	0.54	0.02
22.60	3.35	0.54	0.02
22.80	3.35	0.55	0.02
23.00	3.36	0.55	0.02
23.20	3.37	0.56	0.02
23.40	3.38	0.56	0.02
23.60	3.38	0.56	0.02
23.80	3.39	0.57	0.02
24.00	**3.40**	**0.57**	0.02

Summary for Subcatchment 9S: AUTOZONE DEVELOPED

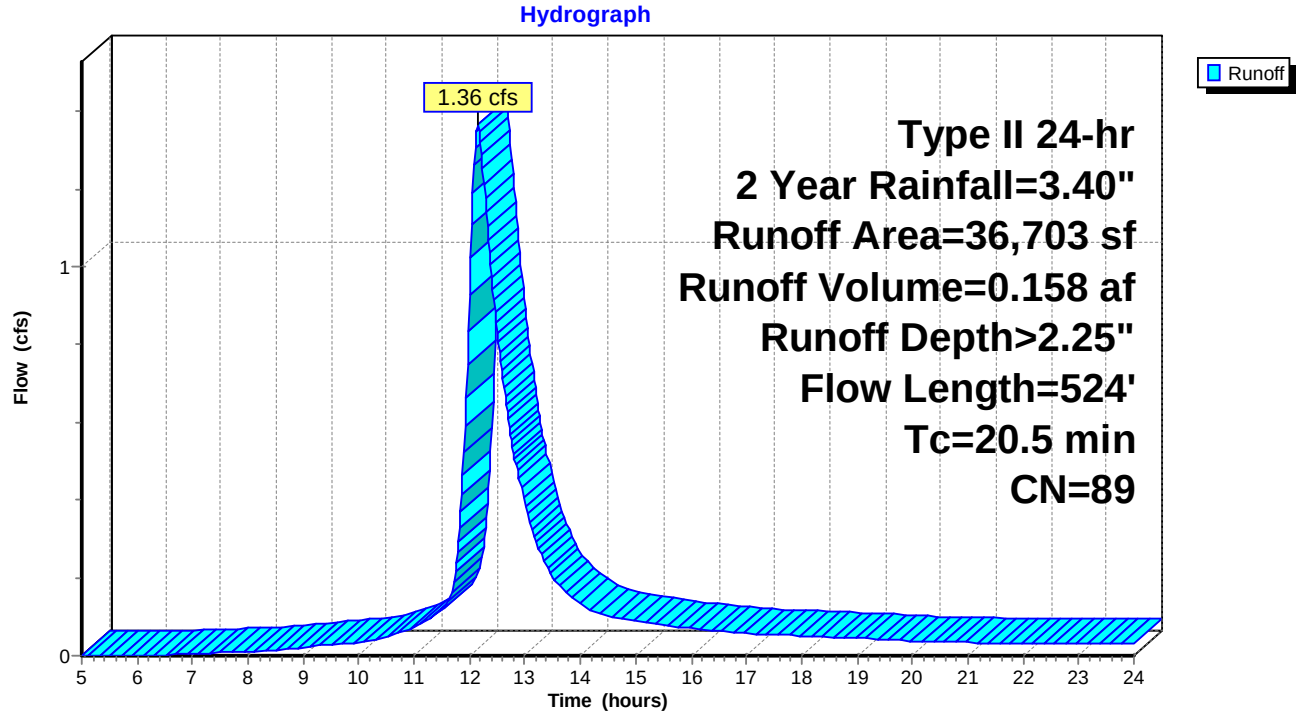
Runoff = 1.36 cfs @ 12.15 hrs, Volume= 0.158 af, Depth> 2.25"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 2 Year Rainfall=3.40"

Area (sf)	CN	Description
7,158	74	>75% Grass cover, Good, HSG C
4,771	61	>75% Grass cover, Good, HSG B
24,774	98	Paved parking, HSG B
36,703	89	Weighted Average
11,929		32.50% Pervious Area
24,774		67.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.8	80	0.0050	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
5.4	312	0.0068	0.96	2.89	**Channel Flow,** Area= 3.0 sf Perim= 6.0' r= 0.50' n= 0.080 Earth, long dense weeds
1.3	132	0.0007	1.70	3.01	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
20.5	524	Total			

Subcatchment 9S: AUTOZONE DEVELOPED



Hydrograph for Subcatchment 9S: AUTOZONE DEVELOPED

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.21	0.00	0.00
5.20	0.23	0.00	0.00
5.40	0.24	0.00	0.00
5.60	0.25	0.00	0.00
5.80	0.26	0.00	0.00
6.00	0.27	0.00	0.00
6.20	0.28	0.00	0.00
6.40	0.30	0.00	0.00
6.60	0.31	0.00	0.00
6.80	0.32	0.00	0.00
7.00	0.34	0.01	0.00
7.20	0.35	0.01	0.01
7.40	0.36	0.01	0.01
7.60	0.38	0.01	0.01
7.80	0.39	0.02	0.01
8.00	0.41	0.02	0.01
8.20	0.42	0.02	0.01
8.40	0.44	0.03	0.01
8.60	0.46	0.03	0.02
8.80	0.48	0.04	0.02
9.00	0.50	0.04	0.02
9.20	0.52	0.05	0.02
9.40	0.54	0.06	0.03
9.60	0.57	0.07	0.03
9.80	0.59	0.07	0.03
10.00	0.62	0.08	0.03
10.20	0.64	0.10	0.04
10.40	0.68	0.11	0.05
10.60	0.71	0.13	0.05
10.80	0.75	0.15	0.06
11.00	0.80	0.17	0.07
11.20	0.85	0.20	0.09
11.40	0.92	0.24	0.11
11.60	1.04	0.31	0.14
11.80	1.46	0.60	0.29
12.00	2.25	1.24	**0.93**
12.20	2.38	1.35	**1.32**
12.40	2.47	1.42	0.97
12.60	2.53	1.48	0.71
12.80	2.58	1.52	0.52
13.00	2.62	1.56	0.39
13.20	2.66	1.60	0.30
13.40	2.70	1.63	0.23
13.60	2.73	1.66	0.18
13.80	2.76	1.69	0.15
14.00	2.79	1.71	0.13
14.20	2.81	1.73	0.12
14.40	2.84	1.75	0.11
14.60	2.86	1.77	0.10
14.80	2.88	1.79	0.09
15.00	2.90	1.81	0.09
15.20	2.92	1.83	0.08
15.40	2.94	1.85	0.08
15.60	2.96	1.86	0.08
15.80	2.98	1.88	0.07
16.00	2.99	1.89	0.07
16.20	3.01	1.91	0.07
16.40	3.02	1.92	0.06
16.60	3.04	1.93	0.06
16.80	3.05	1.95	0.06
17.00	3.07	1.96	0.06
17.20	3.08	1.97	0.06
17.40	3.09	1.98	0.05
17.60	3.11	2.00	0.05
17.80	3.12	2.01	0.05
18.00	3.13	2.02	0.05
18.20	3.14	2.03	0.05
18.40	3.16	2.04	0.05
18.60	3.17	2.05	0.05
18.80	3.18	2.06	0.05
19.00	3.19	2.07	0.04
19.20	3.20	2.08	0.04
19.40	3.21	2.09	0.04
19.60	3.22	2.10	0.04
19.80	3.23	2.11	0.04
20.00	3.24	2.12	0.04
20.20	3.25	2.12	0.04
20.40	3.25	2.13	0.04
20.60	3.26	2.14	0.03
20.80	3.27	2.15	0.03
21.00	3.28	2.15	0.03
21.20	3.29	2.16	0.03
21.40	3.30	2.17	0.03
21.60	3.31	2.18	0.03
21.80	3.31	2.19	0.03
22.00	3.32	2.19	0.03
22.20	3.33	2.20	0.03
22.40	3.34	2.21	0.03
22.60	3.35	2.22	0.03
22.80	3.35	2.22	0.03
23.00	3.36	2.23	0.03
23.20	3.37	2.24	0.03
23.40	3.38	2.24	0.03
23.60	3.38	2.25	0.03
23.80	3.39	2.26	0.03
24.00	**3.40**	**2.26**	0.03

Summary for Reach 3R: Check Dam

Inflow Area = 6.595 ac, 58.76% Impervious, Inflow Depth > 1.61" for 2 Year event
Inflow = 1.56 cfs @ 13.17 hrs, Volume= 0.886 af
Outflow = 1.56 cfs @ 13.20 hrs, Volume= 0.885 af, Atten= 0%, Lag= 1.7 min

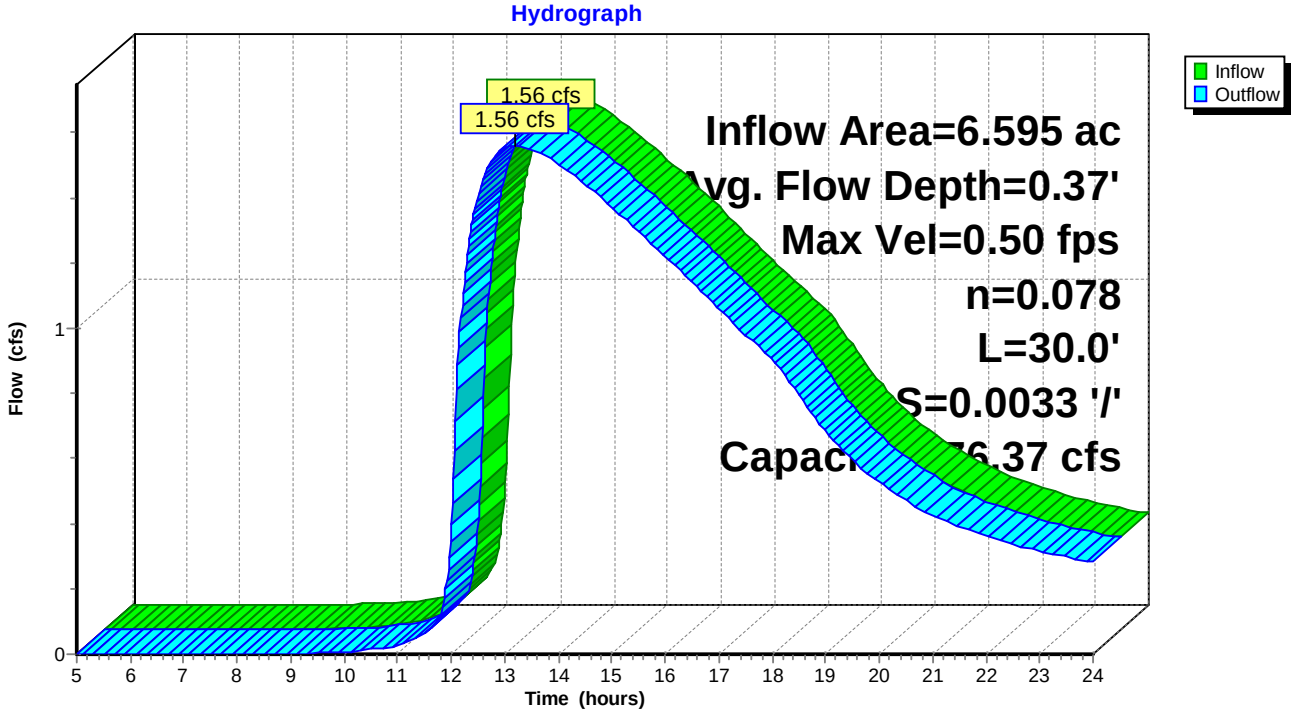
Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Max. Velocity= 0.50 fps, Min. Travel Time= 1.0 min
Avg. Velocity = 0.31 fps, Avg. Travel Time= 1.6 min

Peak Storage= 93 cf @ 13.18 hrs
Average Depth at Peak Storage= 0.37'
Bank-Full Depth= 4.00' Flow Area= 92.0 sf, Capacity= 176.37 cfs

7.00' x 4.00' deep channel, n= 0.078 Riprap, 12-inch
Side Slope Z-value= 4.0 '/' Top Width= 39.00'
Length= 30.0' Slope= 0.0033 '/'
Inlet Invert= 38.00', Outlet Invert= 37.90'

‡

Reach 3R: Check Dam



Hydrograph for Reach 3R: Check Dam

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
5.00	0.00	0	38.00	0.00
5.40	0.00	0	38.00	0.00
5.80	0.00	0	38.00	0.00
6.20	0.00	0	38.00	0.00
6.60	0.00	0	38.00	0.00
7.00	0.00	0	38.00	0.00
7.40	0.00	0	38.00	0.00
7.80	0.00	0	38.00	0.00
8.20	0.00	0	38.00	0.00
8.60	0.00	0	38.00	0.00
9.00	0.00	0	38.00	0.00
9.40	0.00	1	38.00	0.00
9.80	0.01	1	38.01	0.01
10.20	0.01	2	38.01	0.01
10.60	0.02	4	38.02	0.02
11.00	0.03	7	38.03	0.03
11.40	0.06	11	38.05	0.05
11.80	0.15	19	38.09	0.13
12.20	1.13	74	38.30	1.07
12.60	1.47	89	38.35	1.46
13.00	**1.56**	**93**	**38.37**	**1.55**
13.40	**1.56**	**93**	**38.37**	**1.56**
13.80	1.52	92	38.36	1.53
14.20	1.48	90	38.36	1.48
14.60	1.42	88	38.35	1.43
15.00	1.37	85	38.34	1.37
15.40	1.31	83	38.33	1.31
15.80	1.25	80	38.32	1.25
16.20	1.19	78	38.31	1.19
16.60	1.12	75	38.30	1.13
17.00	1.06	72	38.29	1.06
17.40	0.99	69	38.28	1.00
17.80	0.93	66	38.27	0.94
18.20	0.86	63	38.26	0.87
18.60	0.77	58	38.24	0.77
19.00	0.68	54	38.23	0.68
19.40	0.61	50	38.21	0.61
19.80	0.55	47	38.20	0.55
20.20	0.50	44	38.19	0.50
20.60	0.46	42	38.18	0.46
21.00	0.43	40	38.17	0.43
21.40	0.40	38	38.17	0.40
21.80	0.37	37	38.16	0.37
22.20	0.35	35	38.15	0.35
22.60	0.33	34	38.15	0.33
23.00	0.32	33	38.14	0.32
23.40	0.30	32	38.14	0.30
23.80	0.29	31	38.14	0.29

Stage-Area-Storage for Reach 3R: Check Dam

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
38.00	0.0	0
38.05	0.4	11
38.10	0.7	22
38.15	1.1	34
38.20	1.6	47
38.25	2.0	60
38.30	2.5	74
38.35	2.9	88
38.40	3.4	103
38.45	4.0	119
38.50	4.5	135
38.55	5.1	152
38.60	5.6	169
38.65	6.2	187
38.70	6.9	206
38.75	7.5	225
38.80	8.2	245
38.85	8.8	265
38.90	9.5	286
38.95	10.3	308
39.00	11.0	330
39.05	11.8	353
39.10	12.5	376
39.15	13.3	400
39.20	14.2	425
39.25	15.0	450
39.30	15.9	476
39.35	16.7	502
39.40	17.6	529
39.45	18.6	557
39.50	19.5	585
39.55	20.5	614
39.60	21.4	643
39.65	22.4	673
39.70	23.5	704
39.75	24.5	735
39.80	25.6	767
39.85	26.6	799
39.90	27.7	832
39.95	28.9	866
40.00	30.0	900
40.05	31.2	935
40.10	32.3	970
40.15	33.5	1,006
40.20	34.8	1,043
40.25	36.0	1,080
40.30	37.3	1,118
40.35	38.5	1,156
40.40	39.8	1,195
40.45	41.2	1,235
40.50	42.5	1,275
40.55	43.9	1,316
40.60	45.2	1,357
40.65	46.6	1,399
40.70	48.1	1,442
40.75	49.5	1,485
40.80	51.0	1,529
40.85	52.4	1,573
40.90	53.9	1,618
40.95	55.5	1,664
41.00	57.0	1,710
41.05	58.6	1,757
41.10	60.1	1,804
41.15	61.7	1,852
41.20	63.4	1,901
41.25	65.0	1,950
41.30	66.7	2,000
41.35	68.3	2,050
41.40	70.0	2,101
41.45	71.8	2,153
41.50	73.5	2,205
41.55	75.3	2,258
41.60	77.0	2,311
41.65	78.8	2,365
41.70	80.7	2,420
41.75	82.5	2,475
41.80	84.4	2,531
41.85	86.2	2,587
41.90	88.1	2,644
41.95	90.1	2,702
42.00	**92.0**	**2,760**

Summary for Pond 1P: Drugstore Pond

Inflow Area = 6.595 ac, 58.76% Impervious, Inflow Depth > 1.87" for 2 Year event
Inflow = 10.08 cfs @ 12.08 hrs, Volume= 1.029 af
Outflow = 1.56 cfs @ 13.17 hrs, Volume= 0.886 af, Atten= 85%, Lag= 65.3 min
Primary = 1.56 cfs @ 13.17 hrs, Volume= 0.886 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Peak Elev= 38.80' @ 13.17 hrs Surf.Area= 21,129 sf Storage= 22,853 cf

Plug-Flow detention time= 212.8 min calculated for 0.886 af (86% of inflow)
Center-of-Mass det. time= 149.4 min (976.2 - 826.7)

Volume	Invert	Avail.Storage	Storage Description
#1	37.60'	65,002 cf	**Wet Storage (Prismatic)** Listed below
#2	37.60'	25,745 cf	**Dry Storage (Prismatic)** Listed below (Recalc)
		90,747 cf	Total Available Storage

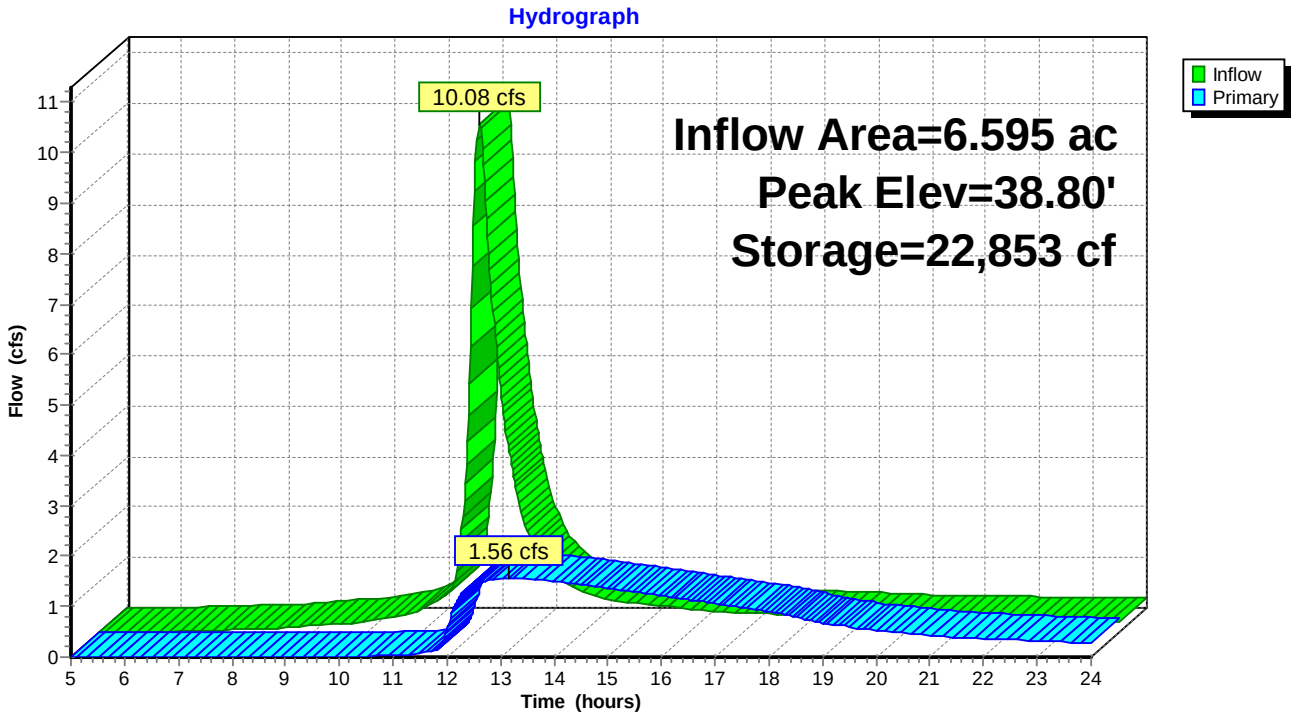
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
37.60	11,480	0	0
38.00	12,768	4,850	4,850
39.00	14,767	13,768	18,617
40.00	16,874	15,821	34,438
41.00	19,082	17,978	52,416
41.63	20,874	12,586	65,002

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
37.60	4,912	0	0
38.00	5,602	2,103	2,103
39.00	7,065	6,334	8,436
40.00	8,629	7,847	16,283
41.00	10,294	9,462	25,745

Device	Routing	Invert	Outlet Devices
#1	Device 3	37.60'	**8.0" Vert. Orifice/Grate** C= 0.600
#2	Device 3	40.00'	**15.0' long x 0.67' rise Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Primary	37.60'	**24.0" Round Culvert** L= 136.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 37.60' / 37.54' S= 0.0004 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 3.14 sf

Primary OutFlow Max=1.56 cfs @ 13.17 hrs HW=38.80' (Free Discharge)
└**3=Culvert** (Passes 1.56 cfs of 3.74 cfs potential flow)
  ├**1=Orifice/Grate** (Orifice Controls 1.56 cfs @ 4.47 fps)
  └**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: Drugstore Pond



Hydrograph for Pond 1P: Drugstore Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	37.60	0.00
5.40	0.00	0	37.60	0.00
5.80	0.00	3	37.60	0.00
6.20	0.01	15	37.60	0.00
6.60	0.02	41	37.60	0.00
7.00	0.04	84	37.60	0.00
7.40	0.05	145	37.61	0.00
7.80	0.06	225	37.61	0.00
8.20	0.08	324	37.62	0.00
8.60	0.10	450	37.63	0.00
9.00	0.13	615	37.64	0.00
9.40	0.17	828	37.65	0.00
9.80	0.19	1,078	37.66	0.01
10.20	0.25	1,379	37.68	0.01
10.60	0.33	1,772	37.70	0.02
11.00	0.47	2,305	37.73	0.03
11.40	0.71	3,066	37.78	0.06
11.80	**2.59**	4,632	37.87	0.15
12.20	**8.56**	14,458	38.38	1.13
12.60	3.87	20,935	38.70	1.47
13.00	1.97	**22,735**	**38.79**	**1.56**
13.40	1.23	**22,706**	**38.79**	**1.56**
13.80	0.90	21,994	38.76	1.52
14.20	0.73	21,002	38.71	1.48
14.60	0.64	19,893	38.65	1.42
15.00	0.58	18,761	38.60	1.37
15.40	0.53	17,636	38.54	1.31
15.80	0.48	16,527	38.49	1.25
16.20	0.44	15,437	38.43	1.19
16.60	0.41	14,384	38.38	1.12
17.00	0.39	13,389	38.33	1.06
17.40	0.37	12,461	38.28	0.99
17.80	0.35	11,594	38.24	0.93
18.20	0.34	10,794	38.20	0.86
18.60	0.32	10,094	38.16	0.77
19.00	0.30	9,501	38.13	0.68
19.40	0.28	8,996	38.11	0.61
19.80	0.26	8,558	38.08	0.55
20.20	0.25	8,171	38.06	0.50
20.60	0.24	7,829	38.05	0.46
21.00	0.23	7,533	38.03	0.43
21.40	0.23	7,275	38.02	0.40
21.80	0.23	7,050	38.01	0.37
22.20	0.22	6,854	37.99	0.35
22.60	0.22	6,682	37.98	0.33
23.00	0.22	6,529	37.98	0.32
23.40	0.21	6,395	37.97	0.30
23.80	0.21	6,274	37.96	0.29

Stage-Area-Storage for Pond 1P: Drugstore Pond

Elevation (feet)	Storage (cubic-feet)
37.60	0
37.65	854
37.70	1,712
37.75	2,575
37.80	3,442
37.85	4,313
37.90	5,188
37.95	6,068
38.00	6,952
38.05	7,923
38.10	8,897
38.15	9,874
38.20	10,856
38.25	11,840
38.30	12,829
38.35	13,821
38.40	14,817
38.45	15,817
38.50	16,820
38.55	17,827
38.60	18,837
38.65	19,852
38.70	20,869
38.75	21,891
38.80	22,916
38.85	23,945
38.90	24,977
38.95	26,014
39.00	27,053
39.05	28,200
39.10	29,350
39.15	30,504
39.20	31,662
39.25	32,824
39.30	33,989
39.35	35,159
39.40	36,333
39.45	37,510
39.50	38,692
39.55	39,877
39.60	41,066
39.65	42,259
39.70	43,456
39.75	44,657
39.80	45,862
39.85	47,071
39.90	48,284
39.95	49,500
40.00	50,721
40.05	52,053
40.10	53,390
40.15	54,731
40.20	56,076
40.25	57,425
40.30	58,778
40.35	60,135
40.40	61,497
40.45	62,863
40.50	64,233
40.55	65,607
40.60	66,985
40.65	68,367
40.70	69,754
40.75	71,144
40.80	72,539
40.85	73,938
40.90	75,342
40.95	76,749
41.00	78,160
41.05	79,159
41.10	80,158
41.15	81,157
41.20	82,156
41.25	83,155
41.30	84,154
41.35	85,153
41.40	86,152
41.45	87,151
41.50	88,149
41.55	89,148
41.60	**90,147**

Summary for Pond 2P: Ditches To Study Point #1

Inflow Area = 7.893 ac, 55.64% Impervious, Inflow Depth > 1.57" for 2 Year event
Inflow = 2.49 cfs @ 11.94 hrs, Volume= 1.030 af
Outflow = 1.81 cfs @ 12.80 hrs, Volume= 1.026 af, Atten= 27%, Lag= 51.4 min
Primary = 1.81 cfs @ 12.80 hrs, Volume= 1.026 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Peak Elev= 37.95' @ 12.80 hrs Surf.Area= 2,042 sf Storage= 853 cf

Plug-Flow detention time= 8.1 min calculated for 1.026 af (100% of inflow)
Center-of-Mass det. time= 6.2 min (965.0 - 958.8)

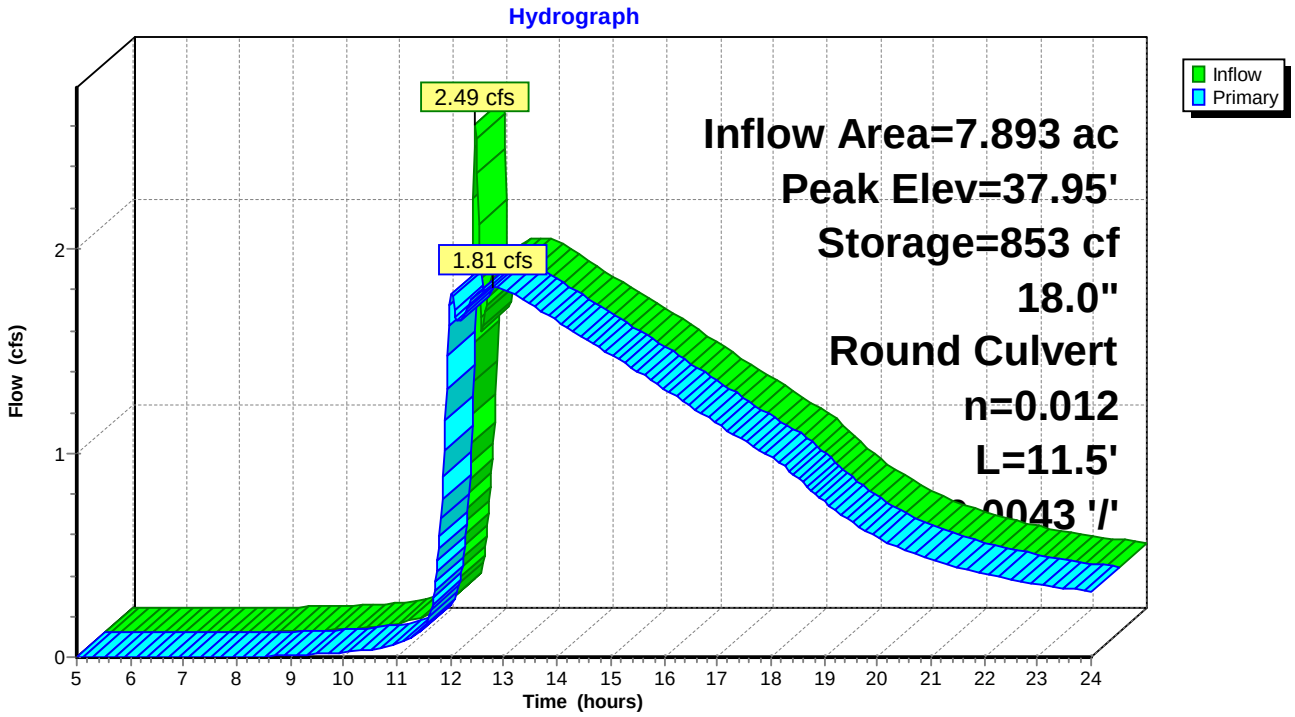
Volume	Invert	Avail.Storage	Storage Description
#1	37.20'	40,784 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
37.20	222	0	0
38.00	2,154	950	950
39.00	6,487	4,321	5,271
40.00	14,191	10,339	15,610
41.00	36,158	25,175	40,784

Device	Routing	Invert	Outlet Devices
#1	Primary	37.20'	**18.0" Round Culvert** L= 11.5' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 37.20' / 37.15' S= 0.0043 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=1.81 cfs @ 12.80 hrs HW=37.95' (Free Discharge)
↑**1=Culvert** (Barrel Controls 1.81 cfs @ 2.98 fps)

Pond 2P: Ditches To Study Point #1



Hydrograph for Pond 2P: Ditches To Study Point #1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	37.20	0.00
5.40	0.00	0	37.20	0.00
5.80	0.00	0	37.20	0.00
6.20	0.00	0	37.20	0.00
6.60	0.00	0	37.20	0.00
7.00	0.00	0	37.20	0.00
7.40	0.00	1	37.20	0.00
7.80	0.00	2	37.21	0.00
8.20	0.00	5	37.22	0.00
8.60	0.01	9	37.23	0.00
9.00	0.01	13	37.25	0.01
9.40	0.01	17	37.26	0.01
9.80	0.02	22	37.27	0.02
10.20	0.03	28	37.29	0.03
10.60	0.05	38	37.31	0.04
11.00	0.08	52	37.33	0.07
11.40	0.14	80	37.38	0.12
11.80	**1.04**	300	37.61	0.60
12.20	**1.70**	777	37.92	1.65
12.60	1.82	**848**	**37.95**	**1.80**
13.00	1.79	**849**	**37.95**	**1.80**
13.40	1.73	823	37.94	1.75
13.80	1.66	792	37.92	1.68
14.20	1.59	760	37.91	1.61
14.60	1.53	731	37.89	1.55
15.00	1.46	701	37.88	1.48
15.40	1.40	671	37.86	1.42
15.80	1.33	640	37.84	1.35
16.20	1.26	608	37.82	1.28
16.60	1.19	577	37.81	1.21
17.00	1.12	546	37.79	1.14
17.40	1.06	515	37.77	1.08
17.80	1.00	487	37.75	1.02
18.20	0.92	457	37.73	0.95
18.60	0.82	415	37.70	0.85
19.00	0.73	373	37.67	0.76
19.40	0.66	338	37.64	0.68
19.80	0.60	308	37.62	0.62
20.20	0.55	284	37.60	0.56
20.60	0.50	263	37.58	0.51
21.00	0.47	246	37.57	0.48
21.40	0.44	232	37.56	0.45
21.80	0.41	220	37.54	0.42
22.20	0.39	210	37.53	0.40
22.60	0.37	201	37.53	0.38
23.00	0.35	193	37.52	0.36
23.40	0.34	185	37.51	0.34
23.80	0.32	179	37.50	0.33

Stage-Area-Storage for Pond 2P: Ditches To Study Point #1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
37.20	222	0
37.25	343	14
37.30	464	34
37.35	584	60
37.40	705	93
37.45	826	131
37.50	946	175
37.55	1,067	226
37.60	1,188	282
37.65	1,309	344
37.70	1,430	413
37.75	1,550	487
37.80	1,671	568
37.85	1,792	654
37.90	1,913	747
37.95	2,033	846
38.00	2,154	950
38.05	2,371	1,064
38.10	2,587	1,187
38.15	2,804	1,322
38.20	3,021	1,468
38.25	3,237	1,624
38.30	3,454	1,792
38.35	3,671	1,970
38.40	3,887	2,159
38.45	4,104	2,358
38.50	4,321	2,569
38.55	4,537	2,790
38.60	4,754	3,023
38.65	4,970	3,266
38.70	5,187	3,520
38.75	5,404	3,785
38.80	5,620	4,060
38.85	5,837	4,347
38.90	6,054	4,644
38.95	6,270	4,952
39.00	6,487	5,271
39.05	6,872	5,605
39.10	7,257	5,958
39.15	7,643	6,331
39.20	8,028	6,722
39.25	8,413	7,133
39.30	8,798	7,564
39.35	9,183	8,013
39.40	9,569	8,482
39.45	9,954	8,970
39.50	10,339	9,477
39.55	10,724	10,004
39.60	11,109	10,550
39.65	11,495	11,115
39.70	11,880	11,699
39.75	12,265	12,303
39.80	12,650	12,926
39.85	13,035	13,568
39.90	13,421	14,229
39.95	13,806	14,910
40.00	14,191	15,610
40.05	15,289	16,347
40.10	16,388	17,139
40.15	17,486	17,986
40.20	18,584	18,887
40.25	19,683	19,844
40.30	20,781	20,856
40.35	21,879	21,922
40.40	22,978	23,044
40.45	24,076	24,220
40.50	25,175	25,451
40.55	26,273	26,737
40.60	27,371	28,079
40.65	28,470	29,475
40.70	29,568	30,926
40.75	30,666	32,431
40.80	31,765	33,992
40.85	32,863	35,608
40.90	33,961	37,278
40.95	35,060	39,004
41.00	**36,158**	**40,784**

Summary for Subcatchment 1S: WALGREENS DEVELOPED

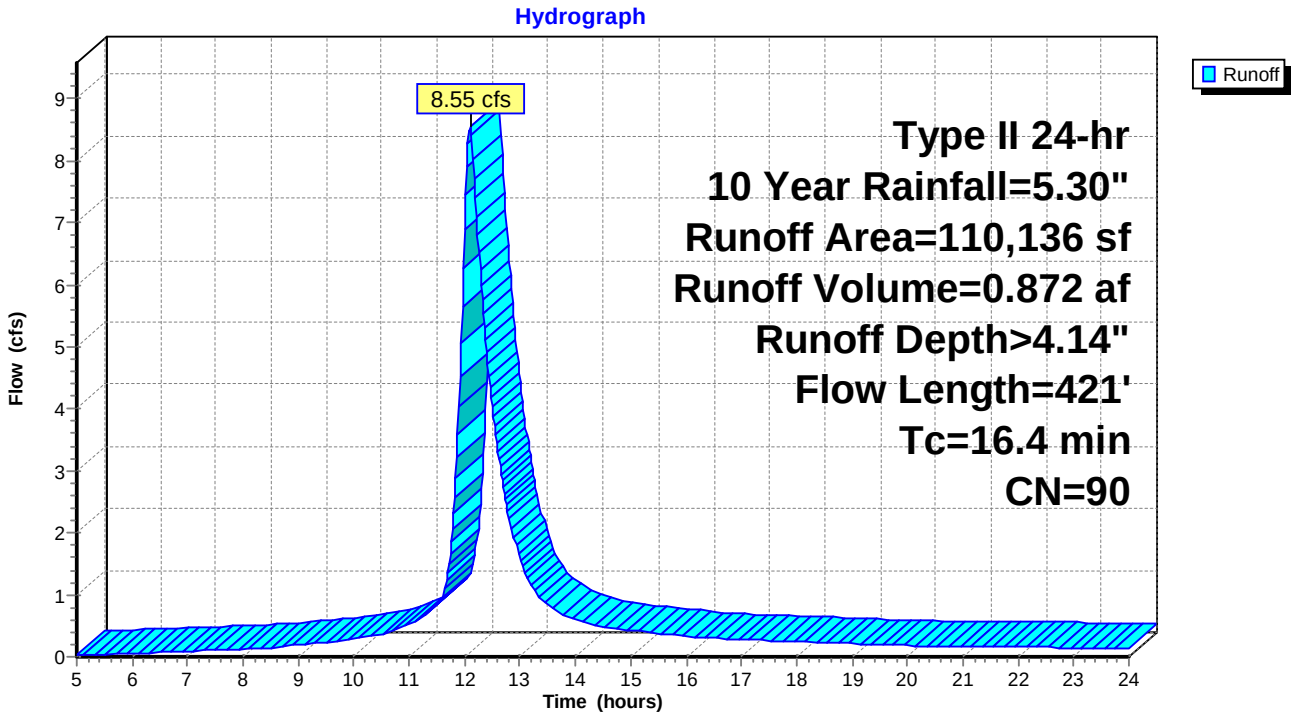
Runoff = 8.55 cfs @ 12.10 hrs, Volume= 0.872 af, Depth> 4.14"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 10 Year Rainfall=5.30"

Area (sf)	CN	Description
86,762	98	Paved roads w/curbs & sewers
23,374	61	>75% Grass cover, Good, HSG B
110,136	90	Weighted Average
23,374		21.22% Pervious Area
86,762		78.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.3	100	0.0086	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
3.1	321	0.0007	1.70	3.01	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
16.4	421	Total			

Subcatchment 1S: WALGREENS DEVELOPED



Hydrograph for Subcatchment 1S: WALGREENS DEVELOPED

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.01	0.03
5.20	0.35	0.01	0.03
5.40	0.37	0.02	0.04
5.60	0.39	0.02	0.04
5.80	0.41	0.03	0.05
6.00	0.42	0.03	0.06
6.20	0.44	0.04	0.06
6.40	0.46	0.04	0.07
6.60	0.48	0.05	0.08
6.80	0.50	0.06	0.08
7.00	0.52	0.06	0.09
7.20	0.55	0.07	0.10
7.40	0.57	0.08	0.10
7.60	0.59	0.09	0.11
7.80	0.61	0.10	0.12
8.00	0.64	0.11	0.12
8.20	0.66	0.12	0.13
8.40	0.69	0.14	0.14
8.60	0.72	0.15	0.16
8.80	0.75	0.17	0.18
9.00	0.78	0.19	0.20
9.20	0.81	0.21	0.22
9.40	0.85	0.22	0.23
9.60	0.88	0.25	0.24
9.80	0.92	0.27	0.26
10.00	0.96	0.29	0.28
10.20	1.00	0.32	0.31
10.40	1.05	0.36	0.35
10.60	1.11	0.39	0.40
10.80	1.17	0.44	0.46
11.00	1.25	0.49	0.53
11.20	1.33	0.55	0.62
11.40	1.44	0.64	0.76
11.60	1.63	0.78	0.97
11.80	2.28	1.34	2.31
12.00	3.51	2.46	**6.89**
12.20	3.70	2.64	**7.40**
12.40	3.84	2.77	4.90
12.60	3.94	2.86	3.31
12.80	4.02	2.94	2.27
13.00	4.09	3.01	1.59
13.20	4.15	3.06	1.16
13.40	4.21	3.12	0.93
13.60	4.26	3.17	0.78
13.80	4.30	3.21	0.67
14.00	4.35	3.25	0.60
14.20	4.38	3.29	0.54
14.40	4.42	3.32	0.50
14.60	4.46	3.35	0.47
14.80	4.49	3.39	0.45
15.00	4.52	3.42	0.43
15.20	4.55	3.45	0.41
15.40	4.58	3.48	0.39
15.60	4.61	3.50	0.37
15.80	4.64	3.53	0.35
16.00	4.66	3.55	0.34
16.20	4.69	3.58	0.32
16.40	4.71	3.60	0.31
16.60	4.73	3.62	0.30
16.80	4.76	3.64	0.29
17.00	4.78	3.66	0.28
17.20	4.80	3.68	0.27
17.40	4.82	3.70	0.27
17.60	4.84	3.72	0.26
17.80	4.86	3.74	0.25
18.00	4.88	3.76	0.25
18.20	4.90	3.78	0.24
18.40	4.92	3.80	0.23
18.60	4.94	3.81	0.23
18.80	4.95	3.83	0.22
19.00	4.97	3.85	0.22
19.20	4.99	3.86	0.21
19.40	5.00	3.88	0.20
19.60	5.02	3.89	0.20
19.80	5.03	3.91	0.19
20.00	5.05	3.92	0.18
20.20	5.06	3.93	0.18
20.40	5.07	3.95	0.17
20.60	5.09	3.96	0.17
20.80	5.10	3.97	0.17
21.00	5.11	3.99	0.17
21.20	5.13	4.00	0.16
21.40	5.14	4.01	0.16
21.60	5.15	4.02	0.16
21.80	5.17	4.04	0.16
22.00	5.18	4.05	0.16
22.20	5.19	4.06	0.16
22.40	5.20	4.07	0.16
22.60	5.22	4.08	0.16
22.80	5.23	4.10	0.15
23.00	5.24	4.11	0.15
23.20	5.25	4.12	0.15
23.40	5.26	4.13	0.15
23.60	5.28	4.14	0.15
23.80	5.29	4.15	0.15
24.00	**5.30**	**4.17**	0.15

Summary for Subcatchment 2S: Direct to Pipe 3

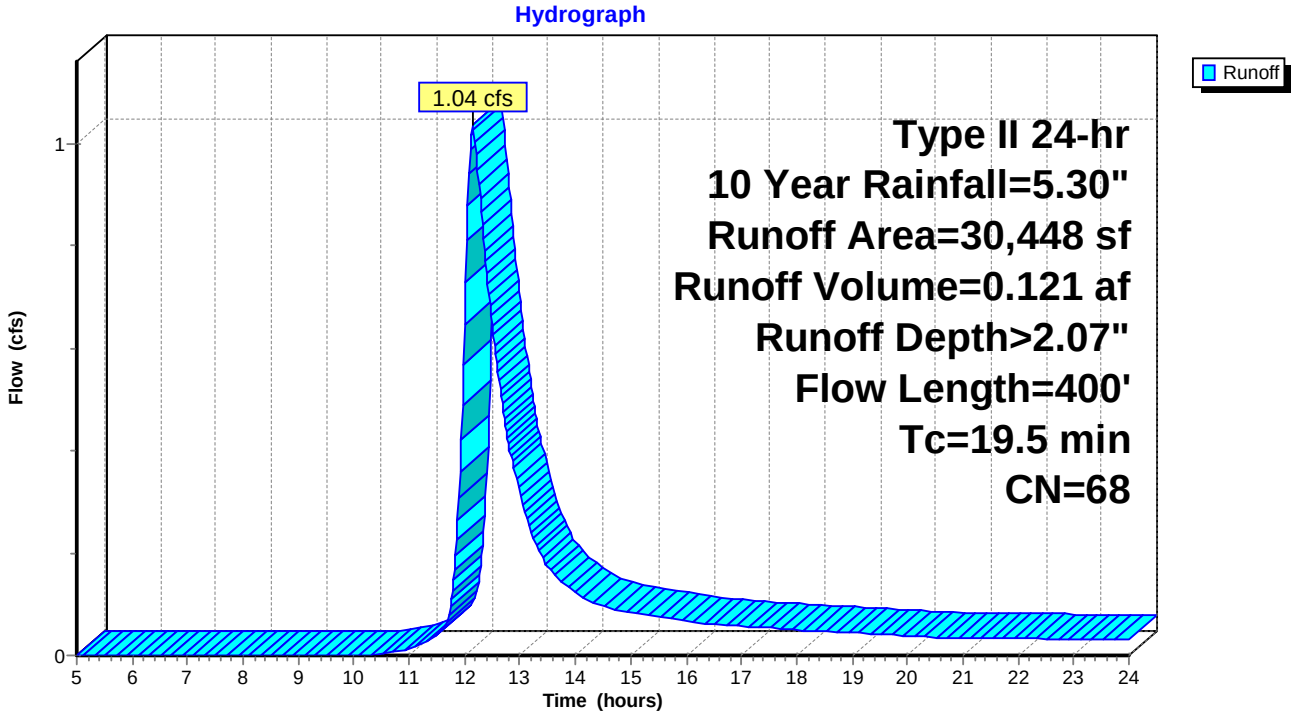
Runoff = 1.04 cfs @ 12.15 hrs, Volume= 0.121 af, Depth> 2.07"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 10 Year Rainfall=5.30"

Area (sf)	CN	Description
5,873	98	Paved roads w/curbs & sewers
24,575	61	>75% Grass cover, Good, HSG B
30,448	68	Weighted Average
24,575		80.71% Pervious Area
5,873		19.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.5	100	0.0050	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
3.0	300	0.0126	1.68		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
19.5	400	Total			

Subcatchment 2S: Direct to Pipe 3



Hydrograph for Subcatchment 2S: Direct to Pipe 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.20	0.35	0.00	0.00
5.40	0.37	0.00	0.00
5.60	0.39	0.00	0.00
5.80	0.41	0.00	0.00
6.00	0.42	0.00	0.00
6.20	0.44	0.00	0.00
6.40	0.46	0.00	0.00
6.60	0.48	0.00	0.00
6.80	0.50	0.00	0.00
7.00	0.52	0.00	0.00
7.20	0.55	0.00	0.00
7.40	0.57	0.00	0.00
7.60	0.59	0.00	0.00
7.80	0.61	0.00	0.00
8.00	0.64	0.00	0.00
8.20	0.66	0.00	0.00
8.40	0.69	0.00	0.00
8.60	0.72	0.00	0.00
8.80	0.75	0.00	0.00
9.00	0.78	0.00	0.00
9.20	0.81	0.00	0.00
9.40	0.85	0.00	0.00
9.60	0.88	0.00	0.00
9.80	0.92	0.00	0.00
10.00	0.96	0.00	0.00
10.20	1.00	0.00	0.00
10.40	1.05	0.00	0.00
10.60	1.11	0.01	0.00
10.80	1.17	0.01	0.01
11.00	1.25	0.02	0.01
11.20	1.33	0.03	0.02
11.40	1.44	0.05	0.03
11.60	1.63	0.09	0.05
11.80	2.28	0.30	0.15
12.00	3.51	0.91	**0.65**
12.20	3.70	1.02	**1.00**
12.40	3.84	1.11	0.75
12.60	3.94	1.17	0.55
12.80	4.02	1.22	0.41
13.00	4.09	1.26	0.32
13.20	4.15	1.30	0.24
13.40	4.21	1.34	0.19
13.60	4.26	1.37	0.16
13.80	4.30	1.40	0.14
14.00	4.35	1.43	0.12
14.20	4.38	1.45	0.11
14.40	4.42	1.48	0.10
14.60	4.46	1.50	0.09
14.80	4.49	1.53	0.09
15.00	4.52	1.55	0.08
15.20	4.55	1.57	0.08
15.40	4.58	1.59	0.08
15.60	4.61	1.61	0.07
15.80	4.64	1.63	0.07
16.00	4.66	1.64	0.07
16.20	4.69	1.66	0.06
16.40	4.71	1.68	0.06
16.60	4.73	1.69	0.06
16.80	4.76	1.71	0.06
17.00	4.78	1.72	0.06
17.20	4.80	1.74	0.06
17.40	4.82	1.75	0.05
17.60	4.84	1.77	0.05
17.80	4.86	1.78	0.05
18.00	4.88	1.80	0.05
18.20	4.90	1.81	0.05
18.40	4.92	1.82	0.05
18.60	4.94	1.83	0.05
18.80	4.95	1.85	0.05
19.00	4.97	1.86	0.04
19.20	4.99	1.87	0.04
19.40	5.00	1.88	0.04
19.60	5.02	1.89	0.04
19.80	5.03	1.90	0.04
20.00	5.05	1.91	0.04
20.20	5.06	1.92	0.04
20.40	5.07	1.93	0.04
20.60	5.09	1.94	0.04
20.80	5.10	1.95	0.03
21.00	5.11	1.96	0.03
21.20	5.13	1.97	0.03
21.40	5.14	1.98	0.03
21.60	5.15	1.99	0.03
21.80	5.17	2.00	0.03
22.00	5.18	2.01	0.03
22.20	5.19	2.02	0.03
22.40	5.20	2.03	0.03
22.60	5.22	2.03	0.03
22.80	5.23	2.04	0.03
23.00	5.24	2.05	0.03
23.20	5.25	2.06	0.03
23.40	5.26	2.07	0.03
23.60	5.28	2.08	0.03
23.80	5.29	2.09	0.03
24.00	**5.30**	**2.10**	0.03

Summary for Subcatchment 4S: Direct to Pipe 1

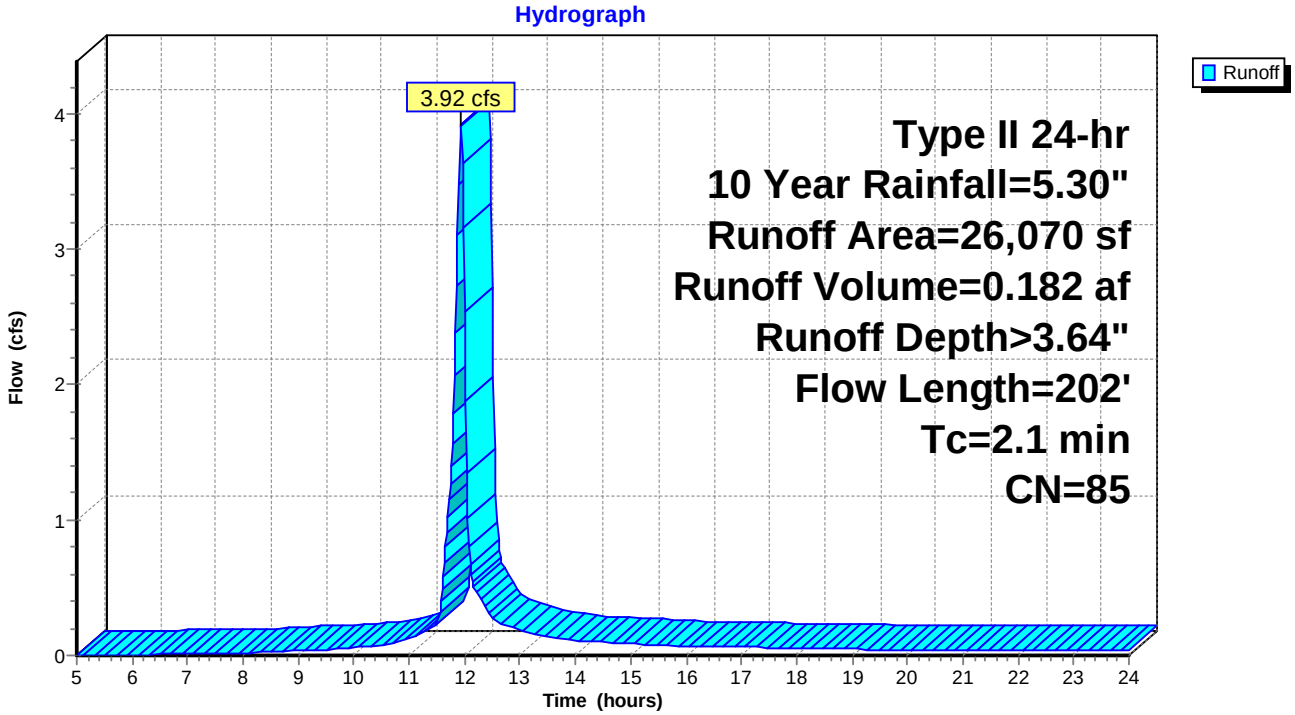
Runoff = 3.92 cfs @ 11.93 hrs, Volume= 0.182 af, Depth> 3.64"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 10 Year Rainfall=5.30"

Area (sf)	CN	Description
16,602	98	Paved roads w/curbs & sewers
9,468	61	>75% Grass cover, Good, HSG B
26,070	85	Weighted Average
9,468		36.32% Pervious Area
16,602		63.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	70	0.0600	2.05		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.40"
1.5	132	0.0052	1.46		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.1	202	Total			

Subcatchment 4S: Direct to Pipe 1



Hydrograph for Subcatchment 4S: Direct to Pipe 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.20	0.35	0.00	0.00
5.40	0.37	0.00	0.00
5.60	0.39	0.00	0.00
5.80	0.41	0.00	0.00
6.00	0.42	0.00	0.00
6.20	0.44	0.00	0.01
6.40	0.46	0.01	0.01
6.60	0.48	0.01	0.01
6.80	0.50	0.01	0.01
7.00	0.52	0.02	0.01
7.20	0.55	0.02	0.01
7.40	0.57	0.02	0.01
7.60	0.59	0.03	0.01
7.80	0.61	0.03	0.02
8.00	0.64	0.04	0.02
8.20	0.66	0.05	0.02
8.40	0.69	0.05	0.02
8.60	0.72	0.06	0.03
8.80	0.75	0.07	0.03
9.00	0.78	0.08	0.03
9.20	0.81	0.10	0.04
9.40	0.85	0.11	0.04
9.60	0.88	0.12	0.04
9.80	0.92	0.14	0.05
10.00	0.96	0.16	0.06
10.20	1.00	0.18	0.06
10.40	1.05	0.20	0.07
10.60	1.11	0.23	0.09
10.80	1.17	0.26	0.10
11.00	1.25	0.30	0.12
11.20	1.33	0.35	0.16
11.40	1.44	0.41	0.20
11.60	1.63	0.53	0.49
11.80	2.28	1.01	**1.79**
12.00	3.51	2.03	**2.54**
12.20	3.70	2.19	0.47
12.40	3.84	2.32	0.35
12.60	3.94	2.40	0.24
12.80	4.02	2.48	0.21
13.00	4.09	2.54	0.18
13.20	4.15	2.60	0.16
13.40	4.21	2.65	0.15
13.60	4.26	2.69	0.13
13.80	4.30	2.73	0.12
14.00	4.35	2.77	0.11
14.20	4.38	2.80	0.10
14.40	4.42	2.84	0.10
14.60	4.46	2.87	0.10
14.80	4.49	2.90	0.09
15.00	4.52	2.93	0.09
15.20	4.55	2.96	0.08
15.40	4.58	2.99	0.08
15.60	4.61	3.01	0.08
15.80	4.64	3.04	0.07
16.00	4.66	3.06	0.07
16.20	4.69	3.08	0.07
16.40	4.71	3.10	0.06
16.60	4.73	3.12	0.06
16.80	4.76	3.14	0.06
17.00	4.78	3.16	0.06
17.20	4.80	3.18	0.06
17.40	4.82	3.20	0.06
17.60	4.84	3.22	0.06
17.80	4.86	3.24	0.05
18.00	4.88	3.26	0.05
18.20	4.90	3.28	0.05
18.40	4.92	3.29	0.05
18.60	4.94	3.31	0.05
18.80	4.95	3.32	0.05
19.00	4.97	3.34	0.05
19.20	4.99	3.36	0.04
19.40	5.00	3.37	0.04
19.60	5.02	3.38	0.04
19.80	5.03	3.40	0.04
20.00	5.05	3.41	0.04
20.20	5.06	3.42	0.04
20.40	5.07	3.44	0.04
20.60	5.09	3.45	0.04
20.80	5.10	3.46	0.04
21.00	5.11	3.47	0.04
21.20	5.13	3.49	0.04
21.40	5.14	3.50	0.04
21.60	5.15	3.51	0.04
21.80	5.17	3.52	0.04
22.00	5.18	3.53	0.04
22.20	5.19	3.54	0.04
22.40	5.20	3.56	0.04
22.60	5.22	3.57	0.03
22.80	5.23	3.58	0.03
23.00	5.24	3.59	0.03
23.20	5.25	3.60	0.03
23.40	5.26	3.61	0.03
23.60	5.28	3.62	0.03
23.80	5.29	3.64	0.03
24.00	**5.30**	**3.65**	0.03

Summary for Subcatchment 5S: Wet Pond DA

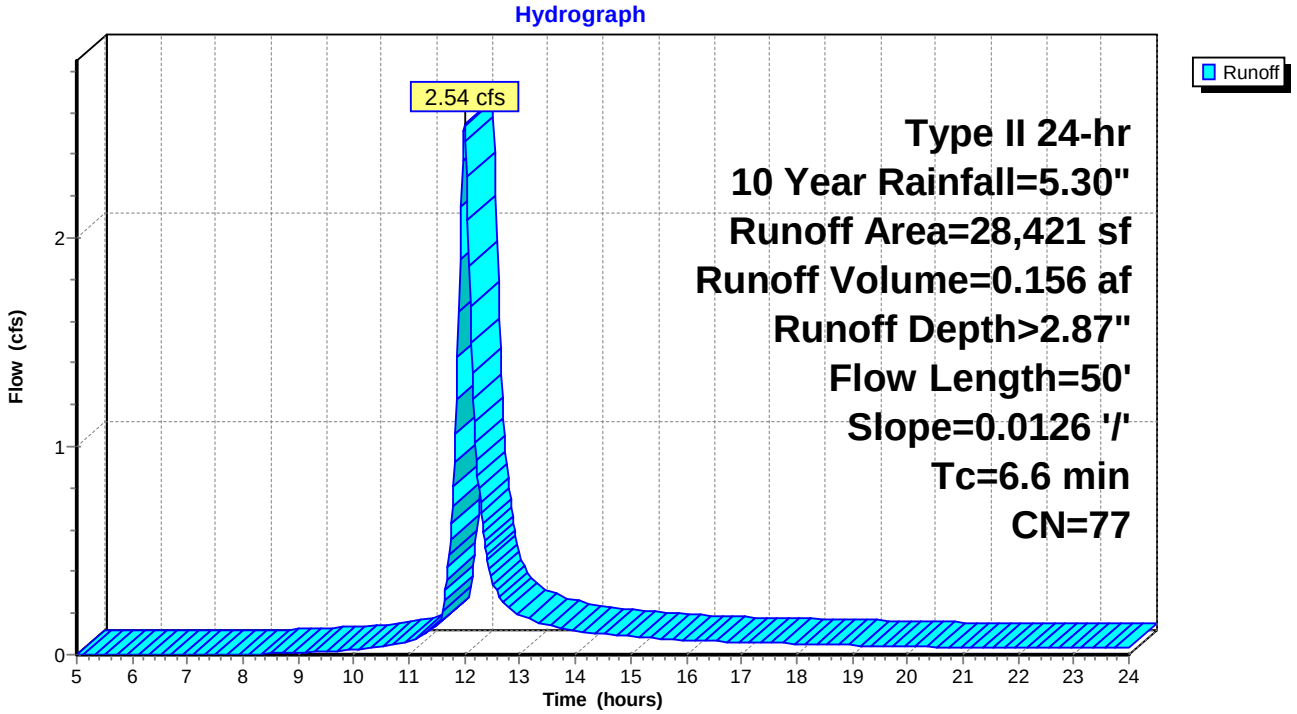
Runoff = 2.54 cfs @ 12.00 hrs, Volume= 0.156 af, Depth> 2.87"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 10 Year Rainfall=5.30"

	Area (sf)	CN	Description
*	12,422	98	Water Surface
	15,999	61	>75% Grass cover, Good, HSG B
	28,421	77	Weighted Average
	15,999		56.29% Pervious Area
	12,422		43.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	50	0.0126	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"

Subcatchment 5S: Wet Pond DA



Hydrograph for Subcatchment 5S: Wet Pond DA

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.20	0.35	0.00	0.00
5.40	0.37	0.00	0.00
5.60	0.39	0.00	0.00
5.80	0.41	0.00	0.00
6.00	0.42	0.00	0.00
6.20	0.44	0.00	0.00
6.40	0.46	0.00	0.00
6.60	0.48	0.00	0.00
6.80	0.50	0.00	0.00
7.00	0.52	0.00	0.00
7.20	0.55	0.00	0.00
7.40	0.57	0.00	0.00
7.60	0.59	0.00	0.00
7.80	0.61	0.00	0.00
8.00	0.64	0.00	0.00
8.20	0.66	0.00	0.00
8.40	0.69	0.00	0.00
8.60	0.72	0.00	0.01
8.80	0.75	0.01	0.01
9.00	0.78	0.01	0.01
9.20	0.81	0.01	0.01
9.40	0.85	0.02	0.01
9.60	0.88	0.02	0.02
9.80	0.92	0.03	0.02
10.00	0.96	0.04	0.02
10.20	1.00	0.05	0.03
10.40	1.05	0.06	0.04
10.60	1.11	0.08	0.04
10.80	1.17	0.09	0.06
11.00	1.25	0.12	0.07
11.20	1.33	0.14	0.09
11.40	1.44	0.18	0.12
11.60	1.63	0.26	0.19
11.80	2.28	0.61	0.81
12.00	3.51	1.44	**2.54**
12.20	3.70	1.58	1.02
12.40	3.84	1.69	0.48
12.60	3.94	1.77	0.29
12.80	4.02	1.83	0.22
13.00	4.09	1.88	0.19
13.20	4.15	1.93	0.17
13.40	4.21	1.98	0.15
13.60	4.26	2.02	0.14
13.80	4.30	2.05	0.12
14.00	4.35	2.09	0.11
14.20	4.38	2.12	0.10
14.40	4.42	2.15	0.10
14.60	4.46	2.18	0.10
14.80	4.49	2.20	0.09
15.00	4.52	2.23	0.09
15.20	4.55	2.26	0.08
15.40	4.58	2.28	0.08
15.60	4.61	2.30	0.08
15.80	4.64	2.32	0.07
16.00	4.66	2.34	0.07
16.20	4.69	2.36	0.07
16.40	4.71	2.38	0.06
16.60	4.73	2.40	0.06
16.80	4.76	2.42	0.06
17.00	4.78	2.44	0.06
17.20	4.80	2.46	0.06
17.40	4.82	2.47	0.06
17.60	4.84	2.49	0.06
17.80	4.86	2.51	0.05
18.00	4.88	2.52	0.05
18.20	4.90	2.54	0.05
18.40	4.92	2.55	0.05
18.60	4.94	2.57	0.05
18.80	4.95	2.58	0.05
19.00	4.97	2.60	0.05
19.20	4.99	2.61	0.04
19.40	5.00	2.62	0.04
19.60	5.02	2.64	0.04
19.80	5.03	2.65	0.04
20.00	5.05	2.66	0.04
20.20	5.06	2.67	0.04
20.40	5.07	2.68	0.04
20.60	5.09	2.70	0.04
20.80	5.10	2.71	0.04
21.00	5.11	2.72	0.04
21.20	5.13	2.73	0.04
21.40	5.14	2.74	0.04
21.60	5.15	2.75	0.04
21.80	5.17	2.76	0.04
22.00	5.18	2.77	0.04
22.20	5.19	2.78	0.04
22.40	5.20	2.79	0.04
22.60	5.22	2.80	0.03
22.80	5.23	2.81	0.03
23.00	5.24	2.83	0.03
23.20	5.25	2.84	0.03
23.40	5.26	2.85	0.03
23.60	5.28	2.86	0.03
23.80	5.29	2.87	0.03
24.00	**5.30**	**2.88**	0.03

Summary for Subcatchment 6S: Entrance SD

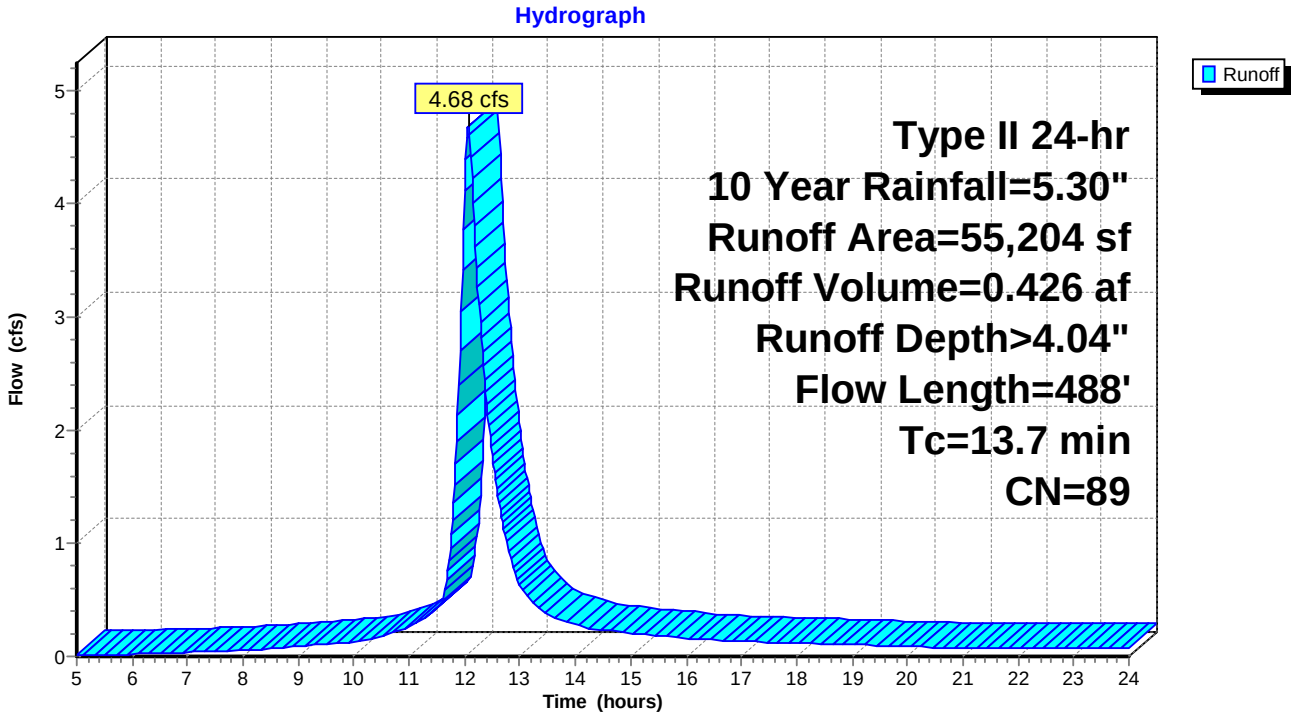
Runoff = 4.68 cfs @ 12.07 hrs, Volume= 0.426 af, Depth> 4.04"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 10 Year Rainfall=5.30"

Area (sf)	CN	Description
42,497	98	Paved roads w/curbs & sewers
12,707	61	>75% Grass cover, Good, HSG B
55,204	89	Weighted Average
12,707		23.02% Pervious Area
42,497		76.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	50	0.0050	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
3.2	263	0.0081	1.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.0	175	0.0025	2.85	3.50	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012 Concrete pipe, finished
13.7	488	Total			

Subcatchment 6S: Entrance SD



Hydrograph for Subcatchment 6S: Entrance SD

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.01	0.01
5.20	0.35	0.01	0.01
5.40	0.37	0.01	0.01
5.60	0.39	0.01	0.02
5.80	0.41	0.02	0.02
6.00	0.42	0.02	0.02
6.20	0.44	0.03	0.03
6.40	0.46	0.03	0.03
6.60	0.48	0.04	0.03
6.80	0.50	0.04	0.04
7.00	0.52	0.05	0.04
7.20	0.55	0.06	0.04
7.40	0.57	0.07	0.05
7.60	0.59	0.07	0.05
7.80	0.61	0.08	0.05
8.00	0.64	0.09	0.06
8.20	0.66	0.10	0.06
8.40	0.69	0.12	0.07
8.60	0.72	0.13	0.07
8.80	0.75	0.14	0.08
9.00	0.78	0.16	0.09
9.20	0.81	0.18	0.10
9.40	0.85	0.20	0.11
9.60	0.88	0.22	0.11
9.80	0.92	0.24	0.12
10.00	0.96	0.26	0.14
10.20	1.00	0.29	0.15
10.40	1.05	0.32	0.17
10.60	1.11	0.35	0.20
10.80	1.17	0.40	0.23
11.00	1.25	0.45	0.26
11.20	1.33	0.51	0.31
11.40	1.44	0.58	0.39
11.60	1.63	0.73	0.50
11.80	2.28	1.27	1.36
12.00	3.51	2.37	**4.11**
12.20	3.70	2.55	**3.61**
12.40	3.84	2.68	2.23
12.60	3.94	2.77	1.42
12.80	4.02	2.84	0.92
13.00	4.09	2.91	0.63
13.20	4.15	2.97	0.49
13.40	4.21	3.02	0.40
13.60	4.26	3.07	0.35
13.80	4.30	3.11	0.31
14.00	4.35	3.15	0.28
14.20	4.38	3.19	0.26
14.40	4.42	3.22	0.24
14.60	4.46	3.25	0.23
14.80	4.49	3.29	0.22
15.00	4.52	3.32	0.21
15.20	4.55	3.35	0.20
15.40	4.58	3.38	0.19
15.60	4.61	3.40	0.18
15.80	4.64	3.43	0.17
16.00	4.66	3.45	0.16
16.20	4.69	3.47	0.16
16.40	4.71	3.50	0.15
16.60	4.73	3.52	0.15
16.80	4.76	3.54	0.14
17.00	4.78	3.56	0.14
17.20	4.80	3.58	0.13
17.40	4.82	3.60	0.13
17.60	4.84	3.62	0.13
17.80	4.86	3.64	0.13
18.00	4.88	3.66	0.12
18.20	4.90	3.68	0.12
18.40	4.92	3.69	0.12
18.60	4.94	3.71	0.11
18.80	4.95	3.73	0.11
19.00	4.97	3.74	0.11
19.20	4.99	3.76	0.10
19.40	5.00	3.77	0.10
19.60	5.02	3.79	0.10
19.80	5.03	3.80	0.09
20.00	5.05	3.82	0.09
20.20	5.06	3.83	0.09
20.40	5.07	3.84	0.09
20.60	5.09	3.85	0.08
20.80	5.10	3.87	0.08
21.00	5.11	3.88	0.08
21.20	5.13	3.89	0.08
21.40	5.14	3.91	0.08
21.60	5.15	3.92	0.08
21.80	5.17	3.93	0.08
22.00	5.18	3.94	0.08
22.20	5.19	3.95	0.08
22.40	5.20	3.97	0.08
22.60	5.22	3.98	0.08
22.80	5.23	3.99	0.08
23.00	5.24	4.00	0.08
23.20	5.25	4.01	0.08
23.40	5.26	4.03	0.07
23.60	5.28	4.04	0.07
23.80	5.29	4.05	0.07
24.00	**5.30**	**4.06**	0.07

Summary for Subcatchment 7S: Dry Pond DA

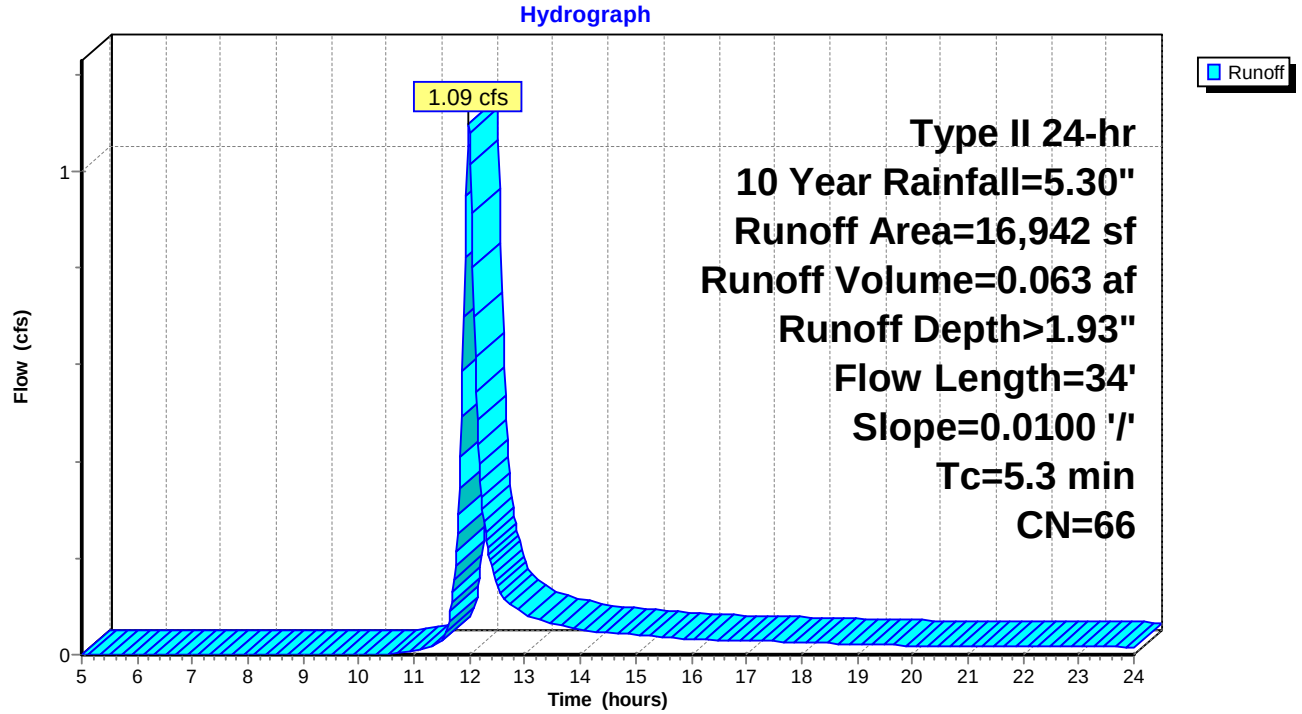
Runoff = 1.09 cfs @ 11.99 hrs, Volume= 0.063 af, Depth> 1.93"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 10 Year Rainfall=5.30"

	Area (sf)	CN	Description
	14,592	61	>75% Grass cover, Good, HSG B
*	2,350	98	Impervious Areas
	16,942	66	Weighted Average
	14,592		86.13% Pervious Area
	2,350		13.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	34	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"

Subcatchment 7S: Dry Pond DA



Hydrograph for Subcatchment 7S: Dry Pond DA

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00
5.20	0.35	0.00	0.00
5.40	0.37	0.00	0.00
5.60	0.39	0.00	0.00
5.80	0.41	0.00	0.00
6.00	0.42	0.00	0.00
6.20	0.44	0.00	0.00
6.40	0.46	0.00	0.00
6.60	0.48	0.00	0.00
6.80	0.50	0.00	0.00
7.00	0.52	0.00	0.00
7.20	0.55	0.00	0.00
7.40	0.57	0.00	0.00
7.60	0.59	0.00	0.00
7.80	0.61	0.00	0.00
8.00	0.64	0.00	0.00
8.20	0.66	0.00	0.00
8.40	0.69	0.00	0.00
8.60	0.72	0.00	0.00
8.80	0.75	0.00	0.00
9.00	0.78	0.00	0.00
9.20	0.81	0.00	0.00
9.40	0.85	0.00	0.00
9.60	0.88	0.00	0.00
9.80	0.92	0.00	0.00
10.00	0.96	0.00	0.00
10.20	1.00	0.00	0.00
10.40	1.05	0.00	0.00
10.60	1.11	0.00	0.00
10.80	1.17	0.00	0.00
11.00	1.25	0.01	0.01
11.20	1.33	0.02	0.01
11.40	1.44	0.03	0.02
11.60	1.63	0.06	0.05
11.80	2.28	0.25	**0.29**
12.00	3.51	0.81	**1.08**
12.20	3.70	0.91	0.36
12.40	3.84	0.99	0.18
12.60	3.94	1.05	0.12
12.80	4.02	1.10	0.10
13.00	4.09	1.14	0.09
13.20	4.15	1.18	0.08
13.40	4.21	1.21	0.07
13.60	4.26	1.24	0.06
13.80	4.30	1.27	0.06
14.00	4.35	1.30	0.05
14.20	4.38	1.32	0.05
14.40	4.42	1.35	0.05
14.60	4.46	1.37	0.04
14.80	4.49	1.39	0.04
15.00	4.52	1.41	0.04
15.20	4.55	1.43	0.04
15.40	4.58	1.45	0.04
15.60	4.61	1.47	0.04
15.80	4.64	1.49	0.03
16.00	4.66	1.50	0.03
16.20	4.69	1.52	0.03
16.40	4.71	1.53	0.03
16.60	4.73	1.55	0.03
16.80	4.76	1.56	0.03
17.00	4.78	1.58	0.03
17.20	4.80	1.59	0.03
17.40	4.82	1.61	0.03
17.60	4.84	1.62	0.03
17.80	4.86	1.63	0.03
18.00	4.88	1.65	0.03
18.20	4.90	1.66	0.02
18.40	4.92	1.67	0.02
18.60	4.94	1.68	0.02
18.80	4.95	1.70	0.02
19.00	4.97	1.71	0.02
19.20	4.99	1.72	0.02
19.40	5.00	1.73	0.02
19.60	5.02	1.74	0.02
19.80	5.03	1.75	0.02
20.00	5.05	1.76	0.02
20.20	5.06	1.77	0.02
20.40	5.07	1.78	0.02
20.60	5.09	1.79	0.02
20.80	5.10	1.80	0.02
21.00	5.11	1.81	0.02
21.20	5.13	1.81	0.02
21.40	5.14	1.82	0.02
21.60	5.15	1.83	0.02
21.80	5.17	1.84	0.02
22.00	5.18	1.85	0.02
22.20	5.19	1.86	0.02
22.40	5.20	1.87	0.02
22.60	5.22	1.88	0.02
22.80	5.23	1.88	0.02
23.00	5.24	1.89	0.02
23.20	5.25	1.90	0.02
23.40	5.26	1.91	0.02
23.60	5.28	1.92	0.02
23.80	5.29	1.93	0.02
24.00	**5.30**	**1.94**	0.02

Summary for Subcatchment 8S: Future Development

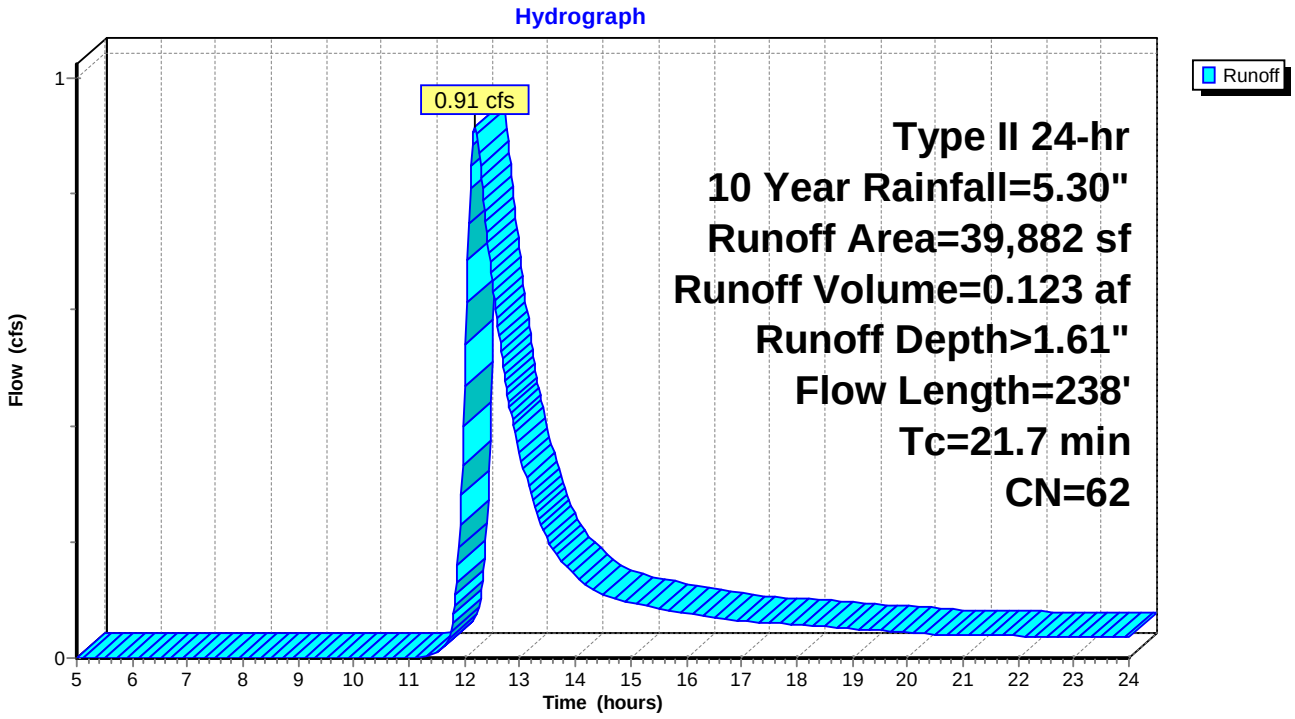
Runoff = 0.91 cfs @ 12.19 hrs, Volume= 0.123 af, Depth> 1.61"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 10 Year Rainfall=5.30"

Area (sf)	CN	Description
35,607	61	>75% Grass cover, Good, HSG B
4,275	74	>75% Grass cover, Good, HSG C
39,882	62	Weighted Average
39,882		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	100	0.0034	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
2.4	138	0.0036	0.97		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
21.7	238	Total			

Subcatchment 8S: Future Development



Hydrograph for Subcatchment 8S: Future Development

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.00	0.00	15.80	4.64	1.22	0.08
5.20	0.35	0.00	0.00	16.00	4.66	1.24	0.08
5.40	0.37	0.00	0.00	16.20	4.69	1.25	0.07
5.60	0.39	0.00	0.00	16.40	4.71	1.26	0.07
5.80	0.41	0.00	0.00	16.60	4.73	1.28	0.07
6.00	0.42	0.00	0.00	16.80	4.76	1.29	0.07
6.20	0.44	0.00	0.00	17.00	4.78	1.30	0.06
6.40	0.46	0.00	0.00	17.20	4.80	1.32	0.06
6.60	0.48	0.00	0.00	17.40	4.82	1.33	0.06
6.80	0.50	0.00	0.00	17.60	4.84	1.34	0.06
7.00	0.52	0.00	0.00	17.80	4.86	1.35	0.06
7.20	0.55	0.00	0.00	18.00	4.88	1.37	0.06
7.40	0.57	0.00	0.00	18.20	4.90	1.38	0.06
7.60	0.59	0.00	0.00	18.40	4.92	1.39	0.05
7.80	0.61	0.00	0.00	18.60	4.94	1.40	0.05
8.00	0.64	0.00	0.00	18.80	4.95	1.41	0.05
8.20	0.66	0.00	0.00	19.00	4.97	1.42	0.05
8.40	0.69	0.00	0.00	19.20	4.99	1.43	0.05
8.60	0.72	0.00	0.00	19.40	5.00	1.44	0.05
8.80	0.75	0.00	0.00	19.60	5.02	1.45	0.05
9.00	0.78	0.00	0.00	19.80	5.03	1.46	0.04
9.20	0.81	0.00	0.00	20.00	5.05	1.47	0.04
9.40	0.85	0.00	0.00	20.20	5.06	1.48	0.04
9.60	0.88	0.00	0.00	20.40	5.07	1.48	0.04
9.80	0.92	0.00	0.00	20.60	5.09	1.49	0.04
10.00	0.96	0.00	0.00	20.80	5.10	1.50	0.04
10.20	1.00	0.00	0.00	21.00	5.11	1.51	0.04
10.40	1.05	0.00	0.00	21.20	5.13	1.52	0.04
10.60	1.11	0.00	0.00	21.40	5.14	1.53	0.04
10.80	1.17	0.00	0.00	21.60	5.15	1.53	0.04
11.00	1.25	0.00	0.00	21.80	5.17	1.54	0.04
11.20	1.33	0.00	0.00	22.00	5.18	1.55	0.04
11.40	1.44	0.01	0.00	22.20	5.19	1.56	0.04
11.60	1.63	0.02	0.02	22.40	5.20	1.57	0.04
11.80	2.28	0.16	0.07	22.60	5.22	1.57	0.04
12.00	3.51	0.62	0.47	22.80	5.23	1.58	0.04
12.20	3.70	0.71	**0.91**	23.00	5.24	1.59	0.04
12.40	3.84	0.78	0.73	23.20	5.25	1.60	0.04
12.60	3.94	0.83	0.57	23.40	5.26	1.60	0.04
12.80	4.02	0.88	0.44	23.60	5.28	1.61	0.04
13.00	4.09	0.91	0.35	23.80	5.29	1.62	0.04
13.20	4.15	0.95	0.28	24.00	**5.30**	**1.63**	0.04
13.40	4.21	0.98	0.23				
13.60	4.26	1.00	0.19				
13.80	4.30	1.03	0.16				
14.00	4.35	1.05	0.14				
14.20	4.38	1.07	0.13				
14.40	4.42	1.10	0.11				
14.60	4.46	1.12	0.11				
14.80	4.49	1.13	0.10				
15.00	4.52	1.15	0.10				
15.20	4.55	1.17	0.09				
15.40	4.58	1.19	0.09				
15.60	4.61	1.21	0.08				

Summary for Subcatchment 9S: AUTOZONE DEVELOPED

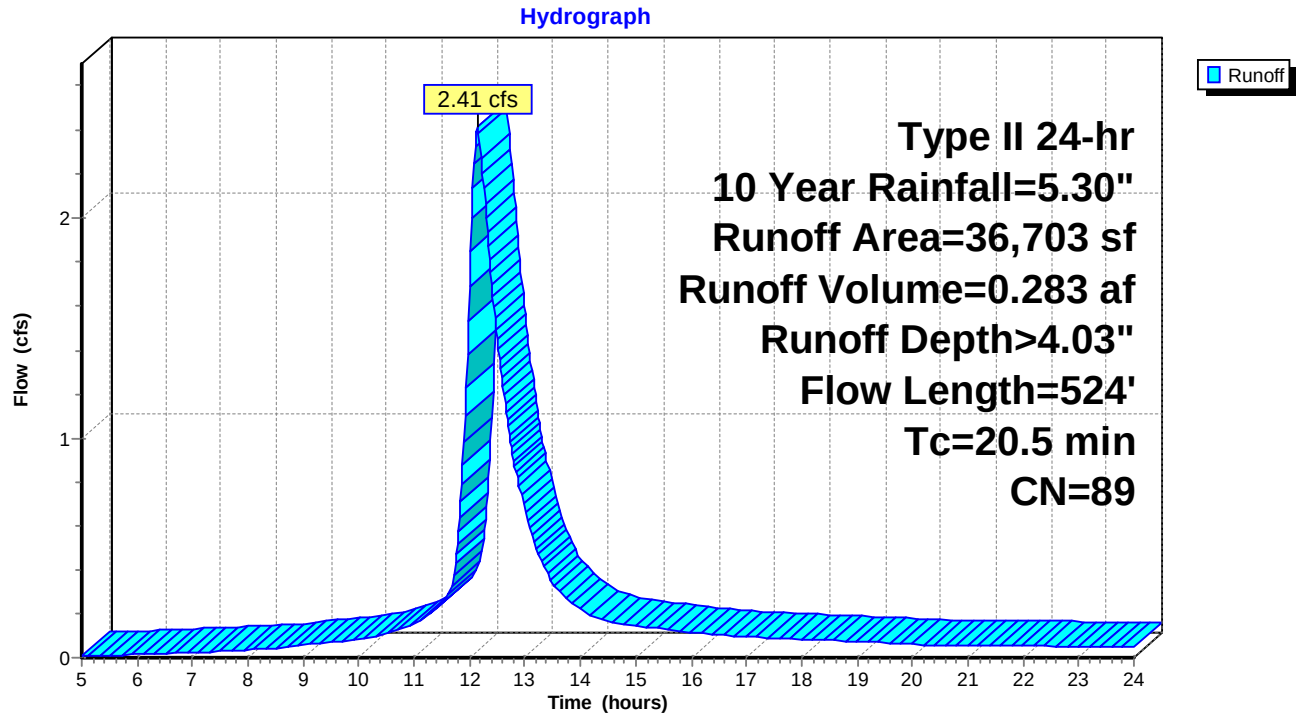
Runoff = 2.41 cfs @ 12.15 hrs, Volume= 0.283 af, Depth> 4.03"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 10 Year Rainfall=5.30"

Area (sf)	CN	Description
7,158	74	>75% Grass cover, Good, HSG C
4,771	61	>75% Grass cover, Good, HSG B
24,774	98	Paved parking, HSG B
36,703	89	Weighted Average
11,929		32.50% Pervious Area
24,774		67.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.8	80	0.0050	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
5.4	312	0.0068	0.96	2.89	**Channel Flow,** Area= 3.0 sf Perim= 6.0' r= 0.50' n= 0.080 Earth, long dense weeds
1.3	132	0.0007	1.70	3.01	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
20.5	524	Total			

Subcatchment 9S: AUTOZONE DEVELOPED



Hydrograph for Subcatchment 9S: AUTOZONE DEVELOPED

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.33	0.01	0.00
5.20	0.35	0.01	0.01
5.40	0.37	0.01	0.01
5.60	0.39	0.01	0.01
5.80	0.41	0.02	0.01
6.00	0.42	0.02	0.01
6.20	0.44	0.03	0.02
6.40	0.46	0.03	0.02
6.60	0.48	0.04	0.02
6.80	0.50	0.04	0.02
7.00	0.52	0.05	0.02
7.20	0.55	0.06	0.03
7.40	0.57	0.07	0.03
7.60	0.59	0.07	0.03
7.80	0.61	0.08	0.03
8.00	0.64	0.09	0.04
8.20	0.66	0.10	0.04
8.40	0.69	0.12	0.04
8.60	0.72	0.13	0.05
8.80	0.75	0.14	0.05
9.00	0.78	0.16	0.06
9.20	0.81	0.18	0.06
9.40	0.85	0.20	0.07
9.60	0.88	0.22	0.07
9.80	0.92	0.24	0.08
10.00	0.96	0.26	0.08
10.20	1.00	0.29	0.09
10.40	1.05	0.32	0.10
10.60	1.11	0.35	0.12
10.80	1.17	0.40	0.13
11.00	1.25	0.45	0.16
11.20	1.33	0.51	0.18
11.40	1.44	0.58	0.22
11.60	1.63	0.73	0.28
11.80	2.28	1.27	0.57
12.00	3.51	2.37	**1.69**
12.20	3.70	2.55	**2.33**
12.40	3.84	2.68	1.70
12.60	3.94	2.77	1.23
12.80	4.02	2.84	0.90
13.00	4.09	2.91	0.67
13.20	4.15	2.97	0.50
13.40	4.21	3.02	0.38
13.60	4.26	3.07	0.31
13.80	4.30	3.11	0.26
14.00	4.35	3.15	0.22
14.20	4.38	3.19	0.19
14.40	4.42	3.22	0.17
14.60	4.46	3.25	0.16
14.80	4.49	3.29	0.15
15.00	4.52	3.32	0.15
15.20	4.55	3.35	0.14
15.40	4.58	3.38	0.13
15.60	4.61	3.40	0.13
15.80	4.64	3.43	0.12
16.00	4.66	3.45	0.11
16.20	4.69	3.47	0.11
16.40	4.71	3.50	0.10
16.60	4.73	3.52	0.10
16.80	4.76	3.54	0.10
17.00	4.78	3.56	0.09
17.20	4.80	3.58	0.09
17.40	4.82	3.60	0.09
17.60	4.84	3.62	0.09
17.80	4.86	3.64	0.09
18.00	4.88	3.66	0.08
18.20	4.90	3.68	0.08
18.40	4.92	3.69	0.08
18.60	4.94	3.71	0.08
18.80	4.95	3.73	0.07
19.00	4.97	3.74	0.07
19.20	4.99	3.76	0.07
19.40	5.00	3.77	0.07
19.60	5.02	3.79	0.07
19.80	5.03	3.80	0.06
20.00	5.05	3.82	0.06
20.20	5.06	3.83	0.06
20.40	5.07	3.84	0.06
20.60	5.09	3.85	0.06
20.80	5.10	3.87	0.06
21.00	5.11	3.88	0.06
21.20	5.13	3.89	0.05
21.40	5.14	3.91	0.05
21.60	5.15	3.92	0.05
21.80	5.17	3.93	0.05
22.00	5.18	3.94	0.05
22.20	5.19	3.95	0.05
22.40	5.20	3.97	0.05
22.60	5.22	3.98	0.05
22.80	5.23	3.99	0.05
23.00	5.24	4.00	0.05
23.20	5.25	4.01	0.05
23.40	5.26	4.03	0.05
23.60	5.28	4.04	0.05
23.80	5.29	4.05	0.05
24.00	**5.30**	**4.06**	0.05

Summary for Reach 3R: Check Dam

Inflow Area = 6.595 ac, 58.76% Impervious, Inflow Depth > 3.09" for 10 Year event
Inflow = 2.28 cfs @ 13.35 hrs, Volume= 1.699 af
Outflow = 2.28 cfs @ 13.37 hrs, Volume= 1.697 af, Atten= 0%, Lag= 1.5 min

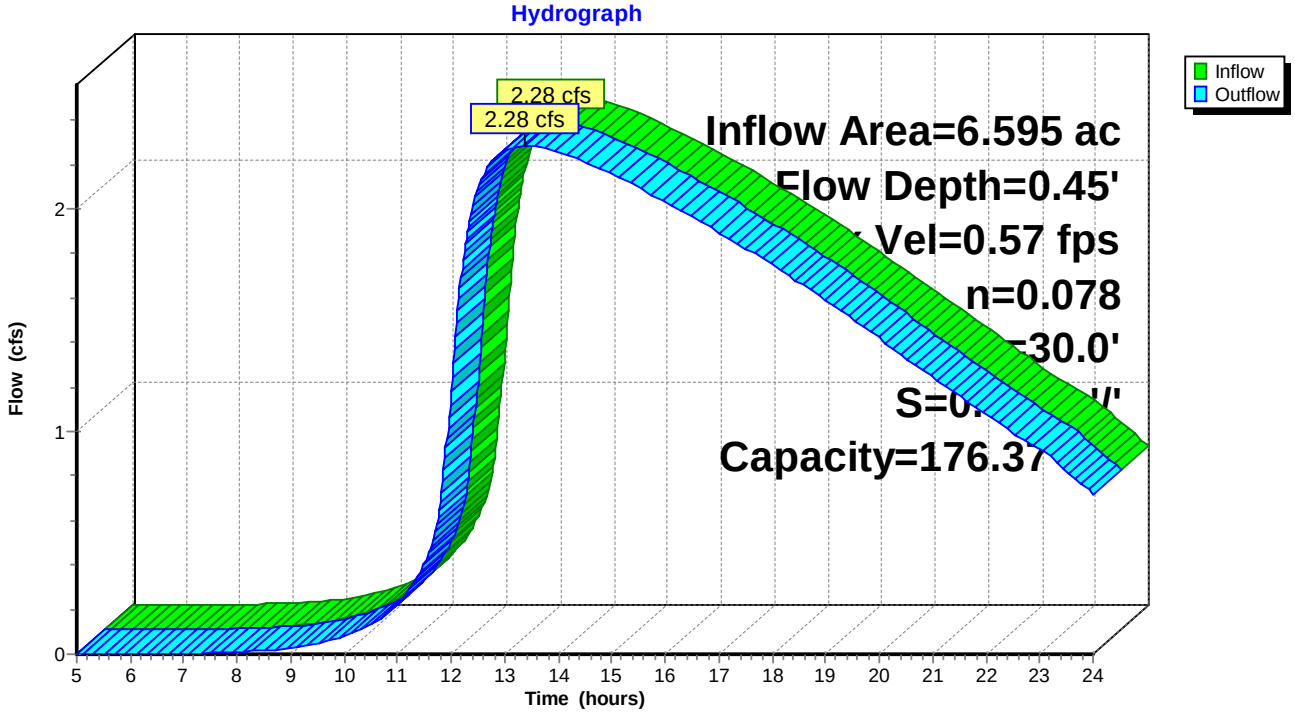
Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Max. Velocity= 0.57 fps, Min. Travel Time= 0.9 min
Avg. Velocity = 0.38 fps, Avg. Travel Time= 1.3 min

Peak Storage= 120 cf @ 13.36 hrs
Average Depth at Peak Storage= 0.45'
Bank-Full Depth= 4.00' Flow Area= 92.0 sf, Capacity= 176.37 cfs

7.00' x 4.00' deep channel, n= 0.078 Riprap, 12-inch
Side Slope Z-value= 4.0 '/' Top Width= 39.00'
Length= 30.0' Slope= 0.0033 '/'
Inlet Invert= 38.00', Outlet Invert= 37.90'

‡

Reach 3R: Check Dam



Hydrograph for Reach 3R: Check Dam

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
5.00	0.00	0	38.00	0.00
5.40	0.00	0	38.00	0.00
5.80	0.00	0	38.00	0.00
6.20	0.00	0	38.00	0.00
6.60	0.00	0	38.00	0.00
7.00	0.00	0	38.00	0.00
7.40	0.00	1	38.00	0.00
7.80	0.01	2	38.01	0.01
8.20	0.01	2	38.01	0.01
8.60	0.02	4	38.02	0.02
9.00	0.03	6	38.03	0.03
9.40	0.05	9	38.04	0.04
9.80	0.07	12	38.06	0.07
10.20	0.10	16	38.07	0.10
10.60	0.15	20	38.09	0.15
11.00	0.24	27	38.12	0.23
11.40	0.37	36	38.16	0.36
11.80	0.75	55	38.23	0.68
12.20	1.78	101	38.39	1.73
12.60	2.16	116	38.44	2.15
13.00	**2.27**	**119**	**38.45**	**2.26**
13.40	**2.28**	**120**	**38.45**	**2.28**
13.80	2.27	120	38.45	2.27
14.20	2.24	118	38.45	2.24
14.60	2.20	117	38.44	2.20
15.00	2.15	116	38.44	2.15
15.40	2.10	114	38.43	2.11
15.80	2.05	112	38.43	2.06
16.20	2.00	110	38.42	2.01
16.60	1.95	108	38.42	1.95
17.00	1.89	106	38.41	1.89
17.40	1.83	104	38.40	1.84
17.80	1.78	101	38.39	1.78
18.20	1.71	99	38.39	1.72
18.60	1.65	97	38.38	1.65
19.00	1.58	94	38.37	1.59
19.40	1.52	91	38.36	1.52
19.80	1.45	88	38.35	1.45
20.20	1.38	86	38.34	1.38
20.60	1.31	83	38.33	1.31
21.00	1.24	80	38.32	1.24
21.40	1.17	77	38.31	1.18
21.80	1.10	74	38.30	1.11
22.20	1.04	71	38.29	1.04
22.60	0.98	68	38.28	0.98
23.00	0.92	65	38.27	0.92
23.40	0.84	62	38.26	0.85
23.80	0.75	58	38.24	0.76

Stage-Area-Storage for Reach 3R: Check Dam

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
38.00	0.0	0
38.05	0.4	11
38.10	0.7	22
38.15	1.1	34
38.20	1.6	47
38.25	2.0	60
38.30	2.5	74
38.35	2.9	88
38.40	3.4	103
38.45	4.0	119
38.50	4.5	135
38.55	5.1	152
38.60	5.6	169
38.65	6.2	187
38.70	6.9	206
38.75	7.5	225
38.80	8.2	245
38.85	8.8	265
38.90	9.5	286
38.95	10.3	308
39.00	11.0	330
39.05	11.8	353
39.10	12.5	376
39.15	13.3	400
39.20	14.2	425
39.25	15.0	450
39.30	15.9	476
39.35	16.7	502
39.40	17.6	529
39.45	18.6	557
39.50	19.5	585
39.55	20.5	614
39.60	21.4	643
39.65	22.4	673
39.70	23.5	704
39.75	24.5	735
39.80	25.6	767
39.85	26.6	799
39.90	27.7	832
39.95	28.9	866
40.00	30.0	900
40.05	31.2	935
40.10	32.3	970
40.15	33.5	1,006
40.20	34.8	1,043
40.25	36.0	1,080
40.30	37.3	1,118
40.35	38.5	1,156
40.40	39.8	1,195
40.45	41.2	1,235
40.50	42.5	1,275
40.55	43.9	1,316
40.60	45.2	1,357
40.65	46.6	1,399
40.70	48.1	1,442
40.75	49.5	1,485
40.80	51.0	1,529
40.85	52.4	1,573
40.90	53.9	1,618
40.95	55.5	1,664
41.00	57.0	1,710
41.05	58.6	1,757
41.10	60.1	1,804
41.15	61.7	1,852
41.20	63.4	1,901
41.25	65.0	1,950
41.30	66.7	2,000
41.35	68.3	2,050
41.40	70.0	2,101
41.45	71.8	2,153
41.50	73.5	2,205
41.55	75.3	2,258
41.60	77.0	2,311
41.65	78.8	2,365
41.70	80.7	2,420
41.75	82.5	2,475
41.80	84.4	2,531
41.85	86.2	2,587
41.90	88.1	2,644
41.95	90.1	2,702
42.00	**92.0**	**2,760**

Summary for Pond 1P: Drugstore Pond

Inflow Area = 6.595 ac, 58.76% Impervious, Inflow Depth > 3.50" for 10 Year event
Inflow = 18.70 cfs @ 12.07 hrs, Volume= 1.922 af
Outflow = 2.28 cfs @ 13.35 hrs, Volume= 1.699 af, Atten= 88%, Lag= 76.4 min
Primary = 2.28 cfs @ 13.35 hrs, Volume= 1.699 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Peak Elev= 39.78' @ 13.35 hrs Surf.Area= 24,691 sf Storage= 45,349 cf

Plug-Flow detention time= 254.2 min calculated for 1.697 af (88% of inflow)
Center-of-Mass det. time= 198.6 min (1,010.7 - 812.1)

Volume	Invert	Avail.Storage	Storage Description
#1	37.60'	65,002 cf	**Wet Storage (Prismatic)** Listed below
#2	37.60'	25,745 cf	**Dry Storage (Prismatic)** Listed below (Recalc)
		90,747 cf	Total Available Storage

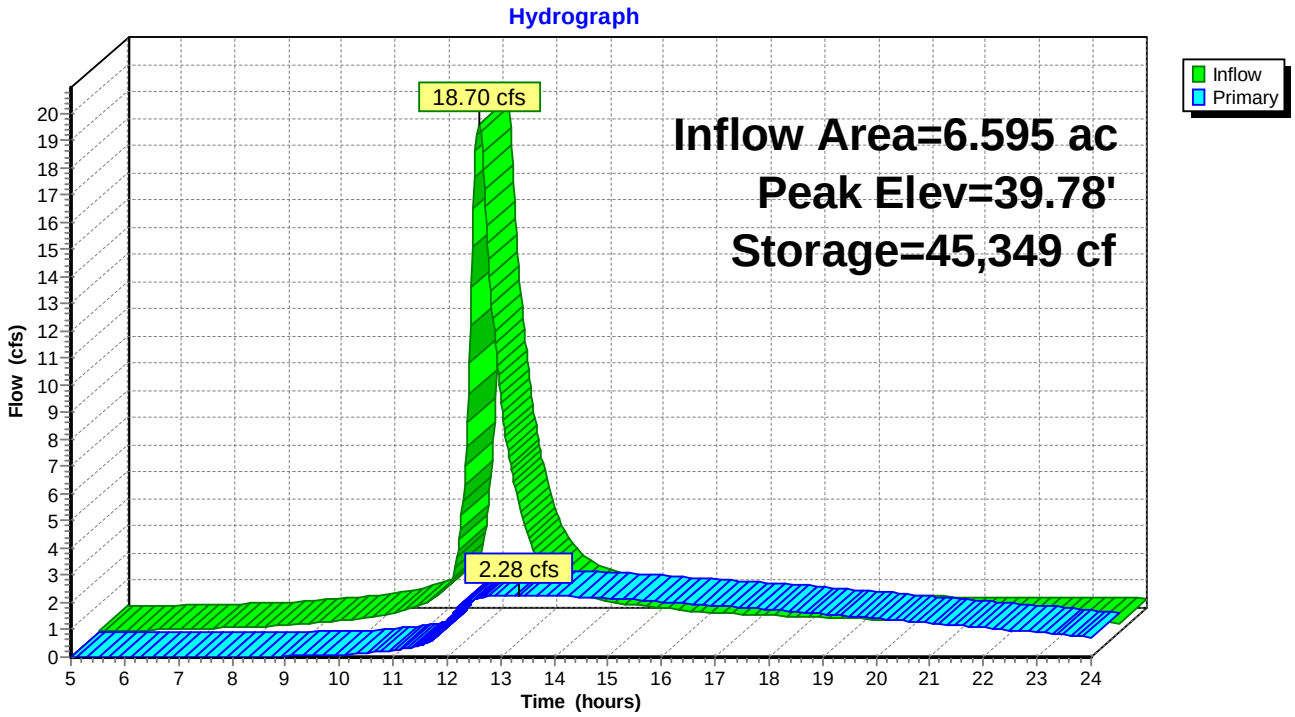
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
37.60	11,480	0	0
38.00	12,768	4,850	4,850
39.00	14,767	13,768	18,617
40.00	16,874	15,821	34,438
41.00	19,082	17,978	52,416
41.63	20,874	12,586	65,002

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
37.60	4,912	0	0
38.00	5,602	2,103	2,103
39.00	7,065	6,334	8,436
40.00	8,629	7,847	16,283
41.00	10,294	9,462	25,745

Device	Routing	Invert	Outlet Devices
#1	Device 3	37.60'	**8.0" Vert. Orifice/Grate** C= 0.600
#2	Device 3	40.00'	**15.0' long x 0.67' rise Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Primary	37.60'	**24.0" Round Culvert** L= 136.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 37.60' / 37.54' S= 0.0004 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 3.14 sf

Primary OutFlow Max=2.28 cfs @ 13.35 hrs HW=39.78' (Free Discharge)
└**3=Culvert** (Passes 2.28 cfs of 10.61 cfs potential flow)
  ├**1=Orifice/Grate** (Orifice Controls 2.28 cfs @ 6.54 fps)
  └**2=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: Drugstore Pond



Hydrograph for Pond 1P: Drugstore Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.04	1	37.60	0.00
5.40	0.06	73	37.60	0.00
5.80	0.08	174	37.61	0.00
6.20	0.10	306	37.62	0.00
6.60	0.13	471	37.63	0.00
7.00	0.15	670	37.64	0.00
7.40	0.18	903	37.65	0.00
7.80	0.20	1,168	37.67	0.01
8.20	0.23	1,468	37.69	0.01
8.60	0.28	1,817	37.71	0.02
9.00	0.36	2,243	37.73	0.03
9.40	0.42	2,755	37.76	0.05
9.80	0.48	3,318	37.79	0.07
10.20	0.59	3,956	37.83	0.10
10.60	0.76	4,733	37.87	0.15
11.00	1.03	5,727	37.93	0.24
11.40	1.52	7,081	38.01	0.37
11.80	**5.41**	9,955	38.15	0.75
12.20	**15.64**	28,391	39.06	1.78
12.60	6.95	40,728	39.59	2.16
13.00	3.52	**44,684**	**39.75**	**2.27**
13.40	2.16	**45,337**	**39.78**	**2.28**
13.80	1.58	44,704	39.75	2.27
14.20	1.27	43,500	39.70	2.24
14.60	1.11	42,009	39.64	2.20
15.00	1.01	40,400	39.57	2.15
15.40	0.92	38,722	39.50	2.10
15.80	0.84	36,991	39.43	2.05
16.20	0.75	35,212	39.35	2.00
16.60	0.70	33,412	39.28	1.95
17.00	0.67	31,633	39.20	1.89
17.40	0.63	29,887	39.12	1.83
17.80	0.60	28,181	39.05	1.78
18.20	0.57	26,515	38.97	1.71
18.60	0.54	24,898	38.90	1.65
19.00	0.51	23,332	38.82	1.58
19.40	0.48	21,818	38.75	1.52
19.80	0.45	20,357	38.67	1.45
20.20	0.42	18,952	38.61	1.38
20.60	0.41	17,613	38.54	1.31
21.00	0.40	16,357	38.48	1.24
21.40	0.39	15,190	38.42	1.17
21.80	0.39	14,112	38.36	1.10
22.20	0.38	13,121	38.31	1.04
22.60	0.37	12,214	38.27	0.98
23.00	0.37	11,383	38.23	0.92
23.40	0.36	10,638	38.19	0.84
23.80	0.36	10,007	38.16	0.75

Stage-Area-Storage for Pond 1P: Drugstore Pond

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
37.60	0	40.30	58,778
37.65	854	40.35	60,135
37.70	1,712	40.40	61,497
37.75	2,575	40.45	62,863
37.80	3,442	40.50	64,233
37.85	4,313	40.55	65,607
37.90	5,188	40.60	66,985
37.95	6,068	40.65	68,367
38.00	6,952	40.70	69,754
38.05	7,923	40.75	71,144
38.10	8,897	40.80	72,539
38.15	9,874	40.85	73,938
38.20	10,856	40.90	75,342
38.25	11,840	40.95	76,749
38.30	12,829	41.00	78,160
38.35	13,821	41.05	79,159
38.40	14,817	41.10	80,158
38.45	15,817	41.15	81,157
38.50	16,820	41.20	82,156
38.55	17,827	41.25	83,155
38.60	18,837	41.30	84,154
38.65	19,852	41.35	85,153
38.70	20,869	41.40	86,152
38.75	21,891	41.45	87,151
38.80	22,916	41.50	88,149
38.85	23,945	41.55	89,148
38.90	24,977	41.60	**90,147**
38.95	26,014		
39.00	27,053		
39.05	28,200		
39.10	29,350		
39.15	30,504		
39.20	31,662		
39.25	32,824		
39.30	33,989		
39.35	35,159		
39.40	36,333		
39.45	37,510		
39.50	38,692		
39.55	39,877		
39.60	41,066		
39.65	42,259		
39.70	43,456		
39.75	44,657		
39.80	45,862		
39.85	47,071		
39.90	48,284		
39.95	49,500		
40.00	50,721		
40.05	52,053		
40.10	53,390		
40.15	54,731		
40.20	56,076		
40.25	57,425		

Summary for Pond 2P: Ditches To Study Point #1

Inflow Area = 7.893 ac, 55.64% Impervious, Inflow Depth > 3.04" for 10 Year event
Inflow = 5.34 cfs @ 11.94 hrs, Volume= 1.999 af
Outflow = 3.77 cfs @ 12.03 hrs, Volume= 1.990 af, Atten= 29%, Lag= 5.1 min
Primary = 3.77 cfs @ 12.03 hrs, Volume= 1.990 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Peak Elev= 38.34' @ 12.03 hrs Surf.Area= 3,644 sf Storage= 1,947 cf

Plug-Flow detention time= 8.0 min calculated for 1.990 af (100% of inflow)
Center-of-Mass det. time= 6.0 min (989.8 - 983.8)

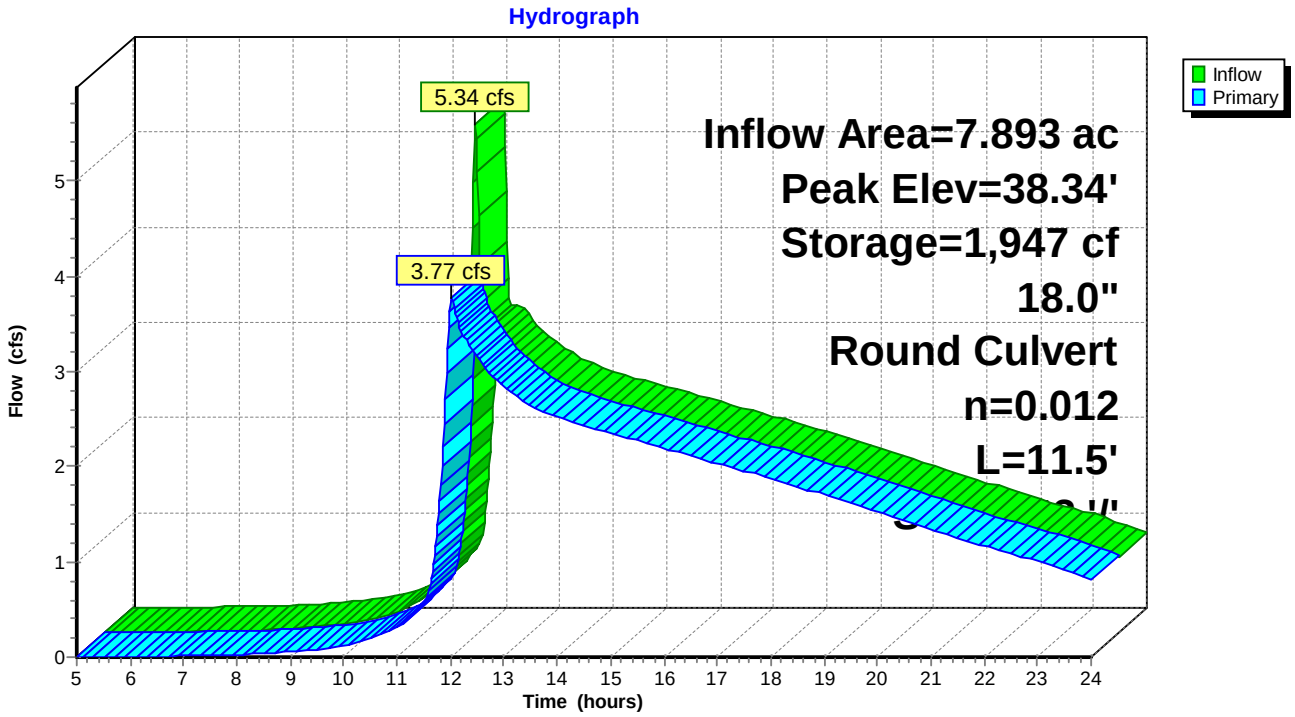
Volume	Invert	Avail.Storage	Storage Description
#1	37.20'	40,784 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
37.20	222	0	0
38.00	2,154	950	950
39.00	6,487	4,321	5,271
40.00	14,191	10,339	15,610
41.00	36,158	25,175	40,784

Device	Routing	Invert	Outlet Devices
#1	Primary	37.20'	**18.0" Round Culvert** L= 11.5' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 37.20' / 37.15' S= 0.0043 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=3.77 cfs @ 12.03 hrs HW=38.34' (Free Discharge)
1=Culvert (Barrel Controls 3.77 cfs @ 3.61 fps)

Pond 2P: Ditches To Study Point #1



Hydrograph for Pond 2P: Ditches To Study Point #1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	37.20	0.00
5.40	0.00	0	37.20	0.00
5.80	0.00	2	37.21	0.00
6.20	0.01	6	37.22	0.00
6.60	0.01	11	37.24	0.01
7.00	0.01	15	37.25	0.01
7.40	0.02	19	37.26	0.01
7.80	0.02	23	37.27	0.02
8.20	0.03	28	37.29	0.03
8.60	0.04	36	37.30	0.04
9.00	0.06	45	37.32	0.05
9.40	0.08	57	37.34	0.07
9.80	0.12	72	37.37	0.10
10.20	0.16	93	37.40	0.15
10.60	0.24	125	37.44	0.21
11.00	0.36	175	37.50	0.32
11.40	0.60	264	37.58	0.52
11.80	**2.61**	**773**	**37.91**	**1.64**
12.20	**3.21**	**1,726**	**38.28**	**3.42**
12.60	2.95	1,512	38.21	3.07
13.00	2.76	1,376	38.17	2.84
13.40	2.62	1,286	38.14	2.67
13.80	2.53	1,226	38.11	2.56
14.20	2.45	1,180	38.10	2.48
14.60	2.39	1,145	38.08	2.41
15.00	2.33	1,113	38.07	2.35
15.40	2.27	1,082	38.06	2.29
15.80	2.20	1,050	38.04	2.22
16.20	2.14	1,017	38.03	2.16
16.60	2.07	987	38.02	2.09
17.00	2.01	957	38.00	2.03
17.40	1.95	927	37.99	1.97
17.80	1.89	897	37.97	1.91
18.20	1.82	867	37.96	1.84
18.60	1.75	834	37.94	1.77
19.00	1.68	801	37.93	1.70
19.40	1.60	767	37.91	1.63
19.80	1.53	733	37.89	1.55
20.20	1.46	699	37.87	1.48
20.60	1.39	666	37.86	1.41
21.00	1.32	633	37.84	1.34
21.40	1.25	602	37.82	1.27
21.80	1.18	570	37.80	1.20
22.20	1.11	540	37.78	1.13
22.60	1.05	510	37.76	1.07
23.00	0.99	483	37.75	1.01
23.40	0.91	453	37.73	0.94
23.80	0.82	413	37.70	0.85

Stage-Area-Storage for Pond 2P: Ditches To Study Point #1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
37.20	222	0
37.25	343	14
37.30	464	34
37.35	584	60
37.40	705	93
37.45	826	131
37.50	946	175
37.55	1,067	226
37.60	1,188	282
37.65	1,309	344
37.70	1,430	413
37.75	1,550	487
37.80	1,671	568
37.85	1,792	654
37.90	1,913	747
37.95	2,033	846
38.00	2,154	950
38.05	2,371	1,064
38.10	2,587	1,187
38.15	2,804	1,322
38.20	3,021	1,468
38.25	3,237	1,624
38.30	3,454	1,792
38.35	3,671	1,970
38.40	3,887	2,159
38.45	4,104	2,358
38.50	4,321	2,569
38.55	4,537	2,790
38.60	4,754	3,023
38.65	4,970	3,266
38.70	5,187	3,520
38.75	5,404	3,785
38.80	5,620	4,060
38.85	5,837	4,347
38.90	6,054	4,644
38.95	6,270	4,952
39.00	6,487	5,271
39.05	6,872	5,605
39.10	7,257	5,958
39.15	7,643	6,331
39.20	8,028	6,722
39.25	8,413	7,133
39.30	8,798	7,564
39.35	9,183	8,013
39.40	9,569	8,482
39.45	9,954	8,970
39.50	10,339	9,477
39.55	10,724	10,004
39.60	11,109	10,550
39.65	11,495	11,115
39.70	11,880	11,699
39.75	12,265	12,303
39.80	12,650	12,926
39.85	13,035	13,568
39.90	13,421	14,229
39.95	13,806	14,910
40.00	14,191	15,610
40.05	15,289	16,347
40.10	16,388	17,139
40.15	17,486	17,986
40.20	18,584	18,887
40.25	19,683	19,844
40.30	20,781	20,856
40.35	21,879	21,922
40.40	22,978	23,044
40.45	24,076	24,220
40.50	25,175	25,451
40.55	26,273	26,737
40.60	27,371	28,079
40.65	28,470	29,475
40.70	29,568	30,926
40.75	30,666	32,431
40.80	31,765	33,992
40.85	32,863	35,608
40.90	33,961	37,278
40.95	35,060	39,004
41.00	**36,158**	**40,784**

Summary for Subcatchment 1S: WALGREENS DEVELOPED

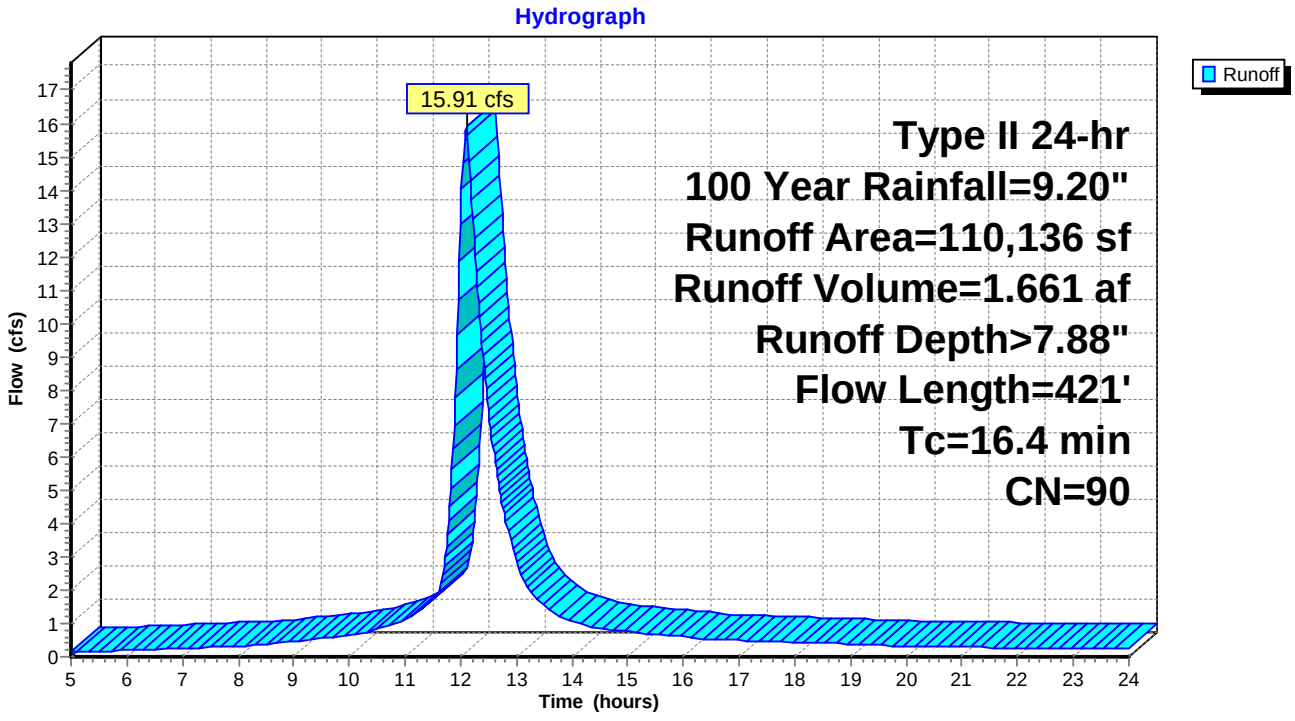
Runoff = 15.91 cfs @ 12.10 hrs, Volume= 1.661 af, Depth> 7.88"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 100 Year Rainfall=9.20"

Area (sf)	CN	Description
86,762	98	Paved roads w/curbs & sewers
23,374	61	>75% Grass cover, Good, HSG B
110,136	90	Weighted Average
23,374		21.22% Pervious Area
86,762		78.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.3	100	0.0086	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
3.1	321	0.0007	1.70	3.01	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
16.4	421	Total			

Subcatchment 1S: WALGREENS DEVELOPED



Hydrograph for Subcatchment 1S: WALGREENS DEVELOPED

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.58	0.09	0.13
5.20	0.61	0.10	0.15
5.40	0.64	0.11	0.16
5.60	0.67	0.13	0.17
5.80	0.70	0.15	0.18
6.00	0.74	0.16	0.20
6.20	0.77	0.18	0.21
6.40	0.80	0.20	0.22
6.60	0.84	0.22	0.24
6.80	0.87	0.24	0.25
7.00	0.91	0.26	0.26
7.20	0.95	0.29	0.28
7.40	0.99	0.31	0.29
7.60	1.02	0.34	0.30
7.80	1.06	0.36	0.32
8.00	1.10	0.39	0.33
8.20	1.15	0.42	0.34
8.40	1.19	0.45	0.37
8.60	1.24	0.49	0.40
8.80	1.30	0.53	0.44
9.00	1.35	0.57	0.48
9.20	1.41	0.61	0.52
9.40	1.47	0.66	0.55
9.60	1.53	0.71	0.56
9.80	1.59	0.76	0.59
10.00	1.67	0.82	0.64
10.20	1.74	0.88	0.70
10.40	1.83	0.95	0.77
10.60	1.93	1.03	0.87
10.80	2.04	1.13	0.98
11.00	2.16	1.23	1.12
11.20	2.31	1.36	1.30
11.40	2.50	1.53	1.57
11.60	2.82	1.82	1.96
11.80	3.96	2.88	4.54
12.00	6.10	4.94	**12.98**
12.20	6.43	5.26	**13.72**
12.40	6.67	5.50	9.03
12.60	6.84	5.67	6.08
12.80	6.98	5.80	4.14
13.00	7.10	5.92	2.88
13.20	7.21	6.03	2.09
13.40	7.31	6.12	1.68
13.60	7.39	6.21	1.40
13.80	7.47	6.29	1.19
14.00	7.54	6.36	1.07
14.20	7.61	6.42	0.97
14.40	7.68	6.49	0.89
14.60	7.74	6.55	0.84
14.80	7.80	6.60	0.80
15.00	7.85	6.66	0.76
15.20	7.91	6.71	0.73
15.40	7.96	6.76	0.70
15.60	8.01	6.81	0.66
15.80	8.05	6.86	0.63
16.00	8.10	6.90	0.60
16.20	8.14	6.94	0.57
16.40	8.18	6.98	0.54
16.60	8.22	7.02	0.53
16.80	8.26	7.06	0.51
17.00	8.30	7.10	0.50
17.20	8.33	7.13	0.49
17.40	8.37	7.17	0.48
17.60	8.41	7.20	0.46
17.80	8.44	7.24	0.45
18.00	8.47	7.27	0.44
18.20	8.51	7.30	0.43
18.40	8.54	7.34	0.42
18.60	8.57	7.37	0.41
18.80	8.60	7.40	0.39
19.00	8.63	7.42	0.38
19.20	8.66	7.45	0.37
19.40	8.68	7.48	0.36
19.60	8.71	7.50	0.35
19.80	8.73	7.53	0.34
20.00	8.76	7.55	0.33
20.20	8.78	7.58	0.31
20.40	8.81	7.60	0.31
20.60	8.83	7.62	0.30
20.80	8.85	7.65	0.30
21.00	8.88	7.67	0.29
21.20	8.90	7.69	0.29
21.40	8.92	7.71	0.29
21.60	8.94	7.74	0.29
21.80	8.97	7.76	0.29
22.00	8.99	7.78	0.28
22.20	9.01	7.80	0.28
22.40	9.03	7.82	0.28
22.60	9.05	7.84	0.28
22.80	9.08	7.87	0.27
23.00	9.10	7.89	0.27
23.20	9.12	7.91	0.27
23.40	9.14	7.93	0.27
23.60	9.16	7.95	0.26
23.80	9.18	7.97	0.26
24.00	**9.20**	**7.99**	0.26

Summary for Subcatchment 2S: Direct to Pipe 3

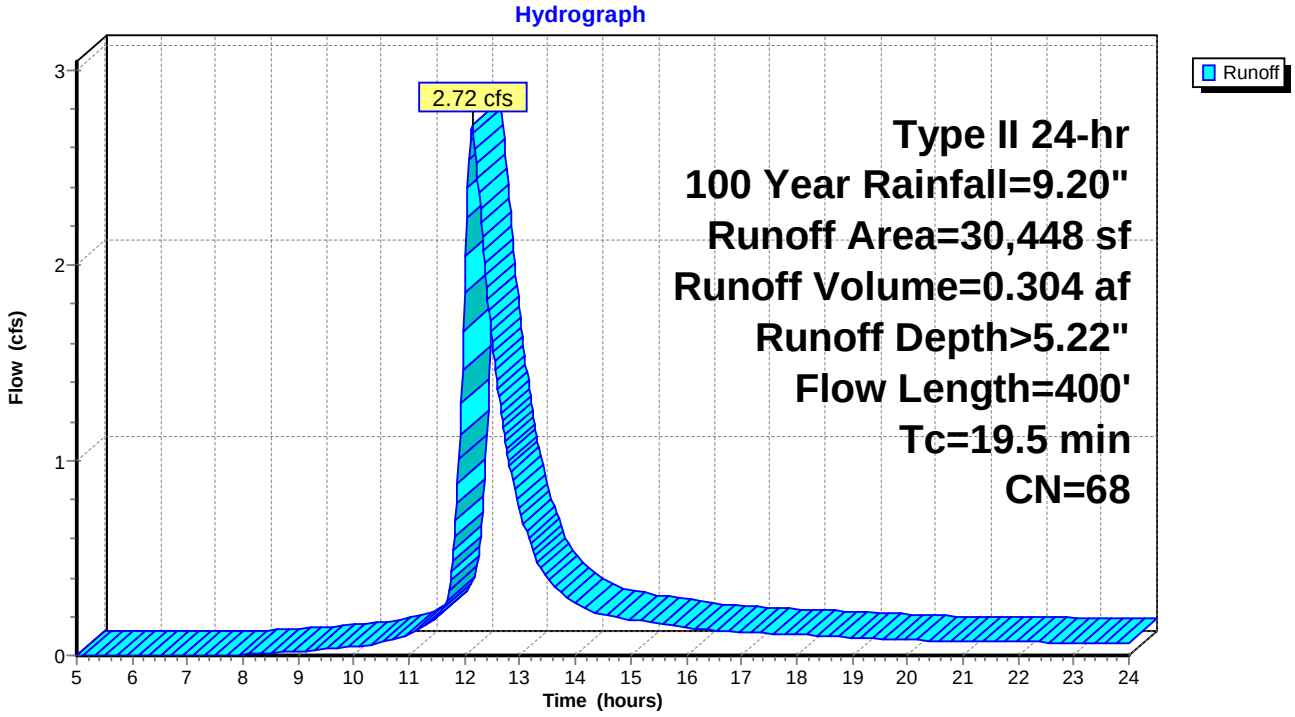
Runoff = 2.72 cfs @ 12.14 hrs, Volume= 0.304 af, Depth> 5.22"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 100 Year Rainfall=9.20"

Area (sf)	CN	Description
5,873	98	Paved roads w/curbs & sewers
24,575	61	>75% Grass cover, Good, HSG B
30,448	68	Weighted Average
24,575		80.71% Pervious Area
5,873		19.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.5	100	0.0050	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
3.0	300	0.0126	1.68		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
19.5	400	Total			

Subcatchment 2S: Direct to Pipe 3



Hydrograph for Subcatchment 2S: Direct to Pipe 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.58	0.00	0.00
5.20	0.61	0.00	0.00
5.40	0.64	0.00	0.00
5.60	0.67	0.00	0.00
5.80	0.70	0.00	0.00
6.00	0.74	0.00	0.00
6.20	0.77	0.00	0.00
6.40	0.80	0.00	0.00
6.60	0.84	0.00	0.00
6.80	0.87	0.00	0.00
7.00	0.91	0.00	0.00
7.20	0.95	0.00	0.00
7.40	0.99	0.00	0.00
7.60	1.02	0.00	0.00
7.80	1.06	0.00	0.00
8.00	1.10	0.01	0.00
8.20	1.15	0.01	0.01
8.40	1.19	0.01	0.01
8.60	1.24	0.02	0.01
8.80	1.30	0.02	0.02
9.00	1.35	0.03	0.02
9.20	1.41	0.04	0.02
9.40	1.47	0.05	0.03
9.60	1.53	0.07	0.03
9.80	1.59	0.08	0.04
10.00	1.67	0.10	0.04
10.20	1.74	0.12	0.05
10.40	1.83	0.14	0.06
10.60	1.93	0.17	0.07
10.80	2.04	0.21	0.09
11.00	2.16	0.25	0.11
11.20	2.31	0.31	0.14
11.40	2.50	0.39	0.17
11.60	2.82	0.54	0.23
11.80	3.96	1.18	0.54
12.00	6.10	2.70	**1.86**
12.20	6.43	2.95	**2.60**
12.40	6.67	3.15	1.88
12.60	6.84	3.28	1.37
12.80	6.98	3.39	1.00
13.00	7.10	3.49	0.75
13.20	7.21	3.58	0.56
13.40	7.31	3.66	0.43
13.60	7.39	3.73	0.36
13.80	7.47	3.80	0.31
14.00	7.54	3.86	0.27
14.20	7.61	3.91	0.24
14.40	7.68	3.96	0.22
14.60	7.74	4.02	0.20
14.80	7.80	4.06	0.19
15.00	7.85	4.11	0.18
15.20	7.91	4.16	0.17
15.40	7.96	4.20	0.17
15.60	8.01	4.24	0.16
15.80	8.05	4.28	0.15
16.00	8.10	4.32	0.14
16.20	8.14	4.35	0.14
16.40	8.18	4.39	0.13
16.60	8.22	4.42	0.13
16.80	8.26	4.45	0.12
17.00	8.30	4.49	0.12
17.20	8.33	4.52	0.12
17.40	8.37	4.55	0.11
17.60	8.41	4.58	0.11
17.80	8.44	4.61	0.11
18.00	8.47	4.64	0.11
18.20	8.51	4.66	0.10
18.40	8.54	4.69	0.10
18.60	8.57	4.72	0.10
18.80	8.60	4.74	0.10
19.00	8.63	4.77	0.09
19.20	8.66	4.79	0.09
19.40	8.68	4.81	0.09
19.60	8.71	4.84	0.08
19.80	8.73	4.86	0.08
20.00	8.76	4.88	0.08
20.20	8.78	4.90	0.08
20.40	8.81	4.92	0.07
20.60	8.83	4.94	0.07
20.80	8.85	4.96	0.07
21.00	8.88	4.98	0.07
21.20	8.90	5.00	0.07
21.40	8.92	5.02	0.07
21.60	8.94	5.04	0.07
21.80	8.97	5.06	0.07
22.00	8.99	5.08	0.07
22.20	9.01	5.10	0.07
22.40	9.03	5.12	0.07
22.60	9.05	5.13	0.07
22.80	9.08	5.15	0.07
23.00	9.10	5.17	0.07
23.20	9.12	5.19	0.07
23.40	9.14	5.21	0.06
23.60	9.16	5.23	0.06
23.80	9.18	5.24	0.06
24.00	**9.20**	**5.26**	0.06

Summary for Subcatchment 4S: Direct to Pipe 1

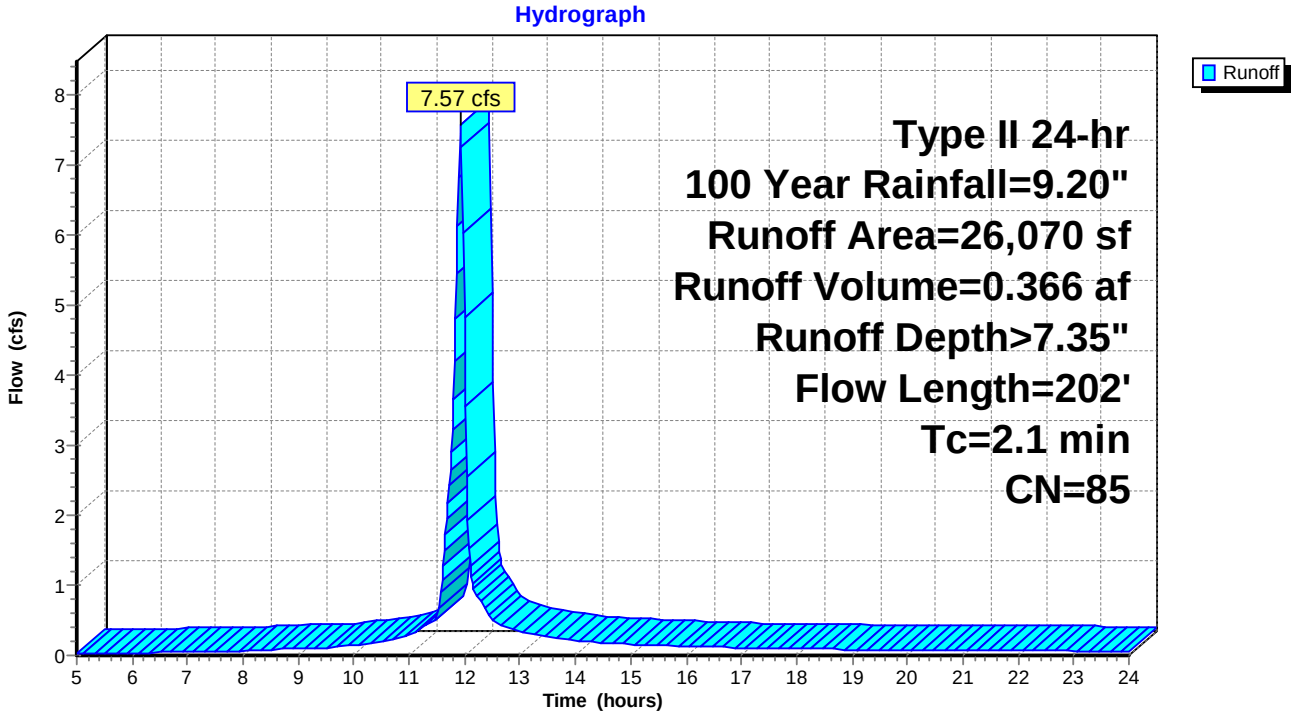
Runoff = 7.57 cfs @ 11.93 hrs, Volume= 0.366 af, Depth> 7.35"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 100 Year Rainfall=9.20"

Area (sf)	CN	Description
16,602	98	Paved roads w/curbs & sewers
9,468	61	>75% Grass cover, Good, HSG B
26,070	85	Weighted Average
9,468		36.32% Pervious Area
16,602		63.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	70	0.0600	2.05		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.40"
1.5	132	0.0052	1.46		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.1	202	Total			

Subcatchment 4S: Direct to Pipe 1



Hydrograph for Subcatchment 4S: Direct to Pipe 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.58	0.03	0.02
5.20	0.61	0.03	0.02
5.40	0.64	0.04	0.02
5.60	0.67	0.05	0.03
5.80	0.70	0.06	0.03
6.00	0.74	0.07	0.03
6.20	0.77	0.08	0.03
6.40	0.80	0.09	0.04
6.60	0.84	0.10	0.04
6.80	0.87	0.12	0.04
7.00	0.91	0.13	0.05
7.20	0.95	0.15	0.05
7.40	0.99	0.17	0.05
7.60	1.02	0.19	0.06
7.80	1.06	0.20	0.06
8.00	1.10	0.22	0.06
8.20	1.15	0.25	0.07
8.40	1.19	0.27	0.08
8.60	1.24	0.30	0.08
8.80	1.30	0.33	0.09
9.00	1.35	0.36	0.10
9.20	1.41	0.40	0.11
9.40	1.47	0.43	0.11
9.60	1.53	0.47	0.12
9.80	1.59	0.51	0.13
10.00	1.67	0.56	0.14
10.20	1.74	0.61	0.16
10.40	1.83	0.67	0.19
10.60	1.93	0.74	0.21
10.80	2.04	0.82	0.25
11.00	2.16	0.92	0.29
11.20	2.31	1.03	0.37
11.40	2.50	1.18	0.46
11.60	2.82	1.44	1.08
11.80	3.96	2.43	**3.66**
12.00	6.10	4.40	**4.84**
12.20	6.43	4.71	0.89
12.40	6.67	4.94	0.64
12.60	6.84	5.10	0.45
12.80	6.98	5.23	0.39
13.00	7.10	5.35	0.34
13.20	7.21	5.45	0.30
13.40	7.31	5.55	0.27
13.60	7.39	5.63	0.25
13.80	7.47	5.71	0.22
14.00	7.54	5.77	0.20
14.20	7.61	5.84	0.19
14.40	7.68	5.90	0.18
14.60	7.74	5.96	0.18
14.80	7.80	6.02	0.17
15.00	7.85	6.07	0.16
15.20	7.91	6.12	0.16
15.40	7.96	6.17	0.15
15.60	8.01	6.22	0.14
15.80	8.05	6.26	0.13
16.00	8.10	6.31	0.13
16.20	8.14	6.35	0.12
16.40	8.18	6.39	0.12
16.60	8.22	6.42	0.12
16.80	8.26	6.46	0.11
17.00	8.30	6.50	0.11
17.20	8.33	6.54	0.11
17.40	8.37	6.57	0.11
17.60	8.41	6.60	0.10
17.80	8.44	6.64	0.10
18.00	8.47	6.67	0.10
18.20	8.51	6.70	0.09
18.40	8.54	6.73	0.09
18.60	8.57	6.76	0.09
18.80	8.60	6.79	0.09
19.00	8.63	6.82	0.08
19.20	8.66	6.85	0.08
19.40	8.68	6.87	0.08
19.60	8.71	6.90	0.08
19.80	8.73	6.92	0.07
20.00	8.76	6.95	0.07
20.20	8.78	6.97	0.07
20.40	8.81	6.99	0.07
20.60	8.83	7.02	0.07
20.80	8.85	7.04	0.07
21.00	8.88	7.06	0.07
21.20	8.90	7.08	0.07
21.40	8.92	7.11	0.07
21.60	8.94	7.13	0.07
21.80	8.97	7.15	0.07
22.00	8.99	7.17	0.06
22.20	9.01	7.19	0.06
22.40	9.03	7.21	0.06
22.60	9.05	7.23	0.06
22.80	9.08	7.25	0.06
23.00	9.10	7.28	0.06
23.20	9.12	7.30	0.06
23.40	9.14	7.32	0.06
23.60	9.16	7.34	0.06
23.80	9.18	7.36	0.06
24.00	**9.20**	**7.38**	0.06

Summary for Subcatchment 5S: Wet Pond DA

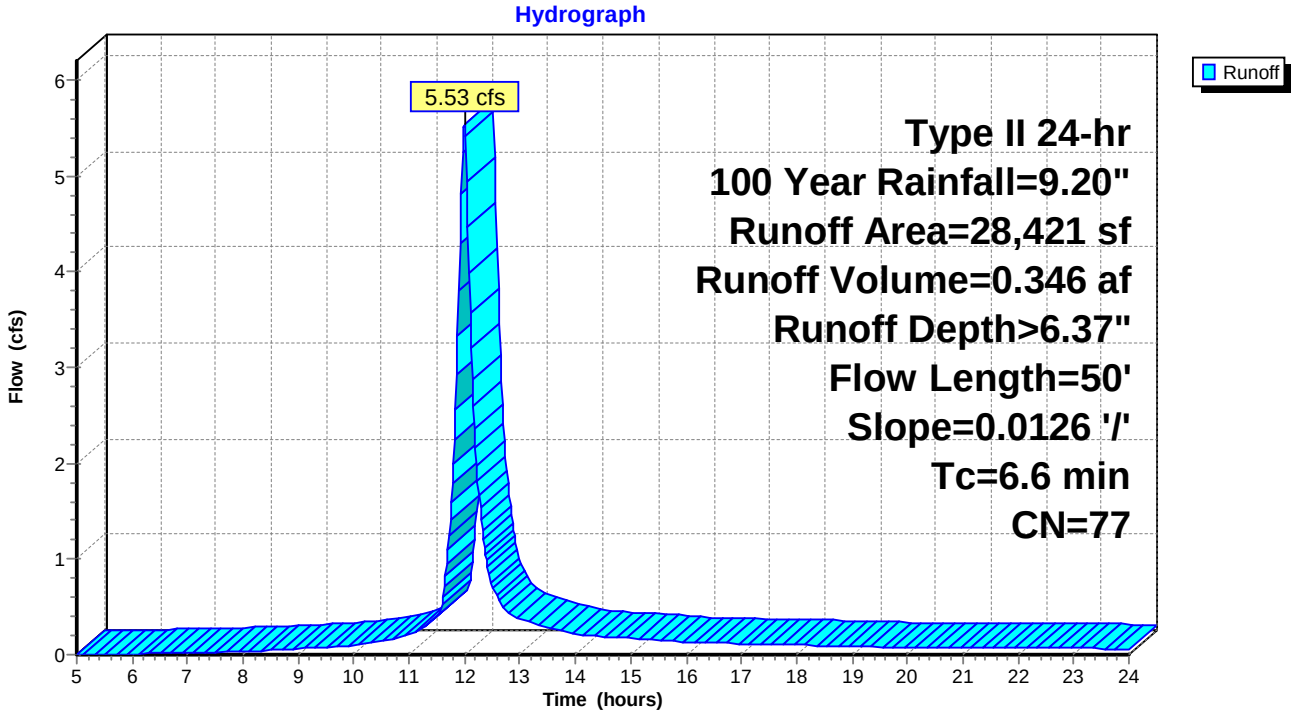
Runoff = 5.53 cfs @ 11.99 hrs, Volume= 0.346 af, Depth> 6.37"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 100 Year Rainfall=9.20"

	Area (sf)	CN	Description
*	12,422	98	Water Surface
	15,999	61	>75% Grass cover, Good, HSG B
	28,421	77	Weighted Average
	15,999		56.29% Pervious Area
	12,422		43.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	50	0.0126	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"

Subcatchment 5S: Wet Pond DA



Hydrograph for Subcatchment 5S: Wet Pond DA

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.58	0.00	0.00
5.20	0.61	0.00	0.00
5.40	0.64	0.00	0.00
5.60	0.67	0.00	0.00
5.80	0.70	0.00	0.01
6.00	0.74	0.01	0.01
6.20	0.77	0.01	0.01
6.40	0.80	0.01	0.01
6.60	0.84	0.02	0.01
6.80	0.87	0.02	0.02
7.00	0.91	0.03	0.02
7.20	0.95	0.04	0.02
7.40	0.99	0.04	0.03
7.60	1.02	0.05	0.03
7.80	1.06	0.06	0.03
8.00	1.10	0.07	0.03
8.20	1.15	0.09	0.04
8.40	1.19	0.10	0.04
8.60	1.24	0.11	0.05
8.80	1.30	0.13	0.06
9.00	1.35	0.15	0.06
9.20	1.41	0.17	0.07
9.40	1.47	0.20	0.07
9.60	1.53	0.22	0.08
9.80	1.59	0.25	0.09
10.00	1.67	0.28	0.10
10.20	1.74	0.32	0.11
10.40	1.83	0.36	0.13
10.60	1.93	0.41	0.15
10.80	2.04	0.47	0.18
11.00	2.16	0.54	0.22
11.20	2.31	0.63	0.27
11.40	2.50	0.74	0.34
11.60	2.82	0.95	0.53
11.80	3.96	1.78	2.00
12.00	6.10	3.57	**5.52**
12.20	6.43	3.85	2.15
12.40	6.67	4.07	0.98
12.60	6.84	4.22	0.58
12.80	6.98	4.35	0.45
13.00	7.10	4.46	0.38
13.20	7.21	4.55	0.33
13.40	7.31	4.64	0.30
13.60	7.39	4.72	0.27
13.80	7.47	4.79	0.24
14.00	7.54	4.86	0.22
14.20	7.61	4.92	0.20
14.40	7.68	4.98	0.20
14.60	7.74	5.03	0.19
14.80	7.80	5.09	0.18
15.00	7.85	5.14	0.17
15.20	7.91	5.19	0.16
15.40	7.96	5.24	0.16
15.60	8.01	5.28	0.15
15.80	8.05	5.32	0.14
16.00	8.10	5.36	0.13
16.20	8.14	5.40	0.13
16.40	8.18	5.44	0.12
16.60	8.22	5.48	0.12
16.80	8.26	5.51	0.12
17.00	8.30	5.55	0.12
17.20	8.33	5.58	0.11
17.40	8.37	5.61	0.11
17.60	8.41	5.65	0.11
17.80	8.44	5.68	0.11
18.00	8.47	5.71	0.10
18.20	8.51	5.74	0.10
18.40	8.54	5.77	0.10
18.60	8.57	5.80	0.09
18.80	8.60	5.83	0.09
19.00	8.63	5.85	0.09
19.20	8.66	5.88	0.09
19.40	8.68	5.90	0.08
19.60	8.71	5.93	0.08
19.80	8.73	5.95	0.08
20.00	8.76	5.97	0.08
20.20	8.78	6.00	0.07
20.40	8.81	6.02	0.07
20.60	8.83	6.04	0.07
20.80	8.85	6.06	0.07
21.00	8.88	6.08	0.07
21.20	8.90	6.10	0.07
21.40	8.92	6.13	0.07
21.60	8.94	6.15	0.07
21.80	8.97	6.17	0.07
22.00	8.99	6.19	0.07
22.20	9.01	6.21	0.07
22.40	9.03	6.23	0.07
22.60	9.05	6.25	0.07
22.80	9.08	6.27	0.07
23.00	9.10	6.29	0.07
23.20	9.12	6.31	0.06
23.40	9.14	6.33	0.06
23.60	9.16	6.35	0.06
23.80	9.18	6.37	0.06
24.00	**9.20**	**6.39**	0.06

Summary for Subcatchment 6S: Entrance SD

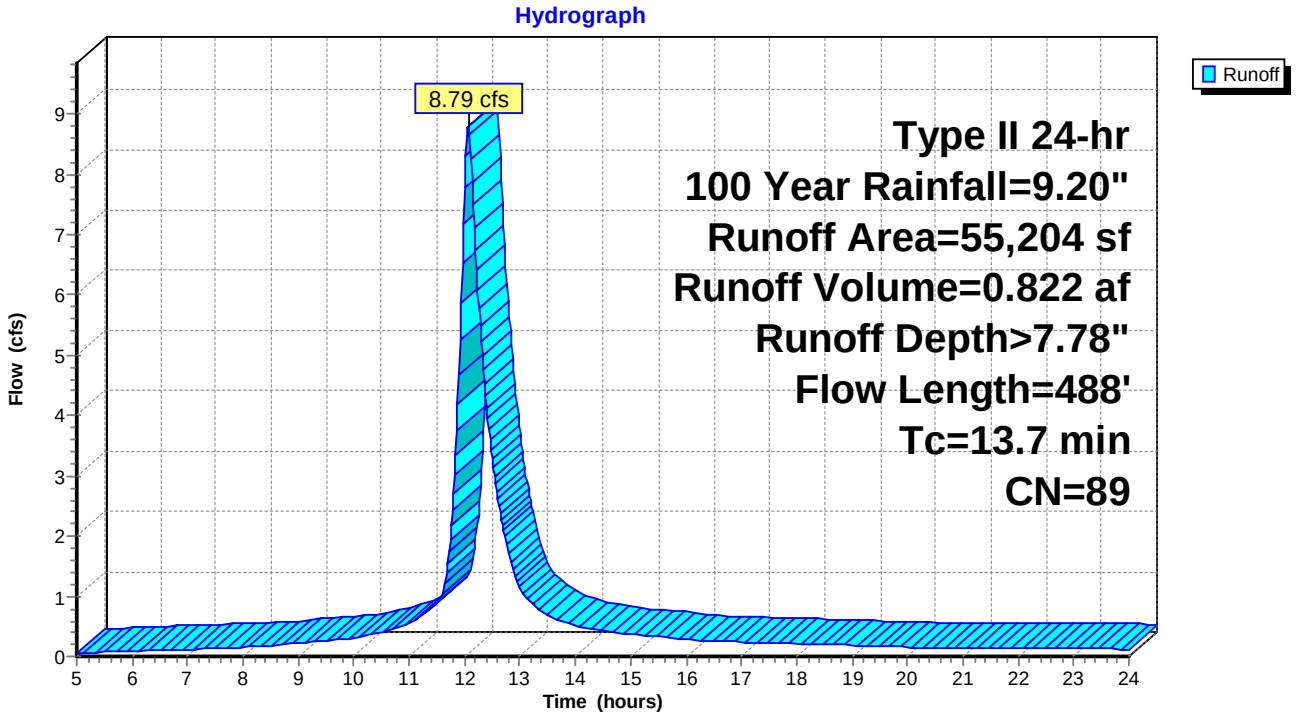
Runoff = 8.79 cfs @ 12.07 hrs, Volume= 0.822 af, Depth> 7.78"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 100 Year Rainfall=9.20"

Area (sf)	CN	Description
42,497	98	Paved roads w/curbs & sewers
12,707	61	>75% Grass cover, Good, HSG B
55,204	89	Weighted Average
12,707		23.02% Pervious Area
42,497		76.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	50	0.0050	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
3.2	263	0.0081	1.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.0	175	0.0025	2.85	3.50	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012 Concrete pipe, finished
13.7	488	Total			

Subcatchment 6S: Entrance SD



Hydrograph for Subcatchment 6S: Entrance SD

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.58	0.07	0.06
5.20	0.61	0.08	0.07
5.40	0.64	0.09	0.07
5.60	0.67	0.11	0.08
5.80	0.70	0.12	0.09
6.00	0.74	0.14	0.09
6.20	0.77	0.16	0.10
6.40	0.80	0.17	0.10
6.60	0.84	0.19	0.11
6.80	0.87	0.21	0.12
7.00	0.91	0.23	0.12
7.20	0.95	0.25	0.13
7.40	0.99	0.28	0.14
7.60	1.02	0.30	0.14
7.80	1.06	0.32	0.15
8.00	1.10	0.35	0.16
8.20	1.15	0.38	0.16
8.40	1.19	0.41	0.18
8.60	1.24	0.44	0.19
8.80	1.30	0.48	0.21
9.00	1.35	0.52	0.23
9.20	1.41	0.56	0.25
9.40	1.47	0.61	0.27
9.60	1.53	0.65	0.28
9.80	1.59	0.70	0.29
10.00	1.67	0.76	0.31
10.20	1.74	0.82	0.35
10.40	1.83	0.89	0.39
10.60	1.93	0.97	0.44
10.80	2.04	1.06	0.50
11.00	2.16	1.16	0.57
11.20	2.31	1.29	0.66
11.40	2.50	1.45	0.81
11.60	2.82	1.74	1.03
11.80	3.96	2.79	2.71
12.00	6.10	4.83	**7.79**
12.20	6.43	5.15	**6.75**
12.40	6.67	5.39	4.13
12.60	6.84	5.55	2.62
12.80	6.98	5.69	1.67
13.00	7.10	5.81	1.15
13.20	7.21	5.91	0.89
13.40	7.31	6.01	0.73
13.60	7.39	6.09	0.63
13.80	7.47	6.17	0.57
14.00	7.54	6.24	0.51
14.20	7.61	6.31	0.47
14.40	7.68	6.37	0.43
14.60	7.74	6.43	0.41
14.80	7.80	6.49	0.39
15.00	7.85	6.54	0.37
15.20	7.91	6.59	0.36
15.40	7.96	6.65	0.34
15.60	8.01	6.69	0.33
15.80	8.05	6.74	0.31
16.00	8.10	6.78	0.29
16.20	8.14	6.82	0.28
16.40	8.18	6.86	0.27
16.60	8.22	6.90	0.26
16.80	8.26	6.94	0.25
17.00	8.30	6.98	0.25
17.20	8.33	7.01	0.24
17.40	8.37	7.05	0.24
17.60	8.41	7.08	0.23
17.80	8.44	7.12	0.22
18.00	8.47	7.15	0.22
18.20	8.51	7.18	0.21
18.40	8.54	7.21	0.21
18.60	8.57	7.25	0.20
18.80	8.60	7.27	0.20
19.00	8.63	7.30	0.19
19.20	8.66	7.33	0.18
19.40	8.68	7.36	0.18
19.60	8.71	7.38	0.17
19.80	8.73	7.41	0.17
20.00	8.76	7.43	0.16
20.20	8.78	7.46	0.16
20.40	8.81	7.48	0.15
20.60	8.83	7.50	0.15
20.80	8.85	7.52	0.15
21.00	8.88	7.55	0.15
21.20	8.90	7.57	0.15
21.40	8.92	7.59	0.14
21.60	8.94	7.61	0.14
21.80	8.97	7.64	0.14
22.00	8.99	7.66	0.14
22.20	9.01	7.68	0.14
22.40	9.03	7.70	0.14
22.60	9.05	7.72	0.14
22.80	9.08	7.74	0.14
23.00	9.10	7.76	0.14
23.20	9.12	7.79	0.13
23.40	9.14	7.81	0.13
23.60	9.16	7.83	0.13
23.80	9.18	7.85	0.13
24.00	**9.20**	**7.87**	0.13

Summary for Subcatchment 7S: Dry Pond DA

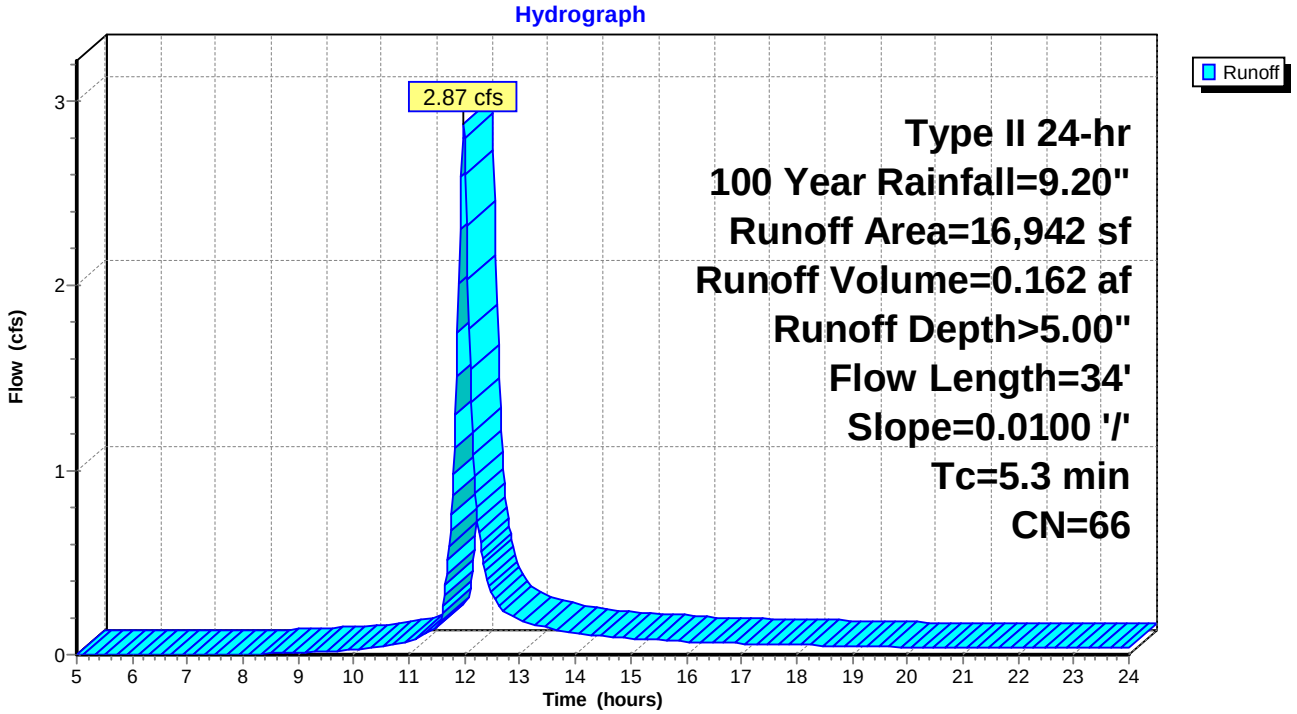
Runoff = 2.87 cfs @ 11.98 hrs, Volume= 0.162 af, Depth> 5.00"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 100 Year Rainfall=9.20"

	Area (sf)	CN	Description
	14,592	61	>75% Grass cover, Good, HSG B
*	2,350	98	Impervious Areas
	16,942	66	Weighted Average
	14,592		86.13% Pervious Area
	2,350		13.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	34	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"

Subcatchment 7S: Dry Pond DA



Hydrograph for Subcatchment 7S: Dry Pond DA

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.58	0.00	0.00
5.20	0.61	0.00	0.00
5.40	0.64	0.00	0.00
5.60	0.67	0.00	0.00
5.80	0.70	0.00	0.00
6.00	0.74	0.00	0.00
6.20	0.77	0.00	0.00
6.40	0.80	0.00	0.00
6.60	0.84	0.00	0.00
6.80	0.87	0.00	0.00
7.00	0.91	0.00	0.00
7.20	0.95	0.00	0.00
7.40	0.99	0.00	0.00
7.60	1.02	0.00	0.00
7.80	1.06	0.00	0.00
8.00	1.10	0.00	0.00
8.20	1.15	0.00	0.00
8.40	1.19	0.00	0.00
8.60	1.24	0.01	0.01
8.80	1.30	0.01	0.01
9.00	1.35	0.02	0.01
9.20	1.41	0.03	0.01
9.40	1.47	0.03	0.02
9.60	1.53	0.04	0.02
9.80	1.59	0.06	0.02
10.00	1.67	0.07	0.03
10.20	1.74	0.09	0.03
10.40	1.83	0.11	0.04
10.60	1.93	0.13	0.05
10.80	2.04	0.16	0.06
11.00	2.16	0.20	0.07
11.20	2.31	0.26	0.10
11.40	2.50	0.33	0.13
11.60	2.82	0.46	0.23
11.80	3.96	1.06	**0.98**
12.00	6.10	2.51	**2.80**
12.20	6.43	2.76	0.88
12.40	6.67	2.95	0.42
12.60	6.84	3.08	0.27
12.80	6.98	3.19	0.22
13.00	7.10	3.29	0.19
13.20	7.21	3.37	0.17
13.40	7.31	3.45	0.15
13.60	7.39	3.52	0.14
13.80	7.47	3.58	0.13
14.00	7.54	3.64	0.12
14.20	7.61	3.69	0.11
14.40	7.68	3.74	0.10
14.60	7.74	3.79	0.10
14.80	7.80	3.84	0.09
15.00	7.85	3.89	0.09
15.20	7.91	3.93	0.09
15.40	7.96	3.97	0.08
15.60	8.01	4.01	0.08
15.80	8.05	4.05	0.07
16.00	8.10	4.09	0.07
16.20	8.14	4.12	0.07
16.40	8.18	4.15	0.07
16.60	8.22	4.19	0.07
16.80	8.26	4.22	0.06
17.00	8.30	4.25	0.06
17.20	8.33	4.28	0.06
17.40	8.37	4.31	0.06
17.60	8.41	4.34	0.06
17.80	8.44	4.37	0.06
18.00	8.47	4.40	0.06
18.20	8.51	4.43	0.05
18.40	8.54	4.45	0.05
18.60	8.57	4.48	0.05
18.80	8.60	4.50	0.05
19.00	8.63	4.53	0.05
19.20	8.66	4.55	0.05
19.40	8.68	4.57	0.04
19.60	8.71	4.60	0.04
19.80	8.73	4.62	0.04
20.00	8.76	4.64	0.04
20.20	8.78	4.66	0.04
20.40	8.81	4.68	0.04
20.60	8.83	4.70	0.04
20.80	8.85	4.72	0.04
21.00	8.88	4.74	0.04
21.20	8.90	4.76	0.04
21.40	8.92	4.77	0.04
21.60	8.94	4.79	0.04
21.80	8.97	4.81	0.04
22.00	8.99	4.83	0.04
22.20	9.01	4.85	0.04
22.40	9.03	4.87	0.04
22.60	9.05	4.89	0.04
22.80	9.08	4.90	0.04
23.00	9.10	4.92	0.04
23.20	9.12	4.94	0.04
23.40	9.14	4.96	0.03
23.60	9.16	4.98	0.03
23.80	9.18	4.99	0.03
24.00	**9.20**	**5.01**	0.03

Summary for Subcatchment 8S: Future Development

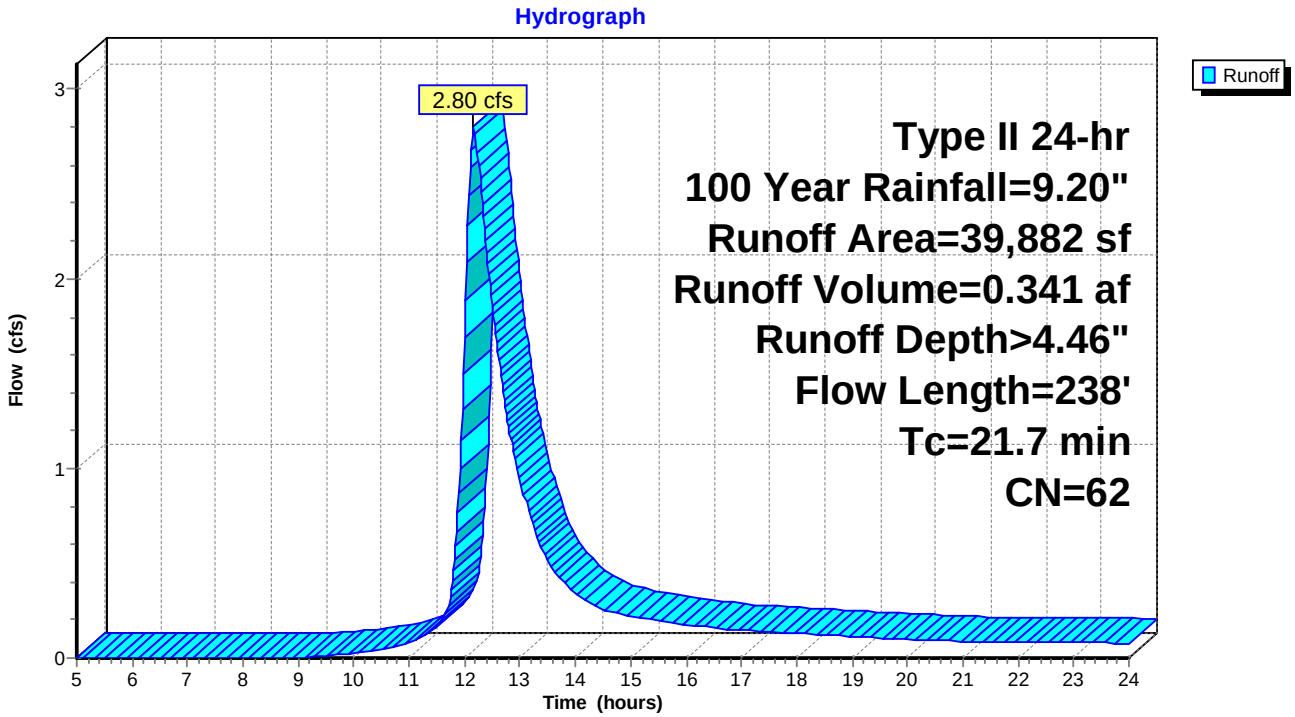
Runoff = 2.80 cfs @ 12.17 hrs, Volume= 0.341 af, Depth> 4.46"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 100 Year Rainfall=9.20"

Area (sf)	CN	Description
35,607	61	>75% Grass cover, Good, HSG B
4,275	74	>75% Grass cover, Good, HSG C
39,882	62	Weighted Average
39,882		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	100	0.0034	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
2.4	138	0.0036	0.97		**Shallow Concentrated Flow,** Unpaved Kv= 16.1 fps
21.7	238	Total			

Subcatchment 8S: Future Development



Hydrograph for Subcatchment 8S: Future Development

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.58	0.00	0.00
5.20	0.61	0.00	0.00
5.40	0.64	0.00	0.00
5.60	0.67	0.00	0.00
5.80	0.70	0.00	0.00
6.00	0.74	0.00	0.00
6.20	0.77	0.00	0.00
6.40	0.80	0.00	0.00
6.60	0.84	0.00	0.00
6.80	0.87	0.00	0.00
7.00	0.91	0.00	0.00
7.20	0.95	0.00	0.00
7.40	0.99	0.00	0.00
7.60	1.02	0.00	0.00
7.80	1.06	0.00	0.00
8.00	1.10	0.00	0.00
8.20	1.15	0.00	0.00
8.40	1.19	0.00	0.00
8.60	1.24	0.00	0.00
8.80	1.30	0.00	0.00
9.00	1.35	0.00	0.00
9.20	1.41	0.01	0.00
9.40	1.47	0.01	0.01
9.60	1.53	0.01	0.01
9.80	1.59	0.02	0.02
10.00	1.67	0.03	0.02
10.20	1.74	0.04	0.03
10.40	1.83	0.05	0.04
10.60	1.93	0.07	0.05
10.80	2.04	0.09	0.06
11.00	2.16	0.12	0.08
11.20	2.31	0.16	0.11
11.40	2.50	0.22	0.14
11.60	2.82	0.33	0.20
11.80	3.96	0.85	0.46
12.00	6.10	2.16	**1.69**
12.20	6.43	2.39	**2.77**
12.40	6.67	2.56	2.14
12.60	6.84	2.68	1.62
12.80	6.98	2.79	1.22
13.00	7.10	2.88	0.94
13.20	7.21	2.96	0.73
13.40	7.31	3.03	0.58
13.60	7.39	3.09	0.46
13.80	7.47	3.15	0.39
14.00	7.54	3.21	0.34
14.20	7.61	3.26	0.30
14.40	7.68	3.31	0.27
14.60	7.74	3.35	0.25
14.80	7.80	3.40	0.23
15.00	7.85	3.44	0.22
15.20	7.91	3.48	0.21
15.40	7.96	3.52	0.20
15.60	8.01	3.56	0.19
15.80	8.05	3.60	0.19
16.00	8.10	3.63	0.18
16.20	8.14	3.66	0.17
16.40	8.18	3.70	0.16
16.60	8.22	3.73	0.15
16.80	8.26	3.76	0.15
17.00	8.30	3.79	0.15
17.20	8.33	3.82	0.14
17.40	8.37	3.85	0.14
17.60	8.41	3.87	0.14
17.80	8.44	3.90	0.13
18.00	8.47	3.93	0.13
18.20	8.51	3.95	0.13
18.40	8.54	3.98	0.12
18.60	8.57	4.00	0.12
18.80	8.60	4.03	0.12
19.00	8.63	4.05	0.11
19.20	8.66	4.07	0.11
19.40	8.68	4.09	0.11
19.60	8.71	4.11	0.10
19.80	8.73	4.13	0.10
20.00	8.76	4.15	0.10
20.20	8.78	4.17	0.09
20.40	8.81	4.19	0.09
20.60	8.83	4.21	0.09
20.80	8.85	4.23	0.09
21.00	8.88	4.25	0.09
21.20	8.90	4.27	0.09
21.40	8.92	4.28	0.09
21.60	8.94	4.30	0.09
21.80	8.97	4.32	0.08
22.00	8.99	4.34	0.08
22.20	9.01	4.36	0.08
22.40	9.03	4.37	0.08
22.60	9.05	4.39	0.08
22.80	9.08	4.41	0.08
23.00	9.10	4.42	0.08
23.20	9.12	4.44	0.08
23.40	9.14	4.46	0.08
23.60	9.16	4.48	0.08
23.80	9.18	4.49	0.08
24.00	**9.20**	**4.51**	0.08

Summary for Subcatchment 9S: AUTOZONE DEVELOPED

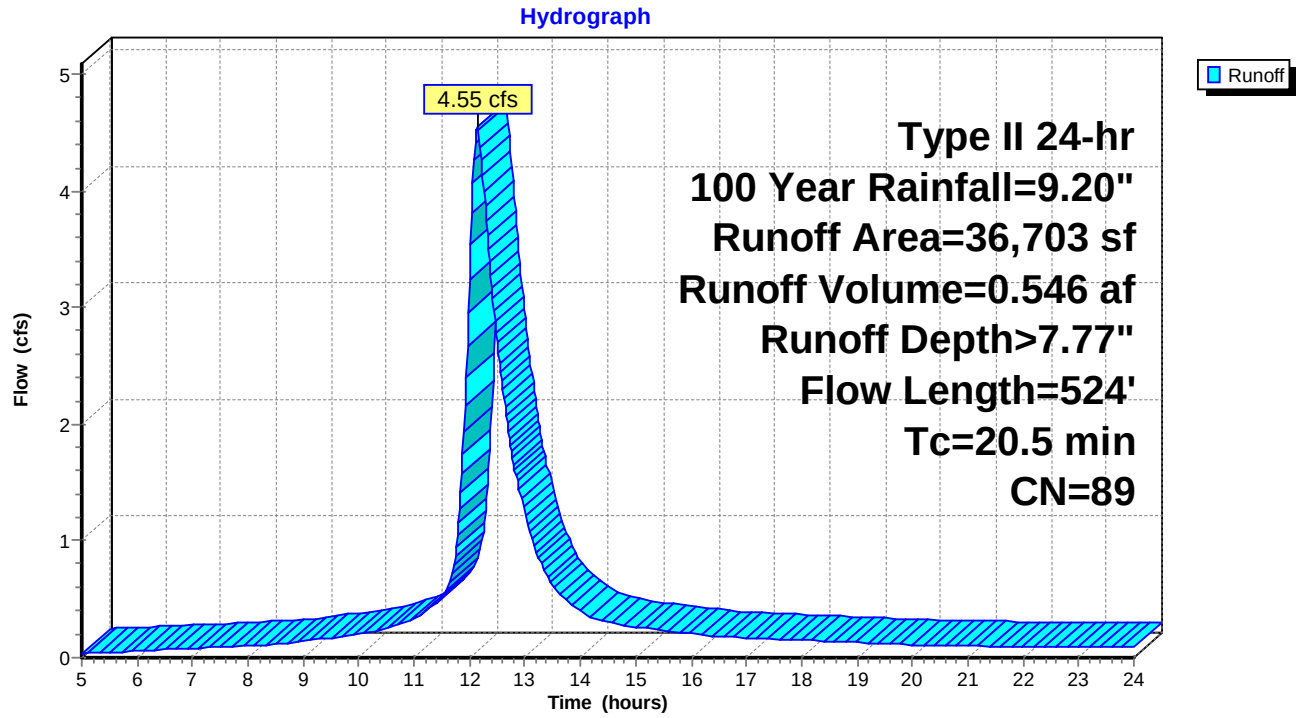
Runoff = 4.55 cfs @ 12.15 hrs, Volume= 0.546 af, Depth> 7.77"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Type II 24-hr 100 Year Rainfall=9.20"

Area (sf)	CN	Description
7,158	74	>75% Grass cover, Good, HSG C
4,771	61	>75% Grass cover, Good, HSG B
24,774	98	Paved parking, HSG B
36,703	89	Weighted Average
11,929		32.50% Pervious Area
24,774		67.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.8	80	0.0050	0.10		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.40"
5.4	312	0.0068	0.96	2.89	**Channel Flow,** Area= 3.0 sf Perim= 6.0' r= 0.50' n= 0.080 Earth, long dense weeds
1.3	132	0.0007	1.70	3.01	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012 Concrete pipe, finished
20.5	524	Total			

Subcatchment 9S: AUTOZONE DEVELOPED



Hydrograph for Subcatchment 9S: AUTOZONE DEVELOPED

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.58	0.07	0.04
5.20	0.61	0.08	0.04
5.40	0.64	0.09	0.04
5.60	0.67	0.11	0.05
5.80	0.70	0.12	0.05
6.00	0.74	0.14	0.06
6.20	0.77	0.16	0.06
6.40	0.80	0.17	0.07
6.60	0.84	0.19	0.07
6.80	0.87	0.21	0.07
7.00	0.91	0.23	0.08
7.20	0.95	0.25	0.08
7.40	0.99	0.28	0.09
7.60	1.02	0.30	0.09
7.80	1.06	0.32	0.10
8.00	1.10	0.35	0.10
8.20	1.15	0.38	0.11
8.40	1.19	0.41	0.11
8.60	1.24	0.44	0.12
8.80	1.30	0.48	0.13
9.00	1.35	0.52	0.14
9.20	1.41	0.56	0.16
9.40	1.47	0.61	0.17
9.60	1.53	0.65	0.18
9.80	1.59	0.70	0.18
10.00	1.67	0.76	0.20
10.20	1.74	0.82	0.22
10.40	1.83	0.89	0.24
10.60	1.93	0.97	0.27
10.80	2.04	1.06	0.30
11.00	2.16	1.16	0.34
11.20	2.31	1.29	0.39
11.40	2.50	1.45	0.47
11.60	2.82	1.74	0.58
11.80	3.96	2.79	1.16
12.00	6.10	4.83	**3.25**
12.20	6.43	5.15	**4.38**
12.40	6.67	5.39	3.17
12.60	6.84	5.55	2.29
12.80	6.98	5.69	1.66
13.00	7.10	5.81	1.23
13.20	7.21	5.91	0.92
13.40	7.31	6.01	0.69
13.60	7.39	6.09	0.55
13.80	7.47	6.17	0.47
14.00	7.54	6.24	0.40
14.20	7.61	6.31	0.34
14.40	7.68	6.37	0.31
14.60	7.74	6.43	0.29
14.80	7.80	6.49	0.28
15.00	7.85	6.54	0.26
15.20	7.91	6.59	0.25
15.40	7.96	6.65	0.24
15.60	8.01	6.69	0.23
15.80	8.05	6.74	0.22
16.00	8.10	6.78	0.20
16.20	8.14	6.82	0.19
16.40	8.18	6.86	0.19
16.60	8.22	6.90	0.18
16.80	8.26	6.94	0.17
17.00	8.30	6.98	0.17
17.20	8.33	7.01	0.16
17.40	8.37	7.05	0.16
17.60	8.41	7.08	0.16
17.80	8.44	7.12	0.15
18.00	8.47	7.15	0.15
18.20	8.51	7.18	0.14
18.40	8.54	7.21	0.14
18.60	8.57	7.25	0.14
18.80	8.60	7.27	0.13
19.00	8.63	7.30	0.13
19.20	8.66	7.33	0.13
19.40	8.68	7.36	0.12
19.60	8.71	7.38	0.12
19.80	8.73	7.41	0.11
20.00	8.76	7.43	0.11
20.20	8.78	7.46	0.11
20.40	8.81	7.48	0.10
20.60	8.83	7.50	0.10
20.80	8.85	7.52	0.10
21.00	8.88	7.55	0.10
21.20	8.90	7.57	0.10
21.40	8.92	7.59	0.10
21.60	8.94	7.61	0.10
21.80	8.97	7.64	0.10
22.00	8.99	7.66	0.09
22.20	9.01	7.68	0.09
22.40	9.03	7.70	0.09
22.60	9.05	7.72	0.09
22.80	9.08	7.74	0.09
23.00	9.10	7.76	0.09
23.20	9.12	7.79	0.09
23.40	9.14	7.81	0.09
23.60	9.16	7.83	0.09
23.80	9.18	7.85	0.09
24.00	**9.20**	**7.87**	0.09

Summary for Reach 3R: Check Dam

Inflow Area = 6.595 ac, 58.76% Impervious, Inflow Depth > 6.26" for 100 Year event
Inflow = 15.21 cfs @ 12.54 hrs, Volume= 3.438 af
Outflow = 15.21 cfs @ 12.55 hrs, Volume= 3.435 af, Atten= 0%, Lag= 0.9 min

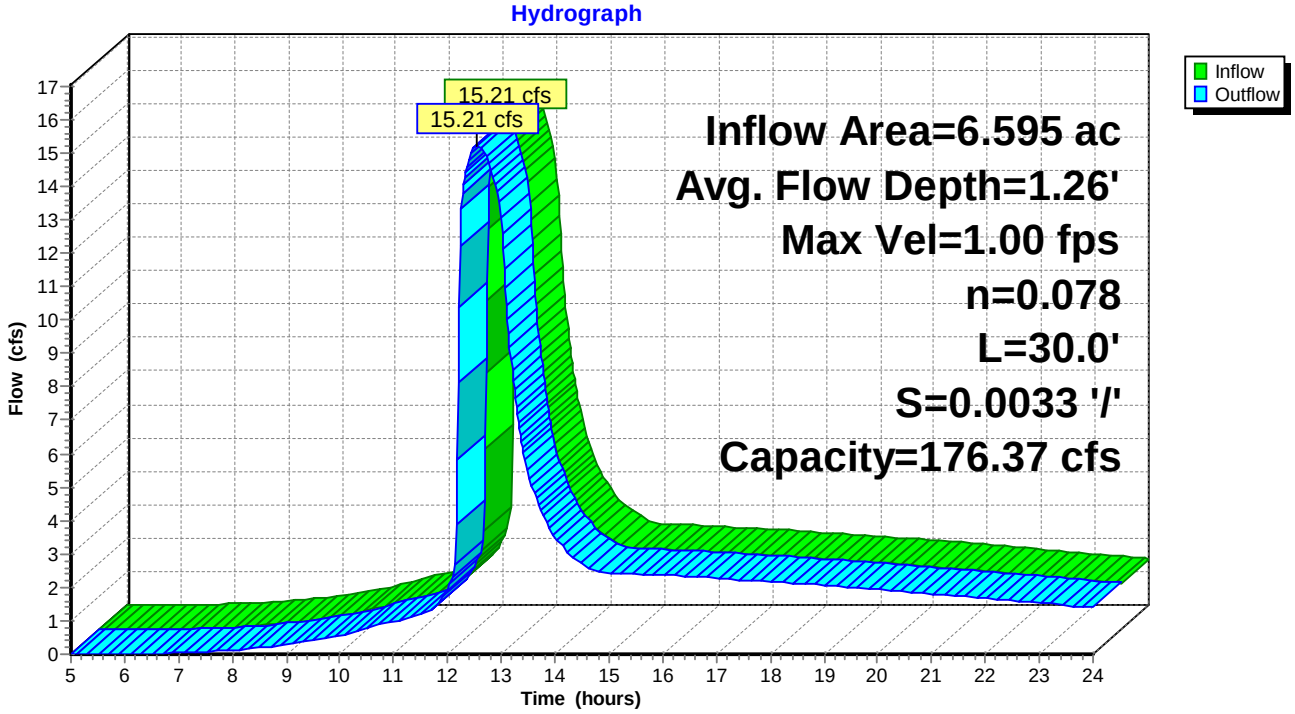
Routing by Stor-Ind+Trans method, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Max. Velocity= 1.00 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 0.47 fps, Avg. Travel Time= 1.1 min

Peak Storage= 455 cf @ 12.54 hrs
Average Depth at Peak Storage= 1.26'
Bank-Full Depth= 4.00' Flow Area= 92.0 sf, Capacity= 176.37 cfs

7.00' x 4.00' deep channel, n= 0.078 Riprap, 12-inch
Side Slope Z-value= 4.0 '/' Top Width= 39.00'
Length= 30.0' Slope= 0.0033 '/'
Inlet Invert= 38.00', Outlet Invert= 37.90'

‡

Reach 3R: Check Dam



Hydrograph for Reach 3R: Check Dam

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
5.00	0.00	0	38.00	0.00
5.40	0.00	0	38.00	0.00
5.80	0.00	1	38.00	0.00
6.20	0.01	2	38.01	0.01
6.60	0.02	4	38.02	0.02
7.00	0.04	8	38.04	0.03
7.40	0.06	11	38.05	0.06
7.80	0.10	15	38.07	0.09
8.20	0.14	20	38.09	0.14
8.60	0.20	24	38.11	0.20
9.00	0.28	30	38.13	0.28
9.40	0.39	37	38.16	0.38
9.80	0.50	44	38.19	0.50
10.20	0.64	51	38.22	0.63
10.60	0.82	61	38.25	0.81
11.00	0.98	68	38.28	0.97
11.40	1.15	76	38.31	1.14
11.80	1.48	89	38.35	1.45
12.20	**9.88**	**314**	**38.96**	**8.12**
12.60	**15.16**	**454**	**39.26**	**15.18**
13.00	12.72	403	39.16	13.05
13.40	6.05	237	38.78	6.18
13.80	3.99	177	38.62	4.05
14.20	3.08	148	38.54	3.10
14.60	2.59	131	38.49	2.61
15.00	2.41	125	38.47	2.41
15.40	2.39	124	38.47	2.39
15.80	2.37	123	38.46	2.37
16.20	2.33	122	38.46	2.34
16.60	2.30	121	38.46	2.30
17.00	2.26	119	38.45	2.26
17.40	2.22	118	38.45	2.23
17.80	2.18	117	38.44	2.18
18.20	2.14	115	38.44	2.14
18.60	2.10	113	38.43	2.10
19.00	2.05	112	38.43	2.05
19.40	2.00	110	38.42	2.01
19.80	1.96	108	38.42	1.96
20.20	1.90	106	38.41	1.91
20.60	1.85	104	38.40	1.85
21.00	1.80	102	38.40	1.80
21.40	1.75	100	38.39	1.75
21.80	1.69	98	38.38	1.69
22.20	1.64	96	38.38	1.64
22.60	1.58	94	38.37	1.58
23.00	1.52	92	38.36	1.53
23.40	1.47	89	38.35	1.47
23.80	1.42	87	38.35	1.42

Stage-Area-Storage for Reach 3R: Check Dam

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
38.00	0.0	0
38.05	0.4	11
38.10	0.7	22
38.15	1.1	34
38.20	1.6	47
38.25	2.0	60
38.30	2.5	74
38.35	2.9	88
38.40	3.4	103
38.45	4.0	119
38.50	4.5	135
38.55	5.1	152
38.60	5.6	169
38.65	6.2	187
38.70	6.9	206
38.75	7.5	225
38.80	8.2	245
38.85	8.8	265
38.90	9.5	286
38.95	10.3	308
39.00	11.0	330
39.05	11.8	353
39.10	12.5	376
39.15	13.3	400
39.20	14.2	425
39.25	15.0	450
39.30	15.9	476
39.35	16.7	502
39.40	17.6	529
39.45	18.6	557
39.50	19.5	585
39.55	20.5	614
39.60	21.4	643
39.65	22.4	673
39.70	23.5	704
39.75	24.5	735
39.80	25.6	767
39.85	26.6	799
39.90	27.7	832
39.95	28.9	866
40.00	30.0	900
40.05	31.2	935
40.10	32.3	970
40.15	33.5	1,006
40.20	34.8	1,043
40.25	36.0	1,080
40.30	37.3	1,118
40.35	38.5	1,156
40.40	39.8	1,195
40.45	41.2	1,235
40.50	42.5	1,275
40.55	43.9	1,316
40.60	45.2	1,357
40.65	46.6	1,399
40.70	48.1	1,442
40.75	49.5	1,485
40.80	51.0	1,529
40.85	52.4	1,573
40.90	53.9	1,618
40.95	55.5	1,664
41.00	57.0	1,710
41.05	58.6	1,757
41.10	60.1	1,804
41.15	61.7	1,852
41.20	63.4	1,901
41.25	65.0	1,950
41.30	66.7	2,000
41.35	68.3	2,050
41.40	70.0	2,101
41.45	71.8	2,153
41.50	73.5	2,205
41.55	75.3	2,258
41.60	77.0	2,311
41.65	78.8	2,365
41.70	80.7	2,420
41.75	82.5	2,475
41.80	84.4	2,531
41.85	86.2	2,587
41.90	88.1	2,644
41.95	90.1	2,702
42.00	**92.0**	**2,760**

Summary for Pond 1P: Drugstore Pond

Inflow Area = 6.595 ac, 58.76% Impervious, Inflow Depth > 7.05" for 100 Year event
Inflow = 37.13 cfs @ 12.07 hrs, Volume= 3.877 af
Outflow = 15.21 cfs @ 12.54 hrs, Volume= 3.438 af, Atten= 59%, Lag= 28.2 min
Primary = 15.21 cfs @ 12.54 hrs, Volume= 3.438 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Peak Elev= 40.61' @ 12.54 hrs Surf.Area= 27,872 sf Storage= 67,304 cf

Plug-Flow detention time= 184.3 min calculated for 3.438 af (89% of inflow)
Center-of-Mass det. time= 129.6 min (927.8 - 798.1)

Volume	Invert	Avail.Storage	Storage Description
#1	37.60'	65,002 cf	**Wet Storage (Prismatic)** Listed below
#2	37.60'	25,745 cf	**Dry Storage (Prismatic)** Listed below (Recalc)
		90,747 cf	Total Available Storage

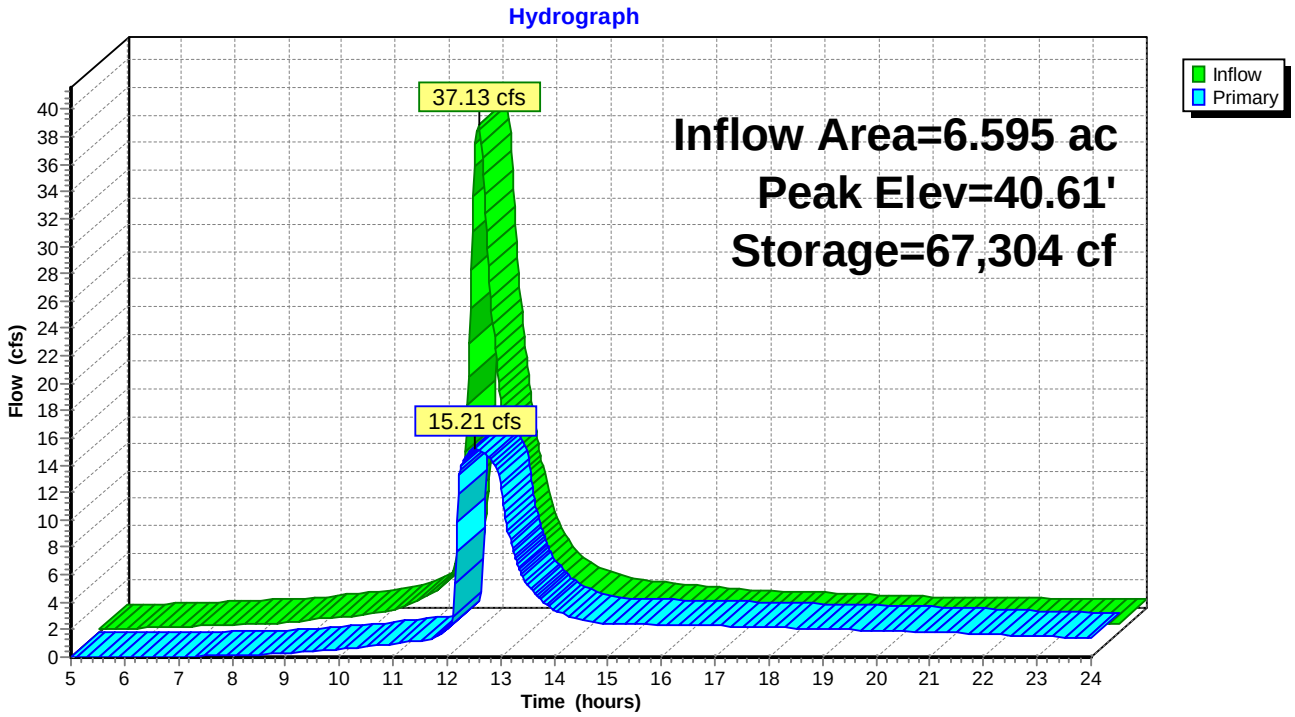
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
37.60	11,480	0	0
38.00	12,768	4,850	4,850
39.00	14,767	13,768	18,617
40.00	16,874	15,821	34,438
41.00	19,082	17,978	52,416
41.63	20,874	12,586	65,002

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
37.60	4,912	0	0
38.00	5,602	2,103	2,103
39.00	7,065	6,334	8,436
40.00	8,629	7,847	16,283
41.00	10,294	9,462	25,745

Device	Routing	Invert	Outlet Devices
#1	Device 3	37.60'	**8.0" Vert. Orifice/Grate** C= 0.600
#2	Device 3	40.00'	**15.0' long x 0.67' rise Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#3	Primary	37.60'	**24.0" Round Culvert** L= 136.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 37.60' / 37.54' S= 0.0004 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 3.14 sf

Primary OutFlow Max=15.21 cfs @ 12.54 hrs HW=40.61' (Free Discharge)
└**3=Culvert** (Barrel Controls 15.21 cfs @ 4.84 fps)
  ├**1=Orifice/Grate** (Passes < 2.75 cfs potential flow)
  └**2=Sharp-Crested Rectangular Weir** (Passes < 23.26 cfs potential flow)

Pond 1P: Drugstore Pond



Hydrograph for Pond 1P: Drugstore Pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.23	8	37.60	0.00
5.40	0.28	374	37.62	0.00
5.80	0.33	809	37.65	0.00
6.20	0.38	1,310	37.68	0.01
6.60	0.43	1,875	37.71	0.02
7.00	0.49	2,496	37.75	0.04
7.40	0.54	3,162	37.78	0.06
7.80	0.59	3,862	37.82	0.10
8.20	0.65	4,584	37.87	0.14
8.60	0.77	5,354	37.91	0.20
9.00	0.93	6,228	37.96	0.28
9.40	1.08	7,204	38.01	0.39
9.80	1.19	8,190	38.06	0.50
10.20	1.44	9,248	38.12	0.64
10.60	1.82	10,524	38.18	0.82
11.00	2.41	12,232	38.27	0.98
11.40	3.47	14,838	38.40	1.15
11.80	**11.84**	21,073	38.71	1.48
12.20	**30.63**	**58,269**	**40.28**	**9.88**
12.60	13.46	**67,104**	**40.60**	**15.16**
13.00	6.77	60,264	40.35	12.72
13.40	4.12	55,355	40.17	6.05
13.80	2.99	53,352	40.10	3.99
14.20	2.39	52,166	40.05	3.08
14.60	2.08	51,289	40.02	2.59
15.00	1.89	50,570	39.99	2.41
15.40	1.72	49,704	39.96	2.39
15.80	1.56	48,637	39.91	2.37
16.20	1.40	47,383	39.86	2.33
16.60	1.31	45,993	39.81	2.30
17.00	1.24	44,540	39.75	2.26
17.40	1.18	43,052	39.68	2.22
17.80	1.12	41,538	39.62	2.18
18.20	1.07	40,002	39.56	2.14
18.60	1.01	38,445	39.49	2.10
19.00	0.95	36,870	39.42	2.05
19.40	0.89	35,280	39.36	2.00
19.80	0.84	33,676	39.29	1.96
20.20	0.78	32,062	39.22	1.90
20.60	0.75	30,460	39.15	1.85
21.00	0.74	28,902	39.08	1.80
21.40	0.72	27,398	39.02	1.75
21.80	0.71	25,955	38.95	1.69
22.20	0.70	24,576	38.88	1.64
22.60	0.69	23,263	38.82	1.58
23.00	0.68	22,013	38.76	1.52
23.40	0.67	20,826	38.70	1.47
23.80	0.66	19,701	38.64	1.42

Stage-Area-Storage for Pond 1P: Drugstore Pond

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
37.60	0	40.30	58,778
37.65	854	40.35	60,135
37.70	1,712	40.40	61,497
37.75	2,575	40.45	62,863
37.80	3,442	40.50	64,233
37.85	4,313	40.55	65,607
37.90	5,188	40.60	66,985
37.95	6,068	40.65	68,367
38.00	6,952	40.70	69,754
38.05	7,923	40.75	71,144
38.10	8,897	40.80	72,539
38.15	9,874	40.85	73,938
38.20	10,856	40.90	75,342
38.25	11,840	40.95	76,749
38.30	12,829	41.00	78,160
38.35	13,821	41.05	79,159
38.40	14,817	41.10	80,158
38.45	15,817	41.15	81,157
38.50	16,820	41.20	82,156
38.55	17,827	41.25	83,155
38.60	18,837	41.30	84,154
38.65	19,852	41.35	85,153
38.70	20,869	41.40	86,152
38.75	21,891	41.45	87,151
38.80	22,916	41.50	88,149
38.85	23,945	41.55	89,148
38.90	24,977	41.60	**90,147**
38.95	26,014		
39.00	27,053		
39.05	28,200		
39.10	29,350		
39.15	30,504		
39.20	31,662		
39.25	32,824		
39.30	33,989		
39.35	35,159		
39.40	36,333		
39.45	37,510		
39.50	38,692		
39.55	39,877		
39.60	41,066		
39.65	42,259		
39.70	43,456		
39.75	44,657		
39.80	45,862		
39.85	47,071		
39.90	48,284		
39.95	49,500		
40.00	50,721		
40.05	52,053		
40.10	53,390		
40.15	54,731		
40.20	56,076		
40.25	57,425		

Summary for Pond 2P: Ditches To Study Point #1

Inflow Area = 7.893 ac, 55.64% Impervious, Inflow Depth > 6.24" for 100 Year event
Inflow = 17.39 cfs @ 12.43 hrs, Volume= 4.105 af
Outflow = 12.84 cfs @ 13.05 hrs, Volume= 4.089 af, Atten= 26%, Lag= 37.2 min
Primary = 12.84 cfs @ 13.05 hrs, Volume= 4.089 af

Routing by Stor-Ind method, Time Span= 5.00-24.00 hrs, dt= 0.02 hrs
Peak Elev= 40.23' @ 13.05 hrs Surf.Area= 19,182 sf Storage= 19,401 cf

Plug-Flow detention time= 13.0 min calculated for 4.085 af (99% of inflow)
Center-of-Mass det. time= 10.9 min (919.7 - 908.8)

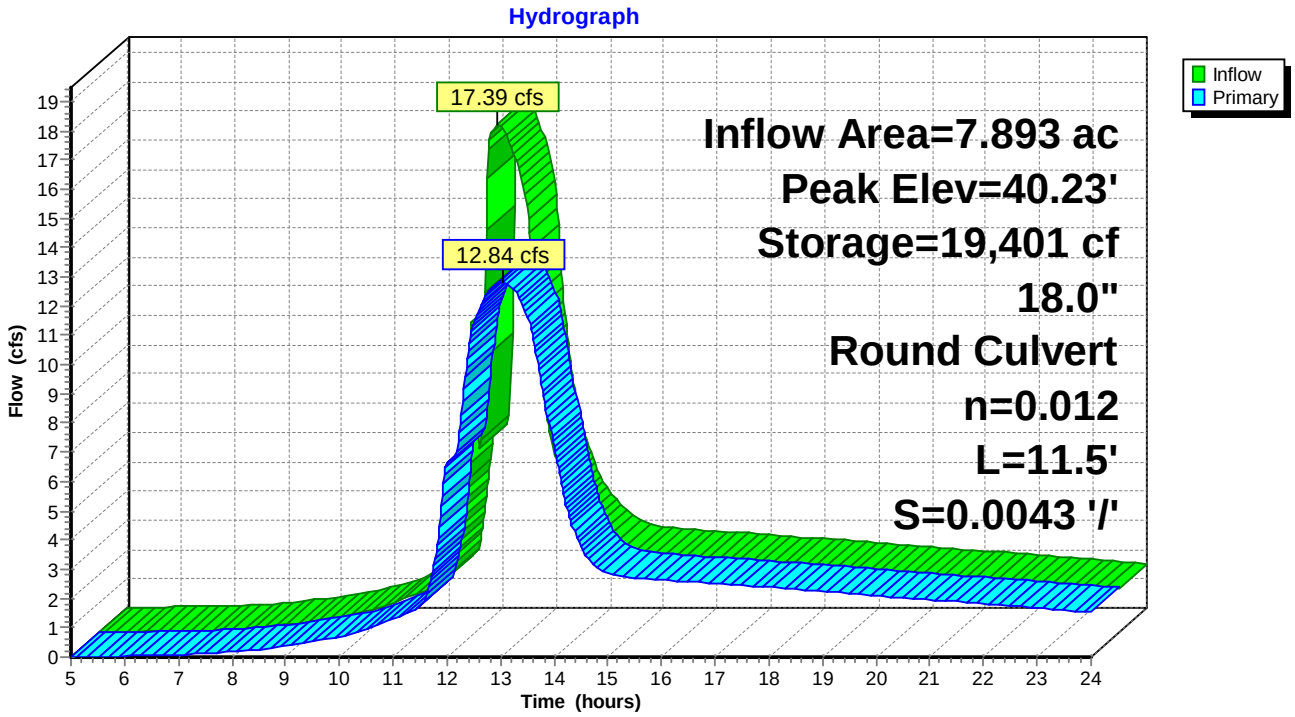
Volume	Invert	Avail.Storage	Storage Description
#1	37.20'	40,784 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
37.20	222	0	0
38.00	2,154	950	950
39.00	6,487	4,321	5,271
40.00	14,191	10,339	15,610
41.00	36,158	25,175	40,784

Device	Routing	Invert	Outlet Devices
#1	Primary	37.20'	**18.0" Round Culvert** L= 11.5' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 37.20' / 37.15' S= 0.0043 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=12.84 cfs @ 13.05 hrs HW=40.23' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 12.84 cfs @ 7.27 fps)

Pond 2P: Ditches To Study Point #1



Hydrograph for Pond 2P: Ditches To Study Point #1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.02	1	37.20	0.00
5.40	0.02	20	37.27	0.02
5.80	0.03	29	37.29	0.03
6.20	0.04	35	37.30	0.04
6.60	0.06	44	37.32	0.05
7.00	0.08	55	37.34	0.07
7.40	0.11	70	37.37	0.10
7.80	0.15	90	37.40	0.14
8.20	0.21	116	37.43	0.19
8.60	0.29	151	37.47	0.27
9.00	0.40	196	37.52	0.36
9.40	0.52	249	37.57	0.48
9.80	0.66	309	37.62	0.62
10.20	0.85	386	37.68	0.79
10.60	1.10	490	37.75	1.02
11.00	1.37	612	37.83	1.29
11.40	1.77	770	37.91	1.63
11.80	5.65	1,815	38.31	3.57
12.20	**11.61**	4,769	38.92	7.02
12.60	**17.00**	14,440	39.92	11.93
13.00	14.14	**19,284**	**40.22**	**12.82**
13.40	6.89	**15,210**	**39.97**	**12.10**
13.80	4.58	7,666	39.31	8.90
14.20	3.53	3,161	38.63	5.40
14.60	2.99	1,736	38.28	3.44
15.00	2.76	1,390	38.17	2.86
15.40	2.71	1,318	38.15	2.73
15.80	2.65	1,285	38.14	2.67
16.20	2.59	1,254	38.12	2.62
16.60	2.54	1,226	38.11	2.56
17.00	2.49	1,199	38.10	2.51
17.40	2.44	1,173	38.09	2.46
17.80	2.39	1,146	38.08	2.41
18.20	2.34	1,119	38.07	2.36
18.60	2.29	1,091	38.06	2.31
19.00	2.23	1,063	38.05	2.25
19.40	2.17	1,035	38.04	2.19
19.80	2.11	1,005	38.02	2.13
20.20	2.05	976	38.01	2.07
20.60	2.00	948	38.00	2.02
21.00	1.94	922	37.99	1.96
21.40	1.89	896	37.97	1.90
21.80	1.83	870	37.96	1.85
22.20	1.77	842	37.95	1.79
22.60	1.71	815	37.93	1.73
23.00	1.66	788	37.92	1.67
23.40	1.60	762	37.91	1.62
23.80	1.54	736	37.89	1.56

Stage-Area-Storage for Pond 2P: Ditches To Study Point #1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
37.20	222	0
37.25	343	14
37.30	464	34
37.35	584	60
37.40	705	93
37.45	826	131
37.50	946	175
37.55	1,067	226
37.60	1,188	282
37.65	1,309	344
37.70	1,430	413
37.75	1,550	487
37.80	1,671	568
37.85	1,792	654
37.90	1,913	747
37.95	2,033	846
38.00	2,154	950
38.05	2,371	1,064
38.10	2,587	1,187
38.15	2,804	1,322
38.20	3,021	1,468
38.25	3,237	1,624
38.30	3,454	1,792
38.35	3,671	1,970
38.40	3,887	2,159
38.45	4,104	2,358
38.50	4,321	2,569
38.55	4,537	2,790
38.60	4,754	3,023
38.65	4,970	3,266
38.70	5,187	3,520
38.75	5,404	3,785
38.80	5,620	4,060
38.85	5,837	4,347
38.90	6,054	4,644
38.95	6,270	4,952
39.00	6,487	5,271
39.05	6,872	5,605
39.10	7,257	5,958
39.15	7,643	6,331
39.20	8,028	6,722
39.25	8,413	7,133
39.30	8,798	7,564
39.35	9,183	8,013
39.40	9,569	8,482
39.45	9,954	8,970
39.50	10,339	9,477
39.55	10,724	10,004
39.60	11,109	10,550
39.65	11,495	11,115
39.70	11,880	11,699
39.75	12,265	12,303
39.80	12,650	12,926
39.85	13,035	13,568
39.90	13,421	14,229
39.95	13,806	14,910
40.00	14,191	15,610
40.05	15,289	16,347
40.10	16,388	17,139
40.15	17,486	17,986
40.20	18,584	18,887
40.25	19,683	19,844
40.30	20,781	20,856
40.35	21,879	21,922
40.40	22,978	23,044
40.45	24,076	24,220
40.50	25,175	25,451
40.55	26,273	26,737
40.60	27,371	28,079
40.65	28,470	29,475
40.70	29,568	30,926
40.75	30,666	32,431
40.80	31,765	33,992
40.85	32,863	35,608
40.90	33,961	37,278
40.95	35,060	39,004
41.00	**36,158**	**40,784**

ORIGINAL APPROVED DRAINAGE MAP

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Soil Code	Soil Name	HSG Soil Classification	Series Description
Fa	Falsington sandy loam	B	Poorly drained soil on uplands, formed in loamy sediments that contain a considerable amount of sand
SaA	Sassafras sandy loam, 0 to 2% slopes	B	Deep, well-drained soil on uplands, formed in loamy and sandy sediments
RuB	Rumford loamy sand, 0 to 5% slopes	B	Deep, somewhat excessively drained soil that occupies areas between the more level soils on upland flats and major drainageways
Wo	Woodstown sandy loam	C	Deep, nearly level, moderately well drained soil on uplands, formed in loamy sediments that contain a considerable amount of sand

Study Point #1
Existing 18"RCP @ 0.45%
Inv. 37.20
Qmax = 7.63 cfs

Study Point #2
Existing 18"RCP @ 0.30%
Inv. 37.52
Qmax = 6.48cfs

	Total discharge to Study Point #1	Total discharge to Study Point #2	Pond Surface Elevation
2 yr Storm	2.49 cfs	3.13 cfs	38.73'
10 yr Storm	5.34 cfs	6.42 cfs	39.76'
100 yr Storm	NA	NA	40.68'
Max Allowable Flow Rate	7.63 cfs	6.48 cfs	NA

LEGEND

- TIME OF CONCENTRATION FLOW PATH - SHEET FLOW
- TIME OF CONCENTRATION FLOW PATH - SHALLOW CONCENTRATED FLOW
- TIME OF CONCENTRATION FLOW PATH - PIPE FLOW
- DRAINAGE AREA BOUNDARY
- PHASE 1 SECTION 1
- PHASE 1 - SECTIONS 2, 3, 4 (FUTURE)
- PROPOSED CONTOURS
- EXISTING CONTOURS
- PROPOSED STORM SEWER
- SOIL BOUNDARY

Heritage Commercial Center
Phase 1 - Section 1
Storm Water Management Plan
Study Points #1, #2

SHEET 3 of 4

Town of Bridgeville
Approved By:
Date:

Scale: 1"=40'

Aug. 18, 2008

ROBERT D. RAUCH & ASSOCIATES INC.
110 N. Washington Street, Floor 2
Easton, MD 21601
Tel. (410) 770-9081
Fax (410) 770-3667
email rrauch@rdrauch.com

SEAL

DATE

DATE	REVISION	APPROVED BY
01/21/2009	REVISED PER SCD COMMENTS DATED 01/15/2009	RDR

DRAINAGE MAP UPDATE WITH PR. AUTOZONE

Main Office: 106 N Harrison St – Easton, MD 21601
Web: www.rauch-inc.com | Email: design@raucheng.com
Phone: 410.770.9081 | Fax: 410.770.3667

Soil Code	Soil Name	HSG Soil Classification	Series Description
Fa	Falsington sandy loam	B	Poorly drained soil on uplands, formed in loamy sediments that contain a considerable amount of sand
SaA	Sassafras sandy loam, 0 to 2% slopes	B	Deep, well-drained soil on uplands, formed in loamy and sandy sediments
RuB	Rumford loamy sand, 0 to 5% slopes	B	Deep, somewhat excessively drained soil that occupies areas between the more level soils on upland flats and major drainageways
Wo	Woodstown sandy loam	C	Deep, nearly level, moderately well drained soil on uplands, formed in loamy sediments that contain a considerable amount of sand

Study Point #1
Existing 18"RCP @ 0.45%
Inv. 37.20
Qmax = 7.63 cfs

Study Point #2
Existing 18"RCP @ 0.30%
Inv. 37.52
Qmax = 6.48cfs

ORIGINAL APPROVED

	Total discharge to Study Point #1	Pond Surface Elevation
2 yr Storm	2.49 cfs	38.73'
10 yr Storm	5.34 cfs	39.76'
100 yr Storm	NA	40.68'
Max Allowable Flow Rate	7.63 cfs	NA

AUTOZONE PROPOSED

	Total discharge to Study Point #1	Pond Surface Elevation
2 yr Storm	2.49 cfs	38.80'
10 yr Storm	5.34 cfs	39.78'
100 yr Storm	NA	40.61'
Max Allowable Flow Rate	7.63 cfs	NA

LEGEND

- TIME OF CONCENTRATION FLOW PATH - SHEET FLOW
- TIME OF CONCENTRATION FLOW PATH - SHALLOW CONCENTRATED FLOW
- TIME OF CONCENTRATION FLOW PATH - PIPE FLOW
- DRAINAGE AREA BOUNDARY
- PHASE 1 SECTION 2 - AUTOZONE
- PHASE 1 - SECTIONS 3, 4 (FUTURE)
- PROPOSED CONTOURS
- EXISTING CONTOURS
- PROPOSED STORM SEWER
- SOIL BOUNDARY

Heritage Commercial Center
Phase 1 - Section 2
Storm Water Management Update
Proposed AutoZone

SHEET 2 of 2

Town of Bridgeville
Approved By: Date:

July 25, 2025

Scale: 1"=40'

RAUCH INC.
106 N. HARRISON Street
Easton, MD 21601
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SEAL

DATE

APPROVED BY

REVISION

DATE