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Lockport-Batavia Line #112

Rebuild Project

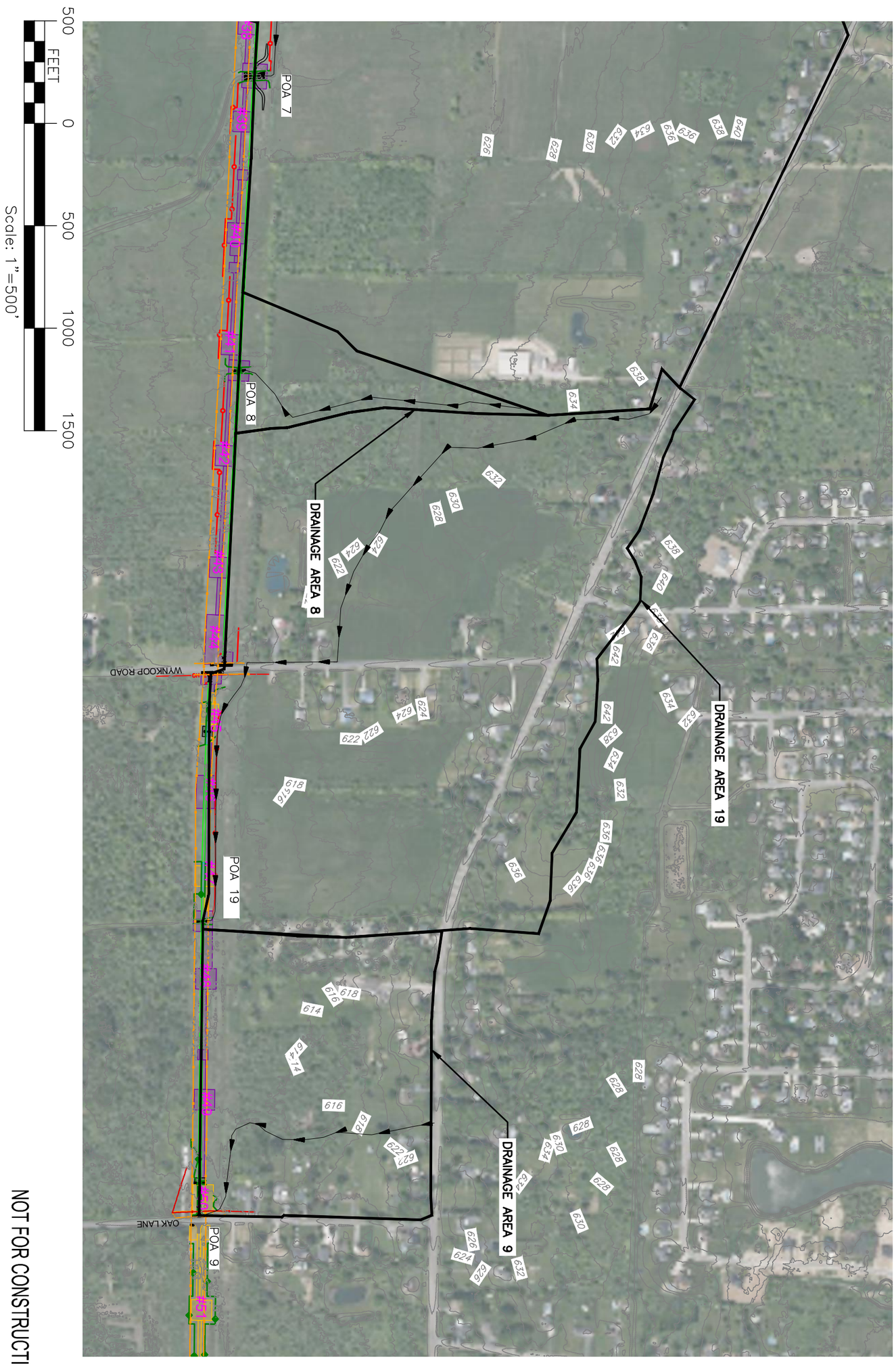
EM&CP Update

Replacement Appendix G
(SWPPP)

(Revised January 2026; Replaces Version Filed June 2025)

Part 2 of 5

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SW-4
DRAWING NO.
SHEET 4 OF 7

PROJECT
LOCKPORT BATAVIA
NEW YORK
PCSM
TOWN OF LOCKPORT

TITLE OF DRAWING
PCSM DRAINAGE AREA MAP

FA PROJECT NO.
190176

ISSUE DATE
2025

PROJECT MANAGER
T. LIBERTY

DRAWN BY
D. JIMENEZ

DRAWING CHK
R.WIGHTMAN

SCALE
AS SHOWN

ENGINEER
R.WIGHTMAN

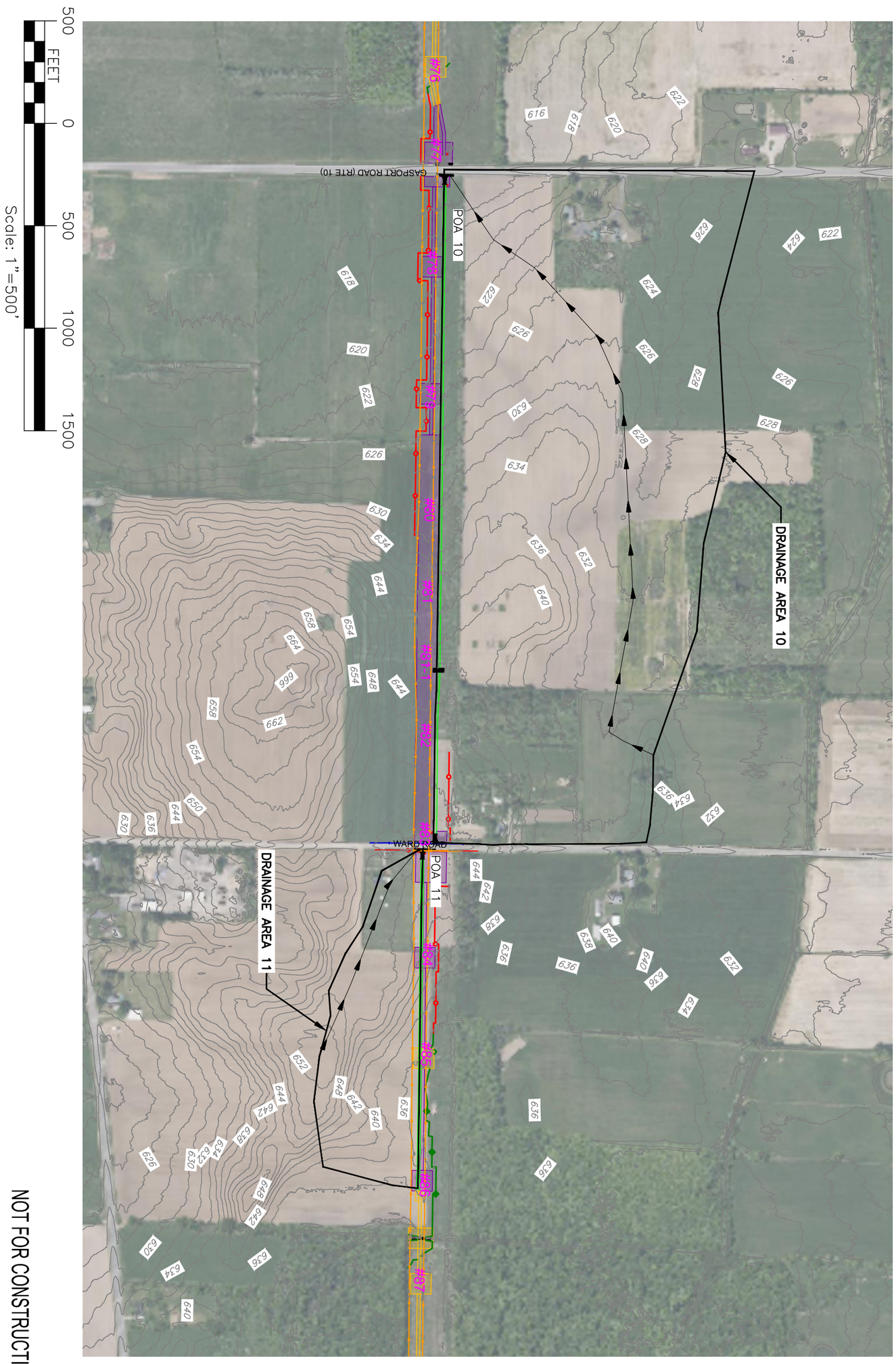
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SW-5
DRAWING NO.
SHEET 5 OF 7

PROJECT
LOCKPORT BATAVIA
NEW YORK
PCSM
TOWN OF ROYALTON

TITLE OF DRAWING
PCSM DRAINAGE AREA MAP

FA PROJECT NO.
190176

ISSUE DATE
2025

PROJECT MANAGER
T. LIBERTY

DRAWN BY
D. JIMENEZ

DRAWING CHK
R.WIGHTMAN

SCALE
AS SHOWN

ENGINEER
R.WIGHTMAN

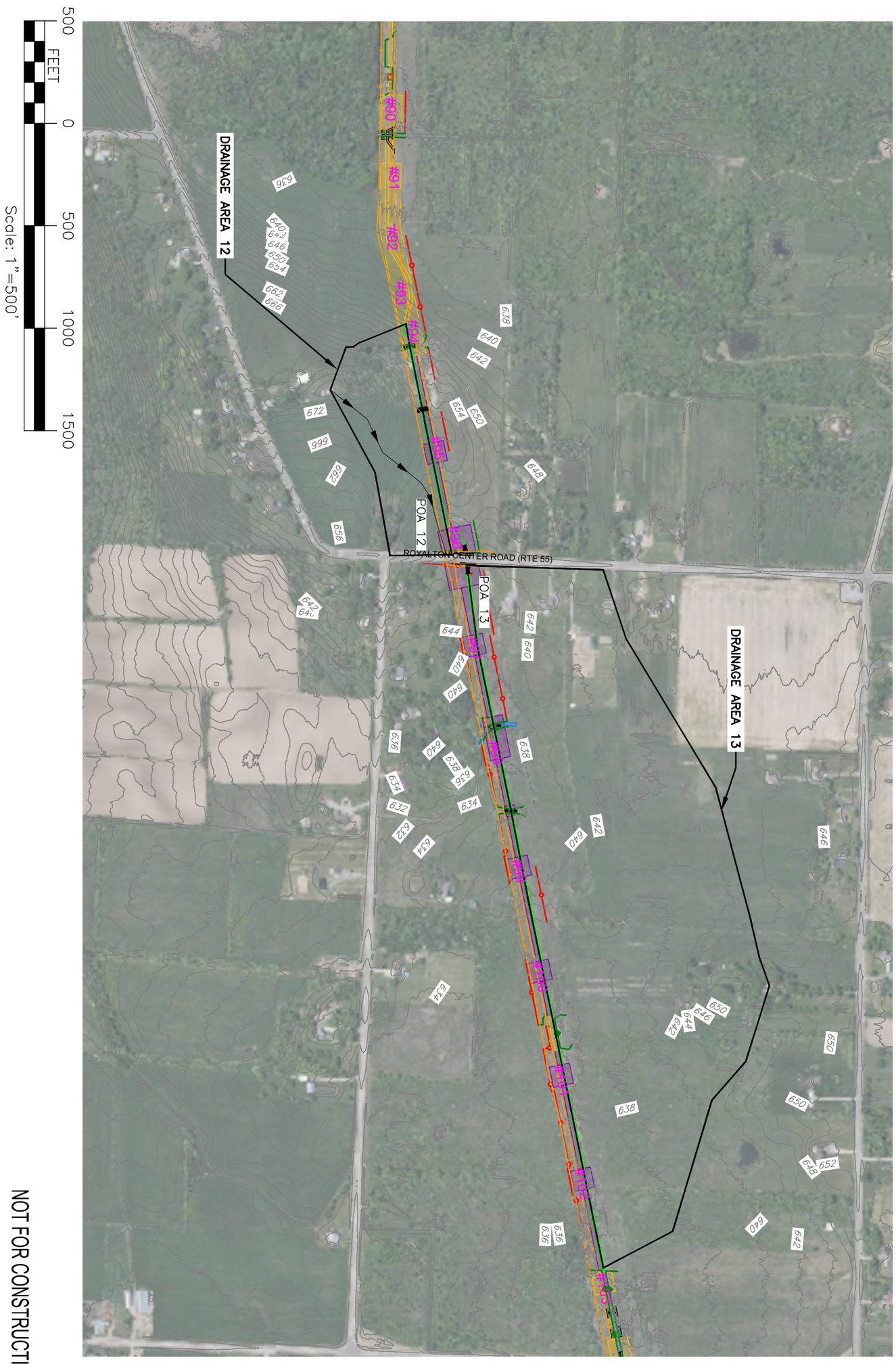
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SW-6
DRAWING NO.
SHEET 6 OF 7

PROJECT
LOCKPORT BATAVIA
NEW YORK
PCSM
TOWN OF ROYALTON

TITLE OF DRAWING
PCSM DRAINAGE AREA MAP

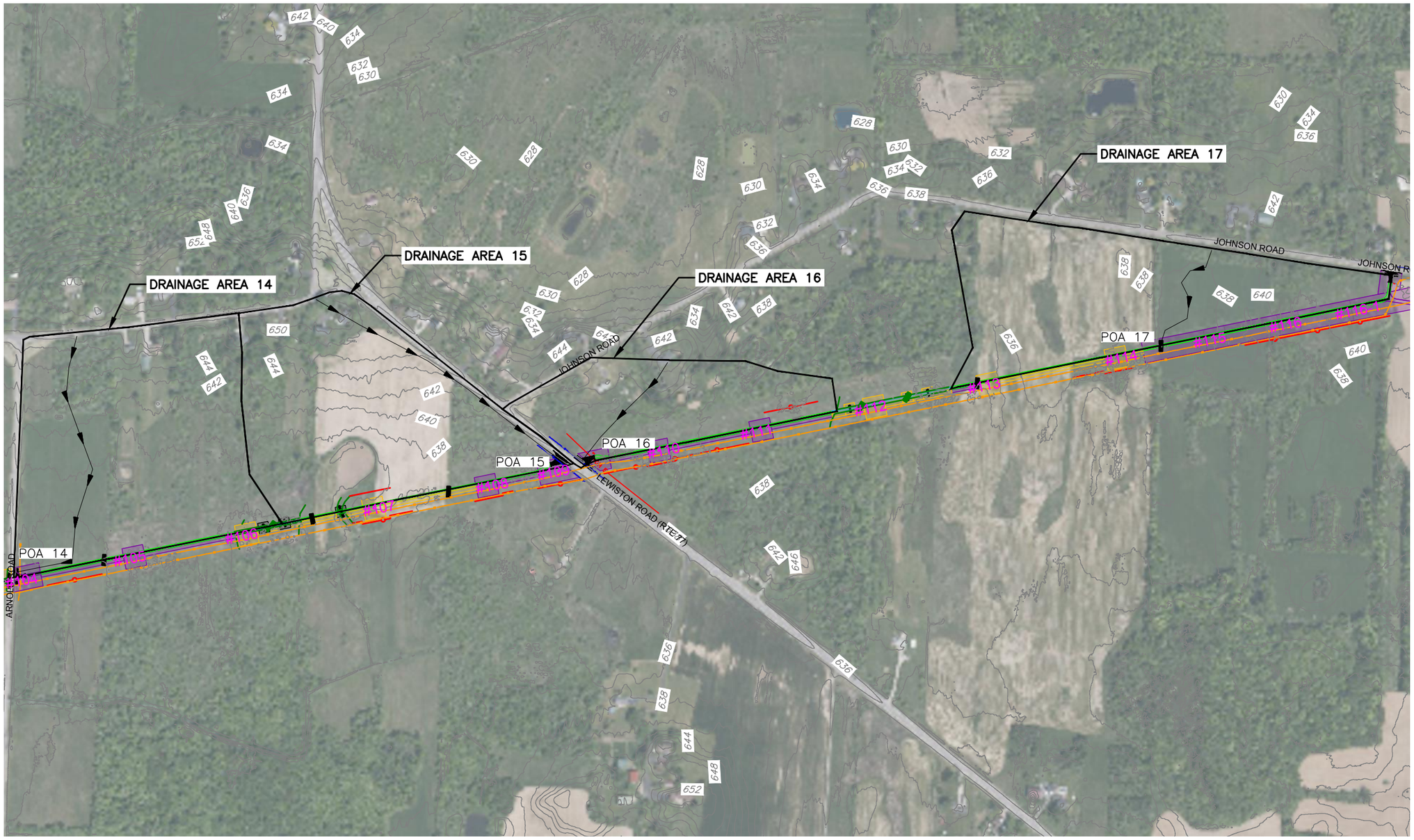
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ISSUE DATE 2025
PROJECT MANAGER T. LIBERTY
DRAWN BY D. JIMENEZ
DRAWING CHK R.WIGHTMAN
SCALE AS SHOWN
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FA PROJECT NO. 190176
PROJECT MANAGER T. LIBERTY
ISSUE DATE 2025
DRAWN BY D. JIMENEZ
CHK R.WIGHTMAN
SCALE AS SHOWN
ENGINEER R.WIGHTMAN

PROJECT
LOCKPORT BATAVIA
NEW YORK
PCSM
TOWN OF ROYALTON

TITLE OF DRAWING
PCSM DRAINAGE AREA MAP

DRAWING NO.
SW-7

SHEET 7 OF 7

NG Lockport Batavia NOI Question Summary

#	NOI Question	Total Project Value (af)
28	WQv Required	**4.513**
30	RRv Provided	**4.513**
31	Is RRv Provided≥WQv Required?	**Yes**
32	Min RRv	**0.167**
32a	Is RRv Provided≥Min RRv Required?	**Yes**
33a	WQv Treated	**0**
34	Sum of Volume Reduced & Treated	**4.513**
35	Is Sum RRv Provided and WQv Provided ≥ WQV Required?	**Yes**

NOI QUESTIONS

#	NOI Question	Reported Value	
		cf	af
28	Total Water Quality Volume (WQv) Required	33270	0.764
30	Total RRV Provided	33270	0.764
31	Is RRv Provided ≥WQv Required?	Yes	
32	Minimum RRv	1917	0.044
32a	Is RRv Provided ≥ Minimum RRv Required?	Yes	
33a	Total WQv Treated	0	0.000
34	Sum of Volume Reduced & Treated	33270	0.764
35	Is Sum RRv Provided and WQv Provided ≥WQv Required?	Yes	

NOI QUESTIONS

#	NOI Question	Reported Value	
		cf	af
28	Total Water Quality Volume (WQv) Required	93004	2.135
30	Total RRV Provided	93005	2.135
31	Is RRv Provided ≥WQv Required?	Yes	
32	Minimum RRv	1786	0.041
32a	Is RRv Provided ≥ Minimum RRv Required?	Yes	
33a	Total WQv Treated	0	0.000
34	Sum of Volume Reduced & Treated	93005	2.135
35	Is Sum RRv Provided and WQv Provided ≥WQv Required?	Yes	

#	NOI Question	Reported Value	
		cf	af
28	Total Water Quality Volume (WQv) Required	34424	0.790
30	Total RRV Provided	34425	0.790
31	Is RRv Provided ≥WQv Required?	Yes	
32	Minimum RRv	2004	0.046
32a	Is RRv Provided ≥ Minimum RRv Required?	Yes	
33a	Total WQv Treated	0	0.000
34	Sum of Volume Reduced & Treated	34425	0.790
35	Is Sum RRv Provided and WQv Provided ≥WQv Required?	Yes	

NOI QUESTIONS

#	NOI Question	Reported Value	
		cf	af
28	Total Water Quality Volume (WQv) Required	35885	0.824
30	Total RRV Provided	35885	0.824
31	Is RRv Provided ≥WQv Required?	Yes	
32	Minimum RRv	1568	0.036
32a	Is RRv Provided ≥ Minimum RRv Required?	Yes	
33a	Total WQv Treated	0	0.000
34	Sum of Volume Reduced & Treated	35885	0.824
35	Is Sum RRv Provided and WQv Provided ≥WQv Required?	Yes	

Step 2 - Calculate Water Quality Volume

Is this project subject to Section 4.3 of the NYS Design Manual for Enhanced Phosphorus Removal?	
What is the nature of this construction project?	

Design Point:	1	
P=	1.00	inches

Calculate Required WQv

Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**SMP Description**
1	13.62	0.50	4	0.08	4,106	Sheet Flow to Grass Filter Strip
2	36.26	0.36	1	0.06	7,757	Sheet Flow to Grass Filter Strip
3	29.17	0.52	2	0.07	6,996	Sheet Flow to Grass Filter Strip
4	17.90	1.08	6	0.10	6,777	Sheet Flow to Grass Filter Strip
5	26.90	0.84	3	0.08	7,634	Sheet Flow to Grass Filter Strip
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
Total	123.85	3.30	3	0.07	**33270**	**Required WQv**

Step 2 - Calculate Water Quality Volume

Is this project subject to Section 4.3 of the NYS Design Manual for Enhanced Phosphorus Removal?	
What is the nature of this construction project?	
Design Point:	1
P=	1.00 inches

Calculate Required WQv

Drainage Area Number	Contributing Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (cf)	SMP Description
1						
2						
3						
4						
5						
6	141.45	1.11	1	0.06	29,300	
7	183.18	0.66	0	0.05	35,403	
8	9.11	0.22	2	0.07	2,373	
9	35.85	0.42	1	0.06	7,879	
10	97.18	0.13	0	0.05	18,050	
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
Total	466.77	2.54	1	0.05	**93004**	**Required WQv**

Is this project subject to Section 4.3 of the NYS Design Manual for Enhanced Phosphorus Removal?		
What is the nature of this construction project?		
Design Point:	1	
P=	1.00	inches

Calculate Required WQv

Drainage Area Number	Contributing Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (cf)	SMP Description
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11	14.54	0.53	4	0.08	4,365	Sheet Flow to Grass Filter
12	8.25	0.43	5	0.10	2,889	Sheet Flow to Grass Filter Strip
13	64.07	1.06	2	0.06	15,091	Sheet Flow to Grass Filter Strip
14	27.16	0.39	1	0.06	6,193	Sheet Flow to Grass Filter Strip
15	24.14	0.46	2	0.07	5,887	Sheet Flow to Grass Filter Strip
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
Total	138.15	2.86	2	0.07	**34424**	**Required WQv**

Step 2 - Calculate Water Quality Volume

Is this project subject to Section 4.3 of the NYS Design Manual for Enhanced Phosphorus Removal?	
What is the nature of this construction project?	

Design Point:	1	
P=	1.00	inches

Calculate Required WQv

Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**SMP Description**
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16	11.83	0.37	3	0.08	3,345	Sheet Flow to Grass Filter Strip
17	21.99	0.86	4	0.09	6,804	Sheet Flow to Grass Filter Strip
18	12.44	0.23	2	0.07	3,009	Sheet Flow to Grass Filter Strip
19	110.82	0.80	1	0.06	22,727	Sheet Flow to Grass Filter Strip
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
Total	157.07	2.26	1	0.06	**35885**	**Required WQv**

Step 4 - Calcuate Minimum RRv Required

Enter the Soils Data for the site		
Hydrologic Soil Group	Acres	S
A		55%
B		40%
C	0.20	30%
D	3.10	20%
Total Area	3.3	

Calculate the Minimum RRv		
S =	**0.21**	
Impervious =	3.30	*acres*
Precipitation	1.00	*inches*
Rv	0.95	
Minimum RRv	**0.054**	***af***
	2352	cf

Step 4 - Calcuate Minimum RRv Required

Enter the Soils Data for the site		
Hydrologic Soil Group	Acres	S
A		55%
B		40%
C	0.10	30%
D	2.44	20%
Total Area	2.54	

Calculate the Minimum RRv		
S =	**0.20**	
Impervious =	2.54	*acres*
Precipitation	1.00	*inches*
Rv	0.95	
Minimum RRv	**0.041**	***af***
	1786	cf

Enter the Soils Data for the site		
Hydrologic Soil Group	Acres	S
A		55%
B		40%
C	0.10	30%
D	2.76	20%
Total Area	2.86	

Calculate the Minimum RRv		
S =	**0.20**	
Impervious =	2.86	*acres*
Precipitation	1.00	*inches*
Rv	0.95	
Minimum RRv	**0.046**	***af***
	2004	cf

Step 4 - Calcuate Minimum RRv Required

Enter the Soils Data for the site		
Hydrologic Soil Group	Acres	S
A		55%
B		40%
C		30%
D	2.26	20%
Total Area	2.26	

Calculate the Minimum RRv		
S =	**0.20**	
Impervious =	2.26	*acres*
Precipitation	1.00	*inches*
Rv	0.95	
Minimum RRv	**0.036**	***af***
	1568	cf

Sheet Flow to Grass Filter Strip (RR-3)

Design Point:	1

Enter Site Data For Drainage Area to be Reduced							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
1	13.62	0.50	4	0.08	4,106	1.00	Sheet Flow to Grass Filter Strip

Design Criteria		
Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement?	Yes	
Is the contributing area a designated hotspot?	No	
Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer?	Yes	
Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer?	Yes	
Enter the total length of contributing flow path (ft)	16	
Enter the length of contributing flow path from impervious surfaces (ft)	16	
Enter the slope of contributing flow path (%)	5	
Minimum buffer length based on contriuting flow path slope (ft)	35	
Enter the slope for the first 10 ft of the buffer (%)	2	

Sizing Criteria				
		Value	Units	Notes
Enter Travel Time through Buffer	*T*	6	min	
Enter 2-yr 24-hr Rainfall Depth	*P*	2.22	inch	
Enter Overall Buffer Slope	*S*	0.03	ft/ft	
Enter Manning's Coefficient for Buffer	*n*	0.24		
Calculated Minimum Length of Buffer	*L*	33	ft	
Minimum Length of Buffer	*L*	35	ft	
Is the buffer within HSG C or D soils?		Yes		
Required Length of Buffer	*L*	40	ft	
Enter Provided Length of Buffer	*L*	40	ft	

Calculate Runoff Reduction		
RRv Provided	**4,106**	**cf**

Sheet Flow to Grass Filter Strip (RR-3)

Design Point:	1

Enter Site Data For Drainage Area to be Reduced							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
2	36.26	0.36	1	0.06	7,757	1.00	Sheet Flow to Grass Filter Strip

Design Criteria		
Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement?	Yes	
Is the contributing area a designated hotspot?	No	
Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer?	Yes	
Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer?	Yes	
Enter the total length of contributing flow path (ft)	16	
Enter the length of contributing flow path from impervious surfaces (ft)	16	
Enter the slope of contributing flow path (%)	5	
Minimum buffer length based on contriuting flow path slope (ft)	35	
Enter the slope for the first 10 ft of the buffer (%)	2	

Sizing Criteria				
		Value	Units	Notes
Enter Travel Time through Buffer	*T*	6	min	
Enter 2-yr 24-hr Rainfall Depth	*P*	2.22	inch	
Enter Overall Buffer Slope	*S*	0.03	ft/ft	
Enter Manning's Coefficient for Buffer	*n*	0.24		
Calculated Minimum Length of Buffer	*L*	33	ft	
Minimum Length of Buffer	*L*	35	ft	
Is the buffer within HSG C or D soils?		Yes		
Required Length of Buffer	*L*	40	ft	
Enter Provided Length of Buffer	*L*	40	ft	

Calculate Runoff Reduction		
RRv Provided	**7,757**	**cf**

Sheet Flow to Grass Filter Strip (RR-3)

Design Point:	1

Enter Site Data For Drainage Area to be Reduced							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
3	29.17	0.52	2	0.07	6,996	1.00	Sheet Flow to Grass Filter Strip

Design Criteria		
Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement?	Yes	
Is the contributing area a designated hotspot?	No	
Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer?	Yes	
Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer?	Yes	
Enter the total length of contributing flow path (ft)	16	
Enter the length of contributing flow path from impervious surfaces (ft)	16	
Enter the slope of contributing flow path (%)	5	
Minimum buffer length based on contriuting flow path slope (ft)	35	
Enter the slope for the first 10 ft of the buffer (%)	2	

Sizing Criteria				
		Value	Units	Notes
Enter Travel Time through Buffer	*T*	6	min	
Enter 2-yr 24-hr Rainfall Depth	*P*	2.22	inch	
Enter Overall Buffer Slope	*S*	0.03	ft/ft	
Enter Manning's Coefficient for Buffer	*n*	0.24		
Calculated Minimum Length of Buffer	*L*	33	ft	
Minimum Length of Buffer	*L*	35	ft	
Is the buffer within HSG C or D soils?		Yes		
Required Length of Buffer	*L*	40	ft	
Enter Provided Length of Buffer	*L*	40	ft	

Calculate Runoff Reduction		
RRv Provided	**6,996**	**cf**

Sheet Flow to Grass Filter Strip (RR-3)

Design Point:	1

Enter Site Data For Drainage Area to be Reduced							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
4	17.90	1.08	6	0.10	6,777	1.00	Sheet Flow to Grass Filter Strip

Design Criteria		
Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement?	Yes	
Is the contributing area a designated hotspot?	No	
Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer?	Yes	
Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer?	Yes	
Enter the total length of contributing flow path (ft)	16	
Enter the length of contributing flow path from impervious surfaces (ft)	16	
Enter the slope of contributing flow path (%)	5	
Minimum buffer length based on contriuting flow path slope (ft)	35	
Enter the slope for the first 10 ft of the buffer (%)	2	

Sizing Criteria				
		Value	Units	Notes
Enter Travel Time through Buffer	*T*	6	min	
Enter 2-yr 24-hr Rainfall Depth	*P*	2.22	inch	
Enter Overall Buffer Slope	*S*	0.03	ft/ft	
Enter Manning's Coefficient for Buffer	*n*	0.24		
Calculated Minimum Length of Buffer	*L*	33	ft	
Minimum Length of Buffer	*L*	35	ft	
Is the buffer within HSG C or D soils?		Yes		
Required Length of Buffer	*L*	40	ft	
Enter Provided Length of Buffer	*L*	40	ft	

Calculate Runoff Reduction		
RRv Provided	**6,777**	**cf**

Sheet Flow to Grass Filter Strip (RR-3)

Design Point:	1

Enter Site Data For Drainage Area to be Reduced							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
5	26.90	0.84	3	0.08	7,634	1.00	Sheet Flow to Grass Filter Strip

Design Criteria		
Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement?	Yes	
Is the contributing area a designated hotspot?	No	
Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer?	Yes	
Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer?	Yes	
Enter the total length of contributing flow path (ft)	16	
Enter the length of contributing flow path from impervious surfaces (ft)	16	
Enter the slope of contributing flow path (%)	5	
Minimum buffer length based on contriuting flow path slope (ft)	35	
Enter the slope for the first 10 ft of the buffer (%)	2	

Sizing Criteria				
		Value	Units	Notes
Enter Travel Time through Buffer	*T*	6	min	
Enter 2-yr 24-hr Rainfall Depth	*P*	2.22	inch	
Enter Overall Buffer Slope	*S*	0.03	ft/ft	
Enter Manning's Coefficient for Buffer	*n*	0.24		
Calculated Minimum Length of Buffer	*L*	33	ft	
Minimum Length of Buffer	*L*	35	ft	
Is the buffer within HSG C or D soils?		Yes		
Required Length of Buffer	*L*	40	ft	
Enter Provided Length of Buffer	*L*	40	ft	

Calculate Runoff Reduction		
RRv Provided	**7,634**	**cf**

Sheet Flow to Grass Filter Strip (RR-3)

Total Area	123.85	acres
Total Impervious	3	acres
Total RRv Provided	33,270	cf

Sheet Flow to Grass Filter Strip (RR-3)

Design Point:	1

Enter Site Data For Drainage Area to be Reduced							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
6	141.45	1.11	1	0.06	29,300	1.00	0

Design Criteria		
Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement?	Yes	
Is the contributing area a designated hotspot?	No	
Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer?	Yes	
Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer?	Yes	
Enter the total length of contributing flow path (ft)	16	
Enter the length of contributing flow path from impervious surfaces (ft)	16	
Enter the slope of contributing flow path (%)	5	
Minimum buffer length based on contriuting flow path slope (ft)	35	
Enter the slope for the first 10 ft of the buffer (%)	2	

Sizing Criteria				
		Value	Units	Notes
Enter Travel Time through Buffer	*T*	6	min	
Enter 2-yr 24-hr Rainfall Depth	*P*	2.22	inch	
Enter Overall Buffer Slope	*S*	0.03	ft/ft	
Enter Manning's Coefficient for Buffer	*n*	0.24		
Calculated Minimum Length of Buffer	*L*	33	ft	
Minimum Length of Buffer	*L*	35	ft	
Is the buffer within HSG C or D soils?		Yes		
Required Length of Buffer	*L*	40	ft	
Enter Provided Length of Buffer	*L*	40	ft	

Calculate Runoff Reduction		
RRv Provided	**29,300**	**cf**

Sheet Flow to Grass Filter Strip (RR-3)

Design Point:	1

Enter Site Data For Drainage Area to be Reduced							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
7	183.18	0.66	0	0.05	35,403	1.00	0

Design Criteria		
Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement?	Yes	
Is the contributing area a designated hotspot?	No	
Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer?	Yes	
Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer?	Yes	
Enter the total length of contributing flow path (ft)	16	
Enter the length of contributing flow path from impervious surfaces (ft)	16	
Enter the slope of contributing flow path (%)	5	
Minimum buffer length based on contriuting flow path slope (ft)	35	
Enter the slope for the first 10 ft of the buffer (%)	2	

Sizing Criteria				
		Value	Units	Notes
Enter Travel Time through Buffer	*T*	6	min	
Enter 2-yr 24-hr Rainfall Depth	*P*	2.22	inch	
Enter Overall Buffer Slope	*S*	0.03	ft/ft	
Enter Manning's Coefficient for Buffer	*n*	0.24		
Calculated Minimum Length of Buffer	*L*	33	ft	
Minimum Length of Buffer	*L*	35	ft	
Is the buffer within HSG C or D soils?		Yes		
Required Length of Buffer	*L*	40	ft	
Enter Provided Length of Buffer	*L*	40	ft	

Calculate Runoff Reduction		
RRv Provided	**35,403**	**cf**

Sheet Flow to Grass Filter Strip (RR-3)

Design Point:	1

Enter Site Data For Drainage Area to be Reduced							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
8	9.11	0.22	2	0.07	2,373	1.00	0

Design Criteria		
Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement?	Yes	
Is the contributing area a designated hotspot?	No	
Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer?	Yes	
Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer?	Yes	
Enter the total length of contributing flow path (ft)	16	
Enter the length of contributing flow path from impervious surfaces (ft)	16	
Enter the slope of contributing flow path (%)	5	
Minimum buffer length based on contriuting flow path slope (ft)	35	
Enter the slope for the first 10 ft of the buffer (%)	2	

Sizing Criteria				
		Value	Units	Notes
Enter Travel Time through Buffer	*T*	6	min	
Enter 2-yr 24-hr Rainfall Depth	*P*	2.22	inch	
Enter Overall Buffer Slope	*S*	0.03	ft/ft	
Enter Manning's Coefficient for Buffer	*n*	0.24		
Calculated Minimum Length of Buffer	*L*	33	ft	
Minimum Length of Buffer	*L*	35	ft	
Is the buffer within HSG C or D soils?		Yes		
Required Length of Buffer	*L*	40	ft	
Enter Provided Length of Buffer	*L*	40	ft	

Calculate Runoff Reduction		
RRv Provided	**2,373**	**cf**

Sheet Flow to Grass Filter Strip (RR-3)

Design Point:	1

Enter Site Data For Drainage Area to be Reduced							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
9	35.85	0.42	1	0.06	7,879	1.00	0

Design Criteria		
Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement?	Yes	
Is the contributing area a designated hotspot?	No	
Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer?	Yes	
Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer?	Yes	
Enter the total length of contributing flow path (ft)	16	
Enter the length of contributing flow path from impervious surfaces (ft)	16	
Enter the slope of contributing flow path (%)	5	
Minimum buffer length based on contriuting flow path slope (ft)	35	
Enter the slope for the first 10 ft of the buffer (%)	2	

Sizing Criteria				
		Value	Units	Notes
Enter Travel Time through Buffer	*T*	6	min	
Enter 2-yr 24-hr Rainfall Depth	*P*	2.22	inch	
Enter Overall Buffer Slope	*S*	0.03	ft/ft	
Enter Manning's Coefficient for Buffer	*n*	0.24		
Calculated Minimum Length of Buffer	*L*	33	ft	
Minimum Length of Buffer	*L*	35	ft	
Is the buffer within HSG C or D soils?		Yes		
Required Length of Buffer	*L*	40	ft	
Enter Provided Length of Buffer	*L*	40	ft	

Calculate Runoff Reduction		
RRv Provided	**7,879**	**cf**

Sheet Flow to Grass Filter Strip (RR-3)

Design Point:	1

Enter Site Data For Drainage Area to be Reduced							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
10	97.18	0.13	0	0.05	18,050	1.00	0

Design Criteria		
Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement?	Yes	
Is the contributing area a designated hotspot?	No	
Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer?	Yes	
Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer?	Yes	
Enter the total length of contributing flow path (ft)	16	
Enter the length of contributing flow path from impervious surfaces (ft)	16	
Enter the slope of contributing flow path (%)	5	
Minimum buffer length based on contriuting flow path slope (ft)	35	
Enter the slope for the first 10 ft of the buffer (%)	2	

Sizing Criteria				
		Value	Units	Notes
Enter Travel Time through Buffer	*T*	6	min	
Enter 2-yr 24-hr Rainfall Depth	*P*	2.22	inch	
Enter Overall Buffer Slope	*S*	0.03	ft/ft	
Enter Manning's Coefficient for Buffer	*n*	0.24		
Calculated Minimum Length of Buffer	*L*	33	ft	
Minimum Length of Buffer	*L*	35	ft	
Is the buffer within HSG C or D soils?		Yes		
Required Length of Buffer	*L*	40	ft	
Enter Provided Length of Buffer	*L*	40	ft	

Calculate Runoff Reduction		
RRv Provided	**18,050**	**cf**

Sheet Flow to Grass Filter Strip (RR-3)

Total Area	466.77	acres
Total Impervious	3	acres
Total RRv Provided	93,005	cf

Design Point:	1

Enter Site Data For Drainage Area to be Reduced							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
11	14.54	0.53	4	0.08	4,365	1.00	Sheet Flow to Grass Filter Strip

Design Criteria		
Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement?	Yes	
Is the contributing area a designated hotspot?	No	
Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer?	Yes	
Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer?	Yes	
Enter the total length of contributing flow path (ft)	16	
Enter the length of contributing flow path from impervious surfaces (ft)	16	
Enter the slope of contributing flow path (%)	5	
Minimum buffer length based on contriuting flow path slope (ft)	35	
Enter the slope for the first 10 ft of the buffer (%)	2	

Sizing Criteria				
		Value	Units	Notes
Enter Travel Time through Buffer	*T*	6	min	
Enter 2-yr 24-hr Rainfall Depth	*P*	2.22	inch	
Enter Overall Buffer Slope	*S*	0.03	ft/ft	
Enter Manning's Coefficient for Buffer	*n*	0.24		
Calculated Minimum Length of Buffer	*L*	33	ft	
Minimum Length of Buffer	*L*	35	ft	
Is the buffer within HSG C or D soils?		Yes		
Required Length of Buffer	*L*	40	ft	
Enter Provided Length of Buffer	*L*	40	ft	

Calculate Runoff Reduction		
RRv Provided	**4,365**	**cf**

Design Point:	1

Enter Site Data For Drainage Area to be Reduced							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
12	8.25	0.43	5	0.10	2,889	1.00	Sheet Flow to Grass Filter Strip

Design Criteria		
Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement?	Yes	
Is the contributing area a designated hotspot?	No	
Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer?	Yes	
Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer?	Yes	
Enter the total length of contributing flow path (ft)	16	
Enter the length of contributing flow path from impervious surfaces (ft)	16	
Enter the slope of contributing flow path (%)	5	
Minimum buffer length based on contriuting flow path slope (ft)	35	
Enter the slope for the first 10 ft of the buffer (%)	2	

Sizing Criteria				
		Value	Units	Notes
Enter Travel Time through Buffer	*T*	6	min	
Enter 2-yr 24-hr Rainfall Depth	*P*	2.22	inch	
Enter Overall Buffer Slope	*S*	0.03	ft/ft	
Enter Manning's Coefficient for Buffer	*n*	0.24		
Calculated Minimum Length of Buffer	*L*	33	ft	
Minimum Length of Buffer	*L*	35	ft	
Is the buffer within HSG C or D soils?		Yes		
Required Length of Buffer	*L*	40	ft	
Enter Provided Length of Buffer	*L*	40	ft	

Calculate Runoff Reduction		
RRv Provided	**2,889**	**cf**

Design Point:	1

Enter Site Data For Drainage Area to be Reduced							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
13	64.07	1.06	2	0.06	15,091	1.00	Sheet Flow to Grass Filter Strip

Design Criteria		
Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement?	Yes	
Is the contributing area a designated hotspot?	No	
Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer?	Yes	
Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer?	Yes	
Enter the total length of contributing flow path (ft)	16	
Enter the length of contributing flow path from impervious surfaces (ft)	16	
Enter the slope of contributing flow path (%)	5	
Minimum buffer length based on contriuting flow path slope (ft)	35	
Enter the slope for the first 10 ft of the buffer (%)	2	

Sizing Criteria				
		Value	Units	Notes
Enter Travel Time through Buffer	*T*	6	min	
Enter 2-yr 24-hr Rainfall Depth	*P*	2.22	inch	
Enter Overall Buffer Slope	*S*	0.03	ft/ft	
Enter Manning's Coefficient for Buffer	*n*	0.24		
Calculated Minimum Length of Buffer	*L*	33	ft	
Minimum Length of Buffer	*L*	35	ft	
Is the buffer within HSG C or D soils?		Yes		
Required Length of Buffer	*L*	40	ft	
Enter Provided Length of Buffer	*L*	40	ft	

Calculate Runoff Reduction		
RRv Provided	**15,091**	**cf**

Design Point:	1

Enter Site Data For Drainage Area to be Reduced							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
14	27.16	0.39	1	0.06	6,193	1.00	Sheet Flow to Grass Filter Strip

Design Criteria		
Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement?	Yes	
Is the contributing area a designated hotspot?	No	
Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer?	Yes	
Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer?	Yes	
Enter the total length of contributing flow path (ft)	16	
Enter the length of contributing flow path from impervious surfaces (ft)	16	
Enter the slope of contributing flow path (%)	5	
Minimum buffer length based on contriuting flow path slope (ft)	35	
Enter the slope for the first 10 ft of the buffer (%)	2	

Sizing Criteria				
		Value	Units	Notes
Enter Travel Time through Buffer	*T*	6	min	
Enter 2-yr 24-hr Rainfall Depth	*P*	2.22	inch	
Enter Overall Buffer Slope	*S*	0.03	ft/ft	
Enter Manning's Coefficient for Buffer	*n*	0.24		
Calculated Minimum Length of Buffer	*L*	33	ft	
Minimum Length of Buffer	*L*	35	ft	
Is the buffer within HSG C or D soils?		Yes		
Required Length of Buffer	*L*	40	ft	
Enter Provided Length of Buffer	*L*	40	ft	

Calculate Runoff Reduction		
RRv Provided	**6,193**	**cf**

Design Point:	1

Enter Site Data For Drainage Area to be Reduced							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
15	24.14	0.46	2	0.07	5,887	1.00	Sheet Flow to Grass Filter Strip

Design Criteria		
Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement?	Yes	
Is the contributing area a designated hotspot?	No	
Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer?	Yes	
Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer?	Yes	
Enter the total length of contributing flow path (ft)	16	
Enter the length of contributing flow path from impervious surfaces (ft)	16	
Enter the slope of contributing flow path (%)	5	
Minimum buffer length based on contriuting flow path slope (ft)	35	
Enter the slope for the first 10 ft of the buffer (%)	2	

Sizing Criteria				
		Value	Units	Notes
Enter Travel Time through Buffer	*T*	6	min	
Enter 2-yr 24-hr Rainfall Depth	*P*	2.22	inch	
Enter Overall Buffer Slope	*S*	0.03	ft/ft	
Enter Manning's Coefficient for Buffer	*n*	0.24		
Calculated Minimum Length of Buffer	*L*	33	ft	
Minimum Length of Buffer	*L*	35	ft	
Is the buffer within HSG C or D soils?		Yes		
Required Length of Buffer	*L*	40	ft	
Enter Provided Length of Buffer	*L*	40	ft	

Calculate Runoff Reduction		
RRv Provided	**5,887**	**cf**

Total Area	138.15	acres
Total Impervious	3	acres
Total RRv Provided	34,425	cf

Sheet Flow to Grass Filter Strip (RR-3)

Design Point:	1

Enter Site Data For Drainage Area to be Reduced							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
16	11.83	0.37	3	0.08	3,345	1.00	Sheet Flow to Grass Filter Strip

Design Criteria		
Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement?	Yes	
Is the contributing area a designated hotspot?	No	
Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer?	Yes	
Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer?	Yes	
Enter the total length of contributing flow path (ft)	16	
Enter the length of contributing flow path from impervious surfaces (ft)	16	
Enter the slope of contributing flow path (%)	5	
Minimum buffer length based on contriuting flow path slope (ft)	35	
Enter the slope for the first 10 ft of the buffer (%)	2	

Sizing Criteria				
		Value	Units	Notes
Enter Travel Time through Buffer	*T*	6	min	
Enter 2-yr 24-hr Rainfall Depth	*P*	2.22	inch	
Enter Overall Buffer Slope	*S*	0.03	ft/ft	
Enter Manning's Coefficient for Buffer	*n*	0.24		
Calculated Minimum Length of Buffer	*L*	33	ft	
Minimum Length of Buffer	*L*	35	ft	
Is the buffer within HSG C or D soils?		Yes		
Required Length of Buffer	*L*	40	ft	
Enter Provided Length of Buffer	*L*	40	ft	

Calculate Runoff Reduction		
RRv Provided	**3,345**	**cf**

Sheet Flow to Grass Filter Strip (RR-3)

Design Point:	1

Enter Site Data For Drainage Area to be Reduced							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
17	21.99	0.86	4	0.09	6,804	1.00	Sheet Flow to Grass Filter Strip

Design Criteria		
Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement?	Yes	
Is the contributing area a designated hotspot?	No	
Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer?	Yes	
Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer?	Yes	
Enter the total length of contributing flow path (ft)	16	
Enter the length of contributing flow path from impervious surfaces (ft)	16	
Enter the slope of contributing flow path (%)	5	
Minimum buffer length based on contriuting flow path slope (ft)	35	
Enter the slope for the first 10 ft of the buffer (%)	2	

Sizing Criteria				
		Value	Units	Notes
Enter Travel Time through Buffer	*T*	6	min	
Enter 2-yr 24-hr Rainfall Depth	*P*	2.22	inch	
Enter Overall Buffer Slope	*S*	0.03	ft/ft	
Enter Manning's Coefficient for Buffer	*n*	0.24		
Calculated Minimum Length of Buffer	*L*	33	ft	
Minimum Length of Buffer	*L*	35	ft	
Is the buffer within HSG C or D soils?		Yes		
Required Length of Buffer	*L*	40	ft	
Enter Provided Length of Buffer	*L*	40	ft	

Calculate Runoff Reduction		
RRv Provided	**6,804**	**cf**

Sheet Flow to Grass Filter Strip (RR-3)

Design Point:	1

Enter Site Data For Drainage Area to be Reduced							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
18	12.44	0.23	2	0.07	3,009	1.00	Sheet Flow to Grass Filter Strip

Design Criteria		
Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement?	Yes	
Is the contributing area a designated hotspot?	No	
Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer?	Yes	
Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer?	Yes	
Enter the total length of contributing flow path (ft)	16	
Enter the length of contributing flow path from impervious surfaces (ft)	16	
Enter the slope of contributing flow path (%)	5	
Minimum buffer length based on contriuting flow path slope (ft)	35	
Enter the slope for the first 10 ft of the buffer (%)	2	

Sizing Criteria				
		Value	Units	Notes
Enter Travel Time through Buffer	*T*	6	min	
Enter 2-yr 24-hr Rainfall Depth	*P*	2.22	inch	
Enter Overall Buffer Slope	*S*	0.03	ft/ft	
Enter Manning's Coefficient for Buffer	*n*	0.24		
Calculated Minimum Length of Buffer	*L*	33	ft	
Minimum Length of Buffer	*L*	35	ft	
Is the buffer within HSG C or D soils?		Yes		
Required Length of Buffer	*L*	40	ft	
Enter Provided Length of Buffer	*L*	40	ft	

Calculate Runoff Reduction		
RRv Provided	**3,009**	**cf**

Sheet Flow to Grass Filter Strip (RR-3)

Design Point:	1

Enter Site Data For Drainage Area to be Reduced							
Drainage Area Number	**Contributing Area** (Acres)	**Impervious Area** (Acres)	**Percent Impervious** %	**Rv**	**WQv** (cf)	**Precipitation** (in)	**Description**
19	110.82	0.80	1	0.06	22,727	1.00	Sheet Flow to Grass Filter Strip

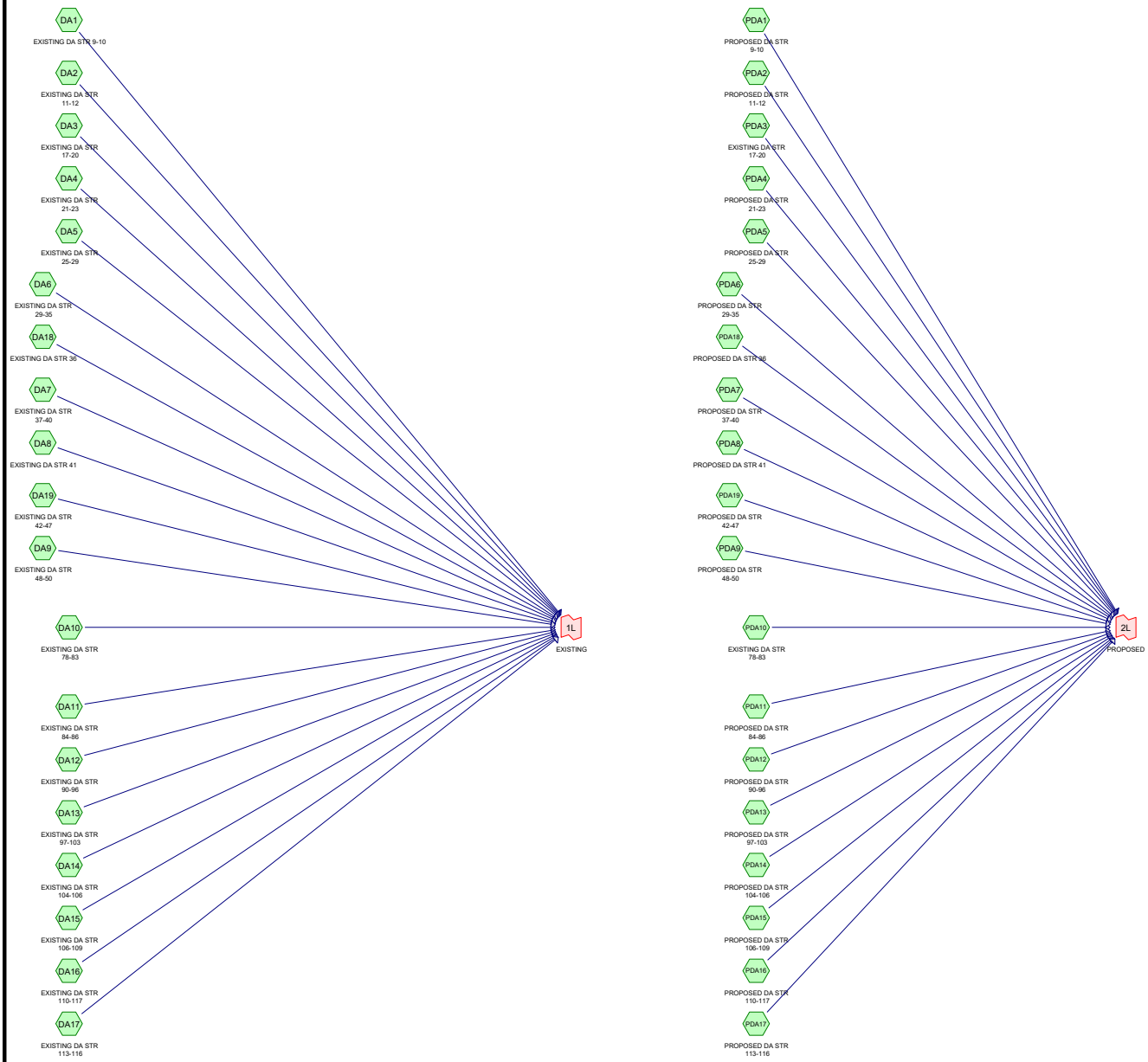
Design Criteria		
Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement?	Yes	
Is the contributing area a designated hotspot?	No	
Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer?	Yes	
Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer?	Yes	
Enter the total length of contributing flow path (ft)	16	
Enter the length of contributing flow path from impervious surfaces (ft)	16	
Enter the slope of contributing flow path (%)	5	
Minimum buffer length based on contriuting flow path slope (ft)	35	
Enter the slope for the first 10 ft of the buffer (%)	2	

Sizing Criteria				
		Value	Units	Notes
Enter Travel Time through Buffer	*T*	6	min	
Enter 2-yr 24-hr Rainfall Depth	*P*	2.22	inch	
Enter Overall Buffer Slope	*S*	0.03	ft/ft	
Enter Manning's Coefficient for Buffer	*n*	0.24		
Calculated Minimum Length of Buffer	*L*	33	ft	
Minimum Length of Buffer	*L*	35	ft	
Is the buffer within HSG C or D soils?		Yes		
Required Length of Buffer	*L*	40	ft	
Enter Provided Length of Buffer	*L*	40	ft	

Calculate Runoff Reduction		
RRv Provided	**22,727**	**cf**

Sheet Flow to Grass Filter Strip (RR-3)

Total Area	157.07	acres
Total Impervious	2	acres
Total RRv Provided	35,885	cf



Subcat Reach Pond Link

Routing Diagram for 190176.00 - PCSM DESIGNrlw
Prepared by Fisher Associates, Printed 6/4/2025
HydroCAD® 10.20-7a s/n 04748 © 2025 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.128	30	30 - A - MEADOW, NON-GRAZED (DA1, PDA1)
0.128	32	32 - A - FALLOW, BARE SOIL (DA1, PDA1)
0.268	39	39 - A - 75% GRASS COVER, GOOD (DA1, PDA1)
1.876	49	49 - A - 50-75% GRASS COVER, FAIR (DA1, PDA1)
9.176	84	50-75% GRASS COVER, FAIR (DA3, DA5, PDA3, PDA5)
0.130	68	68 - A - <50% GRASS COVER, POOR (DA1, PDA1)
14.544	80	75% GRASS COVER, GOOD (DA3, DA5, PDA3, PDA5)
5.328	78	78 - D - MEADOW, NON-GRAZED (DA1, PDA1)
22.350	78	78-D-MEADOW, NON-GRAZED (DA2, DA4, PDA2, PDA4)
2.962	78	78-D-MEADOW, NONGRAZED (DA2, PDA2)
0.210	79	79 - D - WOODS/GRASS COMB., GOOD (DA1, PDA1)
6.684	79	79-D-WOODS/GRASS COMB., GOOD (DA2, PDA2)
2.900	80	80 - D - 75% GRASS COVER, GOOD (DA1, PDA1)
15.718	80	80-D-75% GRASS COVER, GOOD (DA2, DA3, DA4, DA5, PDA2, PDA3, PDA4, PDA5)
12.204	80	80-D-75% GRASS CVER, GOOD (DA2, PDA2)
13.640	84	84 - D - 50-75% GRASS COVER, FAIR (DA1, PDA1)
10.590	84	84-D-50-75% GRASS COVER, FAIR (DA2, DA4, PDA2, PDA4)
1.196	84	84-D-50-75% GRASSC OVER, FAIR (DA2, PDA2)
3.290	85	85-D-HERBACEOUS RANGE, GOOD (DA4, PDA4)
2.138	89	89 - D - <50% GRASS COVER, POOR (DA1, PDA1)
7.218	89	89-D-<50% GRASS COVER POOR (DA2, PDA2)
8.166	89	89-D-<50% GRASS COVER, POOR (DA2, DA4, PDA2, PDA4)
15.226	84	8D-D-50-75% GRASS COVER, FAIR (DA2, PDA2)
2.846	95	95-D-URBAN COMMERCIAL, 85% IMP (DA2, PDA2)
3.573	89	<50% GRASS COVER, POOR (DA3, DA5, PDA3, PDA5)
0.226	49	A-50-75% GRASS COVER, FAIR (DA13, PDA13)
5.202	30	A-MEADOW, NON-GRAZED (DA12, DA13, PDA12, PDA13)
4.150	69	B-50-75% GRASS COVER, FAIR (DA15, DA16, PDA15, PDA16)
2.886	61	B-75% GRASS COVER, GOOD (DA14, DA15, PDA14, PDA15)
0.846	61	B-75%GRASS COVER, GOOD (DA16, PDA16)
0.892	82	B-MEADOW, NON-GRAZED (DA10, PDA10)
11.706	58	B-MEADOW, NON-GRAZED (DA11, DA15, PDA11, PDA15)
99.848	77	D - 77 - Deciduous Forest (DA18, DA19, DA6, DA7, DA8, PDA18, PDA19, PDA6, PDA7, PDA8)
1.956	77	D - 77 - Evergreen Forest (DA6, PDA6)
3.114	77	D - 77 - Mixed Forest (DA6, PDA6)
624.230	78	D - 78 - Meadowed, grass, non-grazed land (DA18, DA19, DA6, DA7, DA8, PDA18, PDA19, PDA6, PDA7, PDA8)
36.236	80	D - 80 - Developed open space (DA18, DA19, DA6, DA7, PDA18, PDA19, PDA6, PDA7)

Area Listing (all nodes) (continued)

Area (acres)	CN	Description (subcatchment-numbers)
71.292	82	D - 82 - Developed Low intensity (DA18, DA19, DA6, DA7, PDA18, PDA19, PDA6, PDA7)
4.674	85	D - 85 - Developed Med intensity (DA6, DA7, PDA6, PDA7)
69.318	90	D - 90 - Woody Wetlands (DA6, PDA6)
0.304	98	D - 98 - Open Water (DA6, PDA6)
0.800	91	D - Gravel Roads (PDA19)
2.220	91	D- Gravel Roads (PDA18, PDA6, PDA7, PDA8)
6.926	22	D-50-75% GRASS COVER, FAIR (DA10, PDA10)
10.012	84	D-50-75% GRASS COVER, FAIR (DA11, DA13, DA14, DA15, DA16, DA17, DA9, PDA11, PDA13, PDA14, PDA15, PDA16, PDA17, PDA9)
0.230	80	D-50-75% GRASS COVER, FAIR (DA14, PDA14)
3.568	21	D-75% GRASS COVER, GOOD (DA10, PDA10)
12.980	80	D-75% GRASS COVER, GOOD (DA11, DA13, DA14, DA15, DA16, DA17, DA9, PDA11, PDA13, PDA14, PDA15, PDA16, PDA17, PDA9)
4.368	80	D-75% GRASS OCVER, GOOD (DA14, PDA14)
0.280	89	D-<50% GRASS COVER, POOR (DA9, PDA9)
0.420	91	D-Gravel Roads (PDA9)
112.662	81	D-MEADOW, NON-GRAZED (DA10, PDA10)
68.073	82	D-MEADOW, NON-GRAZED (DA10, PDA10)
317.392	78	D-MEADOW, NON-GRAZED (DA11, DA12, DA13, DA14, DA15, DA16, DA17, DA9, PDA11, PDA12, PDA13, PDA14, PDA15, PDA16, PDA17, PDA9)
11.300	71	D-MEADOW, NON-GRAZED (DA11, PDA11)
4.138	58	D-MEADOW, NON-GRAZED (DA16, PDA16)
2.287	98	D-MEADOW, NON-GRAZED (DA16, PDA16)
0.608	78	D-MEADOW, NONGRAZED (DA11, PDA11)
0.680	98	D-PAVED ASPHALT DRIVEWAY (DA10, PDA10)
0.086	90	D-WATER SURFACE, 0% IMP (DA10, PDA10)
6.424	98	D-WATER SURFACE, 0% IMP (DA13, DA14, DA15, DA17, DA9, PDA13, PDA14, PDA15, PDA17, PDA9)
0.284	43	D-WOODS/GRASS COMB., GOOD (DA10, PDA10)
16.062	79	D-WOODS/GRASS COMB., GOOD (DA13, DA14, DA15, DA16, DA17, DA9, PDA13, PDA14, PDA15, PDA16, PDA17, PDA9)
8.583	91	Gravel roads, HSG D (PDA1, PDA10, PDA11, PDA12, PDA13, PDA14, PDA15, PDA16, PDA17, PDA2, PDA3, PDA4, PDA5)
33.998	78	MEADOW, NON-GRAZED (DA3, DA5, PDA3, PDA5)
1.500	95	URBAN COMMERCIAL, 85% IMP (DA3, DA5, PDA3, PDA5)
1.280	98	WATER SURFACE (DA3, DA5, PDA3, PDA5)
1.096	98	WATER SURFACE, 0% IMP (DA3, DA5, PDA3, PDA5)
44.046	79	WOODS/GRASS COMB., GOOD (DA3, DA5, PDA3, PDA5)
1,771.671	**79**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
8.583	HSG D	PDA1, PDA10, PDA11, PDA12, PDA13, PDA14, PDA15, PDA16, PDA17, PDA2, PDA3, PDA4, PDA5
1,763.088	Other	DA1, DA10, DA11, DA12, DA13, DA14, DA15, DA16, DA17, DA18, DA19, DA2, DA3, DA4, DA5, DA6, DA7, DA8, DA9, PDA1, PDA10, PDA11, PDA12, PDA13, PDA14, PDA15, PDA16, PDA17, PDA18, PDA19, PDA2, PDA3, PDA4, PDA5, PDA6, PDA7, PDA8, PDA9
1,771.671		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Sub Nur
0.000	0.000	0.000	0.000	0.128	0.128	30 - A - MEADOW, NON-GRAZED	
0.000	0.000	0.000	0.000	0.128	0.128	32 - A - FALLOW, BARE SOIL	
0.000	0.000	0.000	0.000	0.268	0.268	39 - A - 75% GRASS COVER, GOOD	
0.000	0.000	0.000	0.000	1.876	1.876	49 - A - 50-75% GRASS COVER, FAIR	
0.000	0.000	0.000	0.000	9.176	9.176	50-75% GRASS COVER, FAIR	
0.000	0.000	0.000	0.000	0.130	0.130	68 - A - <50% GRASS COVER, POOR	
0.000	0.000	0.000	0.000	14.544	14.544	75% GRASS COVER, GOOD	
0.000	0.000	0.000	0.000	5.328	5.328	78 - D - MEADOW, NON-GRAZED	
0.000	0.000	0.000	0.000	22.350	22.350	78-D-MEADOW, NON-GRAZED	
0.000	0.000	0.000	0.000	2.962	2.962	78-D-MEADOW, NONGRAZED	
0.000	0.000	0.000	0.000	0.210	0.210	79 - D - WOODS/GRASS COMB., GOOD	
0.000	0.000	0.000	0.000	6.684	6.684	79-D-WOODS/GRASS COMB., GOOD	
0.000	0.000	0.000	0.000	2.900	2.900	80 - D - 75% GRASS COVER, GOOD	
0.000	0.000	0.000	0.000	15.718	15.718	80-D-75% GRASS COVER, GOOD	
0.000	0.000	0.000	0.000	12.204	12.204	80-D-75% GRASS CVER, GOOD	
0.000	0.000	0.000	0.000	13.640	13.640	84 - D - 50-75% GRASS COVER, FAIR	
0.000	0.000	0.000	0.000	10.590	10.590	84-D-50-75% GRASS COVER, FAIR	
0.000	0.000	0.000	0.000	1.196	1.196	84-D-50-75% GRASSC OVER, FAIR	
0.000	0.000	0.000	0.000	3.290	3.290	85-D-HERBACEOUS RANGE, GOOD	
0.000	0.000	0.000	0.000	2.138	2.138	89 - D - <50% GRASS COVER, POOR	
0.000	0.000	0.000	0.000	7.218	7.218	89-D-<50% GRASS COVER POOR	
0.000	0.000	0.000	0.000	8.166	8.166	89-D-<50% GRASS COVER, POOR	
0.000	0.000	0.000	0.000	15.226	15.226	8D-D-50-75% GRASS COVER, FAIR	
0.000	0.000	0.000	0.000	2.846	2.846	95-D-URBAN COMMERCIAL, 85% IMP	
0.000	0.000	0.000	0.000	3.573	3.573	<50% GRASS COVER, POOR	
0.000	0.000	0.000	0.000	0.226	0.226	A-50-75% GRASS COVER, FAIR	
0.000	0.000	0.000	0.000	5.202	5.202	A-MEADOW, NON-GRAZED	

Ground Covers (all nodes) (continued)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Sub Nur
0.000	0.000	0.000	0.000	4.150	4.150	B-50-75% GRASS COVER, FAIR	
0.000	0.000	0.000	0.000	2.886	2.886	B-75% GRASS COVER, GOOD	
0.000	0.000	0.000	0.000	0.846	0.846	B-75%GRASS COVER, GOOD	
0.000	0.000	0.000	0.000	12.598	12.598	B-MEADOW, NON-GRAZED	
0.000	0.000	0.000	0.000	99.848	99.848	D - 77 - Deciduous Forest	
0.000	0.000	0.000	0.000	1.956	1.956	D - 77 - Evergreen Forest	
0.000	0.000	0.000	0.000	3.114	3.114	D - 77 - Mixed Forest	
0.000	0.000	0.000	0.000	624.230	624.230	D - 78 - Meadowed, grass, non-grazed land	
0.000	0.000	0.000	0.000	36.236	36.236	D - 80 - Developed open space	
0.000	0.000	0.000	0.000	71.292	71.292	D - 82 - Developed Low intensity	
0.000	0.000	0.000	0.000	4.674	4.674	D - 85 - Developed Med intensity	
0.000	0.000	0.000	0.000	69.318	69.318	D - 90 - Woody Wetlands	
0.000	0.000	0.000	0.000	0.304	0.304	D - 98 - Open Water	
0.000	0.000	0.000	0.000	0.800	0.800	D - Gravel Roads	
0.000	0.000	0.000	0.000	2.220	2.220	D- Gravel Roads	
0.000	0.000	0.000	0.000	17.168	17.168	D-50-75% GRASS COVER, FAIR	
0.000	0.000	0.000	0.000	16.548	16.548	D-75% GRASS COVER, GOOD	
0.000	0.000	0.000	0.000	4.368	4.368	D-75% GRASS OCVER, GOOD	
0.000	0.000	0.000	0.000	0.280	0.280	D-<50% GRASS COVER, POOR	
0.000	0.000	0.000	0.000	0.420	0.420	D-Gravel Roads	
0.000	0.000	0.000	0.000	515.852	515.852	D-MEADOW, NON-GRAZED	
0.000	0.000	0.000	0.000	0.608	0.608	D-MEADOW, NONGRAZED	
0.000	0.000	0.000	0.000	0.680	0.680	D-PAVED ASPHALT DRIVEWAY	
0.000	0.000	0.000	0.000	6.510	6.510	D-WATER SURFACE, 0% IMP	
0.000	0.000	0.000	0.000	16.346	16.346	D-WOODS/GRASS COMB., GOOD	
0.000	0.000	0.000	8.583	0.000	8.583	Gravel roads	
0.000	0.000	0.000	0.000	33.998	33.998	MEADOW, NON-GRAZED	
0.000	0.000	0.000	0.000	1.500	1.500	URBAN COMMERCIAL, 85% IMP	
0.000	0.000	0.000	0.000	1.280	1.280	WATER SURFACE	
0.000	0.000	0.000	0.000	1.096	1.096	WATER SURFACE, 0% IMP	
0.000	0.000	0.000	0.000	44.046	44.046	WOODS/GRASS COMB., GOOD	
0.000	**0.000**	**0.000**	**8.583**	**1,763.088**	**1,771.671**	**TOTAL AREA**	

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

SubcatchmentDA1: EXISTING DA STR 9-10 Runoff Area=13.623 ac 0.00% Impervious Runoff Depth>0.38"
Flow Length=1,252' Tc=79.0 min CN=79 Runoff=2.35 cfs 0.437 af

SubcatchmentDA10: EXISTING DA STR Runoff Area=97.181 ac 0.35% Impervious Runoff Depth>0.31"
Flow Length=3,167' Tc=219.6 min CN=78 Runoff=7.02 cfs 2.519 af

SubcatchmentDA11: EXISTING DA STR Runoff Area=14.544 ac 0.00% Impervious Runoff Depth>0.16"
Flow Length=915' Tc=184.1 min CN=71 Runoff=0.53 cfs 0.189 af

SubcatchmentDA12: EXISTING DA STR Runoff Area=8.250 ac 0.00% Impervious Runoff Depth>0.07"
Flow Length=1,012' Tc=23.6 min CN=64 Runoff=0.21 cfs 0.047 af

SubcatchmentDA13: EXISTING DA STR Runoff Area=64.056 ac 0.65% Impervious Runoff Depth>0.35"
Flow Length=1,139' Tc=84.8 min CN=78 Runoff=9.41 cfs 1.877 af

SubcatchmentDA14: EXISTING DA STR Runoff Area=27.155 ac 0.89% Impervious Runoff Depth>0.34"
Flow Length=1,379' Tc=135.3 min CN=78 Runoff=2.81 cfs 0.768 af

SubcatchmentDA15: EXISTING DA STR Runoff Area=24.134 ac 4.00% Impervious Runoff Depth>0.30"
Flow Length=1,032' Tc=33.9 min CN=76 Runoff=4.92 cfs 0.610 af

SubcatchmentDA16: EXISTING DA STR Runoff Area=11.825 ac 11.22% Impervious Runoff Depth>0.30"
Flow Length=619' Tc=30.2 min CN=76 Runoff=2.54 cfs 0.299 af

SubcatchmentDA17: EXISTING DA STR Runoff Area=21.990 ac 2.17% Impervious Runoff Depth>0.34"
Flow Length=3,167' Tc=219.6 min CN=79 Runoff=1.75 cfs 0.624 af

SubcatchmentDA18: EXISTING DA STR 36 Runoff Area=12.438 ac 0.00% Impervious Runoff Depth>0.39"
Flow Length=1,215' Tc=54.9 min CN=79 Runoff=2.72 cfs 0.405 af

SubcatchmentDA19: EXISTING DA STR Runoff Area=110.818 ac 0.00% Impervious Runoff Depth>0.37"
Flow Length=4,090' Tc=121.8 min CN=79 Runoff=13.97 cfs 3.456 af

SubcatchmentDA2: EXISTING DA STR Runoff Area=36.263 ac 0.00% Impervious Runoff Depth>0.54"
Flow Length=1,243' Tc=41.1 min CN=83 Runoff=13.89 cfs 1.641 af

SubcatchmentDA3: EXISTING DA STR Runoff Area=29.167 ac 2.04% Impervious Runoff Depth>0.38"
Flow Length=3,200' Tc=190.1 min CN=80 Runoff=2.89 cfs 0.935 af

SubcatchmentDA4: EXISTING DA STR Runoff Area=17.900 ac 0.00% Impervious Runoff Depth>0.46"
Flow Length=838' Tc=53.2 min CN=81 Runoff=4.89 cfs 0.688 af

SubcatchmentDA5: EXISTING DA STR Runoff Area=1,171,878 sf 2.21% Impervious Runoff Depth>0.39"
Flow Length=3,480' Tc=179.5 min CN=80 Runoff=2.77 cfs 0.872 af

SubcatchmentDA6: EXISTING DA STR Runoff Area=141.450 ac 0.11% Impervious Runoff Depth>0.42"
Flow Length=6,066' Tc=181.5 min CN=81 Runoff=15.73 cfs 4.978 af

SubcatchmentDA7: EXISTING DA STR Runoff Area=183.177 ac 0.00% Impervious Runoff Depth>0.34"
Flow Length=3,922' Tc=148.8 min CN=78 Runoff=17.95 cfs 5.122 af

SubcatchmentDA8: EXISTING DA STR 41 Runoff Area=9.113 ac 0.00% Impervious Runoff Depth>0.35"
Flow Length=1,597' Tc=97.4 min CN=78 Runoff=1.22 cfs 0.265 af

SubcatchmentDA9: EXISTING DA STR Runoff Area=35.849 ac 3.10% Impervious Runoff Depth>0.38"
Flow Length=2,500' Tc=107.9 min CN=79 Runoff=4.89 cfs 1.129 af

SubcatchmentPDA1: PROPOSED DA STR Runoff Area=13.623 ac 0.00% Impervious Runoff Depth>0.38"
Flow Length=1,252' Tc=79.0 min CN=79 Runoff=2.35 cfs 0.437 af

SubcatchmentPDA10: EXISTING DA STR Runoff Area=97.181 ac 0.35% Impervious Runoff Depth>0.31"
Flow Length=3,167' Tc=219.6 min CN=78 Runoff=7.02 cfs 2.519 af

SubcatchmentPDA11: PROPOSED DA STR Runoff Area=14.544 ac 0.00% Impervious Runoff Depth>0.16"
Flow Length=915' Tc=184.1 min CN=71 Runoff=0.53 cfs 0.189 af

SubcatchmentPDA12: PROPOSED DA STR Runoff Area=8.250 ac 0.00% Impervious Runoff Depth>0.07"
Flow Length=1,012' Tc=23.6 min CN=64 Runoff=0.21 cfs 0.047 af

SubcatchmentPDA13: PROPOSED DA STR Runoff Area=64.056 ac 0.65% Impervious Runoff Depth>0.35"
Flow Length=1,139' Tc=84.8 min CN=78 Runoff=9.41 cfs 1.877 af

SubcatchmentPDA14: PROPOSED DA STR Runoff Area=27.155 ac 0.89% Impervious Runoff Depth>0.34"
Flow Length=1,379' Tc=135.3 min CN=78 Runoff=2.81 cfs 0.768 af

SubcatchmentPDA15: PROPOSED DA STR Runoff Area=24.134 ac 4.00% Impervious Runoff Depth>0.30"
Flow Length=1,032' Tc=33.9 min CN=76 Runoff=4.92 cfs 0.610 af

SubcatchmentPDA16: PROPOSED DA STR Runoff Area=11.825 ac 8.12% Impervious Runoff Depth>0.30"
Flow Length=619' Tc=30.2 min CN=76 Runoff=2.54 cfs 0.299 af

SubcatchmentPDA17: PROPOSED DA STR Runoff Area=21.990 ac 2.17% Impervious Runoff Depth>0.34"
Flow Length=3,167' Tc=219.6 min CN=79 Runoff=1.75 cfs 0.624 af

SubcatchmentPDA18: PROPOSED DA STR Runoff Area=12.438 ac 0.00% Impervious Runoff Depth>0.39"
Flow Length=1,215' Tc=54.9 min CN=79 Runoff=2.72 cfs 0.405 af

SubcatchmentPDA19: PROPOSED DA Runoff Area=110.818 ac 0.00% Impervious Runoff Depth>0.37"
Flow Length=4,090' Tc=121.8 min CN=79 Runoff=13.97 cfs 3.456 af

SubcatchmentPDA2: PROPOSED DA STR Runoff Area=36.263 ac 0.00% Impervious Runoff Depth>0.54"
Flow Length=1,243' Tc=41.1 min CN=83 Runoff=13.89 cfs 1.641 af

SubcatchmentPDA3: EXISTING DA STR Runoff Area=29.167 ac 2.04% Impervious Runoff Depth>0.38"
Flow Length=3,200' Tc=190.1 min CN=80 Runoff=2.89 cfs 0.935 af

SubcatchmentPDA4: PROPOSED DA STR Runoff Area=17.900 ac 0.00% Impervious Runoff Depth>0.46"
Flow Length=838' Tc=53.2 min CN=81 Runoff=4.89 cfs 0.688 af

SubcatchmentPDA5: PROPOSED DA Runoff Area=1,171,878 sf 2.21% Impervious Runoff Depth>0.39"
Flow Length=3,480' Tc=179.5 min CN=80 Runoff=2.77 cfs 0.872 af

SubcatchmentPDA6: PROPOSED DA STR Runoff Area=141.450 ac 0.11% Impervious Runoff Depth>0.42"
Flow Length=6,066' Tc=181.5 min CN=81 Runoff=15.73 cfs 4.978 af

SubcatchmentPDA7: PROPOSED DA STR Runoff Area=183.177 ac 0.00% Impervious Runoff Depth>0.34"
Flow Length=3,922' Tc=148.8 min CN=78 Runoff=17.95 cfs 5.122 af

SubcatchmentPDA8: PROPOSED DA STR Runoff Area=9.113 ac 0.00% Impervious Runoff Depth>0.35"
Flow Length=1,597' Tc=97.4 min CN=78 Runoff=1.22 cfs 0.265 af

SubcatchmentPDA9: PROPOSED DA STR Runoff Area=35.849 ac 3.10% Impervious Runoff Depth>0.38"
Flow Length=2,500' Tc=107.9 min CN=79 Runoff=4.89 cfs 1.129 af

Link 1L: EXISTING Inflow=76.95 cfs 26.860 af
Primary=76.95 cfs 26.860 af

Link 2L: PROPOSED Inflow=76.95 cfs 26.860 af
Primary=76.95 cfs 26.860 af

Total Runoff Area = 1,771.671 ac Runoff Volume = 53.719 af Average Runoff Depth = 0.36"
99.32% Pervious = 1,759.600 ac 0.68% Impervious = 12.071 ac

Summary for Subcatchment DA1: EXISTING DA STR 9-10

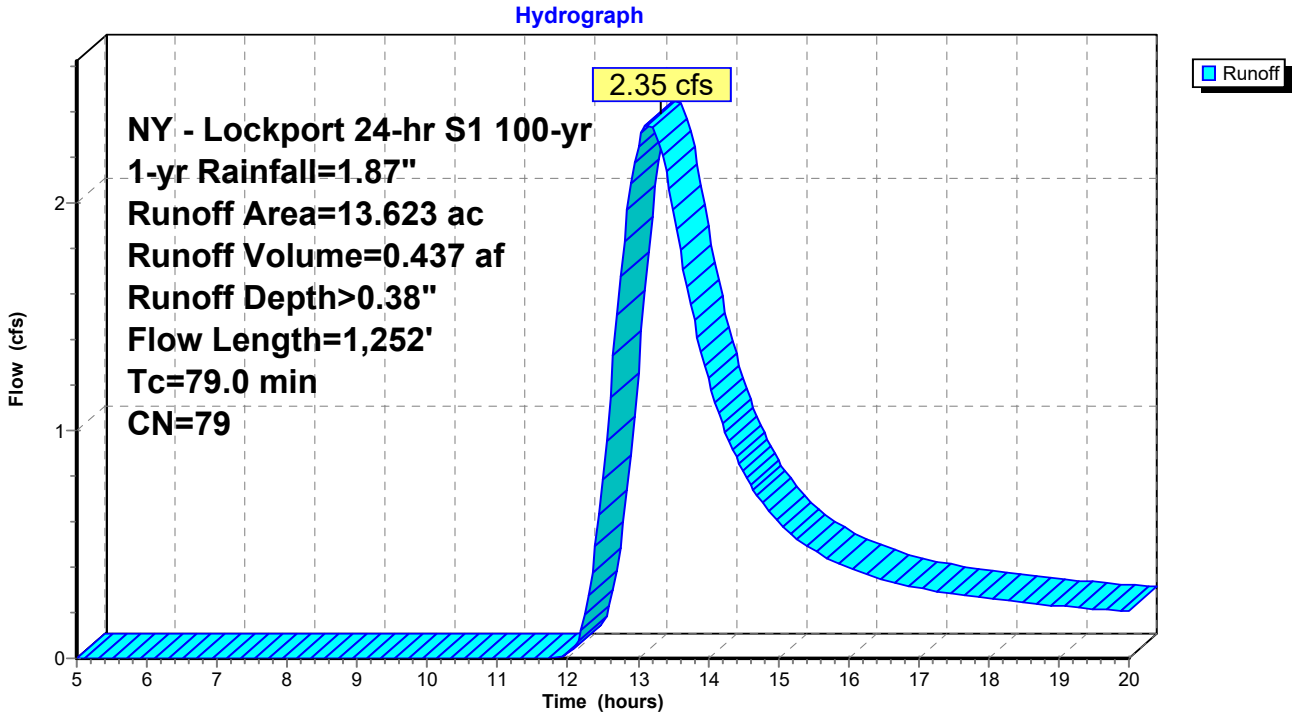
Runoff = 2.35 cfs @ 13.14 hrs, Volume= 0.437 af, Depth> 0.38"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.134	39	39 - A - 75% GRASS COVER, GOOD
*	0.938	49	49 - A - 50-75% GRASS COVER, FAIR
*	0.065	68	68 - A - <50% GRASS COVER, POOR
*	0.064	32	32 - A - FALLOW, BARE SOIL
*	0.064	30	30 - A - MEADOW, NON-GRAZED
*	0.293	80	80 - D - 75% GRASS COVER, GOOD
*	1.950	84	84 - D - 50-75% GRASS COVER, FAIR
*	0.320	89	89 - D - <50% GRASS COVER, POOR
*	0.105	79	79 - D - WOODS/GRASS COMB., GOOD
*	0.497	78	78 - D - MEADOW, NON-GRAZED
*	1.157	80	80 - D - 75% GRASS COVER, GOOD
*	4.870	84	84 - D - 50-75% GRASS COVER, FAIR
*	0.999	89	89 - D - <50% GRASS COVER, POOR
*	2.167	78	78 - D - MEADOW, NON-GRAZED
	13.623	79	Weighted Average
	13.623		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	100	0.0175	0.13		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.22"
40.8	420	0.0006	0.17		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	45	0.0056	1.52		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
14.3	300	0.0025	0.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.7	200	0.0050	0.49		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.3	187	0.0107	0.72		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
79.0	1,252	Total			

Subcatchment DA1: EXISTING DA STR 9-10



Summary for Subcatchment DA10: EXISTING DA STR 78-83

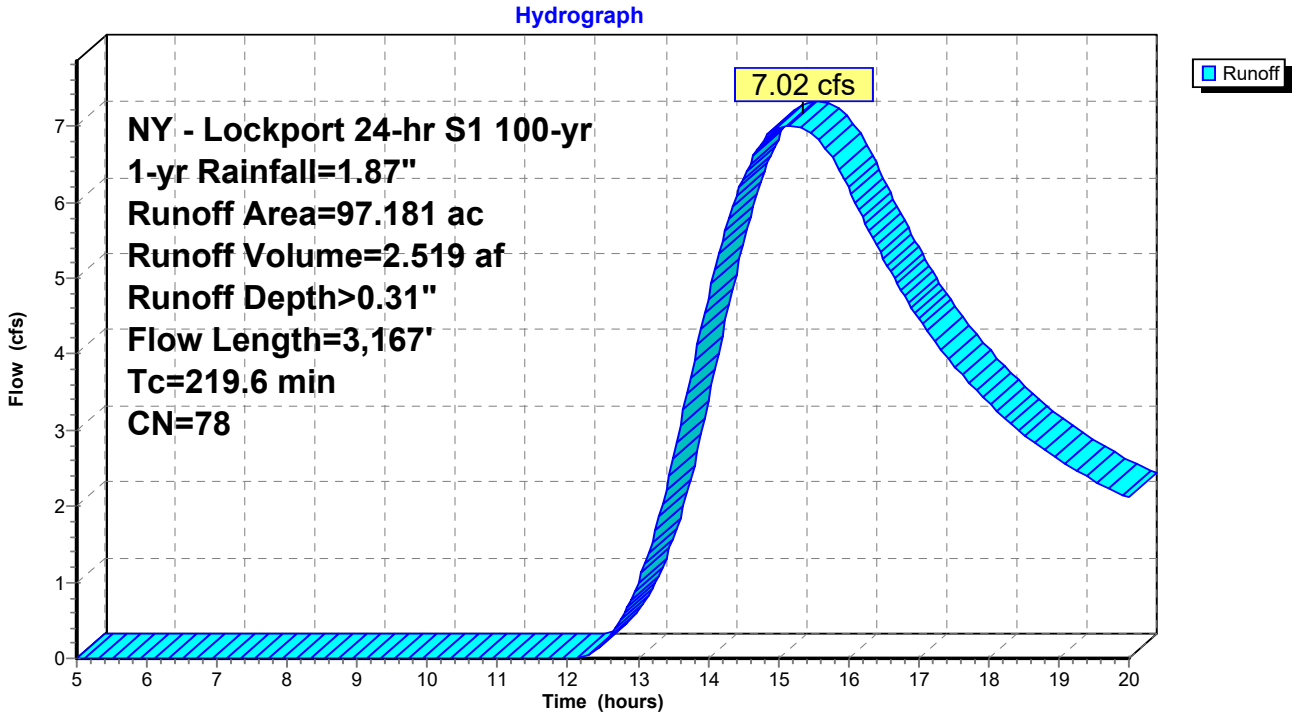
Runoff = 7.02 cfs @ 15.15 hrs, Volume= 2.519 af, Depth> 0.31"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.446	82	B-MEADOW, NON-GRAZED
*	0.142	43	D-WOODS/GRASS COMB., GOOD
*	13.840	81	D-MEADOW, NON-GRAZED
*	8.160	82	D-MEADOW, NON-GRAZED
*	1.781	21	D-75% GRASS COVER, GOOD
*	3.035	22	D-50-75% GRASS COVER, FAIR
*	24.158	81	D-MEADOW, NON-GRAZED
*	5.711	82	D-MEADOW, NON-GRAZED
*	0.003	21	D-75% GRASS COVER, GOOD
*	0.428	22	D-50-75% GRASS COVER, FAIR
*	18.333	81	D-MEADOW, NON-GRAZED
*	20.761	82	D-MEADOW, NON-GRAZED
*	0.340	98	D-PAVED ASPHALT DRIVEWAY
*	0.043	90	D-WATER SURFACE, 0% IMP
	97.181	78	Weighted Average
	96.841		99.65% Pervious Area
	0.340		0.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	100	0.0610	0.22		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
3.0	144	0.0130	0.80		**Shallow Concentrated Flow, 144** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
9.2	300	0.0060	0.54		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
12.2	162	0.0010	0.22		**Shallow Concentrated Flow, 162** Short Grass Pasture Kv= 7.0 fps
10.1	300	0.0050	0.49		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
8.3	290	0.0070	0.59		**Shallow Concentrated Flow, 290** Short Grass Pasture Kv= 7.0 fps
0.6	50	0.0400	1.40		**Shallow Concentrated Flow, 50** Short Grass Pasture Kv= 7.0 fps
4.4	242	0.0170	0.91		**Shallow Concentrated Flow, 242** Short Grass Pasture Kv= 7.0 fps
6.3	300	0.0130	0.80		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
18.8	79	0.0001	0.07		**Shallow Concentrated Flow, 79** Short Grass Pasture Kv= 7.0 fps
219.6	3,167	Total			

Subcatchment DA10: EXISTING DA STR 78-83



Summary for Subcatchment DA11: EXISTING DA STR 84-86

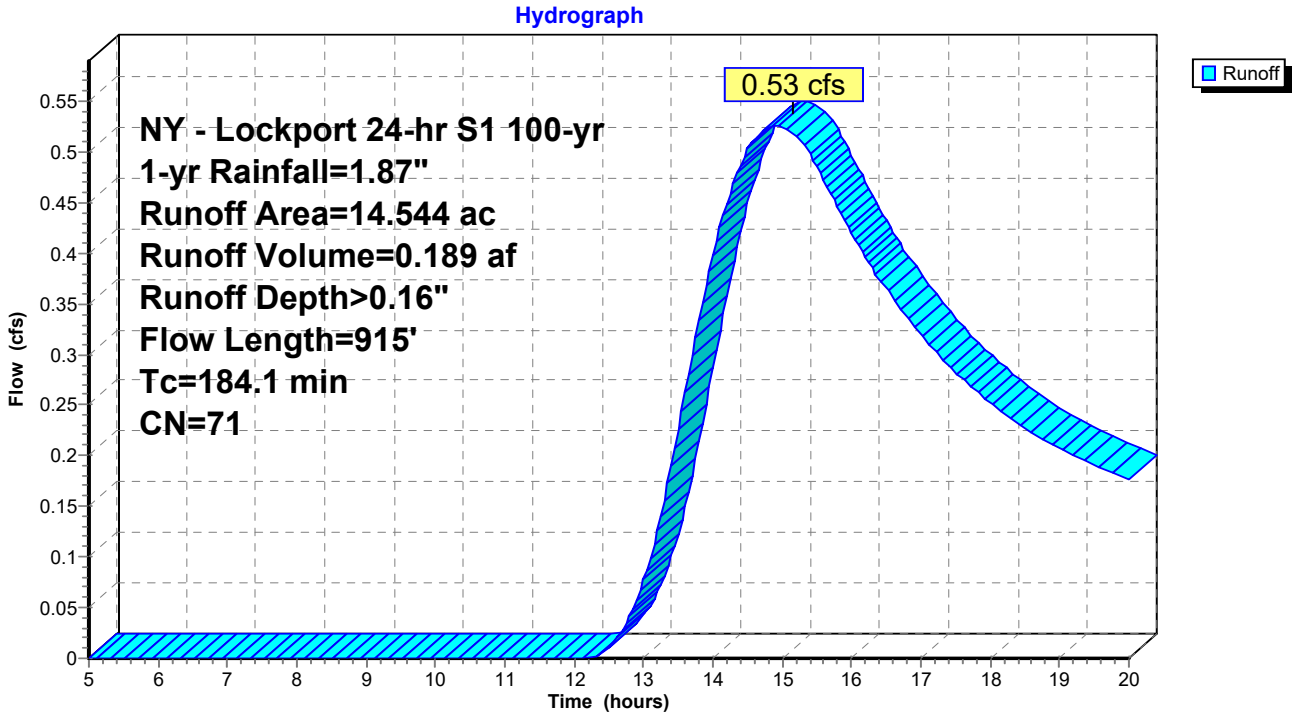
Runoff = 0.53 cfs @ 14.94 hrs, Volume= 0.189 af, Depth> 0.16"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.033	58	B-MEADOW, NON-GRAZED
*	3.140	58	B-MEADOW, NON-GRAZED
*	0.039	80	D-75% GRASS COVER, GOOD
*	0.117	84	D-50-75% GRASS COVER, FAIR
*	1.962	78	D-MEADOW, NON-GRAZED
*	2.545	78	D-MEADOW, NON-GRAZED
*	0.145	71	D-MEADOW, NON-GRAZED
*	5.505	71	D-MEADOW, NON-GRAZED
*	0.304	78	D-MEADOW, NONGRAZED
*	0.030	78	D-MEADOW, NON-GRAZED
*	0.724	78	D-MEADOW, NON-GRAZED
	14.544	71	Weighted Average
	14.544		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
97.9	100	0.0001	0.02		**Sheet Flow, 100**
					Grass: Short n= 0.150 P2= 2.22"
3.6	164	0.0120	0.77		**Shallow Concentrated Flow, 164**
					Short Grass Pasture Kv= 7.0 fps
8.5	300	0.0070	0.59		**Shallow Concentrated Flow, 300**
					Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300**
					Short Grass Pasture Kv= 7.0 fps
2.7	51	0.0020	0.31		**Shallow Concentrated Flow, 51**
					Short Grass Pasture Kv= 7.0 fps
184.1	915	Total			

Subcatchment DA11: EXISTING DA STR 84-86



Summary for Subcatchment DA12: EXISTING DA STR 90-96

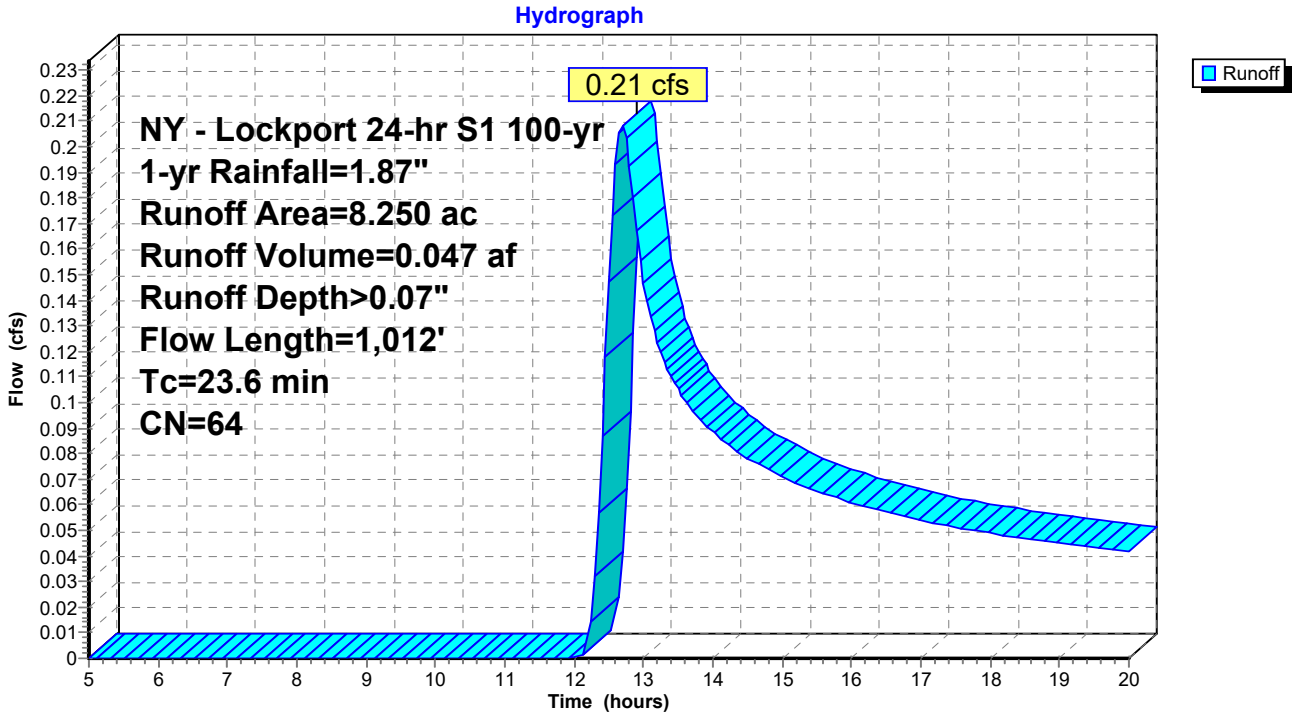
Runoff = 0.21 cfs @ 12.69 hrs, Volume= 0.047 af, Depth> 0.07"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	2.470	30	A-MEADOW, NON-GRAZED
*	5.780	78	D-MEADOW, NON-GRAZED
	8.250	64	Weighted Average
	8.250		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0390	0.19		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
1.5	130	0.0420	1.43		**Shallow Concentrated Flow, 130** Short Grass Pasture Kv= 7.0 fps
1.7	180	0.0640	1.77		**Shallow Concentrated Flow, 180** Short Grass Pasture Kv= 7.0 fps
2.5	237	0.0520	1.60		**Shallow Concentrated Flow, 237** Short Grass Pasture Kv= 7.0 fps
1.3	80	0.0230	1.06		**Shallow Concentrated Flow, 80** Short Grass Pasture Kv= 7.0 fps
5.0	132	0.0040	0.44		**Shallow Concentrated Flow, 132** Short Grass Pasture Kv= 7.0 fps
2.6	153	0.0200	0.99		**Shallow Concentrated Flow, 153** Short Grass Pasture Kv= 7.0 fps
23.6	1,012	Total			

Subcatchment DA12: EXISTING DA STR 90-96



Summary for Subcatchment DA13: EXISTING DA STR 97-103

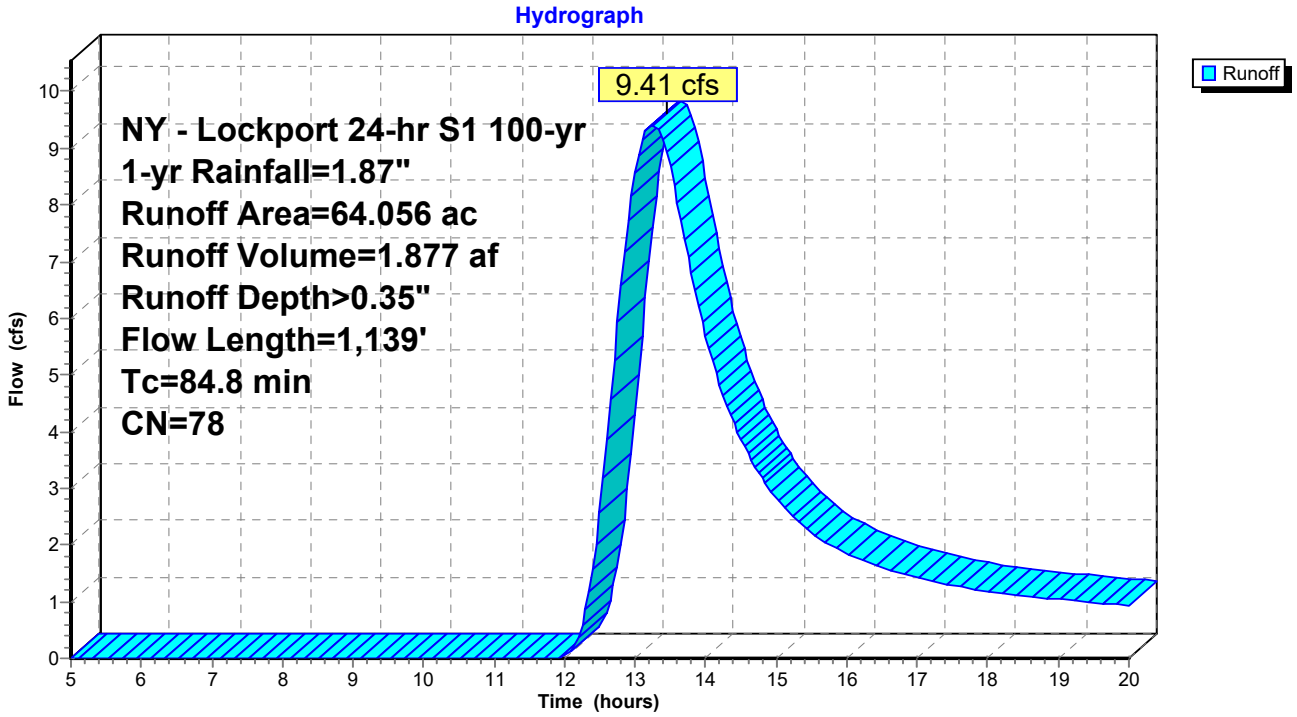
Runoff = 9.41 cfs @ 13.26 hrs, Volume= 1.877 af, Depth> 0.35"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.113	49	A-50-75% GRASS COVER, FAIR
*	0.131	30	A-MEADOW, NON-GRAZED
*	12.491	78	D-MEADOW, NON-GRAZED
*	0.855	80	D-75% GRASS COVER, GOOD
*	0.366	84	D-50-75% GRASS COVER, FAIR
*	0.263	79	D-WOODS/GRASS COMB., GOOD
*	49.419	78	D-MEADOW, NON-GRAZED
*	0.418	98	D-WATER SURFACE, 0% IMP
	64.056	78	Weighted Average
	63.638		99.35% Pervious Area
	0.418		0.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.1	100	0.0030	0.07		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
11.2	258	0.0030	0.38		**Shallow Concentrated Flow, 258** Short Grass Pasture Kv= 7.0 fps
31.4	132	0.0001	0.07		**Shallow Concentrated Flow, 132** Short Grass Pasture Kv= 7.0 fps
4.0	176	0.0110	0.73		**Shallow Concentrated Flow, 176** Short Grass Pasture Kv= 7.0 fps
7.7	270	0.0070	0.59		**Shallow Concentrated Flow, 270** Short Grass Pasture Kv= 7.0 fps
5.4	203	0.0080	0.63		**Shallow Concentrated Flow, 203** Short Grass Pasture Kv= 7.0 fps
84.8	1,139	Total			

Subcatchment DA13: EXISTING DA STR 97-103



Summary for Subcatchment DA14: EXISTING DA STR 104-106

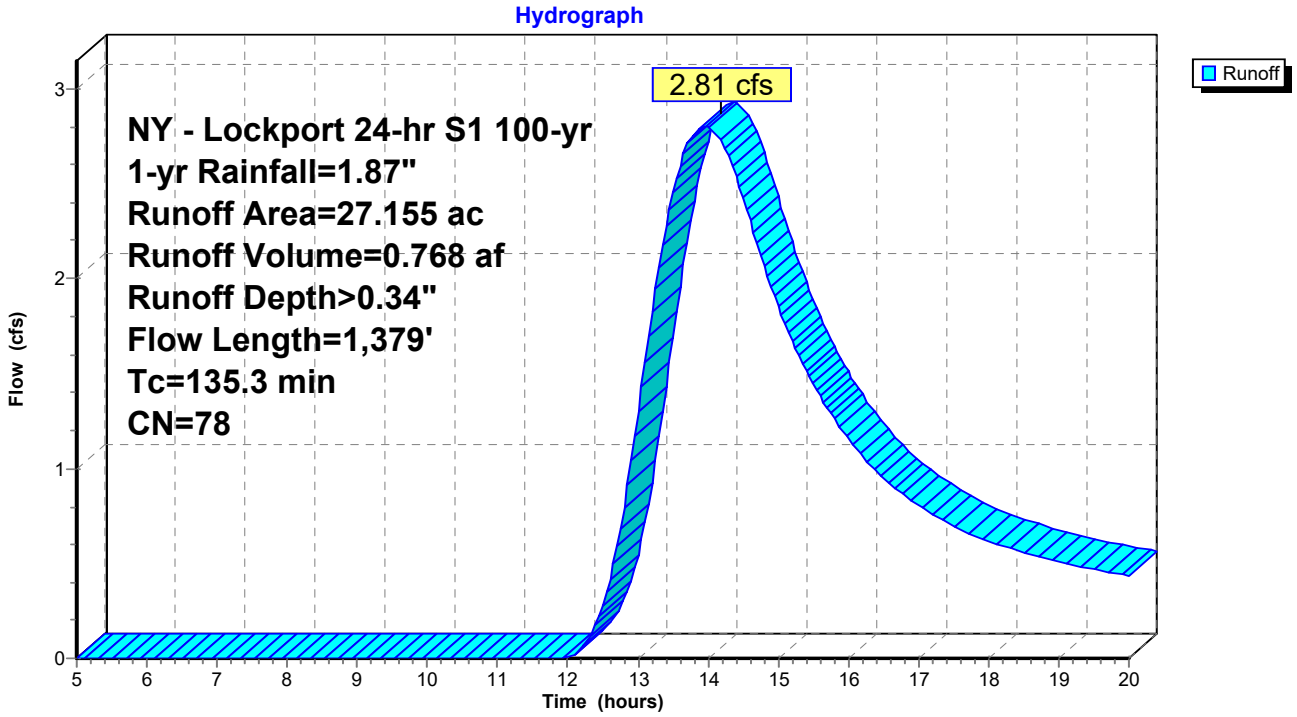
Runoff = 2.81 cfs @ 13.98 hrs, Volume= 0.768 af, Depth> 0.34"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.471	61	B-75% GRASS COVER, GOOD
*	1.291	80	D-75% GRASS OCVER, GOOD
*	0.937	84	D-50-75% GRASS COVER, FAIR
*	1.189	79	D-WOODS/GRASS COMB., GOOD
*	2.124	78	D-MEADOW, NON-GRAZED
*	0.606	80	D-75% GRASS COVER, GOOD
*	0.552	79	D-WOODS/GRASS COMB., GOOD
*	10.418	78	D-MEADOW, NON-GRAZED
*	0.104	98	D-WATER SURFACE, 0% IMP
*	0.137	98	D-WATER SURFACE, 0% IMP
*	0.893	80	D-75% GRASS OCVER, GOOD
*	0.115	80	D-50-75% GRASS COVER, FAIR
*	8.318	78	D-MEADOW, NON-GRAZED
	27.155	78	Weighted Average
	26.914		99.11% Pervious Area
	0.241		0.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.0330	0.17		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
0.9	53	0.0220	1.04		**Shallow Concentrated Flow, 53** Short Grass Pasture Kv= 7.0 fps
2.3	140	0.0210	1.01		**Shallow Concentrated Flow, 140** Short Grass Pasture Kv= 7.0 fps
2.2	140	0.0220	1.04		**Shallow Concentrated Flow, 140** Short Grass Pasture Kv= 7.0 fps
5.8	230	0.0090	0.66		**Shallow Concentrated Flow, 230** Short Grass Pasture Kv= 7.0 fps
7.6	267	0.0070	0.59		**Shallow Concentrated Flow, 267** Short Grass Pasture Kv= 7.0 fps
43.8	184	0.0001	0.07		**Shallow Concentrated Flow, 184** Short Grass Pasture Kv= 7.0 fps
63.1	265	0.0001	0.07		**Shallow Concentrated Flow, 265** Short Grass Pasture Kv= 7.0 fps
135.3	1,379	Total			

Subcatchment DA14: EXISTING DA STR 104-106



Summary for Subcatchment DA15: EXISTING DA STR 106-109

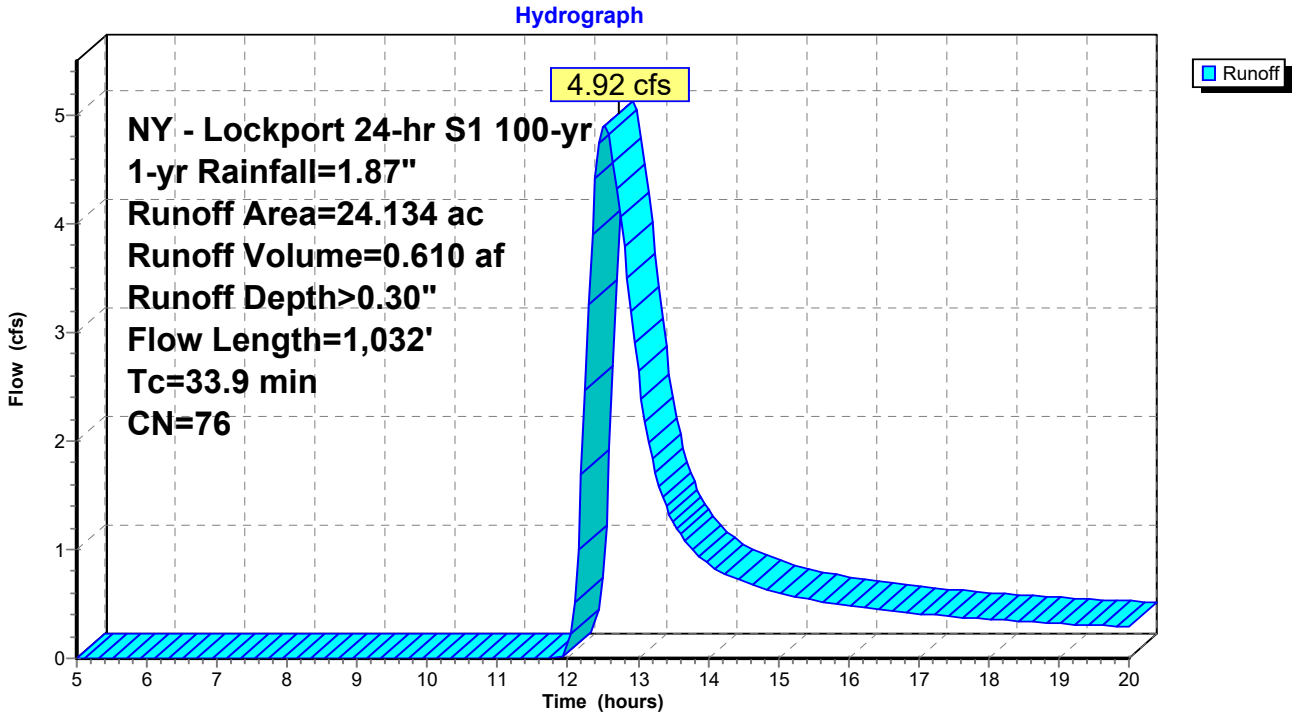
Runoff = 4.92 cfs @ 12.53 hrs, Volume= 0.610 af, Depth> 0.30"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.972	61	B-75% GRASS COVER, GOOD
*	1.615	69	B-50-75% GRASS COVER, FAIR
*	2.680	58	B-MEADOW, NON-GRAZED
*	0.028	80	D-75% GRASS COVER, GOOD
*	2.330	78	D-MEADOW, NON-GRAZED
*	0.585	80	D-75% GRASS COVER, GOOD
*	0.724	84	D-50-75% GRASS COVER, FAIR
*	0.465	79	D-WOODS/GRASS COMB., GOOD
*	13.770	78	D-MEADOW, NON-GRAZED
*	0.880	98	D-WATER SURFACE, 0% IMP
*	0.085	98	D-WATER SURFACE, 0% IMP
	24.134	76	Weighted Average
	23.169		96.00% Pervious Area
	0.965		4.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.4	100	0.0120	0.12		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
2.1	148	0.0270	1.15		**Shallow Concentrated Flow, 148** Short Grass Pasture Kv= 7.0 fps
3.4	204	0.0200	0.99		**Shallow Concentrated Flow, 204** Short Grass Pasture Kv= 7.0 fps
6.0	300	0.0140	0.83		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
8.0	280	0.0070	0.59		**Shallow Concentrated Flow, 280** Short Grass Pasture Kv= 7.0 fps
33.9	1,032	Total			

Subcatchment DA15: EXISTING DA STR 106-109



Summary for Subcatchment DA16: EXISTING DA STR 110-117

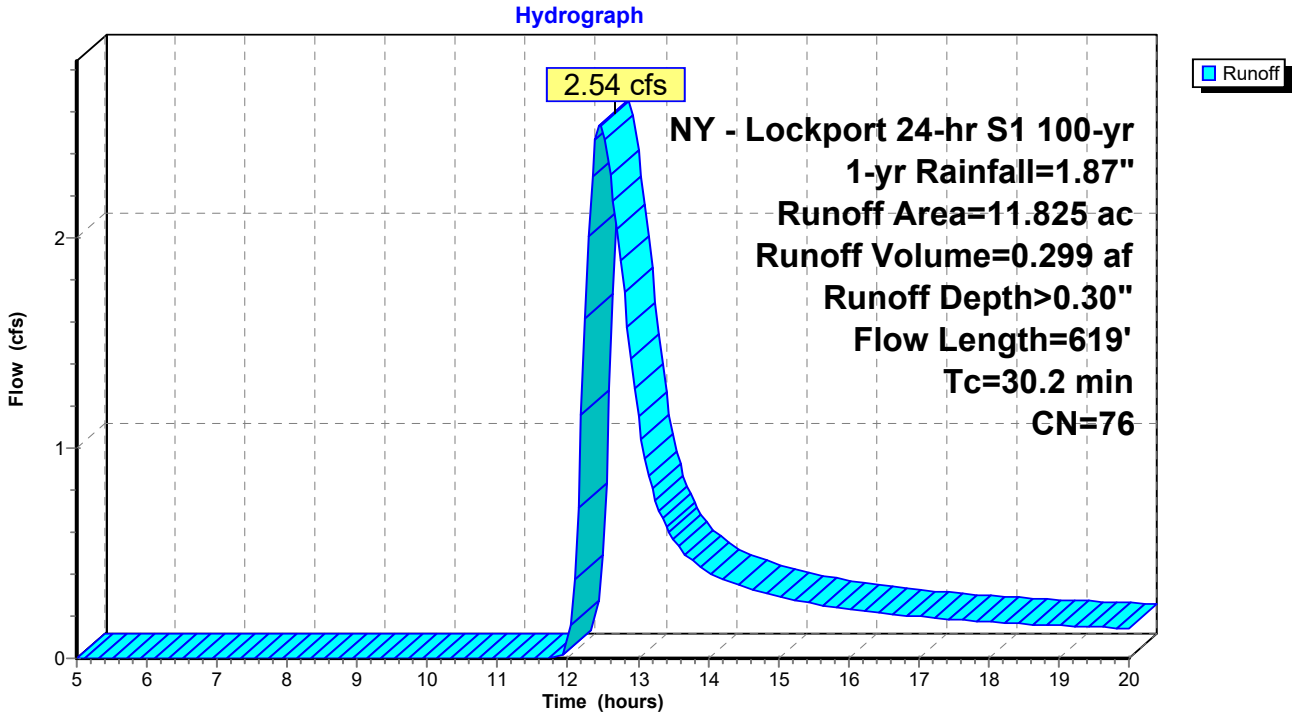
Runoff = 2.54 cfs @ 12.46 hrs, Volume= 0.299 af, Depth> 0.30"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.423	61	B-75%GRASS COVER, GOOD
*	0.460	69	B-50-75% GRASS COVER, FAIR
*	2.069	58	D-MEADOW, NON-GRAZED
*	0.045	78	D-MEADOW, NON-GRAZED
*	0.049	98	D-MEADOW, NON-GRAZED
*	0.487	80	D-75% GRASS COVER, GOOD
*	0.960	84	D-50-75% GRASS COVER, FAIR
*	0.293	79	D-WOODS/GRASS COMB., GOOD
*	5.704	78	D-MEADOW, NON-GRAZED
*	1.222	98	D-MEADOW, NON-GRAZED
*	0.048	79	D-WOODS/GRASS COMB., GOOD
*	0.009	78	D-MEADOW, NON-GRAZED
*	0.056	98	D-MEADOW, NON-GRAZED
	11.825	76	Weighted Average
	10.498		88.78% Pervious Area
	1.327		11.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.9	100	0.0070	0.09		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
3.4	222	0.0240	1.08		**Shallow Concentrated Flow, 222** Short Grass Pasture Kv= 7.0 fps
4.1	154	0.0080	0.63		**Shallow Concentrated Flow, 154** Short Grass Pasture Kv= 7.0 fps
4.8	143	0.0050	0.49		**Shallow Concentrated Flow, 143** Short Grass Pasture Kv= 7.0 fps
30.2	619	Total			

Subcatchment DA16: EXISTING DA STR 110-117



Summary for Subcatchment DA17: EXISTING DA STR 113-116

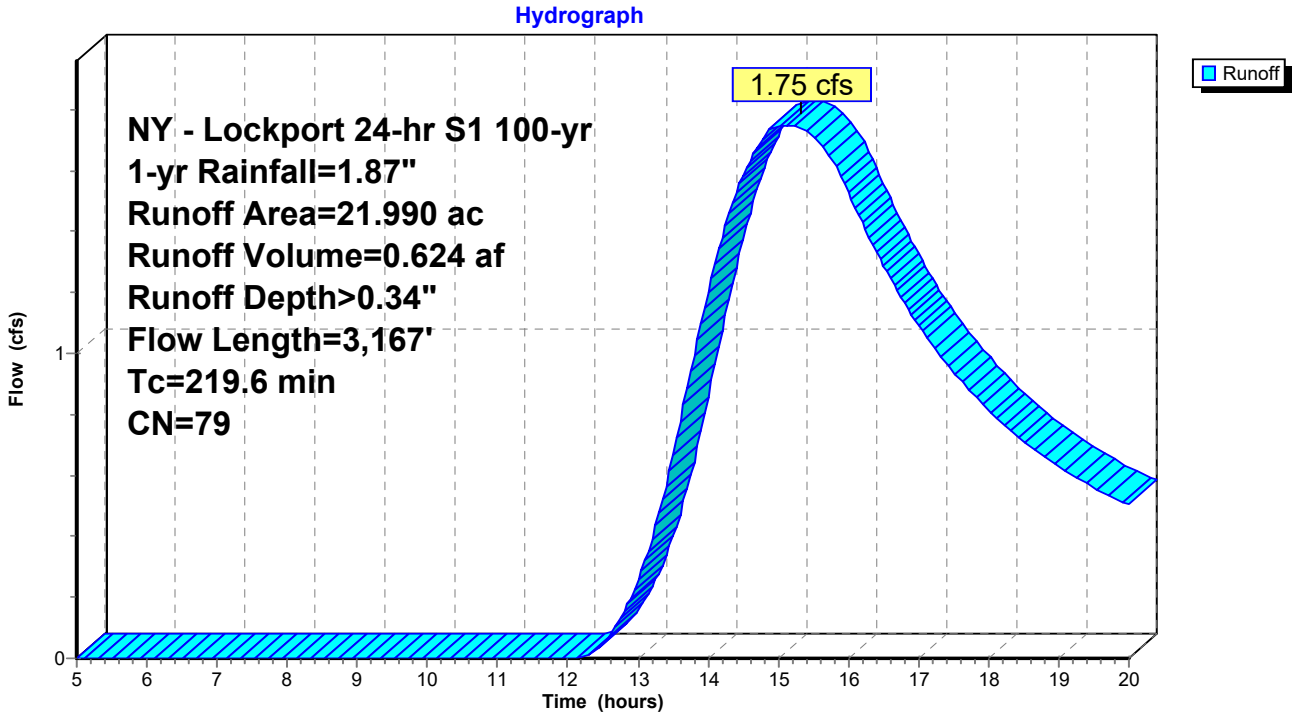
Runoff = 1.75 cfs @ 15.13 hrs, Volume= 0.624 af, Depth> 0.34"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.289	80	D-75% GRASS COVER, GOOD
*	0.899	84	D-50-75% GRASS COVER, FAIR
*	2.853	78	D-MEADOW, NON-GRAZED
*	0.540	78	D-MEADOW, NON-GRAZED
*	0.077	80	D-75% GRASS COVER, GOOD
*	0.177	84	D-50-75% GRASS COVER, FAIR
*	0.010	79	D-WOODS/GRASS COMB., GOOD
*	6.443	78	D-MEADOW, NON-GRAZED
*	7.074	78	D-MEADOW, NON-GRAZED
*	0.337	98	D-WATER SURFACE, 0% IMP
*	3.150	78	D-MEADOW, NON-GRAZED
*	0.141	98	D-WATER SURFACE, 0% IMP
	21.990	79	Weighted Average
	21.512		97.83% Pervious Area
	0.478		2.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	100	0.0610	0.22		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
3.0	144	0.0130	0.80		**Shallow Concentrated Flow, 144** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
9.2	300	0.0060	0.54		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
12.2	162	0.0010	0.22		**Shallow Concentrated Flow, 162** Short Grass Pasture Kv= 7.0 fps
10.1	300	0.0050	0.49		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
8.3	290	0.0070	0.59		**Shallow Concentrated Flow, 290** Short Grass Pasture Kv= 7.0 fps
0.6	50	0.0400	1.40		**Shallow Concentrated Flow, 50** Short Grass Pasture Kv= 7.0 fps
4.4	242	0.0170	0.91		**Shallow Concentrated Flow, 242** Short Grass Pasture Kv= 7.0 fps
6.3	300	0.0130	0.80		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
18.8	79	0.0001	0.07		**Shallow Concentrated Flow, 79** Short Grass Pasture Kv= 7.0 fps
219.6	3,167	Total			

Subcatchment DA17: EXISTING DA STR 113-116



Summary for Subcatchment DA18: EXISTING DA STR 36

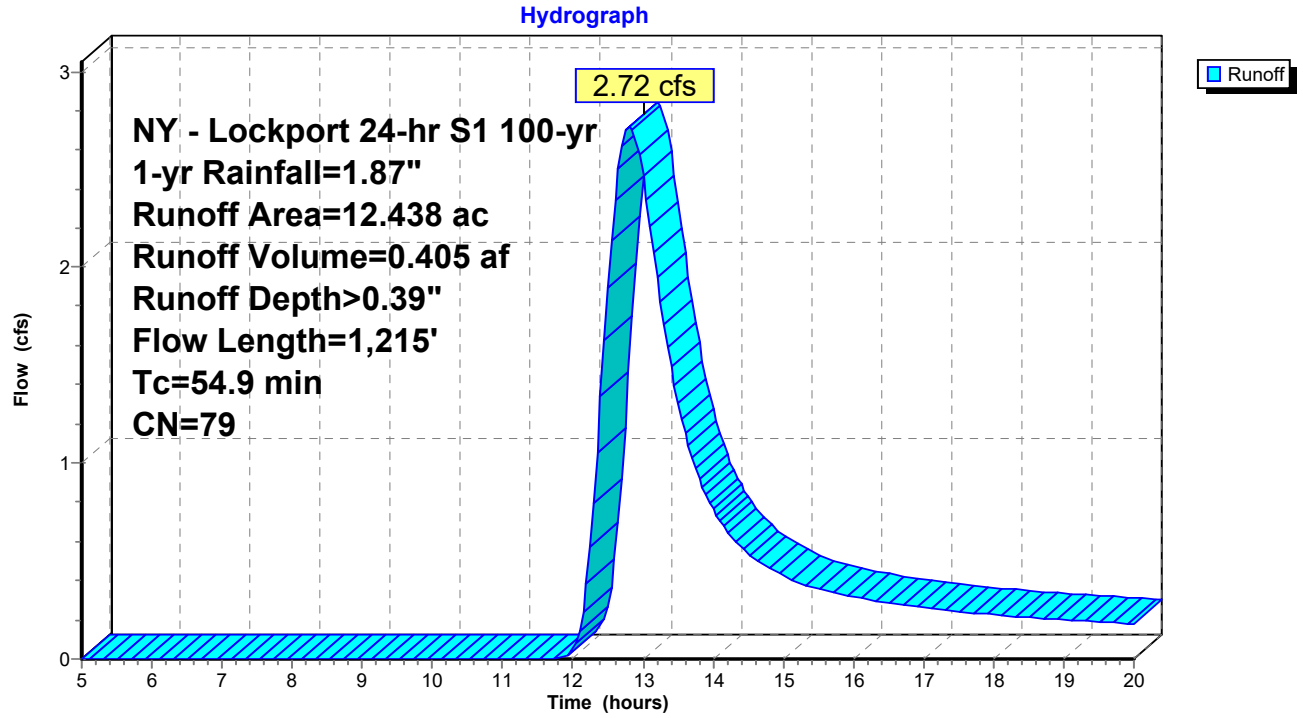
Runoff = 2.72 cfs @ 12.81 hrs, Volume= 0.405 af, Depth> 0.39"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.143	80	D - 80 - Developed open space
*	0.461	80	D - 80 - Developed open space
*	1.014	82	D - 82 - Developed Low intensity
*	1.218	82	D - 82 - Developed Low intensity
*	0.081	77	D - 77 - Deciduous Forest
*	7.367	78	D - 78 - Meadowed, grass, non-grazed land
*	2.154	78	D - 78 - Meadowed, grass, non-grazed land
	12.438	79	Weighted Average
	12.438		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0200	0.14		**Sheet Flow, 100' sheet** Grass: Short n= 0.150 P2= 2.22"
43.1	1,115	0.0038	0.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
54.9	1,215	Total			

Subcatchment DA18: EXISTING DA STR 36



Summary for Subcatchment DA19: EXISTING DA STR 42-47

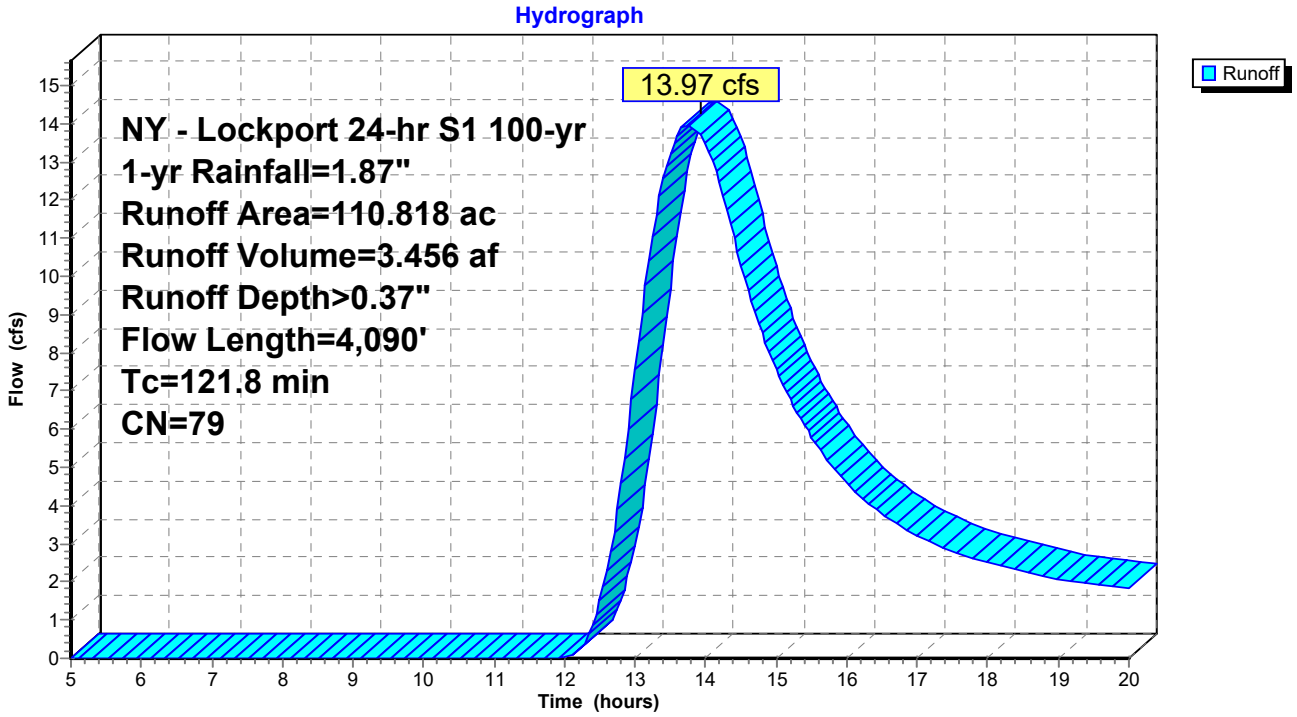
Runoff = 13.97 cfs @ 13.72 hrs, Volume= 3.456 af, Depth> 0.37"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	3.220	80	D - 80 - Developed open space
*	2.932	80	D - 80 - Developed open space
*	0.003	80	D - 80 - Developed open space
*	10.164	82	D - 82 - Developed Low intensity
*	6.410	82	D - 82 - Developed Low intensity
*	0.607	82	D - 82 - Developed Low intensity
*	5.494	77	D - 77 - Deciduous Forest
*	15.746	78	D - 78 - Meadowed, grass, non-grazed land
*	63.740	78	D - 78 - Meadowed, grass, non-grazed land
*	2.502	78	D - 78 - Meadowed, grass, non-grazed land
	110.818	79	Weighted Average
	110.818		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.0300	0.17		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.22"
88.0	2,225	0.0071	0.42		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.8	1,765	0.0068	1.24		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
121.8	4,090	Total			

Subcatchment DA19: EXISTING DA STR 42-47



Summary for Subcatchment DA2: EXISTING DA STR 11-12

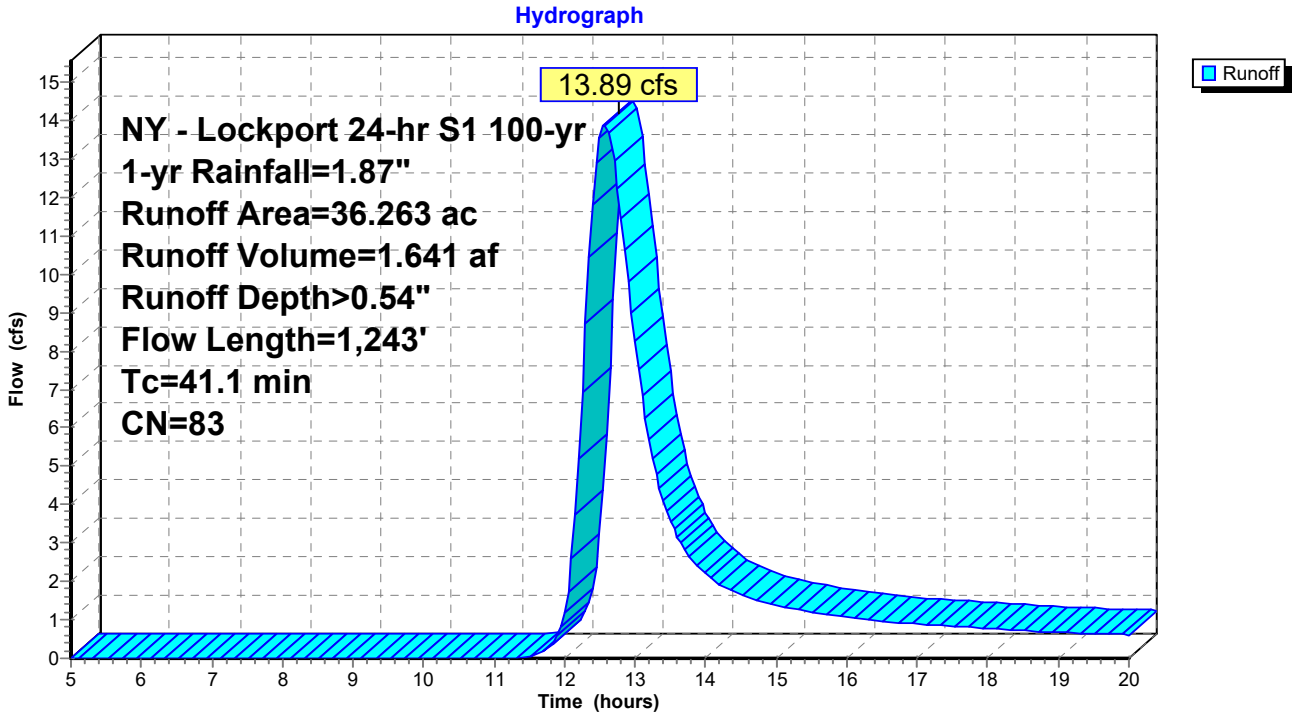
Runoff = 13.89 cfs @ 12.57 hrs, Volume= 1.641 af, Depth> 0.54"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	2.487	80	80-D-75% GRASS COVER, GOOD
*	1.050	84	84-D-50-75% GRASS COVER, FAIR
*	1.903	89	89-D-<50% GRASS COVER, POOR
*	0.250	95	95-D-URBAN COMMERCIAL, 85% IMP
*	0.043	79	79-D-WOODS/GRASS COMB., GOOD
*	1.541	78	78-D-MEADOW, NONGRAZED
*	0.054	80	80-D-75% GRASS COVER, GOOD
*	0.598	84	84-D-50-75% GRASSC OVER, FAIR
*	2.041	89	89-D-<50% GRASS COVER, POOR
*	0.286	95	95-D-URBAN COMMERCIAL, 85% IMP
*	1.744	78	78-D-MEADOW, NON-GRAZED
*	6.222	80	80-D-75% GRASS CVER, GOOD
*	7.613	84	8D-D-50-75% GRASS COVER, FAIR
*	3.609	89	89-D-<50% GRASS COVER POOR
*	0.887	95	95-D-URBAN COMMERCIAL, 85% IMP
*	3.299	79	79-D-WOODS/GRASS COMB., GOOD
*	2.636	78	78-D-MEADOW, NON-GRAZED
	36.263	83	Weighted Average
	36.263		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.5	100	0.0050	0.66		**Sheet Flow, 100'** Smooth surfaces n= 0.011 P2= 2.22"
1.4	115	0.0043	1.33		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.4	256	0.0078	1.79		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.3	240	0.0031	0.39		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	30	0.0064	1.62		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.8	128	0.0117	0.76		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
14.2	209	0.0024	0.24		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
7.2	165	0.0030	0.38		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
41.1	1,243	Total			

Subcatchment DA2: EXISTING DA STR 11-12



Summary for Subcatchment DA3: EXISTING DA STR 17-20

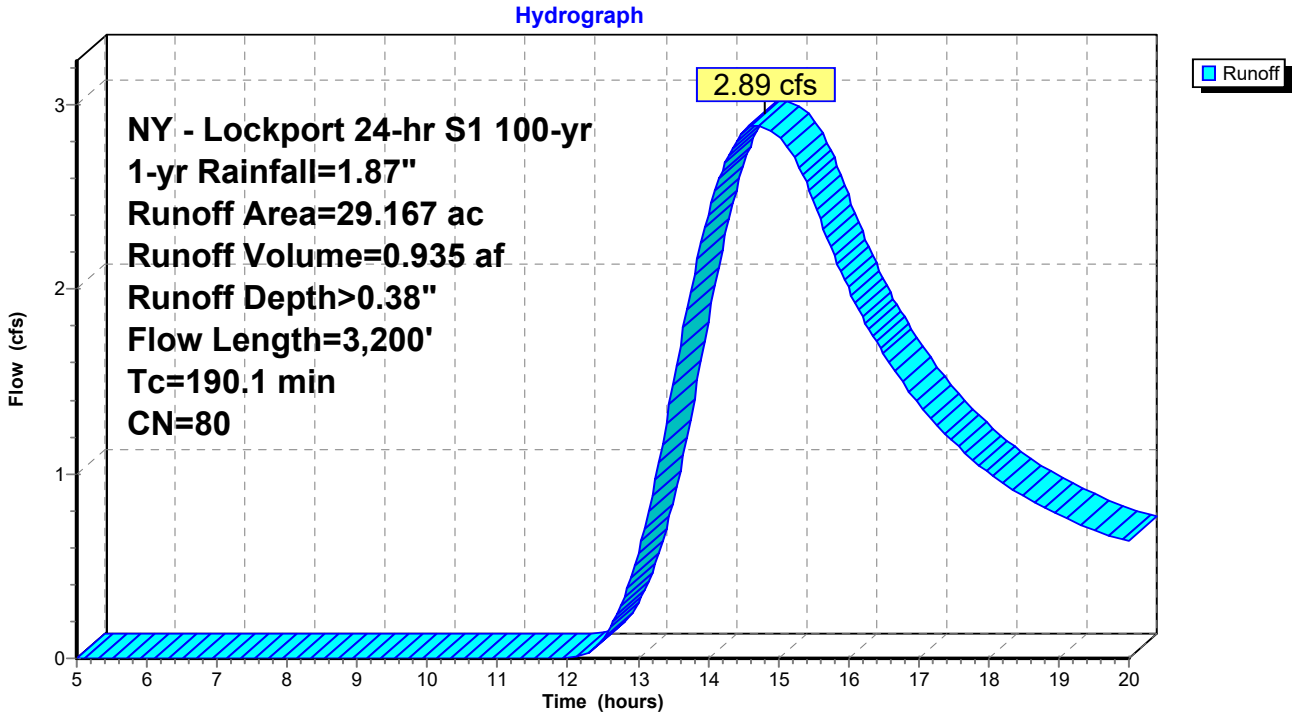
Runoff = 2.89 cfs @ 14.62 hrs, Volume= 0.935 af, Depth> 0.38"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.391	80	80-D-75% GRASS COVER, GOOD
*	4.601	79	WOODS/GRASS COMB., GOOD
*	1.427	79	WOODS/GRASS COMB., GOOD
*	2.196	78	MEADOW, NON-GRAZED
*	0.320	98	WATER SURFACE
*	3.636	80	75% GRASS COVER, GOOD
*	1.957	84	50-75% GRASS COVER, FAIR
*	1.104	89	<50% GRASS COVER, POOR
*	0.375	95	URBAN COMMERCIAL, 85% IMP
*	2.017	79	WOODS/GRASS COMB., GOOD
*	0.337	84	50-75% GRASS COVER, FAIR
*	1.756	79	WOODS/GRASS COMB., GOOD
*	0.470	79	WOODS/GRASS COMB., GOOD
*	8.306	78	MEADOW, NON-GRAZED
*	0.274	98	WATER SURFACE, 0% IMP
	29.167	80	Weighted Average
	28.573		97.96% Pervious Area
	0.594		2.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.2	100	0.0175	0.06		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
7.6	186	0.0067	0.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
8.3	368	0.0217	0.74		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
31.5	708	0.0056	0.37		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.1	576	0.0069	0.42		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	452	0.0055	0.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
77.9	810	0.0012	0.17		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
190.1	3,200	Total			

Subcatchment DA3: EXISTING DA STR 17-20



Summary for Subcatchment DA4: EXISTING DA STR 21-23

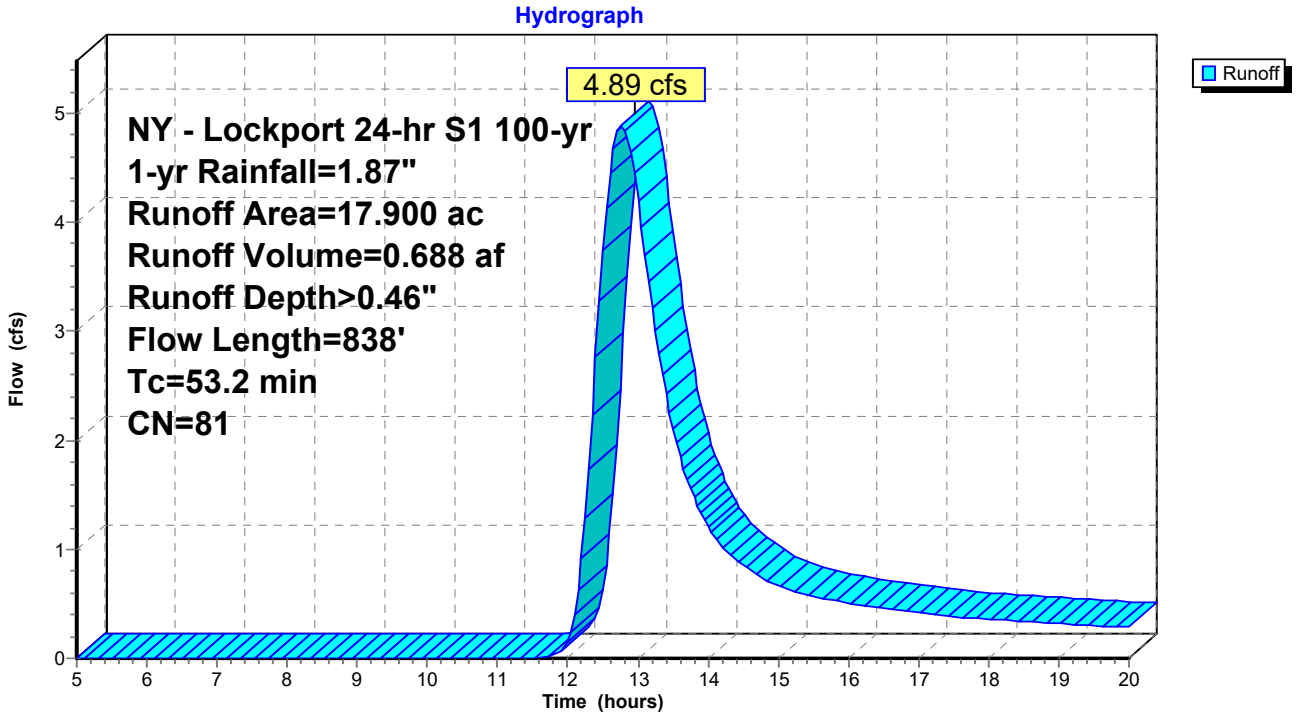
Runoff = 4.89 cfs @ 12.77 hrs, Volume= 0.688 af, Depth> 0.46"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.062	80	80-D-75% GRASS COVER, GOOD
*	0.720	84	84-D-50-75% GRASS COVER, FAIR
*	0.884	78	78-D-MEADOW, NON-GRAZED
*	4.286	80	80-D-75% GRASS COVER, GOOD
*	3.922	84	84-D-50-75% GRASS COVER, FAIR
*	0.139	89	89-D-<50% GRASS COVER, POOR
*	1.645	85	85-D-HERBACEOUS RANGE, GOOD
*	5.404	78	78-D-MEADOW, NON-GRAZED
*	0.188	80	80-D-75% GRASS COVER, GOOD
*	0.143	84	84-D-50-75% GRASS COVER, FAIR
*	0.507	78	78-D-MEADOW, NON-GRAZED
	17.900	81	Weighted Average
	17.900		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0125	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.22"
23.5	419	0.0018	0.30		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
15.5	319	0.0024	0.34		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
53.2	838	Total			

Subcatchment DA4: EXISTING DA STR 21-23



Summary for Subcatchment DA5: EXISTING DA STR 25-29

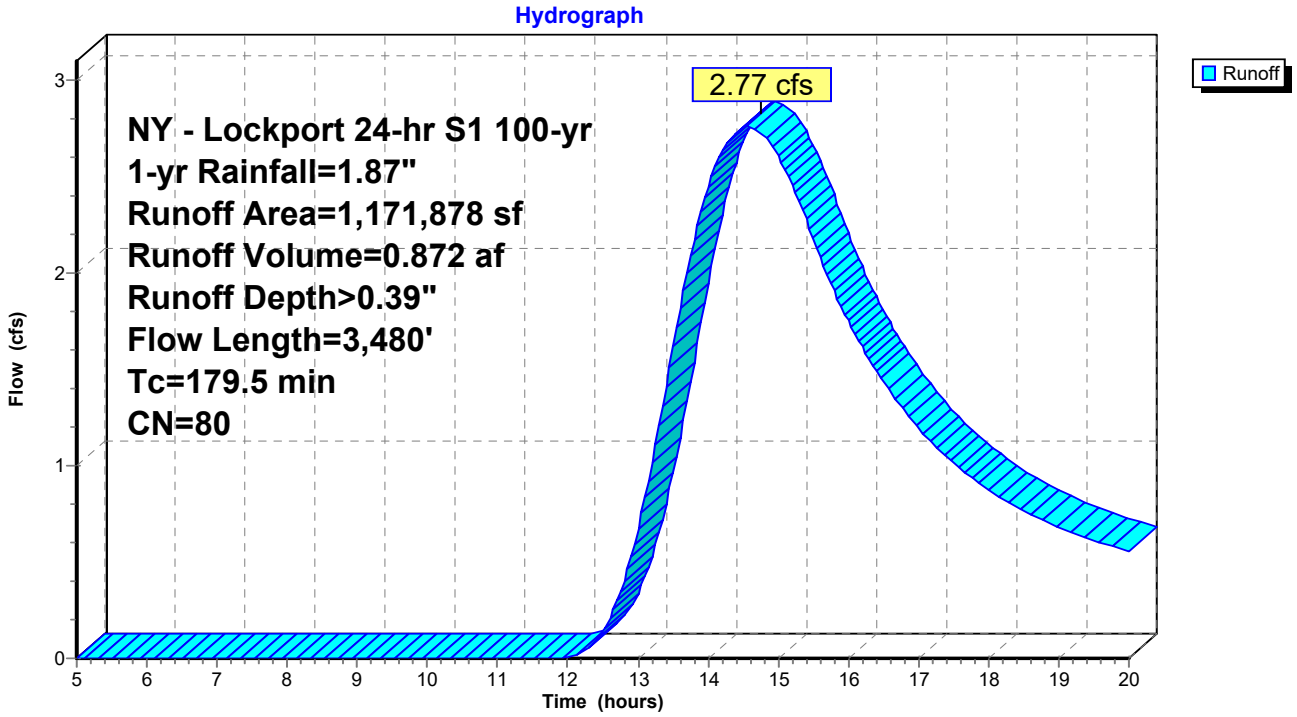
Runoff = 2.77 cfs @ 14.56 hrs, Volume= 0.872 af, Depth> 0.39"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (sf)	CN	Description
*	17,032	80	80-D-75% GRASS COVER, GOOD
*	200,420	79	WOODS/GRASS COMB., GOOD
*	62,160	79	WOODS/GRASS COMB., GOOD
*	95,658	78	MEADOW, NON-GRAZED
*	13,939	98	WATER SURFACE
*	158,384	80	75% GRASS COVER, GOOD
*	85,247	84	50-75% GRASS COVER, FAIR
*	48,090	89	<50% GRASS COVER, POOR
*	16,335	95	URBAN COMMERCIAL, 85% IMP
*	87,844	79	WOODS/GRASS COMB., GOOD
*	14,680	84	50-75% GRASS COVER, FAIR
*	152,329	79	WOODS/GRASS COMB., GOOD
*	20,473	79	WOODS/GRASS COMB., GOOD
*	187,352	78	MEADOW, NON-GRAZED
*	11,935	98	WATER SURFACE, 0% IMP
	1,171,878	80	Weighted Average
	1,146,004		97.79% Pervious Area
	25,874		2.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.8	100	0.0200	0.06		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
28.8	377	0.0019	0.22		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
12.9	548	0.0200	0.71		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
17.4	739	0.0200	0.71		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
10.5	489	0.0240	0.77		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
8.0	420	0.0156	0.87		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.1	429	0.0120	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
63.0	378	0.0004	0.10		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
179.5	3,480	Total			

Subcatchment DA5: EXISTING DA STR 25-29



Summary for Subcatchment DA6: EXISTING DA STR 29-35

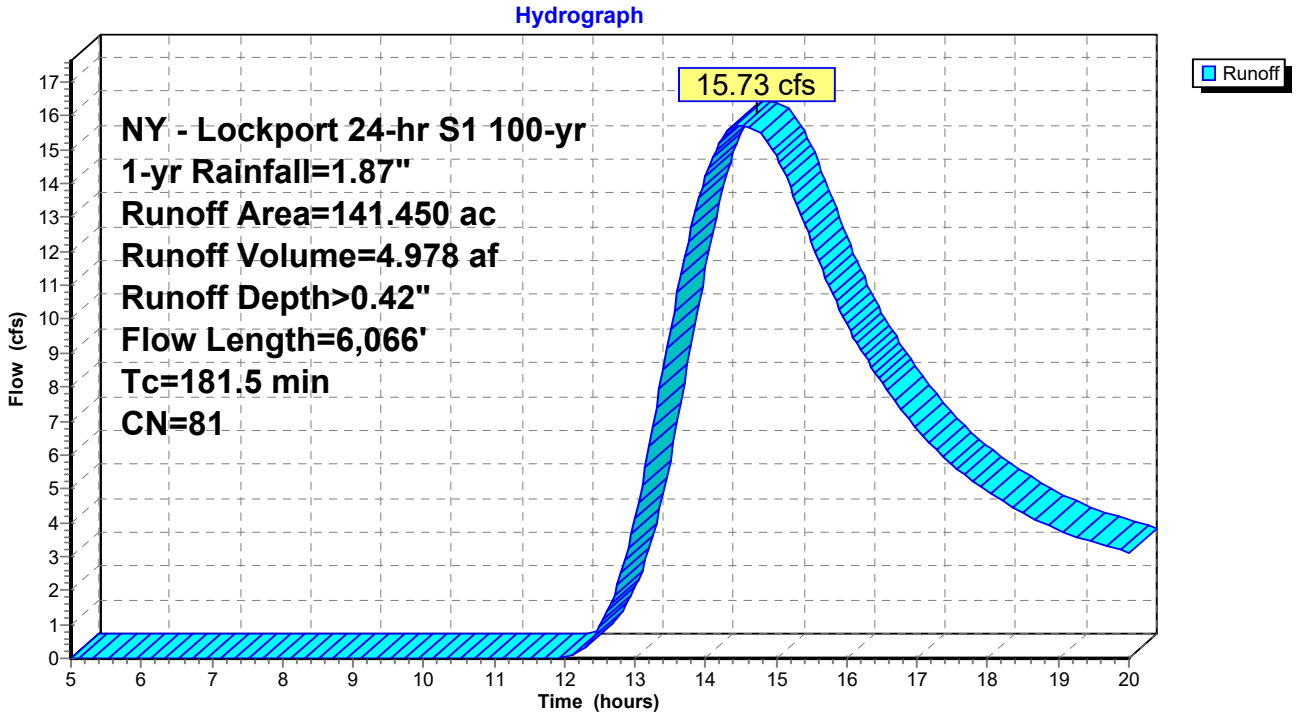
Runoff = 15.73 cfs @ 14.52 hrs, Volume= 4.978 af, Depth> 0.42"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.152	98	D - 98 - Open Water
*	0.074	80	D - 80 - Developed open space
*	0.307	80	D - 80 - Developed open space
*	2.363	80	D - 80 - Developed open space
*	1.992	82	D - 82 - Developed Low intensity
*	1.726	82	D - 82 - Developed Low intensity
*	2.185	85	D - 85 - Developed Med intensity
*	0.875	77	D - 77 - Deciduous Forest
*	18.239	77	D - 77 - Deciduous Forest
*	13.242	77	D - 77 - Deciduous Forest
*	0.038	77	D - 77 - Evergreen Forest
*	0.919	77	D - 77 - Evergreen Forest
*	0.021	77	D - 77 - Evergreen Forest
*	0.508	77	D - 77 - Mixed Forest
*	0.889	77	D - 77 - Mixed Forest
*	0.160	77	D - 77 - Mixed Forest
*	4.266	78	D - 78 - Meadowed, grass, non-grazed land
*	29.357	78	D - 78 - Meadowed, grass, non-grazed land
*	22.896	78	D - 78 - Meadowed, grass, non-grazed land
*	0.112	78	D - 78 - Meadowed, grass, non-grazed land
*	5.915	78	D - 78 - Meadowed, grass, non-grazed land
*	5.016	90	D - 90 - Woody Wetlands
*	30.198	90	D - 90 - Woody Wetlands
	141.450	81	Weighted Average
	141.298		99.89% Pervious Area
	0.152		0.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.7	100	0.0275	0.07		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
31.2	1,144	0.0149	0.61		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.6	670	0.0026	0.76		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
12.9	328	0.0008	0.42		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
100.1	3,824	0.0018	0.64		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
181.5	6,066	Total			

Subcatchment DA6: EXISTING DA STR 29-35



Summary for Subcatchment DA7: EXISTING DA STR 37-40

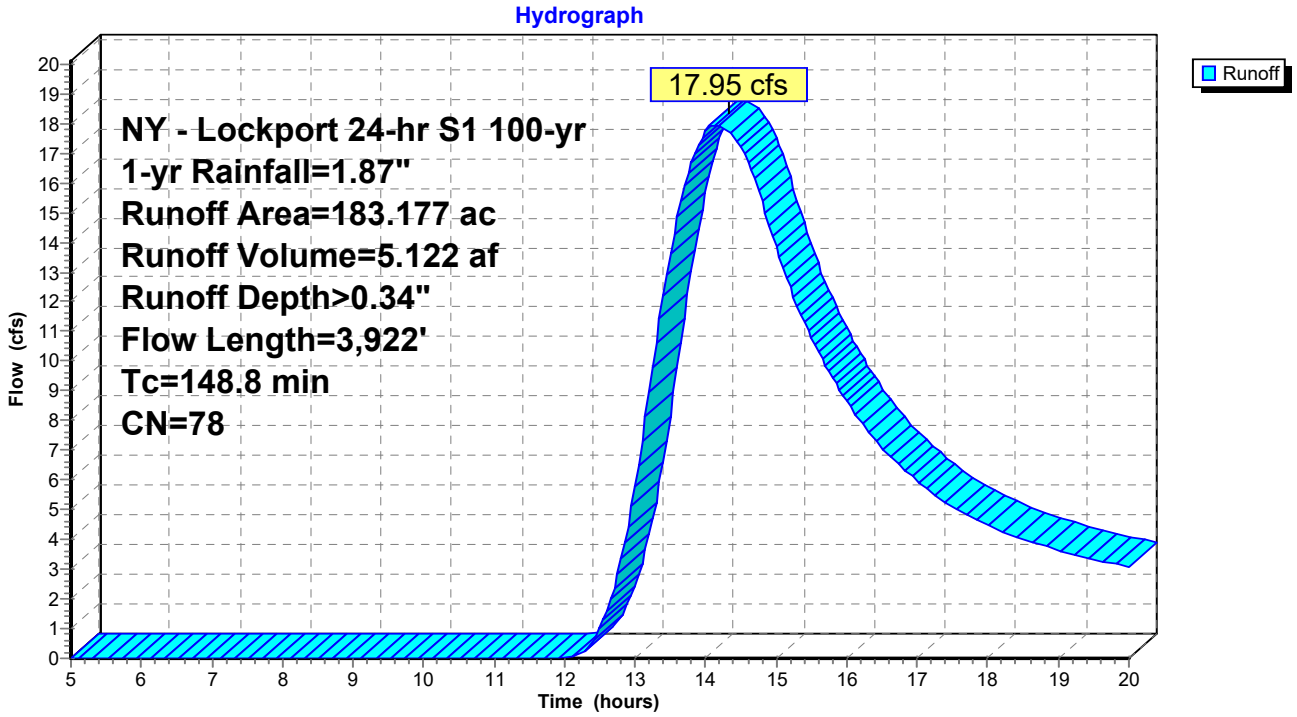
Runoff = 17.95 cfs @ 14.12 hrs, Volume= 5.122 af, Depth> 0.34"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	2.507	80	D - 80 - Developed open space
*	3.318	80	D - 80 - Developed open space
*	2.790	80	D - 80 - Developed open space
*	2.870	82	D - 82 - Developed Low intensity
*	4.979	82	D - 82 - Developed Low intensity
*	4.781	82	D - 82 - Developed Low intensity
*	0.152	85	D - 85 - Developed Med intensity
*	1.263	77	D - 77 - Deciduous Forest
*	3.431	77	D - 77 - Deciduous Forest
*	3.544	77	D - 77 - Deciduous Forest
*	14.732	78	D - 78 - Meadowed, grass, non-grazed land
*	59.055	78	D - 78 - Meadowed, grass, non-grazed land
*	79.755	78	D - 78 - Meadowed, grass, non-grazed land
	183.177	78	Weighted Average
	183.177		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.6	100	0.0350	0.08		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
48.7	1,573	0.0116	0.54		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
62.0	1,276	0.0047	0.34		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
17.5	973	0.0038	0.92		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
148.8	3,922	Total			

Subcatchment DA7: EXISTING DA STR 37-40



Summary for Subcatchment DA8: EXISTING DA STR 41

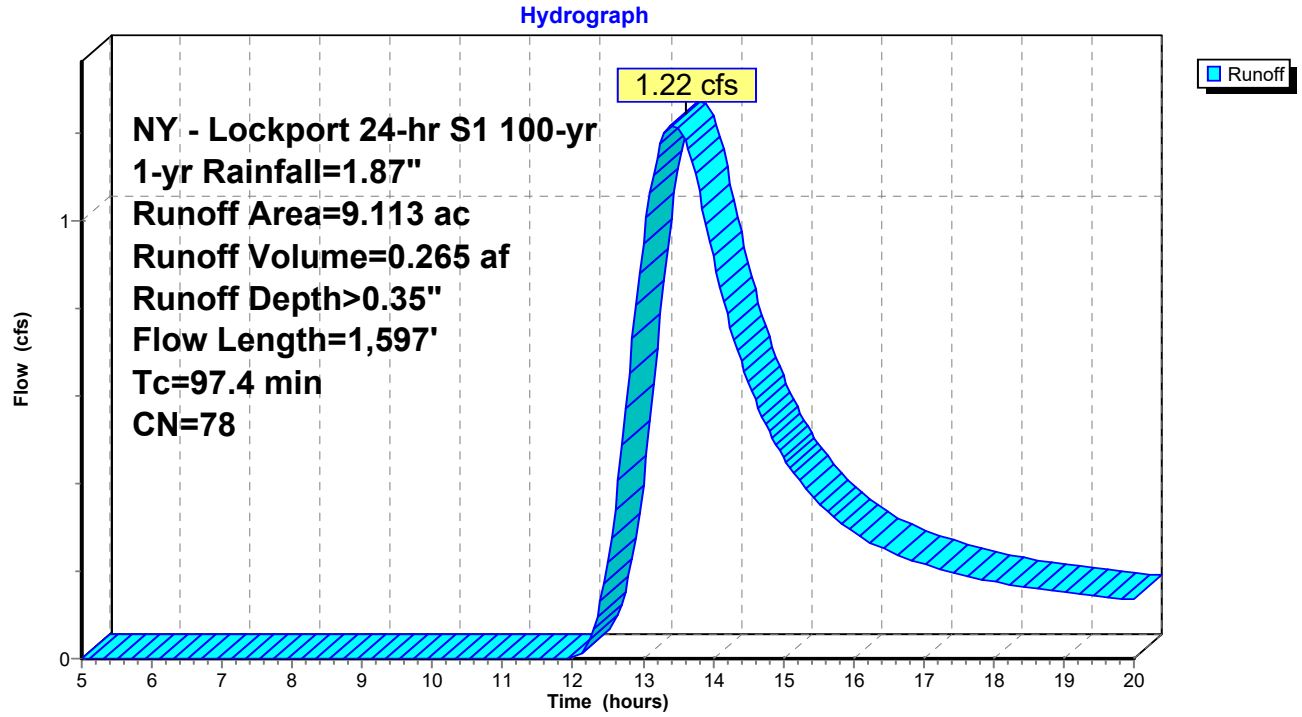
Runoff = 1.22 cfs @ 13.42 hrs, Volume= 0.265 af, Depth> 0.35"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	3.755	77	D - 77 - Deciduous Forest
*	5.358	78	D - 78 - Meadowed, grass, non-grazed land
	9.113	78	Weighted Average
	9.113		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.0	100	0.0100	0.05		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
63.4	1,497	0.0062	0.39		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.4	1,597	Total			

Subcatchment DA8: EXISTING DA STR 41



Summary for Subcatchment DA9: EXISTING DA STR 48-50

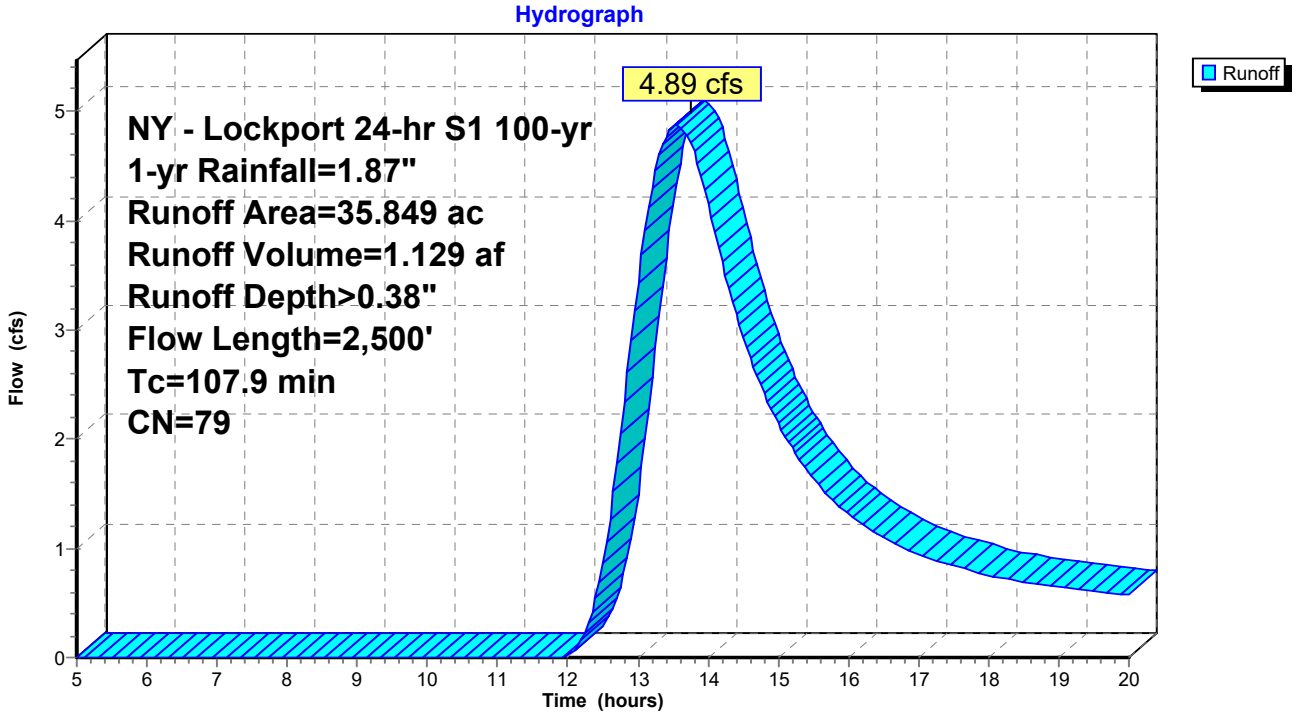
Runoff = 4.89 cfs @ 13.55 hrs, Volume= 1.129 af, Depth> 0.38"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	2.300	80	D-75% GRASS COVER, GOOD
*	0.850	84	D-50-75% GRASS COVER, FAIR
*	0.080	89	D-<50% GRASS COVER, POOR
*	0.800	79	D-WOODS/GRASS COMB., GOOD
*	6.410	78	D-MEADOW, NON-GRAZED
*	0.060	98	D-WATER SURFACE, 0% IMP
*	1.214	80	D-75% GRASS COVER, GOOD
*	0.214	84	D-50-75% GRASS COVER, FAIR
*	0.060	89	D-<50% GRASS COVER, POOR
*	4.411	79	D-WOODS/GRASS COMB., GOOD
*	18.040	78	D-MEADOW, NON-GRAZED
*	1.050	98	D-WATER SURFACE, 0% IMP
*	0.150	80	D-75% GRASS COVER, GOOD
*	0.210	78	D-MEADOW, NON-GRAZED
	35.849	79	Weighted Average
	34.739		96.90% Pervious Area
	1.110		3.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	100	0.0300	1.21		**Shallow Concentrated Flow, 100'** Short Grass Pasture Kv= 7.0 fps
31.2	262	0.0120	0.14		**Sheet Flow, 262.19** Grass: Short n= 0.150 P2= 2.22"
4.5	254	0.0180	0.94		**Shallow Concentrated Flow, 254'** Short Grass Pasture Kv= 7.0 fps
2.9	129	0.0110	0.73		**Shallow Concentrated Flow, 128.66** Short Grass Pasture Kv= 7.0 fps
4.4	196	0.0110	0.73		**Shallow Concentrated Flow, 196** Short Grass Pasture Kv= 7.0 fps
6.9	260	0.0080	0.63		**Shallow Concentrated Flow, 260** Short Grass Pasture Kv= 7.0 fps
5.5	219	0.0090	0.66		**Shallow Concentrated Flow, 219** Short Grass Pasture Kv= 7.0 fps
12.4	285	0.0030	0.38		**Shallow Concentrated Flow, 285** Short Grass Pasture Kv= 7.0 fps
6.1	230	0.0080	0.63		**Shallow Concentrated Flow, 230** Short Grass Pasture Kv= 7.0 fps
10.0	265	0.0040	0.44		**Shallow Concentrated Flow, 265** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
107.9	2,500	Total			

Subcatchment DA9: EXISTING DA STR 48-50



Summary for Subcatchment PDA1: PROPOSED DA STR 9-10

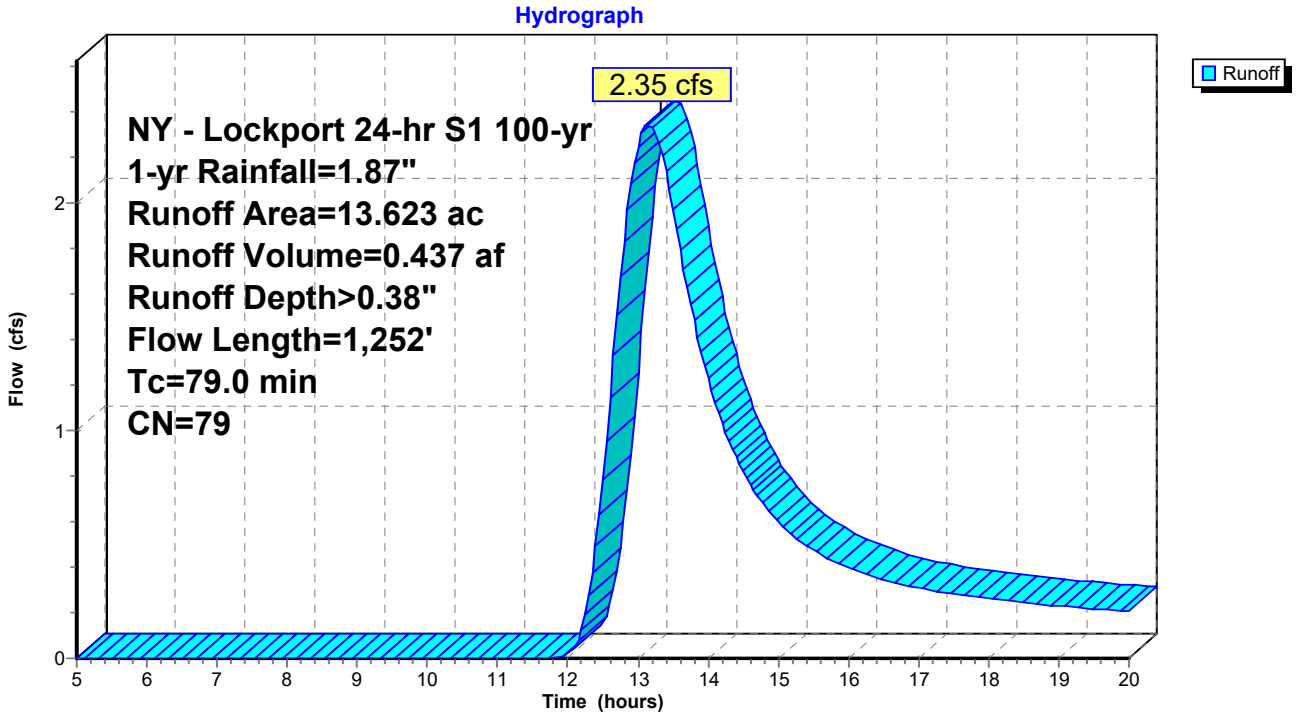
Runoff = 2.35 cfs @ 13.14 hrs, Volume= 0.437 af, Depth> 0.38"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.134	39	39 - A - 75% GRASS COVER, GOOD
*	0.938	49	49 - A - 50-75% GRASS COVER, FAIR
*	0.065	68	68 - A - <50% GRASS COVER, POOR
*	0.064	32	32 - A - FALLOW, BARE SOIL
*	0.064	30	30 - A - MEADOW, NON-GRAZED
*	0.293	80	80 - D - 75% GRASS COVER, GOOD
*	1.950	84	84 - D - 50-75% GRASS COVER, FAIR
*	0.320	89	89 - D - <50% GRASS COVER, POOR
*	0.105	79	79 - D - WOODS/GRASS COMB., GOOD
*	0.497	78	78 - D - MEADOW, NON-GRAZED
*	1.157	80	80 - D - 75% GRASS COVER, GOOD
*	4.870	84	84 - D - 50-75% GRASS COVER, FAIR
*	0.499	89	89 - D - <50% GRASS COVER, POOR
*	2.167	78	78 - D - MEADOW, NON-GRAZED
	0.500	91	Gravel roads, HSG D
	13.623	79	Weighted Average
	13.623		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	100	0.0175	0.13		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.22"
40.8	420	0.0006	0.17		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	45	0.0056	1.52		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
14.3	300	0.0025	0.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.7	200	0.0050	0.49		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.3	187	0.0107	0.72		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
79.0	1,252	Total			

Subcatchment PDA1: PROPOSED DA STR 9-10



Summary for Subcatchment PDA10: EXISTING DA STR 78-83

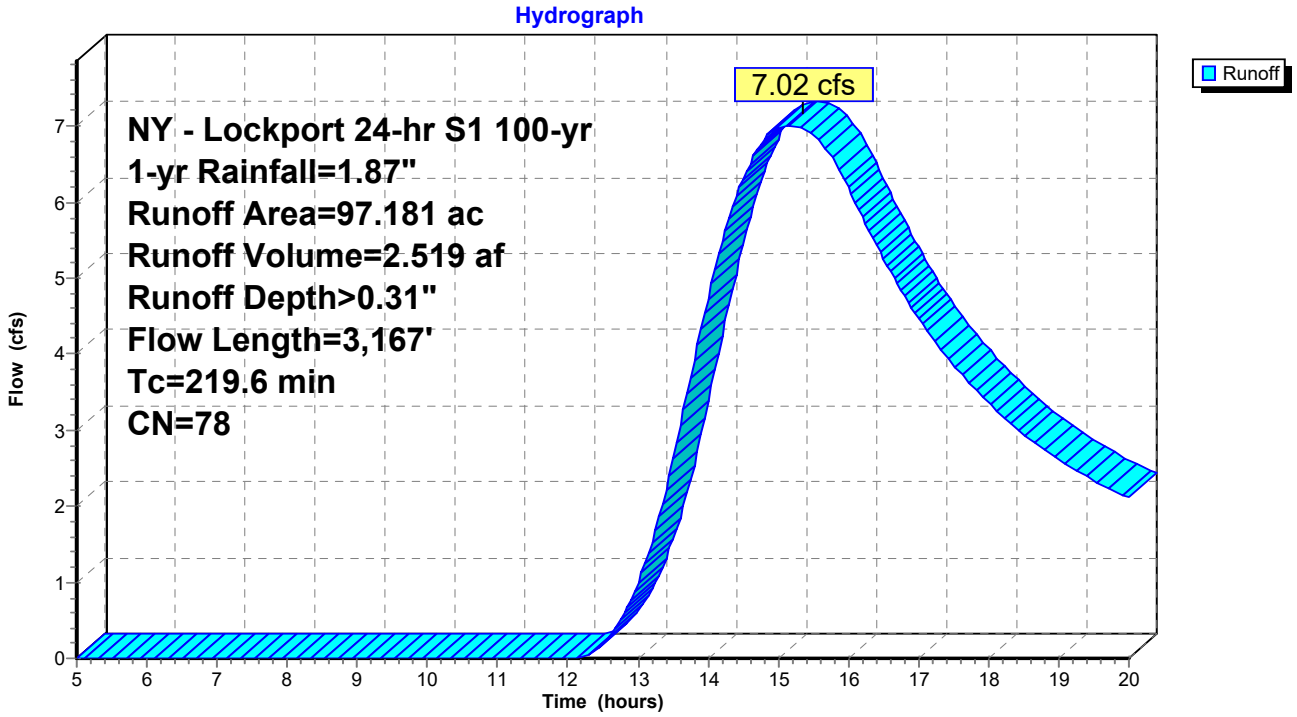
Runoff = 7.02 cfs @ 15.15 hrs, Volume= 2.519 af, Depth> 0.31"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.446	82	B-MEADOW, NON-GRAZED
*	0.142	43	D-WOODS/GRASS COMB., GOOD
*	13.840	81	D-MEADOW, NON-GRAZED
*	8.160	82	D-MEADOW, NON-GRAZED
*	1.781	21	D-75% GRASS COVER, GOOD
*	3.035	22	D-50-75% GRASS COVER, FAIR
*	24.158	81	D-MEADOW, NON-GRAZED
*	5.711	82	D-MEADOW, NON-GRAZED
*	0.003	21	D-75% GRASS COVER, GOOD
*	0.428	22	D-50-75% GRASS COVER, FAIR
*	18.333	81	D-MEADOW, NON-GRAZED
*	19.570	82	D-MEADOW, NON-GRAZED
*	0.340	98	D-PAVED ASPHALT DRIVEWAY
*	0.043	90	D-WATER SURFACE, 0% IMP
	1.064	91	Gravel roads, HSG D
	0.127	91	Gravel roads, HSG D
	97.181	78	Weighted Average
	96.841		99.65% Pervious Area
	0.340		0.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	100	0.0610	0.22		**Sheet Flow, 100**
					Grass: Short n= 0.150 P2= 2.22"
3.0	144	0.0130	0.80		**Shallow Concentrated Flow, 144**
					Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300**
					Short Grass Pasture Kv= 7.0 fps
9.2	300	0.0060	0.54		**Shallow Concentrated Flow, 300**
					Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300**
					Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300**
					Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300**
					Short Grass Pasture Kv= 7.0 fps
12.2	162	0.0010	0.22		**Shallow Concentrated Flow, 162**
					Short Grass Pasture Kv= 7.0 fps
10.1	300	0.0050	0.49		**Shallow Concentrated Flow, 300**
					Short Grass Pasture Kv= 7.0 fps
8.3	290	0.0070	0.59		**Shallow Concentrated Flow, 290**
					Short Grass Pasture Kv= 7.0 fps
0.6	50	0.0400	1.40		**Shallow Concentrated Flow, 50**
					Short Grass Pasture Kv= 7.0 fps
4.4	242	0.0170	0.91		**Shallow Concentrated Flow, 242**
					Short Grass Pasture Kv= 7.0 fps
6.3	300	0.0130	0.80		**Shallow Concentrated Flow, 300**
					Short Grass Pasture Kv= 7.0 fps
18.8	79	0.0001	0.07		**Shallow Concentrated Flow, 79**
					Short Grass Pasture Kv= 7.0 fps
219.6	3,167	Total			

Subcatchment PDA10: EXISTING DA STR 78-83



Summary for Subcatchment PDA11: PROPOSED DA STR 84-86

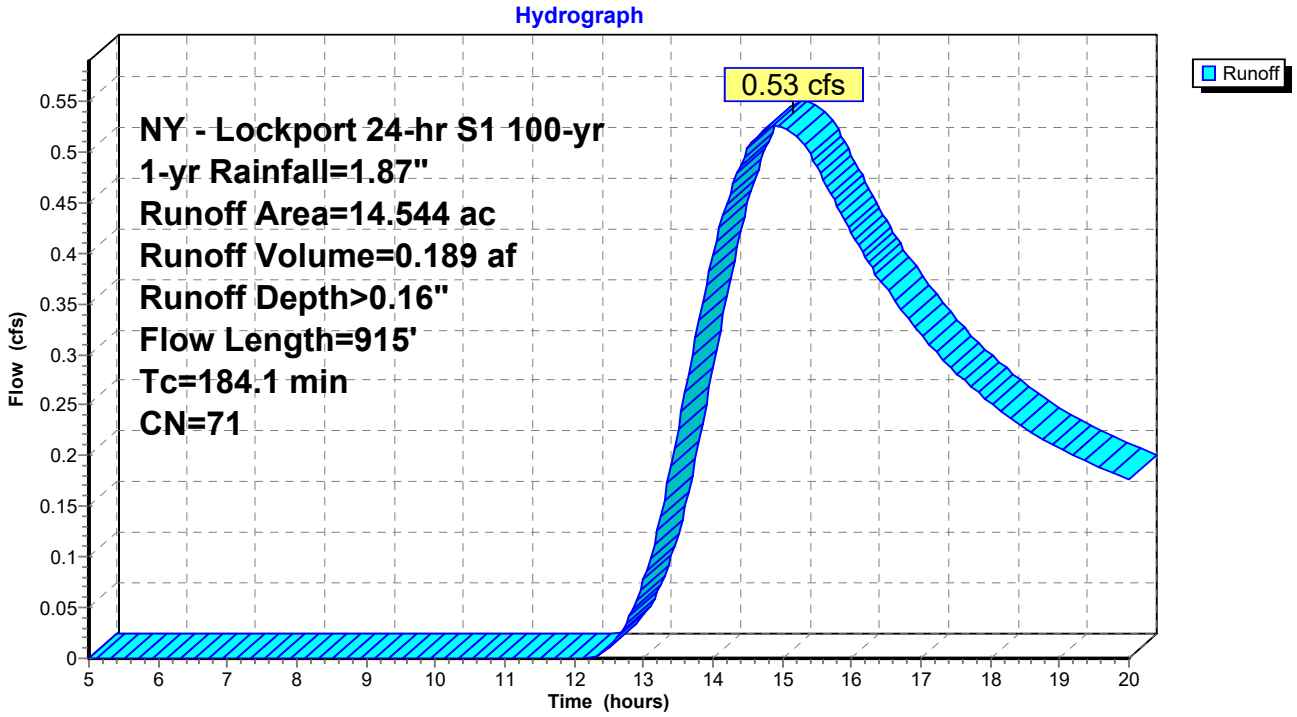
Runoff = 0.53 cfs @ 14.94 hrs, Volume= 0.189 af, Depth> 0.16"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.033	58	B-MEADOW, NON-GRAZED
*	3.140	58	B-MEADOW, NON-GRAZED
*	0.039	80	D-75% GRASS COVER, GOOD
*	0.117	84	D-50-75% GRASS COVER, FAIR
*	1.962	78	D-MEADOW, NON-GRAZED
*	2.017	78	D-MEADOW, NON-GRAZED
*	0.145	71	D-MEADOW, NON-GRAZED
*	5.505	71	D-MEADOW, NON-GRAZED
*	0.304	78	D-MEADOW, NONGRAZED
*	0.030	78	D-MEADOW, NON-GRAZED
*	0.724	78	D-MEADOW, NON-GRAZED
	0.528	91	Gravel roads, HSG D
	14.544	71	Weighted Average
	14.544		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
97.9	100	0.0001	0.02		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
3.6	164	0.0120	0.77		**Shallow Concentrated Flow, 164** Short Grass Pasture Kv= 7.0 fps
8.5	300	0.0070	0.59		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
2.7	51	0.0020	0.31		**Shallow Concentrated Flow, 51** Short Grass Pasture Kv= 7.0 fps
184.1	915	Total			

Subcatchment PDA11: PROPOSED DA STR 84-86



Summary for Subcatchment PDA12: PROPOSED DA STR 90-96

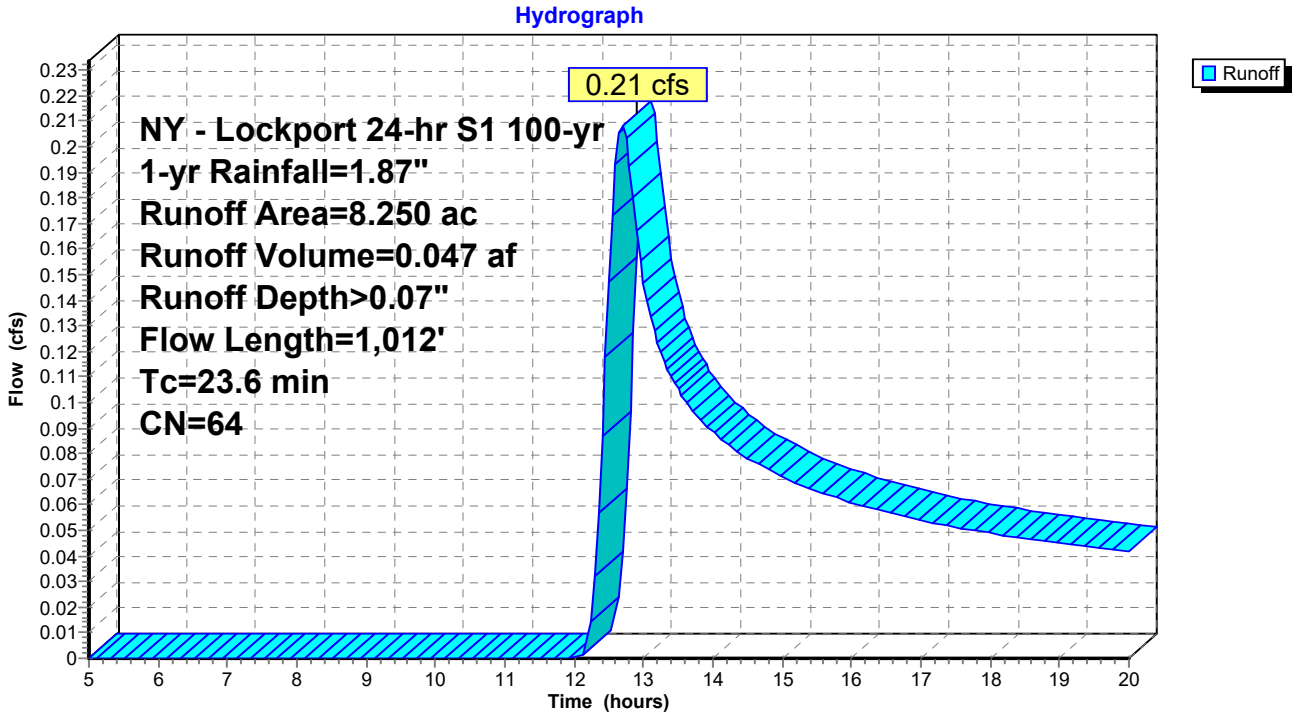
Runoff = 0.21 cfs @ 12.69 hrs, Volume= 0.047 af, Depth> 0.07"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	2.470	30	A-MEADOW, NON-GRAZED
*	5.354	78	D-MEADOW, NON-GRAZED
	0.426	91	Gravel roads, HSG D
	8.250	64	Weighted Average
	8.250		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0390	0.19		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
1.5	130	0.0420	1.43		**Shallow Concentrated Flow, 130** Short Grass Pasture Kv= 7.0 fps
1.7	180	0.0640	1.77		**Shallow Concentrated Flow, 180** Short Grass Pasture Kv= 7.0 fps
2.5	237	0.0520	1.60		**Shallow Concentrated Flow, 237** Short Grass Pasture Kv= 7.0 fps
1.3	80	0.0230	1.06		**Shallow Concentrated Flow, 80** Short Grass Pasture Kv= 7.0 fps
5.0	132	0.0040	0.44		**Shallow Concentrated Flow, 132** Short Grass Pasture Kv= 7.0 fps
2.6	153	0.0200	0.99		**Shallow Concentrated Flow, 153** Short Grass Pasture Kv= 7.0 fps
23.6	1,012	Total			

Subcatchment PDA12: PROPOSED DA STR 90-96



Summary for Subcatchment PDA13: PROPOSED DA STR 97-103

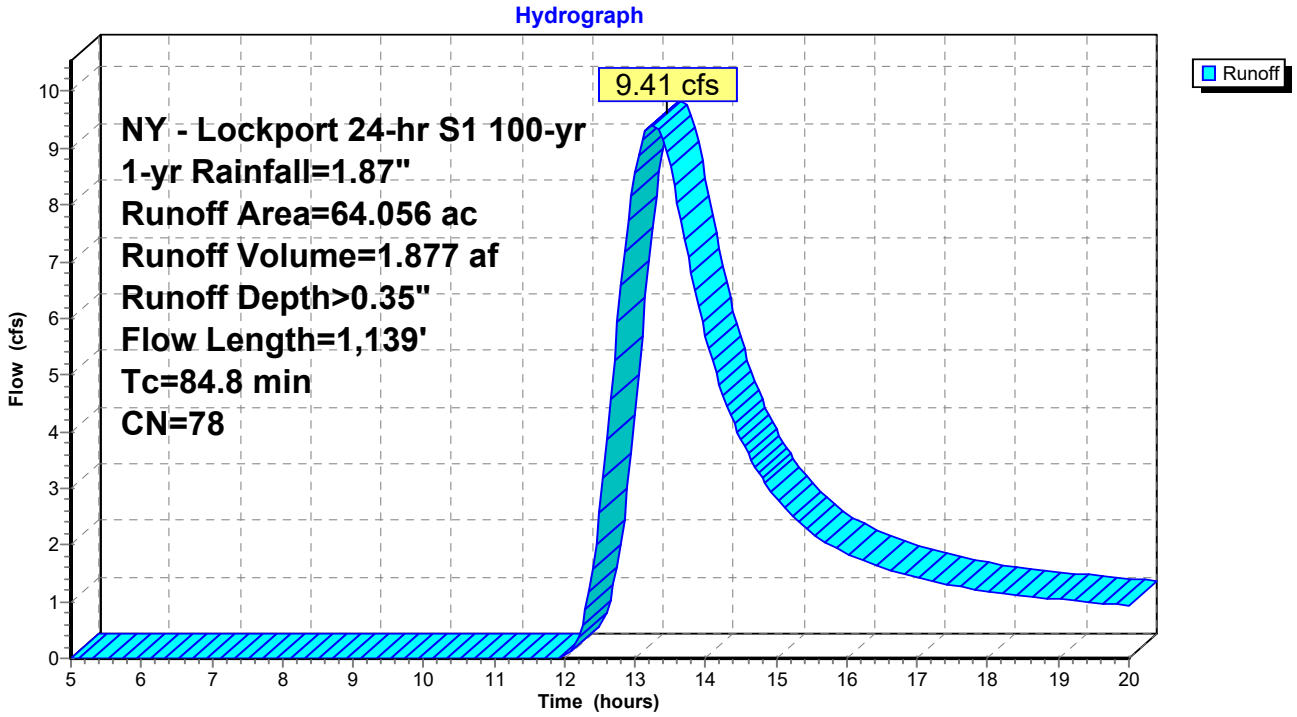
Runoff = 9.41 cfs @ 13.26 hrs, Volume= 1.877 af, Depth> 0.35"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.113	49	A-50-75% GRASS COVER, FAIR
*	0.131	30	A-MEADOW, NON-GRAZED
*	12.491	78	D-MEADOW, NON-GRAZED
*	0.855	80	D-75% GRASS COVER, GOOD
*	0.366	84	D-50-75% GRASS COVER, FAIR
*	0.263	79	D-WOODS/GRASS COMB., GOOD
*	48.359	78	D-MEADOW, NON-GRAZED
*	0.418	98	D-WATER SURFACE, 0% IMP
	1.060	91	Gravel roads, HSG D
	64.056	78	Weighted Average
	63.638		99.35% Pervious Area
	0.418		0.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.1	100	0.0030	0.07		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
11.2	258	0.0030	0.38		**Shallow Concentrated Flow, 258** Short Grass Pasture Kv= 7.0 fps
31.4	132	0.0001	0.07		**Shallow Concentrated Flow, 132** Short Grass Pasture Kv= 7.0 fps
4.0	176	0.0110	0.73		**Shallow Concentrated Flow, 176** Short Grass Pasture Kv= 7.0 fps
7.7	270	0.0070	0.59		**Shallow Concentrated Flow, 270** Short Grass Pasture Kv= 7.0 fps
5.4	203	0.0080	0.63		**Shallow Concentrated Flow, 203** Short Grass Pasture Kv= 7.0 fps
84.8	1,139	Total			

Subcatchment PDA13: PROPOSED DA STR 97-103



Summary for Subcatchment PDA14: PROPOSED DA STR 104-106

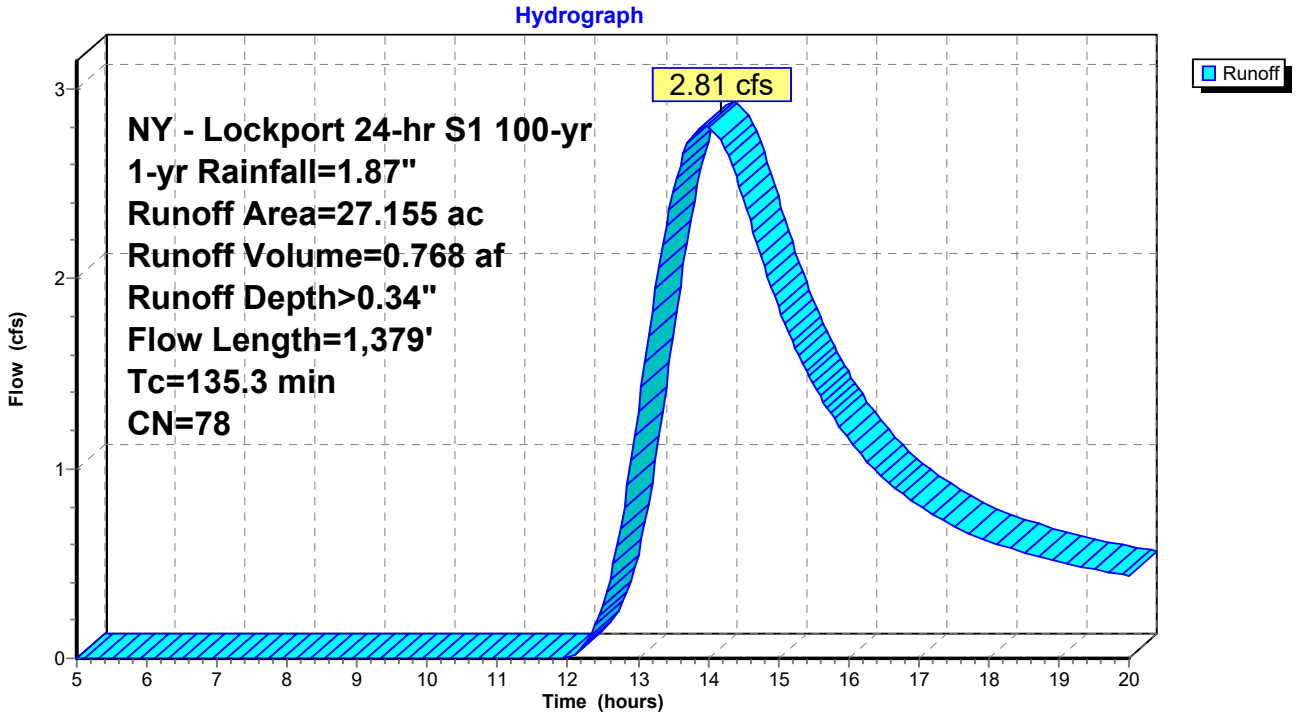
Runoff = 2.81 cfs @ 13.98 hrs, Volume= 0.768 af, Depth> 0.34"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.471	61	B-75% GRASS COVER, GOOD
*	1.291	80	D-75% GRASS OCVER, GOOD
*	0.601	84	D-50-75% GRASS COVER, FAIR
*	1.189	79	D-WOODS/GRASS COMB., GOOD
*	2.124	78	D-MEADOW, NON-GRAZED
*	0.606	80	D-75% GRASS COVER, GOOD
*	0.552	79	D-WOODS/GRASS COMB., GOOD
*	10.418	78	D-MEADOW, NON-GRAZED
*	0.104	98	D-WATER SURFACE, 0% IMP
*	0.137	98	D-WATER SURFACE, 0% IMP
*	0.893	80	D-75% GRASS OCVER, GOOD
*	0.115	80	D-50-75% GRASS COVER, FAIR
*	8.267	78	D-MEADOW, NON-GRAZED
	0.387	91	Gravel roads, HSG D
	27.155	78	Weighted Average
	26.914		99.11% Pervious Area
	0.241		0.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.0330	0.17		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
0.9	53	0.0220	1.04		**Shallow Concentrated Flow, 53** Short Grass Pasture Kv= 7.0 fps
2.3	140	0.0210	1.01		**Shallow Concentrated Flow, 140** Short Grass Pasture Kv= 7.0 fps
2.2	140	0.0220	1.04		**Shallow Concentrated Flow, 140** Short Grass Pasture Kv= 7.0 fps
5.8	230	0.0090	0.66		**Shallow Concentrated Flow, 230** Short Grass Pasture Kv= 7.0 fps
7.6	267	0.0070	0.59		**Shallow Concentrated Flow, 267** Short Grass Pasture Kv= 7.0 fps
43.8	184	0.0001	0.07		**Shallow Concentrated Flow, 184** Short Grass Pasture Kv= 7.0 fps
63.1	265	0.0001	0.07		**Shallow Concentrated Flow, 265** Short Grass Pasture Kv= 7.0 fps
135.3	1,379	Total			

Subcatchment PDA14: PROPOSED DA STR 104-106



Summary for Subcatchment PDA15: PROPOSED DA STR 106-109

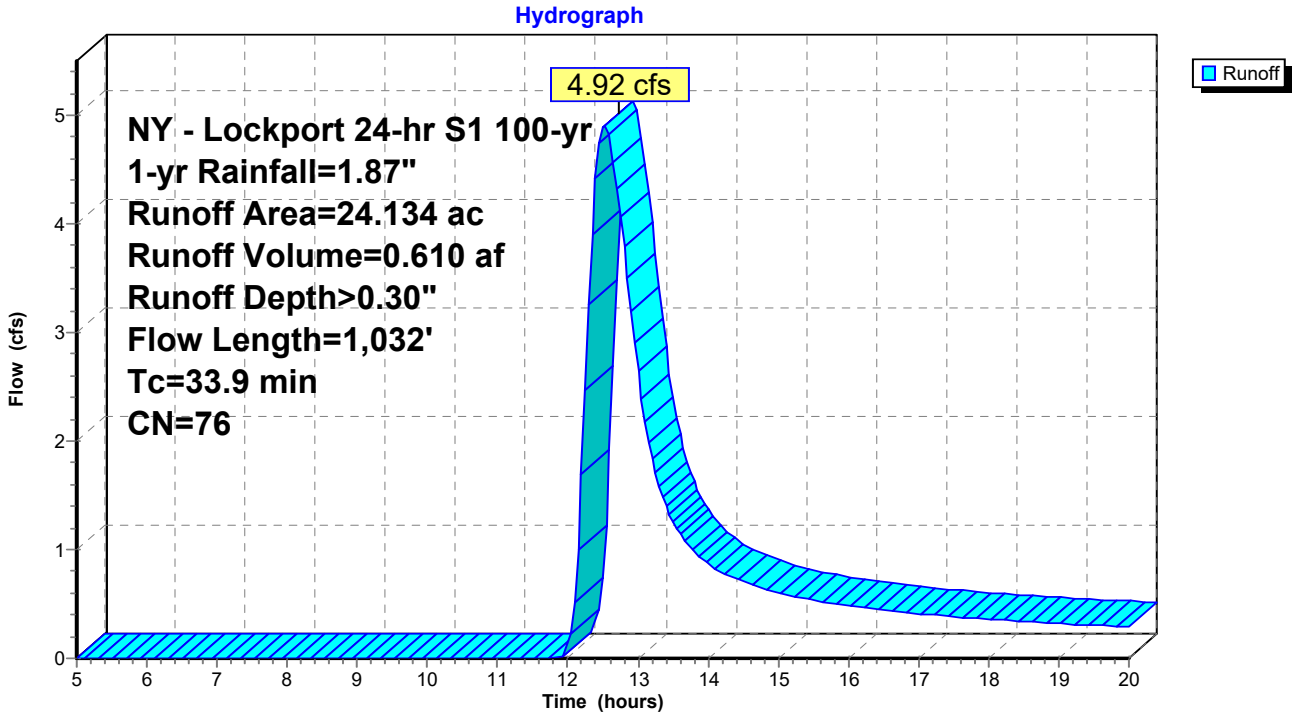
Runoff = 4.92 cfs @ 12.53 hrs, Volume= 0.610 af, Depth> 0.30"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.972	61	B-75% GRASS COVER, GOOD
*	1.615	69	B-50-75% GRASS COVER, FAIR
*	2.680	58	B-MEADOW, NON-GRAZED
*	0.028	80	D-75% GRASS COVER, GOOD
*	2.330	78	D-MEADOW, NON-GRAZED
*	0.585	80	D-75% GRASS COVER, GOOD
*	0.724	84	D-50-75% GRASS COVER, FAIR
*	0.465	79	D-WOODS/GRASS COMB., GOOD
*	13.310	78	D-MEADOW, NON-GRAZED
*	0.880	98	D-WATER SURFACE, 0% IMP
*	0.085	98	D-WATER SURFACE, 0% IMP
	0.460	91	Gravel roads, HSG D
	24.134	76	Weighted Average
	23.169		96.00% Pervious Area
	0.965		4.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.4	100	0.0120	0.12		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
2.1	148	0.0270	1.15		**Shallow Concentrated Flow, 148** Short Grass Pasture Kv= 7.0 fps
3.4	204	0.0200	0.99		**Shallow Concentrated Flow, 204** Short Grass Pasture Kv= 7.0 fps
6.0	300	0.0140	0.83		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
8.0	280	0.0070	0.59		**Shallow Concentrated Flow, 280** Short Grass Pasture Kv= 7.0 fps
33.9	1,032	Total			

Subcatchment PDA15: PROPOSED DA STR 106-109



Summary for Subcatchment PDA16: PROPOSED DA STR 110-117

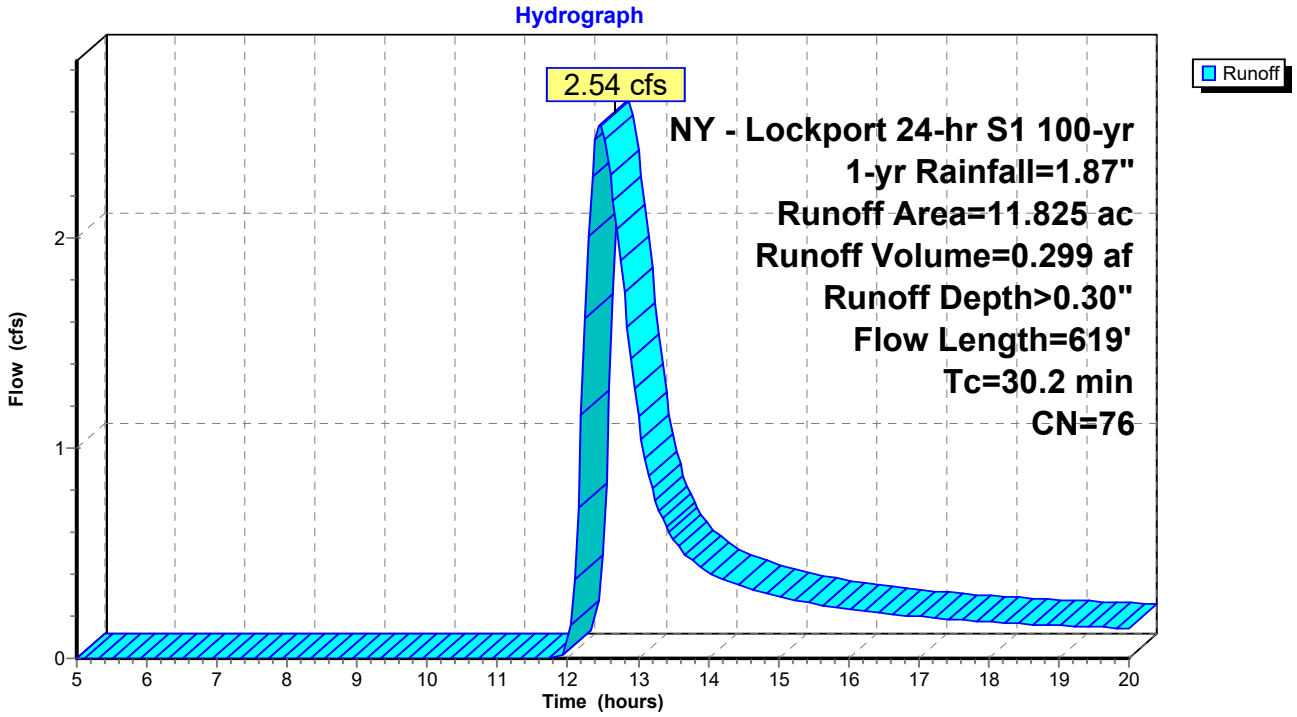
Runoff = 2.54 cfs @ 12.46 hrs, Volume= 0.299 af, Depth> 0.30"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.423	61	B-75%GRASS COVER, GOOD
*	0.460	69	B-50-75% GRASS COVER, FAIR
*	2.069	58	D-MEADOW, NON-GRAZED
*	0.045	78	D-MEADOW, NON-GRAZED
*	0.049	98	D-MEADOW, NON-GRAZED
*	0.487	80	D-75% GRASS COVER, GOOD
*	0.960	84	D-50-75% GRASS COVER, FAIR
*	0.293	79	D-WOODS/GRASS COMB., GOOD
*	5.704	78	D-MEADOW, NON-GRAZED
*	0.855	98	D-MEADOW, NON-GRAZED
*	0.048	79	D-WOODS/GRASS COMB., GOOD
*	0.009	78	D-MEADOW, NON-GRAZED
*	0.056	98	D-MEADOW, NON-GRAZED
	0.367	91	Gravel roads, HSG D
	11.825	76	Weighted Average
	10.865		91.88% Pervious Area
	0.960		8.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.9	100	0.0070	0.09		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
3.4	222	0.0240	1.08		**Shallow Concentrated Flow, 222** Short Grass Pasture Kv= 7.0 fps
4.1	154	0.0080	0.63		**Shallow Concentrated Flow, 154** Short Grass Pasture Kv= 7.0 fps
4.8	143	0.0050	0.49		**Shallow Concentrated Flow, 143** Short Grass Pasture Kv= 7.0 fps
30.2	619	Total			

Subcatchment PDA16: PROPOSED DA STR 110-117



Summary for Subcatchment PDA17: PROPOSED DA STR 113-116

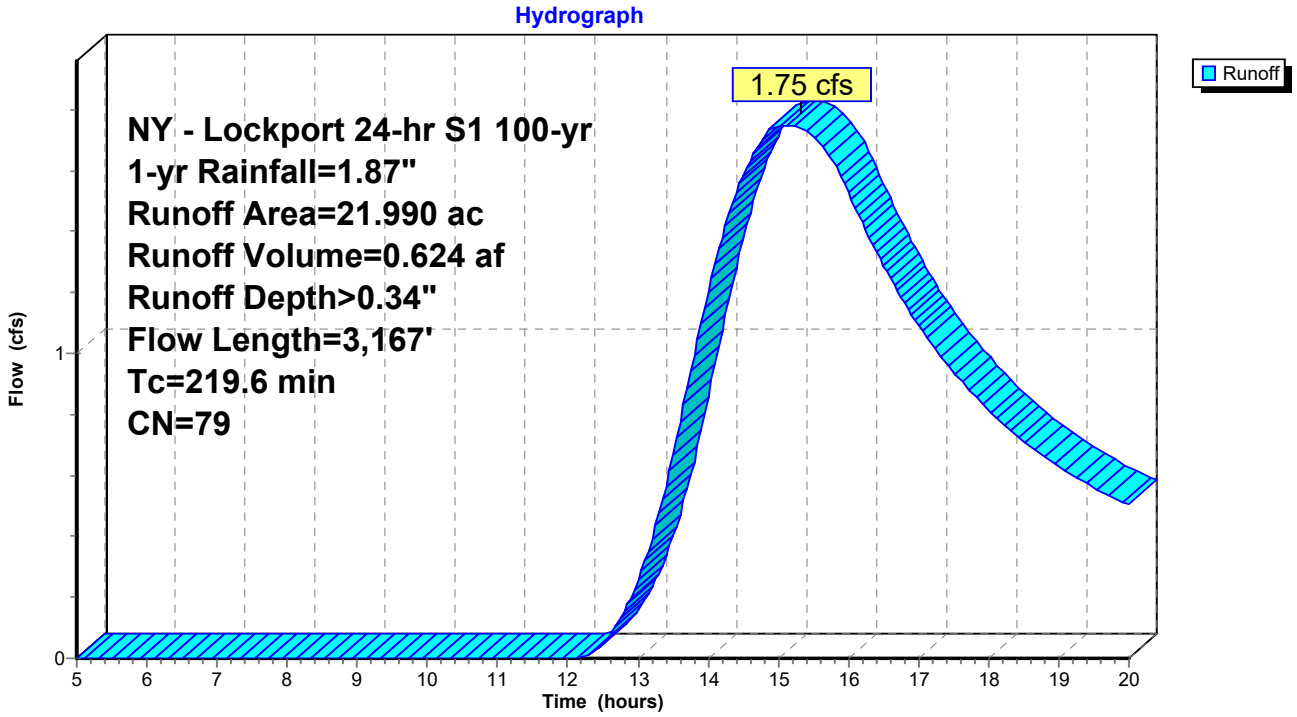
Runoff = 1.75 cfs @ 15.13 hrs, Volume= 0.624 af, Depth> 0.34"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.289	80	D-75% GRASS COVER, GOOD
*	0.899	84	D-50-75% GRASS COVER, FAIR
*	2.853	78	D-MEADOW, NON-GRAZED
*	0.540	78	D-MEADOW, NON-GRAZED
*	0.077	80	D-75% GRASS COVER, GOOD
*	0.177	84	D-50-75% GRASS COVER, FAIR
*	0.010	79	D-WOODS/GRASS COMB., GOOD
*	5.683	78	D-MEADOW, NON-GRAZED
*	6.973	78	D-MEADOW, NON-GRAZED
*	0.337	98	D-WATER SURFACE, 0% IMP
*	3.150	78	D-MEADOW, NON-GRAZED
*	0.141	98	D-WATER SURFACE, 0% IMP
	0.861	91	Gravel roads, HSG D
	21.990	79	Weighted Average
	21.512		97.83% Pervious Area
	0.478		2.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	100	0.0610	0.22		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
3.0	144	0.0130	0.80		**Shallow Concentrated Flow, 144** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
9.2	300	0.0060	0.54		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
12.2	162	0.0010	0.22		**Shallow Concentrated Flow, 162** Short Grass Pasture Kv= 7.0 fps
10.1	300	0.0050	0.49		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
8.3	290	0.0070	0.59		**Shallow Concentrated Flow, 290** Short Grass Pasture Kv= 7.0 fps
0.6	50	0.0400	1.40		**Shallow Concentrated Flow, 50** Short Grass Pasture Kv= 7.0 fps
4.4	242	0.0170	0.91		**Shallow Concentrated Flow, 242** Short Grass Pasture Kv= 7.0 fps
6.3	300	0.0130	0.80		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
18.8	79	0.0001	0.07		**Shallow Concentrated Flow, 79** Short Grass Pasture Kv= 7.0 fps
219.6	3,167	Total			

Subcatchment PDA17: PROPOSED DA STR 113-116



Summary for Subcatchment PDA18: PROPOSED DA STR 36

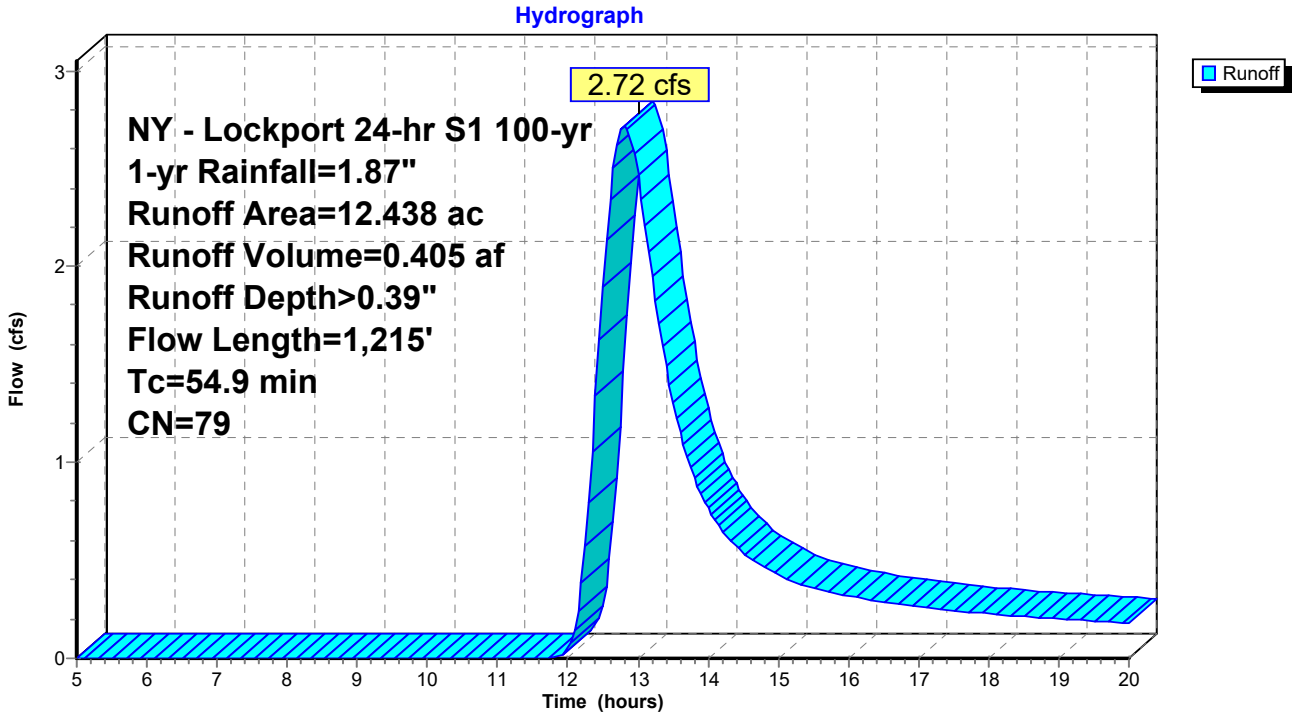
Runoff = 2.72 cfs @ 12.81 hrs, Volume= 0.405 af, Depth> 0.39"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.143	80	D - 80 - Developed open space
*	0.461	80	D - 80 - Developed open space
*	1.014	82	D - 82 - Developed Low intensity
*	0.988	82	D - 82 - Developed Low intensity
*	0.081	77	D - 77 - Deciduous Forest
*	7.367	78	D - 78 - Meadowed, grass, non-grazed land
*	2.154	78	D - 78 - Meadowed, grass, non-grazed land
*	0.230	91	D- Gravel Roads
	12.438	79	Weighted Average
	12.438		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0200	0.14		**Sheet Flow, 100' sheet** Grass: Short n= 0.150 P2= 2.22"
43.1	1,115	0.0038	0.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
54.9	1,215	Total			

Subcatchment PDA18: PROPOSED DA STR 36



Summary for Subcatchment PDA19: PROPOSED DA STR 42-47

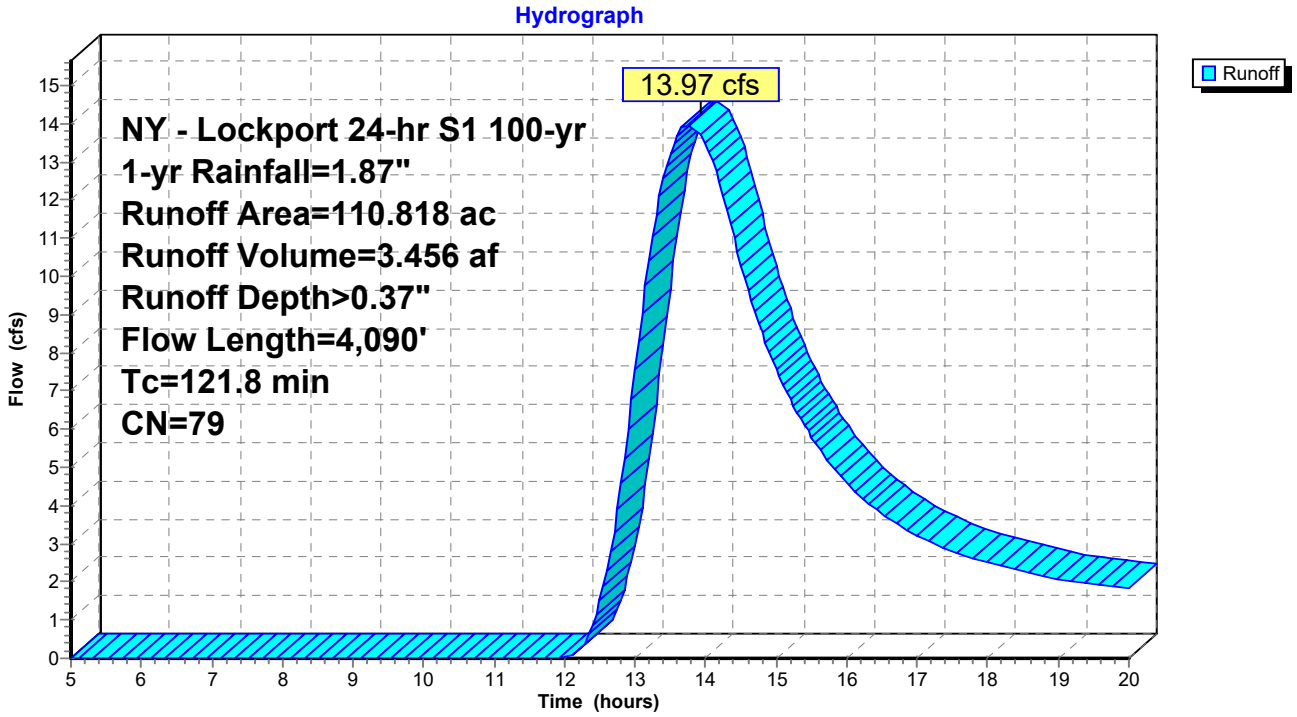
Runoff = 13.97 cfs @ 13.72 hrs, Volume= 3.456 af, Depth> 0.37"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	3.220	80	D - 80 - Developed open space
*	2.932	80	D - 80 - Developed open space
*	0.003	80	D - 80 - Developed open space
*	10.164	82	D - 82 - Developed Low intensity
*	6.410	82	D - 82 - Developed Low intensity
*	0.607	82	D - 82 - Developed Low intensity
*	5.494	77	D - 77 - Deciduous Forest
*	15.746	78	D - 78 - Meadowed, grass, non-grazed land
*	63.740	78	D - 78 - Meadowed, grass, non-grazed land
*	1.702	78	D - 78 - Meadowed, grass, non-grazed land
*	0.800	91	D - Gravel Roads
	110.818	79	Weighted Average
	110.818		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.0300	0.17		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.22"
88.0	2,225	0.0071	0.42		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.8	1,765	0.0068	1.24		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
121.8	4,090	Total			

Subcatchment PDA19: PROPOSED DA STR 42-47



Summary for Subcatchment PDA2: PROPOSED DA STR 11-12

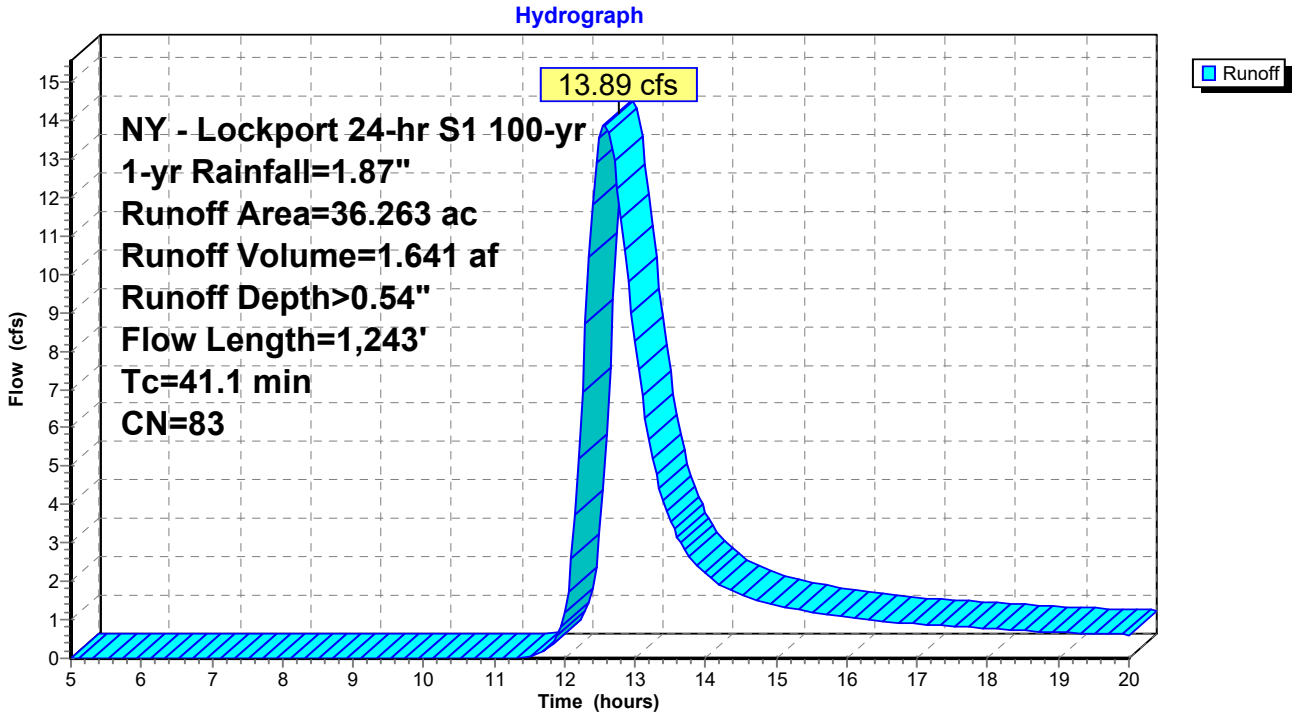
Runoff = 13.89 cfs @ 12.57 hrs, Volume= 1.641 af, Depth> 0.54"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	2.487	80	80-D-75% GRASS COVER, GOOD
*	1.050	84	84-D-50-75% GRASS COVER, FAIR
*	1.903	89	89-D-<50% GRASS COVER, POOR
*	0.250	95	95-D-URBAN COMMERCIAL, 85% IMP
*	0.043	79	79-D-WOODS/GRASS COMB., GOOD
*	1.421	78	78-D-MEADOW, NONGRAZED
*	0.054	80	80-D-75% GRASS COVER, GOOD
*	0.598	84	84-D-50-75% GRASSC OVER, FAIR
*	2.041	89	89-D-<50% GRASS COVER, POOR
*	0.286	95	95-D-URBAN COMMERCIAL, 85% IMP
*	1.744	78	78-D-MEADOW, NON-GRAZED
*	5.982	80	80-D-75% GRASS CVER, GOOD
*	7.613	84	8D-D-50-75% GRASS COVER, FAIR
*	3.609	89	89-D-<50% GRASS COVER POOR
*	0.887	95	95-D-URBAN COMMERCIAL, 85% IMP
*	3.299	79	79-D-WOODS/GRASS COMB., GOOD
*	2.636	78	78-D-MEADOW, NON-GRAZED
	0.360	91	Gravel roads, HSG D
	36.263	83	Weighted Average
	36.263		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.5	100	0.0050	0.66		**Sheet Flow, 100'** Smooth surfaces n= 0.011 P2= 2.22"
1.4	115	0.0043	1.33		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.4	256	0.0078	1.79		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.3	240	0.0031	0.39		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	30	0.0064	1.62		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.8	128	0.0117	0.76		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
14.2	209	0.0024	0.24		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
7.2	165	0.0030	0.38		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
41.1	1,243	Total			

Subcatchment PDA2: PROPOSED DA STR 11-12



Summary for Subcatchment PDA3: EXISTING DA STR 17-20

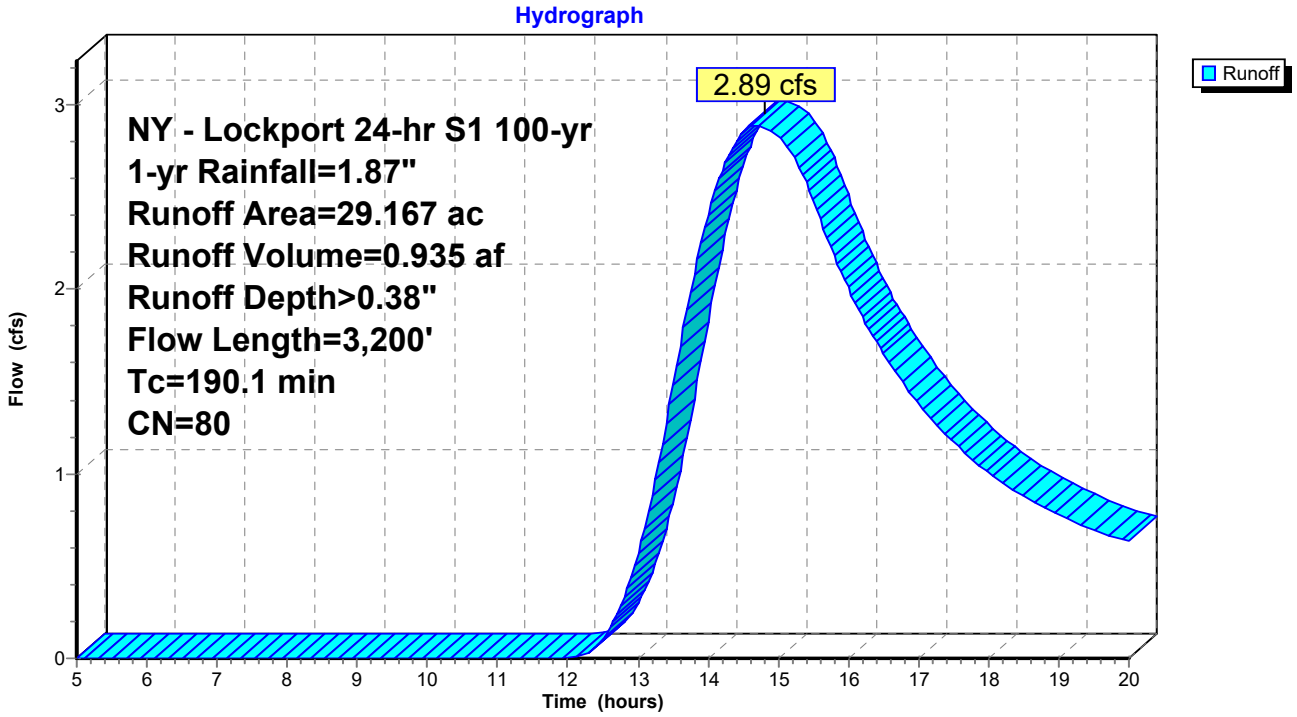
Runoff = 2.89 cfs @ 14.62 hrs, Volume= 0.935 af, Depth> 0.38"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.391	80	80-D-75% GRASS COVER, GOOD
*	4.601	79	WOODS/GRASS COMB., GOOD
*	1.427	79	WOODS/GRASS COMB., GOOD
*	2.196	78	MEADOW, NON-GRAZED
*	0.320	98	WATER SURFACE
*	3.636	80	75% GRASS COVER, GOOD
*	1.957	84	50-75% GRASS COVER, FAIR
*	1.103	89	<50% GRASS COVER, POOR
*	0.375	95	URBAN COMMERCIAL, 85% IMP
*	2.017	79	WOODS/GRASS COMB., GOOD
*	0.337	84	50-75% GRASS COVER, FAIR
*	1.236	79	WOODS/GRASS COMB., GOOD
*	0.470	79	WOODS/GRASS COMB., GOOD
*	8.306	78	MEADOW, NON-GRAZED
*	0.274	98	WATER SURFACE, 0% IMP
	0.521	91	Gravel roads, HSG D
	29.167	80	Weighted Average
	28.573		97.96% Pervious Area
	0.594		2.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.2	100	0.0175	0.06		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
7.6	186	0.0067	0.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
8.3	368	0.0217	0.74		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
31.5	708	0.0056	0.37		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.1	576	0.0069	0.42		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	452	0.0055	0.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
77.9	810	0.0012	0.17		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
190.1	3,200	Total			

Subcatchment PDA3: EXISTING DA STR 17-20



Summary for Subcatchment PDA4: PROPOSED DA STR 21-23

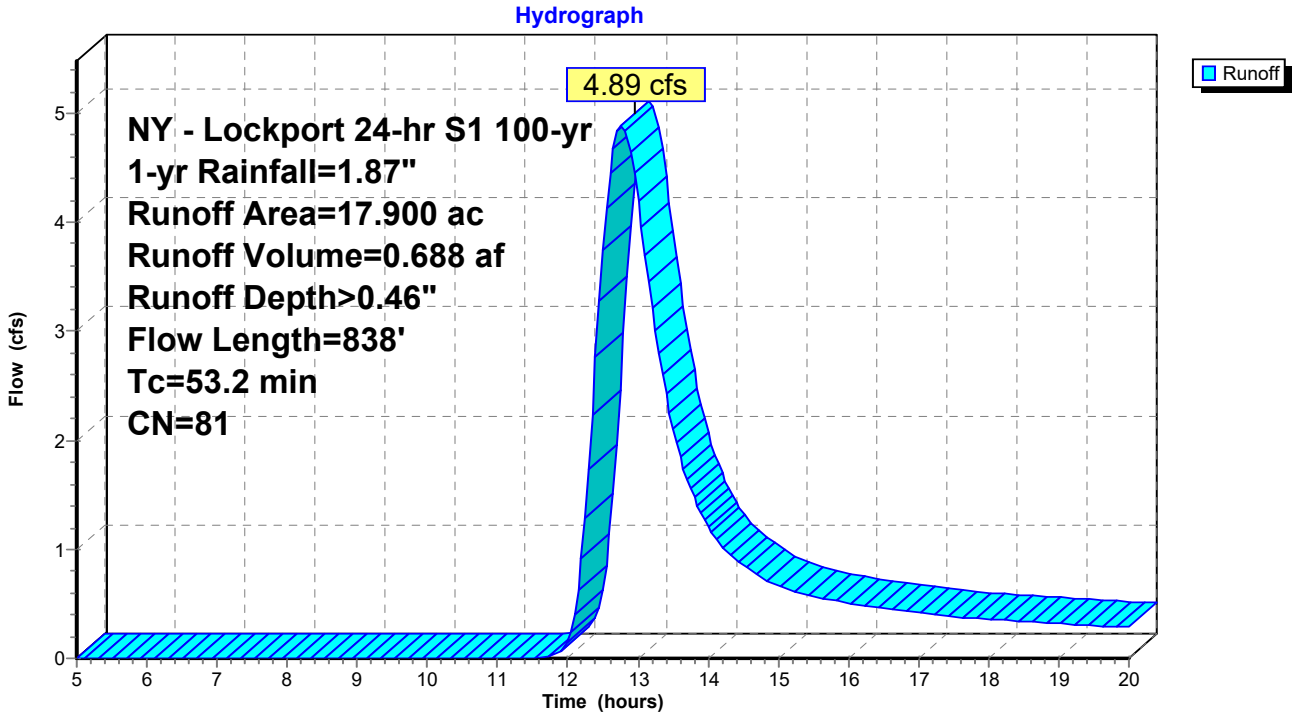
Runoff = 4.89 cfs @ 12.77 hrs, Volume= 0.688 af, Depth> 0.46"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.062	80	80-D-75% GRASS COVER, GOOD
*	0.720	84	84-D-50-75% GRASS COVER, FAIR
*	0.884	78	78-D-MEADOW, NON-GRAZED
*	4.286	80	80-D-75% GRASS COVER, GOOD
*	2.842	84	84-D-50-75% GRASS COVER, FAIR
*	0.139	89	89-D-<50% GRASS COVER, POOR
*	1.645	85	85-D-HERBACEOUS RANGE, GOOD
*	5.404	78	78-D-MEADOW, NON-GRAZED
*	0.188	80	80-D-75% GRASS COVER, GOOD
*	0.143	84	84-D-50-75% GRASS COVER, FAIR
*	0.507	78	78-D-MEADOW, NON-GRAZED
	1.080	91	Gravel roads, HSG D
	17.900	81	Weighted Average
	17.900		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0125	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.22"
23.5	419	0.0018	0.30		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
15.5	319	0.0024	0.34		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
53.2	838	Total			

Subcatchment PDA4: PROPOSED DA STR 21-23



Summary for Subcatchment PDA5: PROPOSED DA STR 25-29

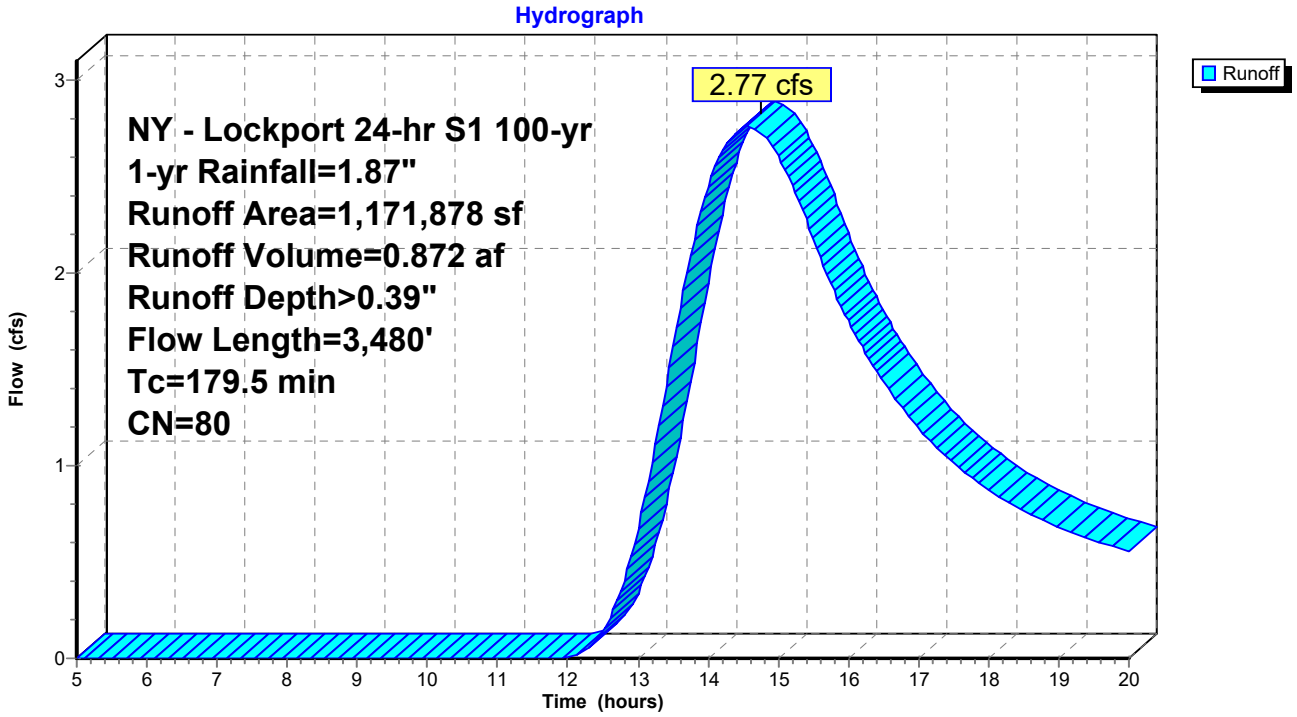
Runoff = 2.77 cfs @ 14.56 hrs, Volume= 0.872 af, Depth> 0.39"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (sf)	CN	Description
*	17,032	80	80-D-75% GRASS COVER, GOOD
*	200,420	79	WOODS/GRASS COMB., GOOD
*	62,160	79	WOODS/GRASS COMB., GOOD
*	95,658	78	MEADOW, NON-GRAZED
*	13,939	98	WATER SURFACE
*	158,384	80	75% GRASS COVER, GOOD
*	85,247	84	50-75% GRASS COVER, FAIR
*	11,396	89	<50% GRASS COVER, POOR
*	16,335	95	URBAN COMMERCIAL, 85% IMP
*	87,861	79	WOODS/GRASS COMB., GOOD
*	14,680	84	50-75% GRASS COVER, FAIR
*	152,329	79	WOODS/GRASS COMB., GOOD
*	20,473	79	WOODS/GRASS COMB., GOOD
*	187,335	78	MEADOW, NON-GRAZED
*	11,935	98	WATER SURFACE, 0% IMP
	36,694	91	Gravel roads, HSG D
	1,171,878	80	Weighted Average
	1,146,004		97.79% Pervious Area
	25,874		2.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.8	100	0.0200	0.06		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
28.8	377	0.0019	0.22		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
12.9	548	0.0200	0.71		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
17.4	739	0.0200	0.71		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
10.5	489	0.0240	0.77		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
8.0	420	0.0156	0.87		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.1	429	0.0120	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
63.0	378	0.0004	0.10		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
179.5	3,480	Total			

Subcatchment PDA5: PROPOSED DA STR 25-29



Summary for Subcatchment PDA6: PROPOSED DA STR 29-35

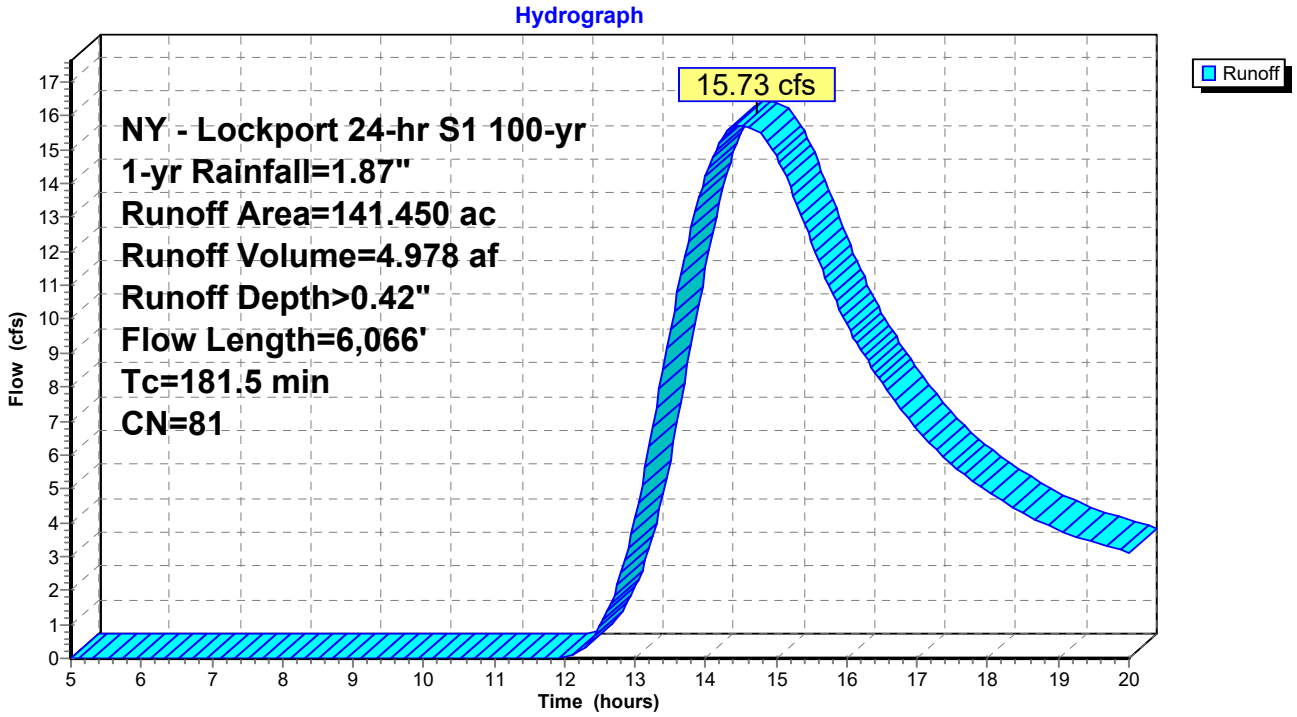
Runoff = 15.73 cfs @ 14.52 hrs, Volume= 4.978 af, Depth> 0.42"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.152	98	D - 98 - Open Water
*	0.074	80	D - 80 - Developed open space
*	0.307	80	D - 80 - Developed open space
*	2.363	80	D - 80 - Developed open space
*	1.992	82	D - 82 - Developed Low intensity
*	1.726	82	D - 82 - Developed Low intensity
*	2.185	85	D - 85 - Developed Med intensity
*	0.875	77	D - 77 - Deciduous Forest
*	18.239	77	D - 77 - Deciduous Forest
*	13.242	77	D - 77 - Deciduous Forest
*	0.038	77	D - 77 - Evergreen Forest
*	0.919	77	D - 77 - Evergreen Forest
*	0.021	77	D - 77 - Evergreen Forest
*	0.508	77	D - 77 - Mixed Forest
*	0.889	77	D - 77 - Mixed Forest
*	0.160	77	D - 77 - Mixed Forest
*	4.266	78	D - 78 - Meadowed, grass, non-grazed land
*	29.357	78	D - 78 - Meadowed, grass, non-grazed land
*	22.896	78	D - 78 - Meadowed, grass, non-grazed land
*	0.112	78	D - 78 - Meadowed, grass, non-grazed land
*	5.915	78	D - 78 - Meadowed, grass, non-grazed land
*	5.016	90	D - 90 - Woody Wetlands
*	1.110	91	D- Gravel Roads
*	29.088	90	D - 90 - Woody Wetlands
	141.450	81	Weighted Average
	141.298		99.89% Pervious Area
	0.152		0.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.7	100	0.0275	0.07		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
31.2	1,144	0.0149	0.61		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.6	670	0.0026	0.76		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
12.9	328	0.0008	0.42		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
100.1	3,824	0.0018	0.64		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
181.5	6,066	Total			

Subcatchment PDA6: PROPOSED DA STR 29-35



Summary for Subcatchment PDA7: PROPOSED DA STR 37-40

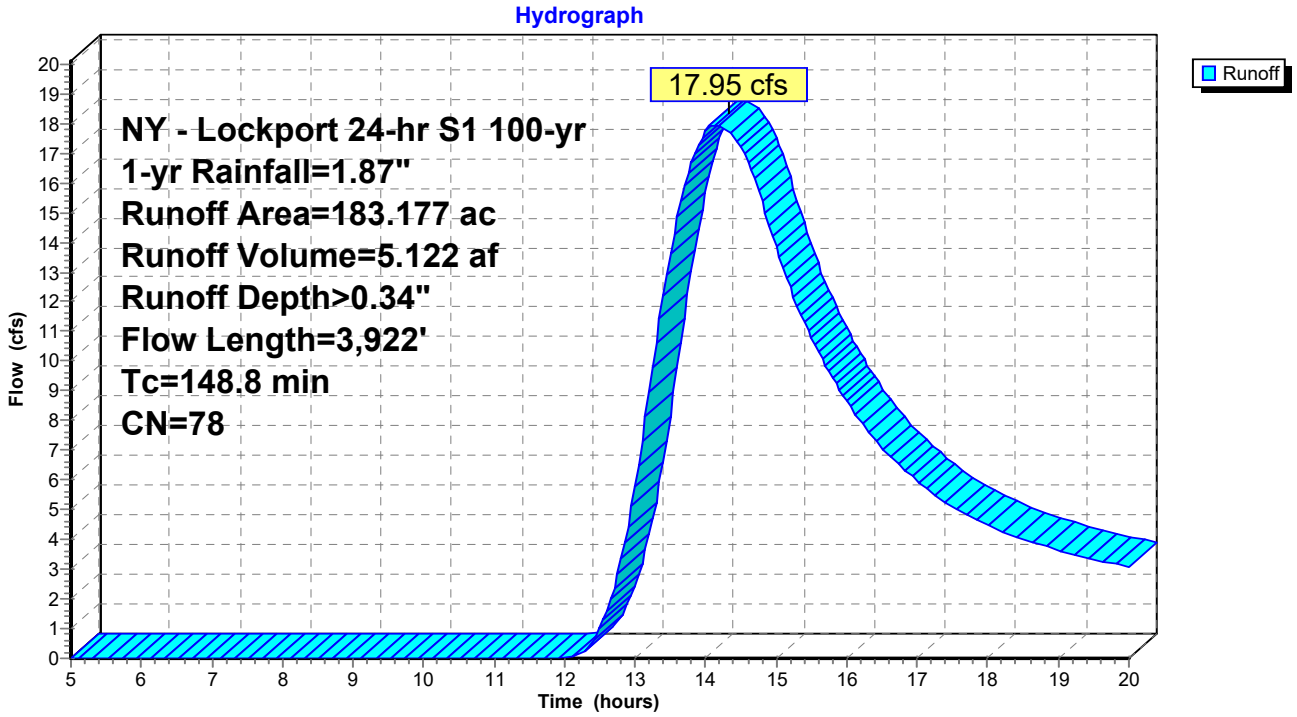
Runoff = 17.95 cfs @ 14.12 hrs, Volume= 5.122 af, Depth> 0.34"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	2.507	80	D - 80 - Developed open space
*	3.318	80	D - 80 - Developed open space
*	2.790	80	D - 80 - Developed open space
*	2.870	82	D - 82 - Developed Low intensity
*	4.979	82	D - 82 - Developed Low intensity
*	4.781	82	D - 82 - Developed Low intensity
*	0.152	85	D - 85 - Developed Med intensity
*	1.263	77	D - 77 - Deciduous Forest
*	3.431	77	D - 77 - Deciduous Forest
*	3.544	77	D - 77 - Deciduous Forest
*	14.732	78	D - 78 - Meadowed, grass, non-grazed land
*	59.055	78	D - 78 - Meadowed, grass, non-grazed land
*	79.095	78	D - 78 - Meadowed, grass, non-grazed land
*	0.660	91	D- Gravel Roads
	183.177	78	Weighted Average
	183.177		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.6	100	0.0350	0.08		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
48.7	1,573	0.0116	0.54		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
62.0	1,276	0.0047	0.34		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
17.5	973	0.0038	0.92		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
148.8	3,922	Total			

Subcatchment PDA7: PROPOSED DA STR 37-40



Summary for Subcatchment PDA8: PROPOSED DA STR 41

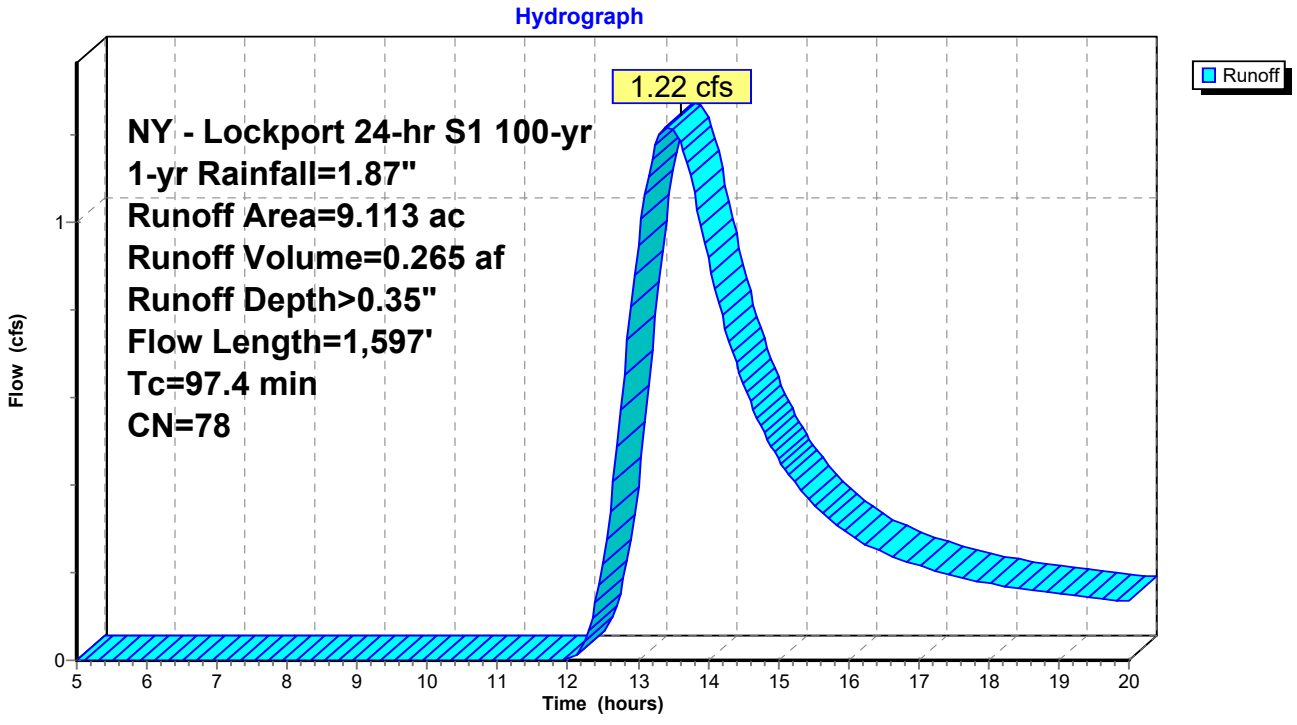
Runoff = 1.22 cfs @ 13.42 hrs, Volume= 0.265 af, Depth> 0.35"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	3.755	77	D - 77 - Deciduous Forest
*	5.138	78	D - 78 - Meadowed, grass, non-grazed land
*	0.220	91	D- Gravel Roads
	9.113	78	Weighted Average
	9.113		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.0	100	0.0100	0.05		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
63.4	1,497	0.0062	0.39		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.4	1,597	Total			

Subcatchment PDA8: PROPOSED DA STR 41



Summary for Subcatchment PDA9: PROPOSED DA STR 48-50

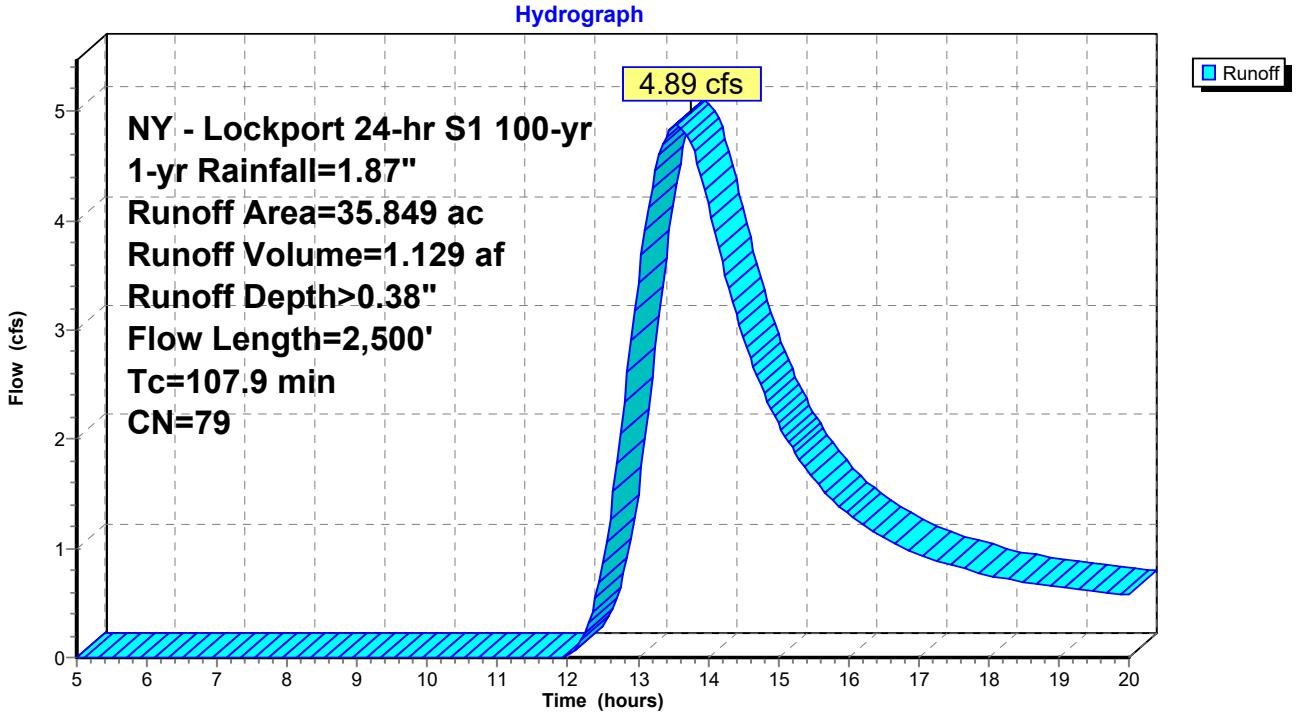
Runoff = 4.89 cfs @ 13.55 hrs, Volume= 1.129 af, Depth> 0.38"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	2.020	80	D-75% GRASS COVER, GOOD
*	0.850	84	D-50-75% GRASS COVER, FAIR
*	0.080	89	D-<50% GRASS COVER, POOR
*	0.800	79	D-WOODS/GRASS COMB., GOOD
*	6.410	78	D-MEADOW, NON-GRAZED
*	0.060	98	D-WATER SURFACE, 0% IMP
*	1.214	80	D-75% GRASS COVER, GOOD
*	0.074	84	D-50-75% GRASS COVER, FAIR
*	0.060	89	D-<50% GRASS COVER, POOR
*	4.411	79	D-WOODS/GRASS COMB., GOOD
*	18.040	78	D-MEADOW, NON-GRAZED
*	1.050	98	D-WATER SURFACE, 0% IMP
*	0.150	80	D-75% GRASS COVER, GOOD
*	0.210	78	D-MEADOW, NON-GRAZED
*	0.420	91	D-Gravel Roads
	35.849	79	Weighted Average
	34.739		96.90% Pervious Area
	1.110		3.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	100	0.0300	1.21		**Shallow Concentrated Flow, 100'** Short Grass Pasture Kv= 7.0 fps
31.2	262	0.0120	0.14		**Sheet Flow, 262.19** Grass: Short n= 0.150 P2= 2.22"
4.5	254	0.0180	0.94		**Shallow Concentrated Flow, 254'** Short Grass Pasture Kv= 7.0 fps
2.9	129	0.0110	0.73		**Shallow Concentrated Flow, 128.66** Short Grass Pasture Kv= 7.0 fps
4.4	196	0.0110	0.73		**Shallow Concentrated Flow, 196** Short Grass Pasture Kv= 7.0 fps
6.9	260	0.0080	0.63		**Shallow Concentrated Flow, 260** Short Grass Pasture Kv= 7.0 fps
5.5	219	0.0090	0.66		**Shallow Concentrated Flow, 219** Short Grass Pasture Kv= 7.0 fps
12.4	285	0.0030	0.38		**Shallow Concentrated Flow, 285** Short Grass Pasture Kv= 7.0 fps
6.1	230	0.0080	0.63		**Shallow Concentrated Flow, 230** Short Grass Pasture Kv= 7.0 fps
10.0	265	0.0040	0.44		**Shallow Concentrated Flow, 265** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
107.9	2,500	Total			

Subcatchment PDA9: PROPOSED DA STR 48-50

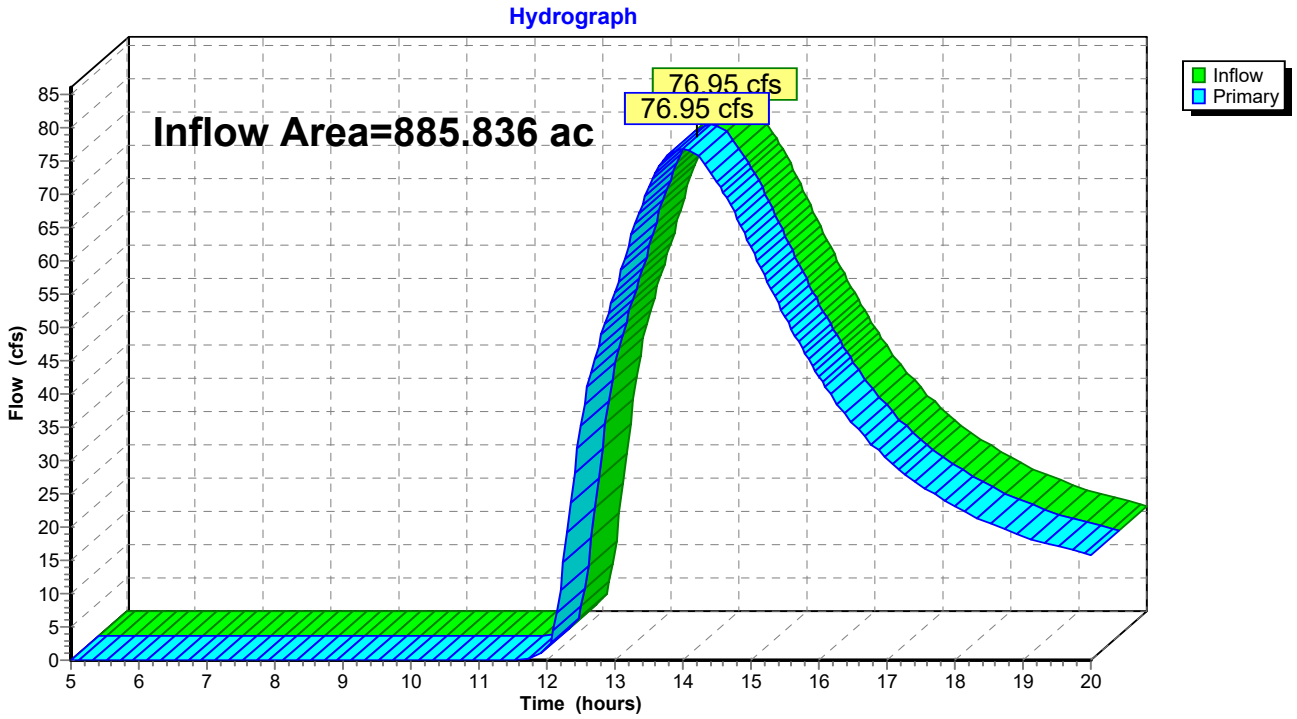


Summary for Link 1L: EXISTING

Inflow Area = 885.836 ac, 0.70% Impervious, Inflow Depth > 0.36" for 1-yr event
Inflow = 76.95 cfs @ 14.01 hrs, Volume= 26.860 af
Primary = 76.95 cfs @ 14.01 hrs, Volume= 26.860 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link 1L: EXISTING

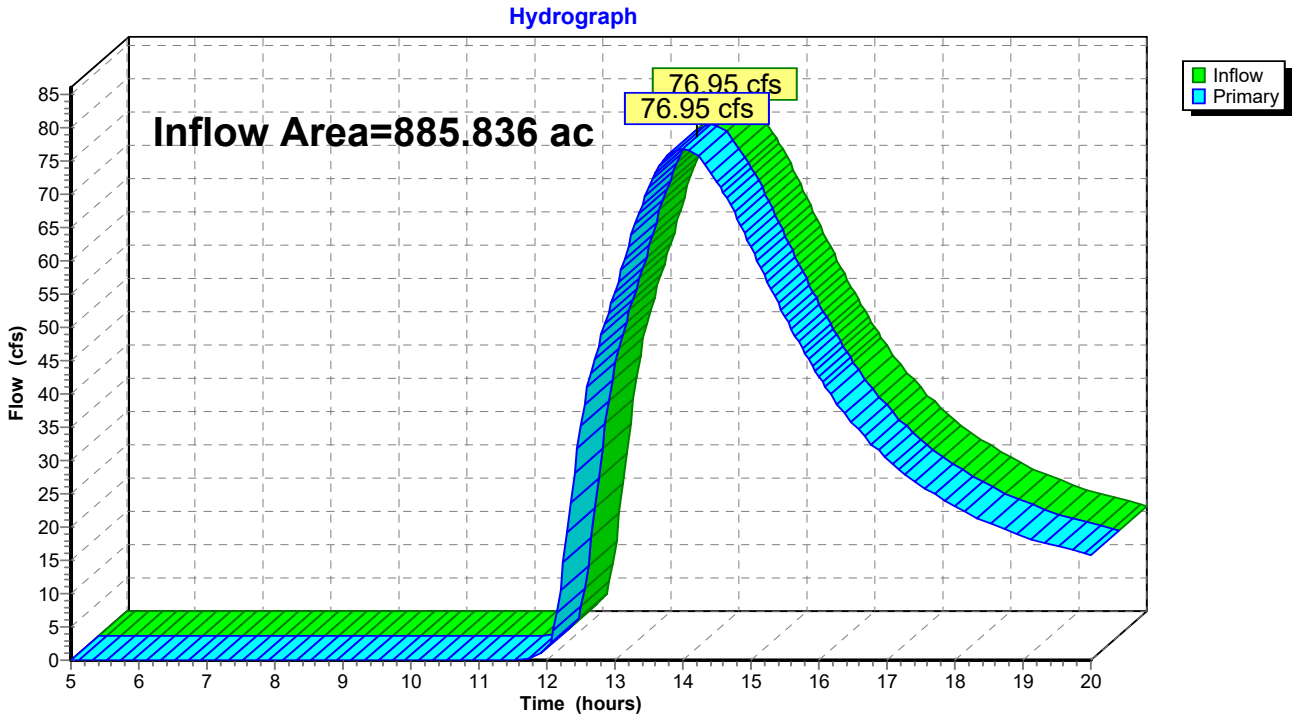


Summary for Link 2L: PROPOSED

Inflow Area = 885.836 ac, 0.66% Impervious, Inflow Depth > 0.36" for 1-yr event
Inflow = 76.95 cfs @ 14.01 hrs, Volume= 26.860 af
Primary = 76.95 cfs @ 14.01 hrs, Volume= 26.860 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link 2L: PROPOSED



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

SubcatchmentDA1: EXISTING DA STR 9-10 Runoff Area=13.623 ac 0.00% Impervious Runoff Depth>1.24"
Flow Length=1,252' Tc=79.0 min CN=79 Runoff=8.24 cfs 1.405 af

SubcatchmentDA10: EXISTING DA STR Runoff Area=97.181 ac 0.35% Impervious Runoff Depth>1.07"
Flow Length=3,167' Tc=219.6 min CN=78 Runoff=25.49 cfs 8.632 af

SubcatchmentDA11: EXISTING DA STR Runoff Area=14.544 ac 0.00% Impervious Runoff Depth>0.74"
Flow Length=915' Tc=184.1 min CN=71 Runoff=2.87 cfs 0.897 af

SubcatchmentDA12: EXISTING DA STR Runoff Area=8.250 ac 0.00% Impervious Runoff Depth>0.52"
Flow Length=1,012' Tc=23.6 min CN=64 Runoff=3.34 cfs 0.355 af

SubcatchmentDA13: EXISTING DA STR Runoff Area=64.056 ac 0.65% Impervious Runoff Depth>1.17"
Flow Length=1,139' Tc=84.8 min CN=78 Runoff=34.95 cfs 6.264 af

SubcatchmentDA14: EXISTING DA STR Runoff Area=27.155 ac 0.89% Impervious Runoff Depth>1.14"
Flow Length=1,379' Tc=135.3 min CN=78 Runoff=10.31 cfs 2.585 af

SubcatchmentDA15: EXISTING DA STR Runoff Area=24.134 ac 4.00% Impervious Runoff Depth>1.08"
Flow Length=1,032' Tc=33.9 min CN=76 Runoff=20.95 cfs 2.179 af

SubcatchmentDA16: EXISTING DA STR Runoff Area=11.825 ac 11.22% Impervious Runoff Depth>1.09"
Flow Length=619' Tc=30.2 min CN=76 Runoff=10.92 cfs 1.069 af

SubcatchmentDA17: EXISTING DA STR Runoff Area=21.990 ac 2.17% Impervious Runoff Depth>1.12"
Flow Length=3,167' Tc=219.6 min CN=79 Runoff=6.09 cfs 2.059 af

SubcatchmentDA18: EXISTING DA STR 36 Runoff Area=12.438 ac 0.00% Impervious Runoff Depth>1.25"
Flow Length=1,215' Tc=54.9 min CN=79 Runoff=9.57 cfs 1.297 af

SubcatchmentDA19: EXISTING DA STR Runoff Area=110.818 ac 0.00% Impervious Runoff Depth>1.21"
Flow Length=4,090' Tc=121.8 min CN=79 Runoff=49.00 cfs 11.187 af

SubcatchmentDA2: EXISTING DA STR Runoff Area=36.263 ac 0.00% Impervious Runoff Depth>1.52"
Flow Length=1,243' Tc=41.1 min CN=83 Runoff=40.59 cfs 4.605 af

SubcatchmentDA3: EXISTING DA STR Runoff Area=29.167 ac 2.04% Impervious Runoff Depth>1.22"
Flow Length=3,200' Tc=190.1 min CN=80 Runoff=9.61 cfs 2.956 af

SubcatchmentDA4: EXISTING DA STR Runoff Area=17.900 ac 0.00% Impervious Runoff Depth>1.38"
Flow Length=838' Tc=53.2 min CN=81 Runoff=15.60 cfs 2.059 af

SubcatchmentDA5: EXISTING DA STR Runoff Area=1,171,878 sf 2.21% Impervious Runoff Depth>1.23"
Flow Length=3,480' Tc=179.5 min CN=80 Runoff=9.13 cfs 2.751 af

SubcatchmentDA6: EXISTING DA STR Runoff Area=141.450 ac 0.11% Impervious Runoff Depth>1.29"
Flow Length=6,066' Tc=181.5 min CN=81 Runoff=50.45 cfs 15.182 af

SubcatchmentDA7: EXISTING DA STR Runoff Area=183.177 ac 0.00% Impervious Runoff Depth>1.13"
Flow Length=3,922' Tc=148.8 min CN=78 Runoff=65.87 cfs 17.293 af

SubcatchmentDA8: EXISTING DA STR 41 Runoff Area=9.113 ac 0.00% Impervious Runoff Depth>1.17"
Flow Length=1,597' Tc=97.4 min CN=78 Runoff=4.52 cfs 0.886 af

SubcatchmentDA9: EXISTING DA STR Runoff Area=35.849 ac 3.10% Impervious Runoff Depth>1.22"
Flow Length=2,500' Tc=107.9 min CN=79 Runoff=17.11 cfs 3.645 af

SubcatchmentPDA1: PROPOSED DA STR Runoff Area=13.623 ac 0.00% Impervious Runoff Depth>1.24"
Flow Length=1,252' Tc=79.0 min CN=79 Runoff=8.24 cfs 1.405 af

SubcatchmentPDA10: EXISTING DA STR Runoff Area=97.181 ac 0.35% Impervious Runoff Depth>1.07"
Flow Length=3,167' Tc=219.6 min CN=78 Runoff=25.49 cfs 8.632 af

SubcatchmentPDA11: PROPOSED DA STR Runoff Area=14.544 ac 0.00% Impervious Runoff Depth>0.74"
Flow Length=915' Tc=184.1 min CN=71 Runoff=2.87 cfs 0.897 af

SubcatchmentPDA12: PROPOSED DA STR Runoff Area=8.250 ac 0.00% Impervious Runoff Depth>0.52"
Flow Length=1,012' Tc=23.6 min CN=64 Runoff=3.34 cfs 0.355 af

SubcatchmentPDA13: PROPOSED DA STR Runoff Area=64.056 ac 0.65% Impervious Runoff Depth>1.17"
Flow Length=1,139' Tc=84.8 min CN=78 Runoff=34.95 cfs 6.264 af

SubcatchmentPDA14: PROPOSED DA STR Runoff Area=27.155 ac 0.89% Impervious Runoff Depth>1.14"
Flow Length=1,379' Tc=135.3 min CN=78 Runoff=10.31 cfs 2.585 af

SubcatchmentPDA15: PROPOSED DA STR Runoff Area=24.134 ac 4.00% Impervious Runoff Depth>1.08"
Flow Length=1,032' Tc=33.9 min CN=76 Runoff=20.95 cfs 2.179 af

SubcatchmentPDA16: PROPOSED DA STR Runoff Area=11.825 ac 8.12% Impervious Runoff Depth>1.09"
Flow Length=619' Tc=30.2 min CN=76 Runoff=10.92 cfs 1.069 af

SubcatchmentPDA17: PROPOSED DA STR Runoff Area=21.990 ac 2.17% Impervious Runoff Depth>1.12"
Flow Length=3,167' Tc=219.6 min CN=79 Runoff=6.09 cfs 2.059 af

SubcatchmentPDA18: PROPOSED DA STR Runoff Area=12.438 ac 0.00% Impervious Runoff Depth>1.25"
Flow Length=1,215' Tc=54.9 min CN=79 Runoff=9.57 cfs 1.297 af

SubcatchmentPDA19: PROPOSED DA Runoff Area=110.818 ac 0.00% Impervious Runoff Depth>1.21"
Flow Length=4,090' Tc=121.8 min CN=79 Runoff=49.00 cfs 11.187 af

SubcatchmentPDA2: PROPOSED DA STR Runoff Area=36.263 ac 0.00% Impervious Runoff Depth>1.52"
Flow Length=1,243' Tc=41.1 min CN=83 Runoff=40.59 cfs 4.605 af

SubcatchmentPDA3: EXISTING DA STR Runoff Area=29.167 ac 2.04% Impervious Runoff Depth>1.22"
Flow Length=3,200' Tc=190.1 min CN=80 Runoff=9.61 cfs 2.956 af

SubcatchmentPDA4: PROPOSED DA STR Runoff Area=17.900 ac 0.00% Impervious Runoff Depth>1.38"
Flow Length=838' Tc=53.2 min CN=81 Runoff=15.60 cfs 2.059 af

Subcatchment PDA5: PROPOSED DA Runoff Area=1,171,878 sf 2.21% Impervious Runoff Depth>1.23"
Flow Length=3,480' Tc=179.5 min CN=80 Runoff=9.13 cfs 2.751 af

Subcatchment PDA6: PROPOSED DA STR Runoff Area=141.450 ac 0.11% Impervious Runoff Depth>1.29"
Flow Length=6,066' Tc=181.5 min CN=81 Runoff=50.45 cfs 15.182 af

Subcatchment PDA7: PROPOSED DA STR Runoff Area=183.177 ac 0.00% Impervious Runoff Depth>1.13"
Flow Length=3,922' Tc=148.8 min CN=78 Runoff=65.87 cfs 17.293 af

Subcatchment PDA8: PROPOSED DA STR Runoff Area=9.113 ac 0.00% Impervious Runoff Depth>1.17"
Flow Length=1,597' Tc=97.4 min CN=78 Runoff=4.52 cfs 0.886 af

Subcatchment PDA9: PROPOSED DA STR Runoff Area=35.849 ac 3.10% Impervious Runoff Depth>1.22"
Flow Length=2,500' Tc=107.9 min CN=79 Runoff=17.11 cfs 3.645 af

Link 1L: EXISTING Inflow=266.50 cfs 87.306 af
Primary=266.50 cfs 87.306 af

Link 2L: PROPOSED Inflow=266.50 cfs 87.306 af
Primary=266.50 cfs 87.306 af

Total Runoff Area = 1,771.671 ac Runoff Volume = 174.612 af Average Runoff Depth = 1.18"
99.32% Pervious = 1,759.600 ac 0.68% Impervious = 12.071 ac

Summary for Subcatchment DA1: EXISTING DA STR 9-10

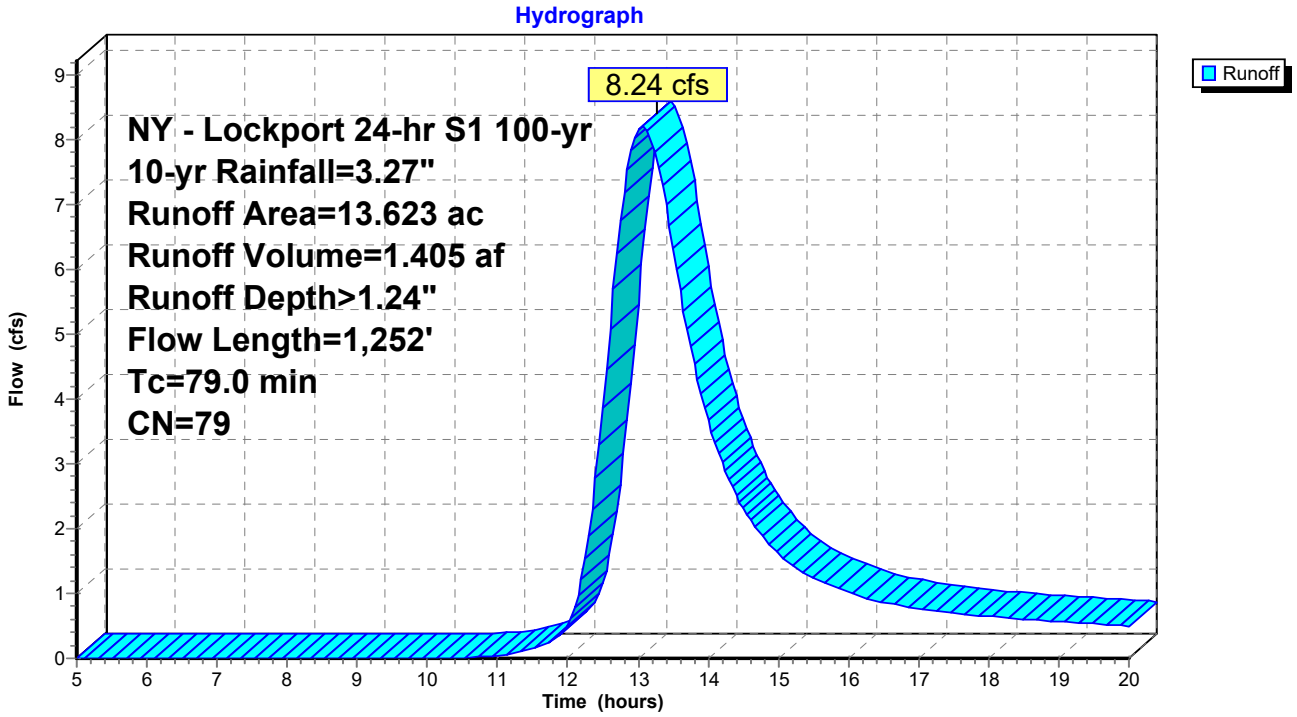
Runoff = 8.24 cfs @ 13.07 hrs, Volume= 1.405 af, Depth> 1.24"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.134	39	39 - A - 75% GRASS COVER, GOOD
*	0.938	49	49 - A - 50-75% GRASS COVER, FAIR
*	0.065	68	68 - A - <50% GRASS COVER, POOR
*	0.064	32	32 - A - FALLOW, BARE SOIL
*	0.064	30	30 - A - MEADOW, NON-GRAZED
*	0.293	80	80 - D - 75% GRASS COVER, GOOD
*	1.950	84	84 - D - 50-75% GRASS COVER, FAIR
*	0.320	89	89 - D - <50% GRASS COVER, POOR
*	0.105	79	79 - D - WOODS/GRASS COMB., GOOD
*	0.497	78	78 - D - MEADOW, NON-GRAZED
*	1.157	80	80 - D - 75% GRASS COVER, GOOD
*	4.870	84	84 - D - 50-75% GRASS COVER, FAIR
*	0.999	89	89 - D - <50% GRASS COVER, POOR
*	2.167	78	78 - D - MEADOW, NON-GRAZED
	13.623	79	Weighted Average
	13.623		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	100	0.0175	0.13		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.22"
40.8	420	0.0006	0.17		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	45	0.0056	1.52		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
14.3	300	0.0025	0.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.7	200	0.0050	0.49		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.3	187	0.0107	0.72		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
79.0	1,252	Total			

Subcatchment DA1: EXISTING DA STR 9-10



Summary for Subcatchment DA10: EXISTING DA STR 78-83

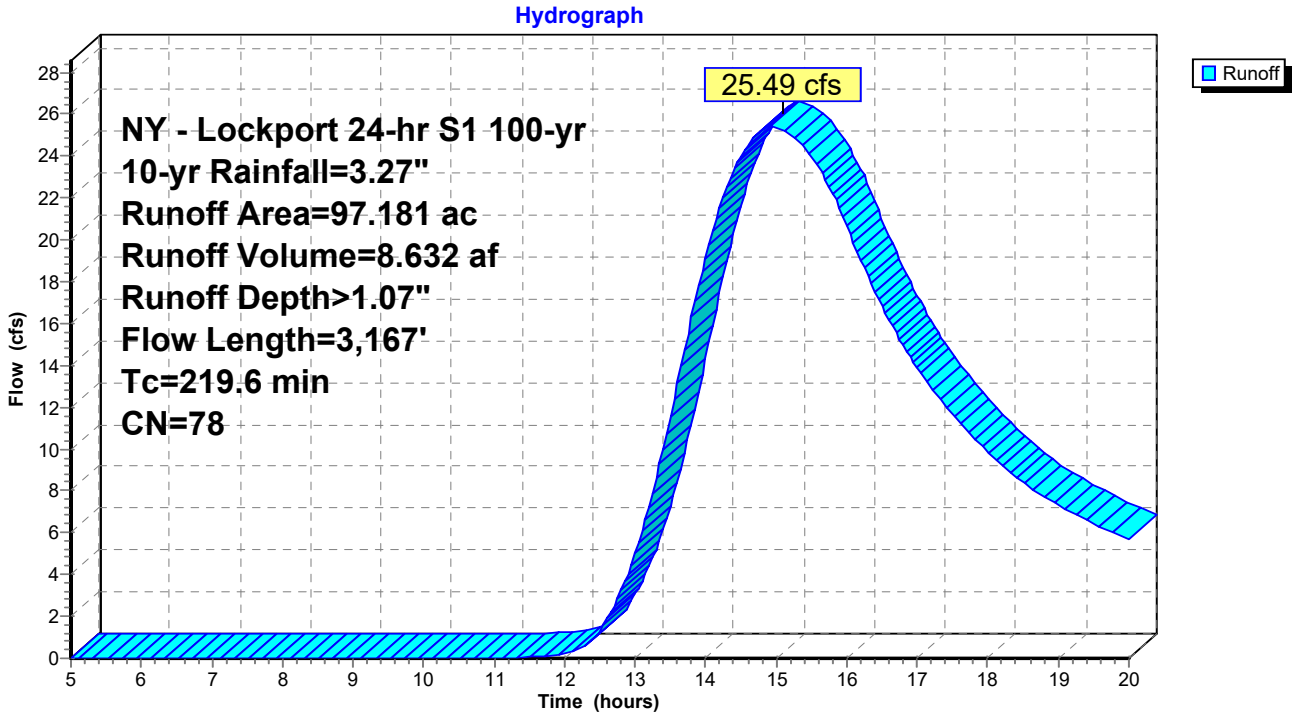
Runoff = 25.49 cfs @ 14.91 hrs, Volume= 8.632 af, Depth> 1.07"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.446	82	B-MEADOW, NON-GRAZED
*	0.142	43	D-WOODS/GRASS COMB., GOOD
*	13.840	81	D-MEADOW, NON-GRAZED
*	8.160	82	D-MEADOW, NON-GRAZED
*	1.781	21	D-75% GRASS COVER, GOOD
*	3.035	22	D-50-75% GRASS COVER, FAIR
*	24.158	81	D-MEADOW, NON-GRAZED
*	5.711	82	D-MEADOW, NON-GRAZED
*	0.003	21	D-75% GRASS COVER, GOOD
*	0.428	22	D-50-75% GRASS COVER, FAIR
*	18.333	81	D-MEADOW, NON-GRAZED
*	20.761	82	D-MEADOW, NON-GRAZED
*	0.340	98	D-PAVED ASPHALT DRIVEWAY
*	0.043	90	D-WATER SURFACE, 0% IMP
	97.181	78	Weighted Average
	96.841		99.65% Pervious Area
	0.340		0.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	100	0.0610	0.22		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
3.0	144	0.0130	0.80		**Shallow Concentrated Flow, 144** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
9.2	300	0.0060	0.54		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
12.2	162	0.0010	0.22		**Shallow Concentrated Flow, 162** Short Grass Pasture Kv= 7.0 fps
10.1	300	0.0050	0.49		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
8.3	290	0.0070	0.59		**Shallow Concentrated Flow, 290** Short Grass Pasture Kv= 7.0 fps
0.6	50	0.0400	1.40		**Shallow Concentrated Flow, 50** Short Grass Pasture Kv= 7.0 fps
4.4	242	0.0170	0.91		**Shallow Concentrated Flow, 242** Short Grass Pasture Kv= 7.0 fps
6.3	300	0.0130	0.80		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
18.8	79	0.0001	0.07		**Shallow Concentrated Flow, 79** Short Grass Pasture Kv= 7.0 fps
219.6	3,167	Total			

Subcatchment DA10: EXISTING DA STR 78-83



Summary for Subcatchment DA11: EXISTING DA STR 84-86

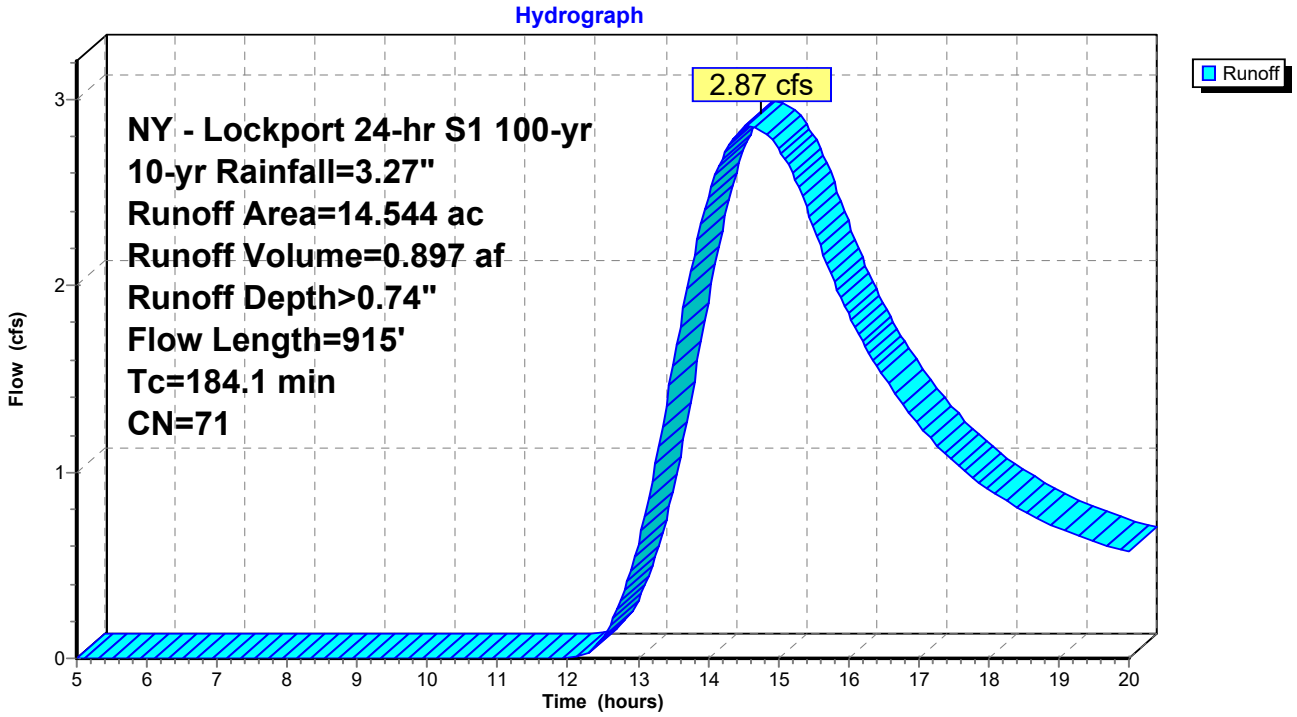
Runoff = 2.87 cfs @ 14.55 hrs, Volume= 0.897 af, Depth> 0.74"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.033	58	B-MEADOW, NON-GRAZED
*	3.140	58	B-MEADOW, NON-GRAZED
*	0.039	80	D-75% GRASS COVER, GOOD
*	0.117	84	D-50-75% GRASS COVER, FAIR
*	1.962	78	D-MEADOW, NON-GRAZED
*	2.545	78	D-MEADOW, NON-GRAZED
*	0.145	71	D-MEADOW, NON-GRAZED
*	5.505	71	D-MEADOW, NON-GRAZED
*	0.304	78	D-MEADOW, NONGRAZED
*	0.030	78	D-MEADOW, NON-GRAZED
*	0.724	78	D-MEADOW, NON-GRAZED
	14.544	71	Weighted Average
	14.544		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
97.9	100	0.0001	0.02		**Sheet Flow, 100**
					Grass: Short n= 0.150 P2= 2.22"
3.6	164	0.0120	0.77		**Shallow Concentrated Flow, 164**
					Short Grass Pasture Kv= 7.0 fps
8.5	300	0.0070	0.59		**Shallow Concentrated Flow, 300**
					Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300**
					Short Grass Pasture Kv= 7.0 fps
2.7	51	0.0020	0.31		**Shallow Concentrated Flow, 51**
					Short Grass Pasture Kv= 7.0 fps
184.1	915	Total			

Subcatchment DA11: EXISTING DA STR 84-86



Summary for Subcatchment DA12: EXISTING DA STR 90-96

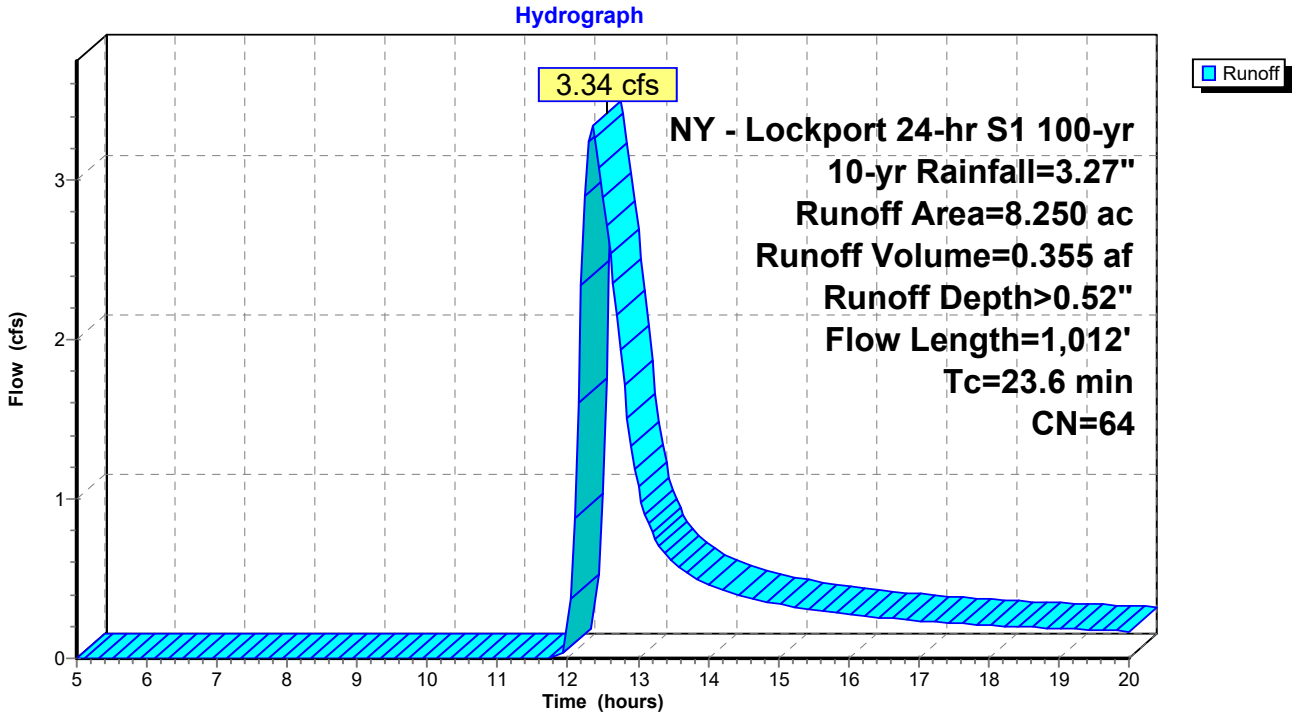
Runoff = 3.34 cfs @ 12.35 hrs, Volume= 0.355 af, Depth> 0.52"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	2.470	30	A-MEADOW, NON-GRAZED
*	5.780	78	D-MEADOW, NON-GRAZED
	8.250	64	Weighted Average
	8.250		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0390	0.19		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
1.5	130	0.0420	1.43		**Shallow Concentrated Flow, 130** Short Grass Pasture Kv= 7.0 fps
1.7	180	0.0640	1.77		**Shallow Concentrated Flow, 180** Short Grass Pasture Kv= 7.0 fps
2.5	237	0.0520	1.60		**Shallow Concentrated Flow, 237** Short Grass Pasture Kv= 7.0 fps
1.3	80	0.0230	1.06		**Shallow Concentrated Flow, 80** Short Grass Pasture Kv= 7.0 fps
5.0	132	0.0040	0.44		**Shallow Concentrated Flow, 132** Short Grass Pasture Kv= 7.0 fps
2.6	153	0.0200	0.99		**Shallow Concentrated Flow, 153** Short Grass Pasture Kv= 7.0 fps
23.6	1,012	Total			

Subcatchment DA12: EXISTING DA STR 90-96



Summary for Subcatchment DA13: EXISTING DA STR 97-103

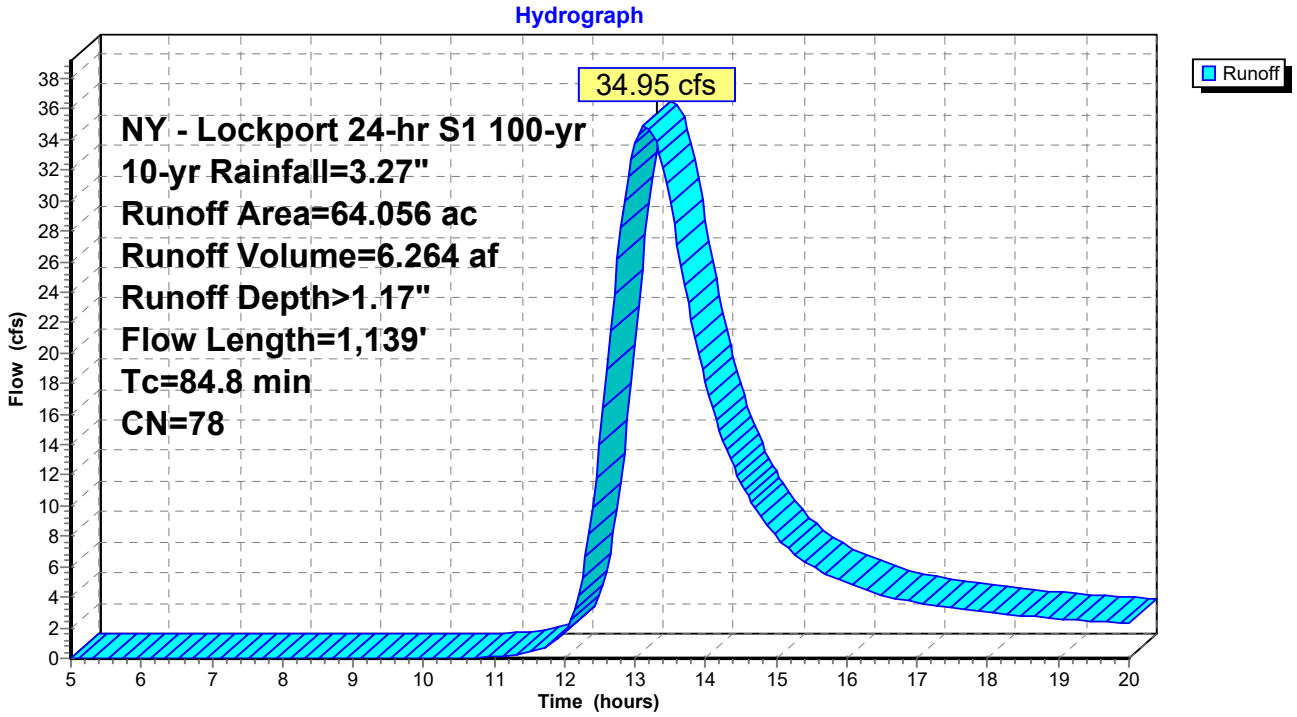
Runoff = 34.95 cfs @ 13.12 hrs, Volume= 6.264 af, Depth> 1.17"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.113	49	A-50-75% GRASS COVER, FAIR
*	0.131	30	A-MEADOW, NON-GRAZED
*	12.491	78	D-MEADOW, NON-GRAZED
*	0.855	80	D-75% GRASS COVER, GOOD
*	0.366	84	D-50-75% GRASS COVER, FAIR
*	0.263	79	D-WOODS/GRASS COMB., GOOD
*	49.419	78	D-MEADOW, NON-GRAZED
*	0.418	98	D-WATER SURFACE, 0% IMP
	64.056	78	Weighted Average
	63.638		99.35% Pervious Area
	0.418		0.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.1	100	0.0030	0.07		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
11.2	258	0.0030	0.38		**Shallow Concentrated Flow, 258** Short Grass Pasture Kv= 7.0 fps
31.4	132	0.0001	0.07		**Shallow Concentrated Flow, 132** Short Grass Pasture Kv= 7.0 fps
4.0	176	0.0110	0.73		**Shallow Concentrated Flow, 176** Short Grass Pasture Kv= 7.0 fps
7.7	270	0.0070	0.59		**Shallow Concentrated Flow, 270** Short Grass Pasture Kv= 7.0 fps
5.4	203	0.0080	0.63		**Shallow Concentrated Flow, 203** Short Grass Pasture Kv= 7.0 fps
84.8	1,139	Total			

Subcatchment DA13: EXISTING DA STR 97-103



Summary for Subcatchment DA14: EXISTING DA STR 104-106

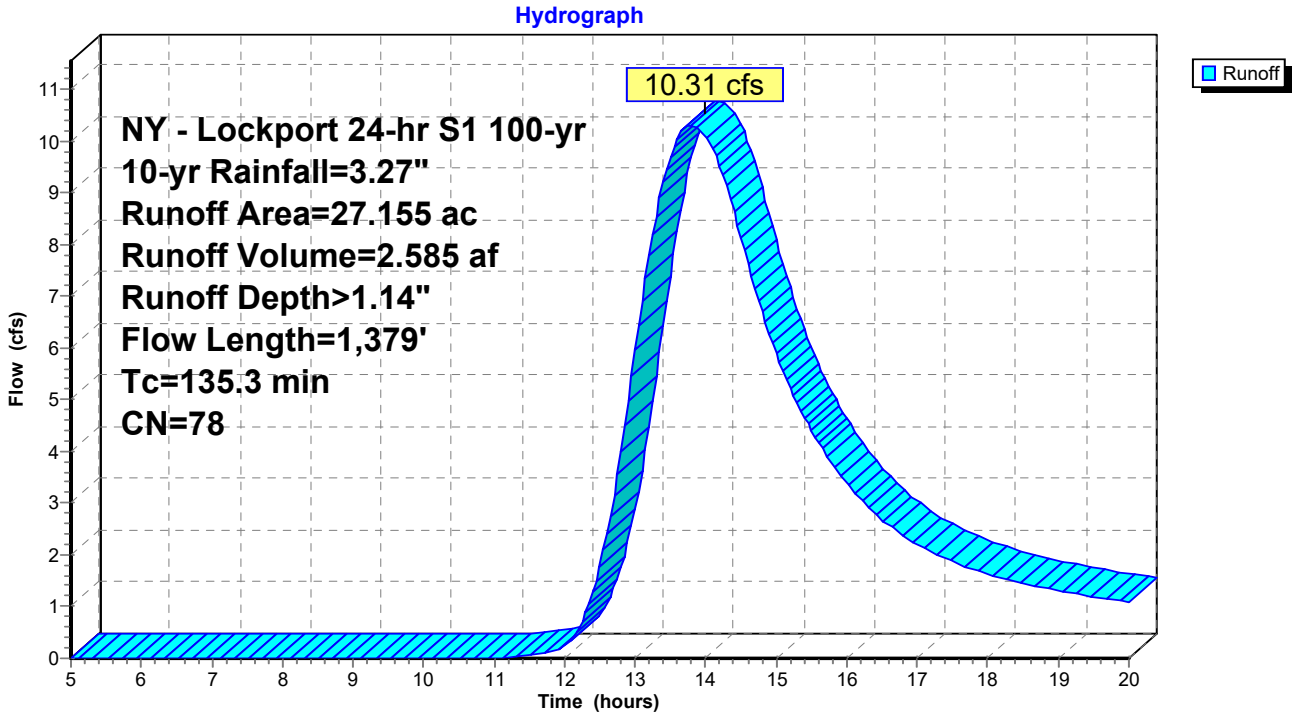
Runoff = 10.31 cfs @ 13.80 hrs, Volume= 2.585 af, Depth> 1.14"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.471	61	B-75% GRASS COVER, GOOD
*	1.291	80	D-75% GRASS OCVER, GOOD
*	0.937	84	D-50-75% GRASS COVER, FAIR
*	1.189	79	D-WOODS/GRASS COMB., GOOD
*	2.124	78	D-MEADOW, NON-GRAZED
*	0.606	80	D-75% GRASS COVER, GOOD
*	0.552	79	D-WOODS/GRASS COMB., GOOD
*	10.418	78	D-MEADOW, NON-GRAZED
*	0.104	98	D-WATER SURFACE, 0% IMP
*	0.137	98	D-WATER SURFACE, 0% IMP
*	0.893	80	D-75% GRASS OCVER, GOOD
*	0.115	80	D-50-75% GRASS COVER, FAIR
*	8.318	78	D-MEADOW, NON-GRAZED
	27.155	78	Weighted Average
	26.914		99.11% Pervious Area
	0.241		0.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.0330	0.17		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
0.9	53	0.0220	1.04		**Shallow Concentrated Flow, 53** Short Grass Pasture Kv= 7.0 fps
2.3	140	0.0210	1.01		**Shallow Concentrated Flow, 140** Short Grass Pasture Kv= 7.0 fps
2.2	140	0.0220	1.04		**Shallow Concentrated Flow, 140** Short Grass Pasture Kv= 7.0 fps
5.8	230	0.0090	0.66		**Shallow Concentrated Flow, 230** Short Grass Pasture Kv= 7.0 fps
7.6	267	0.0070	0.59		**Shallow Concentrated Flow, 267** Short Grass Pasture Kv= 7.0 fps
43.8	184	0.0001	0.07		**Shallow Concentrated Flow, 184** Short Grass Pasture Kv= 7.0 fps
63.1	265	0.0001	0.07		**Shallow Concentrated Flow, 265** Short Grass Pasture Kv= 7.0 fps
135.3	1,379	Total			

Subcatchment DA14: EXISTING DA STR 104-106



Summary for Subcatchment DA15: EXISTING DA STR 106-109

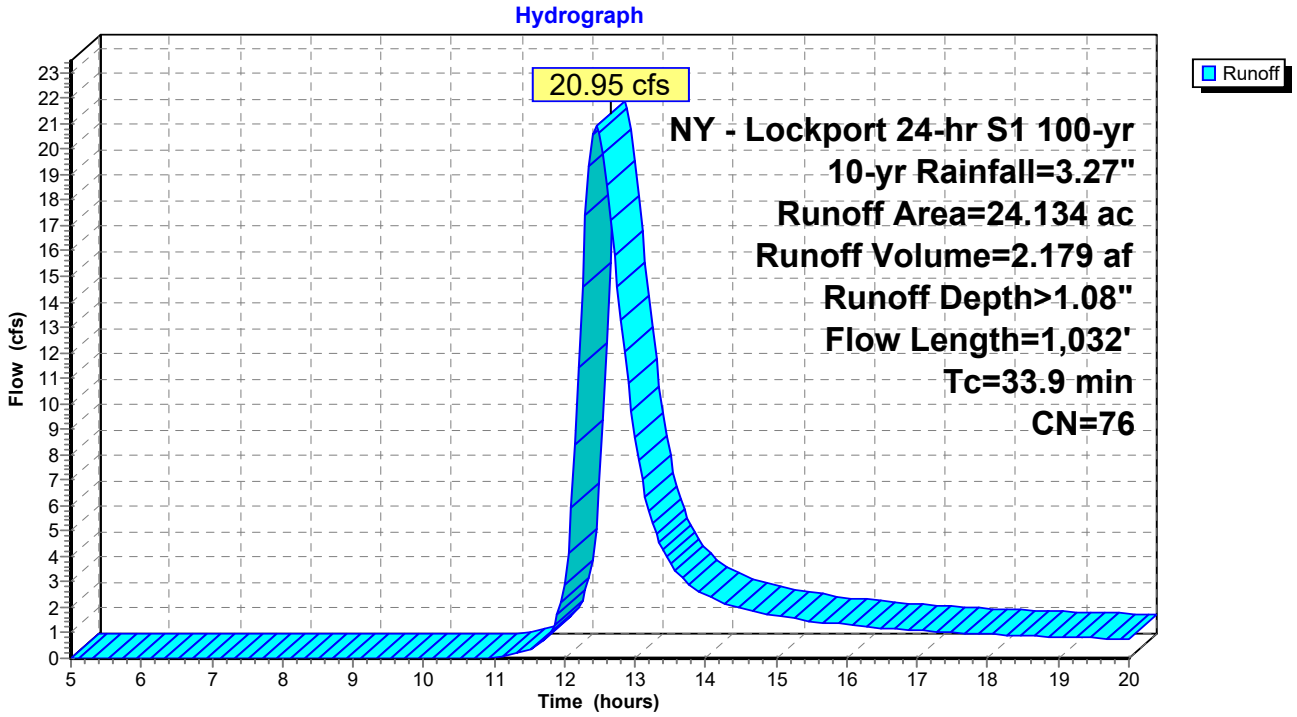
Runoff = 20.95 cfs @ 12.45 hrs, Volume= 2.179 af, Depth> 1.08"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.972	61	B-75% GRASS COVER, GOOD
*	1.615	69	B-50-75% GRASS COVER, FAIR
*	2.680	58	B-MEADOW, NON-GRAZED
*	0.028	80	D-75% GRASS COVER, GOOD
*	2.330	78	D-MEADOW, NON-GRAZED
*	0.585	80	D-75% GRASS COVER, GOOD
*	0.724	84	D-50-75% GRASS COVER, FAIR
*	0.465	79	D-WOODS/GRASS COMB., GOOD
*	13.770	78	D-MEADOW, NON-GRAZED
*	0.880	98	D-WATER SURFACE, 0% IMP
*	0.085	98	D-WATER SURFACE, 0% IMP
	24.134	76	Weighted Average
	23.169		96.00% Pervious Area
	0.965		4.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.4	100	0.0120	0.12		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
2.1	148	0.0270	1.15		**Shallow Concentrated Flow, 148** Short Grass Pasture Kv= 7.0 fps
3.4	204	0.0200	0.99		**Shallow Concentrated Flow, 204** Short Grass Pasture Kv= 7.0 fps
6.0	300	0.0140	0.83		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
8.0	280	0.0070	0.59		**Shallow Concentrated Flow, 280** Short Grass Pasture Kv= 7.0 fps
33.9	1,032	Total			

Subcatchment DA15: EXISTING DA STR 106-109



Summary for Subcatchment DA16: EXISTING DA STR 110-117

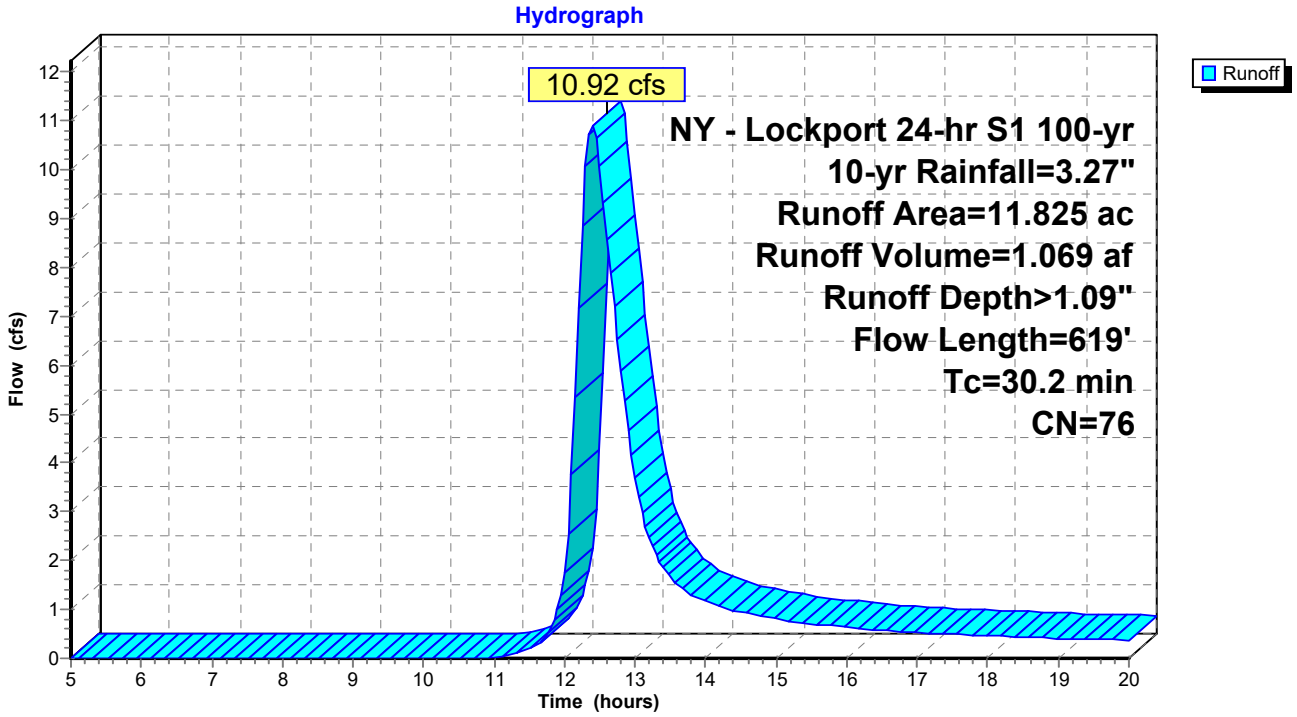
Runoff = 10.92 cfs @ 12.40 hrs, Volume= 1.069 af, Depth> 1.09"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.423	61	B-75%GRASS COVER, GOOD
*	0.460	69	B-50-75% GRASS COVER, FAIR
*	2.069	58	D-MEADOW, NON-GRAZED
*	0.045	78	D-MEADOW, NON-GRAZED
*	0.049	98	D-MEADOW, NON-GRAZED
*	0.487	80	D-75% GRASS COVER, GOOD
*	0.960	84	D-50-75% GRASS COVER, FAIR
*	0.293	79	D-WOODS/GRASS COMB., GOOD
*	5.704	78	D-MEADOW, NON-GRAZED
*	1.222	98	D-MEADOW, NON-GRAZED
*	0.048	79	D-WOODS/GRASS COMB., GOOD
*	0.009	78	D-MEADOW, NON-GRAZED
*	0.056	98	D-MEADOW, NON-GRAZED
	11.825	76	Weighted Average
	10.498		88.78% Pervious Area
	1.327		11.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.9	100	0.0070	0.09		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
3.4	222	0.0240	1.08		**Shallow Concentrated Flow, 222** Short Grass Pasture Kv= 7.0 fps
4.1	154	0.0080	0.63		**Shallow Concentrated Flow, 154** Short Grass Pasture Kv= 7.0 fps
4.8	143	0.0050	0.49		**Shallow Concentrated Flow, 143** Short Grass Pasture Kv= 7.0 fps
30.2	619	Total			

Subcatchment DA16: EXISTING DA STR 110-117



Summary for Subcatchment DA17: EXISTING DA STR 113-116

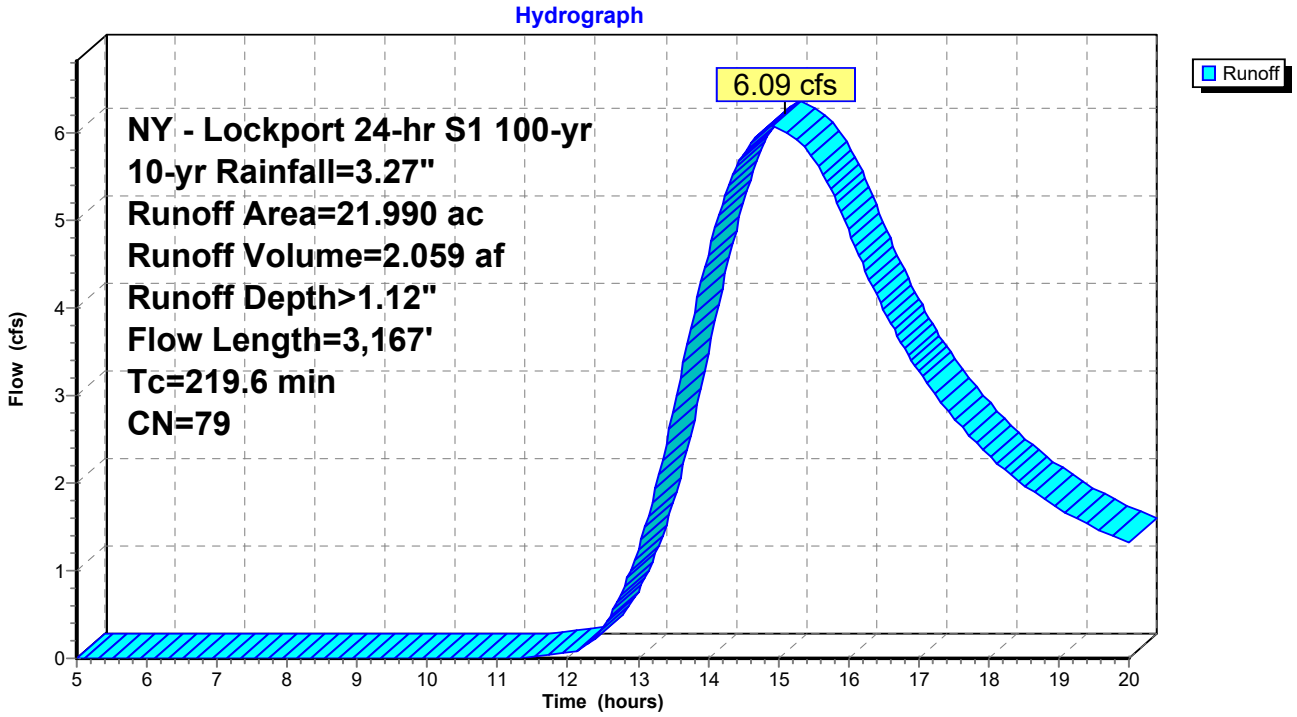
Runoff = 6.09 cfs @ 14.90 hrs, Volume= 2.059 af, Depth> 1.12"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.289	80	D-75% GRASS COVER, GOOD
*	0.899	84	D-50-75% GRASS COVER, FAIR
*	2.853	78	D-MEADOW, NON-GRAZED
*	0.540	78	D-MEADOW, NON-GRAZED
*	0.077	80	D-75% GRASS COVER, GOOD
*	0.177	84	D-50-75% GRASS COVER, FAIR
*	0.010	79	D-WOODS/GRASS COMB., GOOD
*	6.443	78	D-MEADOW, NON-GRAZED
*	7.074	78	D-MEADOW, NON-GRAZED
*	0.337	98	D-WATER SURFACE, 0% IMP
*	3.150	78	D-MEADOW, NON-GRAZED
*	0.141	98	D-WATER SURFACE, 0% IMP
	21.990	79	Weighted Average
	21.512		97.83% Pervious Area
	0.478		2.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	100	0.0610	0.22		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
3.0	144	0.0130	0.80		**Shallow Concentrated Flow, 144** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
9.2	300	0.0060	0.54		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
12.2	162	0.0010	0.22		**Shallow Concentrated Flow, 162** Short Grass Pasture Kv= 7.0 fps
10.1	300	0.0050	0.49		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
8.3	290	0.0070	0.59		**Shallow Concentrated Flow, 290** Short Grass Pasture Kv= 7.0 fps
0.6	50	0.0400	1.40		**Shallow Concentrated Flow, 50** Short Grass Pasture Kv= 7.0 fps
4.4	242	0.0170	0.91		**Shallow Concentrated Flow, 242** Short Grass Pasture Kv= 7.0 fps
6.3	300	0.0130	0.80		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
18.8	79	0.0001	0.07		**Shallow Concentrated Flow, 79** Short Grass Pasture Kv= 7.0 fps
219.6	3,167	Total			

Subcatchment DA17: EXISTING DA STR 113-116



Summary for Subcatchment DA18: EXISTING DA STR 36

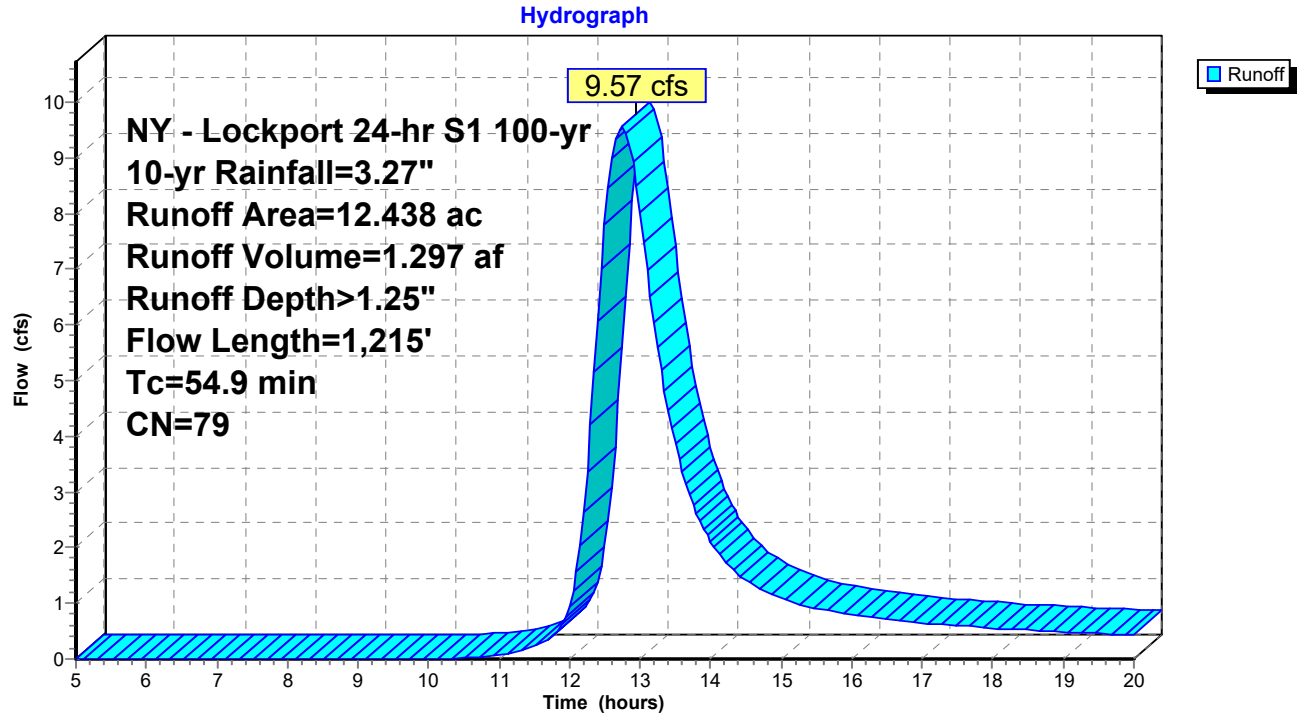
Runoff = 9.57 cfs @ 12.74 hrs, Volume= 1.297 af, Depth> 1.25"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.143	80	D - 80 - Developed open space
*	0.461	80	D - 80 - Developed open space
*	1.014	82	D - 82 - Developed Low intensity
*	1.218	82	D - 82 - Developed Low intensity
*	0.081	77	D - 77 - Deciduous Forest
*	7.367	78	D - 78 - Meadowed, grass, non-grazed land
*	2.154	78	D - 78 - Meadowed, grass, non-grazed land
	12.438	79	Weighted Average
	12.438		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0200	0.14		**Sheet Flow, 100' sheet** Grass: Short n= 0.150 P2= 2.22"
43.1	1,115	0.0038	0.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
54.9	1,215	Total			

Subcatchment DA18: EXISTING DA STR 36



Summary for Subcatchment DA19: EXISTING DA STR 42-47

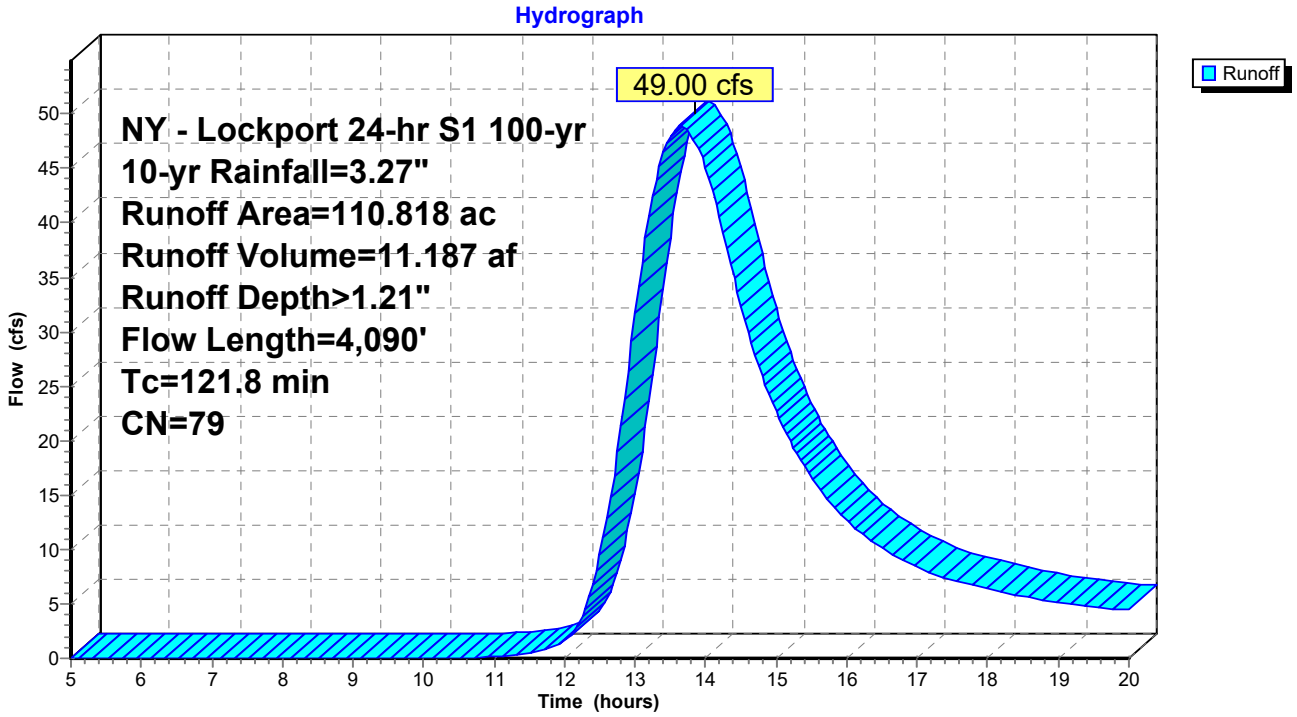
Runoff = 49.00 cfs @ 13.66 hrs, Volume= 11.187 af, Depth> 1.21"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	3.220	80	D - 80 - Developed open space
*	2.932	80	D - 80 - Developed open space
*	0.003	80	D - 80 - Developed open space
*	10.164	82	D - 82 - Developed Low intensity
*	6.410	82	D - 82 - Developed Low intensity
*	0.607	82	D - 82 - Developed Low intensity
*	5.494	77	D - 77 - Deciduous Forest
*	15.746	78	D - 78 - Meadowed, grass, non-grazed land
*	63.740	78	D - 78 - Meadowed, grass, non-grazed land
*	2.502	78	D - 78 - Meadowed, grass, non-grazed land
	110.818	79	Weighted Average
	110.818		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.0300	0.17		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.22"
88.0	2,225	0.0071	0.42		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.8	1,765	0.0068	1.24		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
121.8	4,090	Total			

Subcatchment DA19: EXISTING DA STR 42-47



Summary for Subcatchment DA2: EXISTING DA STR 11-12

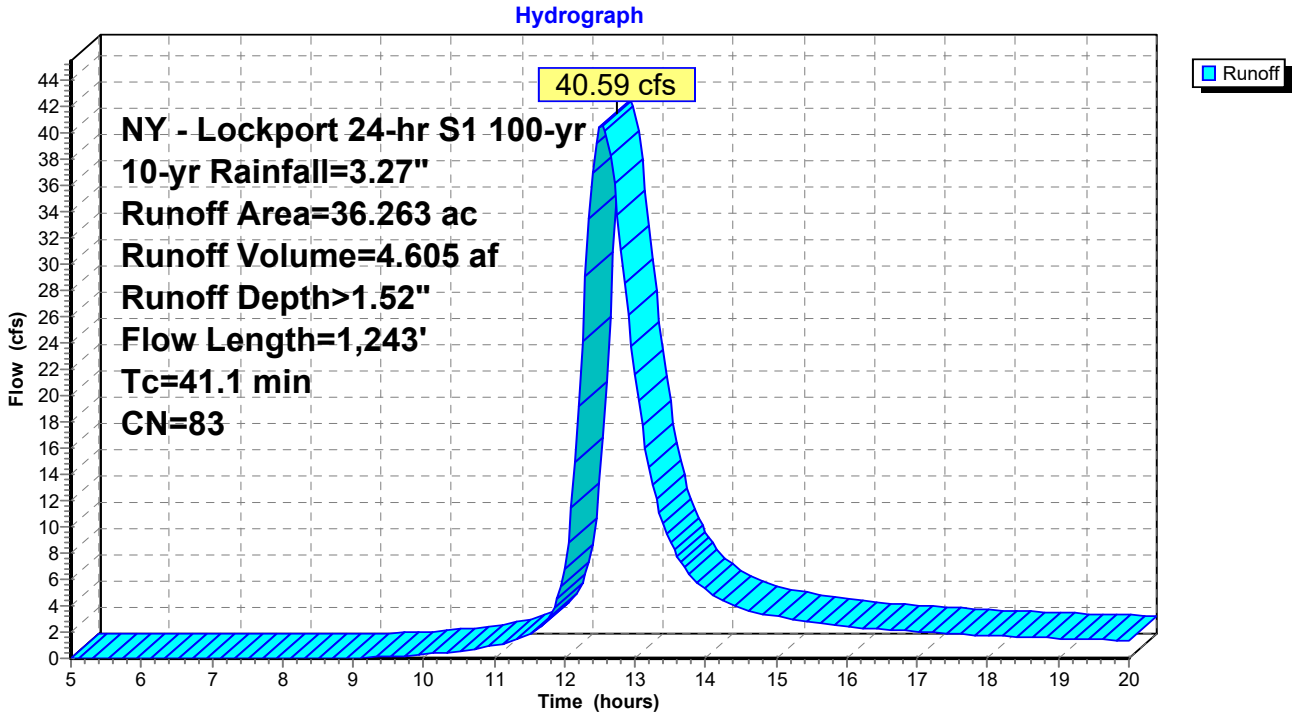
Runoff = 40.59 cfs @ 12.54 hrs, Volume= 4.605 af, Depth> 1.52"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	2.487	80	80-D-75% GRASS COVER, GOOD
*	1.050	84	84-D-50-75% GRASS COVER, FAIR
*	1.903	89	89-D-<50% GRASS COVER, POOR
*	0.250	95	95-D-URBAN COMMERCIAL, 85% IMP
*	0.043	79	79-D-WOODS/GRASS COMB., GOOD
*	1.541	78	78-D-MEADOW, NONGRAZED
*	0.054	80	80-D-75% GRASS COVER, GOOD
*	0.598	84	84-D-50-75% GRASSC OVER, FAIR
*	2.041	89	89-D-<50% GRASS COVER, POOR
*	0.286	95	95-D-URBAN COMMERCIAL, 85% IMP
*	1.744	78	78-D-MEADOW, NON-GRAZED
*	6.222	80	80-D-75% GRASS CVER, GOOD
*	7.613	84	8D-D-50-75% GRASS COVER, FAIR
*	3.609	89	89-D-<50% GRASS COVER POOR
*	0.887	95	95-D-URBAN COMMERCIAL, 85% IMP
*	3.299	79	79-D-WOODS/GRASS COMB., GOOD
*	2.636	78	78-D-MEADOW, NON-GRAZED
	36.263	83	Weighted Average
	36.263		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.5	100	0.0050	0.66		**Sheet Flow, 100'** Smooth surfaces n= 0.011 P2= 2.22"
1.4	115	0.0043	1.33		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.4	256	0.0078	1.79		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.3	240	0.0031	0.39		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	30	0.0064	1.62		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.8	128	0.0117	0.76		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
14.2	209	0.0024	0.24		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
7.2	165	0.0030	0.38		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
41.1	1,243	Total			

Subcatchment DA2: EXISTING DA STR 11-12



Summary for Subcatchment DA3: EXISTING DA STR 17-20

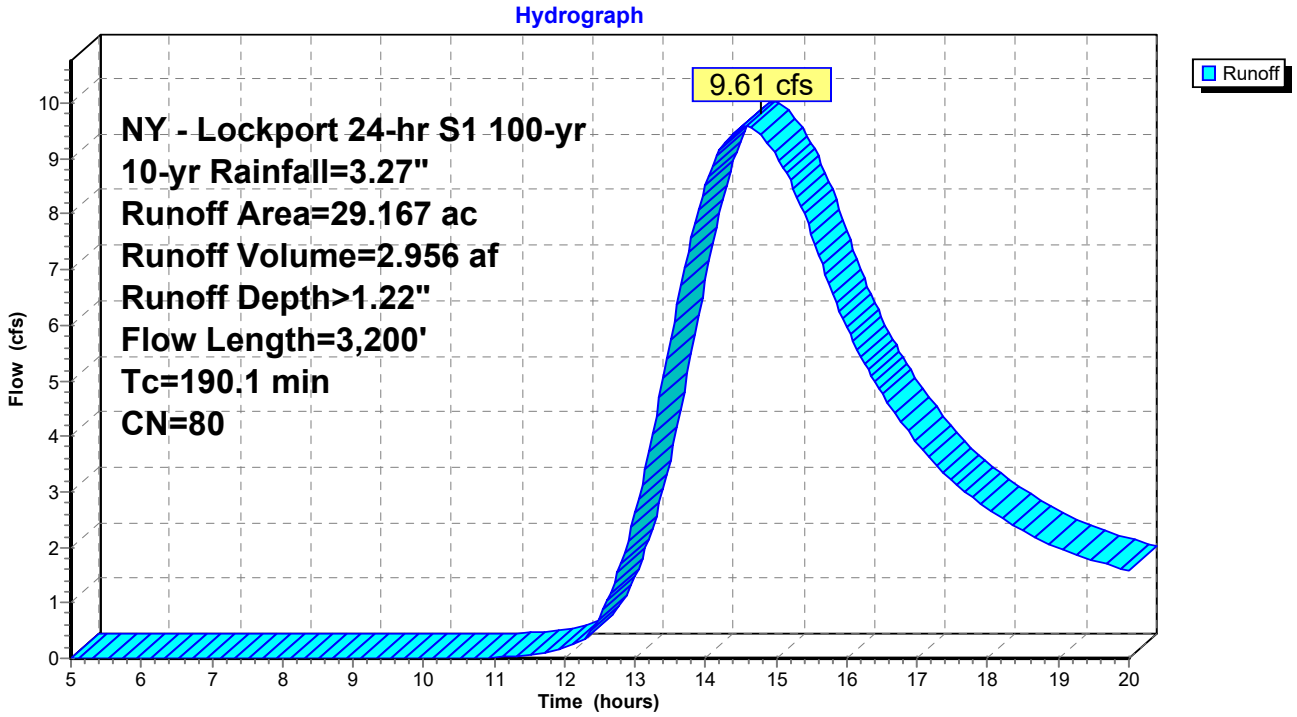
Runoff = 9.61 cfs @ 14.57 hrs, Volume= 2.956 af, Depth> 1.22"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.391	80	80-D-75% GRASS COVER, GOOD
*	4.601	79	WOODS/GRASS COMB., GOOD
*	1.427	79	WOODS/GRASS COMB., GOOD
*	2.196	78	MEADOW, NON-GRAZED
*	0.320	98	WATER SURFACE
*	3.636	80	75% GRASS COVER, GOOD
*	1.957	84	50-75% GRASS COVER, FAIR
*	1.104	89	<50% GRASS COVER, POOR
*	0.375	95	URBAN COMMERCIAL, 85% IMP
*	2.017	79	WOODS/GRASS COMB., GOOD
*	0.337	84	50-75% GRASS COVER, FAIR
*	1.756	79	WOODS/GRASS COMB., GOOD
*	0.470	79	WOODS/GRASS COMB., GOOD
*	8.306	78	MEADOW, NON-GRAZED
*	0.274	98	WATER SURFACE, 0% IMP
	29.167	80	Weighted Average
	28.573		97.96% Pervious Area
	0.594		2.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.2	100	0.0175	0.06		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
7.6	186	0.0067	0.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
8.3	368	0.0217	0.74		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
31.5	708	0.0056	0.37		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.1	576	0.0069	0.42		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	452	0.0055	0.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
77.9	810	0.0012	0.17		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
190.1	3,200	Total			

Subcatchment DA3: EXISTING DA STR 17-20



Summary for Subcatchment DA4: EXISTING DA STR 21-23

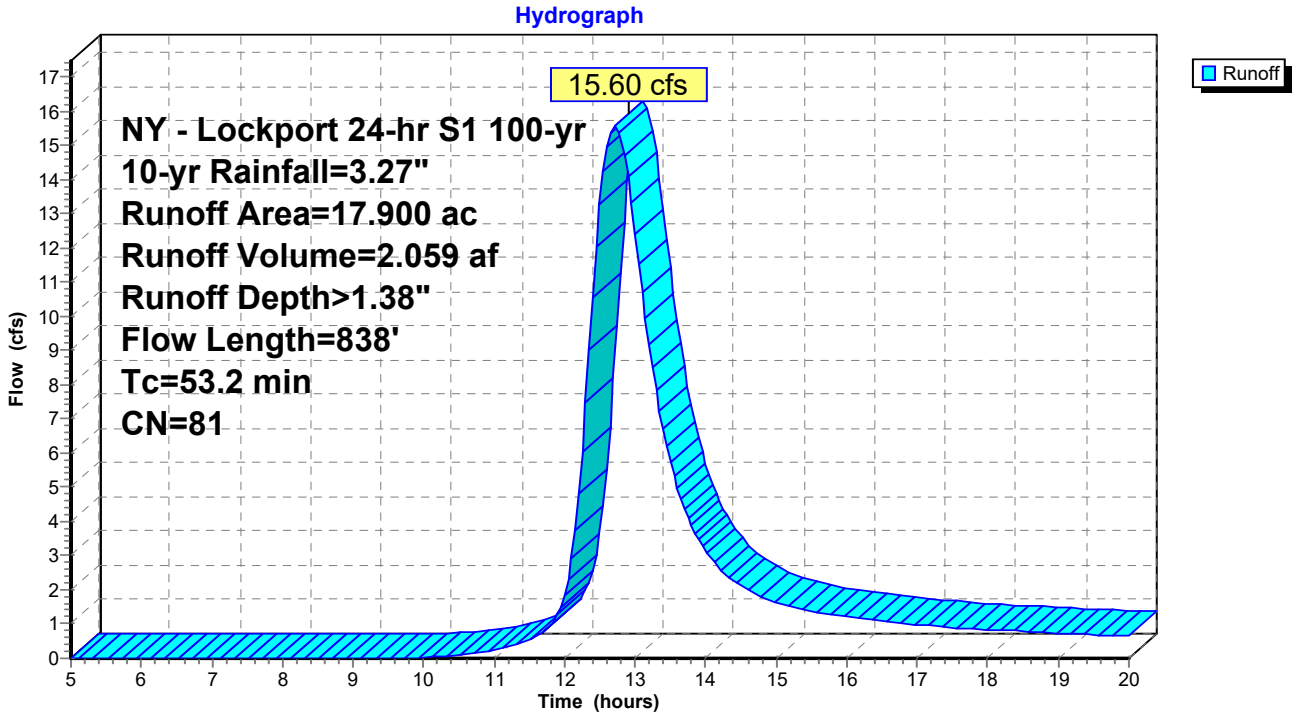
Runoff = 15.60 cfs @ 12.71 hrs, Volume= 2.059 af, Depth> 1.38"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.062	80	80-D-75% GRASS COVER, GOOD
*	0.720	84	84-D-50-75% GRASS COVER, FAIR
*	0.884	78	78-D-MEADOW, NON-GRAZED
*	4.286	80	80-D-75% GRASS COVER, GOOD
*	3.922	84	84-D-50-75% GRASS COVER, FAIR
*	0.139	89	89-D-<50% GRASS COVER, POOR
*	1.645	85	85-D-HERBACEOUS RANGE, GOOD
*	5.404	78	78-D-MEADOW, NON-GRAZED
*	0.188	80	80-D-75% GRASS COVER, GOOD
*	0.143	84	84-D-50-75% GRASS COVER, FAIR
*	0.507	78	78-D-MEADOW, NON-GRAZED
	17.900	81	Weighted Average
	17.900		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0125	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.22"
23.5	419	0.0018	0.30		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
15.5	319	0.0024	0.34		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
53.2	838	Total			

Subcatchment DA4: EXISTING DA STR 21-23



Summary for Subcatchment DA5: EXISTING DA STR 25-29

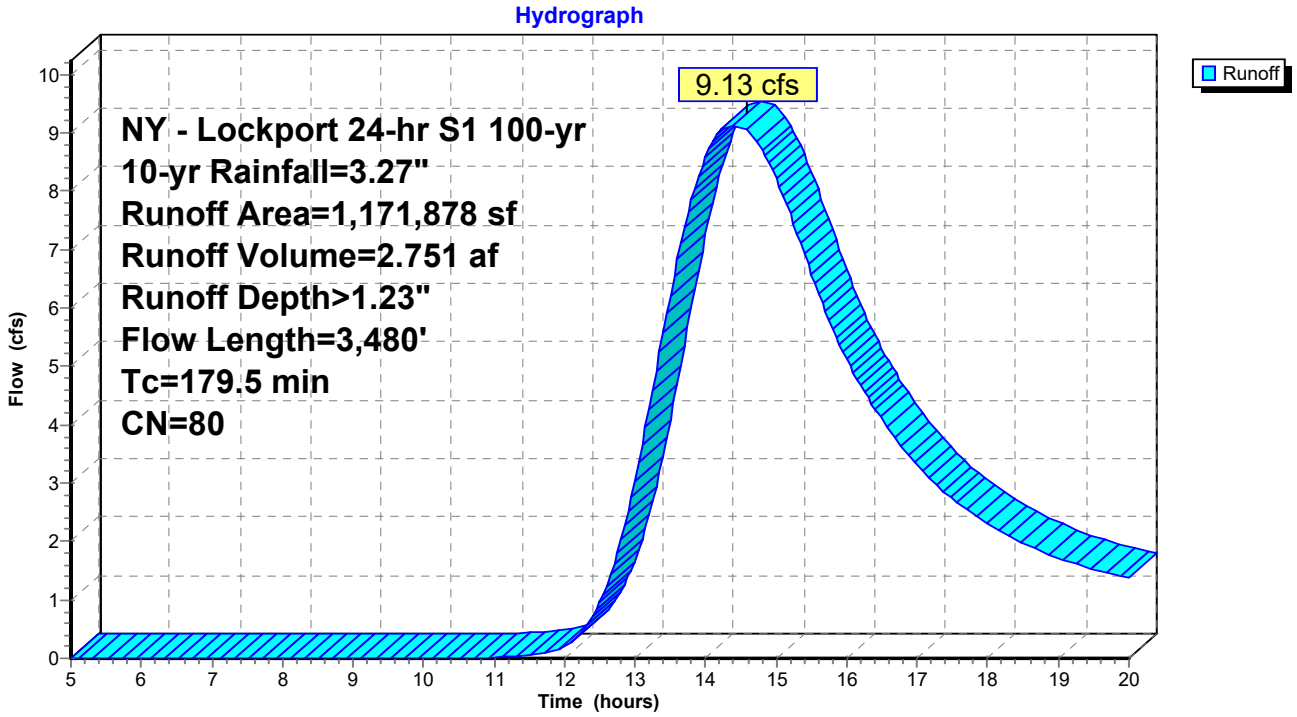
Runoff = 9.13 cfs @ 14.40 hrs, Volume= 2.751 af, Depth> 1.23"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (sf)	CN	Description
*	17,032	80	80-D-75% GRASS COVER, GOOD
*	200,420	79	WOODS/GRASS COMB., GOOD
*	62,160	79	WOODS/GRASS COMB., GOOD
*	95,658	78	MEADOW, NON-GRAZED
*	13,939	98	WATER SURFACE
*	158,384	80	75% GRASS COVER, GOOD
*	85,247	84	50-75% GRASS COVER, FAIR
*	48,090	89	<50% GRASS COVER, POOR
*	16,335	95	URBAN COMMERCIAL, 85% IMP
*	87,844	79	WOODS/GRASS COMB., GOOD
*	14,680	84	50-75% GRASS COVER, FAIR
*	152,329	79	WOODS/GRASS COMB., GOOD
*	20,473	79	WOODS/GRASS COMB., GOOD
*	187,352	78	MEADOW, NON-GRAZED
*	11,935	98	WATER SURFACE, 0% IMP
	1,171,878	80	Weighted Average
	1,146,004		97.79% Pervious Area
	25,874		2.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.8	100	0.0200	0.06		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
28.8	377	0.0019	0.22		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
12.9	548	0.0200	0.71		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
17.4	739	0.0200	0.71		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
10.5	489	0.0240	0.77		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
8.0	420	0.0156	0.87		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.1	429	0.0120	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
63.0	378	0.0004	0.10		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
179.5	3,480	Total			

Subcatchment DA5: EXISTING DA STR 25-29



Summary for Subcatchment DA6: EXISTING DA STR 29-35

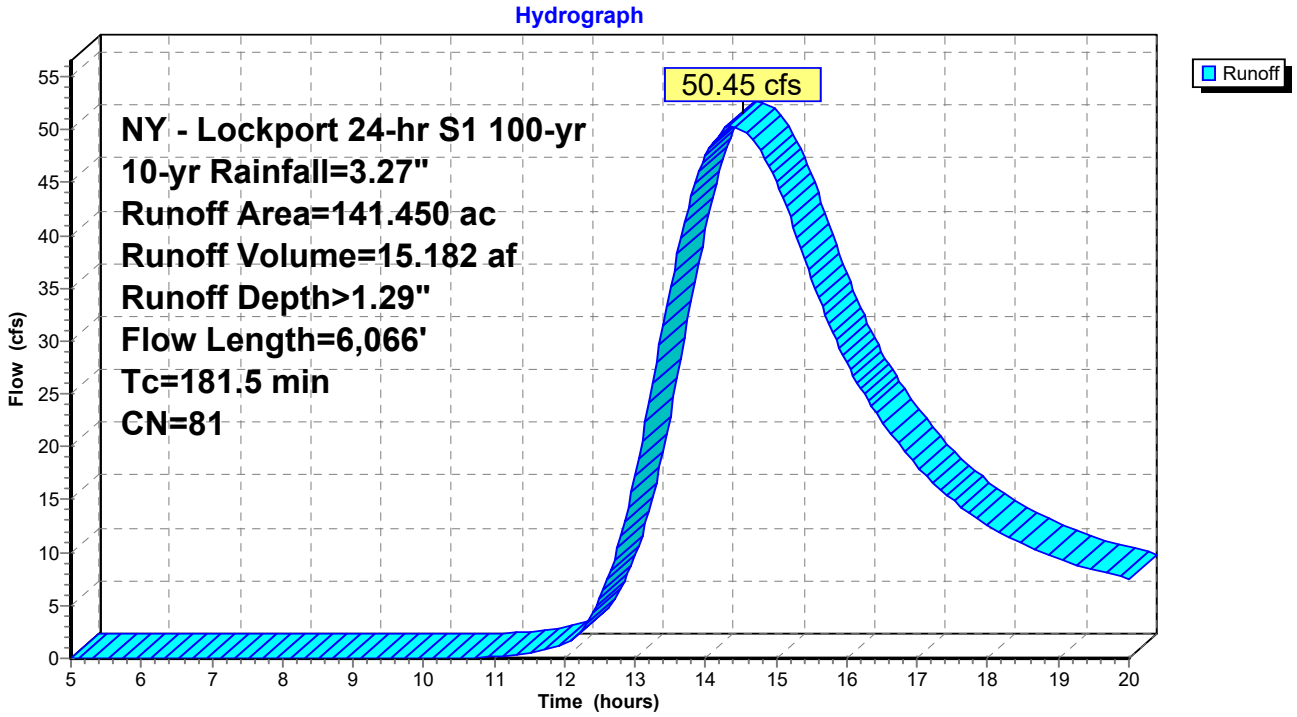
Runoff = 50.45 cfs @ 14.34 hrs, Volume= 15.182 af, Depth> 1.29"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.152	98	D - 98 - Open Water
*	0.074	80	D - 80 - Developed open space
*	0.307	80	D - 80 - Developed open space
*	2.363	80	D - 80 - Developed open space
*	1.992	82	D - 82 - Developed Low intensity
*	1.726	82	D - 82 - Developed Low intensity
*	2.185	85	D - 85 - Developed Med intensity
*	0.875	77	D - 77 - Deciduous Forest
*	18.239	77	D - 77 - Deciduous Forest
*	13.242	77	D - 77 - Deciduous Forest
*	0.038	77	D - 77 - Evergreen Forest
*	0.919	77	D - 77 - Evergreen Forest
*	0.021	77	D - 77 - Evergreen Forest
*	0.508	77	D - 77 - Mixed Forest
*	0.889	77	D - 77 - Mixed Forest
*	0.160	77	D - 77 - Mixed Forest
*	4.266	78	D - 78 - Meadowed, grass, non-grazed land
*	29.357	78	D - 78 - Meadowed, grass, non-grazed land
*	22.896	78	D - 78 - Meadowed, grass, non-grazed land
*	0.112	78	D - 78 - Meadowed, grass, non-grazed land
*	5.915	78	D - 78 - Meadowed, grass, non-grazed land
*	5.016	90	D - 90 - Woody Wetlands
*	30.198	90	D - 90 - Woody Wetlands
	141.450	81	Weighted Average
	141.298		99.89% Pervious Area
	0.152		0.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.7	100	0.0275	0.07		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
31.2	1,144	0.0149	0.61		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.6	670	0.0026	0.76		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
12.9	328	0.0008	0.42		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
100.1	3,824	0.0018	0.64		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
181.5	6,066	Total			

Subcatchment DA6: EXISTING DA STR 29-35



Summary for Subcatchment DA7: EXISTING DA STR 37-40

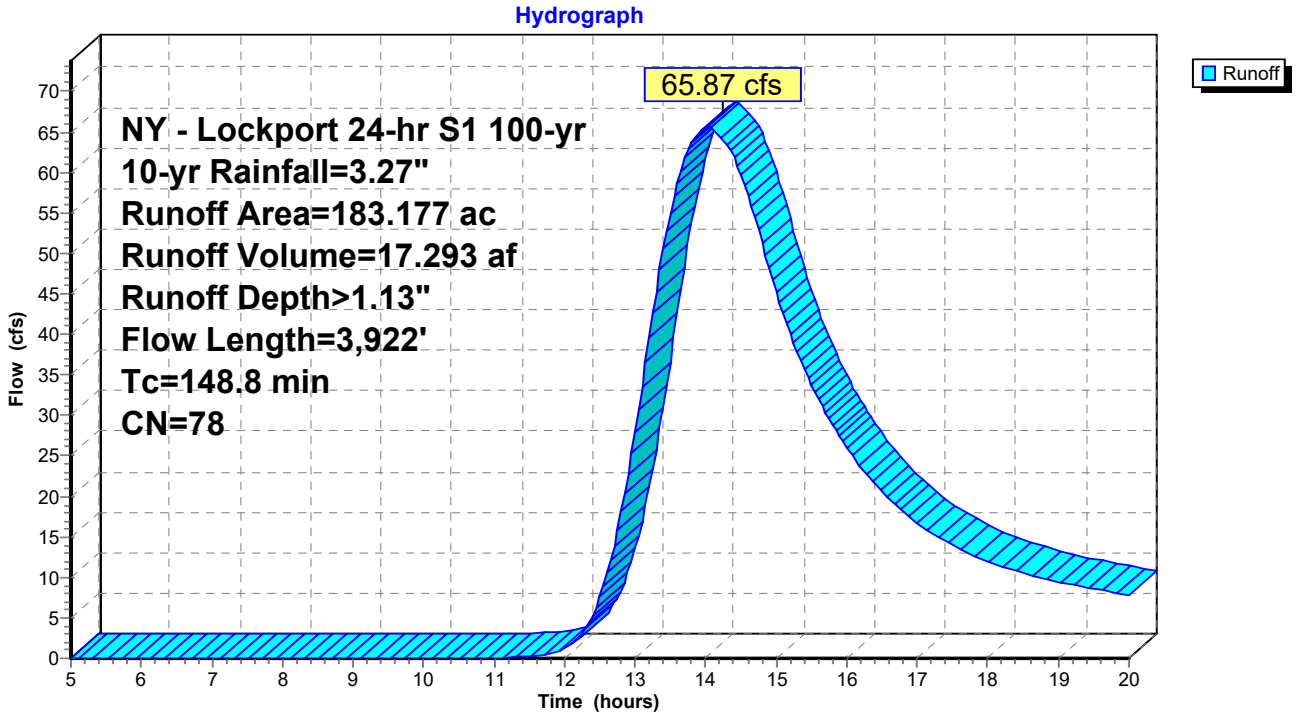
Runoff = 65.87 cfs @ 14.05 hrs, Volume= 17.293 af, Depth> 1.13"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	2.507	80	D - 80 - Developed open space
*	3.318	80	D - 80 - Developed open space
*	2.790	80	D - 80 - Developed open space
*	2.870	82	D - 82 - Developed Low intensity
*	4.979	82	D - 82 - Developed Low intensity
*	4.781	82	D - 82 - Developed Low intensity
*	0.152	85	D - 85 - Developed Med intensity
*	1.263	77	D - 77 - Deciduous Forest
*	3.431	77	D - 77 - Deciduous Forest
*	3.544	77	D - 77 - Deciduous Forest
*	14.732	78	D - 78 - Meadowed, grass, non-grazed land
*	59.055	78	D - 78 - Meadowed, grass, non-grazed land
*	79.755	78	D - 78 - Meadowed, grass, non-grazed land
	183.177	78	Weighted Average
	183.177		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.6	100	0.0350	0.08		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
48.7	1,573	0.0116	0.54		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
62.0	1,276	0.0047	0.34		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
17.5	973	0.0038	0.92		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
148.8	3,922	Total			

Subcatchment DA7: EXISTING DA STR 37-40



Summary for Subcatchment DA8: EXISTING DA STR 41

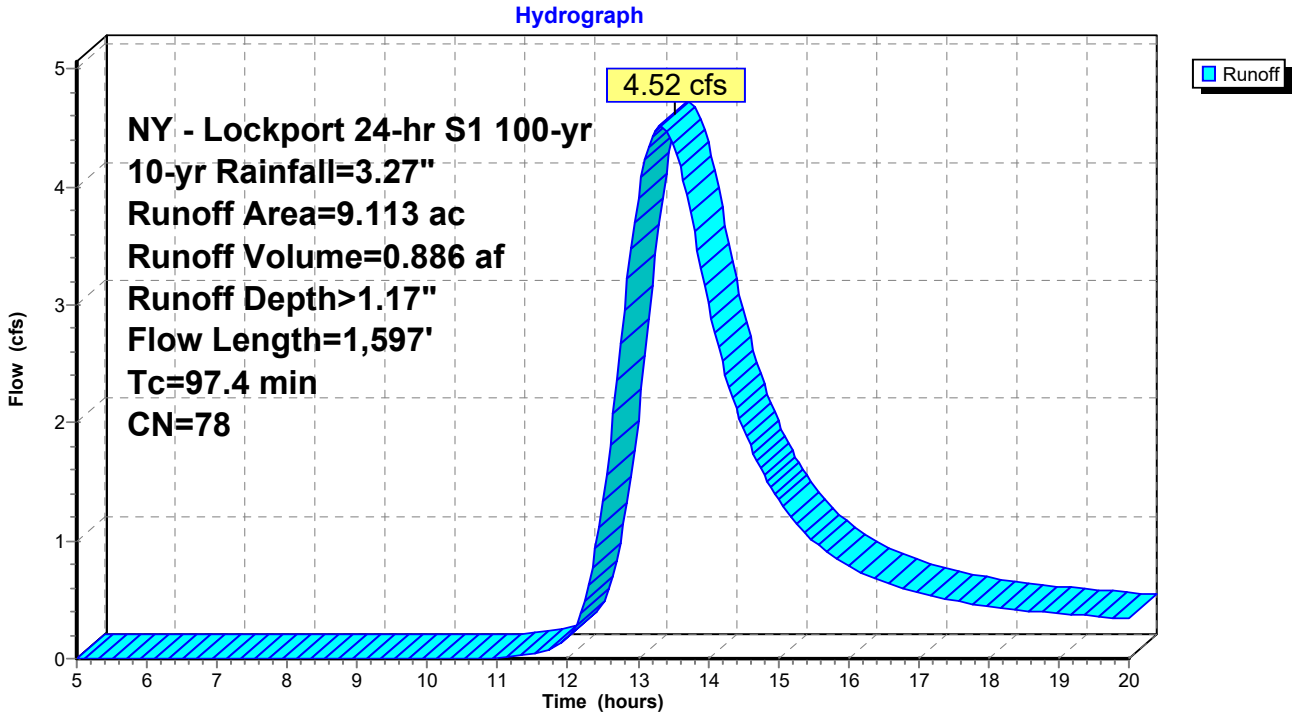
Runoff = 4.52 cfs @ 13.32 hrs, Volume= 0.886 af, Depth> 1.17"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	3.755	77	D - 77 - Deciduous Forest
*	5.358	78	D - 78 - Meadowed, grass, non-grazed land
	9.113	78	Weighted Average
	9.113		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.0	100	0.0100	0.05		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
63.4	1,497	0.0062	0.39		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.4	1,597	Total			

Subcatchment DA8: EXISTING DA STR 41



Summary for Subcatchment DA9: EXISTING DA STR 48-50

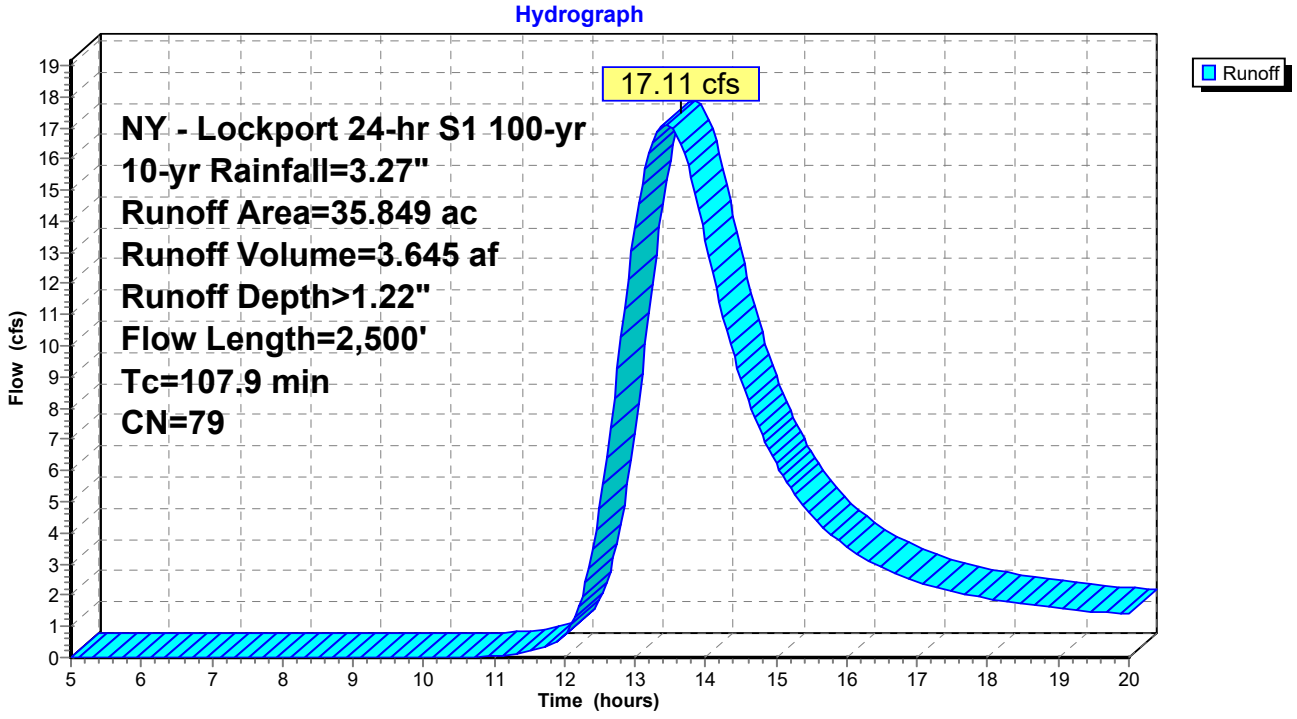
Runoff = 17.11 cfs @ 13.44 hrs, Volume= 3.645 af, Depth> 1.22"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	2.300	80	D-75% GRASS COVER, GOOD
*	0.850	84	D-50-75% GRASS COVER, FAIR
*	0.080	89	D-<50% GRASS COVER, POOR
*	0.800	79	D-WOODS/GRASS COMB., GOOD
*	6.410	78	D-MEADOW, NON-GRAZED
*	0.060	98	D-WATER SURFACE, 0% IMP
*	1.214	80	D-75% GRASS COVER, GOOD
*	0.214	84	D-50-75% GRASS COVER, FAIR
*	0.060	89	D-<50% GRASS COVER, POOR
*	4.411	79	D-WOODS/GRASS COMB., GOOD
*	18.040	78	D-MEADOW, NON-GRAZED
*	1.050	98	D-WATER SURFACE, 0% IMP
*	0.150	80	D-75% GRASS COVER, GOOD
*	0.210	78	D-MEADOW, NON-GRAZED
	35.849	79	Weighted Average
	34.739		96.90% Pervious Area
	1.110		3.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	100	0.0300	1.21		**Shallow Concentrated Flow, 100'** Short Grass Pasture Kv= 7.0 fps
31.2	262	0.0120	0.14		**Sheet Flow, 262.19** Grass: Short n= 0.150 P2= 2.22"
4.5	254	0.0180	0.94		**Shallow Concentrated Flow, 254'** Short Grass Pasture Kv= 7.0 fps
2.9	129	0.0110	0.73		**Shallow Concentrated Flow, 128.66** Short Grass Pasture Kv= 7.0 fps
4.4	196	0.0110	0.73		**Shallow Concentrated Flow, 196** Short Grass Pasture Kv= 7.0 fps
6.9	260	0.0080	0.63		**Shallow Concentrated Flow, 260** Short Grass Pasture Kv= 7.0 fps
5.5	219	0.0090	0.66		**Shallow Concentrated Flow, 219** Short Grass Pasture Kv= 7.0 fps
12.4	285	0.0030	0.38		**Shallow Concentrated Flow, 285** Short Grass Pasture Kv= 7.0 fps
6.1	230	0.0080	0.63		**Shallow Concentrated Flow, 230** Short Grass Pasture Kv= 7.0 fps
10.0	265	0.0040	0.44		**Shallow Concentrated Flow, 265** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
107.9	2,500	Total			

Subcatchment DA9: EXISTING DA STR 48-50



Summary for Subcatchment PDA1: PROPOSED DA STR 9-10

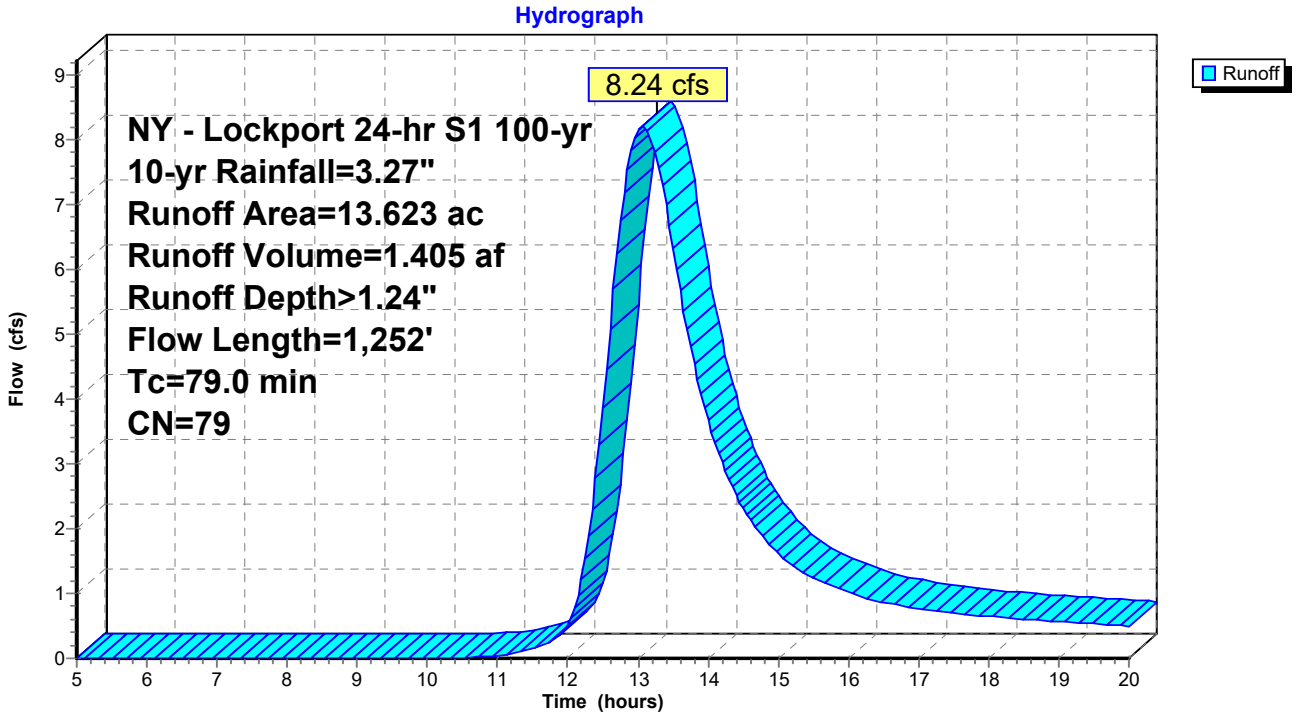
Runoff = 8.24 cfs @ 13.07 hrs, Volume= 1.405 af, Depth> 1.24"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.134	39	39 - A - 75% GRASS COVER, GOOD
*	0.938	49	49 - A - 50-75% GRASS COVER, FAIR
*	0.065	68	68 - A - <50% GRASS COVER, POOR
*	0.064	32	32 - A - FALLOW, BARE SOIL
*	0.064	30	30 - A - MEADOW, NON-GRAZED
*	0.293	80	80 - D - 75% GRASS COVER, GOOD
*	1.950	84	84 - D - 50-75% GRASS COVER, FAIR
*	0.320	89	89 - D - <50% GRASS COVER, POOR
*	0.105	79	79 - D - WOODS/GRASS COMB., GOOD
*	0.497	78	78 - D - MEADOW, NON-GRAZED
*	1.157	80	80 - D - 75% GRASS COVER, GOOD
*	4.870	84	84 - D - 50-75% GRASS COVER, FAIR
*	0.499	89	89 - D - <50% GRASS COVER, POOR
*	2.167	78	78 - D - MEADOW, NON-GRAZED
	0.500	91	Gravel roads, HSG D
	13.623	79	Weighted Average
	13.623		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	100	0.0175	0.13		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.22"
40.8	420	0.0006	0.17		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	45	0.0056	1.52		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
14.3	300	0.0025	0.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.7	200	0.0050	0.49		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.3	187	0.0107	0.72		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
79.0	1,252	Total			

Subcatchment PDA1: PROPOSED DA STR 9-10



Summary for Subcatchment PDA10: EXISTING DA STR 78-83

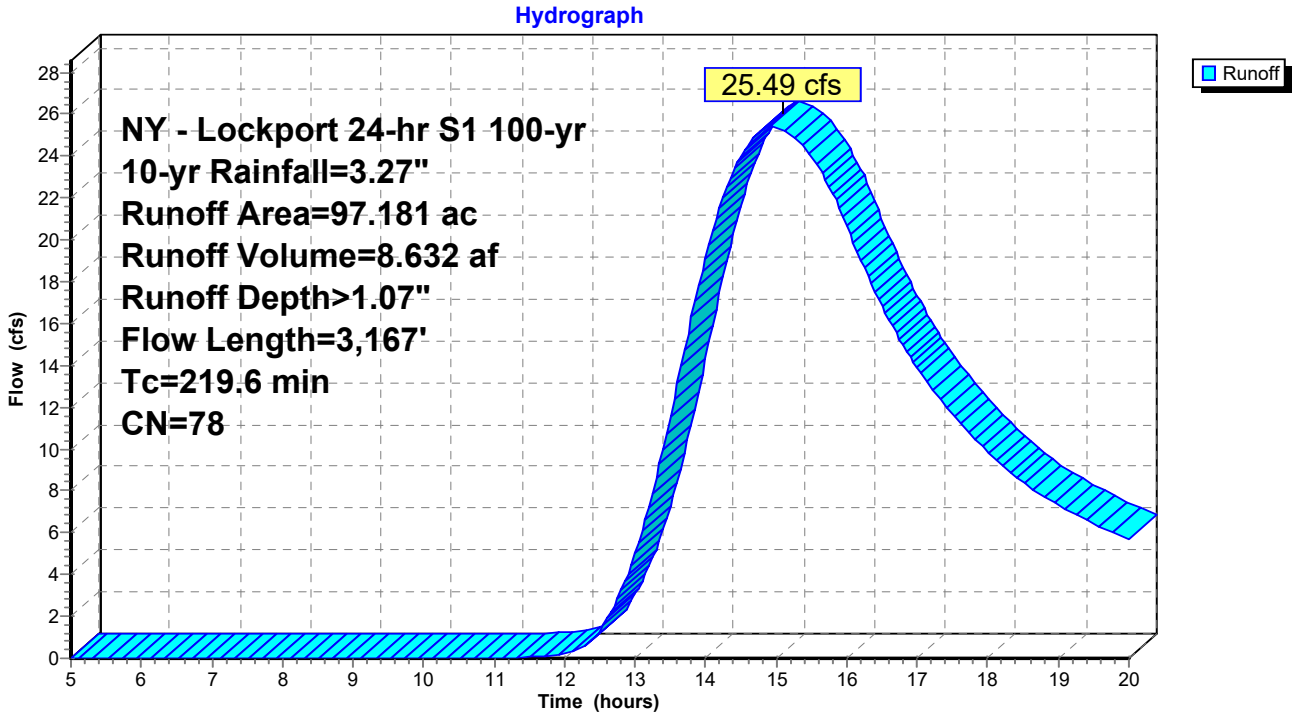
Runoff = 25.49 cfs @ 14.91 hrs, Volume= 8.632 af, Depth> 1.07"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.446	82	B-MEADOW, NON-GRAZED
*	0.142	43	D-WOODS/GRASS COMB., GOOD
*	13.840	81	D-MEADOW, NON-GRAZED
*	8.160	82	D-MEADOW, NON-GRAZED
*	1.781	21	D-75% GRASS COVER, GOOD
*	3.035	22	D-50-75% GRASS COVER, FAIR
*	24.158	81	D-MEADOW, NON-GRAZED
*	5.711	82	D-MEADOW, NON-GRAZED
*	0.003	21	D-75% GRASS COVER, GOOD
*	0.428	22	D-50-75% GRASS COVER, FAIR
*	18.333	81	D-MEADOW, NON-GRAZED
*	19.570	82	D-MEADOW, NON-GRAZED
*	0.340	98	D-PAVED ASPHALT DRIVEWAY
*	0.043	90	D-WATER SURFACE, 0% IMP
	1.064	91	Gravel roads, HSG D
	0.127	91	Gravel roads, HSG D
	97.181	78	Weighted Average
	96.841		99.65% Pervious Area
	0.340		0.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	100	0.0610	0.22		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
3.0	144	0.0130	0.80		**Shallow Concentrated Flow, 144** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
9.2	300	0.0060	0.54		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
12.2	162	0.0010	0.22		**Shallow Concentrated Flow, 162** Short Grass Pasture Kv= 7.0 fps
10.1	300	0.0050	0.49		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
8.3	290	0.0070	0.59		**Shallow Concentrated Flow, 290** Short Grass Pasture Kv= 7.0 fps
0.6	50	0.0400	1.40		**Shallow Concentrated Flow, 50** Short Grass Pasture Kv= 7.0 fps
4.4	242	0.0170	0.91		**Shallow Concentrated Flow, 242** Short Grass Pasture Kv= 7.0 fps
6.3	300	0.0130	0.80		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
18.8	79	0.0001	0.07		**Shallow Concentrated Flow, 79** Short Grass Pasture Kv= 7.0 fps
219.6	3,167	Total			

Subcatchment PDA10: EXISTING DA STR 78-83



Summary for Subcatchment PDA11: PROPOSED DA STR 84-86

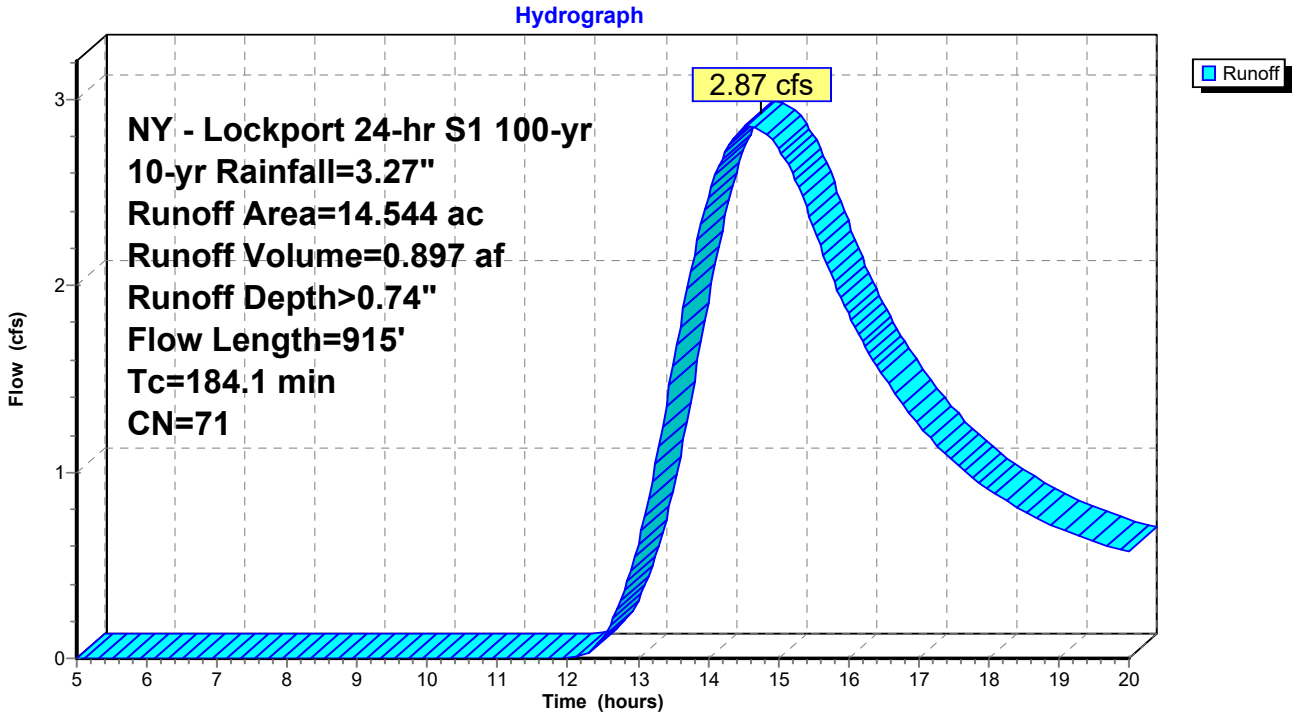
Runoff = 2.87 cfs @ 14.55 hrs, Volume= 0.897 af, Depth> 0.74"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.033	58	B-MEADOW, NON-GRAZED
*	3.140	58	B-MEADOW, NON-GRAZED
*	0.039	80	D-75% GRASS COVER, GOOD
*	0.117	84	D-50-75% GRASS COVER, FAIR
*	1.962	78	D-MEADOW, NON-GRAZED
*	2.017	78	D-MEADOW, NON-GRAZED
*	0.145	71	D-MEADOW, NON-GRAZED
*	5.505	71	D-MEADOW, NON-GRAZED
*	0.304	78	D-MEADOW, NONGRAZED
*	0.030	78	D-MEADOW, NON-GRAZED
*	0.724	78	D-MEADOW, NON-GRAZED
	0.528	91	Gravel roads, HSG D
	14.544	71	Weighted Average
	14.544		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
97.9	100	0.0001	0.02		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
3.6	164	0.0120	0.77		**Shallow Concentrated Flow, 164** Short Grass Pasture Kv= 7.0 fps
8.5	300	0.0070	0.59		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
2.7	51	0.0020	0.31		**Shallow Concentrated Flow, 51** Short Grass Pasture Kv= 7.0 fps
184.1	915	Total			

Subcatchment PDA11: PROPOSED DA STR 84-86



Summary for Subcatchment PDA12: PROPOSED DA STR 90-96

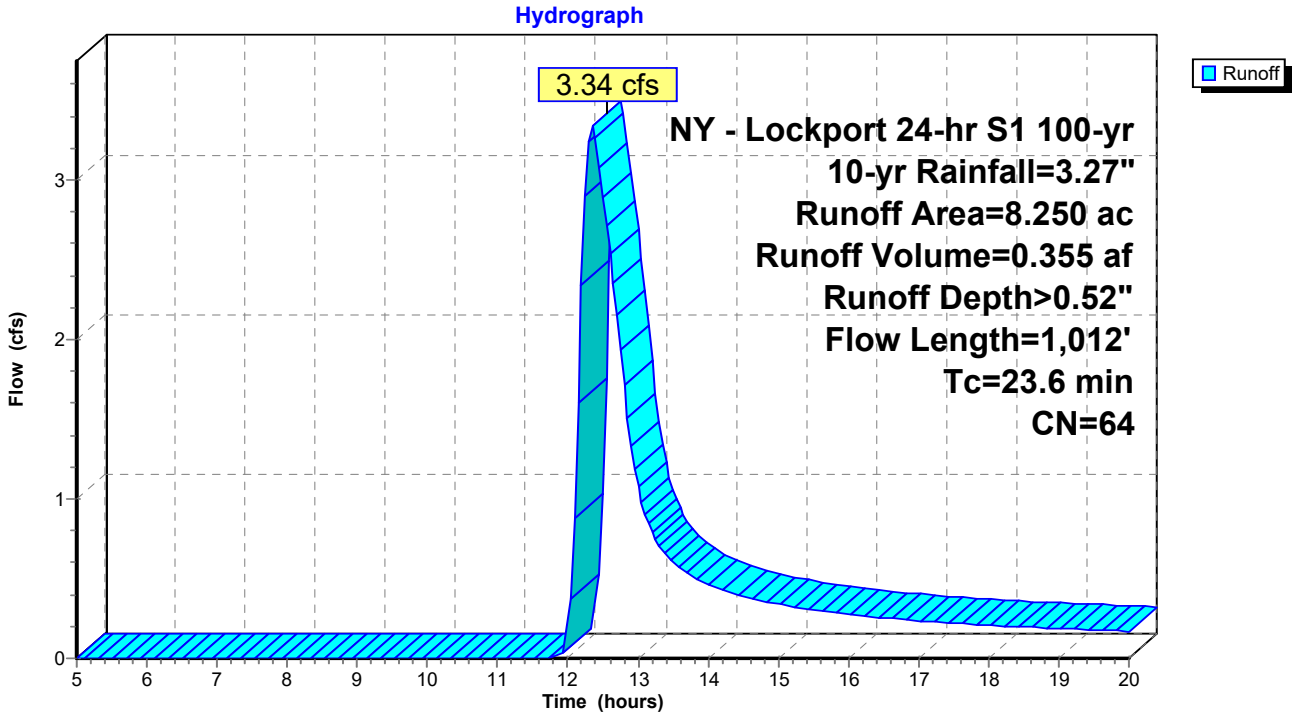
Runoff = 3.34 cfs @ 12.35 hrs, Volume= 0.355 af, Depth> 0.52"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	2.470	30	A-MEADOW, NON-GRAZED
*	5.354	78	D-MEADOW, NON-GRAZED
	0.426	91	Gravel roads, HSG D
	8.250	64	Weighted Average
	8.250		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0390	0.19		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
1.5	130	0.0420	1.43		**Shallow Concentrated Flow, 130** Short Grass Pasture Kv= 7.0 fps
1.7	180	0.0640	1.77		**Shallow Concentrated Flow, 180** Short Grass Pasture Kv= 7.0 fps
2.5	237	0.0520	1.60		**Shallow Concentrated Flow, 237** Short Grass Pasture Kv= 7.0 fps
1.3	80	0.0230	1.06		**Shallow Concentrated Flow, 80** Short Grass Pasture Kv= 7.0 fps
5.0	132	0.0040	0.44		**Shallow Concentrated Flow, 132** Short Grass Pasture Kv= 7.0 fps
2.6	153	0.0200	0.99		**Shallow Concentrated Flow, 153** Short Grass Pasture Kv= 7.0 fps
23.6	1,012	Total			

Subcatchment PDA12: PROPOSED DA STR 90-96



Summary for Subcatchment PDA13: PROPOSED DA STR 97-103

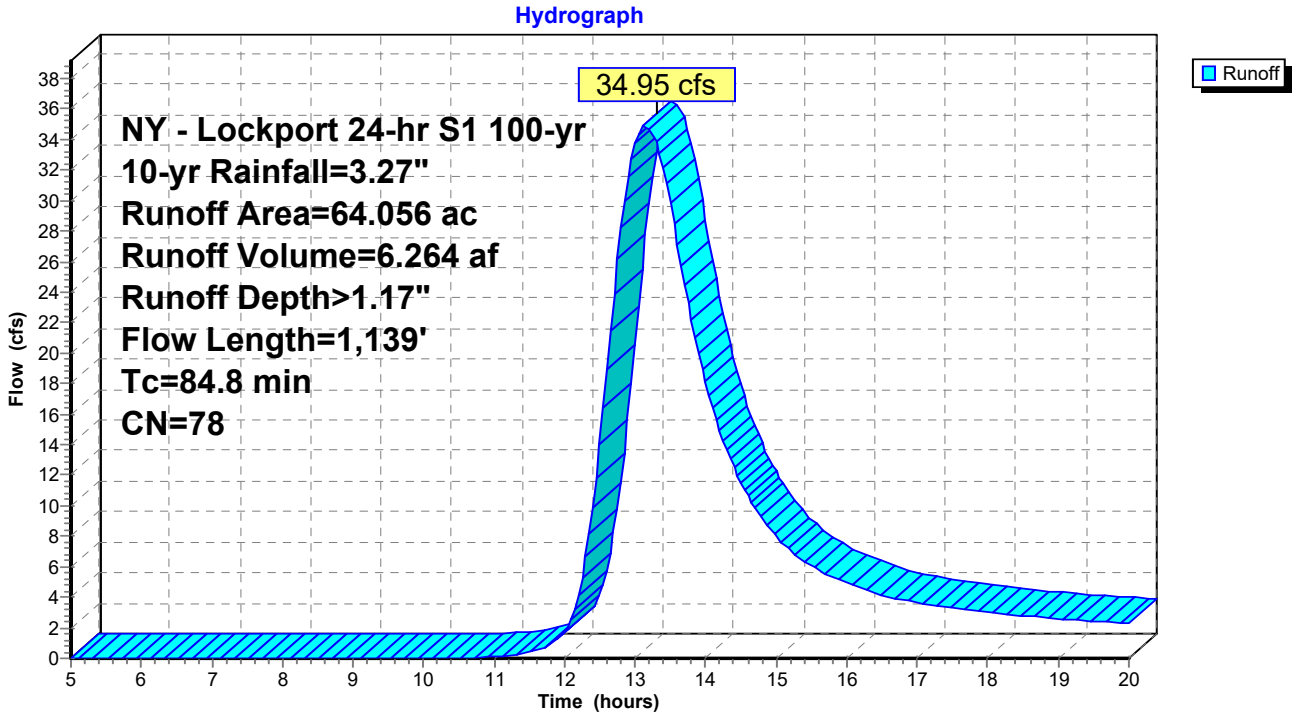
Runoff = 34.95 cfs @ 13.12 hrs, Volume= 6.264 af, Depth> 1.17"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.113	49	A-50-75% GRASS COVER, FAIR
*	0.131	30	A-MEADOW, NON-GRAZED
*	12.491	78	D-MEADOW, NON-GRAZED
*	0.855	80	D-75% GRASS COVER, GOOD
*	0.366	84	D-50-75% GRASS COVER, FAIR
*	0.263	79	D-WOODS/GRASS COMB., GOOD
*	48.359	78	D-MEADOW, NON-GRAZED
*	0.418	98	D-WATER SURFACE, 0% IMP
	1.060	91	Gravel roads, HSG D
	64.056	78	Weighted Average
	63.638		99.35% Pervious Area
	0.418		0.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.1	100	0.0030	0.07		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
11.2	258	0.0030	0.38		**Shallow Concentrated Flow, 258** Short Grass Pasture Kv= 7.0 fps
31.4	132	0.0001	0.07		**Shallow Concentrated Flow, 132** Short Grass Pasture Kv= 7.0 fps
4.0	176	0.0110	0.73		**Shallow Concentrated Flow, 176** Short Grass Pasture Kv= 7.0 fps
7.7	270	0.0070	0.59		**Shallow Concentrated Flow, 270** Short Grass Pasture Kv= 7.0 fps
5.4	203	0.0080	0.63		**Shallow Concentrated Flow, 203** Short Grass Pasture Kv= 7.0 fps
84.8	1,139	Total			

Subcatchment PDA13: PROPOSED DA STR 97-103



Summary for Subcatchment PDA14: PROPOSED DA STR 104-106

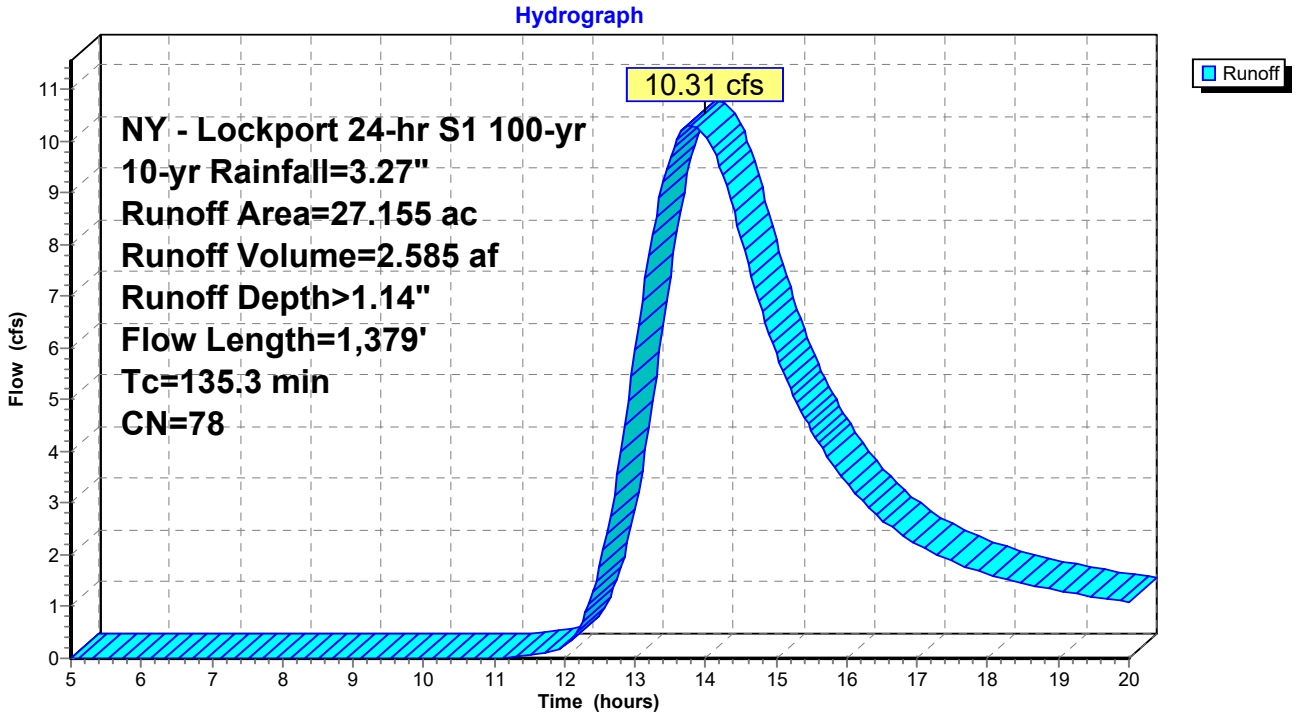
Runoff = 10.31 cfs @ 13.80 hrs, Volume= 2.585 af, Depth> 1.14"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.471	61	B-75% GRASS COVER, GOOD
*	1.291	80	D-75% GRASS OCVER, GOOD
*	0.601	84	D-50-75% GRASS COVER, FAIR
*	1.189	79	D-WOODS/GRASS COMB., GOOD
*	2.124	78	D-MEADOW, NON-GRAZED
*	0.606	80	D-75% GRASS COVER, GOOD
*	0.552	79	D-WOODS/GRASS COMB., GOOD
*	10.418	78	D-MEADOW, NON-GRAZED
*	0.104	98	D-WATER SURFACE, 0% IMP
*	0.137	98	D-WATER SURFACE, 0% IMP
*	0.893	80	D-75% GRASS OCVER, GOOD
*	0.115	80	D-50-75% GRASS COVER, FAIR
*	8.267	78	D-MEADOW, NON-GRAZED
	0.387	91	Gravel roads, HSG D
	27.155	78	Weighted Average
	26.914		99.11% Pervious Area
	0.241		0.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.0330	0.17		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
0.9	53	0.0220	1.04		**Shallow Concentrated Flow, 53** Short Grass Pasture Kv= 7.0 fps
2.3	140	0.0210	1.01		**Shallow Concentrated Flow, 140** Short Grass Pasture Kv= 7.0 fps
2.2	140	0.0220	1.04		**Shallow Concentrated Flow, 140** Short Grass Pasture Kv= 7.0 fps
5.8	230	0.0090	0.66		**Shallow Concentrated Flow, 230** Short Grass Pasture Kv= 7.0 fps
7.6	267	0.0070	0.59		**Shallow Concentrated Flow, 267** Short Grass Pasture Kv= 7.0 fps
43.8	184	0.0001	0.07		**Shallow Concentrated Flow, 184** Short Grass Pasture Kv= 7.0 fps
63.1	265	0.0001	0.07		**Shallow Concentrated Flow, 265** Short Grass Pasture Kv= 7.0 fps
135.3	1,379	Total			

Subcatchment PDA14: PROPOSED DA STR 104-106



Summary for Subcatchment PDA15: PROPOSED DA STR 106-109

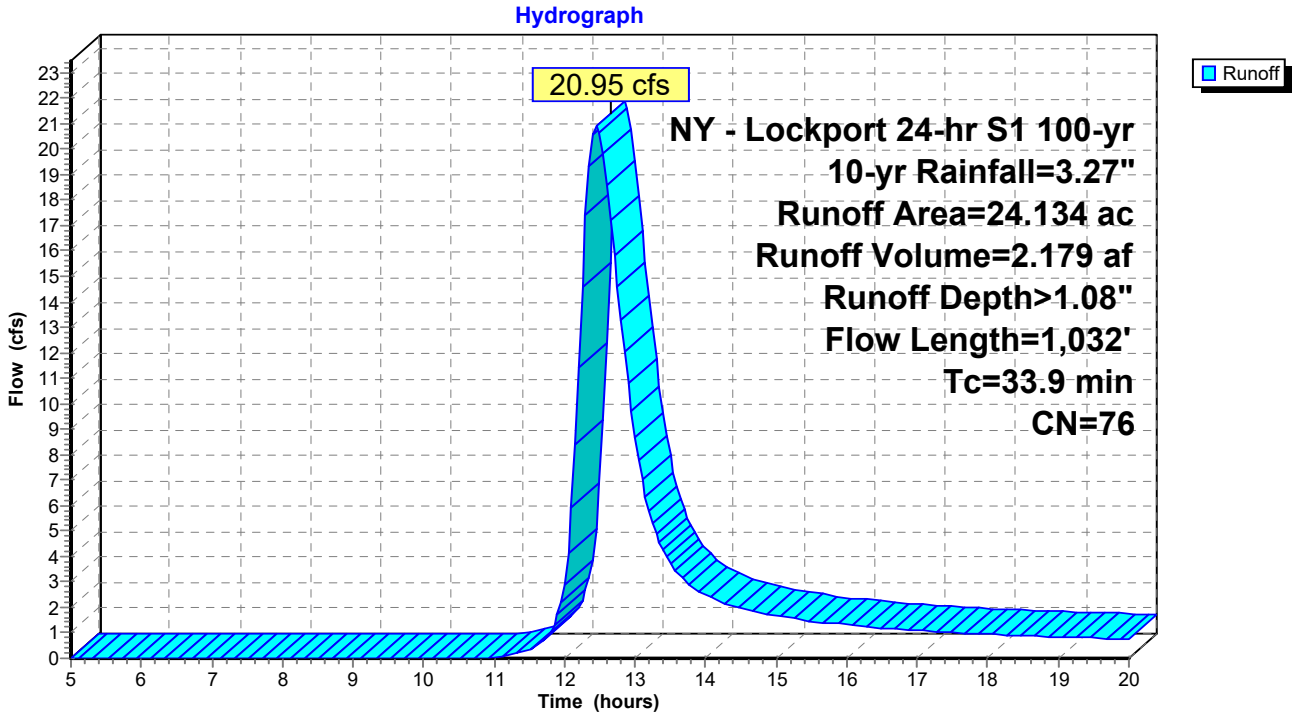
Runoff = 20.95 cfs @ 12.45 hrs, Volume= 2.179 af, Depth> 1.08"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.972	61	B-75% GRASS COVER, GOOD
*	1.615	69	B-50-75% GRASS COVER, FAIR
*	2.680	58	B-MEADOW, NON-GRAZED
*	0.028	80	D-75% GRASS COVER, GOOD
*	2.330	78	D-MEADOW, NON-GRAZED
*	0.585	80	D-75% GRASS COVER, GOOD
*	0.724	84	D-50-75% GRASS COVER, FAIR
*	0.465	79	D-WOODS/GRASS COMB., GOOD
*	13.310	78	D-MEADOW, NON-GRAZED
*	0.880	98	D-WATER SURFACE, 0% IMP
*	0.085	98	D-WATER SURFACE, 0% IMP
	0.460	91	Gravel roads, HSG D
	24.134	76	Weighted Average
	23.169		96.00% Pervious Area
	0.965		4.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.4	100	0.0120	0.12		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
2.1	148	0.0270	1.15		**Shallow Concentrated Flow, 148** Short Grass Pasture Kv= 7.0 fps
3.4	204	0.0200	0.99		**Shallow Concentrated Flow, 204** Short Grass Pasture Kv= 7.0 fps
6.0	300	0.0140	0.83		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
8.0	280	0.0070	0.59		**Shallow Concentrated Flow, 280** Short Grass Pasture Kv= 7.0 fps
33.9	1,032	Total			

Subcatchment PDA15: PROPOSED DA STR 106-109



Summary for Subcatchment PDA16: PROPOSED DA STR 110-117

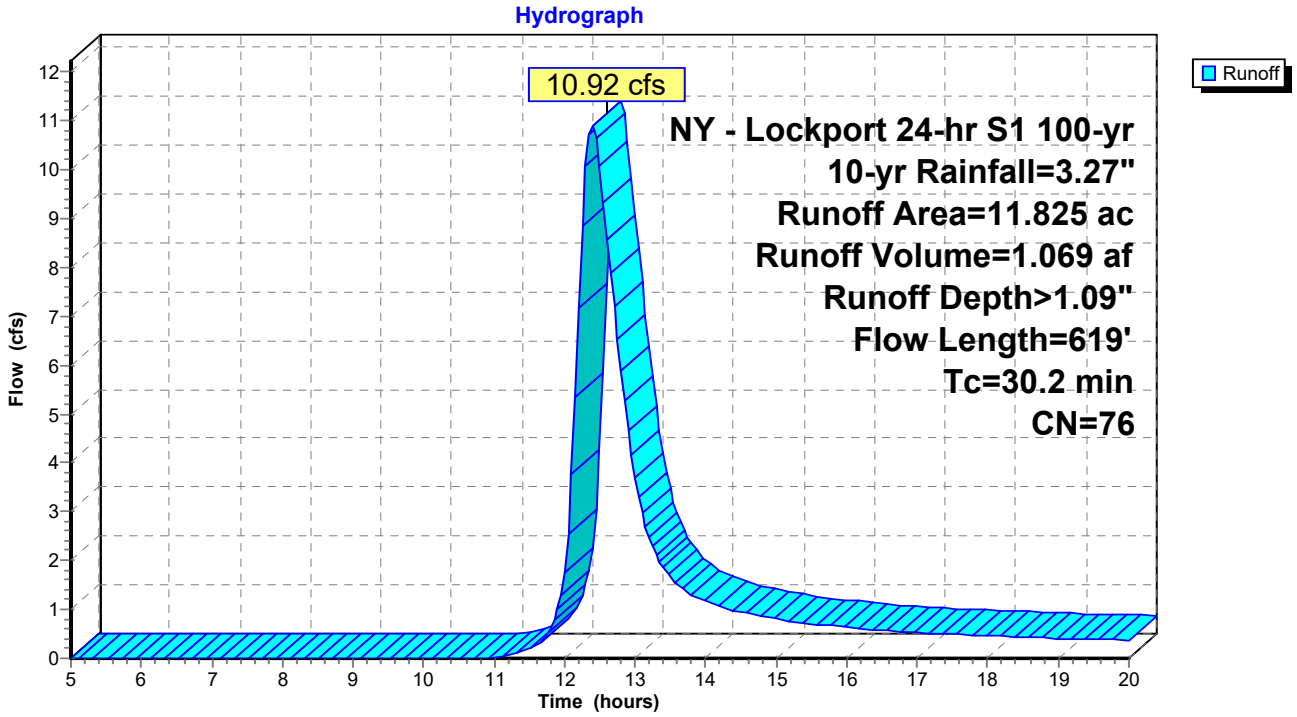
Runoff = 10.92 cfs @ 12.40 hrs, Volume= 1.069 af, Depth> 1.09"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.423	61	B-75%GRASS COVER, GOOD
*	0.460	69	B-50-75% GRASS COVER, FAIR
*	2.069	58	D-MEADOW, NON-GRAZED
*	0.045	78	D-MEADOW, NON-GRAZED
*	0.049	98	D-MEADOW, NON-GRAZED
*	0.487	80	D-75% GRASS COVER, GOOD
*	0.960	84	D-50-75% GRASS COVER, FAIR
*	0.293	79	D-WOODS/GRASS COMB., GOOD
*	5.704	78	D-MEADOW, NON-GRAZED
*	0.855	98	D-MEADOW, NON-GRAZED
*	0.048	79	D-WOODS/GRASS COMB., GOOD
*	0.009	78	D-MEADOW, NON-GRAZED
*	0.056	98	D-MEADOW, NON-GRAZED
	0.367	91	Gravel roads, HSG D
	11.825	76	Weighted Average
	10.865		91.88% Pervious Area
	0.960		8.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.9	100	0.0070	0.09		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
3.4	222	0.0240	1.08		**Shallow Concentrated Flow, 222** Short Grass Pasture Kv= 7.0 fps
4.1	154	0.0080	0.63		**Shallow Concentrated Flow, 154** Short Grass Pasture Kv= 7.0 fps
4.8	143	0.0050	0.49		**Shallow Concentrated Flow, 143** Short Grass Pasture Kv= 7.0 fps
30.2	619	Total			

Subcatchment PDA16: PROPOSED DA STR 110-117



Summary for Subcatchment PDA17: PROPOSED DA STR 113-116

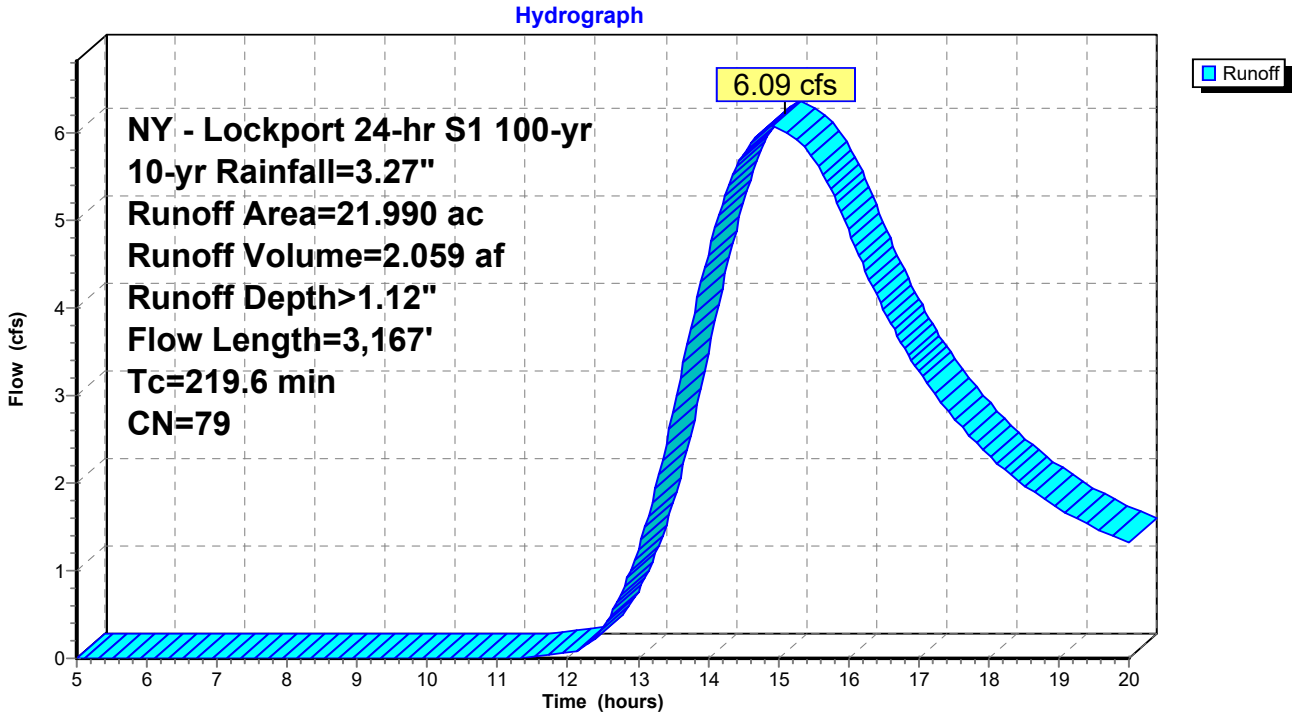
Runoff = 6.09 cfs @ 14.90 hrs, Volume= 2.059 af, Depth> 1.12"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.289	80	D-75% GRASS COVER, GOOD
*	0.899	84	D-50-75% GRASS COVER, FAIR
*	2.853	78	D-MEADOW, NON-GRAZED
*	0.540	78	D-MEADOW, NON-GRAZED
*	0.077	80	D-75% GRASS COVER, GOOD
*	0.177	84	D-50-75% GRASS COVER, FAIR
*	0.010	79	D-WOODS/GRASS COMB., GOOD
*	5.683	78	D-MEADOW, NON-GRAZED
*	6.973	78	D-MEADOW, NON-GRAZED
*	0.337	98	D-WATER SURFACE, 0% IMP
*	3.150	78	D-MEADOW, NON-GRAZED
*	0.141	98	D-WATER SURFACE, 0% IMP
	0.861	91	Gravel roads, HSG D
	21.990	79	Weighted Average
	21.512		97.83% Pervious Area
	0.478		2.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	100	0.0610	0.22		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
3.0	144	0.0130	0.80		**Shallow Concentrated Flow, 144** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
9.2	300	0.0060	0.54		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
12.2	162	0.0010	0.22		**Shallow Concentrated Flow, 162** Short Grass Pasture Kv= 7.0 fps
10.1	300	0.0050	0.49		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
8.3	290	0.0070	0.59		**Shallow Concentrated Flow, 290** Short Grass Pasture Kv= 7.0 fps
0.6	50	0.0400	1.40		**Shallow Concentrated Flow, 50** Short Grass Pasture Kv= 7.0 fps
4.4	242	0.0170	0.91		**Shallow Concentrated Flow, 242** Short Grass Pasture Kv= 7.0 fps
6.3	300	0.0130	0.80		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
18.8	79	0.0001	0.07		**Shallow Concentrated Flow, 79** Short Grass Pasture Kv= 7.0 fps
219.6	3,167	Total			

Subcatchment PDA17: PROPOSED DA STR 113-116



Summary for Subcatchment PDA18: PROPOSED DA STR 36

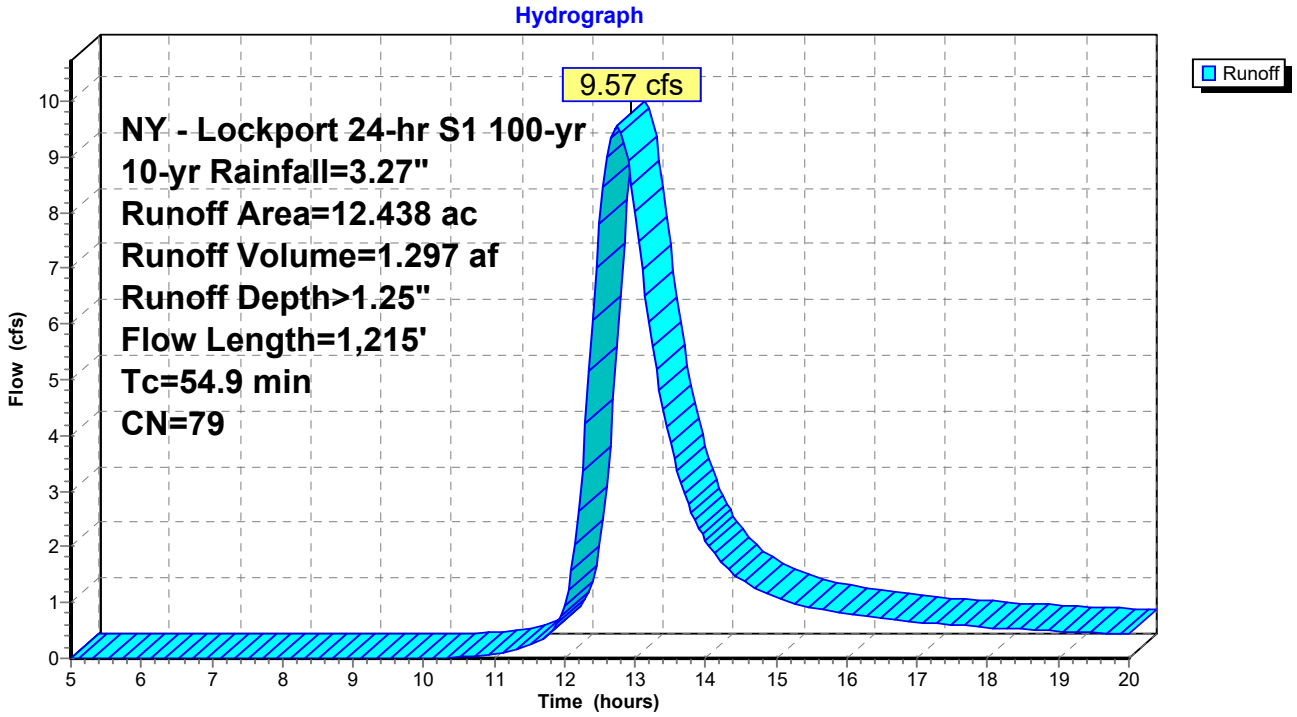
Runoff = 9.57 cfs @ 12.74 hrs, Volume= 1.297 af, Depth> 1.25"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.143	80	D - 80 - Developed open space
*	0.461	80	D - 80 - Developed open space
*	1.014	82	D - 82 - Developed Low intensity
*	0.988	82	D - 82 - Developed Low intensity
*	0.081	77	D - 77 - Deciduous Forest
*	7.367	78	D - 78 - Meadowed, grass, non-grazed land
*	2.154	78	D - 78 - Meadowed, grass, non-grazed land
*	0.230	91	D- Gravel Roads
	12.438	79	Weighted Average
	12.438		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0200	0.14		**Sheet Flow, 100' sheet** Grass: Short n= 0.150 P2= 2.22"
43.1	1,115	0.0038	0.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
54.9	1,215	Total			

Subcatchment PDA18: PROPOSED DA STR 36



Summary for Subcatchment PDA19: PROPOSED DA STR 42-47

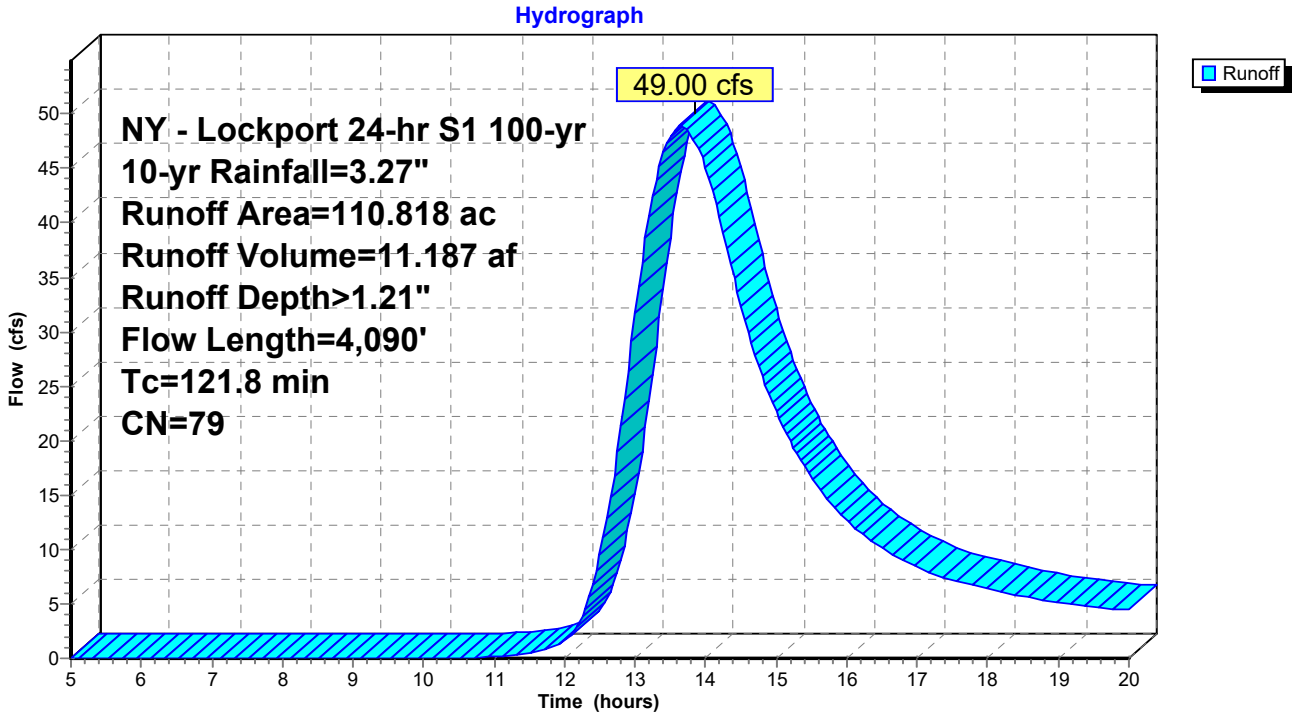
Runoff = 49.00 cfs @ 13.66 hrs, Volume= 11.187 af, Depth> 1.21"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	3.220	80	D - 80 - Developed open space
*	2.932	80	D - 80 - Developed open space
*	0.003	80	D - 80 - Developed open space
*	10.164	82	D - 82 - Developed Low intensity
*	6.410	82	D - 82 - Developed Low intensity
*	0.607	82	D - 82 - Developed Low intensity
*	5.494	77	D - 77 - Deciduous Forest
*	15.746	78	D - 78 - Meadowed, grass, non-grazed land
*	63.740	78	D - 78 - Meadowed, grass, non-grazed land
*	1.702	78	D - 78 - Meadowed, grass, non-grazed land
*	0.800	91	D - Gravel Roads
	110.818	79	Weighted Average
	110.818		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.0300	0.17		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.22"
88.0	2,225	0.0071	0.42		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.8	1,765	0.0068	1.24		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
121.8	4,090	Total			

Subcatchment PDA19: PROPOSED DA STR 42-47



Summary for Subcatchment PDA2: PROPOSED DA STR 11-12

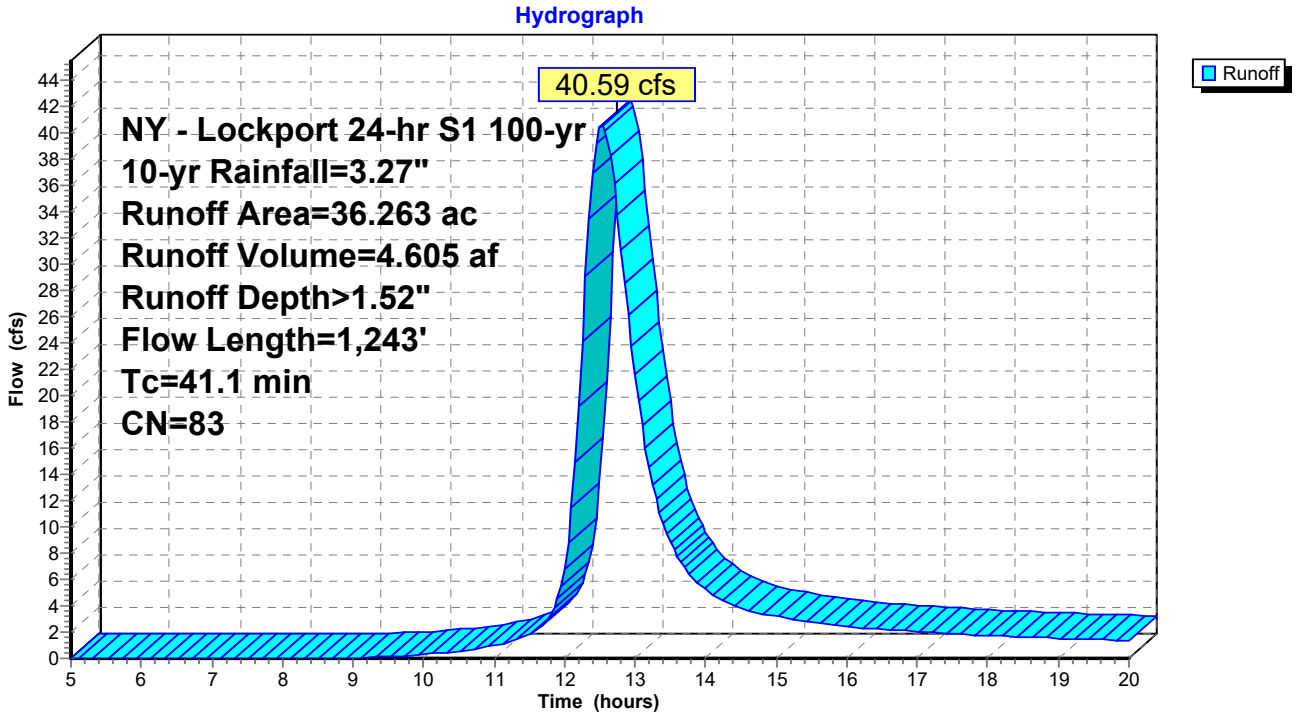
Runoff = 40.59 cfs @ 12.54 hrs, Volume= 4.605 af, Depth> 1.52"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	2.487	80	80-D-75% GRASS COVER, GOOD
*	1.050	84	84-D-50-75% GRASS COVER, FAIR
*	1.903	89	89-D-<50% GRASS COVER, POOR
*	0.250	95	95-D-URBAN COMMERCIAL, 85% IMP
*	0.043	79	79-D-WOODS/GRASS COMB., GOOD
*	1.421	78	78-D-MEADOW, NONGRAZED
*	0.054	80	80-D-75% GRASS COVER, GOOD
*	0.598	84	84-D-50-75% GRASSC OVER, FAIR
*	2.041	89	89-D-<50% GRASS COVER, POOR
*	0.286	95	95-D-URBAN COMMERCIAL, 85% IMP
*	1.744	78	78-D-MEADOW, NON-GRAZED
*	5.982	80	80-D-75% GRASS CVER, GOOD
*	7.613	84	8D-D-50-75% GRASS COVER, FAIR
*	3.609	89	89-D-<50% GRASS COVER POOR
*	0.887	95	95-D-URBAN COMMERCIAL, 85% IMP
*	3.299	79	79-D-WOODS/GRASS COMB., GOOD
*	2.636	78	78-D-MEADOW, NON-GRAZED
	0.360	91	Gravel roads, HSG D
	36.263	83	Weighted Average
	36.263		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.5	100	0.0050	0.66		**Sheet Flow, 100'** Smooth surfaces n= 0.011 P2= 2.22"
1.4	115	0.0043	1.33		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.4	256	0.0078	1.79		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.3	240	0.0031	0.39		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	30	0.0064	1.62		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.8	128	0.0117	0.76		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
14.2	209	0.0024	0.24		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
7.2	165	0.0030	0.38		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
41.1	1,243	Total			

Subcatchment PDA2: PROPOSED DA STR 11-12



Summary for Subcatchment PDA3: EXISTING DA STR 17-20

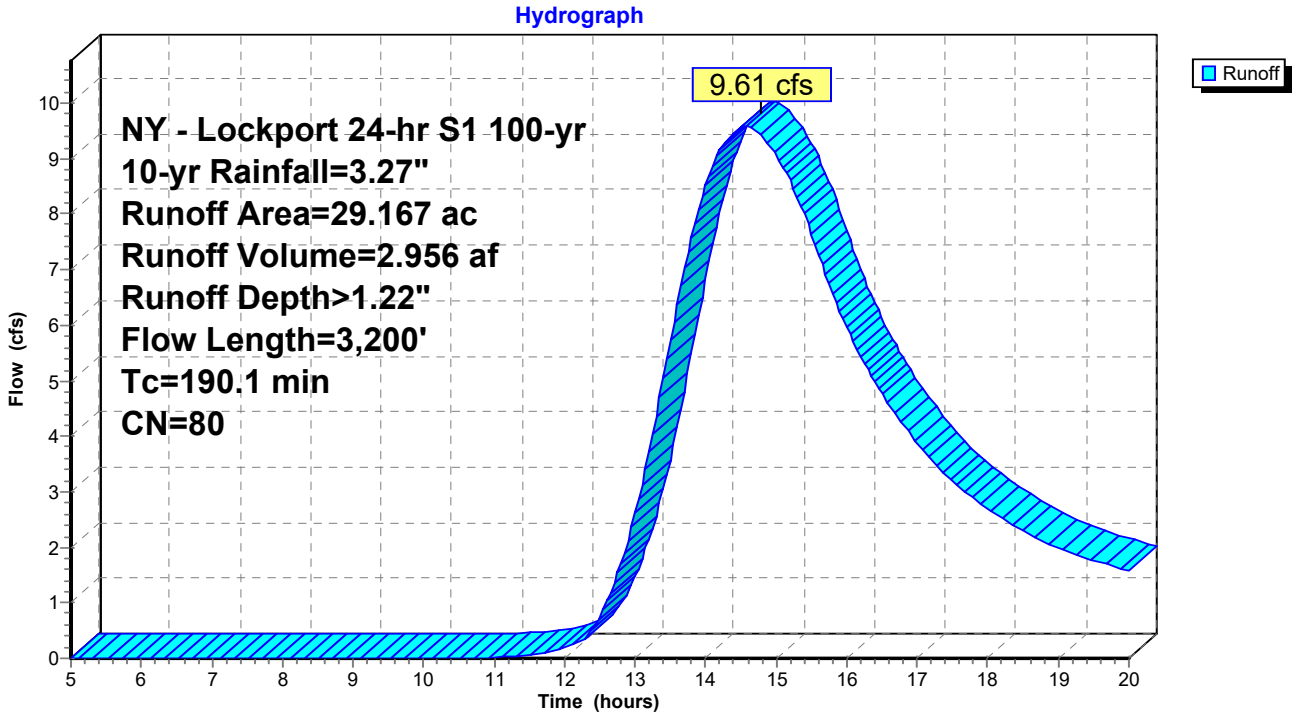
Runoff = 9.61 cfs @ 14.57 hrs, Volume= 2.956 af, Depth> 1.22"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.391	80	80-D-75% GRASS COVER, GOOD
*	4.601	79	WOODS/GRASS COMB., GOOD
*	1.427	79	WOODS/GRASS COMB., GOOD
*	2.196	78	MEADOW, NON-GRAZED
*	0.320	98	WATER SURFACE
*	3.636	80	75% GRASS COVER, GOOD
*	1.957	84	50-75% GRASS COVER, FAIR
*	1.103	89	<50% GRASS COVER, POOR
*	0.375	95	URBAN COMMERCIAL, 85% IMP
*	2.017	79	WOODS/GRASS COMB., GOOD
*	0.337	84	50-75% GRASS COVER, FAIR
*	1.236	79	WOODS/GRASS COMB., GOOD
*	0.470	79	WOODS/GRASS COMB., GOOD
*	8.306	78	MEADOW, NON-GRAZED
*	0.274	98	WATER SURFACE, 0% IMP
	0.521	91	Gravel roads, HSG D
	29.167	80	Weighted Average
	28.573		97.96% Pervious Area
	0.594		2.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.2	100	0.0175	0.06		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
7.6	186	0.0067	0.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
8.3	368	0.0217	0.74		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
31.5	708	0.0056	0.37		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.1	576	0.0069	0.42		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	452	0.0055	0.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
77.9	810	0.0012	0.17		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
190.1	3,200	Total			

Subcatchment PDA3: EXISTING DA STR 17-20



Summary for Subcatchment PDA4: PROPOSED DA STR 21-23

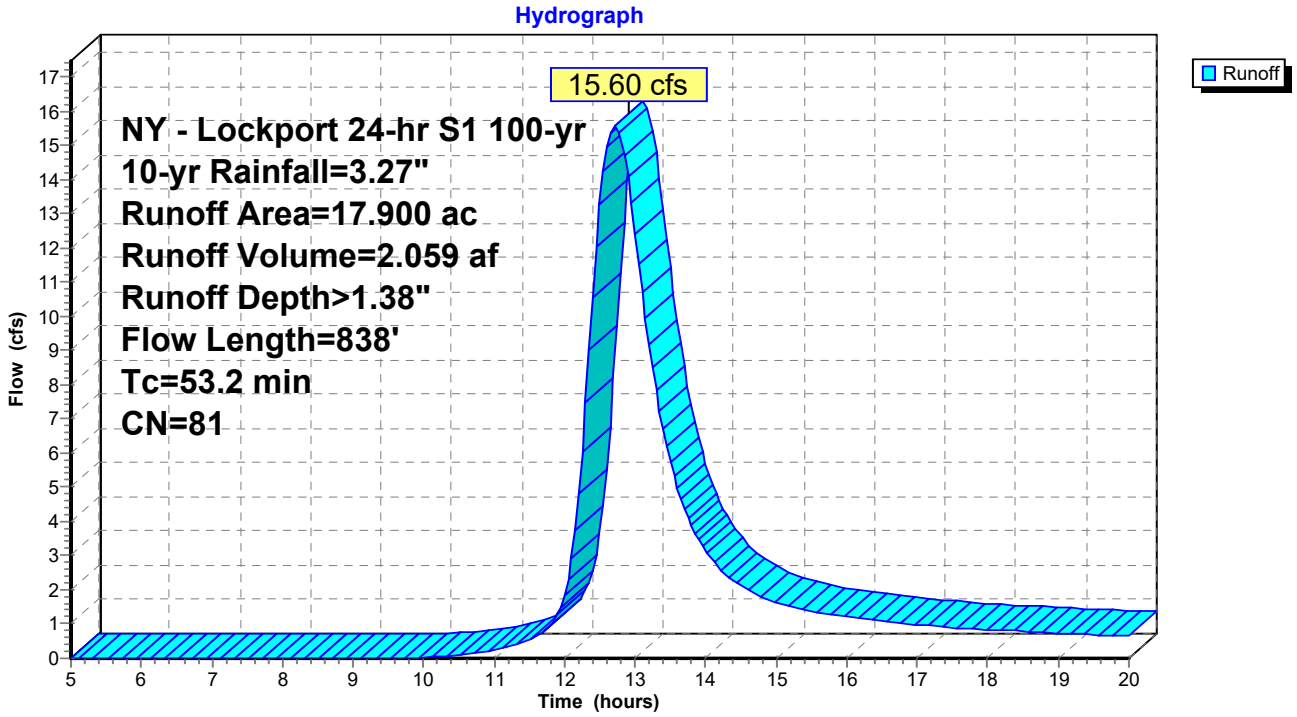
Runoff = 15.60 cfs @ 12.71 hrs, Volume= 2.059 af, Depth> 1.38"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.062	80	80-D-75% GRASS COVER, GOOD
*	0.720	84	84-D-50-75% GRASS COVER, FAIR
*	0.884	78	78-D-MEADOW, NON-GRAZED
*	4.286	80	80-D-75% GRASS COVER, GOOD
*	2.842	84	84-D-50-75% GRASS COVER, FAIR
*	0.139	89	89-D-<50% GRASS COVER, POOR
*	1.645	85	85-D-HERBACEOUS RANGE, GOOD
*	5.404	78	78-D-MEADOW, NON-GRAZED
*	0.188	80	80-D-75% GRASS COVER, GOOD
*	0.143	84	84-D-50-75% GRASS COVER, FAIR
*	0.507	78	78-D-MEADOW, NON-GRAZED
	1.080	91	Gravel roads, HSG D
	17.900	81	Weighted Average
	17.900		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0125	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.22"
23.5	419	0.0018	0.30		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
15.5	319	0.0024	0.34		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
53.2	838	Total			

Subcatchment PDA4: PROPOSED DA STR 21-23



Summary for Subcatchment PDA5: PROPOSED DA STR 25-29

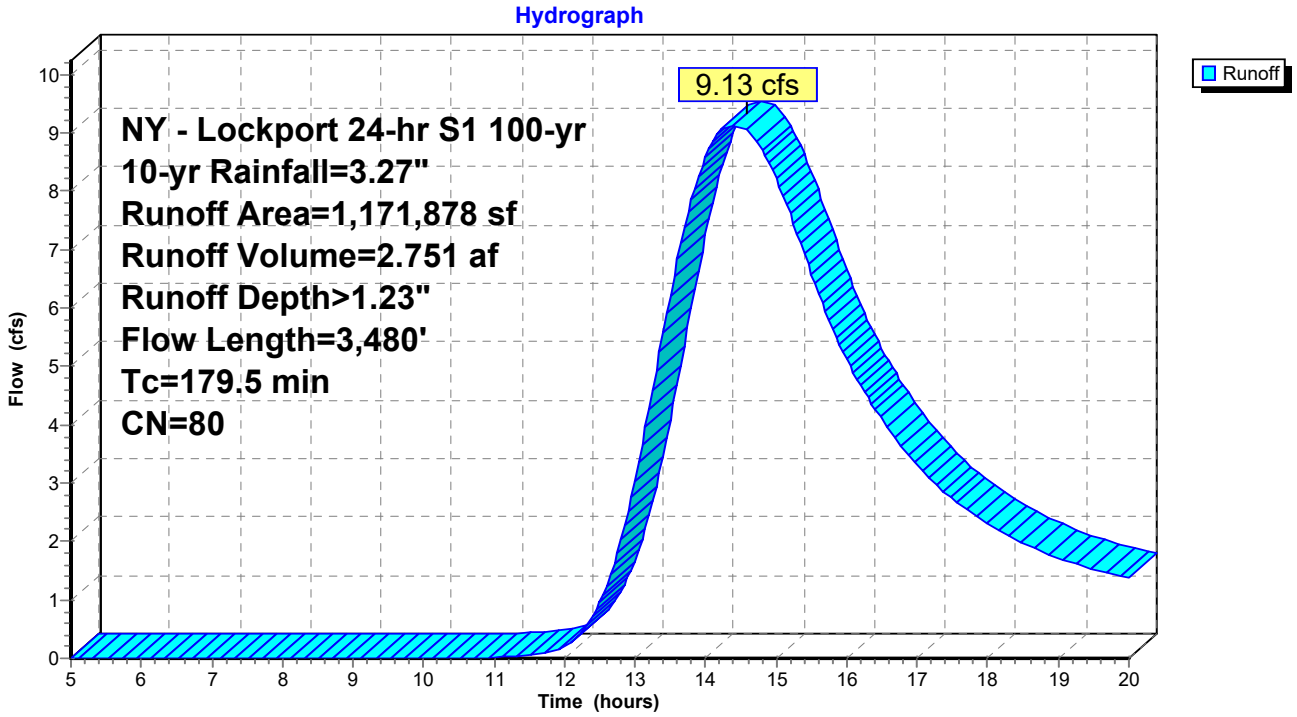
Runoff = 9.13 cfs @ 14.40 hrs, Volume= 2.751 af, Depth> 1.23"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (sf)	CN	Description
*	17,032	80	80-D-75% GRASS COVER, GOOD
*	200,420	79	WOODS/GRASS COMB., GOOD
*	62,160	79	WOODS/GRASS COMB., GOOD
*	95,658	78	MEADOW, NON-GRAZED
*	13,939	98	WATER SURFACE
*	158,384	80	75% GRASS COVER, GOOD
*	85,247	84	50-75% GRASS COVER, FAIR
*	11,396	89	<50% GRASS COVER, POOR
*	16,335	95	URBAN COMMERCIAL, 85% IMP
*	87,861	79	WOODS/GRASS COMB., GOOD
*	14,680	84	50-75% GRASS COVER, FAIR
*	152,329	79	WOODS/GRASS COMB., GOOD
*	20,473	79	WOODS/GRASS COMB., GOOD
*	187,335	78	MEADOW, NON-GRAZED
*	11,935	98	WATER SURFACE, 0% IMP
	36,694	91	Gravel roads, HSG D
	1,171,878	80	Weighted Average
	1,146,004		97.79% Pervious Area
	25,874		2.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.8	100	0.0200	0.06		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
28.8	377	0.0019	0.22		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
12.9	548	0.0200	0.71		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
17.4	739	0.0200	0.71		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
10.5	489	0.0240	0.77		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
8.0	420	0.0156	0.87		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.1	429	0.0120	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
63.0	378	0.0004	0.10		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
179.5	3,480	Total			

Subcatchment PDA5: PROPOSED DA STR 25-29



Summary for Subcatchment PDA6: PROPOSED DA STR 29-35

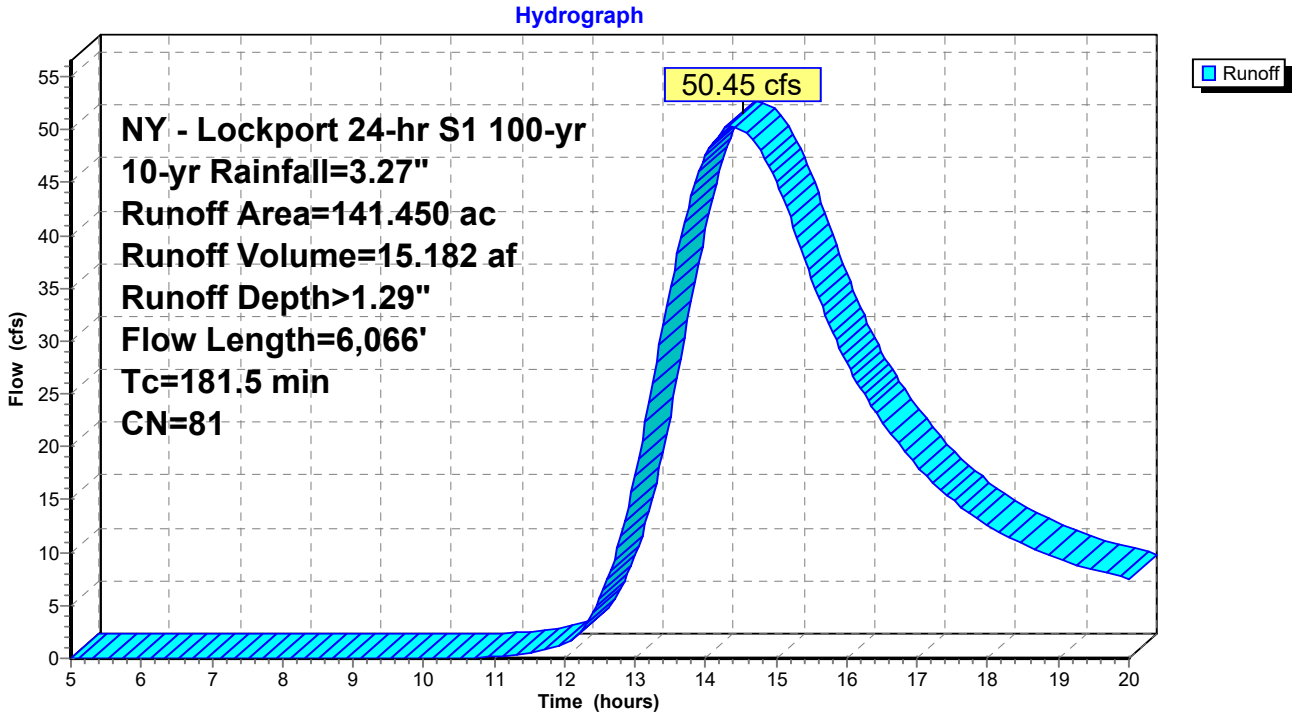
Runoff = 50.45 cfs @ 14.34 hrs, Volume= 15.182 af, Depth> 1.29"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	0.152	98	D - 98 - Open Water
*	0.074	80	D - 80 - Developed open space
*	0.307	80	D - 80 - Developed open space
*	2.363	80	D - 80 - Developed open space
*	1.992	82	D - 82 - Developed Low intensity
*	1.726	82	D - 82 - Developed Low intensity
*	2.185	85	D - 85 - Developed Med intensity
*	0.875	77	D - 77 - Deciduous Forest
*	18.239	77	D - 77 - Deciduous Forest
*	13.242	77	D - 77 - Deciduous Forest
*	0.038	77	D - 77 - Evergreen Forest
*	0.919	77	D - 77 - Evergreen Forest
*	0.021	77	D - 77 - Evergreen Forest
*	0.508	77	D - 77 - Mixed Forest
*	0.889	77	D - 77 - Mixed Forest
*	0.160	77	D - 77 - Mixed Forest
*	4.266	78	D - 78 - Meadowed, grass, non-grazed land
*	29.357	78	D - 78 - Meadowed, grass, non-grazed land
*	22.896	78	D - 78 - Meadowed, grass, non-grazed land
*	0.112	78	D - 78 - Meadowed, grass, non-grazed land
*	5.915	78	D - 78 - Meadowed, grass, non-grazed land
*	5.016	90	D - 90 - Woody Wetlands
*	1.110	91	D- Gravel Roads
*	29.088	90	D - 90 - Woody Wetlands
	141.450	81	Weighted Average
	141.298		99.89% Pervious Area
	0.152		0.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.7	100	0.0275	0.07		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
31.2	1,144	0.0149	0.61		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.6	670	0.0026	0.76		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
12.9	328	0.0008	0.42		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
100.1	3,824	0.0018	0.64		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
181.5	6,066	Total			

Subcatchment PDA6: PROPOSED DA STR 29-35



Summary for Subcatchment PDA7: PROPOSED DA STR 37-40

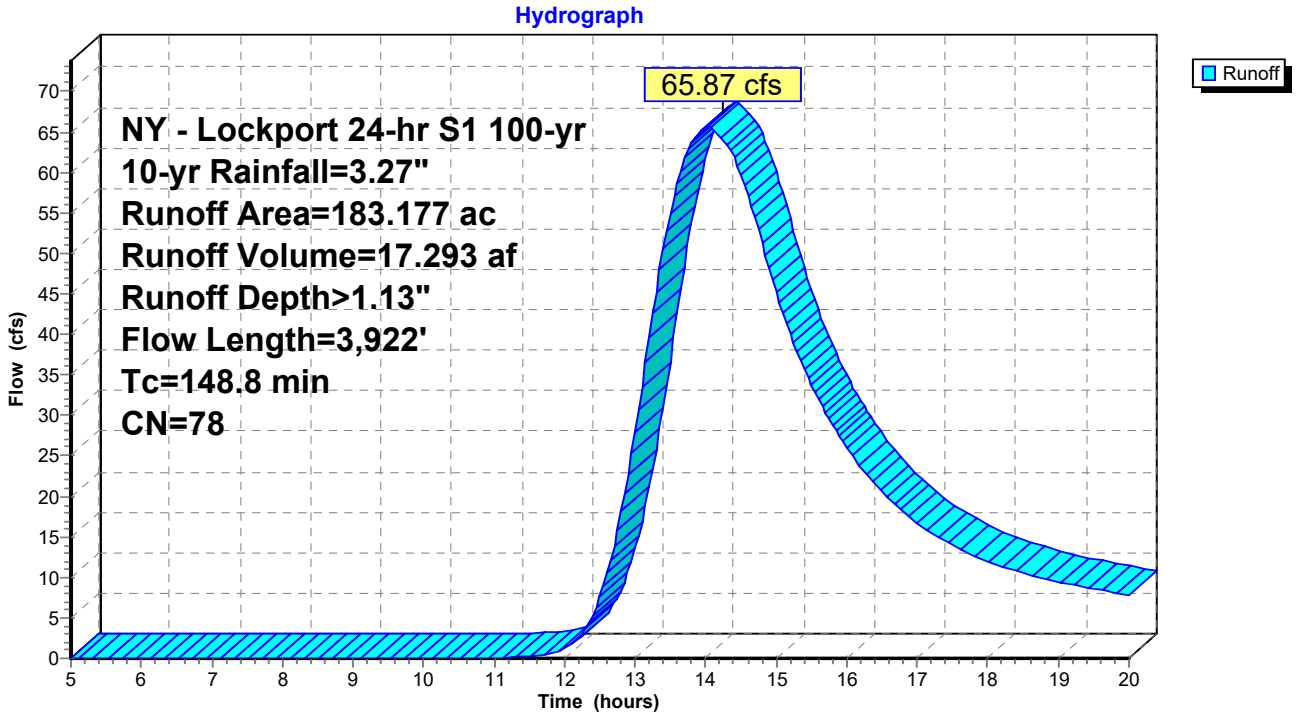
Runoff = 65.87 cfs @ 14.05 hrs, Volume= 17.293 af, Depth> 1.13"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	2.507	80	D - 80 - Developed open space
*	3.318	80	D - 80 - Developed open space
*	2.790	80	D - 80 - Developed open space
*	2.870	82	D - 82 - Developed Low intensity
*	4.979	82	D - 82 - Developed Low intensity
*	4.781	82	D - 82 - Developed Low intensity
*	0.152	85	D - 85 - Developed Med intensity
*	1.263	77	D - 77 - Deciduous Forest
*	3.431	77	D - 77 - Deciduous Forest
*	3.544	77	D - 77 - Deciduous Forest
*	14.732	78	D - 78 - Meadowed, grass, non-grazed land
*	59.055	78	D - 78 - Meadowed, grass, non-grazed land
*	79.095	78	D - 78 - Meadowed, grass, non-grazed land
*	0.660	91	D- Gravel Roads
	183.177	78	Weighted Average
	183.177		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.6	100	0.0350	0.08		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
48.7	1,573	0.0116	0.54		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
62.0	1,276	0.0047	0.34		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
17.5	973	0.0038	0.92		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
148.8	3,922	Total			

Subcatchment PDA7: PROPOSED DA STR 37-40



Summary for Subcatchment PDA8: PROPOSED DA STR 41

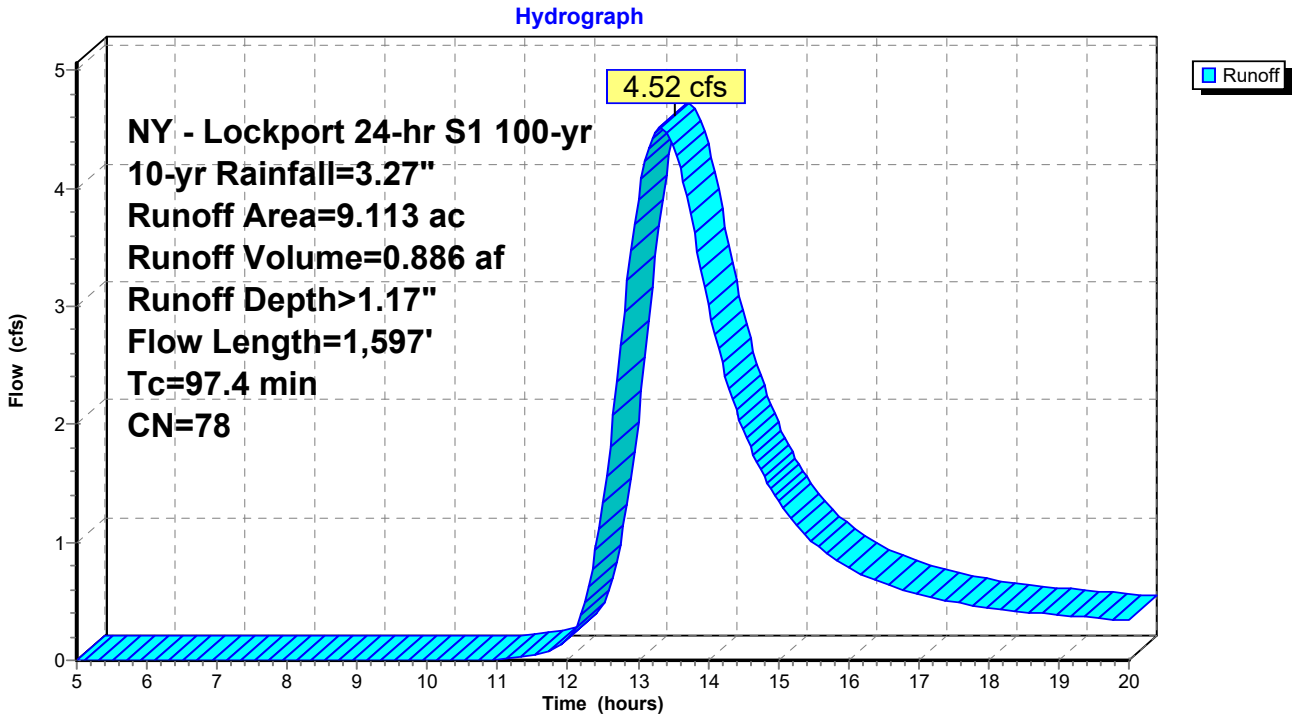
Runoff = 4.52 cfs @ 13.32 hrs, Volume= 0.886 af, Depth> 1.17"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	3.755	77	D - 77 - Deciduous Forest
*	5.138	78	D - 78 - Meadowed, grass, non-grazed land
*	0.220	91	D- Gravel Roads
	9.113	78	Weighted Average
	9.113		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.0	100	0.0100	0.05		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
63.4	1,497	0.0062	0.39		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.4	1,597	Total			

Subcatchment PDA8: PROPOSED DA STR 41



Summary for Subcatchment PDA9: PROPOSED DA STR 48-50

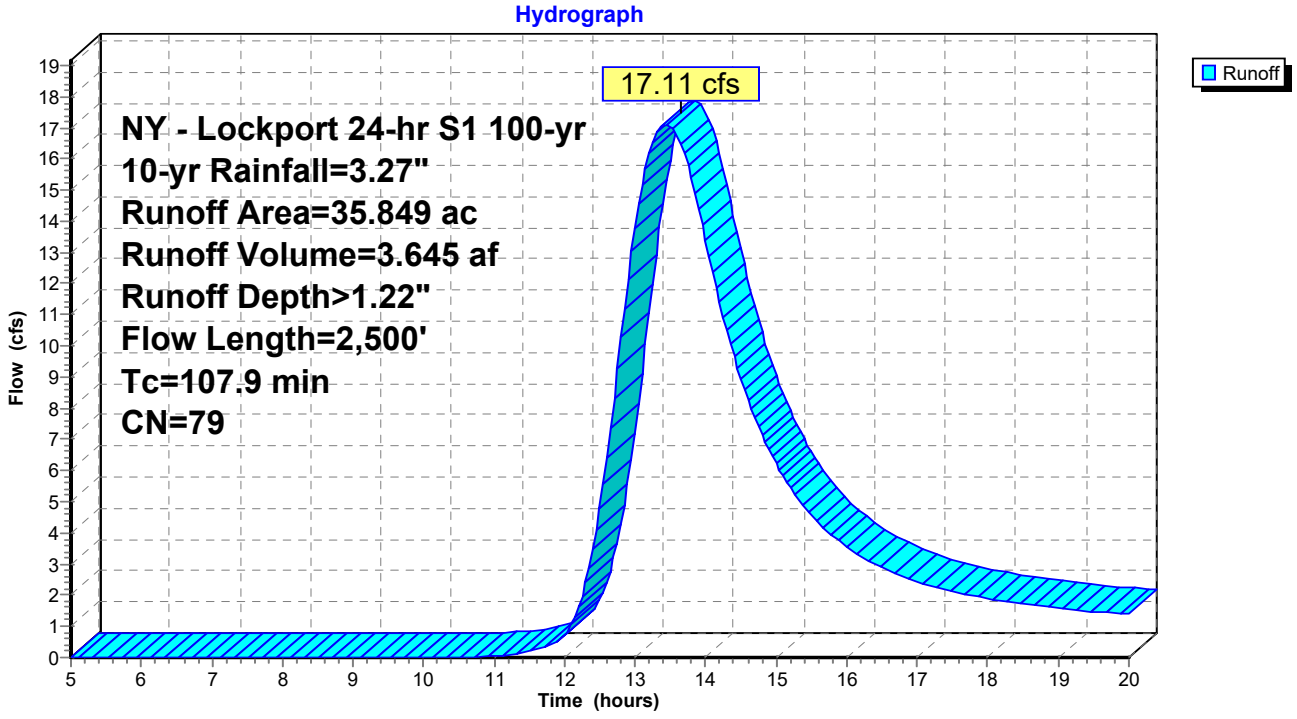
Runoff = 17.11 cfs @ 13.44 hrs, Volume= 3.645 af, Depth> 1.22"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr 10-yr Rainfall=3.27"

	Area (ac)	CN	Description
*	2.020	80	D-75% GRASS COVER, GOOD
*	0.850	84	D-50-75% GRASS COVER, FAIR
*	0.080	89	D-<50% GRASS COVER, POOR
*	0.800	79	D-WOODS/GRASS COMB., GOOD
*	6.410	78	D-MEADOW, NON-GRAZED
*	0.060	98	D-WATER SURFACE, 0% IMP
*	1.214	80	D-75% GRASS COVER, GOOD
*	0.074	84	D-50-75% GRASS COVER, FAIR
*	0.060	89	D-<50% GRASS COVER, POOR
*	4.411	79	D-WOODS/GRASS COMB., GOOD
*	18.040	78	D-MEADOW, NON-GRAZED
*	1.050	98	D-WATER SURFACE, 0% IMP
*	0.150	80	D-75% GRASS COVER, GOOD
*	0.210	78	D-MEADOW, NON-GRAZED
*	0.420	91	D-Gravel Roads
	35.849	79	Weighted Average
	34.739		96.90% Pervious Area
	1.110		3.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	100	0.0300	1.21		**Shallow Concentrated Flow, 100'** Short Grass Pasture Kv= 7.0 fps
31.2	262	0.0120	0.14		**Sheet Flow, 262.19** Grass: Short n= 0.150 P2= 2.22"
4.5	254	0.0180	0.94		**Shallow Concentrated Flow, 254'** Short Grass Pasture Kv= 7.0 fps
2.9	129	0.0110	0.73		**Shallow Concentrated Flow, 128.66** Short Grass Pasture Kv= 7.0 fps
4.4	196	0.0110	0.73		**Shallow Concentrated Flow, 196** Short Grass Pasture Kv= 7.0 fps
6.9	260	0.0080	0.63		**Shallow Concentrated Flow, 260** Short Grass Pasture Kv= 7.0 fps
5.5	219	0.0090	0.66		**Shallow Concentrated Flow, 219** Short Grass Pasture Kv= 7.0 fps
12.4	285	0.0030	0.38		**Shallow Concentrated Flow, 285** Short Grass Pasture Kv= 7.0 fps
6.1	230	0.0080	0.63		**Shallow Concentrated Flow, 230** Short Grass Pasture Kv= 7.0 fps
10.0	265	0.0040	0.44		**Shallow Concentrated Flow, 265** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
107.9	2,500	Total			

Subcatchment PDA9: PROPOSED DA STR 48-50

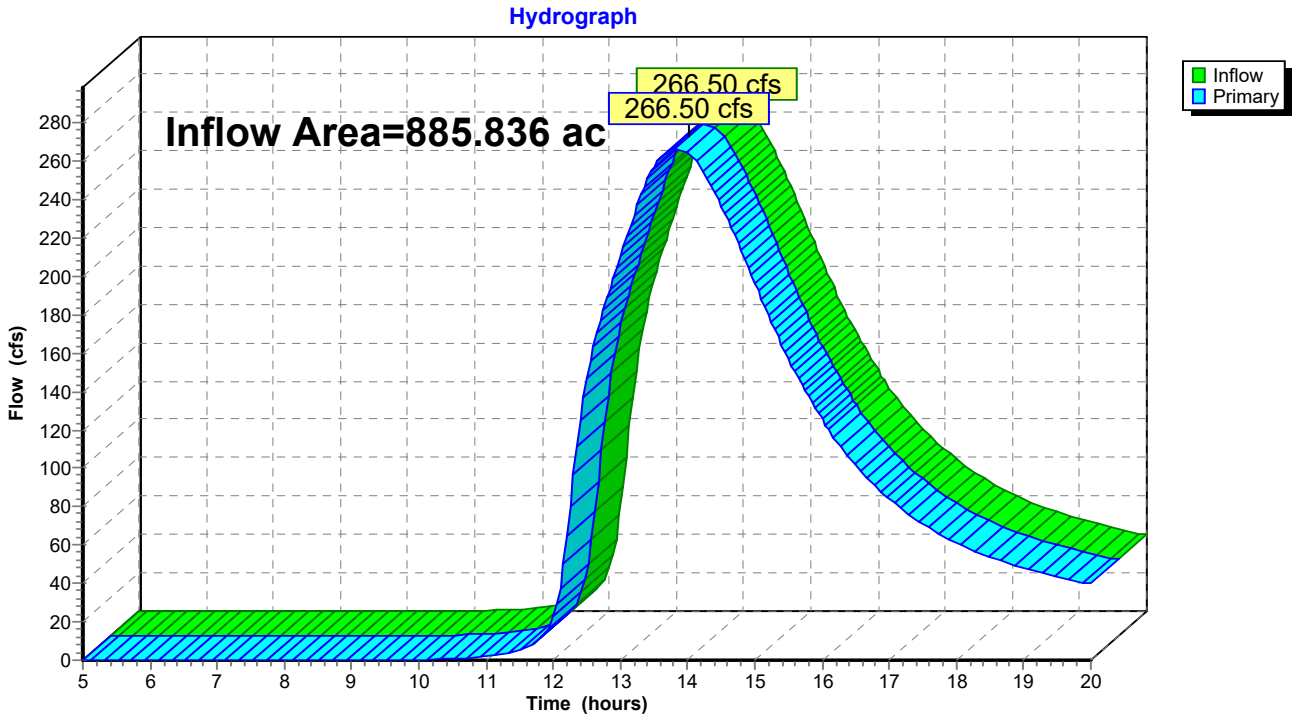


Summary for Link 1L: EXISTING

Inflow Area = 885.836 ac, 0.70% Impervious, Inflow Depth > 1.18" for 10-yr event
Inflow = 266.50 cfs @ 13.80 hrs, Volume= 87.306 af
Primary = 266.50 cfs @ 13.80 hrs, Volume= 87.306 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link 1L: EXISTING

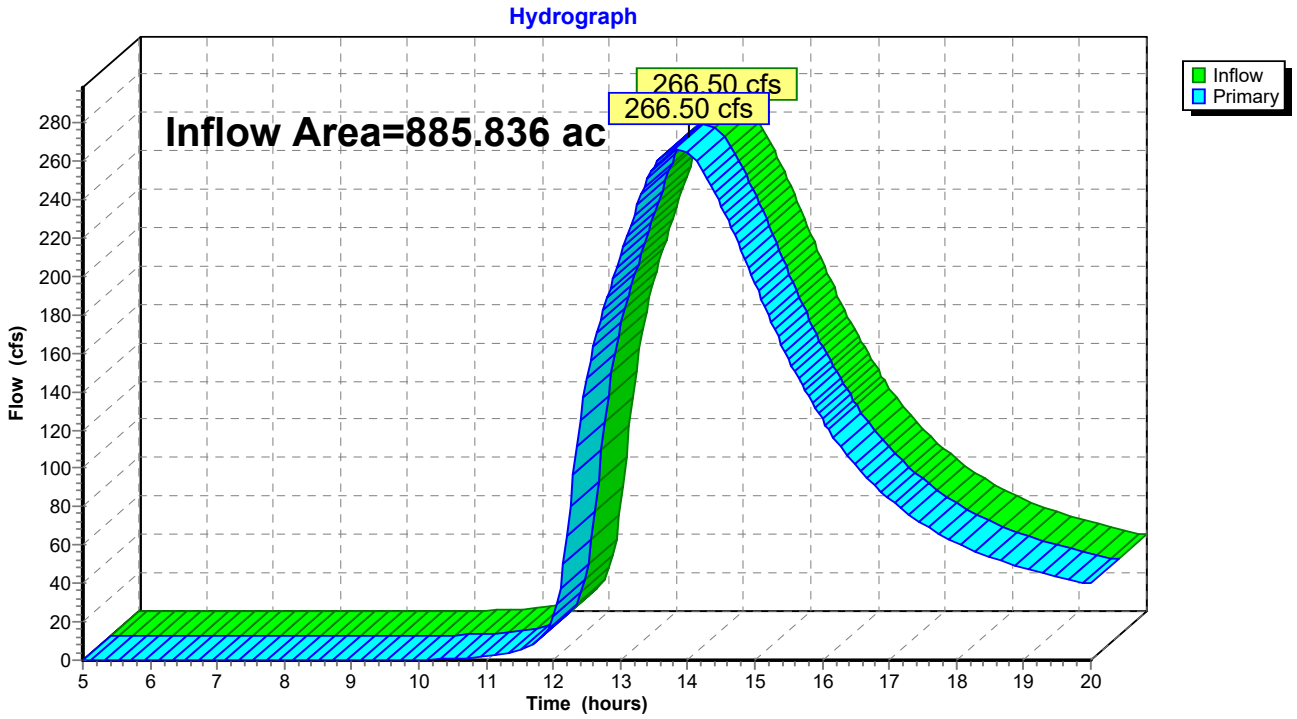


Summary for Link 2L: PROPOSED

Inflow Area = 885.836 ac, 0.66% Impervious, Inflow Depth > 1.18" for 10-yr event
Inflow = 266.50 cfs @ 13.80 hrs, Volume= 87.306 af
Primary = 266.50 cfs @ 13.80 hrs, Volume= 87.306 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link 2L: PROPOSED



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

SubcatchmentDA1: EXISTING DA STR 9-10 Runoff Area=13.623 ac 0.00% Impervious Runoff Depth>2.48"
Flow Length=1,252' Tc=79.0 min CN=79 Runoff=16.62 cfs 2.816 af

SubcatchmentDA10: EXISTING DA STR Runoff Area=97.181 ac 0.35% Impervious Runoff Depth>2.20"
Flow Length=3,167' Tc=219.6 min CN=78 Runoff=52.84 cfs 17.787 af

SubcatchmentDA11: EXISTING DA STR Runoff Area=14.544 ac 0.00% Impervious Runoff Depth>1.72"
Flow Length=915' Tc=184.1 min CN=71 Runoff=6.92 cfs 2.088 af

SubcatchmentDA12: EXISTING DA STR Runoff Area=8.250 ac 0.00% Impervious Runoff Depth>1.38"
Flow Length=1,012' Tc=23.6 min CN=64 Runoff=10.78 cfs 0.949 af

SubcatchmentDA13: EXISTING DA STR Runoff Area=64.056 ac 0.65% Impervious Runoff Depth>2.39"
Flow Length=1,139' Tc=84.8 min CN=78 Runoff=72.21 cfs 12.756 af

SubcatchmentDA14: EXISTING DA STR Runoff Area=27.155 ac 0.89% Impervious Runoff Depth>2.34"
Flow Length=1,379' Tc=135.3 min CN=78 Runoff=21.42 cfs 5.284 af

SubcatchmentDA15: EXISTING DA STR Runoff Area=24.134 ac 4.00% Impervious Runoff Depth>2.27"
Flow Length=1,032' Tc=33.9 min CN=76 Runoff=45.02 cfs 4.565 af

SubcatchmentDA16: EXISTING DA STR Runoff Area=11.825 ac 11.22% Impervious Runoff Depth>2.27"
Flow Length=619' Tc=30.2 min CN=76 Runoff=23.49 cfs 2.240 af

SubcatchmentDA17: EXISTING DA STR Runoff Area=21.990 ac 2.17% Impervious Runoff Depth>2.28"
Flow Length=3,167' Tc=219.6 min CN=79 Runoff=12.39 cfs 4.174 af

SubcatchmentDA18: EXISTING DA STR 36 Runoff Area=12.438 ac 0.00% Impervious Runoff Depth>2.50"
Flow Length=1,215' Tc=54.9 min CN=79 Runoff=19.27 cfs 2.596 af

SubcatchmentDA19: EXISTING DA STR Runoff Area=110.818 ac 0.00% Impervious Runoff Depth>2.44"
Flow Length=4,090' Tc=121.8 min CN=79 Runoff=99.04 cfs 22.489 af

SubcatchmentDA2: EXISTING DA STR Runoff Area=36.263 ac 0.00% Impervious Runoff Depth>2.87"
Flow Length=1,243' Tc=41.1 min CN=83 Runoff=76.18 cfs 8.686 af

SubcatchmentDA3: EXISTING DA STR Runoff Area=29.167 ac 2.04% Impervious Runoff Depth>2.42"
Flow Length=3,200' Tc=190.1 min CN=80 Runoff=19.11 cfs 5.885 af

SubcatchmentDA4: EXISTING DA STR Runoff Area=17.900 ac 0.00% Impervious Runoff Depth>2.68"
Flow Length=838' Tc=53.2 min CN=81 Runoff=30.30 cfs 3.999 af

SubcatchmentDA5: EXISTING DA STR Runoff Area=1,171,878 sf 2.21% Impervious Runoff Depth>2.44"
Flow Length=3,480' Tc=179.5 min CN=80 Runoff=18.21 cfs 5.471 af

SubcatchmentDA6: EXISTING DA STR Runoff Area=141.450 ac 0.11% Impervious Runoff Depth>2.52"
Flow Length=6,066' Tc=181.5 min CN=81 Runoff=99.03 cfs 29.743 af

SubcatchmentDA7: EXISTING DA STR Runoff Area=183.177 ac 0.00% Impervious Runoff Depth>2.32"
Flow Length=3,922' Tc=148.8 min CN=78 Runoff=135.74 cfs 35.392 af

SubcatchmentDA8: EXISTING DA STR 41 Runoff Area=9.113 ac 0.00% Impervious Runoff Depth>2.38"
Flow Length=1,597' Tc=97.4 min CN=78 Runoff=9.32 cfs 1.805 af

SubcatchmentDA9: EXISTING DA STR Runoff Area=35.849 ac 3.10% Impervious Runoff Depth>2.45"
Flow Length=2,500' Tc=107.9 min CN=79 Runoff=34.71 cfs 7.321 af

SubcatchmentPDA1: PROPOSED DA STR Runoff Area=13.623 ac 0.00% Impervious Runoff Depth>2.48"
Flow Length=1,252' Tc=79.0 min CN=79 Runoff=16.62 cfs 2.816 af

SubcatchmentPDA10: EXISTING DA STR Runoff Area=97.181 ac 0.35% Impervious Runoff Depth>2.20"
Flow Length=3,167' Tc=219.6 min CN=78 Runoff=52.84 cfs 17.787 af

SubcatchmentPDA11: PROPOSED DA STR Runoff Area=14.544 ac 0.00% Impervious Runoff Depth>1.72"
Flow Length=915' Tc=184.1 min CN=71 Runoff=6.92 cfs 2.088 af

SubcatchmentPDA12: PROPOSED DA STR Runoff Area=8.250 ac 0.00% Impervious Runoff Depth>1.38"
Flow Length=1,012' Tc=23.6 min CN=64 Runoff=10.78 cfs 0.949 af

SubcatchmentPDA13: PROPOSED DA STR Runoff Area=64.056 ac 0.65% Impervious Runoff Depth>2.39"
Flow Length=1,139' Tc=84.8 min CN=78 Runoff=72.21 cfs 12.756 af

SubcatchmentPDA14: PROPOSED DA STR Runoff Area=27.155 ac 0.89% Impervious Runoff Depth>2.34"
Flow Length=1,379' Tc=135.3 min CN=78 Runoff=21.42 cfs 5.284 af

SubcatchmentPDA15: PROPOSED DA STR Runoff Area=24.134 ac 4.00% Impervious Runoff Depth>2.27"
Flow Length=1,032' Tc=33.9 min CN=76 Runoff=45.02 cfs 4.565 af

SubcatchmentPDA16: PROPOSED DA STR Runoff Area=11.825 ac 8.12% Impervious Runoff Depth>2.27"
Flow Length=619' Tc=30.2 min CN=76 Runoff=23.49 cfs 2.240 af

SubcatchmentPDA17: PROPOSED DA STR Runoff Area=21.990 ac 2.17% Impervious Runoff Depth>2.28"
Flow Length=3,167' Tc=219.6 min CN=79 Runoff=12.39 cfs 4.174 af

SubcatchmentPDA18: PROPOSED DA STR Runoff Area=12.438 ac 0.00% Impervious Runoff Depth>2.50"
Flow Length=1,215' Tc=54.9 min CN=79 Runoff=19.27 cfs 2.596 af

SubcatchmentPDA19: PROPOSED DA Runoff Area=110.818 ac 0.00% Impervious Runoff Depth>2.44"
Flow Length=4,090' Tc=121.8 min CN=79 Runoff=99.04 cfs 22.489 af

SubcatchmentPDA2: PROPOSED DA STR Runoff Area=36.263 ac 0.00% Impervious Runoff Depth>2.87"
Flow Length=1,243' Tc=41.1 min CN=83 Runoff=76.18 cfs 8.686 af

SubcatchmentPDA3: EXISTING DA STR Runoff Area=29.167 ac 2.04% Impervious Runoff Depth>2.42"
Flow Length=3,200' Tc=190.1 min CN=80 Runoff=19.11 cfs 5.885 af

SubcatchmentPDA4: PROPOSED DA STR Runoff Area=17.900 ac 0.00% Impervious Runoff Depth>2.68"
Flow Length=838' Tc=53.2 min CN=81 Runoff=30.30 cfs 3.999 af

SubcatchmentPDA5: PROPOSED DA Runoff Area=1,171,878 sf 2.21% Impervious Runoff Depth>2.44"
Flow Length=3,480' Tc=179.5 min CN=80 Runoff=18.21 cfs 5.471 af

SubcatchmentPDA6: PROPOSED DA STR Runoff Area=141.450 ac 0.11% Impervious Runoff Depth>2.52"
Flow Length=6,066' Tc=181.5 min CN=81 Runoff=99.03 cfs 29.743 af

SubcatchmentPDA7: PROPOSED DA STR Runoff Area=183.177 ac 0.00% Impervious Runoff Depth>2.32"
Flow Length=3,922' Tc=148.8 min CN=78 Runoff=135.74 cfs 35.392 af

SubcatchmentPDA8: PROPOSED DA STR Runoff Area=9.113 ac 0.00% Impervious Runoff Depth>2.38"
Flow Length=1,597' Tc=97.4 min CN=78 Runoff=9.32 cfs 1.805 af

SubcatchmentPDA9: PROPOSED DA STR Runoff Area=35.849 ac 3.10% Impervious Runoff Depth>2.45"
Flow Length=2,500' Tc=107.9 min CN=79 Runoff=34.71 cfs 7.321 af

Link 1L: EXISTING Inflow=542.98 cfs 176.048 af
Primary=542.98 cfs 176.048 af

Link 2L: PROPOSED Inflow=542.98 cfs 176.048 af
Primary=542.98 cfs 176.048 af

Total Runoff Area = 1,771.671 ac Runoff Volume = 352.095 af Average Runoff Depth = 2.38"
99.32% Pervious = 1,759.600 ac 0.68% Impervious = 12.071 ac

Summary for Subcatchment DA1: EXISTING DA STR 9-10

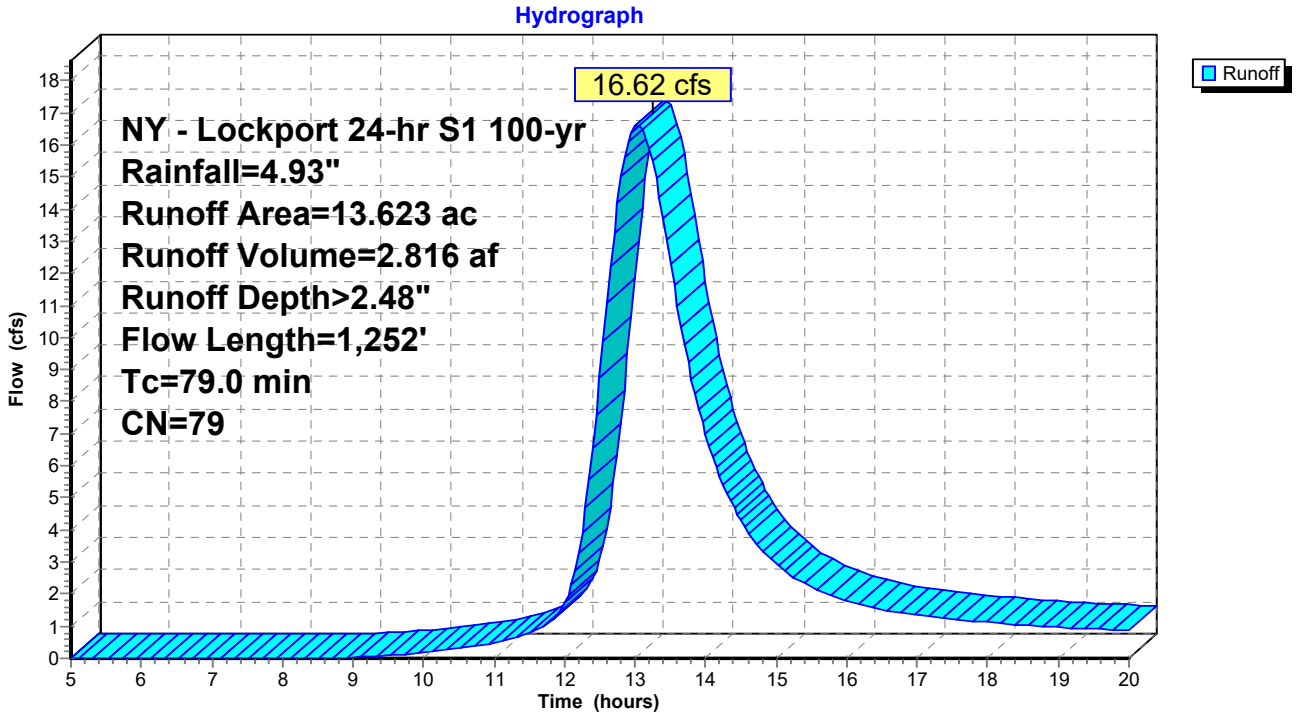
Runoff = 16.62 cfs @ 13.04 hrs, Volume= 2.816 af, Depth> 2.48"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.134	39	39 - A - 75% GRASS COVER, GOOD
*	0.938	49	49 - A - 50-75% GRASS COVER, FAIR
*	0.065	68	68 - A - <50% GRASS COVER, POOR
*	0.064	32	32 - A - FALLOW, BARE SOIL
*	0.064	30	30 - A - MEADOW, NON-GRAZED
*	0.293	80	80 - D - 75% GRASS COVER, GOOD
*	1.950	84	84 - D - 50-75% GRASS COVER, FAIR
*	0.320	89	89 - D - <50% GRASS COVER, POOR
*	0.105	79	79 - D - WOODS/GRASS COMB., GOOD
*	0.497	78	78 - D - MEADOW, NON-GRAZED
*	1.157	80	80 - D - 75% GRASS COVER, GOOD
*	4.870	84	84 - D - 50-75% GRASS COVER, FAIR
*	0.999	89	89 - D - <50% GRASS COVER, POOR
*	2.167	78	78 - D - MEADOW, NON-GRAZED
	13.623	79	Weighted Average
	13.623		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	100	0.0175	0.13		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.22"
40.8	420	0.0006	0.17		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	45	0.0056	1.52		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
14.3	300	0.0025	0.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.7	200	0.0050	0.49		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.3	187	0.0107	0.72		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
79.0	1,252	Total			

Subcatchment DA1: EXISTING DA STR 9-10



Summary for Subcatchment DA10: EXISTING DA STR 78-83

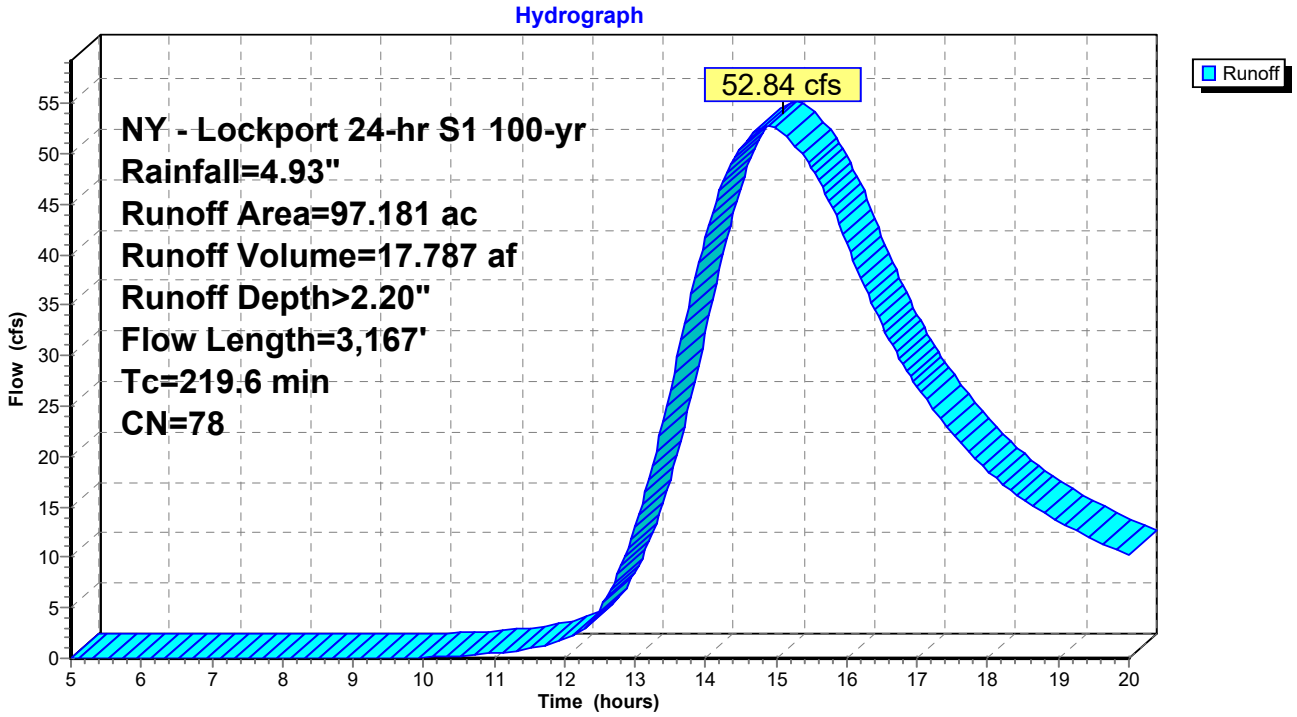
Runoff = 52.84 cfs @ 14.89 hrs, Volume= 17.787 af, Depth> 2.20"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.446	82	B-MEADOW, NON-GRAZED
*	0.142	43	D-WOODS/GRASS COMB., GOOD
*	13.840	81	D-MEADOW, NON-GRAZED
*	8.160	82	D-MEADOW, NON-GRAZED
*	1.781	21	D-75% GRASS COVER, GOOD
*	3.035	22	D-50-75% GRASS COVER, FAIR
*	24.158	81	D-MEADOW, NON-GRAZED
*	5.711	82	D-MEADOW, NON-GRAZED
*	0.003	21	D-75% GRASS COVER, GOOD
*	0.428	22	D-50-75% GRASS COVER, FAIR
*	18.333	81	D-MEADOW, NON-GRAZED
*	20.761	82	D-MEADOW, NON-GRAZED
*	0.340	98	D-PAVED ASPHALT DRIVEWAY
*	0.043	90	D-WATER SURFACE, 0% IMP
	97.181	78	Weighted Average
	96.841		99.65% Pervious Area
	0.340		0.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	100	0.0610	0.22		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
3.0	144	0.0130	0.80		**Shallow Concentrated Flow, 144** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
9.2	300	0.0060	0.54		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
12.2	162	0.0010	0.22		**Shallow Concentrated Flow, 162** Short Grass Pasture Kv= 7.0 fps
10.1	300	0.0050	0.49		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
8.3	290	0.0070	0.59		**Shallow Concentrated Flow, 290** Short Grass Pasture Kv= 7.0 fps
0.6	50	0.0400	1.40		**Shallow Concentrated Flow, 50** Short Grass Pasture Kv= 7.0 fps
4.4	242	0.0170	0.91		**Shallow Concentrated Flow, 242** Short Grass Pasture Kv= 7.0 fps
6.3	300	0.0130	0.80		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
18.8	79	0.0001	0.07		**Shallow Concentrated Flow, 79** Short Grass Pasture Kv= 7.0 fps
219.6	3,167	Total			

Subcatchment DA10: EXISTING DA STR 78-83



Summary for Subcatchment DA11: EXISTING DA STR 84-86

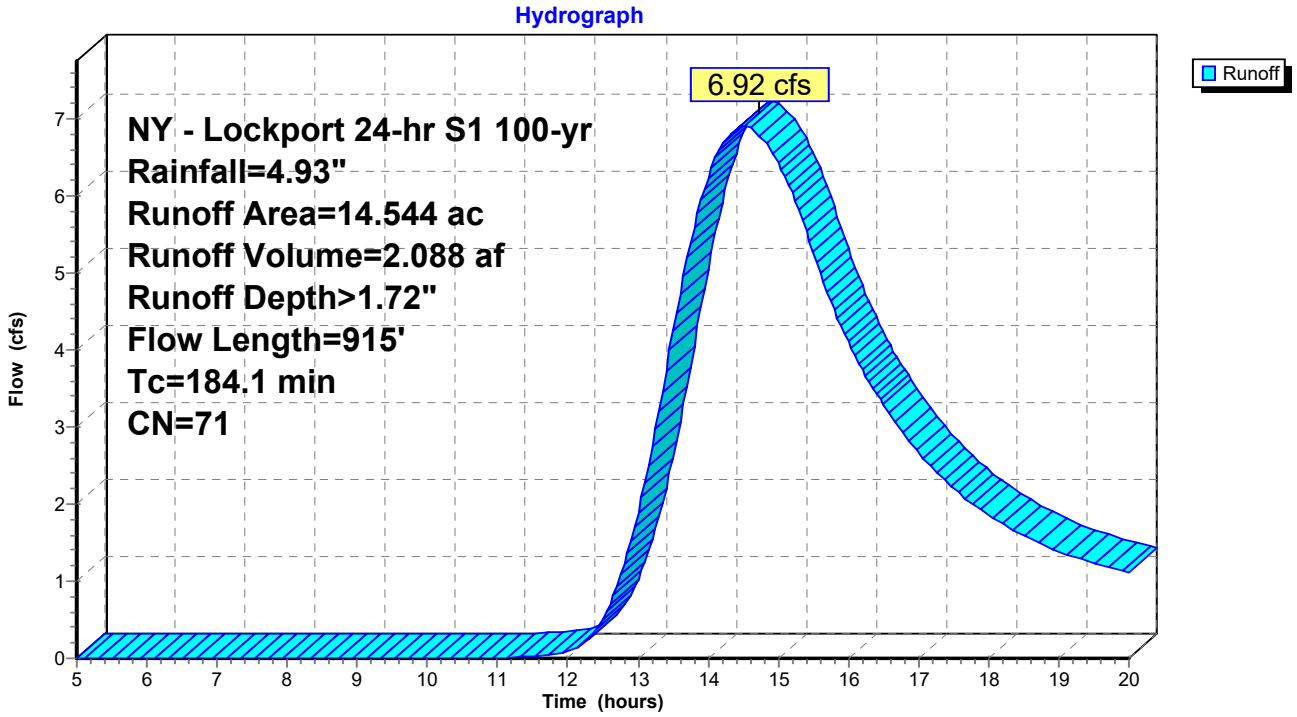
Runoff = 6.92 cfs @ 14.52 hrs, Volume= 2.088 af, Depth> 1.72"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.033	58	B-MEADOW, NON-GRAZED
*	3.140	58	B-MEADOW, NON-GRAZED
*	0.039	80	D-75% GRASS COVER, GOOD
*	0.117	84	D-50-75% GRASS COVER, FAIR
*	1.962	78	D-MEADOW, NON-GRAZED
*	2.545	78	D-MEADOW, NON-GRAZED
*	0.145	71	D-MEADOW, NON-GRAZED
*	5.505	71	D-MEADOW, NON-GRAZED
*	0.304	78	D-MEADOW, NONGRAZED
*	0.030	78	D-MEADOW, NON-GRAZED
*	0.724	78	D-MEADOW, NON-GRAZED
	14.544	71	Weighted Average
	14.544		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
97.9	100	0.0001	0.02		**Sheet Flow, 100**
					Grass: Short n= 0.150 P2= 2.22"
3.6	164	0.0120	0.77		**Shallow Concentrated Flow, 164**
					Short Grass Pasture Kv= 7.0 fps
8.5	300	0.0070	0.59		**Shallow Concentrated Flow, 300**
					Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300**
					Short Grass Pasture Kv= 7.0 fps
2.7	51	0.0020	0.31		**Shallow Concentrated Flow, 51**
					Short Grass Pasture Kv= 7.0 fps
184.1	915	Total			

Subcatchment DA11: EXISTING DA STR 84-86



Summary for Subcatchment DA12: EXISTING DA STR 90-96

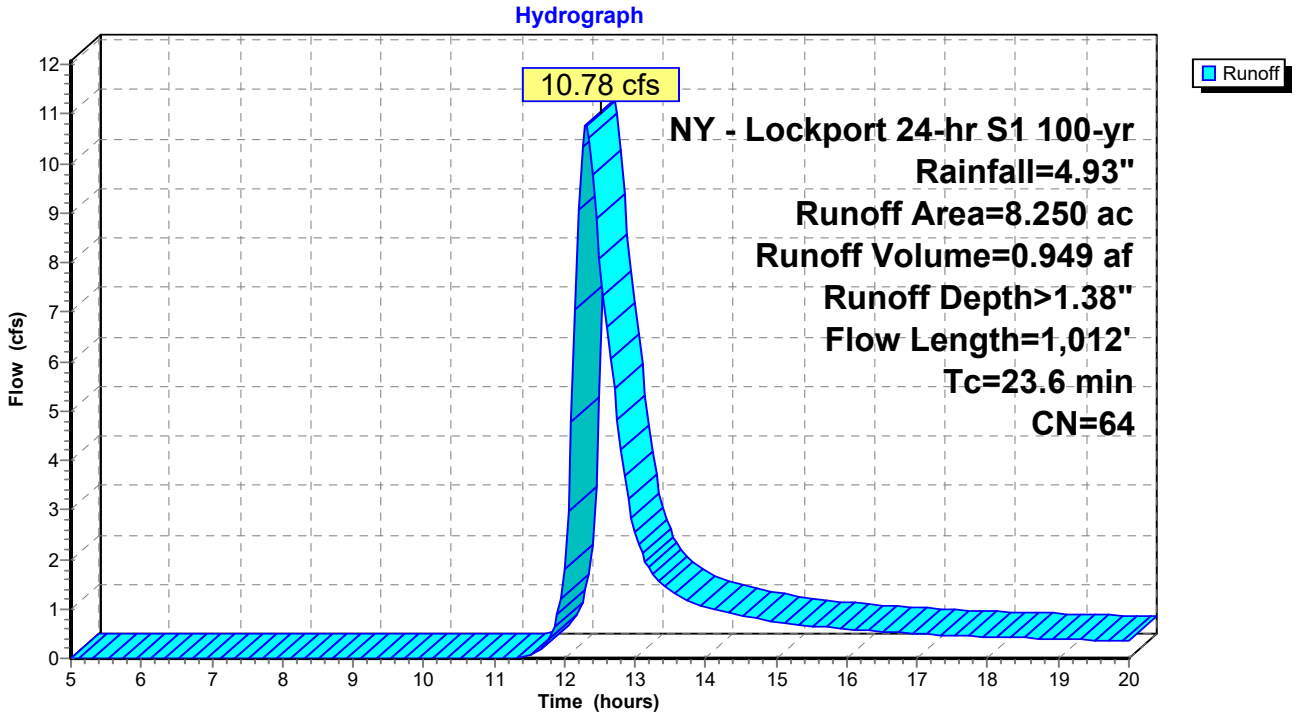
Runoff = 10.78 cfs @ 12.31 hrs, Volume= 0.949 af, Depth> 1.38"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	2.470	30	A-MEADOW, NON-GRAZED
*	5.780	78	D-MEADOW, NON-GRAZED
	8.250	64	Weighted Average
	8.250		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0390	0.19		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
1.5	130	0.0420	1.43		**Shallow Concentrated Flow, 130** Short Grass Pasture Kv= 7.0 fps
1.7	180	0.0640	1.77		**Shallow Concentrated Flow, 180** Short Grass Pasture Kv= 7.0 fps
2.5	237	0.0520	1.60		**Shallow Concentrated Flow, 237** Short Grass Pasture Kv= 7.0 fps
1.3	80	0.0230	1.06		**Shallow Concentrated Flow, 80** Short Grass Pasture Kv= 7.0 fps
5.0	132	0.0040	0.44		**Shallow Concentrated Flow, 132** Short Grass Pasture Kv= 7.0 fps
2.6	153	0.0200	0.99		**Shallow Concentrated Flow, 153** Short Grass Pasture Kv= 7.0 fps
23.6	1,012	Total			

Subcatchment DA12: EXISTING DA STR 90-96



Summary for Subcatchment DA13: EXISTING DA STR 97-103

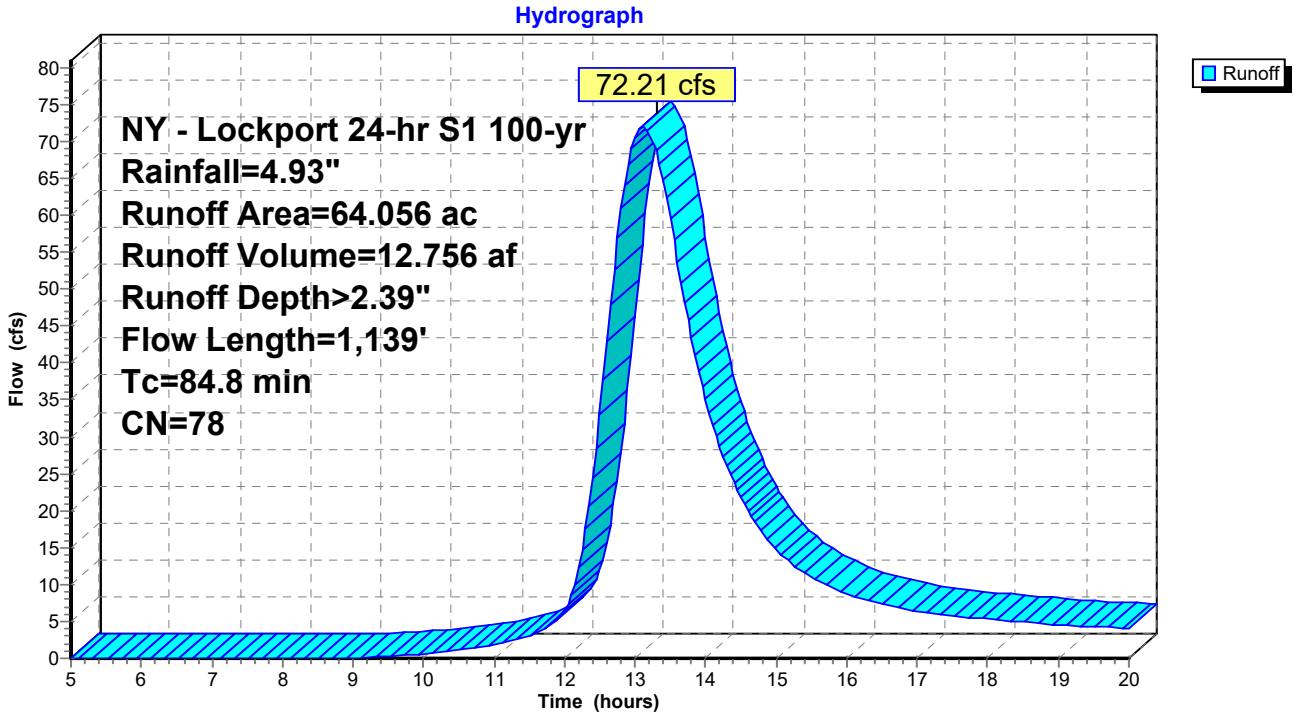
Runoff = 72.21 cfs @ 13.11 hrs, Volume= 12.756 af, Depth> 2.39"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.113	49	A-50-75% GRASS COVER, FAIR
*	0.131	30	A-MEADOW, NON-GRAZED
*	12.491	78	D-MEADOW, NON-GRAZED
*	0.855	80	D-75% GRASS COVER, GOOD
*	0.366	84	D-50-75% GRASS COVER, FAIR
*	0.263	79	D-WOODS/GRASS COMB., GOOD
*	49.419	78	D-MEADOW, NON-GRAZED
*	0.418	98	D-WATER SURFACE, 0% IMP
	64.056	78	Weighted Average
	63.638		99.35% Pervious Area
	0.418		0.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.1	100	0.0030	0.07		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
11.2	258	0.0030	0.38		**Shallow Concentrated Flow, 258** Short Grass Pasture Kv= 7.0 fps
31.4	132	0.0001	0.07		**Shallow Concentrated Flow, 132** Short Grass Pasture Kv= 7.0 fps
4.0	176	0.0110	0.73		**Shallow Concentrated Flow, 176** Short Grass Pasture Kv= 7.0 fps
7.7	270	0.0070	0.59		**Shallow Concentrated Flow, 270** Short Grass Pasture Kv= 7.0 fps
5.4	203	0.0080	0.63		**Shallow Concentrated Flow, 203** Short Grass Pasture Kv= 7.0 fps
84.8	1,139	Total			

Subcatchment DA13: EXISTING DA STR 97-103



Summary for Subcatchment DA14: EXISTING DA STR 104-106

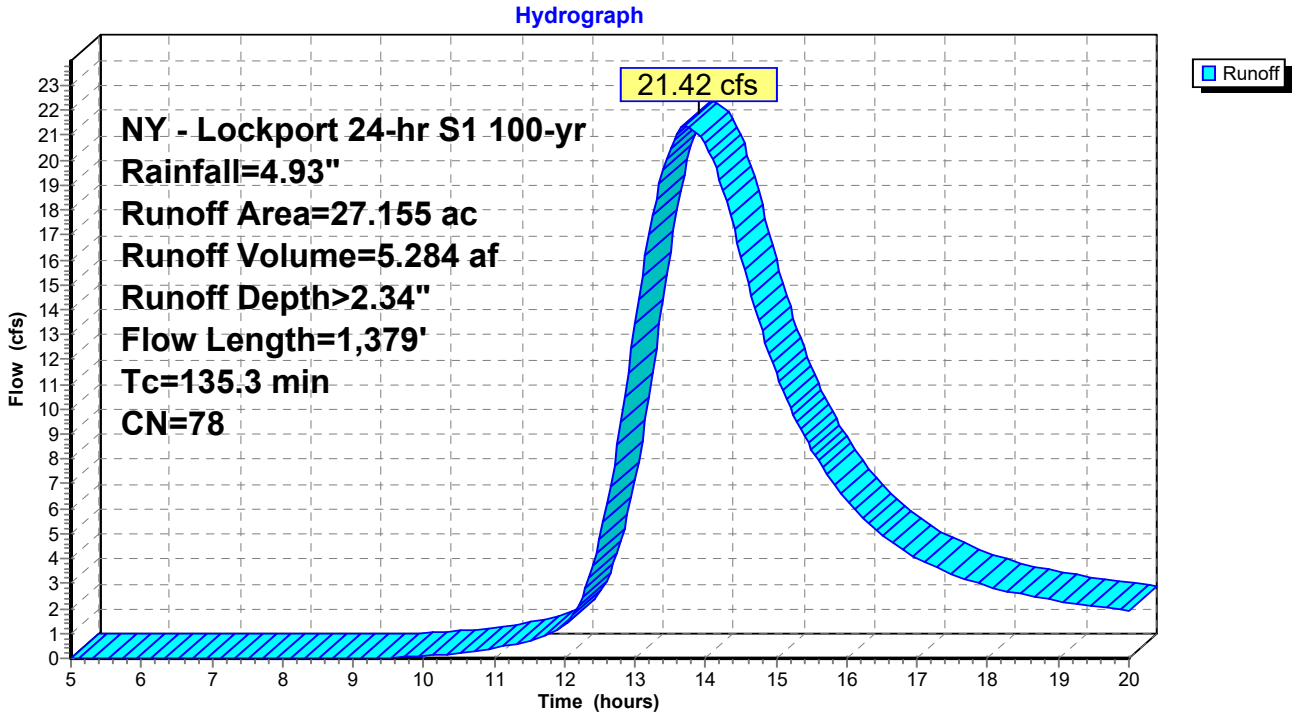
Runoff = 21.42 cfs @ 13.71 hrs, Volume= 5.284 af, Depth> 2.34"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.471	61	B-75% GRASS COVER, GOOD
*	1.291	80	D-75% GRASS OCVER, GOOD
*	0.937	84	D-50-75% GRASS COVER, FAIR
*	1.189	79	D-WOODS/GRASS COMB., GOOD
*	2.124	78	D-MEADOW, NON-GRAZED
*	0.606	80	D-75% GRASS COVER, GOOD
*	0.552	79	D-WOODS/GRASS COMB., GOOD
*	10.418	78	D-MEADOW, NON-GRAZED
*	0.104	98	D-WATER SURFACE, 0% IMP
*	0.137	98	D-WATER SURFACE, 0% IMP
*	0.893	80	D-75% GRASS OCVER, GOOD
*	0.115	80	D-50-75% GRASS COVER, FAIR
*	8.318	78	D-MEADOW, NON-GRAZED
	27.155	78	Weighted Average
	26.914		99.11% Pervious Area
	0.241		0.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.0330	0.17		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
0.9	53	0.0220	1.04		**Shallow Concentrated Flow, 53** Short Grass Pasture Kv= 7.0 fps
2.3	140	0.0210	1.01		**Shallow Concentrated Flow, 140** Short Grass Pasture Kv= 7.0 fps
2.2	140	0.0220	1.04		**Shallow Concentrated Flow, 140** Short Grass Pasture Kv= 7.0 fps
5.8	230	0.0090	0.66		**Shallow Concentrated Flow, 230** Short Grass Pasture Kv= 7.0 fps
7.6	267	0.0070	0.59		**Shallow Concentrated Flow, 267** Short Grass Pasture Kv= 7.0 fps
43.8	184	0.0001	0.07		**Shallow Concentrated Flow, 184** Short Grass Pasture Kv= 7.0 fps
63.1	265	0.0001	0.07		**Shallow Concentrated Flow, 265** Short Grass Pasture Kv= 7.0 fps
135.3	1,379	Total			

Subcatchment DA14: EXISTING DA STR 104-106



Summary for Subcatchment DA15: EXISTING DA STR 106-109

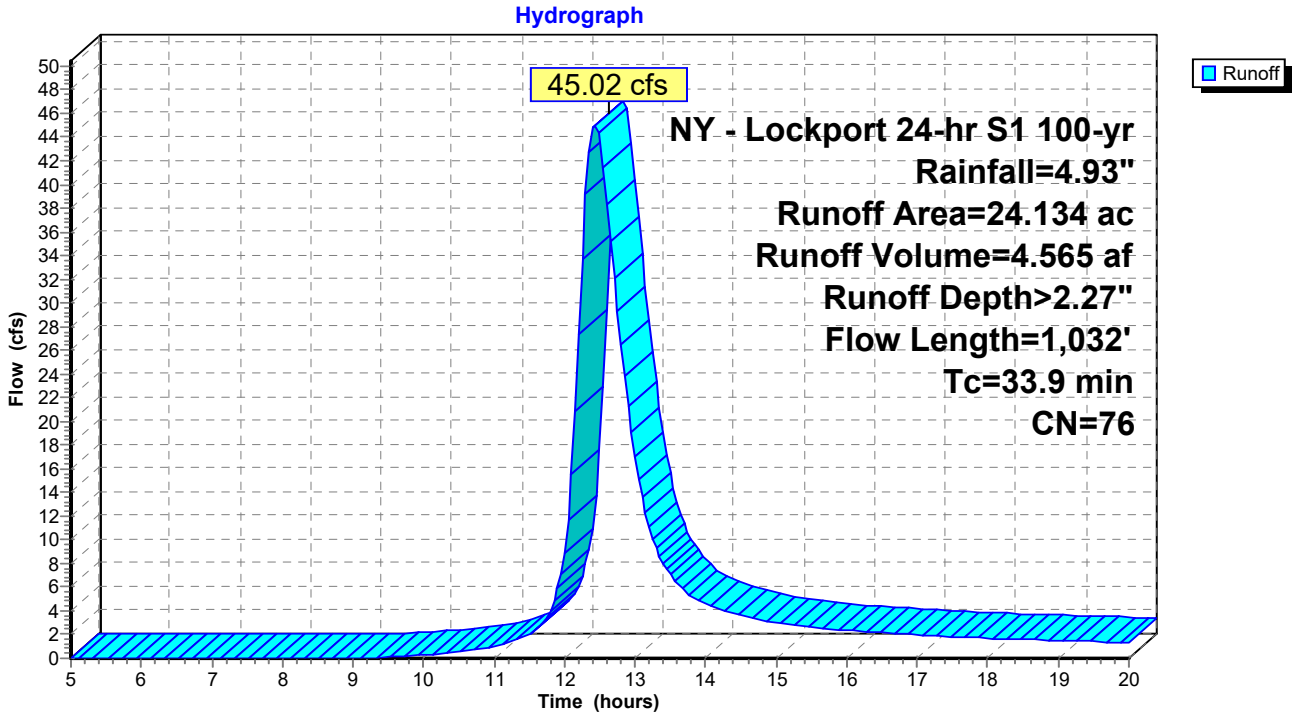
Runoff = 45.02 cfs @ 12.43 hrs, Volume= 4.565 af, Depth> 2.27"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.972	61	B-75% GRASS COVER, GOOD
*	1.615	69	B-50-75% GRASS COVER, FAIR
*	2.680	58	B-MEADOW, NON-GRAZED
*	0.028	80	D-75% GRASS COVER, GOOD
*	2.330	78	D-MEADOW, NON-GRAZED
*	0.585	80	D-75% GRASS COVER, GOOD
*	0.724	84	D-50-75% GRASS COVER, FAIR
*	0.465	79	D-WOODS/GRASS COMB., GOOD
*	13.770	78	D-MEADOW, NON-GRAZED
*	0.880	98	D-WATER SURFACE, 0% IMP
*	0.085	98	D-WATER SURFACE, 0% IMP
	24.134	76	Weighted Average
	23.169		96.00% Pervious Area
	0.965		4.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.4	100	0.0120	0.12		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
2.1	148	0.0270	1.15		**Shallow Concentrated Flow, 148** Short Grass Pasture Kv= 7.0 fps
3.4	204	0.0200	0.99		**Shallow Concentrated Flow, 204** Short Grass Pasture Kv= 7.0 fps
6.0	300	0.0140	0.83		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
8.0	280	0.0070	0.59		**Shallow Concentrated Flow, 280** Short Grass Pasture Kv= 7.0 fps
33.9	1,032	Total			

Subcatchment DA15: EXISTING DA STR 106-109



Summary for Subcatchment DA16: EXISTING DA STR 110-117

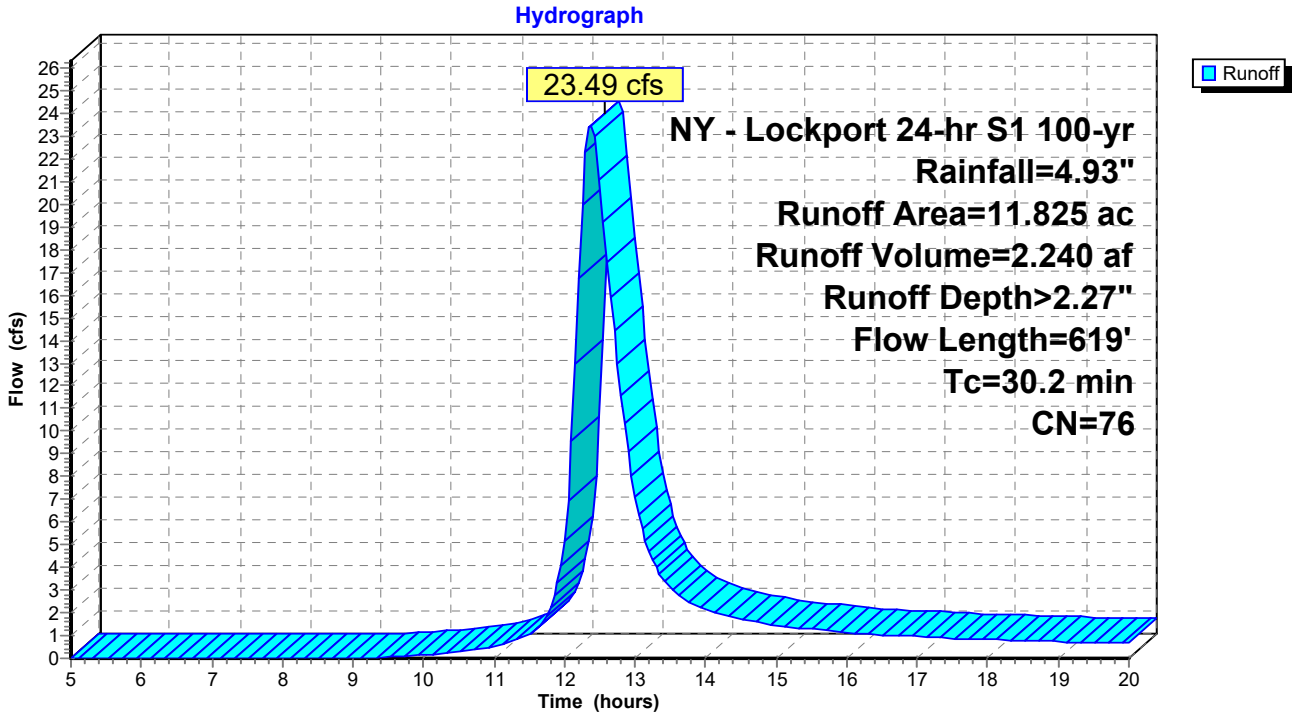
Runoff = 23.49 cfs @ 12.38 hrs, Volume= 2.240 af, Depth> 2.27"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.423	61	B-75%GRASS COVER, GOOD
*	0.460	69	B-50-75% GRASS COVER, FAIR
*	2.069	58	D-MEADOW, NON-GRAZED
*	0.045	78	D-MEADOW, NON-GRAZED
*	0.049	98	D-MEADOW, NON-GRAZED
*	0.487	80	D-75% GRASS COVER, GOOD
*	0.960	84	D-50-75% GRASS COVER, FAIR
*	0.293	79	D-WOODS/GRASS COMB., GOOD
*	5.704	78	D-MEADOW, NON-GRAZED
*	1.222	98	D-MEADOW, NON-GRAZED
*	0.048	79	D-WOODS/GRASS COMB., GOOD
*	0.009	78	D-MEADOW, NON-GRAZED
*	0.056	98	D-MEADOW, NON-GRAZED
	11.825	76	Weighted Average
	10.498		88.78% Pervious Area
	1.327		11.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.9	100	0.0070	0.09		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
3.4	222	0.0240	1.08		**Shallow Concentrated Flow, 222** Short Grass Pasture Kv= 7.0 fps
4.1	154	0.0080	0.63		**Shallow Concentrated Flow, 154** Short Grass Pasture Kv= 7.0 fps
4.8	143	0.0050	0.49		**Shallow Concentrated Flow, 143** Short Grass Pasture Kv= 7.0 fps
30.2	619	Total			

Subcatchment DA16: EXISTING DA STR 110-117



Summary for Subcatchment DA17: EXISTING DA STR 113-116

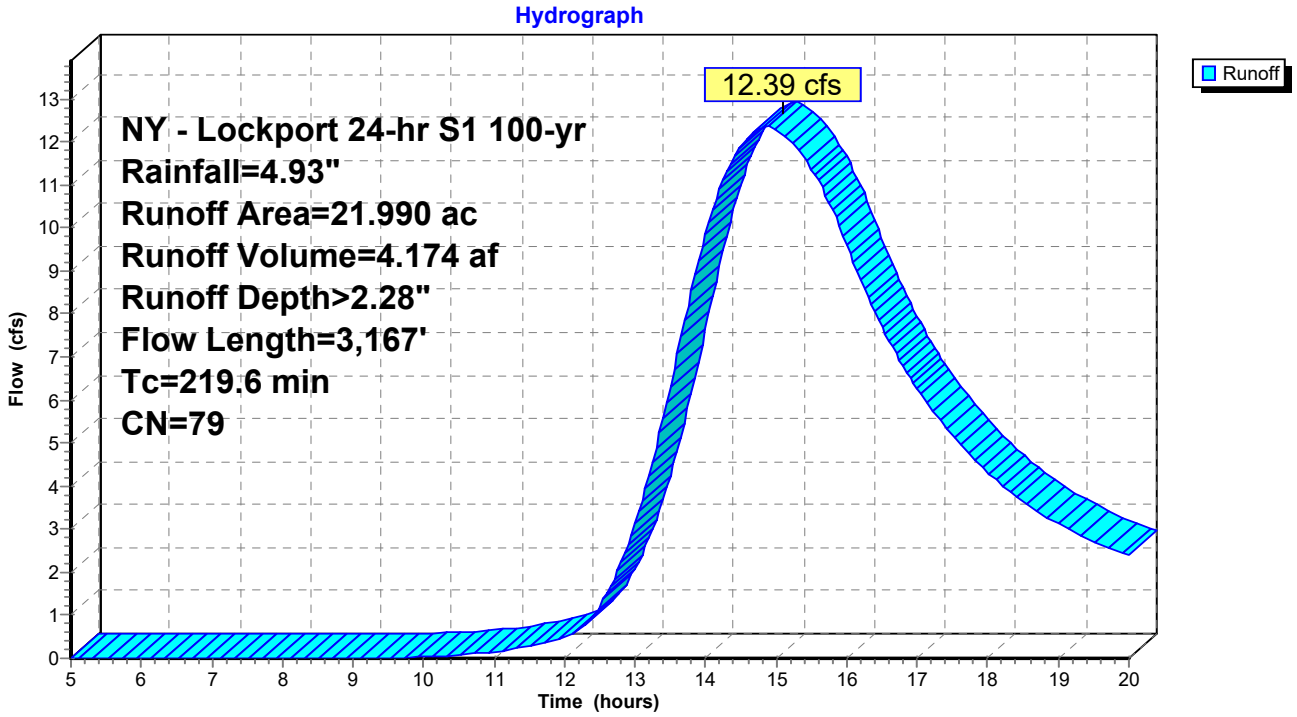
Runoff = 12.39 cfs @ 14.88 hrs, Volume= 4.174 af, Depth> 2.28"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.289	80	D-75% GRASS COVER, GOOD
*	0.899	84	D-50-75% GRASS COVER, FAIR
*	2.853	78	D-MEADOW, NON-GRAZED
*	0.540	78	D-MEADOW, NON-GRAZED
*	0.077	80	D-75% GRASS COVER, GOOD
*	0.177	84	D-50-75% GRASS COVER, FAIR
*	0.010	79	D-WOODS/GRASS COMB., GOOD
*	6.443	78	D-MEADOW, NON-GRAZED
*	7.074	78	D-MEADOW, NON-GRAZED
*	0.337	98	D-WATER SURFACE, 0% IMP
*	3.150	78	D-MEADOW, NON-GRAZED
*	0.141	98	D-WATER SURFACE, 0% IMP
	21.990	79	Weighted Average
	21.512		97.83% Pervious Area
	0.478		2.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	100	0.0610	0.22		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
3.0	144	0.0130	0.80		**Shallow Concentrated Flow, 144** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
9.2	300	0.0060	0.54		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
12.2	162	0.0010	0.22		**Shallow Concentrated Flow, 162** Short Grass Pasture Kv= 7.0 fps
10.1	300	0.0050	0.49		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
8.3	290	0.0070	0.59		**Shallow Concentrated Flow, 290** Short Grass Pasture Kv= 7.0 fps
0.6	50	0.0400	1.40		**Shallow Concentrated Flow, 50** Short Grass Pasture Kv= 7.0 fps
4.4	242	0.0170	0.91		**Shallow Concentrated Flow, 242** Short Grass Pasture Kv= 7.0 fps
6.3	300	0.0130	0.80		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
18.8	79	0.0001	0.07		**Shallow Concentrated Flow, 79** Short Grass Pasture Kv= 7.0 fps
219.6	3,167	Total			

Subcatchment DA17: EXISTING DA STR 113-116



Summary for Subcatchment DA18: EXISTING DA STR 36

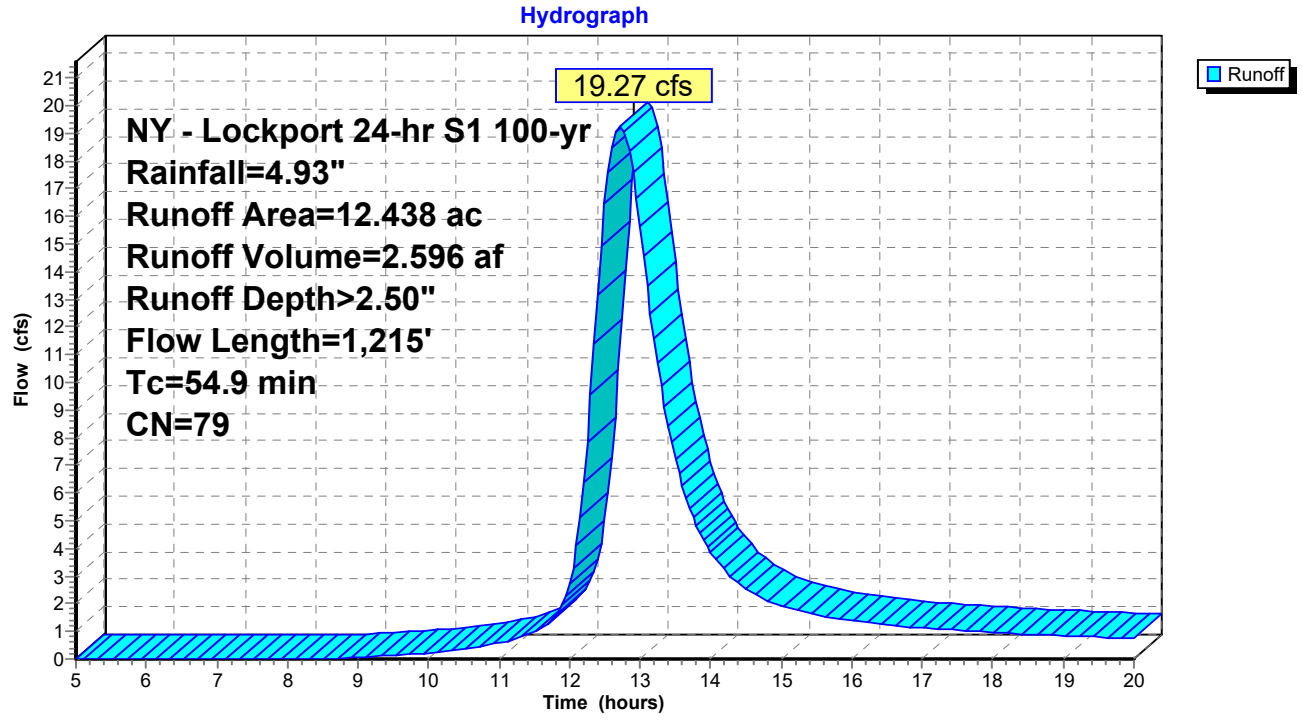
Runoff = 19.27 cfs @ 12.72 hrs, Volume= 2.596 af, Depth> 2.50"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.143	80	D - 80 - Developed open space
*	0.461	80	D - 80 - Developed open space
*	1.014	82	D - 82 - Developed Low intensity
*	1.218	82	D - 82 - Developed Low intensity
*	0.081	77	D - 77 - Deciduous Forest
*	7.367	78	D - 78 - Meadowed, grass, non-grazed land
*	2.154	78	D - 78 - Meadowed, grass, non-grazed land
	12.438	79	Weighted Average
	12.438		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0200	0.14		**Sheet Flow, 100' sheet** Grass: Short n= 0.150 P2= 2.22"
43.1	1,115	0.0038	0.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
54.9	1,215	Total			

Subcatchment DA18: EXISTING DA STR 36



Summary for Subcatchment DA19: EXISTING DA STR 42-47

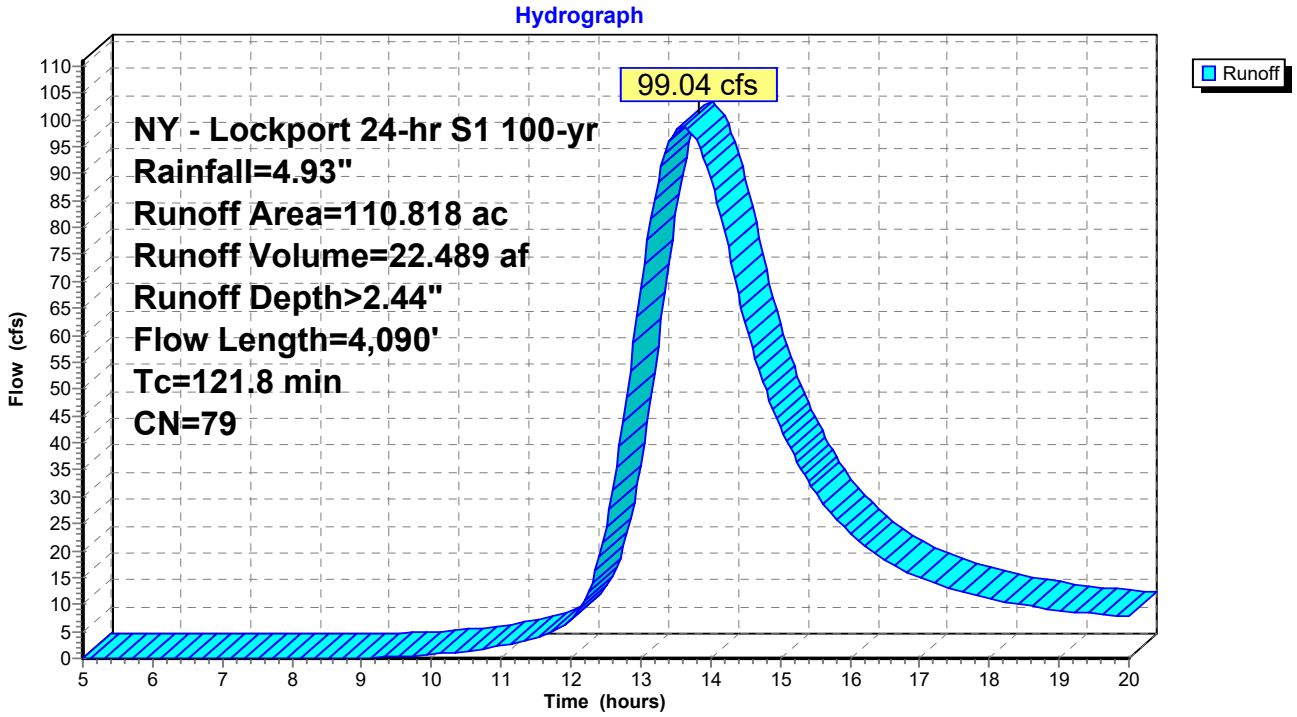
Runoff = 99.04 cfs @ 13.64 hrs, Volume= 22.489 af, Depth> 2.44"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	3.220	80	D - 80 - Developed open space
*	2.932	80	D - 80 - Developed open space
*	0.003	80	D - 80 - Developed open space
*	10.164	82	D - 82 - Developed Low intensity
*	6.410	82	D - 82 - Developed Low intensity
*	0.607	82	D - 82 - Developed Low intensity
*	5.494	77	D - 77 - Deciduous Forest
*	15.746	78	D - 78 - Meadowed, grass, non-grazed land
*	63.740	78	D - 78 - Meadowed, grass, non-grazed land
*	2.502	78	D - 78 - Meadowed, grass, non-grazed land
	110.818	79	Weighted Average
	110.818		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.0300	0.17		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.22"
88.0	2,225	0.0071	0.42		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.8	1,765	0.0068	1.24		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
121.8	4,090	Total			

Subcatchment DA19: EXISTING DA STR 42-47



Summary for Subcatchment DA2: EXISTING DA STR 11-12

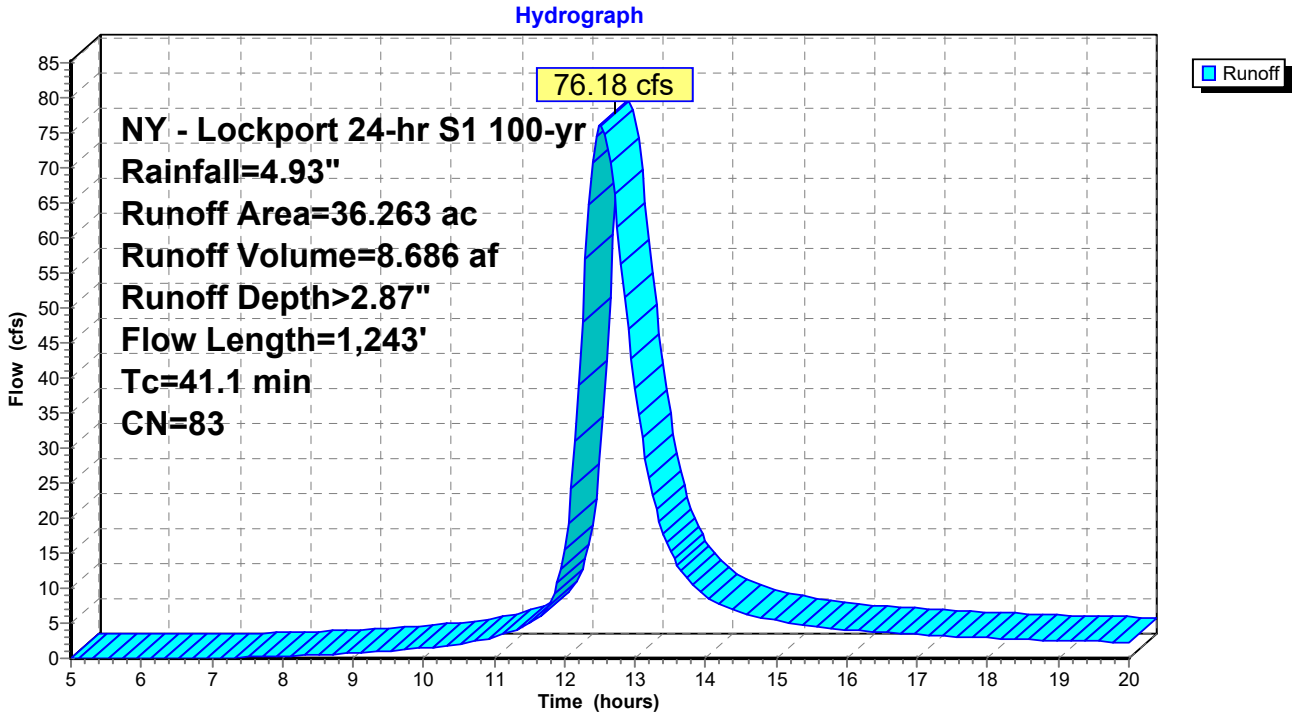
Runoff = 76.18 cfs @ 12.52 hrs, Volume= 8.686 af, Depth> 2.87"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	2.487	80	80-D-75% GRASS COVER, GOOD
*	1.050	84	84-D-50-75% GRASS COVER, FAIR
*	1.903	89	89-D-<50% GRASS COVER, POOR
*	0.250	95	95-D-URBAN COMMERCIAL, 85% IMP
*	0.043	79	79-D-WOODS/GRASS COMB., GOOD
*	1.541	78	78-D-MEADOW, NONGRAZED
*	0.054	80	80-D-75% GRASS COVER, GOOD
*	0.598	84	84-D-50-75% GRASSC OVER, FAIR
*	2.041	89	89-D-<50% GRASS COVER, POOR
*	0.286	95	95-D-URBAN COMMERCIAL, 85% IMP
*	1.744	78	78-D-MEADOW, NON-GRAZED
*	6.222	80	80-D-75% GRASS CVER, GOOD
*	7.613	84	8D-D-50-75% GRASS COVER, FAIR
*	3.609	89	89-D-<50% GRASS COVER POOR
*	0.887	95	95-D-URBAN COMMERCIAL, 85% IMP
*	3.299	79	79-D-WOODS/GRASS COMB., GOOD
*	2.636	78	78-D-MEADOW, NON-GRAZED
	36.263	83	Weighted Average
	36.263		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.5	100	0.0050	0.66		**Sheet Flow, 100'** Smooth surfaces n= 0.011 P2= 2.22"
1.4	115	0.0043	1.33		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.4	256	0.0078	1.79		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.3	240	0.0031	0.39		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	30	0.0064	1.62		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.8	128	0.0117	0.76		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
14.2	209	0.0024	0.24		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
7.2	165	0.0030	0.38		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
41.1	1,243	Total			

Subcatchment DA2: EXISTING DA STR 11-12



Summary for Subcatchment DA3: EXISTING DA STR 17-20

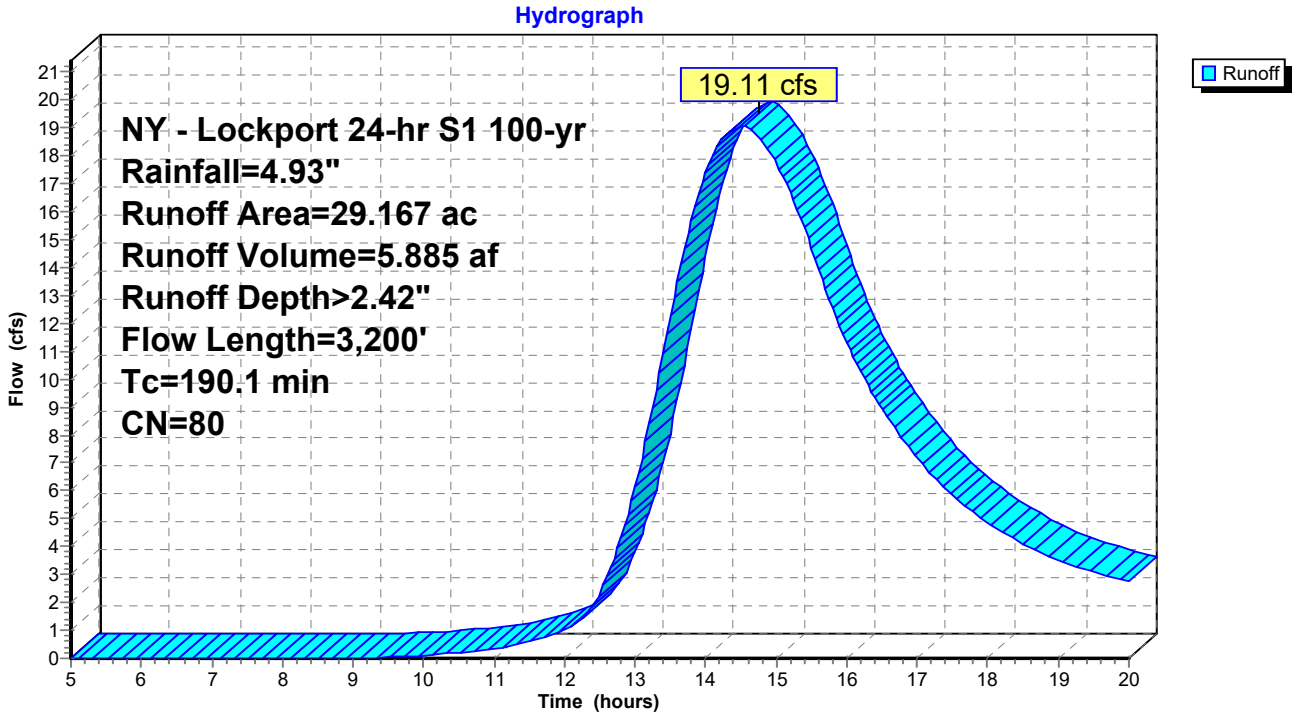
Runoff = 19.11 cfs @ 14.55 hrs, Volume= 5.885 af, Depth> 2.42"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.391	80	80-D-75% GRASS COVER, GOOD
*	4.601	79	WOODS/GRASS COMB., GOOD
*	1.427	79	WOODS/GRASS COMB., GOOD
*	2.196	78	MEADOW, NON-GRAZED
*	0.320	98	WATER SURFACE
*	3.636	80	75% GRASS COVER, GOOD
*	1.957	84	50-75% GRASS COVER, FAIR
*	1.104	89	<50% GRASS COVER, POOR
*	0.375	95	URBAN COMMERCIAL, 85% IMP
*	2.017	79	WOODS/GRASS COMB., GOOD
*	0.337	84	50-75% GRASS COVER, FAIR
*	1.756	79	WOODS/GRASS COMB., GOOD
*	0.470	79	WOODS/GRASS COMB., GOOD
*	8.306	78	MEADOW, NON-GRAZED
*	0.274	98	WATER SURFACE, 0% IMP
	29.167	80	Weighted Average
	28.573		97.96% Pervious Area
	0.594		2.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.2	100	0.0175	0.06		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
7.6	186	0.0067	0.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
8.3	368	0.0217	0.74		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
31.5	708	0.0056	0.37		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.1	576	0.0069	0.42		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	452	0.0055	0.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
77.9	810	0.0012	0.17		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
190.1	3,200	Total			

Subcatchment DA3: EXISTING DA STR 17-20



Summary for Subcatchment DA4: EXISTING DA STR 21-23

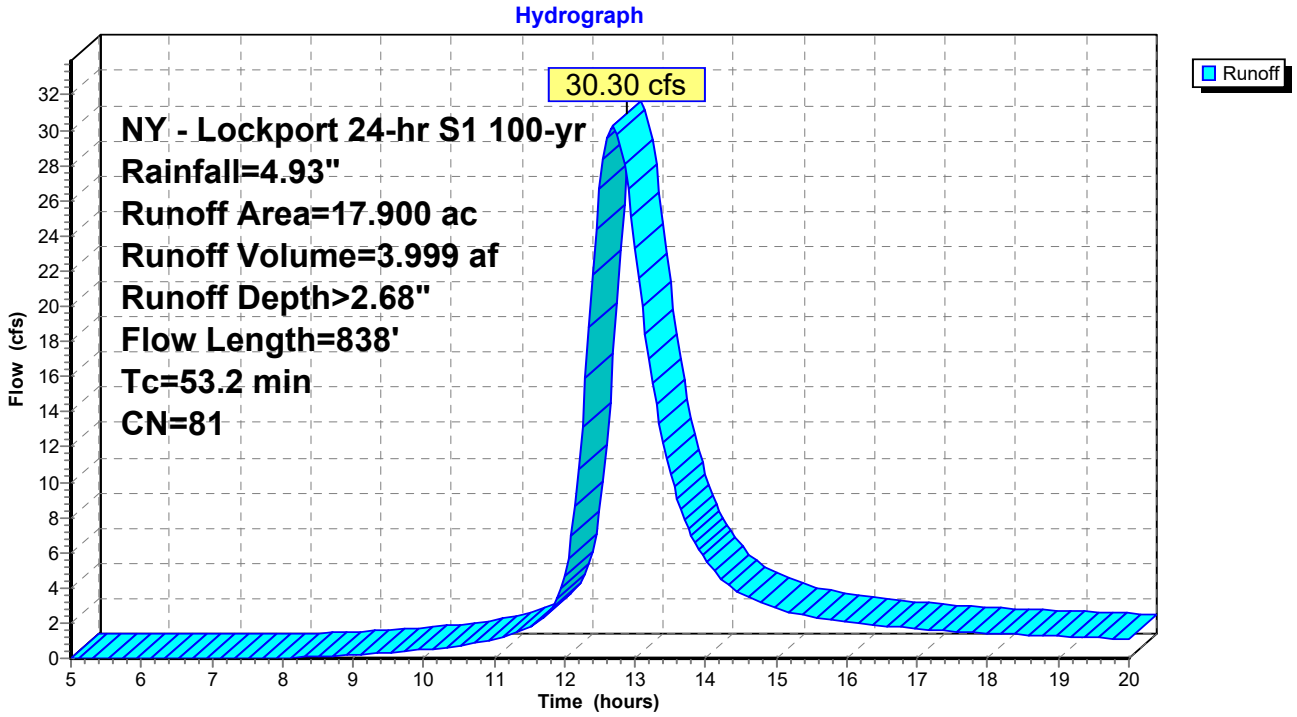
Runoff = 30.30 cfs @ 12.69 hrs, Volume= 3.999 af, Depth> 2.68"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.062	80	80-D-75% GRASS COVER, GOOD
*	0.720	84	84-D-50-75% GRASS COVER, FAIR
*	0.884	78	78-D-MEADOW, NON-GRAZED
*	4.286	80	80-D-75% GRASS COVER, GOOD
*	3.922	84	84-D-50-75% GRASS COVER, FAIR
*	0.139	89	89-D-<50% GRASS COVER, POOR
*	1.645	85	85-D-HERBACEOUS RANGE, GOOD
*	5.404	78	78-D-MEADOW, NON-GRAZED
*	0.188	80	80-D-75% GRASS COVER, GOOD
*	0.143	84	84-D-50-75% GRASS COVER, FAIR
*	0.507	78	78-D-MEADOW, NON-GRAZED
	17.900	81	Weighted Average
	17.900		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0125	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.22"
23.5	419	0.0018	0.30		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
15.5	319	0.0024	0.34		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
53.2	838	Total			

Subcatchment DA4: EXISTING DA STR 21-23



Summary for Subcatchment DA5: EXISTING DA STR 25-29

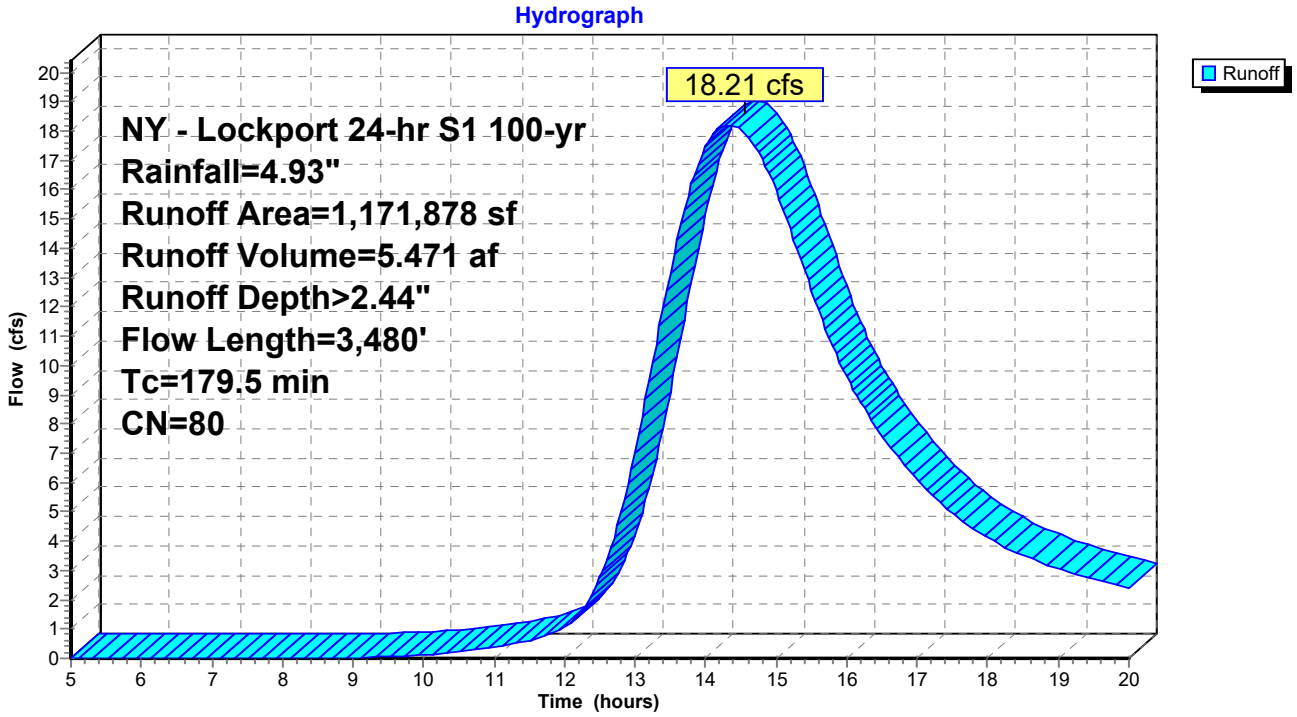
Runoff = 18.21 cfs @ 14.34 hrs, Volume= 5.471 af, Depth> 2.44"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (sf)	CN	Description
*	17,032	80	80-D-75% GRASS COVER, GOOD
*	200,420	79	WOODS/GRASS COMB., GOOD
*	62,160	79	WOODS/GRASS COMB., GOOD
*	95,658	78	MEADOW, NON-GRAZED
*	13,939	98	WATER SURFACE
*	158,384	80	75% GRASS COVER, GOOD
*	85,247	84	50-75% GRASS COVER, FAIR
*	48,090	89	<50% GRASS COVER, POOR
*	16,335	95	URBAN COMMERCIAL, 85% IMP
*	87,844	79	WOODS/GRASS COMB., GOOD
*	14,680	84	50-75% GRASS COVER, FAIR
*	152,329	79	WOODS/GRASS COMB., GOOD
*	20,473	79	WOODS/GRASS COMB., GOOD
*	187,352	78	MEADOW, NON-GRAZED
*	11,935	98	WATER SURFACE, 0% IMP
	1,171,878	80	Weighted Average
	1,146,004		97.79% Pervious Area
	25,874		2.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.8	100	0.0200	0.06		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
28.8	377	0.0019	0.22		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
12.9	548	0.0200	0.71		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
17.4	739	0.0200	0.71		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
10.5	489	0.0240	0.77		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
8.0	420	0.0156	0.87		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.1	429	0.0120	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
63.0	378	0.0004	0.10		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
179.5	3,480	Total			

Subcatchment DA5: EXISTING DA STR 25-29



Summary for Subcatchment DA6: EXISTING DA STR 29-35

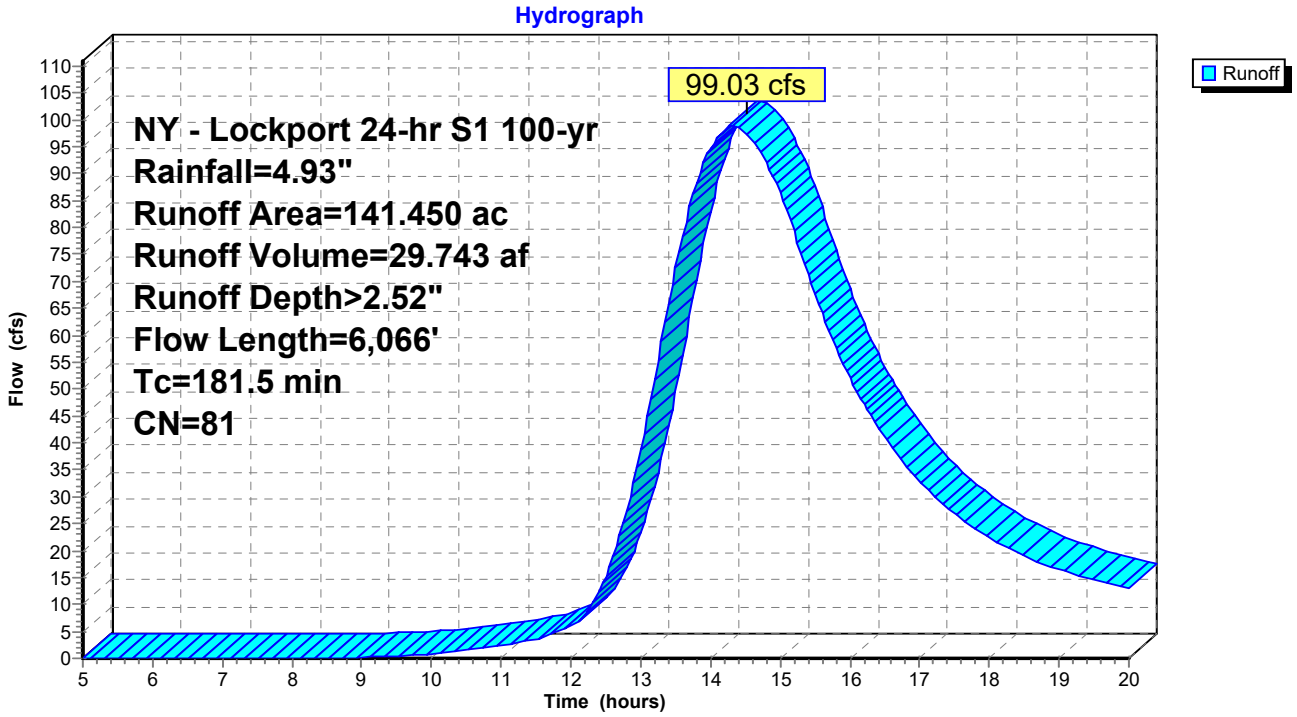
Runoff = 99.03 cfs @ 14.32 hrs, Volume= 29.743 af, Depth> 2.52"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.152	98	D - 98 - Open Water
*	0.074	80	D - 80 - Developed open space
*	0.307	80	D - 80 - Developed open space
*	2.363	80	D - 80 - Developed open space
*	1.992	82	D - 82 - Developed Low intensity
*	1.726	82	D - 82 - Developed Low intensity
*	2.185	85	D - 85 - Developed Med intensity
*	0.875	77	D - 77 - Deciduous Forest
*	18.239	77	D - 77 - Deciduous Forest
*	13.242	77	D - 77 - Deciduous Forest
*	0.038	77	D - 77 - Evergreen Forest
*	0.919	77	D - 77 - Evergreen Forest
*	0.021	77	D - 77 - Evergreen Forest
*	0.508	77	D - 77 - Mixed Forest
*	0.889	77	D - 77 - Mixed Forest
*	0.160	77	D - 77 - Mixed Forest
*	4.266	78	D - 78 - Meadowed, grass, non-grazed land
*	29.357	78	D - 78 - Meadowed, grass, non-grazed land
*	22.896	78	D - 78 - Meadowed, grass, non-grazed land
*	0.112	78	D - 78 - Meadowed, grass, non-grazed land
*	5.915	78	D - 78 - Meadowed, grass, non-grazed land
*	5.016	90	D - 90 - Woody Wetlands
*	30.198	90	D - 90 - Woody Wetlands
	141.450	81	Weighted Average
	141.298		99.89% Pervious Area
	0.152		0.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.7	100	0.0275	0.07		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
31.2	1,144	0.0149	0.61		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.6	670	0.0026	0.76		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
12.9	328	0.0008	0.42		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
100.1	3,824	0.0018	0.64		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
181.5	6,066	Total			

Subcatchment DA6: EXISTING DA STR 29-35



Summary for Subcatchment DA7: EXISTING DA STR 37-40

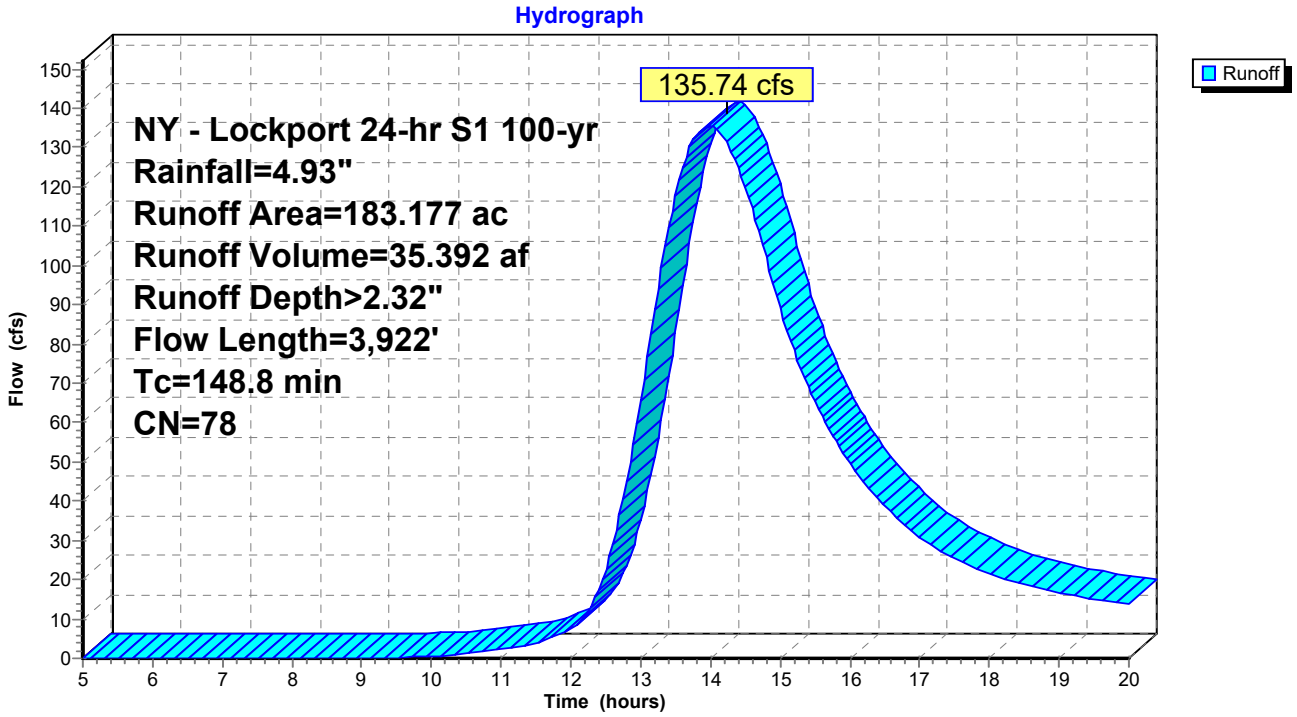
Runoff = 135.74 cfs @ 14.03 hrs, Volume= 35.392 af, Depth> 2.32"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	2.507	80	D - 80 - Developed open space
*	3.318	80	D - 80 - Developed open space
*	2.790	80	D - 80 - Developed open space
*	2.870	82	D - 82 - Developed Low intensity
*	4.979	82	D - 82 - Developed Low intensity
*	4.781	82	D - 82 - Developed Low intensity
*	0.152	85	D - 85 - Developed Med intensity
*	1.263	77	D - 77 - Deciduous Forest
*	3.431	77	D - 77 - Deciduous Forest
*	3.544	77	D - 77 - Deciduous Forest
*	14.732	78	D - 78 - Meadowed, grass, non-grazed land
*	59.055	78	D - 78 - Meadowed, grass, non-grazed land
*	79.755	78	D - 78 - Meadowed, grass, non-grazed land
	183.177	78	Weighted Average
	183.177		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.6	100	0.0350	0.08		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
48.7	1,573	0.0116	0.54		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
62.0	1,276	0.0047	0.34		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
17.5	973	0.0038	0.92		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
148.8	3,922	Total			

Subcatchment DA7: EXISTING DA STR 37-40



Summary for Subcatchment DA8: EXISTING DA STR 41

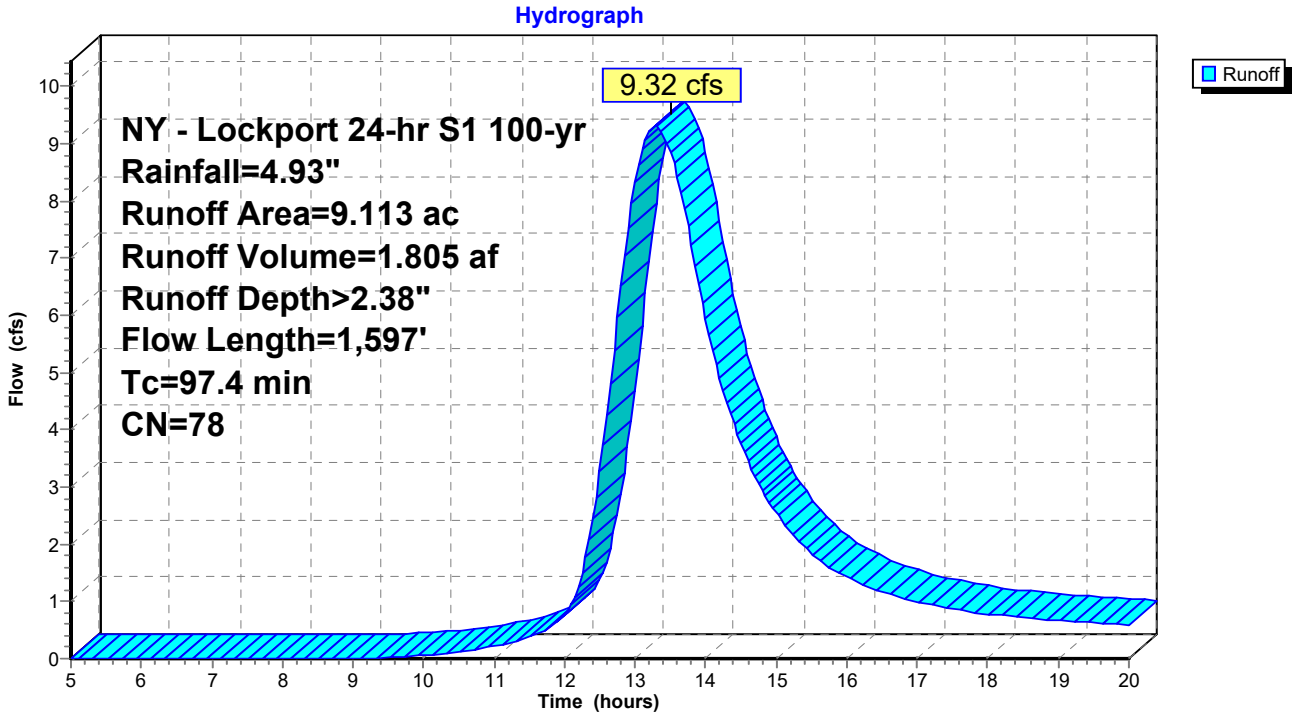
Runoff = 9.32 cfs @ 13.30 hrs, Volume= 1.805 af, Depth> 2.38"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	3.755	77	D - 77 - Deciduous Forest
*	5.358	78	D - 78 - Meadowed, grass, non-grazed land
	9.113	78	Weighted Average
	9.113		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.0	100	0.0100	0.05		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
63.4	1,497	0.0062	0.39		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.4	1,597	Total			

Subcatchment DA8: EXISTING DA STR 41



Summary for Subcatchment DA9: EXISTING DA STR 48-50

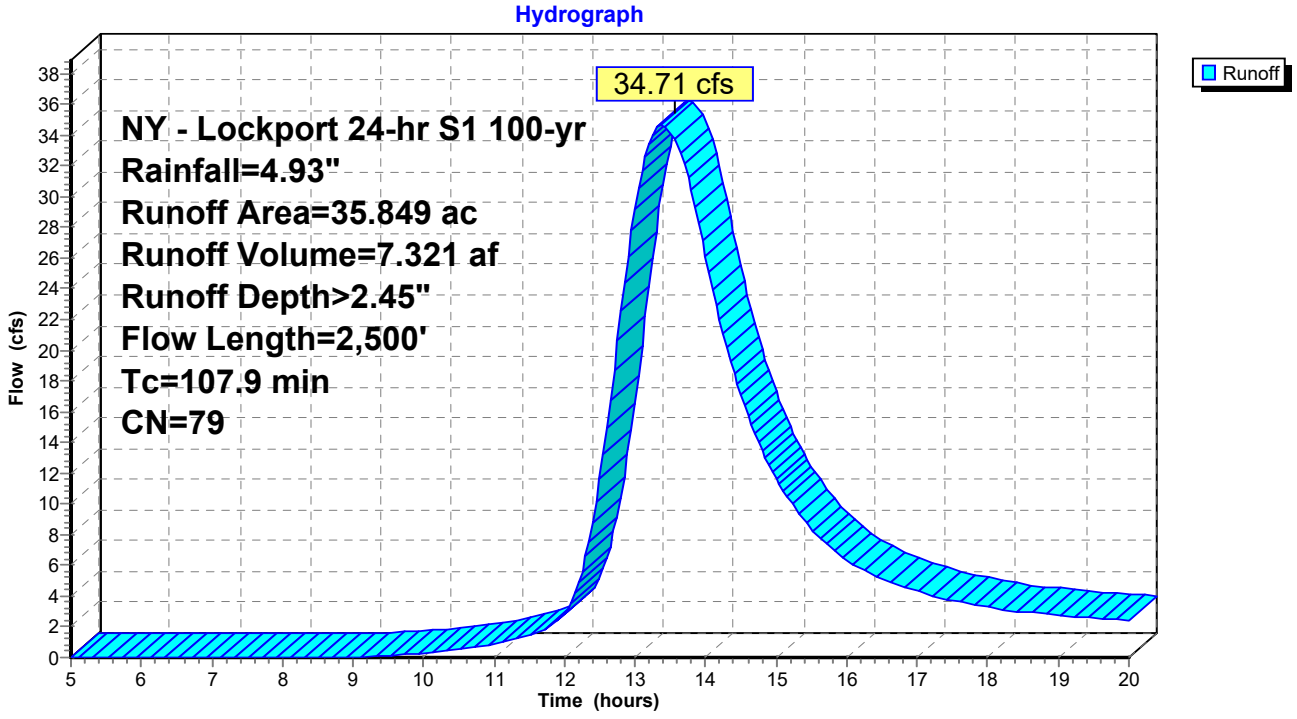
Runoff = 34.71 cfs @ 13.38 hrs, Volume= 7.321 af, Depth> 2.45"
Routed to Link 1L : EXISTING

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	2.300	80	D-75% GRASS COVER, GOOD
*	0.850	84	D-50-75% GRASS COVER, FAIR
*	0.080	89	D-<50% GRASS COVER, POOR
*	0.800	79	D-WOODS/GRASS COMB., GOOD
*	6.410	78	D-MEADOW, NON-GRAZED
*	0.060	98	D-WATER SURFACE, 0% IMP
*	1.214	80	D-75% GRASS COVER, GOOD
*	0.214	84	D-50-75% GRASS COVER, FAIR
*	0.060	89	D-<50% GRASS COVER, POOR
*	4.411	79	D-WOODS/GRASS COMB., GOOD
*	18.040	78	D-MEADOW, NON-GRAZED
*	1.050	98	D-WATER SURFACE, 0% IMP
*	0.150	80	D-75% GRASS COVER, GOOD
*	0.210	78	D-MEADOW, NON-GRAZED
	35.849	79	Weighted Average
	34.739		96.90% Pervious Area
	1.110		3.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	100	0.0300	1.21		**Shallow Concentrated Flow, 100'** Short Grass Pasture Kv= 7.0 fps
31.2	262	0.0120	0.14		**Sheet Flow, 262.19** Grass: Short n= 0.150 P2= 2.22"
4.5	254	0.0180	0.94		**Shallow Concentrated Flow, 254'** Short Grass Pasture Kv= 7.0 fps
2.9	129	0.0110	0.73		**Shallow Concentrated Flow, 128.66** Short Grass Pasture Kv= 7.0 fps
4.4	196	0.0110	0.73		**Shallow Concentrated Flow, 196** Short Grass Pasture Kv= 7.0 fps
6.9	260	0.0080	0.63		**Shallow Concentrated Flow, 260** Short Grass Pasture Kv= 7.0 fps
5.5	219	0.0090	0.66		**Shallow Concentrated Flow, 219** Short Grass Pasture Kv= 7.0 fps
12.4	285	0.0030	0.38		**Shallow Concentrated Flow, 285** Short Grass Pasture Kv= 7.0 fps
6.1	230	0.0080	0.63		**Shallow Concentrated Flow, 230** Short Grass Pasture Kv= 7.0 fps
10.0	265	0.0040	0.44		**Shallow Concentrated Flow, 265** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
107.9	2,500	Total			

Subcatchment DA9: EXISTING DA STR 48-50



Summary for Subcatchment PDA1: PROPOSED DA STR 9-10

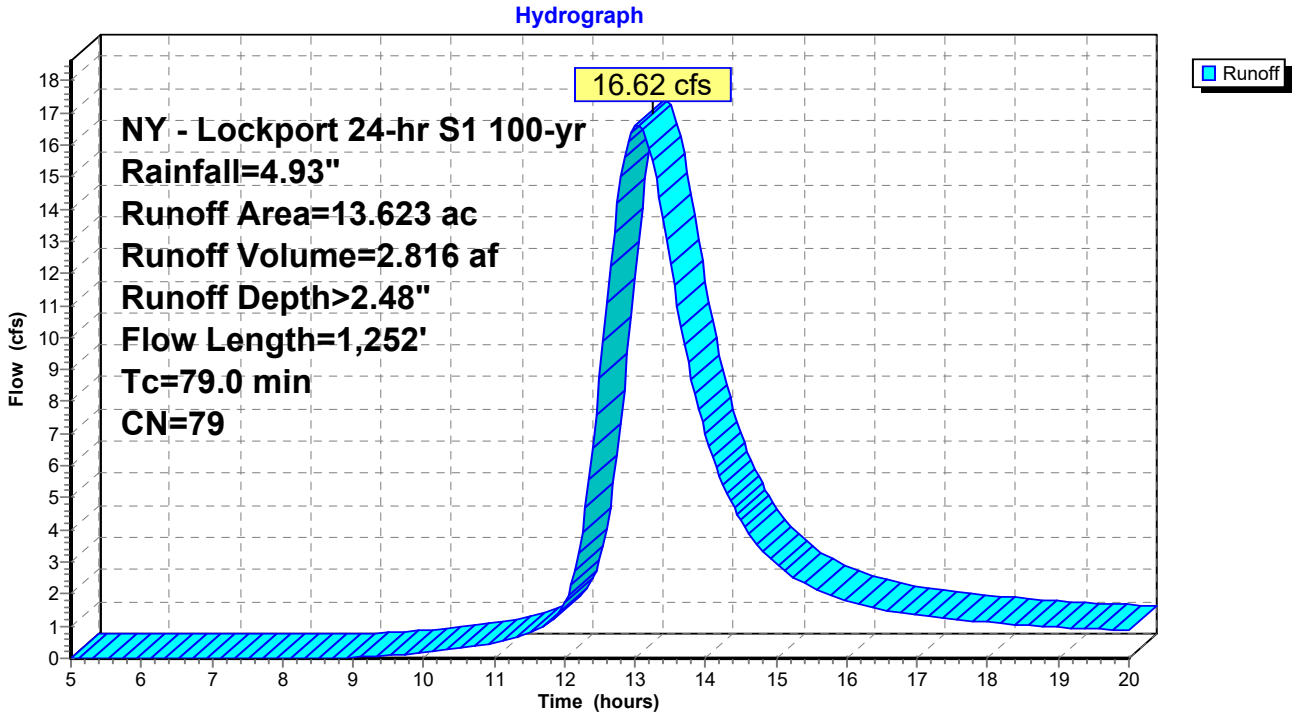
Runoff = 16.62 cfs @ 13.04 hrs, Volume= 2.816 af, Depth> 2.48"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.134	39	39 - A - 75% GRASS COVER, GOOD
*	0.938	49	49 - A - 50-75% GRASS COVER, FAIR
*	0.065	68	68 - A - <50% GRASS COVER, POOR
*	0.064	32	32 - A - FALLOW, BARE SOIL
*	0.064	30	30 - A - MEADOW, NON-GRAZED
*	0.293	80	80 - D - 75% GRASS COVER, GOOD
*	1.950	84	84 - D - 50-75% GRASS COVER, FAIR
*	0.320	89	89 - D - <50% GRASS COVER, POOR
*	0.105	79	79 - D - WOODS/GRASS COMB., GOOD
*	0.497	78	78 - D - MEADOW, NON-GRAZED
*	1.157	80	80 - D - 75% GRASS COVER, GOOD
*	4.870	84	84 - D - 50-75% GRASS COVER, FAIR
*	0.499	89	89 - D - <50% GRASS COVER, POOR
*	2.167	78	78 - D - MEADOW, NON-GRAZED
	0.500	91	Gravel roads, HSG D
	13.623	79	Weighted Average
	13.623		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	100	0.0175	0.13		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.22"
40.8	420	0.0006	0.17		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	45	0.0056	1.52		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
14.3	300	0.0025	0.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
6.7	200	0.0050	0.49		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.3	187	0.0107	0.72		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
79.0	1,252	Total			

Subcatchment PDA1: PROPOSED DA STR 9-10



Summary for Subcatchment PDA10: EXISTING DA STR 78-83

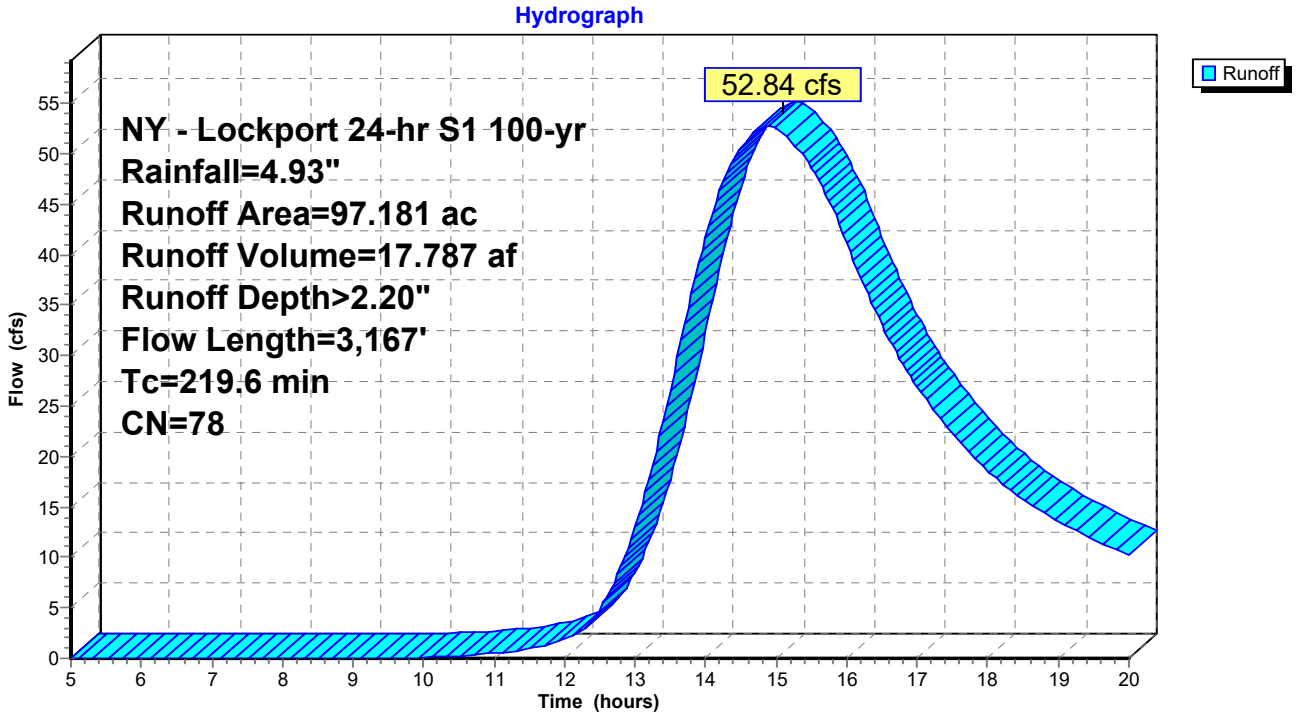
Runoff = 52.84 cfs @ 14.89 hrs, Volume= 17.787 af, Depth> 2.20"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.446	82	B-MEADOW, NON-GRAZED
*	0.142	43	D-WOODS/GRASS COMB., GOOD
*	13.840	81	D-MEADOW, NON-GRAZED
*	8.160	82	D-MEADOW, NON-GRAZED
*	1.781	21	D-75% GRASS COVER, GOOD
*	3.035	22	D-50-75% GRASS COVER, FAIR
*	24.158	81	D-MEADOW, NON-GRAZED
*	5.711	82	D-MEADOW, NON-GRAZED
*	0.003	21	D-75% GRASS COVER, GOOD
*	0.428	22	D-50-75% GRASS COVER, FAIR
*	18.333	81	D-MEADOW, NON-GRAZED
*	19.570	82	D-MEADOW, NON-GRAZED
*	0.340	98	D-PAVED ASPHALT DRIVEWAY
*	0.043	90	D-WATER SURFACE, 0% IMP
	1.064	91	Gravel roads, HSG D
	0.127	91	Gravel roads, HSG D
	97.181	78	Weighted Average
	96.841		99.65% Pervious Area
	0.340		0.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	100	0.0610	0.22		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
3.0	144	0.0130	0.80		**Shallow Concentrated Flow, 144** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
9.2	300	0.0060	0.54		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
12.2	162	0.0010	0.22		**Shallow Concentrated Flow, 162** Short Grass Pasture Kv= 7.0 fps
10.1	300	0.0050	0.49		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
8.3	290	0.0070	0.59		**Shallow Concentrated Flow, 290** Short Grass Pasture Kv= 7.0 fps
0.6	50	0.0400	1.40		**Shallow Concentrated Flow, 50** Short Grass Pasture Kv= 7.0 fps
4.4	242	0.0170	0.91		**Shallow Concentrated Flow, 242** Short Grass Pasture Kv= 7.0 fps
6.3	300	0.0130	0.80		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
18.8	79	0.0001	0.07		**Shallow Concentrated Flow, 79** Short Grass Pasture Kv= 7.0 fps
219.6	3,167	Total			

Subcatchment PDA10: EXISTING DA STR 78-83



Summary for Subcatchment PDA11: PROPOSED DA STR 84-86

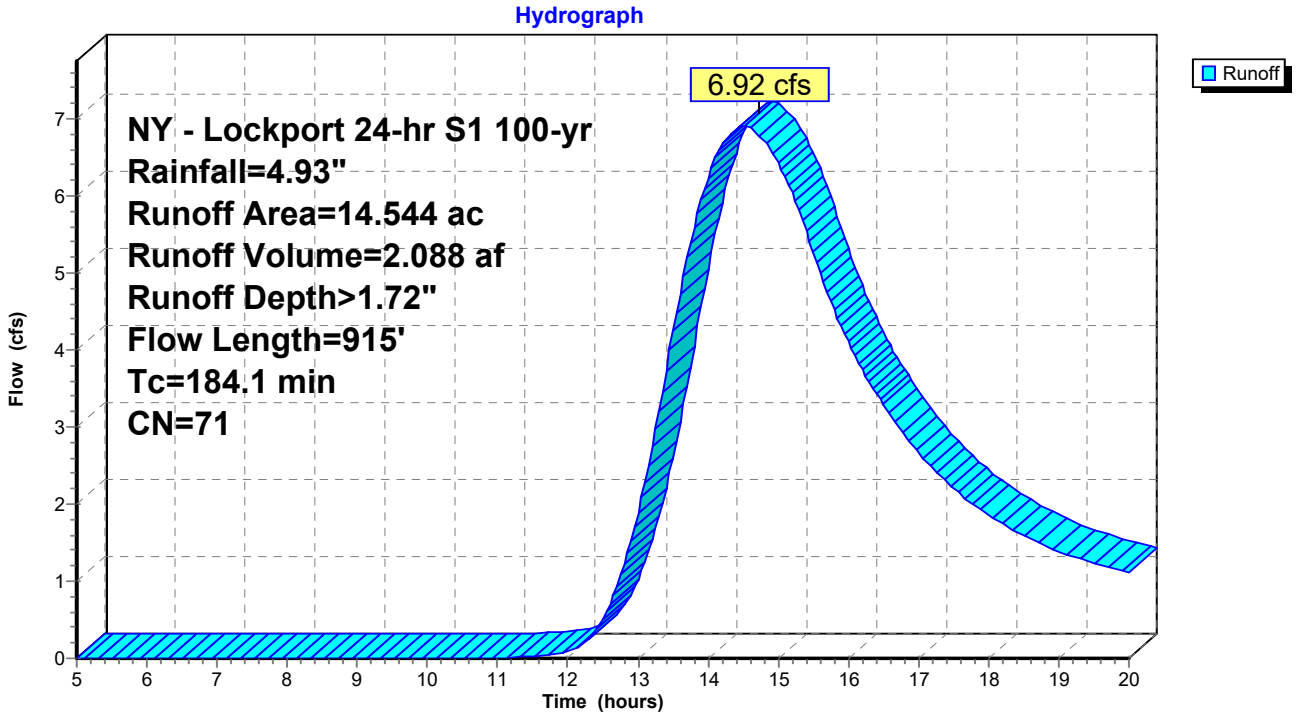
Runoff = 6.92 cfs @ 14.52 hrs, Volume= 2.088 af, Depth> 1.72"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.033	58	B-MEADOW, NON-GRAZED
*	3.140	58	B-MEADOW, NON-GRAZED
*	0.039	80	D-75% GRASS COVER, GOOD
*	0.117	84	D-50-75% GRASS COVER, FAIR
*	1.962	78	D-MEADOW, NON-GRAZED
*	2.017	78	D-MEADOW, NON-GRAZED
*	0.145	71	D-MEADOW, NON-GRAZED
*	5.505	71	D-MEADOW, NON-GRAZED
*	0.304	78	D-MEADOW, NONGRAZED
*	0.030	78	D-MEADOW, NON-GRAZED
*	0.724	78	D-MEADOW, NON-GRAZED
	0.528	91	Gravel roads, HSG D
	14.544	71	Weighted Average
	14.544		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
97.9	100	0.0001	0.02		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
3.6	164	0.0120	0.77		**Shallow Concentrated Flow, 164** Short Grass Pasture Kv= 7.0 fps
8.5	300	0.0070	0.59		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
2.7	51	0.0020	0.31		**Shallow Concentrated Flow, 51** Short Grass Pasture Kv= 7.0 fps
184.1	915	Total			

Subcatchment PDA11: PROPOSED DA STR 84-86



Summary for Subcatchment PDA12: PROPOSED DA STR 90-96

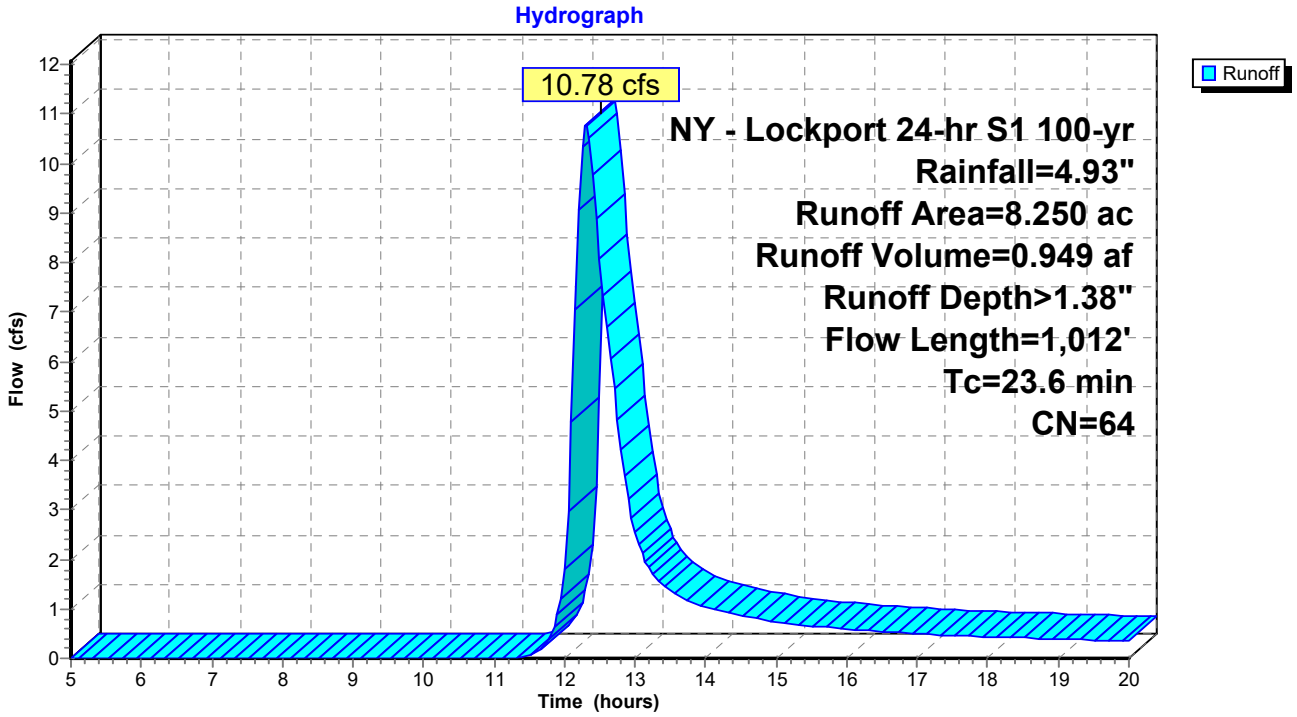
Runoff = 10.78 cfs @ 12.31 hrs, Volume= 0.949 af, Depth> 1.38"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	2.470	30	A-MEADOW, NON-GRAZED
*	5.354	78	D-MEADOW, NON-GRAZED
	0.426	91	Gravel roads, HSG D
	8.250	64	Weighted Average
	8.250		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0390	0.19		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
1.5	130	0.0420	1.43		**Shallow Concentrated Flow, 130** Short Grass Pasture Kv= 7.0 fps
1.7	180	0.0640	1.77		**Shallow Concentrated Flow, 180** Short Grass Pasture Kv= 7.0 fps
2.5	237	0.0520	1.60		**Shallow Concentrated Flow, 237** Short Grass Pasture Kv= 7.0 fps
1.3	80	0.0230	1.06		**Shallow Concentrated Flow, 80** Short Grass Pasture Kv= 7.0 fps
5.0	132	0.0040	0.44		**Shallow Concentrated Flow, 132** Short Grass Pasture Kv= 7.0 fps
2.6	153	0.0200	0.99		**Shallow Concentrated Flow, 153** Short Grass Pasture Kv= 7.0 fps
23.6	1,012	Total			

Subcatchment PDA12: PROPOSED DA STR 90-96



Summary for Subcatchment PDA13: PROPOSED DA STR 97-103

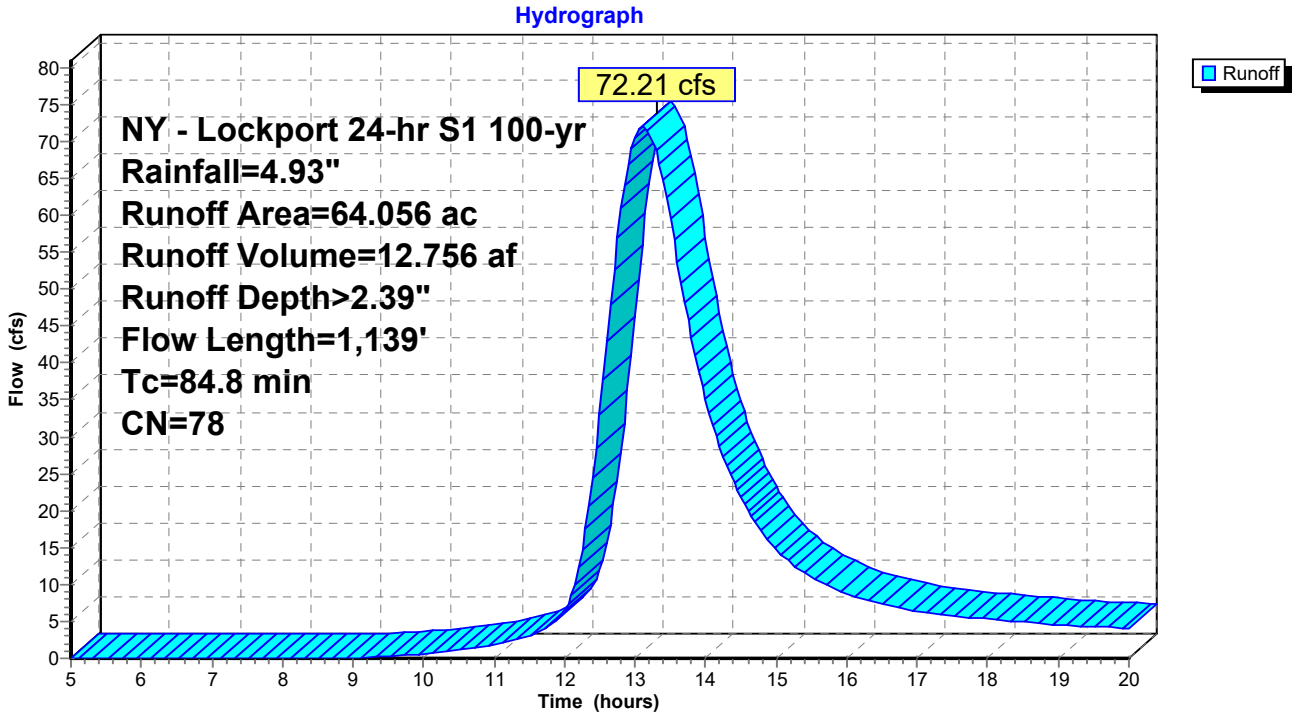
Runoff = 72.21 cfs @ 13.11 hrs, Volume= 12.756 af, Depth> 2.39"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.113	49	A-50-75% GRASS COVER, FAIR
*	0.131	30	A-MEADOW, NON-GRAZED
*	12.491	78	D-MEADOW, NON-GRAZED
*	0.855	80	D-75% GRASS COVER, GOOD
*	0.366	84	D-50-75% GRASS COVER, FAIR
*	0.263	79	D-WOODS/GRASS COMB., GOOD
*	48.359	78	D-MEADOW, NON-GRAZED
*	0.418	98	D-WATER SURFACE, 0% IMP
	1.060	91	Gravel roads, HSG D
	64.056	78	Weighted Average
	63.638		99.35% Pervious Area
	0.418		0.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.1	100	0.0030	0.07		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
11.2	258	0.0030	0.38		**Shallow Concentrated Flow, 258** Short Grass Pasture Kv= 7.0 fps
31.4	132	0.0001	0.07		**Shallow Concentrated Flow, 132** Short Grass Pasture Kv= 7.0 fps
4.0	176	0.0110	0.73		**Shallow Concentrated Flow, 176** Short Grass Pasture Kv= 7.0 fps
7.7	270	0.0070	0.59		**Shallow Concentrated Flow, 270** Short Grass Pasture Kv= 7.0 fps
5.4	203	0.0080	0.63		**Shallow Concentrated Flow, 203** Short Grass Pasture Kv= 7.0 fps
84.8	1,139	Total			

Subcatchment PDA13: PROPOSED DA STR 97-103



Summary for Subcatchment PDA14: PROPOSED DA STR 104-106

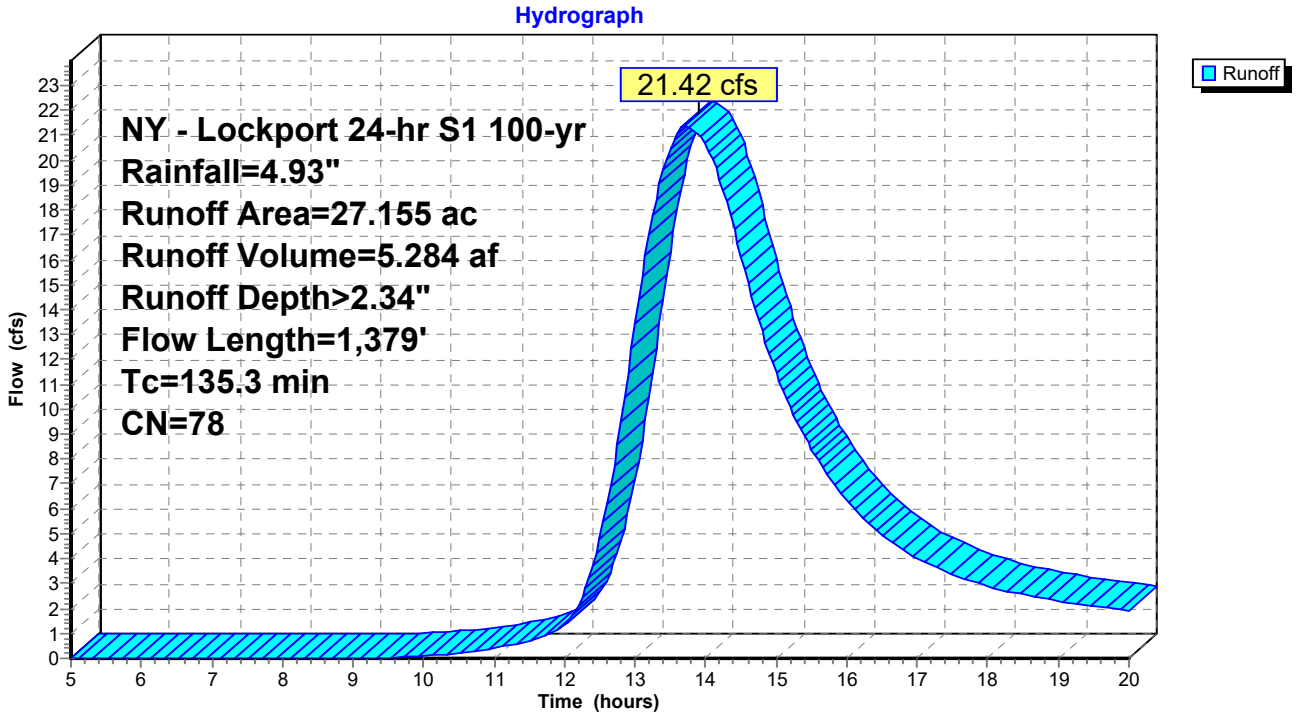
Runoff = 21.42 cfs @ 13.71 hrs, Volume= 5.284 af, Depth> 2.34"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.471	61	B-75% GRASS COVER, GOOD
*	1.291	80	D-75% GRASS OCVER, GOOD
*	0.601	84	D-50-75% GRASS COVER, FAIR
*	1.189	79	D-WOODS/GRASS COMB., GOOD
*	2.124	78	D-MEADOW, NON-GRAZED
*	0.606	80	D-75% GRASS COVER, GOOD
*	0.552	79	D-WOODS/GRASS COMB., GOOD
*	10.418	78	D-MEADOW, NON-GRAZED
*	0.104	98	D-WATER SURFACE, 0% IMP
*	0.137	98	D-WATER SURFACE, 0% IMP
*	0.893	80	D-75% GRASS OCVER, GOOD
*	0.115	80	D-50-75% GRASS COVER, FAIR
*	8.267	78	D-MEADOW, NON-GRAZED
	0.387	91	Gravel roads, HSG D
	27.155	78	Weighted Average
	26.914		99.11% Pervious Area
	0.241		0.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.0330	0.17		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
0.9	53	0.0220	1.04		**Shallow Concentrated Flow, 53** Short Grass Pasture Kv= 7.0 fps
2.3	140	0.0210	1.01		**Shallow Concentrated Flow, 140** Short Grass Pasture Kv= 7.0 fps
2.2	140	0.0220	1.04		**Shallow Concentrated Flow, 140** Short Grass Pasture Kv= 7.0 fps
5.8	230	0.0090	0.66		**Shallow Concentrated Flow, 230** Short Grass Pasture Kv= 7.0 fps
7.6	267	0.0070	0.59		**Shallow Concentrated Flow, 267** Short Grass Pasture Kv= 7.0 fps
43.8	184	0.0001	0.07		**Shallow Concentrated Flow, 184** Short Grass Pasture Kv= 7.0 fps
63.1	265	0.0001	0.07		**Shallow Concentrated Flow, 265** Short Grass Pasture Kv= 7.0 fps
135.3	1,379	Total			

Subcatchment PDA14: PROPOSED DA STR 104-106



Summary for Subcatchment PDA15: PROPOSED DA STR 106-109

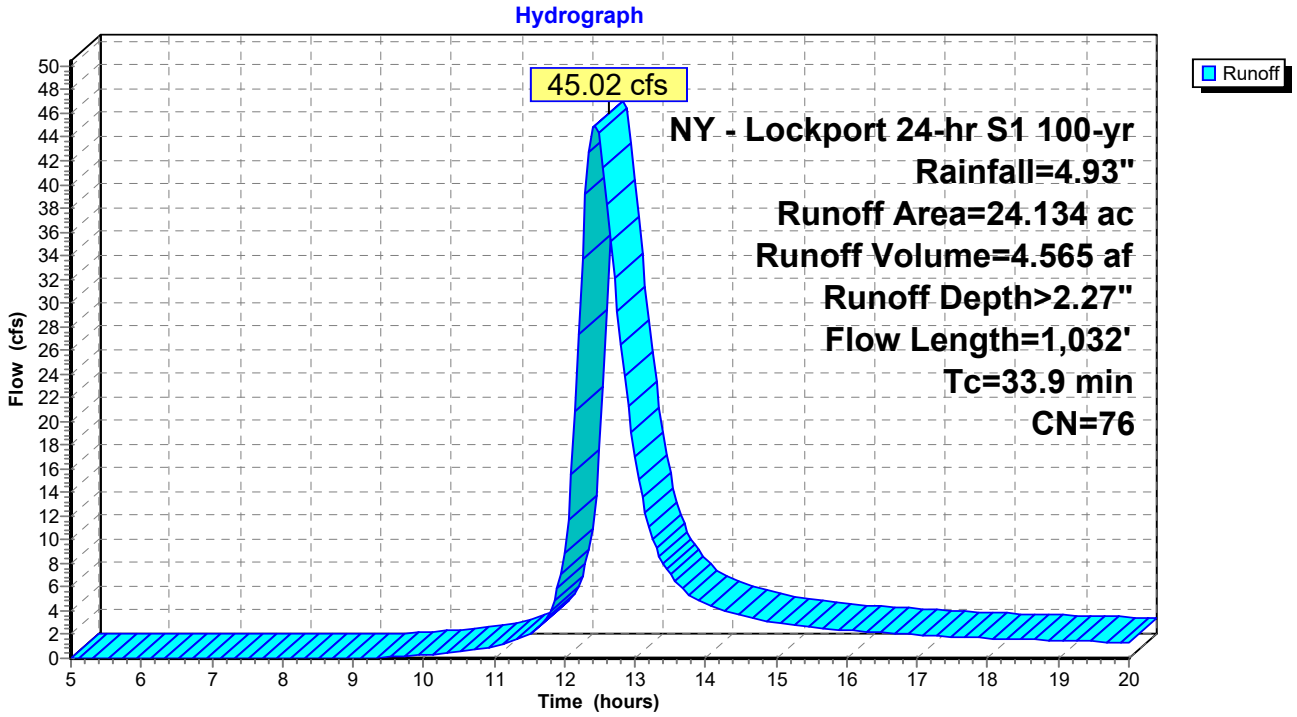
Runoff = 45.02 cfs @ 12.43 hrs, Volume= 4.565 af, Depth> 2.27"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.972	61	B-75% GRASS COVER, GOOD
*	1.615	69	B-50-75% GRASS COVER, FAIR
*	2.680	58	B-MEADOW, NON-GRAZED
*	0.028	80	D-75% GRASS COVER, GOOD
*	2.330	78	D-MEADOW, NON-GRAZED
*	0.585	80	D-75% GRASS COVER, GOOD
*	0.724	84	D-50-75% GRASS COVER, FAIR
*	0.465	79	D-WOODS/GRASS COMB., GOOD
*	13.310	78	D-MEADOW, NON-GRAZED
*	0.880	98	D-WATER SURFACE, 0% IMP
*	0.085	98	D-WATER SURFACE, 0% IMP
	0.460	91	Gravel roads, HSG D
	24.134	76	Weighted Average
	23.169		96.00% Pervious Area
	0.965		4.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.4	100	0.0120	0.12		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
2.1	148	0.0270	1.15		**Shallow Concentrated Flow, 148** Short Grass Pasture Kv= 7.0 fps
3.4	204	0.0200	0.99		**Shallow Concentrated Flow, 204** Short Grass Pasture Kv= 7.0 fps
6.0	300	0.0140	0.83		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
8.0	280	0.0070	0.59		**Shallow Concentrated Flow, 280** Short Grass Pasture Kv= 7.0 fps
33.9	1,032	Total			

Subcatchment PDA15: PROPOSED DA STR 106-109



Summary for Subcatchment PDA16: PROPOSED DA STR 110-117

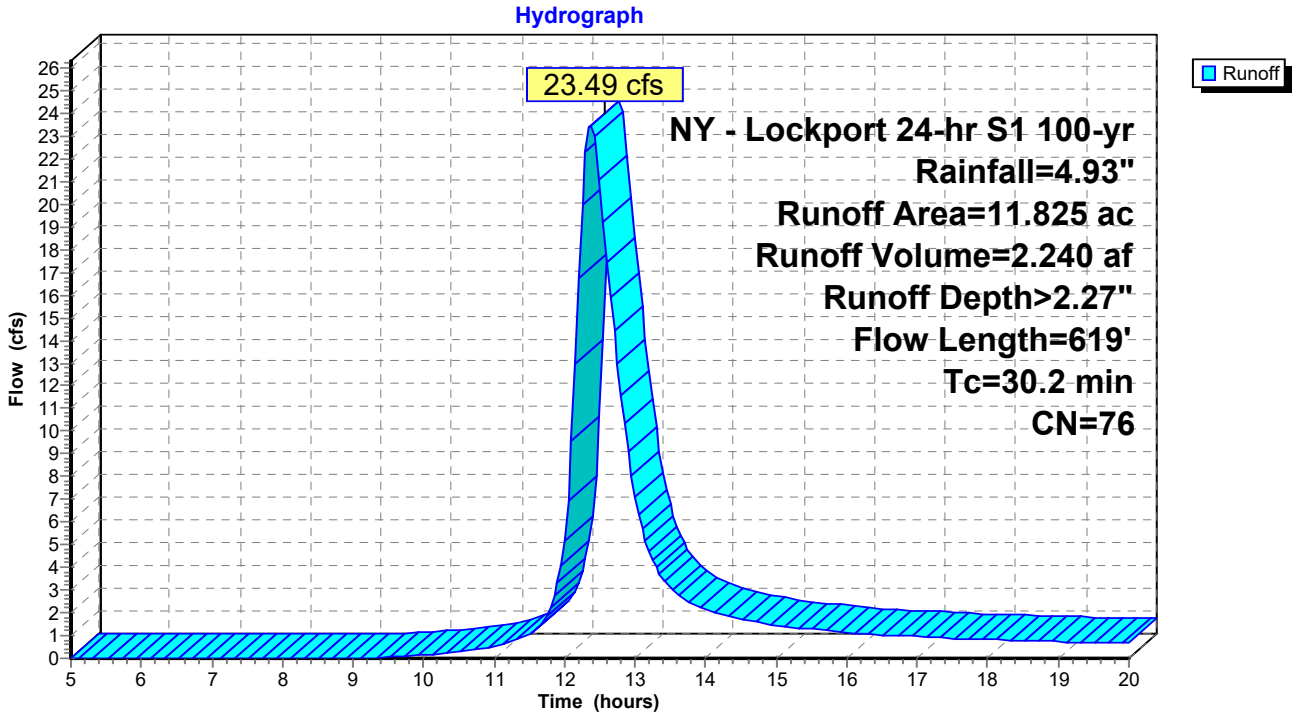
Runoff = 23.49 cfs @ 12.38 hrs, Volume= 2.240 af, Depth> 2.27"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.423	61	B-75%GRASS COVER, GOOD
*	0.460	69	B-50-75% GRASS COVER, FAIR
*	2.069	58	D-MEADOW, NON-GRAZED
*	0.045	78	D-MEADOW, NON-GRAZED
*	0.049	98	D-MEADOW, NON-GRAZED
*	0.487	80	D-75% GRASS COVER, GOOD
*	0.960	84	D-50-75% GRASS COVER, FAIR
*	0.293	79	D-WOODS/GRASS COMB., GOOD
*	5.704	78	D-MEADOW, NON-GRAZED
*	0.855	98	D-MEADOW, NON-GRAZED
*	0.048	79	D-WOODS/GRASS COMB., GOOD
*	0.009	78	D-MEADOW, NON-GRAZED
*	0.056	98	D-MEADOW, NON-GRAZED
	0.367	91	Gravel roads, HSG D
	11.825	76	Weighted Average
	10.865		91.88% Pervious Area
	0.960		8.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.9	100	0.0070	0.09		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
3.4	222	0.0240	1.08		**Shallow Concentrated Flow, 222** Short Grass Pasture Kv= 7.0 fps
4.1	154	0.0080	0.63		**Shallow Concentrated Flow, 154** Short Grass Pasture Kv= 7.0 fps
4.8	143	0.0050	0.49		**Shallow Concentrated Flow, 143** Short Grass Pasture Kv= 7.0 fps
30.2	619	Total			

Subcatchment PDA16: PROPOSED DA STR 110-117



Summary for Subcatchment PDA17: PROPOSED DA STR 113-116

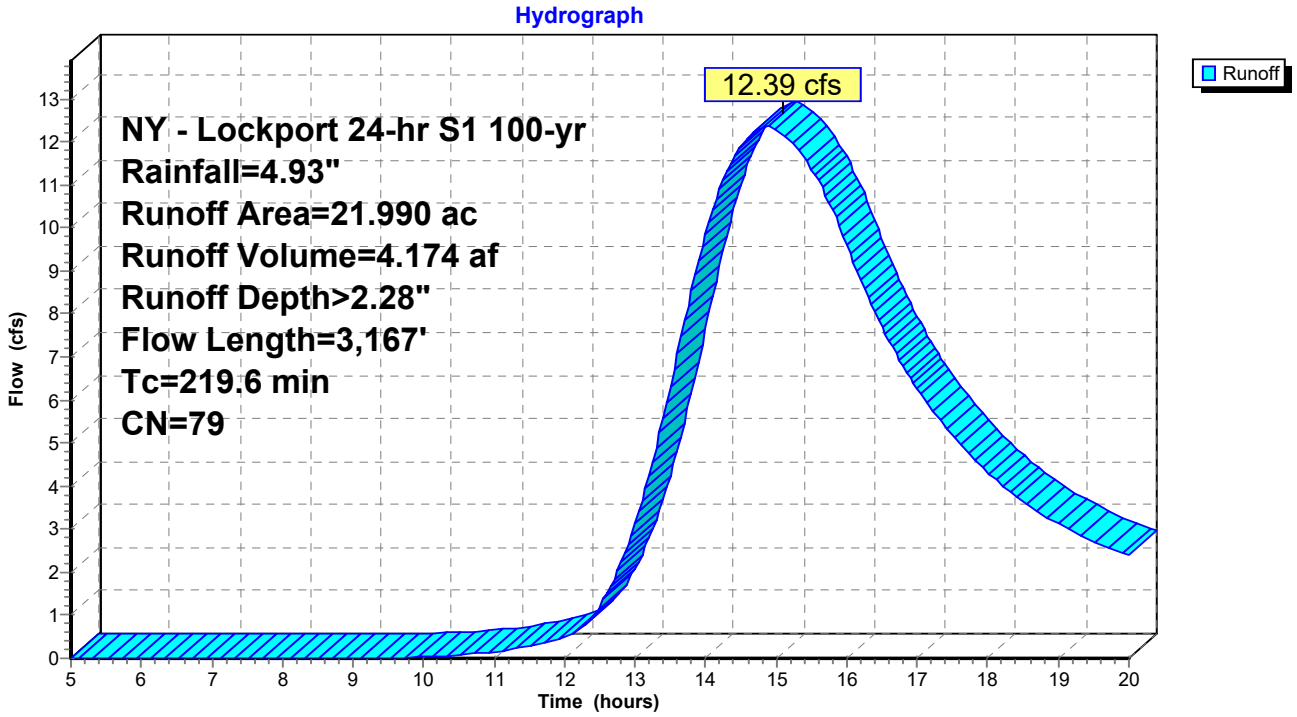
Runoff = 12.39 cfs @ 14.88 hrs, Volume= 4.174 af, Depth> 2.28"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.289	80	D-75% GRASS COVER, GOOD
*	0.899	84	D-50-75% GRASS COVER, FAIR
*	2.853	78	D-MEADOW, NON-GRAZED
*	0.540	78	D-MEADOW, NON-GRAZED
*	0.077	80	D-75% GRASS COVER, GOOD
*	0.177	84	D-50-75% GRASS COVER, FAIR
*	0.010	79	D-WOODS/GRASS COMB., GOOD
*	5.683	78	D-MEADOW, NON-GRAZED
*	6.973	78	D-MEADOW, NON-GRAZED
*	0.337	98	D-WATER SURFACE, 0% IMP
*	3.150	78	D-MEADOW, NON-GRAZED
*	0.141	98	D-WATER SURFACE, 0% IMP
	0.861	91	Gravel roads, HSG D
	21.990	79	Weighted Average
	21.512		97.83% Pervious Area
	0.478		2.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	100	0.0610	0.22		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.22"
3.0	144	0.0130	0.80		**Shallow Concentrated Flow, 144** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
9.2	300	0.0060	0.54		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
12.2	162	0.0010	0.22		**Shallow Concentrated Flow, 162** Short Grass Pasture Kv= 7.0 fps
10.1	300	0.0050	0.49		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
8.3	290	0.0070	0.59		**Shallow Concentrated Flow, 290** Short Grass Pasture Kv= 7.0 fps
0.6	50	0.0400	1.40		**Shallow Concentrated Flow, 50** Short Grass Pasture Kv= 7.0 fps
4.4	242	0.0170	0.91		**Shallow Concentrated Flow, 242** Short Grass Pasture Kv= 7.0 fps
6.3	300	0.0130	0.80		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
18.8	79	0.0001	0.07		**Shallow Concentrated Flow, 79** Short Grass Pasture Kv= 7.0 fps
219.6	3,167	Total			

Subcatchment PDA17: PROPOSED DA STR 113-116



Summary for Subcatchment PDA18: PROPOSED DA STR 36

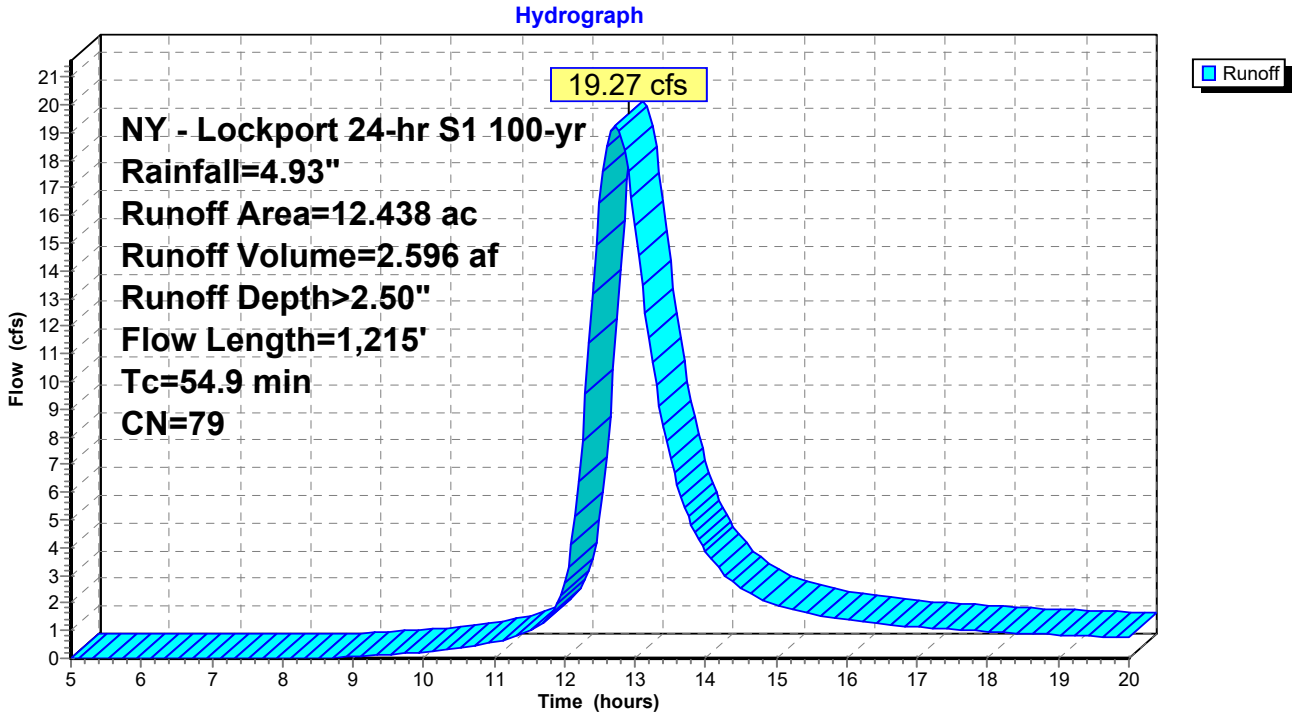
Runoff = 19.27 cfs @ 12.72 hrs, Volume= 2.596 af, Depth> 2.50"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.143	80	D - 80 - Developed open space
*	0.461	80	D - 80 - Developed open space
*	1.014	82	D - 82 - Developed Low intensity
*	0.988	82	D - 82 - Developed Low intensity
*	0.081	77	D - 77 - Deciduous Forest
*	7.367	78	D - 78 - Meadowed, grass, non-grazed land
*	2.154	78	D - 78 - Meadowed, grass, non-grazed land
*	0.230	91	D- Gravel Roads
	12.438	79	Weighted Average
	12.438		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0200	0.14		**Sheet Flow, 100' sheet** Grass: Short n= 0.150 P2= 2.22"
43.1	1,115	0.0038	0.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
54.9	1,215	Total			

Subcatchment PDA18: PROPOSED DA STR 36



Summary for Subcatchment PDA19: PROPOSED DA STR 42-47

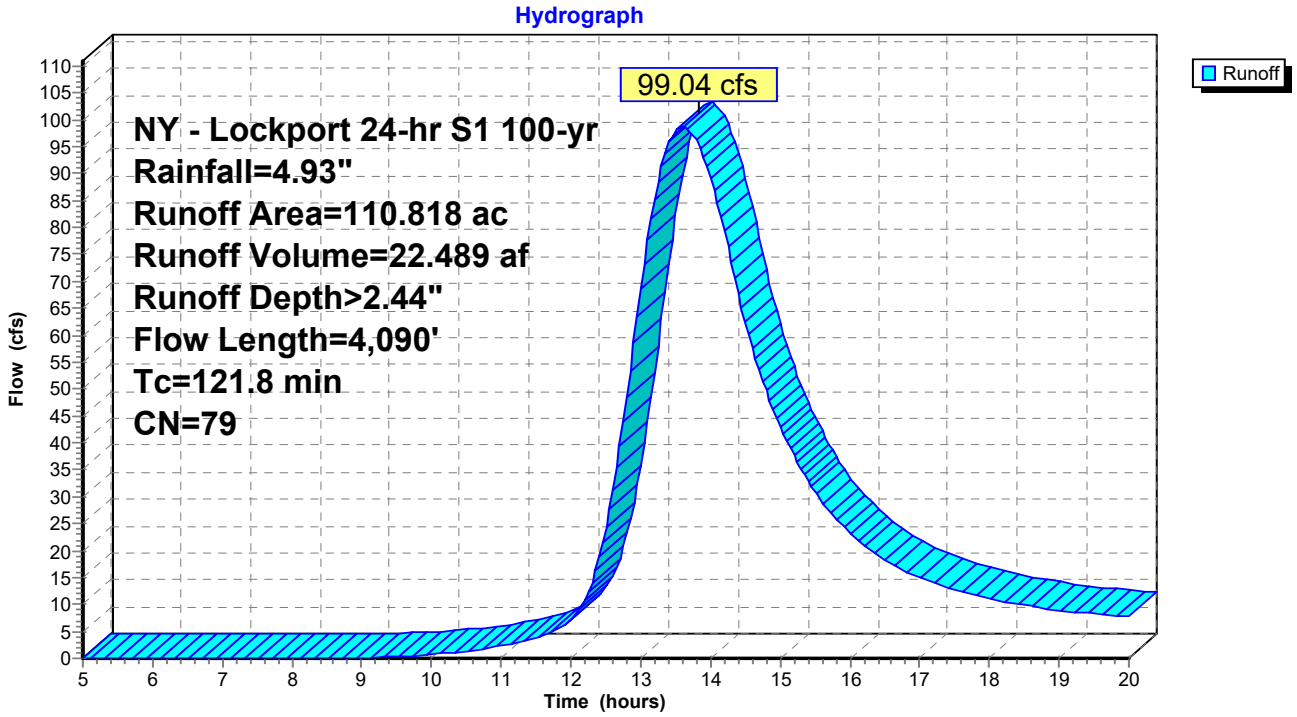
Runoff = 99.04 cfs @ 13.64 hrs, Volume= 22.489 af, Depth> 2.44"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	3.220	80	D - 80 - Developed open space
*	2.932	80	D - 80 - Developed open space
*	0.003	80	D - 80 - Developed open space
*	10.164	82	D - 82 - Developed Low intensity
*	6.410	82	D - 82 - Developed Low intensity
*	0.607	82	D - 82 - Developed Low intensity
*	5.494	77	D - 77 - Deciduous Forest
*	15.746	78	D - 78 - Meadowed, grass, non-grazed land
*	63.740	78	D - 78 - Meadowed, grass, non-grazed land
*	1.702	78	D - 78 - Meadowed, grass, non-grazed land
*	0.800	91	D - Gravel Roads
	110.818	79	Weighted Average
	110.818		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.0300	0.17		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.22"
88.0	2,225	0.0071	0.42		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.8	1,765	0.0068	1.24		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
121.8	4,090	Total			

Subcatchment PDA19: PROPOSED DA STR 42-47



Summary for Subcatchment PDA2: PROPOSED DA STR 11-12

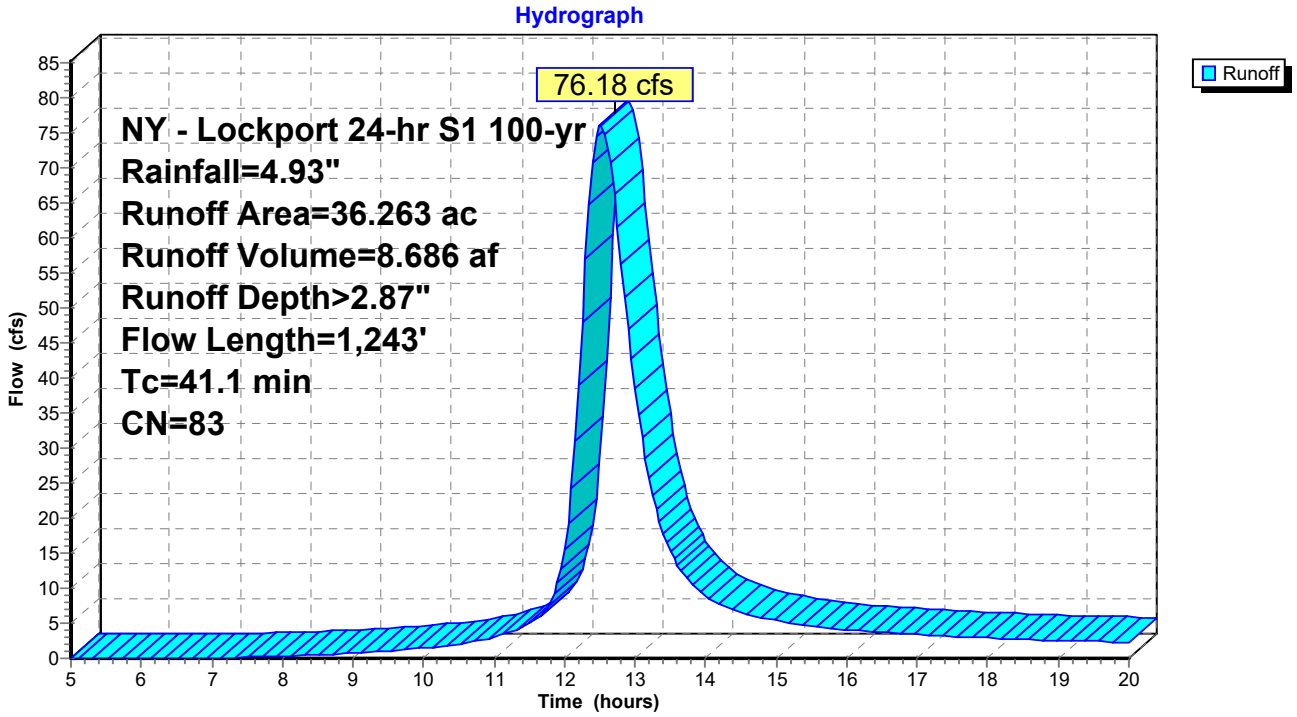
Runoff = 76.18 cfs @ 12.52 hrs, Volume= 8.686 af, Depth> 2.87"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	2.487	80	80-D-75% GRASS COVER, GOOD
*	1.050	84	84-D-50-75% GRASS COVER, FAIR
*	1.903	89	89-D-<50% GRASS COVER, POOR
*	0.250	95	95-D-URBAN COMMERCIAL, 85% IMP
*	0.043	79	79-D-WOODS/GRASS COMB., GOOD
*	1.421	78	78-D-MEADOW, NONGRAZED
*	0.054	80	80-D-75% GRASS COVER, GOOD
*	0.598	84	84-D-50-75% GRASSC OVER, FAIR
*	2.041	89	89-D-<50% GRASS COVER, POOR
*	0.286	95	95-D-URBAN COMMERCIAL, 85% IMP
*	1.744	78	78-D-MEADOW, NON-GRAZED
*	5.982	80	80-D-75% GRASS CVER, GOOD
*	7.613	84	8D-D-50-75% GRASS COVER, FAIR
*	3.609	89	89-D-<50% GRASS COVER POOR
*	0.887	95	95-D-URBAN COMMERCIAL, 85% IMP
*	3.299	79	79-D-WOODS/GRASS COMB., GOOD
*	2.636	78	78-D-MEADOW, NON-GRAZED
	0.360	91	Gravel roads, HSG D
	36.263	83	Weighted Average
	36.263		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.5	100	0.0050	0.66		**Sheet Flow, 100'** Smooth surfaces n= 0.011 P2= 2.22"
1.4	115	0.0043	1.33		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.4	256	0.0078	1.79		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
10.3	240	0.0031	0.39		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.3	30	0.0064	1.62		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.8	128	0.0117	0.76		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
14.2	209	0.0024	0.24		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
7.2	165	0.0030	0.38		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
41.1	1,243	Total			

Subcatchment PDA2: PROPOSED DA STR 11-12



Summary for Subcatchment PDA3: EXISTING DA STR 17-20

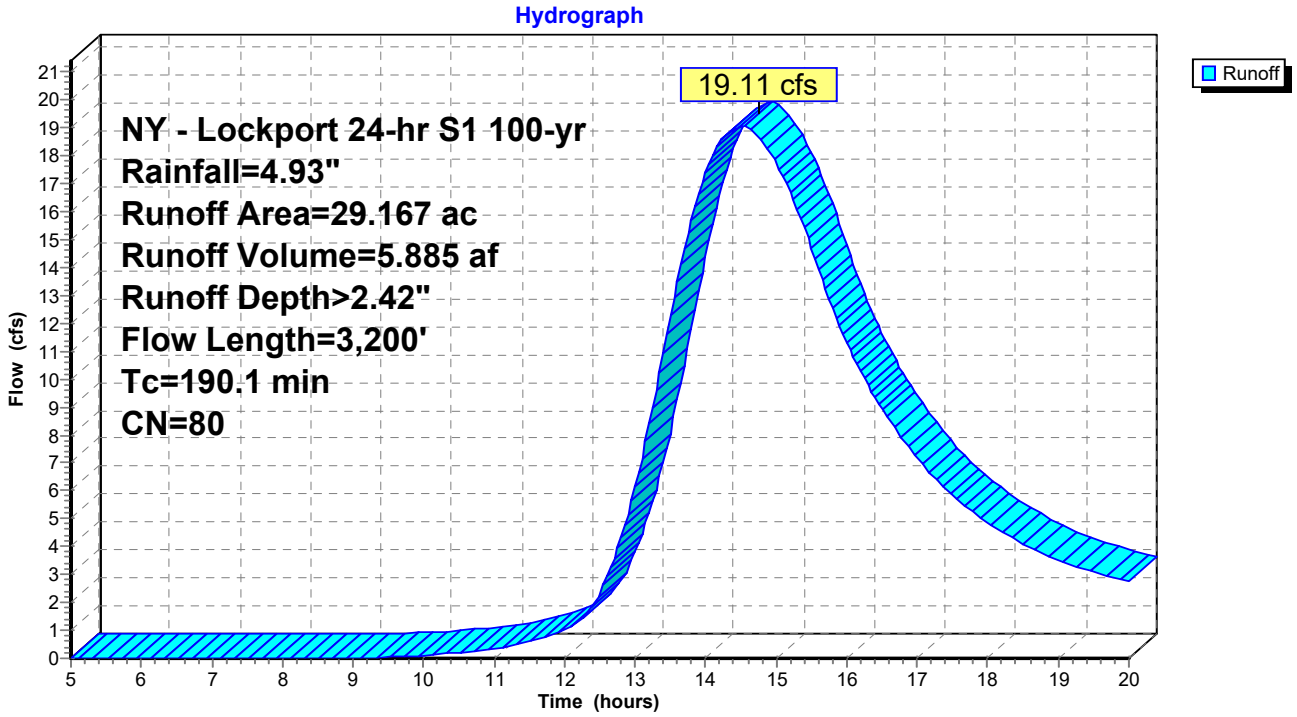
Runoff = 19.11 cfs @ 14.55 hrs, Volume= 5.885 af, Depth> 2.42"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.391	80	80-D-75% GRASS COVER, GOOD
*	4.601	79	WOODS/GRASS COMB., GOOD
*	1.427	79	WOODS/GRASS COMB., GOOD
*	2.196	78	MEADOW, NON-GRAZED
*	0.320	98	WATER SURFACE
*	3.636	80	75% GRASS COVER, GOOD
*	1.957	84	50-75% GRASS COVER, FAIR
*	1.103	89	<50% GRASS COVER, POOR
*	0.375	95	URBAN COMMERCIAL, 85% IMP
*	2.017	79	WOODS/GRASS COMB., GOOD
*	0.337	84	50-75% GRASS COVER, FAIR
*	1.236	79	WOODS/GRASS COMB., GOOD
*	0.470	79	WOODS/GRASS COMB., GOOD
*	8.306	78	MEADOW, NON-GRAZED
*	0.274	98	WATER SURFACE, 0% IMP
	0.521	91	Gravel roads, HSG D
	29.167	80	Weighted Average
	28.573		97.96% Pervious Area
	0.594		2.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.2	100	0.0175	0.06		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
7.6	186	0.0067	0.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
8.3	368	0.0217	0.74		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
31.5	708	0.0056	0.37		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.1	576	0.0069	0.42		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	452	0.0055	0.52		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
77.9	810	0.0012	0.17		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
190.1	3,200	Total			

Subcatchment PDA3: EXISTING DA STR 17-20



Summary for Subcatchment PDA4: PROPOSED DA STR 21-23

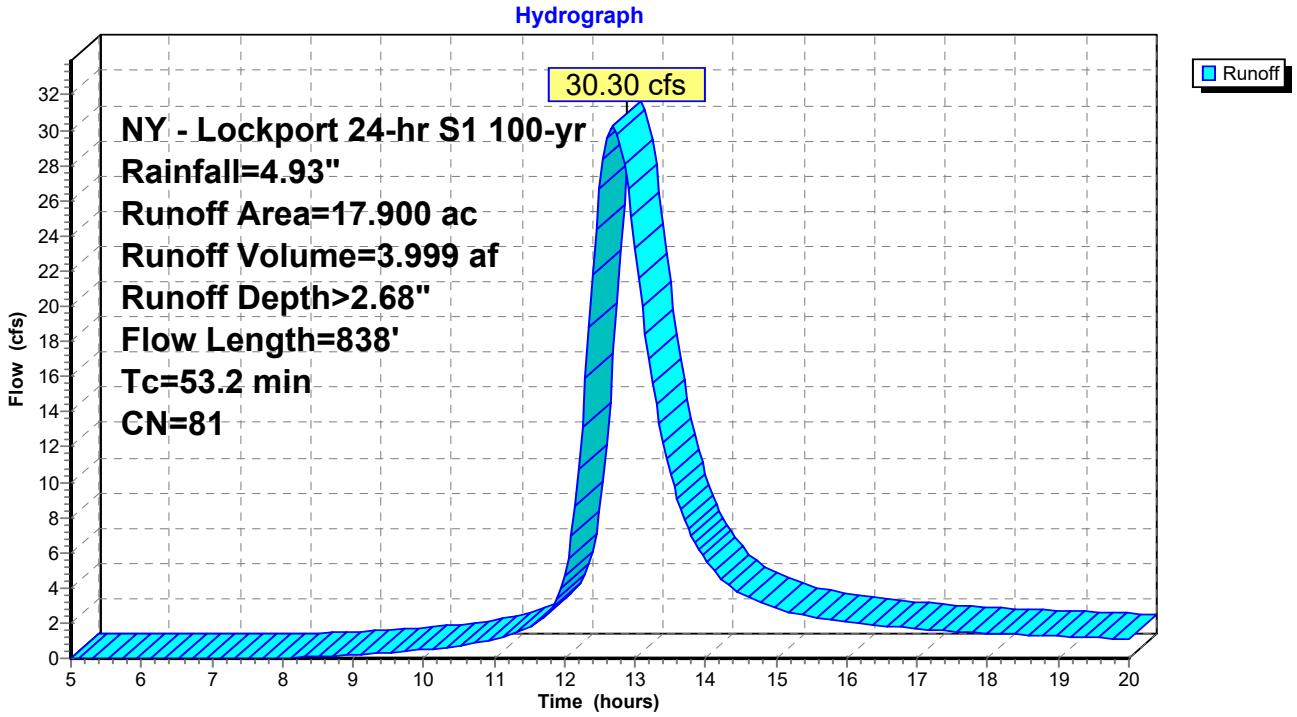
Runoff = 30.30 cfs @ 12.69 hrs, Volume= 3.999 af, Depth> 2.68"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.062	80	80-D-75% GRASS COVER, GOOD
*	0.720	84	84-D-50-75% GRASS COVER, FAIR
*	0.884	78	78-D-MEADOW, NON-GRAZED
*	4.286	80	80-D-75% GRASS COVER, GOOD
*	2.842	84	84-D-50-75% GRASS COVER, FAIR
*	0.139	89	89-D-<50% GRASS COVER, POOR
*	1.645	85	85-D-HERBACEOUS RANGE, GOOD
*	5.404	78	78-D-MEADOW, NON-GRAZED
*	0.188	80	80-D-75% GRASS COVER, GOOD
*	0.143	84	84-D-50-75% GRASS COVER, FAIR
*	0.507	78	78-D-MEADOW, NON-GRAZED
	1.080	91	Gravel roads, HSG D
	17.900	81	Weighted Average
	17.900		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0125	0.12		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.22"
23.5	419	0.0018	0.30		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
15.5	319	0.0024	0.34		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
53.2	838	Total			

Subcatchment PDA4: PROPOSED DA STR 21-23



Summary for Subcatchment PDA5: PROPOSED DA STR 25-29

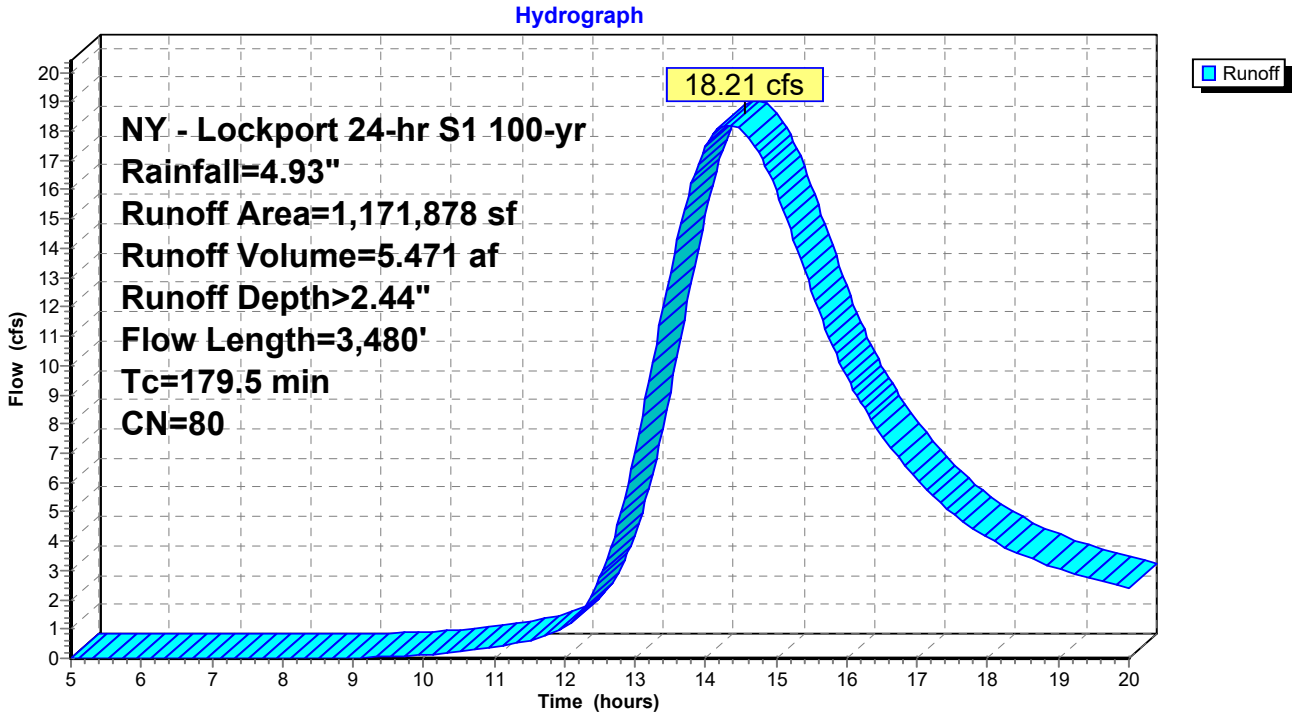
Runoff = 18.21 cfs @ 14.34 hrs, Volume= 5.471 af, Depth> 2.44"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (sf)	CN	Description
*	17,032	80	80-D-75% GRASS COVER, GOOD
*	200,420	79	WOODS/GRASS COMB., GOOD
*	62,160	79	WOODS/GRASS COMB., GOOD
*	95,658	78	MEADOW, NON-GRAZED
*	13,939	98	WATER SURFACE
*	158,384	80	75% GRASS COVER, GOOD
*	85,247	84	50-75% GRASS COVER, FAIR
*	11,396	89	<50% GRASS COVER, POOR
*	16,335	95	URBAN COMMERCIAL, 85% IMP
*	87,861	79	WOODS/GRASS COMB., GOOD
*	14,680	84	50-75% GRASS COVER, FAIR
*	152,329	79	WOODS/GRASS COMB., GOOD
*	20,473	79	WOODS/GRASS COMB., GOOD
*	187,335	78	MEADOW, NON-GRAZED
*	11,935	98	WATER SURFACE, 0% IMP
	36,694	91	Gravel roads, HSG D
	1,171,878	80	Weighted Average
	1,146,004		97.79% Pervious Area
	25,874		2.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.8	100	0.0200	0.06		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
28.8	377	0.0019	0.22		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
12.9	548	0.0200	0.71		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
17.4	739	0.0200	0.71		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
10.5	489	0.0240	0.77		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
8.0	420	0.0156	0.87		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.1	429	0.0120	0.55		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
63.0	378	0.0004	0.10		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
179.5	3,480	Total			

Subcatchment PDA5: PROPOSED DA STR 25-29



Summary for Subcatchment PDA6: PROPOSED DA STR 29-35

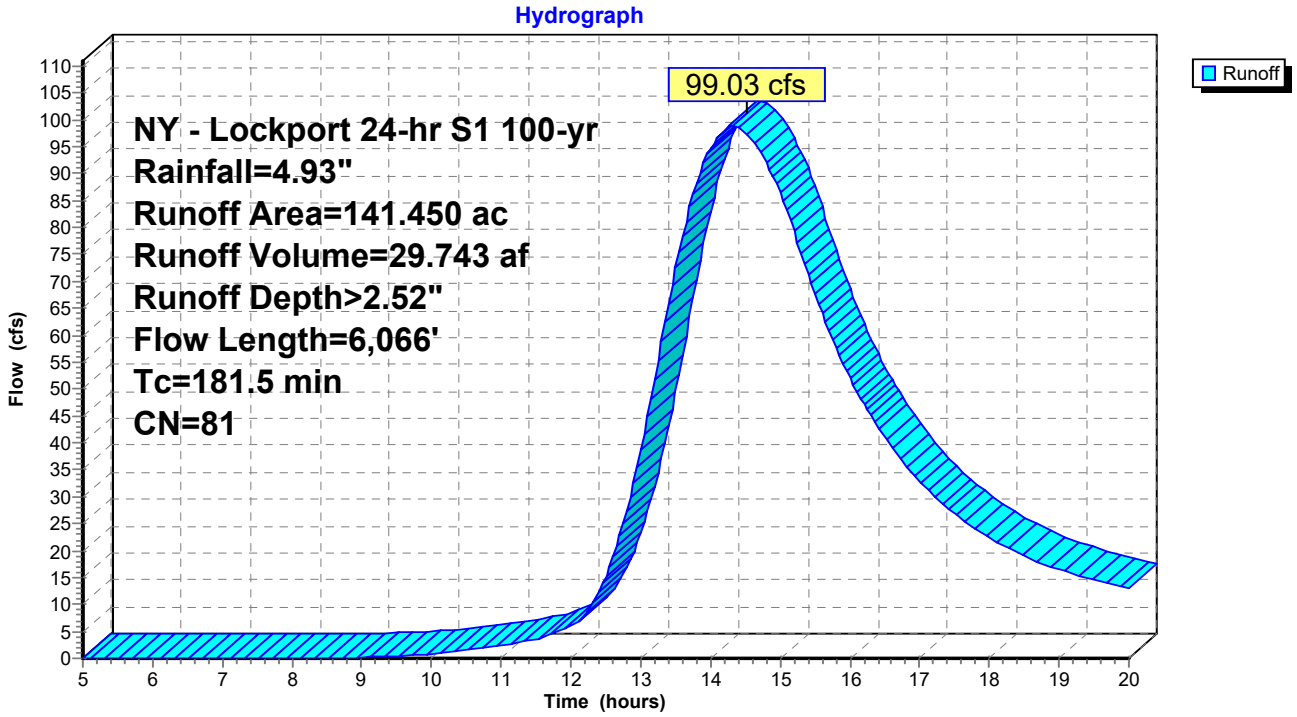
Runoff = 99.03 cfs @ 14.32 hrs, Volume= 29.743 af, Depth> 2.52"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	0.152	98	D - 98 - Open Water
*	0.074	80	D - 80 - Developed open space
*	0.307	80	D - 80 - Developed open space
*	2.363	80	D - 80 - Developed open space
*	1.992	82	D - 82 - Developed Low intensity
*	1.726	82	D - 82 - Developed Low intensity
*	2.185	85	D - 85 - Developed Med intensity
*	0.875	77	D - 77 - Deciduous Forest
*	18.239	77	D - 77 - Deciduous Forest
*	13.242	77	D - 77 - Deciduous Forest
*	0.038	77	D - 77 - Evergreen Forest
*	0.919	77	D - 77 - Evergreen Forest
*	0.021	77	D - 77 - Evergreen Forest
*	0.508	77	D - 77 - Mixed Forest
*	0.889	77	D - 77 - Mixed Forest
*	0.160	77	D - 77 - Mixed Forest
*	4.266	78	D - 78 - Meadowed, grass, non-grazed land
*	29.357	78	D - 78 - Meadowed, grass, non-grazed land
*	22.896	78	D - 78 - Meadowed, grass, non-grazed land
*	0.112	78	D - 78 - Meadowed, grass, non-grazed land
*	5.915	78	D - 78 - Meadowed, grass, non-grazed land
*	5.016	90	D - 90 - Woody Wetlands
*	1.110	91	D- Gravel Roads
*	29.088	90	D - 90 - Woody Wetlands
	141.450	81	Weighted Average
	141.298		99.89% Pervious Area
	0.152		0.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.7	100	0.0275	0.07		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
31.2	1,144	0.0149	0.61		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.6	670	0.0026	0.76		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
12.9	328	0.0008	0.42		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
100.1	3,824	0.0018	0.64		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
181.5	6,066	Total			

Subcatchment PDA6: PROPOSED DA STR 29-35



Summary for Subcatchment PDA7: PROPOSED DA STR 37-40

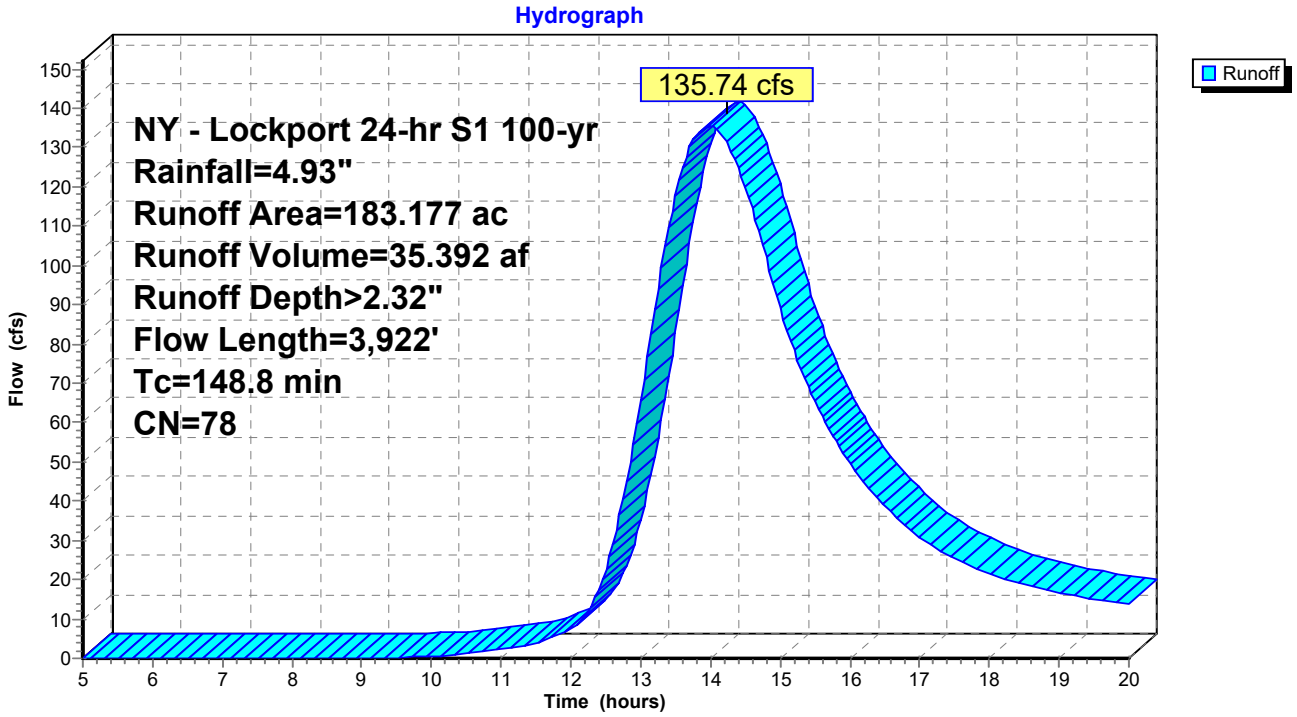
Runoff = 135.74 cfs @ 14.03 hrs, Volume= 35.392 af, Depth> 2.32"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	2.507	80	D - 80 - Developed open space
*	3.318	80	D - 80 - Developed open space
*	2.790	80	D - 80 - Developed open space
*	2.870	82	D - 82 - Developed Low intensity
*	4.979	82	D - 82 - Developed Low intensity
*	4.781	82	D - 82 - Developed Low intensity
*	0.152	85	D - 85 - Developed Med intensity
*	1.263	77	D - 77 - Deciduous Forest
*	3.431	77	D - 77 - Deciduous Forest
*	3.544	77	D - 77 - Deciduous Forest
*	14.732	78	D - 78 - Meadowed, grass, non-grazed land
*	59.055	78	D - 78 - Meadowed, grass, non-grazed land
*	79.095	78	D - 78 - Meadowed, grass, non-grazed land
*	0.660	91	D- Gravel Roads
	183.177	78	Weighted Average
	183.177		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.6	100	0.0350	0.08		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
48.7	1,573	0.0116	0.54		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
62.0	1,276	0.0047	0.34		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
17.5	973	0.0038	0.92		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
148.8	3,922	Total			

Subcatchment PDA7: PROPOSED DA STR 37-40



Summary for Subcatchment PDA8: PROPOSED DA STR 41

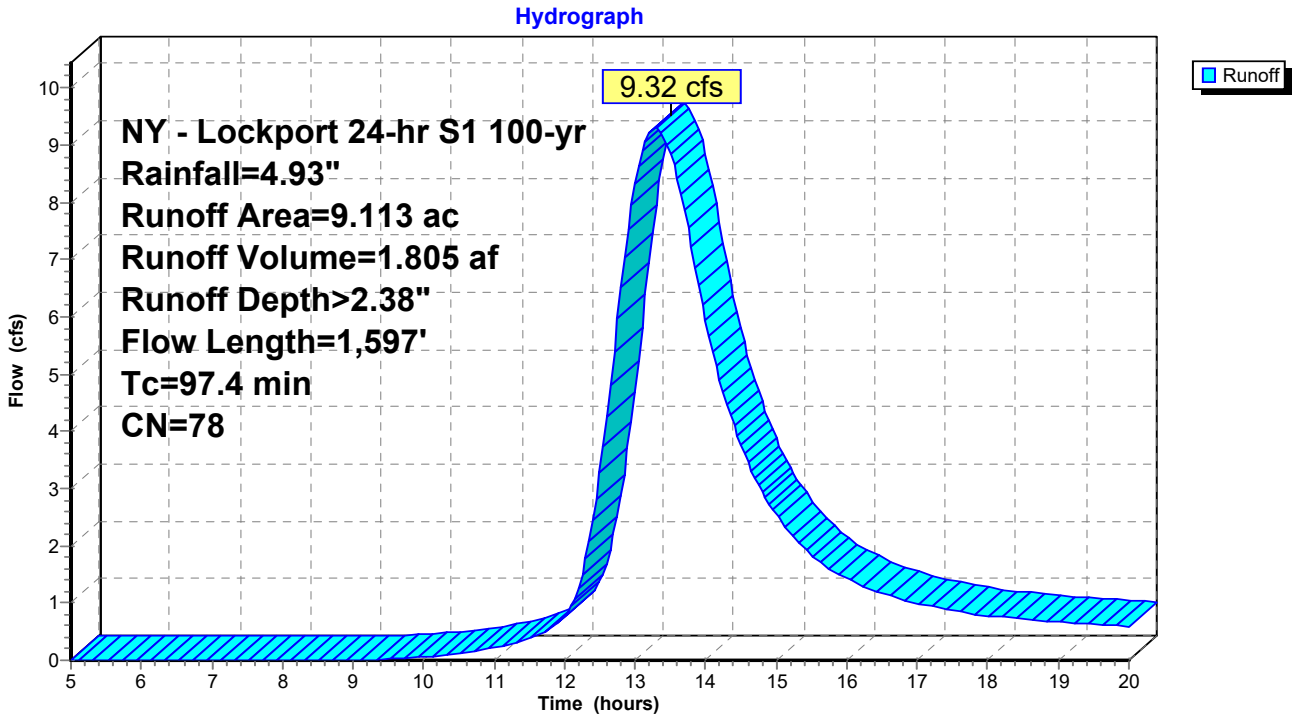
Runoff = 9.32 cfs @ 13.30 hrs, Volume= 1.805 af, Depth> 2.38"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	3.755	77	D - 77 - Deciduous Forest
*	5.138	78	D - 78 - Meadowed, grass, non-grazed land
*	0.220	91	D- Gravel Roads
	9.113	78	Weighted Average
	9.113		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.0	100	0.0100	0.05		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
63.4	1,497	0.0062	0.39		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.4	1,597	Total			

Subcatchment PDA8: PROPOSED DA STR 41



Summary for Subcatchment PDA9: PROPOSED DA STR 48-50

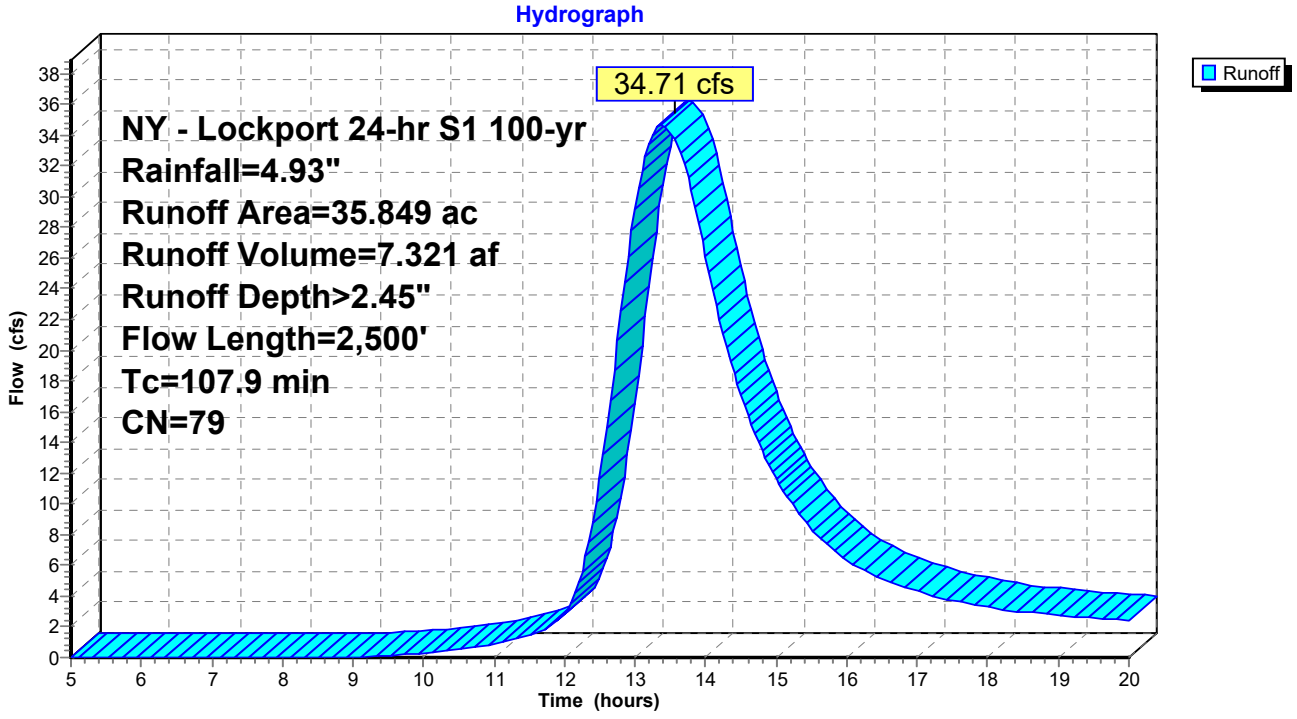
Runoff = 34.71 cfs @ 13.38 hrs, Volume= 7.321 af, Depth> 2.45"
Routed to Link 2L : PROPOSED

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.93"

	Area (ac)	CN	Description
*	2.020	80	D-75% GRASS COVER, GOOD
*	0.850	84	D-50-75% GRASS COVER, FAIR
*	0.080	89	D-<50% GRASS COVER, POOR
*	0.800	79	D-WOODS/GRASS COMB., GOOD
*	6.410	78	D-MEADOW, NON-GRAZED
*	0.060	98	D-WATER SURFACE, 0% IMP
*	1.214	80	D-75% GRASS COVER, GOOD
*	0.074	84	D-50-75% GRASS COVER, FAIR
*	0.060	89	D-<50% GRASS COVER, POOR
*	4.411	79	D-WOODS/GRASS COMB., GOOD
*	18.040	78	D-MEADOW, NON-GRAZED
*	1.050	98	D-WATER SURFACE, 0% IMP
*	0.150	80	D-75% GRASS COVER, GOOD
*	0.210	78	D-MEADOW, NON-GRAZED
*	0.420	91	D-Gravel Roads
	35.849	79	Weighted Average
	34.739		96.90% Pervious Area
	1.110		3.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	100	0.0300	1.21		**Shallow Concentrated Flow, 100'** Short Grass Pasture Kv= 7.0 fps
31.2	262	0.0120	0.14		**Sheet Flow, 262.19** Grass: Short n= 0.150 P2= 2.22"
4.5	254	0.0180	0.94		**Shallow Concentrated Flow, 254'** Short Grass Pasture Kv= 7.0 fps
2.9	129	0.0110	0.73		**Shallow Concentrated Flow, 128.66** Short Grass Pasture Kv= 7.0 fps
4.4	196	0.0110	0.73		**Shallow Concentrated Flow, 196** Short Grass Pasture Kv= 7.0 fps
6.9	260	0.0080	0.63		**Shallow Concentrated Flow, 260** Short Grass Pasture Kv= 7.0 fps
5.5	219	0.0090	0.66		**Shallow Concentrated Flow, 219** Short Grass Pasture Kv= 7.0 fps
12.4	285	0.0030	0.38		**Shallow Concentrated Flow, 285** Short Grass Pasture Kv= 7.0 fps
6.1	230	0.0080	0.63		**Shallow Concentrated Flow, 230** Short Grass Pasture Kv= 7.0 fps
10.0	265	0.0040	0.44		**Shallow Concentrated Flow, 265** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
107.9	2,500	Total			

Subcatchment PDA9: PROPOSED DA STR 48-50

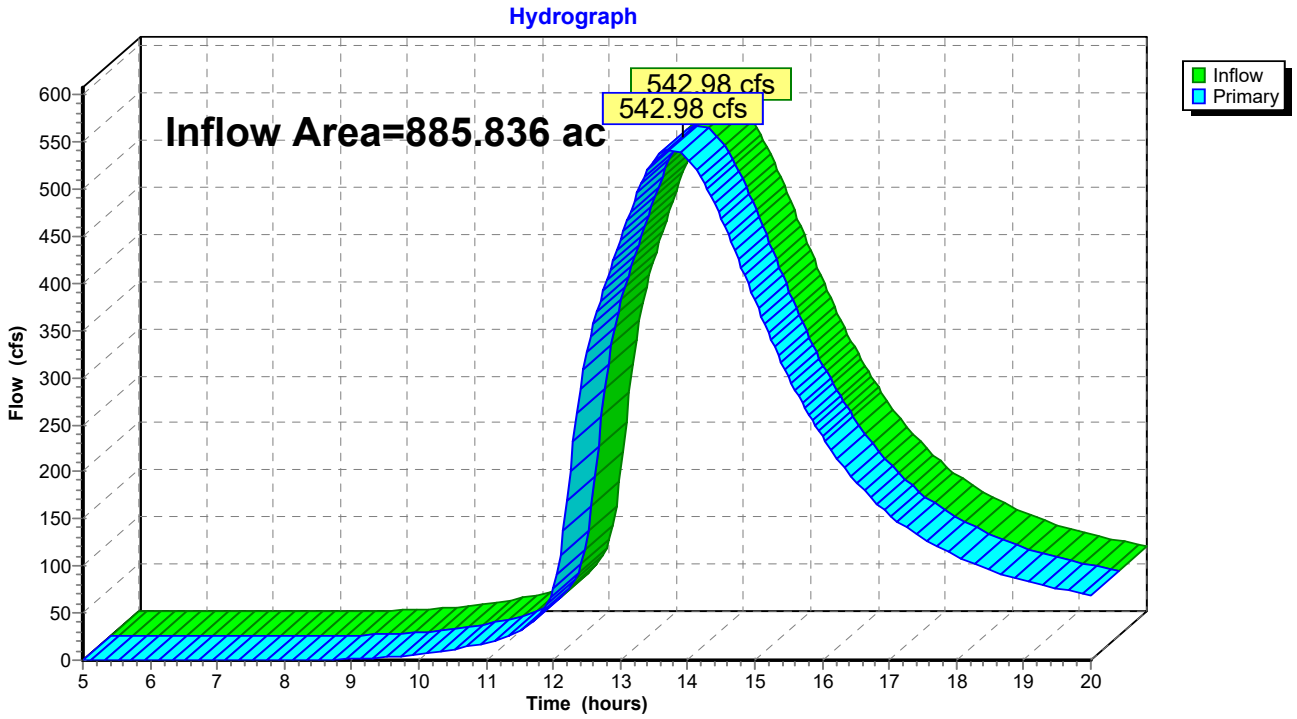


Summary for Link 1L: EXISTING

Inflow Area = 885.836 ac, 0.70% Impervious, Inflow Depth > 2.38" for 100-yr event
Inflow = 542.98 cfs @ 13.72 hrs, Volume= 176.048 af
Primary = 542.98 cfs @ 13.72 hrs, Volume= 176.048 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link 1L: EXISTING

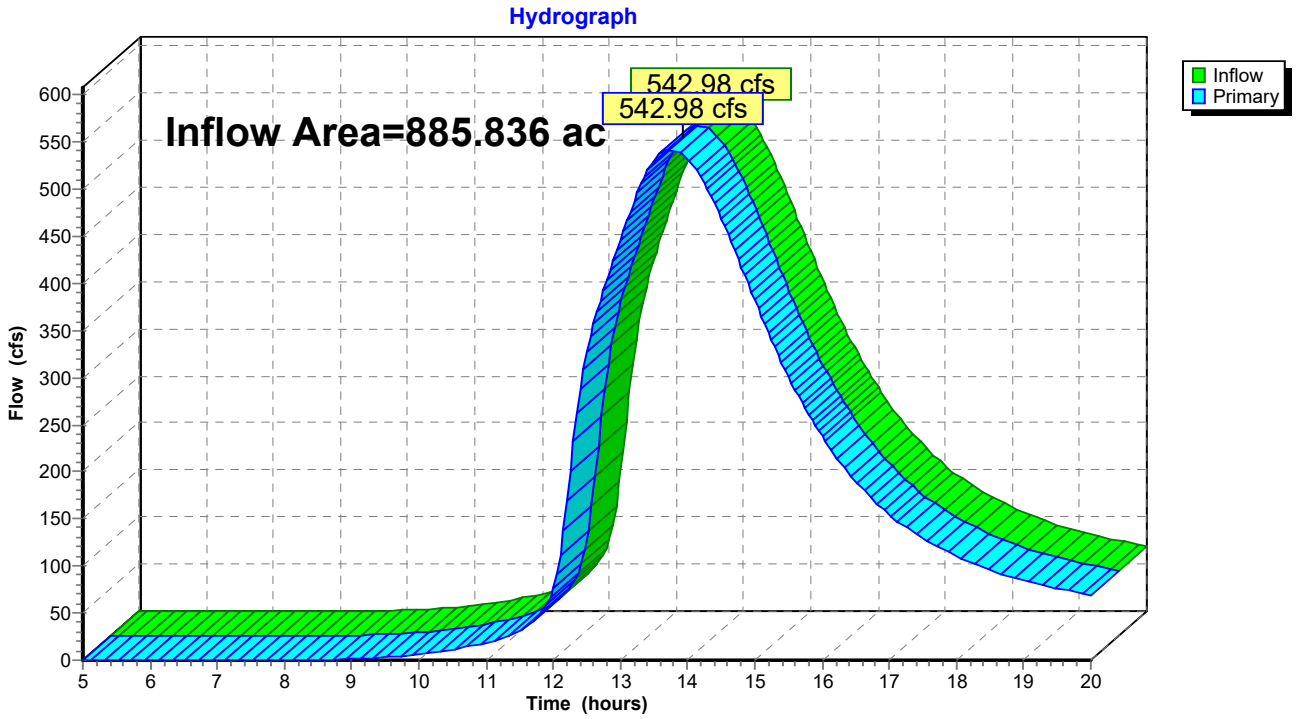


Summary for Link 2L: PROPOSED

Inflow Area = 885.836 ac, 0.66% Impervious, Inflow Depth > 2.38" for 100-yr event
Inflow = 542.98 cfs @ 13.72 hrs, Volume= 176.048 af
Primary = 542.98 cfs @ 13.72 hrs, Volume= 176.048 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link 2L: PROPOSED



Appendix P

New York Utility Company BMP for Preventing the Transportation of Invasive Species

New York Utility Company Best Management Practices for Preventing the Transportation of Invasive Species

Environmental Energy Alliance of New York

Revisions January 2015

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Appendices

Appendix 1 - Best Management Practices (BMP's) for Invasive Species Transportation Prevention

Appendix 2 - 6 NYCRR Part 575 Prohibited and Regulated Invasive Species, September 10, 2014

1.0 Introduction

Invasive species are non-native plant, animal, or microbial species that cause, or are likely to cause, economic or ecological harm or harm to human health (Presidential Executive Order 13112). Invasive species means, "A species that is nonnative to the ecosystem under consideration; and whose introduction causes or is likely to cause economic or environmental harm or harm to human health. Harm must significantly outweigh benefit" [New York Environmental Conservation Law §9-1703(10)(a)] Invasive species have been introduced by human action into a region outside their natural geographic range. Introductions occur along a variety of pathways or vectors, either intentionally such as intentional transport of a species for trade, or by accidental means, as in the case of stowaway species found in the ballast-water of ocean-going vessels.

Most scientists regard invasive species as second only to habitat loss as a threat to biodiversity. The presence of invasive species in a given region is one of the leading causes of endangerment to species native to that region. On a nationwide basis, about half of plant and animal species listed as federally Endangered or Threatened are at risk because of invasive species.

Annual economic losses due to invasive species in the U.S. have been estimated at over $138 billion (Pimentel et al. 2000). These losses include damage to crops and pasture, forest losses, damage from insect and other invertebrate pests, human diseases, and associated control costs.

In an effort, where feasible, to limit the introduction and spread of *invasive species*, this Best Management Practice ("BMP") will be employed when performing activities that occur in *jurisdictional areas* as authorized by the DEC. The BMP identifies procedures that will be incorporated into routine work practices to prevent the introduction and spread of *invasive species*.

2.0 Definitions

The following definitions are applicable to this BMP.

Environmental Energy Alliance of New York (EEANY) – is an association of electric and gas Transmission and Distribution (T&D) companies and electric generating companies that provide energy services in the State of New York. This BMP was prepared by the Land Use Subcommittee of the T&D Committee, which currently represents the following members: Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Long Island Power Authority, National Grid USA Service Company, Inc., New York Power Authority, New York State Electric & Gas Corporation, Orange and Rockland Utilities, and Rochester Gas & Electric Corporation.

Invasive species – species that are non-native to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health (Management Plan National Invasive Species Council, 2001). For purposes of this document, *invasive species* are those contained on the list contained within 6 NYCRR Part 575 Prohibited and Regulated Invasive Species (Appendix – 2).

Invasive species plant material – seeds, roots, or pieces of plant material that could germinate into live plants.

Jurisdictional Area – lands under the statutory jurisdiction of the NYSDEC such as certain freshwater wetlands and adjacent areas, tidal wetlands, certain water bodies, and any protected and species habitat areas specified by natural resource supervisors.

NYSDEC General Permit – a NYSDEC permit authorizing certain utility line activities under Articles 15, 24, and 25 of NYS Environmental Conservation Law. These activities include: inspection, maintenance, repair, restoration, reconstruction of pre-existing structures, vegetation cutting and trimming, and emergency actions affecting tidal wetlands, protected waters, regulated freshwater wetlands, adjacent areas, and protected habitat areas.

Regulated Activity – an activity taking place within a *jurisdictional area* that requires authorization from the NYSDEC.

Utility Rights-of-Way - is an easement-acquired or fee-owned corridor in which gas or electric transmission facilities are located.

3.0 Purpose

This BMP provides guidance for inspecting and cleaning vehicles and equipment to help prevent the spread of invasive species. The procedures identified within this manual outline cost-effective and realistic practices that *Environmental Energy Alliance of New York (EEANY)* utility members will implement when conducting a *regulated activity* within a *jurisdictional area*.

4.0 Applicability

This management practice applies to all *EEANY* utility members performing NYSDEC *regulated activities* within *jurisdictional areas* with populations of *invasive species*.

5.0 Procedures

There are two procedural options for EEANY companies to follow; one is to conduct the BMPs as detailed in the following sections of this plan or to conduct vegetation surveys for invasive species as outlined in Section 5.6. Field crews will be provided a flowchart to assist with determining when to implement these best management practices (Appendix 1).

The following detailed practices will apply where feasible when invasive species are present and when the work is covered by a GP or individual wetland permit.

5.1 Equipment

a. Equipment must arrive clean without visible soil clumps, plant or animal material.
b. Equipment includes, but is not limited to, vehicles, trailers, machinery, matting, boats, barges, and other watercraft, tools, and other materials.
c. Transporting equipment will be cleaned before accepting a new load.
d. Consider tracking pads as a means to remove soil from equipment. If tracking pads are used they must be cleaned after each use in a specific area.
e. Equipment will be cleaned using one of the methods listed below (use the most effective method that is practical):
    - Brush, broom, shovel or other similar hand tools (used without water)
    - High pressure air (when feasible)
f. Equipment must be cleaned within one of the below areas:
    - the infested work area
    - an area immediately adjacent to the work area that is itself currently infested with *invasive species*
g. Do not clean equipment in or near waterways as it may promote the spread of *invasive species* downstream.
h. Where possible, staging areas will be established in locations that are free of *invasive species*. Otherwise, all equipment will be cleaned using the techniques described in 5.3 before leaving the area.
i. When wetland matting is required, it will arrive on site visibly clean, be installed prior to any activities, and will be appropriately cleaned before leaving the area.

5.2 Inspection and Cleaning

a. Inspections and cleaning should be conducted especially when moving from an infested area to an un-infested area.
b. Prior to exiting work area clothing, footwear, and gear should be cleaned of visible signs of plant material.
c. Carry appropriate cleaning equipment (e.g. wire brush, small screwdriver, boot brush) to help remove soils, seeds, and plant material.
d. Preferred locations for cleaning are those where:
    - Work activities are taking place;
    - *Invasive species* are already established; or
    - An area immediately adjacent to the work site that is itself currently infested with *invasive species*.
e. No cleaning of clothing, footwear, gear in or adjacent to waterways – it may promote the spread of *invasive species* downstream.
f. Cleaning will include brushing or self "pat down" of clothing, footwear, and other personal gear within the infested work area.

5.3 Disposal of Impacted Material

a. Preferred locations for equipment cleaning are those areas where work activities are taking place or immediately adjacent areas currently impacted with *invasive species*.
b. Do not clean equipment, vehicles or trailers in or near waterways.
c. Do not dispose of soil, seeds, or plant material in storm drains.
d. Any plant materials that are incidentally removed after completion of steps a-c from site will be properly disposed of in a manner that prevents viable plant parts and propagules from being spread

5.4 Other Prevention Measures

a. Reasonable steps to avoid transportation of *invasive species,* including small, isolated, populations, will be taken.
b. As an alternative to cleaning, ancillary equipment such as spare tires and winches when feasible will be covered when entering *jurisdictional areas* containing populations of *invasive species*.
c. Vehicular access into areas containing populations of *invasive species* will be reduced or minimized to the maximum extent practical. When practical vehicles will be parked outside of the impacted area and crews will enter on foot.

5.5 Site Restoration

a. Minimize soil disturbances by reducing work areas and reducing activities that may result in soil disturbances.

b. Re-vegetate bare soils as soon as feasible to minimize the possible establishment of *invasive species*. When seeding, non-invasive or local native species must be used (seed mixes will vary from region to region). Seed will be broadcasted over all bare soil areas and covered with a mulch layer such as straw. Choose appropriate seed mixes based on site conditions.

c. On steep sloping areas (i.e. slopes exceeding 20 percent), soil erosion control matting (i.e. jute mesh or straw blankets) must be installed over the seeded area. The matting should be secured with biodegradable tacks.

d. Stabilize disturbed soils using appropriate erosion and sediment control procedures as soon as possible. Use invasive free materials such as straw or wood chips; avoid using hay.

5.6 Vegetation Survey (Optional)

If the above BMPS are not followed, then vegetation surveys of site(s) to detect populations of invasive species should be made in advance prior to any activities. If the optional vegetation survey is performed and no invasive species are found, then the procedures outlined above in section 5.1 through 5.5 will not be followed. Survey inspections can be integrated with other activities such as ROW inspections and should be kept as simple as possible to meet invasive species management objectives. If significant populations of invasive species are detected on surveys, then Sections 5.1 to 5.5 apply.

a. Prior to implementing activities scout for, locate and document significant invasive species infestations.
b. Consider the need for actions based on: 1) the degree of invasiveness; 2) severity of the current infestation; 3) amount of additional habitat or host at risk for invasion; and 4) feasibility of managing the spread.
c. Plan activities to limit the potential for introduction and spread of invasive species, prior to construction.
d. Provide appropriate resources in identification of known invasive species for corridor workers.

6.0 Training

A flowchart (Appendix 1) to assist field crews on when to implement the above procedures will be distributed to all field crews.

All transmission vegetation management planners, foresters, and ROW maintenance personnel will be trained in the procedures outlined in Section 5.0 above. Additionally, training sessions focused on the identification of *invasive species* identified in Appendix 2 will be conducted by the individual utility companies. This may take the form of hard copy materials, tail gate briefings and/or presentations during regular staff meetings.

7.0 Emergency Work

During emergencies, *EEANY* utility members will strictly comply with the Emergency Action condition protocol outlined in the *NYSDEC General Permit*. Appropriate site-specific *invasive species* controls and restoration efforts will be determined on an individual basis in conjunction with the regional NYSDEC office.

8.0 References

- Electric Power Research Institute, 2008. "Invasive Species and Utility Rights of Way: A Review of the Science". EPRI Publication number 1014032, Palo Alto, CA

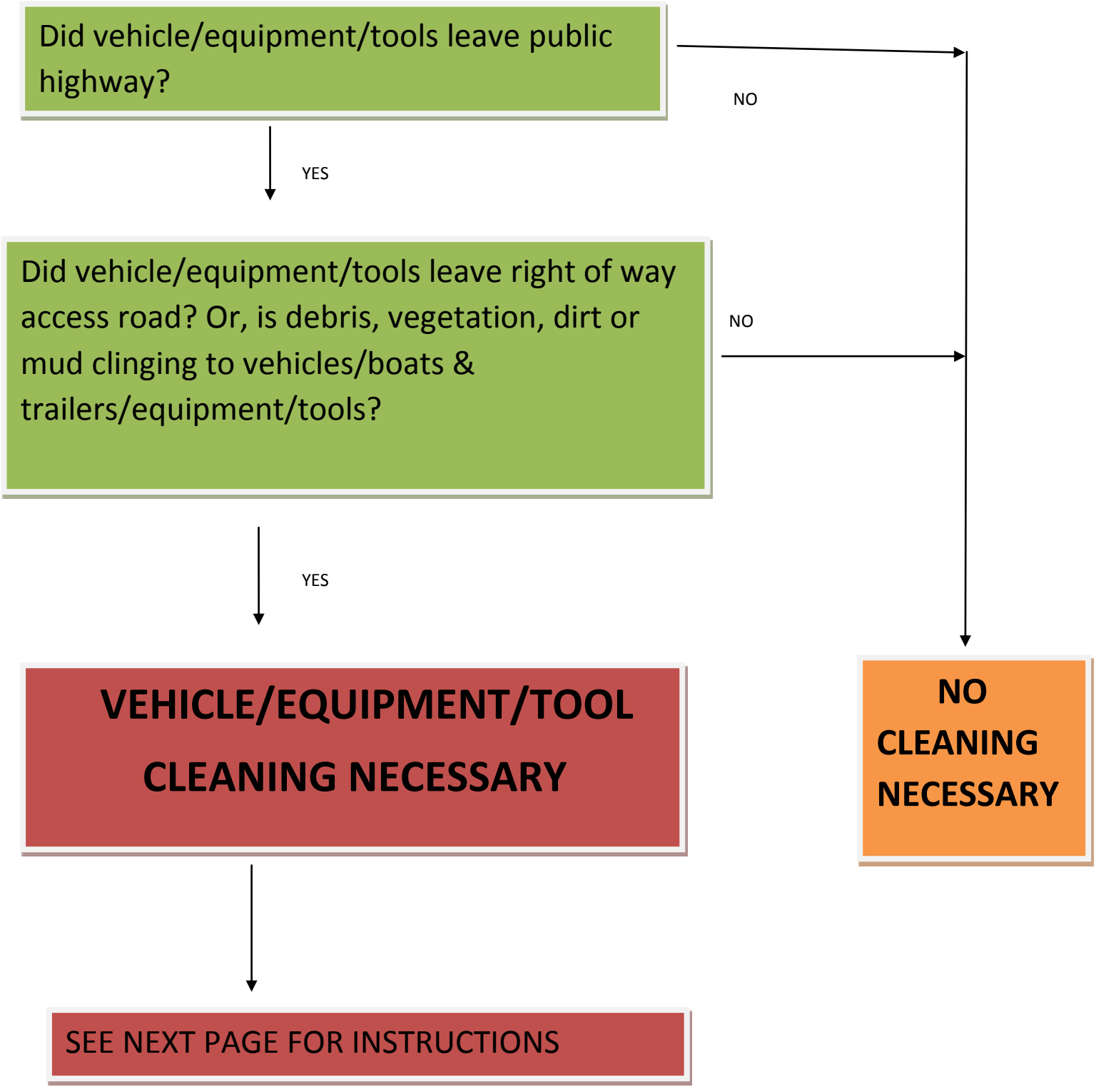
- Pimentel, D., Lach, L., Zuniga, R. & Morrison, D**.** 2000. Environmental and economic costs of nonindigenous species in the United States. Bioscience, 50(1): 53-65.

- Presidential Executive Order 13112. Volume 64, Federal Register 1999. Invasive Species.

- Wisconsin Council on Forestry. 2010. *Invasive Species Best Management Practice for Transportation and Utility Rights-of-Way*.

APPENDIX - 1

BEST MANAGEMENT PRACTICES (BMP'S) for INVASIVE SPECIES TRANSPORT PREVENTION



PRIOR TO LEAVING THE RIGHT-OF-WAY

- Prior to loading vehicle/equipment/tools remove as much debris, vegetation, dirt and mud clinging to the equipment as feasible using a brush, broom, shovel or other similar hand tool.

- High pressure air can be used on site for cleaning debris, vegetation, dirt and mud off vehicles/equipment/tools.

- Pick-ups and other small road vehicles shall remove on the right-of-way, as much debris, vegetation, dirt and mud clinging to vehicle as feasible prior to entering the highway.

- Small equipment/tools/boots shall be cleaned on site before removal or storage.

- Arrangements can be made for onsite cleaning or washing of vehicles/equipment/tools if deemed necessary.

PRIOR TO LEAVING A BOAT LAUNCH:

CLEAN, DRAIN, DRY -- Prior to leaving a boat launch, **Clean** any visible mud, plants, fish or animals before transporting equipment; **Drain** all water holding compartments including live wells, bait wells and bilge areas; **Dry** the boat, trailer and all equipment before use in another water body

APPENDIX - 2

6 NYCRR Part 575
Prohibited and Regulated Invasive Species
September 10, 2014

ALGAE AND CYANOBACTERIA
Prohibited:
Caulerpa taxifolia, Killer Green Algae
Didymosphenia geminata,
Didymo Prymnesium parvum, Golden Algae

Regulated:
Cylindrospermopsis raciborskii, Cylindro
Grateloupia turuturu, Red Algae

PLANTS
Prohibited:
Acer pseudoplatanus, Sycamore Maple
Achyranthes japonica, Japanese Chaff Flower
Alliaria petiolata, Garlic Mustard
Ampelopsis brevipedunculata, Porcelain Berry
Anthriscus sylvestris, Wild Chervil
Aralia elata, Japanese Angelica Tree
Artemisia vulgaris, Mugwort
Arthraxon hispidus, Small Carpet Grass
Berberis thunbergii, Japanese Barberry
Brachypodium sylvaticum, Slender False Brome
Cabomba caroliniana, Fanwort
Cardamine impatiens, Narrowleaf Bittercress
Celastrus orbiculatus, Oriental Bittersweet
Centaurea stoebe (C. biebersteinii, C. diffusa, C. maculosa misapplied, C. xpsammogena), Spotted Knapweed
Cirsium arvense (C. setosum, C. incanum, Serratula arvensis), Canada Thistle
Cynanchum louiseae (C. nigrum, Vincetoxicum nigrum), Black Swallow-wort
Cynanchum rossicum (C. medium, Vincetoxicum medium, V. rossicum), Pale Swallow-wort
Dioscorea polystachya (D. batatas), Chinese Yam
Dipsacus laciniatus, Cut-leaf Teasel
Egeria densa, Brazilian Waterweed
Elaeagnus umbellata, Autumn Olive
Euphorbia cyparissias, Cypress Spurge
Euphorbia esula, Leafy Spurge
Ficaria verna (Ranunculus ficaria), Lesser Celandine
Frangula alnus (Rhamnus frangula), Smooth Buckthorn
Glyceria maxima, Reed Manna Grass
Heracleum mantegazzianum, Giant Hogweed
Humulus japonicus, Japanese Hops
Hydrilla verticillata, Hydrilla/ Water Thyme
Hydrocharis morsus-ranae, European Frogbit
Imperata cylindrica (I. arundinacea, Lagurus cylindricus), Cogon Grass
Iris pseudacorus, Yellow Iris
Lepidium latifolium, Broad-leaved Pepper-grass
Lespedeza cuneata, Chinese Lespedeza
Ligustrum obtusifolium, Border Privet
Lonicera japonica, Japanese Honeysuckle
Lonicera maackii, Amur Honeysuckle
Lonicera morrowii, Morrow's Honeysuckle
Lonicera tatarica, Tartarian Honeysuckle
Lonicera x bella, Fly Honeysuckle
Ludwigia hexapetala (L. grandiflora), Uruguayan Primrose Willow
Ludwigia peploides, Floating Primrose Willow
Lysimachia vulgaris, Garden Loosestrife
Lythrum salicaria, Purple Loosestrife
Microstegium vimineum, Japanese Stilt Grass
Murdannia keisak, Marsh Dewflower
Myriophyllum aquaticum, Parrot-feather
Myriophyllum heterophyllum, Broadleaf Water-milfoil
Myriophyllum heterophyllum x M. laxum, Broadleaf Water-milfoil Hybrid
Myriophyllum spicatum, Eurasian Water-milfoil
Nymphoides peltata, Yellow Floating Heart
Oplismenus hirtellus, Wavyleaf Basketgrass
Persicaria perfoliata (Polygonum perfoliatum), Mile-a- minute Weed
Phellodendron amurense, Amur Cork Tree
Phragmites australis, Common Reed Grass
Phyllostachys aurea, Golden Bamboo
Phyllostachys aureosulcata, Yellow Groove Bamboo
Potamogeton crispus, Curly Pondweed
Pueraria montana, Kudzu
Reynoutria japonica (Fallopia japonica, Polygonum cuspidatum), Japanese Knotweed
Reynoutria sachalinensis (Fallopia sachalinensis, Polygonum sachalinensis), Giant Knotweed
Reynoutria x bohemica (Fallopia x bohemica, Polygonum x bohemica), Bohemian Knotweed
Rhamnus cathartica, Common Buckthorn
Rosa multiflora, Multiflora Rose
Rubus phoenicolasius, Wineberry
Salix atrocinerea, Gray Florist's Willow
Silphium perfoliatum, Cup-plant
Trapa natans, Water Chestnut
Vitex rotundifolia, Beach Vitex

Regulated:
Acer platanoides, Norway Maple
Clematis terniflora, Japanese Virgin's Bower
Euonymus alatus, Burning Bush
Euonymus fortunei, Winter Creeper
Miscanthus sinensis, Chinese Silver Grass
Robinia pseudoacacia, Black Locust

FISH
Prohibited:
Channa argus, Northern Snakehead
Channa marulius, Bullseye Snakehead
Channa micropeltes, Giant Snakehead
Clarias batrachus, Walking Catfish
Gambusia affinis, Western Mosquitofish
Gambusia holbrooki, Eastern Mosquitofish
Hypophthalmichthys harmandi, Largescale Silver Carp
Hypophthalmichthys molitrix, Silver Carp
Hypophthalmichthys nobilis, Bighead Carp
Misgurnus anguillicaudatus, Oriental Weatherfish
Mylopharyngodon piceus, Black Carp
Neogobius melanostomus, Round Goby
Petromyzon marinus, Sea Lamprey
Proterorhinus semilunaris (P. marmoratus), Tubenose Goby
Tinca tinca, Tench

Regulated:
Carassius auratus, Goldfish
Cyprinella lutrensis, Red Shiner
Cyprinus carpio, Common Carp/ Koi
Gymnocephalus cernuus, Ruffe
Monopterus albus, Asian Swamp Eel
Oreochromis aureus, Blue Tilapia
Oreochromis niloticus, Nile Tilapia
Pterois miles, Common Lionfish
Pterois volitans, Red Lionfish
Sander lucioperca (Stizostedion lucioperca), Zander
Scardinius erythrophthalmus, Rudd

AQUATIC INVERTEBRATES
Prohibited:
Bellamya chinensis (Cipangopaludina chinensis),Chinese Mystery Snail
Bellamya japonica, Japanese Mystery Snail
Bithynia tentaculata, Faucet Snail
Bythotrephese longimanus (B. cederstroemi), Spiny Water Flea
Cercopagis pengoi, Fishhook Water Flea
Corbicula fluminea, Asian Clam
Crassostrea ariakensis, Suminoe Oyster
Didemnum spp., Carpet Tunicate
Dreissena polymorpha, Zebra Mussel
Dreissena rostriformis bugensis, Quagga Mussel
Eriocheir sinensi, Chinese Mitten Crab
Hemigrapsus sanguineus, Asian Shore Crab
Hemimysis anomala, Bloody Red Shrimp
Orconectes rusticus, Rusty Crayfish
Potamopyrgus antipodarum, New Zealand Mud Snail
Rapana venosa, Veined Rapa Whelk
Styela plicata, Asian Sea Squirt

Regulated:
Carcinus maenas, European Green Crab
Daphnia lumholtzi, Water Flea
Hemigrapsus takanoi (H. penicillatus), Brush-clawed Shore Crab/ Grapsid Crab

TERRESTRIAL INVERTEBRATES
Prohibited:
Achatina achatina, Giant Ghana Snail
Achatina fulica (Lissachatina fulica), Giant African Land Snail
Adelges tsugae, Hemlock Woolly Adelgid
Agrilus planipennis, Emerald Ash Borer
Amynthas spp., Asian Earthworms
Anoplophora glabripennis, Asian Longhorn Beetle
Apis mellifera scutellata x A. mellifera ligustica/ A. mellifera iberiensis, Africanized Honey Bee
Archachatina marginata, Giant West African Snail
Cryptococcus fagisuga, Beech Scale
Lymantria dispar, Asian and European Gypsy Moth
Monochamus alternatus, Japanese Pine Sawyer
Pityophthorus juglandis, Walnut Twig Beetle
Sirex noctilio, Sirex Woodwasp

TERRESTRIAL AND AQUATIC VERTEBRATES
Prohibited:
Cygnus olor, Mute Swan
Lepus europaeus, European Hare
Myocastor coypus, Nutria
Nyctereutes procyonoides, Asian Raccoon Dog
Sus scrofa (excluding Sus scrofa domestica), Eurasian Boar

Regulated:
Alopochen aegyptiacus, Egyptian Goose
Cairina moschata, Muscovy Duck
Myiopsitta monachus, Monk Parakeet
Oryctolagus cuniculus, European Rabbit
Trachemys scripta elegans, Red-eared Slider
Xenopus laevis, African Clawed Frog

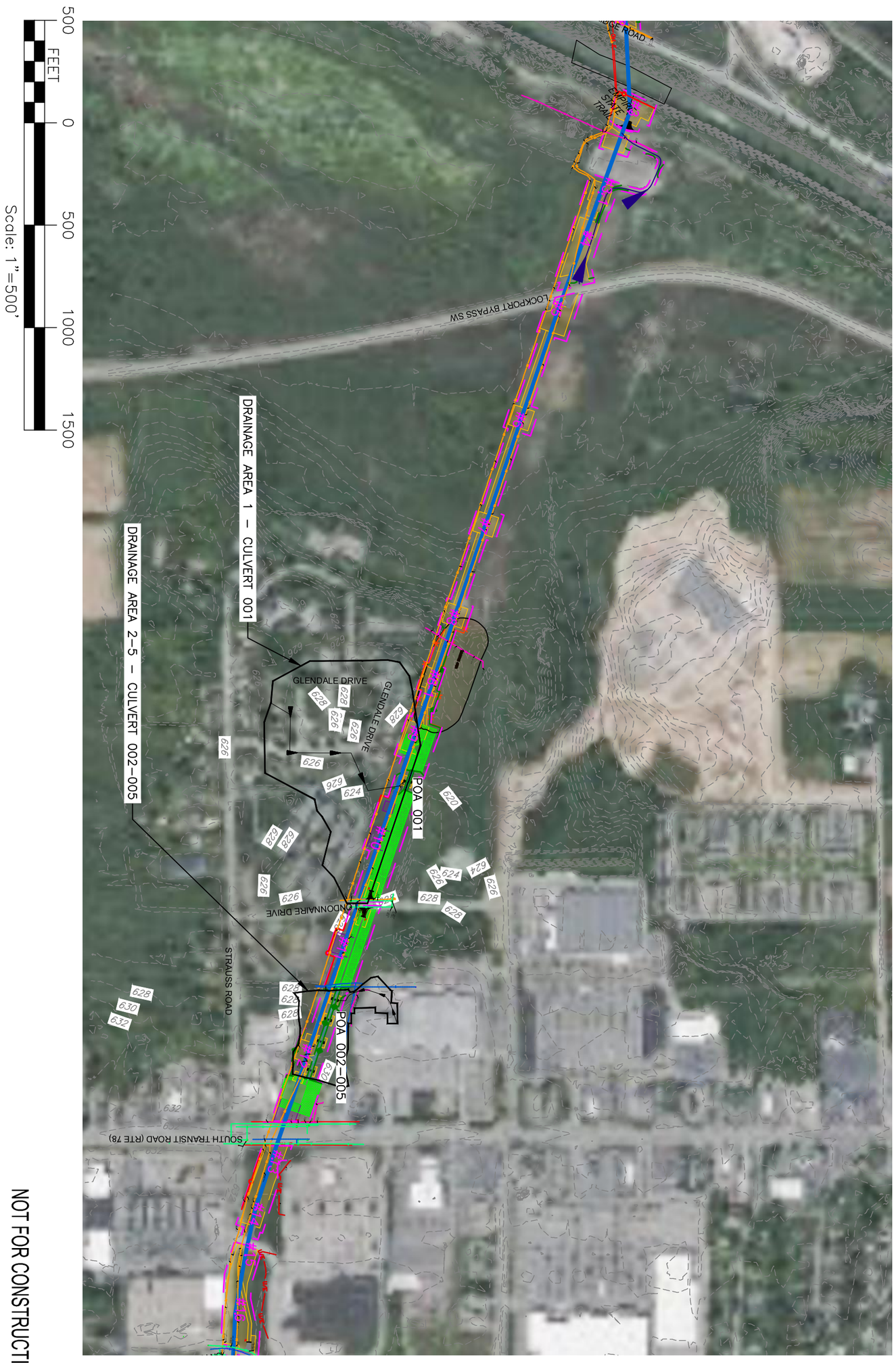
FUNGI
Prohibited:
Amylostereum areolatum, Sirex Wasp Fungus
Geomyces destructans, White-nose Syndrome
Geosmithia morbida, Thousand Canker Disease
Phytophthora ramorum, Sudden Oak Death

For the official regulations and species lists please see: http://www.dec.ny.gov/regulations/265.html

Appendix Q

Hydraulic and Hydrology Calculations
for Proposed Culverts

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TOWN OF LOCKPORT

TITLE OF DRAWING
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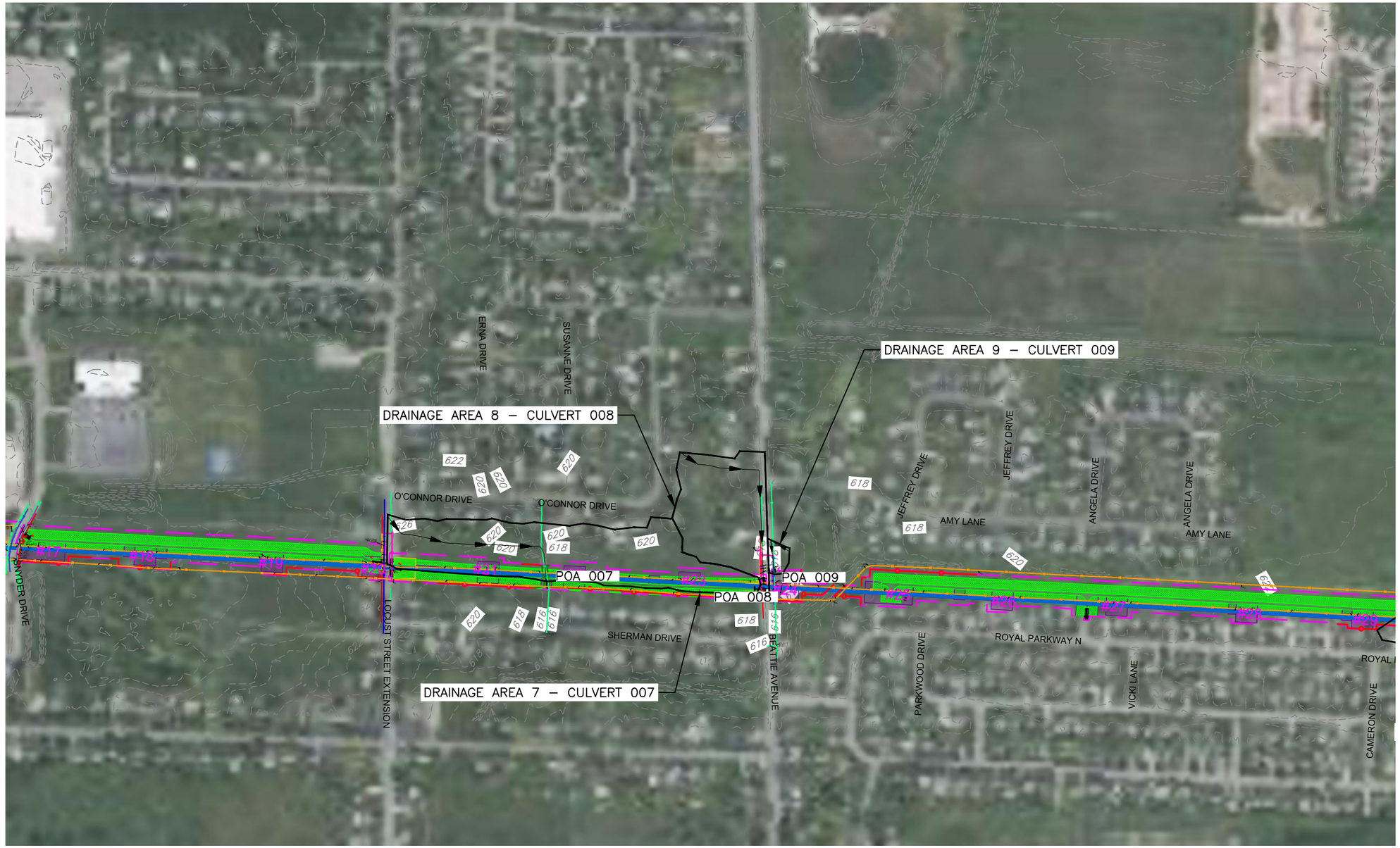
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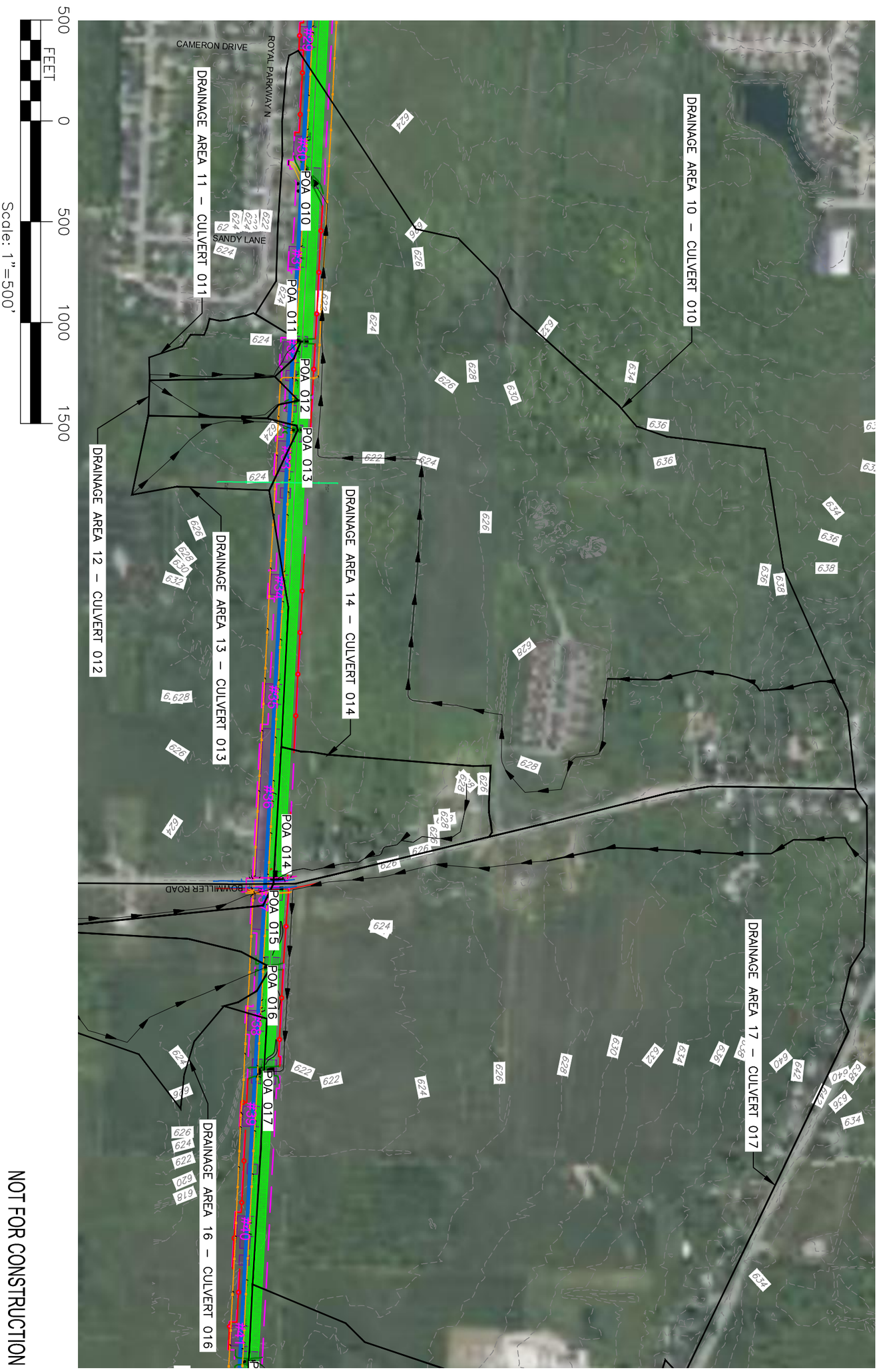
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NEW YORK
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TOWN OF LOCKPORT

TITLE OF DRAWING
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DRAWING NO.
CD-2

SHEET 2 OF 12

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USER: Thomas Leatherbarrow



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CD-3
DRAWING NO.
SHEET 3 OF 12

PROJECT
LOCKPORT BATAVIA
NEW YORK
PROPOSED CULVERTS
TOWN OF LOCKPORT

TITLE OF DRAWING
CULVERT DRAINAGE MAPS

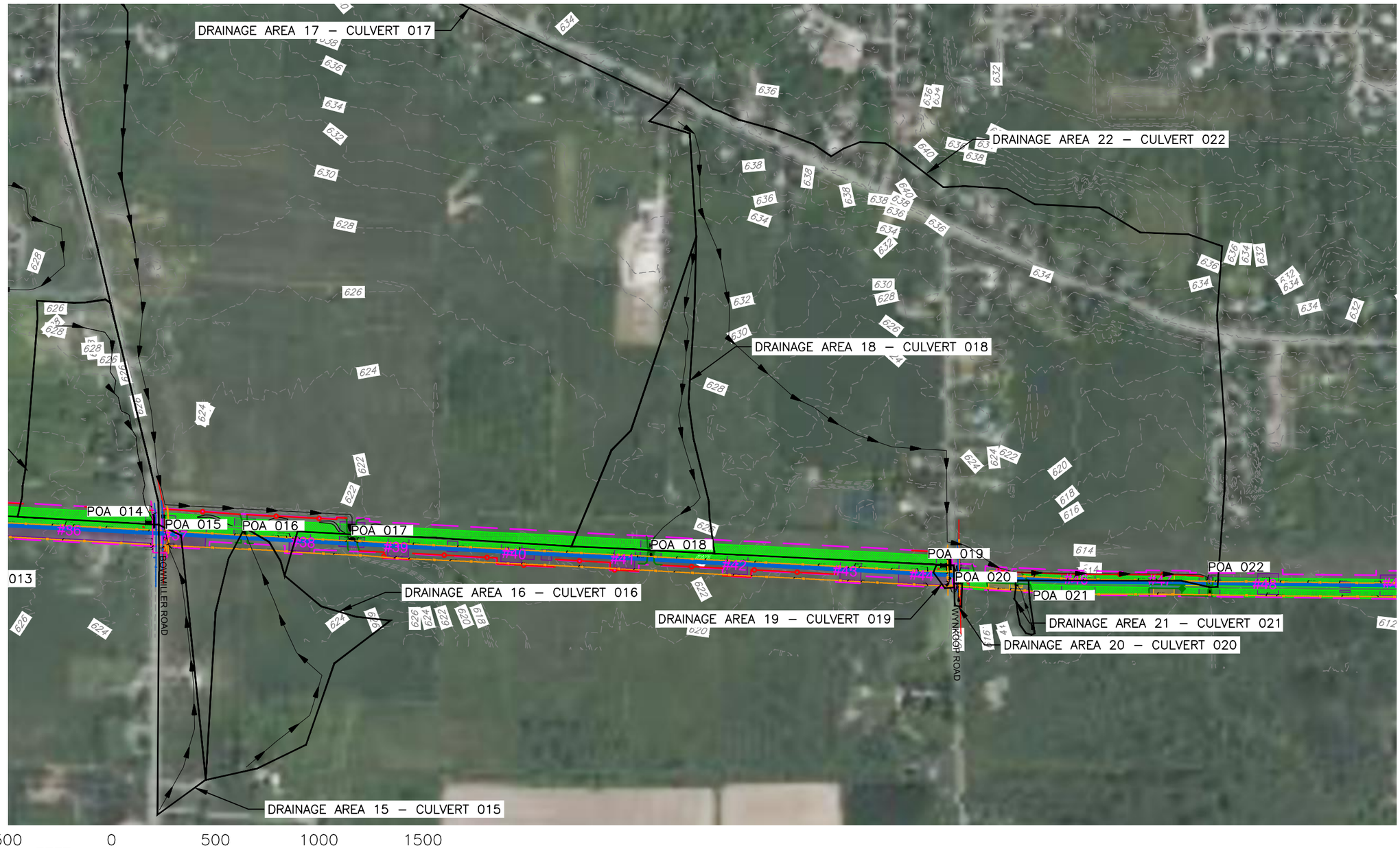
FA PROJECT NO. 190176
ISSUE DATE 2025
PROJECT MANAGER T. LIBERTY
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PROJECT
LOCKPORT BATAVIA
NEW YORK
PROPOSED CULVERTS
TOWN OF LOCKPORT

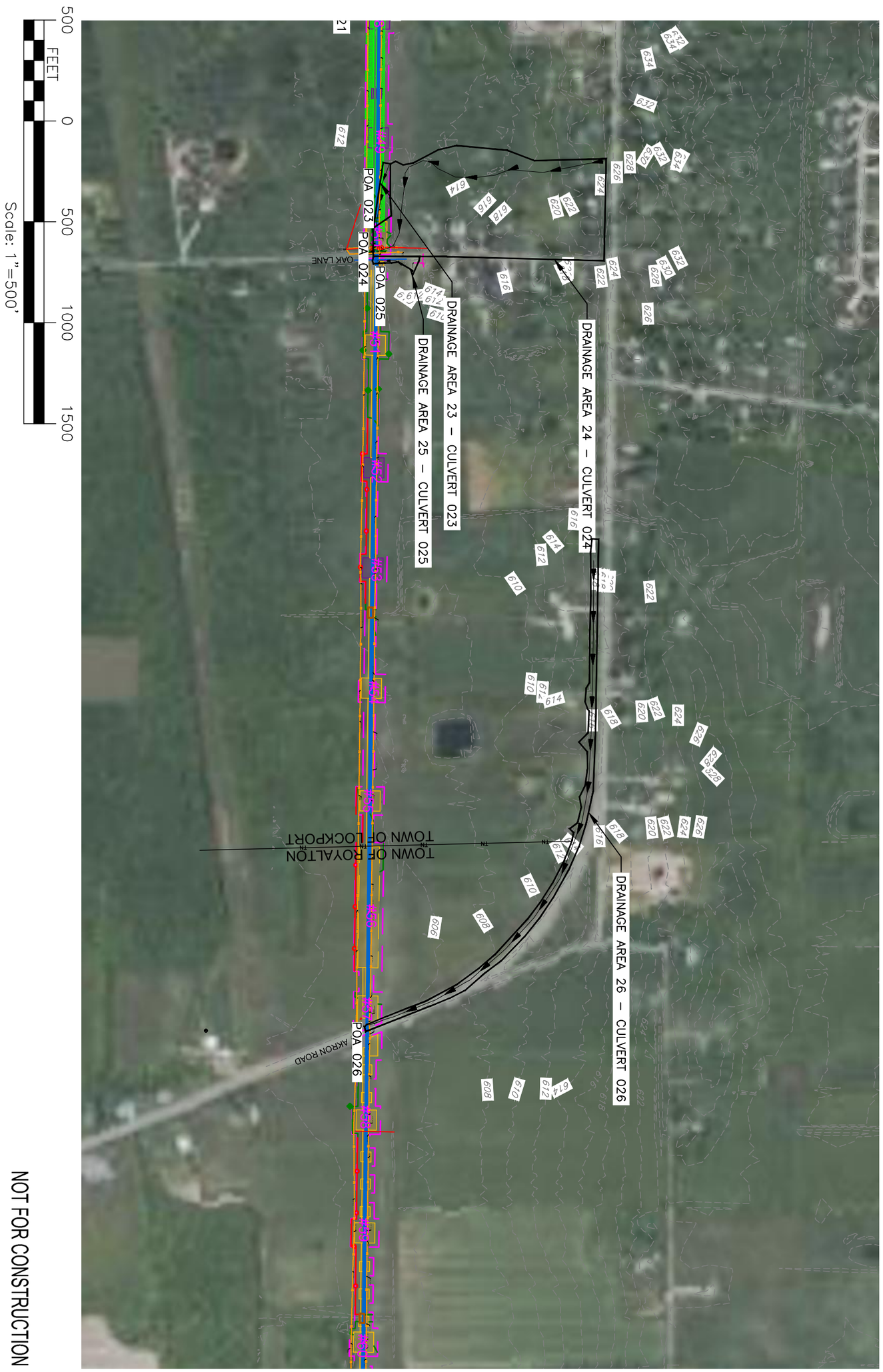
TITLE OF DRAWING
CULVERT DRAINAGE MAPS

DRAWING NO.
CD-4

SHEET 4 OF 12

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USER: Thomas Leatherbarrow



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DRAWING NO.
CD-5
SHEET 5 OF 12

PROJECT
LOCKPORT BATAVIA
NEW YORK
PROPOSED CULVERTS
TOWN OF LOCKPORT AND TOWN OF ROYALTON

TITLE OF DRAWING
CULVERT DRAINAGE MAPS

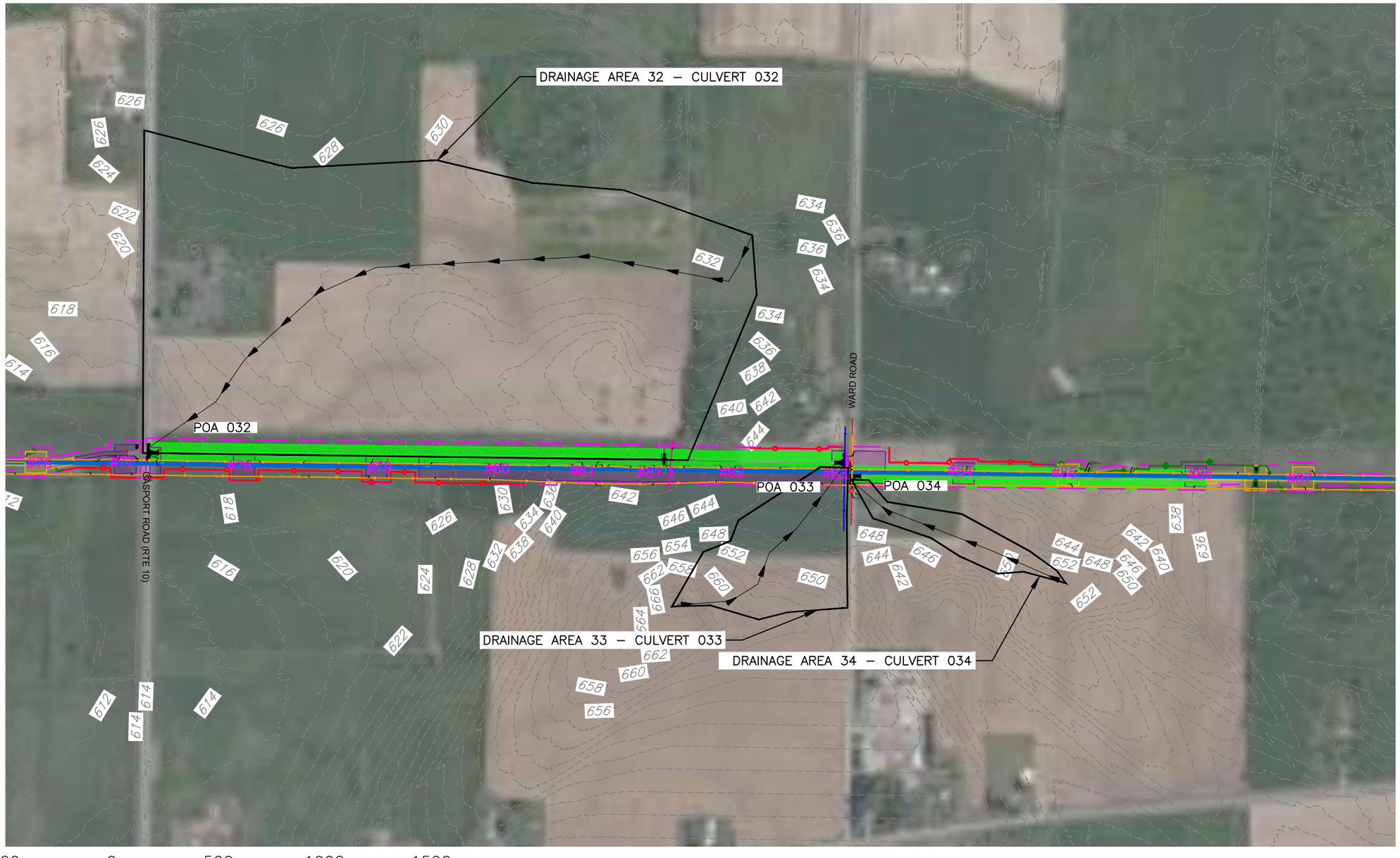
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500 0 500 1000 1500

FEET

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ENGINEER
R.WIGHTMAN

ISSUE DATE
2025

PROJECT
LOCKPORT BATAVIA
NEW YORK
PROPOSED CULVERTS
TOWN OF ROYALTON

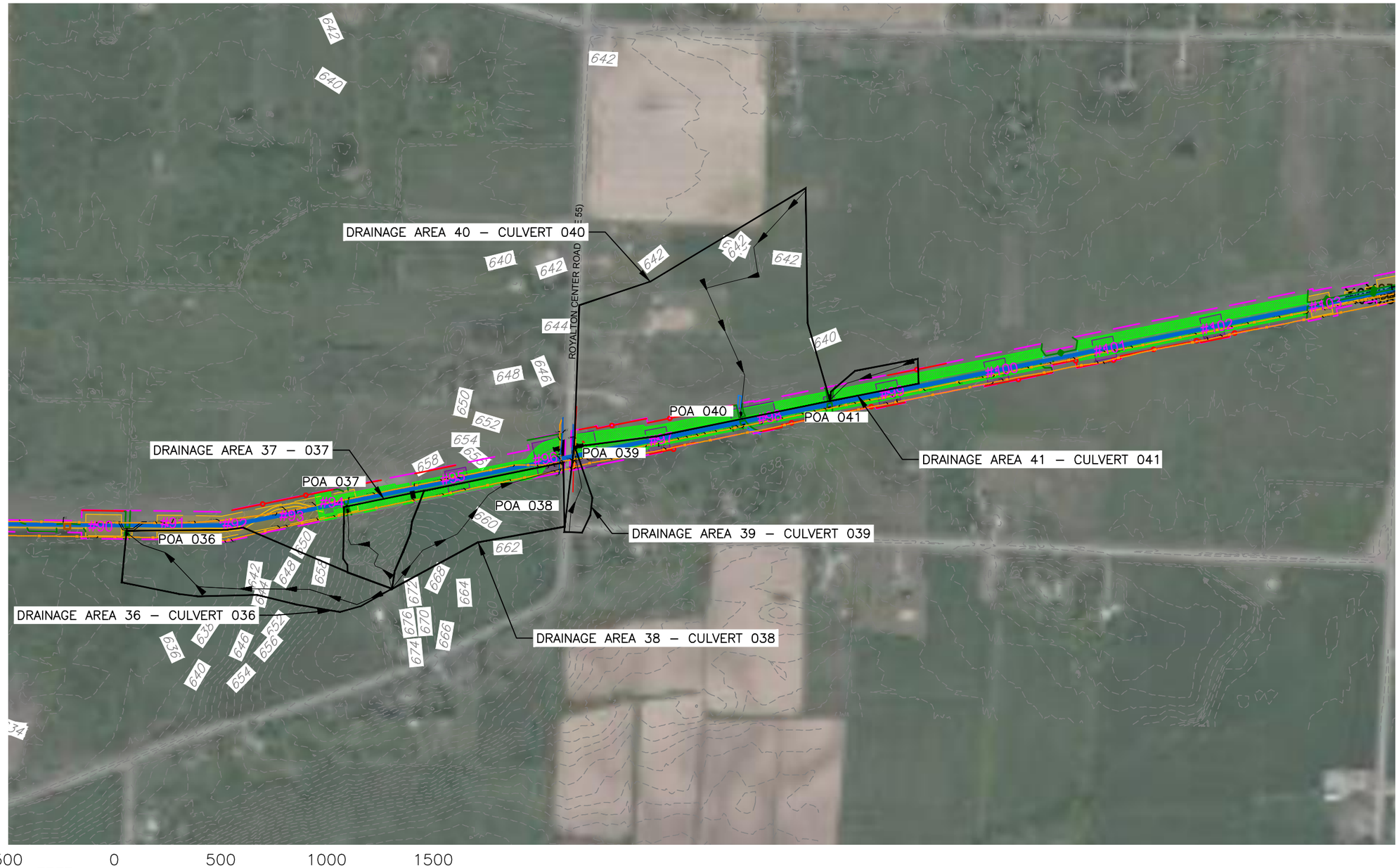
TITLE OF DRAWING
CULVERT DRAINAGE MAPS

DRAWING NO.

CD-6

SHEET 6 OF 12

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ENGINEER R.WIGHTMAN

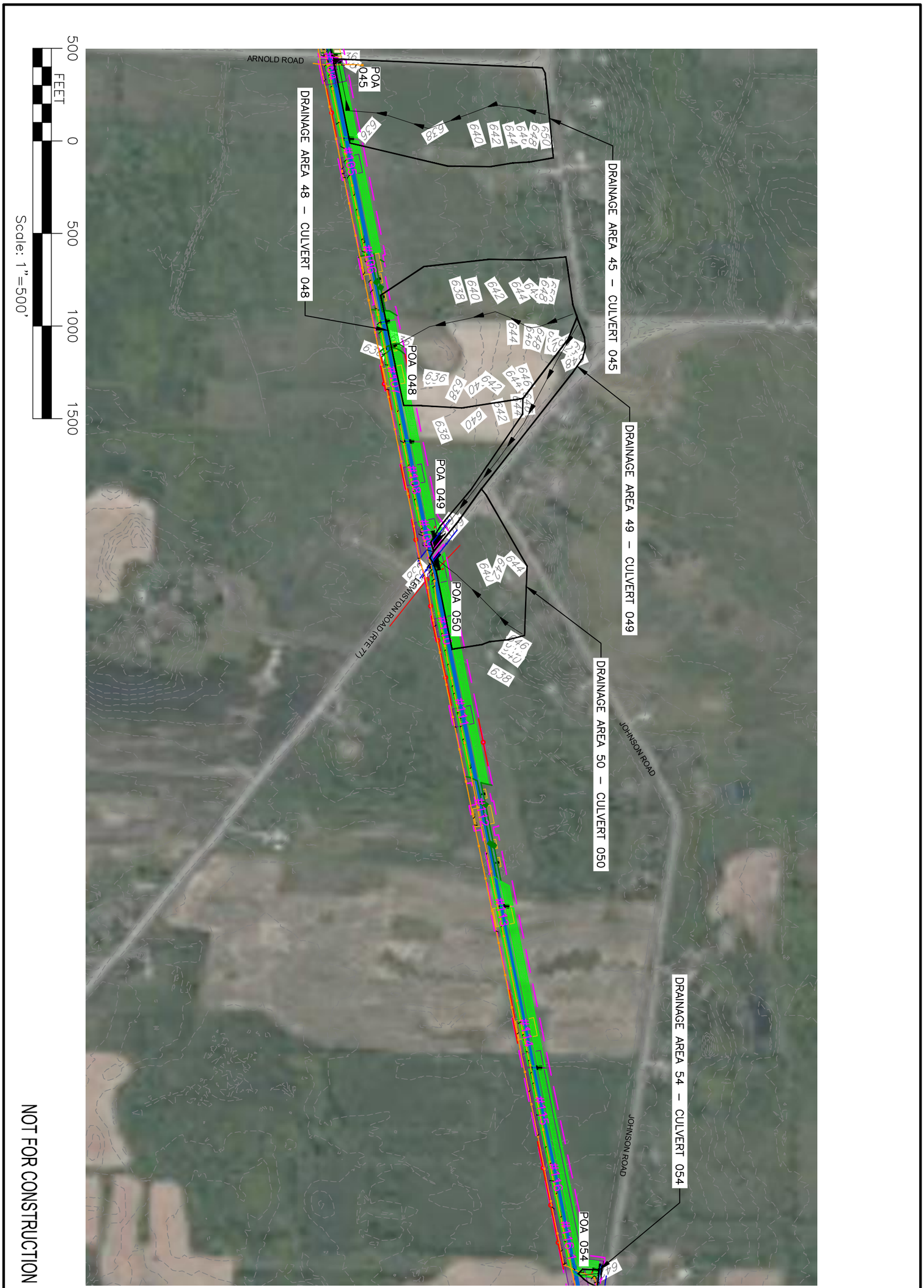
PROJECT
LOCKPORT BATAVIA
NEW YORK
PROPOSED CULVERTS
TOWN OF ROYALTON

TITLE OF DRAWING
CULVERT DRAINAGE MAPS

DRAWING NO.
CD-7

SHEET 7 OF 12

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DRAWING NO.
CD-8
SHEET 8 OF 12

PROJECT
LOCKPORT BATAVIA
NEW YORK
PROPOSED CULVERTS
TOWN OF ROYALTON

TITLE OF DRAWING
CULVERT DRAINAGE MAPS

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PROJECT MANAGER	
T. LIBERTY	
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D. JIMENEZ	R.WIGHTMAN
SCALE	ENGINEER
AS SHOWN	R.WIGHTMAN

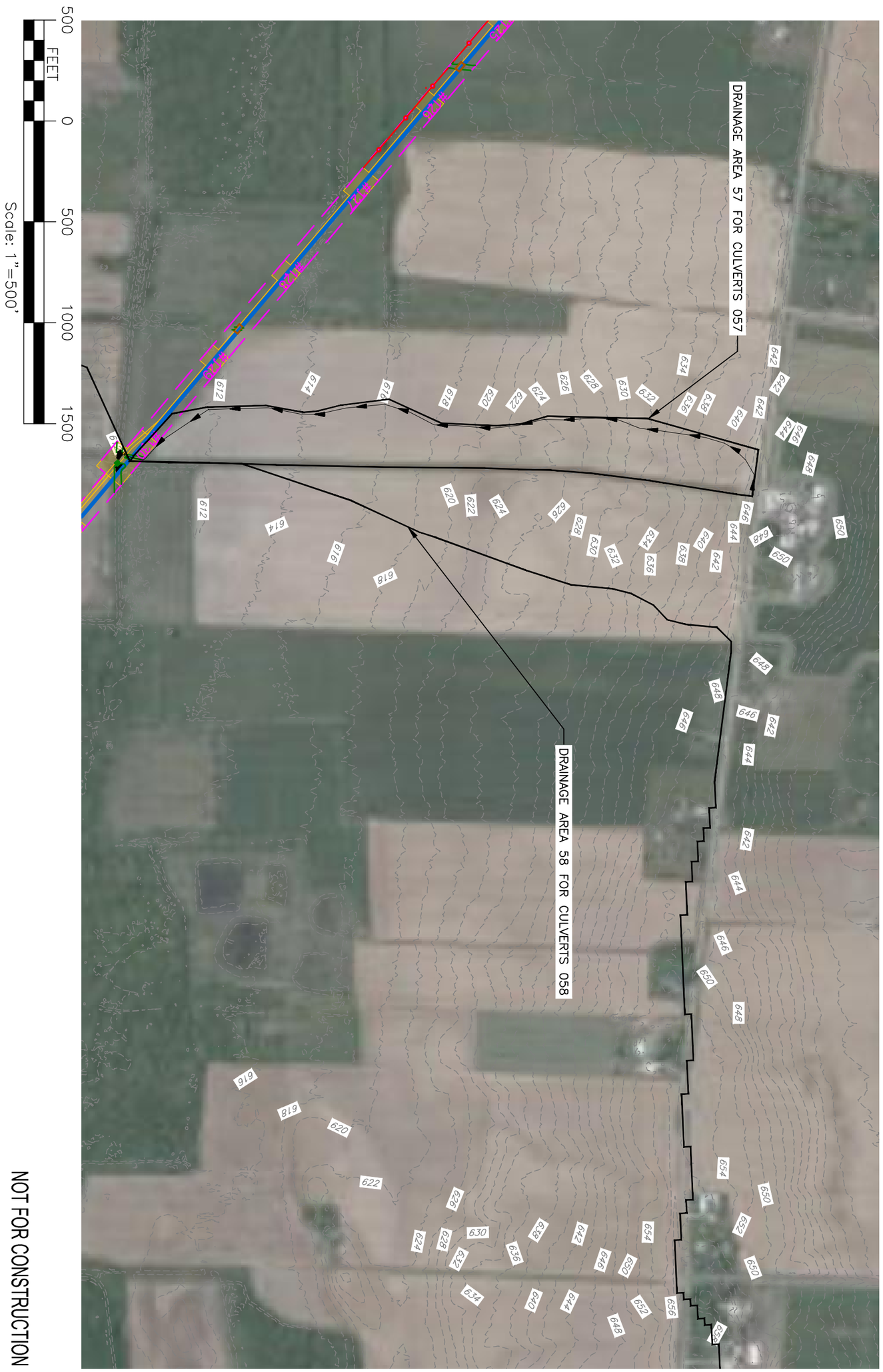
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CD-9

SHEET 9 OF 12

DRAWING NO.

PROJECT
LOCKPORT BATAVIA
NEW YORK
PROPOSED CULVERTS
TOWN OF ROYALTON

TITLE OF DRAWING
CULVERT DRAINAGE MAPS

FA PROJECT NO.	ISSUE DATE
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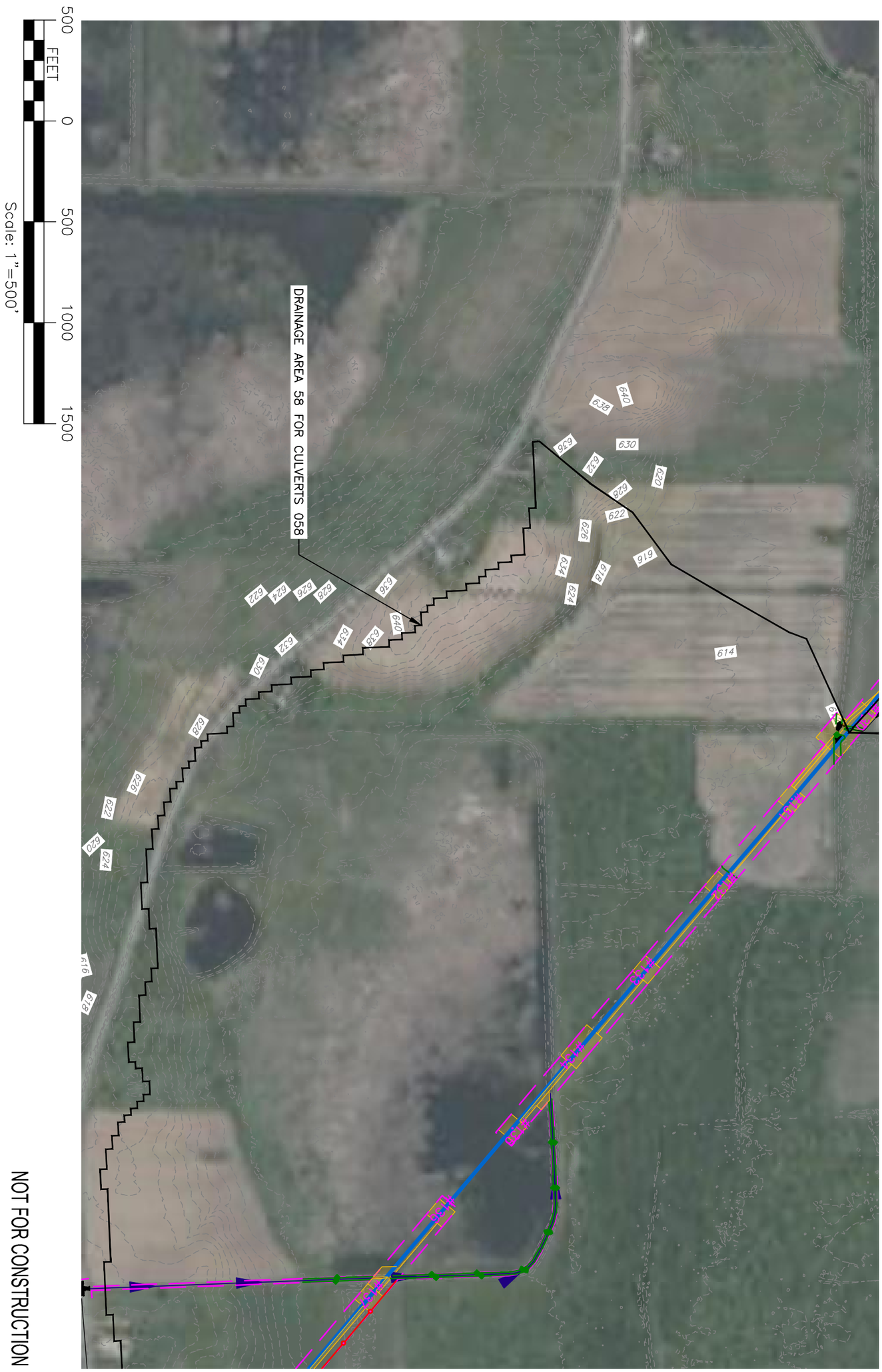
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CD-10
DRAWING NO.
SHEET 10 OF 12

PROJECT
LOCKPORT BATAVIA
NEW YORK
PROPOSED CULVERTS
TOWN OF ROYALTON

TITLE OF DRAWING
CULVERT DRAINAGE MAPS

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ISSUE DATE 2025
PROJECT MANAGER T. LIBERTY
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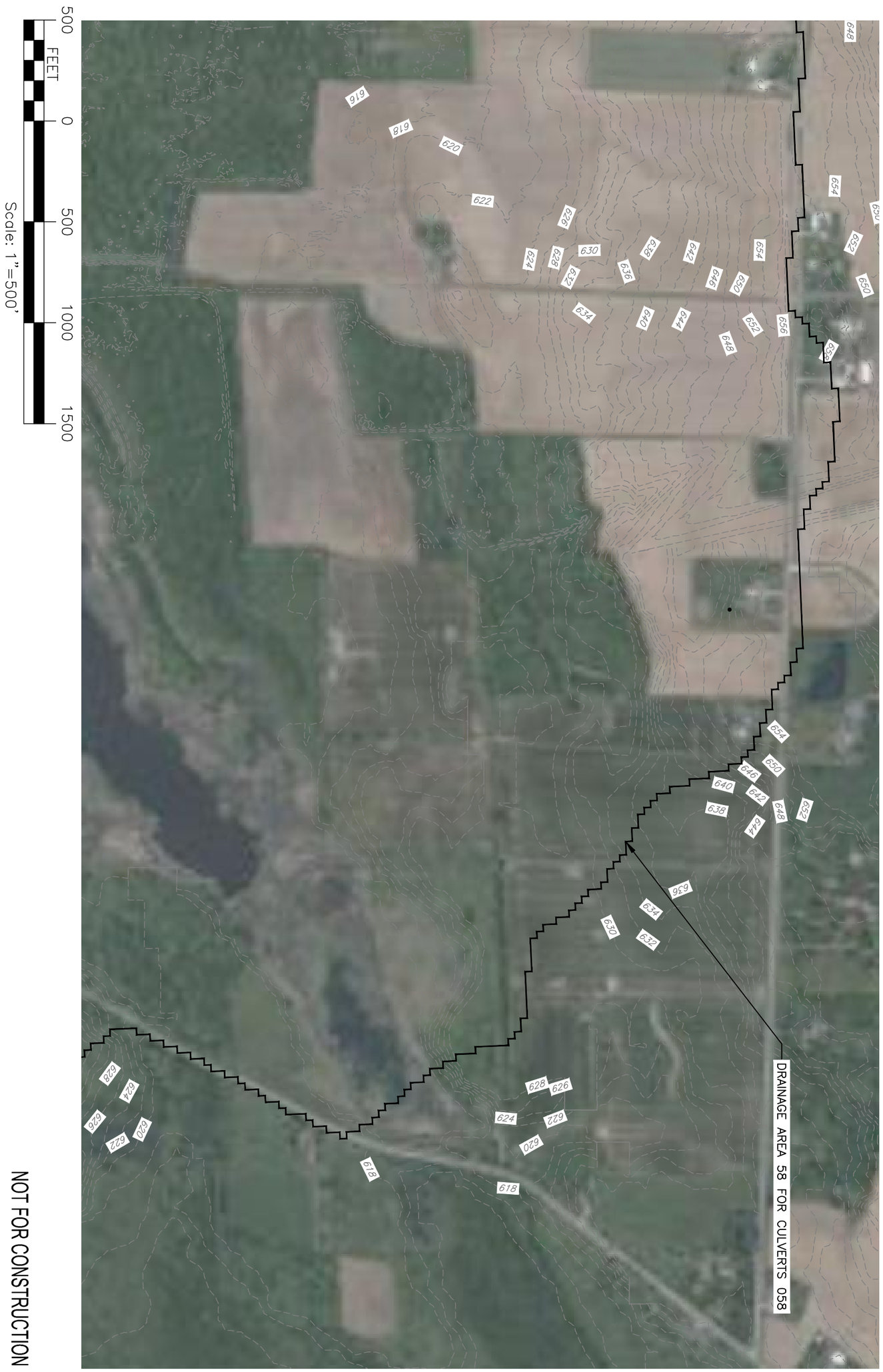
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CD-11
DRAWING NO.
SHEET 11 OF 12

PROJECT
LOCKPORT BATAVIA
NEW YORK
PROPOSED CULVERTS
TOWN OF ROYALTON

TITLE OF DRAWING
CULVERT DRAINAGE MAPS

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ISSUE DATE 2025
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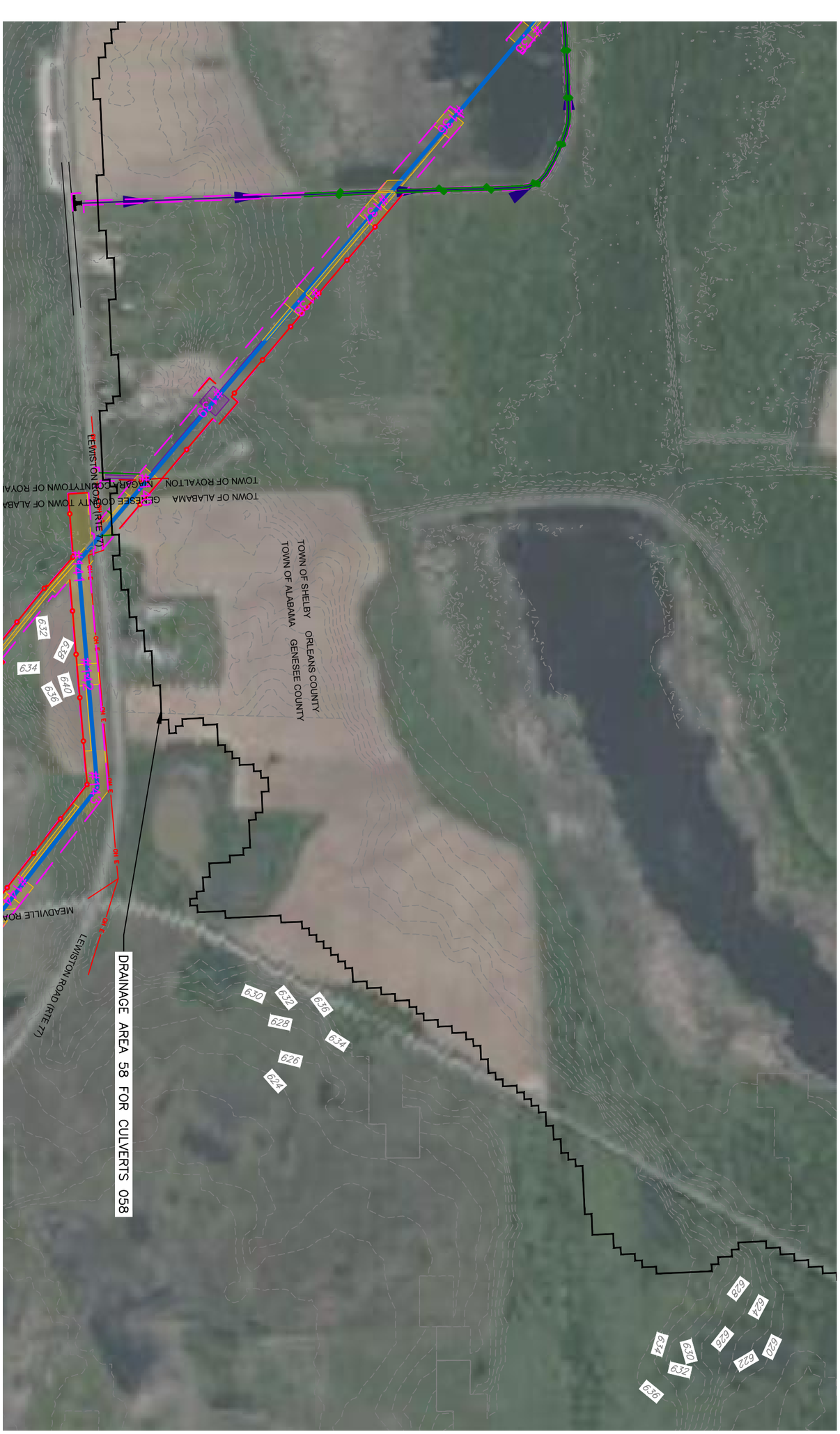
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CD-12

DRAWING NO.

SHEET 12 OF 12

PROJECT
LOCKPORT BATAVIA
NEW YORK
PROPOSED CULVERTS
TOWNS OF ROYALTON, ALABAMA, & SHELBY

TITLE OF DRAWING
CULVERT DRAINAGE MAPS

FA PROJECT NO. 190176
ISSUE DATE 2025
PROJECT MANAGER T. LIBERTY
DRAWN BY D. JIMENEZ
DRAWING CHK R. WIGHTMAN
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Routing Diagram for DA 1-19 REV 20260123
Prepared by Fisher Associates, Printed 1/23/2026
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Project Notes

Rainfall events imported from "NRCS-Rain.txt" for 7076 NY Niagara
Rainfall events imported from "NRCS-Rain.txt" for 7076 NY Niagara
Defined 7 rainfall events from NY-LB-DA1-5 IDF
Defined 7 rainfall events from NY-LB-DA1-5 IDF
Copied 10 events from NY - Lockport 24-hr S1 storm
Copied 7 events from NY - Lockport Batavia 24-hr S1 storm

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-yr	NY - Lockport Batavia 24-hr S1	1-yr	Default	24.00	1	1.87	2
2	10-yr	NY - Lockport Batavia 24-hr S1	10-yr	Default	24.00	1	3.24	2
3	100-yr	NY - Lockport Batavia 24-hr S1	100-yr	Default	24.00	1	4.88	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.064	30	A - 30 - Deciduous Forest (15S)
0.063	30	A - 30 - Meadowed, grass, non-grazed land (15S)
0.134	39	A - 39 - Developed open space (15S)
0.938	46	A - 46 - Developed Low intensity (15S)
0.065	54	A - 54 - Developed Med intensity (15S)
46.218	77	D - 77 - Deciduous Forest (15S, 20S, 23S, 24S, 26S, 28S, 46S)
0.978	77	D - 77 - Evergreen Forest (20S)
1.557	77	D - 77 - Mixed Forest (20S)
257.330	78	D - 78 - Meadowed, grass, non-grazed land (15S, 16S, 17S, 18S, 20S, 21S, 23S, 24S, 25S, 26S, 28S, 29S, 37S, 46S)
20.571	80	D - 80 - Developed open space (15S, 16S, 17S, 18S, 20S, 21S, 24S, 25S, 26S, 29S, 46S)
29.877	82	D - 82 - Developed Low intensity (15S, 16S, 17S, 18S, 20S, 21S, 24S, 25S, 46S)
4.406	85	D - 85 - Developed Med intensity (15S, 16S, 17S, 20S, 46S)
1.795	85	D - 85 - Grassland/Herbaceous (17S, 18S)
43.288	90	D - 90 - Woody Wetlands (20S, 21S, 23S, 37S)
0.441	93	D - 93 - Developed High intensity (16S)
0.152	98	D - 98 - Open Water (20S)
407.877	**80**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
407.877	Other	15S, 16S, 17S, 18S, 20S, 21S, 23S, 24S, 25S, 26S, 28S, 29S, 37S, 46S
407.877		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Sub Nur
0.000	0.000	0.000	0.000	0.064	0.064	A - 30 - Deciduous Forest	
0.000	0.000	0.000	0.000	0.063	0.063	A - 30 - Meadowed, grass, non-grazed land	
0.000	0.000	0.000	0.000	0.134	0.134	A - 39 - Developed open space	
0.000	0.000	0.000	0.000	0.938	0.938	A - 46 - Developed Low intensity	
0.000	0.000	0.000	0.000	0.065	0.065	A - 54 - Developed Med intensity	
0.000	0.000	0.000	0.000	46.218	46.218	D - 77 - Deciduous Forest	
0.000	0.000	0.000	0.000	0.978	0.978	D - 77 - Evergreen Forest	
0.000	0.000	0.000	0.000	1.557	1.557	D - 77 - Mixed Forest	
0.000	0.000	0.000	0.000	257.330	257.330	D - 78 - Meadowed, grass, non-grazed land	
0.000	0.000	0.000	0.000	20.571	20.571	D - 80 - Developed open space	
0.000	0.000	0.000	0.000	29.877	29.877	D - 82 - Developed Low intensity	
0.000	0.000	0.000	0.000	4.406	4.406	D - 85 - Developed Med intensity	
0.000	0.000	0.000	0.000	1.795	1.795	D - 85 - Grassland/Herbaceous	
0.000	0.000	0.000	0.000	43.288	43.288	D - 90 - Woody Wetlands	
0.000	0.000	0.000	0.000	0.441	0.441	D - 93 - Developed High intensity	
0.000	0.000	0.000	0.000	0.152	0.152	D - 98 - Open Water	
0.000	**0.000**	**0.000**	**0.000**	**407.877**	**407.877**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	6P	623.60	623.42	26.0	0.0069	0.012	0.0	18.0	3.6	
2	7P	622.13	621.78	45.0	0.0078	0.012	0.0	24.0	4.8	
3	8P	623.37	622.41	75.0	0.0128	0.012	0.0	18.0	3.6	
4	10P	623.15	622.17	31.0	0.0316	0.012	0.0	18.0	3.6	
5	11P	623.54	623.47	31.0	0.0023	0.012	0.0	18.0	3.6	
6	12P	623.60	623.27	31.0	0.0106	0.012	0.0	18.0	3.6	
7	13P	622.50	622.27	31.0	0.0074	0.012	0.0	24.0	4.8	
8	14P	619.45	618.07	75.0	0.0184	0.012	0.0	18.0	3.6	
9	31P	616.17	614.58	44.0	0.0361	0.012	0.0	18.0	3.6	
10	32P	614.82	614.75	60.0	0.0012	0.012	0.0	18.0	3.6	
11	34P	621.23	620.53	27.0	0.0259	0.012	0.0	30.0	6.0	
12	35P	629.72	628.62	22.0	0.0500	0.012	0.0	18.0	3.6	
13	35P	627.64	627.35	22.0	0.0132	0.012	0.0	18.0	3.6	
14	35P	628.42	628.36	22.0	0.0027	0.012	0.0	18.0	3.6	
15	35P	628.90	628.68	22.0	0.0100	0.012	0.0	18.0	3.6	

Time span=5.00-48.00 hrs, dt=0.05 hrs, 861 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment15S: DA 1 Runoff Area=13.622 ac 0.00% Impervious Runoff Depth=0.41"
Flow Length=968' Tc=21.2 min CN=78 Runoff=3.95 cfs 0.469 af

Subcatchment16S: DA 2-5 Runoff Area=3.251 ac 0.00% Impervious Runoff Depth=0.61"
Flow Length=403' Tc=8.5 min CN=83 Runoff=2.40 cfs 0.165 af

Subcatchment17S: DA 7 Runoff Area=9.445 ac 0.00% Impervious Runoff Depth=0.48"
Flow Length=888' Tc=21.2 min CN=80 Runoff=3.44 cfs 0.382 af

Subcatchment18S: DA 8 Runoff Area=5.077 ac 0.00% Impervious Runoff Depth=0.52"
Flow Length=924' Tc=30.2 min CN=81 Runoff=1.69 cfs 0.222 af

Subcatchment20S: DA 10 Runoff Area=141.450 ac 0.11% Impervious Runoff Depth=0.52"
Flow Length=6,066' Tc=181.5 min CN=81 Runoff=14.42 cfs 6.174 af

Subcatchment21S: DA 11 Runoff Area=3.830 ac 0.00% Impervious Runoff Depth=0.81"
Flow Length=828' Tc=110.7 min CN=87 Runoff=0.95 cfs 0.257 af

Subcatchment23S: DA 13 Runoff Area=5.832 ac 0.00% Impervious Runoff Depth=0.65"
Flow Length=938' Tc=54.7 min CN=84 Runoff=1.82 cfs 0.318 af

Subcatchment24S: DA 14 Runoff Area=12.438 ac 0.00% Impervious Runoff Depth=0.45"
Flow Length=1,215' Tc=54.9 min CN=79 Runoff=2.40 cfs 0.465 af

Subcatchment25S: DA 15 Runoff Area=5.030 ac 0.00% Impervious Runoff Depth=0.48"
Flow Length=1,411' Tc=78.0 min CN=80 Runoff=0.86 cfs 0.203 af

Subcatchment26S: DA 16 Runoff Area=12.541 ac 0.00% Impervious Runoff Depth=0.41"
Flow Length=1,389' Tc=92.7 min CN=78 Runoff=1.54 cfs 0.432 af

Subcatchment28S: DA 18 Runoff Area=9.113 ac 0.00% Impervious Runoff Depth=0.41"
Flow Length=1,597' Tc=97.5 min CN=78 Runoff=1.08 cfs 0.314 af

Subcatchment29S: DA 19 Runoff Area=0.196 ac 0.00% Impervious Runoff Depth=0.48"
Flow Length=90' Slope=0.0111 '/' Tc=13.7 min CN=80 Runoff=0.09 cfs 0.008 af

Subcatchment37S: DA 12 Runoff Area=2.875 ac 0.00% Impervious Runoff Depth=0.86"
Flow Length=788' Tc=134.3 min CN=88 Runoff=0.67 cfs 0.206 af

Subcatchment46S: DA 17 Runoff Area=183.177 ac 0.00% Impervious Runoff Depth=0.41"
Flow Length=3,922' Tc=148.9 min CN=78 Runoff=16.19 cfs 6.309 af

Pond 6P: Culvert 011 Peak Elev=624.32' Inflow=0.95 cfs 0.257 af
Outflow=0.95 cfs 0.257 af

Pond 7P: Culvert 014 Peak Elev=623.17' Inflow=2.40 cfs 0.465 af
Outflow=2.40 cfs 0.465 af

Pond 8P: Culvert 015 Peak Elev=624.07' Inflow=0.86 cfs 0.203 af
Outflow=0.86 cfs 0.203 af

Pond 10P: Culvert 018 Peak Elev=623.91' Inflow=1.08 cfs 0.314 af
Outflow=1.08 cfs 0.314 af

Pond 11P: Culvert 012 Peak Elev=624.20' Inflow=0.67 cfs 0.206 af
Outflow=0.67 cfs 0.206 af

Pond 12P: Culvert 013 Peak Elev=624.54' Inflow=1.82 cfs 0.318 af
Outflow=1.82 cfs 0.318 af

Pond 13P: Culvert 016 Peak Elev=623.38' Inflow=1.54 cfs 0.432 af
Outflow=1.54 cfs 0.432 af

Pond 14P: Culvert 019 Peak Elev=619.84' Inflow=0.09 cfs 0.008 af
Outflow=0.09 cfs 0.008 af

Pond 31P: Culvert 007 Peak Elev=617.45' Inflow=3.44 cfs 0.382 af
Outflow=3.44 cfs 0.382 af

Pond 32P: Culvert 008 Peak Elev=615.82' Inflow=1.69 cfs 0.222 af
Outflow=1.69 cfs 0.222 af

Pond 34P: Culvert 001 Peak Elev=622.50' Inflow=3.95 cfs 0.469 af
Outflow=3.95 cfs 0.469 af

Pond 35P: Culvert 002-005 Peak Elev=628.71' Inflow=2.40 cfs 0.165 af
Outflow=2.40 cfs 0.165 af

Total Runoff Area = 407.877 ac Runoff Volume = 15.923 af Average Runoff Depth = 0.47"
99.96% Pervious = 407.725 ac 0.04% Impervious = 0.152 ac

Summary for Subcatchment 15S: DA 1

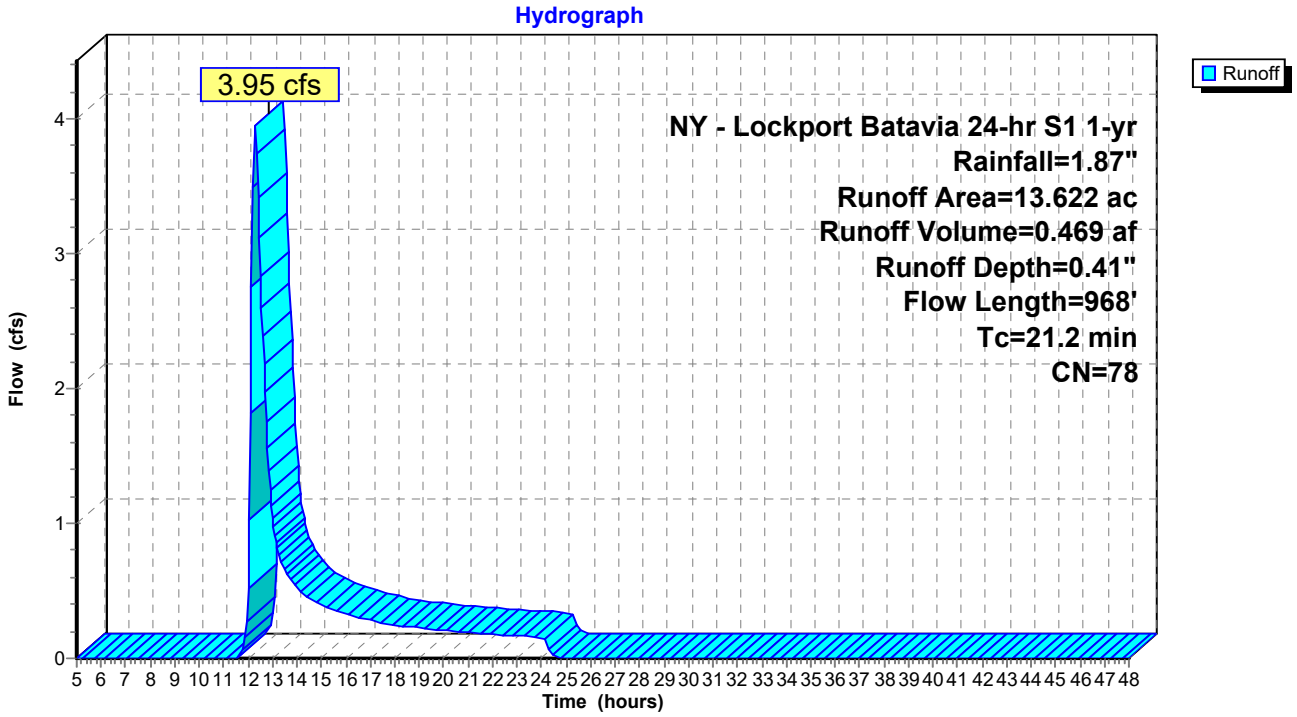
Runoff = 3.95 cfs @ 12.29 hrs, Volume= 0.469 af, Depth= 0.41"
Routed to Pond 34P : Culvert 001

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.134	39	A - 39 - Developed open space
*	0.938	46	A - 46 - Developed Low intensity
*	0.065	54	A - 54 - Developed Med intensity
*	0.064	30	A - 30 - Deciduous Forest
*	0.063	30	A - 30 - Meadowed, grass, non-grazed land
*	0.293	80	D - 80 - Developed open space
*	1.950	82	D - 82 - Developed Low intensity
*	0.320	85	D - 85 - Developed Med intensity
*	0.105	77	D - 77 - Deciduous Forest
*	0.497	78	D - 78 - Meadowed, grass, non-grazed land
*	1.157	80	D - 80 - Developed open space
*	4.870	82	D - 82 - Developed Low intensity
*	0.999	85	D - 85 - Developed Med intensity
*	2.167	78	D - 78 - Meadowed, grass, non-grazed land
	13.622	78	Weighted Average
	13.622		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	100	0.0125	0.95		**Sheet Flow, 100' Sheet** Smooth surfaces n= 0.011 P2= 2.21"
4.1	180	0.0013	0.73		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
4.3	300	0.0033	1.17		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
6.7	200	0.0050	0.49		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.3	188	0.0106	0.72		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
21.2	968	Total			

Subcatchment 15S: DA 1



Summary for Subcatchment 16S: DA 2-5

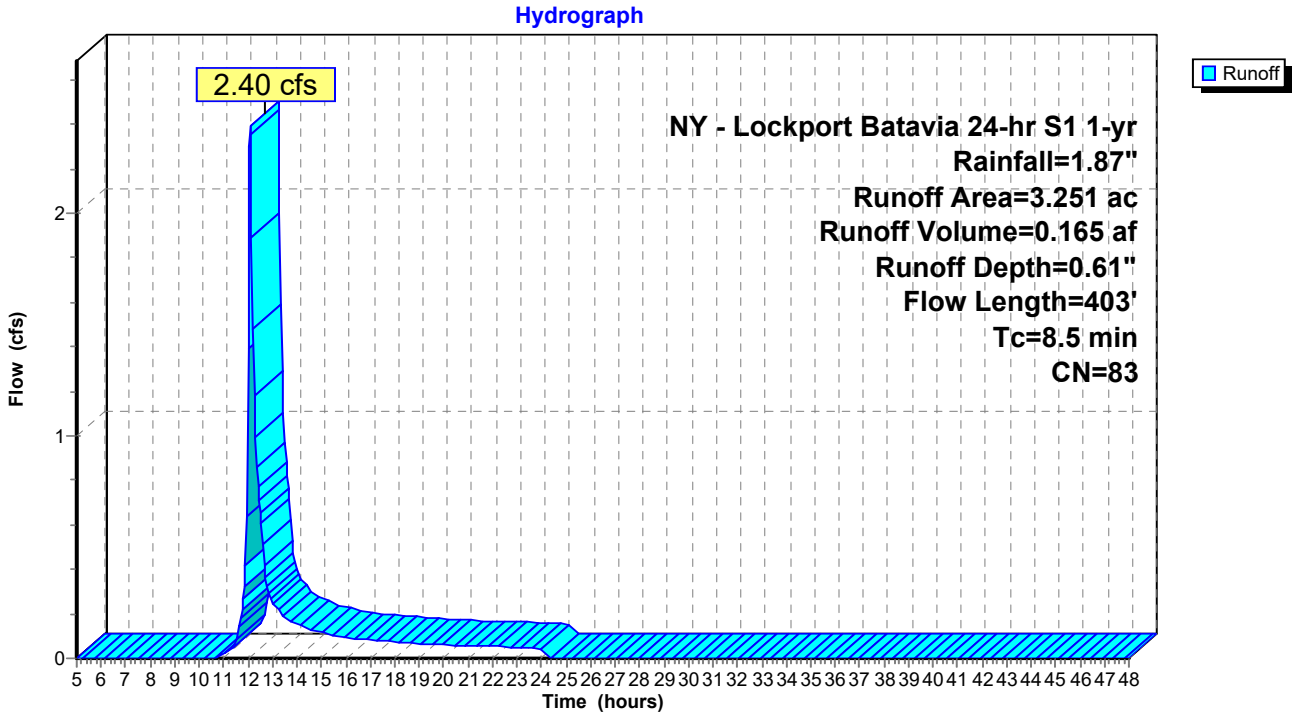
Runoff = 2.40 cfs @ 12.08 hrs, Volume= 0.165 af, Depth= 0.61"
Routed to Pond 35P : Culvert 002-005

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.854	80	D - 80 - Developed open space
*	0.145	82	D - 82 - Developed Low intensity
*	0.111	85	D - 85 - Developed Med intensity
*	0.124	80	D - 80 - Developed open space
*	0.018	82	D - 82 - Developed Low intensity
*	0.270	85	D - 85 - Developed Med intensity
*	0.894	80	D - 80 - Developed open space
*	0.077	82	D - 82 - Developed Low intensity
*	0.315	85	D - 85 - Developed Med intensity
*	0.441	93	D - 93 - Developed High intensity
*	0.002	78	D - 78 - Meadowed, grass, non-grazed land
	3.251	83	Weighted Average
	3.251		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0325	1.39		**Sheet Flow, 100'** Smooth surfaces n= 0.011 P2= 2.21"
0.3	49	0.0255	3.24		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.6	123	0.0041	1.30		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
4.2	91	0.0027	0.36		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.2	40	0.0063	0.56		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.5	403	Total			

Subcatchment 16S: DA 2-5



Summary for Subcatchment 17S: DA 7

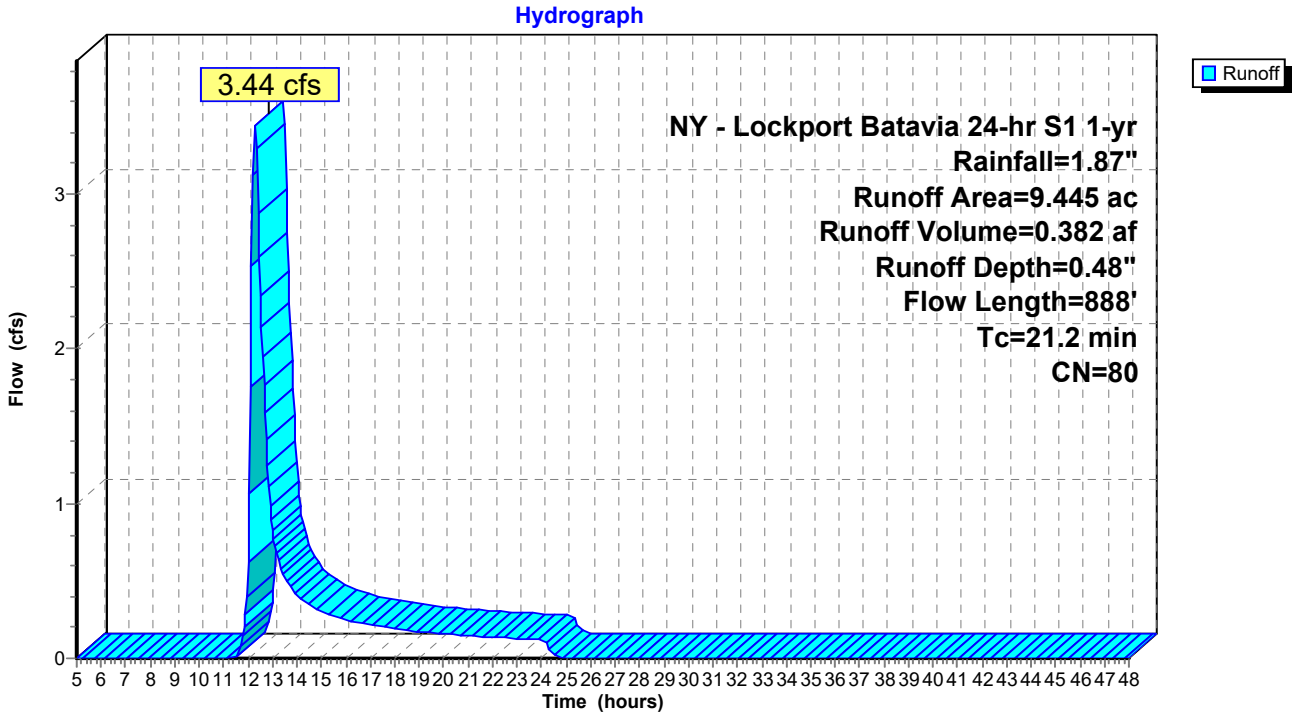
Runoff = 3.44 cfs @ 12.27 hrs, Volume= 0.382 af, Depth= 0.48"
Routed to Pond 31P : Culvert 007

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.134	80	D - 80 - Developed open space
*	0.231	82	D - 82 - Developed Low intensity
*	0.882	78	D - 78 - Meadowed, grass, non-grazed land
*	0.569	80	D - 80 - Developed open space
*	0.868	82	D - 82 - Developed Low intensity
*	0.054	85	D - 85 - Developed Med intensity
*	1.190	85	D - 85 - Grassland/Herbaceous
*	4.820	78	D - 78 - Meadowed, grass, non-grazed land
*	0.187	80	D - 80 - Developed open space
*	0.013	82	D - 82 - Developed Low intensity
*	0.497	78	D - 78 - Meadowed, grass, non-grazed land
	9.445	80	Weighted Average
	9.445		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0350	0.18		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.21"
4.6	202	0.0111	0.74		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.4	445	0.0126	1.68		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
2.8	141	0.0142	0.83		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
21.2	888	Total			

Subcatchment 17S: DA 7



Summary for Subcatchment 18S: DA 8

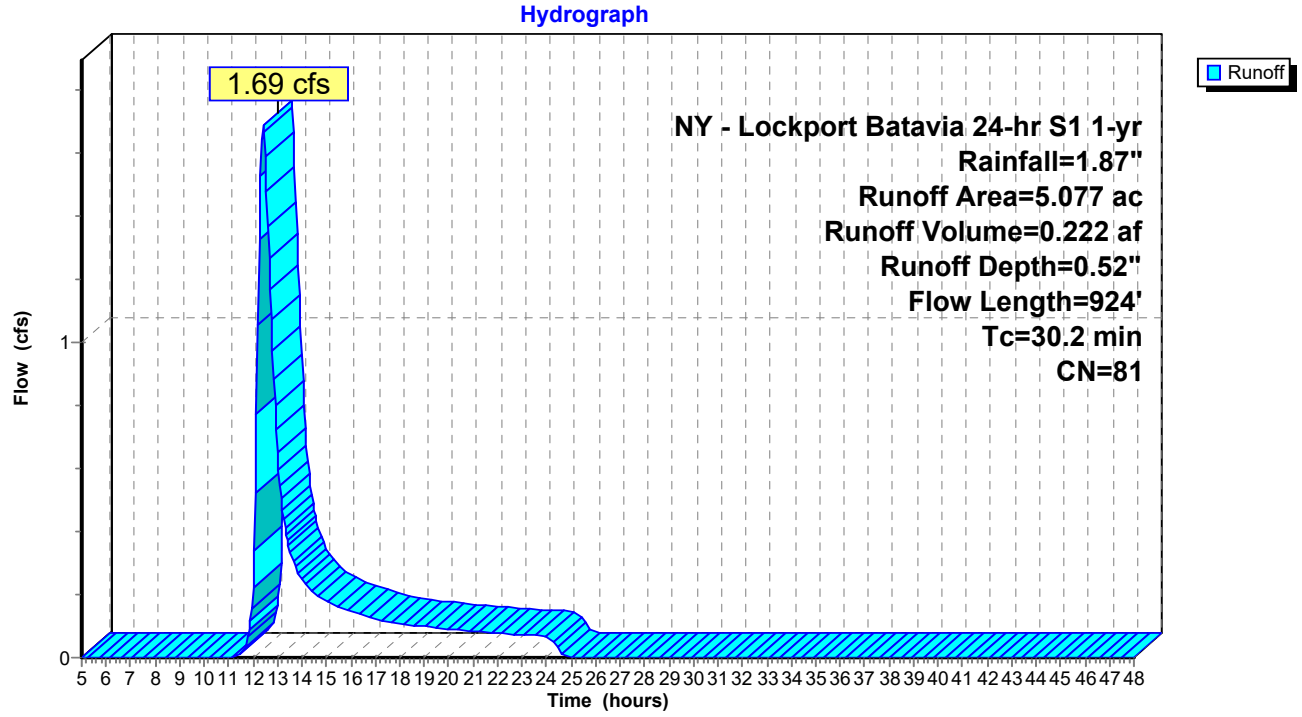
Runoff = 1.69 cfs @ 12.41 hrs, Volume= 0.222 af, Depth= 0.52"
Routed to Pond 32P : Culvert 008

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	2.612	80	D - 80 - Developed open space
*	1.184	82	D - 82 - Developed Low intensity
*	0.605	85	D - 85 - Grassland/Herbaceous
*	0.676	78	D - 78 - Meadowed, grass, non-grazed land
	5.077	81	Weighted Average
	5.077		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0173	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.21"
8.1	290	0.0073	0.60		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
9.6	534	0.0038	0.92		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
30.2	924	Total			

Subcatchment 18S: DA 8



Summary for Subcatchment 20S: DA 10

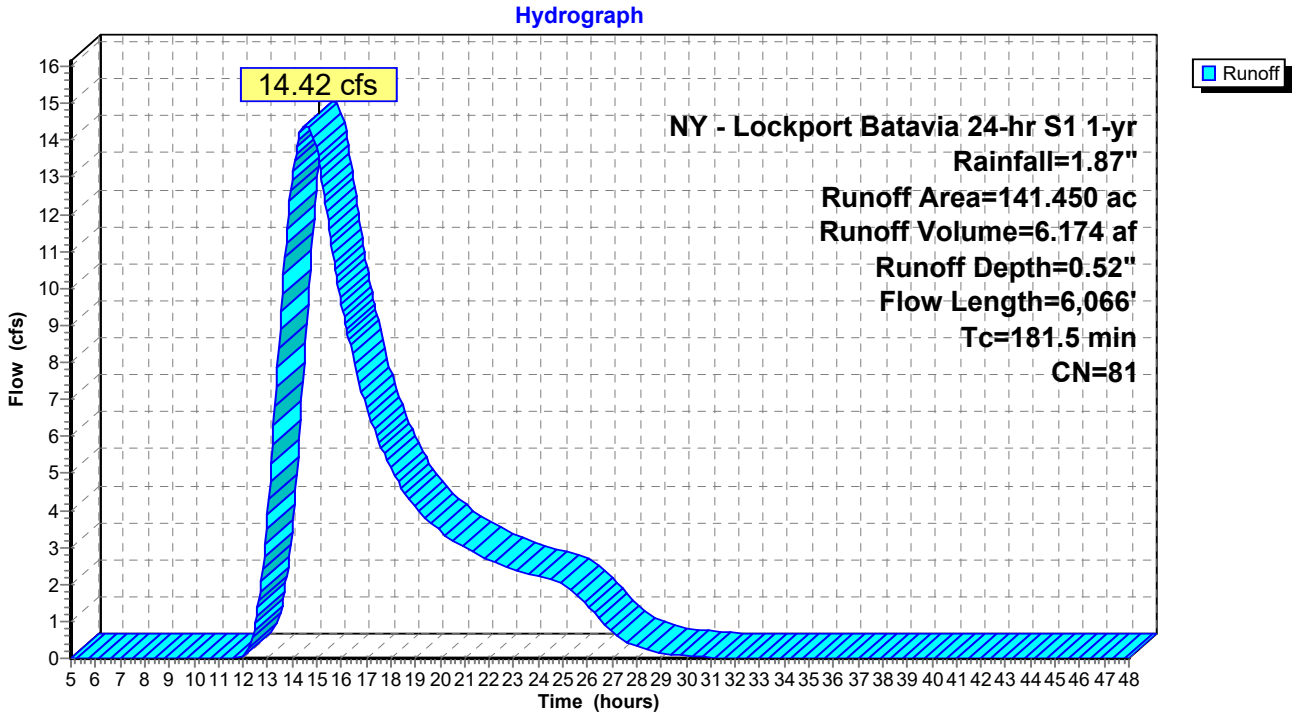
Runoff = 14.42 cfs @ 14.55 hrs, Volume= 6.174 af, Depth= 0.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.152	98	D - 98 - Open Water
*	0.074	80	D - 80 - Developed open space
*	0.307	80	D - 80 - Developed open space
*	2.363	80	D - 80 - Developed open space
*	1.992	82	D - 82 - Developed Low intensity
*	1.726	82	D - 82 - Developed Low intensity
*	2.185	85	D - 85 - Developed Med intensity
*	0.875	77	D - 77 - Deciduous Forest
*	18.239	77	D - 77 - Deciduous Forest
*	13.242	77	D - 77 - Deciduous Forest
*	0.038	77	D - 77 - Evergreen Forest
*	0.919	77	D - 77 - Evergreen Forest
*	0.021	77	D - 77 - Evergreen Forest
*	0.508	77	D - 77 - Mixed Forest
*	0.889	77	D - 77 - Mixed Forest
*	0.160	77	D - 77 - Mixed Forest
*	4.266	78	D - 78 - Meadowed, grass, non-grazed land
*	29.357	78	D - 78 - Meadowed, grass, non-grazed land
*	22.896	78	D - 78 - Meadowed, grass, non-grazed land
*	0.112	78	D - 78 - Meadowed, grass, non-grazed land
*	5.915	78	D - 78 - Meadowed, grass, non-grazed land
*	5.016	90	D - 90 - Woody Wetlands
*	30.198	90	D - 90 - Woody Wetlands
	141.450	81	Weighted Average
	141.298		99.89% Pervious Area
	0.152		0.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.7	100	0.0275	0.07		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.21"
31.2	1,144	0.0149	0.61		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.6	670	0.0026	0.76		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
12.9	328	0.0008	0.42		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
100.1	3,824	0.0018	0.64		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
181.5	6,066	Total			

Subcatchment 20S: DA 10



Summary for Subcatchment 21S: DA 11

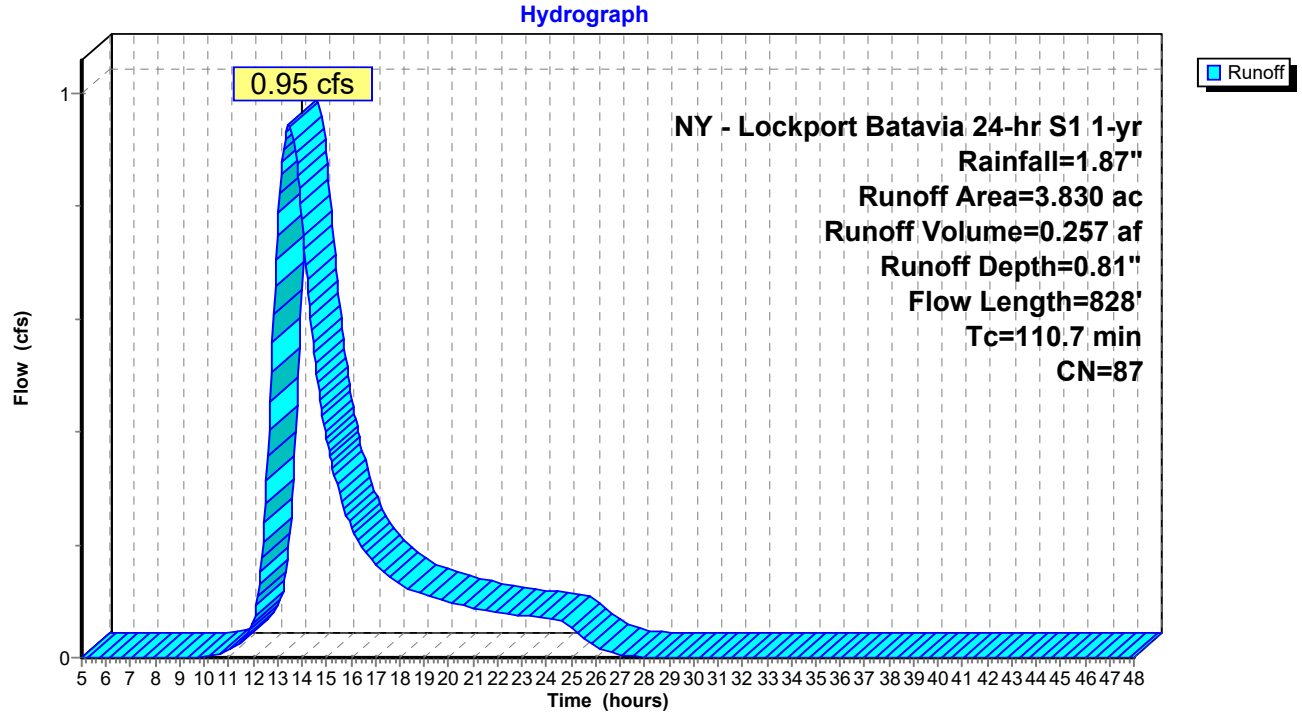
Runoff = 0.95 cfs @ 13.44 hrs, Volume= 0.257 af, Depth= 0.81"
Routed to Pond 6P : Culvert 011

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.183	80	D - 80 - Developed open space
*	0.651	82	D - 82 - Developed Low intensity
*	0.305	78	D - 78 - Meadowed, grass, non-grazed land
*	2.691	90	D - 90 - Woody Wetlands
	3.830	87	Weighted Average
	3.830		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.1	100	0.0425	0.09		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.21"
77.1	517	0.0005	0.11		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	211	0.0012	0.24		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
110.7	828	Total			

Subcatchment 21S: DA 11



Summary for Subcatchment 23S: DA 13

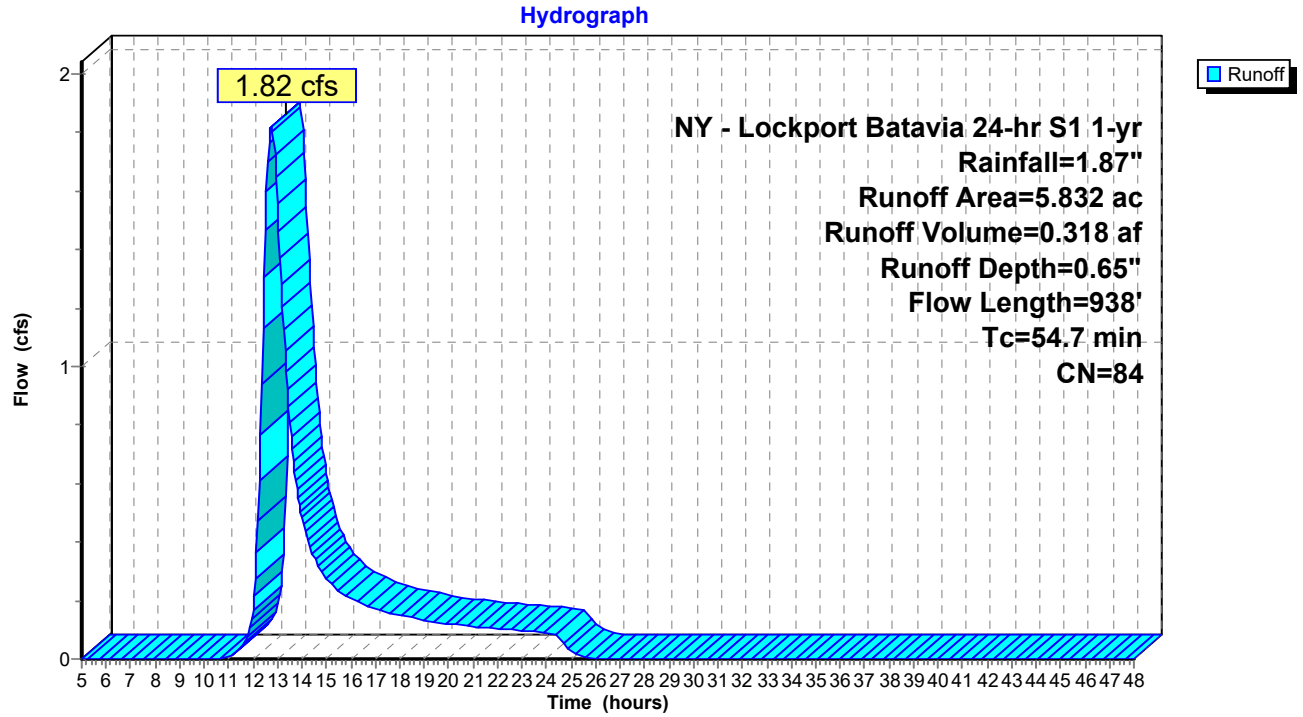
Runoff = 1.82 cfs @ 12.75 hrs, Volume= 0.318 af, Depth= 0.65"
Routed to Pond 12P : Culvert 013

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.222	77	D - 77 - Deciduous Forest
*	1.173	78	D - 78 - Meadowed, grass, non-grazed land
*	1.200	78	D - 78 - Meadowed, grass, non-grazed land
*	0.112	78	D - 78 - Meadowed, grass, non-grazed land
*	0.115	78	D - 78 - Meadowed, grass, non-grazed land
*	0.123	90	D - 90 - Woody Wetlands
*	2.887	90	D - 90 - Woody Wetlands
	5.832	84	Weighted Average
	5.832		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.0300	0.17		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.21"
44.7	838	0.0039	0.31		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
54.7	938	Total			

Subcatchment 23S: DA 13



Summary for Subcatchment 24S: DA 14

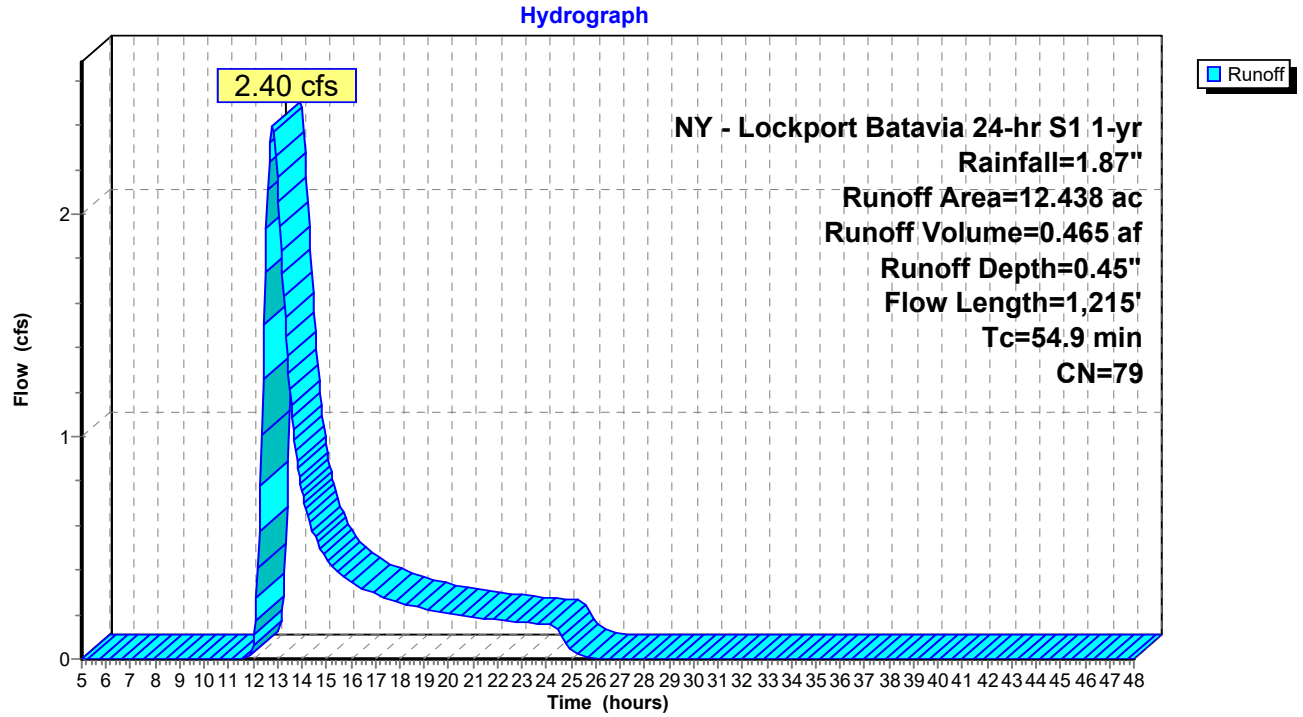
Runoff = 2.40 cfs @ 12.80 hrs, Volume= 0.465 af, Depth= 0.45"
Routed to Pond 7P : Culvert 014

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.143	80	D - 80 - Developed open space
*	0.461	80	D - 80 - Developed open space
*	1.014	82	D - 82 - Developed Low intensity
*	1.218	82	D - 82 - Developed Low intensity
*	0.081	77	D - 77 - Deciduous Forest
*	7.367	78	D - 78 - Meadowed, grass, non-grazed land
*	2.154	78	D - 78 - Meadowed, grass, non-grazed land
	12.438	79	Weighted Average
	12.438		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0200	0.14		**Sheet Flow, 100' sheet** Grass: Short n= 0.150 P2= 2.21"
43.1	1,115	0.0038	0.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
54.9	1,215	Total			

Subcatchment 24S: DA 14



Summary for Subcatchment 25S: DA 15

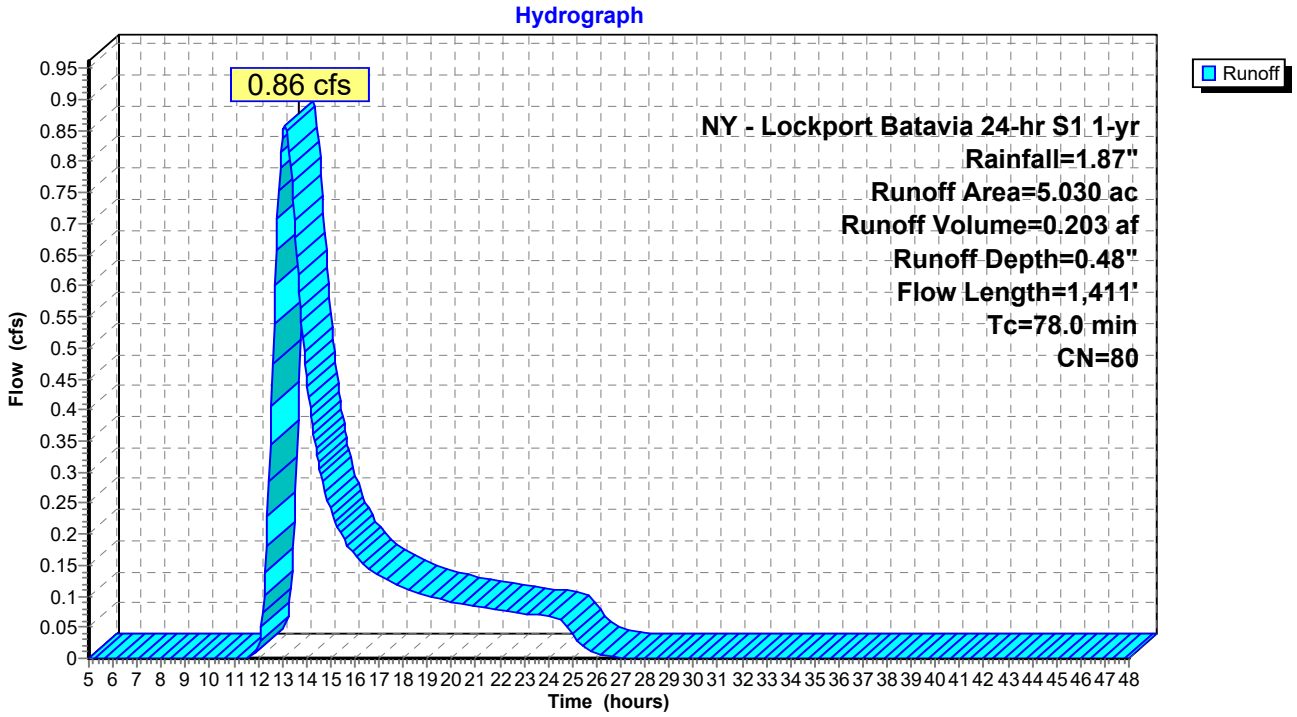
Runoff = 0.86 cfs @ 13.11 hrs, Volume= 0.203 af, Depth= 0.48"
Routed to Pond 8P : Culvert 015

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.345	80	D - 80 - Developed open space
*	0.249	80	D - 80 - Developed open space
*	0.809	80	D - 80 - Developed open space
*	0.107	82	D - 82 - Developed Low intensity
*	1.183	82	D - 82 - Developed Low intensity
*	0.330	78	D - 78 - Meadowed, grass, non-grazed land
*	0.809	78	D - 78 - Meadowed, grass, non-grazed land
*	1.198	78	D - 78 - Meadowed, grass, non-grazed land
	5.030	80	Weighted Average
	5.030		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.6	100	0.0100	0.11		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.21"
62.4	1,311	0.0025	0.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
78.0	1,411	Total			

Subcatchment 25S: DA 15



Summary for Subcatchment 26S: DA 16

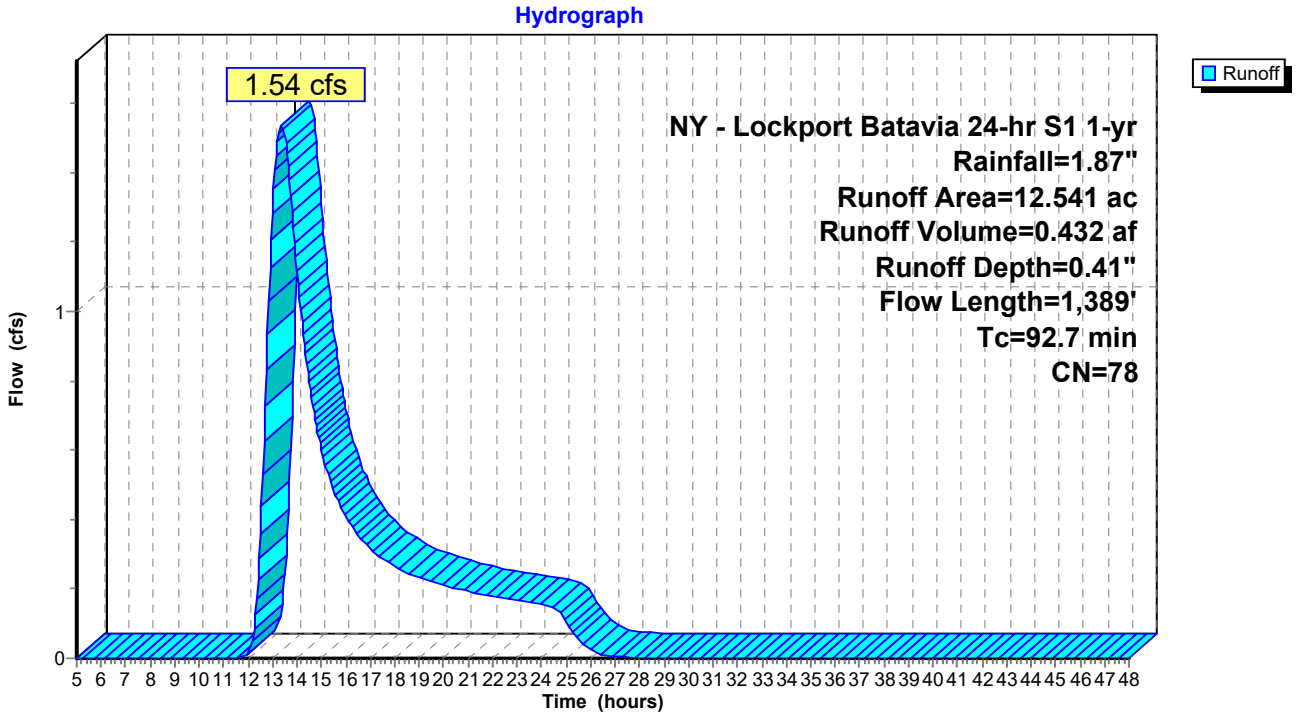
Runoff = 1.54 cfs @ 13.35 hrs, Volume= 0.432 af, Depth= 0.41"
Routed to Pond 13P : Culvert 016

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.003	80	D - 80 - Developed open space
*	1.259	77	D - 77 - Deciduous Forest
*	0.202	77	D - 77 - Deciduous Forest
*	0.926	78	D - 78 - Meadowed, grass, non-grazed land
*	3.759	78	D - 78 - Meadowed, grass, non-grazed land
*	6.392	78	D - 78 - Meadowed, grass, non-grazed land
	12.541	78	Weighted Average
	12.541		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.7	100	0.0225	0.07		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.21"
24.6	495	0.0045	0.34		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
43.4	794	0.0019	0.31		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
92.7	1,389	Total			

Subcatchment 26S: DA 16



Summary for Subcatchment 28S: DA 18

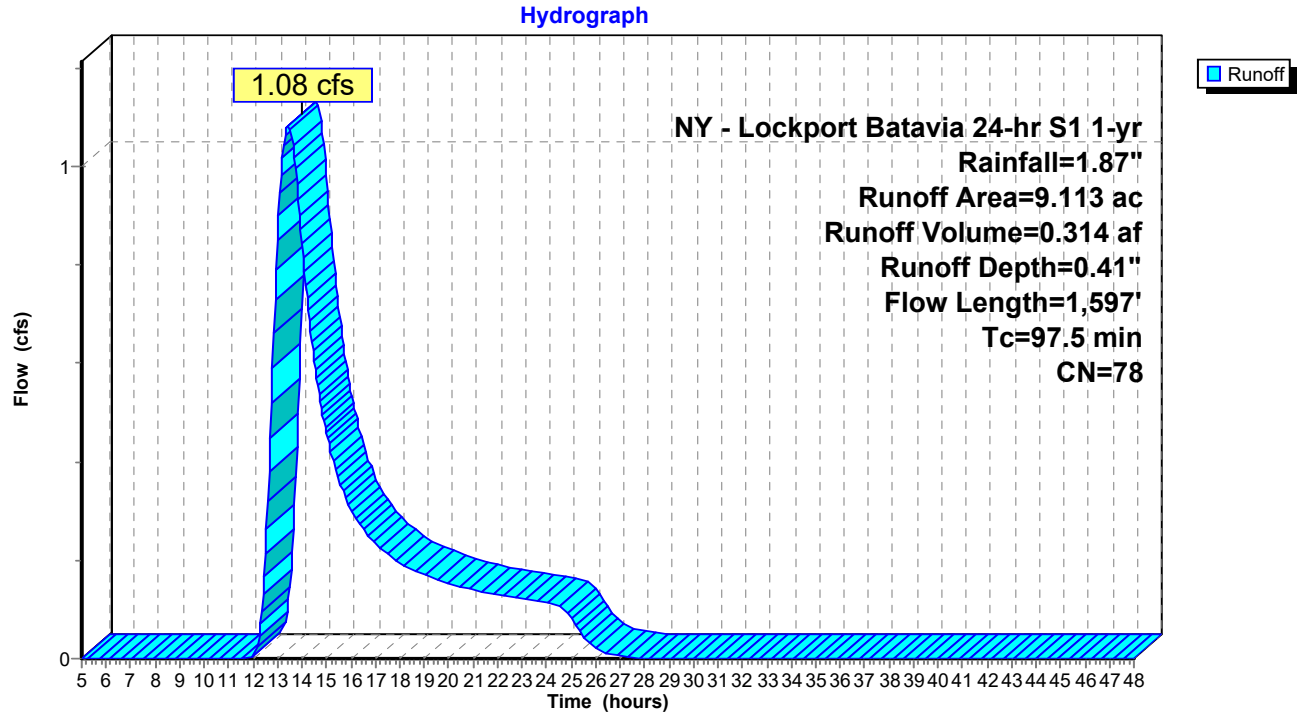
Runoff = 1.08 cfs @ 13.44 hrs, Volume= 0.314 af, Depth= 0.41"
Routed to Pond 10P : Culvert 018

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	3.755	77	D - 77 - Deciduous Forest
*	5.358	78	D - 78 - Meadowed, grass, non-grazed land
	9.113	78	Weighted Average
	9.113		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.1	100	0.0100	0.05		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.21"
63.4	1,497	0.0062	0.39		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.5	1,597	Total			

Subcatchment 28S: DA 18



Summary for Subcatchment 29S: DA 19

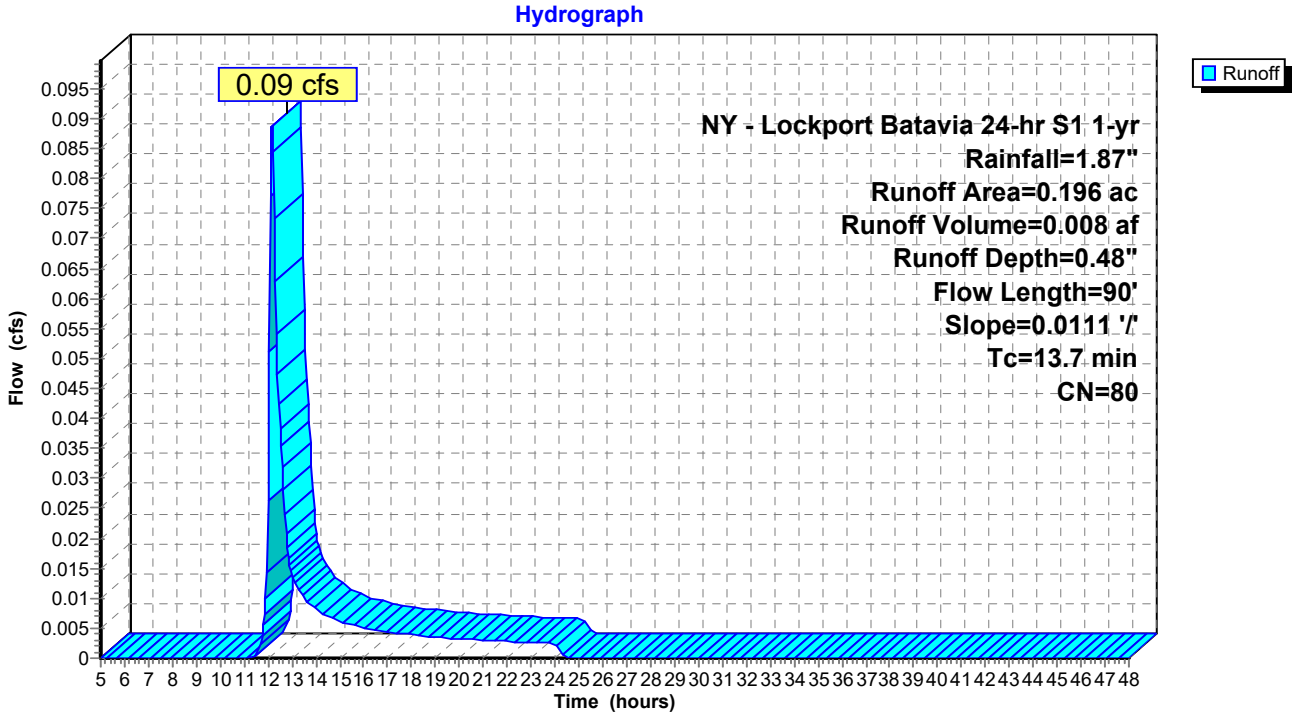
Runoff = 0.09 cfs @ 12.16 hrs, Volume= 0.008 af, Depth= 0.48"
Routed to Pond 14P : Culvert 019

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.195	80	D - 80 - Developed open space
*	0.001	78	D - 78 - Meadowed, grass, non-grazed land
	0.196	80	Weighted Average
	0.196		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	90	0.0111	0.11		**Sheet Flow, 90' Sheet** Grass: Short n= 0.150 P2= 2.21"

Subcatchment 29S: DA 19



Summary for Subcatchment 37S: DA 12

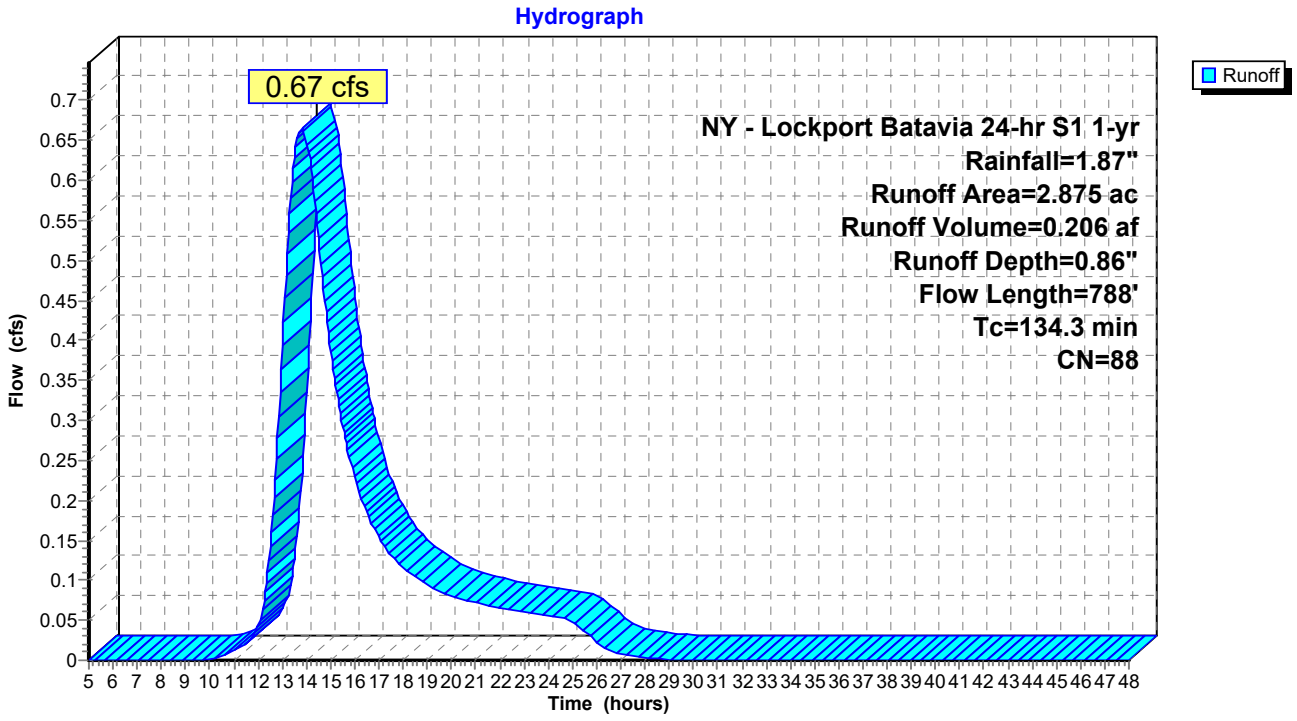
Runoff = 0.67 cfs @ 13.84 hrs, Volume= 0.206 af, Depth= 0.86"
Routed to Pond 11P : Culvert 012

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.052	78	D - 78 - Meadowed, grass, non-grazed land
*	0.450	78	D - 78 - Meadowed, grass, non-grazed land
*	2.373	90	D - 90 - Woody Wetlands
	2.875	88	Weighted Average
	2.875		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.6	100	0.0400	0.09		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.21"
114.7	688	0.0004	0.10		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
134.3	788	Total			

Subcatchment 37S: DA 12



Summary for Subcatchment 46S: DA 17

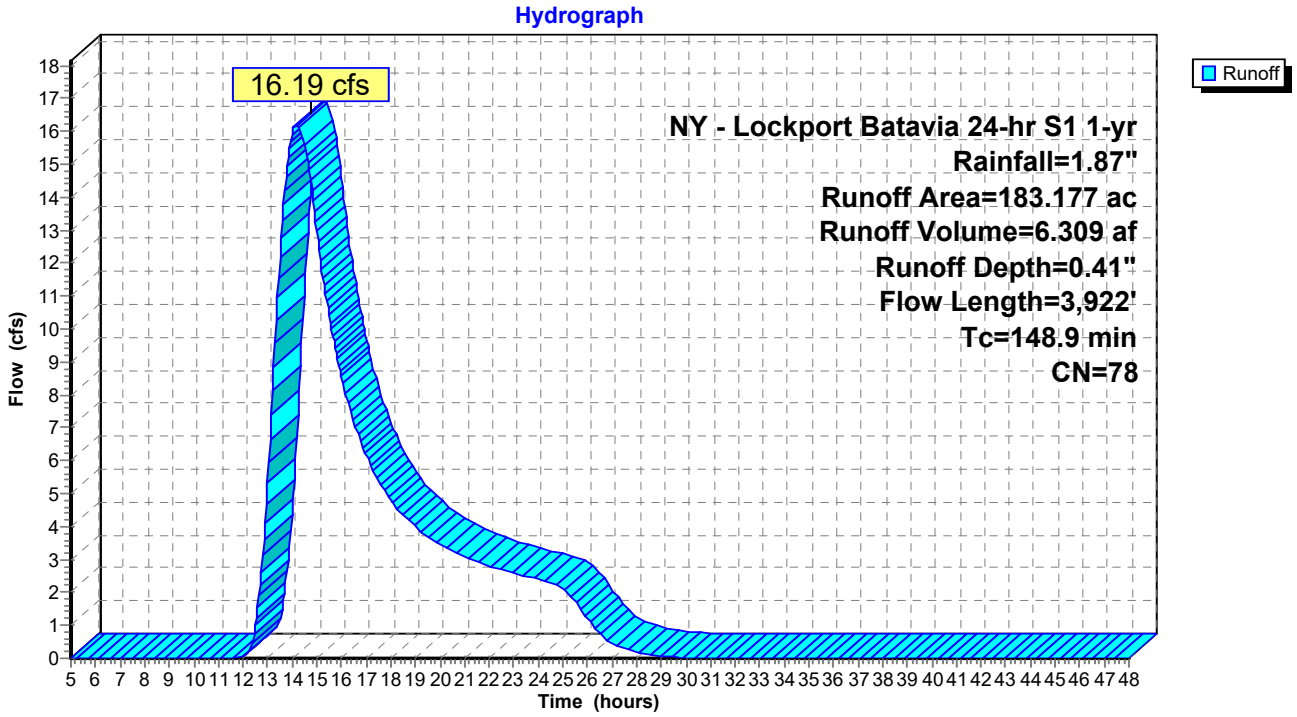
Runoff = 16.19 cfs @ 14.20 hrs, Volume= 6.309 af, Depth= 0.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	2.507	80	D - 80 - Developed open space
*	3.318	80	D - 80 - Developed open space
*	2.790	80	D - 80 - Developed open space
*	2.870	82	D - 82 - Developed Low intensity
*	4.979	82	D - 82 - Developed Low intensity
*	4.781	82	D - 82 - Developed Low intensity
*	0.152	85	D - 85 - Developed Med intensity
*	1.263	77	D - 77 - Deciduous Forest
*	3.431	77	D - 77 - Deciduous Forest
*	3.544	77	D - 77 - Deciduous Forest
*	14.732	78	D - 78 - Meadowed, grass, non-grazed land
*	59.055	78	D - 78 - Meadowed, grass, non-grazed land
*	79.755	78	D - 78 - Meadowed, grass, non-grazed land
	183.177	78	Weighted Average
	183.177		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.7	100	0.0350	0.08		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.21"
48.7	1,573	0.0116	0.54		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
62.0	1,276	0.0047	0.34		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
17.5	973	0.0038	0.92		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
148.9	3,922	Total			

Subcatchment 46S: DA 17



Summary for Pond 6P: Culvert 011

[57] Hint: Peaked at 624.32' (Flood elevation advised)

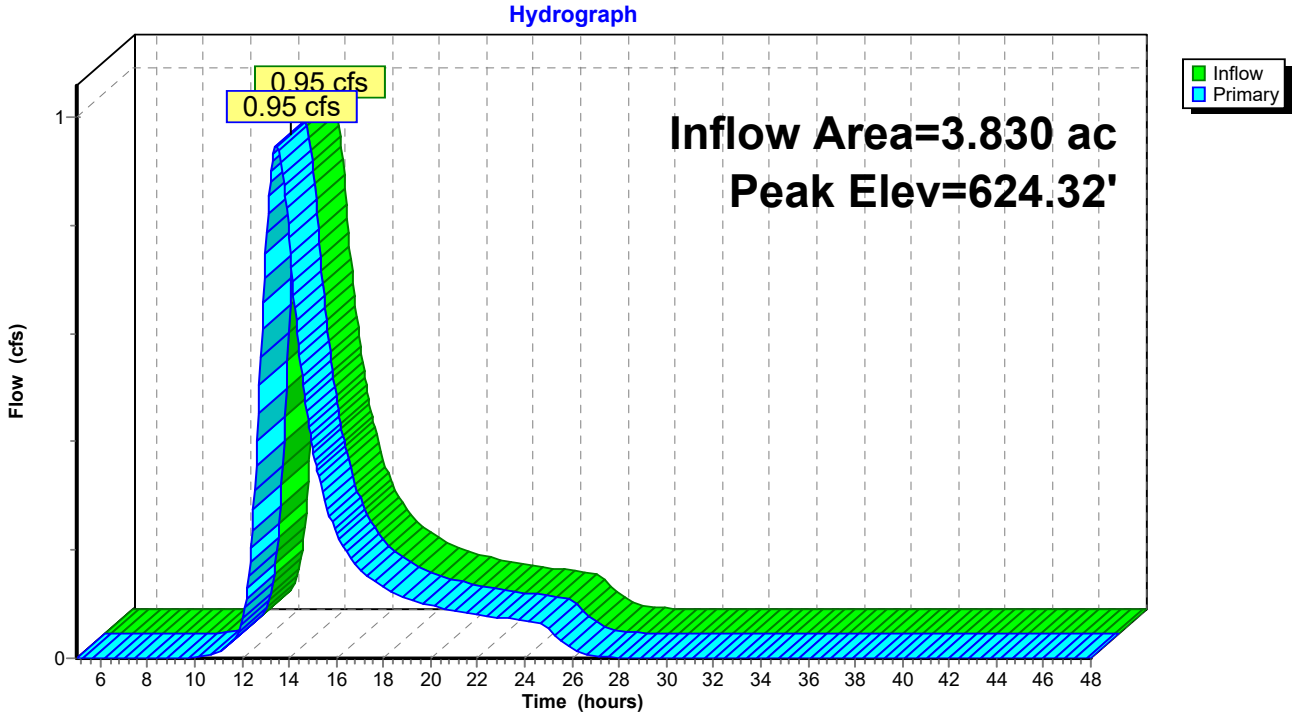
Inflow Area = 3.830 ac, 0.00% Impervious, Inflow Depth = 0.81" for 1-yr event
Inflow = 0.95 cfs @ 13.44 hrs, Volume= 0.257 af
Outflow = 0.95 cfs @ 13.44 hrs, Volume= 0.257 af, Atten= 0%, Lag= 0.0 min
Primary = 0.95 cfs @ 13.44 hrs, Volume= 0.257 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 624.32' @ 13.44 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	623.90'	**18.0" Round Culvert 011 w/ 3.6" inside fill** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 623.60' / 623.42' S= 0.0069 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	626.60'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.95 cfs @ 13.44 hrs HW=624.32' (Free Discharge)
└**1=Culvert 011** (Inlet Controls 0.95 cfs @ 1.61 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 6P: Culvert 011



Summary for Pond 7P: Culvert 014

[57] Hint: Peaked at 623.17' (Flood elevation advised)

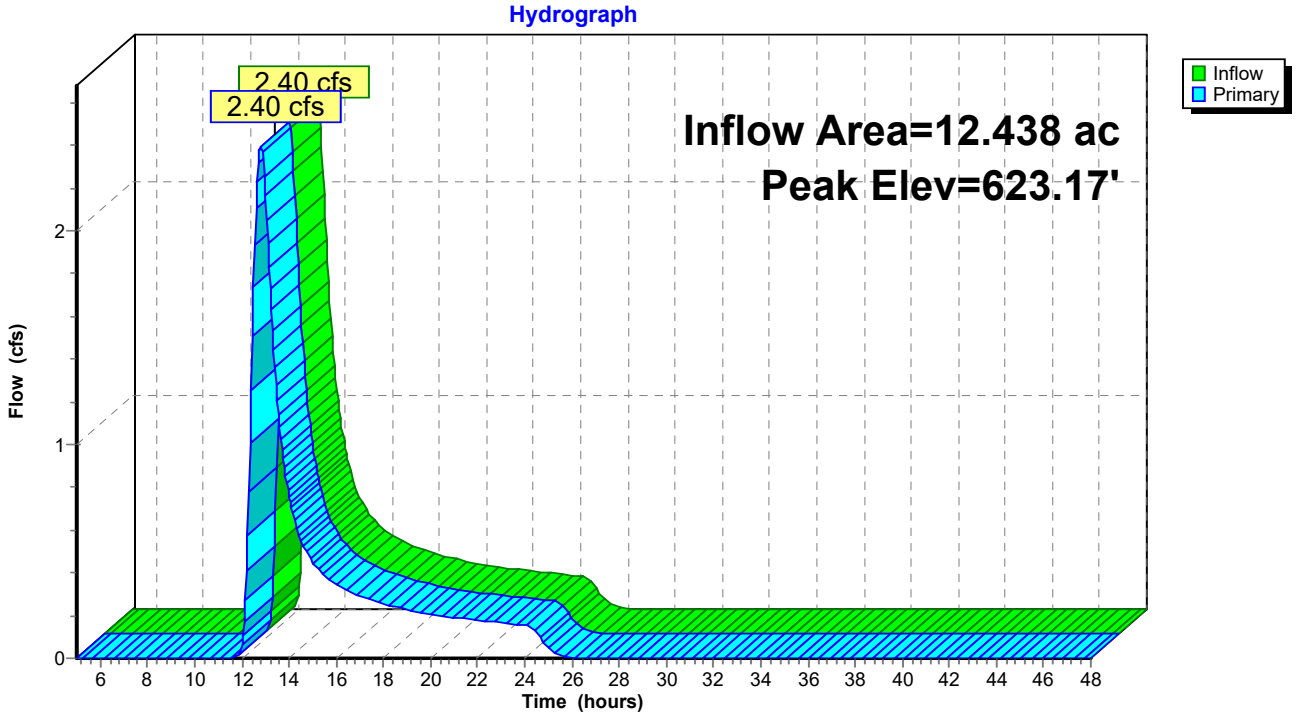
Inflow Area = 12.438 ac, 0.00% Impervious, Inflow Depth = 0.45" for 1-yr event
Inflow = 2.40 cfs @ 12.80 hrs, Volume= 0.465 af
Outflow = 2.40 cfs @ 12.80 hrs, Volume= 0.465 af, Atten= 0%, Lag= 0.0 min
Primary = 2.40 cfs @ 12.80 hrs, Volume= 0.465 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 623.17' @ 12.80 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	622.53'	**24.0" Round Culvert 014 w/ 4.8" inside fill** L= 45.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 622.13' / 621.78' S= 0.0078 '/' Cc= 0.900 n= 0.012, Flow Area= 2.69 sf
#2	Primary	625.63'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=2.40 cfs @ 12.80 hrs HW=623.17' (Free Discharge)
└─**1=Culvert 014** (Inlet Controls 2.40 cfs @ 1.99 fps)
└─**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 7P: Culvert 014



Summary for Pond 8P: Culvert 015

[57] Hint: Peaked at 624.07' (Flood elevation advised)

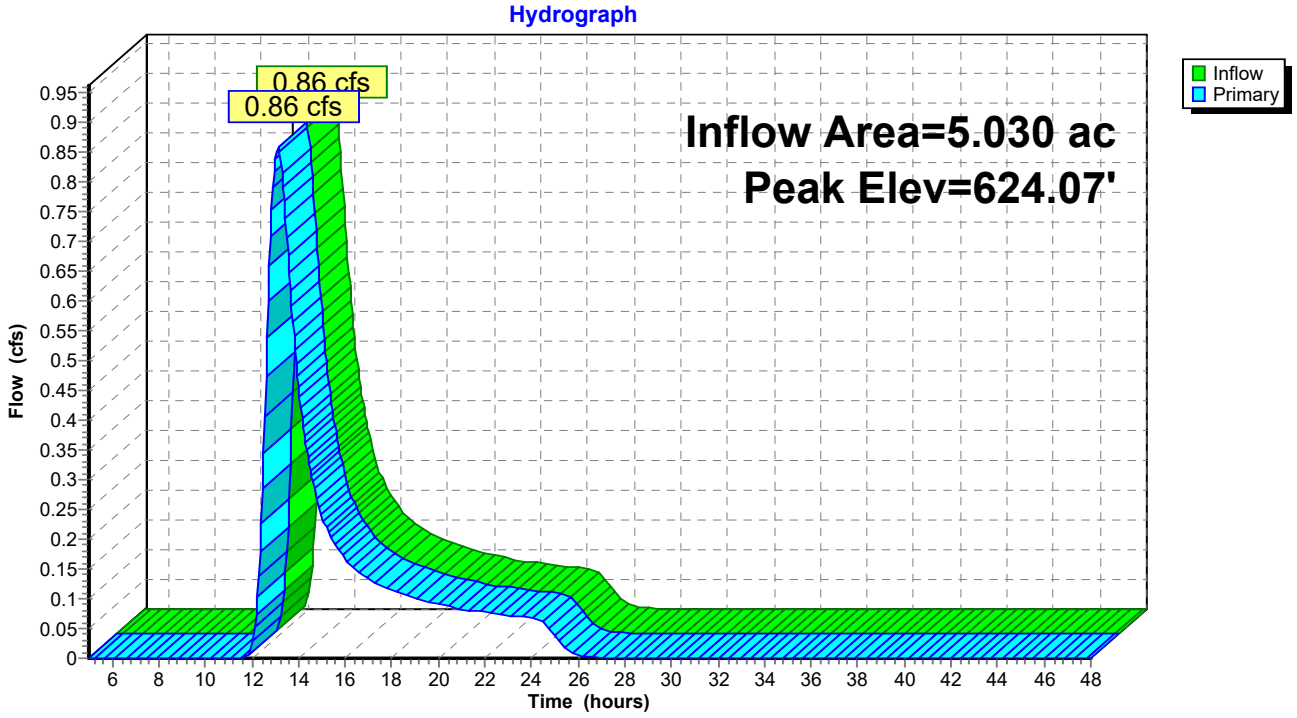
Inflow Area = 5.030 ac, 0.00% Impervious, Inflow Depth = 0.48" for 1-yr event
Inflow = 0.86 cfs @ 13.11 hrs, Volume= 0.203 af
Outflow = 0.86 cfs @ 13.11 hrs, Volume= 0.203 af, Atten= 0%, Lag= 0.0 min
Primary = 0.86 cfs @ 13.11 hrs, Volume= 0.203 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 624.07' @ 13.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	623.67'	**18.0" Round Culvert 015 w/ 3.6" inside fill** L= 75.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 623.37' / 622.41' S= 0.0128 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	626.37'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.86 cfs @ 13.11 hrs HW=624.06' (Free Discharge)
└**1=Culvert 015** (Inlet Controls 0.86 cfs @ 1.56 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 8P: Culvert 015



Summary for Pond 10P: Culvert 018

[57] Hint: Peaked at 623.91' (Flood elevation advised)

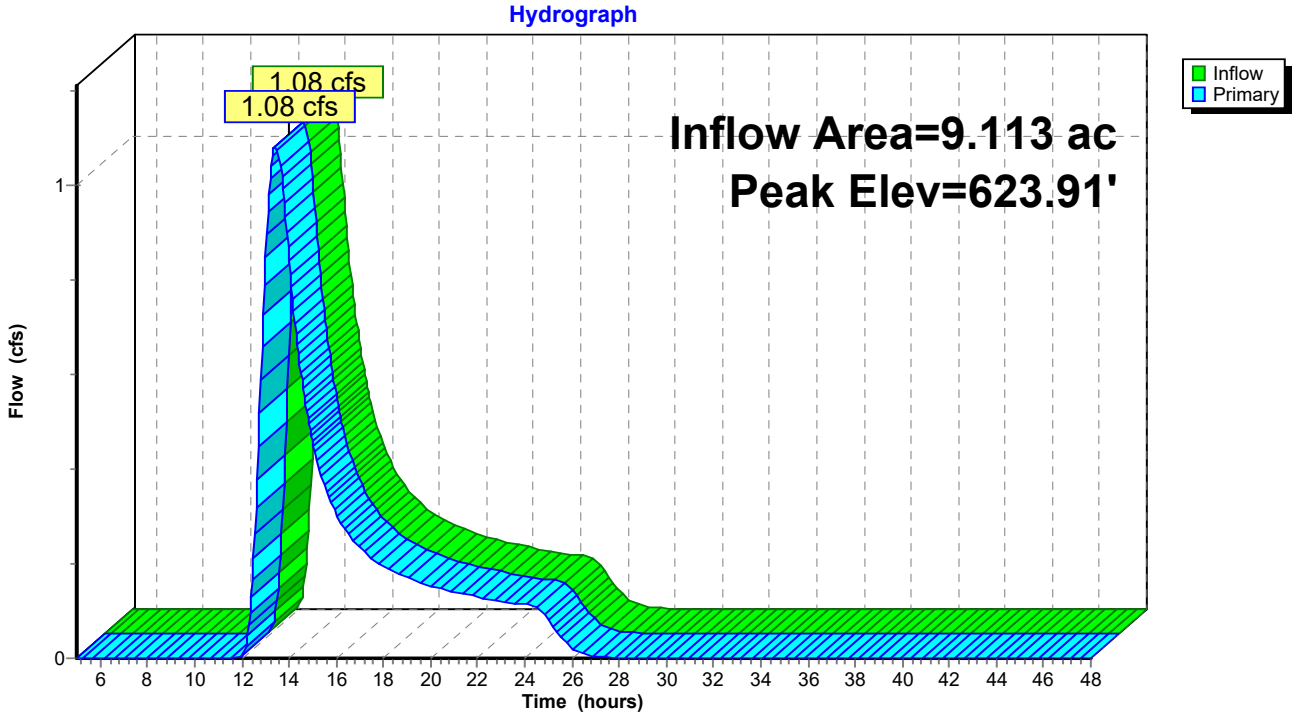
Inflow Area = 9.113 ac, 0.00% Impervious, Inflow Depth = 0.41" for 1-yr event
Inflow = 1.08 cfs @ 13.44 hrs, Volume= 0.314 af
Outflow = 1.08 cfs @ 13.44 hrs, Volume= 0.314 af, Atten= 0%, Lag= 0.0 min
Primary = 1.08 cfs @ 13.44 hrs, Volume= 0.314 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 623.91' @ 13.44 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	623.45'	**18.0" Round Culvert 018 w/ 3.6" inside fill** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 623.15' / 622.17' S= 0.0316 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	626.15'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=1.08 cfs @ 13.44 hrs HW=623.91' (Free Discharge)
└**1=Culvert 018** (Inlet Controls 1.08 cfs @ 1.68 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 10P: Culvert 018



Summary for Pond 11P: Culvert 012

[57] Hint: Peaked at 624.20' (Flood elevation advised)

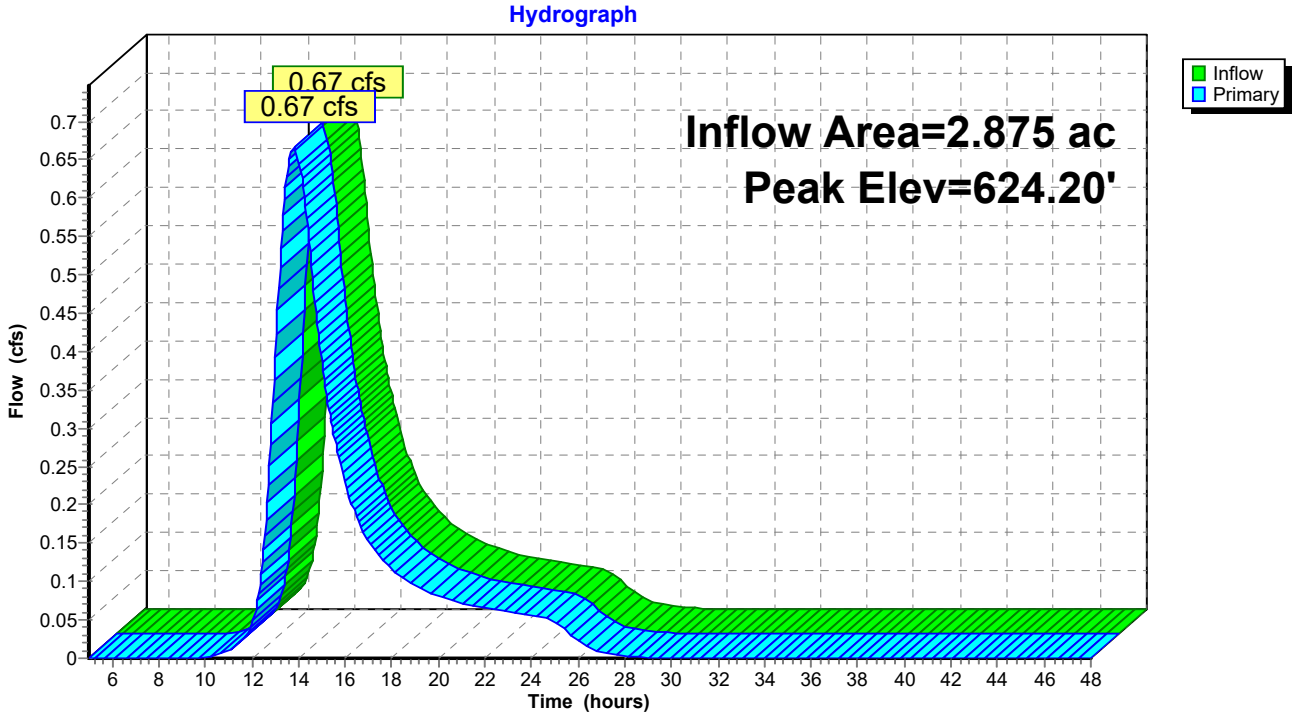
Inflow Area = 2.875 ac, 0.00% Impervious, Inflow Depth = 0.86" for 1-yr event
Inflow = 0.67 cfs @ 13.84 hrs, Volume= 0.206 af
Outflow = 0.67 cfs @ 13.84 hrs, Volume= 0.206 af, Atten= 0%, Lag= 0.0 min
Primary = 0.67 cfs @ 13.84 hrs, Volume= 0.206 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 624.20' @ 13.84 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	623.84'	**18.0" Round Culvert 012 w/ 3.6" inside fill** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 623.54' / 623.47' S= 0.0023 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	626.54'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.67 cfs @ 13.84 hrs HW=624.20' (Free Discharge)
└─**1=Culvert 012** (Barrel Controls 0.67 cfs @ 1.85 fps)
└─**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 11P: Culvert 012



Summary for Pond 12P: Culvert 013

[57] Hint: Peaked at 624.54' (Flood elevation advised)

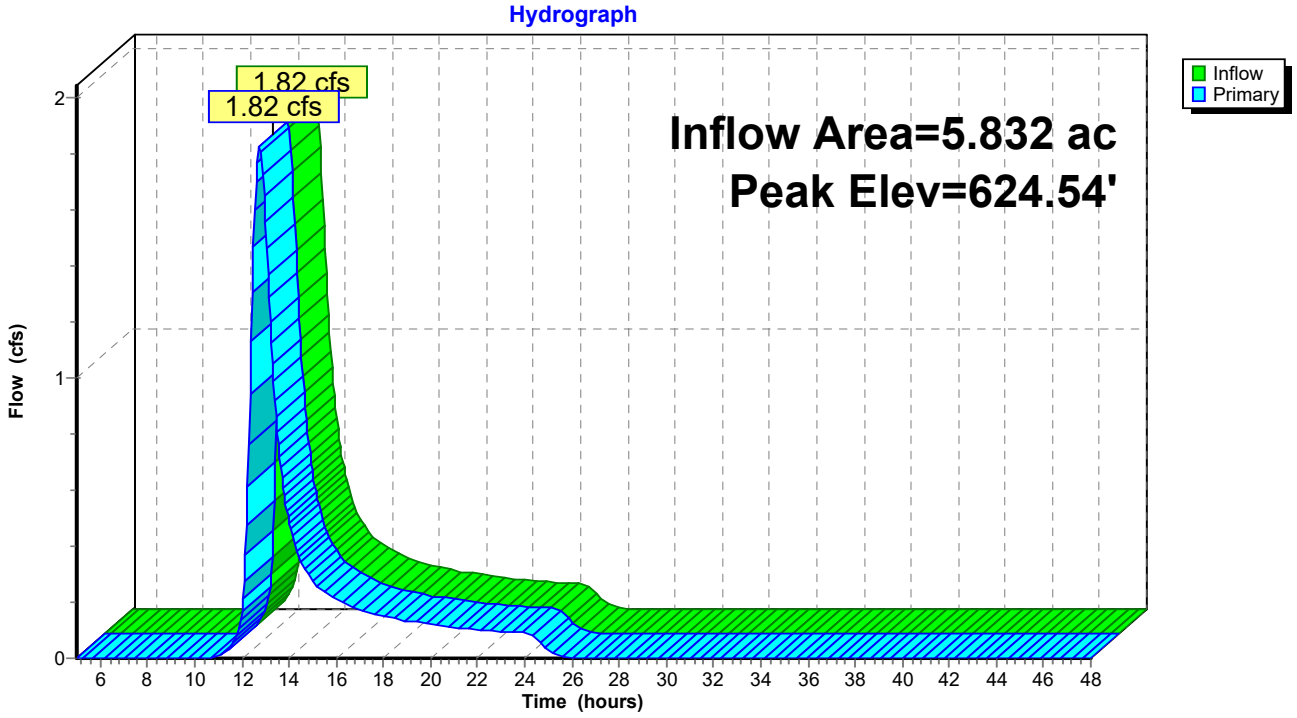
Inflow Area = 5.832 ac, 0.00% Impervious, Inflow Depth = 0.65" for 1-yr event
Inflow = 1.82 cfs @ 12.75 hrs, Volume= 0.318 af
Outflow = 1.82 cfs @ 12.75 hrs, Volume= 0.318 af, Atten= 0%, Lag= 0.0 min
Primary = 1.82 cfs @ 12.75 hrs, Volume= 0.318 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 624.54' @ 12.75 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	623.90'	**18.0" Round Culvert 013 w/ 3.6" inside fill** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 623.60' / 623.27' S= 0.0106 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	626.60'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=1.82 cfs @ 12.75 hrs HW=624.54' (Free Discharge)
└**1=Culvert 013** (Inlet Controls 1.82 cfs @ 2.00 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 12P: Culvert 013



Summary for Pond 13P: Culvert 016

[57] Hint: Peaked at 623.38' (Flood elevation advised)

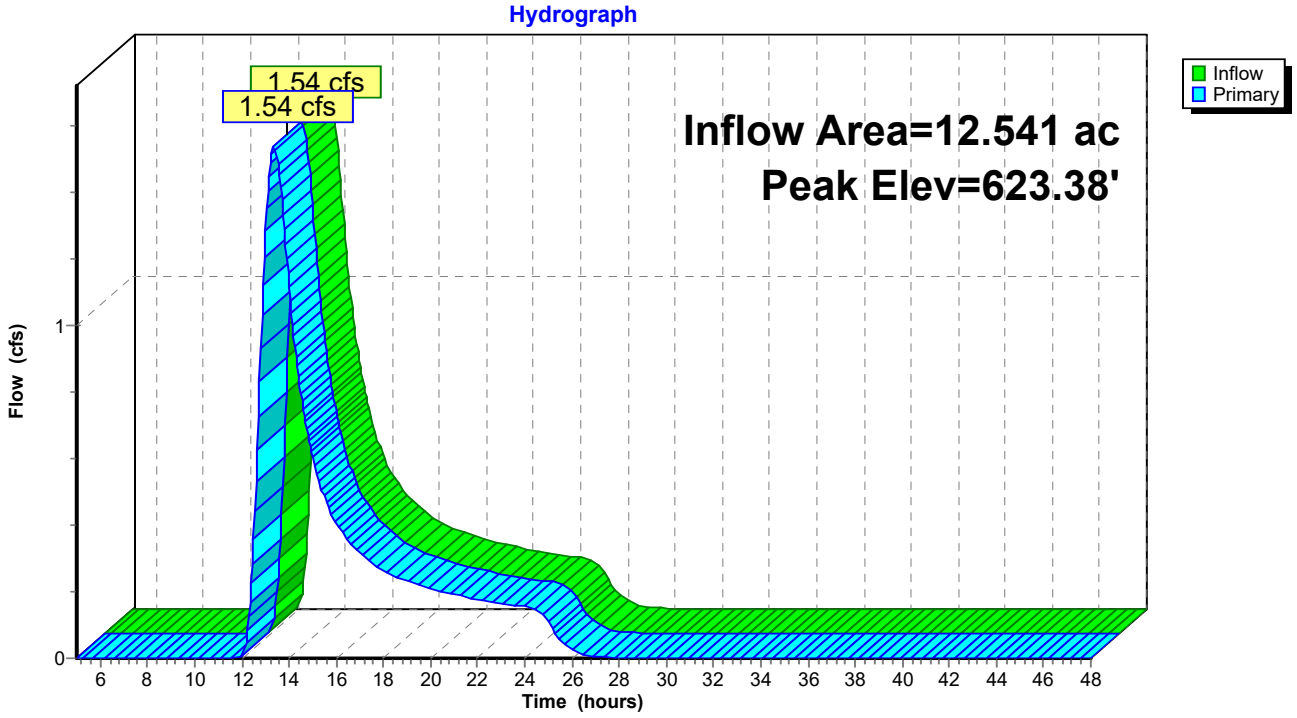
Inflow Area = 12.541 ac, 0.00% Impervious, Inflow Depth = 0.41" for 1-yr event
Inflow = 1.54 cfs @ 13.35 hrs, Volume= 0.432 af
Outflow = 1.54 cfs @ 13.35 hrs, Volume= 0.432 af, Atten= 0%, Lag= 0.0 min
Primary = 1.54 cfs @ 13.35 hrs, Volume= 0.432 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 623.38' @ 13.35 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	622.90'	**24.0" Round Culvert 016 w/ 4.8" inside fill** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 622.50' / 622.27' S= 0.0074 '/' Cc= 0.900 n= 0.012, Flow Area= 2.69 sf
#2	Primary	626.00'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=1.54 cfs @ 13.35 hrs HW=623.38' (Free Discharge)
└**1=Culvert 016** (Inlet Controls 1.54 cfs @ 1.73 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 13P: Culvert 016



Summary for Pond 14P: Culvert 019

[57] Hint: Peaked at 619.84' (Flood elevation advised)

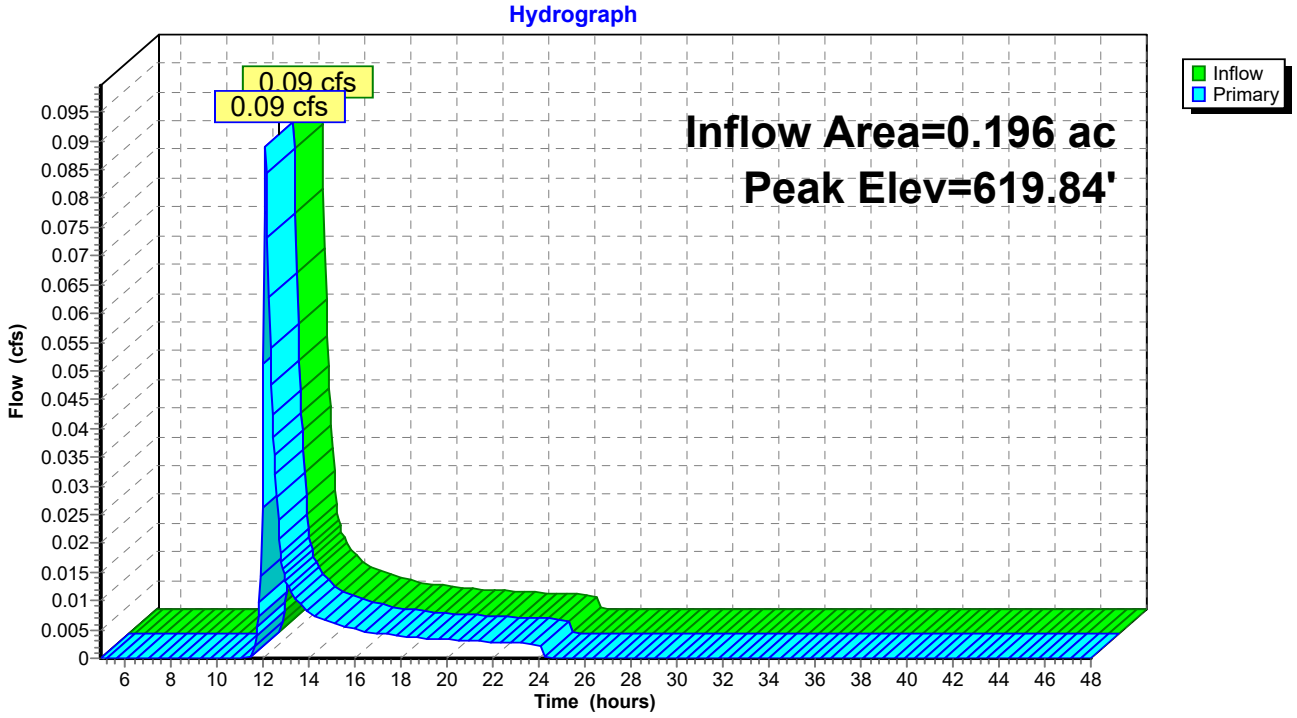
Inflow Area = 0.196 ac, 0.00% Impervious, Inflow Depth = 0.48" for 1-yr event
Inflow = 0.09 cfs @ 12.16 hrs, Volume= 0.008 af
Outflow = 0.09 cfs @ 12.16 hrs, Volume= 0.008 af, Atten= 0%, Lag= 0.0 min
Primary = 0.09 cfs @ 12.16 hrs, Volume= 0.008 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 619.84' @ 12.16 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	619.75'	**18.0" Round Culvert 019 w/ 3.6" inside fill** L= 75.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 619.45' / 618.07' S= 0.0184 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	622.45'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.09 cfs @ 12.16 hrs HW=619.84' (Free Discharge)
└─**1=Culvert 019** (Inlet Controls 0.09 cfs @ 0.76 fps)
└─**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 14P: Culvert 019



Summary for Pond 31P: Culvert 007

[57] Hint: Peaked at 617.45' (Flood elevation advised)

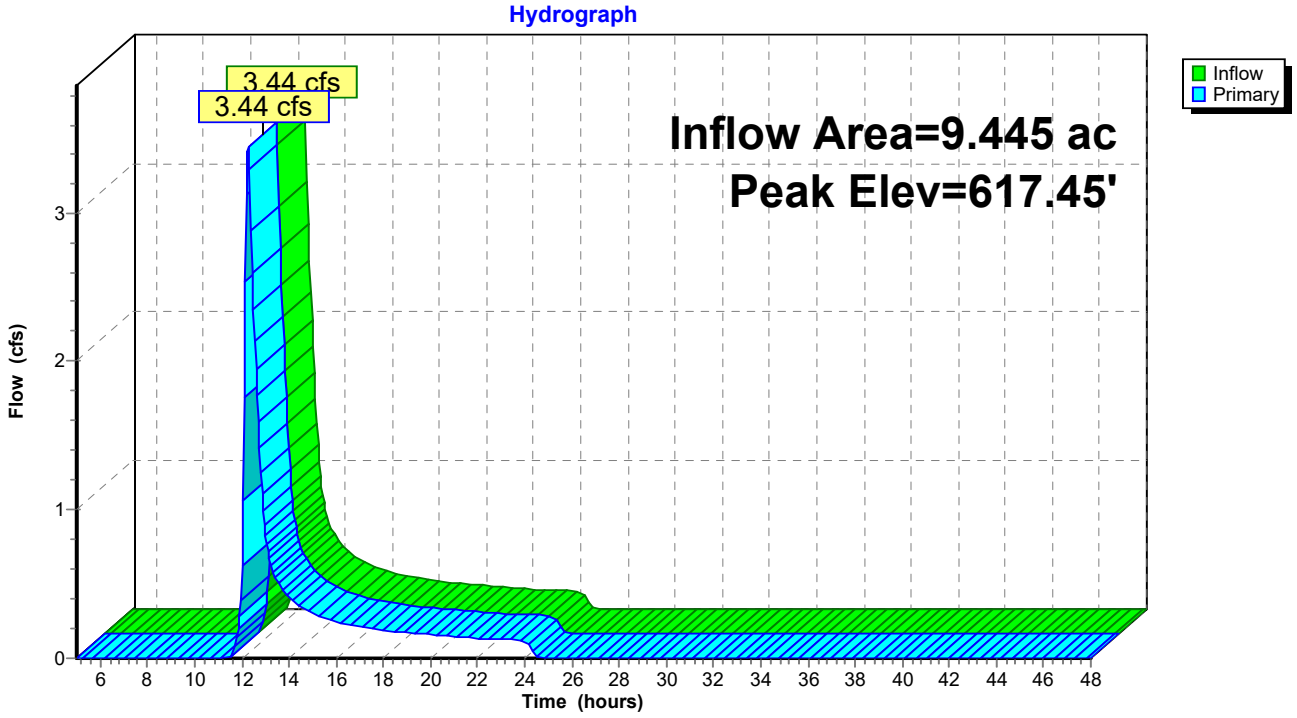
Inflow Area = 9.445 ac, 0.00% Impervious, Inflow Depth = 0.48" for 1-yr event
Inflow = 3.44 cfs @ 12.27 hrs, Volume= 0.382 af
Outflow = 3.44 cfs @ 12.27 hrs, Volume= 0.382 af, Atten= 0%, Lag= 0.0 min
Primary = 3.44 cfs @ 12.27 hrs, Volume= 0.382 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 617.45' @ 12.27 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	616.47'	**18.0" Round Culvert 007 w/ 3.6" inside fill** L= 44.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 616.17' / 614.58' S= 0.0361 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	621.84'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=3.41 cfs @ 12.27 hrs HW=617.44' (Free Discharge)
└─**1=Culvert 007** (Inlet Controls 3.41 cfs @ 2.53 fps)
└─**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 31P: Culvert 007



Summary for Pond 32P: Culvert 008

[57] Hint: Peaked at 615.82' (Flood elevation advised)

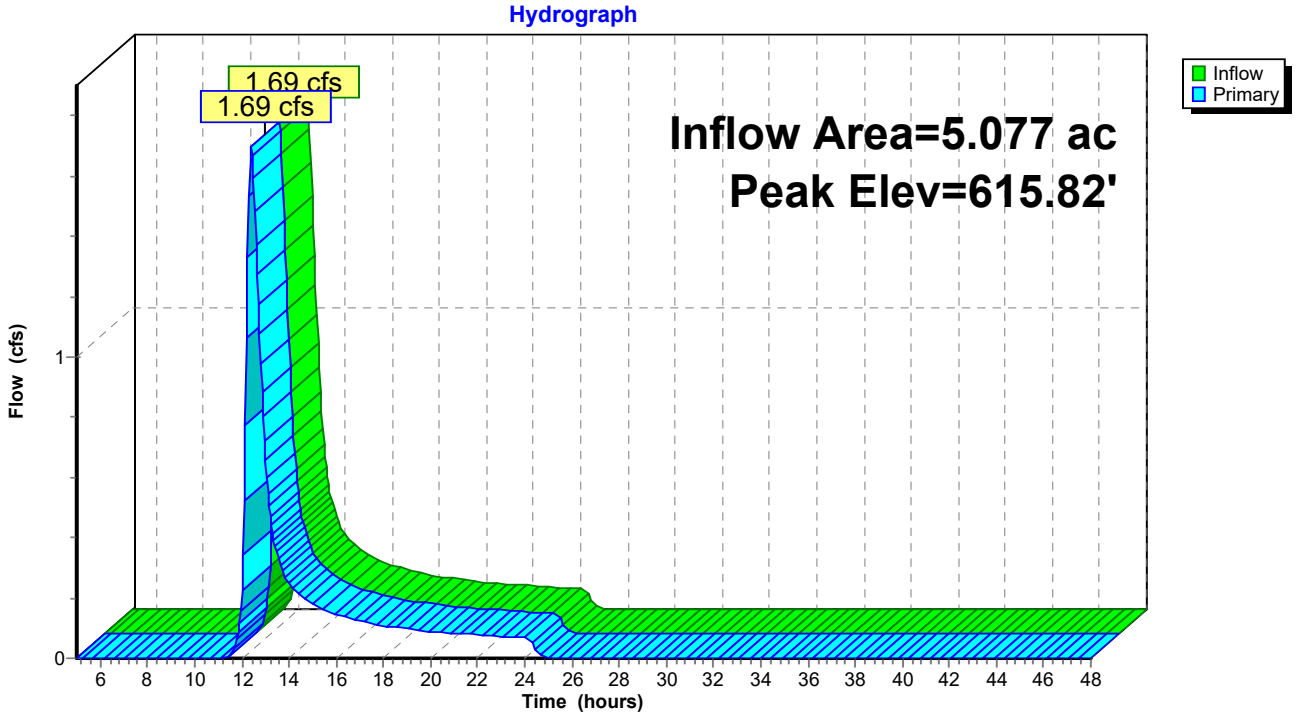
Inflow Area = 5.077 ac, 0.00% Impervious, Inflow Depth = 0.52" for 1-yr event
Inflow = 1.69 cfs @ 12.41 hrs, Volume= 0.222 af
Outflow = 1.69 cfs @ 12.41 hrs, Volume= 0.222 af, Atten= 0%, Lag= 0.0 min
Primary = 1.69 cfs @ 12.41 hrs, Volume= 0.222 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 615.82' @ 12.41 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	615.12'	**18.0" Round Culvert 008 w/ 3.6" inside fill** L= 60.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 614.82' / 614.75' S= 0.0012 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	617.82'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=1.69 cfs @ 12.41 hrs HW=615.82' (Free Discharge)
└**1=Culvert 008** (Barrel Controls 1.69 cfs @ 2.27 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 32P: Culvert 008



Summary for Pond 34P: Culvert 001

[57] Hint: Peaked at 622.50' (Flood elevation advised)

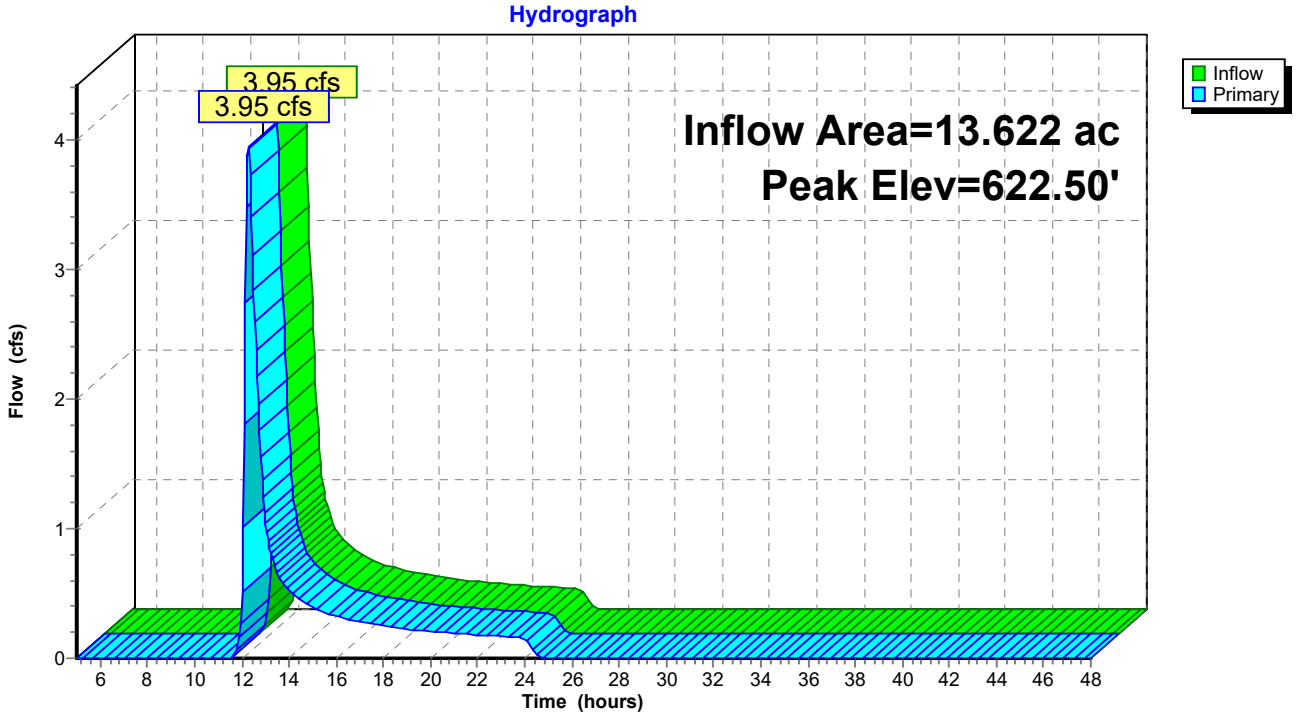
Inflow Area = 13.622 ac, 0.00% Impervious, Inflow Depth = 0.41" for 1-yr event
Inflow = 3.95 cfs @ 12.29 hrs, Volume= 0.469 af
Outflow = 3.95 cfs @ 12.29 hrs, Volume= 0.469 af, Atten= 0%, Lag= 0.0 min
Primary = 3.95 cfs @ 12.29 hrs, Volume= 0.469 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 622.50' @ 12.29 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	621.73'	**30.0" Round Culvert 001 w/ 6.0" inside fill** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 621.23' / 620.53' S= 0.0259 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 4.21 sf
#2	Primary	625.23'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=3.92 cfs @ 12.29 hrs HW=622.50' (Free Discharge)
└─**1=Culvert 001** (Inlet Controls 3.92 cfs @ 2.18 fps)
└─**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 34P: Culvert 001



Summary for Pond 35P: Culvert 002-005

[57] Hint: Peaked at 628.71' (Flood elevation advised)

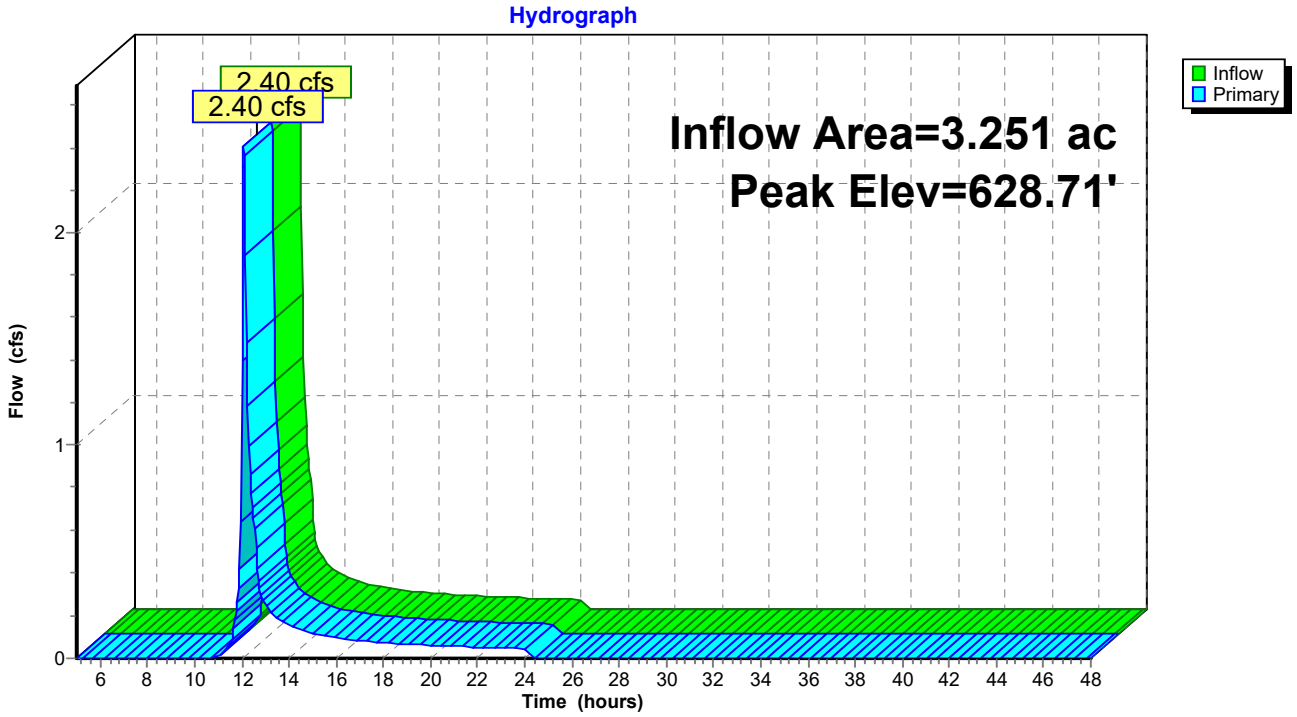
Inflow Area = 3.251 ac, 0.00% Impervious, Inflow Depth = 0.61" for 1-yr event
Inflow = 2.40 cfs @ 12.08 hrs, Volume= 0.165 af
Outflow = 2.40 cfs @ 12.08 hrs, Volume= 0.165 af, Atten= 0%, Lag= 0.0 min
Primary = 2.40 cfs @ 12.08 hrs, Volume= 0.165 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 628.71' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	630.02'	**18.0" Round Culvert 002 w/ 3.6" inside fill** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 629.72' / 628.62' S= 0.0500 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	627.94'	**18.0" Round Culvert 003 w/ 3.6" inside fill** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 627.64' / 627.35' S= 0.0132 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#3	Primary	628.72'	**18.0" Round Culvert 004 w/ 3.6" inside fill** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 628.42' / 628.36' S= 0.0027 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#4	Primary	629.20'	**18.0" Round Culvert 005 w/ 3.6" inside fill** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 628.90' / 628.68' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#5	Primary	631.67'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=2.34 cfs @ 12.08 hrs HW=628.69' (Free Discharge)
- **1=Culvert 002** (Controls 0.00 cfs)
- **2=Culvert 003** (Inlet Controls 2.34 cfs @ 2.18 fps)
- **3=Culvert 004** (Controls 0.00 cfs)
- **4=Culvert 005** (Controls 0.00 cfs)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 35P: Culvert 002-005



Time span=5.00-48.00 hrs, dt=0.05 hrs, 861 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment15S: DA 1 Runoff Area=13.622 ac 0.00% Impervious Runoff Depth=1.30"
Flow Length=968' Tc=21.2 min CN=78 Runoff=16.33 cfs 1.479 af

Subcatchment16S: DA 2-5 Runoff Area=3.251 ac 0.00% Impervious Runoff Depth=1.64"
Flow Length=403' Tc=8.5 min CN=83 Runoff=7.81 cfs 0.445 af

Subcatchment17S: DA 7 Runoff Area=9.445 ac 0.00% Impervious Runoff Depth=1.43"
Flow Length=888' Tc=21.2 min CN=80 Runoff=12.63 cfs 1.128 af

Subcatchment18S: DA 8 Runoff Area=5.077 ac 0.00% Impervious Runoff Depth=1.50"
Flow Length=924' Tc=30.2 min CN=81 Runoff=5.87 cfs 0.635 af

Subcatchment20S: DA 10 Runoff Area=141.450 ac 0.11% Impervious Runoff Depth=1.50"
Flow Length=6,066' Tc=181.5 min CN=81 Runoff=48.51 cfs 17.688 af

Subcatchment21S: DA 11 Runoff Area=3.830 ac 0.00% Impervious Runoff Depth=1.95"
Flow Length=828' Tc=110.7 min CN=87 Runoff=2.55 cfs 0.622 af

Subcatchment23S: DA 13 Runoff Area=5.832 ac 0.00% Impervious Runoff Depth=1.72"
Flow Length=938' Tc=54.7 min CN=84 Runoff=5.52 cfs 0.834 af

Subcatchment24S: DA 14 Runoff Area=12.438 ac 0.00% Impervious Runoff Depth=1.37"
Flow Length=1,215' Tc=54.9 min CN=79 Runoff=9.11 cfs 1.417 af

Subcatchment25S: DA 15 Runoff Area=5.030 ac 0.00% Impervious Runoff Depth=1.43"
Flow Length=1,411' Tc=78.0 min CN=80 Runoff=3.07 cfs 0.601 af

Subcatchment26S: DA 16 Runoff Area=12.541 ac 0.00% Impervious Runoff Depth=1.30"
Flow Length=1,389' Tc=92.7 min CN=78 Runoff=6.10 cfs 1.361 af

Subcatchment28S: DA 18 Runoff Area=9.113 ac 0.00% Impervious Runoff Depth=1.30"
Flow Length=1,597' Tc=97.5 min CN=78 Runoff=4.30 cfs 0.989 af

Subcatchment29S: DA 19 Runoff Area=0.196 ac 0.00% Impervious Runoff Depth=1.43"
Flow Length=90' Slope=0.0111 '/' Tc=13.7 min CN=80 Runoff=0.33 cfs 0.023 af

Subcatchment37S: DA 12 Runoff Area=2.875 ac 0.00% Impervious Runoff Depth=2.03"
Flow Length=788' Tc=134.3 min CN=88 Runoff=1.72 cfs 0.487 af

Subcatchment46S: DA 17 Runoff Area=183.177 ac 0.00% Impervious Runoff Depth=1.30"
Flow Length=3,922' Tc=148.9 min CN=78 Runoff=62.97 cfs 19.886 af

Pond 6P: Culvert 011 Peak Elev=624.70' Inflow=2.55 cfs 0.622 af
Outflow=2.55 cfs 0.622 af

Pond 7P: Culvert 014 Peak Elev=624.12' Inflow=9.11 cfs 1.417 af
Outflow=9.11 cfs 1.417 af

Pond 8P: Culvert 015 Peak Elev=624.57' Inflow=3.07 cfs 0.601 af
Outflow=3.07 cfs 0.601 af

Pond 10P: Culvert 018 Peak Elev=624.61' Inflow=4.30 cfs 0.989 af
Outflow=4.30 cfs 0.989 af

Pond 11P: Culvert 012 Peak Elev=624.50' Inflow=1.72 cfs 0.487 af
Outflow=1.72 cfs 0.487 af

Pond 12P: Culvert 013 Peak Elev=625.39' Inflow=5.52 cfs 0.834 af
Outflow=5.52 cfs 0.834 af

Pond 13P: Culvert 016 Peak Elev=624.08' Inflow=6.10 cfs 1.361 af
Outflow=6.10 cfs 1.361 af

Pond 14P: Culvert 019 Peak Elev=619.96' Inflow=0.33 cfs 0.023 af
Outflow=0.33 cfs 0.023 af

Pond 31P: Culvert 007 Peak Elev=621.82' Inflow=12.63 cfs 1.128 af
Outflow=12.63 cfs 1.128 af

Pond 32P: Culvert 008 Peak Elev=616.95' Inflow=5.87 cfs 0.635 af
Outflow=5.87 cfs 0.635 af

Pond 34P: Culvert 001 Peak Elev=623.76' Inflow=16.33 cfs 1.479 af
Outflow=16.33 cfs 1.479 af

Pond 35P: Culvert 002-005 Peak Elev=629.44' Inflow=7.81 cfs 0.445 af
Outflow=7.81 cfs 0.445 af

Total Runoff Area = 407.877 ac Runoff Volume = 47.595 af Average Runoff Depth = 1.40"
99.96% Pervious = 407.725 ac 0.04% Impervious = 0.152 ac

Summary for Subcatchment 15S: DA 1

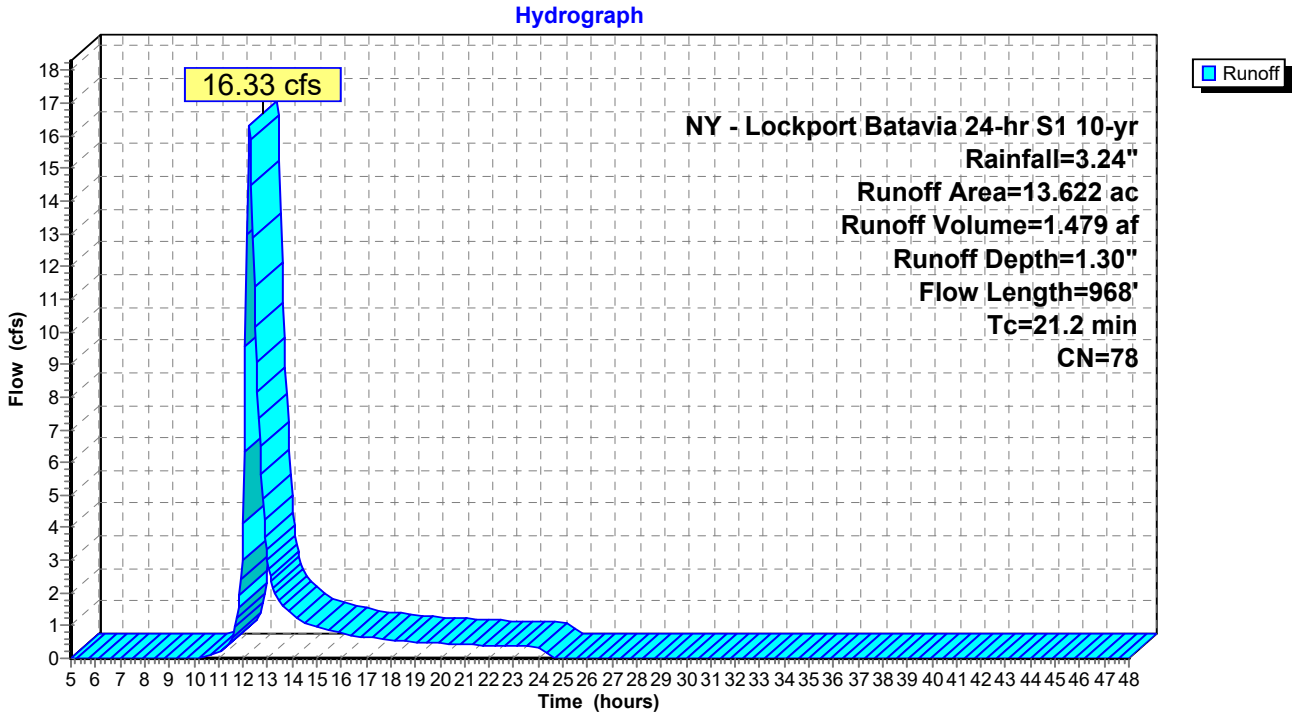
Runoff = 16.33 cfs @ 12.26 hrs, Volume= 1.479 af, Depth= 1.30"
Routed to Pond 34P : Culvert 001

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 10-yr Rainfall=3.24"

	Area (ac)	CN	Description
*	0.134	39	A - 39 - Developed open space
*	0.938	46	A - 46 - Developed Low intensity
*	0.065	54	A - 54 - Developed Med intensity
*	0.064	30	A - 30 - Deciduous Forest
*	0.063	30	A - 30 - Meadowed, grass, non-grazed land
*	0.293	80	D - 80 - Developed open space
*	1.950	82	D - 82 - Developed Low intensity
*	0.320	85	D - 85 - Developed Med intensity
*	0.105	77	D - 77 - Deciduous Forest
*	0.497	78	D - 78 - Meadowed, grass, non-grazed land
*	1.157	80	D - 80 - Developed open space
*	4.870	82	D - 82 - Developed Low intensity
*	0.999	85	D - 85 - Developed Med intensity
*	2.167	78	D - 78 - Meadowed, grass, non-grazed land
	13.622	78	Weighted Average
	13.622		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	100	0.0125	0.95		**Sheet Flow, 100' Sheet** Smooth surfaces n= 0.011 P2= 2.21"
4.1	180	0.0013	0.73		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
4.3	300	0.0033	1.17		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
6.7	200	0.0050	0.49		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.3	188	0.0106	0.72		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
21.2	968	Total			

Subcatchment 15S: DA 1



Summary for Subcatchment 16S: DA 2-5

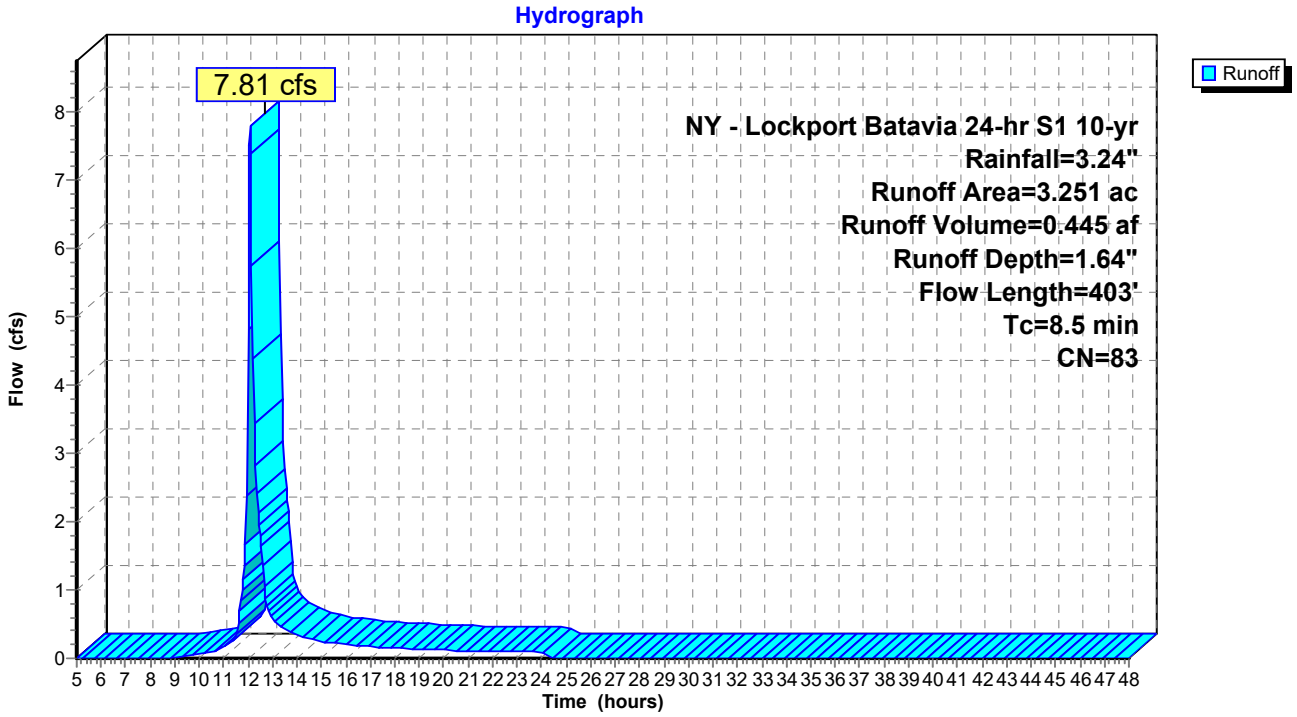
Runoff = 7.81 cfs @ 12.07 hrs, Volume= 0.445 af, Depth= 1.64"
Routed to Pond 35P : Culvert 002-005

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 10-yr Rainfall=3.24"

	Area (ac)	CN	Description
*	0.854	80	D - 80 - Developed open space
*	0.145	82	D - 82 - Developed Low intensity
*	0.111	85	D - 85 - Developed Med intensity
*	0.124	80	D - 80 - Developed open space
*	0.018	82	D - 82 - Developed Low intensity
*	0.270	85	D - 85 - Developed Med intensity
*	0.894	80	D - 80 - Developed open space
*	0.077	82	D - 82 - Developed Low intensity
*	0.315	85	D - 85 - Developed Med intensity
*	0.441	93	D - 93 - Developed High intensity
*	0.002	78	D - 78 - Meadowed, grass, non-grazed land
	3.251	83	Weighted Average
	3.251		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0325	1.39		**Sheet Flow, 100'** Smooth surfaces n= 0.011 P2= 2.21"
0.3	49	0.0255	3.24		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.6	123	0.0041	1.30		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
4.2	91	0.0027	0.36		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.2	40	0.0063	0.56		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.5	403	Total			

Subcatchment 16S: DA 2-5



Summary for Subcatchment 17S: DA 7

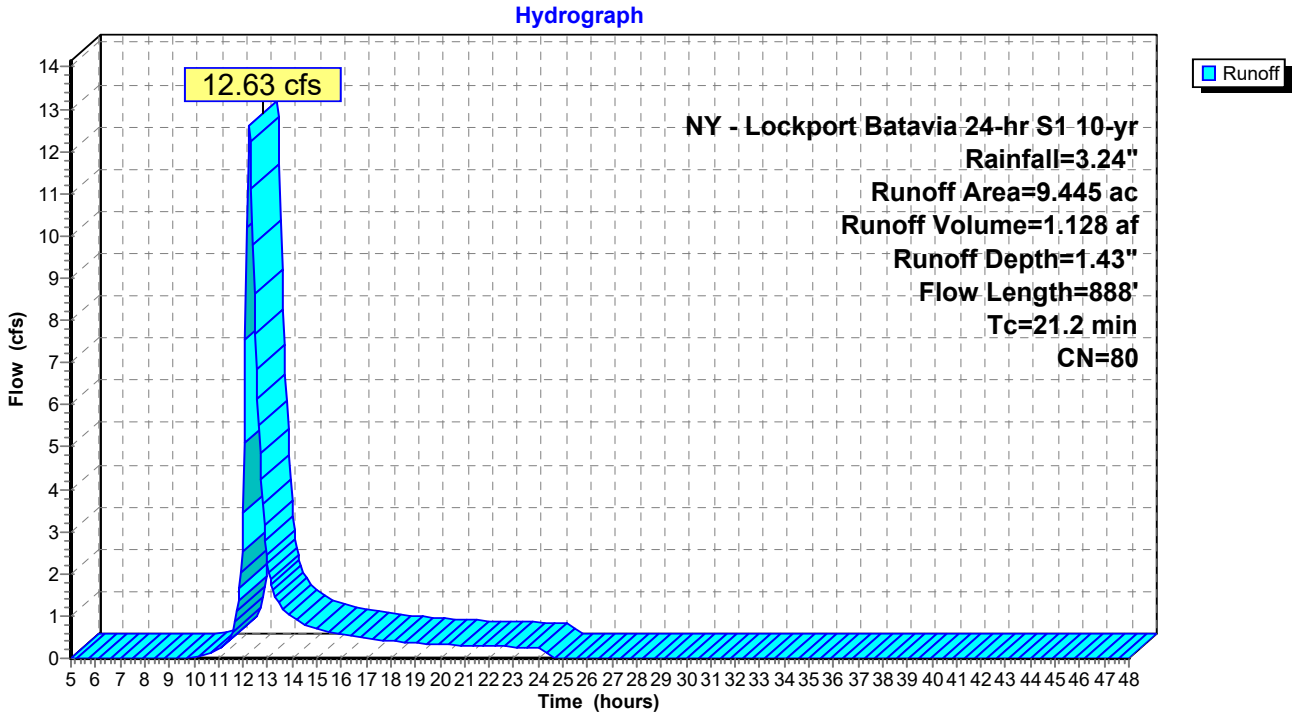
Runoff = 12.63 cfs @ 12.26 hrs, Volume= 1.128 af, Depth= 1.43"
Routed to Pond 31P : Culvert 007

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 10-yr Rainfall=3.24"

	Area (ac)	CN	Description
*	0.134	80	D - 80 - Developed open space
*	0.231	82	D - 82 - Developed Low intensity
*	0.882	78	D - 78 - Meadowed, grass, non-grazed land
*	0.569	80	D - 80 - Developed open space
*	0.868	82	D - 82 - Developed Low intensity
*	0.054	85	D - 85 - Developed Med intensity
*	1.190	85	D - 85 - Grassland/Herbaceous
*	4.820	78	D - 78 - Meadowed, grass, non-grazed land
*	0.187	80	D - 80 - Developed open space
*	0.013	82	D - 82 - Developed Low intensity
*	0.497	78	D - 78 - Meadowed, grass, non-grazed land
	9.445	80	Weighted Average
	9.445		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0350	0.18		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.21"
4.6	202	0.0111	0.74		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.4	445	0.0126	1.68		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
2.8	141	0.0142	0.83		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
21.2	888	Total			

Subcatchment 17S: DA 7



Summary for Subcatchment 18S: DA 8

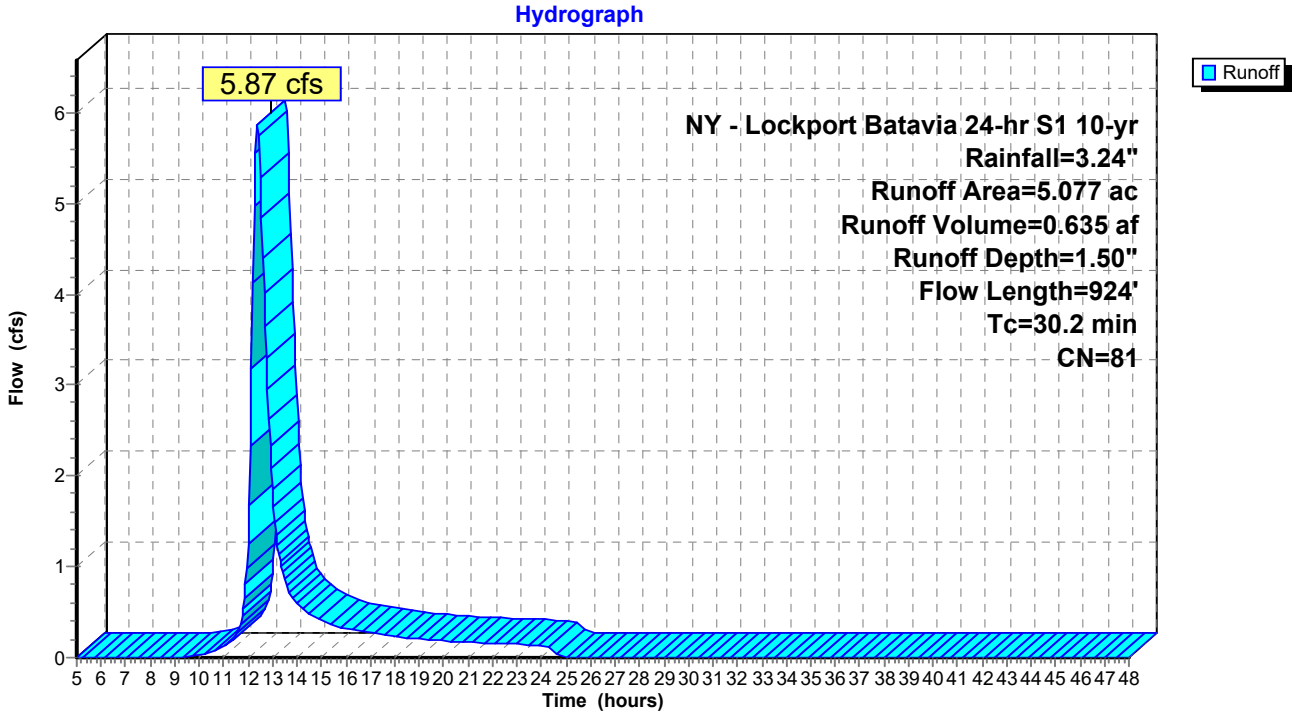
Runoff = 5.87 cfs @ 12.38 hrs, Volume= 0.635 af, Depth= 1.50"
Routed to Pond 32P : Culvert 008

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 10-yr Rainfall=3.24"

	Area (ac)	CN	Description
*	2.612	80	D - 80 - Developed open space
*	1.184	82	D - 82 - Developed Low intensity
*	0.605	85	D - 85 - Grassland/Herbaceous
*	0.676	78	D - 78 - Meadowed, grass, non-grazed land
	5.077	81	Weighted Average
	5.077		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0173	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.21"
8.1	290	0.0073	0.60		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
9.6	534	0.0038	0.92		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
30.2	924	Total			

Subcatchment 18S: DA 8



Summary for Subcatchment 20S: DA 10

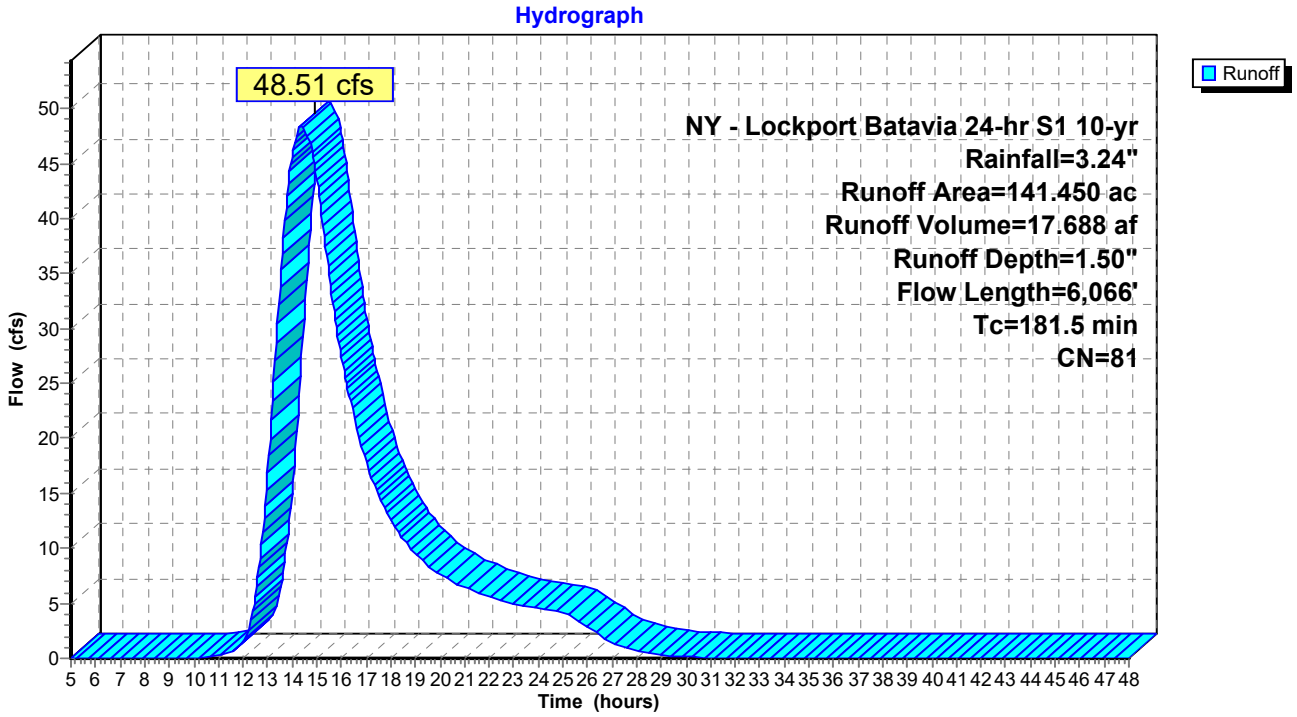
Runoff = 48.51 cfs @ 14.34 hrs, Volume= 17.688 af, Depth= 1.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 10-yr Rainfall=3.24"

	Area (ac)	CN	Description
*	0.152	98	D - 98 - Open Water
*	0.074	80	D - 80 - Developed open space
*	0.307	80	D - 80 - Developed open space
*	2.363	80	D - 80 - Developed open space
*	1.992	82	D - 82 - Developed Low intensity
*	1.726	82	D - 82 - Developed Low intensity
*	2.185	85	D - 85 - Developed Med intensity
*	0.875	77	D - 77 - Deciduous Forest
*	18.239	77	D - 77 - Deciduous Forest
*	13.242	77	D - 77 - Deciduous Forest
*	0.038	77	D - 77 - Evergreen Forest
*	0.919	77	D - 77 - Evergreen Forest
*	0.021	77	D - 77 - Evergreen Forest
*	0.508	77	D - 77 - Mixed Forest
*	0.889	77	D - 77 - Mixed Forest
*	0.160	77	D - 77 - Mixed Forest
*	4.266	78	D - 78 - Meadowed, grass, non-grazed land
*	29.357	78	D - 78 - Meadowed, grass, non-grazed land
*	22.896	78	D - 78 - Meadowed, grass, non-grazed land
*	0.112	78	D - 78 - Meadowed, grass, non-grazed land
*	5.915	78	D - 78 - Meadowed, grass, non-grazed land
*	5.016	90	D - 90 - Woody Wetlands
*	30.198	90	D - 90 - Woody Wetlands
	141.450	81	Weighted Average
	141.298		99.89% Pervious Area
	0.152		0.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.7	100	0.0275	0.07		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.21"
31.2	1,144	0.0149	0.61		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.6	670	0.0026	0.76		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
12.9	328	0.0008	0.42		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
100.1	3,824	0.0018	0.64		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
181.5	6,066	Total			

Subcatchment 20S: DA 10



Summary for Subcatchment 21S: DA 11

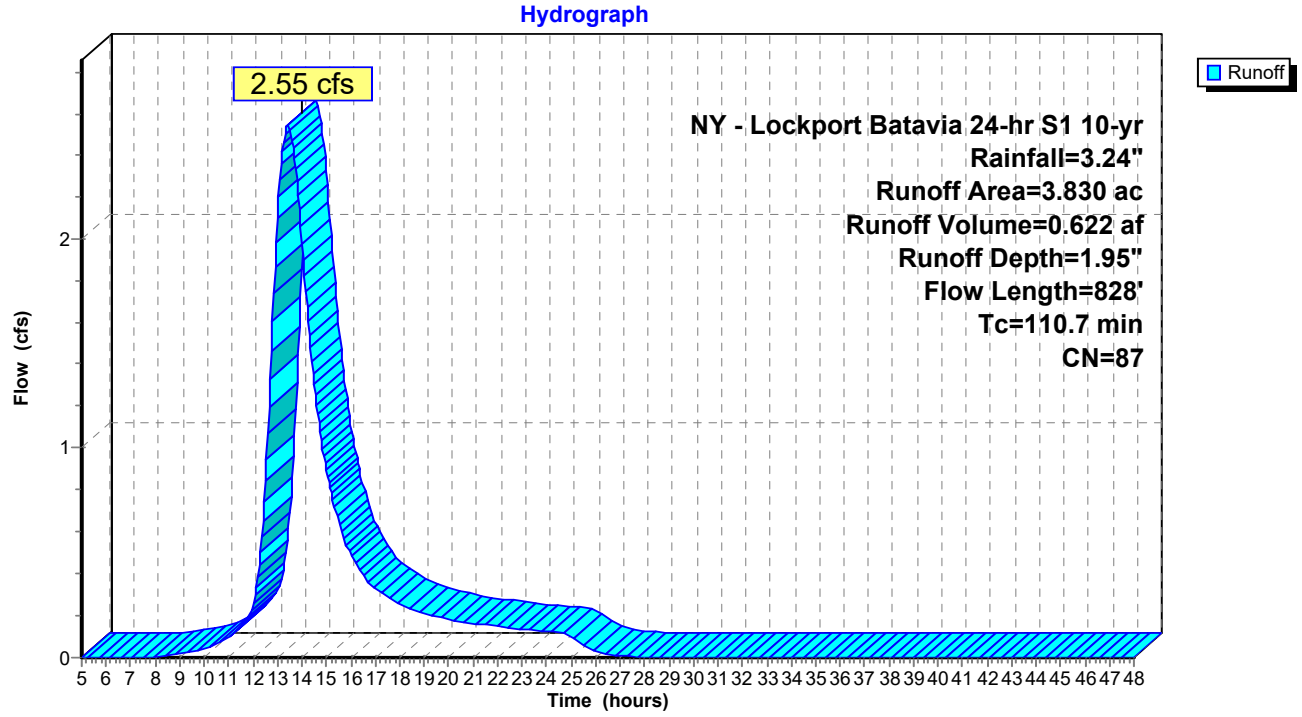
Runoff = 2.55 cfs @ 13.41 hrs, Volume= 0.622 af, Depth= 1.95"
Routed to Pond 6P : Culvert 011

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 10-yr Rainfall=3.24"

	Area (ac)	CN	Description
*	0.183	80	D - 80 - Developed open space
*	0.651	82	D - 82 - Developed Low intensity
*	0.305	78	D - 78 - Meadowed, grass, non-grazed land
*	2.691	90	D - 90 - Woody Wetlands
	3.830	87	Weighted Average
	3.830		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.1	100	0.0425	0.09		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.21"
77.1	517	0.0005	0.11		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	211	0.0012	0.24		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
110.7	828	Total			

Subcatchment 21S: DA 11



Summary for Subcatchment 23S: DA 13

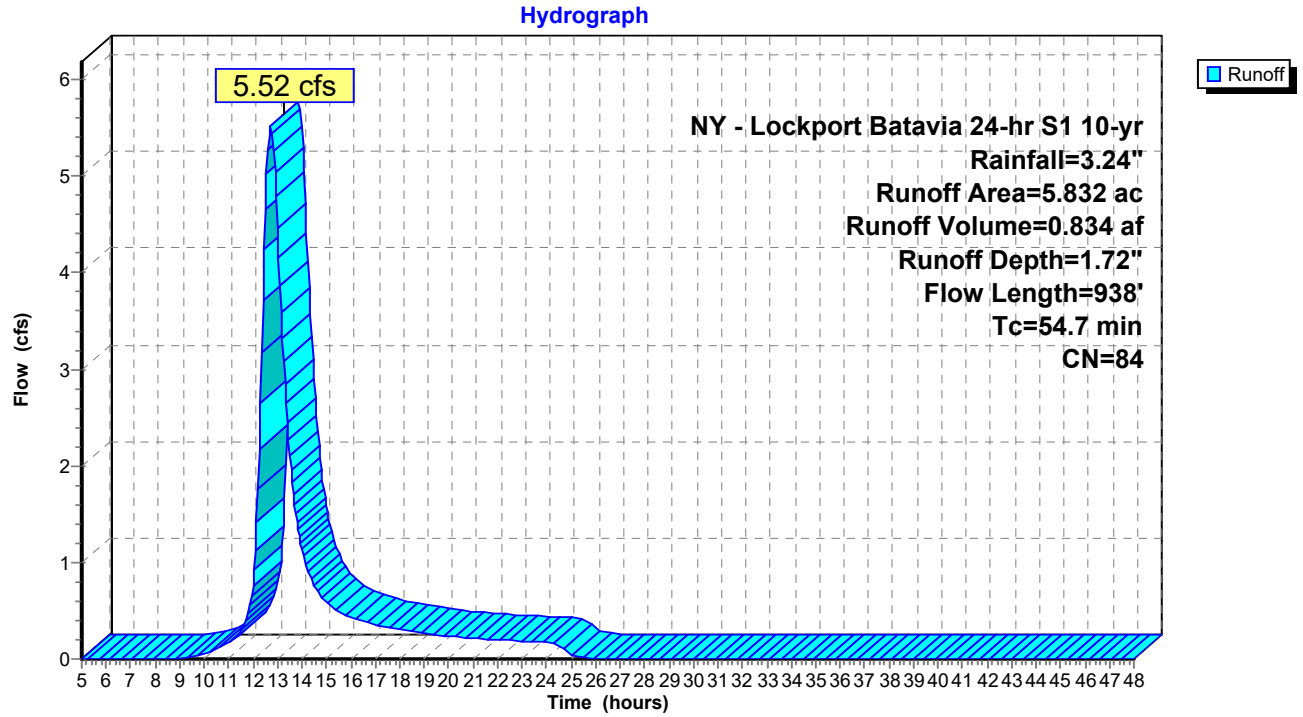
Runoff = 5.52 cfs @ 12.71 hrs, Volume= 0.834 af, Depth= 1.72"
Routed to Pond 12P : Culvert 013

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 10-yr Rainfall=3.24"

	Area (ac)	CN	Description
*	0.222	77	D - 77 - Deciduous Forest
*	1.173	78	D - 78 - Meadowed, grass, non-grazed land
*	1.200	78	D - 78 - Meadowed, grass, non-grazed land
*	0.112	78	D - 78 - Meadowed, grass, non-grazed land
*	0.115	78	D - 78 - Meadowed, grass, non-grazed land
*	0.123	90	D - 90 - Woody Wetlands
*	2.887	90	D - 90 - Woody Wetlands
	5.832	84	Weighted Average
	5.832		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.0300	0.17		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.21"
44.7	838	0.0039	0.31		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
54.7	938	Total			

Subcatchment 23S: DA 13



Summary for Subcatchment 24S: DA 14

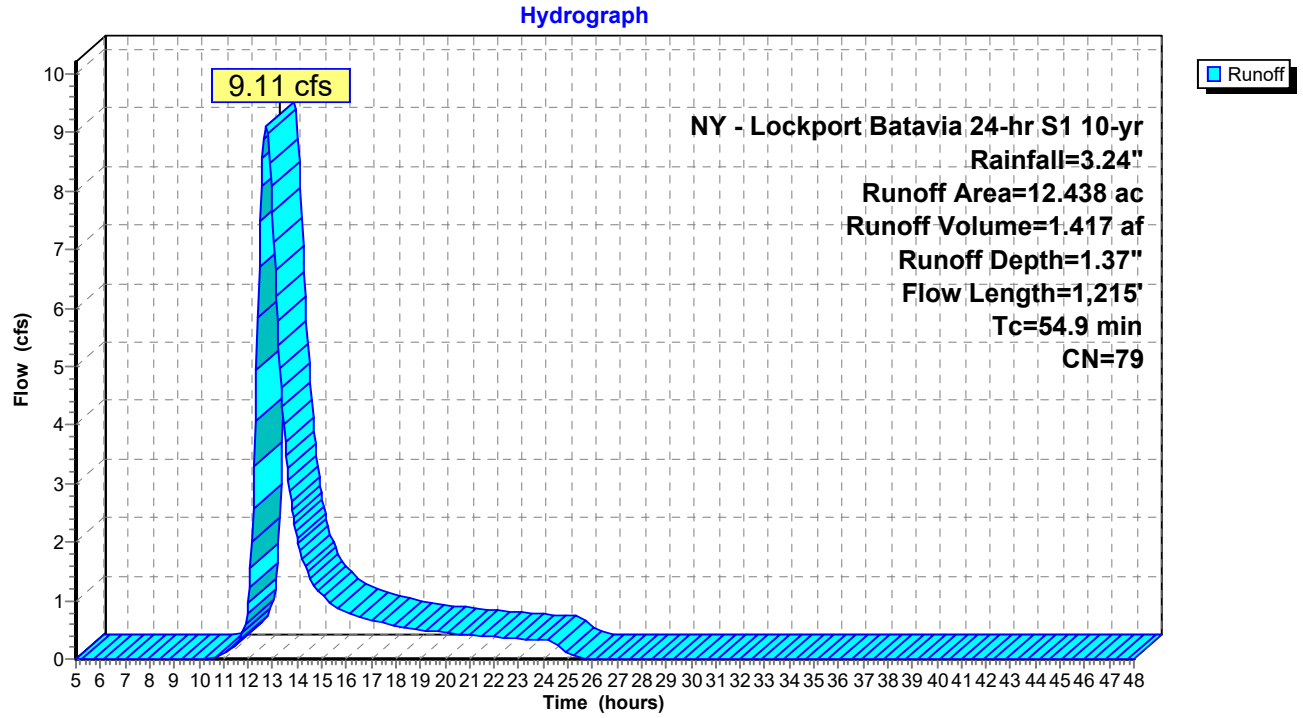
Runoff = 9.11 cfs @ 12.74 hrs, Volume= 1.417 af, Depth= 1.37"
Routed to Pond 7P : Culvert 014

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 10-yr Rainfall=3.24"

	Area (ac)	CN	Description
*	0.143	80	D - 80 - Developed open space
*	0.461	80	D - 80 - Developed open space
*	1.014	82	D - 82 - Developed Low intensity
*	1.218	82	D - 82 - Developed Low intensity
*	0.081	77	D - 77 - Deciduous Forest
*	7.367	78	D - 78 - Meadowed, grass, non-grazed land
*	2.154	78	D - 78 - Meadowed, grass, non-grazed land
	12.438	79	Weighted Average
	12.438		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0200	0.14		**Sheet Flow, 100' sheet** Grass: Short n= 0.150 P2= 2.21"
43.1	1,115	0.0038	0.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
54.9	1,215	Total			

Subcatchment 24S: DA 14



Summary for Subcatchment 25S: DA 15

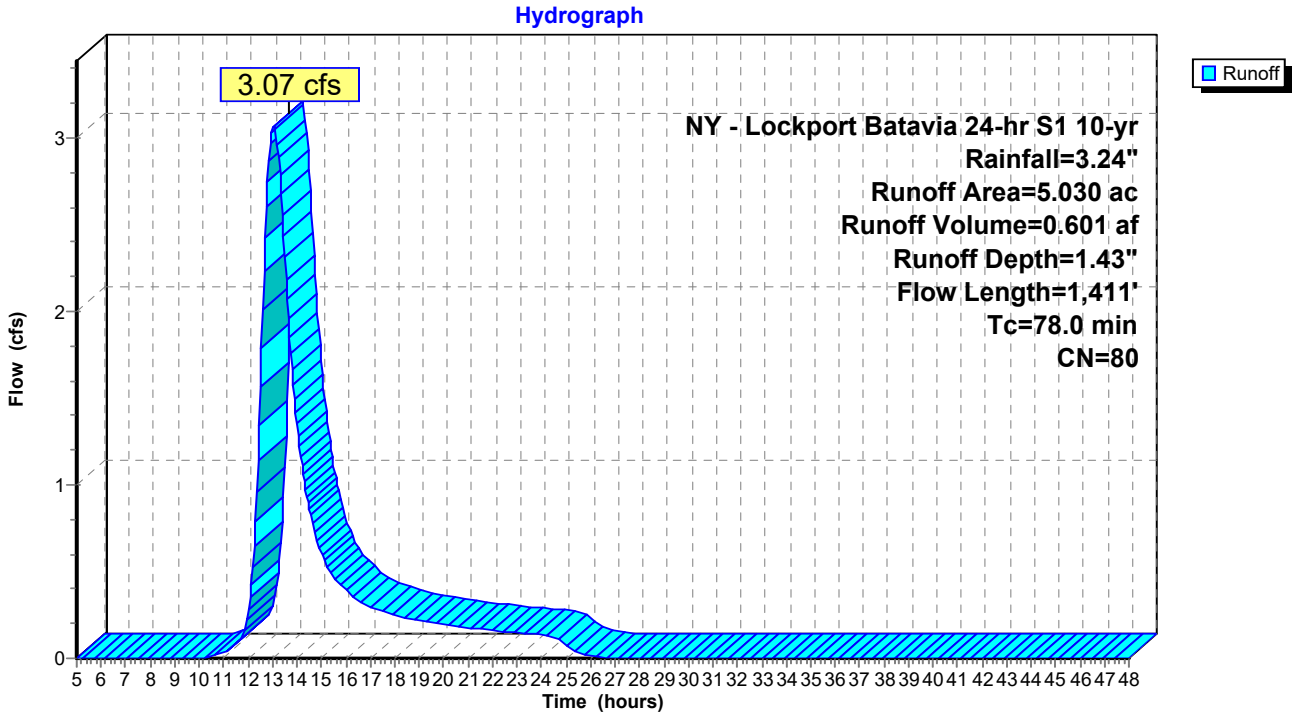
Runoff = 3.07 cfs @ 13.05 hrs, Volume= 0.601 af, Depth= 1.43"
Routed to Pond 8P : Culvert 015

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 10-yr Rainfall=3.24"

	Area (ac)	CN	Description
*	0.345	80	D - 80 - Developed open space
*	0.249	80	D - 80 - Developed open space
*	0.809	80	D - 80 - Developed open space
*	0.107	82	D - 82 - Developed Low intensity
*	1.183	82	D - 82 - Developed Low intensity
*	0.330	78	D - 78 - Meadowed, grass, non-grazed land
*	0.809	78	D - 78 - Meadowed, grass, non-grazed land
*	1.198	78	D - 78 - Meadowed, grass, non-grazed land
	5.030	80	Weighted Average
	5.030		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.6	100	0.0100	0.11		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.21"
62.4	1,311	0.0025	0.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
78.0	1,411	Total			

Subcatchment 25S: DA 15



Summary for Subcatchment 26S: DA 16

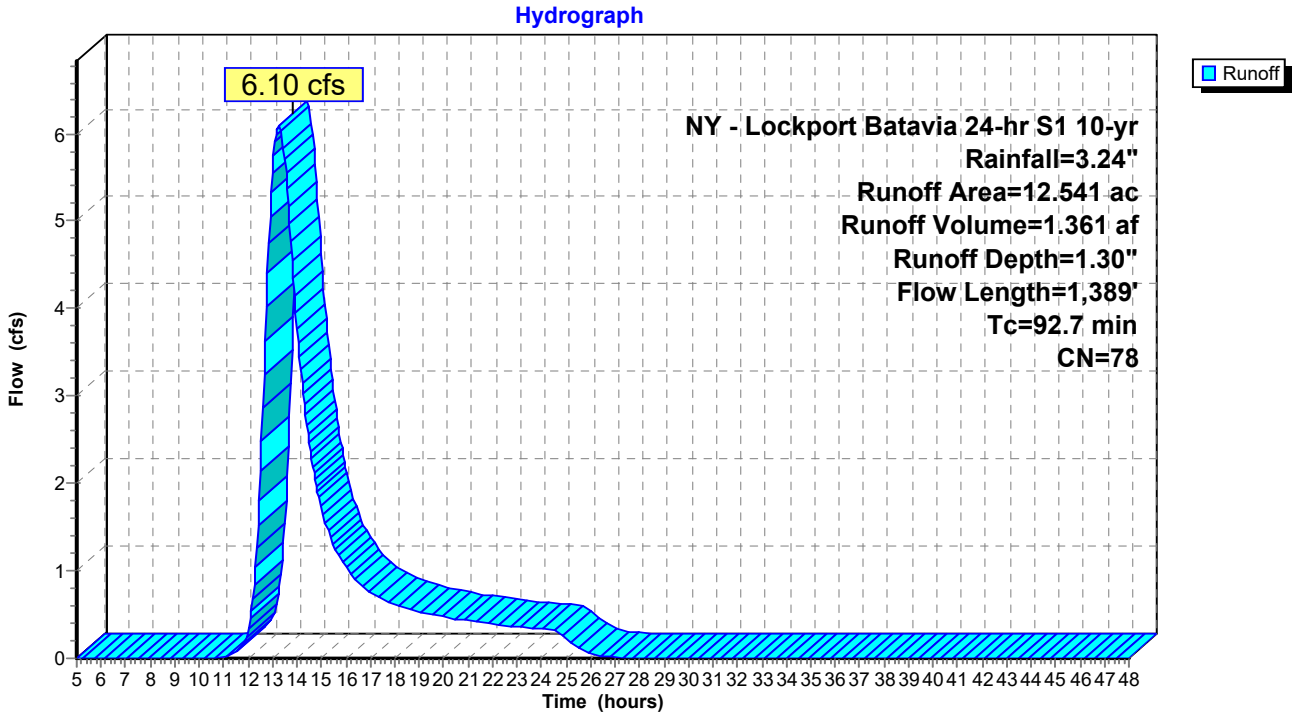
Runoff = 6.10 cfs @ 13.28 hrs, Volume= 1.361 af, Depth= 1.30"
Routed to Pond 13P : Culvert 016

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 10-yr Rainfall=3.24"

	Area (ac)	CN	Description
*	0.003	80	D - 80 - Developed open space
*	1.259	77	D - 77 - Deciduous Forest
*	0.202	77	D - 77 - Deciduous Forest
*	0.926	78	D - 78 - Meadowed, grass, non-grazed land
*	3.759	78	D - 78 - Meadowed, grass, non-grazed land
*	6.392	78	D - 78 - Meadowed, grass, non-grazed land
	12.541	78	Weighted Average
	12.541		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.7	100	0.0225	0.07		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.21"
24.6	495	0.0045	0.34		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
43.4	794	0.0019	0.31		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
92.7	1,389	Total			

Subcatchment 26S: DA 16



Summary for Subcatchment 28S: DA 18

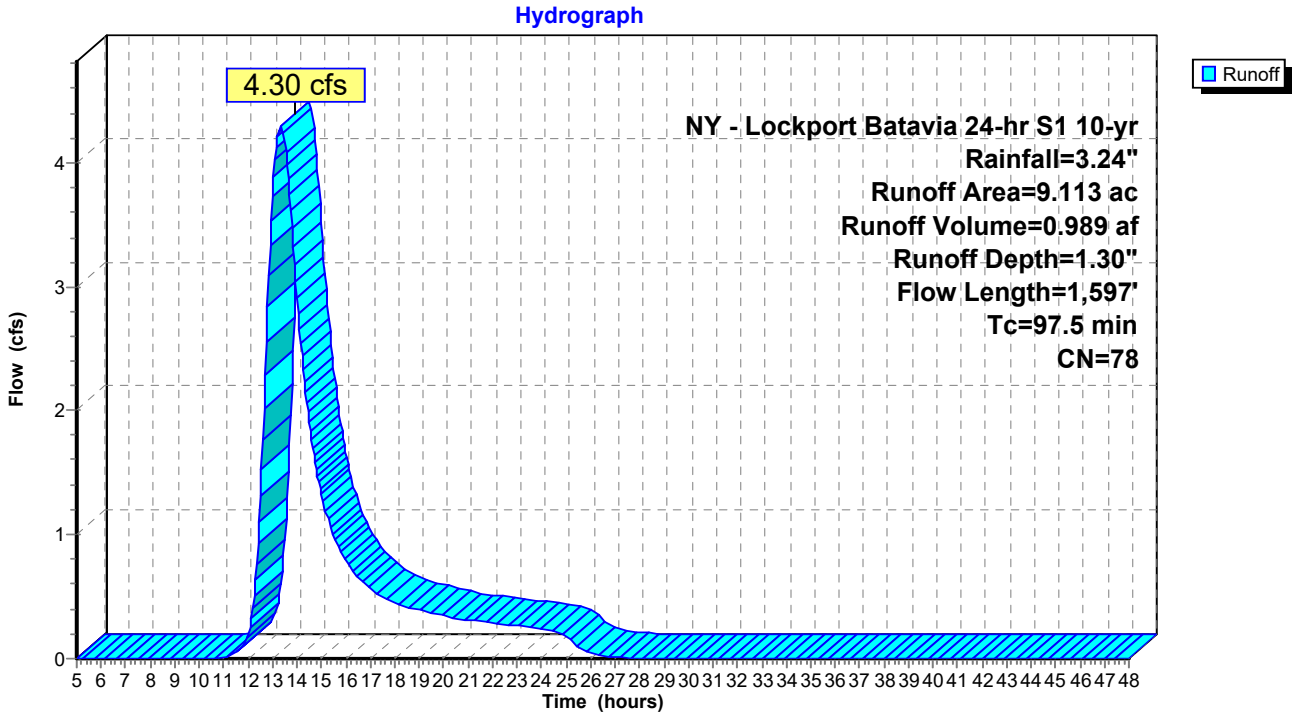
Runoff = 4.30 cfs @ 13.33 hrs, Volume= 0.989 af, Depth= 1.30"
Routed to Pond 10P : Culvert 018

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 10-yr Rainfall=3.24"

	Area (ac)	CN	Description
*	3.755	77	D - 77 - Deciduous Forest
*	5.358	78	D - 78 - Meadowed, grass, non-grazed land
	9.113	78	Weighted Average
	9.113		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.1	100	0.0100	0.05		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.21"
63.4	1,497	0.0062	0.39		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.5	1,597	Total			

Subcatchment 28S: DA 18



Summary for Subcatchment 29S: DA 19

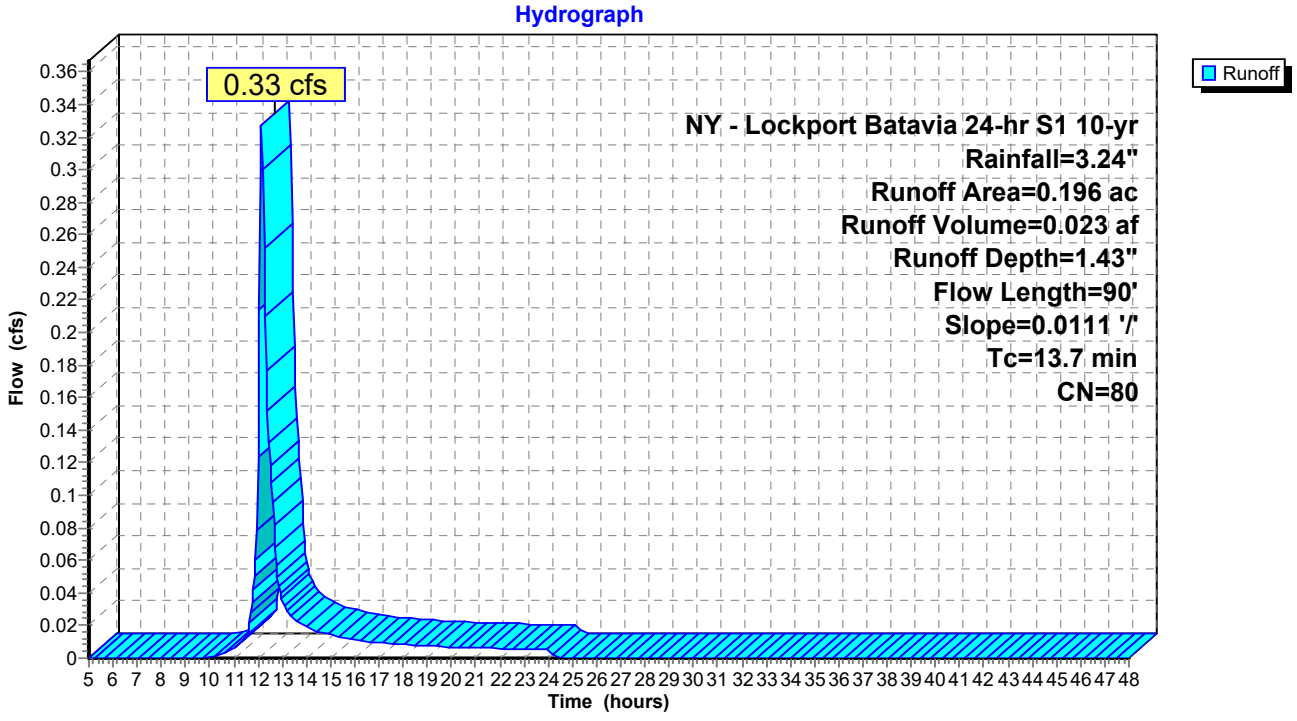
Runoff = 0.33 cfs @ 12.15 hrs, Volume= 0.023 af, Depth= 1.43"
Routed to Pond 14P : Culvert 019

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 10-yr Rainfall=3.24"

	Area (ac)	CN	Description
*	0.195	80	D - 80 - Developed open space
*	0.001	78	D - 78 - Meadowed, grass, non-grazed land
	0.196	80	Weighted Average
	0.196		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	90	0.0111	0.11		**Sheet Flow, 90' Sheet** Grass: Short n= 0.150 P2= 2.21"

Subcatchment 29S: DA 19



Summary for Subcatchment 37S: DA 12

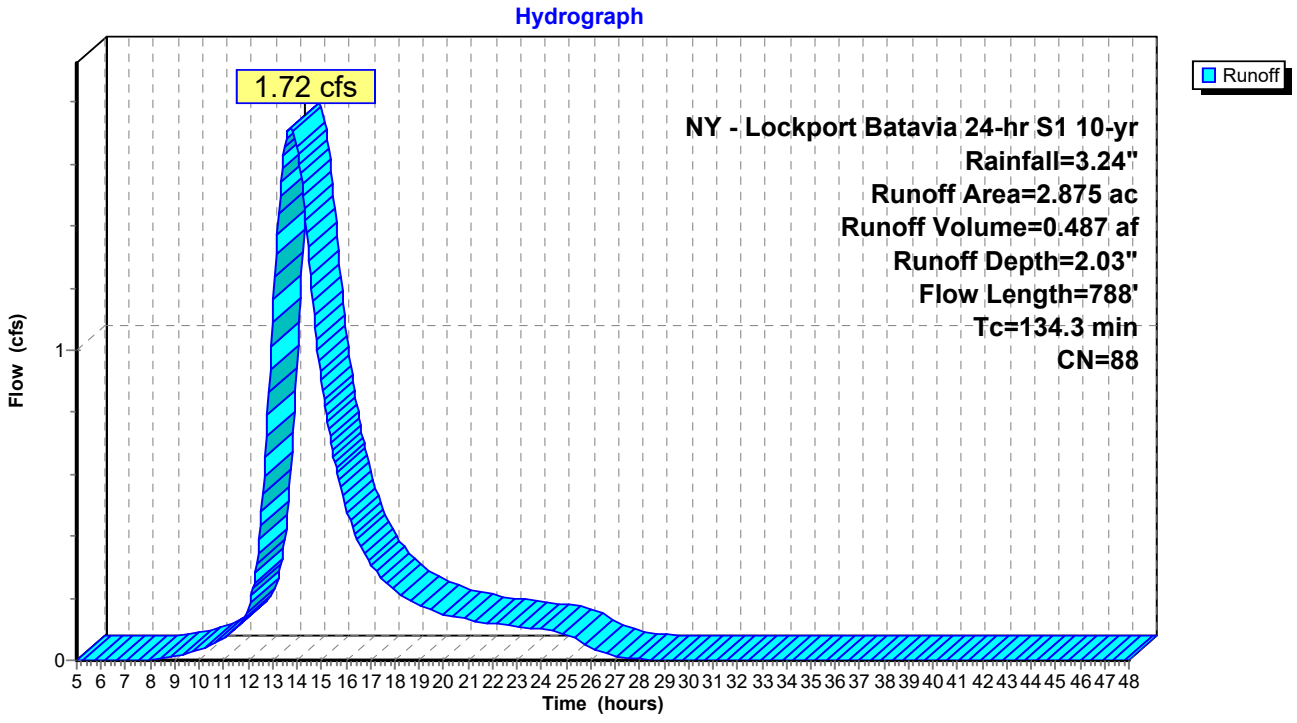
Runoff = 1.72 cfs @ 13.74 hrs, Volume= 0.487 af, Depth= 2.03"
Routed to Pond 11P : Culvert 012

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 10-yr Rainfall=3.24"

	Area (ac)	CN	Description
*	0.052	78	D - 78 - Meadowed, grass, non-grazed land
*	0.450	78	D - 78 - Meadowed, grass, non-grazed land
*	2.373	90	D - 90 - Woody Wetlands
	2.875	88	Weighted Average
	2.875		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.6	100	0.0400	0.09		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.21"
114.7	688	0.0004	0.10		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
134.3	788	Total			

Subcatchment 37S: DA 12



Summary for Subcatchment 46S: DA 17

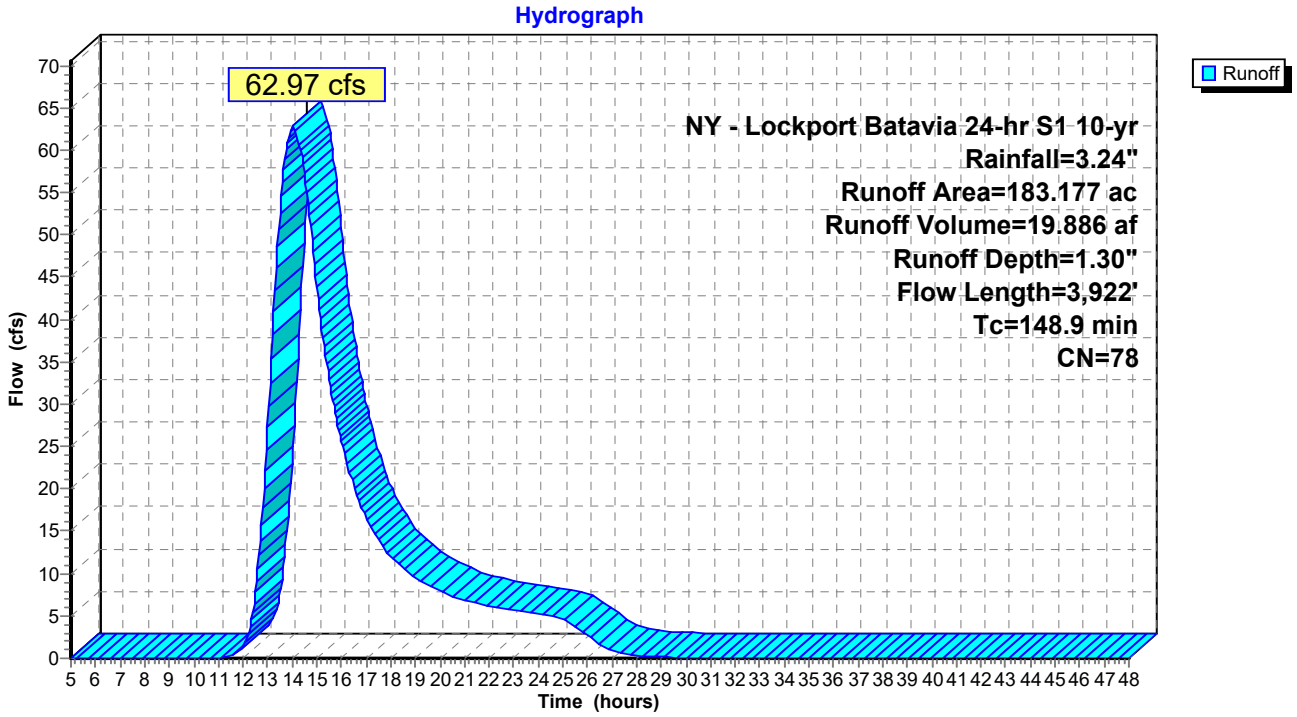
Runoff = 62.97 cfs @ 14.05 hrs, Volume= 19.886 af, Depth= 1.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 10-yr Rainfall=3.24"

	Area (ac)	CN	Description
*	2.507	80	D - 80 - Developed open space
*	3.318	80	D - 80 - Developed open space
*	2.790	80	D - 80 - Developed open space
*	2.870	82	D - 82 - Developed Low intensity
*	4.979	82	D - 82 - Developed Low intensity
*	4.781	82	D - 82 - Developed Low intensity
*	0.152	85	D - 85 - Developed Med intensity
*	1.263	77	D - 77 - Deciduous Forest
*	3.431	77	D - 77 - Deciduous Forest
*	3.544	77	D - 77 - Deciduous Forest
*	14.732	78	D - 78 - Meadowed, grass, non-grazed land
*	59.055	78	D - 78 - Meadowed, grass, non-grazed land
*	79.755	78	D - 78 - Meadowed, grass, non-grazed land
	183.177	78	Weighted Average
	183.177		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.7	100	0.0350	0.08		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.21"
48.7	1,573	0.0116	0.54		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
62.0	1,276	0.0047	0.34		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
17.5	973	0.0038	0.92		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
148.9	3,922	Total			

Subcatchment 46S: DA 17



Summary for Pond 6P: Culvert 011

[57] Hint: Peaked at 624.70' (Flood elevation advised)

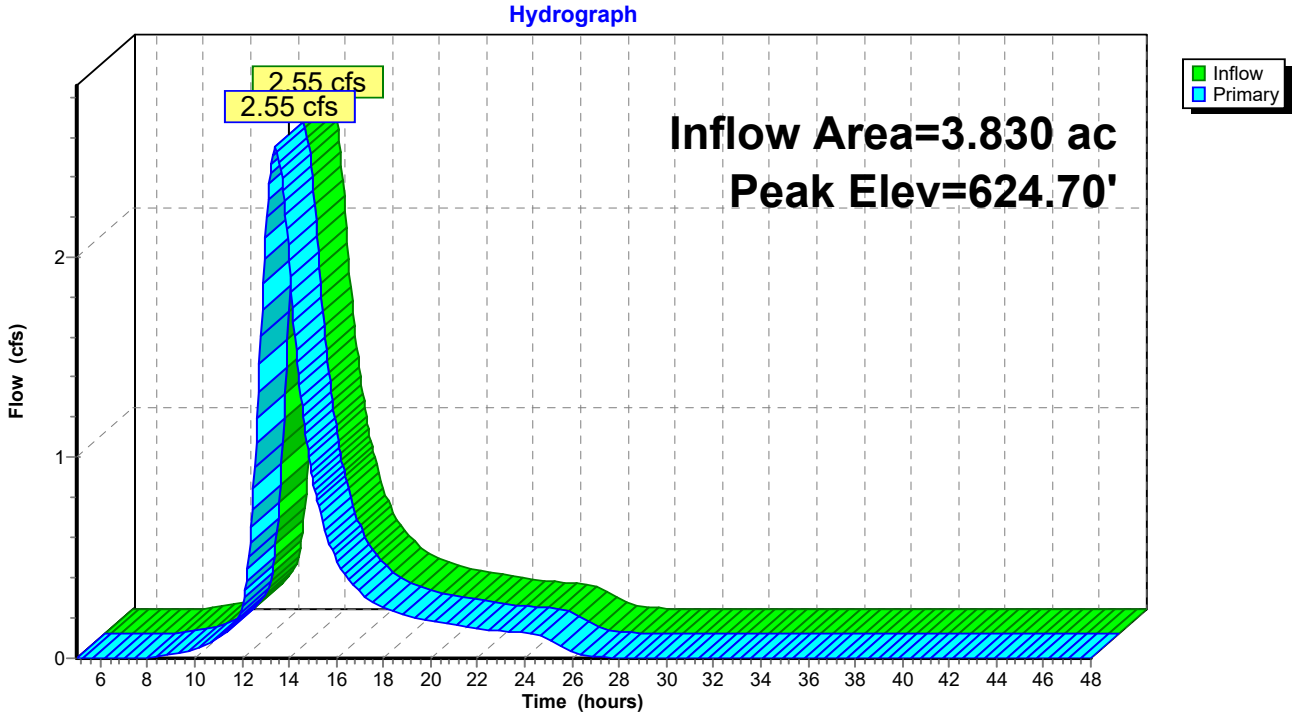
Inflow Area = 3.830 ac, 0.00% Impervious, Inflow Depth = 1.95" for 10-yr event
Inflow = 2.55 cfs @ 13.41 hrs, Volume= 0.622 af
Outflow = 2.55 cfs @ 13.41 hrs, Volume= 0.622 af, Atten= 0%, Lag= 0.0 min
Primary = 2.55 cfs @ 13.41 hrs, Volume= 0.622 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 624.70' @ 13.41 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	623.90'	**18.0" Round Culvert 011 w/ 3.6" inside fill** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 623.60' / 623.42' S= 0.0069 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	626.60'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=2.54 cfs @ 13.41 hrs HW=624.70' (Free Discharge)
└**1=Culvert 011** (Inlet Controls 2.54 cfs @ 2.25 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 6P: Culvert 011



Summary for Pond 7P: Culvert 014

[57] Hint: Peaked at 624.12' (Flood elevation advised)

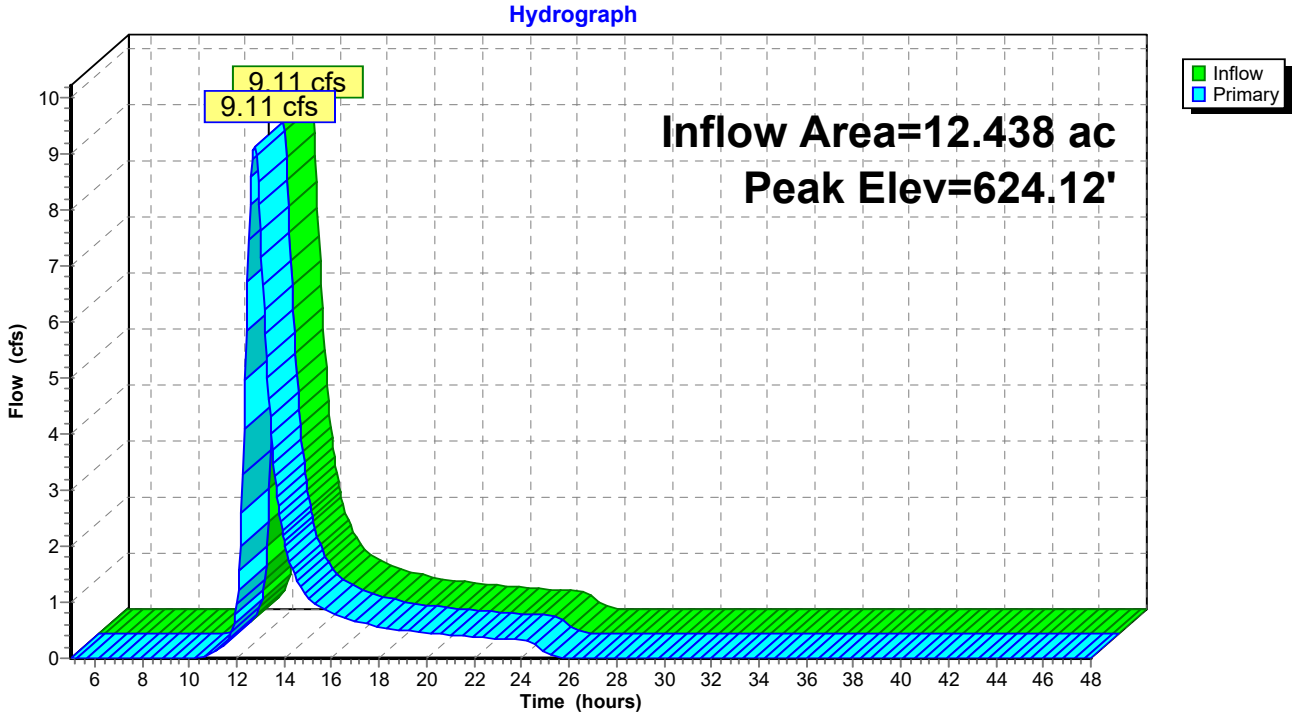
Inflow Area = 12.438 ac, 0.00% Impervious, Inflow Depth = 1.37" for 10-yr event
Inflow = 9.11 cfs @ 12.74 hrs, Volume= 1.417 af
Outflow = 9.11 cfs @ 12.74 hrs, Volume= 1.417 af, Atten= 0%, Lag= 0.0 min
Primary = 9.11 cfs @ 12.74 hrs, Volume= 1.417 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 624.12' @ 12.74 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	622.53'	**24.0" Round Culvert 014 w/ 4.8" inside fill** L= 45.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 622.13' / 621.78' S= 0.0078 '/' Cc= 0.900 n= 0.012, Flow Area= 2.69 sf
#2	Primary	625.63'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=9.10 cfs @ 12.74 hrs HW=624.11' (Free Discharge)
└**1=Culvert 014** (Inlet Controls 9.10 cfs @ 3.38 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 7P: Culvert 014



Summary for Pond 8P: Culvert 015

[57] Hint: Peaked at 624.57' (Flood elevation advised)

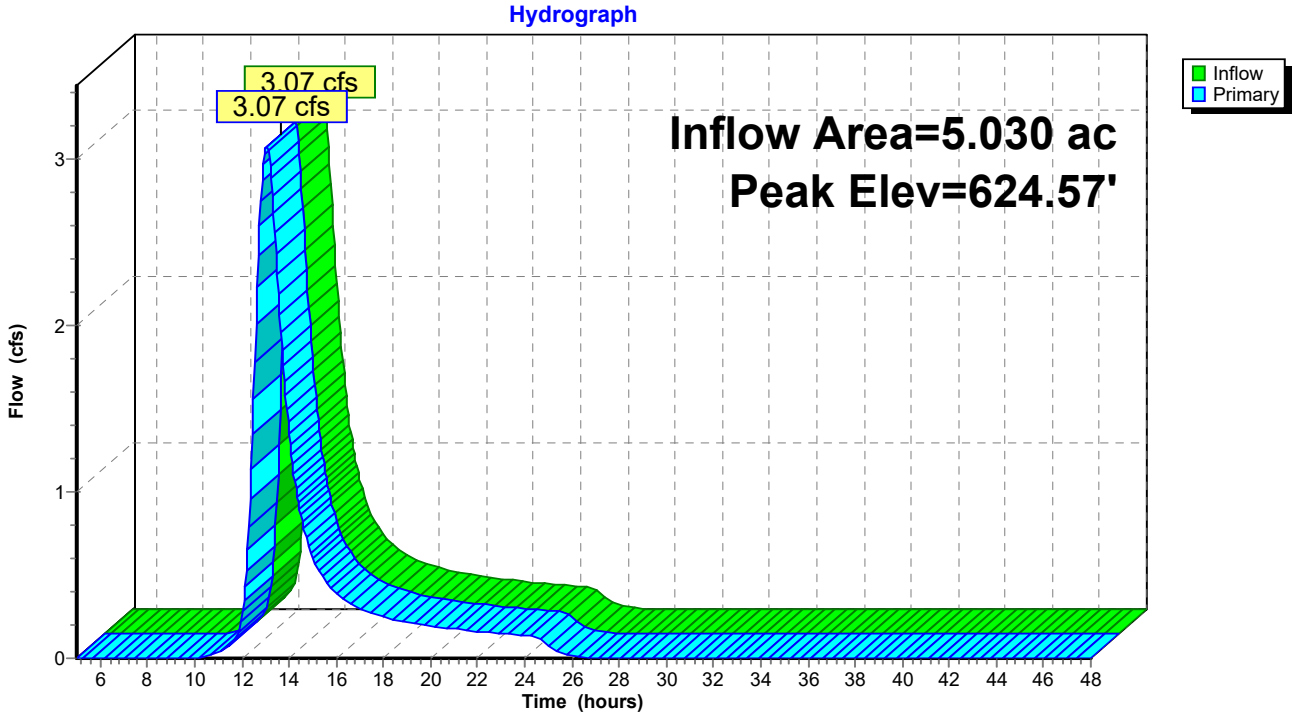
Inflow Area = 5.030 ac, 0.00% Impervious, Inflow Depth = 1.43" for 10-yr event
Inflow = 3.07 cfs @ 13.05 hrs, Volume= 0.601 af
Outflow = 3.07 cfs @ 13.05 hrs, Volume= 0.601 af, Atten= 0%, Lag= 0.0 min
Primary = 3.07 cfs @ 13.05 hrs, Volume= 0.601 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 624.57' @ 13.05 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	623.67'	**18.0" Round Culvert 015 w/ 3.6" inside fill** L= 75.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 623.37' / 622.41' S= 0.0128 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	626.37'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=3.07 cfs @ 13.05 hrs HW=624.57' (Free Discharge)
└─**1=Culvert 015** (Inlet Controls 3.07 cfs @ 2.42 fps)
└─**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 8P: Culvert 015



Summary for Pond 10P: Culvert 018

[57] Hint: Peaked at 624.61' (Flood elevation advised)

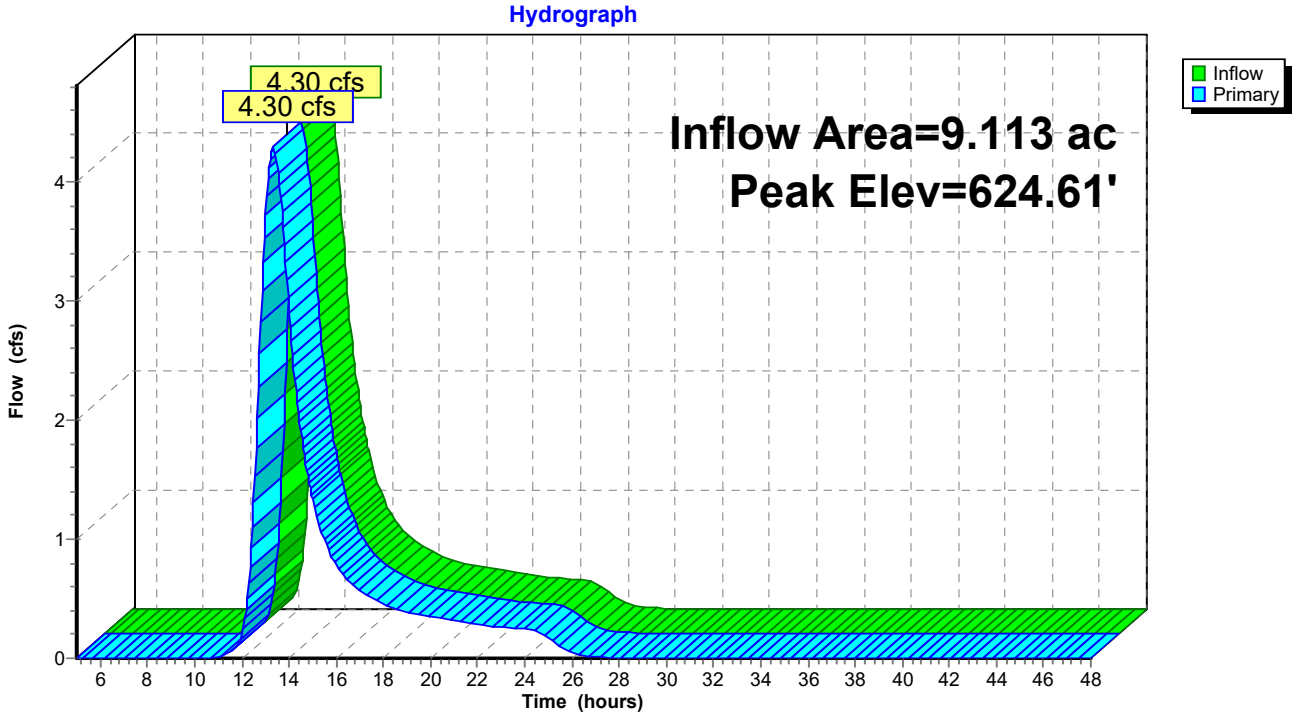
Inflow Area = 9.113 ac, 0.00% Impervious, Inflow Depth = 1.30" for 10-yr event
Inflow = 4.30 cfs @ 13.33 hrs, Volume= 0.989 af
Outflow = 4.30 cfs @ 13.33 hrs, Volume= 0.989 af, Atten= 0%, Lag= 0.0 min
Primary = 4.30 cfs @ 13.33 hrs, Volume= 0.989 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 624.61' @ 13.33 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	623.45'	**18.0" Round Culvert 018 w/ 3.6" inside fill** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 623.15' / 622.17' S= 0.0316 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	626.15'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=4.30 cfs @ 13.33 hrs HW=624.61' (Free Discharge)
└**1=Culvert 018** (Inlet Controls 4.30 cfs @ 2.86 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 10P: Culvert 018



Summary for Pond 11P: Culvert 012

[57] Hint: Peaked at 624.50' (Flood elevation advised)

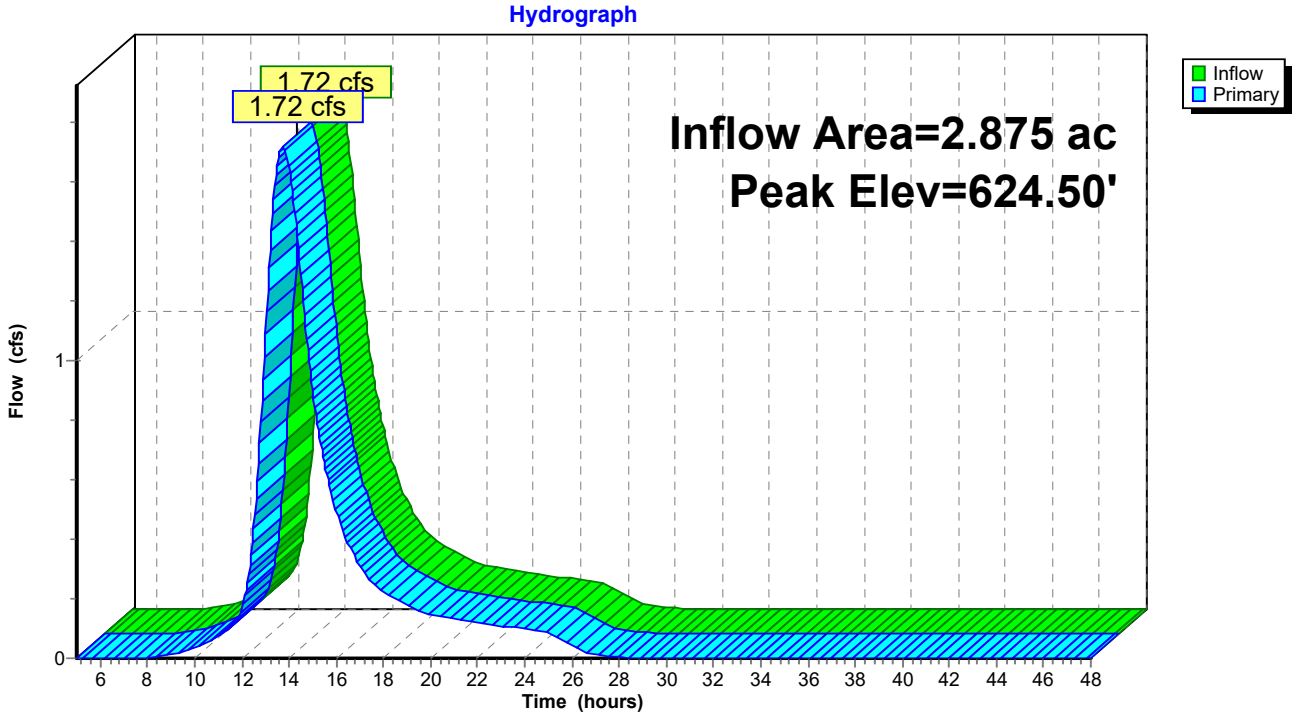
Inflow Area = 2.875 ac, 0.00% Impervious, Inflow Depth = 2.03" for 10-yr event
Inflow = 1.72 cfs @ 13.74 hrs, Volume= 0.487 af
Outflow = 1.72 cfs @ 13.74 hrs, Volume= 0.487 af, Atten= 0%, Lag= 0.0 min
Primary = 1.72 cfs @ 13.74 hrs, Volume= 0.487 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 624.50' @ 13.74 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	623.84'	**18.0" Round Culvert 012 w/ 3.6" inside fill** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 623.54' / 623.47' S= 0.0023 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	626.54'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=1.72 cfs @ 13.74 hrs HW=624.50' (Free Discharge)
└**1=Culvert 012** (Barrel Controls 1.72 cfs @ 2.45 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 11P: Culvert 012



Summary for Pond 12P: Culvert 013

[57] Hint: Peaked at 625.39' (Flood elevation advised)

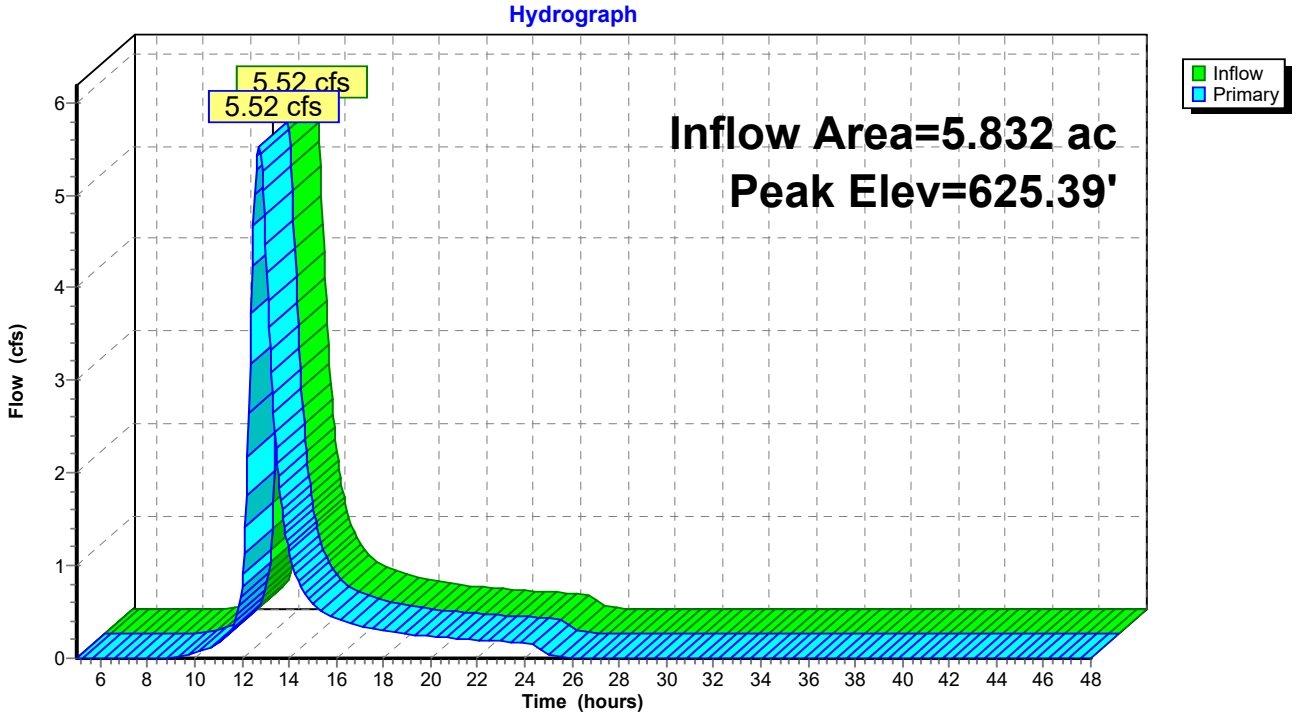
Inflow Area = 5.832 ac, 0.00% Impervious, Inflow Depth = 1.72" for 10-yr event
Inflow = 5.52 cfs @ 12.71 hrs, Volume= 0.834 af
Outflow = 5.52 cfs @ 12.71 hrs, Volume= 0.834 af, Atten= 0%, Lag= 0.0 min
Primary = 5.52 cfs @ 12.71 hrs, Volume= 0.834 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 625.39' @ 12.71 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	623.90'	**18.0" Round Culvert 013 w/ 3.6" inside fill** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 623.60' / 623.27' S= 0.0106 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	626.60'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=5.51 cfs @ 12.71 hrs HW=625.39' (Free Discharge)
└**1=Culvert 013** (Inlet Controls 5.51 cfs @ 3.63 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 12P: Culvert 013



Summary for Pond 13P: Culvert 016

[57] Hint: Peaked at 624.08' (Flood elevation advised)

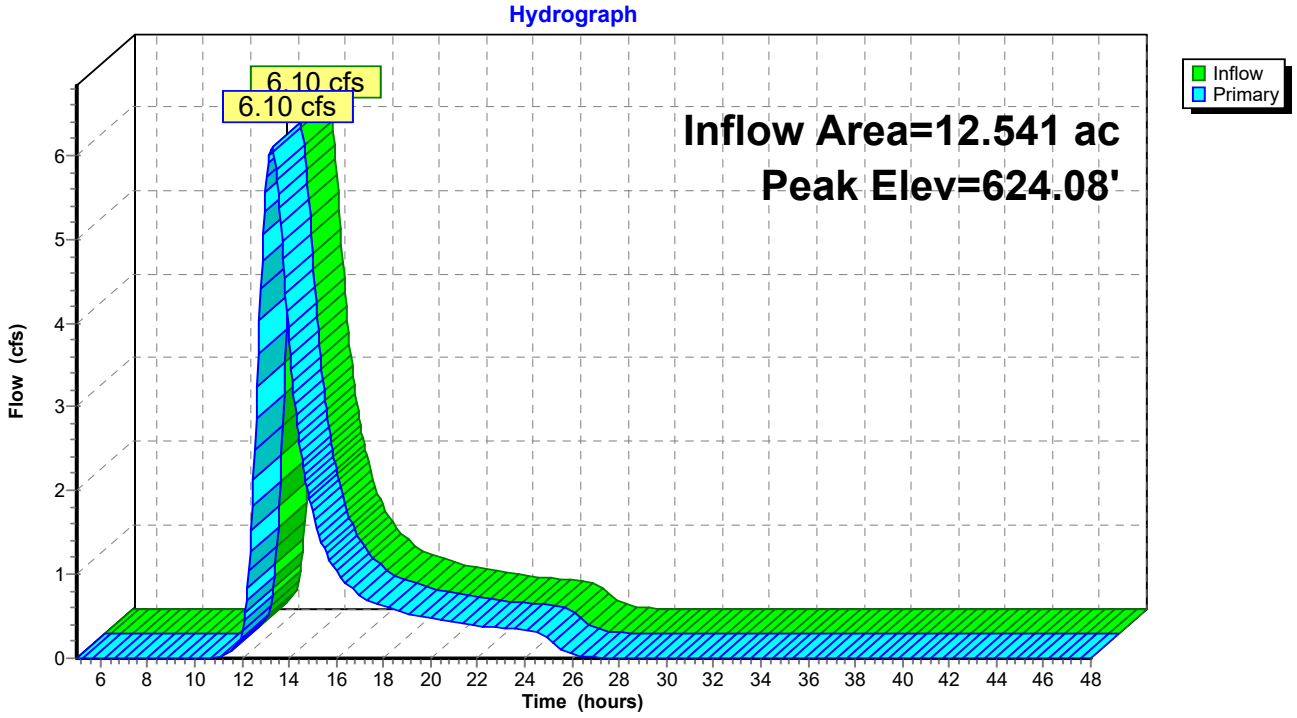
Inflow Area = 12.541 ac, 0.00% Impervious, Inflow Depth = 1.30" for 10-yr event
Inflow = 6.10 cfs @ 13.28 hrs, Volume= 1.361 af
Outflow = 6.10 cfs @ 13.28 hrs, Volume= 1.361 af, Atten= 0%, Lag= 0.0 min
Primary = 6.10 cfs @ 13.28 hrs, Volume= 1.361 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 624.08' @ 13.28 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	622.90'	**24.0" Round Culvert 016 w/ 4.8" inside fill** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 622.50' / 622.27' S= 0.0074 '/' Cc= 0.900 n= 0.012, Flow Area= 2.69 sf
#2	Primary	626.00'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=6.09 cfs @ 13.28 hrs HW=624.08' (Free Discharge)
└─**1=Culvert 016** (Inlet Controls 6.09 cfs @ 2.76 fps)
└─**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 13P: Culvert 016



Summary for Pond 14P: Culvert 019

[57] Hint: Peaked at 619.96' (Flood elevation advised)

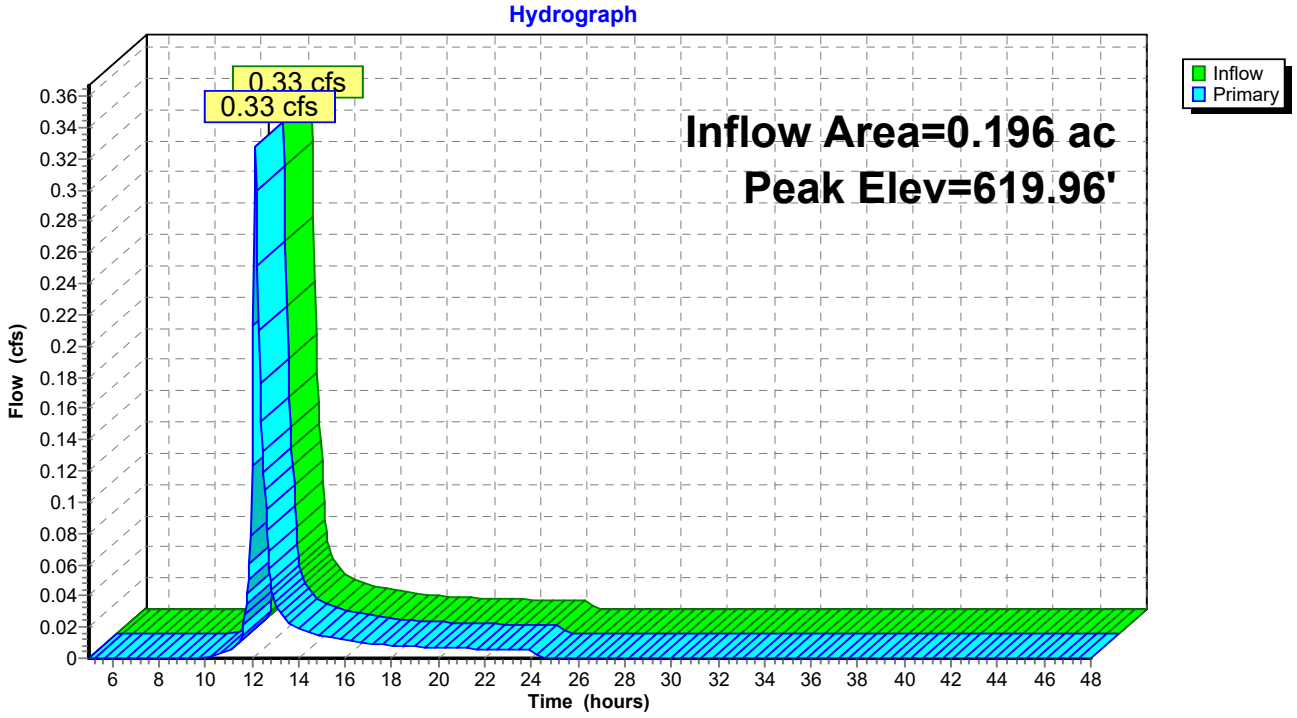
Inflow Area = 0.196 ac, 0.00% Impervious, Inflow Depth = 1.43" for 10-yr event
Inflow = 0.33 cfs @ 12.15 hrs, Volume= 0.023 af
Outflow = 0.33 cfs @ 12.15 hrs, Volume= 0.023 af, Atten= 0%, Lag= 0.0 min
Primary = 0.33 cfs @ 12.15 hrs, Volume= 0.023 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 619.96' @ 12.15 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	619.75'	**18.0" Round Culvert 019 w/ 3.6" inside fill** L= 75.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 619.45' / 618.07' S= 0.0184 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	622.45'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.33 cfs @ 12.15 hrs HW=619.96' (Free Discharge)
└**1=Culvert 019** (Inlet Controls 0.33 cfs @ 1.15 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 14P: Culvert 019



Summary for Pond 31P: Culvert 007

[57] Hint: Peaked at 621.82' (Flood elevation advised)

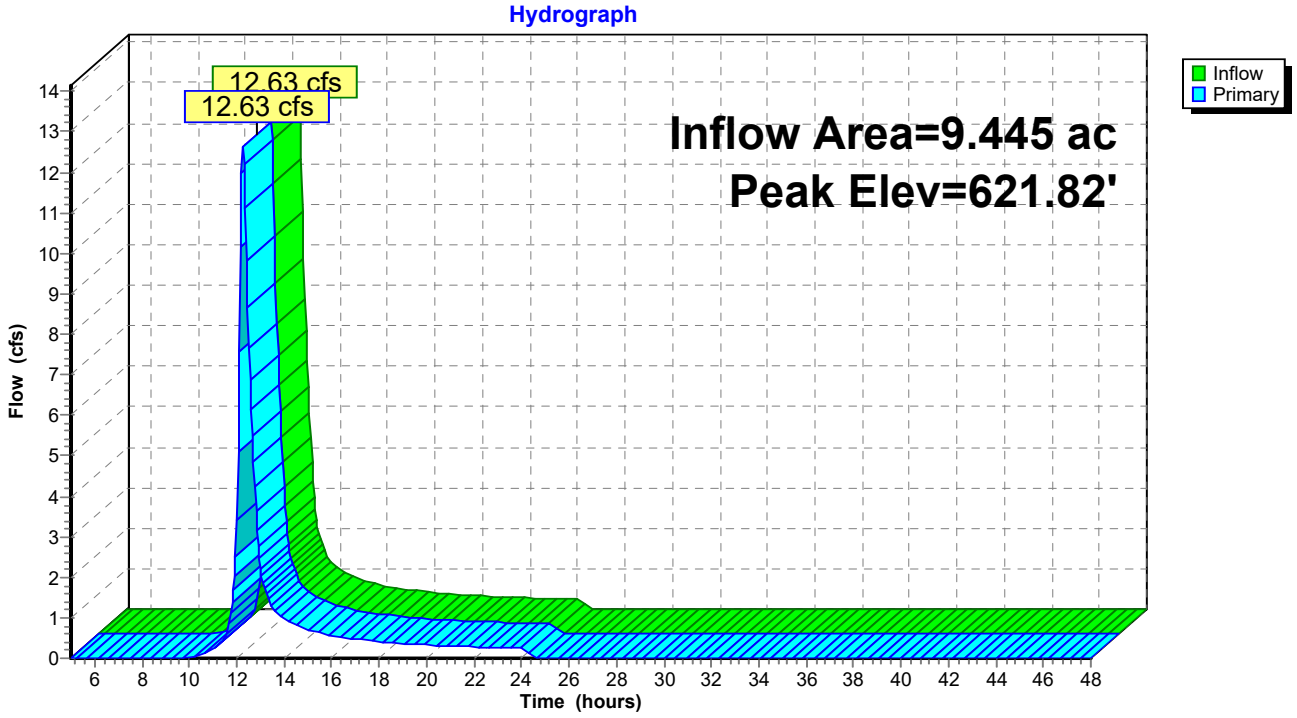
Inflow Area = 9.445 ac, 0.00% Impervious, Inflow Depth = 1.43" for 10-yr event
Inflow = 12.63 cfs @ 12.26 hrs, Volume= 1.128 af
Outflow = 12.63 cfs @ 12.26 hrs, Volume= 1.128 af, Atten= 0%, Lag= 0.0 min
Primary = 12.63 cfs @ 12.26 hrs, Volume= 1.128 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 621.82' @ 12.26 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	616.47'	**18.0" Round Culvert 007 w/ 3.6" inside fill** L= 44.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 616.17' / 614.58' S= 0.0361 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	621.84'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=12.58 cfs @ 12.26 hrs HW=621.79' (Free Discharge)
└**1=Culvert 007** (Inlet Controls 12.58 cfs @ 8.30 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 31P: Culvert 007



Summary for Pond 32P: Culvert 008

[57] Hint: Peaked at 616.95' (Flood elevation advised)

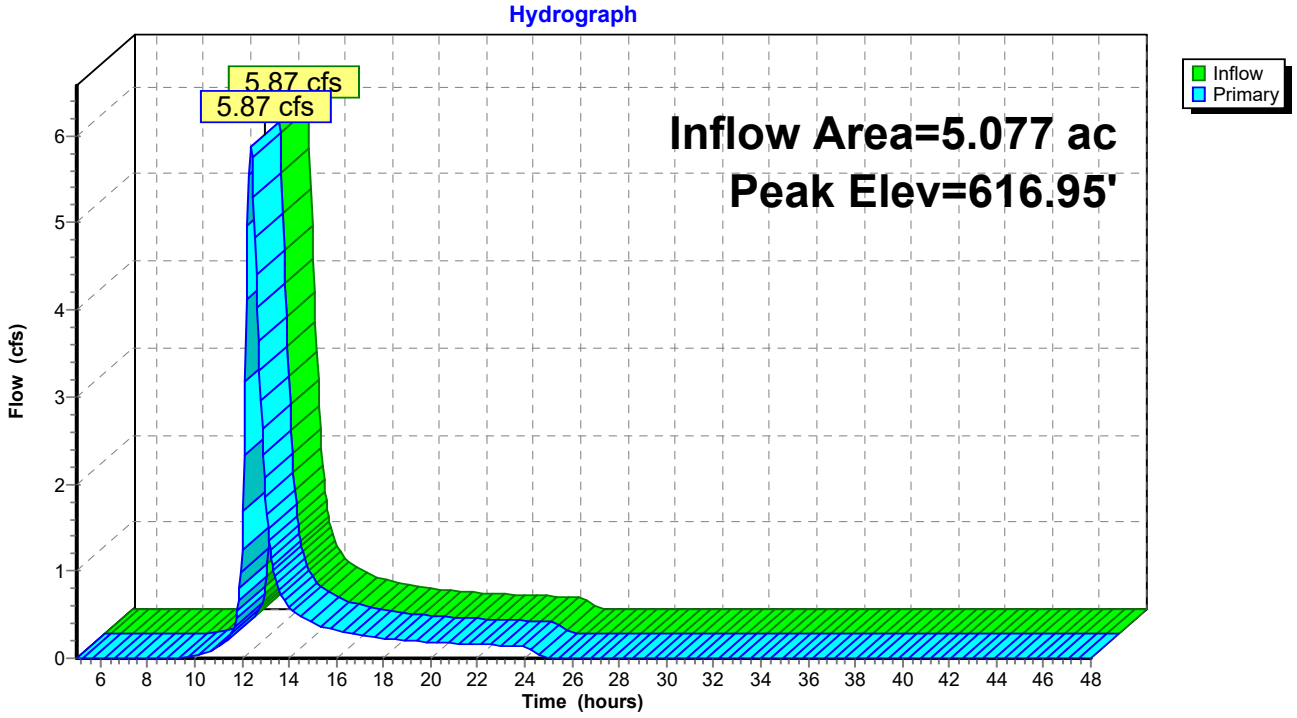
Inflow Area = 5.077 ac, 0.00% Impervious, Inflow Depth = 1.50" for 10-yr event
Inflow = 5.87 cfs @ 12.38 hrs, Volume= 0.635 af
Outflow = 5.87 cfs @ 12.38 hrs, Volume= 0.635 af, Atten= 0%, Lag= 0.0 min
Primary = 5.87 cfs @ 12.38 hrs, Volume= 0.635 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 616.95' @ 12.38 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	615.12'	**18.0" Round Culvert 008 w/ 3.6" inside fill** L= 60.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 614.82' / 614.75' S= 0.0012 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	617.82'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=5.85 cfs @ 12.38 hrs HW=616.94' (Free Discharge)
└─**1=Culvert 008** (Barrel Controls 5.85 cfs @ 3.86 fps)
└─**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 32P: Culvert 008



Summary for Pond 34P: Culvert 001

[57] Hint: Peaked at 623.76' (Flood elevation advised)

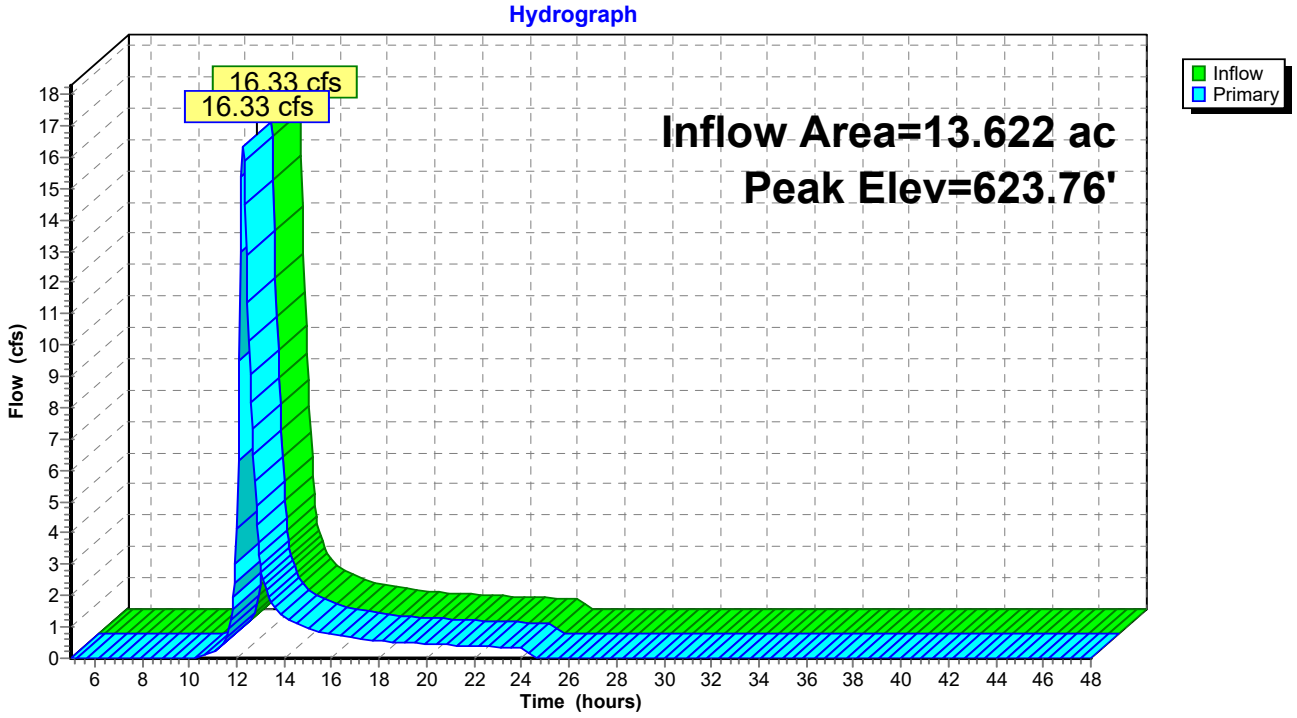
Inflow Area = 13.622 ac, 0.00% Impervious, Inflow Depth = 1.30" for 10-yr event
Inflow = 16.33 cfs @ 12.26 hrs, Volume= 1.479 af
Outflow = 16.33 cfs @ 12.26 hrs, Volume= 1.479 af, Atten= 0%, Lag= 0.0 min
Primary = 16.33 cfs @ 12.26 hrs, Volume= 1.479 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 623.76' @ 12.26 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	621.73'	**30.0" Round Culvert 001 w/ 6.0" inside fill** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 621.23' / 620.53' S= 0.0259 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 4.21 sf
#2	Primary	625.23'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=16.24 cfs @ 12.26 hrs HW=623.75' (Free Discharge)
└**1=Culvert 001** (Inlet Controls 16.24 cfs @ 3.86 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 34P: Culvert 001



Summary for Pond 35P: Culvert 002-005

[57] Hint: Peaked at 629.44' (Flood elevation advised)

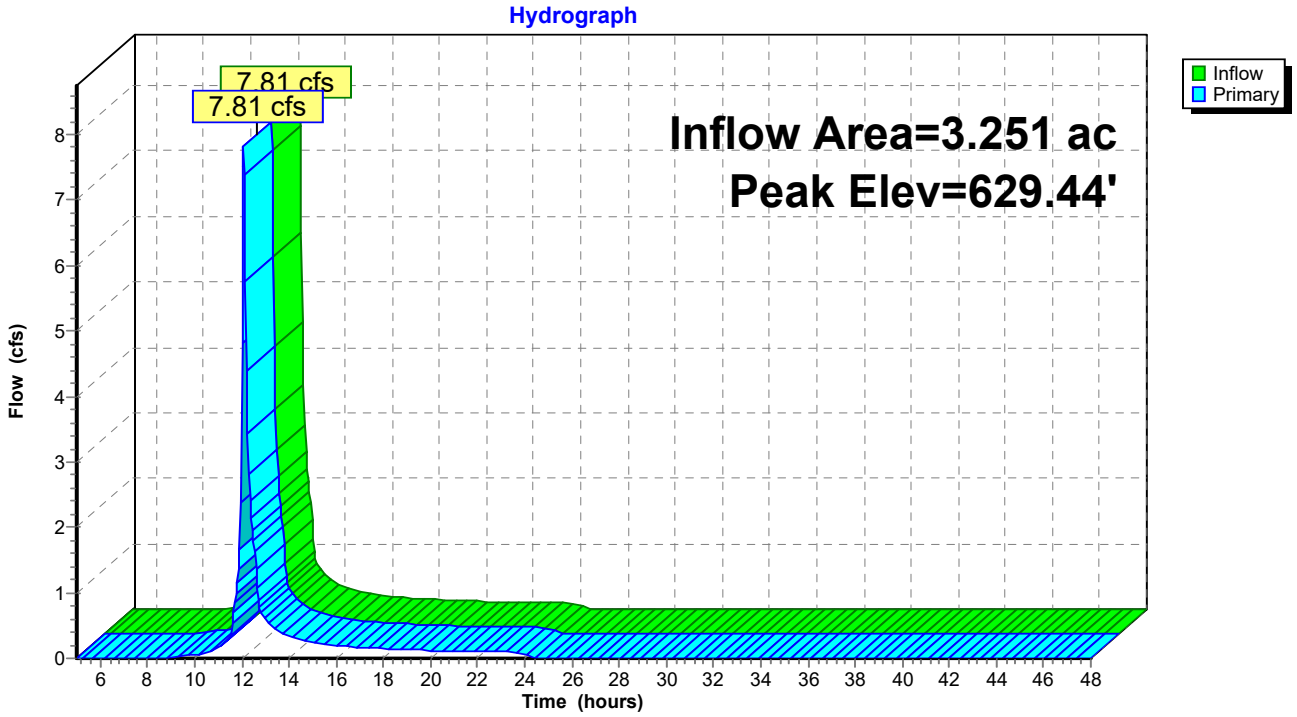
Inflow Area = 3.251 ac, 0.00% Impervious, Inflow Depth = 1.64" for 10-yr event
Inflow = 7.81 cfs @ 12.07 hrs, Volume= 0.445 af
Outflow = 7.81 cfs @ 12.07 hrs, Volume= 0.445 af, Atten= 0%, Lag= 0.0 min
Primary = 7.81 cfs @ 12.07 hrs, Volume= 0.445 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 629.44' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	630.02'	**18.0" Round Culvert 002 w/ 3.6" inside fill** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 629.72' / 628.62' S= 0.0500 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	627.94'	**18.0" Round Culvert 003 w/ 3.6" inside fill** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 627.64' / 627.35' S= 0.0132 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#3	Primary	628.72'	**18.0" Round Culvert 004 w/ 3.6" inside fill** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 628.42' / 628.36' S= 0.0027 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#4	Primary	629.20'	**18.0" Round Culvert 005 w/ 3.6" inside fill** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 628.90' / 628.68' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#5	Primary	631.67'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=7.46 cfs @ 12.07 hrs HW=629.39' (Free Discharge)
- **1=Culvert 002** (Controls 0.00 cfs)
- **2=Culvert 003** (Inlet Controls 5.40 cfs @ 3.56 fps)
- **3=Culvert 004** (Barrel Controls 1.79 cfs @ 2.51 fps)
- **4=Culvert 005** (Inlet Controls 0.28 cfs @ 1.10 fps)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 35P: Culvert 002-005



Time span=5.00-48.00 hrs, dt=0.05 hrs, 861 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment15S: DA 1 Runoff Area=13.622 ac 0.00% Impervious Runoff Depth=2.61"
Flow Length=968' Tc=21.2 min CN=78 Runoff=35.06 cfs 2.963 af

Subcatchment16S: DA 2-5 Runoff Area=3.251 ac 0.00% Impervious Runoff Depth=3.07"
Flow Length=403' Tc=8.5 min CN=83 Runoff=15.28 cfs 0.831 af

Subcatchment17S: DA 7 Runoff Area=9.445 ac 0.00% Impervious Runoff Depth=2.79"
Flow Length=888' Tc=21.2 min CN=80 Runoff=26.05 cfs 2.195 af

Subcatchment18S: DA 8 Runoff Area=5.077 ac 0.00% Impervious Runoff Depth=2.88"
Flow Length=924' Tc=30.2 min CN=81 Runoff=11.89 cfs 1.218 af

Subcatchment20S: DA 10 Runoff Area=141.450 ac 0.11% Impervious Runoff Depth=2.88"
Flow Length=6,066' Tc=181.5 min CN=81 Runoff=97.88 cfs 33.943 af

Subcatchment21S: DA 11 Runoff Area=3.830 ac 0.00% Impervious Runoff Depth=3.45"
Flow Length=828' Tc=110.7 min CN=87 Runoff=4.65 cfs 1.103 af

Subcatchment23S: DA 13 Runoff Area=5.832 ac 0.00% Impervious Runoff Depth=3.16"
Flow Length=938' Tc=54.7 min CN=84 Runoff=10.58 cfs 1.536 af

Subcatchment24S: DA 14 Runoff Area=12.438 ac 0.00% Impervious Runoff Depth=2.70"
Flow Length=1,215' Tc=54.9 min CN=79 Runoff=19.08 cfs 2.797 af

Subcatchment25S: DA 15 Runoff Area=5.030 ac 0.00% Impervious Runoff Depth=2.79"
Flow Length=1,411' Tc=78.0 min CN=80 Runoff=6.32 cfs 1.169 af

Subcatchment26S: DA 16 Runoff Area=12.541 ac 0.00% Impervious Runoff Depth=2.61"
Flow Length=1,389' Tc=92.7 min CN=78 Runoff=13.00 cfs 2.728 af

Subcatchment28S: DA 18 Runoff Area=9.113 ac 0.00% Impervious Runoff Depth=2.61"
Flow Length=1,597' Tc=97.5 min CN=78 Runoff=9.17 cfs 1.982 af

Subcatchment29S: DA 19 Runoff Area=0.196 ac 0.00% Impervious Runoff Depth=2.79"
Flow Length=90' Slope=0.0111 '/' Tc=13.7 min CN=80 Runoff=0.68 cfs 0.046 af

Subcatchment37S: DA 12 Runoff Area=2.875 ac 0.00% Impervious Runoff Depth=3.56"
Flow Length=788' Tc=134.3 min CN=88 Runoff=3.08 cfs 0.852 af

Subcatchment46S: DA 17 Runoff Area=183.177 ac 0.00% Impervious Runoff Depth=2.61"
Flow Length=3,922' Tc=148.9 min CN=78 Runoff=133.72 cfs 39.843 af

Pond 6P: Culvert 011 Peak Elev=625.14' Inflow=4.65 cfs 1.103 af
Outflow=4.65 cfs 1.103 af

Pond 7P: Culvert 014 Peak Elev=625.68' Inflow=19.08 cfs 2.797 af
Outflow=19.08 cfs 2.797 af

Pond 8P: Culvert 015 Peak Elev=625.44' Inflow=6.32 cfs 1.169 af
Outflow=6.32 cfs 1.169 af

Pond 10P: Culvert 018 Peak Elev=626.17' Inflow=9.17 cfs 1.982 af
Outflow=9.17 cfs 1.982 af

Pond 11P: Culvert 012 Peak Elev=624.82' Inflow=3.08 cfs 0.852 af
Outflow=3.08 cfs 0.852 af

Pond 12P: Culvert 013 Peak Elev=626.64' Inflow=10.58 cfs 1.536 af
Outflow=10.58 cfs 1.536 af

Pond 13P: Culvert 016 Peak Elev=625.27' Inflow=13.00 cfs 2.728 af
Outflow=13.00 cfs 2.728 af

Pond 14P: Culvert 019 Peak Elev=620.09' Inflow=0.68 cfs 0.046 af
Outflow=0.68 cfs 0.046 af

Pond 31P: Culvert 007 Peak Elev=621.97' Inflow=26.05 cfs 2.195 af
Outflow=26.05 cfs 2.195 af

Pond 32P: Culvert 008 Peak Elev=617.87' Inflow=11.89 cfs 1.218 af
Outflow=11.89 cfs 1.218 af

Pond 34P: Culvert 001 Peak Elev=625.33' Inflow=35.06 cfs 2.963 af
Outflow=35.06 cfs 2.963 af

Pond 35P: Culvert 002-005 Peak Elev=630.11' Inflow=15.28 cfs 0.831 af
Outflow=15.28 cfs 0.831 af

Total Runoff Area = 407.877 ac Runoff Volume = 93.204 af Average Runoff Depth = 2.74"
99.96% Pervious = 407.725 ac 0.04% Impervious = 0.152 ac

Summary for Subcatchment 15S: DA 1

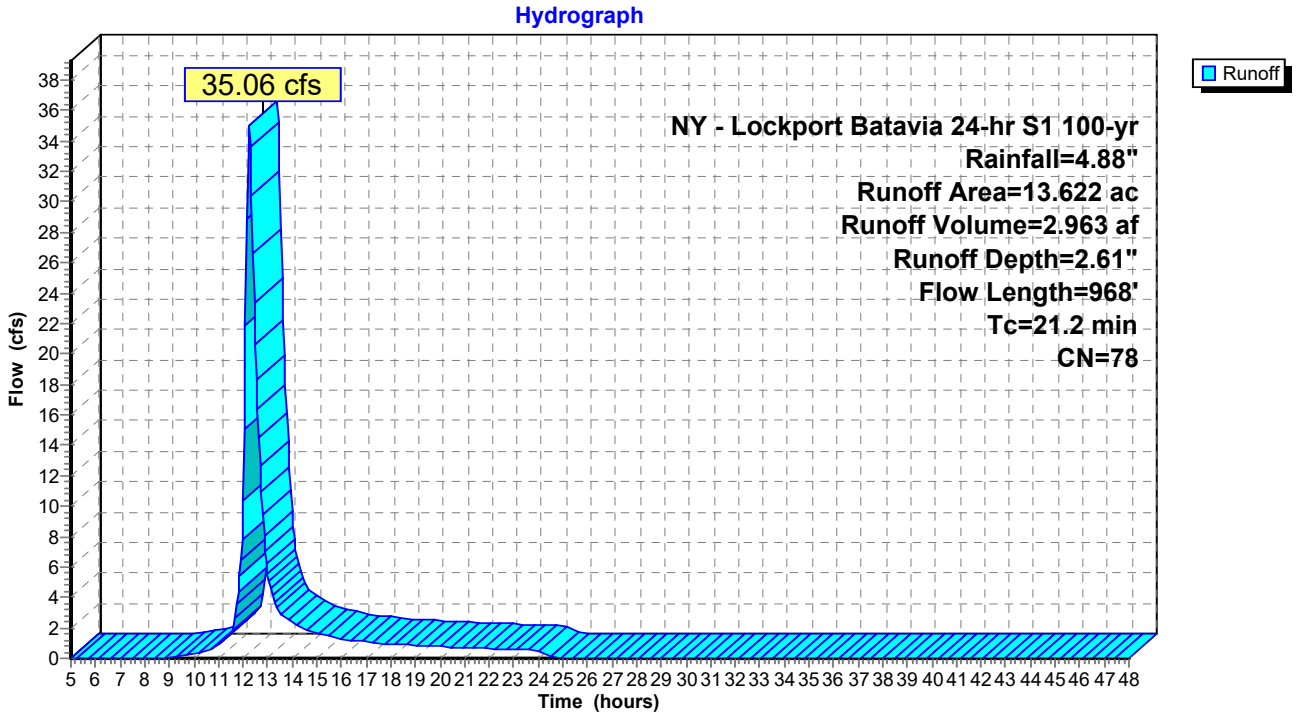
Runoff = 35.06 cfs @ 12.25 hrs, Volume= 2.963 af, Depth= 2.61"
Routed to Pond 34P : Culvert 001

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.134	39	A - 39 - Developed open space
*	0.938	46	A - 46 - Developed Low intensity
*	0.065	54	A - 54 - Developed Med intensity
*	0.064	30	A - 30 - Deciduous Forest
*	0.063	30	A - 30 - Meadowed, grass, non-grazed land
*	0.293	80	D - 80 - Developed open space
*	1.950	82	D - 82 - Developed Low intensity
*	0.320	85	D - 85 - Developed Med intensity
*	0.105	77	D - 77 - Deciduous Forest
*	0.497	78	D - 78 - Meadowed, grass, non-grazed land
*	1.157	80	D - 80 - Developed open space
*	4.870	82	D - 82 - Developed Low intensity
*	0.999	85	D - 85 - Developed Med intensity
*	2.167	78	D - 78 - Meadowed, grass, non-grazed land
	13.622	78	Weighted Average
	13.622		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	100	0.0125	0.95		**Sheet Flow, 100' Sheet** Smooth surfaces n= 0.011 P2= 2.21"
4.1	180	0.0013	0.73		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
4.3	300	0.0033	1.17		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
6.7	200	0.0050	0.49		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.3	188	0.0106	0.72		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
21.2	968	Total			

Subcatchment 15S: DA 1



Summary for Subcatchment 16S: DA 2-5

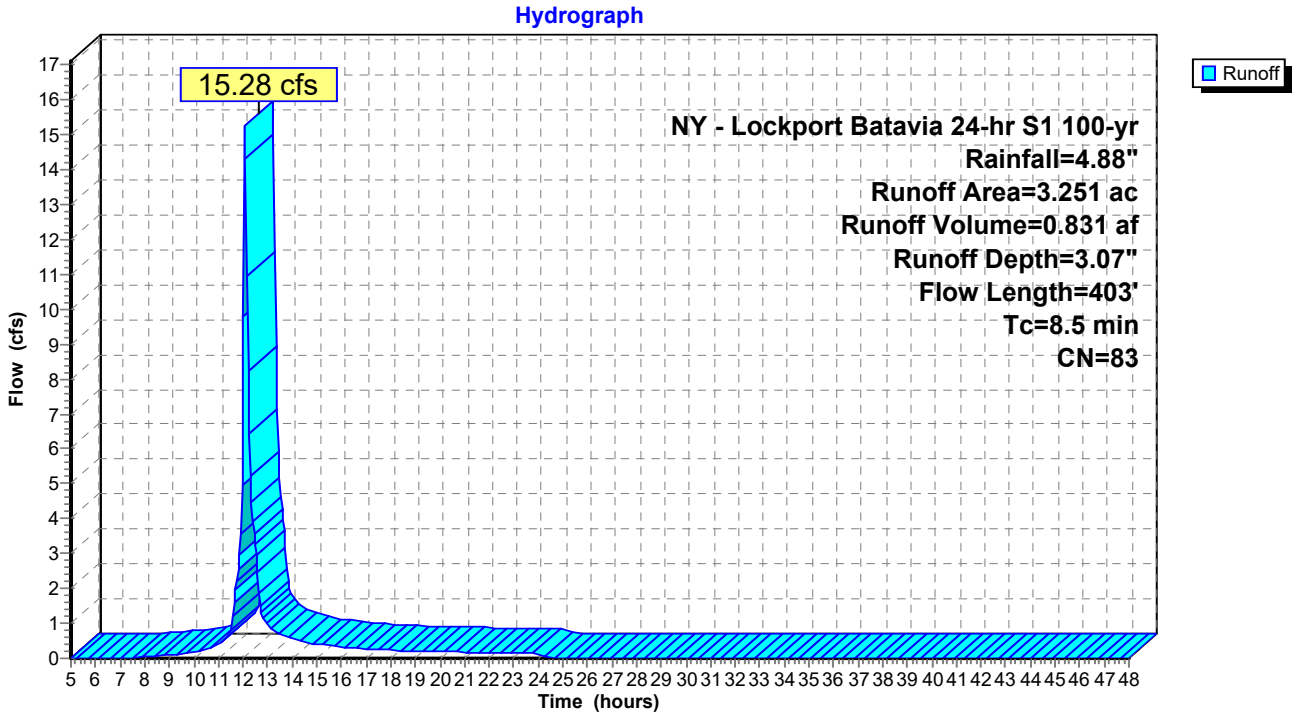
Runoff = 15.28 cfs @ 12.07 hrs, Volume= 0.831 af, Depth= 3.07"
Routed to Pond 35P : Culvert 002-005

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.854	80	D - 80 - Developed open space
*	0.145	82	D - 82 - Developed Low intensity
*	0.111	85	D - 85 - Developed Med intensity
*	0.124	80	D - 80 - Developed open space
*	0.018	82	D - 82 - Developed Low intensity
*	0.270	85	D - 85 - Developed Med intensity
*	0.894	80	D - 80 - Developed open space
*	0.077	82	D - 82 - Developed Low intensity
*	0.315	85	D - 85 - Developed Med intensity
*	0.441	93	D - 93 - Developed High intensity
*	0.002	78	D - 78 - Meadowed, grass, non-grazed land
	3.251	83	Weighted Average
	3.251		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0325	1.39		**Sheet Flow, 100'** Smooth surfaces n= 0.011 P2= 2.21"
0.3	49	0.0255	3.24		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.6	123	0.0041	1.30		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
4.2	91	0.0027	0.36		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.2	40	0.0063	0.56		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
8.5	403	Total			

Subcatchment 16S: DA 2-5



Summary for Subcatchment 17S: DA 7

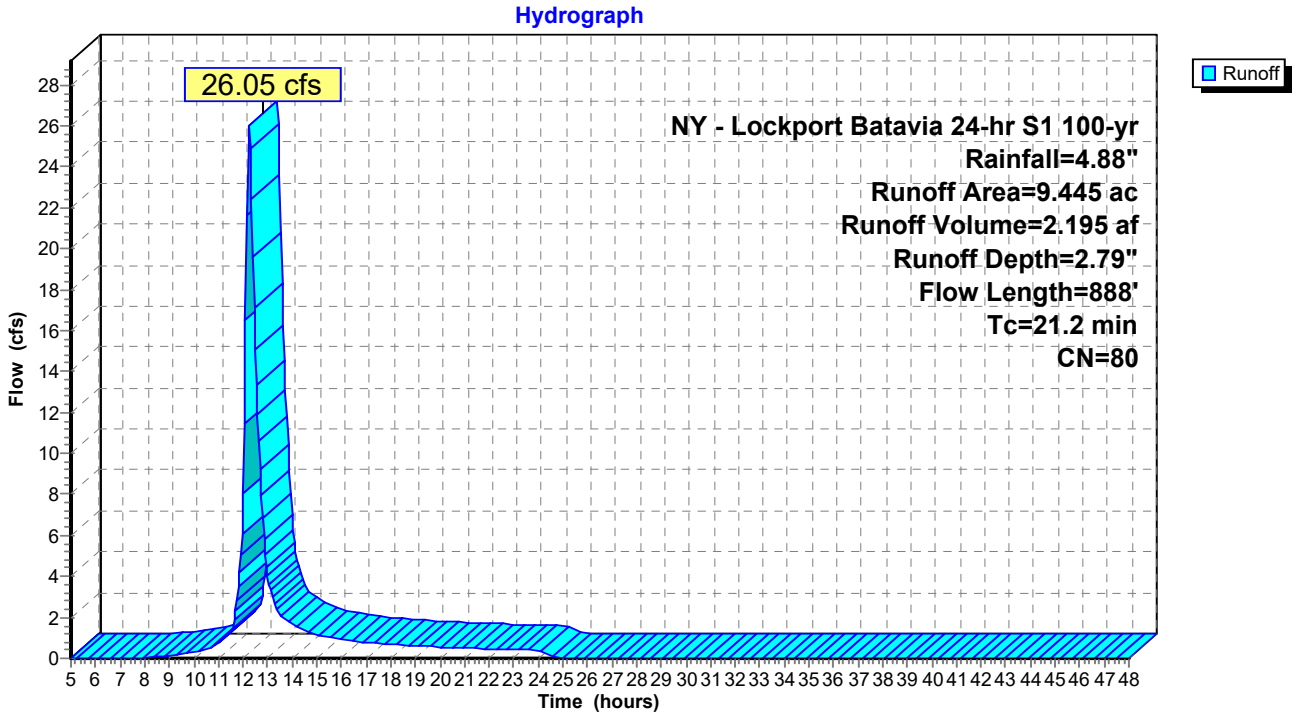
Runoff = 26.05 cfs @ 12.25 hrs, Volume= 2.195 af, Depth= 2.79"
Routed to Pond 31P : Culvert 007

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.134	80	D - 80 - Developed open space
*	0.231	82	D - 82 - Developed Low intensity
*	0.882	78	D - 78 - Meadowed, grass, non-grazed land
*	0.569	80	D - 80 - Developed open space
*	0.868	82	D - 82 - Developed Low intensity
*	0.054	85	D - 85 - Developed Med intensity
*	1.190	85	D - 85 - Grassland/Herbaceous
*	4.820	78	D - 78 - Meadowed, grass, non-grazed land
*	0.187	80	D - 80 - Developed open space
*	0.013	82	D - 82 - Developed Low intensity
*	0.497	78	D - 78 - Meadowed, grass, non-grazed land
	9.445	80	Weighted Average
	9.445		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0350	0.18		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.21"
4.6	202	0.0111	0.74		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
4.4	445	0.0126	1.68		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
2.8	141	0.0142	0.83		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
21.2	888	Total			

Subcatchment 17S: DA 7



Summary for Subcatchment 18S: DA 8

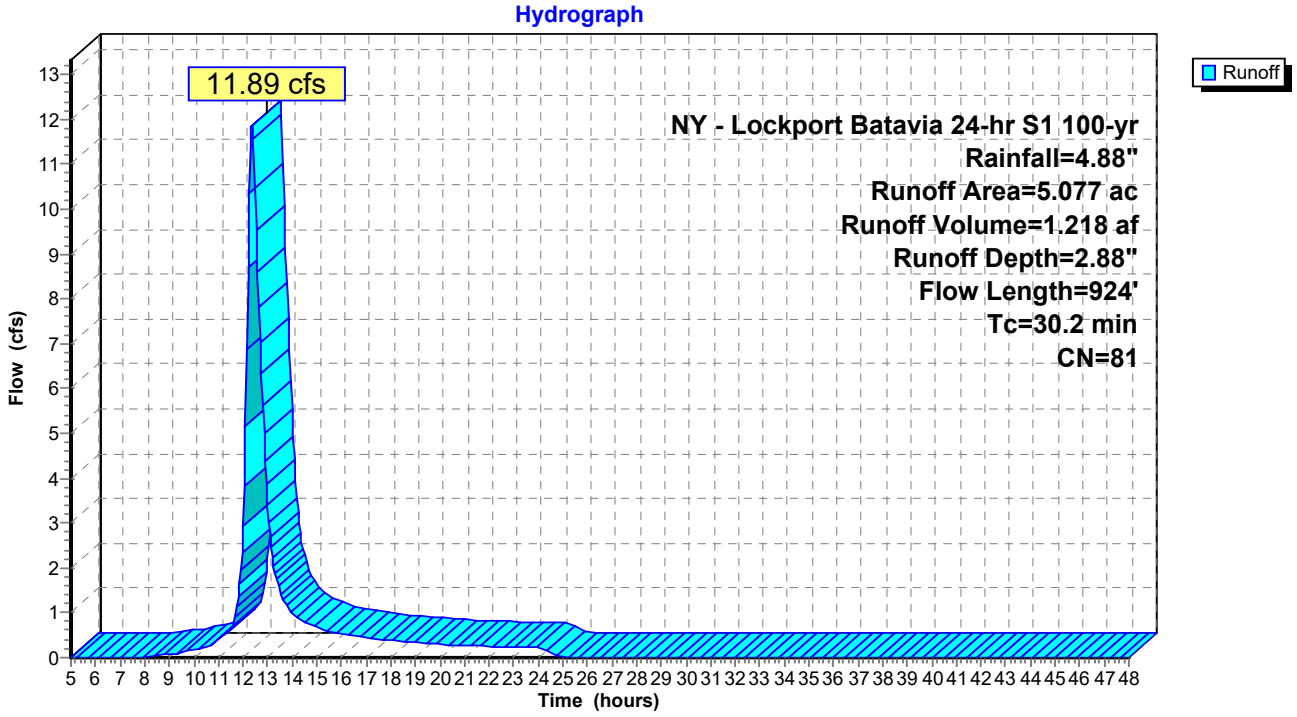
Runoff = 11.89 cfs @ 12.37 hrs, Volume= 1.218 af, Depth= 2.88"
Routed to Pond 32P : Culvert 008

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	2.612	80	D - 80 - Developed open space
*	1.184	82	D - 82 - Developed Low intensity
*	0.605	85	D - 85 - Grassland/Herbaceous
*	0.676	78	D - 78 - Meadowed, grass, non-grazed land
	5.077	81	Weighted Average
	5.077		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0173	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.21"
8.1	290	0.0073	0.60		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
9.6	534	0.0038	0.92		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
30.2	924	Total			

Subcatchment 18S: DA 8



Summary for Subcatchment 20S: DA 10

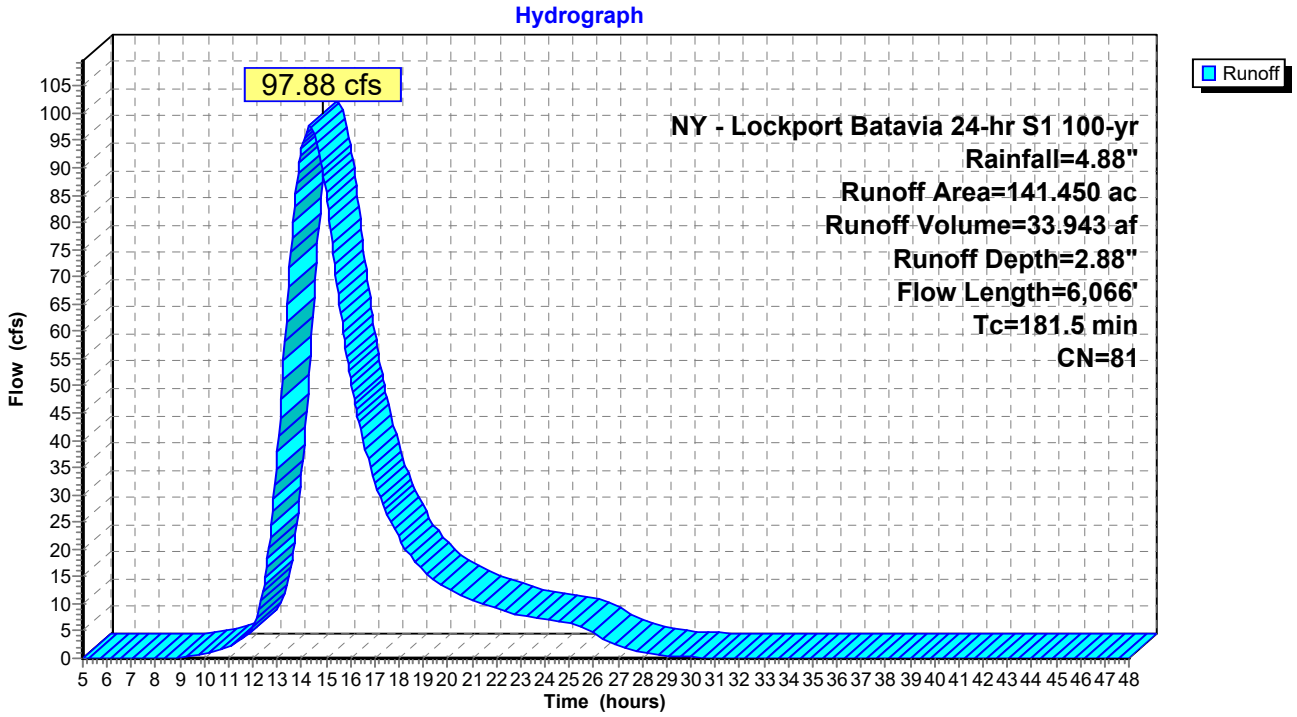
Runoff = 97.88 cfs @ 14.32 hrs, Volume= 33.943 af, Depth= 2.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.152	98	D - 98 - Open Water
*	0.074	80	D - 80 - Developed open space
*	0.307	80	D - 80 - Developed open space
*	2.363	80	D - 80 - Developed open space
*	1.992	82	D - 82 - Developed Low intensity
*	1.726	82	D - 82 - Developed Low intensity
*	2.185	85	D - 85 - Developed Med intensity
*	0.875	77	D - 77 - Deciduous Forest
*	18.239	77	D - 77 - Deciduous Forest
*	13.242	77	D - 77 - Deciduous Forest
*	0.038	77	D - 77 - Evergreen Forest
*	0.919	77	D - 77 - Evergreen Forest
*	0.021	77	D - 77 - Evergreen Forest
*	0.508	77	D - 77 - Mixed Forest
*	0.889	77	D - 77 - Mixed Forest
*	0.160	77	D - 77 - Mixed Forest
*	4.266	78	D - 78 - Meadowed, grass, non-grazed land
*	29.357	78	D - 78 - Meadowed, grass, non-grazed land
*	22.896	78	D - 78 - Meadowed, grass, non-grazed land
*	0.112	78	D - 78 - Meadowed, grass, non-grazed land
*	5.915	78	D - 78 - Meadowed, grass, non-grazed land
*	5.016	90	D - 90 - Woody Wetlands
*	30.198	90	D - 90 - Woody Wetlands
	141.450	81	Weighted Average
	141.298		99.89% Pervious Area
	0.152		0.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.7	100	0.0275	0.07		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.21"
31.2	1,144	0.0149	0.61		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.6	670	0.0026	0.76		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
12.9	328	0.0008	0.42		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
100.1	3,824	0.0018	0.64		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
181.5	6,066	Total			

Subcatchment 20S: DA 10



Summary for Subcatchment 21S: DA 11

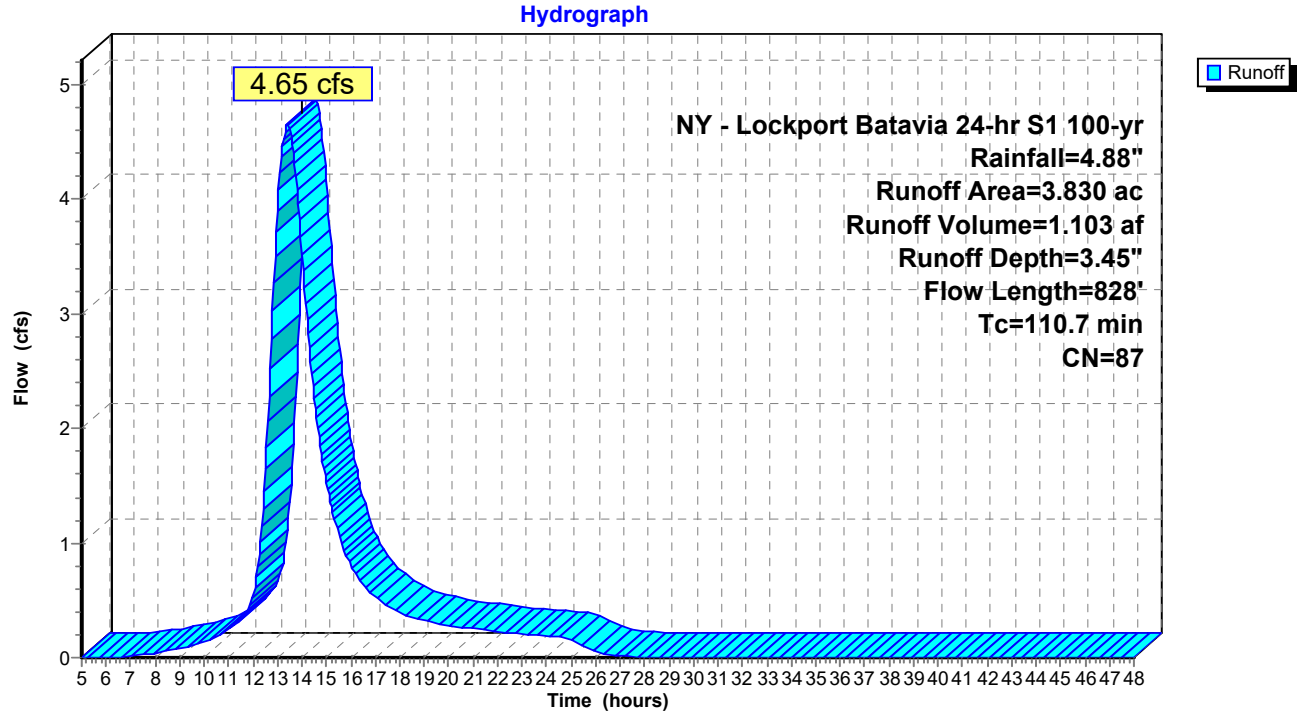
Runoff = 4.65 cfs @ 13.40 hrs, Volume= 1.103 af, Depth= 3.45"
Routed to Pond 6P : Culvert 011

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.183	80	D - 80 - Developed open space
*	0.651	82	D - 82 - Developed Low intensity
*	0.305	78	D - 78 - Meadowed, grass, non-grazed land
*	2.691	90	D - 90 - Woody Wetlands
	3.830	87	Weighted Average
	3.830		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.1	100	0.0425	0.09		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.21"
77.1	517	0.0005	0.11		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	211	0.0012	0.24		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
110.7	828	Total			

Subcatchment 21S: DA 11



Summary for Subcatchment 23S: DA 13

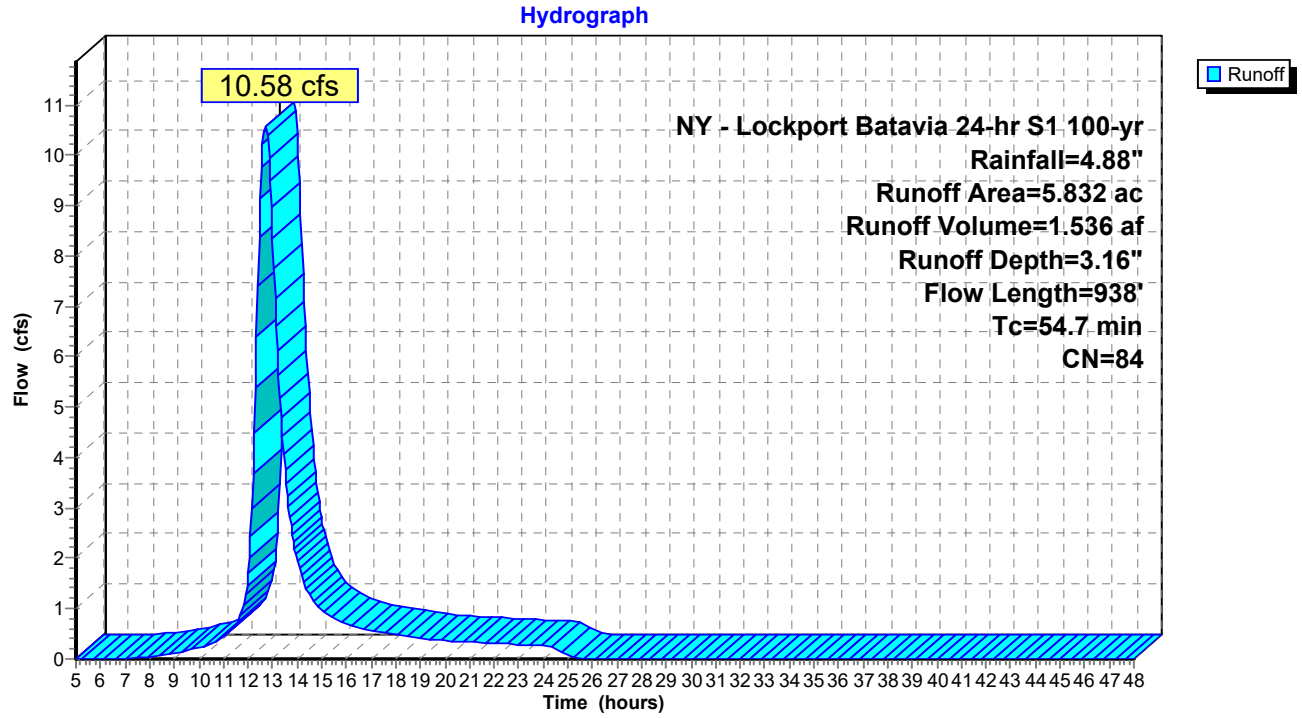
Runoff = 10.58 cfs @ 12.70 hrs, Volume= 1.536 af, Depth= 3.16"
Routed to Pond 12P : Culvert 013

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.222	77	D - 77 - Deciduous Forest
*	1.173	78	D - 78 - Meadowed, grass, non-grazed land
*	1.200	78	D - 78 - Meadowed, grass, non-grazed land
*	0.112	78	D - 78 - Meadowed, grass, non-grazed land
*	0.115	78	D - 78 - Meadowed, grass, non-grazed land
*	0.123	90	D - 90 - Woody Wetlands
*	2.887	90	D - 90 - Woody Wetlands
	5.832	84	Weighted Average
	5.832		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.0300	0.17		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.21"
44.7	838	0.0039	0.31		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
54.7	938	Total			

Subcatchment 23S: DA 13



Summary for Subcatchment 24S: DA 14

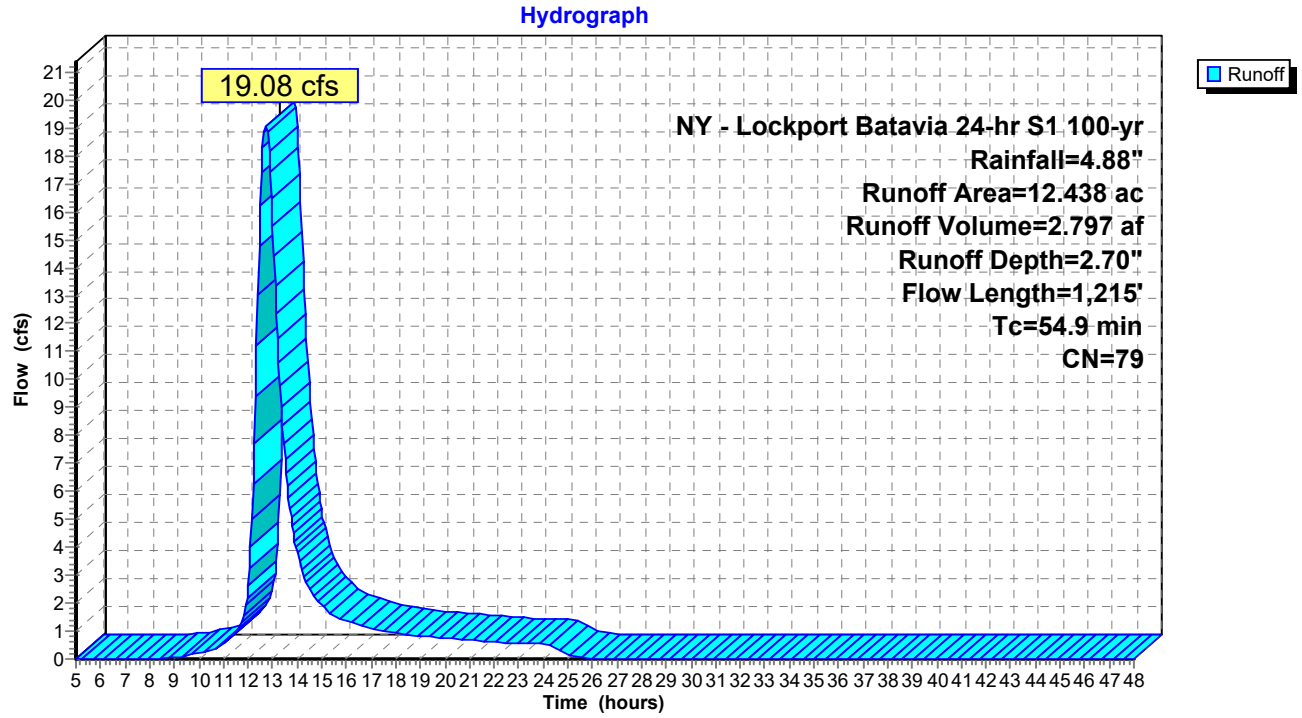
Runoff = 19.08 cfs @ 12.72 hrs, Volume= 2.797 af, Depth= 2.70"
Routed to Pond 7P : Culvert 014

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.143	80	D - 80 - Developed open space
*	0.461	80	D - 80 - Developed open space
*	1.014	82	D - 82 - Developed Low intensity
*	1.218	82	D - 82 - Developed Low intensity
*	0.081	77	D - 77 - Deciduous Forest
*	7.367	78	D - 78 - Meadowed, grass, non-grazed land
*	2.154	78	D - 78 - Meadowed, grass, non-grazed land
	12.438	79	Weighted Average
	12.438		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0200	0.14		**Sheet Flow, 100' sheet** Grass: Short n= 0.150 P2= 2.21"
43.1	1,115	0.0038	0.43		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
54.9	1,215	Total			

Subcatchment 24S: DA 14



Summary for Subcatchment 25S: DA 15

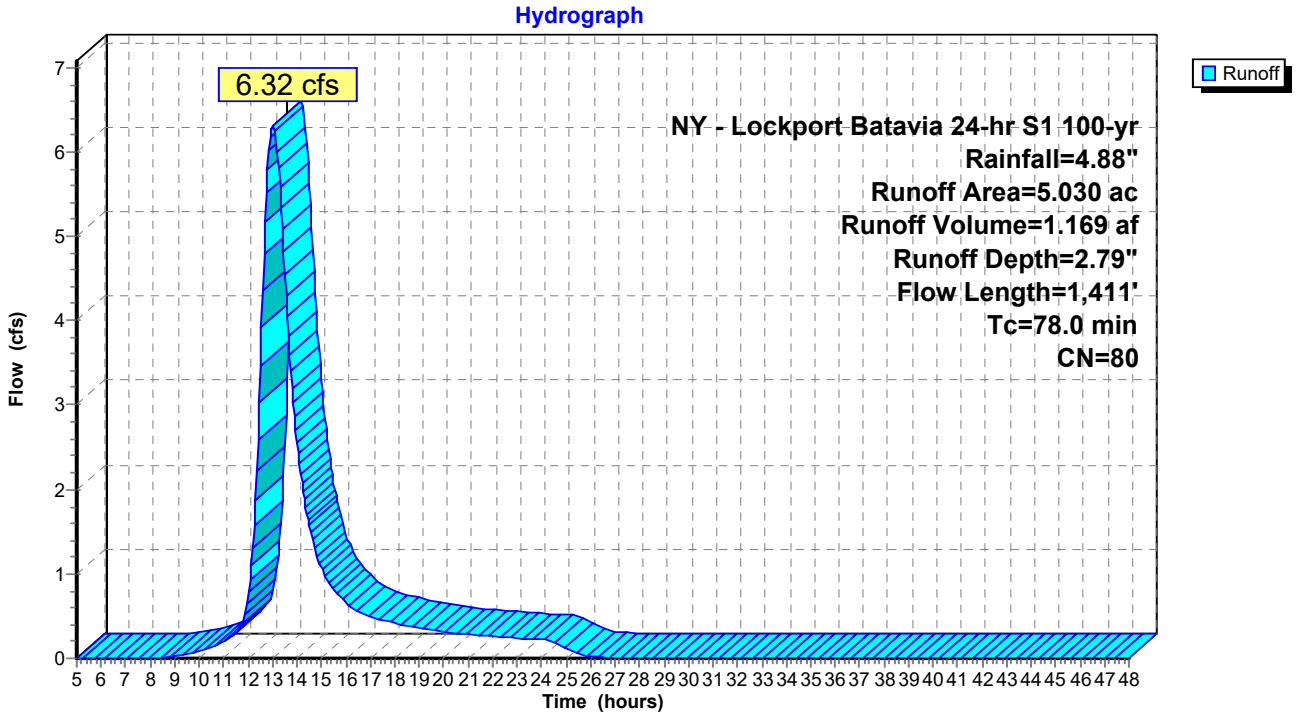
Runoff = 6.32 cfs @ 13.02 hrs, Volume= 1.169 af, Depth= 2.79"
Routed to Pond 8P : Culvert 015

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.345	80	D - 80 - Developed open space
*	0.249	80	D - 80 - Developed open space
*	0.809	80	D - 80 - Developed open space
*	0.107	82	D - 82 - Developed Low intensity
*	1.183	82	D - 82 - Developed Low intensity
*	0.330	78	D - 78 - Meadowed, grass, non-grazed land
*	0.809	78	D - 78 - Meadowed, grass, non-grazed land
*	1.198	78	D - 78 - Meadowed, grass, non-grazed land
	5.030	80	Weighted Average
	5.030		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.6	100	0.0100	0.11		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.21"
62.4	1,311	0.0025	0.35		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
78.0	1,411	Total			

Subcatchment 25S: DA 15



Summary for Subcatchment 26S: DA 16

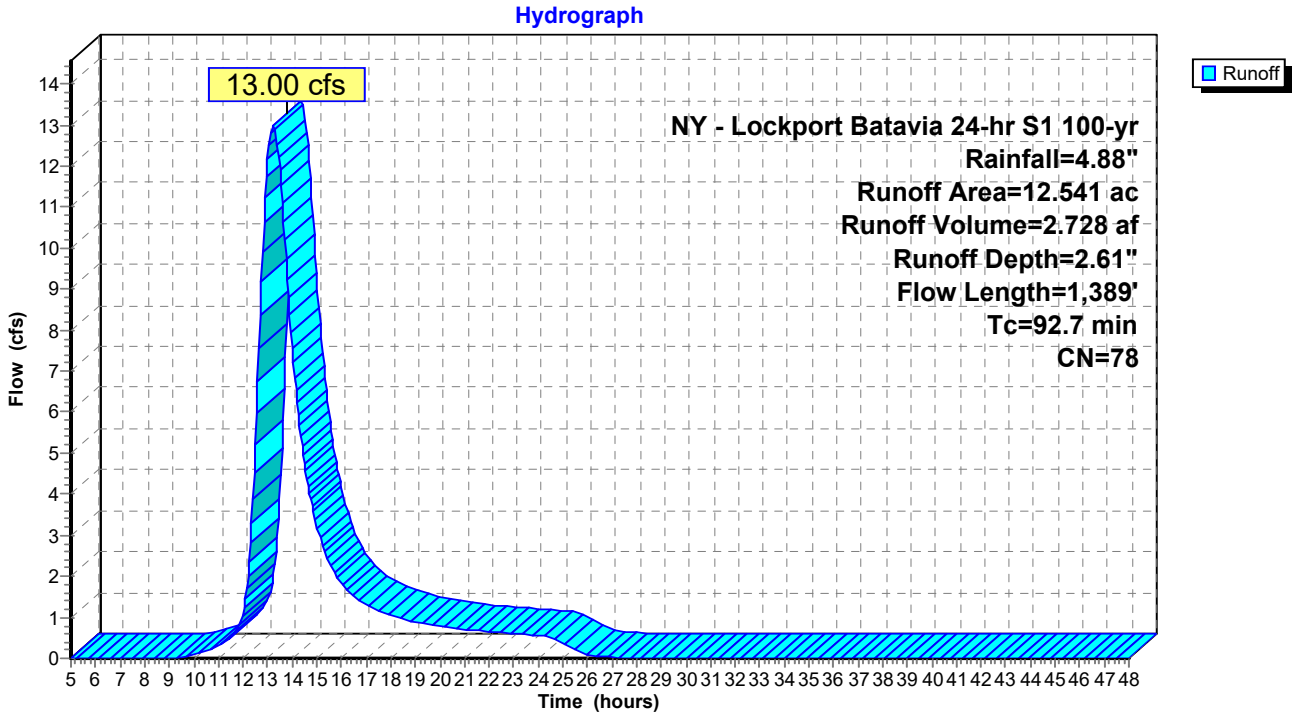
Runoff = 13.00 cfs @ 13.23 hrs, Volume= 2.728 af, Depth= 2.61"
Routed to Pond 13P : Culvert 016

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.003	80	D - 80 - Developed open space
*	1.259	77	D - 77 - Deciduous Forest
*	0.202	77	D - 77 - Deciduous Forest
*	0.926	78	D - 78 - Meadowed, grass, non-grazed land
*	3.759	78	D - 78 - Meadowed, grass, non-grazed land
*	6.392	78	D - 78 - Meadowed, grass, non-grazed land
	12.541	78	Weighted Average
	12.541		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.7	100	0.0225	0.07		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.21"
24.6	495	0.0045	0.34		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
43.4	794	0.0019	0.31		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
92.7	1,389	Total			

Subcatchment 26S: DA 16



Summary for Subcatchment 28S: DA 18

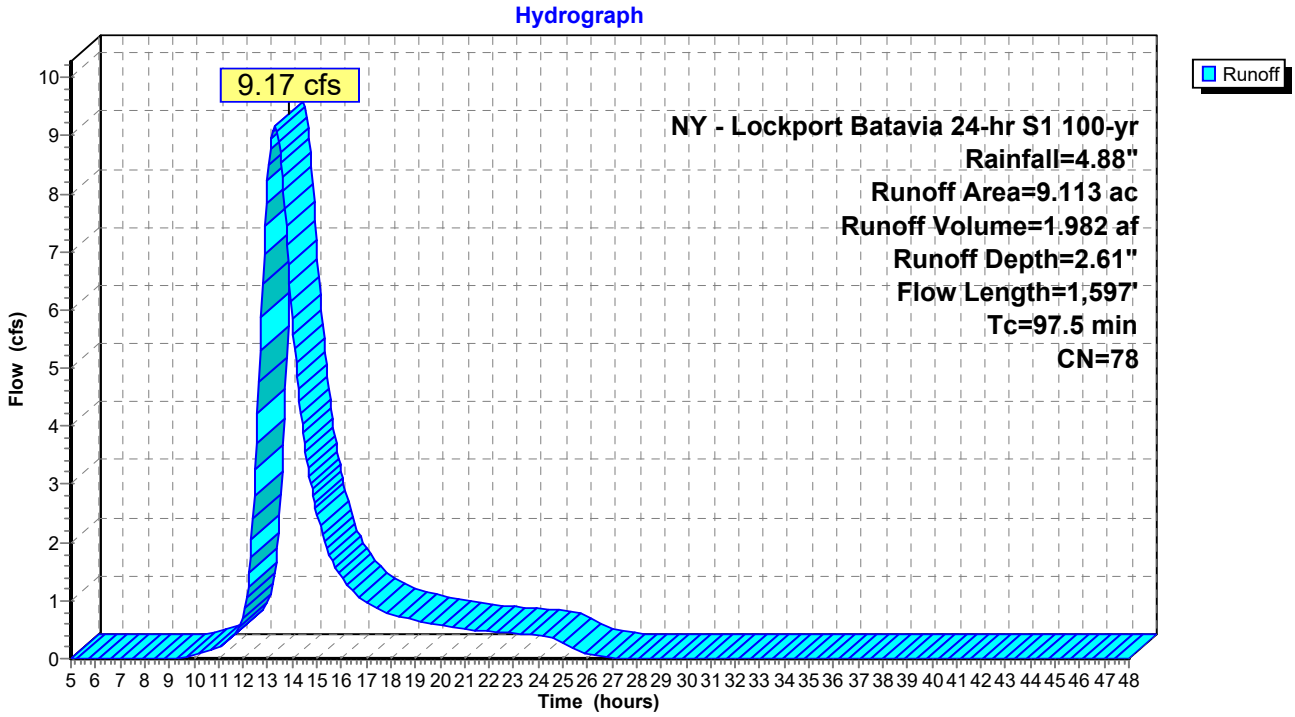
Runoff = 9.17 cfs @ 13.30 hrs, Volume= 1.982 af, Depth= 2.61"
Routed to Pond 10P : Culvert 018

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	3.755	77	D - 77 - Deciduous Forest
*	5.358	78	D - 78 - Meadowed, grass, non-grazed land
	9.113	78	Weighted Average
	9.113		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.1	100	0.0100	0.05		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.21"
63.4	1,497	0.0062	0.39		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
97.5	1,597	Total			

Subcatchment 28S: DA 18



Summary for Subcatchment 29S: DA 19

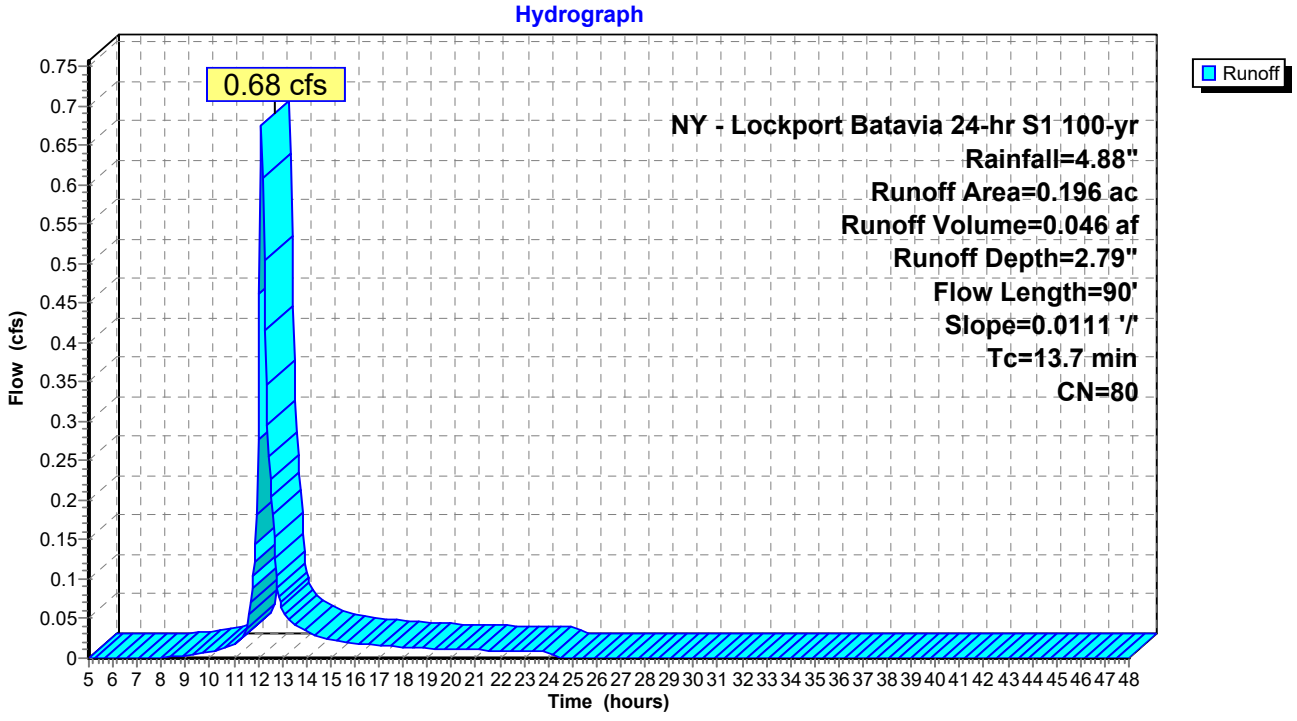
Runoff = 0.68 cfs @ 12.15 hrs, Volume= 0.046 af, Depth= 2.79"
Routed to Pond 14P : Culvert 019

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.195	80	D - 80 - Developed open space
*	0.001	78	D - 78 - Meadowed, grass, non-grazed land
	0.196	80	Weighted Average
	0.196		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	90	0.0111	0.11		**Sheet Flow, 90' Sheet** Grass: Short n= 0.150 P2= 2.21"

Subcatchment 29S: DA 19



Summary for Subcatchment 37S: DA 12

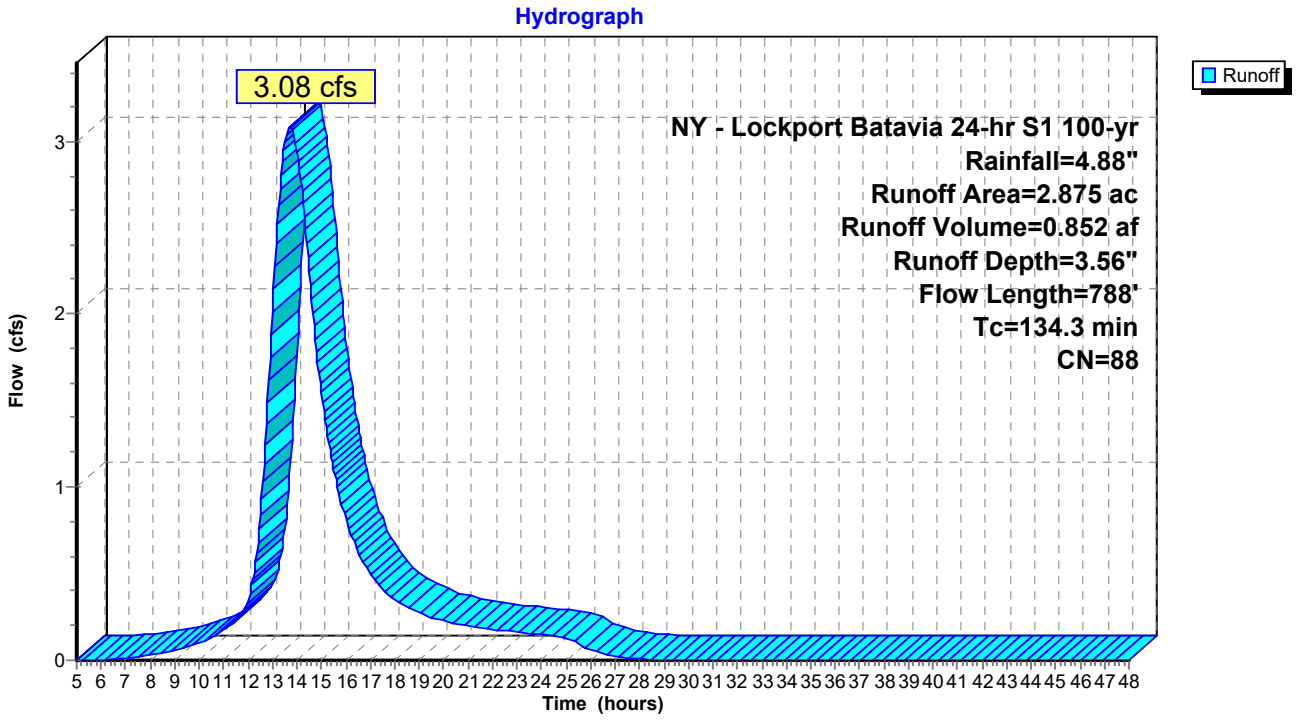
Runoff = 3.08 cfs @ 13.71 hrs, Volume= 0.852 af, Depth= 3.56"
Routed to Pond 11P : Culvert 012

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.052	78	D - 78 - Meadowed, grass, non-grazed land
*	0.450	78	D - 78 - Meadowed, grass, non-grazed land
*	2.373	90	D - 90 - Woody Wetlands
	2.875	88	Weighted Average
	2.875		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.6	100	0.0400	0.09		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.21"
114.7	688	0.0004	0.10		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
134.3	788	Total			

Subcatchment 37S: DA 12



Summary for Subcatchment 46S: DA 17

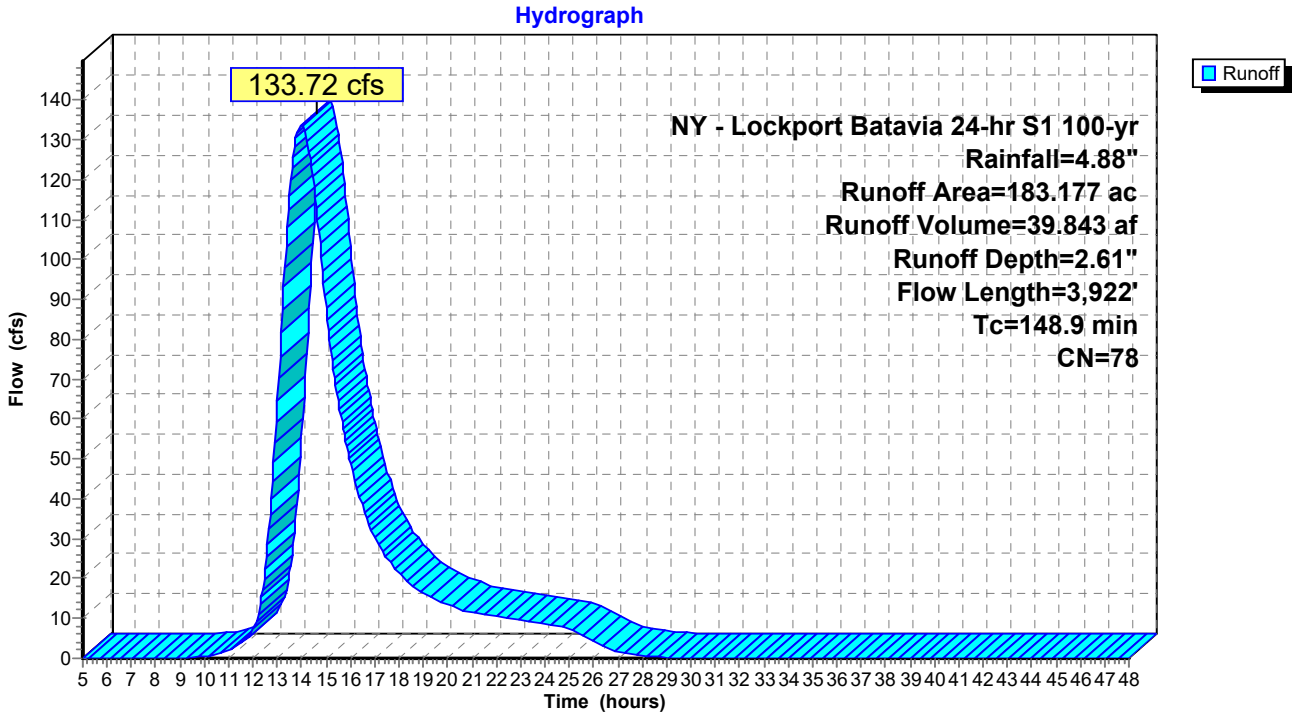
Runoff = 133.72 cfs @ 14.03 hrs, Volume= 39.843 af, Depth= 2.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport Batavia 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	2.507	80	D - 80 - Developed open space
*	3.318	80	D - 80 - Developed open space
*	2.790	80	D - 80 - Developed open space
*	2.870	82	D - 82 - Developed Low intensity
*	4.979	82	D - 82 - Developed Low intensity
*	4.781	82	D - 82 - Developed Low intensity
*	0.152	85	D - 85 - Developed Med intensity
*	1.263	77	D - 77 - Deciduous Forest
*	3.431	77	D - 77 - Deciduous Forest
*	3.544	77	D - 77 - Deciduous Forest
*	14.732	78	D - 78 - Meadowed, grass, non-grazed land
*	59.055	78	D - 78 - Meadowed, grass, non-grazed land
*	79.755	78	D - 78 - Meadowed, grass, non-grazed land
	183.177	78	Weighted Average
	183.177		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.7	100	0.0350	0.08		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.21"
48.7	1,573	0.0116	0.54		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
62.0	1,276	0.0047	0.34		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
17.5	973	0.0038	0.92		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
148.9	3,922	Total			

Subcatchment 46S: DA 17



Summary for Pond 6P: Culvert 011

[57] Hint: Peaked at 625.14' (Flood elevation advised)

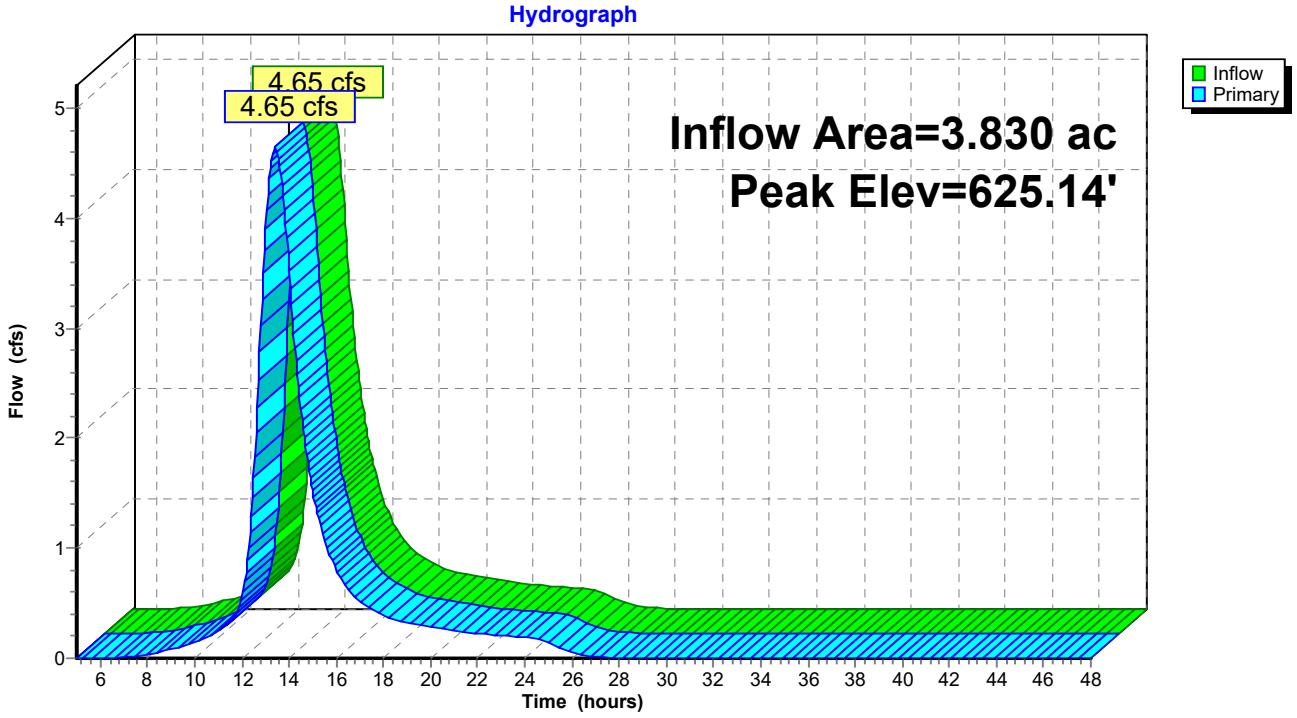
Inflow Area = 3.830 ac, 0.00% Impervious, Inflow Depth = 3.45" for 100-yr event
Inflow = 4.65 cfs @ 13.40 hrs, Volume= 1.103 af
Outflow = 4.65 cfs @ 13.40 hrs, Volume= 1.103 af, Atten= 0%, Lag= 0.0 min
Primary = 4.65 cfs @ 13.40 hrs, Volume= 1.103 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 625.14' @ 13.40 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	623.90'	**18.0" Round Culvert 011 w/ 3.6" inside fill** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 623.60' / 623.42' S= 0.0069 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	626.60'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=4.65 cfs @ 13.40 hrs HW=625.14' (Free Discharge)
└**1=Culvert 011** (Inlet Controls 4.65 cfs @ 3.07 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 6P: Culvert 011



Summary for Pond 7P: Culvert 014

[57] Hint: Peaked at 625.68' (Flood elevation advised)

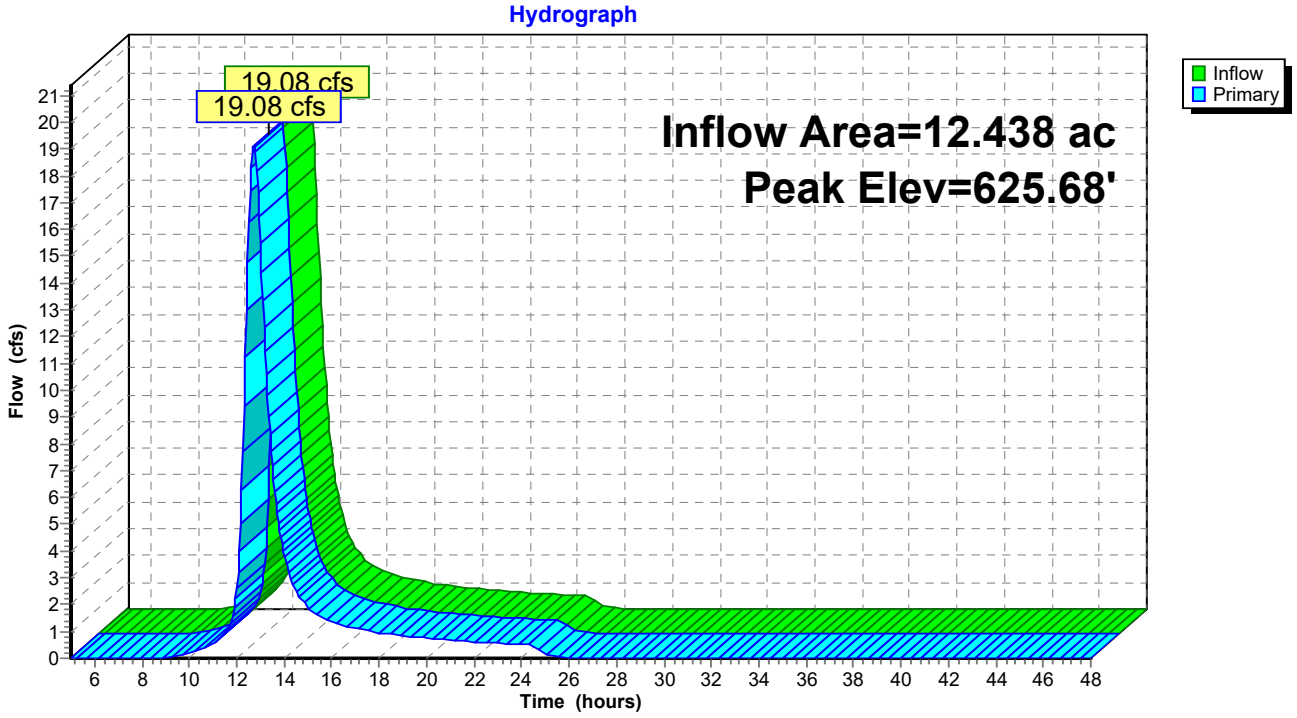
Inflow Area = 12.438 ac, 0.00% Impervious, Inflow Depth = 2.70" for 100-yr event
Inflow = 19.08 cfs @ 12.72 hrs, Volume= 2.797 af
Outflow = 19.08 cfs @ 12.72 hrs, Volume= 2.797 af, Atten= 0%, Lag= 0.0 min
Primary = 19.08 cfs @ 12.72 hrs, Volume= 2.797 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 625.68' @ 12.72 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	622.53'	**24.0" Round Culvert 014 w/ 4.8" inside fill** L= 45.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 622.13' / 621.78' S= 0.0078 '/' Cc= 0.900 n= 0.012, Flow Area= 2.69 sf
#2	Primary	625.63'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=18.95 cfs @ 12.72 hrs HW=625.68' (Free Discharge)
└**1=Culvert 014** (Inlet Controls 15.88 cfs @ 5.90 fps)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 3.06 cfs @ 0.60 fps)

Pond 7P: Culvert 014



Summary for Pond 8P: Culvert 015

[57] Hint: Peaked at 625.44' (Flood elevation advised)

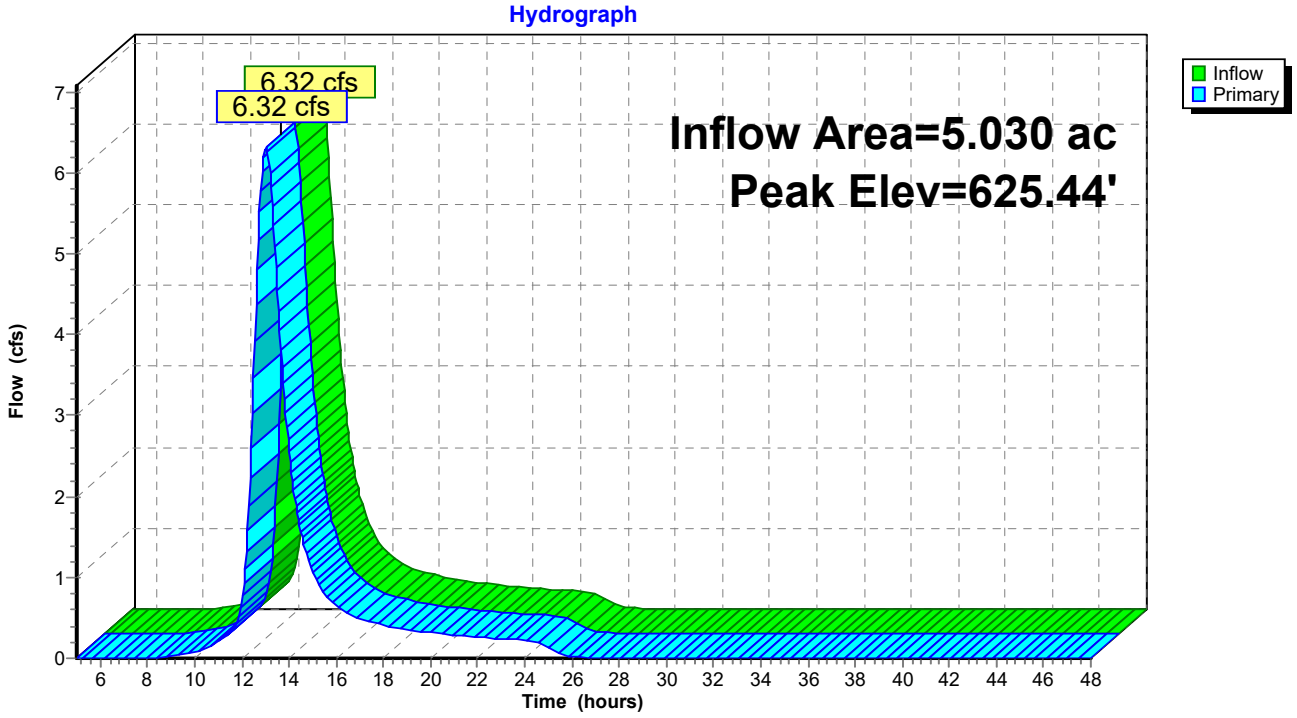
Inflow Area = 5.030 ac, 0.00% Impervious, Inflow Depth = 2.79" for 100-yr event
Inflow = 6.32 cfs @ 13.02 hrs, Volume= 1.169 af
Outflow = 6.32 cfs @ 13.02 hrs, Volume= 1.169 af, Atten= 0%, Lag= 0.0 min
Primary = 6.32 cfs @ 13.02 hrs, Volume= 1.169 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 625.44' @ 13.02 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	623.67'	**18.0" Round Culvert 015 w/ 3.6" inside fill** L= 75.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 623.37' / 622.41' S= 0.0128 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	626.37'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=6.31 cfs @ 13.02 hrs HW=625.44' (Free Discharge)
└**1=Culvert 015** (Inlet Controls 6.31 cfs @ 4.17 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 8P: Culvert 015



Summary for Pond 10P: Culvert 018

[57] Hint: Peaked at 626.17' (Flood elevation advised)

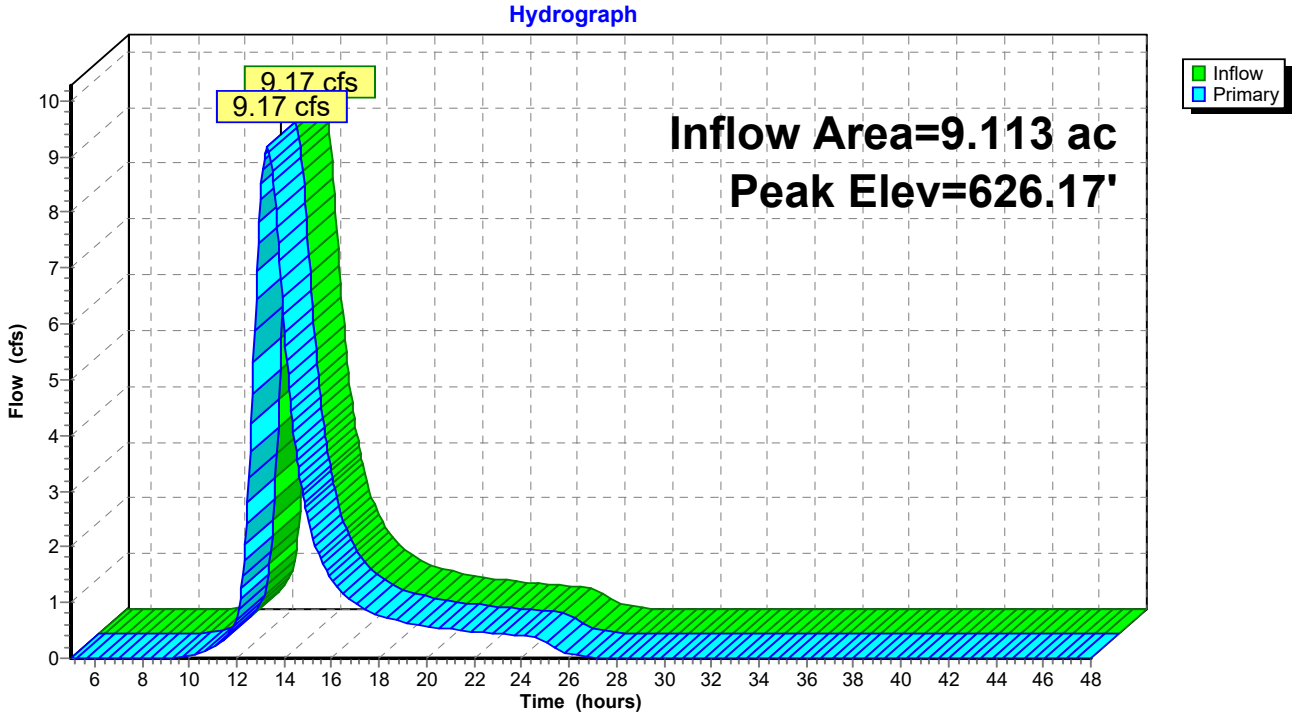
Inflow Area = 9.113 ac, 0.00% Impervious, Inflow Depth = 2.61" for 100-yr event
Inflow = 9.17 cfs @ 13.30 hrs, Volume= 1.982 af
Outflow = 9.17 cfs @ 13.30 hrs, Volume= 1.982 af, Atten= 0%, Lag= 0.0 min
Primary = 9.17 cfs @ 13.30 hrs, Volume= 1.982 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 626.17' @ 13.30 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	623.45'	**18.0" Round Culvert 018 w/ 3.6" inside fill** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 623.15' / 622.17' S= 0.0316 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	626.15'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=9.01 cfs @ 13.30 hrs HW=626.17' (Free Discharge)
└**1=Culvert 018** (Inlet Controls 8.47 cfs @ 5.59 fps)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 0.55 cfs @ 0.34 fps)

Pond 10P: Culvert 018



Summary for Pond 11P: Culvert 012

[57] Hint: Peaked at 624.82' (Flood elevation advised)

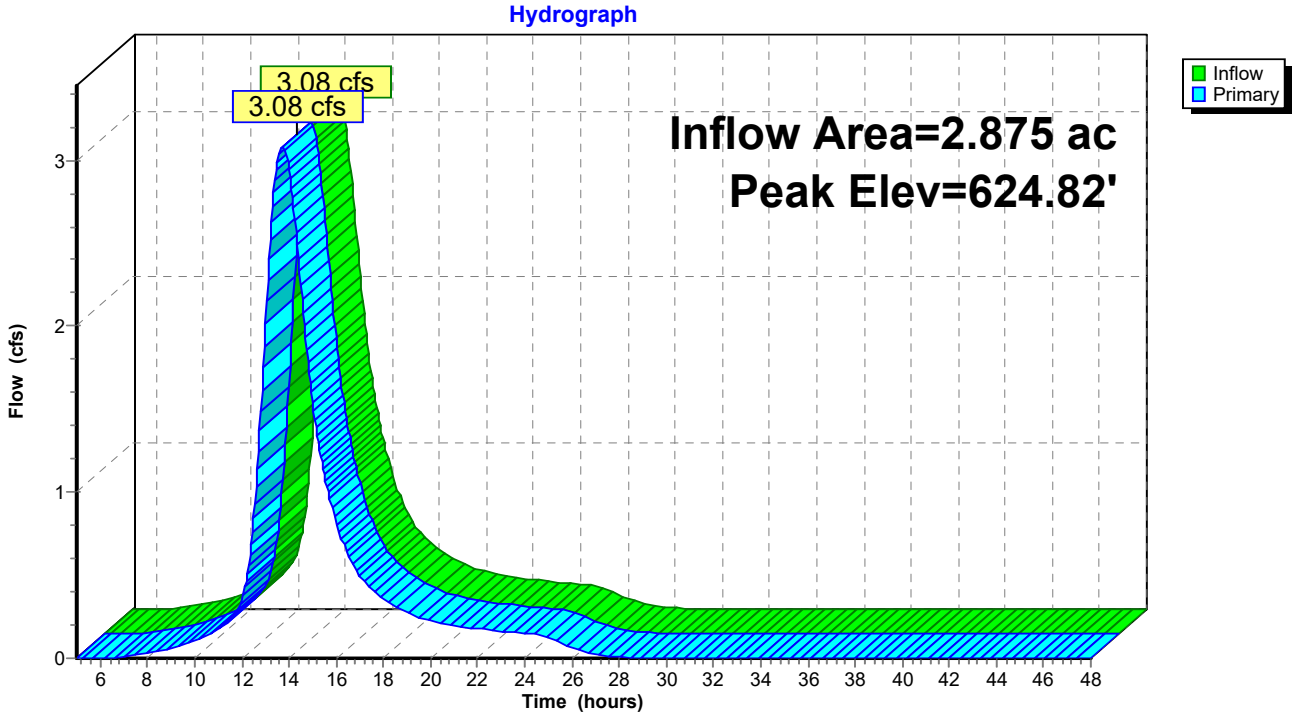
Inflow Area = 2.875 ac, 0.00% Impervious, Inflow Depth = 3.56" for 100-yr event
Inflow = 3.08 cfs @ 13.71 hrs, Volume= 0.852 af
Outflow = 3.08 cfs @ 13.71 hrs, Volume= 0.852 af, Atten= 0%, Lag= 0.0 min
Primary = 3.08 cfs @ 13.71 hrs, Volume= 0.852 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 624.82' @ 13.71 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	623.84'	**18.0" Round Culvert 012 w/ 3.6" inside fill** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 623.54' / 623.47' S= 0.0023 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	626.54'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=3.08 cfs @ 13.71 hrs HW=624.82' (Free Discharge)
└─**1=Culvert 012** (Barrel Controls 3.08 cfs @ 2.93 fps)
└─**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 11P: Culvert 012



Summary for Pond 12P: Culvert 013

[57] Hint: Peaked at 626.64' (Flood elevation advised)

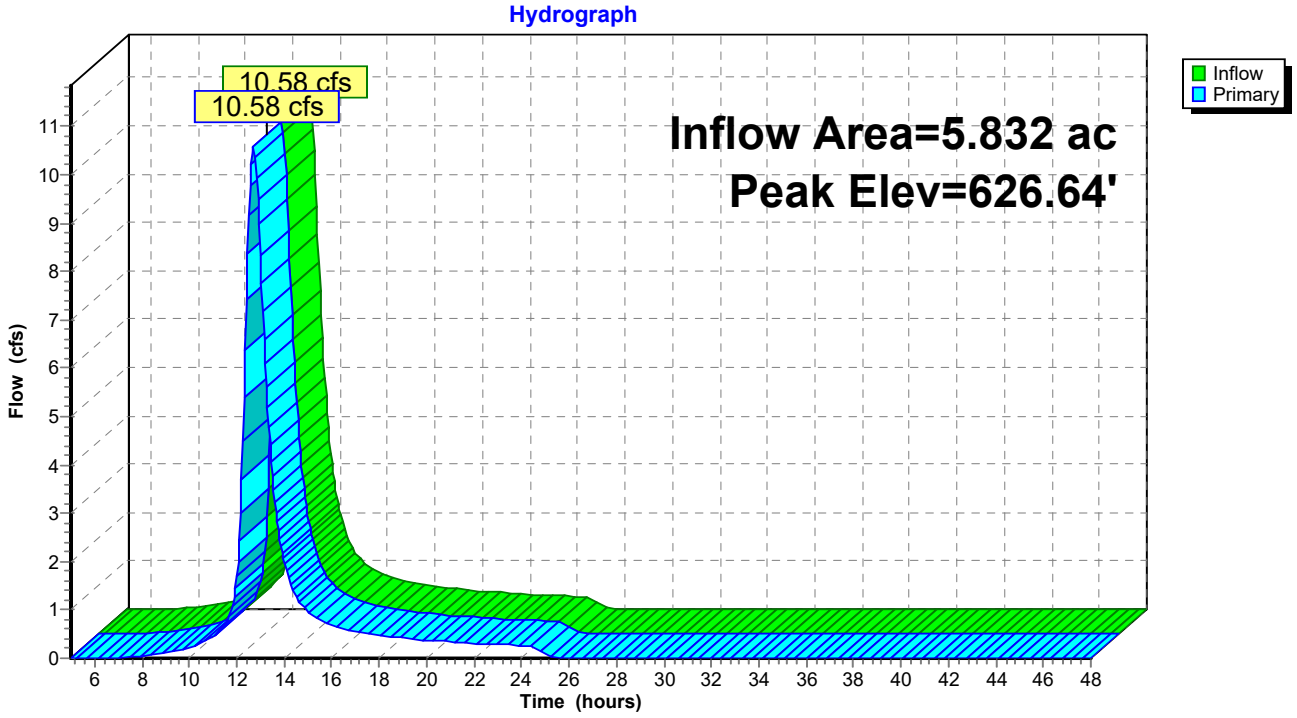
Inflow Area = 5.832 ac, 0.00% Impervious, Inflow Depth = 3.16" for 100-yr event
Inflow = 10.58 cfs @ 12.70 hrs, Volume= 1.536 af
Outflow = 10.58 cfs @ 12.70 hrs, Volume= 1.536 af, Atten= 0%, Lag= 0.0 min
Primary = 10.58 cfs @ 12.70 hrs, Volume= 1.536 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 626.64' @ 12.70 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	623.90'	**18.0" Round Culvert 013 w/ 3.6" inside fill** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 623.60' / 623.27' S= 0.0106 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	626.60'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=10.49 cfs @ 12.70 hrs HW=626.64' (Free Discharge)
└**1=Culvert 013** (Inlet Controls 8.51 cfs @ 5.61 fps)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 1.98 cfs @ 0.52 fps)

Pond 12P: Culvert 013



Summary for Pond 13P: Culvert 016

[57] Hint: Peaked at 625.27' (Flood elevation advised)

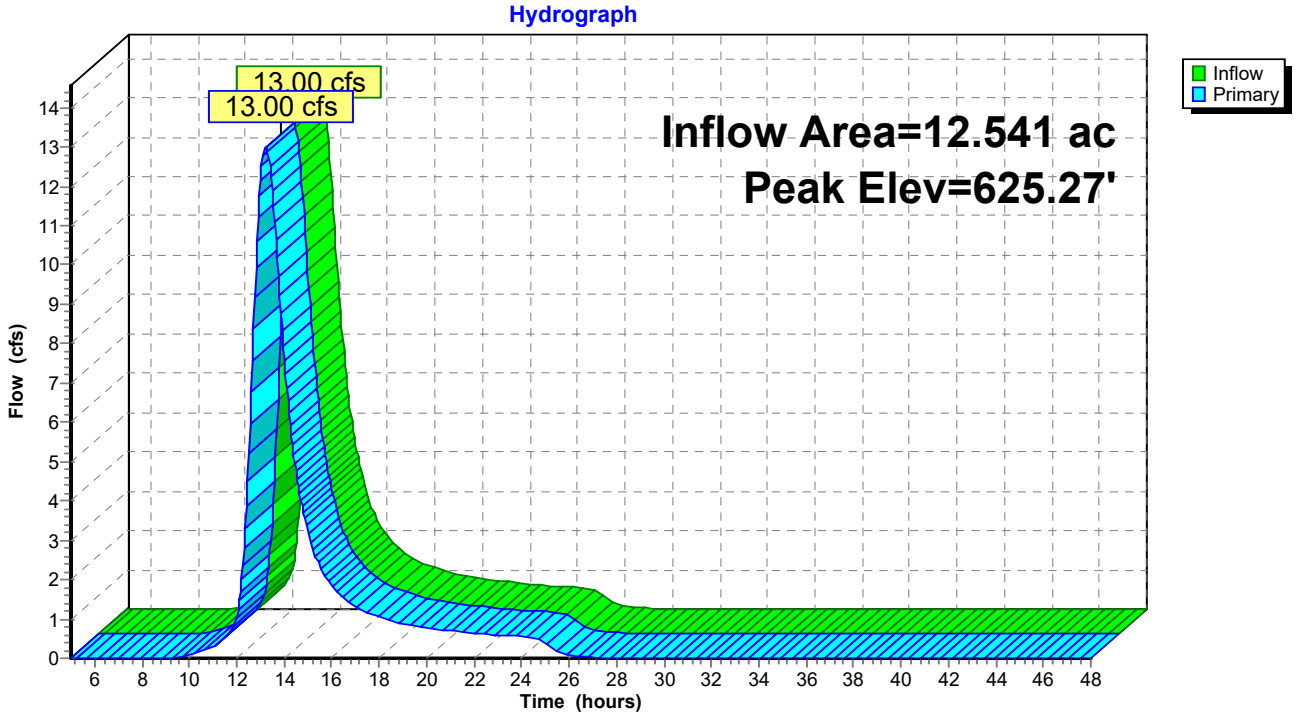
Inflow Area = 12.541 ac, 0.00% Impervious, Inflow Depth = 2.61" for 100-yr event
Inflow = 13.00 cfs @ 13.23 hrs, Volume= 2.728 af
Outflow = 13.00 cfs @ 13.23 hrs, Volume= 2.728 af, Atten= 0%, Lag= 0.0 min
Primary = 13.00 cfs @ 13.23 hrs, Volume= 2.728 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 625.27' @ 13.23 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	622.90'	**24.0" Round Culvert 016 w/ 4.8" inside fill** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 622.50' / 622.27' S= 0.0074 '/' Cc= 0.900 n= 0.012, Flow Area= 2.69 sf
#2	Primary	626.00'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=12.99 cfs @ 13.23 hrs HW=625.26' (Free Discharge)
└**1=Culvert 016** (Inlet Controls 12.99 cfs @ 4.82 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 13P: Culvert 016



Summary for Pond 14P: Culvert 019

[57] Hint: Peaked at 620.09' (Flood elevation advised)

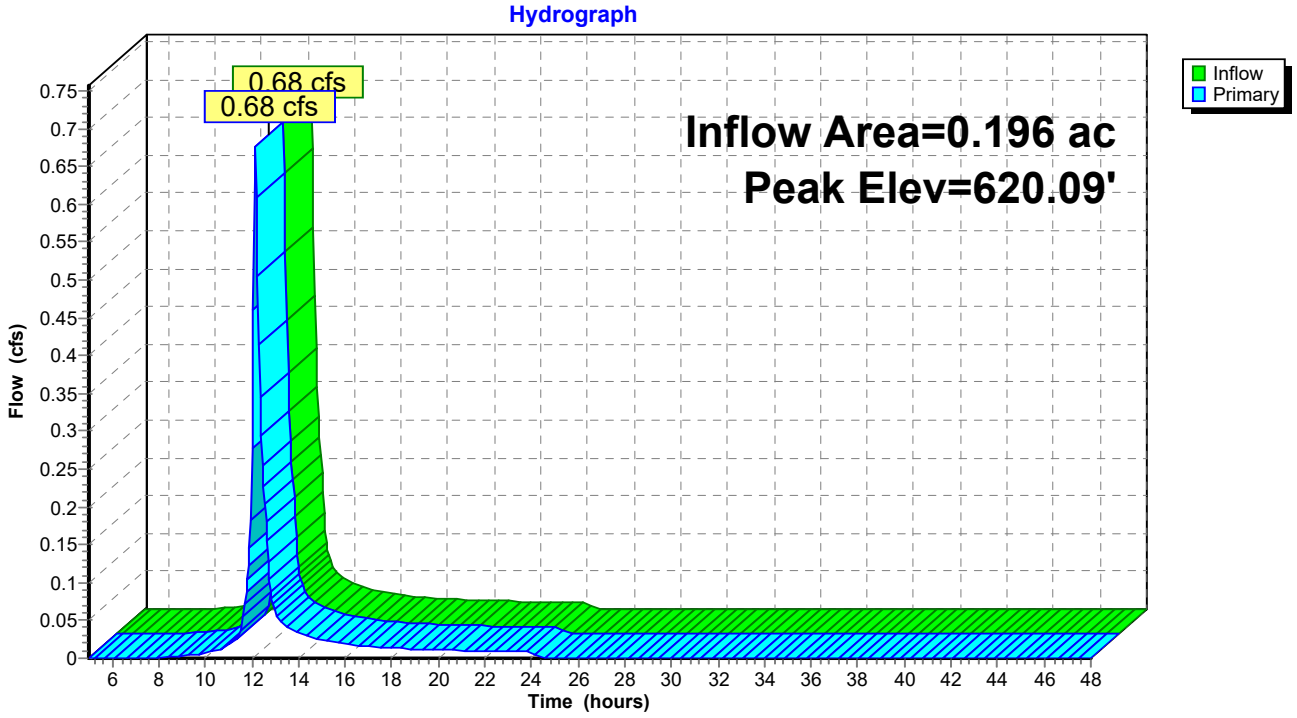
Inflow Area = 0.196 ac, 0.00% Impervious, Inflow Depth = 2.79" for 100-yr event
Inflow = 0.68 cfs @ 12.15 hrs, Volume= 0.046 af
Outflow = 0.68 cfs @ 12.15 hrs, Volume= 0.046 af, Atten= 0%, Lag= 0.0 min
Primary = 0.68 cfs @ 12.15 hrs, Volume= 0.046 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 620.09' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	619.75'	**18.0" Round Culvert 019 w/ 3.6" inside fill** L= 75.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 619.45' / 618.07' S= 0.0184 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	622.45'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.67 cfs @ 12.15 hrs HW=620.09' (Free Discharge)
└**1=Culvert 019** (Inlet Controls 0.67 cfs @ 1.44 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 14P: Culvert 019



Summary for Pond 31P: Culvert 007

[57] Hint: Peaked at 621.97' (Flood elevation advised)

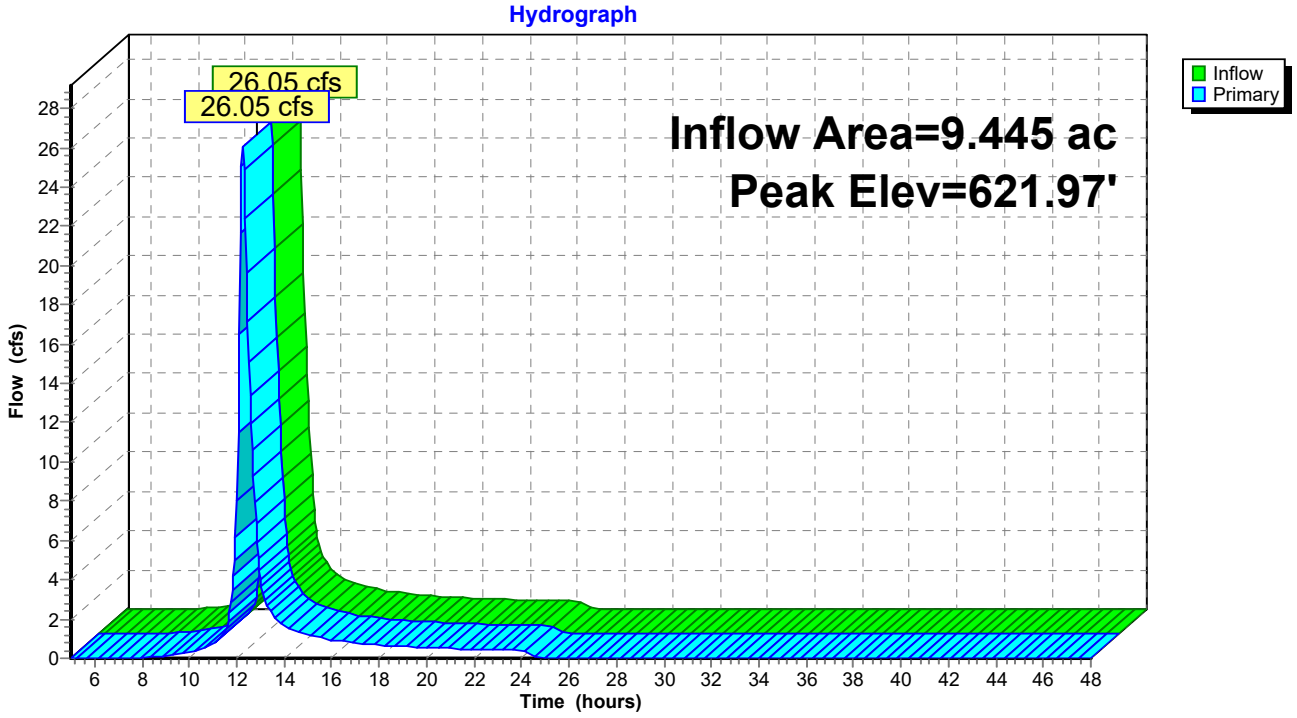
Inflow Area = 9.445 ac, 0.00% Impervious, Inflow Depth = 2.79" for 100-yr event
Inflow = 26.05 cfs @ 12.25 hrs, Volume= 2.195 af
Outflow = 26.05 cfs @ 12.25 hrs, Volume= 2.195 af, Atten= 0%, Lag= 0.0 min
Primary = 26.05 cfs @ 12.25 hrs, Volume= 2.195 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 621.97' @ 12.25 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	616.47'	**18.0" Round Culvert 007 w/ 3.6" inside fill** L= 44.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 616.17' / 614.58' S= 0.0361 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	621.84'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=25.80 cfs @ 12.25 hrs HW=621.97' (Free Discharge)
└**1=Culvert 007** (Inlet Controls 12.82 cfs @ 8.46 fps)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 12.98 cfs @ 0.98 fps)

Pond 31P: Culvert 007



Summary for Pond 32P: Culvert 008

[57] Hint: Peaked at 617.87' (Flood elevation advised)

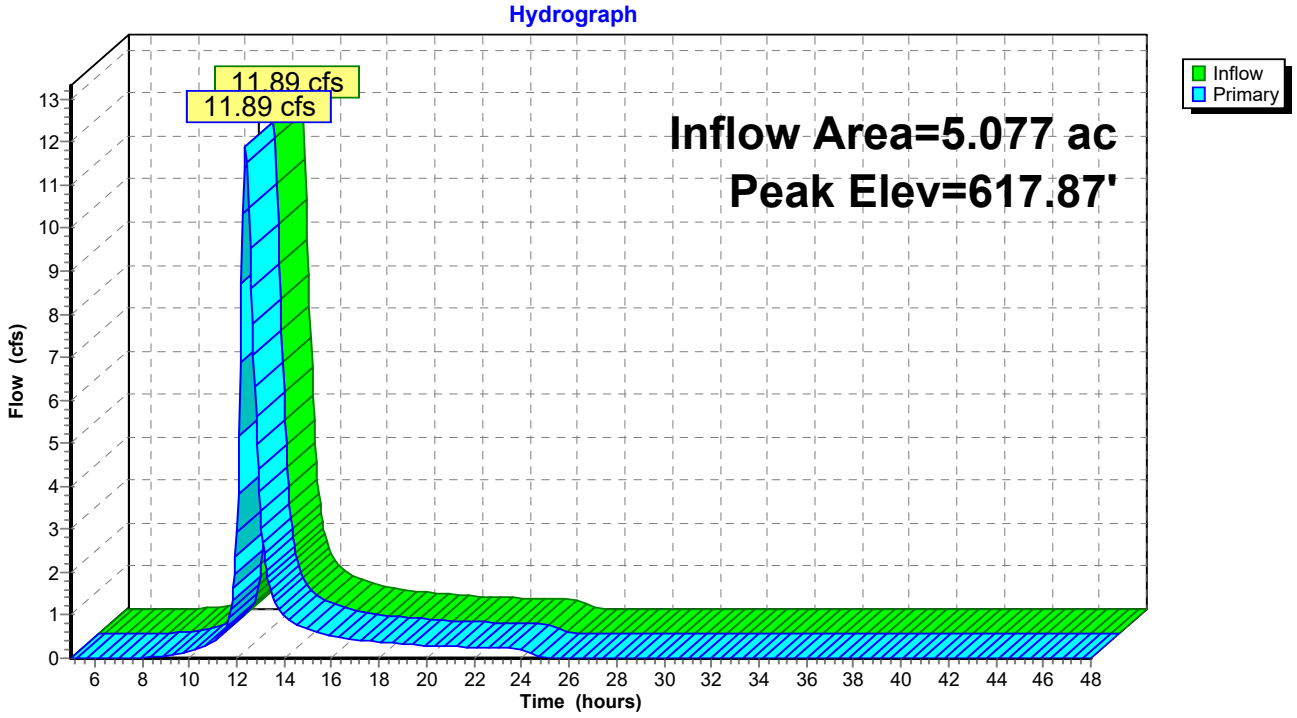
Inflow Area = 5.077 ac, 0.00% Impervious, Inflow Depth = 2.88" for 100-yr event
Inflow = 11.89 cfs @ 12.37 hrs, Volume= 1.218 af
Outflow = 11.89 cfs @ 12.37 hrs, Volume= 1.218 af, Atten= 0%, Lag= 0.0 min
Primary = 11.89 cfs @ 12.37 hrs, Volume= 1.218 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 617.87' @ 12.37 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	615.12'	**18.0" Round Culvert 008 w/ 3.6" inside fill** L= 60.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 614.82' / 614.75' S= 0.0012 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	617.82'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=11.82 cfs @ 12.37 hrs HW=617.87' (Free Discharge)
└**1=Culvert 008** (Inlet Controls 8.54 cfs @ 5.63 fps)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 3.28 cfs @ 0.62 fps)

Pond 32P: Culvert 008



Summary for Pond 34P: Culvert 001

[57] Hint: Peaked at 625.33' (Flood elevation advised)

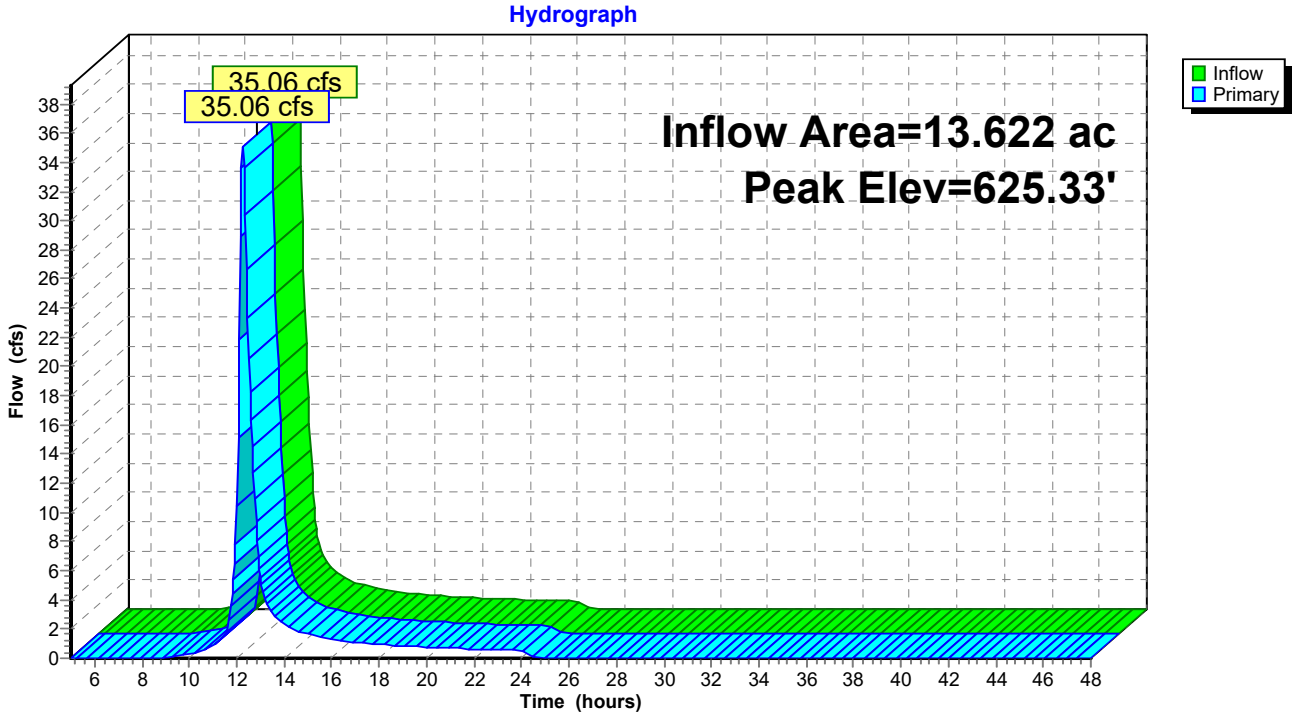
Inflow Area = 13.622 ac, 0.00% Impervious, Inflow Depth = 2.61" for 100-yr event
Inflow = 35.06 cfs @ 12.25 hrs, Volume= 2.963 af
Outflow = 35.06 cfs @ 12.25 hrs, Volume= 2.963 af, Atten= 0%, Lag= 0.0 min
Primary = 35.06 cfs @ 12.25 hrs, Volume= 2.963 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 625.33' @ 12.25 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	621.73'	**30.0" Round Culvert 001 w/ 6.0" inside fill** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 621.23' / 620.53' S= 0.0259 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 4.21 sf
#2	Primary	625.23'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=35.04 cfs @ 12.25 hrs HW=625.33' (Free Discharge)
└**1=Culvert 001** (Inlet Controls 26.14 cfs @ 6.21 fps)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 8.90 cfs @ 0.86 fps)

Pond 34P: Culvert 001



Summary for Pond 35P: Culvert 002-005

[57] Hint: Peaked at 630.11' (Flood elevation advised)

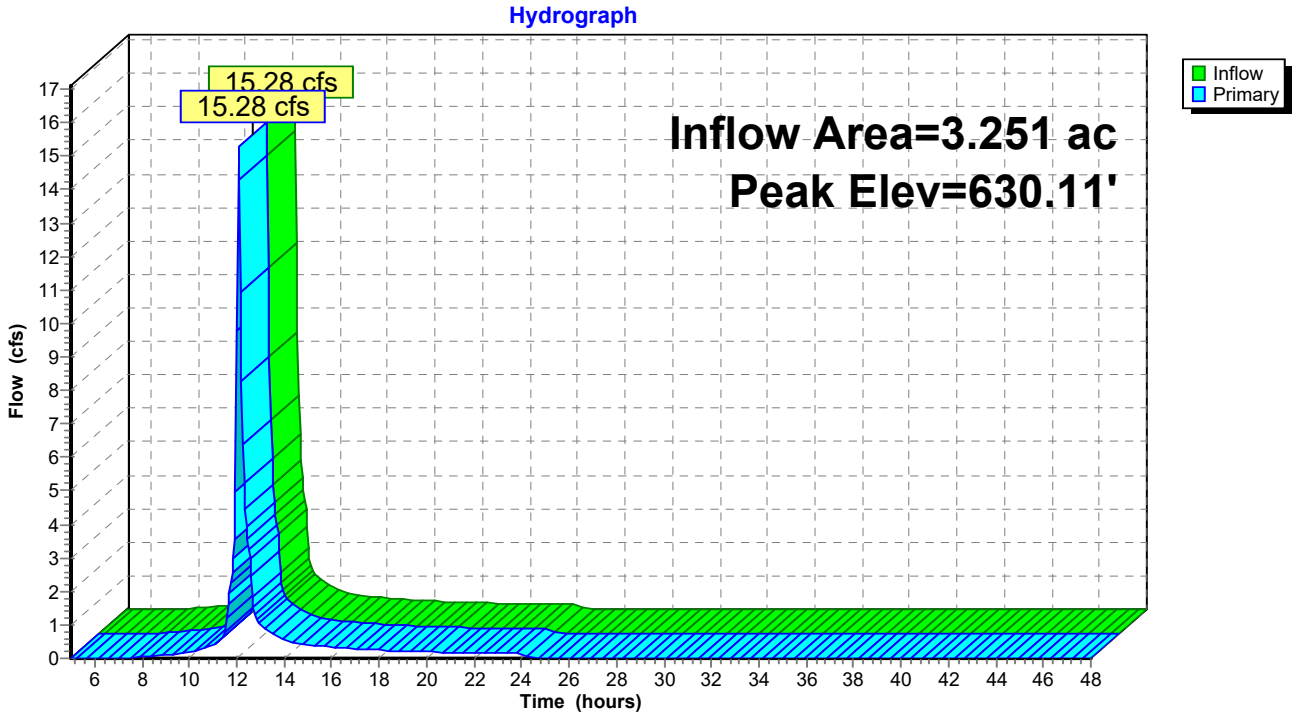
Inflow Area = 3.251 ac, 0.00% Impervious, Inflow Depth = 3.07" for 100-yr event
Inflow = 15.28 cfs @ 12.07 hrs, Volume= 0.831 af
Outflow = 15.28 cfs @ 12.07 hrs, Volume= 0.831 af, Atten= 0%, Lag= 0.0 min
Primary = 15.28 cfs @ 12.07 hrs, Volume= 0.831 af

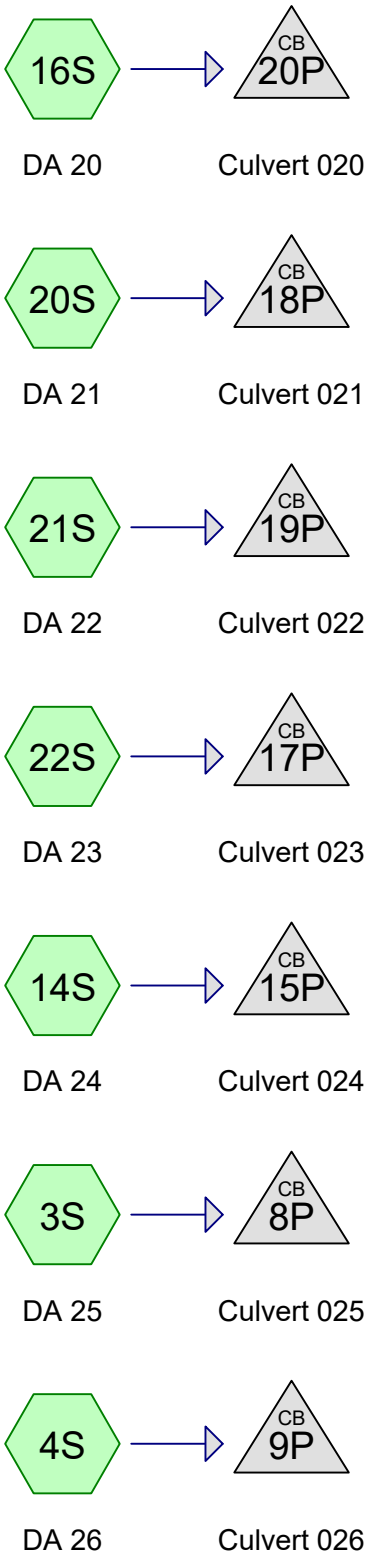
Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 630.11' @ 12.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	630.02'	**18.0" Round Culvert 002 w/ 3.6" inside fill** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 629.72' / 628.62' S= 0.0500 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#2	Primary	627.94'	**18.0" Round Culvert 003 w/ 3.6" inside fill** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 627.64' / 627.35' S= 0.0132 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#3	Primary	628.72'	**18.0" Round Culvert 004 w/ 3.6" inside fill** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 628.42' / 628.36' S= 0.0027 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#4	Primary	629.20'	**18.0" Round Culvert 005 w/ 3.6" inside fill** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 628.90' / 628.68' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 1.52 sf
#5	Primary	631.67'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=14.60 cfs @ 12.07 hrs HW=630.05' (Free Discharge)
- **1=Culvert 002** (Inlet Controls 0.01 cfs @ 0.43 fps)
- **2=Culvert 003** (Inlet Controls 7.16 cfs @ 4.73 fps)
- **3=Culvert 004** (Barrel Controls 4.63 cfs @ 3.38 fps)
- **4=Culvert 005** (Inlet Controls 2.79 cfs @ 2.33 fps)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 35P: Culvert 002-005





Subcat Reach Pond Link

Routing Diagram for DA 20-26 REV 20260123
Prepared by Fisher Associates, Printed 1/23/2026
HydroCAD® 10.20-7a s/n 04748 © 2025 HydroCAD Software Solutions LLC

Project Notes

Rainfall events imported from "NRCS-Rain.txt" for 7076 NY Niagara
Rainfall events imported from "NRCS-Rain.txt" for 7076 NY Niagara
Defined 7 rainfall events from NY-LB-DA1-5 IDF
Defined 7 rainfall events from NY-LB-DA1-5 IDF
Defined 7 rainfall events from NY-LB-DA6-11 IDF
Defined 7 rainfall events from NY-LB-DA6-11 IDF
Defined 7 rainfall events from NY-LB-DA16-22 IDF
Defined 7 rainfall events from NY-LB-DA16-22 IDF

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-yr	NRCC 24-hr	A	Default	24.00	1	1.87	2
2	10-yr	NRCC 24-hr	A	Default	24.00	1	3.26	2
3	100-yr	NRCC 24-hr	A	Default	24.00	1	4.91	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
6.229	77	D - 77 - Deciduous Forest (14S, 20S, 21S, 22S)
0.260	77	D - 77 - Mixed Forest (20S)
87.955	78	D - 78 - Meadowed, grass, non-grazed land (4S, 14S, 20S, 21S, 22S)
10.821	80	D - 80 - Developed open space (3S, 14S, 16S, 21S)
20.839	82	D - 82 - Developed Low intensity (3S, 4S, 14S, 21S)
0.211	85	D - 85 - Developed Med intensity (4S)
1.053	90	D - 90 - Woody Wetlands (14S)
127.368	**79**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
127.368	Other	3S, 4S, 14S, 16S, 20S, 21S, 22S
127.368		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Sub Nur
0.000	0.000	0.000	0.000	6.229	6.229	D - 77 - Deciduous Forest	
0.000	0.000	0.000	0.000	0.260	0.260	D - 77 - Mixed Forest	
0.000	0.000	0.000	0.000	87.955	87.955	D - 78 - Meadowed, grass, non-grazed land	
0.000	0.000	0.000	0.000	10.821	10.821	D - 80 - Developed open space	
0.000	0.000	0.000	0.000	20.839	20.839	D - 82 - Developed Low intensity	
0.000	0.000	0.000	0.000	0.211	0.211	D - 85 - Developed Med intensity	
0.000	0.000	0.000	0.000	1.053	1.053	D - 90 - Woody Wetlands	
0.000	**0.000**	**0.000**	**0.000**	**127.368**	**127.368**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	8P	609.39	608.14	40.0	0.0313	0.012	0.0	18.0	3.6	
2	9P	605.70	605.02	36.0	0.0189	0.010	0.0	18.0	3.6	
3	15P	609.07	608.22	65.0	0.0131	0.012	0.0	18.0	3.6	
4	17P	612.09	611.20	20.0	0.0445	0.012	0.0	18.0	3.6	
5	18P	614.80	614.60	20.0	0.0100	0.012	0.0	18.0	3.6	
6	19P	609.50	609.28	30.0	0.0073	0.012	0.0	60.0	12.0	
7	20P	617.99	617.84	74.0	0.0020	0.012	0.0	18.0	3.6	

Time span=5.00-48.00 hrs, dt=0.05 hrs, 861 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment3S: DA 25 Runoff Area=0.216 ac 0.00% Impervious Runoff Depth=0.48"
Flow Length=190' Tc=13.4 min CN=80 Runoff=0.11 cfs 0.009 af

Subcatchment4S: DA 26 Runoff Area=2.726 ac 0.00% Impervious Runoff Depth=0.56"
Flow Length=2,922' Tc=77.6 min CN=82 Runoff=0.64 cfs 0.128 af

Subcatchment14S: DA 24 Runoff Area=12.746 ac 0.00% Impervious Runoff Depth=0.48"
Flow Length=1,498' Tc=60.9 min CN=80 Runoff=2.90 cfs 0.515 af

Subcatchment16S: DA 20 Runoff Area=0.088 ac 0.00% Impervious Runoff Depth=0.48"
Flow Length=100' Slope=0.0050 '/' Tc=20.5 min CN=80 Runoff=0.04 cfs 0.004 af

Subcatchment20S: DA 21 Runoff Area=0.382 ac 0.00% Impervious Runoff Depth=0.38"
Flow Length=243' Tc=49.6 min CN=77 Runoff=0.07 cfs 0.012 af

Subcatchment21S: DA 22 Runoff Area=110.818 ac 0.00% Impervious Runoff Depth=0.45"
Flow Length=4,090' Tc=121.8 min CN=79 Runoff=14.29 cfs 4.139 af

Subcatchment22S: DA 23 Runoff Area=0.392 ac 0.00% Impervious Runoff Depth=0.38"
Flow Length=310' Tc=34.8 min CN=77 Runoff=0.09 cfs 0.012 af

Pond 8P: Culvert 025 Peak Elev=609.80' Inflow=0.11 cfs 0.009 af
Outflow=0.11 cfs 0.009 af

Pond 9P: Culvert 026 Peak Elev=606.33' Inflow=0.64 cfs 0.128 af
Outflow=0.64 cfs 0.128 af

Pond 15P: Culvert 024 Peak Elev=610.24' Inflow=2.90 cfs 0.515 af
Outflow=2.90 cfs 0.515 af

Pond 17P: Culvert 023 Peak Elev=612.42' Inflow=0.09 cfs 0.012 af
Outflow=0.09 cfs 0.012 af

Pond 18P: Culvert 021 Peak Elev=615.18' Inflow=0.07 cfs 0.012 af
Outflow=0.07 cfs 0.012 af

Pond 19P: Culvert 022 Peak Elev=611.66' Inflow=14.29 cfs 4.139 af
Outflow=14.29 cfs 4.139 af

Pond 20P: Culvert 020 Peak Elev=618.35' Inflow=0.04 cfs 0.004 af
Outflow=0.04 cfs 0.004 af

Total Runoff Area = 127.368 ac Runoff Volume = 4.819 af Average Runoff Depth = 0.45"
100.00% Pervious = 127.368 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 3S: DA 25

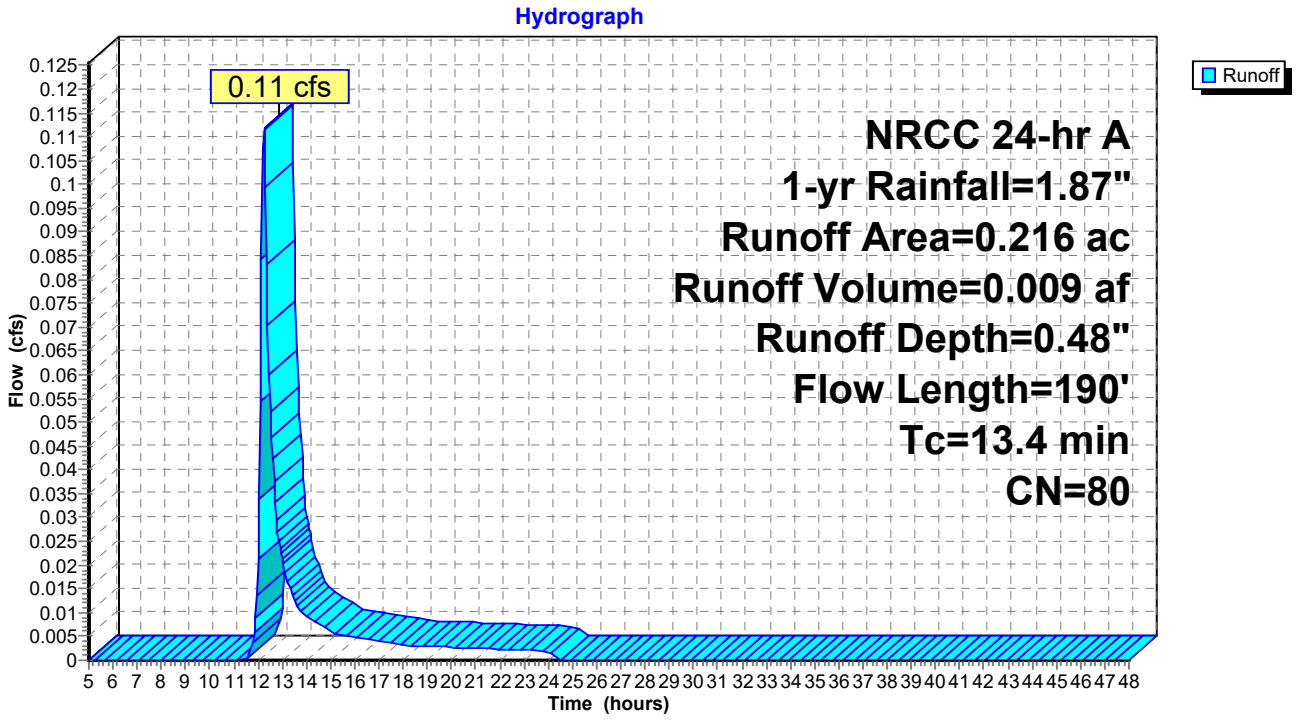
Runoff = 0.11 cfs @ 12.24 hrs, Volume= 0.009 af, Depth= 0.48"
Routed to Pond 8P : Culvert 025

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.124	80	D - 80 - Developed open space
*	0.049	80	D - 80 - Developed open space
*	0.043	82	D - 82 - Developed Low intensity
	0.216	80	Weighted Average
	0.216		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0350	0.18		**Sheet Flow, 100' sheet** Grass: Short n= 0.150 P2= 2.22"
4.0	90	0.0028	0.37		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.4	190	Total			

Subcatchment 3S: DA 25



Summary for Subcatchment 4S: DA 26

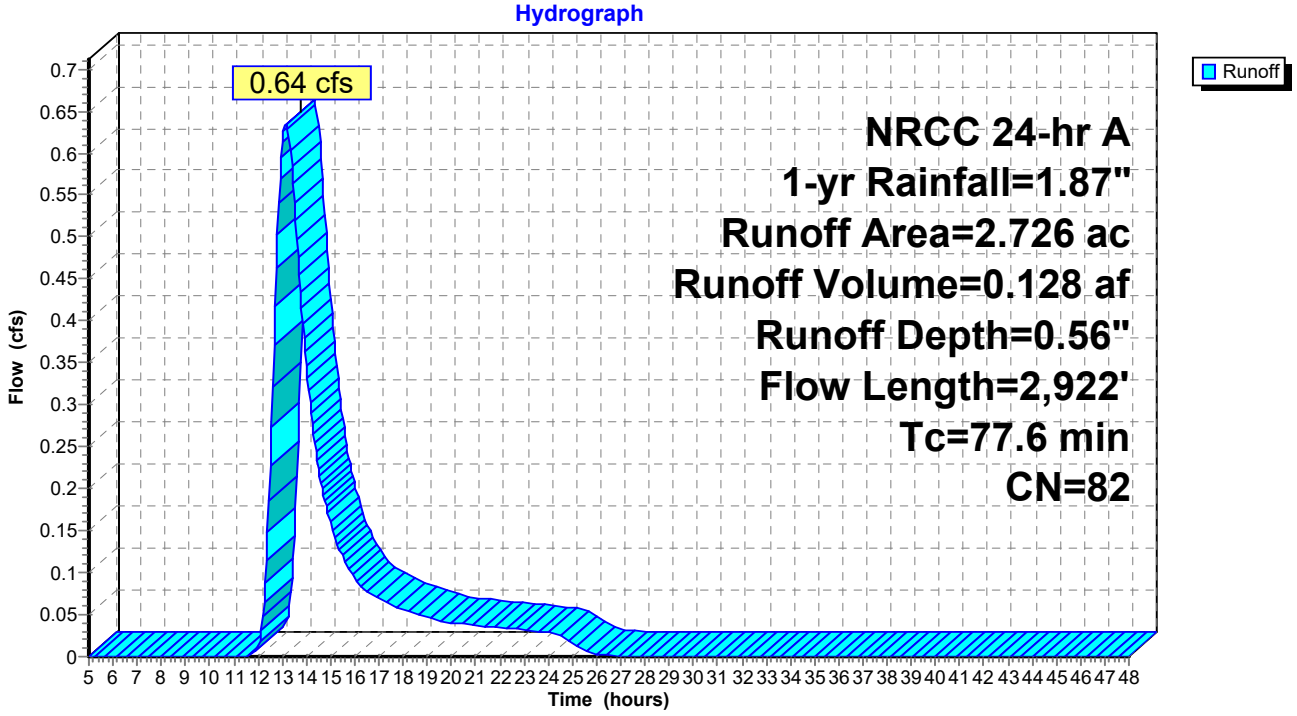
Runoff = 0.64 cfs @ 13.16 hrs, Volume= 0.128 af, Depth= 0.56"
Routed to Pond 9P : Culvert 026

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.000	80	D - 80 - Developed open space
*	1.720	82	D - 82 - Developed Low intensity
*	0.770	82	D - 82 - Developed Low intensity
*	0.001	82	D - 82 - Developed Low intensity
*	0.211	85	D - 85 - Developed Med intensity
*	0.024	78	D - 78 - Meadowed, grass, non-grazed land
	2.726	82	Weighted Average
	2.726		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.6	100	0.0225	0.07		**Sheet Flow, 100' sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
53.0	2,822	0.0035	0.89		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
77.6	2,922	Total			

Subcatchment 4S: DA 26



Summary for Subcatchment 14S: DA 24

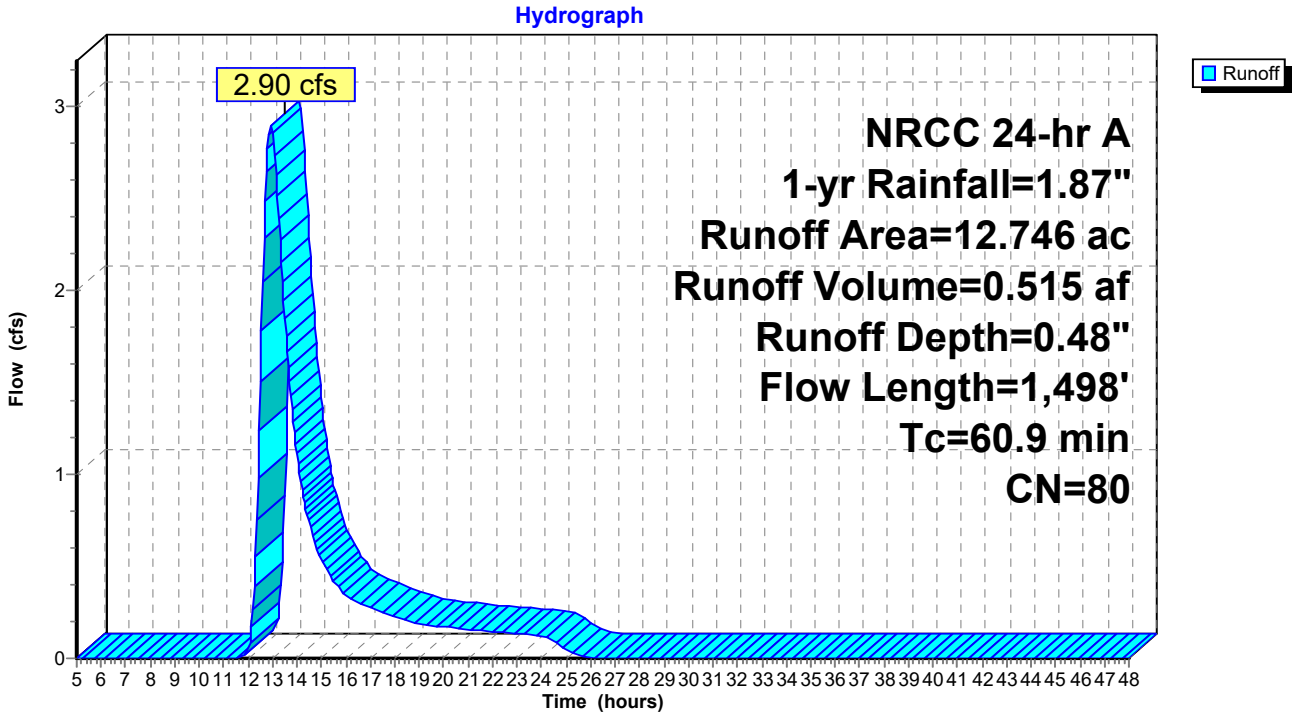
Runoff = 2.90 cfs @ 12.93 hrs, Volume= 0.515 af, Depth= 0.48"
Routed to Pond 15P : Culvert 024

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	3.807	80	D - 80 - Developed open space
*	0.054	80	D - 80 - Developed open space
*	0.544	80	D - 80 - Developed open space
*	1.124	82	D - 82 - Developed Low intensity
*	0.289	77	D - 77 - Deciduous Forest
*	0.167	77	D - 77 - Deciduous Forest
*	3.445	78	D - 78 - Meadowed, grass, non-grazed land
*	1.976	78	D - 78 - Meadowed, grass, non-grazed land
*	0.287	78	D - 78 - Meadowed, grass, non-grazed land
*	0.002	90	D - 90 - Woody Wetlands
*	1.051	90	D - 90 - Woody Wetlands
	12.746	80	Weighted Average
	12.746		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0350	0.18		**Sheet Flow, 100' sheet** Grass: Short n= 0.150 P2= 2.22"
7.3	379	0.0152	0.86		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
44.2	1,019	0.0059	0.38		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
60.9	1,498	Total			

Subcatchment 14S: DA 24



Summary for Subcatchment 16S: DA 20

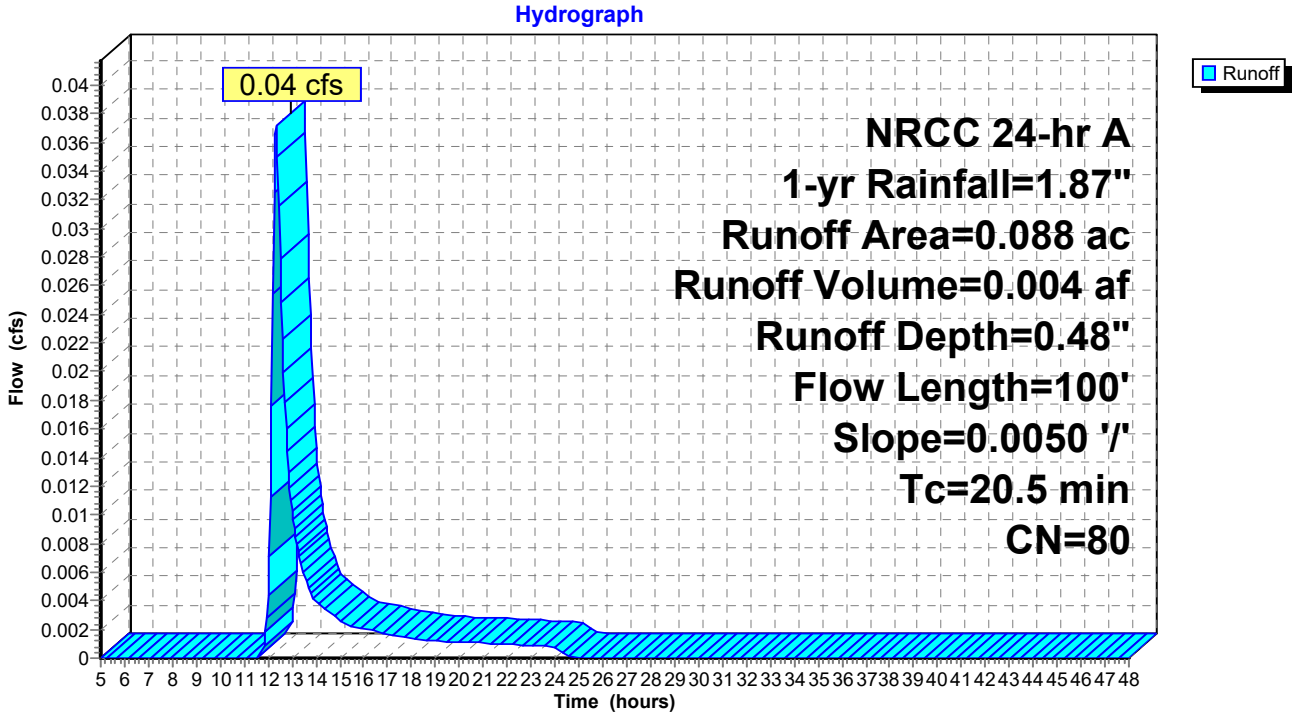
Runoff = 0.04 cfs @ 12.34 hrs, Volume= 0.004 af, Depth= 0.48"
Routed to Pond 20P : Culvert 020

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.088	80	D - 80 - Developed open space
	0.088		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.5	100	0.0050	0.08		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.22"

Subcatchment 16S: DA 20



Summary for Subcatchment 20S: DA 21

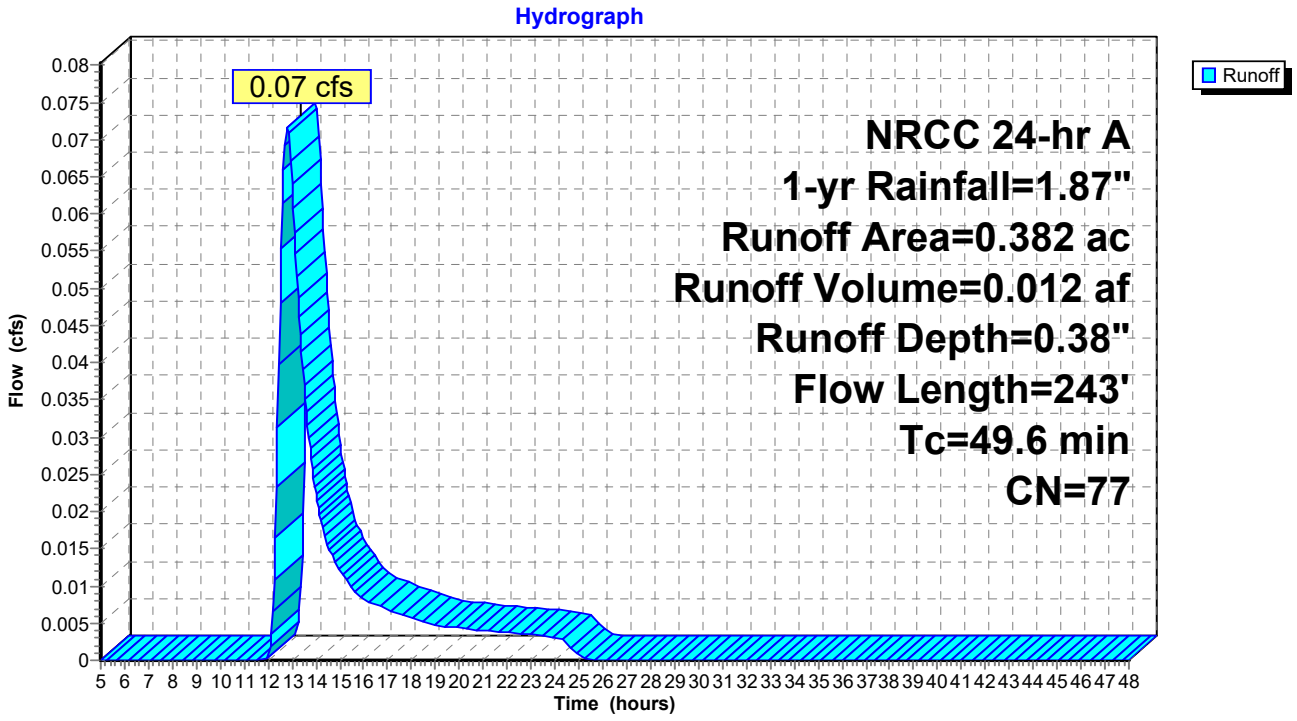
Runoff = 0.07 cfs @ 12.80 hrs, Volume= 0.012 af, Depth= 0.38"
Routed to Pond 18P : Culvert 021

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.001	77	D - 77 - Deciduous Forest
*	0.260	77	D - 77 - Mixed Forest
*	0.121	78	D - 78 - Meadowed, grass, non-grazed land
	0.382	77	Weighted Average
	0.382		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
44.9	100	0.0050	0.04		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
4.7	143	0.0105	0.51		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
49.6	243	Total			

Subcatchment 20S: DA 21



Summary for Subcatchment 21S: DA 22

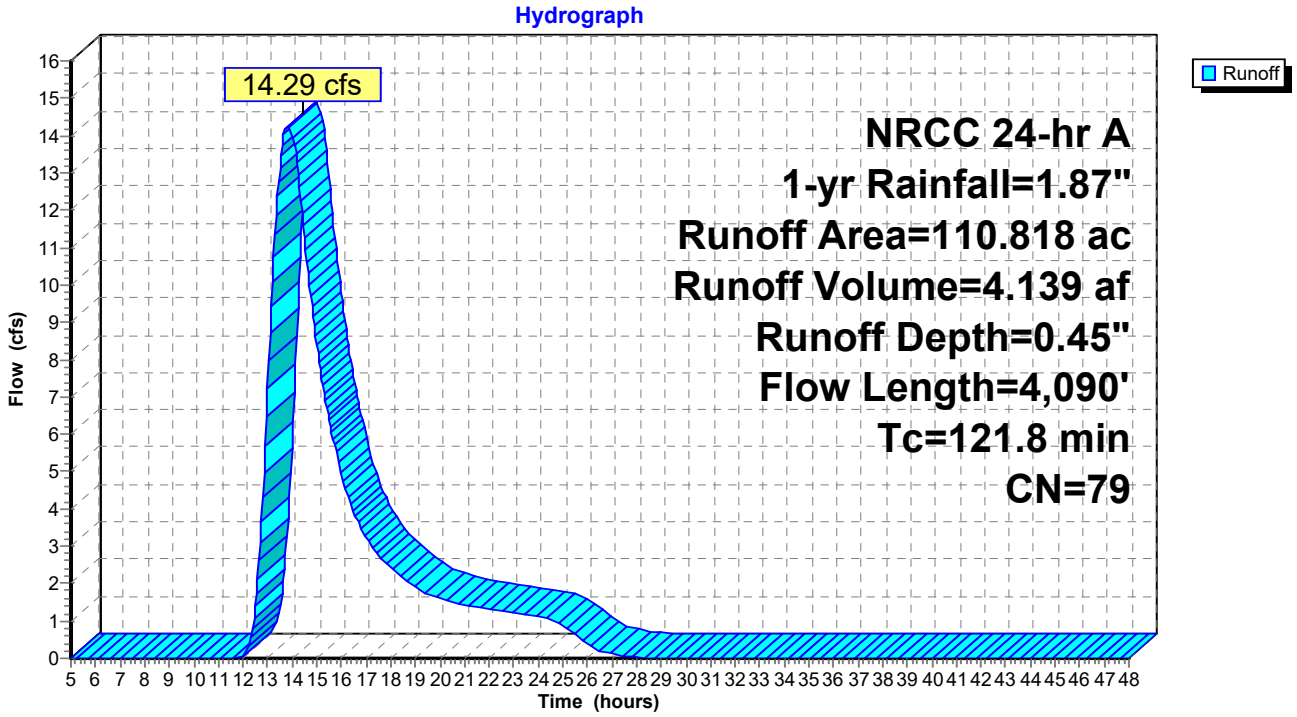
Runoff = 14.29 cfs @ 13.82 hrs, Volume= 4.139 af, Depth= 0.45"
Routed to Pond 19P : Culvert 022

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	3.220	80	D - 80 - Developed open space
*	2.932	80	D - 80 - Developed open space
*	0.003	80	D - 80 - Developed open space
*	10.164	82	D - 82 - Developed Low intensity
*	6.410	82	D - 82 - Developed Low intensity
*	0.607	82	D - 82 - Developed Low intensity
*	5.494	77	D - 77 - Deciduous Forest
*	15.746	78	D - 78 - Meadowed, grass, non-grazed land
*	63.740	78	D - 78 - Meadowed, grass, non-grazed land
*	2.502	78	D - 78 - Meadowed, grass, non-grazed land
	110.818	79	Weighted Average
	110.818		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.0300	0.17		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.22"
88.0	2,225	0.0071	0.42		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.8	1,765	0.0068	1.24		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
121.8	4,090	Total			

Subcatchment 21S: DA 22



Summary for Subcatchment 22S: DA 23

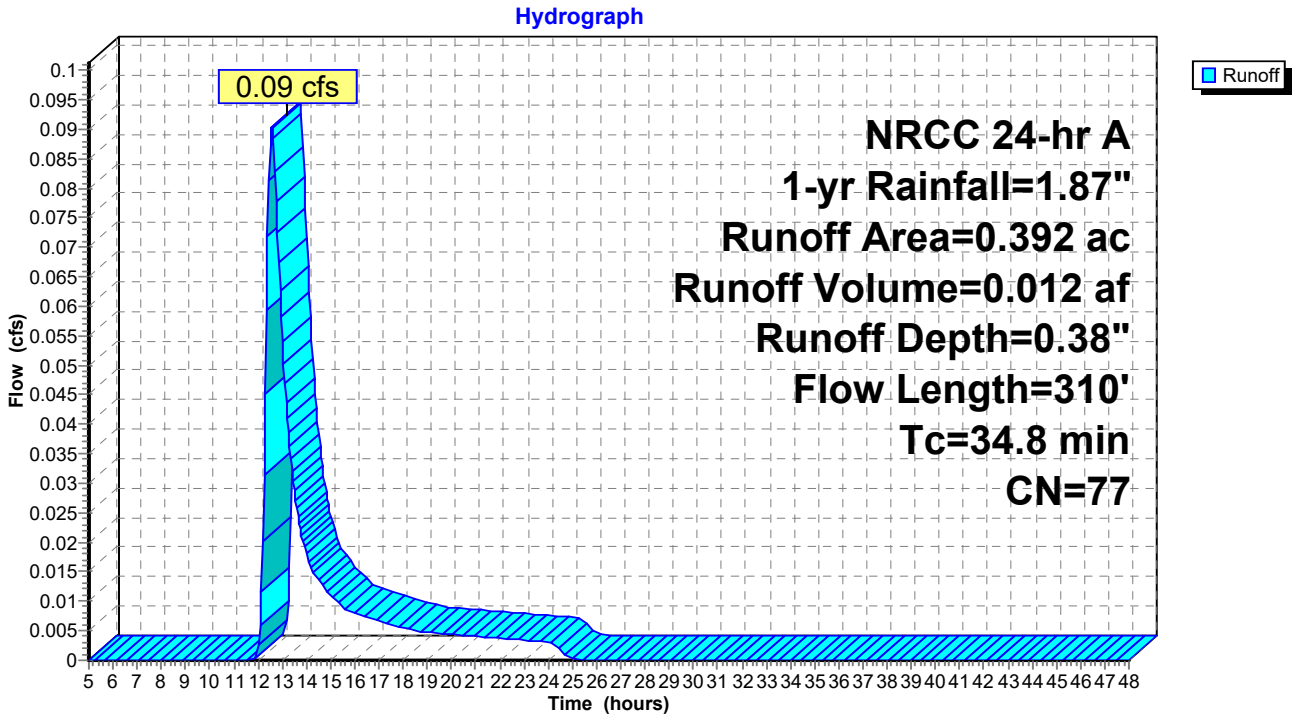
Runoff = 0.09 cfs @ 12.57 hrs, Volume= 0.012 af, Depth= 0.38"
Routed to Pond 17P : Culvert 023

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.261	77	D - 77 - Deciduous Forest
*	0.017	77	D - 77 - Deciduous Forest
*	0.114	78	D - 78 - Meadowed, grass, non-grazed land
	0.392	77	Weighted Average
	0.392		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.9	100	0.0150	0.06		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
5.9	210	0.0143	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
34.8	310	Total			

Subcatchment 22S: DA 23



Summary for Pond 8P: Culvert 025

[57] Hint: Peaked at 609.80' (Flood elevation advised)

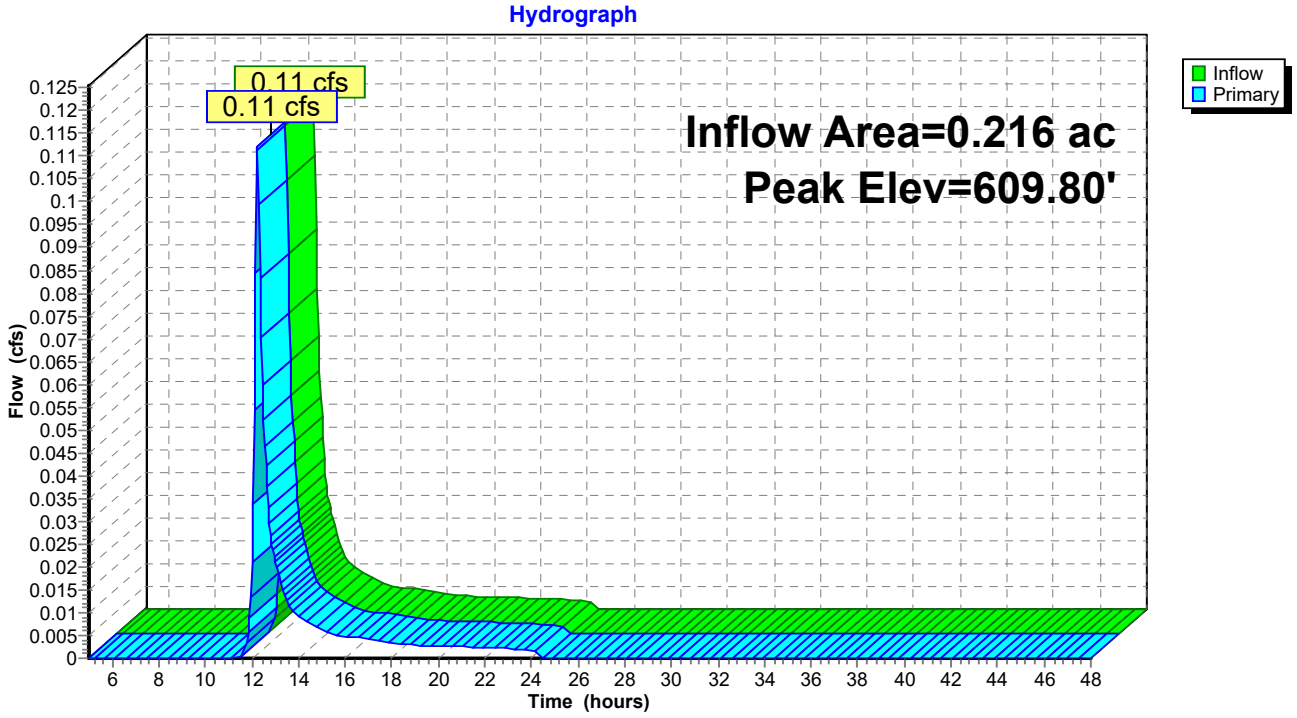
Inflow Area = 0.216 ac, 0.00% Impervious, Inflow Depth = 0.48" for 1-yr event
Inflow = 0.11 cfs @ 12.24 hrs, Volume= 0.009 af
Outflow = 0.11 cfs @ 12.24 hrs, Volume= 0.009 af, Atten= 0%, Lag= 0.0 min
Primary = 0.11 cfs @ 12.24 hrs, Volume= 0.009 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 609.80' @ 12.24 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	609.69'	**18.0" Round Culvert 025 w/ 3.6" inside fill** L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 609.39' / 608.14' S= 0.0313 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	612.39'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.11 cfs @ 12.24 hrs HW=609.80' (Free Discharge)
└**1=Culvert 025** (Inlet Controls 0.11 cfs @ 0.82 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 8P: Culvert 025



Summary for Pond 9P: Culvert 026

[57] Hint: Peaked at 606.33' (Flood elevation advised)

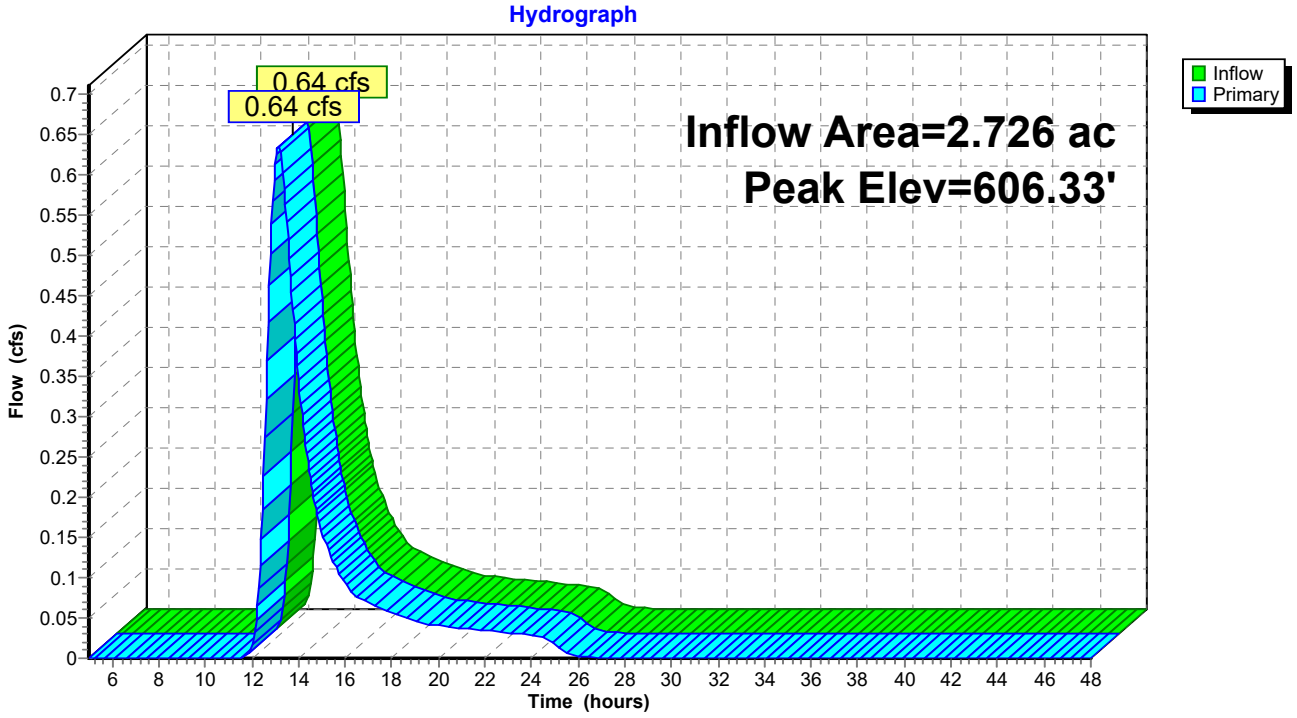
Inflow Area = 2.726 ac, 0.00% Impervious, Inflow Depth = 0.56" for 1-yr event
Inflow = 0.64 cfs @ 13.16 hrs, Volume= 0.128 af
Outflow = 0.64 cfs @ 13.16 hrs, Volume= 0.128 af, Atten= 0%, Lag= 0.0 min
Primary = 0.64 cfs @ 13.16 hrs, Volume= 0.128 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 606.33' @ 13.16 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	606.00'	**18.0" Round Culvert 026 w/ 3.6" inside fill** L= 36.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 605.70' / 605.02' S= 0.0189 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.52 sf
#2	Primary	608.70'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.64 cfs @ 13.16 hrs HW=606.33' (Free Discharge)
└**1=Culvert 026** (Inlet Controls 0.64 cfs @ 1.42 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9P: Culvert 026



Summary for Pond 15P: Culvert 024

[57] Hint: Peaked at 610.24' (Flood elevation advised)

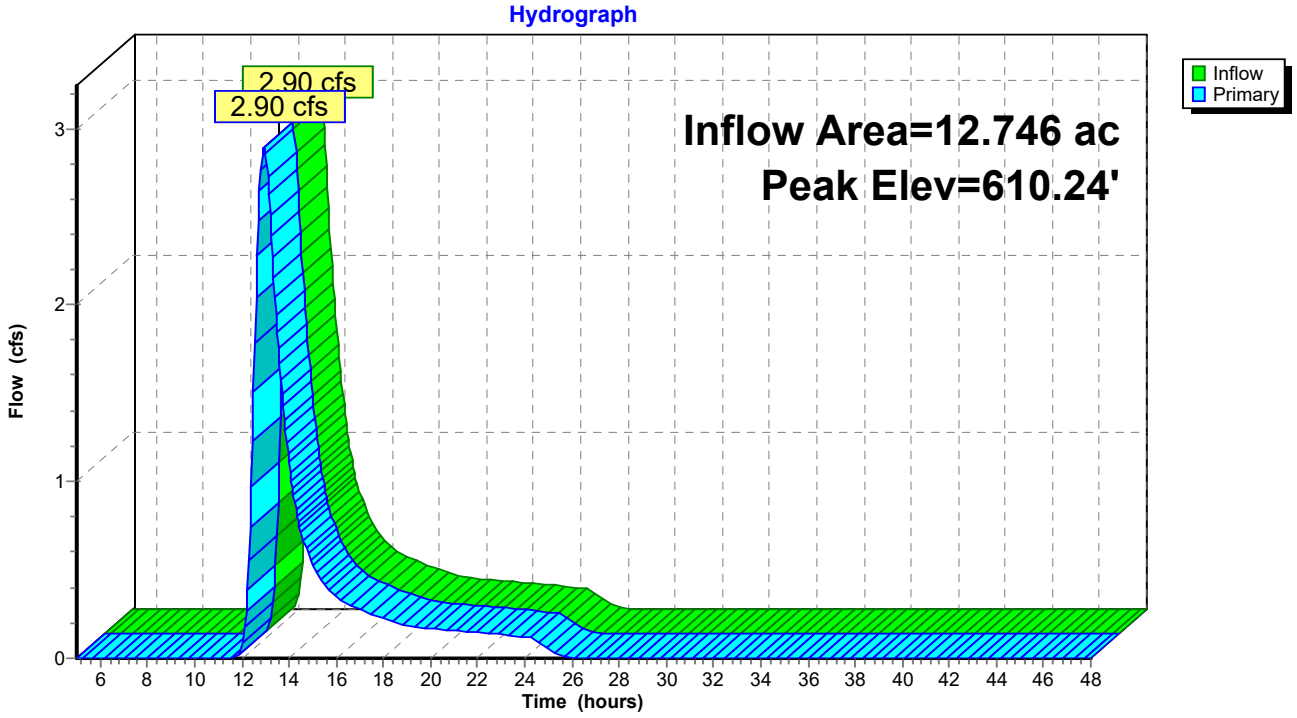
Inflow Area = 12.746 ac, 0.00% Impervious, Inflow Depth = 0.48" for 1-yr event
Inflow = 2.90 cfs @ 12.93 hrs, Volume= 0.515 af
Outflow = 2.90 cfs @ 12.93 hrs, Volume= 0.515 af, Atten= 0%, Lag= 0.0 min
Primary = 2.90 cfs @ 12.93 hrs, Volume= 0.515 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 610.24' @ 12.93 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	609.37'	**18.0" Round Culvert 024 w/ 3.6" inside fill** L= 65.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 609.07' / 608.22' S= 0.0131 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	612.68'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=2.89 cfs @ 12.93 hrs HW=610.24' (Free Discharge)
└**1=Culvert 024** (Inlet Controls 2.89 cfs @ 2.36 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 15P: Culvert 024



Summary for Pond 17P: Culvert 023

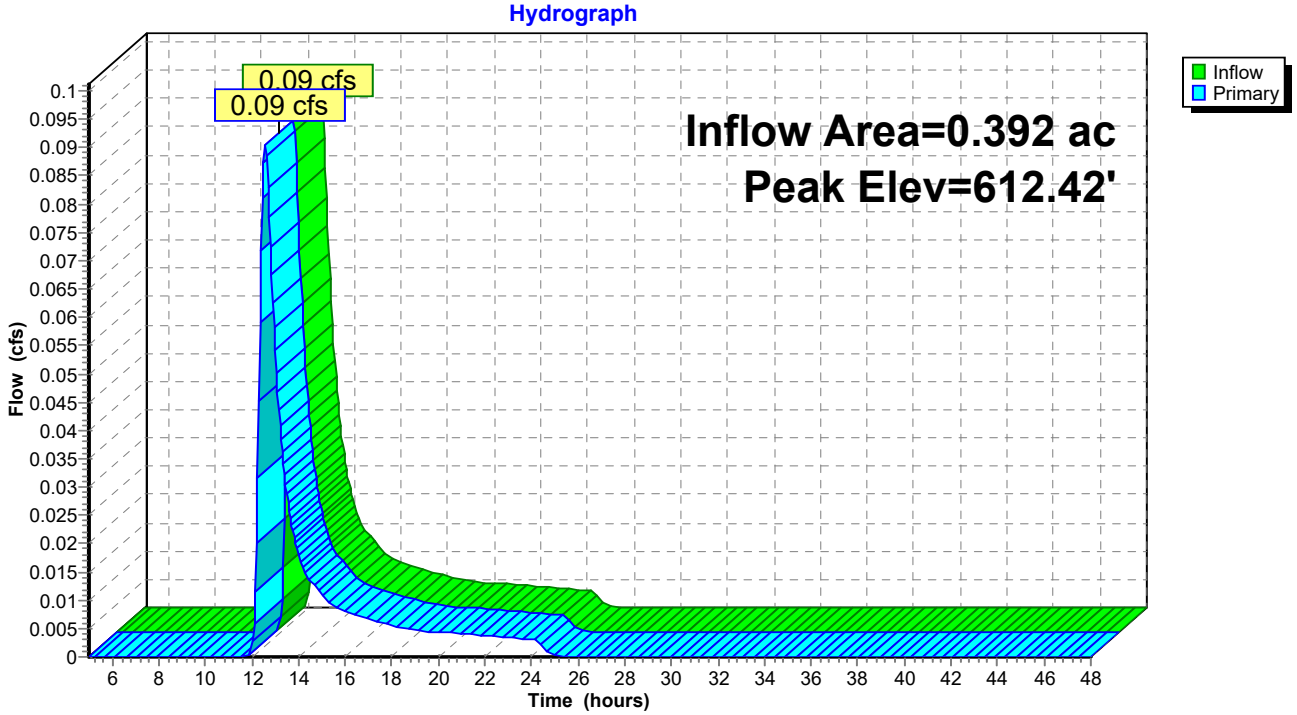
Inflow Area = 0.392 ac, 0.00% Impervious, Inflow Depth = 0.38" for 1-yr event
Inflow = 0.09 cfs @ 12.57 hrs, Volume= 0.012 af
Outflow = 0.09 cfs @ 12.57 hrs, Volume= 0.012 af, Atten= 0%, Lag= 0.0 min
Primary = 0.09 cfs @ 12.57 hrs, Volume= 0.012 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 612.42' @ 12.57 hrs
Flood Elev= 920.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	612.39'	**18.0" Round Culvert 023 w/ 3.6" inside fill** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 612.09' / 611.20' S= 0.0445 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	615.09'	**100.0' long + 3.0 '/' SideZ x 20.0' breadth Road** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.02 cfs @ 12.57 hrs HW=612.42' (Free Discharge)
└─**1=Culvert 023** (Inlet Controls 0.02 cfs @ 0.44 fps)
└─**2=Road** (Controls 0.00 cfs)

Pond 17P: Culvert 023



Summary for Pond 18P: Culvert 021

[57] Hint: Peaked at 615.18' (Flood elevation advised)

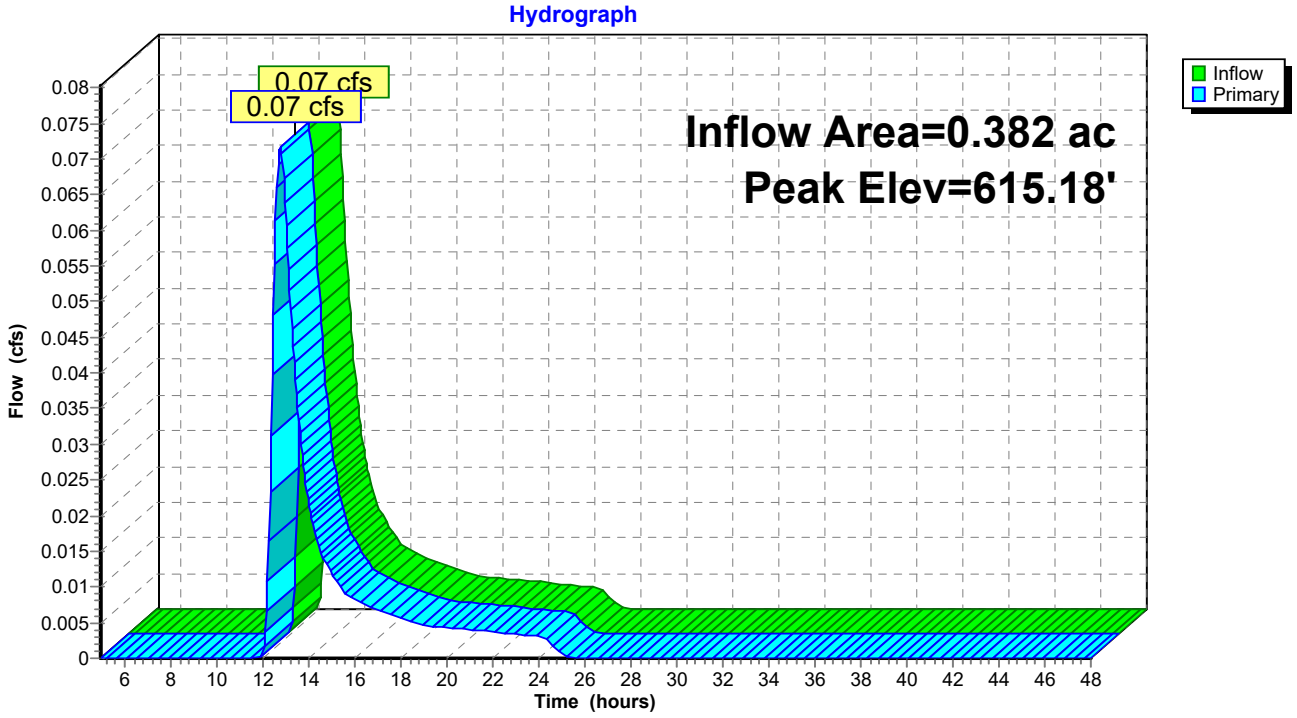
Inflow Area = 0.382 ac, 0.00% Impervious, Inflow Depth = 0.38" for 1-yr event
Inflow = 0.07 cfs @ 12.80 hrs, Volume= 0.012 af
Outflow = 0.07 cfs @ 12.80 hrs, Volume= 0.012 af, Atten= 0%, Lag= 0.0 min
Primary = 0.07 cfs @ 12.80 hrs, Volume= 0.012 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 615.18' @ 12.80 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	615.10'	**18.0" Round Culvert 021 w/ 3.6" inside fill** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 614.80' / 614.60' S= 0.0100 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	617.80'	**100.0' long + 3.0 '/' SideZ x 20.0' breadth Road** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.07 cfs @ 12.80 hrs HW=615.18' (Free Discharge)
└─**1=Culvert 021** (Inlet Controls 0.07 cfs @ 0.71 fps)
└─**2=Road** (Controls 0.00 cfs)

Pond 18P: Culvert 021



Summary for Pond 19P: Culvert 022

[57] Hint: Peaked at 611.66' (Flood elevation advised)

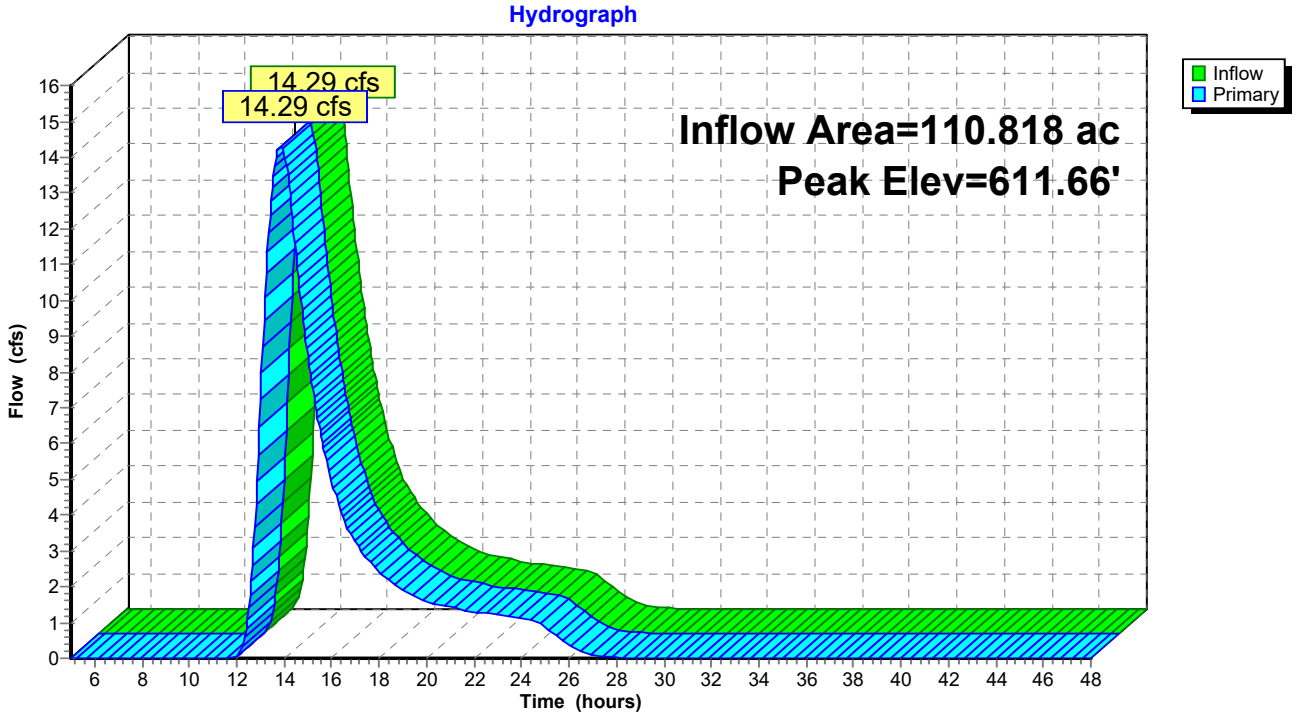
Inflow Area = 110.818 ac, 0.00% Impervious, Inflow Depth = 0.45" for 1-yr event
Inflow = 14.29 cfs @ 13.82 hrs, Volume= 4.139 af
Outflow = 14.29 cfs @ 13.82 hrs, Volume= 4.139 af, Atten= 0%, Lag= 0.0 min
Primary = 14.29 cfs @ 13.82 hrs, Volume= 4.139 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 611.66' @ 13.82 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	610.50'	**60.0" Round Culvert 022 w/ 12.0" inside fill** L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 609.50' / 609.28' S= 0.0073 '/' Cc= 0.900 n= 0.012, Flow Area= 16.84 sf
#2	Primary	616.00'	**100.0' long + 3.0 '/' SideZ x 20.0' breadth Road** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=14.28 cfs @ 13.82 hrs HW=611.66' (Free Discharge)
└**1=Culvert 022** (Inlet Controls 14.28 cfs @ 2.68 fps)
└**2=Road** (Controls 0.00 cfs)

Pond 19P: Culvert 022



Summary for Pond 20P: Culvert 020

[57] Hint: Peaked at 618.35' (Flood elevation advised)

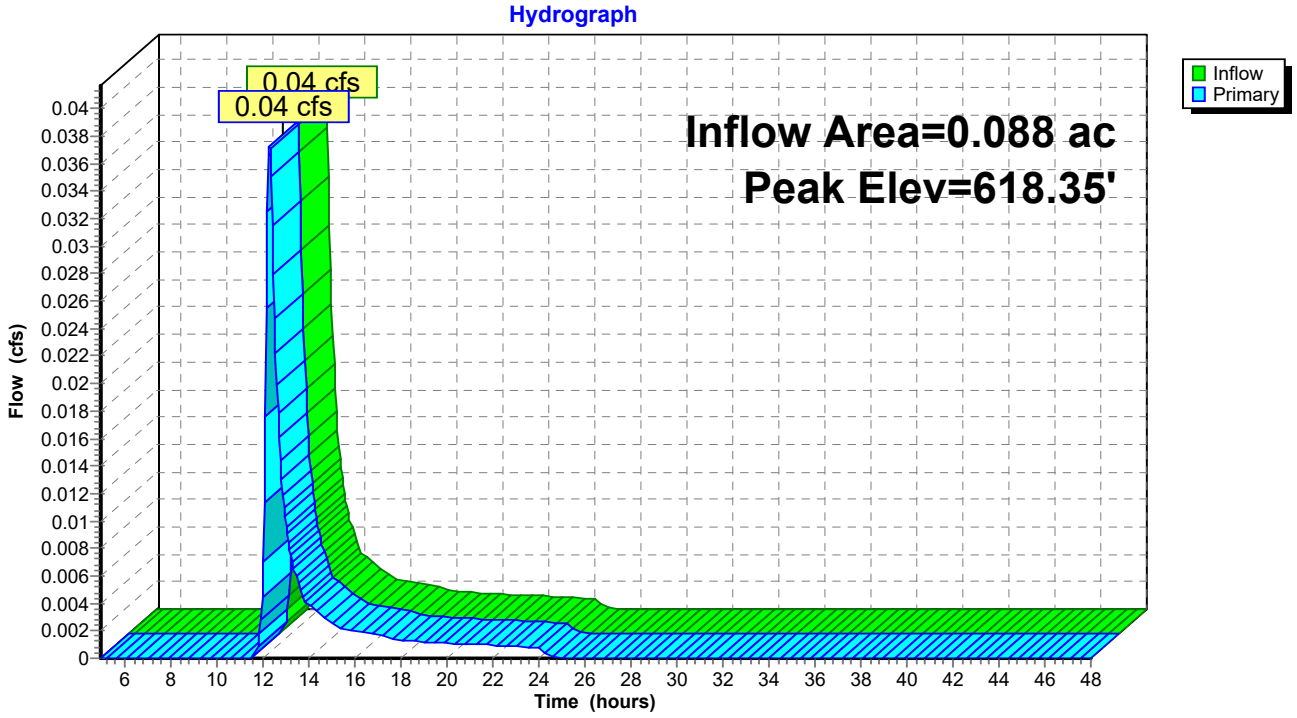
Inflow Area = 0.088 ac, 0.00% Impervious, Inflow Depth = 0.48" for 1-yr event
Inflow = 0.04 cfs @ 12.34 hrs, Volume= 0.004 af
Outflow = 0.04 cfs @ 12.34 hrs, Volume= 0.004 af, Atten= 0%, Lag= 0.0 min
Primary = 0.04 cfs @ 12.34 hrs, Volume= 0.004 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 618.35' @ 12.34 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	618.29'	**18.0" Round Culvert 020 w/ 3.6" inside fill** L= 74.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 617.99' / 617.84' S= 0.0020 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	620.99'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.04 cfs @ 12.34 hrs HW=618.35' (Free Discharge)
└**1=Culvert 020** (Barrel Controls 0.04 cfs @ 0.67 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 20P: Culvert 020



Time span=5.00-48.00 hrs, dt=0.05 hrs, 861 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment3S: DA 25 Runoff Area=0.216 ac 0.00% Impervious Runoff Depth=1.45"
Flow Length=190' Tc=13.4 min CN=80 Runoff=0.37 cfs 0.026 af

Subcatchment4S: DA 26 Runoff Area=2.726 ac 0.00% Impervious Runoff Depth=1.59"
Flow Length=2,922' Tc=77.6 min CN=82 Runoff=1.92 cfs 0.360 af

Subcatchment14S: DA 24 Runoff Area=12.746 ac 0.00% Impervious Runoff Depth=1.45"
Flow Length=1,498' Tc=60.9 min CN=80 Runoff=9.52 cfs 1.538 af

Subcatchment16S: DA 20 Runoff Area=0.088 ac 0.00% Impervious Runoff Depth=1.45"
Flow Length=100' Slope=0.0050 '/' Tc=20.5 min CN=80 Runoff=0.12 cfs 0.011 af

Subcatchment20S: DA 21 Runoff Area=0.382 ac 0.00% Impervious Runoff Depth=1.25"
Flow Length=243' Tc=49.6 min CN=77 Runoff=0.28 cfs 0.040 af

Subcatchment21S: DA 22 Runoff Area=110.818 ac 0.00% Impervious Runoff Depth=1.38"
Flow Length=4,090' Tc=121.8 min CN=79 Runoff=49.18 cfs 12.762 af

Subcatchment22S: DA 23 Runoff Area=0.392 ac 0.00% Impervious Runoff Depth=1.25"
Flow Length=310' Tc=34.8 min CN=77 Runoff=0.35 cfs 0.041 af

Pond 8P: Culvert 025 Peak Elev=609.92' Inflow=0.37 cfs 0.026 af
Outflow=0.37 cfs 0.026 af

Pond 9P: Culvert 026 Peak Elev=606.66' Inflow=1.92 cfs 0.360 af
Outflow=1.92 cfs 0.360 af

Pond 15P: Culvert 024 Peak Elev=612.66' Inflow=9.52 cfs 1.538 af
Outflow=9.52 cfs 1.538 af

Pond 17P: Culvert 023 Peak Elev=612.50' Inflow=0.35 cfs 0.041 af
Outflow=0.35 cfs 0.041 af

Pond 18P: Culvert 021 Peak Elev=615.29' Inflow=0.28 cfs 0.040 af
Outflow=0.28 cfs 0.040 af

Pond 19P: Culvert 022 Peak Elev=613.11' Inflow=49.18 cfs 12.762 af
Outflow=49.18 cfs 12.762 af

Pond 20P: Culvert 020 Peak Elev=618.41' Inflow=0.12 cfs 0.011 af
Outflow=0.12 cfs 0.011 af

Total Runoff Area = 127.368 ac Runoff Volume = 14.778 af Average Runoff Depth = 1.39"
100.00% Pervious = 127.368 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 3S: DA 25

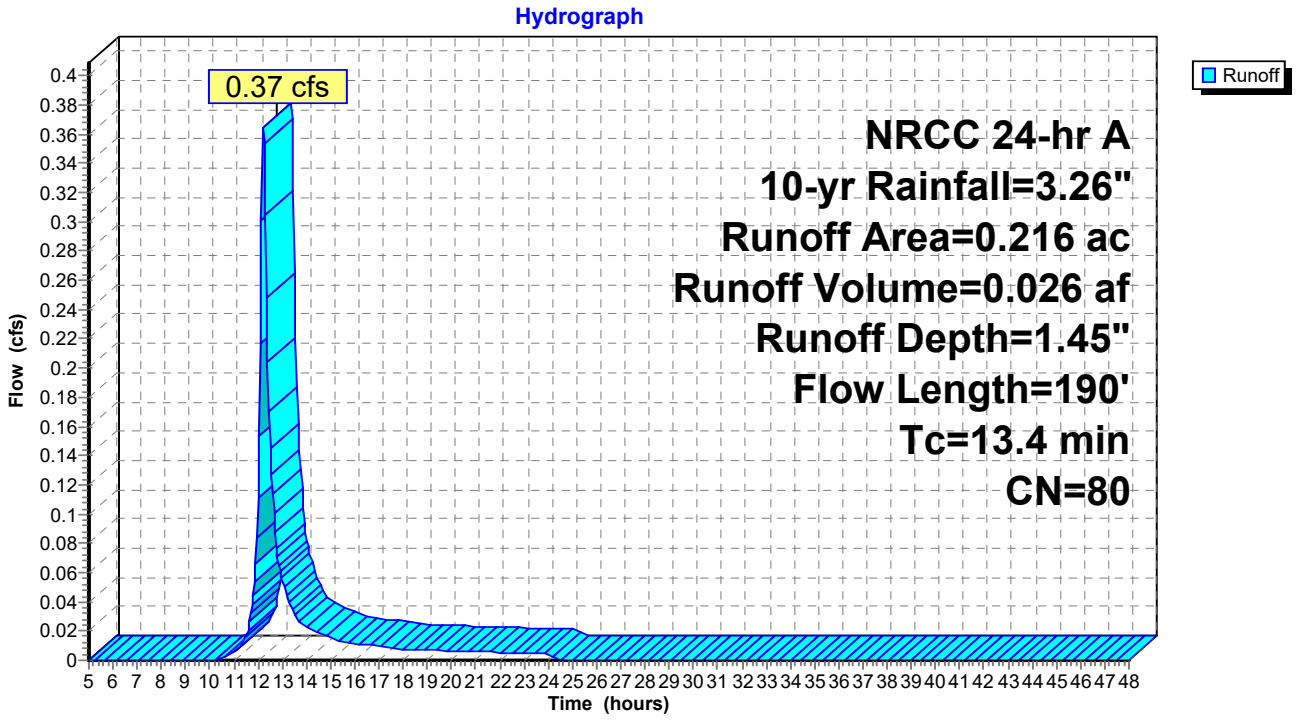
Runoff = 0.37 cfs @ 12.22 hrs, Volume= 0.026 af, Depth= 1.45"
Routed to Pond 8P : Culvert 025

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 10-yr Rainfall=3.26"

	Area (ac)	CN	Description
*	0.124	80	D - 80 - Developed open space
*	0.049	80	D - 80 - Developed open space
*	0.043	82	D - 82 - Developed Low intensity
	0.216	80	Weighted Average
	0.216		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0350	0.18		**Sheet Flow, 100' sheet** Grass: Short n= 0.150 P2= 2.22"
4.0	90	0.0028	0.37		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.4	190	Total			

Subcatchment 3S: DA 25



Summary for Subcatchment 4S: DA 26

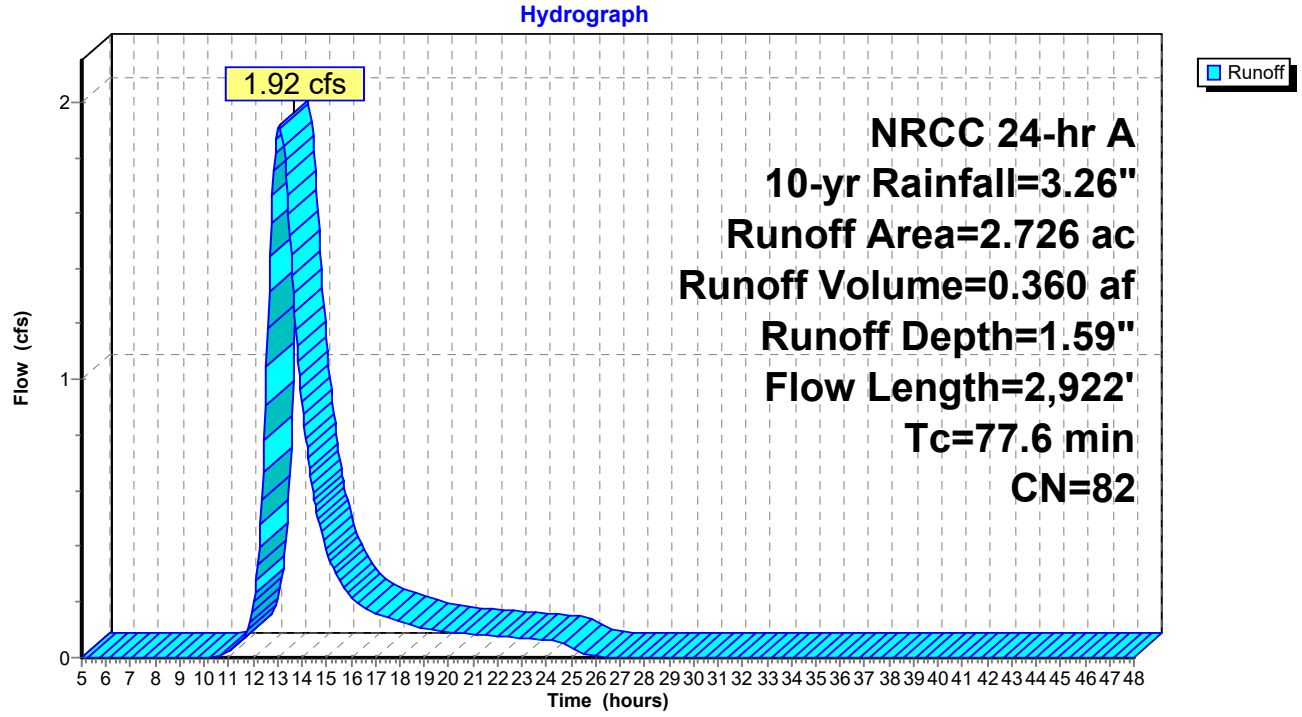
Runoff = 1.92 cfs @ 13.07 hrs, Volume= 0.360 af, Depth= 1.59"
Routed to Pond 9P : Culvert 026

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 10-yr Rainfall=3.26"

	Area (ac)	CN	Description
*	0.000	80	D - 80 - Developed open space
*	1.720	82	D - 82 - Developed Low intensity
*	0.770	82	D - 82 - Developed Low intensity
*	0.001	82	D - 82 - Developed Low intensity
*	0.211	85	D - 85 - Developed Med intensity
*	0.024	78	D - 78 - Meadowed, grass, non-grazed land
	2.726	82	Weighted Average
	2.726		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.6	100	0.0225	0.07		**Sheet Flow, 100' sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
53.0	2,822	0.0035	0.89		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
77.6	2,922	Total			

Subcatchment 4S: DA 26



Summary for Subcatchment 14S: DA 24

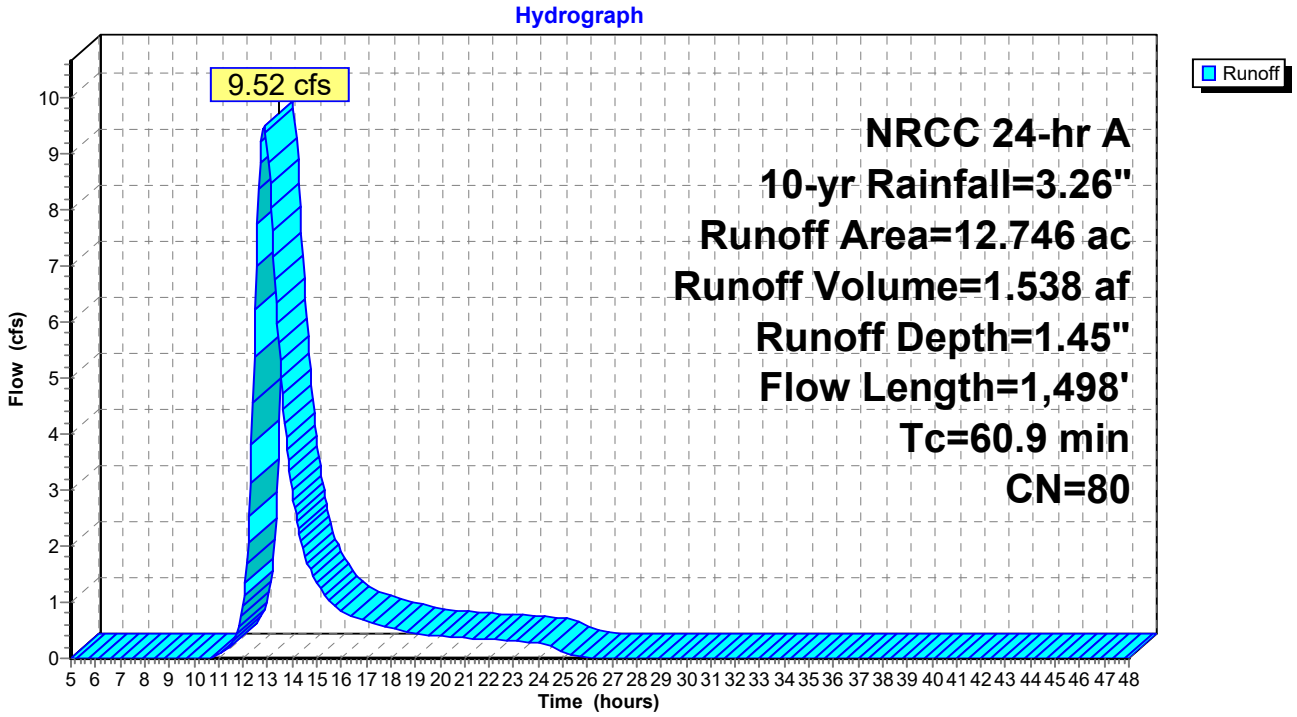
Runoff = 9.52 cfs @ 12.87 hrs, Volume= 1.538 af, Depth= 1.45"
Routed to Pond 15P : Culvert 024

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 10-yr Rainfall=3.26"

	Area (ac)	CN	Description
*	3.807	80	D - 80 - Developed open space
*	0.054	80	D - 80 - Developed open space
*	0.544	80	D - 80 - Developed open space
*	1.124	82	D - 82 - Developed Low intensity
*	0.289	77	D - 77 - Deciduous Forest
*	0.167	77	D - 77 - Deciduous Forest
*	3.445	78	D - 78 - Meadowed, grass, non-grazed land
*	1.976	78	D - 78 - Meadowed, grass, non-grazed land
*	0.287	78	D - 78 - Meadowed, grass, non-grazed land
*	0.002	90	D - 90 - Woody Wetlands
*	1.051	90	D - 90 - Woody Wetlands
	12.746	80	Weighted Average
	12.746		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0350	0.18		**Sheet Flow, 100' sheet** Grass: Short n= 0.150 P2= 2.22"
7.3	379	0.0152	0.86		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
44.2	1,019	0.0059	0.38		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
60.9	1,498	Total			

Subcatchment 14S: DA 24



Summary for Subcatchment 16S: DA 20

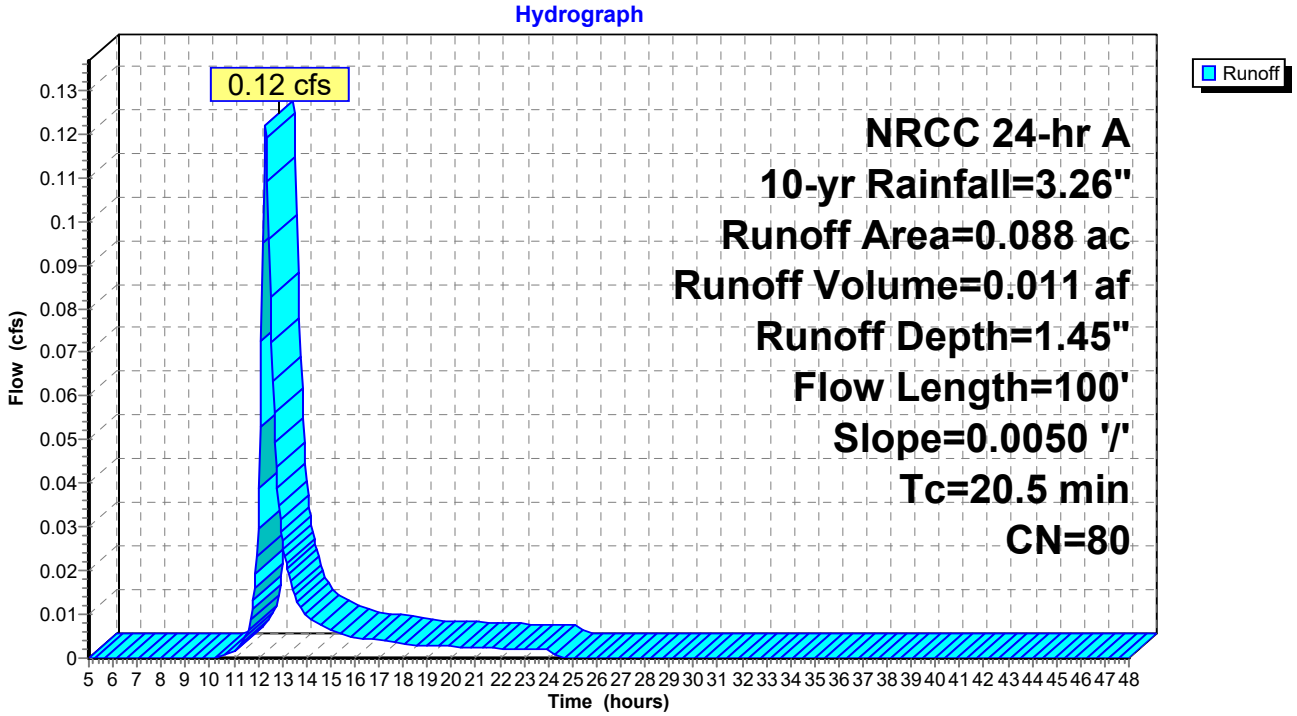
Runoff = 0.12 cfs @ 12.31 hrs, Volume= 0.011 af, Depth= 1.45"
Routed to Pond 20P : Culvert 020

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 10-yr Rainfall=3.26"

	Area (ac)	CN	Description
*	0.088	80	D - 80 - Developed open space
	0.088		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.5	100	0.0050	0.08		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.22"

Subcatchment 16S: DA 20



Summary for Subcatchment 20S: DA 21

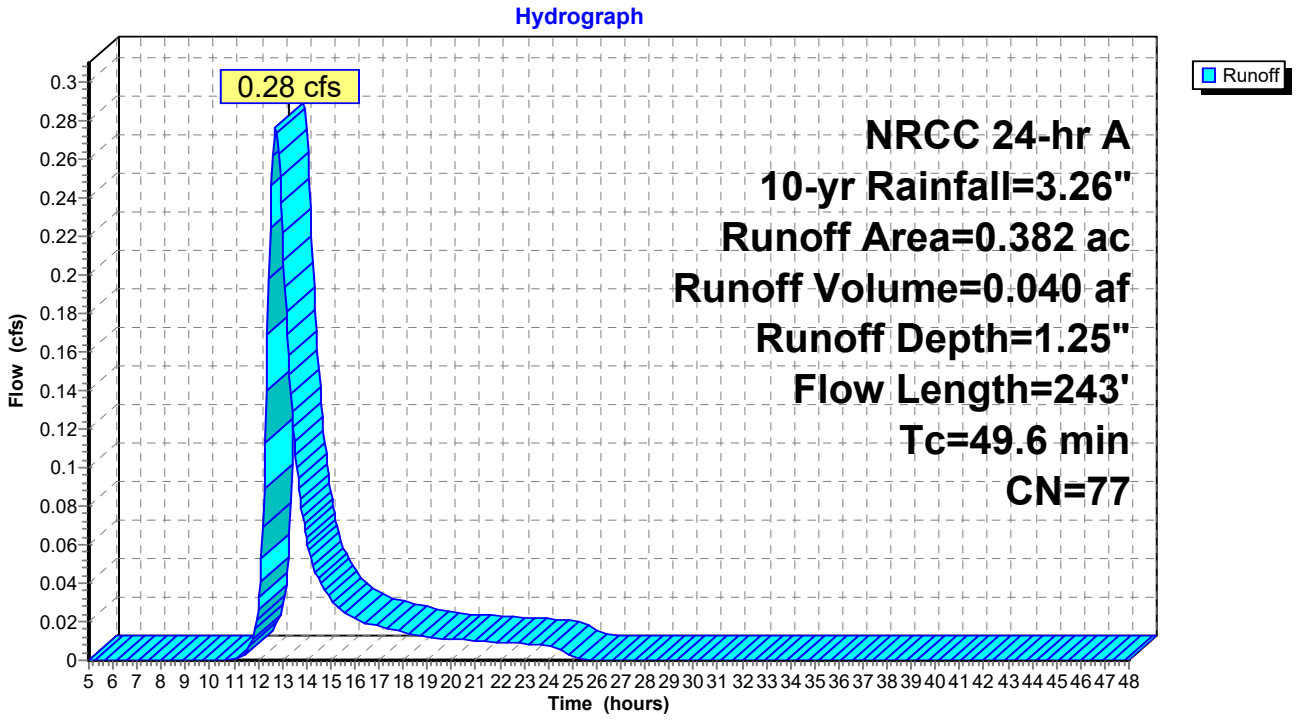
Runoff = 0.28 cfs @ 12.72 hrs, Volume= 0.040 af, Depth= 1.25"
Routed to Pond 18P : Culvert 021

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 10-yr Rainfall=3.26"

	Area (ac)	CN	Description
*	0.001	77	D - 77 - Deciduous Forest
*	0.260	77	D - 77 - Mixed Forest
*	0.121	78	D - 78 - Meadowed, grass, non-grazed land
	0.382	77	Weighted Average
	0.382		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
44.9	100	0.0050	0.04		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
4.7	143	0.0105	0.51		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
49.6	243	Total			

Subcatchment 20S: DA 21



Summary for Subcatchment 21S: DA 22

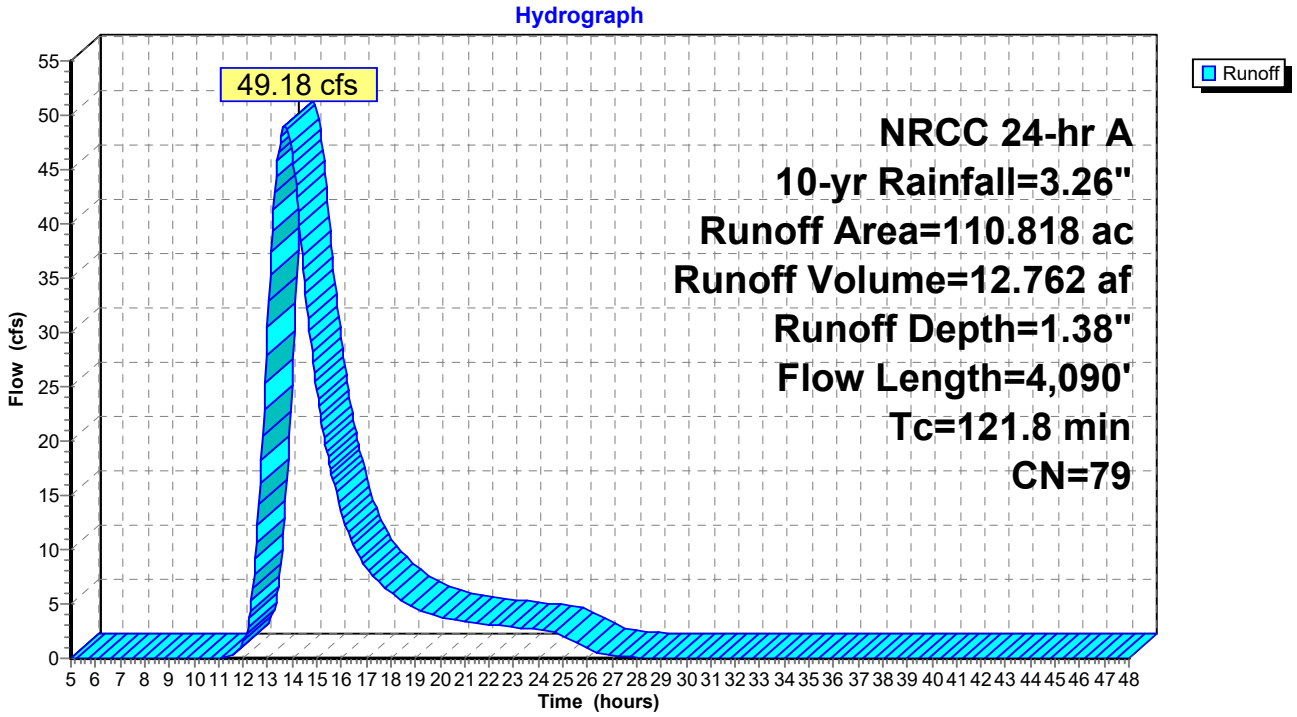
Runoff = 49.18 cfs @ 13.68 hrs, Volume= 12.762 af, Depth= 1.38"
Routed to Pond 19P : Culvert 022

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 10-yr Rainfall=3.26"

	Area (ac)	CN	Description
*	3.220	80	D - 80 - Developed open space
*	2.932	80	D - 80 - Developed open space
*	0.003	80	D - 80 - Developed open space
*	10.164	82	D - 82 - Developed Low intensity
*	6.410	82	D - 82 - Developed Low intensity
*	0.607	82	D - 82 - Developed Low intensity
*	5.494	77	D - 77 - Deciduous Forest
*	15.746	78	D - 78 - Meadowed, grass, non-grazed land
*	63.740	78	D - 78 - Meadowed, grass, non-grazed land
*	2.502	78	D - 78 - Meadowed, grass, non-grazed land
	110.818	79	Weighted Average
	110.818		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.0300	0.17		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.22"
88.0	2,225	0.0071	0.42		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.8	1,765	0.0068	1.24		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
121.8	4,090	Total			

Subcatchment 21S: DA 22



Summary for Subcatchment 22S: DA 23

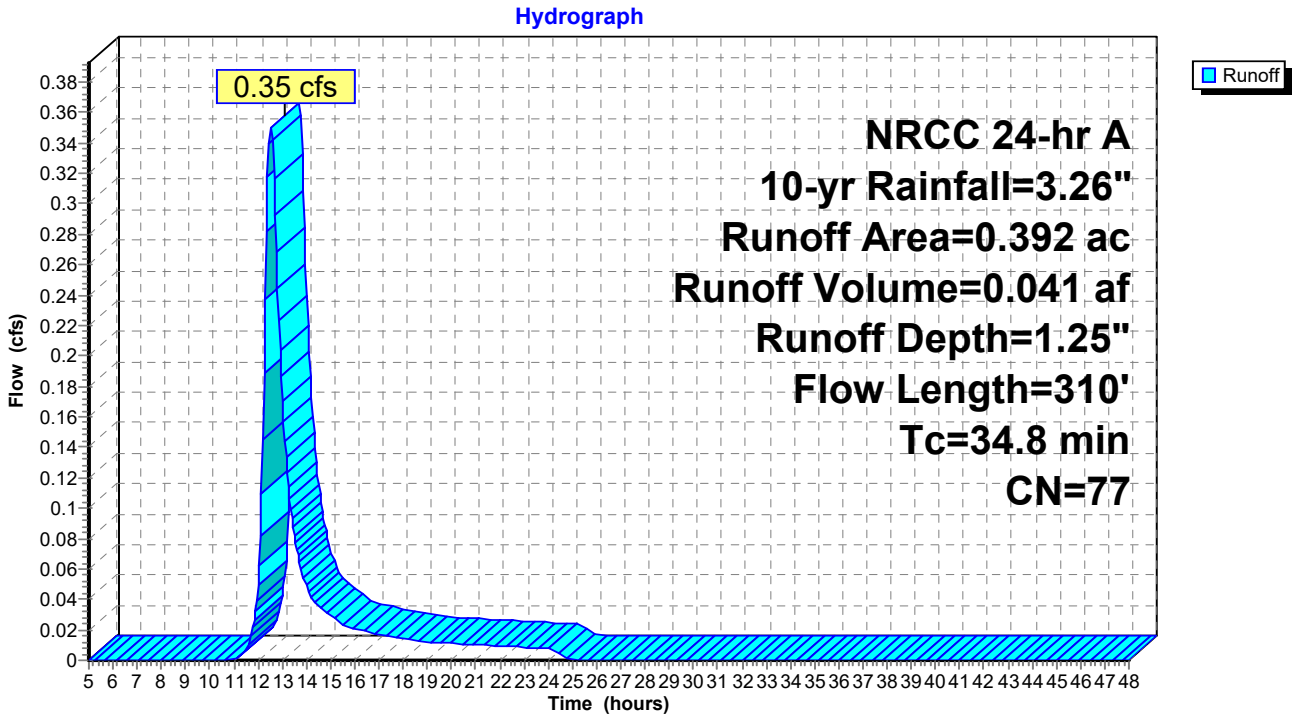
Runoff = 0.35 cfs @ 12.51 hrs, Volume= 0.041 af, Depth= 1.25"
Routed to Pond 17P : Culvert 023

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 10-yr Rainfall=3.26"

	Area (ac)	CN	Description
*	0.261	77	D - 77 - Deciduous Forest
*	0.017	77	D - 77 - Deciduous Forest
*	0.114	78	D - 78 - Meadowed, grass, non-grazed land
	0.392	77	Weighted Average
	0.392		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.9	100	0.0150	0.06		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
5.9	210	0.0143	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
34.8	310	Total			

Subcatchment 22S: DA 23



Summary for Pond 8P: Culvert 025

[57] Hint: Peaked at 609.92' (Flood elevation advised)

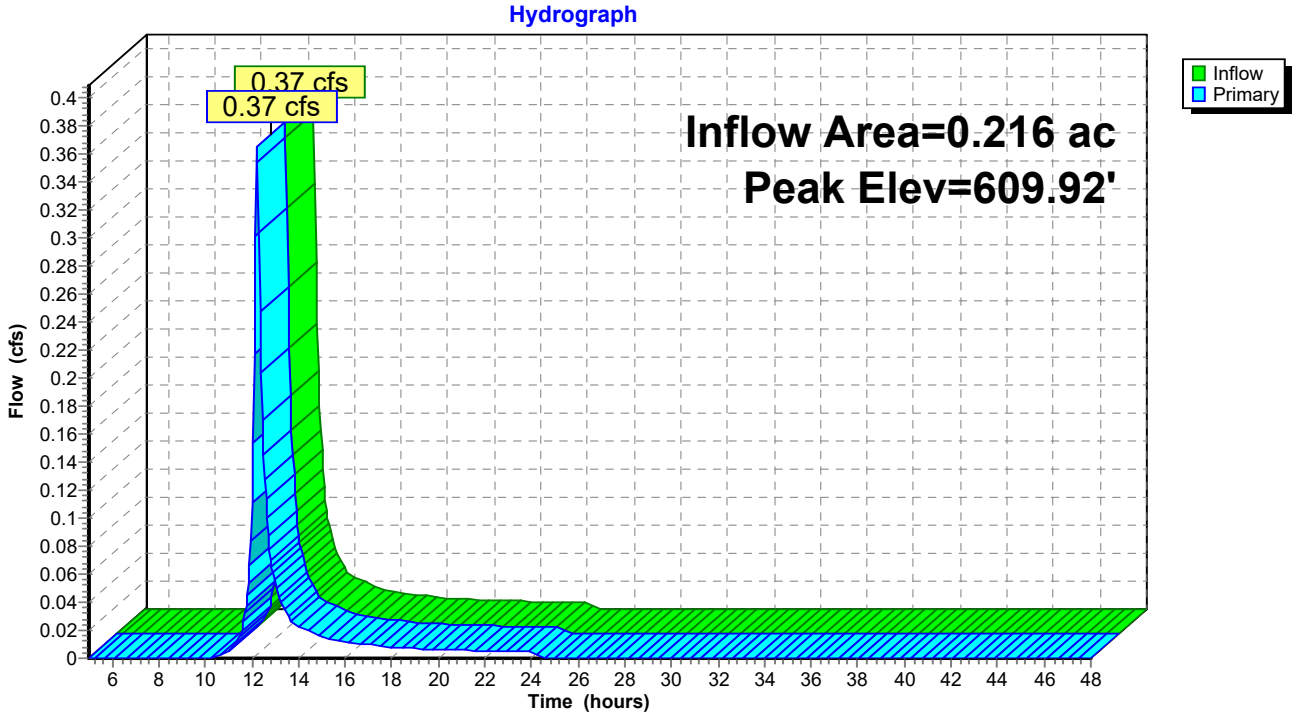
Inflow Area = 0.216 ac, 0.00% Impervious, Inflow Depth = 1.45" for 10-yr event
Inflow = 0.37 cfs @ 12.22 hrs, Volume= 0.026 af
Outflow = 0.37 cfs @ 12.22 hrs, Volume= 0.026 af, Atten= 0%, Lag= 0.0 min
Primary = 0.37 cfs @ 12.22 hrs, Volume= 0.026 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 609.92' @ 12.22 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	609.69'	**18.0" Round Culvert 025 w/ 3.6" inside fill** L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 609.39' / 608.14' S= 0.0313 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	612.39'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.36 cfs @ 12.22 hrs HW=609.92' (Free Discharge)
└**1=Culvert 025** (Inlet Controls 0.36 cfs @ 1.19 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 8P: Culvert 025



Summary for Pond 9P: Culvert 026

[57] Hint: Peaked at 606.66' (Flood elevation advised)

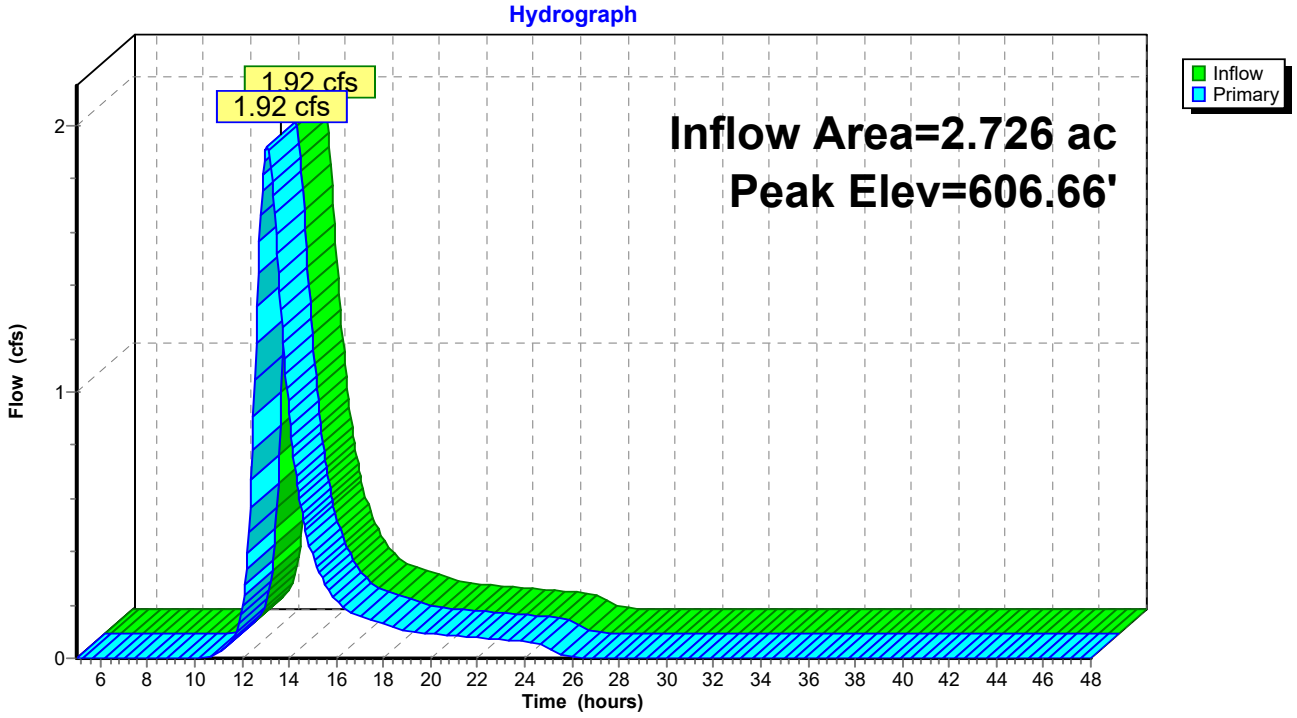
Inflow Area = 2.726 ac, 0.00% Impervious, Inflow Depth = 1.59" for 10-yr event
Inflow = 1.92 cfs @ 13.07 hrs, Volume= 0.360 af
Outflow = 1.92 cfs @ 13.07 hrs, Volume= 0.360 af, Atten= 0%, Lag= 0.0 min
Primary = 1.92 cfs @ 13.07 hrs, Volume= 0.360 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 606.66' @ 13.07 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	606.00'	**18.0" Round Culvert 026 w/ 3.6" inside fill** L= 36.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 605.70' / 605.02' S= 0.0189 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.52 sf
#2	Primary	608.70'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=1.92 cfs @ 13.07 hrs HW=606.66' (Free Discharge)
└**1=Culvert 026** (Inlet Controls 1.92 cfs @ 2.03 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9P: Culvert 026



Summary for Pond 15P: Culvert 024

[57] Hint: Peaked at 612.66' (Flood elevation advised)

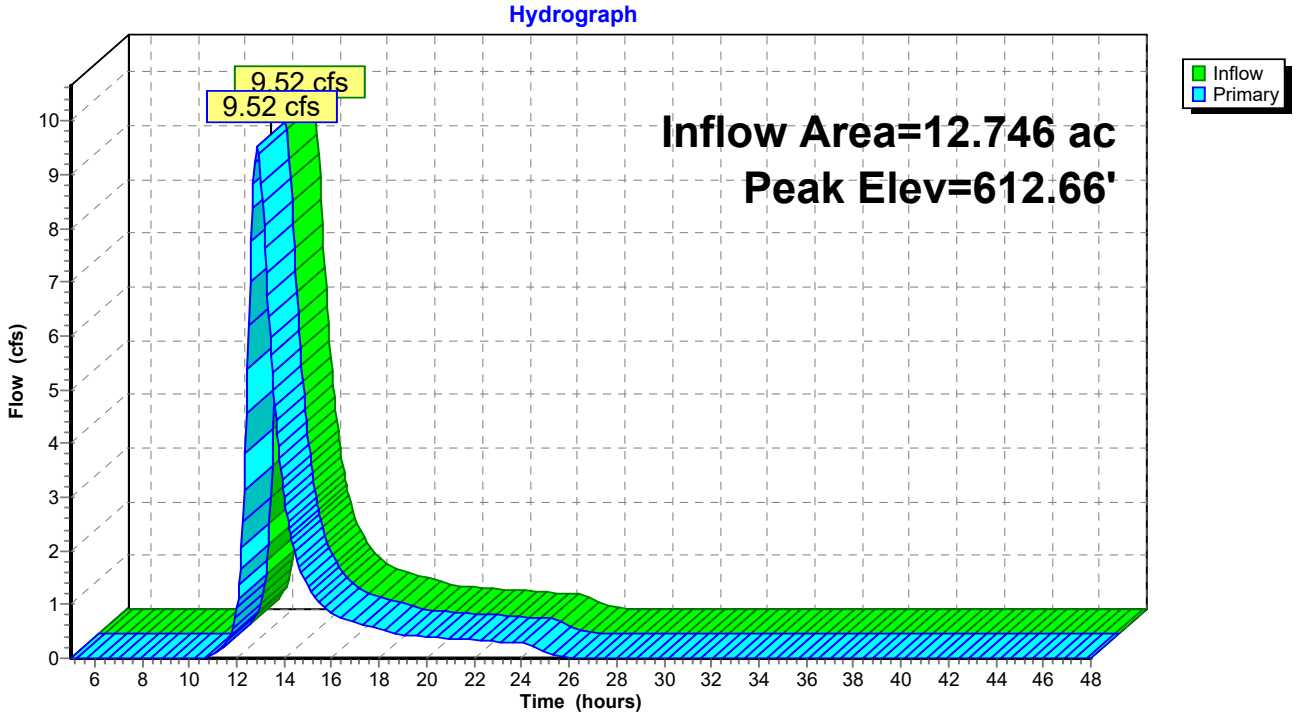
Inflow Area = 12.746 ac, 0.00% Impervious, Inflow Depth = 1.45" for 10-yr event
Inflow = 9.52 cfs @ 12.87 hrs, Volume= 1.538 af
Outflow = 9.52 cfs @ 12.87 hrs, Volume= 1.538 af, Atten= 0%, Lag= 0.0 min
Primary = 9.52 cfs @ 12.87 hrs, Volume= 1.538 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 612.66' @ 12.87 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	609.37'	**18.0" Round Culvert 024 w/ 3.6" inside fill** L= 65.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 609.07' / 608.22' S= 0.0131 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	612.68'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=9.52 cfs @ 12.87 hrs HW=612.65' (Free Discharge)
└**1=Culvert 024** (Inlet Controls 9.52 cfs @ 6.28 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 15P: Culvert 024



Summary for Pond 17P: Culvert 023

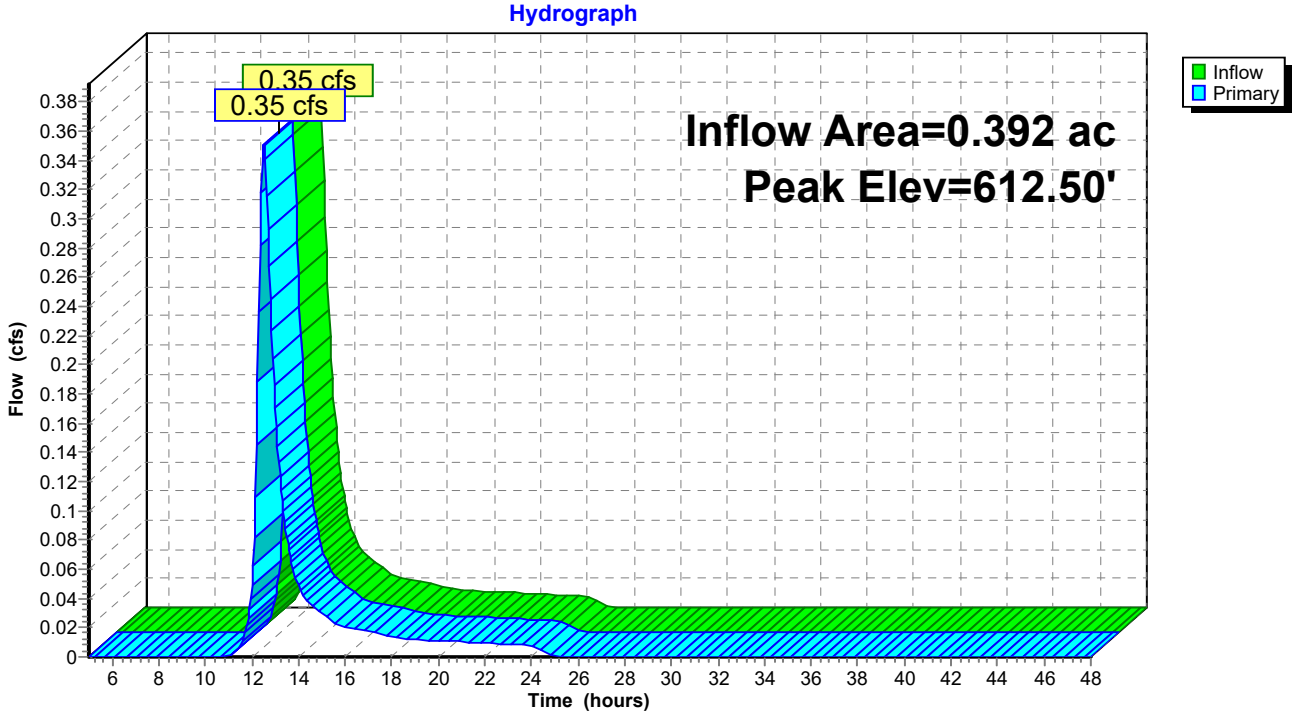
Inflow Area = 0.392 ac, 0.00% Impervious, Inflow Depth = 1.25" for 10-yr event
Inflow = 0.35 cfs @ 12.51 hrs, Volume= 0.041 af
Outflow = 0.35 cfs @ 12.51 hrs, Volume= 0.041 af, Atten= 0%, Lag= 0.0 min
Primary = 0.35 cfs @ 12.51 hrs, Volume= 0.041 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 612.50' @ 12.51 hrs
Flood Elev= 920.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	612.39'	**18.0" Round Culvert 023 w/ 3.6" inside fill** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 612.09' / 611.20' S= 0.0445 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	615.09'	**100.0' long + 3.0 '/' SideZ x 20.0' breadth Road** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.12 cfs @ 12.51 hrs HW=612.50' (Free Discharge)
└**1=Culvert 023** (Inlet Controls 0.12 cfs @ 0.84 fps)
└**2=Road** (Controls 0.00 cfs)

Pond 17P: Culvert 023



Summary for Pond 18P: Culvert 021

[57] Hint: Peaked at 615.29' (Flood elevation advised)

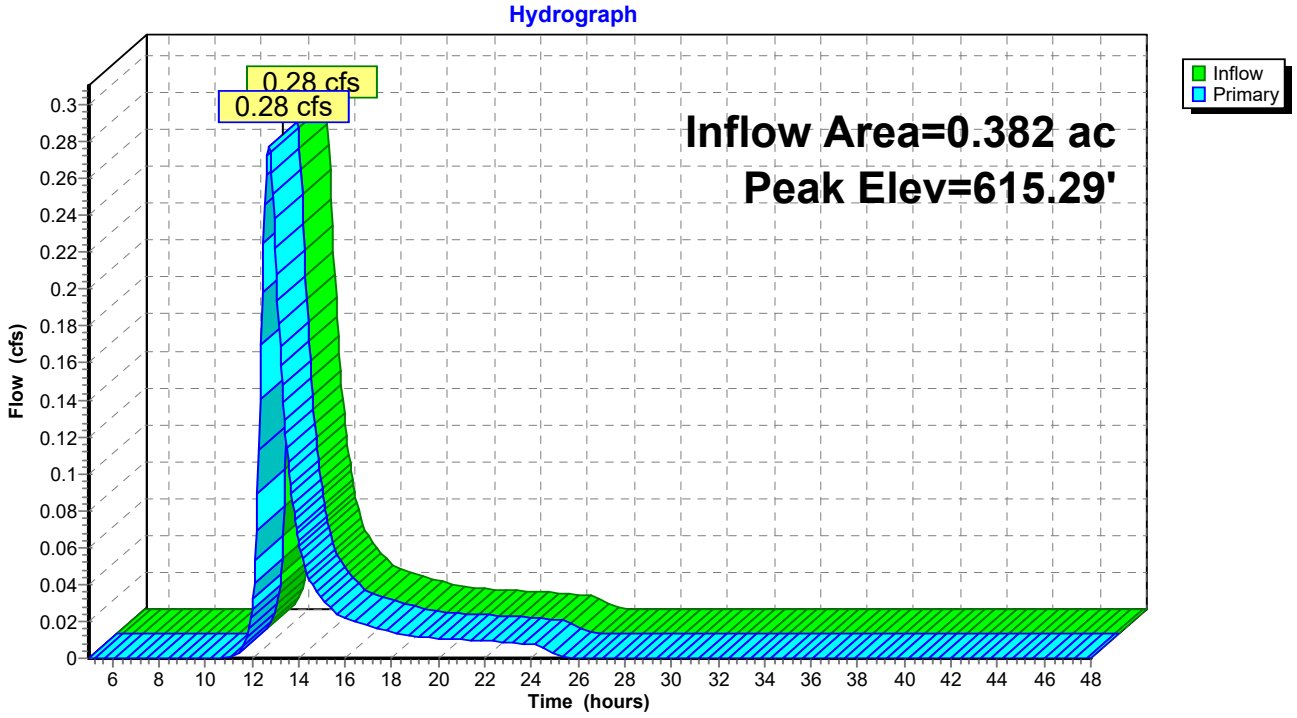
Inflow Area = 0.382 ac, 0.00% Impervious, Inflow Depth = 1.25" for 10-yr event
Inflow = 0.28 cfs @ 12.72 hrs, Volume= 0.040 af
Outflow = 0.28 cfs @ 12.72 hrs, Volume= 0.040 af, Atten= 0%, Lag= 0.0 min
Primary = 0.28 cfs @ 12.72 hrs, Volume= 0.040 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 615.29' @ 12.72 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	615.10'	**18.0" Round Culvert 021 w/ 3.6" inside fill** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 614.80' / 614.60' S= 0.0100 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	617.80'	**100.0' long + 3.0 '/' SideZ x 20.0' breadth Road** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.28 cfs @ 12.72 hrs HW=615.29' (Free Discharge)
└**1=Culvert 021** (Inlet Controls 0.28 cfs @ 1.09 fps)
└**2=Road** (Controls 0.00 cfs)

Pond 18P: Culvert 021



Summary for Pond 19P: Culvert 022

[57] Hint: Peaked at 613.11' (Flood elevation advised)

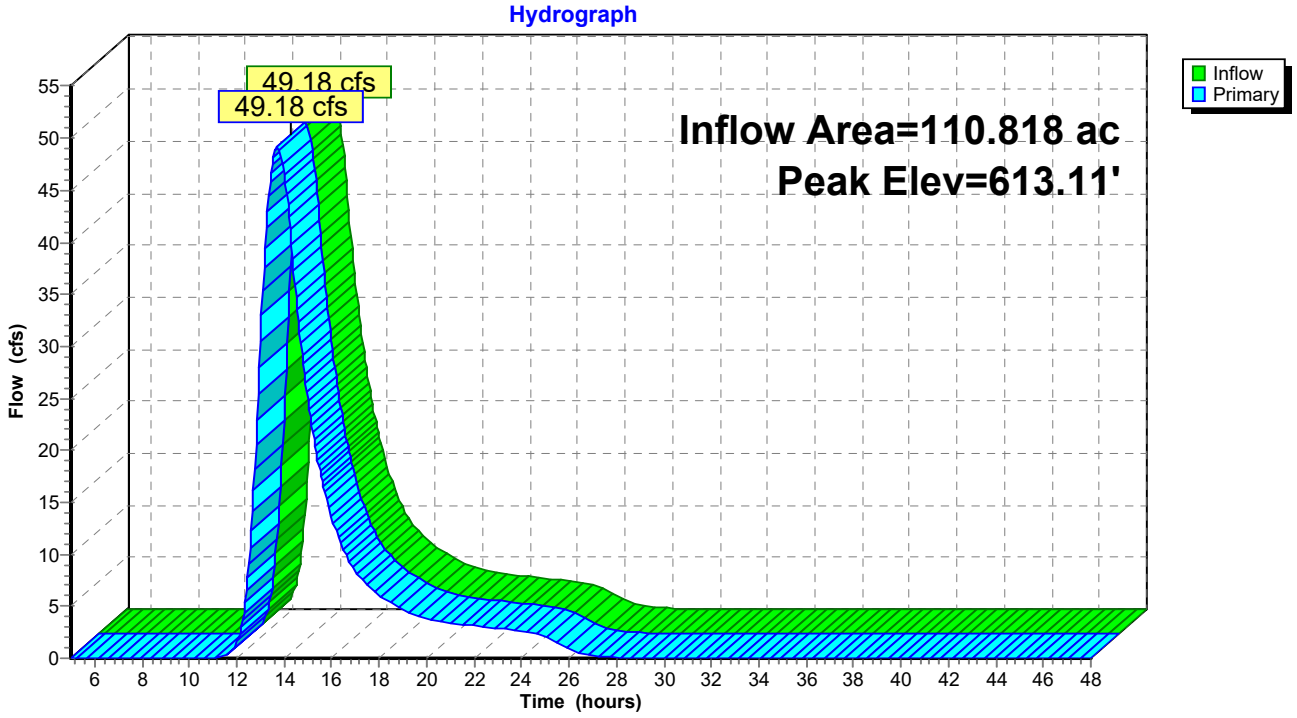
Inflow Area = 110.818 ac, 0.00% Impervious, Inflow Depth = 1.38" for 10-yr event
Inflow = 49.18 cfs @ 13.68 hrs, Volume= 12.762 af
Outflow = 49.18 cfs @ 13.68 hrs, Volume= 12.762 af, Atten= 0%, Lag= 0.0 min
Primary = 49.18 cfs @ 13.68 hrs, Volume= 12.762 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 613.11' @ 13.68 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	610.50'	**60.0" Round Culvert 022 w/ 12.0" inside fill** L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 609.50' / 609.28' S= 0.0073 '/' Cc= 0.900 n= 0.012, Flow Area= 16.84 sf
#2	Primary	616.00'	**100.0' long + 3.0 '/' SideZ x 20.0' breadth Road** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=49.15 cfs @ 13.68 hrs HW=613.11' (Free Discharge)
└**1=Culvert 022** (Barrel Controls 49.15 cfs @ 5.29 fps)
└**2=Road** (Controls 0.00 cfs)

Pond 19P: Culvert 022



Summary for Pond 20P: Culvert 020

[57] Hint: Peaked at 618.41' (Flood elevation advised)

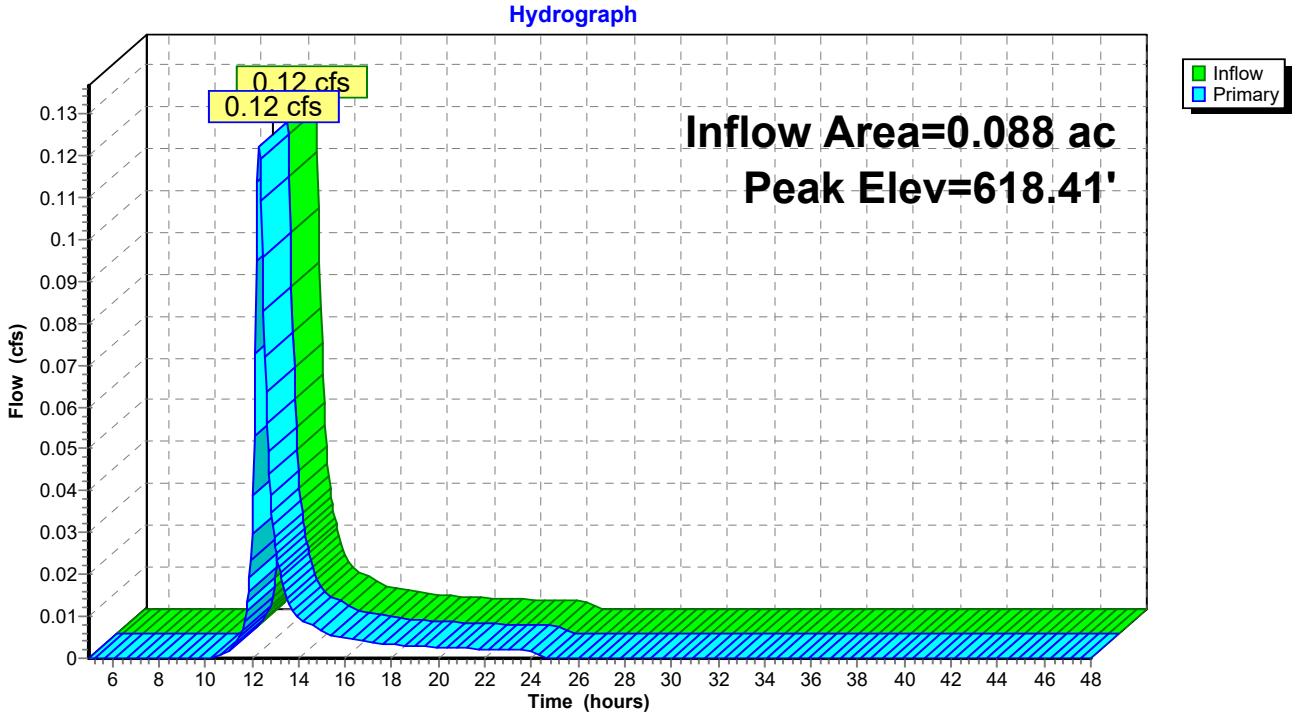
Inflow Area = 0.088 ac, 0.00% Impervious, Inflow Depth = 1.45" for 10-yr event
Inflow = 0.12 cfs @ 12.31 hrs, Volume= 0.011 af
Outflow = 0.12 cfs @ 12.31 hrs, Volume= 0.011 af, Atten= 0%, Lag= 0.0 min
Primary = 0.12 cfs @ 12.31 hrs, Volume= 0.011 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 618.41' @ 12.31 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	618.29'	**18.0" Round Culvert 020 w/ 3.6" inside fill** L= 74.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 617.99' / 617.84' S= 0.0020 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	620.99'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.12 cfs @ 12.31 hrs HW=618.41' (Free Discharge)
└**1=Culvert 020** (Barrel Controls 0.12 cfs @ 1.04 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 20P: Culvert 020



Time span=5.00-48.00 hrs, dt=0.05 hrs, 861 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment3S: DA 25 Runoff Area=0.216 ac 0.00% Impervious Runoff Depth=2.81"
Flow Length=190' Tc=13.4 min CN=80 Runoff=0.71 cfs 0.051 af

Subcatchment4S: DA 26 Runoff Area=2.726 ac 0.00% Impervious Runoff Depth=3.00"
Flow Length=2,922' Tc=77.6 min CN=82 Runoff=3.67 cfs 0.681 af

Subcatchment14S: DA 24 Runoff Area=12.746 ac 0.00% Impervious Runoff Depth=2.81"
Flow Length=1,498' Tc=60.9 min CN=80 Runoff=18.81 cfs 2.989 af

Subcatchment16S: DA 20 Runoff Area=0.088 ac 0.00% Impervious Runoff Depth=2.81"
Flow Length=100' Slope=0.0050 '/' Tc=20.5 min CN=80 Runoff=0.24 cfs 0.021 af

Subcatchment20S: DA 21 Runoff Area=0.382 ac 0.00% Impervious Runoff Depth=2.55"
Flow Length=243' Tc=49.6 min CN=77 Runoff=0.58 cfs 0.081 af

Subcatchment21S: DA 22 Runoff Area=110.818 ac 0.00% Impervious Runoff Depth=2.72"
Flow Length=4,090' Tc=121.8 min CN=79 Runoff=99.41 cfs 25.159 af

Subcatchment22S: DA 23 Runoff Area=0.392 ac 0.00% Impervious Runoff Depth=2.55"
Flow Length=310' Tc=34.8 min CN=77 Runoff=0.73 cfs 0.083 af

Pond 8P: Culvert 025 Peak Elev=610.04' Inflow=0.71 cfs 0.051 af
Outflow=0.71 cfs 0.051 af

Pond 9P: Culvert 026 Peak Elev=607.02' Inflow=3.67 cfs 0.681 af
Outflow=3.67 cfs 0.681 af

Pond 15P: Culvert 024 Peak Elev=612.78' Inflow=18.81 cfs 2.989 af
Outflow=18.81 cfs 2.989 af

Pond 17P: Culvert 023 Peak Elev=612.62' Inflow=0.73 cfs 0.083 af
Outflow=0.73 cfs 0.083 af

Pond 18P: Culvert 021 Peak Elev=615.41' Inflow=0.58 cfs 0.081 af
Outflow=0.58 cfs 0.081 af

Pond 19P: Culvert 022 Peak Elev=614.91' Inflow=99.41 cfs 25.159 af
Outflow=99.41 cfs 25.159 af

Pond 20P: Culvert 020 Peak Elev=618.48' Inflow=0.24 cfs 0.021 af
Outflow=0.24 cfs 0.021 af

Total Runoff Area = 127.368 ac Runoff Volume = 29.065 af Average Runoff Depth = 2.74"
100.00% Pervious = 127.368 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 3S: DA 25

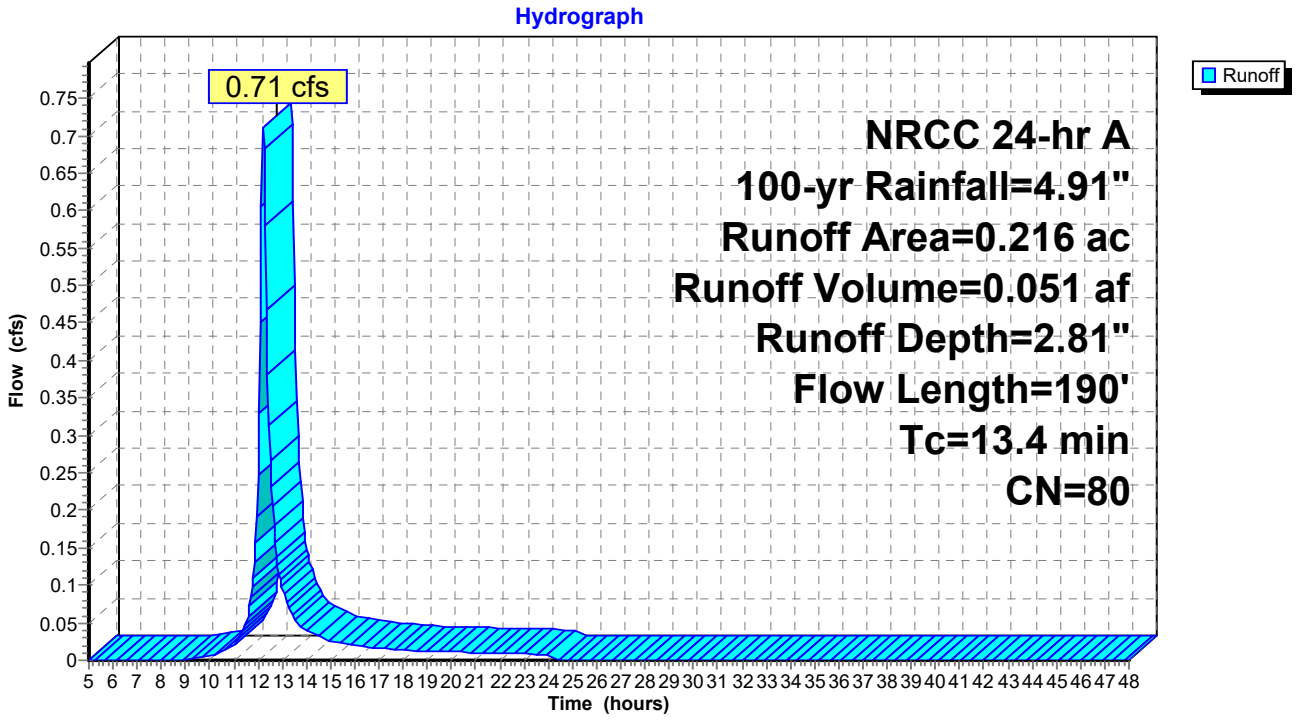
Runoff = 0.71 cfs @ 12.22 hrs, Volume= 0.051 af, Depth= 2.81"
Routed to Pond 8P : Culvert 025

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 100-yr Rainfall=4.91"

	Area (ac)	CN	Description
*	0.124	80	D - 80 - Developed open space
*	0.049	80	D - 80 - Developed open space
*	0.043	82	D - 82 - Developed Low intensity
	0.216	80	Weighted Average
	0.216		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0350	0.18		**Sheet Flow, 100' sheet** Grass: Short n= 0.150 P2= 2.22"
4.0	90	0.0028	0.37		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.4	190	Total			

Subcatchment 3S: DA 25



Summary for Subcatchment 4S: DA 26

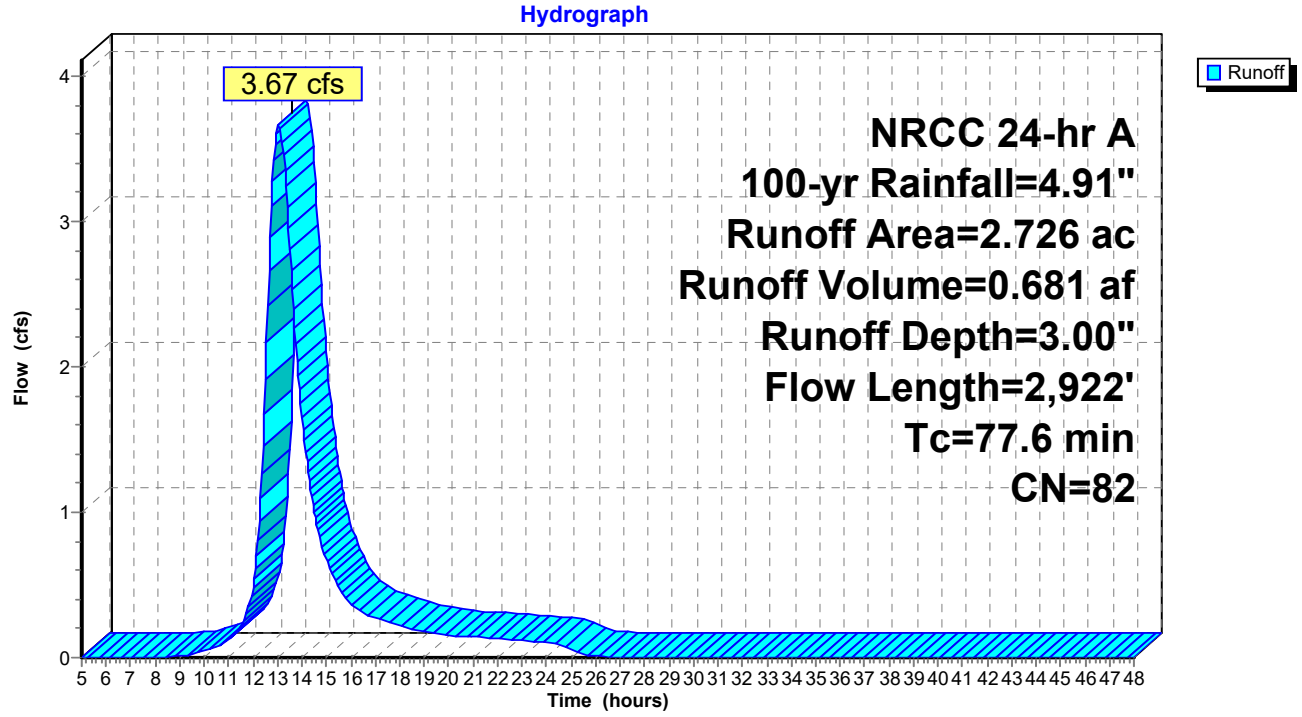
Runoff = 3.67 cfs @ 13.04 hrs, Volume= 0.681 af, Depth= 3.00"
Routed to Pond 9P : Culvert 026

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 100-yr Rainfall=4.91"

	Area (ac)	CN	Description
*	0.000	80	D - 80 - Developed open space
*	1.720	82	D - 82 - Developed Low intensity
*	0.770	82	D - 82 - Developed Low intensity
*	0.001	82	D - 82 - Developed Low intensity
*	0.211	85	D - 85 - Developed Med intensity
*	0.024	78	D - 78 - Meadowed, grass, non-grazed land
	2.726	82	Weighted Average
	2.726		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.6	100	0.0225	0.07		**Sheet Flow, 100' sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
53.0	2,822	0.0035	0.89		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
77.6	2,922	Total			

Subcatchment 4S: DA 26



Summary for Subcatchment 14S: DA 24

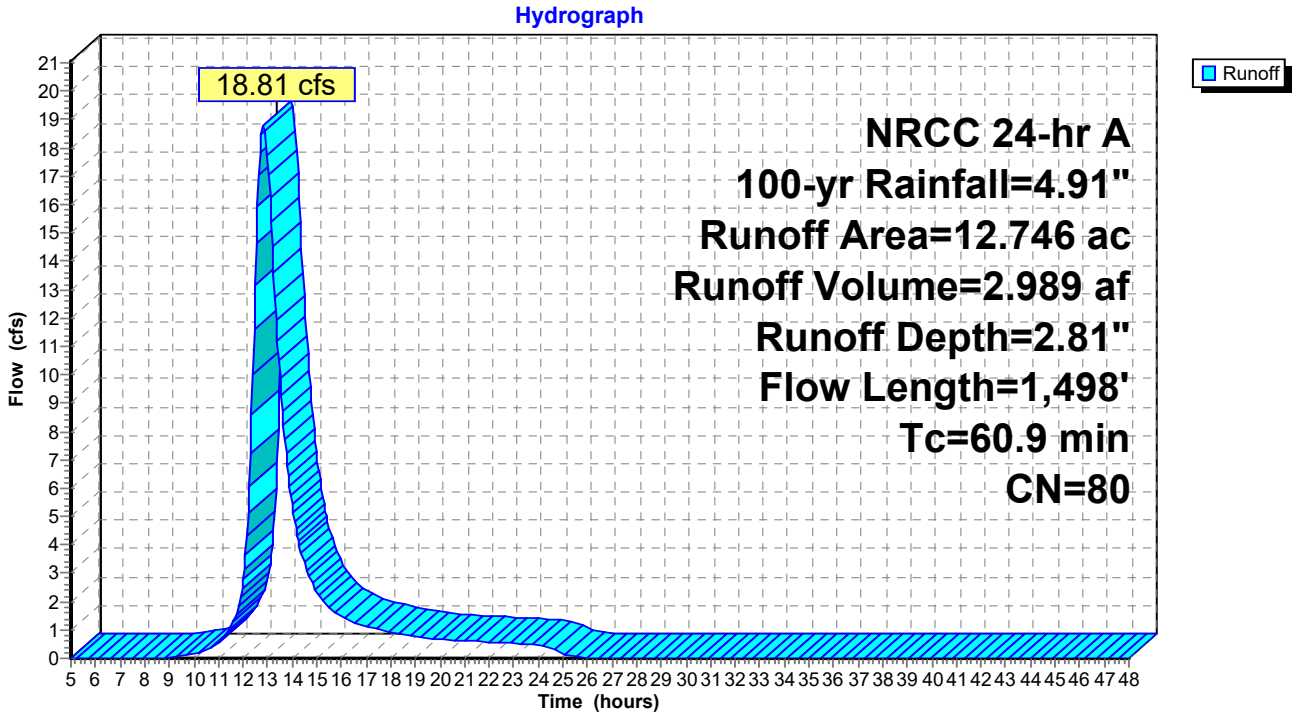
Runoff = 18.81 cfs @ 12.83 hrs, Volume= 2.989 af, Depth= 2.81"
Routed to Pond 15P : Culvert 024

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 100-yr Rainfall=4.91"

	Area (ac)	CN	Description
*	3.807	80	D - 80 - Developed open space
*	0.054	80	D - 80 - Developed open space
*	0.544	80	D - 80 - Developed open space
*	1.124	82	D - 82 - Developed Low intensity
*	0.289	77	D - 77 - Deciduous Forest
*	0.167	77	D - 77 - Deciduous Forest
*	3.445	78	D - 78 - Meadowed, grass, non-grazed land
*	1.976	78	D - 78 - Meadowed, grass, non-grazed land
*	0.287	78	D - 78 - Meadowed, grass, non-grazed land
*	0.002	90	D - 90 - Woody Wetlands
*	1.051	90	D - 90 - Woody Wetlands
	12.746	80	Weighted Average
	12.746		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0350	0.18		**Sheet Flow, 100' sheet** Grass: Short n= 0.150 P2= 2.22"
7.3	379	0.0152	0.86		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
44.2	1,019	0.0059	0.38		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
60.9	1,498	Total			

Subcatchment 14S: DA 24



Summary for Subcatchment 16S: DA 20

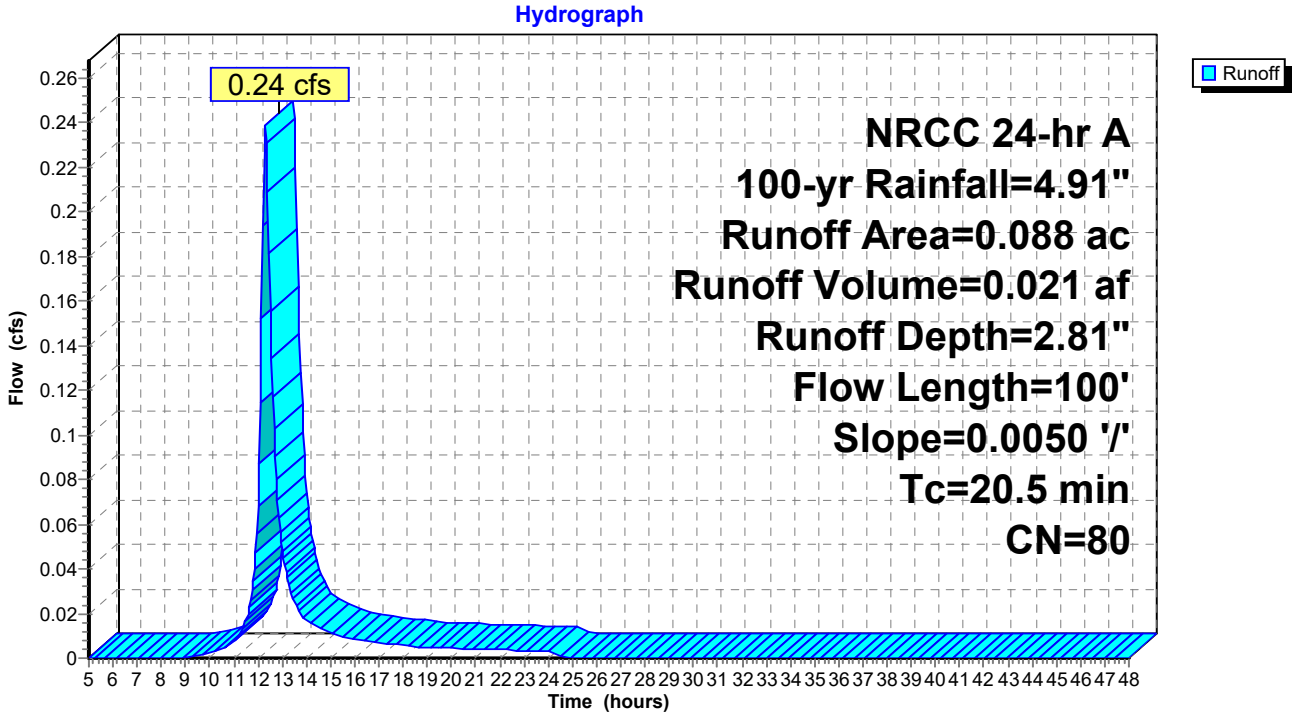
Runoff = 0.24 cfs @ 12.30 hrs, Volume= 0.021 af, Depth= 2.81"
Routed to Pond 20P : Culvert 020

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 100-yr Rainfall=4.91"

	Area (ac)	CN	Description
*	0.088	80	D - 80 - Developed open space
	0.088		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.5	100	0.0050	0.08		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.22"

Subcatchment 16S: DA 20



Summary for Subcatchment 20S: DA 21

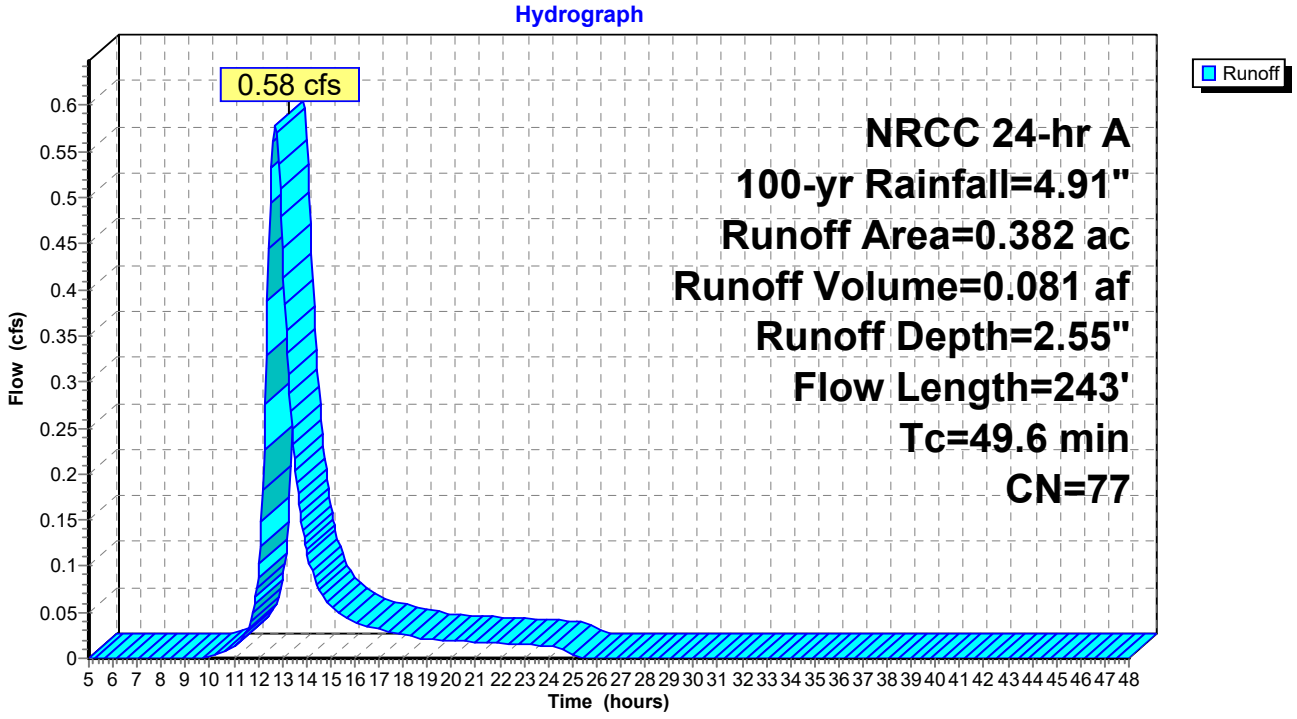
Runoff = 0.58 cfs @ 12.70 hrs, Volume= 0.081 af, Depth= 2.55"
Routed to Pond 18P : Culvert 021

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 100-yr Rainfall=4.91"

	Area (ac)	CN	Description
*	0.001	77	D - 77 - Deciduous Forest
*	0.260	77	D - 77 - Mixed Forest
*	0.121	78	D - 78 - Meadowed, grass, non-grazed land
	0.382	77	Weighted Average
	0.382		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
44.9	100	0.0050	0.04		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
4.7	143	0.0105	0.51		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
49.6	243	Total			

Subcatchment 20S: DA 21



Summary for Subcatchment 21S: DA 22

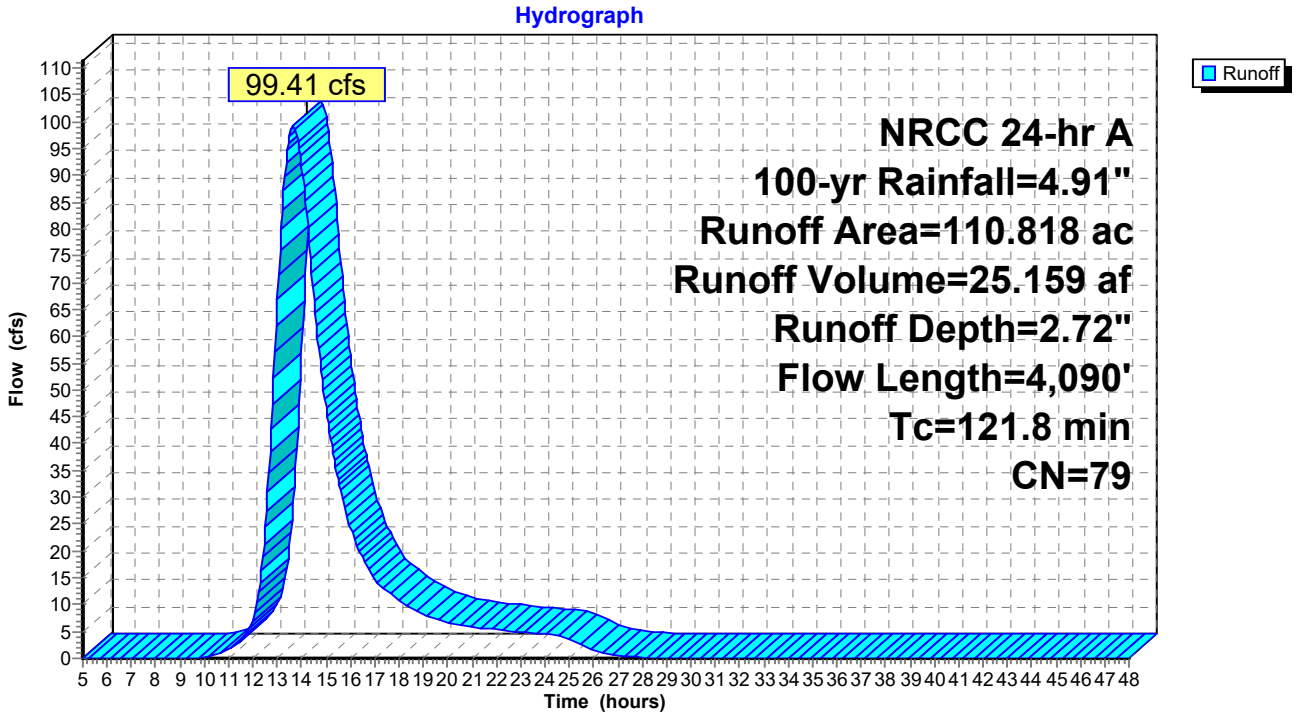
Runoff = 99.41 cfs @ 13.66 hrs, Volume= 25.159 af, Depth= 2.72"
Routed to Pond 19P : Culvert 022

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 100-yr Rainfall=4.91"

	Area (ac)	CN	Description
*	3.220	80	D - 80 - Developed open space
*	2.932	80	D - 80 - Developed open space
*	0.003	80	D - 80 - Developed open space
*	10.164	82	D - 82 - Developed Low intensity
*	6.410	82	D - 82 - Developed Low intensity
*	0.607	82	D - 82 - Developed Low intensity
*	5.494	77	D - 77 - Deciduous Forest
*	15.746	78	D - 78 - Meadowed, grass, non-grazed land
*	63.740	78	D - 78 - Meadowed, grass, non-grazed land
*	2.502	78	D - 78 - Meadowed, grass, non-grazed land
	110.818	79	Weighted Average
	110.818		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	100	0.0300	0.17		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.22"
88.0	2,225	0.0071	0.42		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.8	1,765	0.0068	1.24		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
121.8	4,090	Total			

Subcatchment 21S: DA 22



Summary for Subcatchment 22S: DA 23

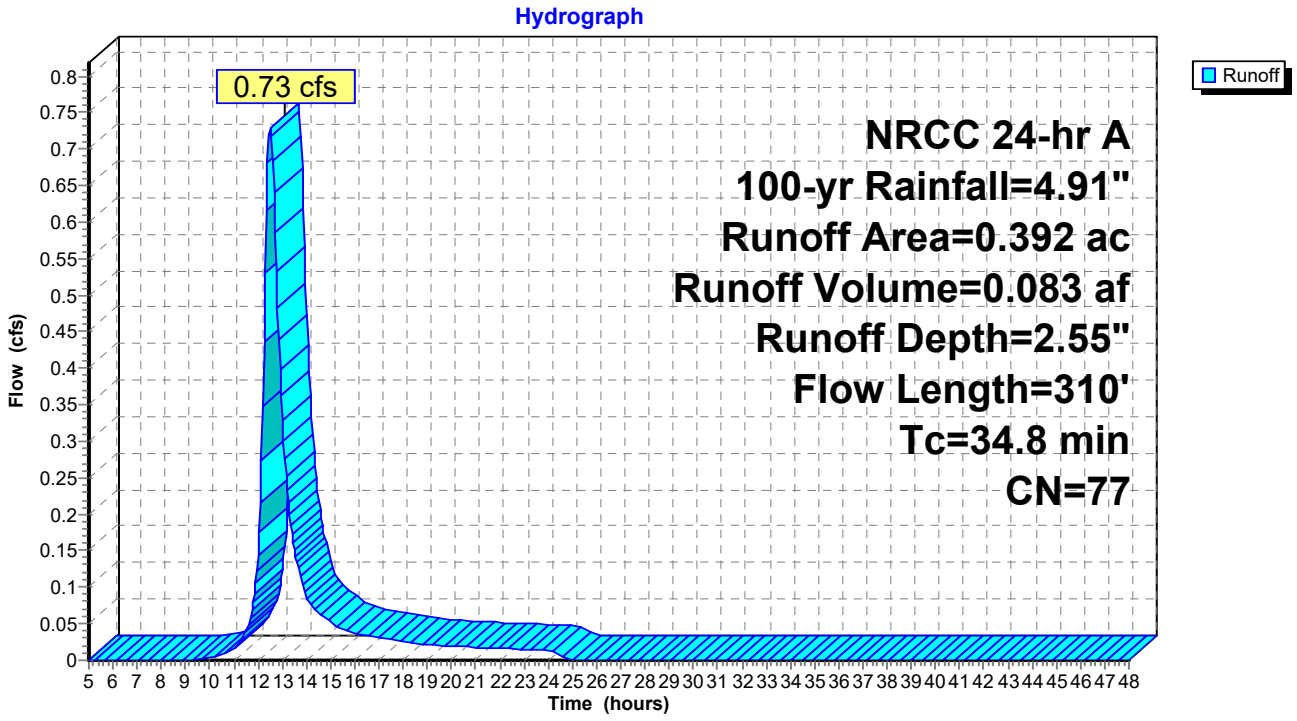
Runoff = 0.73 cfs @ 12.50 hrs, Volume= 0.083 af, Depth= 2.55"
Routed to Pond 17P : Culvert 023

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 100-yr Rainfall=4.91"

	Area (ac)	CN	Description
*	0.261	77	D - 77 - Deciduous Forest
*	0.017	77	D - 77 - Deciduous Forest
*	0.114	78	D - 78 - Meadowed, grass, non-grazed land
	0.392	77	Weighted Average
	0.392		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
28.9	100	0.0150	0.06		**Sheet Flow, 100' Sheet** Woods: Light underbrush n= 0.400 P2= 2.22"
5.9	210	0.0143	0.60		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
34.8	310	Total			

Subcatchment 22S: DA 23



Summary for Pond 8P: Culvert 025

[57] Hint: Peaked at 610.04' (Flood elevation advised)

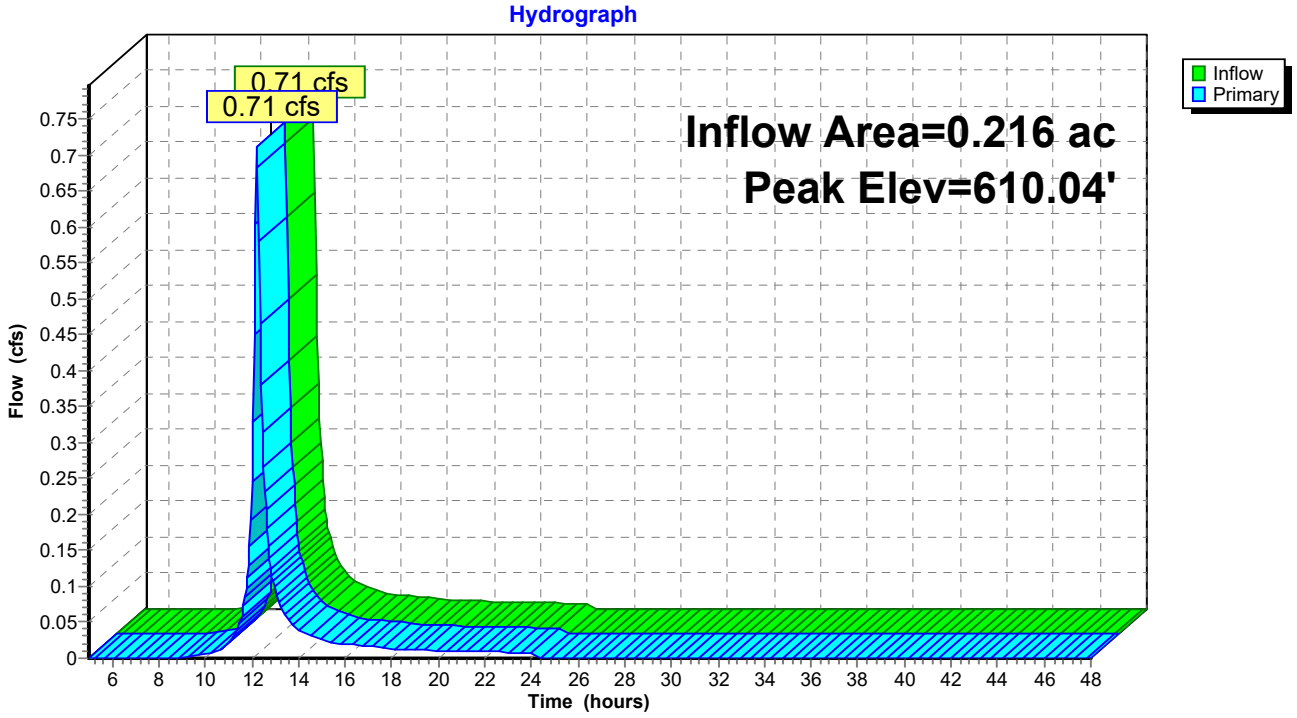
Inflow Area = 0.216 ac, 0.00% Impervious, Inflow Depth = 2.81" for 100-yr event
Inflow = 0.71 cfs @ 12.22 hrs, Volume= 0.051 af
Outflow = 0.71 cfs @ 12.22 hrs, Volume= 0.051 af, Atten= 0%, Lag= 0.0 min
Primary = 0.71 cfs @ 12.22 hrs, Volume= 0.051 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 610.04' @ 12.22 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	609.69'	**18.0" Round Culvert 025 w/ 3.6" inside fill** L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 609.39' / 608.14' S= 0.0313 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	612.39'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.70 cfs @ 12.22 hrs HW=610.04' (Free Discharge)
└**1=Culvert 025** (Inlet Controls 0.70 cfs @ 1.46 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 8P: Culvert 025



Summary for Pond 9P: Culvert 026

[57] Hint: Peaked at 607.02' (Flood elevation advised)

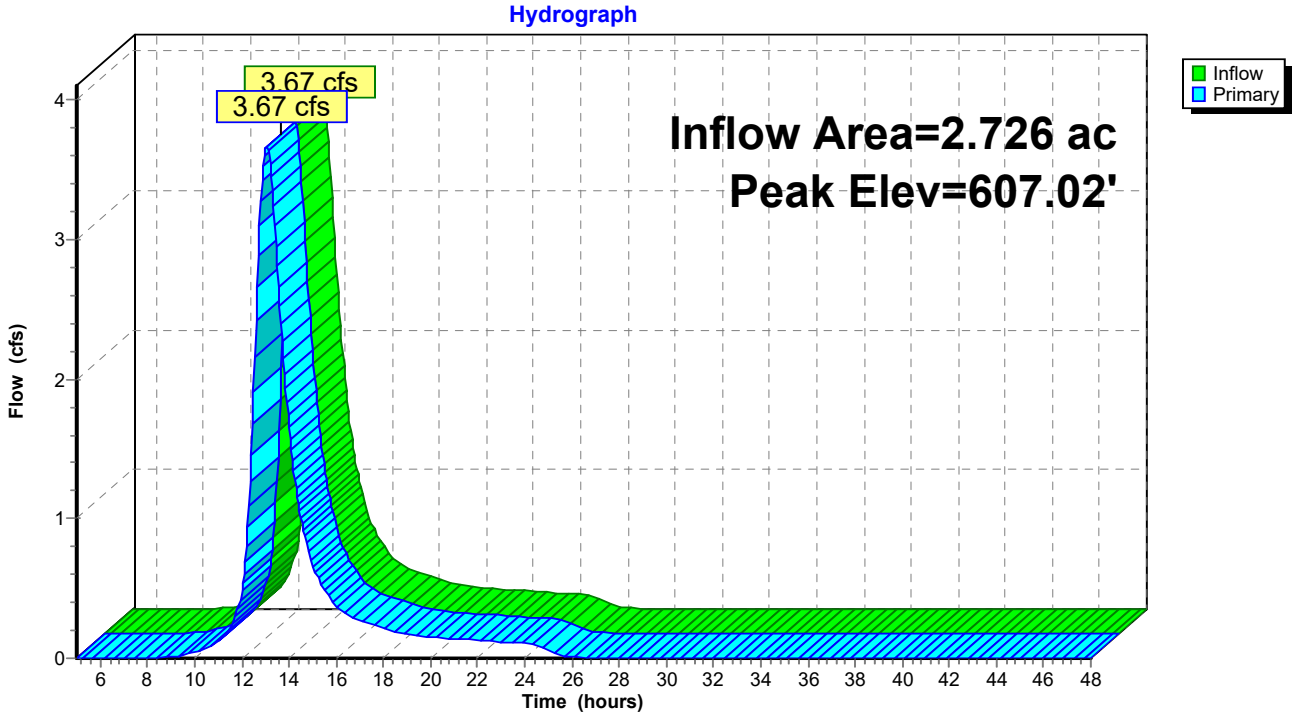
Inflow Area = 2.726 ac, 0.00% Impervious, Inflow Depth = 3.00" for 100-yr event
Inflow = 3.67 cfs @ 13.04 hrs, Volume= 0.681 af
Outflow = 3.67 cfs @ 13.04 hrs, Volume= 0.681 af, Atten= 0%, Lag= 0.0 min
Primary = 3.67 cfs @ 13.04 hrs, Volume= 0.681 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 607.02' @ 13.04 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	606.00'	**18.0" Round Culvert 026 w/ 3.6" inside fill** L= 36.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 605.70' / 605.02' S= 0.0189 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.52 sf
#2	Primary	608.70'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=3.66 cfs @ 13.04 hrs HW=607.02' (Free Discharge)
└**1=Culvert 026** (Inlet Controls 3.66 cfs @ 2.62 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 9P: Culvert 026



Summary for Pond 15P: Culvert 024

[57] Hint: Peaked at 612.78' (Flood elevation advised)

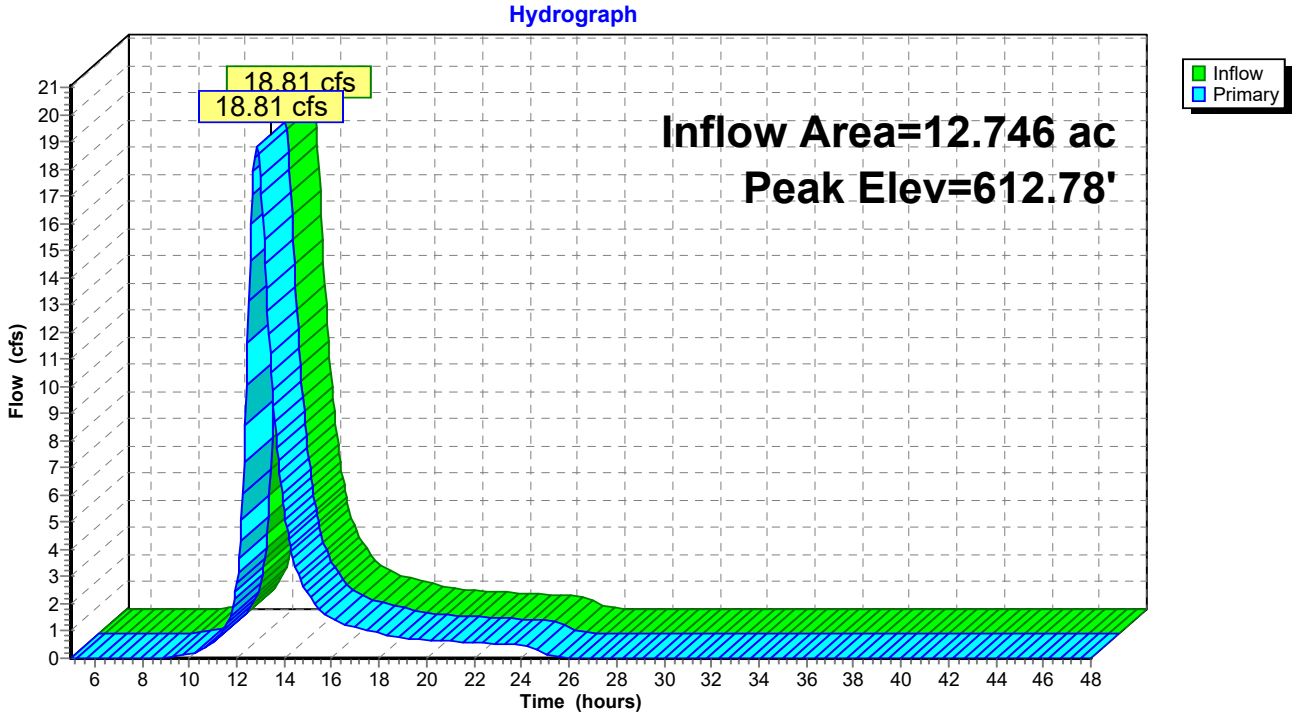
Inflow Area = 12.746 ac, 0.00% Impervious, Inflow Depth = 2.81" for 100-yr event
Inflow = 18.81 cfs @ 12.83 hrs, Volume= 2.989 af
Outflow = 18.81 cfs @ 12.83 hrs, Volume= 2.989 af, Atten= 0%, Lag= 0.0 min
Primary = 18.81 cfs @ 12.83 hrs, Volume= 2.989 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 612.78' @ 12.83 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	609.37'	**18.0" Round Culvert 024 w/ 3.6" inside fill** L= 65.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 609.07' / 608.22' S= 0.0131 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	612.68'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=18.75 cfs @ 12.83 hrs HW=612.78' (Free Discharge)
└**1=Culvert 024** (Inlet Controls 9.74 cfs @ 6.43 fps)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 9.01 cfs @ 0.86 fps)

Pond 15P: Culvert 024



Summary for Pond 17P: Culvert 023

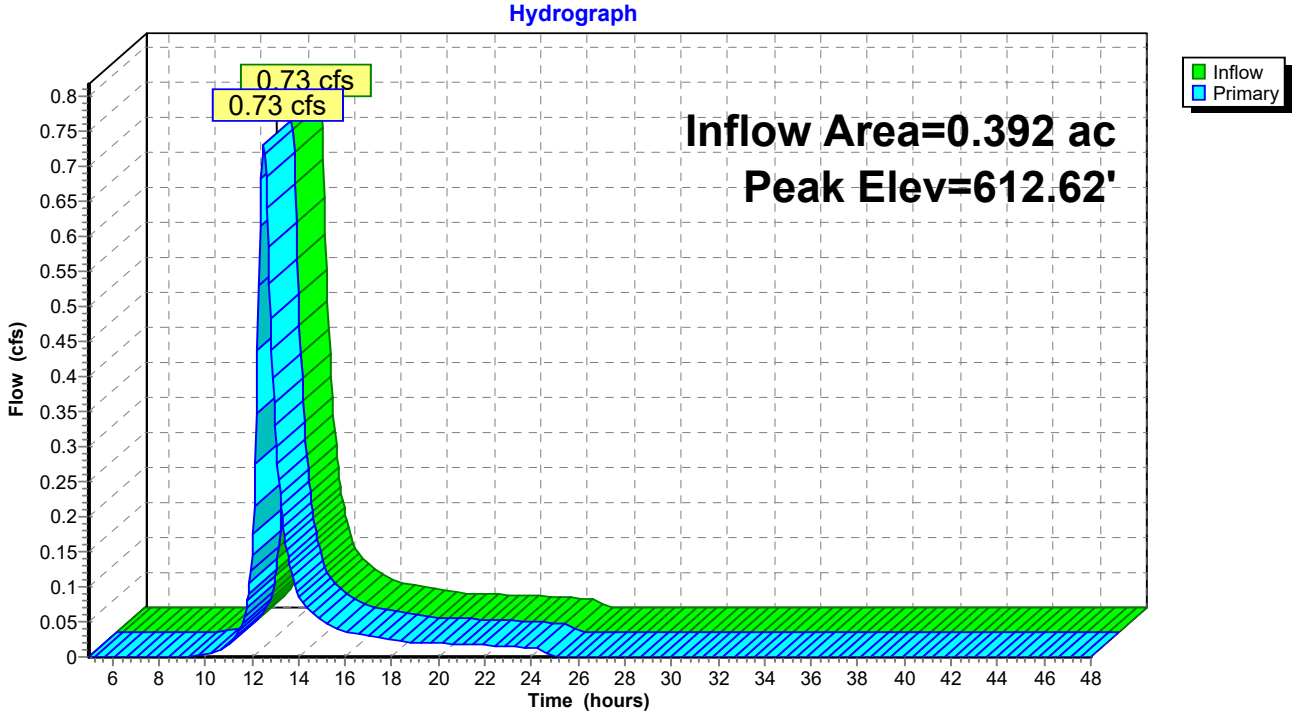
Inflow Area = 0.392 ac, 0.00% Impervious, Inflow Depth = 2.55" for 100-yr event
Inflow = 0.73 cfs @ 12.50 hrs, Volume= 0.083 af
Outflow = 0.73 cfs @ 12.50 hrs, Volume= 0.083 af, Atten= 0%, Lag= 0.0 min
Primary = 0.73 cfs @ 12.50 hrs, Volume= 0.083 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 612.62' @ 12.50 hrs
Flood Elev= 920.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	612.39'	**18.0" Round Culvert 023 w/ 3.6" inside fill** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 612.09' / 611.20' S= 0.0445 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	615.09'	**100.0' long + 3.0 '/' SideZ x 20.0' breadth Road** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.38 cfs @ 12.50 hrs HW=612.62' (Free Discharge)
└─**1=Culvert 023** (Inlet Controls 0.38 cfs @ 1.21 fps)
└─**2=Road** (Controls 0.00 cfs)

Pond 17P: Culvert 023



Summary for Pond 18P: Culvert 021

[57] Hint: Peaked at 615.41' (Flood elevation advised)

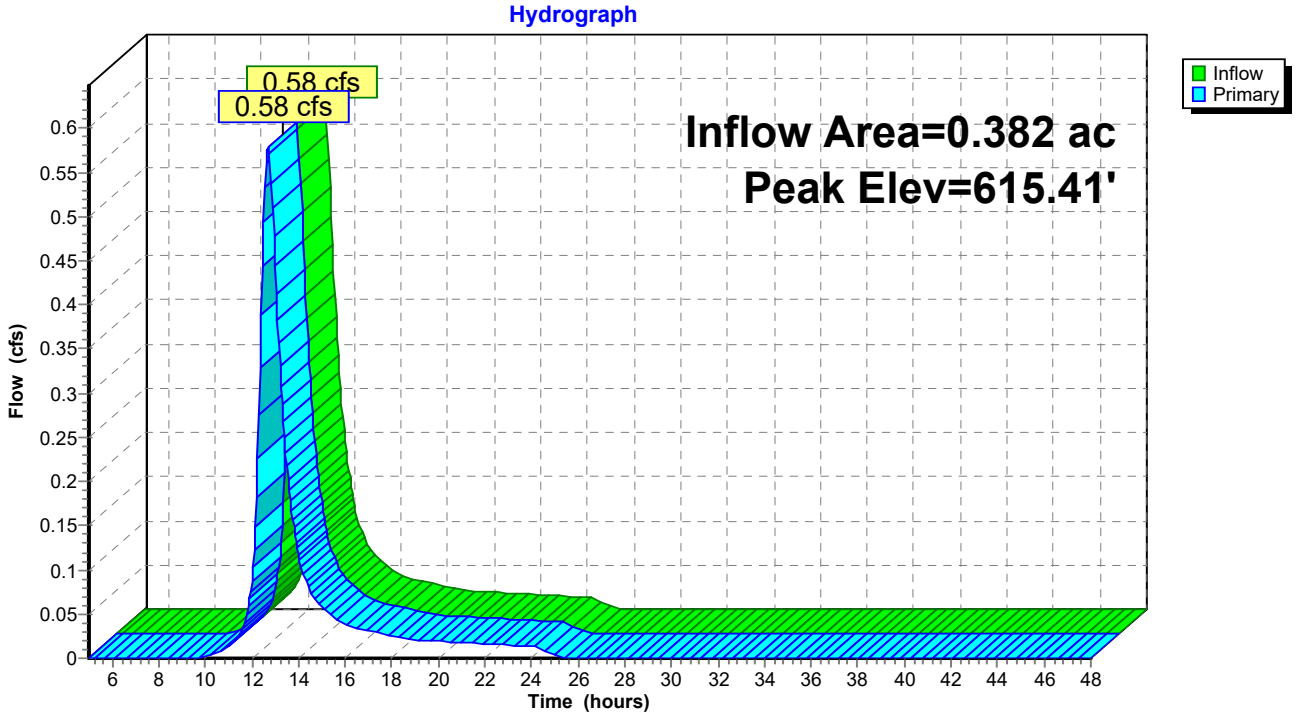
Inflow Area = 0.382 ac, 0.00% Impervious, Inflow Depth = 2.55" for 100-yr event
Inflow = 0.58 cfs @ 12.70 hrs, Volume= 0.081 af
Outflow = 0.58 cfs @ 12.70 hrs, Volume= 0.081 af, Atten= 0%, Lag= 0.0 min
Primary = 0.58 cfs @ 12.70 hrs, Volume= 0.081 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 615.41' @ 12.70 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	615.10'	**18.0" Round Culvert 021 w/ 3.6" inside fill** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 614.80' / 614.60' S= 0.0100 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	617.80'	**100.0' long + 3.0 '/' SideZ x 20.0' breadth Road** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.58 cfs @ 12.70 hrs HW=615.41' (Free Discharge)
└─**1=Culvert 021** (Inlet Controls 0.58 cfs @ 1.38 fps)
└─**2=Road** (Controls 0.00 cfs)

Pond 18P: Culvert 021



Summary for Pond 19P: Culvert 022

[57] Hint: Peaked at 614.91' (Flood elevation advised)

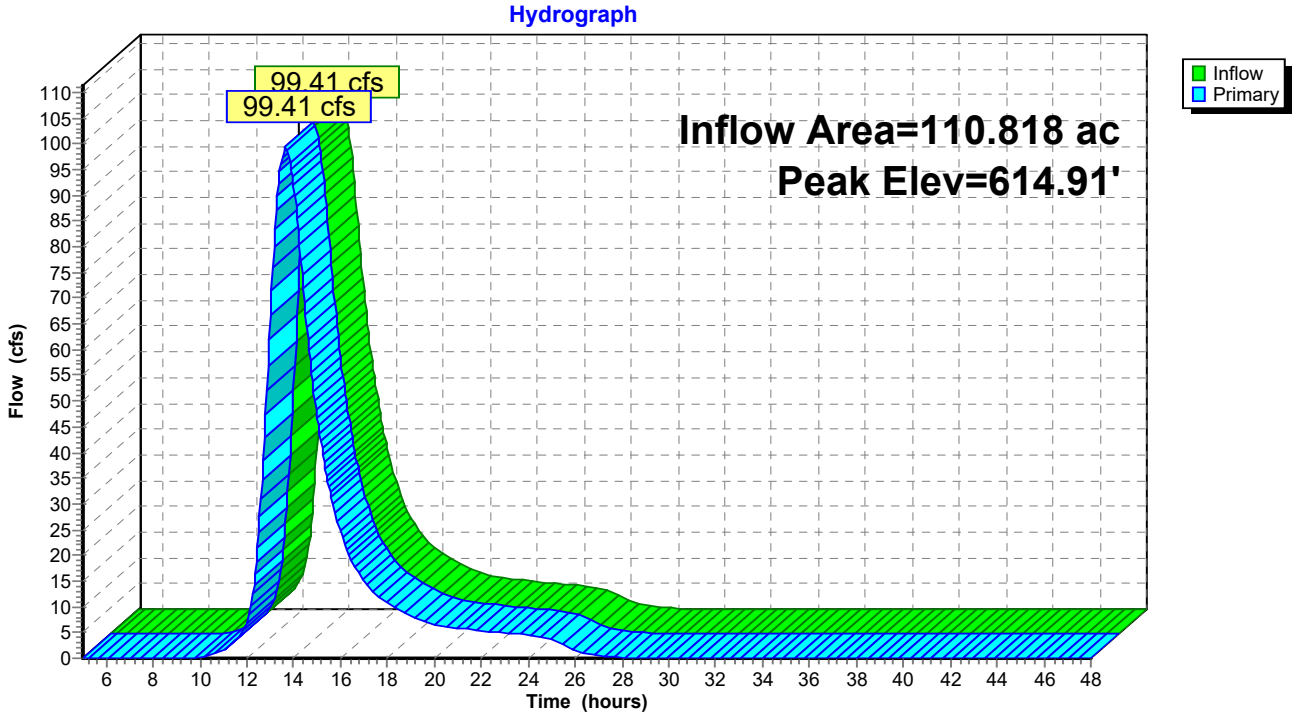
Inflow Area = 110.818 ac, 0.00% Impervious, Inflow Depth = 2.72" for 100-yr event
Inflow = 99.41 cfs @ 13.66 hrs, Volume= 25.159 af
Outflow = 99.41 cfs @ 13.66 hrs, Volume= 25.159 af, Atten= 0%, Lag= 0.0 min
Primary = 99.41 cfs @ 13.66 hrs, Volume= 25.159 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 614.91' @ 13.66 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	610.50'	**60.0" Round Culvert 022 w/ 12.0" inside fill** L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 609.50' / 609.28' S= 0.0073 '/' Cc= 0.900 n= 0.012, Flow Area= 16.84 sf
#2	Primary	616.00'	**100.0' long + 3.0 '/' SideZ x 20.0' breadth Road** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=99.36 cfs @ 13.66 hrs HW=614.90' (Free Discharge)
└**1=Culvert 022** (Barrel Controls 99.36 cfs @ 6.55 fps)
└**2=Road** (Controls 0.00 cfs)

Pond 19P: Culvert 022



Summary for Pond 20P: Culvert 020

[57] Hint: Peaked at 618.48' (Flood elevation advised)

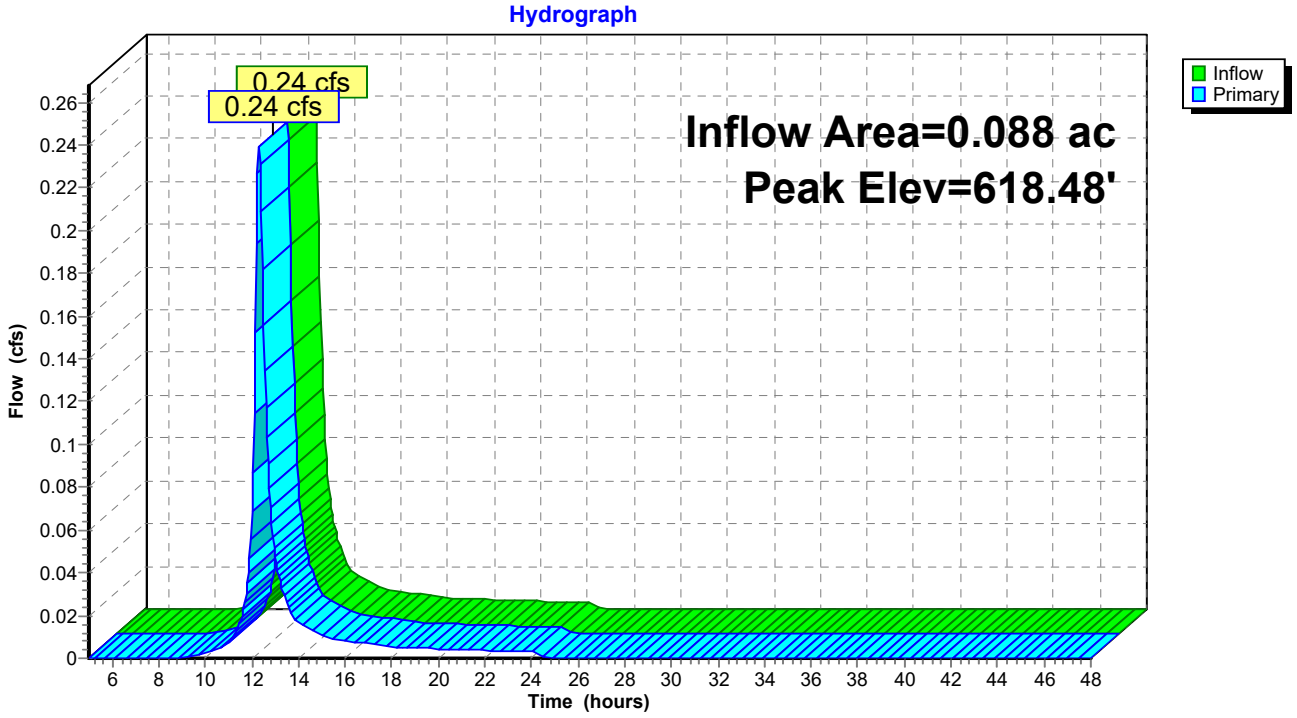
Inflow Area = 0.088 ac, 0.00% Impervious, Inflow Depth = 2.81" for 100-yr event
Inflow = 0.24 cfs @ 12.30 hrs, Volume= 0.021 af
Outflow = 0.24 cfs @ 12.30 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.0 min
Primary = 0.24 cfs @ 12.30 hrs, Volume= 0.021 af

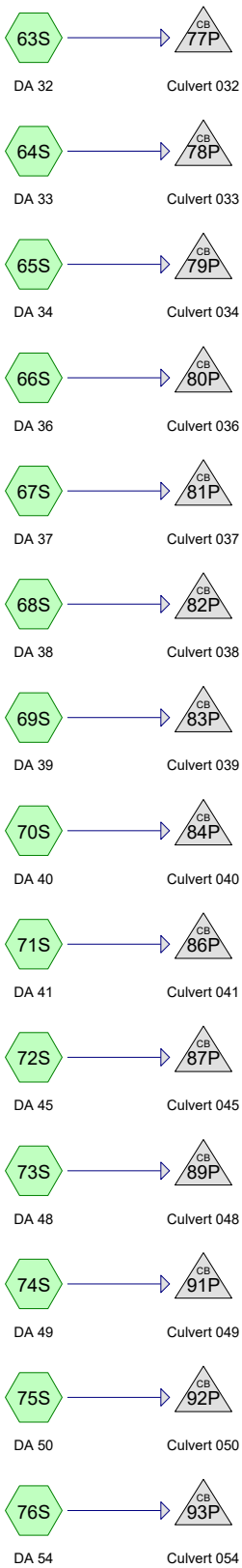
Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 618.48' @ 12.30 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	618.29'	**18.0" Round Culvert 020 w/ 3.6" inside fill** L= 74.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 617.99' / 617.84' S= 0.0020 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	620.99'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.24 cfs @ 12.30 hrs HW=618.48' (Free Discharge)
└**1=Culvert 020** (Barrel Controls 0.24 cfs @ 1.32 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 20P: Culvert 020





Subcat Reach Pond Link

Routing Diagram for DA 32-54 REV 20260123
Prepared by Fisher Associates, Printed 1/23/2026
HydroCAD® 10.20-7a s/n 04748 © 2025 HydroCAD Software Solutions LLC

Project Notes

Rainfall events imported from "NRCS-Rain.txt" for 7076 NY Niagara
Rainfall events imported from "NRCS-Rain.txt" for 7076 NY Niagara
Defined 7 rainfall events from NY-LB-DA1-5 IDF
Defined 7 rainfall events from NY-LB-DA1-5 IDF
Defined 7 rainfall events from NY - Lockport IDF
Defined 7 rainfall events from NY - Lockport IDF
Defined 10 rainfall events from NY - Lockport IDF
Defined 10 rainfall events from NY - Lockport IDF
Copied 10 events from NY - Lockport 24-hr S1 storm
Copied 10 events from NY - Lockport 24-hr S1 storm

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-yr	NY - Lockport 24-hr S1	1-yr	Default	24.00	1	1.87	2
2	10-yr	NY - Lockport 24-hr S1	10-yr	Default	24.00	1	3.25	2
3	100-yr	NY - Lockport 24-hr S1	100-yr	Default	24.00	1	4.88	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.504	49	A-50-75% GRASS COVER, FAIR (68S, 69S, 70S)
0.011	39	A-75% GRASS COVER, GOOD (68S)
7.943	30	A-MEADOW, NON-GRAZED (66S, 67S, 68S, 69S, 70S)
3.907	69	B-50-75% GRASS COVER, FAIR (64S, 68S, 69S, 73S, 74S, 75S)
1.338	61	B-75% GRASS COVER, GOOD (64S, 73S, 74S, 75S)
0.446	82	B-MEADOW, NON-GRAZED (63S)
10.119	58	B-MEADOW, NON-GRAZED (64S, 65S, 68S, 69S, 73S, 74S, 75S)
1.133	71	C-MEADOW, NON-GRAZED (65S)
3.463	22	D-50-75% GRASS COVER, FAIR (63S)
1.738	84	D-50-75% GRASS COVER, FAIR (64S, 65S, 70S, 72S, 76S)
1.048	84	D-50-75% GRASS COVER,FAIR (74S, 75S)
1.784	21	D-75% GRASS COVER, GOOD (63S)
3.517	80	D-75% GRASS COVER, GOOD (64S, 65S, 70S, 72S, 73S, 74S, 75S)
56.671	81	D-MEADOW, NON-GRAZED (63S)
21.367	82	D-MEADOW, NON-GRAZED (63S)
47.320	78	D-MEADOW, NON-GRAZED (64S, 65S, 66S, 67S, 68S, 70S, 71S, 72S, 73S, 76S)
0.085	98	D-WATER SURACE, 0% IMP (73S)
0.043	90	D-WATER SURFACE, 0% IMP (63S)
2.681	98	D-WATER SURFACE, 0% IMP (66S, 70S, 73S)
0.267	79	D-WOOD/GRASS COMC., GOOD (70S)
1.741	79	D-WOODS/GRASS COMB., FAIR (72S)
0.142	43	D-WOODS/GRASS COMB., GOOD (63S)
167.268	**74**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
167.268	Other	63S, 64S, 65S, 66S, 67S, 68S, 69S, 70S, 71S, 72S, 73S, 74S, 75S, 76S
167.268		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchm Numbers
0.000	0.000	0.000	0.000	0.504	0.504	A-50-75% GRASS COVER, FAIR	
0.000	0.000	0.000	0.000	0.011	0.011	A-75% GRASS COVER, GOOD	
0.000	0.000	0.000	0.000	7.943	7.943	A-MEADOW, NON-GRAZED	
0.000	0.000	0.000	0.000	3.907	3.907	B-50-75% GRASS COVER, FAIR	
0.000	0.000	0.000	0.000	1.338	1.338	B-75% GRASS COVER, GOOD	
0.000	0.000	0.000	0.000	10.565	10.565	B-MEADOW, NON-GRAZED	
0.000	0.000	0.000	0.000	1.133	1.133	C-MEADOW, NON-GRAZED	
0.000	0.000	0.000	0.000	5.201	5.201	D-50-75% GRASS COVER, FAIR	
0.000	0.000	0.000	0.000	1.048	1.048	D-50-75% GRASS COVER,FAIR	
0.000	0.000	0.000	0.000	5.301	5.301	D-75% GRASS COVER, GOOD	
0.000	0.000	0.000	0.000	125.358	125.358	D-MEADOW, NON-GRAZED	
0.000	0.000	0.000	0.000	0.085	0.085	D-WATER SURACE, 0% IMP	
0.000	0.000	0.000	0.000	2.724	2.724	D-WATER SURFACE, 0% IMP	
0.000	0.000	0.000	0.000	0.267	0.267	D-WOOD/GRASS COMC., GOOD	
0.000	0.000	0.000	0.000	1.741	1.741	D-WOODS/GRASS COMB., FAIR	
0.000	0.000	0.000	0.000	0.142	0.142	D-WOODS/GRASS COMB., GOOD	
0.000	**0.000**	**0.000**	**0.000**	**167.268**	**167.268**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	77P	615.02	614.18	50.0	0.0168	0.012	0.0	24.0	4.8	
2	78P	645.80	645.49	45.0	0.0069	0.012	0.0	18.0	3.6	
3	79P	647.12	646.24	70.0	0.0126	0.012	0.0	18.0	3.6	
4	80P	632.89	632.88	22.0	0.0005	0.012	0.0	18.0	3.6	
5	81P	653.33	650.10	24.0	0.1346	0.012	0.0	18.0	3.6	
6	82P	644.26	624.90	74.0	0.2616	0.012	0.0	18.0	3.6	
7	83P	643.72	641.78	85.0	0.0228	0.012	0.0	18.0	3.6	
8	84P	635.57	635.46	28.0	0.0039	0.012	0.0	36.0	7.2	
9	86P	637.25	636.72	28.0	0.0189	0.012	0.0	18.0	3.6	
10	87P	635.12	634.71	40.0	0.0102	0.012	0.0	18.0	3.6	
11	89P	634.29	634.25	25.0	0.0016	0.012	0.0	36.0	7.2	
12	91P	637.04	636.64	50.0	0.0080	0.012	0.0	24.0	4.8	
13	92P	637.63	637.55	63.0	0.0013	0.012	0.0	24.0	4.8	
14	93P	641.40	641.36	32.0	0.0012	0.012	0.0	24.0	4.8	

Time span=5.00-48.00 hrs, dt=0.05 hrs, 861 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment63S: DA 32 Runoff Area=83.916 ac 0.00% Impervious Runoff Depth=0.38"
Flow Length=3,167' Tc=219.6 min CN=77 Runoff=5.02 cfs 2.659 af

Subcatchment64S: DA 33 Runoff Area=8.458 ac 0.00% Impervious Runoff Depth=0.07"
Flow Length=1,546' Tc=38.9 min CN=63 Runoff=0.09 cfs 0.052 af

Subcatchment65S: DA 34 Runoff Area=3.000 ac 0.00% Impervious Runoff Depth=0.22"
Flow Length=915' Tc=184.4 min CN=71 Runoff=0.10 cfs 0.054 af

Subcatchment66S: DA 36 Runoff Area=7.023 ac 21.33% Impervious Runoff Depth=0.26"
Flow Length=1,365' Tc=34.8 min CN=73 Runoff=0.79 cfs 0.155 af

Subcatchment67S: DA 37 Runoff Area=2.575 ac 0.00% Impervious Runoff Depth=0.00"
Flow Length=497' Tc=12.2 min CN=53 Runoff=0.00 cfs 0.000 af

Subcatchment68S: DA 38 Runoff Area=5.423 ac 0.00% Impervious Runoff Depth=0.00"
Flow Length=1,009' Tc=22.2 min CN=33 Runoff=0.00 cfs 0.000 af

Subcatchment69S: DA 39 Runoff Area=0.717 ac 0.00% Impervious Runoff Depth=0.03"
Flow Length=394' Tc=15.2 min CN=59 Runoff=0.00 cfs 0.002 af

Subcatchment70S: DA 40 Runoff Area=20.817 ac 2.01% Impervious Runoff Depth=0.41"
Flow Length=1,139' Tc=84.9 min CN=78 Runoff=2.72 cfs 0.717 af

Subcatchment71S: DA 41 Runoff Area=1.015 ac 0.00% Impervious Runoff Depth=0.41"
Flow Length=465' Tc=110.2 min CN=78 Runoff=0.11 cfs 0.035 af

Subcatchment72S: DA 45 Runoff Area=13.208 ac 0.00% Impervious Runoff Depth=0.45"
Flow Length=1,379' Tc=135.3 min CN=79 Runoff=1.37 cfs 0.493 af

Subcatchment73S: DA 48 Runoff Area=15.708 ac 5.41% Impervious Runoff Depth=0.35"
Flow Length=1,032' Tc=34.0 min CN=76 Runoff=2.76 cfs 0.457 af

Subcatchment74S: DA 49 Runoff Area=2.625 ac 0.00% Impervious Runoff Depth=0.19"
Flow Length=1,106' Tc=121.3 min CN=70 Runoff=0.09 cfs 0.042 af

Subcatchment75S: DA 50 Runoff Area=2.625 ac 0.00% Impervious Runoff Depth=0.19"
Flow Length=619' Tc=30.2 min CN=70 Runoff=0.18 cfs 0.042 af

Subcatchment76S: DA 54 Runoff Area=0.158 ac 0.00% Impervious Runoff Depth=0.52"
Flow Length=100' Slope=0.0001 '/' Tc=98.2 min CN=81 Runoff=0.03 cfs 0.007 af

Pond 77P: Culvert 032 Peak Elev=616.45' Inflow=5.02 cfs 2.659 af
Outflow=5.02 cfs 2.659 af

Pond 78P: Culvert 033 Peak Elev=646.19' Inflow=0.09 cfs 0.052 af
Outflow=0.09 cfs 0.052 af

Pond 79P: Culvert 034 Peak Elev=647.52' Inflow=0.10 cfs 0.054 af
Outflow=0.10 cfs 0.054 af

Pond 80P: Culvert 036 Peak Elev=633.63' Inflow=0.79 cfs 0.155 af
Outflow=0.79 cfs 0.155 af

Pond 81P: Culvert 037 Peak Elev=653.63' Inflow=0.00 cfs 0.000 af
Outflow=0.00 cfs 0.000 af

Pond 82P: Culvert 038 Peak Elev=644.56' Inflow=0.00 cfs 0.000 af
Outflow=0.00 cfs 0.000 af

Pond 83P: Culvert 039 Peak Elev=644.02' Inflow=0.00 cfs 0.002 af
Outflow=0.00 cfs 0.002 af

Pond 84P: Culvert 040 Peak Elev=636.72' Inflow=2.72 cfs 0.717 af
Outflow=2.72 cfs 0.717 af

Pond 86P: Culvert 041 Peak Elev=637.66' Inflow=0.11 cfs 0.035 af
Outflow=0.11 cfs 0.035 af

Pond 87P: Culvert 045 Peak Elev=635.95' Inflow=1.37 cfs 0.493 af
Outflow=1.37 cfs 0.493 af

Pond 89P: Culvert 048 Peak Elev=635.49' Inflow=2.76 cfs 0.457 af
Outflow=2.76 cfs 0.457 af

Pond 91P: Culvert 049 Peak Elev=637.52' Inflow=0.09 cfs 0.042 af
Outflow=0.09 cfs 0.042 af

Pond 92P: Culvert 050 Peak Elev=638.18' Inflow=0.18 cfs 0.042 af
Outflow=0.18 cfs 0.042 af

Pond 93P: Culvert 054 Peak Elev=641.84' Inflow=0.03 cfs 0.007 af
Outflow=0.03 cfs 0.007 af

Total Runoff Area = 167.268 ac Runoff Volume = 4.715 af Average Runoff Depth = 0.34"
98.35% Pervious = 164.502 ac 1.65% Impervious = 2.766 ac

Summary for Subcatchment 63S: DA 32

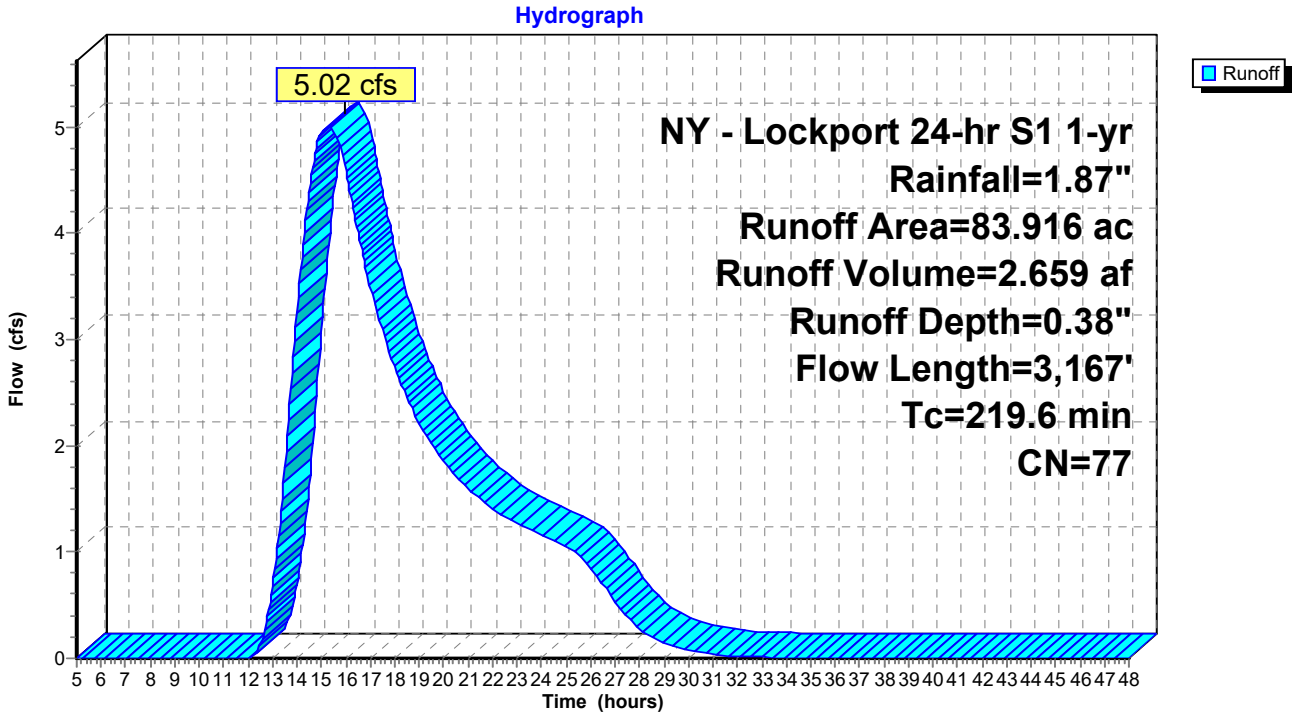
Runoff = 5.02 cfs @ 15.35 hrs, Volume= 2.659 af, Depth= 0.38"
Routed to Pond 77P : Culvert 032

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.446	82	B-MEADOW, NON-GRAZED
*	0.142	43	D-WOODS/GRASS COMB., GOOD
*	13.840	81	D-MEADOW, NON-GRAZED
*	8.160	82	D-MEADOW, NON-GRAZED
*	1.781	21	D-75% GRASS COVER, GOOD
*	3.035	22	D-50-75% GRASS COVER, FAIR
*	24.498	81	D-MEADOW, NON-GRAZED
*	5.711	82	D-MEADOW, NON-GRAZED
*	0.003	21	D-75% GRASS COVER, GOOD
*	0.428	22	D-50-75% GRASS COVER, FAIR
*	18.333	81	D-MEADOW, NON-GRAZED
*	7.496	82	D-MEADOW, NON-GRAZED
*	0.043	90	D-WATER SURFACE, 0% IMP
	83.916	77	Weighted Average
	83.916		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	100	0.0610	0.22		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
3.0	144	0.0130	0.80		**Shallow Concentrated Flow, 144** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
9.2	300	0.0060	0.54		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
12.2	162	0.0010	0.22		**Shallow Concentrated Flow, 162** Short Grass Pasture Kv= 7.0 fps
10.1	300	0.0050	0.49		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
8.3	290	0.0070	0.59		**Shallow Concentrated Flow, 290** Short Grass Pasture Kv= 7.0 fps
0.6	50	0.0400	1.40		**Shallow Concentrated Flow, 50** Short Grass Pasture Kv= 7.0 fps
4.4	242	0.0170	0.91		**Shallow Concentrated Flow, 242** Short Grass Pasture Kv= 7.0 fps
6.3	300	0.0130	0.80		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
18.8	79	0.0001	0.07		**Shallow Concentrated Flow, 79** Short Grass Pasture Kv= 7.0 fps
219.6	3,167	Total			

Subcatchment 63S: DA 32



Summary for Subcatchment 64S: DA 33

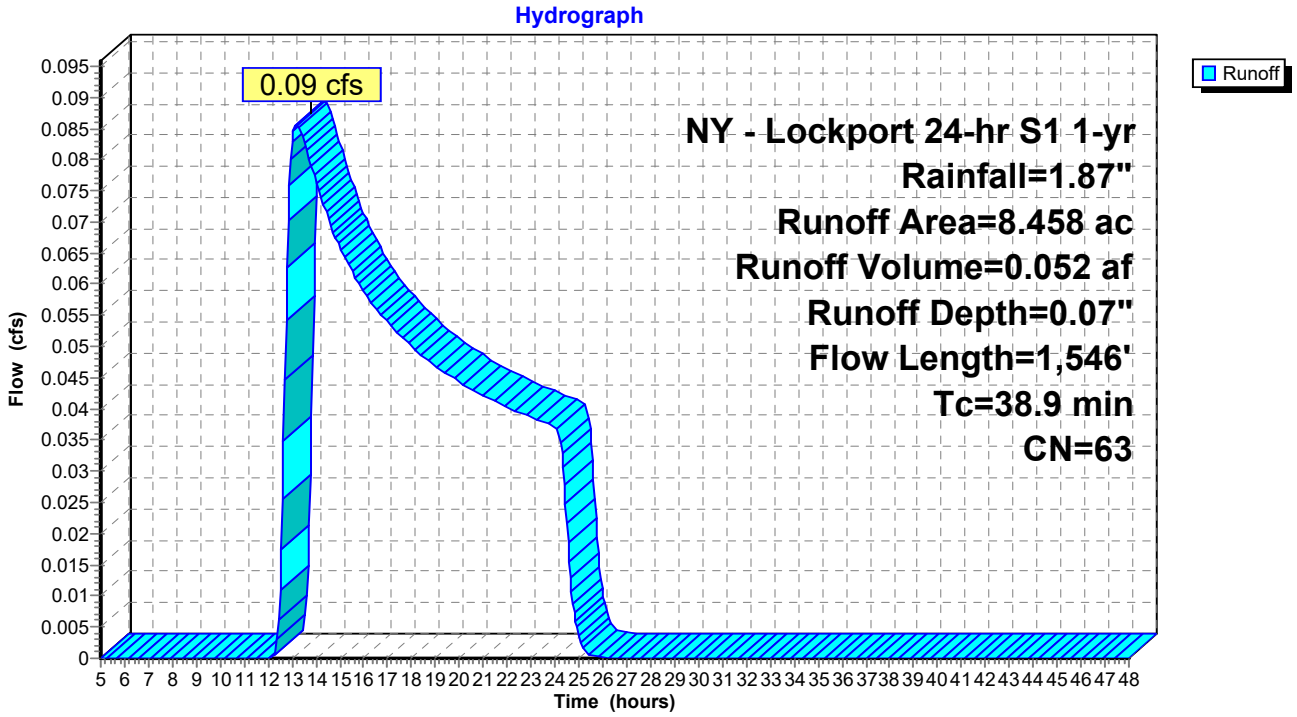
Runoff = 0.09 cfs @ 13.16 hrs, Volume= 0.052 af, Depth= 0.07"
Routed to Pond 78P : Culvert 033

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.131	61	B-75% GRASS COVER, GOOD
*	0.456	69	B-50-75% GRASS COVER, FAIR
*	2.999	58	B-MEADOW, NON-GRAZED
*	3.353	58	B-MEADOW, NON-GRAZED
*	0.019	80	D-75% GRASS COVER, GOOD
*	0.541	84	D-50-75% GRASS COVER, FAIR
*	0.959	78	D-MEADOW, NON-GRAZED
	8.458	63	Weighted Average
	8.458		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0340	0.17		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
2.3	150	0.0250	1.11		**Shallow Concentrated Flow, 150** Short Grass Pasture Kv= 7.0 fps
2.1	147	0.0290	1.19		**Shallow Concentrated Flow, 147** Short Grass Pasture Kv= 7.0 fps
2.1	160	0.0320	1.25		**Shallow Concentrated Flow, 160** Short Grass Pasture Kv= 7.0 fps
2.1	160	0.0320	1.25		**Shallow Concentrated Flow, 160** Short Grass Pasture Kv= 7.0 fps
4.2	167	0.0090	0.66		**Shallow Concentrated Flow, 167** Short Grass Pasture Kv= 7.0 fps
13.6	362	0.0040	0.44		**Shallow Concentrated Flow, 362** Short Grass Pasture Kv= 7.0 fps
3.0	300	0.0560	1.66		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
38.9	1,546	Total			

Subcatchment 64S: DA 33



Summary for Subcatchment 65S: DA 34

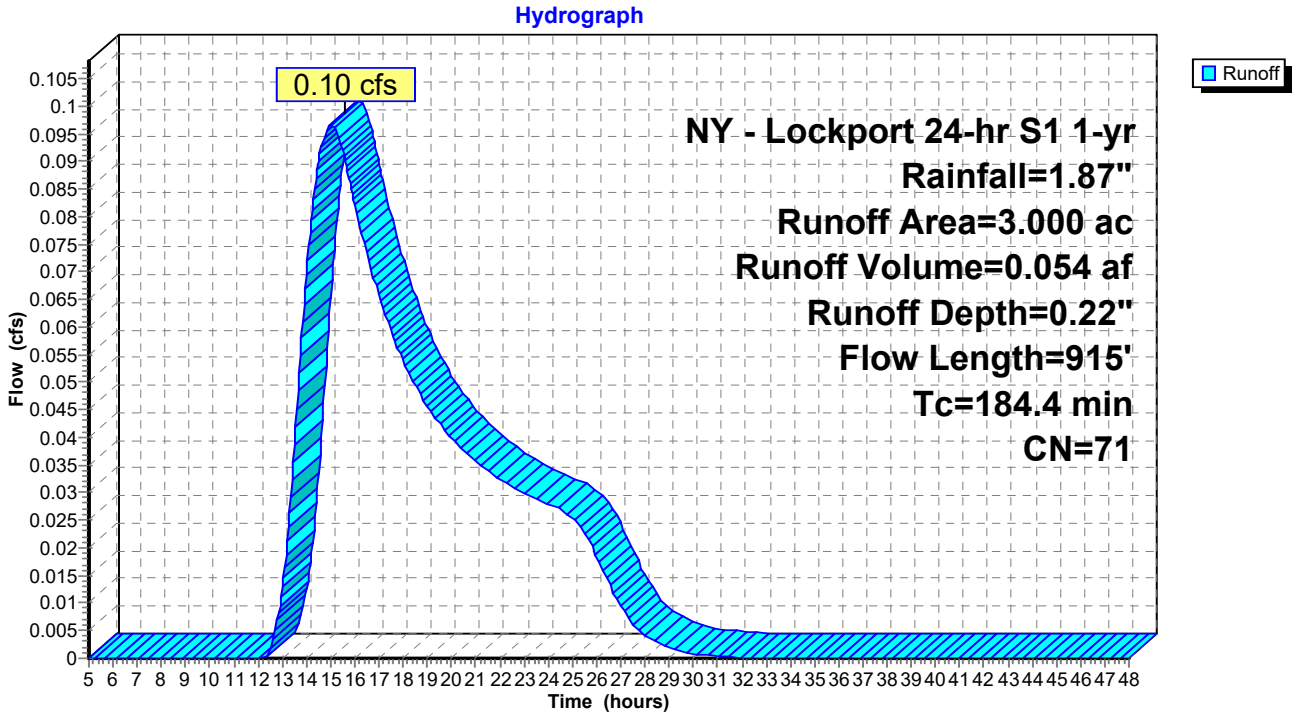
Runoff = 0.10 cfs @ 15.00 hrs, Volume= 0.054 af, Depth= 0.22"
Routed to Pond 79P : Culvert 034

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.033	58	B-MEADOW, NON-GRAZED
*	0.719	58	B-MEADOW, NON-GRAZED
*	0.039	80	D-75% GRASS COVER, GOOD
*	0.086	84	D-50-75% GRASS COVER, FAIR
*	0.864	78	D-MEADOW, NON-GRAZED
*	0.126	78	D-MEADOW, NON-GRAZED
*	1.133	71	C-MEADOW, NON-GRAZED
	3.000	71	Weighted Average
	3.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
98.2	100	0.0001	0.02		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
3.6	164	0.0120	0.77		**Shallow Concentrated Flow, 164** Short Grass Pasture Kv= 7.0 fps
8.5	300	0.0070	0.59		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
2.7	51	0.0020	0.31		**Shallow Concentrated Flow, 51** Short Grass Pasture Kv= 7.0 fps
184.4	915	Total			

Subcatchment 65S: DA 34



Summary for Subcatchment 66S: DA 36

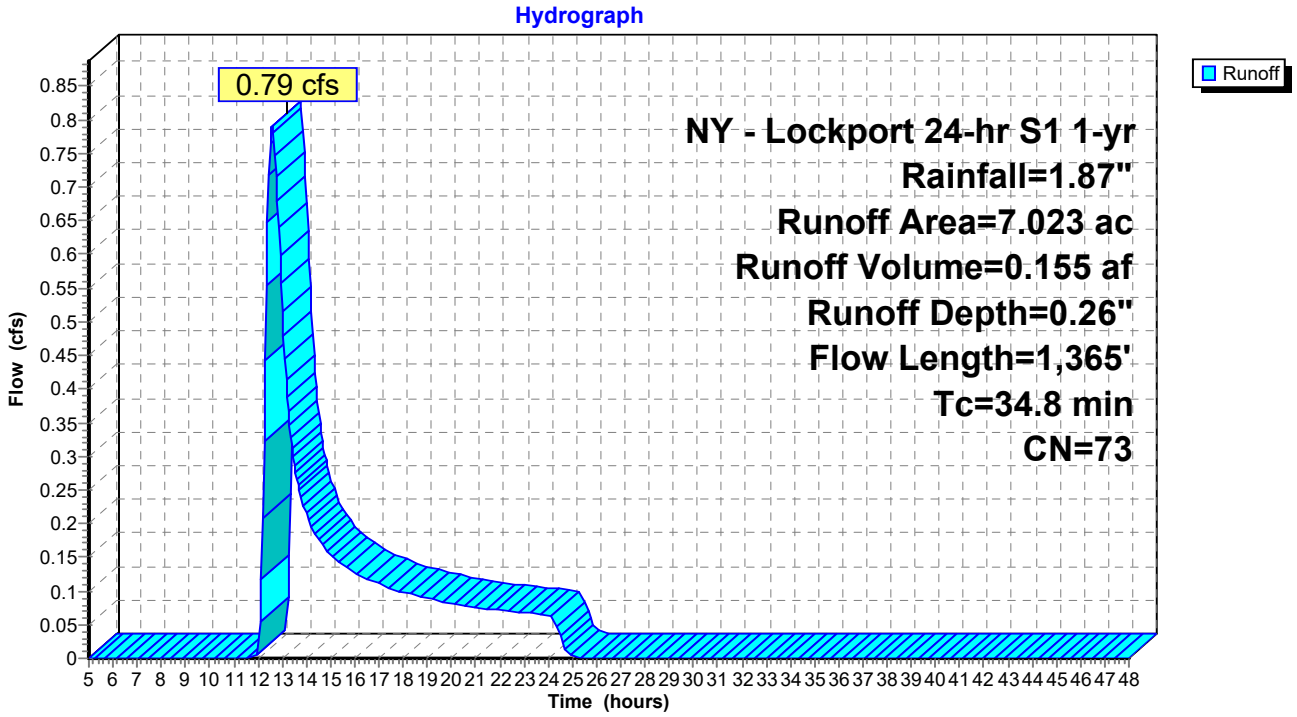
Runoff = 0.79 cfs @ 12.57 hrs, Volume= 0.155 af, Depth= 0.26"
Routed to Pond 80P : Culvert 036

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	1.408	30	A-MEADOW, NON-GRAZED
*	3.440	78	D-MEADOW, NON-GRAZED
*	0.677	78	D-MEADOW, NON-GRAZED
*	1.498	98	D-WATER SURFACE, 0% IMP
	7.023	73	Weighted Average
	5.525		78.67% Pervious Area
	1.498		21.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0390	0.18		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
0.9	77	0.0420	1.43		**Shallow Concentrated Flow, 77** Short Grass Pasture Kv= 7.0 fps
2.2	234	0.0640	1.77		**Shallow Concentrated Flow, 234** Short Grass Pasture Kv= 7.0 fps
2.8	268	0.0520	1.60		**Shallow Concentrated Flow, 268** Short Grass Pasture Kv= 7.0 fps
4.0	256	0.0230	1.06		**Shallow Concentrated Flow, 256** Short Grass Pasture Kv= 7.0 fps
8.5	225	0.0040	0.44		**Shallow Concentrated Flow, 225** Short Grass Pasture Kv= 7.0 fps
5.0	114	0.0030	0.38		**Shallow Concentrated Flow, 114** Short Grass Pasture Kv= 7.0 fps
2.4	91	0.0080	0.63		**Shallow Concentrated Flow, 91** Short Grass Pasture Kv= 7.0 fps
34.8	1,365	Total			

Subcatchment 66S: DA 36



Summary for Subcatchment 67S: DA 37

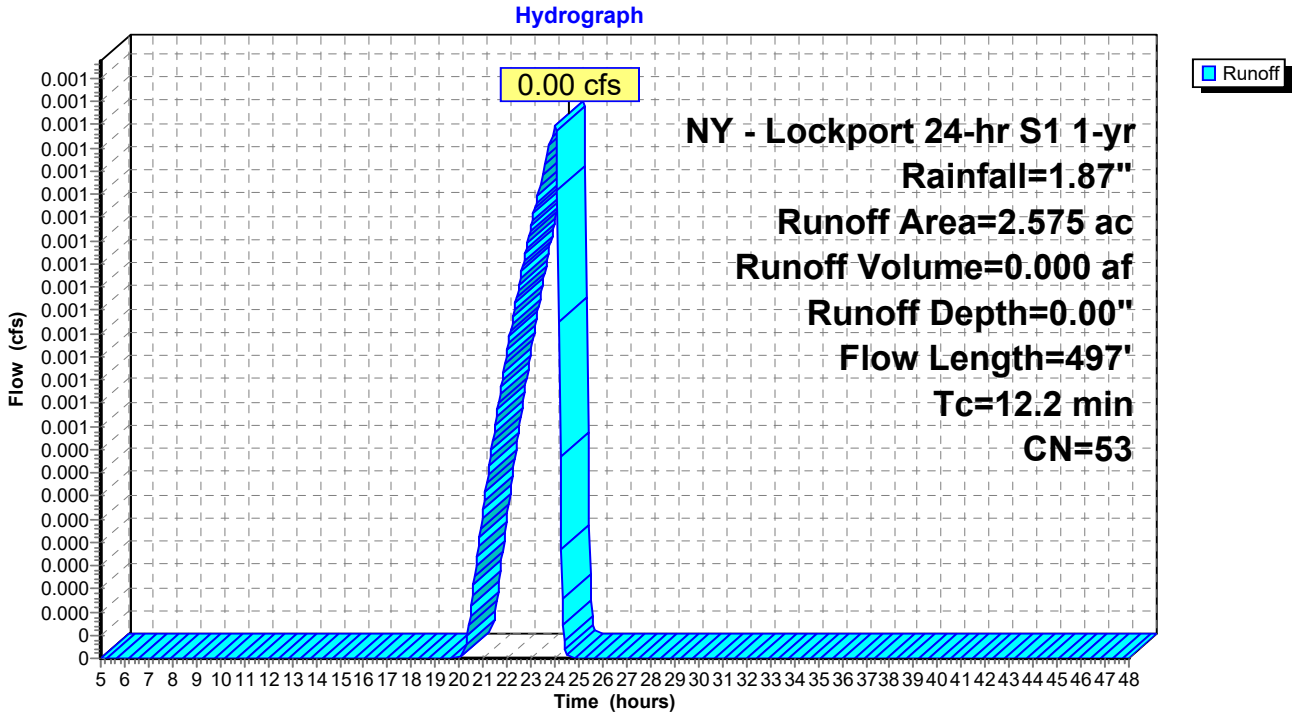
Runoff = 0.00 cfs @ 24.00 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Pond 81P : Culvert 037

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	1.353	30	A-MEADOW, NON-GRAZED
*	1.222	78	D-MEADOW, NON-GRAZED
	2.575	53	Weighted Average
	2.575		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.0590	0.22		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
0.4	41	0.0520	1.60		**Shallow Concentrated Flow, 41** Short Grass Pasture Kv= 7.0 fps
0.6	48	0.0420	1.43		**Shallow Concentrated Flow, 48** Short Grass Pasture Kv= 7.0 fps
0.6	76	0.0800	1.98		**Shallow Concentrated Flow, 76** Short Grass Pasture Kv= 7.0 fps
1.0	71	0.0290	1.19		**Shallow Concentrated Flow, 71** Short Grass Pasture Kv= 7.0 fps
0.9	82	0.0470	1.52		**Shallow Concentrated Flow, 82** Short Grass Pasture Kv= 7.0 fps
1.1	79	0.0290	1.19		**Shallow Concentrated Flow, 79** Short Grass Pasture Kv= 7.0 fps
12.2	497	Total			

Subcatchment 67S: DA 37



Summary for Subcatchment 68S: DA 38

[45] Hint: Runoff=Zero

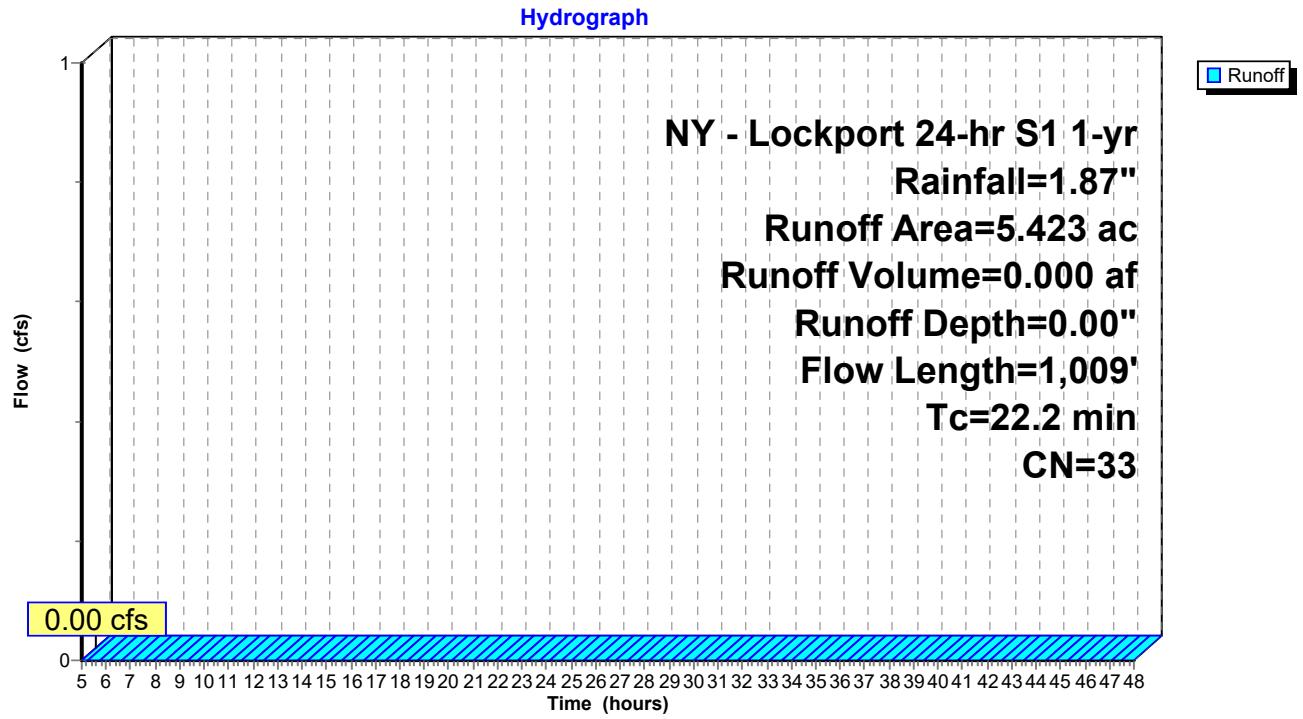
Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Pond 82P : Culvert 038

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.011	39	A-75% GRASS COVER, GOOD
*	0.256	49	A-50-75% GRASS COVER, FAIR
*	4.945	30	A-MEADOW, NON-GRAZED
*	0.148	69	B-50-75% GRASS COVER, FAIR
*	0.007	58	B-MEADOW, NON-GRAZED
*	0.056	78	D-MEADOW, NON-GRAZED
	5.423	33	Weighted Average
	5.423		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0400	0.19		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
2.3	130	0.0180	0.94		**Shallow Concentrated Flow, 130** Short Grass Pasture Kv= 7.0 fps
2.3	179	0.0350	1.31		**Shallow Concentrated Flow, 179** Short Grass Pasture Kv= 7.0 fps
2.8	236	0.0410	1.42		**Shallow Concentrated Flow, 236** Short Grass Pasture Kv= 7.0 fps
0.9	80	0.0470	1.52		**Shallow Concentrated Flow, 80** Short Grass Pasture Kv= 7.0 fps
1.8	132	0.0310	1.23		**Shallow Concentrated Flow, 132** Short Grass Pasture Kv= 7.0 fps
3.2	152	0.0130	0.80		**Shallow Concentrated Flow, 152** Short Grass Pasture Kv= 7.0 fps
22.2	1,009	Total			

Subcatchment 68S: DA 38



Summary for Subcatchment 69S: DA 39

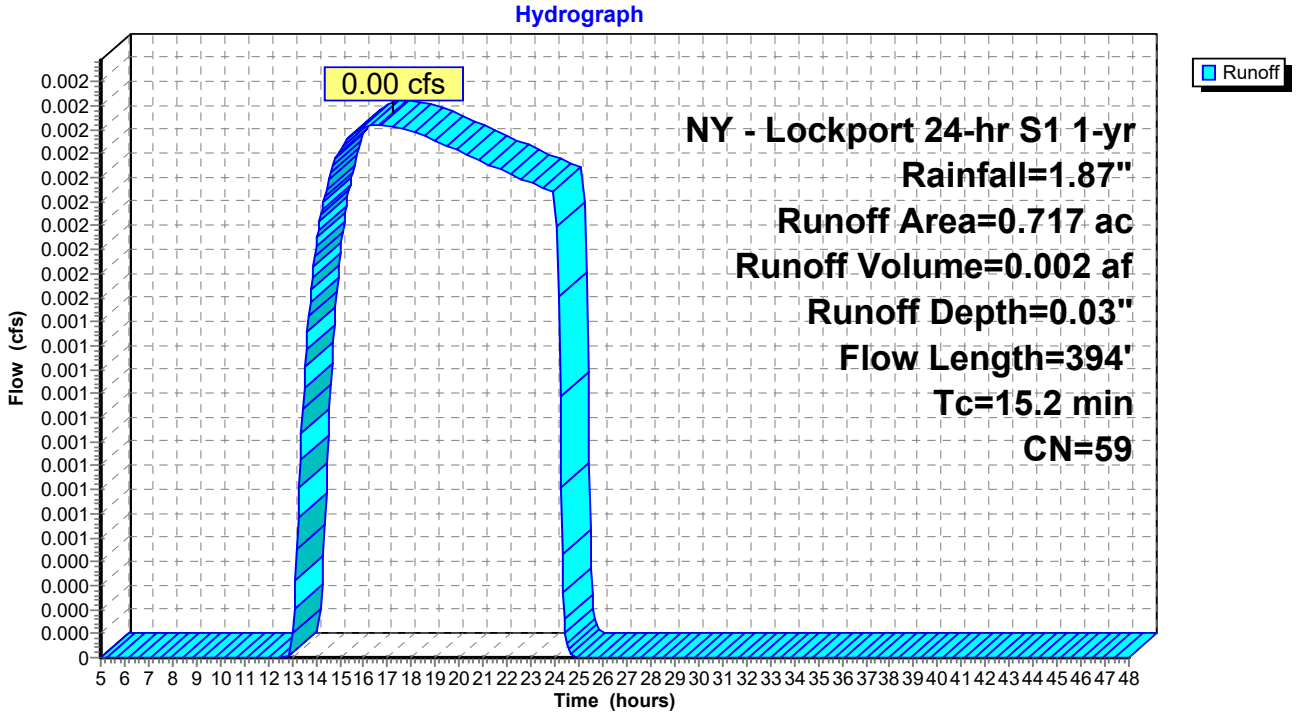
Runoff = 0.00 cfs @ 16.65 hrs, Volume= 0.002 af, Depth= 0.03"
Routed to Pond 83P : Culvert 039

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.131	49	A-50-75% GRASS COVER, FAIR
*	0.104	30	A-MEADOW, NON-GRAZED
*	0.443	69	B-50-75% GRASS COVER, FAIR
*	0.039	58	B-MEADOW, NON-GRAZED
	0.717	59	Weighted Average
	0.717		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.0330	0.17		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
1.3	123	0.0480	1.53		**Shallow Concentrated Flow, 123** Short Grass Pasture Kv= 7.0 fps
4.3	171	0.0090	0.66		**Shallow Concentrated Flow, 171** Short Grass Pasture Kv= 7.0 fps
15.2	394	Total			

Subcatchment 69S: DA 39



Summary for Subcatchment 70S: DA 40

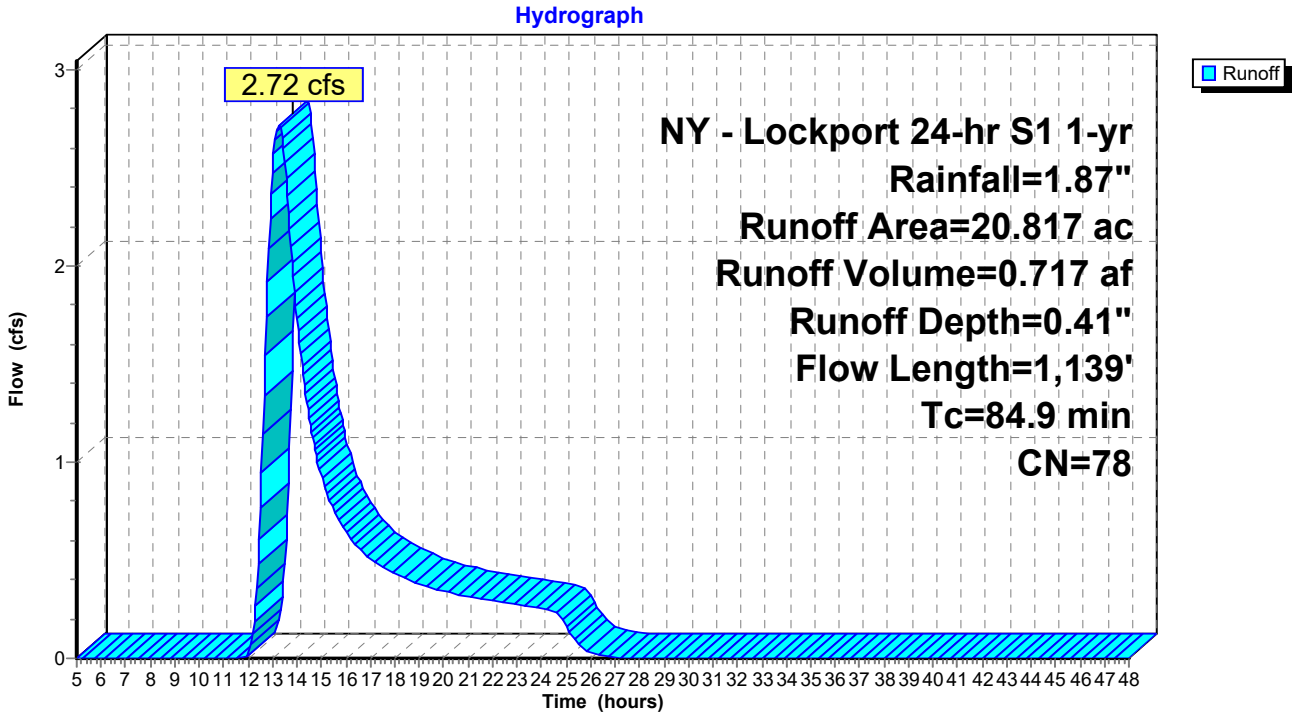
Runoff = 2.72 cfs @ 13.26 hrs, Volume= 0.717 af, Depth= 0.41"
Routed to Pond 84P : Culvert 040

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.117	49	A-50-75% GRASS COVER, FAIR
*	0.133	30	A-MEADOW, NON-GRAZED
*	0.857	80	D-75% GRASS COVER, GOOD
*	0.371	84	D-50-75% GRASS COVER, FAIR
*	0.267	79	D-WOOD/GRASS COMC., GOOD
*	18.654	78	D-MEADOW, NON-GRAZED
*	0.418	98	D-WATER SURFACE, 0% IMP
	20.817	78	Weighted Average
	20.399		97.99% Pervious Area
	0.418		2.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.2	100	0.0030	0.07		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
11.2	258	0.0030	0.38		**Shallow Concentrated Flow, 258** Short Grass Pasture Kv= 7.0 fps
31.4	132	0.0001	0.07		**Shallow Concentrated Flow, 132** Short Grass Pasture Kv= 7.0 fps
4.0	176	0.0110	0.73		**Shallow Concentrated Flow, 176** Short Grass Pasture Kv= 7.0 fps
7.7	270	0.0070	0.59		**Shallow Concentrated Flow, 270** Short Grass Pasture Kv= 7.0 fps
5.4	203	0.0080	0.63		**Shallow Concentrated Flow, 203** Short Grass Pasture Kv= 7.0 fps
84.9	1,139	Total			

Subcatchment 70S: DA 40



Summary for Subcatchment 71S: DA 41

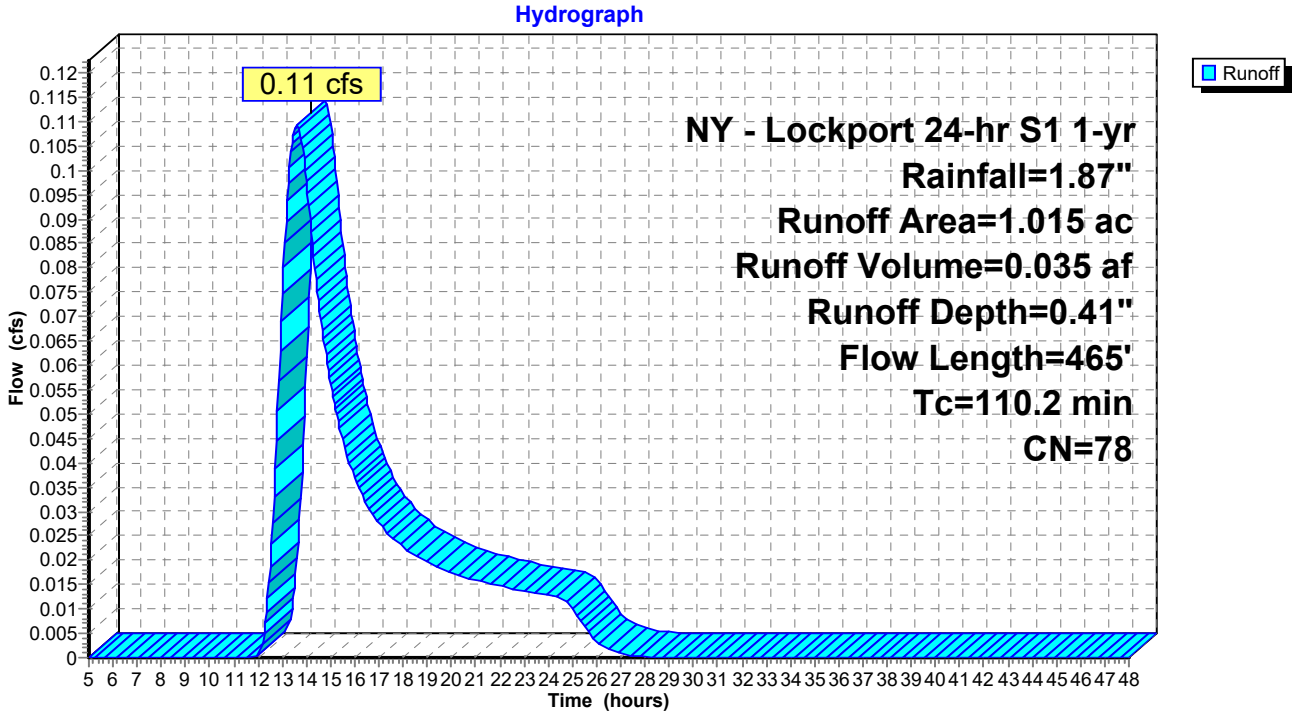
Runoff = 0.11 cfs @ 13.60 hrs, Volume= 0.035 af, Depth= 0.41"
Routed to Pond 86P : Culvert 041

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.185	78	D-MEADOW, NON-GRAZED
*	0.830	78	D-MEADOW, NON-GRAZED
	1.015	78	Weighted Average
	1.015		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
98.2	100	0.0001	0.02		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
8.5	252	0.0050	0.49		**Shallow Concentrated Flow, 252** Short Grass Pasture Kv= 7.0 fps
3.5	113	0.0060	0.54		**Shallow Concentrated Flow, 113** Short Grass Pasture Kv= 7.0 fps
110.2	465	Total			

Subcatchment 71S: DA 41



Summary for Subcatchment 72S: DA 45

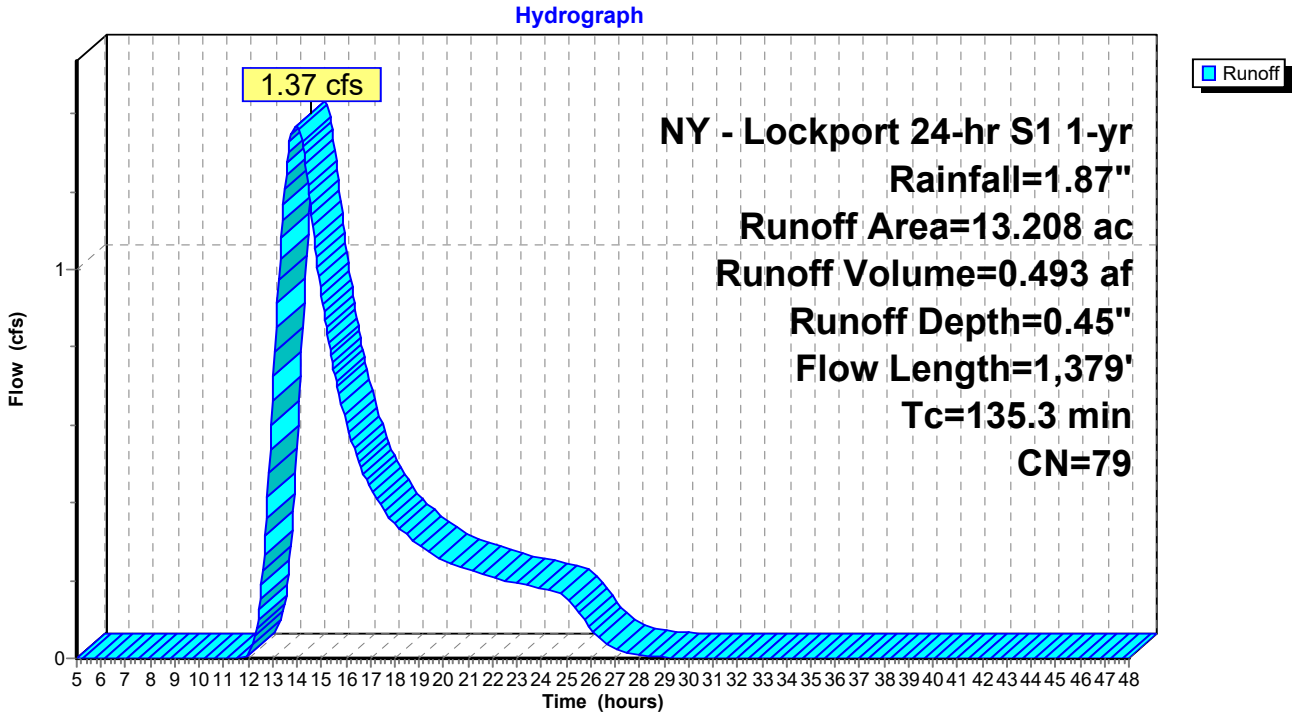
Runoff = 1.37 cfs @ 13.97 hrs, Volume= 0.493 af, Depth= 0.45"
Routed to Pond 87P : Culvert 045

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.839	80	D-75% GRASS COVER, GOOD
*	0.532	84	D-50-75% GRASS COVER, FAIR
*	1.189	79	D-WOODS/GRASS COMB., FAIR
*	0.421	78	D-MEADOW, NON-GRAZED
*	0.610	80	D-75% GRASS COVER, GOOD
*	0.552	79	D-WOODS/GRASS COMB., FAIR
*	1.693	78	D-MEADOW, NON-GRAZED
*	0.909	80	D-75% GRASS COVER, GOOD
*	0.118	84	D-50-75% GRASS COVER, FAIR
*	6.345	78	D-MEADOW, NON-GRAZED
	13.208	79	Weighted Average
	13.208		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.0330	0.17		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
0.9	53	0.0220	1.04		**Shallow Concentrated Flow, 53** Short Grass Pasture Kv= 7.0 fps
2.3	140	0.0210	1.01		**Shallow Concentrated Flow, 140** Short Grass Pasture Kv= 7.0 fps
2.2	140	0.0220	1.04		**Shallow Concentrated Flow, 140** Short Grass Pasture Kv= 7.0 fps
5.8	230	0.0090	0.66		**Shallow Concentrated Flow, 230** Short Grass Pasture Kv= 7.0 fps
7.6	267	0.0070	0.59		**Shallow Concentrated Flow, 267** Short Grass Pasture Kv= 7.0 fps
43.8	184	0.0001	0.07		**Shallow Concentrated Flow, 184** Short Grass Pasture Kv= 7.0 fps
63.1	265	0.0001	0.07		**Shallow Concentrated Flow, 265** Short Grass Pasture Kv= 7.0 fps
135.3	1,379	Total			

Subcatchment 72S: DA 45



Summary for Subcatchment 73S: DA 48

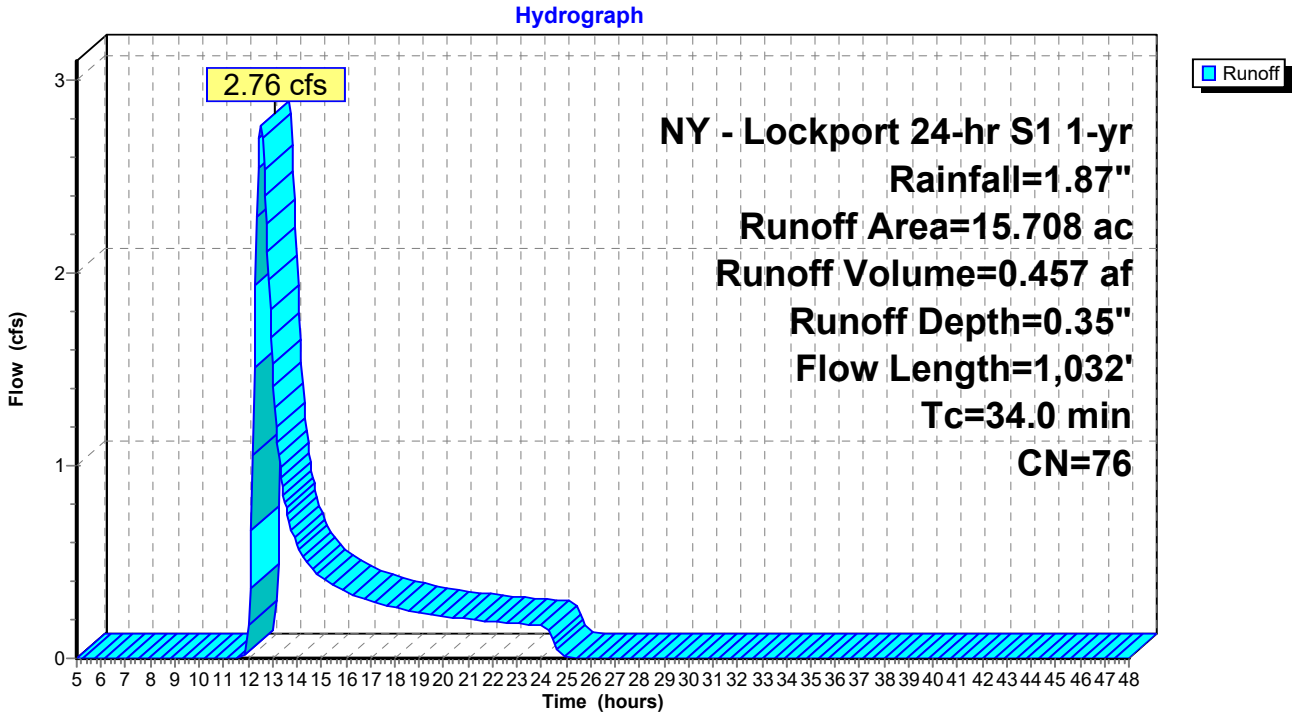
Runoff = 2.76 cfs @ 12.51 hrs, Volume= 0.457 af, Depth= 0.35"
Routed to Pond 89P : Culvert 048

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.687	61	B-75% GRASS COVER, GOOD
*	0.310	69	B-50-75% GRASS COVER, FAIR
*	2.053	58	B-MEADOW, NON-GRAZED
*	0.028	80	D-75% GRASS COVER, GOOD
*	2.330	78	D-MEADOW, NON-GRAZED
*	9.450	78	D-MEADOW, NON-GRAZED
*	0.765	98	D-WATER SURFACE, 0% IMP
*	0.085	98	D-WATER SURACE, 0% IMP
	15.708	76	Weighted Average
	14.858		94.59% Pervious Area
	0.850		5.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.5	100	0.0120	0.12		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
2.1	148	0.0270	1.15		**Shallow Concentrated Flow, 148** Short Grass Pasture Kv= 7.0 fps
3.4	204	0.0200	0.99		**Shallow Concentrated Flow, 204** Short Grass Pasture Kv= 7.0 fps
6.0	300	0.0140	0.83		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
8.0	280	0.0070	0.59		**Shallow Concentrated Flow, 280** Short Grass Pasture Kv= 7.0 fps
34.0	1,032	Total			

Subcatchment 73S: DA 48



Summary for Subcatchment 74S: DA 49

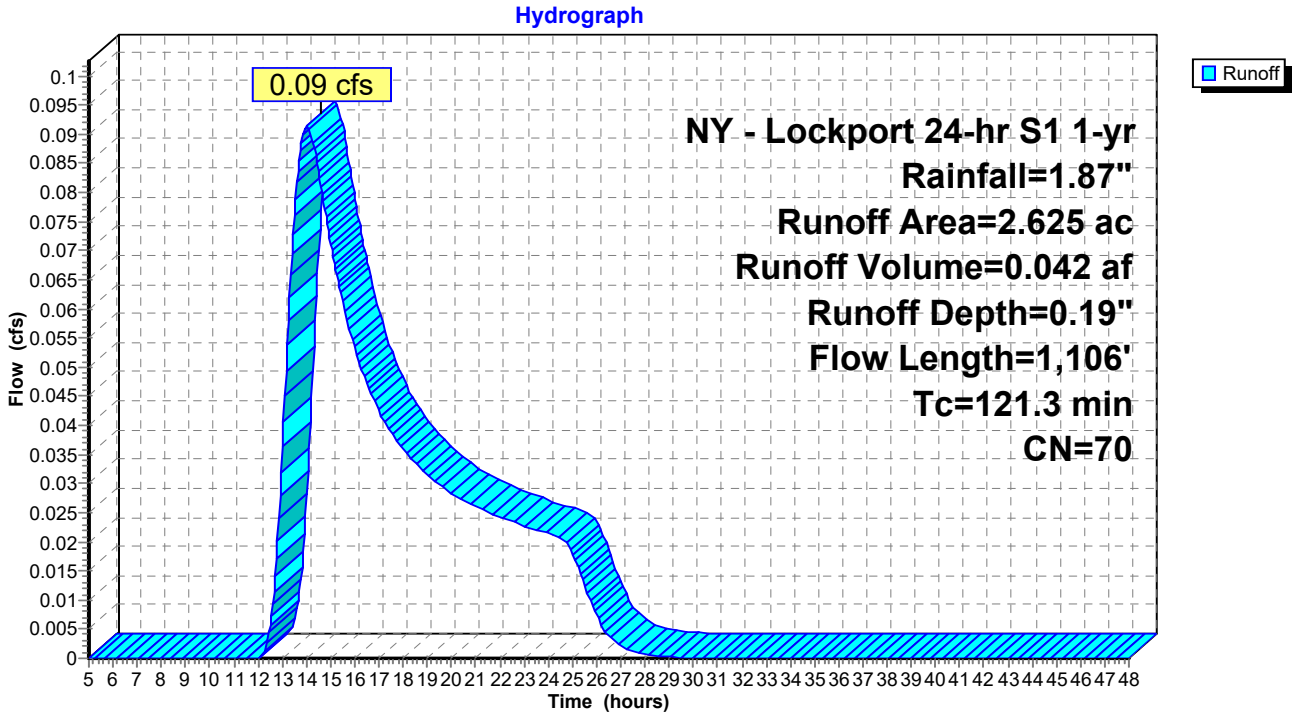
Runoff = 0.09 cfs @ 14.04 hrs, Volume= 0.042 af, Depth= 0.19"
Routed to Pond 91P : Culvert 049

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.260	61	B-75% GRASS COVER, GOOD
*	1.275	69	B-50-75% GRASS COVER, FAIR
*	0.458	58	B-MEADOW, NON-GRAZED
*	0.108	80	D-75% GRASS COVER, GOOD
*	0.524	84	D-50-75% GRASS COVER,FAIR
*	0.000	78	D-MEADOW, NON-GRAZED
	2.625	70	Weighted Average
	2.625		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
98.2	100	0.0001	0.02		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
6.5	300	0.0120	0.77		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
5.1	204	0.0090	0.66		**Shallow Concentrated Flow, 204** Short Grass Pasture Kv= 7.0 fps
7.2	235	0.0060	0.54		**Shallow Concentrated Flow, 235** Short Grass Pasture Kv= 7.0 fps
4.3	267	0.0220	1.04		**Shallow Concentrated Flow, 267** Short Grass Pasture Kv= 7.0 fps
121.3	1,106	Total			

Subcatchment 74S: DA 49



Summary for Subcatchment 75S: DA 50

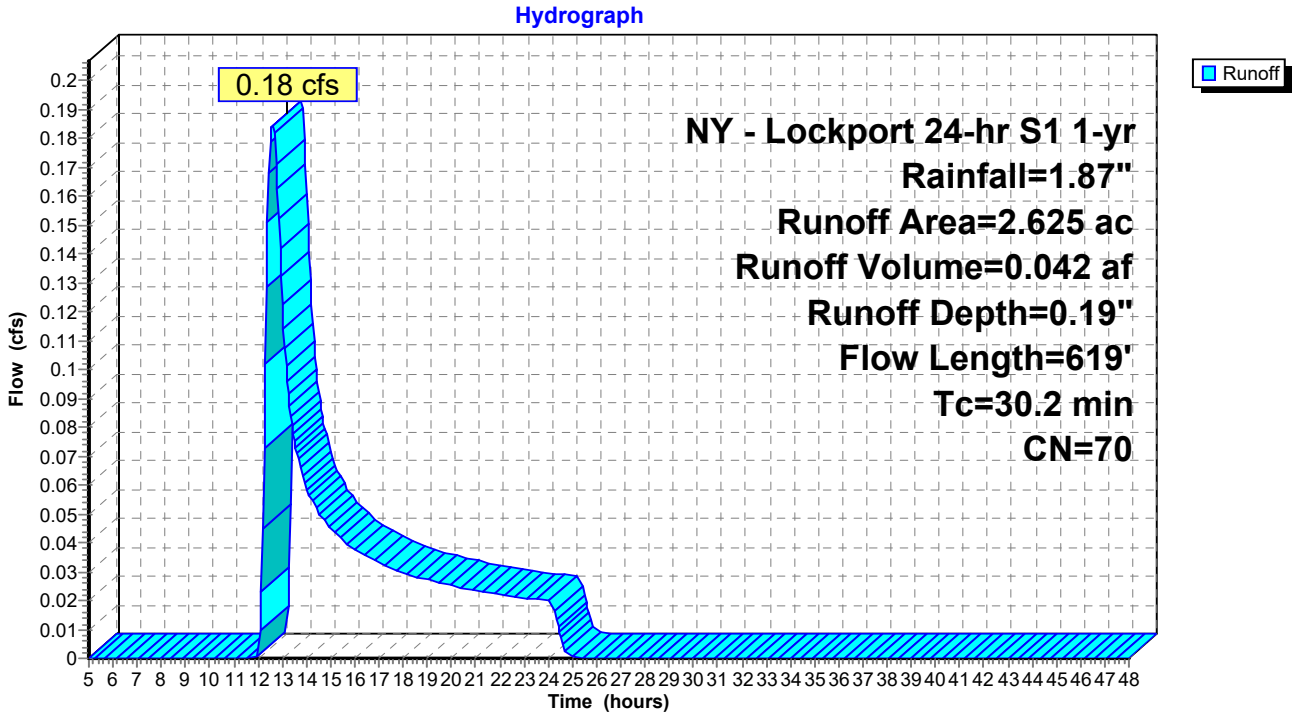
Runoff = 0.18 cfs @ 12.59 hrs, Volume= 0.042 af, Depth= 0.19"
Routed to Pond 92P : Culvert 050

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.260	61	B-75% GRASS COVER, GOOD
*	1.275	69	B-50-75% GRASS COVER, FAIR
*	0.458	58	B-MEADOW, NON-GRAZED
*	0.108	80	D-75% GRASS COVER, GOOD
*	0.524	84	D-50-75% GRASS COVER,FAIR
*	0.000	78	D-MEADOW, NON-GRAZED
	2.625	70	Weighted Average
	2.625		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.9	100	0.0070	0.09		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
3.4	222	0.0240	1.08		**Shallow Concentrated Flow, 222** Short Grass Pasture Kv= 7.0 fps
4.1	154	0.0080	0.63		**Shallow Concentrated Flow, 154** Short Grass Pasture Kv= 7.0 fps
4.8	143	0.0050	0.49		**Shallow Concentrated Flow, 143** Short Grass Pasture Kv= 7.0 fps
30.2	619	Total			

Subcatchment 75S: DA 50



Summary for Subcatchment 76S: DA 54

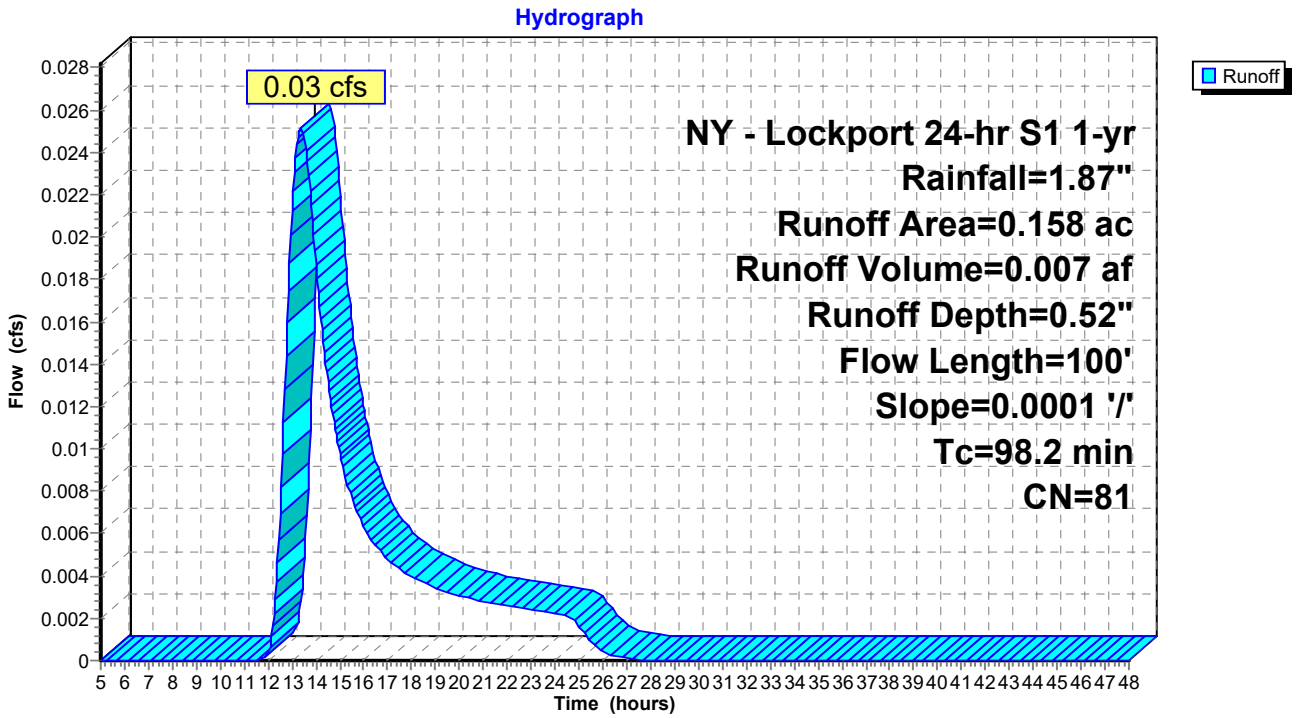
Runoff = 0.03 cfs @ 13.39 hrs, Volume= 0.007 af, Depth= 0.52"
Routed to Pond 93P : Culvert 054

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 1-yr Rainfall=1.87"

	Area (ac)	CN	Description
*	0.090	84	D-50-75% GRASS COVER, FAIR
*	0.067	78	D-MEADOW, NON-GRAZED
*	0.001	78	D-MEADOW, NON-GRAZED
	0.158	81	Weighted Average
	0.158		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
98.2	100	0.0001	0.02		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"

Subcatchment 76S: DA 54



Summary for Pond 77P: Culvert 032

[58] Hint: Peaked 0.45' above defined flood level

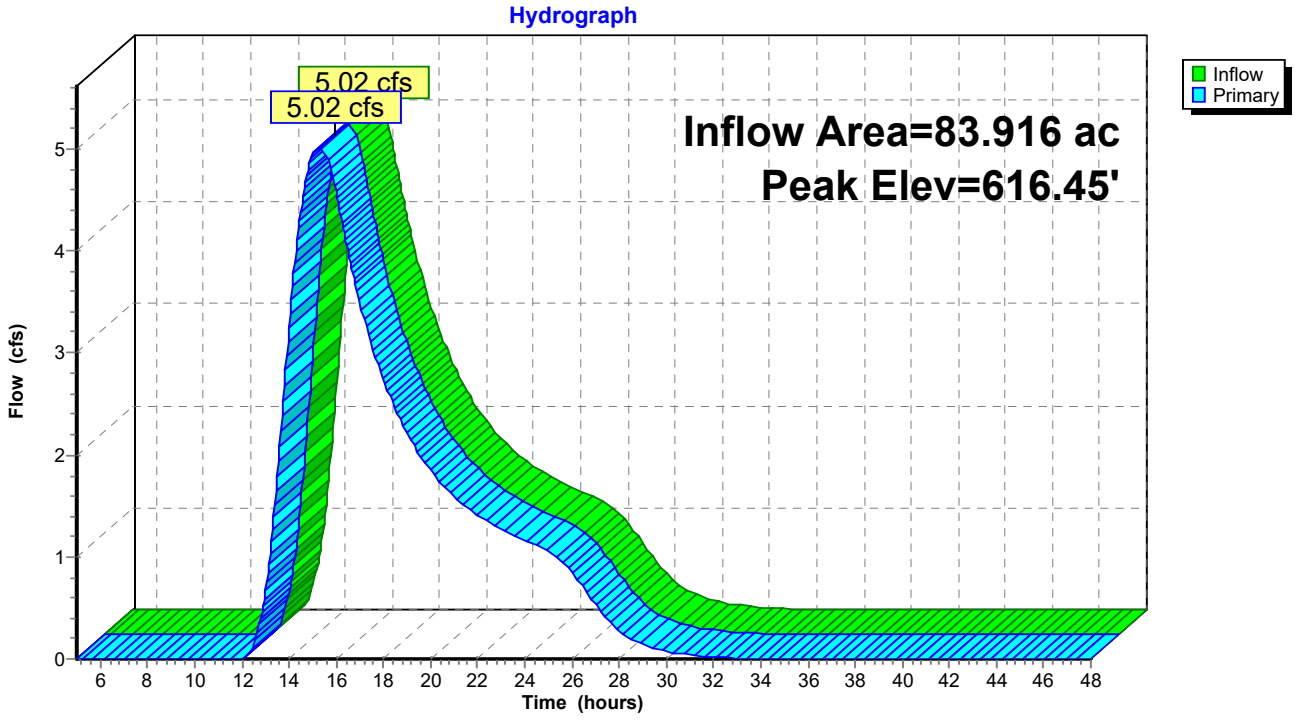
Inflow Area = 83.916 ac, 0.00% Impervious, Inflow Depth = 0.38" for 1-yr event
Inflow = 5.02 cfs @ 15.35 hrs, Volume= 2.659 af
Outflow = 5.02 cfs @ 15.35 hrs, Volume= 2.659 af, Atten= 0%, Lag= 0.0 min
Primary = 5.02 cfs @ 15.35 hrs, Volume= 2.659 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 616.45' @ 15.35 hrs
Flood Elev= 616.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	615.42'	**24.0" Round Culvert 032 w/ 4.8" inside fill** L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 615.02' / 614.18' S= 0.0168 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 2.69 sf
#2	Primary	620.02'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=5.02 cfs @ 15.35 hrs HW=616.45' (Free Discharge)
└**1=Culvert 032** (Inlet Controls 5.02 cfs @ 2.56 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 77P: Culvert 032



Summary for Pond 78P: Culvert 033

[58] Hint: Peaked 0.19' above defined flood level

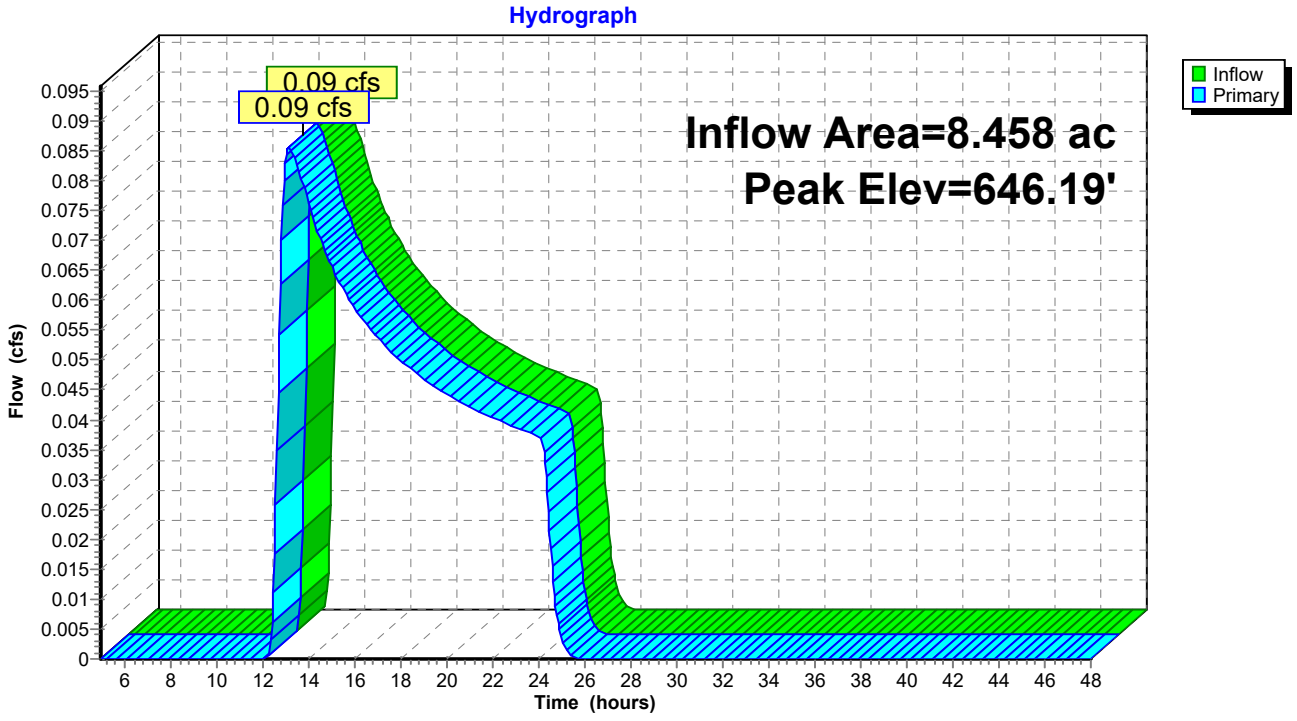
Inflow Area = 8.458 ac, 0.00% Impervious, Inflow Depth = 0.07" for 1-yr event
Inflow = 0.09 cfs @ 13.16 hrs, Volume= 0.052 af
Outflow = 0.09 cfs @ 13.16 hrs, Volume= 0.052 af, Atten= 0%, Lag= 0.0 min
Primary = 0.09 cfs @ 13.16 hrs, Volume= 0.052 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 646.19' @ 13.16 hrs
Flood Elev= 646.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	646.10'	**18.0" Round Culvert 033 w/ 3.6" inside fill** L= 45.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 645.80' / 645.49' S= 0.0069 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	648.80'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.09 cfs @ 13.16 hrs HW=646.19' (Free Discharge)
└─**1=Culvert 033** (Inlet Controls 0.09 cfs @ 0.75 fps)
└─**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 78P: Culvert 033



Summary for Pond 79P: Culvert 034

[58] Hint: Peaked 0.02' above defined flood level

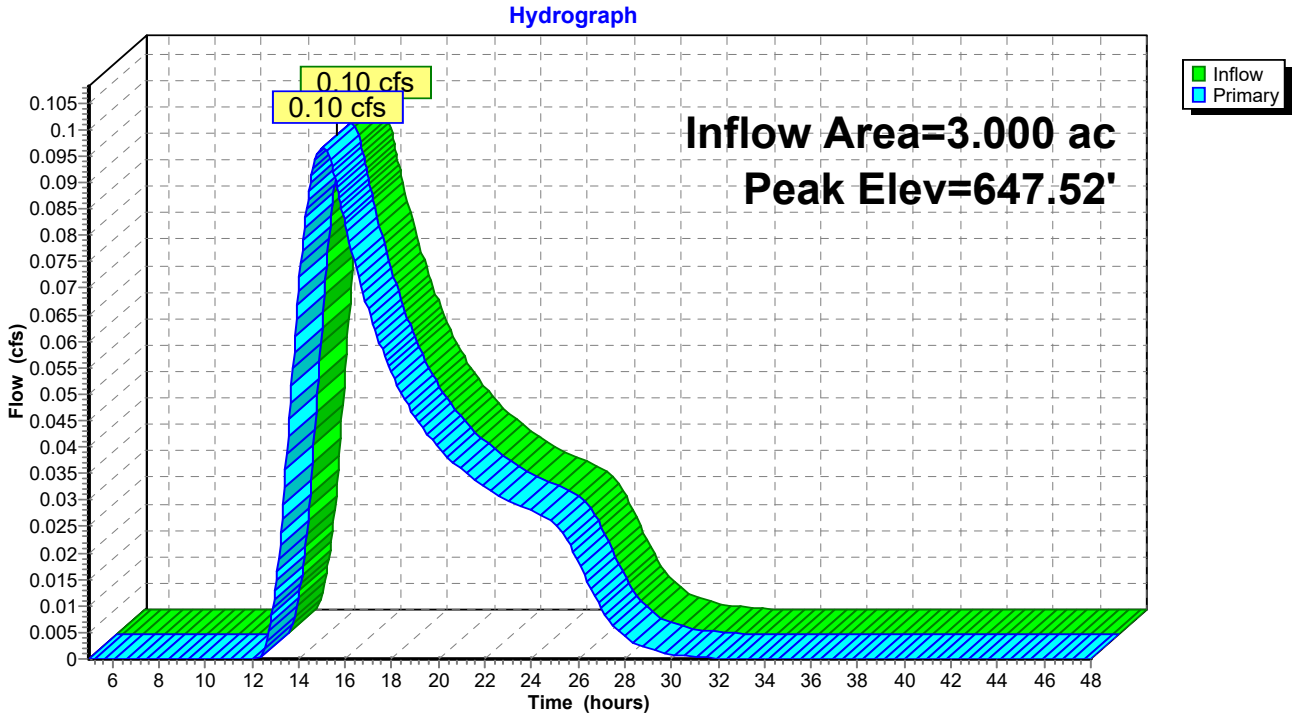
Inflow Area = 3.000 ac, 0.00% Impervious, Inflow Depth = 0.22" for 1-yr event
Inflow = 0.10 cfs @ 15.00 hrs, Volume= 0.054 af
Outflow = 0.10 cfs @ 15.00 hrs, Volume= 0.054 af, Atten= 0%, Lag= 0.0 min
Primary = 0.10 cfs @ 15.00 hrs, Volume= 0.054 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 647.52' @ 15.00 hrs
Flood Elev= 647.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	647.42'	**18.0" Round Culvert 034 w/ 3.6" inside fill** L= 70.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 647.12' / 646.24' S= 0.0126 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	650.12'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.10 cfs @ 15.00 hrs HW=647.52' (Free Discharge)
└**1=Culvert 034** (Inlet Controls 0.10 cfs @ 0.78 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 79P: Culvert 034



Summary for Pond 80P: Culvert 036

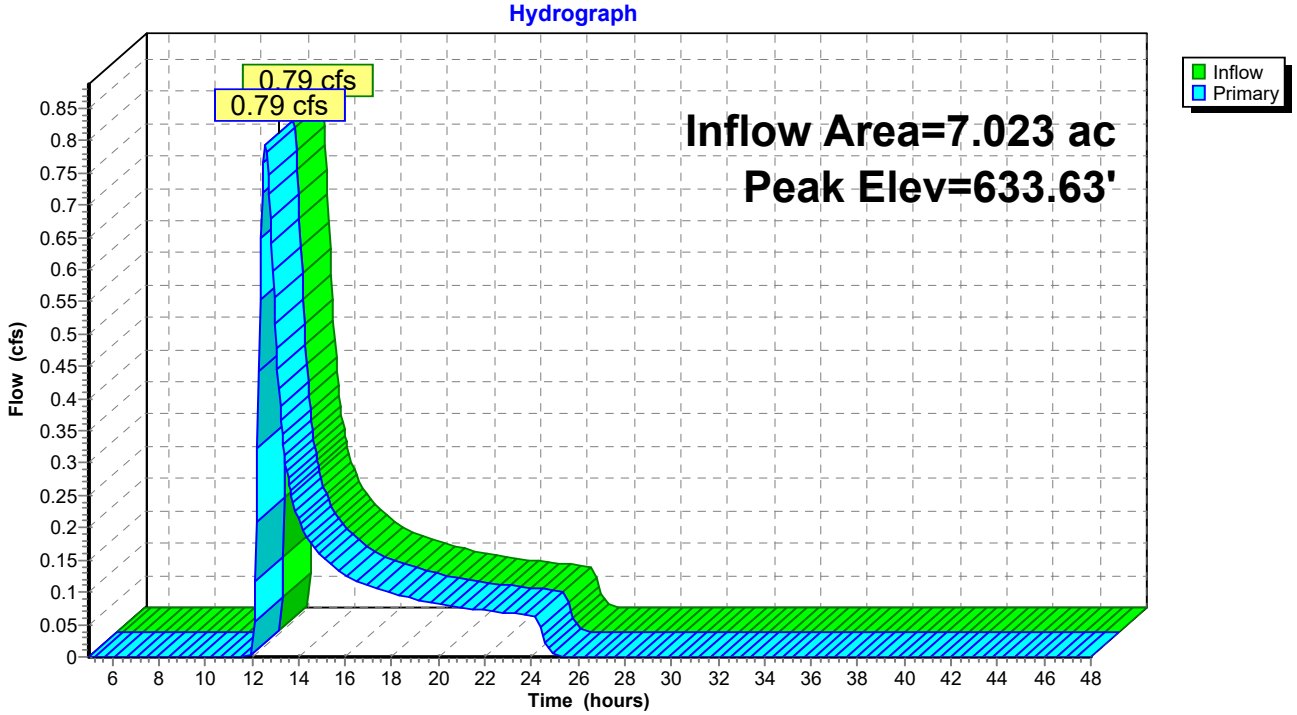
Inflow Area = 7.023 ac, 21.33% Impervious, Inflow Depth = 0.26" for 1-yr event
Inflow = 0.79 cfs @ 12.57 hrs, Volume= 0.155 af
Outflow = 0.79 cfs @ 12.57 hrs, Volume= 0.155 af, Atten= 0%, Lag= 0.0 min
Primary = 0.79 cfs @ 12.57 hrs, Volume= 0.155 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 633.63' @ 12.57 hrs
Flood Elev= 634.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	633.19'	**18.0" Round Culvert 036 w/ 3.6" inside fill** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 632.89' / 632.88' S= 0.0005 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	635.89'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.79 cfs @ 12.57 hrs HW=633.63' (Free Discharge)
└**1=Culvert 036** (Barrel Controls 0.79 cfs @ 1.74 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 80P: Culvert 036



Summary for Pond 81P: Culvert 037

[58] Hint: Peaked 1.32' above defined flood level

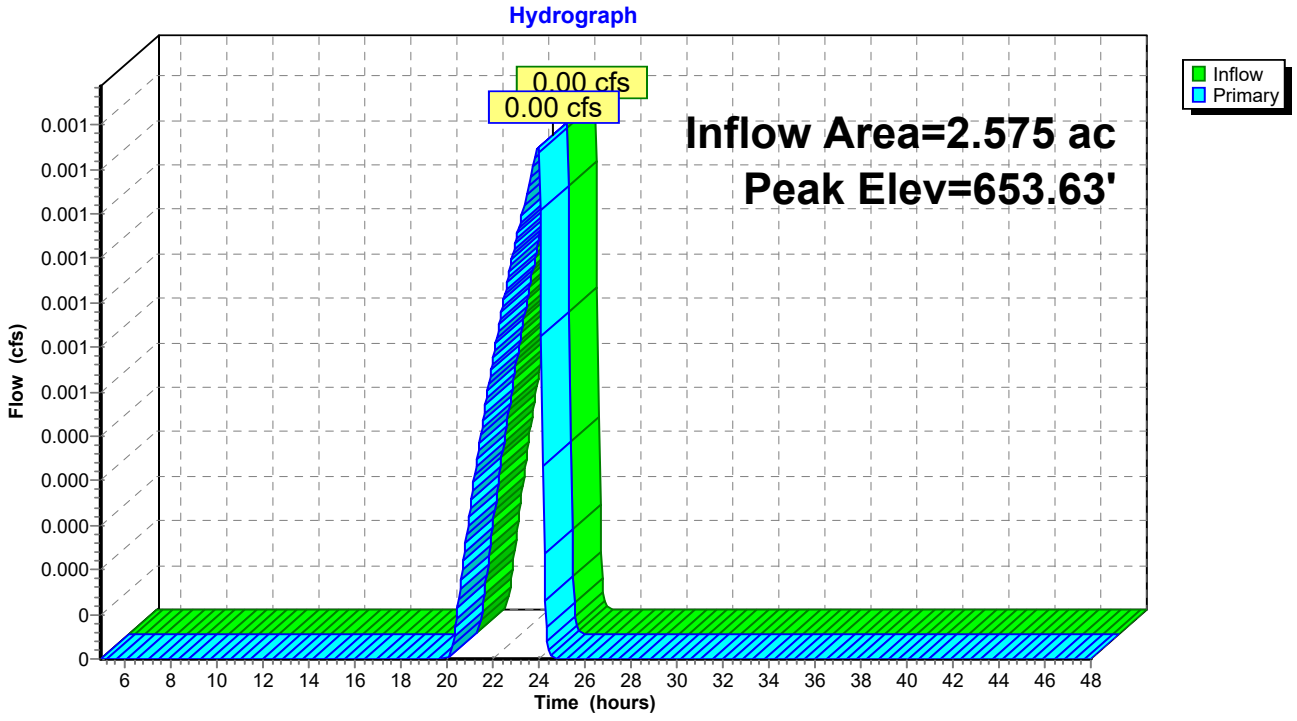
Inflow Area = 2.575 ac, 0.00% Impervious, Inflow Depth = 0.00" for 1-yr event
Inflow = 0.00 cfs @ 24.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 24.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
Primary = 0.00 cfs @ 24.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 653.63' @ 24.00 hrs
Flood Elev= 652.31'

Device	Routing	Invert	Outlet Devices
#1	Primary	653.63'	**18.0" Round Culvert 037 w/ 3.6" inside fill** L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 653.33' / 650.10' S= 0.1346 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	656.33'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.00 cfs @ 24.00 hrs HW=653.63' (Free Discharge)
└**1=Culvert 037** (Inlet Controls 0.00 cfs @ 0.13 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 81P: Culvert 037



Summary for Pond 82P: Culvert 038

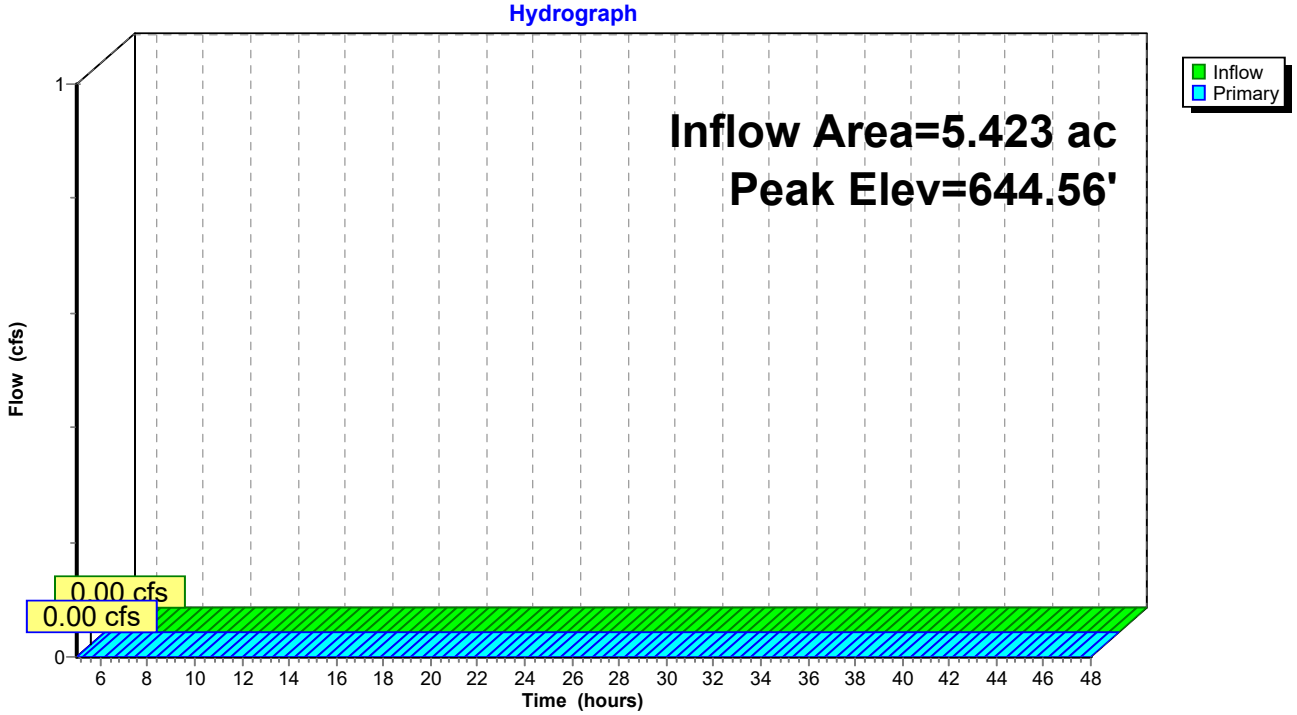
Inflow Area = 5.423 ac, 0.00% Impervious, Inflow Depth = 0.00" for 1-yr event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 644.56' @ 5.00 hrs
Flood Elev= 645.44'

Device	Routing	Invert	Outlet Devices
#1	Primary	644.56'	**18.0" Round Culvert 038 w/ 3.6" inside fill** L= 74.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 644.26' / 624.90' S= 0.2616 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	647.26'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=644.56' (Free Discharge)
└**1=Culvert 038** (Controls 0.00 cfs)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 82P: Culvert 038



Summary for Pond 83P: Culvert 039

[58] Hint: Peaked 1.10' above defined flood level

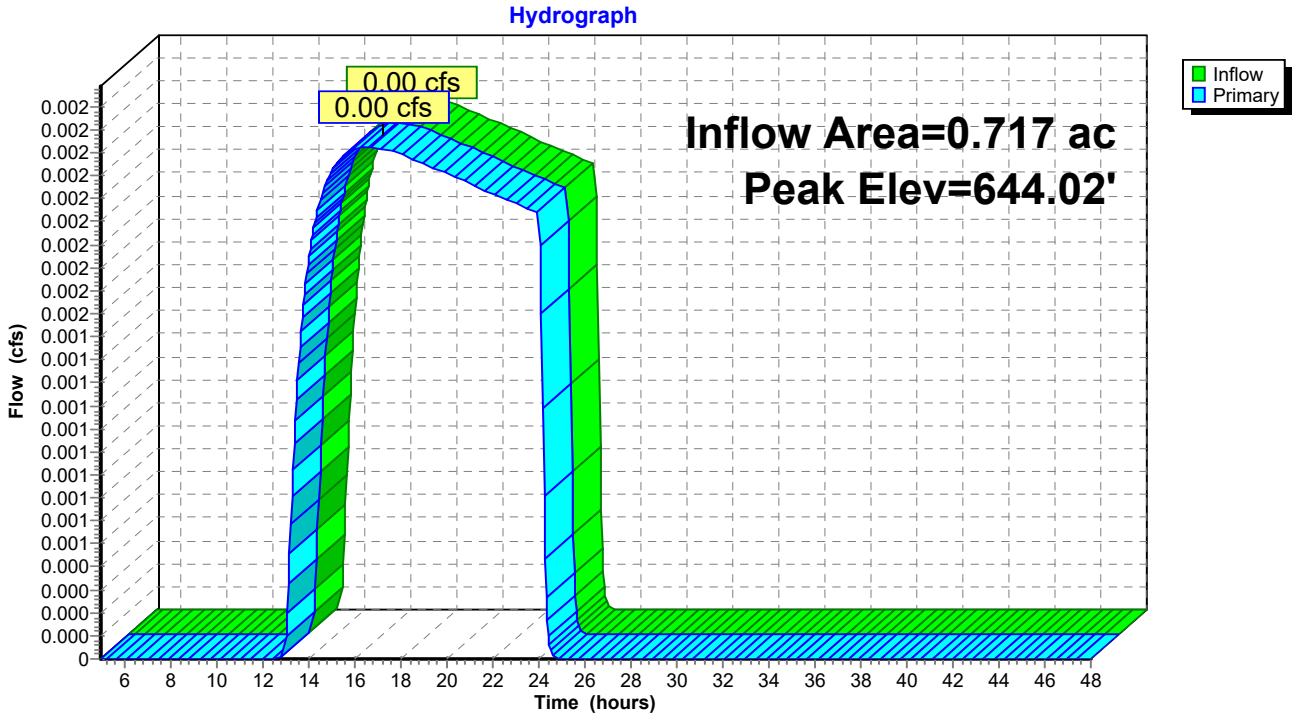
Inflow Area = 0.717 ac, 0.00% Impervious, Inflow Depth = 0.03" for 1-yr event
Inflow = 0.00 cfs @ 16.65 hrs, Volume= 0.002 af
Outflow = 0.00 cfs @ 16.65 hrs, Volume= 0.002 af, Atten= 0%, Lag= 0.0 min
Primary = 0.00 cfs @ 16.65 hrs, Volume= 0.002 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 644.02' @ 16.65 hrs
Flood Elev= 642.92'

Device	Routing	Invert	Outlet Devices
#1	Primary	644.02'	**18.0" Round Culvert 039 w/ 3.6" inside fill** L= 85.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 643.72' / 641.78' S= 0.0228 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	646.72'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.00 cfs @ 16.65 hrs HW=644.02' (Free Discharge)
└**1=Culvert 039** (Inlet Controls 0.00 cfs @ 0.18 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 83P: Culvert 039



Summary for Pond 84P: Culvert 040

[58] Hint: Peaked 0.67' above defined flood level

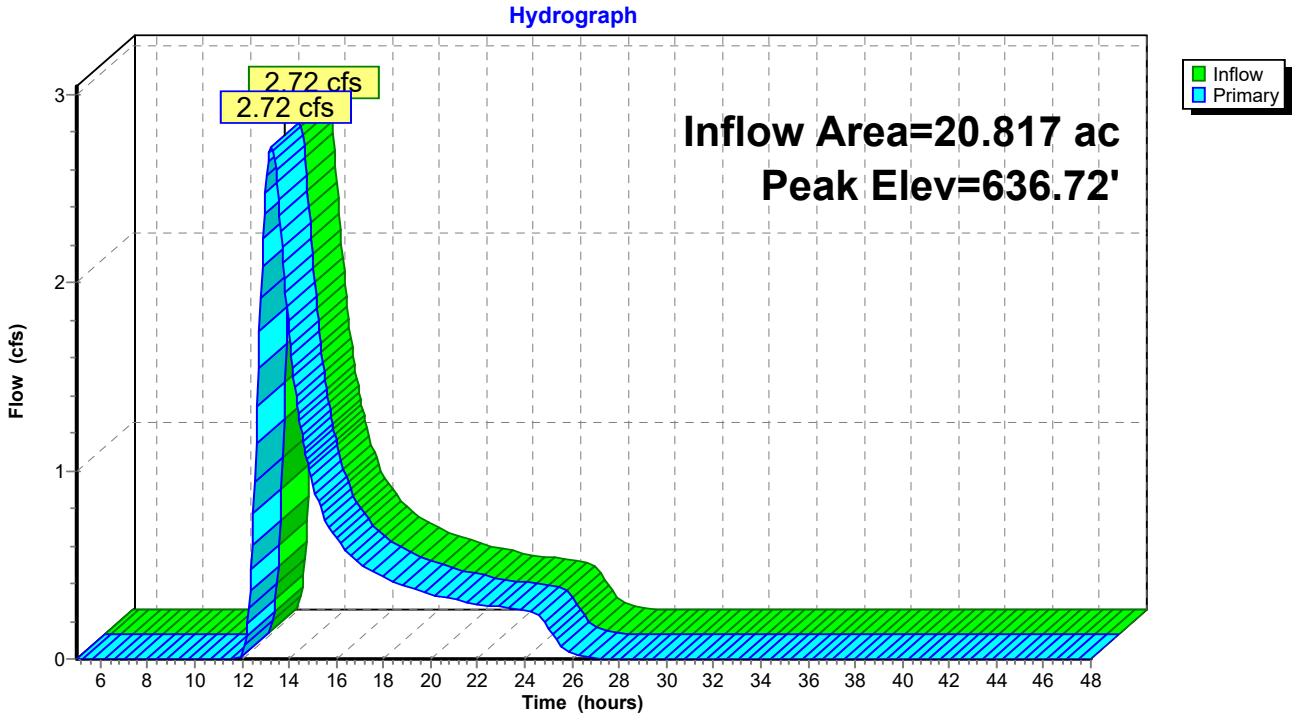
Inflow Area = 20.817 ac, 2.01% Impervious, Inflow Depth = 0.41" for 1-yr event
Inflow = 2.72 cfs @ 13.26 hrs, Volume= 0.717 af
Outflow = 2.72 cfs @ 13.26 hrs, Volume= 0.717 af, Atten= 0%, Lag= 0.0 min
Primary = 2.72 cfs @ 13.26 hrs, Volume= 0.717 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 636.72' @ 13.26 hrs
Flood Elev= 636.05'

Device	Routing	Invert	Outlet Devices
#1	Primary	636.17'	**36.0" Round Culvert 040 w/ 7.2" inside fill** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 635.57' / 635.46' S= 0.0039 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 6.06 sf
#2	Primary	640.07'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=2.72 cfs @ 13.26 hrs HW=636.72' (Free Discharge)
└**1=Culvert 040** (Inlet Controls 2.72 cfs @ 1.84 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 84P: Culvert 040



Summary for Pond 86P: Culvert 041

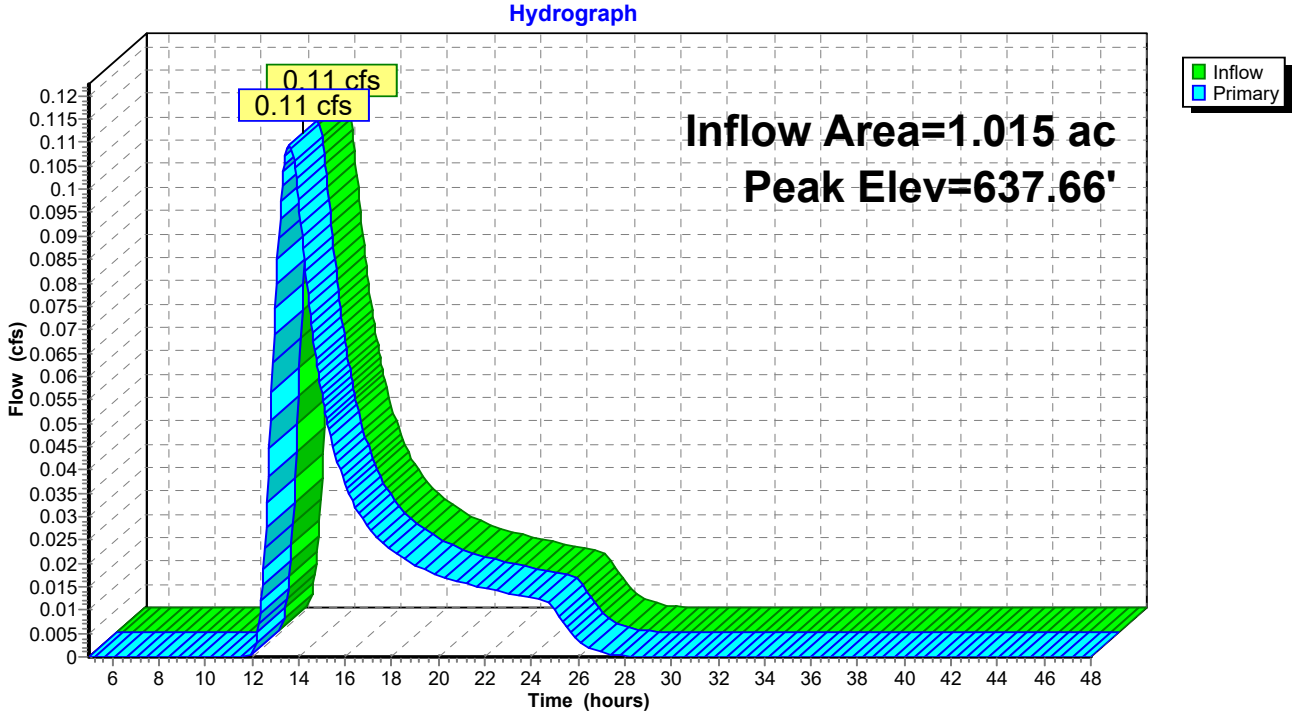
Inflow Area = 1.015 ac, 0.00% Impervious, Inflow Depth = 0.41" for 1-yr event
Inflow = 0.11 cfs @ 13.60 hrs, Volume= 0.035 af
Outflow = 0.11 cfs @ 13.60 hrs, Volume= 0.035 af, Atten= 0%, Lag= 0.0 min
Primary = 0.11 cfs @ 13.60 hrs, Volume= 0.035 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 637.66' @ 13.60 hrs
Flood Elev= 638.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	637.55'	**18.0" Round Culvert 041 w/ 3.6" inside fill** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 637.25' / 636.72' S= 0.0189 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	640.25'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.11 cfs @ 13.60 hrs HW=637.66' (Free Discharge)
└**1=Culvert 041** (Inlet Controls 0.11 cfs @ 0.82 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 86P: Culvert 041



Summary for Pond 87P: Culvert 045

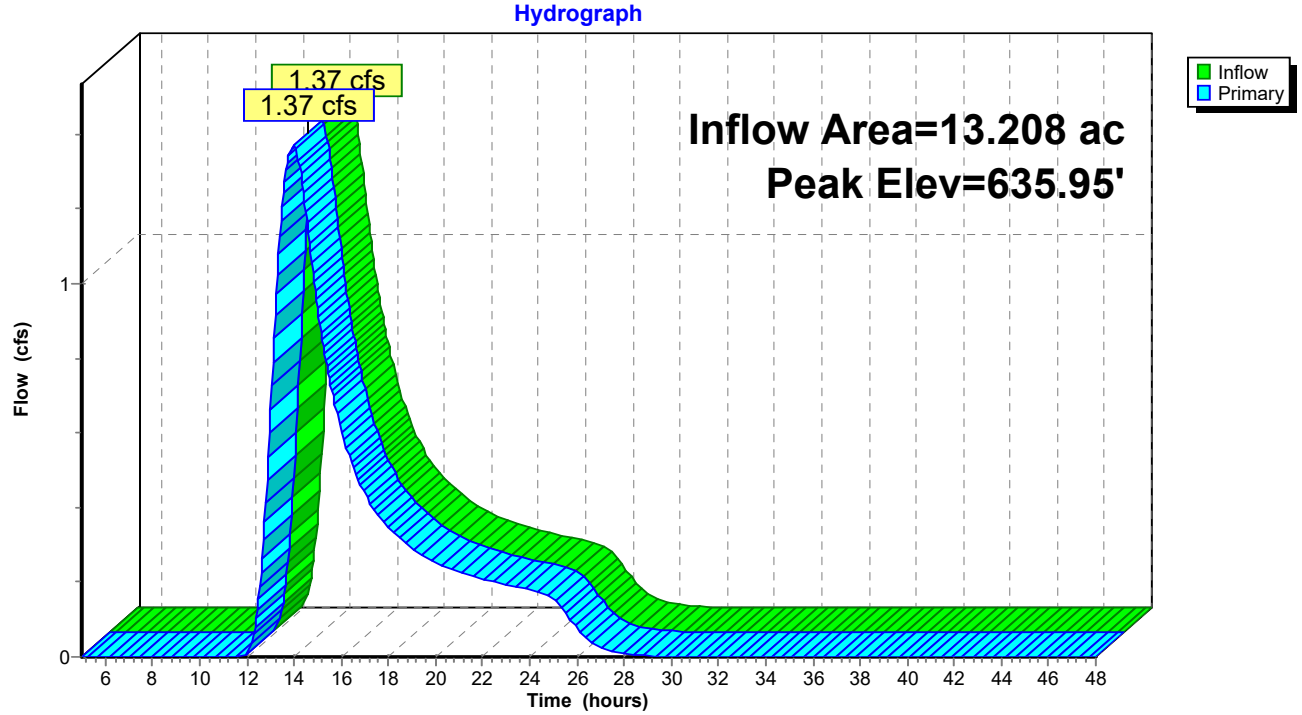
Inflow Area = 13.208 ac, 0.00% Impervious, Inflow Depth = 0.45" for 1-yr event
Inflow = 1.37 cfs @ 13.97 hrs, Volume= 0.493 af
Outflow = 1.37 cfs @ 13.97 hrs, Volume= 0.493 af, Atten= 0%, Lag= 0.0 min
Primary = 1.37 cfs @ 13.97 hrs, Volume= 0.493 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 635.95' @ 13.97 hrs
Flood Elev= 636.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	635.42'	**18.0" Round Culvert 045 w/ 3.6" inside fill** L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 635.12' / 634.71' S= 0.0102 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	638.12'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=1.37 cfs @ 13.97 hrs HW=635.95' (Free Discharge)
└**1=Culvert 045** (Inlet Controls 1.37 cfs @ 1.81 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 87P: Culvert 045



Summary for Pond 89P: Culvert 048

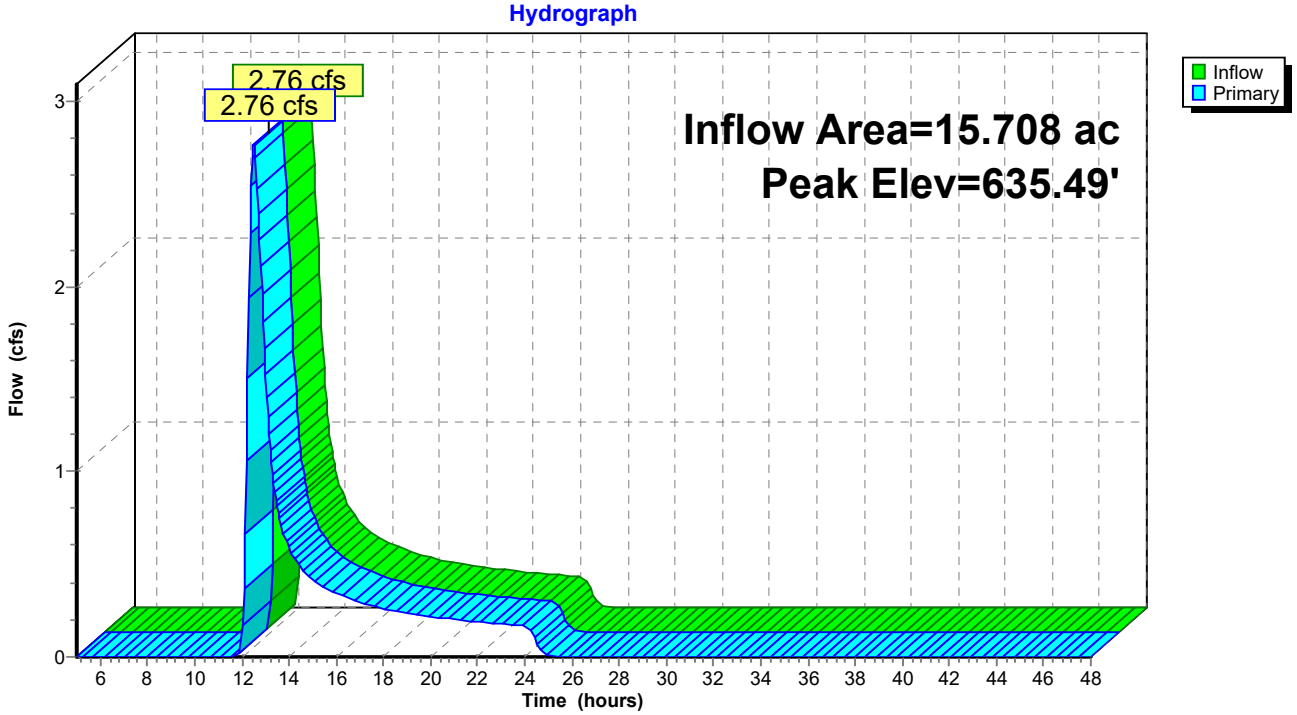
Inflow Area = 15.708 ac, 5.41% Impervious, Inflow Depth = 0.35" for 1-yr event
Inflow = 2.76 cfs @ 12.51 hrs, Volume= 0.457 af
Outflow = 2.76 cfs @ 12.51 hrs, Volume= 0.457 af, Atten= 0%, Lag= 0.0 min
Primary = 2.76 cfs @ 12.51 hrs, Volume= 0.457 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 635.49' @ 12.51 hrs
Flood Elev= 636.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	634.89'	**36.0" Round Culvert 048 w/ 7.2" inside fill** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 634.29' / 634.25' S= 0.0016 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 6.06 sf
#2	Primary	638.79'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=2.76 cfs @ 12.51 hrs HW=635.49' (Free Discharge)
└**1=Culvert 048** (Barrel Controls 2.76 cfs @ 2.30 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 89P: Culvert 048



Summary for Pond 91P: Culvert 049

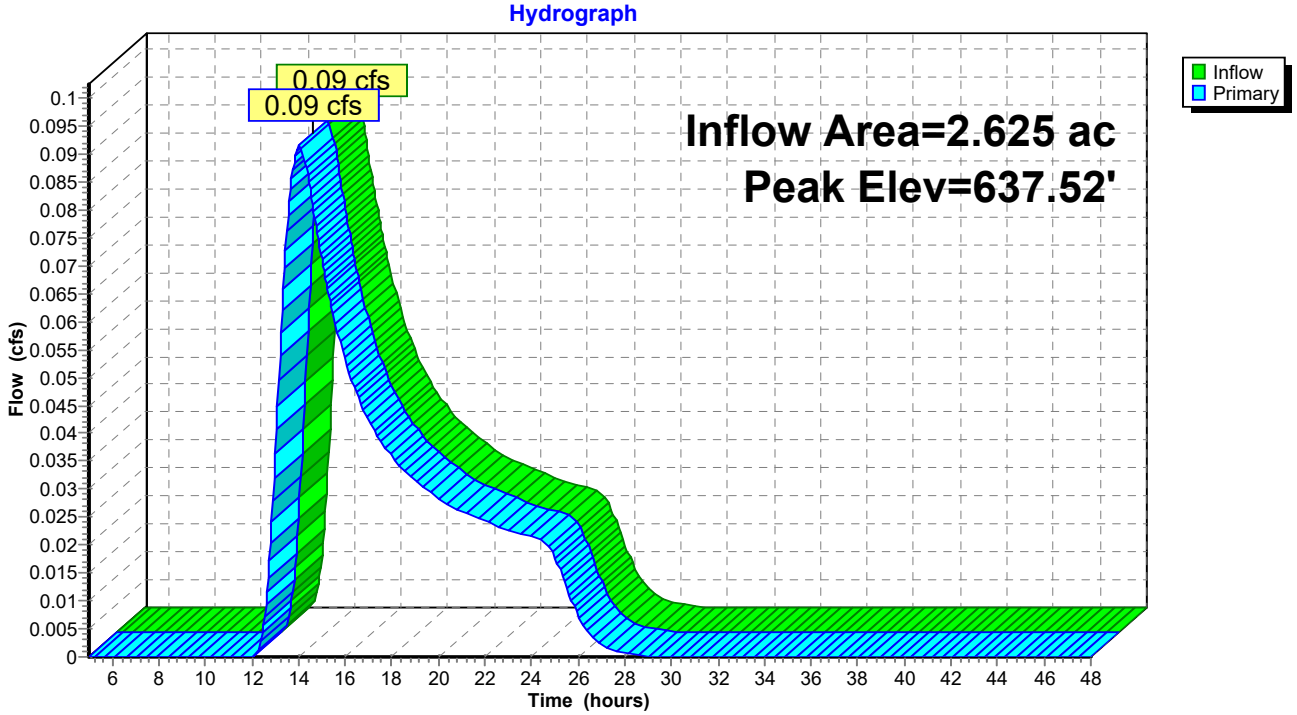
Inflow Area = 2.625 ac, 0.00% Impervious, Inflow Depth = 0.19" for 1-yr event
Inflow = 0.09 cfs @ 14.04 hrs, Volume= 0.042 af
Outflow = 0.09 cfs @ 14.04 hrs, Volume= 0.042 af, Atten= 0%, Lag= 0.0 min
Primary = 0.09 cfs @ 14.04 hrs, Volume= 0.042 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 637.52' @ 14.04 hrs
Flood Elev= 638.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	637.44'	**24.0" Round Culvert 049 w/ 4.8" inside fill** L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 637.04' / 636.64' S= 0.0080 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 2.69 sf
#2	Primary	640.54'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.09 cfs @ 14.04 hrs HW=637.52' (Free Discharge)
└**1=Culvert 049** (Inlet Controls 0.09 cfs @ 0.71 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 91P: Culvert 049



Summary for Pond 92P: Culvert 050

[58] Hint: Peaked 0.18' above defined flood level

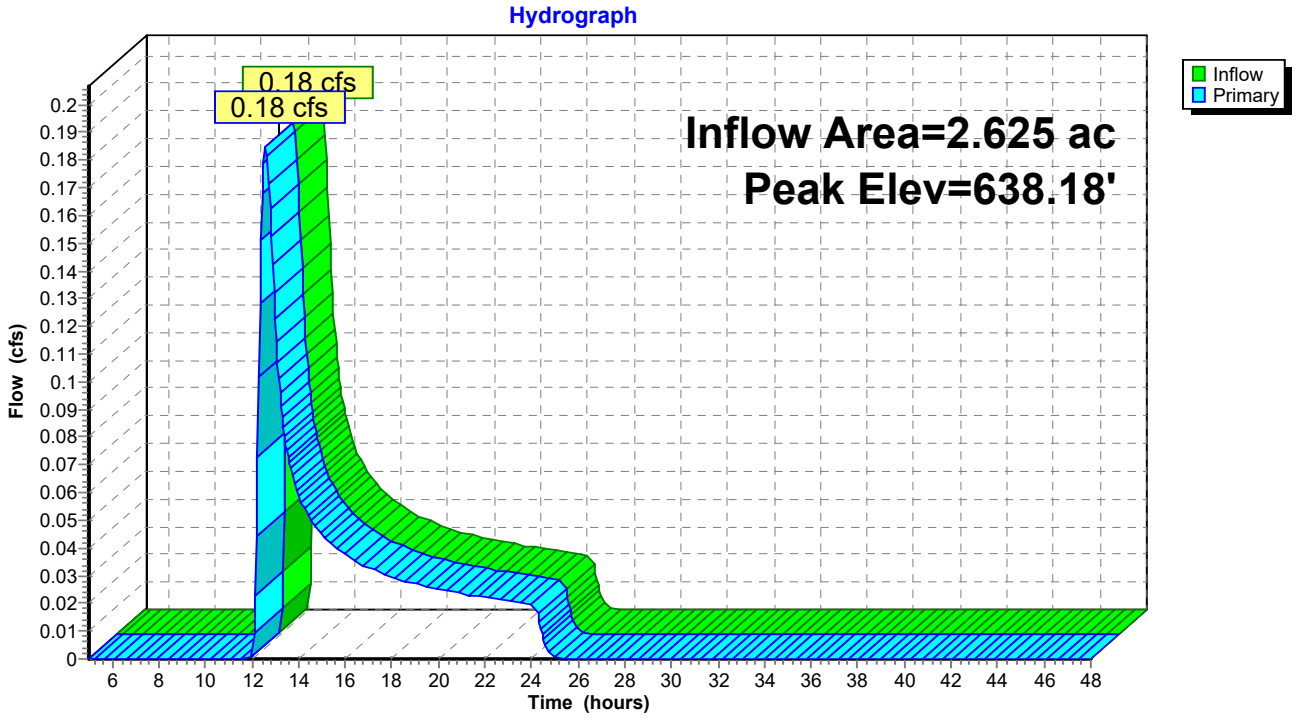
Inflow Area = 2.625 ac, 0.00% Impervious, Inflow Depth = 0.19" for 1-yr event
Inflow = 0.18 cfs @ 12.59 hrs, Volume= 0.042 af
Outflow = 0.18 cfs @ 12.59 hrs, Volume= 0.042 af, Atten= 0%, Lag= 0.0 min
Primary = 0.18 cfs @ 12.59 hrs, Volume= 0.042 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 638.18' @ 12.59 hrs
Flood Elev= 638.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	638.03'	**24.0" Round Culvert 050 w/ 4.8" inside fill** L= 63.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 637.63' / 637.55' S= 0.0013 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 2.69 sf
#2	Primary	641.13'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.18 cfs @ 12.59 hrs HW=638.18' (Free Discharge)
└**1=Culvert 050** (Barrel Controls 0.18 cfs @ 0.99 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 92P: Culvert 050



Summary for Pond 93P: Culvert 054

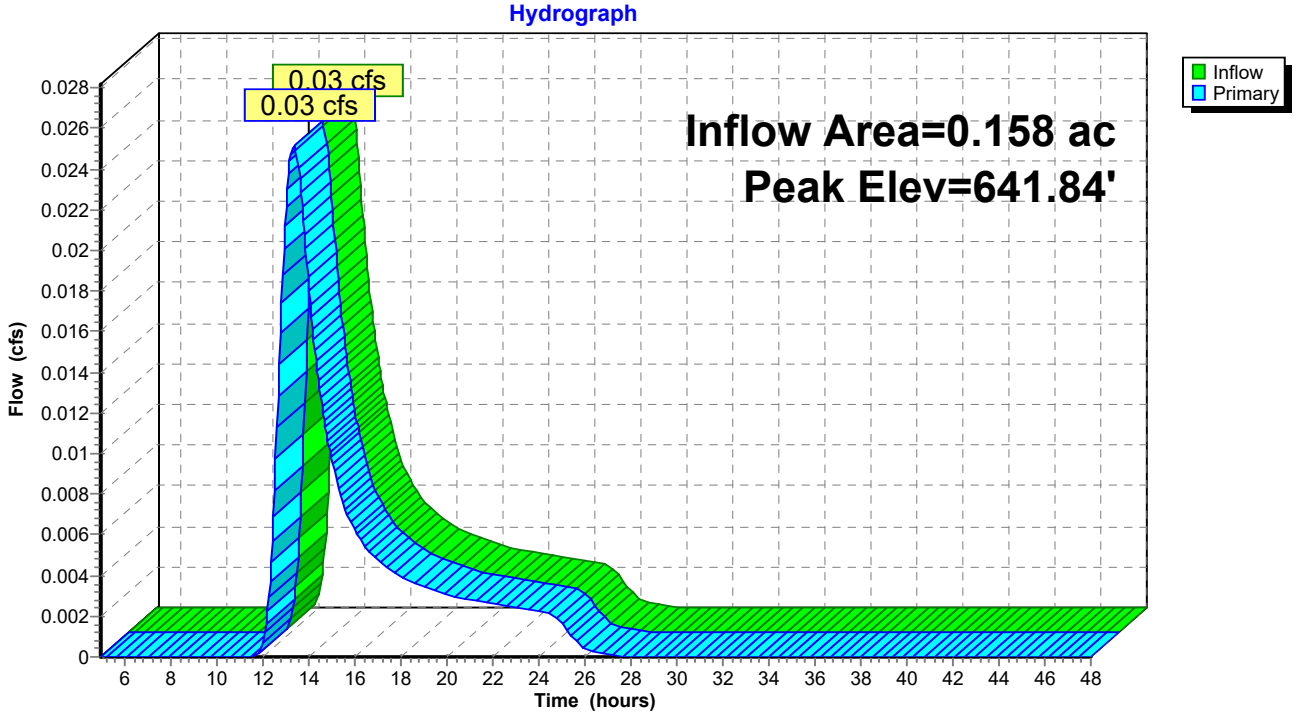
Inflow Area = 0.158 ac, 0.00% Impervious, Inflow Depth = 0.52" for 1-yr event
Inflow = 0.03 cfs @ 13.39 hrs, Volume= 0.007 af
Outflow = 0.03 cfs @ 13.39 hrs, Volume= 0.007 af, Atten= 0%, Lag= 0.0 min
Primary = 0.03 cfs @ 13.39 hrs, Volume= 0.007 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 641.84' @ 13.39 hrs
Flood Elev= 642.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	641.80'	**24.0" Round Culvert 054 w/ 4.8" inside fill** L= 32.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 641.40' / 641.36' S= 0.0012 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 2.69 sf
#2	Primary	644.90'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.02 cfs @ 13.39 hrs HW=641.84' (Free Discharge)
└**1=Culvert 054** (Barrel Controls 0.02 cfs @ 0.45 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 93P: Culvert 054



Time span=5.00-48.00 hrs, dt=0.05 hrs, 861 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment63S: DA 32 Runoff Area=83.916 ac 0.00% Impervious Runoff Depth=1.25"
Flow Length=3,167' Tc=219.6 min CN=77 Runoff=20.08 cfs 8.725 af

Subcatchment64S: DA 33 Runoff Area=8.458 ac 0.00% Impervious Runoff Depth=0.54"
Flow Length=1,546' Tc=38.9 min CN=63 Runoff=2.27 cfs 0.382 af

Subcatchment65S: DA 34 Runoff Area=3.000 ac 0.00% Impervious Runoff Depth=0.91"
Flow Length=915' Tc=184.4 min CN=71 Runoff=0.57 cfs 0.227 af

Subcatchment66S: DA 36 Runoff Area=7.023 ac 21.33% Impervious Runoff Depth=1.01"
Flow Length=1,365' Tc=34.8 min CN=73 Runoff=4.72 cfs 0.594 af

Subcatchment67S: DA 37 Runoff Area=2.575 ac 0.00% Impervious Runoff Depth=0.21"
Flow Length=497' Tc=12.2 min CN=53 Runoff=0.20 cfs 0.045 af

Subcatchment68S: DA 38 Runoff Area=5.423 ac 0.00% Impervious Runoff Depth=0.00"
Flow Length=1,009' Tc=22.2 min CN=33 Runoff=0.00 cfs 0.000 af

Subcatchment69S: DA 39 Runoff Area=0.717 ac 0.00% Impervious Runoff Depth=0.39"
Flow Length=394' Tc=15.2 min CN=59 Runoff=0.17 cfs 0.023 af

Subcatchment70S: DA 40 Runoff Area=20.817 ac 2.01% Impervious Runoff Depth=1.31"
Flow Length=1,139' Tc=84.9 min CN=78 Runoff=10.88 cfs 2.273 af

Subcatchment71S: DA 41 Runoff Area=1.015 ac 0.00% Impervious Runoff Depth=1.31"
Flow Length=465' Tc=110.2 min CN=78 Runoff=0.43 cfs 0.111 af

Subcatchment72S: DA 45 Runoff Area=13.208 ac 0.00% Impervious Runoff Depth=1.37"
Flow Length=1,379' Tc=135.3 min CN=79 Runoff=5.09 cfs 1.513 af

Subcatchment73S: DA 48 Runoff Area=15.708 ac 5.41% Impervious Runoff Depth=1.19"
Flow Length=1,032' Tc=34.0 min CN=76 Runoff=12.93 cfs 1.554 af

Subcatchment74S: DA 49 Runoff Area=2.625 ac 0.00% Impervious Runoff Depth=0.86"
Flow Length=1,106' Tc=121.3 min CN=70 Runoff=0.63 cfs 0.188 af

Subcatchment75S: DA 50 Runoff Area=2.625 ac 0.00% Impervious Runoff Depth=0.86"
Flow Length=619' Tc=30.2 min CN=70 Runoff=1.54 cfs 0.188 af

Subcatchment76S: DA 54 Runoff Area=0.158 ac 0.00% Impervious Runoff Depth=1.51"
Flow Length=100' Slope=0.0001 '/' Tc=98.2 min CN=81 Runoff=0.09 cfs 0.020 af

Pond 77P: Culvert 032 Peak Elev=620.00' Inflow=20.08 cfs 8.725 af
Outflow=20.08 cfs 8.725 af

Pond 78P: Culvert 033 Peak Elev=646.84' Inflow=2.27 cfs 0.382 af
Outflow=2.27 cfs 0.382 af

Pond 79P: Culvert 034 Peak Elev=647.72' Inflow=0.57 cfs 0.227 af
Outflow=0.57 cfs 0.227 af

Pond 80P: Culvert 036 Peak Elev=634.62' Inflow=4.72 cfs 0.594 af
Outflow=4.72 cfs 0.594 af

Pond 81P: Culvert 037 Peak Elev=653.79' Inflow=0.20 cfs 0.045 af
Outflow=0.20 cfs 0.045 af

Pond 82P: Culvert 038 Peak Elev=644.56' Inflow=0.00 cfs 0.000 af
Outflow=0.00 cfs 0.000 af

Pond 83P: Culvert 039 Peak Elev=644.16' Inflow=0.17 cfs 0.023 af
Outflow=0.17 cfs 0.023 af

Pond 84P: Culvert 040 Peak Elev=637.55' Inflow=10.88 cfs 2.273 af
Outflow=10.88 cfs 2.273 af

Pond 86P: Culvert 041 Peak Elev=637.81' Inflow=0.43 cfs 0.111 af
Outflow=0.43 cfs 0.111 af

Pond 87P: Culvert 045 Peak Elev=636.78' Inflow=5.09 cfs 1.513 af
Outflow=5.09 cfs 1.513 af

Pond 89P: Culvert 048 Peak Elev=636.51' Inflow=12.93 cfs 1.554 af
Outflow=12.93 cfs 1.554 af

Pond 91P: Culvert 049 Peak Elev=637.71' Inflow=0.63 cfs 0.188 af
Outflow=0.63 cfs 0.188 af

Pond 92P: Culvert 050 Peak Elev=638.57' Inflow=1.54 cfs 0.188 af
Outflow=1.54 cfs 0.188 af

Pond 93P: Culvert 054 Peak Elev=641.89' Inflow=0.09 cfs 0.020 af
Outflow=0.09 cfs 0.020 af

Total Runoff Area = 167.268 ac Runoff Volume = 15.841 af Average Runoff Depth = 1.14"
98.35% Pervious = 164.502 ac 1.65% Impervious = 2.766 ac

Summary for Subcatchment 63S: DA 32

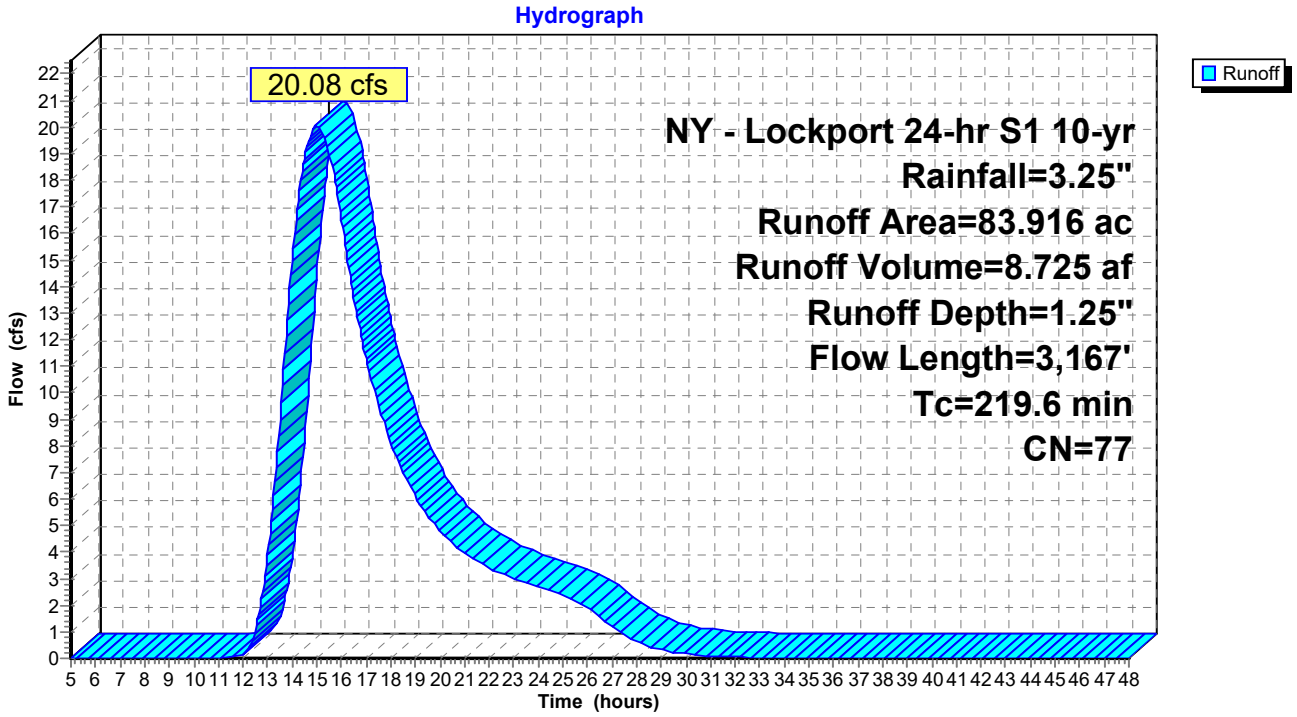
Runoff = 20.08 cfs @ 14.91 hrs, Volume= 8.725 af, Depth= 1.25"
Routed to Pond 77P : Culvert 032

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 10-yr Rainfall=3.25"

	Area (ac)	CN	Description
*	0.446	82	B-MEADOW, NON-GRAZED
*	0.142	43	D-WOODS/GRASS COMB., GOOD
*	13.840	81	D-MEADOW, NON-GRAZED
*	8.160	82	D-MEADOW, NON-GRAZED
*	1.781	21	D-75% GRASS COVER, GOOD
*	3.035	22	D-50-75% GRASS COVER, FAIR
*	24.498	81	D-MEADOW, NON-GRAZED
*	5.711	82	D-MEADOW, NON-GRAZED
*	0.003	21	D-75% GRASS COVER, GOOD
*	0.428	22	D-50-75% GRASS COVER, FAIR
*	18.333	81	D-MEADOW, NON-GRAZED
*	7.496	82	D-MEADOW, NON-GRAZED
*	0.043	90	D-WATER SURFACE, 0% IMP
	83.916	77	Weighted Average
	83.916		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	100	0.0610	0.22		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
3.0	144	0.0130	0.80		**Shallow Concentrated Flow, 144** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
9.2	300	0.0060	0.54		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
12.2	162	0.0010	0.22		**Shallow Concentrated Flow, 162** Short Grass Pasture Kv= 7.0 fps
10.1	300	0.0050	0.49		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
8.3	290	0.0070	0.59		**Shallow Concentrated Flow, 290** Short Grass Pasture Kv= 7.0 fps
0.6	50	0.0400	1.40		**Shallow Concentrated Flow, 50** Short Grass Pasture Kv= 7.0 fps
4.4	242	0.0170	0.91		**Shallow Concentrated Flow, 242** Short Grass Pasture Kv= 7.0 fps
6.3	300	0.0130	0.80		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
18.8	79	0.0001	0.07		**Shallow Concentrated Flow, 79** Short Grass Pasture Kv= 7.0 fps
219.6	3,167	Total			

Subcatchment 63S: DA 32



Summary for Subcatchment 64S: DA 33

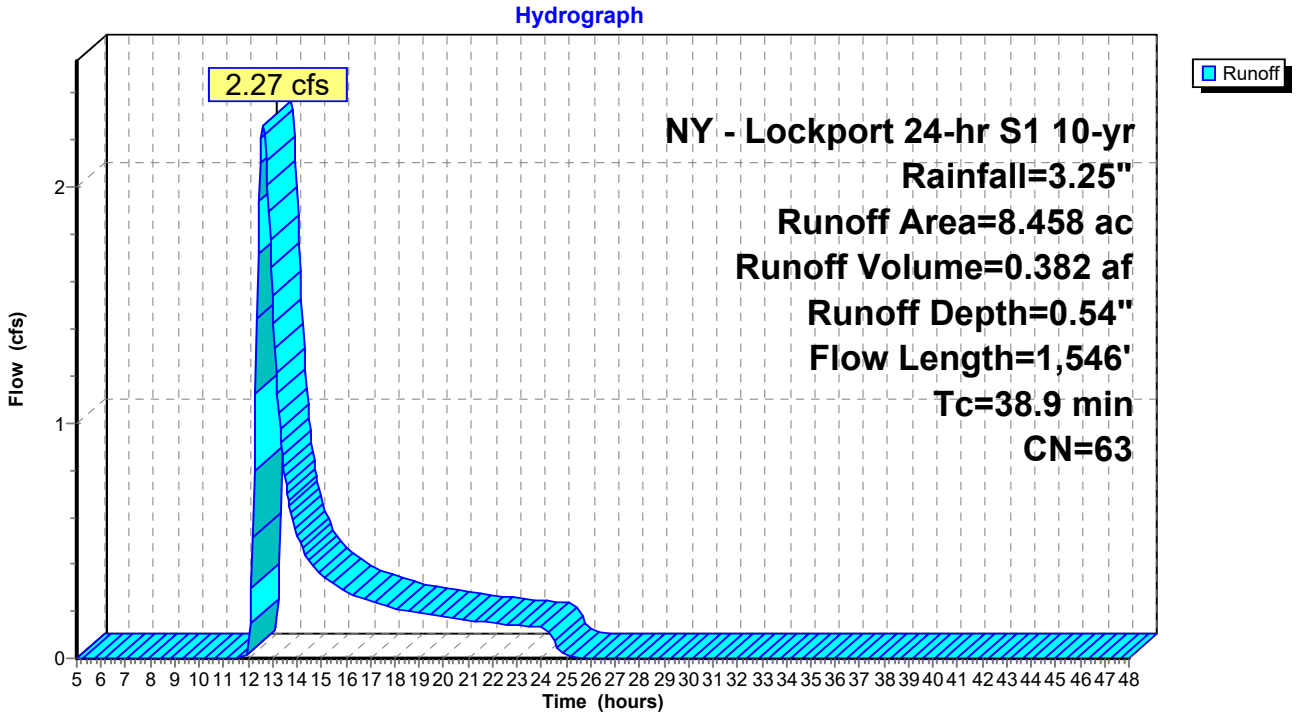
Runoff = 2.27 cfs @ 12.62 hrs, Volume= 0.382 af, Depth= 0.54"
Routed to Pond 78P : Culvert 033

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 10-yr Rainfall=3.25"

	Area (ac)	CN	Description
*	0.131	61	B-75% GRASS COVER, GOOD
*	0.456	69	B-50-75% GRASS COVER, FAIR
*	2.999	58	B-MEADOW, NON-GRAZED
*	3.353	58	B-MEADOW, NON-GRAZED
*	0.019	80	D-75% GRASS COVER, GOOD
*	0.541	84	D-50-75% GRASS COVER, FAIR
*	0.959	78	D-MEADOW, NON-GRAZED
	8.458	63	Weighted Average
	8.458		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0340	0.17		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
2.3	150	0.0250	1.11		**Shallow Concentrated Flow, 150** Short Grass Pasture Kv= 7.0 fps
2.1	147	0.0290	1.19		**Shallow Concentrated Flow, 147** Short Grass Pasture Kv= 7.0 fps
2.1	160	0.0320	1.25		**Shallow Concentrated Flow, 160** Short Grass Pasture Kv= 7.0 fps
2.1	160	0.0320	1.25		**Shallow Concentrated Flow, 160** Short Grass Pasture Kv= 7.0 fps
4.2	167	0.0090	0.66		**Shallow Concentrated Flow, 167** Short Grass Pasture Kv= 7.0 fps
13.6	362	0.0040	0.44		**Shallow Concentrated Flow, 362** Short Grass Pasture Kv= 7.0 fps
3.0	300	0.0560	1.66		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
38.9	1,546	Total			

Subcatchment 64S: DA 33



Summary for Subcatchment 65S: DA 34

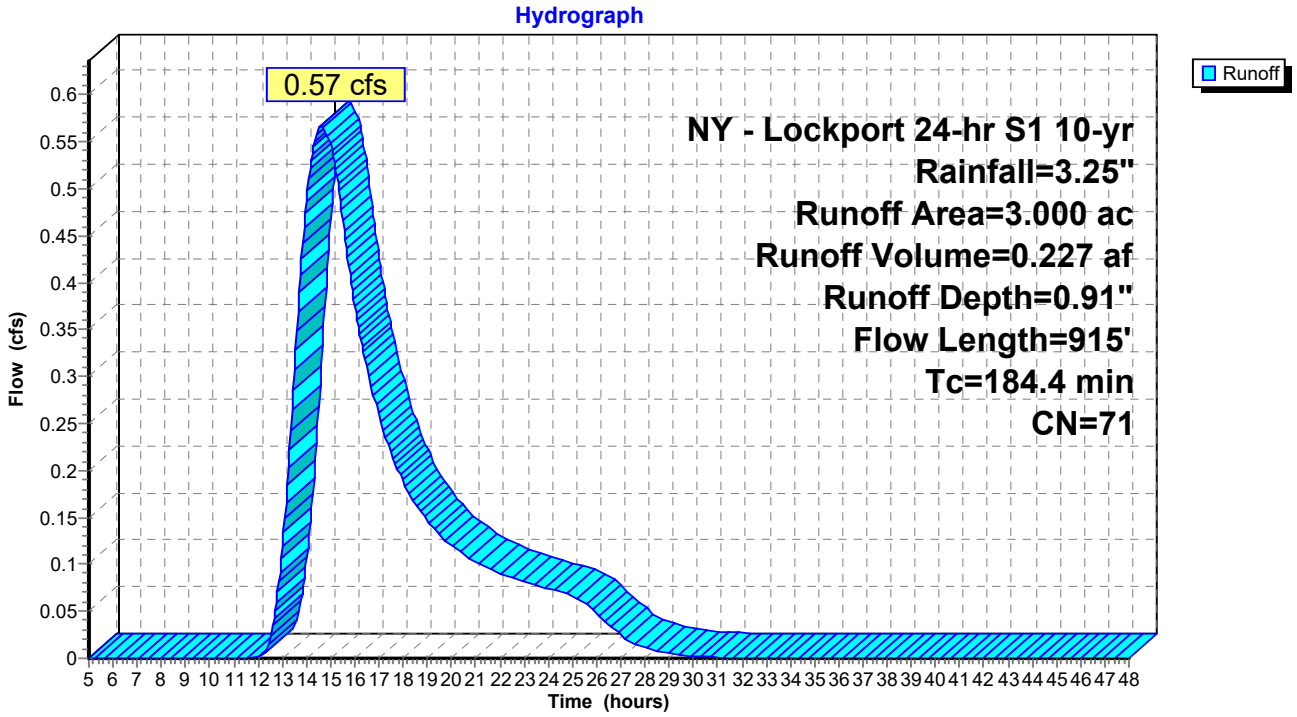
Runoff = 0.57 cfs @ 14.57 hrs, Volume= 0.227 af, Depth= 0.91"
Routed to Pond 79P : Culvert 034

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 10-yr Rainfall=3.25"

	Area (ac)	CN	Description
*	0.033	58	B-MEADOW, NON-GRAZED
*	0.719	58	B-MEADOW, NON-GRAZED
*	0.039	80	D-75% GRASS COVER, GOOD
*	0.086	84	D-50-75% GRASS COVER, FAIR
*	0.864	78	D-MEADOW, NON-GRAZED
*	0.126	78	D-MEADOW, NON-GRAZED
*	1.133	71	C-MEADOW, NON-GRAZED
	3.000	71	Weighted Average
	3.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
98.2	100	0.0001	0.02		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
3.6	164	0.0120	0.77		**Shallow Concentrated Flow, 164** Short Grass Pasture Kv= 7.0 fps
8.5	300	0.0070	0.59		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
2.7	51	0.0020	0.31		**Shallow Concentrated Flow, 51** Short Grass Pasture Kv= 7.0 fps
184.4	915	Total			

Subcatchment 65S: DA 34



Summary for Subcatchment 66S: DA 36

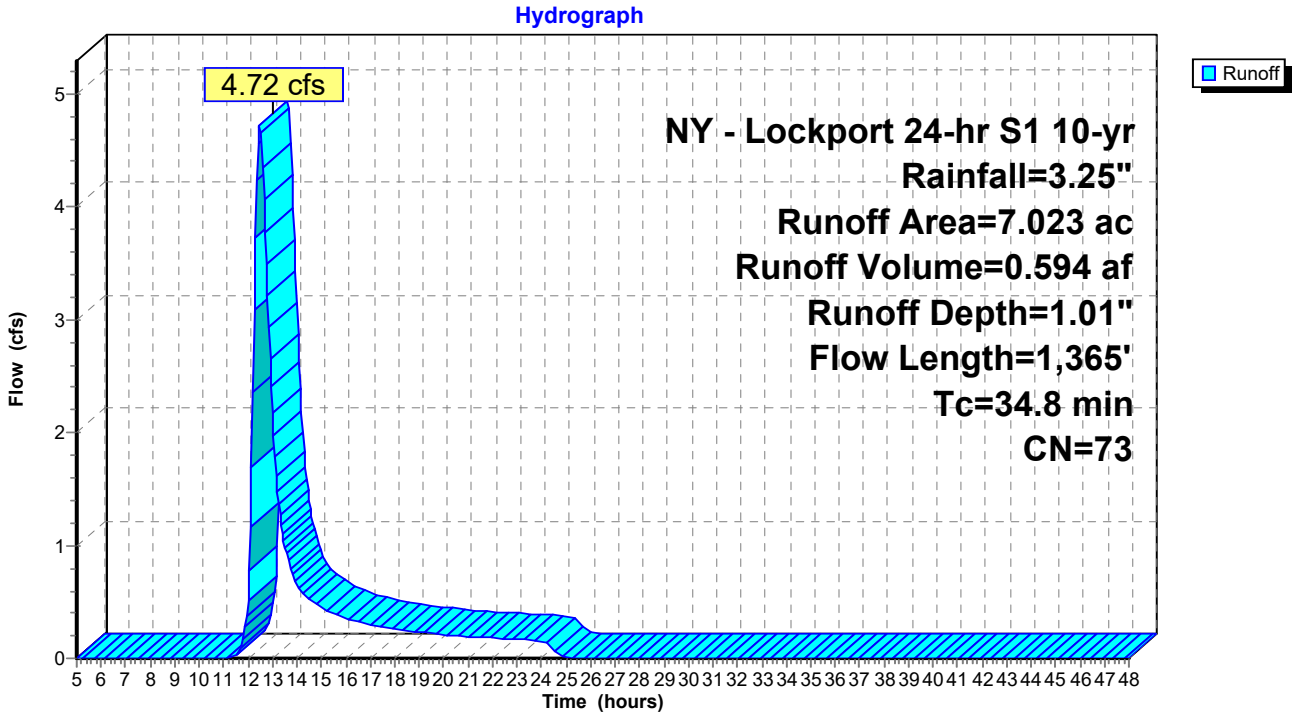
Runoff = 4.72 cfs @ 12.48 hrs, Volume= 0.594 af, Depth= 1.01"
Routed to Pond 80P : Culvert 036

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 10-yr Rainfall=3.25"

	Area (ac)	CN	Description
*	1.408	30	A-MEADOW, NON-GRAZED
*	3.440	78	D-MEADOW, NON-GRAZED
*	0.677	78	D-MEADOW, NON-GRAZED
*	1.498	98	D-WATER SURFACE, 0% IMP
	7.023	73	Weighted Average
	5.525		78.67% Pervious Area
	1.498		21.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0390	0.18		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
0.9	77	0.0420	1.43		**Shallow Concentrated Flow, 77** Short Grass Pasture Kv= 7.0 fps
2.2	234	0.0640	1.77		**Shallow Concentrated Flow, 234** Short Grass Pasture Kv= 7.0 fps
2.8	268	0.0520	1.60		**Shallow Concentrated Flow, 268** Short Grass Pasture Kv= 7.0 fps
4.0	256	0.0230	1.06		**Shallow Concentrated Flow, 256** Short Grass Pasture Kv= 7.0 fps
8.5	225	0.0040	0.44		**Shallow Concentrated Flow, 225** Short Grass Pasture Kv= 7.0 fps
5.0	114	0.0030	0.38		**Shallow Concentrated Flow, 114** Short Grass Pasture Kv= 7.0 fps
2.4	91	0.0080	0.63		**Shallow Concentrated Flow, 91** Short Grass Pasture Kv= 7.0 fps
34.8	1,365	Total			

Subcatchment 66S: DA 36



Summary for Subcatchment 67S: DA 37

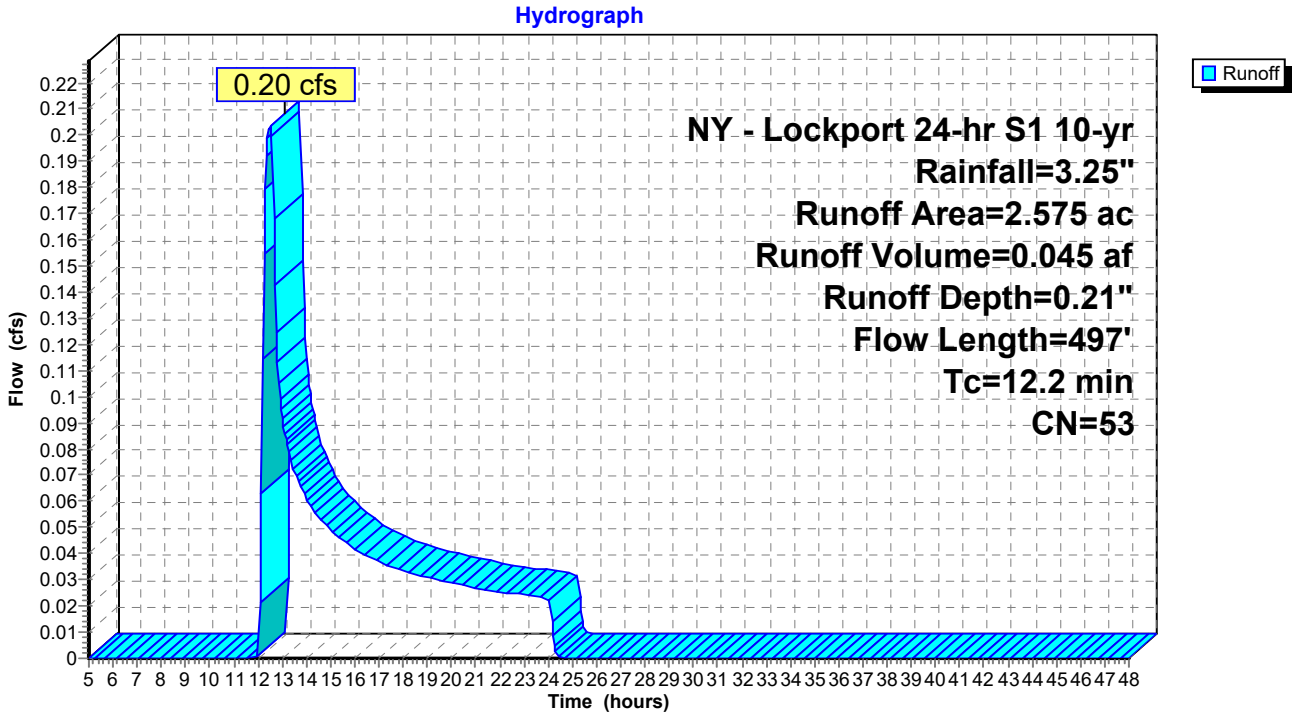
Runoff = 0.20 cfs @ 12.50 hrs, Volume= 0.045 af, Depth= 0.21"
Routed to Pond 81P : Culvert 037

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 10-yr Rainfall=3.25"

	Area (ac)	CN	Description
*	1.353	30	A-MEADOW, NON-GRAZED
*	1.222	78	D-MEADOW, NON-GRAZED
	2.575	53	Weighted Average
	2.575		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.0590	0.22		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
0.4	41	0.0520	1.60		**Shallow Concentrated Flow, 41** Short Grass Pasture Kv= 7.0 fps
0.6	48	0.0420	1.43		**Shallow Concentrated Flow, 48** Short Grass Pasture Kv= 7.0 fps
0.6	76	0.0800	1.98		**Shallow Concentrated Flow, 76** Short Grass Pasture Kv= 7.0 fps
1.0	71	0.0290	1.19		**Shallow Concentrated Flow, 71** Short Grass Pasture Kv= 7.0 fps
0.9	82	0.0470	1.52		**Shallow Concentrated Flow, 82** Short Grass Pasture Kv= 7.0 fps
1.1	79	0.0290	1.19		**Shallow Concentrated Flow, 79** Short Grass Pasture Kv= 7.0 fps
12.2	497	Total			

Subcatchment 67S: DA 37



Summary for Subcatchment 68S: DA 38

[45] Hint: Runoff=Zero

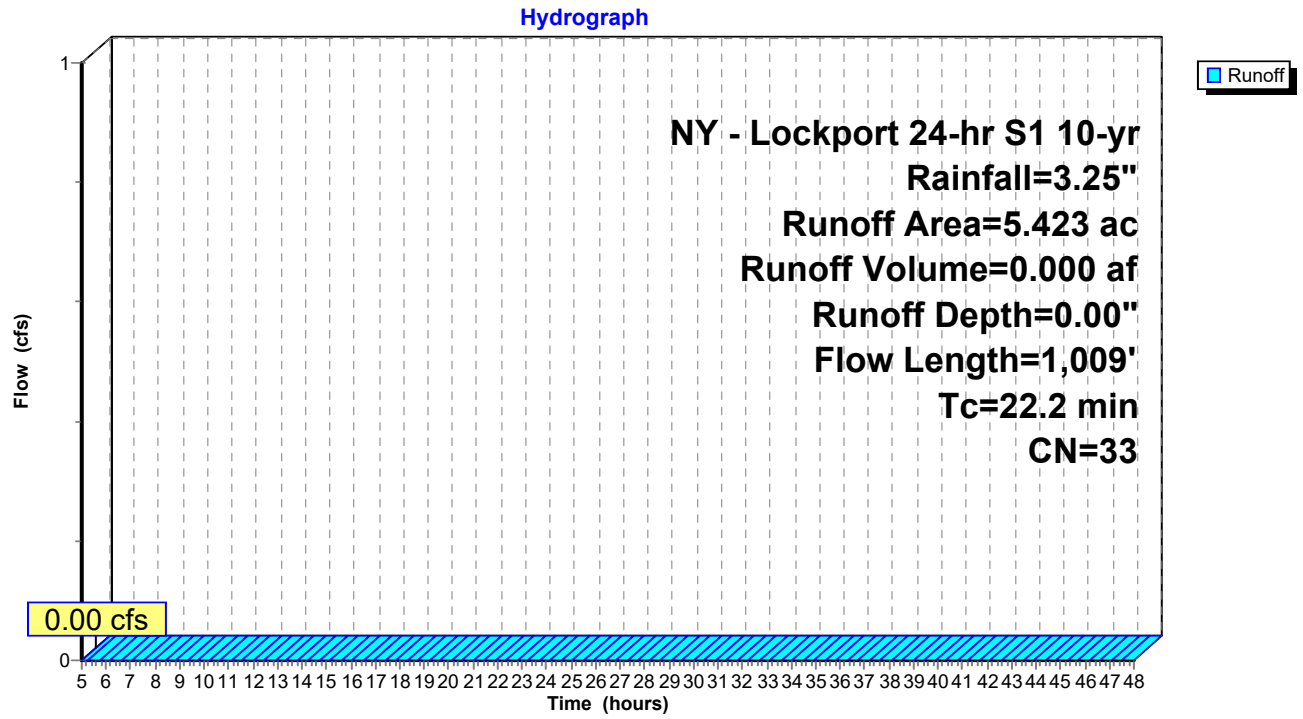
Runoff = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Depth= 0.00"
Routed to Pond 82P : Culvert 038

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 10-yr Rainfall=3.25"

	Area (ac)	CN	Description
*	0.011	39	A-75% GRASS COVER, GOOD
*	0.256	49	A-50-75% GRASS COVER, FAIR
*	4.945	30	A-MEADOW, NON-GRAZED
*	0.148	69	B-50-75% GRASS COVER, FAIR
*	0.007	58	B-MEADOW, NON-GRAZED
*	0.056	78	D-MEADOW, NON-GRAZED
	5.423	33	Weighted Average
	5.423		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0400	0.19		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
2.3	130	0.0180	0.94		**Shallow Concentrated Flow, 130** Short Grass Pasture Kv= 7.0 fps
2.3	179	0.0350	1.31		**Shallow Concentrated Flow, 179** Short Grass Pasture Kv= 7.0 fps
2.8	236	0.0410	1.42		**Shallow Concentrated Flow, 236** Short Grass Pasture Kv= 7.0 fps
0.9	80	0.0470	1.52		**Shallow Concentrated Flow, 80** Short Grass Pasture Kv= 7.0 fps
1.8	132	0.0310	1.23		**Shallow Concentrated Flow, 132** Short Grass Pasture Kv= 7.0 fps
3.2	152	0.0130	0.80		**Shallow Concentrated Flow, 152** Short Grass Pasture Kv= 7.0 fps
22.2	1,009	Total			

Subcatchment 68S: DA 38



Summary for Subcatchment 69S: DA 39

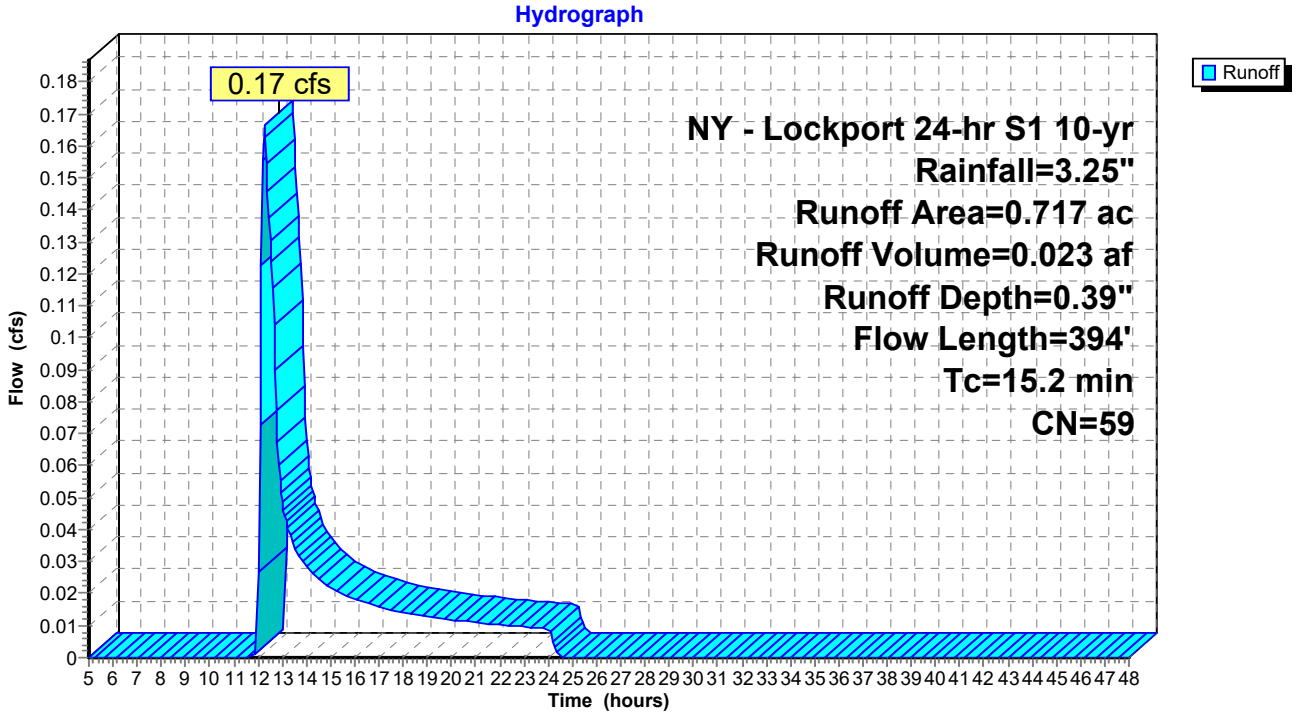
Runoff = 0.17 cfs @ 12.26 hrs, Volume= 0.023 af, Depth= 0.39"
Routed to Pond 83P : Culvert 039

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 10-yr Rainfall=3.25"

	Area (ac)	CN	Description
*	0.131	49	A-50-75% GRASS COVER, FAIR
*	0.104	30	A-MEADOW, NON-GRAZED
*	0.443	69	B-50-75% GRASS COVER, FAIR
*	0.039	58	B-MEADOW, NON-GRAZED
	0.717	59	Weighted Average
	0.717		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.0330	0.17		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
1.3	123	0.0480	1.53		**Shallow Concentrated Flow, 123** Short Grass Pasture Kv= 7.0 fps
4.3	171	0.0090	0.66		**Shallow Concentrated Flow, 171** Short Grass Pasture Kv= 7.0 fps
15.2	394	Total			

Subcatchment 69S: DA 39



Summary for Subcatchment 70S: DA 40

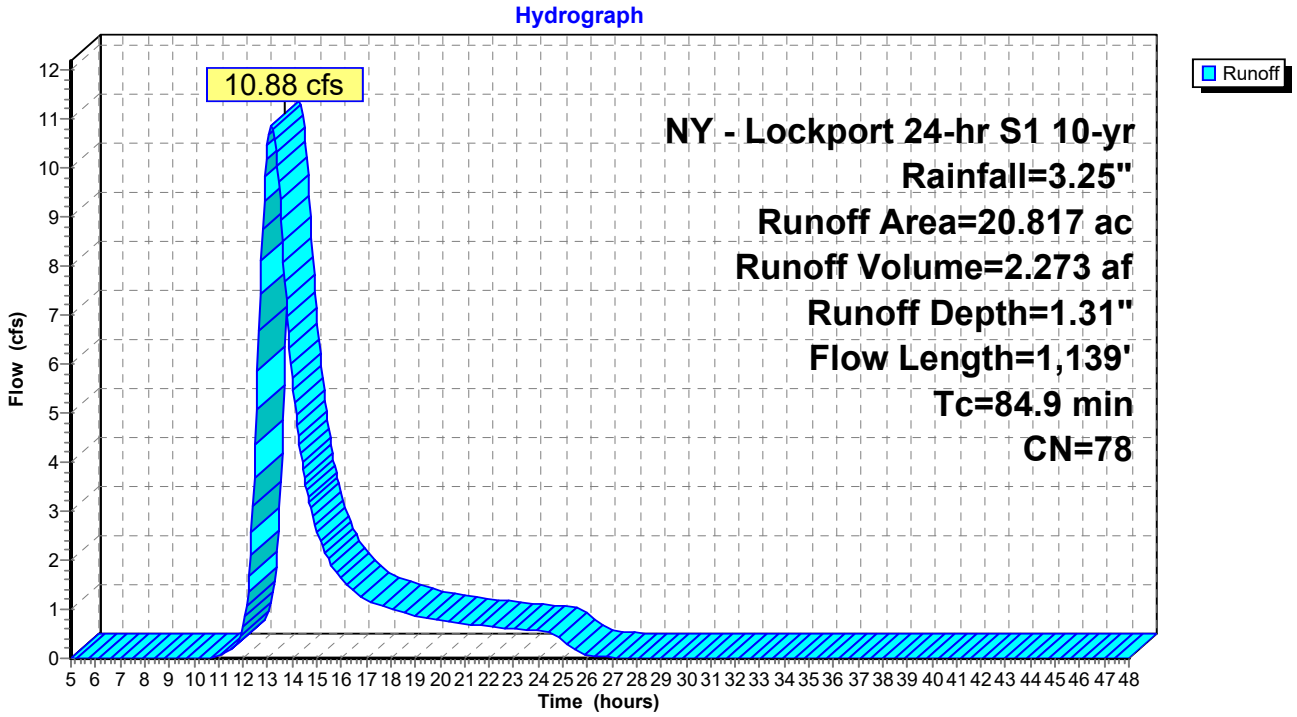
Runoff = 10.88 cfs @ 13.14 hrs, Volume= 2.273 af, Depth= 1.31"
Routed to Pond 84P : Culvert 040

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 10-yr Rainfall=3.25"

	Area (ac)	CN	Description
*	0.117	49	A-50-75% GRASS COVER, FAIR
*	0.133	30	A-MEADOW, NON-GRAZED
*	0.857	80	D-75% GRASS COVER, GOOD
*	0.371	84	D-50-75% GRASS COVER, FAIR
*	0.267	79	D-WOOD/GRASS COMC., GOOD
*	18.654	78	D-MEADOW, NON-GRAZED
*	0.418	98	D-WATER SURFACE, 0% IMP
	20.817	78	Weighted Average
	20.399		97.99% Pervious Area
	0.418		2.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.2	100	0.0030	0.07		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
11.2	258	0.0030	0.38		**Shallow Concentrated Flow, 258** Short Grass Pasture Kv= 7.0 fps
31.4	132	0.0001	0.07		**Shallow Concentrated Flow, 132** Short Grass Pasture Kv= 7.0 fps
4.0	176	0.0110	0.73		**Shallow Concentrated Flow, 176** Short Grass Pasture Kv= 7.0 fps
7.7	270	0.0070	0.59		**Shallow Concentrated Flow, 270** Short Grass Pasture Kv= 7.0 fps
5.4	203	0.0080	0.63		**Shallow Concentrated Flow, 203** Short Grass Pasture Kv= 7.0 fps
84.9	1,139	Total			

Subcatchment 70S: DA 40



Summary for Subcatchment 71S: DA 41

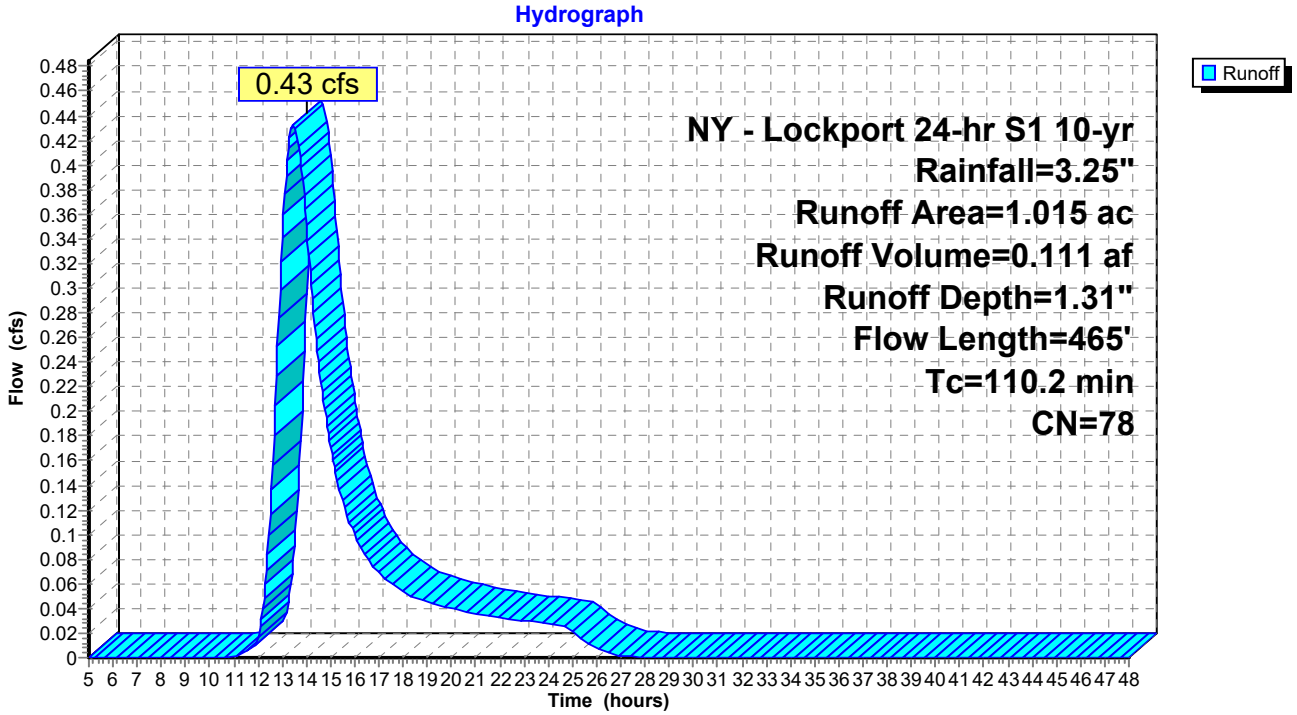
Runoff = 0.43 cfs @ 13.46 hrs, Volume= 0.111 af, Depth= 1.31"
Routed to Pond 86P : Culvert 041

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 10-yr Rainfall=3.25"

	Area (ac)	CN	Description
*	0.185	78	D-MEADOW, NON-GRAZED
*	0.830	78	D-MEADOW, NON-GRAZED
	1.015	78	Weighted Average
	1.015		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
98.2	100	0.0001	0.02		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
8.5	252	0.0050	0.49		**Shallow Concentrated Flow, 252** Short Grass Pasture Kv= 7.0 fps
3.5	113	0.0060	0.54		**Shallow Concentrated Flow, 113** Short Grass Pasture Kv= 7.0 fps
110.2	465	Total			

Subcatchment 71S: DA 41



Summary for Subcatchment 72S: DA 45

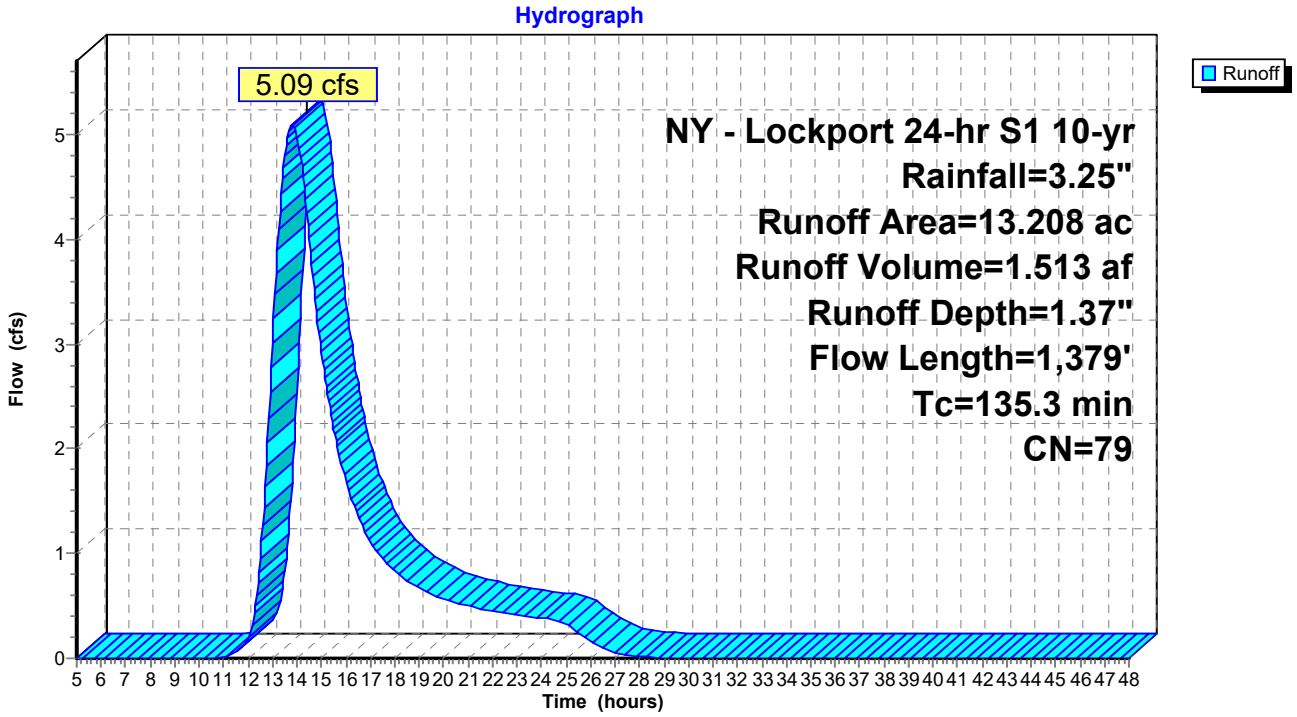
Runoff = 5.09 cfs @ 13.79 hrs, Volume= 1.513 af, Depth= 1.37"
Routed to Pond 87P : Culvert 045

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 10-yr Rainfall=3.25"

	Area (ac)	CN	Description
*	0.839	80	D-75% GRASS COVER, GOOD
*	0.532	84	D-50-75% GRASS COVER, FAIR
*	1.189	79	D-WOODS/GRASS COMB., FAIR
*	0.421	78	D-MEADOW, NON-GRAZED
*	0.610	80	D-75% GRASS COVER, GOOD
*	0.552	79	D-WOODS/GRASS COMB., FAIR
*	1.693	78	D-MEADOW, NON-GRAZED
*	0.909	80	D-75% GRASS COVER, GOOD
*	0.118	84	D-50-75% GRASS COVER, FAIR
*	6.345	78	D-MEADOW, NON-GRAZED
	13.208	79	Weighted Average
	13.208		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.0330	0.17		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
0.9	53	0.0220	1.04		**Shallow Concentrated Flow, 53** Short Grass Pasture Kv= 7.0 fps
2.3	140	0.0210	1.01		**Shallow Concentrated Flow, 140** Short Grass Pasture Kv= 7.0 fps
2.2	140	0.0220	1.04		**Shallow Concentrated Flow, 140** Short Grass Pasture Kv= 7.0 fps
5.8	230	0.0090	0.66		**Shallow Concentrated Flow, 230** Short Grass Pasture Kv= 7.0 fps
7.6	267	0.0070	0.59		**Shallow Concentrated Flow, 267** Short Grass Pasture Kv= 7.0 fps
43.8	184	0.0001	0.07		**Shallow Concentrated Flow, 184** Short Grass Pasture Kv= 7.0 fps
63.1	265	0.0001	0.07		**Shallow Concentrated Flow, 265** Short Grass Pasture Kv= 7.0 fps
135.3	1,379	Total			

Subcatchment 72S: DA 45



Summary for Subcatchment 73S: DA 48

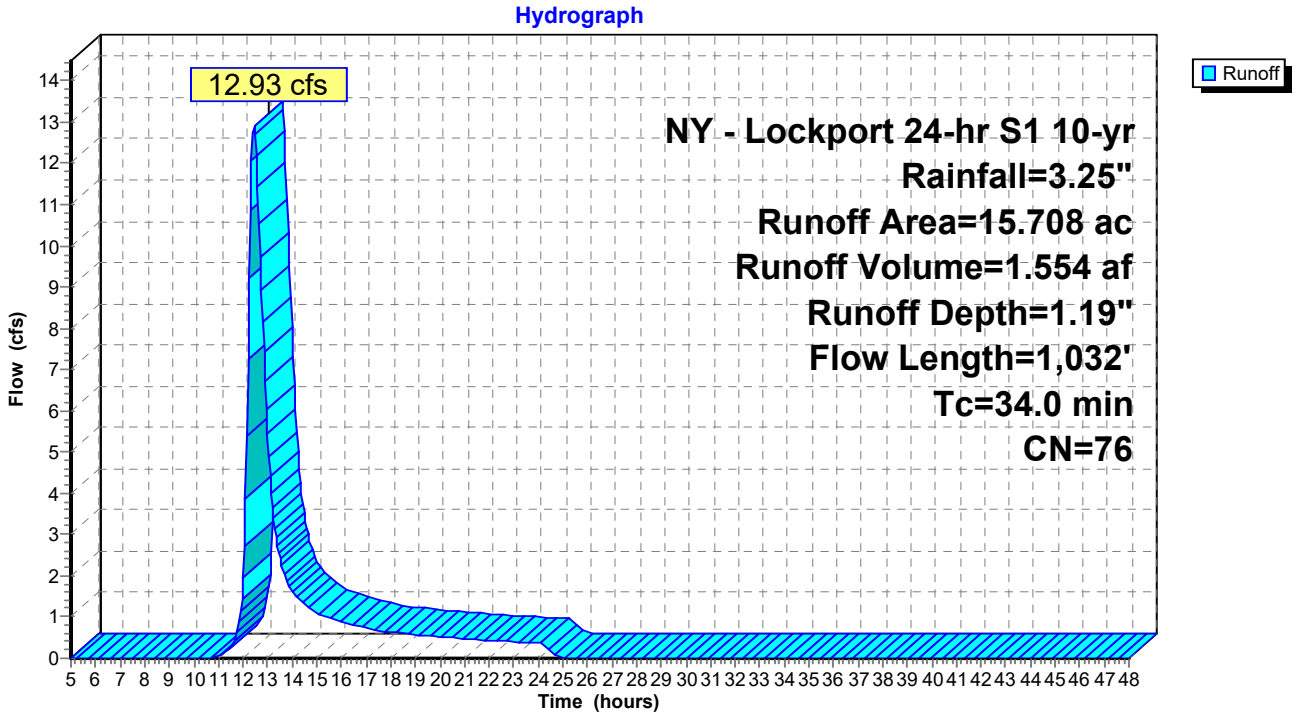
Runoff = 12.93 cfs @ 12.45 hrs, Volume= 1.554 af, Depth= 1.19"
Routed to Pond 89P : Culvert 048

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 10-yr Rainfall=3.25"

	Area (ac)	CN	Description
*	0.687	61	B-75% GRASS COVER, GOOD
*	0.310	69	B-50-75% GRASS COVER, FAIR
*	2.053	58	B-MEADOW, NON-GRAZED
*	0.028	80	D-75% GRASS COVER, GOOD
*	2.330	78	D-MEADOW, NON-GRAZED
*	9.450	78	D-MEADOW, NON-GRAZED
*	0.765	98	D-WATER SURFACE, 0% IMP
*	0.085	98	D-WATER SURACE, 0% IMP
	15.708	76	Weighted Average
	14.858		94.59% Pervious Area
	0.850		5.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.5	100	0.0120	0.12		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
2.1	148	0.0270	1.15		**Shallow Concentrated Flow, 148** Short Grass Pasture Kv= 7.0 fps
3.4	204	0.0200	0.99		**Shallow Concentrated Flow, 204** Short Grass Pasture Kv= 7.0 fps
6.0	300	0.0140	0.83		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
8.0	280	0.0070	0.59		**Shallow Concentrated Flow, 280** Short Grass Pasture Kv= 7.0 fps
34.0	1,032	Total			

Subcatchment 73S: DA 48



Summary for Subcatchment 74S: DA 49

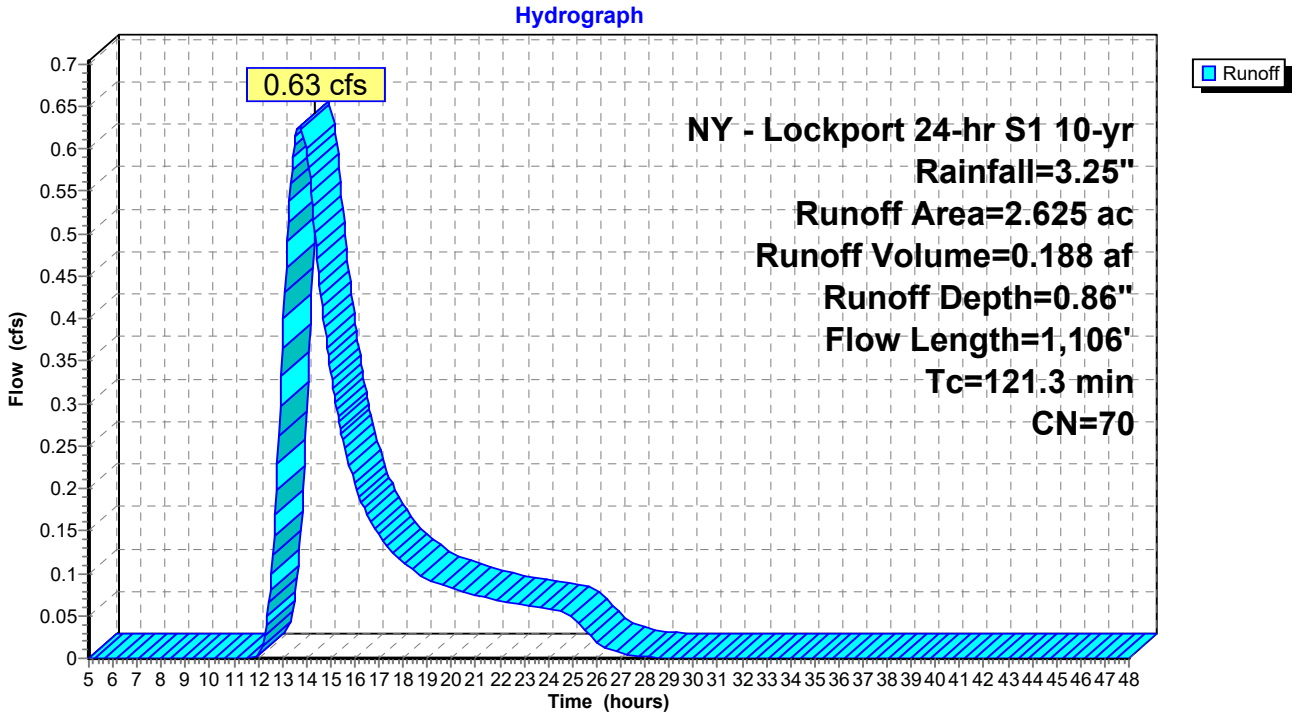
Runoff = 0.63 cfs @ 13.73 hrs, Volume= 0.188 af, Depth= 0.86"
Routed to Pond 91P : Culvert 049

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 10-yr Rainfall=3.25"

	Area (ac)	CN	Description
*	0.260	61	B-75% GRASS COVER, GOOD
*	1.275	69	B-50-75% GRASS COVER, FAIR
*	0.458	58	B-MEADOW, NON-GRAZED
*	0.108	80	D-75% GRASS COVER, GOOD
*	0.524	84	D-50-75% GRASS COVER,FAIR
*	0.000	78	D-MEADOW, NON-GRAZED
	2.625	70	Weighted Average
	2.625		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
98.2	100	0.0001	0.02		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
6.5	300	0.0120	0.77		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
5.1	204	0.0090	0.66		**Shallow Concentrated Flow, 204** Short Grass Pasture Kv= 7.0 fps
7.2	235	0.0060	0.54		**Shallow Concentrated Flow, 235** Short Grass Pasture Kv= 7.0 fps
4.3	267	0.0220	1.04		**Shallow Concentrated Flow, 267** Short Grass Pasture Kv= 7.0 fps
121.3	1,106	Total			

Subcatchment 74S: DA 49



Summary for Subcatchment 75S: DA 50

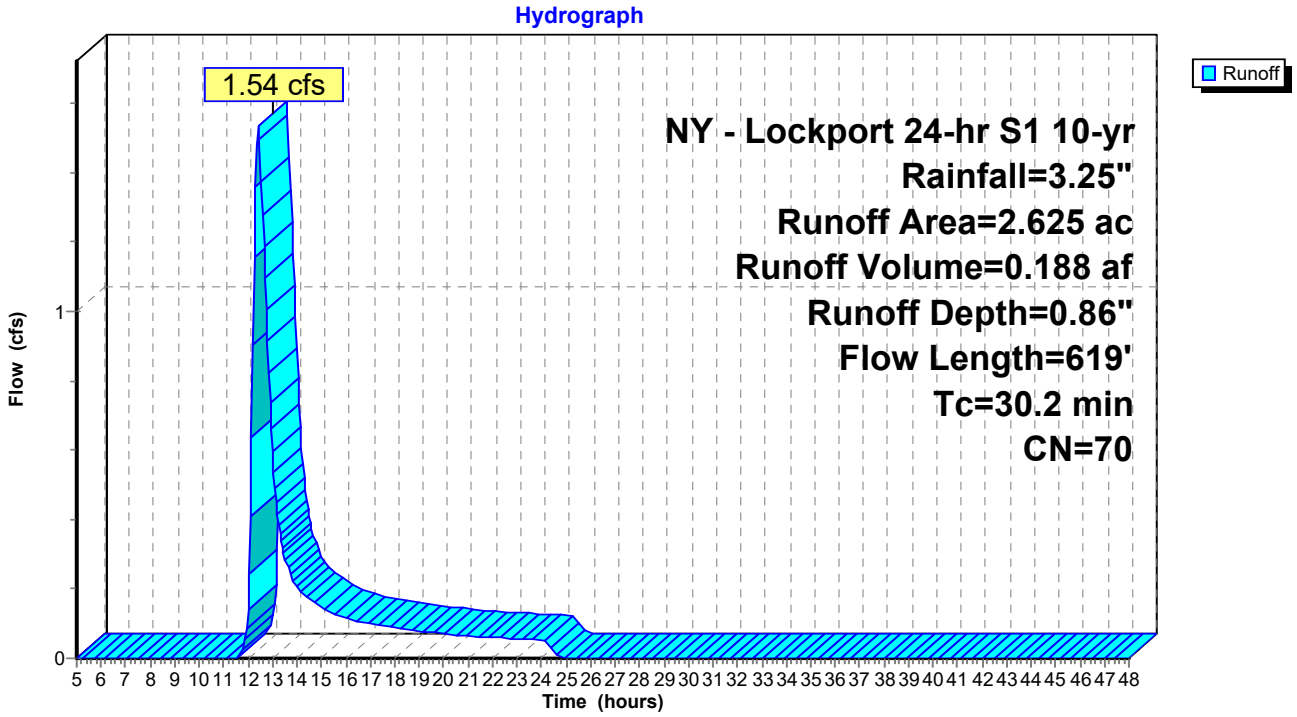
Runoff = 1.54 cfs @ 12.42 hrs, Volume= 0.188 af, Depth= 0.86"
Routed to Pond 92P : Culvert 050

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 10-yr Rainfall=3.25"

	Area (ac)	CN	Description
*	0.260	61	B-75% GRASS COVER, GOOD
*	1.275	69	B-50-75% GRASS COVER, FAIR
*	0.458	58	B-MEADOW, NON-GRAZED
*	0.108	80	D-75% GRASS COVER, GOOD
*	0.524	84	D-50-75% GRASS COVER,FAIR
*	0.000	78	D-MEADOW, NON-GRAZED
	2.625	70	Weighted Average
	2.625		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.9	100	0.0070	0.09		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
3.4	222	0.0240	1.08		**Shallow Concentrated Flow, 222** Short Grass Pasture Kv= 7.0 fps
4.1	154	0.0080	0.63		**Shallow Concentrated Flow, 154** Short Grass Pasture Kv= 7.0 fps
4.8	143	0.0050	0.49		**Shallow Concentrated Flow, 143** Short Grass Pasture Kv= 7.0 fps
30.2	619	Total			

Subcatchment 75S: DA 50



Summary for Subcatchment 76S: DA 54

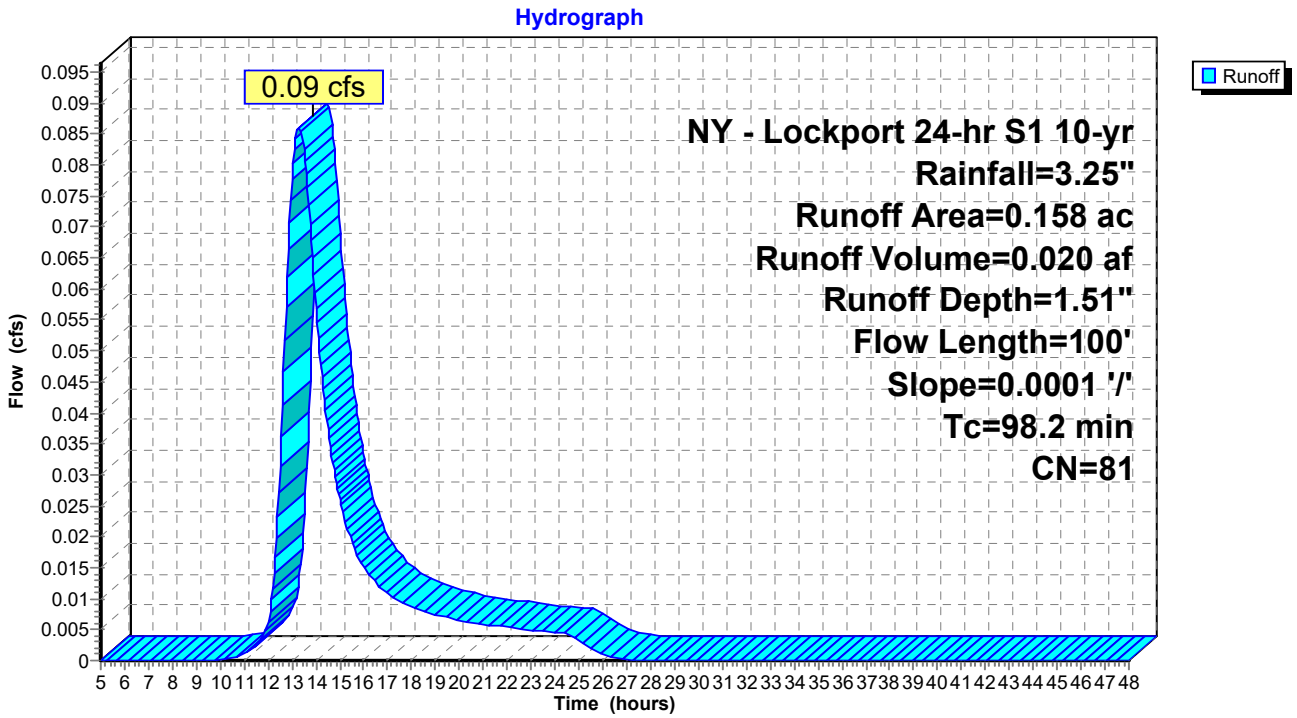
Runoff = 0.09 cfs @ 13.28 hrs, Volume= 0.020 af, Depth= 1.51"
Routed to Pond 93P : Culvert 054

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 10-yr Rainfall=3.25"

	Area (ac)	CN	Description
*	0.090	84	D-50-75% GRASS COVER, FAIR
*	0.067	78	D-MEADOW, NON-GRAZED
*	0.001	78	D-MEADOW, NON-GRAZED
	0.158	81	Weighted Average
	0.158		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
98.2	100	0.0001	0.02		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"

Subcatchment 76S: DA 54



Summary for Pond 77P: Culvert 032

[58] Hint: Peaked 4.00' above defined flood level

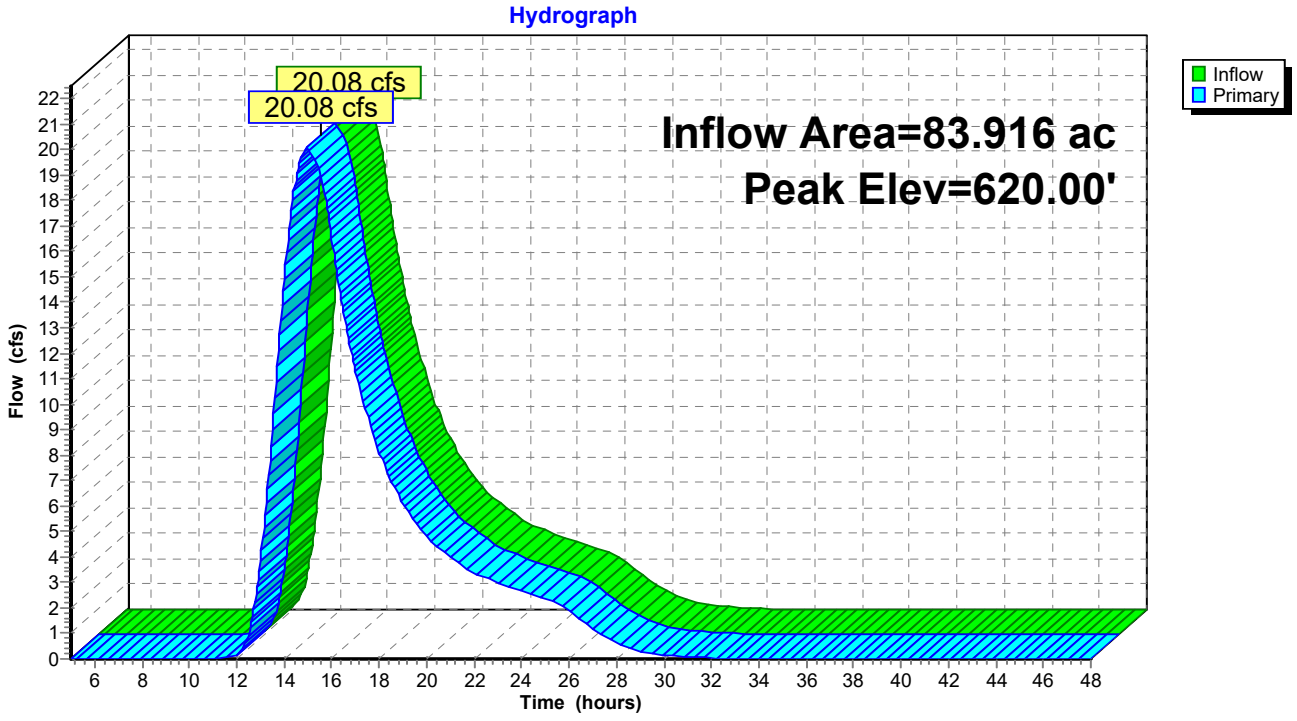
Inflow Area = 83.916 ac, 0.00% Impervious, Inflow Depth = 1.25" for 10-yr event
Inflow = 20.08 cfs @ 14.91 hrs, Volume= 8.725 af
Outflow = 20.08 cfs @ 14.91 hrs, Volume= 8.725 af, Atten= 0%, Lag= 0.0 min
Primary = 20.08 cfs @ 14.91 hrs, Volume= 8.725 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 620.00' @ 14.91 hrs
Flood Elev= 616.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	615.42'	**24.0" Round Culvert 032 w/ 4.8" inside fill** L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 615.02' / 614.18' S= 0.0168 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 2.69 sf
#2	Primary	620.02'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=20.07 cfs @ 14.91 hrs HW=620.00' (Free Discharge)
└**1=Culvert 032** (Inlet Controls 20.07 cfs @ 7.45 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 77P: Culvert 032



Summary for Pond 78P: Culvert 033

[58] Hint: Peaked 0.84' above defined flood level

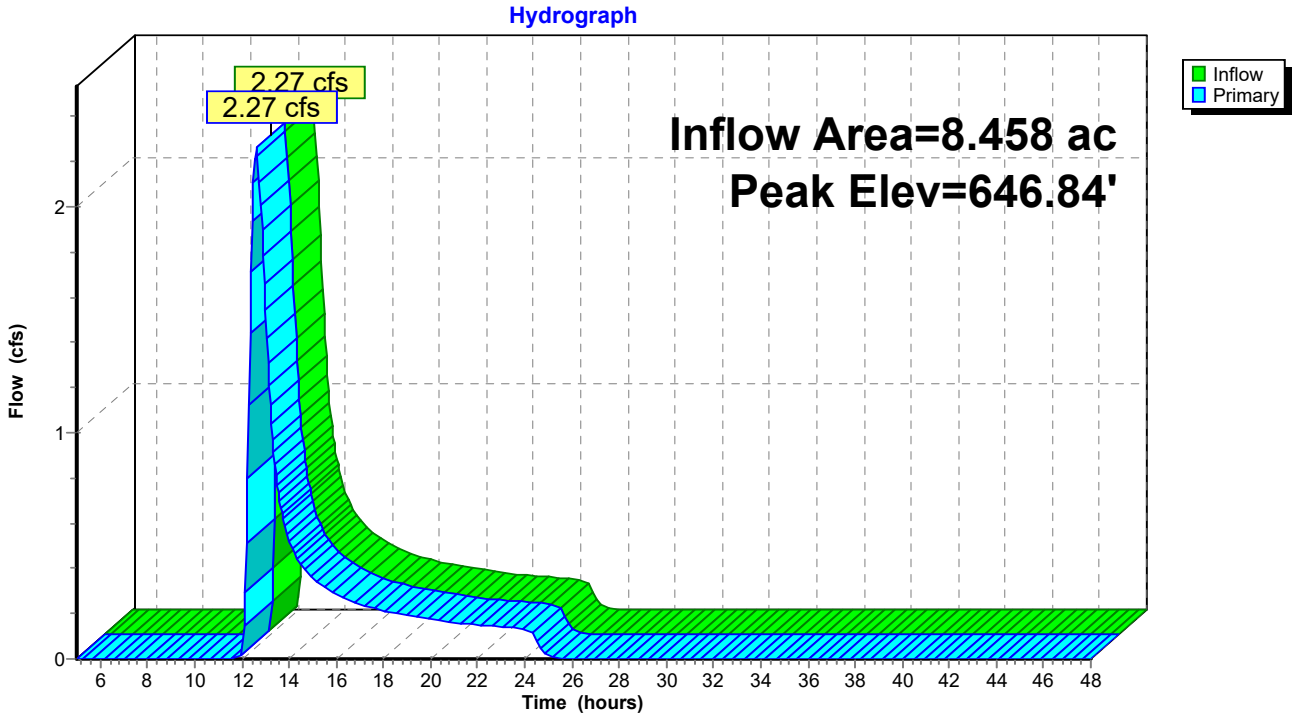
Inflow Area = 8.458 ac, 0.00% Impervious, Inflow Depth = 0.54" for 10-yr event
Inflow = 2.27 cfs @ 12.62 hrs, Volume= 0.382 af
Outflow = 2.27 cfs @ 12.62 hrs, Volume= 0.382 af, Atten= 0%, Lag= 0.0 min
Primary = 2.27 cfs @ 12.62 hrs, Volume= 0.382 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 646.84' @ 12.62 hrs
Flood Elev= 646.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	646.10'	**18.0" Round Culvert 033 w/ 3.6" inside fill** L= 45.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 645.80' / 645.49' S= 0.0069 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	648.80'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=2.26 cfs @ 12.62 hrs HW=646.84' (Free Discharge)
└─**1=Culvert 033** (Inlet Controls 2.26 cfs @ 2.15 fps)
└─**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 78P: Culvert 033



Summary for Pond 79P: Culvert 034

[58] Hint: Peaked 0.22' above defined flood level

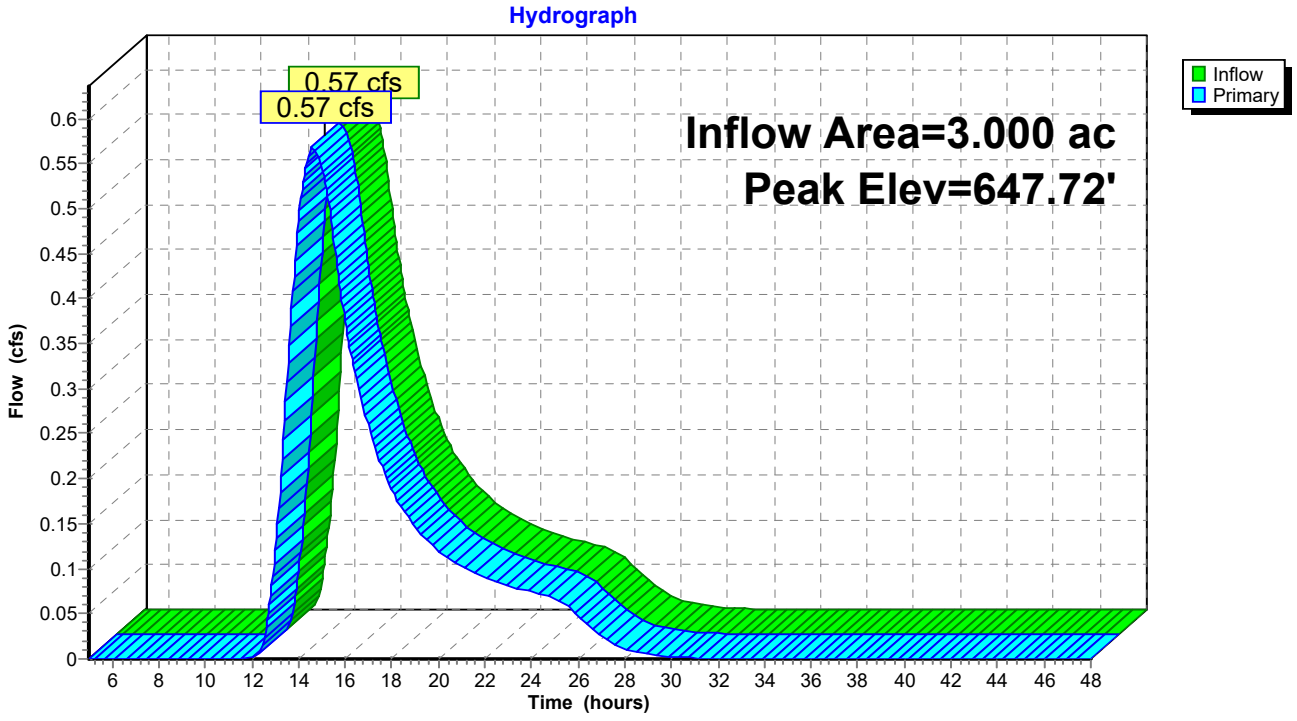
Inflow Area = 3.000 ac, 0.00% Impervious, Inflow Depth = 0.91" for 10-yr event
Inflow = 0.57 cfs @ 14.57 hrs, Volume= 0.227 af
Outflow = 0.57 cfs @ 14.57 hrs, Volume= 0.227 af, Atten= 0%, Lag= 0.0 min
Primary = 0.57 cfs @ 14.57 hrs, Volume= 0.227 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 647.72' @ 14.57 hrs
Flood Elev= 647.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	647.42'	**18.0" Round Culvert 034 w/ 3.6" inside fill** L= 70.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 647.12' / 646.24' S= 0.0126 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	650.12'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.57 cfs @ 14.57 hrs HW=647.72' (Free Discharge)
└**1=Culvert 034** (Inlet Controls 0.57 cfs @ 1.37 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 79P: Culvert 034



Summary for Pond 80P: Culvert 036

[58] Hint: Peaked 0.62' above defined flood level

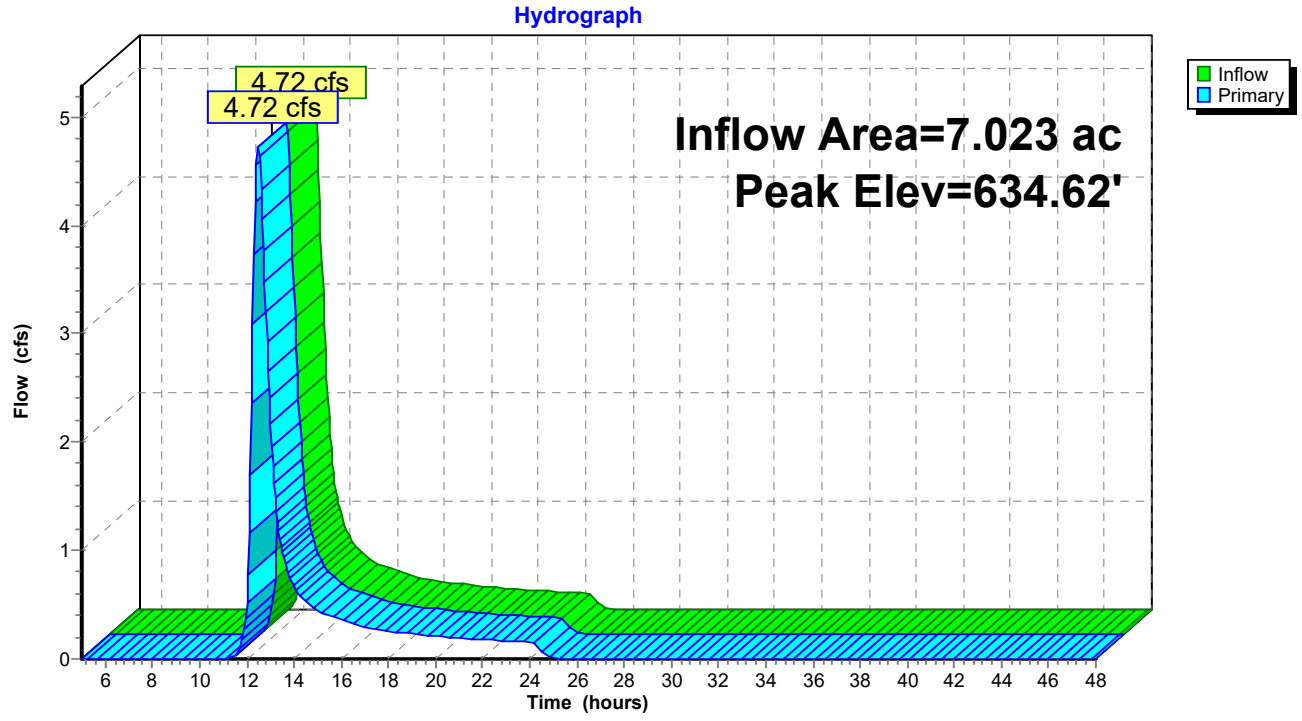
Inflow Area = 7.023 ac, 21.33% Impervious, Inflow Depth = 1.01" for 10-yr event
Inflow = 4.72 cfs @ 12.48 hrs, Volume= 0.594 af
Outflow = 4.72 cfs @ 12.48 hrs, Volume= 0.594 af, Atten= 0%, Lag= 0.0 min
Primary = 4.72 cfs @ 12.48 hrs, Volume= 0.594 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 634.62' @ 12.48 hrs
Flood Elev= 634.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	633.19'	**18.0" Round Culvert 036 w/ 3.6" inside fill** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 632.89' / 632.88' S= 0.0005 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	635.89'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=4.70 cfs @ 12.48 hrs HW=634.62' (Free Discharge)
└**1=Culvert 036** (Barrel Controls 4.70 cfs @ 3.26 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 80P: Culvert 036



Summary for Pond 81P: Culvert 037

[58] Hint: Peaked 1.48' above defined flood level

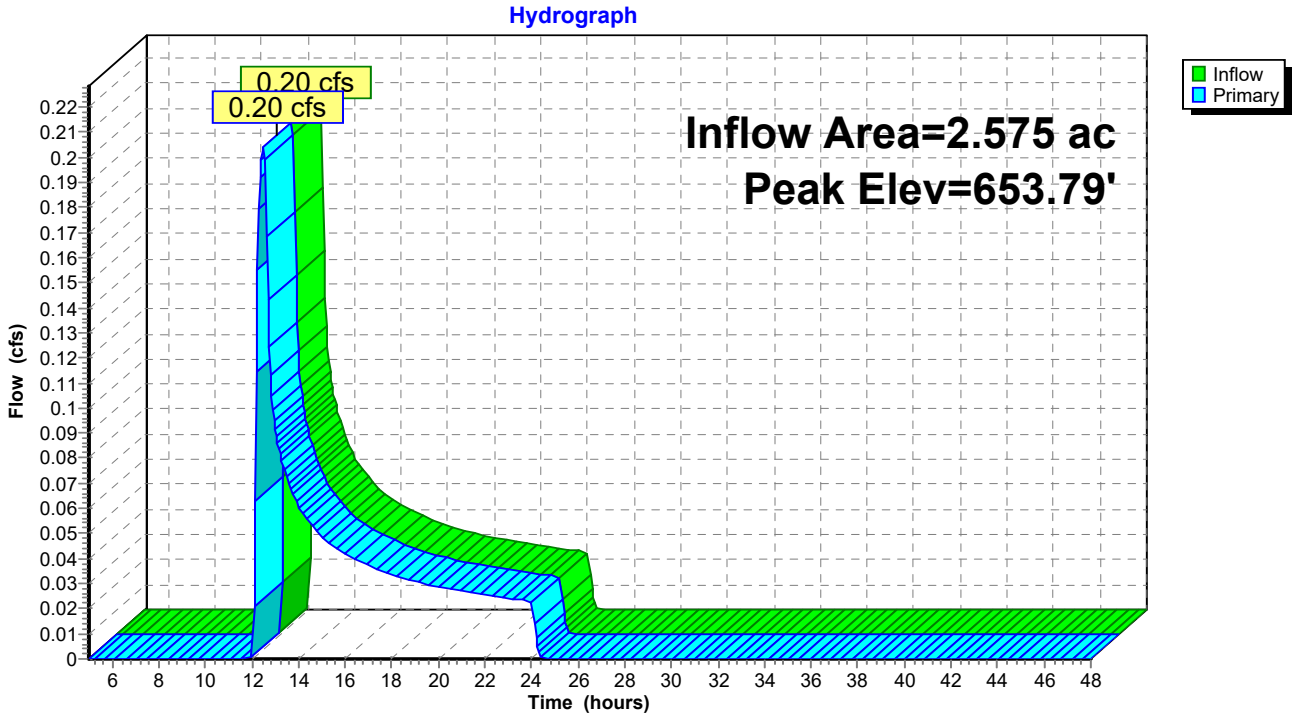
Inflow Area = 2.575 ac, 0.00% Impervious, Inflow Depth = 0.21" for 10-yr event
Inflow = 0.20 cfs @ 12.50 hrs, Volume= 0.045 af
Outflow = 0.20 cfs @ 12.50 hrs, Volume= 0.045 af, Atten= 0%, Lag= 0.0 min
Primary = 0.20 cfs @ 12.50 hrs, Volume= 0.045 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 653.79' @ 12.50 hrs
Flood Elev= 652.31'

Device	Routing	Invert	Outlet Devices
#1	Primary	653.63'	**18.0" Round Culvert 037 w/ 3.6" inside fill** L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 653.33' / 650.10' S= 0.1346 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	656.33'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.20 cfs @ 12.50 hrs HW=653.79' (Free Discharge)
└**1=Culvert 037** (Inlet Controls 0.20 cfs @ 0.99 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 81P: Culvert 037



Summary for Pond 82P: Culvert 038

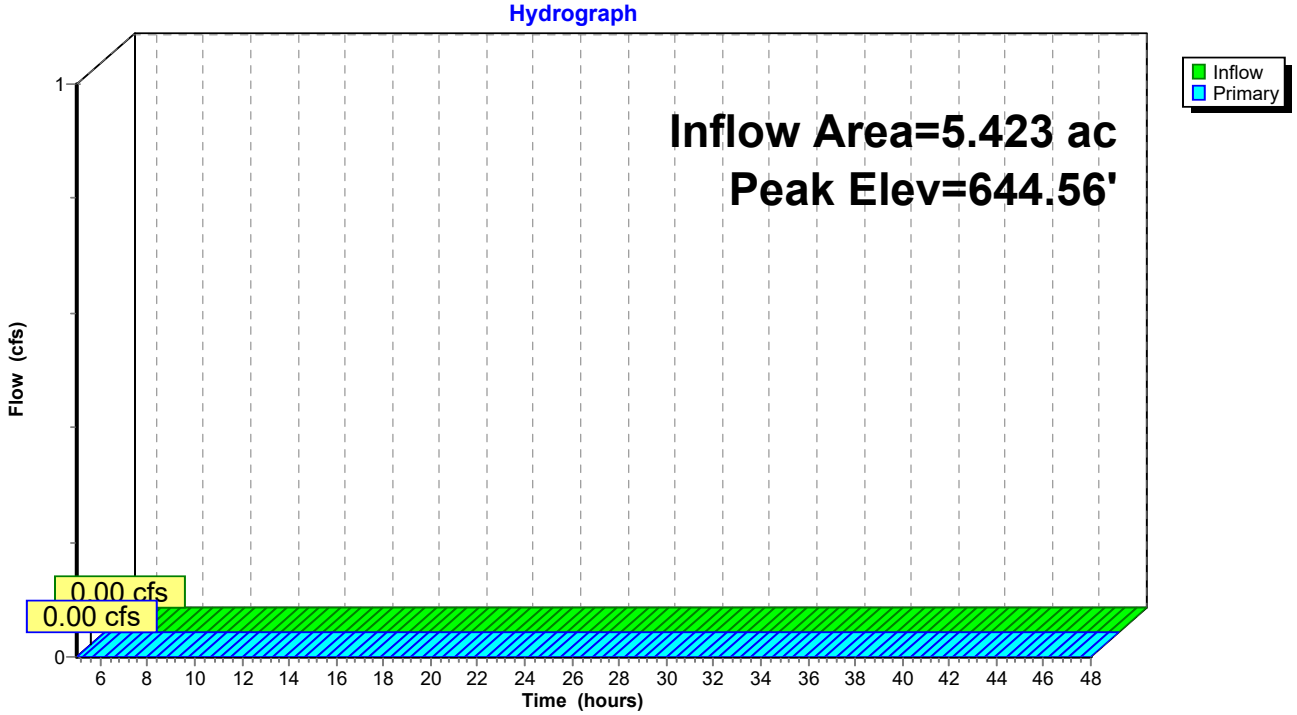
Inflow Area = 5.423 ac, 0.00% Impervious, Inflow Depth = 0.00" for 10-yr event
Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 644.56' @ 5.00 hrs
Flood Elev= 645.44'

Device	Routing	Invert	Outlet Devices
#1	Primary	644.56'	**18.0" Round Culvert 038 w/ 3.6" inside fill** L= 74.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 644.26' / 624.90' S= 0.2616 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	647.26'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=644.56' (Free Discharge)
└**1=Culvert 038** (Controls 0.00 cfs)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 82P: Culvert 038



Summary for Pond 83P: Culvert 039

[58] Hint: Peaked 1.24' above defined flood level

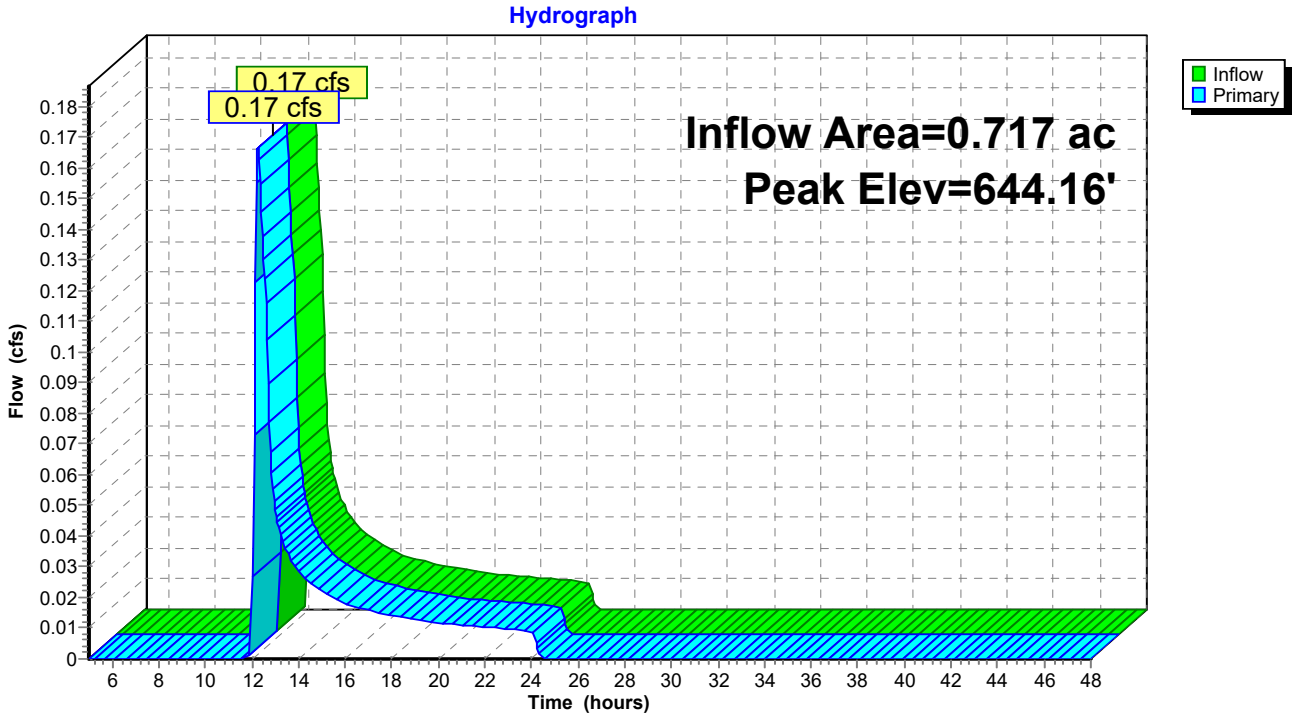
Inflow Area = 0.717 ac, 0.00% Impervious, Inflow Depth = 0.39" for 10-yr event
Inflow = 0.17 cfs @ 12.26 hrs, Volume= 0.023 af
Outflow = 0.17 cfs @ 12.26 hrs, Volume= 0.023 af, Atten= 0%, Lag= 0.0 min
Primary = 0.17 cfs @ 12.26 hrs, Volume= 0.023 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 644.16' @ 12.26 hrs
Flood Elev= 642.92'

Device	Routing	Invert	Outlet Devices
#1	Primary	644.02'	**18.0" Round Culvert 039 w/ 3.6" inside fill** L= 85.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 643.72' / 641.78' S= 0.0228 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	646.72'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.16 cfs @ 12.26 hrs HW=644.16' (Free Discharge)
└**1=Culvert 039** (Inlet Controls 0.16 cfs @ 0.93 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 83P: Culvert 039



Summary for Pond 84P: Culvert 040

[58] Hint: Peaked 1.50' above defined flood level

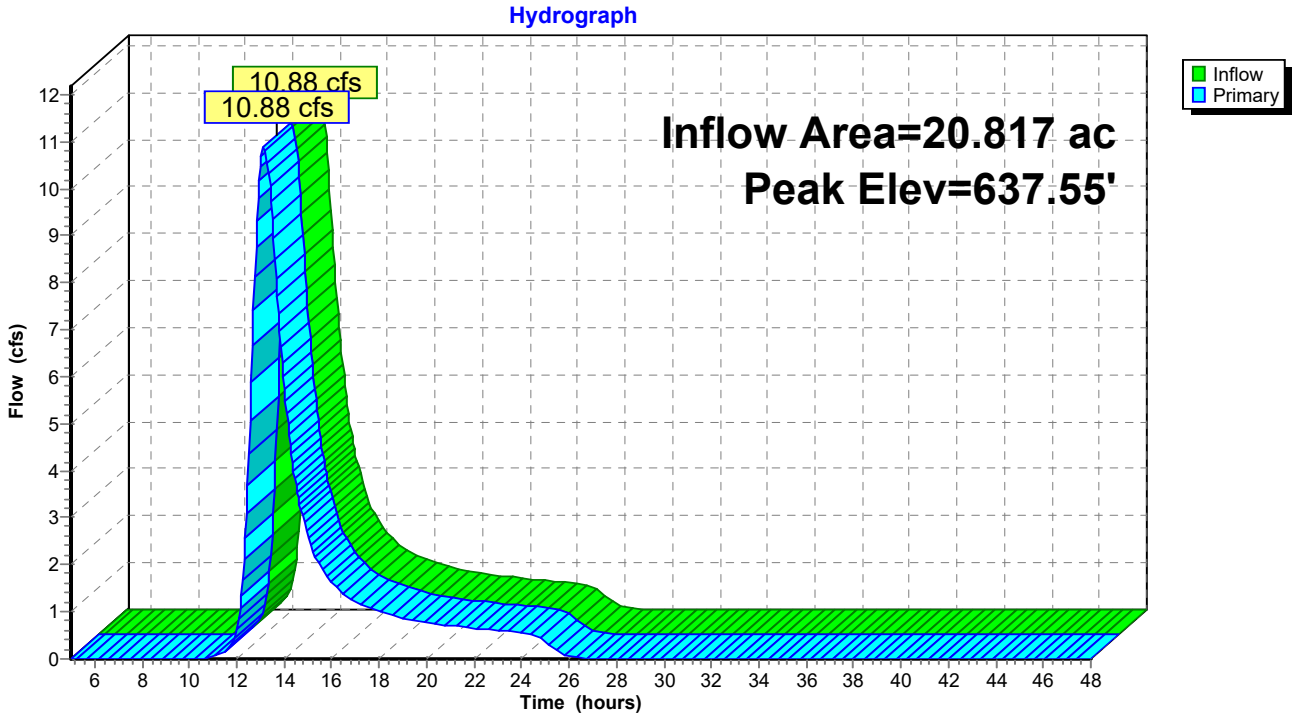
Inflow Area = 20.817 ac, 2.01% Impervious, Inflow Depth = 1.31" for 10-yr event
Inflow = 10.88 cfs @ 13.14 hrs, Volume= 2.273 af
Outflow = 10.88 cfs @ 13.14 hrs, Volume= 2.273 af, Atten= 0%, Lag= 0.0 min
Primary = 10.88 cfs @ 13.14 hrs, Volume= 2.273 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 637.55' @ 13.14 hrs
Flood Elev= 636.05'

Device	Routing	Invert	Outlet Devices
#1	Primary	636.17'	**36.0" Round Culvert 040 w/ 7.2" inside fill** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 635.57' / 635.46' S= 0.0039 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 6.06 sf
#2	Primary	640.07'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=10.87 cfs @ 13.14 hrs HW=637.55' (Free Discharge)
└**1=Culvert 040** (Barrel Controls 10.87 cfs @ 3.72 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 84P: Culvert 040



Summary for Pond 86P: Culvert 041

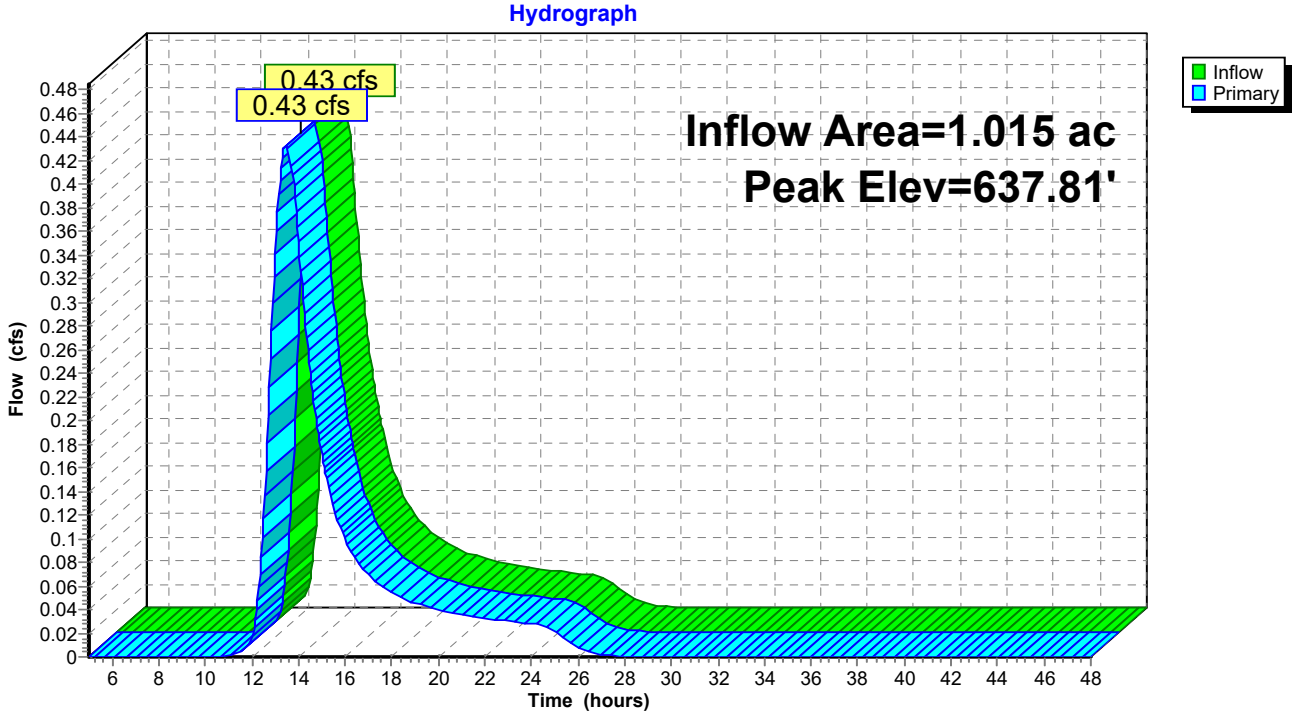
Inflow Area = 1.015 ac, 0.00% Impervious, Inflow Depth = 1.31" for 10-yr event
Inflow = 0.43 cfs @ 13.46 hrs, Volume= 0.111 af
Outflow = 0.43 cfs @ 13.46 hrs, Volume= 0.111 af, Atten= 0%, Lag= 0.0 min
Primary = 0.43 cfs @ 13.46 hrs, Volume= 0.111 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 637.81' @ 13.46 hrs
Flood Elev= 638.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	637.55'	**18.0" Round Culvert 041 w/ 3.6" inside fill** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 637.25' / 636.72' S= 0.0189 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	640.25'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.43 cfs @ 13.46 hrs HW=637.81' (Free Discharge)
└**1=Culvert 041** (Inlet Controls 0.43 cfs @ 1.26 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 86P: Culvert 041



Summary for Pond 87P: Culvert 045

[58] Hint: Peaked 0.78' above defined flood level

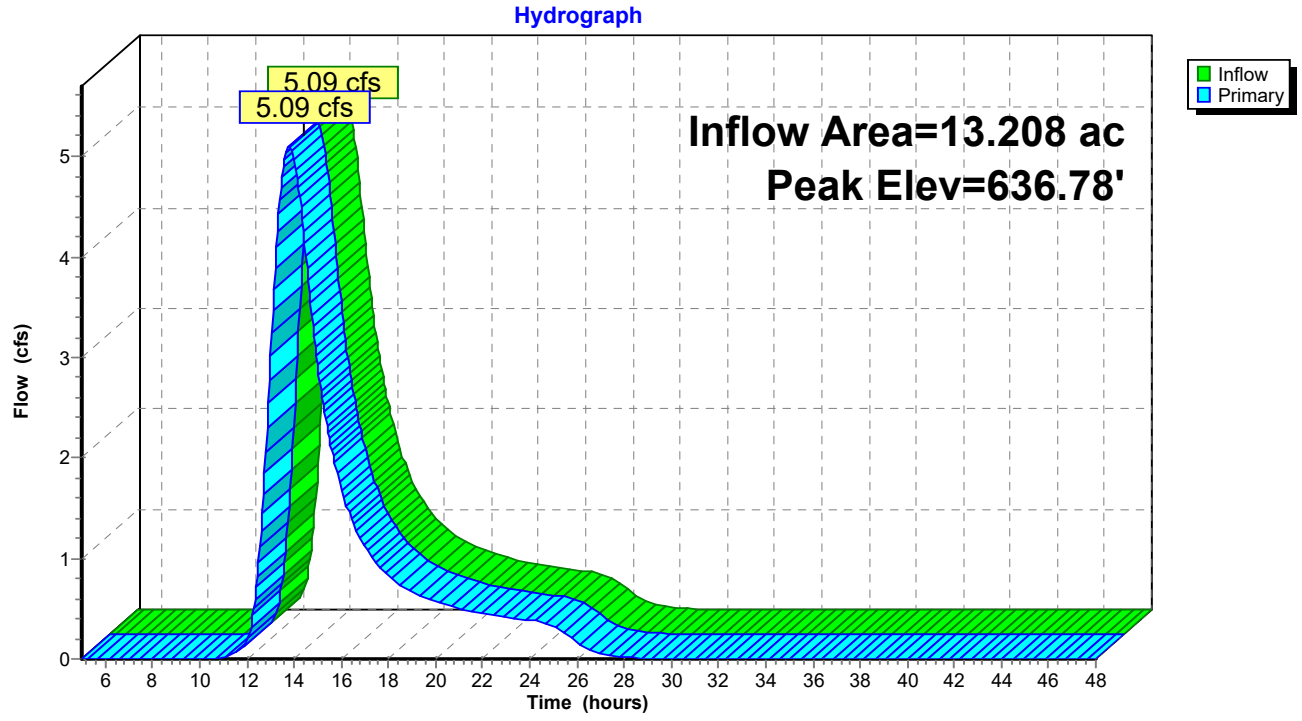
Inflow Area = 13.208 ac, 0.00% Impervious, Inflow Depth = 1.37" for 10-yr event
Inflow = 5.09 cfs @ 13.79 hrs, Volume= 1.513 af
Outflow = 5.09 cfs @ 13.79 hrs, Volume= 1.513 af, Atten= 0%, Lag= 0.0 min
Primary = 5.09 cfs @ 13.79 hrs, Volume= 1.513 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 636.78' @ 13.79 hrs
Flood Elev= 636.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	635.42'	**18.0" Round Culvert 045 w/ 3.6" inside fill** L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 635.12' / 634.71' S= 0.0102 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	638.12'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=5.09 cfs @ 13.79 hrs HW=636.78' (Free Discharge)
└**1=Culvert 045** (Inlet Controls 5.09 cfs @ 3.36 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 87P: Culvert 045



Summary for Pond 89P: Culvert 048

[58] Hint: Peaked 0.51' above defined flood level

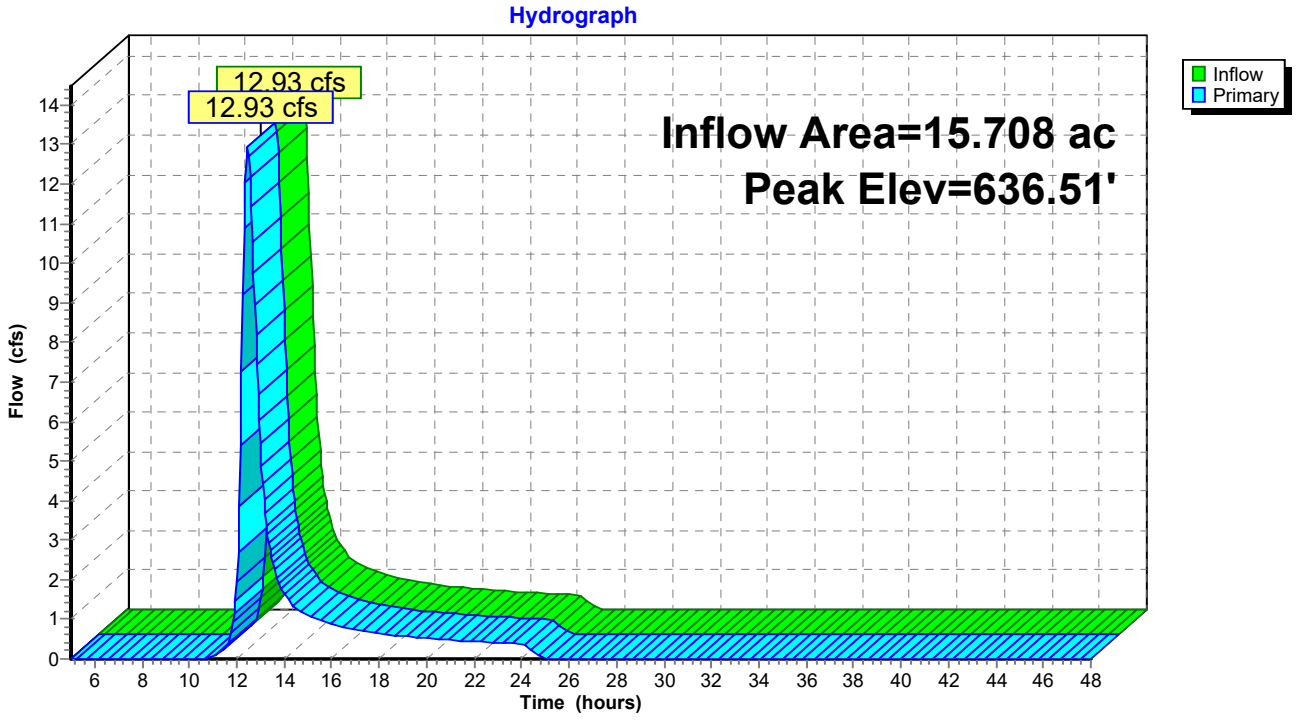
Inflow Area = 15.708 ac, 5.41% Impervious, Inflow Depth = 1.19" for 10-yr event
Inflow = 12.93 cfs @ 12.45 hrs, Volume= 1.554 af
Outflow = 12.93 cfs @ 12.45 hrs, Volume= 1.554 af, Atten= 0%, Lag= 0.0 min
Primary = 12.93 cfs @ 12.45 hrs, Volume= 1.554 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 636.51' @ 12.45 hrs
Flood Elev= 636.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	634.89'	**36.0" Round Culvert 048 w/ 7.2" inside fill** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 634.29' / 634.25' S= 0.0016 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 6.06 sf
#2	Primary	638.79'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=12.93 cfs @ 12.45 hrs HW=636.51' (Free Discharge)
└**1=Culvert 048** (Barrel Controls 12.93 cfs @ 3.72 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 89P: Culvert 048



Summary for Pond 91P: Culvert 049

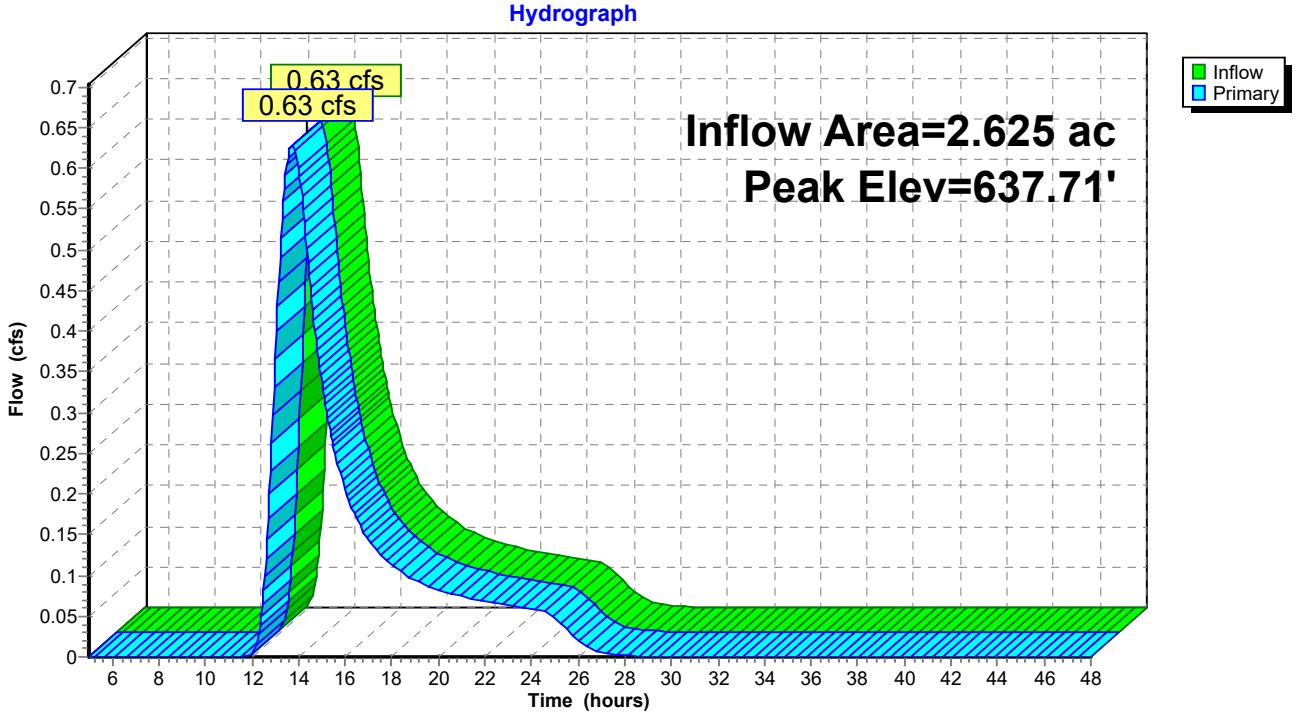
Inflow Area = 2.625 ac, 0.00% Impervious, Inflow Depth = 0.86" for 10-yr event
Inflow = 0.63 cfs @ 13.73 hrs, Volume= 0.188 af
Outflow = 0.63 cfs @ 13.73 hrs, Volume= 0.188 af, Atten= 0%, Lag= 0.0 min
Primary = 0.63 cfs @ 13.73 hrs, Volume= 0.188 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 637.71' @ 13.73 hrs
Flood Elev= 638.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	637.44'	**24.0" Round Culvert 049 w/ 4.8" inside fill** L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 637.04' / 636.64' S= 0.0080 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 2.69 sf
#2	Primary	640.54'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.63 cfs @ 13.73 hrs HW=637.71' (Free Discharge)
└**1=Culvert 049** (Inlet Controls 0.63 cfs @ 1.30 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 91P: Culvert 049



Summary for Pond 92P: Culvert 050

[58] Hint: Peaked 0.57' above defined flood level

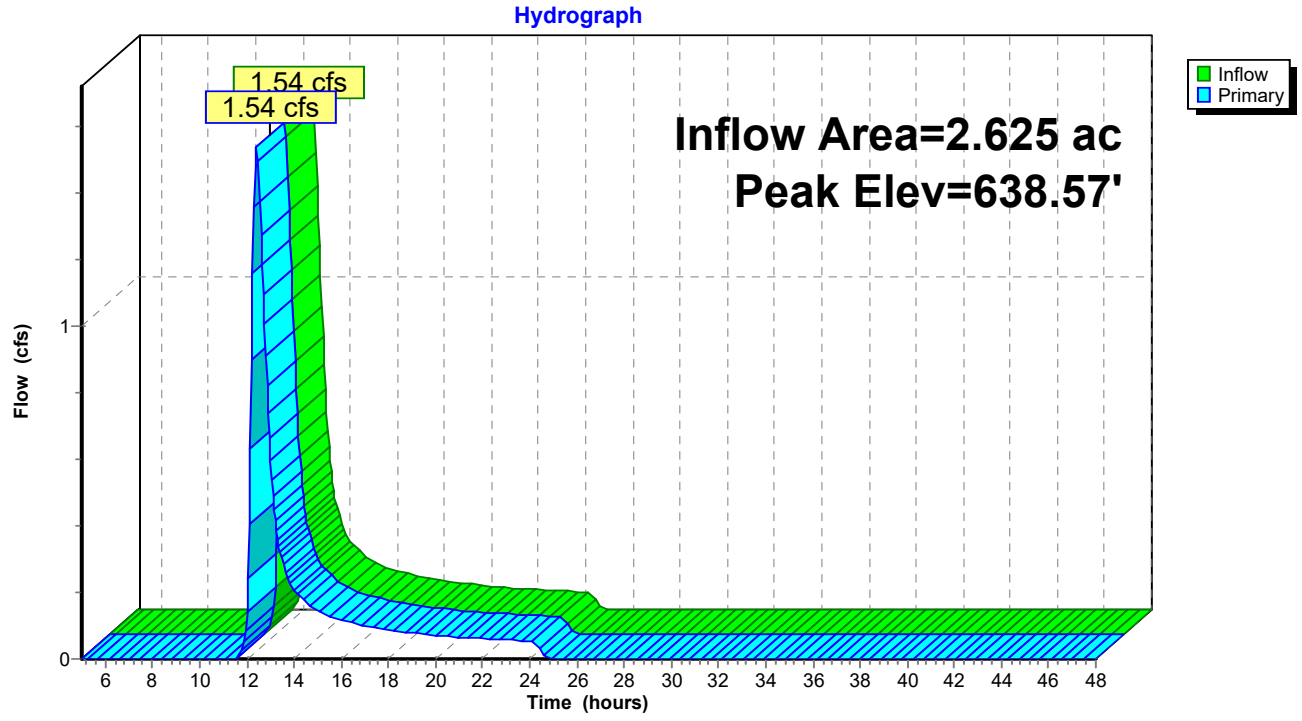
Inflow Area = 2.625 ac, 0.00% Impervious, Inflow Depth = 0.86" for 10-yr event
Inflow = 1.54 cfs @ 12.42 hrs, Volume= 0.188 af
Outflow = 1.54 cfs @ 12.42 hrs, Volume= 0.188 af, Atten= 0%, Lag= 0.0 min
Primary = 1.54 cfs @ 12.42 hrs, Volume= 0.188 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 638.57' @ 12.42 hrs
Flood Elev= 638.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	638.03'	**24.0" Round Culvert 050 w/ 4.8" inside fill** L= 63.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 637.63' / 637.55' S= 0.0013 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 2.69 sf
#2	Primary	641.13'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=1.53 cfs @ 12.42 hrs HW=638.57' (Free Discharge)
└**1=Culvert 050** (Barrel Controls 1.53 cfs @ 2.07 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 92P: Culvert 050



Summary for Pond 93P: Culvert 054

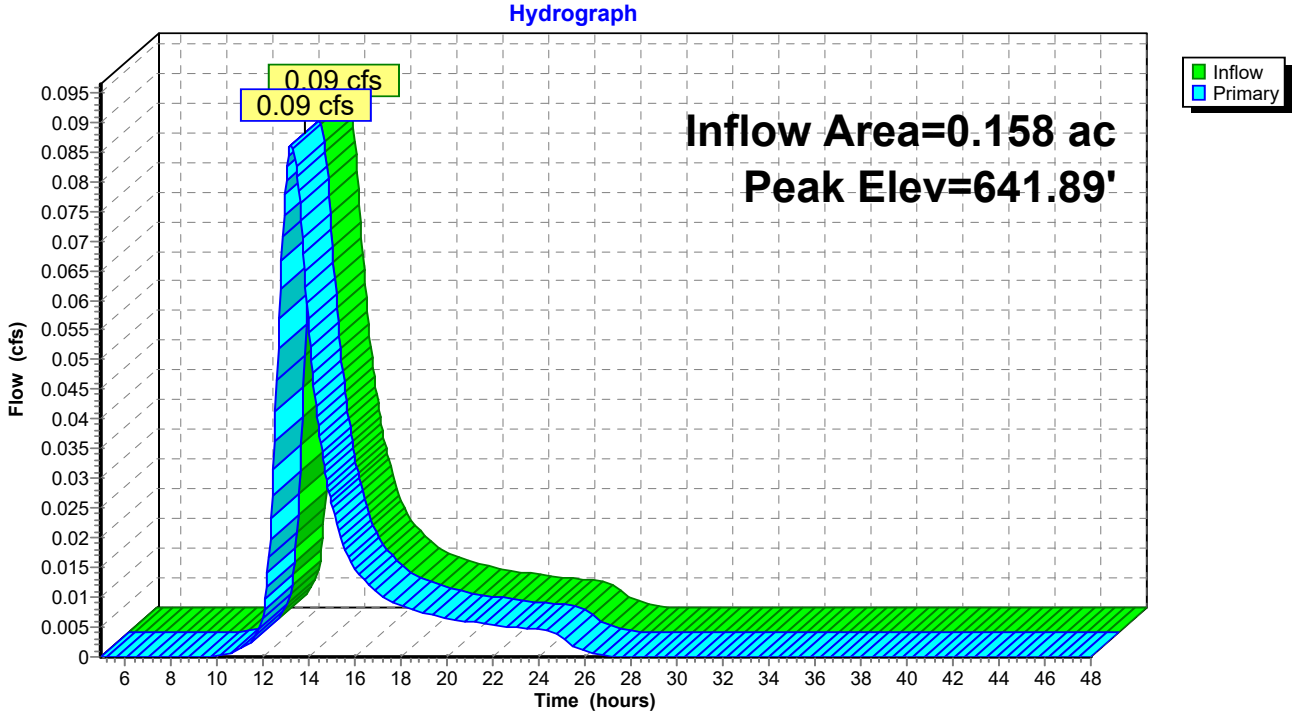
Inflow Area = 0.158 ac, 0.00% Impervious, Inflow Depth = 1.51" for 10-yr event
Inflow = 0.09 cfs @ 13.28 hrs, Volume= 0.020 af
Outflow = 0.09 cfs @ 13.28 hrs, Volume= 0.020 af, Atten= 0%, Lag= 0.0 min
Primary = 0.09 cfs @ 13.28 hrs, Volume= 0.020 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 641.89' @ 13.28 hrs
Flood Elev= 642.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	641.80'	**24.0" Round Culvert 054 w/ 4.8" inside fill** L= 32.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 641.40' / 641.36' S= 0.0012 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 2.69 sf
#2	Primary	644.90'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.09 cfs @ 13.28 hrs HW=641.89' (Free Discharge)
└**1=Culvert 054** (Barrel Controls 0.09 cfs @ 0.75 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 93P: Culvert 054



Time span=5.00-48.00 hrs, dt=0.05 hrs, 861 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment63S: DA 32 Runoff Area=83.916 ac 0.00% Impervious Runoff Depth=2.52"
Flow Length=3,167' Tc=219.6 min CN=77 Runoff=43.39 cfs 17.643 af

Subcatchment64S: DA 33 Runoff Area=8.458 ac 0.00% Impervious Runoff Depth=1.43"
Flow Length=1,546' Tc=38.9 min CN=63 Runoff=7.73 cfs 1.010 af

Subcatchment65S: DA 34 Runoff Area=3.000 ac 0.00% Impervious Runoff Depth=2.03"
Flow Length=915' Tc=184.4 min CN=71 Runoff=1.40 cfs 0.507 af

Subcatchment66S: DA 36 Runoff Area=7.023 ac 21.33% Impervious Runoff Depth=2.19"
Flow Length=1,365' Tc=34.8 min CN=73 Runoff=11.29 cfs 1.280 af

Subcatchment67S: DA 37 Runoff Area=2.575 ac 0.00% Impervious Runoff Depth=0.81"
Flow Length=497' Tc=12.2 min CN=53 Runoff=1.82 cfs 0.173 af

Subcatchment68S: DA 38 Runoff Area=5.423 ac 0.00% Impervious Runoff Depth=0.03"
Flow Length=1,009' Tc=22.2 min CN=33 Runoff=0.02 cfs 0.014 af

Subcatchment69S: DA 39 Runoff Area=0.717 ac 0.00% Impervious Runoff Depth=1.17"
Flow Length=394' Tc=15.2 min CN=59 Runoff=0.82 cfs 0.070 af

Subcatchment70S: DA 40 Runoff Area=20.817 ac 2.01% Impervious Runoff Depth=2.61"
Flow Length=1,139' Tc=84.9 min CN=78 Runoff=23.22 cfs 4.528 af

Subcatchment71S: DA 41 Runoff Area=1.015 ac 0.00% Impervious Runoff Depth=2.61"
Flow Length=465' Tc=110.2 min CN=78 Runoff=0.92 cfs 0.221 af

Subcatchment72S: DA 45 Runoff Area=13.208 ac 0.00% Impervious Runoff Depth=2.70"
Flow Length=1,379' Tc=135.3 min CN=79 Runoff=10.67 cfs 2.970 af

Subcatchment73S: DA 48 Runoff Area=15.708 ac 5.41% Impervious Runoff Depth=2.44"
Flow Length=1,032' Tc=34.0 min CN=76 Runoff=28.83 cfs 3.190 af

Subcatchment74S: DA 49 Runoff Area=2.625 ac 0.00% Impervious Runoff Depth=1.95"
Flow Length=1,106' Tc=121.3 min CN=70 Runoff=1.62 cfs 0.426 af

Subcatchment75S: DA 50 Runoff Area=2.625 ac 0.00% Impervious Runoff Depth=1.95"
Flow Length=619' Tc=30.2 min CN=70 Runoff=4.01 cfs 0.426 af

Subcatchment76S: DA 54 Runoff Area=0.158 ac 0.00% Impervious Runoff Depth=2.88"
Flow Length=100' Slope=0.0001 '/' Tc=98.2 min CN=81 Runoff=0.17 cfs 0.038 af

Pond 77P: Culvert 032 Peak Elev=620.21' Inflow=43.39 cfs 17.643 af
Outflow=43.39 cfs 17.643 af

Pond 78P: Culvert 033 Peak Elev=648.46' Inflow=7.73 cfs 1.010 af
Outflow=7.73 cfs 1.010 af

Pond 79P: Culvert 034 Peak Elev=647.96' Inflow=1.40 cfs 0.507 af
Outflow=1.40 cfs 0.507 af

Pond 80P: Culvert 036 Peak Elev=635.94' Inflow=11.29 cfs 1.280 af
Outflow=11.29 cfs 1.280 af

Pond 81P: Culvert 037 Peak Elev=654.27' Inflow=1.82 cfs 0.173 af
Outflow=1.82 cfs 0.173 af

Pond 82P: Culvert 038 Peak Elev=644.59' Inflow=0.02 cfs 0.014 af
Outflow=0.02 cfs 0.014 af

Pond 83P: Culvert 039 Peak Elev=644.40' Inflow=0.82 cfs 0.070 af
Outflow=0.82 cfs 0.070 af

Pond 84P: Culvert 040 Peak Elev=638.52' Inflow=23.22 cfs 4.528 af
Outflow=23.22 cfs 4.528 af

Pond 86P: Culvert 041 Peak Elev=637.96' Inflow=0.92 cfs 0.221 af
Outflow=0.92 cfs 0.221 af

Pond 87P: Culvert 045 Peak Elev=638.16' Inflow=10.67 cfs 2.970 af
Outflow=10.67 cfs 2.970 af

Pond 89P: Culvert 048 Peak Elev=637.81' Inflow=28.83 cfs 3.190 af
Outflow=28.83 cfs 3.190 af

Pond 91P: Culvert 049 Peak Elev=637.94' Inflow=1.62 cfs 0.426 af
Outflow=1.62 cfs 0.426 af

Pond 92P: Culvert 050 Peak Elev=639.03' Inflow=4.01 cfs 0.426 af
Outflow=4.01 cfs 0.426 af

Pond 93P: Culvert 054 Peak Elev=641.94' Inflow=0.17 cfs 0.038 af
Outflow=0.17 cfs 0.038 af

Total Runoff Area = 167.268 ac Runoff Volume = 32.496 af Average Runoff Depth = 2.33"
98.35% Pervious = 164.502 ac 1.65% Impervious = 2.766 ac

Summary for Subcatchment 63S: DA 32

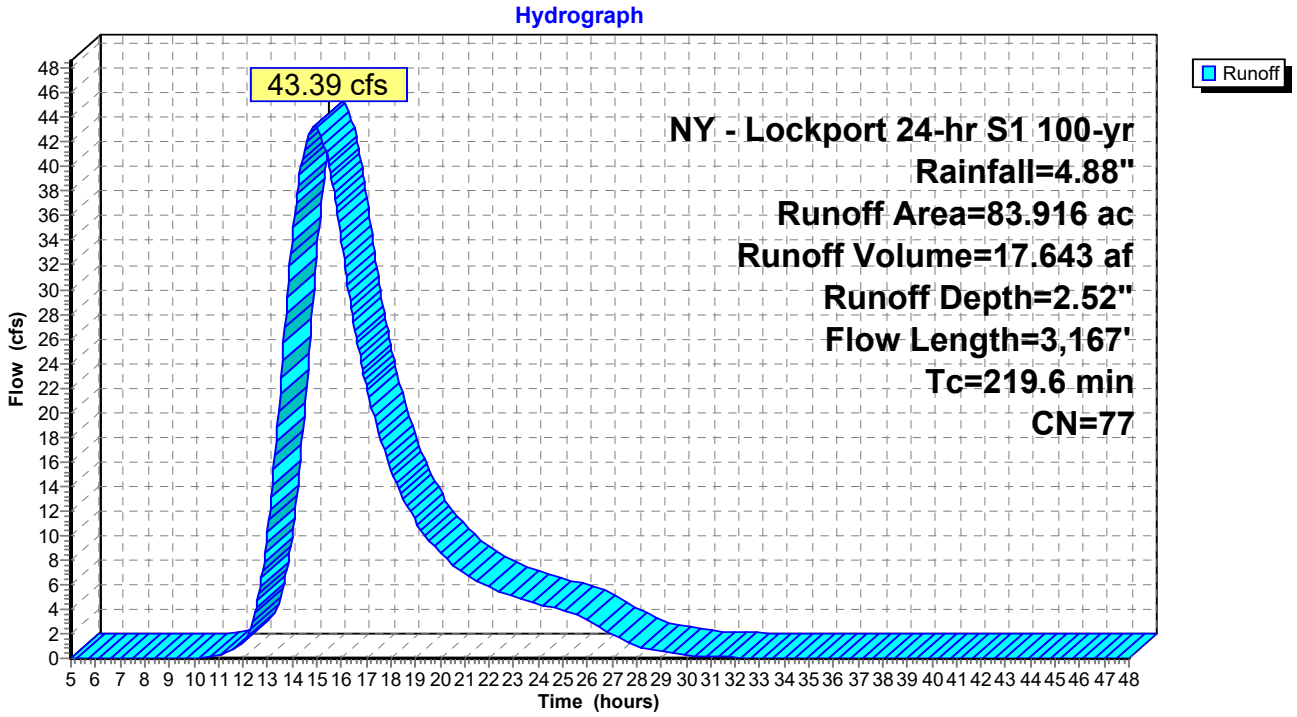
Runoff = 43.39 cfs @ 14.89 hrs, Volume= 17.643 af, Depth= 2.52"
Routed to Pond 77P : Culvert 032

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.446	82	B-MEADOW, NON-GRAZED
*	0.142	43	D-WOODS/GRASS COMB., GOOD
*	13.840	81	D-MEADOW, NON-GRAZED
*	8.160	82	D-MEADOW, NON-GRAZED
*	1.781	21	D-75% GRASS COVER, GOOD
*	3.035	22	D-50-75% GRASS COVER, FAIR
*	24.498	81	D-MEADOW, NON-GRAZED
*	5.711	82	D-MEADOW, NON-GRAZED
*	0.003	21	D-75% GRASS COVER, GOOD
*	0.428	22	D-50-75% GRASS COVER, FAIR
*	18.333	81	D-MEADOW, NON-GRAZED
*	7.496	82	D-MEADOW, NON-GRAZED
*	0.043	90	D-WATER SURFACE, 0% IMP
	83.916	77	Weighted Average
	83.916		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	100	0.0610	0.22		**Sheet Flow, 100**
					Grass: Short n= 0.150 P2= 2.21"
3.0	144	0.0130	0.80		**Shallow Concentrated Flow, 144**
					Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300**
					Short Grass Pasture Kv= 7.0 fps
9.2	300	0.0060	0.54		**Shallow Concentrated Flow, 300**
					Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300**
					Short Grass Pasture Kv= 7.0 fps
22.6	300	0.0010	0.22		**Shallow Concentrated Flow, 300**
					Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300**
					Short Grass Pasture Kv= 7.0 fps
12.2	162	0.0010	0.22		**Shallow Concentrated Flow, 162**
					Short Grass Pasture Kv= 7.0 fps
10.1	300	0.0050	0.49		**Shallow Concentrated Flow, 300**
					Short Grass Pasture Kv= 7.0 fps
8.3	290	0.0070	0.59		**Shallow Concentrated Flow, 290**
					Short Grass Pasture Kv= 7.0 fps
0.6	50	0.0400	1.40		**Shallow Concentrated Flow, 50**
					Short Grass Pasture Kv= 7.0 fps
4.4	242	0.0170	0.91		**Shallow Concentrated Flow, 242**
					Short Grass Pasture Kv= 7.0 fps
6.3	300	0.0130	0.80		**Shallow Concentrated Flow, 300**
					Short Grass Pasture Kv= 7.0 fps
18.8	79	0.0001	0.07		**Shallow Concentrated Flow, 79**
					Short Grass Pasture Kv= 7.0 fps
219.6	3,167	Total			

Subcatchment 63S: DA 32



Summary for Subcatchment 64S: DA 33

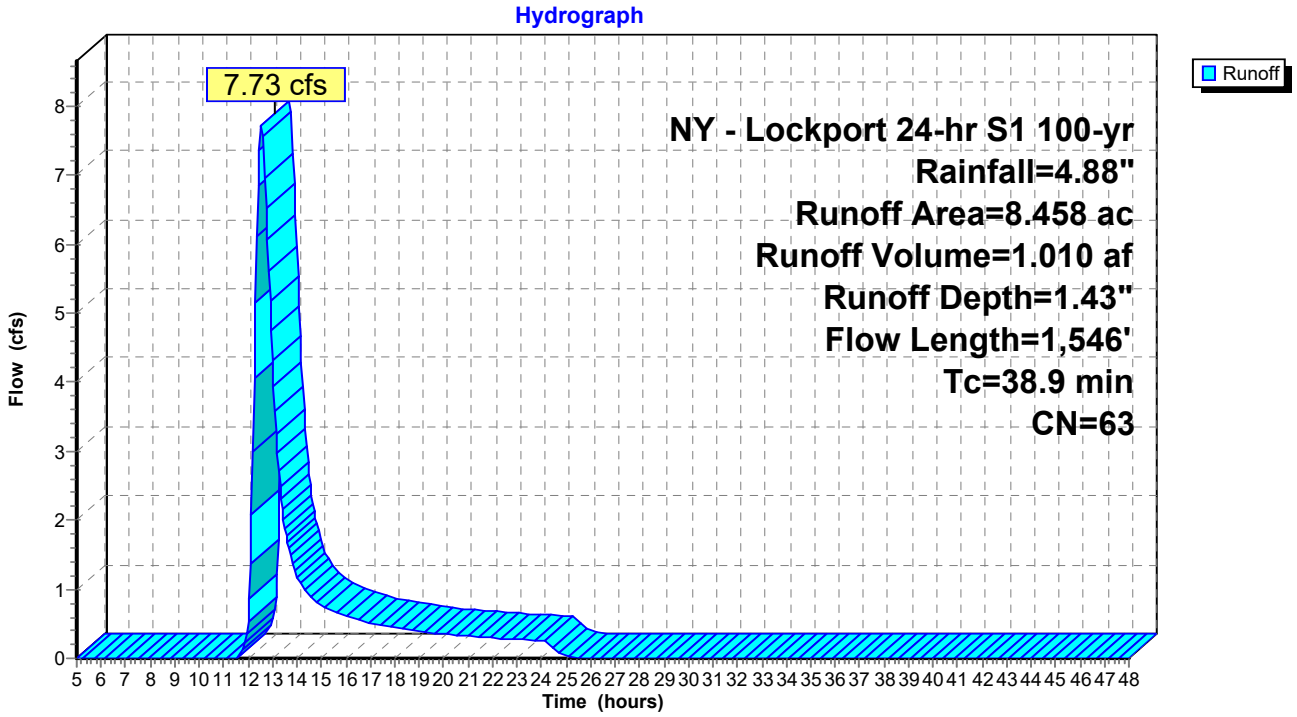
Runoff = 7.73 cfs @ 12.54 hrs, Volume= 1.010 af, Depth= 1.43"
Routed to Pond 78P : Culvert 033

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.131	61	B-75% GRASS COVER, GOOD
*	0.456	69	B-50-75% GRASS COVER, FAIR
*	2.999	58	B-MEADOW, NON-GRAZED
*	3.353	58	B-MEADOW, NON-GRAZED
*	0.019	80	D-75% GRASS COVER, GOOD
*	0.541	84	D-50-75% GRASS COVER, FAIR
*	0.959	78	D-MEADOW, NON-GRAZED
	8.458	63	Weighted Average
	8.458		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	100	0.0340	0.17		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
2.3	150	0.0250	1.11		**Shallow Concentrated Flow, 150** Short Grass Pasture Kv= 7.0 fps
2.1	147	0.0290	1.19		**Shallow Concentrated Flow, 147** Short Grass Pasture Kv= 7.0 fps
2.1	160	0.0320	1.25		**Shallow Concentrated Flow, 160** Short Grass Pasture Kv= 7.0 fps
2.1	160	0.0320	1.25		**Shallow Concentrated Flow, 160** Short Grass Pasture Kv= 7.0 fps
4.2	167	0.0090	0.66		**Shallow Concentrated Flow, 167** Short Grass Pasture Kv= 7.0 fps
13.6	362	0.0040	0.44		**Shallow Concentrated Flow, 362** Short Grass Pasture Kv= 7.0 fps
3.0	300	0.0560	1.66		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
38.9	1,546	Total			

Subcatchment 64S: DA 33



Summary for Subcatchment 65S: DA 34

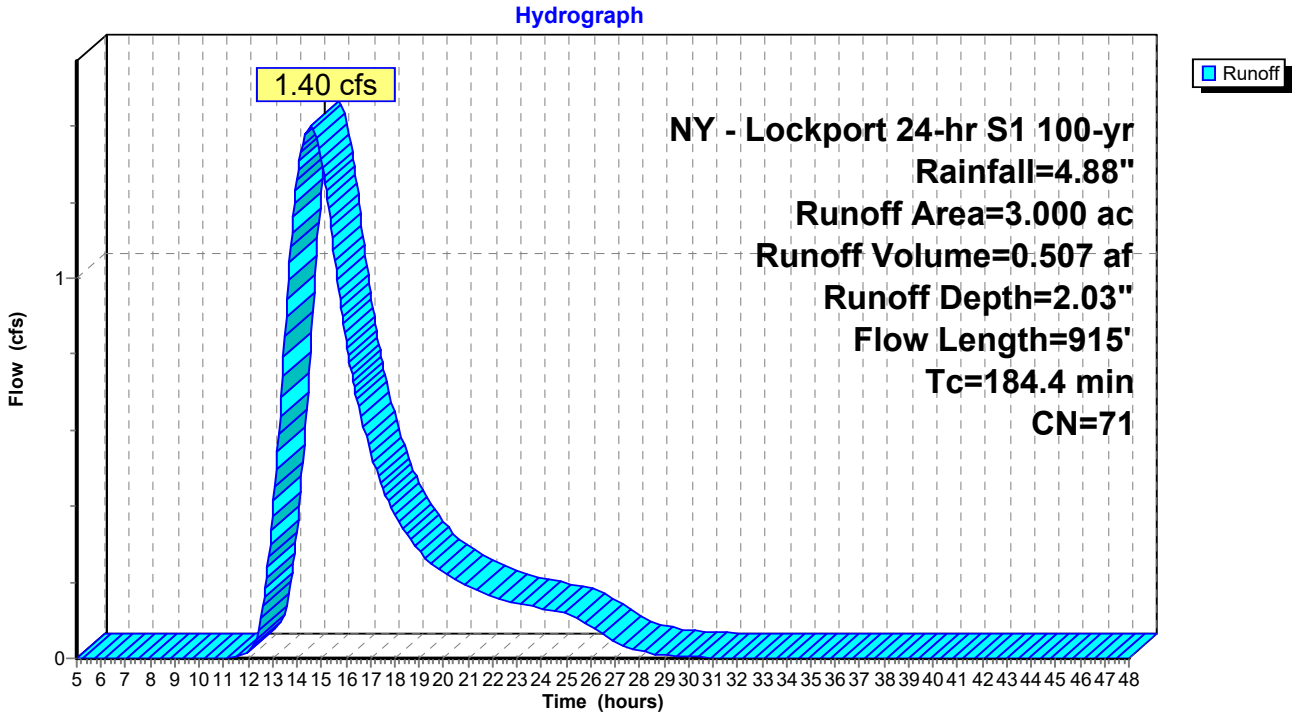
Runoff = 1.40 cfs @ 14.54 hrs, Volume= 0.507 af, Depth= 2.03"
Routed to Pond 79P : Culvert 034

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.033	58	B-MEADOW, NON-GRAZED
*	0.719	58	B-MEADOW, NON-GRAZED
*	0.039	80	D-75% GRASS COVER, GOOD
*	0.086	84	D-50-75% GRASS COVER, FAIR
*	0.864	78	D-MEADOW, NON-GRAZED
*	0.126	78	D-MEADOW, NON-GRAZED
*	1.133	71	C-MEADOW, NON-GRAZED
	3.000	71	Weighted Average
	3.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
98.2	100	0.0001	0.02		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
3.6	164	0.0120	0.77		**Shallow Concentrated Flow, 164** Short Grass Pasture Kv= 7.0 fps
8.5	300	0.0070	0.59		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
71.4	300	0.0001	0.07		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
2.7	51	0.0020	0.31		**Shallow Concentrated Flow, 51** Short Grass Pasture Kv= 7.0 fps
184.4	915	Total			

Subcatchment 65S: DA 34



Summary for Subcatchment 66S: DA 36

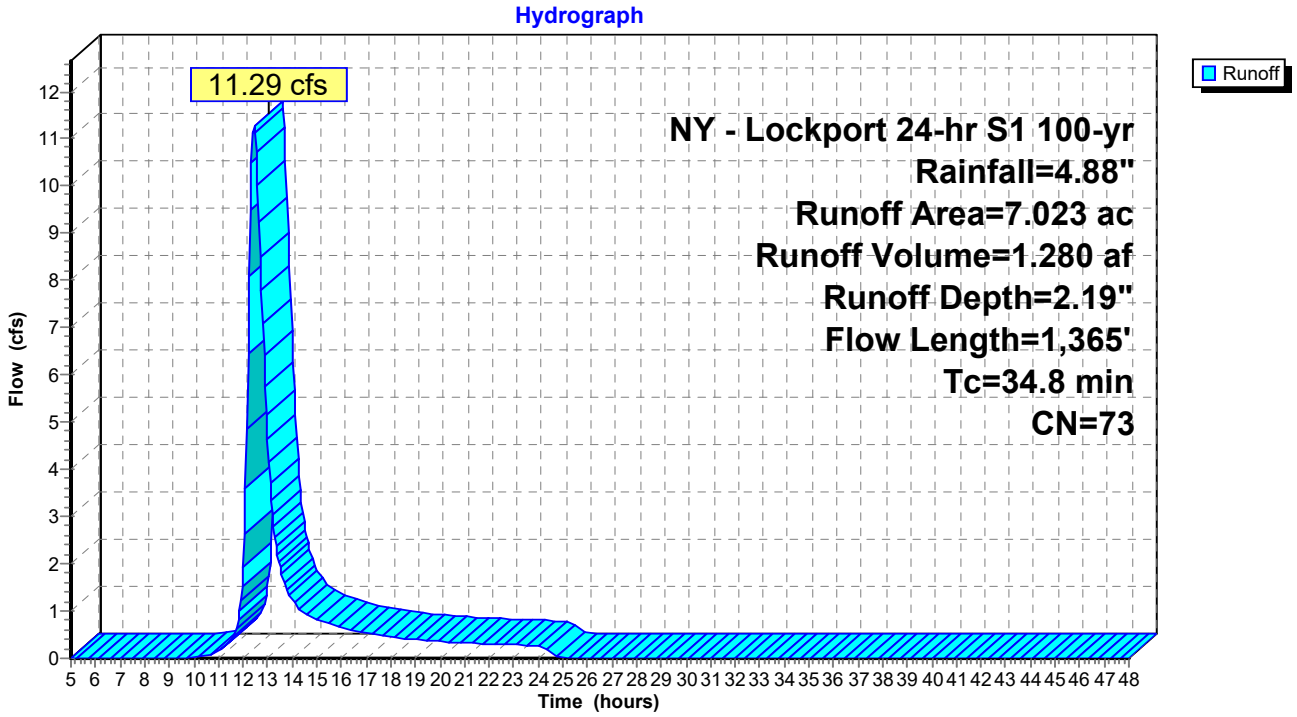
Runoff = 11.29 cfs @ 12.45 hrs, Volume= 1.280 af, Depth= 2.19"
Routed to Pond 80P : Culvert 036

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	1.408	30	A-MEADOW, NON-GRAZED
*	3.440	78	D-MEADOW, NON-GRAZED
*	0.677	78	D-MEADOW, NON-GRAZED
*	1.498	98	D-WATER SURFACE, 0% IMP
	7.023	73	Weighted Average
	5.525		78.67% Pervious Area
	1.498		21.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0390	0.18		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
0.9	77	0.0420	1.43		**Shallow Concentrated Flow, 77** Short Grass Pasture Kv= 7.0 fps
2.2	234	0.0640	1.77		**Shallow Concentrated Flow, 234** Short Grass Pasture Kv= 7.0 fps
2.8	268	0.0520	1.60		**Shallow Concentrated Flow, 268** Short Grass Pasture Kv= 7.0 fps
4.0	256	0.0230	1.06		**Shallow Concentrated Flow, 256** Short Grass Pasture Kv= 7.0 fps
8.5	225	0.0040	0.44		**Shallow Concentrated Flow, 225** Short Grass Pasture Kv= 7.0 fps
5.0	114	0.0030	0.38		**Shallow Concentrated Flow, 114** Short Grass Pasture Kv= 7.0 fps
2.4	91	0.0080	0.63		**Shallow Concentrated Flow, 91** Short Grass Pasture Kv= 7.0 fps
34.8	1,365	Total			

Subcatchment 66S: DA 36



Summary for Subcatchment 67S: DA 37

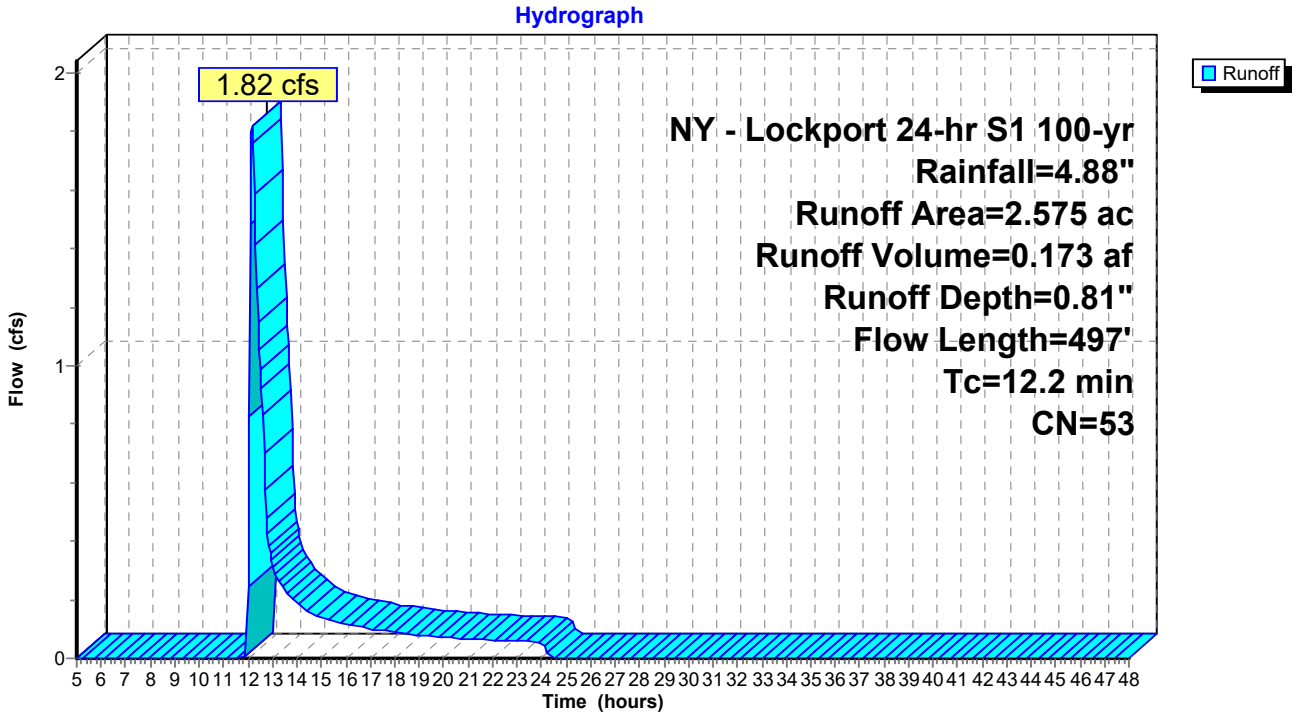
Runoff = 1.82 cfs @ 12.17 hrs, Volume= 0.173 af, Depth= 0.81"
Routed to Pond 81P : Culvert 037

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	1.353	30	A-MEADOW, NON-GRAZED
*	1.222	78	D-MEADOW, NON-GRAZED
	2.575	53	Weighted Average
	2.575		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.0590	0.22		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
0.4	41	0.0520	1.60		**Shallow Concentrated Flow, 41** Short Grass Pasture Kv= 7.0 fps
0.6	48	0.0420	1.43		**Shallow Concentrated Flow, 48** Short Grass Pasture Kv= 7.0 fps
0.6	76	0.0800	1.98		**Shallow Concentrated Flow, 76** Short Grass Pasture Kv= 7.0 fps
1.0	71	0.0290	1.19		**Shallow Concentrated Flow, 71** Short Grass Pasture Kv= 7.0 fps
0.9	82	0.0470	1.52		**Shallow Concentrated Flow, 82** Short Grass Pasture Kv= 7.0 fps
1.1	79	0.0290	1.19		**Shallow Concentrated Flow, 79** Short Grass Pasture Kv= 7.0 fps
12.2	497	Total			

Subcatchment 67S: DA 37



Summary for Subcatchment 68S: DA 38

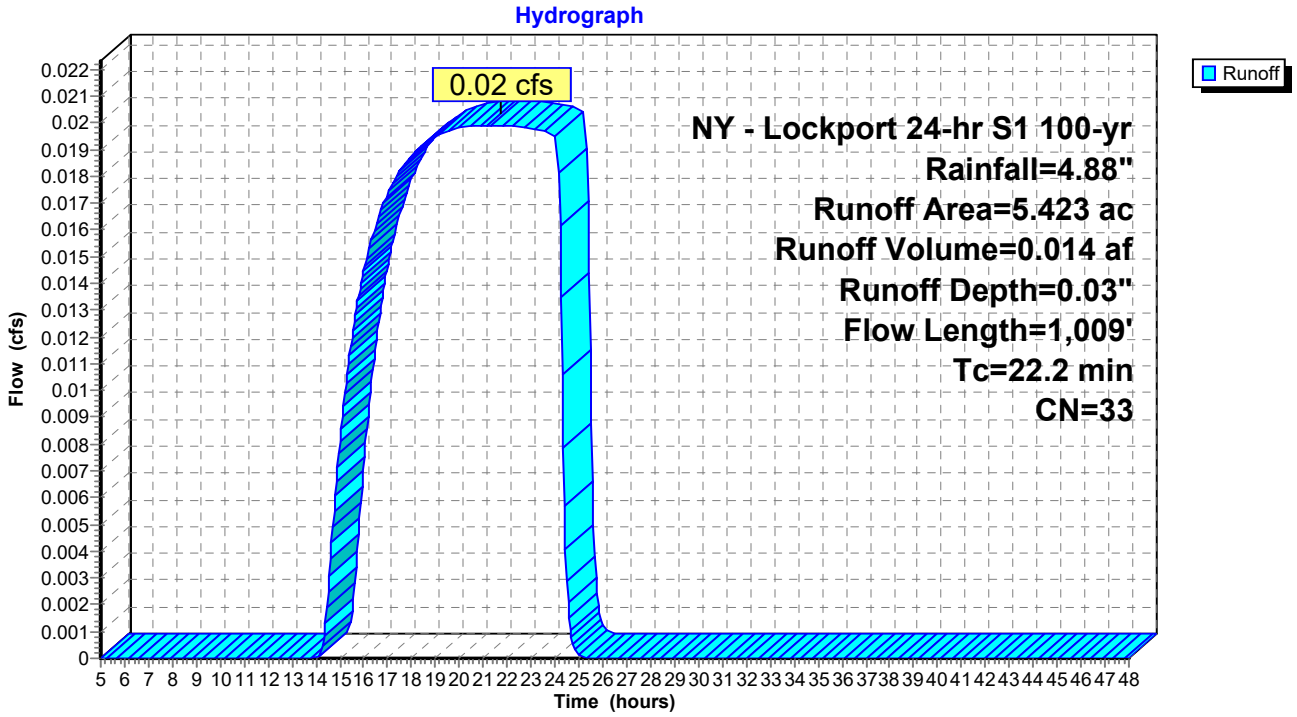
Runoff = 0.02 cfs @ 21.18 hrs, Volume= 0.014 af, Depth= 0.03"
Routed to Pond 82P : Culvert 038

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.011	39	A-75% GRASS COVER, GOOD
*	0.256	49	A-50-75% GRASS COVER, FAIR
*	4.945	30	A-MEADOW, NON-GRAZED
*	0.148	69	B-50-75% GRASS COVER, FAIR
*	0.007	58	B-MEADOW, NON-GRAZED
*	0.056	78	D-MEADOW, NON-GRAZED
	5.423	33	Weighted Average
	5.423		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0400	0.19		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
2.3	130	0.0180	0.94		**Shallow Concentrated Flow, 130** Short Grass Pasture Kv= 7.0 fps
2.3	179	0.0350	1.31		**Shallow Concentrated Flow, 179** Short Grass Pasture Kv= 7.0 fps
2.8	236	0.0410	1.42		**Shallow Concentrated Flow, 236** Short Grass Pasture Kv= 7.0 fps
0.9	80	0.0470	1.52		**Shallow Concentrated Flow, 80** Short Grass Pasture Kv= 7.0 fps
1.8	132	0.0310	1.23		**Shallow Concentrated Flow, 132** Short Grass Pasture Kv= 7.0 fps
3.2	152	0.0130	0.80		**Shallow Concentrated Flow, 152** Short Grass Pasture Kv= 7.0 fps
22.2	1,009	Total			

Subcatchment 68S: DA 38



Summary for Subcatchment 69S: DA 39

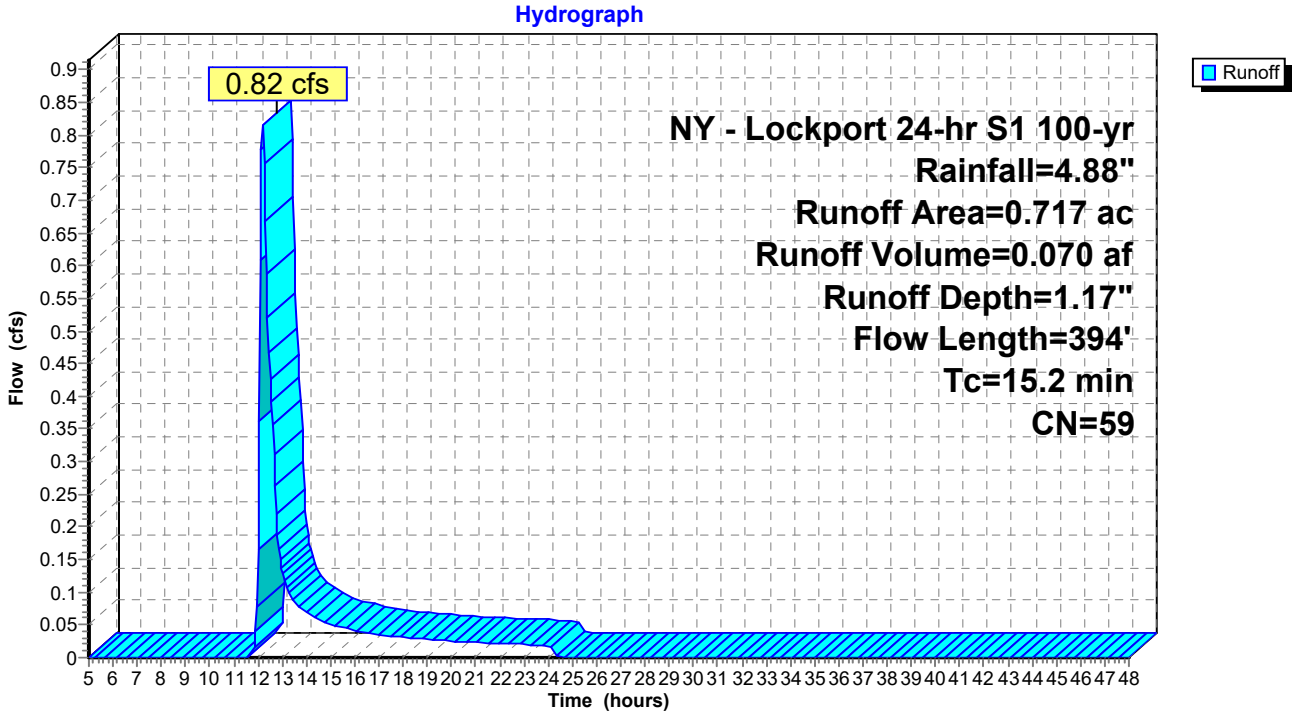
Runoff = 0.82 cfs @ 12.19 hrs, Volume= 0.070 af, Depth= 1.17"
Routed to Pond 83P : Culvert 039

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.131	49	A-50-75% GRASS COVER, FAIR
*	0.104	30	A-MEADOW, NON-GRAZED
*	0.443	69	B-50-75% GRASS COVER, FAIR
*	0.039	58	B-MEADOW, NON-GRAZED
	0.717	59	Weighted Average
	0.717		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.0330	0.17		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
1.3	123	0.0480	1.53		**Shallow Concentrated Flow, 123** Short Grass Pasture Kv= 7.0 fps
4.3	171	0.0090	0.66		**Shallow Concentrated Flow, 171** Short Grass Pasture Kv= 7.0 fps
15.2	394	Total			

Subcatchment 69S: DA 39



Summary for Subcatchment 70S: DA 40

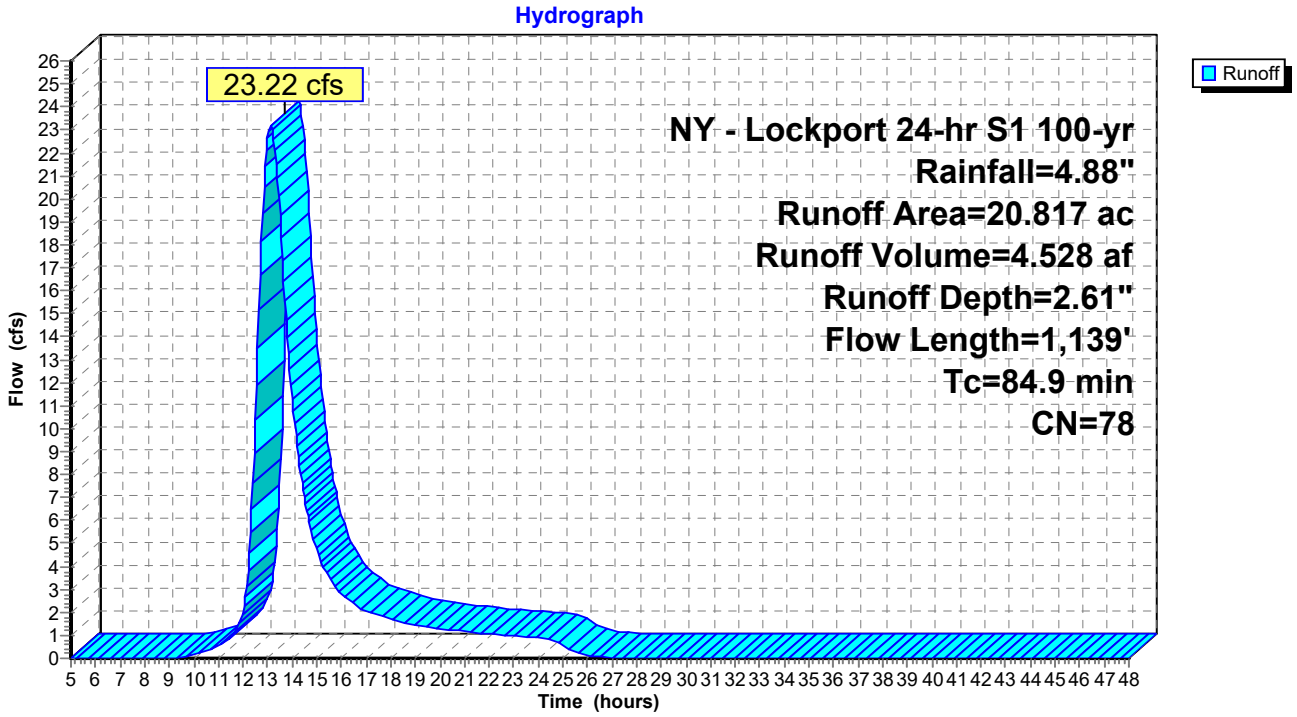
Runoff = 23.22 cfs @ 13.11 hrs, Volume= 4.528 af, Depth= 2.61"
Routed to Pond 84P : Culvert 040

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.117	49	A-50-75% GRASS COVER, FAIR
*	0.133	30	A-MEADOW, NON-GRAZED
*	0.857	80	D-75% GRASS COVER, GOOD
*	0.371	84	D-50-75% GRASS COVER, FAIR
*	0.267	79	D-WOOD/GRASS COMC., GOOD
*	18.654	78	D-MEADOW, NON-GRAZED
*	0.418	98	D-WATER SURFACE, 0% IMP
	20.817	78	Weighted Average
	20.399		97.99% Pervious Area
	0.418		2.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
25.2	100	0.0030	0.07		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
11.2	258	0.0030	0.38		**Shallow Concentrated Flow, 258** Short Grass Pasture Kv= 7.0 fps
31.4	132	0.0001	0.07		**Shallow Concentrated Flow, 132** Short Grass Pasture Kv= 7.0 fps
4.0	176	0.0110	0.73		**Shallow Concentrated Flow, 176** Short Grass Pasture Kv= 7.0 fps
7.7	270	0.0070	0.59		**Shallow Concentrated Flow, 270** Short Grass Pasture Kv= 7.0 fps
5.4	203	0.0080	0.63		**Shallow Concentrated Flow, 203** Short Grass Pasture Kv= 7.0 fps
84.9	1,139	Total			

Subcatchment 70S: DA 40



Summary for Subcatchment 71S: DA 41

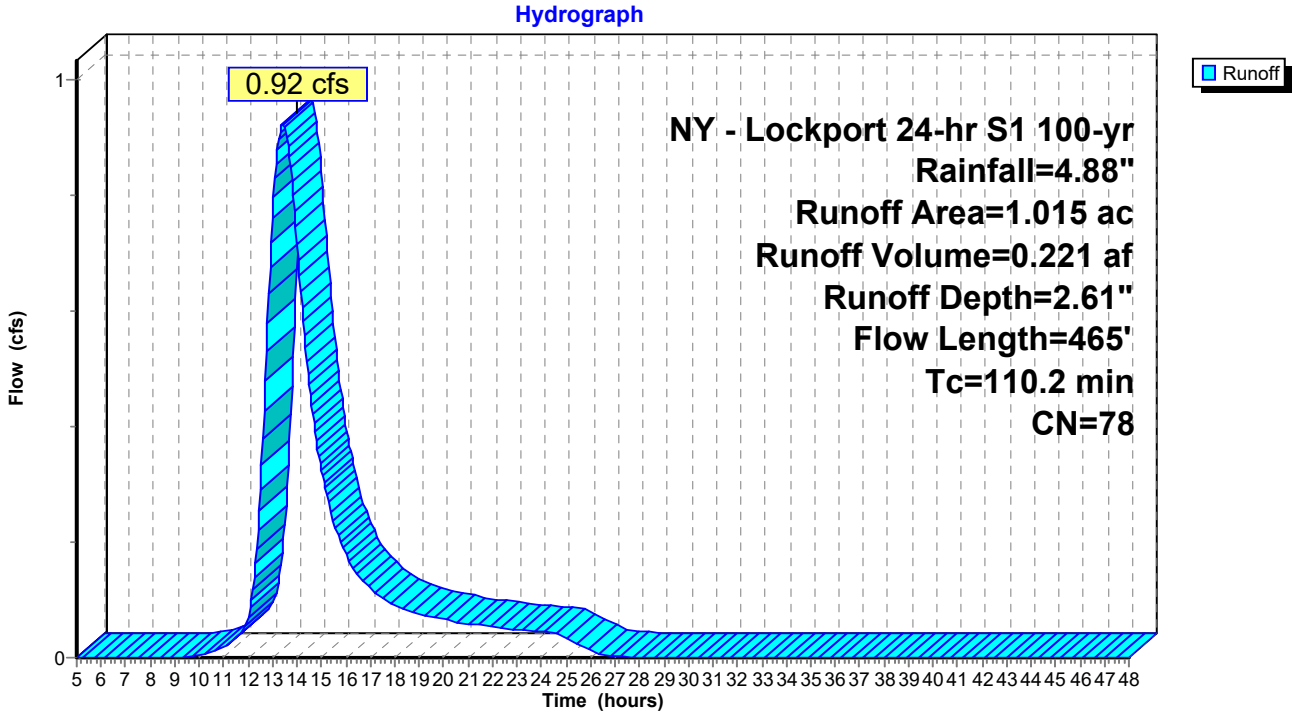
Runoff = 0.92 cfs @ 13.39 hrs, Volume= 0.221 af, Depth= 2.61"
Routed to Pond 86P : Culvert 041

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.185	78	D-MEADOW, NON-GRAZED
*	0.830	78	D-MEADOW, NON-GRAZED
	1.015	78	Weighted Average
	1.015		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
98.2	100	0.0001	0.02		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
8.5	252	0.0050	0.49		**Shallow Concentrated Flow, 252** Short Grass Pasture Kv= 7.0 fps
3.5	113	0.0060	0.54		**Shallow Concentrated Flow, 113** Short Grass Pasture Kv= 7.0 fps
110.2	465	Total			

Subcatchment 71S: DA 41



Summary for Subcatchment 72S: DA 45

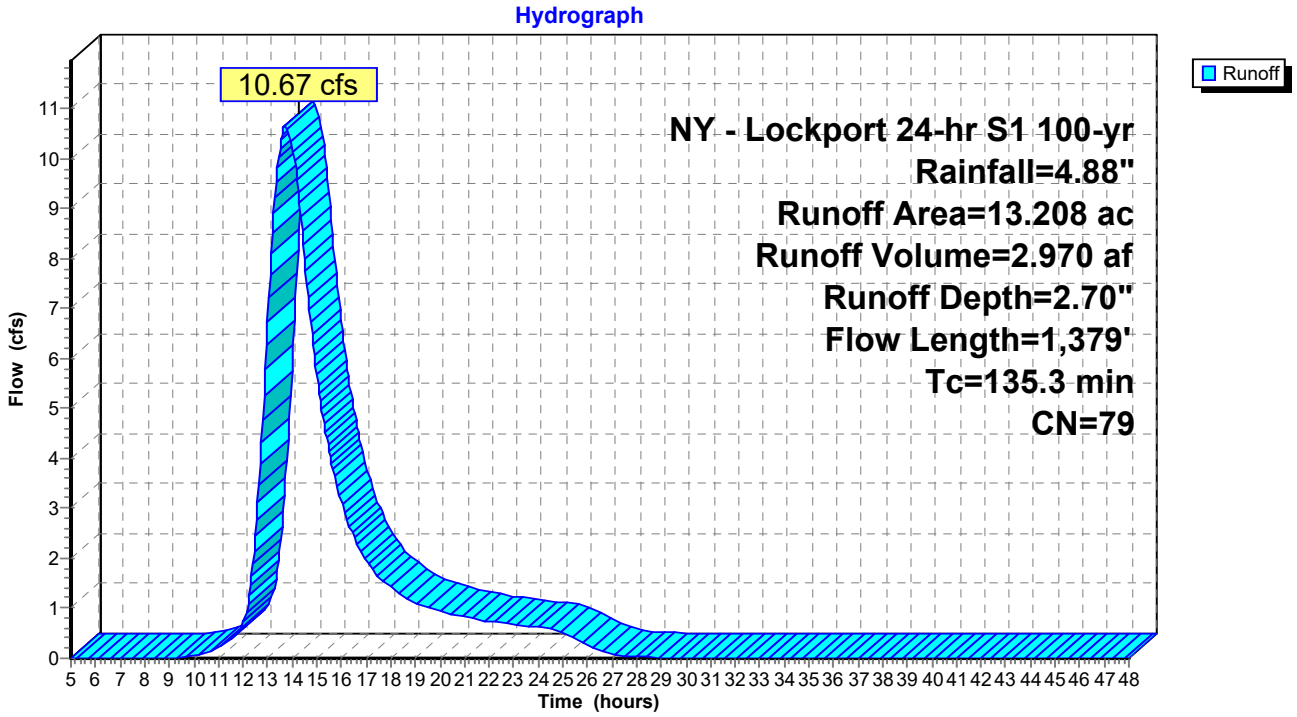
Runoff = 10.67 cfs @ 13.71 hrs, Volume= 2.970 af, Depth= 2.70"
Routed to Pond 87P : Culvert 045

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.839	80	D-75% GRASS COVER, GOOD
*	0.532	84	D-50-75% GRASS COVER, FAIR
*	1.189	79	D-WOODS/GRASS COMB., FAIR
*	0.421	78	D-MEADOW, NON-GRAZED
*	0.610	80	D-75% GRASS COVER, GOOD
*	0.552	79	D-WOODS/GRASS COMB., FAIR
*	1.693	78	D-MEADOW, NON-GRAZED
*	0.909	80	D-75% GRASS COVER, GOOD
*	0.118	84	D-50-75% GRASS COVER, FAIR
*	6.345	78	D-MEADOW, NON-GRAZED
	13.208	79	Weighted Average
	13.208		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.0330	0.17		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
0.9	53	0.0220	1.04		**Shallow Concentrated Flow, 53** Short Grass Pasture Kv= 7.0 fps
2.3	140	0.0210	1.01		**Shallow Concentrated Flow, 140** Short Grass Pasture Kv= 7.0 fps
2.2	140	0.0220	1.04		**Shallow Concentrated Flow, 140** Short Grass Pasture Kv= 7.0 fps
5.8	230	0.0090	0.66		**Shallow Concentrated Flow, 230** Short Grass Pasture Kv= 7.0 fps
7.6	267	0.0070	0.59		**Shallow Concentrated Flow, 267** Short Grass Pasture Kv= 7.0 fps
43.8	184	0.0001	0.07		**Shallow Concentrated Flow, 184** Short Grass Pasture Kv= 7.0 fps
63.1	265	0.0001	0.07		**Shallow Concentrated Flow, 265** Short Grass Pasture Kv= 7.0 fps
135.3	1,379	Total			

Subcatchment 72S: DA 45



Summary for Subcatchment 73S: DA 48

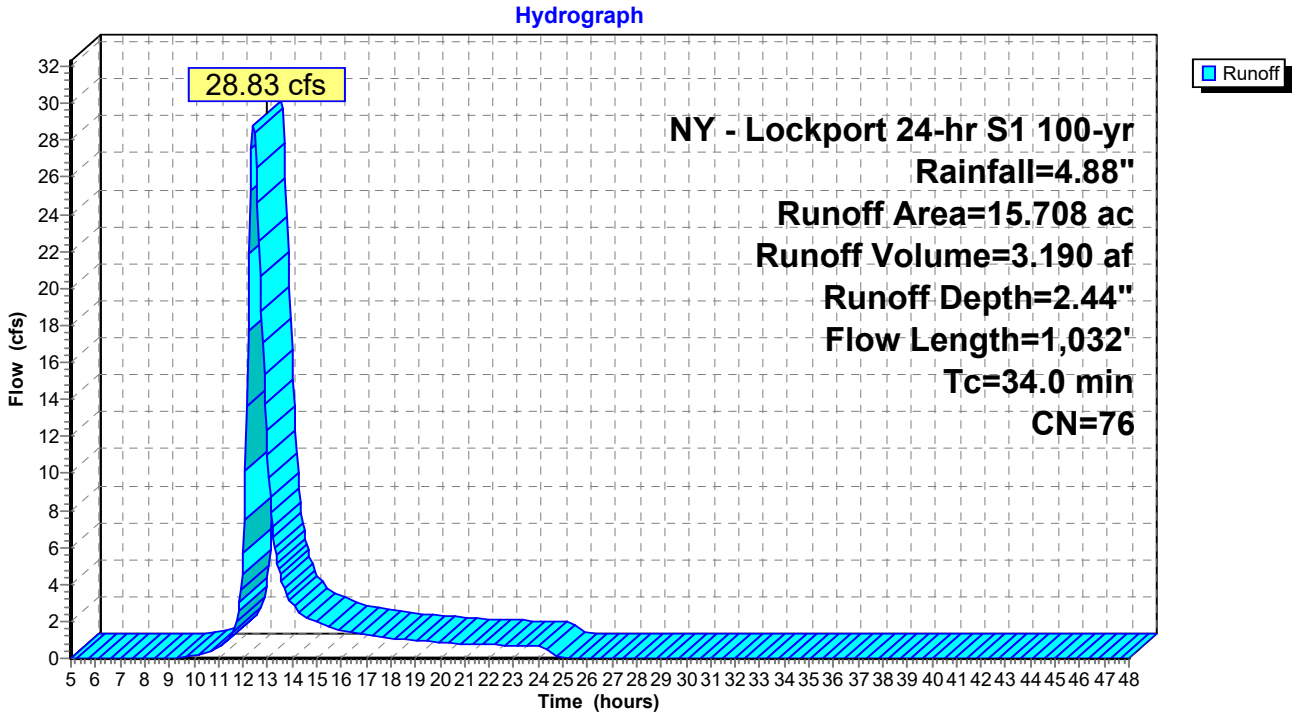
Runoff = 28.83 cfs @ 12.43 hrs, Volume= 3.190 af, Depth= 2.44"
Routed to Pond 89P : Culvert 048

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.687	61	B-75% GRASS COVER, GOOD
*	0.310	69	B-50-75% GRASS COVER, FAIR
*	2.053	58	B-MEADOW, NON-GRAZED
*	0.028	80	D-75% GRASS COVER, GOOD
*	2.330	78	D-MEADOW, NON-GRAZED
*	9.450	78	D-MEADOW, NON-GRAZED
*	0.765	98	D-WATER SURFACE, 0% IMP
*	0.085	98	D-WATER SURACE, 0% IMP
	15.708	76	Weighted Average
	14.858		94.59% Pervious Area
	0.850		5.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.5	100	0.0120	0.12		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
2.1	148	0.0270	1.15		**Shallow Concentrated Flow, 148** Short Grass Pasture Kv= 7.0 fps
3.4	204	0.0200	0.99		**Shallow Concentrated Flow, 204** Short Grass Pasture Kv= 7.0 fps
6.0	300	0.0140	0.83		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
8.0	280	0.0070	0.59		**Shallow Concentrated Flow, 280** Short Grass Pasture Kv= 7.0 fps
34.0	1,032	Total			

Subcatchment 73S: DA 48



Summary for Subcatchment 74S: DA 49

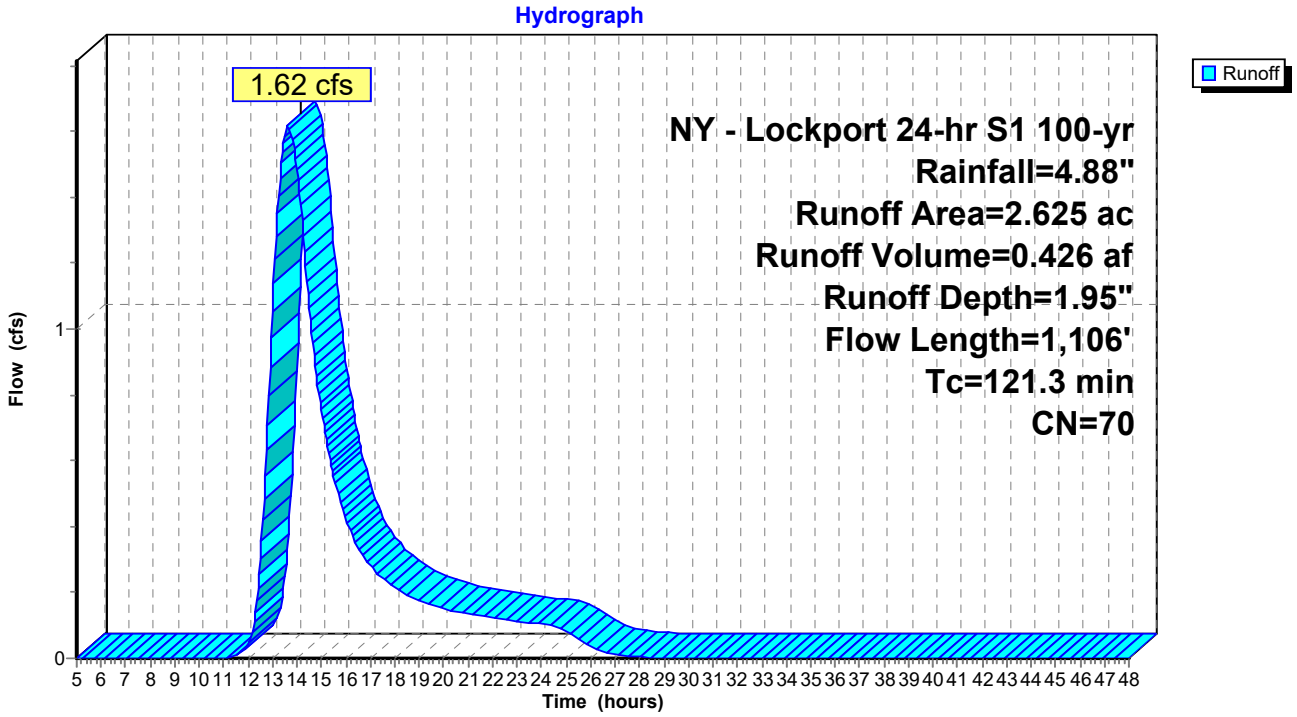
Runoff = 1.62 cfs @ 13.62 hrs, Volume= 0.426 af, Depth= 1.95"
Routed to Pond 91P : Culvert 049

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.260	61	B-75% GRASS COVER, GOOD
*	1.275	69	B-50-75% GRASS COVER, FAIR
*	0.458	58	B-MEADOW, NON-GRAZED
*	0.108	80	D-75% GRASS COVER, GOOD
*	0.524	84	D-50-75% GRASS COVER,FAIR
*	0.000	78	D-MEADOW, NON-GRAZED
	2.625	70	Weighted Average
	2.625		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
98.2	100	0.0001	0.02		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
6.5	300	0.0120	0.77		**Shallow Concentrated Flow, 300** Short Grass Pasture Kv= 7.0 fps
5.1	204	0.0090	0.66		**Shallow Concentrated Flow, 204** Short Grass Pasture Kv= 7.0 fps
7.2	235	0.0060	0.54		**Shallow Concentrated Flow, 235** Short Grass Pasture Kv= 7.0 fps
4.3	267	0.0220	1.04		**Shallow Concentrated Flow, 267** Short Grass Pasture Kv= 7.0 fps
121.3	1,106	Total			

Subcatchment 74S: DA 49



Summary for Subcatchment 75S: DA 50

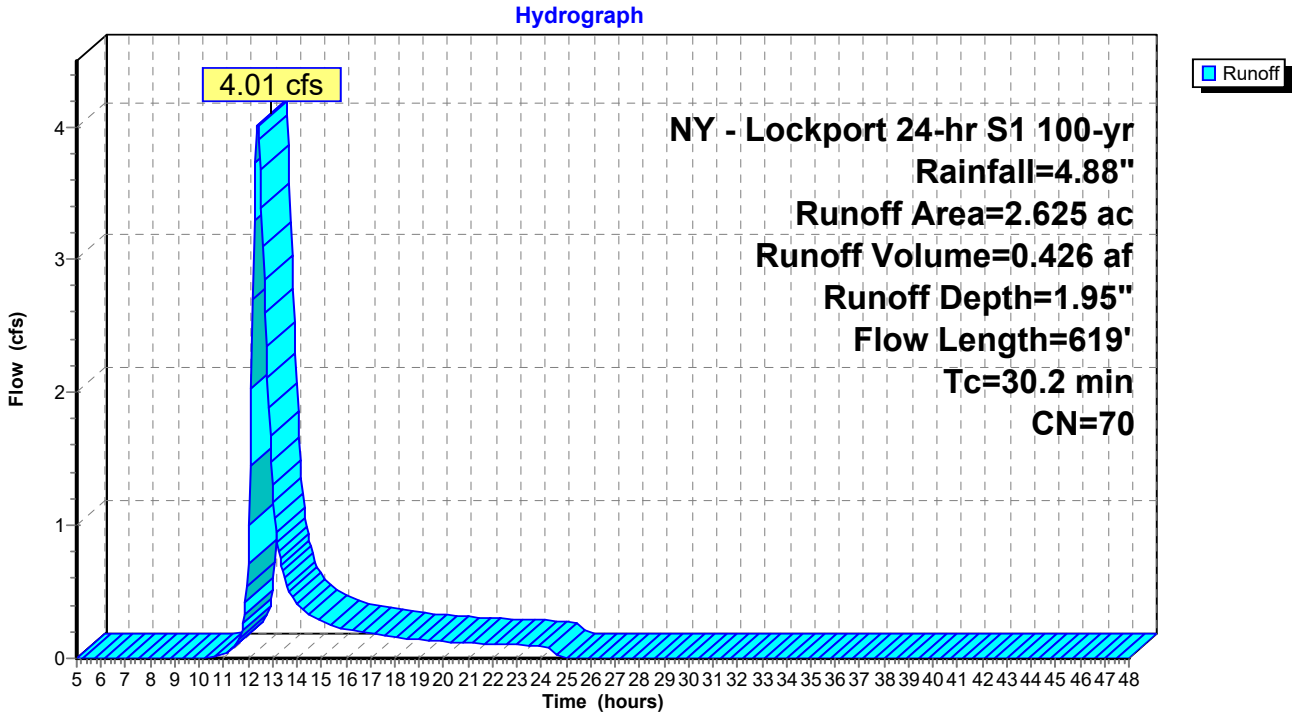
Runoff = 4.01 cfs @ 12.39 hrs, Volume= 0.426 af, Depth= 1.95"
Routed to Pond 92P : Culvert 050

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.260	61	B-75% GRASS COVER, GOOD
*	1.275	69	B-50-75% GRASS COVER, FAIR
*	0.458	58	B-MEADOW, NON-GRAZED
*	0.108	80	D-75% GRASS COVER, GOOD
*	0.524	84	D-50-75% GRASS COVER,FAIR
*	0.000	78	D-MEADOW, NON-GRAZED
	2.625	70	Weighted Average
	2.625		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.9	100	0.0070	0.09		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"
3.4	222	0.0240	1.08		**Shallow Concentrated Flow, 222** Short Grass Pasture Kv= 7.0 fps
4.1	154	0.0080	0.63		**Shallow Concentrated Flow, 154** Short Grass Pasture Kv= 7.0 fps
4.8	143	0.0050	0.49		**Shallow Concentrated Flow, 143** Short Grass Pasture Kv= 7.0 fps
30.2	619	Total			

Subcatchment 75S: DA 50



Summary for Subcatchment 76S: DA 54

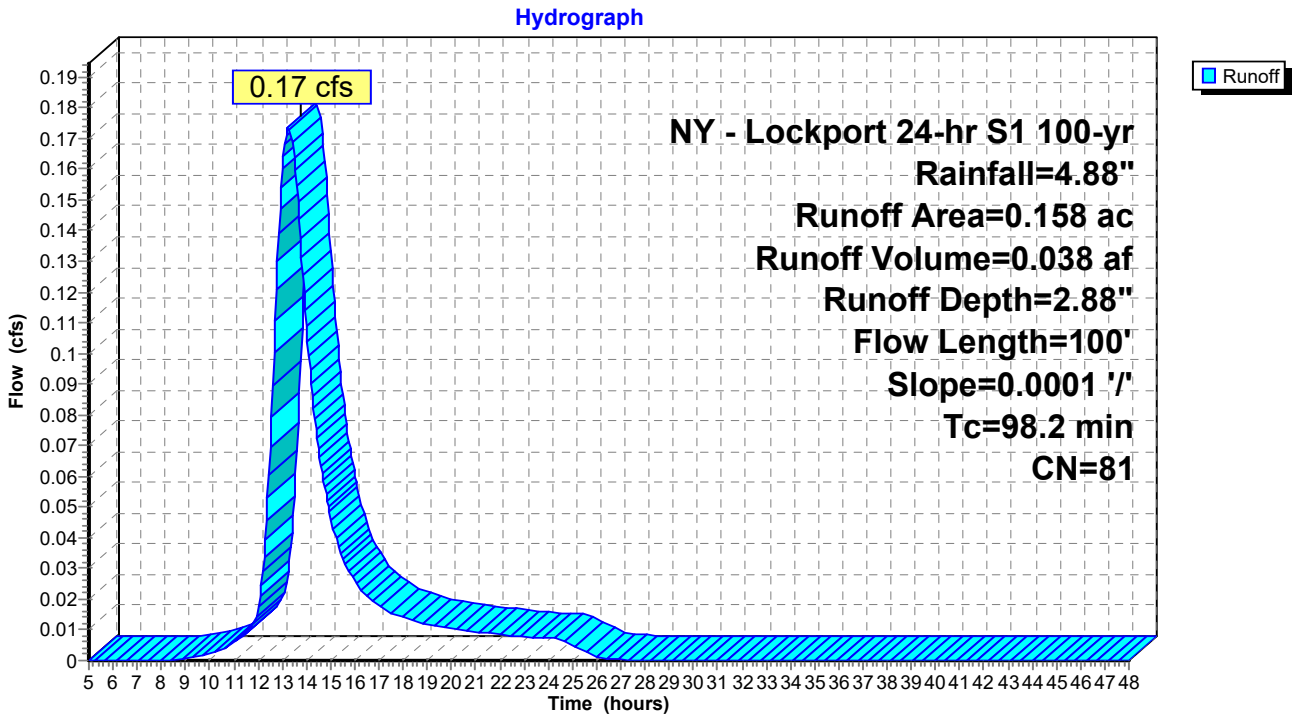
Runoff = 0.17 cfs @ 13.23 hrs, Volume= 0.038 af, Depth= 2.88"
Routed to Pond 93P : Culvert 054

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NY - Lockport 24-hr S1 100-yr Rainfall=4.88"

	Area (ac)	CN	Description
*	0.090	84	D-50-75% GRASS COVER, FAIR
*	0.067	78	D-MEADOW, NON-GRAZED
*	0.001	78	D-MEADOW, NON-GRAZED
	0.158	81	Weighted Average
	0.158		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
98.2	100	0.0001	0.02		**Sheet Flow, 100** Grass: Short n= 0.150 P2= 2.21"

Subcatchment 76S: DA 54



Summary for Pond 77P: Culvert 032

[58] Hint: Peaked 4.21' above defined flood level

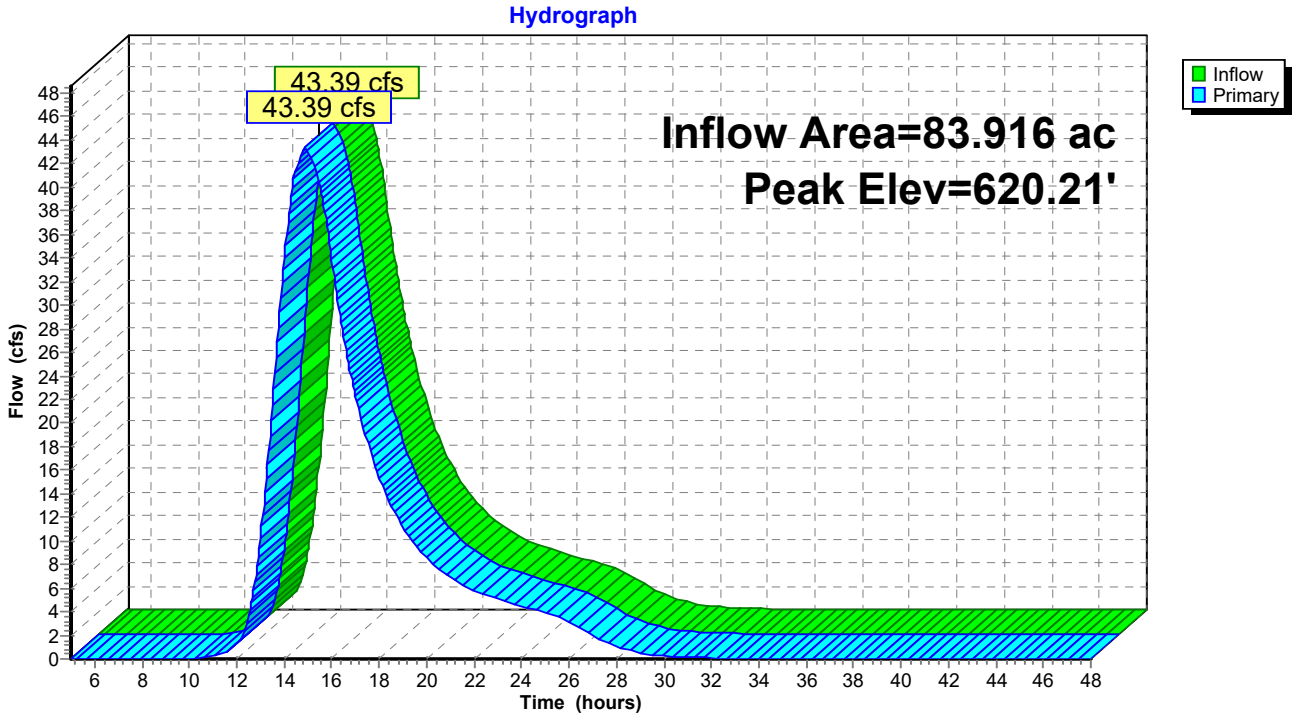
Inflow Area = 83.916 ac, 0.00% Impervious, Inflow Depth = 2.52" for 100-yr event
Inflow = 43.39 cfs @ 14.89 hrs, Volume= 17.643 af
Outflow = 43.39 cfs @ 14.89 hrs, Volume= 17.643 af, Atten= 0%, Lag= 0.0 min
Primary = 43.39 cfs @ 14.89 hrs, Volume= 17.643 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 620.21' @ 14.89 hrs
Flood Elev= 616.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	615.42'	**24.0" Round Culvert 032 w/ 4.8" inside fill** L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 615.02' / 614.18' S= 0.0168 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 2.69 sf
#2	Primary	620.02'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=43.30 cfs @ 14.89 hrs HW=620.21' (Free Discharge)
└**1=Culvert 032** (Inlet Controls 20.62 cfs @ 7.65 fps)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 22.67 cfs @ 1.17 fps)

Pond 77P: Culvert 032



Summary for Pond 78P: Culvert 033

[58] Hint: Peaked 2.46' above defined flood level

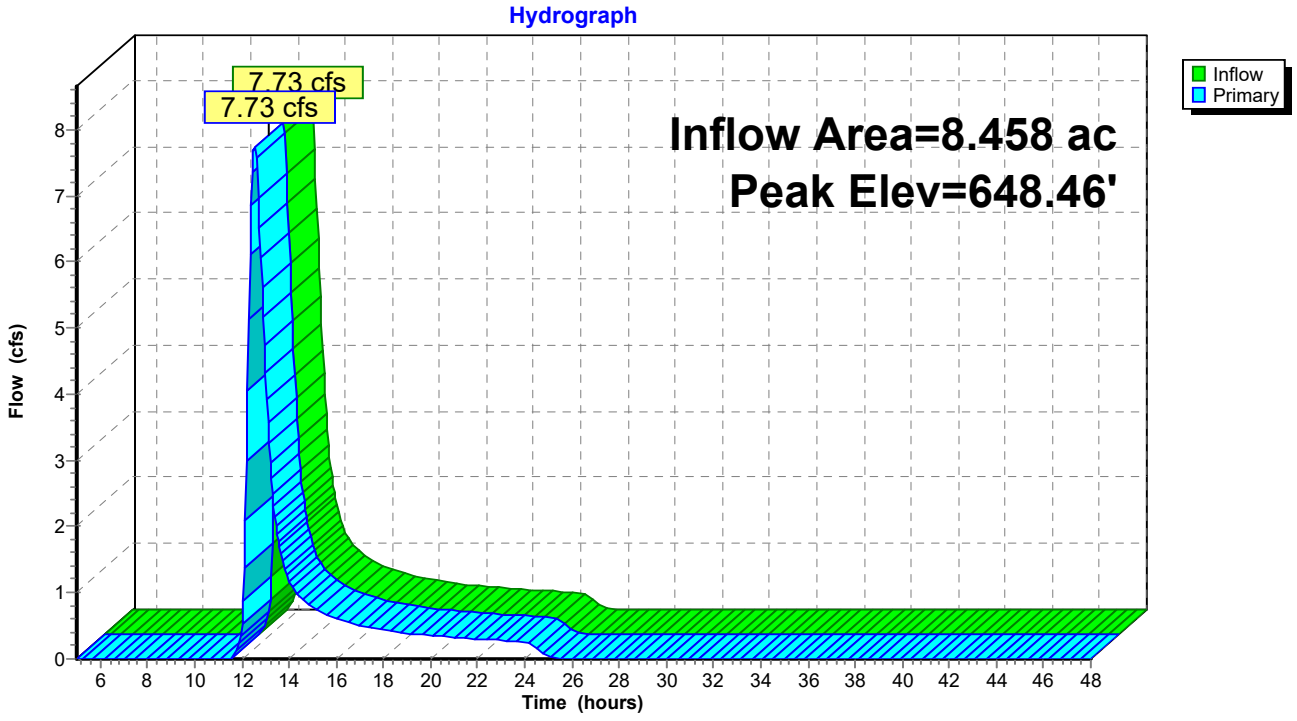
Inflow Area = 8.458 ac, 0.00% Impervious, Inflow Depth = 1.43" for 100-yr event
Inflow = 7.73 cfs @ 12.54 hrs, Volume= 1.010 af
Outflow = 7.73 cfs @ 12.54 hrs, Volume= 1.010 af, Atten= 0%, Lag= 0.0 min
Primary = 7.73 cfs @ 12.54 hrs, Volume= 1.010 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 648.46' @ 12.54 hrs
Flood Elev= 646.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	646.10'	**18.0" Round Culvert 033 w/ 3.6" inside fill** L= 45.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 645.80' / 645.49' S= 0.0069 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	648.80'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=7.72 cfs @ 12.54 hrs HW=648.45' (Free Discharge)
└**1=Culvert 033** (Inlet Controls 7.72 cfs @ 5.09 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 78P: Culvert 033



Summary for Pond 79P: Culvert 034

[58] Hint: Peaked 0.46' above defined flood level

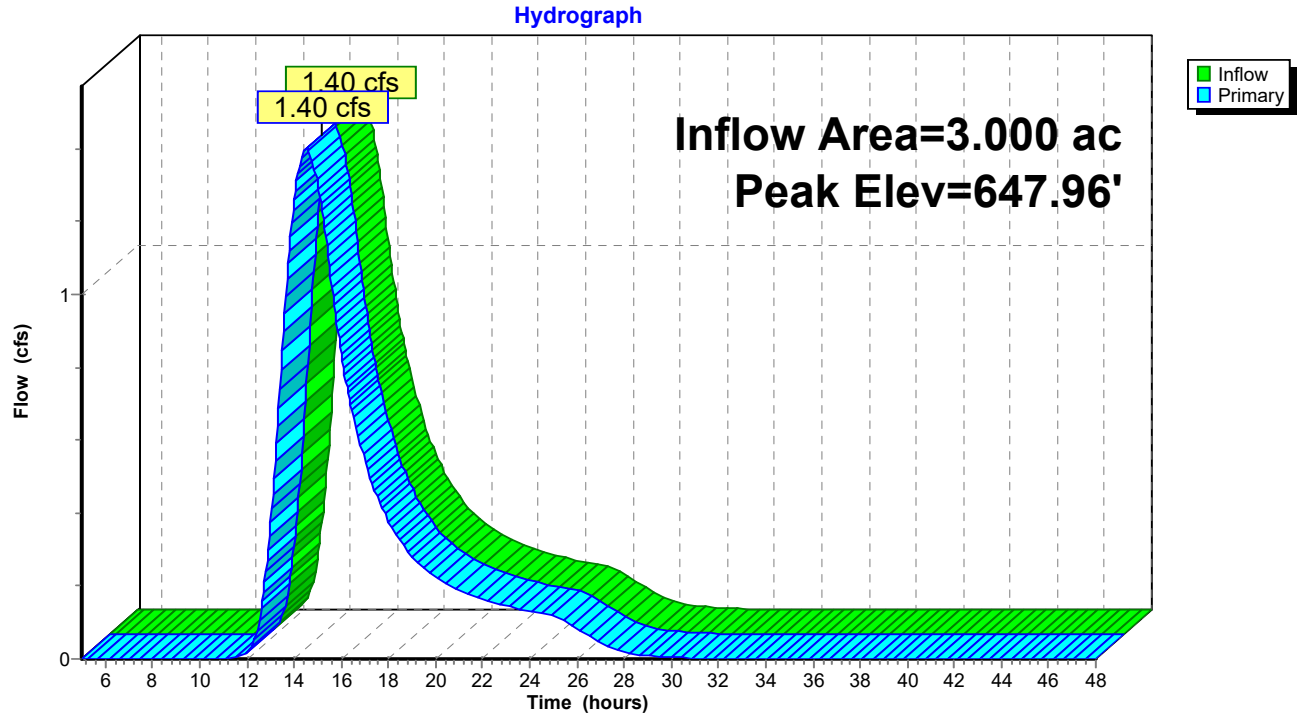
Inflow Area = 3.000 ac, 0.00% Impervious, Inflow Depth = 2.03" for 100-yr event
Inflow = 1.40 cfs @ 14.54 hrs, Volume= 0.507 af
Outflow = 1.40 cfs @ 14.54 hrs, Volume= 0.507 af, Atten= 0%, Lag= 0.0 min
Primary = 1.40 cfs @ 14.54 hrs, Volume= 0.507 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 647.96' @ 14.54 hrs
Flood Elev= 647.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	647.42'	**18.0" Round Culvert 034 w/ 3.6" inside fill** L= 70.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 647.12' / 646.24' S= 0.0126 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	650.12'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=1.40 cfs @ 14.54 hrs HW=647.96' (Free Discharge)
└**1=Culvert 034** (Inlet Controls 1.40 cfs @ 1.83 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 79P: Culvert 034



Summary for Pond 80P: Culvert 036

[58] Hint: Peaked 1.94' above defined flood level

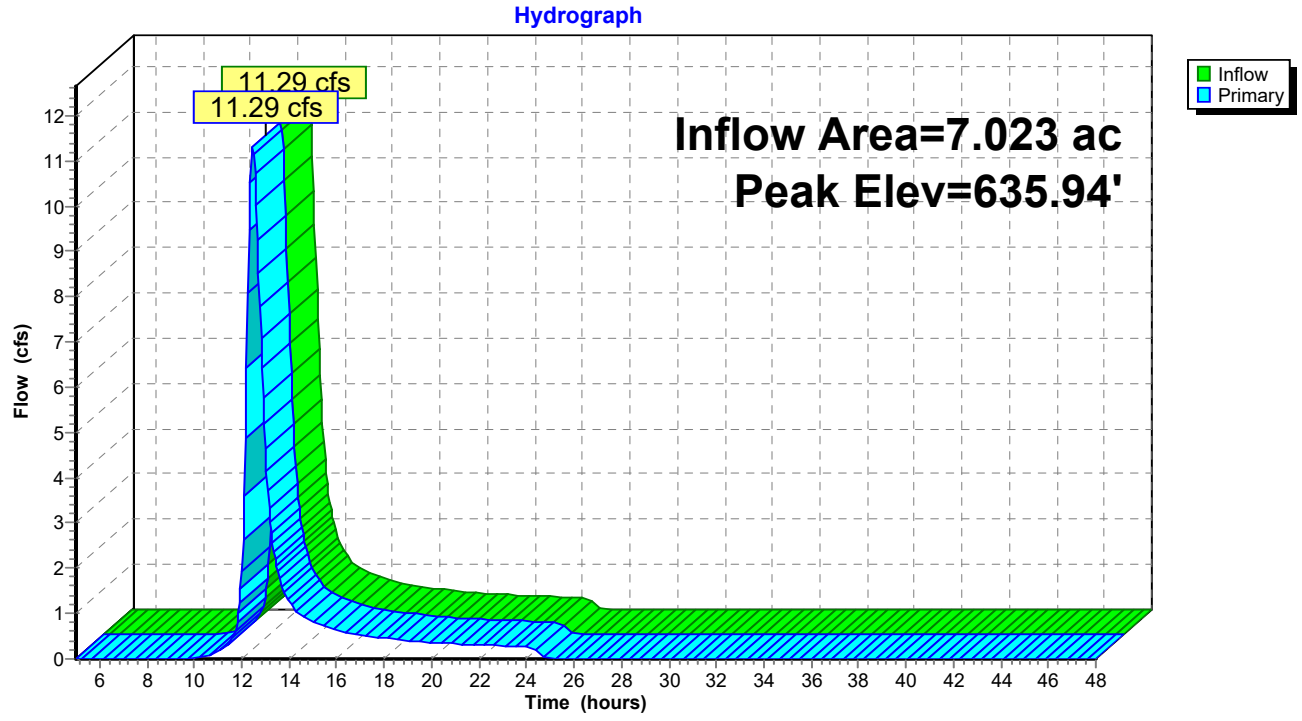
Inflow Area = 7.023 ac, 21.33% Impervious, Inflow Depth = 2.19" for 100-yr event
Inflow = 11.29 cfs @ 12.45 hrs, Volume= 1.280 af
Outflow = 11.29 cfs @ 12.45 hrs, Volume= 1.280 af, Atten= 0%, Lag= 0.0 min
Primary = 11.29 cfs @ 12.45 hrs, Volume= 1.280 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 635.94' @ 12.45 hrs
Flood Elev= 634.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	633.19'	**18.0" Round Culvert 036 w/ 3.6" inside fill** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 632.89' / 632.88' S= 0.0005 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	635.89'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=11.22 cfs @ 12.45 hrs HW=635.94' (Free Discharge)
└**1=Culvert 036** (Inlet Controls 8.53 cfs @ 5.63 fps)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 2.69 cfs @ 0.58 fps)

Pond 80P: Culvert 036



Summary for Pond 81P: Culvert 037

[58] Hint: Peaked 1.96' above defined flood level

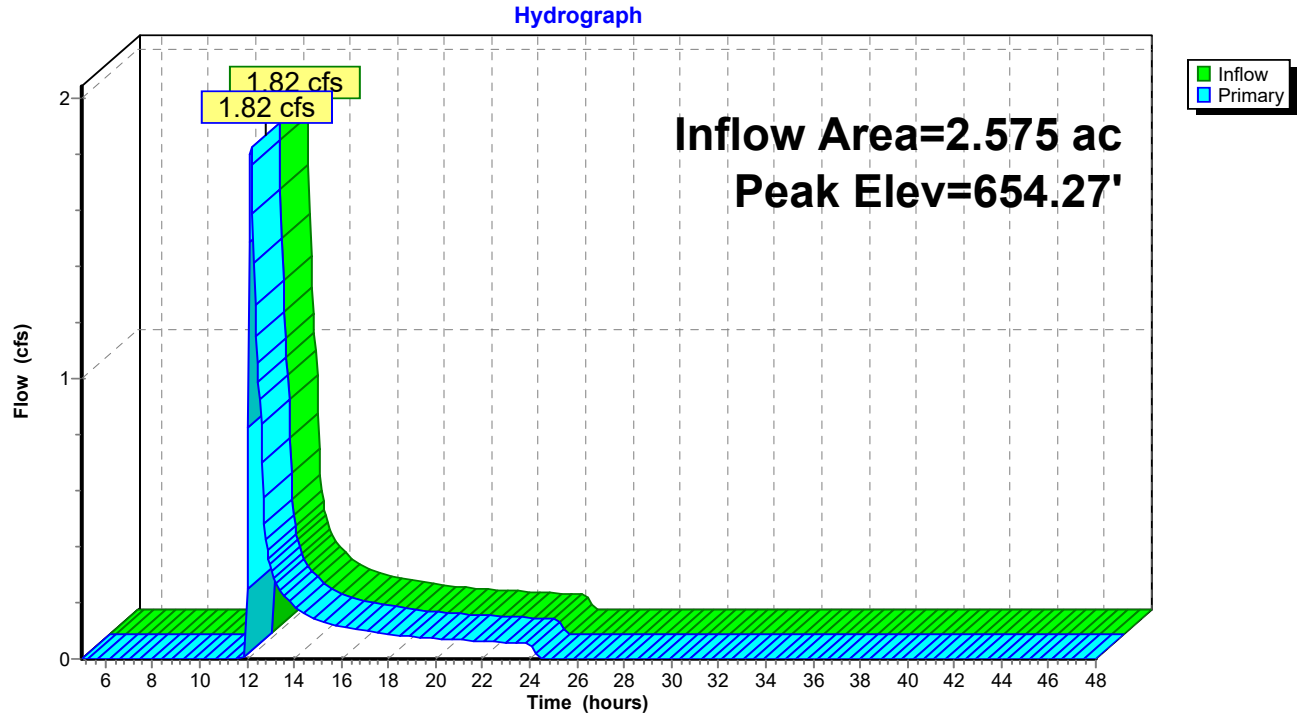
Inflow Area = 2.575 ac, 0.00% Impervious, Inflow Depth = 0.81" for 100-yr event
Inflow = 1.82 cfs @ 12.17 hrs, Volume= 0.173 af
Outflow = 1.82 cfs @ 12.17 hrs, Volume= 0.173 af, Atten= 0%, Lag= 0.0 min
Primary = 1.82 cfs @ 12.17 hrs, Volume= 0.173 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 654.27' @ 12.17 hrs
Flood Elev= 652.31'

Device	Routing	Invert	Outlet Devices
#1	Primary	653.63'	**18.0" Round Culvert 037 w/ 3.6" inside fill** L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 653.33' / 650.10' S= 0.1346 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	656.33'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=1.78 cfs @ 12.17 hrs HW=654.26' (Free Discharge)
└─**1=Culvert 037** (Inlet Controls 1.78 cfs @ 1.98 fps)
└─**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 81P: Culvert 037



Summary for Pond 82P: Culvert 038

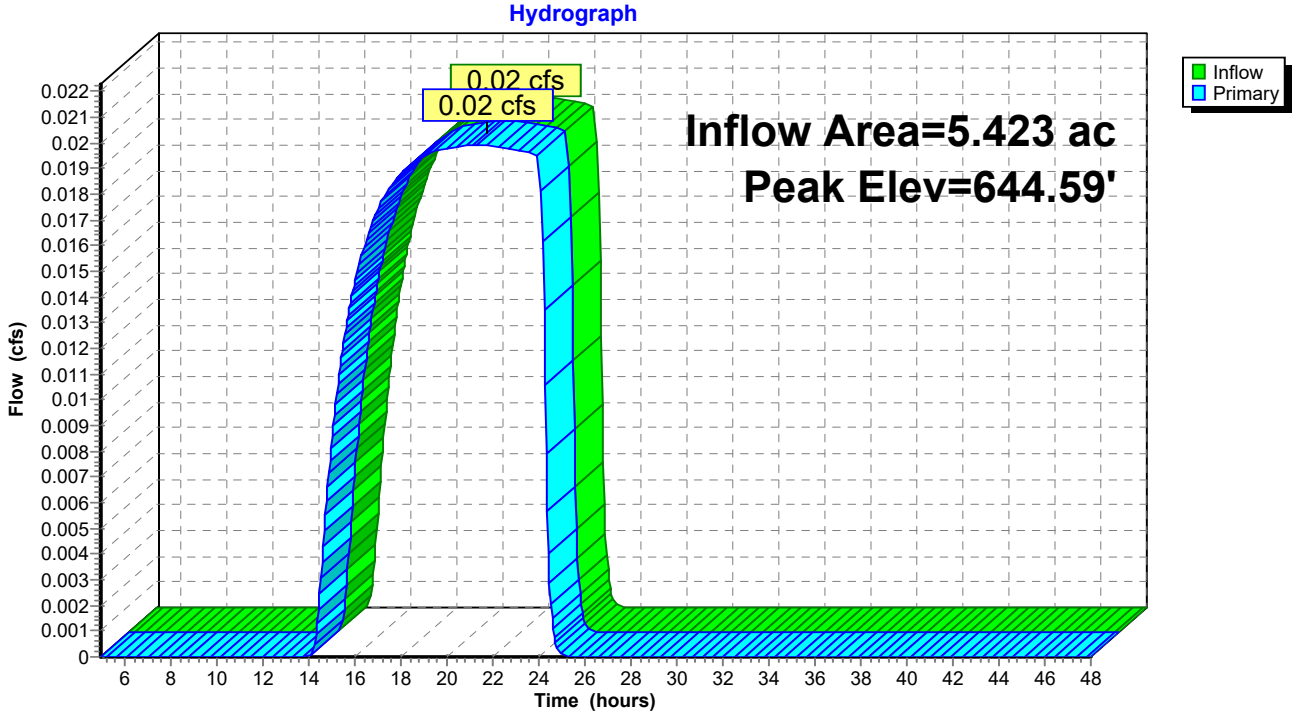
Inflow Area = 5.423 ac, 0.00% Impervious, Inflow Depth = 0.03" for 100-yr event
Inflow = 0.02 cfs @ 21.18 hrs, Volume= 0.014 af
Outflow = 0.02 cfs @ 21.18 hrs, Volume= 0.014 af, Atten= 0%, Lag= 0.0 min
Primary = 0.02 cfs @ 21.18 hrs, Volume= 0.014 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 644.59' @ 21.18 hrs
Flood Elev= 645.44'

Device	Routing	Invert	Outlet Devices
#1	Primary	644.56'	**18.0" Round Culvert 038 w/ 3.6" inside fill** L= 74.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 644.26' / 624.90' S= 0.2616 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	647.26'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.02 cfs @ 21.18 hrs HW=644.59' (Free Discharge)
└**1=Culvert 038** (Inlet Controls 0.02 cfs @ 0.47 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 82P: Culvert 038



Summary for Pond 83P: Culvert 039

[58] Hint: Peaked 1.48' above defined flood level

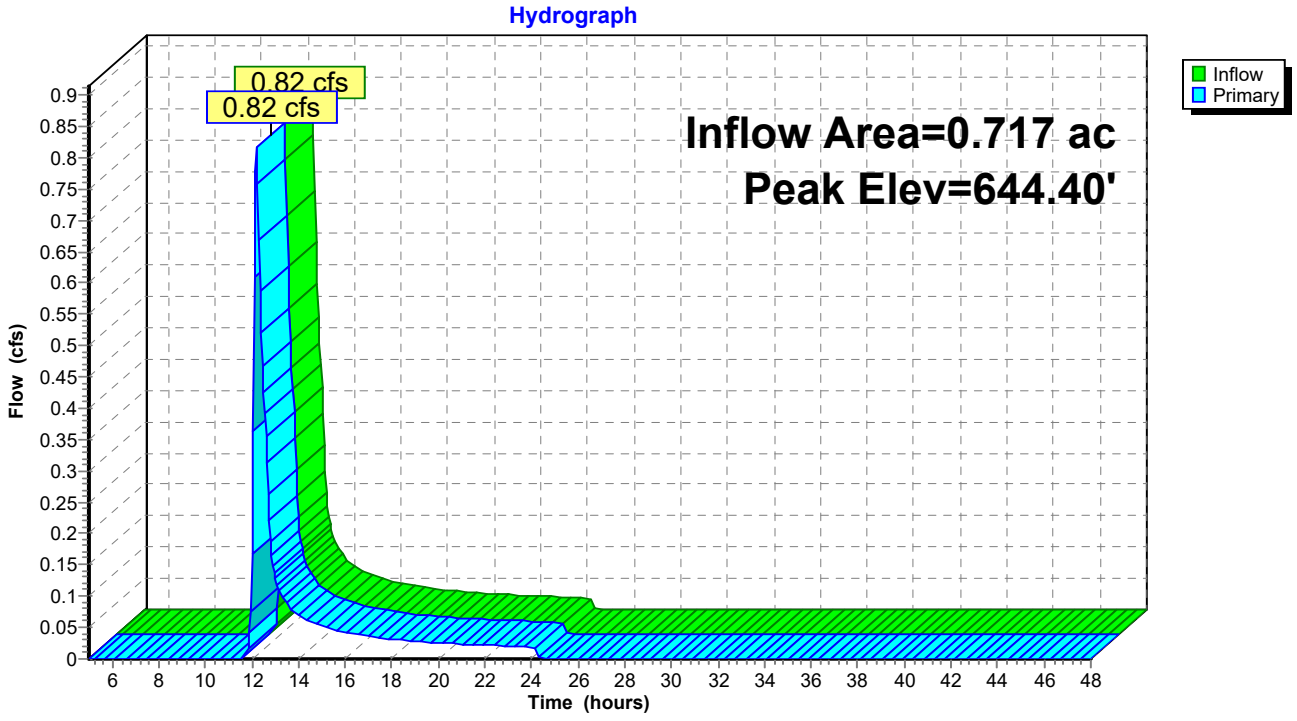
Inflow Area = 0.717 ac, 0.00% Impervious, Inflow Depth = 1.17" for 100-yr event
Inflow = 0.82 cfs @ 12.19 hrs, Volume= 0.070 af
Outflow = 0.82 cfs @ 12.19 hrs, Volume= 0.070 af, Atten= 0%, Lag= 0.0 min
Primary = 0.82 cfs @ 12.19 hrs, Volume= 0.070 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 644.40' @ 12.19 hrs
Flood Elev= 642.92'

Device	Routing	Invert	Outlet Devices
#1	Primary	644.02'	**18.0" Round Culvert 039 w/ 3.6" inside fill** L= 85.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 643.72' / 641.78' S= 0.0228 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	646.72'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.81 cfs @ 12.19 hrs HW=644.40' (Free Discharge)
└**1=Culvert 039** (Inlet Controls 0.81 cfs @ 1.53 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 83P: Culvert 039



Summary for Pond 84P: Culvert 040

[58] Hint: Peaked 2.47' above defined flood level

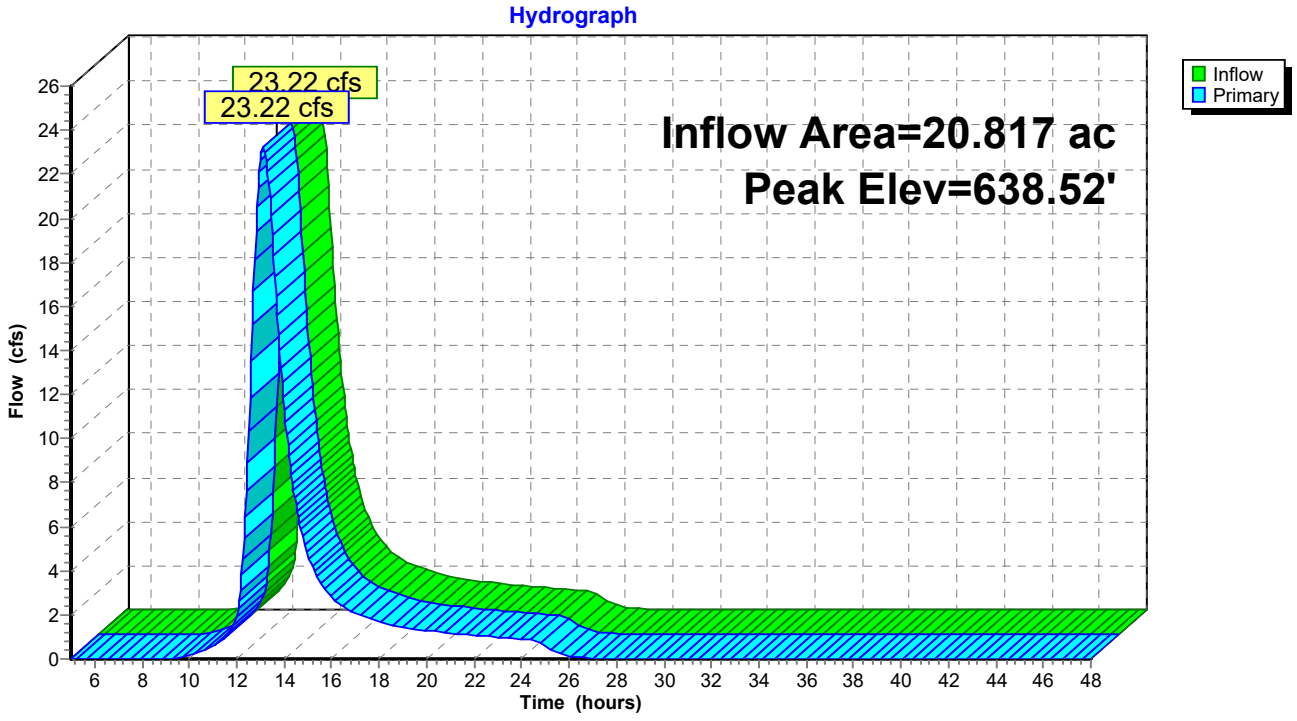
Inflow Area = 20.817 ac, 2.01% Impervious, Inflow Depth = 2.61" for 100-yr event
Inflow = 23.22 cfs @ 13.11 hrs, Volume= 4.528 af
Outflow = 23.22 cfs @ 13.11 hrs, Volume= 4.528 af, Atten= 0%, Lag= 0.0 min
Primary = 23.22 cfs @ 13.11 hrs, Volume= 4.528 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 638.52' @ 13.11 hrs
Flood Elev= 636.05'

Device	Routing	Invert	Outlet Devices
#1	Primary	636.17'	**36.0" Round Culvert 040 w/ 7.2" inside fill** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 635.57' / 635.46' S= 0.0039 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 6.06 sf
#2	Primary	640.07'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=23.19 cfs @ 13.11 hrs HW=638.52' (Free Discharge)
└**1=Culvert 040** (Barrel Controls 23.19 cfs @ 4.67 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 84P: Culvert 040



Summary for Pond 86P: Culvert 041

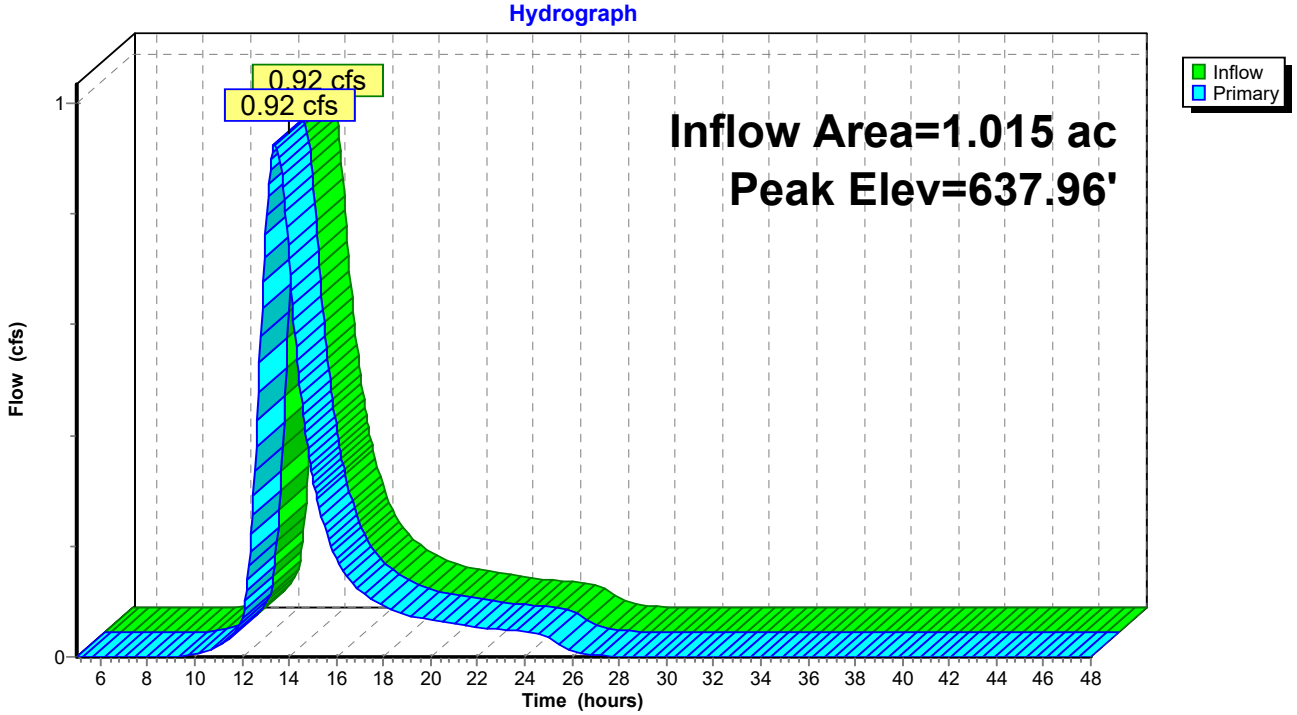
Inflow Area = 1.015 ac, 0.00% Impervious, Inflow Depth = 2.61" for 100-yr event
Inflow = 0.92 cfs @ 13.39 hrs, Volume= 0.221 af
Outflow = 0.92 cfs @ 13.39 hrs, Volume= 0.221 af, Atten= 0%, Lag= 0.0 min
Primary = 0.92 cfs @ 13.39 hrs, Volume= 0.221 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 637.96' @ 13.39 hrs
Flood Elev= 638.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	637.55'	**18.0" Round Culvert 041 w/ 3.6" inside fill** L= 28.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 637.25' / 636.72' S= 0.0189 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	640.25'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.92 cfs @ 13.39 hrs HW=637.96' (Free Discharge)
└**1=Culvert 041** (Inlet Controls 0.92 cfs @ 1.60 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 86P: Culvert 041



Summary for Pond 87P: Culvert 045

[58] Hint: Peaked 2.16' above defined flood level

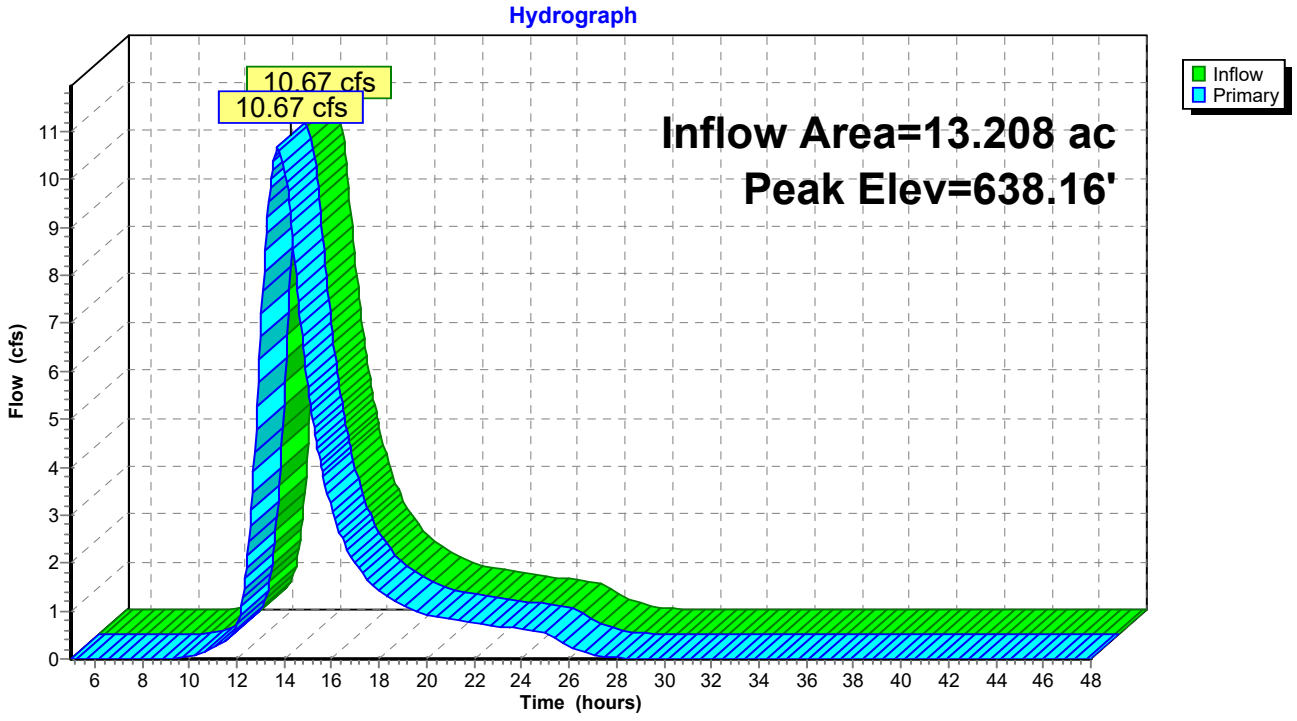
Inflow Area = 13.208 ac, 0.00% Impervious, Inflow Depth = 2.70" for 100-yr event
Inflow = 10.67 cfs @ 13.71 hrs, Volume= 2.970 af
Outflow = 10.67 cfs @ 13.71 hrs, Volume= 2.970 af, Atten= 0%, Lag= 0.0 min
Primary = 10.67 cfs @ 13.71 hrs, Volume= 2.970 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 638.16' @ 13.71 hrs
Flood Elev= 636.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	635.42'	**18.0" Round Culvert 045 w/ 3.6" inside fill** L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 635.12' / 634.71' S= 0.0102 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 1.52 sf
#2	Primary	638.12'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=10.57 cfs @ 13.71 hrs HW=638.16' (Free Discharge)
└**1=Culvert 045** (Inlet Controls 8.51 cfs @ 5.62 fps)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 2.06 cfs @ 0.53 fps)

Pond 87P: Culvert 045



Summary for Pond 89P: Culvert 048

[58] Hint: Peaked 1.81' above defined flood level

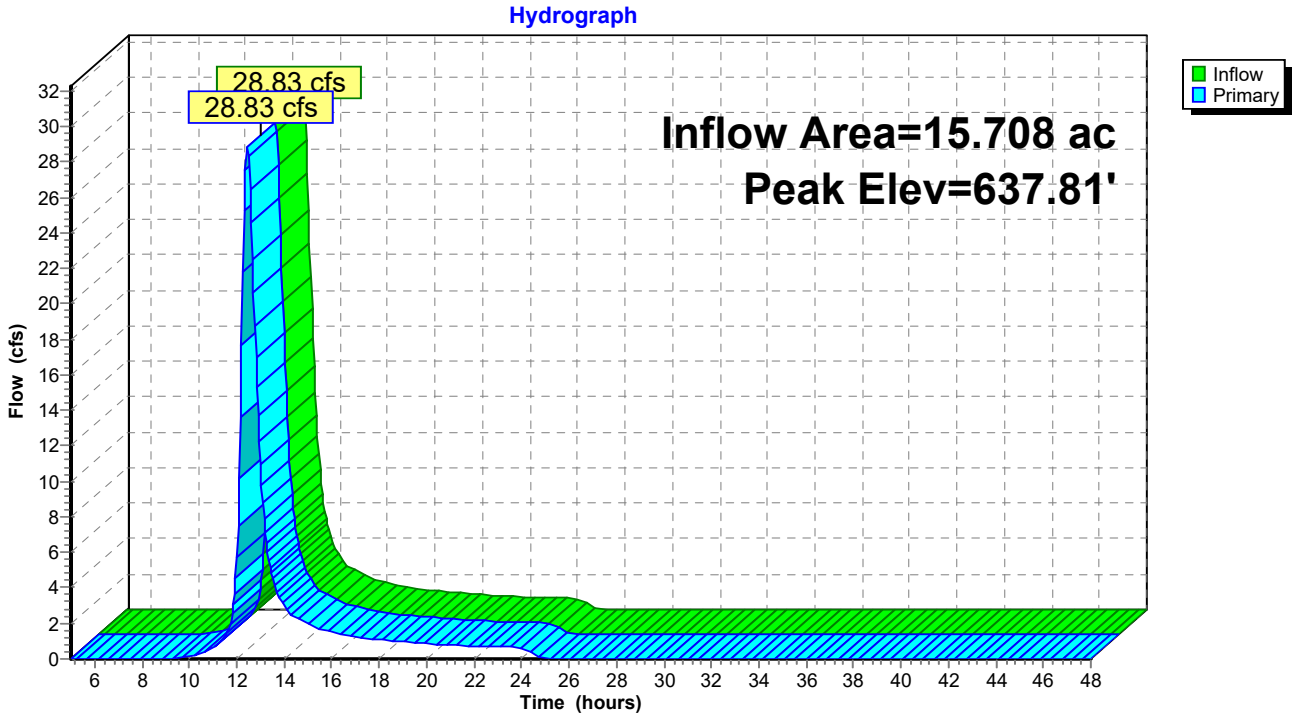
Inflow Area = 15.708 ac, 5.41% Impervious, Inflow Depth = 2.44" for 100-yr event
Inflow = 28.83 cfs @ 12.43 hrs, Volume= 3.190 af
Outflow = 28.83 cfs @ 12.43 hrs, Volume= 3.190 af, Atten= 0%, Lag= 0.0 min
Primary = 28.83 cfs @ 12.43 hrs, Volume= 3.190 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 637.81' @ 12.43 hrs
Flood Elev= 636.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	634.89'	**36.0" Round Culvert 048 w/ 7.2" inside fill** L= 25.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 634.29' / 634.25' S= 0.0016 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 6.06 sf
#2	Primary	638.79'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=28.72 cfs @ 12.43 hrs HW=637.80' (Free Discharge)
└**1=Culvert 048** (Barrel Controls 28.72 cfs @ 4.92 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 89P: Culvert 048



Summary for Pond 91P: Culvert 049

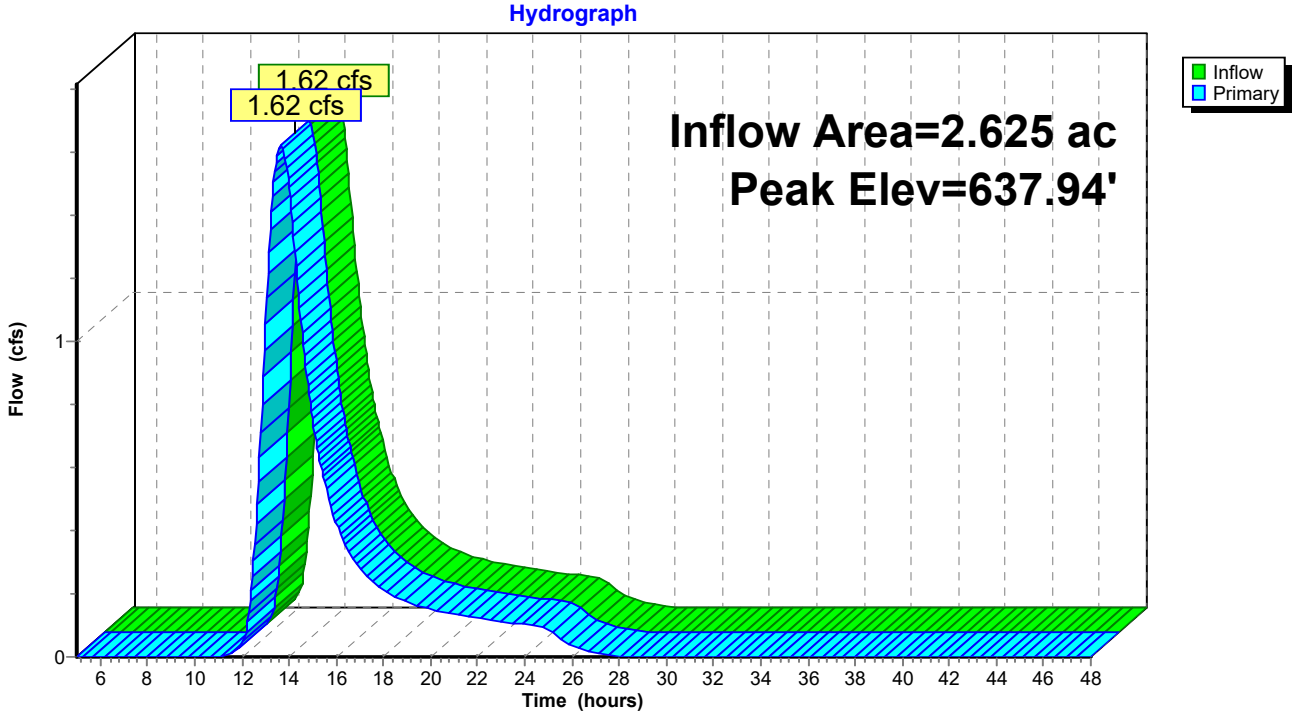
Inflow Area = 2.625 ac, 0.00% Impervious, Inflow Depth = 1.95" for 100-yr event
Inflow = 1.62 cfs @ 13.62 hrs, Volume= 0.426 af
Outflow = 1.62 cfs @ 13.62 hrs, Volume= 0.426 af, Atten= 0%, Lag= 0.0 min
Primary = 1.62 cfs @ 13.62 hrs, Volume= 0.426 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 637.94' @ 13.62 hrs
Flood Elev= 638.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	637.44'	**24.0" Round Culvert 049 w/ 4.8" inside fill** L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 637.04' / 636.64' S= 0.0080 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 2.69 sf
#2	Primary	640.54'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=1.62 cfs @ 13.62 hrs HW=637.94' (Free Discharge)
└**1=Culvert 049** (Inlet Controls 1.62 cfs @ 1.76 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 91P: Culvert 049



Summary for Pond 92P: Culvert 050

[58] Hint: Peaked 1.03' above defined flood level

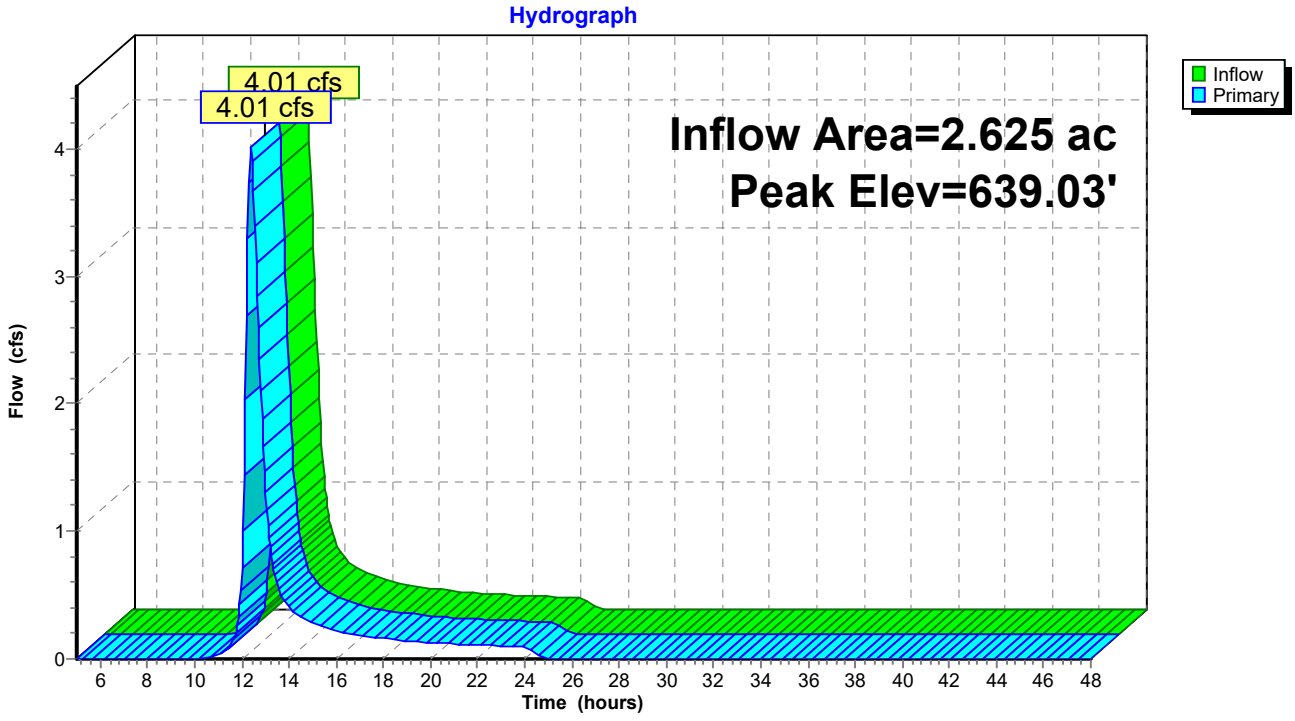
Inflow Area = 2.625 ac, 0.00% Impervious, Inflow Depth = 1.95" for 100-yr event
Inflow = 4.01 cfs @ 12.39 hrs, Volume= 0.426 af
Outflow = 4.01 cfs @ 12.39 hrs, Volume= 0.426 af, Atten= 0%, Lag= 0.0 min
Primary = 4.01 cfs @ 12.39 hrs, Volume= 0.426 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 639.03' @ 12.39 hrs
Flood Elev= 638.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	638.03'	**24.0" Round Culvert 050 w/ 4.8" inside fill** L= 63.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 637.63' / 637.55' S= 0.0013 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 2.69 sf
#2	Primary	641.13'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=4.00 cfs @ 12.39 hrs HW=639.03' (Free Discharge)
└**1=Culvert 050** (Barrel Controls 4.00 cfs @ 2.82 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 92P: Culvert 050



Summary for Pond 93P: Culvert 054

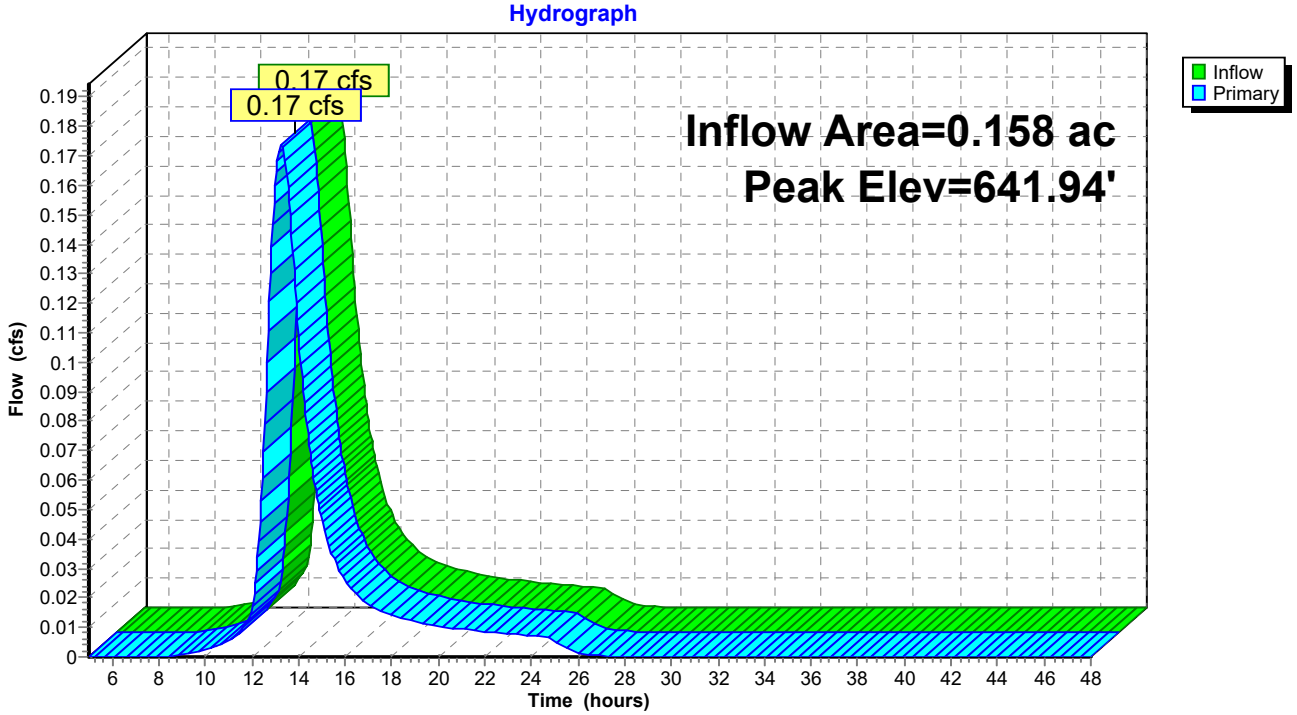
Inflow Area = 0.158 ac, 0.00% Impervious, Inflow Depth = 2.88" for 100-yr event
Inflow = 0.17 cfs @ 13.23 hrs, Volume= 0.038 af
Outflow = 0.17 cfs @ 13.23 hrs, Volume= 0.038 af, Atten= 0%, Lag= 0.0 min
Primary = 0.17 cfs @ 13.23 hrs, Volume= 0.038 af

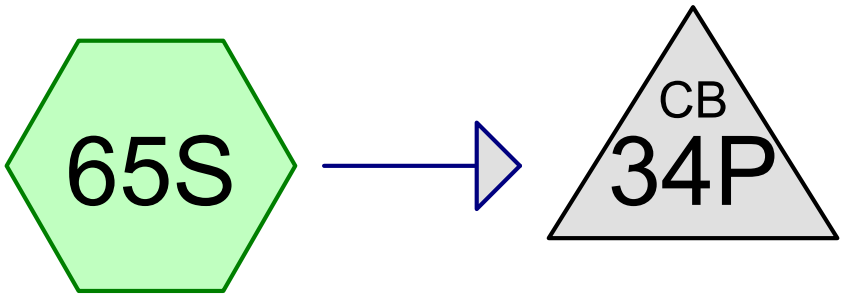
Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 641.94' @ 13.23 hrs
Flood Elev= 642.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	641.80'	**24.0" Round Culvert 054 w/ 4.8" inside fill** L= 32.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 641.40' / 641.36' S= 0.0012 '/' Cc= 0.900 n= 0.012 Steel, smooth, Flow Area= 2.69 sf
#2	Primary	644.90'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.17 cfs @ 13.23 hrs HW=641.94' (Free Discharge)
└**1=Culvert 054** (Barrel Controls 0.17 cfs @ 0.98 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 93P: Culvert 054





DA 57 Culvert 057

Subcat Reach Pond Link

Routing Diagram for Culvert 57_20260123
Prepared by Fisher Associates, Printed 1/23/2026
HydroCAD® 10.20-7a s/n 04748 © 2025 HydroCAD Software Solutions LLC

Project Notes

Rainfall events imported from "NRCS-Rain.txt" for 7076 NY Niagara
Rainfall events imported from "NRCS-Rain.txt" for 7076 NY Niagara
Defined 7 rainfall events from NY-LB-DA1-5 IDF
Defined 7 rainfall events from NY-LB-DA1-5 IDF
Defined 7 rainfall events from NY-LB-DA23 DA24 IDF

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-yr	NRCC 24-hr	A	Default	24.00	1	1.89	2
2	10-yr	NRCC 24-hr	A	Default	24.00	1	3.26	2
3	100-yr	NRCC 24-hr	A	Default	24.00	1	4.90	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
18.164	78	D - 78 - Cultivated Crops (65S)
0.322	80	D - 80 - Developed open space (65S)
0.074	82	D - 82 - Developed Low intensity (65S)
18.560	**78**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
18.560	Other	65S
18.560		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.000	18.164	18.164	D - 78 - Cultivated Crops	65S
0.000	0.000	0.000	0.000	0.322	0.322	D - 80 - Developed open space	65S
0.000	0.000	0.000	0.000	0.074	0.074	D - 82 - Developed Low intensity	65S
0.000	**0.000**	**0.000**	**0.000**	**18.560**	**18.560**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	34P	611.00	609.40	32.0	0.0500	0.013	0.0	24.0	4.8	

Time span=5.00-48.00 hrs, dt=0.05 hrs, 861 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment65S: DA 57 Runoff Area=18.560 ac 0.00% Impervious Runoff Depth=0.42"
Flow Length=3,418' Tc=90.8 min CN=78 Runoff=2.71 cfs 0.656 af

Pond 34P: Culvert 057 Peak Elev=612.00' Inflow=2.71 cfs 0.656 af
Outflow=2.71 cfs 0.656 af

Total Runoff Area = 18.560 ac Runoff Volume = 0.656 af Average Runoff Depth = 0.42"
100.00% Pervious = 18.560 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 65S: DA 57

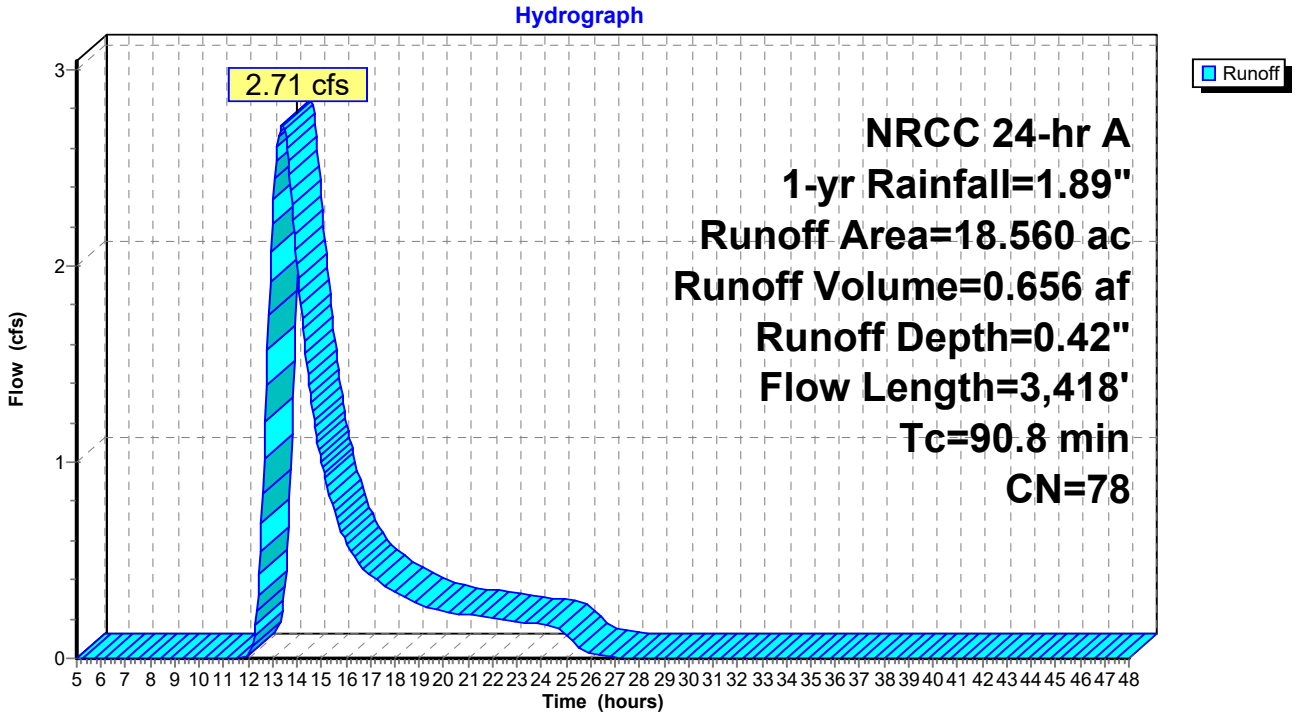
Runoff = 2.71 cfs @ 13.40 hrs, Volume= 0.656 af, Depth= 0.42"
Routed to Pond 34P : Culvert 057

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 1-yr Rainfall=1.89"

	Area (ac)	CN	Description
*	0.322	80	D - 80 - Developed open space
*	0.074	82	D - 82 - Developed Low intensity
*	3.176	78	D - 78 - Cultivated Crops
*	10.480	78	D - 78 - Cultivated Crops
*	4.508	78	D - 78 - Cultivated Crops
	18.560	78	Weighted Average
	18.560		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.4	100	0.0075	0.10		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.23"
15.1	1,131	0.0192	1.25		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
15.1	812	0.0099	0.90		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
24.0	879	0.0046	0.61		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
19.2	496	0.0023	0.43		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
90.8	3,418	Total			

Subcatchment 65S: DA 57



Summary for Pond 34P: Culvert 057

Check culvert master for updated sizing

[57] Hint: Peaked at 612.00' (Flood elevation advised)

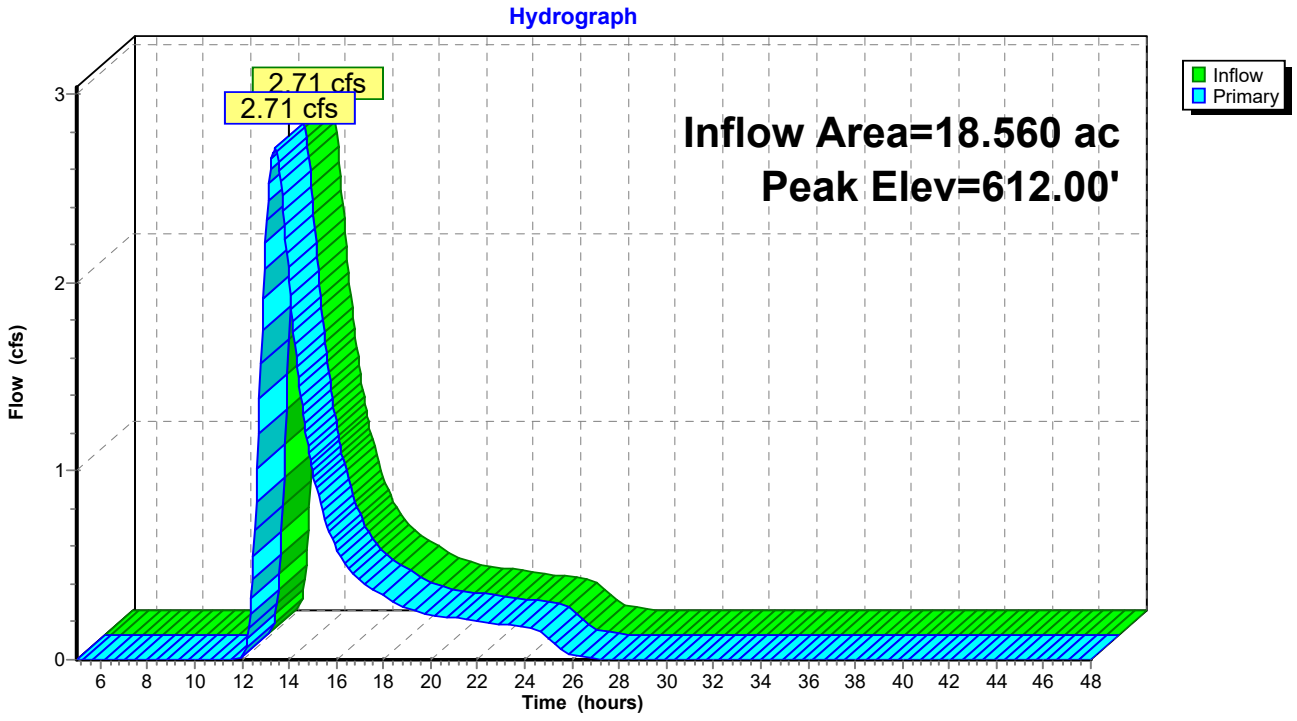
Inflow Area = 18.560 ac, 0.00% Impervious, Inflow Depth = 0.42" for 1-yr event
Inflow = 2.71 cfs @ 13.40 hrs, Volume= 0.656 af
Outflow = 2.71 cfs @ 13.40 hrs, Volume= 0.656 af, Atten= 0%, Lag= 0.0 min
Primary = 2.71 cfs @ 13.40 hrs, Volume= 0.656 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 612.00' @ 13.40 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	611.40'	**24.0" Round Culvert 057 w/ 4.8" inside fill** L= 32.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 611.00' / 609.40' S= 0.0500 '/' Cc= 0.900 n= 0.013 Concrete, trowel finish, Flow Area= 2.69 sf
#2	Primary	614.50'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=2.71 cfs @ 13.40 hrs HW=612.00' (Free Discharge)
└**1=Culvert 057** (Inlet Controls 2.71 cfs @ 2.43 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 34P: Culvert 057



Time span=5.00-48.00 hrs, dt=0.05 hrs, 861 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment65S: DA 57 Runoff Area=18.560 ac 0.00% Impervious Runoff Depth=1.32"
Flow Length=3,418' Tc=90.8 min CN=78 Runoff=9.57 cfs 2.038 af

Pond 34P: Culvert 057 Peak Elev=612.77' Inflow=9.57 cfs 2.038 af
Outflow=9.57 cfs 2.038 af

Total Runoff Area = 18.560 ac Runoff Volume = 2.038 af Average Runoff Depth = 1.32"
100.00% Pervious = 18.560 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 65S: DA 57

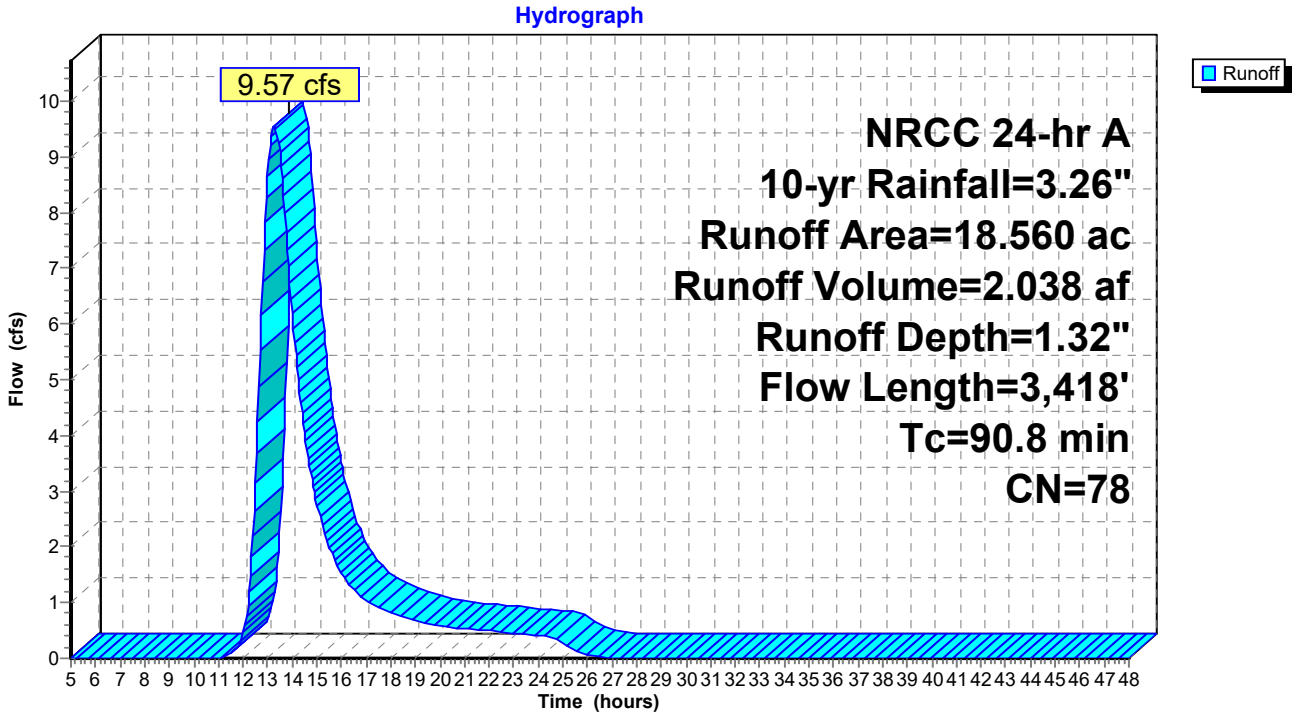
Runoff = 9.57 cfs @ 13.26 hrs, Volume= 2.038 af, Depth= 1.32"
Routed to Pond 34P : Culvert 057

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 10-yr Rainfall=3.26"

	Area (ac)	CN	Description
*	0.322	80	D - 80 - Developed open space
*	0.074	82	D - 82 - Developed Low intensity
*	3.176	78	D - 78 - Cultivated Crops
*	10.480	78	D - 78 - Cultivated Crops
*	4.508	78	D - 78 - Cultivated Crops
	18.560	78	Weighted Average
	18.560		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.4	100	0.0075	0.10		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.23"
15.1	1,131	0.0192	1.25		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
15.1	812	0.0099	0.90		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
24.0	879	0.0046	0.61		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
19.2	496	0.0023	0.43		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
90.8	3,418	Total			

Subcatchment 65S: DA 57



Summary for Pond 34P: Culvert 057

Check culvert master for updated sizing

[57] Hint: Peaked at 612.77' (Flood elevation advised)

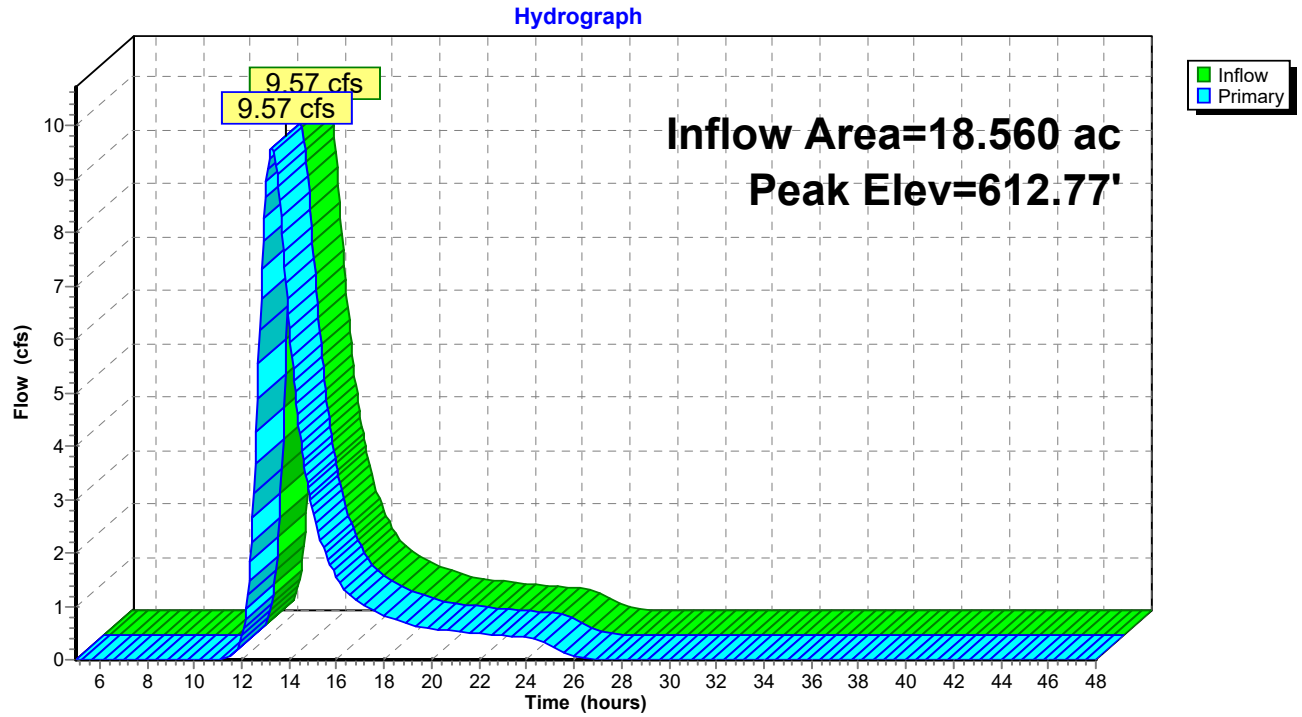
Inflow Area = 18.560 ac, 0.00% Impervious, Inflow Depth = 1.32" for 10-yr event
Inflow = 9.57 cfs @ 13.26 hrs, Volume= 2.038 af
Outflow = 9.57 cfs @ 13.26 hrs, Volume= 2.038 af, Atten= 0%, Lag= 0.0 min
Primary = 9.57 cfs @ 13.26 hrs, Volume= 2.038 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 612.77' @ 13.26 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	611.40'	**24.0" Round Culvert 057 w/ 4.8" inside fill** L= 32.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 611.00' / 609.40' S= 0.0500 '/' Cc= 0.900 n= 0.013 Concrete, trowel finish, Flow Area= 2.69 sf
#2	Primary	614.50'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=9.57 cfs @ 13.26 hrs HW=612.77' (Free Discharge)
└**1=Culvert 057** (Inlet Controls 9.57 cfs @ 3.84 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 34P: Culvert 057



Time span=5.00-48.00 hrs, dt=0.05 hrs, 861 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment65S: DA 57 Runoff Area=18.560 ac 0.00% Impervious Runoff Depth=2.63"
Flow Length=3,418' Tc=90.8 min CN=78 Runoff=19.69 cfs 4.063 af

Pond 34P: Culvert 057 Peak Elev=614.45' Inflow=19.69 cfs 4.063 af
Outflow=19.69 cfs 4.063 af

Total Runoff Area = 18.560 ac Runoff Volume = 4.063 af Average Runoff Depth = 2.63"
100.00% Pervious = 18.560 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 65S: DA 57

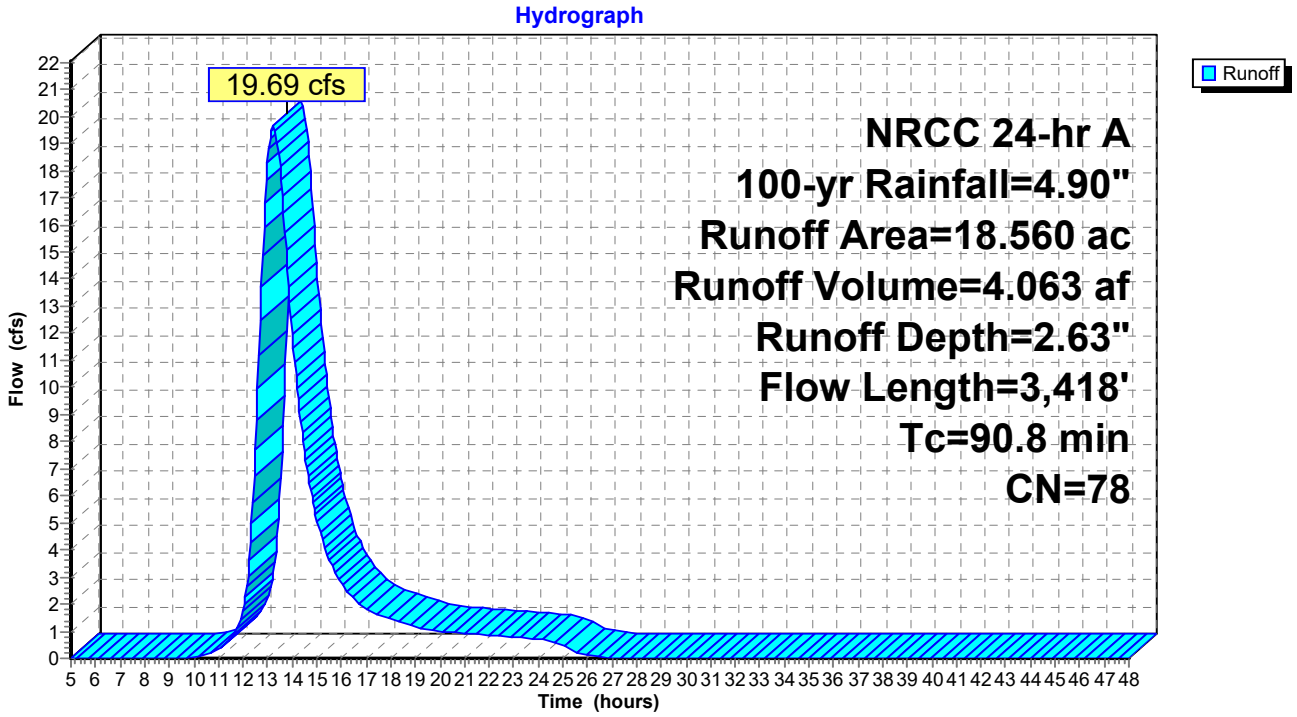
Runoff = 19.69 cfs @ 13.22 hrs, Volume= 4.063 af, Depth= 2.63"
Routed to Pond 34P : Culvert 057

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
NRCC 24-hr A 100-yr Rainfall=4.90"

	Area (ac)	CN	Description
*	0.322	80	D - 80 - Developed open space
*	0.074	82	D - 82 - Developed Low intensity
*	3.176	78	D - 78 - Cultivated Crops
*	10.480	78	D - 78 - Cultivated Crops
*	4.508	78	D - 78 - Cultivated Crops
	18.560	78	Weighted Average
	18.560		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.4	100	0.0075	0.10		**Sheet Flow, 100' Sheet** Grass: Short n= 0.150 P2= 2.23"
15.1	1,131	0.0192	1.25		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
15.1	812	0.0099	0.90		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
24.0	879	0.0046	0.61		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
19.2	496	0.0023	0.43		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
90.8	3,418	Total			

Subcatchment 65S: DA 57



Summary for Pond 34P: Culvert 057

Check culvert master for updated sizing

[57] Hint: Peaked at 614.45' (Flood elevation advised)

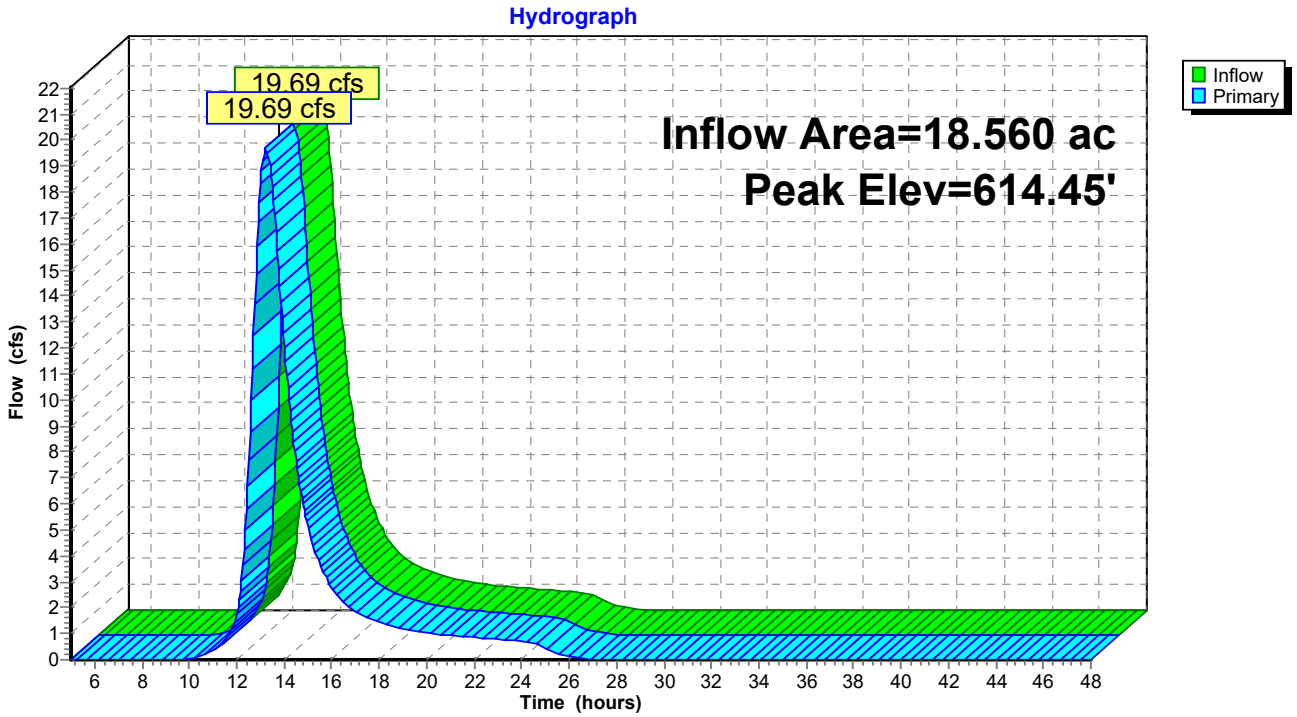
Inflow Area = 18.560 ac, 0.00% Impervious, Inflow Depth = 2.63" for 100-yr event
Inflow = 19.69 cfs @ 13.22 hrs, Volume= 4.063 af
Outflow = 19.69 cfs @ 13.22 hrs, Volume= 4.063 af, Atten= 0%, Lag= 0.0 min
Primary = 19.69 cfs @ 13.22 hrs, Volume= 4.063 af

Routing by Stor-Ind method, Time Span= 5.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 614.45' @ 13.22 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	611.40'	**24.0" Round Culvert 057 w/ 4.8" inside fill** L= 32.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 611.00' / 609.40' S= 0.0500 '/' Cc= 0.900 n= 0.013 Concrete, trowel finish, Flow Area= 2.69 sf
#2	Primary	614.50'	**100.0' long + 3.0 '/' SideZ x 20.0' 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) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=19.66 cfs @ 13.22 hrs HW=614.44' (Free Discharge)
└**1=Culvert 057** (Inlet Controls 19.66 cfs @ 7.30 fps)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 34P: Culvert 057



Culvert Analysis Report
Culvert 10

Analysis Component			
Storm Event	Check	Discharge	81.86 cfs

Peak Discharge Method: User-Specified			
Design Discharge	48.51 cfs	Check Discharge	81.86 cfs

Tailwater Conditions: Constant Tailwater	
Tailwater Elevation	N/A ft

Name	Description	Discharge	HW Elev.	Velocity
Culvert-1	1-6 x 4 ft Box	81.86 cfs	622.02 ft	7.60 ft/s
Weir	Roadway (Constant Elevation)	0.00 cfs	622.02 ft	N/A
Total	----------	81.86 cfs	622.02 ft	N/A

Culvert Analysis Report
Culvert 10

Component:Culvert-1

Culvert Summary					
Computed Headwater Elevation	622.02	ft	Discharge	81.86	cfs
Inlet Control HW Elev.	621.82	ft	Tailwater Elevation	N/A	ft
Outlet Control HW Elev.	622.02	ft	Control Type	Outlet Control	
Headwater Depth/Height	0.81				

Grades					
Upstream Invert	618.77	ft	Downstream Invert	618.64	ft
Length	45.50	ft	Constructed Slope	0.002857	ft/ft

Hydraulic Profile					
Profile	M2		Depth, Downstream	1.80	ft
Slope Type	Mild		Normal Depth	1.98	ft
Flow Regime	Subcritical		Critical Depth	1.80	ft
Velocity Downstream	7.60	ft/s	Critical Slope	0.003787	ft/ft

Section					
Section Shape	Box		Mannings Coefficient	0.013	
Section Material	Concrete		Span	6.00	ft
Section Size	6 x 4 ft		Rise	4.00	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	622.02	ft	Upstream Velocity Head	0.77	ft
Ke	0.70		Entrance Loss	0.54	ft

Inlet Control Properties					
Inlet Control HW Elev.	621.82	ft	Flow Control	N/A	
Inlet Type	0° wingwall flares		Area Full	24.0	ft²
K	0.06100		HDS 5 Chart	8	
M	0.75000		HDS 5 Scale	3	
C	0.04230		Equation Form	1	
Y	0.82000				

Culvert Analysis Report
Culvert 10

Component:Weir

Hydraulic Component(s): Roadway (Constant Elevation)					
Discharge	0.00	cfs	Allowable HW Elevation	622.02	ft
Roadway Width	20.00	ft	Overtopping Coefficient	2.50	US
Length	200.00	ft	Crest Elevation	623.77	ft
Headwater Elevation	N/A	ft	Discharge Coefficient (Cr)	2.50	
Submergence Factor (Kt)	1.00				

Sta (ft)	Elev. (ft)
0.00	623.77
200.00	623.77

Culvert Analysis Report
Culvert 17

Analysis Component			
Storm Event	Check	Discharge	110.55 cfs

Peak Discharge Method: User-Specified			
Design Discharge	62.97 cfs	Check Discharge	110.55 cfs

Tailwater Conditions: Constant Tailwater	
Tailwater Elevation	N/A ft

Name	Description	Discharge	HW Elev.	Velocity
Culvert-1	1-8 x 4 ft Box	110.57 cfs	621.29 ft	7.63 ft/s
Weir	Roadway (Constant Elevation)	0.00 cfs	621.29 ft	N/A
Total	----------	110.57 cfs	621.29 ft	N/A

Culvert Analysis Report
Culvert 17

Component:Culvert-1

Culvert Summary					
Computed Headwater Elevation	621.29	ft	Discharge	110.57	cfs
Inlet Control HW Elev.	620.73	ft	Tailwater Elevation	N/A	ft
Outlet Control HW Elev.	621.29	ft	Control Type	Outlet Control	
Headwater Depth/Height	0.92				

Grades					
Upstream Invert	617.60	ft	Downstream Invert	617.52	ft
Length	34.50	ft	Constructed Slope	-0.020870	ft/ft

Hydraulic Profile					
Profile	A2		Depth, Downstream	1.81	ft
Slope Type	Adverse		Normal Depth	0.00	ft
Flow Regime	Subcritical		Critical Depth	1.81	ft
Velocity Downstream	7.63	ft/s	Critical Slope	0.003324	ft/ft

Section					
Section Shape	Box		Mannings Coefficient	0.013	
Section Material	Concrete		Span	8.00	ft
Section Size	8 x 4 ft		Rise	4.00	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	621.29	ft	Upstream Velocity Head	0.29	ft
Ke	0.70		Entrance Loss	0.20	ft

Inlet Control Properties					
Inlet Control HW Elev.	620.73	ft	Flow Control	N/A	
Inlet Type	0° wingwall flares		Area Full	32.0	ft²
K	0.06100		HDS 5 Chart	8	
M	0.75000		HDS 5 Scale	3	
C	0.04230		Equation Form	1	
Y	0.82000				

Culvert Analysis Report
Culvert 17

Component:Weir

Hydraulic Component(s): Roadway (Constant Elevation)					
Discharge	0.00	cfs	Allowable HW Elevation	621.29	ft
Roadway Width	20.00	ft	Overtopping Coefficient	2.50	US
Length	200.00	ft	Crest Elevation	622.60	ft
Headwater Elevation	N/A	ft	Discharge Coefficient (Cr)	2.50	
Submergence Factor (Kt)	1.00				

Sta (ft)	Elev. (ft)
0.00	622.60
200.00	622.60