PRELIMINARY STORMWATER MANAGEMENT SUMMARY
for:
FARMSTEAD

CITY OF GROVE CITY
FRANKLIN COUNTY, OHIO

Prepared for:

GRAND COMMUNITIES, LLC.

Prepared by:

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
COLUMBUS, OHIO

CEC PROJECT 174-158

DECEMBER 2018

Civil & Environmental Consultants, Inc.

Columbus 250 Old Wilson Bridge Road, Suite 250 | Worthington, Ohio 43085 | p: 614-540-6633 f: 614-540-6638 | www.cecinc.com

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APPENDICES

Civil and Environmental Consultants, Inc. (CEC) has evaluated the current site conditions and the proposed site plan of the Farmstead and offers the following for stormwater management design considerations to the City of Grove City.

1.0 EXISTING CONDITIONS STORM CALCULATIONS

CEC studied the existing site drainage conditions for the proposed Farmstead. The total onsite watershed is 178.72 acres and is comprised of primarily row crops with some wooded areas. The offsite watershed is 8.37 acres and is comprised of primarily existing single-family lots and wooded areas.

The soils are predominantly Type C with some Type B & Type D soils. The site is comprised of five watersheds, which are labeled Watersheds A, B, C, D & E. The majority of the site drains to the north via multiple routes (Watersheds B, C & E) ultimately draining to Grant Run. The eastern portion of the site drains to the east via multiple routes (Watersheds A & D), which drains east across Jackson Pike and then south to Plum Run. Both Grant Run & Plum Run drain to the Scioto River.

2.0 STORMWATER MANAGEMENT

The following narrative and calculations show that the proposed stormwater management plan is sufficient for this project. CEC proposes to construct four wet basins throughout the proposed development, providing water quantity and water quality control in accordance with the City and Ohio EPA regulations. The southwest basin will outlet to the northwest, flow under Hawthorne Parkway and into the northwest basin. The northeast basin will outlet to the southwest and into the northwest basin. The northwest basin will outlet into Grant Run. The furthest northeast basin will outlet to an existing culvert under Jackson Pike.

The proposed development will redirect 3.87 acres from the eastern watersheds to the north watershed via the northeast basin within Reserve B. The proposed development includes the proposed School Site in its stormwater calculations. The Attached Single Family development will need to provide detention and water quality in accordance with the City and Ohio EPA regulations.

CEC will meet or exceed the requirements of the stormwater regulations and will hold the release rate of the critical year post developed storm event to the existing release rate. CEC will design the basins to provide water quality treatment for the onsite and offsite areas tributary to them. The cumulative release from the basins and undetained areas will be less than the allowable release rate.

FARMSTEAD	MADE BY:	JTH
City of Grove City, Ohio	DATE:	12/7/2018
CEC PROJECT NUMBER 174-158	CHECKED BY:	TJV
CRITICAL STORM CALCULATION	DATE:	12/7/2018

East Watershed Pre & Post Development

1 Year, 24 Hour Pre-Developed Runoff Volume*=	1.828	AC-FT
1 Year, 24 Hour Post-Developed Runoff Volume*=	2.888	AC-FT
*Comparison of onsite and disturbed acreages only.		
Volume % Increase =		58.0%

Critical Storm = 10-Year

If the percent of increase in runoff volume is		The critical runoff rate will be limited to:
Equal to or greater than	And less than	
0	10	1-Year
10	20	2-Year
20	50	5-Year
50	100	10-Year
100	250	25-Year
250	500	50-Year
500+	-	100-Year

Table 1: Allowable Discharge Summary (East)

Storm Event (year)	$Q_{existing\ onsite}$ (cfs)	$*Q_{allowable\ release}$ (cfs)	$*Q_{proposed}$ (cfs)
1	9.26	9.26	2.36
2	15.55	9.26	3.93
5	26.44	9.26	8.25
10	36.67	9.26	9.24
25	52.28	52.28	10.95
50	66.21	66.21	22.00
100	81.71	81.71	41.35

$*Q_{allowable}$ 1-10 Year Storm = 1 Year event
$*Q_{allowable}$ 25-100 Year Storm = Existing for each corresponding event

FARMSTEAD	MADE BY:	JTH
City of Grove City, Ohio	DATE:	12/7/2018
	CHECKED BY:	TJV
CEC PROJECT NUMBER 174-158		
CRITICAL STORM CALCULATION	DATE:	12/7/2018

North Watershed Pre & Post Development

1 Year, 24 Hour Pre-Developed Runoff Volume*=	6.620	AC-FT
1 Year, 24 Hour Post-Developed Runoff Volume*=	7.136	AC-FT
*Comparison of onsite and disturbed acreages only.		
Volume % Increase =		7.8%

Critical Storm = 1-Year

If the percent of increase in runoff volume is		The critical runoff rate will be limited to:
Equal to or greater than	And less than	
0	10	1-Year
10	20	2-Year
20	50	5-Year
50	100	10-Year
100	250	25-Year
250	500	50-Year
500+	-	100-Year

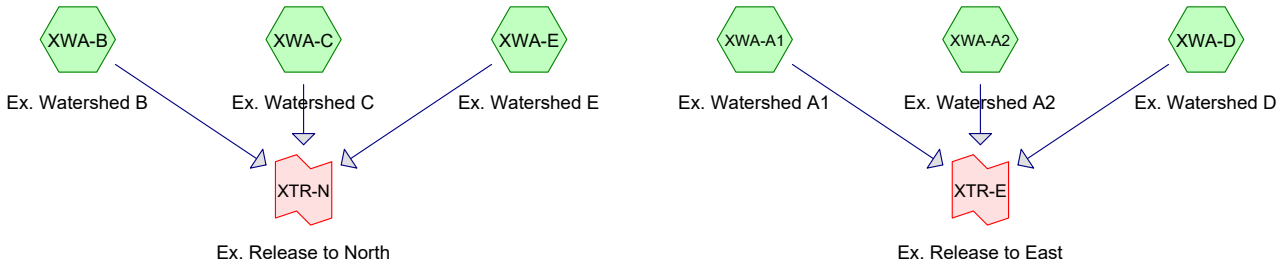
Table 2: Allowable Discharge Summary (North)

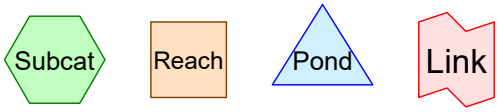
Storm Event (year)	$Q_{existing\ onsite}$ (cfs)	$*Q_{allowable\ release}$ (cfs)	$*Q_{proposed}$ (cfs)
1	13.97	13.97	3.88
2	23.17	23.17	7.09
5	39.27	39.27	13.37
10	54.48	54.48	19.21
25	78.14	78.14	48.54
50	99.46	99.46	80.19
100	123.38	123.38	119.92

$*Q_{allowable}$ 1-100 Year Storm = Existing for each corresponding event

APPENDIX A

PRE-DEVELOPED TRIBUTARY MAP AND FLOWS





Routing Diagram for 174-158 Hancock HYD_FDP
Prepared by CEC, Inc., Printed 8/23/2018

FEMA NOTE

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP NO. 39049C0408K (DATED JUNE 17, 2008), A PORTION OF THE SUBJECT TRACT SHOWN HEREON LIES WITHIN ZONE AE.

ZONE X – AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

ZONE "X" – AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH THE DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.

ZONE AE – THE 1% ANNUAL CHANCE FLOOD (100 YEAR FLOOD), ALSO KNOW AS THE BASE FLOOD, IS THE FLOOD THAT HAS A 1% CHANCE OF BEING EQUALED OR EXCEED IN ANY GIVEN YEAR. THE SPECIAL FLOOD HAZARD AREA IS THE AREA SUBJECT TO FLOODING BY THE 1% ANNUAL CHANCE FLOOD. BASE FLOOD ELEVATIONS HAVE BEEN DETERMINED IN THIS AREA.

REFERENCES

1. EXISTING TOPOGRAPHY SHOWN OBTAINED FROM SURVEY PERFORMED BY CEC FEBRUARY, 2018.
2. EXISTING BASE MAP INFORMATION OBTAINED FROM FRANKLIN COUNTY AUDITORS ACCESSED NOVEMBER 2017, AND SURVEY COMPLETED BY CEC IN FEBRUARY 2018.

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
250 Old Wilson Bridge Road · Suite 250 · Worthington, OH 43085
614-540-6633 · 888-598-6808
www.cecinc.com

GRAND COMMUNITIES, LLC.
FARMSTEAD
CITY OF GROVE CITY
FRANKLIN COUNTY, OHIO

PRE-DEVELOPMENT

DATE:	DECEMBER 2018
DRAWN BY:	GAD
DWG SCALE:	1" = 200'
CHECKED BY:	TJV
PROJECT NO:	174-158
APPROVED BY:	DRAFT

DRAWING NO.:
SWM-1
SHEET 1 OF 2

Summary for Subcatchment XWA-A1: Ex. Watershed A1

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

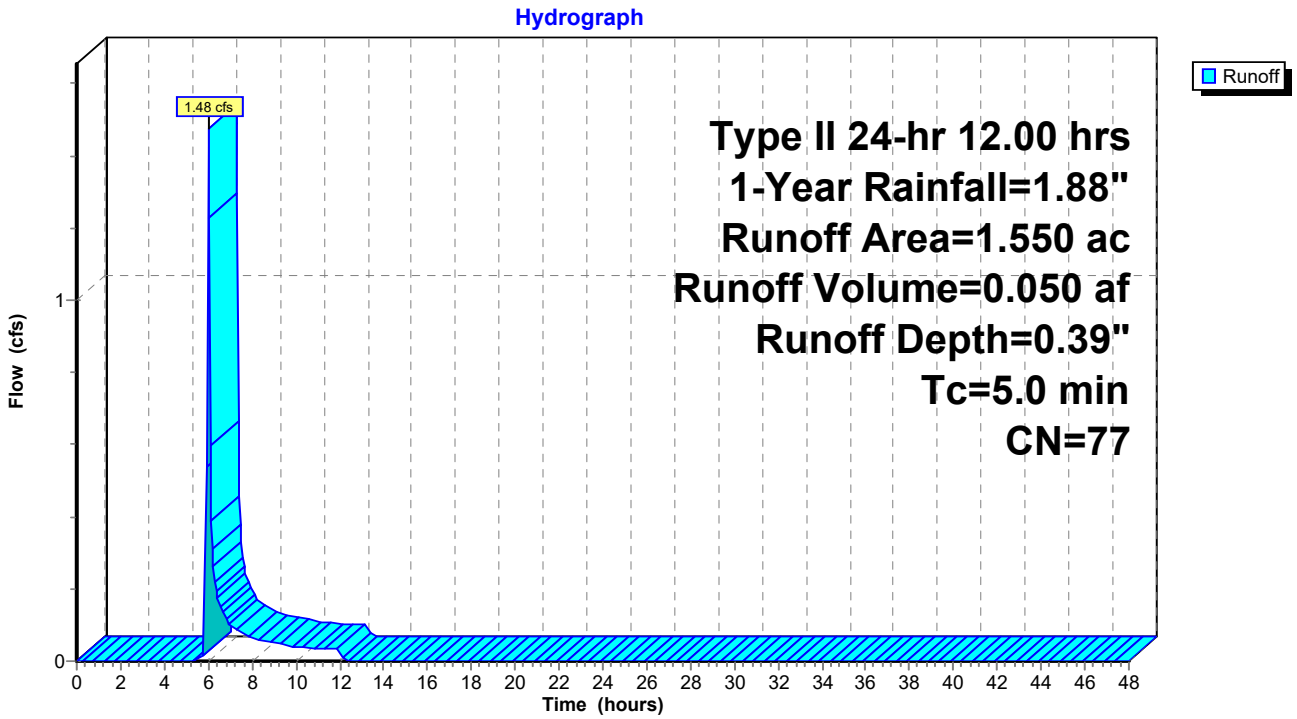
Runoff = 1.48 cfs @ 6.02 hrs, Volume= 0.050 af, Depth= 0.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 1-Year Rainfall=1.88"

	Area (ac)	CN	Description
*	1.550	77	Row crops, straight row, Good, HSG C
	1.550		100.00% Pervious Area

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

Subcatchment XWA-A1: Ex. Watershed A1



Summary for Subcatchment XWA-A1: Ex. Watershed A1

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

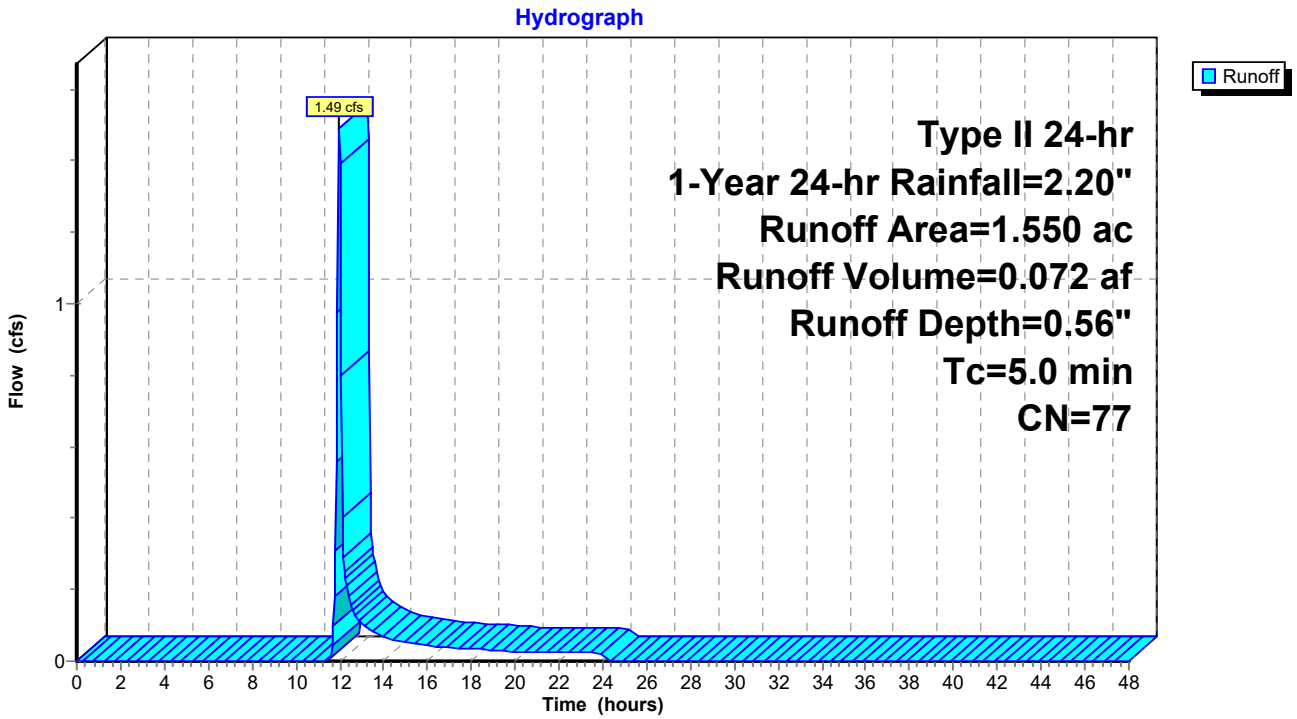
Runoff = 1.49 cfs @ 11.97 hrs, Volume= 0.072 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year 24-hr Rainfall=2.20"

	Area (ac)	CN	Description
*	1.550	77	Row crops, straight row, Good, HSG C
	1.550		100.00% Pervious Area

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

Subcatchment XWA-A1: Ex. Watershed A1



Summary for Subcatchment XWA-A1: Ex. Watershed A1

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

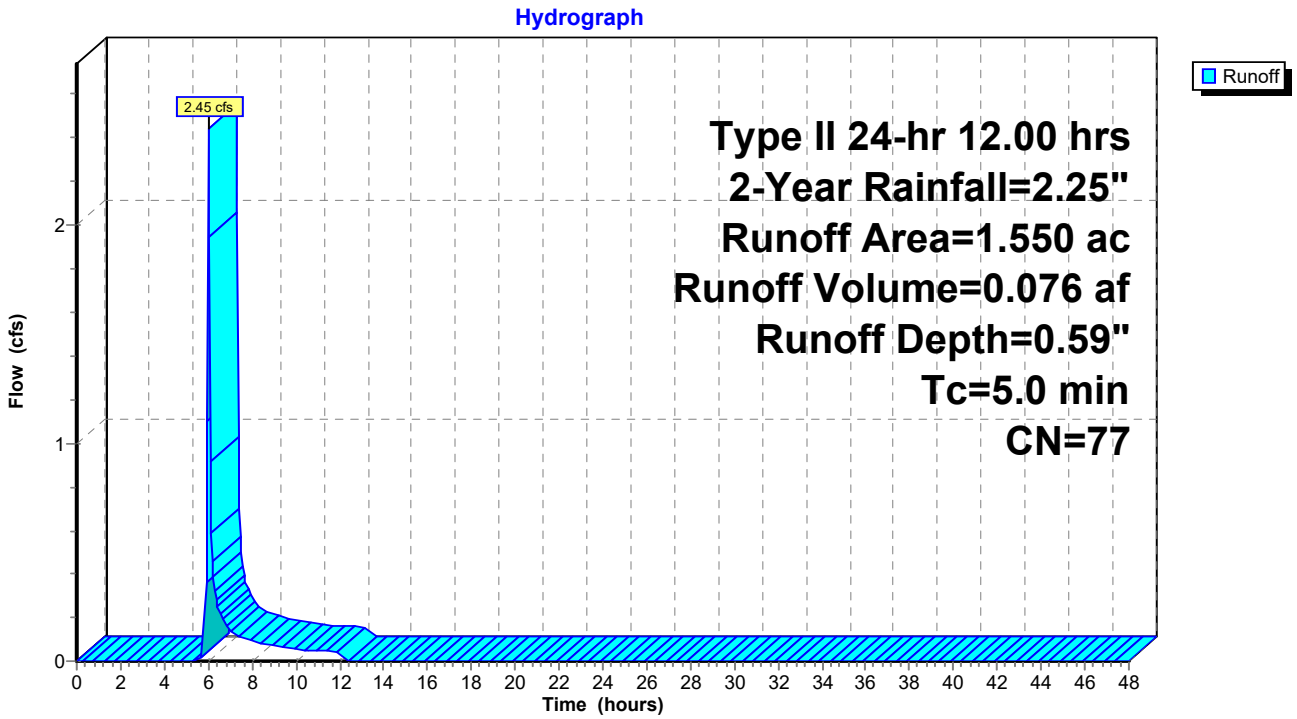
Runoff = 2.45 cfs @ 6.01 hrs, Volume= 0.076 af, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 2-Year Rainfall=2.25"

	Area (ac)	CN	Description
*	1.550	77	Row crops, straight row, Good, HSG C
	1.550		100.00% Pervious Area

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

Subcatchment XWA-A1: Ex. Watershed A1



Summary for Subcatchment XWA-A1: Ex. Watershed A1

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

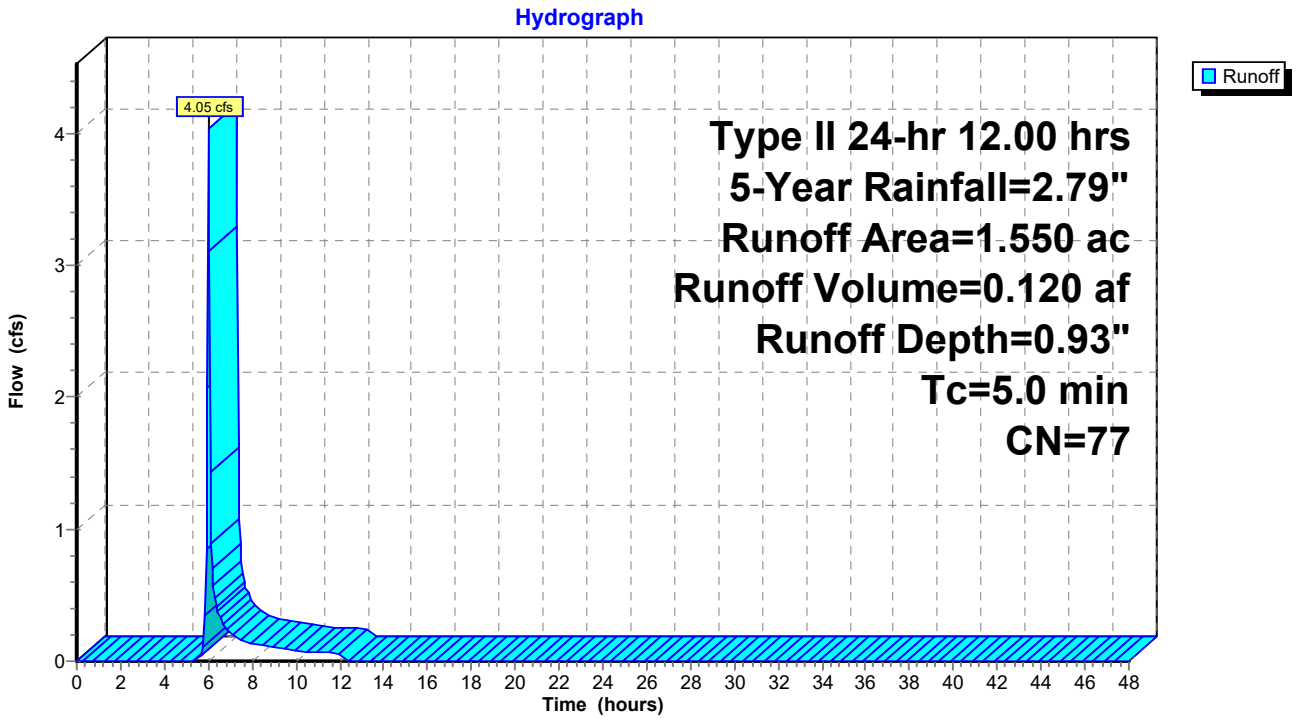
Runoff = 4.05 cfs @ 6.01 hrs, Volume= 0.120 af, Depth= 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 5-Year Rainfall=2.79"

	Area (ac)	CN	Description
*	1.550	77	Row crops, straight row, Good, HSG C
	1.550		100.00% Pervious Area

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

Subcatchment XWA-A1: Ex. Watershed A1



Summary for Subcatchment XWA-A1: Ex. Watershed A1

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

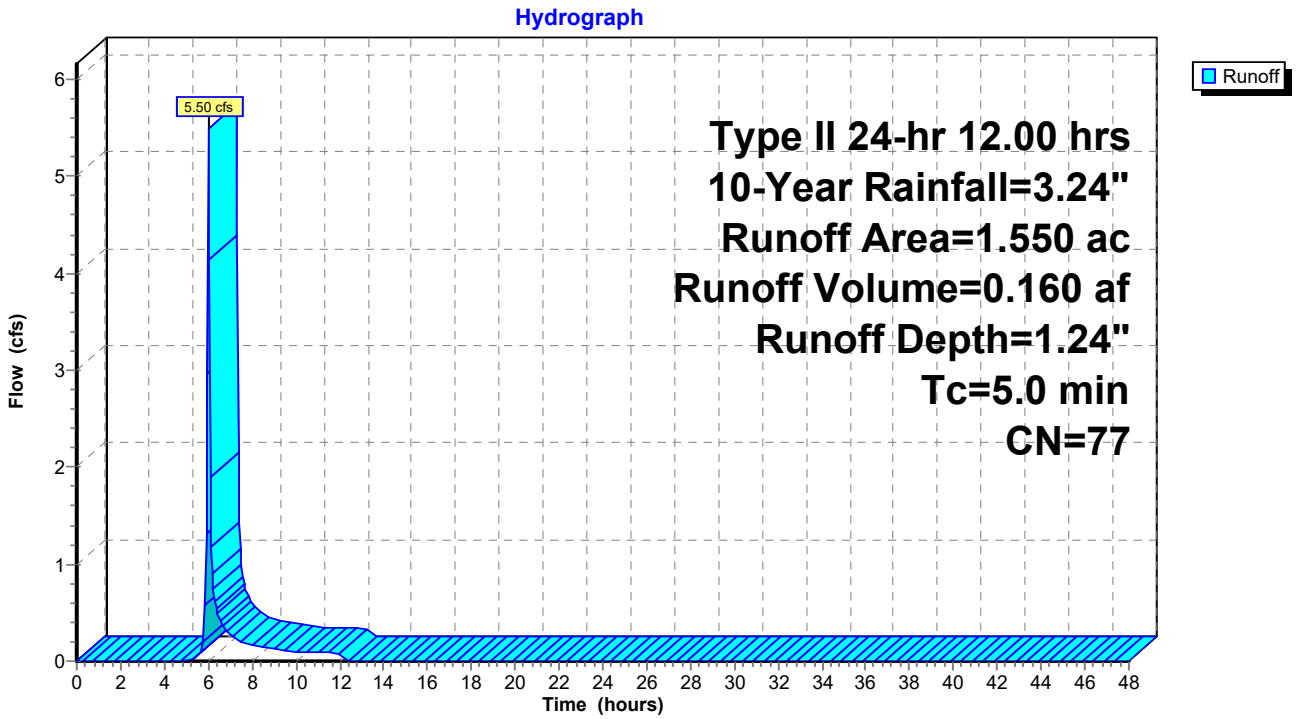
Runoff = 5.50 cfs @ 6.01 hrs, Volume= 0.160 af, Depth= 1.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 10-Year Rainfall=3.24"

	Area (ac)	CN	Description
*	1.550	77	Row crops, straight row, Good, HSG C
	1.550		100.00% Pervious Area

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

Subcatchment XWA-A1: Ex. Watershed A1



Summary for Subcatchment XWA-A1: Ex. Watershed A1

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

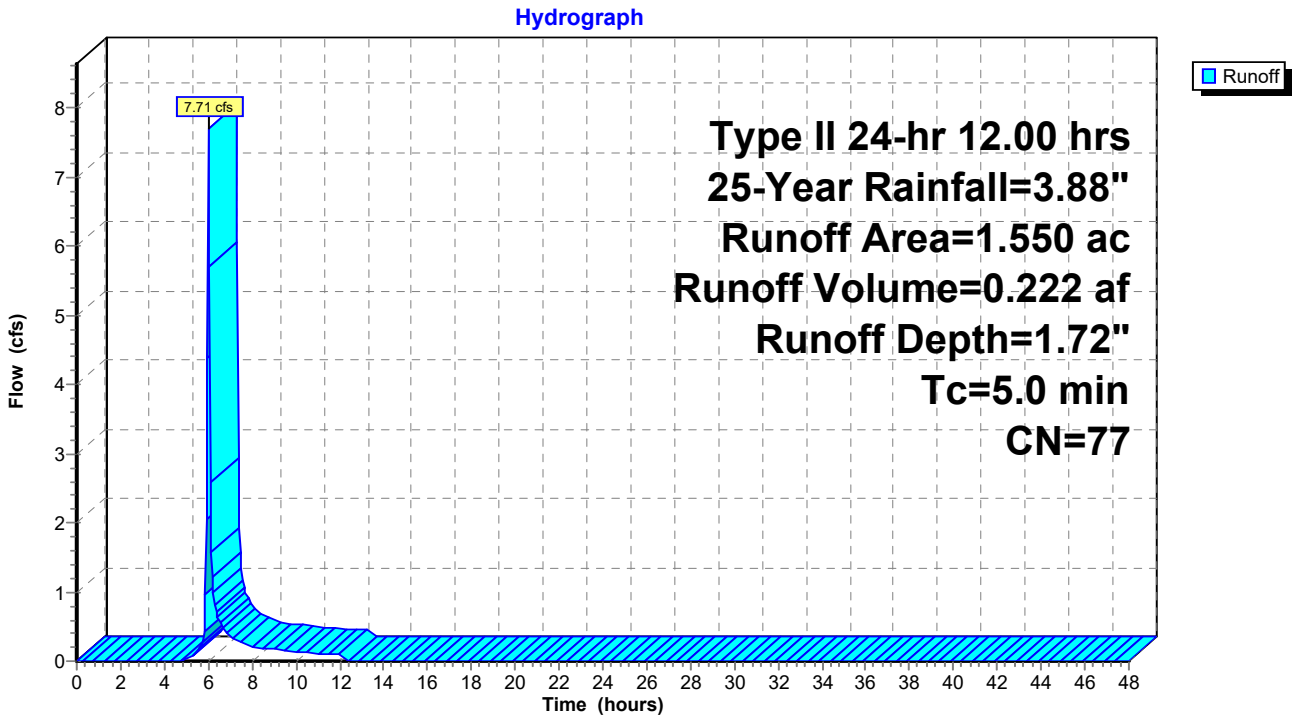
Runoff = 7.71 cfs @ 6.01 hrs, Volume= 0.222 af, Depth= 1.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 25-Year Rainfall=3.88"

	Area (ac)	CN	Description
*	1.550	77	Row crops, straight row, Good, HSG C
	1.550		100.00% Pervious Area

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

Subcatchment XWA-A1: Ex. Watershed A1



Summary for Subcatchment XWA-A1: Ex. Watershed A1

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

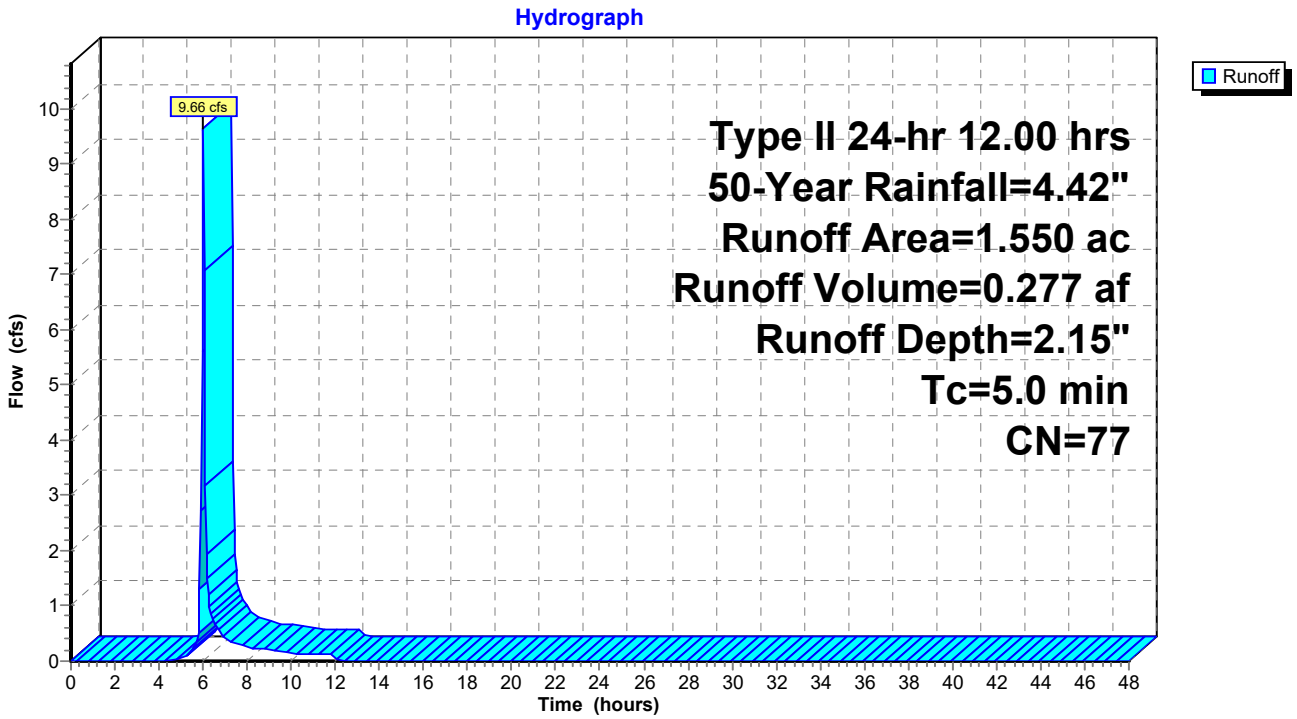
Runoff = 9.66 cfs @ 6.01 hrs, Volume= 0.277 af, Depth= 2.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 50-Year Rainfall=4.42"

	Area (ac)	CN	Description
*	1.550	77	Row crops, straight row, Good, HSG C
	1.550		100.00% Pervious Area

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

Subcatchment XWA-A1: Ex. Watershed A1



Summary for Subcatchment XWA-A1: Ex. Watershed A1

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

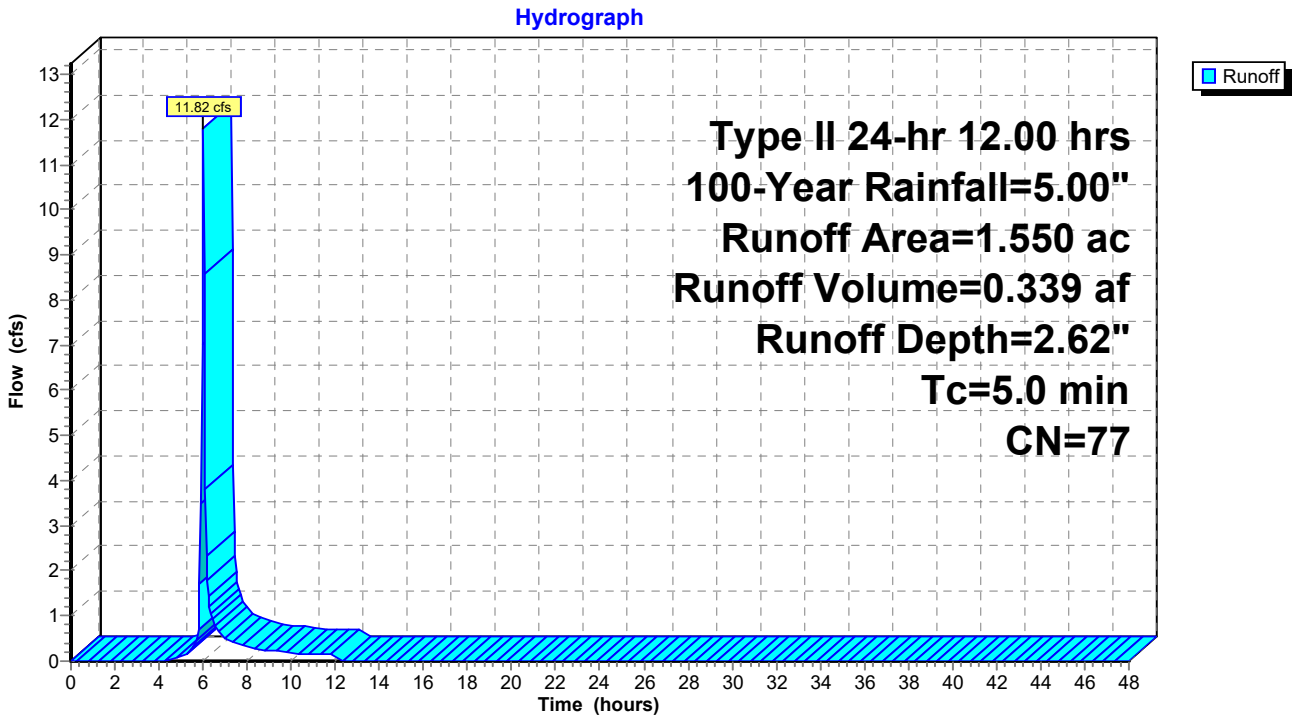
Runoff = 11.82 cfs @ 6.00 hrs, Volume= 0.339 af, Depth= 2.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 100-Year Rainfall=5.00"

	Area (ac)	CN	Description
*	1.550	77	Row crops, straight row, Good, HSG C
	1.550		100.00% Pervious Area

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

Subcatchment XWA-A1: Ex. Watershed A1



Summary for Subcatchment XWA-A2: Ex. Watershed A2

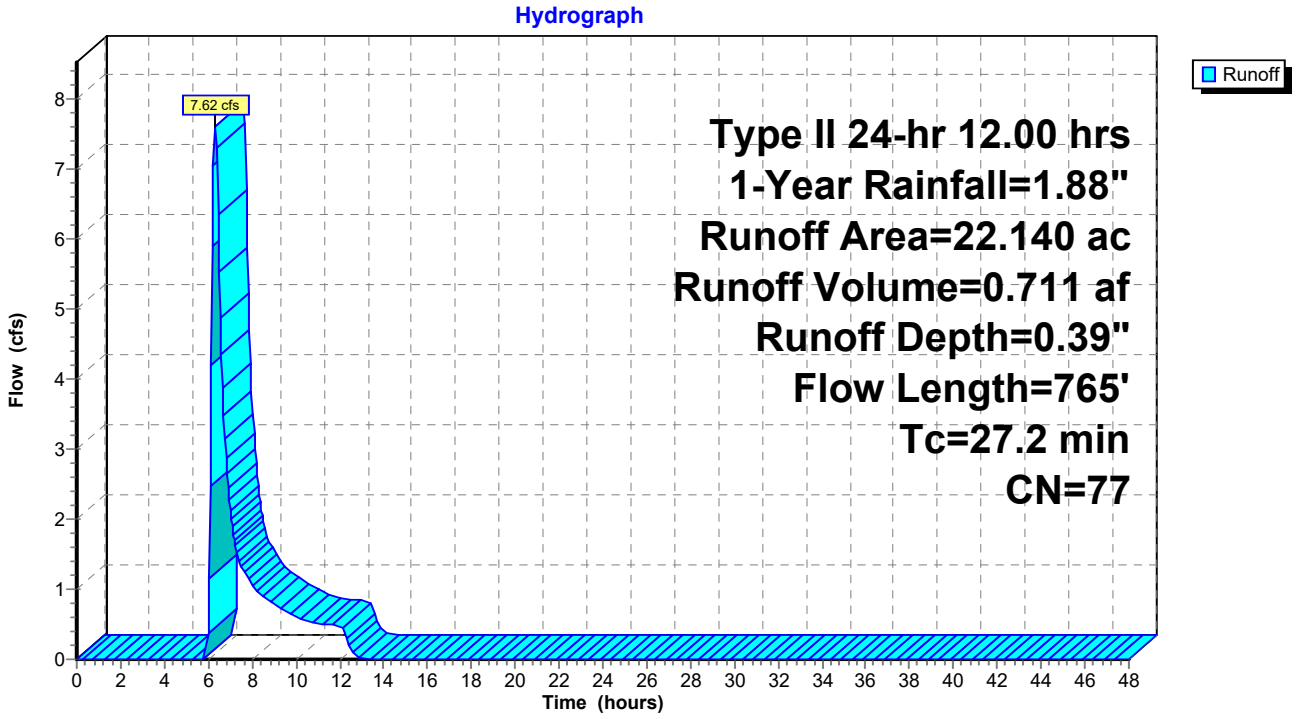
Runoff = 7.62 cfs @ 6.32 hrs, Volume= 0.711 af, Depth= 0.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 1-Year Rainfall=1.88"

	Area (ac)	CN	Description
*	22.140	77	Row crops, straight row, Good, HSG C
	22.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0150	0.12		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
13.8	665	0.0080	0.80		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
27.2	765	Total			

Subcatchment XWA-A2: Ex. Watershed A2



Summary for Subcatchment XWA-A2: Ex. Watershed A2

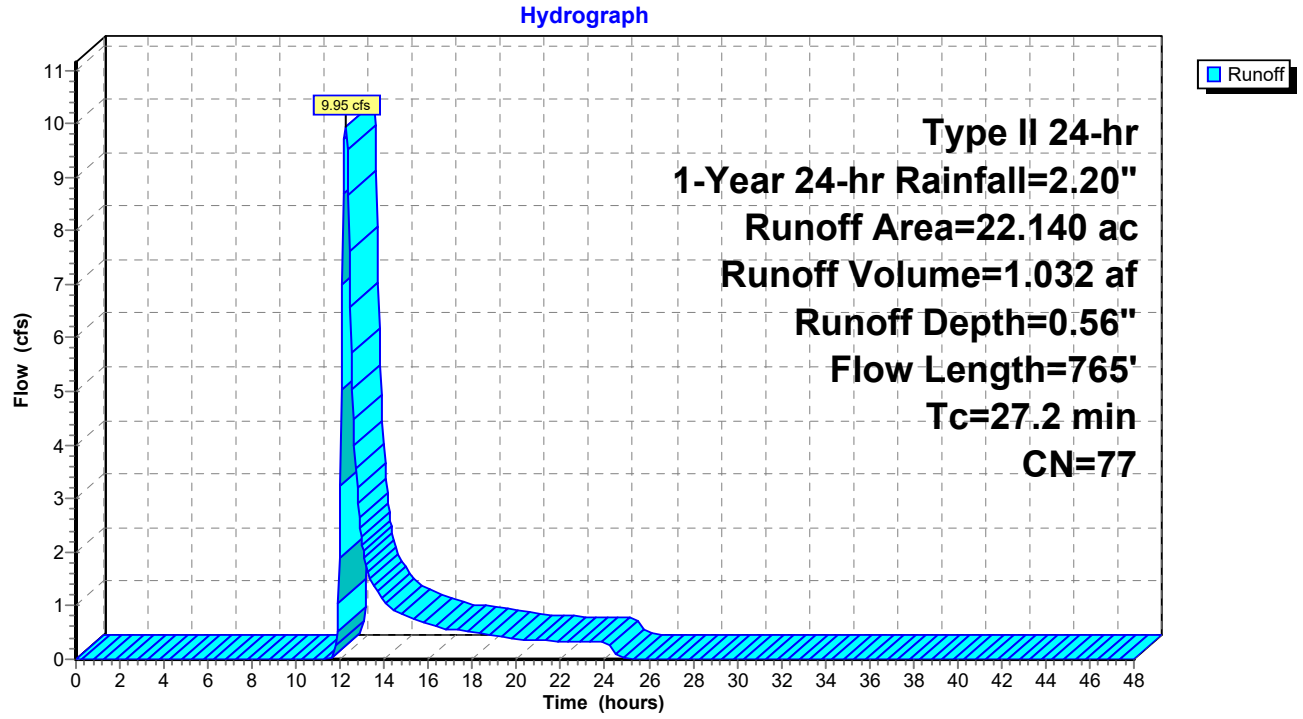
Runoff = 9.95 cfs @ 12.24 hrs, Volume= 1.032 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year 24-hr Rainfall=2.20"

	Area (ac)	CN	Description
*	22.140	77	Row crops, straight row, Good, HSG C
	22.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0150	0.12		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
13.8	665	0.0080	0.80		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
27.2	765	Total			

Subcatchment XWA-A2: Ex. Watershed A2



Summary for Subcatchment XWA-A2: Ex. Watershed A2

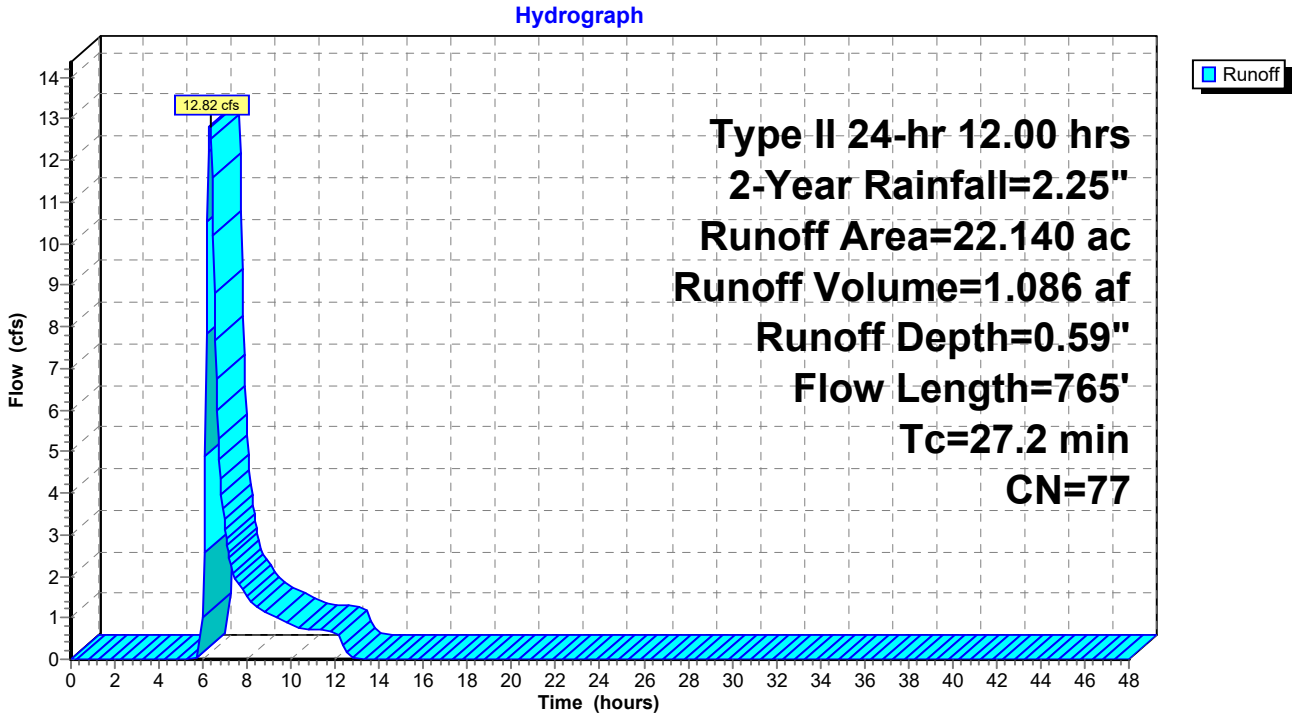
Runoff = 12.82 cfs @ 6.31 hrs, Volume= 1.086 af, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 2-Year Rainfall=2.25"

	Area (ac)	CN	Description
*	22.140	77	Row crops, straight row, Good, HSG C
	22.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0150	0.12		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
13.8	665	0.0080	0.80		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
27.2	765	Total			

Subcatchment XWA-A2: Ex. Watershed A2



Summary for Subcatchment XWA-A2: Ex. Watershed A2

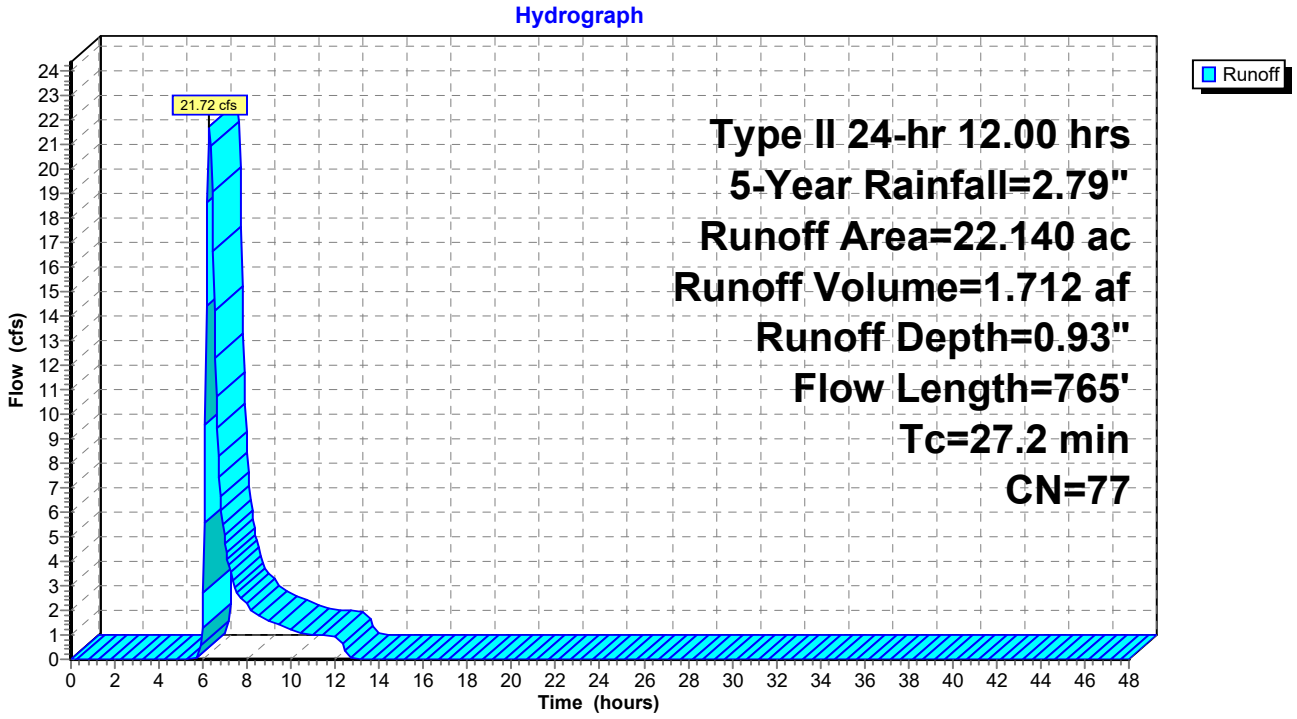
Runoff = 21.72 cfs @ 6.30 hrs, Volume= 1.712 af, Depth= 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 5-Year Rainfall=2.79"

	Area (ac)	CN	Description
*	22.140	77	Row crops, straight row, Good, HSG C
	22.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0150	0.12		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
13.8	665	0.0080	0.80		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
27.2	765	Total			

Subcatchment XWA-A2: Ex. Watershed A2



Summary for Subcatchment XWA-A2: Ex. Watershed A2

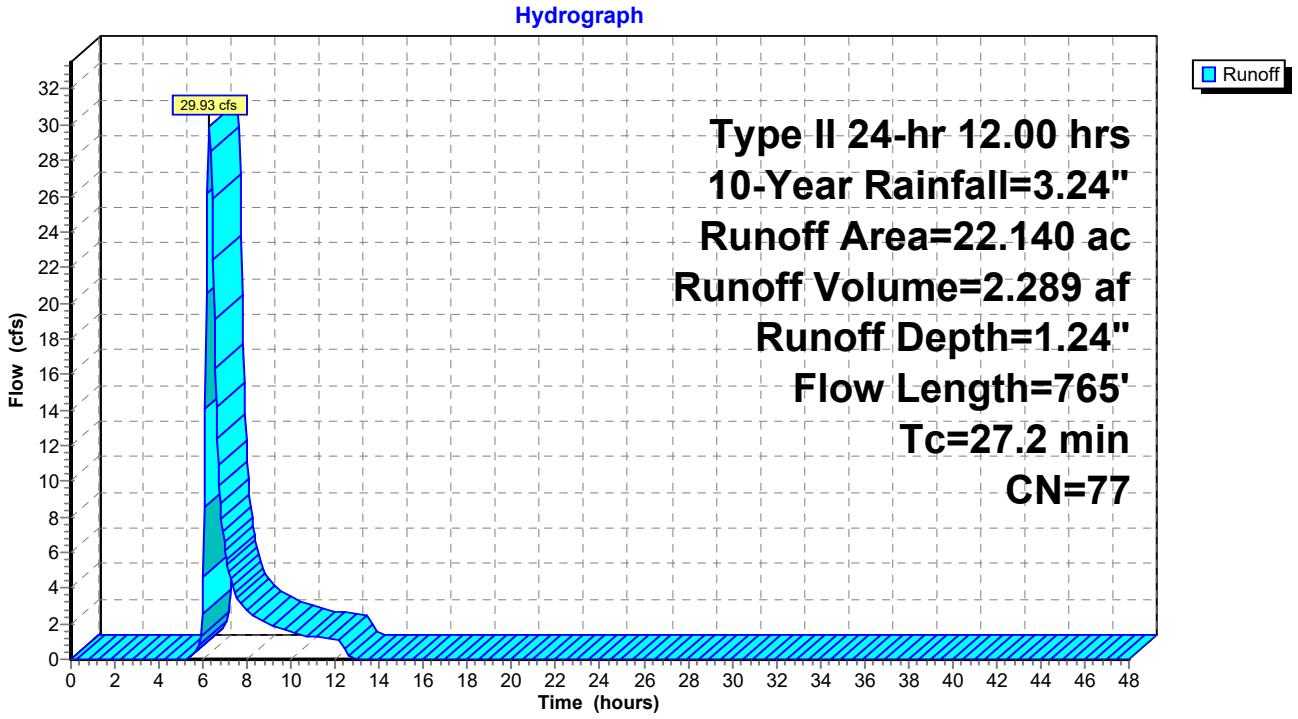
Runoff = 29.93 cfs @ 6.29 hrs, Volume= 2.289 af, Depth= 1.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 10-Year Rainfall=3.24"

	Area (ac)	CN	Description
*	22.140	77	Row crops, straight row, Good, HSG C
	22.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0150	0.12		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
13.8	665	0.0080	0.80		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
27.2	765	Total			

Subcatchment XWA-A2: Ex. Watershed A2



Summary for Subcatchment XWA-A2: Ex. Watershed A2

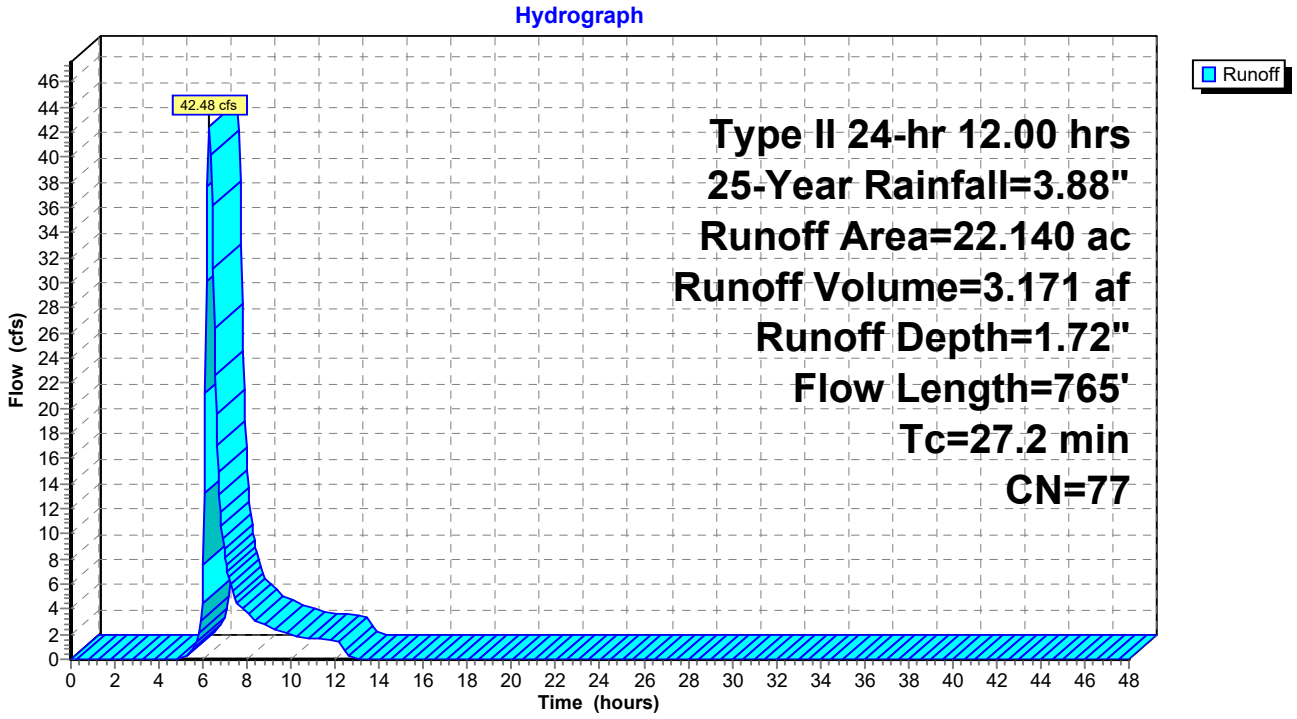
Runoff = 42.48 cfs @ 6.28 hrs, Volume= 3.171 af, Depth= 1.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 25-Year Rainfall=3.88"

	Area (ac)	CN	Description
*	22.140	77	Row crops, straight row, Good, HSG C
	22.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0150	0.12		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
13.8	665	0.0080	0.80		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
27.2	765	Total			

Subcatchment XWA-A2: Ex. Watershed A2



Summary for Subcatchment XWA-A2: Ex. Watershed A2

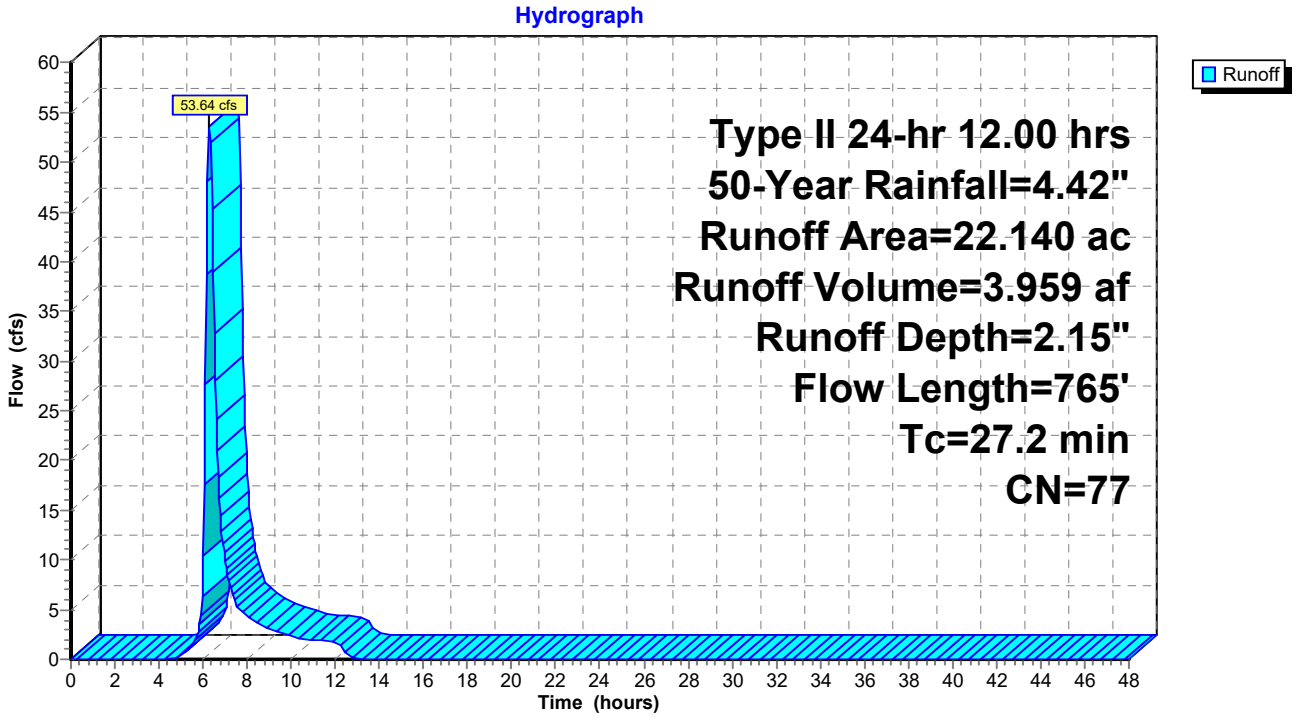
Runoff = 53.64 cfs @ 6.28 hrs, Volume= 3.959 af, Depth= 2.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 50-Year Rainfall=4.42"

	Area (ac)	CN	Description
*	22.140	77	Row crops, straight row, Good, HSG C
	22.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0150	0.12		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
13.8	665	0.0080	0.80		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
27.2	765	Total			

Subcatchment XWA-A2: Ex. Watershed A2



Summary for Subcatchment XWA-A2: Ex. Watershed A2

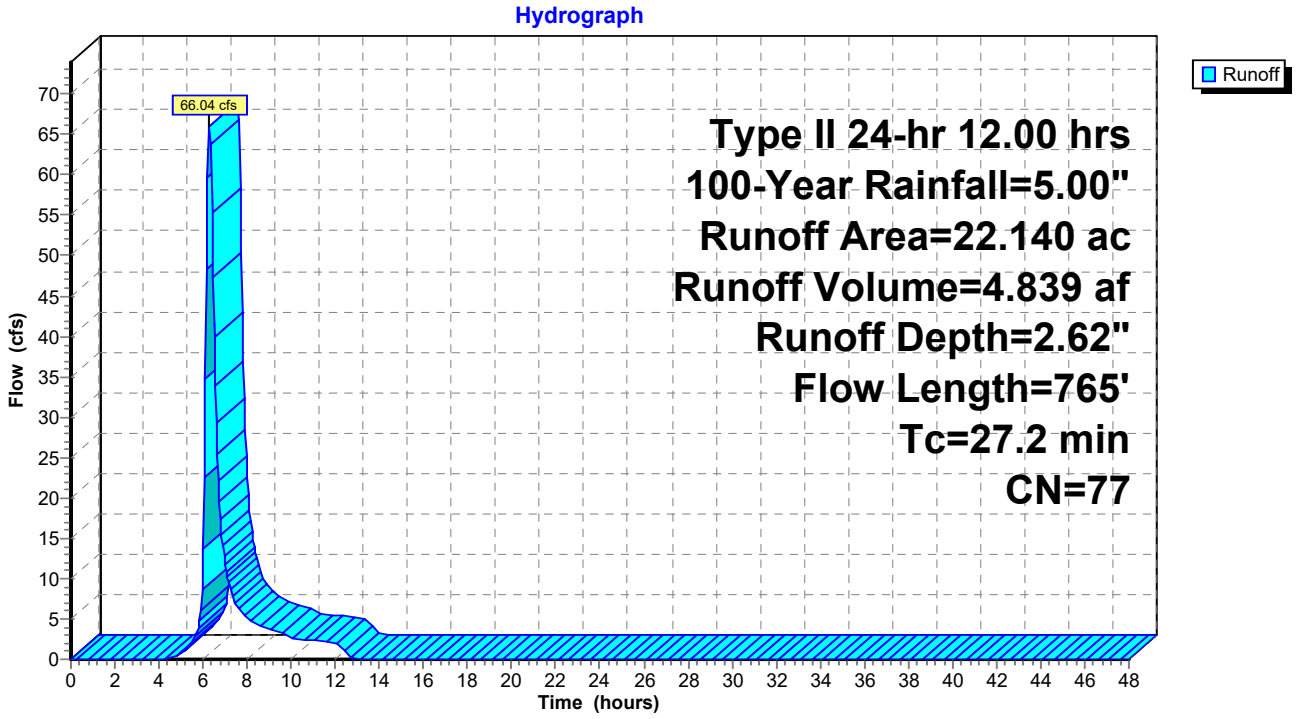
Runoff = 66.04 cfs @ 6.28 hrs, Volume= 4.839 af, Depth= 2.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 100-Year Rainfall=5.00"

	Area (ac)	CN	Description
*	22.140	77	Row crops, straight row, Good, HSG C
	22.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0150	0.12		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
13.8	665	0.0080	0.80		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
27.2	765	Total			

Subcatchment XWA-A2: Ex. Watershed A2



Summary for Subcatchment XWA-B: Ex. Watershed B

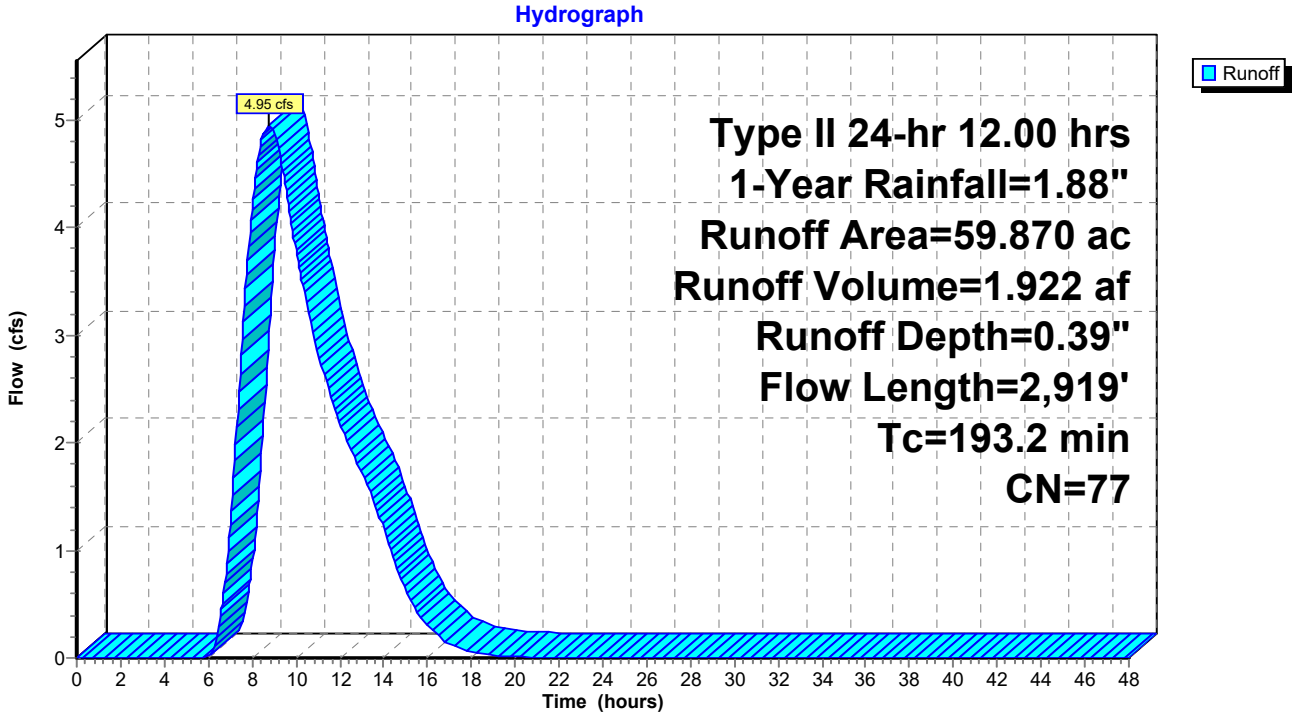
Runoff = 4.95 cfs @ 8.80 hrs, Volume= 1.922 af, Depth= 0.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 1-Year Rainfall=1.88"

	Area (ac)	CN	Description
*	40.630	77	Row crops, straight row, Good, HSG C
	7.430	73	Woods, Fair, HSG C
*	3.120	77	Woods, Fair, HSG D
*	8.690	77	Row crops, straight row, Good, HSG D
	59.870	77	Weighted Average
	59.870		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0180	0.13		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
6.6	507	0.0200	1.27		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
174.1	2,312	0.0010	0.22		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
193.2	2,919	Total			

Subcatchment XWA-B: Ex. Watershed B



Summary for Subcatchment XWA-B: Ex. Watershed B

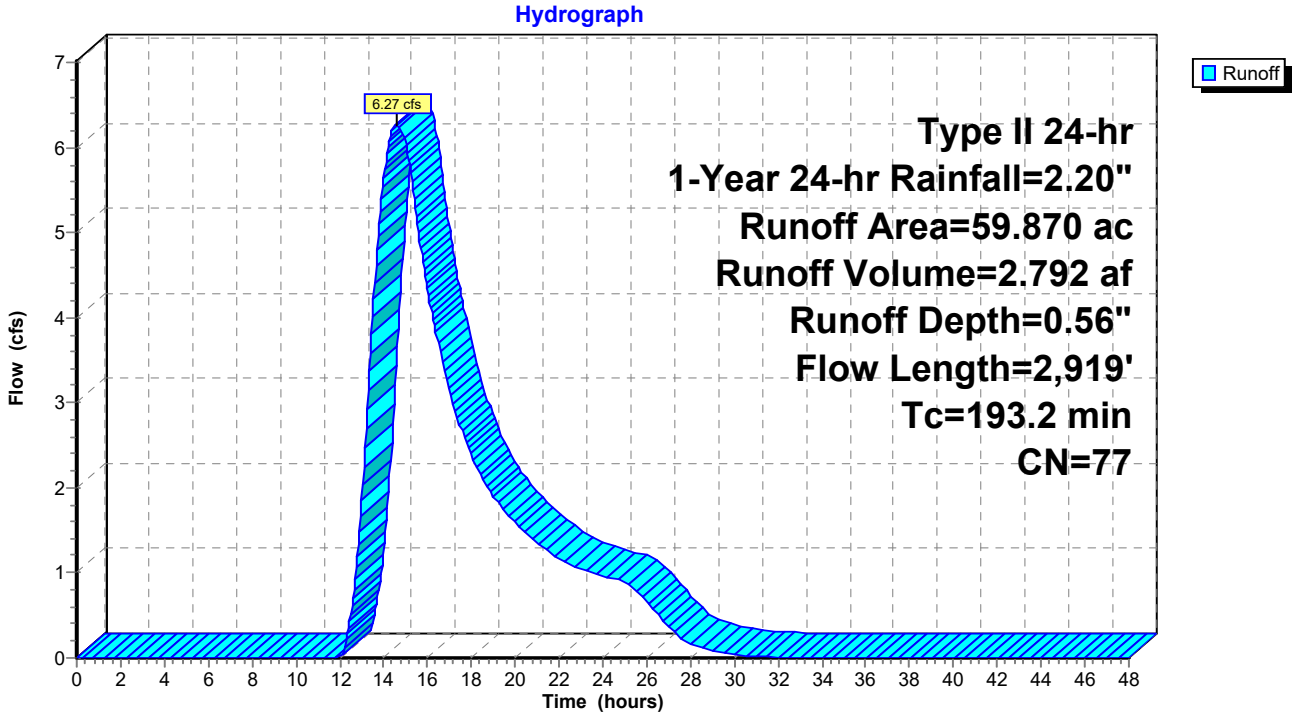
Runoff = 6.27 cfs @ 14.59 hrs, Volume= 2.792 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year 24-hr Rainfall=2.20"

	Area (ac)	CN	Description
*	40.630	77	Row crops, straight row, Good, HSG C
	7.430	73	Woods, Fair, HSG C
*	3.120	77	Woods, Fair, HSG D
*	8.690	77	Row crops, straight row, Good, HSG D
	59.870	77	Weighted Average
	59.870		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0180	0.13		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
6.6	507	0.0200	1.27		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
174.1	2,312	0.0010	0.22		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
193.2	2,919	Total			

Subcatchment XWA-B: Ex. Watershed B



Summary for Subcatchment XWA-B: Ex. Watershed B

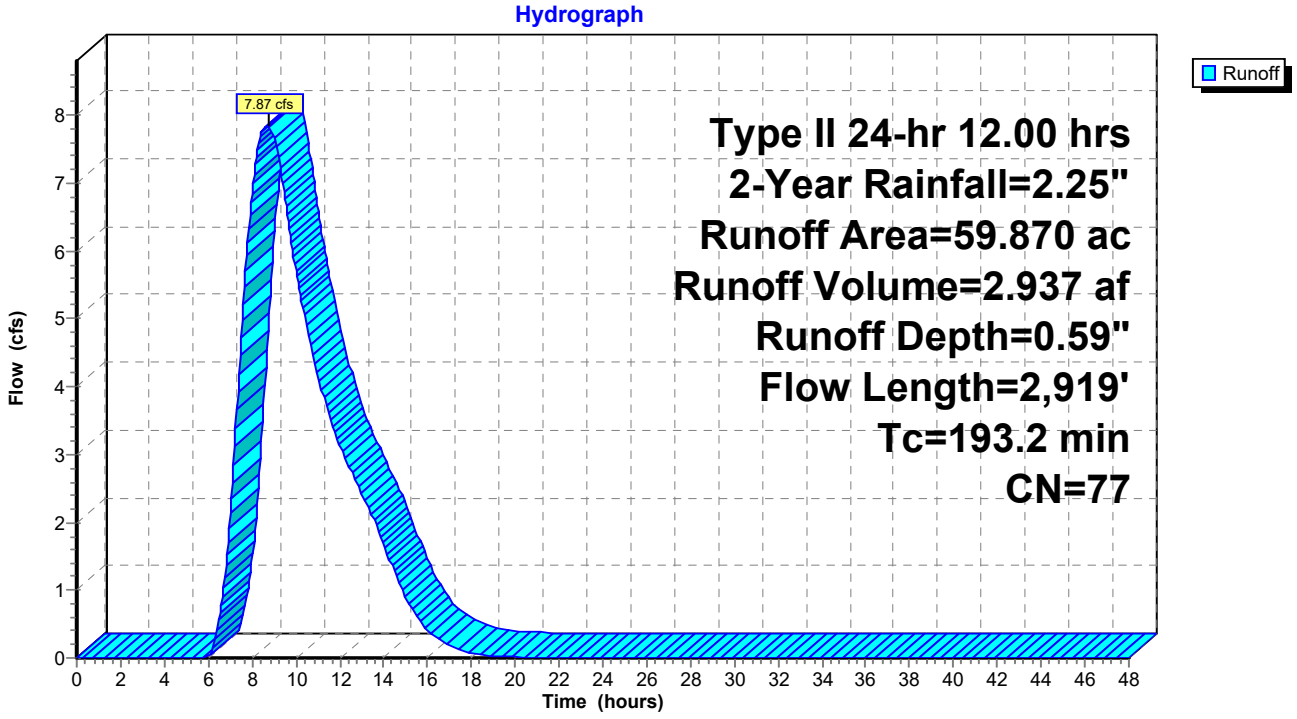
Runoff = 7.87 cfs @ 8.76 hrs, Volume= 2.937 af, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 2-Year Rainfall=2.25"

	Area (ac)	CN	Description
*	40.630	77	Row crops, straight row, Good, HSG C
	7.430	73	Woods, Fair, HSG C
*	3.120	77	Woods, Fair, HSG D
*	8.690	77	Row crops, straight row, Good, HSG D
	59.870	77	Weighted Average
	59.870		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0180	0.13		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
6.6	507	0.0200	1.27		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
174.1	2,312	0.0010	0.22		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
193.2	2,919	Total			

Subcatchment XWA-B: Ex. Watershed B



Summary for Subcatchment XWA-B: Ex. Watershed B

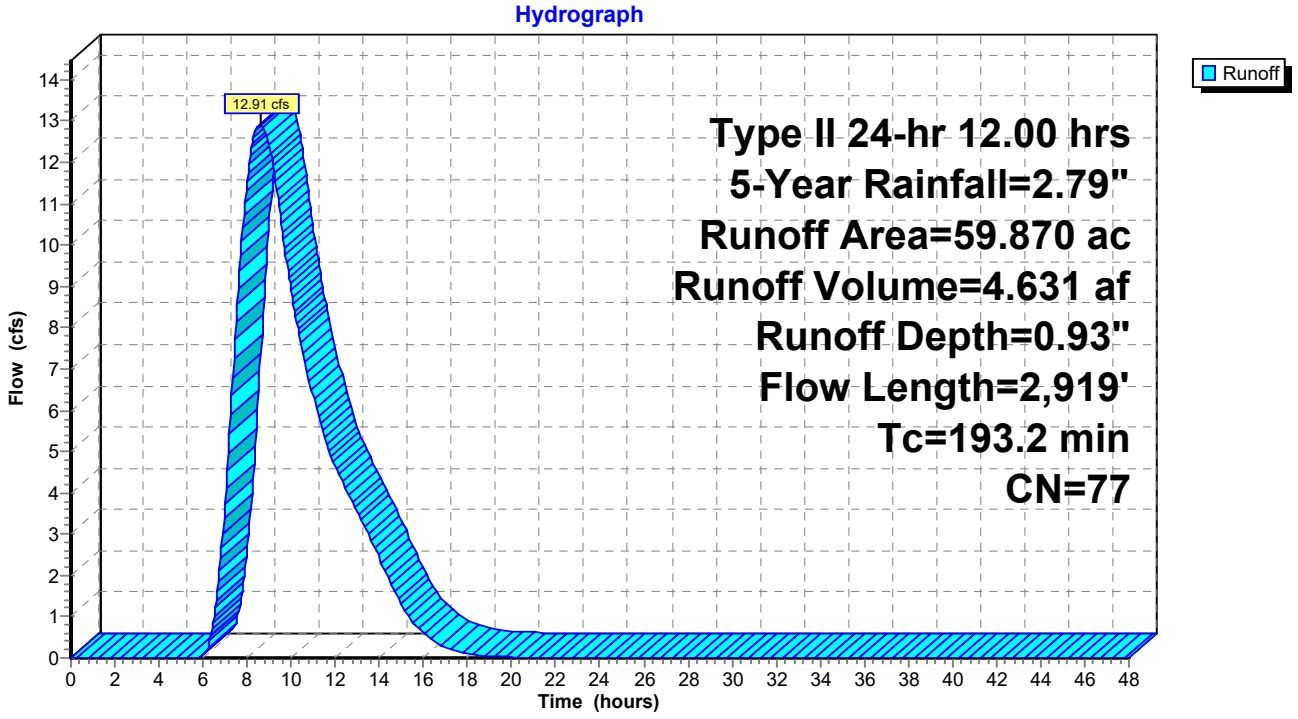
Runoff = 12.91 cfs @ 8.59 hrs, Volume= 4.631 af, Depth= 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 5-Year Rainfall=2.79"

	Area (ac)	CN	Description
*	40.630	77	Row crops, straight row, Good, HSG C
	7.430	73	Woods, Fair, HSG C
*	3.120	77	Woods, Fair, HSG D
*	8.690	77	Row crops, straight row, Good, HSG D
	59.870	77	Weighted Average
	59.870		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0180	0.13		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
6.6	507	0.0200	1.27		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
174.1	2,312	0.0010	0.22		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
193.2	2,919	Total			

Subcatchment XWA-B: Ex. Watershed B



Summary for Subcatchment XWA-B: Ex. Watershed B

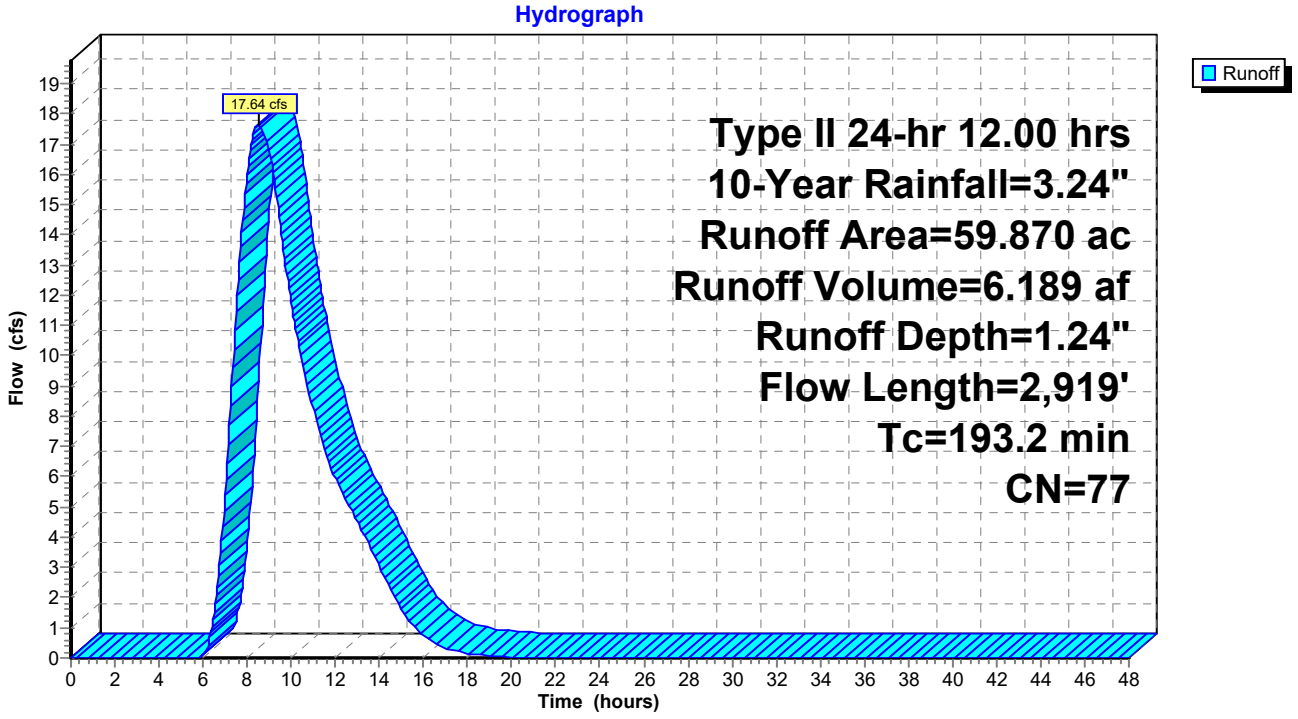
Runoff = 17.64 cfs @ 8.55 hrs, Volume= 6.189 af, Depth= 1.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 10-Year Rainfall=3.24"

	Area (ac)	CN	Description
*	40.630	77	Row crops, straight row, Good, HSG C
	7.430	73	Woods, Fair, HSG C
*	3.120	77	Woods, Fair, HSG D
*	8.690	77	Row crops, straight row, Good, HSG D
	59.870	77	Weighted Average
	59.870		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0180	0.13		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
6.6	507	0.0200	1.27		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
174.1	2,312	0.0010	0.22		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
193.2	2,919	Total			

Subcatchment XWA-B: Ex. Watershed B



Summary for Subcatchment XWA-B: Ex. Watershed B

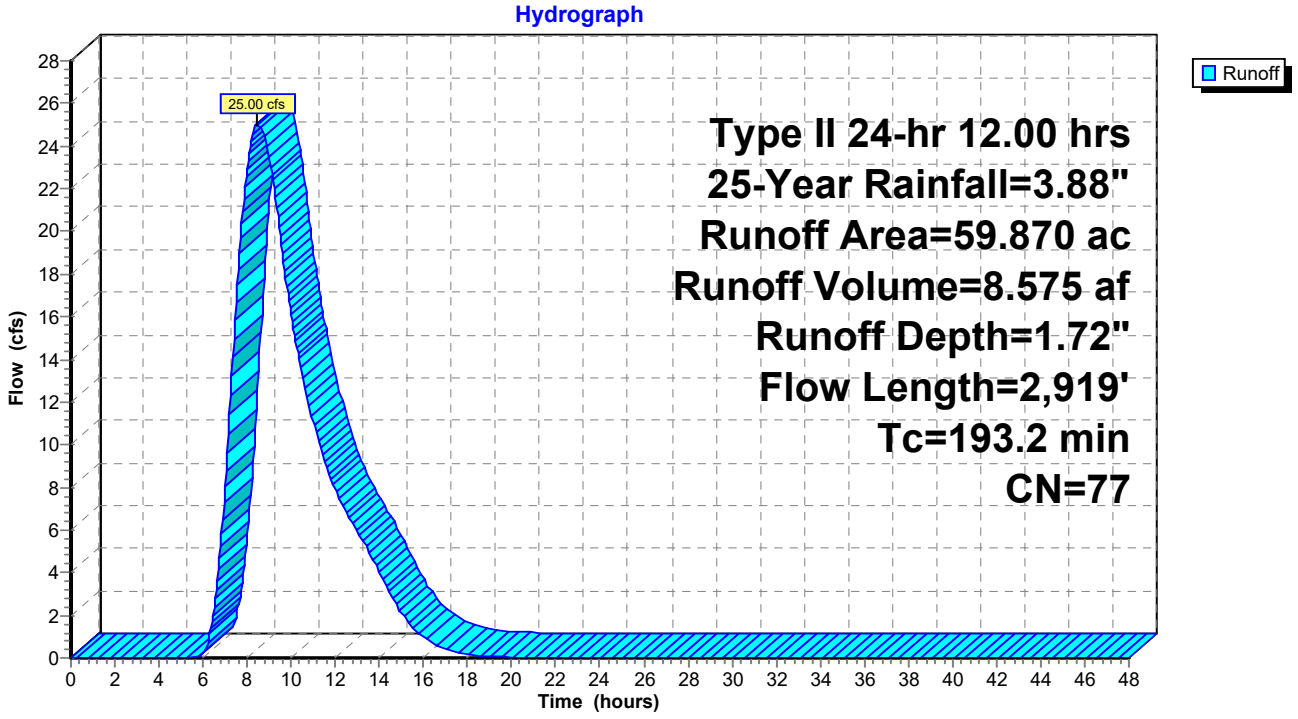
Runoff = 25.00 cfs @ 8.42 hrs, Volume= 8.575 af, Depth= 1.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 25-Year Rainfall=3.88"

	Area (ac)	CN	Description
*	40.630	77	Row crops, straight row, Good, HSG C
	7.430	73	Woods, Fair, HSG C
*	3.120	77	Woods, Fair, HSG D
*	8.690	77	Row crops, straight row, Good, HSG D
	59.870	77	Weighted Average
	59.870		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0180	0.13		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
6.6	507	0.0200	1.27		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
174.1	2,312	0.0010	0.22		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
193.2	2,919	Total			

Subcatchment XWA-B: Ex. Watershed B



Summary for Subcatchment XWA-B: Ex. Watershed B

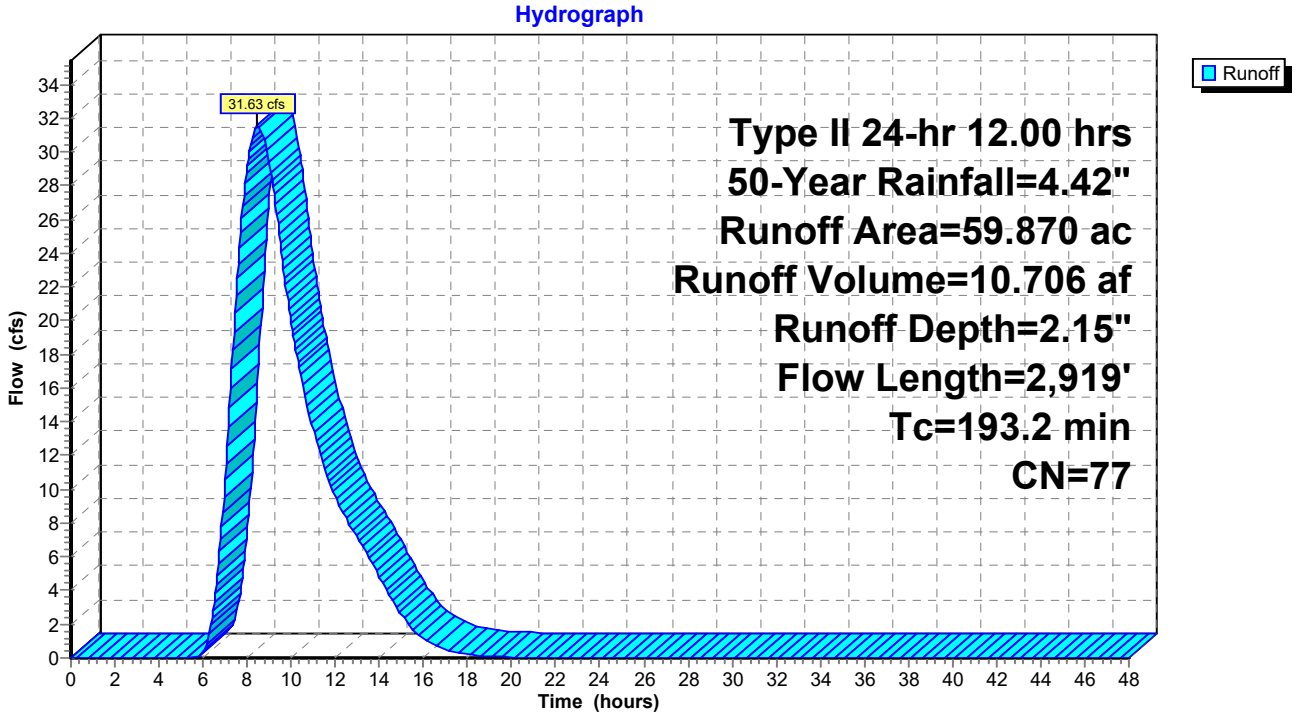
Runoff = 31.63 cfs @ 8.41 hrs, Volume= 10.706 af, Depth= 2.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 50-Year Rainfall=4.42"

	Area (ac)	CN	Description
*	40.630	77	Row crops, straight row, Good, HSG C
	7.430	73	Woods, Fair, HSG C
*	3.120	77	Woods, Fair, HSG D
*	8.690	77	Row crops, straight row, Good, HSG D
	59.870	77	Weighted Average
	59.870		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0180	0.13		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
6.6	507	0.0200	1.27		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
174.1	2,312	0.0010	0.22		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
193.2	2,919	Total			

Subcatchment XWA-B: Ex. Watershed B



Summary for Subcatchment XWA-B: Ex. Watershed B

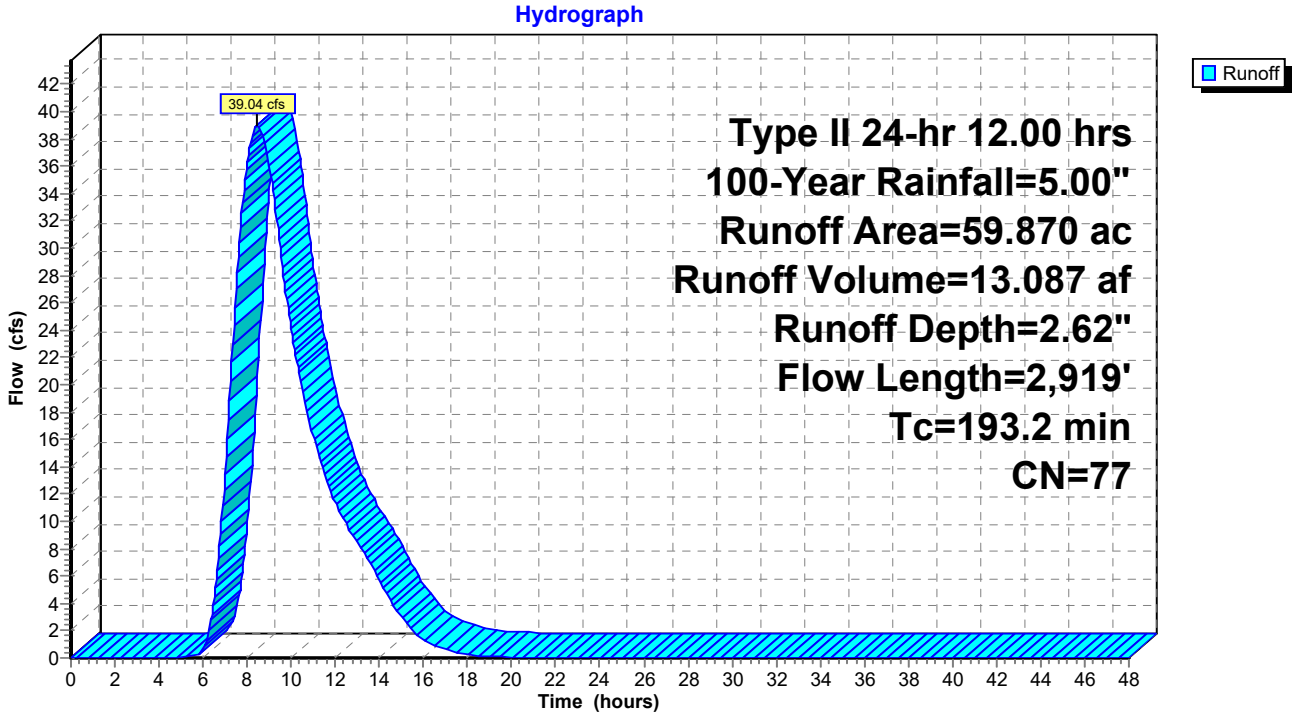
Runoff = 39.04 cfs @ 8.40 hrs, Volume= 13.087 af, Depth= 2.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 100-Year Rainfall=5.00"

	Area (ac)	CN	Description
*	40.630	77	Row crops, straight row, Good, HSG C
	7.430	73	Woods, Fair, HSG C
*	3.120	77	Woods, Fair, HSG D
*	8.690	77	Row crops, straight row, Good, HSG D
	59.870	77	Weighted Average
	59.870		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0180	0.13		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
6.6	507	0.0200	1.27		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
174.1	2,312	0.0010	0.22		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
193.2	2,919	Total			

Subcatchment XWA-B: Ex. Watershed B



Summary for Subcatchment XWA-C: Ex. Watershed C

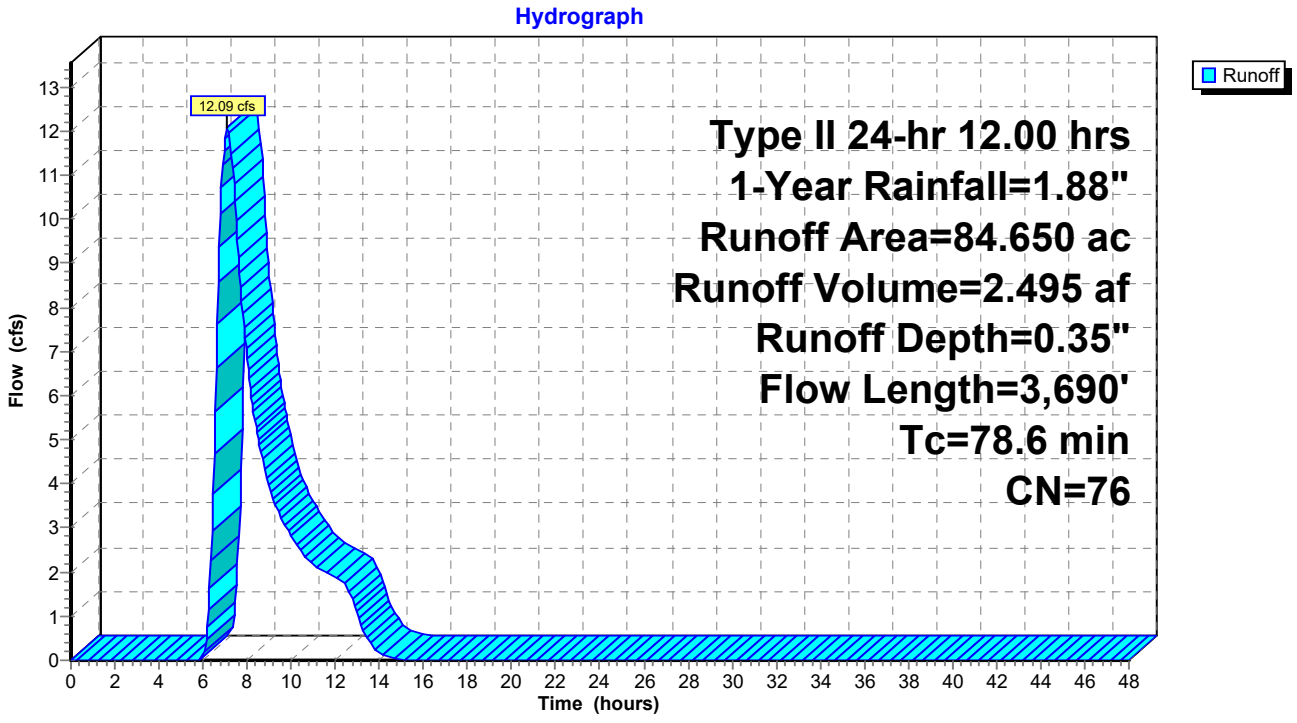
Runoff = 12.09 cfs @ 7.10 hrs, Volume= 2.495 af, Depth= 0.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 1-Year Rainfall=1.88"

	Area (ac)	CN	Description
*	60.330	77	Row crops, C&T, Good, HSG C
	24.320	73	Woods, Fair, HSG C
	84.650	76	Weighted Average
	84.650		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.4	100	0.0225	0.15		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
12.4	942	0.0199	1.27		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
54.8	2,648	0.0080	0.80		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
78.6	3,690	Total			

Subcatchment XWA-C: Ex. Watershed C



Summary for Subcatchment XWA-C: Ex. Watershed C

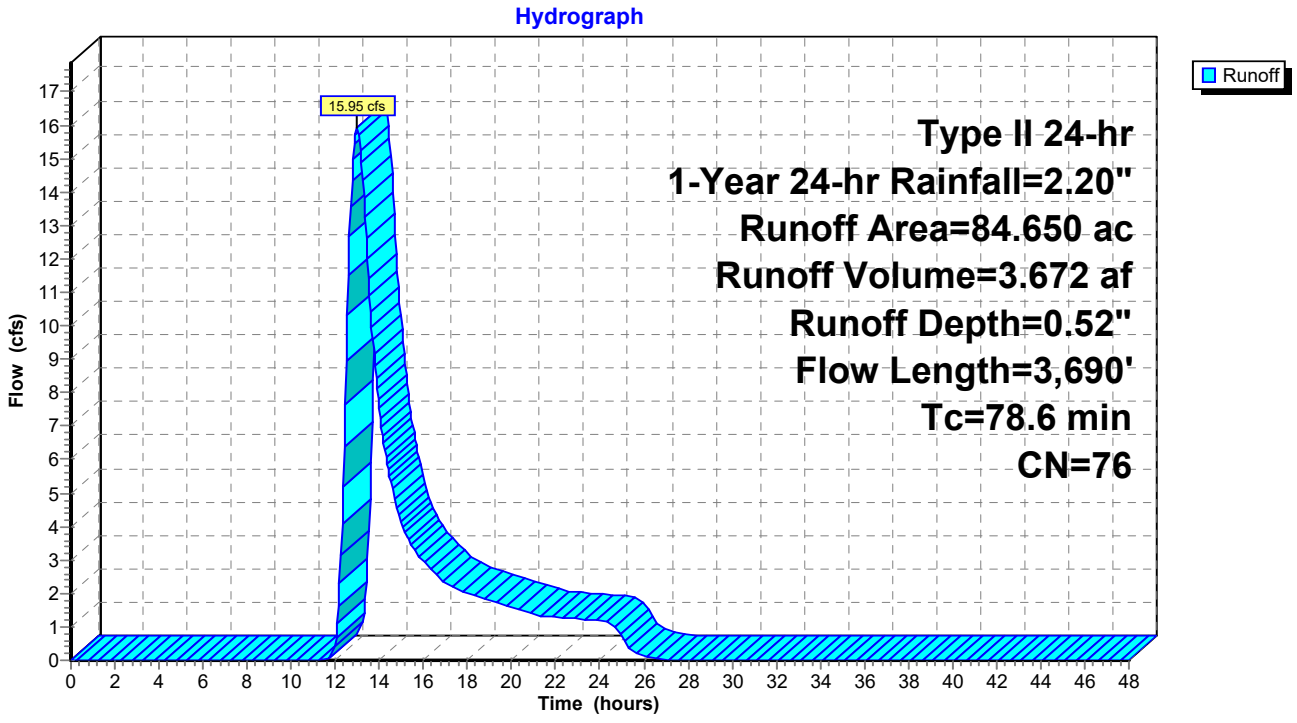
Runoff = 15.95 cfs @ 12.99 hrs, Volume= 3.672 af, Depth= 0.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year 24-hr Rainfall=2.20"

	Area (ac)	CN	Description
*	60.330	77	Row crops, C&T, Good, HSG C
	24.320	73	Woods, Fair, HSG C
	84.650	76	Weighted Average
	84.650		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.4	100	0.0225	0.15		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
12.4	942	0.0199	1.27		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
54.8	2,648	0.0080	0.80		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
78.6	3,690	Total			

Subcatchment XWA-C: Ex. Watershed C



Summary for Subcatchment XWA-C: Ex. Watershed C

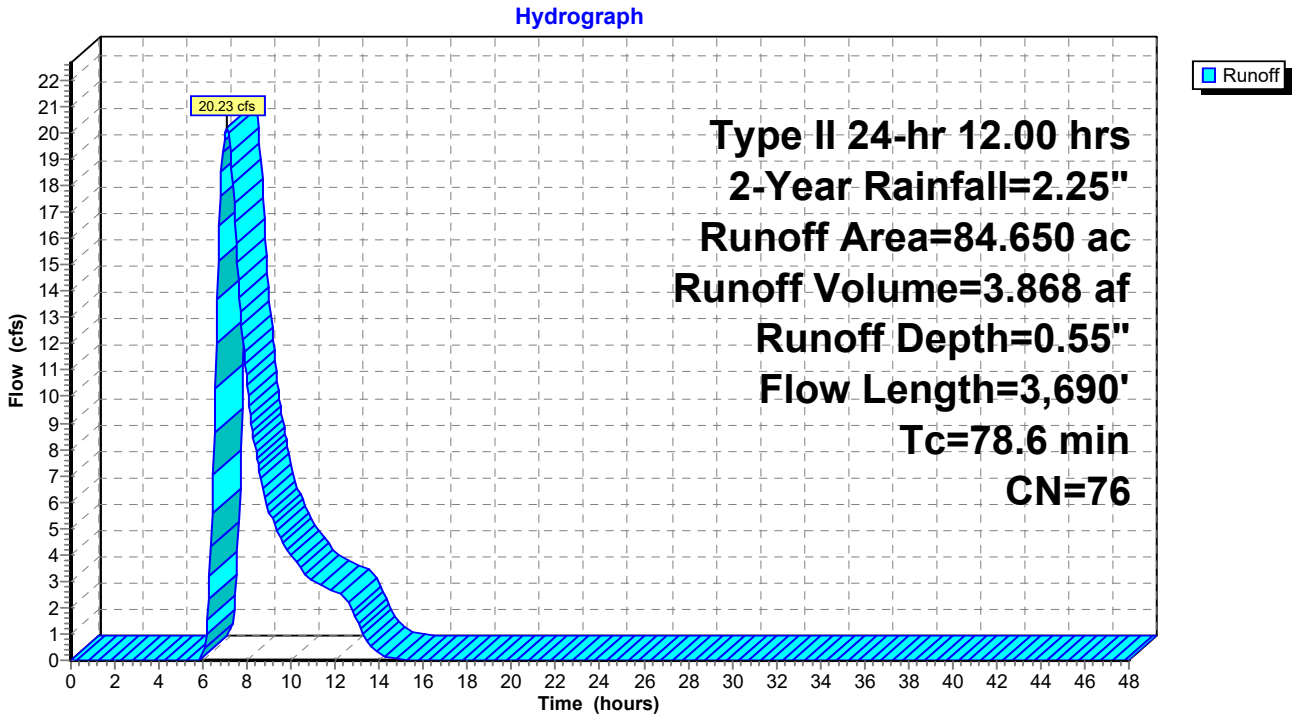
Runoff = 20.23 cfs @ 7.07 hrs, Volume= 3.868 af, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 2-Year Rainfall=2.25"

	Area (ac)	CN	Description
*	60.330	77	Row crops, C&T, Good, HSG C
	24.320	73	Woods, Fair, HSG C
	84.650	76	Weighted Average
	84.650		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.4	100	0.0225	0.15		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
12.4	942	0.0199	1.27		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
54.8	2,648	0.0080	0.80		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
78.6	3,690	Total			

Subcatchment XWA-C: Ex. Watershed C



Summary for Subcatchment XWA-C: Ex. Watershed C

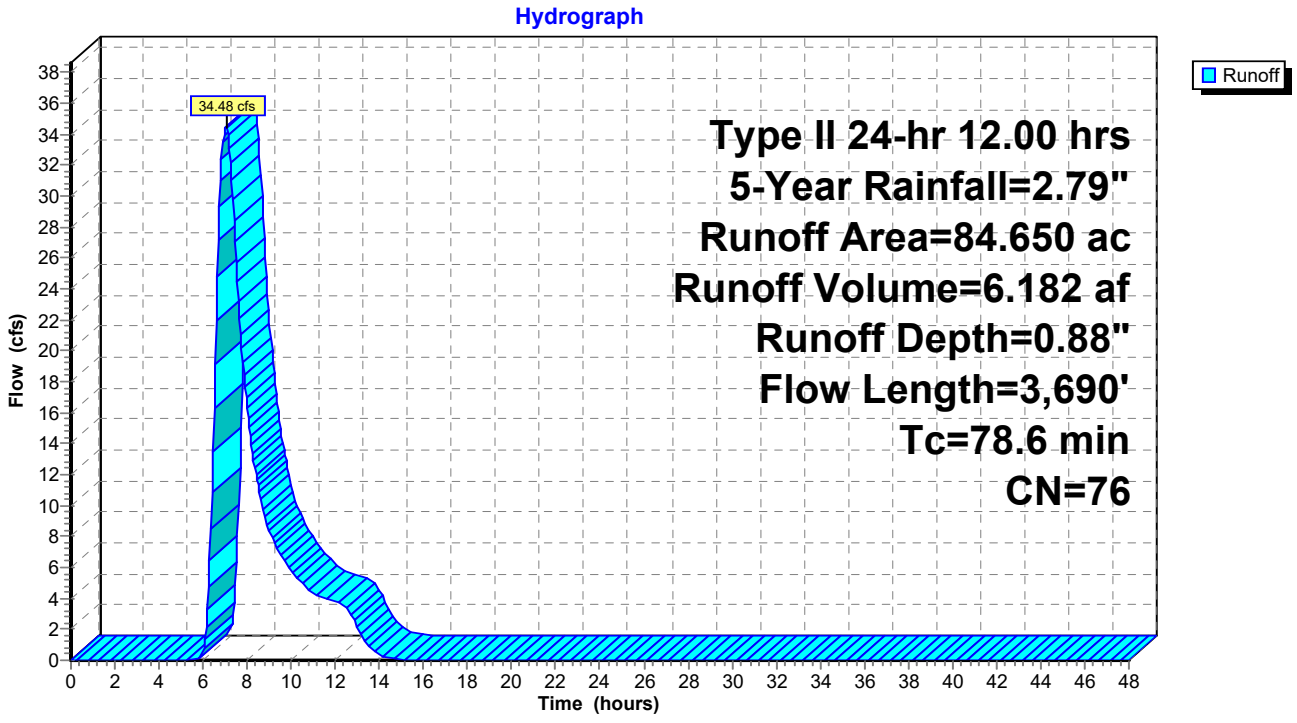
Runoff = 34.48 cfs @ 7.04 hrs, Volume= 6.182 af, Depth= 0.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 5-Year Rainfall=2.79"

	Area (ac)	CN	Description
*	60.330	77	Row crops, C&T, Good, HSG C
	24.320	73	Woods, Fair, HSG C
	84.650	76	Weighted Average
	84.650		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.4	100	0.0225	0.15		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
12.4	942	0.0199	1.27		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
54.8	2,648	0.0080	0.80		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
78.6	3,690	Total			

Subcatchment XWA-C: Ex. Watershed C



Summary for Subcatchment XWA-C: Ex. Watershed C

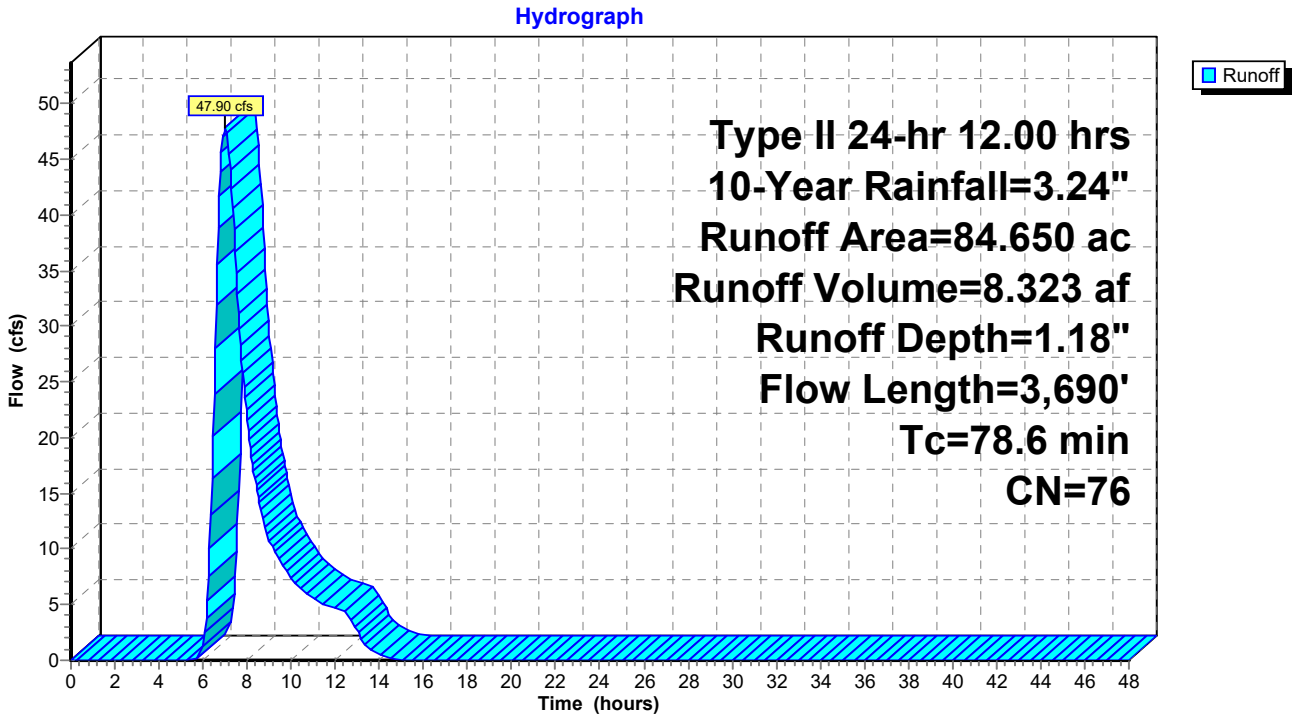
Runoff = 47.90 cfs @ 7.02 hrs, Volume= 8.323 af, Depth= 1.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 10-Year Rainfall=3.24"

	Area (ac)	CN	Description
*	60.330	77	Row crops, C&T, Good, HSG C
	24.320	73	Woods, Fair, HSG C
	84.650	76	Weighted Average
	84.650		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.4	100	0.0225	0.15		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
12.4	942	0.0199	1.27		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
54.8	2,648	0.0080	0.80		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
78.6	3,690	Total			

Subcatchment XWA-C: Ex. Watershed C



Summary for Subcatchment XWA-C: Ex. Watershed C

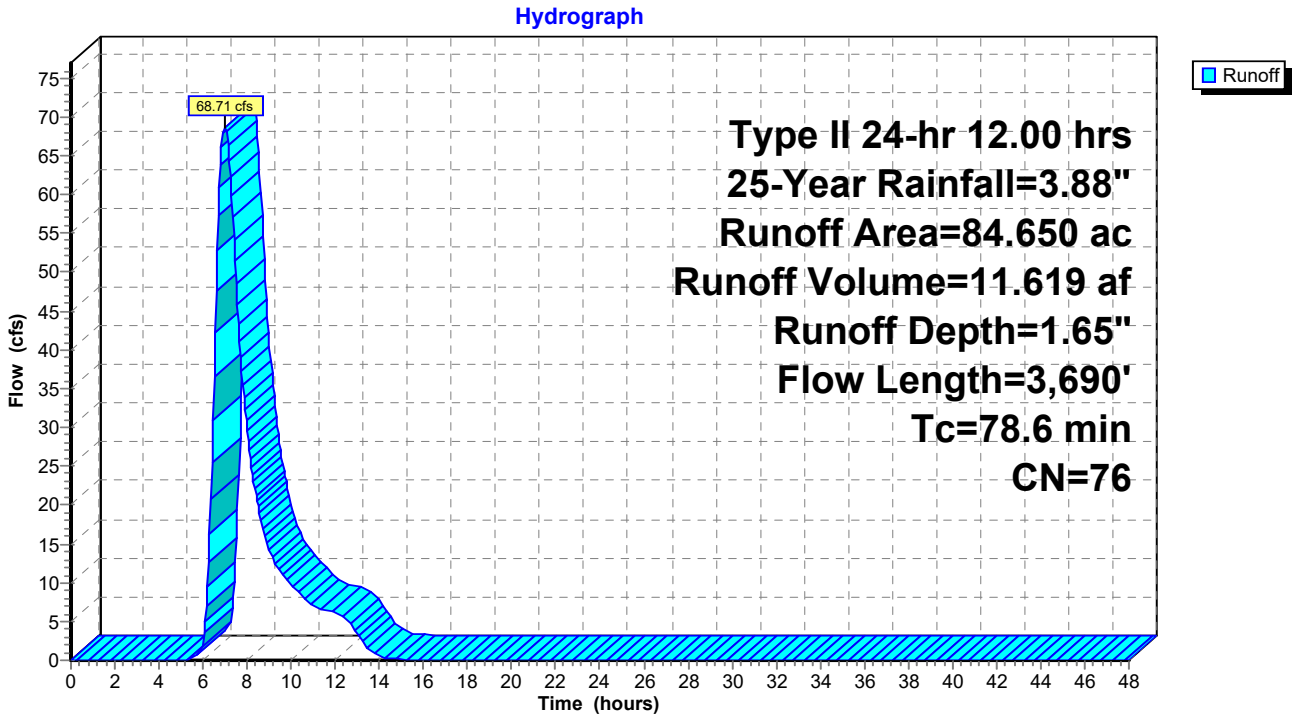
Runoff = 68.71 cfs @ 7.00 hrs, Volume= 11.619 af, Depth= 1.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 25-Year Rainfall=3.88"

	Area (ac)	CN	Description
*	60.330	77	Row crops, C&T, Good, HSG C
	24.320	73	Woods, Fair, HSG C
	84.650	76	Weighted Average
	84.650		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.4	100	0.0225	0.15		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
12.4	942	0.0199	1.27		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
54.8	2,648	0.0080	0.80		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
78.6	3,690	Total			

Subcatchment XWA-C: Ex. Watershed C



Summary for Subcatchment XWA-C: Ex. Watershed C

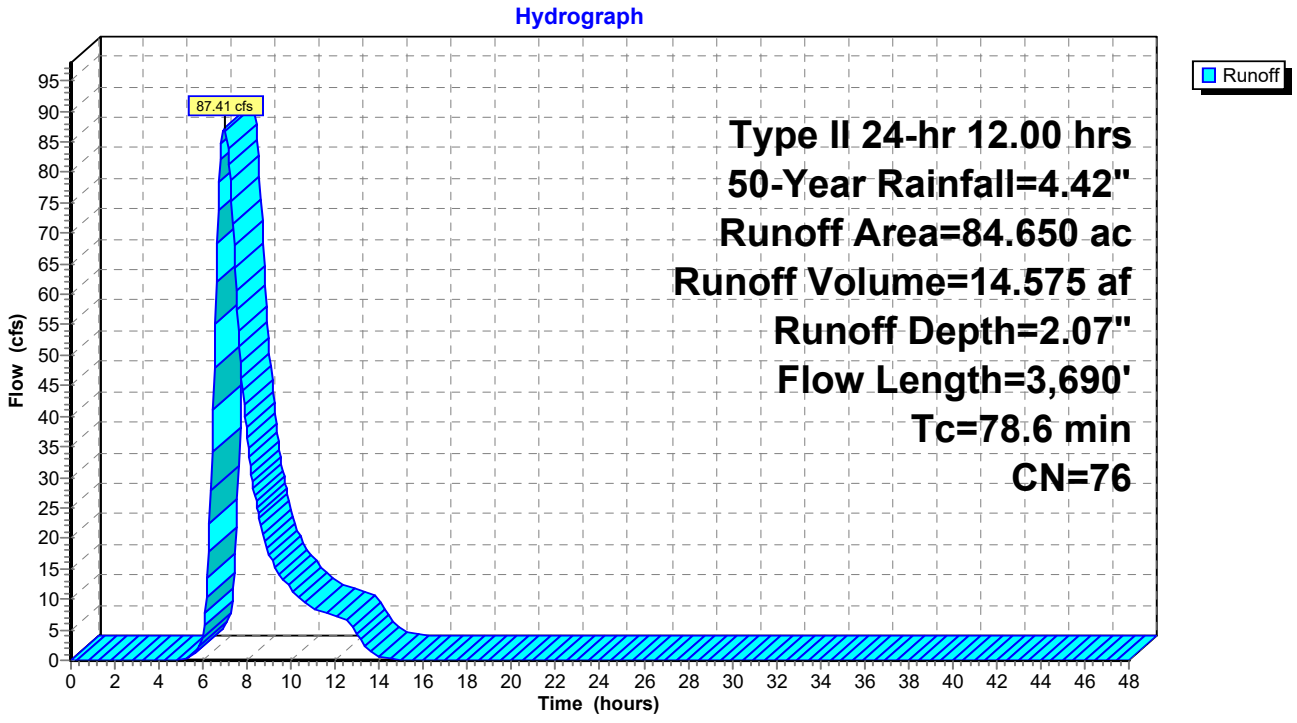
Runoff = 87.41 cfs @ 6.98 hrs, Volume= 14.575 af, Depth= 2.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 50-Year Rainfall=4.42"

	Area (ac)	CN	Description
*	60.330	77	Row crops, C&T, Good, HSG C
	24.320	73	Woods, Fair, HSG C
	84.650	76	Weighted Average
	84.650		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.4	100	0.0225	0.15		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
12.4	942	0.0199	1.27		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
54.8	2,648	0.0080	0.80		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
78.6	3,690	Total			

Subcatchment XWA-C: Ex. Watershed C



Summary for Subcatchment XWA-C: Ex. Watershed C

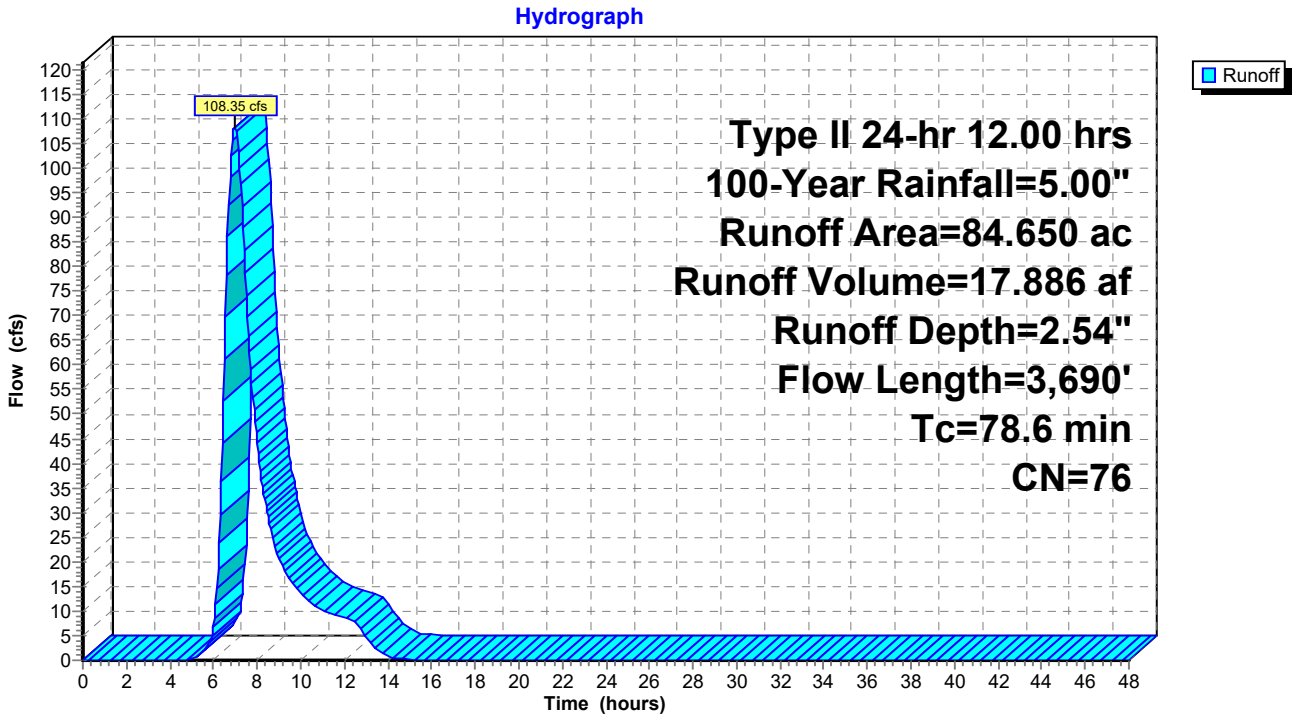
Runoff = 108.35 cfs @ 6.96 hrs, Volume= 17.886 af, Depth= 2.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 100-Year Rainfall=5.00"

	Area (ac)	CN	Description
*	60.330	77	Row crops, C&T, Good, HSG C
	24.320	73	Woods, Fair, HSG C
	84.650	76	Weighted Average
	84.650		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.4	100	0.0225	0.15		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
12.4	942	0.0199	1.27		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
54.8	2,648	0.0080	0.80		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
78.6	3,690	Total			

Subcatchment XWA-C: Ex. Watershed C



Summary for Subcatchment XWA-D: Ex. Watershed D

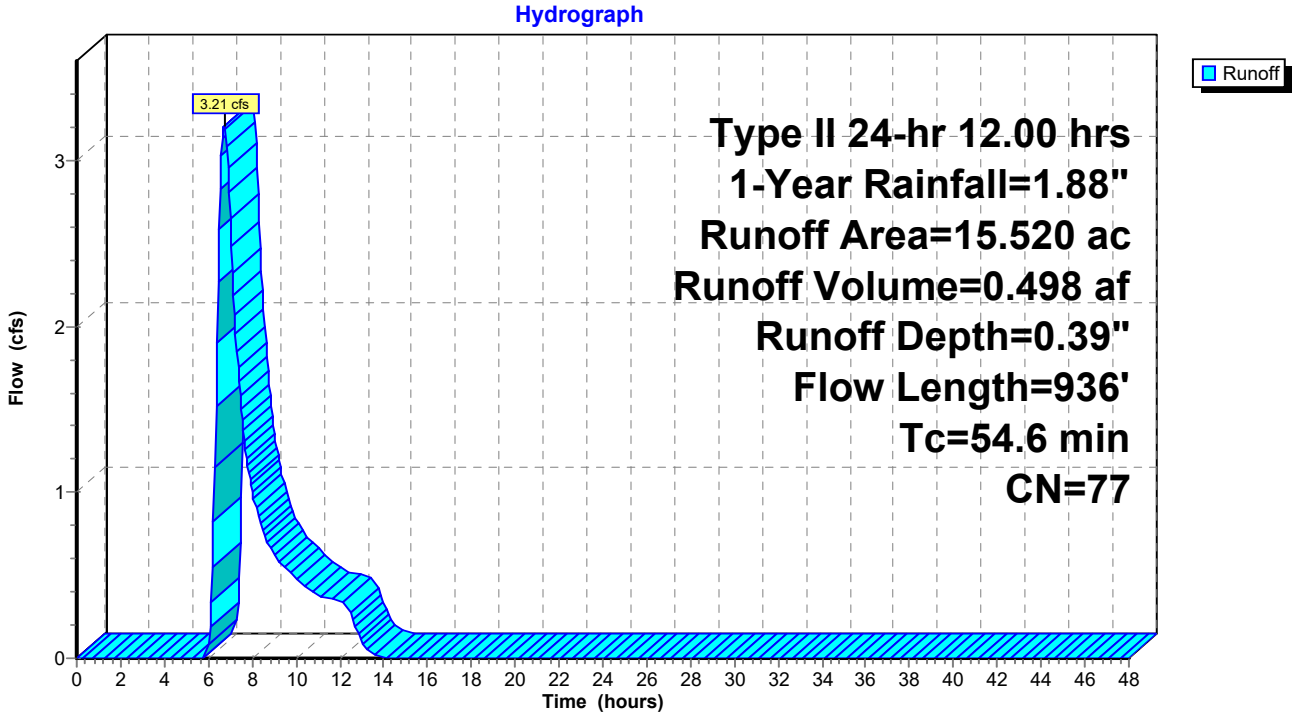
Runoff = 3.21 cfs @ 6.74 hrs, Volume= 0.498 af, Depth= 0.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 1-Year Rainfall=1.88"

	Area (ac)	CN	Description
*	11.150	77	Row crops, straight row, Good, HSG C
*	4.370	77	Row crops, straight row, Good, HSG C
	15.520	77	Weighted Average
	15.520		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.6	100	0.0014	0.05		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
20.0	836	0.0060	0.70		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
54.6	936	Total			

Subcatchment XWA-D: Ex. Watershed D



Summary for Subcatchment XWA-D: Ex. Watershed D

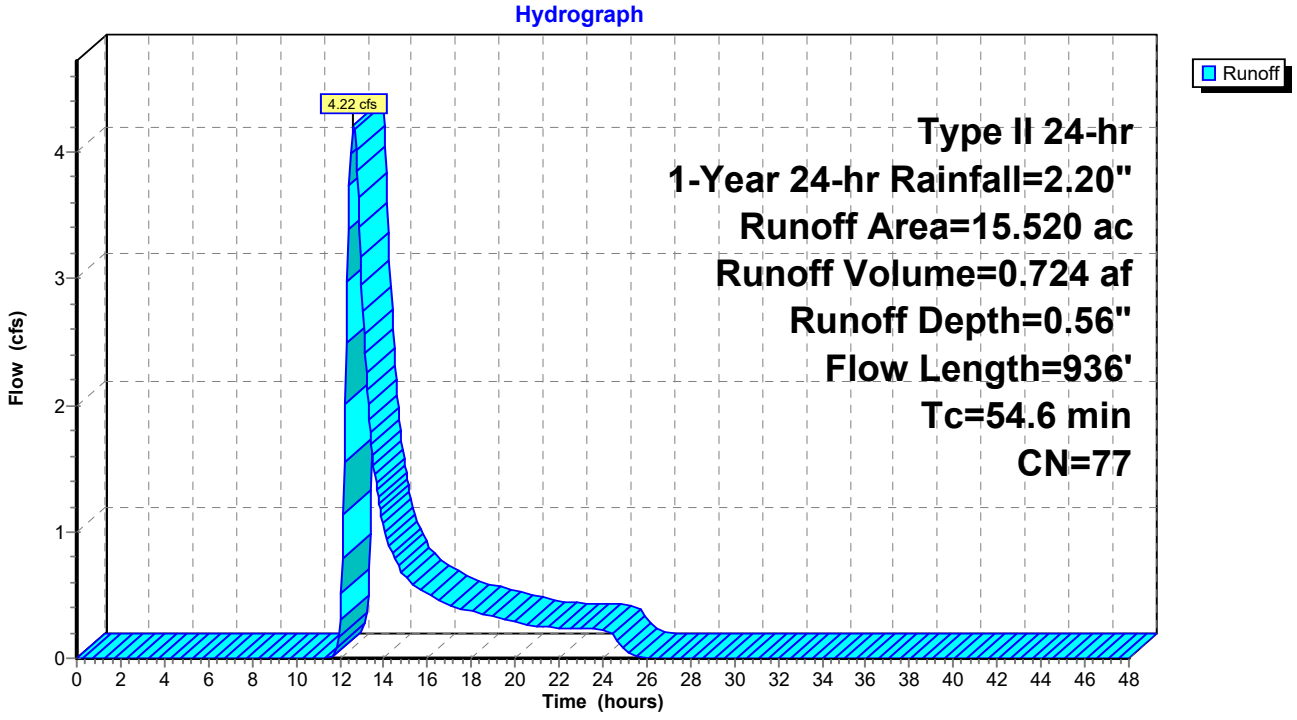
Runoff = 4.22 cfs @ 12.62 hrs, Volume= 0.724 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year 24-hr Rainfall=2.20"

	Area (ac)	CN	Description
*	11.150	77	Row crops, straight row, Good, HSG C
*	4.370	77	Row crops, straight row, Good, HSG C
	15.520	77	Weighted Average
	15.520		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.6	100	0.0014	0.05		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
20.0	836	0.0060	0.70		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
54.6	936	Total			

Subcatchment XWA-D: Ex. Watershed D



Summary for Subcatchment XWA-D: Ex. Watershed D

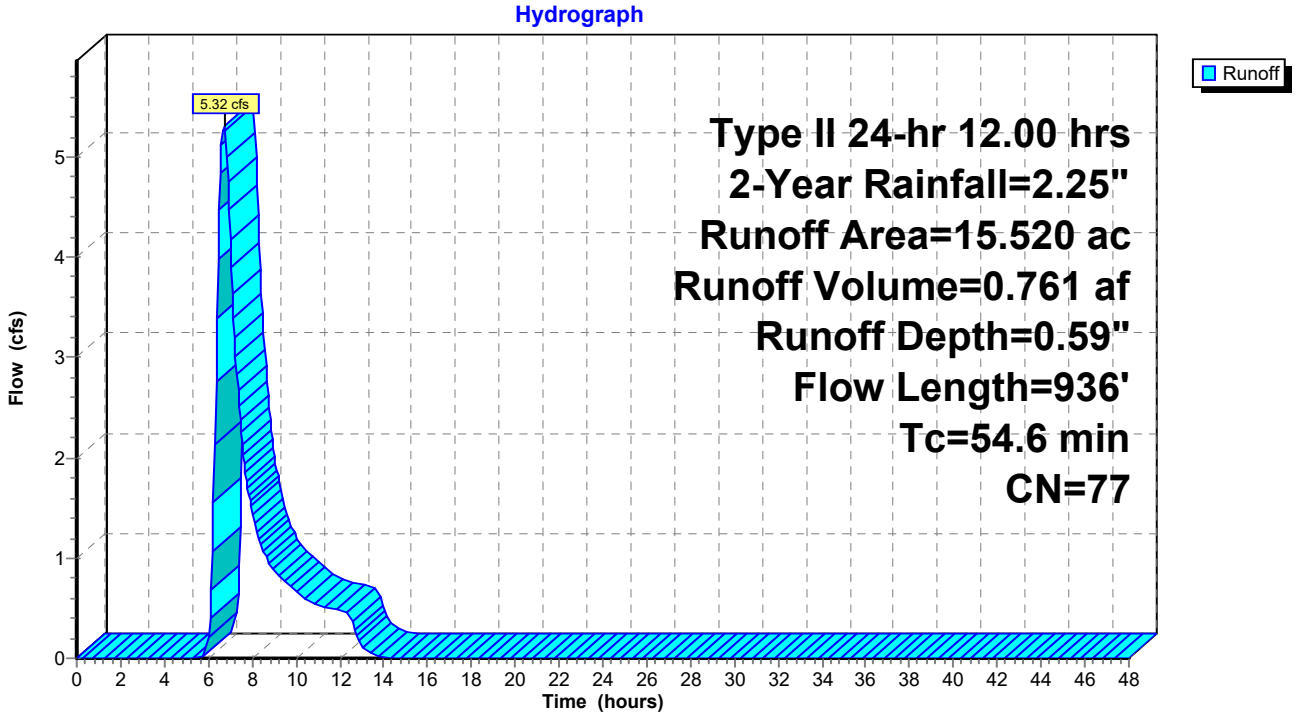
Runoff = 5.32 cfs @ 6.71 hrs, Volume= 0.761 af, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 2-Year Rainfall=2.25"

	Area (ac)	CN	Description
*	11.150	77	Row crops, straight row, Good, HSG C
*	4.370	77	Row crops, straight row, Good, HSG C
	15.520	77	Weighted Average
	15.520		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.6	100	0.0014	0.05		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
20.0	836	0.0060	0.70		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
54.6	936	Total			

Subcatchment XWA-D: Ex. Watershed D



Summary for Subcatchment XWA-D: Ex. Watershed D

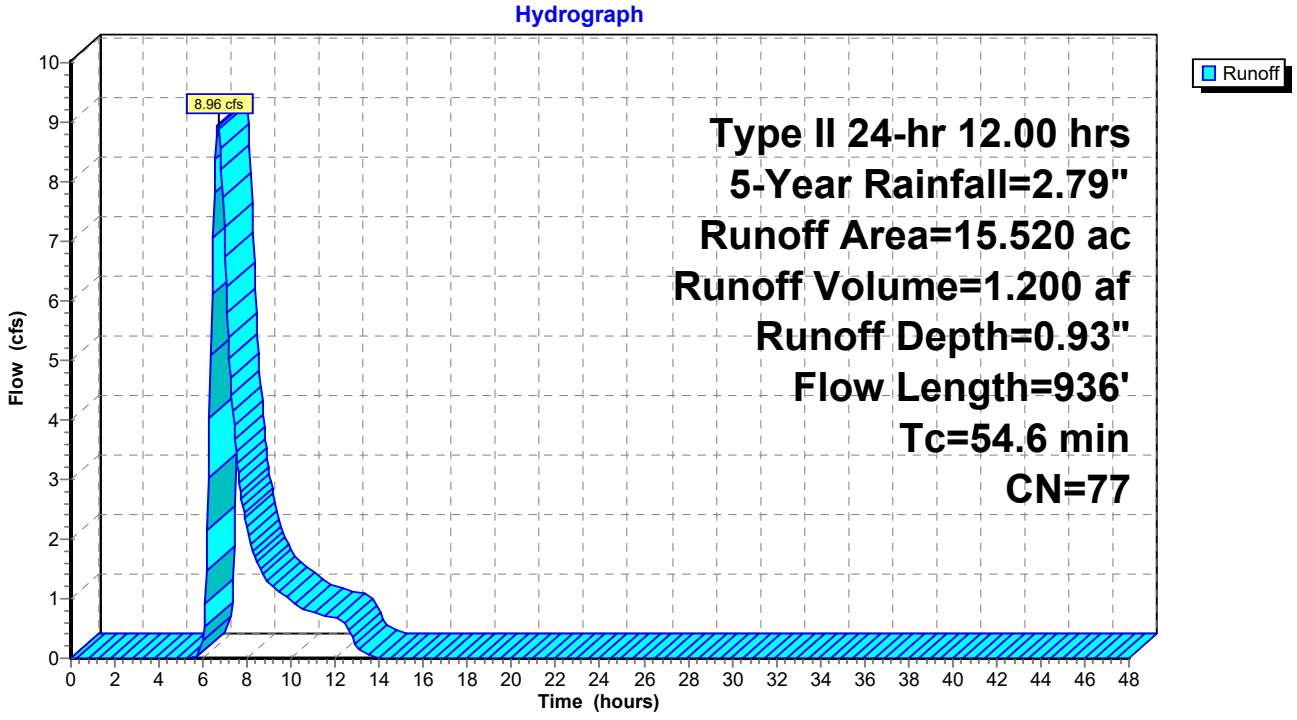
Runoff = 8.96 cfs @ 6.68 hrs, Volume= 1.200 af, Depth= 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 5-Year Rainfall=2.79"

	Area (ac)	CN	Description
*	11.150	77	Row crops, straight row, Good, HSG C
*	4.370	77	Row crops, straight row, Good, HSG C
	15.520	77	Weighted Average
	15.520		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.6	100	0.0014	0.05		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
20.0	836	0.0060	0.70		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
54.6	936	Total			

Subcatchment XWA-D: Ex. Watershed D



Summary for Subcatchment XWA-D: Ex. Watershed D

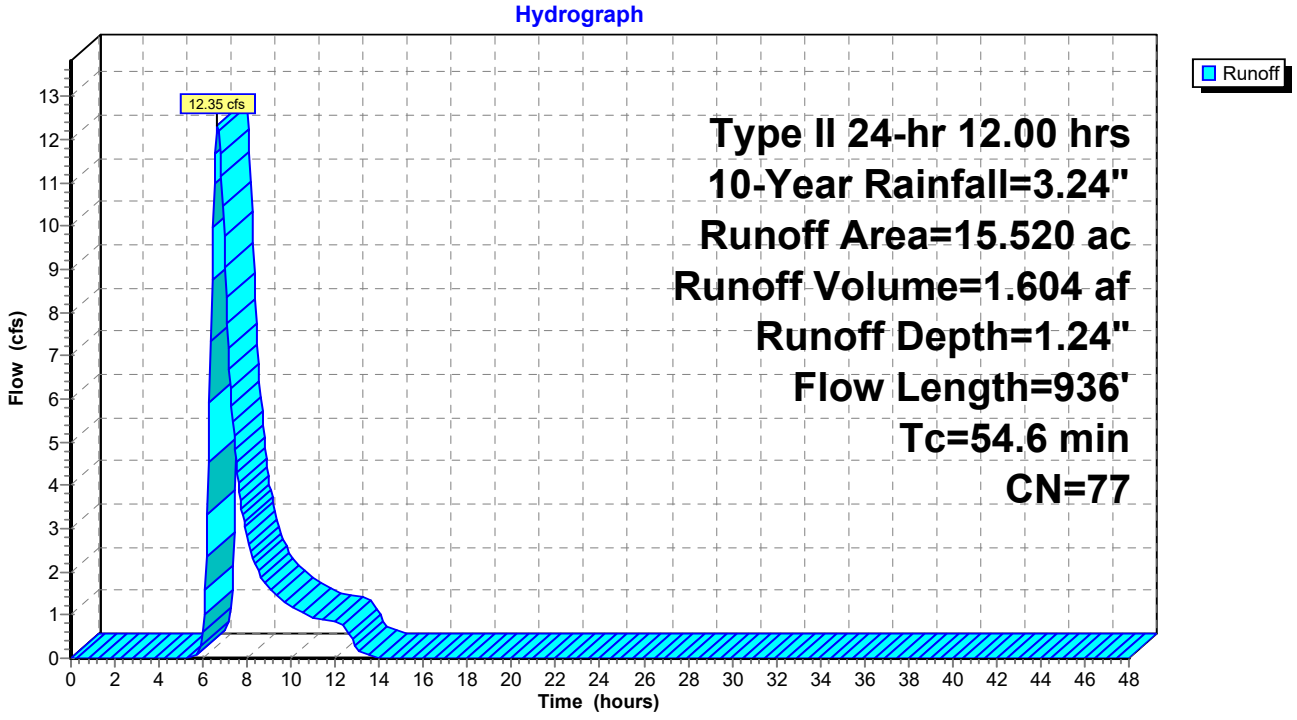
Runoff = 12.35 cfs @ 6.67 hrs, Volume= 1.604 af, Depth= 1.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 10-Year Rainfall=3.24"

	Area (ac)	CN	Description
*	11.150	77	Row crops, straight row, Good, HSG C
*	4.370	77	Row crops, straight row, Good, HSG C
	15.520	77	Weighted Average
	15.520		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.6	100	0.0014	0.05		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
20.0	836	0.0060	0.70		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
54.6	936	Total			

Subcatchment XWA-D: Ex. Watershed D



Summary for Subcatchment XWA-D: Ex. Watershed D

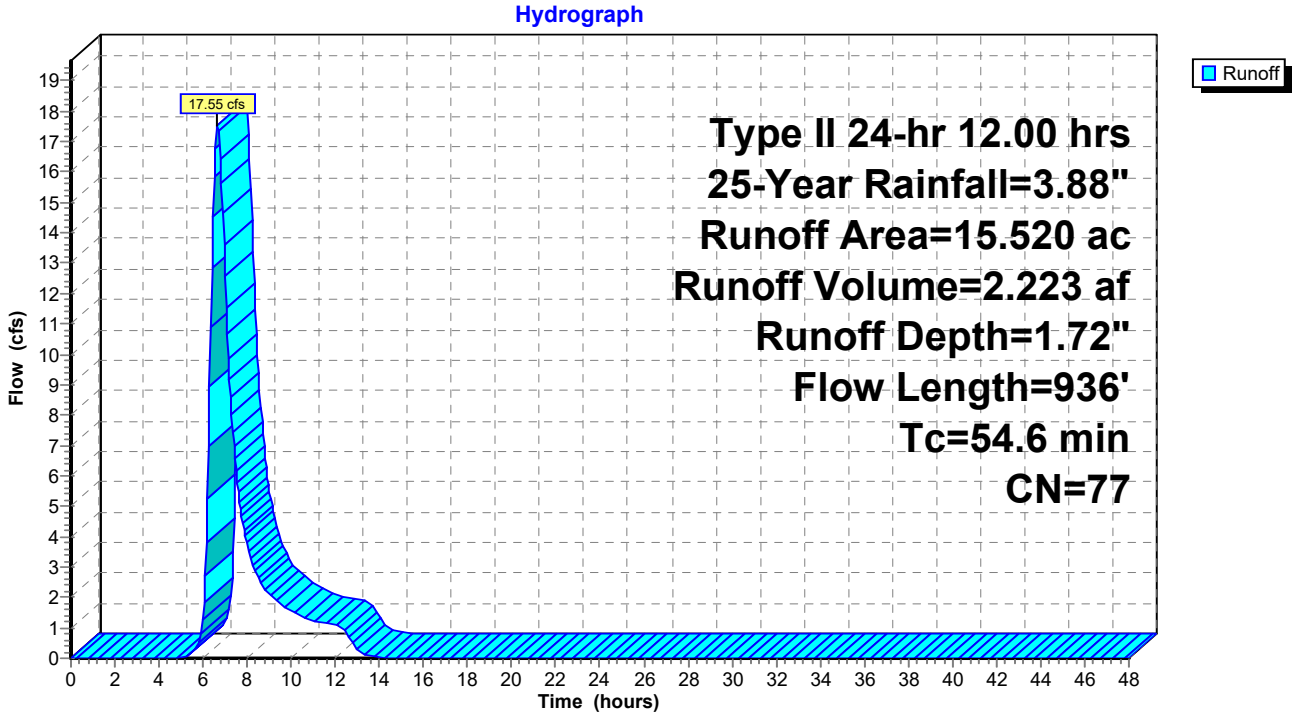
Runoff = 17.55 cfs @ 6.65 hrs, Volume= 2.223 af, Depth= 1.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 25-Year Rainfall=3.88"

	Area (ac)	CN	Description
*	11.150	77	Row crops, straight row, Good, HSG C
*	4.370	77	Row crops, straight row, Good, HSG C
	15.520	77	Weighted Average
	15.520		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.6	100	0.0014	0.05		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
20.0	836	0.0060	0.70		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
54.6	936	Total			

Subcatchment XWA-D: Ex. Watershed D



Summary for Subcatchment XWA-D: Ex. Watershed D

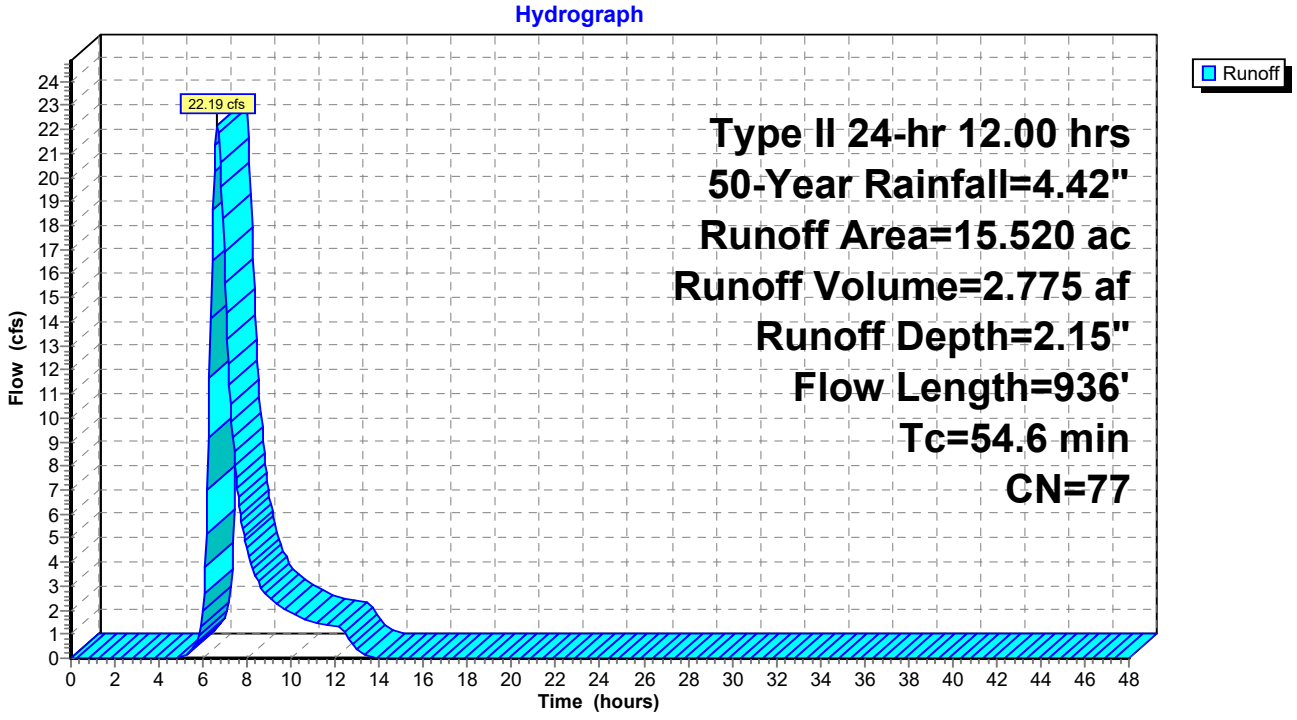
Runoff = 22.19 cfs @ 6.64 hrs, Volume= 2.775 af, Depth= 2.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 50-Year Rainfall=4.42"

	Area (ac)	CN	Description
*	11.150	77	Row crops, straight row, Good, HSG C
*	4.370	77	Row crops, straight row, Good, HSG C
	15.520	77	Weighted Average
	15.520		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.6	100	0.0014	0.05		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
20.0	836	0.0060	0.70		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
54.6	936	Total			

Subcatchment XWA-D: Ex. Watershed D



Summary for Subcatchment XWA-D: Ex. Watershed D

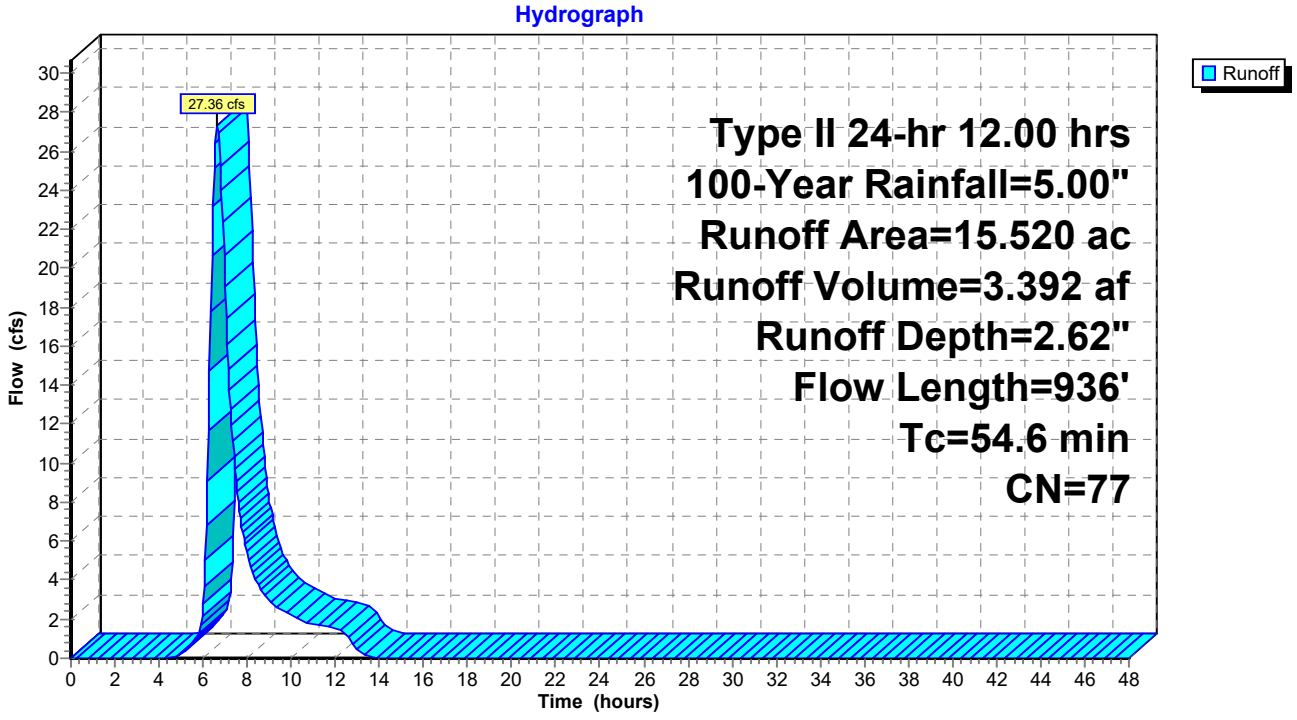
Runoff = 27.36 cfs @ 6.64 hrs, Volume= 3.392 af, Depth= 2.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 100-Year Rainfall=5.00"

	Area (ac)	CN	Description
*	11.150	77	Row crops, straight row, Good, HSG C
*	4.370	77	Row crops, straight row, Good, HSG C
	15.520	77	Weighted Average
	15.520		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.6	100	0.0014	0.05		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
20.0	836	0.0060	0.70		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
54.6	936	Total			

Subcatchment XWA-D: Ex. Watershed D



Summary for Subcatchment XWA-E: Ex. Watershed E

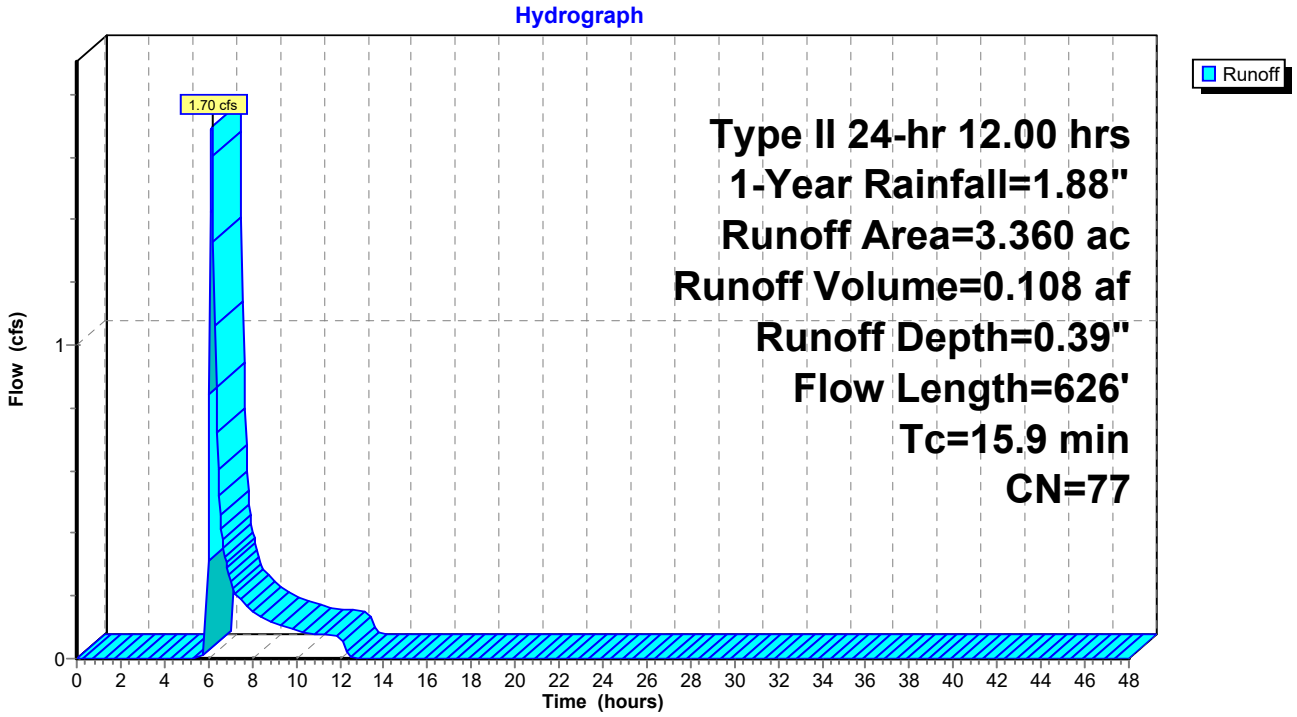
Runoff = 1.70 cfs @ 6.16 hrs, Volume= 0.108 af, Depth= 0.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 1-Year Rainfall=1.88"

	Area (ac)	CN	Description
*	3.360	77	Row crops, straight row, Good, HSG C
	3.360		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.9	100	0.0165	0.13		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
1.9	152	0.0220	1.33		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
1.1	374	0.0130	5.88	47.02	**Channel Flow,** Area= 8.0 sf Perim= 12.0' r= 0.67' n= 0.022 Earth, clean & straight
15.9	626	Total			

Subcatchment XWA-E: Ex. Watershed E



Summary for Subcatchment XWA-E: Ex. Watershed E

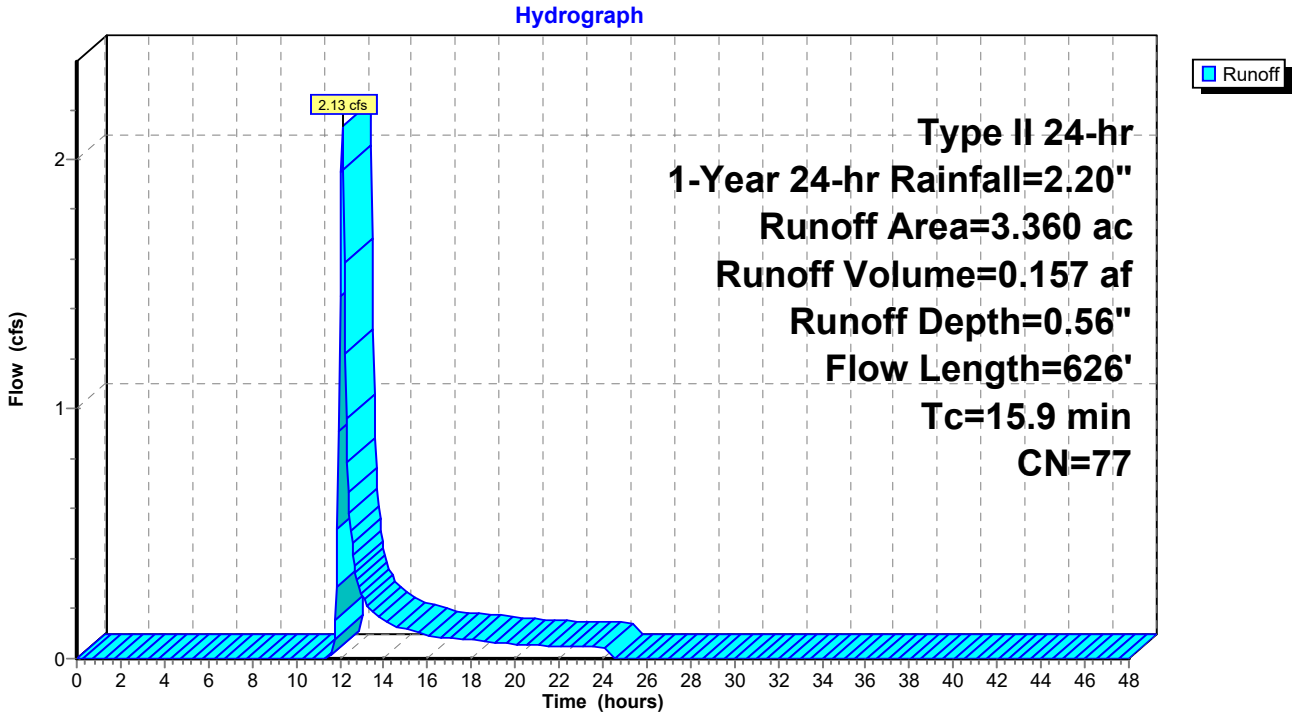
Runoff = 2.13 cfs @ 12.10 hrs, Volume= 0.157 af, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year 24-hr Rainfall=2.20"

	Area (ac)	CN	Description
*	3.360	77	Row crops, straight row, Good, HSG C
	3.360		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.9	100	0.0165	0.13		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
1.9	152	0.0220	1.33		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
1.1	374	0.0130	5.88	47.02	**Channel Flow,** Area= 8.0 sf Perim= 12.0' r= 0.67' n= 0.022 Earth, clean & straight
15.9	626	Total			

Subcatchment XWA-E: Ex. Watershed E



Summary for Subcatchment XWA-E: Ex. Watershed E

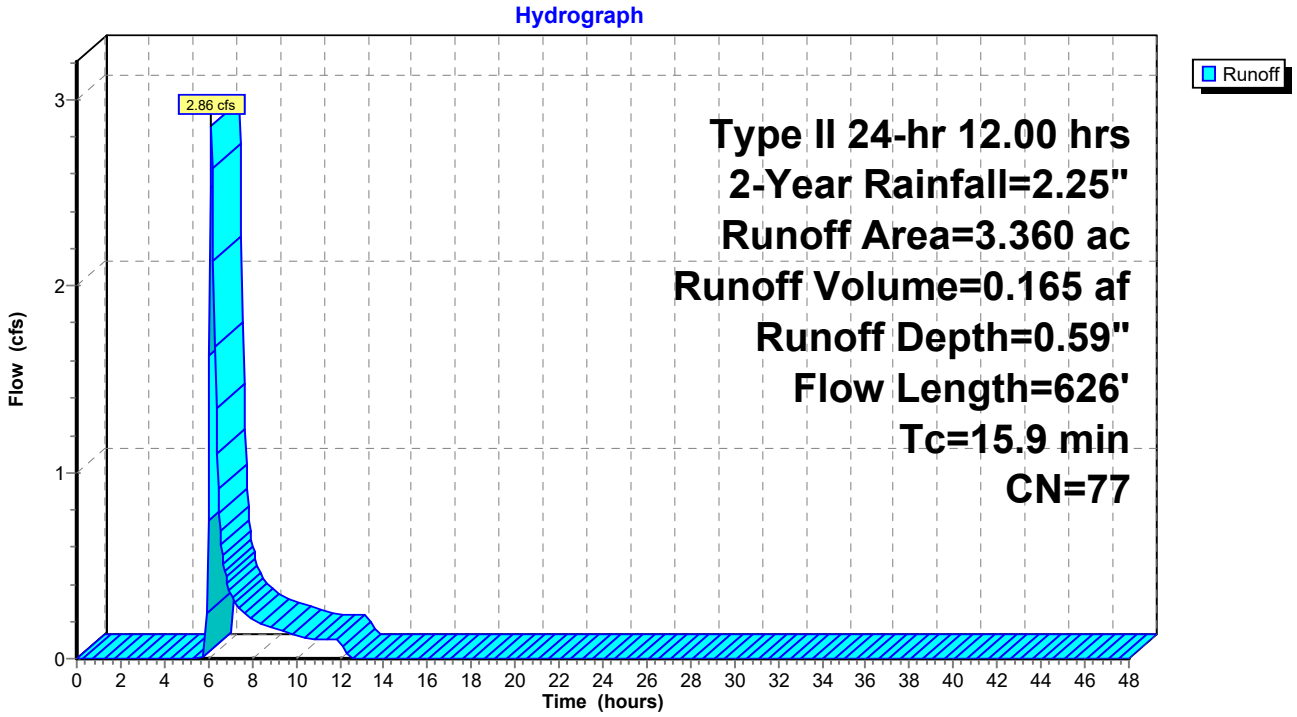
Runoff = 2.86 cfs @ 6.15 hrs, Volume= 0.165 af, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 2-Year Rainfall=2.25"

	Area (ac)	CN	Description
*	3.360	77	Row crops, straight row, Good, HSG C
	3.360		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.9	100	0.0165	0.13		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
1.9	152	0.0220	1.33		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
1.1	374	0.0130	5.88	47.02	**Channel Flow,** Area= 8.0 sf Perim= 12.0' r= 0.67' n= 0.022 Earth, clean & straight
15.9	626	Total			

Subcatchment XWA-E: Ex. Watershed E



Summary for Subcatchment XWA-E: Ex. Watershed E

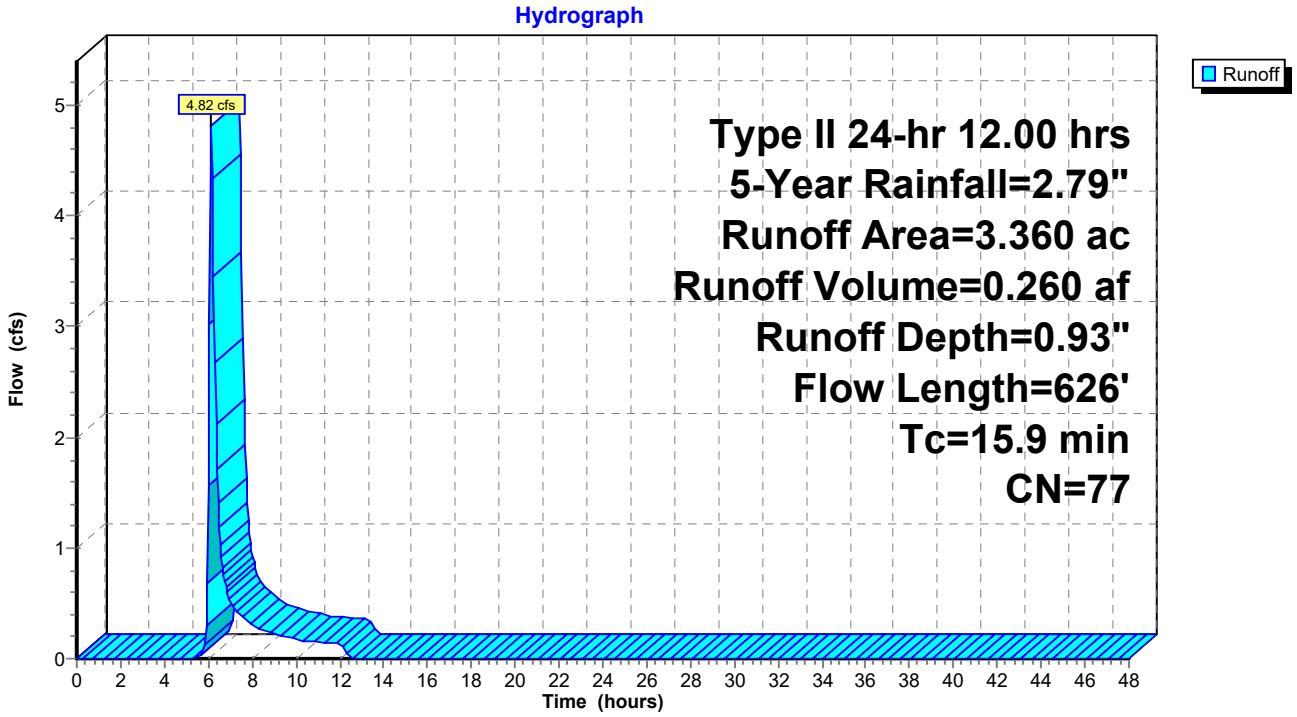
Runoff = 4.82 cfs @ 6.15 hrs, Volume= 0.260 af, Depth= 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 5-Year Rainfall=2.79"

	Area (ac)	CN	Description
*	3.360	77	Row crops, straight row, Good, HSG C
	3.360		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.9	100	0.0165	0.13		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
1.9	152	0.0220	1.33		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
1.1	374	0.0130	5.88	47.02	**Channel Flow,** Area= 8.0 sf Perim= 12.0' r= 0.67' n= 0.022 Earth, clean & straight
15.9	626	Total			

Subcatchment XWA-E: Ex. Watershed E



Summary for Subcatchment XWA-E: Ex. Watershed E

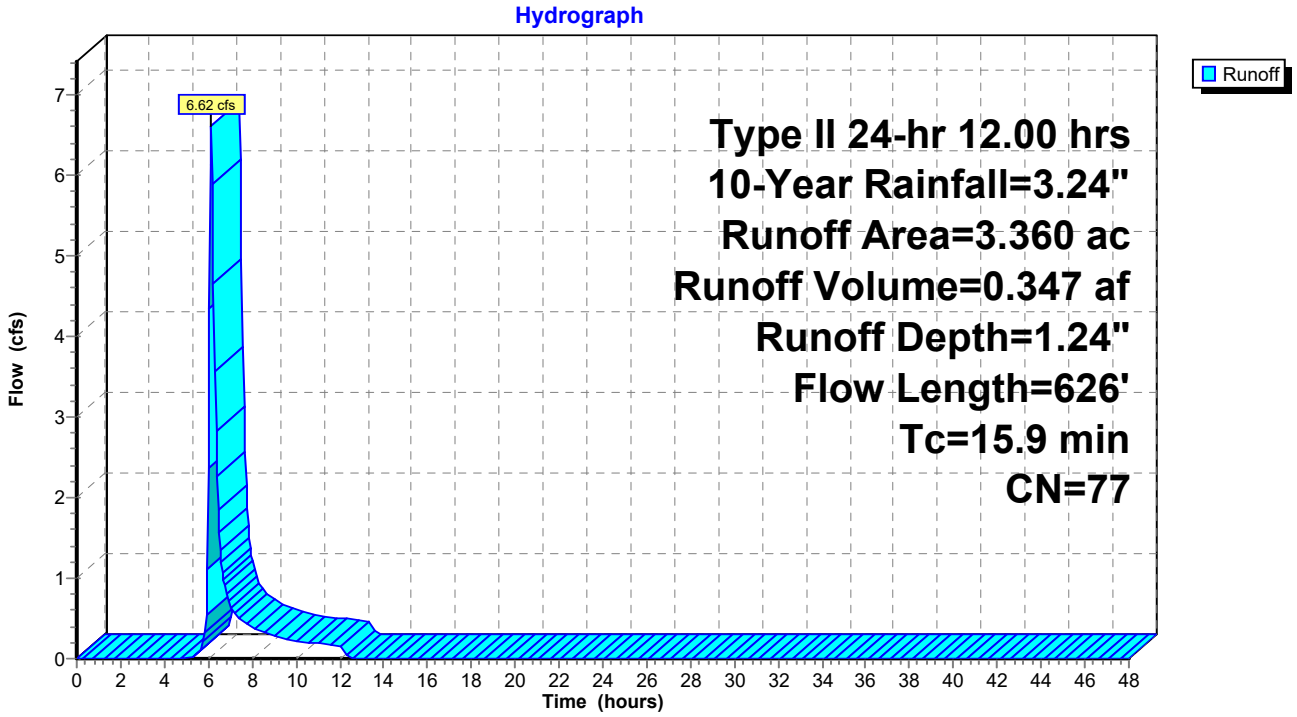
Runoff = 6.62 cfs @ 6.14 hrs, Volume= 0.347 af, Depth= 1.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 10-Year Rainfall=3.24"

	Area (ac)	CN	Description
*	3.360	77	Row crops, straight row, Good, HSG C
	3.360		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.9	100	0.0165	0.13		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
1.9	152	0.0220	1.33		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
1.1	374	0.0130	5.88	47.02	**Channel Flow,** Area= 8.0 sf Perim= 12.0' r= 0.67' n= 0.022 Earth, clean & straight
15.9	626	Total			

Subcatchment XWA-E: Ex. Watershed E



Summary for Subcatchment XWA-E: Ex. Watershed E

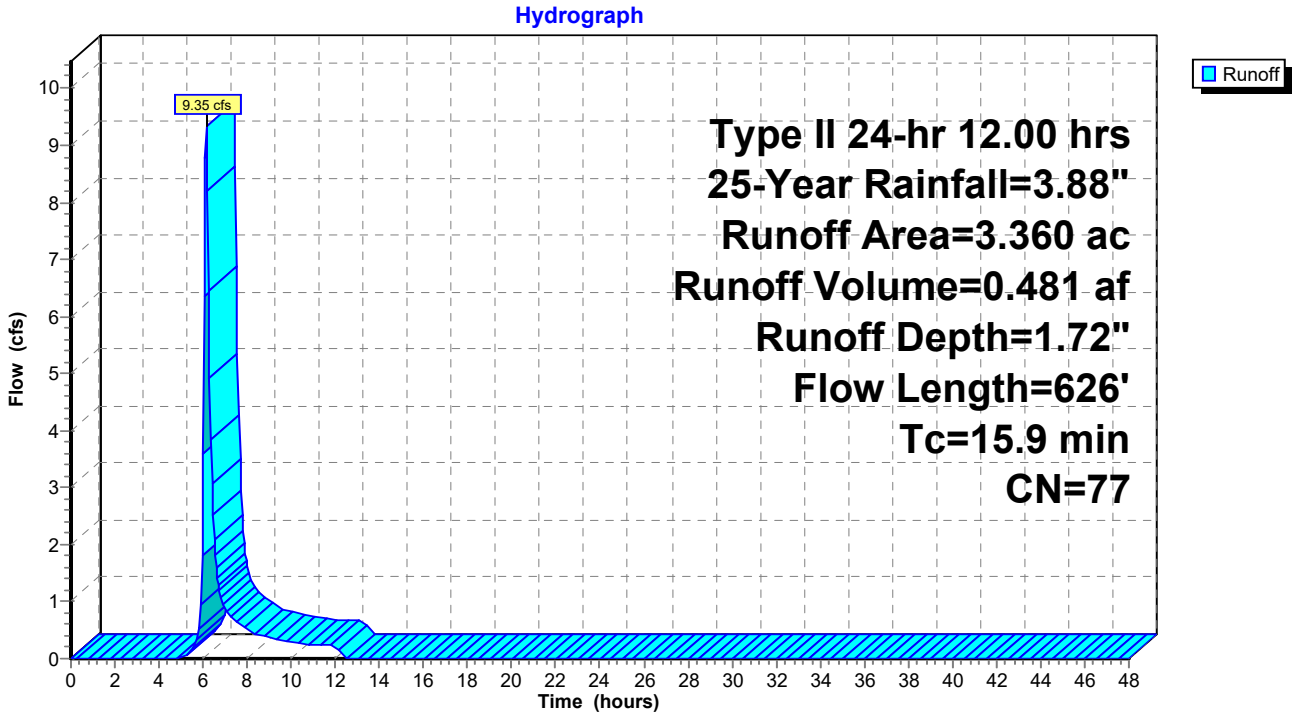
Runoff = 9.35 cfs @ 6.14 hrs, Volume= 0.481 af, Depth= 1.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 25-Year Rainfall=3.88"

	Area (ac)	CN	Description
*	3.360	77	Row crops, straight row, Good, HSG C
	3.360		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.9	100	0.0165	0.13		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
1.9	152	0.0220	1.33		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
1.1	374	0.0130	5.88	47.02	**Channel Flow,** Area= 8.0 sf Perim= 12.0' r= 0.67' n= 0.022 Earth, clean & straight
15.9	626	Total			

Subcatchment XWA-E: Ex. Watershed E



Summary for Subcatchment XWA-E: Ex. Watershed E

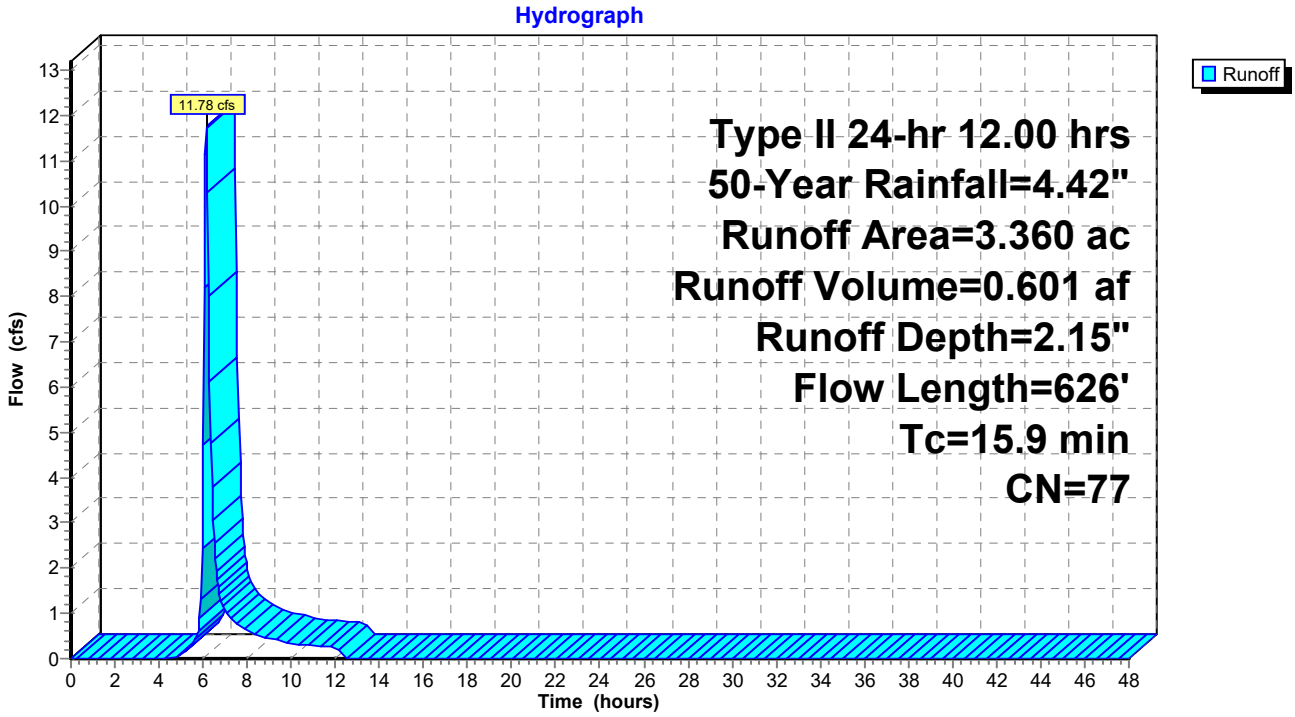
Runoff = 11.78 cfs @ 6.14 hrs, Volume= 0.601 af, Depth= 2.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 50-Year Rainfall=4.42"

	Area (ac)	CN	Description
*	3.360	77	Row crops, straight row, Good, HSG C
	3.360		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.9	100	0.0165	0.13		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
1.9	152	0.0220	1.33		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
1.1	374	0.0130	5.88	47.02	**Channel Flow,** Area= 8.0 sf Perim= 12.0' r= 0.67' n= 0.022 Earth, clean & straight
15.9	626	Total			

Subcatchment XWA-E: Ex. Watershed E



Summary for Subcatchment XWA-E: Ex. Watershed E

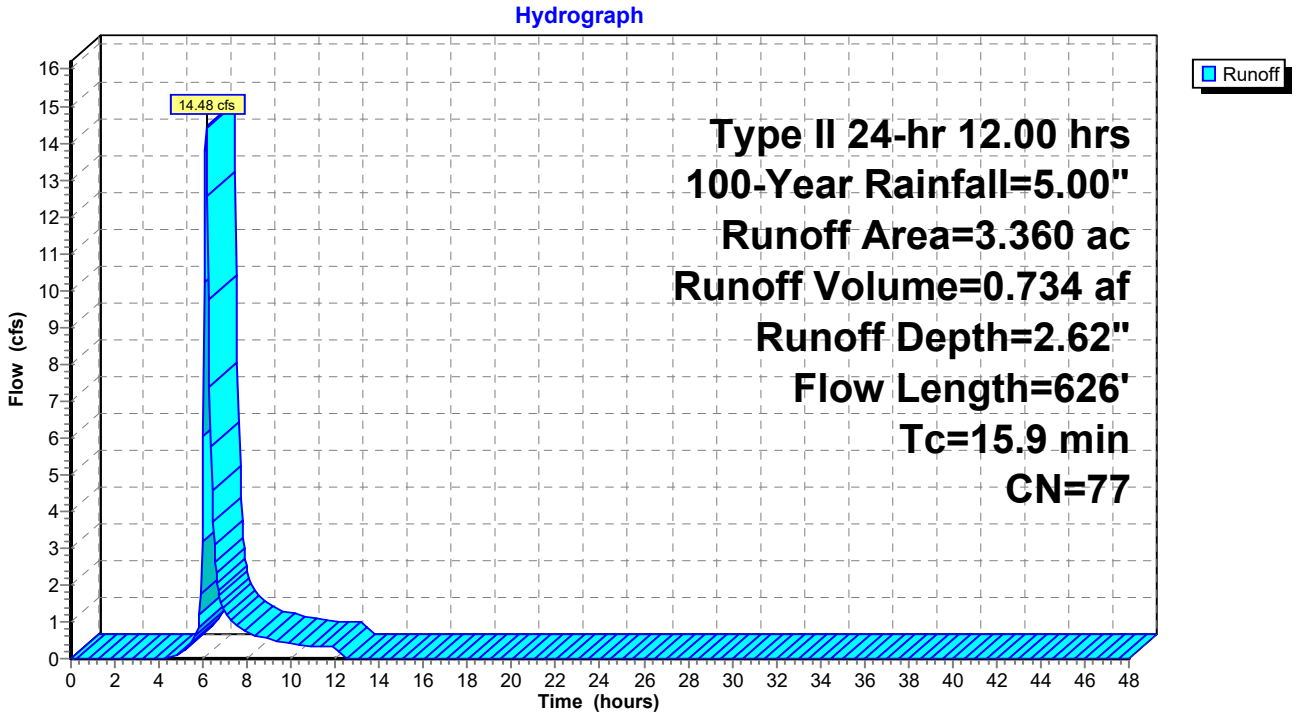
Runoff = 14.48 cfs @ 6.14 hrs, Volume= 0.734 af, Depth= 2.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 100-Year Rainfall=5.00"

	Area (ac)	CN	Description
*	3.360	77	Row crops, straight row, Good, HSG C
	3.360		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.9	100	0.0165	0.13		**Sheet Flow,** Cultivated: Residue>20% n= 0.170 P2= 2.63"
1.9	152	0.0220	1.33		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
1.1	374	0.0130	5.88	47.02	**Channel Flow,** Area= 8.0 sf Perim= 12.0' r= 0.67' n= 0.022 Earth, clean & straight
15.9	626	Total			

Subcatchment XWA-E: Ex. Watershed E

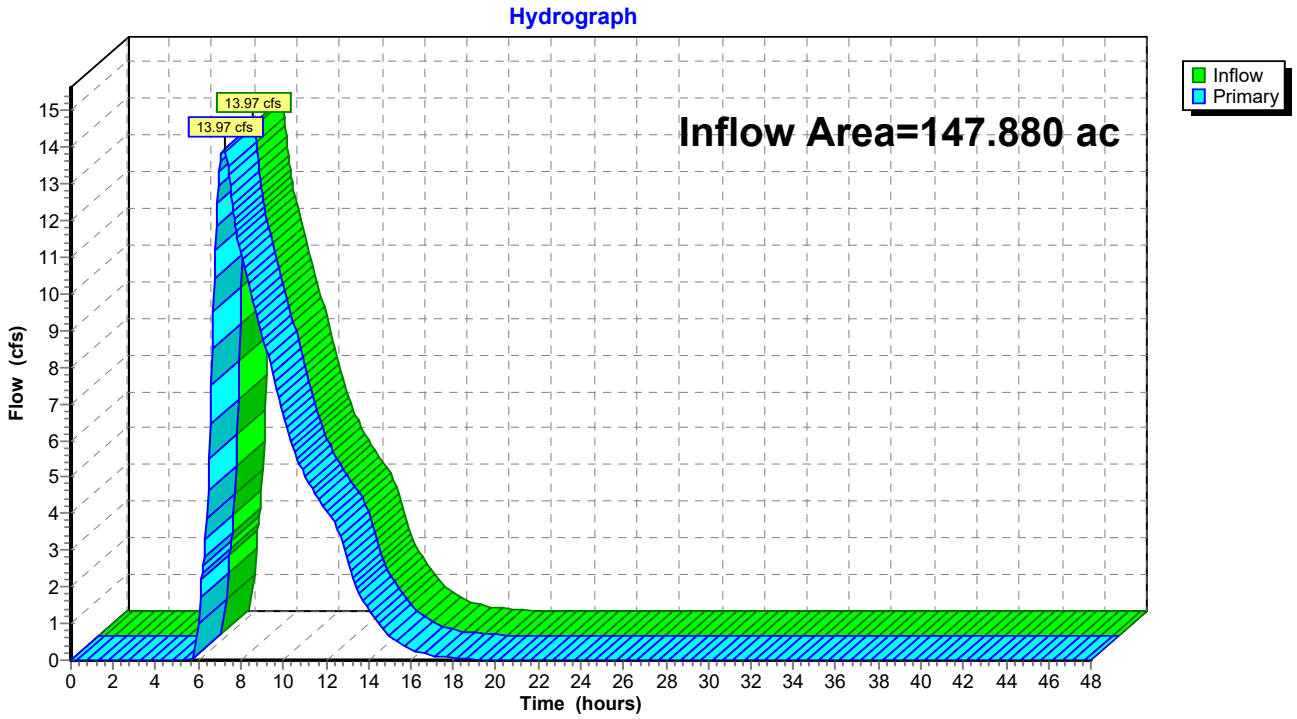


Summary for Link XTR-N: Ex. Release to North

Inflow Area = 147.880 ac, 0.00% Impervious, Inflow Depth = 0.37" for 1-Year event
Inflow = 13.97 cfs @ 7.21 hrs, Volume= 4.525 af
Primary = 13.97 cfs @ 7.21 hrs, Volume= 4.525 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link XTR-N: Ex. Release to North

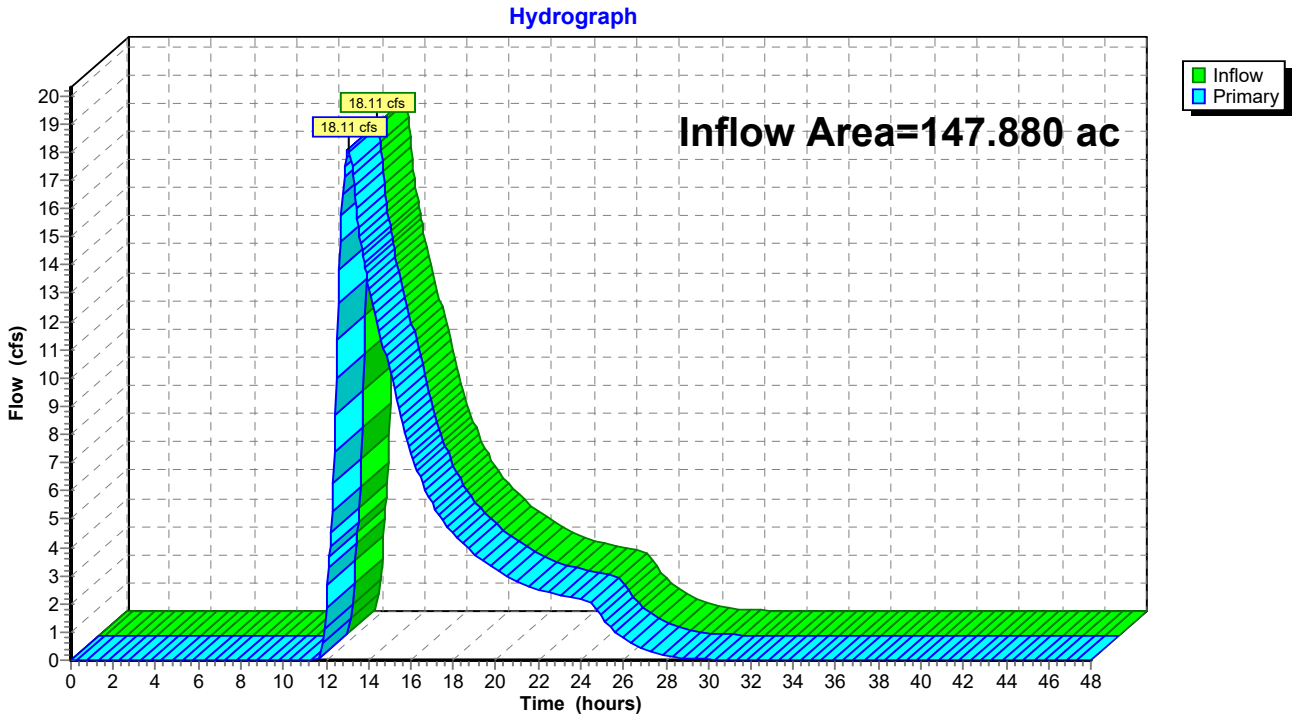


Summary for Link XTR-N: Ex. Release to North

Inflow Area = 147.880 ac, 0.00% Impervious, Inflow Depth = 0.54" for 1-Year 24-hr event
Inflow = 18.11 cfs @ 13.05 hrs, Volume= 6.620 af
Primary = 18.11 cfs @ 13.05 hrs, Volume= 6.620 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link XTR-N: Ex. Release to North

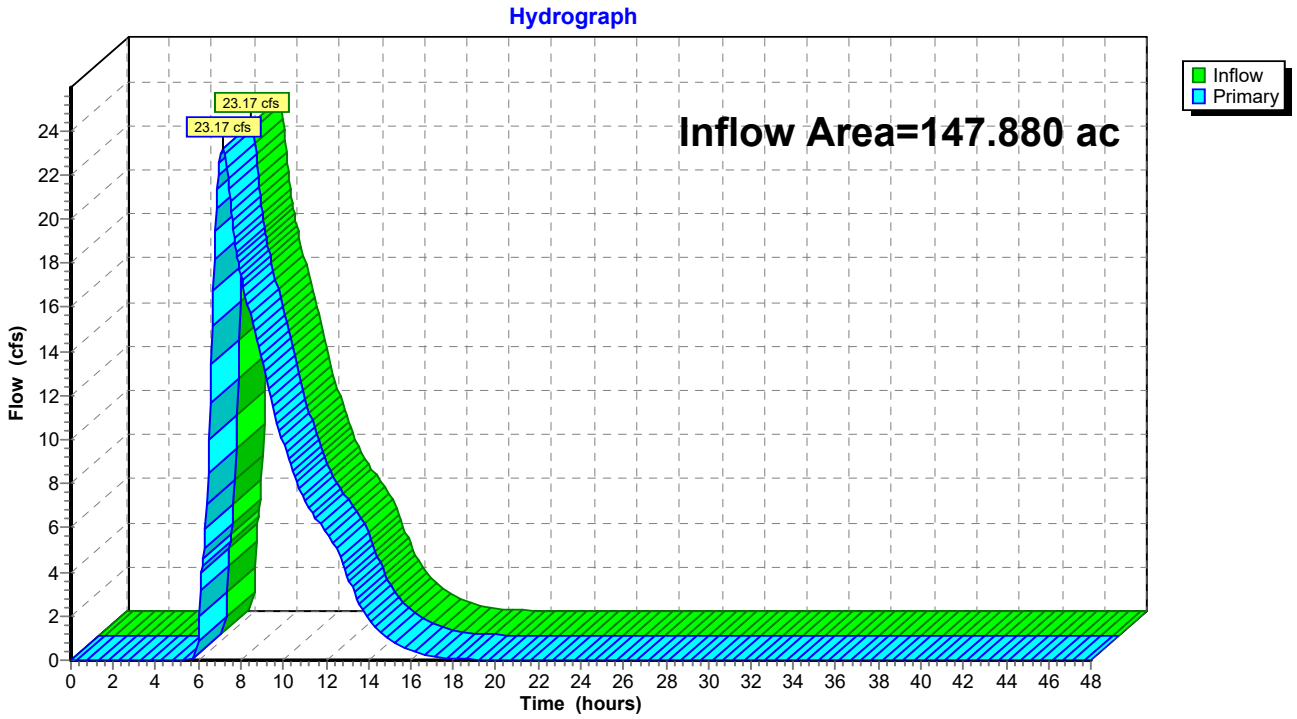


Summary for Link XTR-N: Ex. Release to North

Inflow Area = 147.880 ac, 0.00% Impervious, Inflow Depth = 0.57" for 2-Year event
Inflow = 23.17 cfs @ 7.15 hrs, Volume= 6.970 af
Primary = 23.17 cfs @ 7.15 hrs, Volume= 6.970 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link XTR-N: Ex. Release to North

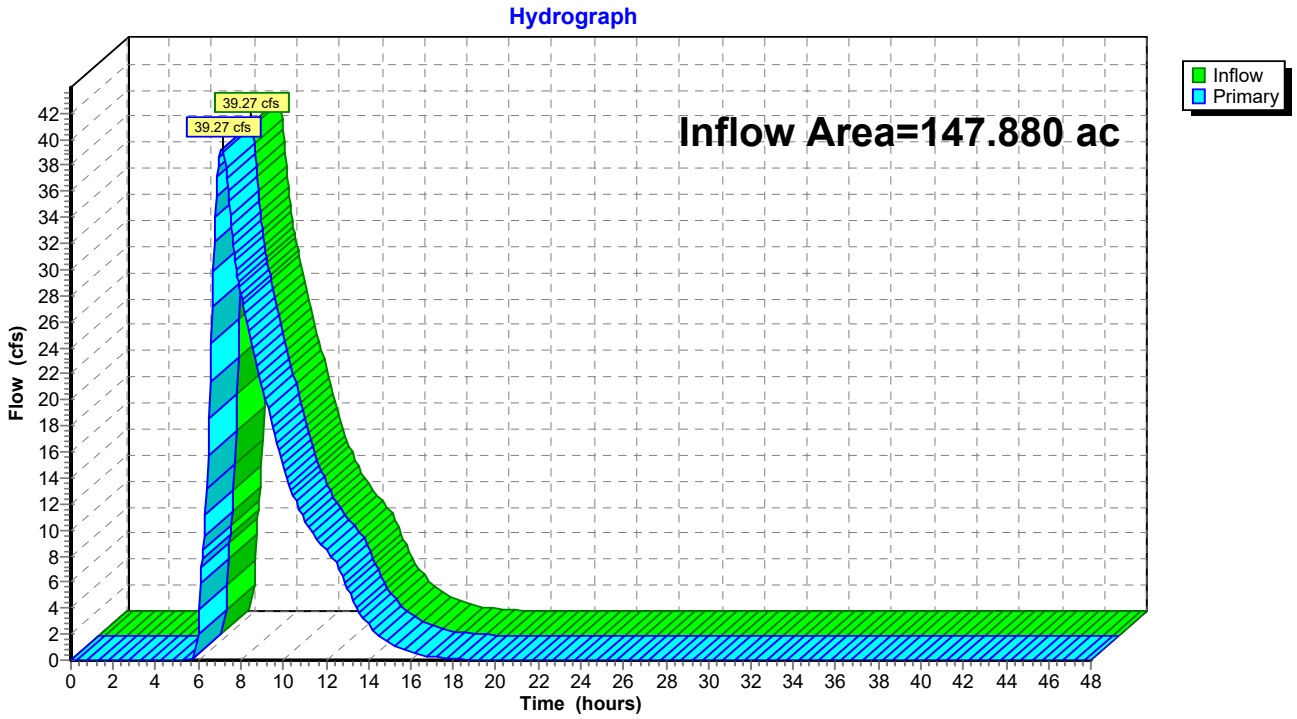


Summary for Link XTR-N: Ex. Release to North

Inflow Area = 147.880 ac, 0.00% Impervious, Inflow Depth = 0.90" for 5-Year event
Inflow = 39.27 cfs @ 7.11 hrs, Volume= 11.072 af
Primary = 39.27 cfs @ 7.11 hrs, Volume= 11.072 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link XTR-N: Ex. Release to North

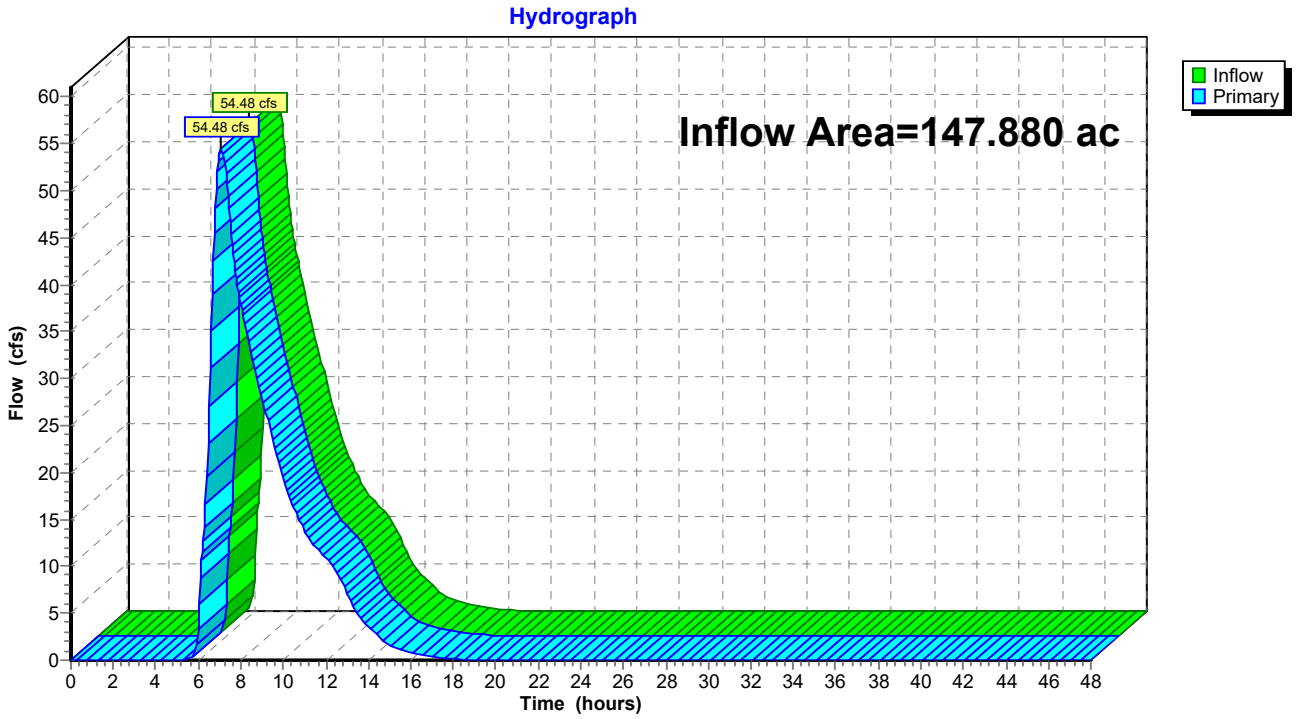


Summary for Link XTR-N: Ex. Release to North

Inflow Area = 147.880 ac, 0.00% Impervious, Inflow Depth = 1.21" for 10-Year event
Inflow = 54.48 cfs @ 7.09 hrs, Volume= 14.860 af
Primary = 54.48 cfs @ 7.09 hrs, Volume= 14.860 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link XTR-N: Ex. Release to North

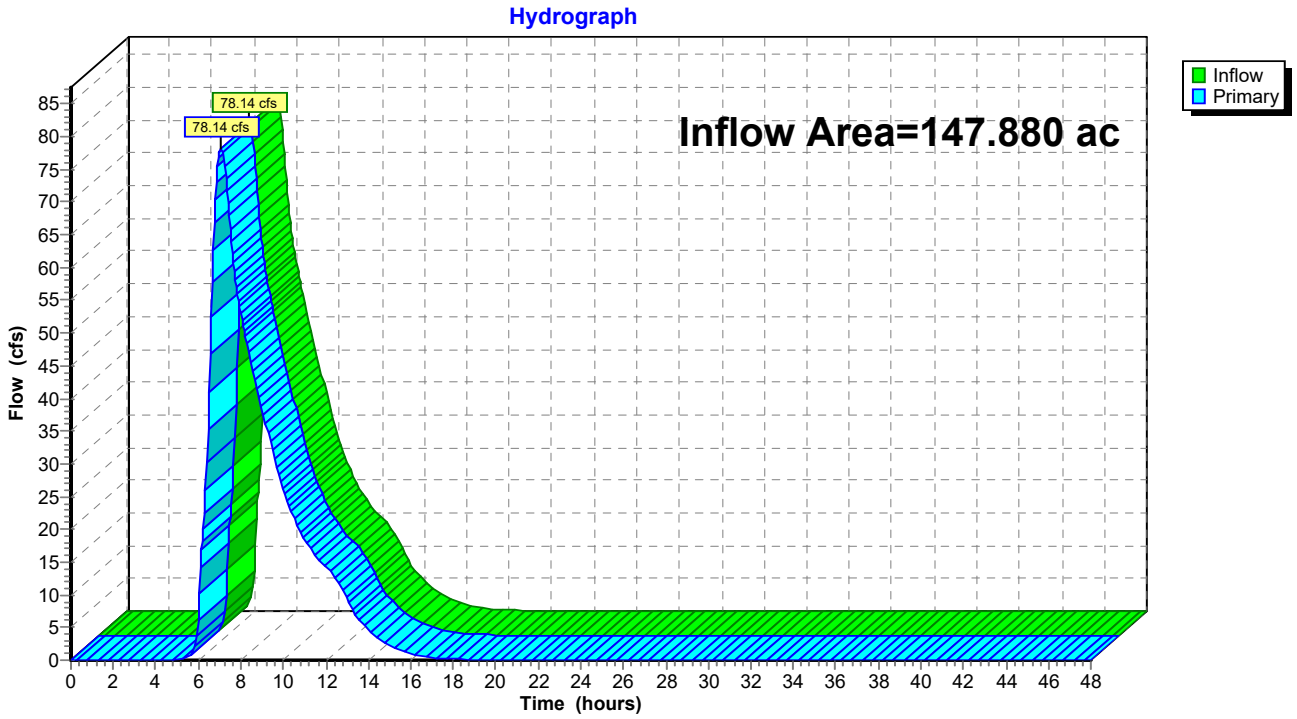


Summary for Link XTR-N: Ex. Release to North

Inflow Area = 147.880 ac, 0.00% Impervious, Inflow Depth = 1.68" for 25-Year event
Inflow = 78.14 cfs @ 7.07 hrs, Volume= 20.675 af
Primary = 78.14 cfs @ 7.07 hrs, Volume= 20.675 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link XTR-N: Ex. Release to North

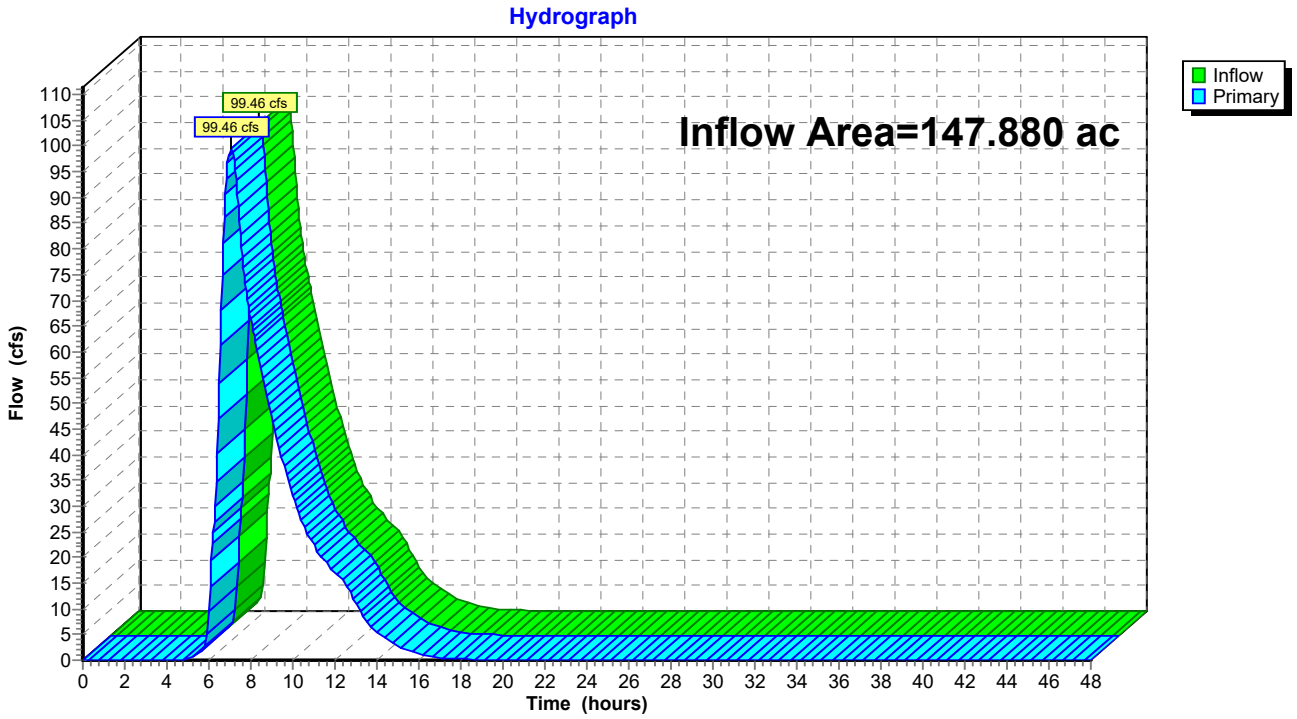


Summary for Link XTR-N: Ex. Release to North

Inflow Area = 147.880 ac, 0.00% Impervious, Inflow Depth = 2.10" for 50-Year event
Inflow = 99.46 cfs @ 7.06 hrs, Volume= 25.882 af
Primary = 99.46 cfs @ 7.06 hrs, Volume= 25.882 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link XTR-N: Ex. Release to North

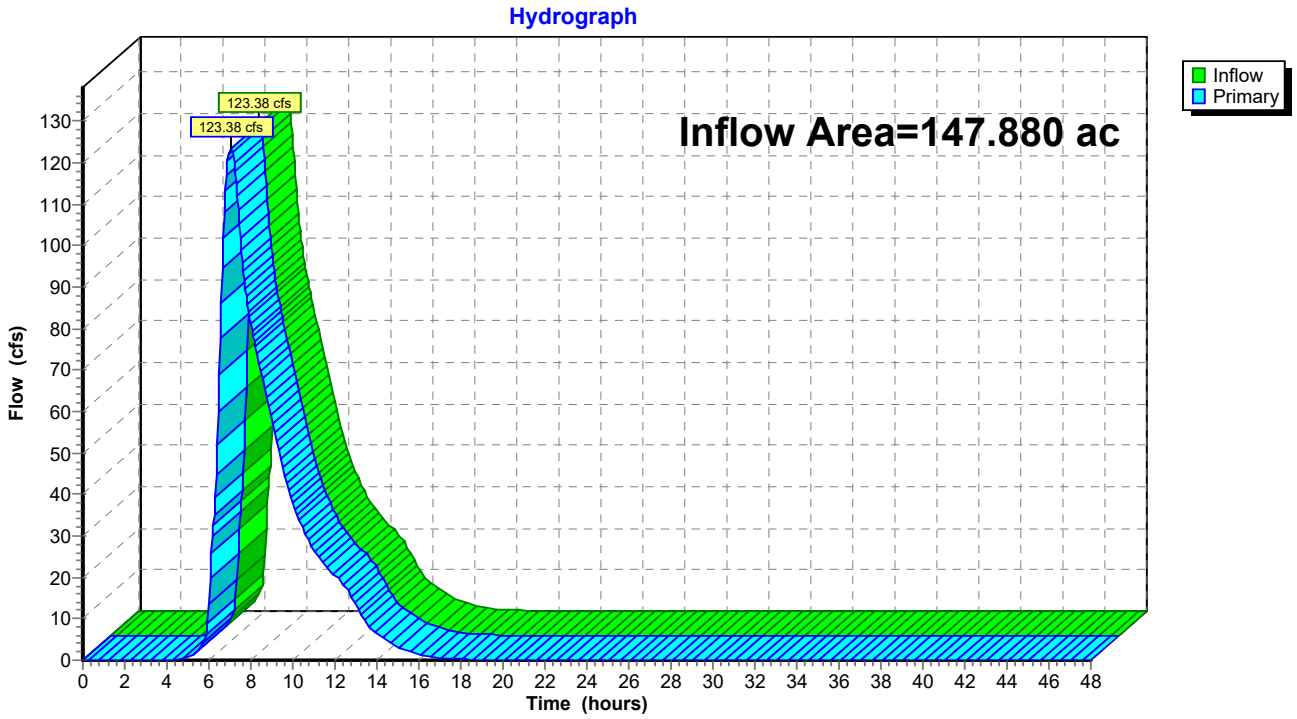


Summary for Link XTR-N: Ex. Release to North

Inflow Area = 147.880 ac, 0.00% Impervious, Inflow Depth = 2.57" for 100-Year event
Inflow = 123.38 cfs @ 7.05 hrs, Volume= 31.707 af
Primary = 123.38 cfs @ 7.05 hrs, Volume= 31.707 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link XTR-N: Ex. Release to North

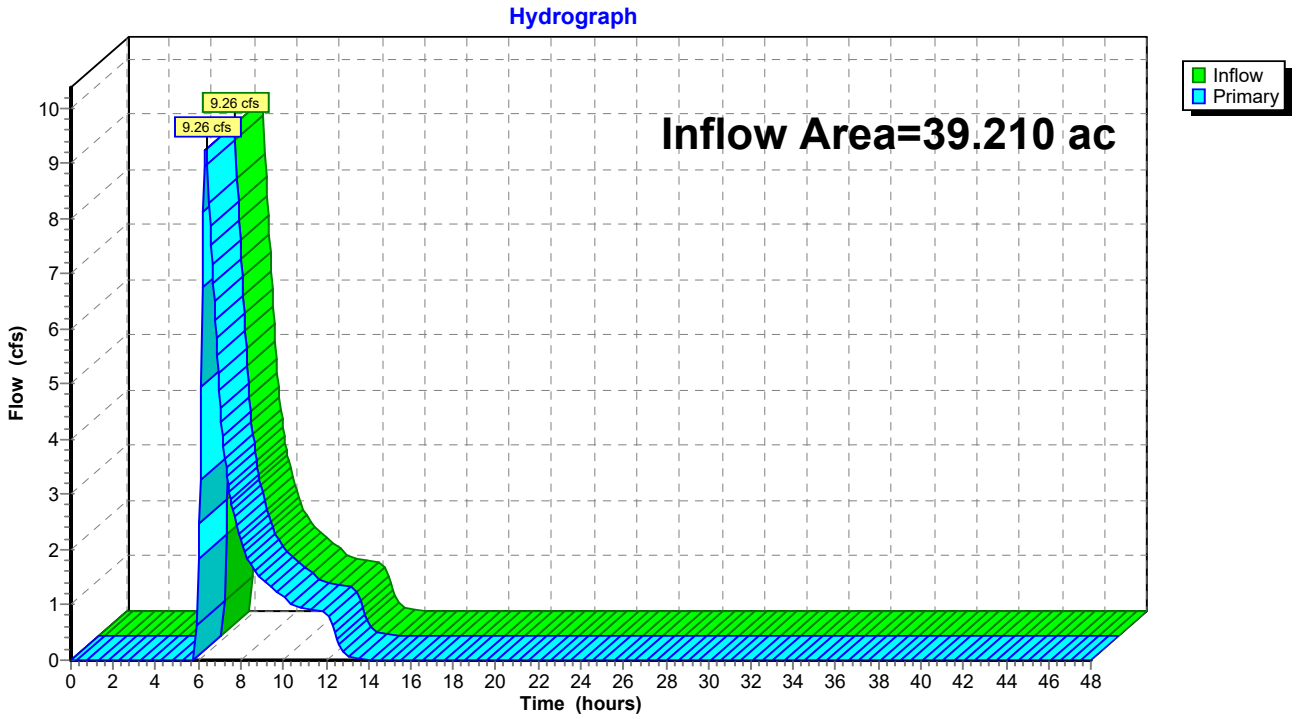


Summary for Link XTR-E: Ex. Release to East

Inflow Area = 39.210 ac, 0.00% Impervious, Inflow Depth = 0.39" for 1-Year event
Inflow = 9.26 cfs @ 6.37 hrs, Volume= 1.259 af
Primary = 9.26 cfs @ 6.37 hrs, Volume= 1.259 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link XTR-E: Ex. Release to East

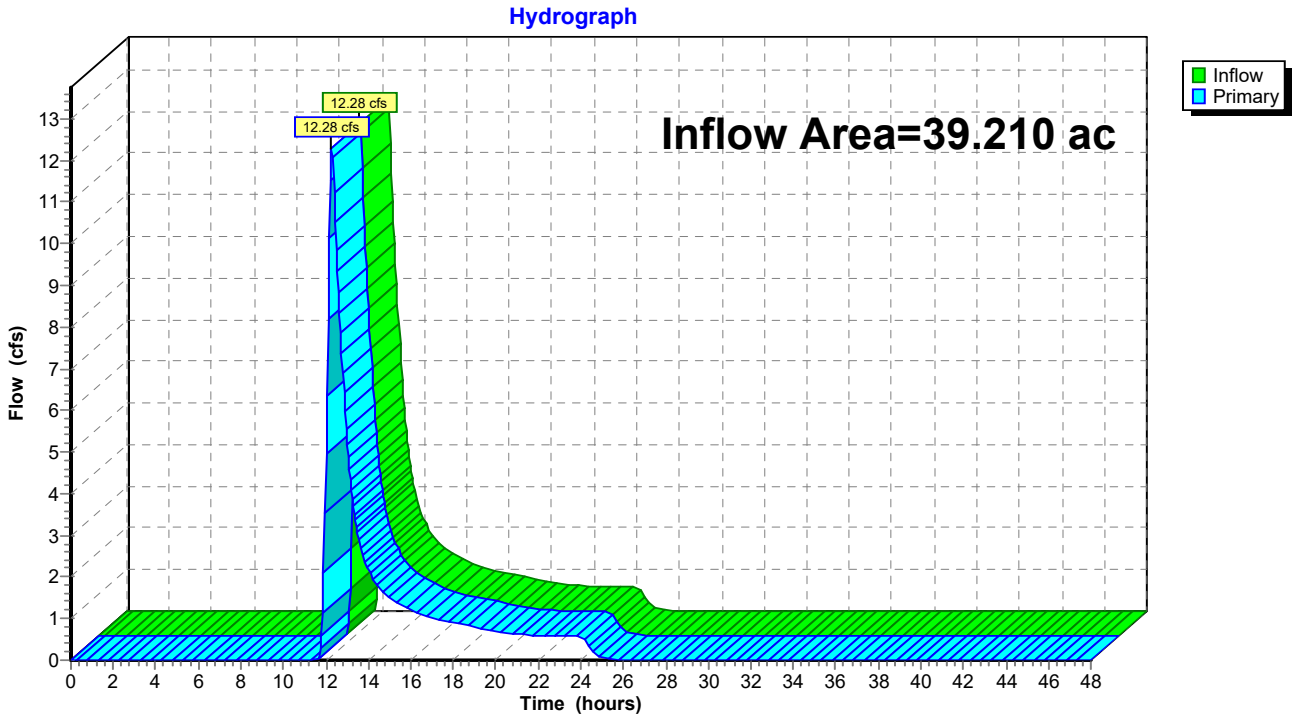


Summary for Link XTR-E: Ex. Release to East

Inflow Area = 39.210 ac, 0.00% Impervious, Inflow Depth = 0.56" for 1-Year 24-hr event
Inflow = 12.28 cfs @ 12.28 hrs, Volume= 1.828 af
Primary = 12.28 cfs @ 12.28 hrs, Volume= 1.828 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link XTR-E: Ex. Release to East

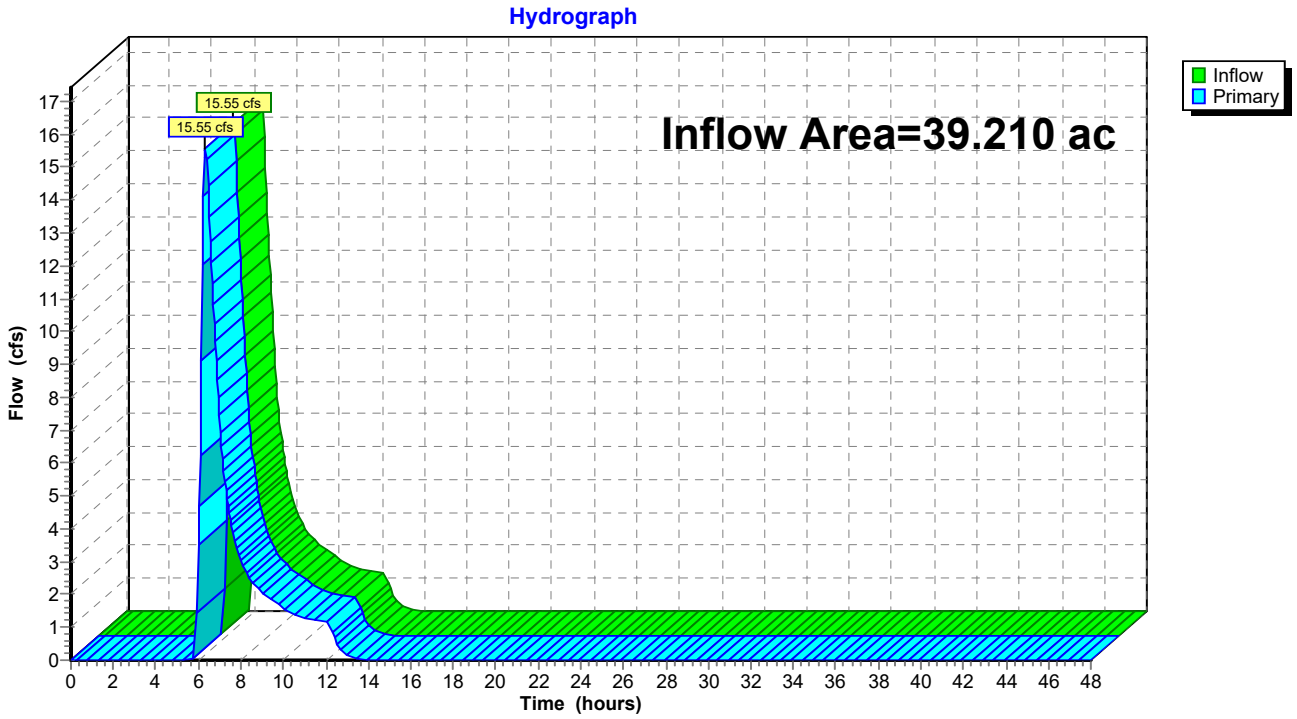


Summary for Link XTR-E: Ex. Release to East

Inflow Area = 39.210 ac, 0.00% Impervious, Inflow Depth = 0.59" for 2-Year event
Inflow = 15.55 cfs @ 6.35 hrs, Volume= 1.923 af
Primary = 15.55 cfs @ 6.35 hrs, Volume= 1.923 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link XTR-E: Ex. Release to East

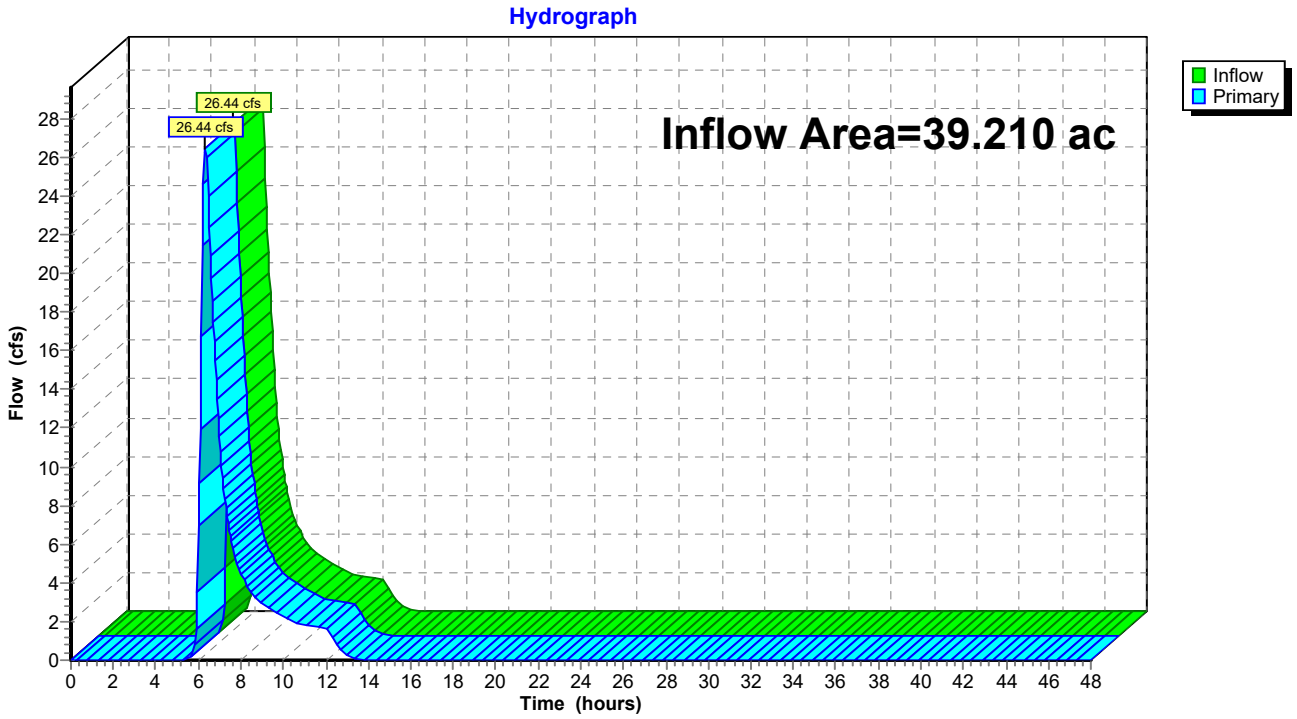


Summary for Link XTR-E: Ex. Release to East

Inflow Area = 39.210 ac, 0.00% Impervious, Inflow Depth = 0.93" for 5-Year event
Inflow = 26.44 cfs @ 6.33 hrs, Volume= 3.033 af
Primary = 26.44 cfs @ 6.33 hrs, Volume= 3.033 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link XTR-E: Ex. Release to East

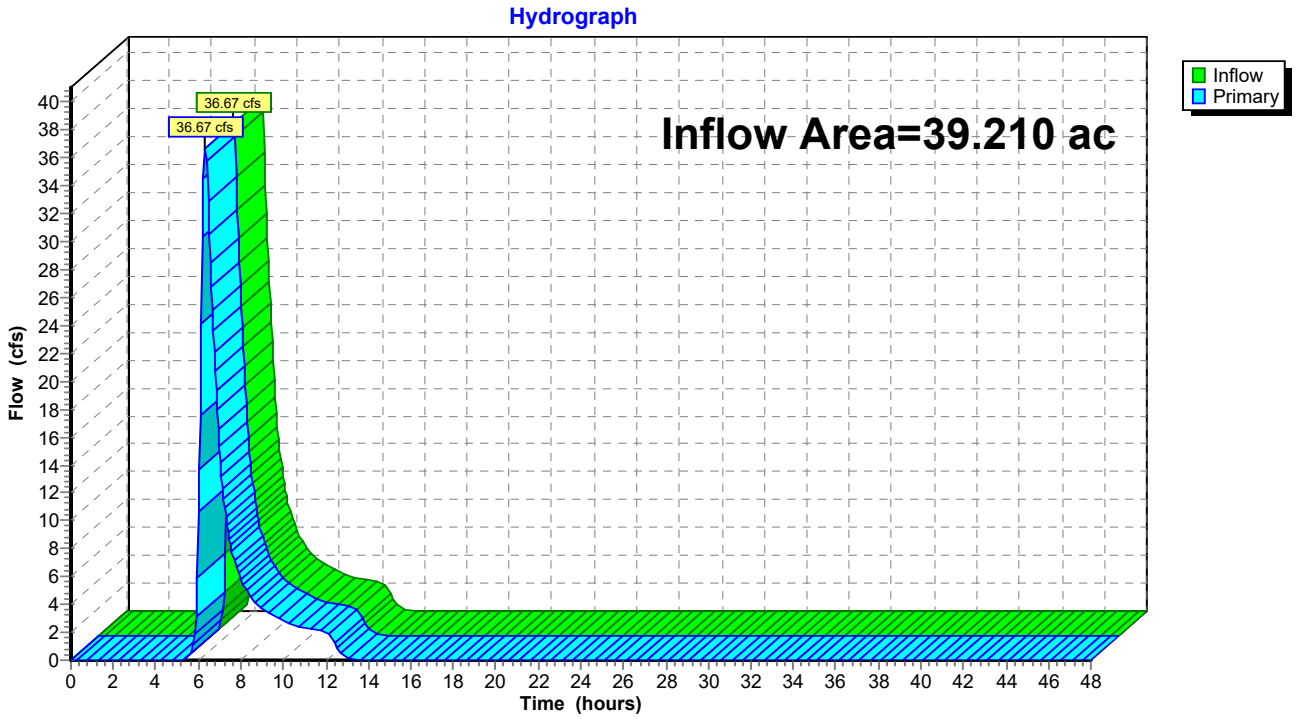


Summary for Link XTR-E: Ex. Release to East

Inflow Area = 39.210 ac, 0.00% Impervious, Inflow Depth = 1.24" for 10-Year event
Inflow = 36.67 cfs @ 6.32 hrs, Volume= 4.053 af
Primary = 36.67 cfs @ 6.32 hrs, Volume= 4.053 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link XTR-E: Ex. Release to East

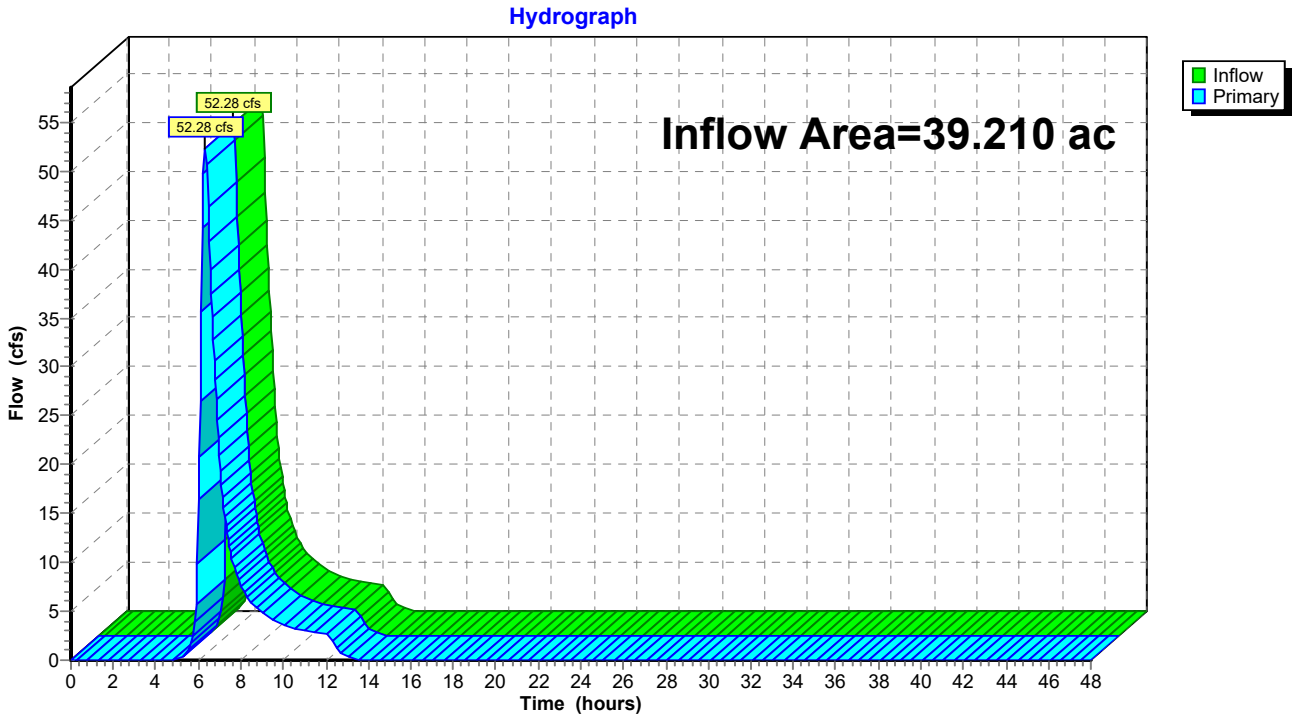


Summary for Link XTR-E: Ex. Release to East

Inflow Area = 39.210 ac, 0.00% Impervious, Inflow Depth = 1.72" for 25-Year event
Inflow = 52.28 cfs @ 6.32 hrs, Volume= 5.616 af
Primary = 52.28 cfs @ 6.32 hrs, Volume= 5.616 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link XTR-E: Ex. Release to East

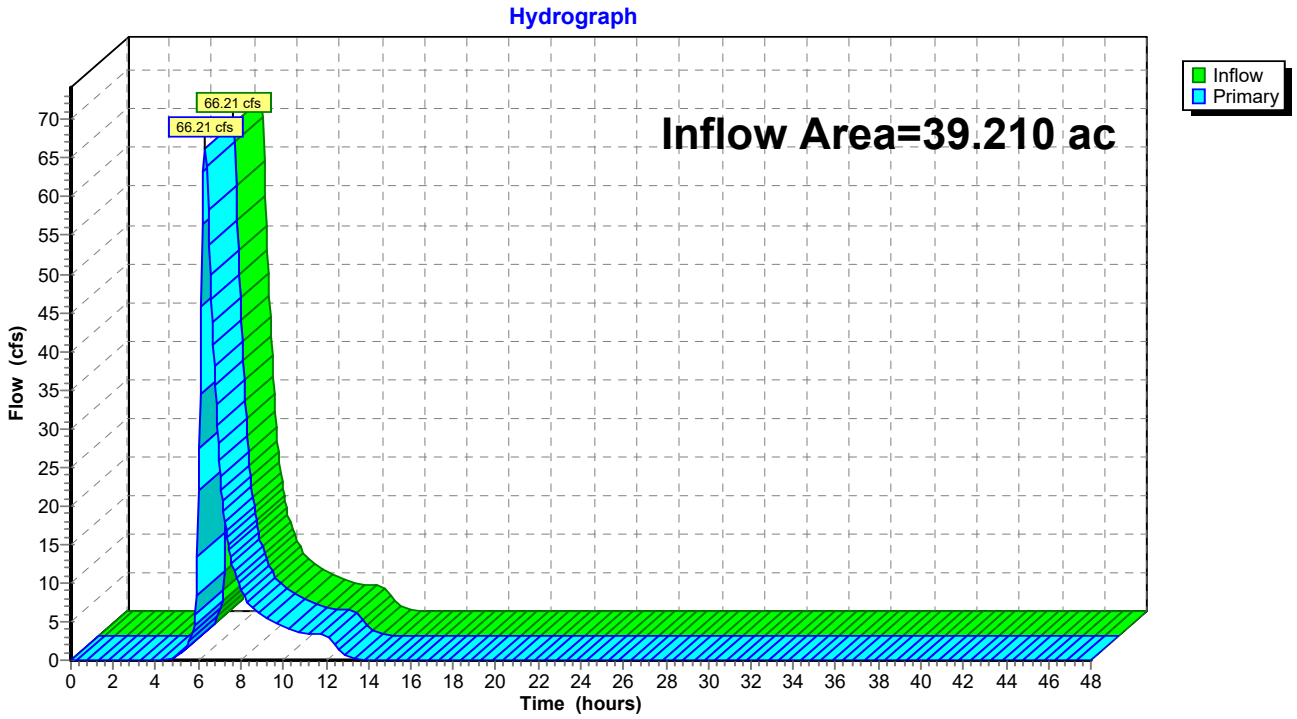


Summary for Link XTR-E: Ex. Release to East

Inflow Area = 39.210 ac, 0.00% Impervious, Inflow Depth = 2.15" for 50-Year event
Inflow = 66.21 cfs @ 6.32 hrs, Volume= 7.011 af
Primary = 66.21 cfs @ 6.32 hrs, Volume= 7.011 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link XTR-E: Ex. Release to East

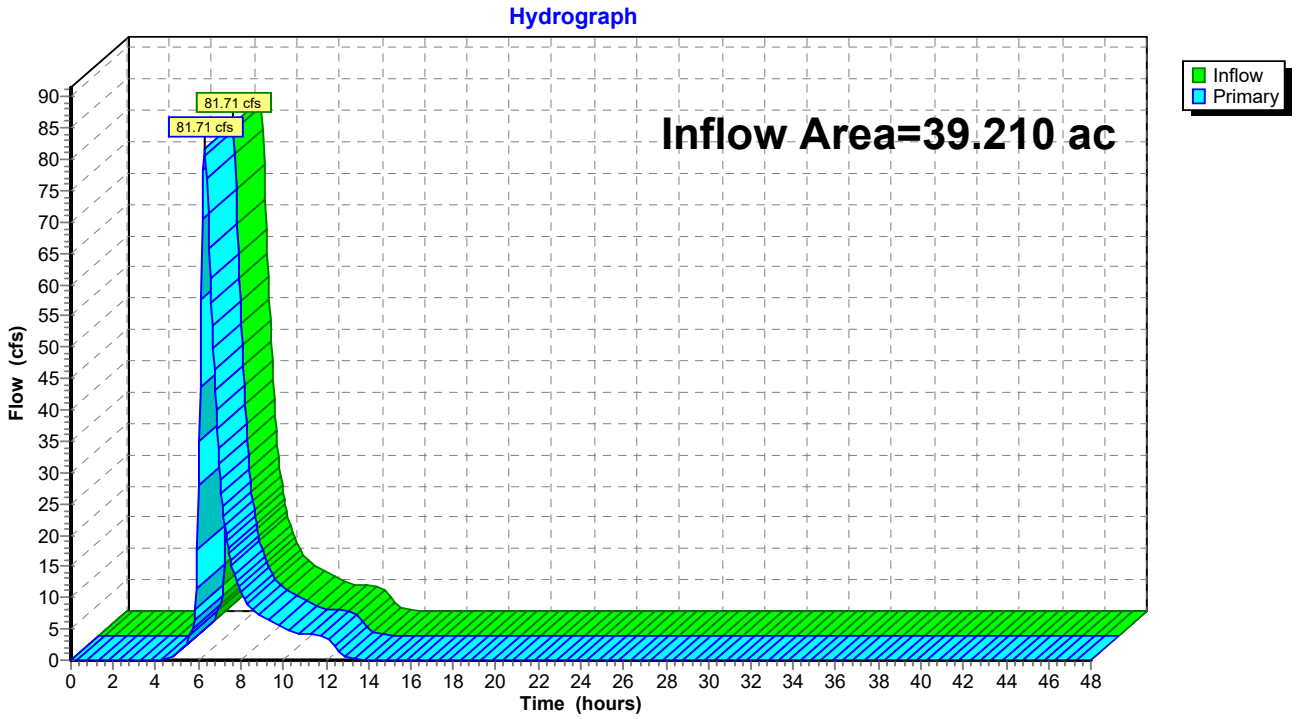


Summary for Link XTR-E: Ex. Release to East

Inflow Area = 39.210 ac, 0.00% Impervious, Inflow Depth = 2.62" for 100-Year event
Inflow = 81.71 cfs @ 6.31 hrs, Volume= 8.571 af
Primary = 81.71 cfs @ 6.31 hrs, Volume= 8.571 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link XTR-E: Ex. Release to East



APPENDIX B

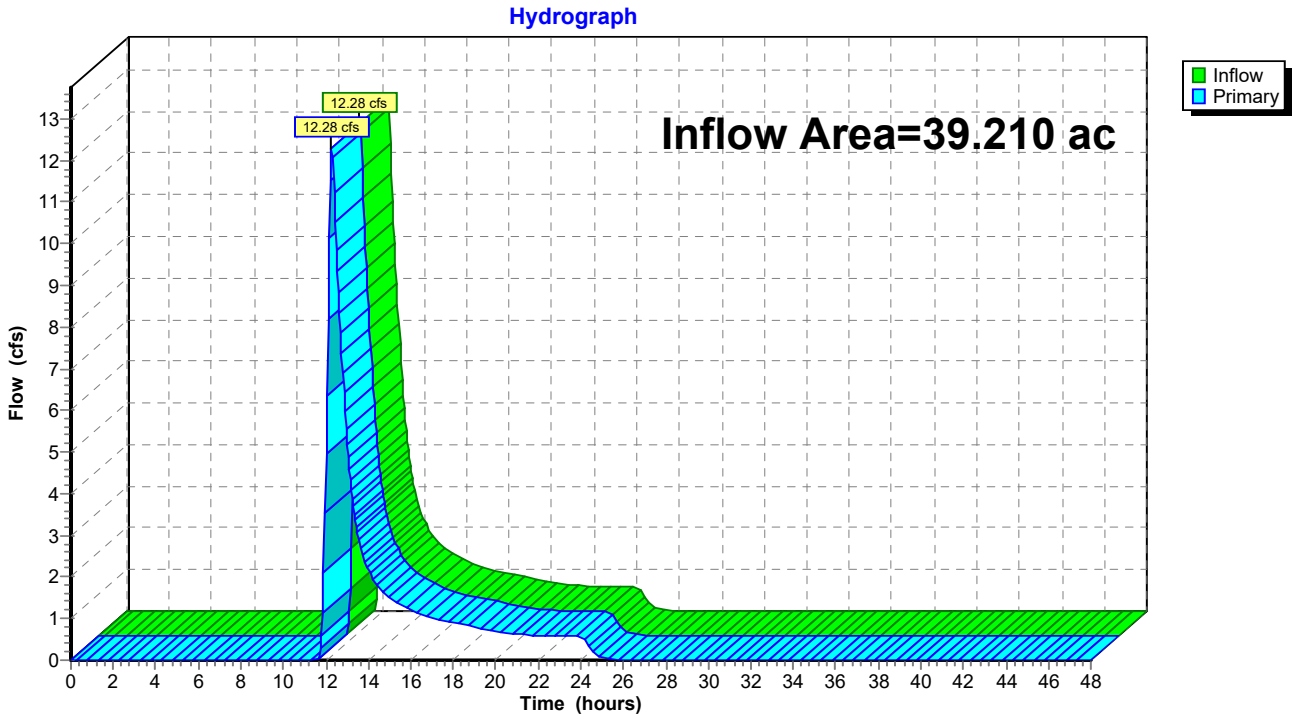
CRITICAL STORM CALCULATIONS

Summary for Link XTR-E: Ex. Release to East

Inflow Area = 39.210 ac, 0.00% Impervious, Inflow Depth = 0.56" for 1-Year 24-hr event
Inflow = 12.28 cfs @ 12.28 hrs, Volume= 1.828 af
Primary = 12.28 cfs @ 12.28 hrs, Volume= 1.828 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link XTR-E: Ex. Release to East

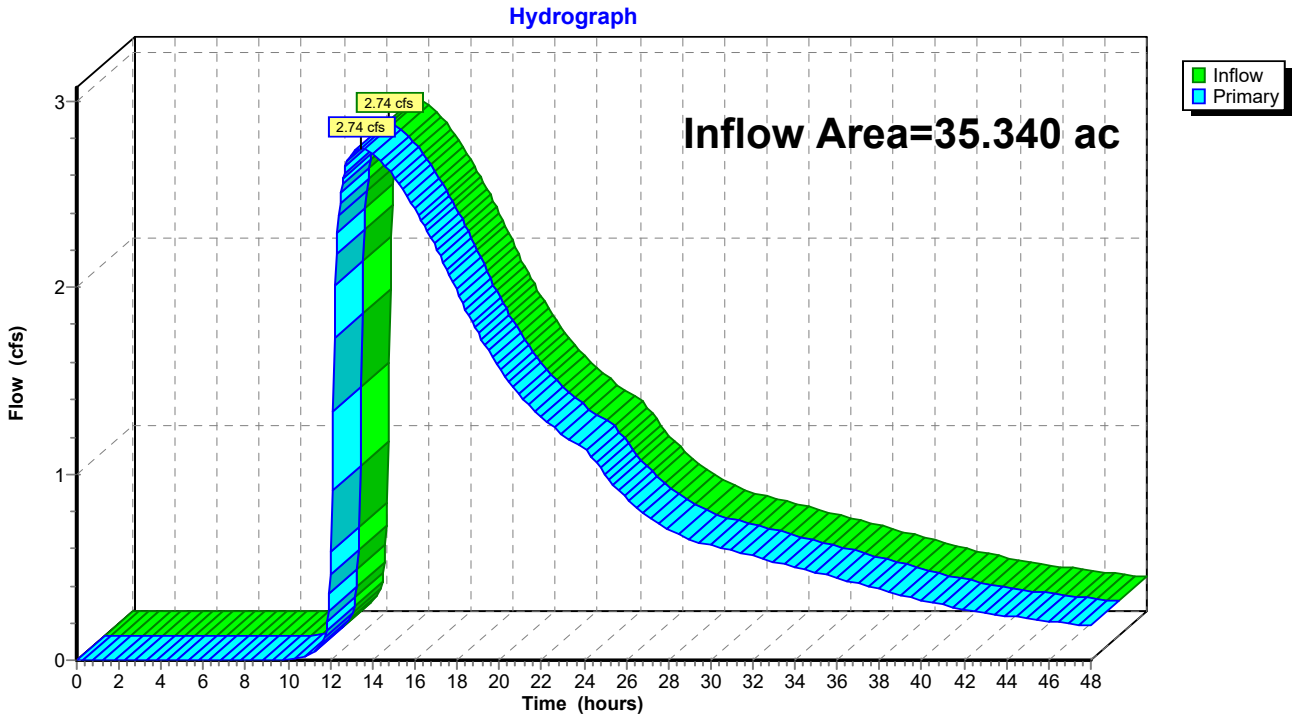


Summary for Link PTR-E: P. Release to East

Inflow Area = 35.340 ac, 51.80% Impervious, Inflow Depth > 0.98" for 1-Year 24-hr event
Inflow = 2.74 cfs @ 13.47 hrs, Volume= 2.888 af
Primary = 2.74 cfs @ 13.47 hrs, Volume= 2.888 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link PTR-E: P. Release to East

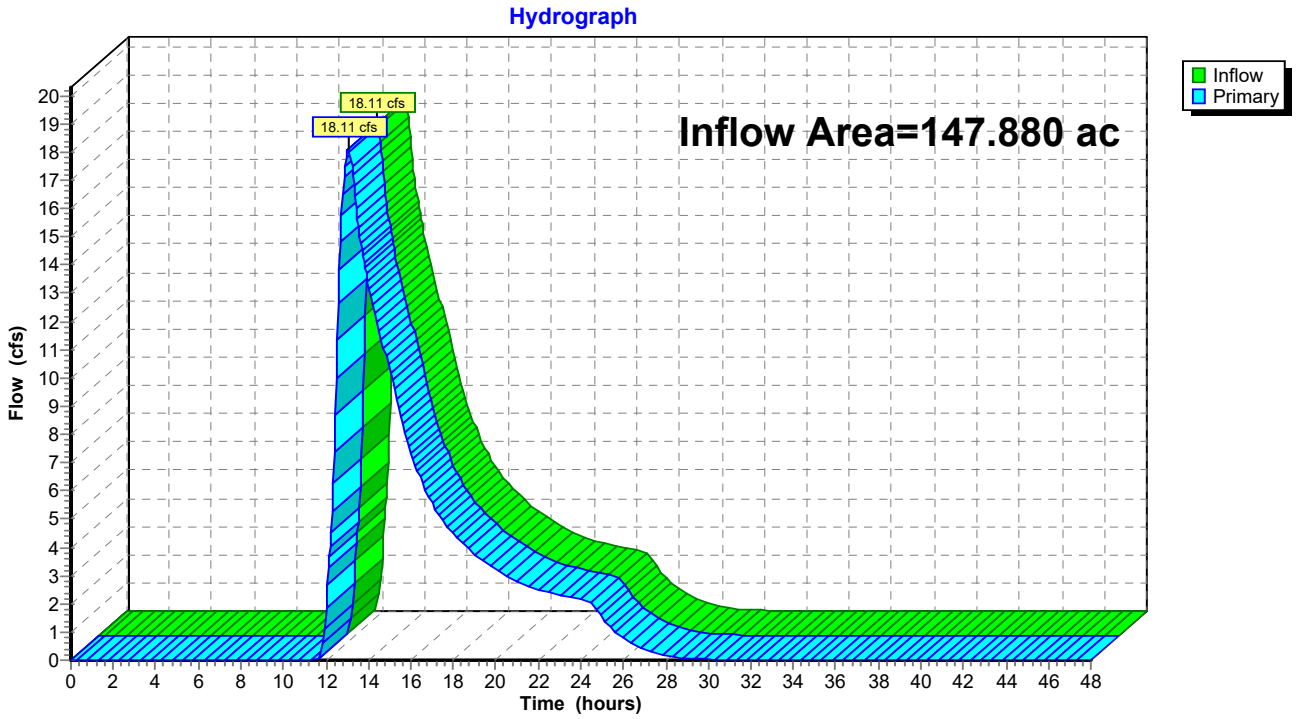


Summary for Link XTR-N: Ex. Release to North

Inflow Area = 147.880 ac, 0.00% Impervious, Inflow Depth = 0.54" for 1-Year 24-hr event
Inflow = 18.11 cfs @ 13.05 hrs, Volume= 6.620 af
Primary = 18.11 cfs @ 13.05 hrs, Volume= 6.620 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link XTR-N: Ex. Release to North

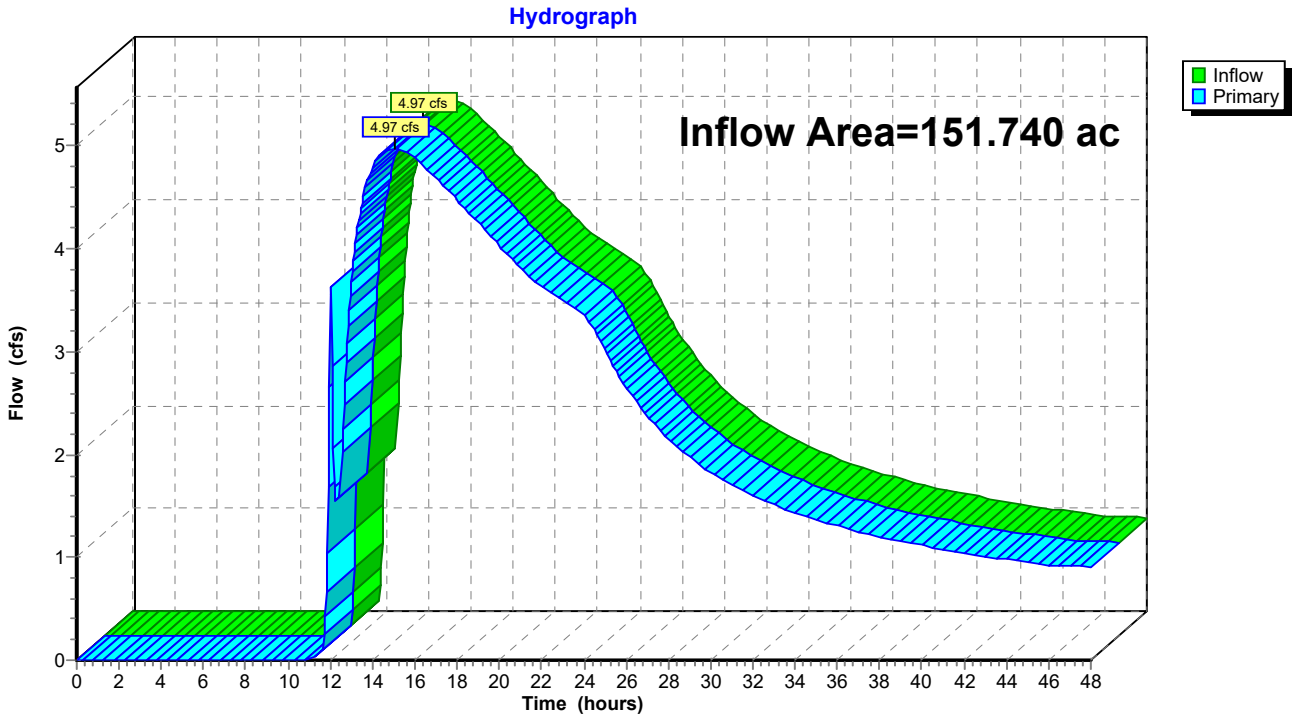


Summary for Link PTR-N: P. Release to North

Inflow Area = 151.740 ac, 33.43% Impervious, Inflow Depth > 0.56" for 1-Year 24-hr event
Inflow = 4.97 cfs @ 15.08 hrs, Volume= 7.136 af
Primary = 4.97 cfs @ 15.08 hrs, Volume= 7.136 af, Atten= 0%, Lag= 0.0 min

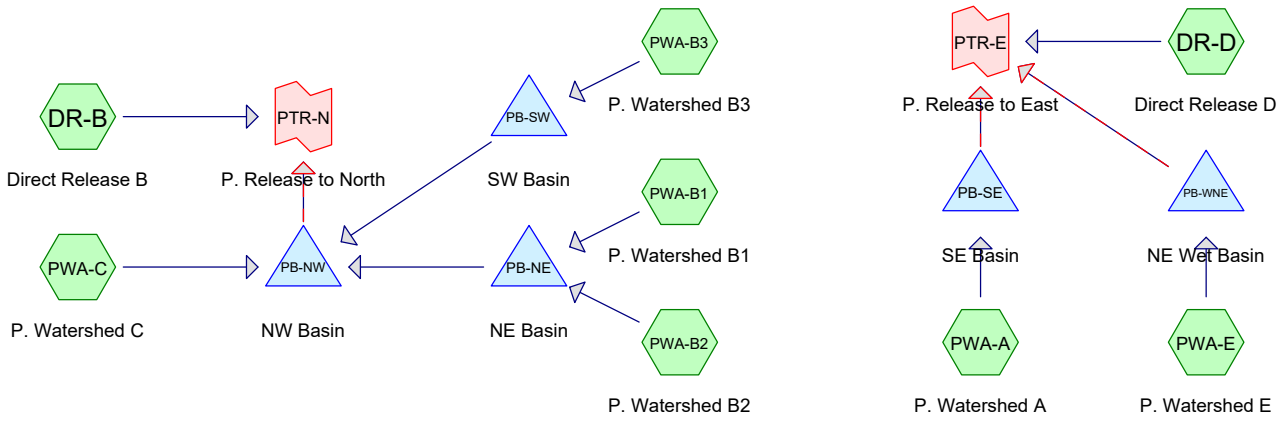
Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link PTR-N: P. Release to North



APPENDIX C

POST-DEVELOPED TRIBUTARY MAP AND FLOWS



Subcat Reach Pond Link

Routing Diagram for 174-158 Hancock HYD_FDP (Dry Basins)
Prepared by CEC, Inc., Printed 12/7/2018

NORTH

SCALE IN FEET

0 200 400

LEGEND

- EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- EXISTING EASEMENT
- EXISTING SUBJECT PROPERTY LINE
- EXISTING ADJACENT PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING CENTERLINE
- EXISTING EDGE OF PAVEMENT
- EXISTING WATER BODY
- EXISTING FEMA FLOODWAY
- EXISTING FEMA FLOODPLAIN
- EXISTING FEMA ZONE "X"
- PROPOSED SUBJECT PROPERTY LINE
- PROPOSED PROPERTY LINE
- PROPOSED RIGHT-OF-WAY
- PROPOSED WATER BODY

GOLDSTONE DRIVE
GRANT RUN ESTATES DR
CITY OF GROVE CITY
JACKSON TOWNSHIP
HEMETITE DR
GRANT RUN ESTATES SECTION 3 P.B. 103, PG. 35-36
BUCKEYE PKWY
CITY OF GROVE CITY PID 040-005495-00
INDIAN TRAILS SECTION 2 P.B. 52, PG. 16&17
RISING SUN DRIVE
THE CROSSING AT GRANT RUN SECTION 1 P.B. 75, PG. 73
HAWTHORNE PKWY
RED BANK DRIVE
CLOUDSTONE COURT
INDIAN TRAILS SECTION 7 P.B. 76, PG. 26
INDIAN TRAILS SECTION 6 P.B. 74, PG. 26
INDIAN TRAILS SECTION 8 P.B. 80, PG. 13
WINDCLIFF DRIVE
JACKSON TOWNSHIP
CITY OF GROVE CITY
JAMES MATOSZKIA PID 040-008542-00
PAUL G. & BUDDIE J. KLEIN PID 160-002538-00
SUSAN E WIBERG PID 160-001590-00
JUDY M UTZINGER PID 160-000297-00
JACKSON PIKE
HIBBS ROAD
SOUTHEAST CONSERVATION CLUB PID 160-001494-00
GRANT RUN
TIMOTHY J CHRISTIAN SU TR PID 040-015517-00
MARILYN SUE SWACKHAMMER PID 160-000050-00
ROBERT & BEVERLY SEXTON PID 160-000074-00
CITY OF GROVE CITY PID 040-012137-00
100-YEAR FLOOD ZONE (FEMA)
TRIBUTARY BOUNDARY

DIRECT RELEASE B
3.58 ACRES
0.91 WOODED ACRES
0.06 CLASS "D" SOIL WOODED ACRES
2.13 ± ACRE LOT ACRES
0.19 CLASS "D" SOIL ± ACRE LOT ACRES
0.29 GRASS ACRES
ONSITE 3.58 ACRES
OFFSITE 0.00 ACRES

WATERSHED E
13.48 ACRES
2.28 GRASS ACRES
0.27 NPE ACRES
10.93 ± ACRE LOT ACRES
ONSITE 13.48 ACRES
OFFSITE 0.00 ACRES

DIRECT RELEASE D
0.28 ACRES
0.28 GRASS ACRES

WATERSHED B1 (NORTHEAST BASIN)
42.04 ACRES
2.69 BASIN NPE ACRES
5.82 GRASS ACRES
2.39 CLASS "D" SOIL GRASS ACRES
29.84 ± ACRE LOT ACRES
1.30 CLASS "D" SOIL ± ACRE LOT ACRES
ONSITE 42.04 ACRES
OFFSITE 0.00 ACRES

WATERSHED C (NORTHWEST BASIN)
68.99 ACRES
0.87 WOODED ACRES
7.50 MEADOW ACRES
1.73 BASIN NPE ACRES
43.00 ± ACRE LOT ACRES
4.74 ± ACRE LOT ACRES (OFFSITE)
10.71 SCHOOL ACRES
ONSITE 64.25 ACRES
OFFSITE 4.74 ACRES

WATERSHED B3 (SOUTHWEST BASIN)
26.46 ACRES
16.82 ± ACRE LOT ACRES
0.24 CLASS "D" SOIL ± ACRE LOT ACRES
2.11 ± ACRE LOT ACRES (OFFSITE)
2.86 MEADOW ACRES
1.30 BASIN NPE ACRES
3.13 GRASS ACRES
ONSITE 24.35 ACRES
OFFSITE 2.11 ACRES

WATERSHED B2 (WETLAND-NE BASIN)
10.67 ACRES
1.86 ± ACRE LOT ACRES
2.19 CLASS "D" ± ACRE LOT ACRES
0.42 ± ACRE LOT ACRES (OFFSITE)
1.13 GRASS ACRES
0.44 CLASS "D" SOIL GRASS ACRES
2.94 WOODED ACRES
0.88 WOODED ACRES (OFFSITE)
0.81 CLASS "D" WOODED SOIL ACRES
ONSITE 9.37 ACRES
OFFSITE 1.30 ACRES

WATERSHED A2 (ATTACHED SINGLE-FAMILY)
9.51 ACRES
6.01 ± ACRE LOT TOWNE HOME ACRES
3.43 CLASS "D" ± ACRE TOWNE HOME SOILS ACRES
0.07 MEADOW ACRES (OFFSITE)
ONSITE 9.44 ACRES
OFFSITE 0.07 ACRES

WATERSHED A1 (ATTACHED SINGLE-FAMILY)
12.07 ACRES
11.92 ± ACRE LOT TOWNE HOME ACRES
0.15 MEADOW ACRES (OFFSITE)
ONSITE 11.92 ACRES
OFFSITE 0.15 ACRES

REVISION RECORD

NO	DATE	DESCRIPTION

CEC
Civil & Environmental Consultants, Inc.
250 Old Wilson Bridge Road · Suite 250 · Worthington, OH 43085
614-540-6633 · 888-598-6808
www.cecinc.com

GRAND COMMUNITIES, LLC.
FARMSTEAD
CITY OF GROVE CITY
FRANKLIN COUNTY, OHIO

POST-DEVELOPMENT TRIBUTARY MAP

DATE:	DECEMBER 2018
DRAWN BY:	GAD
DWG SCALE:	1"=200'
CHECKED BY:	TJV
PROJECT NO:	174-158
APPROVED BY:	DRAFT

DRAWING NO.:
SWM-2
SHEET 2 OF 2

Summary for Subcatchment PWA-A: P. Watershed A

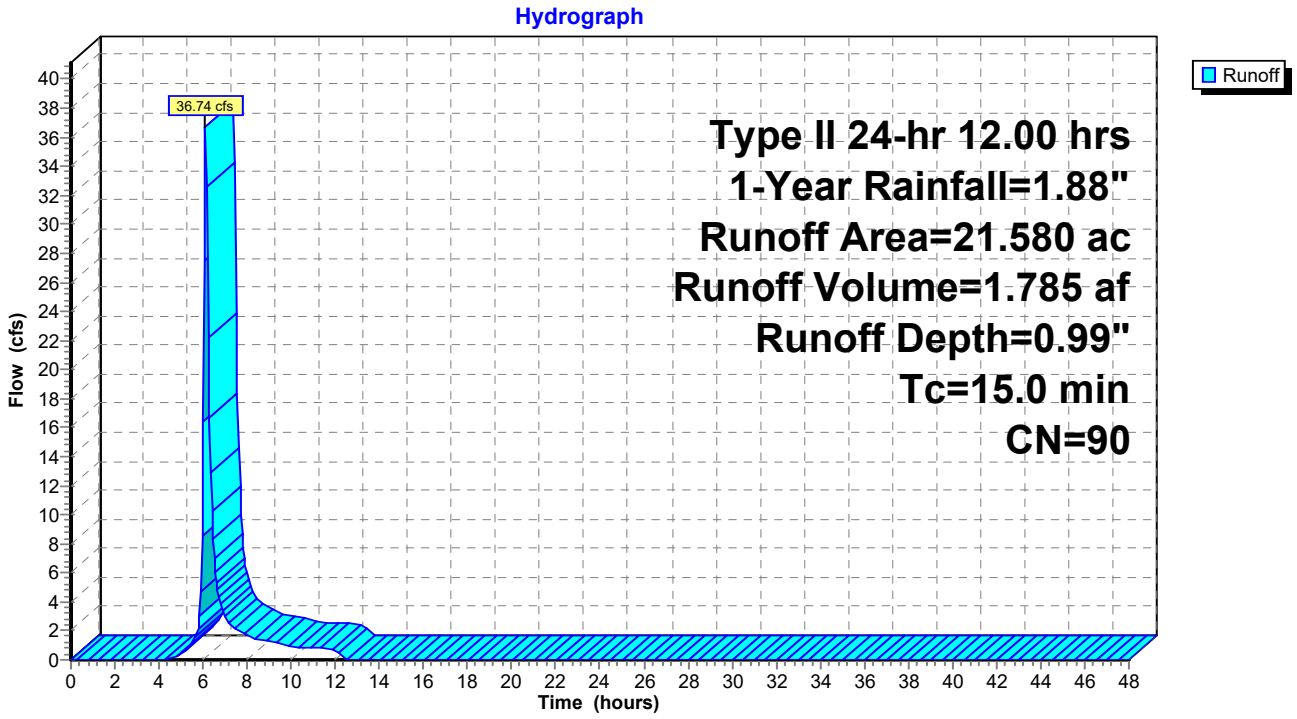
Runoff = 36.74 cfs @ 6.12 hrs, Volume= 1.785 af, Depth= 0.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 1-Year Rainfall=1.88"

	Area (ac)	CN	Description
	11.920	90	1/8 acre lots, 65% imp, HSG C
	6.010	90	1/8 acre lots, 65% imp, HSG C
	3.430	92	1/8 acre lots, 65% imp, HSG D
*	0.150	71	Meadow, non-grazed, HSG C (OFFSITE)
*	0.070	71	Meadow, non-grazed, HSG C (OFFSITE)
	21.580	90	Weighted Average
	7.696		35.66% Pervious Area
	13.884		64.34% Impervious Area

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

Subcatchment PWA-A: P. Watershed A



Summary for Subcatchment PWA-A: P. Watershed A

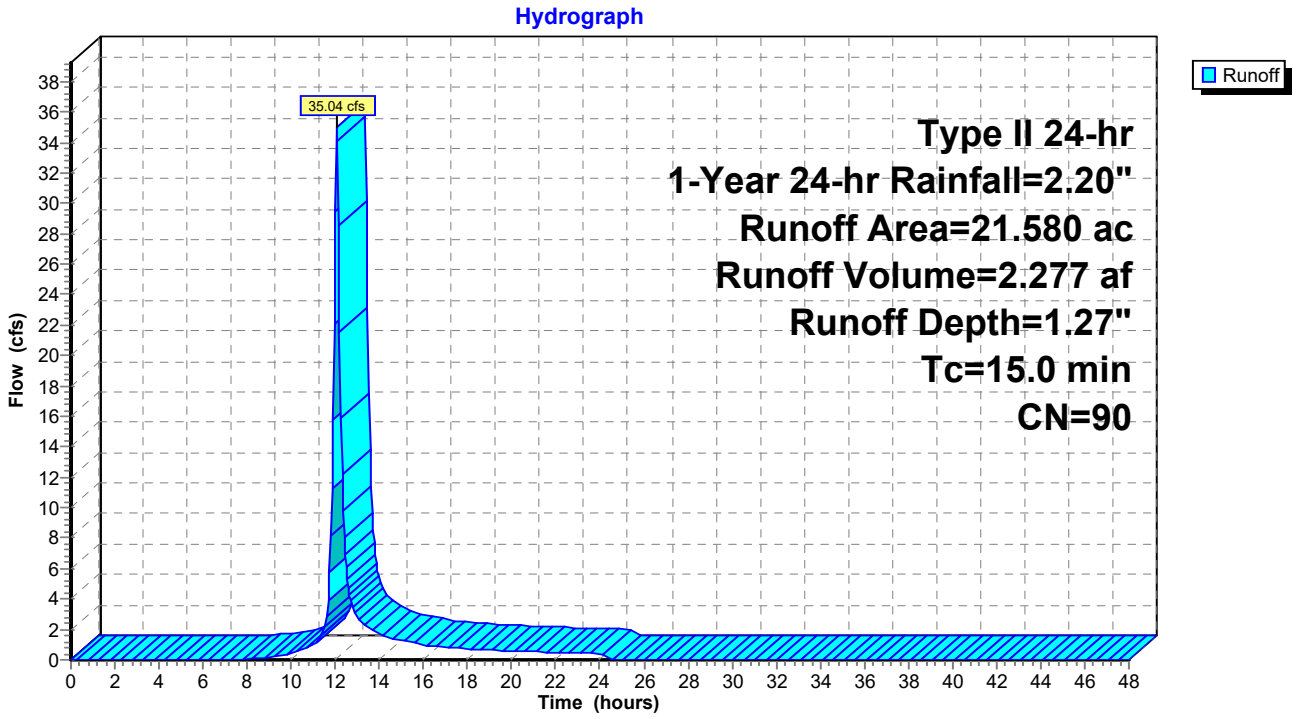
Runoff = 35.04 cfs @ 12.07 hrs, Volume= 2.277 af, Depth= 1.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year 24-hr Rainfall=2.20"

	Area (ac)	CN	Description
	11.920	90	1/8 acre lots, 65% imp, HSG C
	6.010	90	1/8 acre lots, 65% imp, HSG C
	3.430	92	1/8 acre lots, 65% imp, HSG D
*	0.150	71	Meadow, non-grazed, HSG C (OFFSITE)
*	0.070	71	Meadow, non-grazed, HSG C (OFFSITE)
	21.580	90	Weighted Average
	7.696		35.66% Pervious Area
	13.884		64.34% Impervious Area

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

Subcatchment PWA-A: P. Watershed A



Summary for Subcatchment PWA-A: P. Watershed A

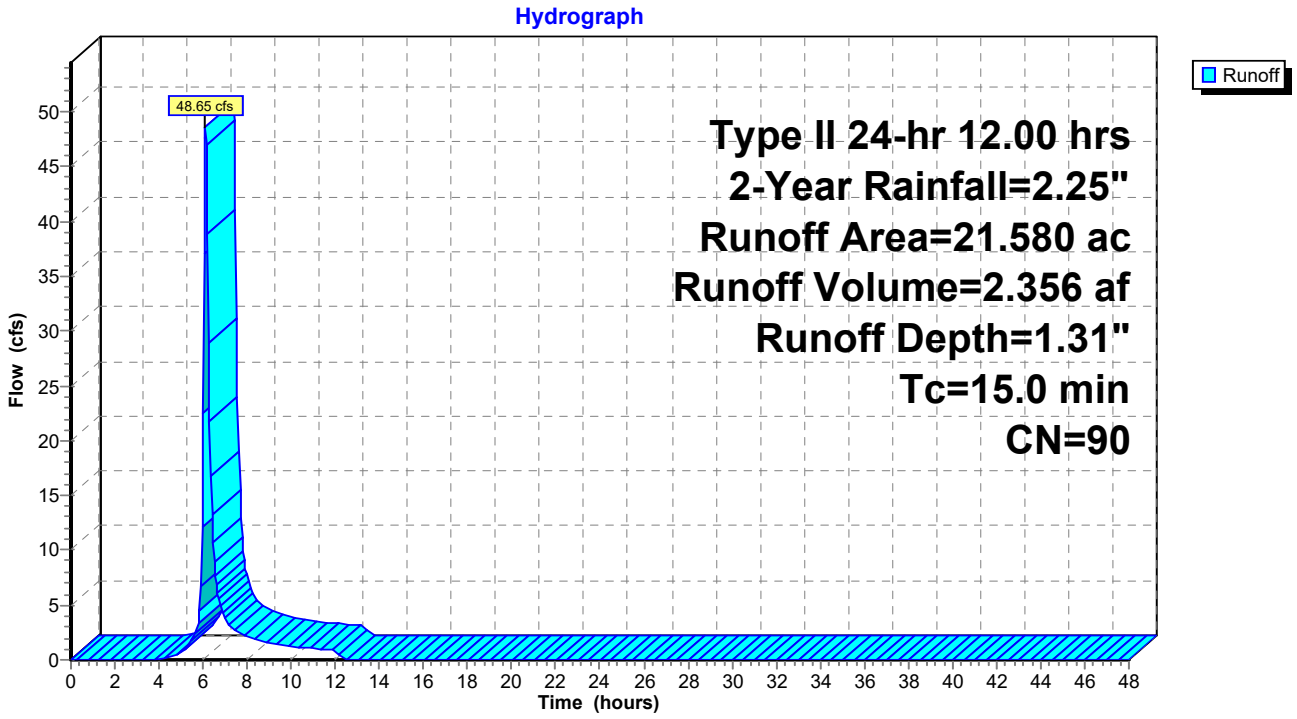
Runoff = 48.65 cfs @ 6.12 hrs, Volume= 2.356 af, Depth= 1.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 2-Year Rainfall=2.25"

	Area (ac)	CN	Description
	11.920	90	1/8 acre lots, 65% imp, HSG C
	6.010	90	1/8 acre lots, 65% imp, HSG C
	3.430	92	1/8 acre lots, 65% imp, HSG D
*	0.150	71	Meadow, non-grazed, HSG C (OFFSITE)
*	0.070	71	Meadow, non-grazed, HSG C (OFFSITE)
	21.580	90	Weighted Average
	7.696		35.66% Pervious Area
	13.884		64.34% Impervious Area

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

Subcatchment PWA-A: P. Watershed A



Summary for Subcatchment PWA-A: P. Watershed A

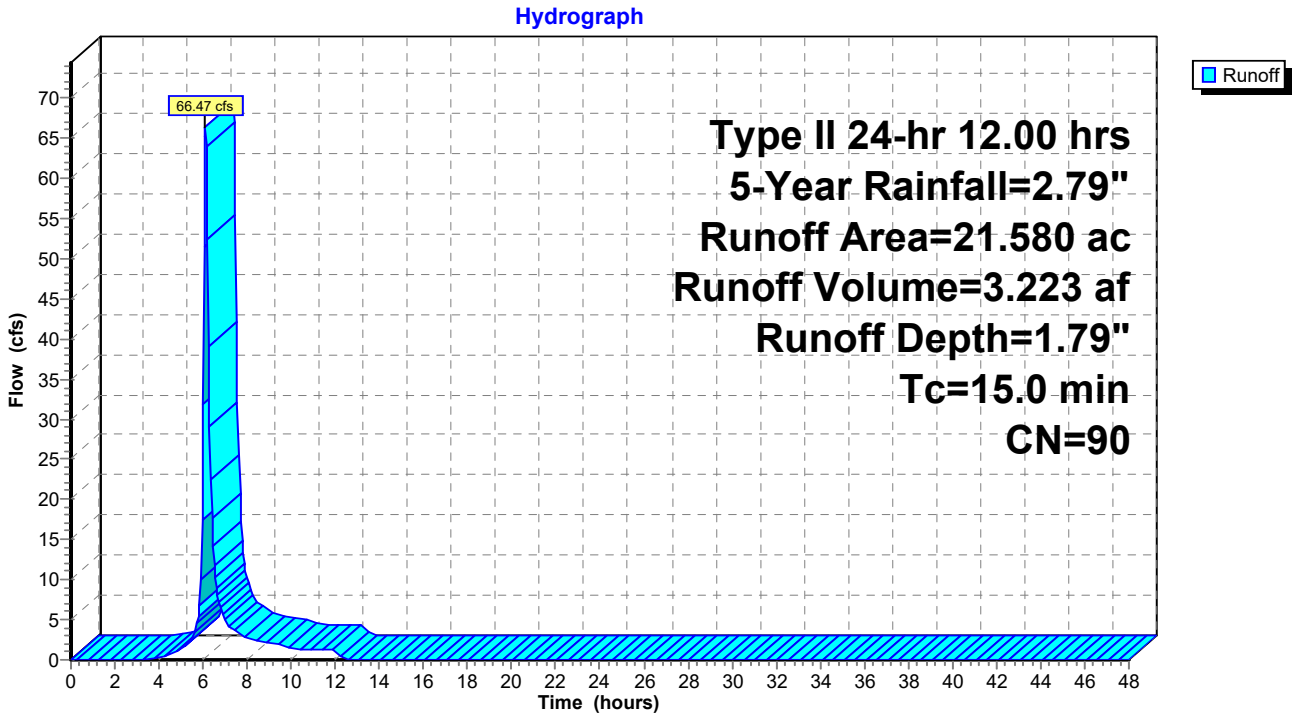
Runoff = 66.47 cfs @ 6.12 hrs, Volume= 3.223 af, Depth= 1.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 5-Year Rainfall=2.79"

	Area (ac)	CN	Description
	11.920	90	1/8 acre lots, 65% imp, HSG C
	6.010	90	1/8 acre lots, 65% imp, HSG C
	3.430	92	1/8 acre lots, 65% imp, HSG D
*	0.150	71	Meadow, non-grazed, HSG C (OFFSITE)
*	0.070	71	Meadow, non-grazed, HSG C (OFFSITE)
	21.580	90	Weighted Average
	7.696		35.66% Pervious Area
	13.884		64.34% Impervious Area

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

Subcatchment PWA-A: P. Watershed A



Summary for Subcatchment PWA-A: P. Watershed A

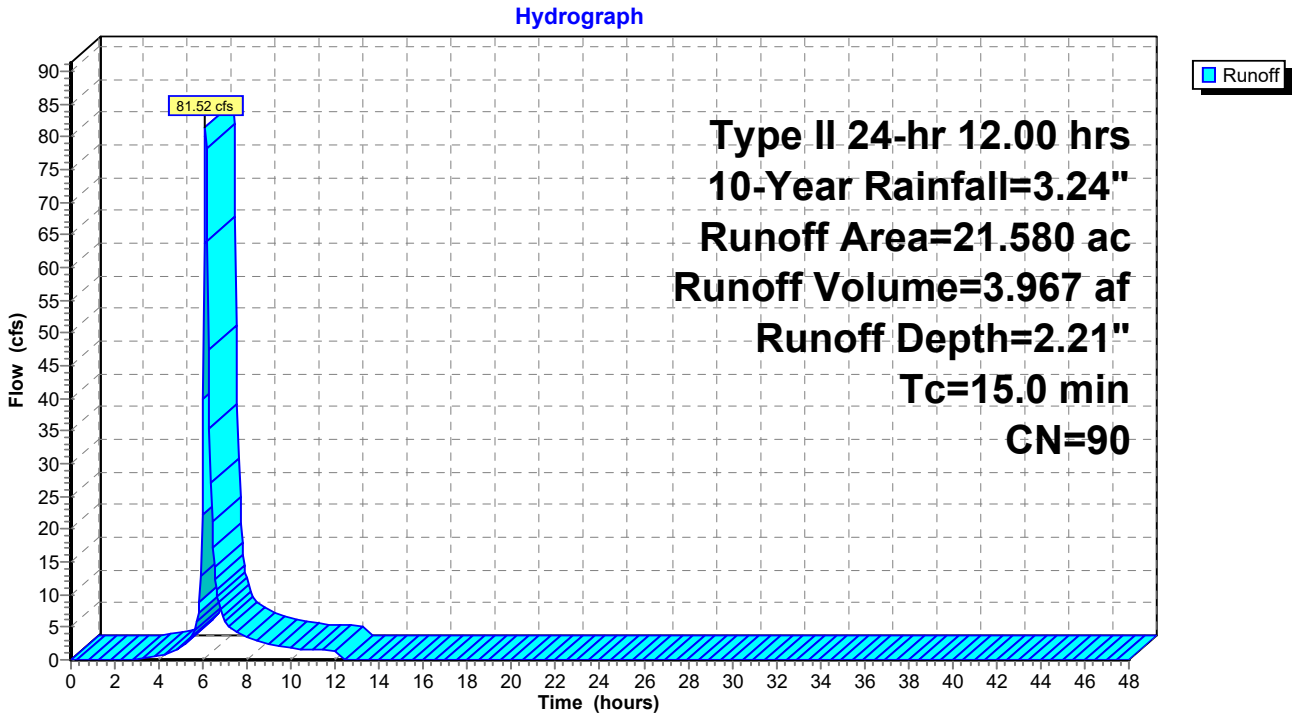
Runoff = 81.52 cfs @ 6.12 hrs, Volume= 3.967 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 10-Year Rainfall=3.24"

	Area (ac)	CN	Description
	11.920	90	1/8 acre lots, 65% imp, HSG C
	6.010	90	1/8 acre lots, 65% imp, HSG C
	3.430	92	1/8 acre lots, 65% imp, HSG D
*	0.150	71	Meadow, non-grazed, HSG C (OFFSITE)
*	0.070	71	Meadow, non-grazed, HSG C (OFFSITE)
	21.580	90	Weighted Average
	7.696		35.66% Pervious Area
	13.884		64.34% Impervious Area

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

Subcatchment PWA-A: P. Watershed A



Summary for Subcatchment PWA-A: P. Watershed A

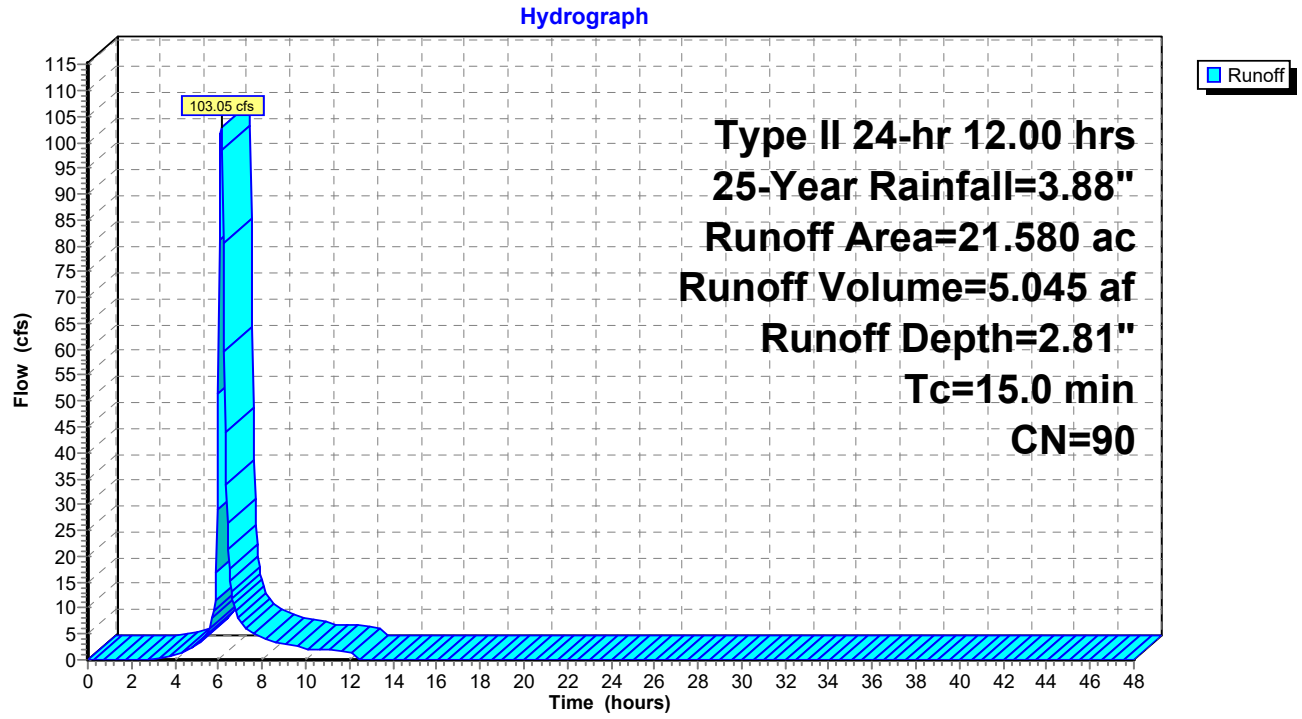
Runoff = 103.05 cfs @ 6.12 hrs, Volume= 5.045 af, Depth= 2.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 25-Year Rainfall=3.88"

	Area (ac)	CN	Description
	11.920	90	1/8 acre lots, 65% imp, HSG C
	6.010	90	1/8 acre lots, 65% imp, HSG C
	3.430	92	1/8 acre lots, 65% imp, HSG D
*	0.150	71	Meadow, non-grazed, HSG C (OFFSITE)
*	0.070	71	Meadow, non-grazed, HSG C (OFFSITE)
	21.580	90	Weighted Average
	7.696		35.66% Pervious Area
	13.884		64.34% Impervious Area

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

Subcatchment PWA-A: P. Watershed A



Summary for Subcatchment PWA-A: P. Watershed A

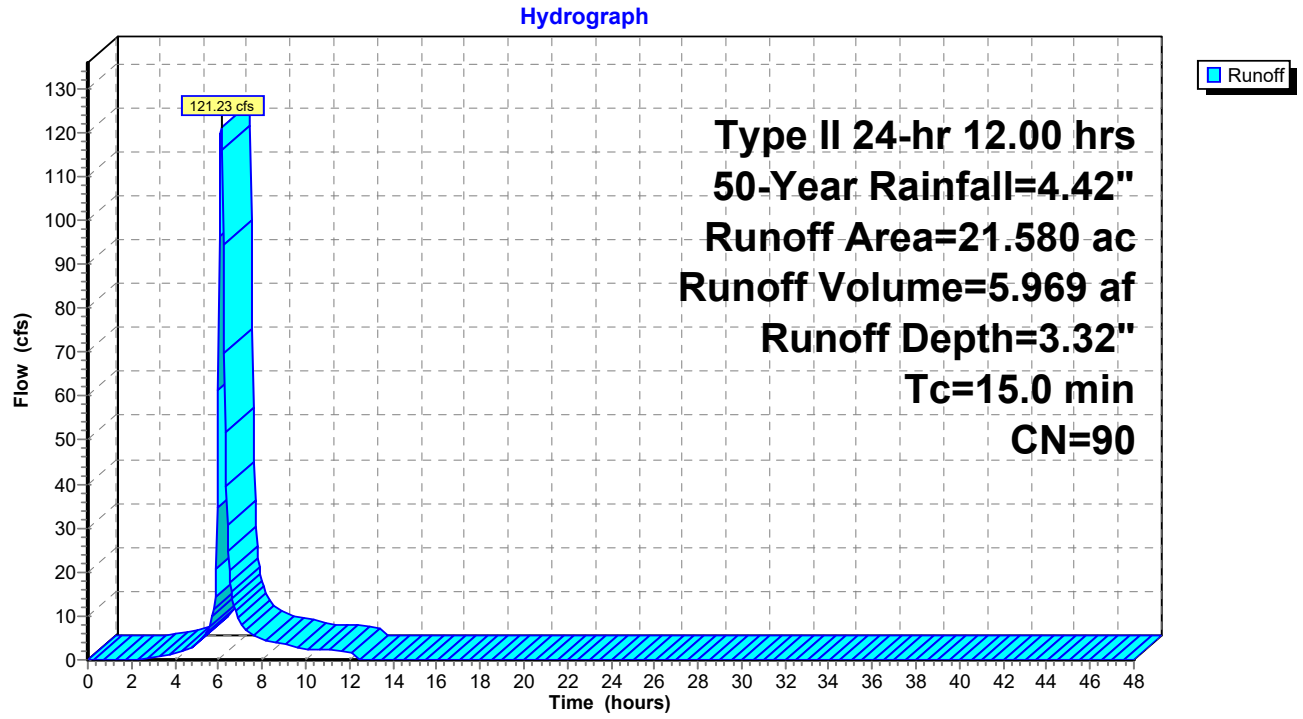
Runoff = 121.23 cfs @ 6.12 hrs, Volume= 5.969 af, Depth= 3.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 50-Year Rainfall=4.42"

	Area (ac)	CN	Description
	11.920	90	1/8 acre lots, 65% imp, HSG C
	6.010	90	1/8 acre lots, 65% imp, HSG C
	3.430	92	1/8 acre lots, 65% imp, HSG D
*	0.150	71	Meadow, non-grazed, HSG C (OFFSITE)
*	0.070	71	Meadow, non-grazed, HSG C (OFFSITE)
	21.580	90	Weighted Average
	7.696		35.66% Pervious Area
	13.884		64.34% Impervious Area

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

Subcatchment PWA-A: P. Watershed A



Summary for Subcatchment PWA-A: P. Watershed A

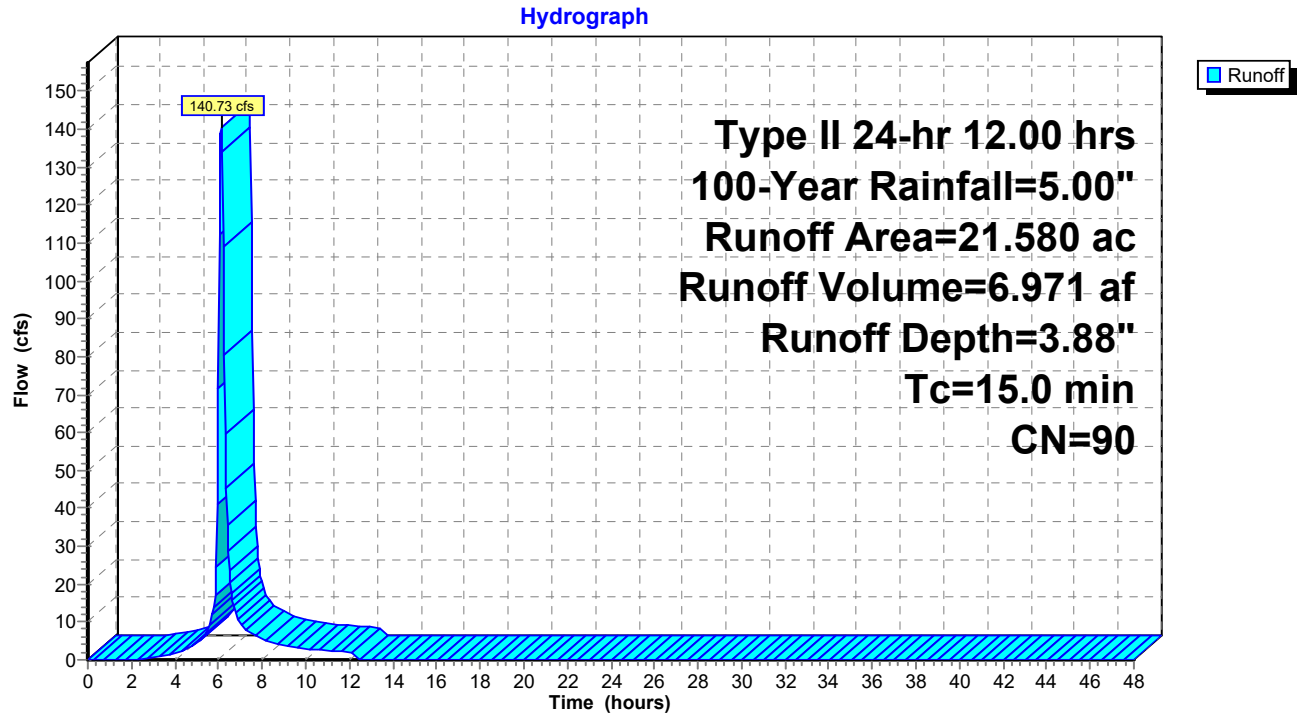
Runoff = 140.73 cfs @ 6.12 hrs, Volume= 6.971 af, Depth= 3.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 100-Year Rainfall=5.00"

	Area (ac)	CN	Description
	11.920	90	1/8 acre lots, 65% imp, HSG C
	6.010	90	1/8 acre lots, 65% imp, HSG C
	3.430	92	1/8 acre lots, 65% imp, HSG D
*	0.150	71	Meadow, non-grazed, HSG C (OFFSITE)
*	0.070	71	Meadow, non-grazed, HSG C (OFFSITE)
	21.580	90	Weighted Average
	7.696		35.66% Pervious Area
	13.884		64.34% Impervious Area

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

Subcatchment PWA-A: P. Watershed A



Summary for Subcatchment PWA-B1: P. Watershed B1

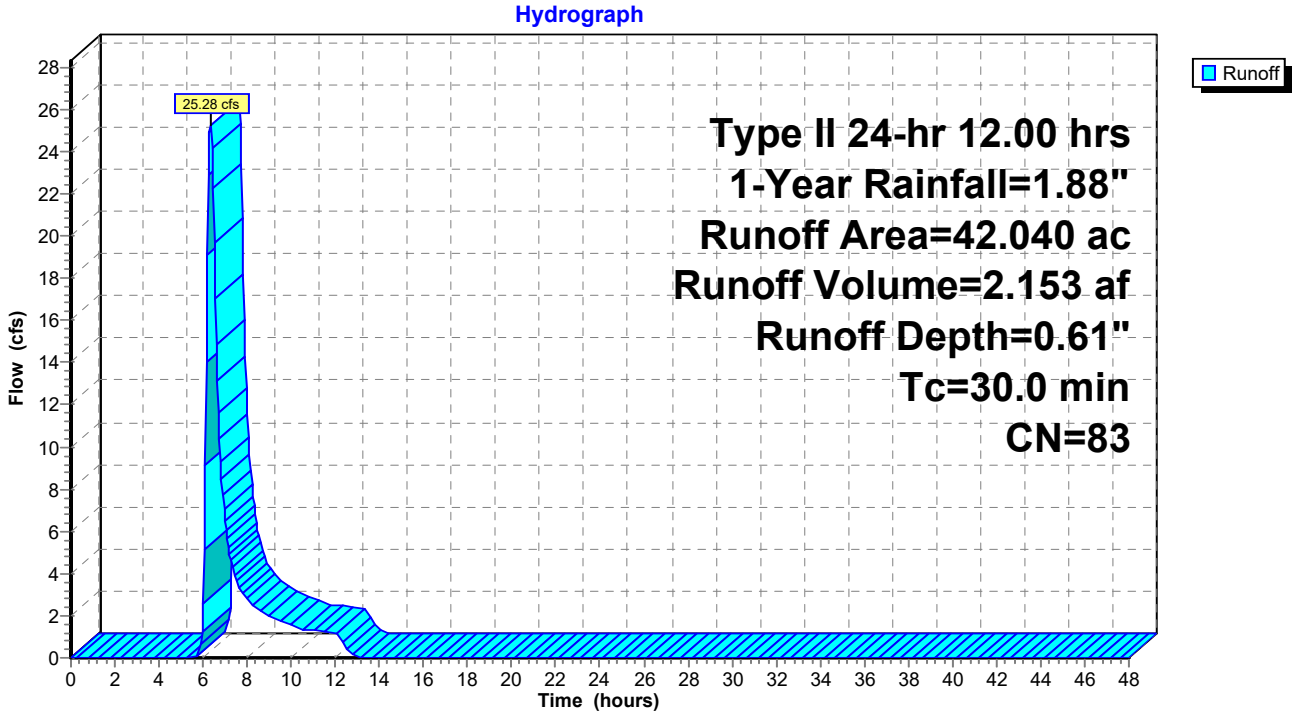
Runoff = 25.28 cfs @ 6.34 hrs, Volume= 2.153 af, Depth= 0.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 1-Year Rainfall=1.88"

	Area (ac)	CN	Description
	29.840	83	1/4 acre lots, 38% imp, HSG C
	1.300	87	1/4 acre lots, 38% imp, HSG D
	2.390	80	>75% Grass cover, Good, HSG D
*	2.690	98	Basin
	5.820	74	>75% Grass cover, Good, HSG C
	42.040	83	Weighted Average
	27.517		65.45% Pervious Area
	14.523		34.55% Impervious Area

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

Subcatchment PWA-B1: P. Watershed B1



Summary for Subcatchment PWA-B1: P. Watershed B1

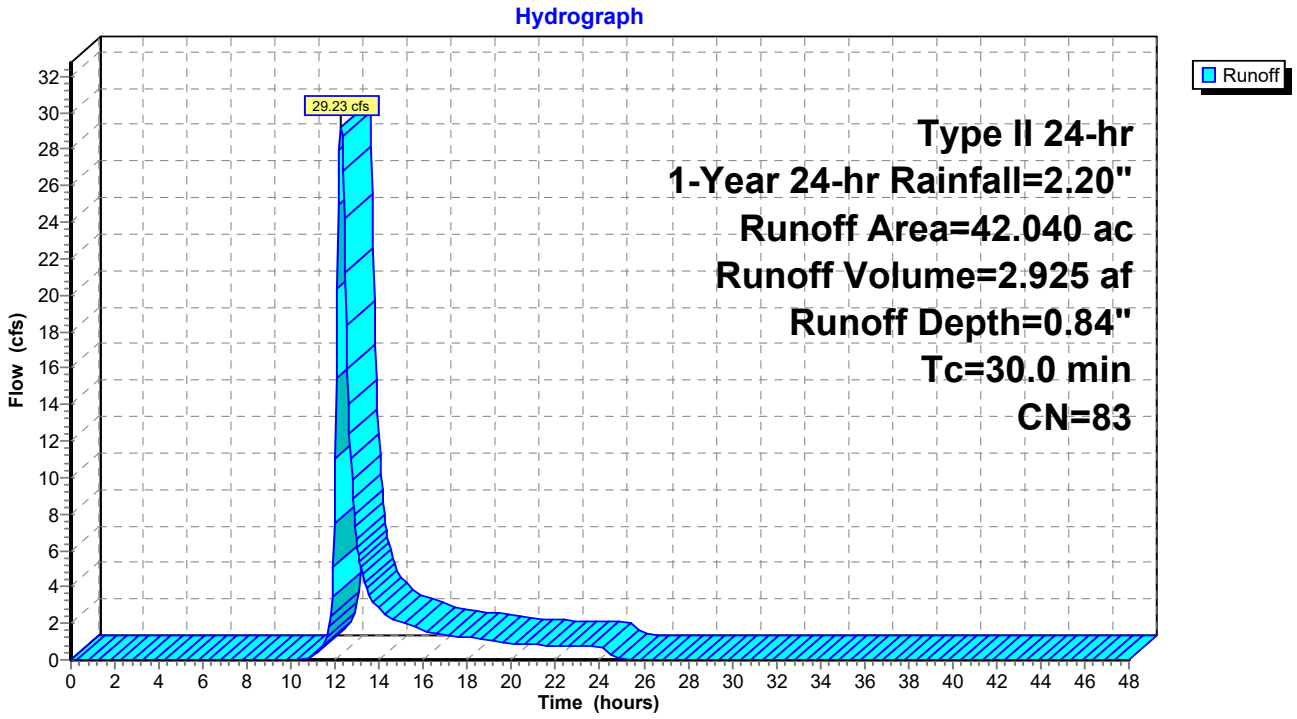
Runoff = 29.23 cfs @ 12.26 hrs, Volume= 2.925 af, Depth= 0.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year 24-hr Rainfall=2.20"

	Area (ac)	CN	Description
	29.840	83	1/4 acre lots, 38% imp, HSG C
	1.300	87	1/4 acre lots, 38% imp, HSG D
	2.390	80	>75% Grass cover, Good, HSG D
*	2.690	98	Basin
	5.820	74	>75% Grass cover, Good, HSG C
	42.040	83	Weighted Average
	27.517		65.45% Pervious Area
	14.523		34.55% Impervious Area

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

Subcatchment PWA-B1: P. Watershed B1



Summary for Subcatchment PWA-B1: P. Watershed B1

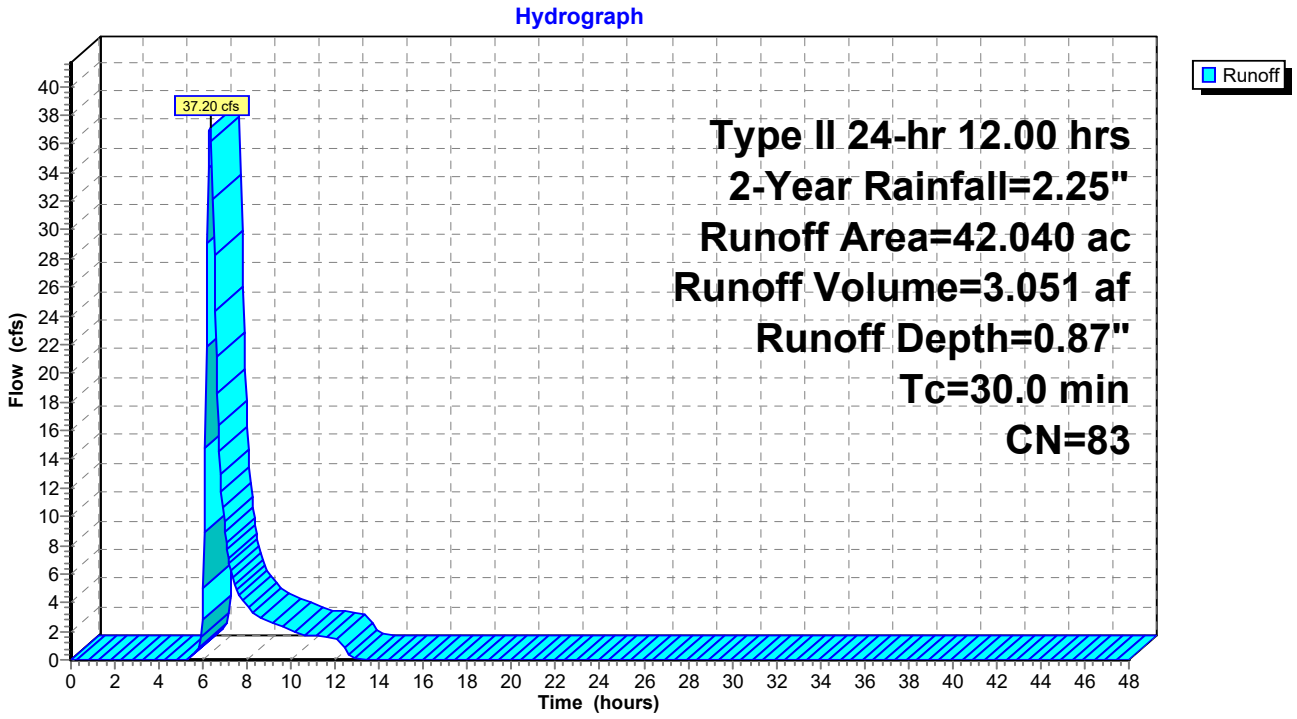
Runoff = 37.20 cfs @ 6.33 hrs, Volume= 3.051 af, Depth= 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 2-Year Rainfall=2.25"

	Area (ac)	CN	Description
	29.840	83	1/4 acre lots, 38% imp, HSG C
	1.300	87	1/4 acre lots, 38% imp, HSG D
	2.390	80	>75% Grass cover, Good, HSG D
*	2.690	98	Basin
	5.820	74	>75% Grass cover, Good, HSG C
	42.040	83	Weighted Average
	27.517		65.45% Pervious Area
	14.523		34.55% Impervious Area

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

Subcatchment PWA-B1: P. Watershed B1



Summary for Subcatchment PWA-B1: P. Watershed B1

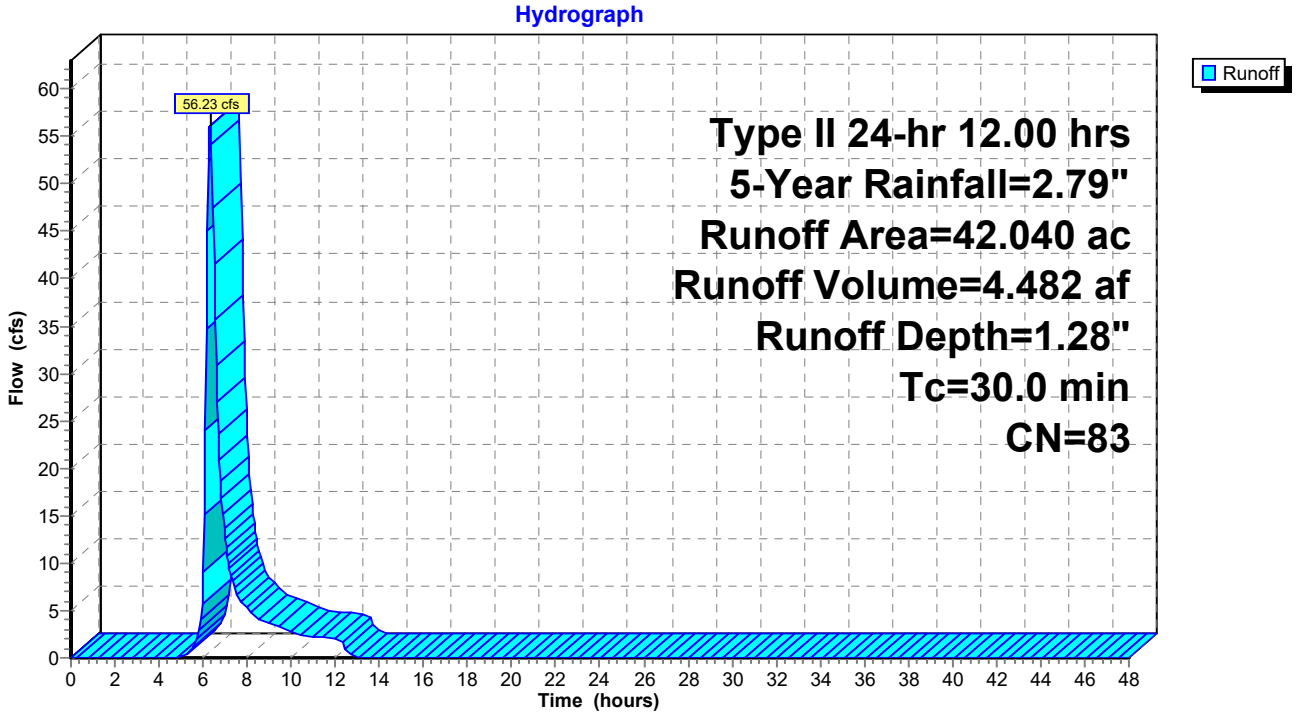
Runoff = 56.23 cfs @ 6.32 hrs, Volume= 4.482 af, Depth= 1.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 5-Year Rainfall=2.79"

	Area (ac)	CN	Description
	29.840	83	1/4 acre lots, 38% imp, HSG C
	1.300	87	1/4 acre lots, 38% imp, HSG D
	2.390	80	>75% Grass cover, Good, HSG D
*	2.690	98	Basin
	5.820	74	>75% Grass cover, Good, HSG C
	42.040	83	Weighted Average
	27.517		65.45% Pervious Area
	14.523		34.55% Impervious Area

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

Subcatchment PWA-B1: P. Watershed B1



Summary for Subcatchment PWA-B1: P. Watershed B1

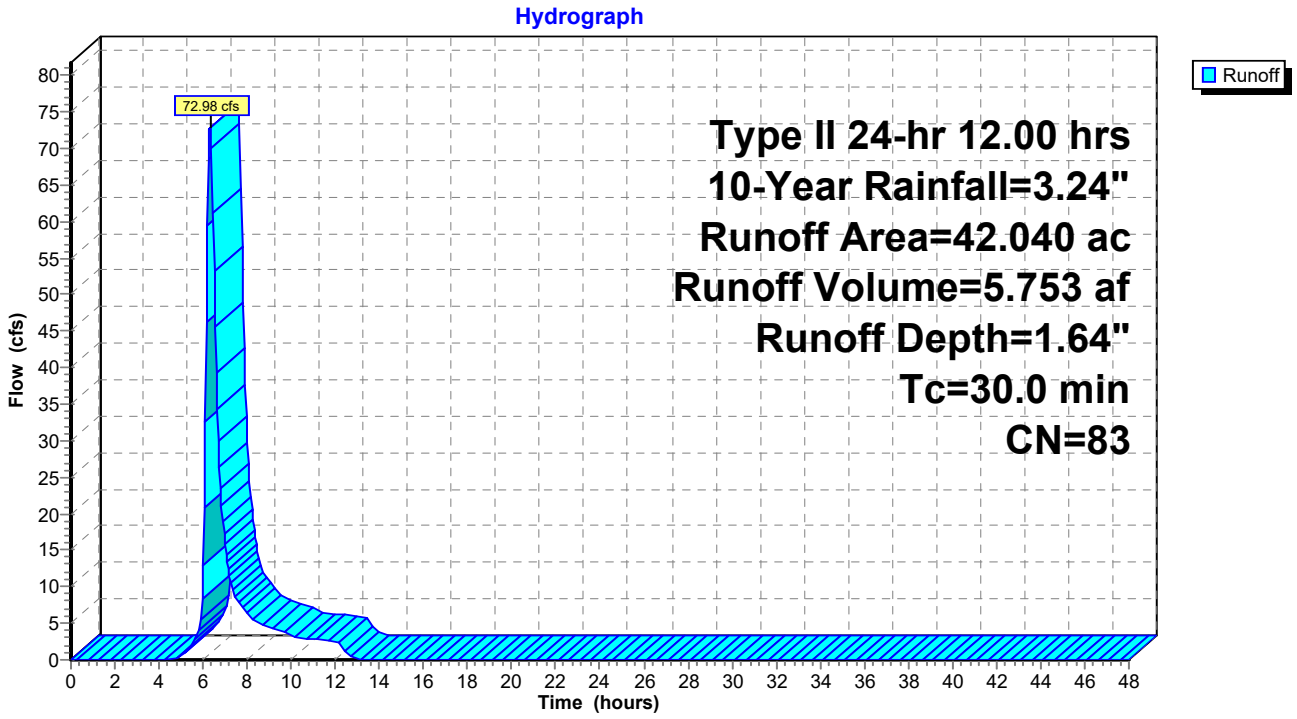
Runoff = 72.98 cfs @ 6.32 hrs, Volume= 5.753 af, Depth= 1.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 10-Year Rainfall=3.24"

	Area (ac)	CN	Description
	29.840	83	1/4 acre lots, 38% imp, HSG C
	1.300	87	1/4 acre lots, 38% imp, HSG D
	2.390	80	>75% Grass cover, Good, HSG D
*	2.690	98	Basin
	5.820	74	>75% Grass cover, Good, HSG C
	42.040	83	Weighted Average
	27.517		65.45% Pervious Area
	14.523		34.55% Impervious Area

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

Subcatchment PWA-B1: P. Watershed B1



Summary for Subcatchment PWA-B1: P. Watershed B1

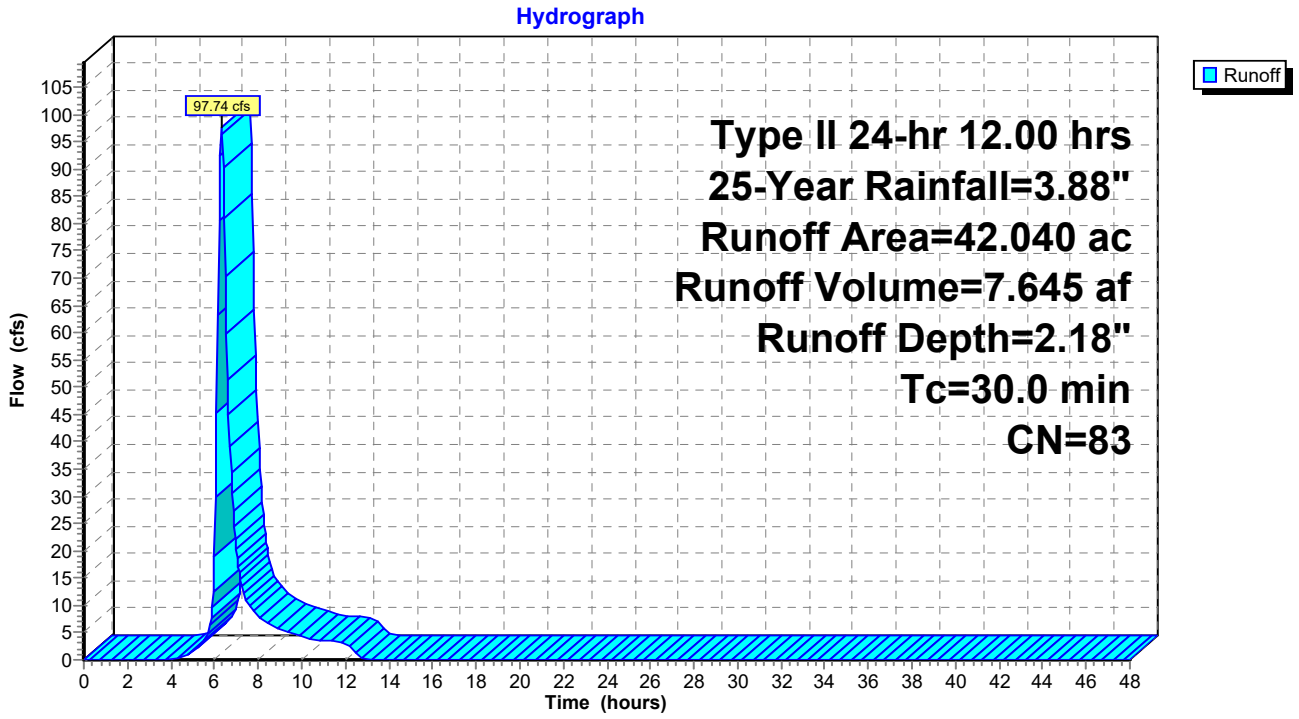
Runoff = 97.74 cfs @ 6.31 hrs, Volume= 7.645 af, Depth= 2.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 25-Year Rainfall=3.88"

	Area (ac)	CN	Description
	29.840	83	1/4 acre lots, 38% imp, HSG C
	1.300	87	1/4 acre lots, 38% imp, HSG D
	2.390	80	>75% Grass cover, Good, HSG D
*	2.690	98	Basin
	5.820	74	>75% Grass cover, Good, HSG C
	42.040	83	Weighted Average
	27.517		65.45% Pervious Area
	14.523		34.55% Impervious Area

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

Subcatchment PWA-B1: P. Watershed B1



Summary for Subcatchment PWA-B1: P. Watershed B1

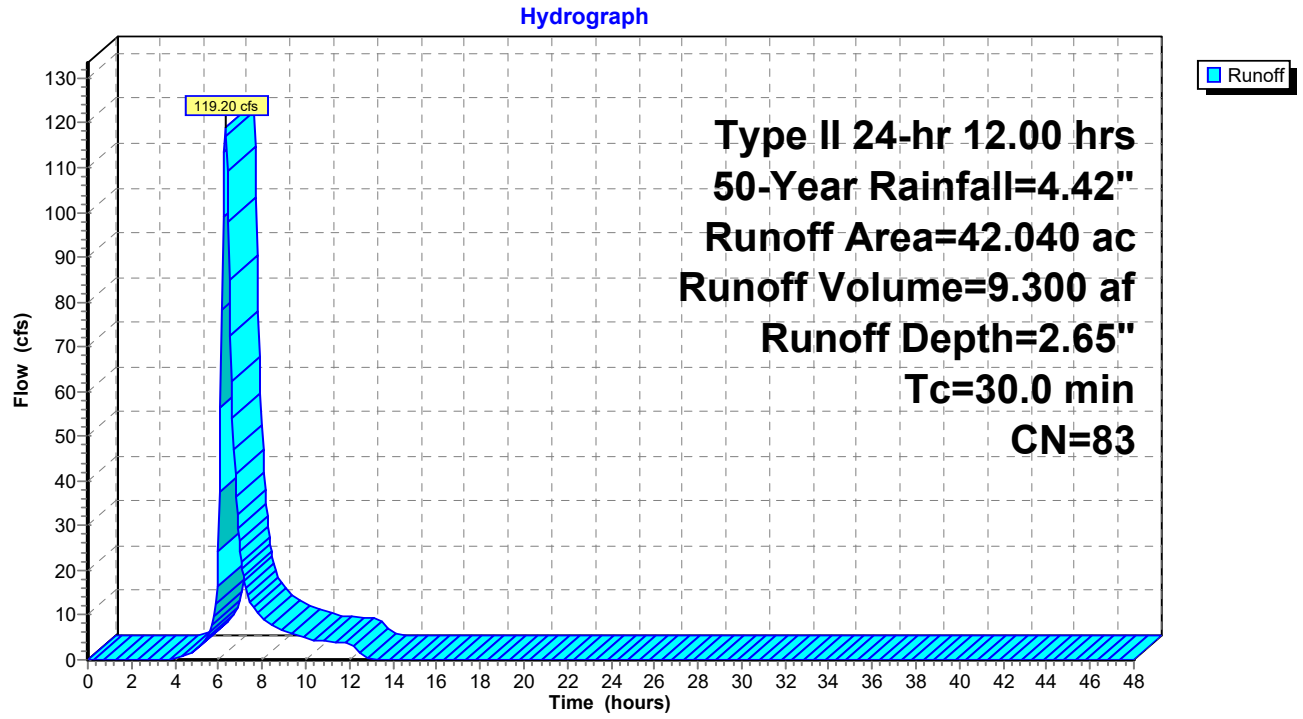
Runoff = 119.20 cfs @ 6.31 hrs, Volume= 9.300 af, Depth= 2.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 50-Year Rainfall=4.42"

	Area (ac)	CN	Description
	29.840	83	1/4 acre lots, 38% imp, HSG C
	1.300	87	1/4 acre lots, 38% imp, HSG D
	2.390	80	>75% Grass cover, Good, HSG D
*	2.690	98	Basin
	5.820	74	>75% Grass cover, Good, HSG C
	42.040	83	Weighted Average
	27.517		65.45% Pervious Area
	14.523		34.55% Impervious Area

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

Subcatchment PWA-B1: P. Watershed B1



Summary for Subcatchment PWA-B1: P. Watershed B1

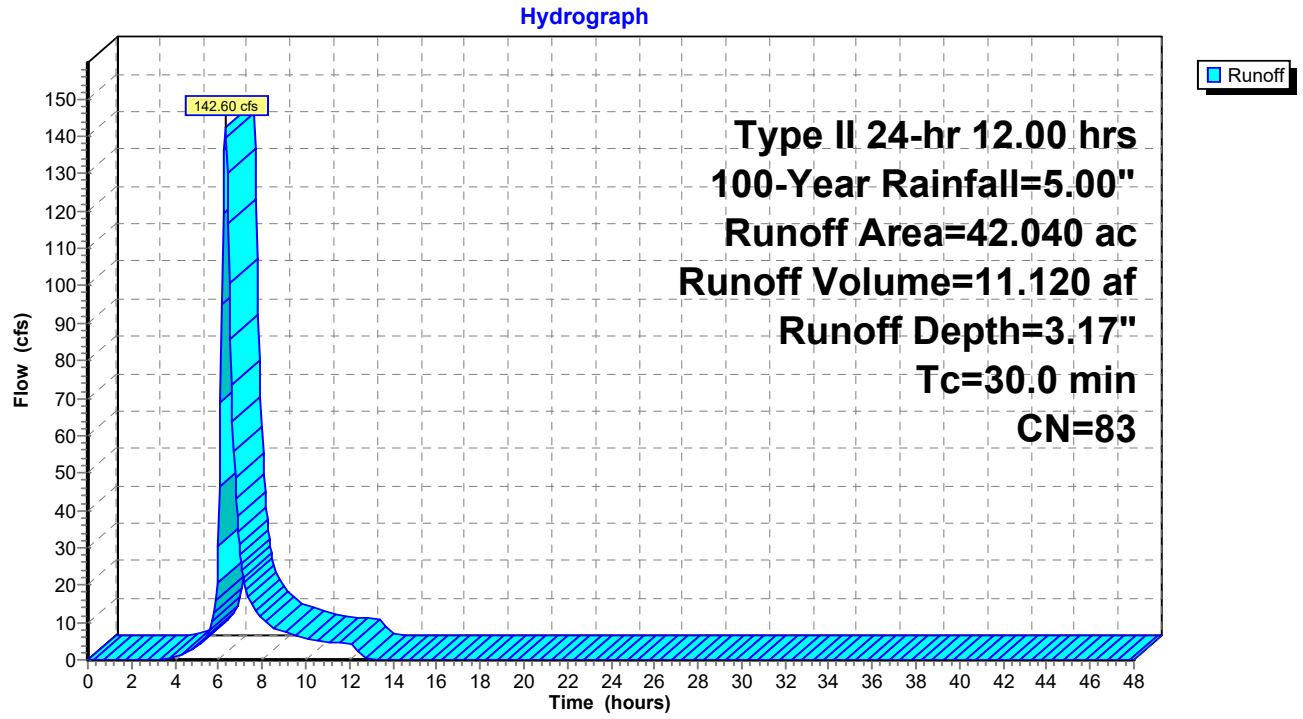
Runoff = 142.60 cfs @ 6.31 hrs, Volume= 11.120 af, Depth= 3.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 100-Year Rainfall=5.00"

	Area (ac)	CN	Description
	29.840	83	1/4 acre lots, 38% imp, HSG C
	1.300	87	1/4 acre lots, 38% imp, HSG D
	2.390	80	>75% Grass cover, Good, HSG D
*	2.690	98	Basin
	5.820	74	>75% Grass cover, Good, HSG C
	42.040	83	Weighted Average
	27.517		65.45% Pervious Area
	14.523		34.55% Impervious Area

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

Subcatchment PWA-B1: P. Watershed B1



Summary for Subcatchment PWA-B2: P. Watershed B2

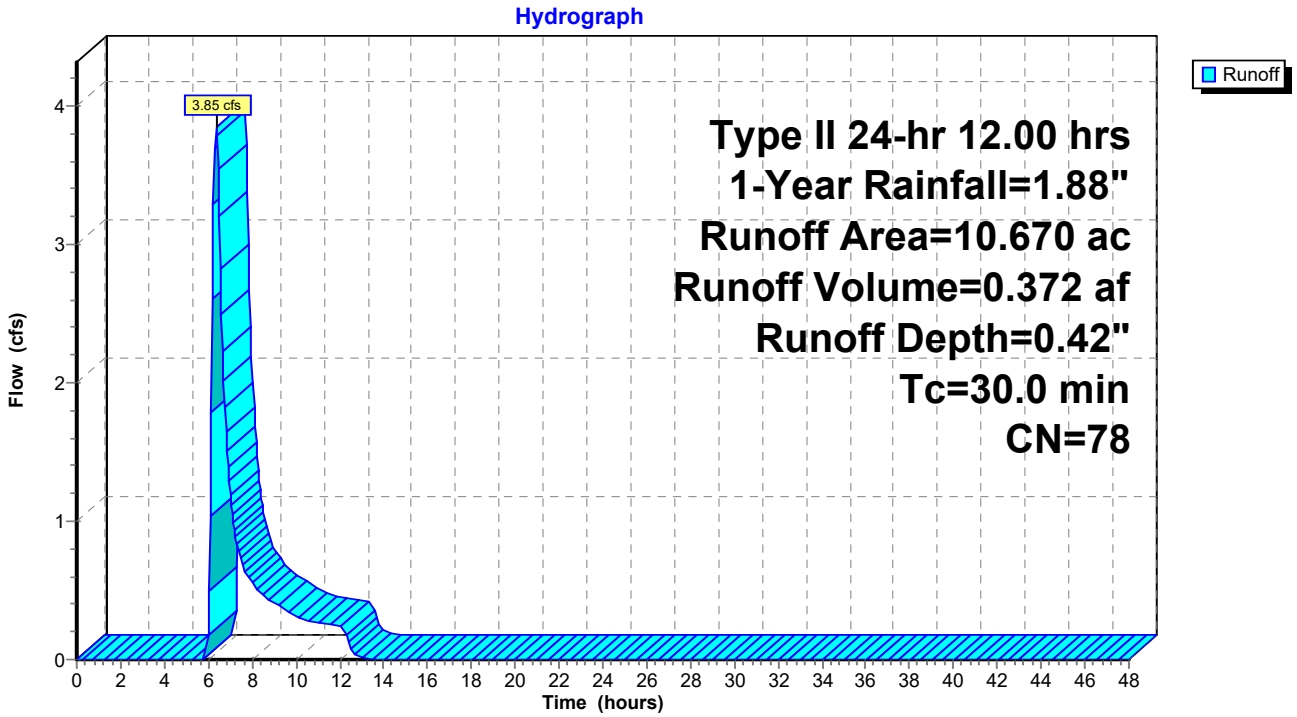
Runoff = 3.85 cfs @ 6.36 hrs, Volume= 0.372 af, Depth= 0.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 1-Year Rainfall=1.88"

	Area (ac)	CN	Description
	1.860	83	1/4 acre lots, 38% imp, HSG C
	2.190	87	1/4 acre lots, 38% imp, HSG D
*	0.420	83	1/4 acre lots, 38% imp, HSG C (OFFSITE)
	1.130	71	Meadow, non-grazed, HSG C
	0.440	78	Meadow, non-grazed, HSG D
	0.810	79	Woods, Fair, HSG D
	2.940	73	Woods, Fair, HSG C
*	0.880	73	Woods, Fair, HSG C (OFFSITE)
	10.670	78	Weighted Average
	8.971		84.08% Pervious Area
	1.699		15.92% Impervious Area

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

Subcatchment PWA-B2: P. Watershed B2



Summary for Subcatchment PWA-B2: P. Watershed B2

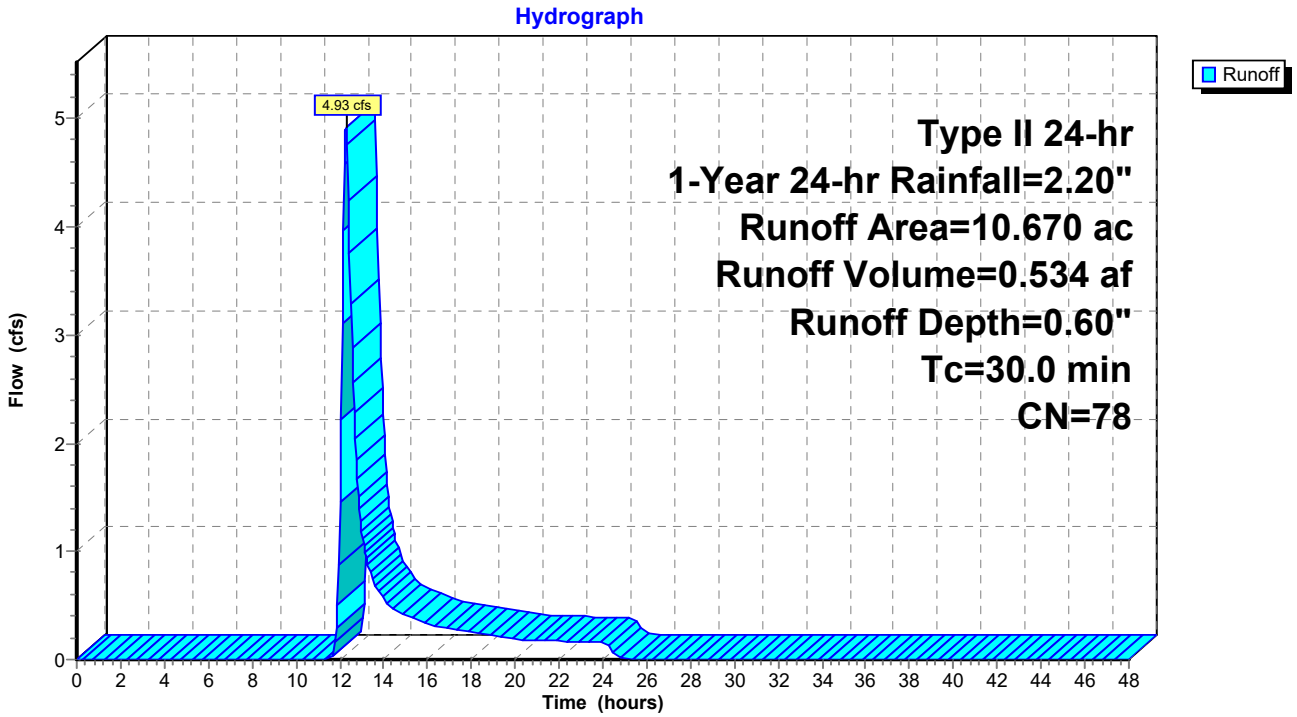
Runoff = 4.93 cfs @ 12.27 hrs, Volume= 0.534 af, Depth= 0.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year 24-hr Rainfall=2.20"

	Area (ac)	CN	Description
	1.860	83	1/4 acre lots, 38% imp, HSG C
	2.190	87	1/4 acre lots, 38% imp, HSG D
*	0.420	83	1/4 acre lots, 38% imp, HSG C (OFFSITE)
	1.130	71	Meadow, non-grazed, HSG C
	0.440	78	Meadow, non-grazed, HSG D
	0.810	79	Woods, Fair, HSG D
	2.940	73	Woods, Fair, HSG C
*	0.880	73	Woods, Fair, HSG C (OFFSITE)
	10.670	78	Weighted Average
	8.971		84.08% Pervious Area
	1.699		15.92% Impervious Area

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

Subcatchment PWA-B2: P. Watershed B2



Summary for Subcatchment PWA-B2: P. Watershed B2

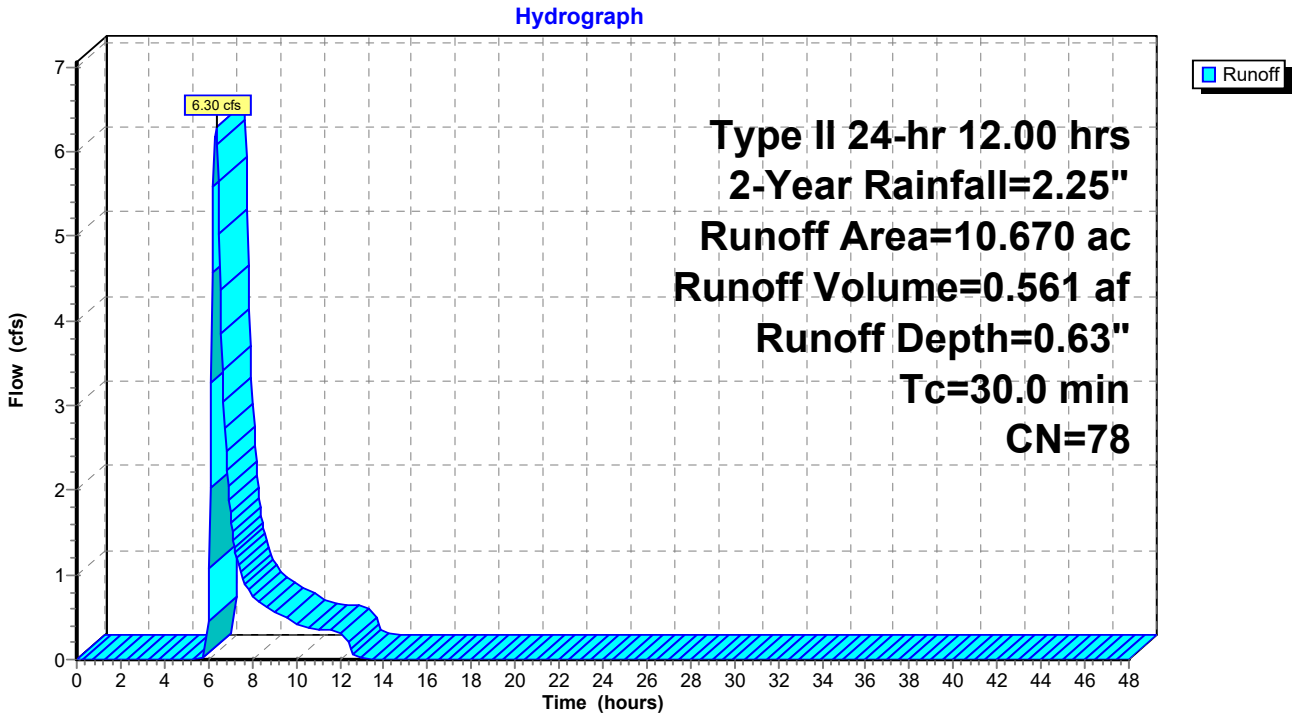
Runoff = 6.30 cfs @ 6.35 hrs, Volume= 0.561 af, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 2-Year Rainfall=2.25"

	Area (ac)	CN	Description
	1.860	83	1/4 acre lots, 38% imp, HSG C
	2.190	87	1/4 acre lots, 38% imp, HSG D
*	0.420	83	1/4 acre lots, 38% imp, HSG C (OFFSITE)
	1.130	71	Meadow, non-grazed, HSG C
	0.440	78	Meadow, non-grazed, HSG D
	0.810	79	Woods, Fair, HSG D
	2.940	73	Woods, Fair, HSG C
*	0.880	73	Woods, Fair, HSG C (OFFSITE)
	10.670	78	Weighted Average
	8.971		84.08% Pervious Area
	1.699		15.92% Impervious Area

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

Subcatchment PWA-B2: P. Watershed B2



Summary for Subcatchment PWA-B2: P. Watershed B2

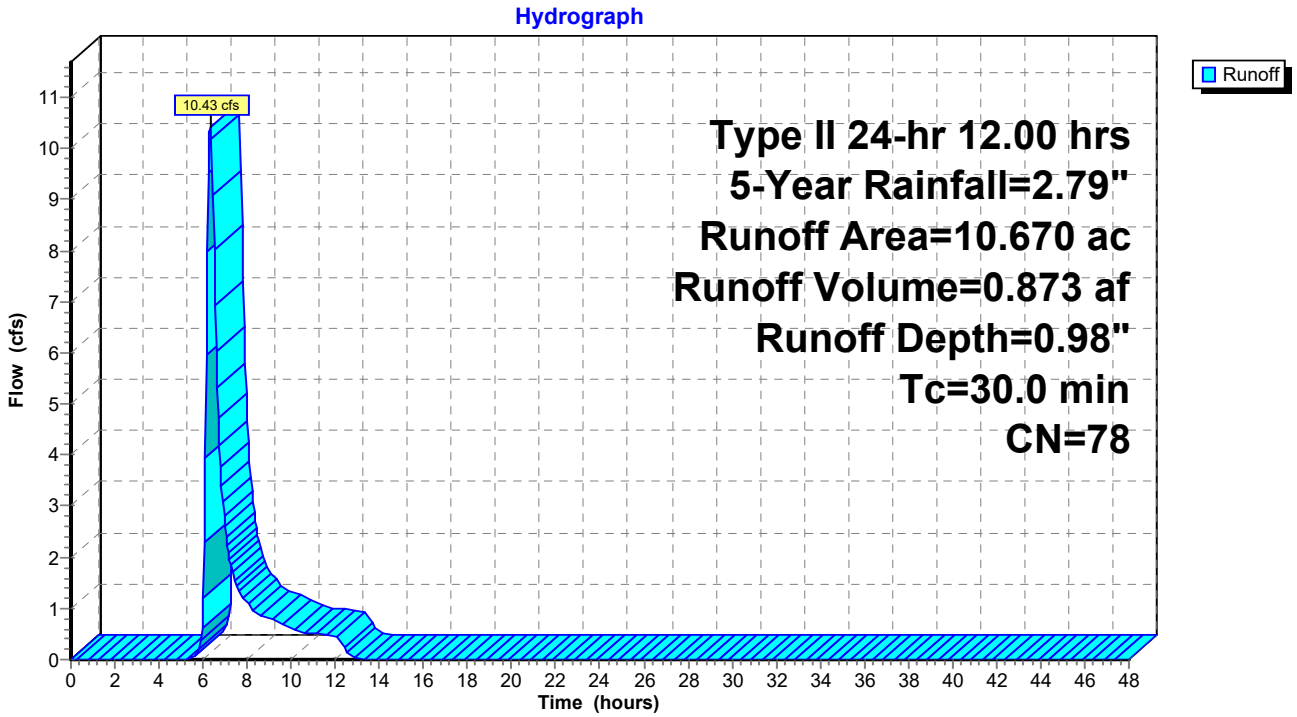
Runoff = 10.43 cfs @ 6.33 hrs, Volume= 0.873 af, Depth= 0.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 5-Year Rainfall=2.79"

	Area (ac)	CN	Description
	1.860	83	1/4 acre lots, 38% imp, HSG C
	2.190	87	1/4 acre lots, 38% imp, HSG D
*	0.420	83	1/4 acre lots, 38% imp, HSG C (OFFSITE)
	1.130	71	Meadow, non-grazed, HSG C
	0.440	78	Meadow, non-grazed, HSG D
	0.810	79	Woods, Fair, HSG D
	2.940	73	Woods, Fair, HSG C
*	0.880	73	Woods, Fair, HSG C (OFFSITE)
	10.670	78	Weighted Average
	8.971		84.08% Pervious Area
	1.699		15.92% Impervious Area

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

Subcatchment PWA-B2: P. Watershed B2



Summary for Subcatchment PWA-B2: P. Watershed B2

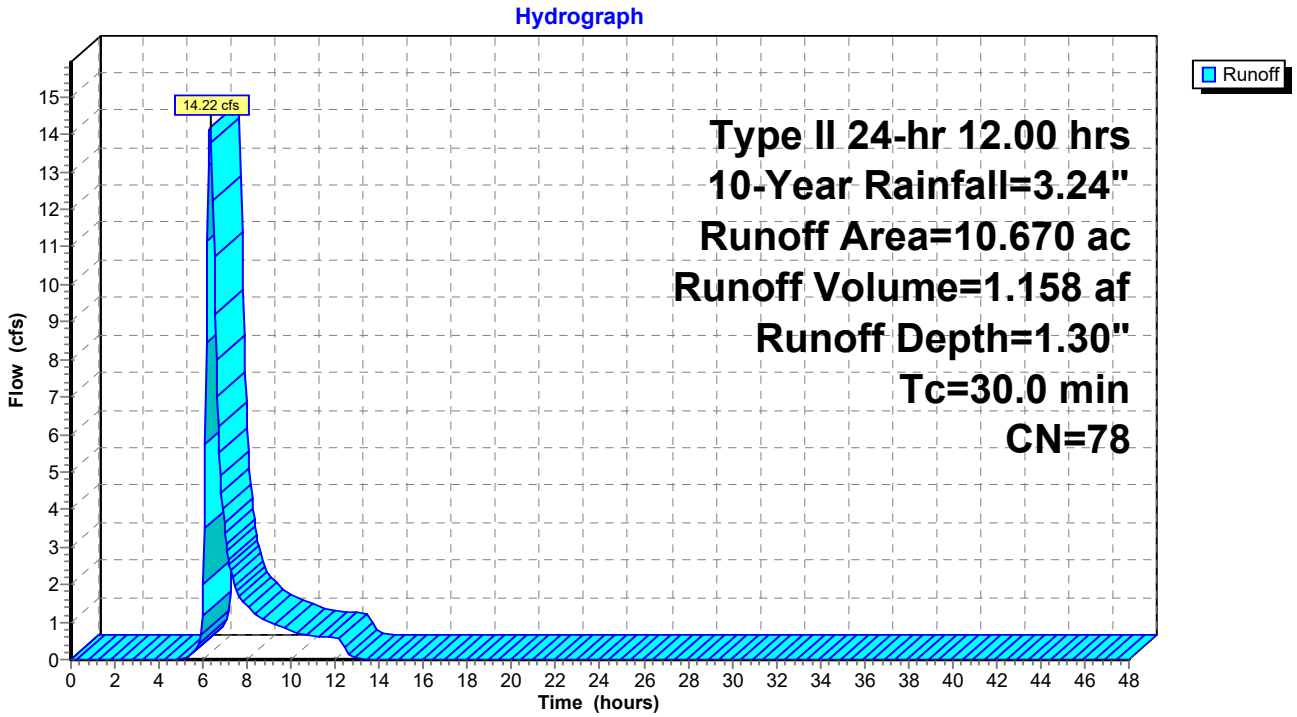
Runoff = 14.22 cfs @ 6.33 hrs, Volume= 1.158 af, Depth= 1.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 10-Year Rainfall=3.24"

	Area (ac)	CN	Description
	1.860	83	1/4 acre lots, 38% imp, HSG C
	2.190	87	1/4 acre lots, 38% imp, HSG D
*	0.420	83	1/4 acre lots, 38% imp, HSG C (OFFSITE)
	1.130	71	Meadow, non-grazed, HSG C
	0.440	78	Meadow, non-grazed, HSG D
	0.810	79	Woods, Fair, HSG D
	2.940	73	Woods, Fair, HSG C
*	0.880	73	Woods, Fair, HSG C (OFFSITE)
	10.670	78	Weighted Average
	8.971		84.08% Pervious Area
	1.699		15.92% Impervious Area

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

Subcatchment PWA-B2: P. Watershed B2



Summary for Subcatchment PWA-B2: P. Watershed B2

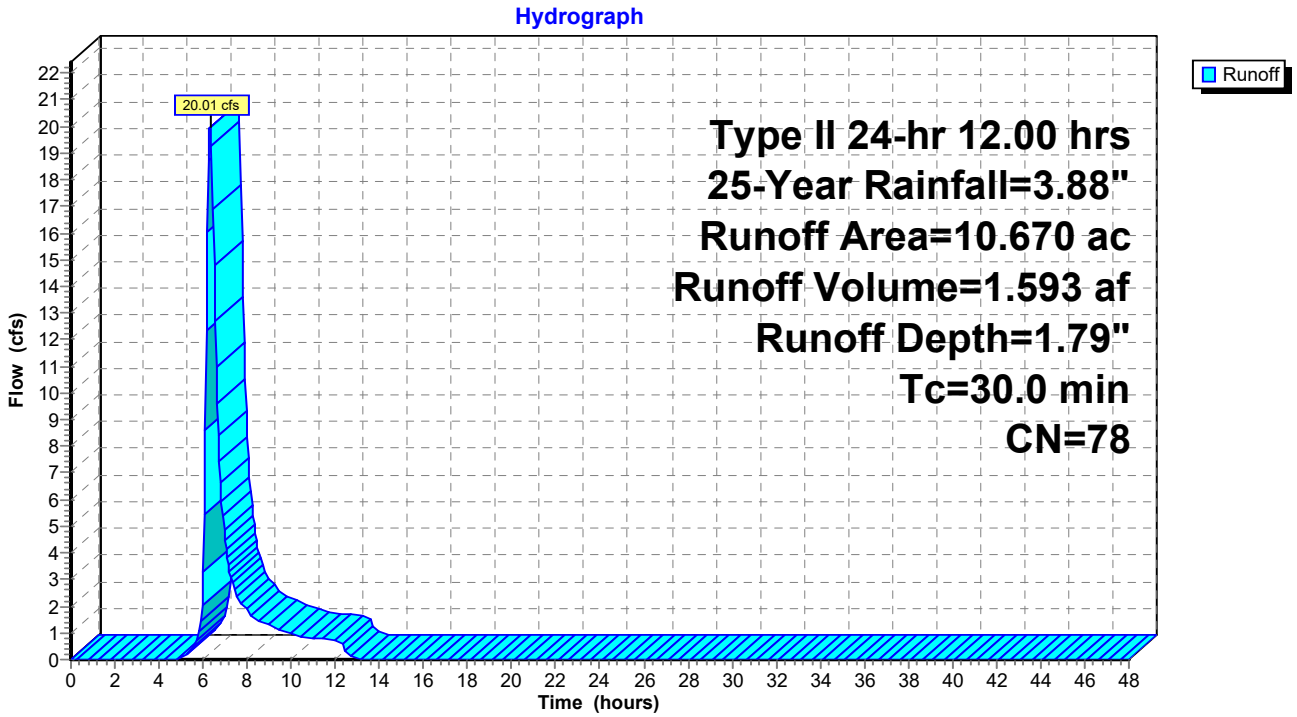
Runoff = 20.01 cfs @ 6.32 hrs, Volume= 1.593 af, Depth= 1.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 25-Year Rainfall=3.88"

	Area (ac)	CN	Description
	1.860	83	1/4 acre lots, 38% imp, HSG C
	2.190	87	1/4 acre lots, 38% imp, HSG D
*	0.420	83	1/4 acre lots, 38% imp, HSG C (OFFSITE)
	1.130	71	Meadow, non-grazed, HSG C
	0.440	78	Meadow, non-grazed, HSG D
	0.810	79	Woods, Fair, HSG D
	2.940	73	Woods, Fair, HSG C
*	0.880	73	Woods, Fair, HSG C (OFFSITE)
	10.670	78	Weighted Average
	8.971		84.08% Pervious Area
	1.699		15.92% Impervious Area

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

Subcatchment PWA-B2: P. Watershed B2



Summary for Subcatchment PWA-B2: P. Watershed B2

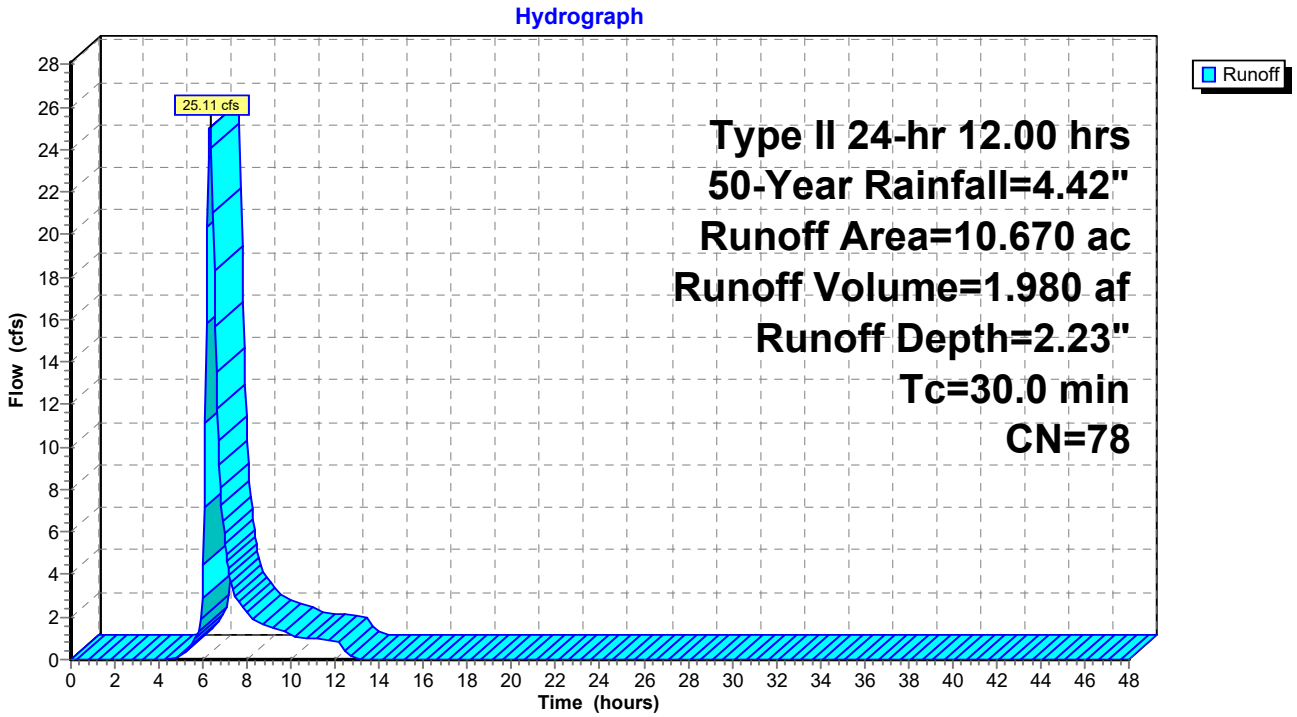
Runoff = 25.11 cfs @ 6.32 hrs, Volume= 1.980 af, Depth= 2.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 50-Year Rainfall=4.42"

	Area (ac)	CN	Description
	1.860	83	1/4 acre lots, 38% imp, HSG C
	2.190	87	1/4 acre lots, 38% imp, HSG D
*	0.420	83	1/4 acre lots, 38% imp, HSG C (OFFSITE)
	1.130	71	Meadow, non-grazed, HSG C
	0.440	78	Meadow, non-grazed, HSG D
	0.810	79	Woods, Fair, HSG D
	2.940	73	Woods, Fair, HSG C
*	0.880	73	Woods, Fair, HSG C (OFFSITE)
	10.670	78	Weighted Average
	8.971		84.08% Pervious Area
	1.699		15.92% Impervious Area

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

Subcatchment PWA-B2: P. Watershed B2



Summary for Subcatchment PWA-B2: P. Watershed B2

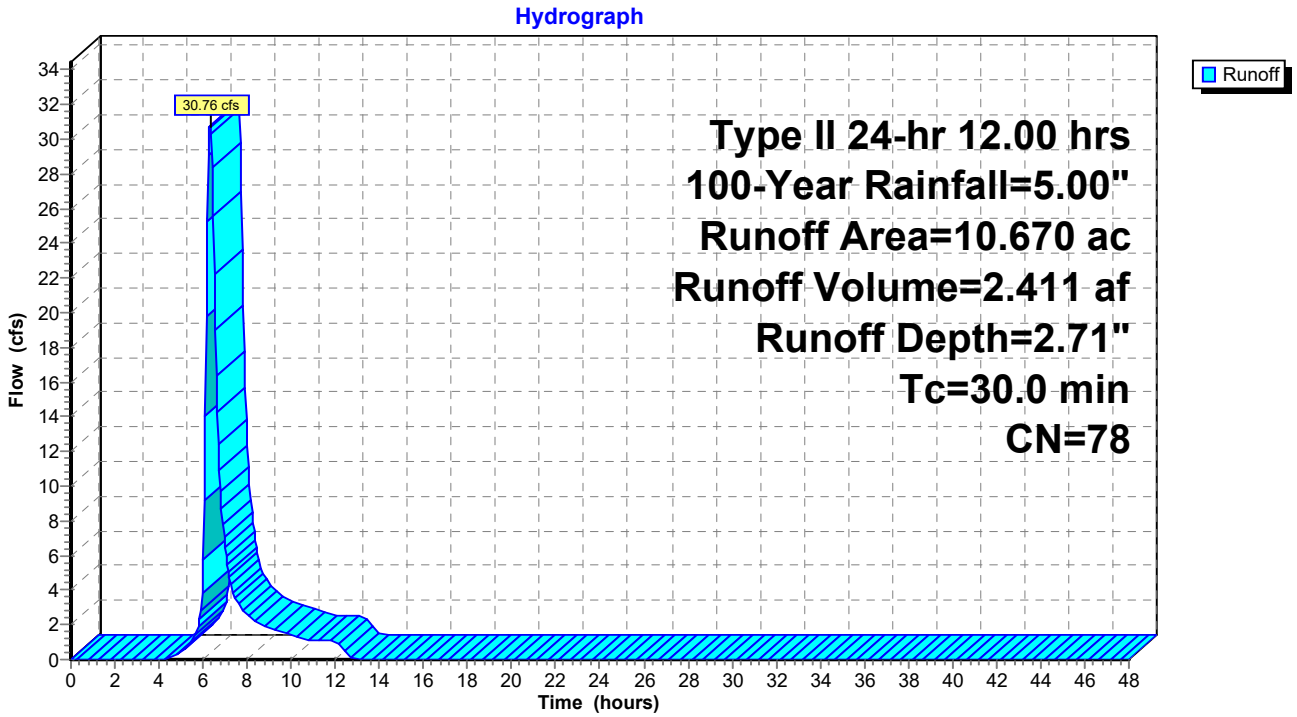
Runoff = 30.76 cfs @ 6.32 hrs, Volume= 2.411 af, Depth= 2.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 100-Year Rainfall=5.00"

	Area (ac)	CN	Description
	1.860	83	1/4 acre lots, 38% imp, HSG C
	2.190	87	1/4 acre lots, 38% imp, HSG D
*	0.420	83	1/4 acre lots, 38% imp, HSG C (OFFSITE)
	1.130	71	Meadow, non-grazed, HSG C
	0.440	78	Meadow, non-grazed, HSG D
	0.810	79	Woods, Fair, HSG D
	2.940	73	Woods, Fair, HSG C
*	0.880	73	Woods, Fair, HSG C (OFFSITE)
	10.670	78	Weighted Average
	8.971		84.08% Pervious Area
	1.699		15.92% Impervious Area

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

Subcatchment PWA-B2: P. Watershed B2



Summary for Subcatchment PWA-B3: P. Watershed B3

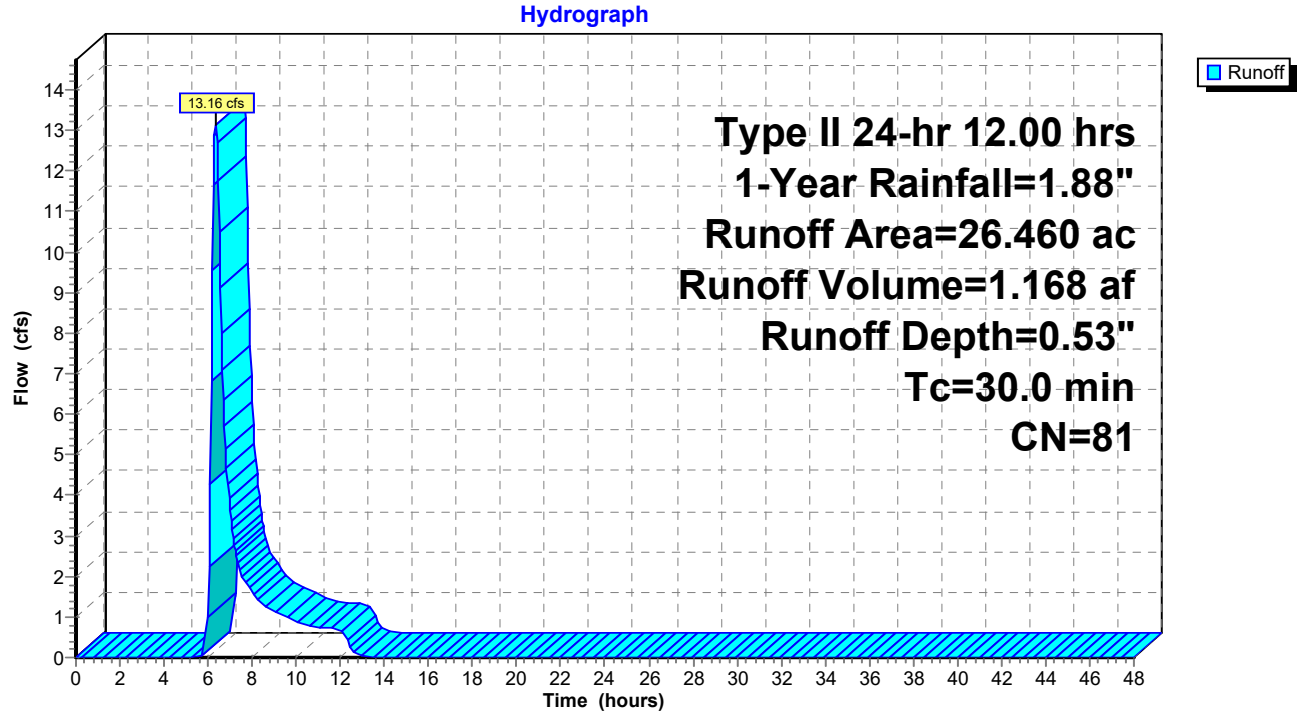
Runoff = 13.16 cfs @ 6.35 hrs, Volume= 1.168 af, Depth= 0.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 1-Year Rainfall=1.88"

	Area (ac)	CN	Description
	16.820	83	1/4 acre lots, 38% imp, HSG C
	0.240	87	1/4 acre lots, 38% imp, HSG D
	2.110	83	1/4 acre lots, 38% imp, HSG C
	2.860	71	Meadow, non-grazed, HSG C
*	1.300	98	Basin
	3.130	74	>75% Grass cover, Good, HSG C
	26.460	81	Weighted Average
	17.875		67.56% Pervious Area
	8.585		32.44% Impervious Area

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

Subcatchment PWA-B3: P. Watershed B3



Summary for Subcatchment PWA-B3: P. Watershed B3

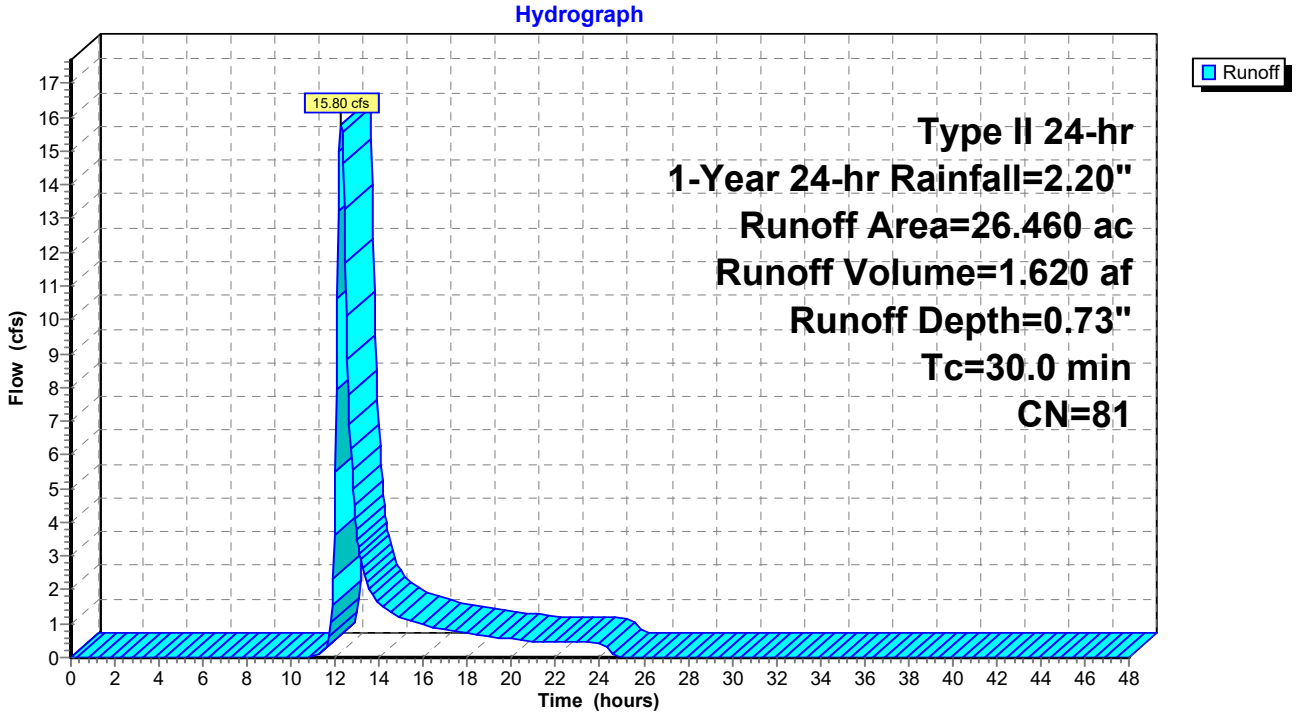
Runoff = 15.80 cfs @ 12.26 hrs, Volume= 1.620 af, Depth= 0.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year 24-hr Rainfall=2.20"

	Area (ac)	CN	Description
	16.820	83	1/4 acre lots, 38% imp, HSG C
	0.240	87	1/4 acre lots, 38% imp, HSG D
	2.110	83	1/4 acre lots, 38% imp, HSG C
	2.860	71	Meadow, non-grazed, HSG C
*	1.300	98	Basin
	3.130	74	>75% Grass cover, Good, HSG C
	26.460	81	Weighted Average
	17.875		67.56% Pervious Area
	8.585		32.44% Impervious Area

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

Subcatchment PWA-B3: P. Watershed B3



Summary for Subcatchment PWA-B3: P. Watershed B3

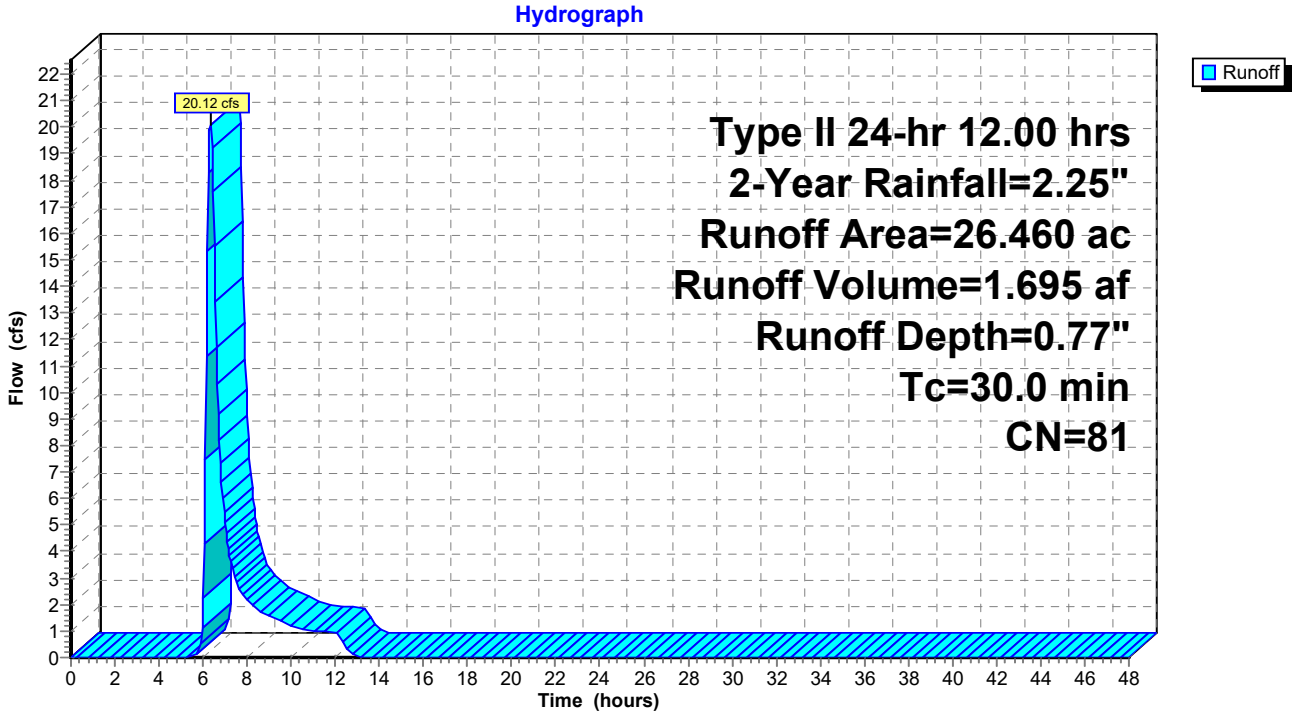
Runoff = 20.12 cfs @ 6.33 hrs, Volume= 1.695 af, Depth= 0.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 2-Year Rainfall=2.25"

	Area (ac)	CN	Description
	16.820	83	1/4 acre lots, 38% imp, HSG C
	0.240	87	1/4 acre lots, 38% imp, HSG D
	2.110	83	1/4 acre lots, 38% imp, HSG C
	2.860	71	Meadow, non-grazed, HSG C
*	1.300	98	Basin
	3.130	74	>75% Grass cover, Good, HSG C
	26.460	81	Weighted Average
	17.875		67.56% Pervious Area
	8.585		32.44% Impervious Area

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

Subcatchment PWA-B3: P. Watershed B3



Summary for Subcatchment PWA-B3: P. Watershed B3

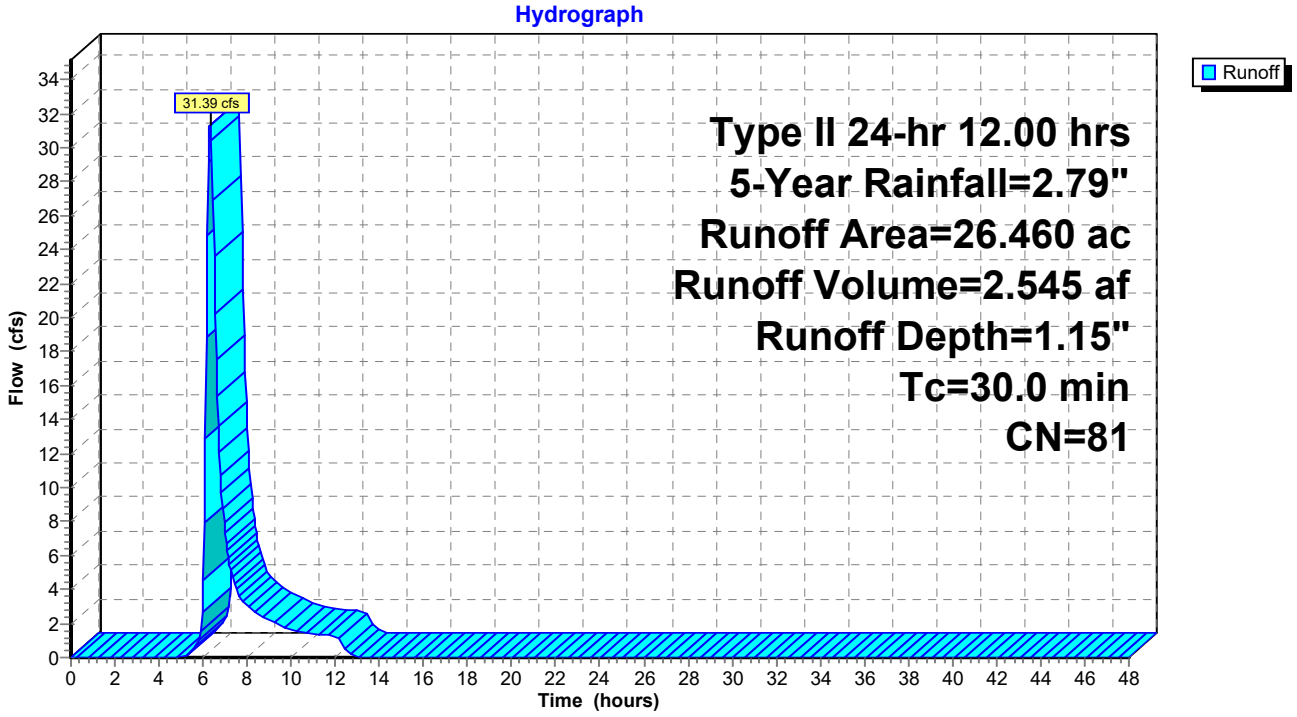
Runoff = 31.39 cfs @ 6.33 hrs, Volume= 2.545 af, Depth= 1.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 5-Year Rainfall=2.79"

	Area (ac)	CN	Description
	16.820	83	1/4 acre lots, 38% imp, HSG C
	0.240	87	1/4 acre lots, 38% imp, HSG D
	2.110	83	1/4 acre lots, 38% imp, HSG C
	2.860	71	Meadow, non-grazed, HSG C
*	1.300	98	Basin
	3.130	74	>75% Grass cover, Good, HSG C
	26.460	81	Weighted Average
	17.875		67.56% Pervious Area
	8.585		32.44% Impervious Area

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

Subcatchment PWA-B3: P. Watershed B3



Summary for Subcatchment PWA-B3: P. Watershed B3

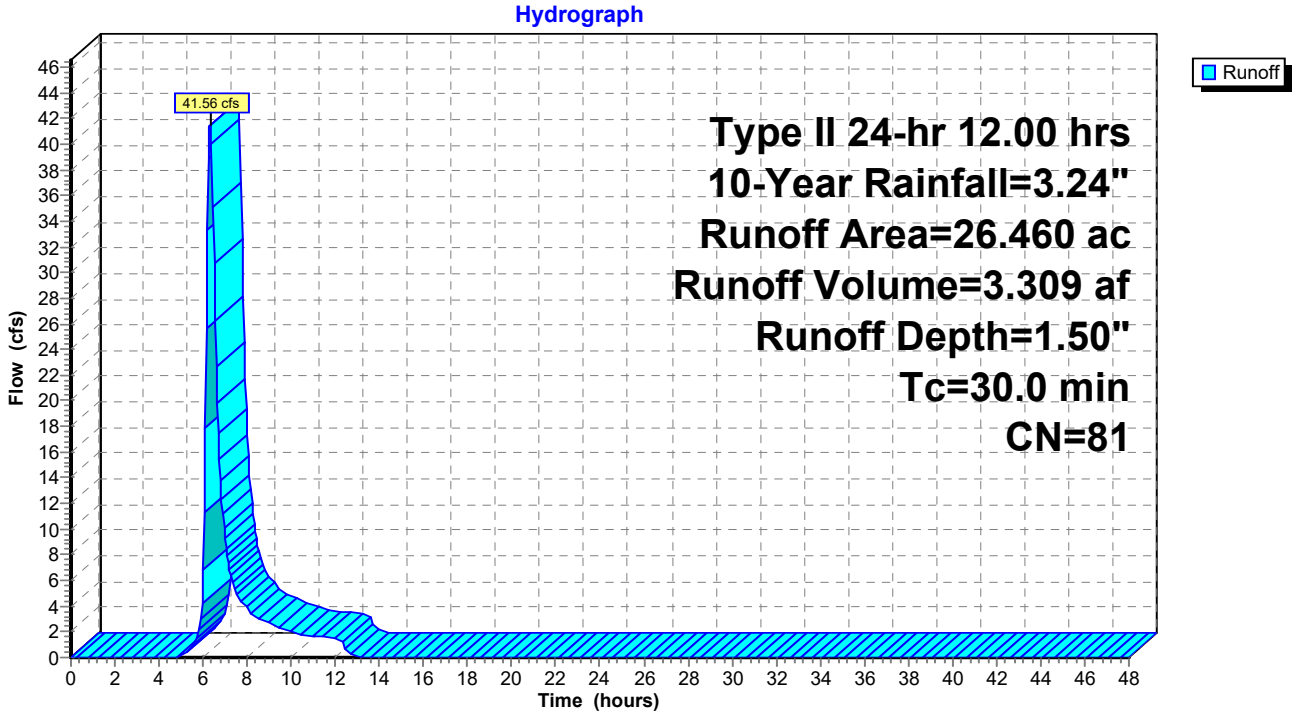
Runoff = 41.56 cfs @ 6.32 hrs, Volume= 3.309 af, Depth= 1.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 10-Year Rainfall=3.24"

	Area (ac)	CN	Description
	16.820	83	1/4 acre lots, 38% imp, HSG C
	0.240	87	1/4 acre lots, 38% imp, HSG D
	2.110	83	1/4 acre lots, 38% imp, HSG C
	2.860	71	Meadow, non-grazed, HSG C
*	1.300	98	Basin
	3.130	74	>75% Grass cover, Good, HSG C
	26.460	81	Weighted Average
	17.875		67.56% Pervious Area
	8.585		32.44% Impervious Area

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

Subcatchment PWA-B3: P. Watershed B3



Summary for Subcatchment PWA-B3: P. Watershed B3

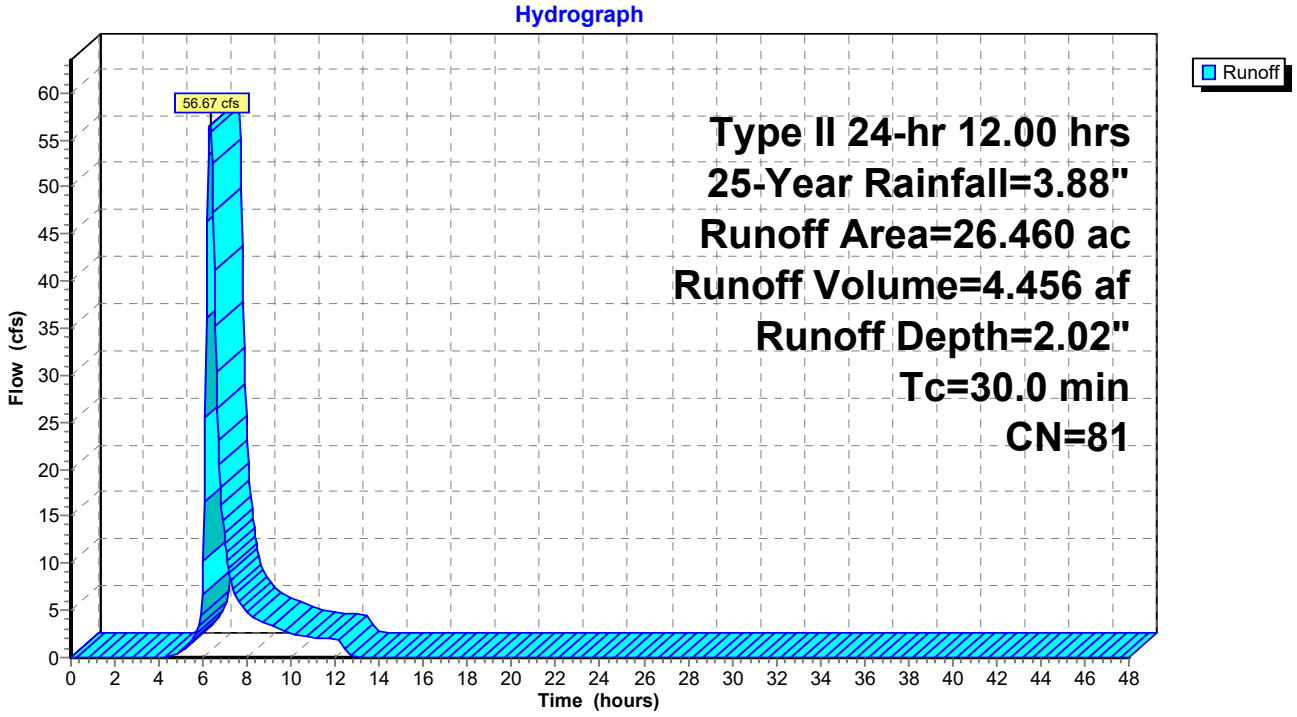
Runoff = 56.67 cfs @ 6.32 hrs, Volume= 4.456 af, Depth= 2.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 25-Year Rainfall=3.88"

	Area (ac)	CN	Description
	16.820	83	1/4 acre lots, 38% imp, HSG C
	0.240	87	1/4 acre lots, 38% imp, HSG D
	2.110	83	1/4 acre lots, 38% imp, HSG C
	2.860	71	Meadow, non-grazed, HSG C
*	1.300	98	Basin
	3.130	74	>75% Grass cover, Good, HSG C
	26.460	81	Weighted Average
	17.875		67.56% Pervious Area
	8.585		32.44% Impervious Area

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

Subcatchment PWA-B3: P. Watershed B3



Summary for Subcatchment PWA-B3: P. Watershed B3

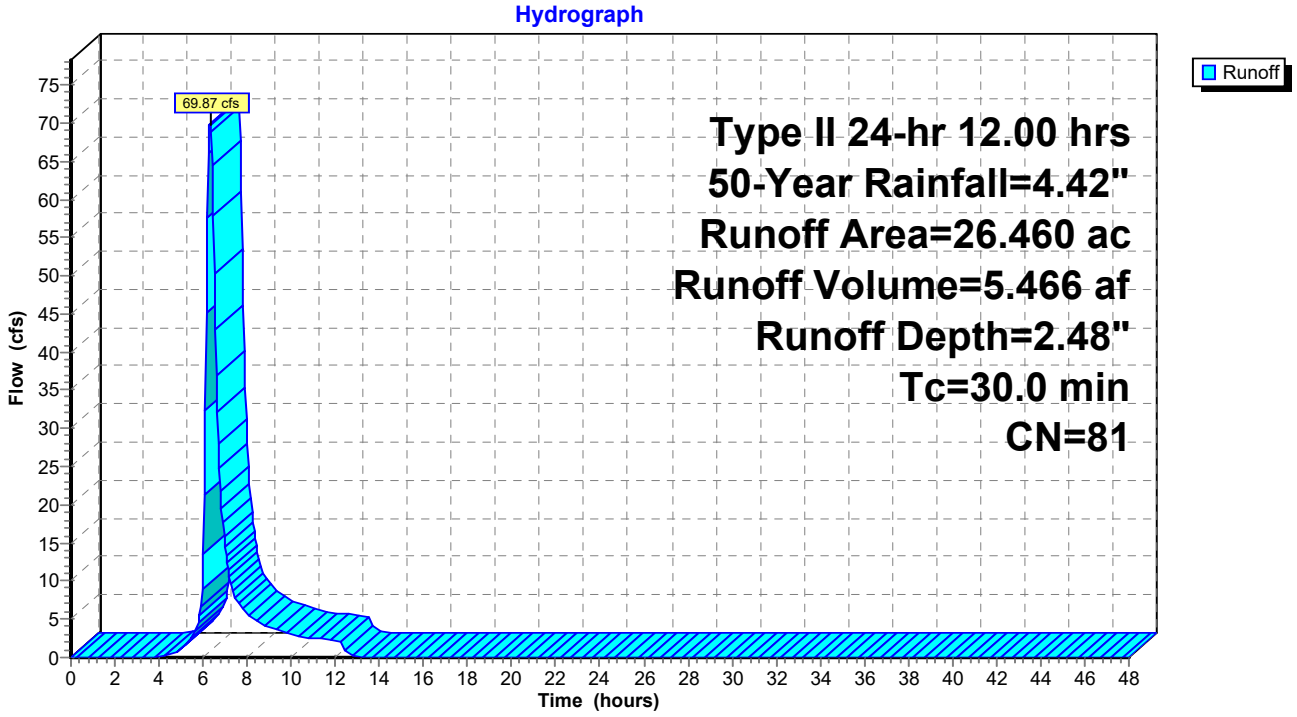
Runoff = 69.87 cfs @ 6.31 hrs, Volume= 5.466 af, Depth= 2.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 50-Year Rainfall=4.42"

	Area (ac)	CN	Description
	16.820	83	1/4 acre lots, 38% imp, HSG C
	0.240	87	1/4 acre lots, 38% imp, HSG D
	2.110	83	1/4 acre lots, 38% imp, HSG C
	2.860	71	Meadow, non-grazed, HSG C
*	1.300	98	Basin
	3.130	74	>75% Grass cover, Good, HSG C
	26.460	81	Weighted Average
	17.875		67.56% Pervious Area
	8.585		32.44% Impervious Area

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

Subcatchment PWA-B3: P. Watershed B3



Summary for Subcatchment PWA-B3: P. Watershed B3

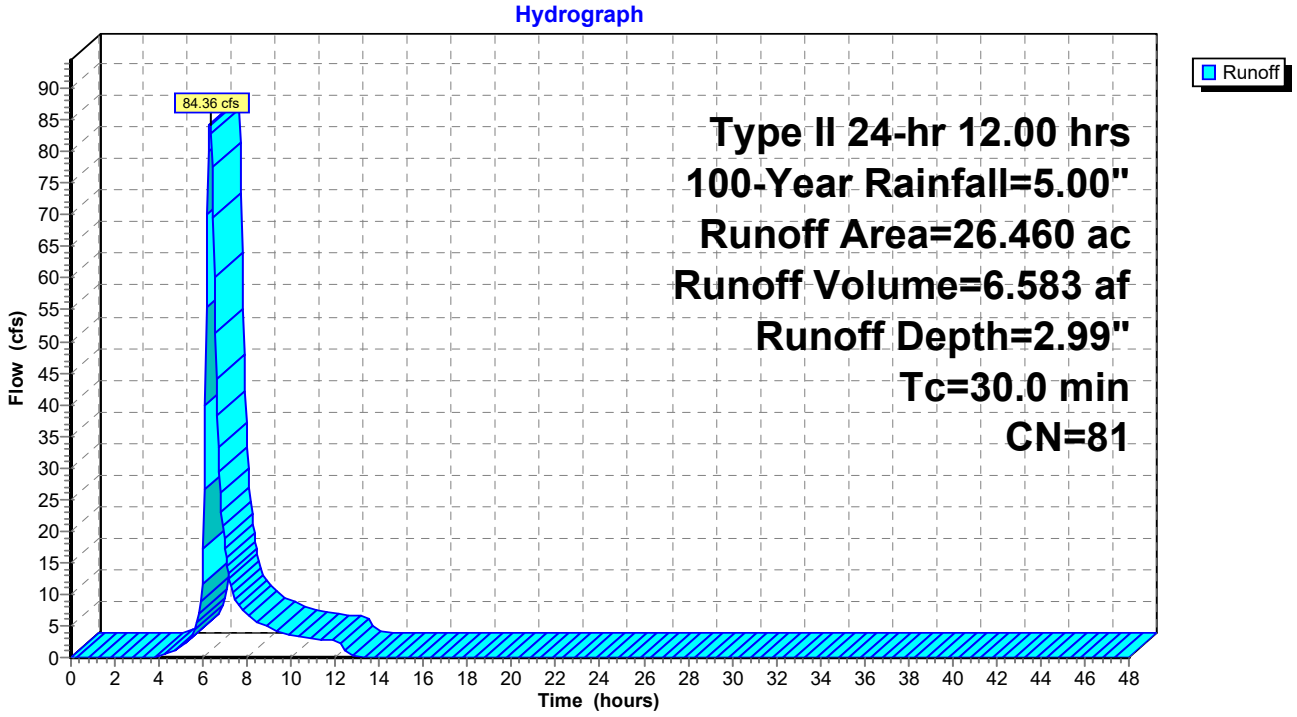
Runoff = 84.36 cfs @ 6.31 hrs, Volume= 6.583 af, Depth= 2.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 100-Year Rainfall=5.00"

	Area (ac)	CN	Description
	16.820	83	1/4 acre lots, 38% imp, HSG C
	0.240	87	1/4 acre lots, 38% imp, HSG D
	2.110	83	1/4 acre lots, 38% imp, HSG C
	2.860	71	Meadow, non-grazed, HSG C
*	1.300	98	Basin
	3.130	74	>75% Grass cover, Good, HSG C
	26.460	81	Weighted Average
	17.875		67.56% Pervious Area
	8.585		32.44% Impervious Area

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

Subcatchment PWA-B3: P. Watershed B3



Summary for Subcatchment PWA-C: P. Watershed C

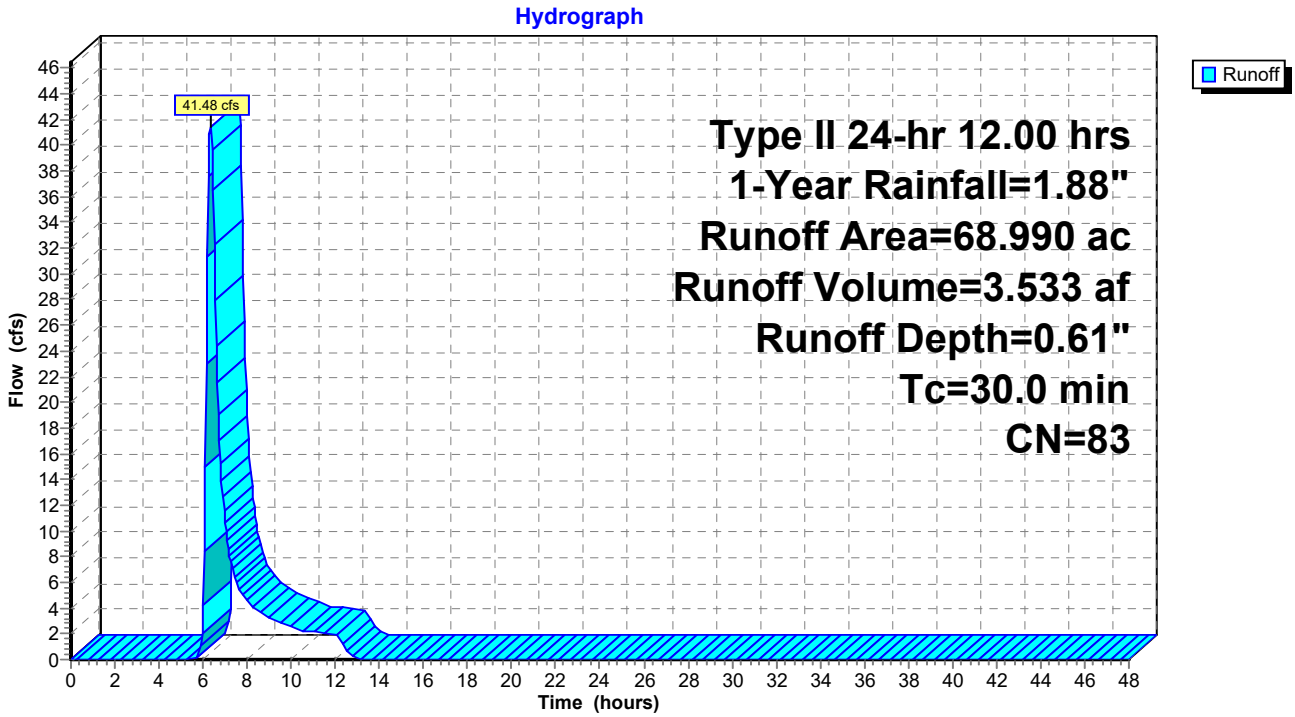
Runoff = 41.48 cfs @ 6.34 hrs, Volume= 3.533 af, Depth= 0.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 1-Year Rainfall=1.88"

	Area (ac)	CN	Description
	43.000	83	1/4 acre lots, 38% imp, HSG C
*	4.740	83	1/4 acre lots, 38% imp, HSG C (OFFSITE)
	0.870	73	Woods, Fair, HSG C
	7.500	71	Meadow, non-grazed, HSG C
*	1.730	98	Basin
	5.000	98	Paved parking, HSG C
	5.710	79	50-75% Grass cover, Fair, HSG C
	0.440	87	1/4 acre lots, 38% imp, HSG D
	68.990	83	Weighted Average
	43.952		63.71% Pervious Area
	25.038		36.29% Impervious Area

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

Subcatchment PWA-C: P. Watershed C



Summary for Subcatchment PWA-C: P. Watershed C

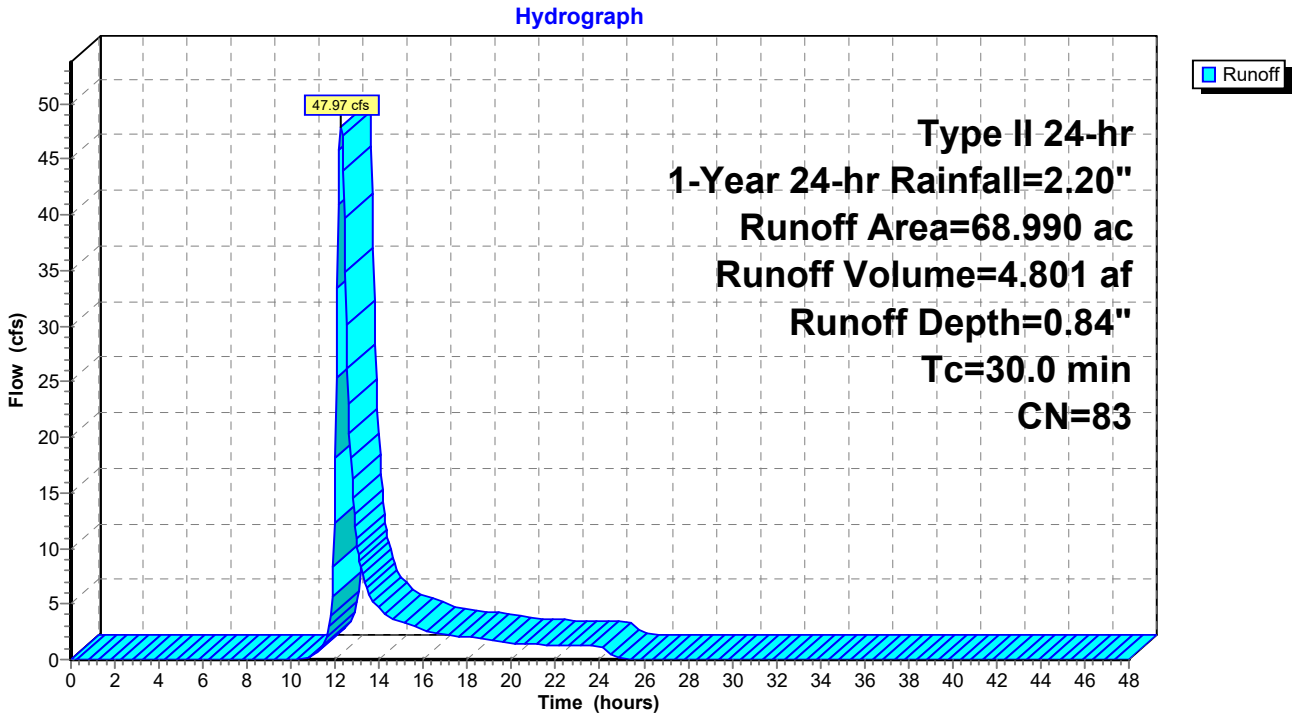
Runoff = 47.97 cfs @ 12.26 hrs, Volume= 4.801 af, Depth= 0.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year 24-hr Rainfall=2.20"

	Area (ac)	CN	Description
	43.000	83	1/4 acre lots, 38% imp, HSG C
*	4.740	83	1/4 acre lots, 38% imp, HSG C (OFFSITE)
	0.870	73	Woods, Fair, HSG C
	7.500	71	Meadow, non-grazed, HSG C
*	1.730	98	Basin
	5.000	98	Paved parking, HSG C
	5.710	79	50-75% Grass cover, Fair, HSG C
	0.440	87	1/4 acre lots, 38% imp, HSG D
	68.990	83	Weighted Average
	43.952		63.71% Pervious Area
	25.038		36.29% Impervious Area

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

Subcatchment PWA-C: P. Watershed C



Summary for Subcatchment PWA-C: P. Watershed C

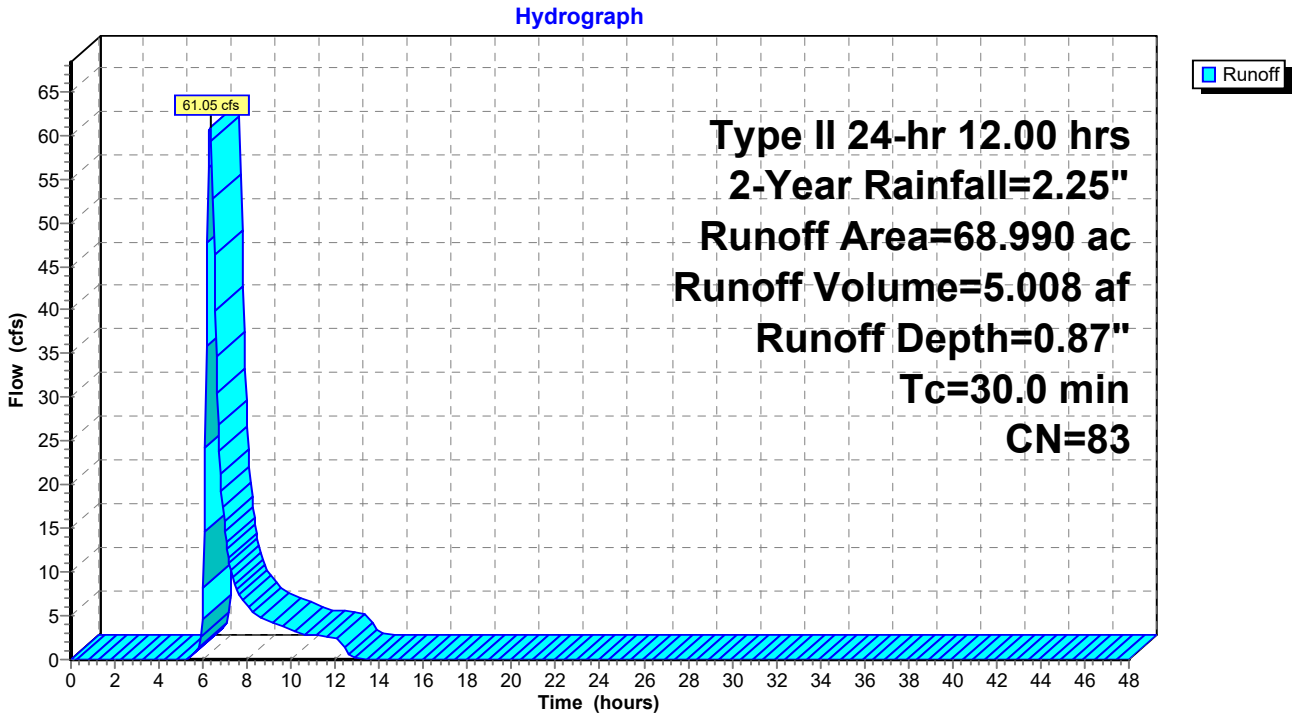
Runoff = 61.05 cfs @ 6.33 hrs, Volume= 5.008 af, Depth= 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 2-Year Rainfall=2.25"

	Area (ac)	CN	Description
	43.000	83	1/4 acre lots, 38% imp, HSG C
*	4.740	83	1/4 acre lots, 38% imp, HSG C (OFFSITE)
	0.870	73	Woods, Fair, HSG C
	7.500	71	Meadow, non-grazed, HSG C
*	1.730	98	Basin
	5.000	98	Paved parking, HSG C
	5.710	79	50-75% Grass cover, Fair, HSG C
	0.440	87	1/4 acre lots, 38% imp, HSG D
	68.990	83	Weighted Average
	43.952		63.71% Pervious Area
	25.038		36.29% Impervious Area

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

Subcatchment PWA-C: P. Watershed C



Summary for Subcatchment PWA-C: P. Watershed C

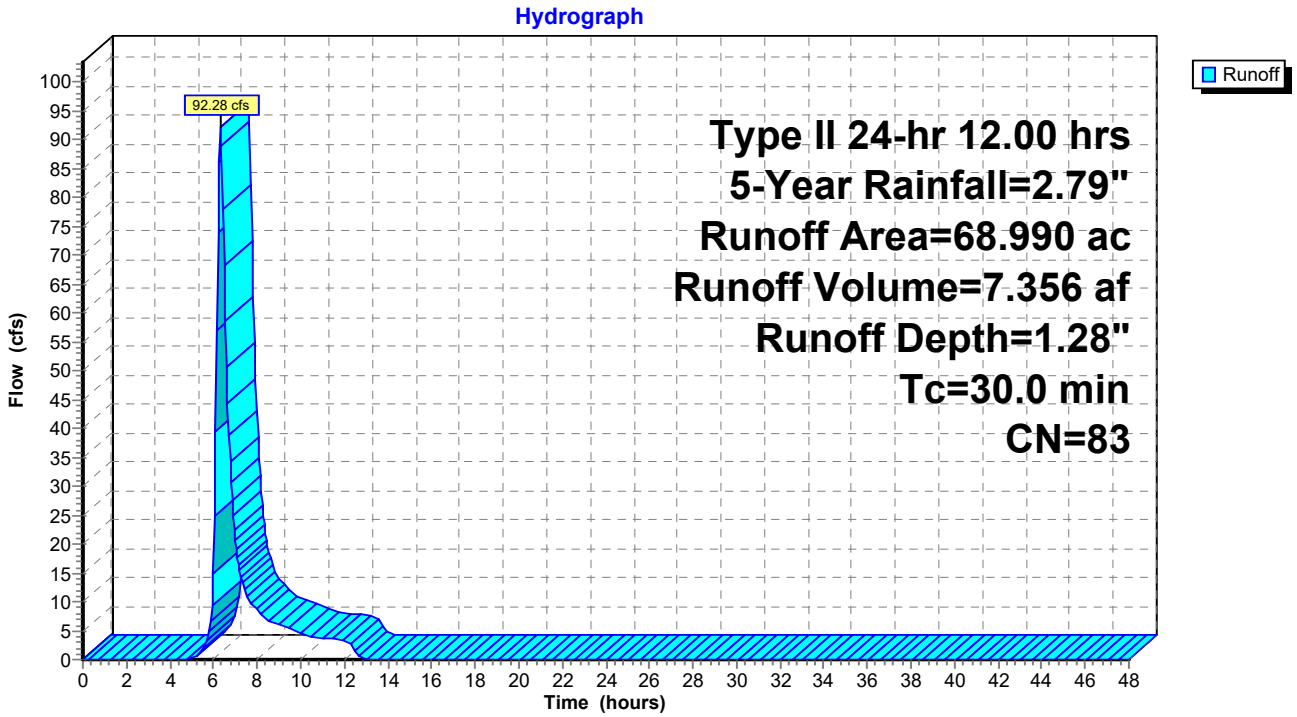
Runoff = 92.28 cfs @ 6.32 hrs, Volume= 7.356 af, Depth= 1.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 5-Year Rainfall=2.79"

	Area (ac)	CN	Description
	43.000	83	1/4 acre lots, 38% imp, HSG C
*	4.740	83	1/4 acre lots, 38% imp, HSG C (OFFSITE)
	0.870	73	Woods, Fair, HSG C
	7.500	71	Meadow, non-grazed, HSG C
*	1.730	98	Basin
	5.000	98	Paved parking, HSG C
	5.710	79	50-75% Grass cover, Fair, HSG C
	0.440	87	1/4 acre lots, 38% imp, HSG D
	68.990	83	Weighted Average
	43.952		63.71% Pervious Area
	25.038		36.29% Impervious Area

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

Subcatchment PWA-C: P. Watershed C



Summary for Subcatchment PWA-C: P. Watershed C

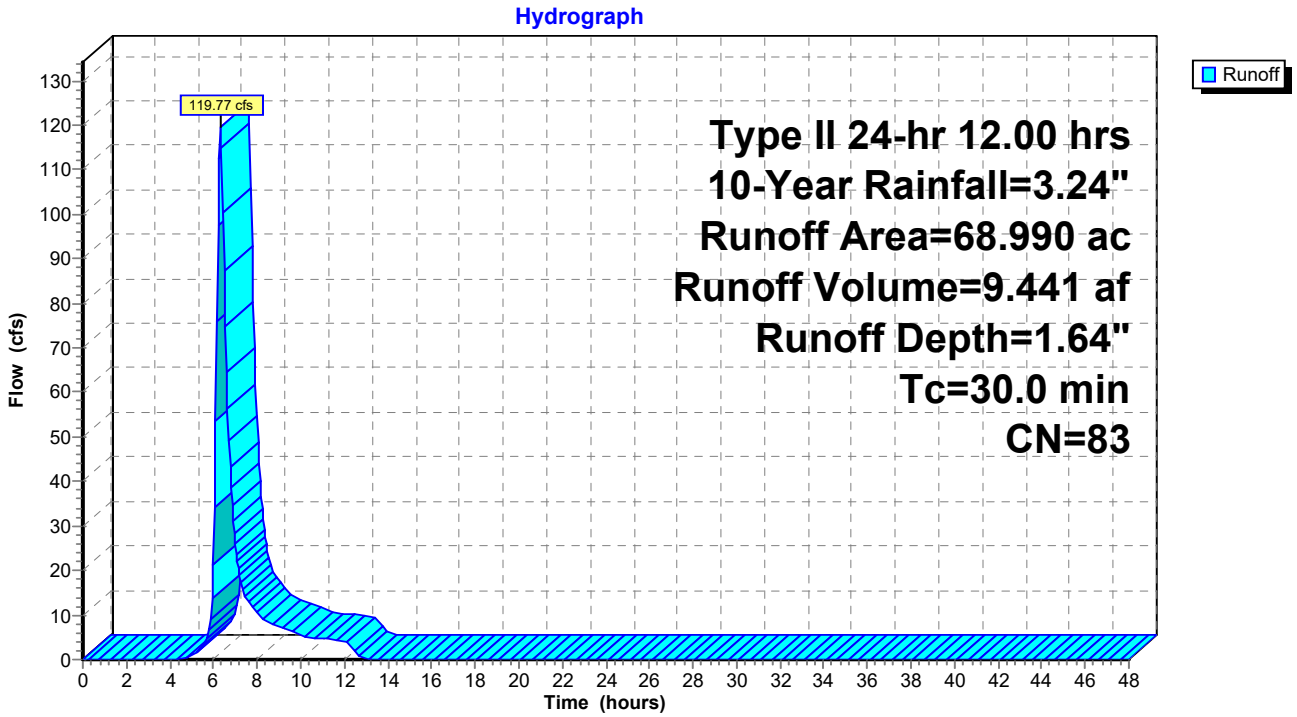
Runoff = 119.77 cfs @ 6.32 hrs, Volume= 9.441 af, Depth= 1.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 10-Year Rainfall=3.24"

	Area (ac)	CN	Description
	43.000	83	1/4 acre lots, 38% imp, HSG C
*	4.740	83	1/4 acre lots, 38% imp, HSG C (OFFSITE)
	0.870	73	Woods, Fair, HSG C
	7.500	71	Meadow, non-grazed, HSG C
*	1.730	98	Basin
	5.000	98	Paved parking, HSG C
	5.710	79	50-75% Grass cover, Fair, HSG C
	0.440	87	1/4 acre lots, 38% imp, HSG D
	68.990	83	Weighted Average
	43.952		63.71% Pervious Area
	25.038		36.29% Impervious Area

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

Subcatchment PWA-C: P. Watershed C



Summary for Subcatchment PWA-C: P. Watershed C

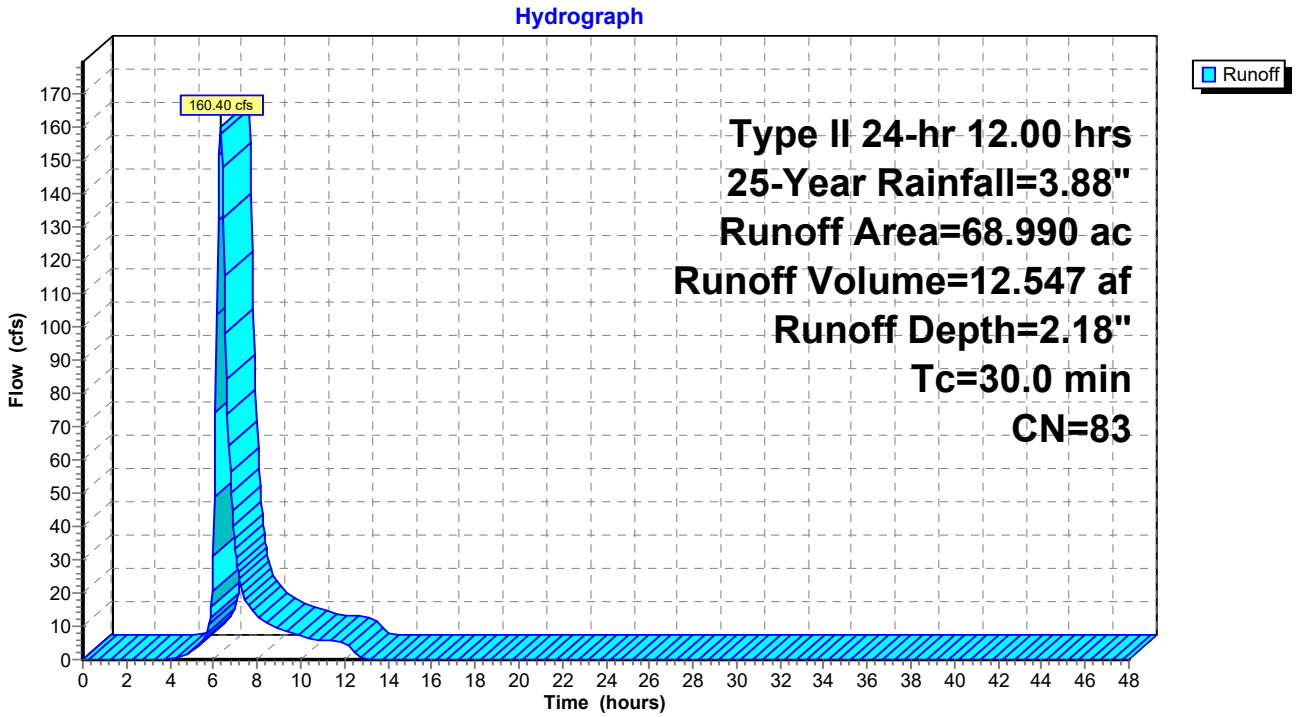
Runoff = 160.40 cfs @ 6.31 hrs, Volume= 12.547 af, Depth= 2.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 25-Year Rainfall=3.88"

	Area (ac)	CN	Description
	43.000	83	1/4 acre lots, 38% imp, HSG C
*	4.740	83	1/4 acre lots, 38% imp, HSG C (OFFSITE)
	0.870	73	Woods, Fair, HSG C
	7.500	71	Meadow, non-grazed, HSG C
*	1.730	98	Basin
	5.000	98	Paved parking, HSG C
	5.710	79	50-75% Grass cover, Fair, HSG C
	0.440	87	1/4 acre lots, 38% imp, HSG D
	68.990	83	Weighted Average
	43.952		63.71% Pervious Area
	25.038		36.29% Impervious Area

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

Subcatchment PWA-C: P. Watershed C



Summary for Subcatchment PWA-C: P. Watershed C

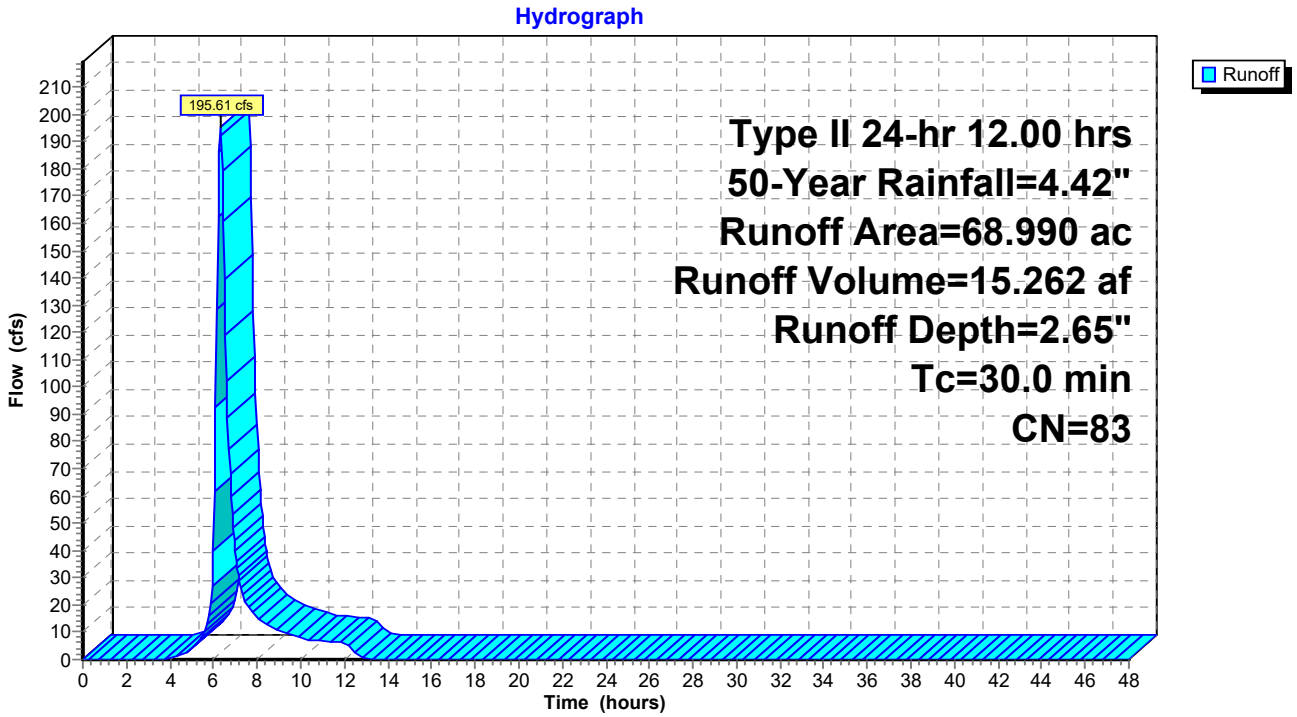
Runoff = 195.61 cfs @ 6.31 hrs, Volume= 15.262 af, Depth= 2.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 50-Year Rainfall=4.42"

	Area (ac)	CN	Description
	43.000	83	1/4 acre lots, 38% imp, HSG C
*	4.740	83	1/4 acre lots, 38% imp, HSG C (OFFSITE)
	0.870	73	Woods, Fair, HSG C
	7.500	71	Meadow, non-grazed, HSG C
*	1.730	98	Basin
	5.000	98	Paved parking, HSG C
	5.710	79	50-75% Grass cover, Fair, HSG C
	0.440	87	1/4 acre lots, 38% imp, HSG D
	68.990	83	Weighted Average
	43.952		63.71% Pervious Area
	25.038		36.29% Impervious Area

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

Subcatchment PWA-C: P. Watershed C



Summary for Subcatchment PWA-C: P. Watershed C

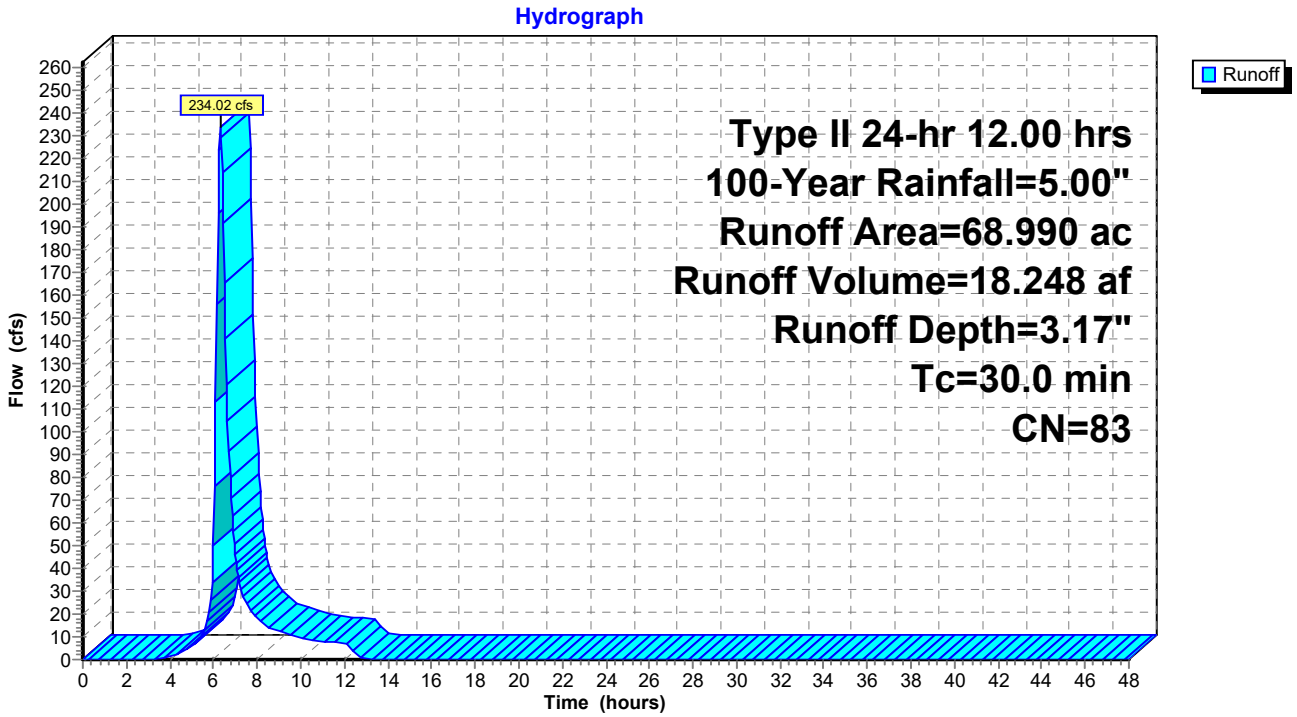
Runoff = 234.02 cfs @ 6.31 hrs, Volume= 18.248 af, Depth= 3.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 100-Year Rainfall=5.00"

	Area (ac)	CN	Description
	43.000	83	1/4 acre lots, 38% imp, HSG C
*	4.740	83	1/4 acre lots, 38% imp, HSG C (OFFSITE)
	0.870	73	Woods, Fair, HSG C
	7.500	71	Meadow, non-grazed, HSG C
*	1.730	98	Basin
	5.000	98	Paved parking, HSG C
	5.710	79	50-75% Grass cover, Fair, HSG C
	0.440	87	1/4 acre lots, 38% imp, HSG D
	68.990	83	Weighted Average
	43.952		63.71% Pervious Area
	25.038		36.29% Impervious Area

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

Subcatchment PWA-C: P. Watershed C



Summary for Subcatchment PWA-E: P. Watershed E

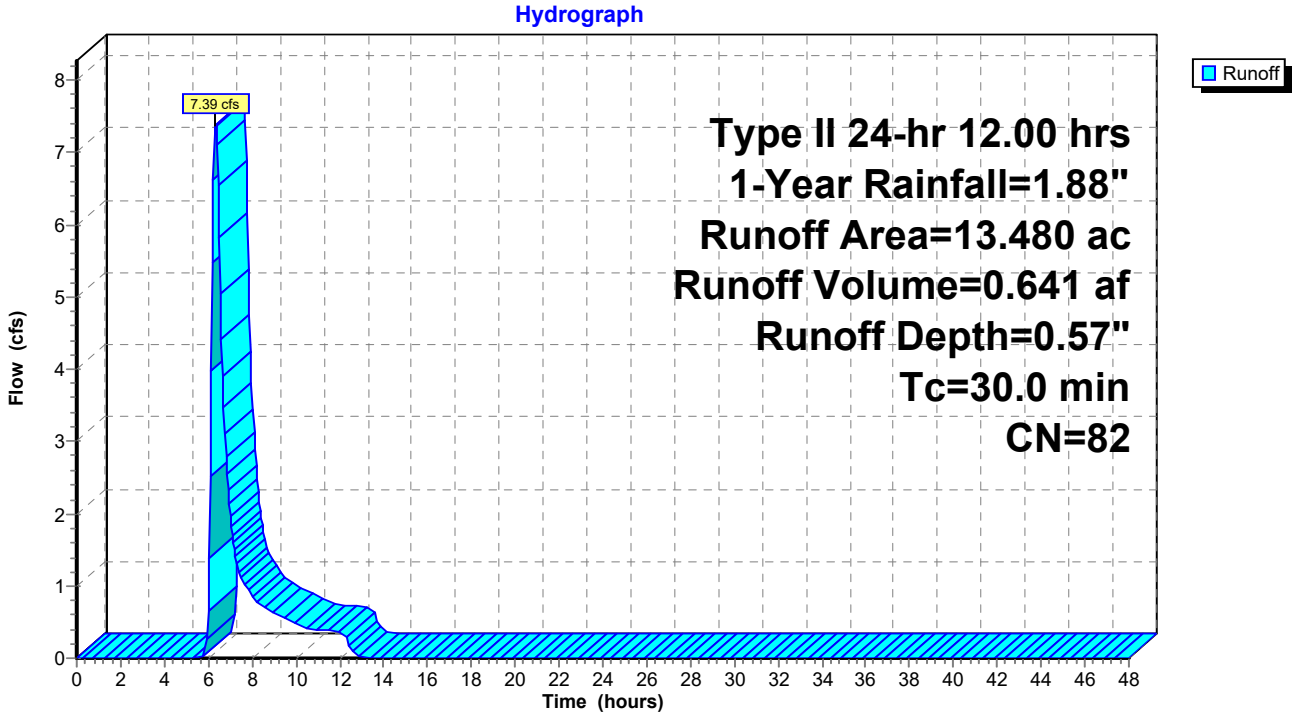
Runoff = 7.39 cfs @ 6.34 hrs, Volume= 0.641 af, Depth= 0.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 1-Year Rainfall=1.88"

Area (ac)	CN	Description
10.930	83	1/4 acre lots, 38% imp, HSG C
2.280	74	>75% Grass cover, Good, HSG C
0.270	98	Water Surface, HSG C
13.480	82	Weighted Average
9.057		67.19% Pervious Area
4.423		32.81% Impervious Area

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

Subcatchment PWA-E: P. Watershed E



Summary for Subcatchment PWA-E: P. Watershed E

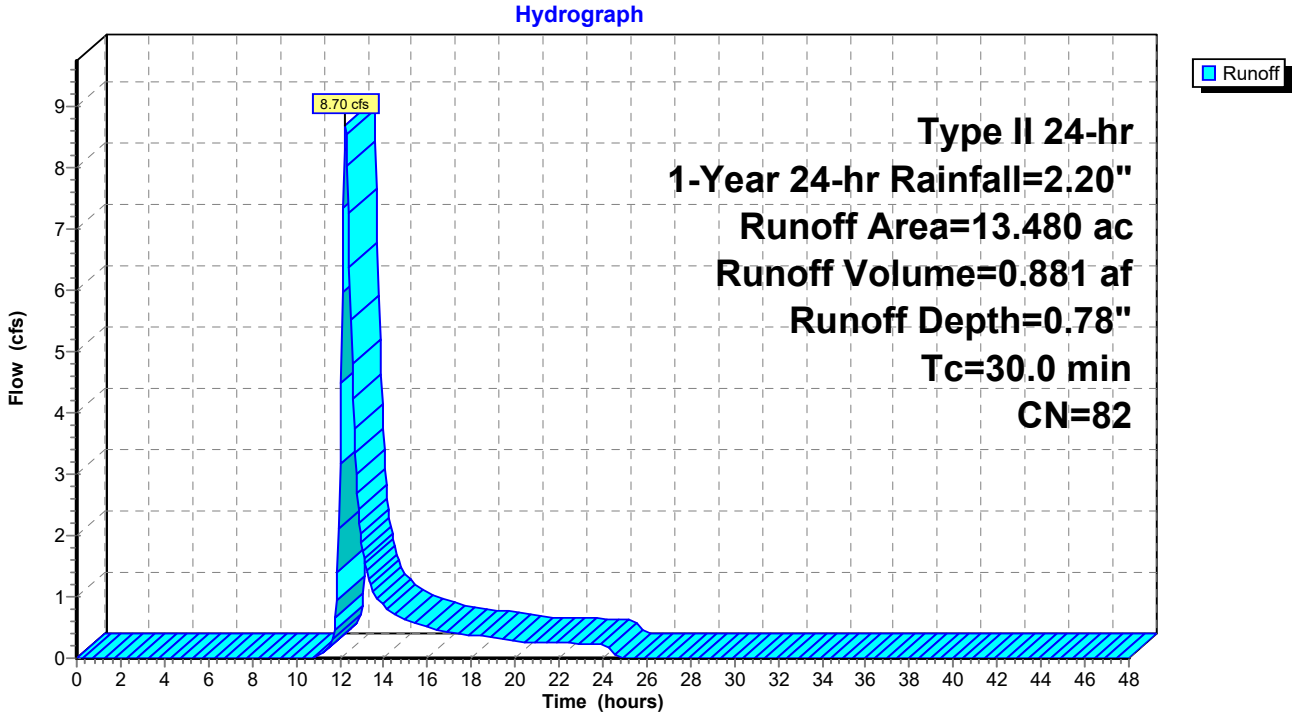
Runoff = 8.70 cfs @ 12.26 hrs, Volume= 0.881 af, Depth= 0.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year 24-hr Rainfall=2.20"

Area (ac)	CN	Description
10.930	83	1/4 acre lots, 38% imp, HSG C
2.280	74	>75% Grass cover, Good, HSG C
0.270	98	Water Surface, HSG C
13.480	82	Weighted Average
9.057		67.19% Pervious Area
4.423		32.81% Impervious Area

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

Subcatchment PWA-E: P. Watershed E



Summary for Subcatchment PWA-E: P. Watershed E

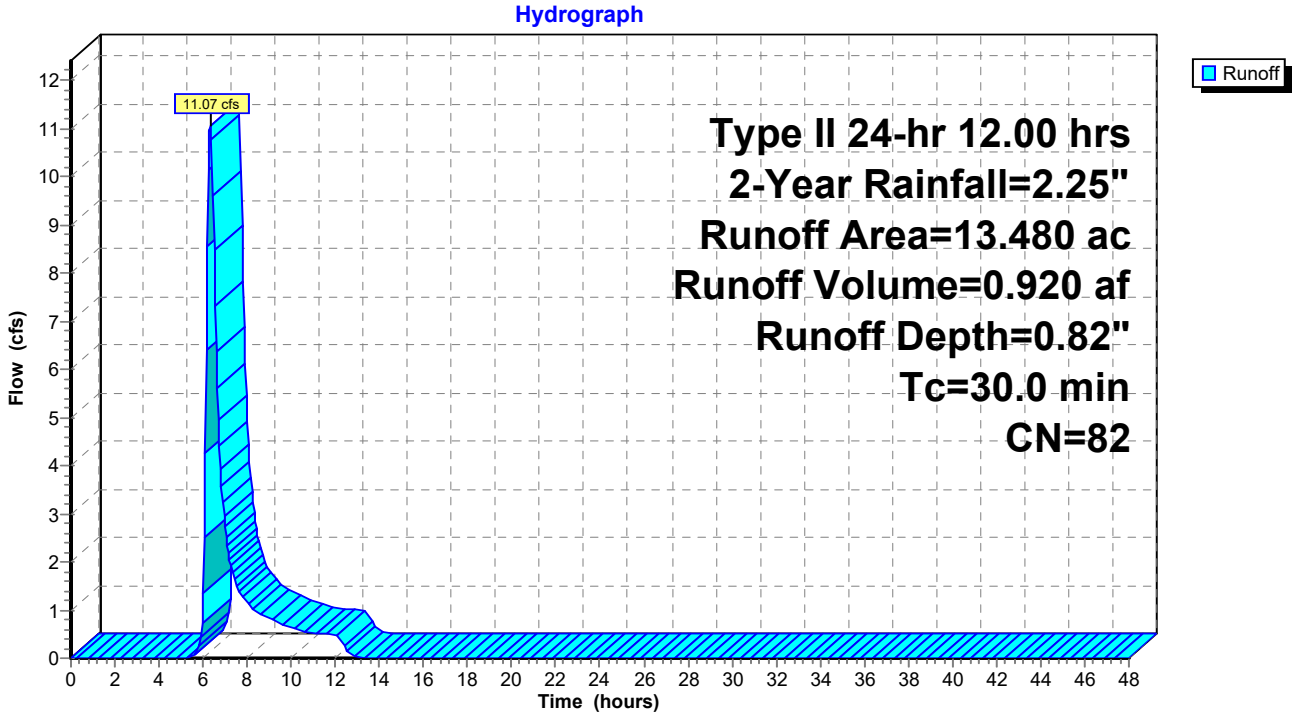
Runoff = 11.07 cfs @ 6.33 hrs, Volume= 0.920 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 2-Year Rainfall=2.25"

Area (ac)	CN	Description
10.930	83	1/4 acre lots, 38% imp, HSG C
2.280	74	>75% Grass cover, Good, HSG C
0.270	98	Water Surface, HSG C
13.480	82	Weighted Average
9.057		67.19% Pervious Area
4.423		32.81% Impervious Area

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

Subcatchment PWA-E: P. Watershed E



Summary for Subcatchment PWA-E: P. Watershed E

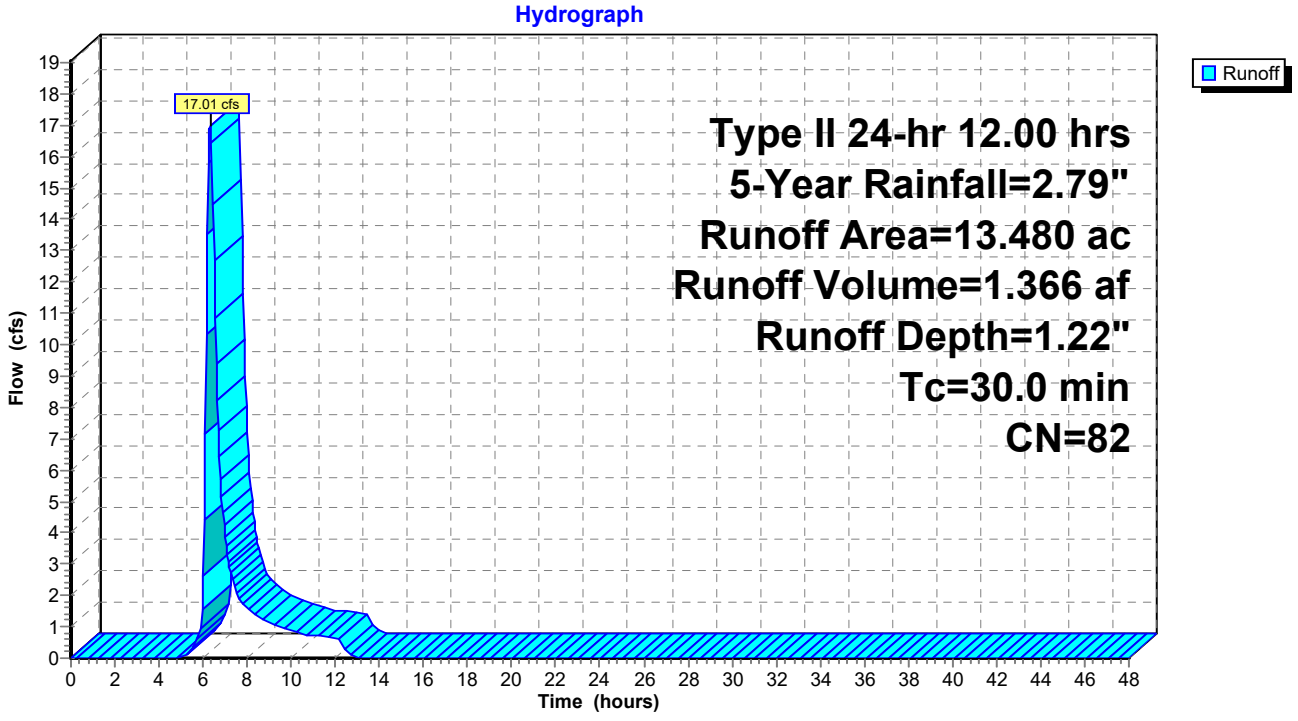
Runoff = 17.01 cfs @ 6.32 hrs, Volume= 1.366 af, Depth= 1.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 5-Year Rainfall=2.79"

Area (ac)	CN	Description
10.930	83	1/4 acre lots, 38% imp, HSG C
2.280	74	>75% Grass cover, Good, HSG C
0.270	98	Water Surface, HSG C
13.480	82	Weighted Average
9.057		67.19% Pervious Area
4.423		32.81% Impervious Area

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

Subcatchment PWA-E: P. Watershed E



Summary for Subcatchment PWA-E: P. Watershed E

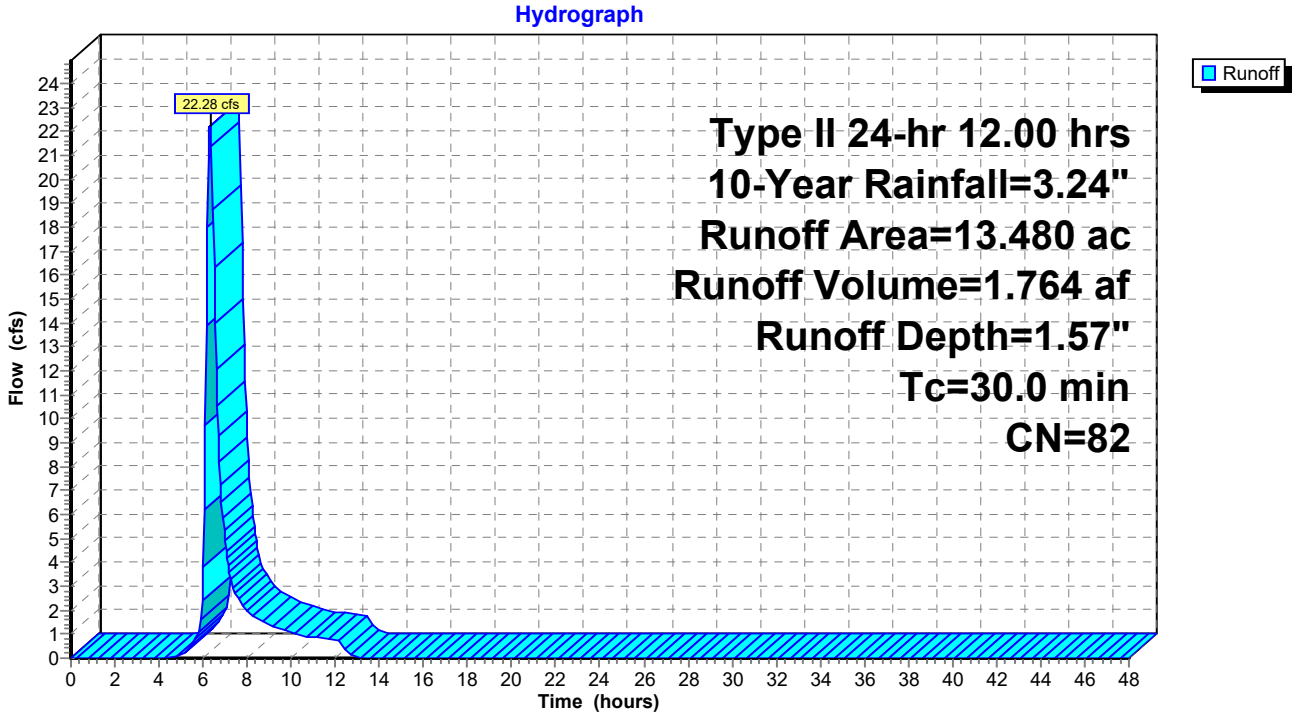
Runoff = 22.28 cfs @ 6.32 hrs, Volume= 1.764 af, Depth= 1.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 10-Year Rainfall=3.24"

Area (ac)	CN	Description
10.930	83	1/4 acre lots, 38% imp, HSG C
2.280	74	>75% Grass cover, Good, HSG C
0.270	98	Water Surface, HSG C
13.480	82	Weighted Average
9.057		67.19% Pervious Area
4.423		32.81% Impervious Area

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

Subcatchment PWA-E: P. Watershed E



Summary for Subcatchment PWA-E: P. Watershed E

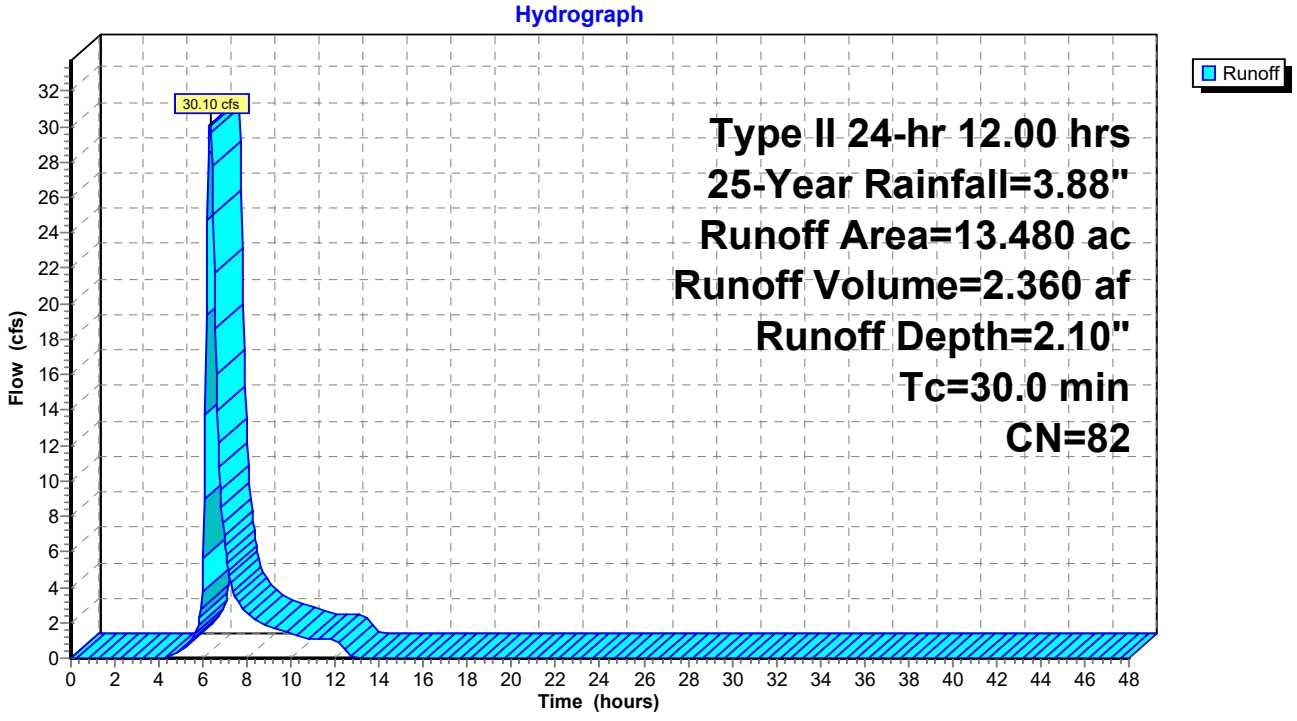
Runoff = 30.10 cfs @ 6.32 hrs, Volume= 2.360 af, Depth= 2.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 25-Year Rainfall=3.88"

Area (ac)	CN	Description
10.930	83	1/4 acre lots, 38% imp, HSG C
2.280	74	>75% Grass cover, Good, HSG C
0.270	98	Water Surface, HSG C
13.480	82	Weighted Average
9.057		67.19% Pervious Area
4.423		32.81% Impervious Area

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

Subcatchment PWA-E: P. Watershed E



Summary for Subcatchment PWA-E: P. Watershed E

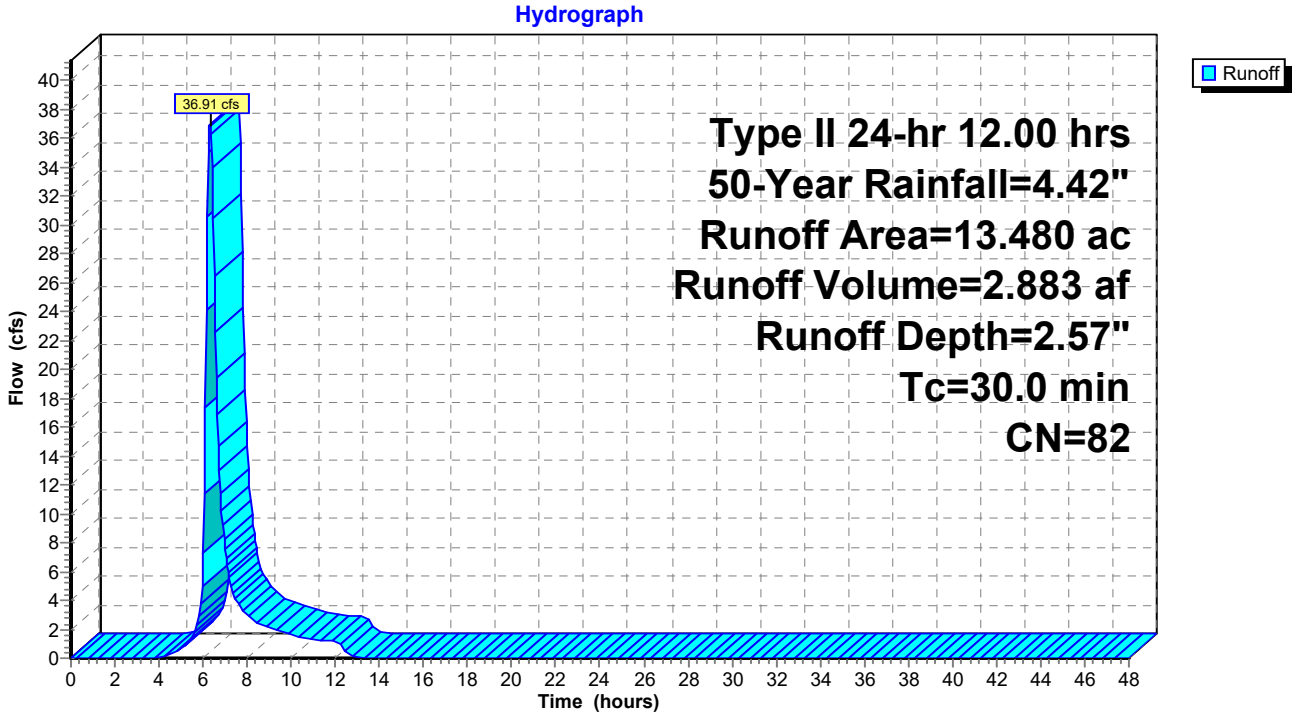
Runoff = 36.91 cfs @ 6.31 hrs, Volume= 2.883 af, Depth= 2.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 50-Year Rainfall=4.42"

Area (ac)	CN	Description
10.930	83	1/4 acre lots, 38% imp, HSG C
2.280	74	>75% Grass cover, Good, HSG C
0.270	98	Water Surface, HSG C
13.480	82	Weighted Average
9.057		67.19% Pervious Area
4.423		32.81% Impervious Area

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

Subcatchment PWA-E: P. Watershed E



Summary for Subcatchment PWA-E: P. Watershed E

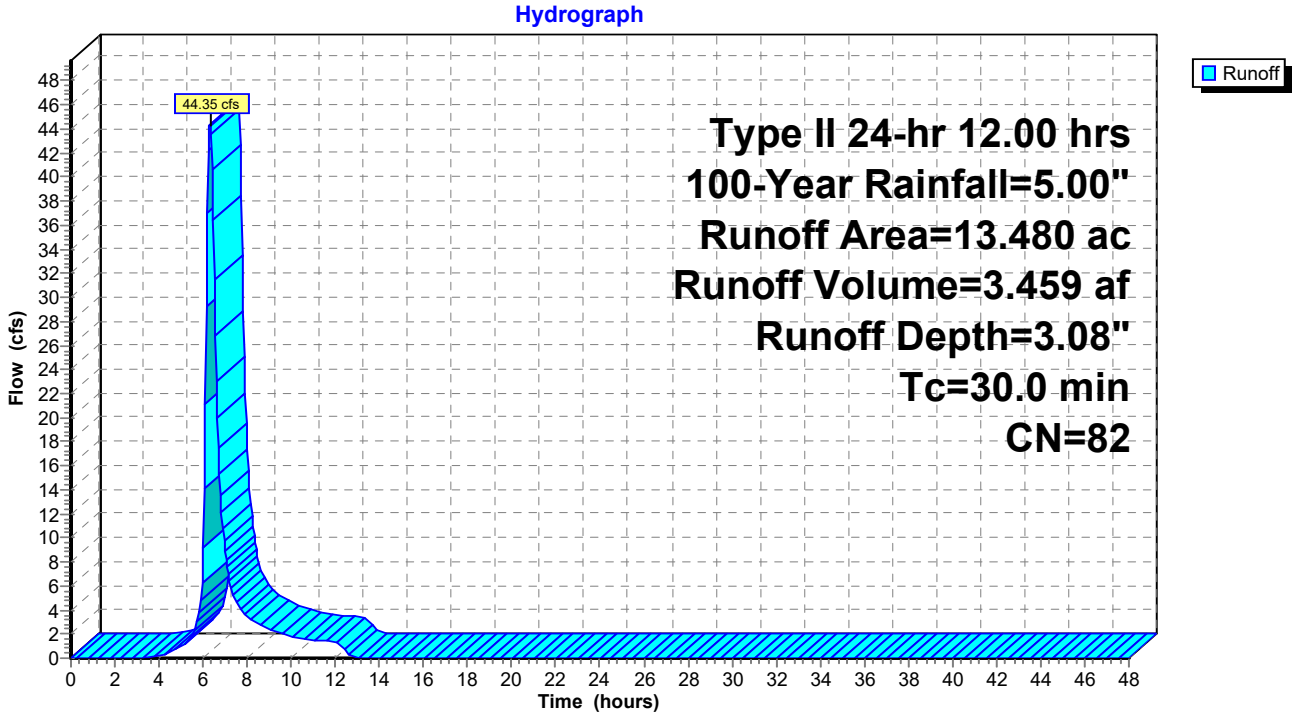
Runoff = 44.35 cfs @ 6.31 hrs, Volume= 3.459 af, Depth= 3.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 100-Year Rainfall=5.00"

Area (ac)	CN	Description
10.930	83	1/4 acre lots, 38% imp, HSG C
2.280	74	>75% Grass cover, Good, HSG C
0.270	98	Water Surface, HSG C
13.480	82	Weighted Average
9.057		67.19% Pervious Area
4.423		32.81% Impervious Area

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

Subcatchment PWA-E: P. Watershed E



Summary for Subcatchment DR-B: Direct Release B

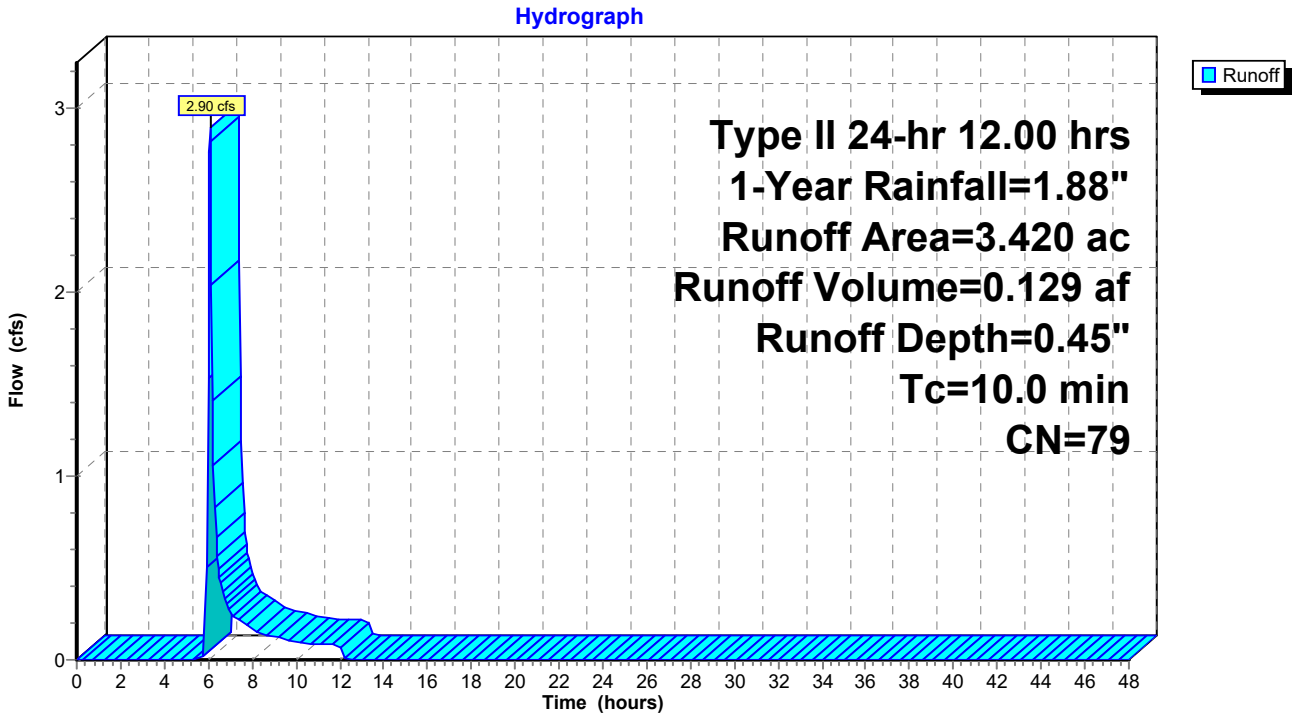
Runoff = 2.90 cfs @ 6.08 hrs, Volume= 0.129 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 1-Year Rainfall=1.88"

Area (ac)	CN	Description
0.910	73	Woods, Fair, HSG C
0.060	79	Woods, Fair, HSG D
1.900	83	1/4 acre lots, 38% imp, HSG C
0.190	87	1/4 acre lots, 38% imp, HSG D
0.360	71	Meadow, non-grazed, HSG C
3.420	79	Weighted Average
2.626		76.78% Pervious Area
0.794		23.22% Impervious Area

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

Subcatchment DR-B: Direct Release B



Summary for Subcatchment DR-B: Direct Release B

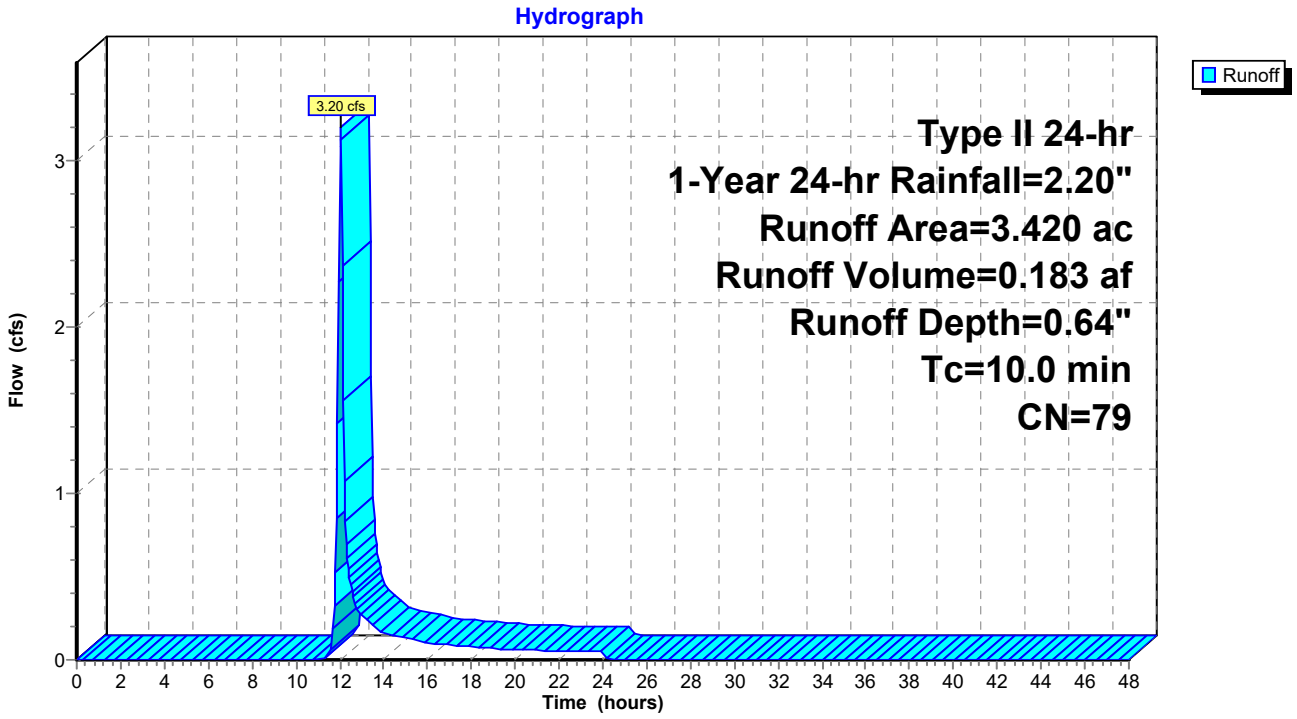
Runoff = 3.20 cfs @ 12.03 hrs, Volume= 0.183 af, Depth= 0.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year 24-hr Rainfall=2.20"

Area (ac)	CN	Description
0.910	73	Woods, Fair, HSG C
0.060	79	Woods, Fair, HSG D
1.900	83	1/4 acre lots, 38% imp, HSG C
0.190	87	1/4 acre lots, 38% imp, HSG D
0.360	71	Meadow, non-grazed, HSG C
3.420	79	Weighted Average
2.626		76.78% Pervious Area
0.794		23.22% Impervious Area

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

Subcatchment DR-B: Direct Release B



Summary for Subcatchment DR-B: Direct Release B

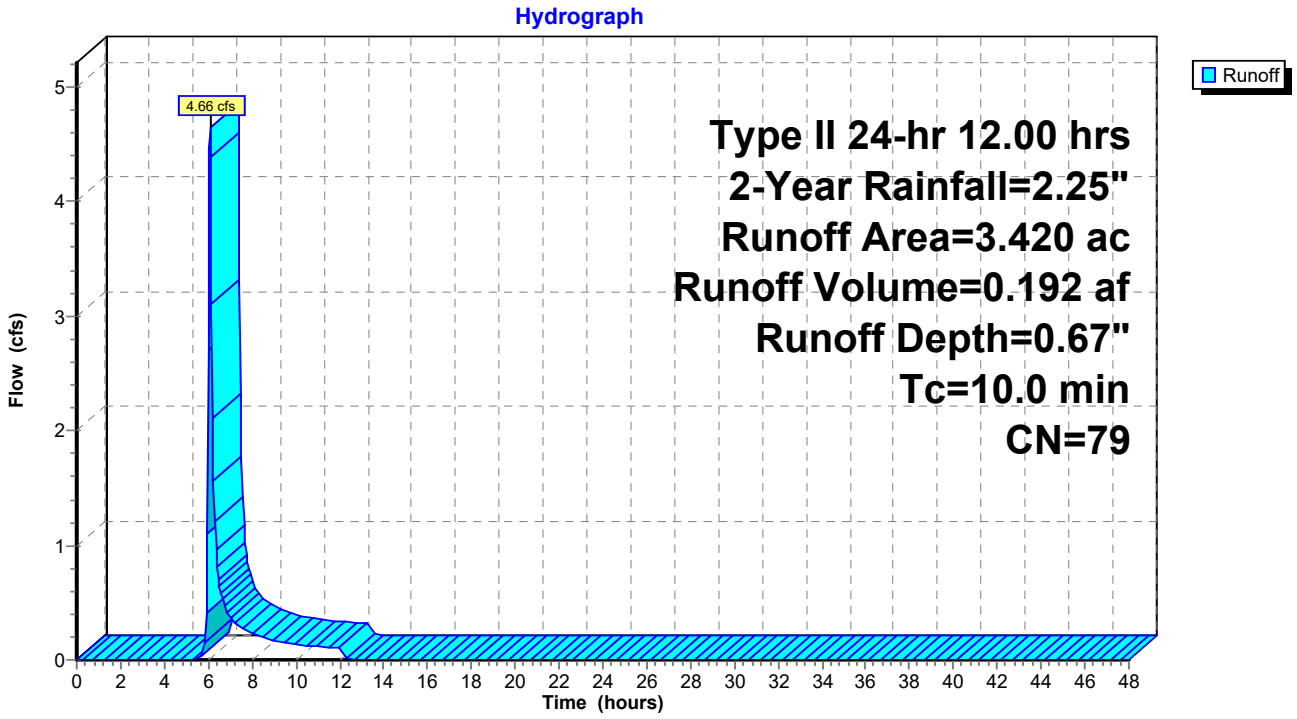
Runoff = 4.66 cfs @ 6.07 hrs, Volume= 0.192 af, Depth= 0.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 2-Year Rainfall=2.25"

Area (ac)	CN	Description
0.910	73	Woods, Fair, HSG C
0.060	79	Woods, Fair, HSG D
1.900	83	1/4 acre lots, 38% imp, HSG C
0.190	87	1/4 acre lots, 38% imp, HSG D
0.360	71	Meadow, non-grazed, HSG C
3.420	79	Weighted Average
2.626		76.78% Pervious Area
0.794		23.22% Impervious Area

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

Subcatchment DR-B: Direct Release B



Summary for Subcatchment DR-B: Direct Release B

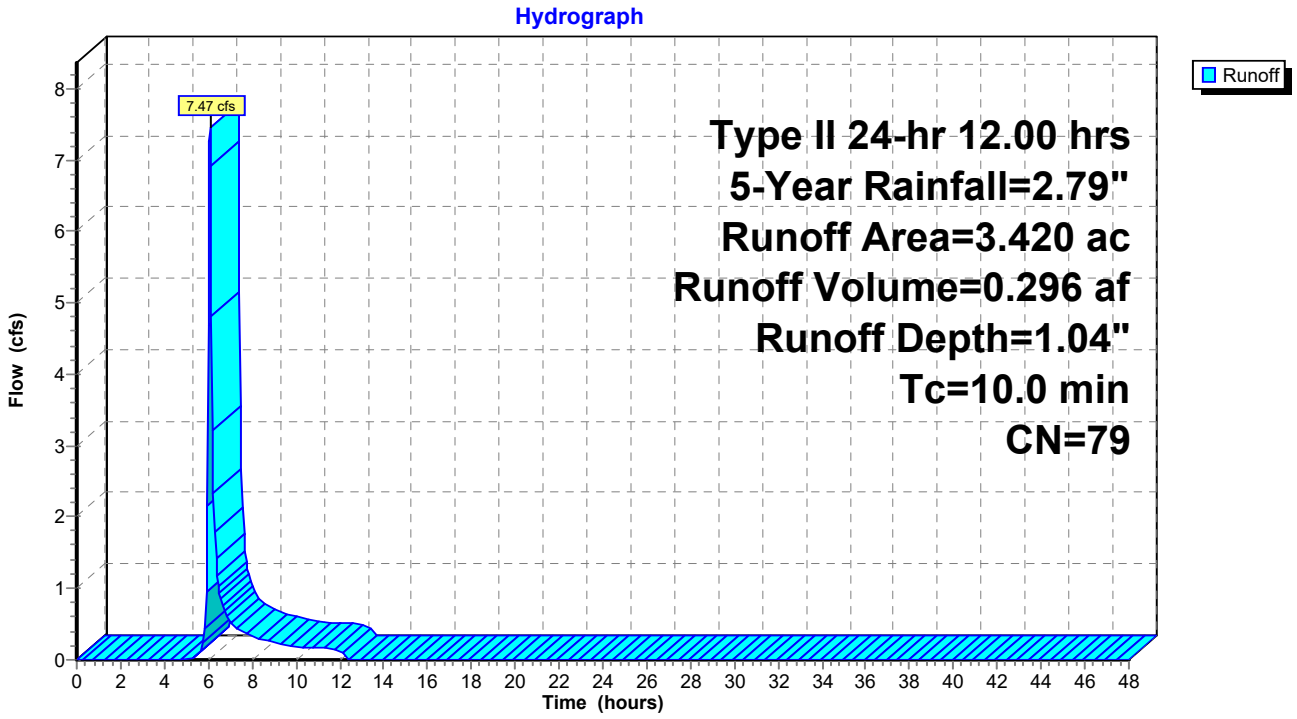
Runoff = 7.47 cfs @ 6.07 hrs, Volume= 0.296 af, Depth= 1.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 5-Year Rainfall=2.79"

Area (ac)	CN	Description
0.910	73	Woods, Fair, HSG C
0.060	79	Woods, Fair, HSG D
1.900	83	1/4 acre lots, 38% imp, HSG C
0.190	87	1/4 acre lots, 38% imp, HSG D
0.360	71	Meadow, non-grazed, HSG C
3.420	79	Weighted Average
2.626		76.78% Pervious Area
0.794		23.22% Impervious Area

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

Subcatchment DR-B: Direct Release B



Summary for Subcatchment DR-B: Direct Release B

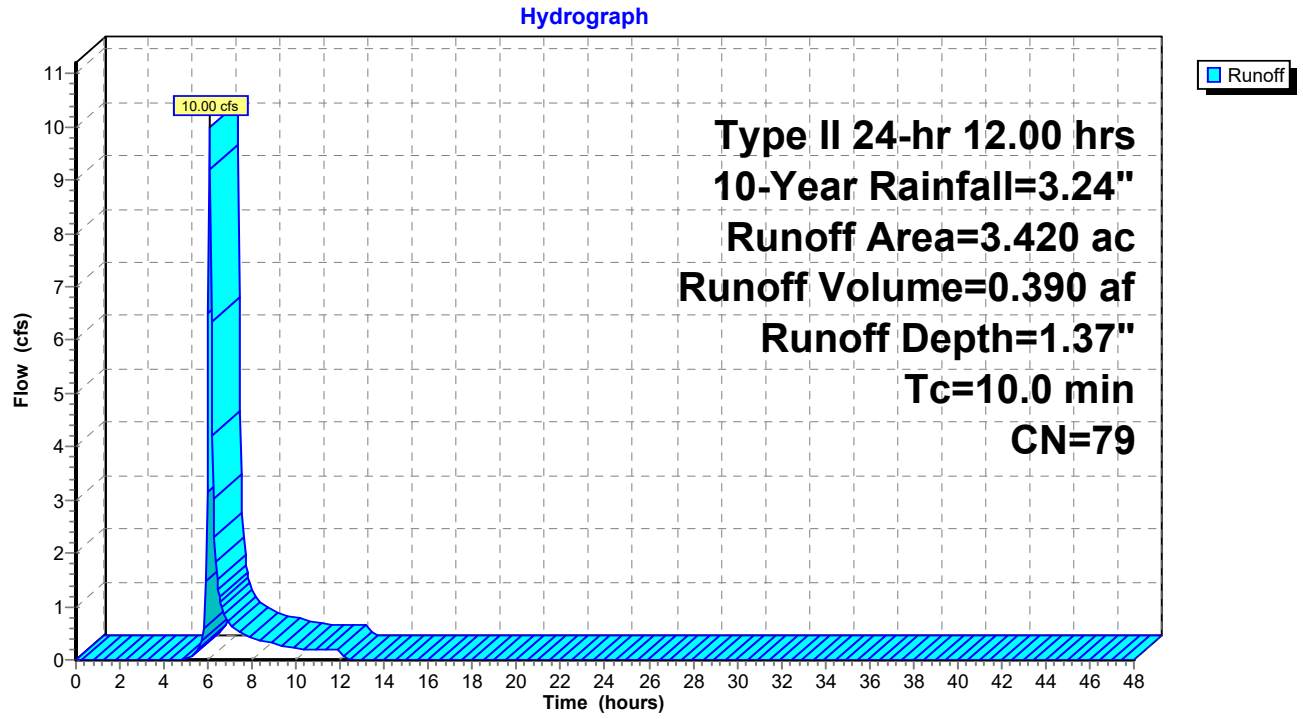
Runoff = 10.00 cfs @ 6.07 hrs, Volume= 0.390 af, Depth= 1.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 10-Year Rainfall=3.24"

Area (ac)	CN	Description
0.910	73	Woods, Fair, HSG C
0.060	79	Woods, Fair, HSG D
1.900	83	1/4 acre lots, 38% imp, HSG C
0.190	87	1/4 acre lots, 38% imp, HSG D
0.360	71	Meadow, non-grazed, HSG C
3.420	79	Weighted Average
2.626		76.78% Pervious Area
0.794		23.22% Impervious Area

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

Subcatchment DR-B: Direct Release B



Summary for Subcatchment DR-B: Direct Release B

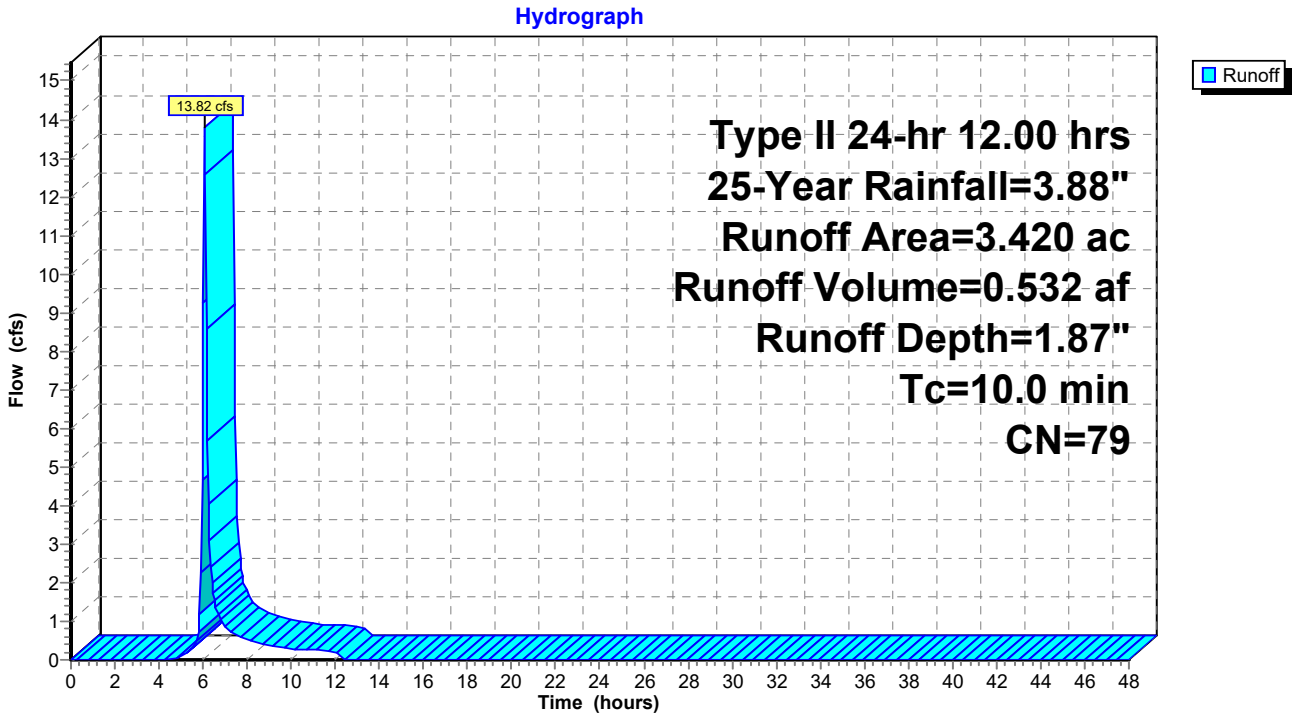
Runoff = 13.82 cfs @ 6.07 hrs, Volume= 0.532 af, Depth= 1.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 25-Year Rainfall=3.88"

Area (ac)	CN	Description
0.910	73	Woods, Fair, HSG C
0.060	79	Woods, Fair, HSG D
1.900	83	1/4 acre lots, 38% imp, HSG C
0.190	87	1/4 acre lots, 38% imp, HSG D
0.360	71	Meadow, non-grazed, HSG C
3.420	79	Weighted Average
2.626		76.78% Pervious Area
0.794		23.22% Impervious Area

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

Subcatchment DR-B: Direct Release B



Summary for Subcatchment DR-B: Direct Release B

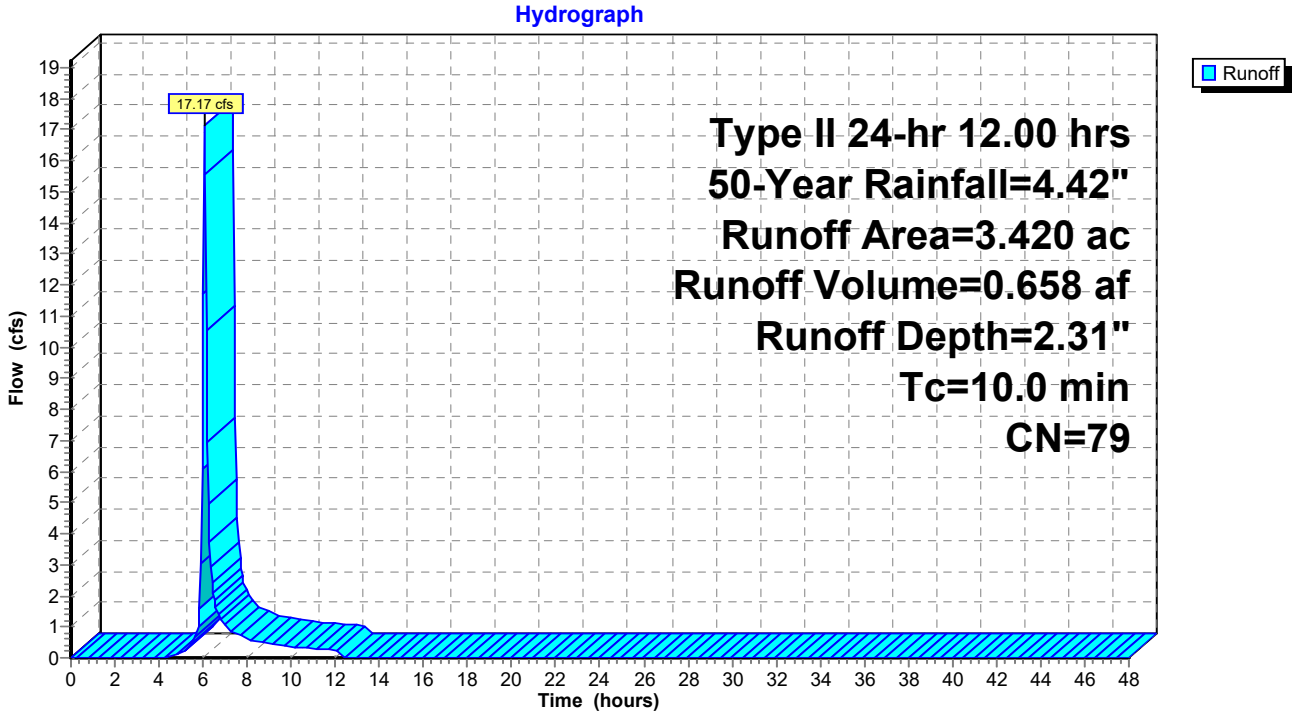
Runoff = 17.17 cfs @ 6.06 hrs, Volume= 0.658 af, Depth= 2.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 50-Year Rainfall=4.42"

Area (ac)	CN	Description
0.910	73	Woods, Fair, HSG C
0.060	79	Woods, Fair, HSG D
1.900	83	1/4 acre lots, 38% imp, HSG C
0.190	87	1/4 acre lots, 38% imp, HSG D
0.360	71	Meadow, non-grazed, HSG C
3.420	79	Weighted Average
2.626		76.78% Pervious Area
0.794		23.22% Impervious Area

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

Subcatchment DR-B: Direct Release B



Summary for Subcatchment DR-B: Direct Release B

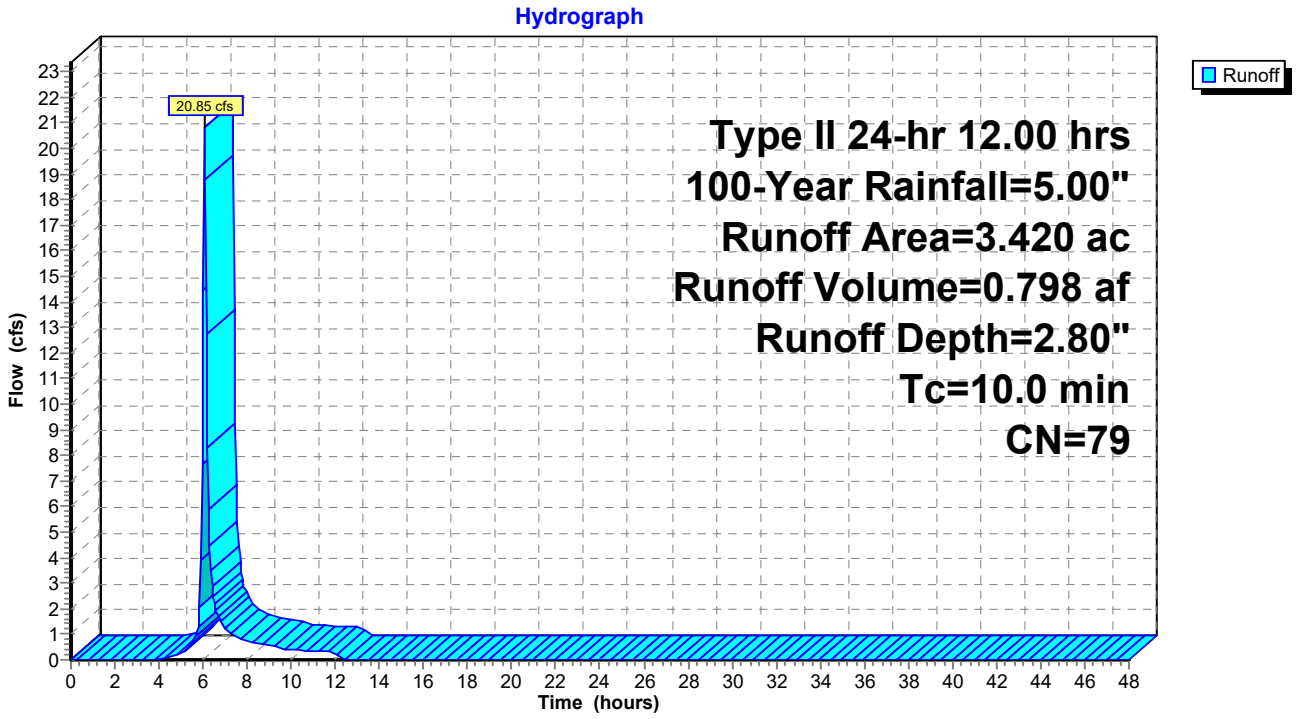
Runoff = 20.85 cfs @ 6.06 hrs, Volume= 0.798 af, Depth= 2.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 100-Year Rainfall=5.00"

Area (ac)	CN	Description
0.910	73	Woods, Fair, HSG C
0.060	79	Woods, Fair, HSG D
1.900	83	1/4 acre lots, 38% imp, HSG C
0.190	87	1/4 acre lots, 38% imp, HSG D
0.360	71	Meadow, non-grazed, HSG C
3.420	79	Weighted Average
2.626		76.78% Pervious Area
0.794		23.22% Impervious Area

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

Subcatchment DR-B: Direct Release B



Summary for Subcatchment DR-D: Direct Release D

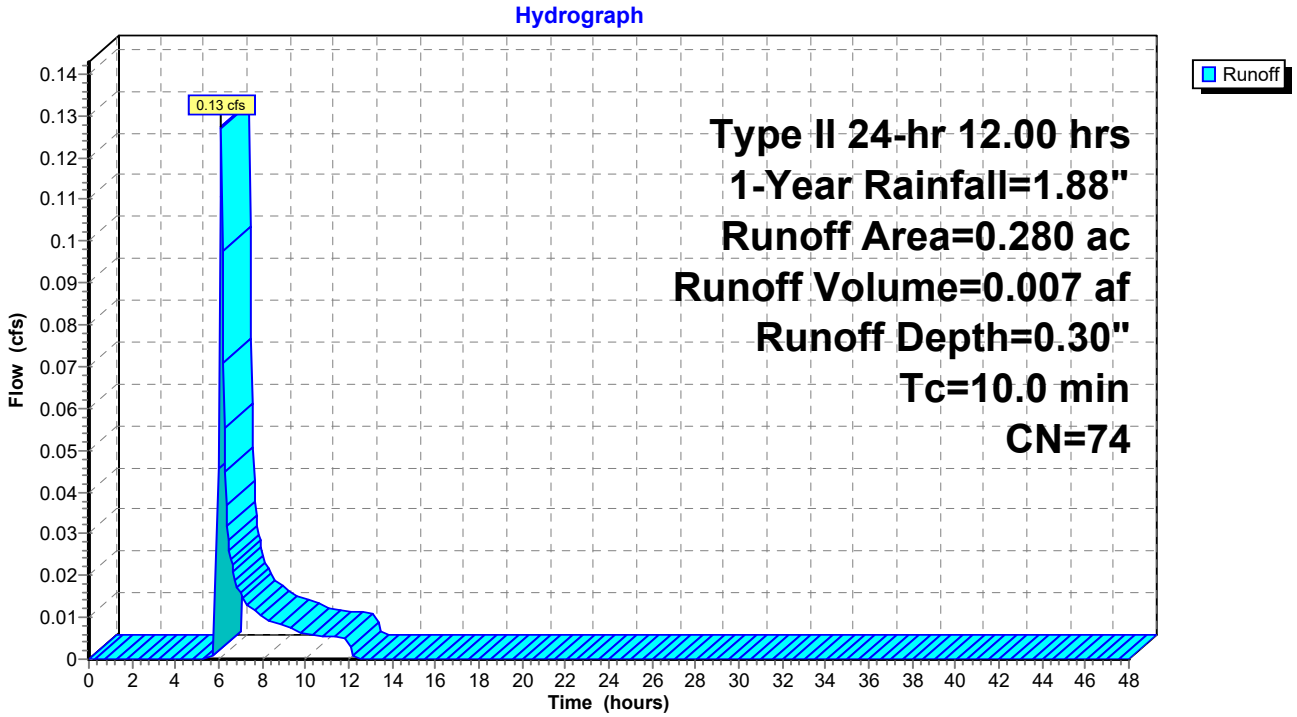
Runoff = 0.13 cfs @ 6.09 hrs, Volume= 0.007 af, Depth= 0.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 1-Year Rainfall=1.88"

Area (ac)	CN	Description
0.280	74	>75% Grass cover, Good, HSG C
0.280		100.00% Pervious Area

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

Subcatchment DR-D: Direct Release D



Summary for Subcatchment DR-D: Direct Release D

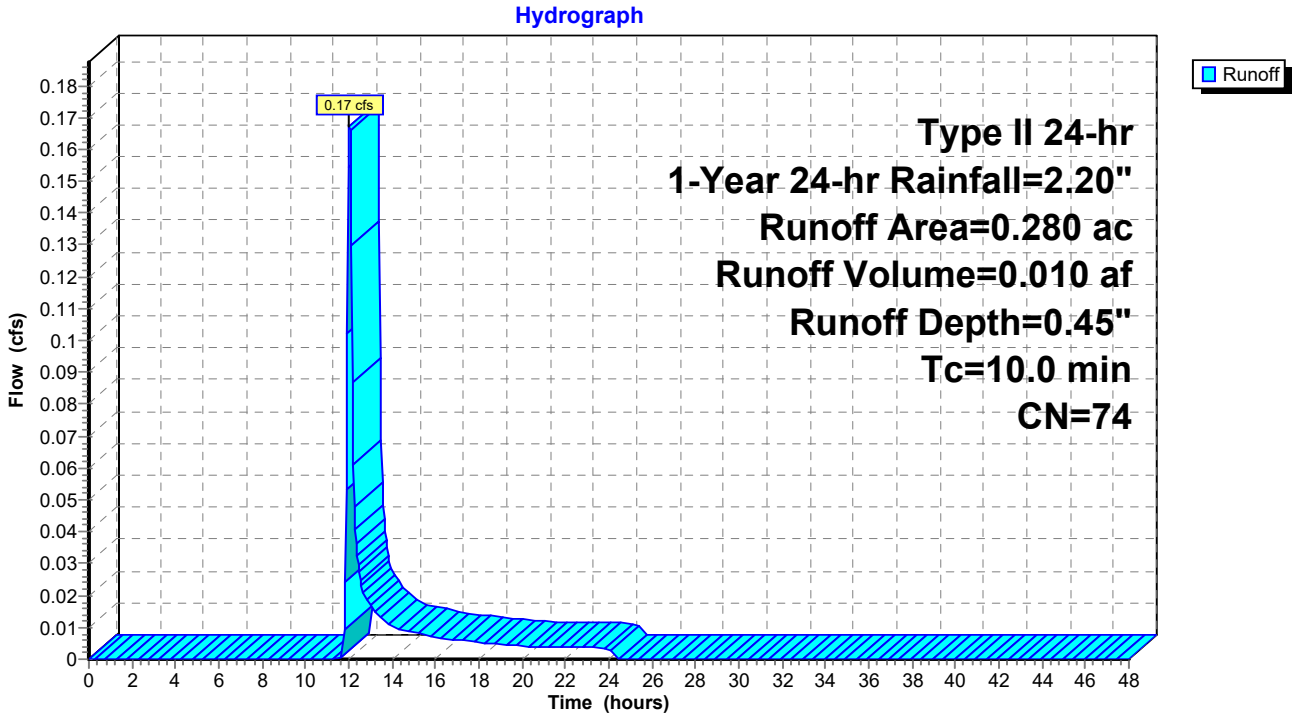
Runoff = 0.17 cfs @ 12.04 hrs, Volume= 0.010 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year 24-hr Rainfall=2.20"

Area (ac)	CN	Description
0.280	74	>75% Grass cover, Good, HSG C
0.280		100.00% Pervious Area

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

Subcatchment DR-D: Direct Release D



Summary for Subcatchment DR-D: Direct Release D

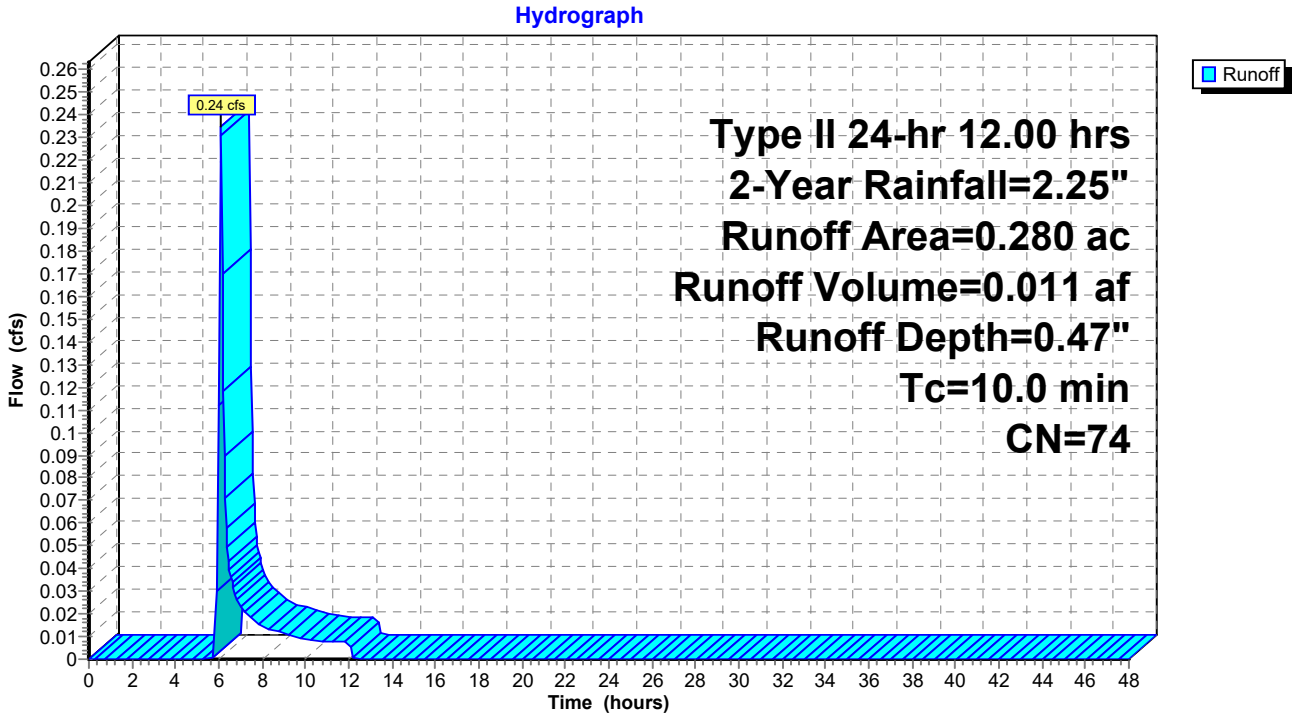
Runoff = 0.24 cfs @ 6.08 hrs, Volume= 0.011 af, Depth= 0.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 2-Year Rainfall=2.25"

Area (ac)	CN	Description
0.280	74	>75% Grass cover, Good, HSG C
0.280		100.00% Pervious Area

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

Subcatchment DR-D: Direct Release D



Summary for Subcatchment DR-D: Direct Release D

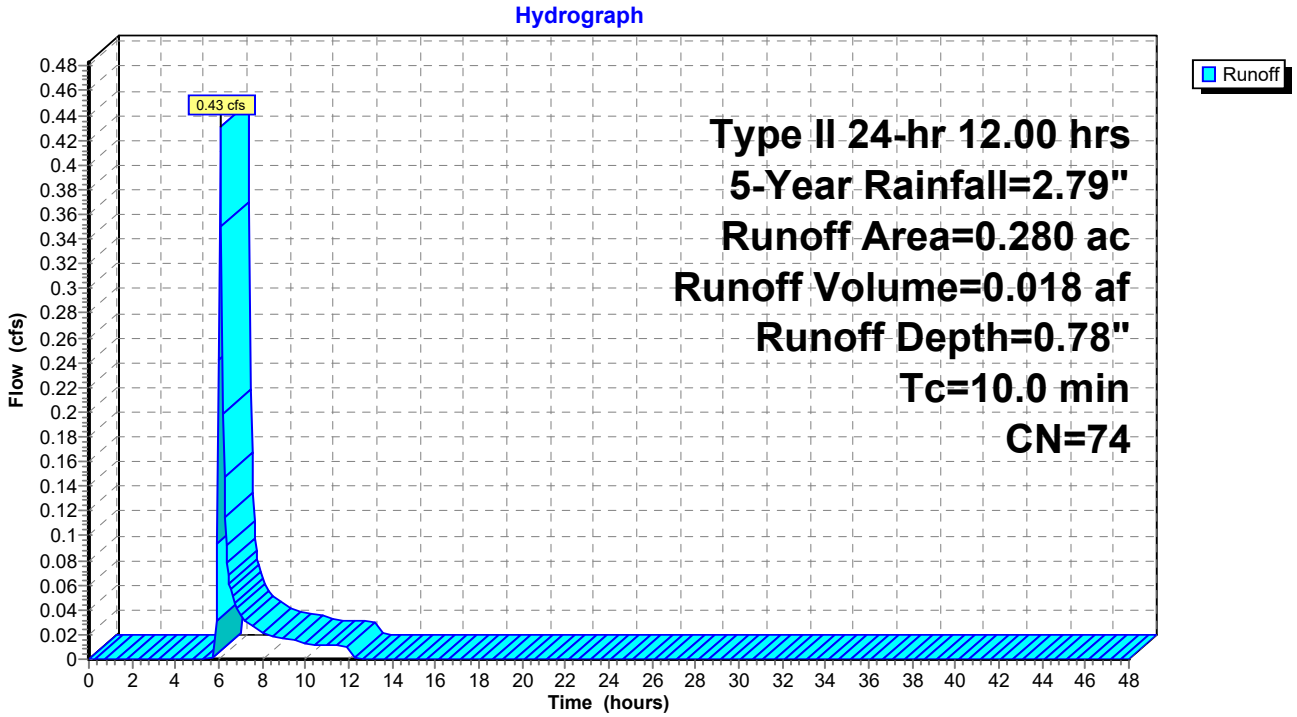
Runoff = 0.43 cfs @ 6.07 hrs, Volume= 0.018 af, Depth= 0.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 5-Year Rainfall=2.79"

Area (ac)	CN	Description
0.280	74	>75% Grass cover, Good, HSG C
0.280		100.00% Pervious Area

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

Subcatchment DR-D: Direct Release D



Summary for Subcatchment DR-D: Direct Release D

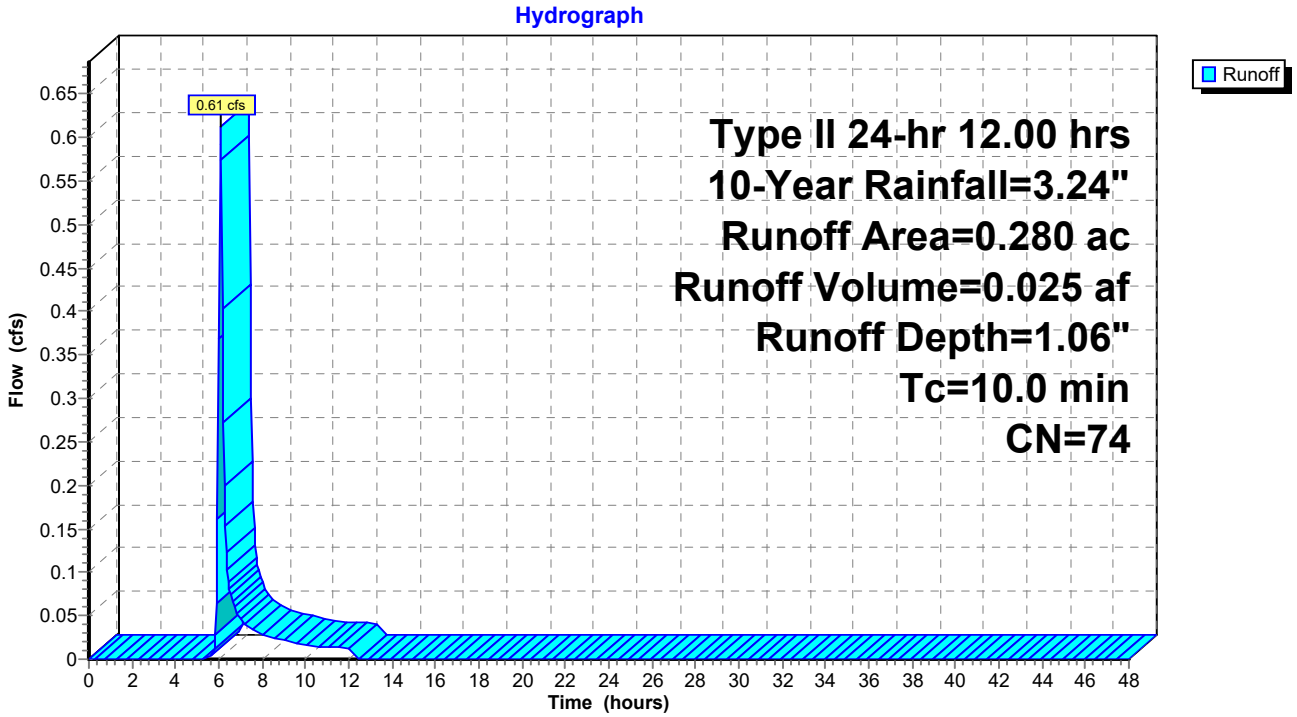
Runoff = 0.61 cfs @ 6.07 hrs, Volume= 0.025 af, Depth= 1.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 10-Year Rainfall=3.24"

Area (ac)	CN	Description
0.280	74	>75% Grass cover, Good, HSG C
0.280		100.00% Pervious Area

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

Subcatchment DR-D: Direct Release D



Summary for Subcatchment DR-D: Direct Release D

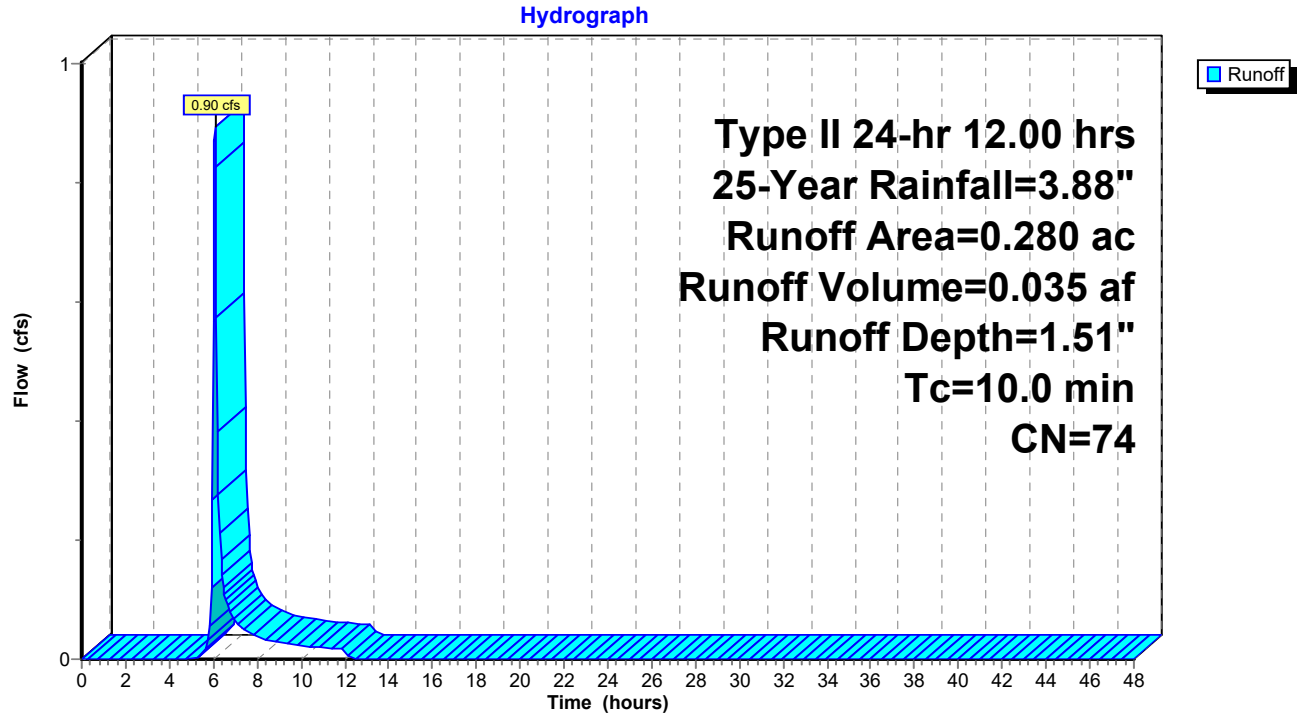
Runoff = 0.90 cfs @ 6.07 hrs, Volume= 0.035 af, Depth= 1.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 25-Year Rainfall=3.88"

Area (ac)	CN	Description
0.280	74	>75% Grass cover, Good, HSG C
0.280		100.00% Pervious Area

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

Subcatchment DR-D: Direct Release D



Summary for Subcatchment DR-D: Direct Release D

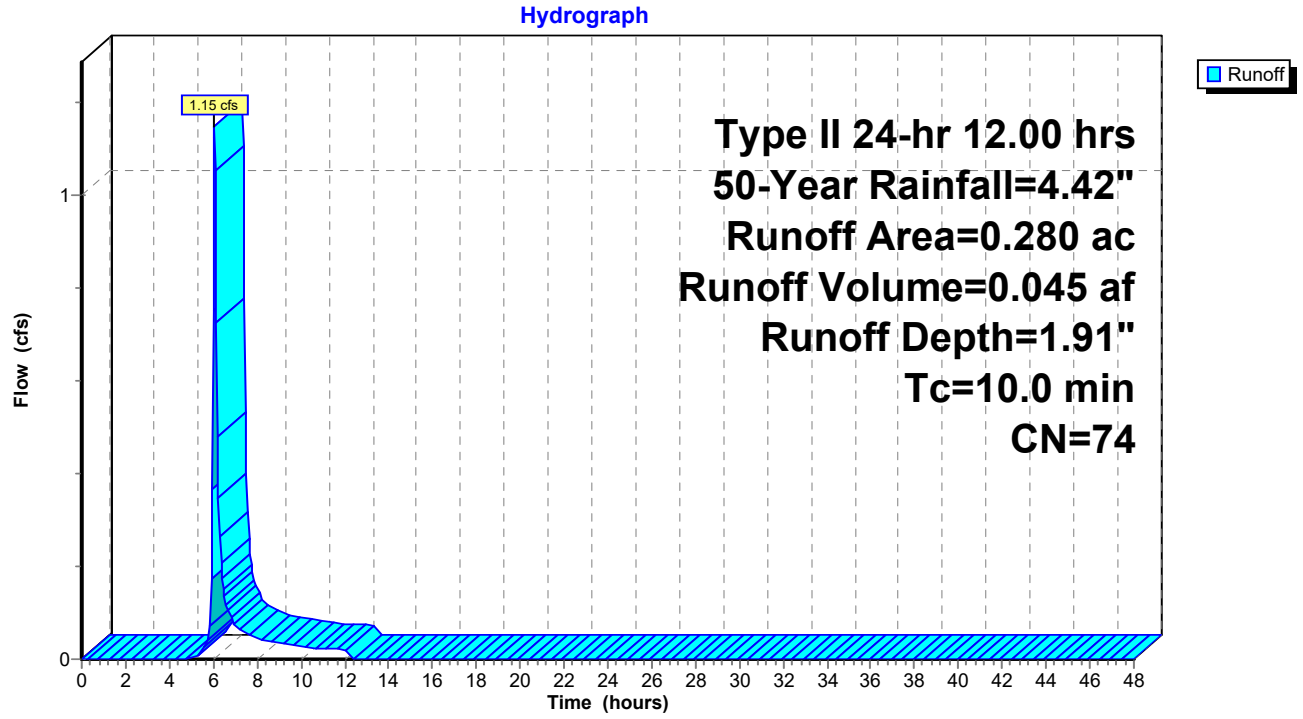
Runoff = 1.15 cfs @ 6.07 hrs, Volume= 0.045 af, Depth= 1.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 50-Year Rainfall=4.42"

Area (ac)	CN	Description
0.280	74	>75% Grass cover, Good, HSG C
0.280		100.00% Pervious Area

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

Subcatchment DR-D: Direct Release D



Summary for Subcatchment DR-D: Direct Release D

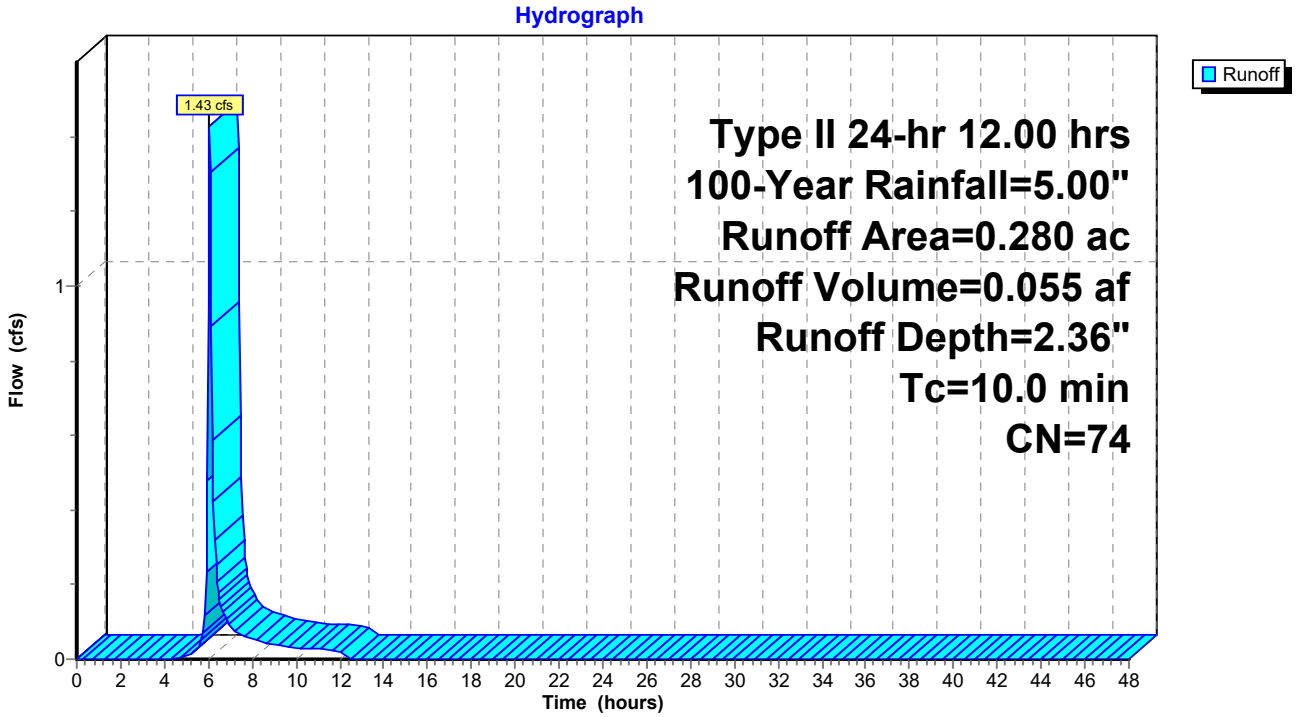
Runoff = 1.43 cfs @ 6.07 hrs, Volume= 0.055 af, Depth= 2.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 12.00 hrs 100-Year Rainfall=5.00"

Area (ac)	CN	Description
0.280	74	>75% Grass cover, Good, HSG C
0.280		100.00% Pervious Area

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

Subcatchment DR-D: Direct Release D



Summary for Pond PB-WNE: NE Wet Basin

Inflow Area = 13.480 ac, 32.81% Impervious, Inflow Depth = 0.57" for 1-Year event
Inflow = 7.39 cfs @ 6.34 hrs, Volume= 0.641 af
Outflow = 0.44 cfs @ 10.27 hrs, Volume= 0.622 af, Atten= 94%, Lag= 236.0 min
Primary = 0.44 cfs @ 10.27 hrs, Volume= 0.622 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 720.26' @ 10.27 hrs Surf.Area= 16,400 sf Storage= 19,025 cf

Plug-Flow detention time= 565.5 min calculated for 0.622 af (97% of inflow)
Center-of-Mass det. time= 558.7 min (1,015.1 - 456.4)

Volume	Invert	Avail.Storage	Storage Description
#1	719.00'	74,044 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

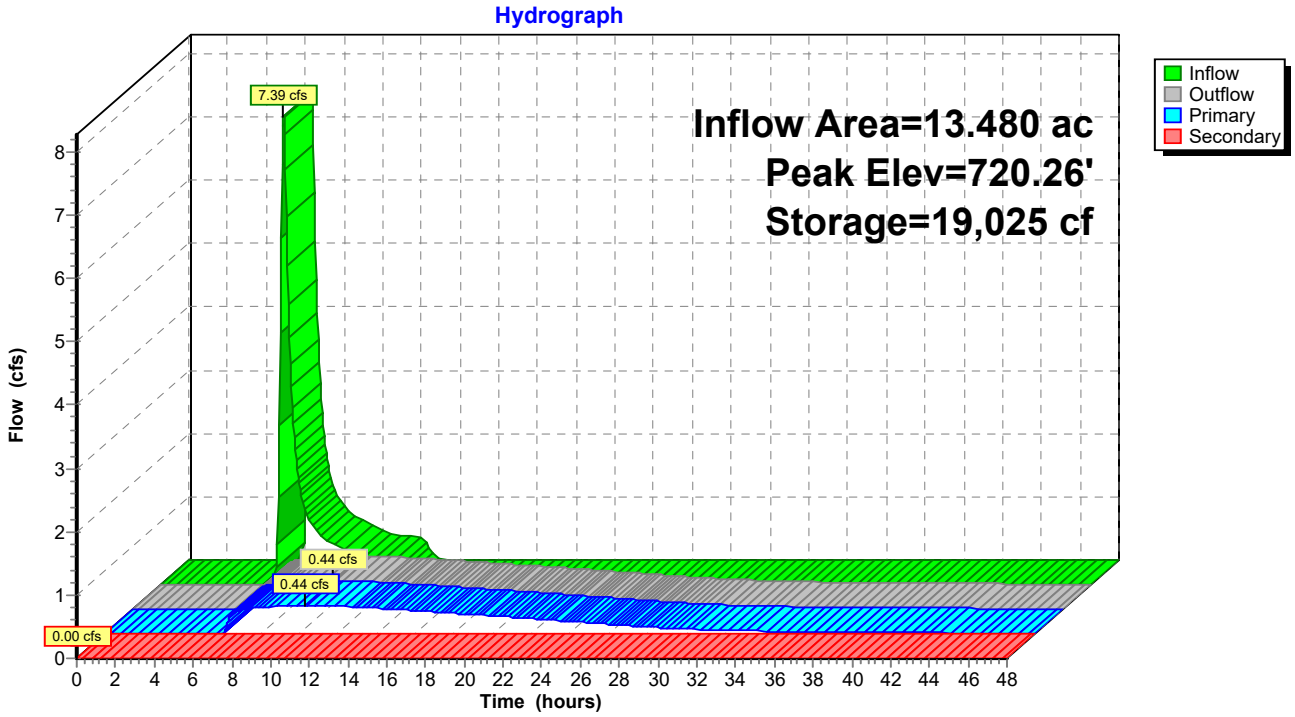
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
719.00	13,811	0	0	13,811
720.00	15,854	14,821	14,821	15,899
721.00	17,998	16,915	31,735	18,092
722.00	20,241	19,109	50,844	20,388
723.00	26,291	23,200	74,044	26,462

Device	Routing	Invert	Outlet Devices
#1	Primary	719.00'	**15.0" Round Culvert** L= 477.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 719.00' / 717.00' S= 0.0042 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	719.00'	**4.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	720.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	722.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.44 cfs @ 10.27 hrs HW=720.26' (Free Discharge)
└**1=Culvert** (Passes 0.44 cfs of 4.09 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.44 cfs @ 5.04 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=719.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond PB-WNE: NE Wet Basin



Summary for Pond PB-WNE: NE Wet Basin

Inflow Area = 13.480 ac, 32.81% Impervious, Inflow Depth = 0.78" for 1-Year 24-hr event
Inflow = 8.70 cfs @ 12.26 hrs, Volume= 0.881 af
Outflow = 0.48 cfs @ 16.18 hrs, Volume= 0.845 af, Atten= 94%, Lag= 234.8 min
Primary = 0.48 cfs @ 16.18 hrs, Volume= 0.845 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 720.48' @ 16.18 hrs Surf.Area= 16,865 sf Storage= 22,666 cf

Plug-Flow detention time= 609.6 min calculated for 0.844 af (96% of inflow)
Center-of-Mass det. time= 588.1 min (1,463.2 - 875.1)

Volume	Invert	Avail.Storage	Storage Description
#1	719.00'	74,044 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

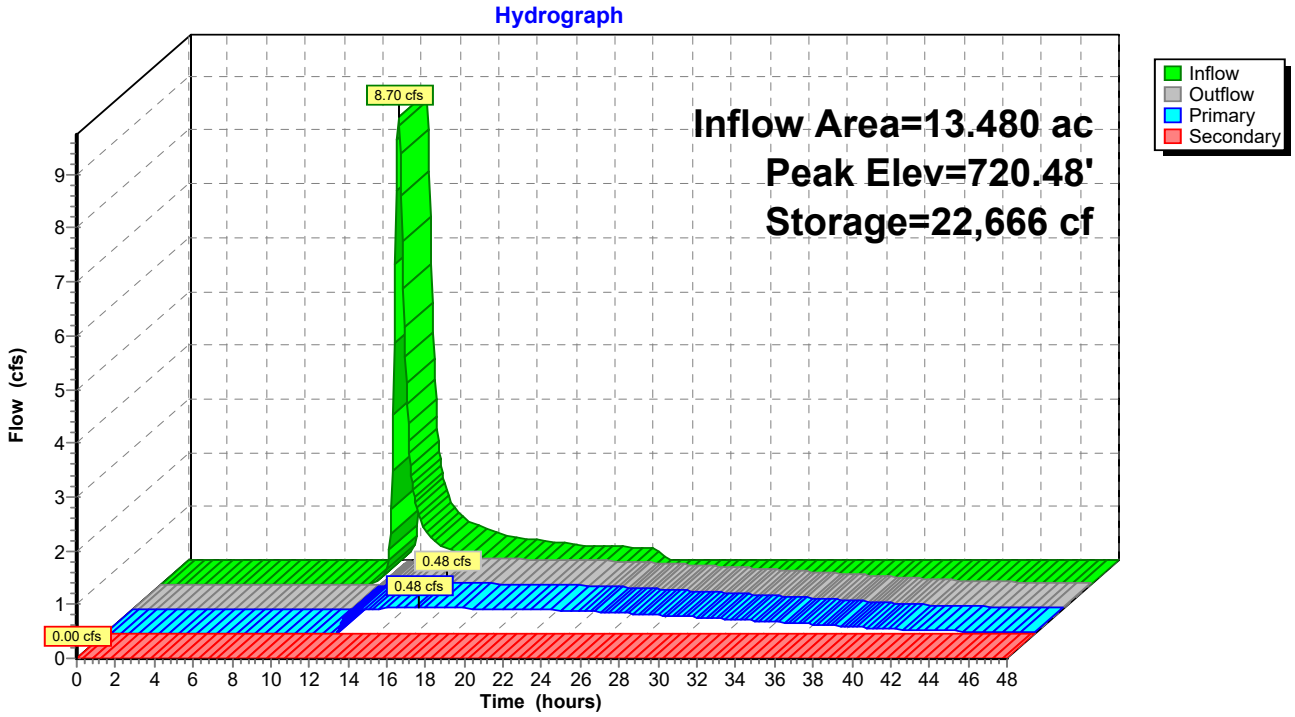
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
719.00	13,811	0	0	13,811
720.00	15,854	14,821	14,821	15,899
721.00	17,998	16,915	31,735	18,092
722.00	20,241	19,109	50,844	20,388
723.00	26,291	23,200	74,044	26,462

Device	Routing	Invert	Outlet Devices
#1	Primary	719.00'	**15.0" Round Culvert** L= 477.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 719.00' / 717.00' S= 0.0042 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	719.00'	**4.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	720.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	722.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.48 cfs @ 16.18 hrs HW=720.48' (Free Discharge)
└**1=Culvert** (Passes 0.48 cfs of 4.76 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.48 cfs @ 5.52 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=719.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond PB-WNE: NE Wet Basin



Summary for Pond PB-WNE: NE Wet Basin

Inflow Area = 13.480 ac, 32.81% Impervious, Inflow Depth = 0.82" for 2-Year event
Inflow = 11.07 cfs @ 6.33 hrs, Volume= 0.920 af
Outflow = 1.26 cfs @ 7.83 hrs, Volume= 0.898 af, Atten= 89%, Lag= 89.8 min
Primary = 1.26 cfs @ 7.83 hrs, Volume= 0.898 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 720.59' @ 7.83 hrs Surf.Area= 17,111 sf Storage= 24,609 cf

Plug-Flow detention time= 523.7 min calculated for 0.898 af (98% of inflow)
Center-of-Mass det. time= 516.9 min (967.7 - 450.8)

Volume	Invert	Avail.Storage	Storage Description
#1	719.00'	74,044 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

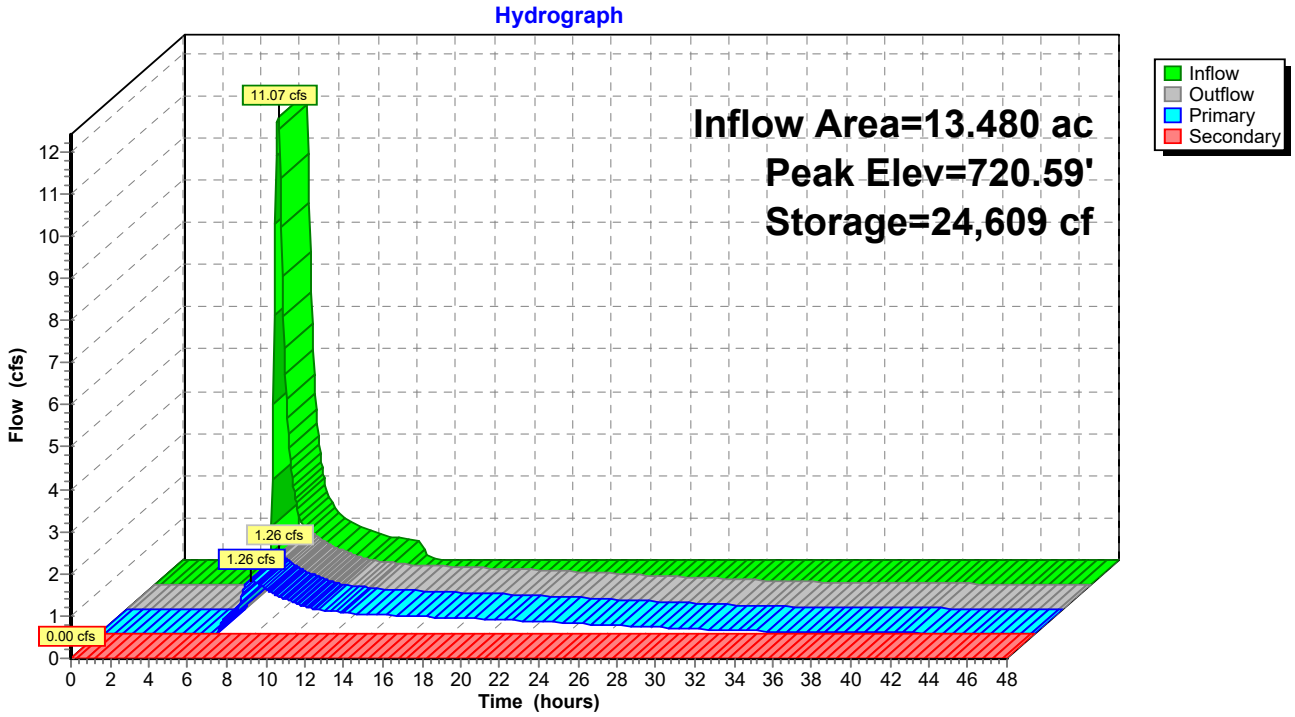
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
719.00	13,811	0	0	13,811
720.00	15,854	14,821	14,821	15,899
721.00	17,998	16,915	31,735	18,092
722.00	20,241	19,109	50,844	20,388
723.00	26,291	23,200	74,044	26,462

Device	Routing	Invert	Outlet Devices
#1	Primary	719.00'	**15.0" Round Culvert** L= 477.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 719.00' / 717.00' S= 0.0042 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	719.00'	**4.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	720.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	722.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=1.26 cfs @ 7.83 hrs HW=720.59' (Free Discharge)
└**1=Culvert** (Passes 1.26 cfs of 4.88 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.50 cfs @ 5.75 fps)
  └**3=Orifice/Grate** (Weir Controls 0.75 cfs @ 1.00 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=719.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond PB-WNE: NE Wet Basin



Summary for Pond PB-WNE: NE Wet Basin

Inflow Area = 13.480 ac, 32.81% Impervious, Inflow Depth = 1.22" for 5-Year event
Inflow = 17.01 cfs @ 6.32 hrs, Volume= 1.366 af
Outflow = 4.78 cfs @ 6.89 hrs, Volume= 1.344 af, Atten= 72%, Lag= 33.9 min
Primary = 4.78 cfs @ 6.89 hrs, Volume= 1.344 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 720.84' @ 6.89 hrs Surf.Area= 17,645 sf Storage= 28,880 cf

Plug-Flow detention time= 366.9 min calculated for 1.344 af (98% of inflow)
Center-of-Mass det. time= 362.1 min (807.1 - 445.0)

Volume	Invert	Avail.Storage	Storage Description
#1	719.00'	74,044 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

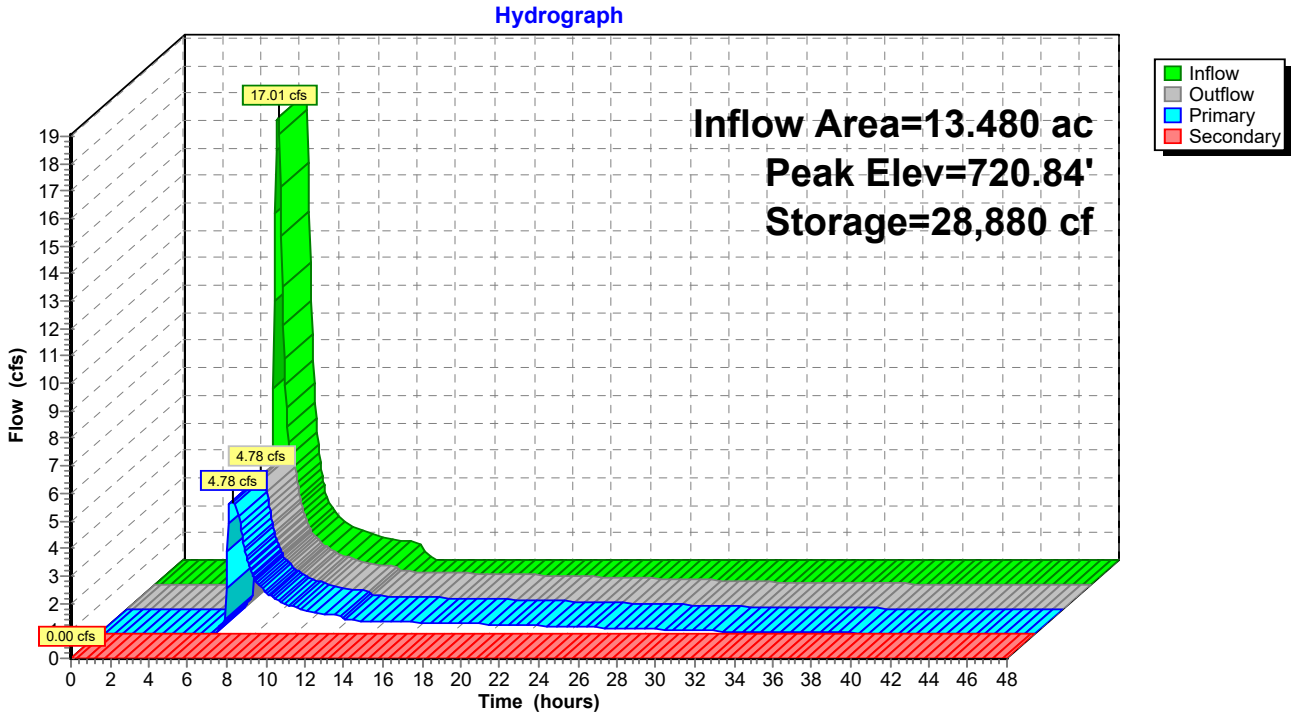
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
719.00	13,811	0	0	13,811
720.00	15,854	14,821	14,821	15,899
721.00	17,998	16,915	31,735	18,092
722.00	20,241	19,109	50,844	20,388
723.00	26,291	23,200	74,044	26,462

Device	Routing	Invert	Outlet Devices
#1	Primary	719.00'	**15.0" Round Culvert** L= 477.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 719.00' / 717.00' S= 0.0042 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	719.00'	**4.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	720.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	722.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=4.78 cfs @ 6.89 hrs HW=720.84' (Free Discharge)
└**1=Culvert** (Barrel Controls 4.78 cfs @ 3.90 fps)
  └**2=Orifice/Grate** (Passes < 0.54 cfs potential flow)
  └**3=Orifice/Grate** (Passes < 5.17 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=719.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond PB-WNE: NE Wet Basin



Summary for Pond PB-WNE: NE Wet Basin

Inflow Area = 13.480 ac, 32.81% Impervious, Inflow Depth = 1.57" for 10-Year event
Inflow = 22.28 cfs @ 6.32 hrs, Volume= 1.764 af
Outflow = 5.19 cfs @ 6.97 hrs, Volume= 1.742 af, Atten= 77%, Lag= 38.8 min
Primary = 5.19 cfs @ 6.97 hrs, Volume= 1.742 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 721.30' @ 6.97 hrs Surf.Area= 18,654 sf Storage= 37,211 cf

Plug-Flow detention time= 298.0 min calculated for 1.742 af (99% of inflow)
Center-of-Mass det. time= 294.2 min (735.5 - 441.3)

Volume	Invert	Avail.Storage	Storage Description
#1	719.00'	74,044 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

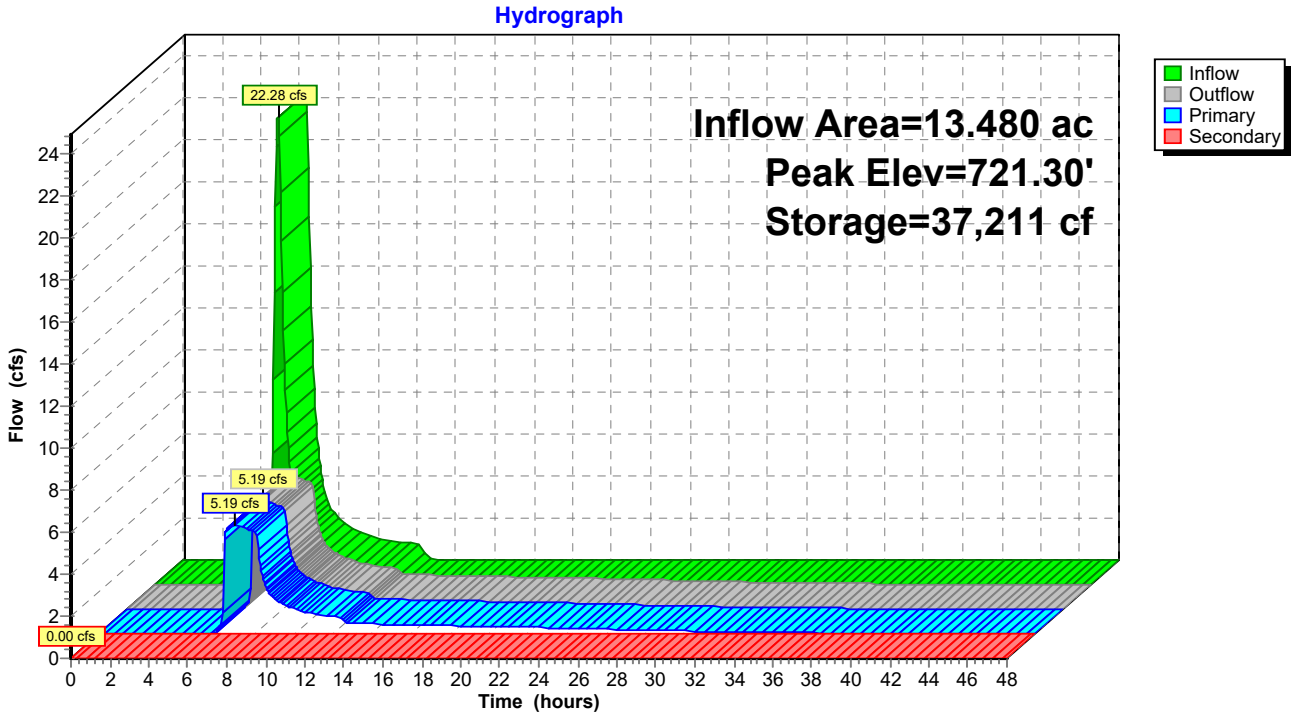
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
719.00	13,811	0	0	13,811
720.00	15,854	14,821	14,821	15,899
721.00	17,998	16,915	31,735	18,092
722.00	20,241	19,109	50,844	20,388
723.00	26,291	23,200	74,044	26,462

Device	Routing	Invert	Outlet Devices
#1	Primary	719.00'	**15.0" Round Culvert** L= 477.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 719.00' / 717.00' S= 0.0042 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	719.00'	**4.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	720.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	722.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=5.19 cfs @ 6.97 hrs HW=721.30' (Free Discharge)
└**1=Culvert** (Barrel Controls 5.19 cfs @ 4.23 fps)
  └**2=Orifice/Grate** (Passes < 0.61 cfs potential flow)
  └**3=Orifice/Grate** (Passes < 17.21 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=719.00' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond PB-WNE: NE Wet Basin



Summary for Pond PB-WNE: NE Wet Basin

Inflow Area = 13.480 ac, 32.81% Impervious, Inflow Depth = 2.10" for 25-Year event
Inflow = 30.10 cfs @ 6.32 hrs, Volume= 2.360 af
Outflow = 6.21 cfs @ 7.01 hrs, Volume= 2.338 af, Atten= 79%, Lag= 41.9 min
Primary = 5.80 cfs @ 7.01 hrs, Volume= 2.327 af
Secondary = 0.40 cfs @ 7.01 hrs, Volume= 0.011 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 722.06' @ 7.01 hrs Surf.Area= 20,596 sf Storage= 52,121 cf

Plug-Flow detention time= 247.3 min calculated for 2.335 af (99% of inflow)
Center-of-Mass det. time= 246.3 min (683.4 - 437.1)

Volume	Invert	Avail.Storage	Storage Description
#1	719.00'	74,044 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

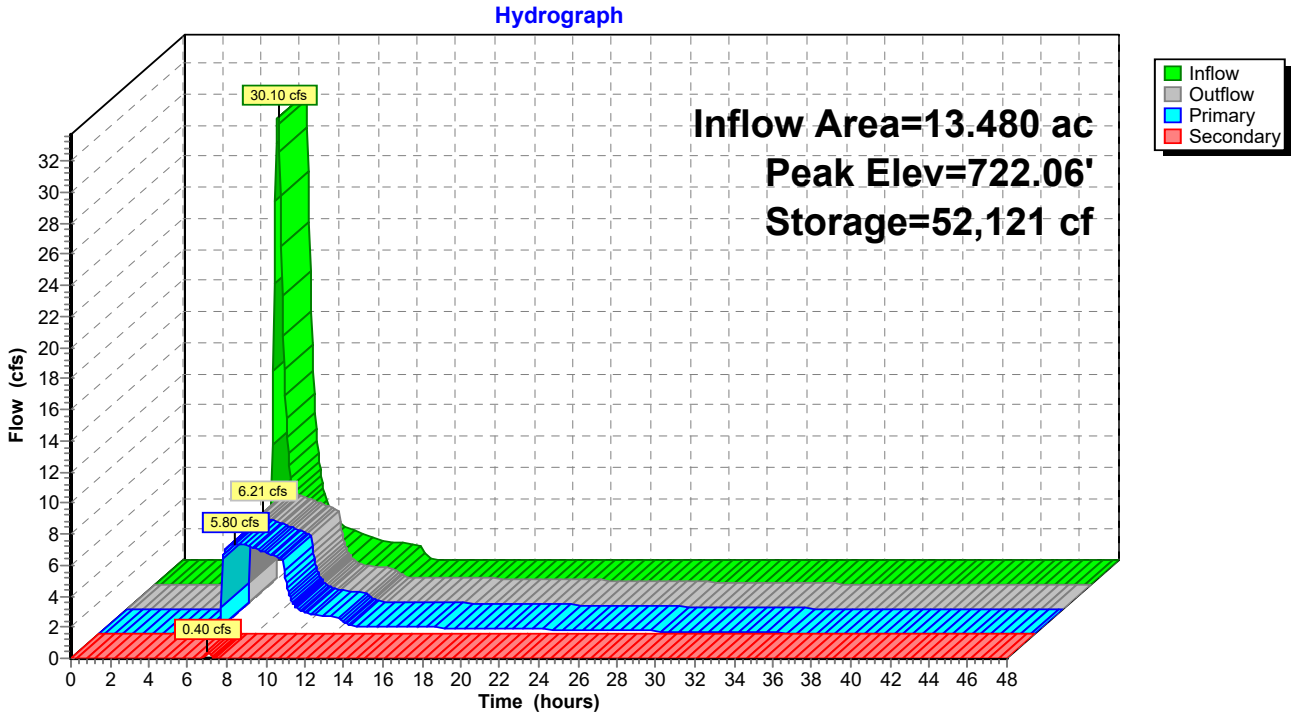
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
719.00	13,811	0	0	13,811
720.00	15,854	14,821	14,821	15,899
721.00	17,998	16,915	31,735	18,092
722.00	20,241	19,109	50,844	20,388
723.00	26,291	23,200	74,044	26,462

Device	Routing	Invert	Outlet Devices
#1	Primary	719.00'	**15.0" Round Culvert** L= 477.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 719.00' / 717.00' S= 0.0042 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	719.00'	**4.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	720.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	722.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=5.80 cfs @ 7.01 hrs HW=722.06' (Free Discharge)
└**1=Culvert** (Barrel Controls 5.80 cfs @ 4.73 fps)
  └**2=Orifice/Grate** (Passes < 0.71 cfs potential flow)
  └**3=Orifice/Grate** (Passes < 24.07 cfs potential flow)

Secondary OutFlow Max=0.39 cfs @ 7.01 hrs HW=722.06' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 0.39 cfs @ 0.62 fps)

Pond PB-WNE: NE Wet Basin



Summary for Pond PB-WNE: NE Wet Basin

Inflow Area = 13.480 ac, 32.81% Impervious, Inflow Depth = 2.57" for 50-Year event
Inflow = 36.91 cfs @ 6.31 hrs, Volume= 2.883 af
Outflow = 12.46 cfs @ 6.77 hrs, Volume= 2.860 af, Atten= 66%, Lag= 27.3 min
Primary = 6.05 cfs @ 6.77 hrs, Volume= 2.556 af
Secondary = 6.41 cfs @ 6.77 hrs, Volume= 0.304 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 722.40' @ 6.77 hrs Surf.Area= 22,549 sf Storage= 59,338 cf

Plug-Flow detention time= 214.5 min calculated for 2.860 af (99% of inflow)
Center-of-Mass det. time= 212.1 min (646.4 - 434.3)

Volume	Invert	Avail.Storage	Storage Description
#1	719.00'	74,044 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

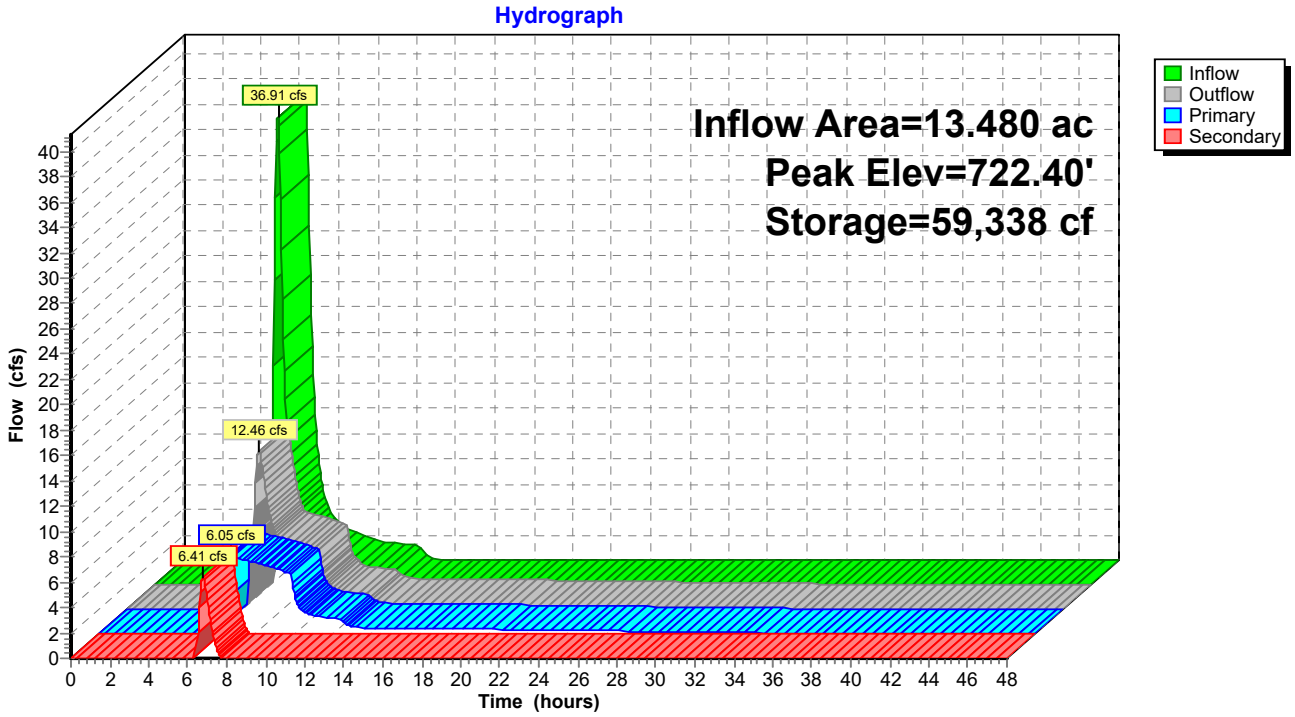
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
719.00	13,811	0	0	13,811
720.00	15,854	14,821	14,821	15,899
721.00	17,998	16,915	31,735	18,092
722.00	20,241	19,109	50,844	20,388
723.00	26,291	23,200	74,044	26,462

Device	Routing	Invert	Outlet Devices
#1	Primary	719.00'	**15.0" Round Culvert** L= 477.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 719.00' / 717.00' S= 0.0042 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	719.00'	**4.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	720.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	722.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=6.05 cfs @ 6.77 hrs HW=722.40' (Free Discharge)
└**1=Culvert** (Barrel Controls 6.05 cfs @ 4.93 fps)
  └**2=Orifice/Grate** (Passes < 0.76 cfs potential flow)
  └**3=Orifice/Grate** (Passes < 26.52 cfs potential flow)

Secondary OutFlow Max=6.36 cfs @ 6.77 hrs HW=722.40' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 6.36 cfs @ 1.61 fps)

Pond PB-WNE: NE Wet Basin



Summary for Pond PB-WNE: NE Wet Basin

Inflow Area = 13.480 ac, 32.81% Impervious, Inflow Depth = 3.08" for 100-Year event
Inflow = 44.35 cfs @ 6.31 hrs, Volume= 3.459 af
Outflow = 20.31 cfs @ 6.65 hrs, Volume= 3.437 af, Atten= 54%, Lag= 20.3 min
Primary = 6.23 cfs @ 6.65 hrs, Volume= 2.739 af
Secondary = 14.08 cfs @ 6.65 hrs, Volume= 0.698 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 722.65' @ 6.65 hrs Surf.Area= 24,072 sf Storage= 65,184 cf

Plug-Flow detention time= 183.8 min calculated for 3.433 af (99% of inflow)
Center-of-Mass det. time= 183.7 min (615.4 - 431.7)

Volume	Invert	Avail.Storage	Storage Description
#1	719.00'	74,044 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

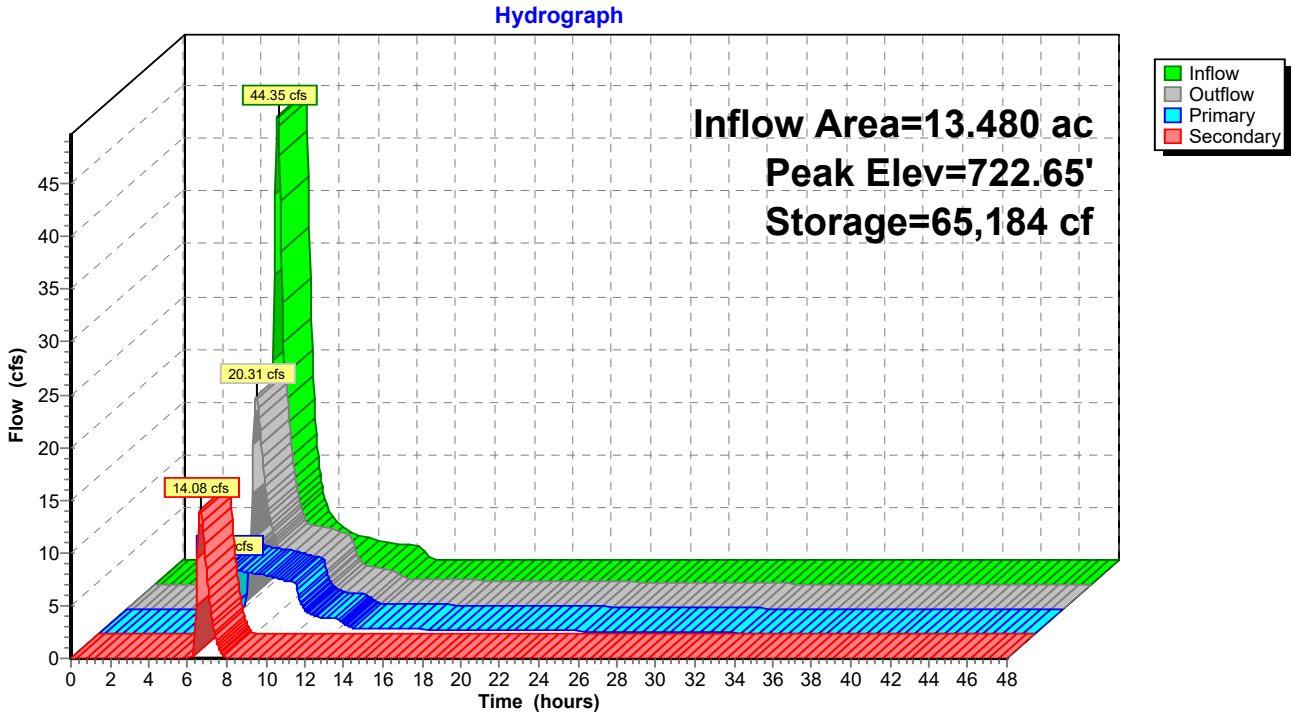
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
719.00	13,811	0	0	13,811
720.00	15,854	14,821	14,821	15,899
721.00	17,998	16,915	31,735	18,092
722.00	20,241	19,109	50,844	20,388
723.00	26,291	23,200	74,044	26,462

Device	Routing	Invert	Outlet Devices
#1	Primary	719.00'	**15.0" Round Culvert** L= 477.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 719.00' / 717.00' S= 0.0042 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	719.00'	**4.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	720.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	722.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=6.23 cfs @ 6.65 hrs HW=722.65' (Free Discharge)
└**1=Culvert** (Barrel Controls 6.23 cfs @ 5.08 fps)
  └**2=Orifice/Grate** (Passes < 0.78 cfs potential flow)
  └**3=Orifice/Grate** (Passes < 28.23 cfs potential flow)

Secondary OutFlow Max=14.07 cfs @ 6.65 hrs HW=722.65' (Free Discharge)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 14.07 cfs @ 2.17 fps)

Pond PB-WNE: NE Wet Basin



Summary for Pond PB-NE: NE Basin

Inflow Area = 52.710 ac, 30.78% Impervious, Inflow Depth = 0.57" for 1-Year event
Inflow = 29.11 cfs @ 6.34 hrs, Volume= 2.525 af
Outflow = 0.99 cfs @ 12.34 hrs, Volume= 1.830 af, Atten= 97%, Lag= 359.7 min
Primary = 0.99 cfs @ 12.34 hrs, Volume= 1.830 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 714.77' @ 12.34 hrs Surf.Area= 121,645 sf Storage= 91,854 cf

Plug-Flow detention time= 923.9 min calculated for 1.828 af (72% of inflow)
Center-of-Mass det. time= 871.1 min (1,327.0 - 455.9)

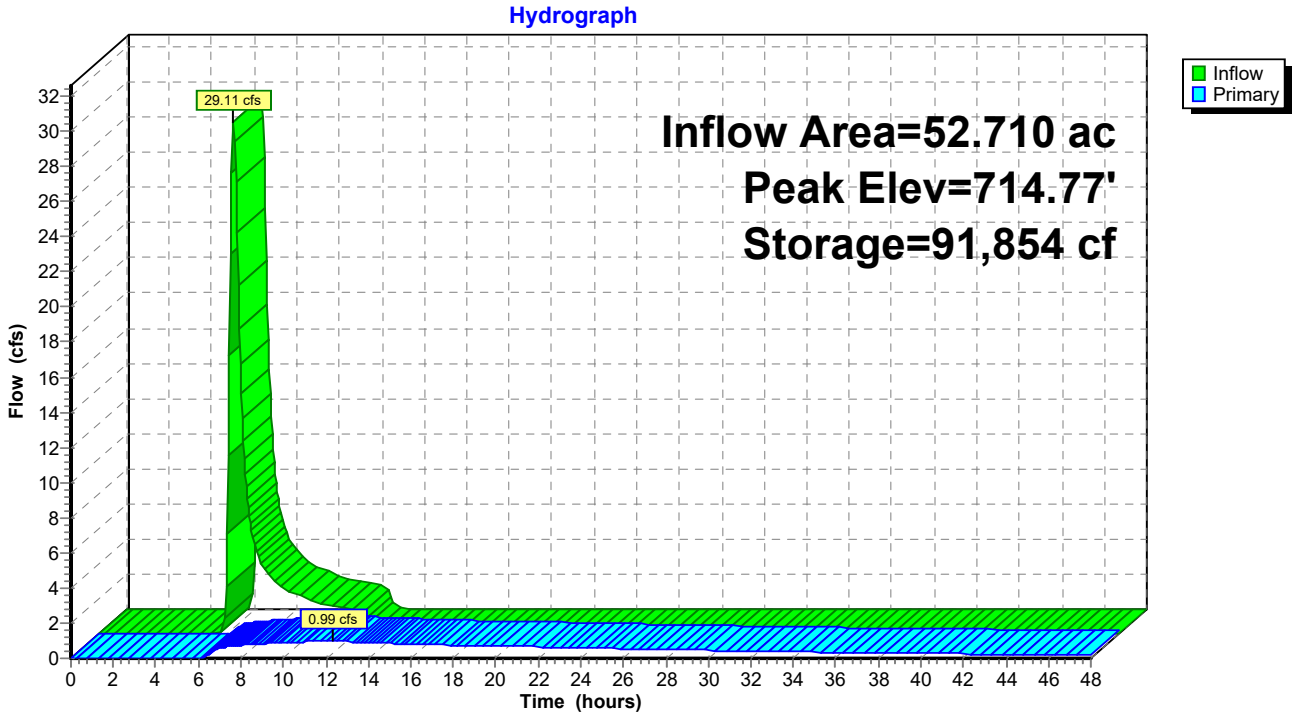
Volume	Invert	Avail.Storage	Storage Description
#1	714.00'	662,452 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
714.00	117,378	0	0	117,378
715.00	122,945	120,151	120,151	123,079
716.00	128,613	125,768	245,919	128,885
717.00	134,381	131,486	377,406	134,794
718.00	140,250	137,305	514,711	140,808
719.00	155,361	147,741	662,452	155,981

Device	Routing	Invert	Outlet Devices
#1	Primary	714.00'	**30.0" Round Culvert** L= 390.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 714.00' / 712.05' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf
#2	Device 1	714.00'	**6.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	714.60'	**11.5" Vert. Orifice/Grate** C= 0.600
#4	Device 1	717.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.99 cfs @ 12.34 hrs HW=714.77' (Free Discharge)
└**1=Culvert** (Passes 0.99 cfs of 3.47 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.87 cfs @ 3.34 fps)
  ├**3=Orifice/Grate** (Orifice Controls 0.12 cfs @ 1.40 fps)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Pond PB-NE: NE Basin



Summary for Pond PB-NE: NE Basin

Inflow Area = 52.710 ac, 30.78% Impervious, Inflow Depth = 0.79" for 1-Year 24-hr event
Inflow = 34.15 cfs @ 12.26 hrs, Volume= 3.459 af
Outflow = 1.26 cfs @ 19.18 hrs, Volume= 2.448 af, Atten= 96%, Lag= 415.2 min
Primary = 1.26 cfs @ 19.18 hrs, Volume= 2.448 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 714.87' @ 19.18 hrs Surf.Area= 122,241 sf Storage= 104,799 cf

Plug-Flow detention time= 851.5 min calculated for 2.448 af (71% of inflow)
Center-of-Mass det. time= 741.8 min (1,616.0 - 874.3)

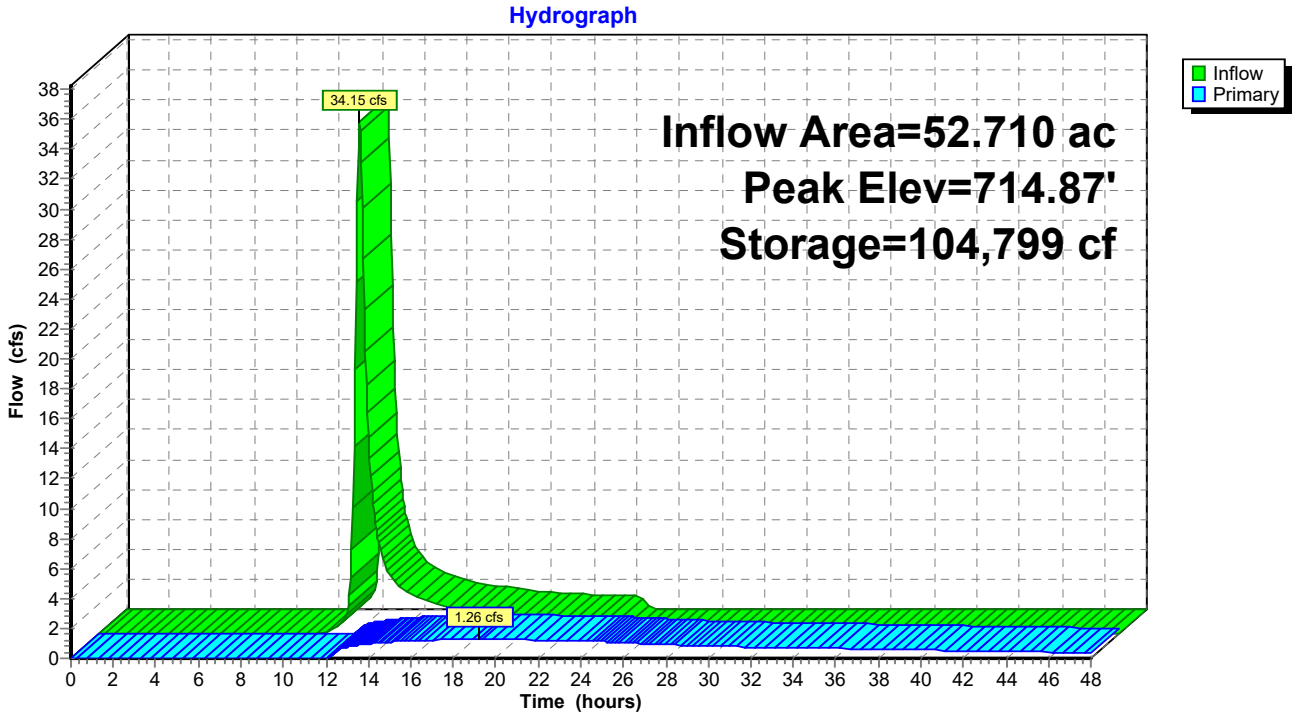
Volume	Invert	Avail.Storage	Storage Description
#1	714.00'	662,452 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
714.00	117,378	0	0	117,378
715.00	122,945	120,151	120,151	123,079
716.00	128,613	125,768	245,919	128,885
717.00	134,381	131,486	377,406	134,794
718.00	140,250	137,305	514,711	140,808
719.00	155,361	147,741	662,452	155,981

Device	Routing	Invert	Outlet Devices
#1	Primary	714.00'	**30.0" Round Culvert** L= 390.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 714.00' / 712.05' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf
#2	Device 1	714.00'	**6.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	714.60'	**11.5" Vert. Orifice/Grate** C= 0.600
#4	Device 1	717.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.26 cfs @ 19.18 hrs HW=714.87' (Free Discharge)
└**1=Culvert** (Passes 1.26 cfs of 4.46 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.96 cfs @ 3.69 fps)
  ├**3=Orifice/Grate** (Orifice Controls 0.30 cfs @ 1.78 fps)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Pond PB-NE: NE Basin



Summary for Pond PB-NE: NE Basin

Inflow Area = 52.710 ac, 30.78% Impervious, Inflow Depth = 0.82" for 2-Year event
Inflow = 43.48 cfs @ 6.33 hrs, Volume= 3.612 af
Outflow = 1.79 cfs @ 12.18 hrs, Volume= 2.792 af, Atten= 96%, Lag= 351.0 min
Primary = 1.79 cfs @ 12.18 hrs, Volume= 2.792 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 715.03' @ 12.18 hrs Surf.Area= 123,129 sf Storage= 124,189 cf

Plug-Flow detention time= 853.7 min calculated for 2.792 af (77% of inflow)
Center-of-Mass det. time= 806.4 min (1,256.8 - 450.4)

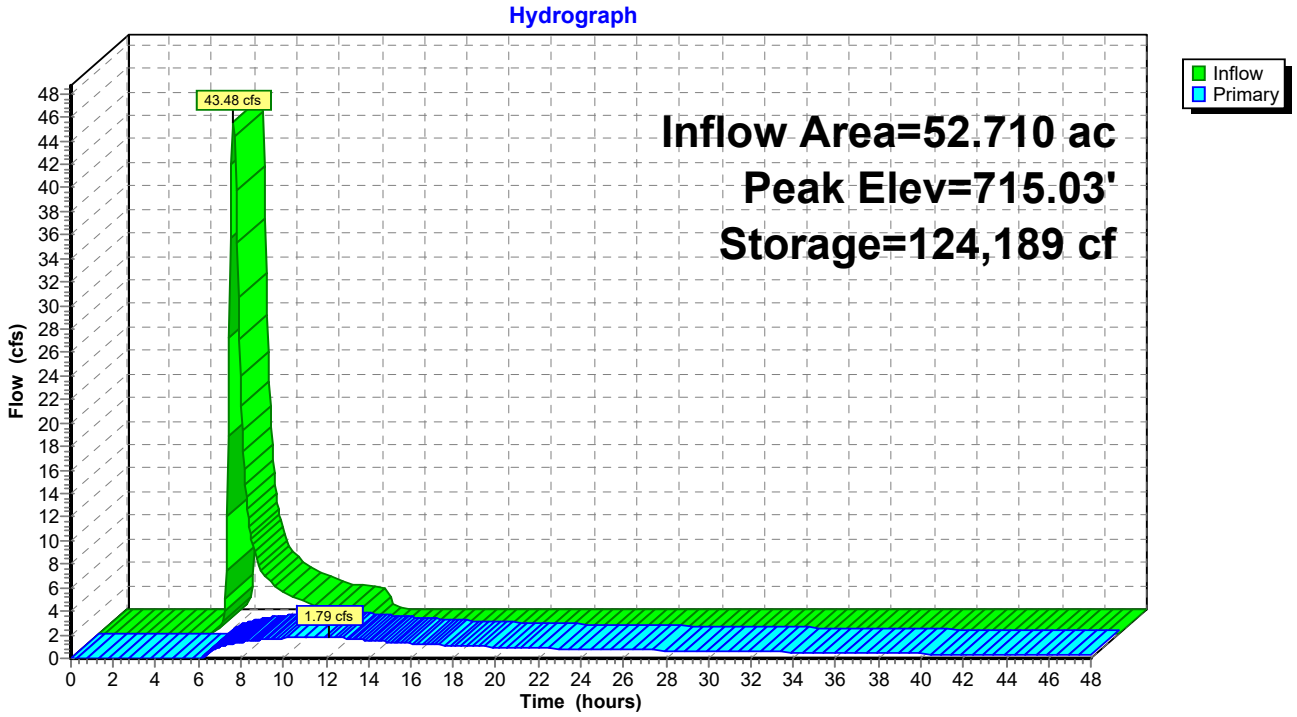
Volume	Invert	Avail.Storage	Storage Description
#1	714.00'	662,452 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
714.00	117,378	0	0	117,378
715.00	122,945	120,151	120,151	123,079
716.00	128,613	125,768	245,919	128,885
717.00	134,381	131,486	377,406	134,794
718.00	140,250	137,305	514,711	140,808
719.00	155,361	147,741	662,452	155,981

Device	Routing	Invert	Outlet Devices
#1	Primary	714.00'	**30.0" Round Culvert** L= 390.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 714.00' / 712.05' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf
#2	Device 1	714.00'	**6.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	714.60'	**11.5" Vert. Orifice/Grate** C= 0.600
#4	Device 1	717.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.79 cfs @ 12.18 hrs HW=715.03' (Free Discharge)
└**1=Culvert** (Passes 1.79 cfs of 6.09 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 1.08 cfs @ 4.16 fps)
  ├**3=Orifice/Grate** (Orifice Controls 0.71 cfs @ 2.24 fps)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Pond PB-NE: NE Basin



Summary for Pond PB-NE: NE Basin

Inflow Area = 52.710 ac, 30.78% Impervious, Inflow Depth = 1.22" for 5-Year event
Inflow = 66.67 cfs @ 6.32 hrs, Volume= 5.355 af
Outflow = 3.33 cfs @ 10.06 hrs, Volume= 4.416 af, Atten= 95%, Lag= 224.2 min
Primary = 3.33 cfs @ 10.06 hrs, Volume= 4.416 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 715.41' @ 10.06 hrs Surf.Area= 125,278 sf Storage= 171,566 cf

Plug-Flow detention time= 739.0 min calculated for 4.416 af (82% of inflow)
Center-of-Mass det. time= 699.7 min (1,144.4 - 444.6)

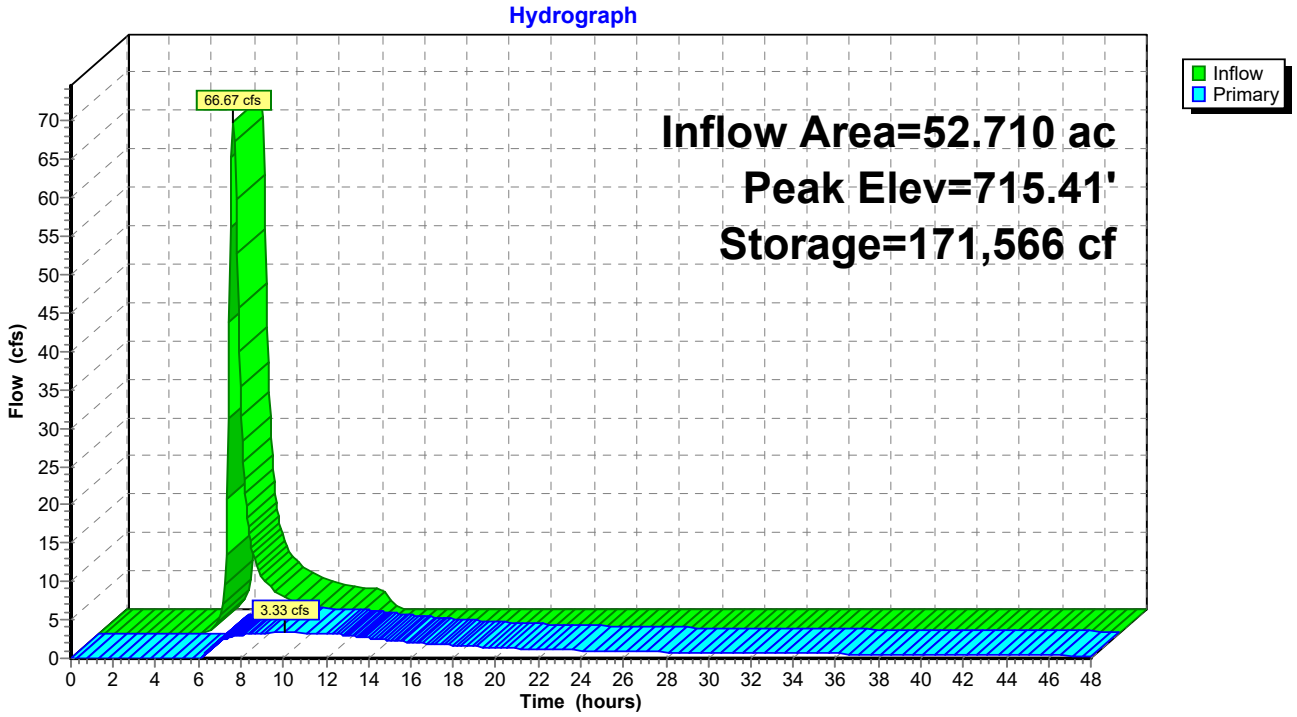
Volume	Invert	Avail.Storage	Storage Description
#1	714.00'	662,452 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
714.00	117,378	0	0	117,378
715.00	122,945	120,151	120,151	123,079
716.00	128,613	125,768	245,919	128,885
717.00	134,381	131,486	377,406	134,794
718.00	140,250	137,305	514,711	140,808
719.00	155,361	147,741	662,452	155,981

Device	Routing	Invert	Outlet Devices
#1	Primary	714.00'	**30.0" Round Culvert** L= 390.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 714.00' / 712.05' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf
#2	Device 1	714.00'	**6.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	714.60'	**11.5" Vert. Orifice/Grate** C= 0.600
#4	Device 1	717.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=3.33 cfs @ 10.06 hrs HW=715.41' (Free Discharge)
└**1=Culvert** (Passes 3.33 cfs of 10.73 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 1.33 cfs @ 5.11 fps)
  ├**3=Orifice/Grate** (Orifice Controls 2.01 cfs @ 3.07 fps)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Pond PB-NE: NE Basin



Summary for Pond PB-NE: NE Basin

Inflow Area = 52.710 ac, 30.78% Impervious, Inflow Depth = 1.57" for 10-Year event
Inflow = 87.22 cfs @ 6.32 hrs, Volume= 6.911 af
Outflow = 4.44 cfs @ 9.79 hrs, Volume= 5.880 af, Atten= 95%, Lag= 208.2 min
Primary = 4.44 cfs @ 9.79 hrs, Volume= 5.880 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 715.78' @ 9.79 hrs Surf.Area= 127,371 sf Storage= 218,111 cf

Plug-Flow detention time= 693.8 min calculated for 5.880 af (85% of inflow)
Center-of-Mass det. time= 659.1 min (1,100.0 - 441.0)

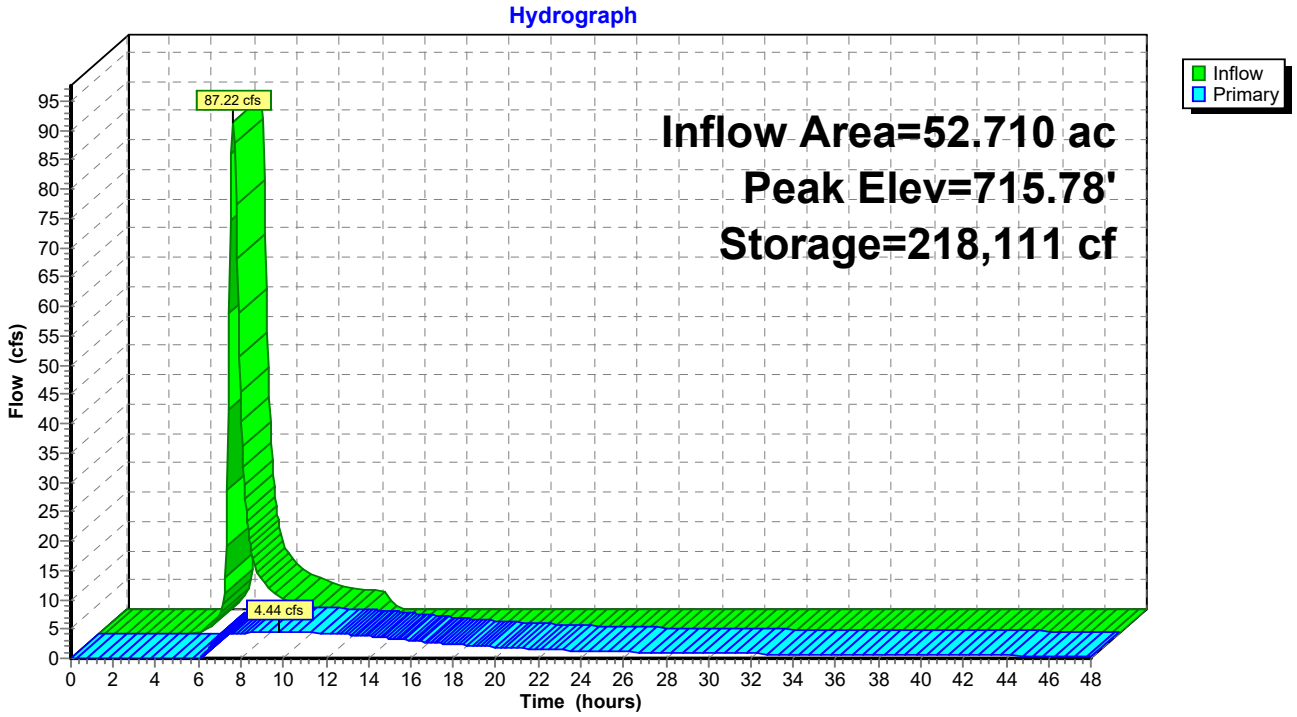
Volume	Invert	Avail.Storage	Storage Description
#1	714.00'	662,452 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
714.00	117,378	0	0	117,378
715.00	122,945	120,151	120,151	123,079
716.00	128,613	125,768	245,919	128,885
717.00	134,381	131,486	377,406	134,794
718.00	140,250	137,305	514,711	140,808
719.00	155,361	147,741	662,452	155,981

Device	Routing	Invert	Outlet Devices
#1	Primary	714.00'	**30.0" Round Culvert** L= 390.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 714.00' / 712.05' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf
#2	Device 1	714.00'	**6.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	714.60'	**11.5" Vert. Orifice/Grate** C= 0.600
#4	Device 1	717.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=4.44 cfs @ 9.79 hrs HW=715.78' (Free Discharge)
└**1=Culvert** (Passes 4.44 cfs of 15.80 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 1.53 cfs @ 5.89 fps)
  ├**3=Orifice/Grate** (Orifice Controls 2.91 cfs @ 4.04 fps)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Pond PB-NE: NE Basin



Summary for Pond PB-NE: NE Basin

Inflow Area = 52.710 ac, 30.78% Impervious, Inflow Depth = 2.10" for 25-Year event
Inflow = 117.74 cfs @ 6.32 hrs, Volume= 9.239 af
Outflow = 5.74 cfs @ 9.71 hrs, Volume= 8.067 af, Atten= 95%, Lag= 203.9 min
Primary = 5.74 cfs @ 9.71 hrs, Volume= 8.067 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 716.37' @ 9.71 hrs Surf.Area= 130,717 sf Storage= 293,549 cf

Plug-Flow detention time= 680.8 min calculated for 8.067 af (87% of inflow)
Center-of-Mass det. time= 650.0 min (1,086.9 - 436.9)

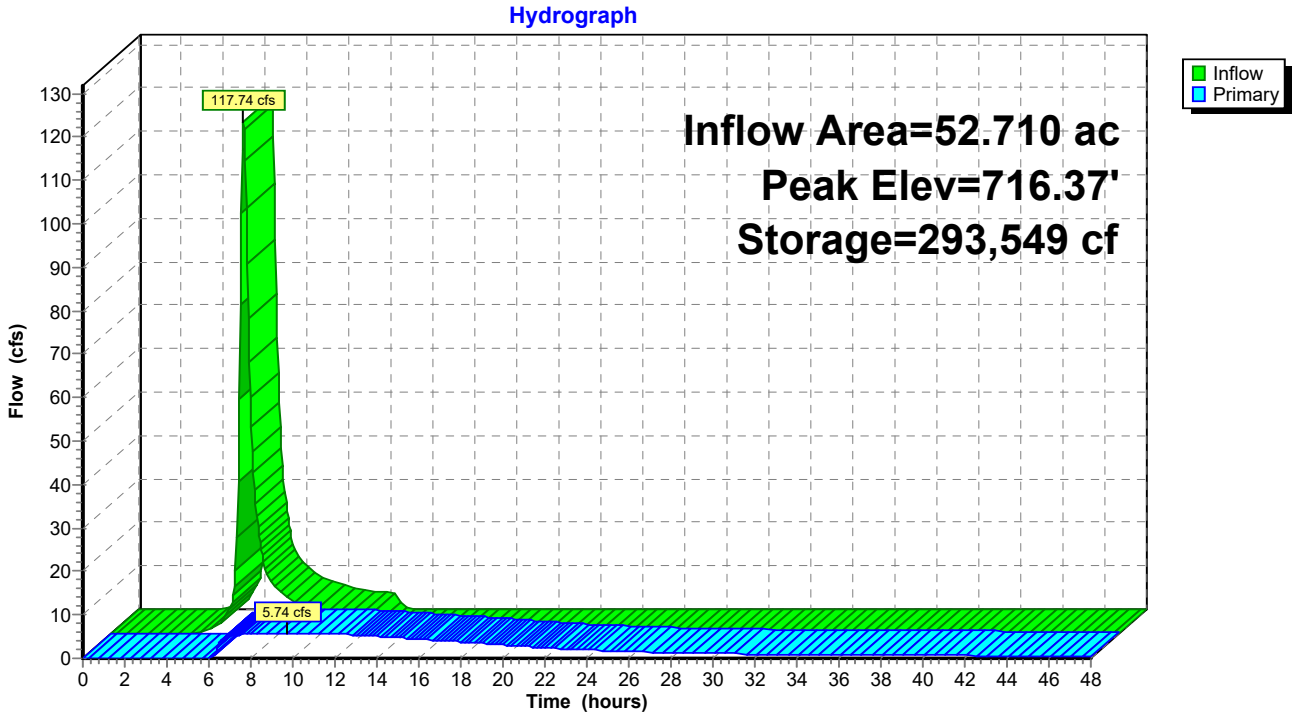
Volume	Invert	Avail.Storage	Storage Description
#1	714.00'	662,452 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
714.00	117,378	0	0	117,378
715.00	122,945	120,151	120,151	123,079
716.00	128,613	125,768	245,919	128,885
717.00	134,381	131,486	377,406	134,794
718.00	140,250	137,305	514,711	140,808
719.00	155,361	147,741	662,452	155,981

Device	Routing	Invert	Outlet Devices
#1	Primary	714.00'	**30.0" Round Culvert** L= 390.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 714.00' / 712.05' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf
#2	Device 1	714.00'	**6.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	714.60'	**11.5" Vert. Orifice/Grate** C= 0.600
#4	Device 1	717.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=5.75 cfs @ 9.71 hrs HW=716.37' (Free Discharge)
└**1=Culvert** (Passes 5.75 cfs of 24.04 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 1.80 cfs @ 6.94 fps)
  ├**3=Orifice/Grate** (Orifice Controls 3.94 cfs @ 5.46 fps)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Pond PB-NE: NE Basin



Summary for Pond PB-NE: NE Basin

Inflow Area = 52.710 ac, 30.78% Impervious, Inflow Depth = 2.57" for 50-Year event
Inflow = 144.29 cfs @ 6.31 hrs, Volume= 11.280 af
Outflow = 6.69 cfs @ 9.75 hrs, Volume= 9.979 af, Atten= 95%, Lag= 206.1 min
Primary = 6.69 cfs @ 9.75 hrs, Volume= 9.979 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 716.89' @ 9.75 hrs Surf.Area= 133,739 sf Storage= 362,620 cf

Plug-Flow detention time= 689.2 min calculated for 9.969 af (88% of inflow)
Center-of-Mass det. time= 662.3 min (1,096.3 - 434.0)

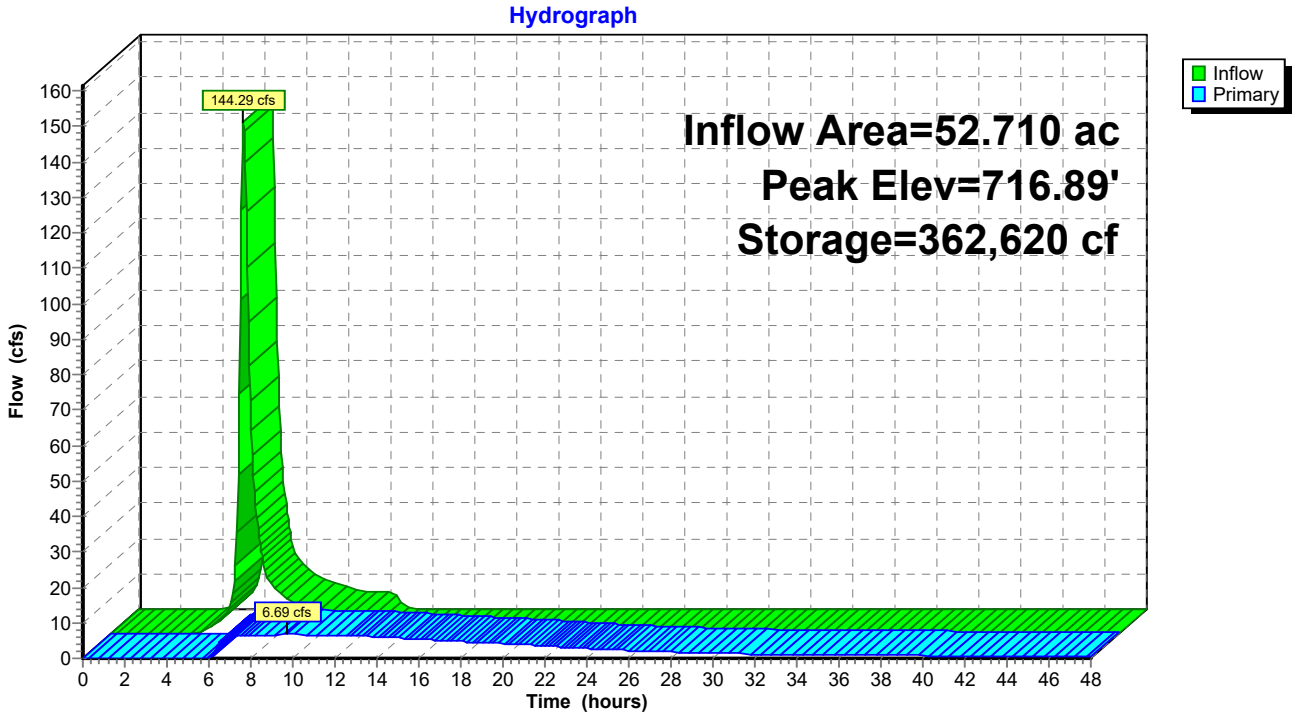
Volume	Invert	Avail.Storage	Storage Description
#1	714.00'	662,452 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
714.00	117,378	0	0	117,378
715.00	122,945	120,151	120,151	123,079
716.00	128,613	125,768	245,919	128,885
717.00	134,381	131,486	377,406	134,794
718.00	140,250	137,305	514,711	140,808
719.00	155,361	147,741	662,452	155,981

Device	Routing	Invert	Outlet Devices
#1	Primary	714.00'	**30.0" Round Culvert** L= 390.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 714.00' / 712.05' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf
#2	Device 1	714.00'	**6.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	714.60'	**11.5" Vert. Orifice/Grate** C= 0.600
#4	Device 1	717.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=6.69 cfs @ 9.75 hrs HW=716.89' (Free Discharge)
└**1=Culvert** (Passes 6.69 cfs of 30.07 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 2.02 cfs @ 7.77 fps)
  ├**3=Orifice/Grate** (Orifice Controls 4.67 cfs @ 6.48 fps)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Pond PB-NE: NE Basin



Summary for Pond PB-NE: NE Basin

Inflow Area = 52.710 ac, 30.78% Impervious, Inflow Depth = 3.08" for 100-Year event
Inflow = 173.35 cfs @ 6.31 hrs, Volume= 13.531 af
Outflow = 7.60 cfs @ 9.82 hrs, Volume= 12.082 af, Atten= 96%, Lag= 210.7 min
Primary = 7.60 cfs @ 9.82 hrs, Volume= 12.082 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 717.47' @ 9.82 hrs Surf.Area= 137,104 sf Storage= 440,751 cf

Plug-Flow detention time= 710.5 min calculated for 12.070 af (89% of inflow)
Center-of-Mass det. time= 685.2 min (1,116.7 - 431.4)

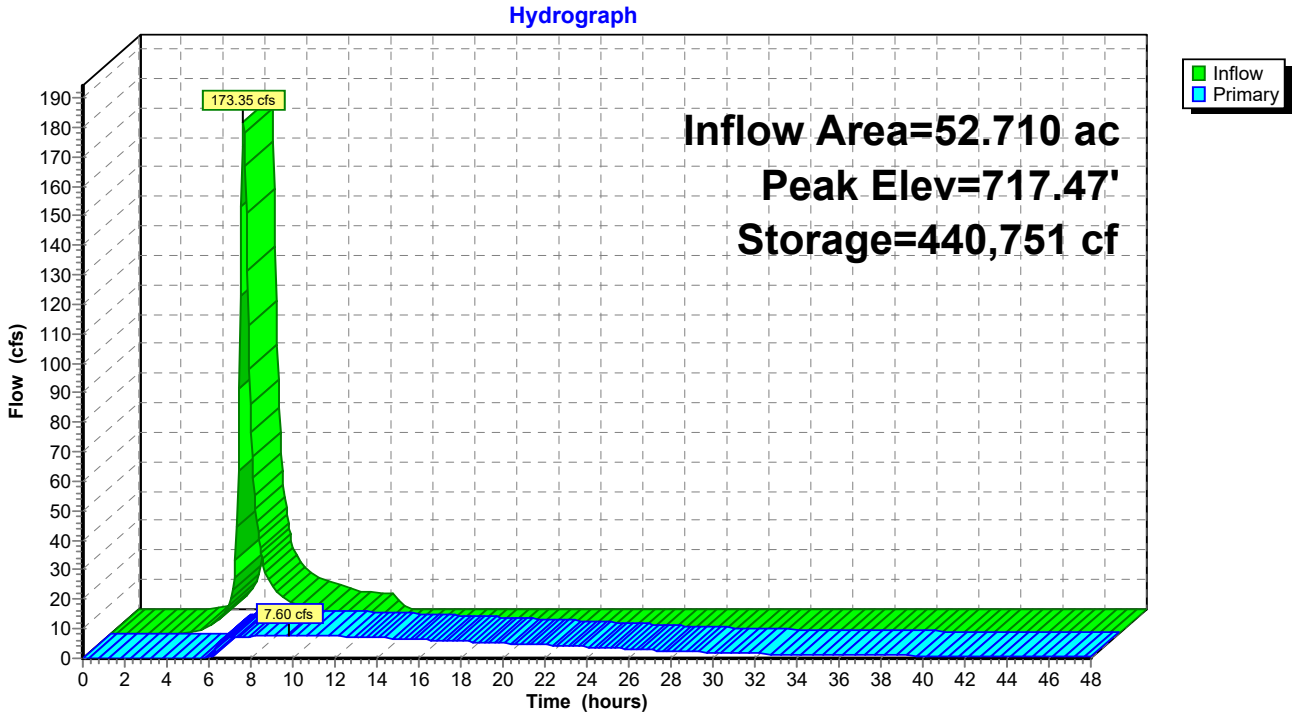
Volume	Invert	Avail.Storage	Storage Description
#1	714.00'	662,452 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
714.00	117,378	0	0	117,378
715.00	122,945	120,151	120,151	123,079
716.00	128,613	125,768	245,919	128,885
717.00	134,381	131,486	377,406	134,794
718.00	140,250	137,305	514,711	140,808
719.00	155,361	147,741	662,452	155,981

Device	Routing	Invert	Outlet Devices
#1	Primary	714.00'	**30.0" Round Culvert** L= 390.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 714.00' / 712.05' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf
#2	Device 1	714.00'	**6.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	714.60'	**11.5" Vert. Orifice/Grate** C= 0.600
#4	Device 1	717.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=7.60 cfs @ 9.82 hrs HW=717.47' (Free Discharge)
└**1=Culvert** (Passes 7.60 cfs of 31.45 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 2.23 cfs @ 8.59 fps)
  ├**3=Orifice/Grate** (Orifice Controls 5.37 cfs @ 7.44 fps)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Pond PB-NE: NE Basin



Summary for Pond PB-SE: SE Basin

Inflow Area = 21.580 ac, 64.34% Impervious, Inflow Depth = 0.99" for 1-Year event
Inflow = 36.74 cfs @ 6.12 hrs, Volume= 1.785 af
Outflow = 1.93 cfs @ 7.77 hrs, Volume= 1.632 af, Atten= 95%, Lag= 98.7 min
Primary = 1.93 cfs @ 7.77 hrs, Volume= 1.632 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 718.40' @ 7.77 hrs Surf.Area= 38,506 sf Storage= 50,429 cf

Plug-Flow detention time= 577.9 min calculated for 1.632 af (91% of inflow)
Center-of-Mass det. time= 555.5 min (979.6 - 424.2)

Volume	Invert	Avail.Storage	Storage Description
#1	717.00'	215,607 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

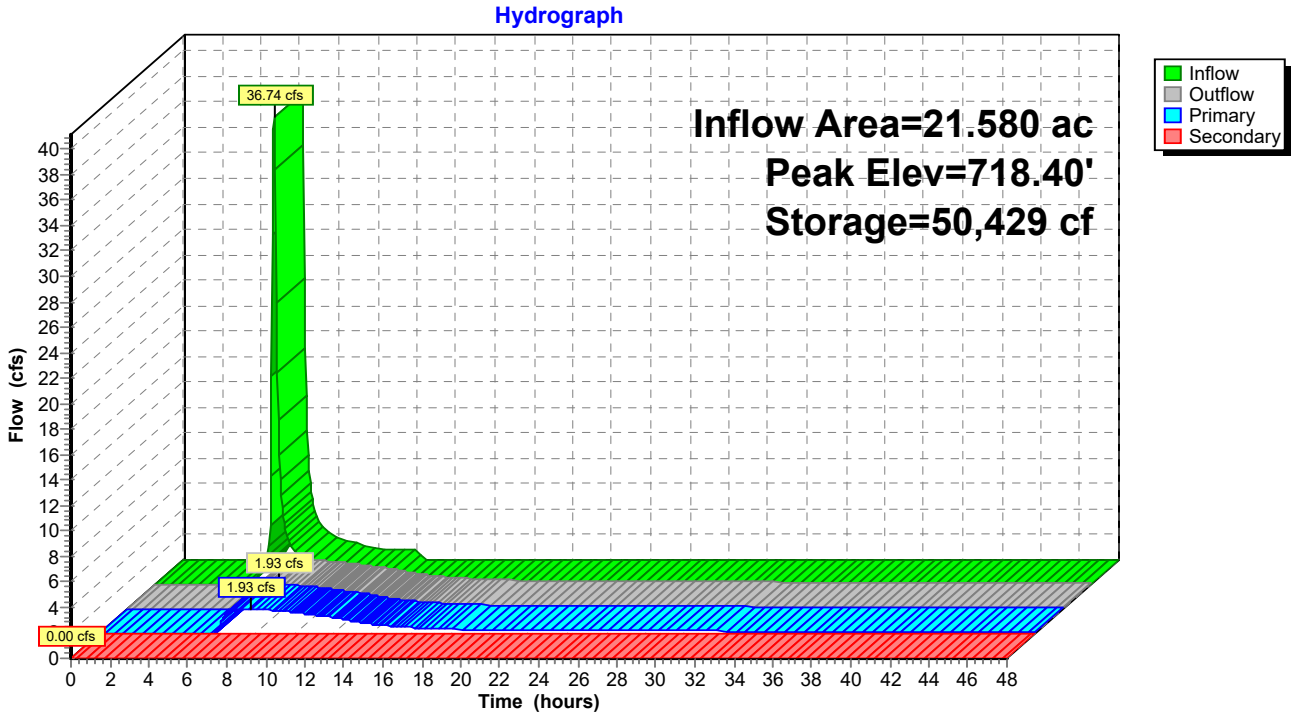
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
717.00	33,709	0	0	33,709
718.00	37,127	35,404	35,404	37,191
719.00	40,645	38,873	74,277	40,778
720.00	44,264	42,442	116,719	44,470
721.00	47,983	46,111	162,830	48,266
722.00	57,721	52,777	215,607	58,038

Device	Routing	Invert	Outlet Devices
#1	Primary	717.00'	**18.0" Round Culvert** L= 150.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 717.00' / 715.00' S= 0.0133 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	717.00'	**3.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	717.75'	**12.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	720.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	721.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=1.93 cfs @ 7.77 hrs HW=718.40' (Free Discharge)
└**1=Culvert** (Passes 1.93 cfs of 6.90 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.44 cfs @ 5.35 fps)
  ├**3=Orifice/Grate** (Orifice Controls 1.49 cfs @ 2.98 fps)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=717.00' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond PB-SE: SE Basin



Summary for Pond PB-SE: SE Basin

Inflow Area = 21.580 ac, 64.34% Impervious, Inflow Depth = 1.27" for 1-Year 24-hr event
Inflow = 35.04 cfs @ 12.07 hrs, Volume= 2.277 af
Outflow = 2.27 cfs @ 13.35 hrs, Volume= 2.032 af, Atten= 94%, Lag= 76.6 min
Primary = 2.27 cfs @ 13.35 hrs, Volume= 2.032 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 718.57' @ 13.35 hrs Surf.Area= 39,110 sf Storage= 57,099 cf

Plug-Flow detention time= 508.5 min calculated for 2.030 af (89% of inflow)
Center-of-Mass det. time= 455.7 min (1,283.2 - 827.5)

Volume	Invert	Avail.Storage	Storage Description
#1	717.00'	215,607 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

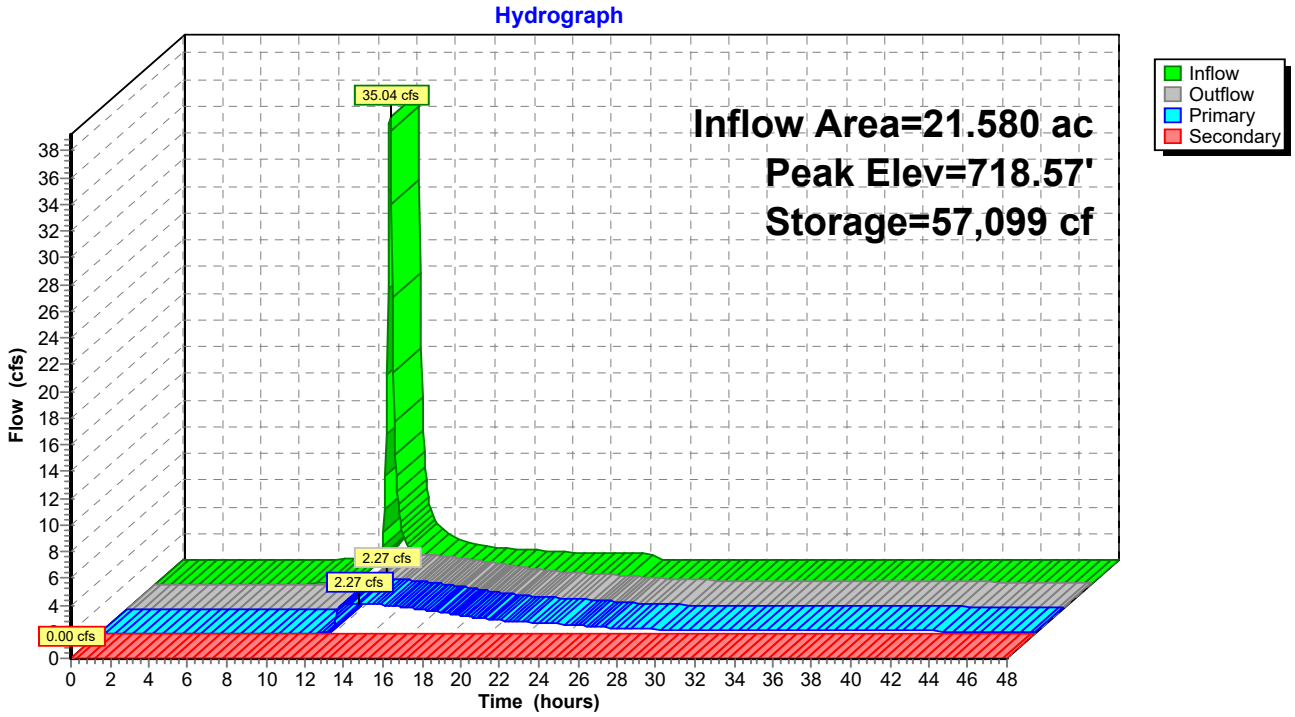
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
717.00	33,709	0	0	33,709
718.00	37,127	35,404	35,404	37,191
719.00	40,645	38,873	74,277	40,778
720.00	44,264	42,442	116,719	44,470
721.00	47,983	46,111	162,830	48,266
722.00	57,721	52,777	215,607	58,038

Device	Routing	Invert	Outlet Devices
#1	Primary	717.00'	**18.0" Round Culvert** L= 150.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 717.00' / 715.00' S= 0.0133 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	717.00'	**3.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	717.75'	**12.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	720.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	721.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=2.27 cfs @ 13.35 hrs HW=718.57' (Free Discharge)
└**1=Culvert** (Passes 2.27 cfs of 7.70 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.47 cfs @ 5.71 fps)
  ├**3=Orifice/Grate** (Orifice Controls 1.80 cfs @ 3.60 fps)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=717.00' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond PB-SE: SE Basin



Summary for Pond PB-SE: SE Basin

Inflow Area = 21.580 ac, 64.34% Impervious, Inflow Depth = 1.31" for 2-Year event
Inflow = 48.65 cfs @ 6.12 hrs, Volume= 2.356 af
Outflow = 2.65 cfs @ 7.57 hrs, Volume= 2.193 af, Atten= 95%, Lag= 87.1 min
Primary = 2.65 cfs @ 7.57 hrs, Volume= 2.193 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 718.80' @ 7.57 hrs Surf.Area= 39,925 sf Storage= 66,182 cf

Plug-Flow detention time= 511.0 min calculated for 2.193 af (93% of inflow)
Center-of-Mass det. time= 492.1 min (912.3 - 420.2)

Volume	Invert	Avail.Storage	Storage Description
#1	717.00'	215,607 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

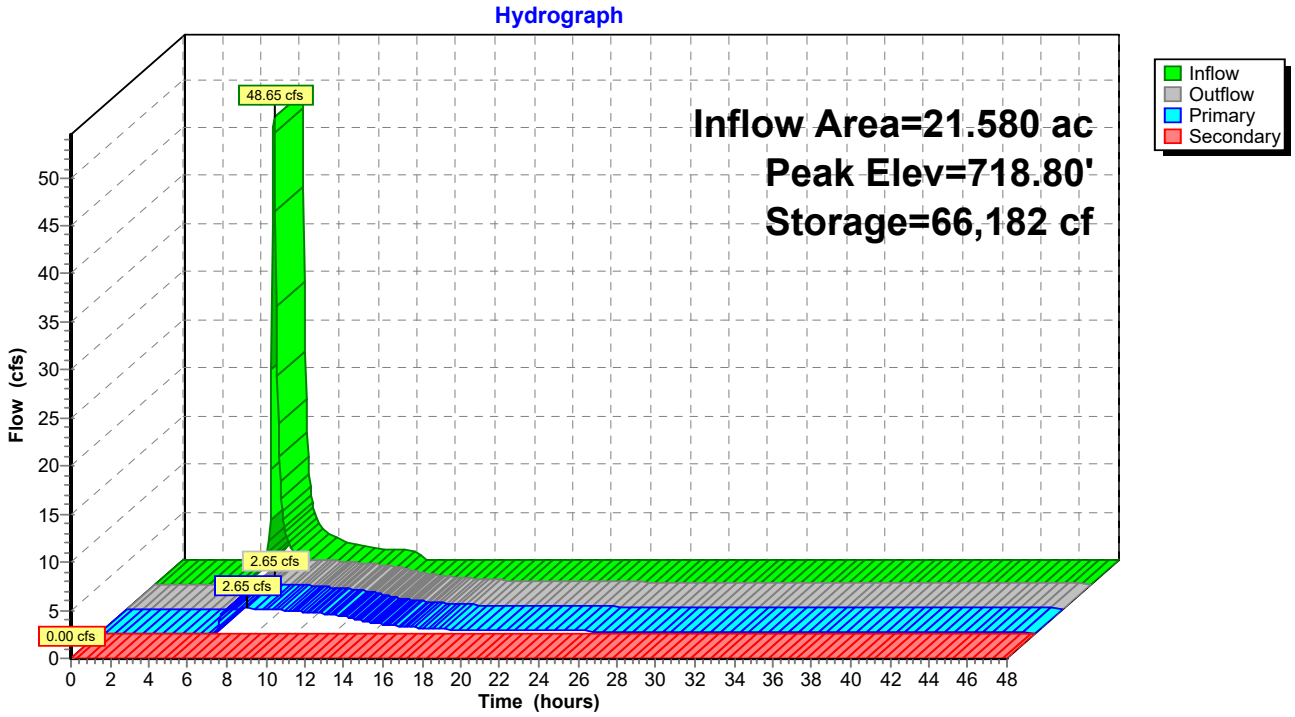
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
717.00	33,709	0	0	33,709
718.00	37,127	35,404	35,404	37,191
719.00	40,645	38,873	74,277	40,778
720.00	44,264	42,442	116,719	44,470
721.00	47,983	46,111	162,830	48,266
722.00	57,721	52,777	215,607	58,038

Device	Routing	Invert	Outlet Devices
#1	Primary	717.00'	**18.0" Round Culvert** L= 150.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 717.00' / 715.00' S= 0.0133 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	717.00'	**3.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	717.75'	**12.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	720.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	721.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=2.65 cfs @ 7.57 hrs HW=718.80' (Free Discharge)
└**1=Culvert** (Passes 2.65 cfs of 8.71 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.51 cfs @ 6.16 fps)
  ├**3=Orifice/Grate** (Orifice Controls 2.14 cfs @ 4.29 fps)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=717.00' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond PB-SE: SE Basin



Summary for Pond PB-SE: SE Basin

Inflow Area = 21.580 ac, 64.34% Impervious, Inflow Depth = 1.79" for 5-Year event
Inflow = 66.47 cfs @ 6.12 hrs, Volume= 3.223 af
Outflow = 3.48 cfs @ 7.56 hrs, Volume= 3.042 af, Atten= 95%, Lag= 86.3 min
Primary = 3.48 cfs @ 7.56 hrs, Volume= 3.042 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 719.43' @ 7.56 hrs Surf.Area= 42,185 sf Storage= 92,115 cf

Plug-Flow detention time= 475.8 min calculated for 3.042 af (94% of inflow)
Center-of-Mass det. time= 460.0 min (875.8 - 415.7)

Volume	Invert	Avail.Storage	Storage Description
#1	717.00'	215,607 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

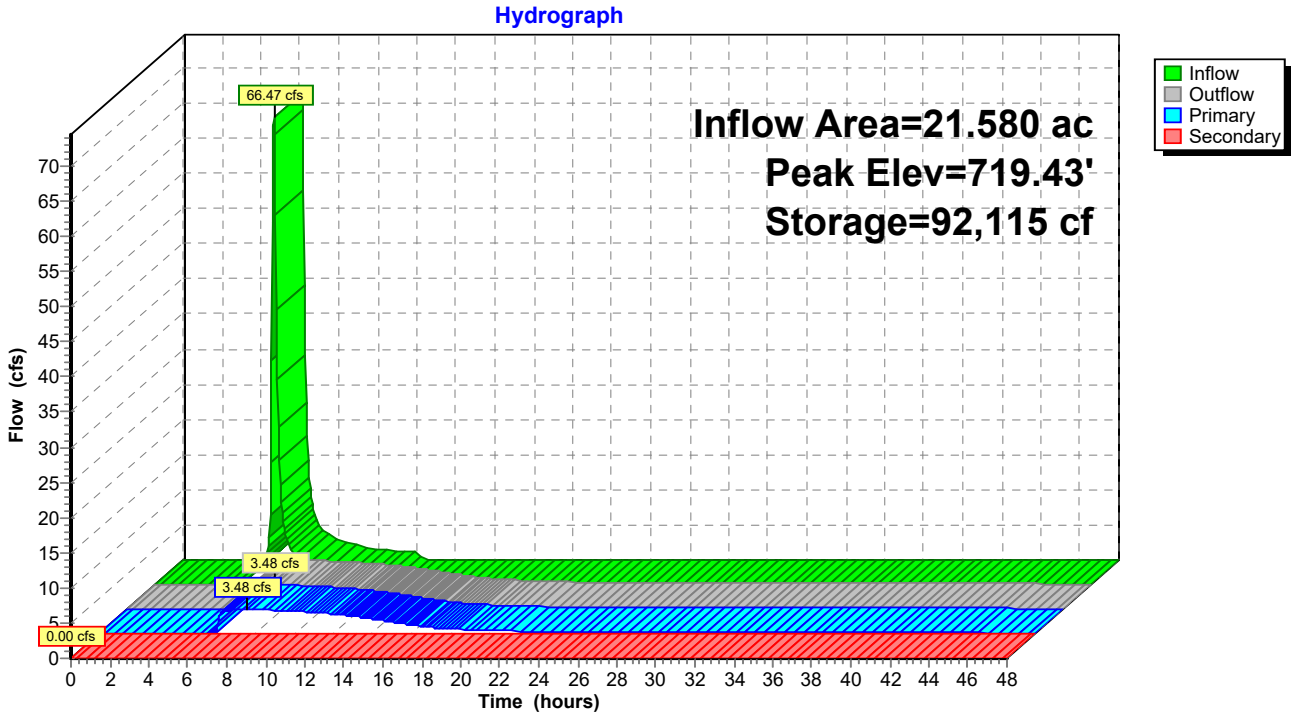
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
717.00	33,709	0	0	33,709
718.00	37,127	35,404	35,404	37,191
719.00	40,645	38,873	74,277	40,778
720.00	44,264	42,442	116,719	44,470
721.00	47,983	46,111	162,830	48,266
722.00	57,721	52,777	215,607	58,038

Device	Routing	Invert	Outlet Devices
#1	Primary	717.00'	**18.0" Round Culvert** L= 150.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 717.00' / 715.00' S= 0.0133 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	717.00'	**3.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	717.75'	**12.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	720.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	721.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=3.48 cfs @ 7.56 hrs HW=719.43' (Free Discharge)
└**1=Culvert** (Passes 3.48 cfs of 11.03 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.60 cfs @ 7.25 fps)
  ├**3=Orifice/Grate** (Orifice Controls 2.88 cfs @ 5.75 fps)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=717.00' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond PB-SE: SE Basin



Summary for Pond PB-SE: SE Basin

Inflow Area = 21.580 ac, 64.34% Impervious, Inflow Depth = 2.21" for 10-Year event
Inflow = 81.52 cfs @ 6.12 hrs, Volume= 3.967 af
Outflow = 4.04 cfs @ 7.62 hrs, Volume= 3.770 af, Atten= 95%, Lag= 89.8 min
Primary = 4.04 cfs @ 7.62 hrs, Volume= 3.770 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 719.97' @ 7.62 hrs Surf.Area= 44,143 sf Storage= 115,272 cf

Plug-Flow detention time= 469.9 min calculated for 3.770 af (95% of inflow)
Center-of-Mass det. time= 455.7 min (868.5 - 412.8)

Volume	Invert	Avail.Storage	Storage Description
#1	717.00'	215,607 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

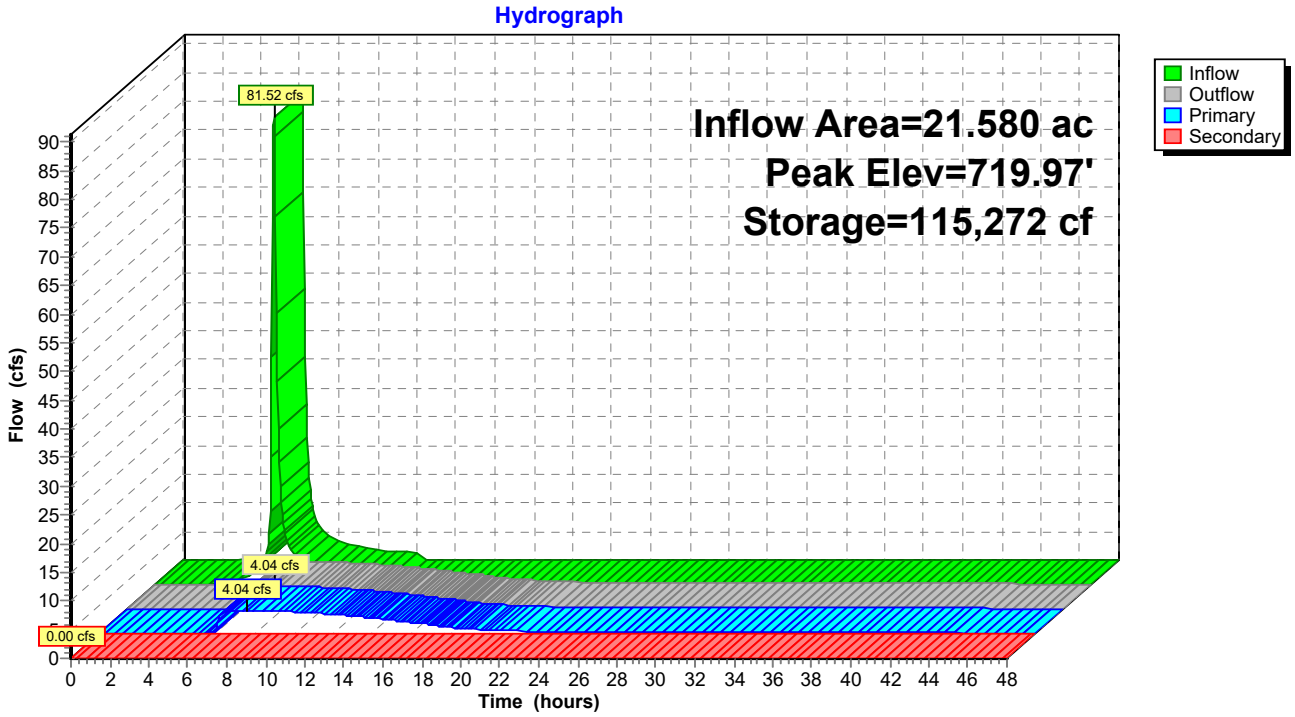
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
717.00	33,709	0	0	33,709
718.00	37,127	35,404	35,404	37,191
719.00	40,645	38,873	74,277	40,778
720.00	44,264	42,442	116,719	44,470
721.00	47,983	46,111	162,830	48,266
722.00	57,721	52,777	215,607	58,038

Device	Routing	Invert	Outlet Devices
#1	Primary	717.00'	**18.0" Round Culvert** L= 150.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 717.00' / 715.00' S= 0.0133 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	717.00'	**3.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	717.75'	**12.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	720.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	721.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=4.04 cfs @ 7.62 hrs HW=719.97' (Free Discharge)
└**1=Culvert** (Passes 4.04 cfs of 12.67 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.67 cfs @ 8.06 fps)
  ├**3=Orifice/Grate** (Orifice Controls 3.37 cfs @ 6.75 fps)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=717.00' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond PB-SE: SE Basin



Summary for Pond PB-SE: SE Basin

Inflow Area = 21.580 ac, 64.34% Impervious, Inflow Depth = 2.81" for 25-Year event
Inflow = 103.05 cfs @ 6.12 hrs, Volume= 5.045 af
Outflow = 4.73 cfs @ 7.72 hrs, Volume= 4.825 af, Atten= 95%, Lag= 96.3 min
Primary = 4.73 cfs @ 7.72 hrs, Volume= 4.825 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 720.73' @ 7.72 hrs Surf.Area= 46,948 sf Storage= 149,814 cf

Plug-Flow detention time= 476.1 min calculated for 4.820 af (96% of inflow)
Center-of-Mass det. time= 465.1 min (874.5 - 409.4)

Volume	Invert	Avail.Storage	Storage Description
#1	717.00'	215,607 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

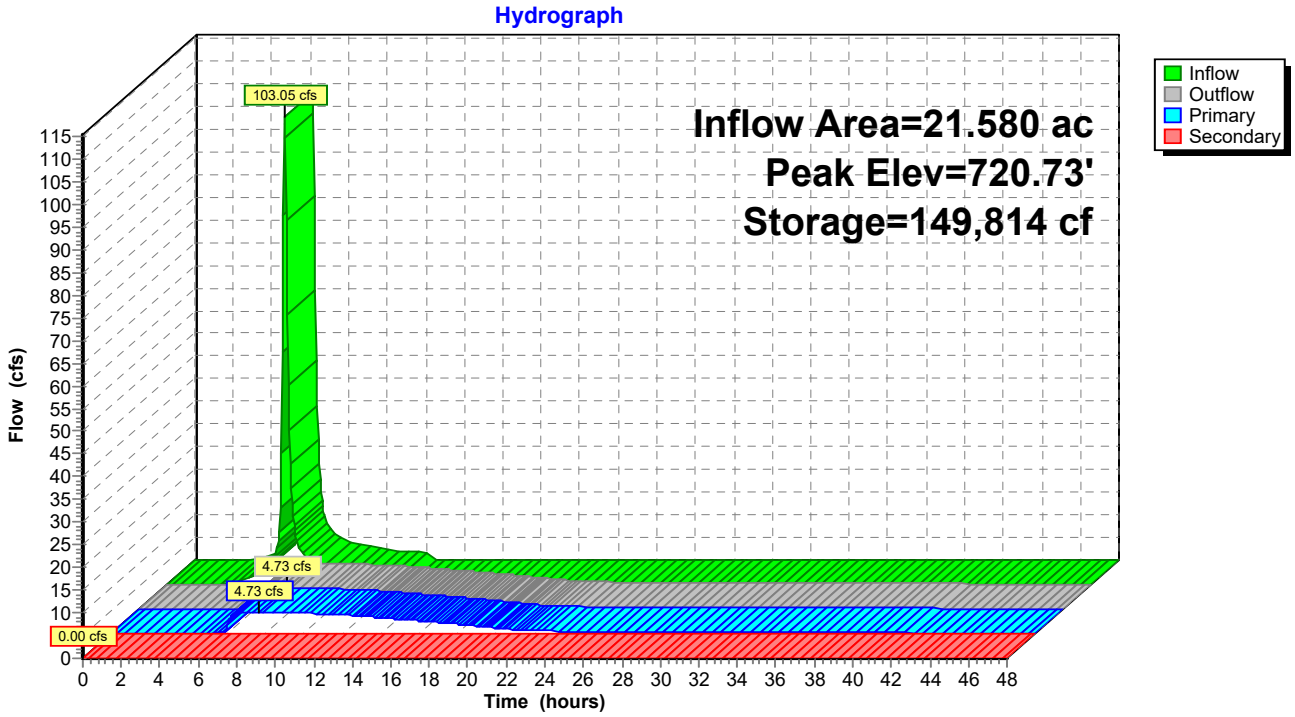
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
717.00	33,709	0	0	33,709
718.00	37,127	35,404	35,404	37,191
719.00	40,645	38,873	74,277	40,778
720.00	44,264	42,442	116,719	44,470
721.00	47,983	46,111	162,830	48,266
722.00	57,721	52,777	215,607	58,038

Device	Routing	Invert	Outlet Devices
#1	Primary	717.00'	**18.0" Round Culvert** L= 150.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 717.00' / 715.00' S= 0.0133 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	717.00'	**3.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	717.75'	**12.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	720.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	721.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=4.73 cfs @ 7.72 hrs HW=720.73' (Free Discharge)
└**1=Culvert** (Passes 4.73 cfs of 14.68 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.75 cfs @ 9.09 fps)
  ├**3=Orifice/Grate** (Orifice Controls 3.97 cfs @ 7.95 fps)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=717.00' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond PB-SE: SE Basin



Summary for Pond PB-SE: SE Basin

Inflow Area = 21.580 ac, 64.34% Impervious, Inflow Depth = 3.32" for 50-Year event
Inflow = 121.23 cfs @ 6.12 hrs, Volume= 5.969 af
Outflow = 9.61 cfs @ 6.88 hrs, Volume= 5.738 af, Atten= 92%, Lag= 45.8 min
Primary = 8.24 cfs @ 6.88 hrs, Volume= 5.641 af
Secondary = 1.38 cfs @ 6.88 hrs, Volume= 0.097 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 721.14' @ 6.88 hrs Surf.Area= 49,336 sf Storage= 169,867 cf

Plug-Flow detention time= 448.1 min calculated for 5.732 af (96% of inflow)
Center-of-Mass det. time= 438.4 min (845.4 - 407.0)

Volume	Invert	Avail.Storage	Storage Description
#1	717.00'	215,607 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

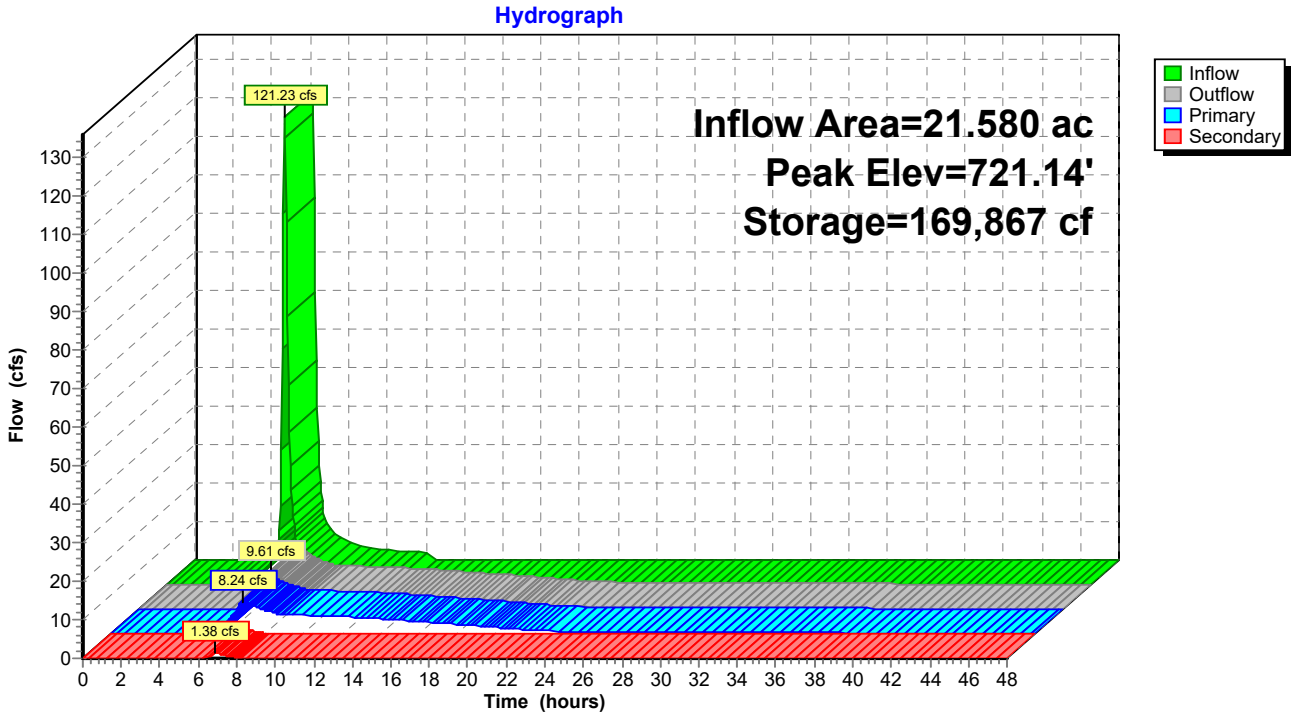
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
717.00	33,709	0	0	33,709
718.00	37,127	35,404	35,404	37,191
719.00	40,645	38,873	74,277	40,778
720.00	44,264	42,442	116,719	44,470
721.00	47,983	46,111	162,830	48,266
722.00	57,721	52,777	215,607	58,038

Device	Routing	Invert	Outlet Devices
#1	Primary	717.00'	**18.0" Round Culvert** L= 150.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 717.00' / 715.00' S= 0.0133 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	717.00'	**3.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	717.75'	**12.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	720.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	721.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=8.23 cfs @ 6.88 hrs HW=721.14' (Free Discharge)
└**1=Culvert** (Passes 8.23 cfs of 15.60 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.80 cfs @ 9.61 fps)
  ├**3=Orifice/Grate** (Orifice Controls 4.27 cfs @ 8.54 fps)
  └**4=Orifice/Grate** (Weir Controls 3.16 cfs @ 1.62 fps)

Secondary OutFlow Max=1.37 cfs @ 6.88 hrs HW=721.14' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Weir Controls 1.37 cfs @ 0.95 fps)

Pond PB-SE: SE Basin



Summary for Pond PB-SE: SE Basin

Inflow Area = 21.580 ac, 64.34% Impervious, Inflow Depth = 3.88" for 100-Year event
Inflow = 140.73 cfs @ 6.12 hrs, Volume= 6.971 af
Outflow = 21.77 cfs @ 6.53 hrs, Volume= 6.736 af, Atten= 85%, Lag= 24.6 min
Primary = 14.92 cfs @ 6.53 hrs, Volume= 6.305 af
Secondary = 6.85 cfs @ 6.53 hrs, Volume= 0.431 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 721.41' @ 6.53 hrs Surf.Area= 51,905 sf Storage= 183,498 cf

Plug-Flow detention time= 399.0 min calculated for 6.736 af (97% of inflow)
Center-of-Mass det. time= 388.8 min (793.7 - 404.9)

Volume	Invert	Avail.Storage	Storage Description
#1	717.00'	215,607 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

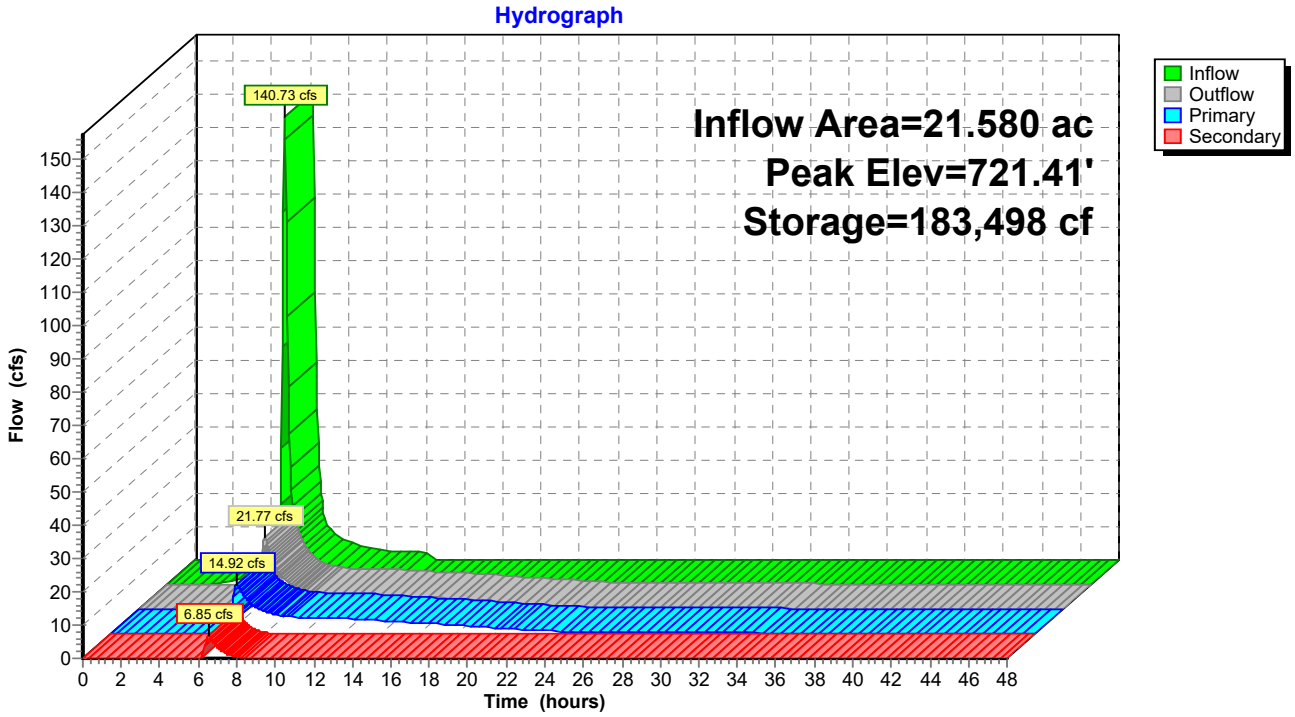
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
717.00	33,709	0	0	33,709
718.00	37,127	35,404	35,404	37,191
719.00	40,645	38,873	74,277	40,778
720.00	44,264	42,442	116,719	44,470
721.00	47,983	46,111	162,830	48,266
722.00	57,721	52,777	215,607	58,038

Device	Routing	Invert	Outlet Devices
#1	Primary	717.00'	**18.0" Round Culvert** L= 150.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 717.00' / 715.00' S= 0.0133 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	717.00'	**3.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	717.75'	**12.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	720.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Secondary	721.00'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=14.88 cfs @ 6.53 hrs HW=721.41' (Free Discharge)
└**1=Culvert** (Passes 14.88 cfs of 16.05 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.82 cfs @ 9.93 fps)
  ├**3=Orifice/Grate** (Orifice Controls 4.45 cfs @ 8.89 fps)
  └**4=Orifice/Grate** (Weir Controls 9.61 cfs @ 2.34 fps)

Secondary OutFlow Max=6.81 cfs @ 6.53 hrs HW=721.41' (Free Discharge)
└**5=Broad-Crested Rectangular Weir** (Weir Controls 6.81 cfs @ 1.65 fps)

Pond PB-SE: SE Basin



Summary for Pond PB-SW: SW Basin

Inflow Area = 26.460 ac, 32.44% Impervious, Inflow Depth = 0.53" for 1-Year event
Inflow = 13.16 cfs @ 6.35 hrs, Volume= 1.168 af
Outflow = 0.49 cfs @ 12.33 hrs, Volume= 0.922 af, Atten= 96%, Lag= 358.9 min
Primary = 0.49 cfs @ 12.33 hrs, Volume= 0.922 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 713.71' @ 12.33 hrs Surf.Area= 59,567 sf Storage= 41,435 cf

Plug-Flow detention time= 875.1 min calculated for 0.921 af (79% of inflow)
Center-of-Mass det. time= 830.5 min (1,289.3 - 458.7)

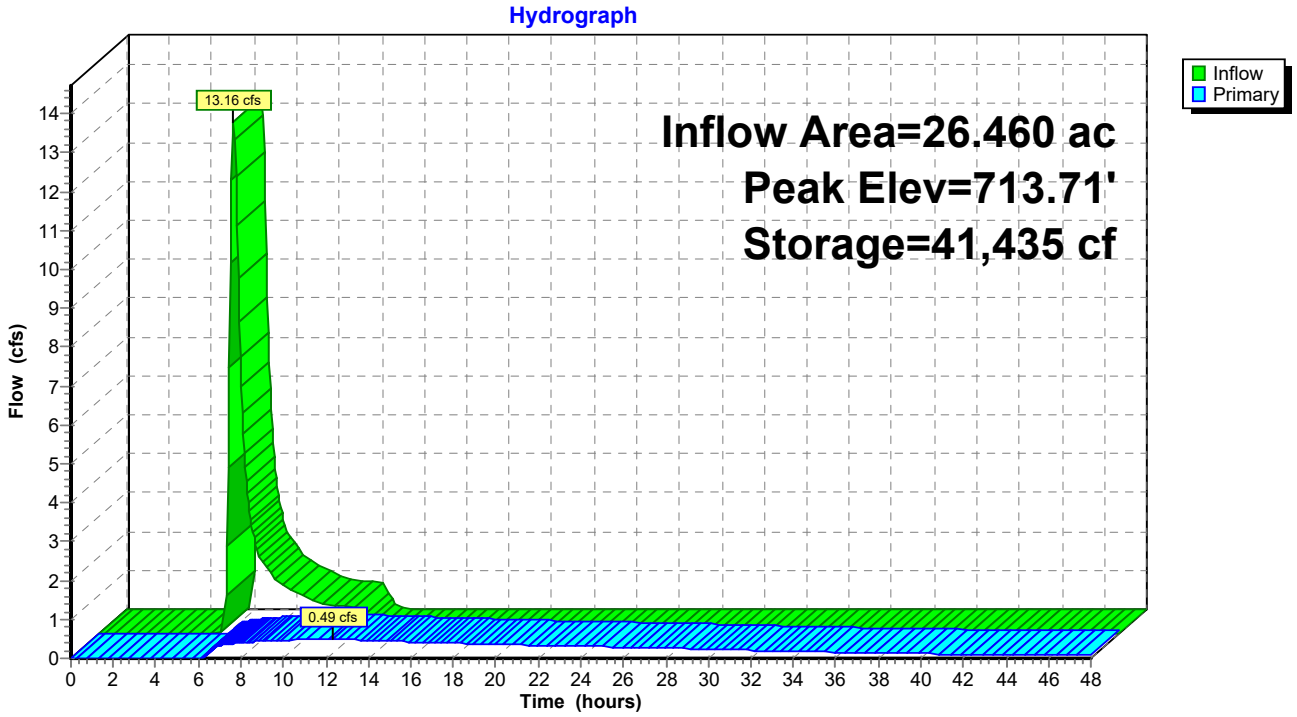
Volume	Invert	Avail.Storage	Storage Description
#1	713.00'	341,133 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
713.00	56,528	0	0	56,528
714.00	60,808	58,655	58,655	60,893
715.00	65,189	62,986	121,641	65,364
716.00	69,670	67,417	189,058	69,938
717.00	74,252	71,949	261,007	74,618
718.00	86,147	80,126	341,133	86,555

Device	Routing	Invert	Outlet Devices
#1	Primary	713.00'	**12.0" Round Culvert** L= 800.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 713.00' / 711.45' S= 0.0019 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	713.00'	**4.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	713.50'	**2.0" Vert. Orifice/Grate** C= 0.600
#4	Device 1	716.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.49 cfs @ 12.33 hrs HW=713.71' (Free Discharge)
└**1=Culvert** (Passes 0.49 cfs of 0.97 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.45 cfs @ 3.44 fps)
  ├**3=Orifice/Grate** (Orifice Controls 0.04 cfs @ 1.74 fps)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Pond PB-SW: SW Basin



Summary for Pond PB-SW: SW Basin

Inflow Area = 26.460 ac, 32.44% Impervious, Inflow Depth = 0.73" for 1-Year 24-hr event
Inflow = 15.80 cfs @ 12.26 hrs, Volume= 1.620 af
Outflow = 0.55 cfs @ 19.82 hrs, Volume= 1.221 af, Atten= 96%, Lag= 453.5 min
Primary = 0.55 cfs @ 19.82 hrs, Volume= 1.221 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 713.84' @ 19.82 hrs Surf.Area= 60,104 sf Storage= 48,862 cf

Plug-Flow detention time= 873.6 min calculated for 1.221 af (75% of inflow)
Center-of-Mass det. time= 773.2 min (1,652.4 - 879.1)

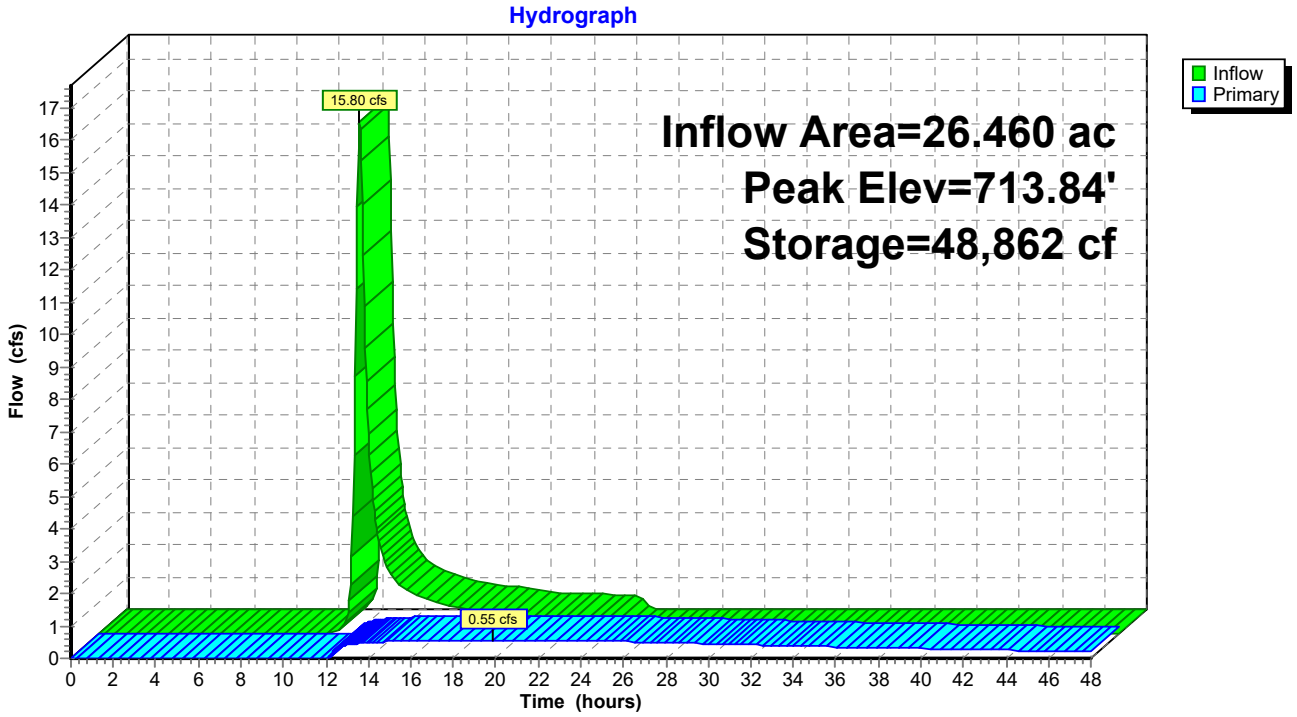
Volume	Invert	Avail.Storage	Storage Description
#1	713.00'	341,133 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
713.00	56,528	0	0	56,528
714.00	60,808	58,655	58,655	60,893
715.00	65,189	62,986	121,641	65,364
716.00	69,670	67,417	189,058	69,938
717.00	74,252	71,949	261,007	74,618
718.00	86,147	80,126	341,133	86,555

Device	Routing	Invert	Outlet Devices
#1	Primary	713.00'	**12.0" Round Culvert** L= 800.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 713.00' / 711.45' S= 0.0019 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	713.00'	**4.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	713.50'	**2.0" Vert. Orifice/Grate** C= 0.600
#4	Device 1	716.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.56 cfs @ 19.82 hrs HW=713.84' (Free Discharge)
└**1=Culvert** (Passes 0.56 cfs of 1.25 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.50 cfs @ 3.83 fps)
  ├**3=Orifice/Grate** (Orifice Controls 0.05 cfs @ 2.43 fps)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Pond PB-SW: SW Basin



Summary for Pond PB-SW: SW Basin

Inflow Area = 26.460 ac, 32.44% Impervious, Inflow Depth = 0.77" for 2-Year event
Inflow = 20.12 cfs @ 6.33 hrs, Volume= 1.695 af
Outflow = 0.65 cfs @ 12.33 hrs, Volume= 1.371 af, Atten= 97%, Lag= 359.7 min
Primary = 0.65 cfs @ 12.33 hrs, Volume= 1.371 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 714.03' @ 12.33 hrs Surf.Area= 60,957 sf Storage= 60,759 cf

Plug-Flow detention time= 937.6 min calculated for 1.371 af (81% of inflow)
Center-of-Mass det. time= 895.2 min (1,348.0 - 452.8)

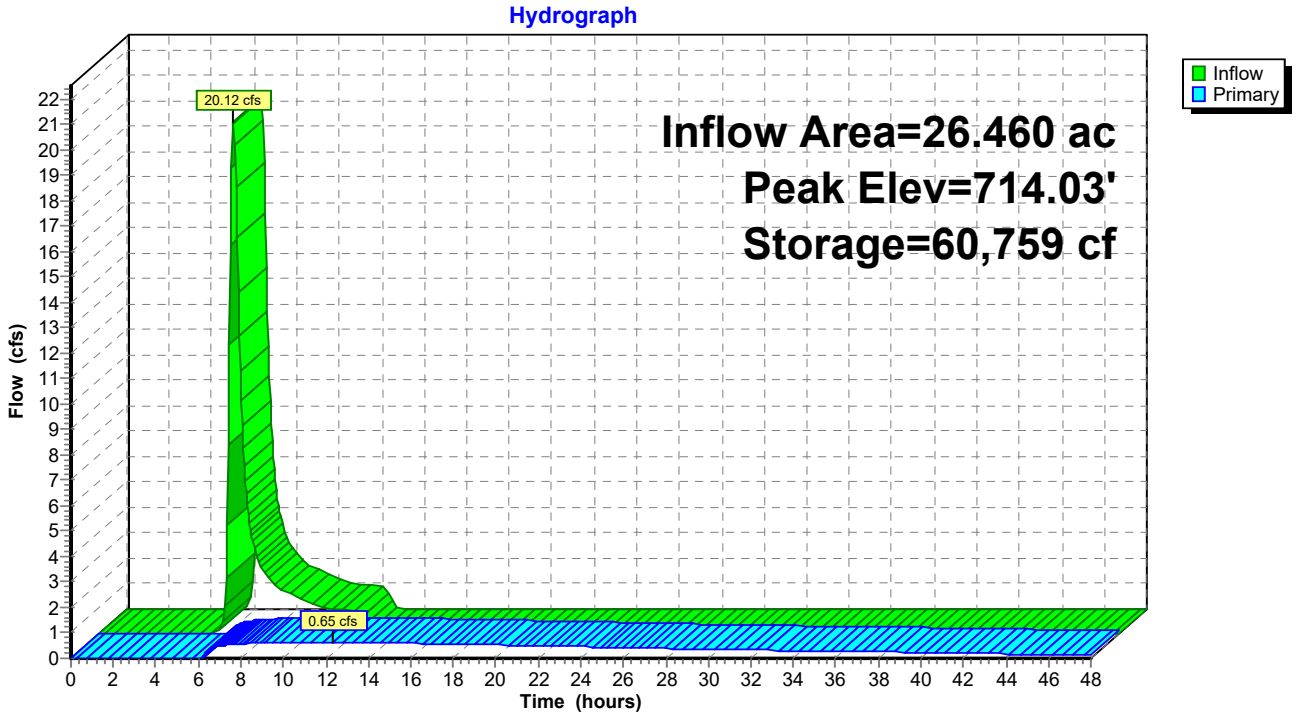
Volume	Invert	Avail.Storage	Storage Description
#1	713.00'	341,133 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
713.00	56,528	0	0	56,528
714.00	60,808	58,655	58,655	60,893
715.00	65,189	62,986	121,641	65,364
716.00	69,670	67,417	189,058	69,938
717.00	74,252	71,949	261,007	74,618
718.00	86,147	80,126	341,133	86,555

Device	Routing	Invert	Outlet Devices
#1	Primary	713.00'	**12.0" Round Culvert** L= 800.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 713.00' / 711.45' S= 0.0019 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	713.00'	**4.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	713.50'	**2.0" Vert. Orifice/Grate** C= 0.600
#4	Device 1	716.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.65 cfs @ 12.33 hrs HW=714.03' (Free Discharge)
└**1=Culvert** (Passes 0.65 cfs of 1.66 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.57 cfs @ 4.39 fps)
  ├**3=Orifice/Grate** (Orifice Controls 0.07 cfs @ 3.23 fps)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Pond PB-SW: SW Basin



Summary for Pond PB-SW: SW Basin

Inflow Area = 26.460 ac, 32.44% Impervious, Inflow Depth = 1.15" for 5-Year event
Inflow = 31.39 cfs @ 6.33 hrs, Volume= 2.545 af
Outflow = 0.84 cfs @ 12.35 hrs, Volume= 2.019 af, Atten= 97%, Lag= 361.2 min
Primary = 0.84 cfs @ 12.35 hrs, Volume= 2.019 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 714.56' @ 12.35 hrs Surf.Area= 63,245 sf Storage= 93,426 cf

Plug-Flow detention time= 1,019.6 min calculated for 2.019 af (79% of inflow)
Center-of-Mass det. time= 975.6 min (1,422.3 - 446.7)

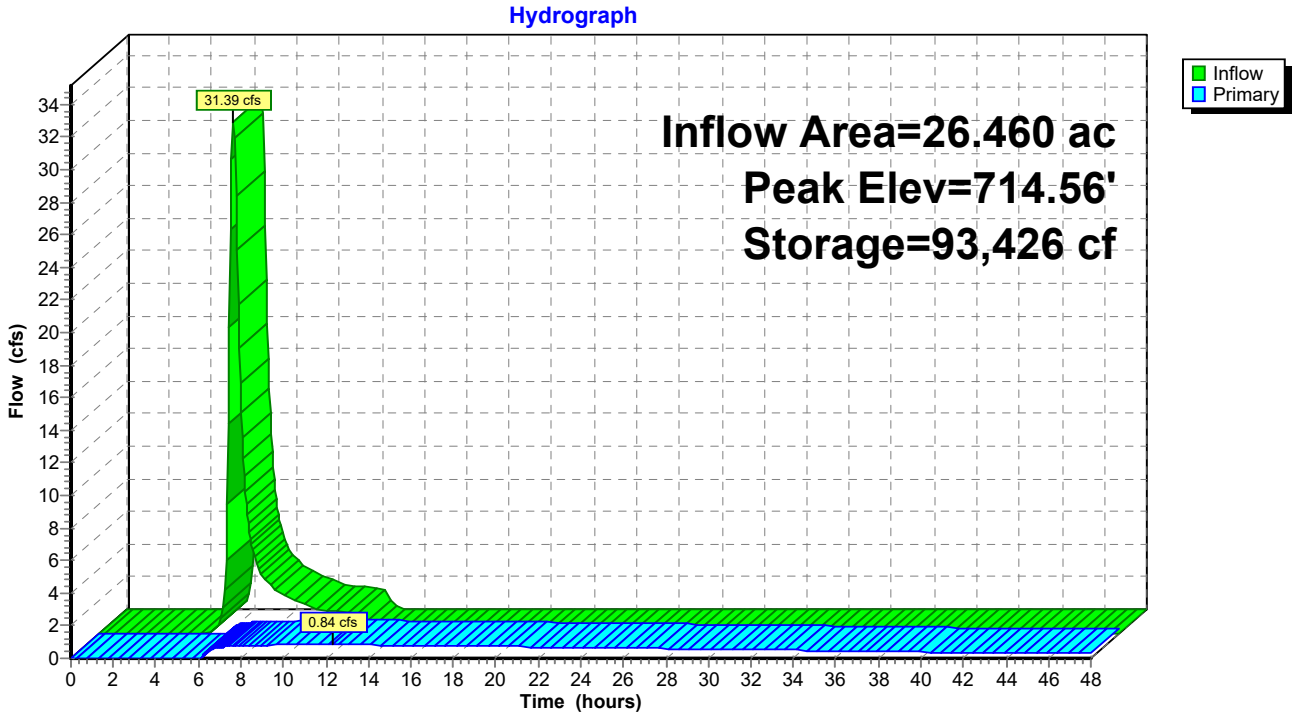
Volume	Invert	Avail.Storage	Storage Description
#1	713.00'	341,133 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
713.00	56,528	0	0	56,528
714.00	60,808	58,655	58,655	60,893
715.00	65,189	62,986	121,641	65,364
716.00	69,670	67,417	189,058	69,938
717.00	74,252	71,949	261,007	74,618
718.00	86,147	80,126	341,133	86,555

Device	Routing	Invert	Outlet Devices
#1	Primary	713.00'	**12.0" Round Culvert** L= 800.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 713.00' / 711.45' S= 0.0019 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	713.00'	**4.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	713.50'	**2.0" Vert. Orifice/Grate** C= 0.600
#4	Device 1	716.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.84 cfs @ 12.35 hrs HW=714.56' (Free Discharge)
└**1=Culvert** (Passes 0.84 cfs of 1.91 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.73 cfs @ 5.61 fps)
  ├**3=Orifice/Grate** (Orifice Controls 0.10 cfs @ 4.76 fps)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Pond PB-SW: SW Basin



Summary for Pond PB-SW: SW Basin

Inflow Area = 26.460 ac, 32.44% Impervious, Inflow Depth = 1.50" for 10-Year event
Inflow = 41.56 cfs @ 6.32 hrs, Volume= 3.309 af
Outflow = 0.98 cfs @ 12.36 hrs, Volume= 2.526 af, Atten= 98%, Lag= 362.4 min
Primary = 0.98 cfs @ 12.36 hrs, Volume= 2.526 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 715.03' @ 12.36 hrs Surf.Area= 65,315 sf Storage= 123,505 cf

Plug-Flow detention time= 1,070.8 min calculated for 2.523 af (76% of inflow)
Center-of-Mass det. time= 1,025.0 min (1,467.9 - 442.9)

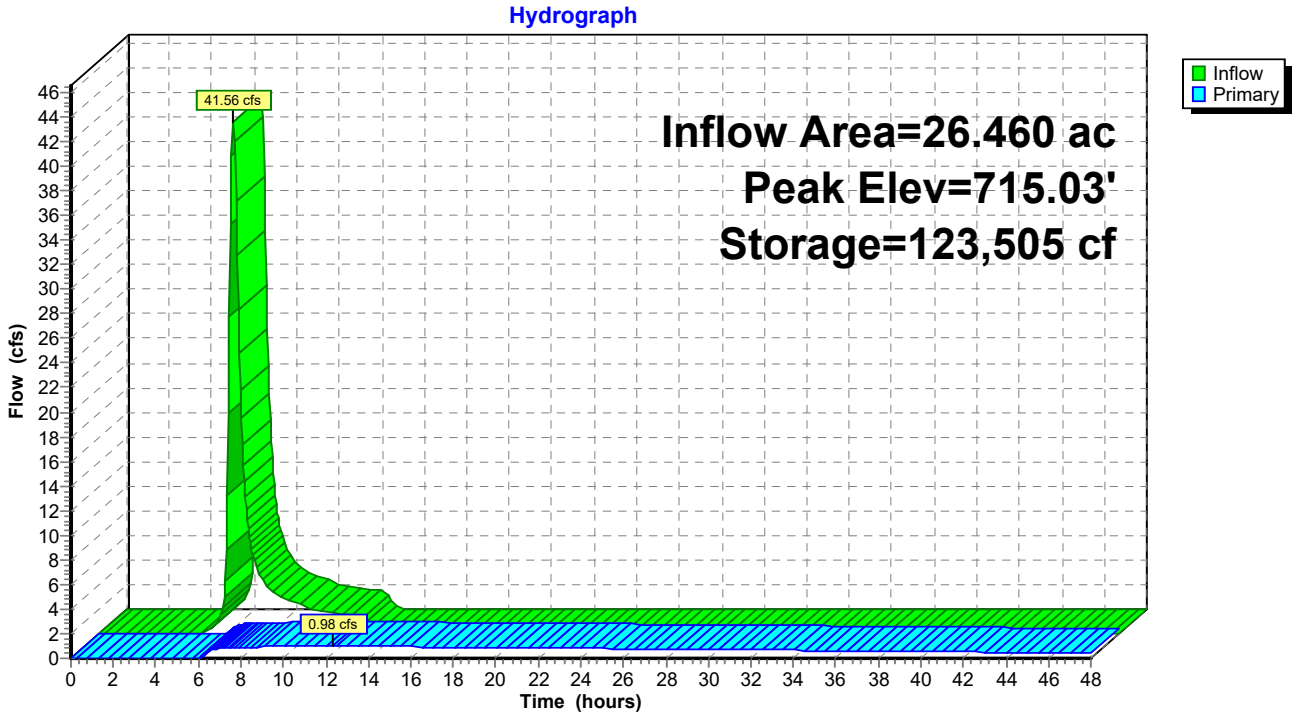
Volume	Invert	Avail.Storage	Storage Description
#1	713.00'	341,133 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
713.00	56,528	0	0	56,528
714.00	60,808	58,655	58,655	60,893
715.00	65,189	62,986	121,641	65,364
716.00	69,670	67,417	189,058	69,938
717.00	74,252	71,949	261,007	74,618
718.00	86,147	80,126	341,133	86,555

Device	Routing	Invert	Outlet Devices
#1	Primary	713.00'	**12.0" Round Culvert** L= 800.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 713.00' / 711.45' S= 0.0019 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	713.00'	**4.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	713.50'	**2.0" Vert. Orifice/Grate** C= 0.600
#4	Device 1	716.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.98 cfs @ 12.36 hrs HW=715.03' (Free Discharge)
└**1=Culvert** (Passes 0.98 cfs of 2.11 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.85 cfs @ 6.50 fps)
  ├**3=Orifice/Grate** (Orifice Controls 0.13 cfs @ 5.79 fps)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Pond PB-SW: SW Basin



Summary for Pond PB-SW: SW Basin

Inflow Area = 26.460 ac, 32.44% Impervious, Inflow Depth = 2.02" for 25-Year event
Inflow = 56.67 cfs @ 6.32 hrs, Volume= 4.456 af
Outflow = 1.15 cfs @ 12.38 hrs, Volume= 3.167 af, Atten= 98%, Lag= 363.8 min
Primary = 1.15 cfs @ 12.38 hrs, Volume= 3.167 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 715.72' @ 12.38 hrs Surf.Area= 68,382 sf Storage= 169,457 cf

Plug-Flow detention time= 1,119.9 min calculated for 3.167 af (71% of inflow)
Center-of-Mass det. time= 1,068.6 min (1,507.2 - 438.6)

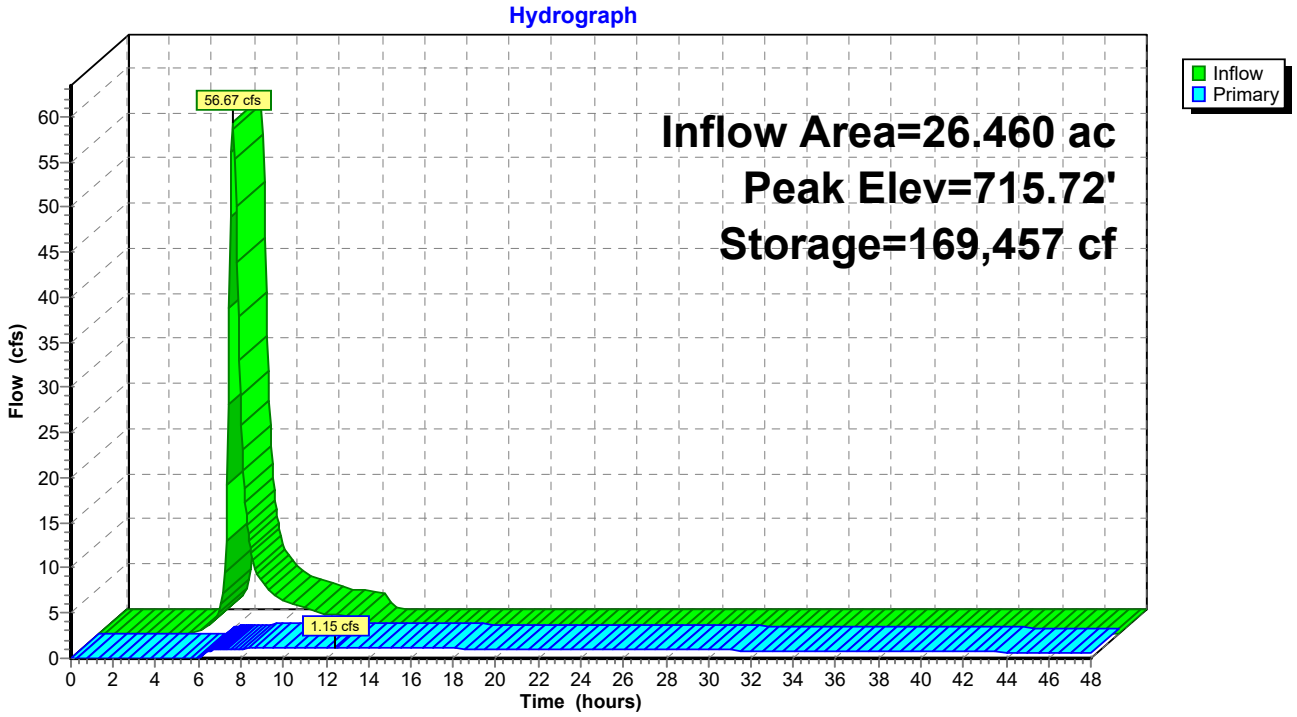
Volume	Invert	Avail.Storage	Storage Description
#1	713.00'	341,133 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
713.00	56,528	0	0	56,528
714.00	60,808	58,655	58,655	60,893
715.00	65,189	62,986	121,641	65,364
716.00	69,670	67,417	189,058	69,938
717.00	74,252	71,949	261,007	74,618
718.00	86,147	80,126	341,133	86,555

Device	Routing	Invert	Outlet Devices
#1	Primary	713.00'	**12.0" Round Culvert** L= 800.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 713.00' / 711.45' S= 0.0019 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	713.00'	**4.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	713.50'	**2.0" Vert. Orifice/Grate** C= 0.600
#4	Device 1	716.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.15 cfs @ 12.38 hrs HW=715.72' (Free Discharge)
└**1=Culvert** (Passes 1.15 cfs of 2.38 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 1.00 cfs @ 7.63 fps)
  ├**3=Orifice/Grate** (Orifice Controls 0.15 cfs @ 7.03 fps)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Pond PB-SW: SW Basin



Summary for Pond PB-SW: SW Basin

Inflow Area = 26.460 ac, 32.44% Impervious, Inflow Depth = 2.48" for 50-Year event
Inflow = 69.87 cfs @ 6.31 hrs, Volume= 5.466 af
Outflow = 1.28 cfs @ 12.39 hrs, Volume= 3.647 af, Atten= 98%, Lag= 364.8 min
Primary = 1.28 cfs @ 12.39 hrs, Volume= 3.647 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 716.30' @ 12.39 hrs Surf.Area= 71,043 sf Storage= 210,372 cf

Plug-Flow detention time= 1,143.3 min calculated for 3.643 af (67% of inflow)
Center-of-Mass det. time= 1,091.1 min (1,526.8 - 435.7)

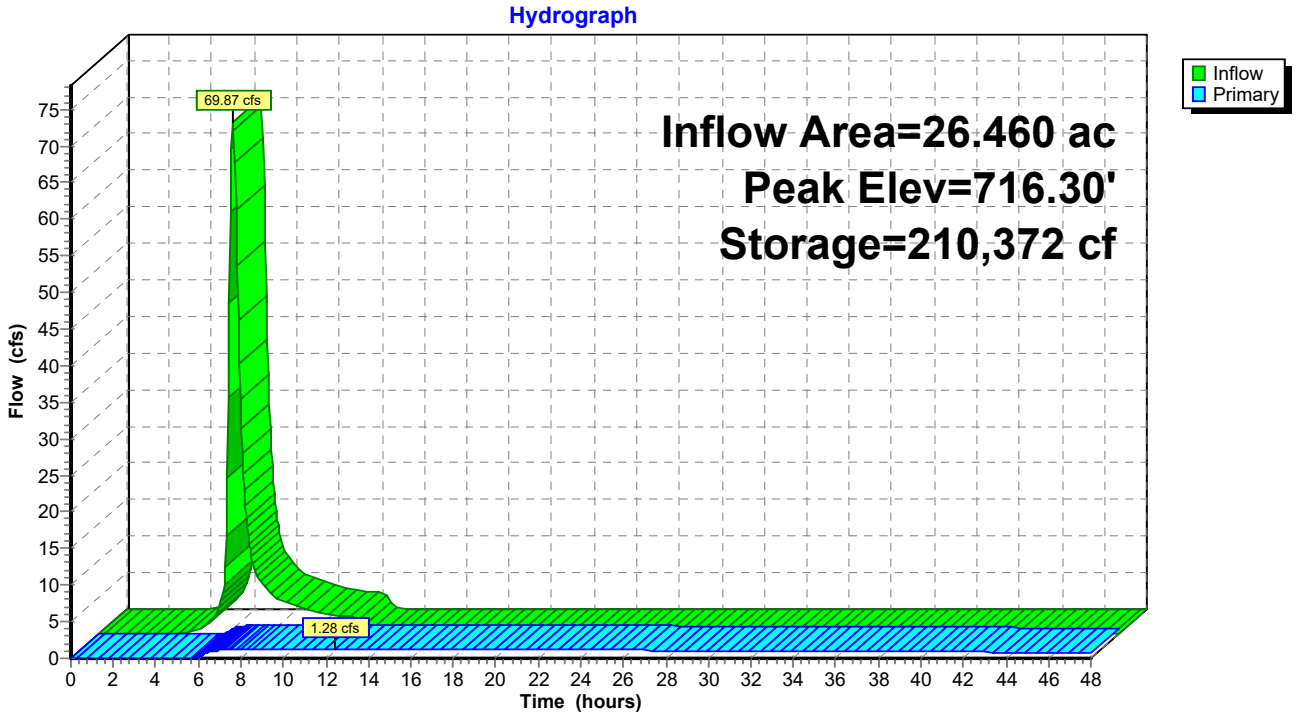
Volume	Invert	Avail.Storage	Storage Description
#1	713.00'	341,133 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
713.00	56,528	0	0	56,528
714.00	60,808	58,655	58,655	60,893
715.00	65,189	62,986	121,641	65,364
716.00	69,670	67,417	189,058	69,938
717.00	74,252	71,949	261,007	74,618
718.00	86,147	80,126	341,133	86,555

Device	Routing	Invert	Outlet Devices
#1	Primary	713.00'	**12.0" Round Culvert** L= 800.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 713.00' / 711.45' S= 0.0019 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	713.00'	**4.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	713.50'	**2.0" Vert. Orifice/Grate** C= 0.600
#4	Device 1	716.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.28 cfs @ 12.39 hrs HW=716.30' (Free Discharge)
└**1=Culvert** (Passes 1.28 cfs of 2.59 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 1.11 cfs @ 8.48 fps)
  ├**3=Orifice/Grate** (Orifice Controls 0.17 cfs @ 7.94 fps)
  └**4=Orifice/Grate** (Controls 0.00 cfs)

Pond PB-SW: SW Basin



Summary for Pond PB-SW: SW Basin

Inflow Area = 26.460 ac, 32.44% Impervious, Inflow Depth = 2.99" for 100-Year event
Inflow = 84.36 cfs @ 6.31 hrs, Volume= 6.583 af
Outflow = 1.58 cfs @ 12.38 hrs, Volume= 4.121 af, Atten= 98%, Lag= 364.0 min
Primary = 1.58 cfs @ 12.38 hrs, Volume= 4.121 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 716.93' @ 12.38 hrs Surf.Area= 73,920 sf Storage= 255,719 cf

Plug-Flow detention time= 1,161.2 min calculated for 4.121 af (63% of inflow)
Center-of-Mass det. time= 1,105.9 min (1,539.0 - 433.0)

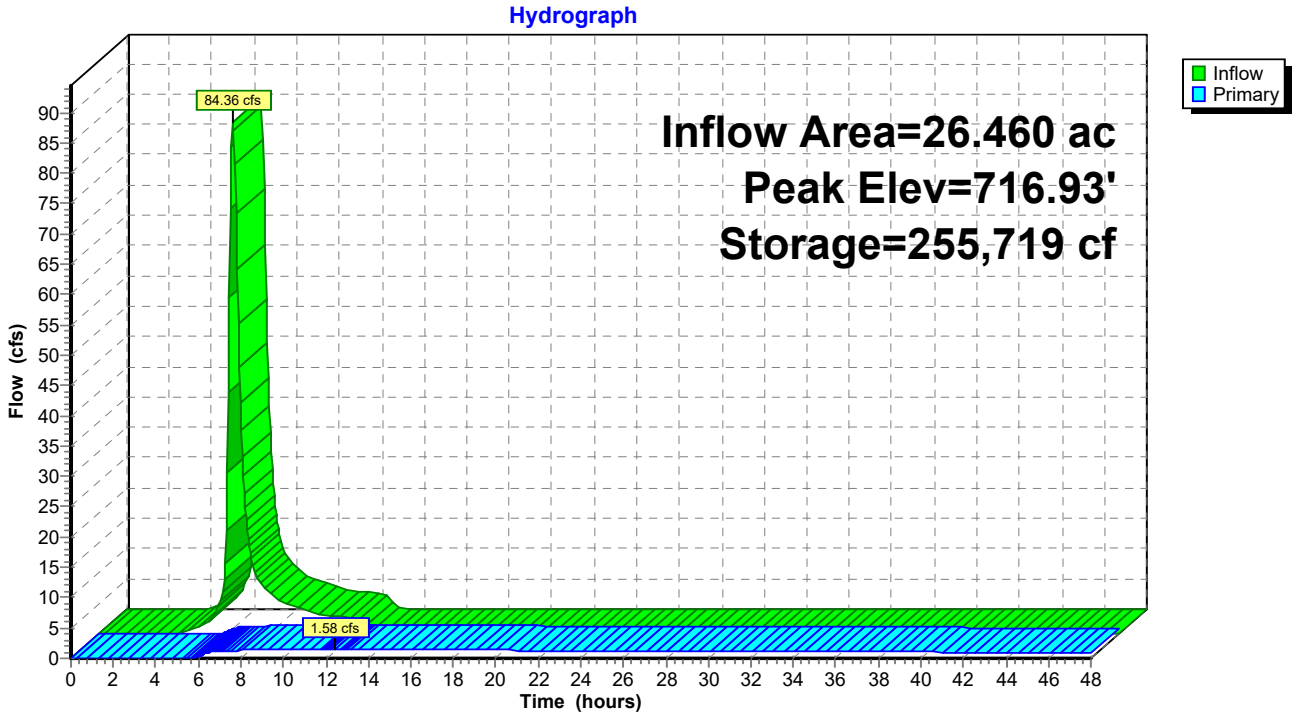
Volume	Invert	Avail.Storage	Storage Description
#1	713.00'	341,133 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
713.00	56,528	0	0	56,528
714.00	60,808	58,655	58,655	60,893
715.00	65,189	62,986	121,641	65,364
716.00	69,670	67,417	189,058	69,938
717.00	74,252	71,949	261,007	74,618
718.00	86,147	80,126	341,133	86,555

Device	Routing	Invert	Outlet Devices
#1	Primary	713.00'	**12.0" Round Culvert** L= 800.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 713.00' / 711.45' S= 0.0019 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	713.00'	**4.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	713.50'	**2.0" Vert. Orifice/Grate** C= 0.600
#4	Device 1	716.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.54 cfs @ 12.38 hrs HW=716.93' (Free Discharge)
└**1=Culvert** (Passes 1.54 cfs of 2.79 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 1.22 cfs @ 9.29 fps)
  ├**3=Orifice/Grate** (Orifice Controls 0.19 cfs @ 8.81 fps)
  └**4=Orifice/Grate** (Weir Controls 0.13 cfs @ 0.55 fps)

Pond PB-SW: SW Basin



Summary for Pond PB-NW: NW Basin

Inflow Area = 148.160 ac, 33.64% Impervious, Inflow Depth > 0.51" for 1-Year event
Inflow = 41.65 cfs @ 6.34 hrs, Volume= 6.284 af
Outflow = 3.78 cfs @ 10.20 hrs, Volume= 5.225 af, Atten= 91%, Lag= 231.6 min
Primary = 3.78 cfs @ 10.20 hrs, Volume= 5.225 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 711.43' @ 10.20 hrs Surf.Area= 81,785 sf Storage= 112,642 cf

Plug-Flow detention time= 662.6 min calculated for 5.225 af (83% of inflow)
Center-of-Mass det. time= 425.3 min (1,256.1 - 830.8)

Volume	Invert	Avail.Storage	Storage Description
#1	710.00'	438,059 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

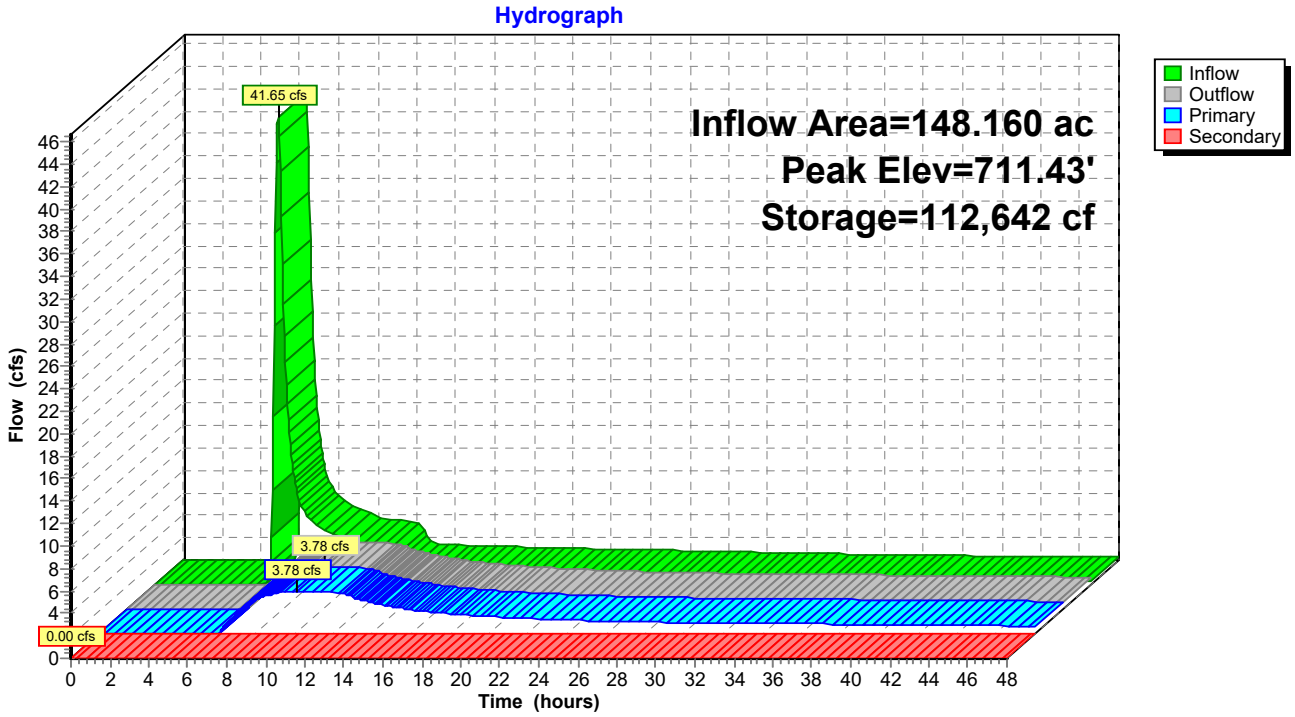
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
710.00	75,270	0	0	75,270
711.00	79,792	77,520	77,520	79,898
712.00	84,414	82,092	159,612	84,631
713.00	89,137	86,765	246,377	89,468
714.00	93,960	91,538	337,915	94,409
715.00	106,459	100,144	438,059	106,958

Device	Routing	Invert	Outlet Devices
#1	Primary	710.00'	**48.0" Round Culvert** L= 50.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 710.00' / 709.75' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 12.57 sf
#2	Device 1	710.00'	**6.7" Vert. Orifice/Grate** C= 0.600
#3	Device 1	710.90'	**24.0" W x 15.4" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	712.60'	**13.0" W x 10.0" H Vert. Orifice/Grate X 2.00** C= 0.600
#5	Device 1	713.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#6	Secondary	713.00'	**25.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=3.78 cfs @ 10.20 hrs HW=711.43' (Free Discharge)
└**1=Culvert** (Passes 3.78 cfs of 12.39 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 1.27 cfs @ 5.18 fps)
  ├**3=Orifice/Grate** (Orifice Controls 2.51 cfs @ 2.35 fps)
  ├**4=Orifice/Grate** (Controls 0.00 cfs)
  └**5=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=710.00' (Free Discharge)
└**6=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond PB-NW: NW Basin



Summary for Pond PB-NW: NW Basin

[79] Warning: Submerged Pond PB-SW Primary device # 1 OUTLET by 0.12'

Inflow Area = 148.160 ac, 33.64% Impervious, Inflow Depth > 0.69" for 1-Year 24-hr event
Inflow = 48.29 cfs @ 12.26 hrs, Volume= 8.470 af
Outflow = 4.83 cfs @ 15.22 hrs, Volume= 6.930 af, Atten= 90%, Lag= 177.3 min
Primary = 4.83 cfs @ 15.22 hrs, Volume= 6.930 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 711.57' @ 15.22 hrs Surf.Area= 82,393 sf Storage= 123,441 cf

Plug-Flow detention time= 507.4 min calculated for 6.930 af (82% of inflow)
Center-of-Mass det. time= 285.8 min (1,484.8 - 1,199.1)

Volume	Invert	Avail.Storage	Storage Description
#1	710.00'	438,059 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

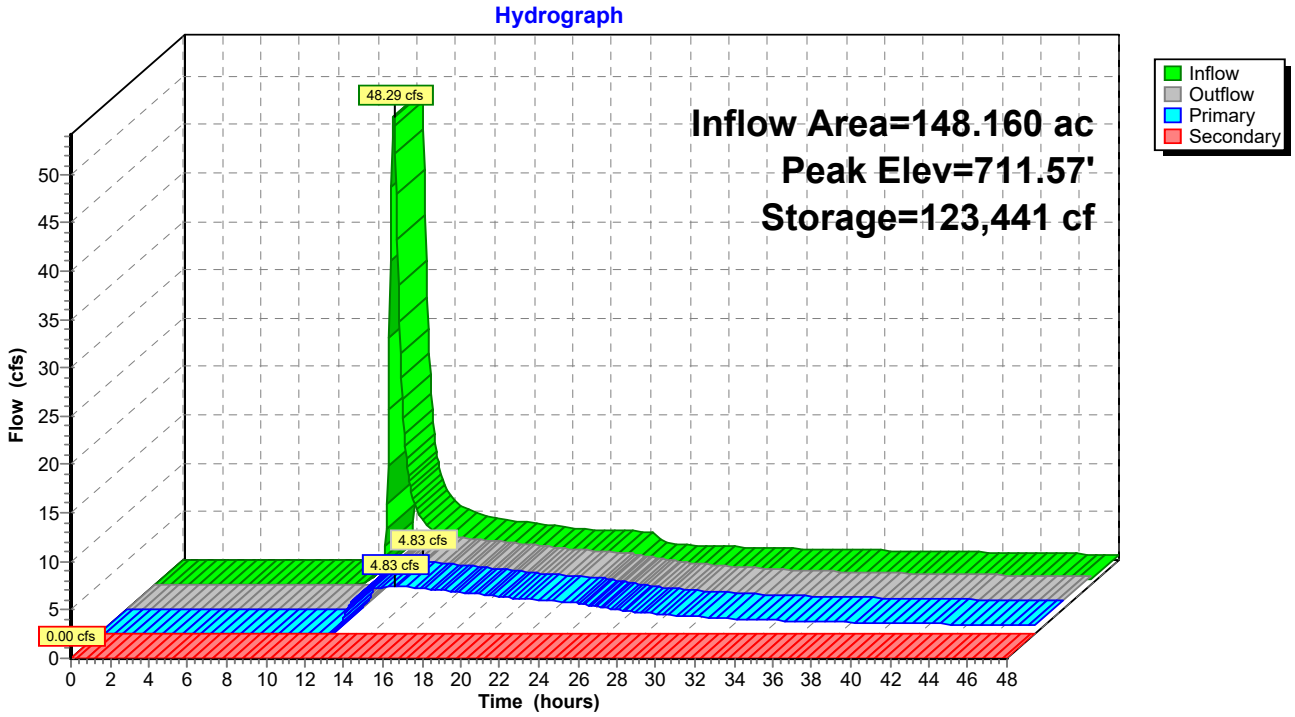
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
710.00	75,270	0	0	75,270
711.00	79,792	77,520	77,520	79,898
712.00	84,414	82,092	159,612	84,631
713.00	89,137	86,765	246,377	89,468
714.00	93,960	91,538	337,915	94,409
715.00	106,459	100,144	438,059	106,958

Device	Routing	Invert	Outlet Devices
#1	Primary	710.00'	**48.0" Round Culvert** L= 50.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 710.00' / 709.75' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 12.57 sf
#2	Device 1	710.00'	**6.7" Vert. Orifice/Grate** C= 0.600
#3	Device 1	710.90'	**24.0" W x 15.4" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	712.60'	**13.0" W x 10.0" H Vert. Orifice/Grate X 2.00** C= 0.600
#5	Device 1	713.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#6	Secondary	713.00'	**25.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=4.83 cfs @ 15.22 hrs HW=711.57' (Free Discharge)
└**1=Culvert** (Passes 4.83 cfs of 14.52 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 1.34 cfs @ 5.46 fps)
  ├**3=Orifice/Grate** (Orifice Controls 3.49 cfs @ 2.62 fps)
  ├**4=Orifice/Grate** (Controls 0.00 cfs)
  └**5=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=710.00' (Free Discharge)
└**6=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond PB-NW: NW Basin



Summary for Pond PB-NW: NW Basin

[79] Warning: Submerged Pond PB-SW Primary device # 1 OUTLET by 0.34'

Inflow Area = 148.160 ac, 33.64% Impervious, Inflow Depth > 0.74" for 2-Year event
Inflow = 61.43 cfs @ 6.33 hrs, Volume= 9.171 af
Outflow = 6.88 cfs @ 8.67 hrs, Volume= 7.852 af, Atten= 89%, Lag= 140.5 min
Primary = 6.88 cfs @ 8.67 hrs, Volume= 7.852 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 711.79' @ 8.67 hrs Surf.Area= 83,452 sf Storage= 142,335 cf

Plug-Flow detention time= 520.8 min calculated for 7.852 af (86% of inflow)
Center-of-Mass det. time= 306.8 min (1,136.1 - 829.3)

Volume	Invert	Avail.Storage	Storage Description
#1	710.00'	438,059 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

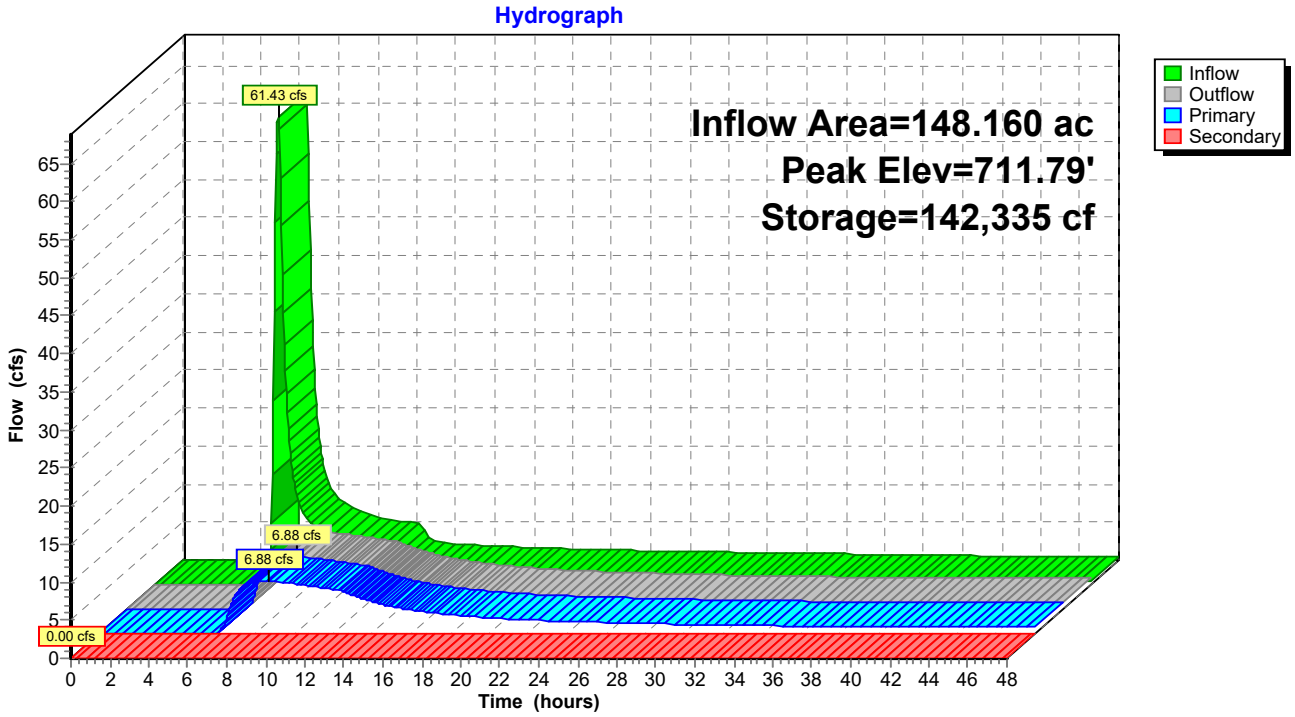
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
710.00	75,270	0	0	75,270
711.00	79,792	77,520	77,520	79,898
712.00	84,414	82,092	159,612	84,631
713.00	89,137	86,765	246,377	89,468
714.00	93,960	91,538	337,915	94,409
715.00	106,459	100,144	438,059	106,958

Device	Routing	Invert	Outlet Devices
#1	Primary	710.00'	**48.0" Round Culvert** L= 50.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 710.00' / 709.75' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 12.57 sf
#2	Device 1	710.00'	**6.7" Vert. Orifice/Grate** C= 0.600
#3	Device 1	710.90'	**24.0" W x 15.4" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	712.60'	**13.0" W x 10.0" H Vert. Orifice/Grate X 2.00** C= 0.600
#5	Device 1	713.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#6	Secondary	713.00'	**25.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=6.88 cfs @ 8.67 hrs HW=711.79' (Free Discharge)
└**1=Culvert** (Passes 6.88 cfs of 18.52 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 1.45 cfs @ 5.93 fps)
  ├**3=Orifice/Grate** (Orifice Controls 5.43 cfs @ 3.04 fps)
  ├**4=Orifice/Grate** (Controls 0.00 cfs)
  └**5=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=710.00' (Free Discharge)
└**6=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond PB-NW: NW Basin



Summary for Pond PB-NW: NW Basin

[79] Warning: Submerged Pond PB-NE Primary device # 1 OUTLET by 0.37'
[79] Warning: Submerged Pond PB-SW Primary device # 1 OUTLET by 0.97'

Inflow Area = 148.160 ac, 33.64% Impervious, Inflow Depth > 1.12" for 5-Year event
Inflow = 93.10 cfs @ 6.32 hrs, Volume= 13.791 af
Outflow = 12.98 cfs @ 7.82 hrs, Volume= 12.234 af, Atten= 86%, Lag= 89.7 min
Primary = 12.98 cfs @ 7.82 hrs, Volume= 12.234 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 712.42' @ 7.82 hrs Surf.Area= 86,360 sf Storage= 195,071 cf

Plug-Flow detention time= 403.1 min calculated for 12.234 af (89% of inflow)
Center-of-Mass det. time= 224.7 min (1,035.8 - 811.1)

Volume	Invert	Avail.Storage	Storage Description
#1	710.00'	438,059 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

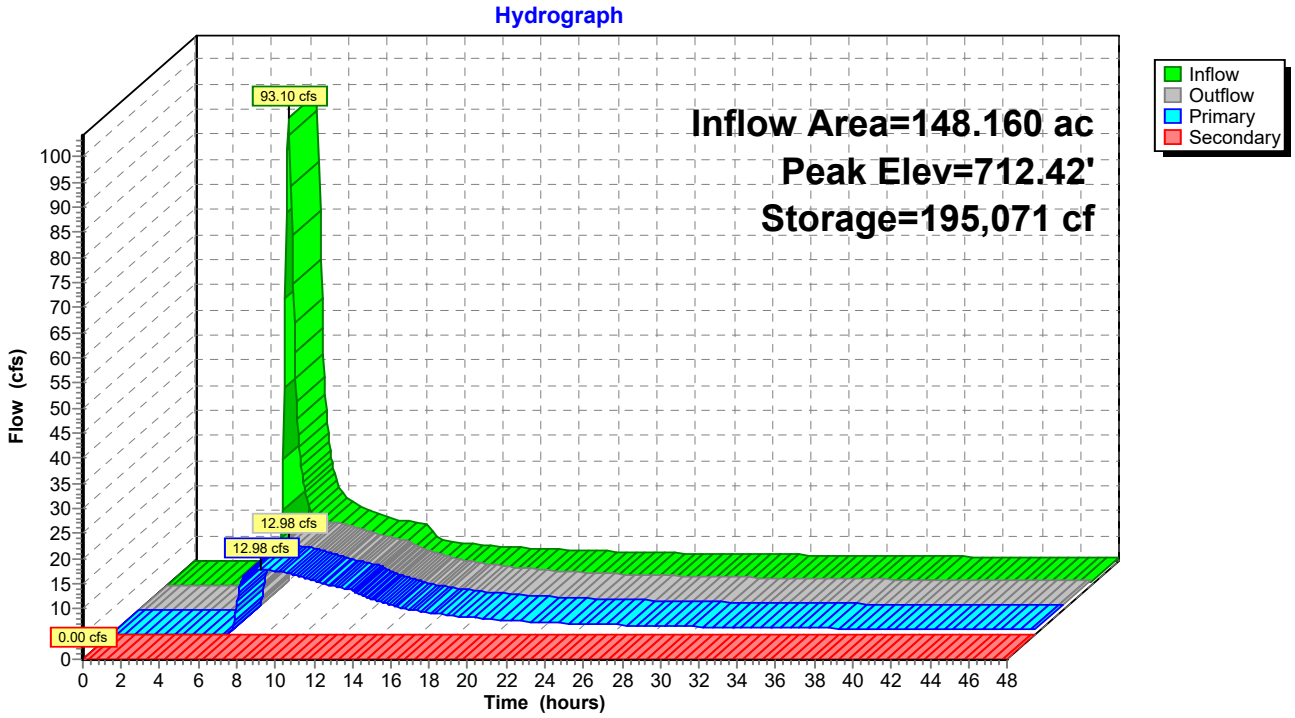
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
710.00	75,270	0	0	75,270
711.00	79,792	77,520	77,520	79,898
712.00	84,414	82,092	159,612	84,631
713.00	89,137	86,765	246,377	89,468
714.00	93,960	91,538	337,915	94,409
715.00	106,459	100,144	438,059	106,958

Device	Routing	Invert	Outlet Devices
#1	Primary	710.00'	**48.0" Round Culvert** L= 50.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 710.00' / 709.75' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 12.57 sf
#2	Device 1	710.00'	**6.7" Vert. Orifice/Grate** C= 0.600
#3	Device 1	710.90'	**24.0" W x 15.4" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	712.60'	**13.0" W x 10.0" H Vert. Orifice/Grate X 2.00** C= 0.600
#5	Device 1	713.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#6	Secondary	713.00'	**25.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=12.98 cfs @ 7.82 hrs HW=712.42' (Free Discharge)
└─**1=Culvert** (Passes 12.98 cfs of 31.18 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 1.72 cfs @ 7.04 fps)
  ├─**3=Orifice/Grate** (Orifice Controls 11.26 cfs @ 4.39 fps)
  ├─**4=Orifice/Grate** (Controls 0.00 cfs)
  └─**5=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=710.00' (Free Discharge)
└─**6=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond PB-NW: NW Basin



Summary for Pond PB-NW: NW Basin

[79] Warning: Submerged Pond PB-NE Primary device # 1 OUTLET by 0.96'
[79] Warning: Submerged Pond PB-SW Primary device # 1 INLET by 0.01'

Inflow Area = 148.160 ac, 33.64% Impervious, Inflow Depth > 1.45" for 10-Year event
Inflow = 120.92 cfs @ 6.32 hrs, Volume= 17.847 af
Outflow = 18.67 cfs @ 7.52 hrs, Volume= 16.163 af, Atten= 85%, Lag= 71.9 min
Primary = 18.58 cfs @ 7.52 hrs, Volume= 16.161 af
Secondary = 0.09 cfs @ 7.52 hrs, Volume= 0.002 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 713.01' @ 7.52 hrs Surf.Area= 89,167 sf Storage= 246,943 cf

Plug-Flow detention time= 353.0 min calculated for 16.163 af (91% of inflow)
Center-of-Mass det. time= 197.9 min (1,000.7 - 802.8)

Volume	Invert	Avail.Storage	Storage Description
#1	710.00'	438,059 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

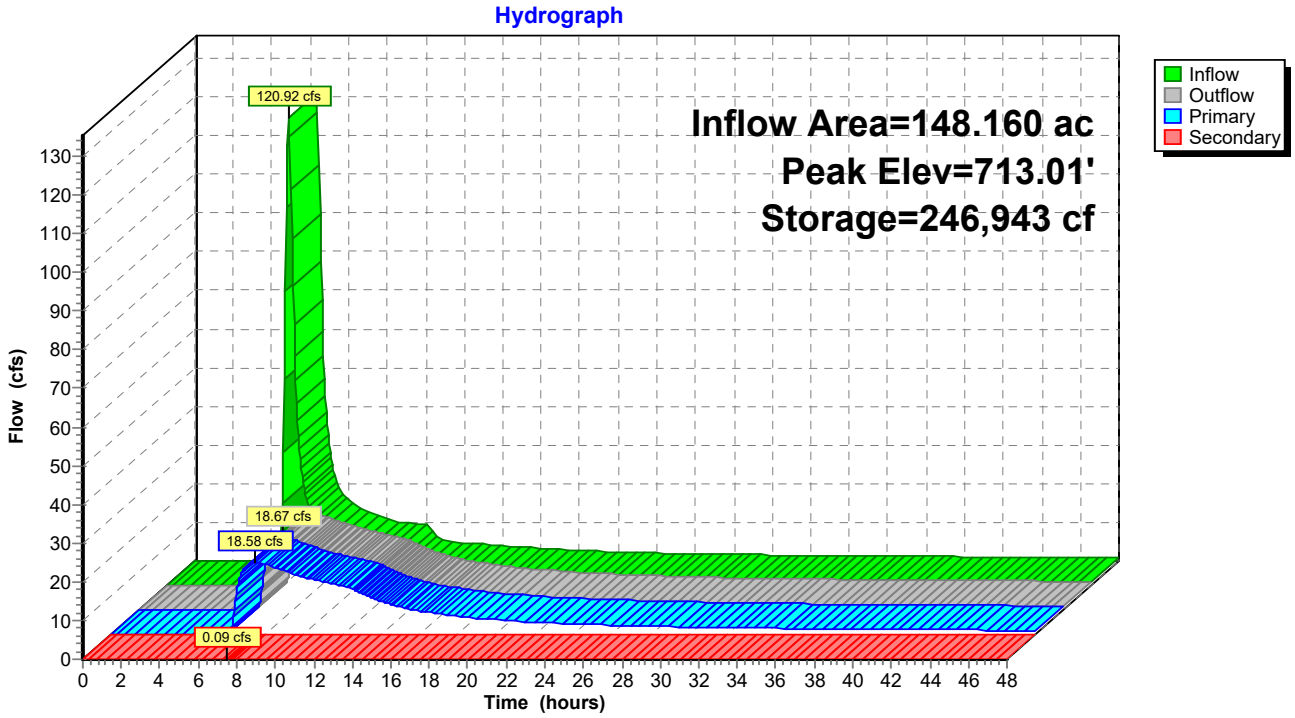
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
710.00	75,270	0	0	75,270
711.00	79,792	77,520	77,520	79,898
712.00	84,414	82,092	159,612	84,631
713.00	89,137	86,765	246,377	89,468
714.00	93,960	91,538	337,915	94,409
715.00	106,459	100,144	438,059	106,958

Device	Routing	Invert	Outlet Devices
#1	Primary	710.00'	**48.0" Round Culvert** L= 50.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 710.00' / 709.75' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 12.57 sf
#2	Device 1	710.00'	**6.7" Vert. Orifice/Grate** C= 0.600
#3	Device 1	710.90'	**24.0" W x 15.4" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	712.60'	**13.0" W x 10.0" H Vert. Orifice/Grate X 2.00** C= 0.600
#5	Device 1	713.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#6	Secondary	713.00'	**25.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=18.58 cfs @ 7.52 hrs HW=713.01' (Free Discharge)
└─**1=Culvert** (Passes 18.58 cfs of 45.07 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 1.95 cfs @ 7.95 fps)
  ├─**3=Orifice/Grate** (Orifice Controls 14.83 cfs @ 5.78 fps)
  ├─**4=Orifice/Grate** (Orifice Controls 1.80 cfs @ 2.05 fps)
  └─**5=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=0.03 cfs @ 7.52 hrs HW=713.01' (Free Discharge)
└─**6=Broad-Crested Rectangular Weir** (Weir Controls 0.03 cfs @ 0.20 fps)

Pond PB-NW: NW Basin



Summary for Pond PB-NW: NW Basin

[79] Warning: Submerged Pond PB-NE Primary device # 1 OUTLET by 1.44'
[79] Warning: Submerged Pond PB-SW Primary device # 1 INLET by 0.49'

Inflow Area = 148.160 ac, 33.64% Impervious, Inflow Depth > 1.93" for 25-Year event
Inflow = 162.29 cfs @ 6.32 hrs, Volume= 23.781 af
Outflow = 47.51 cfs @ 6.89 hrs, Volume= 21.962 af, Atten= 71%, Lag= 34.2 min
Primary = 25.02 cfs @ 6.89 hrs, Volume= 20.265 af
Secondary = 22.49 cfs @ 6.89 hrs, Volume= 1.697 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 713.49' @ 6.89 hrs Surf.Area= 91,483 sf Storage= 290,602 cf

Plug-Flow detention time= 295.5 min calculated for 21.962 af (92% of inflow)
Center-of-Mass det. time= 165.2 min (964.4 - 799.2)

Volume	Invert	Avail.Storage	Storage Description
#1	710.00'	438,059 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

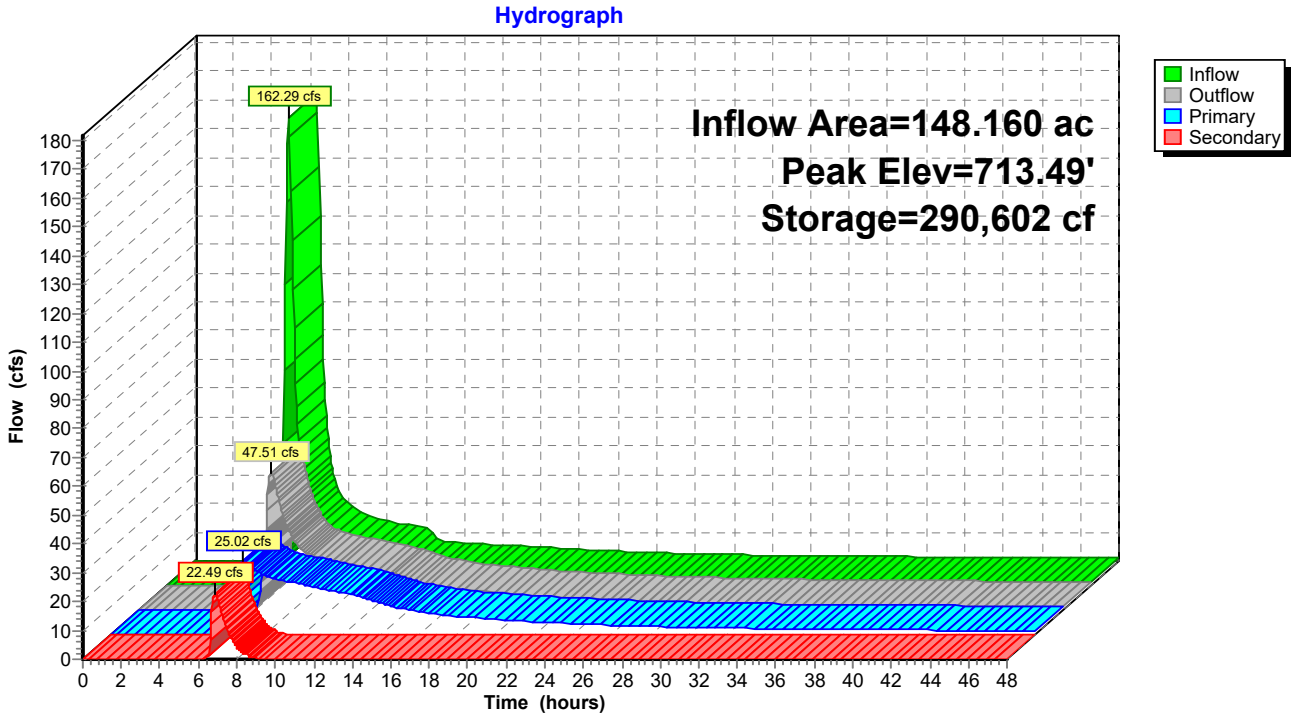
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
710.00	75,270	0	0	75,270
711.00	79,792	77,520	77,520	79,898
712.00	84,414	82,092	159,612	84,631
713.00	89,137	86,765	246,377	89,468
714.00	93,960	91,538	337,915	94,409
715.00	106,459	100,144	438,059	106,958

Device	Routing	Invert	Outlet Devices
#1	Primary	710.00'	**48.0" Round Culvert** L= 50.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 710.00' / 709.75' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 12.57 sf
#2	Device 1	710.00'	**6.7" Vert. Orifice/Grate** C= 0.600
#3	Device 1	710.90'	**24.0" W x 15.4" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	712.60'	**13.0" W x 10.0" H Vert. Orifice/Grate X 2.00** C= 0.600
#5	Device 1	713.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#6	Secondary	713.00'	**25.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=25.02 cfs @ 6.89 hrs HW=713.49' (Free Discharge)
└**1=Culvert** (Passes 25.02 cfs of 57.24 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 2.11 cfs @ 8.63 fps)
  └**3=Orifice/Grate** (Orifice Controls 17.17 cfs @ 6.69 fps)
  └**4=Orifice/Grate** (Orifice Controls 5.74 cfs @ 3.18 fps)
  └**5=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=22.42 cfs @ 6.89 hrs HW=713.49' (Free Discharge)
└**6=Broad-Crested Rectangular Weir** (Weir Controls 22.42 cfs @ 1.83 fps)

Pond PB-NW: NW Basin



Summary for Pond PB-NW: NW Basin

[79] Warning: Submerged Pond PB-NE Primary device # 1 OUTLET by 1.77'
[79] Warning: Submerged Pond PB-SW Primary device # 1 INLET by 0.82'

Inflow Area = 148.160 ac, 33.64% Impervious, Inflow Depth > 2.34" for 50-Year event
Inflow = 198.46 cfs @ 6.32 hrs, Volume= 28.888 af
Outflow = 78.74 cfs @ 6.73 hrs, Volume= 26.979 af, Atten= 60%, Lag= 24.8 min
Primary = 28.54 cfs @ 6.73 hrs, Volume= 23.239 af
Secondary = 50.21 cfs @ 6.73 hrs, Volume= 3.740 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 713.82' @ 6.73 hrs Surf.Area= 93,097 sf Storage= 321,362 cf

Plug-Flow detention time= 260.5 min calculated for 26.951 af (93% of inflow)
Center-of-Mass det. time= 146.5 min (946.6 - 800.1)

Volume	Invert	Avail.Storage	Storage Description
#1	710.00'	438,059 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

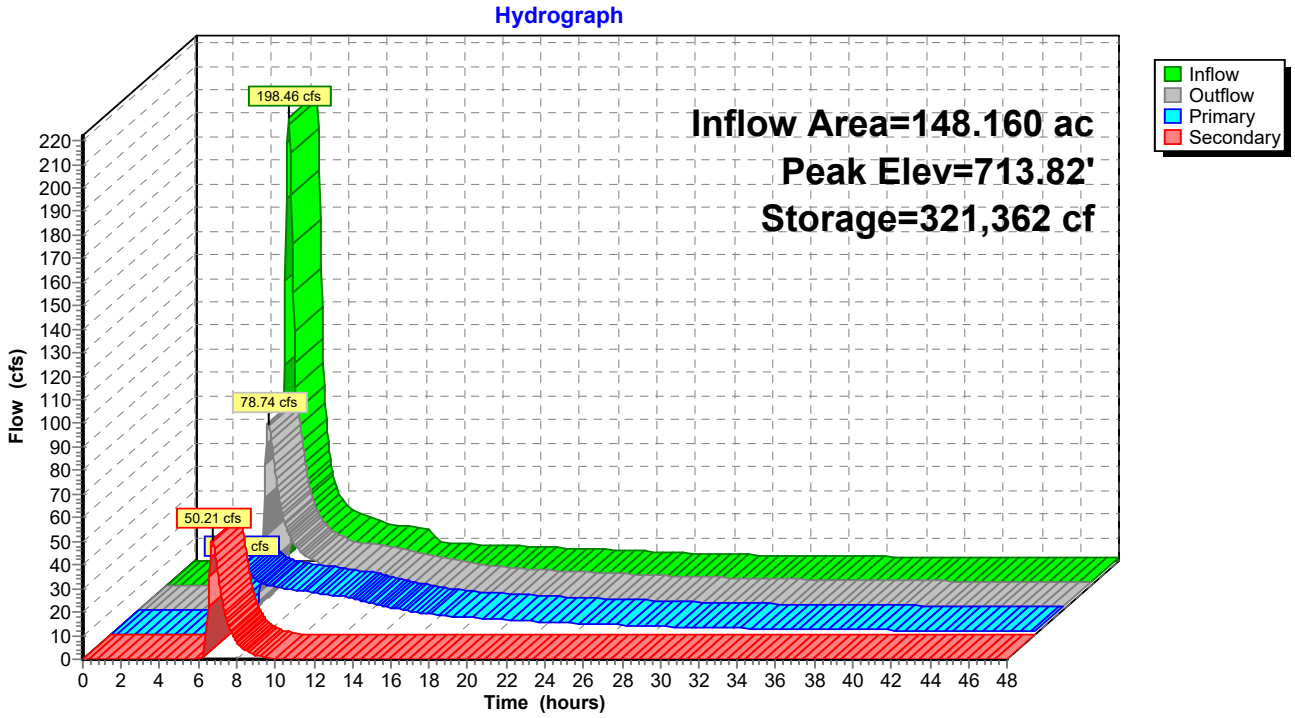
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
710.00	75,270	0	0	75,270
711.00	79,792	77,520	77,520	79,898
712.00	84,414	82,092	159,612	84,631
713.00	89,137	86,765	246,377	89,468
714.00	93,960	91,538	337,915	94,409
715.00	106,459	100,144	438,059	106,958

Device	Routing	Invert	Outlet Devices
#1	Primary	710.00'	**48.0" Round Culvert** L= 50.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 710.00' / 709.75' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 12.57 sf
#2	Device 1	710.00'	**6.7" Vert. Orifice/Grate** C= 0.600
#3	Device 1	710.90'	**24.0" W x 15.4" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	712.60'	**13.0" W x 10.0" H Vert. Orifice/Grate X 2.00** C= 0.600
#5	Device 1	713.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#6	Secondary	713.00'	**25.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=28.52 cfs @ 6.73 hrs HW=713.82' (Free Discharge)
└─**1=Culvert** (Passes 28.52 cfs of 65.76 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 2.22 cfs @ 9.06 fps)
  ├─**3=Orifice/Grate** (Orifice Controls 18.60 cfs @ 7.25 fps)
  ├─**4=Orifice/Grate** (Orifice Controls 7.71 cfs @ 4.27 fps)
  └─**5=Orifice/Grate** (Controls 0.00 cfs)

Secondary OutFlow Max=50.02 cfs @ 6.73 hrs HW=713.82' (Free Discharge)
└─**6=Broad-Crested Rectangular Weir** (Weir Controls 50.02 cfs @ 2.44 fps)

Pond PB-NW: NW Basin



Summary for Pond PB-NW: NW Basin

[79] Warning: Submerged Pond PB-NE Primary device # 1 INLET by 0.15'
[79] Warning: Submerged Pond PB-SW Primary device # 1 INLET by 1.15'

Inflow Area = 148.160 ac, 33.64% Impervious, Inflow Depth > 2.79" for 100-Year event
Inflow = 238.06 cfs @ 6.31 hrs, Volume= 34.451 af
Outflow = 118.02 cfs @ 6.63 hrs, Volume= 32.460 af, Atten= 50%, Lag= 19.2 min
Primary = 34.79 cfs @ 6.63 hrs, Volume= 26.300 af
Secondary = 83.23 cfs @ 6.63 hrs, Volume= 6.160 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 714.15' @ 6.63 hrs Surf.Area= 95,826 sf Storage= 352,468 cf

Plug-Flow detention time= 233.3 min calculated for 32.426 af (94% of inflow)
Center-of-Mass det. time= 132.2 min (935.8 - 803.6)

Volume	Invert	Avail.Storage	Storage Description
#1	710.00'	438,059 cf	**Custom Stage Data (Conic)** Listed below (Recalc)

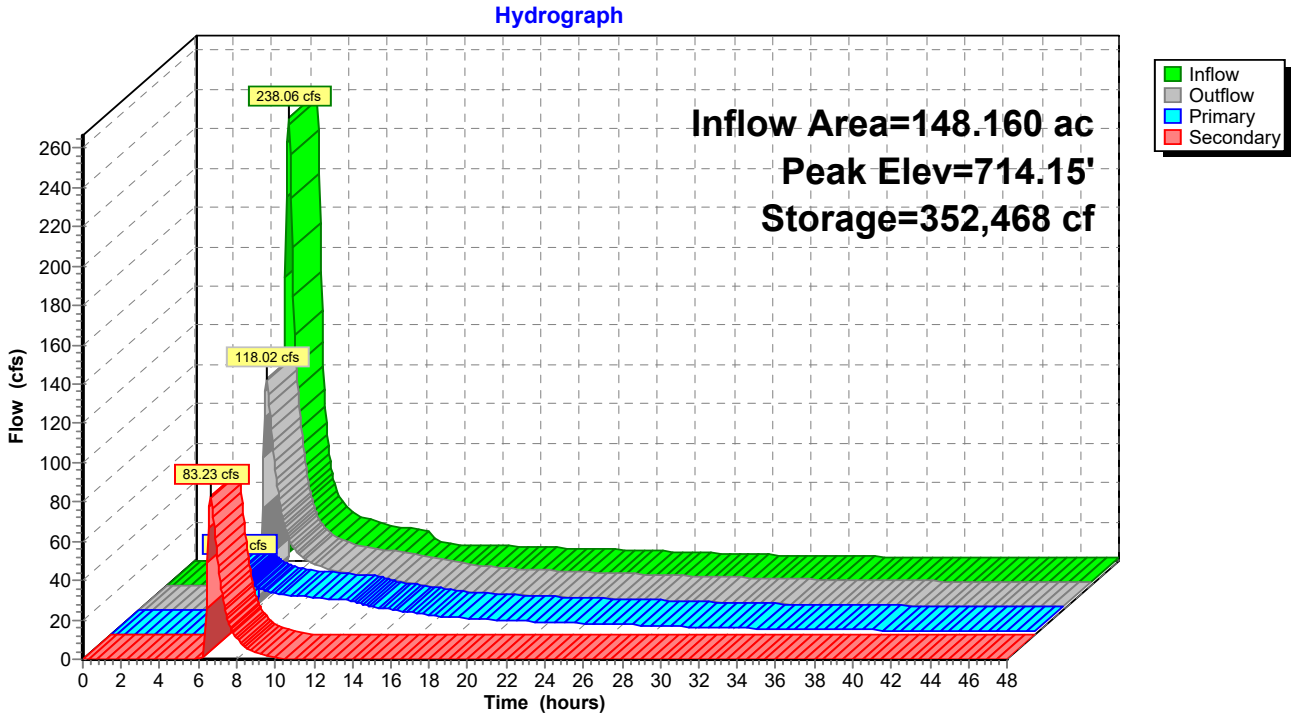
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
710.00	75,270	0	0	75,270
711.00	79,792	77,520	77,520	79,898
712.00	84,414	82,092	159,612	84,631
713.00	89,137	86,765	246,377	89,468
714.00	93,960	91,538	337,915	94,409
715.00	106,459	100,144	438,059	106,958

Device	Routing	Invert	Outlet Devices
#1	Primary	710.00'	**48.0" Round Culvert** L= 50.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 710.00' / 709.75' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 12.57 sf
#2	Device 1	710.00'	**6.7" Vert. Orifice/Grate** C= 0.600
#3	Device 1	710.90'	**24.0" W x 15.4" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	712.60'	**13.0" W x 10.0" H Vert. Orifice/Grate X 2.00** C= 0.600
#5	Device 1	713.90'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#6	Secondary	713.00'	**25.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=34.72 cfs @ 6.63 hrs HW=714.15' (Free Discharge)
└─**1=Culvert** (Passes 34.72 cfs of 74.10 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 2.32 cfs @ 9.47 fps)
  ├─**3=Orifice/Grate** (Orifice Controls 19.91 cfs @ 7.76 fps)
  ├─**4=Orifice/Grate** (Orifice Controls 9.20 cfs @ 5.10 fps)
  └─**5=Orifice/Grate** (Weir Controls 3.28 cfs @ 1.64 fps)

Secondary OutFlow Max=82.92 cfs @ 6.63 hrs HW=714.15' (Free Discharge)
└─**6=Broad-Crested Rectangular Weir** (Weir Controls 82.92 cfs @ 2.88 fps)

Pond PB-NW: NW Basin

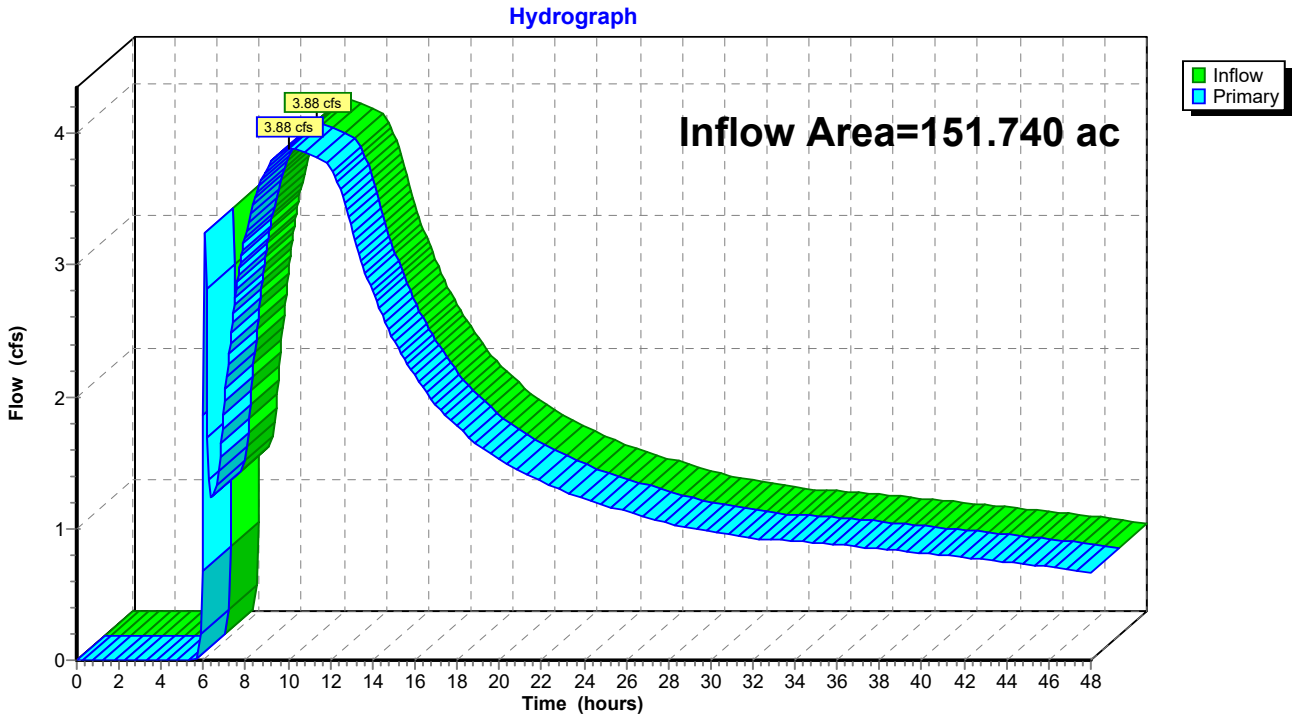


Summary for Link PTR-N: P. Release to North

Inflow Area = 151.740 ac, 33.43% Impervious, Inflow Depth > 0.42" for 1-Year event
Inflow = 3.88 cfs @ 10.06 hrs, Volume= 5.371 af
Primary = 3.88 cfs @ 10.06 hrs, Volume= 5.371 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link PTR-N: P. Release to North

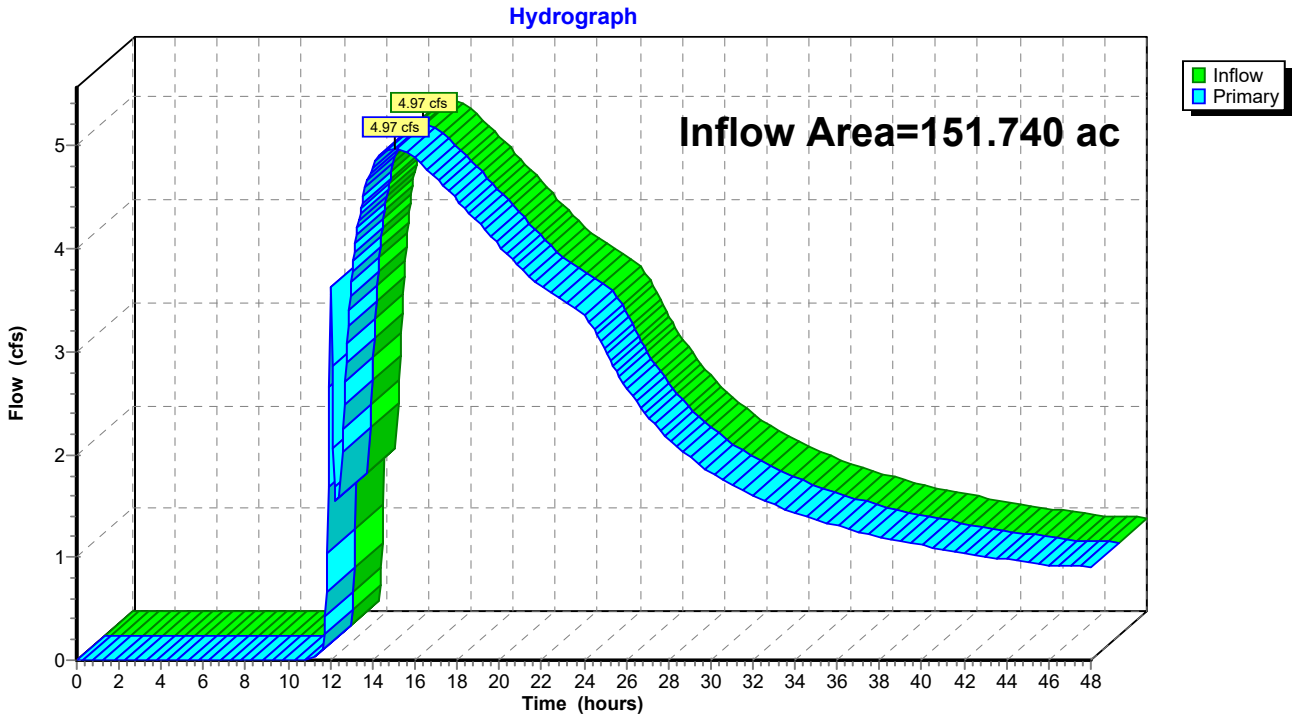


Summary for Link PTR-N: P. Release to North

Inflow Area = 151.740 ac, 33.43% Impervious, Inflow Depth > 0.56" for 1-Year 24-hr event
Inflow = 4.97 cfs @ 15.08 hrs, Volume= 7.136 af
Primary = 4.97 cfs @ 15.08 hrs, Volume= 7.136 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link PTR-N: P. Release to North

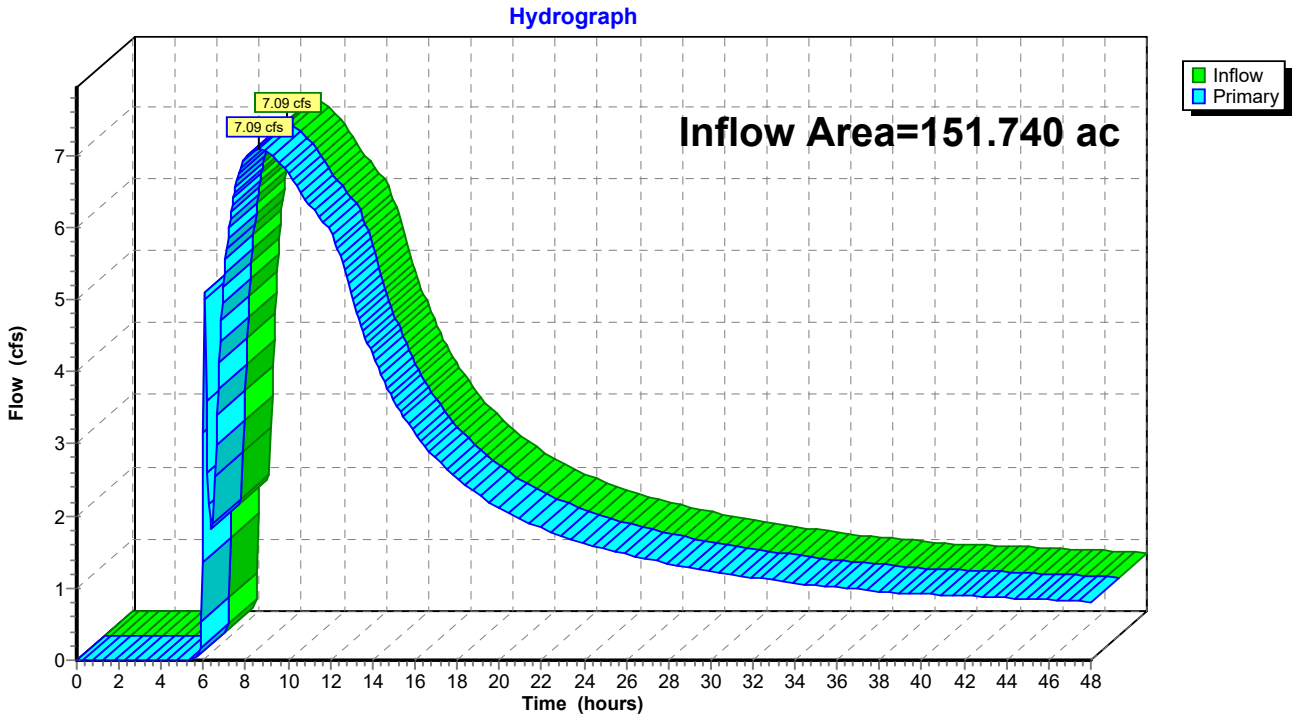


Summary for Link PTR-N: P. Release to North

Inflow Area = 151.740 ac, 33.43% Impervious, Inflow Depth > 0.64" for 2-Year event
Inflow = 7.09 cfs @ 8.57 hrs, Volume= 8.067 af
Primary = 7.09 cfs @ 8.57 hrs, Volume= 8.067 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link PTR-N: P. Release to North

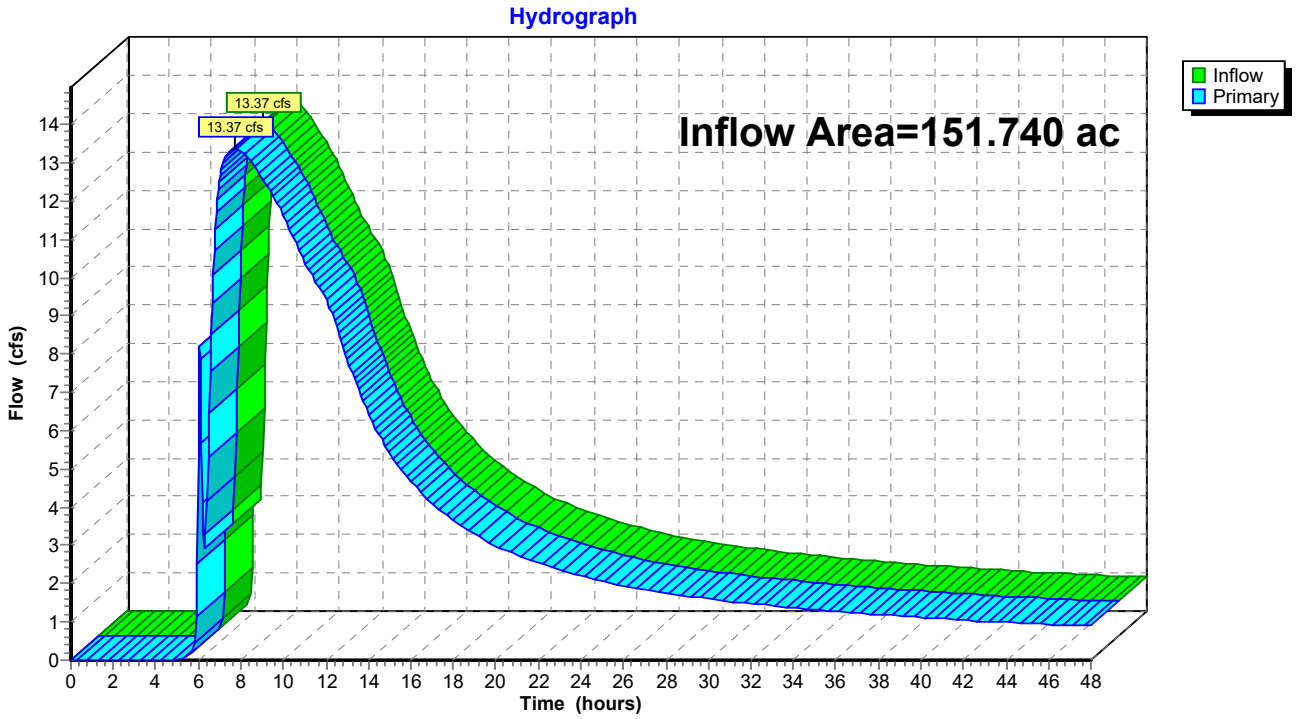


Summary for Link PTR-N: P. Release to North

Inflow Area = 151.740 ac, 33.43% Impervious, Inflow Depth > 0.99" for 5-Year event
Inflow = 13.37 cfs @ 7.69 hrs, Volume= 12.560 af
Primary = 13.37 cfs @ 7.69 hrs, Volume= 12.560 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link PTR-N: P. Release to North

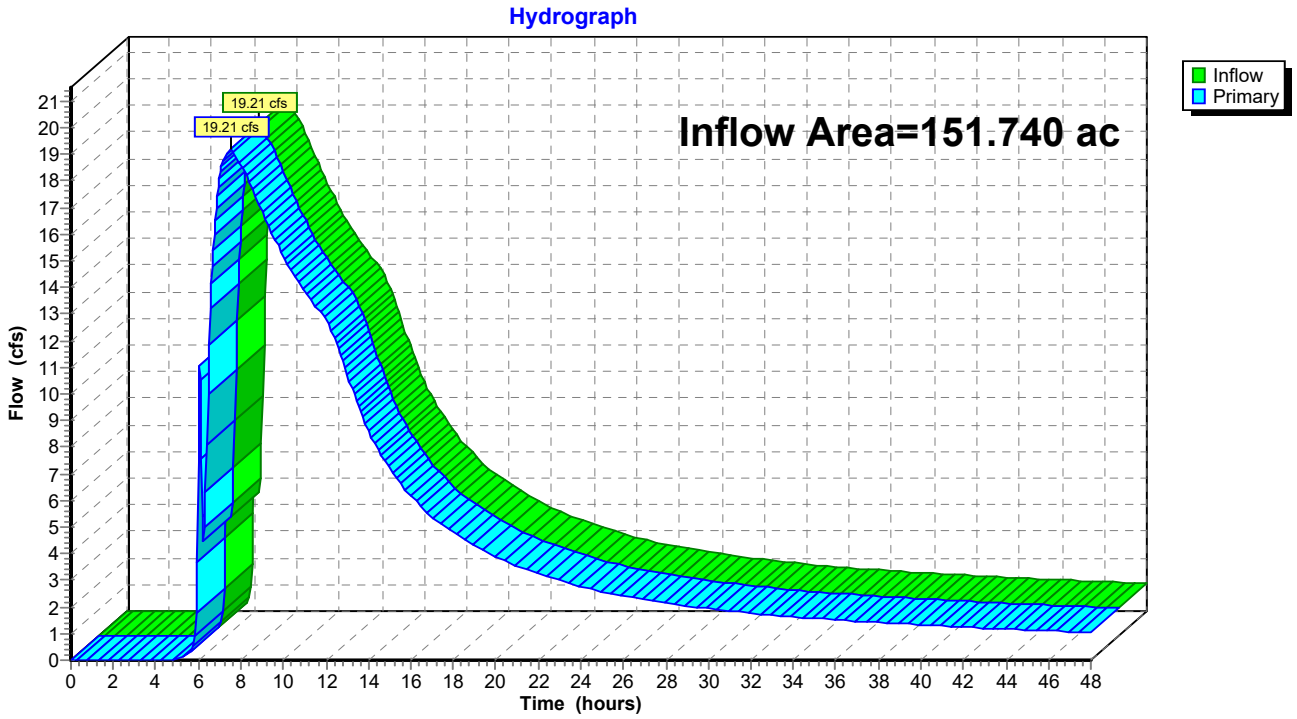


Summary for Link PTR-N: P. Release to North

Inflow Area = 151.740 ac, 33.43% Impervious, Inflow Depth > 1.31" for 10-Year event
Inflow = 19.21 cfs @ 7.50 hrs, Volume= 16.590 af
Primary = 19.21 cfs @ 7.50 hrs, Volume= 16.590 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link PTR-N: P. Release to North

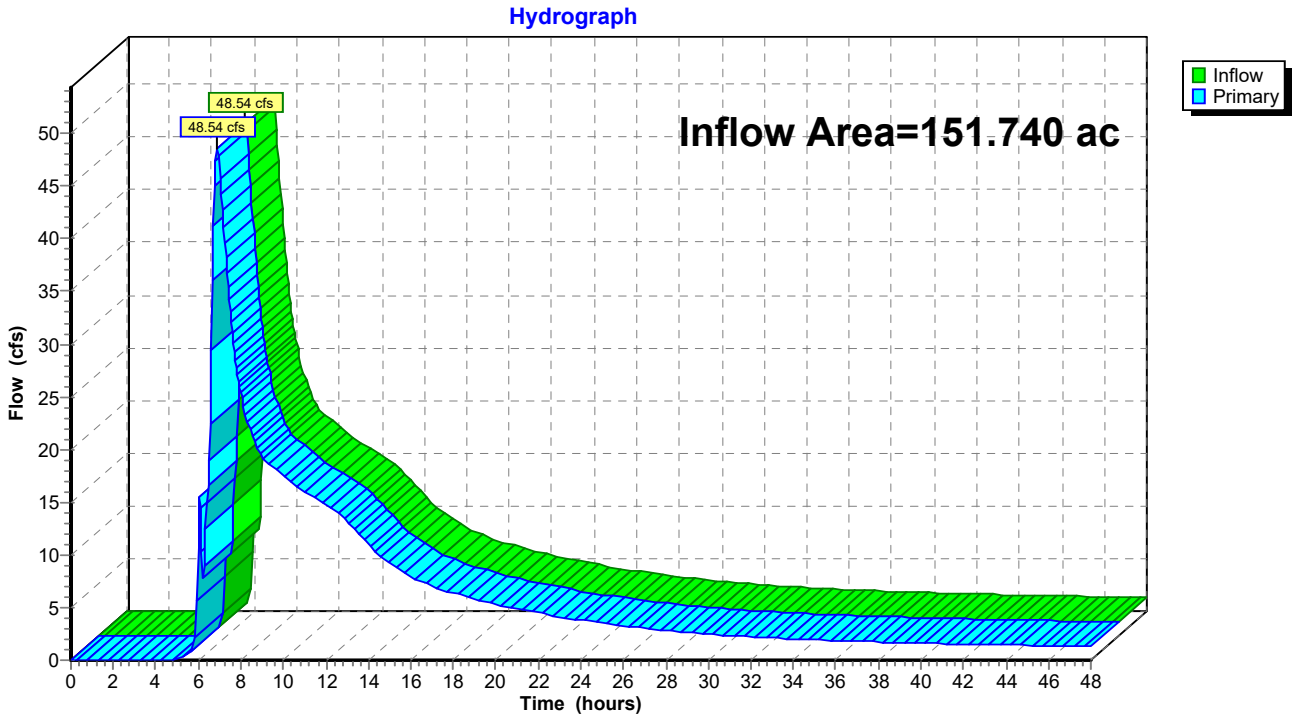


Summary for Link PTR-N: P. Release to North

Inflow Area = 151.740 ac, 33.43% Impervious, Inflow Depth > 1.78" for 25-Year event
Inflow = 48.54 cfs @ 6.88 hrs, Volume= 22.542 af
Primary = 48.54 cfs @ 6.88 hrs, Volume= 22.542 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link PTR-N: P. Release to North

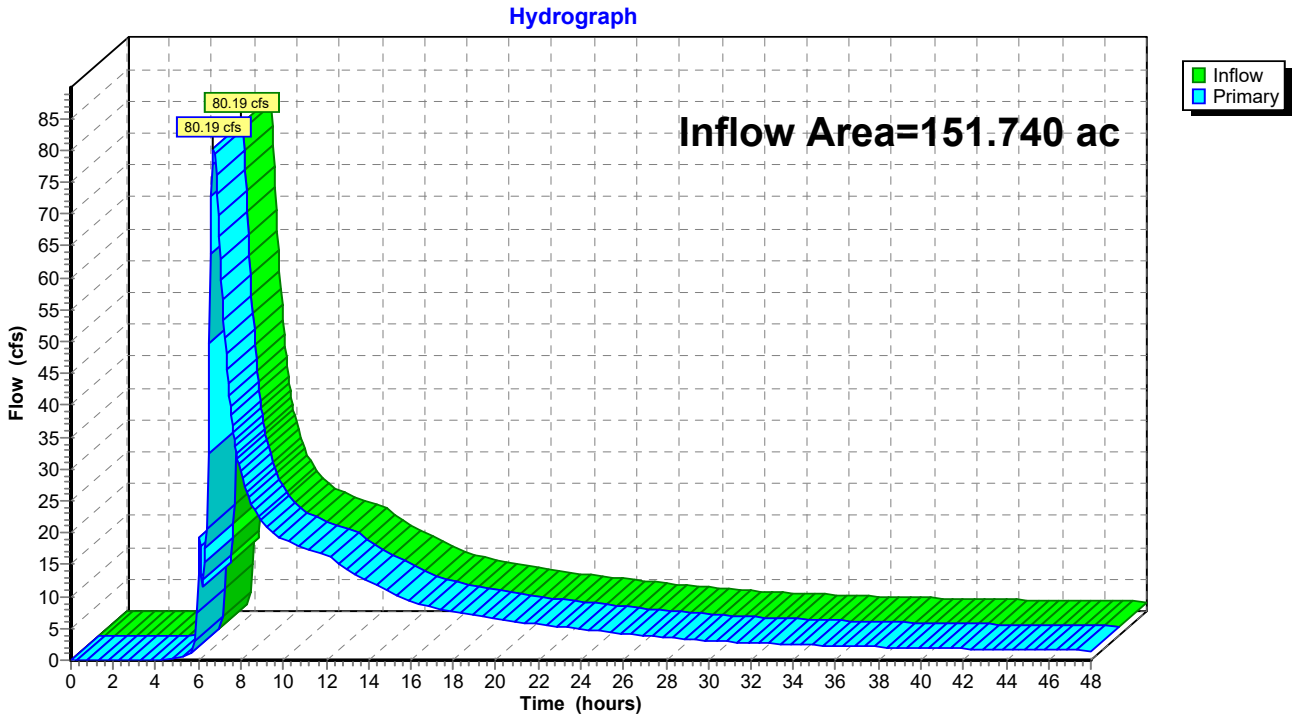


Summary for Link PTR-N: P. Release to North

Inflow Area = 151.740 ac, 33.43% Impervious, Inflow Depth > 2.19" for 50-Year event
Inflow = 80.19 cfs @ 6.73 hrs, Volume= 27.693 af
Primary = 80.19 cfs @ 6.73 hrs, Volume= 27.693 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link PTR-N: P. Release to North

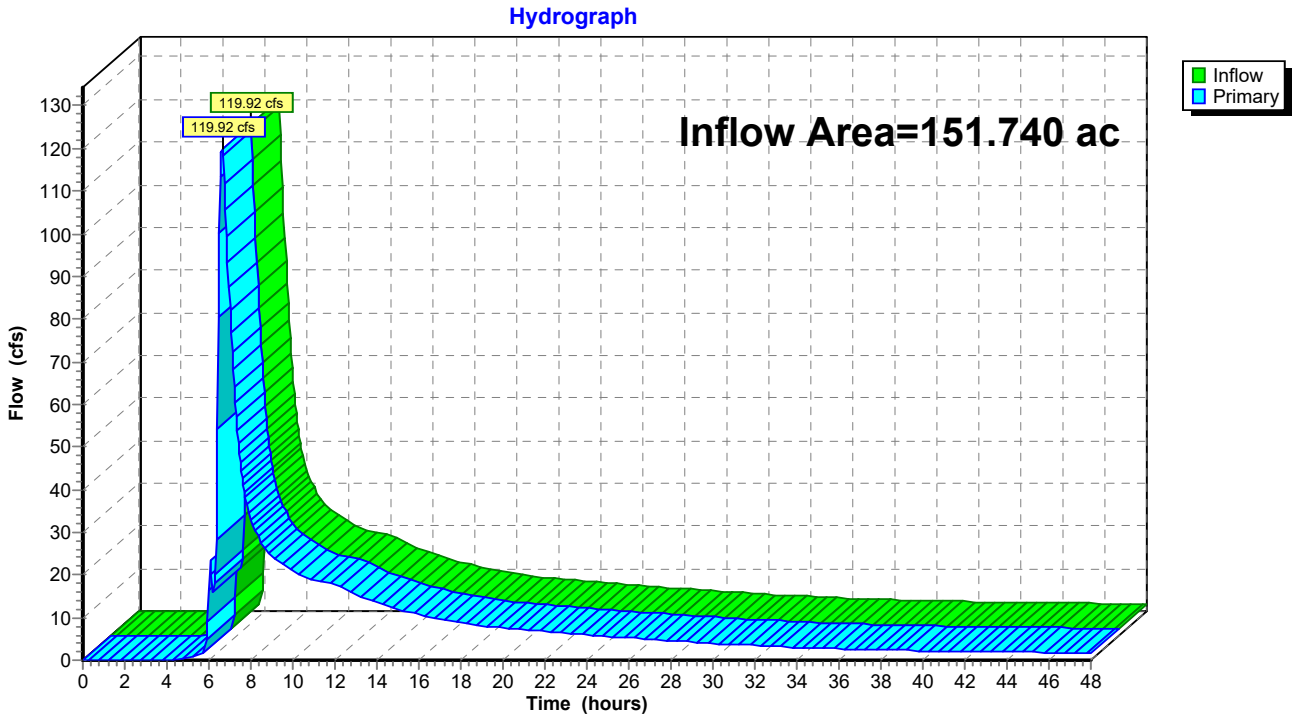


Summary for Link PTR-N: P. Release to North

Inflow Area = 151.740 ac, 33.43% Impervious, Inflow Depth > 2.64" for 100-Year event
Inflow = 119.92 cfs @ 6.63 hrs, Volume= 33.323 af
Primary = 119.92 cfs @ 6.63 hrs, Volume= 33.323 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link PTR-N: P. Release to North

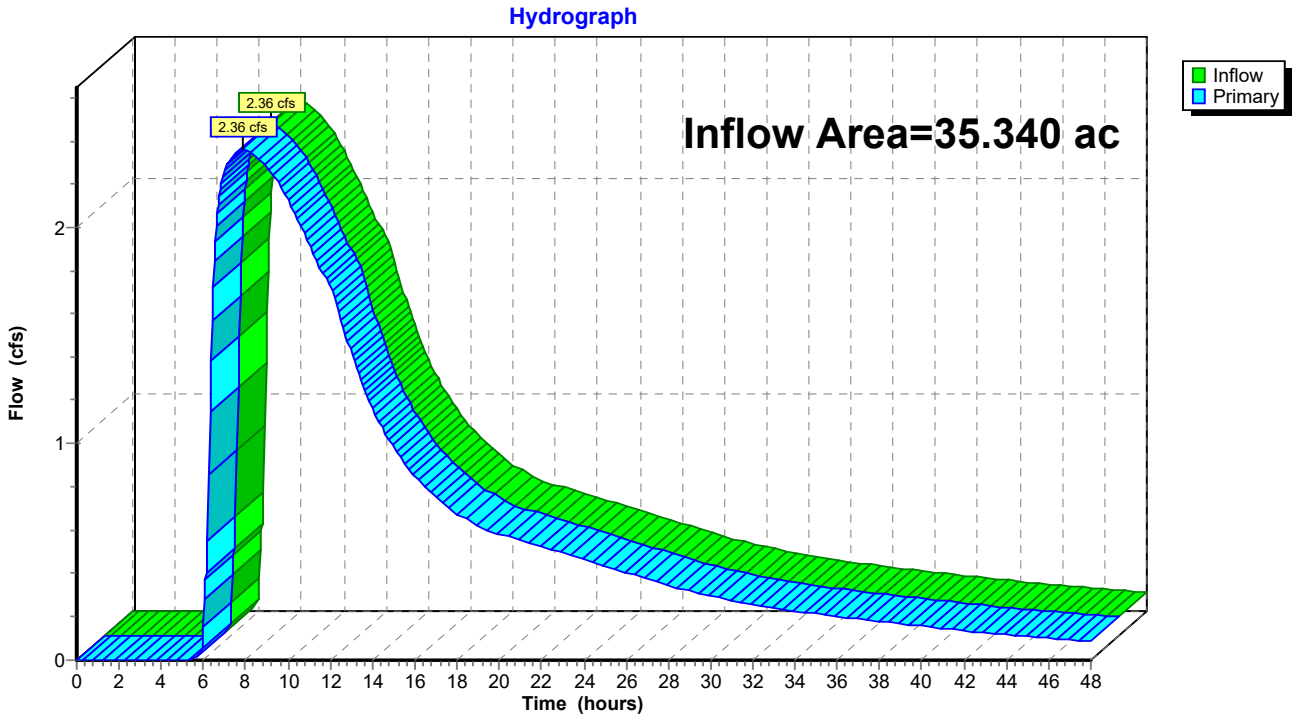


Summary for Link PTR-E: P. Release to East

Inflow Area = 35.340 ac, 51.80% Impervious, Inflow Depth > 0.77" for 1-Year event
Inflow = 2.36 cfs @ 7.87 hrs, Volume= 2.262 af
Primary = 2.36 cfs @ 7.87 hrs, Volume= 2.262 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link PTR-E: P. Release to East

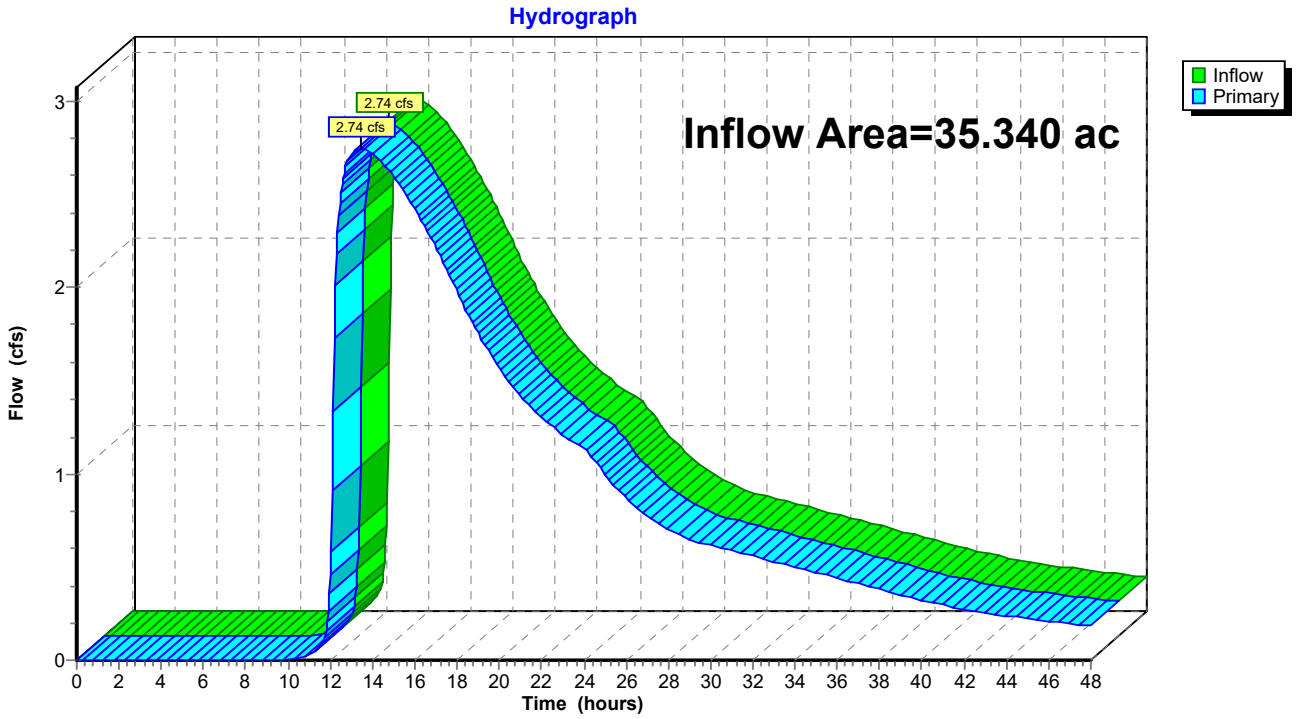


Summary for Link PTR-E: P. Release to East

Inflow Area = 35.340 ac, 51.80% Impervious, Inflow Depth > 0.98" for 1-Year 24-hr event
Inflow = 2.74 cfs @ 13.47 hrs, Volume= 2.888 af
Primary = 2.74 cfs @ 13.47 hrs, Volume= 2.888 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link PTR-E: P. Release to East

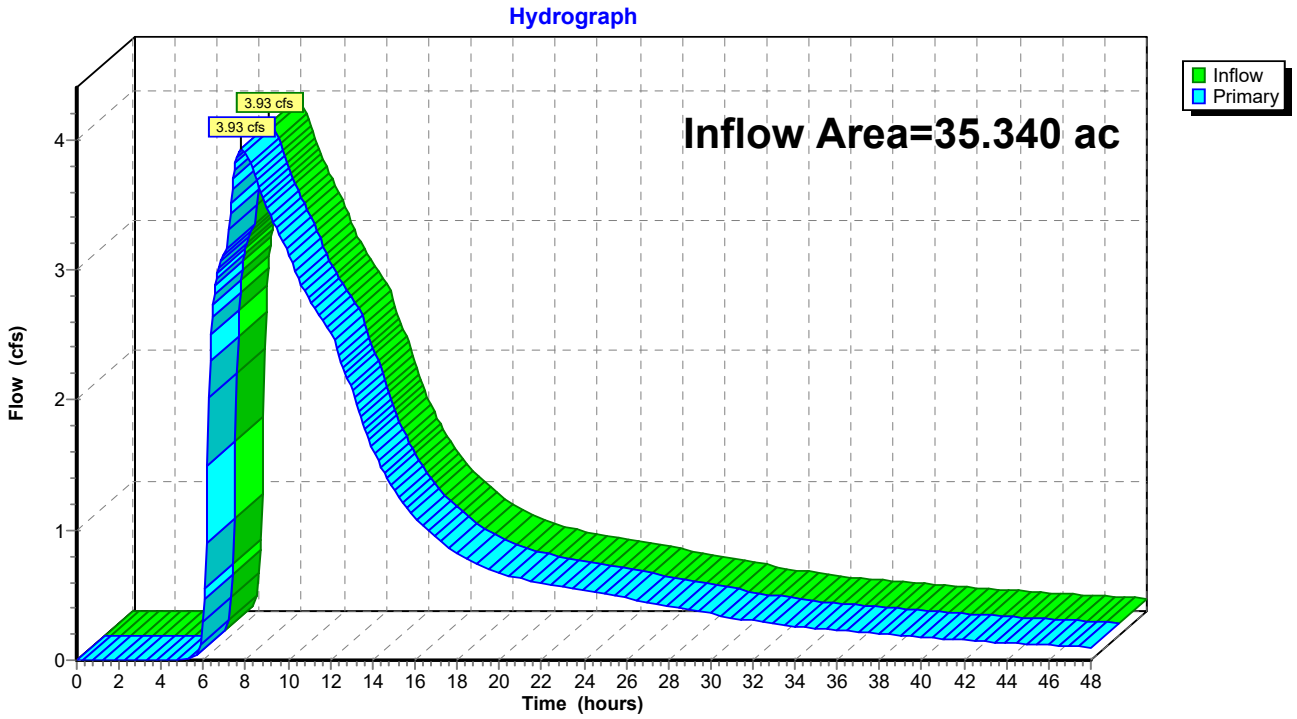


Summary for Link PTR-E: P. Release to East

Inflow Area = 35.340 ac, 51.80% Impervious, Inflow Depth > 1.05" for 2-Year event
Inflow = 3.93 cfs @ 7.80 hrs, Volume= 3.102 af
Primary = 3.93 cfs @ 7.80 hrs, Volume= 3.102 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link PTR-E: P. Release to East

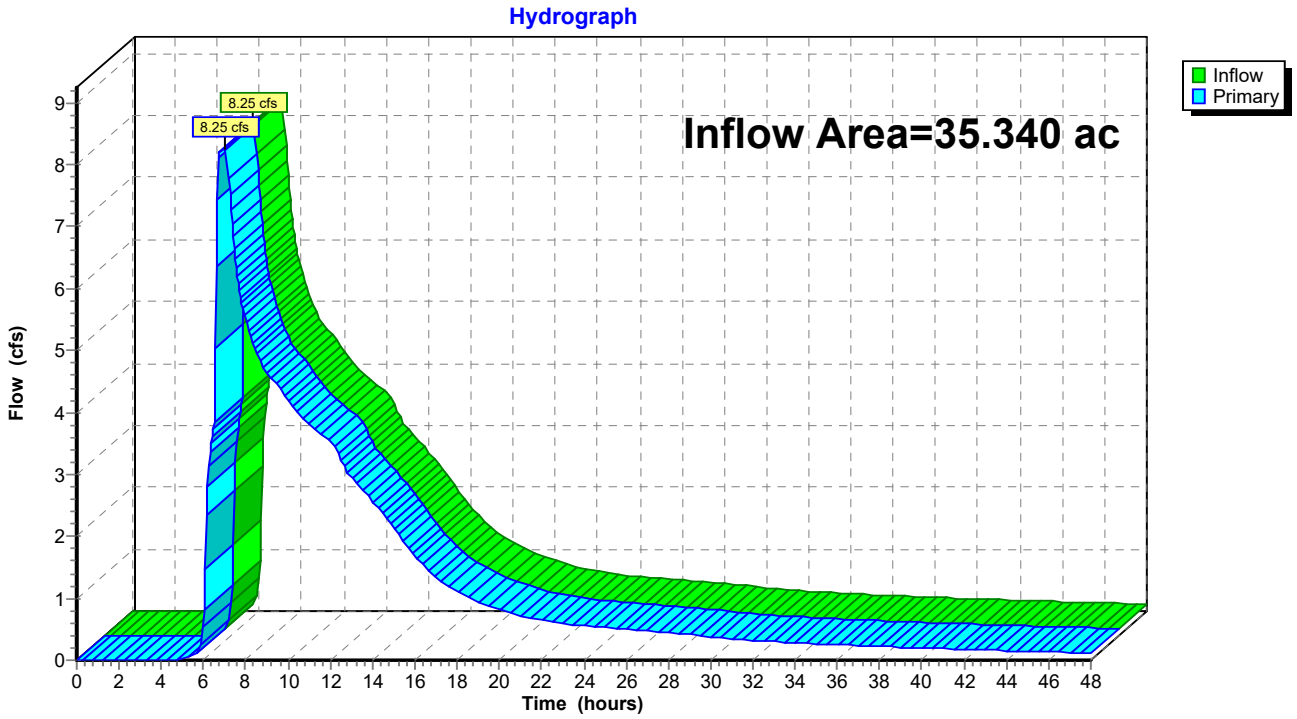


Summary for Link PTR-E: P. Release to East

Inflow Area = 35.340 ac, 51.80% Impervious, Inflow Depth > 1.50" for 5-Year event
Inflow = 8.25 cfs @ 6.97 hrs, Volume= 4.404 af
Primary = 8.25 cfs @ 6.97 hrs, Volume= 4.404 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link PTR-E: P. Release to East

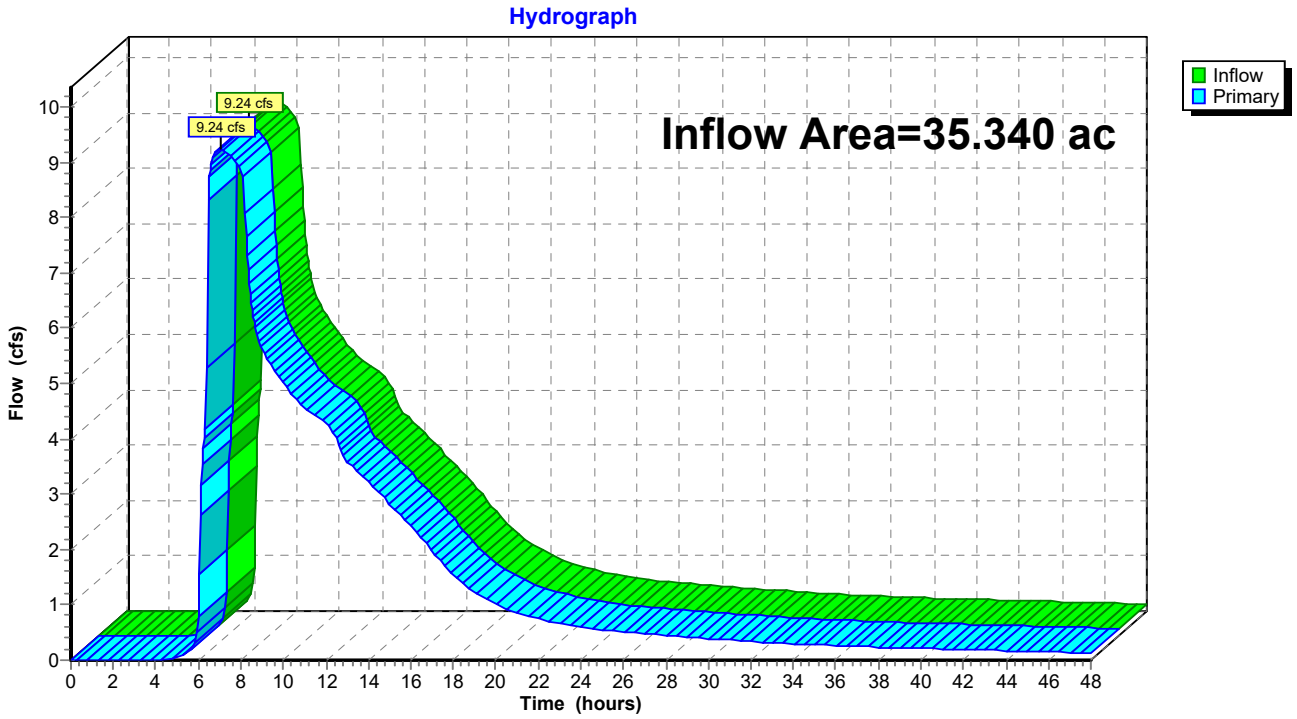


Summary for Link PTR-E: P. Release to East

Inflow Area = 35.340 ac, 51.80% Impervious, Inflow Depth > 1.88" for 10-Year event
Inflow = 9.24 cfs @ 7.04 hrs, Volume= 5.537 af
Primary = 9.24 cfs @ 7.04 hrs, Volume= 5.537 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link PTR-E: P. Release to East

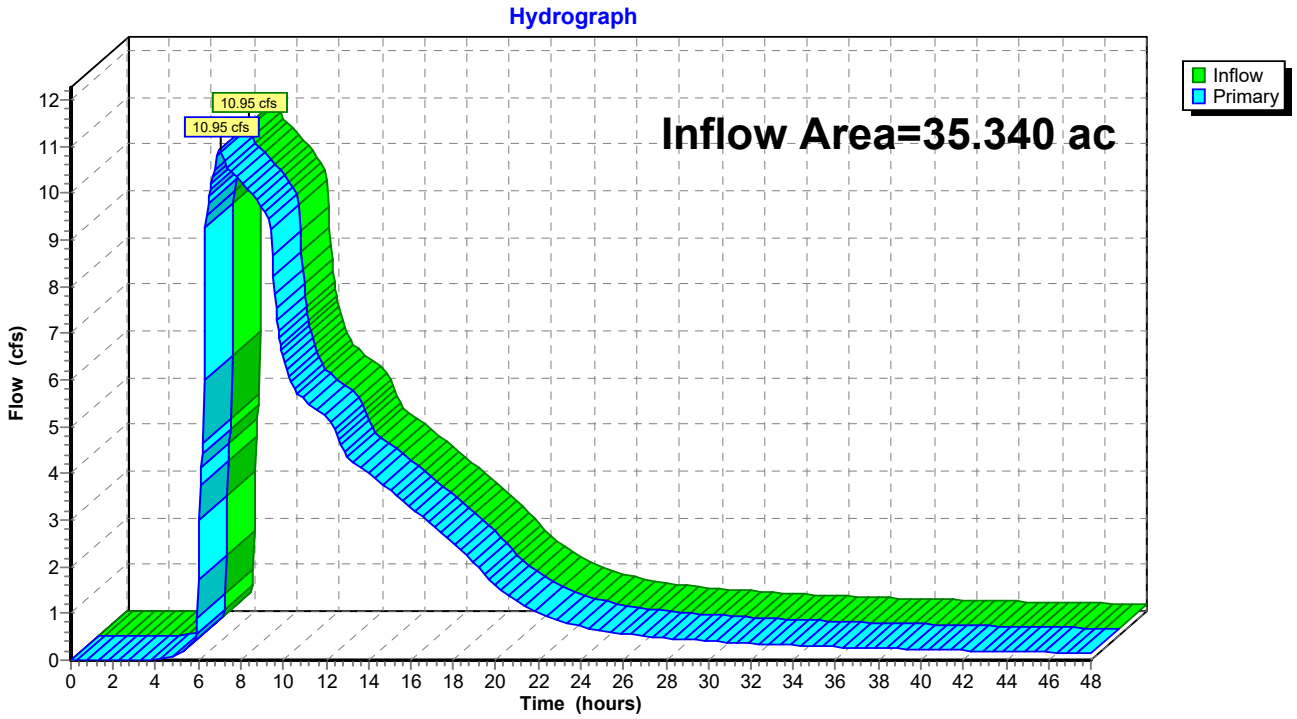


Summary for Link PTR-E: P. Release to East

Inflow Area = 35.340 ac, 51.80% Impervious, Inflow Depth > 2.44" for 25-Year event
Inflow = 10.95 cfs @ 7.02 hrs, Volume= 7.198 af
Primary = 10.95 cfs @ 7.02 hrs, Volume= 7.198 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link PTR-E: P. Release to East

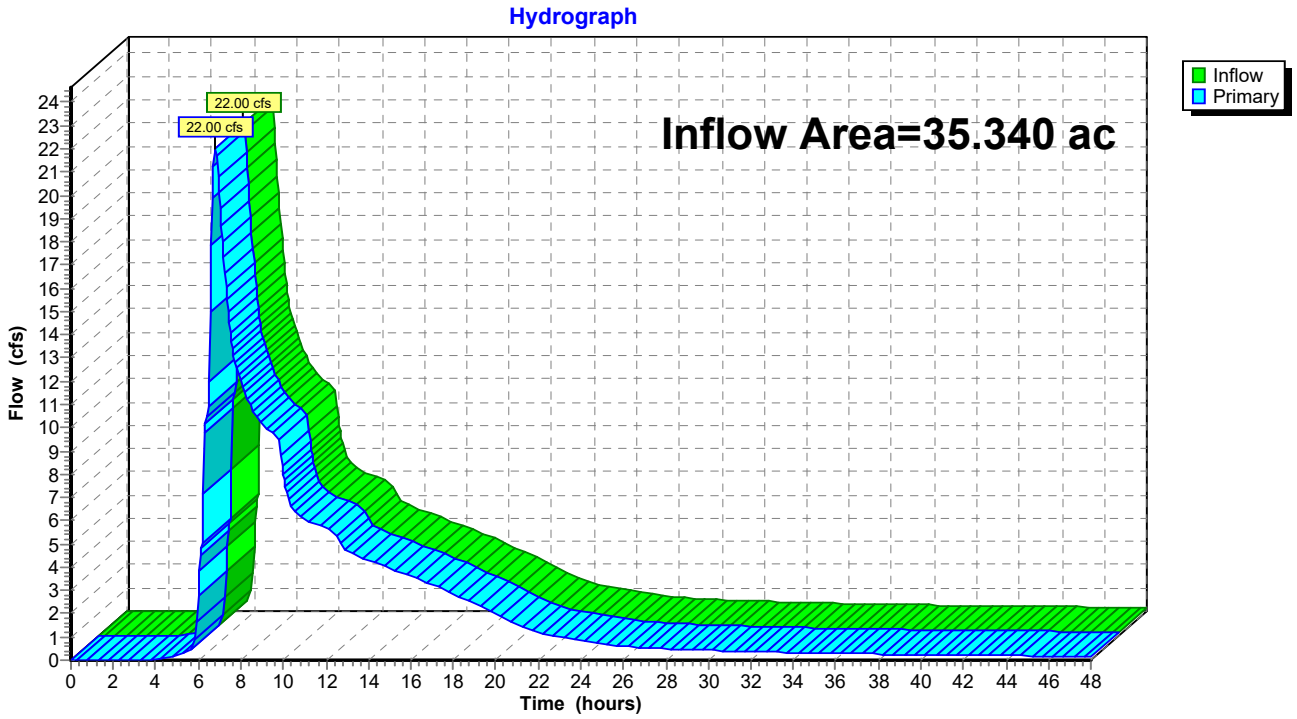


Summary for Link PTR-E: P. Release to East

Inflow Area = 35.340 ac, 51.80% Impervious, Inflow Depth > 2.93" for 50-Year event
Inflow = 22.00 cfs @ 6.79 hrs, Volume= 8.643 af
Primary = 22.00 cfs @ 6.79 hrs, Volume= 8.643 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link PTR-E: P. Release to East

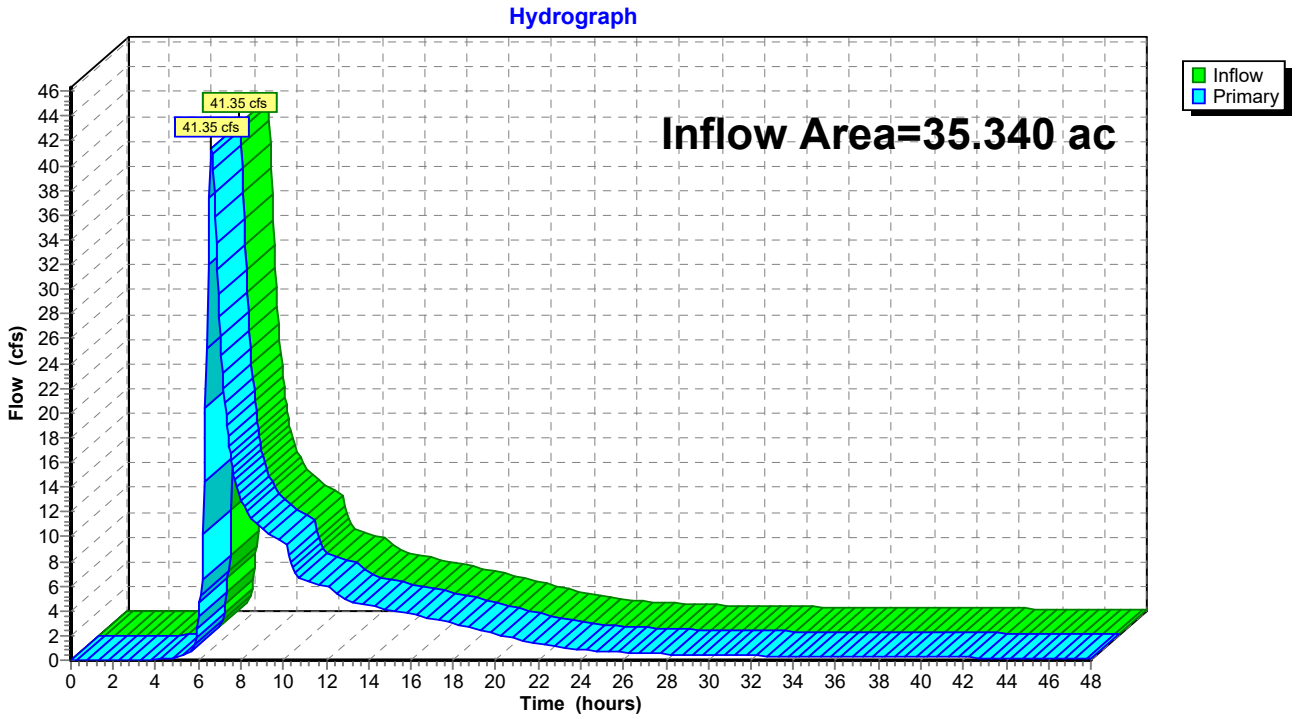


Summary for Link PTR-E: P. Release to East

Inflow Area = 35.340 ac, 51.80% Impervious, Inflow Depth > 3.47" for 100-Year event
Inflow = 41.35 cfs @ 6.61 hrs, Volume= 10.228 af
Primary = 41.35 cfs @ 6.61 hrs, Volume= 10.228 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link PTR-E: P. Release to East



APPENDIX D

EXISTING JACKSON PIKE CULVERT ANALYSIS

SHEET 1 OF 1
JOB # 174-158
PROJECT Farmstead

BY: JTH
CHECKED: TJV
DATE: 12/7/2018

Civil & Environmental Consultants, Inc.

STORM SEWER DESIGN

STRUCTURES			DRAINAGE AREA (acres)					TIME (min)		I	2 YEAR STORM - SEWER DATA								
CULVERT		STATION	Δ AREA	Σ AREA	C	Δ CA	Σ CA	Δ t	Σ t	(in/hr)	Q (cfs)	LENGTH (ft)	SLOPE %	DIA (in)	V (fps)	CAP (cfs)	INVERT IN	INVERT OUT	T.C.
30" STEEL		154.69	0.00	0.00	0.45	0.00	0.00		5.00	5.03			4.85				716.69		-
								0.04			0.00	51.51	4.85	30	20.0	98.1			
		103.18	0.00	0.00	0.45	0.00	0.00		5.04	5.03								714.19	-
12" STEEL		103.18	0.00	0.00	0.45	0.00	0.00		5.04	5.03			4.10				717.46		-
								0.09			0.00	52.50	4.10	12	10.0	7.8			
		50.68	0.00	0.00	0.45	0.00	0.00		5.13	5.00								715.31	-
24" STEEL		50.68	0.00	0.00	0.45	0.00	0.00		5.13	5.00			1.00				Unknown		-
								0.11			0.00	50.68	1.00	24	7.8	24.6			
		0.00	0.00	0.00	0.45	0.00	0.00		5.24	4.97			Assumed					716.67	-