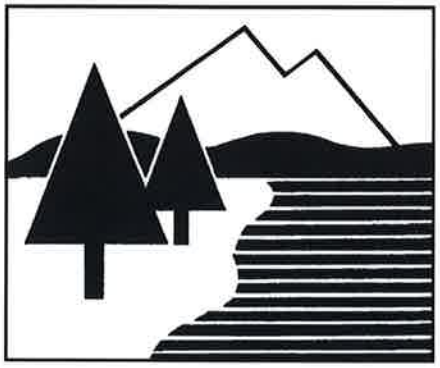
DRAINAGE ANALYSIS
SITE DEVELOPMENT

MAP 125, LOT 2A
46 Maplewood Avenue
For
30 Maplewood Avenue, LLC



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Ambit Engineering, Inc.

Civil Engineers and Land Surveyors
200 Griffin Road, Unit 3
Portsmouth, NH 03801
Phone: 603.430.9282; Fax: 436.2315
E-mail: jlm@ambitengineering.com

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EXECUTIVE SUMMARY

This analysis is meant to be used by City officials, the developer, builders, earthwork contractors and other interested parties to better understand the assumptions and intent of the stormwater management system. This drainage analysis examines and compares the existing and proposed conditions stormwater drainage patterns for a Site Development at 46 Maplewood Avenue in the City of Portsmouth, at Assessor's Map 125, Lot 2A. The total lot size is 21,798 s.f. The point of analysis is a downstream manhole located on Deer Street (DMH 3540). The existing site is primarily impervious surface of pavement and buildings. The small areas of porous surfaces are either gravel or mulch.

The "existing" conditions site plan show the condition immediately before development (i.e., as it exists today). Runoff amounts from this existing state are a function of the land cover, vegetation and soils; together those factors produce what is known as the Curve Number. The "existing" or pre-developed curve number for the entire site (excluding offsite subcatchments) is 97. Typically, highly developed areas with lots of impervious area will have curve numbers approaching 90, whereas undisturbed or undeveloped areas can have curve numbers as low as 30 if the soils are well-drained and covered with forest. The proposed development's curve number increases slightly to 98 due to the increase in impervious surface (pavement and rooftop). However, because the increase is in impervious surface is very small, post development peak runoff is unchanged. A Hancor "Water Quality Treatment Unit" is being provided within the parking lot along the Bridge Street entrance to the site. This unit is designed to divert low flows from up to the 2-Year Storm Event to provide treatment of surface runoff from the parking lot. Additionally, there are a number of "Silva Cells" that accept runoff from the proposed rooftops. This system will provide the newly planted trees with the much needed water that is lacking in an urban environment with so much hardscape.

There is one design point on this parcel which is used to compare pre and post-developed runoff amounts. This is the drain manhole in Deer Street (DMH 3540). This design point is labeled DP1. However, the system downstream from this manhole has been modeled for analysis as well.

The 2, 10, 25 and 50 year, 24 hour storm events are used to compare the peak runoff amounts at the design point (DP 1). The source of rainfall data is from the Northeast Regional Climate Center and are as follows:

Q2 = 3.20 in.
Q10 = 4.86 in.
Q25 = 6.16 in.
Q50 = 7.37 in.

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SITE DEVELOPMENT

MAP 125, LOT 2A
46 Maplewood Avenue
For
30 Maplewood, LLC

INTRODUCTION

This drainage report is designed to assist the owner, planning board, contractor, regulatory reviewer, and others in understanding the impact of the proposed development project on local surface water runoff and quality. The project site is shown on City of Portsmouth Assessor's Map 125 as Lot 2A. The proposed project is for the development of a 21,798 s.f. parcel for Mixed Use Residential and Commercial building.

This report includes information about the existing site and the proposed development as necessary to analyze stormwater runoff treatment and management. The report includes maps of existing and proposed subcatchments and calculations of runoff. The report will provide a brief narrative description of the storm water runoff and describe numerically and graphically the surface water runoff patterns for this site. Proposed stormwater management and treatment structures and methods will also be described. To fully understand the drainage analysis, the reader should review plans W1 and W2 which graphically show the assumptions used in the HydroCad stormwater model.

Peak-runoff amounts in the developed condition are reduced when compared to pre-developed amounts. This is achieved without constructed detention ponds due to the small net change in the impervious surface area (paved parking/buildings) and infiltration techniques utilizing "Silva Cells". Treatment of portions of the site runoff are achieved by the use of a Hancor "Water Quality Treatment Unit" that is being provided within the parking lot along the Bridge Street entrance to the site. Additionally, there are a number of "Silva Cells" that accept runoff from the proposed rooftops. This system will provide the newly planted trees with the much needed water that is lacking in an urban environment with so much hardscape.

METHODOLOGY

This report uses the US Soil Conservation Service Method for prediction of storm water runoff. The SCS method is published in The National Engineering Handbook, Section 4 "Hydrology", in Technical Release No. 20, (TR-20) "Computer Program for Project Formulation Hydrology", and Technical Release-55 (TR-55) "Urban Hydrology for Small Watersheds". This report uses the HydroCAD program, written by Applied Microcomputer Systems, Chocorua, N.H., to apply these methods. Rainfall data are taken from the Extreme Precipitation Tables published by the Northeast Climate Center.

SITE SPECIFIC INFORMATION

Located on Maplewood Avenue in Portsmouth, this site is currently developed and occupied by paved parking.

The existing site topography can be described as fairly flat that gently slopes from northwest to southeast away from Deer Street.

The majority of Soils on this site are of the "Urban land-Canton" complex. These soils can be described as being well-drained.

DRAINAGE ANALYSIS

This drainage analysis consists of two sections, an analysis of the stormwater runoff from the site in the existing condition, and an analysis of the stormwater runoff from the same area with the proposed development. Areas and drainage information were taken from an existing conditions plan and site topographic map prepared by this office. Soils information was taken from the NRCS soils maps. Vegetative cover information was determined by on-site inspection.

Existing or Pre-Developed Site Runoff

In order to study the site in greater detail and estimate peak stormwater runoff, it is necessary to divide the site into watershed subcatchments. There are 8 subcatchments that define the existing analysis. Their delineation is based on where their runoff discharges across property boundaries.

There is a single discharge point identified for analysis of stormwater runoff for this project. This point of analysis is a downstream manhole located on Deer Street (DMH 3540) and is the same location in both the existing and proposed condition. All eight pre-development subcatchments flow to this Design Point (DP 1).

Subcatchment Summaries

Subcatchment ES1:	This Subcatchment defines the existing building to the southerly end of the site near Hanover Street. It is primarily the rooftop and is unchanged in the proposed conditions.
Subcatchment ES2:	This Subcatchment defines the existing parking lot to the northerly end of the site near Deer Street. It is primarily impervious surface with very little landscape surface.
Subcatchment ES3:	This Subcatchment defines the existing parking lot to the northeasterly corner of the site near Deer Street and Maplewood Avenue. It is primarily impervious surface with very little landscape surface.
Subcatchment ES4:	This Subcatchment defines the existing building located in the northwest corner of the site near Deer Street and Bridge Street. It is primarily rooftop and is unchanged in the proposed conditions.
Subcatchment ES5:	This subcatchment defines the runoff area from the sidewalk and roadway on the south and west sides of the site along Hanover Street and Bridge Street.

Subcatchment ES6: This subcatchment defines the runoff area from the sidewalk and roadway in the northeast corner of the site near Deer Street and Maplewood Ave.

Subcatchment ES7: This subcatchment defines the runoff area from the sidewalk and roadway on the east side of the site along Maplewood Ave.

Subcatchment ES8: This subcatchment defines the runoff area from the sidewalk and roadway on the east side of the site along Maplewood Ave.

The following table summarizes the existing subcatchments. The total rainfall amounts for the 2, 10, 25 and 50 year storm are 3.20", 4.86", 6.16" and 7.37".

Table 1: Existing Watershed Subcatchment Runoff Results.

Subcatchment	Area Sf	Tc min.	CN	2 Year Peak cfs	10 Year Peak cfs	25 Year Peak cfs	50 Year Peak cfs
ES1	16,738	5	98	1.2	1.9	2.4	2.9
ES2	22,558	5	97	1.6	2.5	3.2	3.9
ES3	10,622	5	97	0.8	1.2	1.5	1.8
ES4	4,188	5	98	0.3	0.5	0.6	0.7
ES5	20,107	5	97	1.5	2.3	2.9	3.4
ES6	11,261	5	97	0.8	1.3	1.6	1.9
ES7	5,094	5	97	0.4	0.6	0.7	0.9
ES8	7,456	5	97	0.5	0.8	1.1	1.3
Totals	98,024	----	97	----	----	----	----

See "Plan of Proposed Subcatchments" – W1.

Proposed or Post-Developed Site Runoff

There are eleven subcatchments in the proposed analysis. The same Design Point (DP 1) is utilized for the developed condition. All eleven subcatchments flow to the same Design Point (DP 1).

The following is a description of the various subcatchments:

Subcatchment PS1:	This Subcatchment defines the existing building to the southerly end of the site near Hanover Street. It is primarily the rooftop and is unchanged in the proposed conditions.
Subcatchment PS2:	This Subcatchment defines the existing parking lot to the northerly end of the site near Deer Street. It is reduced in area due to the construction of the proposed building and regrading of the parking lot itself. It is primarily impervious surface with very little landscape surface.
Subcatchment PS2a:	This Subcatchment defines a portion of the proposed building. It is primarily the rooftop and discharges to the Silva Cells along Maplewood Avenue via a roof drain.
Subcatchment PS2b:	This Subcatchment defines the existing parking lot to the northerly end of the site near Deer Street. It is reduced in area due to the construction of the proposed building and regarding of the parking lot itself. It is primarily impervious surface with very little landscape surface.
Subcatchment PS3:	This Subcatchment defines a portion of the proposed building. It is primarily the rooftop and discharges to the Silva Cells along Maplewood Avenue via a roof drain.
Subcatchment PS3a:	This Subcatchment defines a portion of the proposed building. It is primarily the rooftop and discharges to the Silva Cells along Maplewood Avenue via a roof drain.
Subcatchment PS4:	This Subcatchment defines the existing building located in the northwest corner of the site near Deer Street and Bridge

Street. It is primarily rooftop and is unchanged in the proposed conditions.

Subcatchment PS5: This subcatchment defines the runoff area from the sidewalk and roadway on the south and west sides of the site along Hanover Street and Bridge Street.

Subcatchment PS6: This subcatchment defines the runoff area from the sidewalk and roadway in the northeast corner of the site near Deer Street and Maplewood Ave.

Subcatchment PS7: This subcatchment defines the runoff area from the sidewalk and roadway on the east side of the site along Maplewood Ave.

Subcatchment PS8: This subcatchment defines the runoff area from the sidewalk and roadway on the east side of the site along Maplewood Ave.

Table 2: Proposed or Developed Conditions

Subcatchment	Area Sf	Tc min *	Weighted CN	2 Year Peak cfs	10 Year Peak cfs	25 Year Peak cfs	50 Year Peak cfs
PS1	16,738	5	98	1.2	1.9	2.4	2.9
PS2	7,730	5	97	0.6	0.9	1.1	1.3
PS2a	2,509	5	98	0.2	0.3	0.4	0.40
PS2b	5,028	5	98	0.4	0.6	0.7	0.9
PS3	8,542	5	98	0.6	1.0	1.2	1.5
PS3a	4,848	5	98	0.4	0.5	0.7	0.8
PS4	4,188	5	98	0.3	0.5	0.6	0.7
PS5	20,107	5	97	1.5	2.3	2.9	3.4
PS6	12,323	5	98	0.9	1.4	1.8	2.1

PS7	8,519	5	98	0.6	1.0	1.2	1.5
PS8	7,456	5	97	0.5	0.72	1.1	1.3
Totals	97,988*						

See "Plan of Proposed Subcatchments" – W2.

* This represents a 0.04% difference when compared to the existing condition total site area.

Stormwater Quality BMP's

Even though the City does not have specific requirements for stormwater treatment, the applicant has incorporated a "Hancor Water Quality Treatment Unit" for the purpose of treating stormwater runoff from portions of the impervious surfaces of the site. There will also be a substantial quantity of rooftop runoff that is discharged in the subsurface to the proposed "Silva Cells"along Maplewood Avenue. This system will provide the newly planted trees with the much needed water that is lacking in an urban environment with so much hardscape. Additionally, there is an Operation and Maintenance plan which includes certain housekeeping BMP's such as sweeping and landscape maintenance.

Peak Flow Rates

One of the main goals of any stormwater runoff analysis has to do with maintaining peak runoff amounts to pre-developed levels. The following table summarizes and compares the peak runoff amounts for the existing and proposed conditions, at the Design Point (DP1):

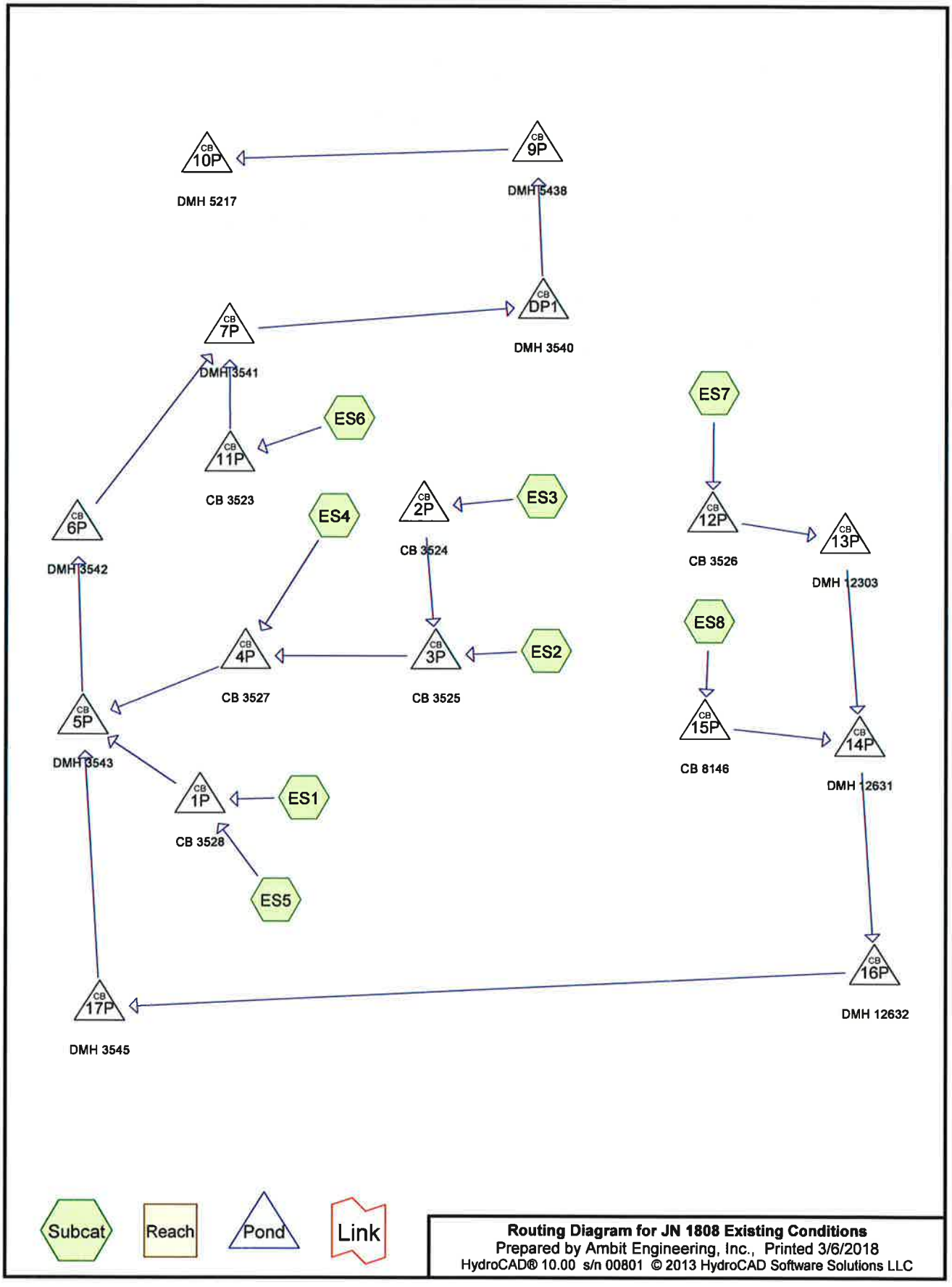
Comparison of Pre and Post Developed Discharge Rates

Design Point	Existing 2 yr/10 yr/25 yr/50 yr Peak Flow (cfs)	Proposed 2 yr/10 yr/25 yr/50 yr Peak Flow (cfs)	Change 2 yr/10 yr/25 yr/50 yr Peak Flow (cfs)
DP1	7.2/11.0/14.0/16.8	6.7/11.0/14.0/16.8	-0.5/0.0/0.0/0.0

Discussion: The design of the stormwater management system is such that no increases in peak flow are seen at the Design Point (DP1).

Conclusion

The new development can be built without increasing the risk of flooding or erosion onto neighboring properties. Given the results of the preceding analysis and compliance with known city requirements, it is our opinion that this project will not have downstream impact to the existing storm drain system.



Routing Diagram for JN 1808 Existing Conditions
Prepared by Ambit Engineering, Inc., Printed 3/6/2018

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.240	91	Fallow, bare soil, HSG C (ES2, ES3, ES5, ES6, ES7, ES8)
0.028	98	Gravel roads, HSG C (ES2, ES5, ES8)
0.572	98	Paved parking, HSG C (ES2, ES3, ES5, ES6)
0.926	98	Paved roads w/curbs & sewers, HSG C (ES2, ES3, ES5, ES6, ES7, ES8)
0.485	98	Roofs, HSG C (ES1, ES2, ES3, ES4, ES6)
2.250	**97**	**TOTAL AREA**

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
2.250	HSG C	ES1, ES2, ES3, ES4, ES5, ES6, ES7, ES8
0.000	HSG D	
0.000	Other	
2.250		**TOTAL AREA**

Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.240	0.000	0.000	0.240	Fallow, bare soil	ES 2, ES 3, ES 5, ES 6, ES 7, ES 8
0.000	0.000	0.028	0.000	0.000	0.028	Gravel roads	ES 2, ES 5, ES 8
0.000	0.000	0.572	0.000	0.000	0.572	Paved parking	ES 2, ES 3, ES 5, ES 6
0.000	0.000	0.926	0.000	0.000	0.926	Paved roads w/curbs & sewers	ES 2, ES 3, ES 5, ES 6, ES 7, ES 8
0.000	0.000	0.485	0.000	0.000	0.485	Roofs	ES 1, ES 2, ES 3, ES 4.

Ground Covers (selected nodes) (continued)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	**0.000**	**2.250**	**0.000**	**0.000**	**2.250**	**TOTAL AREA**	

Pipe Listing (selected nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	1P	4.40	4.13	9.0	0.0300	0.012	12.0	0.0	0.0
2	2P	7.52	5.63	76.0	0.0249	0.012	12.0	0.0	0.0
3	3P	5.63	4.76	111.0	0.0078	0.012	12.0	0.0	0.0
4	4P	4.76	4.36	59.0	0.0068	0.012	12.0	0.0	0.0
5	5P	2.91	2.61	164.0	0.0018	0.012	36.0	0.0	0.0
6	6P	2.21	2.10	74.0	0.0015	0.012	36.0	0.0	0.0
7	7P	1.96	1.68	80.0	0.0035	0.012	36.0	0.0	0.0
8	9P	0.94	1.67	100.0	-0.0073	0.012	48.0	0.0	0.0
9	10P	1.67	-4.20	254.0	0.0231	0.012	48.0	0.0	0.0
10	11P	6.32	7.52	35.0	-0.0343	0.012	12.0	0.0	0.0
11	12P	6.18	6.09	18.5	0.0049	0.012	12.0	0.0	0.0
12	13P	6.09	5.24	170.0	0.0050	0.012	12.0	0.0	0.0
13	14P	5.24	5.08	32.0	0.0050	0.012	12.0	0.0	0.0
14	15P	5.32	5.24	16.0	0.0050	0.012	12.0	0.0	0.0
15	16P	5.08	4.39	139.0	0.0050	0.012	12.0	0.0	0.0
16	17P	4.34	2.91	166.0	0.0086	0.012	36.0	0.0	0.0
17	DP1	1.68	0.94	216.0	0.0034	0.012	48.0	0.0	0.0

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment ES1: Runoff Area=16,738 sf 100.00% Impervious Runoff Depth=2.97"
Tc=5.0 min CN=98 Runoff=1.2 cfs 0.095 af

Subcatchment ES2: Runoff Area=22,558 sf 87.71% Impervious Runoff Depth=2.86"
Tc=5.0 min CN=97 Runoff=1.6 cfs 0.123 af

Subcatchment ES3: Runoff Area=10,622 sf 81.41% Impervious Runoff Depth=2.86"
Tc=5.0 min CN=97 Runoff=0.8 cfs 0.058 af

Subcatchment ES4: Runoff Area=4,188 sf 100.00% Impervious Runoff Depth=2.97"
Tc=5.0 min CN=98 Runoff=0.3 cfs 0.024 af

Subcatchment ES5: Runoff Area=20,107 sf 88.74% Impervious Runoff Depth=2.86"
Tc=5.0 min CN=97 Runoff=1.5 cfs 0.110 af

Subcatchment ES6: Runoff Area=11,261 sf 83.94% Impervious Runoff Depth=2.86"
Tc=5.0 min CN=97 Runoff=0.8 cfs 0.062 af

Subcatchment ES7: Runoff Area=5,094 sf 89.03% Impervious Runoff Depth=2.86"
Tc=5.0 min CN=97 Runoff=0.4 cfs 0.028 af

Subcatchment ES8: Runoff Area=7,456 sf 85.80% Impervious Runoff Depth=2.86"
Tc=5.0 min CN=97 Runoff=0.5 cfs 0.041 af

Pond 1P: CB 3528 Peak Elev=5.30' Inflow=2.7 cfs 0.205 af
12.0" Round Culvert n=0.012 L=9.0' S=0.0300 '/' Outflow=2.7 cfs 0.205 af

Pond 2P: CB 3524 Peak Elev=7.92' Inflow=0.8 cfs 0.058 af
12.0" Round Culvert n=0.012 L=76.0' S=0.0249 '/' Outflow=0.8 cfs 0.058 af

Pond 3P: CB 3525 Peak Elev=6.61' Inflow=2.4 cfs 0.181 af
12.0" Round Culvert n=0.012 L=111.0' S=0.0078 '/' Outflow=2.4 cfs 0.181 af

Pond 4P: CB 3527 Peak Elev=5.79' Inflow=2.7 cfs 0.205 af
12.0" Round Culvert n=0.012 L=59.0' S=0.0068 '/' Outflow=2.7 cfs 0.205 af

Pond 5P: DMH 3543 Peak Elev=4.13' Inflow=6.3 cfs 0.479 af
36.0" Round Culvert n=0.012 L=164.0' S=0.0018 '/' Outflow=6.3 cfs 0.479 af

Pond 6P: DMH 3542 Peak Elev=3.60' Inflow=6.3 cfs 0.479 af
36.0" Round Culvert n=0.012 L=74.0' S=0.0015 '/' Outflow=6.3 cfs 0.479 af

Pond 7P: DMH 3541 Peak Elev=3.37' Inflow=7.2 cfs 0.540 af
36.0" Round Culvert n=0.012 L=80.0' S=0.0035 '/' Outflow=7.2 cfs 0.540 af

Pond 9P: DMH 5438 Peak Elev=2.70' Inflow=7.2 cfs 0.540 af
48.0" Round Culvert n=0.012 L=100.0' S=-0.0073 '/' Outflow=7.2 cfs 0.540 af

Pond 10P: DMH 5217 Peak Elev=2.49' Inflow=7.2 cfs 0.540 af
48.0" Round Culvert n=0.012 L=254.0' S=0.0231 '/' Outflow=7.2 cfs 0.540 af

Pond 11P: CB 3523 Peak Elev=7.93' Inflow=0.8 cfs 0.062 af
12.0" Round Culvert n=0.012 L=35.0' S=-0.0343 '/' Outflow=0.8 cfs 0.062 af

Pond 12P: CB 3526 Peak Elev=6.58' Inflow=0.4 cfs 0.028 af
12.0" Round Culvert n=0.012 L=18.5' S=0.0049 '/' Outflow=0.4 cfs 0.028 af

Pond 13P: DMH 12303 Peak Elev=6.46' Inflow=0.4 cfs 0.028 af
12.0" Round Culvert n=0.012 L=170.0' S=0.0050 '/' Outflow=0.4 cfs 0.028 af

Pond 14P: DMH 12631 Peak Elev=5.85' Inflow=0.9 cfs 0.069 af
12.0" Round Culvert n=0.012 L=32.0' S=0.0050 '/' Outflow=0.9 cfs 0.069 af

Pond 15P: CB 8146 Peak Elev=5.91' Inflow=0.5 cfs 0.041 af
12.0" Round Culvert n=0.012 L=16.0' S=0.0050 '/' Outflow=0.5 cfs 0.041 af

Pond 16P: DMH 12632 Peak Elev=5.62' Inflow=0.9 cfs 0.069 af
12.0" Round Culvert n=0.012 L=139.0' S=0.0050 '/' Outflow=0.9 cfs 0.069 af

Pond 17P: DMH 3545 Peak Elev=4.75' Inflow=0.9 cfs 0.069 af
36.0" Round Culvert n=0.012 L=166.0' S=0.0086 '/' Outflow=0.9 cfs 0.069 af

Pond DP1: DMH 3540 Peak Elev=3.06' Inflow=7.2 cfs 0.540 af
48.0" Round Culvert n=0.012 L=216.0' S=0.0034 '/' Outflow=7.2 cfs 0.540 af

Total Runoff Area = 2.250 ac Runoff Volume = 0.540 af Average Runoff Depth = 2.88"
10.65% Pervious = 0.240 ac 89.35% Impervious = 2.011 ac

Summary for Subcatchment ES1:

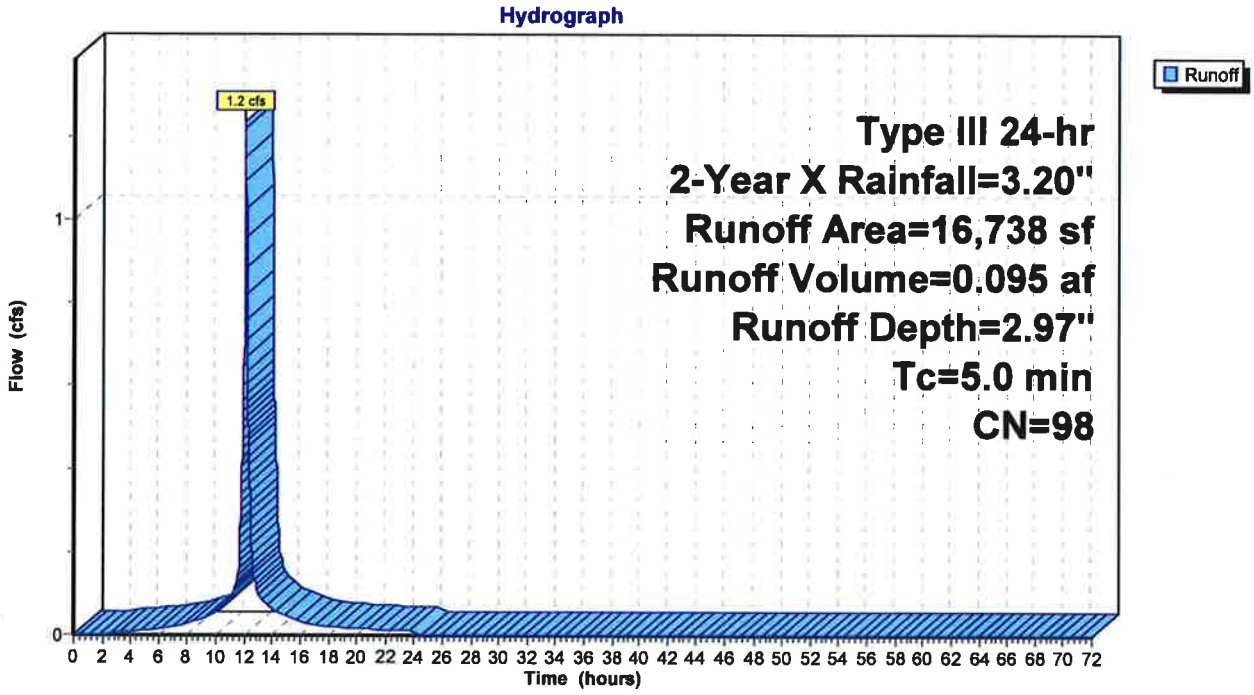
Runoff = 1.2 cfs @ 12.07 hrs, Volume= 0.095 af, Depth= 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year X Rainfall=3.20"

Area (sf)	CN	Description
16,738	98	Roofs, HSG C
16,738		100.00% Impervious Area

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

Subcatchment ES1:



Summary for Subcatchment ES2:

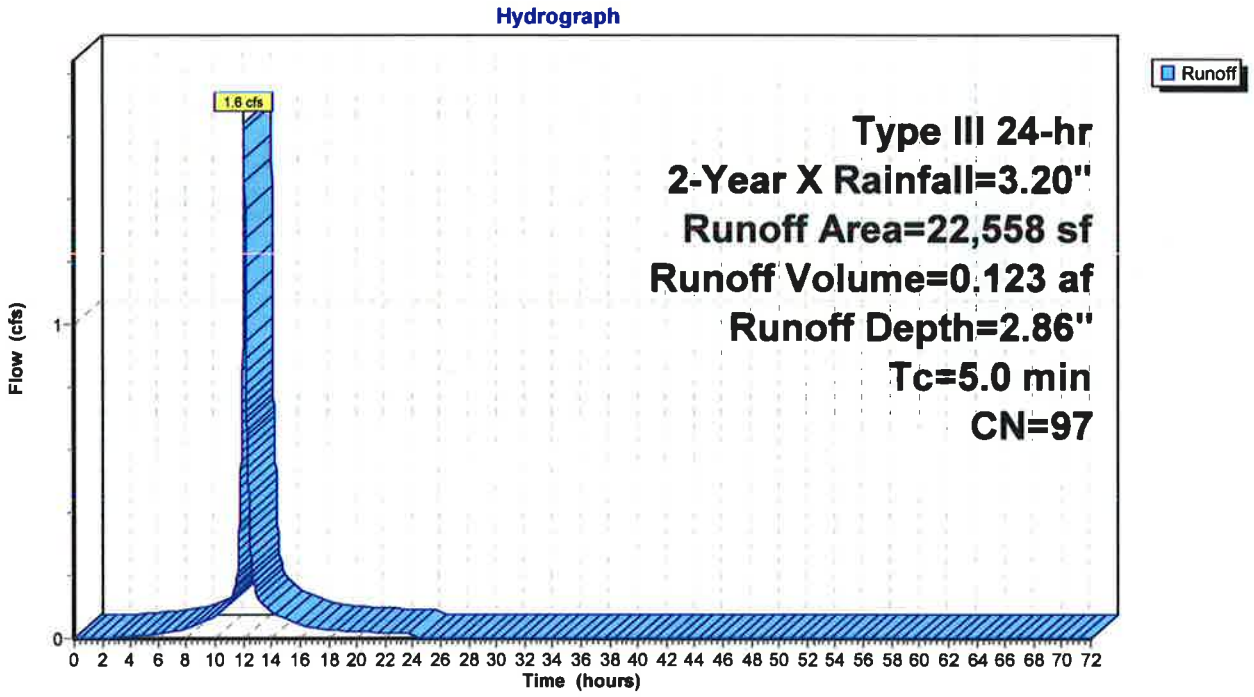
Runoff = 1.6 cfs @ 12.07 hrs, Volume= 0.123 af, Depth= 2.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year X Rainfall=3.20"

	Area (sf)	CN	Description
	15,968	98	Paved parking, HSG C
	1,941	98	Paved roads w/curbs & sewers, HSG C
	990	98	Paved roads w/curbs & sewers, HSG C
	47	98	Roofs, HSG C
*	840	98	Gravel roads, HSG C
	2,772	91	Fallow, bare soil, HSG C
	22,558	97	Weighted Average
	2,772		12.29% Pervious Area
	19,786		87.71% Impervious Area

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

Subcatchment ES2:



Summary for Subcatchment ES3:

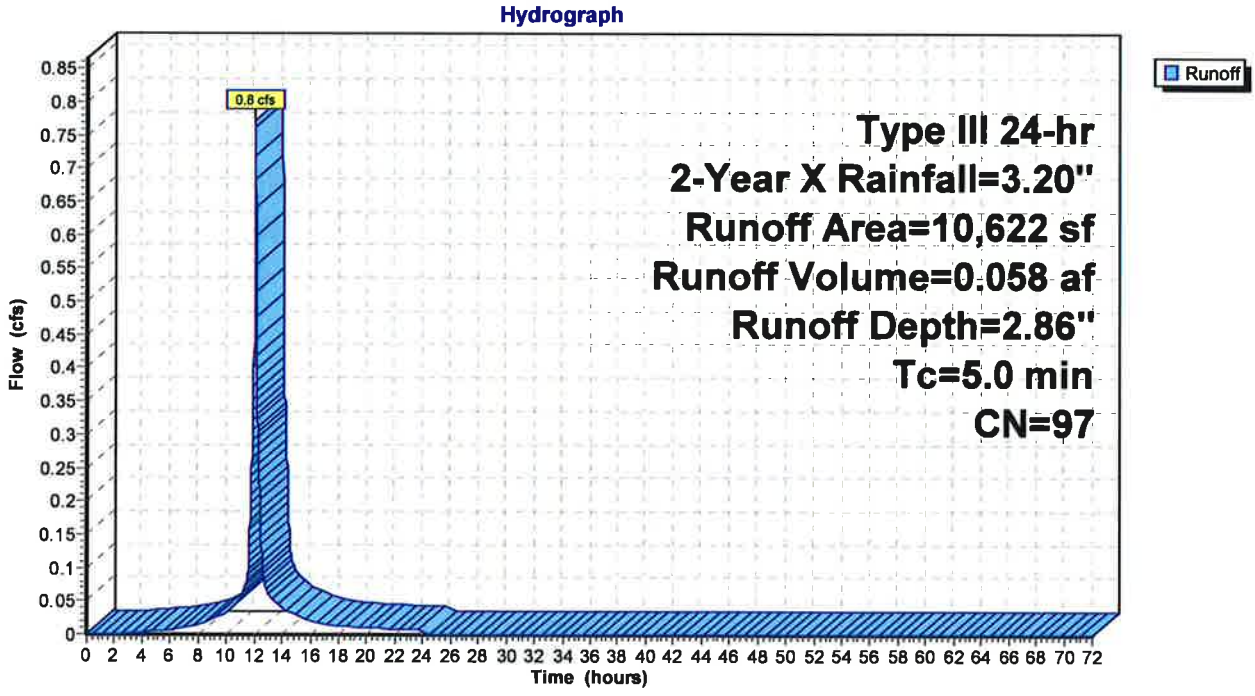
Runoff = 0.8 cfs @ 12.07 hrs, Volume= 0.058 af, Depth= 2.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year X Rainfall=3.20"

Area (sf)	CN	Description
8,579	98	Paved parking, HSG C
14	98	Paved roads w/curbs & sewers, HSG C
54	98	Roofs, HSG C
1,975	91	Fallow, bare soil, HSG C
10,622	97	Weighted Average
1,975		18.59% Pervious Area
8,647		81.41% Impervious Area

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

Subcatchment ES3:



Summary for Subcatchment ES4:

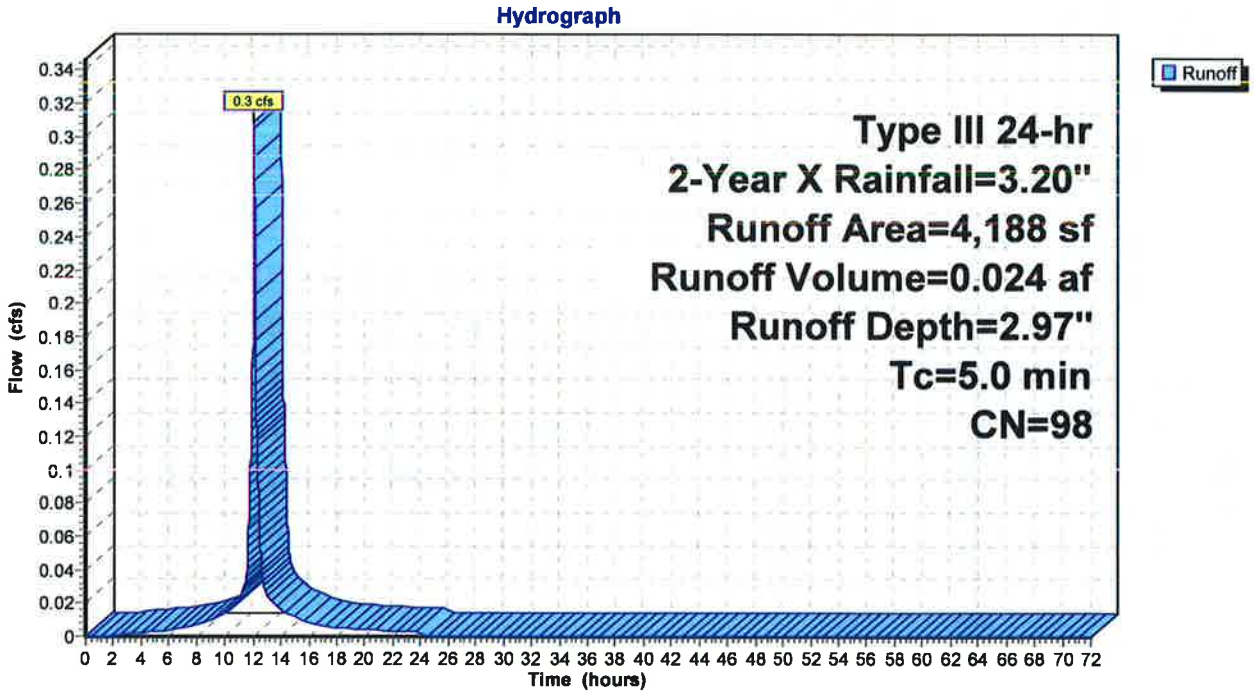
Runoff = 0.3 cfs @ 12.07 hrs, Volume= 0.024 af, Depth= 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year X Rainfall=3.20"

Area (sf)	CN	Description
4,188	98	Roofs, HSG C
4,188		100.00% Impervious Area

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

Subcatchment ES4:



Summary for Subcatchment ES5:

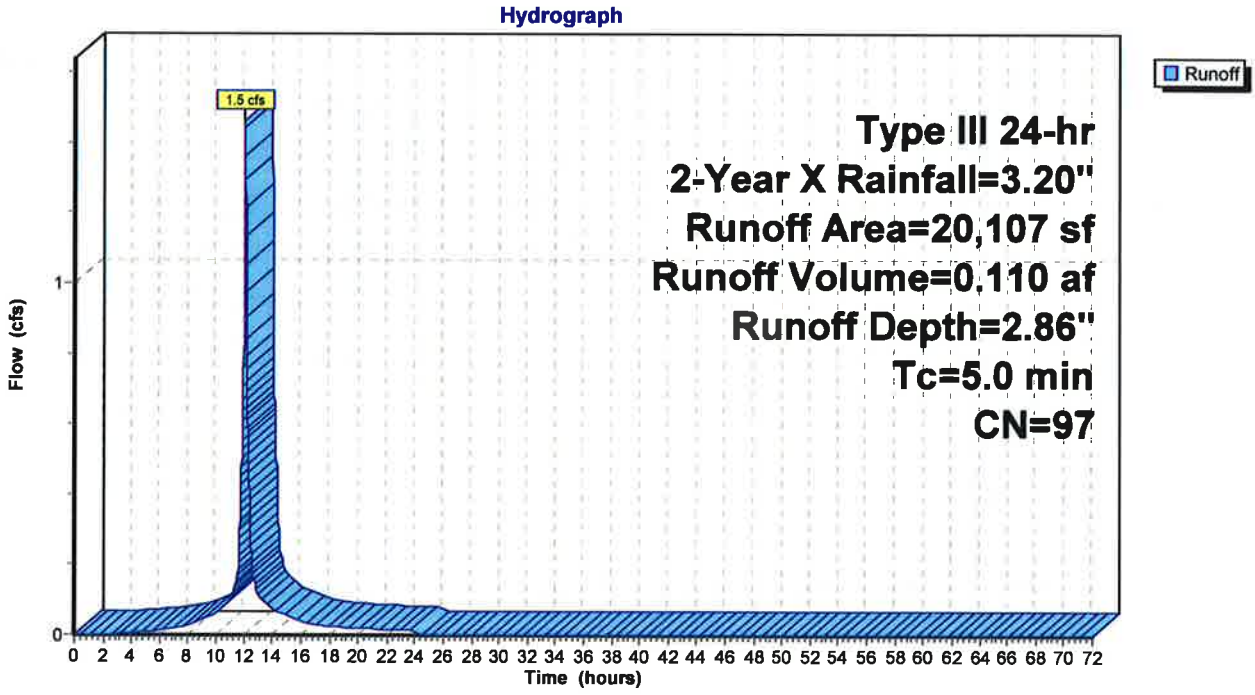
Runoff = 1.5 cfs @ 12.07 hrs, Volume= 0.110 af, Depth= 2.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year X Rainfall=3.20"

	Area (sf)	CN	Description
	269	98	Paved parking, HSG C
	11,300	98	Paved roads w/curbs & sewers, HSG C
	3,499	98	Paved roads w/curbs & sewers, HSG C
	2,439	98	Paved roads w/curbs & sewers, HSG C
*	336	98	Gravel roads, HSG C
	2,264	91	Fallow, bare soil, HSG C
	20,107	97	Weighted Average
	2,264		11.26% Pervious Area
	17,843		88.74% Impervious Area

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

Subcatchment ES5:



Summary for Subcatchment ES6:

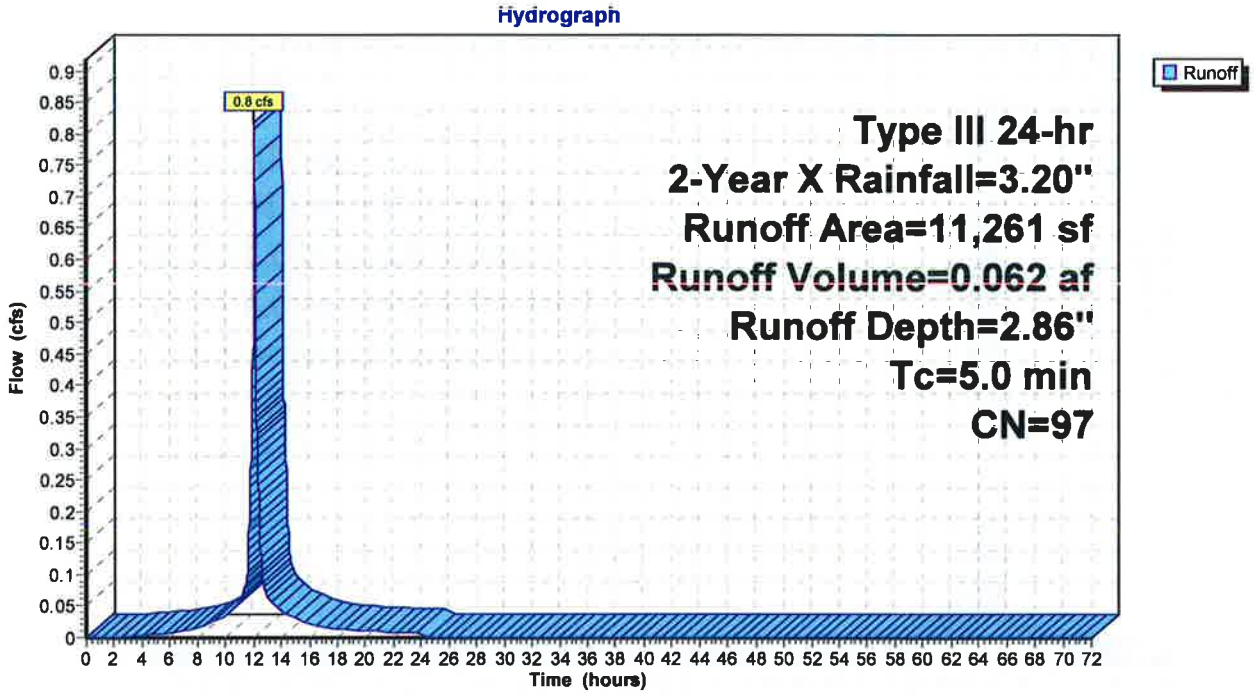
Runoff = 0.8 cfs @ 12.07 hrs, Volume= 0.062 af, Depth= 2.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year X Rainfall=3.20"

Area (sf)	CN	Description
86	98	Paved parking, HSG C
6,879	98	Paved roads w/curbs & sewers, HSG C
2,385	98	Paved roads w/curbs & sewers, HSG C
103	98	Roofs, HSG C
1,808	91	Fallow, bare soil, HSG C
11,261	97	Weighted Average
1,808		16.06% Pervious Area
9,453		83.94% Impervious Area

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

Subcatchment ES6:



Summary for Subcatchment ES7:

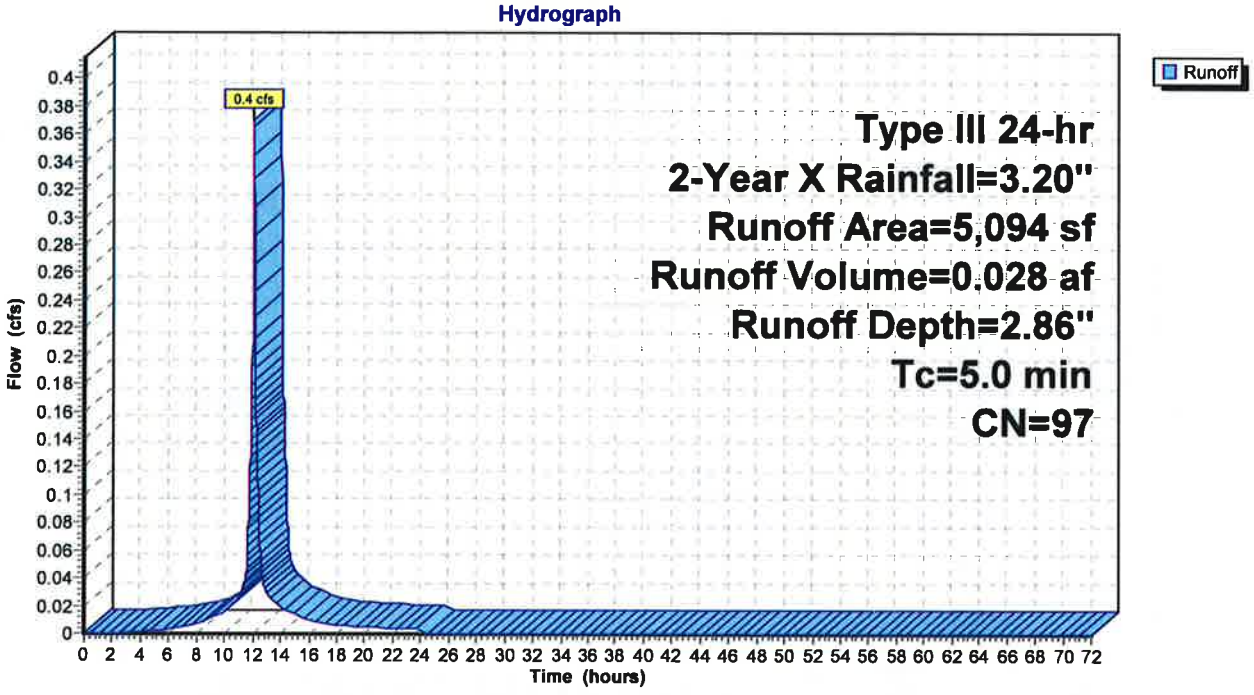
Runoff = 0.4 cfs @ 12.07 hrs, Volume= 0.028 af, Depth= 2.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year X Rainfall=3.20"

Area (sf)	CN	Description
3,437	98	Paved roads w/curbs & sewers, HSG C
1,098	98	Paved roads w/curbs & sewers, HSG C
559	91	Fallow, bare soil, HSG C
5,094	97	Weighted Average
559		10.97% Pervious Area
4,535		89.03% Impervious Area

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

Subcatchment ES7:



Summary for Subcatchment ES8:

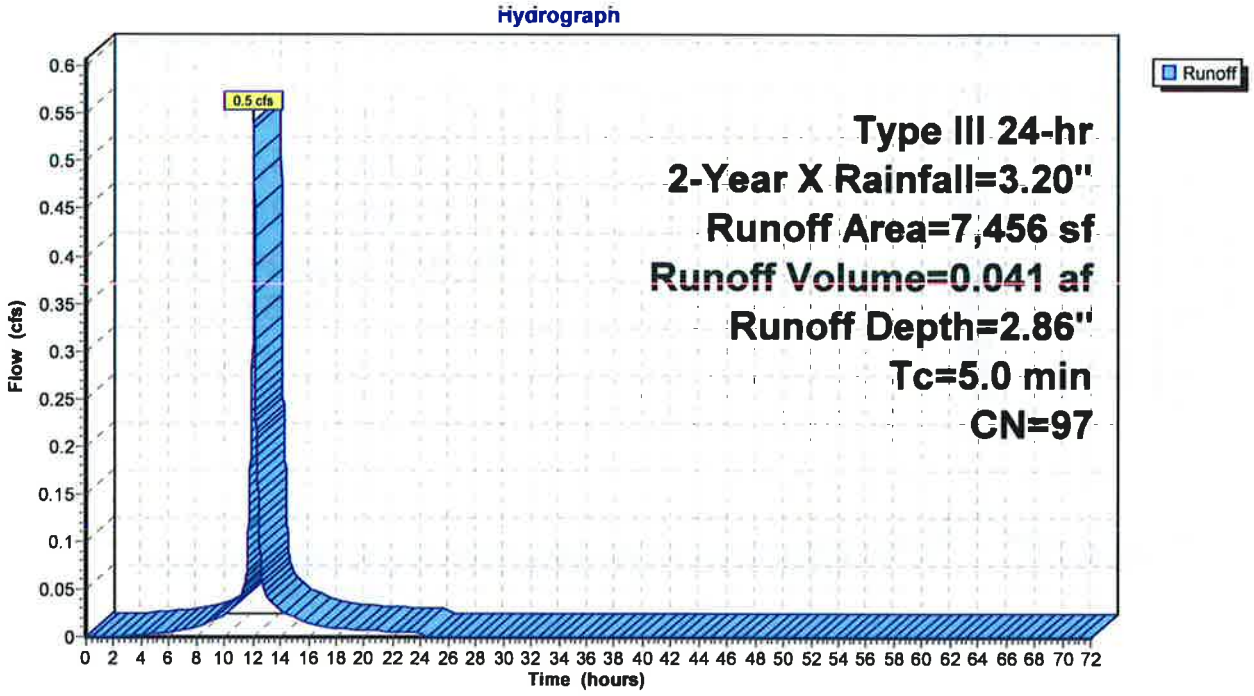
Runoff = 0.5 cfs @ 12.07 hrs, Volume= 0.041 af, Depth= 2.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year X Rainfall=3.20"

Area (sf)	CN	Description
4,674	98	Paved roads w/curbs & sewers, HSG C
1,563	98	Paved roads w/curbs & sewers, HSG C
121	98	Paved roads w/curbs & sewers, HSG C
* 39	98	Gravel roads, HSG C
1,059	91	Fallow, bare soil, HSG C
7,456	97	Weighted Average
1,059		14.20% Pervious Area
6,397		85.80% Impervious Area

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

Subcatchment ES8:



Summary for Pond 1P: CB 3528

[57] Hint: Peaked at 5.30' (Flood elevation advised)

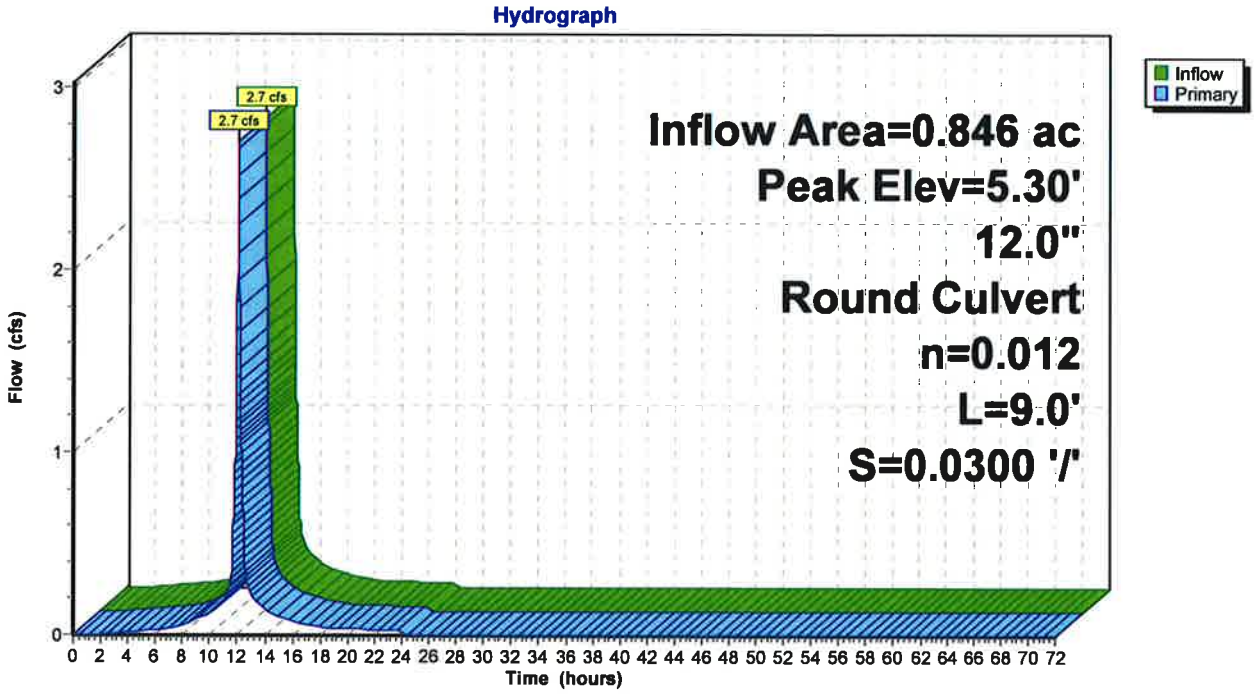
Inflow Area =	0.846 ac,	93.86% Impervious,	Inflow Depth =	2.91"	for 2-Year X event
Inflow =	2.7 cfs @	12.07 hrs, Volume=	0.205 af		
Outflow =	2.7 cfs @	12.07 hrs, Volume=	0.205 af,	Atten= 0%,	Lag= 0.0 min
Primary =	2.7 cfs @	12.07 hrs, Volume=	0.205 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 5.30' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.40'	**12.0" Round Culvert** L= 9.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 4.40' / 4.13' S= 0.0300 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=2.7 cfs @ 12.07 hrs HW=5.30' TW=4.13' (Dynamic Tailwater)
↑**1=Culvert** (Barrel Controls 2.7 cfs @ 4.78 fps)

Pond 1P: CB 3528



Summary for Pond 2P: CB 3524

[57] Hint: Peaked at 7.92' (Flood elevation advised)

Inflow Area =	0.244 ac, 81.41% Impervious, Inflow Depth = 2.86"	for 2-Year X event		
Inflow =	0.8 cfs @ 12.07 hrs, Volume=	0.058 af		
Outflow =	0.8 cfs @ 12.07 hrs, Volume=	0.058 af, Atten= 0%, Lag= 0.0 min		
Primary =	0.8 cfs @ 12.07 hrs, Volume=	0.058 af		

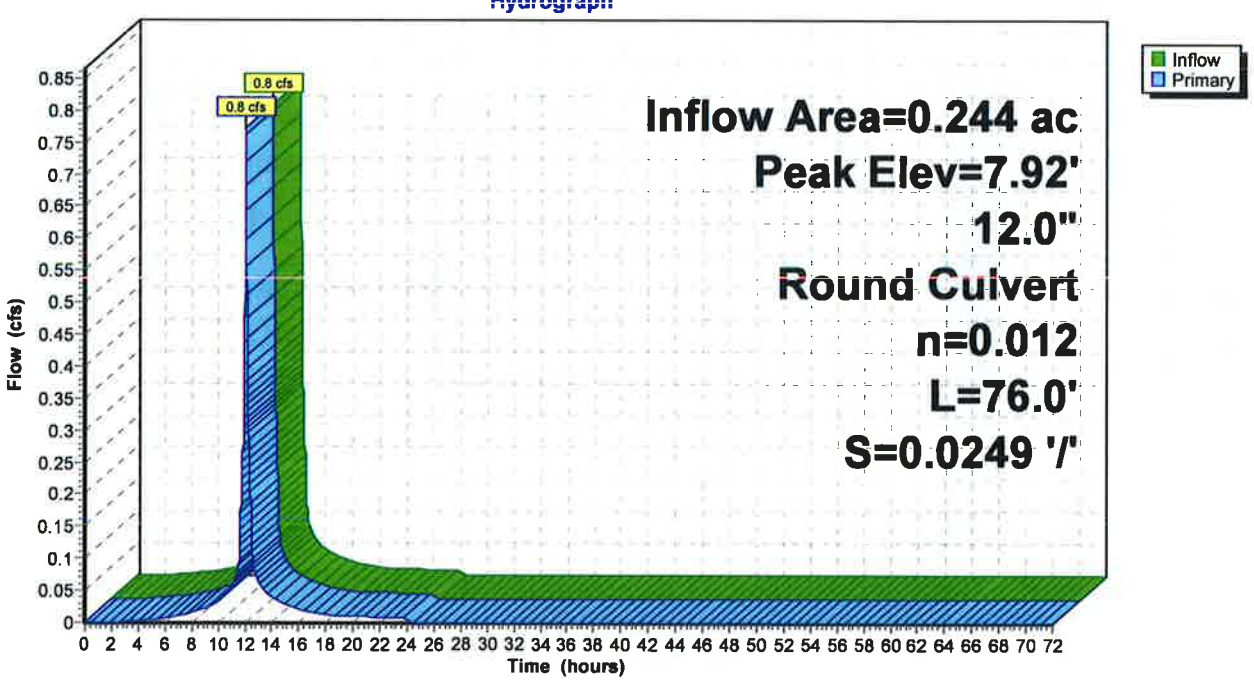
Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 7.92' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	7.52'	**12.0" Round Culvert** L= 76.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 7.52' / 5.63' S= 0.0249 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.8 cfs @ 12.07 hrs HW=7.92' TW=6.61' (Dynamic Tailwater)
↳**1=Culvert** (Inlet Controls 0.8 cfs @ 2.68 fps)

Pond 2P: CB 3524

Hydrograph



Summary for Pond 3P: CB 3525

[57] Hint: Peaked at 6.61' (Flood elevation advised)

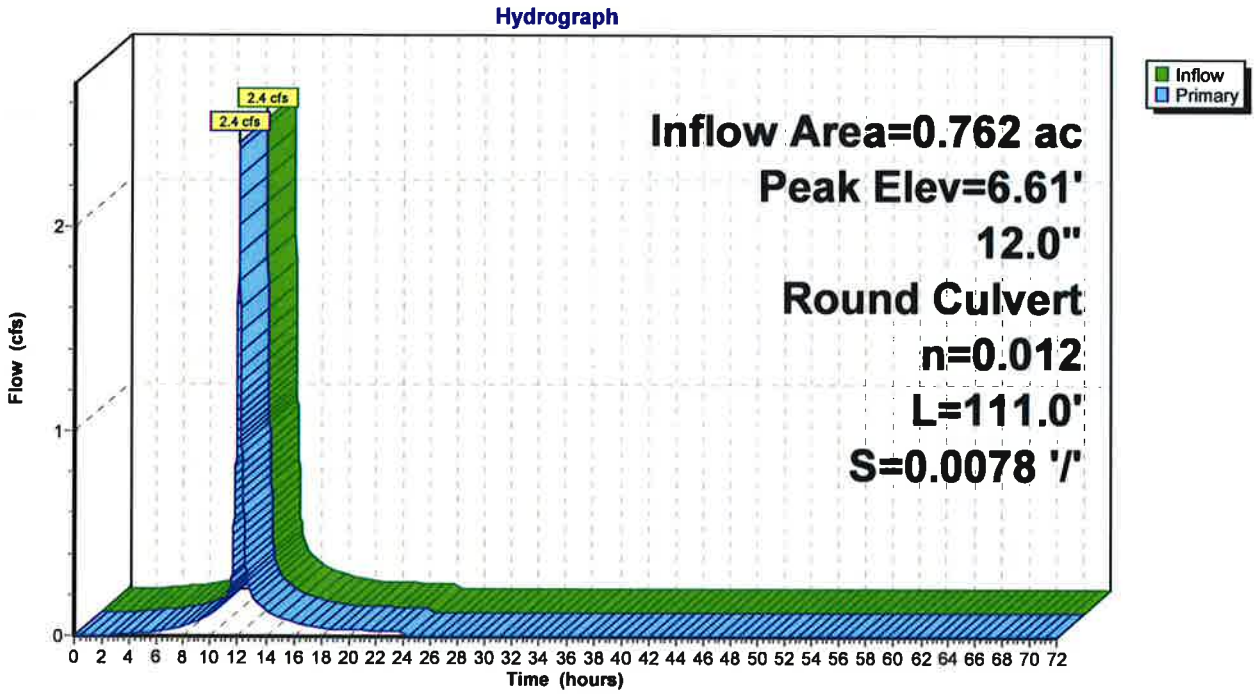
Inflow Area =	0.762 ac, 85.69% Impervious, Inflow Depth =	2.86"	for 2-Year X event		
Inflow =	2.4 cfs @	12.07 hrs, Volume=	0.181 af		
Outflow =	2.4 cfs @	12.07 hrs, Volume=	0.181 af,	Atten= 0%,	Lag= 0.0 min
Primary =	2.4 cfs @	12.07 hrs, Volume=	0.181 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.61' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.63'	**12.0" Round Culvert** L= 111.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.63' / 4.76' S= 0.0078 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=2.4 cfs @ 12.07 hrs HW=6.61' TW=5.79' (Dynamic Tailwater)
↑**1=Culvert** (Outlet Controls 2.4 cfs @ 3.88 fps)

Pond 3P: CB 3525



Summary for Pond 4P: CB 3527

[57] Hint: Peaked at 5.79' (Flood elevation advised)

Inflow Area =	0.858 ac, 87.30% Impervious,	Inflow Depth =	2.87"	for 2-Year X event
Inflow =	2.7 cfs @ 12.07 hrs,	Volume=	0.205 af	
Outflow =	2.7 cfs @ 12.07 hrs,	Volume=	0.205 af,	Atten= 0%, Lag= 0.0 min
Primary =	2.7 cfs @ 12.07 hrs,	Volume=	0.205 af	

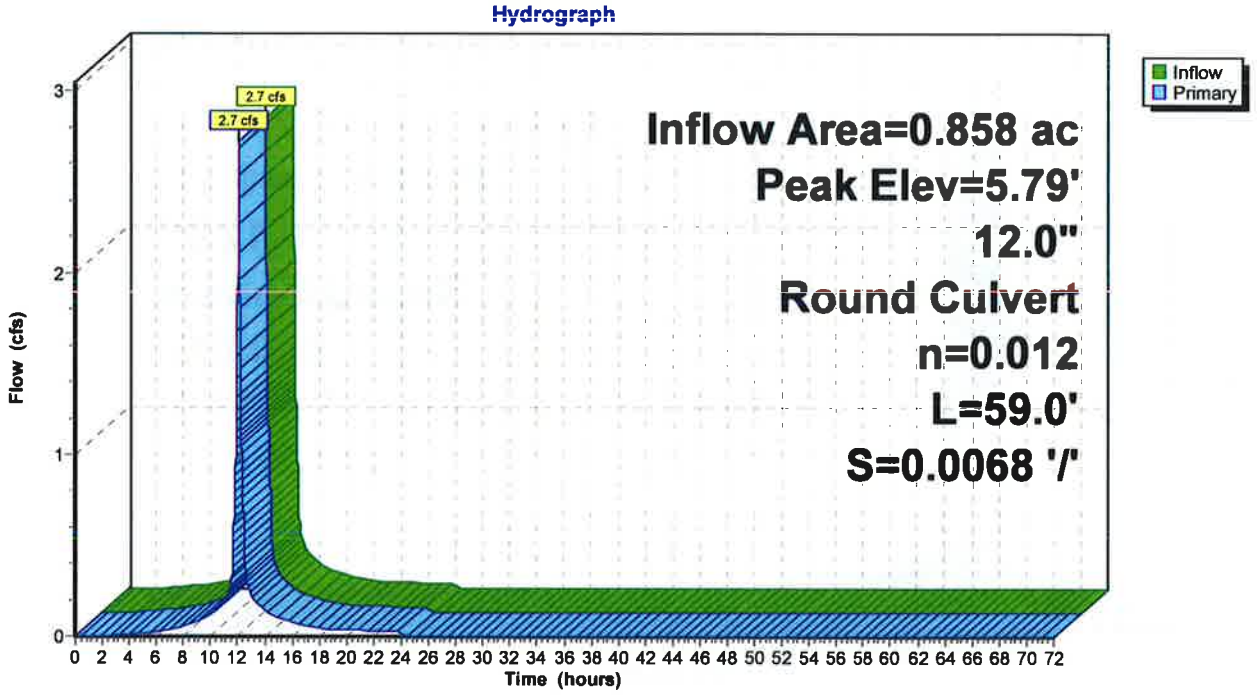
Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 5.79' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.76'	**12.0" Round Culvert** L= 59.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 4.76' / 4.36' S= 0.0068 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=2.7 cfs @ 12.07 hrs HW=5.79' TW=4.13' (Dynamic Tailwater)
↳**1=Culvert** (Barrel Controls 2.7 cfs @ 4.18 fps)

Pond 4P: CB 3527

Hydrograph



Summary for Pond 5P: DMH 3543

[57] Hint: Peaked at 4.13' (Flood elevation advised)

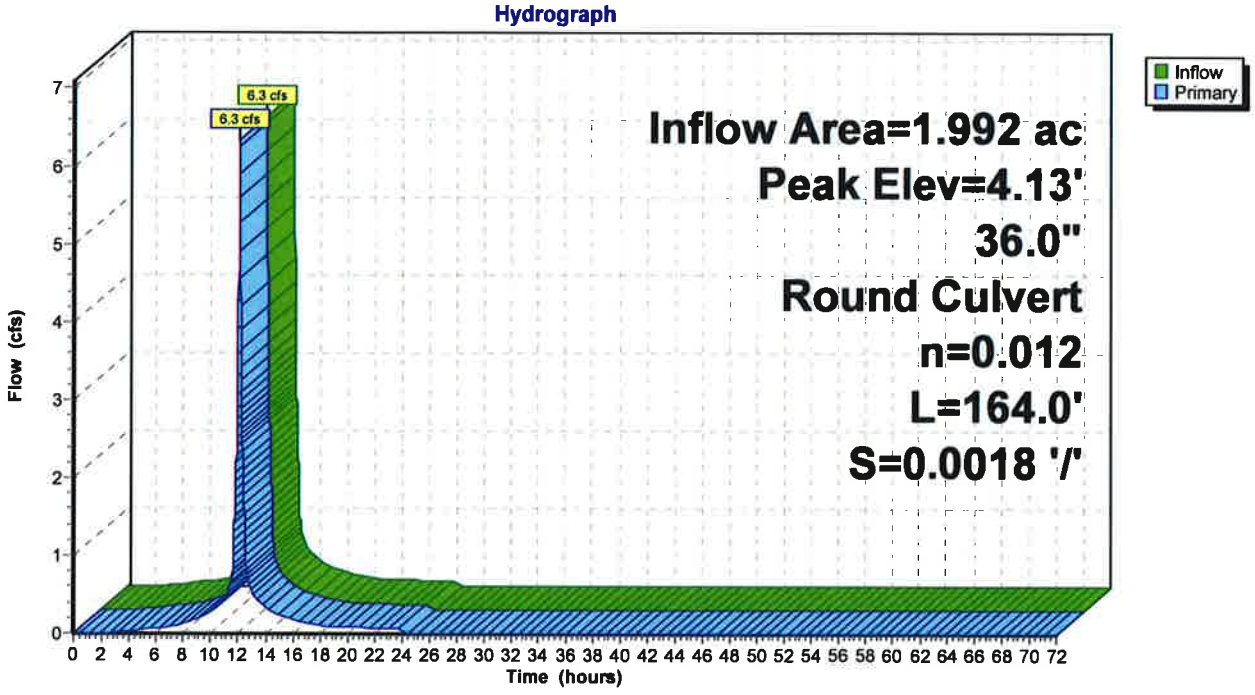
Inflow Area =	1.992 ac,	90.05% Impervious,	Inflow Depth =	2.88"	for 2-Year X event
Inflow =	6.3 cfs @	12.07 hrs,	Volume=	0.479 af	
Outflow =	6.3 cfs @	12.07 hrs,	Volume=	0.479 af,	Atten= 0%, Lag= 0.0 min
Primary =	6.3 cfs @	12.07 hrs,	Volume=	0.479 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 4.13' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	2.91'	**36.0" Round Culvert** L= 164.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 2.91' / 2.61' S= 0.0018 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=6.3 cfs @ 12.07 hrs HW=4.13' TW=3.60' (Dynamic Tailwater)
└─**1=Culvert** (Outlet Controls 6.3 cfs @ 3.46 fps)

Pond 5P: DMH 3543



Summary for Pond 6P: DMH 3542

[57] Hint: Peaked at 3.60' (Flood elevation advised)

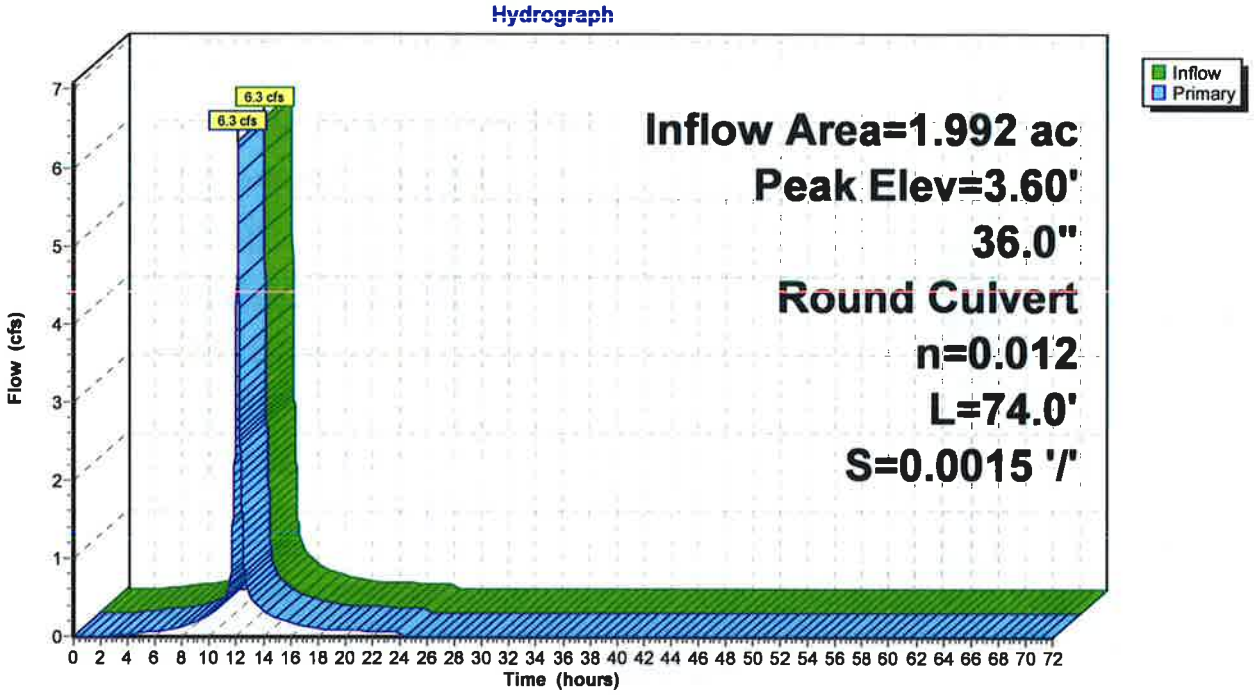
Inflow Area =	1.992 ac,	90.05% Impervious,	Inflow Depth =	2.88"	for 2-Year X event
Inflow =	6.3 cfs @	12.07 hrs,	Volume=	0.479 af	
Outflow =	6.3 cfs @	12.07 hrs,	Volume=	0.479 af,	Atten= 0%, Lag= 0.0 min
Primary =	6.3 cfs @	12.07 hrs,	Volume=	0.479 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.60' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	2.21'	**36.0" Round Culvert** L= 74.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 2.21' / 2.10' S= 0.0015 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=6.3 cfs @ 12.07 hrs HW=3.60' TW=3.36' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 6.3 cfs @ 2.87 fps)

Pond 6P: DMH 3542



Summary for Pond 7P: DMH 3541

[57] Hint: Peaked at 3.37' (Flood elevation advised)

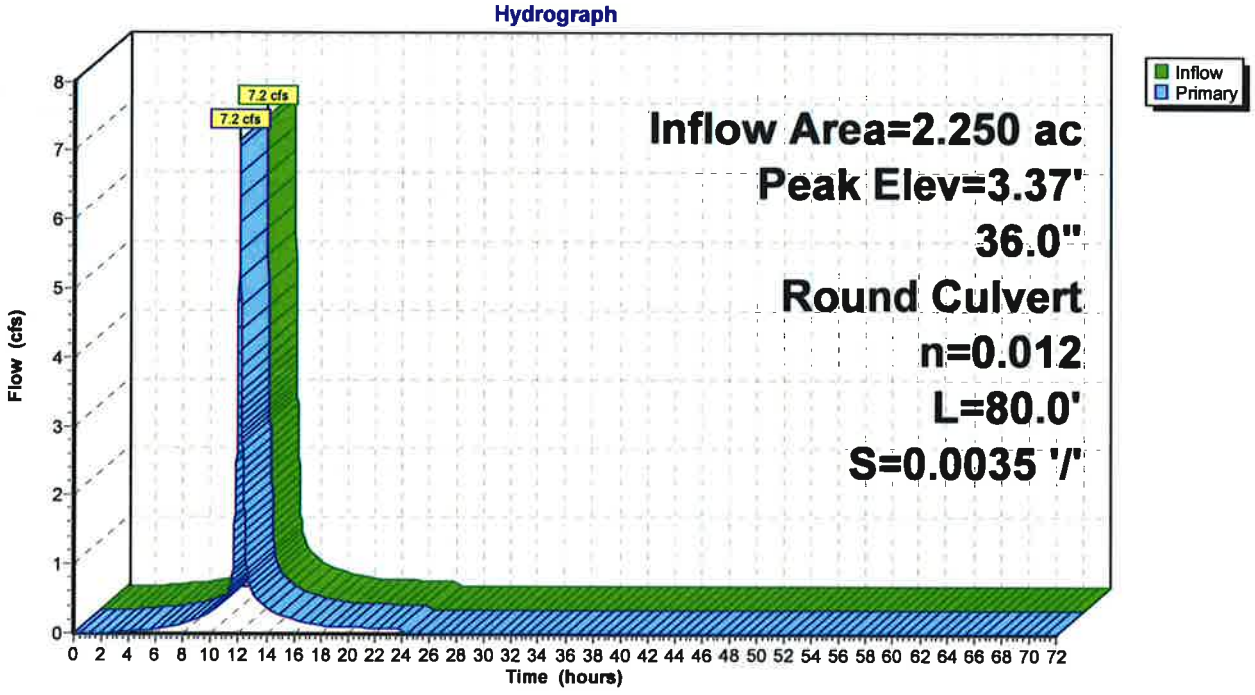
Inflow Area =	2.250 ac,	89.35% Impervious,	Inflow Depth =	2.88"	for 2-Year X event
Inflow =	7.2 cfs @	12.07 hrs, Volume=	0.540 af		
Outflow =	7.2 cfs @	12.07 hrs, Volume=	0.540 af,	Atten= 0%,	Lag= 0.0 min
Primary =	7.2 cfs @	12.07 hrs, Volume=	0.540 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.37' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.96'	**36.0" Round Culvert** L= 80.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 1.96' / 1.68' S= 0.0035 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=7.1 cfs @ 12.07 hrs HW=3.36' TW=3.06' (Dynamic Tailwater)
↑**1=Culvert** (Outlet Controls 7.1 cfs @ 3.22 fps)

Pond 7P: DMH 3541



Summary for Pond 9P: DMH 5438

[57] Hint: Peaked at 2.70' (Flood elevation advised)

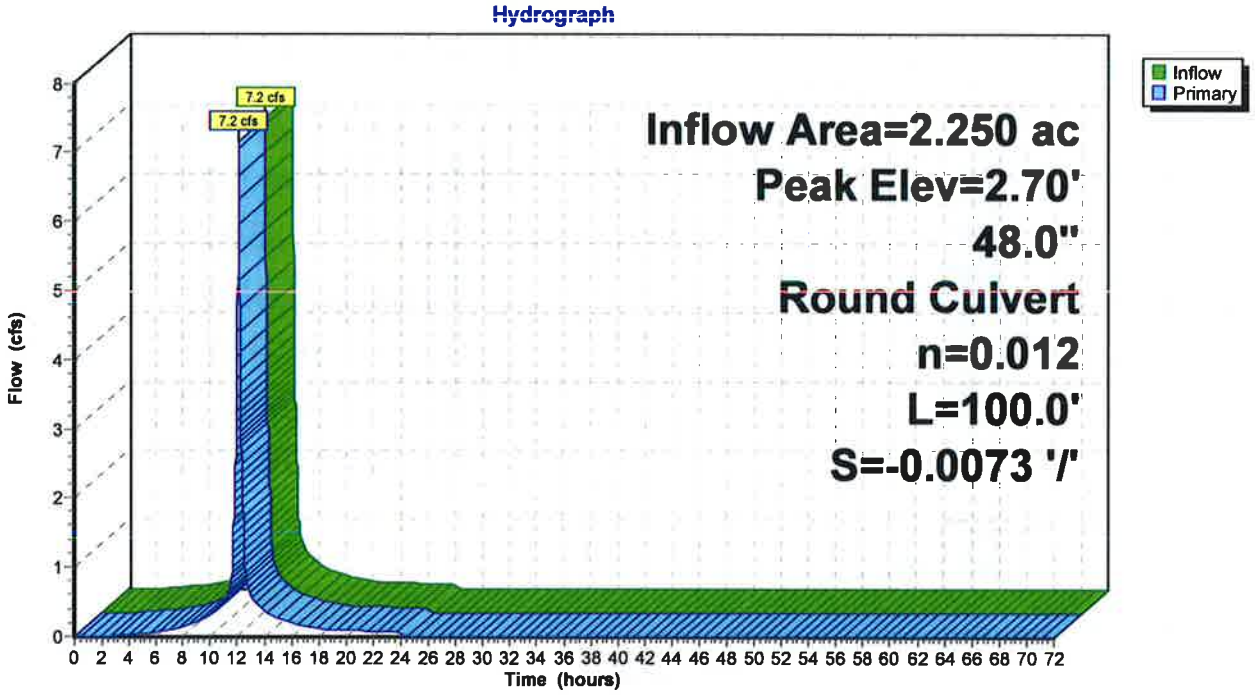
Inflow Area =	2.250 ac, 89.35% Impervious, Inflow Depth = 2.88"	for 2-Year X event		
Inflow =	7.2 cfs @ 12.07 hrs, Volume=	0.540 af		
Outflow =	7.2 cfs @ 12.07 hrs, Volume=	0.540 af, Atten= 0%, Lag= 0.0 min		
Primary =	7.2 cfs @ 12.07 hrs, Volume=	0.540 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 2.70' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.67'	**48.0" Round Culvert** L= 100.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 0.94' / 1.67' S= -0.0073 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 12.57 sf

Primary OutFlow Max=7.2 cfs @ 12.07 hrs HW=2.70' TW=2.49' (Dynamic Tailwater)
↳**1=Culvert** (Inlet Controls 7.2 cfs @ 2.78 fps)

Pond 9P: DMH 5438



Summary for Pond 10P: DMH 5217

[57] Hint: Peaked at 2.49' (Flood elevation advised)

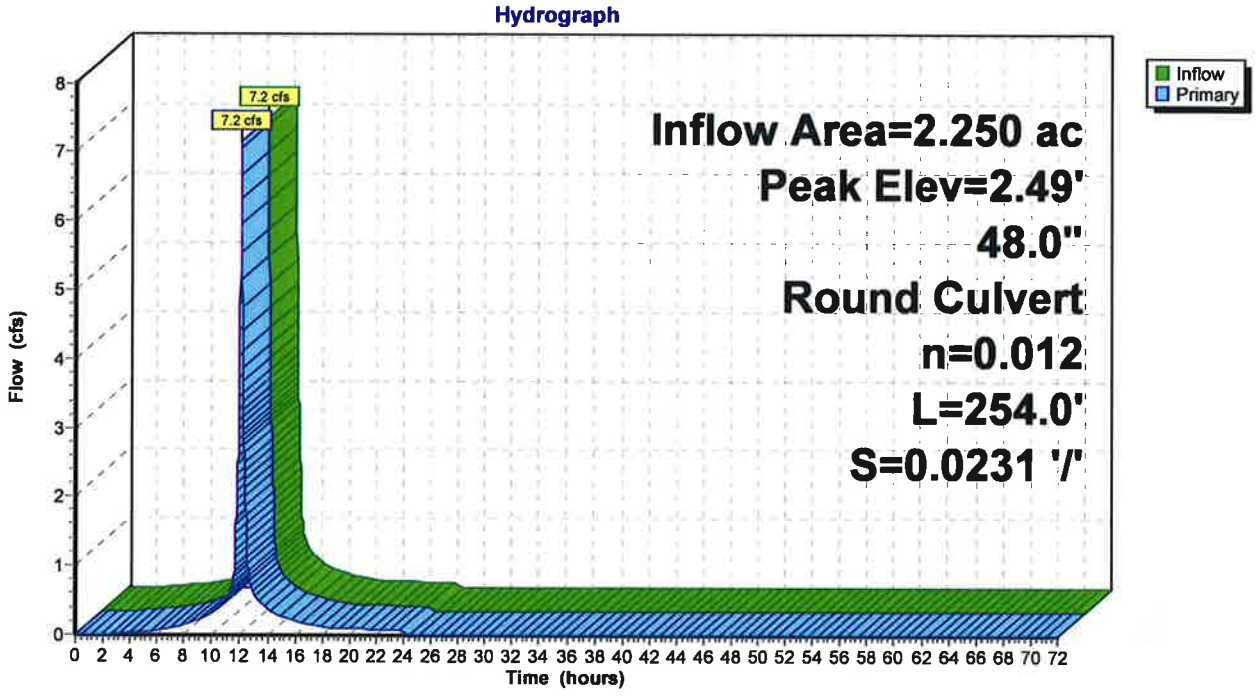
Inflow Area =	2.250 ac,	89.35% Impervious,	Inflow Depth =	2.88"	for 2-Year X event
Inflow =	7.2 cfs @	12.07 hrs,	Volume=	0.540 af	
Outflow =	7.2 cfs @	12.07 hrs,	Volume=	0.540 af,	Atten= 0%, Lag= 0.0 min
Primary =	7.2 cfs @	12.07 hrs,	Volume=	0.540 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 2.49' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.67'	**48.0" Round Culvert** L= 254.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 1.67' / -4.20' S= 0.0231 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 12.57 sf

Primary OutFlow Max=7.2 cfs @ 12.07 hrs HW=2.49' (Free Discharge)
1=Culvert (Inlet Controls 7.2 cfs @ 3.86 fps)

Pond 10P: DMH 5217



Summary for Pond 11P: CB 3523

[57] Hint: Peaked at 7.93' (Flood elevation advised)

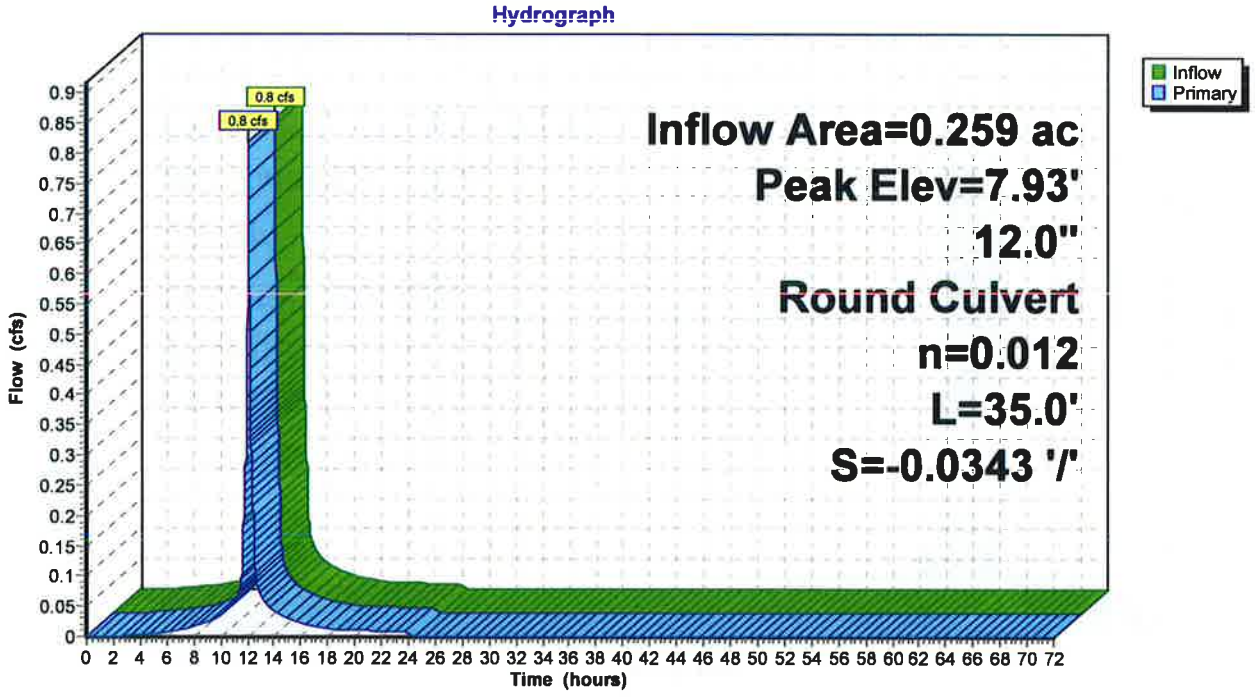
Inflow Area =	0.259 ac, 83.94% Impervious,	Inflow Depth =	2.86"	for 2-Year X event
Inflow =	0.8 cfs @	12.07 hrs, Volume=	0.062 af	
Outflow =	0.8 cfs @	12.07 hrs, Volume=	0.062 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.8 cfs @	12.07 hrs, Volume=	0.062 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 7.93' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	7.52'	**12.0" Round Culvert** L= 35.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.32' / 7.52' S= -0.0343 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.8 cfs @ 12.07 hrs HW=7.93' TW=3.36' (Dynamic Tailwater)
↳**1=Culvert** (Inlet Controls 0.8 cfs @ 2.72 fps)

Pond 11P: CB 3523



Summary for Pond 12P: CB 3526

[57] Hint: Peaked at 6.58' (Flood elevation advised)

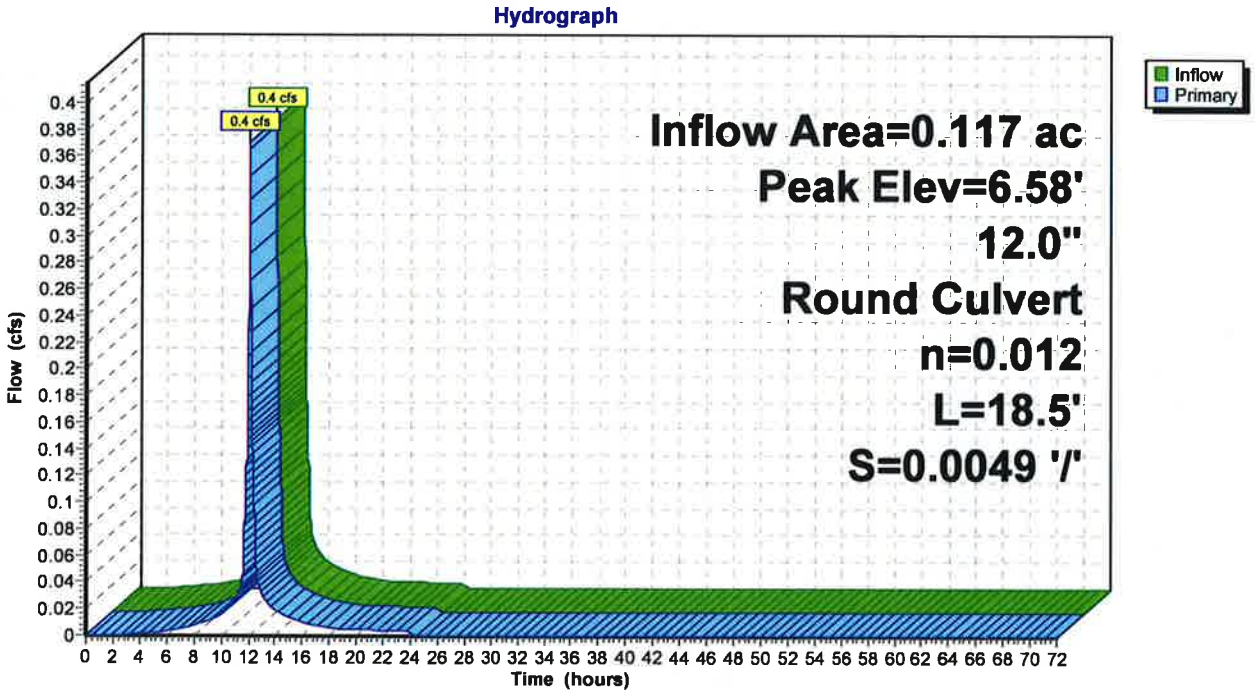
Inflow Area =	0.117 ac,	89.03% Impervious,	Inflow Depth =	2.86"	for 2-Year X event
Inflow =	0.4 cfs @	12.07 hrs,	Volume=	0.028 af	
Outflow =	0.4 cfs @	12.07 hrs,	Volume=	0.028 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.4 cfs @	12.07 hrs,	Volume=	0.028 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.58' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	6.18'	**12.0" Round Culvert** L= 18.5' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.18' / 6.09' S= 0.0049 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.4 cfs @ 12.07 hrs HW=6.58' TW=6.46' (Dynamic Tailwater)
↳**1=Culvert** (Outlet Controls 0.4 cfs @ 1.89 fps)

Pond 12P: CB 3526



Summary for Pond 13P: DMH 12303

[57] Hint: Peaked at 6.46' (Flood elevation advised)

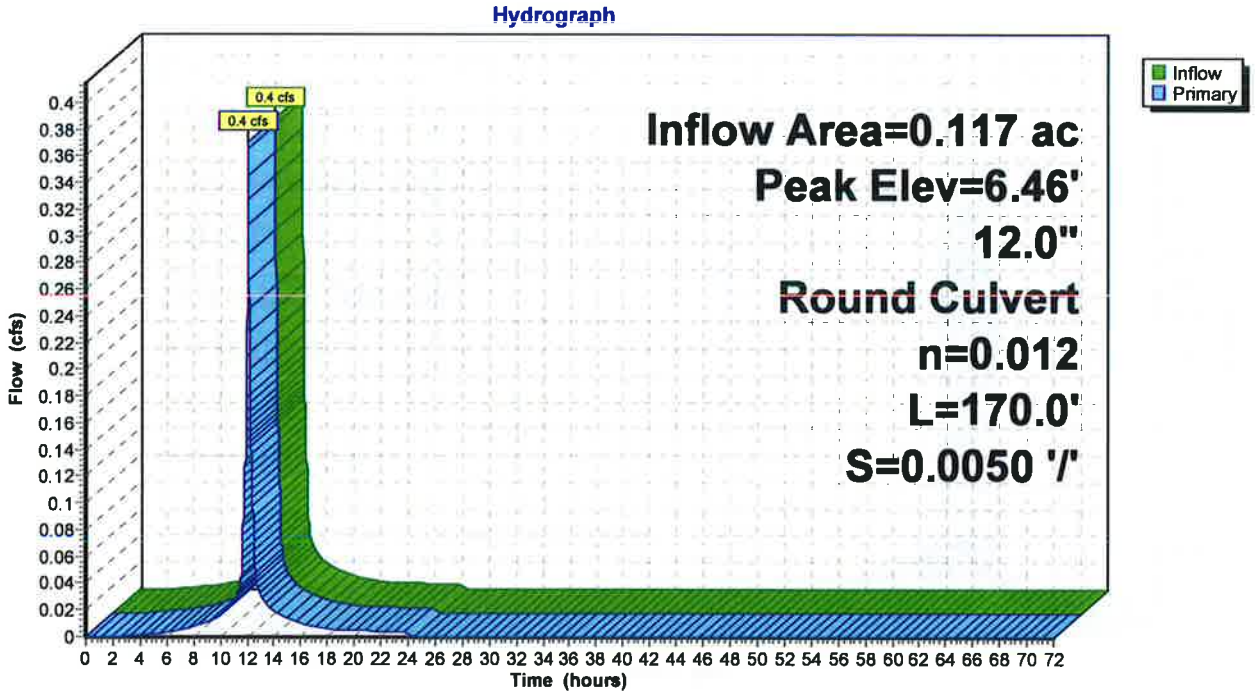
Inflow Area =	0.117 ac, 89.03% Impervious,	Inflow Depth =	2.86"	for 2-Year X event
Inflow =	0.4 cfs @ 12.07 hrs,	Volume=	0.028 af	
Outflow =	0.4 cfs @ 12.07 hrs,	Volume=	0.028 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.4 cfs @ 12.07 hrs,	Volume=	0.028 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.46' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	6.09'	**12.0" Round Culvert** L= 170.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.09' / 5.24' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.4 cfs @ 12.07 hrs HW=6.46' TW=5.85' (Dynamic Tailwater)
↳**1=Culvert** (Outlet Controls 0.4 cfs @ 2.06 fps)

Pond 13P: DMH 12303



Summary for Pond 14P: DMH 12631

[57] Hint: Peaked at 5.85' (Flood elevation advised)

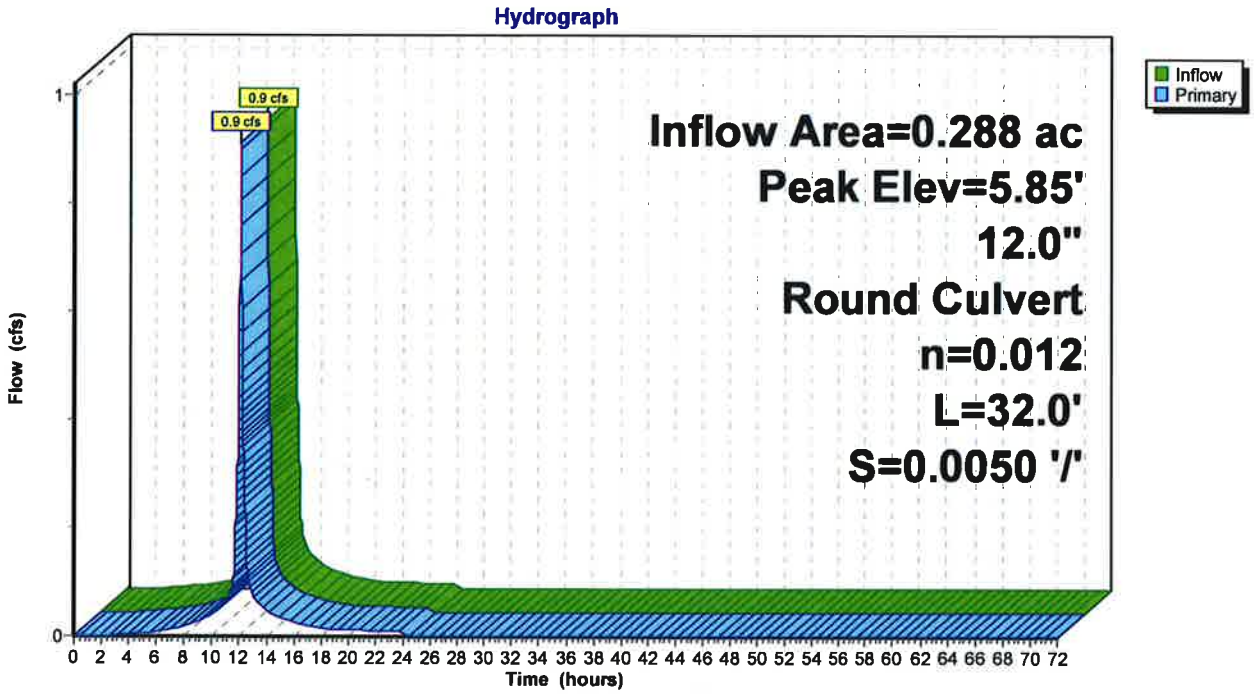
Inflow Area =	0.288 ac,	87.11% Impervious,	Inflow Depth =	2.86"	for 2-Year X event
Inflow =	0.9 cfs @	12.07 hrs,	Volume=	0.069 af	
Outflow =	0.9 cfs @	12.07 hrs,	Volume=	0.069 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.9 cfs @	12.07 hrs,	Volume=	0.069 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 5.85' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.24'	**12.0" Round Culvert** L= 32.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.24' / 5.08' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.9 cfs @ 12.07 hrs HW=5.85' TW=5.62' (Dynamic Tailwater)
↑**1=Culvert** (Outlet Controls 0.9 cfs @ 2.62 fps)

Pond 14P: DMH 12631



Summary for Pond 15P: CB 8146

[57] Hint: Peaked at 5.91' (Flood elevation advised)

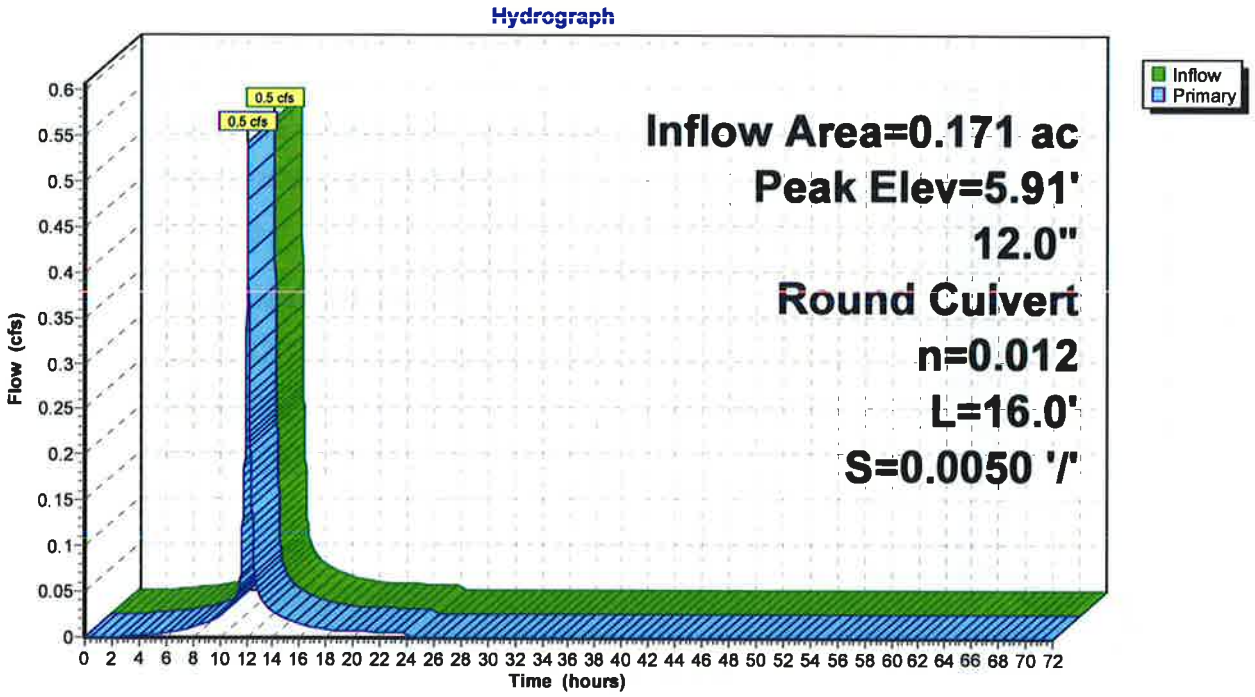
Inflow Area =	0.171 ac, 85.80% Impervious,	Inflow Depth =	2.86"	for 2-Year X event
Inflow =	0.5 cfs @ 12.07 hrs,	Volume=	0.041 af	
Outflow =	0.5 cfs @ 12.07 hrs,	Volume=	0.041 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.5 cfs @ 12.07 hrs,	Volume=	0.041 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 5.91' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.32'	**12.0" Round Culvert** L= 16.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.32' / 5.24' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.5 cfs @ 12.07 hrs HW=5.91' TW=5.85' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 0.5 cfs @ 1.59 fps)

Pond 15P: CB 8146



Summary for Pond 16P: DMH 12632

[57] Hint: Peaked at 5.62' (Flood elevation advised)

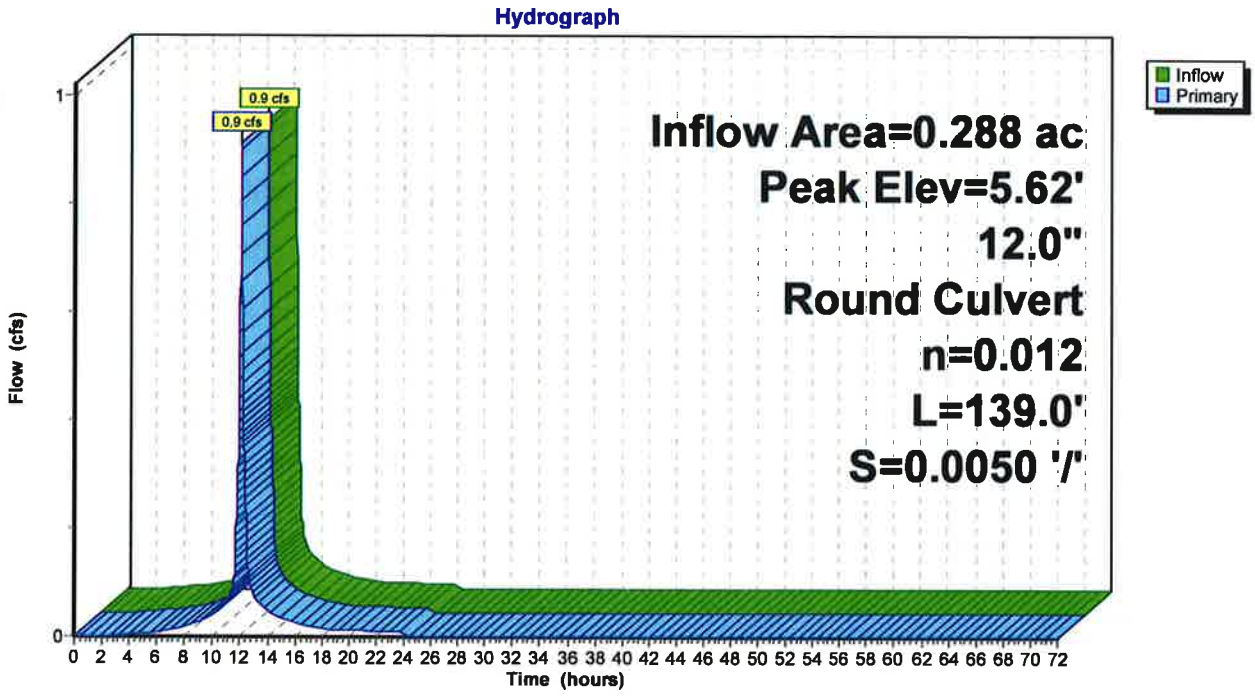
Inflow Area =	0.288 ac,	87.11% Impervious,	Inflow Depth =	2.86"	for 2-Year X event
Inflow =	0.9 cfs @	12.07 hrs,	Volume=	0.069 af	
Outflow =	0.9 cfs @	12.07 hrs,	Volume=	0.069 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.9 cfs @	12.07 hrs,	Volume=	0.069 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 5.62' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.08'	**12.0" Round Culvert** L= 139.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.08' / 4.39' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.9 cfs @ 12.07 hrs HW=5.62' TW=4.75' (Dynamic Tailwater)
↑—**1=Culvert** (Barrel Controls 0.9 cfs @ 3.05 fps)

Pond 16P: DMH 12632



Summary for Pond 17P: DMH 3545

[57] Hint: Peaked at 4.75' (Flood elevation advised)

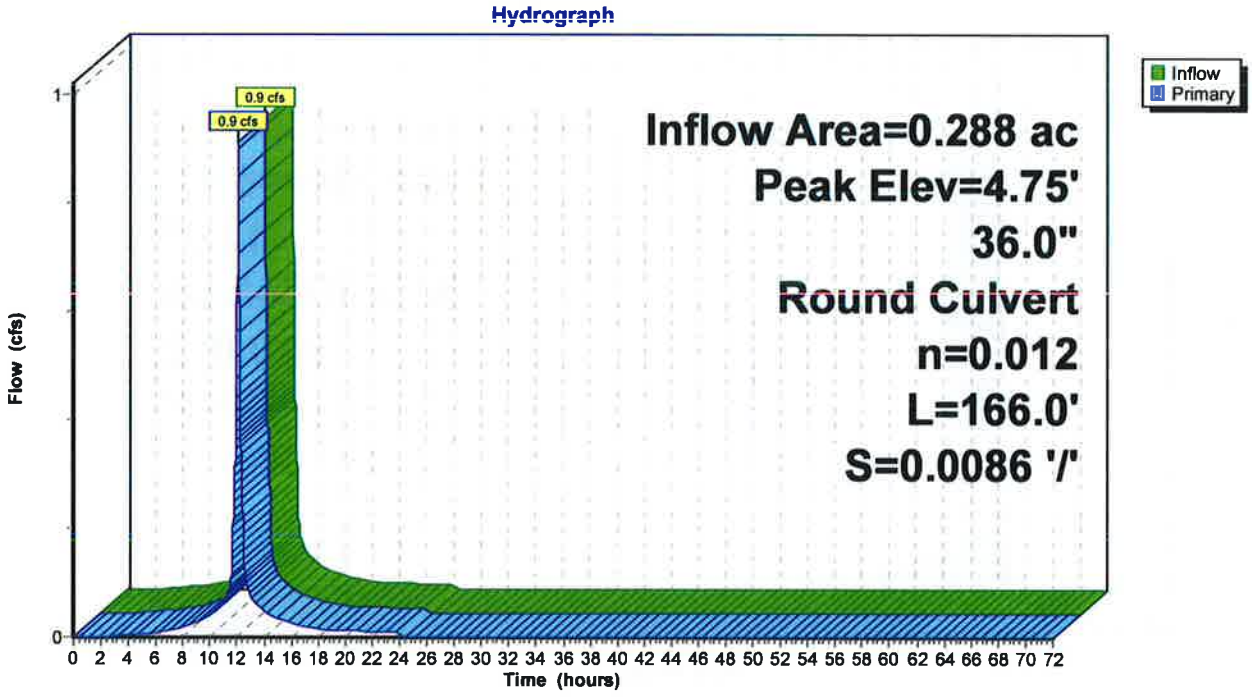
Inflow Area = 0.288 ac, 87.11% Impervious, Inflow Depth = 2.86" for 2-Year X event
Inflow = 0.9 cfs @ 12.07 hrs, Volume= 0.069 af
Outflow = 0.9 cfs @ 12.07 hrs, Volume= 0.069 af, Atten= 0%, Lag= 0.0 min
Primary = 0.9 cfs @ 12.07 hrs, Volume= 0.069 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 4.75' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.34'	**36.0" Round Culvert** L= 166.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 4.34' / 2.91' S= 0.0086 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=0.9 cfs @ 12.07 hrs HW=4.75' TW=4.13' (Dynamic Tailwater)
↳**1=Culvert** (Outlet Controls 0.9 cfs @ 2.35 fps)

Pond 17P: DMH 3545



Summary for Pond DP1: DMH 3540

[57] Hint: Peaked at 3.06' (Flood elevation advised)

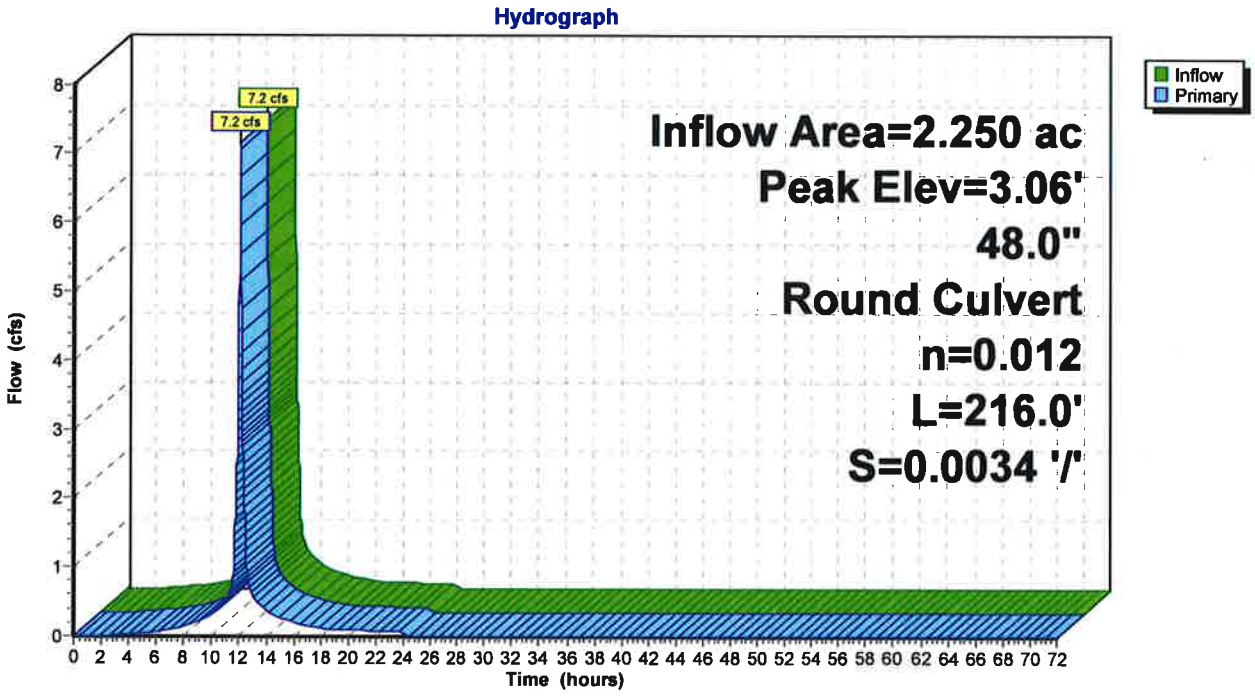
Inflow Area =	2.250 ac,	89.35% Impervious,	Inflow Depth =	2.88"	for 2-Year X event
Inflow =	7.2 cfs @	12.07 hrs,	Volume=	0.540 af	
Outflow =	7.2 cfs @	12.07 hrs,	Volume=	0.540 af,	Atten= 0%, Lag= 0.0 min
Primary =	7.2 cfs @	12.07 hrs,	Volume=	0.540 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.06' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.68'	**48.0" Round Culvert** L= 216.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 1.68' / 0.94' S= 0.0034 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 12.57 sf

Primary OutFlow Max=7.1 cfs @ 12.07 hrs HW=3.06' TW=2.70' (Dynamic Tailwater)
↑**1=Culvert** (Outlet Controls 7.1 cfs @ 2.77 fps)

Pond DP1: DMH 3540



Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment ES1: Runoff Area=16,738 sf 100.00% Impervious Runoff Depth=4.62"
Tc=5.0 min CN=98 Runoff=1.9 cfs 0.148 af

Subcatchment ES2: Runoff Area=22,558 sf 87.71% Impervious Runoff Depth=4.51"
Tc=5.0 min CN=97 Runoff=2.5 cfs 0.195 af

Subcatchment ES3: Runoff Area=10,622 sf 81.41% Impervious Runoff Depth=4.51"
Tc=5.0 min CN=97 Runoff=1.2 cfs 0.092 af

Subcatchment ES4: Runoff Area=4,188 sf 100.00% Impervious Runoff Depth=4.62"
Tc=5.0 min CN=98 Runoff=0.5 cfs 0.037 af

Subcatchment ES5: Runoff Area=20,107 sf 88.74% Impervious Runoff Depth=4.51"
Tc=5.0 min CN=97 Runoff=2.3 cfs 0.173 af

Subcatchment ES6: Runoff Area=11,261 sf 83.94% Impervious Runoff Depth=4.51"
Tc=5.0 min CN=97 Runoff=1.3 cfs 0.097 af

Subcatchment ES7: Runoff Area=5,094 sf 89.03% Impervious Runoff Depth=4.51"
Tc=5.0 min CN=97 Runoff=0.6 cfs 0.044 af

Subcatchment ES8: Runoff Area=7,456 sf 85.80% Impervious Runoff Depth=4.51"
Tc=5.0 min CN=97 Runoff=0.8 cfs 0.064 af

Pond 1P: CB 3528 Peak Elev=5.75' Inflow=4.1 cfs 0.321 af
12.0" Round Culvert n=0.012 L=9.0' S=0.0300 '/' Outflow=4.1 cfs 0.321 af

Pond 2P: CB 3524 Peak Elev=8.31' Inflow=1.2 cfs 0.092 af
12.0" Round Culvert n=0.012 L=76.0' S=0.0249 '/' Outflow=1.2 cfs 0.092 af

Pond 3P: CB 3525 Peak Elev=8.05' Inflow=3.7 cfs 0.286 af
12.0" Round Culvert n=0.012 L=111.0' S=0.0078 '/' Outflow=3.7 cfs 0.286 af

Pond 4P: CB 3527 Peak Elev=6.59' Inflow=4.2 cfs 0.323 af
12.0" Round Culvert n=0.012 L=59.0' S=0.0068 '/' Outflow=4.2 cfs 0.323 af

Pond 5P: DMH 3543 Peak Elev=4.51' Inflow=9.8 cfs 0.753 af
36.0" Round Culvert n=0.012 L=164.0' S=0.0018 '/' Outflow=9.8 cfs 0.753 af

Pond 6P: DMH 3542 Peak Elev=4.00' Inflow=9.8 cfs 0.753 af
36.0" Round Culvert n=0.012 L=74.0' S=0.0015 '/' Outflow=9.8 cfs 0.753 af

Pond 7P: DMH 3541 Peak Elev=3.74' Inflow=11.0 cfs 0.850 af
36.0" Round Culvert n=0.012 L=80.0' S=0.0035 '/' Outflow=11.0 cfs 0.850 af

Pond 9P: DMH 5438 Peak Elev=2.97' Inflow=11.0 cfs 0.850 af
48.0" Round Culvert n=0.012 L=100.0' S=-0.0073 '/' Outflow=11.0 cfs 0.850 af

Pond 10P: DMH 5217 Peak Elev=2.70' Inflow=11.0 cfs 0.850 af
48.0" Round Culvert n=0.012 L=254.0' S=0.0231 '/' Outflow=11.0 cfs 0.850 af

Pond 11P: CB 3523 Peak Elev=8.04' Inflow=1.3 cfs 0.097 af
12.0" Round Culvert n=0.012 L=35.0' S=-0.0343 '/' Outflow=1.3 cfs 0.097 af

Pond 12P: CB 3526 Peak Elev=6.70' Inflow=0.6 cfs 0.044 af
12.0" Round Culvert n=0.012 L=18.5' S=0.0049 '/' Outflow=0.6 cfs 0.044 af

Pond 13P: DMH 12303 Peak Elev=6.58' Inflow=0.6 cfs 0.044 af
12.0" Round Culvert n=0.012 L=170.0' S=0.0050 '/' Outflow=0.6 cfs 0.044 af

Pond 14P: DMH 12631 Peak Elev=6.03' Inflow=1.4 cfs 0.108 af
12.0" Round Culvert n=0.012 L=32.0' S=0.0050 '/' Outflow=1.4 cfs 0.108 af

Pond 15P: CB 8146 Peak Elev=6.10' Inflow=0.8 cfs 0.064 af
12.0" Round Culvert n=0.012 L=16.0' S=0.0050 '/' Outflow=0.8 cfs 0.064 af

Pond 16P: DMH 12632 Peak Elev=5.77' Inflow=1.4 cfs 0.108 af
12.0" Round Culvert n=0.012 L=139.0' S=0.0050 '/' Outflow=1.4 cfs 0.108 af

Pond 17P: DMH 3545 Peak Elev=4.92' Inflow=1.4 cfs 0.108 af
36.0" Round Culvert n=0.012 L=166.0' S=0.0086 '/' Outflow=1.4 cfs 0.108 af

Pond DP1: DMH 3540 Peak Elev=3.38' Inflow=11.0 cfs 0.850 af
48.0" Round Culvert n=0.012 L=216.0' S=0.0034 '/' Outflow=11.0 cfs 0.850 af

Total Runoff Area = 2.250 ac Runoff Volume = 0.850 af Average Runoff Depth = 4.53"
10.65% Pervious = 0.240 ac 89.35% Impervious = 2.011 ac

Summary for Subcatchment ES1:

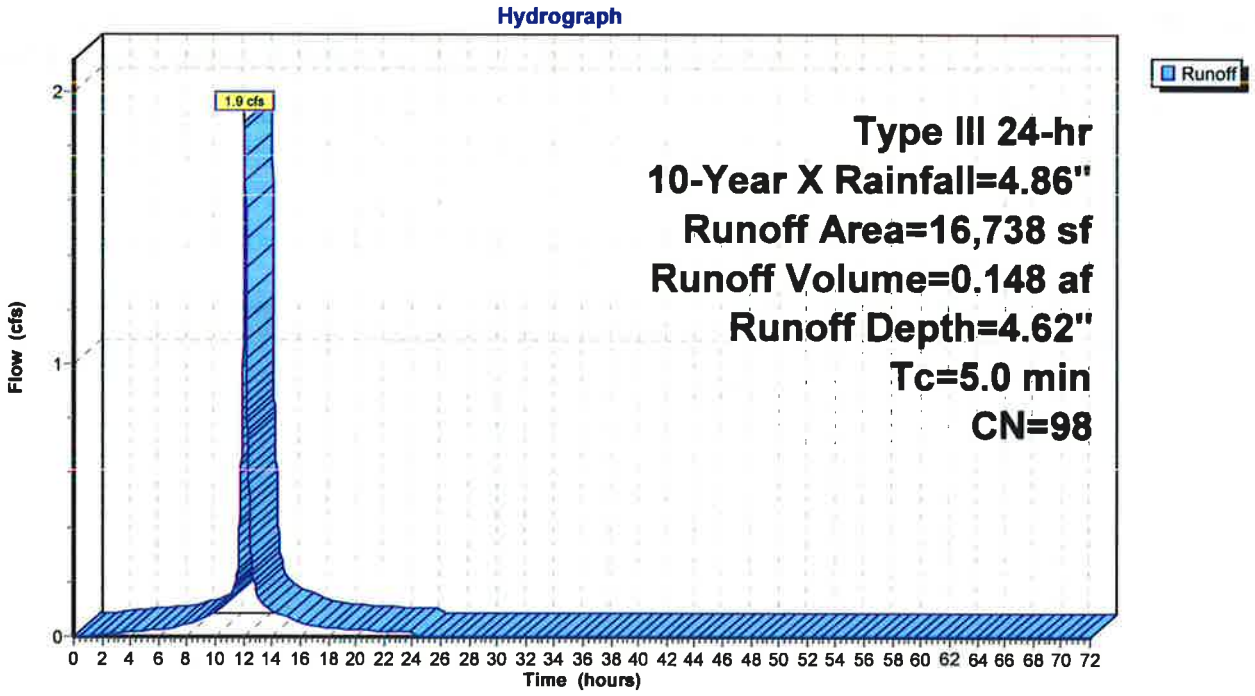
Runoff = 1.9 cfs @ 12.07 hrs, Volume= 0.148 af, Depth= 4.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year X Rainfall=4.86"

Area (sf)	CN	Description
16,738	98	Roofs, HSG C
16,738		100.00% Impervious Area

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

Subcatchment ES1:



Summary for Subcatchment ES2:

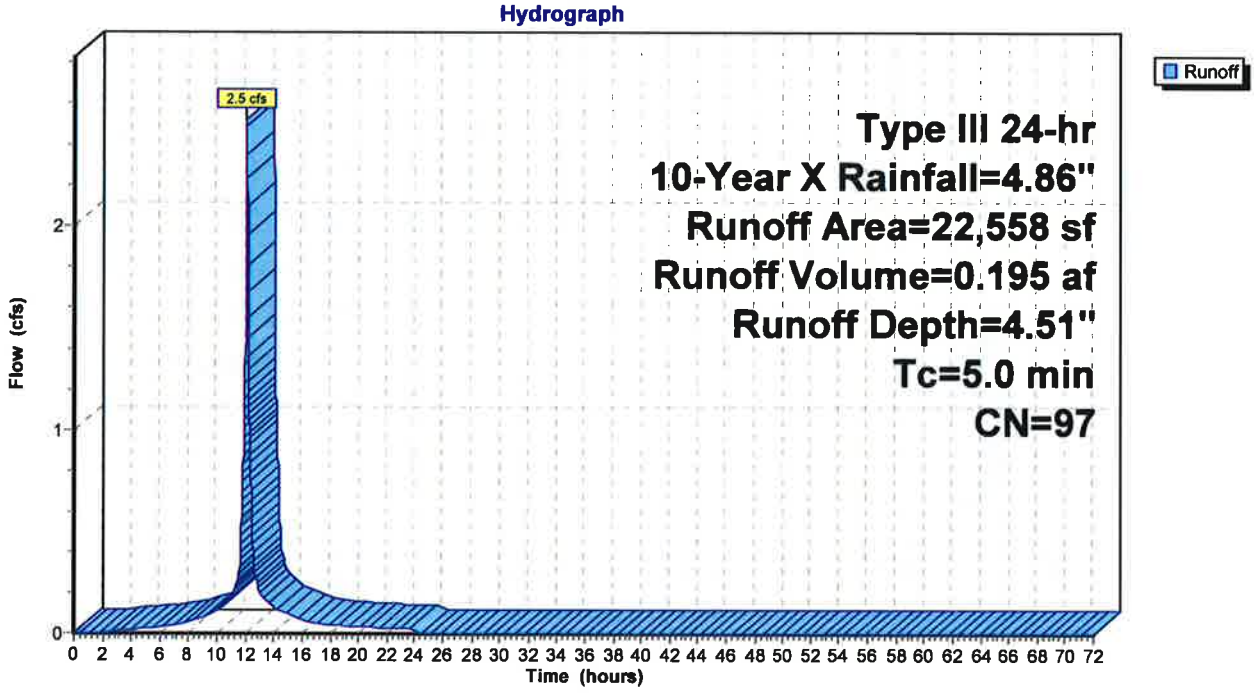
Runoff = 2.5 cfs @ 12.07 hrs, Volume= 0.195 af, Depth= 4.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year X Rainfall=4.86"

	Area (sf)	CN	Description
	15,968	98	Paved parking, HSG C
	1,941	98	Paved roads w/curbs & sewers, HSG C
	990	98	Paved roads w/curbs & sewers, HSG C
	47	98	Roofs, HSG C
*	840	98	Gravel roads, HSG C
	2,772	91	Fallow, bare soil, HSG C
	22,558	97	Weighted Average
	2,772		12.29% Pervious Area
	19,786		87.71% Impervious Area

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

Subcatchment ES2:



Summary for Subcatchment ES3:

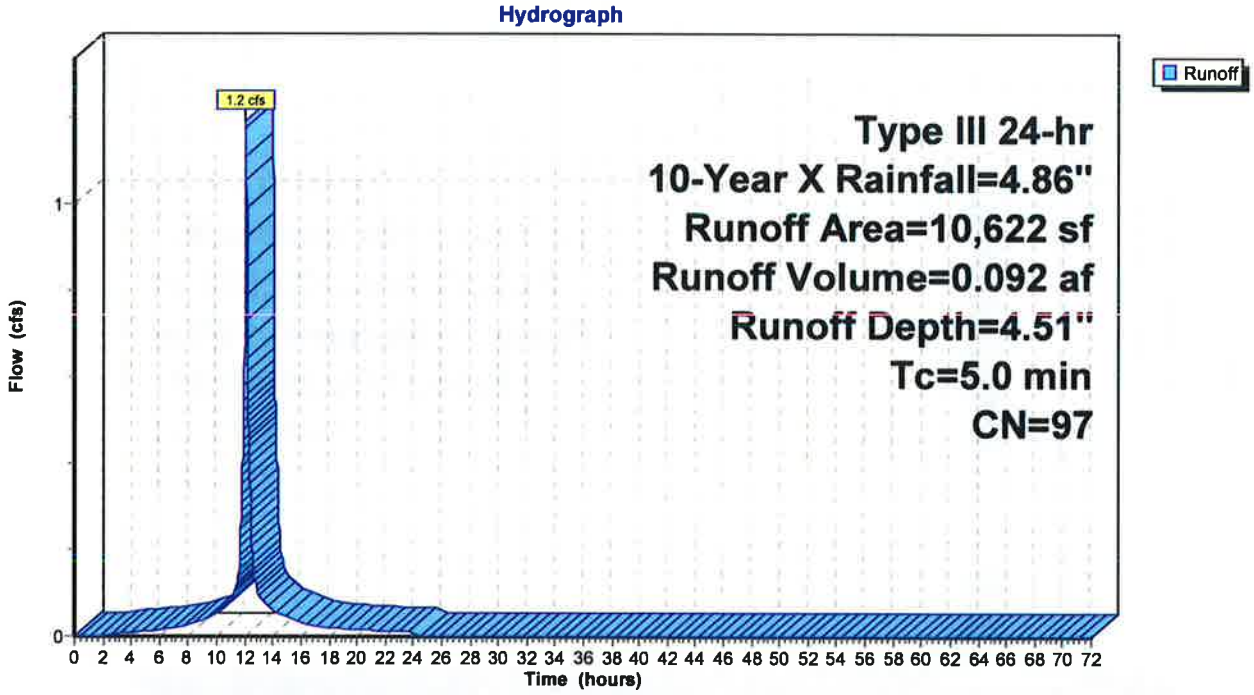
Runoff = 1.2 cfs @ 12.07 hrs, Volume= 0.092 af, Depth= 4.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year X Rainfall=4.86"

Area (sf)	CN	Description
8,579	98	Paved parking, HSG C
14	98	Paved roads w/curbs & sewers, HSG C
54	98	Roofs, HSG C
1,975	91	Fallow, bare soil, HSG C
10,622	97	Weighted Average
1,975		18.59% Pervious Area
8,647		81.41% Impervious Area

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

Subcatchment ES3:



Summary for Subcatchment ES4:

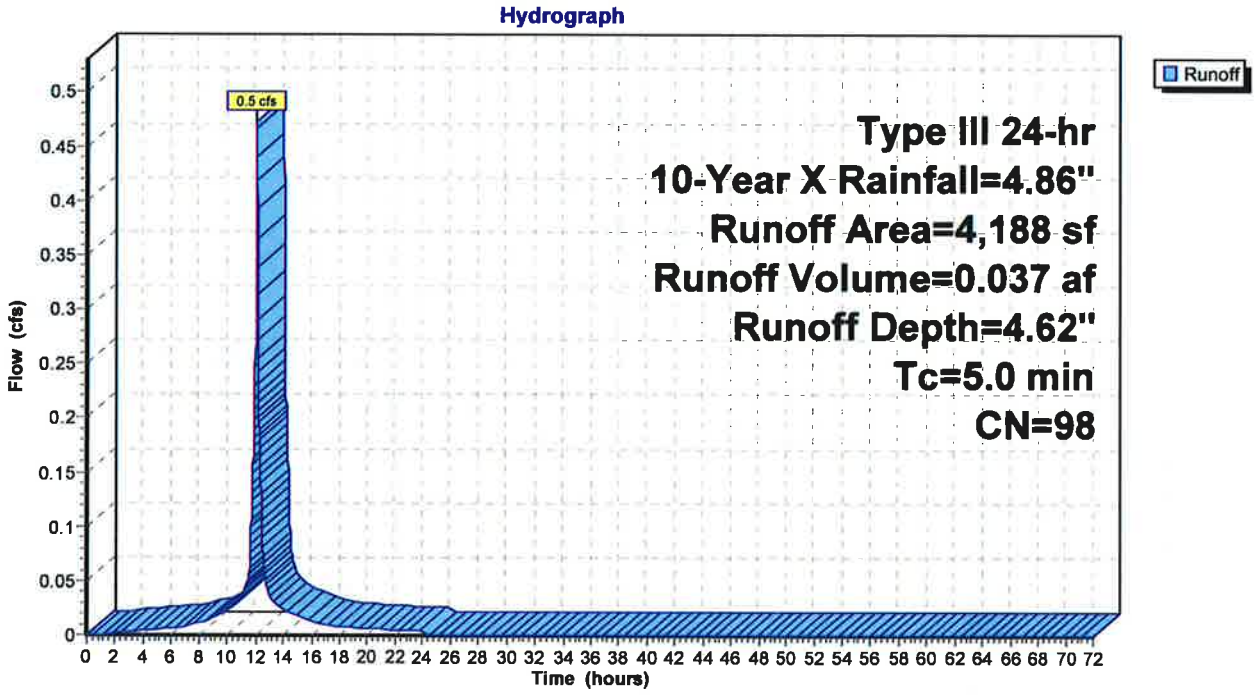
Runoff = 0.5 cfs @ 12.07 hrs, Volume= 0.037 af, Depth= 4.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year X Rainfall=4.86"

Area (sf)	CN	Description
4,188	98	Roofs, HSG C
4,188		100.00% Impervious Area

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

Subcatchment ES4:



Summary for Subcatchment ES5:

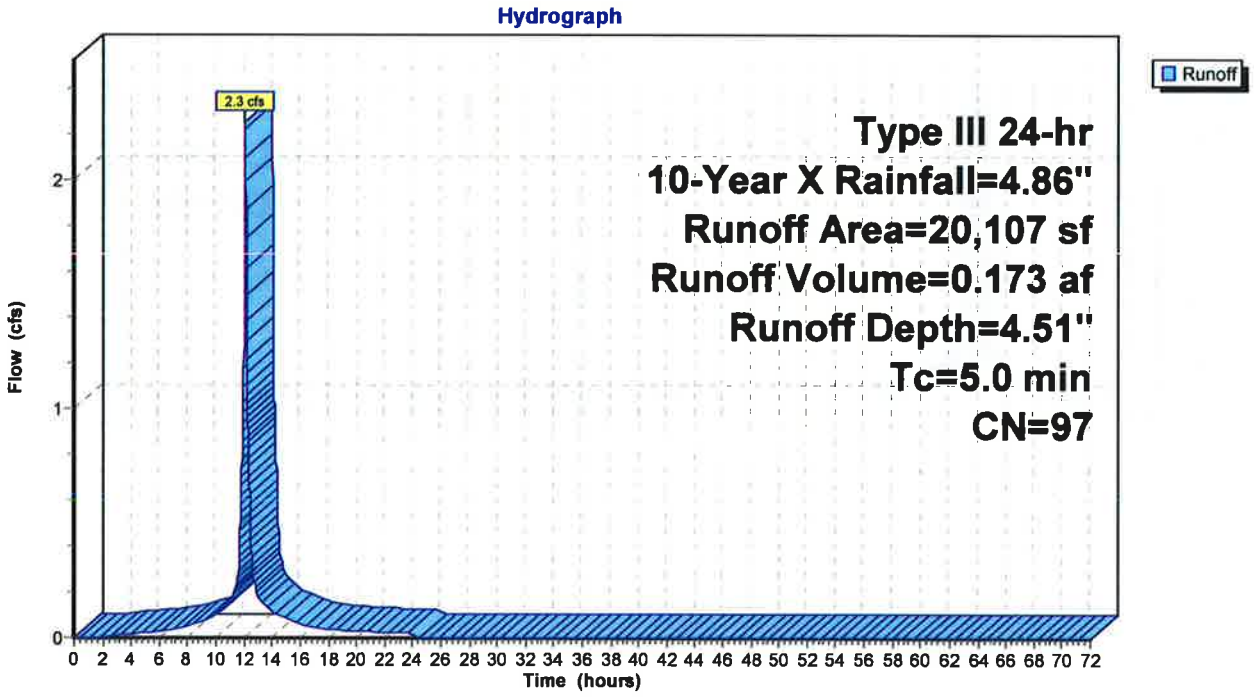
Runoff = 2.3 cfs @ 12.07 hrs, Volume= 0.173 af, Depth= 4.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year X Rainfall=4.86"

	Area (sf)	CN	Description
	269	98	Paved parking, HSG C
	11,300	98	Paved roads w/curbs & sewers, HSG C
	3,499	98	Paved roads w/curbs & sewers, HSG C
	2,439	98	Paved roads w/curbs & sewers, HSG C
*	336	98	Gravel roads, HSG C
	2,264	91	Fallow, bare soil, HSG C
	20,107	97	Weighted Average
	2,264		11.26% Pervious Area
	17,843		88.74% Impervious Area

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

Subcatchment ES5:



Summary for Subcatchment ES6:

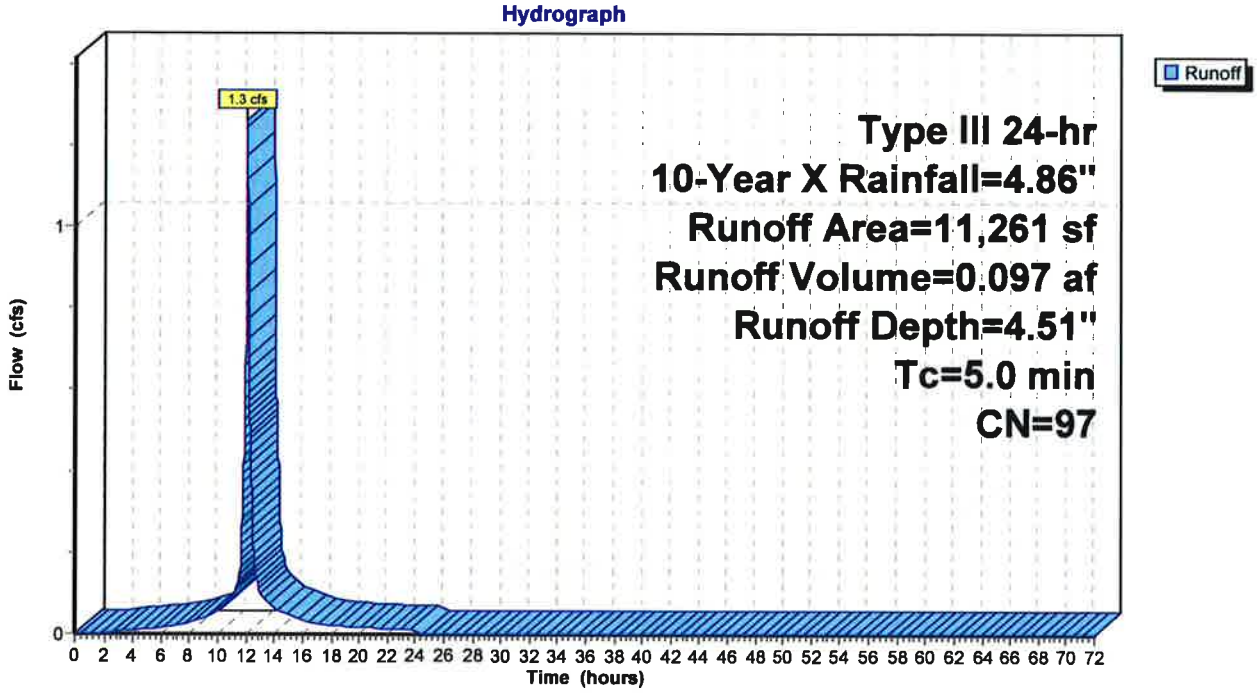
Runoff = 1.3 cfs @ 12.07 hrs, Volume= 0.097 af, Depth= 4.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year X Rainfall=4.86"

Area (sf)	CN	Description
86	98	Paved parking, HSG C
6,879	98	Paved roads w/curbs & sewers, HSG C
2,385	98	Paved roads w/curbs & sewers, HSG C
103	98	Roofs, HSG C
1,808	91	Fallow, bare soil, HSG C
11,261	97	Weighted Average
1,808		16.06% Pervious Area
9,453		83.94% Impervious Area

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

Subcatchment ES6:



Summary for Subcatchment ES7:

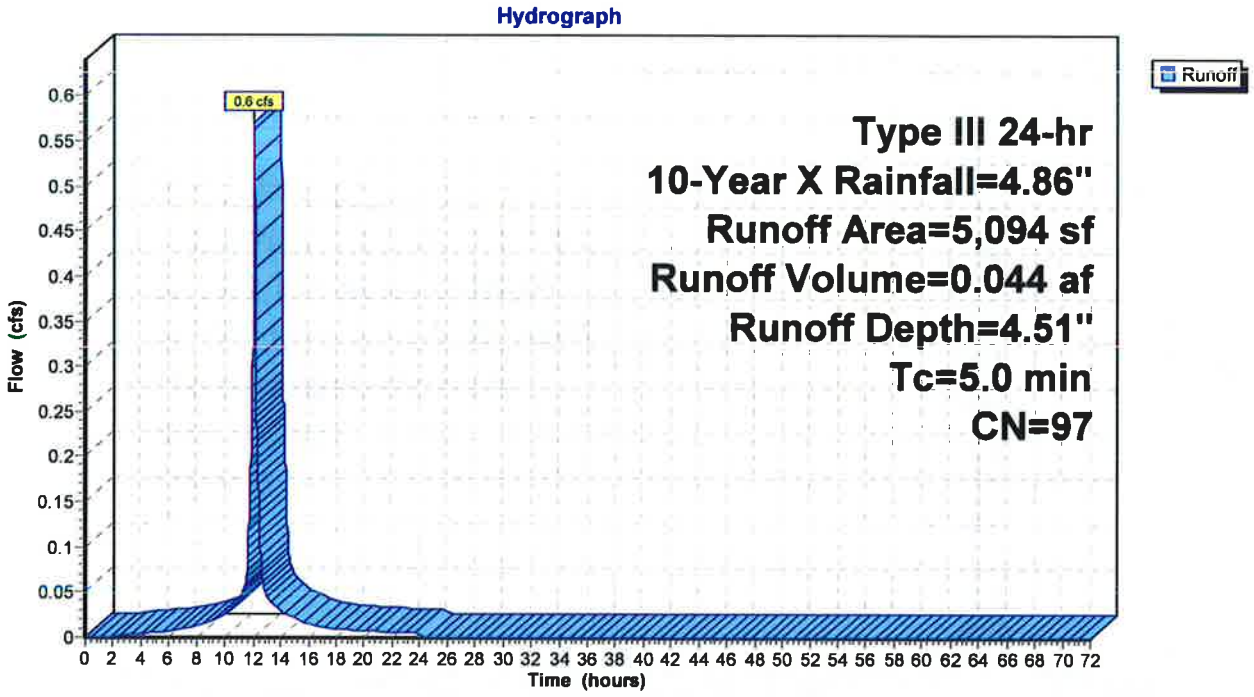
Runoff = 0.6 cfs @ 12.07 hrs, Volume= 0.044 af, Depth= 4.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year X Rainfall=4.86"

Area (sf)	CN	Description
3,437	98	Paved roads w/curbs & sewers, HSG C
1,098	98	Paved roads w/curbs & sewers, HSG C
559	91	Fallow, bare soil, HSG C
5,094	97	Weighted Average
559		10.97% Pervious Area
4,535		89.03% Impervious Area

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

Subcatchment ES7:



Summary for Subcatchment ES8:

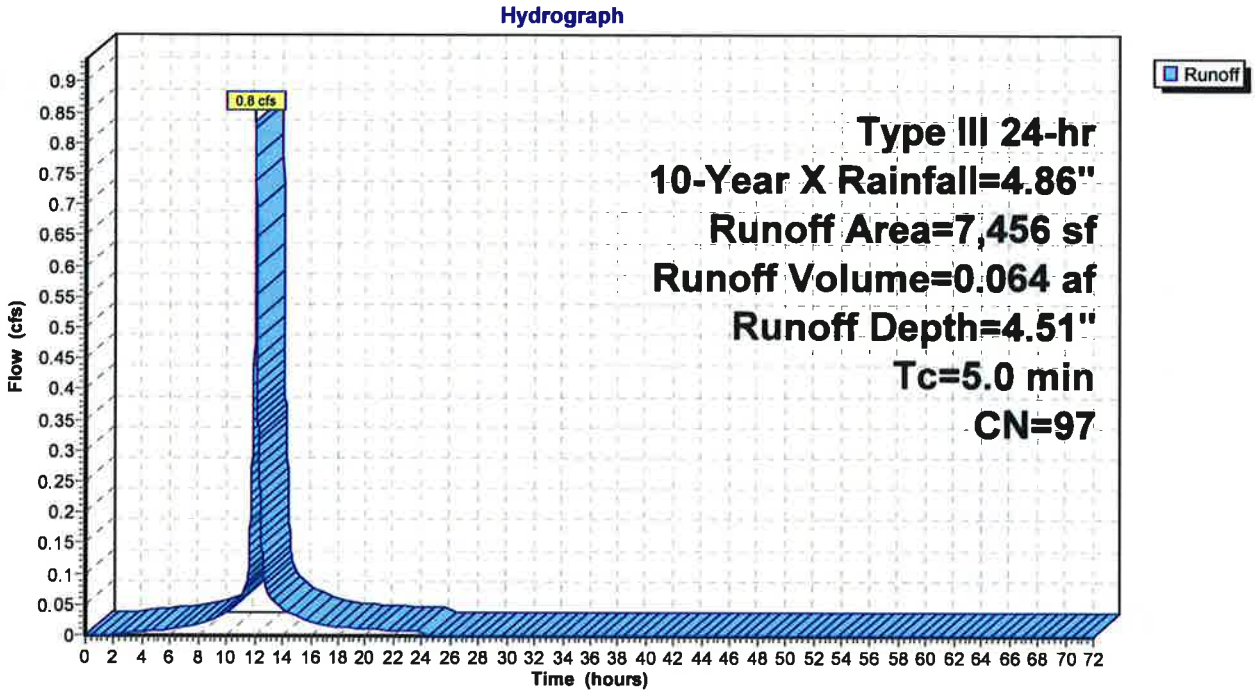
Runoff = 0.8 cfs @ 12.07 hrs, Volume= 0.064 af, Depth= 4.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year X Rainfall=4.86"

	Area (sf)	CN	Description
	4,674	98	Paved roads w/curbs & sewers, HSG C
	1,563	98	Paved roads w/curbs & sewers, HSG C
	121	98	Paved roads w/curbs & sewers, HSG C
*	39	98	Gravel roads, HSG C
	1,059	91	Fallow, bare soil, HSG C
	7,456	97	Weighted Average
	1,059		14.20% Pervious Area
	6,397		85.80% Impervious Area

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

Subcatchment ES8:



Summary for Pond 1P: CB 3528

[57] Hint: Peaked at 5.75' (Flood elevation advised)

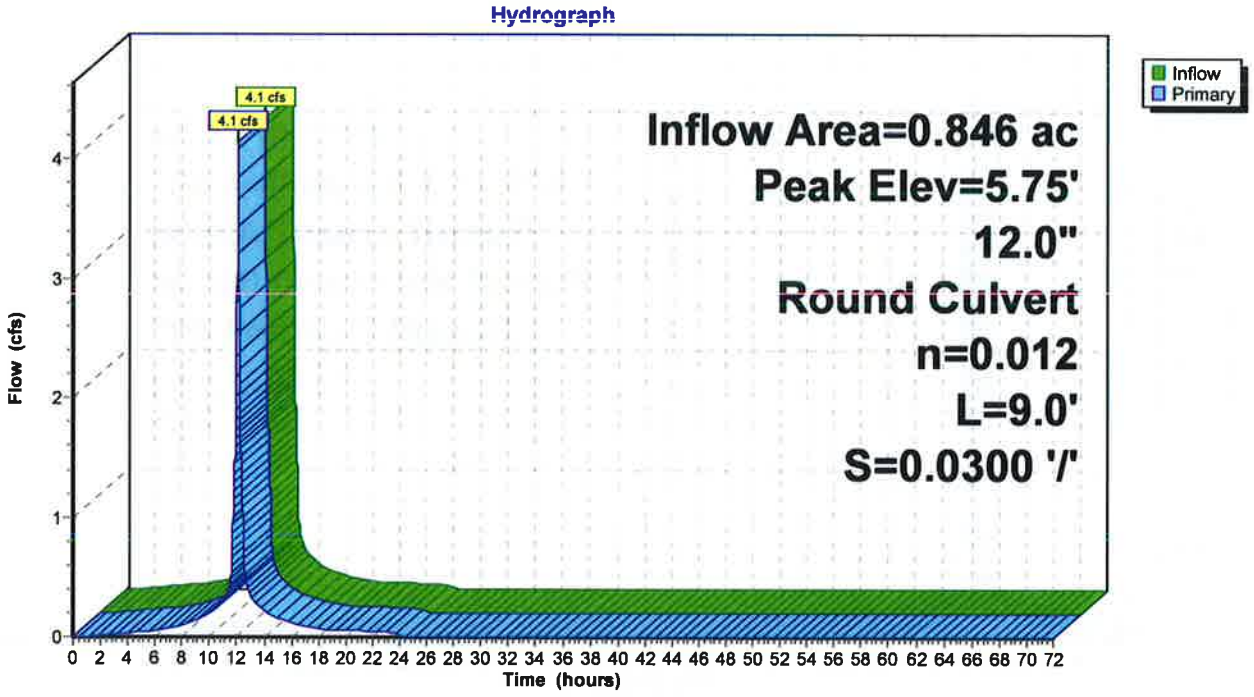
Inflow Area =	0.846 ac, 93.86% Impervious,	Inflow Depth =	4.56"	for 10-Year X event
Inflow =	4.1 cfs @ 12.07 hrs,	Volume=	0.321 af	
Outflow =	4.1 cfs @ 12.07 hrs,	Volume=	0.321 af,	Atten= 0%, Lag= 0.0 min
Primary =	4.1 cfs @ 12.07 hrs,	Volume=	0.321 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 5.75' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.40'	**12.0" Round Culvert** L= 9.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 4.40' / 4.13' S= 0.0300 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=4.1 cfs @ 12.07 hrs HW=5.75' TW=4.51' (Dynamic Tailwater)
↳**1=Culvert** (Barrel Controls 4.1 cfs @ 5.28 fps)

Pond 1P: CB 3528



Summary for Pond 2P: CB 3524

[57] Hint: Peaked at 8.31' (Flood elevation advised)

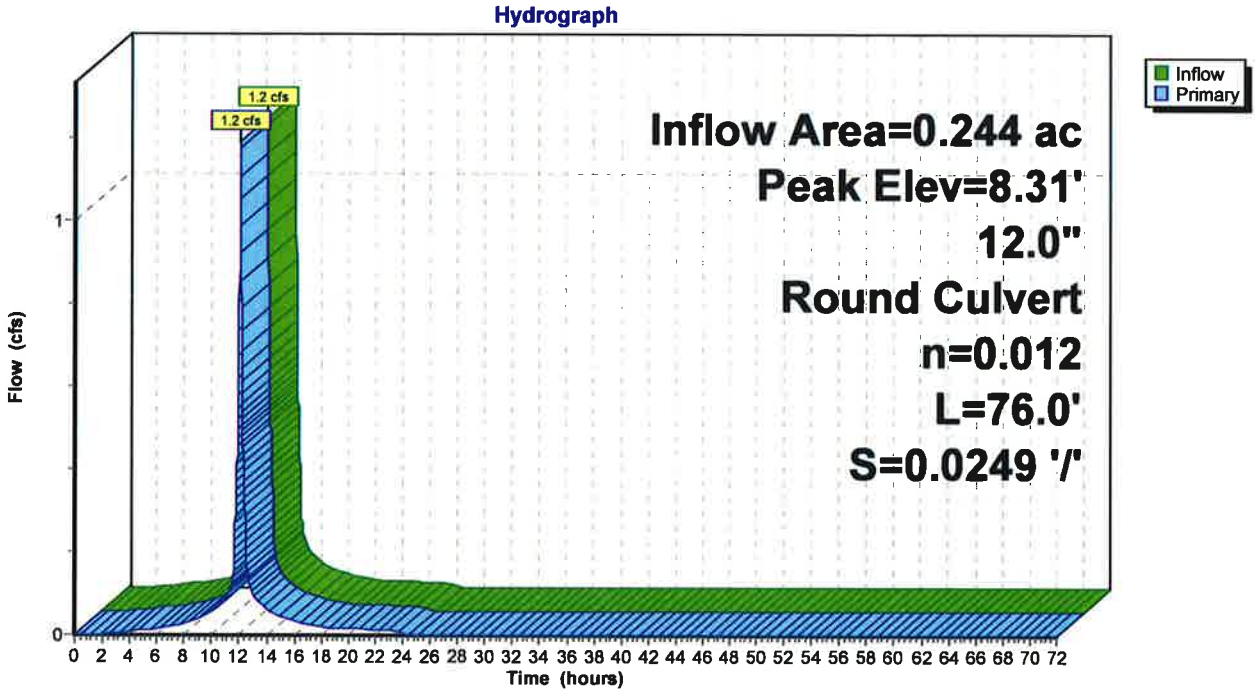
Inflow Area =	0.244 ac, 81.41% Impervious, Inflow Depth = 4.51"	for 10-Year X event		
Inflow =	1.2 cfs @ 12.07 hrs, Volume=	0.092 af		
Outflow =	1.2 cfs @ 12.07 hrs, Volume=	0.092 af,	Atten= 0%,	Lag= 0.0 min
Primary =	1.2 cfs @ 12.07 hrs, Volume=	0.092 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 8.31' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	7.52'	**12.0" Round Culvert** L= 76.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 7.52' / 5.63' S= 0.0249 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.1 cfs @ 12.07 hrs HW=8.31' TW=8.05' (Dynamic Tailwater)
↑**1=Culvert** (Outlet Controls 1.1 cfs @ 2.37 fps)

Pond 2P: CB 3524



Summary for Pond 3P: CB 3525

[57] Hint: Peaked at 8.05' (Flood elevation advised)

Inflow Area = 0.762 ac, 85.69% Impervious, Inflow Depth = 4.51" for 10-Year X event
Inflow = 3.7 cfs @ 12.07 hrs, Volume= 0.286 af
Outflow = 3.7 cfs @ 12.07 hrs, Volume= 0.286 af, Atten= 0%, Lag= 0.0 min
Primary = 3.7 cfs @ 12.07 hrs, Volume= 0.286 af

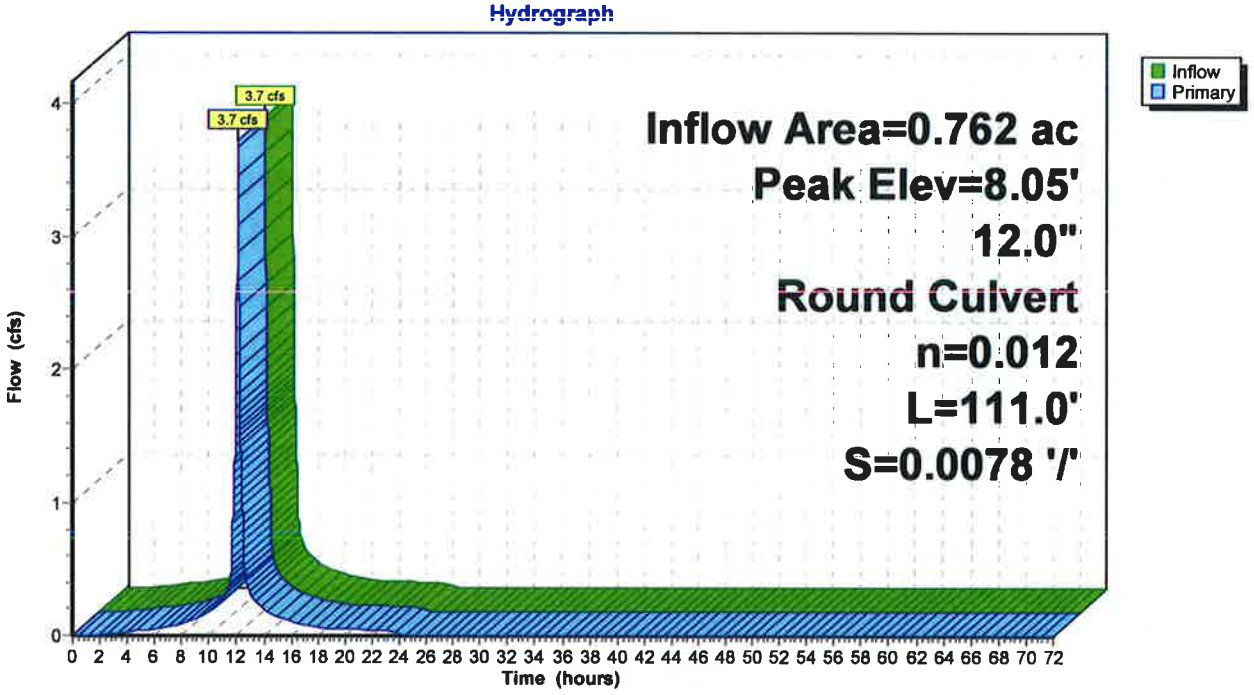
Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 8.05' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.63'	**12.0" Round Culvert** L= 111.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.63' / 4.76' S= 0.0078 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=3.7 cfs @ 12.07 hrs HW=8.05' TW=6.59' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 3.7 cfs @ 4.74 fps)

Pond 3P: CB 3525

Hydrograph



Summary for Pond 4P: CB 3527

[57] Hint: Peaked at 6.59' (Flood elevation advised)

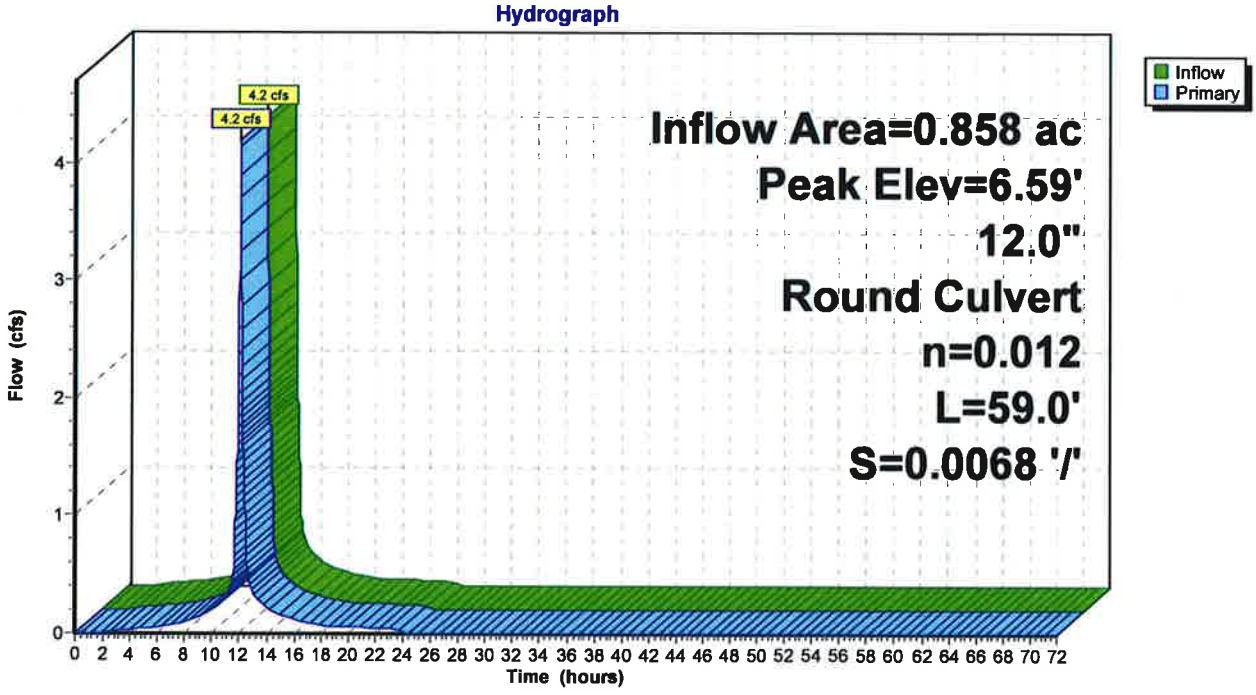
Inflow Area =	0.858 ac, 87.30% Impervious, Inflow Depth = 4.52"	for 10-Year X event			
Inflow =	4.2 cfs @ 12.07 hrs, Volume=	0.323 af			
Outflow =	4.2 cfs @ 12.07 hrs, Volume=	0.323 af, Atten= 0%, Lag= 0.0 min			
Primary =	4.2 cfs @ 12.07 hrs, Volume=	0.323 af			

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.59' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.76'	**12.0" Round Culvert** L= 59.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 4.76' / 4.36' S= 0.0068 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=4.2 cfs @ 12.07 hrs HW=6.59' TW=4.51' (Dynamic Tailwater)
↑**1=Culvert** (Barrel Controls 4.2 cfs @ 5.34 fps)

Pond 4P: CB 3527



Summary for Pond 5P: DMH 3543

[57] Hint: Peaked at 4.51' (Flood elevation advised)

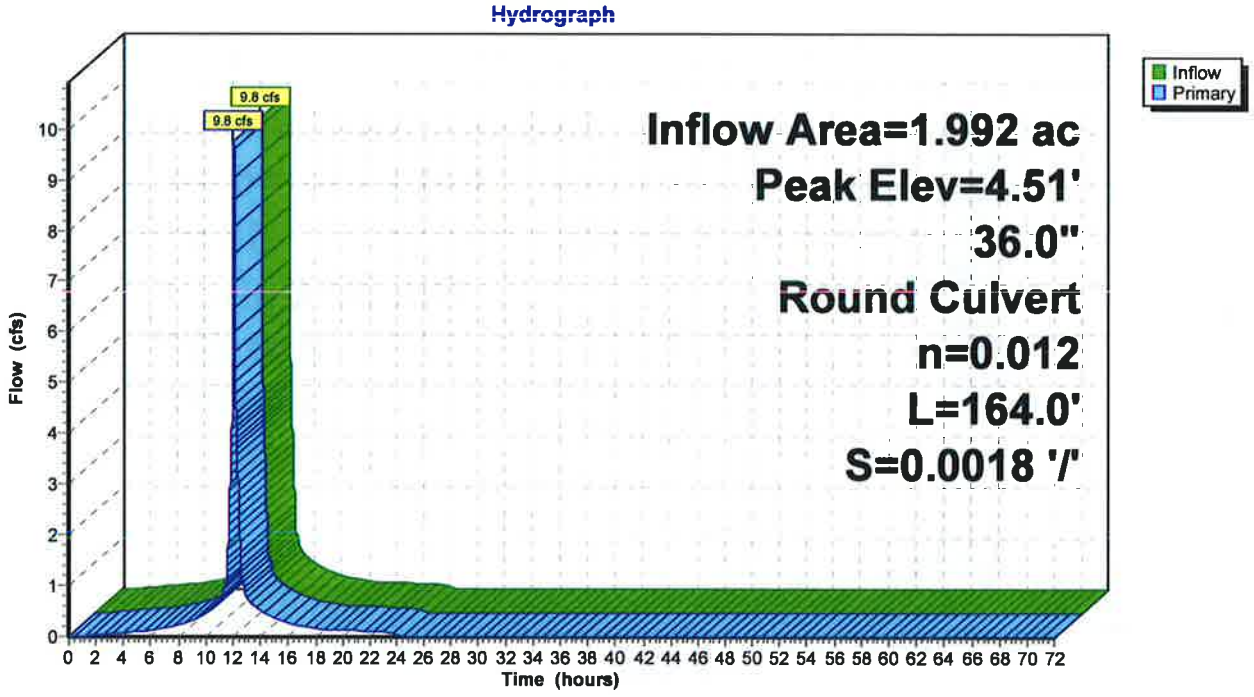
Inflow Area =	1.992 ac,	90.05% Impervious,	Inflow Depth =	4.54"	for 10-Year X event
Inflow =	9.8 cfs @	12.07 hrs,	Volume=	0.753 af	
Outflow =	9.8 cfs @	12.07 hrs,	Volume=	0.753 af,	Atten= 0%, Lag= 0.0 min
Primary =	9.8 cfs @	12.07 hrs,	Volume=	0.753 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 4.51' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	2.91'	**36.0" Round Culvert** L= 164.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 2.91' / 2.61' S= 0.0018 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=9.7 cfs @ 12.07 hrs HW=4.51' TW=4.00' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 9.7 cfs @ 3.67 fps)

Pond 5P: DMH 3543



Summary for Pond 6P: DMH 3542

[57] Hint: Peaked at 4.00' (Flood elevation advised)

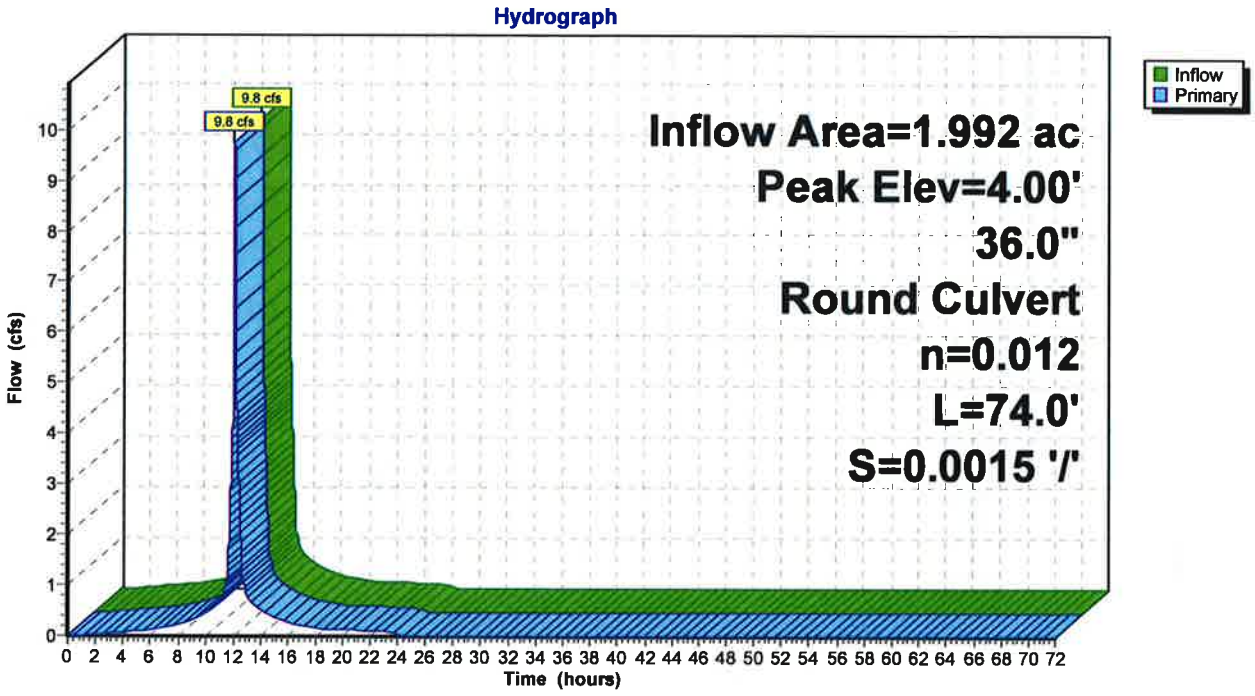
Inflow Area =	1.992 ac, 90.05% Impervious, Inflow Depth =	4.54"	for	10-Year X event
Inflow =	9.8 cfs @ 12.07 hrs, Volume=	0.753 af		
Outflow =	9.8 cfs @ 12.07 hrs, Volume=	0.753 af, Atten= 0%, Lag= 0.0 min		
Primary =	9.8 cfs @ 12.07 hrs, Volume=	0.753 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 4.00' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	2.21'	**36.0" Round Culvert** L= 74.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 2.21' / 2.10' S= 0.0015 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=9.6 cfs @ 12.07 hrs HW=4.00' TW=3.74' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 9.6 cfs @ 3.15 fps)

Pond 6P: DMH 3542



Summary for Pond 7P: DMH 3541

[57] Hint: Peaked at 3.74' (Flood elevation advised)

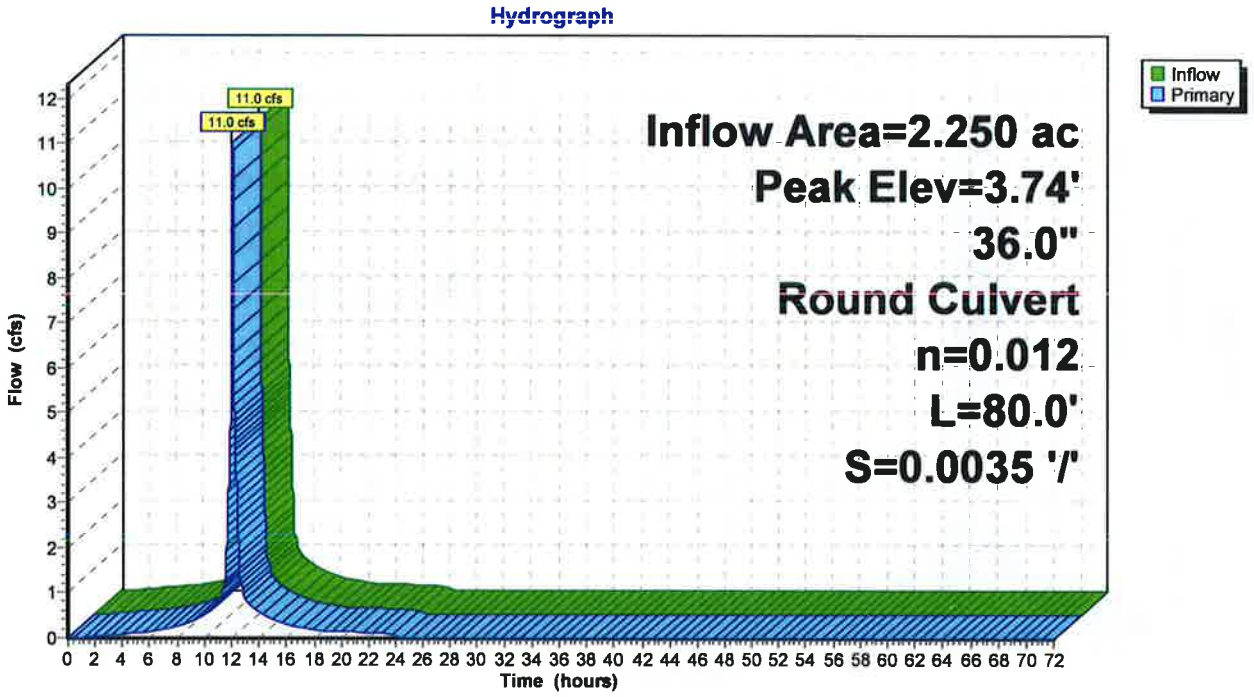
Inflow Area =	2.250 ac, 89.35% Impervious, Inflow Depth = 4.53"	for 10-Year X event		
Inflow =	11.0 cfs @ 12.07 hrs, Volume=	0.850 af		
Outflow =	11.0 cfs @ 12.07 hrs, Volume=	0.850 af, Atten= 0%, Lag= 0.0 min		
Primary =	11.0 cfs @ 12.07 hrs, Volume=	0.850 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.74' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.96'	**36.0" Round Culvert** L= 80.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 1.96' / 1.68' S= 0.0035 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=11.0 cfs @ 12.07 hrs HW=3.74' TW=3.38' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 11.0 cfs @ 3.63 fps)

Pond 7P: DMH 3541



Summary for Pond 9P: DMH 5438

[57] Hint: Peaked at 2.97' (Flood elevation advised)

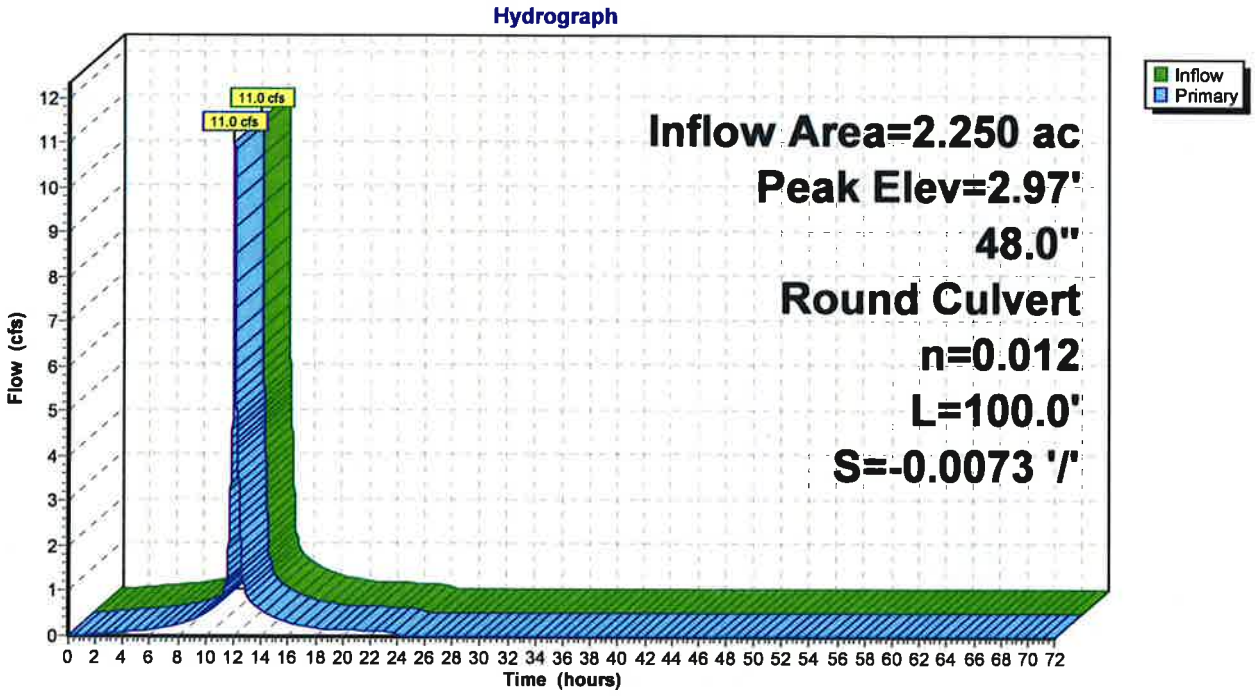
Inflow Area =	2.250 ac, 89.35% Impervious, Inflow Depth =	4.53"	for	10-Year X event
Inflow =	11.0 cfs @ 12.07 hrs, Volume=	0.850 af		
Outflow =	11.0 cfs @ 12.07 hrs, Volume=	0.850 af, Atten= 0%, Lag= 0.0 min		
Primary =	11.0 cfs @ 12.07 hrs, Volume=	0.850 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 2.97' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.67'	**48.0" Round Culvert** L= 100.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 0.94' / 1.67' S= -0.0073 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 12.57 sf

Primary OutFlow Max=11.0 cfs @ 12.07 hrs HW=2.97' TW=2.70' (Dynamic Tailwater)
↑**1=Culvert** (Inlet Controls 11.0 cfs @ 3.12 fps)

Pond 9P: DMH 5438



Summary for Pond 10P: DMH 5217

[57] Hint: Peaked at 2.70' (Flood elevation advised)

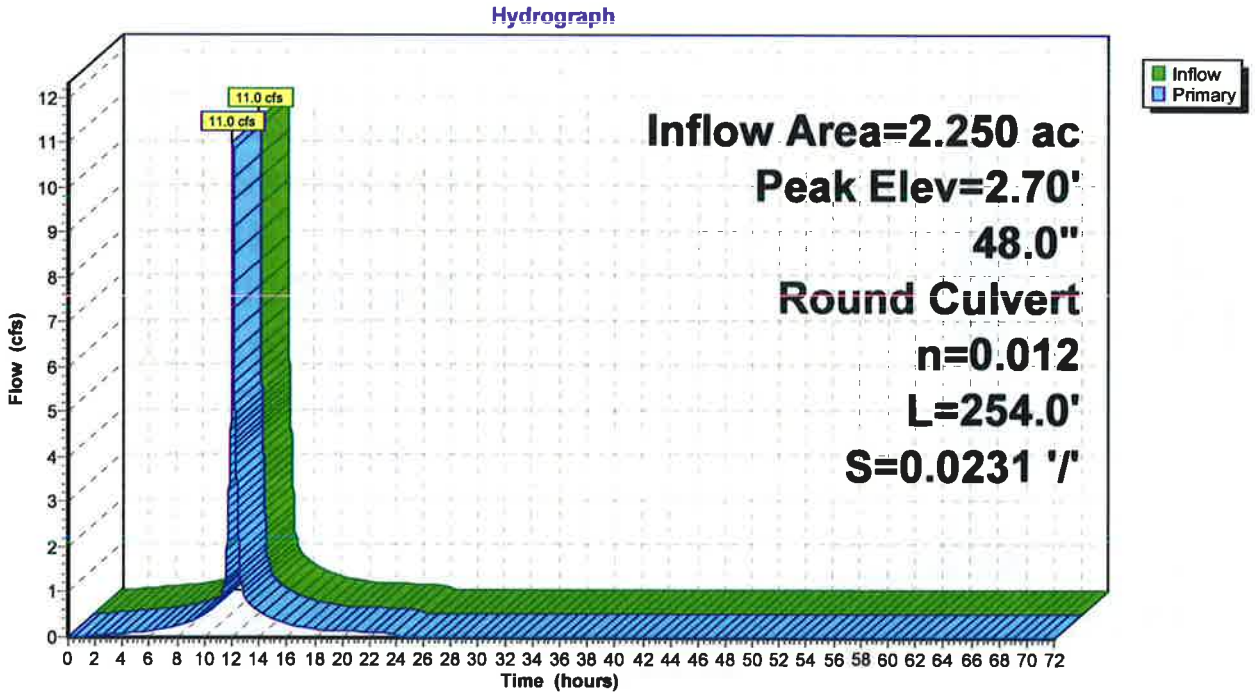
Inflow Area =	2.250 ac, 89.35% Impervious,	Inflow Depth =	4.53"	for 10-Year X event
Inflow =	11.0 cfs @ 12.07 hrs,	Volume=	0.850 af	
Outflow =	11.0 cfs @ 12.07 hrs,	Volume=	0.850 af,	Atten= 0%, Lag= 0.0 min
Primary =	11.0 cfs @ 12.07 hrs,	Volume=	0.850 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 2.70' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.67'	**48.0" Round Culvert** L= 254.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 1.67' / -4.20' S= 0.0231 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 12.57 sf

Primary OutFlow Max=11.0 cfs @ 12.07 hrs HW=2.70' (Free Discharge)
↳**1=Culvert** (Inlet Controls 11.0 cfs @ 4.31 fps)

Pond 10P: DMH 5217



Summary for Pond 11P: CB 3523

[57] Hint: Peaked at 8.04' (Flood elevation advised)

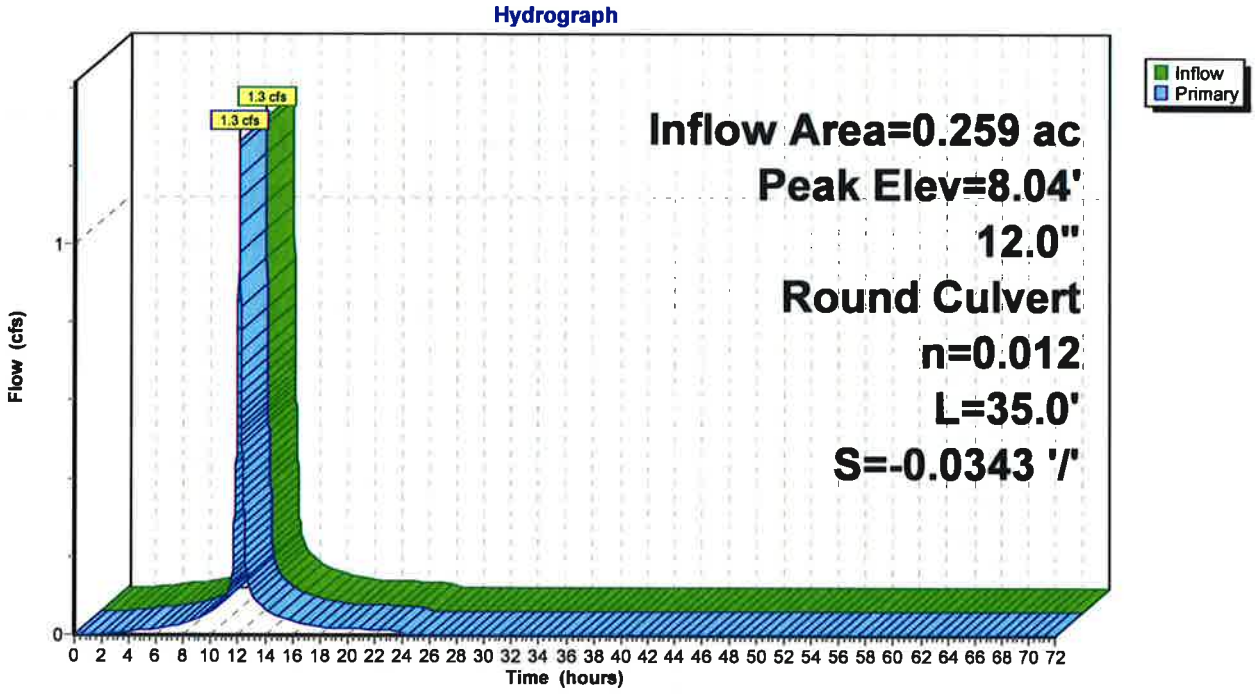
Inflow Area =	0.259 ac, 83.94% Impervious, Inflow Depth =	4.51"	for	10-Year X event
Inflow =	1.3 cfs @ 12.07 hrs, Volume=	0.097 af		
Outflow =	1.3 cfs @ 12.07 hrs, Volume=	0.097 af, Atten= 0%, Lag= 0.0 min		
Primary =	1.3 cfs @ 12.07 hrs, Volume=	0.097 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 8.04' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	7.52'	**12.0" Round Culvert** L= 35.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.32' / 7.52' S= -0.0343 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.3 cfs @ 12.07 hrs HW=8.04' TW=3.74' (Dynamic Tailwater)
↑**1=Culvert** (Inlet Controls 1.3 cfs @ 3.07 fps)

Pond 11P: CB 3523



Summary for Pond 12P: CB 3526

[57] Hint: Peaked at 6.70' (Flood elevation advised)

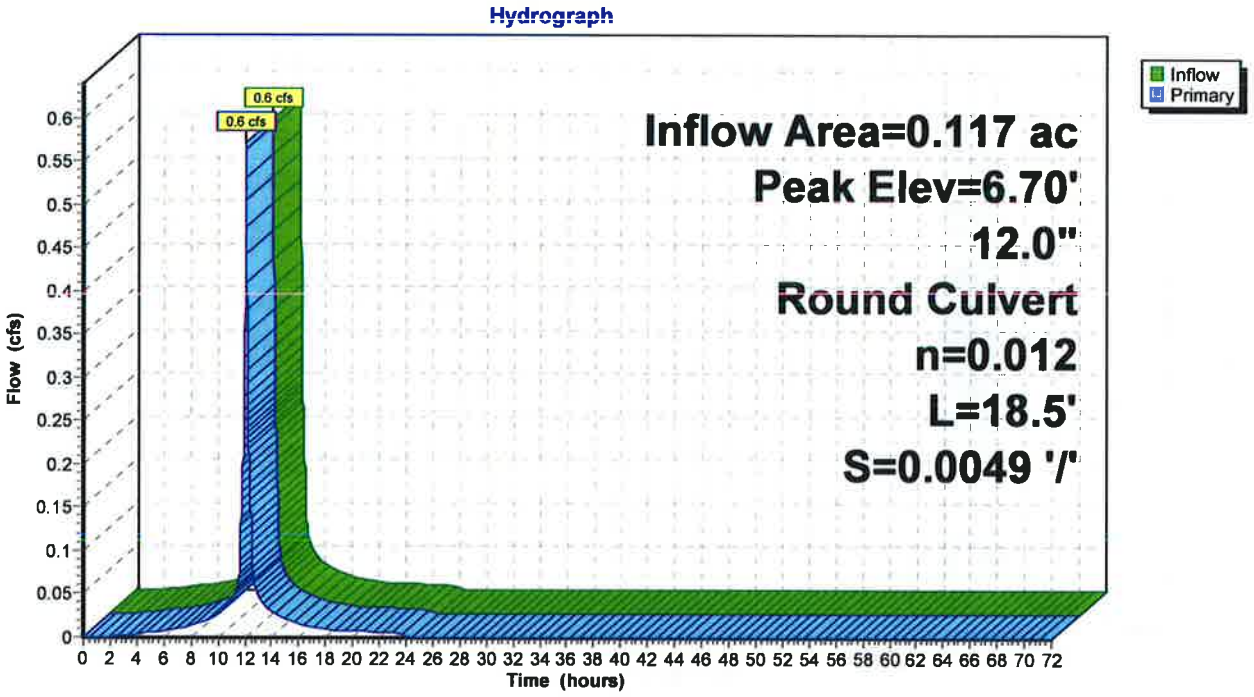
Inflow Area =	0.117 ac, 89.03% Impervious, Inflow Depth =	4.51"	for	10-Year X event
Inflow =	0.6 cfs @	12.07 hrs, Volume=	0.044 af	
Outflow =	0.6 cfs @	12.07 hrs, Volume=	0.044 af, Atten= 0%, Lag= 0.0 min	
Primary =	0.6 cfs @	12.07 hrs, Volume=	0.044 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.70' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	6.18'	**12.0" Round Culvert** L= 18.5' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.18' / 6.09' S= 0.0049 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.6 cfs @ 12.07 hrs HW=6.70' TW=6.58' (Dynamic Tailwater)
↳**1=Culvert** (Outlet Controls 0.6 cfs @ 2.04 fps)

Pond 12P: CB 3526



Summary for Pond 13P: DMH 12303

[57] Hint: Peaked at 6.58' (Flood elevation advised)

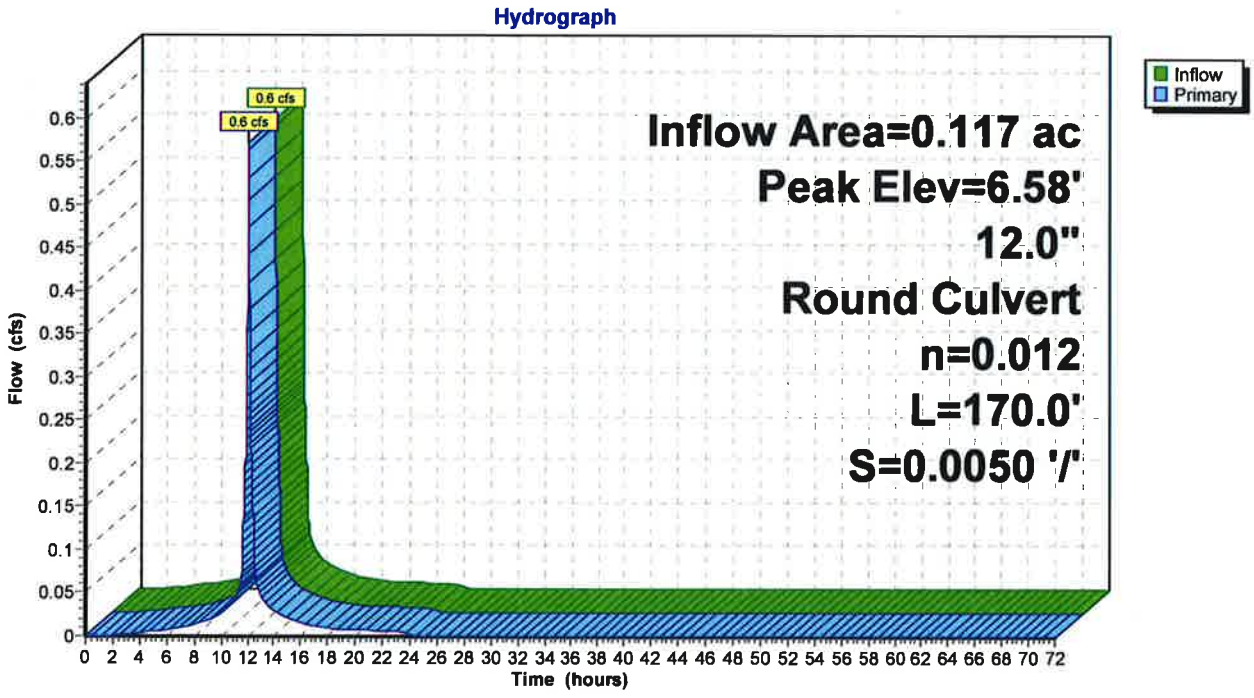
Inflow Area =	0.117 ac, 89.03% Impervious, Inflow Depth = 4.51" for 10-Year X event				
Inflow =	0.6 cfs @	12.07 hrs,	Volume=	0.044 af	
Outflow =	0.6 cfs @	12.07 hrs,	Volume=	0.044 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.6 cfs @	12.07 hrs,	Volume=	0.044 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.58' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	6.09'	**12.0" Round Culvert** L= 170.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.09' / 5.24' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.6 cfs @ 12.07 hrs HW=6.58' TW=6.03' (Dynamic Tailwater)
↑**1=Culvert** (Outlet Controls 0.6 cfs @ 2.19 fps)

Pond 13P: DMH 12303



Summary for Pond 14P: DMH 12631

[57] Hint: Peaked at 6.03' (Flood elevation advised)

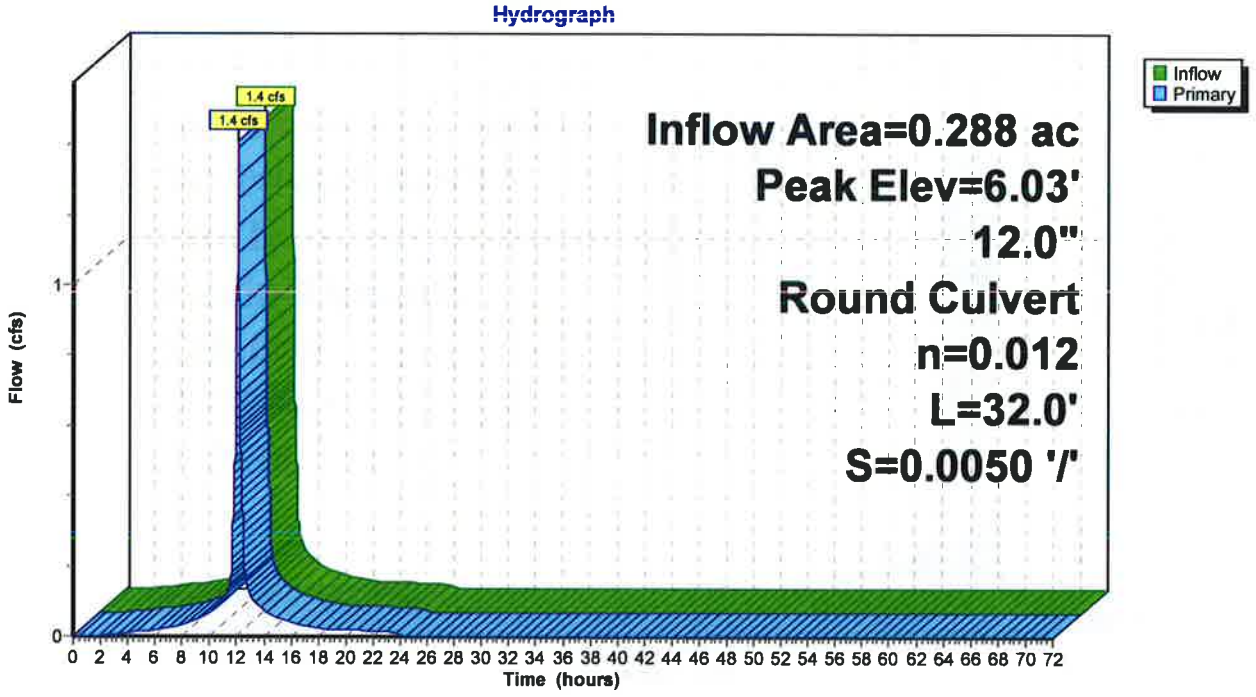
Inflow Area =	0.288 ac, 87.11% Impervious, Inflow Depth = 4.51"	for 10-Year X event		
Inflow =	1.4 cfs @ 12.07 hrs, Volume=	0.108 af		
Outflow =	1.4 cfs @ 12.07 hrs, Volume=	0.108 af, Atten= 0%, Lag= 0.0 min		
Primary =	1.4 cfs @ 12.07 hrs, Volume=	0.108 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.03' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.24'	**12.0" Round Culvert** L= 32.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.24' / 5.08' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.4 cfs @ 12.07 hrs HW=6.03' TW=5.77' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 1.4 cfs @ 2.90 fps)

Pond 14P: DMH 12631



Summary for Pond 15P: CB 8146

[57] Hint: Peaked at 6.10' (Flood elevation advised)

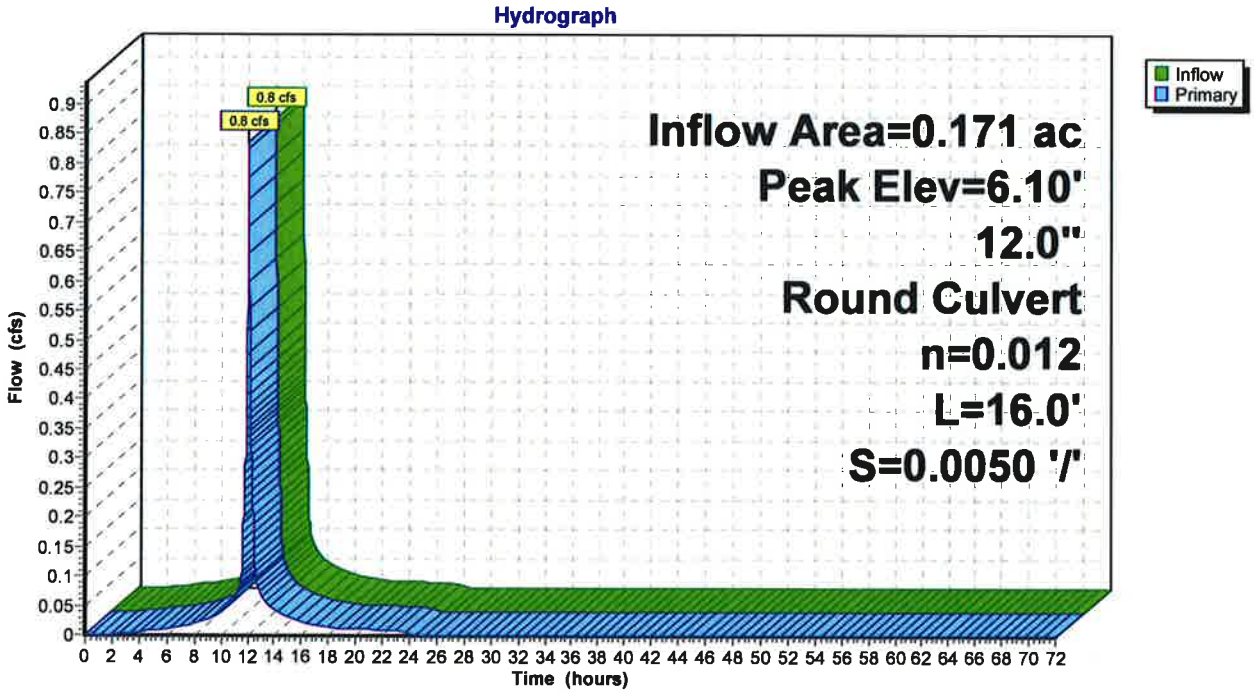
Inflow Area =	0.171 ac,	85.80% Impervious,	Inflow Depth =	4.51"	for 10-Year X event
Inflow =	0.8 cfs @	12.07 hrs, Volume=	0.064 af		
Outflow =	0.8 cfs @	12.07 hrs, Volume=	0.064 af,	Atten= 0%,	Lag= 0.0 min
Primary =	0.8 cfs @	12.07 hrs, Volume=	0.064 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.10' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.32'	**12.0" Round Culvert** L= 16.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.32' / 5.24' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.8 cfs @ 12.07 hrs HW=6.10' TW=6.03' (Dynamic Tailwater)
└**1=Culvert** (Outlet Controls 0.8 cfs @ 1.72 fps)

Pond 15P: CB 8146



Summary for Pond 16P: DMH 12632

[57] Hint: Peaked at 5.77' (Flood elevation advised)

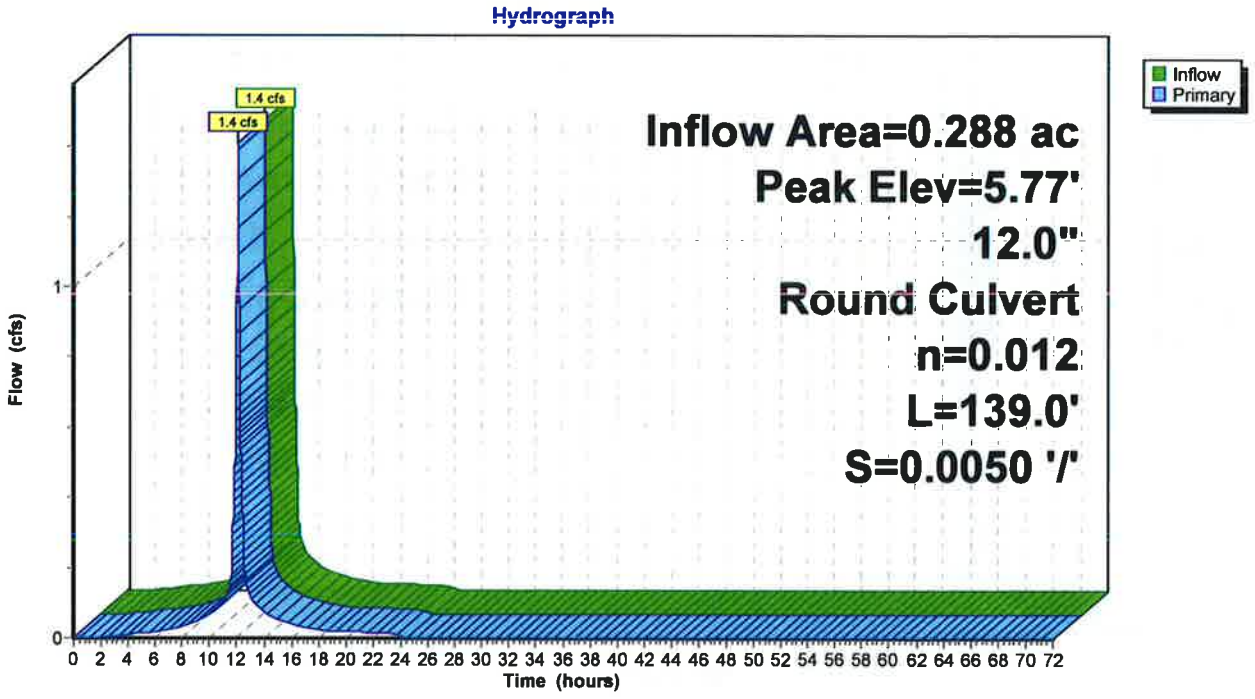
Inflow Area =	0.288 ac, 87.11% Impervious, Inflow Depth = 4.51"	for 10-Year X event		
Inflow =	1.4 cfs @ 12.07 hrs, Volume=	0.108 af		
Outflow =	1.4 cfs @ 12.07 hrs, Volume=	0.108 af, Atten= 0%, Lag= 0.0 min		
Primary =	1.4 cfs @ 12.07 hrs, Volume=	0.108 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 5.77' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.08'	**12.0" Round Culvert** L= 139.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.08' / 4.39' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.4 cfs @ 12.07 hrs HW=5.77' TW=4.92' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 1.4 cfs @ 3.40 fps)

Pond 16P: DMH 12632



Summary for Pond 17P: DMH 3545

[57] Hint: Peaked at 4.92' (Flood elevation advised)

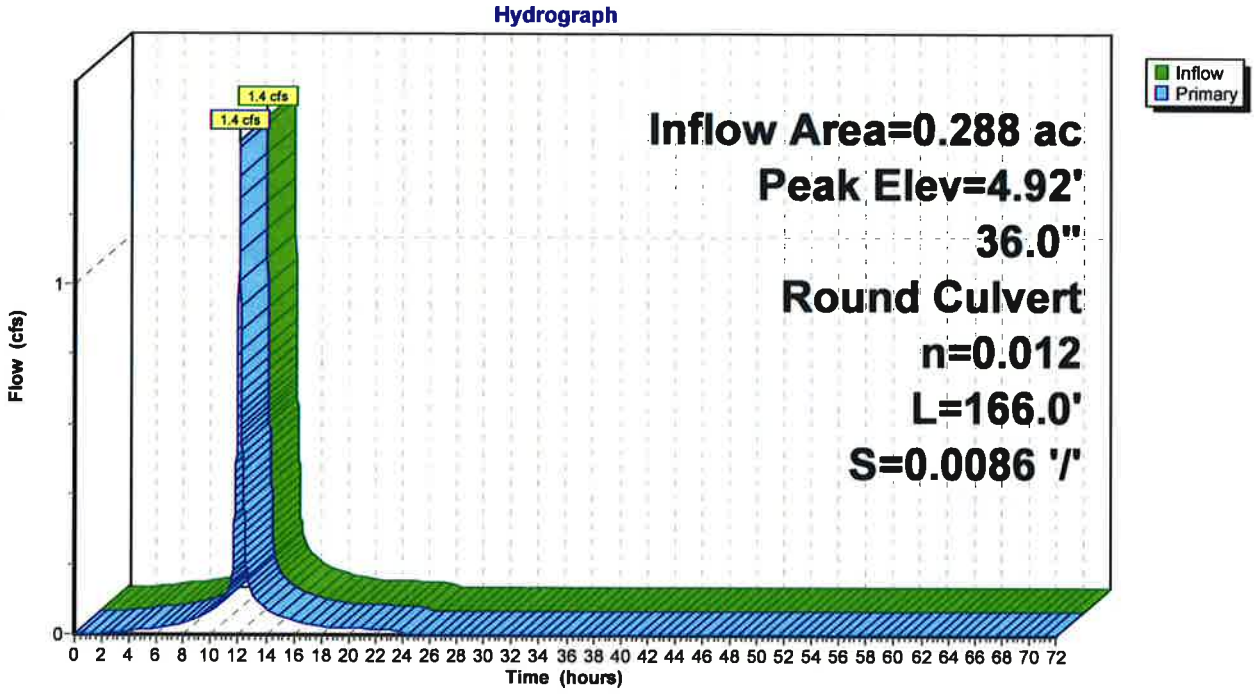
Inflow Area =	0.288 ac, 87.11% Impervious, Inflow Depth =	4.51"	for 10-Year X event		
Inflow =	1.4 cfs @	12.07 hrs, Volume=	0.108 af		
Outflow =	1.4 cfs @	12.07 hrs, Volume=	0.108 af,	Atten= 0%,	Lag= 0.0 min
Primary =	1.4 cfs @	12.07 hrs, Volume=	0.108 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 4.92' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.34'	**36.0" Round Culvert** L= 166.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 4.34' / 2.91' S= 0.0086 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=1.4 cfs @ 12.07 hrs HW=4.92' TW=4.51' (Dynamic Tailwater)
↑**1=Culvert** (Outlet Controls 1.4 cfs @ 2.23 fps)

Pond 17P: DMH 3545



Summary for Pond DP1: DMH 3540

[57] Hint: Peaked at 3.38' (Flood elevation advised)

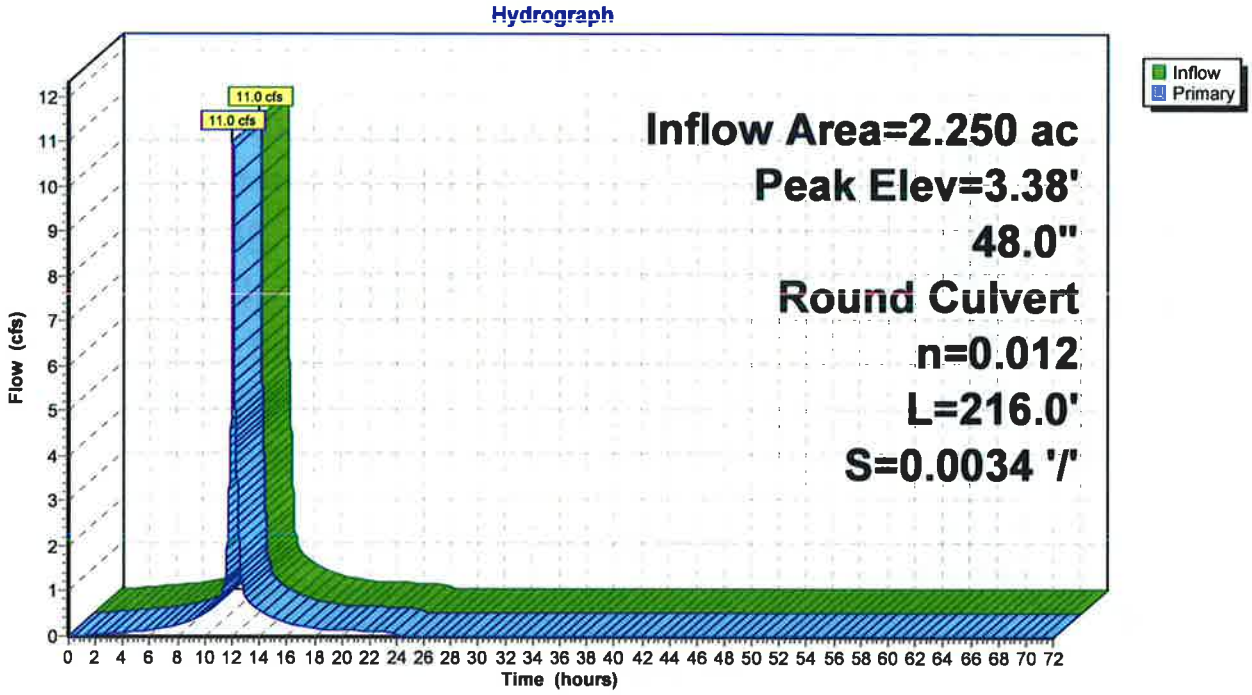
Inflow Area =	2.250 ac, 89.35% Impervious,	Inflow Depth =	4.53"	for 10-Year X event
Inflow =	11.0 cfs @ 12.07 hrs,	Volume=	0.850 af	
Outflow =	11.0 cfs @ 12.07 hrs,	Volume=	0.850 af,	Atten= 0%, Lag= 0.0 min
Primary =	11.0 cfs @ 12.07 hrs,	Volume=	0.850 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.38' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.68'	**48.0" Round Culvert** L= 216.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 1.68' / 0.94' S= 0.0034 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 12.57 sf

Primary OutFlow Max=11.0 cfs @ 12.07 hrs HW=3.38' TW=2.97' (Dynamic Tailwater)
↳**1=Culvert** (Outlet Controls 11.0 cfs @ 3.19 fps)

Pond DP1: DMH 3540



Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment ES1: Runoff Area=16,738 sf 100.00% Impervious Runoff Depth=5.92"
Tc=5.0 min CN=98 Runoff=2.4 cfs 0.190 af

Subcatchment ES2: Runoff Area=22,558 sf 87.71% Impervious Runoff Depth=5.80"
Tc=5.0 min CN=97 Runoff=3.2 cfs 0.250 af

Subcatchment ES3: Runoff Area=10,622 sf 81.41% Impervious Runoff Depth=5.80"
Tc=5.0 min CN=97 Runoff=1.5 cfs 0.118 af

Subcatchment ES4: Runoff Area=4,188 sf 100.00% Impervious Runoff Depth=5.92"
Tc=5.0 min CN=98 Runoff=0.6 cfs 0.047 af

Subcatchment ES5: Runoff Area=20,107 sf 88.74% Impervious Runoff Depth=5.80"
Tc=5.0 min CN=97 Runoff=2.9 cfs 0.223 af

Subcatchment ES6: Runoff Area=11,261 sf 83.94% Impervious Runoff Depth=5.80"
Tc=5.0 min CN=97 Runoff=1.6 cfs 0.125 af

Subcatchment ES7: Runoff Area=5,094 sf 89.03% Impervious Runoff Depth=5.80"
Tc=5.0 min CN=97 Runoff=0.7 cfs 0.057 af

Subcatchment ES8: Runoff Area=7,456 sf 85.80% Impervious Runoff Depth=5.80"
Tc=5.0 min CN=97 Runoff=1.1 cfs 0.083 af

Pond 1P: CB 3528 Peak Elev=6.15' Inflow=5.3 cfs 0.413 af
12.0" Round Culvert n=0.012 L=9.0' S=0.0300 '/' Outflow=5.3 cfs 0.413 af

Pond 2P: CB 3524 Peak Elev=9.88' Inflow=1.5 cfs 0.118 af
12.0" Round Culvert n=0.012 L=76.0' S=0.0249 '/' Outflow=1.5 cfs 0.118 af

Pond 3P: CB 3525 Peak Elev=9.72' Inflow=4.7 cfs 0.368 af
12.0" Round Culvert n=0.012 L=111.0' S=0.0078 '/' Outflow=4.7 cfs 0.368 af

Pond 4P: CB 3527 Peak Elev=7.36' Inflow=5.3 cfs 0.416 af
12.0" Round Culvert n=0.012 L=59.0' S=0.0068 '/' Outflow=5.3 cfs 0.416 af

Pond 5P: DMH 3543 Peak Elev=4.79' Inflow=12.4 cfs 0.968 af
36.0" Round Culvert n=0.012 L=164.0' S=0.0018 '/' Outflow=12.4 cfs 0.968 af

Pond 6P: DMH 3542 Peak Elev=4.28' Inflow=12.4 cfs 0.968 af
36.0" Round Culvert n=0.012 L=74.0' S=0.0015 '/' Outflow=12.4 cfs 0.968 af

Pond 7P: DMH 3541 Peak Elev=3.99' Inflow=14.0 cfs 1.093 af
36.0" Round Culvert n=0.012 L=80.0' S=0.0035 '/' Outflow=14.0 cfs 1.093 af

Pond 9P: DMH 5438 Peak Elev=3.14' Inflow=14.0 cfs 1.093 af
48.0" Round Culvert n=0.012 L=100.0' S=-0.0073 '/' Outflow=14.0 cfs 1.093 af

Pond 10P: DMH 5217 Peak Elev=2.84' Inflow=14.0 cfs 1.093 af
48.0" Round Culvert n=0.012 L=254.0' S=0.0231 '/' Outflow=14.0 cfs 1.093 af

Pond 11P: CB 3523 Peak Elev=8.12' Inflow=1.6 cfs 0.125 af
12.0" Round Culvert n=0.012 L=35.0' S=-0.0343 '/' Outflow=1.6 cfs 0.125 af

Pond 12P: CB 3526 Peak Elev=6.78' Inflow=0.7 cfs 0.057 af
12.0" Round Culvert n=0.012 L=18.5' S=0.0049 '/' Outflow=0.7 cfs 0.057 af

Pond 13P: DMH 12303 Peak Elev=6.67' Inflow=0.7 cfs 0.057 af
12.0" Round Culvert n=0.012 L=170.0' S=0.0050 '/' Outflow=0.7 cfs 0.057 af

Pond 14P: DMH 12631 Peak Elev=6.17' Inflow=1.8 cfs 0.139 af
12.0" Round Culvert n=0.012 L=32.0' S=0.0050 '/' Outflow=1.8 cfs 0.139 af

Pond 15P: CB 8146 Peak Elev=6.25' Inflow=1.1 cfs 0.083 af
12.0" Round Culvert n=0.012 L=16.0' S=0.0050 '/' Outflow=1.1 cfs 0.083 af

Pond 16P: DMH 12632 Peak Elev=5.90' Inflow=1.8 cfs 0.139 af
12.0" Round Culvert n=0.012 L=139.0' S=0.0050 '/' Outflow=1.8 cfs 0.139 af

Pond 17P: DMH 3545 Peak Elev=5.06' Inflow=1.8 cfs 0.139 af
36.0" Round Culvert n=0.012 L=166.0' S=0.0086 '/' Outflow=1.8 cfs 0.139 af

Pond DP1: DMH 3540 Peak Elev=3.60' Inflow=14.0 cfs 1.093 af
48.0" Round Culvert n=0.012 L=216.0' S=0.0034 '/' Outflow=14.0 cfs 1.093 af

Total Runoff Area = 2.250 ac Runoff Volume = 1.093 af Average Runoff Depth = 5.83"
10.65% Pervious = 0.240 ac 89.35% Impervious = 2.011 ac

Summary for Subcatchment ES1:

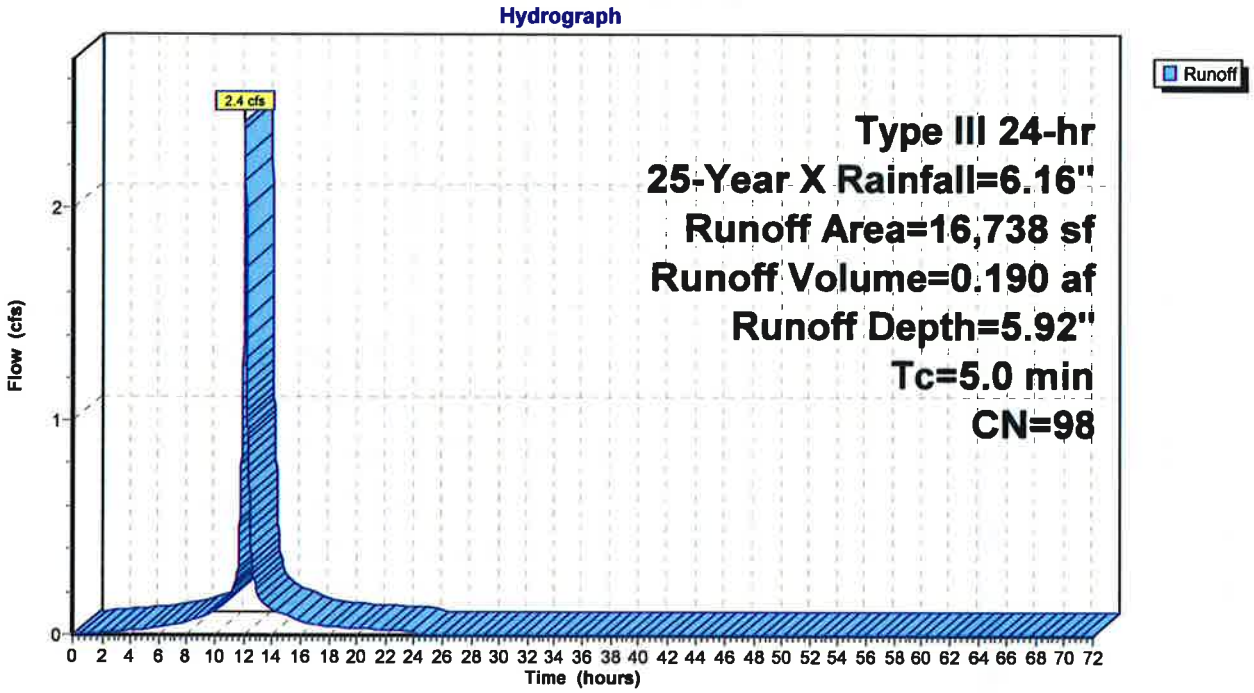
Runoff = 2.4 cfs @ 12.07 hrs, Volume= 0.190 af, Depth= 5.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year X Rainfall=6.16"

Area (sf)	CN	Description
16,738	98	Roofs, HSG C
16,738		100.00% Impervious Area

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

Subcatchment ES1:



Summary for Subcatchment ES2:

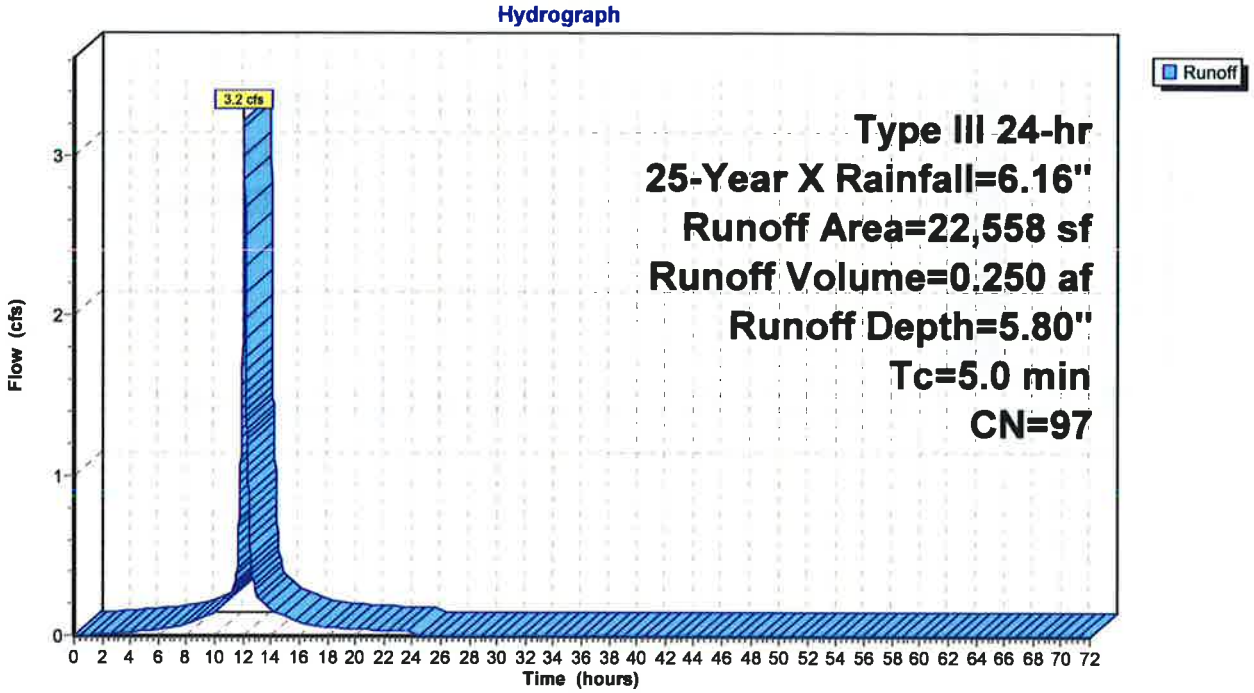
Runoff = 3.2 cfs @ 12.07 hrs, Volume= 0.250 af, Depth= 5.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year X Rainfall=6.16"

	Area (sf)	CN	Description
	15,968	98	Paved parking, HSG C
	1,941	98	Paved roads w/curbs & sewers, HSG C
	990	98	Paved roads w/curbs & sewers, HSG C
	47	98	Roofs, HSG C
*	840	98	Gravel roads, HSG C
	2,772	91	Fallow, bare soil, HSG C
	22,558	97	Weighted Average
	2,772		12.29% Pervious Area
	19,786		87.71% Impervious Area

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

Subcatchment ES2:



Summary for Subcatchment ES3:

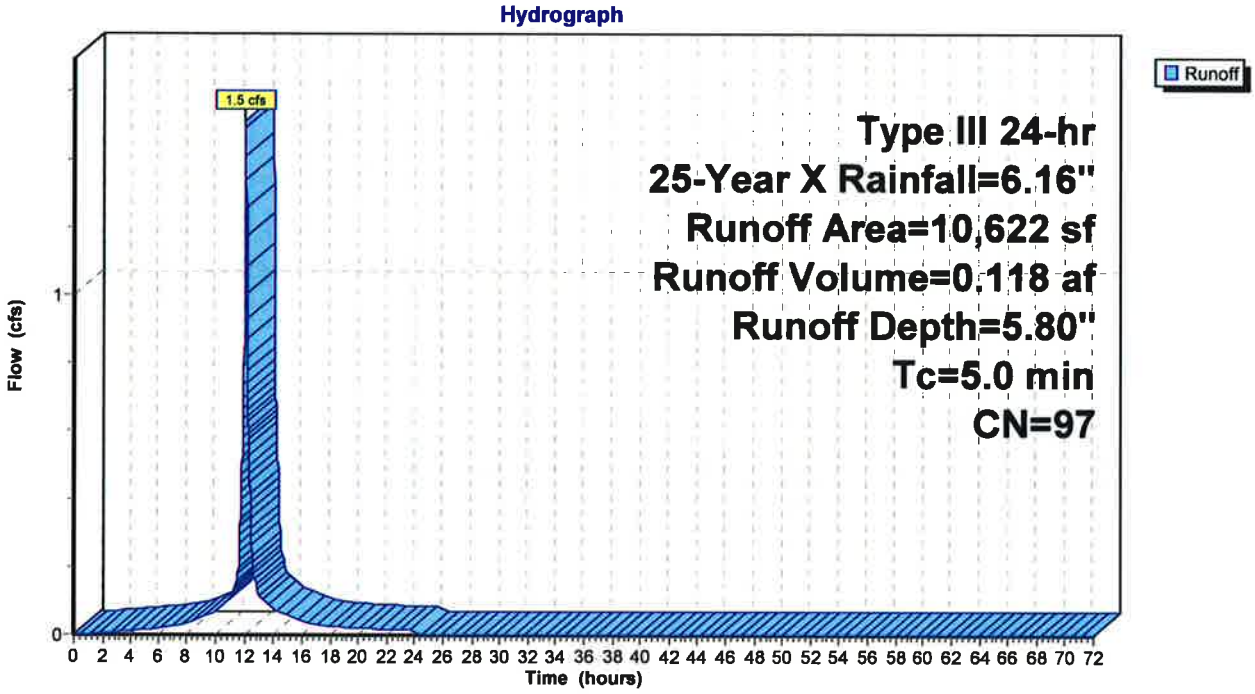
Runoff = 1.5 cfs @ 12.07 hrs, Volume= 0.118 af, Depth= 5.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year X Rainfall=6.16"

Area (sf)	CN	Description
8,579	98	Paved parking, HSG C
14	98	Paved roads w/curbs & sewers, HSG C
54	98	Roofs, HSG C
1,975	91	Fallow, bare soil, HSG C
10,622	97	Weighted Average
1,975		18.59% Pervious Area
8,647		81.41% Impervious Area

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

Subcatchment ES3:



Summary for Subcatchment ES4:

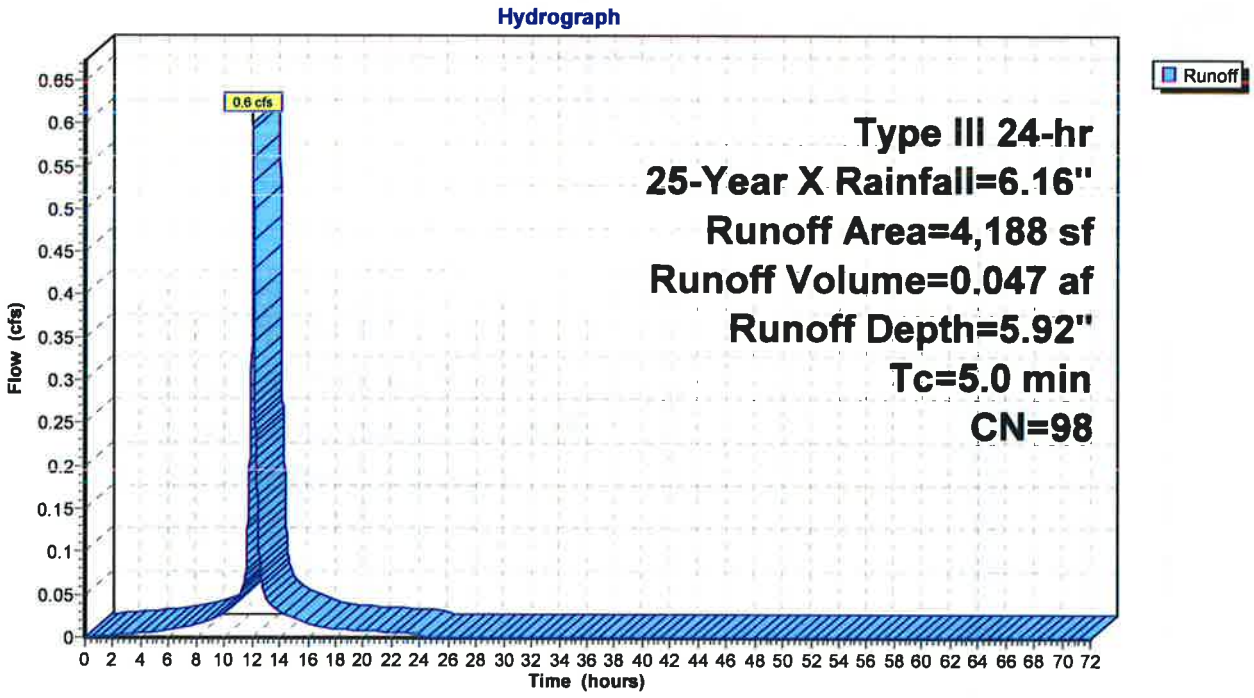
Runoff = 0.6 cfs @ 12.07 hrs, Volume= 0.047 af, Depth= 5.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year X Rainfall=6.16"

Area (sf)	CN	Description
4,188	98	Roofs, HSG C
4,188		100.00% Impervious Area

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

Subcatchment ES4:



Summary for Subcatchment ES5:

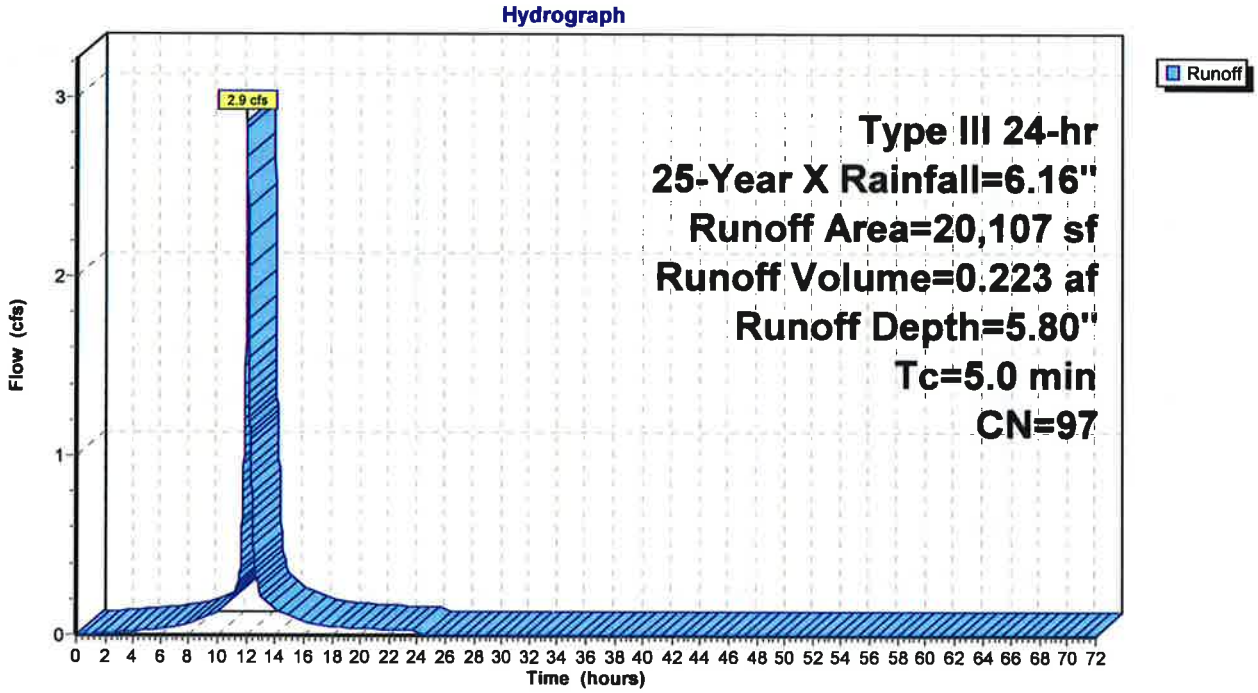
Runoff = 2.9 cfs @ 12.07 hrs, Volume= 0.223 af, Depth= 5.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year X Rainfall=6.16"

	Area (sf)	CN	Description
	269	98	Paved parking, HSG C
	11,300	98	Paved roads w/curbs & sewers, HSG C
	3,499	98	Paved roads w/curbs & sewers, HSG C
	2,439	98	Paved roads w/curbs & sewers, HSG C
*	336	98	Gravel roads, HSG C
	2,264	91	Fallow, bare soil, HSG C
	20,107	97	Weighted Average
	2,264		11.26% Pervious Area
	17,843		88.74% Impervious Area

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

Subcatchment ES5:



Summary for Subcatchment ES6:

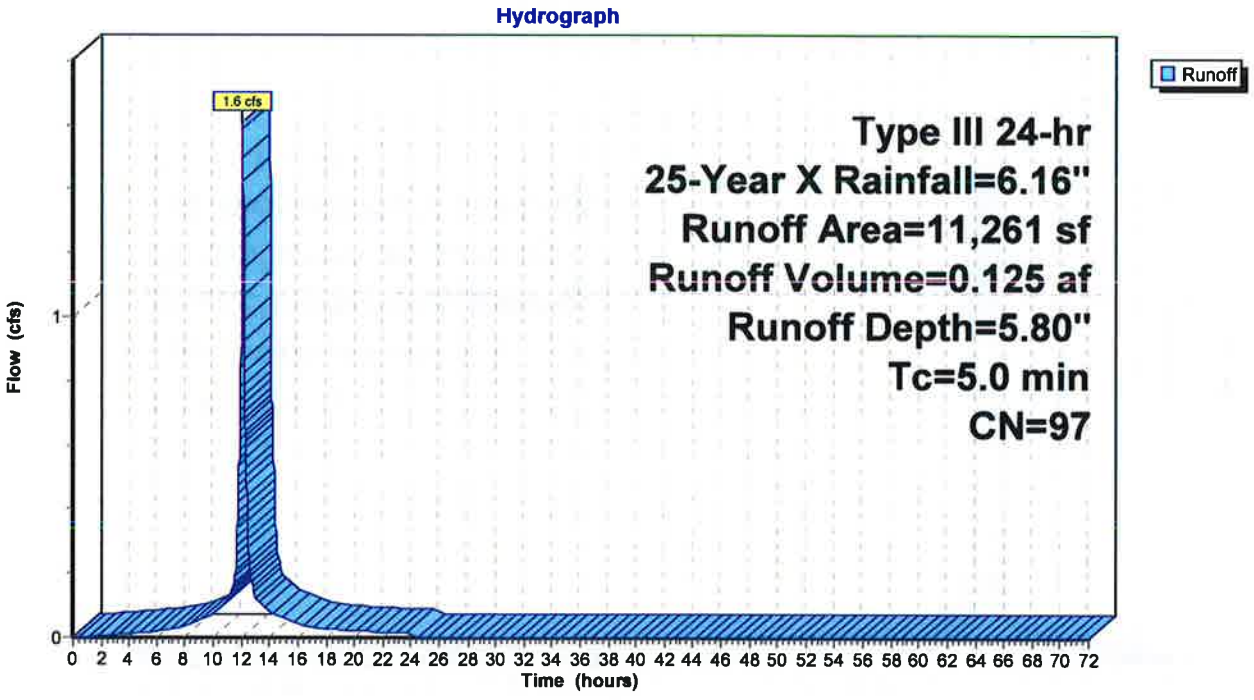
Runoff = 1.6 cfs @ 12.07 hrs, Volume= 0.125 af, Depth= 5.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year X Rainfall=6.16"

Area (sf)	CN	Description
86	98	Paved parking, HSG C
6,879	98	Paved roads w/curbs & sewers, HSG C
2,385	98	Paved roads w/curbs & sewers, HSG C
103	98	Roofs, HSG C
1,808	91	Fallow, bare soil, HSG C
11,261	97	Weighted Average
1,808		16.06% Pervious Area
9,453		83.94% Impervious Area

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

Subcatchment ES6:



Summary for Subcatchment ES7:

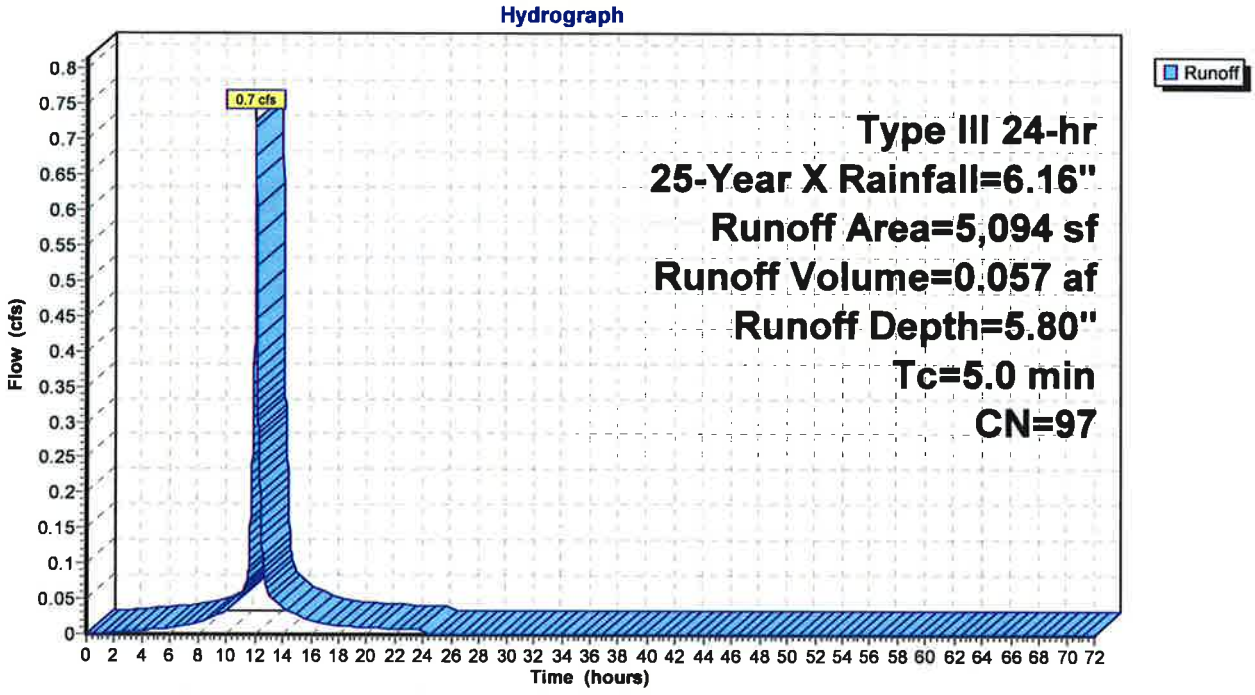
Runoff = 0.7 cfs @ 12.07 hrs, Volume= 0.057 af, Depth= 5.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year X Rainfall=6.16"

Area (sf)	CN	Description
3,437	98	Paved roads w/curbs & sewers, HSG C
1,098	98	Paved roads w/curbs & sewers, HSG C
559	91	Fallow, bare soil, HSG C
5,094	97	Weighted Average
559		10.97% Pervious Area
4,535		89.03% Impervious Area

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

Subcatchment ES7:



Summary for Subcatchment ES8:

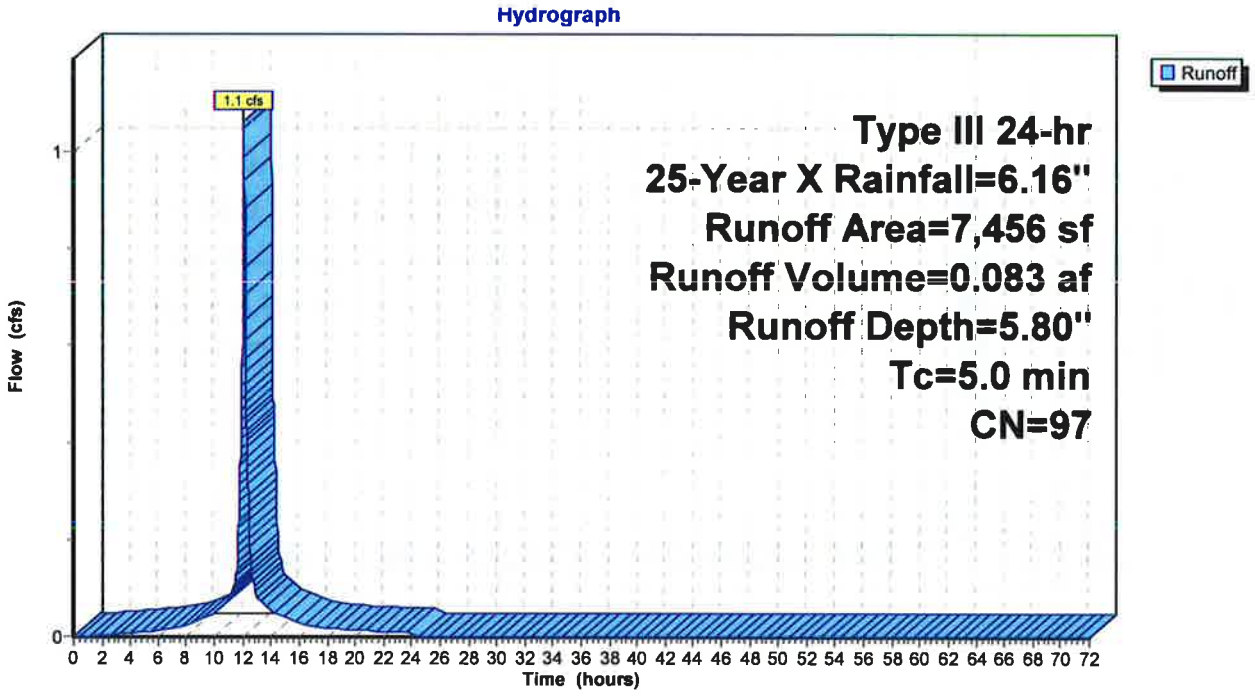
Runoff = 1.1 cfs @ 12.07 hrs, Volume= 0.083 af, Depth= 5.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year X Rainfall=6.16"

	Area (sf)	CN	Description
	4,674	98	Paved roads w/curbs & sewers, HSG C
	1,563	98	Paved roads w/curbs & sewers, HSG C
	121	98	Paved roads w/curbs & sewers, HSG C
*	39	98	Gravel roads, HSG C
	1,059	91	Fallow, bare soil, HSG C
	7,456	97	Weighted Average
	1,059		14.20% Pervious Area
	6,397		85.80% Impervious Area

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

Subcatchment ES8:



Summary for Pond 1P: CB 3528

[57] Hint: Peaked at 6.15' (Flood elevation advised)

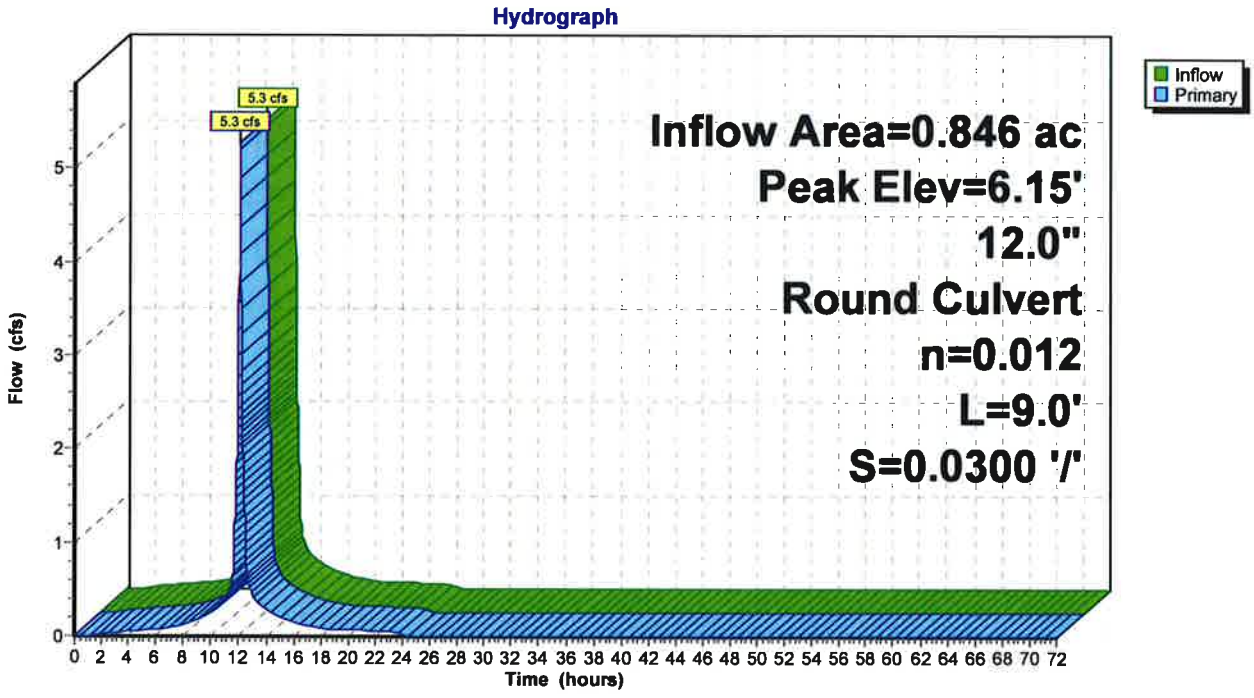
Inflow Area =	0.846 ac, 93.86% Impervious, Inflow Depth =	5.86"	for 25-Year X event		
Inflow =	5.3 cfs @	12.07 hrs, Volume=	0.413 af		
Outflow =	5.3 cfs @	12.07 hrs, Volume=	0.413 af,	Atten= 0%,	Lag= 0.0 min
Primary =	5.3 cfs @	12.07 hrs, Volume=	0.413 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.15' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.40'	**12.0" Round Culvert** L= 9.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 4.40' / 4.13' S= 0.0300 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=5.3 cfs @ 12.07 hrs HW=6.15' TW=4.78' (Dynamic Tailwater)
↑**1=Culvert** (Inlet Controls 5.3 cfs @ 6.72 fps)

Pond 1P: CB 3528



Summary for Pond 2P: CB 3524

[57] Hint: Peaked at 9.88' (Flood elevation advised)

Inflow Area =	0.244 ac, 81.41% Impervious,	Inflow Depth =	5.80"	for 25-Year X event
Inflow =	1.5 cfs @ 12.07 hrs,	Volume=	0.118 af	
Outflow =	1.5 cfs @ 12.07 hrs,	Volume=	0.118 af,	Atten= 0%, Lag= 0.0 min
Primary =	1.5 cfs @ 12.07 hrs,	Volume=	0.118 af	

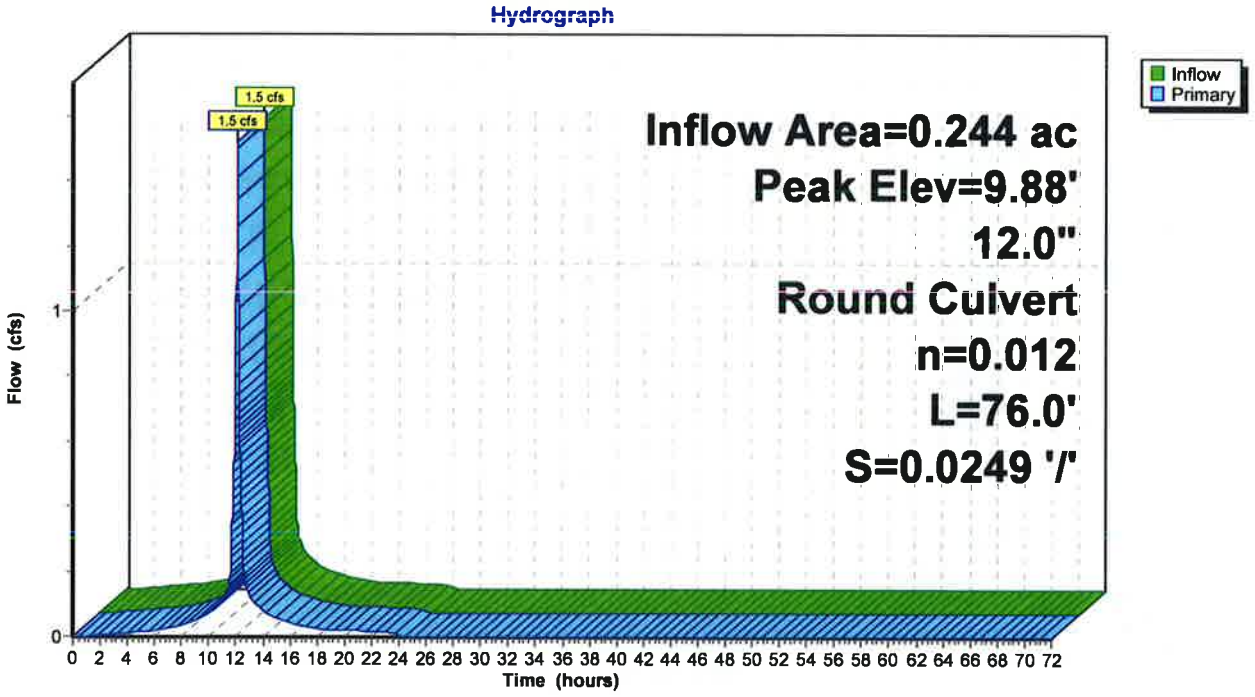
Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 9.88' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	7.52'	**12.0" Round Culvert** L= 76.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 7.52' / 5.63' S= 0.0249 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.4 cfs @ 12.07 hrs HW=9.87' TW=9.72' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 1.4 cfs @ 1.74 fps)

Pond 2P: CB 3524

Hydrograph



Summary for Pond 3P: CB 3525

[57] Hint: Peaked at 9.72' (Flood elevation advised)
[80] Warning: Exceeded Pond 2P by 0.04' @ 12.04 hrs (0.7 cfs 0.001 af)

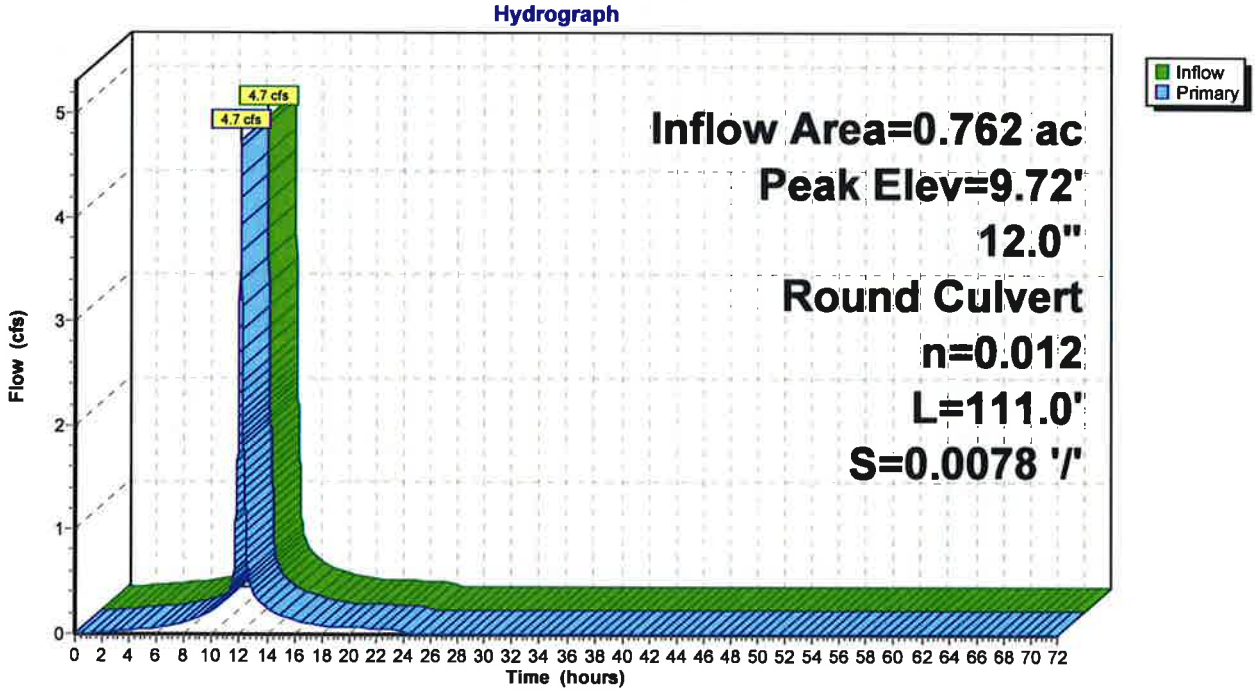
Inflow Area =	0.762 ac,	85.69% Impervious,	Inflow Depth =	5.80"	for 25-Year X event
Inflow =	4.7 cfs @	12.07 hrs,	Volume=	0.368 af	
Outflow =	4.7 cfs @	12.07 hrs,	Volume=	0.368 af,	Atten= 0%, Lag= 0.0 min
Primary =	4.7 cfs @	12.07 hrs,	Volume=	0.368 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 9.72' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.63'	**12.0" Round Culvert** L= 111.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.63' / 4.76' S= 0.0078 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=4.7 cfs @ 12.07 hrs HW=9.72' TW=7.36' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 4.7 cfs @ 6.04 fps)

Pond 3P: CB 3525



Summary for Pond 4P: CB 3527

[57] Hint: Peaked at 7.36' (Flood elevation advised)

Inflow Area = 0.858 ac, 87.30% Impervious, Inflow Depth = 5.82" for 25-Year X event
Inflow = 5.3 cfs @ 12.07 hrs, Volume= 0.416 af
Outflow = 5.3 cfs @ 12.07 hrs, Volume= 0.416 af, Atten= 0%, Lag= 0.0 min
Primary = 5.3 cfs @ 12.07 hrs, Volume= 0.416 af

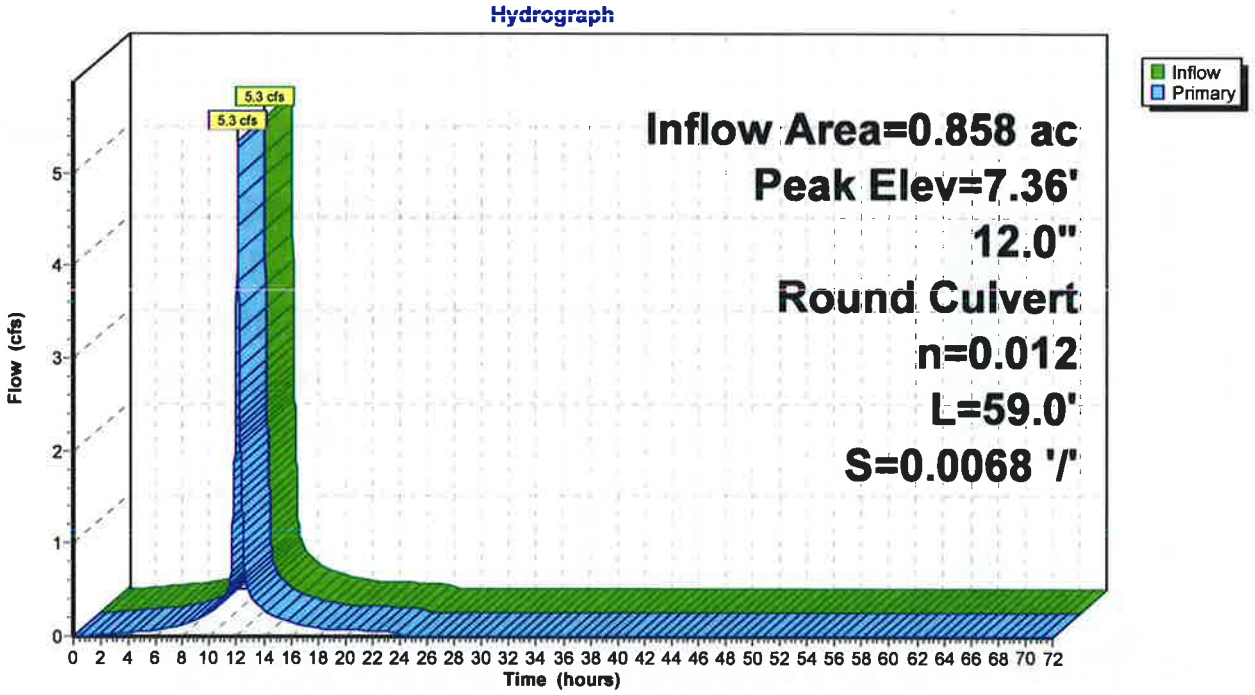
Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 7.36' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.76'	**12.0" Round Culvert** L= 59.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 4.76' / 4.36' S= 0.0068 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=5.3 cfs @ 12.07 hrs HW=7.36' TW=4.78' (Dynamic Tailwater)
↑—**1=Culvert** (Barrel Controls 5.3 cfs @ 6.80 fps)

Pond 4P: CB 3527

Hydrograph



Summary for Pond 5P: DMH 3543

[57] Hint: Peaked at 4.79' (Flood elevation advised)

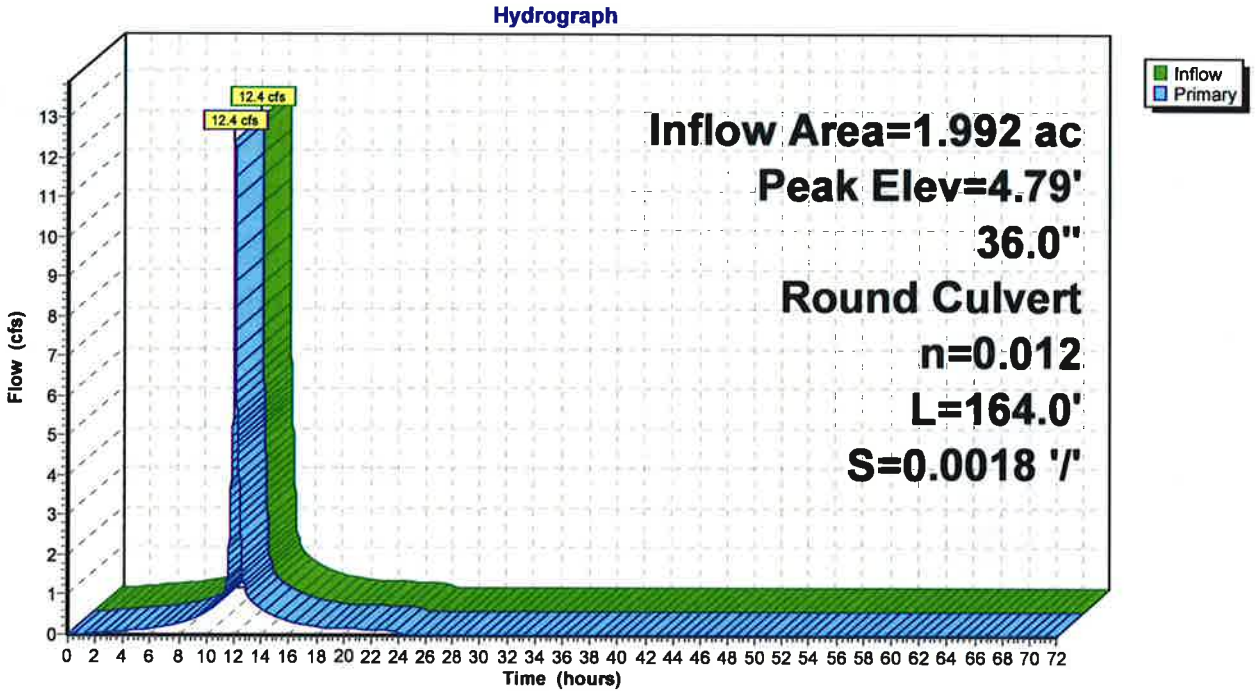
Inflow Area =	1.992 ac,	90.05% Impervious,	Inflow Depth =	5.83"	for 25-Year X event
Inflow =	12.4 cfs @	12.07 hrs,	Volume=	0.968 af	
Outflow =	12.4 cfs @	12.07 hrs,	Volume=	0.968 af,	Atten= 0%, Lag= 0.0 min
Primary =	12.4 cfs @	12.07 hrs,	Volume=	0.968 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 4.79' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	2.91'	**36.0" Round Culvert** L= 164.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 2.91' / 2.61' S= 0.0018 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=12.3 cfs @ 12.07 hrs HW=4.78' TW=4.27' (Dynamic Tailwater)
↳**1=Culvert** (Outlet Controls 12.3 cfs @ 3.80 fps)

Pond 5P: DMH 3543



Summary for Pond 6P: DMH 3542

[57] Hint: Peaked at 4.28' (Flood elevation advised)

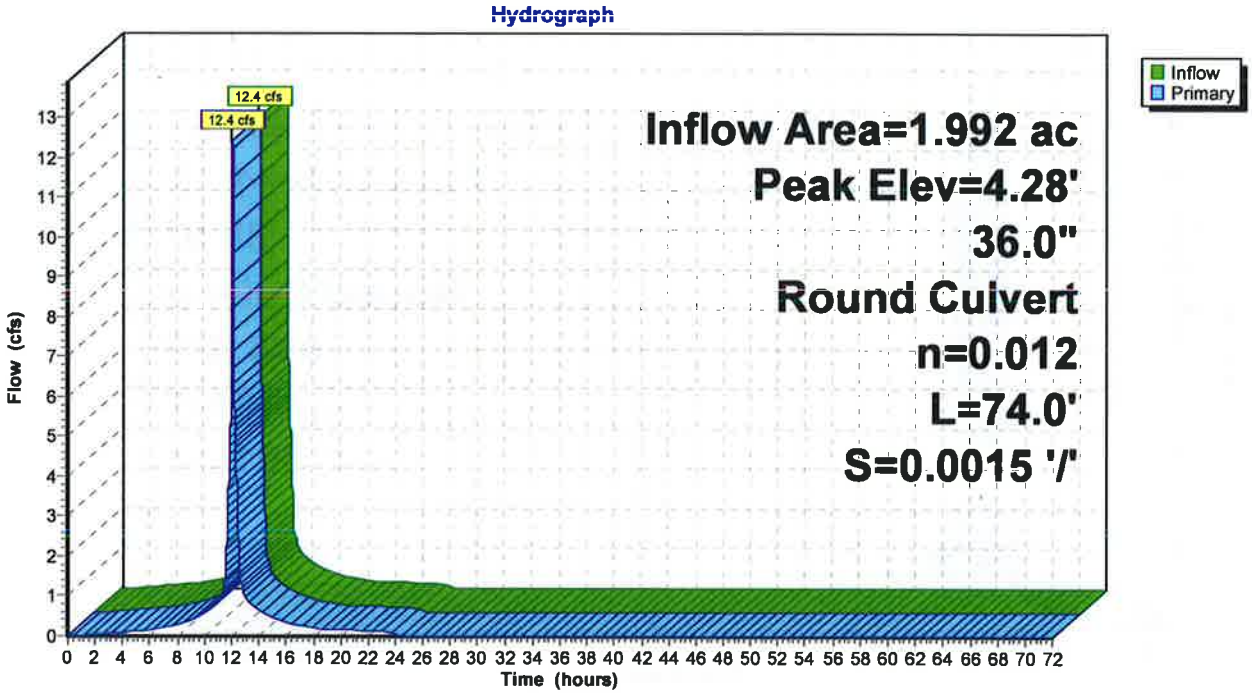
Inflow Area =	1.992 ac, 90.05% Impervious, Inflow Depth = 5.83"	for 25-Year X event		
Inflow =	12.4 cfs @ 12.07 hrs, Volume=	0.968 af		
Outflow =	12.4 cfs @ 12.07 hrs, Volume=	0.968 af, Atten= 0%, Lag= 0.0 min		
Primary =	12.4 cfs @ 12.07 hrs, Volume=	0.968 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 4.28' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	2.21'	**36.0" Round Culvert** L= 74.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 2.21' / 2.10' S= 0.0015 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=12.3 cfs @ 12.07 hrs HW=4.27' TW=3.99' (Dynamic Tailwater)
↳**1=Culvert** (Outlet Controls 12.3 cfs @ 3.33 fps)

Pond 6P: DMH 3542



Summary for Pond 7P: DMH 3541

[57] Hint: Peaked at 3.99' (Flood elevation advised)

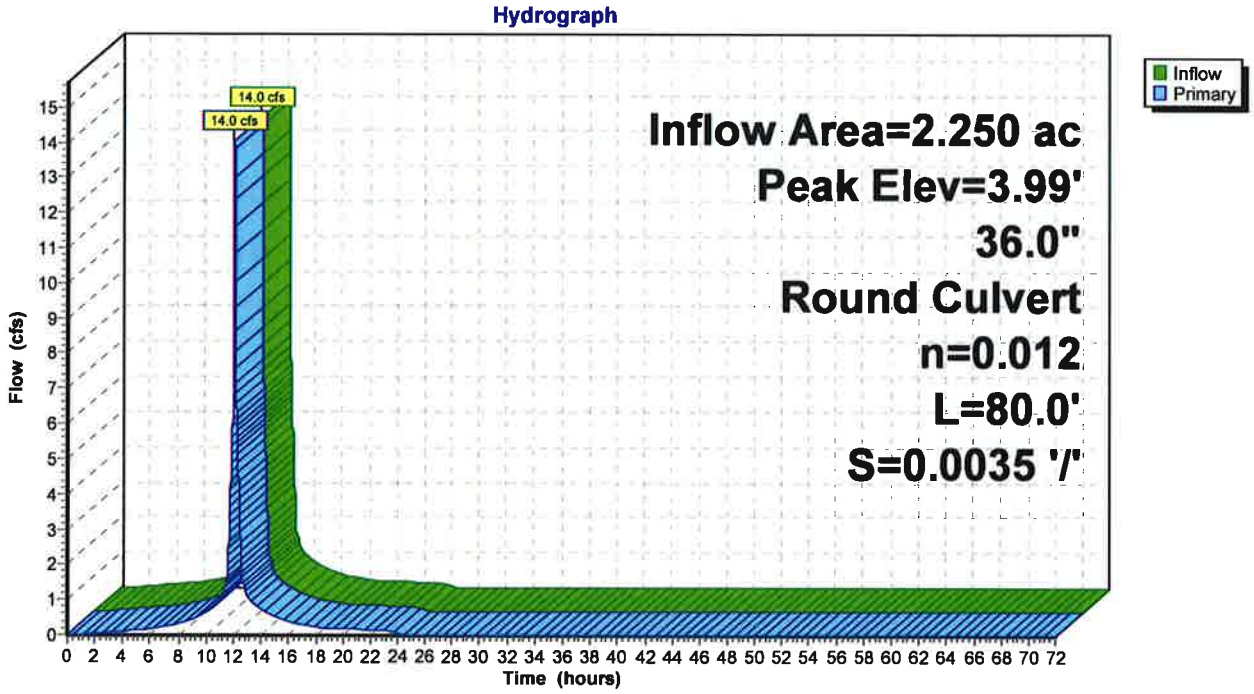
Inflow Area =	2.250 ac, 89.35% Impervious, Inflow Depth = 5.83"	for 25-Year X event			
Inflow =	14.0 cfs @ 12.07 hrs, Volume=	1.093 af			
Outflow =	14.0 cfs @ 12.07 hrs, Volume=	1.093 af,	Atten= 0%,	Lag= 0.0 min	
Primary =	14.0 cfs @ 12.07 hrs, Volume=	1.093 af			

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.99' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.96'	**36.0" Round Culvert** L= 80.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 1.96' / 1.68' S= 0.0035 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=14.0 cfs @ 12.07 hrs HW=3.99' TW=3.59' (Dynamic Tailwater)
↑**1=Culvert** (Outlet Controls 14.0 cfs @ 3.88 fps)

Pond 7P: DMH 3541



Summary for Pond 9P: DMH 5438

[57] Hint: Peaked at 3.14' (Flood elevation advised)

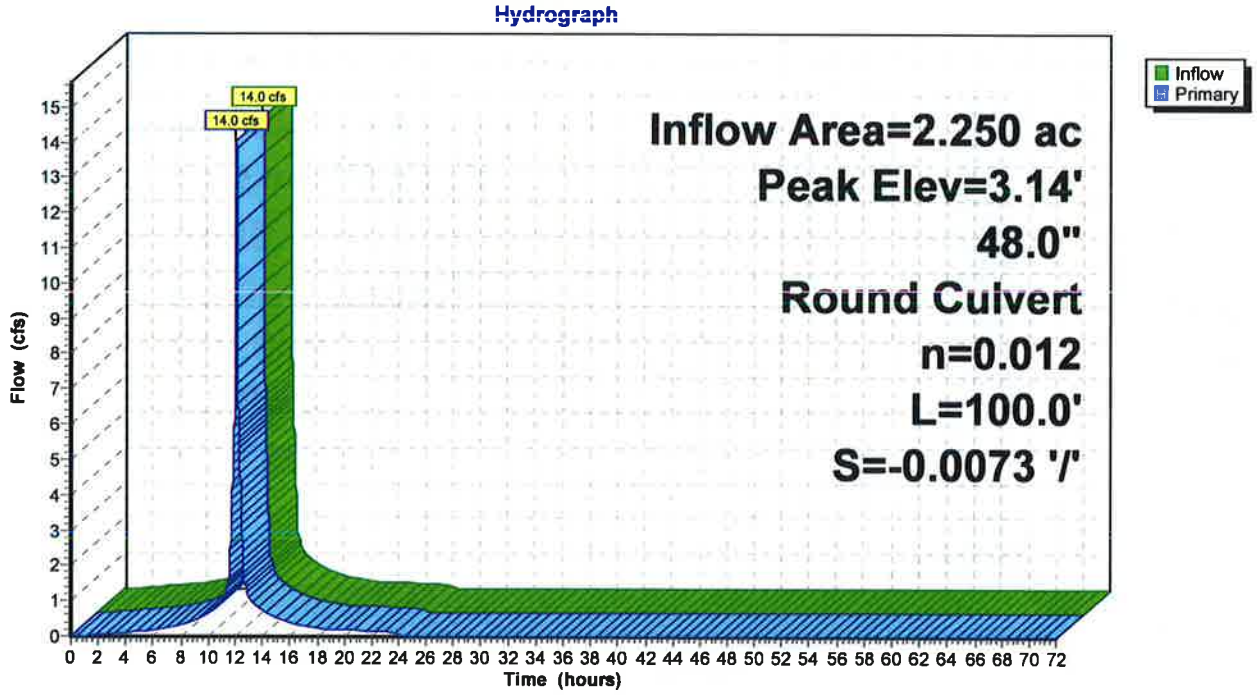
Inflow Area =	2.250 ac, 89.35% Impervious,	Inflow Depth =	5.83"	for 25-Year X event
Inflow =	14.0 cfs @ 12.07 hrs,	Volume=	1.093 af	
Outflow =	14.0 cfs @ 12.07 hrs,	Volume=	1.093 af,	Atten= 0%, Lag= 0.0 min
Primary =	14.0 cfs @ 12.07 hrs,	Volume=	1.093 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.14' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.67'	**48.0" Round Culvert** L= 100.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 0.94' / 1.67' S= -0.0073 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 12.57 sf

Primary OutFlow Max=14.0 cfs @ 12.07 hrs HW=3.14' TW=2.84' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 14.0 cfs @ 3.34 fps)

Pond 9P: DMH 5438



Summary for Pond 10P: DMH 5217

[57] Hint: Peaked at 2.84' (Flood elevation advised)

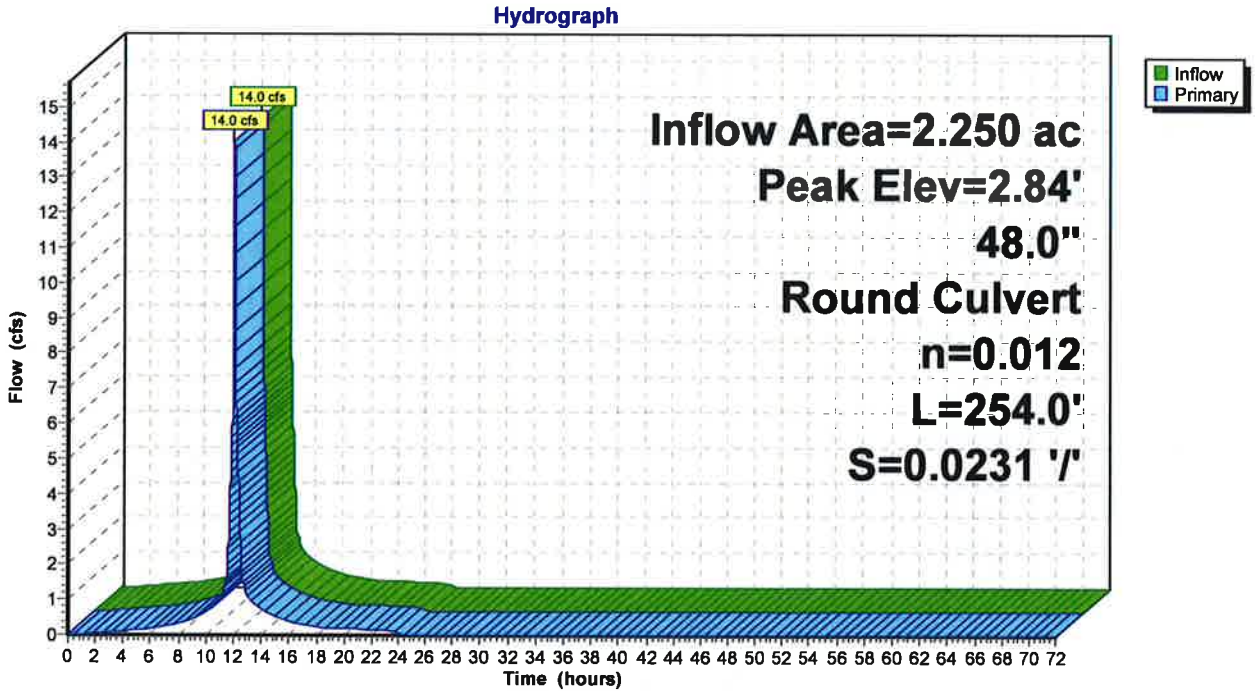
Inflow Area =	2.250 ac, 89.35% Impervious, Inflow Depth = 5.83" for 25-Year X event				
Inflow =	14.0 cfs @	12.07 hrs,	Volume=	1.093 af	
Outflow =	14.0 cfs @	12.07 hrs,	Volume=	1.093 af,	Atten= 0%, Lag= 0.0 min
Primary =	14.0 cfs @	12.07 hrs,	Volume=	1.093 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 2.84' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.67'	**48.0" Round Culvert** L= 254.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 1.67' / -4.20' S= 0.0231 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 12.57 sf

Primary OutFlow Max=14.0 cfs @ 12.07 hrs HW=2.84' (Free Discharge)
↑**1=Culvert** (Inlet Controls 14.0 cfs @ 4.60 fps)

Pond 10P: DMH 5217



Summary for Pond 11P: CB 3523

[57] Hint: Peaked at 8.12' (Flood elevation advised)

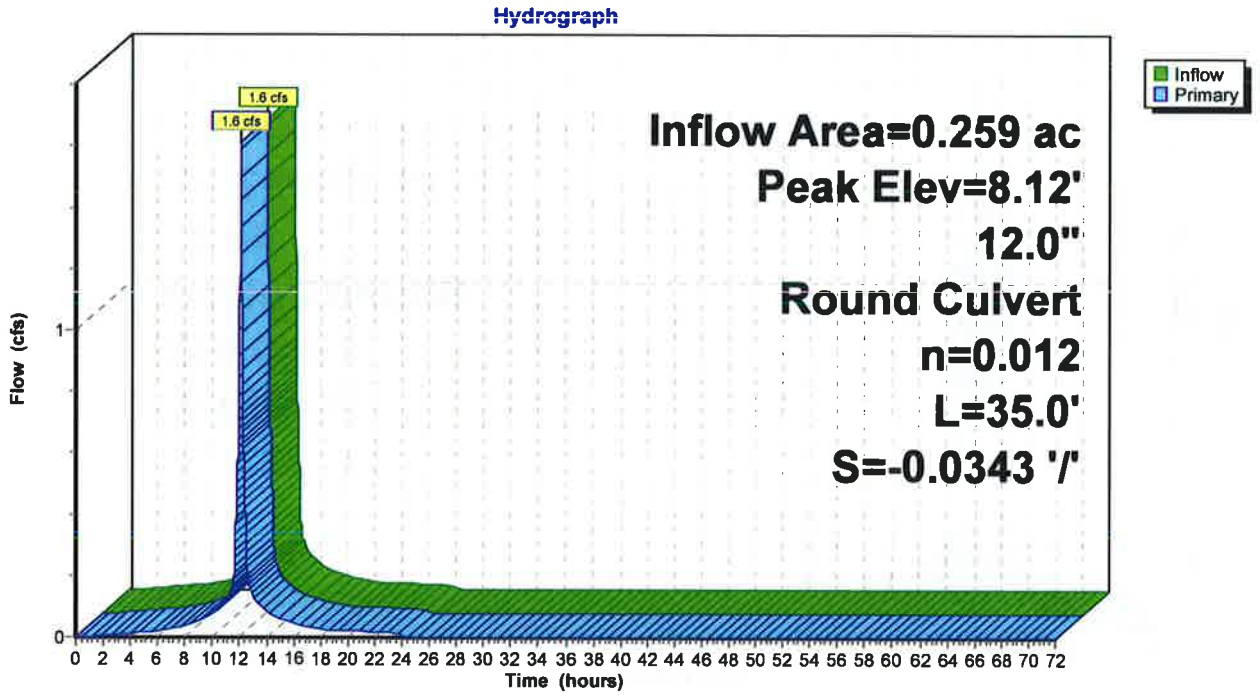
Inflow Area =	0.259 ac, 83.94% Impervious, Inflow Depth = 5.80"	for 25-Year X event		
Inflow =	1.6 cfs @ 12.07 hrs, Volume=	0.125 af		
Outflow =	1.6 cfs @ 12.07 hrs, Volume=	0.125 af, Atten= 0%, Lag= 0.0 min		
Primary =	1.6 cfs @ 12.07 hrs, Volume=	0.125 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 8.12' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	7.52'	**12.0" Round Culvert** L= 35.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.32' / 7.52' S= -0.0343 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.6 cfs @ 12.07 hrs HW=8.12' TW=3.99' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 1.6 cfs @ 3.29 fps)

Pond 11P: CB 3523



Summary for Pond 12P: CB 3526

[57] Hint: Peaked at 6.78' (Flood elevation advised)

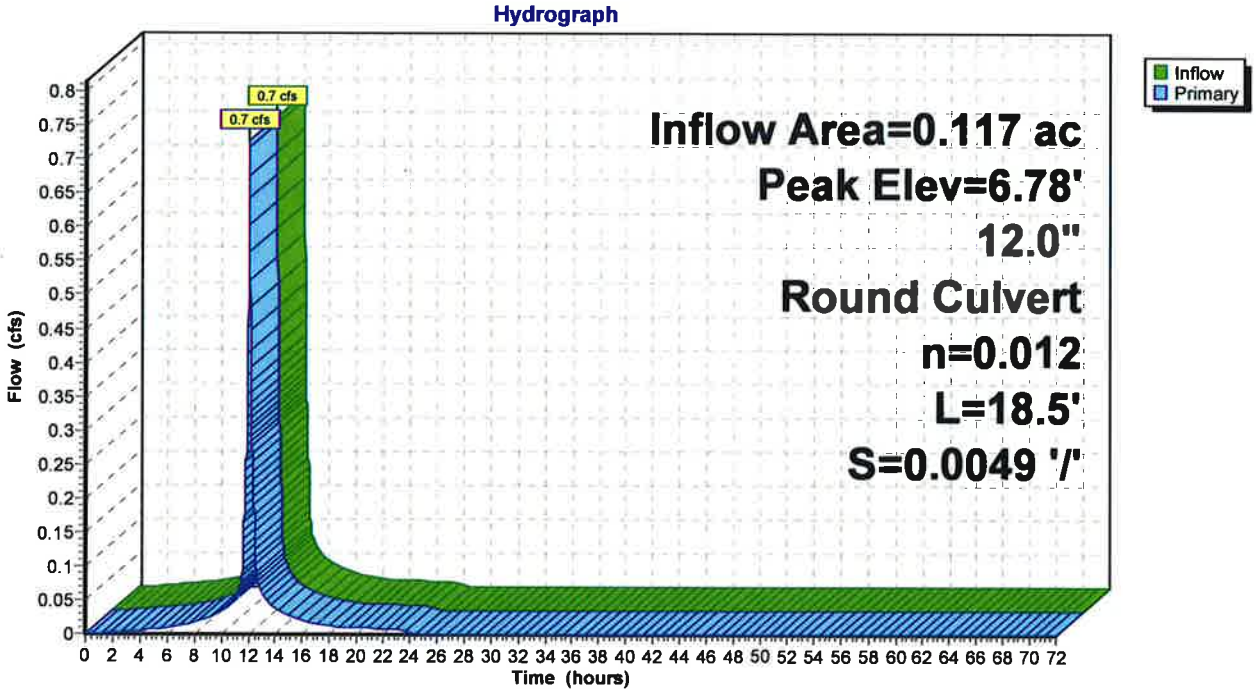
Inflow Area = 0.117 ac, 89.03% Impervious, Inflow Depth = 5.80" for 25-Year X event
Inflow = 0.7 cfs @ 12.07 hrs, Volume= 0.057 af
Outflow = 0.7 cfs @ 12.07 hrs, Volume= 0.057 af, Atten= 0%, Lag= 0.0 min
Primary = 0.7 cfs @ 12.07 hrs, Volume= 0.057 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.78' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	6.18'	**12.0" Round Culvert** L= 18.5' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.18' / 6.09' S= 0.0049 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.7 cfs @ 12.07 hrs HW=6.78' TW=6.67' (Dynamic Tailwater)
↑**1=Culvert** (Outlet Controls 0.7 cfs @ 2.09 fps)

Pond 12P: CB 3526



Summary for Pond 13P: DMH 12303

[57] Hint: Peaked at 6.67' (Flood elevation advised)

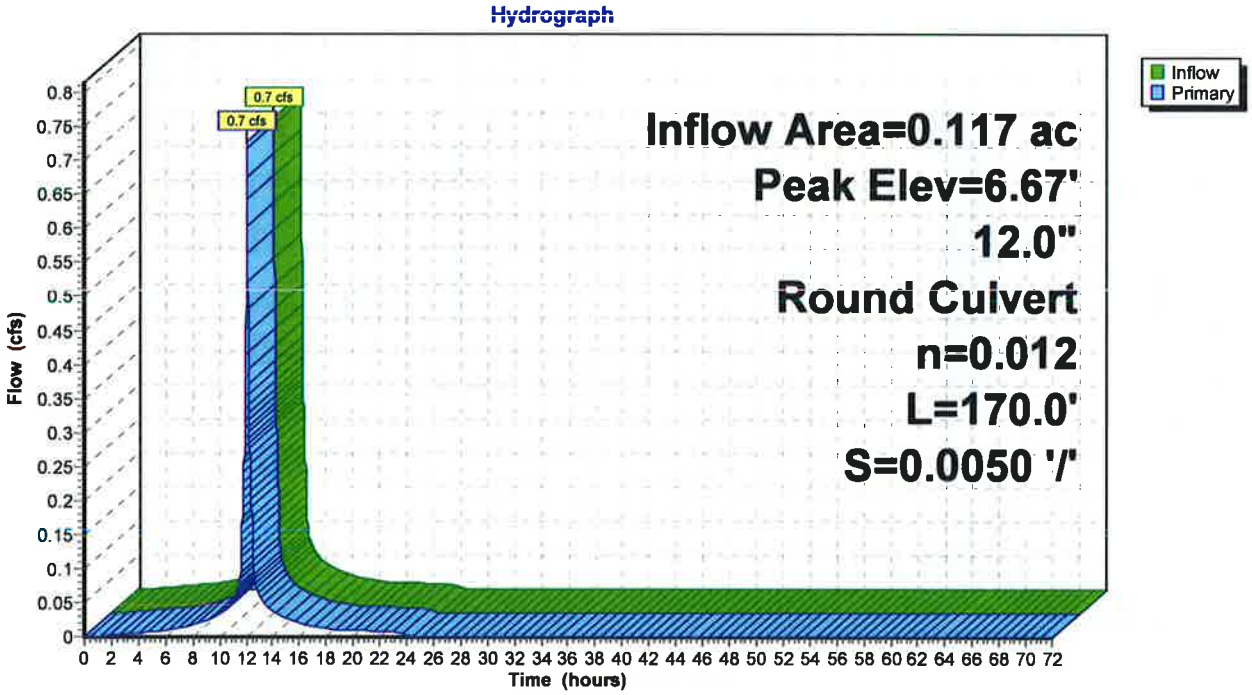
Inflow Area =	0.117 ac, 89.03% Impervious,	Inflow Depth =	5.80"	for 25-Year X event
Inflow =	0.7 cfs @ 12.07 hrs,	Volume=	0.057 af	
Outflow =	0.7 cfs @ 12.07 hrs,	Volume=	0.057 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.7 cfs @ 12.07 hrs,	Volume=	0.057 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.67' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	6.09'	**12.0" Round Culvert** L= 170.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.09' / 5.24' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.7 cfs @ 12.07 hrs HW=6.67' TW=6.17' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 0.7 cfs @ 2.23 fps)

Pond 13P: DMH 12303



Summary for Pond 14P: DMH 12631

[57] Hint: Peaked at 6.17' (Flood elevation advised)

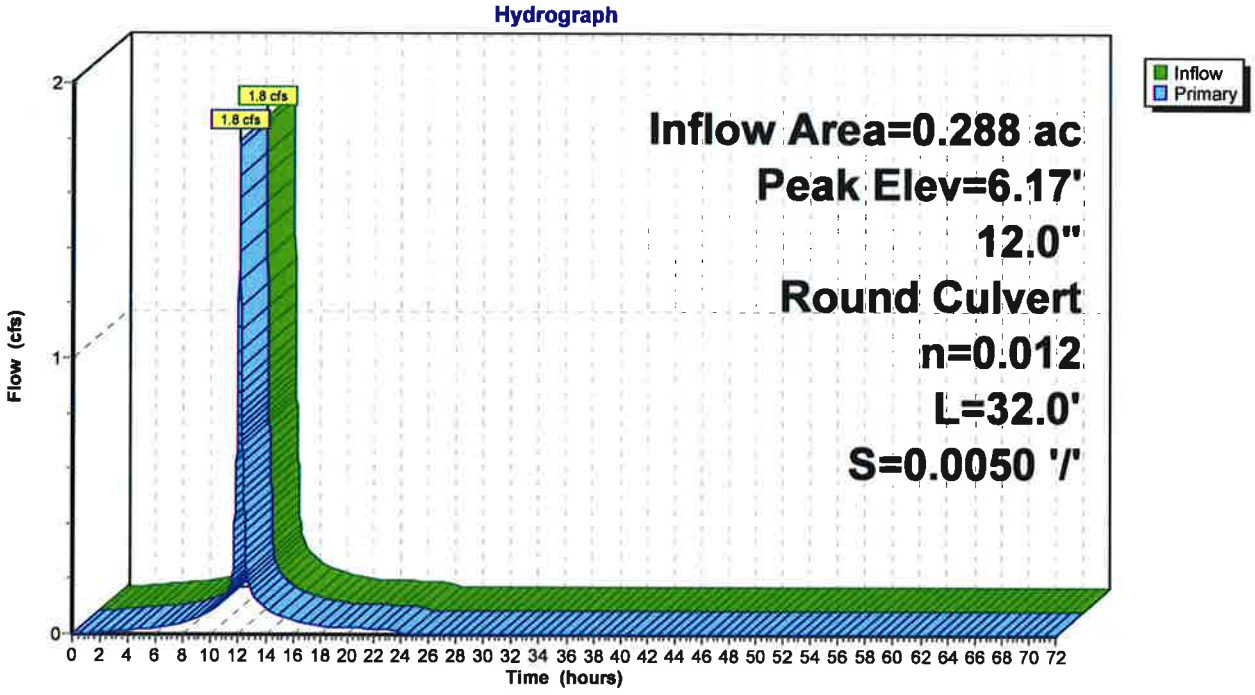
Inflow Area =	0.288 ac, 87.11% Impervious, Inflow Depth = 5.80" for 25-Year X event				
Inflow =	1.8 cfs @	12.07 hrs,	Volume=	0.139 af	
Outflow =	1.8 cfs @	12.07 hrs,	Volume=	0.139 af,	Atten= 0%, Lag= 0.0 min
Primary =	1.8 cfs @	12.07 hrs,	Volume=	0.139 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.17' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.24'	**12.0" Round Culvert** L= 32.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.24' / 5.08' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.8 cfs @ 12.07 hrs HW=6.17' TW=5.90' (Dynamic Tailwater)
↳**1=Culvert** (Outlet Controls 1.8 cfs @ 3.04 fps)

Pond 14P: DMH 12631



Summary for Pond 15P: CB 8146

[57] Hint: Peaked at 6.25' (Flood elevation advised)

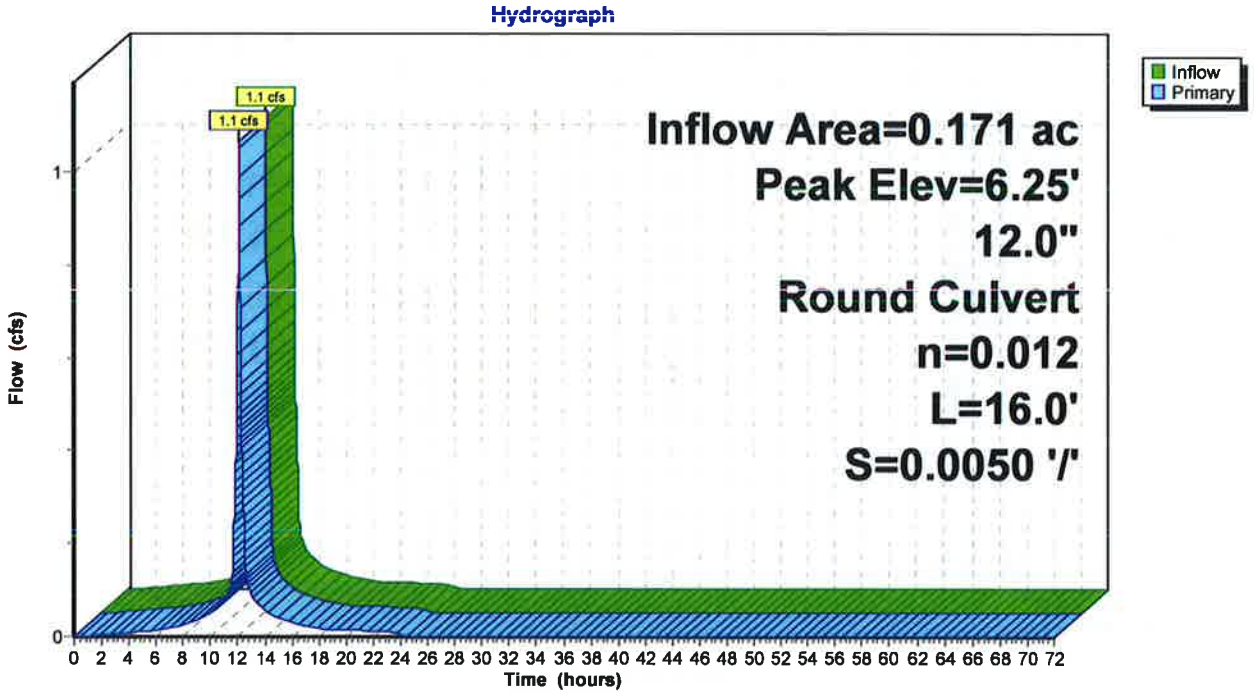
Inflow Area = 0.171 ac, 85.80% Impervious, Inflow Depth = 5.80" for 25-Year X event
Inflow = 1.1 cfs @ 12.07 hrs, Volume= 0.083 af
Outflow = 1.1 cfs @ 12.07 hrs, Volume= 0.083 af, Atten= 0%, Lag= 0.0 min
Primary = 1.1 cfs @ 12.07 hrs, Volume= 0.083 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.25' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.32'	**12.0" Round Culvert** L= 16.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.32' / 5.24' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.0 cfs @ 12.07 hrs HW=6.25' TW=6.17' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 1.0 cfs @ 1.78 fps)

Pond 15P: CB 8146



Summary for Pond 16P: DMH 12632

[57] Hint: Peaked at 5.90' (Flood elevation advised)

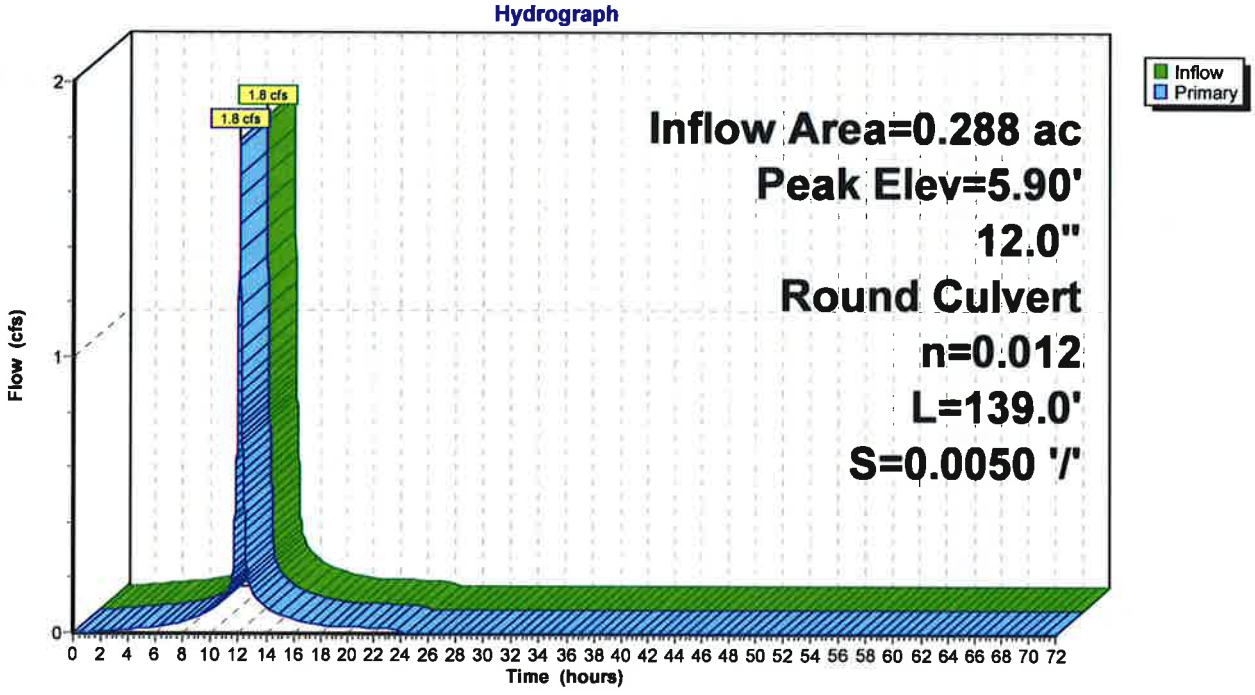
Inflow Area =	0.288 ac, 87.11% Impervious, Inflow Depth =	5.80"	for 25-Year X event		
Inflow =	1.8 cfs @	12.07 hrs, Volume=	0.139 af		
Outflow =	1.8 cfs @	12.07 hrs, Volume=	0.139 af,	Atten= 0%,	Lag= 0.0 min
Primary =	1.8 cfs @	12.07 hrs, Volume=	0.139 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 5.90' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.08'	**12.0" Round Culvert** L= 139.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.08' / 4.39' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.8 cfs @ 12.07 hrs HW=5.90' TW=5.06' (Dynamic Tailwater)
↑**1=Culvert** (Outlet Controls 1.8 cfs @ 3.52 fps)

Pond 16P: DMH 12632



Summary for Pond 17P: DMH 3545

[57] Hint: Peaked at 5.06' (Flood elevation advised)

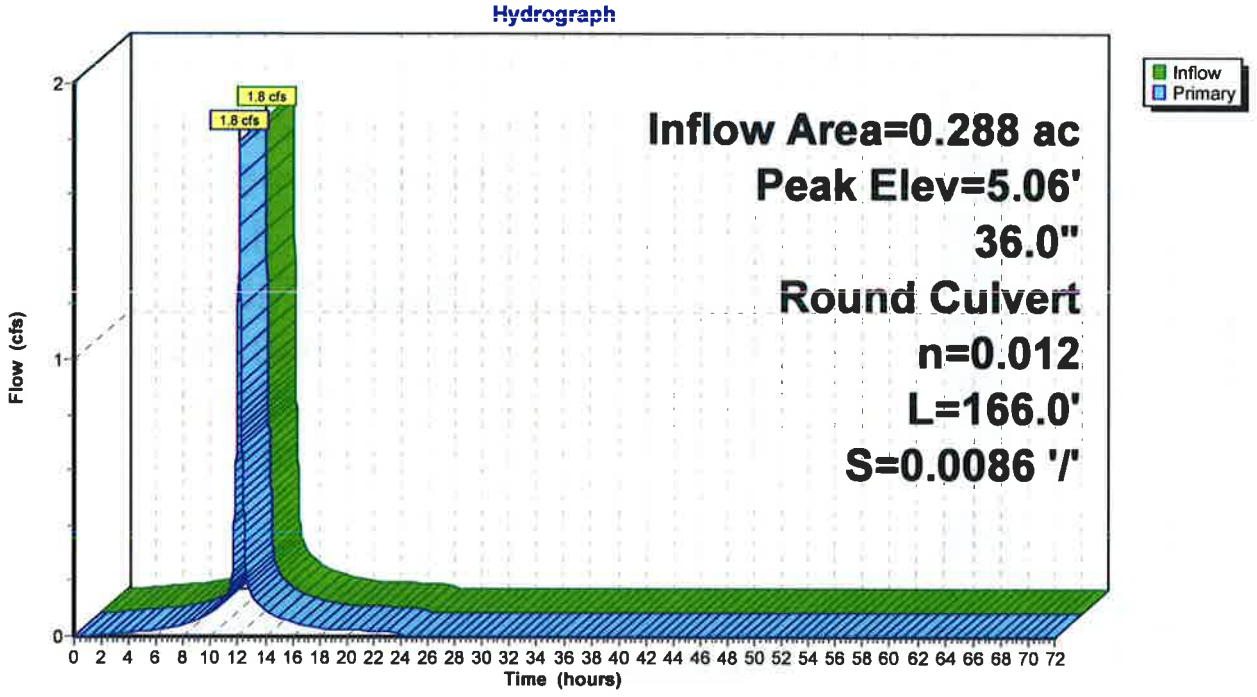
Inflow Area =	0.288 ac, 87.11% Impervious, Inflow Depth = 5.80"	for 25-Year X event		
Inflow =	1.8 cfs @ 12.07 hrs, Volume=	0.139 af		
Outflow =	1.8 cfs @ 12.07 hrs, Volume=	0.139 af, Atten= 0%, Lag= 0.0 min		
Primary =	1.8 cfs @ 12.07 hrs, Volume=	0.139 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 5.06' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.34'	**36.0" Round Culvert** L= 166.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 4.34' / 2.91' S= 0.0086 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=1.8 cfs @ 12.07 hrs HW=5.06' TW=4.78' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 1.8 cfs @ 2.04 fps)

Pond 17P: DMH 3545



Summary for Pond DP1: DMH 3540

[57] Hint: Peaked at 3.60' (Flood elevation advised)

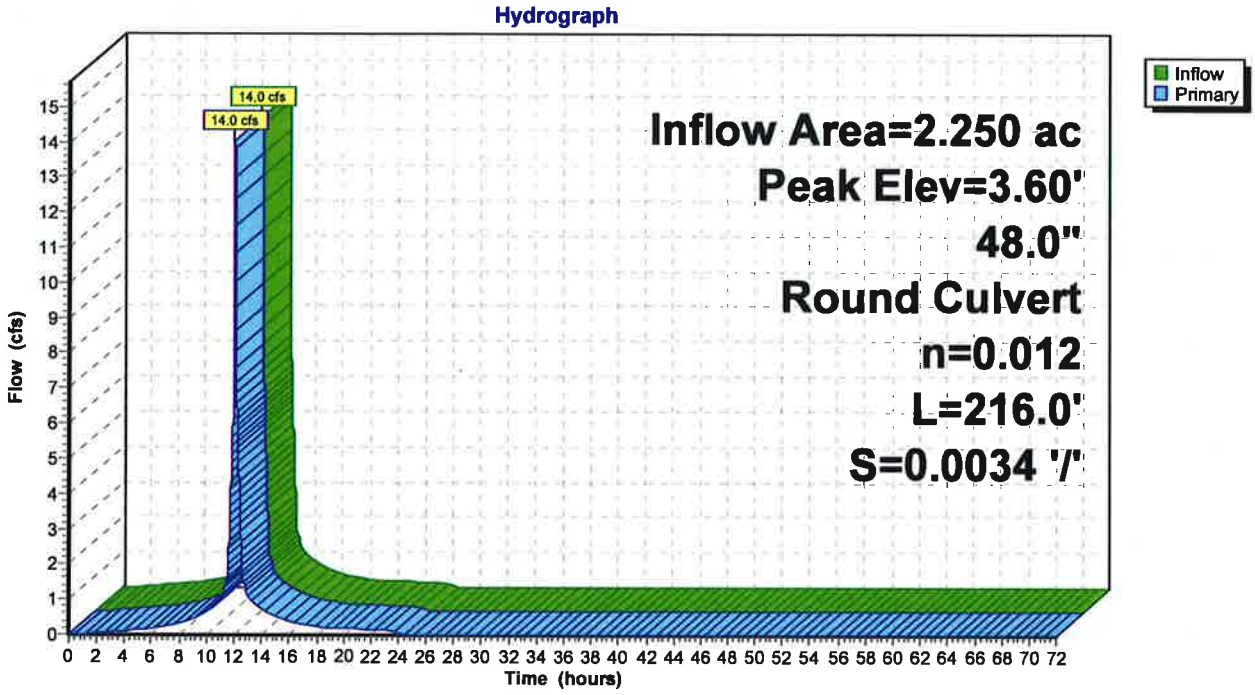
Inflow Area =	2.250 ac, 89.35% Impervious, Inflow Depth =	5.83"	for 25-Year X event		
Inflow =	14.0 cfs @	12.07 hrs, Volume=	1.093 af		
Outflow =	14.0 cfs @	12.07 hrs, Volume=	1.093 af,	Atten= 0%,	Lag= 0.0 min
Primary =	14.0 cfs @	12.07 hrs, Volume=	1.093 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.60' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.68'	**48.0" Round Culvert** L= 216.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 1.68' / 0.94' S= 0.0034 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 12.57 sf

Primary OutFlow Max=14.0 cfs @ 12.07 hrs HW=3.59' TW=3.14' (Dynamic Tailwater)
↑**1=Culvert** (Outlet Controls 14.0 cfs @ 3.44 fps)

Pond DP1: DMH 3540



Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment ES1: Runoff Area=16,738 sf 100.00% Impervious Runoff Depth=7.13"
Tc=5.0 min CN=98 Runoff=2.9 cfs 0.228 af

Subcatchment ES2: Runoff Area=22,558 sf 87.71% Impervious Runoff Depth=7.01"
Tc=5.0 min CN=97 Runoff=3.9 cfs 0.303 af

Subcatchment ES3: Runoff Area=10,622 sf 81.41% Impervious Runoff Depth=7.01"
Tc=5.0 min CN=97 Runoff=1.8 cfs 0.142 af

Subcatchment ES4: Runoff Area=4,188 sf 100.00% Impervious Runoff Depth=7.13"
Tc=5.0 min CN=98 Runoff=0.7 cfs 0.057 af

Subcatchment ES5: Runoff Area=20,107 sf 88.74% Impervious Runoff Depth=7.01"
Tc=5.0 min CN=97 Runoff=3.4 cfs 0.270 af

Subcatchment ES6: Runoff Area=11,261 sf 83.94% Impervious Runoff Depth=7.01"
Tc=5.0 min CN=97 Runoff=1.9 cfs 0.151 af

Subcatchment ES7: Runoff Area=5,094 sf 89.03% Impervious Runoff Depth=7.01"
Tc=5.0 min CN=97 Runoff=0.9 cfs 0.068 af

Subcatchment ES8: Runoff Area=7,456 sf 85.80% Impervious Runoff Depth=7.01"
Tc=5.0 min CN=97 Runoff=1.3 cfs 0.100 af

Pond 1P: CB 3528 Peak Elev=6.81' Inflow=6.3 cfs 0.498 af
12.0" Round Culvert n=0.012 L=9.0' S=0.0300 '/' Outflow=6.3 cfs 0.498 af

Pond 2P: CB 3524 Peak Elev=11.87' Inflow=1.8 cfs 0.142 af
12.0" Round Culvert n=0.012 L=76.0' S=0.0249 '/' Outflow=1.8 cfs 0.142 af

Pond 3P: CB 3525 Peak Elev=11.63' Inflow=5.7 cfs 0.445 af
12.0" Round Culvert n=0.012 L=111.0' S=0.0078 '/' Outflow=5.7 cfs 0.445 af

Pond 4P: CB 3527 Peak Elev=8.23' Inflow=6.4 cfs 0.502 af
12.0" Round Culvert n=0.012 L=59.0' S=0.0068 '/' Outflow=6.4 cfs 0.502 af

Pond 5P: DMH 3543 Peak Elev=5.03' Inflow=14.9 cfs 1.169 af
36.0" Round Culvert n=0.012 L=164.0' S=0.0018 '/' Outflow=14.9 cfs 1.169 af

Pond 6P: DMH 3542 Peak Elev=4.52' Inflow=14.9 cfs 1.169 af
36.0" Round Culvert n=0.012 L=74.0' S=0.0015 '/' Outflow=14.9 cfs 1.169 af

Pond 7P: DMH 3541 Peak Elev=4.21' Inflow=16.8 cfs 1.320 af
36.0" Round Culvert n=0.012 L=80.0' S=0.0035 '/' Outflow=16.8 cfs 1.320 af

Pond 9P: DMH 5438 Peak Elev=3.29' Inflow=16.8 cfs 1.320 af
48.0" Round Culvert n=0.012 L=100.0' S=-0.0073 '/' Outflow=16.8 cfs 1.320 af

Pond 10P: DMH 5217 Peak Elev=2.96' Inflow=16.8 cfs 1.320 af
48.0" Round Culvert n=0.012 L=254.0' S=0.0231 '/' Outflow=16.8 cfs 1.320 af

Pond 11P: CB 3523 Peak Elev=8.19' Inflow=1.9 cfs 0.151 af
12.0" Round Culvert n=0.012 L=35.0' S=-0.0343 '/' Outflow=1.9 cfs 0.151 af

Pond 12P: CB 3526 Peak Elev=6.87' Inflow=0.9 cfs 0.068 af
12.0" Round Culvert n=0.012 L=18.5' S=0.0049 '/' Outflow=0.9 cfs 0.068 af

Pond 13P: DMH 12303 Peak Elev=6.76' Inflow=0.9 cfs 0.068 af
12.0" Round Culvert n=0.012 L=170.0' S=0.0050 '/' Outflow=0.9 cfs 0.068 af

Pond 14P: DMH 12631 Peak Elev=6.32' Inflow=2.2 cfs 0.168 af
12.0" Round Culvert n=0.012 L=32.0' S=0.0050 '/' Outflow=2.2 cfs 0.168 af

Pond 15P: CB 8146 Peak Elev=6.40' Inflow=1.3 cfs 0.100 af
12.0" Round Culvert n=0.012 L=16.0' S=0.0050 '/' Outflow=1.3 cfs 0.100 af

Pond 16P: DMH 12632 Peak Elev=6.03' Inflow=2.2 cfs 0.168 af
12.0" Round Culvert n=0.012 L=139.0' S=0.0050 '/' Outflow=2.2 cfs 0.168 af

Pond 17P: DMH 3545 Peak Elev=5.22' Inflow=2.2 cfs 0.168 af
36.0" Round Culvert n=0.012 L=166.0' S=0.0086 '/' Outflow=2.2 cfs 0.168 af

Pond DP1: DMH 3540 Peak Elev=3.78' Inflow=16.8 cfs 1.320 af
48.0" Round Culvert n=0.012 L=216.0' S=0.0034 '/' Outflow=16.8 cfs 1.320 af

Total Runoff Area = 2.250 ac Runoff Volume = 1.320 af Average Runoff Depth = 7.04"
10.65% Pervious = 0.240 ac 89.35% Impervious = 2.011 ac

Summary for Subcatchment ES1:

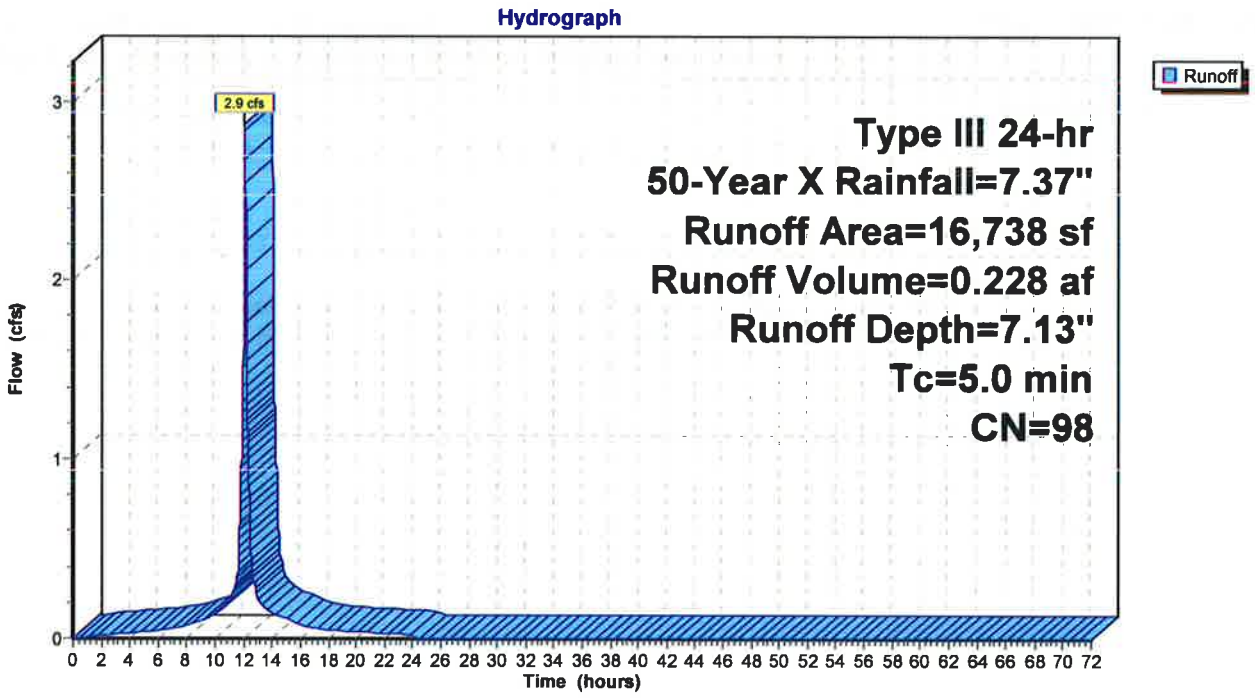
Runoff = 2.9 cfs @ 12.07 hrs, Volume= 0.228 af, Depth= 7.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-Year X Rainfall=7.37"

Area (sf)	CN	Description
16,738	98	Roofs, HSG C
16,738		100.00% Impervious Area

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

Subcatchment ES1:



Summary for Subcatchment ES2:

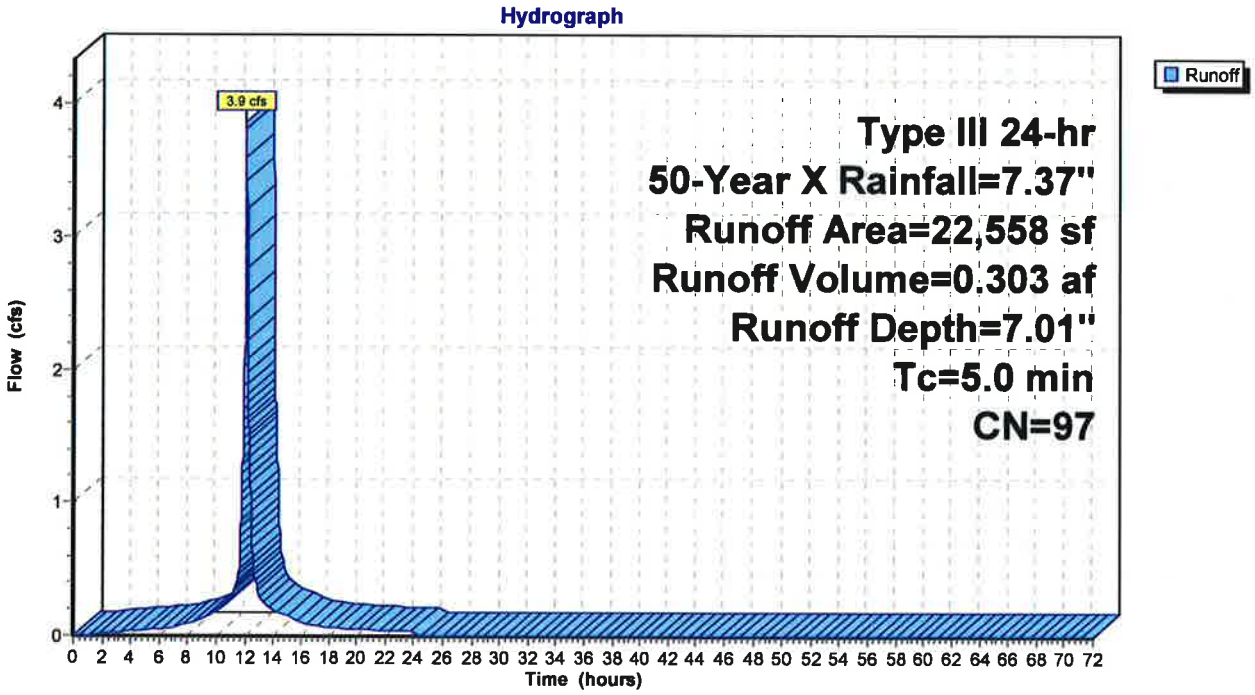
Runoff = 3.9 cfs @ 12.07 hrs, Volume= 0.303 af, Depth= 7.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-Year X Rainfall=7.37"

	Area (sf)	CN	Description
	15,968	98	Paved parking, HSG C
	1,941	98	Paved roads w/curbs & sewers, HSG C
	990	98	Paved roads w/curbs & sewers, HSG C
	47	98	Roofs, HSG C
*	840	98	Gravel roads, HSG C
	2,772	91	Fallow, bare soil, HSG C
	22,558	97	Weighted Average
	2,772		12.29% Pervious Area
	19,786		87.71% Impervious Area

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

Subcatchment ES2:



Summary for Subcatchment ES3:

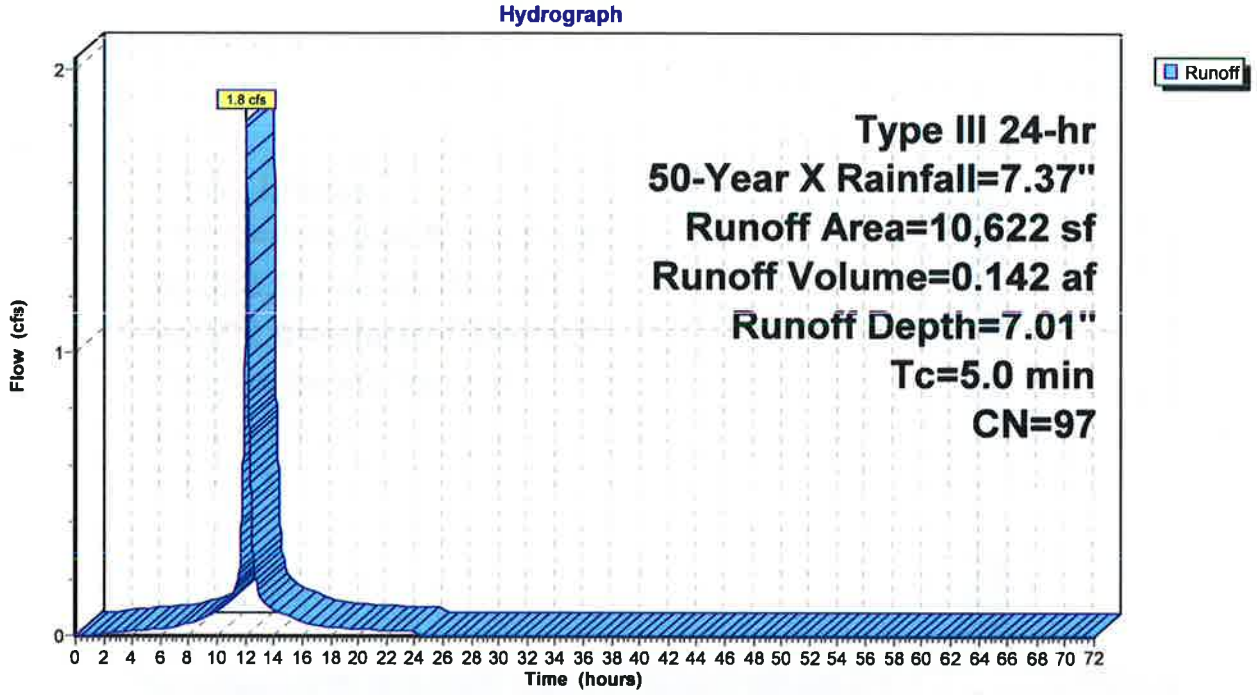
Runoff = 1.8 cfs @ 12.07 hrs, Volume= 0.142 af, Depth= 7.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-Year X Rainfall=7.37"

Area (sf)	CN	Description
8,579	98	Paved parking, HSG C
14	98	Paved roads w/curbs & sewers, HSG C
54	98	Roofs, HSG C
1,975	91	Fallow, bare soil, HSG C
10,622	97	Weighted Average
1,975		18.59% Pervious Area
8,647		81.41% Impervious Area

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

Subcatchment ES3:



Summary for Subcatchment ES4:

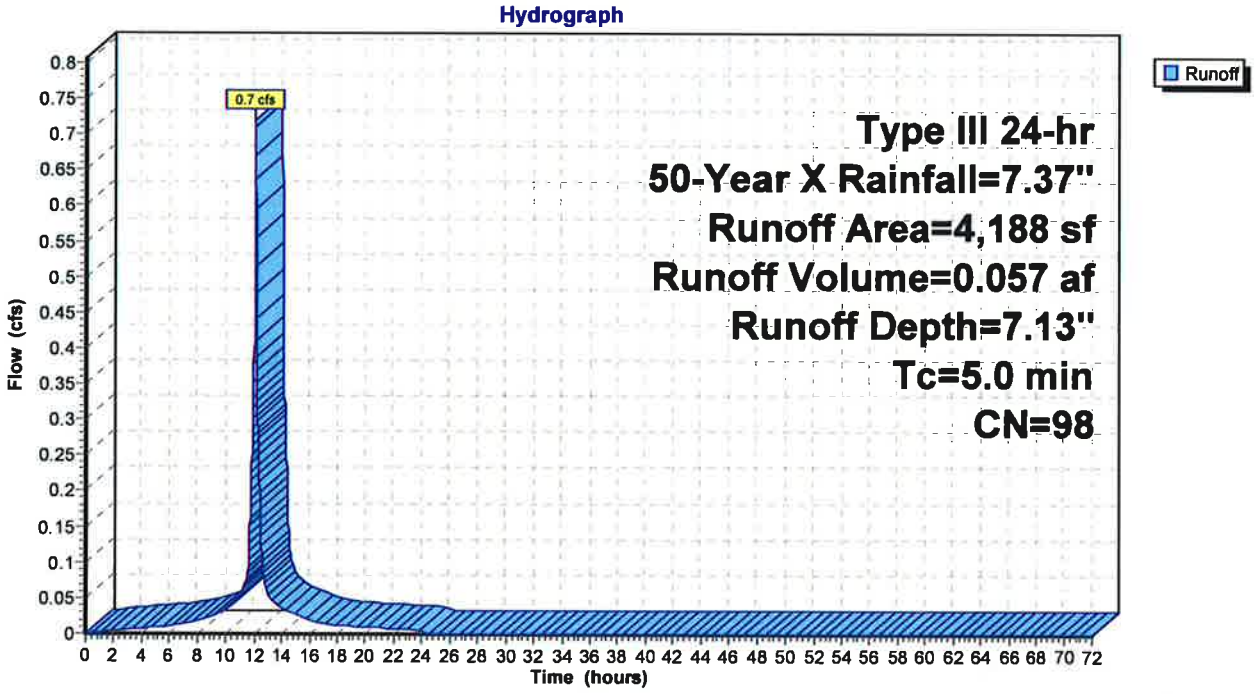
Runoff = 0.7 cfs @ 12.07 hrs, Volume= 0.057 af, Depth= 7.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-Year X Rainfall=7.37"

Area (sf)	CN	Description
4,188	98	Roofs, HSG C
4,188		100.00% Impervious Area

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

Subcatchment ES4:



Summary for Subcatchment ES5:

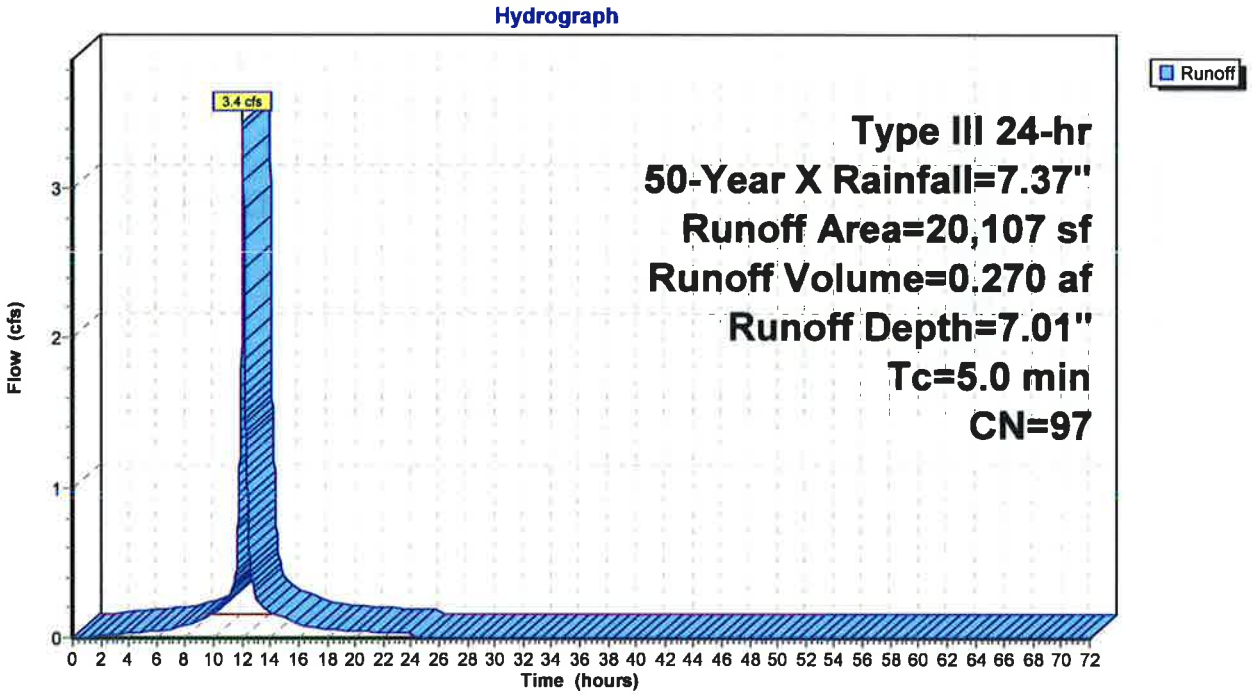
Runoff = 3.4 cfs @ 12.07 hrs, Volume= 0.270 af, Depth= 7.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-Year X Rainfall=7.37"

	Area (sf)	CN	Description
	269	98	Paved parking, HSG C
	11,300	98	Paved roads w/curbs & sewers, HSG C
	3,499	98	Paved roads w/curbs & sewers, HSG C
	2,439	98	Paved roads w/curbs & sewers, HSG C
*	336	98	Gravel roads, HSG C
	2,264	91	Fallow, bare soil, HSG C
	20,107	97	Weighted Average
	2,264		11.26% Pervious Area
	17,843		88.74% Impervious Area

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

Subcatchment ES5:



Summary for Subcatchment ES6:

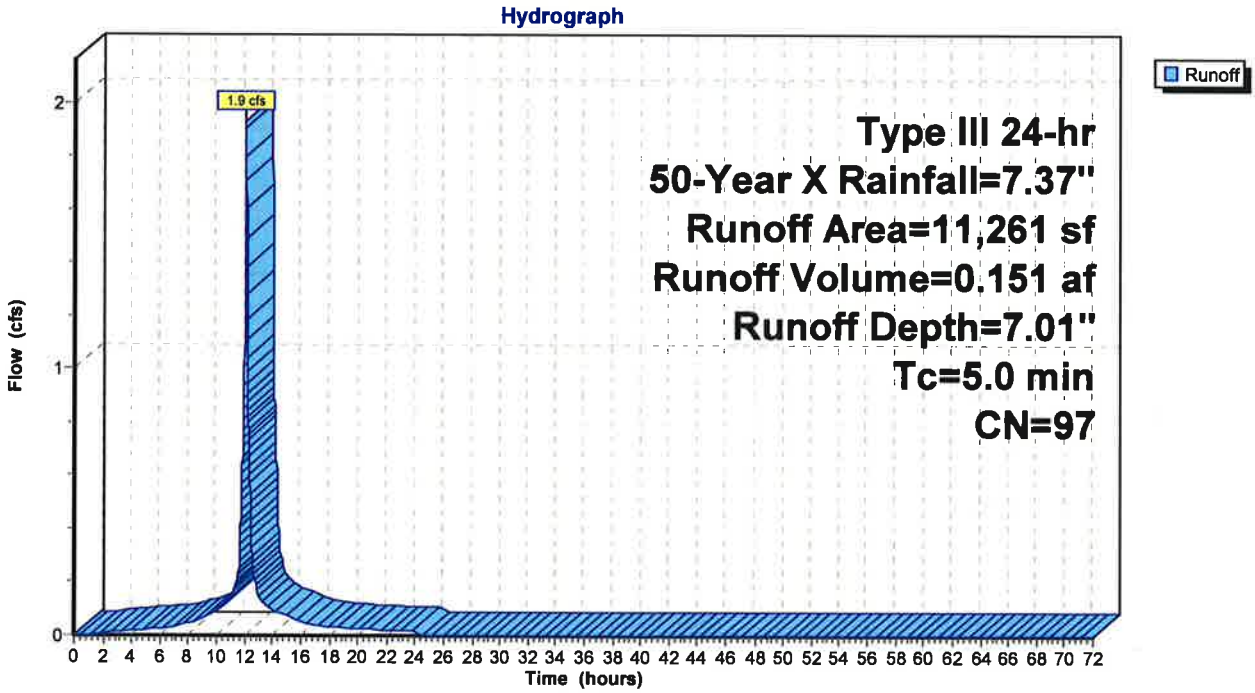
Runoff = 1.9 cfs @ 12.07 hrs, Volume= 0.151 af, Depth= 7.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-Year X Rainfall=7.37"

Area (sf)	CN	Description
86	98	Paved parking, HSG C
6,879	98	Paved roads w/curbs & sewers, HSG C
2,385	98	Paved roads w/curbs & sewers, HSG C
103	98	Roofs, HSG C
1,808	91	Fallow, bare soil, HSG C
11,261	97	Weighted Average
1,808		16.06% Pervious Area
9,453		83.94% Impervious Area

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

Subcatchment ES6:



Summary for Subcatchment ES7:

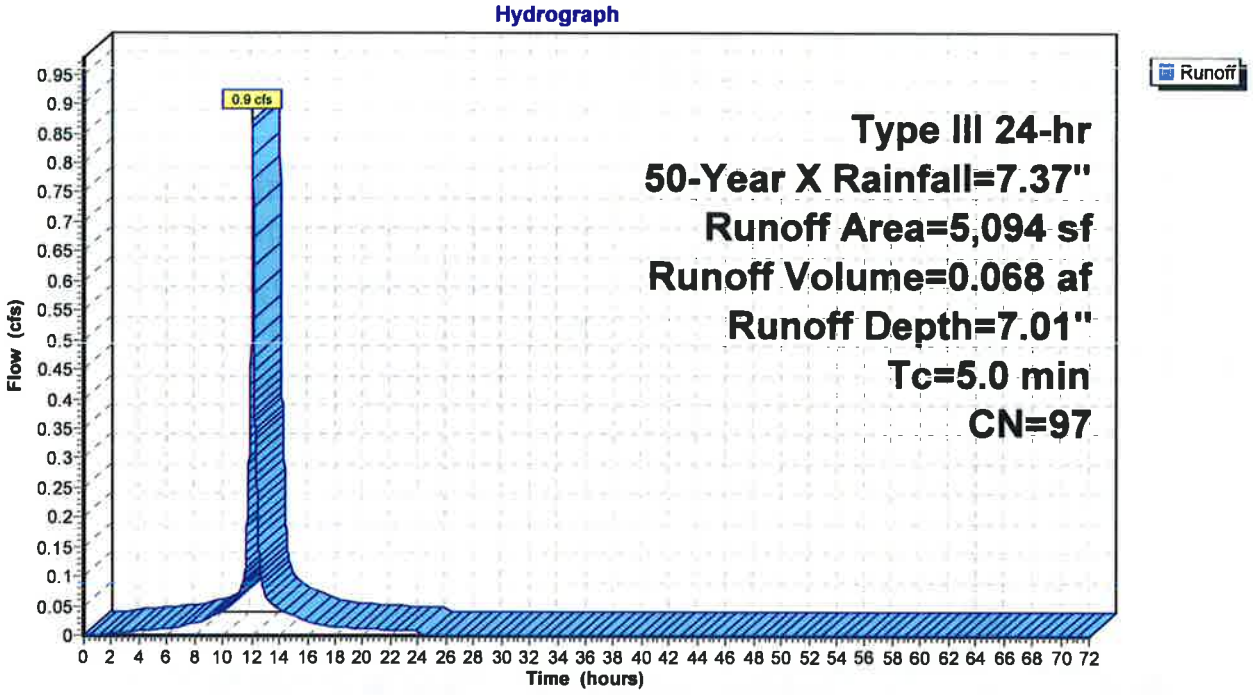
Runoff = 0.9 cfs @ 12.07 hrs, Volume= 0.068 af, Depth= 7.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-Year X Rainfall=7.37"

Area (sf)	CN	Description
3,437	98	Paved roads w/curbs & sewers, HSG C
1,098	98	Paved roads w/curbs & sewers, HSG C
559	91	Fallow, bare soil, HSG C
5,094	97	Weighted Average
559		10.97% Pervious Area
4,535		89.03% Impervious Area

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

Subcatchment ES7:



Summary for Subcatchment ES8:

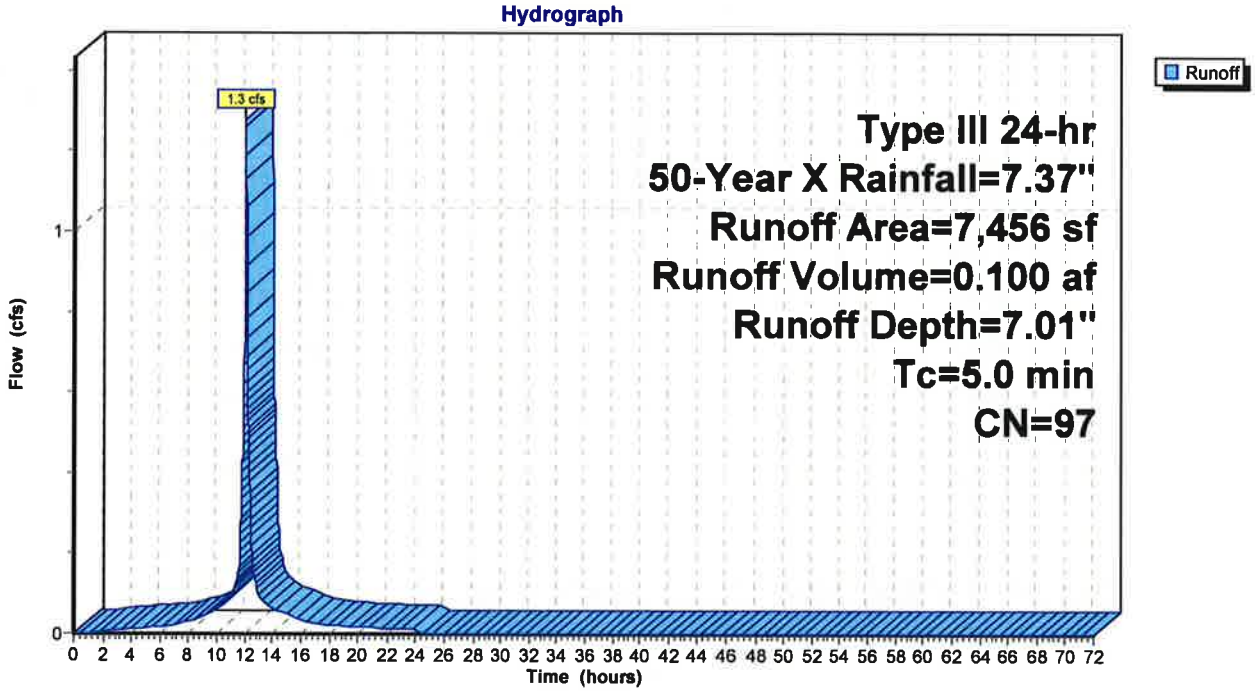
Runoff = 1.3 cfs @ 12.07 hrs, Volume= 0.100 af, Depth= 7.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-Year X Rainfall=7.37"

	Area (sf)	CN	Description
	4,674	98	Paved roads w/curbs & sewers, HSG C
	1,563	98	Paved roads w/curbs & sewers, HSG C
	121	98	Paved roads w/curbs & sewers, HSG C
*	39	98	Gravel roads, HSG C
	1,059	91	Fallow, bare soil, HSG C
	7,456	97	Weighted Average
	1,059		14.20% Pervious Area
	6,397		85.80% Impervious Area

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

Subcatchment ES8:



Summary for Pond 1P: CB 3528

[57] Hint: Peaked at 6.81' (Flood elevation advised)

Inflow Area =	0.846 ac, 93.86% Impervious, Inflow Depth = 7.07"	for 50-Year X event			
Inflow =	6.3 cfs @ 12.07 hrs, Volume=	0.498 af			
Outflow =	6.3 cfs @ 12.07 hrs, Volume=	0.498 af, Atten= 0%, Lag= 0.0 min			
Primary =	6.3 cfs @ 12.07 hrs, Volume=	0.498 af			

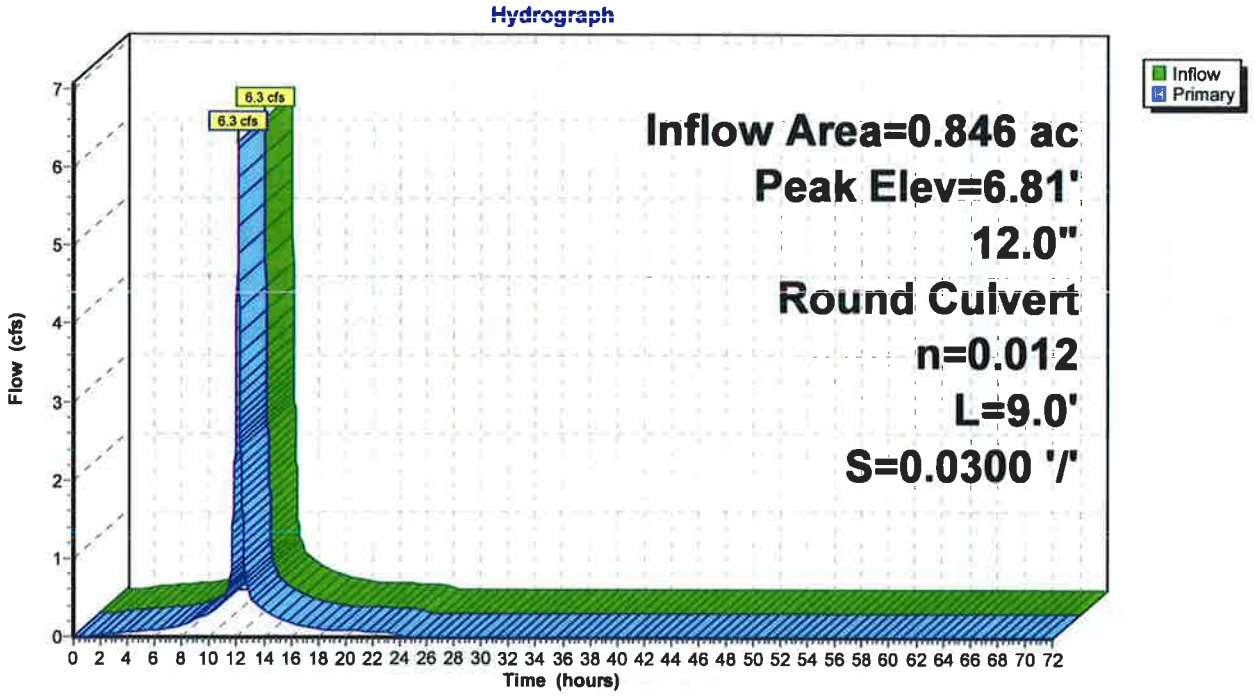
Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.81' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.40'	**12.0" Round Culvert** L= 9.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 4.40' / 4.13' S= 0.0300 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=6.3 cfs @ 12.07 hrs HW=6.80' TW=5.02' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 6.3 cfs @ 8.03 fps)

Pond 1P: CB 3528

Hydrograph



Summary for Pond 2P: CB 3524

[57] Hint: Peaked at 11.87' (Flood elevation advised)

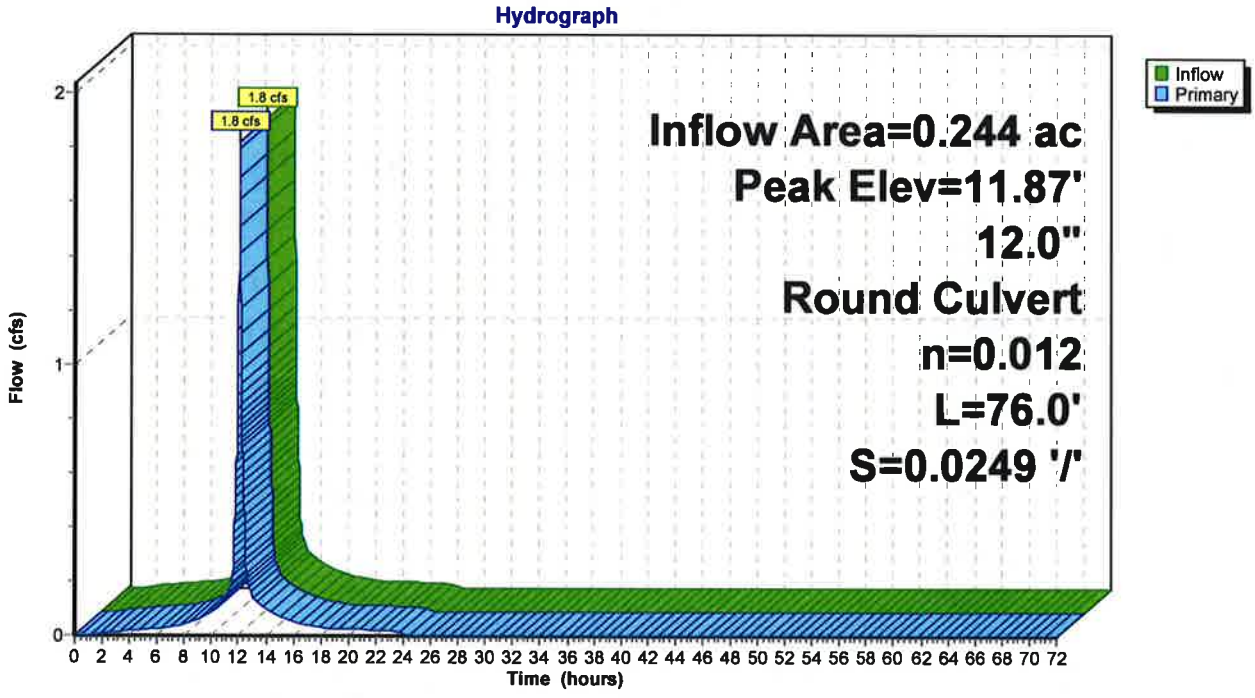
Inflow Area =	0.244 ac,	81.41% Impervious,	Inflow Depth =	7.01"	for 50-Year X event
Inflow =	1.8 cfs @	12.07 hrs, Volume=	0.142 af		
Outflow =	1.8 cfs @	12.07 hrs, Volume=	0.142 af,	Atten= 0%,	Lag= 0.0 min
Primary =	1.8 cfs @	12.07 hrs, Volume=	0.142 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 11.87' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	7.52'	**12.0" Round Culvert** L= 76.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 7.52' / 5.63' S= 0.0249 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.6 cfs @ 12.07 hrs HW=11.85' TW=11.63' (Dynamic Tailwater)
└**1=Culvert** (Outlet Controls 1.6 cfs @ 2.09 fps)

Pond 2P: CB 3524



Summary for Pond 3P: CB 3525

[57] Hint: Peaked at 11.63' (Flood elevation advised)
[80] Warning: Exceeded Pond 2P by 0.11' @ 12.02 hrs (1.1 cfs 0.003 af)

Inflow Area =	0.762 ac, 85.69% Impervious, Inflow Depth = 7.01"	for 50-Year X event		
Inflow =	5.7 cfs @ 12.07 hrs, Volume=	0.445 af		
Outflow =	5.7 cfs @ 12.07 hrs, Volume=	0.445 af, Atten= 0%, Lag= 0.0 min		
Primary =	5.7 cfs @ 12.07 hrs, Volume=	0.445 af		

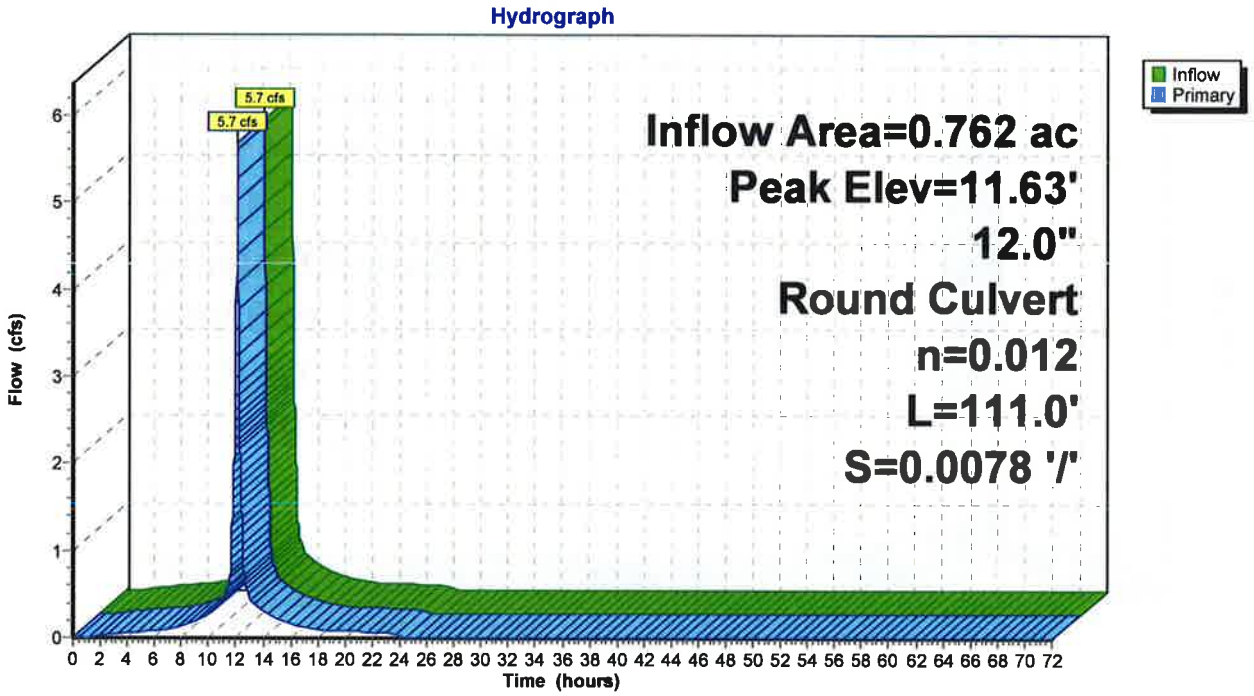
Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 11.63' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.63'	**12.0" Round Culvert** L= 111.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.63' / 4.76' S= 0.0078 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=5.7 cfs @ 12.07 hrs HW=11.63' TW=8.23' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 5.7 cfs @ 7.24 fps)

Pond 3P: CB 3525

Hydrograph



Summary for Pond 4P: CB 3527

[57] Hint: Peaked at 8.23' (Flood elevation advised)

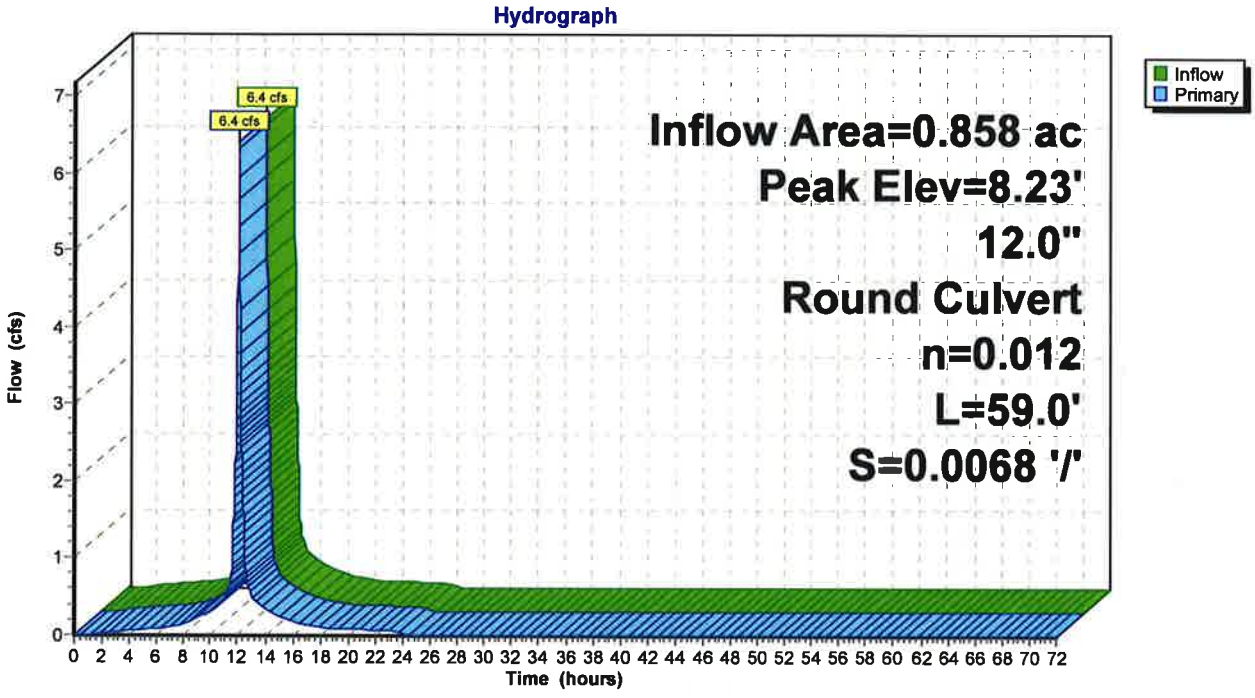
Inflow Area =	0.858 ac, 87.30% Impervious, Inflow Depth = 7.02"	for 50-Year X event		
Inflow =	6.4 cfs @ 12.07 hrs, Volume=	0.502 af		
Outflow =	6.4 cfs @ 12.07 hrs, Volume=	0.502 af,	Atten= 0%,	Lag= 0.0 min
Primary =	6.4 cfs @ 12.07 hrs, Volume=	0.502 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 8.23' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.76'	**12.0" Round Culvert** L= 59.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 4.76' / 4.36' S= 0.0068 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=6.4 cfs @ 12.07 hrs HW=8.23' TW=5.02' (Dynamic Tailwater)
↑**1=Culvert** (Barrel Controls 6.4 cfs @ 8.16 fps)

Pond 4P: CB 3527



Summary for Pond 5P: DMH 3543

[57] Hint: Peaked at 5.03' (Flood elevation advised)

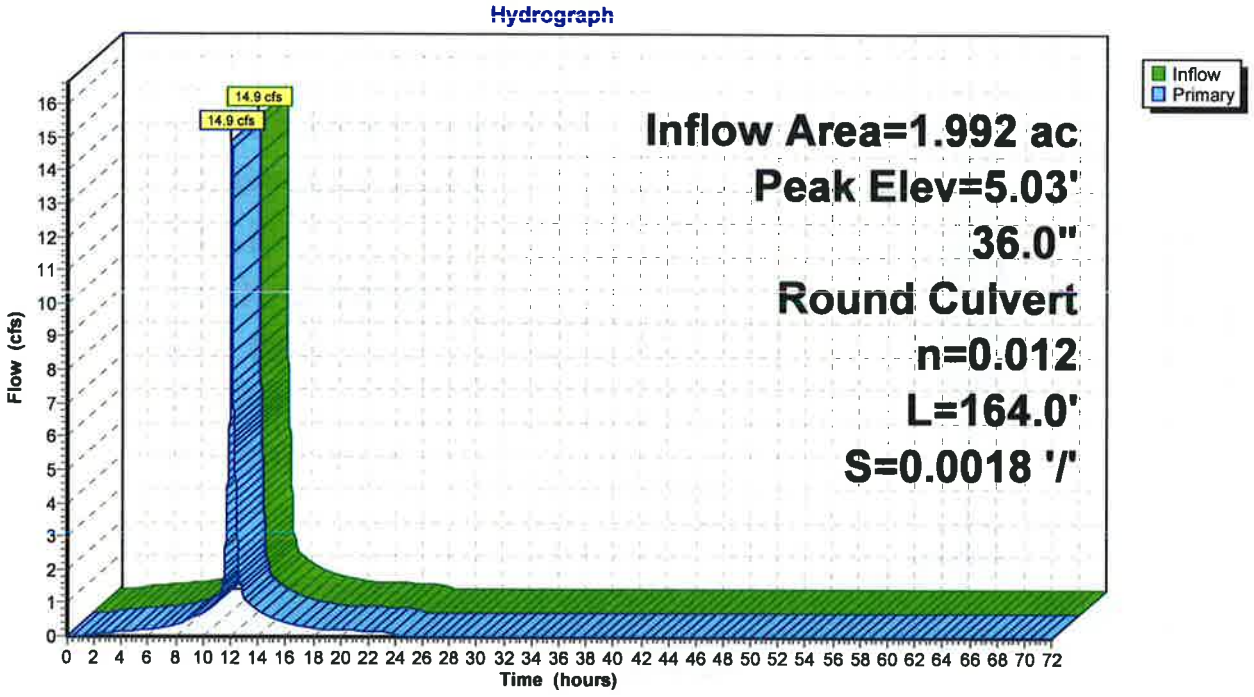
Inflow Area =	1.992 ac, 90.05% Impervious, Inflow Depth = 7.04"	for 50-Year X event		
Inflow =	14.9 cfs @ 12.07 hrs, Volume=	1.169 af		
Outflow =	14.9 cfs @ 12.07 hrs, Volume=	1.169 af, Atten= 0%, Lag= 0.0 min		
Primary =	14.9 cfs @ 12.07 hrs, Volume=	1.169 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 5.03' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	2.91'	**36.0" Round Culvert** L= 164.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 2.91' / 2.61' S= 0.0018 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=14.8 cfs @ 12.07 hrs HW=5.02' TW=4.51' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 14.8 cfs @ 3.90 fps)

Pond 5P: DMH 3543



Summary for Pond 6P: DMH 3542

[57] Hint: Peaked at 4.52' (Flood elevation advised)

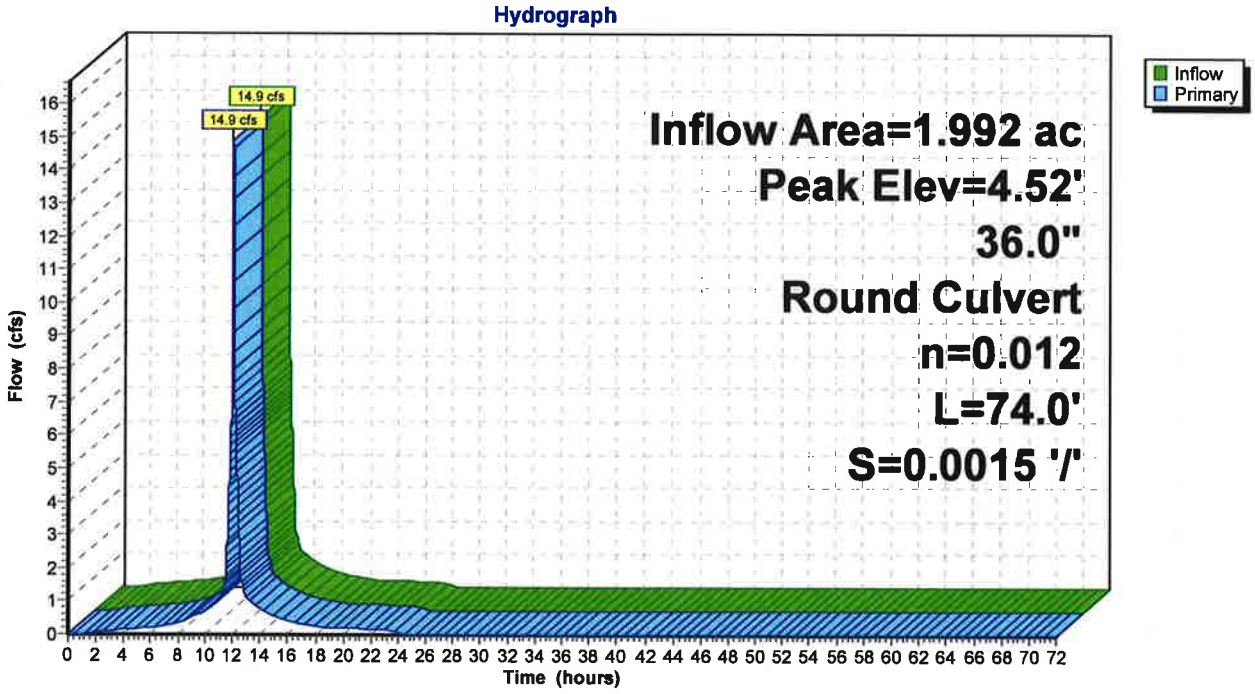
Inflow Area =	1.992 ac, 90.05% Impervious, Inflow Depth = 7.04"	for 50-Year X event		
Inflow =	14.9 cfs @ 12.07 hrs, Volume=	1.169 af		
Outflow =	14.9 cfs @ 12.07 hrs, Volume=	1.169 af, Atten= 0%, Lag= 0.0 min		
Primary =	14.9 cfs @ 12.07 hrs, Volume=	1.169 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 4.52' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	2.21'	**36.0" Round Culvert** L= 74.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 2.21' / 2.10' S= 0.0015 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=14.7 cfs @ 12.07 hrs HW=4.51' TW=4.21' (Dynamic Tailwater)
↑**1=Culvert** (Outlet Controls 14.7 cfs @ 3.49 fps)

Pond 6P: DMH 3542



Summary for Pond 7P: DMH 3541

[57] Hint: Peaked at 4.21' (Flood elevation advised)

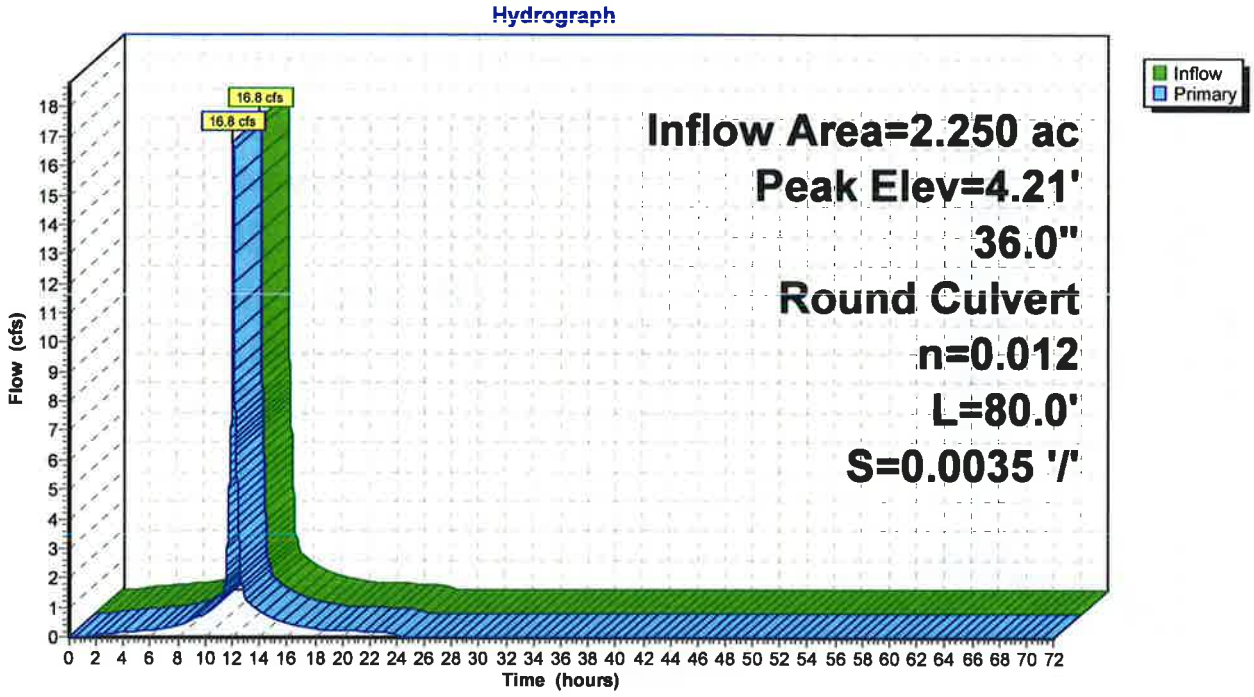
Inflow Area =	2.250 ac, 89.35% Impervious, Inflow Depth =	7.04"	for 50-Year X event	
Inflow =	16.8 cfs @	12.07 hrs, Volume=	1.320 af	
Outflow =	16.8 cfs @	12.07 hrs, Volume=	1.320 af, Atten= 0%, Lag= 0.0 min	
Primary =	16.8 cfs @	12.07 hrs, Volume=	1.320 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 4.21' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.96'	**36.0" Round Culvert** L= 80.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 1.96' / 1.68' S= 0.0035 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=16.8 cfs @ 12.07 hrs HW=4.21' TW=3.78' (Dynamic Tailwater)
↳**1=Culvert** (Outlet Controls 16.8 cfs @ 4.10 fps)

Pond 7P: DMH 3541



Summary for Pond 9P: DMH 5438

[57] Hint: Peaked at 3.29' (Flood elevation advised)

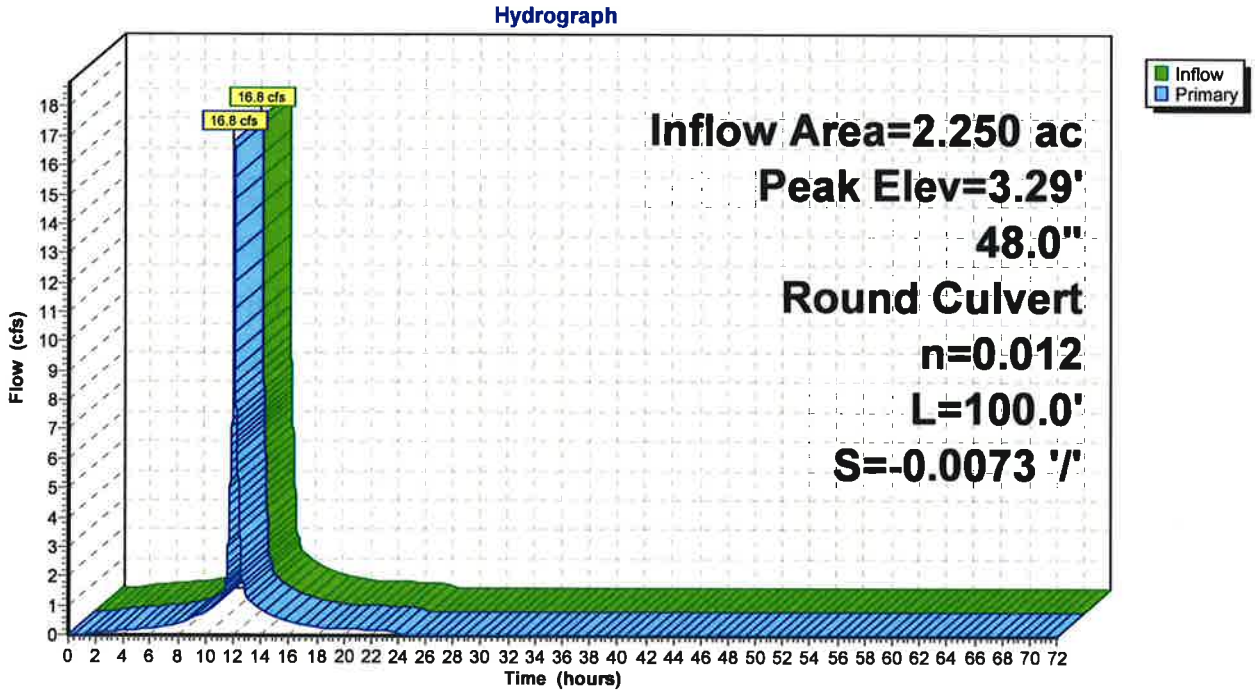
Inflow Area =	2.250 ac, 89.35% Impervious,	Inflow Depth =	7.04"	for 50-Year X event
Inflow =	16.8 cfs @ 12.07 hrs,	Volume=	1.320 af	
Outflow =	16.8 cfs @ 12.07 hrs,	Volume=	1.320 af,	Atten= 0%, Lag= 0.0 min
Primary =	16.8 cfs @ 12.07 hrs,	Volume=	1.320 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.29' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.67'	**48.0" Round Culvert** L= 100.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 0.94' / 1.67' S= -0.0073 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 12.57 sf

Primary OutFlow Max=16.8 cfs @ 12.07 hrs HW=3.29' TW=2.95' (Dynamic Tailwater)
↑**1=Culvert** (Inlet Controls 16.8 cfs @ 3.51 fps)

Pond 9P: DMH 5438



Summary for Pond 10P: DMH 5217

[57] Hint: Peaked at 2.96' (Flood elevation advised)

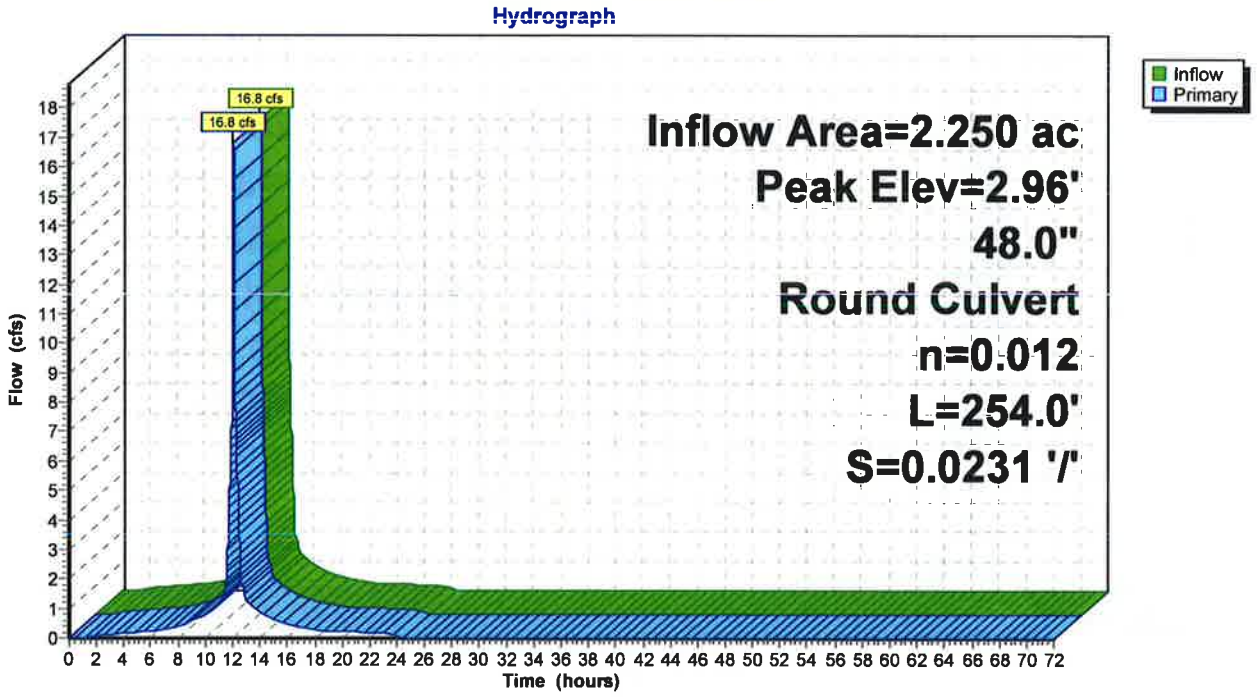
Inflow Area =	2.250 ac, 89.35% Impervious,	Inflow Depth =	7.04"	for 50-Year X event
Inflow =	16.8 cfs @ 12.07 hrs,	Volume=	1.320 af	
Outflow =	16.8 cfs @ 12.07 hrs,	Volume=	1.320 af,	Atten= 0%, Lag= 0.0 min
Primary =	16.8 cfs @ 12.07 hrs,	Volume=	1.320 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 2.96' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.67'	**48.0" Round Culvert** L= 254.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 1.67' / -4.20' S= 0.0231 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 12.57 sf

Primary OutFlow Max=16.8 cfs @ 12.07 hrs HW=2.95' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 16.8 cfs @ 4.82 fps)

Pond 10P: DMH 5217



Summary for Pond 11P: CB 3523

[57] Hint: Peaked at 8.19' (Flood elevation advised)

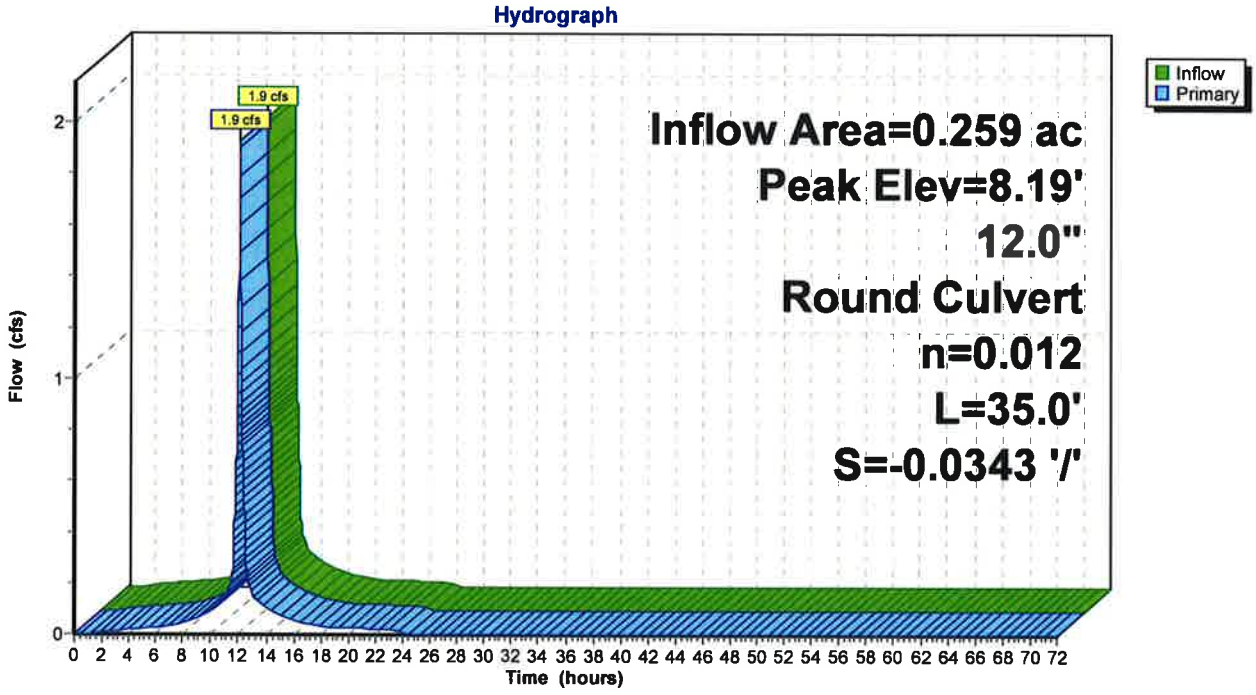
Inflow Area =	0.259 ac,	83.94% Impervious,	Inflow Depth =	7.01"	for 50-Year X event
Inflow =	1.9 cfs @	12.07 hrs, Volume=	0.151 af		
Outflow =	1.9 cfs @	12.07 hrs, Volume=	0.151 af,	Atten= 0%,	Lag= 0.0 min
Primary =	1.9 cfs @	12.07 hrs, Volume=	0.151 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 8.19' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	7.52'	**12.0" Round Culvert** L= 35.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.32' / 7.52' S= -0.0343 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.9 cfs @ 12.07 hrs HW=8.19' TW=4.21' (Dynamic Tailwater)
↳**1=Culvert** (Inlet Controls 1.9 cfs @ 3.47 fps)

Pond 11P: CB 3523



Summary for Pond 12P: CB 3526

[57] Hint: Peaked at 6.87' (Flood elevation advised)

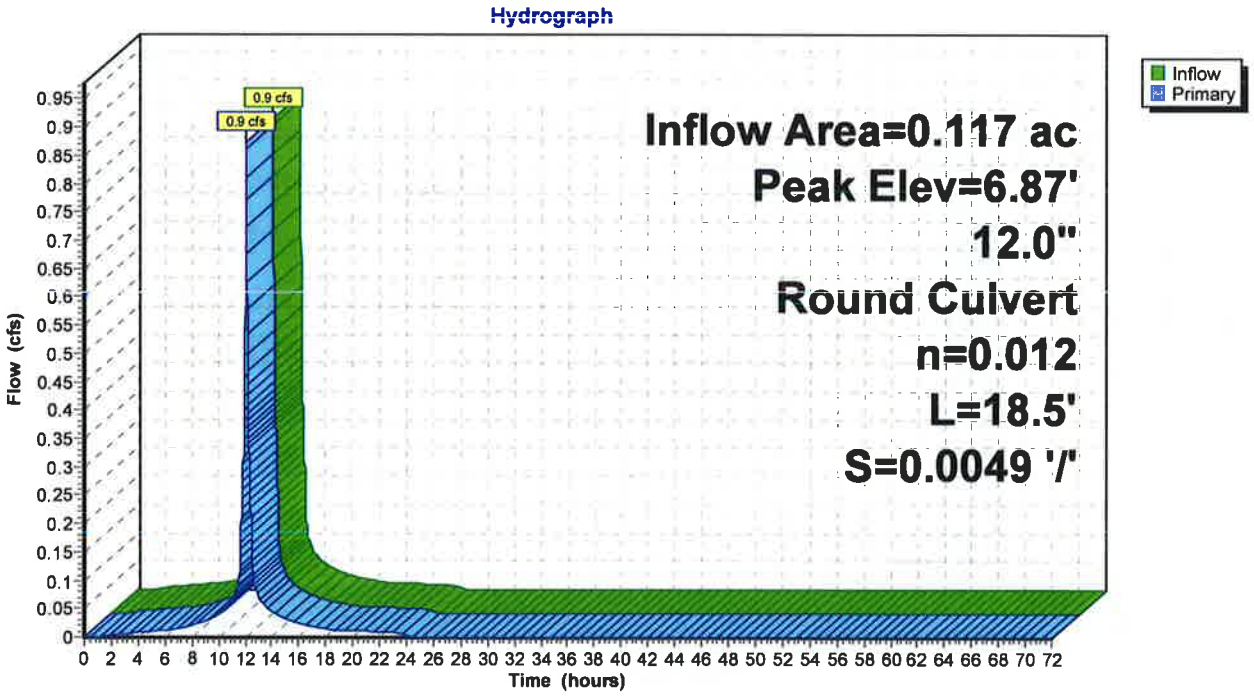
Inflow Area =	0.117 ac, 89.03% Impervious, Inflow Depth =	7.01"	for	50-Year X event
Inflow =	0.9 cfs @	12.07 hrs, Volume=	0.068 af	
Outflow =	0.9 cfs @	12.07 hrs, Volume=	0.068 af, Atten= 0%, Lag= 0.0 min	
Primary =	0.9 cfs @	12.07 hrs, Volume=	0.068 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.87' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	6.18'	**12.0" Round Culvert** L= 18.5' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.18' / 6.09' S= 0.0049 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.9 cfs @ 12.07 hrs HW=6.87' TW=6.76' (Dynamic Tailwater)
↑**1=Culvert** (Outlet Controls 0.9 cfs @ 2.10 fps)

Pond 12P: CB 3526



Summary for Pond 13P: DMH 12303

[57] Hint: Peaked at 6.76' (Flood elevation advised)

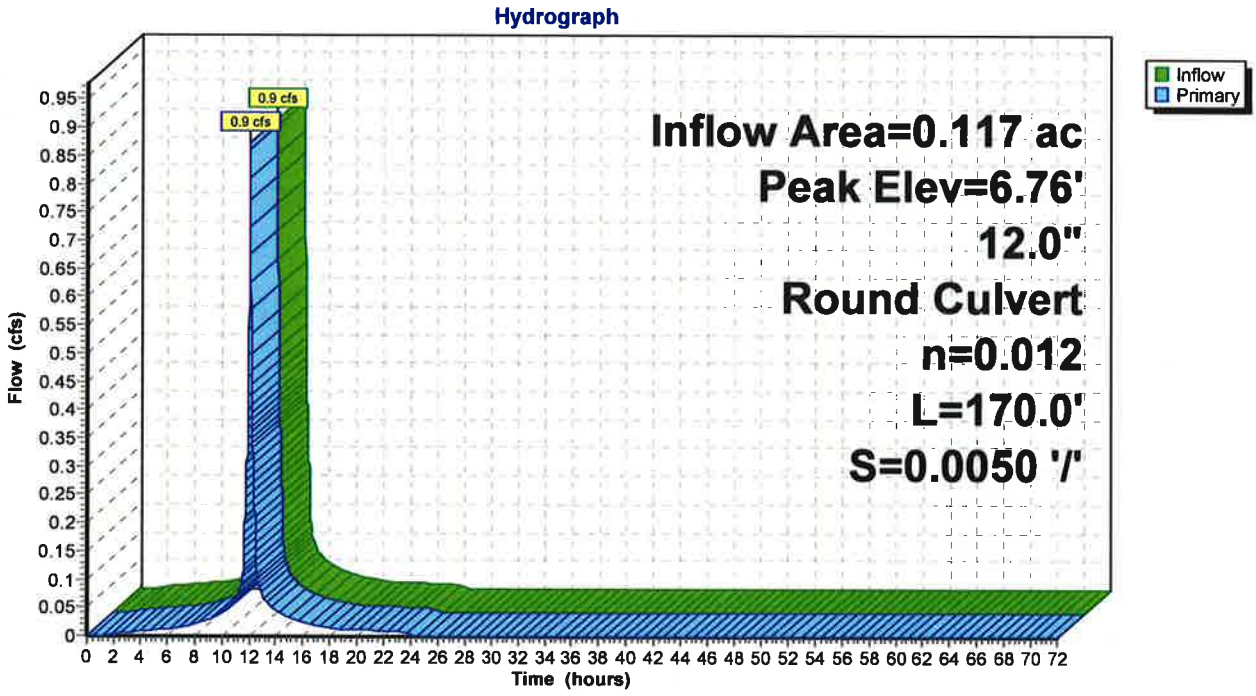
Inflow Area =	0.117 ac,	89.03% Impervious,	Inflow Depth =	7.01"	for 50-Year X event
Inflow =	0.9 cfs @	12.07 hrs, Volume=	0.068 af		
Outflow =	0.9 cfs @	12.07 hrs, Volume=	0.068 af,	Atten= 0%,	Lag= 0.0 min
Primary =	0.9 cfs @	12.07 hrs, Volume=	0.068 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.76' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	6.09'	**12.0" Round Culvert** L= 170.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.09' / 5.24' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.9 cfs @ 12.07 hrs HW=6.76' TW=6.32' (Dynamic Tailwater)
↳**1=Culvert** (Outlet Controls 0.9 cfs @ 2.21 fps)

Pond 13P: DMH 12303



Summary for Pond 14P: DMH 12631

[57] Hint: Peaked at 6.32' (Flood elevation advised)

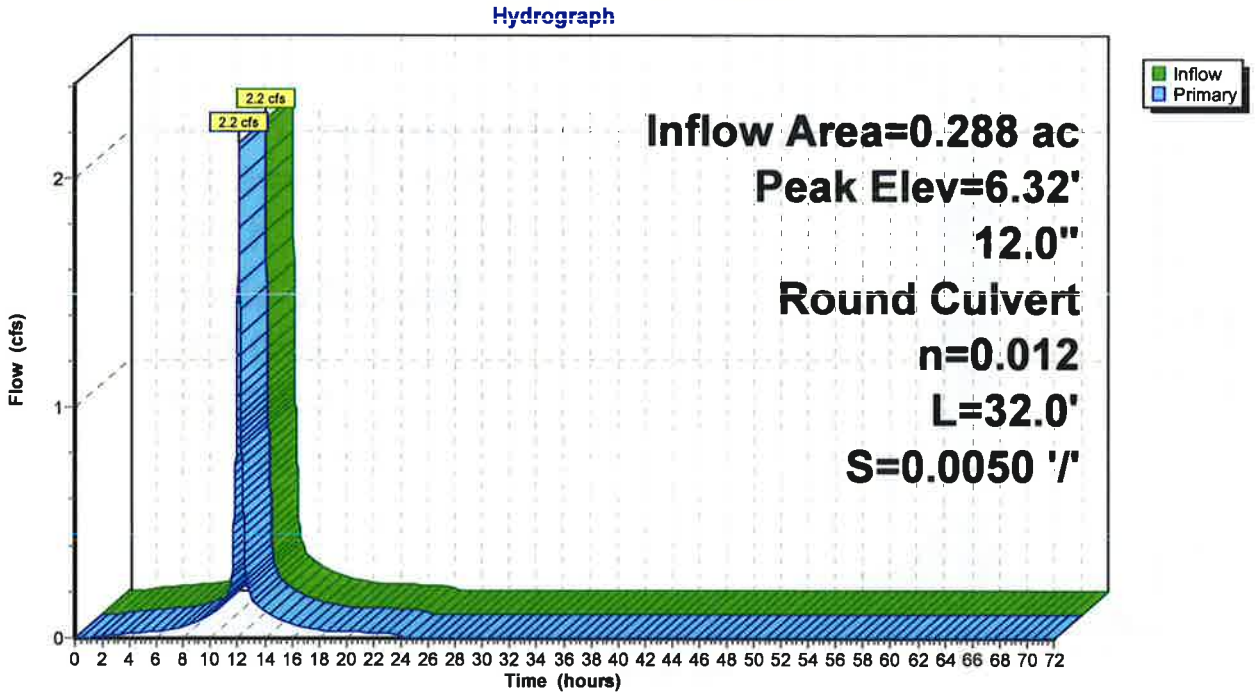
Inflow Area =	0.288 ac, 87.11% Impervious, Inflow Depth = 7.01"	for 50-Year X event		
Inflow =	2.2 cfs @ 12.07 hrs, Volume=	0.168 af		
Outflow =	2.2 cfs @ 12.07 hrs, Volume=	0.168 af, Atten= 0%, Lag= 0.0 min		
Primary =	2.2 cfs @ 12.07 hrs, Volume=	0.168 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.32' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.24'	**12.0" Round Culvert** L= 32.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.24' / 5.08' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=2.1 cfs @ 12.07 hrs HW=6.32' TW=6.03' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 2.1 cfs @ 3.14 fps)

Pond 14P: DMH 12631



Summary for Pond 15P: CB 8146

[57] Hint: Peaked at 6.40' (Flood elevation advised)

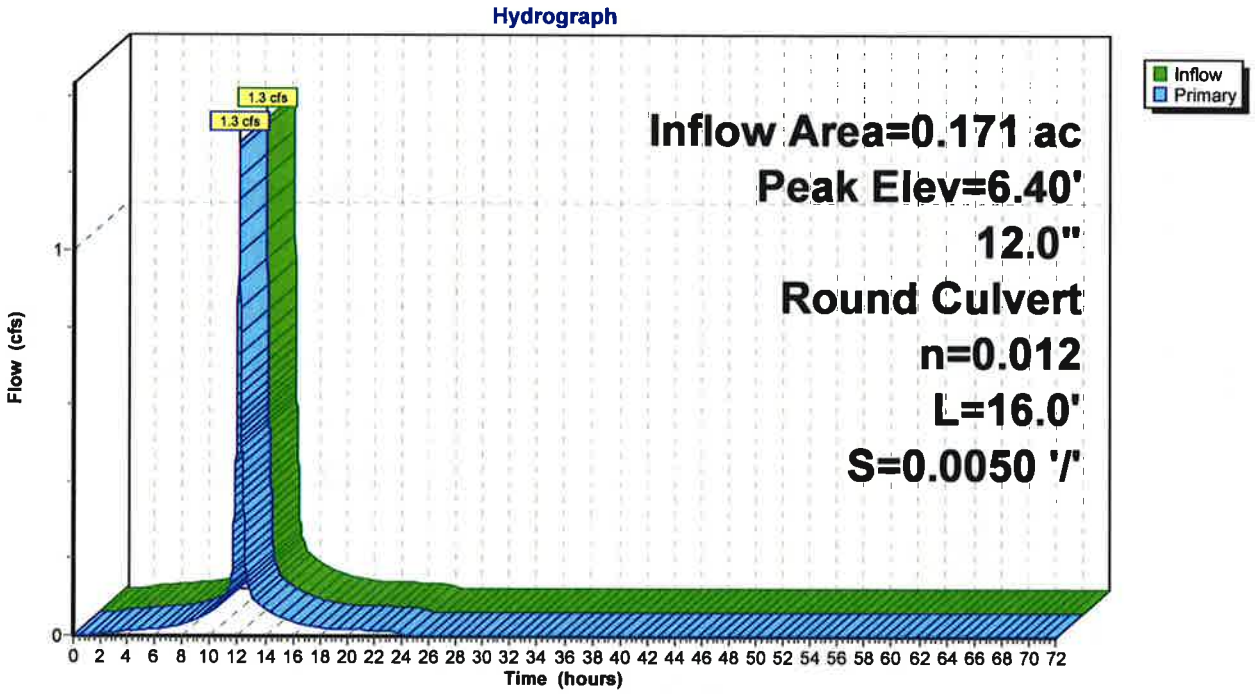
Inflow Area =	0.171 ac, 85.80% Impervious, Inflow Depth = 7.01"	for 50-Year X event		
Inflow =	1.3 cfs @ 12.07 hrs, Volume=	0.100 af		
Outflow =	1.3 cfs @ 12.07 hrs, Volume=	0.100 af, Atten= 0%, Lag= 0.0 min		
Primary =	1.3 cfs @ 12.07 hrs, Volume=	0.100 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.40' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.32'	**12.0" Round Culvert** L= 16.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.32' / 5.24' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.2 cfs @ 12.07 hrs HW=6.40' TW=6.32' (Dynamic Tailwater)
↳**1=Culvert** (Outlet Controls 1.2 cfs @ 1.81 fps)

Pond 15P: CB 8146



Summary for Pond 16P: DMH 12632

[57] Hint: Peaked at 6.03' (Flood elevation advised)

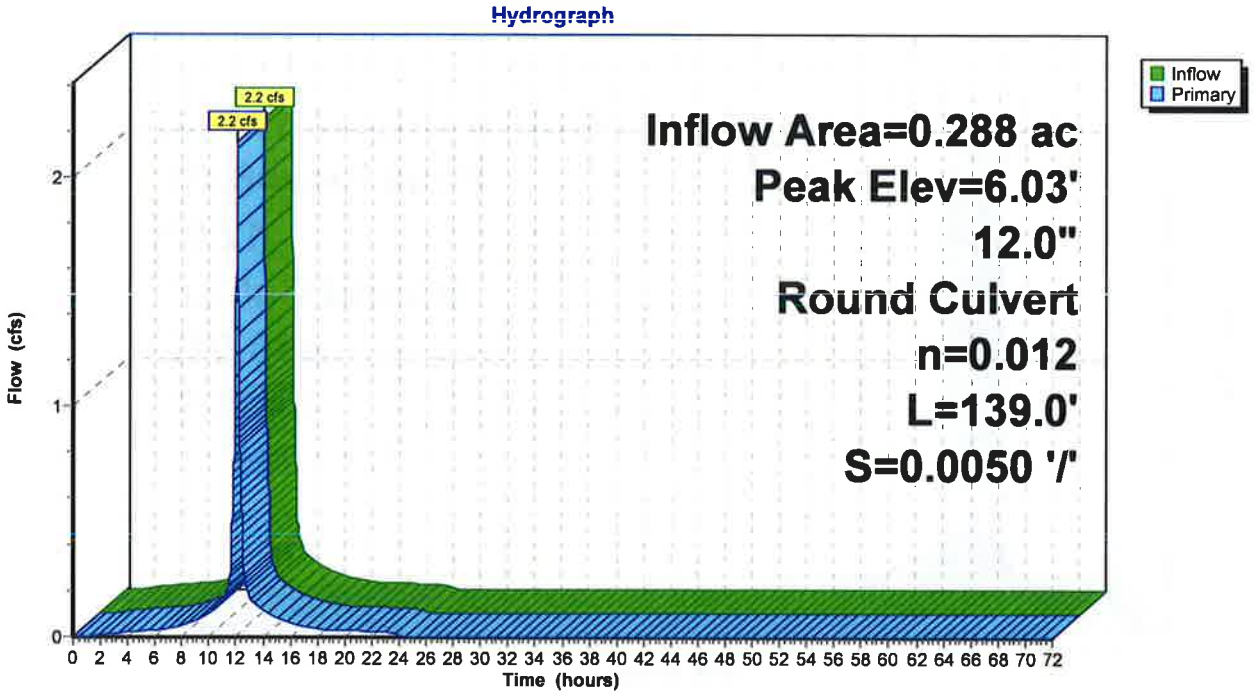
Inflow Area =	0.288 ac, 87.11% Impervious, Inflow Depth = 7.01"	for 50-Year X event		
Inflow =	2.2 cfs @ 12.07 hrs, Volume=	0.168 af		
Outflow =	2.2 cfs @ 12.07 hrs, Volume=	0.168 af, Atten= 0%, Lag= 0.0 min		
Primary =	2.2 cfs @ 12.07 hrs, Volume=	0.168 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.03' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.08'	**12.0" Round Culvert** L= 139.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.08' / 4.39' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=2.1 cfs @ 12.07 hrs HW=6.03' TW=5.21' (Dynamic Tailwater)
↳**1=Culvert** (Outlet Controls 2.1 cfs @ 3.57 fps)

Pond 16P: DMH 12632



Summary for Pond 17P: DMH 3545

[57] Hint: Peaked at 5.22' (Flood elevation advised)

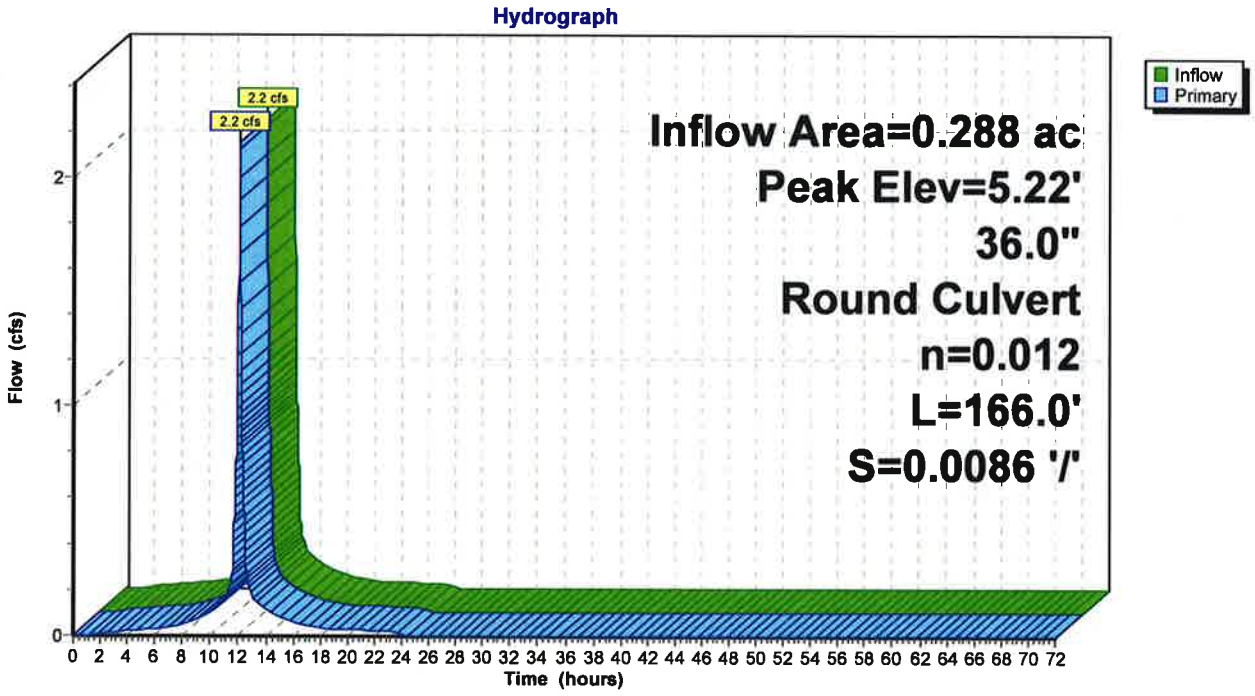
Inflow Area =	0.288 ac, 87.11% Impervious, Inflow Depth = 7.01"	for 50-Year X event		
Inflow =	2.2 cfs @ 12.07 hrs, Volume=	0.168 af		
Outflow =	2.2 cfs @ 12.07 hrs, Volume=	0.168 af, Atten= 0%, Lag= 0.0 min		
Primary =	2.2 cfs @ 12.07 hrs, Volume=	0.168 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 5.22' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.34'	**36.0" Round Culvert** L= 166.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 4.34' / 2.91' S= 0.0086 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=2.1 cfs @ 12.07 hrs HW=5.21' TW=5.02' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 2.1 cfs @ 1.83 fps)

Pond 17P: DMH 3545



Summary for Pond DP1: DMH 3540

[57] Hint: Peaked at 3.78' (Flood elevation advised)

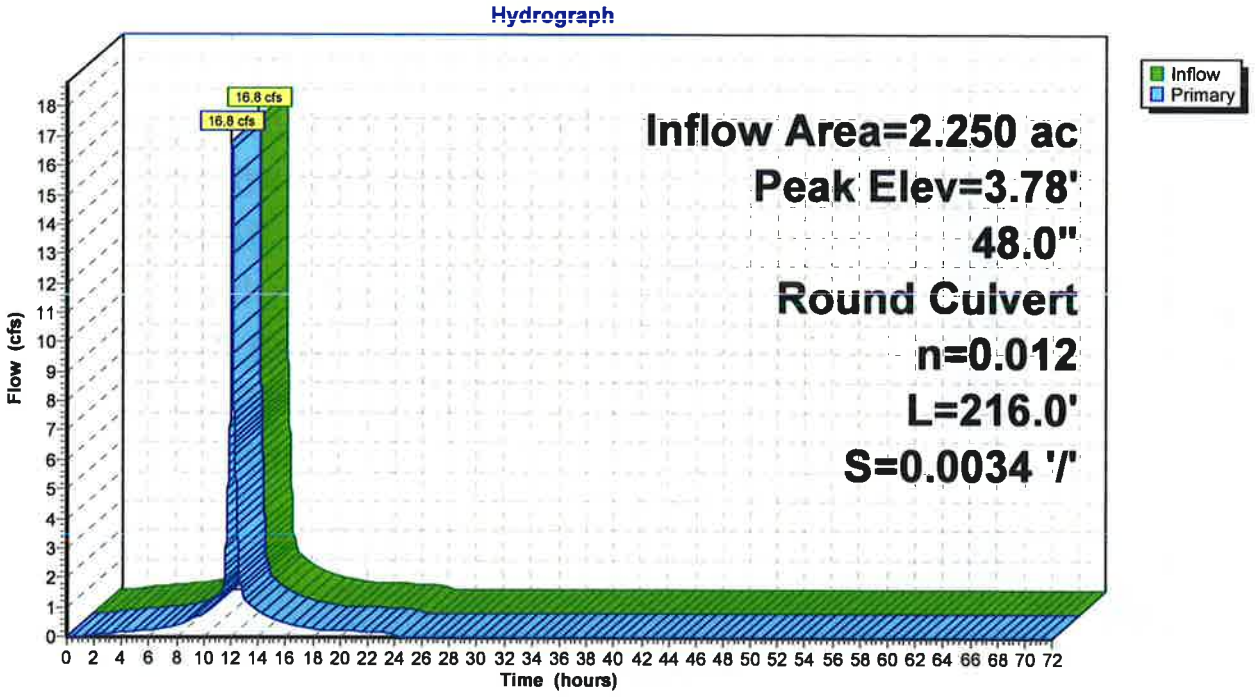
Inflow Area =	2.250 ac, 89.35% Impervious, Inflow Depth = 7.04"	for 50-Year X event		
Inflow =	16.8 cfs @ 12.07 hrs, Volume=	1.320 af		
Outflow =	16.8 cfs @ 12.07 hrs, Volume=	1.320 af, Atten= 0%, Lag= 0.0 min		
Primary =	16.8 cfs @ 12.07 hrs, Volume=	1.320 af		

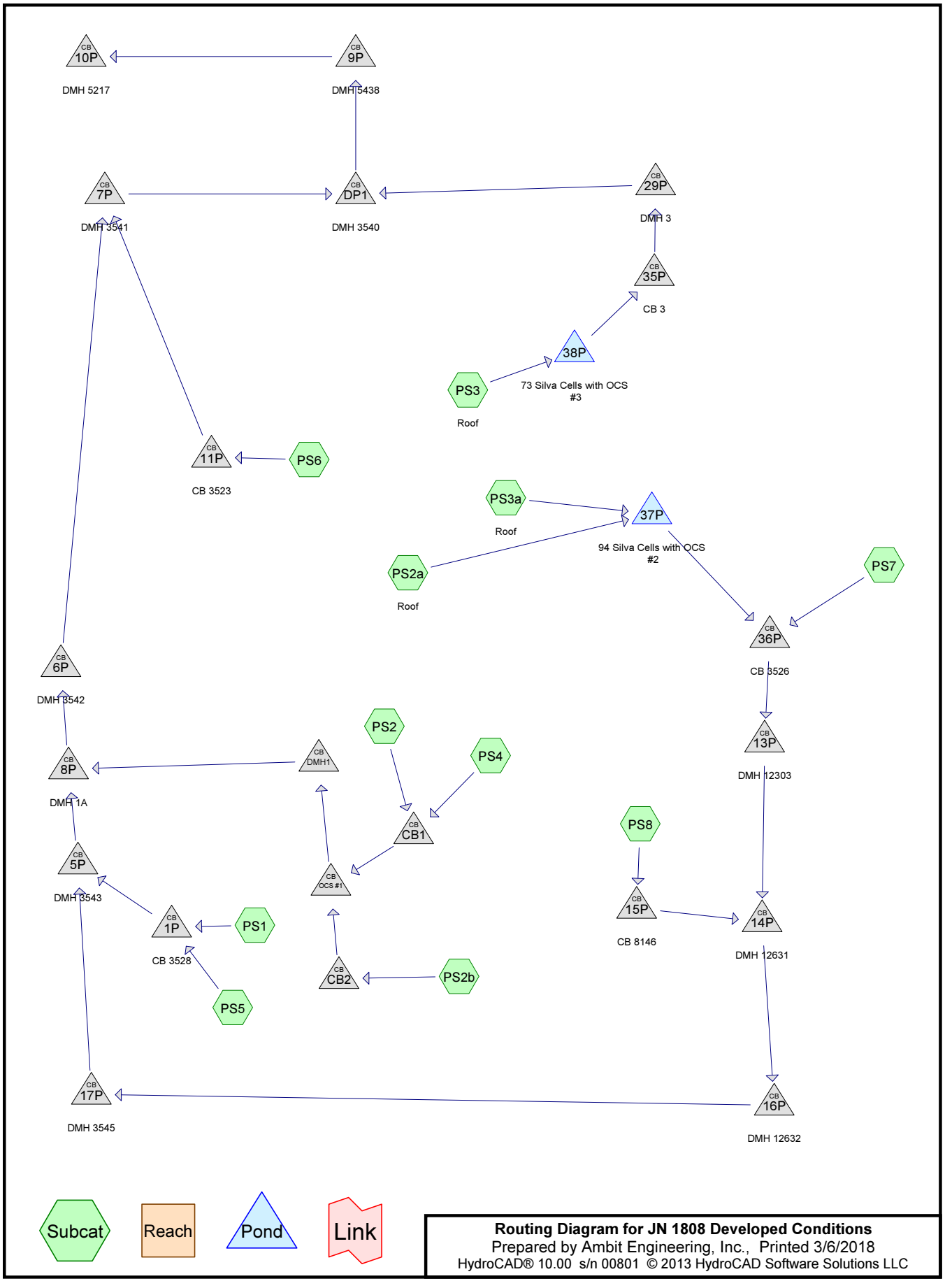
Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.78' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.68'	**48.0" Round Culvert** L= 216.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 1.68' / 0.94' S= 0.0034 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 12.57 sf

Primary OutFlow Max=16.7 cfs @ 12.07 hrs HW=3.78' TW=3.29' (Dynamic Tailwater)
↳**1=Culvert** (Outlet Controls 16.7 cfs @ 3.65 fps)

Pond DP1: DMH 3540





Routing Diagram for JN 1808 Developed Conditions
Prepared by Ambit Engineering, Inc., Printed 3/6/2018
HydroCAD® 10.00 s/n 00801 © 2013 HydroCAD Software Solutions LLC

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.114	91	Fallow, bare soil, HSG C (PS2, PS2b, PS5, PS8)
0.009	98	Gravel roads, HSG C (PS5, PS8)
0.261	98	Paved parking, HSG C (PS2, PS2b, PS5)
1.020	98	Paved roads w/curbs & sewers, HSG C (PS5, PS6, PS7, PS8)
0.845	98	Roofs, HSG C (PS1, PS2a, PS3, PS3a, PS4)
2.249	**98**	**TOTAL AREA**

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
2.249	HSG C	PS1, PS2, PS2a, PS2b, PS3, PS3a, PS4, PS5, PS6, PS7, PS8
0.000	HSG D	
0.000	Other	
2.249		**TOTAL AREA**

Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.114	0.000	0.000	0.114	Fallow, bare soil	PS 2, PS 2b, PS 5, PS 8
0.000	0.000	0.009	0.000	0.000	0.009	Gravel roads	PS 5, PS 8
0.000	0.000	0.261	0.000	0.000	0.261	Paved parking	PS 2, PS 2b, PS 5
0.000	0.000	1.020	0.000	0.000	1.020	Paved roads w/curbs & sewers	PS 5, PS 6, PS 7, PS 8
0.000	0.000	0.845	0.000	0.000	0.845	Roofs	PS 1, PS 2a, PS 3, PS 3a, PS 4
0.000	**0.000**	**2.249**	**0.000**	**0.000**	**2.249**	**TOTAL AREA**	

Pipe Listing (selected nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	1P	4.40	4.13	9.0	0.0300	0.012	12.0	0.0	0.0
2	5P	2.91	2.67	131.0	0.0018	0.012	36.0	0.0	0.0
3	6P	2.21	2.10	74.0	0.0015	0.012	36.0	0.0	0.0
4	7P	1.96	1.68	80.0	0.0035	0.012	36.0	0.0	0.0
5	8P	2.66	2.61	29.0	0.0017	0.012	36.0	0.0	0.0
6	9P	0.94	1.67	100.0	-0.0073	0.012	48.0	0.0	0.0
7	10P	1.67	-4.20	254.0	0.0231	0.012	48.0	0.0	0.0
8	11P	6.32	7.52	35.0	-0.0343	0.012	12.0	0.0	0.0
9	13P	6.09	5.24	170.0	0.0050	0.012	12.0	0.0	0.0
10	14P	5.24	5.08	32.0	0.0050	0.012	12.0	0.0	0.0
11	15P	5.32	5.24	16.0	0.0050	0.012	12.0	0.0	0.0
12	16P	5.08	4.39	139.0	0.0050	0.012	12.0	0.0	0.0
13	17P	4.34	2.91	166.0	0.0086	0.012	36.0	0.0	0.0
14	29P	2.53	1.63	67.0	0.0134	0.012	18.0	0.0	0.0
15	35P	6.77	6.65	24.0	0.0050	0.012	12.0	0.0	0.0
16	36P	6.19	6.09	18.5	0.0054	0.012	12.0	0.0	0.0
17	37P	8.30	8.26	9.0	0.0044	0.012	12.0	0.0	0.0
18	38P	6.90	6.87	7.0	0.0043	0.012	12.0	0.0	0.0
19	CB1	5.33	5.29	6.0	0.0067	0.012	12.0	0.0	0.0
20	CB2	5.40	5.29	30.0	0.0037	0.012	12.0	0.0	0.0
21	DMH1	4.91	4.67	41.0	0.0059	0.012	12.0	0.0	0.0
22	DP1	1.68	0.94	216.0	0.0034	0.012	48.0	0.0	0.0
23	OCS #1	5.23	5.01	44.0	0.0050	0.012	12.0	0.0	0.0

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment PS1: Runoff Area=16,738 sf 100.00% Impervious Runoff Depth=2.97"
Tc=5.0 min CN=98 Runoff=1.2 cfs 0.095 af

Subcatchment PS2: Runoff Area=7,730 sf 80.78% Impervious Runoff Depth=2.86"
Tc=5.0 min CN=97 Runoff=0.6 cfs 0.042 af

Subcatchment PS2a: Roof Runoff Area=2,509 sf 100.00% Impervious Runoff Depth=2.97"
Tc=5.0 min CN=98 Runoff=0.2 cfs 0.014 af

Subcatchment PS2b: Runoff Area=5,028 sf 96.72% Impervious Runoff Depth=2.97"
Tc=5.0 min CN=98 Runoff=0.4 cfs 0.029 af

Subcatchment PS3: Roof Runoff Area=8,542 sf 100.00% Impervious Runoff Depth=2.97"
Tc=5.0 min CN=98 Runoff=0.6 cfs 0.048 af

Subcatchment PS3a: Roof Runoff Area=4,848 sf 100.00% Impervious Runoff Depth=2.97"
Tc=5.0 min CN=98 Runoff=0.4 cfs 0.028 af

Subcatchment PS4: Runoff Area=4,188 sf 100.00% Impervious Runoff Depth=2.97"
Tc=5.0 min CN=98 Runoff=0.3 cfs 0.024 af

Subcatchment PS5: Runoff Area=20,107 sf 88.74% Impervious Runoff Depth=2.86"
Tc=5.0 min CN=97 Runoff=1.5 cfs 0.110 af

Subcatchment PS6: Runoff Area=12,323 sf 100.00% Impervious Runoff Depth=2.97"
Tc=5.0 min CN=98 Runoff=0.9 cfs 0.070 af

Subcatchment PS7: Runoff Area=8,519 sf 100.00% Impervious Runoff Depth=2.97"
Tc=5.0 min CN=98 Runoff=0.6 cfs 0.048 af

Subcatchment PS8: Runoff Area=7,456 sf 85.80% Impervious Runoff Depth=2.86"
Tc=5.0 min CN=97 Runoff=0.5 cfs 0.041 af

Pond 1P: CB 3528 Peak Elev=5.30' Inflow=2.7 cfs 0.205 af
12.0" Round Culvert n=0.012 L=9.0' S=0.0300 '/' Outflow=2.7 cfs 0.205 af

Pond 5P: DMH 3543 Peak Elev=4.01' Inflow=4.0 cfs 0.314 af
36.0" Round Culvert n=0.012 L=131.0' S=0.0018 '/' Outflow=4.0 cfs 0.314 af

Pond 6P: DMH 3542 Peak Elev=3.48' Inflow=5.2 cfs 0.408 af
36.0" Round Culvert n=0.012 L=74.0' S=0.0015 '/' Outflow=5.2 cfs 0.408 af

Pond 7P: DMH 3541 Peak Elev=3.28' Inflow=6.1 cfs 0.478 af
36.0" Round Culvert n=0.012 L=80.0' S=0.0035 '/' Outflow=6.1 cfs 0.478 af

Pond 8P: DMH 1A Peak Elev=3.75' Inflow=5.2 cfs 0.408 af
36.0" Round Culvert n=0.012 L=29.0' S=0.0017 '/' Outflow=5.2 cfs 0.408 af

Pond 9P: DMH 5438 Peak Elev=2.67' Inflow=6.7 cfs 0.511 af
48.0" Round Culvert n=0.012 L=100.0' S=-0.0073 '/' Outflow=6.7 cfs 0.511 af

Pond 10P: DMH 5217 Peak Elev=2.46' Inflow=6.7 cfs 0.511 af
48.0" Round Culvert n=0.012 L=254.0' S=0.0231 '/' Outflow=6.7 cfs 0.511 af

Pond 11P: CB 3523 Peak Elev=7.95' Inflow=0.9 cfs 0.070 af
12.0" Round Culvert n=0.012 L=35.0' S=-0.0343 '/' Outflow=0.9 cfs 0.070 af

Pond 13P: DMH 12303 Peak Elev=6.63' Inflow=0.7 cfs 0.068 af
12.0" Round Culvert n=0.012 L=170.0' S=0.0050 '/' Outflow=0.7 cfs 0.068 af

Pond 14P: DMH 12631 Peak Elev=5.98' Inflow=1.3 cfs 0.109 af
12.0" Round Culvert n=0.012 L=32.0' S=0.0050 '/' Outflow=1.3 cfs 0.109 af

Pond 15P: CB 8146 Peak Elev=6.03' Inflow=0.5 cfs 0.041 af
12.0" Round Culvert n=0.012 L=16.0' S=0.0050 '/' Outflow=0.5 cfs 0.041 af

Pond 16P: DMH 12632 Peak Elev=5.74' Inflow=1.3 cfs 0.109 af
12.0" Round Culvert n=0.012 L=139.0' S=0.0050 '/' Outflow=1.3 cfs 0.109 af

Pond 17P: DMH 3545 Peak Elev=4.80' Inflow=1.3 cfs 0.109 af
36.0" Round Culvert n=0.012 L=166.0' S=0.0086 '/' Outflow=1.3 cfs 0.109 af

Pond 29P: DMH 3 Peak Elev=3.11' Inflow=0.6 cfs 0.033 af
18.0" Round Culvert n=0.012 L=67.0' S=0.0134 '/' Outflow=0.6 cfs 0.033 af

Pond 35P: CB 3 Peak Elev=7.23' Inflow=0.6 cfs 0.033 af
12.0" Round Culvert n=0.012 L=24.0' S=0.0050 '/' Outflow=0.6 cfs 0.033 af

Pond 36P: CB 3526 Peak Elev=6.77' Inflow=0.7 cfs 0.068 af
12.0" Round Culvert n=0.012 L=18.5' S=0.0054 '/' Outflow=0.7 cfs 0.068 af

Pond 37P: 94 Silva Cells with OCS #2 Peak Elev=11.35' Storage=367 cf Inflow=0.5 cfs 0.042 af
Discarded=0.0 cfs 0.022 af Primary=0.1 cfs 0.020 af Outflow=0.2 cfs 0.042 af

Pond 38P: 73 Silva Cells with OCS #3 Peak Elev=10.10' Storage=264 cf Inflow=0.6 cfs 0.048 af
Discarded=0.0 cfs 0.016 af Primary=0.6 cfs 0.033 af Outflow=0.6 cfs 0.048 af

Pond CB1: Peak Elev=6.01' Inflow=0.9 cfs 0.066 af
12.0" Round Culvert n=0.012 L=6.0' S=0.0067 '/' Outflow=0.9 cfs 0.066 af

Pond CB2: Peak Elev=5.95' Inflow=0.4 cfs 0.029 af
12.0" Round Culvert n=0.012 L=30.0' S=0.0037 '/' Outflow=0.4 cfs 0.029 af

Pond DMH1: Peak Elev=5.55' Inflow=1.2 cfs 0.095 af
12.0" Round Culvert n=0.012 L=41.0' S=0.0059 '/' Outflow=1.2 cfs 0.095 af

Pond DP1: DMH 3540 Peak Elev=3.01' Inflow=6.7 cfs 0.511 af
48.0" Round Culvert n=0.012 L=216.0' S=0.0034 '/' Outflow=6.7 cfs 0.511 af

Pond OCS #1: Peak Elev=5.91' Inflow=1.2 cfs 0.095 af
12.0" Round Culvert n=0.012 L=44.0' S=0.0050 '/' Outflow=1.2 cfs 0.095 af

Total Runoff Area = 2.249 ac Runoff Volume = 0.549 af Average Runoff Depth = 2.93"
5.08% Pervious = 0.114 ac 94.92% Impervious = 2.135 ac

Summary for Subcatchment PS1:

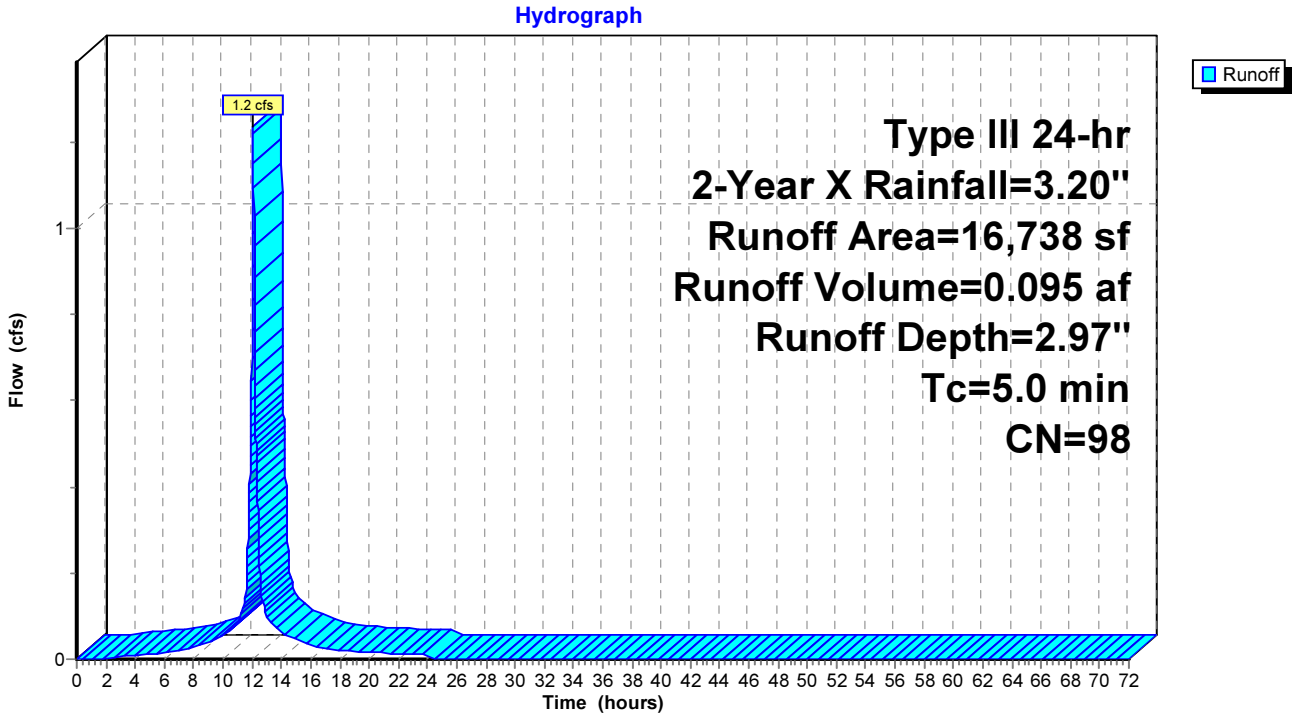
Runoff = 1.2 cfs @ 12.07 hrs, Volume= 0.095 af, Depth= 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year X Rainfall=3.20"

Area (sf)	CN	Description
16,738	98	Roofs, HSG C
16,738		100.00% Impervious Area

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

Subcatchment PS1:



Summary for Subcatchment PS2:

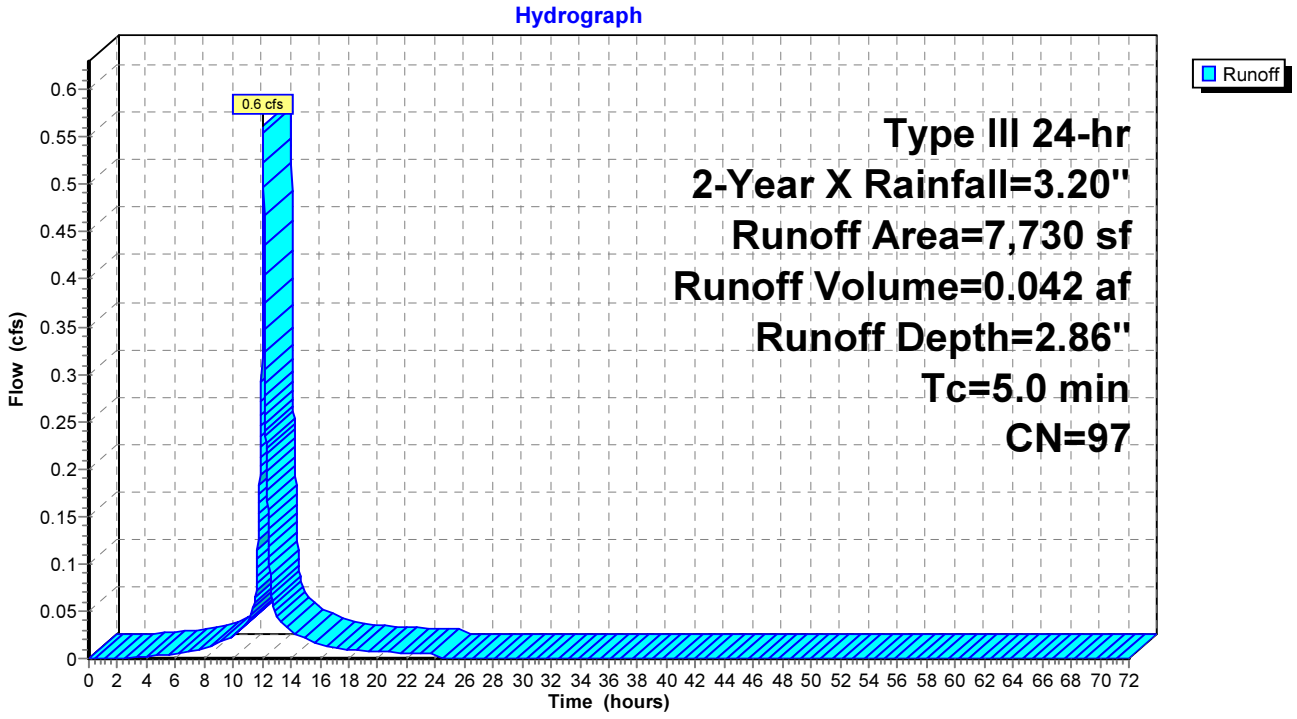
Runoff = 0.6 cfs @ 12.07 hrs, Volume= 0.042 af, Depth= 2.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year X Rainfall=3.20"

Area (sf)	CN	Description
6,244	98	Paved parking, HSG C
1,486	91	Fallow, bare soil, HSG C
7,730	97	Weighted Average
1,486		19.22% Pervious Area
6,244		80.78% Impervious Area

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

Subcatchment PS2:



Summary for Subcatchment PS2a: Roof

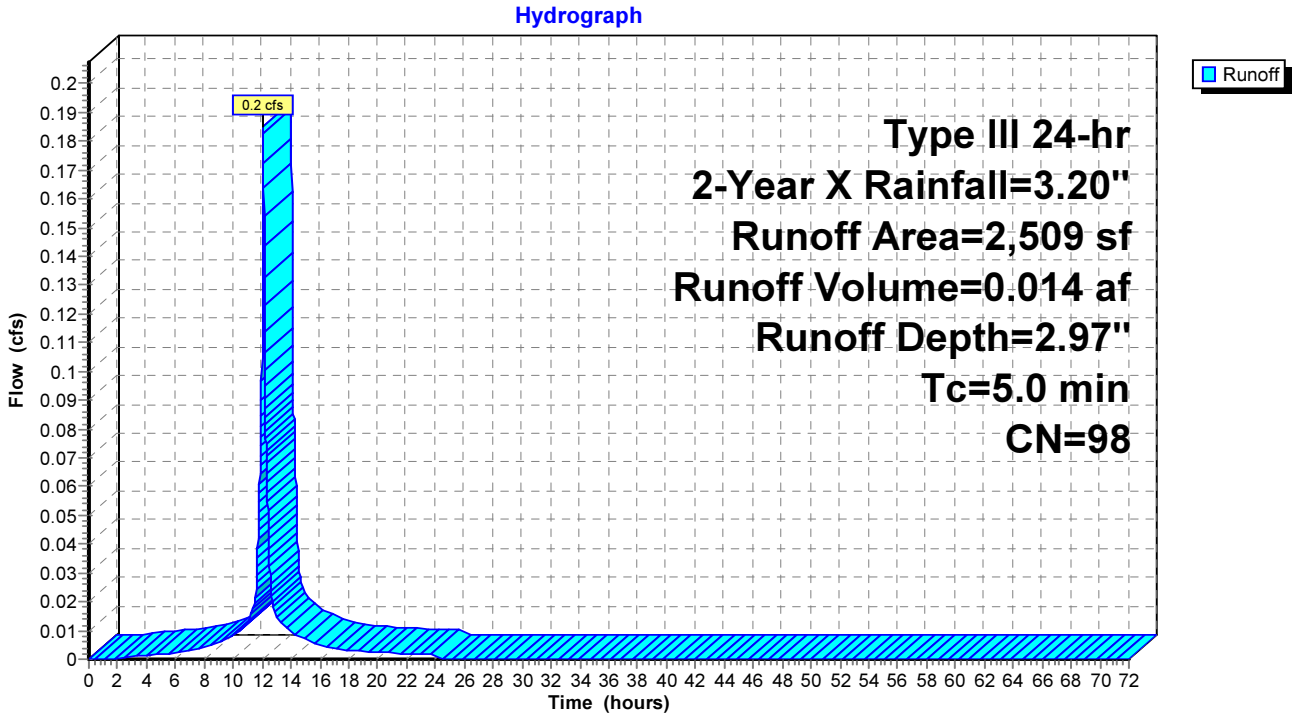
Runoff = 0.2 cfs @ 12.07 hrs, Volume= 0.014 af, Depth= 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year X Rainfall=3.20"

Area (sf)	CN	Description
2,509	98	Roofs, HSG C
2,509		100.00% Impervious Area

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

Subcatchment PS2a: Roof



Summary for Subcatchment PS2b:

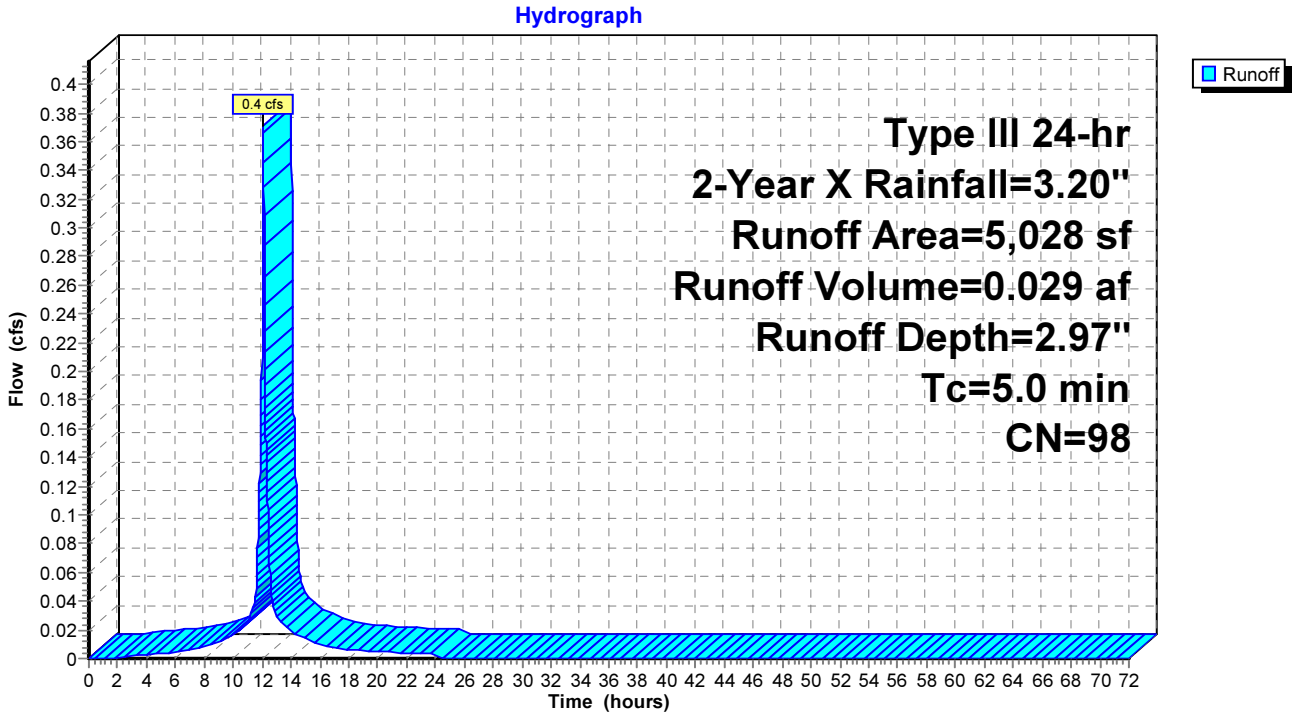
Runoff = 0.4 cfs @ 12.07 hrs, Volume= 0.029 af, Depth= 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year X Rainfall=3.20"

Area (sf)	CN	Description
4,863	98	Paved parking, HSG C
165	91	Fallow, bare soil, HSG C
5,028	98	Weighted Average
165		3.28% Pervious Area
4,863		96.72% Impervious Area

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

Subcatchment PS2b:



Summary for Subcatchment PS3: Roof

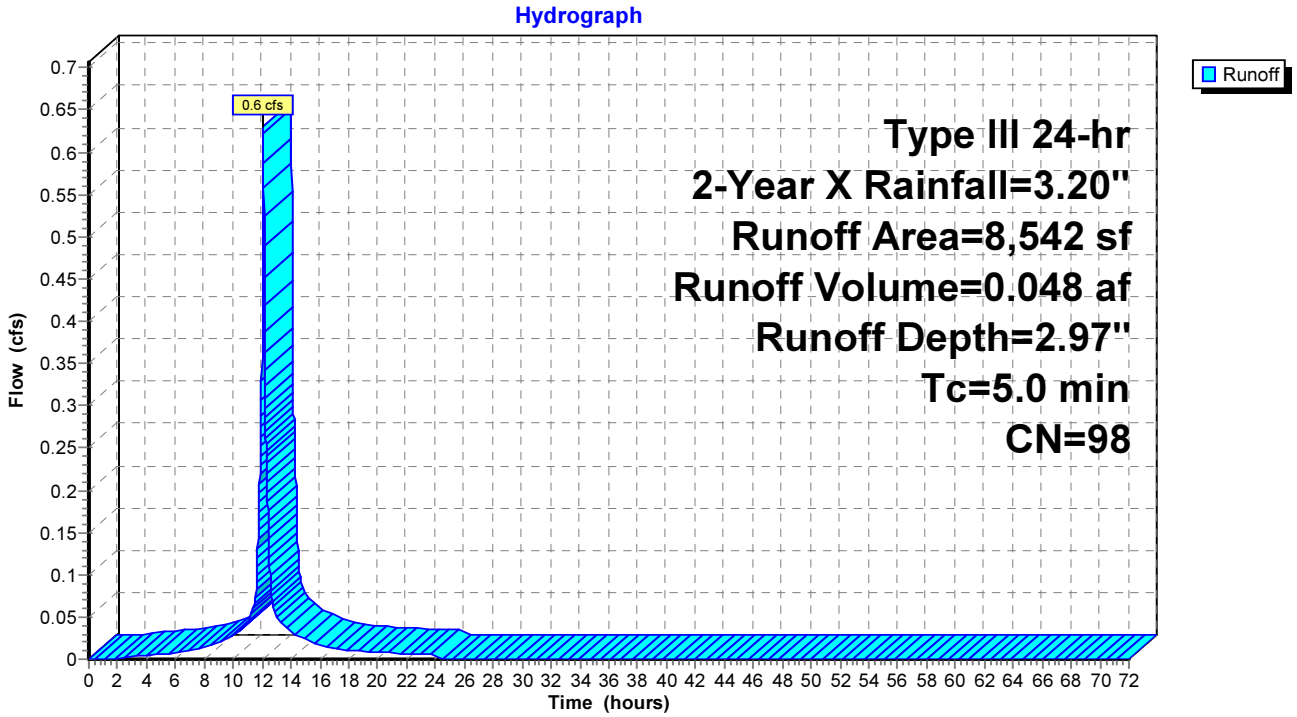
Runoff = 0.6 cfs @ 12.07 hrs, Volume= 0.048 af, Depth= 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year X Rainfall=3.20"

Area (sf)	CN	Description
8,542	98	Roofs, HSG C
8,542		100.00% Impervious Area

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

Subcatchment PS3: Roof



Summary for Subcatchment PS3a: Roof

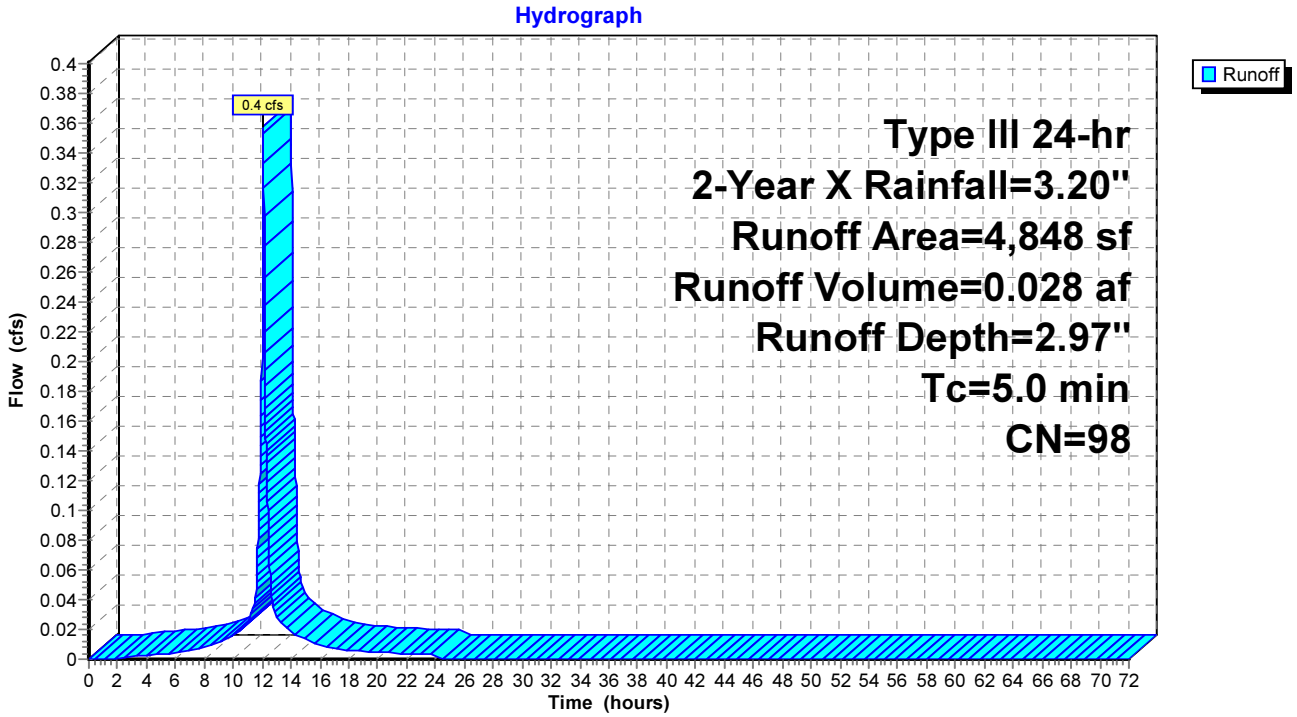
Runoff = 0.4 cfs @ 12.07 hrs, Volume= 0.028 af, Depth= 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year X Rainfall=3.20"

Area (sf)	CN	Description
4,848	98	Roofs, HSG C
4,848		100.00% Impervious Area

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

Subcatchment PS3a: Roof



Summary for Subcatchment PS4:

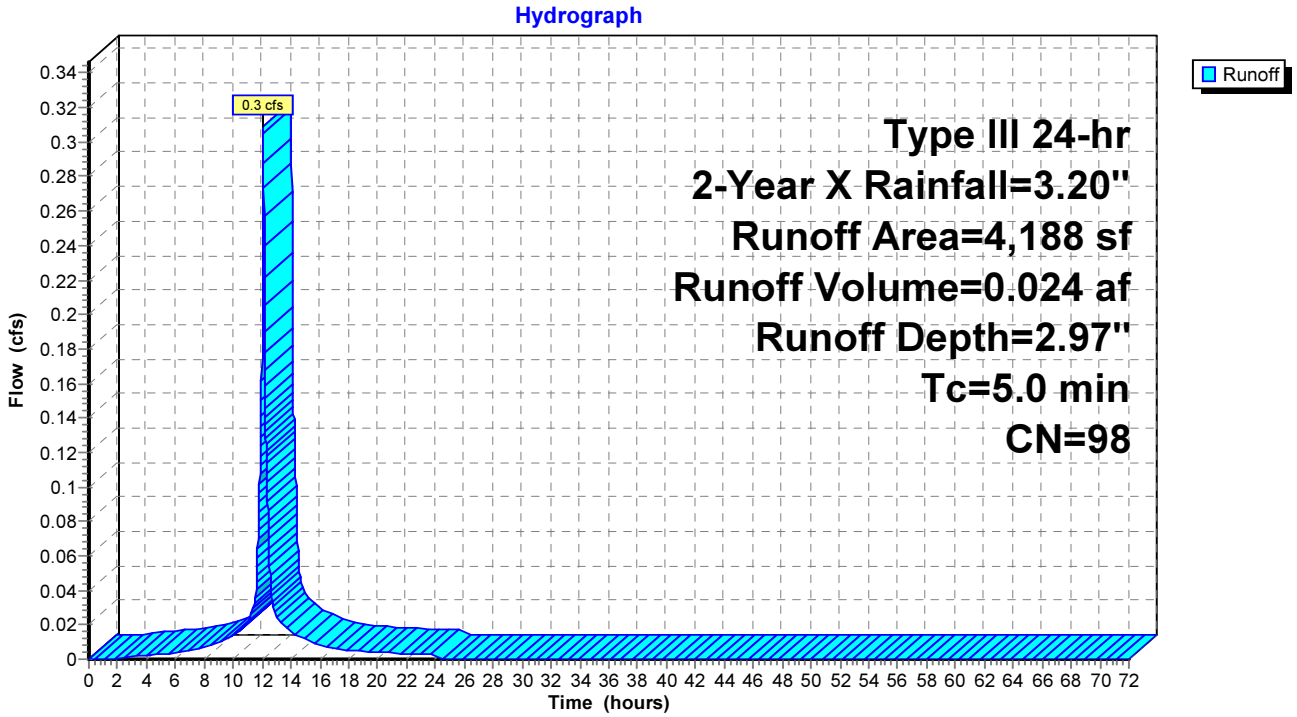
Runoff = 0.3 cfs @ 12.07 hrs, Volume= 0.024 af, Depth= 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year X Rainfall=3.20"

Area (sf)	CN	Description
4,188	98	Roofs, HSG C
4,188		100.00% Impervious Area

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

Subcatchment PS4:



Summary for Subcatchment PS5:

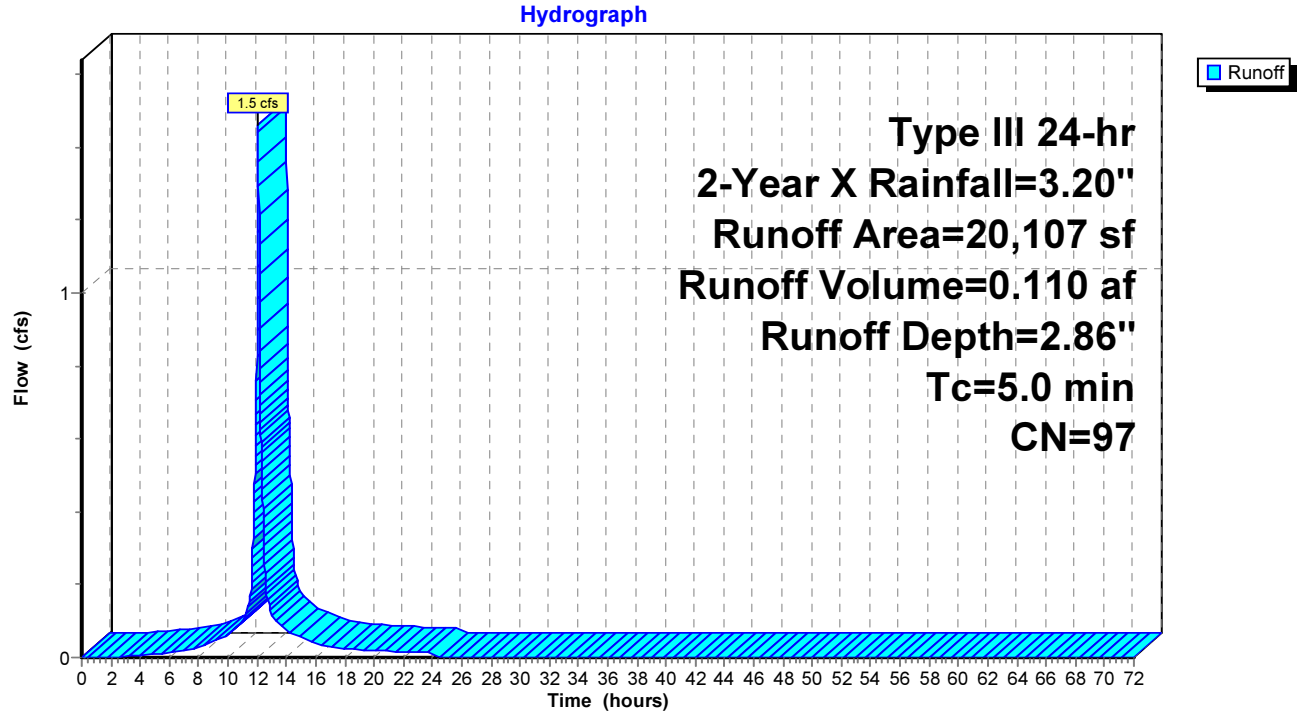
Runoff = 1.5 cfs @ 12.07 hrs, Volume= 0.110 af, Depth= 2.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year X Rainfall=3.20"

	Area (sf)	CN	Description
	269	98	Paved parking, HSG C
	11,300	98	Paved roads w/curbs & sewers, HSG C
	3,499	98	Paved roads w/curbs & sewers, HSG C
	2,439	98	Paved roads w/curbs & sewers, HSG C
*	336	98	Gravel roads, HSG C
	2,264	91	Fallow, bare soil, HSG C
	20,107	97	Weighted Average
	2,264		11.26% Pervious Area
	17,843		88.74% Impervious Area

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

Subcatchment PS5:



Summary for Subcatchment PS6:

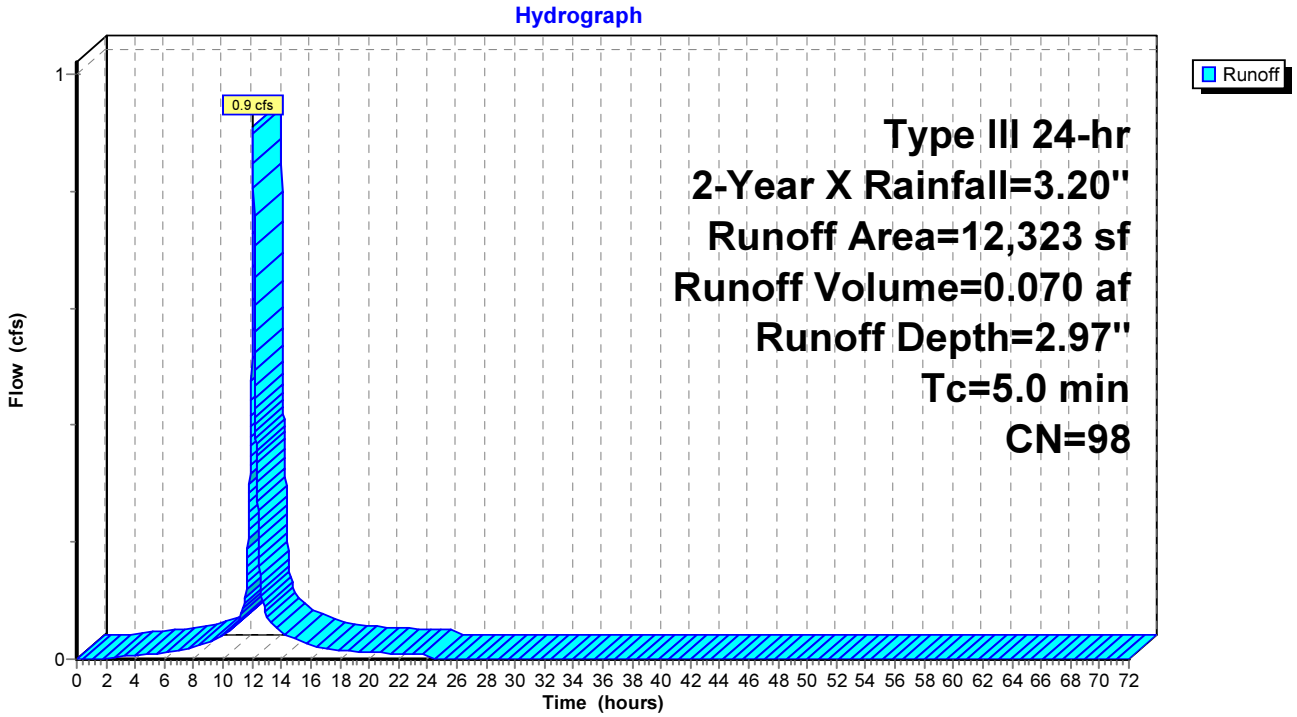
Runoff = 0.9 cfs @ 12.07 hrs, Volume= 0.070 af, Depth= 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year X Rainfall=3.20"

Area (sf)	CN	Description
12,323	98	Paved roads w/curbs & sewers, HSG C
12,323		100.00% Impervious Area

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

Subcatchment PS6:



Summary for Subcatchment PS7:

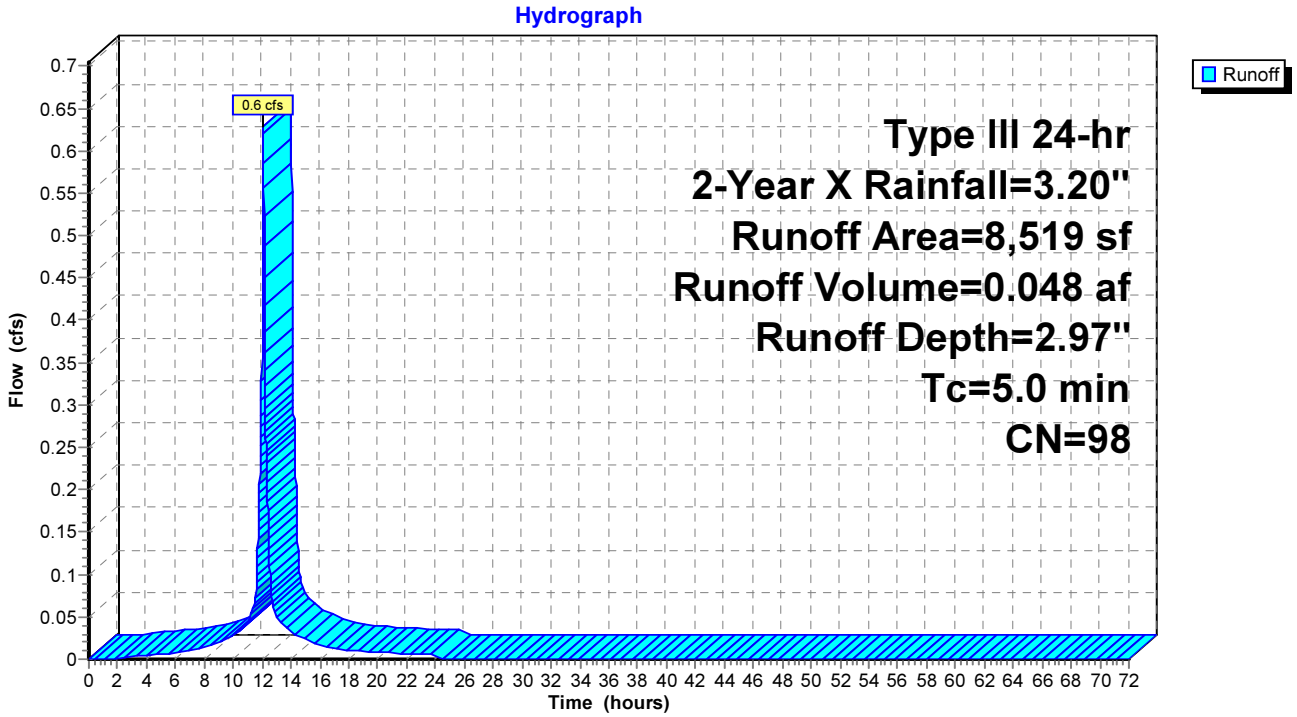
Runoff = 0.6 cfs @ 12.07 hrs, Volume= 0.048 af, Depth= 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year X Rainfall=3.20"

Area (sf)	CN	Description
8,519	98	Paved roads w/curbs & sewers, HSG C
8,519		100.00% Impervious Area

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

Subcatchment PS7:



Summary for Subcatchment PS8:

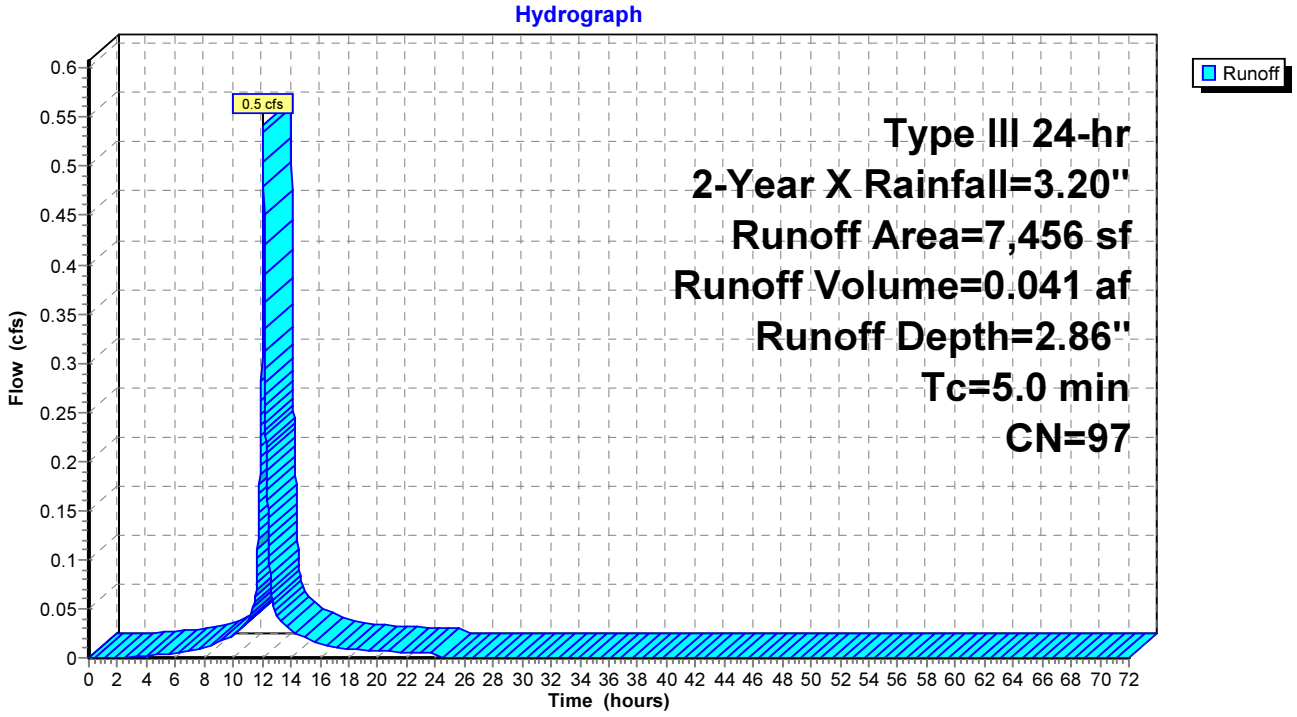
Runoff = 0.5 cfs @ 12.07 hrs, Volume= 0.041 af, Depth= 2.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year X Rainfall=3.20"

	Area (sf)	CN	Description
	4,674	98	Paved roads w/curbs & sewers, HSG C
	1,563	98	Paved roads w/curbs & sewers, HSG C
	121	98	Paved roads w/curbs & sewers, HSG C
*	39	98	Gravel roads, HSG C
	1,059	91	Fallow, bare soil, HSG C
	7,456	97	Weighted Average
	1,059		14.20% Pervious Area
	6,397		85.80% Impervious Area

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

Subcatchment PS8:



Summary for Pond 1P: CB 3528

[57] Hint: Peaked at 5.30' (Flood elevation advised)

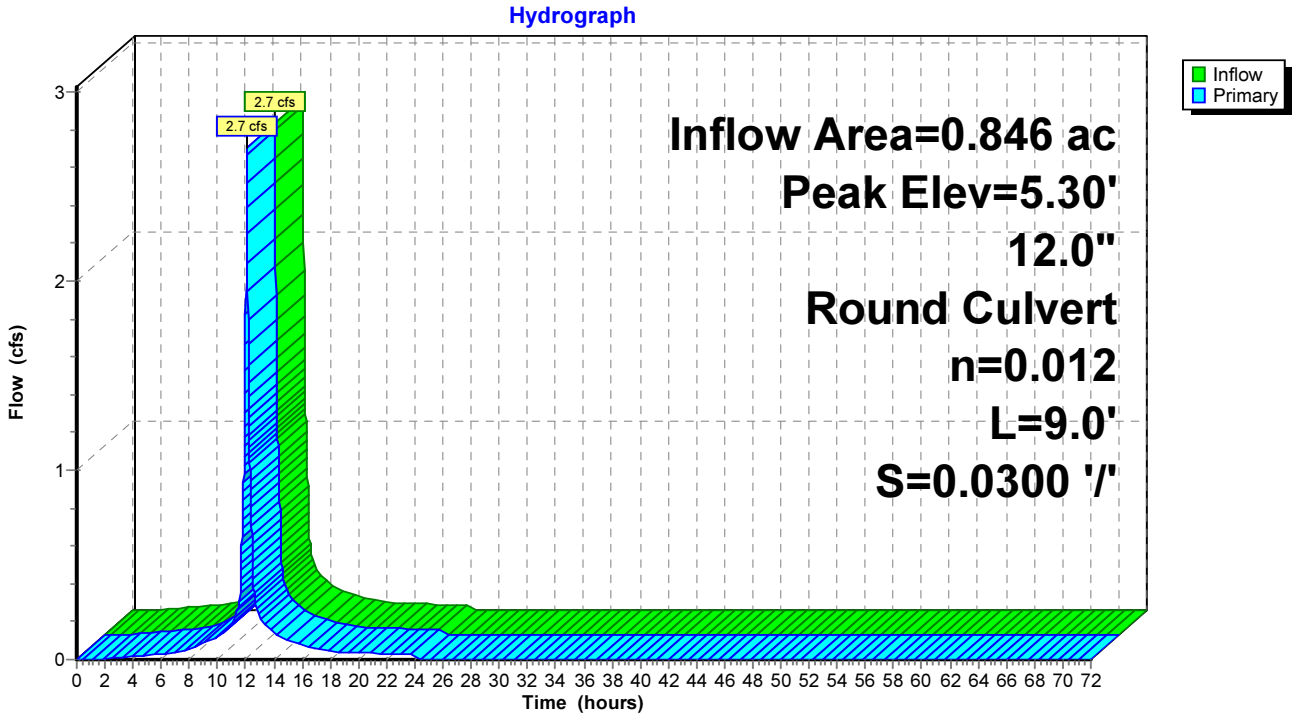
Inflow Area = 0.846 ac, 93.86% Impervious, Inflow Depth = 2.91" for 2-Year X event
Inflow = 2.7 cfs @ 12.07 hrs, Volume= 0.205 af
Outflow = 2.7 cfs @ 12.07 hrs, Volume= 0.205 af, Atten= 0%, Lag= 0.0 min
Primary = 2.7 cfs @ 12.07 hrs, Volume= 0.205 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 5.30' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.40'	**12.0" Round Culvert** L= 9.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 4.40' / 4.13' S= 0.0300 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=2.7 cfs @ 12.07 hrs HW=5.30' TW=4.01' (Dynamic Tailwater)
1=Culvert (Barrel Controls 2.7 cfs @ 4.78 fps)

Pond 1P: CB 3528



Summary for Pond 5P: DMH 3543

[57] Hint: Peaked at 4.01' (Flood elevation advised)

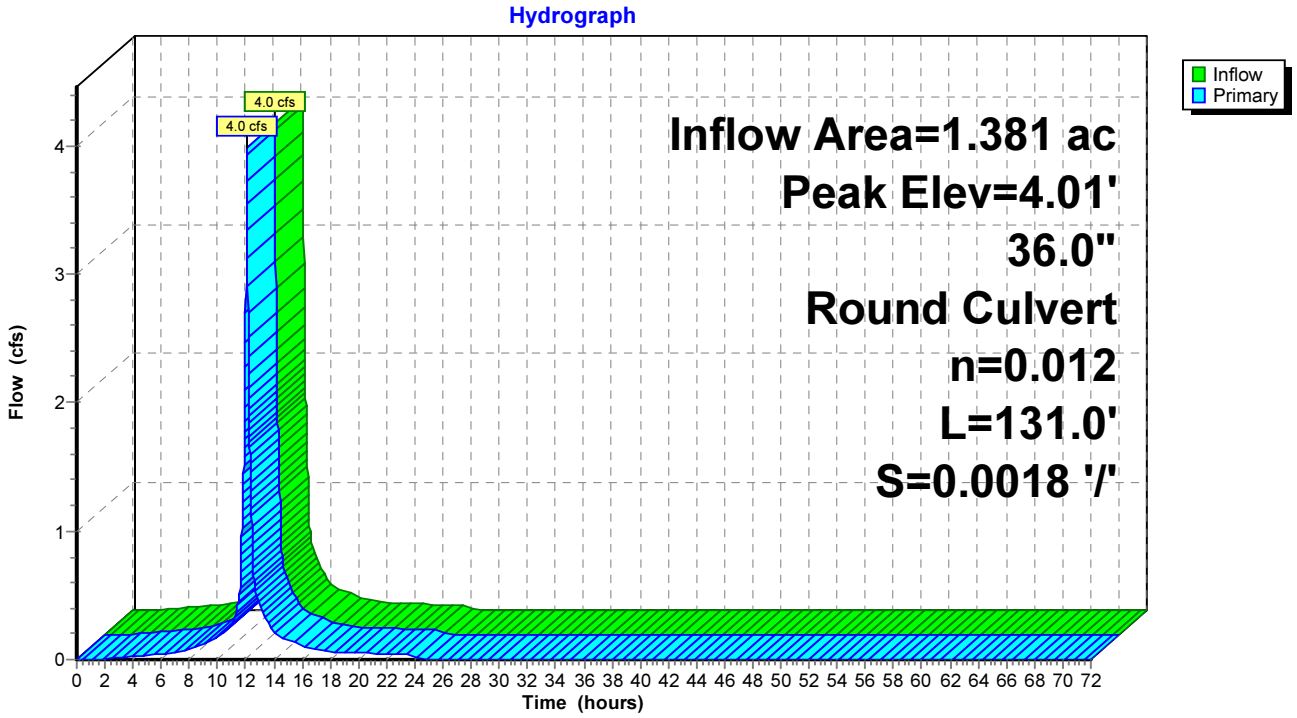
Inflow Area = 1.381 ac, 94.48% Impervious, Inflow Depth = 2.73" for 2-Year X event
Inflow = 4.0 cfs @ 12.07 hrs, Volume= 0.314 af
Outflow = 4.0 cfs @ 12.07 hrs, Volume= 0.314 af, Atten= 0%, Lag= 0.0 min
Primary = 4.0 cfs @ 12.07 hrs, Volume= 0.314 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 4.01' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	2.91'	**36.0" Round Culvert** L= 131.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 2.91' / 2.67' S= 0.0018 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=3.9 cfs @ 12.07 hrs HW=4.01' TW=3.74' (Dynamic Tailwater)
1=Culvert (Outlet Controls 3.9 cfs @ 2.51 fps)

Pond 5P: DMH 3543



Summary for Pond 6P: DMH 3542

[57] Hint: Peaked at 3.48' (Flood elevation advised)

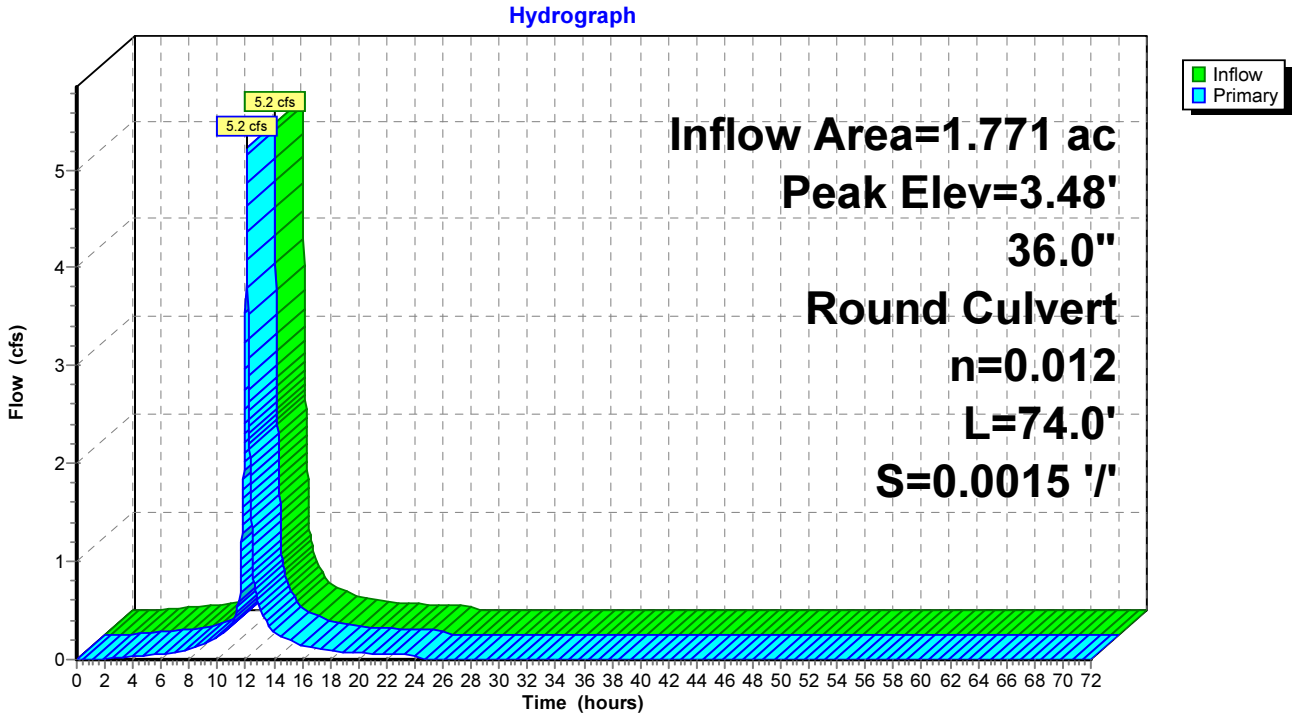
Inflow Area = 1.771 ac, 93.55% Impervious, Inflow Depth = 2.77" for 2-Year X event
Inflow = 5.2 cfs @ 12.07 hrs, Volume= 0.408 af
Outflow = 5.2 cfs @ 12.07 hrs, Volume= 0.408 af, Atten= 0%, Lag= 0.0 min
Primary = 5.2 cfs @ 12.07 hrs, Volume= 0.408 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.48' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	2.21'	**36.0" Round Culvert** L= 74.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 2.21' / 2.10' S= 0.0015 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=5.1 cfs @ 12.07 hrs HW=3.48' TW=3.27' (Dynamic Tailwater)
1=Culvert (Outlet Controls 5.1 cfs @ 2.66 fps)

Pond 6P: DMH 3542



Summary for Pond 7P: DMH 3541

[57] Hint: Peaked at 3.28' (Flood elevation advised)

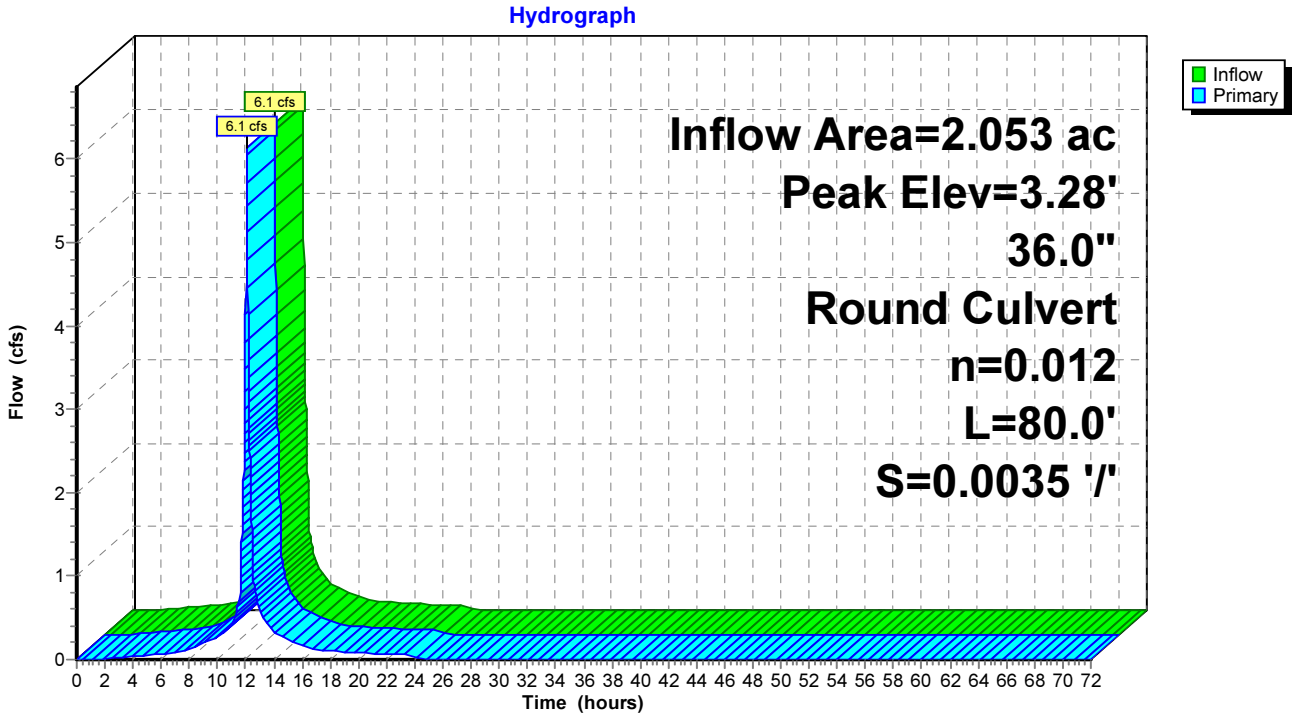
Inflow Area = 2.053 ac, 94.44% Impervious, Inflow Depth = 2.80" for 2-Year X event
Inflow = 6.1 cfs @ 12.07 hrs, Volume= 0.478 af
Outflow = 6.1 cfs @ 12.07 hrs, Volume= 0.478 af, Atten= 0%, Lag= 0.0 min
Primary = 6.1 cfs @ 12.07 hrs, Volume= 0.478 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.28' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.96'	**36.0" Round Culvert** L= 80.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 1.96' / 1.68' S= 0.0035 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=6.1 cfs @ 12.07 hrs HW=3.27' TW=2.99' (Dynamic Tailwater)
1=Culvert (Outlet Controls 6.1 cfs @ 3.04 fps)

Pond 7P: DMH 3541



Summary for Pond 8P: DMH 1A

[57] Hint: Peaked at 3.75' (Flood elevation advised)

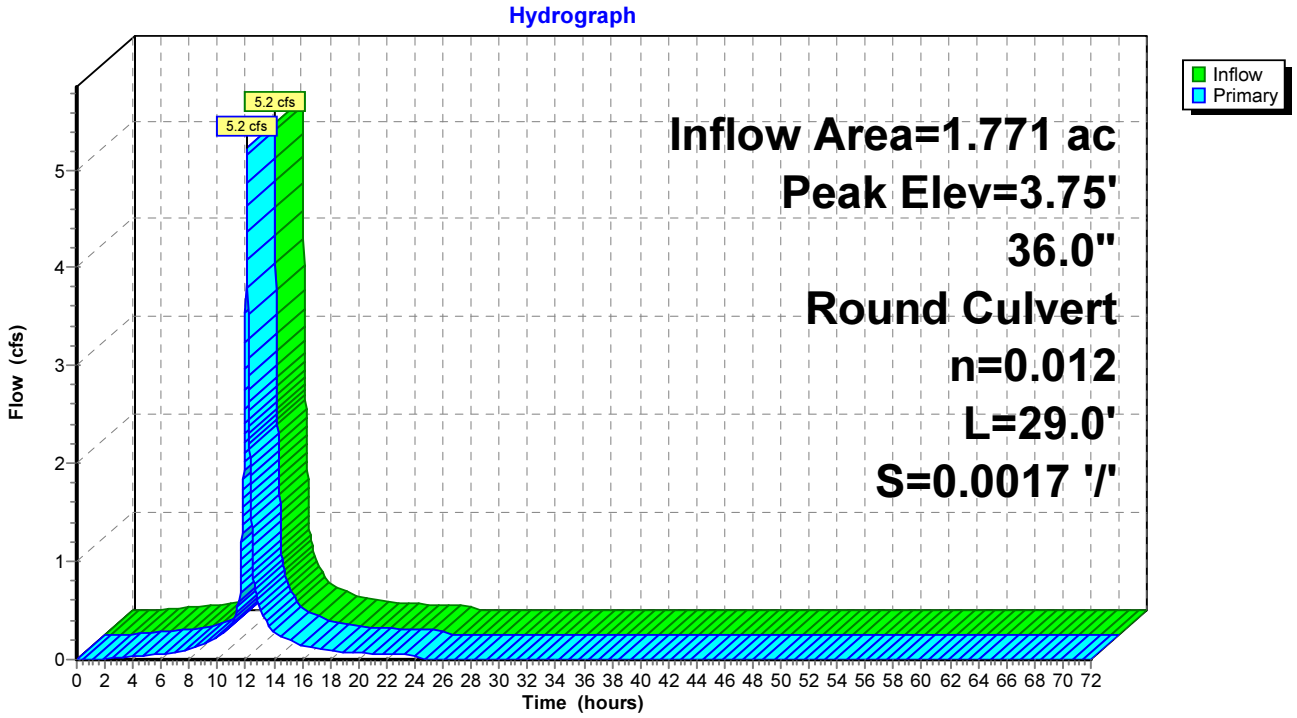
Inflow Area = 1.771 ac, 93.55% Impervious, Inflow Depth = 2.77" for 2-Year X event
Inflow = 5.2 cfs @ 12.07 hrs, Volume= 0.408 af
Outflow = 5.2 cfs @ 12.07 hrs, Volume= 0.408 af, Atten= 0%, Lag= 0.0 min
Primary = 5.2 cfs @ 12.07 hrs, Volume= 0.408 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.75' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	2.66'	**36.0" Round Culvert** L= 29.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 2.66' / 2.61' S= 0.0017 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=5.2 cfs @ 12.07 hrs HW=3.74' TW=3.48' (Dynamic Tailwater)
1=Culvert (Outlet Controls 5.2 cfs @ 3.35 fps)

Pond 8P: DMH 1A



Summary for Pond 9P: DMH 5438

[57] Hint: Peaked at 2.67' (Flood elevation advised)

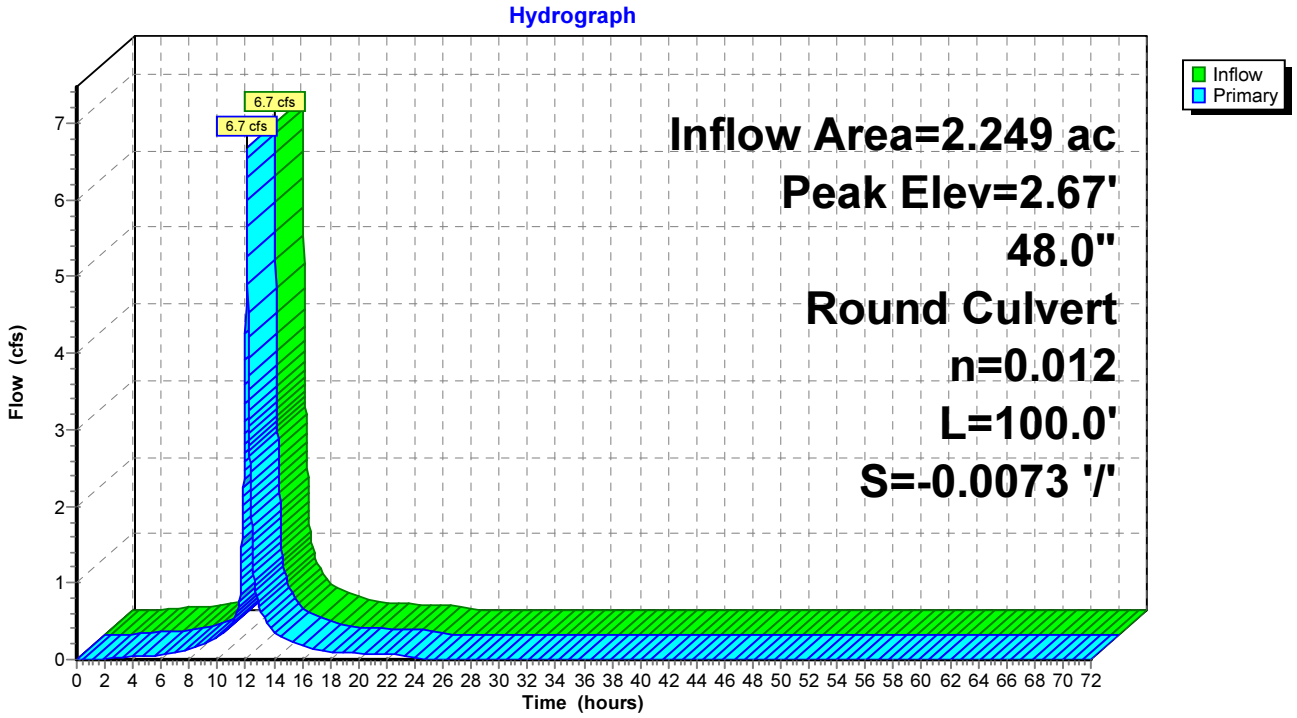
Inflow Area = 2.249 ac, 94.92% Impervious, Inflow Depth = 2.73" for 2-Year X event
Inflow = 6.7 cfs @ 12.08 hrs, Volume= 0.511 af
Outflow = 6.7 cfs @ 12.08 hrs, Volume= 0.511 af, Atten= 0%, Lag= 0.0 min
Primary = 6.7 cfs @ 12.08 hrs, Volume= 0.511 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 2.67' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.67'	**48.0" Round Culvert** L= 100.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 0.94' / 1.67' S= -0.0073 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 12.57 sf

Primary OutFlow Max=6.7 cfs @ 12.08 hrs HW=2.67' TW=2.46' (Dynamic Tailwater)
1=Culvert (Inlet Controls 6.7 cfs @ 2.73 fps)

Pond 9P: DMH 5438



Summary for Pond 10P: DMH 5217

[57] Hint: Peaked at 2.46' (Flood elevation advised)

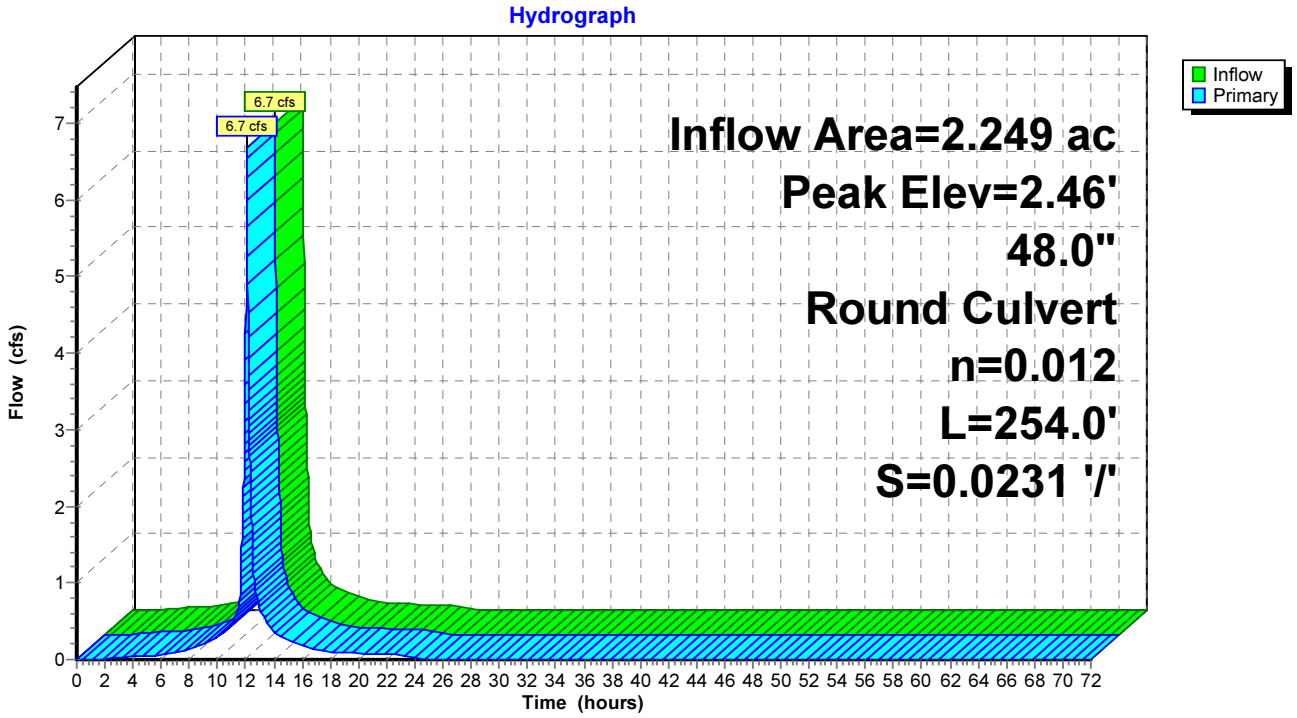
Inflow Area = 2.249 ac, 94.92% Impervious, Inflow Depth = 2.73" for 2-Year X event
Inflow = 6.7 cfs @ 12.08 hrs, Volume= 0.511 af
Outflow = 6.7 cfs @ 12.08 hrs, Volume= 0.511 af, Atten= 0%, Lag= 0.0 min
Primary = 6.7 cfs @ 12.08 hrs, Volume= 0.511 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 2.46' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.67'	**48.0" Round Culvert** L= 254.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 1.67' / -4.20' S= 0.0231 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 12.57 sf

Primary OutFlow Max=6.7 cfs @ 12.08 hrs HW=2.46' (Free Discharge)
1=Culvert (Inlet Controls 6.7 cfs @ 3.78 fps)

Pond 10P: DMH 5217



Summary for Pond 11P: CB 3523

[57] Hint: Peaked at 7.95' (Flood elevation advised)

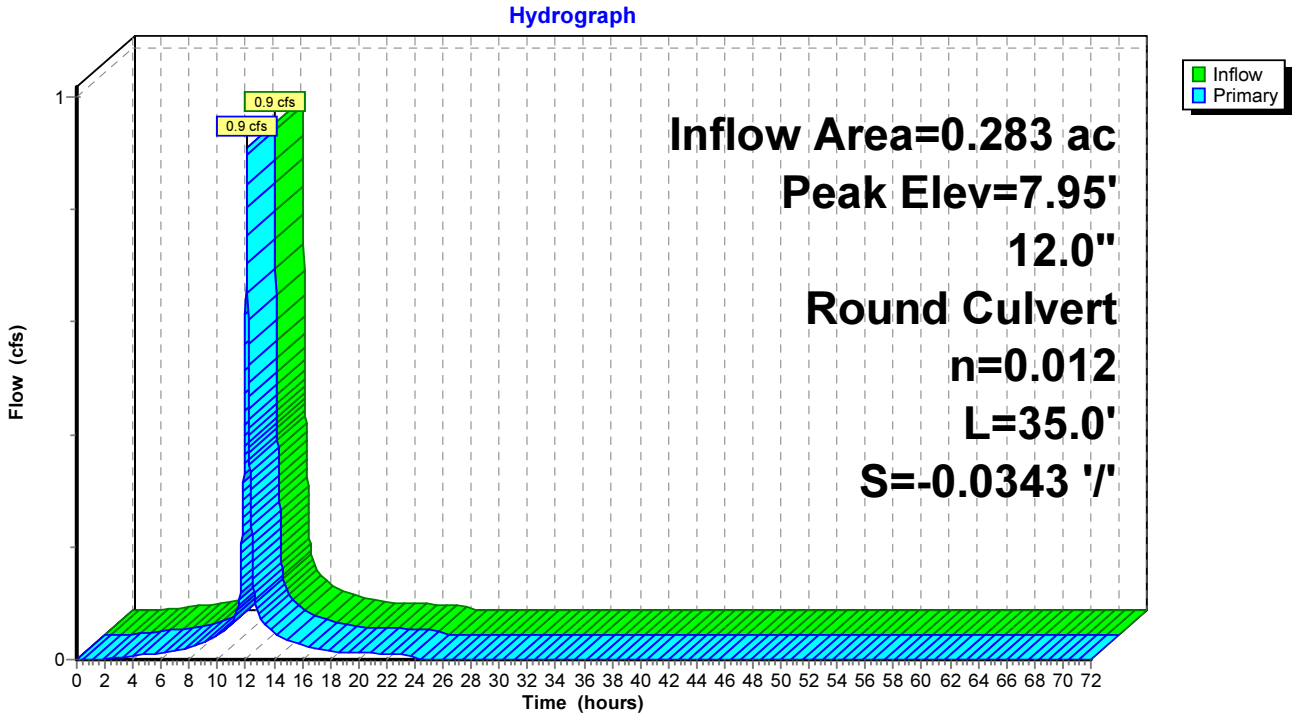
Inflow Area = 0.283 ac,100.00% Impervious, Inflow Depth = 2.97" for 2-Year X event
Inflow = 0.9 cfs @ 12.07 hrs, Volume= 0.070 af
Outflow = 0.9 cfs @ 12.07 hrs, Volume= 0.070 af, Atten= 0%, Lag= 0.0 min
Primary = 0.9 cfs @ 12.07 hrs, Volume= 0.070 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 7.95' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	7.52'	**12.0" Round Culvert** L= 35.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.32' / 7.52' S= -0.0343 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.9 cfs @ 12.07 hrs HW=7.95' TW=3.27' (Dynamic Tailwater)
1=Culvert (Inlet Controls 0.9 cfs @ 2.80 fps)

Pond 11P: CB 3523



Summary for Pond 13P: DMH 12303

[57] Hint: Peaked at 6.63' (Flood elevation advised)

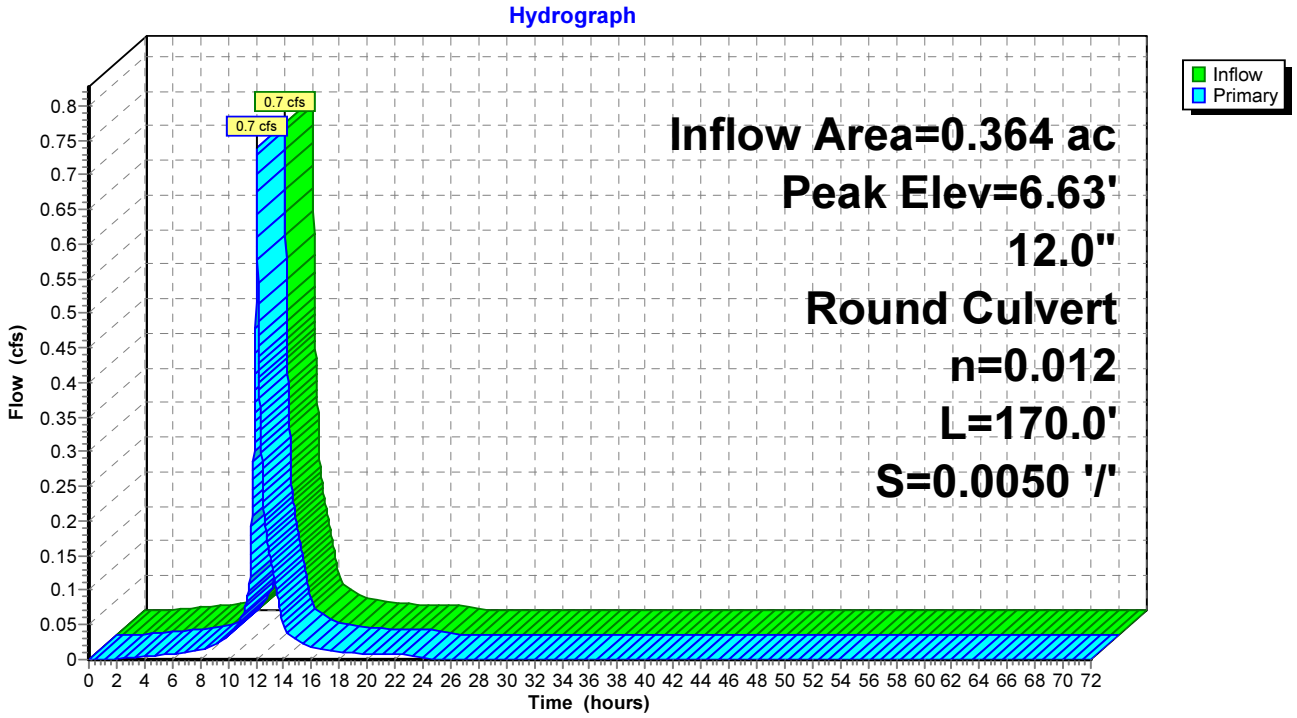
Inflow Area = 0.364 ac,100.00% Impervious, Inflow Depth = 2.25" for 2-Year X event
Inflow = 0.7 cfs @ 12.07 hrs, Volume= 0.068 af
Outflow = 0.7 cfs @ 12.07 hrs, Volume= 0.068 af, Atten= 0%, Lag= 0.0 min
Primary = 0.7 cfs @ 12.07 hrs, Volume= 0.068 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.63' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	6.09'	**12.0" Round Culvert** L= 170.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.09' / 5.24' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.7 cfs @ 12.07 hrs HW=6.63' TW=5.98' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.7 cfs @ 2.48 fps)

Pond 13P: DMH 12303



Summary for Pond 14P: DMH 12631

[57] Hint: Peaked at 5.98' (Flood elevation advised)

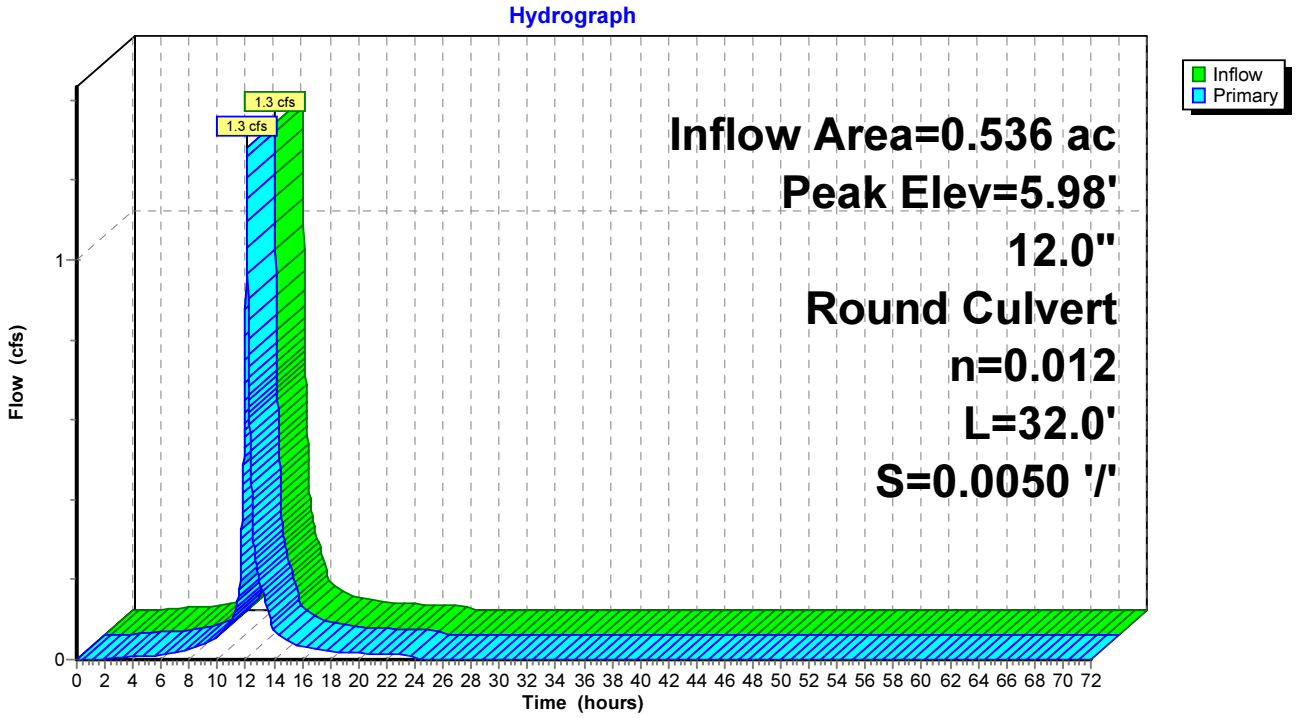
Inflow Area = 0.536 ac, 95.46% Impervious, Inflow Depth = 2.44" for 2-Year X event
Inflow = 1.3 cfs @ 12.07 hrs, Volume= 0.109 af
Outflow = 1.3 cfs @ 12.07 hrs, Volume= 0.109 af, Atten= 0%, Lag= 0.0 min
Primary = 1.3 cfs @ 12.07 hrs, Volume= 0.109 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 5.98' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.24'	**12.0" Round Culvert** L= 32.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.24' / 5.08' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.3 cfs @ 12.07 hrs HW=5.98' TW=5.74' (Dynamic Tailwater)
└**1=Culvert** (Outlet Controls 1.3 cfs @ 2.84 fps)

Pond 14P: DMH 12631



Summary for Pond 15P: CB 8146

[57] Hint: Peaked at 6.03' (Flood elevation advised)

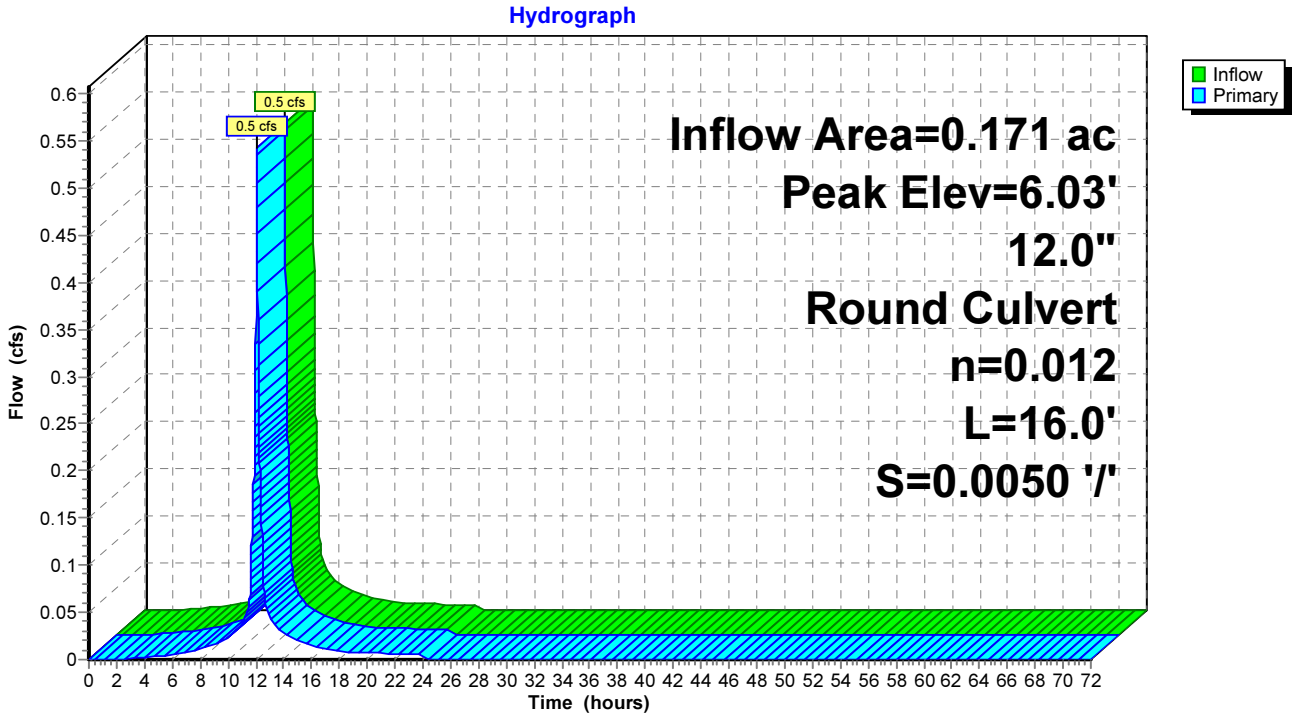
Inflow Area = 0.171 ac, 85.80% Impervious, Inflow Depth = 2.86" for 2-Year X event
Inflow = 0.5 cfs @ 12.07 hrs, Volume= 0.041 af
Outflow = 0.5 cfs @ 12.07 hrs, Volume= 0.041 af, Atten= 0%, Lag= 0.0 min
Primary = 0.5 cfs @ 12.07 hrs, Volume= 0.041 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.03' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.32'	**12.0" Round Culvert** L= 16.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.32' / 5.24' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.5 cfs @ 12.07 hrs HW=6.02' TW=5.98' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.5 cfs @ 1.26 fps)

Pond 15P: CB 8146



Summary for Pond 16P: DMH 12632

[57] Hint: Peaked at 5.74' (Flood elevation advised)

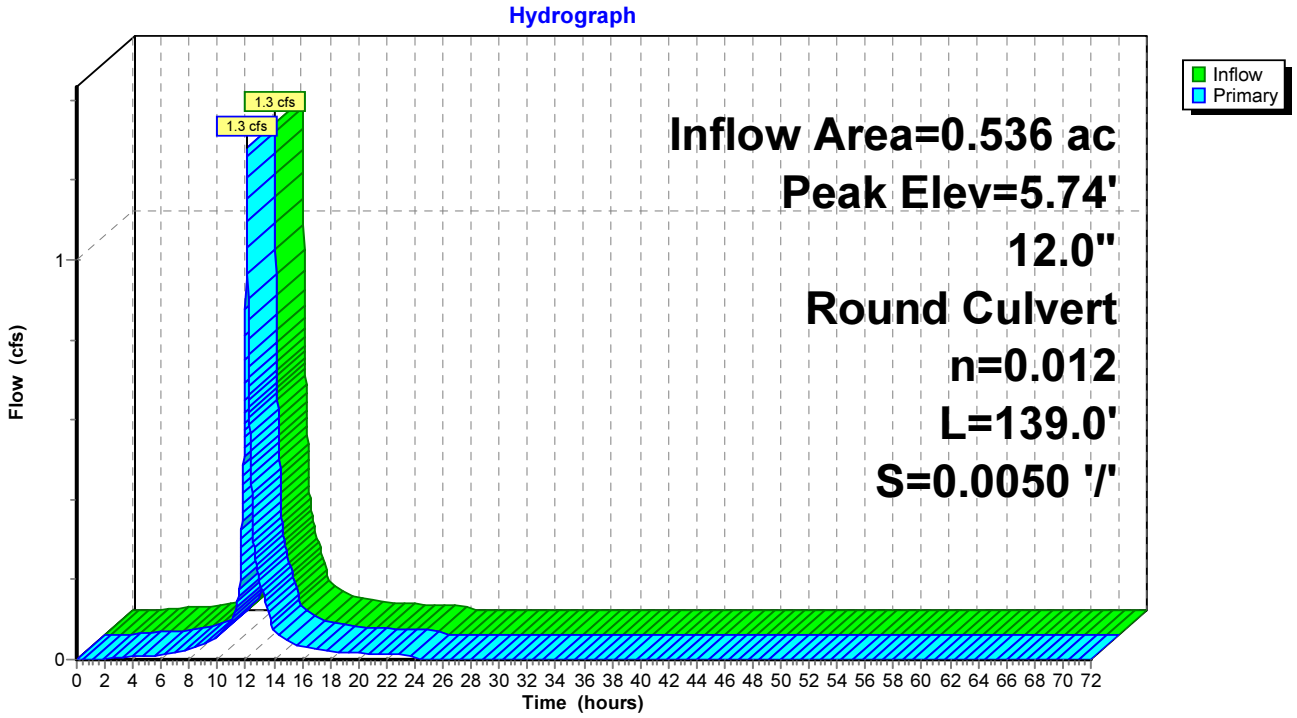
Inflow Area =	0.536 ac,	95.46% Impervious,	Inflow Depth =	2.44"	for 2-Year X event
Inflow =	1.3 cfs @	12.07 hrs,	Volume=	0.109 af	
Outflow =	1.3 cfs @	12.07 hrs,	Volume=	0.109 af,	Atten= 0%, Lag= 0.0 min
Primary =	1.3 cfs @	12.07 hrs,	Volume=	0.109 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 5.74' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.08'	**12.0" Round Culvert** L= 139.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.08' / 4.39' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.3 cfs @ 12.07 hrs HW=5.74' TW=4.80' (Dynamic Tailwater)
└**1=Culvert** (Barrel Controls 1.3 cfs @ 3.33 fps)

Pond 16P: DMH 12632



Summary for Pond 17P: DMH 3545

[57] Hint: Peaked at 4.80' (Flood elevation advised)

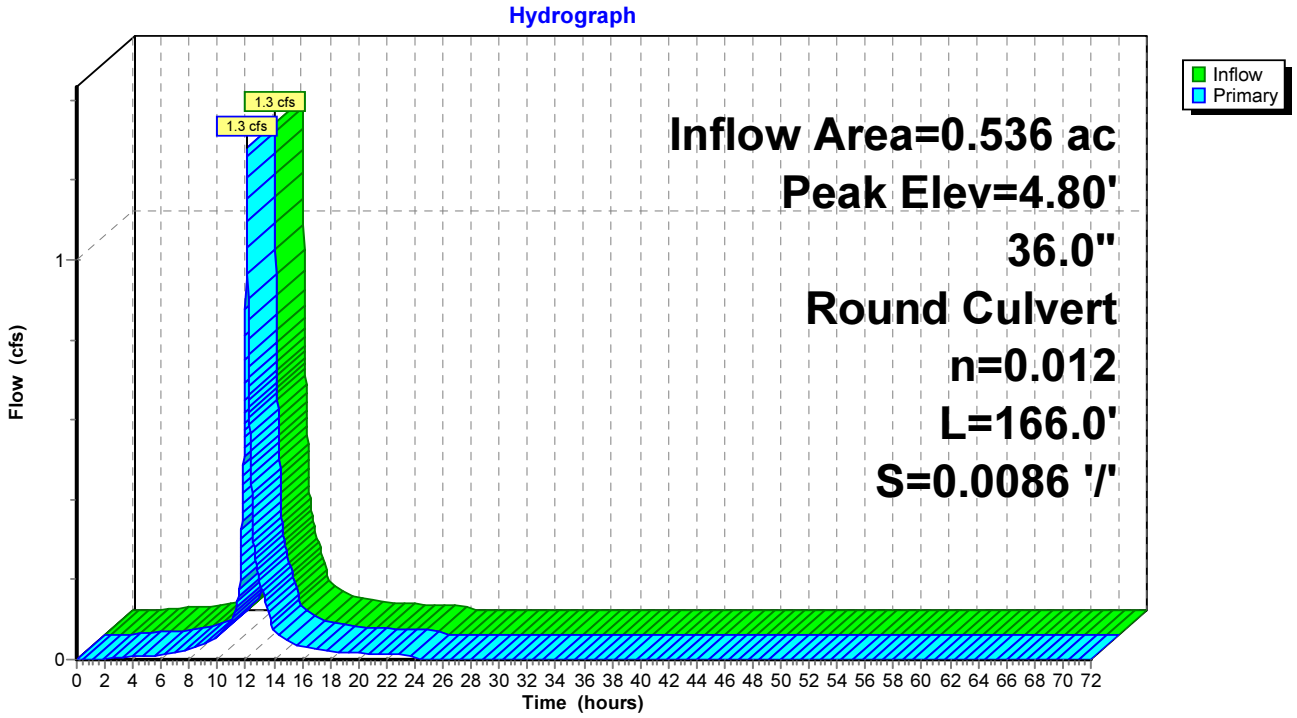
Inflow Area = 0.536 ac, 95.46% Impervious, Inflow Depth = 2.44" for 2-Year X event
Inflow = 1.3 cfs @ 12.07 hrs, Volume= 0.109 af
Outflow = 1.3 cfs @ 12.07 hrs, Volume= 0.109 af, Atten= 0%, Lag= 0.0 min
Primary = 1.3 cfs @ 12.07 hrs, Volume= 0.109 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 4.80' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.34'	**36.0" Round Culvert** L= 166.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 4.34' / 2.91' S= 0.0086 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=1.3 cfs @ 12.07 hrs HW=4.80' TW=4.01' (Dynamic Tailwater)
1=Culvert (Outlet Controls 1.3 cfs @ 2.81 fps)

Pond 17P: DMH 3545



Summary for Pond 29P: DMH 3

[57] Hint: Peaked at 3.11' (Flood elevation advised)

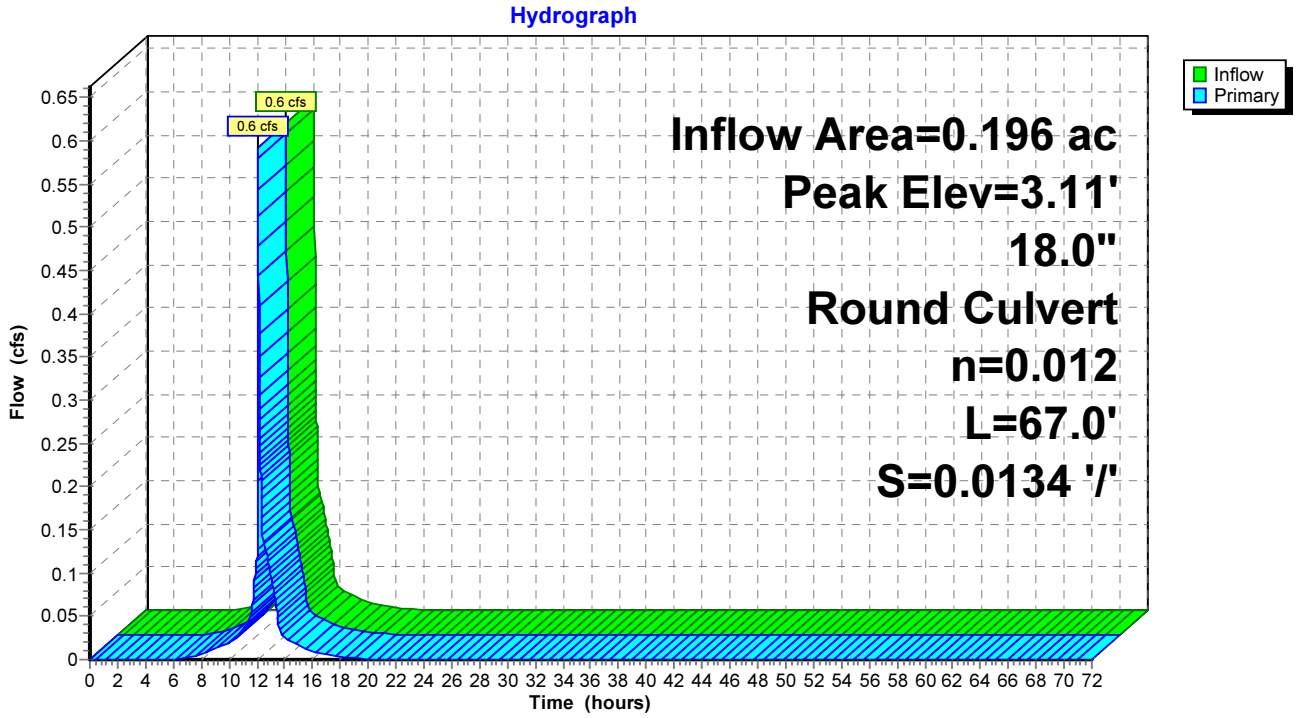
Inflow Area = 0.196 ac,100.00% Impervious, Inflow Depth = 2.01" for 2-Year X event
Inflow = 0.6 cfs @ 12.09 hrs, Volume= 0.033 af
Outflow = 0.6 cfs @ 12.09 hrs, Volume= 0.033 af, Atten= 0%, Lag= 0.0 min
Primary = 0.6 cfs @ 12.09 hrs, Volume= 0.033 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.11' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	2.53'	**18.0" Round Culvert** L= 67.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 2.53' / 1.63' S= 0.0134 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=0.6 cfs @ 12.09 hrs HW=3.11' TW=3.01' (Dynamic Tailwater)
└**1=Culvert** (Outlet Controls 0.6 cfs @ 1.40 fps)

Pond 29P: DMH 3



Summary for Pond 35P: CB 3

[57] Hint: Peaked at 7.23' (Flood elevation advised)

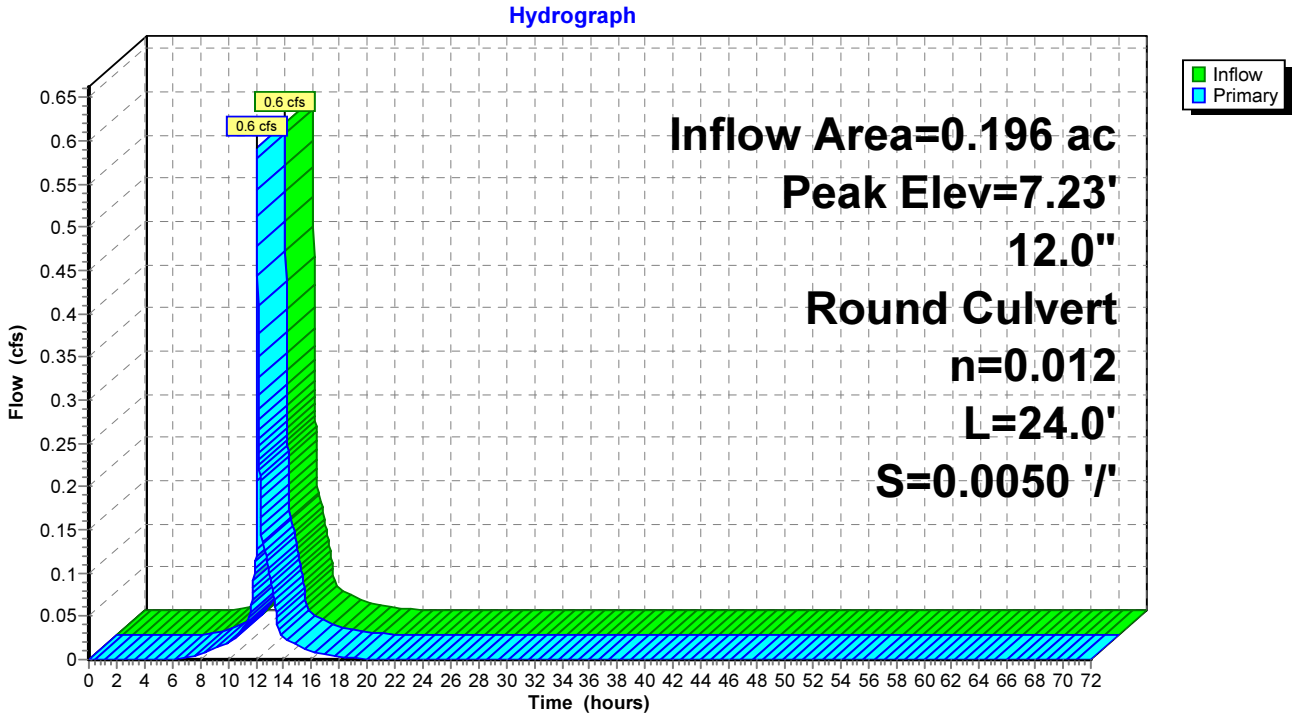
Inflow Area = 0.196 ac,100.00% Impervious, Inflow Depth = 2.01" for 2-Year X event
Inflow = 0.6 cfs @ 12.09 hrs, Volume= 0.033 af
Outflow = 0.6 cfs @ 12.09 hrs, Volume= 0.033 af, Atten= 0%, Lag= 0.0 min
Primary = 0.6 cfs @ 12.09 hrs, Volume= 0.033 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 7.23' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	6.77'	**12.0" Round Culvert** L= 24.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 6.77' / 6.65' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.6 cfs @ 12.09 hrs HW=7.22' TW=3.11' (Dynamic Tailwater)
1=Culvert (Barrel Controls 0.6 cfs @ 2.49 fps)

Pond 35P: CB 3



Summary for Pond 36P: CB 3526

[57] Hint: Peaked at 6.77' (Flood elevation advised)

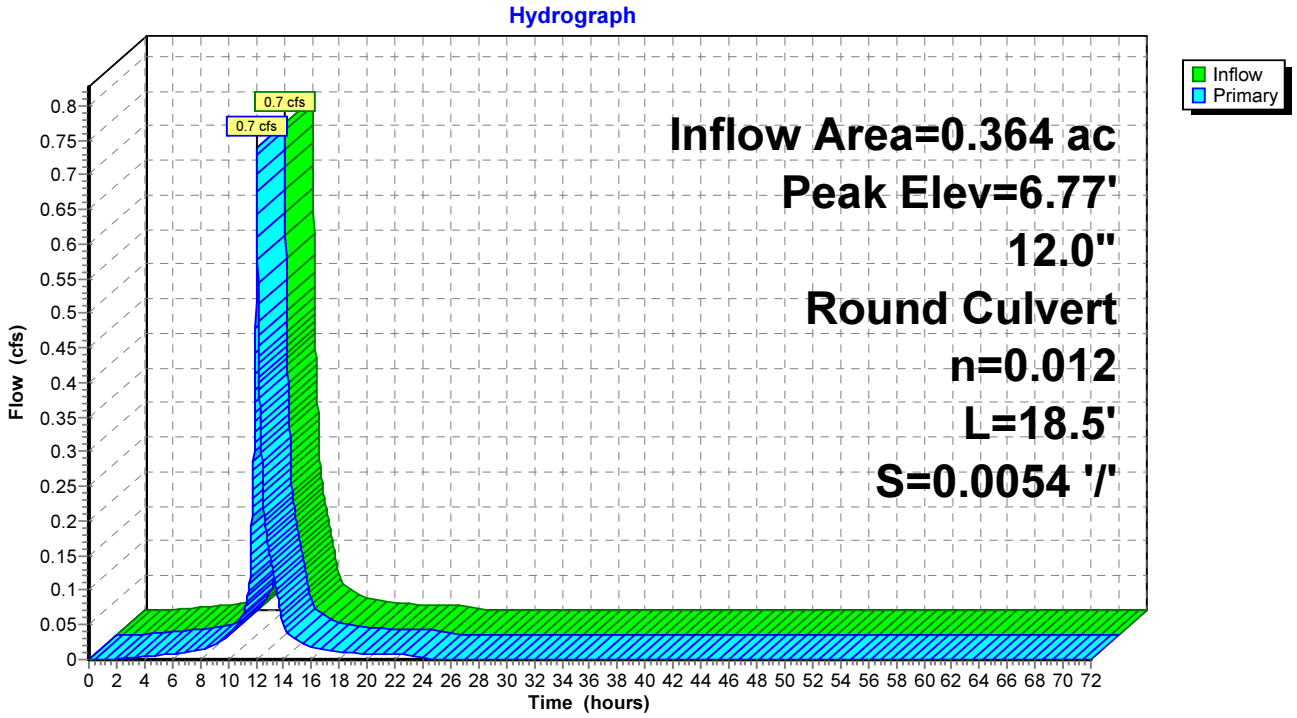
Inflow Area = 0.364 ac,100.00% Impervious, Inflow Depth = 2.25" for 2-Year X event
Inflow = 0.7 cfs @ 12.07 hrs, Volume= 0.068 af
Outflow = 0.7 cfs @ 12.07 hrs, Volume= 0.068 af, Atten= 0%, Lag= 0.0 min
Primary = 0.7 cfs @ 12.07 hrs, Volume= 0.068 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.77' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	6.19'	**12.0" Round Culvert** L= 18.5' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.19' / 6.09' S= 0.0054 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.7 cfs @ 12.07 hrs HW=6.77' TW=6.63' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.7 cfs @ 2.26 fps)

Pond 36P: CB 3526



Summary for Pond 37P: 94 Silva Cells with OCS #2

Inflow Area = 0.169 ac,100.00% Impervious, Inflow Depth = 2.97" for 2-Year X event
Inflow = 0.5 cfs @ 12.07 hrs, Volume= 0.042 af
Outflow = 0.2 cfs @ 12.35 hrs, Volume= 0.042 af, Atten= 69%, Lag= 17.1 min
Discarded = 0.0 cfs @ 11.91 hrs, Volume= 0.022 af
Primary = 0.1 cfs @ 12.35 hrs, Volume= 0.020 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 11.35' @ 12.35 hrs Surf.Area= 774 sf Storage= 367 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 13.1 min (768.6 - 755.5)

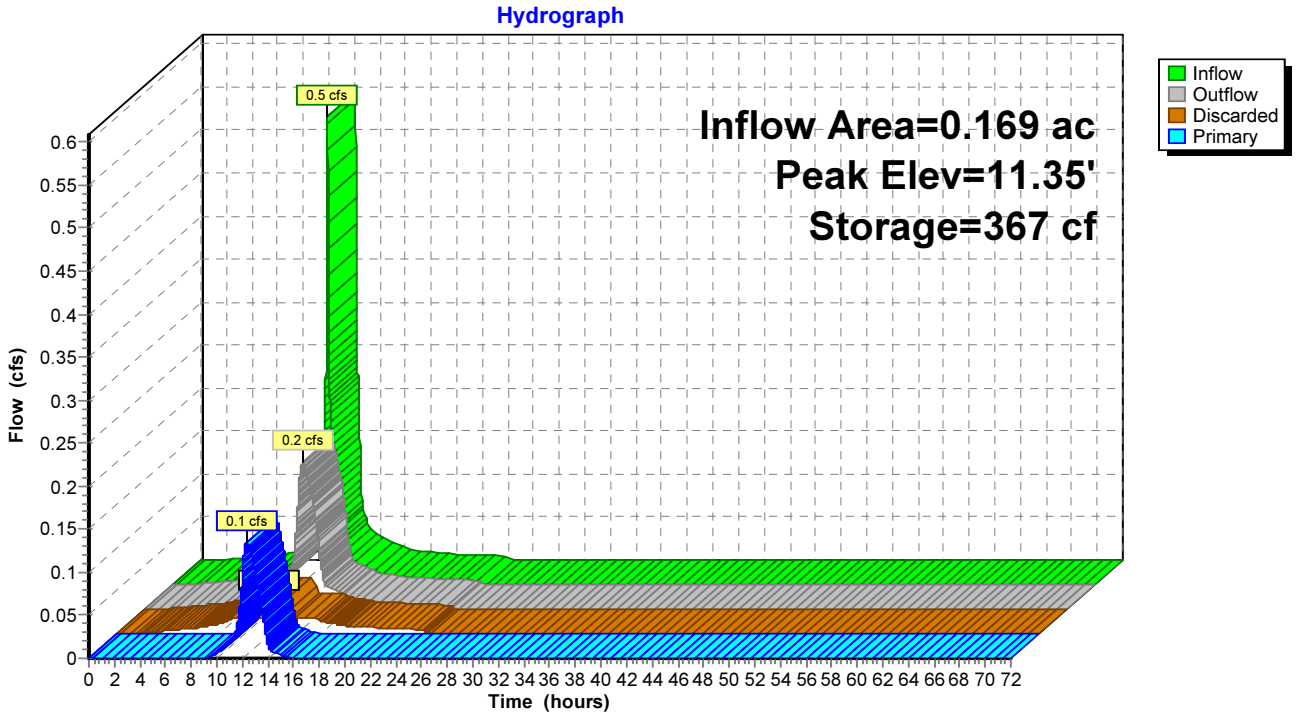
Volume	Invert	Avail.Storage	Storage Description
#1	8.40'	132 cf	**DeepRoot Silva Cell 20% x3** x 23 Inside= 24.6"W x 45.3"H => 1.42 sf x 4.02'L = 5.7 cf Outside= 24.6"W x 45.3"H => 7.74 sf x 4.02'L = 31.1 cf
#2	8.40'	137 cf	**DeepRoot Silva Cell 20% x3** x 24 Inside= 24.6"W x 45.3"H => 1.42 sf x 4.02'L = 5.7 cf Outside= 24.6"W x 45.3"H => 7.74 sf x 4.02'L = 31.1 cf
#3	8.90'	137 cf	**DeepRoot Silva Cell 20% x3** x 24 Inside= 24.6"W x 45.3"H => 1.42 sf x 4.02'L = 5.7 cf Outside= 24.6"W x 45.3"H => 7.74 sf x 4.02'L = 31.1 cf
#4	9.40'	132 cf	**DeepRoot Silva Cell 20% x3** x 23 Inside= 24.6"W x 45.3"H => 1.42 sf x 4.02'L = 5.7 cf Outside= 24.6"W x 45.3"H => 7.74 sf x 4.02'L = 31.1 cf
		538 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	8.30'	**12.0" Round Culvert** L= 9.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 8.30' / 8.26' S= 0.0044 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Primary	8.40'	**1.0" Vert. Orifice/Grate X 3.00** C= 0.600
#3	Device 1	11.40'	**5.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#4	Discarded	8.40'	**2.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.0 cfs @ 11.91 hrs HW=9.42' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.1 cfs @ 12.35 hrs HW=11.35' TW=6.55' (Dynamic Tailwater)
├**1=Culvert** (Passes 0.0 cfs of 7.5 cfs potential flow)
│└**3=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)
└**2=Orifice/Grate** (Orifice Controls 0.1 cfs @ 8.21 fps)

Pond 37P: 94 Silva Cells with OCS #2



Summary for Pond 38P: 73 Silva Cells with OCS #3

Inflow Area = 0.196 ac,100.00% Impervious, Inflow Depth = 2.97" for 2-Year X event
Inflow = 0.6 cfs @ 12.07 hrs, Volume= 0.048 af
Outflow = 0.6 cfs @ 12.09 hrs, Volume= 0.048 af, Atten= 2%, Lag= 1.0 min
Discarded = 0.0 cfs @ 11.88 hrs, Volume= 0.016 af
Primary = 0.6 cfs @ 12.09 hrs, Volume= 0.033 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 10.10' @ 12.09 hrs Surf.Area= 601 sf Storage= 264 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 8.5 min (763.9 - 755.5)

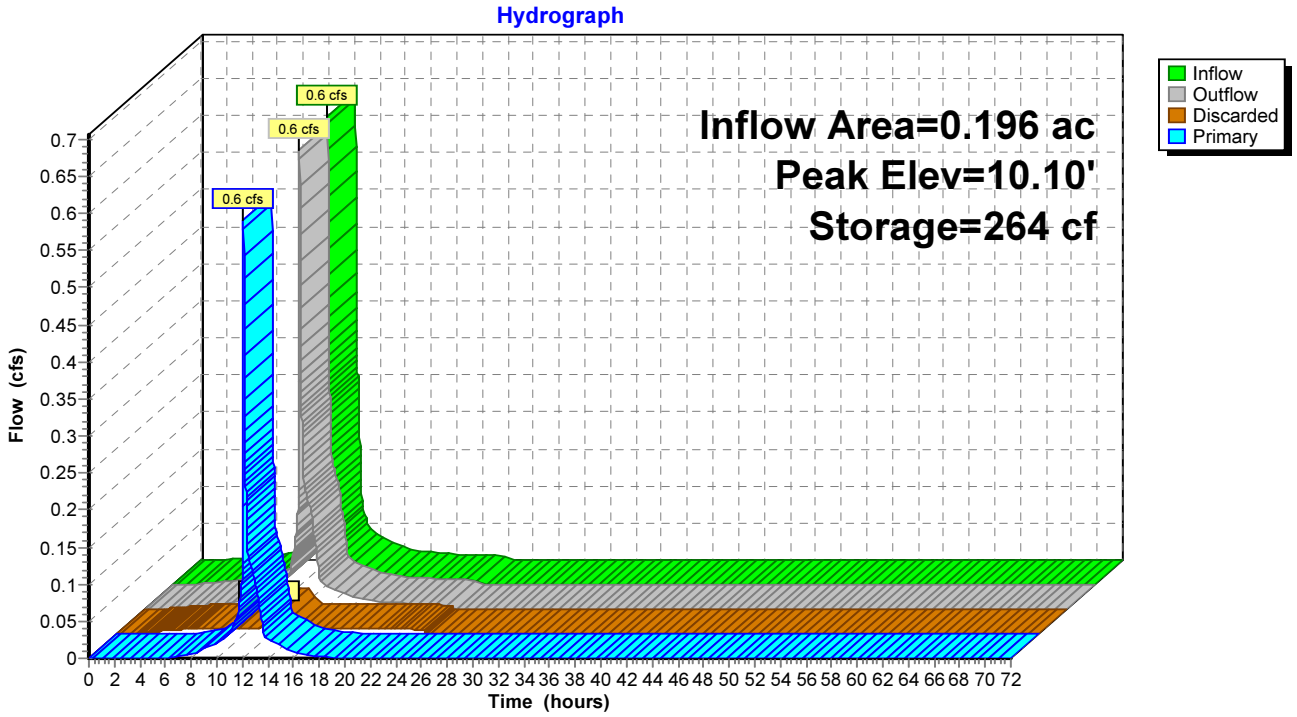
Volume	Invert	Avail.Storage	Storage Description
#1	7.00'	120 cf	**DeepRoot Silva Cell 20% x3** x 21 Inside= 24.6"W x 45.3"H => 1.42 sf x 4.02'L = 5.7 cf Outside= 24.6"W x 45.3"H => 7.74 sf x 4.02'L = 31.1 cf
#2	7.50'	149 cf	**DeepRoot Silva Cell 20% x3** x 26 Inside= 24.6"W x 45.3"H => 1.42 sf x 4.02'L = 5.7 cf Outside= 24.6"W x 45.3"H => 7.74 sf x 4.02'L = 31.1 cf
#3	8.50'	149 cf	**DeepRoot Silva Cell 20% x3** x 26 Inside= 24.6"W x 45.3"H => 1.42 sf x 4.02'L = 5.7 cf Outside= 24.6"W x 45.3"H => 7.74 sf x 4.02'L = 31.1 cf
		418 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	6.90'	**12.0" Round Culvert** L= 7.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.90' / 6.87' S= 0.0043 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Primary	7.00'	**1.0" Vert. Orifice/Grate X 3.00** C= 0.600
#3	Device 1	10.00'	**5.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#4	Discarded	7.00'	**2.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.0 cfs @ 11.88 hrs HW=8.52' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.6 cfs @ 12.09 hrs HW=10.10' TW=7.22' (Dynamic Tailwater)
├**1=Culvert** (Passes 0.5 cfs of 7.8 cfs potential flow)
│└**3=Broad-Crested Rectangular Weir** (Weir Controls 0.5 cfs @ 0.89 fps)
└**2=Orifice/Grate** (Orifice Controls 0.1 cfs @ 8.17 fps)

Pond 38P: 73 Silva Cells with OCS #3



Summary for Pond CB1:

[57] Hint: Peaked at 6.01' (Flood elevation advised)

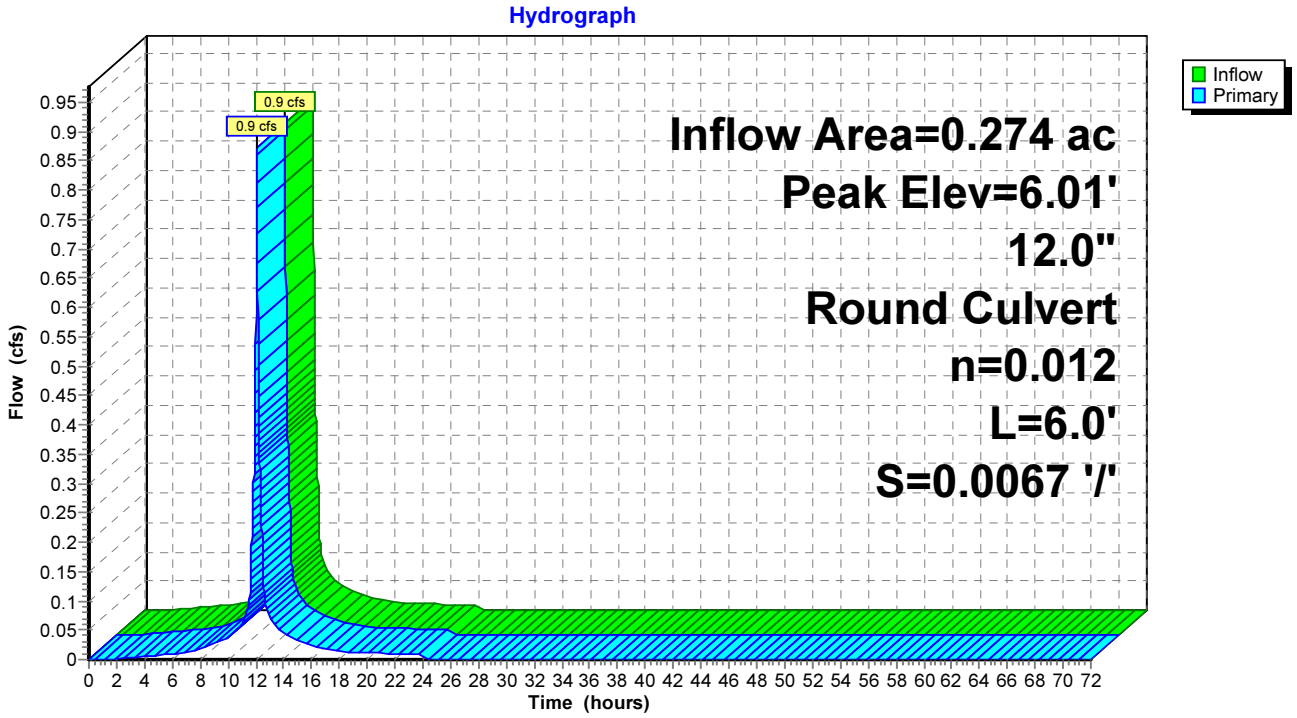
Inflow Area = 0.274 ac, 87.53% Impervious, Inflow Depth = 2.90" for 2-Year X event
Inflow = 0.9 cfs @ 12.07 hrs, Volume= 0.066 af
Outflow = 0.9 cfs @ 12.07 hrs, Volume= 0.066 af, Atten= 0%, Lag= 0.0 min
Primary = 0.9 cfs @ 12.07 hrs, Volume= 0.066 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.01' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.33'	**12.0" Round Culvert** L= 6.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.33' / 5.29' S= 0.0067 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.9 cfs @ 12.07 hrs HW=6.01' TW=5.91' (Dynamic Tailwater)
└**1=Culvert** (Outlet Controls 0.9 cfs @ 2.17 fps)

Pond CB1:



Summary for Pond CB2:

[57] Hint: Peaked at 5.95' (Flood elevation advised)

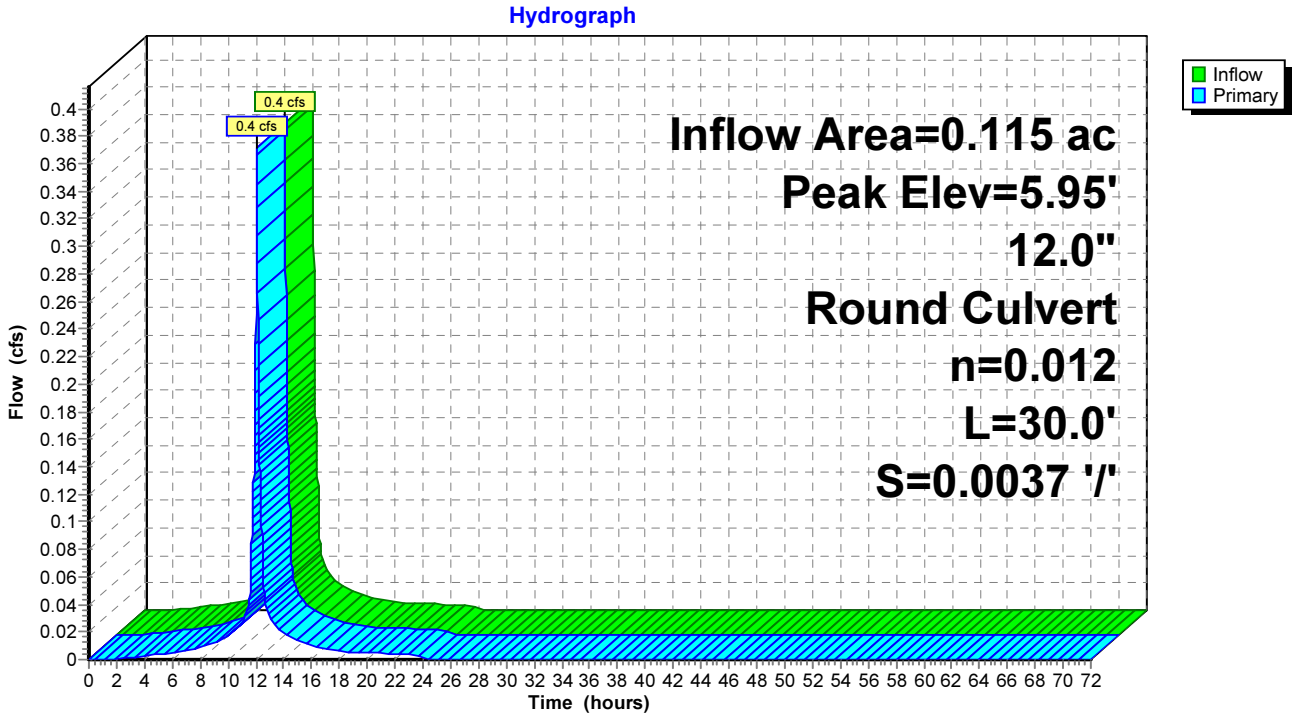
Inflow Area = 0.115 ac, 96.72% Impervious, Inflow Depth = 2.97" for 2-Year X event
Inflow = 0.4 cfs @ 12.07 hrs, Volume= 0.029 af
Outflow = 0.4 cfs @ 12.07 hrs, Volume= 0.029 af, Atten= 0%, Lag= 0.0 min
Primary = 0.4 cfs @ 12.07 hrs, Volume= 0.029 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 5.95' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.40'	**12.0" Round Culvert** L= 30.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.40' / 5.29' S= 0.0037 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.4 cfs @ 12.07 hrs HW=5.95' TW=5.91' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.4 cfs @ 1.19 fps)

Pond CB2:



Summary for Pond DMH1:

[57] Hint: Peaked at 5.55' (Flood elevation advised)

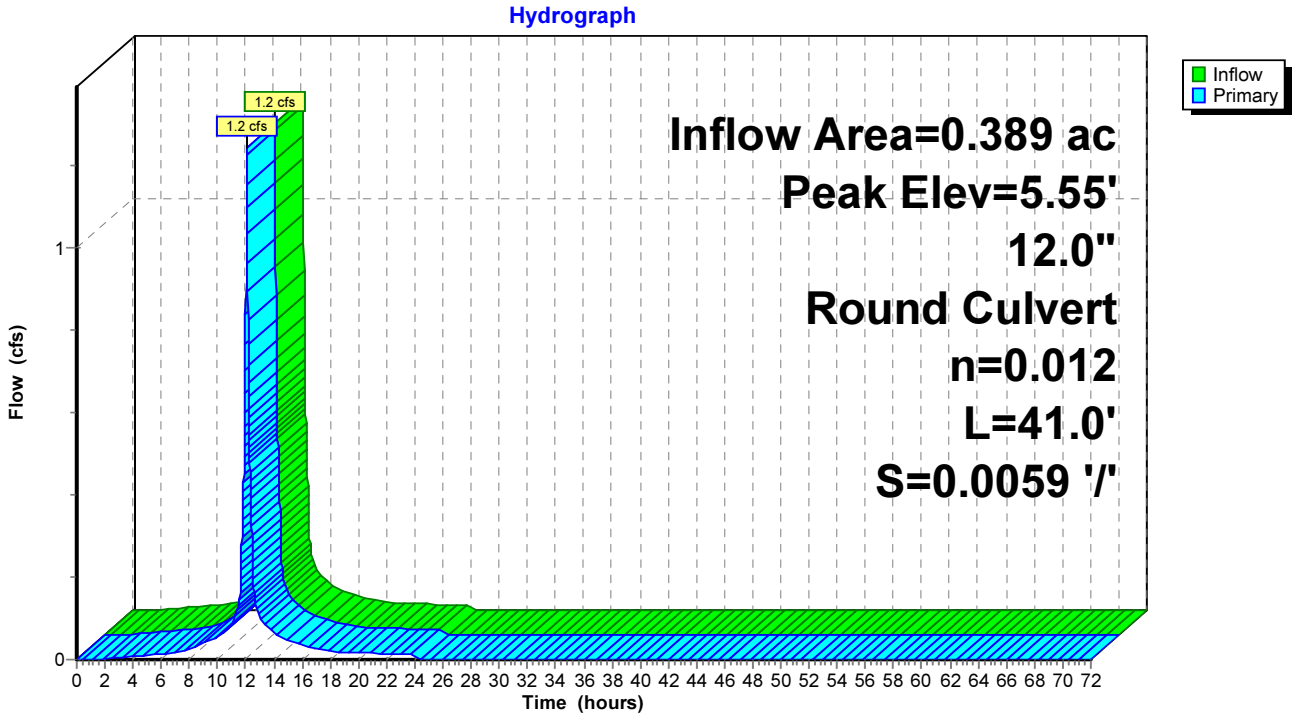
Inflow Area = 0.389 ac, 90.26% Impervious, Inflow Depth = 2.92" for 2-Year X event
Inflow = 1.2 cfs @ 12.07 hrs, Volume= 0.095 af
Outflow = 1.2 cfs @ 12.07 hrs, Volume= 0.095 af, Atten= 0%, Lag= 0.0 min
Primary = 1.2 cfs @ 12.07 hrs, Volume= 0.095 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 5.55' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.91'	**12.0" Round Culvert** L= 41.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 4.91' / 4.67' S= 0.0059 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.2 cfs @ 12.07 hrs HW=5.55' TW=3.74' (Dynamic Tailwater)
└**1=Culvert** (Barrel Controls 1.2 cfs @ 3.32 fps)

Pond DMH1:



Summary for Pond DP1: DMH 3540

[57] Hint: Peaked at 3.01' (Flood elevation advised)

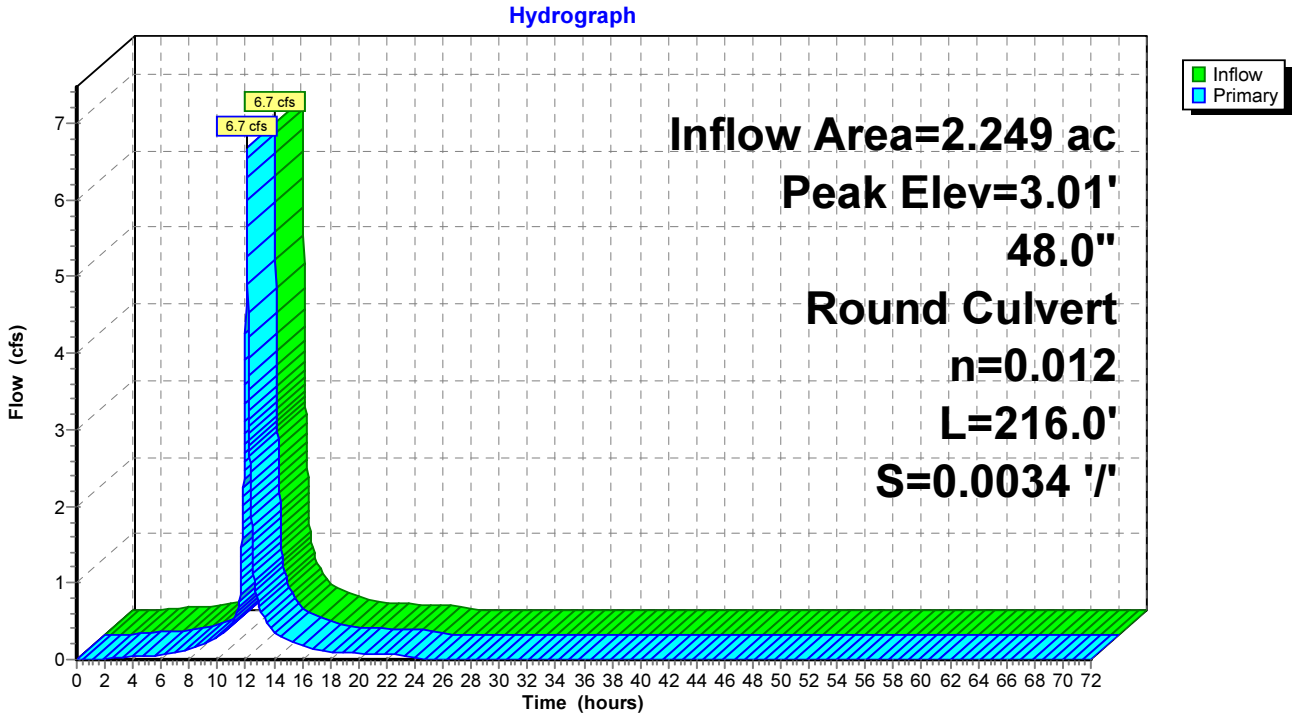
Inflow Area = 2.249 ac, 94.92% Impervious, Inflow Depth = 2.73" for 2-Year X event
Inflow = 6.7 cfs @ 12.08 hrs, Volume= 0.511 af
Outflow = 6.7 cfs @ 12.08 hrs, Volume= 0.511 af, Atten= 0%, Lag= 0.0 min
Primary = 6.7 cfs @ 12.08 hrs, Volume= 0.511 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.01' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.68'	**48.0" Round Culvert** L= 216.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 1.68' / 0.94' S= 0.0034 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 12.57 sf

Primary OutFlow Max=6.6 cfs @ 12.08 hrs HW=3.01' TW=2.67' (Dynamic Tailwater)
└**1=Culvert** (Outlet Controls 6.6 cfs @ 2.69 fps)

Pond DP1: DMH 3540



Summary for Pond OCS #1:

[57] Hint: Peaked at 5.91' (Flood elevation advised)

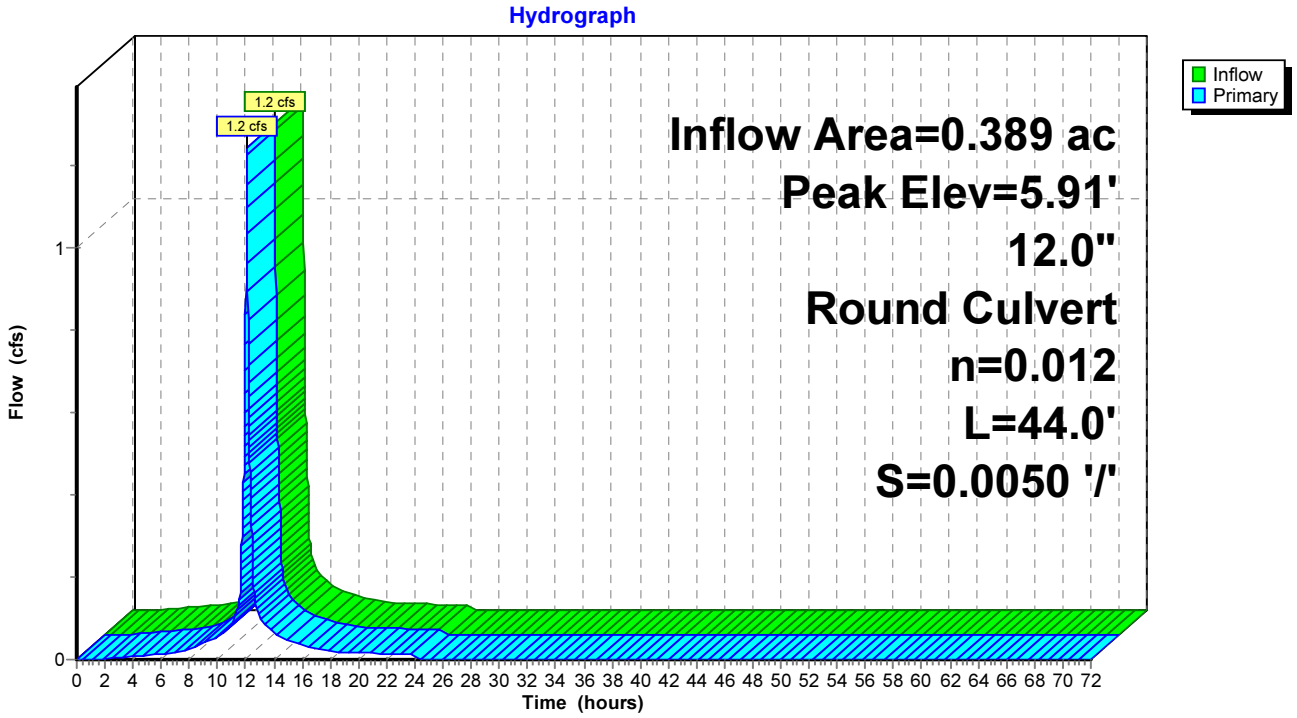
Inflow Area = 0.389 ac, 90.26% Impervious, Inflow Depth = 2.92" for 2-Year X event
Inflow = 1.2 cfs @ 12.07 hrs, Volume= 0.095 af
Outflow = 1.2 cfs @ 12.07 hrs, Volume= 0.095 af, Atten= 0%, Lag= 0.0 min
Primary = 1.2 cfs @ 12.07 hrs, Volume= 0.095 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 5.91' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.23'	**12.0" Round Culvert** L= 44.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.23' / 5.01' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.2 cfs @ 12.07 hrs HW=5.91' TW=5.55' (Dynamic Tailwater)
↳**1=Culvert** (Outlet Controls 1.2 cfs @ 3.11 fps)

Pond OCS #1:



Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment PS1: Runoff Area=16,738 sf 100.00% Impervious Runoff Depth=4.62"
Tc=5.0 min CN=98 Runoff=1.9 cfs 0.148 af

Subcatchment PS2: Runoff Area=7,730 sf 80.78% Impervious Runoff Depth=4.51"
Tc=5.0 min CN=97 Runoff=0.9 cfs 0.067 af

Subcatchment PS2a: Roof Runoff Area=2,509 sf 100.00% Impervious Runoff Depth=4.62"
Tc=5.0 min CN=98 Runoff=0.3 cfs 0.022 af

Subcatchment PS2b: Runoff Area=5,028 sf 96.72% Impervious Runoff Depth=4.62"
Tc=5.0 min CN=98 Runoff=0.6 cfs 0.044 af

Subcatchment PS3: Roof Runoff Area=8,542 sf 100.00% Impervious Runoff Depth=4.62"
Tc=5.0 min CN=98 Runoff=1.0 cfs 0.076 af

Subcatchment PS3a: Roof Runoff Area=4,848 sf 100.00% Impervious Runoff Depth=4.62"
Tc=5.0 min CN=98 Runoff=0.5 cfs 0.043 af

Subcatchment PS4: Runoff Area=4,188 sf 100.00% Impervious Runoff Depth=4.62"
Tc=5.0 min CN=98 Runoff=0.5 cfs 0.037 af

Subcatchment PS5: Runoff Area=20,107 sf 88.74% Impervious Runoff Depth=4.51"
Tc=5.0 min CN=97 Runoff=2.3 cfs 0.173 af

Subcatchment PS6: Runoff Area=12,323 sf 100.00% Impervious Runoff Depth=4.62"
Tc=5.0 min CN=98 Runoff=1.4 cfs 0.109 af

Subcatchment PS7: Runoff Area=8,519 sf 100.00% Impervious Runoff Depth=4.62"
Tc=5.0 min CN=98 Runoff=1.0 cfs 0.075 af

Subcatchment PS8: Runoff Area=7,456 sf 85.80% Impervious Runoff Depth=4.51"
Tc=5.0 min CN=97 Runoff=0.8 cfs 0.064 af

Pond 1P: CB 3528 Peak Elev=5.75' Inflow=4.1 cfs 0.321 af
12.0" Round Culvert n=0.012 L=9.0' S=0.0300 '/' Outflow=4.1 cfs 0.321 af

Pond 5P: DMH 3543 Peak Elev=4.43' Inflow=6.7 cfs 0.498 af
36.0" Round Culvert n=0.012 L=131.0' S=0.0018 '/' Outflow=6.7 cfs 0.498 af

Pond 6P: DMH 3542 Peak Elev=3.92' Inflow=8.6 cfs 0.647 af
36.0" Round Culvert n=0.012 L=74.0' S=0.0015 '/' Outflow=8.6 cfs 0.647 af

Pond 7P: DMH 3541 Peak Elev=3.69' Inflow=10.0 cfs 0.756 af
36.0" Round Culvert n=0.012 L=80.0' S=0.0035 '/' Outflow=10.0 cfs 0.756 af

Pond 8P: DMH 1A Peak Elev=4.18' Inflow=8.6 cfs 0.647 af
36.0" Round Culvert n=0.012 L=29.0' S=0.0017 '/' Outflow=8.6 cfs 0.647 af

Pond 9P: DMH 5438 Peak Elev=2.96' Inflow=11.0 cfs 0.813 af
48.0" Round Culvert n=0.012 L=100.0' S=-0.0073 '/' Outflow=11.0 cfs 0.813 af

Pond 10P: DMH 5217 Peak Elev=2.70' Inflow=11.0 cfs 0.813 af
48.0" Round Culvert n=0.012 L=254.0' S=0.0231 '/' Outflow=11.0 cfs 0.813 af

Pond 11P: CB 3523 Peak Elev=8.07' Inflow=1.4 cfs 0.109 af
12.0" Round Culvert n=0.012 L=35.0' S=-0.0343 '/' Outflow=1.4 cfs 0.109 af

Pond 13P: DMH 12303 Peak Elev=7.06' Inflow=1.7 cfs 0.113 af
12.0" Round Culvert n=0.012 L=170.0' S=0.0050 '/' Outflow=1.7 cfs 0.113 af

Pond 14P: DMH 12631 Peak Elev=6.47' Inflow=2.6 cfs 0.177 af
12.0" Round Culvert n=0.012 L=32.0' S=0.0050 '/' Outflow=2.6 cfs 0.177 af

Pond 15P: CB 8146 Peak Elev=6.49' Inflow=0.8 cfs 0.064 af
12.0" Round Culvert n=0.012 L=16.0' S=0.0050 '/' Outflow=0.8 cfs 0.064 af

Pond 16P: DMH 12632 Peak Elev=6.13' Inflow=2.6 cfs 0.177 af
12.0" Round Culvert n=0.012 L=139.0' S=0.0050 '/' Outflow=2.6 cfs 0.177 af

Pond 17P: DMH 3545 Peak Elev=5.05' Inflow=2.6 cfs 0.177 af
36.0" Round Culvert n=0.012 L=166.0' S=0.0086 '/' Outflow=2.6 cfs 0.177 af

Pond 29P: DMH 3 Peak Elev=3.43' Inflow=0.9 cfs 0.057 af
18.0" Round Culvert n=0.012 L=67.0' S=0.0134 '/' Outflow=0.9 cfs 0.057 af

Pond 35P: CB 3 Peak Elev=7.36' Inflow=0.9 cfs 0.057 af
12.0" Round Culvert n=0.012 L=24.0' S=0.0050 '/' Outflow=0.9 cfs 0.057 af

Pond 36P: CB 3526 Peak Elev=7.23' Inflow=1.7 cfs 0.113 af
12.0" Round Culvert n=0.012 L=18.5' S=0.0054 '/' Outflow=1.7 cfs 0.113 af

Pond 37P: 94 Silva Cells with OCS #2 Peak Elev=11.53' Storage=393 cf Inflow=0.8 cfs 0.065 af
Discarded=0.0 cfs 0.028 af Primary=0.8 cfs 0.037 af Outflow=0.8 cfs 0.065 af

Pond 38P: 73 Silva Cells with OCS #3 Peak Elev=10.15' Storage=269 cf Inflow=1.0 cfs 0.076 af
Discarded=0.0 cfs 0.018 af Primary=0.9 cfs 0.057 af Outflow=1.0 cfs 0.076 af

Pond CB1: Peak Elev=6.24' Inflow=1.3 cfs 0.104 af
12.0" Round Culvert n=0.012 L=6.0' S=0.0067 '/' Outflow=1.3 cfs 0.104 af

Pond CB2: Peak Elev=6.17' Inflow=0.6 cfs 0.044 af
12.0" Round Culvert n=0.012 L=30.0' S=0.0037 '/' Outflow=0.6 cfs 0.044 af

Pond DMH1: Peak Elev=5.75' Inflow=1.9 cfs 0.148 af
12.0" Round Culvert n=0.012 L=41.0' S=0.0059 '/' Outflow=1.9 cfs 0.148 af

Pond DP1: DMH 3540 Peak Elev=3.37' Inflow=11.0 cfs 0.813 af
48.0" Round Culvert n=0.012 L=216.0' S=0.0034 '/' Outflow=11.0 cfs 0.813 af

Pond OCS #1: Peak Elev=6.13' Inflow=1.9 cfs 0.148 af
12.0" Round Culvert n=0.012 L=44.0' S=0.0050 '/' Outflow=1.9 cfs 0.148 af

Total Runoff Area = 2.249 ac Runoff Volume = 0.859 af Average Runoff Depth = 4.58"
5.08% Pervious = 0.114 ac 94.92% Impervious = 2.135 ac

Summary for Subcatchment PS1:

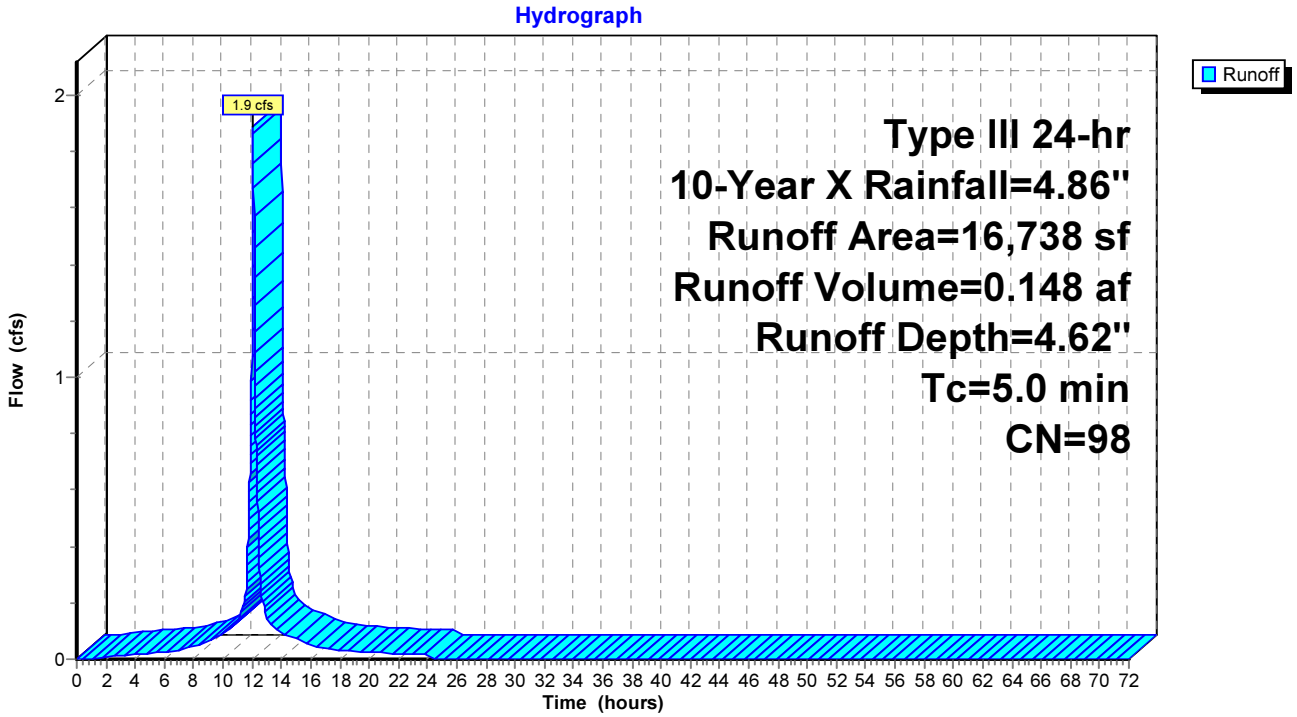
Runoff = 1.9 cfs @ 12.07 hrs, Volume= 0.148 af, Depth= 4.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year X Rainfall=4.86"

Area (sf)	CN	Description
16,738	98	Roofs, HSG C
16,738		100.00% Impervious Area

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

Subcatchment PS1:



Summary for Subcatchment PS2:

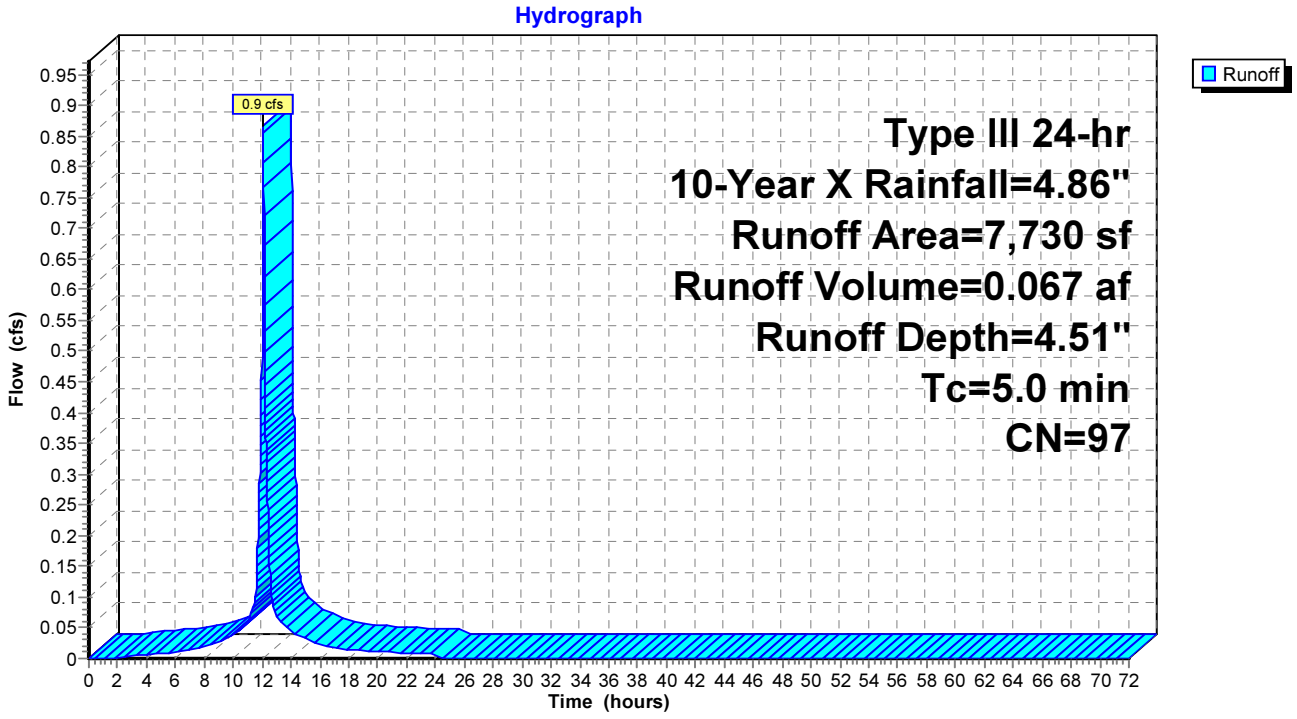
Runoff = 0.9 cfs @ 12.07 hrs, Volume= 0.067 af, Depth= 4.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year X Rainfall=4.86"

Area (sf)	CN	Description
6,244	98	Paved parking, HSG C
1,486	91	Fallow, bare soil, HSG C
7,730	97	Weighted Average
1,486		19.22% Pervious Area
6,244		80.78% Impervious Area

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

Subcatchment PS2:



Summary for Subcatchment PS2a: Roof

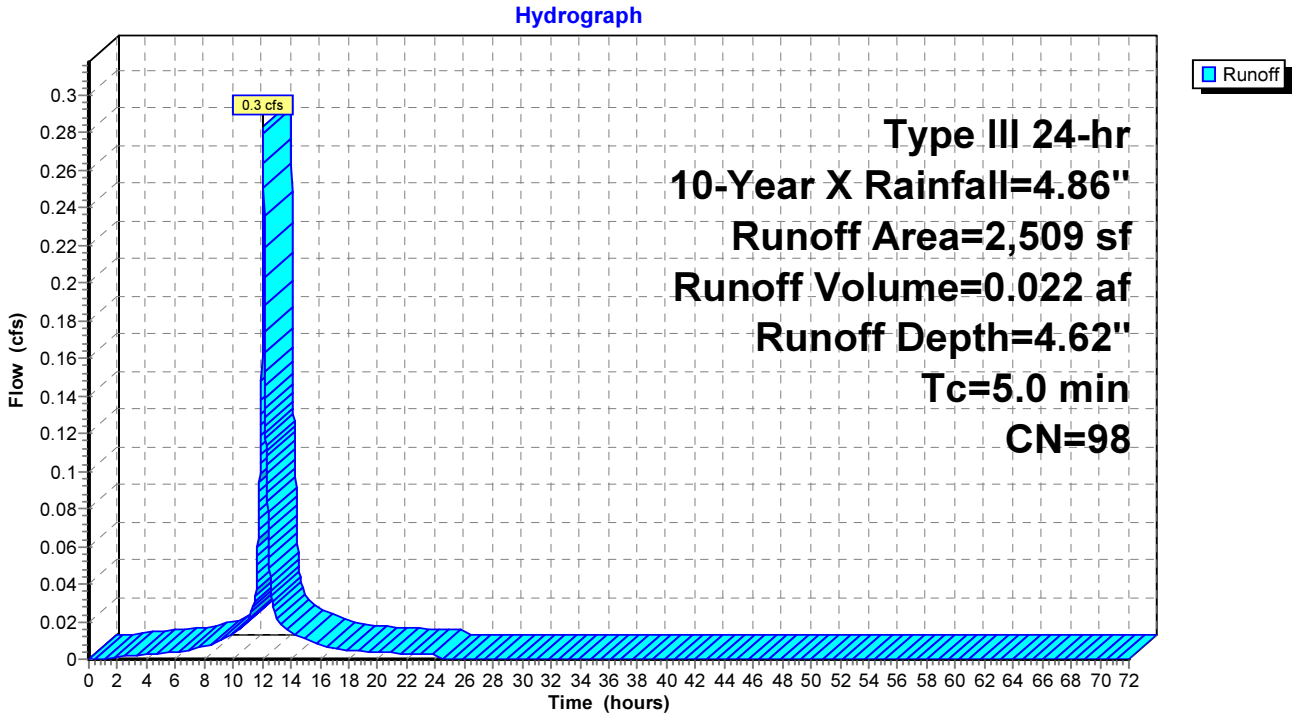
Runoff = 0.3 cfs @ 12.07 hrs, Volume= 0.022 af, Depth= 4.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year X Rainfall=4.86"

Area (sf)	CN	Description
2,509	98	Roofs, HSG C
2,509		100.00% Impervious Area

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

Subcatchment PS2a: Roof



Summary for Subcatchment PS2b:

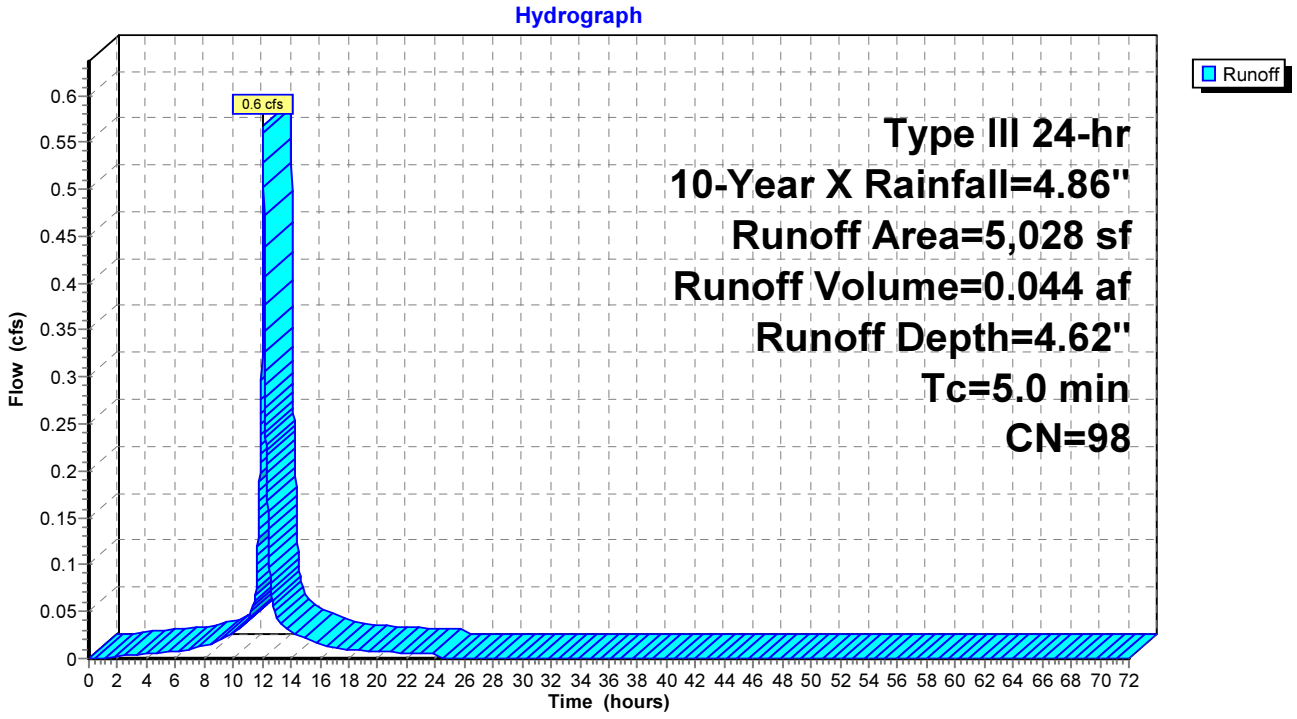
Runoff = 0.6 cfs @ 12.07 hrs, Volume= 0.044 af, Depth= 4.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year X Rainfall=4.86"

Area (sf)	CN	Description
4,863	98	Paved parking, HSG C
165	91	Fallow, bare soil, HSG C
5,028	98	Weighted Average
165		3.28% Pervious Area
4,863		96.72% Impervious Area

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

Subcatchment PS2b:



Summary for Subcatchment PS3: Roof

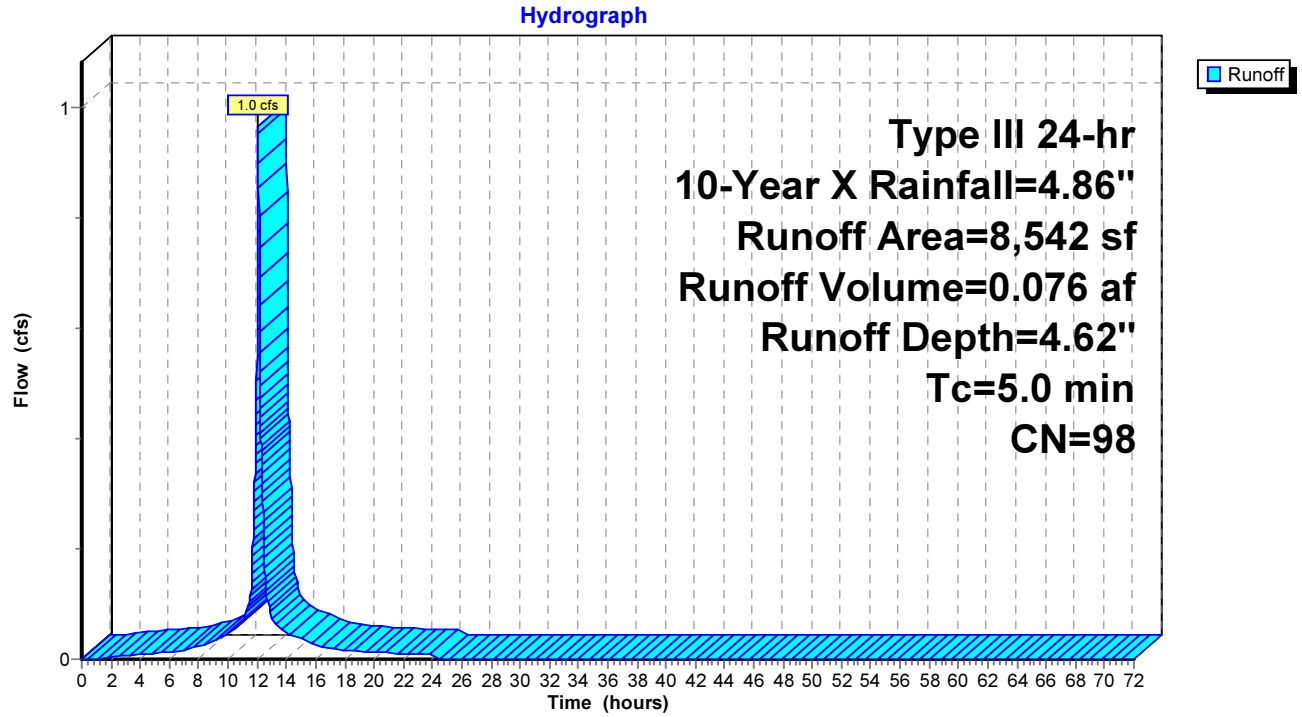
Runoff = 1.0 cfs @ 12.07 hrs, Volume= 0.076 af, Depth= 4.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year X Rainfall=4.86"

Area (sf)	CN	Description
8,542	98	Roofs, HSG C
8,542		100.00% Impervious Area

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

Subcatchment PS3: Roof



Summary for Subcatchment PS3a: Roof

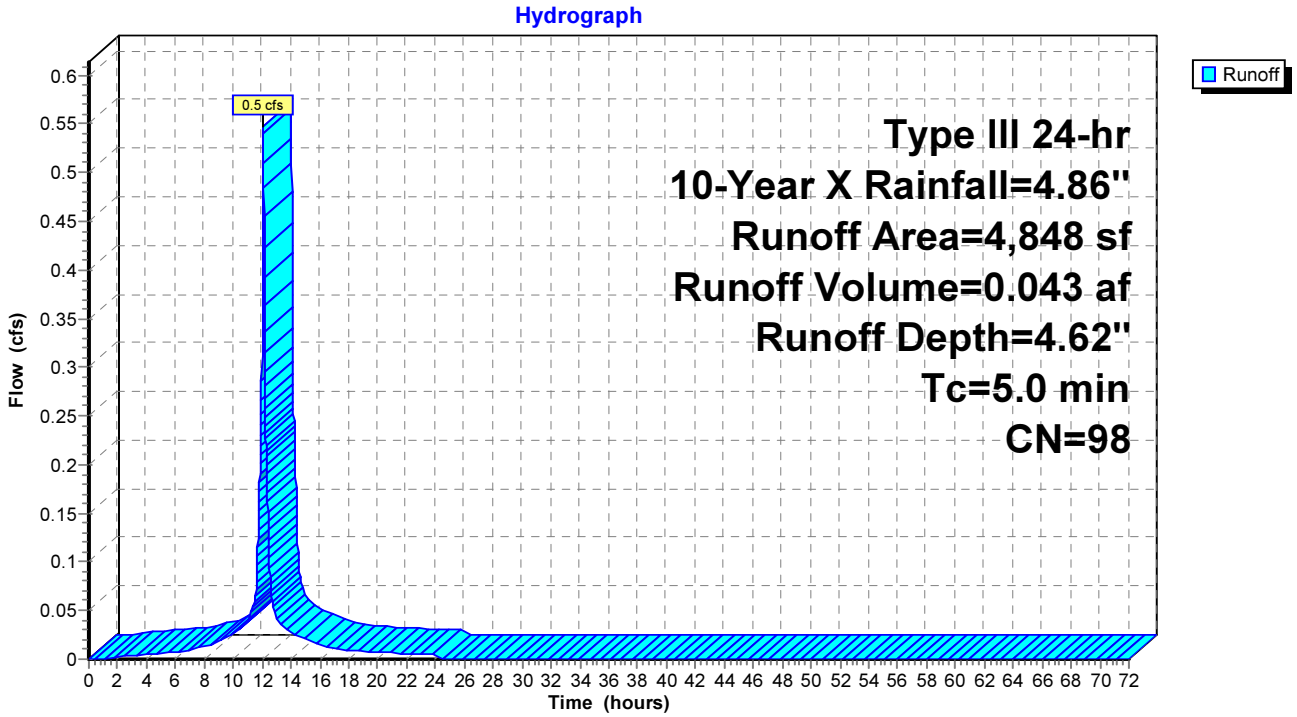
Runoff = 0.5 cfs @ 12.07 hrs, Volume= 0.043 af, Depth= 4.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year X Rainfall=4.86"

Area (sf)	CN	Description
4,848	98	Roofs, HSG C
4,848		100.00% Impervious Area

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

Subcatchment PS3a: Roof



Summary for Subcatchment PS4:

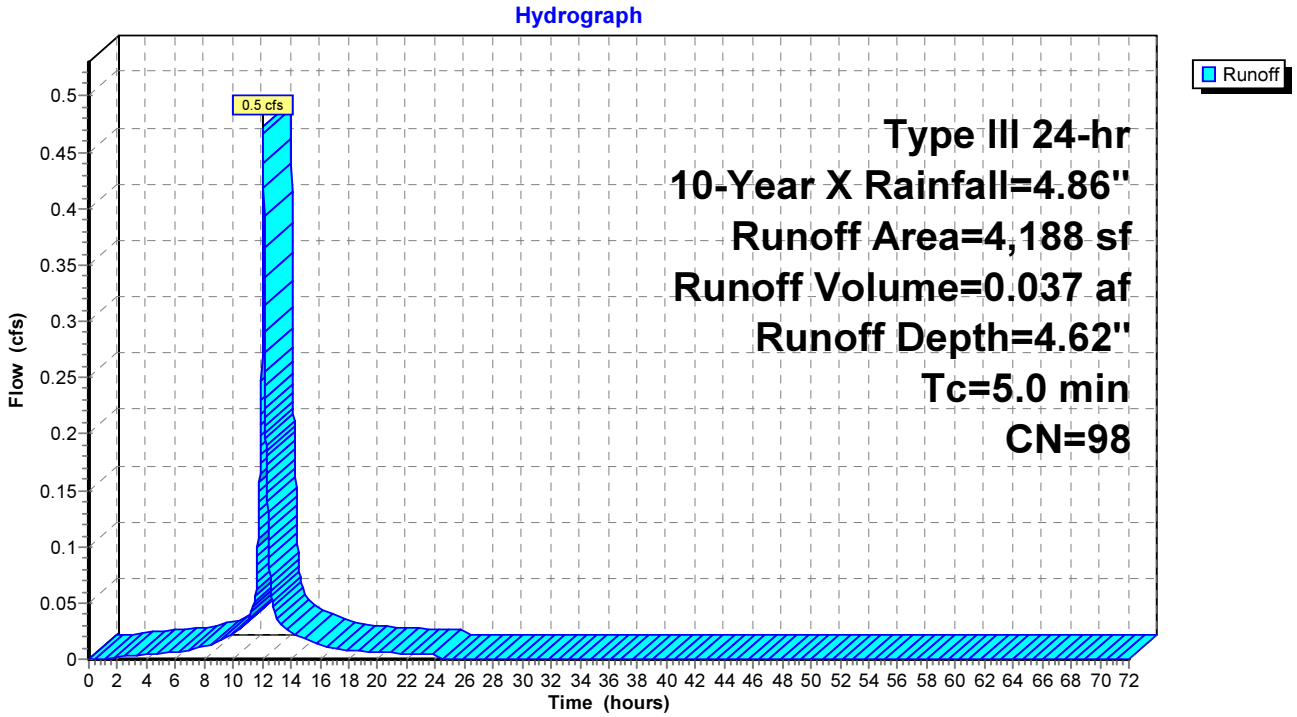
Runoff = 0.5 cfs @ 12.07 hrs, Volume= 0.037 af, Depth= 4.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year X Rainfall=4.86"

Area (sf)	CN	Description
4,188	98	Roofs, HSG C
4,188		100.00% Impervious Area

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

Subcatchment PS4:



Summary for Subcatchment PS5:

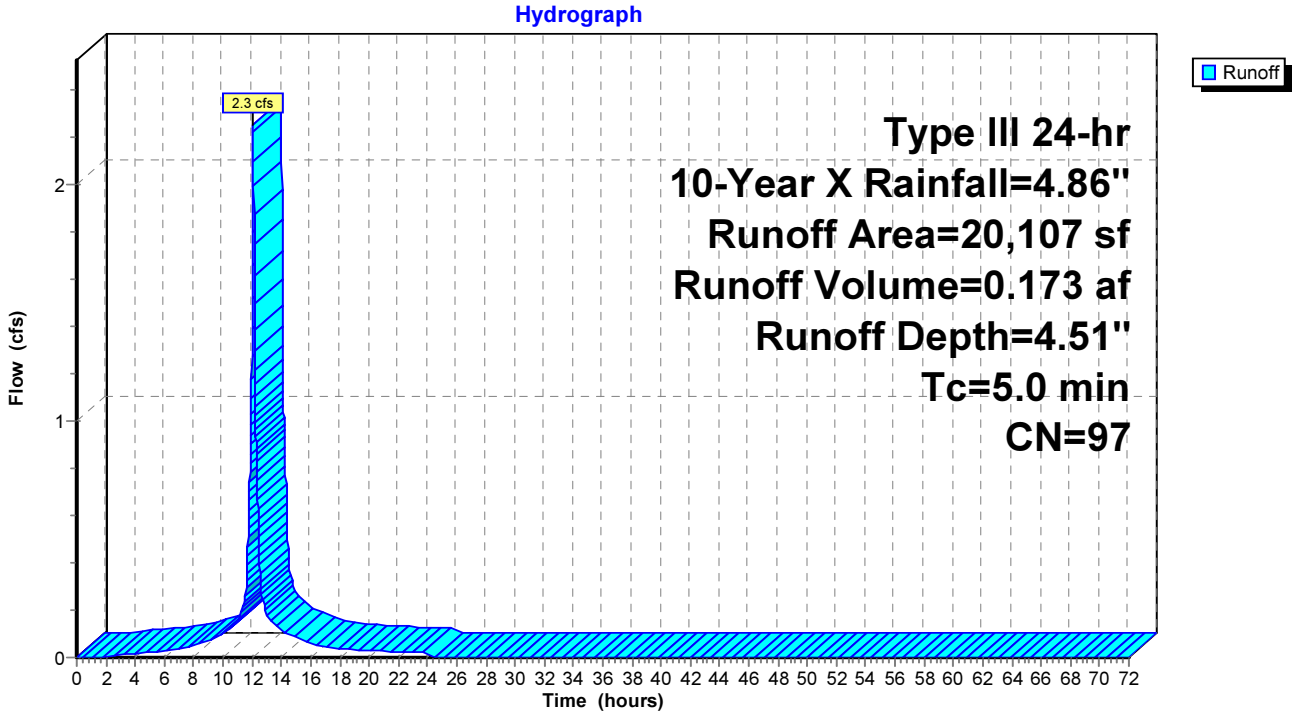
Runoff = 2.3 cfs @ 12.07 hrs, Volume= 0.173 af, Depth= 4.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year X Rainfall=4.86"

	Area (sf)	CN	Description
	269	98	Paved parking, HSG C
	11,300	98	Paved roads w/curbs & sewers, HSG C
	3,499	98	Paved roads w/curbs & sewers, HSG C
	2,439	98	Paved roads w/curbs & sewers, HSG C
*	336	98	Gravel roads, HSG C
	2,264	91	Fallow, bare soil, HSG C
	20,107	97	Weighted Average
	2,264		11.26% Pervious Area
	17,843		88.74% Impervious Area

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

Subcatchment PS5:



Summary for Subcatchment PS6:

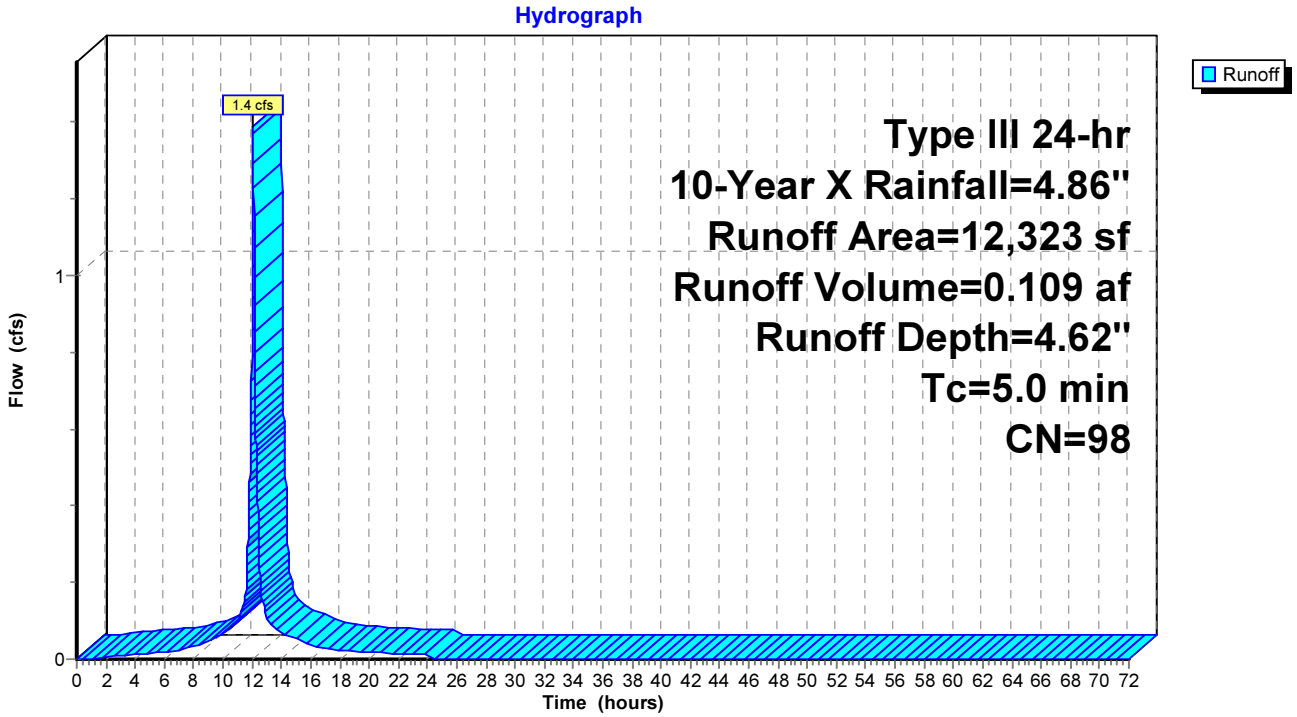
Runoff = 1.4 cfs @ 12.07 hrs, Volume= 0.109 af, Depth= 4.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year X Rainfall=4.86"

Area (sf)	CN	Description
12,323	98	Paved roads w/curbs & sewers, HSG C
12,323		100.00% Impervious Area

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

Subcatchment PS6:



Summary for Subcatchment PS7:

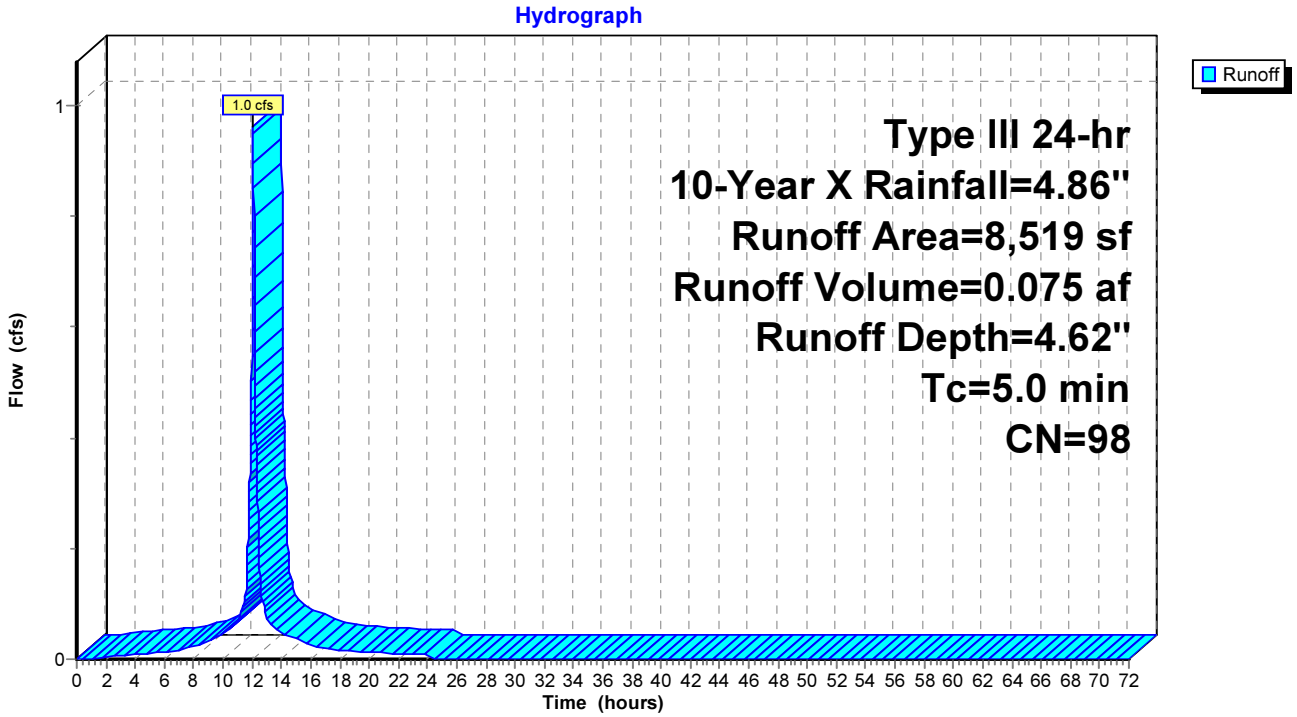
Runoff = 1.0 cfs @ 12.07 hrs, Volume= 0.075 af, Depth= 4.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year X Rainfall=4.86"

Area (sf)	CN	Description
8,519	98	Paved roads w/curbs & sewers, HSG C
8,519		100.00% Impervious Area

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

Subcatchment PS7:



Summary for Subcatchment PS8:

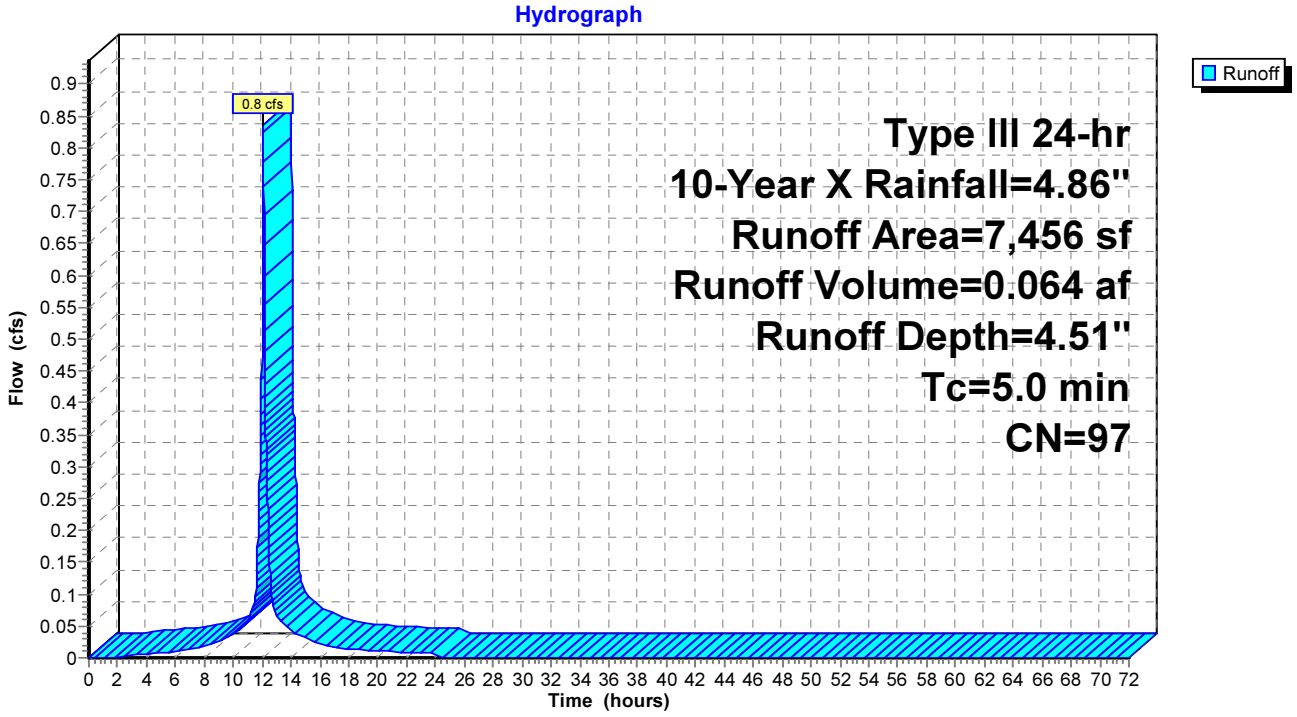
Runoff = 0.8 cfs @ 12.07 hrs, Volume= 0.064 af, Depth= 4.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year X Rainfall=4.86"

	Area (sf)	CN	Description
	4,674	98	Paved roads w/curbs & sewers, HSG C
	1,563	98	Paved roads w/curbs & sewers, HSG C
	121	98	Paved roads w/curbs & sewers, HSG C
*	39	98	Gravel roads, HSG C
	1,059	91	Fallow, bare soil, HSG C
	7,456	97	Weighted Average
	1,059		14.20% Pervious Area
	6,397		85.80% Impervious Area

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

Subcatchment PS8:



Summary for Pond 1P: CB 3528

[57] Hint: Peaked at 5.75' (Flood elevation advised)

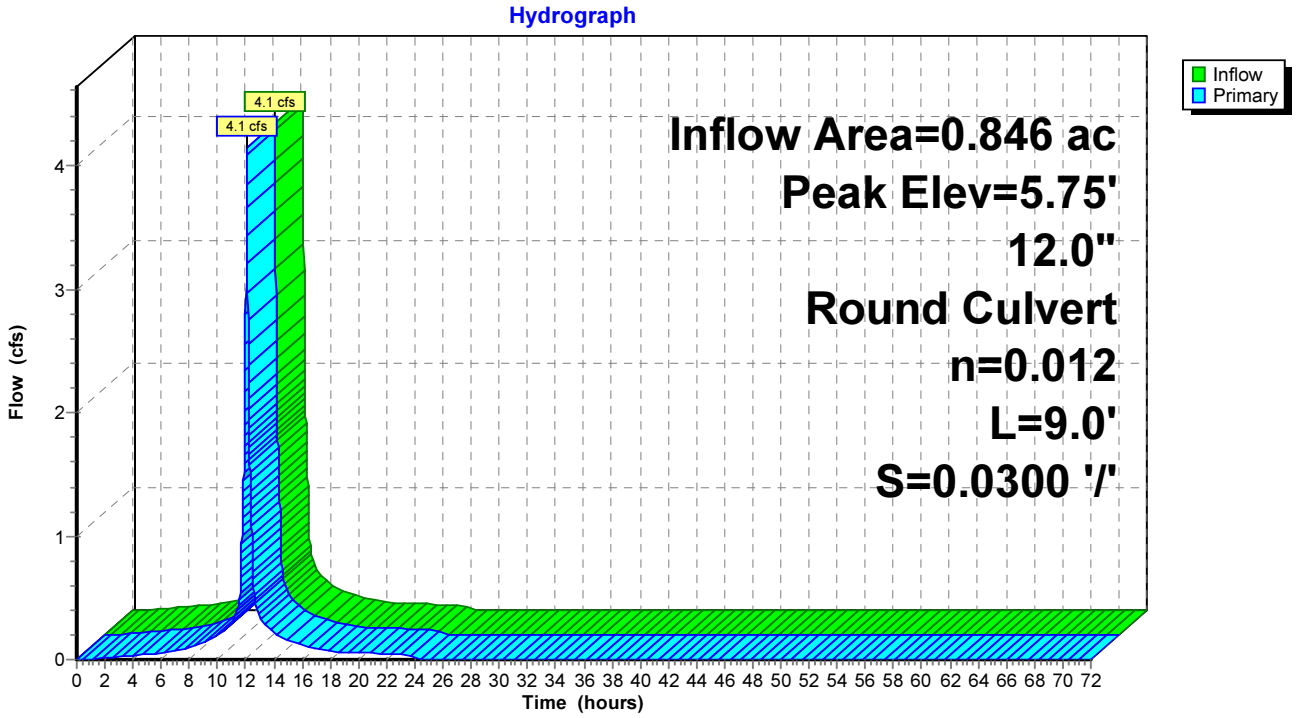
Inflow Area = 0.846 ac, 93.86% Impervious, Inflow Depth = 4.56" for 10-Year X event
Inflow = 4.1 cfs @ 12.07 hrs, Volume= 0.321 af
Outflow = 4.1 cfs @ 12.07 hrs, Volume= 0.321 af, Atten= 0%, Lag= 0.0 min
Primary = 4.1 cfs @ 12.07 hrs, Volume= 0.321 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 5.75' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.40'	**12.0" Round Culvert** L= 9.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 4.40' / 4.13' S= 0.0300 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=4.1 cfs @ 12.07 hrs HW=5.75' TW=4.41' (Dynamic Tailwater)
└**1=Culvert** (Barrel Controls 4.1 cfs @ 5.28 fps)

Pond 1P: CB 3528



Summary for Pond 5P: DMH 3543

[57] Hint: Peaked at 4.43' (Flood elevation advised)

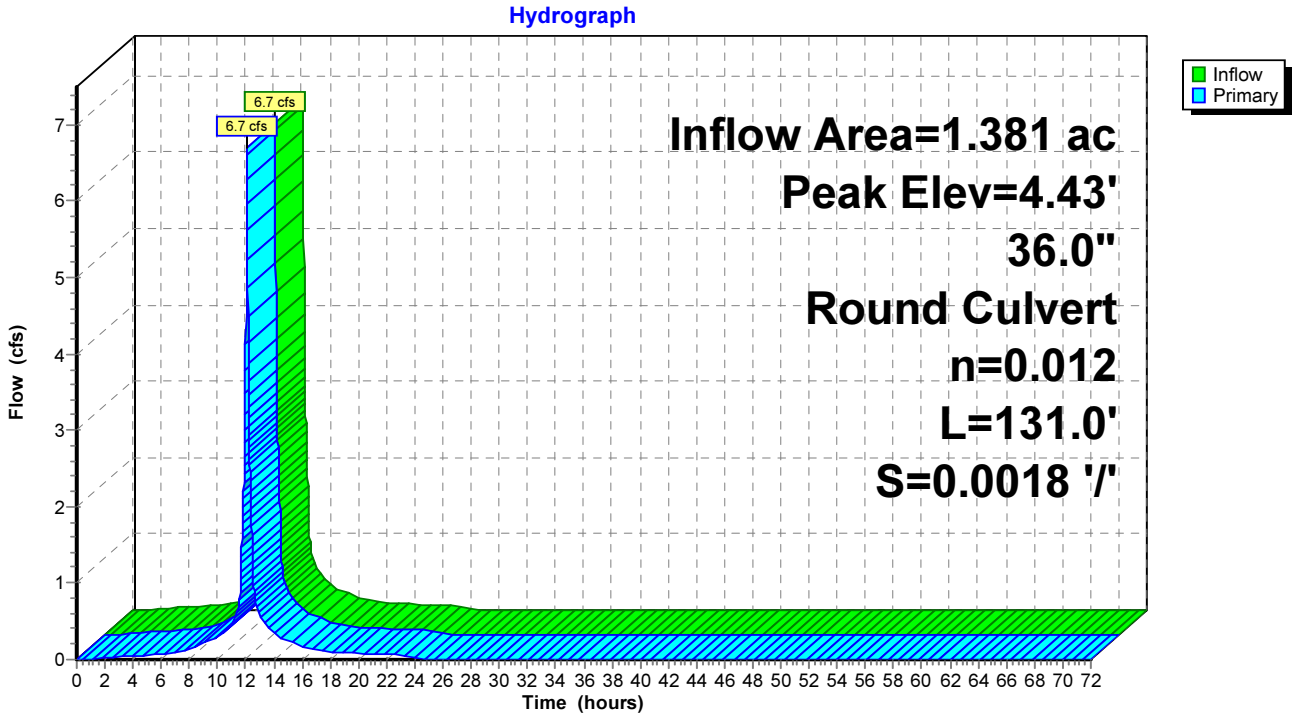
Inflow Area =	1.381 ac, 94.48% Impervious, Inflow Depth =	4.33"	for	10-Year X event
Inflow =	6.7 cfs @	12.08 hrs, Volume=	0.498 af	
Outflow =	6.7 cfs @	12.08 hrs, Volume=	0.498 af, Atten= 0%, Lag= 0.0 min	
Primary =	6.7 cfs @	12.08 hrs, Volume=	0.498 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 4.43' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	2.91'	**36.0" Round Culvert** L= 131.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 2.91' / 2.67' S= 0.0018 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=6.5 cfs @ 12.08 hrs HW=4.42' TW=4.17' (Dynamic Tailwater)
1=Culvert (Outlet Controls 6.5 cfs @ 2.66 fps)

Pond 5P: DMH 3543



Summary for Pond 6P: DMH 3542

[57] Hint: Peaked at 3.92' (Flood elevation advised)

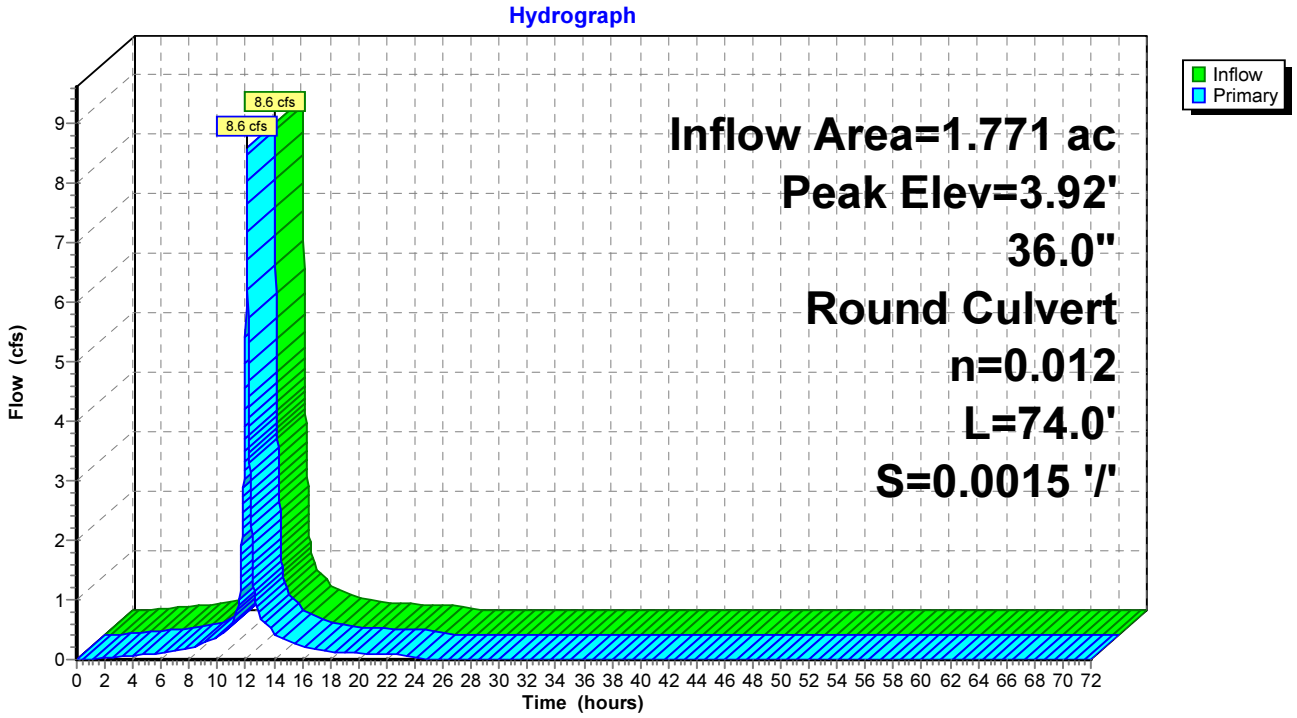
Inflow Area = 1.771 ac, 93.55% Impervious, Inflow Depth = 4.38" for 10-Year X event
Inflow = 8.6 cfs @ 12.08 hrs, Volume= 0.647 af
Outflow = 8.6 cfs @ 12.08 hrs, Volume= 0.647 af, Atten= 0%, Lag= 0.0 min
Primary = 8.6 cfs @ 12.08 hrs, Volume= 0.647 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.92' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	2.21'	**36.0" Round Culvert** L= 74.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 2.21' / 2.10' S= 0.0015 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=8.3 cfs @ 12.08 hrs HW=3.91' TW=3.68' (Dynamic Tailwater)
1=Culvert (Outlet Controls 8.3 cfs @ 2.91 fps)

Pond 6P: DMH 3542



Summary for Pond 7P: DMH 3541

[57] Hint: Peaked at 3.69' (Flood elevation advised)

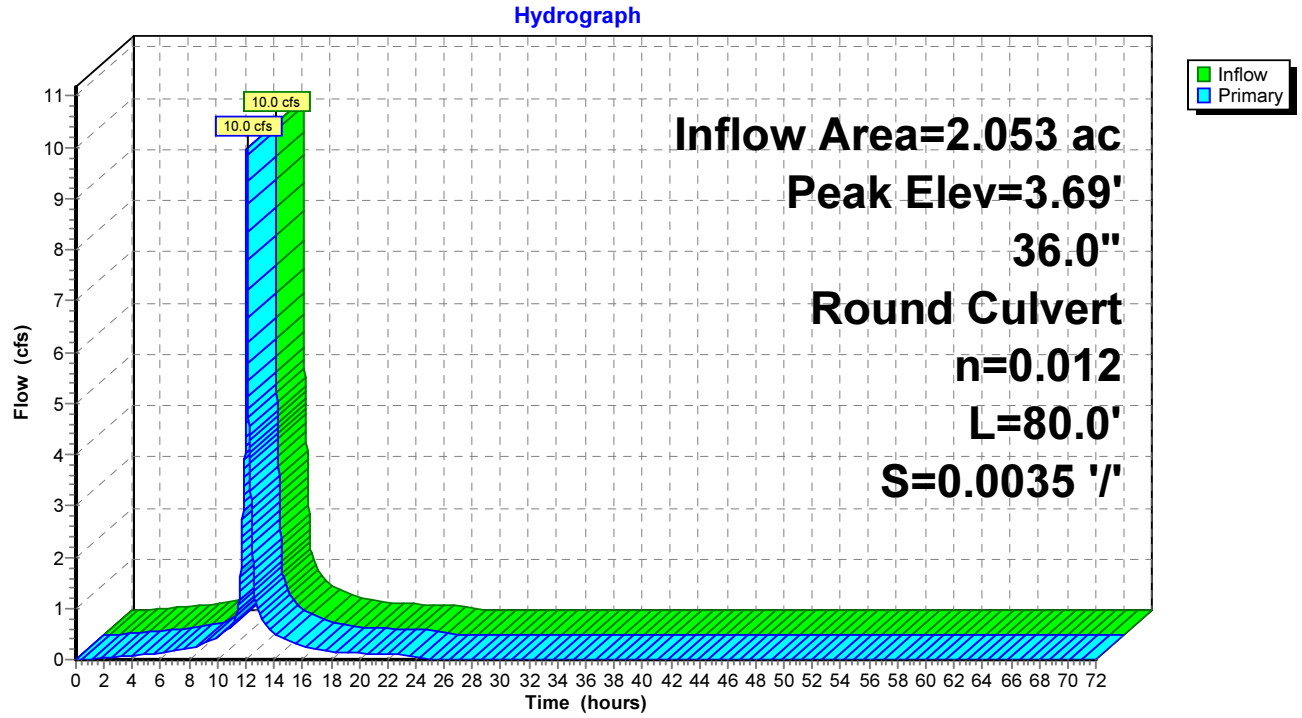
Inflow Area =	2.053 ac, 94.44% Impervious,	Inflow Depth =	4.42"	for 10-Year X event
Inflow =	10.0 cfs @ 12.08 hrs,	Volume=	0.756 af	
Outflow =	10.0 cfs @ 12.08 hrs,	Volume=	0.756 af,	Atten= 0%, Lag= 0.0 min
Primary =	10.0 cfs @ 12.08 hrs,	Volume=	0.756 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.69' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.96'	**36.0" Round Culvert** L= 80.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 1.96' / 1.68' S= 0.0035 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=9.9 cfs @ 12.08 hrs HW=3.68' TW=3.37' (Dynamic Tailwater)
1=Culvert (Outlet Controls 9.9 cfs @ 3.39 fps)

Pond 7P: DMH 3541



Summary for Pond 8P: DMH 1A

[57] Hint: Peaked at 4.18' (Flood elevation advised)

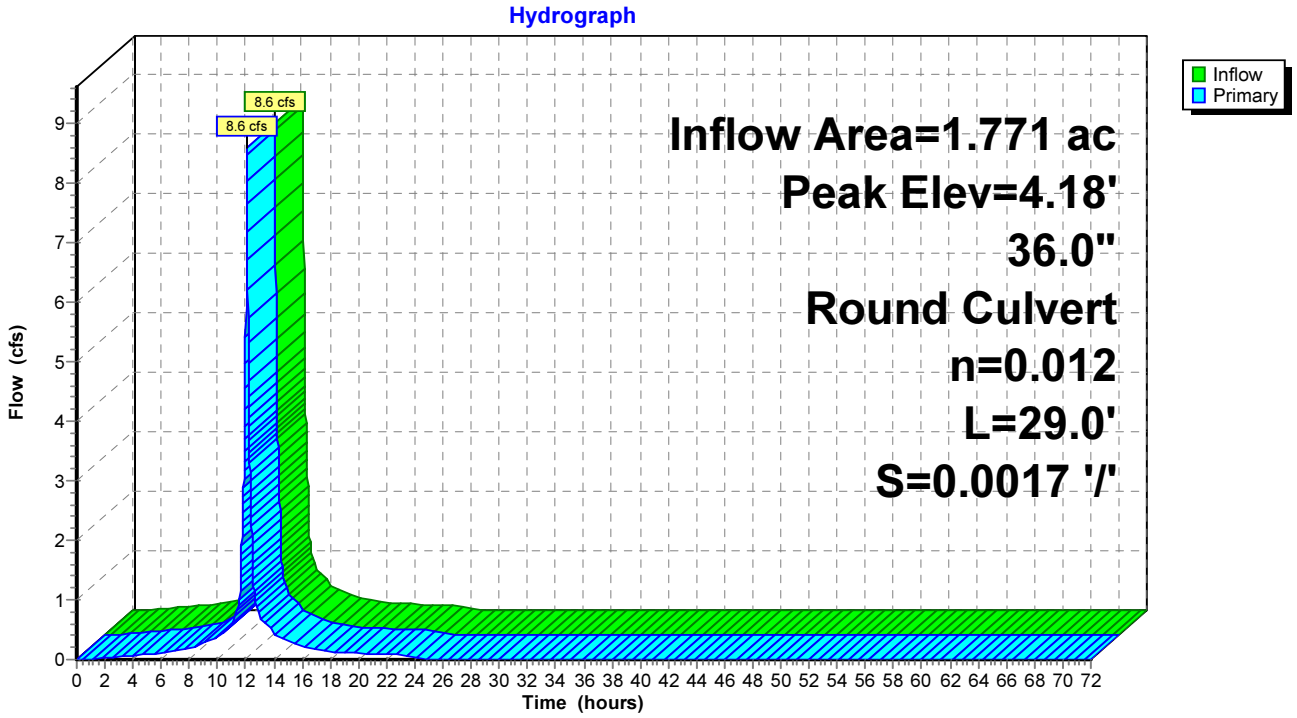
Inflow Area = 1.771 ac, 93.55% Impervious, Inflow Depth = 4.38" for 10-Year X event
Inflow = 8.6 cfs @ 12.08 hrs, Volume= 0.647 af
Outflow = 8.6 cfs @ 12.08 hrs, Volume= 0.647 af, Atten= 0%, Lag= 0.0 min
Primary = 8.6 cfs @ 12.08 hrs, Volume= 0.647 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 4.18' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	2.66'	**36.0" Round Culvert** L= 29.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 2.66' / 2.61' S= 0.0017 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=8.4 cfs @ 12.08 hrs HW=4.17' TW=3.91' (Dynamic Tailwater)
1=Culvert (Outlet Controls 8.4 cfs @ 3.43 fps)

Pond 8P: DMH 1A



Summary for Pond 9P: DMH 5438

[57] Hint: Peaked at 2.96' (Flood elevation advised)

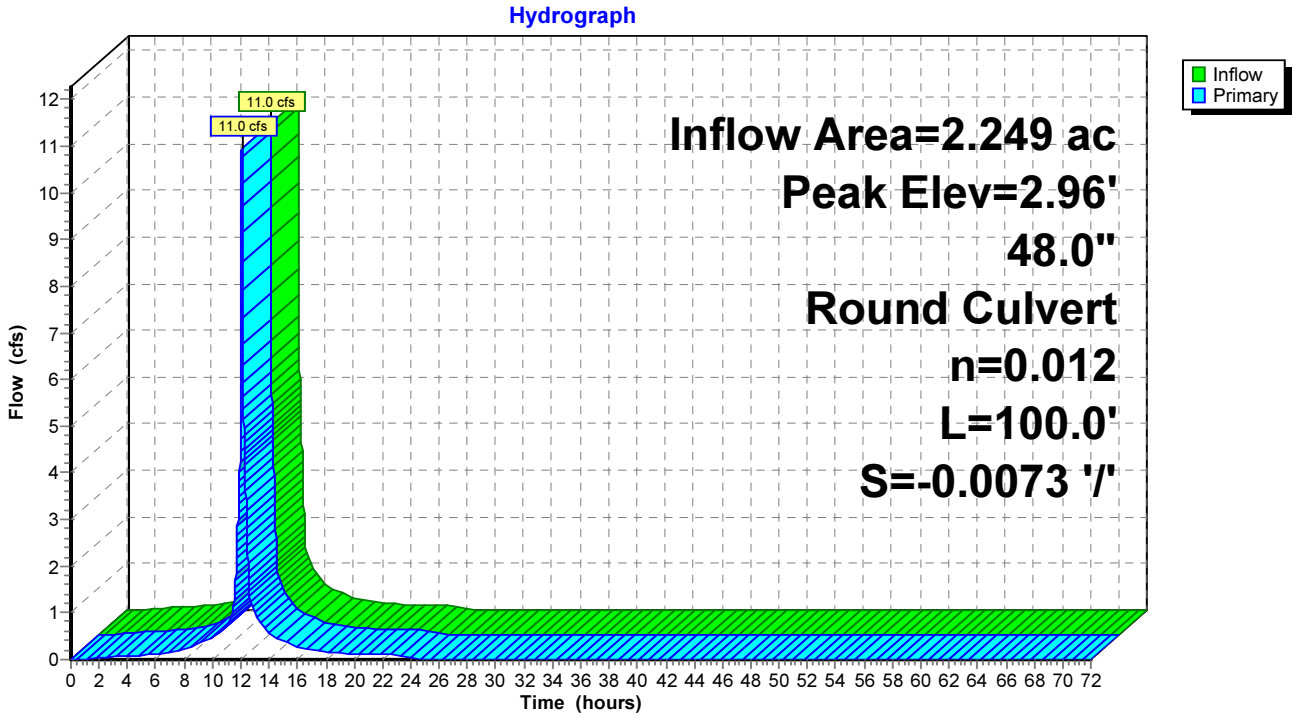
Inflow Area = 2.249 ac, 94.92% Impervious, Inflow Depth = 4.34" for 10-Year X event
Inflow = 11.0 cfs @ 12.07 hrs, Volume= 0.813 af
Outflow = 11.0 cfs @ 12.07 hrs, Volume= 0.813 af, Atten= 0%, Lag= 0.0 min
Primary = 11.0 cfs @ 12.07 hrs, Volume= 0.813 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 2.96' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.67'	**48.0" Round Culvert** L= 100.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 0.94' / 1.67' S= -0.0073 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 12.57 sf

Primary OutFlow Max=10.9 cfs @ 12.07 hrs HW=2.96' TW=2.69' (Dynamic Tailwater)
1=Culvert (Inlet Controls 10.9 cfs @ 3.11 fps)

Pond 9P: DMH 5438



Summary for Pond 10P: DMH 5217

[57] Hint: Peaked at 2.70' (Flood elevation advised)

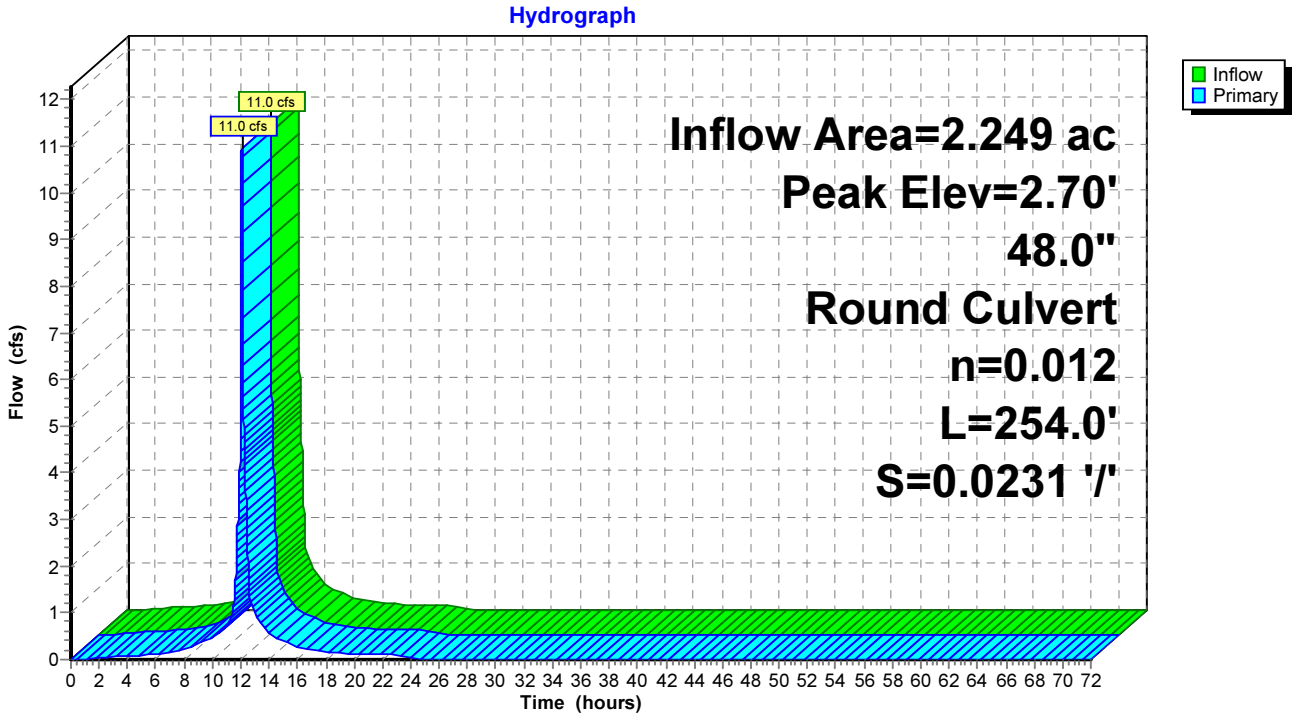
Inflow Area = 2.249 ac, 94.92% Impervious, Inflow Depth = 4.34" for 10-Year X event
Inflow = 11.0 cfs @ 12.07 hrs, Volume= 0.813 af
Outflow = 11.0 cfs @ 12.07 hrs, Volume= 0.813 af, Atten= 0%, Lag= 0.0 min
Primary = 11.0 cfs @ 12.07 hrs, Volume= 0.813 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 2.70' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.67'	**48.0" Round Culvert** L= 254.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 1.67' / -4.20' S= 0.0231 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 12.57 sf

Primary OutFlow Max=10.9 cfs @ 12.07 hrs HW=2.69' (Free Discharge)
└**1=Culvert** (Inlet Controls 10.9 cfs @ 4.30 fps)

Pond 10P: DMH 5217



Summary for Pond 11P: CB 3523

[57] Hint: Peaked at 8.07' (Flood elevation advised)

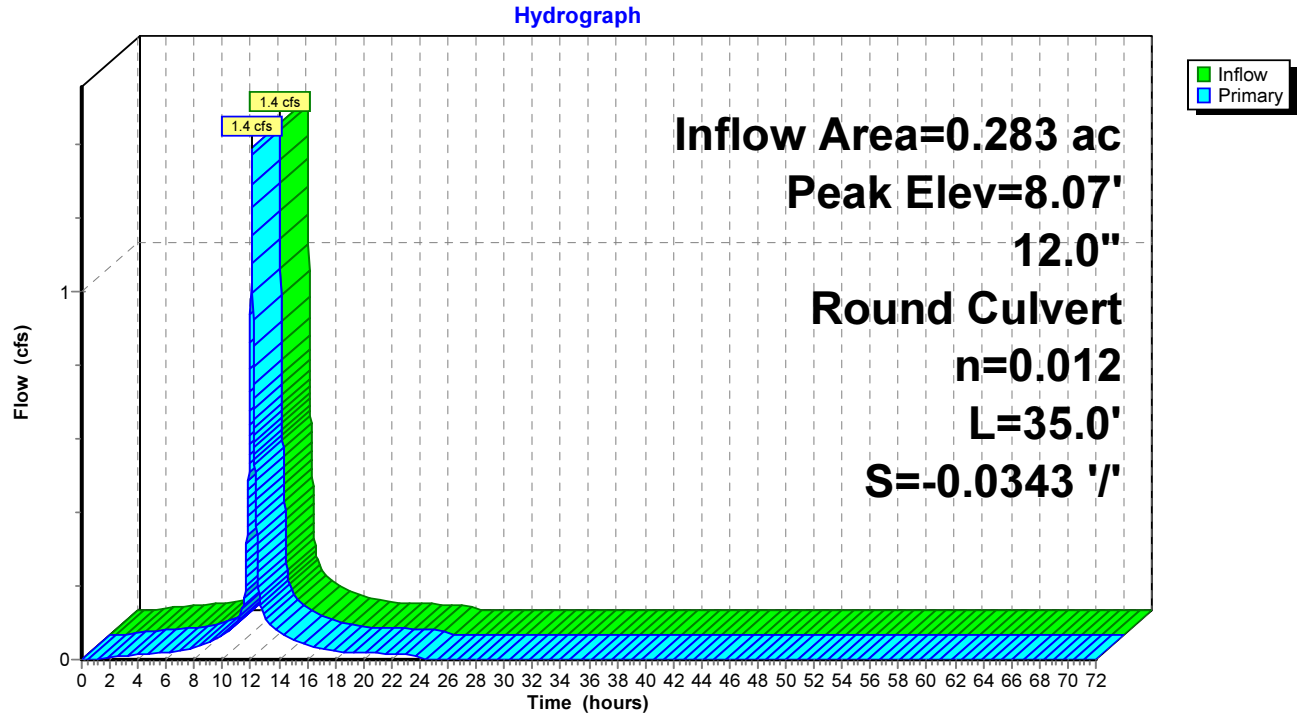
Inflow Area = 0.283 ac,100.00% Impervious, Inflow Depth = 4.62" for 10-Year X event
Inflow = 1.4 cfs @ 12.07 hrs, Volume= 0.109 af
Outflow = 1.4 cfs @ 12.07 hrs, Volume= 0.109 af, Atten= 0%, Lag= 0.0 min
Primary = 1.4 cfs @ 12.07 hrs, Volume= 0.109 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 8.07' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	7.52'	**12.0" Round Culvert** L= 35.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.32' / 7.52' S= -0.0343 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.4 cfs @ 12.07 hrs HW=8.07' TW=3.68' (Dynamic Tailwater)
1=Culvert (Inlet Controls 1.4 cfs @ 3.15 fps)

Pond 11P: CB 3523



Summary for Pond 13P: DMH 12303

[57] Hint: Peaked at 7.06' (Flood elevation advised)

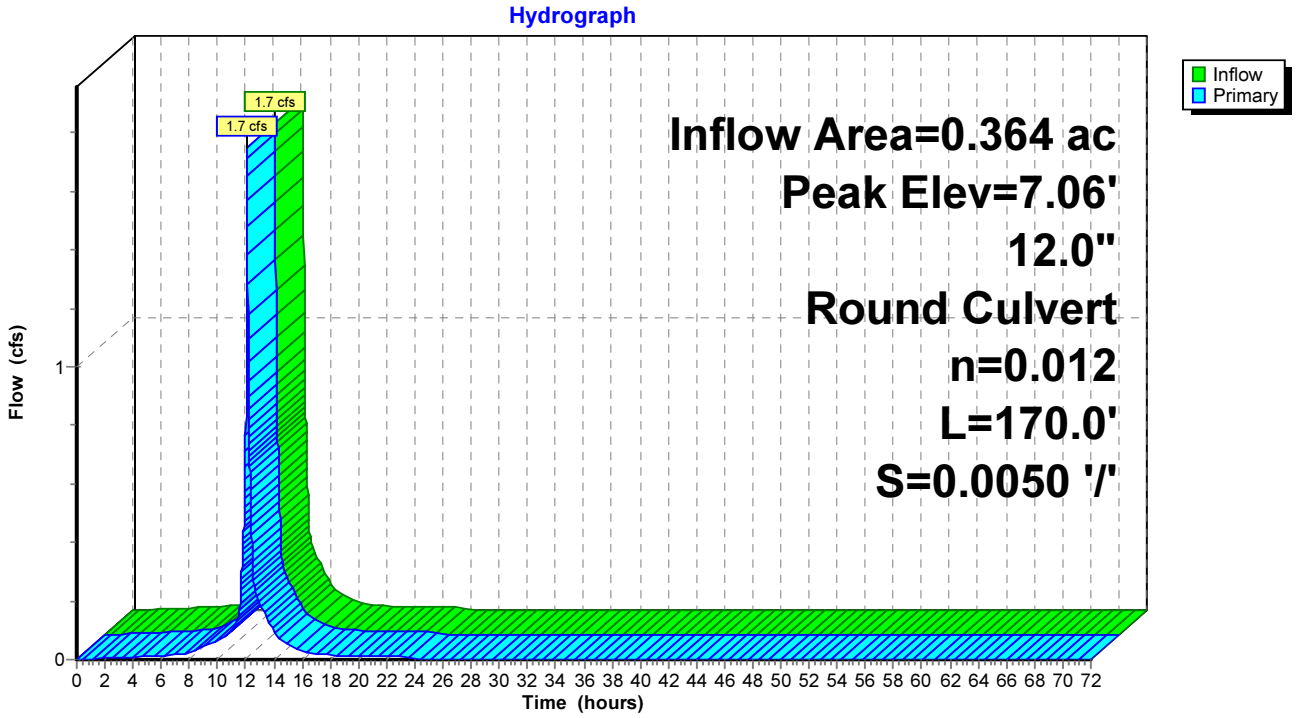
Inflow Area = 0.364 ac,100.00% Impervious, Inflow Depth = 3.71" for 10-Year X event
Inflow = 1.7 cfs @ 12.08 hrs, Volume= 0.113 af
Outflow = 1.7 cfs @ 12.08 hrs, Volume= 0.113 af, Atten= 0%, Lag= 0.0 min
Primary = 1.7 cfs @ 12.08 hrs, Volume= 0.113 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 7.06' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	6.09'	**12.0" Round Culvert** L= 170.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.09' / 5.24' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.7 cfs @ 12.08 hrs HW=7.06' TW=6.46' (Dynamic Tailwater)
1=Culvert (Outlet Controls 1.7 cfs @ 2.82 fps)

Pond 13P: DMH 12303



Summary for Pond 14P: DMH 12631

[57] Hint: Peaked at 6.47' (Flood elevation advised)
[80] Warning: Exceeded Pond 15P by 0.06' @ 12.07 hrs (1.2 cfs 0.001 af)

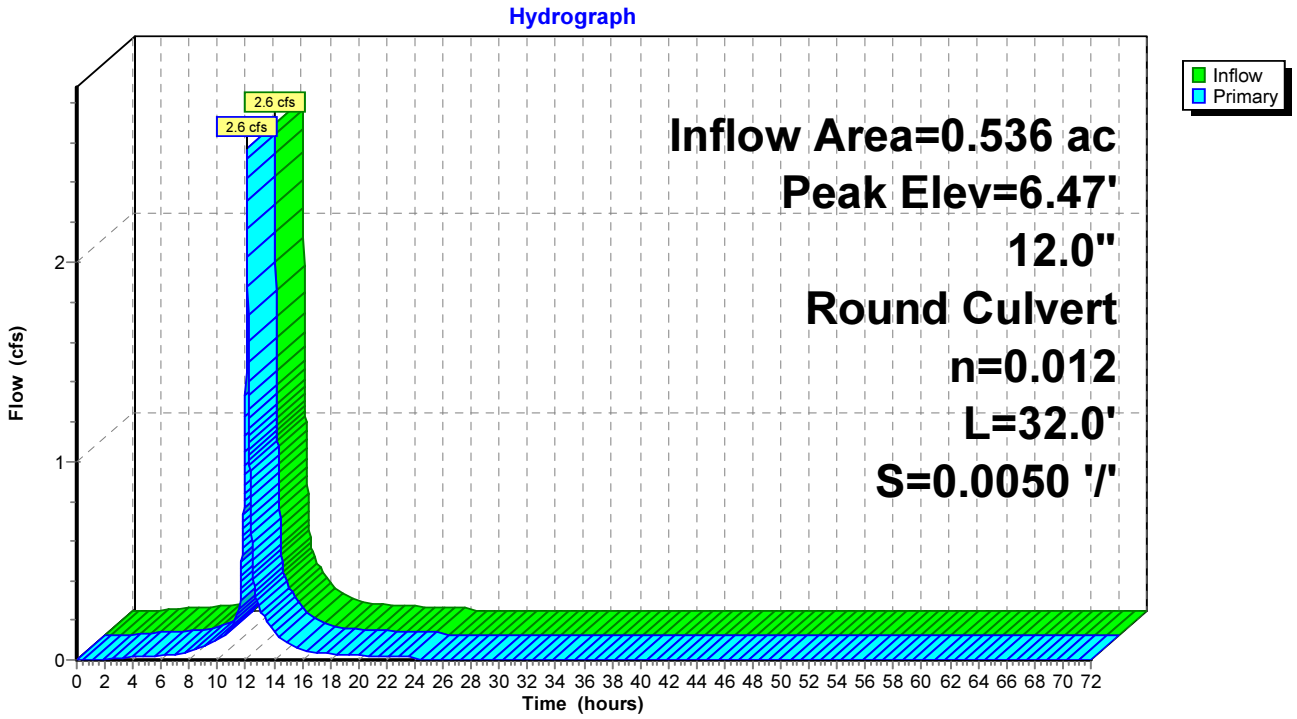
Inflow Area =	0.536 ac,	95.46% Impervious,	Inflow Depth =	3.96"	for 10-Year X event
Inflow =	2.6 cfs @	12.08 hrs,	Volume=	0.177 af	
Outflow =	2.6 cfs @	12.08 hrs,	Volume=	0.177 af,	Atten= 0%, Lag= 0.0 min
Primary =	2.6 cfs @	12.08 hrs,	Volume=	0.177 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.47' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.24'	**12.0" Round Culvert** L= 32.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.24' / 5.08' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=2.6 cfs @ 12.08 hrs HW=6.47' TW=6.13' (Dynamic Tailwater)
↳**1=Culvert** (Outlet Controls 2.6 cfs @ 3.40 fps)

Pond 14P: DMH 12631



Summary for Pond 15P: CB 8146

[57] Hint: Peaked at 6.49' (Flood elevation advised)

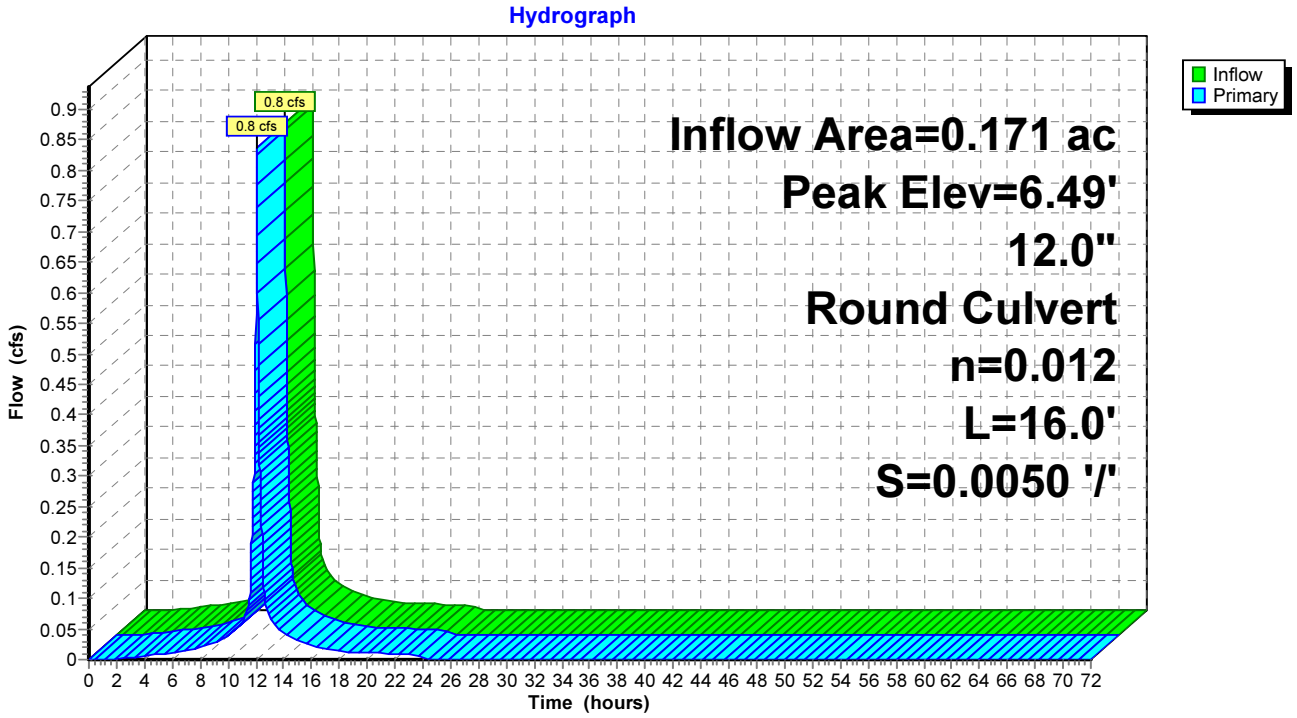
Inflow Area = 0.171 ac, 85.80% Impervious, Inflow Depth = 4.51" for 10-Year X event
Inflow = 0.8 cfs @ 12.07 hrs, Volume= 0.064 af
Outflow = 0.8 cfs @ 12.07 hrs, Volume= 0.064 af, Atten= 0%, Lag= 0.0 min
Primary = 0.8 cfs @ 12.07 hrs, Volume= 0.064 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.49' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.32'	**12.0" Round Culvert** L= 16.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.32' / 5.24' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.0 cfs @ 12.07 hrs HW=6.37' TW=6.44' (Dynamic Tailwater)
1=Culvert (Controls 0.0 cfs)

Pond 15P: CB 8146



Summary for Pond 16P: DMH 12632

[57] Hint: Peaked at 6.13' (Flood elevation advised)

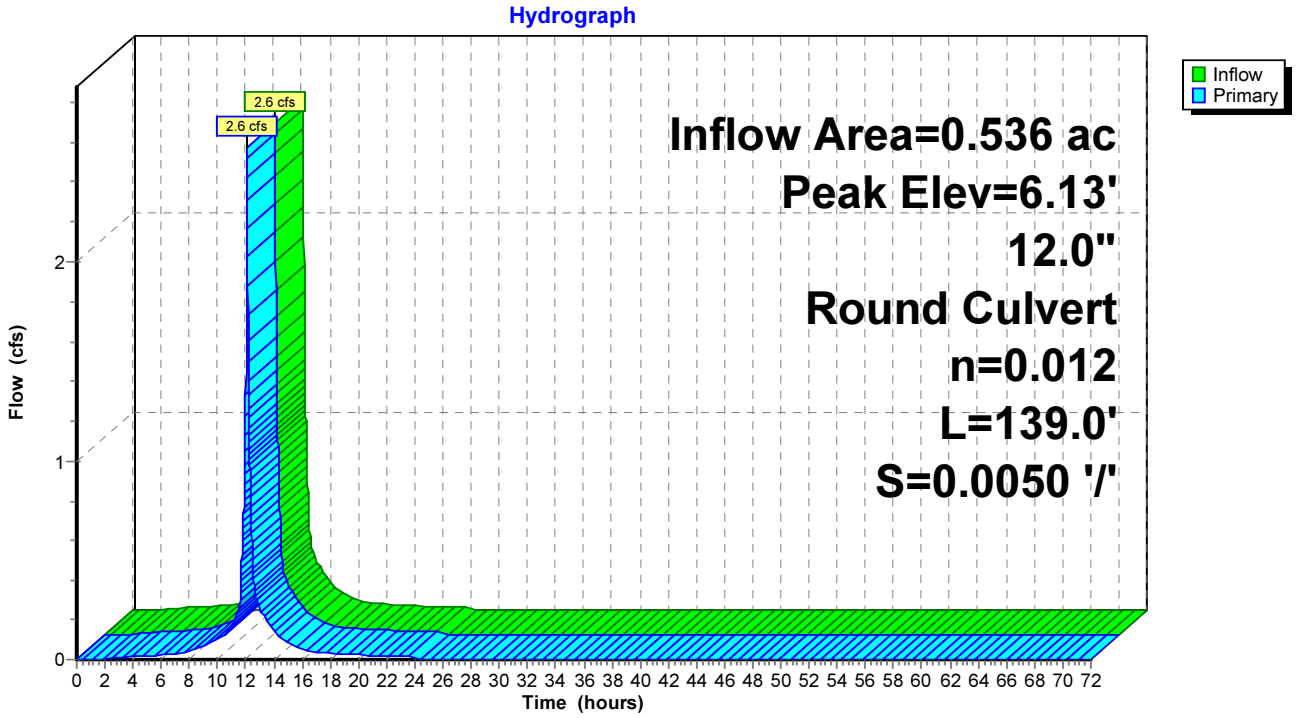
Inflow Area = 0.536 ac, 95.46% Impervious, Inflow Depth = 3.96" for 10-Year X event
Inflow = 2.6 cfs @ 12.08 hrs, Volume= 0.177 af
Outflow = 2.6 cfs @ 12.08 hrs, Volume= 0.177 af, Atten= 0%, Lag= 0.0 min
Primary = 2.6 cfs @ 12.08 hrs, Volume= 0.177 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.13' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.08'	**12.0" Round Culvert** L= 139.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.08' / 4.39' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=2.6 cfs @ 12.08 hrs HW=6.13' TW=5.05' (Dynamic Tailwater)
1=Culvert (Barrel Controls 2.6 cfs @ 3.88 fps)

Pond 16P: DMH 12632



Summary for Pond 17P: DMH 3545

[57] Hint: Peaked at 5.05' (Flood elevation advised)

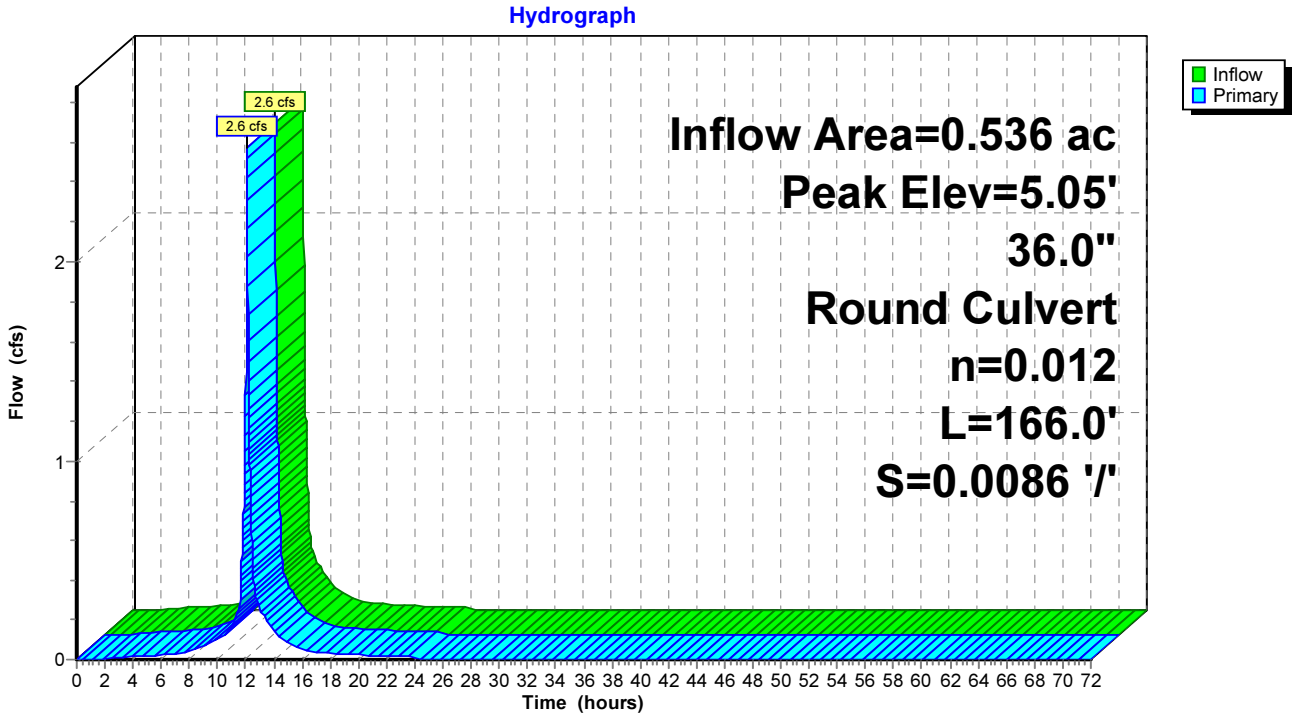
Inflow Area = 0.536 ac, 95.46% Impervious, Inflow Depth = 3.96" for 10-Year X event
Inflow = 2.6 cfs @ 12.08 hrs, Volume= 0.177 af
Outflow = 2.6 cfs @ 12.08 hrs, Volume= 0.177 af, Atten= 0%, Lag= 0.0 min
Primary = 2.6 cfs @ 12.08 hrs, Volume= 0.177 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 5.05' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.34'	**36.0" Round Culvert** L= 166.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 4.34' / 2.91' S= 0.0086 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=2.6 cfs @ 12.08 hrs HW=5.05' TW=4.43' (Dynamic Tailwater)
└**1=Culvert** (Outlet Controls 2.6 cfs @ 3.03 fps)

Pond 17P: DMH 3545



Summary for Pond 29P: DMH 3

[57] Hint: Peaked at 3.43' (Flood elevation advised)

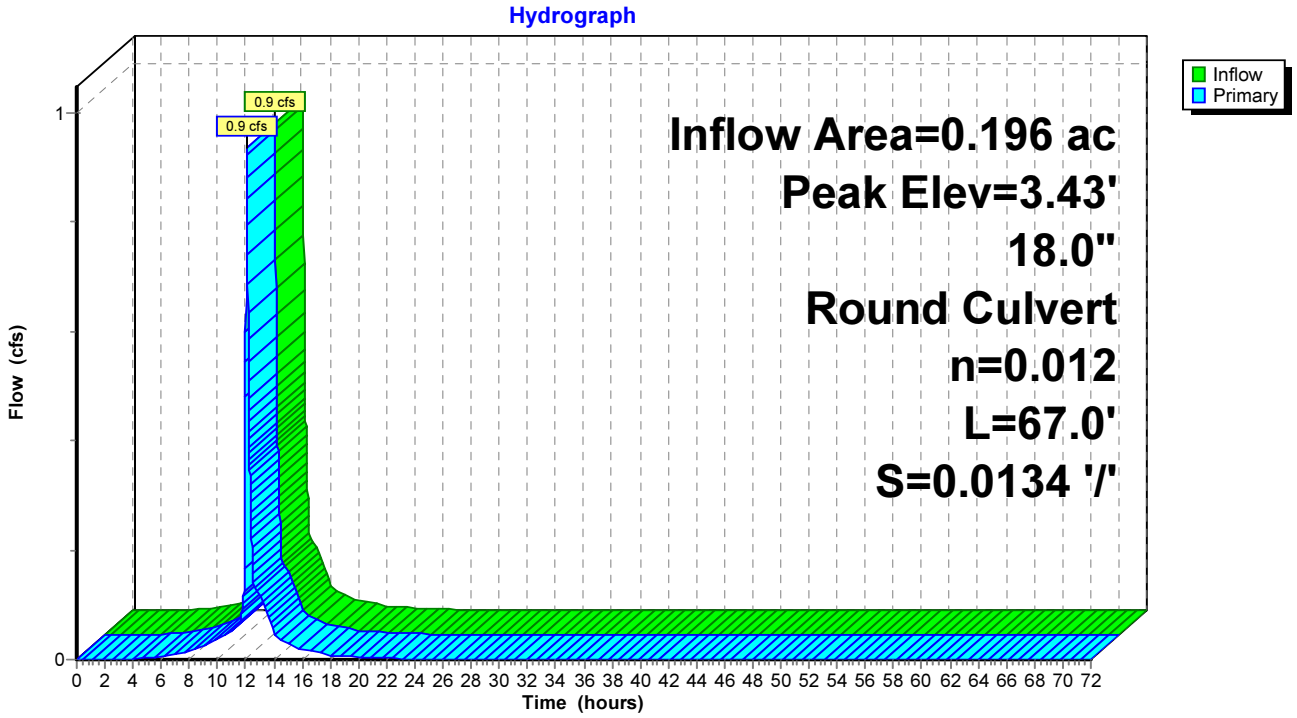
Inflow Area = 0.196 ac,100.00% Impervious, Inflow Depth = 3.51" for 10-Year X event
Inflow = 0.9 cfs @ 12.07 hrs, Volume= 0.057 af
Outflow = 0.9 cfs @ 12.07 hrs, Volume= 0.057 af, Atten= 0%, Lag= 0.0 min
Primary = 0.9 cfs @ 12.07 hrs, Volume= 0.057 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.43' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	2.53'	**18.0" Round Culvert** L= 67.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 2.53' / 1.63' S= 0.0134 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=0.9 cfs @ 12.07 hrs HW=3.42' TW=3.36' (Dynamic Tailwater)
└**1=Culvert** (Outlet Controls 0.9 cfs @ 1.17 fps)

Pond 29P: DMH 3



Summary for Pond 35P: CB 3

[57] Hint: Peaked at 7.36' (Flood elevation advised)

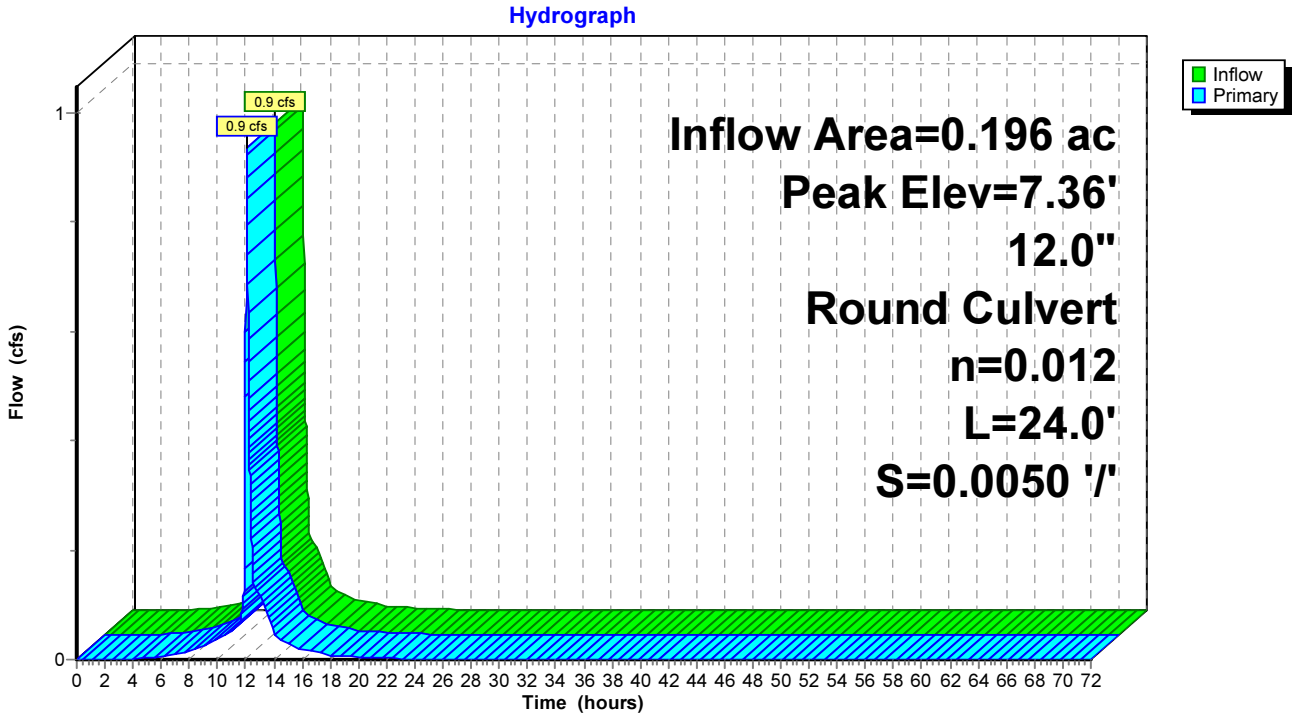
Inflow Area = 0.196 ac,100.00% Impervious, Inflow Depth = 3.51" for 10-Year X event
Inflow = 0.9 cfs @ 12.07 hrs, Volume= 0.057 af
Outflow = 0.9 cfs @ 12.07 hrs, Volume= 0.057 af, Atten= 0%, Lag= 0.0 min
Primary = 0.9 cfs @ 12.07 hrs, Volume= 0.057 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 7.36' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	6.77'	**12.0" Round Culvert** L= 24.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 6.77' / 6.65' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.9 cfs @ 12.07 hrs HW=7.36' TW=3.42' (Dynamic Tailwater)
└**1=Culvert** (Barrel Controls 0.9 cfs @ 2.79 fps)

Pond 35P: CB 3



Summary for Pond 36P: CB 3526

[57] Hint: Peaked at 7.23' (Flood elevation advised)

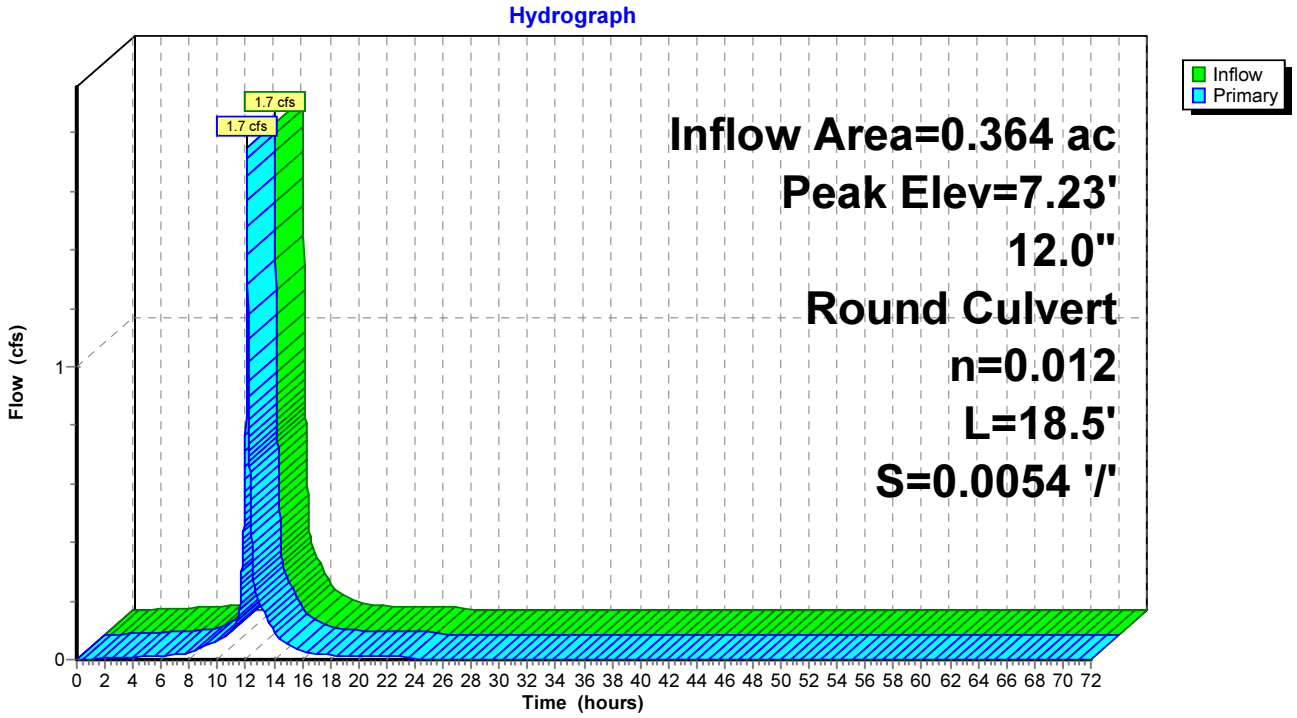
Inflow Area = 0.364 ac,100.00% Impervious, Inflow Depth = 3.71" for 10-Year X event
Inflow = 1.7 cfs @ 12.08 hrs, Volume= 0.113 af
Outflow = 1.7 cfs @ 12.08 hrs, Volume= 0.113 af, Atten= 0%, Lag= 0.0 min
Primary = 1.7 cfs @ 12.08 hrs, Volume= 0.113 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 7.23' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	6.19'	**12.0" Round Culvert** L= 18.5' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.19' / 6.09' S= 0.0054 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.7 cfs @ 12.08 hrs HW=7.22' TW=7.06' (Dynamic Tailwater)
1=Culvert (Outlet Controls 1.7 cfs @ 2.63 fps)

Pond 36P: CB 3526



Summary for Pond 37P: 94 Silva Cells with OCS #2

Inflow Area = 0.169 ac,100.00% Impervious, Inflow Depth = 4.62" for 10-Year X event
Inflow = 0.8 cfs @ 12.07 hrs, Volume= 0.065 af
Outflow = 0.8 cfs @ 12.08 hrs, Volume= 0.065 af, Atten= 0%, Lag= 0.8 min
Discarded = 0.0 cfs @ 11.77 hrs, Volume= 0.028 af
Primary = 0.8 cfs @ 12.08 hrs, Volume= 0.037 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 11.53' @ 12.08 hrs Surf.Area= 774 sf Storage= 393 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 11.9 min (759.5 - 747.6)

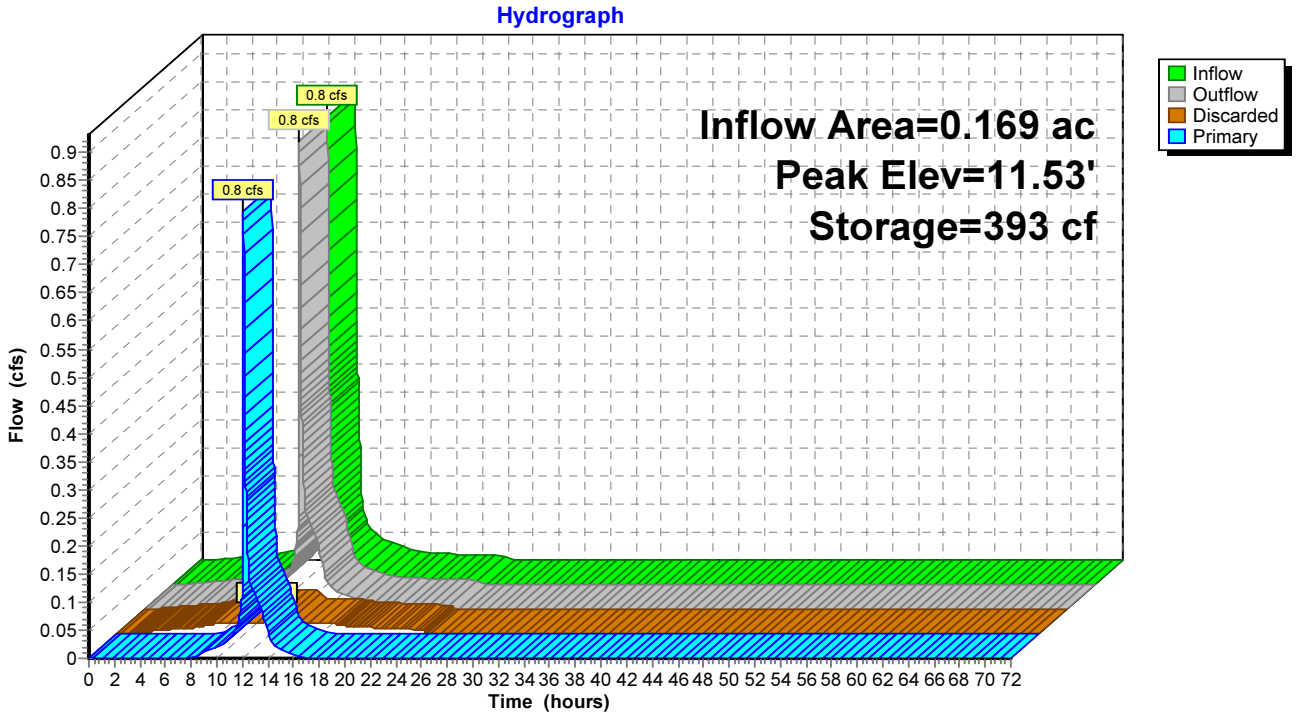
Volume	Invert	Avail.Storage	Storage Description
#1	8.40'	132 cf	**DeepRoot Silva Cell 20% x3** x 23 Inside= 24.6"W x 45.3"H => 1.42 sf x 4.02'L = 5.7 cf Outside= 24.6"W x 45.3"H => 7.74 sf x 4.02'L = 31.1 cf
#2	8.40'	137 cf	**DeepRoot Silva Cell 20% x3** x 24 Inside= 24.6"W x 45.3"H => 1.42 sf x 4.02'L = 5.7 cf Outside= 24.6"W x 45.3"H => 7.74 sf x 4.02'L = 31.1 cf
#3	8.90'	137 cf	**DeepRoot Silva Cell 20% x3** x 24 Inside= 24.6"W x 45.3"H => 1.42 sf x 4.02'L = 5.7 cf Outside= 24.6"W x 45.3"H => 7.74 sf x 4.02'L = 31.1 cf
#4	9.40'	132 cf	**DeepRoot Silva Cell 20% x3** x 23 Inside= 24.6"W x 45.3"H => 1.42 sf x 4.02'L = 5.7 cf Outside= 24.6"W x 45.3"H => 7.74 sf x 4.02'L = 31.1 cf
		538 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	8.30'	**12.0" Round Culvert** L= 9.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 8.30' / 8.26' S= 0.0044 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Primary	8.40'	**1.0" Vert. Orifice/Grate X 3.00** C= 0.600
#3	Device 1	11.40'	**5.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#4	Discarded	8.40'	**2.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.0 cfs @ 11.77 hrs HW=9.42' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.8 cfs @ 12.08 hrs HW=11.53' TW=7.22' (Dynamic Tailwater)
├**1=Culvert** (Passes 0.6 cfs of 7.8 cfs potential flow)
│└**3=Broad-Crested Rectangular Weir** (Weir Controls 0.6 cfs @ 1.00 fps)
└**2=Orifice/Grate** (Orifice Controls 0.1 cfs @ 8.46 fps)

Pond 37P: 94 Silva Cells with OCS #2



Summary for Pond 38P: 73 Silva Cells with OCS #3

Inflow Area = 0.196 ac,100.00% Impervious, Inflow Depth = 4.62" for 10-Year X event
Inflow = 1.0 cfs @ 12.07 hrs, Volume= 0.076 af
Outflow = 1.0 cfs @ 12.07 hrs, Volume= 0.076 af, Atten= 0%, Lag= 0.2 min
Discarded = 0.0 cfs @ 11.74 hrs, Volume= 0.018 af
Primary = 0.9 cfs @ 12.07 hrs, Volume= 0.057 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 10.15' @ 12.07 hrs Surf.Area= 601 sf Storage= 269 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 7.7 min (755.3 - 747.6)

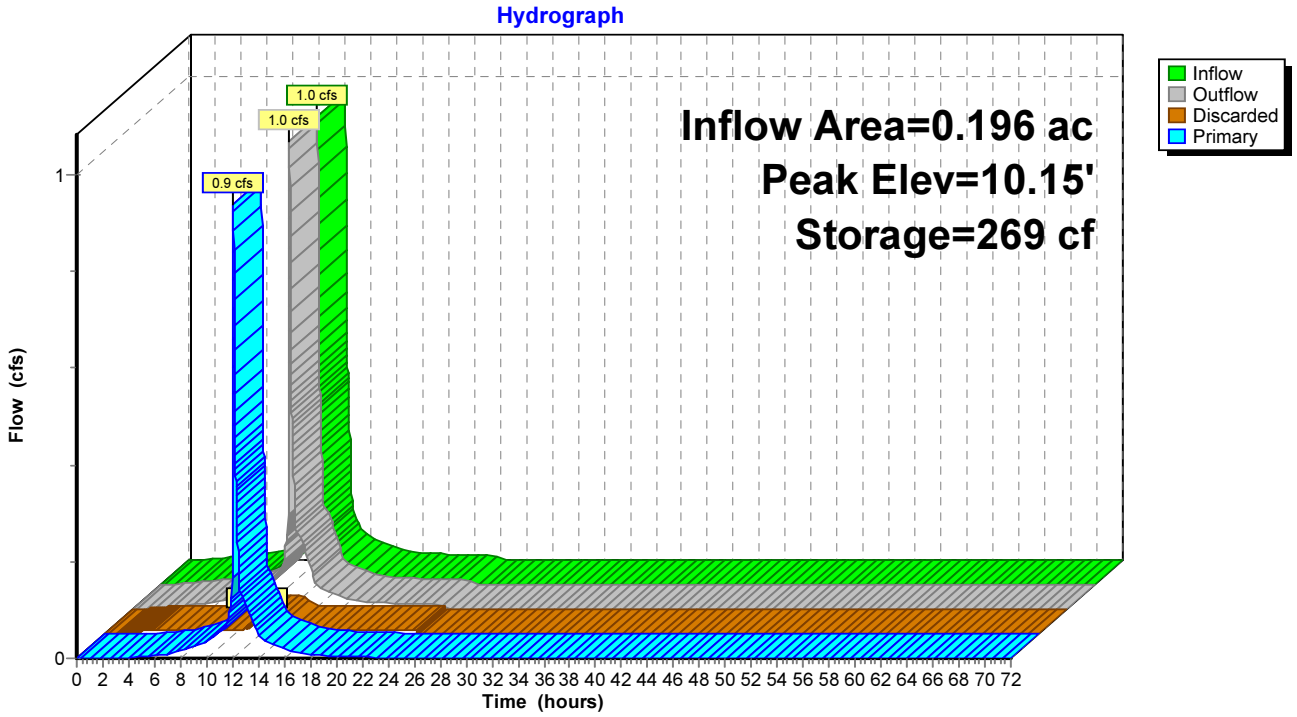
Volume	Invert	Avail.Storage	Storage Description
#1	7.00'	120 cf	**DeepRoot Silva Cell 20% x3** x 21 Inside= 24.6"W x 45.3"H => 1.42 sf x 4.02'L = 5.7 cf Outside= 24.6"W x 45.3"H => 7.74 sf x 4.02'L = 31.1 cf
#2	7.50'	149 cf	**DeepRoot Silva Cell 20% x3** x 26 Inside= 24.6"W x 45.3"H => 1.42 sf x 4.02'L = 5.7 cf Outside= 24.6"W x 45.3"H => 7.74 sf x 4.02'L = 31.1 cf
#3	8.50'	149 cf	**DeepRoot Silva Cell 20% x3** x 26 Inside= 24.6"W x 45.3"H => 1.42 sf x 4.02'L = 5.7 cf Outside= 24.6"W x 45.3"H => 7.74 sf x 4.02'L = 31.1 cf
		418 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	6.90'	**12.0" Round Culvert** L= 7.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.90' / 6.87' S= 0.0043 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Primary	7.00'	**1.0" Vert. Orifice/Grate X 3.00** C= 0.600
#3	Device 1	10.00'	**5.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#4	Discarded	7.00'	**2.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.0 cfs @ 11.74 hrs HW=8.52' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.9 cfs @ 12.07 hrs HW=10.15' TW=7.36' (Dynamic Tailwater)
├**1=Culvert** (Passes 0.8 cfs of 7.8 cfs potential flow)
│└**3=Broad-Crested Rectangular Weir** (Weir Controls 0.8 cfs @ 1.08 fps)
└**2=Orifice/Grate** (Orifice Controls 0.1 cfs @ 8.04 fps)

Pond 38P: 73 Silva Cells with OCS #3



Summary for Pond CB1:

[57] Hint: Peaked at 6.24' (Flood elevation advised)

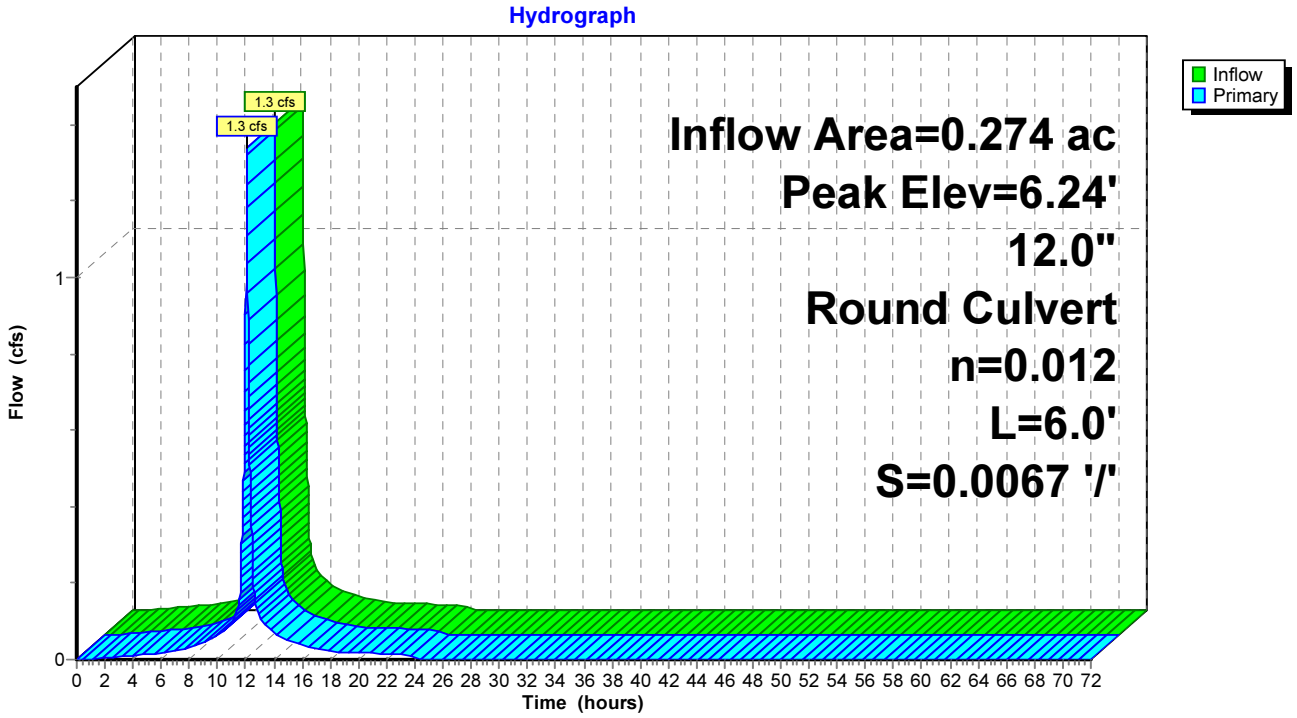
Inflow Area = 0.274 ac, 87.53% Impervious, Inflow Depth = 4.55" for 10-Year X event
Inflow = 1.3 cfs @ 12.07 hrs, Volume= 0.104 af
Outflow = 1.3 cfs @ 12.07 hrs, Volume= 0.104 af, Atten= 0%, Lag= 0.0 min
Primary = 1.3 cfs @ 12.07 hrs, Volume= 0.104 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.24' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.33'	**12.0" Round Culvert** L= 6.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.33' / 5.29' S= 0.0067 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.3 cfs @ 12.07 hrs HW=6.24' TW=6.13' (Dynamic Tailwater)
└**1=Culvert** (Outlet Controls 1.3 cfs @ 2.32 fps)

Pond CB1:



Summary for Pond CB2:

[57] Hint: Peaked at 6.17' (Flood elevation advised)

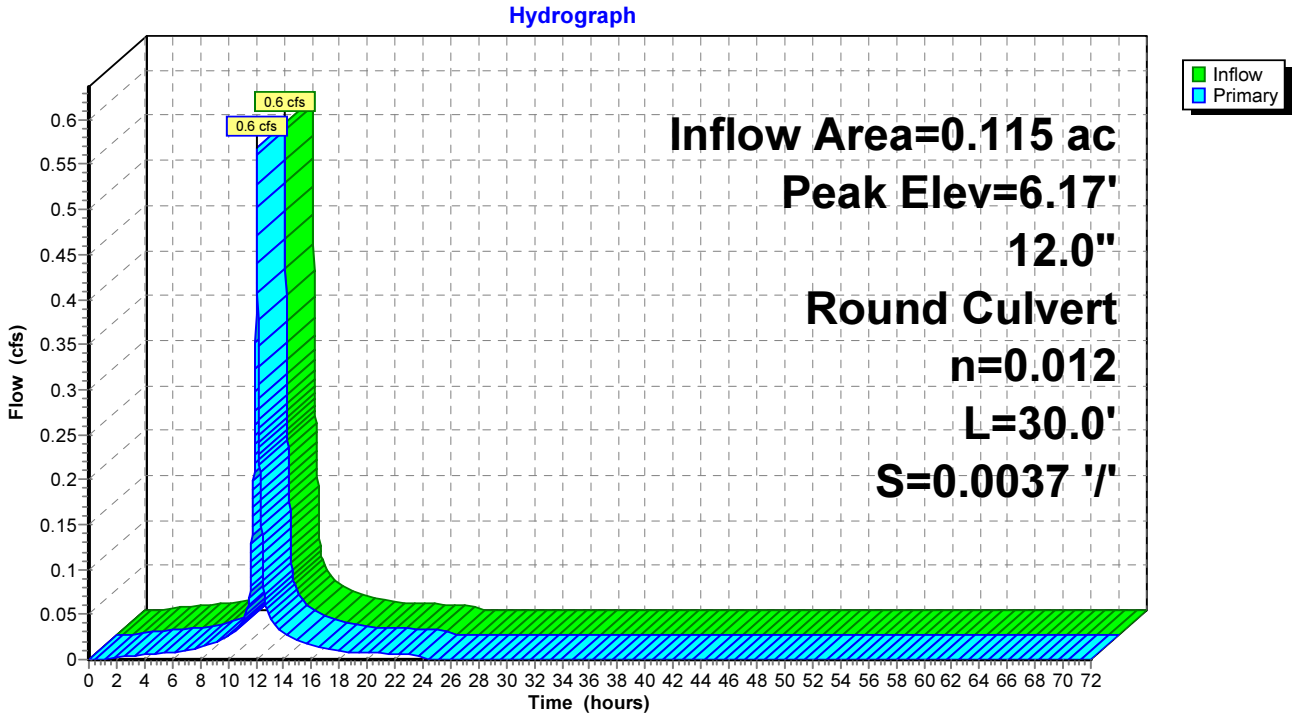
Inflow Area = 0.115 ac, 96.72% Impervious, Inflow Depth = 4.62" for 10-Year X event
Inflow = 0.6 cfs @ 12.07 hrs, Volume= 0.044 af
Outflow = 0.6 cfs @ 12.07 hrs, Volume= 0.044 af, Atten= 0%, Lag= 0.0 min
Primary = 0.6 cfs @ 12.07 hrs, Volume= 0.044 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.17' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.40'	**12.0" Round Culvert** L= 30.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.40' / 5.29' S= 0.0037 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.6 cfs @ 12.07 hrs HW=6.17' TW=6.13' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.6 cfs @ 1.17 fps)

Pond CB2:



Summary for Pond DMH1:

[57] Hint: Peaked at 5.75' (Flood elevation advised)

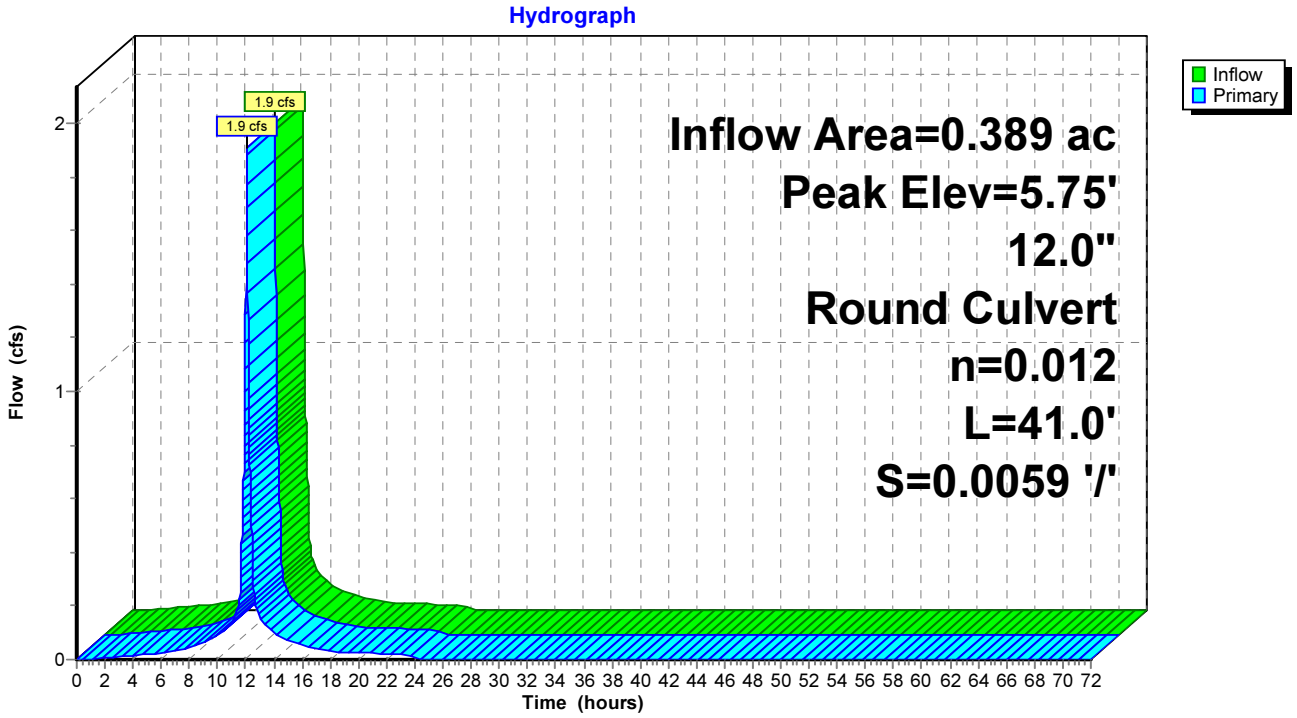
Inflow Area = 0.389 ac, 90.26% Impervious, Inflow Depth = 4.57" for 10-Year X event
Inflow = 1.9 cfs @ 12.07 hrs, Volume= 0.148 af
Outflow = 1.9 cfs @ 12.07 hrs, Volume= 0.148 af, Atten= 0%, Lag= 0.0 min
Primary = 1.9 cfs @ 12.07 hrs, Volume= 0.148 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 5.75' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.91'	**12.0" Round Culvert** L= 41.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 4.91' / 4.67' S= 0.0059 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.9 cfs @ 12.07 hrs HW=5.75' TW=4.16' (Dynamic Tailwater)
↳**1=Culvert** (Barrel Controls 1.9 cfs @ 3.69 fps)

Pond DMH1:



Summary for Pond DP1: DMH 3540

[57] Hint: Peaked at 3.37' (Flood elevation advised)

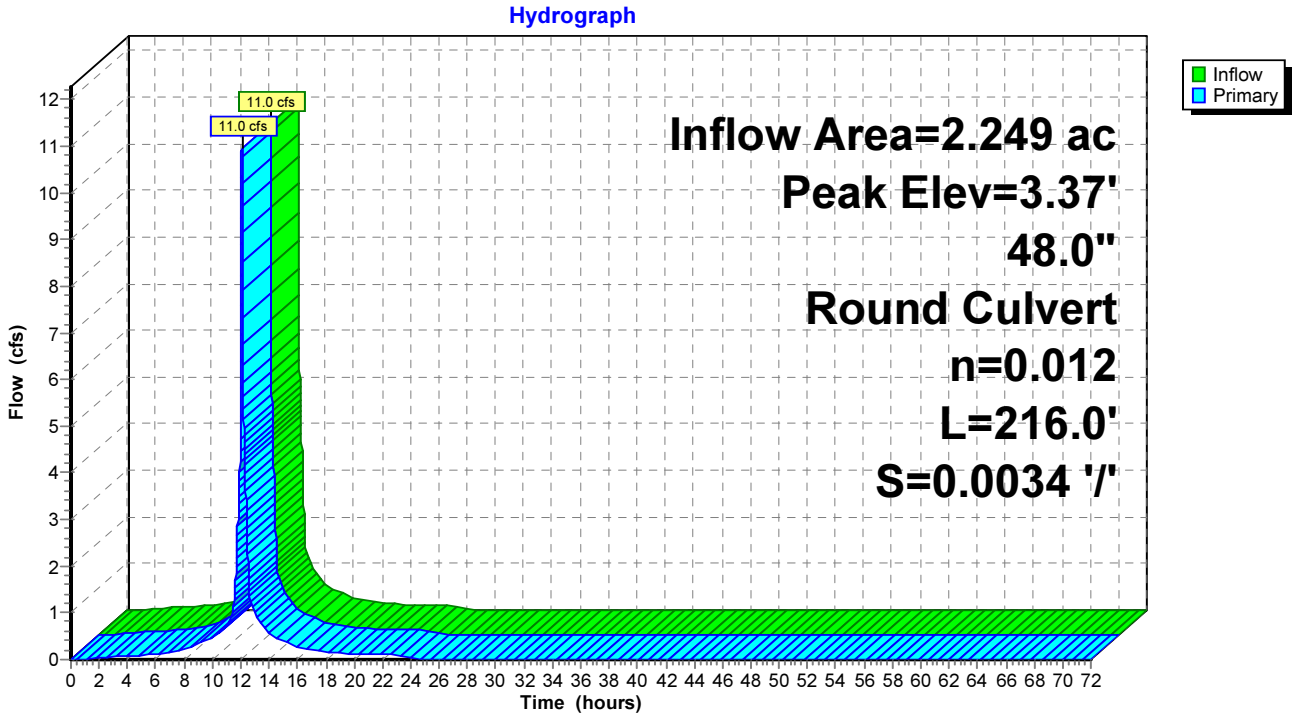
Inflow Area = 2.249 ac, 94.92% Impervious, Inflow Depth = 4.34" for 10-Year X event
Inflow = 11.0 cfs @ 12.07 hrs, Volume= 0.813 af
Outflow = 11.0 cfs @ 12.07 hrs, Volume= 0.813 af, Atten= 0%, Lag= 0.0 min
Primary = 11.0 cfs @ 12.07 hrs, Volume= 0.813 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.37' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.68'	**48.0" Round Culvert** L= 216.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 1.68' / 0.94' S= 0.0034 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 12.57 sf

Primary OutFlow Max=10.8 cfs @ 12.07 hrs HW=3.37' TW=2.96' (Dynamic Tailwater)
1=Culvert (Outlet Controls 10.8 cfs @ 3.16 fps)

Pond DP1: DMH 3540



Summary for Pond OCS #1:

[57] Hint: Peaked at 6.13' (Flood elevation advised)

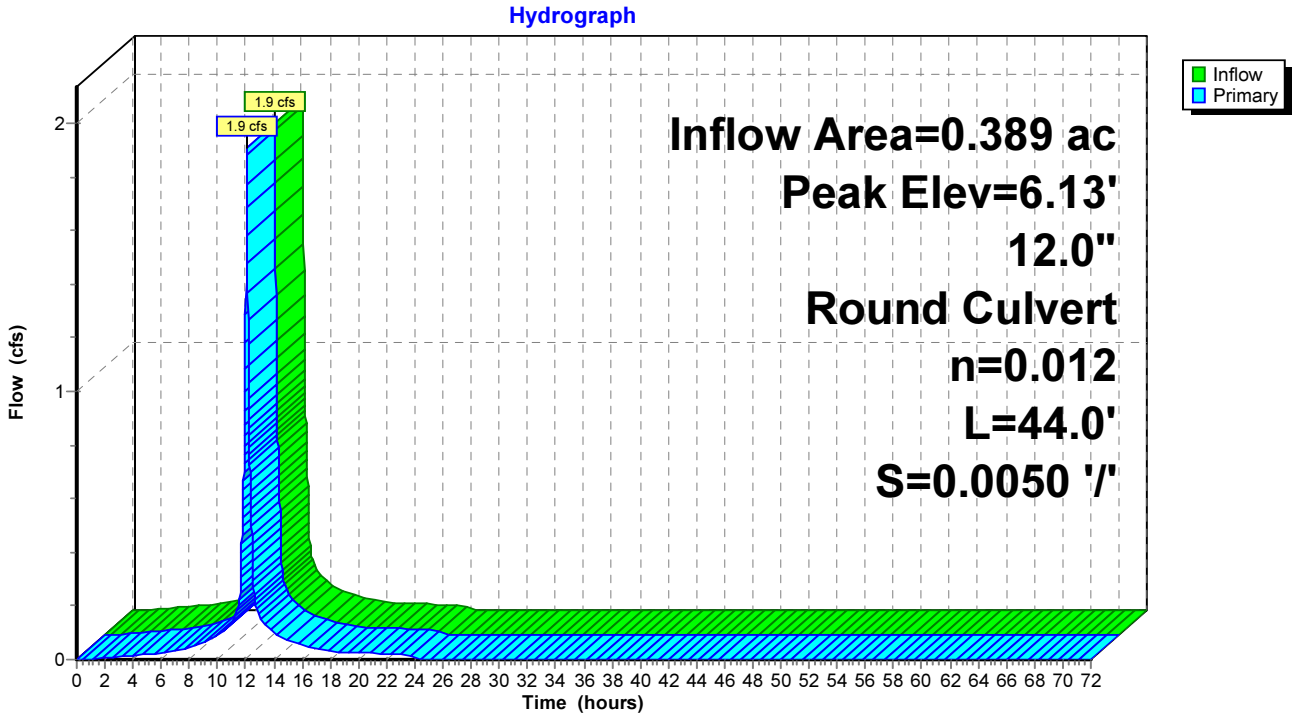
Inflow Area = 0.389 ac, 90.26% Impervious, Inflow Depth = 4.57" for 10-Year X event
Inflow = 1.9 cfs @ 12.07 hrs, Volume= 0.148 af
Outflow = 1.9 cfs @ 12.07 hrs, Volume= 0.148 af, Atten= 0%, Lag= 0.0 min
Primary = 1.9 cfs @ 12.07 hrs, Volume= 0.148 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.13' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.23'	**12.0" Round Culvert** L= 44.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.23' / 5.01' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.9 cfs @ 12.07 hrs HW=6.13' TW=5.75' (Dynamic Tailwater)
1=Culvert (Outlet Controls 1.9 cfs @ 3.39 fps)

Pond OCS #1:



Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points x 2
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment PS1: Runoff Area=16,738 sf 100.00% Impervious Runoff Depth=5.92"
Tc=5.0 min CN=98 Runoff=2.4 cfs 0.190 af

Subcatchment PS2: Runoff Area=7,730 sf 80.78% Impervious Runoff Depth=5.80"
Tc=5.0 min CN=97 Runoff=1.1 cfs 0.086 af

Subcatchment PS2a: Roof Runoff Area=2,509 sf 100.00% Impervious Runoff Depth=5.92"
Tc=5.0 min CN=98 Runoff=0.4 cfs 0.028 af

Subcatchment PS2b: Runoff Area=5,028 sf 96.72% Impervious Runoff Depth=5.92"
Tc=5.0 min CN=98 Runoff=0.7 cfs 0.057 af

Subcatchment PS3: Roof Runoff Area=8,542 sf 100.00% Impervious Runoff Depth=5.92"
Tc=5.0 min CN=98 Runoff=1.2 cfs 0.097 af

Subcatchment PS3a: Roof Runoff Area=4,848 sf 100.00% Impervious Runoff Depth=5.92"
Tc=5.0 min CN=98 Runoff=0.7 cfs 0.055 af

Subcatchment PS4: Runoff Area=4,188 sf 100.00% Impervious Runoff Depth=5.92"
Tc=5.0 min CN=98 Runoff=0.6 cfs 0.047 af

Subcatchment PS5: Runoff Area=20,107 sf 88.74% Impervious Runoff Depth=5.80"
Tc=5.0 min CN=97 Runoff=2.9 cfs 0.223 af

Subcatchment PS6: Runoff Area=12,323 sf 100.00% Impervious Runoff Depth=5.92"
Tc=5.0 min CN=98 Runoff=1.8 cfs 0.140 af

Subcatchment PS7: Runoff Area=8,519 sf 100.00% Impervious Runoff Depth=5.92"
Tc=5.0 min CN=98 Runoff=1.2 cfs 0.097 af

Subcatchment PS8: Runoff Area=7,456 sf 85.80% Impervious Runoff Depth=5.80"
Tc=5.0 min CN=97 Runoff=1.1 cfs 0.083 af

Pond 1P: CB 3528 Peak Elev=6.15' Inflow=5.3 cfs 0.413 af
12.0" Round Culvert n=0.012 L=9.0' S=0.0300 '/' Outflow=5.3 cfs 0.413 af

Pond 5P: DMH 3543 Peak Elev=4.71' Inflow=8.6 cfs 0.644 af
36.0" Round Culvert n=0.012 L=131.0' S=0.0018 '/' Outflow=8.6 cfs 0.644 af

Pond 6P: DMH 3542 Peak Elev=4.19' Inflow=11.0 cfs 0.834 af
36.0" Round Culvert n=0.012 L=74.0' S=0.0015 '/' Outflow=11.0 cfs 0.834 af

Pond 7P: DMH 3541 Peak Elev=3.94' Inflow=12.8 cfs 0.974 af
36.0" Round Culvert n=0.012 L=80.0' S=0.0035 '/' Outflow=12.8 cfs 0.974 af

Pond 8P: DMH 1A Peak Elev=4.46' Inflow=11.0 cfs 0.834 af
36.0" Round Culvert n=0.012 L=29.0' S=0.0017 '/' Outflow=11.0 cfs 0.834 af

Pond 9P: DMH 5438 Peak Elev=3.14' Inflow=14.0 cfs 1.051 af
48.0" Round Culvert n=0.012 L=100.0' S=-0.0073 '/' Outflow=14.0 cfs 1.051 af

Pond 10P: DMH 5217 Peak Elev=2.83' Inflow=14.0 cfs 1.051 af
48.0" Round Culvert n=0.012 L=254.0' S=0.0231 '/' Outflow=14.0 cfs 1.051 af

Pond 11P: CB 3523 Peak Elev=8.15' Inflow=1.8 cfs 0.140 af
12.0" Round Culvert n=0.012 L=35.0' S=-0.0343 '/' Outflow=1.8 cfs 0.140 af

Pond 13P: DMH 12303 Peak Elev=8.02' Inflow=2.2 cfs 0.148 af
12.0" Round Culvert n=0.012 L=170.0' S=0.0050 '/' Outflow=2.2 cfs 0.148 af

Pond 14P: DMH 12631 Peak Elev=7.31' Inflow=3.3 cfs 0.231 af
12.0" Round Culvert n=0.012 L=32.0' S=0.0050 '/' Outflow=3.3 cfs 0.231 af

Pond 15P: CB 8146 Peak Elev=7.35' Inflow=1.1 cfs 0.083 af
12.0" Round Culvert n=0.012 L=16.0' S=0.0050 '/' Outflow=1.1 cfs 0.083 af

Pond 16P: DMH 12632 Peak Elev=6.74' Inflow=3.3 cfs 0.231 af
12.0" Round Culvert n=0.012 L=139.0' S=0.0050 '/' Outflow=3.3 cfs 0.231 af

Pond 17P: DMH 3545 Peak Elev=5.20' Inflow=3.3 cfs 0.231 af
36.0" Round Culvert n=0.012 L=166.0' S=0.0086 '/' Outflow=3.3 cfs 0.231 af

Pond 29P: DMH 3 Peak Elev=3.64' Inflow=1.2 cfs 0.077 af
18.0" Round Culvert n=0.012 L=67.0' S=0.0134 '/' Outflow=1.2 cfs 0.077 af

Pond 35P: CB 3 Peak Elev=7.45' Inflow=1.2 cfs 0.077 af
12.0" Round Culvert n=0.012 L=24.0' S=0.0050 '/' Outflow=1.2 cfs 0.077 af

Pond 36P: CB 3526 Peak Elev=8.25' Inflow=2.2 cfs 0.148 af
12.0" Round Culvert n=0.012 L=18.5' S=0.0054 '/' Outflow=2.2 cfs 0.148 af

Pond 37P: 94 Silva Cells with OCS #2 Peak Elev=11.56' Storage=397 cf Inflow=1.1 cfs 0.083 af
Discarded=0.0 cfs 0.032 af Primary=1.0 cfs 0.052 af Outflow=1.1 cfs 0.083 af

Pond 38P: 73 Silva Cells with OCS #3 Peak Elev=10.18' Storage=273 cf Inflow=1.2 cfs 0.097 af
Discarded=0.0 cfs 0.020 af Primary=1.2 cfs 0.077 af Outflow=1.2 cfs 0.097 af

Pond CB1: Peak Elev=6.44' Inflow=1.7 cfs 0.133 af
12.0" Round Culvert n=0.012 L=6.0' S=0.0067 '/' Outflow=1.7 cfs 0.133 af

Pond CB2: Peak Elev=6.35' Inflow=0.7 cfs 0.057 af
12.0" Round Culvert n=0.012 L=30.0' S=0.0037 '/' Outflow=0.7 cfs 0.057 af

Pond DMH1: Peak Elev=5.90' Inflow=2.4 cfs 0.190 af
12.0" Round Culvert n=0.012 L=41.0' S=0.0059 '/' Outflow=2.4 cfs 0.190 af

Pond DP1: DMH 3540 Peak Elev=3.59' Inflow=14.0 cfs 1.051 af
48.0" Round Culvert n=0.012 L=216.0' S=0.0034 '/' Outflow=14.0 cfs 1.051 af

Pond OCS #1: Peak Elev=6.31' Inflow=2.4 cfs 0.190 af
12.0" Round Culvert n=0.012 L=44.0' S=0.0050 '/' Outflow=2.4 cfs 0.190 af

Total Runoff Area = 2.249 ac Runoff Volume = 1.102 af Average Runoff Depth = 5.88"
5.08% Pervious = 0.114 ac 94.92% Impervious = 2.135 ac

Summary for Subcatchment PS1:

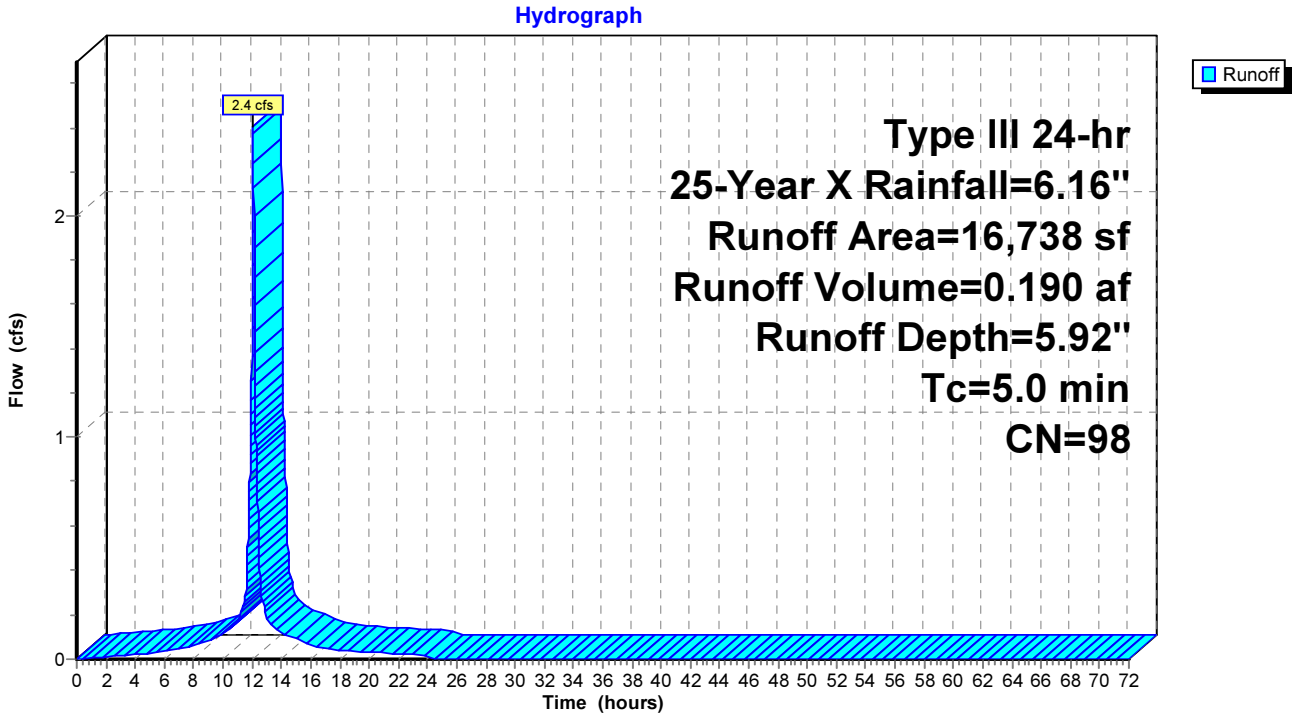
Runoff = 2.4 cfs @ 12.07 hrs, Volume= 0.190 af, Depth= 5.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year X Rainfall=6.16"

Area (sf)	CN	Description
16,738	98	Roofs, HSG C
16,738		100.00% Impervious Area

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

Subcatchment PS1:



Summary for Subcatchment PS2:

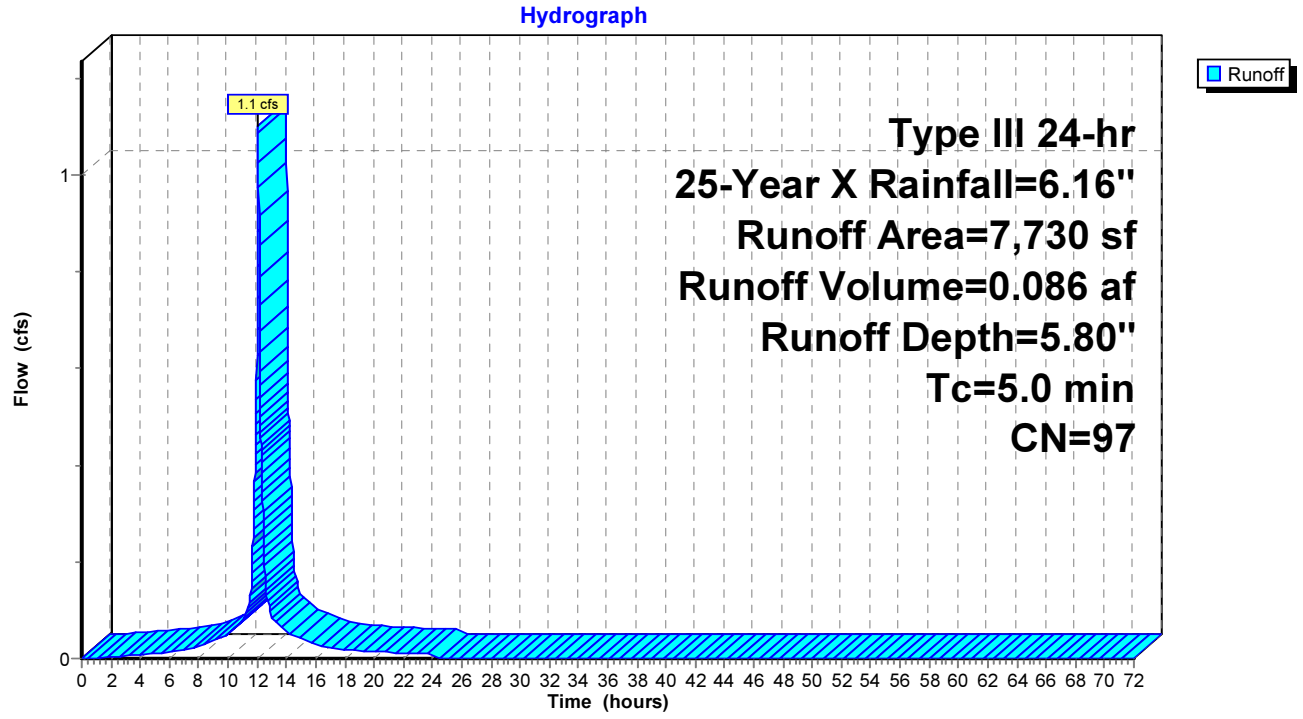
Runoff = 1.1 cfs @ 12.07 hrs, Volume= 0.086 af, Depth= 5.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year X Rainfall=6.16"

Area (sf)	CN	Description
6,244	98	Paved parking, HSG C
1,486	91	Fallow, bare soil, HSG C
7,730	97	Weighted Average
1,486		19.22% Pervious Area
6,244		80.78% Impervious Area

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

Subcatchment PS2:



Summary for Subcatchment PS2a: Roof

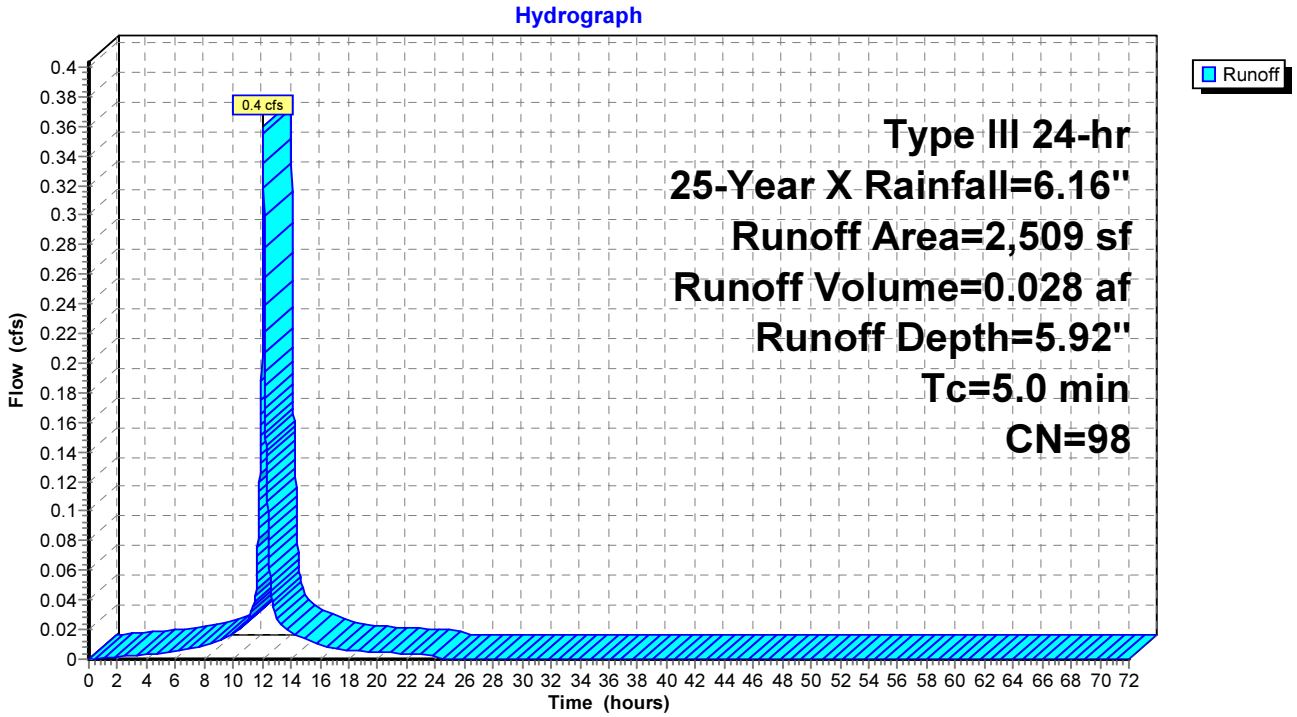
Runoff = 0.4 cfs @ 12.07 hrs, Volume= 0.028 af, Depth= 5.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year X Rainfall=6.16"

Area (sf)	CN	Description
2,509	98	Roofs, HSG C
2,509		100.00% Impervious Area

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

Subcatchment PS2a: Roof



Summary for Subcatchment PS2b:

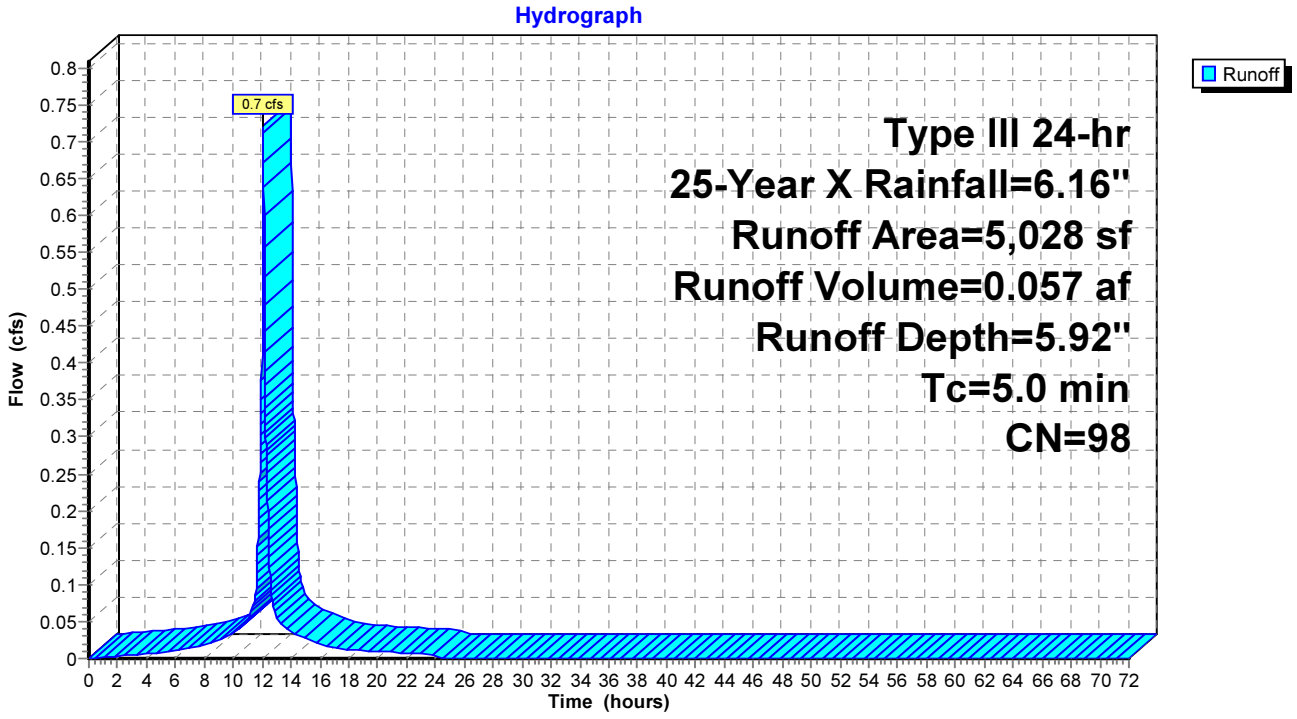
Runoff = 0.7 cfs @ 12.07 hrs, Volume= 0.057 af, Depth= 5.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year X Rainfall=6.16"

Area (sf)	CN	Description
4,863	98	Paved parking, HSG C
165	91	Fallow, bare soil, HSG C
5,028	98	Weighted Average
165		3.28% Pervious Area
4,863		96.72% Impervious Area

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

Subcatchment PS2b:



Summary for Subcatchment PS3: Roof

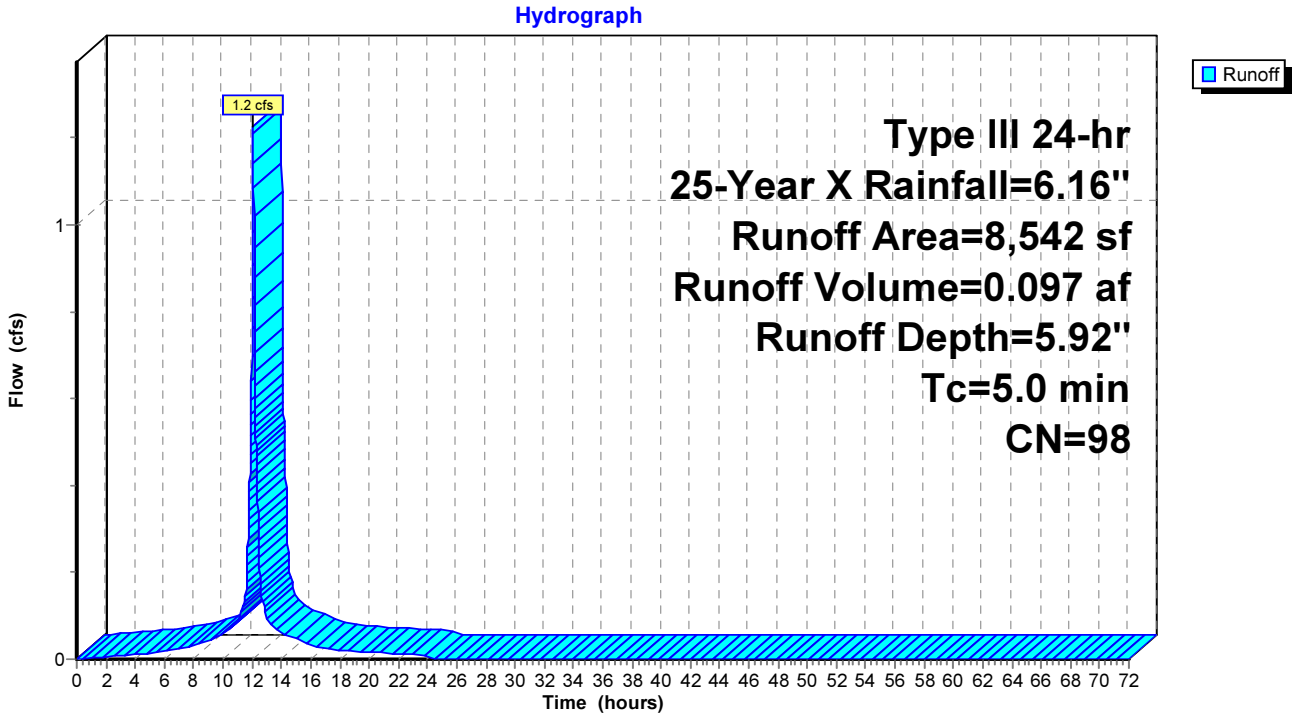
Runoff = 1.2 cfs @ 12.07 hrs, Volume= 0.097 af, Depth= 5.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year X Rainfall=6.16"

Area (sf)	CN	Description
8,542	98	Roofs, HSG C
8,542		100.00% Impervious Area

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

Subcatchment PS3: Roof



Summary for Subcatchment PS3a: Roof

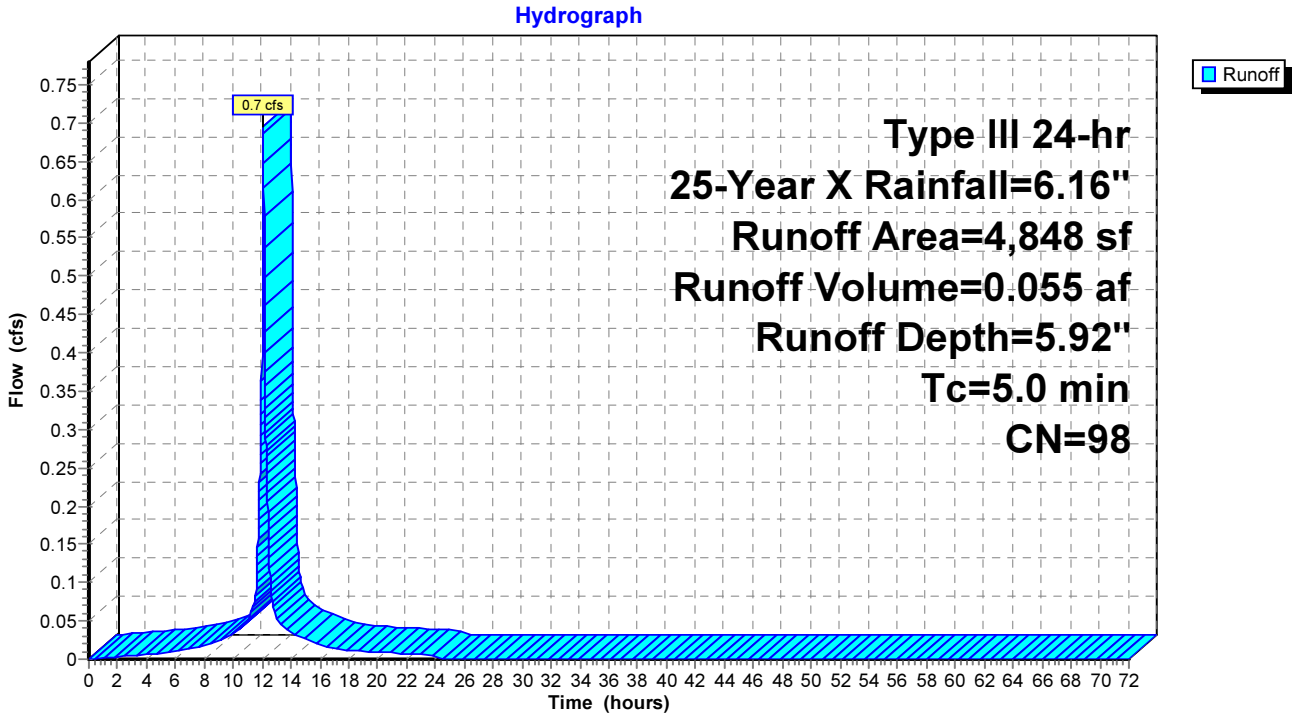
Runoff = 0.7 cfs @ 12.07 hrs, Volume= 0.055 af, Depth= 5.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year X Rainfall=6.16"

Area (sf)	CN	Description
4,848	98	Roofs, HSG C
4,848		100.00% Impervious Area

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

Subcatchment PS3a: Roof



Summary for Subcatchment PS4:

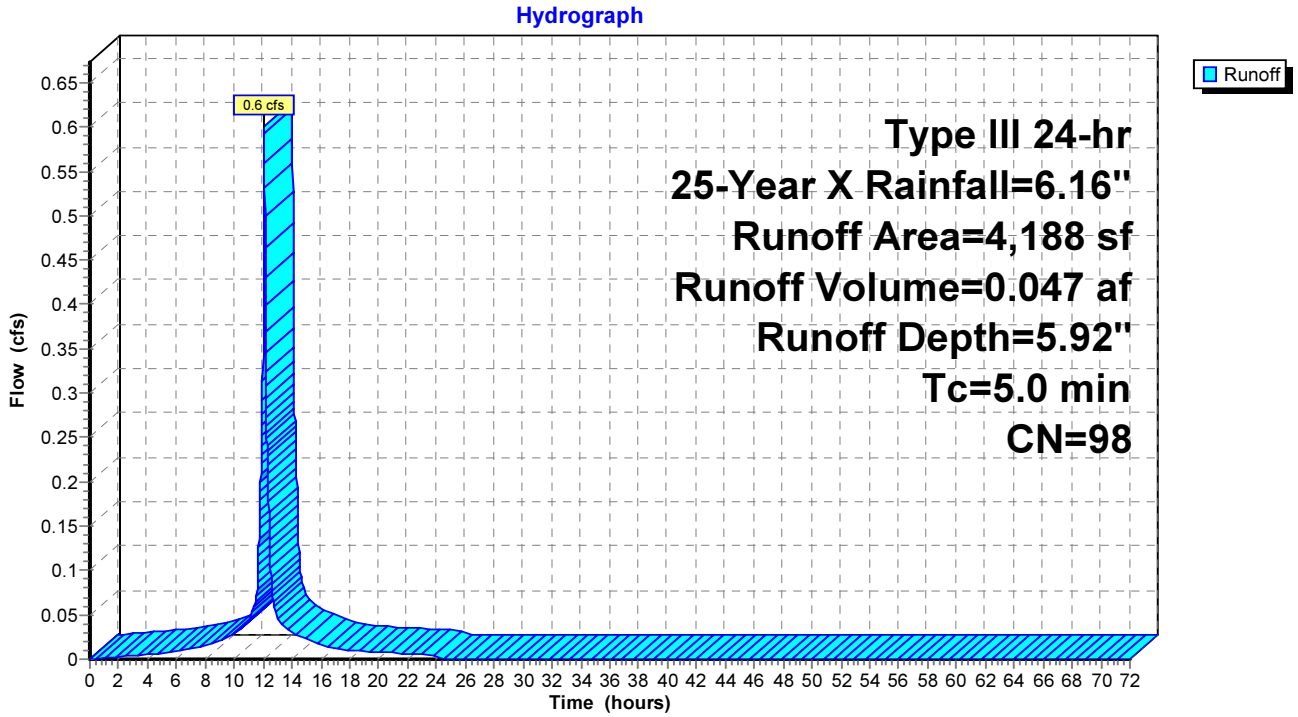
Runoff = 0.6 cfs @ 12.07 hrs, Volume= 0.047 af, Depth= 5.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year X Rainfall=6.16"

Area (sf)	CN	Description
4,188	98	Roofs, HSG C
4,188		100.00% Impervious Area

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

Subcatchment PS4:



Summary for Subcatchment PS5:

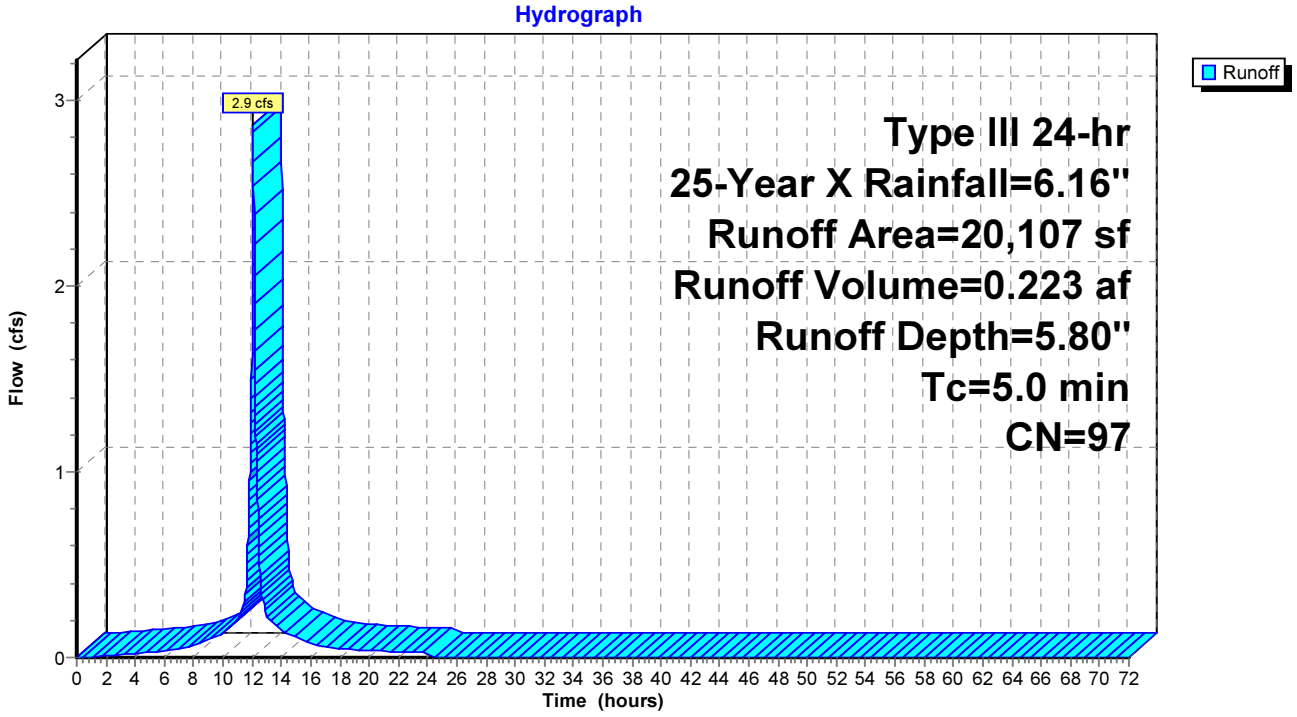
Runoff = 2.9 cfs @ 12.07 hrs, Volume= 0.223 af, Depth= 5.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year X Rainfall=6.16"

	Area (sf)	CN	Description
	269	98	Paved parking, HSG C
	11,300	98	Paved roads w/curbs & sewers, HSG C
	3,499	98	Paved roads w/curbs & sewers, HSG C
	2,439	98	Paved roads w/curbs & sewers, HSG C
*	336	98	Gravel roads, HSG C
	2,264	91	Fallow, bare soil, HSG C
	20,107	97	Weighted Average
	2,264		11.26% Pervious Area
	17,843		88.74% Impervious Area

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

Subcatchment PS5:



Summary for Subcatchment PS6:

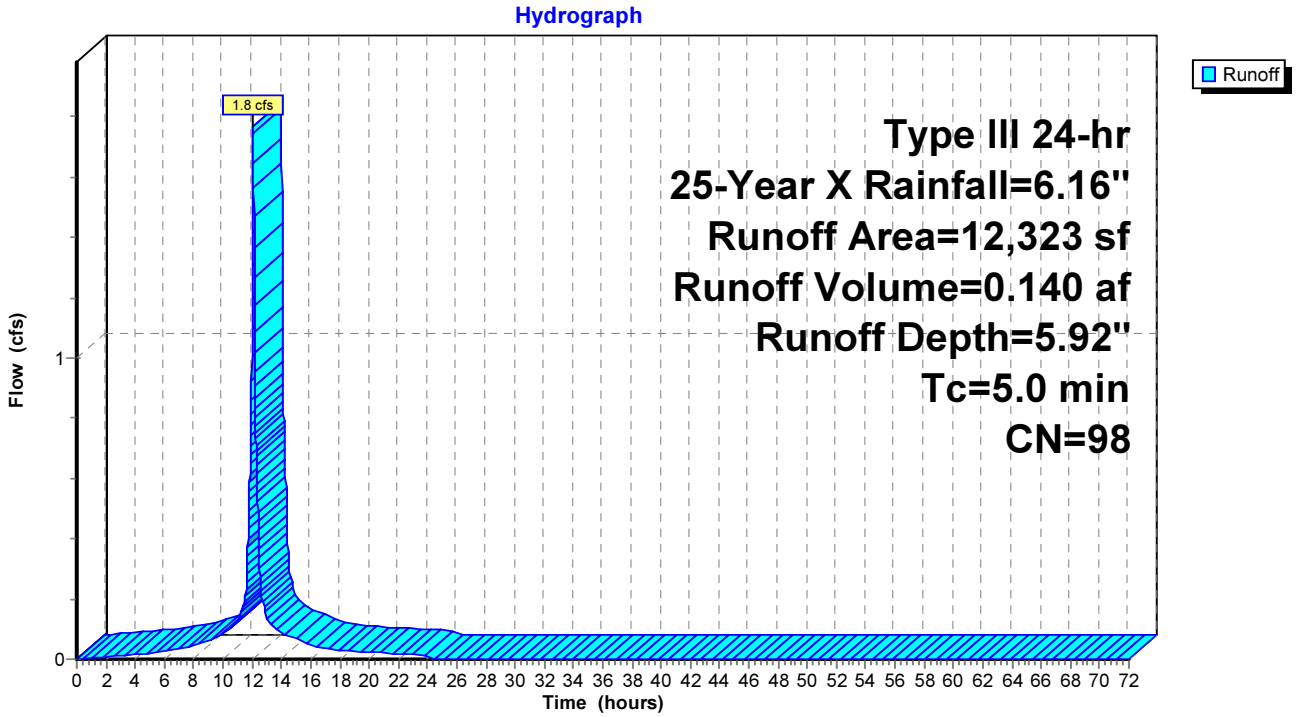
Runoff = 1.8 cfs @ 12.07 hrs, Volume= 0.140 af, Depth= 5.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year X Rainfall=6.16"

Area (sf)	CN	Description
12,323	98	Paved roads w/curbs & sewers, HSG C
12,323		100.00% Impervious Area

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

Subcatchment PS6:



Summary for Subcatchment PS7:

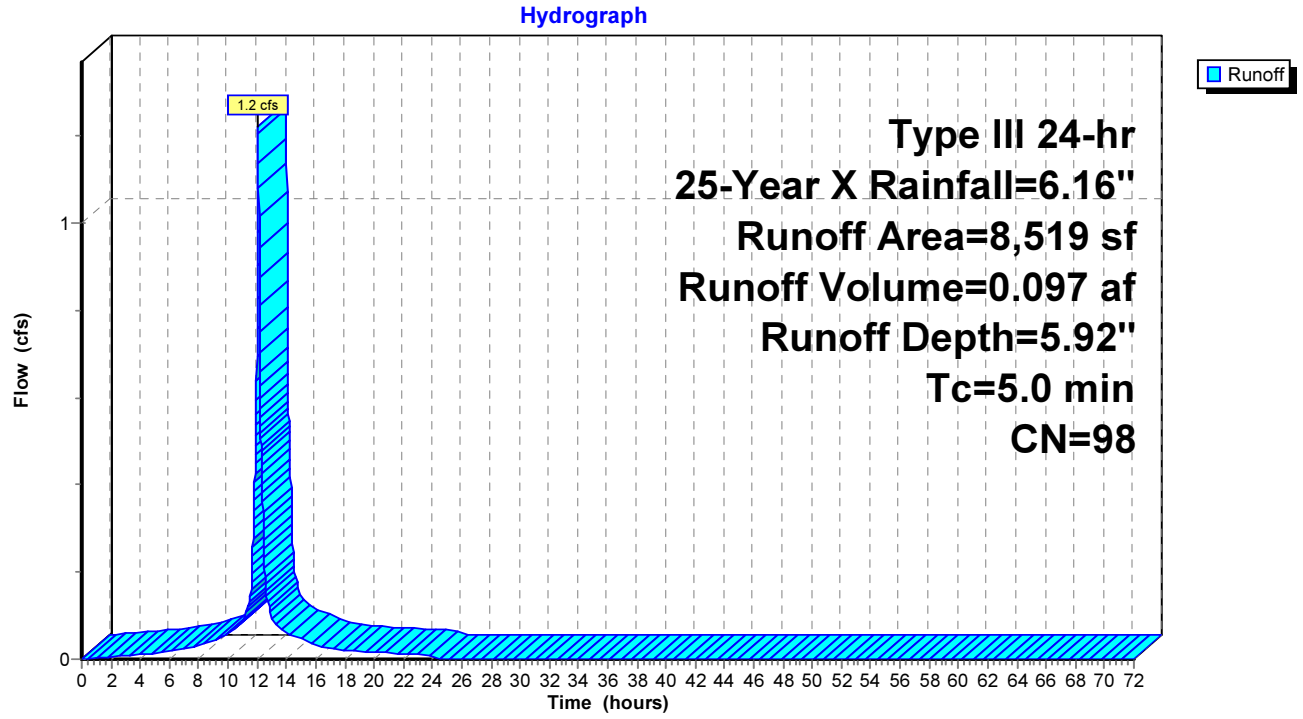
Runoff = 1.2 cfs @ 12.07 hrs, Volume= 0.097 af, Depth= 5.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year X Rainfall=6.16"

Area (sf)	CN	Description
8,519	98	Paved roads w/curbs & sewers, HSG C
8,519		100.00% Impervious Area

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

Subcatchment PS7:



Summary for Subcatchment PS8:

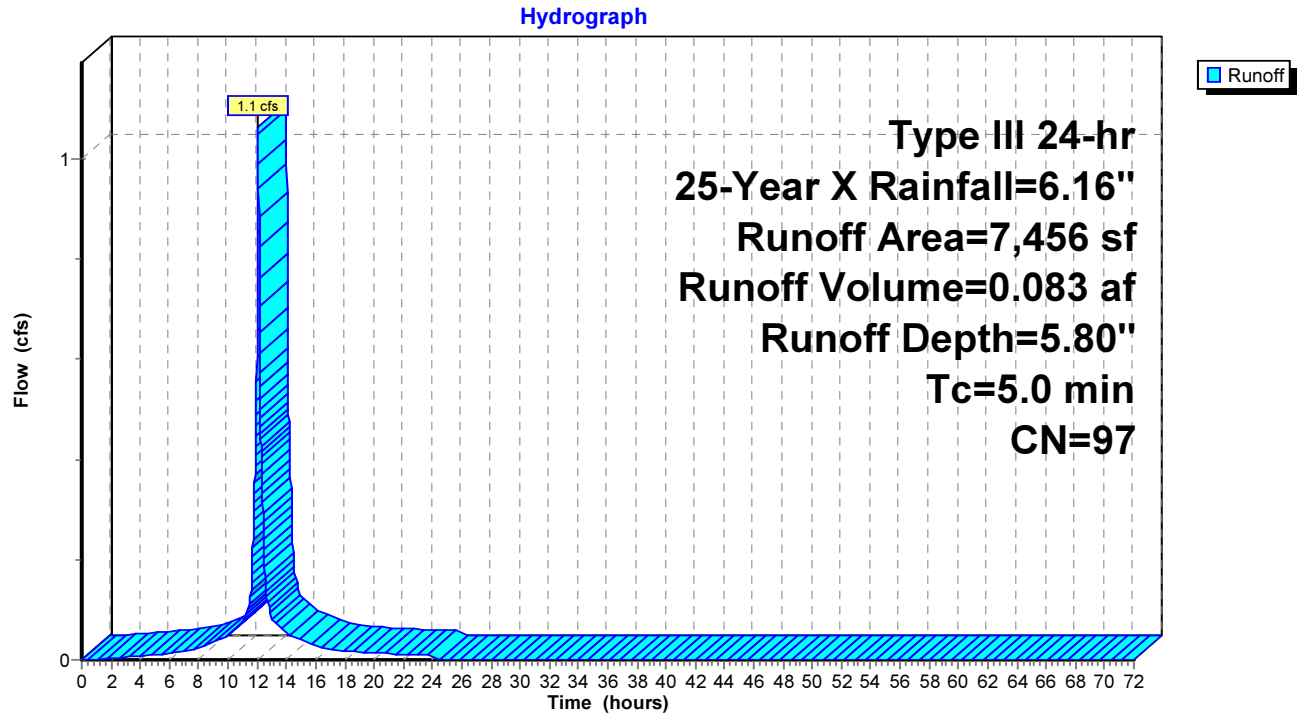
Runoff = 1.1 cfs @ 12.07 hrs, Volume= 0.083 af, Depth= 5.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year X Rainfall=6.16"

	Area (sf)	CN	Description
	4,674	98	Paved roads w/curbs & sewers, HSG C
	1,563	98	Paved roads w/curbs & sewers, HSG C
	121	98	Paved roads w/curbs & sewers, HSG C
*	39	98	Gravel roads, HSG C
	1,059	91	Fallow, bare soil, HSG C
	7,456	97	Weighted Average
	1,059		14.20% Pervious Area
	6,397		85.80% Impervious Area

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

Subcatchment PS8:



Summary for Pond 1P: CB 3528

[57] Hint: Peaked at 6.15' (Flood elevation advised)

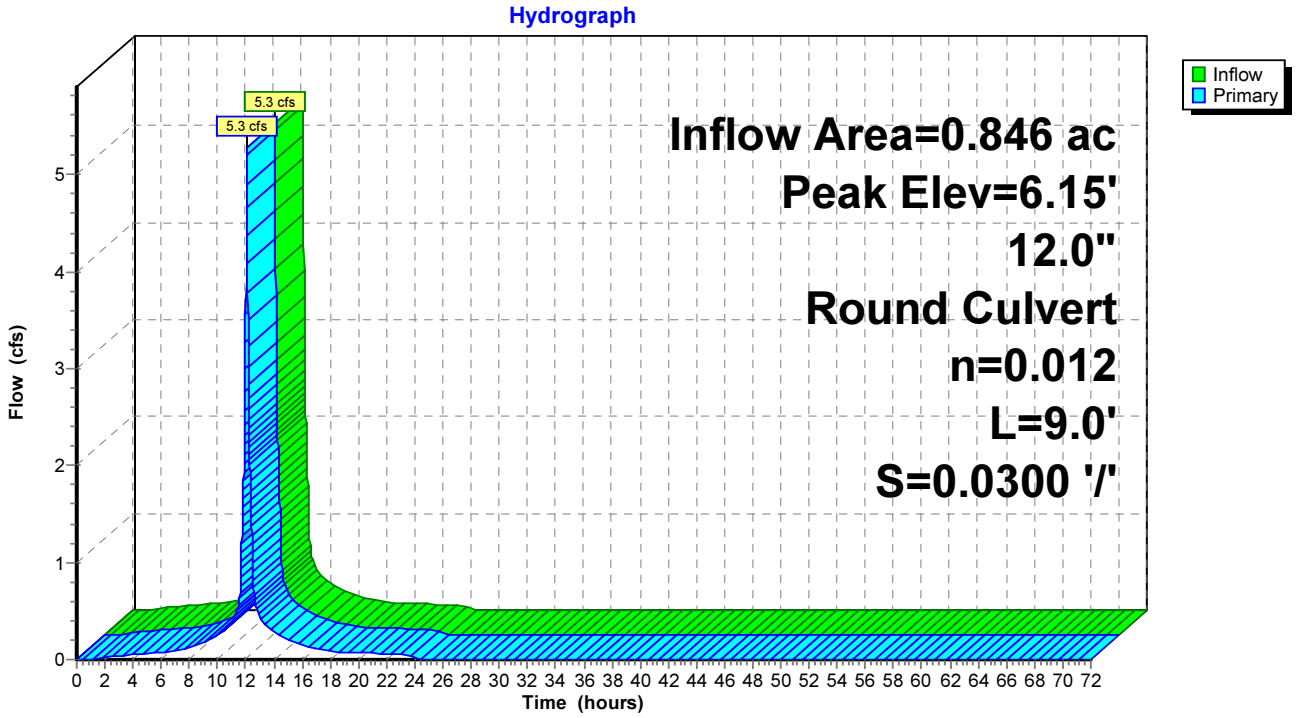
Inflow Area = 0.846 ac, 93.86% Impervious, Inflow Depth = 5.86" for 25-Year X event
Inflow = 5.3 cfs @ 12.07 hrs, Volume= 0.413 af
Outflow = 5.3 cfs @ 12.07 hrs, Volume= 0.413 af, Atten= 0%, Lag= 0.0 min
Primary = 5.3 cfs @ 12.07 hrs, Volume= 0.413 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.15' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.40'	**12.0" Round Culvert** L= 9.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 4.40' / 4.13' S= 0.0300 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=5.3 cfs @ 12.07 hrs HW=6.15' TW=4.70' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 5.3 cfs @ 6.72 fps)

Pond 1P: CB 3528



Summary for Pond 5P: DMH 3543

[57] Hint: Peaked at 4.71' (Flood elevation advised)

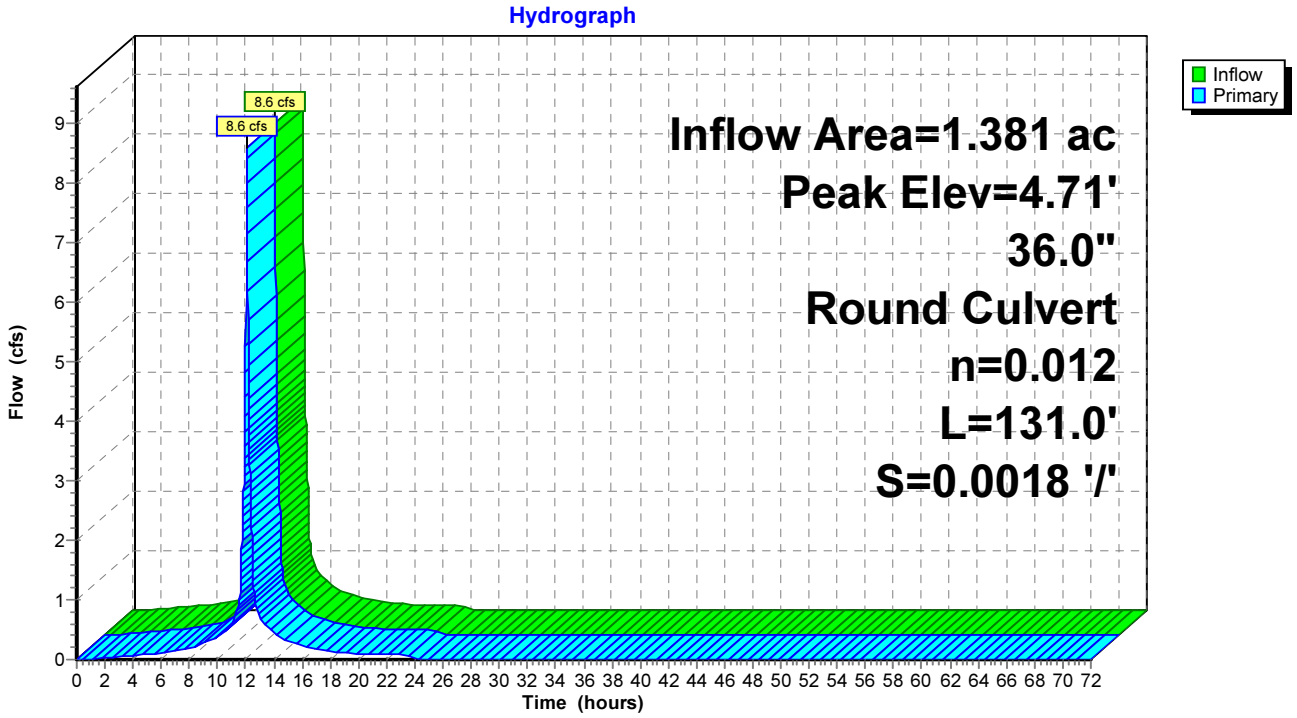
Inflow Area = 1.381 ac, 94.48% Impervious, Inflow Depth = 5.59" for 25-Year X event
Inflow = 8.6 cfs @ 12.07 hrs, Volume= 0.644 af
Outflow = 8.6 cfs @ 12.07 hrs, Volume= 0.644 af, Atten= 0%, Lag= 0.0 min
Primary = 8.6 cfs @ 12.07 hrs, Volume= 0.644 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 4.71' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	2.91'	**36.0" Round Culvert** L= 131.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 2.91' / 2.67' S= 0.0018 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=8.4 cfs @ 12.07 hrs HW=4.70' TW=4.46' (Dynamic Tailwater)
↳**1=Culvert** (Outlet Controls 8.4 cfs @ 2.73 fps)

Pond 5P: DMH 3543



Summary for Pond 6P: DMH 3542

[57] Hint: Peaked at 4.19' (Flood elevation advised)

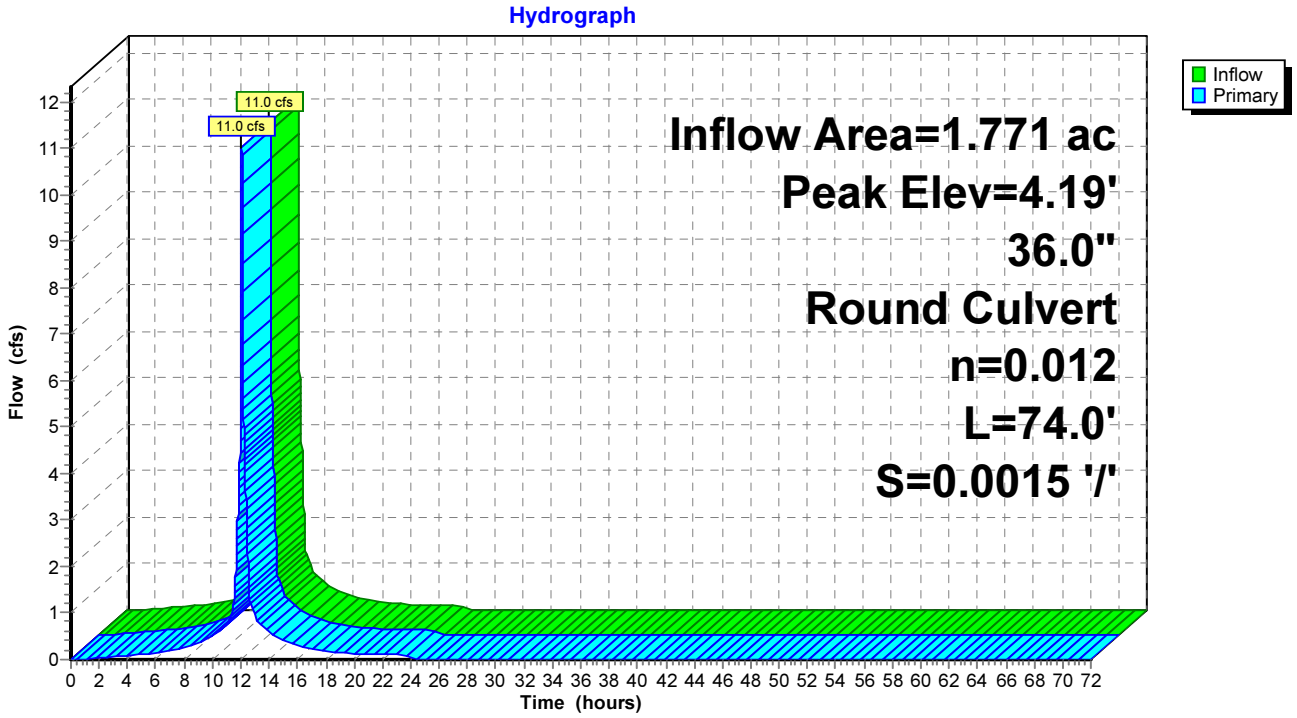
Inflow Area = 1.771 ac, 93.55% Impervious, Inflow Depth = 5.65" for 25-Year X event
Inflow = 11.0 cfs @ 12.07 hrs, Volume= 0.834 af
Outflow = 11.0 cfs @ 12.07 hrs, Volume= 0.834 af, Atten= 0%, Lag= 0.0 min
Primary = 11.0 cfs @ 12.07 hrs, Volume= 0.834 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 4.19' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	2.21'	**36.0" Round Culvert** L= 74.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 2.21' / 2.10' S= 0.0015 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=10.8 cfs @ 12.07 hrs HW=4.19' TW=3.94' (Dynamic Tailwater)
1=Culvert (Outlet Controls 10.8 cfs @ 3.11 fps)

Pond 6P: DMH 3542



Summary for Pond 7P: DMH 3541

[57] Hint: Peaked at 3.94' (Flood elevation advised)

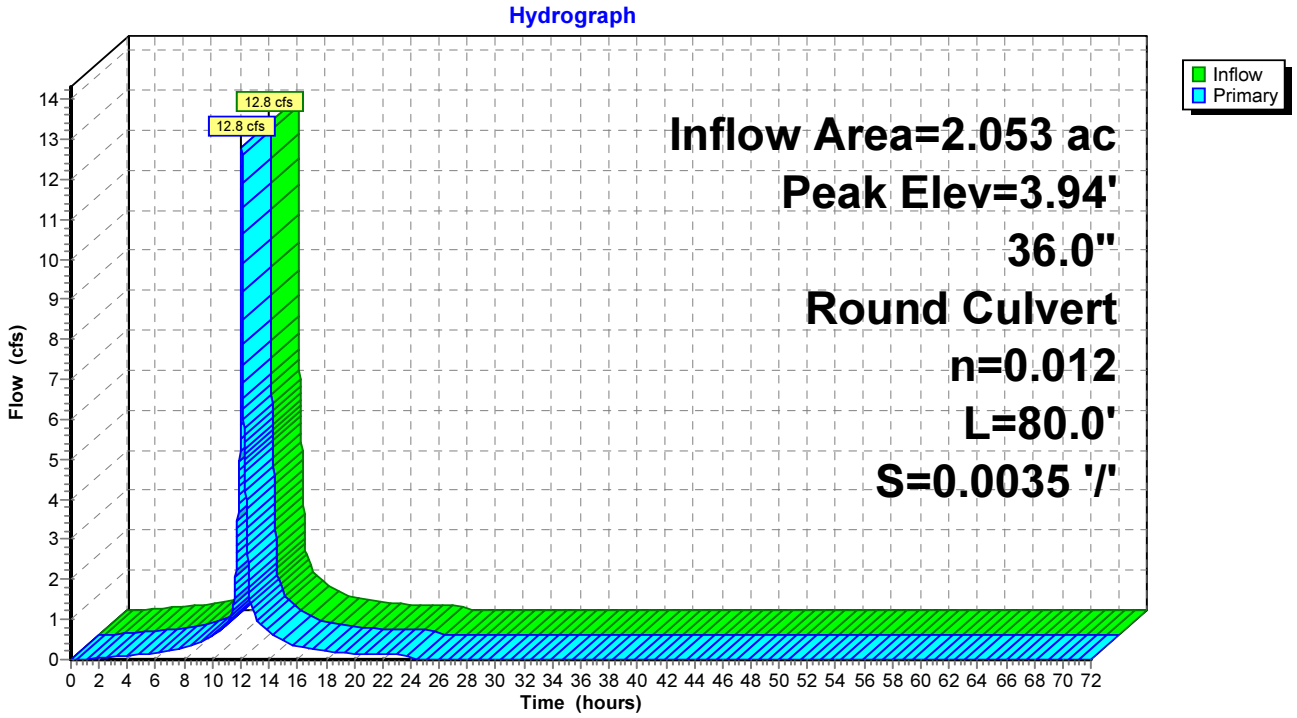
Inflow Area = 2.053 ac, 94.44% Impervious, Inflow Depth = 5.69" for 25-Year X event
Inflow = 12.8 cfs @ 12.07 hrs, Volume= 0.974 af
Outflow = 12.8 cfs @ 12.07 hrs, Volume= 0.974 af, Atten= 0%, Lag= 0.0 min
Primary = 12.8 cfs @ 12.07 hrs, Volume= 0.974 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.94' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.96'	**36.0" Round Culvert** L= 80.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 1.96' / 1.68' S= 0.0035 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=12.7 cfs @ 12.07 hrs HW=3.94' TW=3.59' (Dynamic Tailwater)
1=Culvert (Outlet Controls 12.7 cfs @ 3.65 fps)

Pond 7P: DMH 3541



Summary for Pond 8P: DMH 1A

[57] Hint: Peaked at 4.46' (Flood elevation advised)

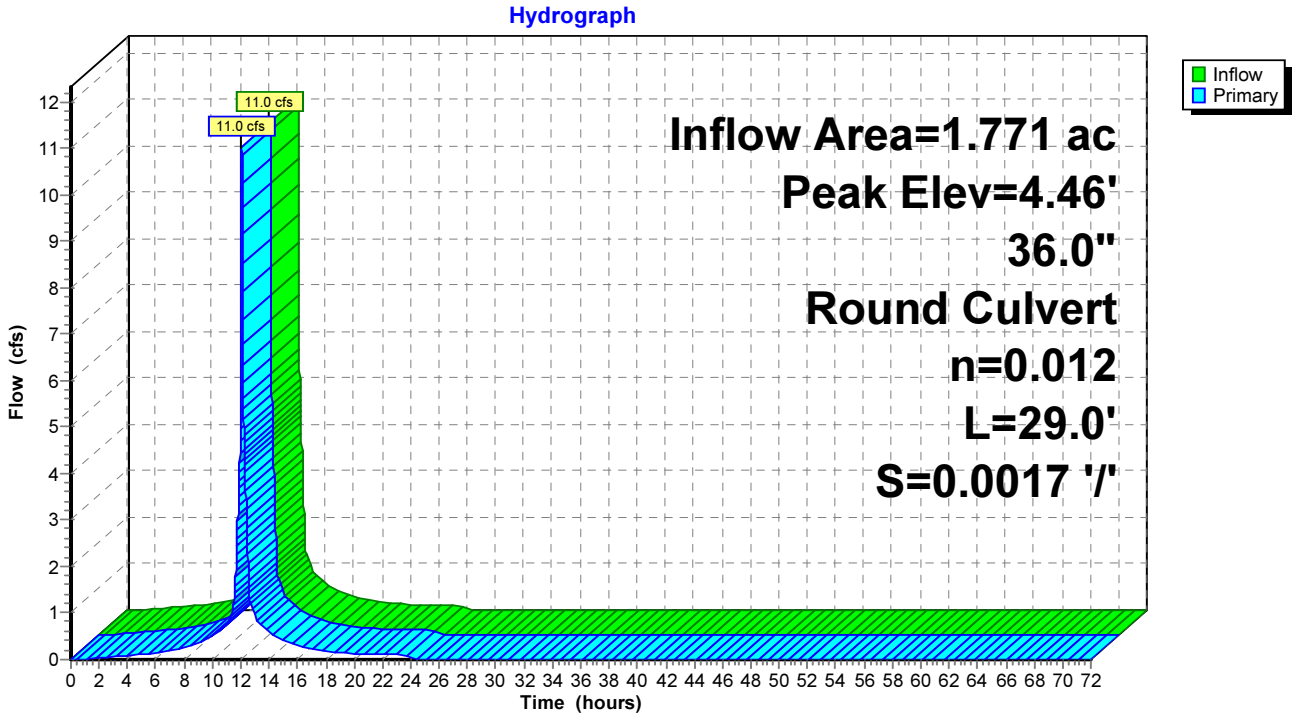
Inflow Area = 1.771 ac, 93.55% Impervious, Inflow Depth = 5.65" for 25-Year X event
Inflow = 11.0 cfs @ 12.07 hrs, Volume= 0.834 af
Outflow = 11.0 cfs @ 12.07 hrs, Volume= 0.834 af, Atten= 0%, Lag= 0.0 min
Primary = 11.0 cfs @ 12.07 hrs, Volume= 0.834 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 4.46' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	2.66'	**36.0" Round Culvert** L= 29.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 2.66' / 2.61' S= 0.0017 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=10.9 cfs @ 12.07 hrs HW=4.46' TW=4.19' (Dynamic Tailwater)
1=Culvert (Outlet Controls 10.9 cfs @ 3.53 fps)

Pond 8P: DMH 1A



Summary for Pond 9P: DMH 5438

[57] Hint: Peaked at 3.14' (Flood elevation advised)

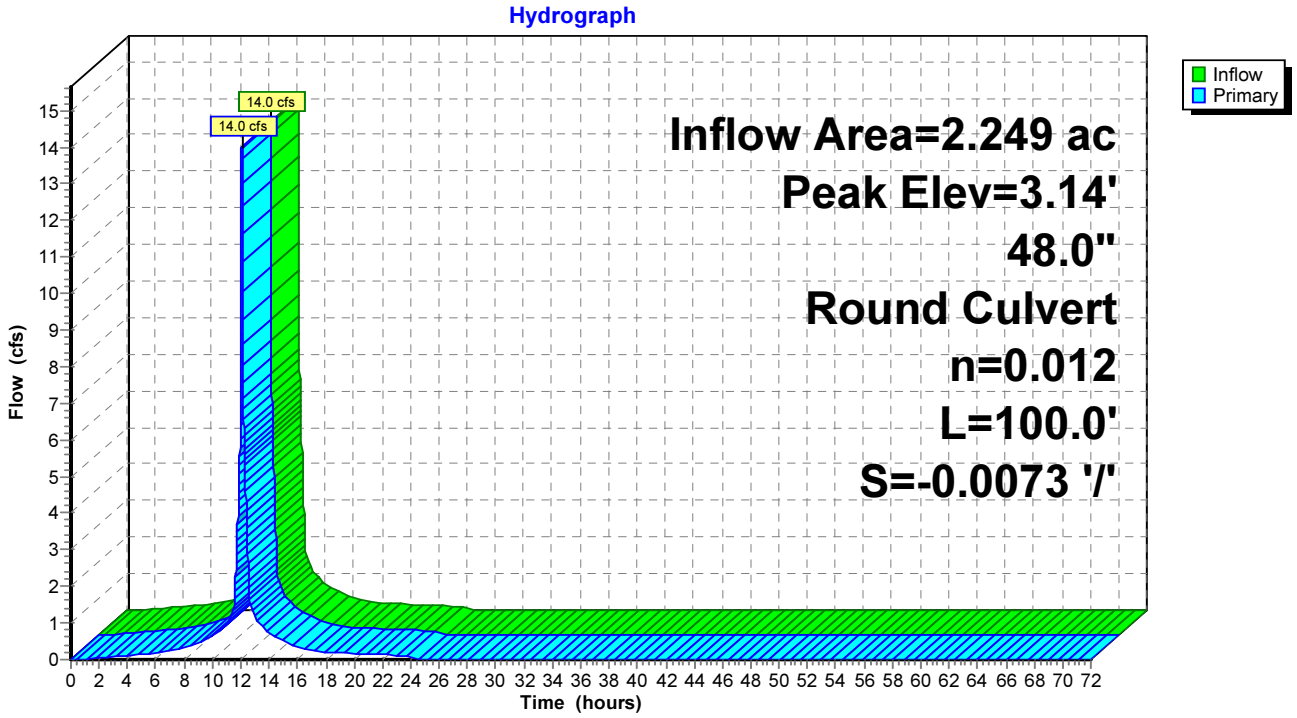
Inflow Area = 2.249 ac, 94.92% Impervious, Inflow Depth = 5.61" for 25-Year X event
Inflow = 14.0 cfs @ 12.07 hrs, Volume= 1.051 af
Outflow = 14.0 cfs @ 12.07 hrs, Volume= 1.051 af, Atten= 0%, Lag= 0.0 min
Primary = 14.0 cfs @ 12.07 hrs, Volume= 1.051 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.14' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.67'	**48.0" Round Culvert** L= 100.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 0.94' / 1.67' S= -0.0073 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 12.57 sf

Primary OutFlow Max=14.0 cfs @ 12.07 hrs HW=3.14' TW=2.83' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 14.0 cfs @ 3.33 fps)

Pond 9P: DMH 5438



Summary for Pond 10P: DMH 5217

[57] Hint: Peaked at 2.83' (Flood elevation advised)

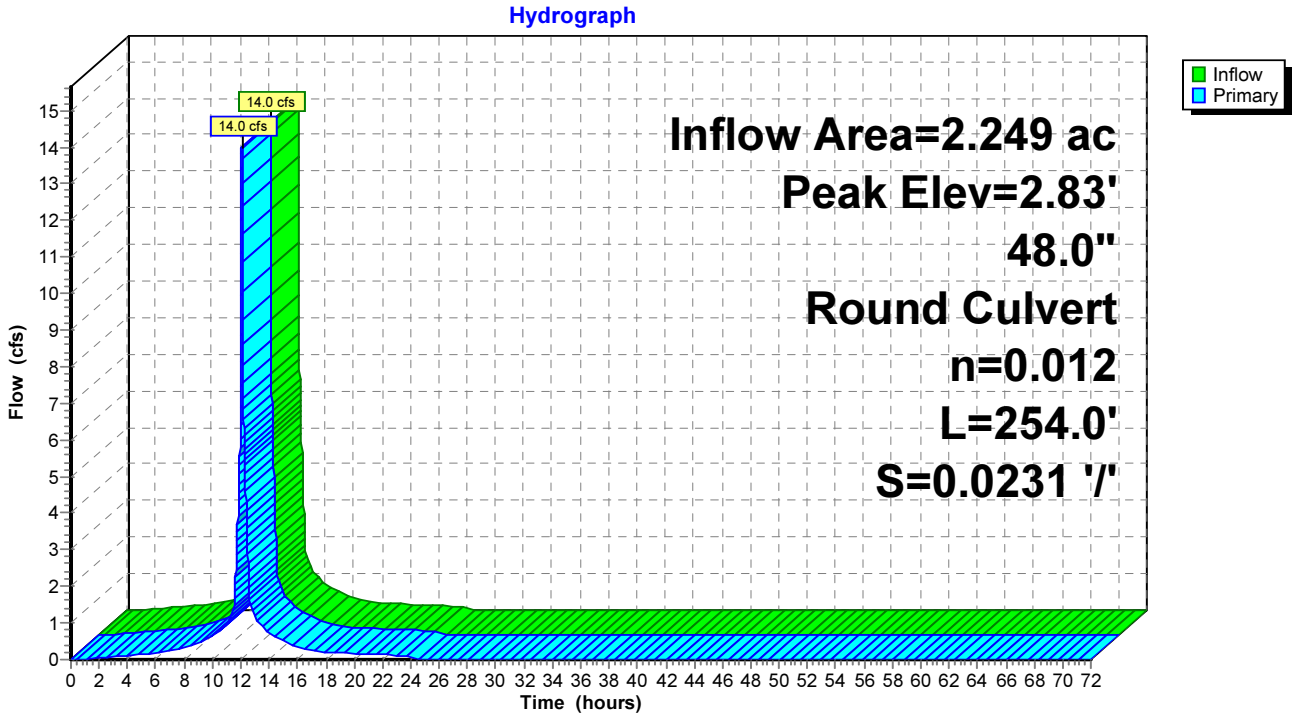
Inflow Area = 2.249 ac, 94.92% Impervious, Inflow Depth = 5.61" for 25-Year X event
Inflow = 14.0 cfs @ 12.07 hrs, Volume= 1.051 af
Outflow = 14.0 cfs @ 12.07 hrs, Volume= 1.051 af, Atten= 0%, Lag= 0.0 min
Primary = 14.0 cfs @ 12.07 hrs, Volume= 1.051 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 2.83' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.67'	**48.0" Round Culvert** L= 254.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 1.67' / -4.20' S= 0.0231 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 12.57 sf

Primary OutFlow Max=14.0 cfs @ 12.07 hrs HW=2.83' (Free Discharge)
└**1=Culvert** (Inlet Controls 14.0 cfs @ 4.59 fps)

Pond 10P: DMH 5217



Summary for Pond 11P: CB 3523

[57] Hint: Peaked at 8.15' (Flood elevation advised)

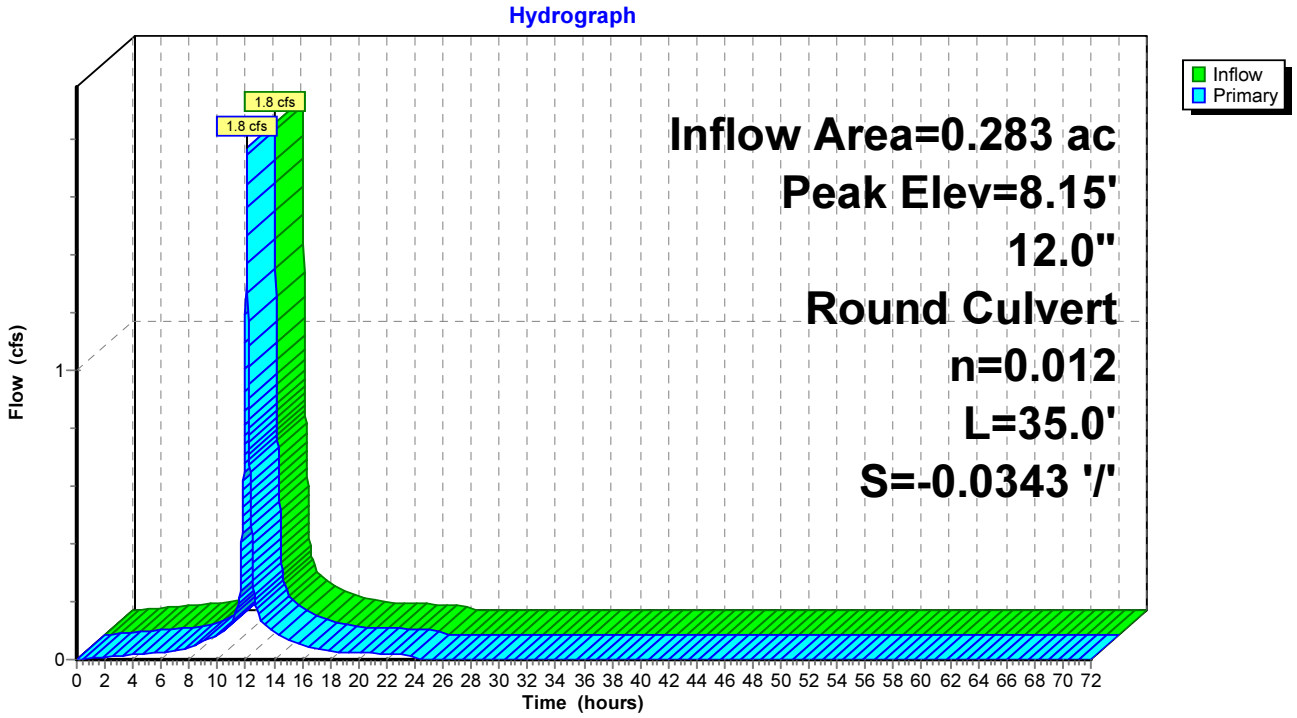
Inflow Area = 0.283 ac,100.00% Impervious, Inflow Depth = 5.92" for 25-Year X event
Inflow = 1.8 cfs @ 12.07 hrs, Volume= 0.140 af
Outflow = 1.8 cfs @ 12.07 hrs, Volume= 0.140 af, Atten= 0%, Lag= 0.0 min
Primary = 1.8 cfs @ 12.07 hrs, Volume= 0.140 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 8.15' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	7.52'	**12.0" Round Culvert** L= 35.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.32' / 7.52' S= -0.0343 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.8 cfs @ 12.07 hrs HW=8.15' TW=3.94' (Dynamic Tailwater)
1=Culvert (Inlet Controls 1.8 cfs @ 3.38 fps)

Pond 11P: CB 3523



Summary for Pond 13P: DMH 12303

[57] Hint: Peaked at 8.02' (Flood elevation advised)

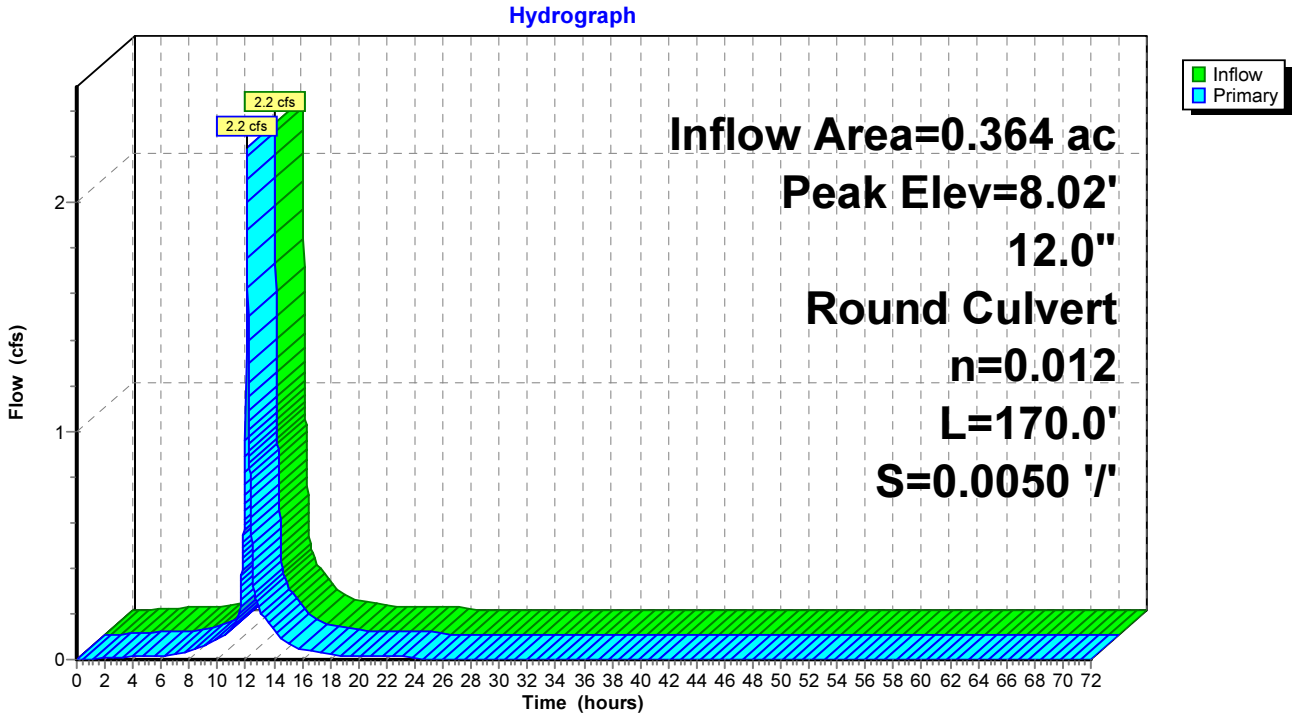
Inflow Area = 0.364 ac,100.00% Impervious, Inflow Depth = 4.88" for 25-Year X event
Inflow = 2.2 cfs @ 12.07 hrs, Volume= 0.148 af
Outflow = 2.2 cfs @ 12.07 hrs, Volume= 0.148 af, Atten= 0%, Lag= 0.0 min
Primary = 2.2 cfs @ 12.07 hrs, Volume= 0.148 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 8.02' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	6.09'	**12.0" Round Culvert** L= 170.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.09' / 5.24' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=2.2 cfs @ 12.07 hrs HW=8.01' TW=7.30' (Dynamic Tailwater)
1=Culvert (Outlet Controls 2.2 cfs @ 2.81 fps)

Pond 13P: DMH 12303



Summary for Pond 14P: DMH 12631

[57] Hint: Peaked at 7.31' (Flood elevation advised)
[80] Warning: Exceeded Pond 15P by 0.24' @ 12.04 hrs (2.3 cfs 0.006 af)

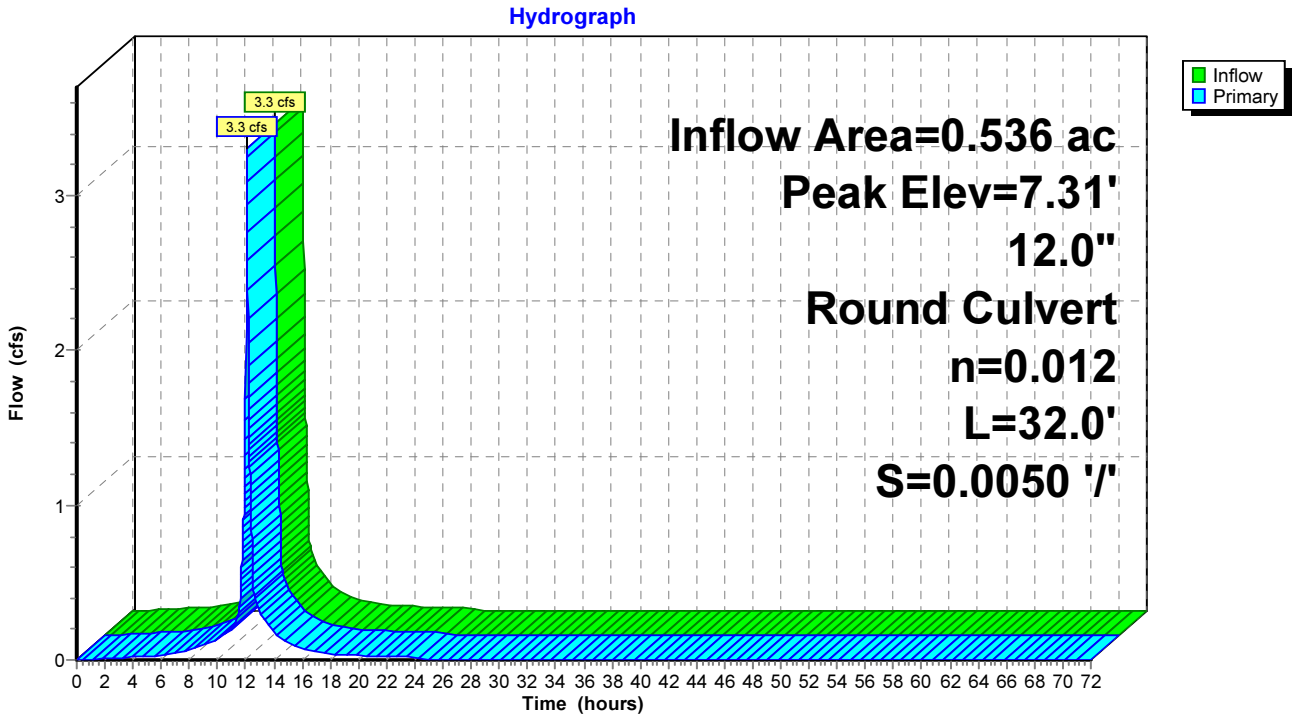
Inflow Area =	0.536 ac,	95.46% Impervious,	Inflow Depth =	5.18"	for 25-Year X event
Inflow =	3.3 cfs @	12.07 hrs,	Volume=	0.231 af	
Outflow =	3.3 cfs @	12.07 hrs,	Volume=	0.231 af,	Atten= 0%, Lag= 0.0 min
Primary =	3.3 cfs @	12.07 hrs,	Volume=	0.231 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 7.31' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.24'	**12.0" Round Culvert** L= 32.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.24' / 5.08' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=3.3 cfs @ 12.07 hrs HW=7.30' TW=6.74' (Dynamic Tailwater)
↳**1=Culvert** (Outlet Controls 3.3 cfs @ 4.20 fps)

Pond 14P: DMH 12631



Summary for Pond 15P: CB 8146

[57] Hint: Peaked at 7.35' (Flood elevation advised)

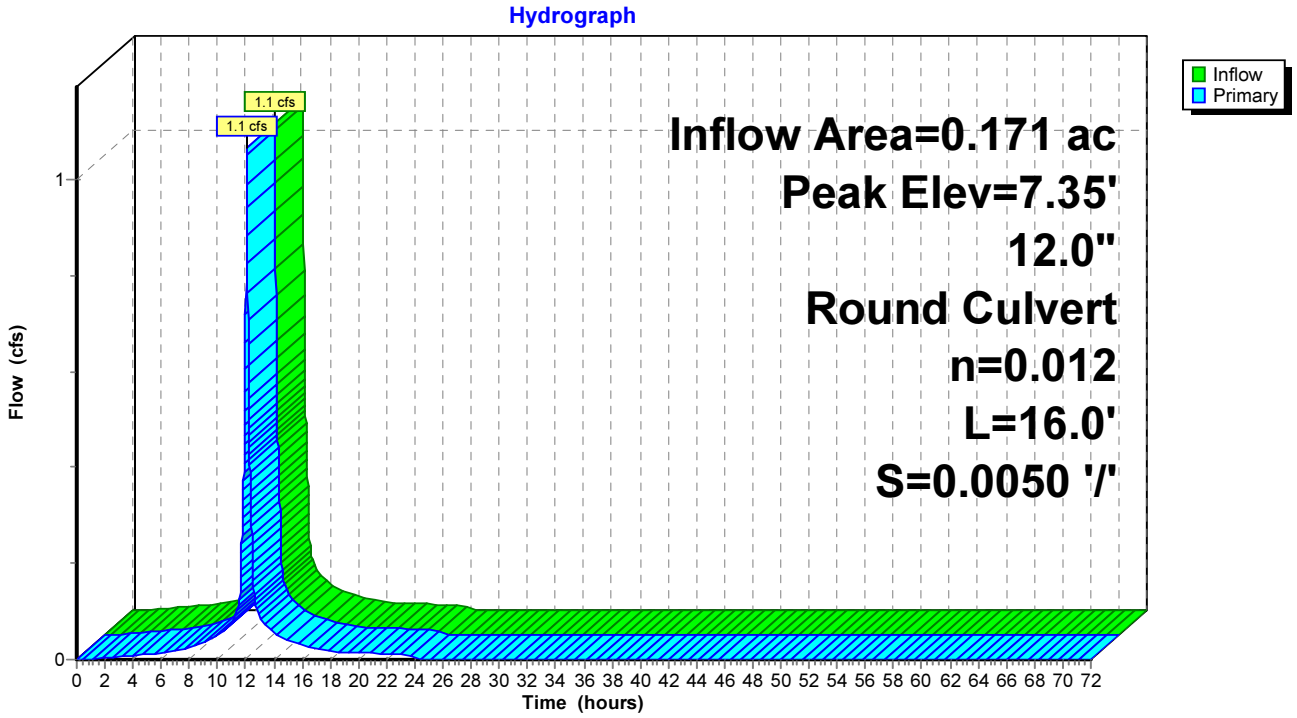
Inflow Area = 0.171 ac, 85.80% Impervious, Inflow Depth = 5.80" for 25-Year X event
Inflow = 1.1 cfs @ 12.07 hrs, Volume= 0.083 af
Outflow = 1.1 cfs @ 12.07 hrs, Volume= 0.083 af, Atten= 0%, Lag= 0.0 min
Primary = 1.1 cfs @ 12.07 hrs, Volume= 0.083 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 7.35' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.32'	**12.0" Round Culvert** L= 16.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.32' / 5.24' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.6 cfs @ 12.07 hrs HW=7.33' TW=7.31' (Dynamic Tailwater)
1=Culvert (Inlet Controls 0.6 cfs @ 0.82 fps)

Pond 15P: CB 8146



Summary for Pond 16P: DMH 12632

[57] Hint: Peaked at 6.74' (Flood elevation advised)

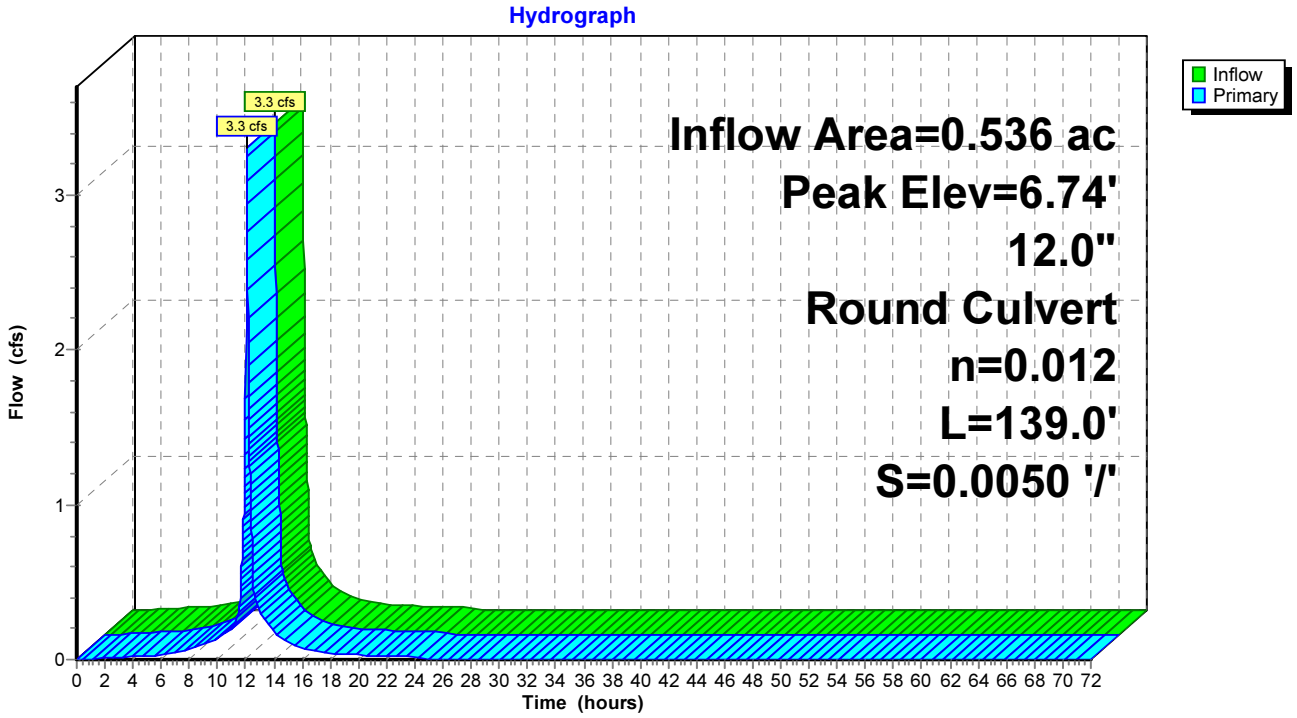
Inflow Area = 0.536 ac, 95.46% Impervious, Inflow Depth = 5.18" for 25-Year X event
Inflow = 3.3 cfs @ 12.07 hrs, Volume= 0.231 af
Outflow = 3.3 cfs @ 12.07 hrs, Volume= 0.231 af, Atten= 0%, Lag= 0.0 min
Primary = 3.3 cfs @ 12.07 hrs, Volume= 0.231 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.74' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.08'	**12.0" Round Culvert** L= 139.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.08' / 4.39' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=3.3 cfs @ 12.07 hrs HW=6.74' TW=5.20' (Dynamic Tailwater)
└**1=Culvert** (Barrel Controls 3.3 cfs @ 4.20 fps)

Pond 16P: DMH 12632



Summary for Pond 17P: DMH 3545

[57] Hint: Peaked at 5.20' (Flood elevation advised)

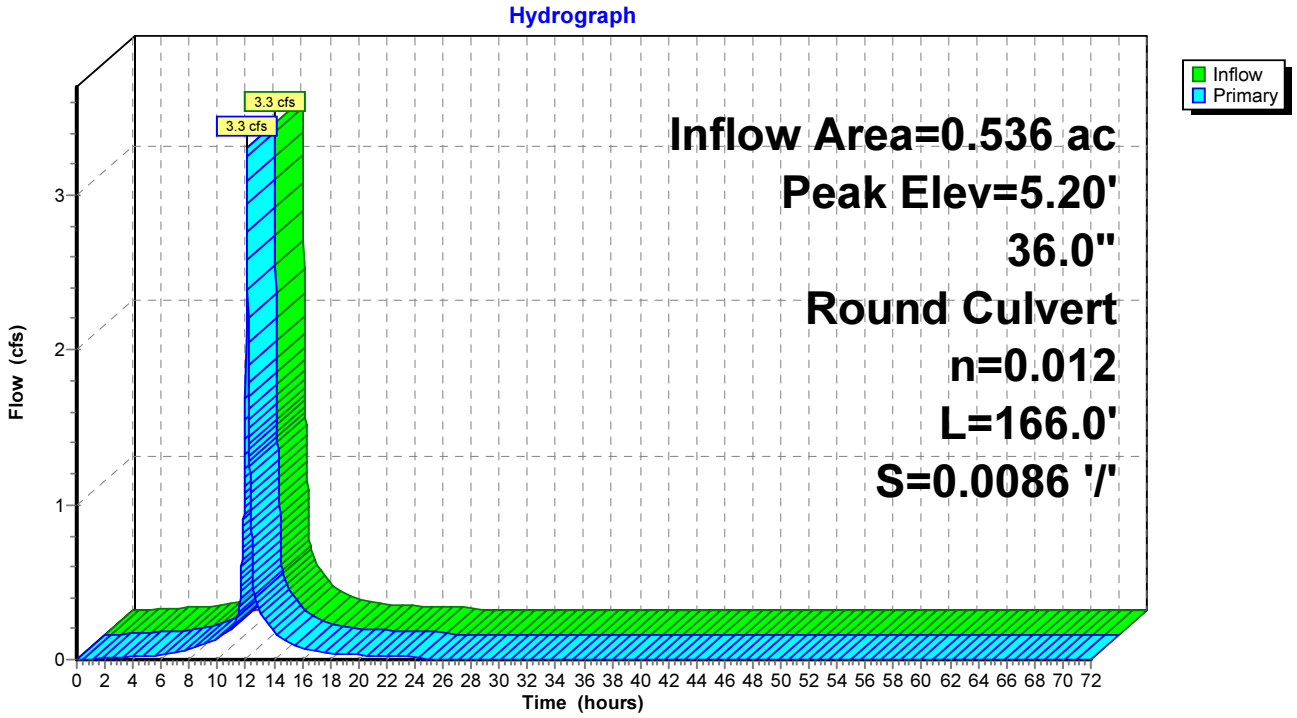
Inflow Area =	0.536 ac,	95.46% Impervious,	Inflow Depth =	5.18"	for 25-Year X event
Inflow =	3.3 cfs @	12.07 hrs,	Volume=	0.231 af	
Outflow =	3.3 cfs @	12.07 hrs,	Volume=	0.231 af,	Atten= 0%, Lag= 0.0 min
Primary =	3.3 cfs @	12.07 hrs,	Volume=	0.231 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 5.20' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.34'	**36.0" Round Culvert** L= 166.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 4.34' / 2.91' S= 0.0086 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 7.07 sf

Primary OutFlow Max=3.3 cfs @ 12.07 hrs HW=5.20' TW=4.70' (Dynamic Tailwater)
1=Culvert (Outlet Controls 3.3 cfs @ 2.94 fps)

Pond 17P: DMH 3545



Summary for Pond 29P: DMH 3

[57] Hint: Peaked at 3.64' (Flood elevation advised)

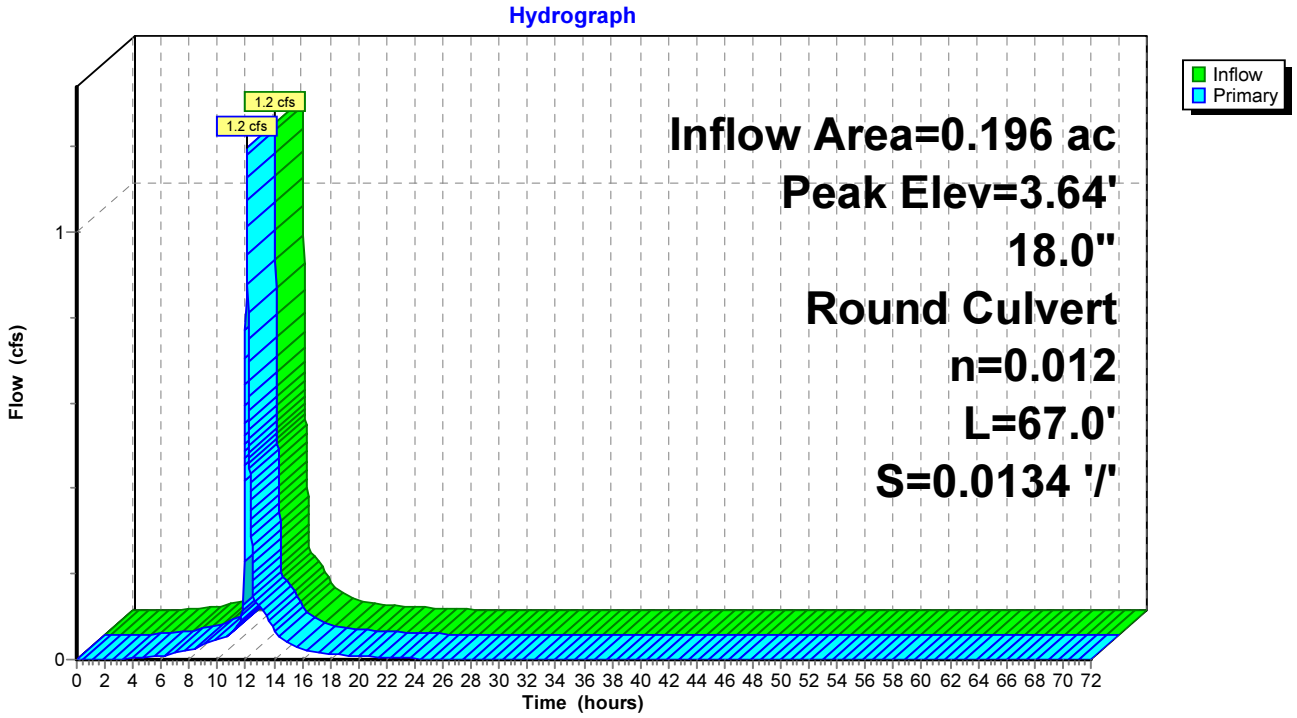
Inflow Area = 0.196 ac,100.00% Impervious, Inflow Depth = 4.72" for 25-Year X event
Inflow = 1.2 cfs @ 12.07 hrs, Volume= 0.077 af
Outflow = 1.2 cfs @ 12.07 hrs, Volume= 0.077 af, Atten= 0%, Lag= 0.0 min
Primary = 1.2 cfs @ 12.07 hrs, Volume= 0.077 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.64' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	2.53'	**18.0" Round Culvert** L= 67.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 2.53' / 1.63' S= 0.0134 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=1.2 cfs @ 12.07 hrs HW=3.64' TW=3.59' (Dynamic Tailwater)
└**1=Culvert** (Outlet Controls 1.2 cfs @ 1.17 fps)

Pond 29P: DMH 3



Summary for Pond 35P: CB 3

[57] Hint: Peaked at 7.45' (Flood elevation advised)

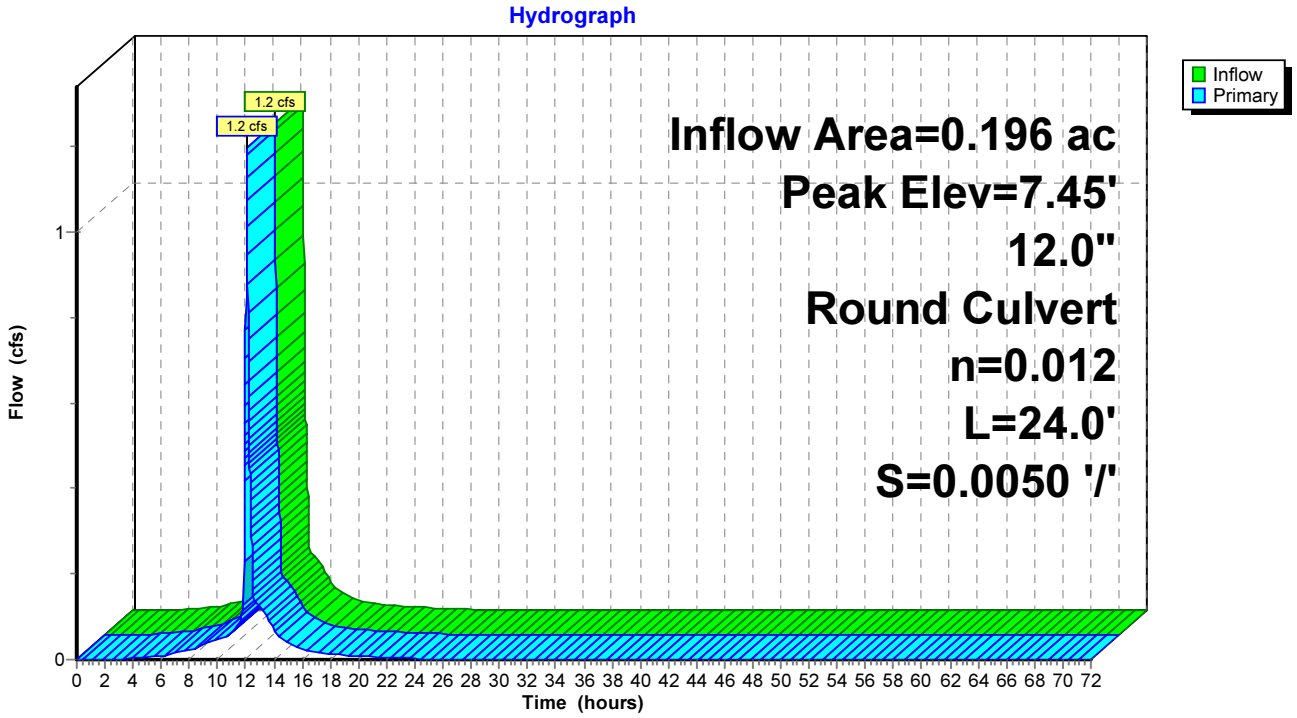
Inflow Area = 0.196 ac,100.00% Impervious, Inflow Depth = 4.72" for 25-Year X event
Inflow = 1.2 cfs @ 12.07 hrs, Volume= 0.077 af
Outflow = 1.2 cfs @ 12.07 hrs, Volume= 0.077 af, Atten= 0%, Lag= 0.0 min
Primary = 1.2 cfs @ 12.07 hrs, Volume= 0.077 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 7.45' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	6.77'	**12.0" Round Culvert** L= 24.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 6.77' / 6.65' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.2 cfs @ 12.07 hrs HW=7.45' TW=3.64' (Dynamic Tailwater)
1=Culvert (Barrel Controls 1.2 cfs @ 2.96 fps)

Pond 35P: CB 3



Summary for Pond 36P: CB 3526

[57] Hint: Peaked at 8.25' (Flood elevation advised)

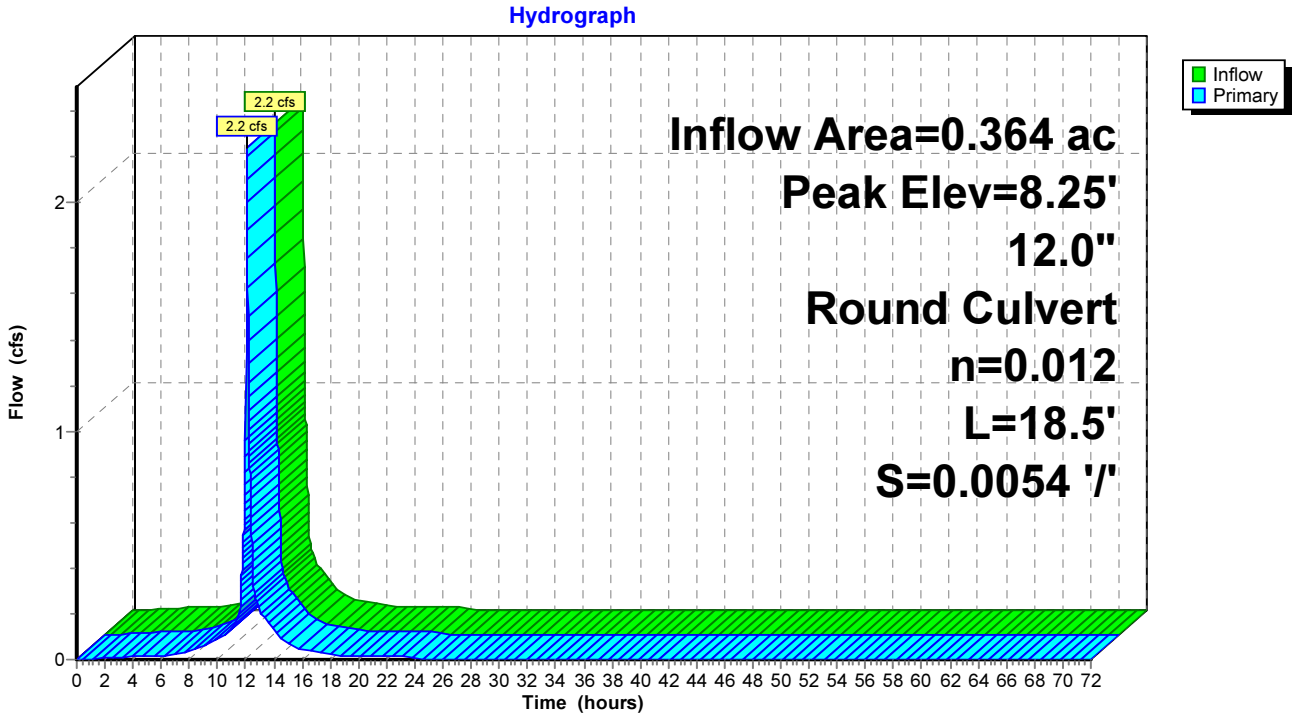
Inflow Area = 0.364 ac,100.00% Impervious, Inflow Depth = 4.88" for 25-Year X event
Inflow = 2.2 cfs @ 12.07 hrs, Volume= 0.148 af
Outflow = 2.2 cfs @ 12.07 hrs, Volume= 0.148 af, Atten= 0%, Lag= 0.0 min
Primary = 2.2 cfs @ 12.07 hrs, Volume= 0.148 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 8.25' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	6.19'	**12.0" Round Culvert** L= 18.5' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.19' / 6.09' S= 0.0054 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=2.2 cfs @ 12.07 hrs HW=8.22' TW=8.01' (Dynamic Tailwater)
1=Culvert (Inlet Controls 2.2 cfs @ 2.79 fps)

Pond 36P: CB 3526



Summary for Pond 37P: 94 Silva Cells with OCS #2

Inflow Area = 0.169 ac,100.00% Impervious, Inflow Depth = 5.92" for 25-Year X event
Inflow = 1.1 cfs @ 12.07 hrs, Volume= 0.083 af
Outflow = 1.1 cfs @ 12.07 hrs, Volume= 0.083 af, Atten= 0%, Lag= 0.3 min
Discarded = 0.0 cfs @ 11.68 hrs, Volume= 0.032 af
Primary = 1.0 cfs @ 12.07 hrs, Volume= 0.052 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 11.56' @ 12.07 hrs Surf.Area= 774 sf Storage= 397 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 11.4 min (755.2 - 743.8)

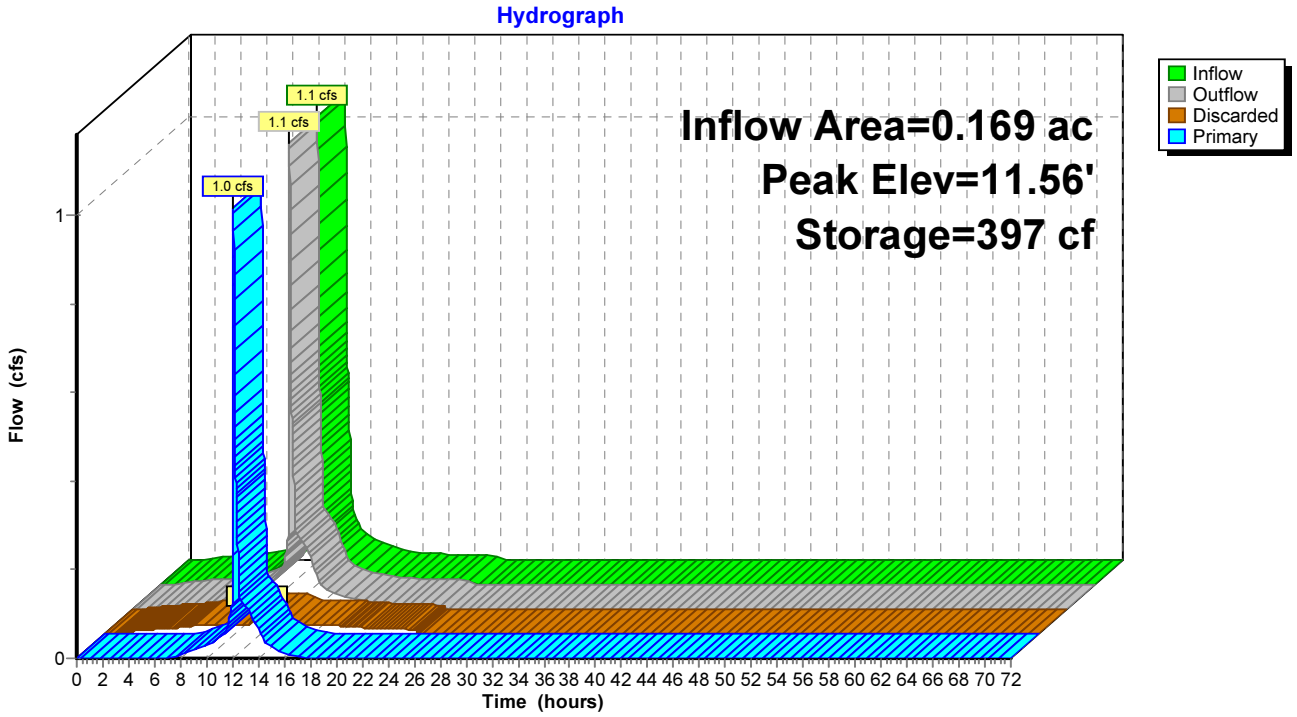
Volume	Invert	Avail.Storage	Storage Description
#1	8.40'	132 cf	**DeepRoot Silva Cell 20% x3** x 23 Inside= 24.6"W x 45.3"H => 1.42 sf x 4.02'L = 5.7 cf Outside= 24.6"W x 45.3"H => 7.74 sf x 4.02'L = 31.1 cf
#2	8.40'	137 cf	**DeepRoot Silva Cell 20% x3** x 24 Inside= 24.6"W x 45.3"H => 1.42 sf x 4.02'L = 5.7 cf Outside= 24.6"W x 45.3"H => 7.74 sf x 4.02'L = 31.1 cf
#3	8.90'	137 cf	**DeepRoot Silva Cell 20% x3** x 24 Inside= 24.6"W x 45.3"H => 1.42 sf x 4.02'L = 5.7 cf Outside= 24.6"W x 45.3"H => 7.74 sf x 4.02'L = 31.1 cf
#4	9.40'	132 cf	**DeepRoot Silva Cell 20% x3** x 23 Inside= 24.6"W x 45.3"H => 1.42 sf x 4.02'L = 5.7 cf Outside= 24.6"W x 45.3"H => 7.74 sf x 4.02'L = 31.1 cf
		538 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	8.30'	**12.0" Round Culvert** L= 9.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 8.30' / 8.26' S= 0.0044 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Primary	8.40'	**1.0" Vert. Orifice/Grate X 3.00** C= 0.600
#3	Device 1	11.40'	**5.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#4	Discarded	8.40'	**2.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.0 cfs @ 11.68 hrs HW=9.41' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=1.0 cfs @ 12.07 hrs HW=11.56' TW=8.23' (Dynamic Tailwater)
├**1=Culvert** (Passes 0.9 cfs of 7.9 cfs potential flow)
│ └**3=Broad-Crested Rectangular Weir** (Weir Controls 0.9 cfs @ 1.11 fps)
└**2=Orifice/Grate** (Orifice Controls 0.1 cfs @ 8.50 fps)

Pond 37P: 94 Silva Cells with OCS #2



Summary for Pond 38P: 73 Silva Cells with OCS #3

Inflow Area = 0.196 ac,100.00% Impervious, Inflow Depth = 5.92" for 25-Year X event
Inflow = 1.2 cfs @ 12.07 hrs, Volume= 0.097 af
Outflow = 1.2 cfs @ 12.07 hrs, Volume= 0.097 af, Atten= 0%, Lag= 0.2 min
Discarded = 0.0 cfs @ 11.64 hrs, Volume= 0.020 af
Primary = 1.2 cfs @ 12.07 hrs, Volume= 0.077 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 10.18' @ 12.07 hrs Surf.Area= 601 sf Storage= 273 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 7.6 min (751.4 - 743.8)

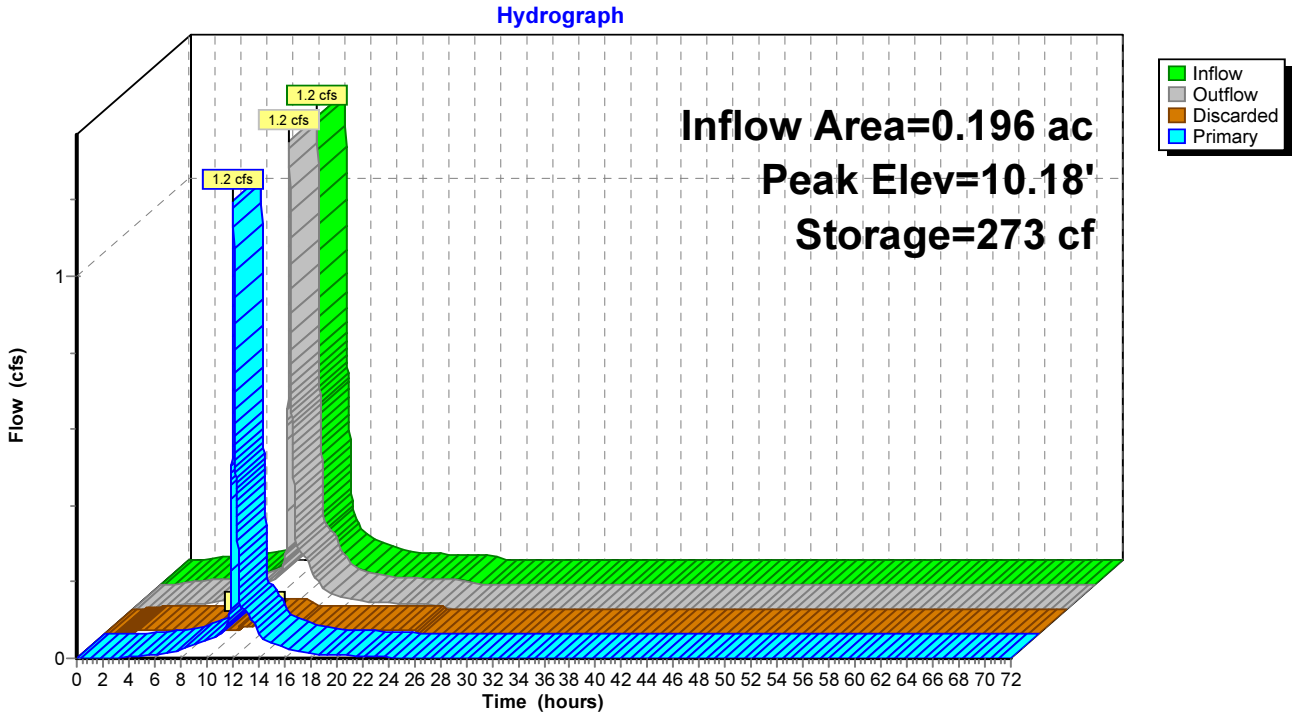
Volume	Invert	Avail.Storage	Storage Description
#1	7.00'	120 cf	**DeepRoot Silva Cell 20% x3** x 21 Inside= 24.6"W x 45.3"H => 1.42 sf x 4.02'L = 5.7 cf Outside= 24.6"W x 45.3"H => 7.74 sf x 4.02'L = 31.1 cf
#2	7.50'	149 cf	**DeepRoot Silva Cell 20% x3** x 26 Inside= 24.6"W x 45.3"H => 1.42 sf x 4.02'L = 5.7 cf Outside= 24.6"W x 45.3"H => 7.74 sf x 4.02'L = 31.1 cf
#3	8.50'	149 cf	**DeepRoot Silva Cell 20% x3** x 26 Inside= 24.6"W x 45.3"H => 1.42 sf x 4.02'L = 5.7 cf Outside= 24.6"W x 45.3"H => 7.74 sf x 4.02'L = 31.1 cf
		418 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	6.90'	**12.0" Round Culvert** L= 7.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 6.90' / 6.87' S= 0.0043 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Primary	7.00'	**1.0" Vert. Orifice/Grate X 3.00** C= 0.600
#3	Device 1	10.00'	**5.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#4	Discarded	7.00'	**2.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.0 cfs @ 11.64 hrs HW=8.51' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=1.2 cfs @ 12.07 hrs HW=10.18' TW=7.45' (Dynamic Tailwater)
├**1=Culvert** (Passes 1.1 cfs of 7.8 cfs potential flow)
│└**3=Broad-Crested Rectangular Weir** (Weir Controls 1.1 cfs @ 1.19 fps)
└**2=Orifice/Grate** (Orifice Controls 0.1 cfs @ 7.95 fps)

Pond 38P: 73 Silva Cells with OCS #3



Summary for Pond CB1:

[57] Hint: Peaked at 6.44' (Flood elevation advised)

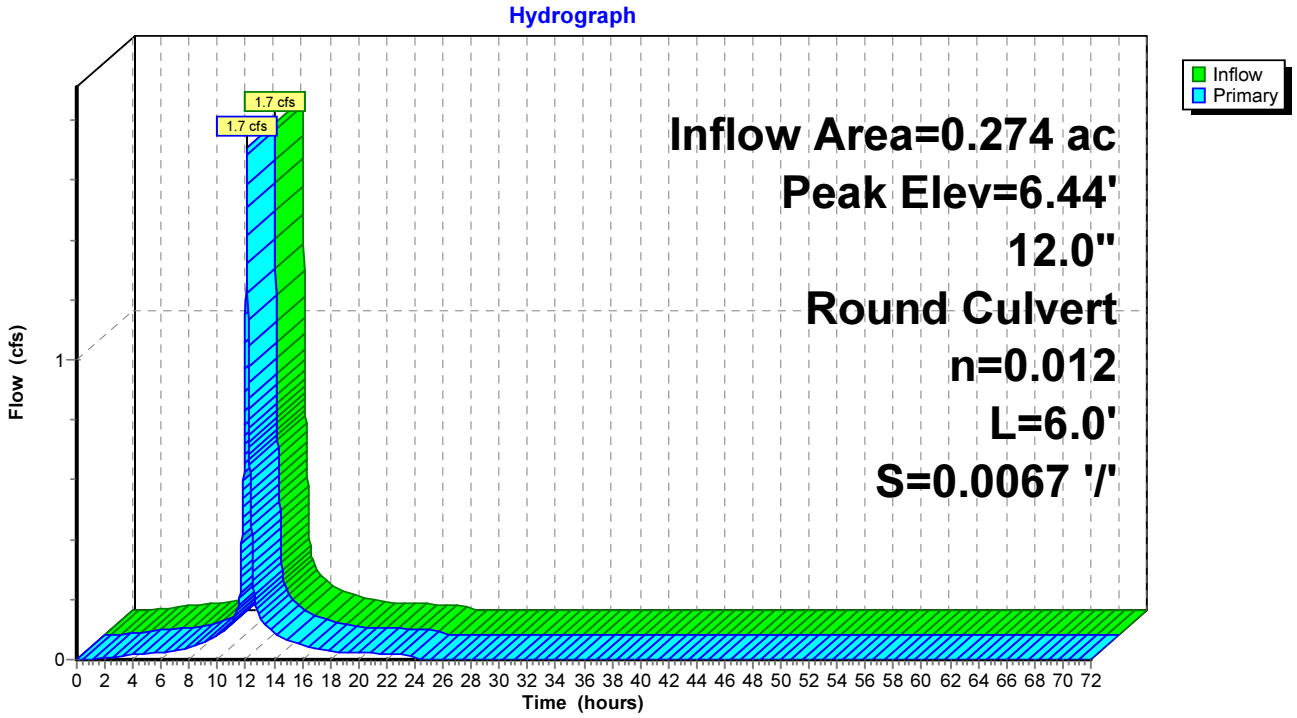
Inflow Area = 0.274 ac, 87.53% Impervious, Inflow Depth = 5.85" for 25-Year X event
Inflow = 1.7 cfs @ 12.07 hrs, Volume= 0.133 af
Outflow = 1.7 cfs @ 12.07 hrs, Volume= 0.133 af, Atten= 0%, Lag= 0.0 min
Primary = 1.7 cfs @ 12.07 hrs, Volume= 0.133 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.44' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.33'	**12.0" Round Culvert** L= 6.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.33' / 5.29' S= 0.0067 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=1.7 cfs @ 12.07 hrs HW=6.44' TW=6.31' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 1.7 cfs @ 2.14 fps)

Pond CB1:



Summary for Pond CB2:

[57] Hint: Peaked at 6.35' (Flood elevation advised)

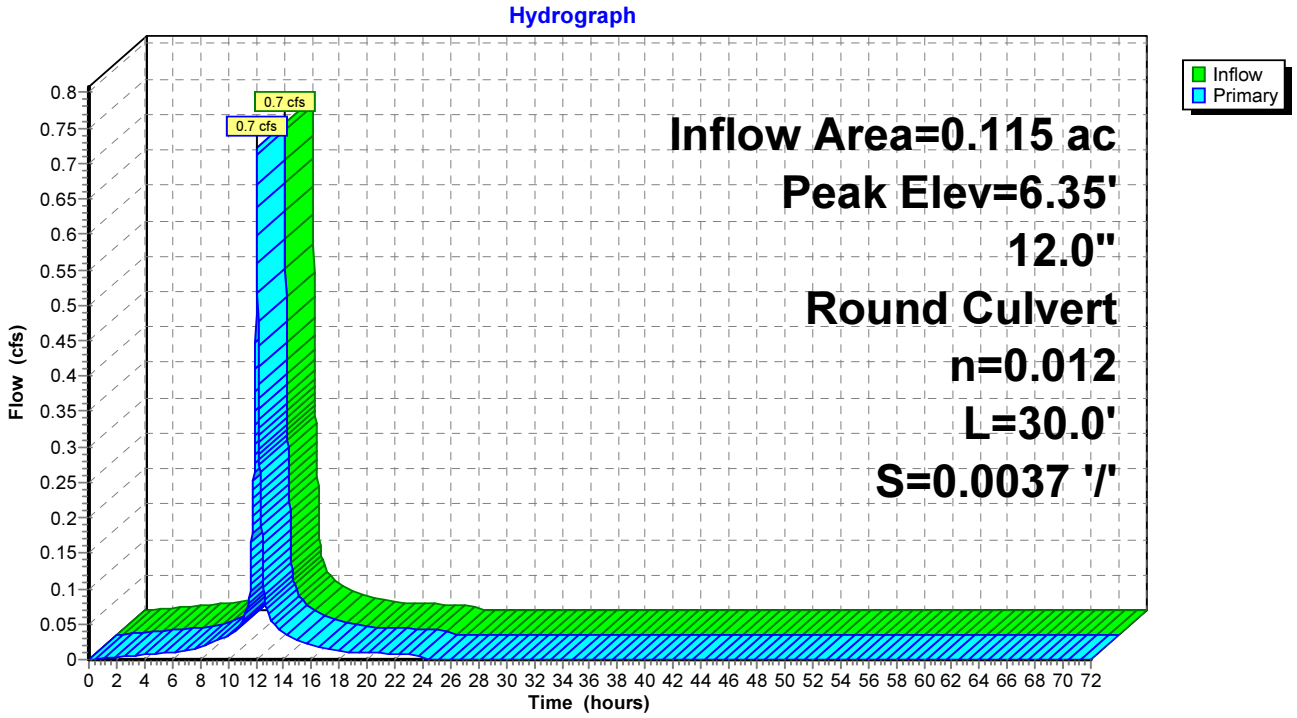
Inflow Area = 0.115 ac, 96.72% Impervious, Inflow Depth = 5.92" for 25-Year X event
Inflow = 0.7 cfs @ 12.07 hrs, Volume= 0.057 af
Outflow = 0.7 cfs @ 12.07 hrs, Volume= 0.057 af, Atten= 0%, Lag= 0.0 min
Primary = 0.7 cfs @ 12.07 hrs, Volume= 0.057 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.35' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.40'	**12.0" Round Culvert** L= 30.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.40' / 5.29' S= 0.0037 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.7 cfs @ 12.07 hrs HW=6.35' TW=6.31' (Dynamic Tailwater)
└**1=Culvert** (Outlet Controls 0.7 cfs @ 1.15 fps)

Pond CB2:



Summary for Pond DMH1:

[57] Hint: Peaked at 5.90' (Flood elevation advised)

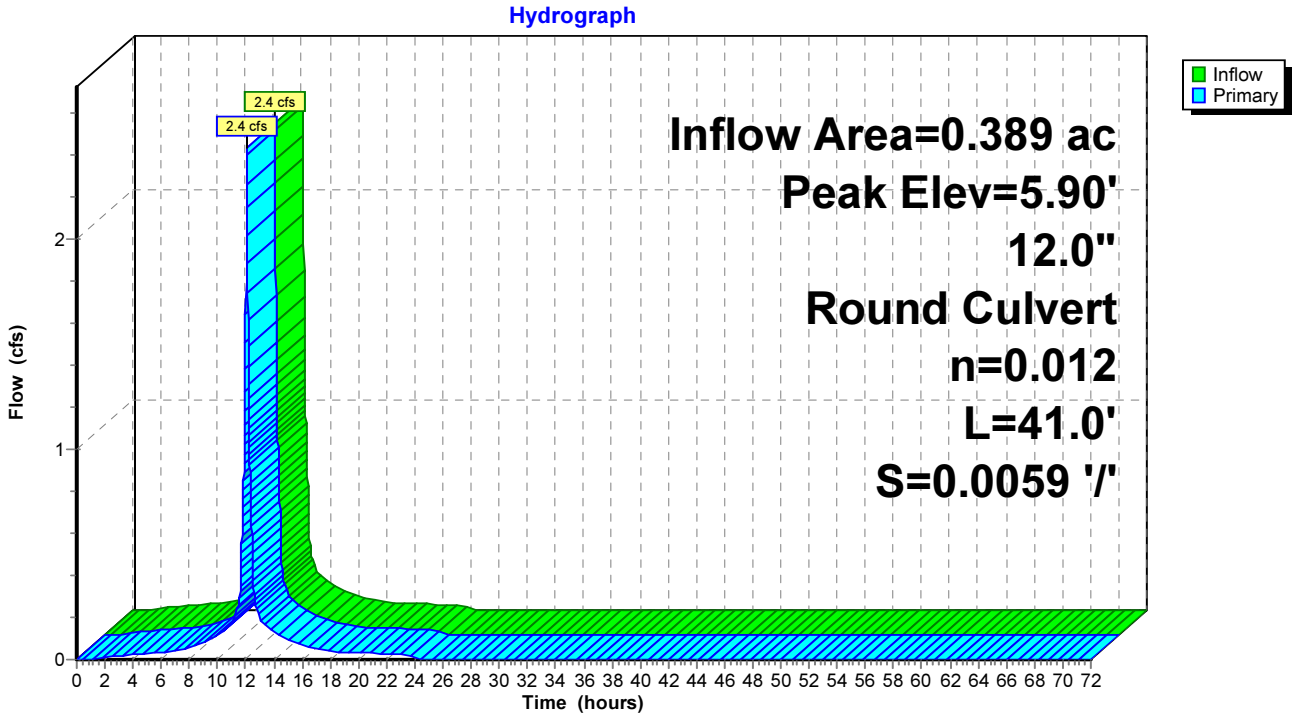
Inflow Area = 0.389 ac, 90.26% Impervious, Inflow Depth = 5.87" for 25-Year X event
Inflow = 2.4 cfs @ 12.07 hrs, Volume= 0.190 af
Outflow = 2.4 cfs @ 12.07 hrs, Volume= 0.190 af, Atten= 0%, Lag= 0.0 min
Primary = 2.4 cfs @ 12.07 hrs, Volume= 0.190 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 5.90' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.91'	**12.0" Round Culvert** L= 41.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 4.91' / 4.67' S= 0.0059 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=2.4 cfs @ 12.07 hrs HW=5.90' TW=4.46' (Dynamic Tailwater)
↳**1=Culvert** (Barrel Controls 2.4 cfs @ 3.90 fps)

Pond DMH1:



Summary for Pond DP1: DMH 3540

[57] Hint: Peaked at 3.59' (Flood elevation advised)

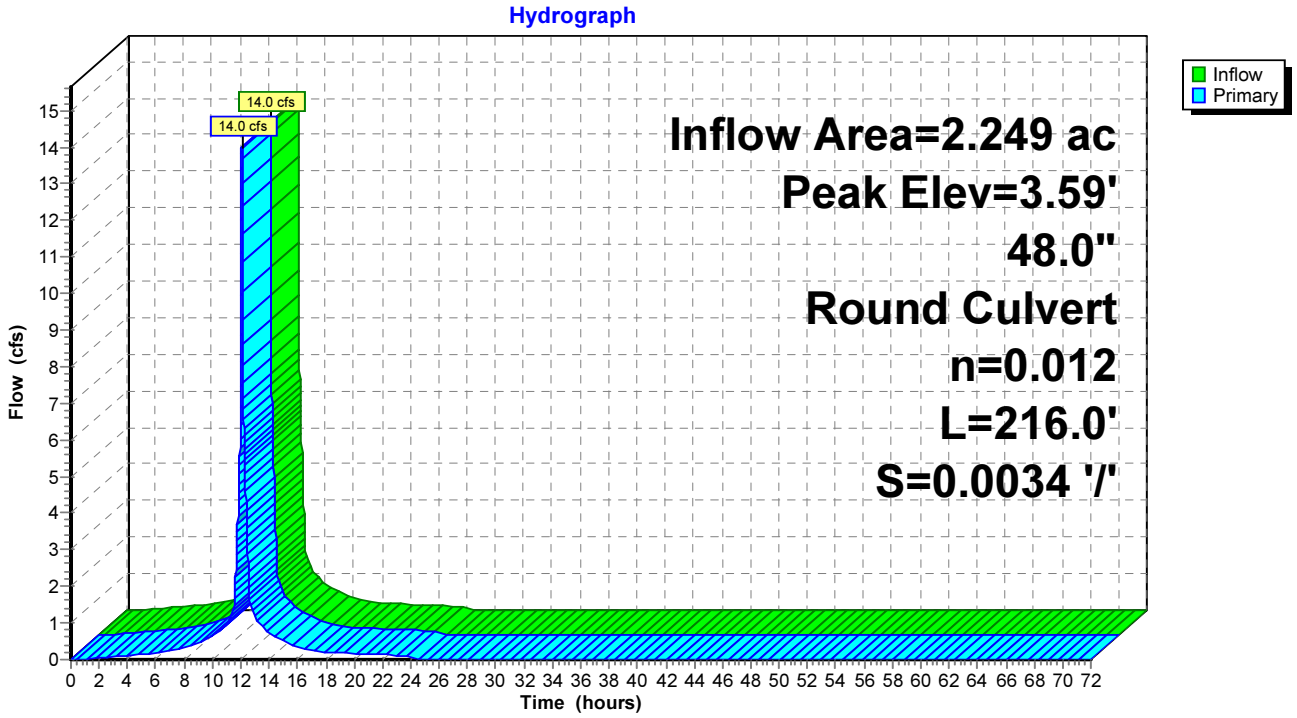
Inflow Area = 2.249 ac, 94.92% Impervious, Inflow Depth = 5.61" for 25-Year X event
Inflow = 14.0 cfs @ 12.07 hrs, Volume= 1.051 af
Outflow = 14.0 cfs @ 12.07 hrs, Volume= 1.051 af, Atten= 0%, Lag= 0.0 min
Primary = 14.0 cfs @ 12.07 hrs, Volume= 1.051 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 3.59' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	1.68'	**48.0" Round Culvert** L= 216.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 1.68' / 0.94' S= 0.0034 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 12.57 sf

Primary OutFlow Max=13.9 cfs @ 12.07 hrs HW=3.59' TW=3.14' (Dynamic Tailwater)
└**1=Culvert** (Outlet Controls 13.9 cfs @ 3.44 fps)

Pond DP1: DMH 3540



Summary for Pond OCS #1:

[57] Hint: Peaked at 6.31' (Flood elevation advised)

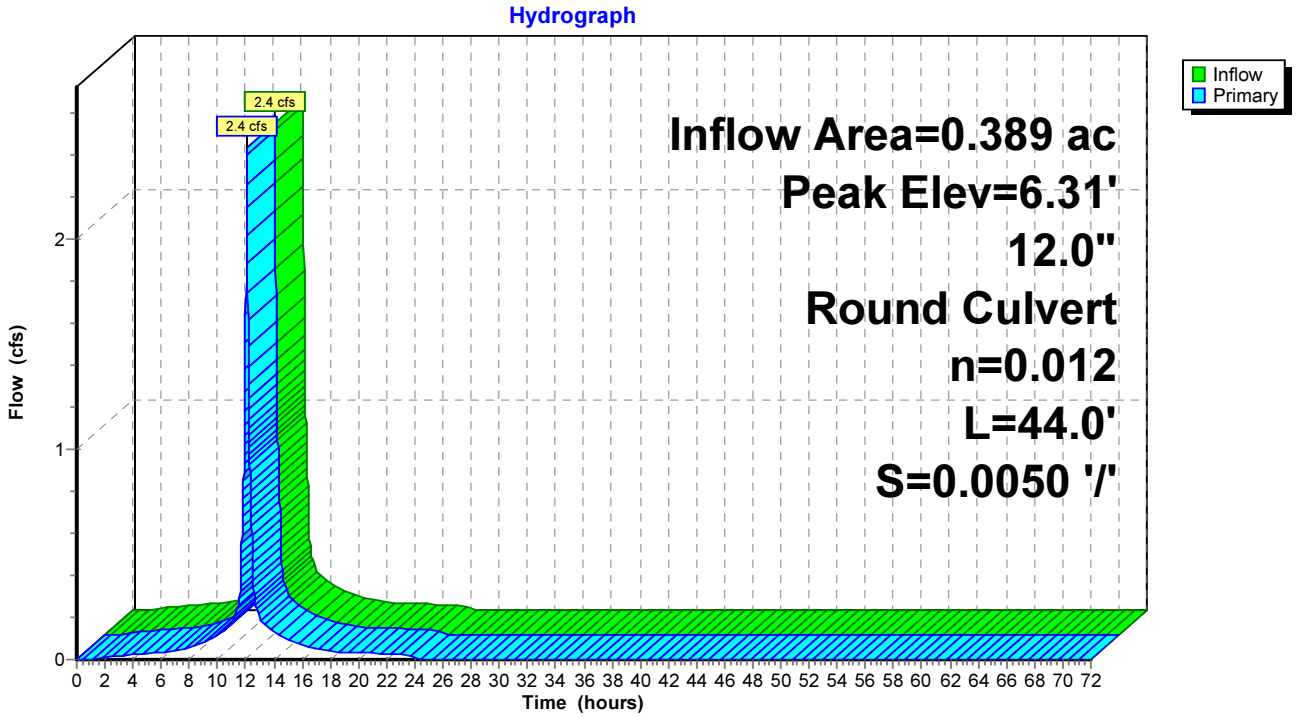
Inflow Area = 0.389 ac, 90.26% Impervious, Inflow Depth = 5.87" for 25-Year X event
Inflow = 2.4 cfs @ 12.07 hrs, Volume= 0.190 af
Outflow = 2.4 cfs @ 12.07 hrs, Volume= 0.190 af, Atten= 0%, Lag= 0.0 min
Primary = 2.4 cfs @ 12.07 hrs, Volume= 0.190 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 6.31' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	5.23'	**12.0" Round Culvert** L= 44.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 5.23' / 5.01' S= 0.0050 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=2.4 cfs @ 12.07 hrs HW=6.31' TW=5.90' (Dynamic Tailwater)
└**1=Culvert** (Outlet Controls 2.4 cfs @ 3.56 fps)

Pond OCS #1:



INSPECTION & MAINTENANCE PLAN

FOR

30 Maplewood Avenue, LLC

46 Maplewood Avenue
Portsmouth, NH

Introduction

The intent of this plan is to provide the developers of the proposed 46 Maplewood Avenue (herein refered to as Developer), with a list of procedures that document the inspection and maintenance requirements of the stormwater management system for this development.

The following inspection and maintenance program is necessary to keep the stormwater management system functioning properly. These measures will also help minimize potential environmental impacts. By following the enclosed procedures, the Developer will be able to maintain the functional design of the stormwater management system and maximize its ability to remove sediment and other contaminants from site generated stormwater runoff. By installing and maintaining the drainage as shown on the approved site plan, the Developer will be able to maximize the system's ability to control the volume of runoff and remove sediment from site generated stormwater runoff.

Annual Report

The Developer shall prepare an annual Inspection & Maintenance Report. The report shall include a summary of the system's maintenance and repair by transmission of the Inspection & Maintenance Log and other information as required. A copy of the report shall be delivered annually to the City of Portsmouth Code Enforcement Officer, if required.

Inspection & Maintenance Checklist/Log

The following pages contain a Stormwater Management System Inspection & Maintenance Checklist and a blank copy of the Stormwater Management System Inspection & Maintenance Log. These forms are provided to Developer as a guideline for performing the inspection and maintenance of the Stormwater Management System. This is a guideline and should be periodically reviewed for conformance with current practice and standards.

STORMWATER MANAGEMENT SYSTEM COMPONENTS

The Stormwater Management System is designed to mitigate both the quantity and quality of site-generated stormwater runoff. As a result, the design includes the following elements:

Non-Structural BMP's

Non-Structural best management practices (BMP's) include temporary and permanent measures that typically require less labor and capital inputs and are intended to provide protection against erosion of soils. Examples of non-structural BMP's on this project include but are not limited to: Temporary and permanent mulching, temporary and permanent grass cover, trees, shrubs and ground covers, miscellaneous landscape plantings, dust control, tree protection, topsoiling, sediment barriers, temporary storm drain inlet protection, and a stabilized construction entrance.

Structural BMP's

Structural BMP's are more labor and capital intensive structures or installations that require more specialized personel to install. Examples on this project include but are not limited to: Storm drains and catch basins, vegetated swales, land grading and slope protection.

Inspection and Maintenance Requirements

The following summarizes the inspection and maintenance requirements for the various BMP's that may be found on this project. In general, during construction and until the threat of erosion is minimal, rain events of 0.25" or more shall trigger close inspections of all related sediment and erosion control measures. It is only after construction is complete and the site is stable (safe from erosion) that larger rain events will trigger inspections (see attached Inspection & Maintenance Form).

1. **Seeded areas**: After each rain event of 0.5" or more during a 24 hour period, inspect newly seeded areas for signs of disturbance, such as erosion or lost mulch. If damaged areas are discovered, immediately repair the damage. Repairs may include adding new topsoil, lime, seed, fertilizer and mulch, or may simply require the addition of more mulch. If mulch is constantly being blown away or washed away, then it shall be anchored with jute mesh. Continue inspections until grass growth is permanently established and threats of erosion have ceased.

2. **Other Plantings**: Other planting and landscaping (trees, shrubs,) shall be monitored bi-monthly during the first year to insure viability and vigorous growth. Replace dead or dying vegetation with new stock and make adjustments to the conditions that caused the dead or dying vegetation. During dryer times of the year, provide weekly watering or irrigation during the establishment period of the first year. Make the necessary adjustments to insure long-term health of the vegetated covers, i.e. provide more permanent mulch or compost or other means of protection.

3. **Storm Drain, Trench Drain Inlets/Outlets:** Monitor drain inlets and outlet aprons for excessive accumulation of sediments or missing stone/riprap. Remove sediments as required to maintain filtering capabilities of the stone—replace missing riprap.

4. **Stabilized Construction Entrance:** Monitor for signs of excessive clogging and tracking of mud onto the paved roadway. If necessary, replace the entire structure with new, clean stone, and remove tracked sediments from road surface.

5. **Dust Control:** Monitor fugitive dust and if evident, apply water to graveled surfaces or mulch and water to exposed, droughty soils.

6. **Hancor Water Quality Unit:** Remove sediment the more frequent of every six months or when sediment has reached 25% of the diameter of the structure. Furthermore, the system may need cleaning in the event a spill of foreign substance enters the unit.

Invasive Species

Monitor site for signs of invasive species growth. If caught earlier enough, their eradication is much easier. The most likely places where invasions start are in wetter, disturbed soils or detention ponds. Species such as phragmites and purple loose-strife are common invaders in these wetter areas. If they are found then the Developer shall contact a wetlands scientist with experience in invasive species control to implement a plan of action to eradicate the invaders. Measures that do not require the application of chemical herbicides should be the first line of defense.

Stormwater Management System

Inspection & Maintenance Checklist for Post Construction Condition—for 30 Maplewood Avenue, LLC, 46 Maplewood Ave., Portsmouth, NH

BMP/System Component	Minimum Inspection Frequency	Minimum Inspection Requirements	Maintenance/Cleanout Threshold
Ditches and Swales	*After significant rain events (>2"/day)*	Check for erosion, trash or sediment accumulations.	Repair eroded areas with new sod; remove trash/sediments and maintain grass at 4"~6".
Seeded Slopes, Lawns and other Landscaped Areas	*After significant rain events (>2"/day); and/or monthly.*	Check for erosion or dead grass growth. Check plantings for vitality or droughty soils.	Repair or re-seed & remulch as required; replant dead or dying shrubs & trees.
Hancor Water Quality Unit	*Twice Yearly*	Check for blocked baffles and inlets	Clean any accumulated sediment at the time of inspection
Closed Drainage System			
Catch Basins and Outlet Control Structures	*Twice Yearly*	Check for sediment accumulation and debris	Remove debris and sediment when they accumulate
Trench Drain	*Every other Month*	Check for sediment accumulation Check for floatable contaminents	Remove sediments when they accumulate
Drainage Pipes	*Yearly*	Check for sediment clogging, or soiled runoff.	≥ Clean entire drainage system and remove all sediments if discovered in piping.
Annual Report	*Yearly*	Prepare Annual Report, including all Inspection & Maintenance Logs. Provide to C.E.O. if required).	N/A

Stormwater Management System Maintenance Summary

Inspection & Maintenance Log—for 30 Maplewood Avenue, LLC, 46 Maplewood Ave., Portsmouth, NH

BMP/System Component	Date Inspected	Inspector	Problems Noted, Required Maintenance *(List Items/Comments)*	Date of Maintenance	Performed By

Data Sheets

NOAA Atlas 14, Volume 10, Version 2
Location name: Portsmouth, New Hampshire, USA*
Latitude: 43.0771°, Longitude: -70.762°
Elevation: 11.29 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.309** (0.234-0.407)	**0.372** (0.281-0.491)	**0.474** (0.358-0.628)	**0.559** (0.420-0.745)	**0.677** (0.495-0.940)	**0.767** (0.551-1.09)	**0.857** (0.602-1.26)	**0.971** (0.649-1.45)	**1.12** (0.725-1.74)	**1.24** (0.782-1.95)
10-min	**0.437** (0.331-0.577)	**0.526** (0.398-0.695)	**0.672** (0.507-0.890)	**0.793** (0.595-1.06)	**0.959** (0.701-1.33)	**1.09** (0.781-1.54)	**1.22** (0.852-1.78)	**1.38** (0.919-2.06)	**1.59** (1.03-2.46)	**1.75** (1.11-2.76)
15-min	**0.515** (0.390-0.679)	**0.619** (0.469-0.818)	**0.790** (0.597-1.05)	**0.932** (0.700-1.24)	**1.13** (0.825-1.57)	**1.28** (0.919-1.81)	**1.43** (1.00-2.10)	**1.62** (1.08-2.42)	**1.87** (1.21-2.89)	**2.06** (1.30-3.25)
30-min	**0.695** (0.526-0.916)	**0.836** (0.633-1.10)	**1.07** (0.806-1.41)	**1.26** (0.946-1.68)	**1.52** (1.12-2.12)	**1.73** (1.24-2.45)	**1.93** (1.36-2.84)	**2.19** (1.47-3.29)	**2.54** (1.64-3.93)	**2.81** (1.78-4.42)
60-min	**0.875** (0.663-1.15)	**1.05** (0.797-1.39)	**1.35** (1.01-1.78)	**1.59** (1.19-2.11)	**1.92** (1.41-2.67)	**2.18** (1.57-3.09)	**2.43** (1.71-3.58)	**2.77** (1.85-4.15)	**3.22** (2.08-4.97)	**3.55** (2.25-5.60)
2-hr	**1.16** (0.886-1.52)	**1.41** (1.07-1.85)	**1.81** (1.38-2.39)	**2.15** (1.62-2.84)	**2.61** (1.92-3.62)	**2.96** (2.15-4.20)	**3.32** (2.36-4.90)	**3.83** (2.56-5.71)	**4.50** (2.91-6.93)	**5.00** (3.18-7.86)
3-hr	**1.37** (1.04-1.78)	**1.66** (1.27-2.17)	**2.15** (1.64-2.82)	**2.55** (1.93-3.36)	**3.10** (2.29-4.29)	**3.53** (2.57-5.00)	**3.96** (2.82-5.83)	**4.58** (3.07-6.82)	**5.41** (3.51-8.32)	**6.03** (3.83-9.45)
6-hr	**1.78** (1.36-2.30)	**2.17** (1.67-2.82)	**2.82** (2.16-3.68)	**3.36** (2.56-4.41)	**4.10** (3.05-5.65)	**4.67** (3.42-6.58)	**5.24** (3.76-7.70)	**6.09** (4.10-9.02)	**7.20** (4.69-11.0)	**8.04** (5.13-12.6)
12-hr	**2.24** (1.73-2.89)	**2.76** (2.13-3.56)	**3.61** (2.78-4.68)	**4.31** (3.30-5.62)	**5.28** (3.94-7.23)	**6.03** (4.43-8.45)	**6.77** (4.88-9.90)	**7.87** (5.32-11.6)	**9.32** (6.09-14.2)	**10.4** (6.66-16.2)
24-hr	**2.64** (2.06-3.39)	**3.32** (2.57-4.26)	**4.41** (3.41-5.68)	**5.32** (4.10-6.89)	**6.57** (4.94-8.98)	**7.54** (5.58-10.6)	**8.50** (6.19-12.5)	**10.0** (6.80-14.8)	**12.0** (7.89-18.3)	**13.6** (8.71-21.0)
2-day	**2.95** (2.30-3.76)	**3.79** (2.96-4.83)	**5.16** (4.01-6.60)	**6.29** (4.87-8.10)	**7.86** (5.96-10.7)	**9.06** (6.79-12.7)	**10.3** (7.59-15.2)	**12.4** (8.44-18.2)	**15.3** (10.0-23.2)	**17.4** (11.2-26.9)
3-day	**3.20** (2.51-4.07)	**4.11** (3.22-5.22)	**5.59** (4.37-7.13)	**6.82** (5.30-8.75)	**8.52** (6.49-11.6)	**9.82** (7.39-13.8)	**11.1** (8.27-16.5)	**13.5** (9.22-19.8)	**16.7** (11.0-25.3)	**19.1** (12.3-29.5)
4-day	**3.46** (2.72-4.38)	**4.40** (3.45-5.57)	**5.94** (4.65-7.55)	**7.21** (5.61-9.23)	**8.97** (6.85-12.2)	**10.3** (7.78-14.5)	**11.7** (8.70-17.3)	**14.2** (9.69-20.8)	**17.6** (11.6-26.5)	**20.1** (13.0-30.9)
7-day	**4.18** (3.31-5.27)	**5.17** (4.08-6.53)	**6.79** (5.34-8.59)	**8.13** (6.36-10.4)	**9.98** (7.65-13.5)	**11.4** (8.62-15.9)	**12.8** (9.56-18.8)	**15.4** (10.6-22.5)	**18.9** (12.5-28.5)	**21.5** (13.9-33.1)
10-day	**4.88** (3.86-6.12)	**5.90** (4.67-7.41)	**7.57** (5.97-9.55)	**8.96** (7.03-11.4)	**10.9** (8.33-14.6)	**12.3** (9.32-17.1)	**13.8** (10.3-20.1)	**16.4** (11.3-23.8)	**19.8** (13.1-29.8)	**22.4** (14.5-34.3)
20-day	**6.90** (5.50-8.61)	**8.03** (6.39-10.0)	**9.86** (7.82-12.4)	**11.4** (8.98-14.4)	**13.5** (10.3-17.9)	**15.1** (11.4-20.5)	**16.7** (12.3-23.7)	**19.0** (13.1-27.4)	**22.0** (14.7-33.0)	**24.3** (15.8-37.2)
30-day	**8.57** (6.85-10.7)	**9.78** (7.81-12.2)	**11.7** (9.35-14.7)	**13.4** (10.6-16.8)	**15.6** (12.0-20.5)	**17.4** (13.0-23.3)	**19.1** (13.9-26.6)	**21.2** (14.7-30.4)	**23.9** (16.0-35.6)	**26.0** (16.9-39.6)
45-day	**10.7** (8.54-13.2)	**12.0** (9.57-14.8)	**14.1** (11.2-17.5)	**15.8** (12.6-19.8)	**18.2** (14.0-23.8)	**20.1** (15.1-26.7)	**22.0** (15.9-30.2)	**23.9** (16.6-34.1)	**26.3** (17.6-39.1)	**28.2** (18.4-42.9)
60-day	**12.4** (9.97-15.3)	**13.8** (11.1-17.0)	**16.0** (12.8-19.9)	**17.9** (14.2-22.3)	**20.4** (15.7-26.5)	**22.4** (16.8-29.6)	**24.3** (17.6-33.3)	**26.1** (18.2-37.3)	**28.5** (19.1-42.2)	**30.3** (19.8-46.0)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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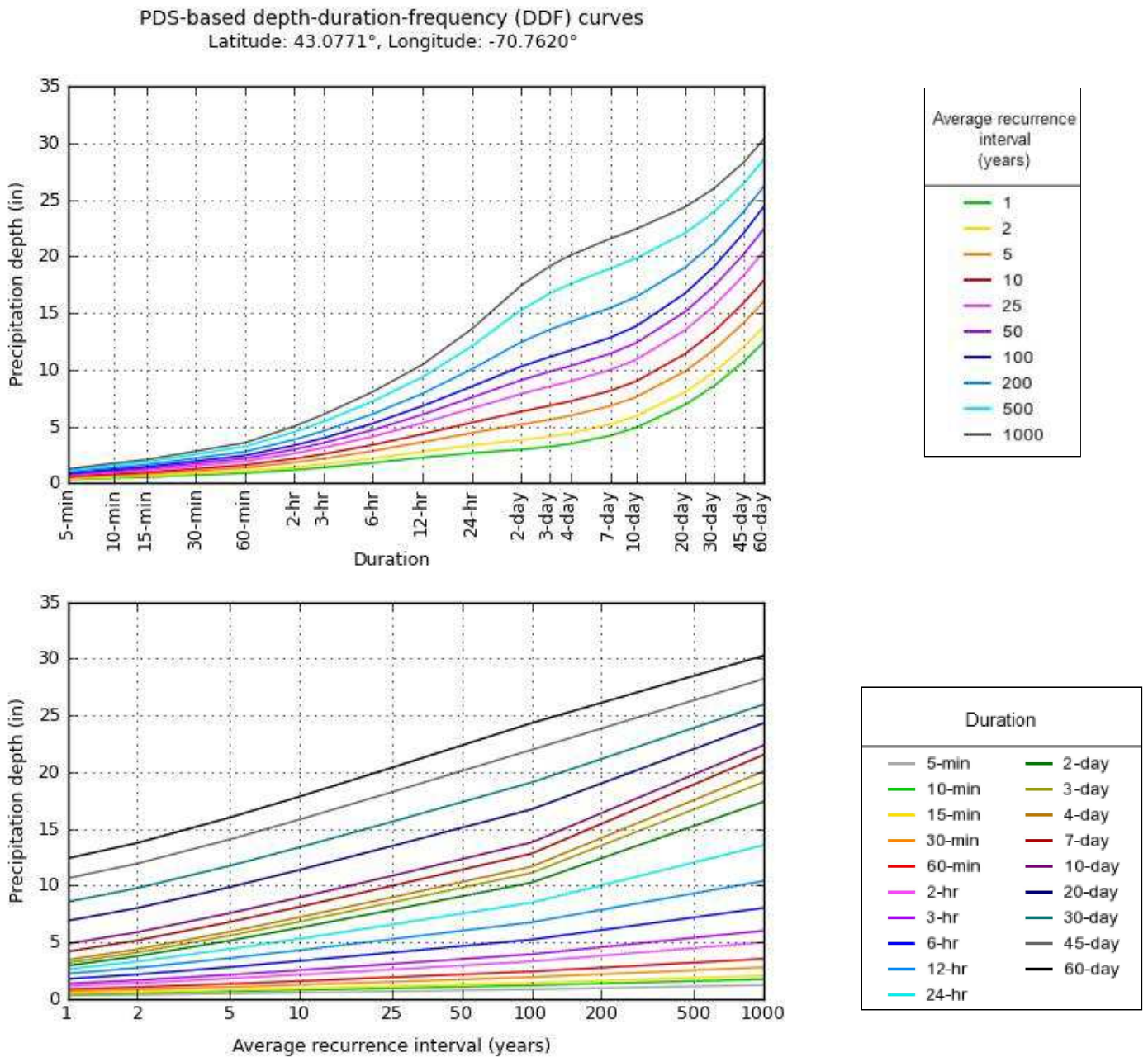
PF graphical



NOAA Atlas 14, Volume 10, Version 2

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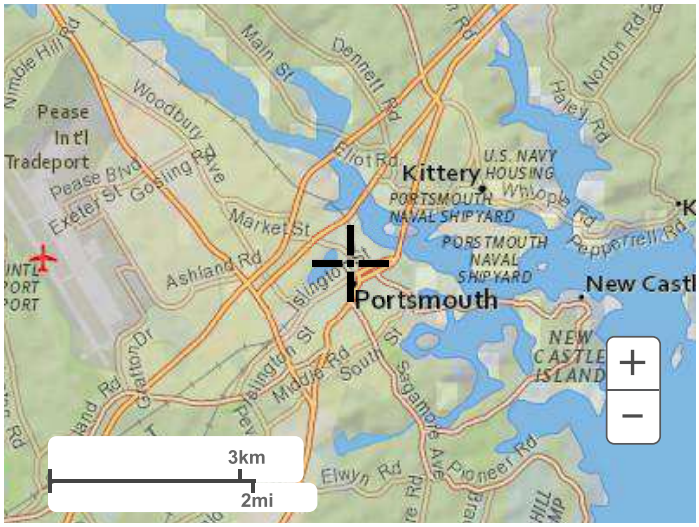
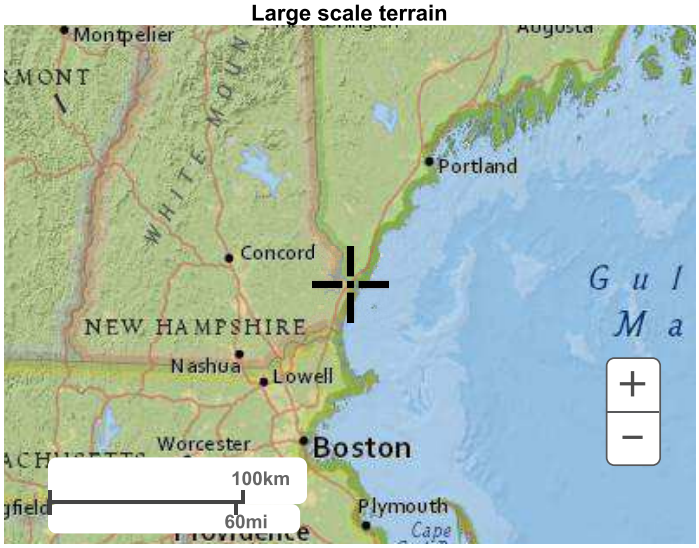
Maps & aerials

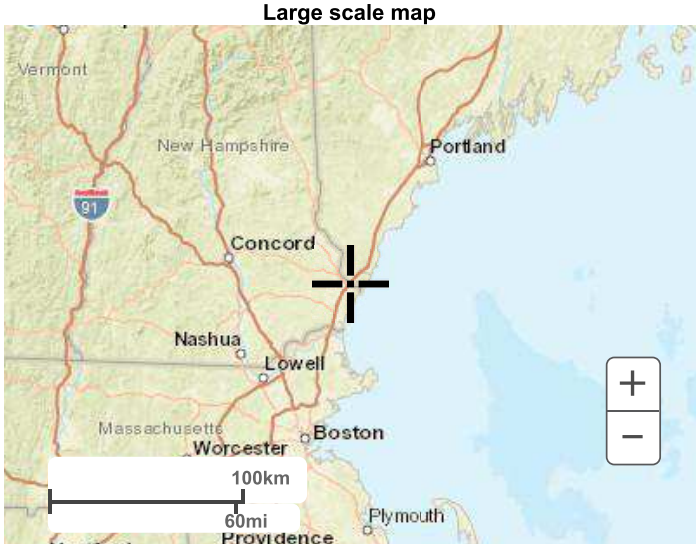
Small scale terrain



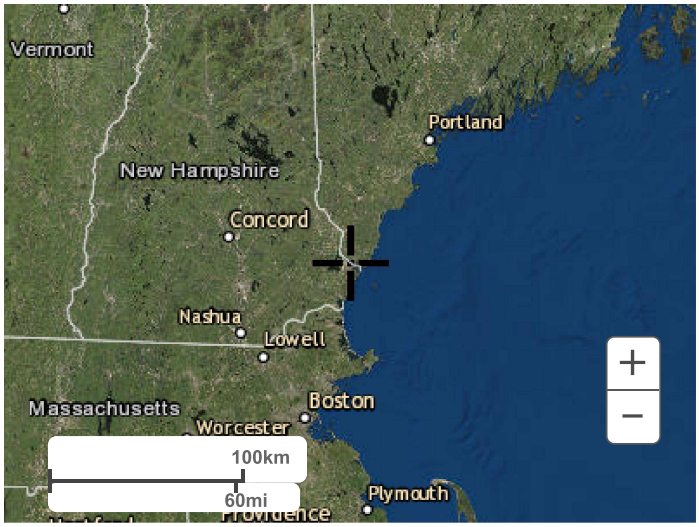
Large scale terrain



Large scale map



Large scale aerial



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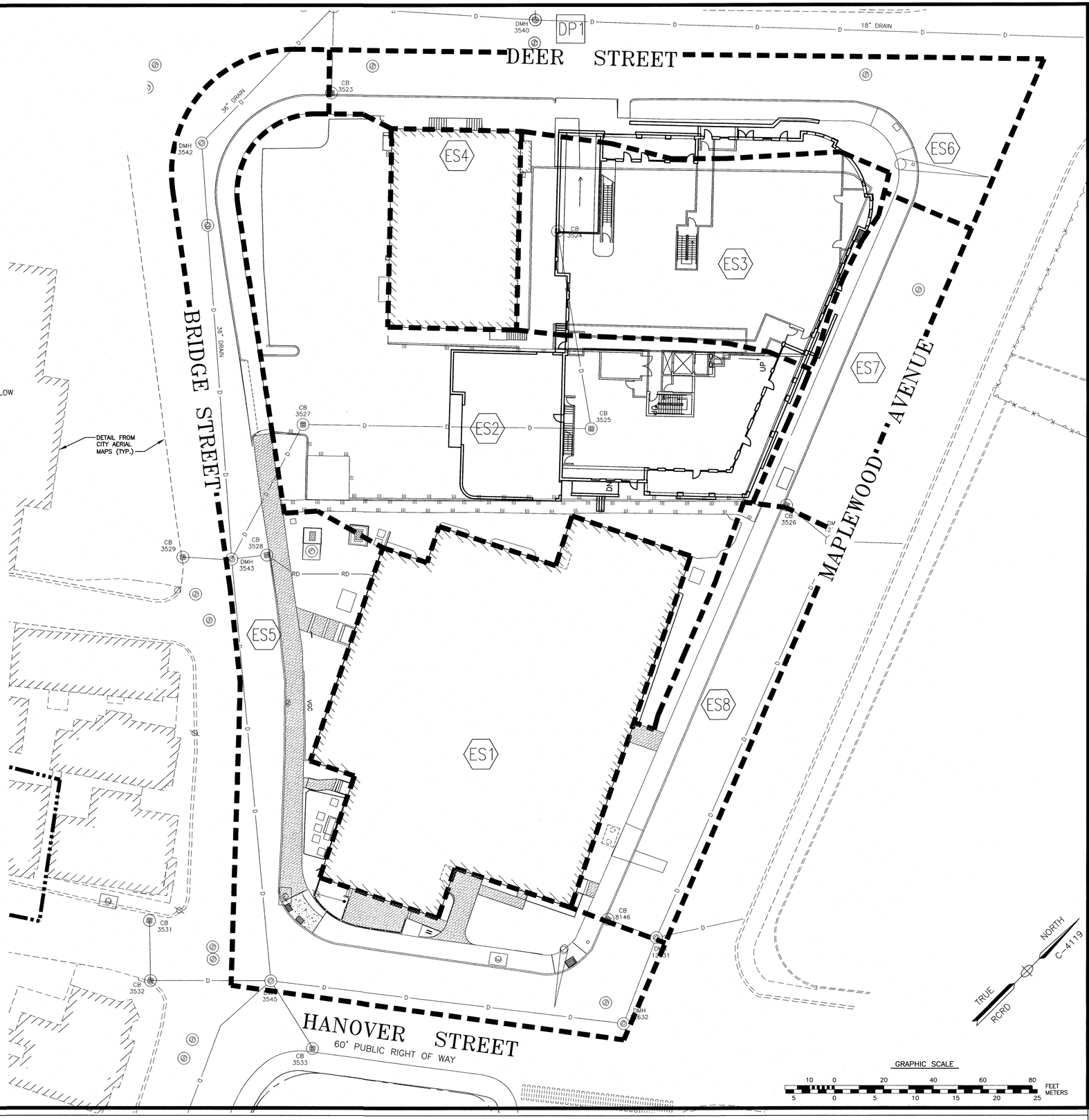
US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

LEGEND

EXISTING	PROPOSED	
D	D	STORM DRAIN
X X	X X	SILT FENCE
100	100	CONTOUR
97x3	98x0	SPOT ELEVATION
		EDGE OF PAVEMENT (EP)
		SUBCATCHMENT LINE
6	600	SUBCATCHMENT NUMBER
1234	1234	AREA IN SQUARE FEET
WOODS	WOODS	DESCRIPTION OF COVER
6	600	POND (DESIGN MODEL)
6	600	REACH (DESIGN MODEL)
		DRAINAGE VECTOR
		EDGE OF WOODS / TREES
CB	CB	CATCH BASIN
DMH	DMH	DRAIN MANHOLE
W	W	WELL
EL.	EL.	ELEVATION
EP	EP	EDGE OF PAVEMENT
FF	FF	FINISHED FLOOR
INV	INV	INVERT
TBM	TBM	TEMPORARY BENCH MARK
TYP	TYP	TYPICAL
		Tc PATH
SF	SF	SHEET FLOW
SCF	SCF	SHALLOW CONCENTRATED FLOW
CHANNEL	CHANNEL	CHANNEL FLOW
HSG	HSG	HYDROLGIC SOIL GROUP



AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road, Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

1. PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 125 AS LOT 2A.
2. OWNER OF RECORD:
   30 MAPLEWOOD, LLC
   117 BOW STREET, SUITE 102
   PORTSMOUTH, N.H. 03801
   5099 / 2424
   PLAN C-4119

NOTES:

1) THIS PLAN IS INTENDED FOR RUNOFF ANALYSIS ONLY AND SHALL NOT BE USED FOR CONSTRUCTION.

46 MAPLEWOOD AVENUE
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
0	ISSUED FOR APPROVAL	10/17/17

REVISIONS

STATE OF NEW HAMPSHIRE
JOSEPH L. MULLEDY No. 11022 LICENSED PROFESSIONAL ENGINEER
12/18/17

SCALE: 1" = 20'

PLAN OF EXISTING SUBCATCHMENTS

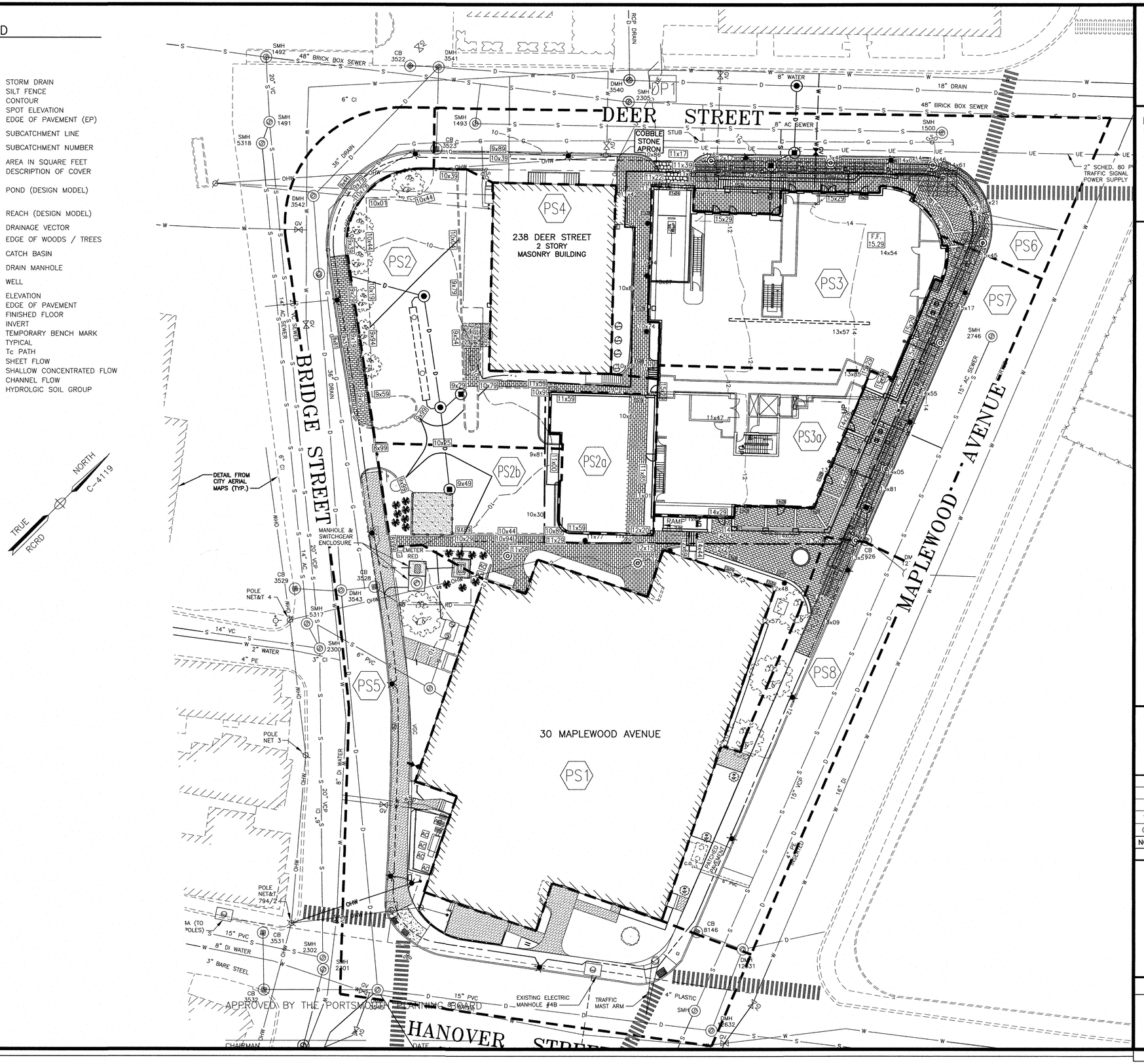
W1

1808

J:\JOBS\1800s\1808s\1808\2017 Site Plan 46 Maplewood\Plans & Specs\Site\drainage\1808DRAINAGE46.dwg, SW1

LEGEND

EXISTING	PROPOSED	
D	D	STORM DRAIN
X X	X X	SILT FENCE
100	100	CONTOUR
97x3	98x0	SPOT ELEVATION
		EDGE OF PAVEMENT (EP)
		SUBCATCHMENT LINE
6	600	SUBCATCHMENT NUMBER
1234	1234	AREA IN SQUARE FEET
WOODS	WOODS	DESCRIPTION OF COVER
6	600	POND (DESIGN MODEL)
6	600	REACH (DESIGN MODEL)
		DRAINAGE VECTOR
		EDGE OF WOODS / TREES
CB	CB	CATCH BASIN
DMH	DMH	DRAIN MANHOLE
W	W	WELL
EL.	EL.	ELEVATION
EP	EP	EDGE OF PAVEMENT
FF	FF	FINISHED FLOOR
INV	INV	INVERT
TBM	TBM	TEMPORARY BENCH MARK
TYP	TYP	TYPICAL
		Tc PATH
SF	SF	SHEET FLOW
SCF	SCF	SHALLOW CONCENTRATED FLOW
CHANNEL	CHANNEL	CHANNEL FLOW
HSG	HSG	HYDROLGIC SOIL GROUP



APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN DATE

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road, Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:
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   117 BOW STREET, SUITE 102
   PORTSMOUTH, N.H. 03801
   5099 / 2424
   PLAN C-4119

NOTES:
1) THIS PLAN IS INTENDED FOR RUNOFF ANALYSIS ONLY AND SHALL NOT BE USED FOR CONSTRUCTION.

46 MAPLEWOOD AVENUE
PORTSMOUTH, N.H.

NO.	DESCRIPTION	DATE
1	REVISED DRAINAGE LAYOUT	3/6/18
0	ISSUED FOR APPROVAL	10/17/17

REVISIONS

STATE OF NEW HAMPSHIRE
JOSEPH L. MULLOW No. 11932 LICENSED PROFESSIONAL ENGINEER
3/6/18

SCALE: 1" = 20'

PLAN OF PROPOSED SUBCATCHMENTS

W2

1808