nationalgrid

Lockport-Batavia Line #112 Rebuild Project

Appendix G

Stormwater Pollution Prevention Plan

Part 2 of 8

June 2025 Case 22-T-0654

Appendix N

Post-Construction Maintenance Requirements

May 2025

nationalgrid

Post-Construction Operations and Maintenance Manual (O&M Manual) for Stormwater Management Facilities for NATIONAL GRID NG LOCKPORT BATAVIA #112 ARTICLE VII

Towns of Lockport, Royalton, and Alabama / Niagara and Genesee Counties

Prepared for:

National Grid 300 Erie Boulevard West Syracuse, NY 13202

Prepared by:

Fisher Associates, P.E., L.S., L.A., D.P.C. 55 Chicago Street Suite 200 Buffalo, NY 14202

POST-CONSTRUCTION OPERATIONS AND MAINTENANCE MANUAL (O&M MANUAL)

FOR STORMWATER MANAGEMENT FACILITIES FOR

NIAGARA MOHAWK POWER CORPORATION (D/B/A NATIONAL GRID) LOCKPORT BATAVIA #112 ARTICLE VII

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Appendix A1: Maintenance Inspection Form

1.0 INTRODUCTION

This Manual describes operation and maintenance procedures that are recommended to be employed to maximize the useful life and design intent of various systems and designated areas at the National Grid Lockport Batavia #112 Article VII (the Project), located in the City of Lockport and Towns of Lockport, Royalton, and Alabama, Niagara and Genesee Counties, New York. The Owner (National Grid) will be responsible for maintenance of the substation and surrounding facilities.

2.0 STORMWATER MANAGEMENT SYSTEM

This section identifies the parts or components of the stormwater management system that need to be maintained on a regular basis to allow proper functioning of each stormwater management practice, including non-structural practices.

2.1 Stormwater Management System Description

The stormwater management system for the Project consists of vegetated buffers to slow runoff and treat sheet flow from the access road.

3.0 MAINTENANCE AND INSPECTION SCHEDULE

Stormwater management systems need to undergo regular inspection and maintenance to function properly and to maintain design capacity. Maintenance needs may include: removal of silt, litter and other debris from all storm pipes and open channel swales; grass cutting and vegetation removal; and replacement of vegetative cover.

A Maintenance Inspection Form (Form) should be completed to document inspection and maintenance performed at the Project (refer to Appendix A1). This Form provides a summary of the inspection requirements for each stormwater facility component, a frequency of inspection, and a description of the anticipated routine maintenance that is required. A new Form should be filled out during each inspection. Observations made during the inspection should be written in the "Inspection Comments" field. If it is determined that maintenance is required, a description of the maintenance needed and the date by which the maintenance conducted shall be written in the "Maintenance Comments" field. The date that the maintenance activity was performed or completed should be noted in the forms. Copies of completed Forms should be maintained in Appendix A1 of this document.

The following sections outline the procedures and schedule to be followed to perform routine inspection and maintenance activities. In general, the frequency of inspection of each stormwater facility component should be at least once a year.

3.1 Culvert

There are sixty-seven culverts on the site that will convey flow underneath the proposed access roads. The culvert pipes should be visually inspected for debris, floatables, and pipe condition at least once per year. Debris and floatables should be removed as needed and disposed of properly. If the culvert pipe is observed to be in poor condition, repairs should be made as needed. Poor condition may include denting or other noticeable structural deficiencies.

3.1.1 End Sections

End Sections are found at the end of pipes and they typically include rock protection, such as riprap stone outlet protection. The purpose of riprap aprons placed at the end of pipes is to reduce the velocity, depth and energy of water, such that the flow will not erode downstream areas.

The end section(s) of pipes, including stone aprons, should be visually inspected for trash, sediment and dislodged stones at least once a year. If trash is observed, it should be removed and disposed of properly. If excessive sediment deposition is observed on the stone apron, measures should be taken to remove the sediment. Excessive sedimentation occurs when the stones on the bottom of the apron are no longer visible due to sediment deposition. It is recommended that accumulated sediments be removed with a hand shovel and disposed of off-site at an approved or otherwise authorized solid waste disposal facility. Any repair due to dislodged stones should be made immediately.

3.2 Vegetated Buffer

A filter strip is a vegetated surface which is designed to treat and infiltrate low velocity flow from the access road or flow spreader. A natural buffer is an undisturbed area, having a vegetated surface. Filter strips/natural buffers are located along the front of the substation.

Observe areas for bare spots, washouts, and healthy growth. Apply topsoil, seed, and mulch to areas, as necessary. Water as required to reestablish the vegetated surface as quick as possible. In highly erodible areas, install sod, mesh or filter fabric until re-establishment is achieved.

4.0 CONTACT INFORMATION

Questions about the stormwater management system should be directed to Mary Bitka at National Grid, 716-831-7206 or mary.bitka@nationalgrid.com.

Appendix A1 Maintenance Inspection Form

Date of Inspection:	
Inspector:	

Project Name: National Grid Lockport Batavia #112 Article VII

Location: Lockport, Royalton, and Alabama, Niagara and Genesee Counties, NY

MAINTENANCE INSPECTION FORM

Stormwater Facility Component	Inspection Requirement	Frequency of Inspection	O&M Manual Section No.	Inspection Comments	Maintenance Required	Maintenance Needed? (Y/N)	Maintenance Comments / Date of Maintenance
Rip Rap Outlet Protection	Visual Inspection of Rock Aprons for Trash and Sediment.	Annual	3.1.1		Remove Trash and Sediment as Needed.		
	Note Percent of Sediment Built-Up	Annual	3.2		Remove When Sediment Fills 50% Volume.		
Vegetated Filter Strip	Visual Inspection for Gullying, Animal Burrows and Undercutting of Banks	Annual	3.2		Re-seed and/or Stabilize Areas Where Rills/Gullies May have Formed.		
	Note Percent of Vegetative Cover	Annual	3.2		Apply Topsoil, Seed, and Mulch to areas as Needed.		

Appendix OStormwater Management Report

SW-1

PROJECT
LOCKPORT BATAVIA
NEW YORK
PCSM
TOWN OF LOCKPORT

TITLE OF DRAWING
PCSM DRAINAGE AREA MAP

FA PROJECT NO.
190176
PROJECT MANAGER
T. LIBERTY

ISSUE DATE

DRAWN BY DRAWING CHK
D. JIMENEZ R.WIGHTMAN
SCALE ENGINEER
AS SHOWN R.WIGHTMAN

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If an item bearing the seal of an engineer or land surveyor is altered, the altering engineer or land surveyor shall affix to the item his/her seal and hered by followed by the here of the seal of the land here of the seal of the here of the seal of the description, and a specific description of the alteration.



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PROJECT LOCKPORT BATAVIA NEW YORK **PCSM** TOWN OF LOCKPORT

TITLE OF DRAWING PCSM DRAINAGE AREA MAP

FA PROJECT NO. 190176 PROJECT MANAGER
T. LIBERTY

ISSUE DATE 2025

ENGINEER

AS SHOWN R.WIGHTMAN

DRAWN BY DRAWING CHK
D. JIMENEZ R.WIGHTMAN



SW-3

LOCKPORT BATAVIA
NEW YORK
PCSM
TOWN OF LOCKPORT

TITLE OF DRAWING
PCSM DRAINAGE AREA MAP

FA PROJECT NO.
190176
PROJECT MANAGER

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If an item bearing the seal of an

surveyor, to alter an item in any way. If an item bearing the seal of an engineer or land surveyor is altered, the altering engineer or land surveyor shall affix to the Item his/her seal and the notation altered by followed by his/her signature and the date of such lateration, and a specific description of the alteration.



SW-4

PROJECT
LOCKPORT BATAVIA
NEW YORK
PCSM
TOWN OF LOCKPORT

TITLE OF DRAWING
PCSM DRAINAGE AREA MAP

FA PROJECT NO.
190176
PROJECT MANAGER
T. LIBERTY

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D. JIMENEZ R.WIGHTMAN

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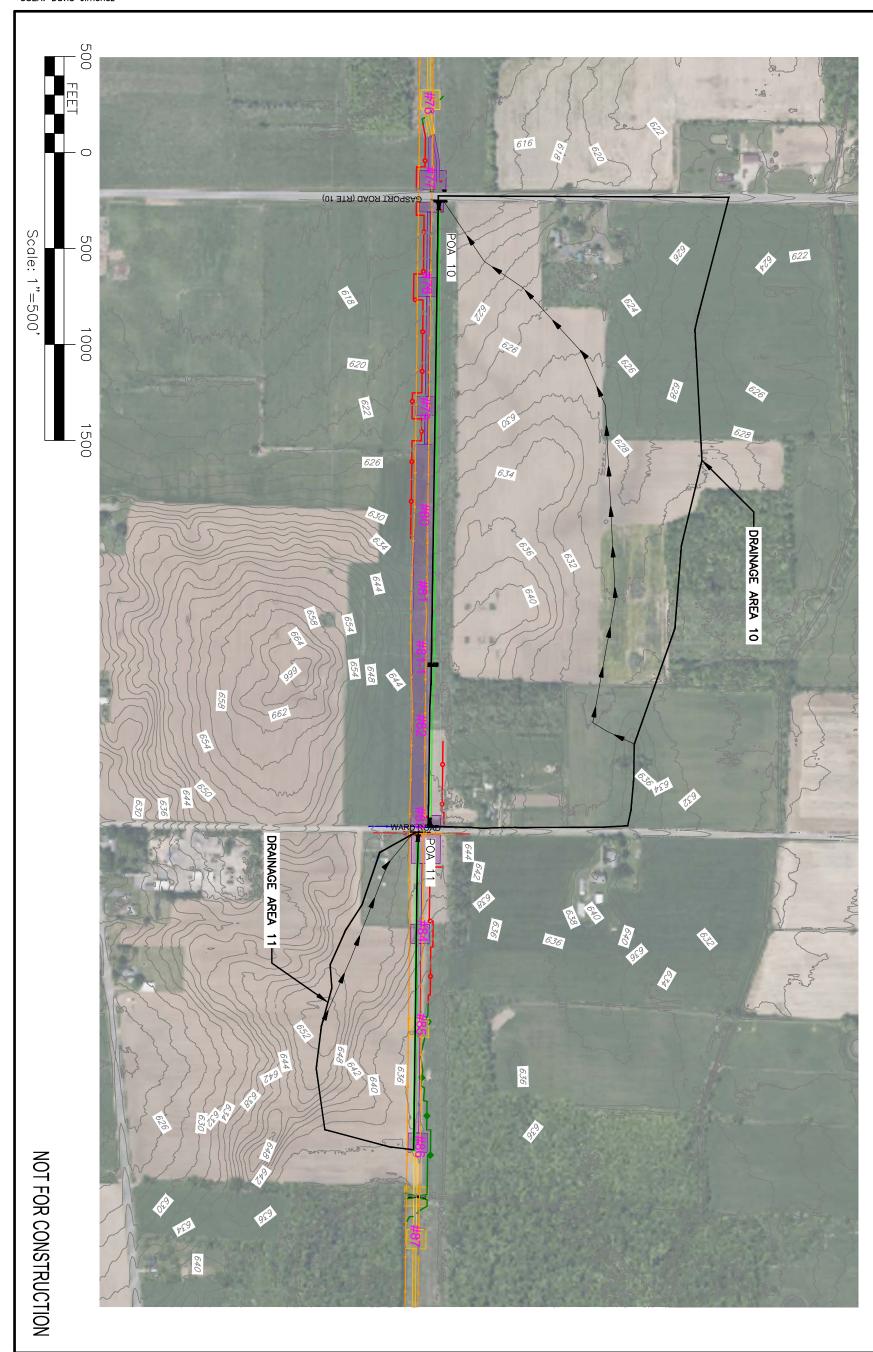
ENGINEER

ISSUE DATE 2025

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surveyor, to alter an item in any way. If an item bearing the seal of an engineer or land surveyor is altered, the altering engineer or land surveyor shall affix to the item his/her seal and the notation altered by followed by his/her signature and the date of such alteration, and a specific description of the alteration.





PROJECT LOCKPORT BATAVIA NEW YORK PCSM TOWN OF ROYALTON

TITLE OF DRAWING PCSM DRAINAGE AREA MAP FA PROJECT NO. 190176 PROJECT MANAGER
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PROJECT LOCKPORT BATAVIA NEW YORK PCSM TOWN OF ROYALTON

TITLE OF DRAWING PCSM DRAINAGE AREA MAP FA PROJECT NO. 190176

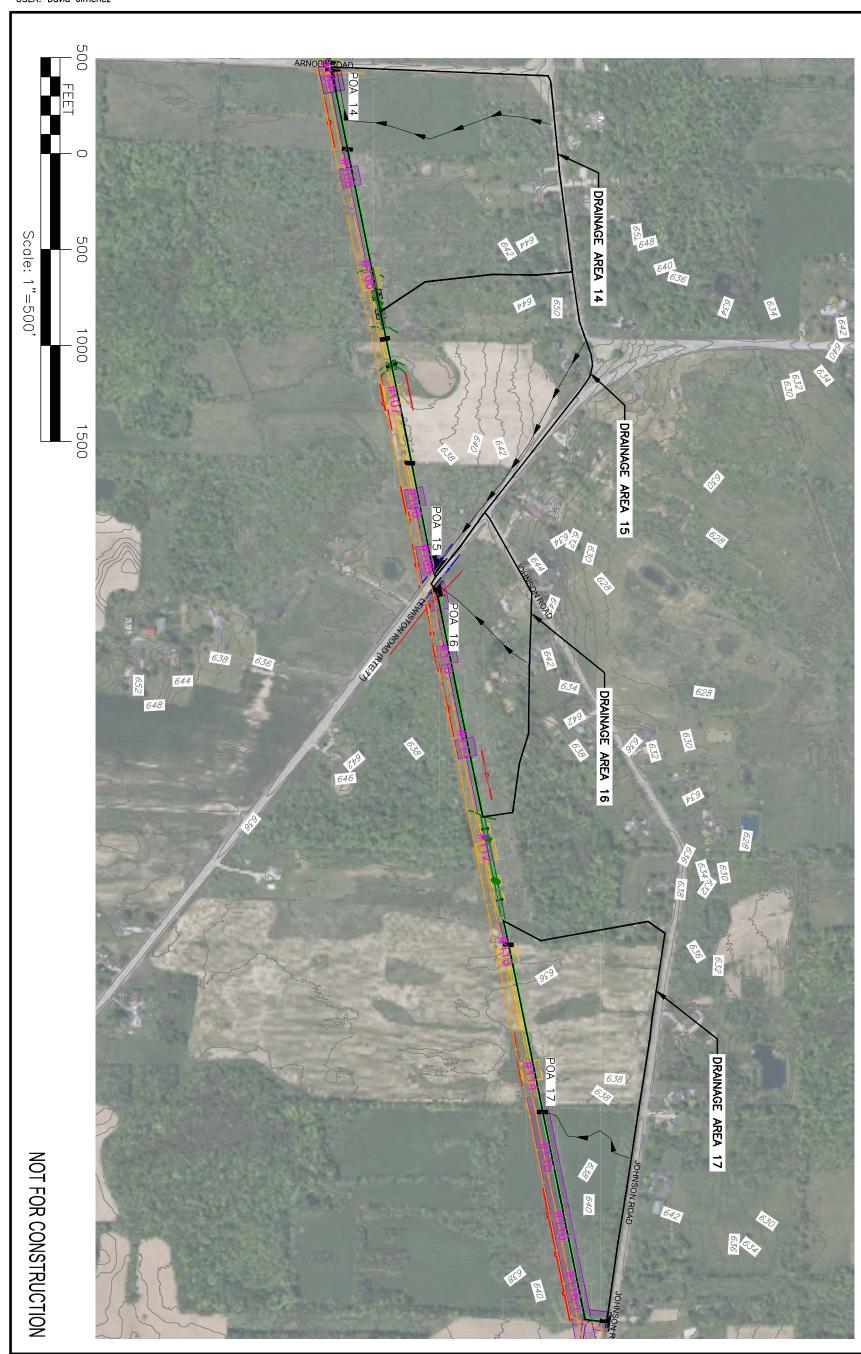
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SW-7

PROJECT
LOCKPORT BATAVIA
NEW YORK
PCSM
TOWN OF ROYALTON

TITLE OF DRAWING
PCSM DRAINAGE AREA MAP

FA PROJECT NO. 190176

190176
PROJECT MANAGER
T. LIBERTY

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If an item bearing the seal of an engineer or land surveyor is altered, the altering engineer or land surveyor shall affix to the item his/her seal and the notation 'altered by' followed by his/her signature and the date of such alteration, and a specific description of the alteration.



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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	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?			
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?	ed? 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?	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

P=	1.00	inches				
		Calcula	ate Required WQ	1		
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						
23						
25 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

P=	1.00	inches				
		Calcula	te Required WQ	v		
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

P=	1.00	inches				
		Calcula	te Required WQ	/		
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	44.54	0.50		0.00	4.005	Sneet Flow to
11	14.54	0.53	4	0.08	4,365	Cross Filtor Sheet Flow to
12	8.25	0.43	5	0.10	2,889	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
1911						

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

P=	1.00	inches				
		Calcula	ate Required WQ	/		
Drainage Area Number	Contributing Area (Acres)	Impervious Area (Acres)	Percent Impervious %	Rv	WQv (cf)	SMP Description
1						
2						
3						
4						
5					<u> </u>	
6 7					1	
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					1	
22						
23					 	
24					1	
25 26					+	
26 27					+	
28					+	
29					+	
30					†	
Total	157.07	2.26	1	0.06	35885	Required WQv
i Olai	101.01	۷.۷۷	ļ ,	0.00	33003	Troquired WWW

Step 4 - Calcuate Minimum RRv Required

Enter the Soils Da	Enter the Soils Data for the site					
Hydrologic Soil Group	Acres	S				
А		55%				
В		40%				
С	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 Da	Enter the Soils Data for the site				
Hydrologic Soil Group	Acres	S			
Α		55%			
В		40%			
С	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						
Α		55%						
В		40%						
С	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 Da	Enter the Soils Data for the site				
Hydrologic Soil Group	Acres	S			
Α		55%			
В		40%			
С		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					

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 boof a legal conse		olishment	Yes							
Is the contributir	ng area a desigr		No							
Is a pretreatmer the buffer?	nt pea gravel dia	aphragm propo	osed along the	e upgradient e	edge of	Yes				
Is runoff entering upgradient of the	-	pposed	Yes							
Enter the total le	ength of contribu		16							
Enter the length	of contributing		16							
Enter the slope	of contributing f		5							
Minimum buffer	length based or		35							
Enter the slope	for the first 10 ft	of the buffer	(%)			2				
			Sizing (Criteria						
				Valu	е	Units	Notes			
Enter Trav	el Time through	n Buffer	Т	6		min				
Enter 2-y	r 24-hr Rainfall	Depth	P	2.22	2	inch				
Enter (Overall Buffer S	lope	0	0.03	3	ft/ft				
Enter Manning's Coefficient for Buffer n 0.24										
Calculated Minimum Length of Buffer L 33						ft				
Minimu	um Length of Bu		ft							
Is the buffer within HSG C or D soils?										
Required Length of Buffer L 40 ft										
Enter Pro	Enter Provided Length of Buffer L 40 ft									
			alaulata D	off Dodusti						
	RRv Provided		alculate Run	on Reduction	1					
	KKV Provided	4.106	CT							

Design Point:	1							
		Enter Site D	ata For Drain	age Area to I	oe Reduc	ed		
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 (
ls the riparian bu of a legal conser			ntly protected	through estal	olishment	Yes		
Is the contributin	g area a desigr	nated hotspot	?			No		
Is a pretreatment the buffer?	t pea gravel dia	edge of	Yes					
ls runoff entering upgradient of the		posed	Yes					
Enter the total le	ngth of contribu	16						
Enter the length	of contributing	16						
Enter the slope of	of contributing f	low path (%)				5		
Minimum buffer I	ength based o	n contriuting fl	ow path slope	(ft)		35		
Enter the slope for	or the first 10 ft	of the buffer	(%)			2		
			Sizing C	Criteria				
				Valu	е	Units	Notes	
	el Time through		T	6		min		
	r 24-hr Rainfall	•	Р	2.22		inch		
Enter Overall Buffer Slope S 0.03					ft/ft			
Enter Manning's Coefficient for Buffer n 0.24						6		
<u> </u>					ft			
Minimum Length of Buffer L 35 ft Is the buffer within HSG C or D soils? Yes								
		ft						
	ed Length of Bu vided Length of		L L	40 40		ft		
LINEI FIO	vided Lerigili Oi	Dullel	L	40		III.		
		С	alculate Run	off Reduction	1			
	RRv Provided		cf					

Design Point:	1						
		Enter Site D	ata For Drain	age Area to I	be Reduc	ed	
Drainage Area Number	Contributing Area (Acres)	Precipitation (in)	Description				
3	29.17	0.52	2	0.07	6,996	1.00	Sheet Flow to Grass Filter Strip
			Design				
Is the riparian boof a legal conse			ntly protected	through estal	olishment	Yes	
Is the contributir	ng area a desigı		No				
Is a pretreatmer the buffer?	nt pea gravel dia	edge of	Yes				
Is runoff entering upgradient of the	•	Yes					
Enter the total le	ength of contribu	16					
Enter the length	of contributing	16					
Enter the slope	of contributing f	low path (%)				5	
Minimum buffer	length based o	n contriuting fl	ow path slope	(ft)		35	
Enter the slope	for the first 10 ft	of the buffer	(%)			2	
			Sizing (Criteria			
				Valu	е	Units	Notes
	/el Time through		T	6		min	
	/r 24-hr Rainfall	•	P	2.22		inch	
	Overall Buffer S		S	0.03		ft/ft	
	Enter Manning's Coefficient for Buffer n 0.24 Calculated Minimum Length of Buffer L 33						
			<u>L</u>	33 35		ft	
	um Length of Bu	ft					
	buffer within H	ft					
	red Length of Bu		L L	40 40		ft	
	TIGOG LONGEN OF	Dulloi	<u> </u>	40		ĮK.	
		С	alculate Run	off Reduction	1		
	RRv Provided		cf				
		- ,					

Design Point:	1						
		Enter Site D	ata For Drain	age Area to	be Reduc	ed	
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			
ls the riparian buff of a legal conserva			ntly protected	through estal	blishment	Yes	
Is the contributing	area a desigr	nated hotspot	?			No	
ls a pretreatment լ the buffer?	pea gravel dia	edge of	Yes				
Is runoff entering t upgradient of the b		Yes					
Enter the total len	gth of contribu	16					
Enter the length of	f contributing	16					
Enter the slope of	contributing f	low path (%)				5	
Minimum buffer le	ngth based o	n contriuting fl	ow path slope	(ft)		35	
Enter the slope for	r the first 10 ft	of the buffer	(%)			2	
			Sizing (Criteria			
				Valu	е	Units	Notes
	Time through		T	6		min	
	24-hr Rainfall		P	2.22		inch ft/ft	
	Enter Overall Buffer Slope S 0.03						
Enter Manning's Coefficient for Buffer n 0.24 Calculated Minimum Length of Buffer L 33						61	
			<u>L</u> L	33 35		ft	
	n Length of Buuffer within H	ft					
	d Length of Bu	ft					
	ded Length of		<u>L</u>	40 40		ft	
211101 1 10010	asa Estigui Ol	Danoi	L	40		I.r.	
		С	alculate Run	off Reduction	n		
	Rv Provided		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		
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									
				Valu	е	Units	Notes		
	el Time through		Τ	6		min			
	24-hr Rainfall	•	Р	2.22		inch			
Enter Overall Buffer Slope		S	0.03		ft/ft				
	Enter Manning's Coefficient for Buffer		n	0.24		6			
	Calculated Minimum Length of Buffer		L	33		ft			
	Minimum Length of Buffer L 35				ft				
Is the buffer within HSG C or D soils? Required Length of Buffer L 40					ft				
Enter Provided Length of Buffer			L L	40 40	40 ft 40 ft				
Litter 1 10V	naca Longin of	Dalloi	<u> </u>	+0		ĮK.			
Calculate Runoff Reduction									
RRv Provided 7,634 cf									

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

Design Point: 1								
		Enter Site D	ata For Drain	age Area to I	e Reduc	ed		
Drainage Area Number	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				
ls the riparian buffe of a legal conserva		•	ntly protected	through estal	olishment	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 th upgradient of the b		overland shee	t flow or a flow	v spreader pro	posed	Yes		
Enter the total leng	th of contribu	iting flow path	(ft)			16		
Enter the length of contributing flow path from impervious surfaces (ft)						16		
Enter the slope of c	contributing f	low path (%)				5		
Minimum buffer len	gth based or	n contriuting fl	ow path slope	(ft)		35		
Enter the slope for	the first 10 ft	of the buffer	(%)			2		
			Sizing (Criteria				
				Valu	е	Units	Notes	
Enter Travel	Time through	n Buffer	Т	6		min		
Enter 2-yr 2	4-hr Rainfall	Depth	Р	2.22		inch		
Enter Ove	erall Buffer S	ope	S	0.03	}	ft/ft		
Enter Manning's			n	0.24				
Calculated Mini			L	33		ft		
	Length of Bu		L	35		ft		
Is the buffer within HSG C or D soils?								
Required Length of Buffer L 40 f						ft		
Enter Provided Length of Buffer L 40 ft								
Calculate Runoff Reduction								
RR	Rv Provided		cf					

Design Point:	1						
		Enter Site D	ata For Drain	age Area to	be Reduc	ed	
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 (
Is the riparian boof a legal conse			ntly protected	through est	ablishment	Yes	
Is the contributir	ng area a desig		No				
Is a pretreatmer the buffer?	nt pea gravel dia	edge of	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 fron	n impervious s	urfaces (ft)		16	
Enter the slope	of contributing f	low path (%)				5	
Minimum buffer	length based o	n contriuting fl	ow path slope	(ft)		35	
Enter the slope	for the first 10 f	of the buffer	(%)			2	
			Sizing C				
F : +	17 0		_	Val		Units	Notes
	el Time through		T	- 6		min	
	r 24-hr Rainfall		P	2.2		inch	
	Overall Buffer S	•	S	0.0		ft/ft	
	ng's Coefficient		n	0.2		f.	
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							
						ft	
			L			ft	
Enter Provided Length of Buffer L 40 ft							
		С	alculate Rund	off Reduction	on		
	RRv Provided		cf				
		,					

Design Point:	1						
ŭ		Enter Site D	ata For Drain	age Area to	be Reduc	ed	
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 (
	Is the riparian buffer delineated and permanently protected through establishment Yes of a legal conservation easement?						
Is the contributin	ng area a desigr	nated hotspot	?			No	
Is a pretreatmenthe buffer?	it pea gravel dia	aphragm prop	osed along the	e upgradient o	edge of	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 f	low path (%)				5	
Minimum buffer	length based o	n contriuting fl	ow path slope	(ft)		35	
Enter the slope t	for the first 10 ft	of the buffer	(%)			2	
			Sizing C				
F	17 0	- · · ·	-	Valu	ie	Units	Notes
	el Time through		T	6	<u>, </u>	min	
	r 24-hr Rainfall		P	2.22		inch	
	Overall Buffer S ng's Coefficient		S	0.03		ft/ft	
	ng's Coemcient ⁄Iinimum Length		n L	33		ft	
	ım Length of Bu		L	35 35		ft	
	buffer within H		_	Yes		it.	
	ed Length of Bu		L	40		ft	
	vided Length of		L	40		ft	
Emon Fortage Longin of Benot							
Calculate Runoff Reduction							
	RRv Provided	2,373	cf				

Design Point:	1						
		Enter Site D	ata For Drain	age Area to	be Reduc	ed	
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?						
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	of contributing f	low path (%)				5	
Minimum buffer	length based o	n contriuting fl	ow path slope	(ft)		35	
Enter the slope f	or the first 10 ft	of the buffer	(%)			2	
			Sizing C				
□ T	al Time a there are	D. ffe	T	Valu	ie	Units	Notes
	el Time through		T	2.2	2	min lineb	
	r 24-hr Rainfall Overall Buffer S		P S	0.03		inch ft/ft	
						IIVIL	
	Enter Manning's Coefficient for Buffer n 0.24					ft	
Calculated Minimum Length of Buffer L 33 Minimum Length of Buffer L 35						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	
	vided Length of		L	40		ft	
	ou Longur of			- +0		1.,	
		С	alculate Rund	off Reductio	n		
	RRv Provided		cf				

Design Point:	1]					
		Enter Site D	ata For Drain	age Area to	be Reduc	ed	
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 (
Is the riparian boof a legal conse			ntly protected	through est	ablishment	Yes	
Is the contributir	ng area a desigi	nated hotspot	?			No	
Is a pretreatmer the buffer?	nt pea gravel dia	edge of	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 fron	n impervious s	urfaces (ft)		16	
Enter the slope	of contributing f	low path (%)				5	
Minimum buffer	length based o	n contriuting fl	ow path slope	(ft)		35	
Enter the slope	for the first 10 f	of the buffer	(%)			2	
			Sizing C				
F . T	- 1 T' - ''	D. "	_	Val		Units	Notes
	el Time through		T	- 6		min	_
	/r 24-hr Rainfall		P	2.2		inch	
	Overall Buffer S	•	S	0.0		ft/ft	
	ng's Coefficient		n	0.2		L.	
Calculated Minimum Length of Buffer L 33						ft	
Minimum Length of Buffer L 35 ft							
Is the buffer within HSG C or D soils? Required Length of Buffer L 40 ft							
			L L			ft ft	
Enter Provided Length of Buffer L 40 ft							
Calculate Runoff Reduction							
	RRv Provided		cf	reduceti			
		,					

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

Design Point:	1						
		Enter Site D	ata For Drain	age Area to I	oe Reduc	ed	
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 bu of a legal conser		•	ently protected	through estat	olishment	Yes	
Is the contributin	g area a desigr		No				
Is a pretreatmen the buffer?	t pea gravel dia	edge of	Yes				
Is runoff entering upgradient of the		posed	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	of contributing f	low path (%)				5	
Minimum buffer	length based or	n contriuting fl	low path slope	e (ft)		35	
Enter the slope f	or the first 10 ft	of the buffer	(%)			2	
			Sizing (Criteria			
				Valu	е	Units	Notes
Enter Trav	el Time through	n Buffer	Т	6		min	
Enter 2-y	r 24-hr Rainfall	Depth	P	2.22		inch	
Enter C	overall Buffer S	ope	S	0.03	3	ft/ft	
Enter Mannir	ng's Coefficient	for Buffer	n	0.24			
Calculated M	linimum Length	of Buffer	L	33		ft	
Minimu	Minimum Length of Buffer L 35						
Is the	buffer within H	i					
Required Length of Buffer L 40						ft	
Enter Pro	Enter Provided Length of Buffer L 40 ft						
Calculate Runoff Reduction							
RRv Provided 4,365 cf							

Design Point:	1						
		Enter Site D	ata For Drain	age Area to l	be Reduc	ed	
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		•	
•	ls the riparian buffer delineated and permanently protected through establishmer of a legal conservation easement?						
Is the contributir	ng area a desigr	No					
Is a pretreatmenthe buffer?	t pea gravel dia	aphragm prop	osed along the	e upgradient e	edge of	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 f	low path (%)				5	
Minimum buffer	length based or	n contriuting fl	ow path slope	(ft)		35	
Enter the slope t	for the first 10 ft	of the buffer	(%)			2	
			Sizing (
			_	Valu	е	Units	Notes
	el Time through		<i>T</i>	6		min	_
	r 24-hr Rainfall	•	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	
Calculated Minimum Length of Buffer L 33 Minimum Length of Buffer L 35						ft	
Is the buffer within HSG C or D soils?							
Required Length of Buffer L 40						ft	
Enter Provided Length of Buffer L 40 ft							
Coloulate Duneff Deduction							
Calculate Runoff Reduction RRv Provided 2,889 cf							
	IXIX FIOVICEG	2,009	CI				

Design Point:	1						
		Enter Site D	ata For Drain	age Area to	be Reduc	ed	
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 establishmen of a legal conservation easement?						
Is the contributir	ng area a desigr	No					
Is a pretreatmer the buffer?	it pea gravel dia	aphragm prop	osed along the	e upgradient e	edge of	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 f	low path (%)				5	
Minimum buffer	length based o	n contriuting fl	ow path slope	(ft)		35	
Enter the slope	for the first 10 ft	of the buffer	(%)			2	
			Sizing (
	17 0	D "	_	Valu	ie	Units	Notes
	vel Time through		T	6	1	min	
	r 24-hr Rainfall		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			
Calculated Minimum Length of Buffer L 33 Minimum Length of Buffer L 35					ft		
Is the buffer within HSG C or D soils?							I
Required Length of Buffer L 40						ft	
Enter Provided Length of Buffer L 40 ft							
Calculate Runoff Reduction							
	RRv Provided	_	alculate Runo	oir Reductio	TI .		
	KKV Provided	15,091	GI				

Number (Acres) (Acres) % (Cf) (III) 14 27.16 0.39 1 0.06 6,193 1.00 Sheet Flow Grass Filter: Design Criteria Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement? Is the contributing area a designated hotspot? Is the contributing area a designated hotspot? Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer? Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer? Enter the total length of contributing flow path (ft) Enter the length of contributing flow path from impervious surfaces (ft) Enter the slope of contributing flow path (%) 5 Minimum buffer length based on contriuting flow path slope (ft) 5 Enter the slope for the first 10 ft of the buffer (%) 2 Sizing Criteria Value Units Notes Enter 2-yr 24-hr Rainfall Depth P 2.22 inch 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 D 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? Required Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft	Design Point:	1						
Number Area (Acres) Area (Acres) Marea (Acre			Enter Site D	ata For Drain	age Area to	be Reduc	ed	
Design Criteria Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement? Is the contributing area a designated hotspot? Is the contributing area a designated hotspot? Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer? Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer? Enter the total length of contributing flow path (ft) Enter the length of contributing flow path from impervious surfaces (ft) In the slope of contributing flow path (%) Minimum buffer length based on contriuting flow path slope (ft) Sizing Criteria Sizing Criteria Value Units Notes Enter Travel Time through Buffer Enter 2-yr 24-hr Rainfall Depth Enter 2-yr 24-hr Rainfall Depth Enter Nanning's Coefficient for Buffer Calculated Minimum Length of Buffer L 33 ft Minimum Length of Buffer L 35 ft Stepter Provided Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft Enter Provided Length of Buffer L Ado ft	_	Area	Area	Impervious	Rv			Description
Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement? Is the contributing area a designated hotspot? Is the contributing area a designated hotspot? Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer? Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer? Enter the total length of contributing flow path (ft) Enter the length of contributing flow path from impervious surfaces (ft) Enter the slope of contributing flow path from impervious surfaces (ft) Minimum buffer length based on contriuting flow path slope (ft) 5 Enter the slope for the first 10 ft of the buffer (%) 2 Sizing Criteria Value Units Notes Enter Travel Time through Buffer 7 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 Enter Provided Length of Buffer L 40 ft	14	27.16	0.39	1	0.06	6,193	1.00	Sheet Flow to Grass Filter Strip
of a legal conservation easement? Is the contributing area a designated hotspot? Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer? Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer? Enter the total length of contributing flow path (ft) Enter the length of contributing flow path from impervious surfaces (ft) Enter the slope of contributing flow path (%) Minimum buffer length based on contriuting flow path slope (ft) 5 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 Calculated Minimum Length of Buffer Is the buffer within HSG C or D soils? Required Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft Calculate Runoff Reduction				Design (Criteria			
Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer? Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer? Enter the total length of contributing flow path (ft) Enter the length of contributing flow path from impervious surfaces (ft) 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 Is the buffer within HSG C or D soils? Required Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft	•		blishment	Yes				
the buffer? Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer? Enter the total length of contributing flow path (ft) Enter the length of contributing flow path from impervious surfaces (ft) 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 Calculated Minimum Length of Buffer L 33 ft Minimum Length of Buffer L 35 ft Is the buffer within HSG C or D soils? Required Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft	Is the contributir	ng area a desigr	nated hotspot	?			No	
upgradient of the buffer? Enter the total length of contributing flow path (ft) Enter the length of contributing flow path from impervious surfaces (ft) Enter the slope of contributing flow path (%) 5 Minimum buffer length based on contriuting flow path slope (ft) 5 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 Calculated Minimum Length of Buffer L 33 ft Is the buffer within HSG C or D soils? Required Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft Calculate Runoff Reduction		nt pea gravel dia	aphragm propo	osed along the	e upgradient e	edge of	Yes	
Enter the length of contributing flow path from impervious surfaces (ft) Enter the slope of contributing flow path (%) Minimum buffer length based on contriuting flow path slope (ft) Sizing Criteria 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 Calculated Minimum Length of Buffer Is the buffer within HSG C or D soils? Required Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft Calculate Runoff Reduction	· · · · · · · · · · · · · · · · · · ·	=	overland shee	t flow or a flow	spreader pro	oposed	Yes	
Enter the slope of contributing flow path (%) Minimum buffer length based on contriuting flow path slope (ft) Sizing Criteria 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 Is the buffer within HSG C or D soils? Required Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft	Enter the total length of contributing flow path (ft)						16	
Minimum buffer length based on contriuting flow path slope (ft) Enter the slope for the first 10 ft of the buffer (%) 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? Required Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft Calculate Runoff Reduction	Enter the length of contributing flow path from impervious surfaces (ft)						16	
Enter the slope for the first 10 ft of the buffer (%) 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 Calculated Minimum Length of Buffer L 33 ft Minimum Length of Buffer L 35 ft Is the buffer within HSG C or D soils? Required Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 Calculate Runoff Reduction	Enter the slope	of contributing f	low path (%)				5	
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? Required Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft Calculate Runoff Reduction	Minimum buffer	length based or	n contriuting fl	ow path slope	(ft)		35	
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? Required Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft Calculate Runoff Reduction	Enter the slope	for the first 10 ft	of the buffer	(%)			2	
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? Required Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft Calculate Runoff Reduction				Sizing C	Criteria			
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? Required Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft Calculate Runoff Reduction						е	Units	Notes
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? Required Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft Calculate Runoff Reduction								
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? Required Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft Calculate Runoff Reduction				P				
Calculated Minimum Length of Buffer L 33 ft Minimum Length of Buffer L 35 ft Is the buffer within HSG C or D soils? Required Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft Calculate Runoff Reduction			•				ft/ft	
Minimum Length of Buffer L 35 ft Is the buffer within HSG C or D soils? Required Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft Calculate Runoff Reduction	·					<u></u>		
Is the buffer within HSG C or D soils? Required Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft Calculate Runoff Reduction								
Required Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft Calculate Runoff Reduction	<u> </u>						II.	
Enter Provided Length of Buffer L 40 ft Calculate Runoff Reduction							ft	
Calculate Runoff Reduction								
	Enter Frended Longin of Bullot							
	Calculate Runoff Reduction							
KRV Provided 6,193 ct		RRv Provided		cf				

Design Point:	1						
		Enter Site D	ata For Drain	age Area to	be Reduc	ed	
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 establishmer of a legal conservation easement?						
Is the contributir	ng area a desigr	No					
Is a pretreatmer the buffer?	it pea gravel dia	aphragm prop	osed along the	e upgradient e	edge of	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	n impervious s	urfaces (ft)		16	
Enter the slope	of contributing f	low path (%)				5	
Minimum buffer	length based o	n contriuting f	ow path slope	(ft)		35	
Enter the slope	for the first 10 ft	of the buffer	(%)			2	
			Sizing (
			_	Valu	е	Units	Notes
	el Time through		T	6		min	
•	r 24-hr Rainfall		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	
Calculated Minimum Length of Buffer L 33 Minimum Length of Buffer L 35						ft	
Is the buffer within HSG C or D soils?						1.	
	ed Length of Bu	ft					
Required Length of Buffer L 40 ft Enter Provided Length of Buffer L 40 ft							
Coloulete Dunest Deduction							
Calculate Runoff Reduction RRv Provided 5,887 cf							
	IXIX FIUVIUEU	5,007	CI				

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

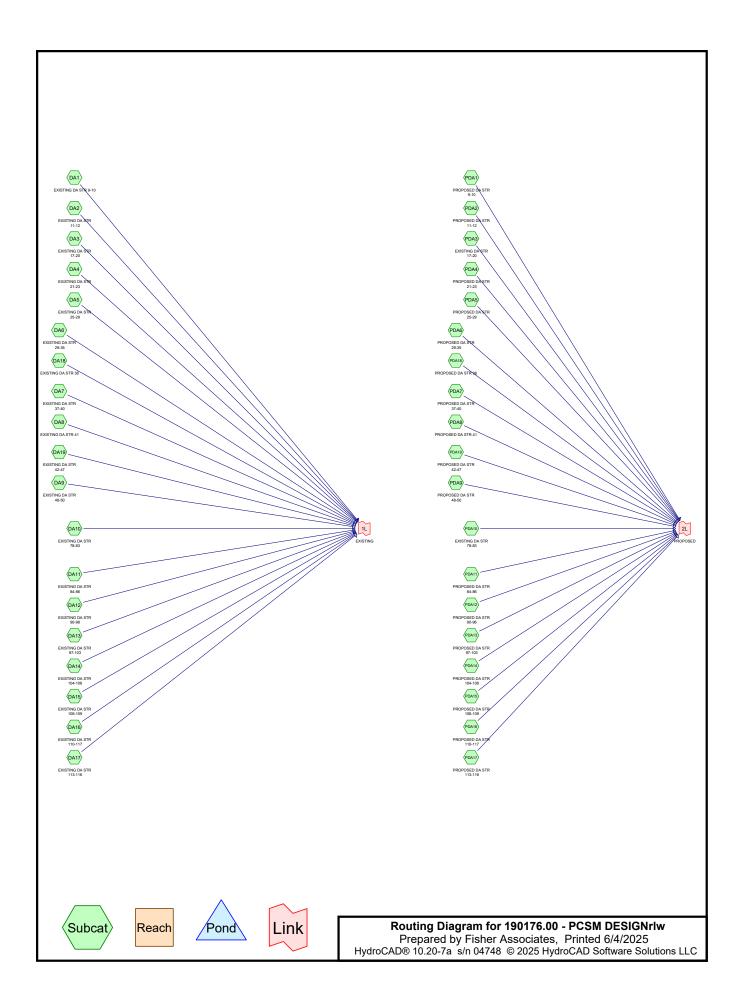
Design Point: 1										
Enter Site Data For Drainage Area to be Reduced										
Drainage Area Area A	rvious rea cres)	Percent Impervious %	Rv	WQv (cf)	Precipitation (in)	Description				
16 11.83 0.	.37	3	0.08	3,345	1.00	Sheet Flow to Grass Filter Strip				
		Design	Criteria							
Is the riparian buffer delineated and poor of a legal conservation easement?	ermane	ntly protected	through estab	olishment	Yes					
Is the contributing area a designated h	notspot?	?			No					
Is a pretreatment pea gravel diaphrag the buffer?	m propo	osed along the	e upgradient e	dge of	Yes					
Is runoff entering the buffer as overlar upgradient of the buffer?	nd sheet	t flow or a flow	/ spreader pro	posed	Yes					
Enter the total length of contributing flo	ow path	(ft)			16					
Enter the length of contributing flow pa	ath from	ı impervious s	urfaces (ft)		16					
Enter the slope of contributing flow pa	th (%)				5					
Minimum buffer length based on contr	riuting fl	ow path slope	(ft)		35					
Enter the slope for the first 10 ft of the	buffer ((%)			2					
		Sizing (Criteria							
			Valu	е	Units	Notes				
Enter Travel Time through Buffe	er	Т	6		min					
Enter 2-yr 24-hr Rainfall Depth		Р	2.22		inch					
Enter Overall Buffer Slope		S	0.03		ft/ft					
Enter Manning's Coefficient for Bu	ffer	n	0.24							
Calculated Minimum Length of Bu	ffer	L	33		ft					
Minimum Length of Buffer		L	35		ft					
Is the buffer within HSG C or D soils?										
Required Length of Buffer L 40 ft										
Enter Provided Length of Buffer	r	L	40		ft					
	C	alculate Run	off Doduction	,						
RRv Provided 3,		cf	on Reduction							

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 (
Is the riparian but of a legal conserv			ntly protected	through estat	olishment	Yes			
Is the contributing	g area a desigr	nated hotspot?	?			No			
Is a pretreatment the buffer?	pea gravel dia	phragm propo	osed along the	e upgradient e	dge of	Yes			
Is runoff entering upgradient of the		overland shee	t flow or a flow	/ spreader pro	posed	Yes			
Enter the total length of contributing flow path (ft) 16									
Enter the length of	of contributing	flow path from	ı impervious s	urfaces (ft)		16			
Enter the slope o	f contributing f	low path (%)				5			
Minimum buffer le	ength based or	n contriuting fl	ow path slope	(ft)		35			
Enter the slope for	or the first 10 ft	of the buffer	(%)			2			
			Sizing C	Criteria					
				Valu	e	Units	Notes		
	el Time through		T	6		min			
	24-hr Rainfall		P	2.22		inch			
	verall Buffer SI	•	S	0.03		ft/ft			
	g's Coefficient		n	0.24		6			
	inimum Length		L	33		ft			
Minimum Length of Buffer L 35 ft Is the buffer within HSG C or D soils? Yes									
				Yes		ft			
	ed Length of Burided Length of		L L	40 40		ft ft			
<u> </u>	.asa Estigui of	Danoi	–	-10		I.c			
		С	alculate Run	off Reduction	1				
F	RRv Provided		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		
18	12.44	0.23	2	0.07	3,009	1.00	Sheet Flow to Grass Filter Strip		
			Design (
Is the riparian but of a legal conse			ntly protected	through estat	olishment	Yes			
Is the contributir	ng area a desigr	nated hotspot	?			No			
Is a pretreatmer the buffer?	nt pea gravel dia	phragm propo	osed along the	e upgradient e	edge of	Yes			
Is runoff entering upgradient of the		overland shee	t flow or a flow	spreader pro	posed	Yes			
Enter the total le	ength of contribu	ıting flow path	(ft)			16			
Enter the length	of contributing		16						
Enter the slope	of contributing f	low path (%)				5			
Minimum buffer	length based or	n contriuting fl	ow path slope	(ft)		35			
Enter the slope	for the first 10 ft	of the buffer	(%)			2			
			Sizing (Criteria					
				Valu	е	Units	Notes		
	el Time through		T	6		min			
	r 24-hr Rainfall		P	2.22		inch			
	Overall Buffer S	•	S	0.03		ft/ft			
	ng's Coefficient		n	0.24 33		ft			
	/linimum Length		L L	35		ft ft			
Minimum Length of Buffer L 35 ft Is the buffer within HSG C or D soils? Yes									
	ed Length of Bu		L	40		ft			
	vided Length of		L	40		ft			
			alculate Run	off Reduction	1				
	RRv Provided	3,009	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			
19	110.82	0.80	1	0.06	22,727	1.00	Sheet Flow to Grass Filter Strip			
			Design							
ls the riparian bu of a legal conser			ntly protected	through estal	olishment	Yes				
Is the contributin	g area a desigr	nated hotspot	?			No				
ls a pretreatmen the buffer?	t pea gravel dia	phragm propo	osed along the	e upgradient e	edge of	Yes				
ls runoff entering upgradient of the	•	overland shee	t flow or a flow	spreader pro	pposed	Yes				
Enter the total le	ngth of contribu	ıting flow path	(ft)			16				
Enter the length	of contributing		16							
Enter the slope o	of contributing f	low path (%)				5				
Minimum buffer	length based or	n contriuting fl	ow path slope	(ft)		35				
Enter the slope f	or the first 10 ft	of the buffer	(%)			2				
			Sizing (
F . =	1.T. 0	D. #	_	Valu	е	Units ·	Notes			
	el Time through		T	6	,	min				
	r 24-hr Rainfall		P	2.22		inch				
	Overall Buffer S		S	0.03		ft/ft				
	ng's Coefficient		n	0.24		ft				
	Calculated Minimum Length of Buffer L 33									
Minimum Length of Buffer L 35 ft Is the buffer within HSG C or D soils? Yes										
Required Length of Buffer L 40 ft										
	vided Length of		L	40		ft				
			alculate Run	off Reduction	n					
	RRv Provided	22,727	cf							

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



Area Listing (all nodes)

Area	CN	Description
(acres)	0.1	(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)

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Area Listing (all nodes) (continued)

Area	CN	Description
(acres)		(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

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Soil Listing (all nodes)

Area	Soil	Subcatchment
(acres)	Group	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

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Ground Covers (all nodes)

HSG-A	HSG-B	HSG-C	HSG-D	Other	Total	Ground
(acres)	(acres)	(acres)	(acres)	(acres)	(acres)	Cover
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

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Ground Covers (all nodes) (continued)

HSG-A	HSG-B	HSG-C	HSG-D	Other	Total	Ground
(acres)	(acres)	(acres)	(acres)	(acres)	(acres)	Cover
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

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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

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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

Subcatchment DA8: 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

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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: EXISTINGInflow=76.95 cfs 26.860 af
Primary=76.95 cfs 26.860 af

Link 2L: PROPOSEDInflow=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

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Summary for Subcatchment DA1: EXISTING DA STR 9-10

Runoff = 2.35 cfs @ 13.14 hrs, Volume= 0.437 af, Depth> 0.38"

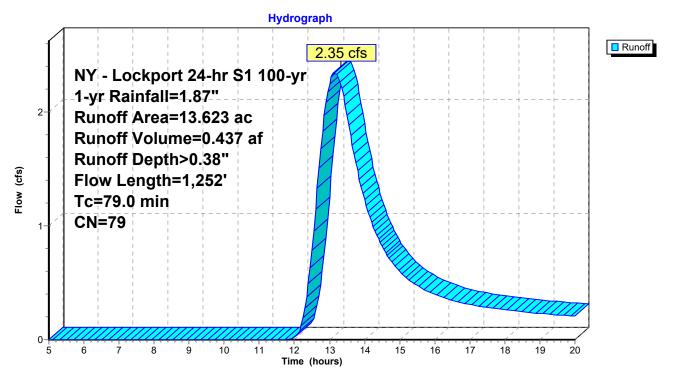
Routed to Link 1L: EXISTING

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 De	escription							
*	0.	134	39 39	- A - 75% (GRASS CO	VER, GOOD					
*	0.	.938	49 49	- A - 50-75	% GRASS	COVER, FAIR					
*	0.	.065	68 68	,							
*		.064		- A - FALLO	,						
*		.064		- A - MEAD							
*		.293				VER, GOOD					
*		.950				COVER, FAIR					
*		.320				OVER, POOR					
*		.105				COMB., GOOD					
*		497		- D - MEAD							
*		157				VER, GOOD					
*		.870				COVER, FAIR					
*		.999				OVER, POOR					
		167		- D - MEAD		-GRAZED					
		.623		eighted Ave							
	13.	.623	10	0.00% Perv	ious Area						
	Тс	Length	n Slop	e Velocity	Capacity	Description					
	(min)	(feet		•	(cfs)	Description					
_	12.4	100			(010)	Sheet Flow, 100' Sheet					
	12.4	100	0.017	0.13		Grass: Short n= 0.150 P2= 2.22"					
	40.8	420	0.000	6 0.17		Shallow Concentrated Flow,					
	10.0		0.000	0.17		Short Grass Pasture Kv= 7.0 fps					
	0.5	45	0.005	6 1.52		Shallow Concentrated Flow,					
						Paved Kv= 20.3 fps					
	14.3	300	0.002	5 0.35		Shallow Concentrated Flow,					
						Short Grass Pasture Kv= 7.0 fps					
	6.7	200	0.005	0 0.49		Shallow Concentrated Flow,					
						Short Grass Pasture Kv= 7.0 fps					
	4.3	187	0.010	7 0.72		Shallow Concentrated Flow,					
						Short Grass Pasture Kv= 7.0 fps					
	79.0	1,252	2 Total								

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Subcatchment DA1: EXISTING DA STR 9-10



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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

190176.00 - PCSM DESIGNrlw

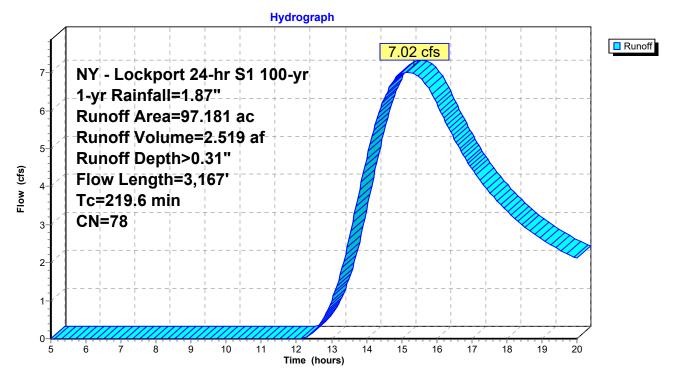
Prepared by Fisher Associates
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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
_	7.5	100	0.0610	0.22		Sheet Flow, 100
						Grass: Short n= 0.150 P2= 2.22"
	3.0	144	0.0130	0.80		Shallow Concentrated Flow, 144
						Short Grass Pasture Kv= 7.0 fps
	22.6	300	0.0010	0.22		Shallow Concentrated Flow, 300
		000		0.54		Short Grass Pasture Kv= 7.0 fps
	9.2	300	0.0060	0.54		Shallow Concentrated Flow, 300
	00.0	000	0.0040	0.00		Short Grass Pasture Kv= 7.0 fps
	22.6	300	0.0010	0.22		Shallow Concentrated Flow, 300
	20.6	200	0.0040	0.00		Short Grass Pasture Kv= 7.0 fps
	22.6	300	0.0010	0.22		Shallow Concentrated Flow, 300
	71.4	300	0.0001	0.07		Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, 300
	/ 1. 4	300	0.0001	0.07		Short Grass Pasture Kv= 7.0 fps
	12.2	162	0.0010	0.22		Shallow Concentrated Flow, 162
	12.2	102	0.0010	0.22		Short Grass Pasture Kv= 7.0 fps
	10.1	300	0.0050	0.49		Shallow Concentrated Flow, 300
	10.1	000	0.0000	0.40		Short Grass Pasture Kv= 7.0 fps
	8.3	290	0.0070	0.59		Shallow Concentrated Flow, 290
	0.0		0.00.0	0.00		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			

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Subcatchment DA10: EXISTING DA STR 78-83



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Summary for Subcatchment DA11: EXISTING DA STR 84-86

0.189 af, Depth> 0.16" 0.53 cfs @ 14.94 hrs, Volume= Runoff

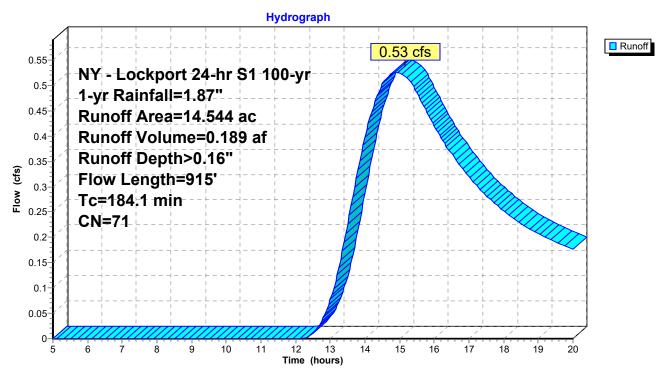
Routed to Link 1L: EXISTING

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) C	N Des	cription			
*	0.033 58 B-MEADOW, NON-GRAZED						
*	· · · · · · · · · · · · · · · · · · ·						
*	,						
*	· · · · · · · · · · · · · · · · · · ·						
*							
*	* 2.545 78 D-MEADOW, NON-GRAZED						
*					NON-GRAZ		
	* 5.505 71 D-MEADOW, NON-GRAZED						
*	_				NONGRAZ		
*					NON-GRAZ		
*				,	NON-GRAZ	ZED	
		_		ghted Aver			
	14.544 100.00% Pervious Area				ious Area		
	т.	1	01	17.1	0	December 1999	
	Tc	Length	Slope	Velocity		Description	
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)		
	97.9	100	0.0001	0.02		Sheet Flow, 100	
	0.0	404	0.0400	0.77		Grass: Short n= 0.150 P2= 2.22"	
	3.6	164	0.0120	0.77		Shallow Concentrated Flow, 164	
	0.5	200	0.0070	0.50		Short Grass Pasture Kv= 7.0 fps	
	8.5	300	0.0070	0.59		Shallow Concentrated Flow, 300	
	71.4	300	0.0001	0.07		Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, 300	
	/ 1. 4	300	0.0001	0.07		Short Grass Pasture Kv= 7.0 fps	
	2.7	51	0.0020	0.31		Shallow Concentrated Flow, 51	
		JI	0.0020	0.01		· · · · · · · · · · · · · · · · · · ·	
						Short Grass Pasture Kv= 7.0 fps	
_	184.1	915	Total			Short Grass Pasture Kv= 7.0 fps	

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Subcatchment DA11: EXISTING DA STR 84-86



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Summary for Subcatchment DA12: EXISTING DA STR 90-96

Runoff = 0.21 cfs @ 12.69 hrs, Volume= 0.047 af, Depth> 0.07"

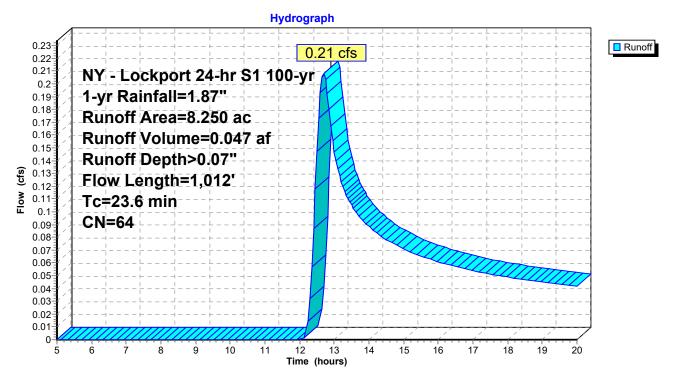
Routed to Link 1L: EXISTING

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) C	N Desc	cription			
*	2.470 30 A-MEADOW, NON-GRAZED						
*	, ,						
_	8.250 64 Weighted Average						
		250 0 250		00% Pervi	•		
	0.	250					
	Тс	Length	Slope	Velocity	Capacity	Description	
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	1	
_	9.0	100	0.0390	0.19		Sheet Flow, 100	
	0.0	.00	0.0000	0.10		Grass: Short n= 0.150 P2= 2.22"	
	1.5	130	0.0420	1.43		Shallow Concentrated Flow, 130	
			0.0.2			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	
			0.0020			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			- ,	

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Subcatchment DA12: EXISTING DA STR 90-96



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Summary for Subcatchment DA13: EXISTING DA STR 97-103

Runoff = 9.41 cfs @ 13.26 hrs, Volume= 1.877 af, Depth> 0.35"

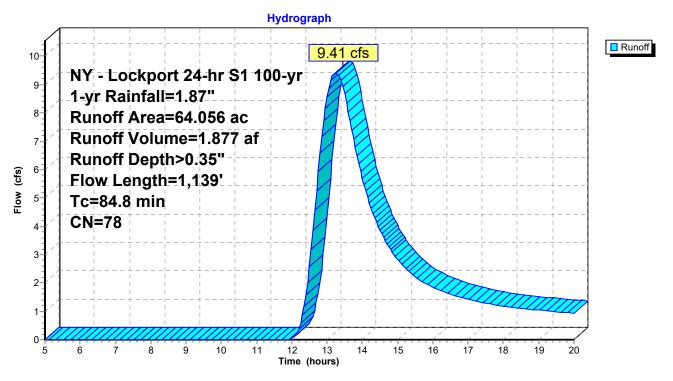
Routed to Link 1L: EXISTING

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 Des	cription				
*								
*			,					
*	·							
*	· · · · · · · · · · · · · · · · · · ·							
*	·							
*	0.300 04 D-30-73% GRASS COVER, FAIR							
*	_	203 419			NON-GRAZ			
*	_	_		,	RFACE, 09			
_						U IIVII		
	_	638	,	ghted Aver 5% Pervio	•			
		418		% Impervi				
	0.	410	0.00	70 IIIIþeivi	ous Alea			
	Тс	Length	Slope	Velocity	Capacity	Description		
	(min)	(feet)		(ft/sec)	(cfs)	2 dodnipilon		
	25.1	100		0.07		Sheet Flow, 100		
	20		0.0000	0.01		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					

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Subcatchment DA13: EXISTING DA STR 97-103



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Summary for Subcatchment DA14: EXISTING DA STR 104-106

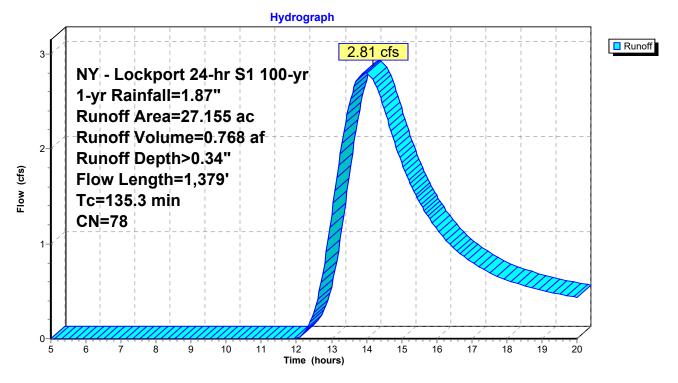
Runoff = 2.81 cfs @ 13.98 hrs, Volume= 0.768 af, Depth> 0.34"

Routed to Link 1L: EXISTING

_	Area	. ,		cription						
*					COVER,					
*					OCVER,					
*					ASS COVE					
*				D-WOODS/GRASS COMB., GOOD						
*	2.124 70			D-MEADOW, NON-GRAZED						
*	0.000 00			D-75% GRASS COVER, GOOD D-WOODS/GRASS COMB., GOOD						
	0.552 19									
*				D-MEADOW, NON-GRAZED						
*				D-WATER SURFACE, 0% IMP						
*				D-WATER SURFACE, 0% IMP D-75% GRASS OCVER, GOOD						
*										
*					ASS COVE					
_					NON-GRAZ	<u> </u>				
				ghted Aver						
		914		11% Pervious Area						
	0.241 0.89% Impervious A				ous Area					
	т.	ما اسم ما	Clana	\/alaaitu	Consoitu	Description				
		Length	Slope (ft/ft)	Velocity	Capacity (cfs)	Description				
_	(min)	(feet)		(ft/sec)	(CIS)	Ob4 Flance 400				
	9.6	100	0.0330	0.17		Sheet Flow, 100				
	0.9	53	0.0220	1.04		Grass: Short n= 0.150 P2= 2.22"				
	0.9	55	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				
	2.3	140	0.0210	1.01		Short Grass Pasture Kv= 7.0 fps				
	2.2	140	0.0220	1.04		Shallow Concentrated Flow, 140				
	۷.۷	140	0.0220	1.04		Short Grass Pasture Kv= 7.0 fps				
	5.8	230	0.0090	0.66		Shallow Concentrated Flow, 230				
	5.0	200	0.0030	0.00		Short Grass Pasture Kv= 7.0 fps				
	7.6	267	0.0070	0.59		Shallow Concentrated Flow, 267				
	7.0	201	0.0070	0.00		Short Grass Pasture Kv= 7.0 fps				
	43.8	184	0.0001	0.07		Shallow Concentrated Flow, 184				
	10.0	104	3.0001	0.07		Short Grass Pasture Kv= 7.0 fps				
	63.1	265	0.0001	0.07		Shallow Concentrated Flow, 265				
		200	0.0001	0.07		Short Grass Pasture Kv= 7.0 fps				
_	135.3	1,379	Total							
	100.0	1,073	rotai							

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Subcatchment DA14: EXISTING DA STR 104-106



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Summary for Subcatchment DA15: EXISTING DA STR 106-109

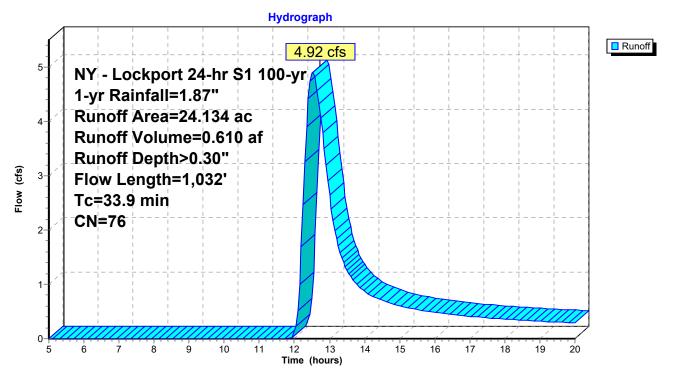
4.92 cfs @ 12.53 hrs, Volume= 0.610 af, Depth> 0.30" Runoff

Routed to Link 1L: EXISTING

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	
* 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	
* 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	
 * 0.028 80 D-75% GRASS COVER, GOOD * 2.330 78 D-MEADOW, NON-GRAZED * 0.585 80 D-75% GRASS COVER, GOOD 	
 2.330 78 D-MEADOW, NON-GRAZED 0.585 80 D-75% GRASS COVER, GOOD 	
* 0.585 80 D-75% GRASS COVER, GOOD	
* 0.704 04 D.50.750/. CDASS COVED EAID	
- · · · · · · · · · · · · · · · · · · ·	
* 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 Length Slope Velocity Capacity Description	
(min) (feet) (ft/ft) (ft/sec) (cfs)	
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	

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Subcatchment DA15: EXISTING DA STR 106-109



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Summary for Subcatchment DA16: EXISTING DA STR 110-117

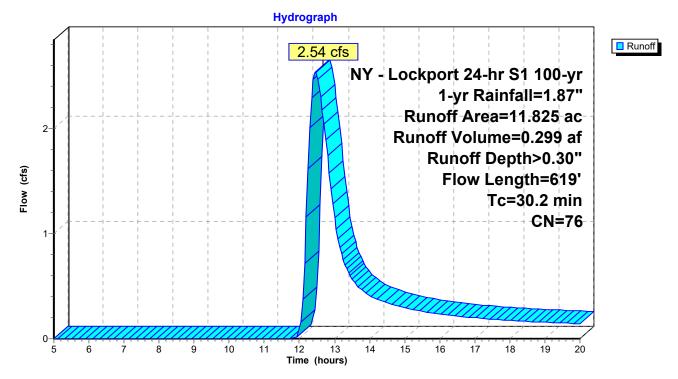
Runoff = 2.54 cfs @ 12.46 hrs, Volume= 0.299 af, Depth> 0.30"

Routed to Link 1L: EXISTING

_	Area	(ac)	CN	Desc	ription							
*	0.	423	61	B-75	%GRASS	COVER, C	GOOD					
*	0.	460	69	B-50	3-50-75% GRASS COVER, FAIR							
*	2.	069	58	D-MI	D-MEADOW, NON-GRAZED							
*	0.	045	78	D-MI	D-MEADOW, NON-GRAZED							
*	0.	049	98	D-MI	EADOW, N	NON-GRAZ	ZED					
*	0.	487	80	D-75	% GRASS	S COVER,	GOOD					
*	0.	960	84	D-50	-75% GRA	ASS COVE	R, FAIR					
*	0.	293	79	D-W	OODS/GR	RASS COM	B., GOOD					
*	5.	704	78	D-MI	EADOW, N	NON-GRAZ	ZED					
*	1.	222	98			NON-GRAZ						
*	0.	048	79	D-W	OODS/GR	RASS COM	B., GOOD					
*		009	78		,	NON-GRAZ						
*	0.	056	98	D-MI	EADOW, N	NON-GRAZ	ZED					
	11.	825	76	Weig	hted Aver	age						
	10.	498		88.7	8% Pervio	us Area						
	1.	327		11.2	2% Imperv	/ious Area						
	Tc	Lengt	:h	Slope	Velocity	Capacity	Description					
_	(min)	(fee	t)	(ft/ft)	(ft/sec)	(cfs)						
	17.9	10	0 0	.0070	0.09		Sheet Flow, 100					
							Grass: Short n= 0.150 P2= 2.22"					
	3.4	22	2 0	.0240	1.08		Shallow Concentrated Flow, 222					
							Short Grass Pasture Kv= 7.0 fps					
	4.1	15	4 0	0800.	0.63		Shallow Concentrated Flow, 154					
							Short Grass Pasture Kv= 7.0 fps					
	4.8	14	3 0	.0050	0.49		Shallow Concentrated Flow, 143					
							Short Grass Pasture Kv= 7.0 fps					
	30.2	61	a T	otal								

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Subcatchment DA16: EXISTING DA STR 110-117



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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

	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

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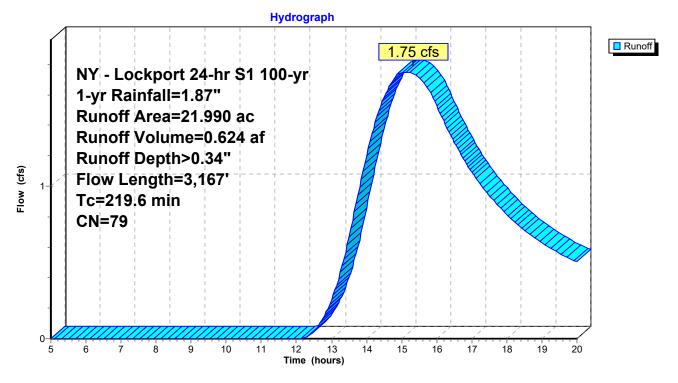
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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	100	0.0610	0.22	, ,	Sheet Flow, 100
					Grass: Short n= 0.150 P2= 2.22"
3.0	144	0.0130	0.80		Shallow Concentrated Flow, 144
					Short Grass Pasture Kv= 7.0 fps
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
		0.0400	4.40		Short Grass Pasture Kv= 7.0 fps
0.6	50	0.0400	1.40		Shallow Concentrated Flow, 50
	0.40	0.0470	0.04		Short Grass Pasture Kv= 7.0 fps
4.4	242	0.0170	0.91		Shallow Concentrated Flow, 242
	000	0.0400	0.00		Short Grass Pasture Kv= 7.0 fps
6.3	300	0.0130	0.80		Shallow Concentrated Flow, 300
40.0		0.0004	0.07		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			

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Subcatchment DA17: EXISTING DA STR 113-116



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Summary for Subcatchment DA18: EXISTING DA STR 36

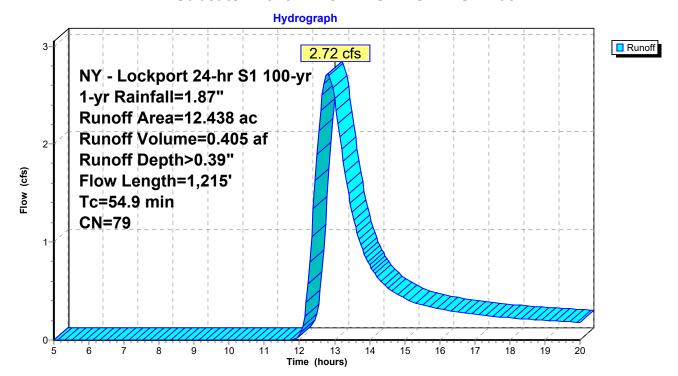
Runoff = 2.72 cfs @ 12.81 hrs, Volume= 0.405 af, Depth> 0.39"

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	Desc	cription							
*	0.	143	80	D - 8	0 - 80 - Developed open space							
*	0.	461	80	D - 8	D - 80 - Developed open space							
*	1.	014	82	D - 8	32 - Develo	ped Low ir	itensity					
*	1.	218	82			ped Low ir						
*	0.081 77 D - 77 - Deciduous Forest											
*	7.	367	78				s, non-grazed land					
*	2.	154	78	D - 7	<u>'8 - Meado</u>	wed, grass	s, non-grazed land					
	12.438 79 Weighted Average											
	12.	438		100.0	00% Pervi	ous Area						
	Тс	Lengt		Slope	Velocity	Capacity	Description					
_	(min)	(fee	t)	(ft/ft)	(ft/sec)	(cfs)						
	11.8	10	0 0	0.0200	0.14		Sheet Flow, 100' sheet					
							Grass: Short n= 0.150 P2= 2.22"					
	43.1	1,11	5 0	0.0038	0.43		Shallow Concentrated Flow,					
_							Short Grass Pasture Kv= 7.0 fps					
	54.9	1,21	5 T	otal								

Subcatchment DA18: EXISTING DA STR 36



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Summary for Subcatchment DA19: EXISTING DA STR 42-47

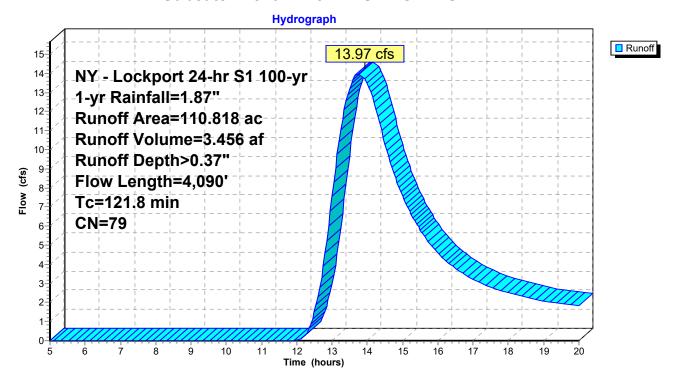
Runoff = 13.97 cfs @ 13.72 hrs, Volume= 3.456 af, Depth> 0.37"

Routed to Link 1L: EXISTING

	Area (ac) CN Description											
*	3.	220	80	D - 8	0 - Develo	ped open s	space					
*	2.	932	80		0 - 80 - Developed open space							
*	0.	003	80	····								
*	10.	164	· · · · · · · · · · · · · · · · · · ·									
*	6.	410	82			ped Low ir						
*	0.	607	82			ped Low ir						
*	5.	494	77			lous Forest						
*	15.	746	78	D - 7	8 - Meado	wed, grass	s, non-grazed land					
*	63.	740	78				s, non-grazed land					
*	2.	502	78				s, non-grazed land					
	110.818 79 Weighted Average											
	110.	818			00% Pervi							
	Tc	Lengt	h	Slope	Velocity	Capacity	Description					
	(min)	(fee		(ft/ft)	(ft/sec)	(cfs)	·					
	10.0	10	0	0.0300	0.17	,	Sheet Flow, 100' Sheet					
							Grass: Short n= 0.150 P2= 2.22"					
	88.0	2,22	5	0.0071	0.42		Shallow Concentrated Flow,					
		,					Woodland Kv= 5.0 fps					
	23.8	1,76	5	0.0068	1.24		Shallow Concentrated Flow,					
		, -					Grassed Waterway Kv= 15.0 fps					
	121.8	4,09	0	Total			<u> </u>					

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Subcatchment DA19: EXISTING DA STR 42-47



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Summary for Subcatchment DA2: EXISTING DA STR 11-12

Runoff = 13.89 cfs @ 12.57 hrs, Volume= 1.641 af, Depth> 0.54"

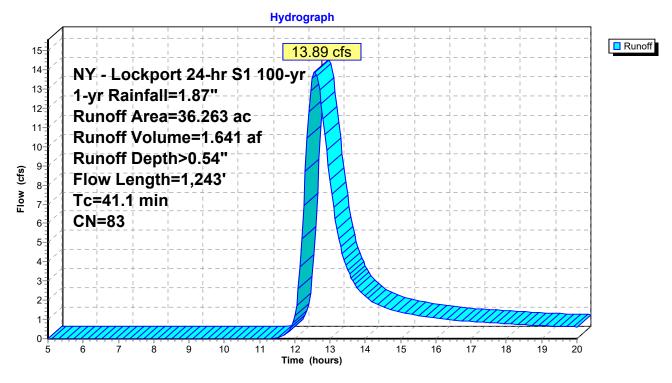
Routed to Link 1L: EXISTING

	Area	(ac) (CN E	Desc	cription								
*	2.	487	80 8	30-D	-75% GR	ASS COVE	ER, GOOD						
*	1.	050	84 8	34-D	-50-75% (GRASS CO	OVER, FAIR						
*	1.	903	89 8	39-D	-<50% GF	RASS COV	ER, POOR						
*	0.	250	95 9	95-D	5-D-URBAN COMMERCIAL, 85% IMP								
*		043		,									
* 1.541 78 78-D-MEADOW, NONGRAZED													
*		054				ASS COVE							
*		598	598 84 84-D-50-75% GRASSC OVER, FAIR										
*		041					ER, POOR						
*		286					CIAL, 85% IMP						
*		744				V, NON-GI							
*		222				ASS CVER							
*		613					OVER, FAIR						
*		609					ER POOR						
*		887					CIAL, 85% IMP						
*		299					OMB., GOOD						
_		636				V, NON-GI	RAZED						
		263			hted Aver								
	36.	263	1	100.	00% Pervi	ous Area							
	Тс	Length	ı Slo	no	Velocity	Capacity	Description						
	(min)	(feet)		/ft)	(ft/sec)	(cfs)	Description						
_	2.5	100			0.66	(615)	Sheet Flow, 100'						
	2.5	100	0.00	130	0.00		Smooth surfaces n= 0.011 P2= 2.22"						
	1.4	115	0.00	1/13	1.33		Shallow Concentrated Flow,						
	1.7	110	0.00	7-5	1.00		Paved Kv= 20.3 fps						
	2.4	256	0.00	178	1.79		Shallow Concentrated Flow,						
	2.7	200	0.00	,, ,	1.70		Paved Kv= 20.3 fps						
	10.3	240	0.00	31	0.39		Shallow Concentrated Flow,						
			0.00		0.00		Short Grass Pasture Kv= 7.0 fps						
	0.3	30	0.00	64	1.62		Shallow Concentrated Flow,						
					_		Paved Kv= 20.3 fps						
	2.8	128	0.01	17	0.76		Shallow Concentrated Flow,						
							Short Grass Pasture Kv= 7.0 fps						
	14.2	209	0.00	24	0.24		Shallow Concentrated Flow,						
							Woodland Kv= 5.0 fps						
	7.2	165	0.00	30	0.38		Shallow Concentrated Flow,						
_							Short Grass Pasture Kv= 7.0 fps						
	41.1	1,243	Tota	al									

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Subcatchment DA2: EXISTING DA STR 11-12



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Summary for Subcatchment DA3: EXISTING DA STR 17-20

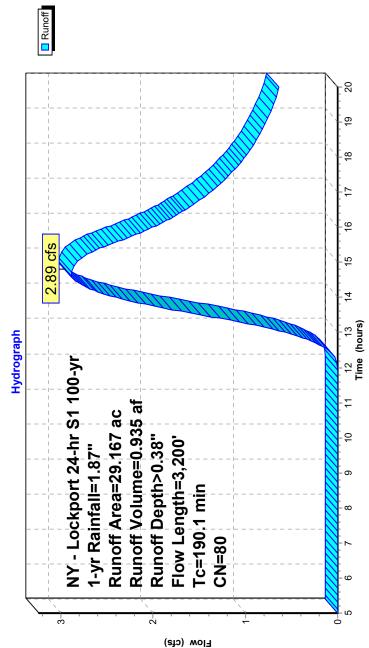
Runoff = 2.89 cfs @ 14.62 hrs, Volume= 0.935 af, Depth> 0.38"

Routed to Link 1L: EXISTING

	Δ	()	2N D-			
*	Area			scription	A C C C C C V T	TD 000D
*				D-75% GR ODS/GRA		
*		427		ODS/GRA		,
*		196		ADOW, NO		•
*				TER SURF		
*				% GRASS (OOD
*				75% GRAS		
*				% GRASS		
*	0.	375		BAN COM		
*				ODS/GRA		
*				75% GRAS		
*		756		ODS/GRA		
*		470		ODS/GRA		
*				ADOW, NO		
_				TER SURF		WP
		167 573		ighted Aver 96% Pervic		
		573 594	_	96% Pervid 4% Impervi		
	0.	J9 4	2.0	4 /0 IIIIpei vi	ous Alea	
	Тс	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	•		(cfs)	2
	27.2	100				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,
	00.4	570	0.000	0.40		Woodland Kv= 5.0 fps
	23.1	576	0.0069	0.42		Shallow Concentrated Flow,
	14.5	452	0.0055	0.52		Woodland Kv= 5.0 fps
	14.3	402	0.0055	0.52		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
	77.9	810	0.0012	2 0.17		Shallow Concentrated Flow,
		0.10	0.0012	. 0.17		Woodland Kv= 5.0 fps
_	190.1	3,200	Total			
	. 55. 1	0,200	iotai			

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Subcatchment DA3: EXISTING DA STR 17-20



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Summary for Subcatchment DA4: EXISTING DA STR 21-23

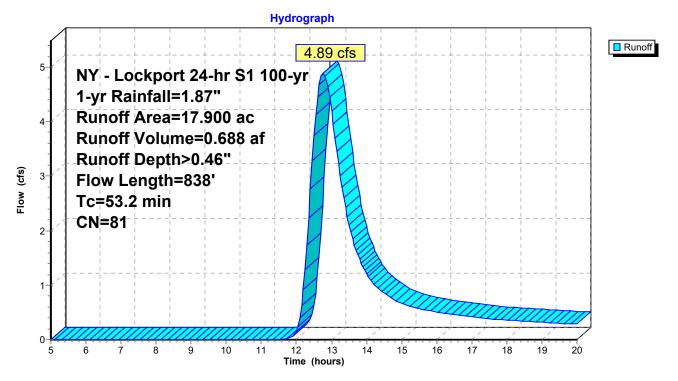
Runoff = 4.89 cfs @ 12.77 hrs, Volume= 0.688 af, Depth> 0.46"

Routed to Link 1L: EXISTING

	Area	(ac)	CI	N Desc	cription		
*	0.	062	8	O 80-D	-75% GRA	ASS COVE	R, GOOD
*	0.	720	8	4 84-D	-50-75% (GRASS CC	OVER, FAIR
*	0.	884	7	8 78-D	-MEADOV	V, NON-GF	RAZED
*	4.	286	8	0 80-D	-75% GRA	ASS COVE	R, GOOD
*	3.	922	8	4 84-D	-50-75% (GRASS CC	OVER, FAIR
*	0.	139	8	9 89-0)-<50% GF	RASS COV	ER, POOR
*		645	8				NGE, GOOD
*		404				V, NON-GF	
*		188	8			ASS COVE	·
*		143	8				OVER, FAIR
*	0.	507	7	<u>8 78-D</u>	-MEADOV	V, NON-GF	RAZED
	17.	900	8		ghted Aver	•	
	17.	900		100.	00% Pervi	ous Area	
	Tc	Leng	•	Slope	Velocity	Capacity	Description
_	(min)	(fe	et)	(ft/ft)	(ft/sec)	(cfs)	
	14.2	1	00	0.0125	0.12		Sheet Flow,
							Grass: Short n= 0.150 P2= 2.22"
	23.5	4	19	0.0018	0.30		Shallow Concentrated Flow,
							Short Grass Pasture Kv= 7.0 fps
	15.5	3	19	0.0024	0.34		Shallow Concentrated Flow,
							Short Grass Pasture Kv= 7.0 fps
	53.2	8	38	Total			

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Subcatchment DA4: EXISTING DA STR 21-23



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Summary for Subcatchment DA5: EXISTING DA STR 25-29

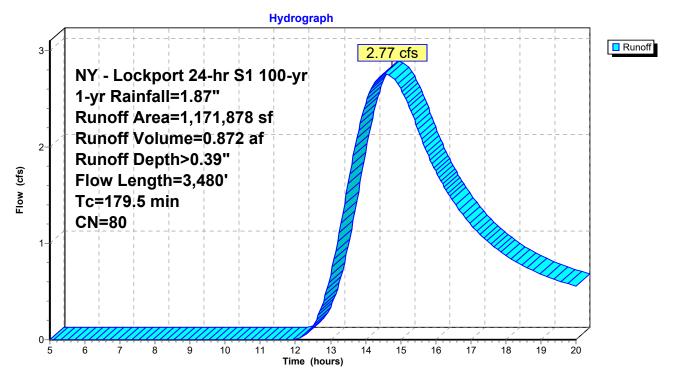
Runoff = 2.77 cfs @ 14.56 hrs, Volume= 0.872 af, Depth> 0.39"

Routed to Link 1L: EXISTING

	Α	rea (sf)	CN E	escription		
*		17,032	80 8	0-D-75% (GRASS CO	VER, GOOD
*	2	00,420	79 V	VOODS/G	RASS COM	MB., GOOD
*		62,160	79 V	VOODS/G	RASS COM	MB., GOOD
*		95,658	78 N	MEADOW,	NON-GRA	ZED
*		13,939	98 V	VATER SL	JRFACE	
*		58,384	80 7	5% GRAS	S COVER,	GOOD
*		85,247	84 5	0-75% GR	RASS COVE	ER, FAIR
*		48,090	89 <	50% GRA	SS COVER	R, POOR
*		16,335	95 L	JRBAN CC	MMERCIA	L, 85% IMP
*		87,844	79 V	VOODS/G	RASS COM	MB., GOOD
*		14,680			RASS COVE	
*	·					
*		20,473				MB., GOOD
*		87,352			NON-GRA	
*		11,935			JRFACE, 0°	% IMP
		71,878		Veighted A		
	,	46,004	_	-	rvious Area	
		25,874	2	:.21% Impe	ervious Area	a
	Tc	I enath	Slone	Velocity	Capacity	Description
		Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	Capacity (cfs)	·
				•		Sheet Flow, 100' Sheet
_	(min) 25.8	(feet) 100	(ft/ft) 0.0200	(ft/sec) 0.06		Sheet Flow, 100' Sheet Woods: Light underbrush n= 0.400 P2= 2.22"
_	(min)	(feet)	(ft/ft)	(ft/sec)		Sheet Flow, 100' Sheet
_	(min) 25.8	(feet) 100	(ft/ft) 0.0200	(ft/sec) 0.06		Sheet Flow, 100' Sheet Woods: Light underbrush n= 0.400 P2= 2.22" Shallow Concentrated Flow,
_	(min) 25.8 28.8	(feet) 100 377	(ft/ft) 0.0200 0.0019	0.06 0.22		Sheet Flow, 100' Sheet Woods: Light underbrush n= 0.400 P2= 2.22" Shallow Concentrated Flow, Woodland Kv= 5.0 fps
_	(min) 25.8 28.8	(feet) 100 377	(ft/ft) 0.0200 0.0019	0.06 0.22		Sheet Flow, 100' Sheet Woods: Light underbrush n= 0.400 P2= 2.22" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow,
_	(min) 25.8 28.8 12.9 17.4	(feet) 100 377 548 739	(ft/ft) 0.0200 0.0019 0.0200 0.0200	(ft/sec) 0.06 0.22 0.71 0.71		Sheet Flow, 100' Sheet Woods: Light underbrush n= 0.400 P2= 2.22" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Woodland Kv= 5.0 fps
_	(min) 25.8 28.8 12.9	(feet) 100 377 548	(ft/ft) 0.0200 0.0019 0.0200	(ft/sec) 0.06 0.22 0.71		Sheet Flow, 100' Sheet Woods: Light underbrush n= 0.400 P2= 2.22" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Shallow Concentrated Flow,
_	(min) 25.8 28.8 12.9 17.4 10.5	(feet) 100 377 548 739 489	(ft/ft) 0.0200 0.0019 0.0200 0.0200 0.0240	(ft/sec) 0.06 0.22 0.71 0.71 0.77		Sheet Flow, 100' Sheet Woods: Light underbrush n= 0.400 P2= 2.22" Shallow Concentrated Flow, Woodland Kv= 5.0 fps
_	(min) 25.8 28.8 12.9 17.4	(feet) 100 377 548 739	(ft/ft) 0.0200 0.0019 0.0200 0.0200	(ft/sec) 0.06 0.22 0.71 0.71		Sheet Flow, 100' Sheet Woods: Light underbrush n= 0.400 P2= 2.22" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow,
_	(min) 25.8 28.8 12.9 17.4 10.5 8.0	(feet) 100 377 548 739 489 420	(ft/ft) 0.0200 0.0019 0.0200 0.0200 0.0240 0.0156	(ft/sec) 0.06 0.22 0.71 0.71 0.77 0.87		Sheet Flow, 100' Sheet Woods: Light underbrush n= 0.400 P2= 2.22" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
_	(min) 25.8 28.8 12.9 17.4 10.5	(feet) 100 377 548 739 489	(ft/ft) 0.0200 0.0019 0.0200 0.0200 0.0240	(ft/sec) 0.06 0.22 0.71 0.71 0.77		Sheet Flow, 100' Sheet Woods: Light underbrush n= 0.400 P2= 2.22" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, Short Grass Posture Kv= 7.0 fps Shallow Concentrated Flow,
_	(min) 25.8 28.8 12.9 17.4 10.5 8.0 13.1	(feet) 100 377 548 739 489 420 429	(ft/ft) 0.0200 0.0019 0.0200 0.0200 0.0240 0.0156 0.0120	(ft/sec) 0.06 0.22 0.71 0.71 0.77 0.87 0.55		Sheet Flow, 100' Sheet Woods: Light underbrush n= 0.400 P2= 2.22" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, Woodland Kv= 5.0 fps
	(min) 25.8 28.8 12.9 17.4 10.5 8.0	(feet) 100 377 548 739 489 420	(ft/ft) 0.0200 0.0019 0.0200 0.0200 0.0240 0.0156	(ft/sec) 0.06 0.22 0.71 0.71 0.77 0.87		Sheet Flow, 100' Sheet Woods: Light underbrush n= 0.400 P2= 2.22" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow,
_	(min) 25.8 28.8 12.9 17.4 10.5 8.0 13.1	(feet) 100 377 548 739 489 420 429	(ft/ft) 0.0200 0.0019 0.0200 0.0200 0.0240 0.0156 0.0120	(ft/sec) 0.06 0.22 0.71 0.71 0.77 0.87 0.55		Sheet Flow, 100' Sheet Woods: Light underbrush n= 0.400 P2= 2.22" Shallow Concentrated Flow, Woodland Kv= 5.0 fps Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, Woodland Kv= 5.0 fps

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Subcatchment DA5: EXISTING DA STR 25-29



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Summary for Subcatchment DA6: EXISTING DA STR 29-35

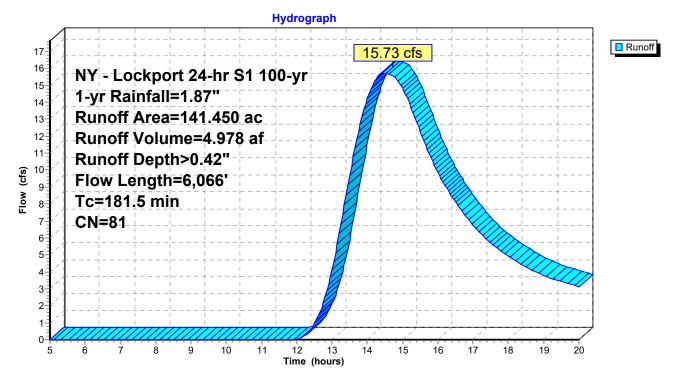
15.73 cfs @ 14.52 hrs, Volume= 4.978 af, Depth> 0.42" Runoff

Routed to Link 1L: EXISTING

	۸	()	ON.	D					
*	Area		CN_		ription	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			
*		152	98		8 - Open				
*		074	80			oped open s			
0.307 ou D - ou - Developed open space									
	2.303								
	1.992 62 D - 62 - Developed Low Intensity								
1.726 62 D - 62 - Developed Low Intensity									
*		185	85						
*		875	77 77			uous Forest			
*		239	77 77			uous Forest			
*		242	77 77			uous Forest			
*		038	77			reen Forest			
*		919	77 77			reen Forest			
*		021	77 77			reen Forest			
*		508	77 77		7 - Mixed 7 - Mixed				
*		889	77 77						
*		160 266			7 - Mixed		non grazad land		
*		200 357	78 78				s, non-grazed land		
*		896	78				s, non-grazed land		
*		112	78				s, non-grazed land s, non-grazed land		
*		915	78				s, non-grazed land		
*		016	90			y Wetlands			
*		198	90			y Wetlands			
	141.		81		hted Ave				
	141.		01		9% Pervic				
		152			% Impervi				
	0.	132		0.11	70 IIIIpei vi	ous Alea			
	Tc	Length	ı s	lope	Velocity	Capacity	Description		
	(min)	(feet)		(ft/ft)	(ft/sec)	(cfs)	Boompaon		
_	22.7	100		0275	0.07	(0.0)	Sheet Flow, 100' Sheet		
	22.1	100	0.0	JZ1 J	0.07		Woods: Light underbrush n= 0.400 P2= 2.22"		
	31.2	1,144	0.0	0149	0.61		Shallow Concentrated Flow,		
	31.2	1,144	0.0) 1 4 3	0.01		Woodland Kv= 5.0 fps		
	14.6	670	n n r	0026	0.76		Shallow Concentrated Flow,		
	14.0	070	0.0	0020	0.70		Grassed Waterway Kv= 15.0 fps		
	12.9	328	2 0 0	8000	0.42		Shallow Concentrated Flow,		
	12.0	020	, 0.0	,,,,,	0.72		Grassed Waterway Kv= 15.0 fps		
	100.1	3,824	ו חר	0018	0.64		Shallow Concentrated Flow,		
	.00.1	5,02	0.0		J.J-T		Grassed Waterway Kv= 15.0 fps		
_	181.5	6,066	То	tal			c.s.ccas.c.may		
	101.5	0,000	, 10	ıaı					

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Subcatchment DA6: EXISTING DA STR 29-35



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Summary for Subcatchment DA7: EXISTING DA STR 37-40

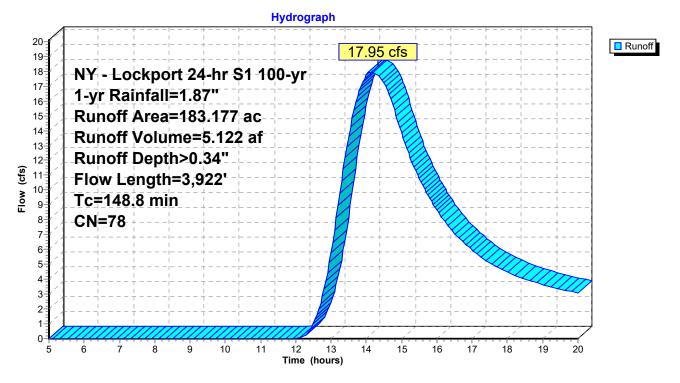
17.95 cfs @ 14.12 hrs, Volume= 5.122 af, Depth> 0.34" Runoff

Routed to Link 1L: EXISTING

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	
 * 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 	
 * 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 	
 * 2.870 82 D - 82 - Developed Low intensity * 4.979 82 D - 82 - Developed Low intensity * 4.781 82 D - 82 - Developed Low intensity 	
 * 4.979 82 D - 82 - Developed Low intensity * 4.781 82 D - 82 - Developed Low intensity 	
* 4.781 82 D - 82 - Developed Low intensity	
* 0.152 85 D - 85 - Developed Med intensity	
0 0	
* 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 Length Slope Velocity Capacity Description	
(min) (feet) (ft/ft) (ft/sec) (cfs)	
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	

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Subcatchment DA7: EXISTING DA STR 37-40



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Summary for Subcatchment DA8: EXISTING DA STR 41

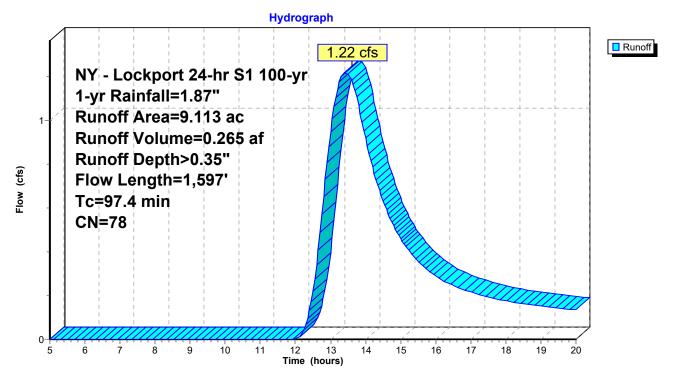
Runoff = 1.22 cfs @ 13.42 hrs, Volume= 0.265 af, Depth> 0.35"

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) C	N Des	cription		
*	* 3.755 77 D - 77 - Deciduous Fores				ious Forest	
* 5.358 78 D - 78 - Meadowed, grass, non-grazed land						
	9.					
	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
	63.4	1,497	0.0062	0.39		Woods: Light underbrush n= 0.400 P2= 2.22" Shallow Concentrated Flow, Woodland Kv= 5.0 fps
	97 4	1 597	Total			

Subcatchment DA8: EXISTING DA STR 41



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Summary for Subcatchment DA9: EXISTING DA STR 48-50

Runoff = 4.89 cfs @ 13.55 hrs, Volume= 1.129 af, Depth> 0.38"

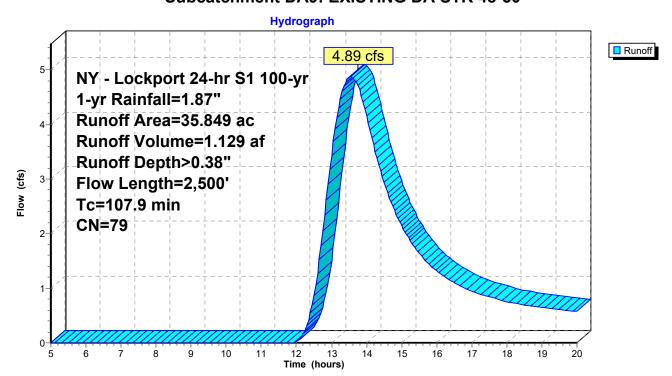
Routed to Link 1L: EXISTING

	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

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(m	Tc nin)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	1.4	100		1.21	(CIS)	Shallow Concentrated Flow 100'
	1.4	100	0.0300	1.21		Shallow Concentrated Flow, 100' Short Grass Pasture Kv= 7.0 fps
3	1.2	262	0.0120	0.14		Sheet Flow, 262.19
3	1.2	202	0.0120	0.14		Grass: Short n= 0.150 P2= 2.22"
	4.5	254	0.0180	0.94		Shallow Concentrated Flow, 254'
	1.0	201	0.0100	0.04		Short Grass Pasture Kv= 7.0 fps
	2.9	129	0.0110	0.73		Shallow Concentrated Flow, 128.66
		0	0.0	0.70		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
1	2.4	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
1	0.0	265	0.0040	0.44		Shallow Concentrated Flow, 265
_						Short Grass Pasture Kv= 7.0 fps
2	2.6	300	0.0010	0.22		Shallow Concentrated Flow, 300
						Short Grass Pasture Kv= 7.0 fps
10	7.9	2,500	Total			

Subcatchment DA9: EXISTING DA STR 48-50



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Summary for Subcatchment PDA1: PROPOSED DA STR 9-10

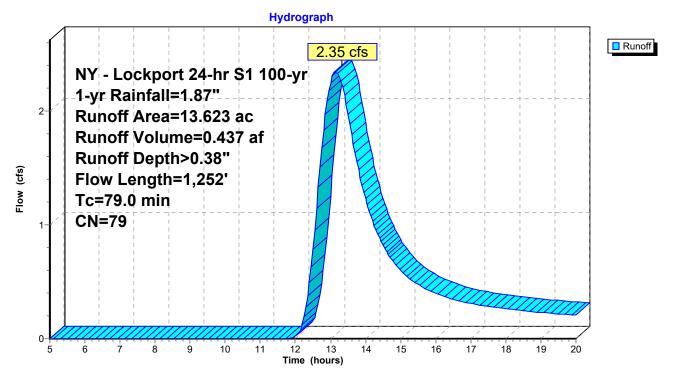
Runoff = 2.35 cfs @ 13.14 hrs, Volume= 0.437 af, Depth> 0.38"

Routed to Link 2L: PROPOSED

	Area	(ac) C	N Des	cription						
*	0.	134	39 39 -	39 - A - 75% GRASS COVER, GOOD						
*			49 - A - 50-75% GRASS COVER, FAIR							
*						OVER, POOR				
*	_)W, BARE					
*					OW, NON-					
*						VER, GOOD				
*						COVER, FAIR				
*						OVER, POOR S COMB., GOOD				
*					OW, NON-					
*					,	VER, GOOD				
*						COVER, FAIR				
*						OVER, POOR				
*	2.	167			OW, NON-	•				
	0.	500	91 Grav	vel roads, l	HSG D					
	13.	623	79 Wei	ghted Aver	age					
	13.	623	100.	.00% Pervi	ous Area					
	_		0.1			B				
	Tc	Length	Slope	Velocity		Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	OL (T) (00) (0)				
	12.4	100	0.0175	0.13		Sheet Flow, 100' Sheet				
	40.8	420	0.0006	0.17		Grass: Short n= 0.150 P2= 2.22" Shallow Concentrated Flow,				
	40.6	420	0.0000	0.17		Short Grass Pasture Kv= 7.0 fps				
	0.5	45	0.0056	1.52		Shallow Concentrated Flow,				
	0.0	10	0.0000	1.02		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							

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Subcatchment PDA1: PROPOSED DA STR 9-10



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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

	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

190176.00 - PCSM DESIGNrlw

Prepared by Fisher Associates
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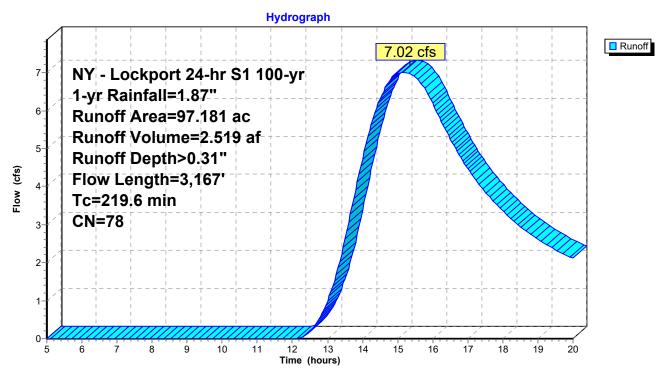
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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
_	7.5	100	0.0610	0.22		Sheet Flow, 100
						Grass: Short n= 0.150 P2= 2.22"
	3.0	144	0.0130	0.80		Shallow Concentrated Flow, 144
						Short Grass Pasture Kv= 7.0 fps
	22.6	300	0.0010	0.22		Shallow Concentrated Flow, 300
		000		0.54		Short Grass Pasture Kv= 7.0 fps
	9.2	300	0.0060	0.54		Shallow Concentrated Flow, 300
	00.0	000	0.0040	0.00		Short Grass Pasture Kv= 7.0 fps
	22.6	300	0.0010	0.22		Shallow Concentrated Flow, 300
	20.6	200	0.0040	0.00		Short Grass Pasture Kv= 7.0 fps
	22.6	300	0.0010	0.22		Shallow Concentrated Flow, 300
	71.4	300	0.0001	0.07		Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, 300
	/ 1. 4	300	0.0001	0.07		Short Grass Pasture Kv= 7.0 fps
	12.2	162	0.0010	0.22		Shallow Concentrated Flow, 162
	12.2	102	0.0010	0.22		Short Grass Pasture Kv= 7.0 fps
	10.1	300	0.0050	0.49		Shallow Concentrated Flow, 300
	10.1	000	0.0000	0.40		Short Grass Pasture Kv= 7.0 fps
	8.3	290	0.0070	0.59		Shallow Concentrated Flow, 290
	0.0		0.00.0	0.00		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			

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Subcatchment PDA10: EXISTING DA STR 78-83



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Summary for Subcatchment PDA11: PROPOSED DA STR 84-86

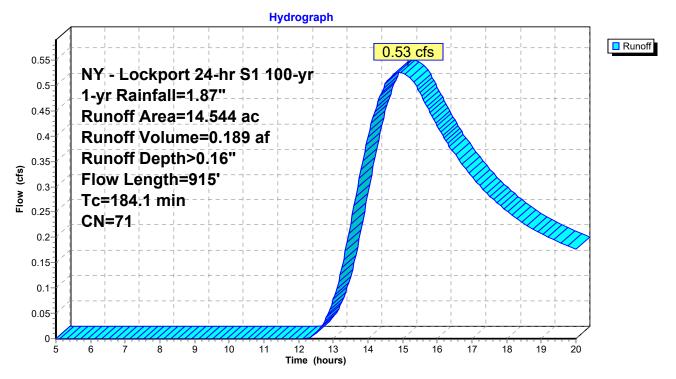
Runoff = 0.53 cfs @ 14.94 hrs, Volume= 0.189 af, Depth> 0.16"

Routed to Link 2L: PROPOSED

	Area ((ac)	CN	Desc	ription		
*	0.0	033	58	B-ME	EADOW, I	NON-GRAZ	ZED
*	3.	140	58			NON-GRAZ	
*	0.0	039	80	D-75	% GRASS	S COVER,	GOOD
*	0.	117	84	D-50	-75% GR	ASS COVE	ER, FAIR
*	1.9	962	78	D-M	Eadow, I	NON-GRAZ	ZED
*		017	78		,	NON-GRAZ	
*		145	71			NON-GRAZ	
*		505	71			NON-GRAZ	
*		304	78			NONGRAZ	
*		030	78			NON-GRAZ	
*		724	78			NON-GRAZ	ZED
		528	91		el roads, l		
14.544 71 Weighted Average							
	14.	544		100.0	00% Pervi	ous Area	
	т.	1 41-			\	0	Description
	Tc	Length		lope	Velocity	Capacity	Description
	(min)	(feet)		ft/ft)	(ft/sec)	(cfs)	01 451 400
	97.9	100	0.0	0001	0.02		Sheet Flow, 100
	0.0	404		100	0.77		Grass: Short n= 0.150 P2= 2.22"
	3.6	164	0.0)120	0.77		Shallow Concentrated Flow, 164
	0.5	200		070	0.50		Short Grass Pasture Kv= 7.0 fps
	8.5	300	0.0	070	0.59		Shallow Concentrated Flow, 300
	71.4	300		0001	0.07		Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, 300
	11.4	300	0.0	1001	0.07		Short Grass Pasture Kv= 7.0 fps
	2.7	51	0.0	020	0.31		Shallow Concentrated Flow, 51
	۷.1	31	0.0	020	0.51		Short Grass Pasture Kv= 7.0 fps
_	184.1	915	To	tal			Onort Orass rastare Ttv- 1.0 ips
	104.1	915	10	ıdı			

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Subcatchment PDA11: PROPOSED DA STR 84-86



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Summary for Subcatchment PDA12: PROPOSED DA STR 90-96

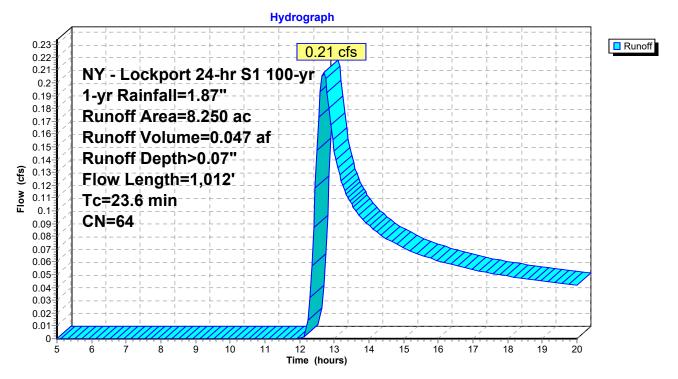
Runoff = 0.21 cfs @ 12.69 hrs, Volume= 0.047 af, Depth> 0.07"

Routed to Link 2L: PROPOSED

	Area	(ac) C	N Desc	cription		
*				,	NON-GRAZ NON-GRAZ	
	0.	426 9	1 Grav	∕el roads, l	HSG D	
	8.	250 6	4 Weig	ghted Aver	age	
	8.	250	100.	00% Pervi	ous Area	
	Тс	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	'
	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
	4 7	400	0.0040	4 77		Short Grass Pasture Kv= 7.0 fps
	1.7	180	0.0640	1.77		Shallow Concentrated Flow, 180
	2.5	237	0.0520	1.60		Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, 237
	2.5	231	0.0320	1.00		Short Grass Pasture Kv= 7.0 fps
	1.3	80	0.0230	1.06		Shallow Concentrated Flow, 80
			0.0200			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			

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Subcatchment PDA12: PROPOSED DA STR 90-96



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Summary for Subcatchment PDA13: PROPOSED DA STR 97-103

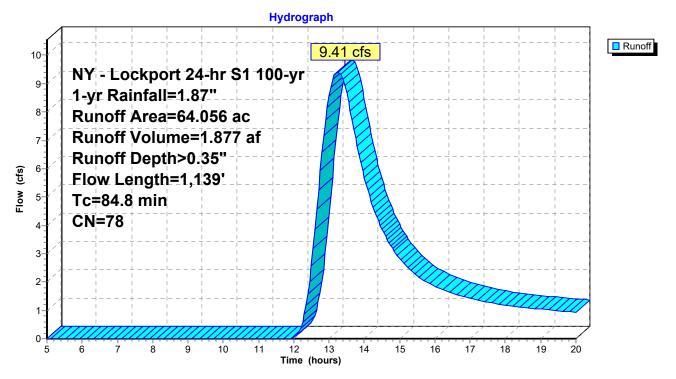
Runoff = 9.41 cfs @ 13.26 hrs, Volume= 1.877 af, Depth> 0.35"

Routed to Link 2L: PROPOSED

	Area	(ac)	CN De	scription						
*		113		0-75% GR	ASS COVE	R. FAIR				
*		131		/IEADOW, I						
*	_	491		ΛΕΑDOW,						
*		855		'5% GRAS						
*	_	366		D-50-75% GRASS COVER, FAIR						
*		263		D-WOODS/GRASS COMB., GOOD						
*		359		D-MEADOW, NON-GRAZED						
*		418		VATER SÚ						
	1.	060		avel roads,						
	64.	056	78 We	ighted Ave	rage					
	63.	638		99.35% Pervious Area						
	0.418		0.6	5% Impervi	ous Area					
	Тс	Length	Slope	Velocity	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	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				
		070	0.0076			Short Grass Pasture Kv= 7.0 fps				
	7.7	270	0.0070	0.59		Shallow Concentrated Flow, 270				
	- 4	000	0.000	0.00		Short Grass Pasture Kv= 7.0 fps				
	5.4	203	0.0080	0.63		Shallow Concentrated Flow, 203				
_	04.6	4.400	.			Short Grass Pasture Kv= 7.0 fps				
	84.8	1,139	Total							

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Subcatchment PDA13: PROPOSED DA STR 97-103



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Summary for Subcatchment PDA14: PROPOSED DA STR 104-106

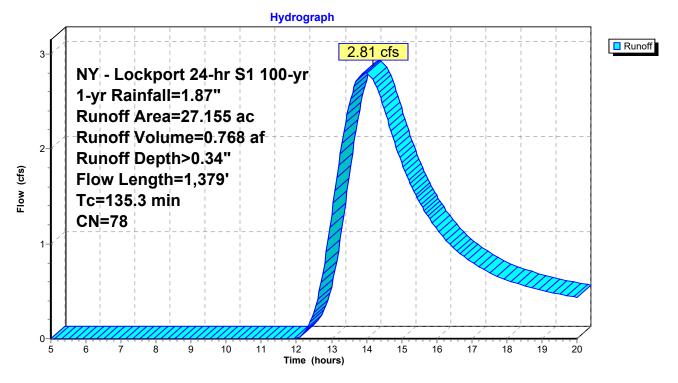
Runoff = 2.81 cfs @ 13.98 hrs, Volume= 0.768 af, Depth> 0.34"

Routed to Link 2L: PROPOSED

	A roo	(aa) C	N Door	orintion						
*	Area			cription	2.00\/ED	0000				
*					COVER,					
*					S OCVER, ASS COVE					
*						IB., GOOD				
*					NON-GRAZ					
*					S COVER,					
*						IB., GOOD				
*					NON-GRAZ	·				
*					RFACE, 09					
*				D-WATER SURFACE, 0% IMP						
*					S OCVÉR,					
*	0.	115 8	30 D-50)-75% GR	ASS COVE	R, FAIR				
*	8.	267	78 D-M	EADOW, I	NON-GRAZ	ZED				
_	0.	387 9	91 Grav	∕el roads, l	HSG D					
27.155 78 Weighted Average										
		914		1% Pervio						
	0.	241	0.89	% Impervi	ous Area					
	_									
	Tc	Length	Slope	Velocity	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	9.6	100	0.0330	0.17		Sheet Flow, 100				
	0.0	50	0.0000	4.04		Grass: Short n= 0.150 P2= 2.22"				
	0.9	53	0.0220	1.04		Shallow Concentrated Flow, 53				
	2.3	140	0.0210	1.01		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				
	2.2	170	0.0220	1.04		Short Grass Pasture Kv= 7.0 fps				
	5.8	230	0.0090	0.66		Shallow Concentrated Flow, 230				
	0.0	200	0.0000	0.00		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							

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Subcatchment PDA14: PROPOSED DA STR 104-106



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Summary for Subcatchment PDA15: PROPOSED DA STR 106-109

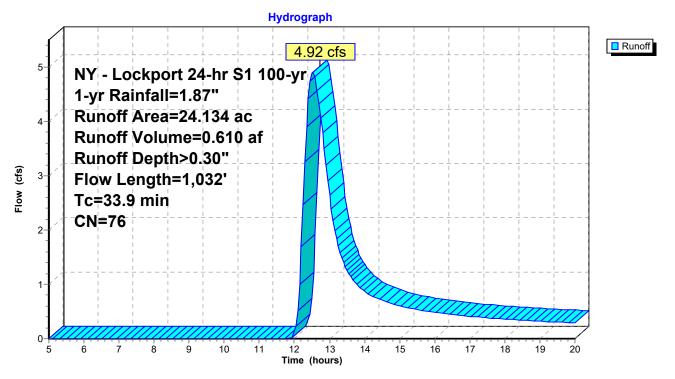
Runoff = 4.92 cfs @ 12.53 hrs, Volume= 0.610 af, Depth> 0.30"

Routed to Link 2L: PROPOSED

	Area	·		scription								
*	_	972	61 B-7	5% GRASS	S COVER,	GOOD						
*	1.	615		-50-75% GRASS COVER, FAIR								
*	2.	680	58 B-N	//IEADOW, I	NON-GRAZ	ZED						
*	0.	028	80 D-7	'5% GRAS	S COVER,	GOOD						
*	2.	330	78 D-N	ЛEADOW, I	NON-GRAZ	ZED						
*	0.	585	80 D-7	'5% GRAS	S COVER,	GOOD						
*	0.	724	84 D-5	60-75% GR	ASS COVE	ER, FAIR						
*	0.	465	79 D-V	VOODS/GF	RASS COM	1B., GOOD						
*	13.	310		ЛEADOW, I								
*	0.	880	98 D-V	VATER SU	RFACE, 09	% IMP						
*		085		VATER SU	,	% IMP						
_	0.	460	91 Gra	avel roads,	HSG D							
	24.											
	23.	169	96.	00% Pervio	us Area							
	0.	965	4.0	0% Impervi	ous Area							
		Length		•	Capacity	Description						
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)							
	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									

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Subcatchment PDA15: PROPOSED DA STR 106-109



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Summary for Subcatchment PDA16: PROPOSED DA STR 110-117

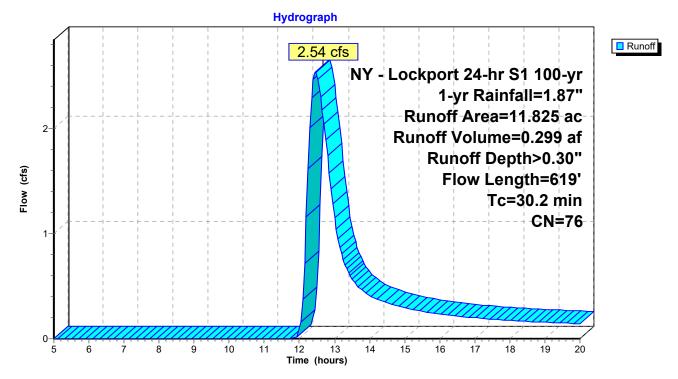
Runoff = 2.54 cfs @ 12.46 hrs, Volume= 0.299 af, Depth> 0.30"

Routed to Link 2L: PROPOSED

	Area	(ac)	CN	l Desc	cription							
*	0.	423	61	B-75	%GRASS	COVER, C	GOOD					
*	0.	460	69	B-50	-75% GRA	ASS COVE	R, FAIR					
*	2.	069	58	B D-MI	-MEADOW, NON-GRAZED							
*	0.	045	78	B D-MI	-MEADOW, NON-GRAZED							
*	0.	049	98	B D-MI	EADOW, N	NON-GRAZ	ZED					
*	0.	487	80	D-75	% GRASS	SCOVER,	GOOD					
*	0.	960	84	I D-50	-75% GRA	ASS COVE	R, FAIR					
*	0.	293	79	D-W	OODS/GR	RASS COM	B., GOOD					
*	5.	704	78		,	NON-GRAZ						
*	_	855	98		,	NON-GRAZ						
*		048	79			RASS COM						
*		009	78			NON-GRAZ						
*		056	98		,	NON-GRAZ	ZED					
_	0.367 91 Gravel roads, HSG D											
	11.825 76 Weighted Average											
		865			8% Pervio							
	0.	960		8.12	% Impervi	ous Area						
	_			01		o :						
	Tc	Leng		Slope	Velocity	Capacity	Description					
	(min)	(fee		(ft/ft)	(ft/sec)	(cfs)						
	17.9	10	00	0.0070	0.09		Sheet Flow, 100					
							Grass: Short n= 0.150 P2= 2.22"					
	3.4	22	22	0.0240	1.08		Shallow Concentrated Flow, 222					
		4 -	- 4	0.0000	0.00		Short Grass Pasture Kv= 7.0 fps					
	4.1	15	04	0.0080	0.63		Shallow Concentrated Flow, 154					
	4.0	4.4	40	0.0050	0.40		Short Grass Pasture Kv= 7.0 fps					
	4.8	14	13	0.0050	0.49		Shallow Concentrated Flow, 143					
_			4.0				Short Grass Pasture Kv= 7.0 fps					
	30.2	61	19	Total								

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Subcatchment PDA16: PROPOSED DA STR 110-117



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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

	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

190176.00 - PCSM DESIGNrlw

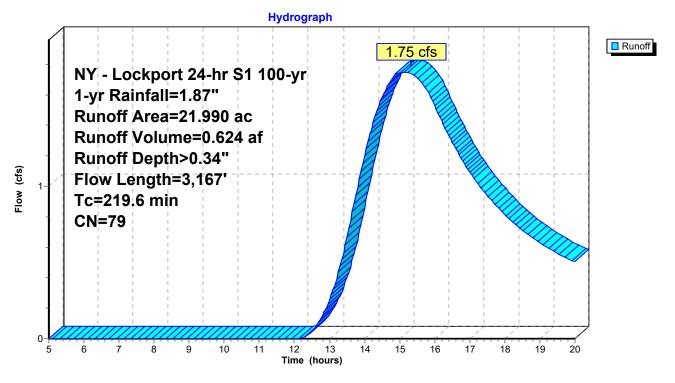
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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
•	7.5	100	0.0610	0.22	, ,	Sheet Flow, 100
						Grass: Short n= 0.150 P2= 2.22"
	3.0	144	0.0130	0.80		Shallow Concentrated Flow, 144
						Short Grass Pasture Kv= 7.0 fps
	22.6	300	0.0010	0.22		Shallow Concentrated Flow, 300
	0.0	000	0.0000	0.54		Short Grass Pasture Kv= 7.0 fps
	9.2	300	0.0060	0.54		Shallow Concentrated Flow, 300
	22.6	300	0.0010	0.22		Short Grass Pasture Kv= 7.0 fps
	22.0	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
	22.0	300	0.0010	0.22		Short Grass Pasture Kv= 7.0 fps
	71.4	300	0.0001	0.07		Shallow Concentrated Flow, 300
		000	0.000	0.01		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
	0.0	000	0.0400	0.00		Short Grass Pasture Kv= 7.0 fps
	6.3	300	0.0130	0.80		Shallow Concentrated Flow, 300
	40.0	70	0.0004	0.07		Short Grass Pasture Kv= 7.0 fps
	18.8	79	0.0001	0.07		Shallow Concentrated Flow, 79
	040.6	0.407	T ()			Short Grass Pasture Kv= 7.0 fps
	219.6	3,167	Total			

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Subcatchment PDA17: PROPOSED DA STR 113-116



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Summary for Subcatchment PDA18: PROPOSED DA STR 36

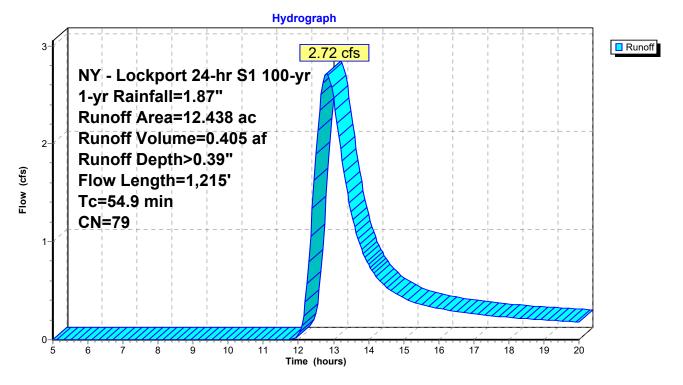
Runoff = 2.72 cfs @ 12.81 hrs, Volume= 0.405 af, Depth> 0.39"

Routed to Link 2L: PROPOSED

	Area	(ac)	CN	Desc	cription							
*	0.	143	80	D - 8	- 80 - Developed open space							
*	0.	461	80	D - 8	0 - Develo	ped open s	space					
*	1.	014	82	D - 8	0 - 82 - Developed Low intensity							
*	0.	988	82	D - 8	2 - Develo	ped Low ir	ntensity					
*	0.	081	77	D - 7	7 - Decidu	ious Forest	t ,					
*	7.	367	78	D - 7	8 - Meado	wed, grass	s, non-grazed land					
*	2.	154	78	D - 7	8 - Meado	wed, grass	s, non-grazed land					
*	0.	230	91		ravel Road		,					
	12.438 79 Weighted Average											
	12.	438			, 00% Pervi	0						
	Tc	Lengt	th	Slope	Velocity	Capacity	Description					
	(min)	(fee	t)	(ft/ft)	(ft/sec)	(cfs)	·					
	11.8	10	0 (0.0200	0.14		Sheet Flow, 100' sheet					
							Grass: Short n= 0.150 P2= 2.22"					
	43.1	1,11	5 (0.0038	0.43		Shallow Concentrated Flow,					
		,					Short Grass Pasture Kv= 7.0 fps					
	54.9	1,21	5	Total			·					

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Subcatchment PDA18: PROPOSED DA STR 36



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Summary for Subcatchment PDA19: PROPOSED DA STR 42-47

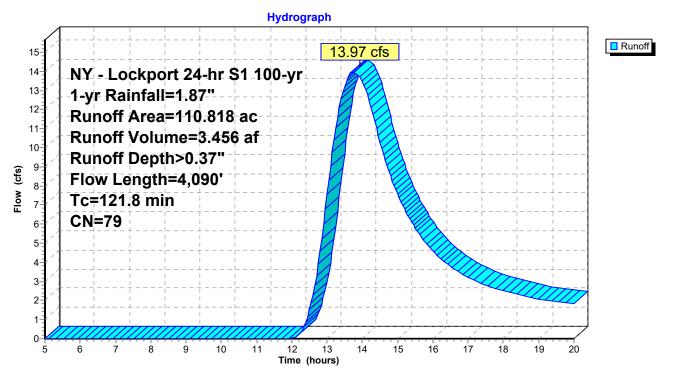
Runoff = 13.97 cfs @ 13.72 hrs, Volume= 3.456 af, Depth> 0.37"

Routed to Link 2L: PROPOSED

	Area	(ac)	CN	N Desc	cription						
*	3.	220	80	D - 8	0 - Develo	ped open s	space				
*	2.	932	80	D - 8	- 80 - Developed open space						
*	0.	003	80	D - 8	0 - Develo	ped open s	space				
*	10.	164	82	2 D-8	2 - Develo	ped Low ir	ntensity				
*	6.	410	82	2 D-8	2 - Develo	ped Low ir	ntensity				
*	0.	607	82	2 D-8	2 - Develo	ped Low ir	ntensity				
*	·										
*	15.	746	78	3 D-7	'8 - Meado	wed, grass	s, non-grazed land				
*	63.	740	78				s, non-grazed land				
*		702	78				s, non-grazed land				
*	* 0.800 91 D - Gravel Roads										
110.818 79 Weighted Average					,						
	110.	818		100.	00% Pervi	ous Area					
	Тс	Leng	th	Slope	Velocity	Capacity	Description				
_	(min)	(fee	et)	(ft/ft)	(ft/sec)	(cfs)					
	10.0	10	00	0.0300	0.17		Sheet Flow, 100' Sheet				
							Grass: Short n= 0.150 P2= 2.22"				
	88.0	2,22	25	0.0071	0.42		Shallow Concentrated Flow,				
							Woodland Kv= 5.0 fps				
	23.8	1,76	35	0.0068	1.24		Shallow Concentrated Flow,				
_							Grassed Waterway Kv= 15.0 fps				
	121.8	4,09	90	Total							

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Subcatchment PDA19: PROPOSED DA STR 42-47



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Summary for Subcatchment PDA2: PROPOSED DA STR 11-12

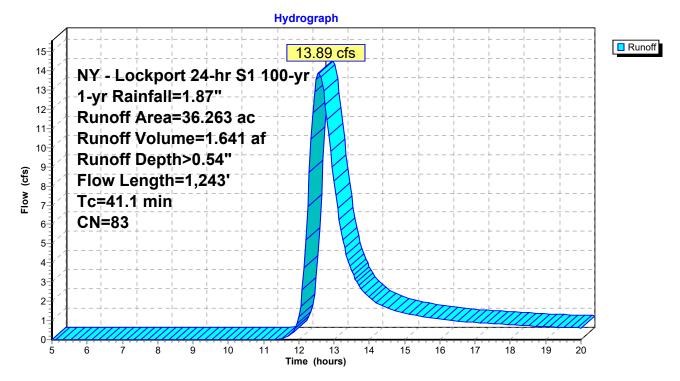
13.89 cfs @ 12.57 hrs, Volume= 1.641 af, Depth> 0.54" Runoff

Routed to Link 2L: PROPOSED

	Area	(ac)	CN	Desc	cription				
*	2.	487	80	80-D)-75% GR	ASS COVE	ER, GOOD		
*	1.	050	84				OVER, FAIR		
*	1.	1.903 89 89-D-<50% GRASS COVER, POOR							
*	0.	250	95	95-D	-URBAN	COMMERC	CIAL, 85% IMP		
*	0.	043	79	79-D	-WOODS	GRASS C	OMB., GOOD		
*	1.	421	78	78-D	-MEADO\	W, NONGF	RAZED		
*	0.	054	80	80-D	-75% GR	ASS COVE	ER, GOOD		
*	0.	598	84	84-D	-50-75% (GRASSC C	OVER, FAIR		
*		041	89)-<50% GF	RASS COV	ER, POOR		
*		286	95				CIAL, 85% IMP		
*		744	78			W, NON-GI			
*		982	80			ASS CVER			
*		613	84	_			OVER, FAIR		
*		609	89				ER POOR		
*		887	95				CIAL, 85% IMP		
*		299	79				OMB., GOOD		
*		636	78			W, NON-GI	RAZED		
_		360	91		el roads, l				
		263	83		ghted Aver				
	36.	263		100.	00% Pervi	ous Area			
	Тс	Leng	th	Slope	Velocity	Capacity	Description		
	(min)	(fee		(ft/ft)	(ft/sec)	(cfs)	Description		
_	2.5	10		0.0050	0.66	(013)	Sheet Flow, 100'		
	2.0		, ,	0.0000	0.00		Smooth surfaces n= 0.011 P2= 2.22"		
	1.4	11	5	0.0043	1.33		Shallow Concentrated Flow,		
							Paved Kv= 20.3 fps		
	2.4	25	6	0.0078	1.79		Shallow Concentrated Flow,		
							Paved Kv= 20.3 fps		
	10.3	24	10	0.0031	0.39		Shallow Concentrated Flow,		
							Short Grass Pasture Kv= 7.0 fps		
	0.3	3	30	0.0064	1.62		Shallow Concentrated Flow,		
							Paved Kv= 20.3 fps		
	2.8	12	28	0.0117	0.76		Shallow Concentrated Flow,		
							Short Grass Pasture Kv= 7.0 fps		
	14.2	20	9	0.0024	0.24		Shallow Concentrated Flow,		
							Woodland Kv= 5.0 fps		
	7.2	16	35	0.0030	0.38		Shallow Concentrated Flow,		
_							Short Grass Pasture Kv= 7.0 fps		
	41.1	1,24	13	Total					

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Subcatchment PDA2: PROPOSED DA STR 11-12



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Summary for Subcatchment PDA3: EXISTING DA STR 17-20

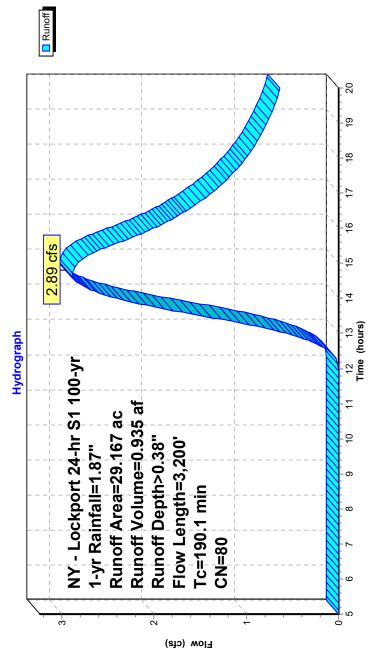
Runoff = 2.89 cfs @ 14.62 hrs, Volume= 0.935 af, Depth> 0.38"

Routed to Link 2L: PROPOSED

	Area	(ac)	CN	Desc	ription						
*		391	80			ASS COVE	R. GOOD				
*		601	79			SS COMB.					
*		427	79			SS COMB.					
*		196	78			N-GRAZE					
*	0.	320	98		VATER SURFACE						
*		636	80	75%	GRASS C	COVER, GO	OOD				
*	1.	957	84	50-7	5% GRAS	S COVER	, FAIR				
*	1.	103	89	<50%	6 GRASS	COVER, F	POOR				
*	0.	375	95	URB	AN COM	MERCIAL,	85% IMP				
*	2.	017	79	WOO	DDS/GRA	SS COMB.	, GOOD				
*	0.	337	84	50-7	5% GRAS	S COVER,	, FAIR				
*		236	79			SS COMB.	·				
*		470	79			SS COMB.	·				
*		306	78			N-GRAZE					
*		274	98			ACE, 0% I	MP				
_		521	91		el roads, l						
		167	80		hted Aver						
		573			6% Pervio						
	0.	594		2.04	% Impervi	ous Area					
	Тс	Lengtl	h S	Slope	Velocity	Capacity	Description				
	(min)	(feet		(ft/ft)	(ft/sec)	(cfs)	2 - 2 - 2 · 1 · 1 · 1 · 1				
	27.2	100		0175	0.06	, ,	Sheet Flow, 100' Sheet				
							Woods: Light underbrush n= 0.400 P2= 2.22"				
	7.6	180	6 0.	0067	0.41		Shallow Concentrated Flow,				
							Woodland Kv= 5.0 fps				
	8.3	368	8 0.	0217	0.74		Shallow Concentrated Flow,				
							Woodland Kv= 5.0 fps				
	31.5	708	8 0.	0056	0.37		Shallow Concentrated Flow,				
							Woodland Kv= 5.0 fps				
	23.1	570	6 0.	0069	0.42		Shallow Concentrated Flow,				
							Woodland Kv= 5.0 fps				
	14.5	45	2 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	3,20	0 To	otal							

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Subcatchment PDA3: EXISTING DA STR 17-20



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Summary for Subcatchment PDA4: PROPOSED DA STR 21-23

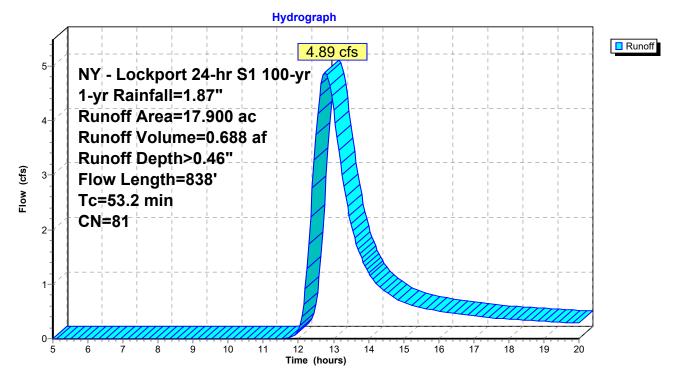
Runoff = 4.89 cfs @ 12.77 hrs, Volume= 0.688 af, Depth> 0.46"

Routed to Link 2L: PROPOSED

	Area	(ac)	<u>C1</u>	N Desc	cription			
*	0.	062	8	0 80-D	-75% GRA	ASS COVE	R, GOOD	
*	* 0.720 84 84-D-50-75% GRASS COVER, FAIR							
*	0.	884	7	8 78-D	-MEADOV	V, NON-GF	RAZED	
*	4.	286	8	0 80-D	-75% GRA	ASS COVE	R, GOOD	
*	2.	842	8	4 84-D	-50-75% (GRASS CC	OVER, FAIR	
*	0.	139	8	9 89-D	-<50% GF	RASS COV	ER, POOR	
*	1.	645	8	5 85-D	-HERBAC	EOUS RA	NGE, GOOD	
*	5.	404	7	8 78-D	-MEADOV	V, NON-GF	RAZED	
*	0.	188	8	0 80-D	-75% GRA	ASS COVE	R, GOOD	
*	0.	143	8	4 84-D	-50-75% (GRASS CC	OVER, FAIR	
*	0.	507	7	8 78-D	-MEADOV	V, NON-GF	RAZED	
	1.080 91 Gravel ro			el roads, l	HSG D			
	17.900 81			1 Weig	hted Aver	age		
	17.900			00% Pervi				
	Tc	Leng	jth	Slope	Velocity	Capacity	Description	
	(min)	(fee	et)	(ft/ft)	(ft/sec)	(cfs)		
	14.2	10	00	0.0125	0.12		Sheet Flow,	
							Grass: Short n= 0.150 P2= 2.22"	
	23.5	4	19	0.0018	0.30		Shallow Concentrated Flow,	
							Short Grass Pasture Kv= 7.0 fps	
	15.5	3	19	0.0024	0.34		Shallow Concentrated Flow,	
_							Short Grass Pasture Kv= 7.0 fps	
	53.2	83	38	Total				

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Subcatchment PDA4: PROPOSED DA STR 21-23



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Summary for Subcatchment PDA5: PROPOSED DA STR 25-29

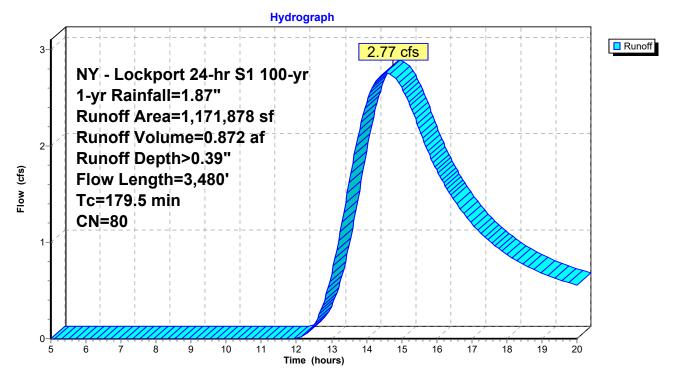
Runoff = 2.77 cfs @ 14.56 hrs, Volume= 0.872 af, Depth> 0.39"

Routed to Link 2L: PROPOSED

	Α	rea (sf)	CN E	escription						
*		17,032	80 8	0-D-75% (GRASS CC	OVER, GOOD				
*		00,420	79 V	VOODS/GI	RASS CON	MB., GOOD				
*		62,160	79 V	VOODS/GI	RASS CON	MB., GOOD				
*		95,658	78 N	MEADOW, NON-GRAZED						
*		13,939	98 V	VATER SU	IRFACE					
*	1	58,384	80 7	5% GRAS	S COVER,	GOOD				
*		85,247		0-75% GR	ASS COVI	ER, FAIR				
*		11,396	89 <	50% GRA	SS COVEF	R, POOR				
*		16,335				L, 85% IMP				
*		87,861				MB., GOOD				
*		14,680			ASS COVI					
*		52,329				MB., GOOD				
*		20,473				MB., GOOD				
*		87,335			NON-GRA					
*		11,935			IRFACE, 0	% IMP				
_		36,694		Fravel road	-					
		71,878		Veighted A						
	,	46,004			vious Area					
		25,874	2	.21% Impe	ervious Are	a				
	To	Length	Slope	Velocity	Capacity	Description				
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	Description				
_	25.8	100	0.0200	0.06	(0.0)	Sheet Flow, 100' Sheet				
	20.0	100	0.0200	0.00		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							

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Subcatchment PDA5: PROPOSED DA STR 25-29



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Summary for Subcatchment PDA6: PROPOSED DA STR 29-35

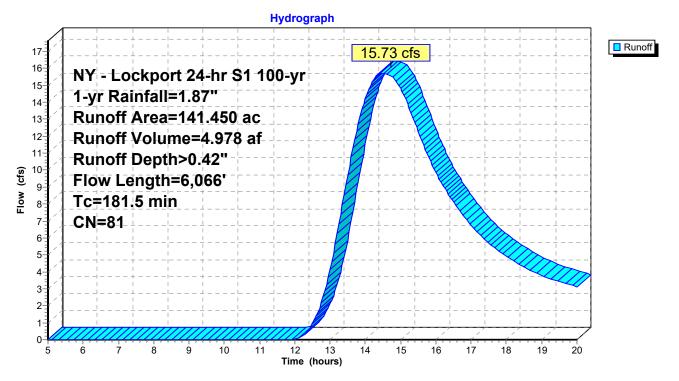
Runoff = 15.73 cfs @ 14.52 hrs, Volume= 4.978 af, Depth> 0.42"

Routed to Link 2L: PROPOSED

				_			
*	Area	`	<u>CN</u>		cription		
		152	98		8 - Open \		
*		074	80			ped open s	
*		307	80			ped open s	
*		363	80			ped open s	
*		992	82			ped Low in	
*		726	82			ped Low in	
*		185	85			ped Med ir	
*		875	77			ious Forest	
*		239	77			ious Forest	
*		242	77			ious Forest	
*		038	77			een Forest	
*		919	77			een Forest	
*		021	77			een Forest	
*		508	77		7 - Mixed		
*		889	77		7 - Mixed		
*		160	77		7 - Mixed		
*		266	78				s, non-grazed land
*		357	78				s, non-grazed land
*		896	78				s, non-grazed land
*		112	78				s, non-grazed land
*		915	78				s, non-grazed land
*		016	90		,	Wetlands	
*		110	91		ravel Roa		
_		088	90			/ Wetlands	
	141.		81		hted Aver		
	141.				9% Pervio		
	0.	152		0.11	% Impervi	ous Area	
	т.	1 41			\/_l:	Oit.	Description
	Tc	Length		lope	Velocity	Capacity	Description
_	(min)	(feet)		(ft/ft)	(ft/sec)	(cfs)	
	22.7	100	0.0	0275	0.07		Sheet Flow, 100' Sheet
							Woods: Light underbrush n= 0.400 P2= 2.22"
	31.2	1,144	1 0.0	0149	0.61		Shallow Concentrated Flow,
							Woodland Kv= 5.0 fps
	14.6	670	0.0	0026	0.76		Shallow Concentrated Flow,
							Grassed Waterway Kv= 15.0 fps
	12.9	328	3 0.0	8000	0.42		Shallow Concentrated Flow,
	100 1	0.00		2042	0.04		Grassed Waterway Kv= 15.0 fps
	100.1	3,824	ł ().(JU18	0.64		Shallow Concentrated Flow,
							Grassed Waterway Kv= 15.0 fps
	181.5	6,066	і То	tal			

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Subcatchment PDA6: PROPOSED DA STR 29-35



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Summary for Subcatchment PDA7: PROPOSED DA STR 37-40

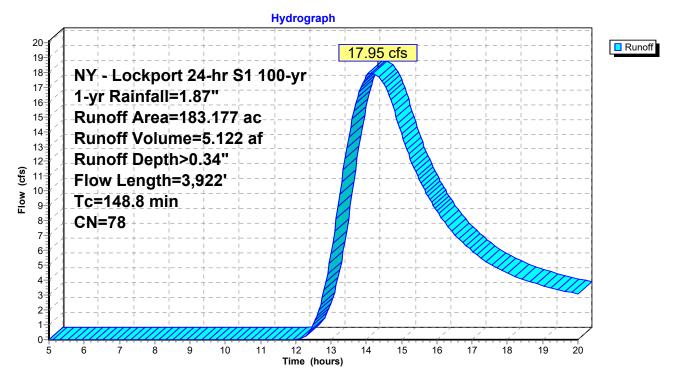
Runoff = 17.95 cfs @ 14.12 hrs, Volume= 5.122 af, Depth> 0.34"

Routed to Link 2L: PROPOSED

_	Area	(ac) C	N Des	cription					
*	2.	space							
*									
*	· · · · · · · · · · · · · · · · · · ·								
*	2.	870	82 D-8	32 - Develo	ped Low ir	ntensity			
*	4.	979	82 D-8	32 - Develo	ped Low ir	ntensity			
*	4.	781	82 D-8	32 - Develo	ped Low ir	ntensity			
*	0.	152	85 D-8	35 - Develo	ped Med in	ntensity			
*	1.	263	77 D-7	77 - Decidu	ious Forest				
*	3.	-		77 - Decidu	ious Forest	t			
*	_	-	– .		ious Forest				
*						s, non-grazed land			
*						s, non-grazed land			
* 79.095 78 D - 78 - Meadowed, grass, non-grazed land									
*				Fravel Roa					
	183.			ghted Aver					
	183.	177	100.	00% Pervi	ous Area				
	-	1 41.	01	17.1	0: 1	December			
	Tc	Length		Velocity	Capacity	Description			
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
	20.6	100	0.0350	0.08		Sheet Flow, 100' Sheet			
	40.7	4 570	0.0440	0.54		Woods: Light underbrush n= 0.400 P2= 2.22"			
	48.7	1,573	0.0116	0.54		Shallow Concentrated Flow,			
	62.0	1.076	0.0047	0.24		Woodland Kv= 5.0 fps			
	62.0	1,276	0.0047	0.34		Shallow Concentrated Flow,			
	17.5	973	0.0038	0.92		Woodland Kv= 5.0 fps Shallow Concentrated Flow,			
	17.3	913	0.0036	0.92		Grassed Waterway Kv= 15.0 fps			
_	140.0	2.000	Tatal			Glasseu waterway Kv- 13.0 lps			
	148.8	3,922	Total						

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Subcatchment PDA7: PROPOSED DA STR 37-40



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Summary for Subcatchment PDA8: PROPOSED DA STR 41

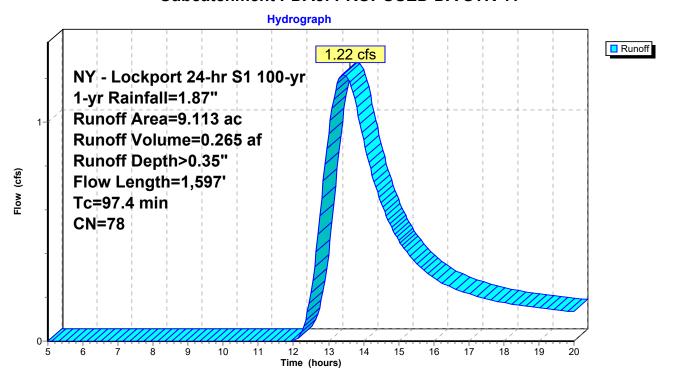
Runoff = 1.22 cfs @ 13.42 hrs, Volume= 0.265 af, Depth> 0.35"

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	Desc	cription		
*	3.	755	77	D - 7	7 - Decidu	ious Forest	
*	5.	138	78	D - 7	8 - Meado	wed, grass	, non-grazed land
*	0.	220	91	D- G	ravel Road	ds	·
	9.113 78 Weighted Averag					age	
	9.113			100.	00% Pervi	ous Area	
	Тс	Length		Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	34.0	100	0.	0100	0.05		Sheet Flow, 100' Sheet
							Woods: Light underbrush n= 0.400 P2= 2.22"
	63.4	1,497	7 0.	0062	0.39		Shallow Concentrated Flow,
							Woodland Kv= 5.0 fps
	97.4	1,597	7 To	otal			

Subcatchment PDA8: PROPOSED DA STR 41



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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

	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

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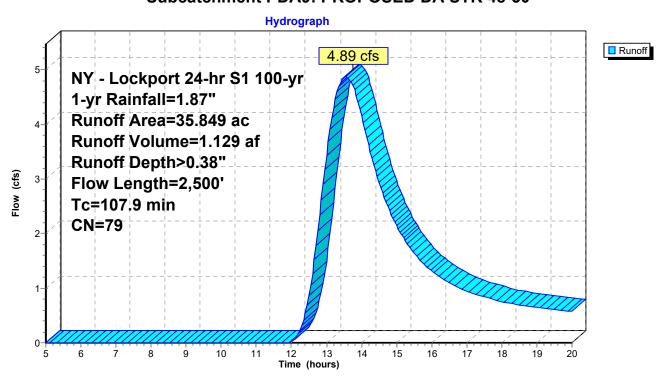
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(m	Tc nin)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	1.4	100		1.21	(CIS)	Shallow Concentrated Flow 100'
	1.4	100	0.0300	1.21		Shallow Concentrated Flow, 100' Short Grass Pasture Kv= 7.0 fps
3	1.2	262	0.0120	0.14		Sheet Flow, 262.19
3	1.2	202	0.0120	0.14		Grass: Short n= 0.150 P2= 2.22"
	4.5	254	0.0180	0.94		Shallow Concentrated Flow, 254'
	1.0	201	0.0100	0.04		Short Grass Pasture Kv= 7.0 fps
	2.9	129	0.0110	0.73		Shallow Concentrated Flow, 128.66
		0	0.0	0.70		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
1	2.4	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
1	0.0	265	0.0040	0.44		Shallow Concentrated Flow, 265
_						Short Grass Pasture Kv= 7.0 fps
2	2.6	300	0.0010	0.22		Shallow Concentrated Flow, 300
						Short Grass Pasture Kv= 7.0 fps
10	7.9	2,500	Total			

Subcatchment PDA9: PROPOSED DA STR 48-50



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Summary for Link 1L: EXISTING

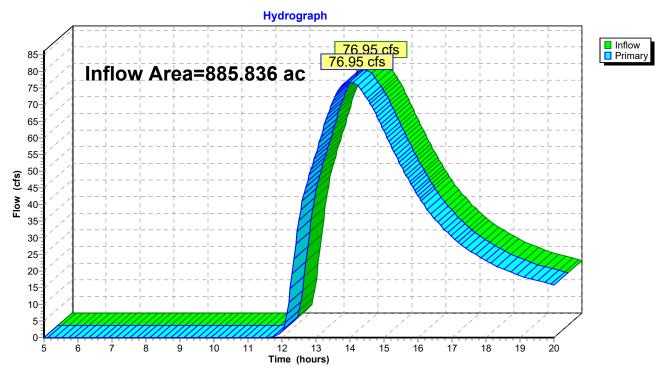
Inflow Area = 885.836 ac, 0.70% Impervious, Inflow Depth > 0.36" for 1-yr event

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



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Summary for Link 2L: PROPOSED

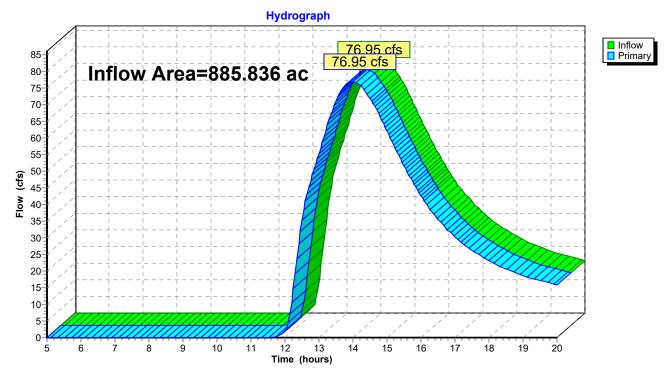
Inflow Area = 885.836 ac, 0.66% Impervious, Inflow Depth > 0.36" for 1-yr event

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



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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
- Subcatchment DA11: 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
- Runoff Area=8,250 ac 0.00% Impervious Runoff Depth>0.52" Subcatchment DA12: EXISTING DA STR 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
- Subcatchment DA16: 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
- Subcatchment DA18: 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
- Subcatchment DA19: 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
- Runoff Area=29.167 ac 2.04% Impervious Runoff Depth>1.22" Subcatchment DA3: EXISTING DA STR 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
- Runoff Area=1,171,878 sf 2.21% Impervious Runoff Depth>1.23" SubcatchmentDA5: EXISTING DA STR Flow Length=3,480' Tc=179.5 min CN=80 Runoff=9.13 cfs 2.751 af
- Runoff Area=141.450 ac 0.11% Impervious Runoff Depth>1.29" SubcatchmentDA6: EXISTING DA STR Flow Length=6,066' Tc=181.5 min CN=81 Runoff=50.45 cfs 15.182 af

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- 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
- Subcatchment DA8: 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
- Subcatchment DA9: 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

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SubcatchmentPDA5: 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

SubcatchmentPDA6: 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

SubcatchmentPDA7: 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

SubcatchmentPDA8: 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

SubcatchmentPDA9: 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: EXISTINGInflow=266.50 cfs 87.306 af
Primary=266.50 cfs 87.306 af

Link 2L: PROPOSEDInflow=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

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Summary for Subcatchment DA1: EXISTING DA STR 9-10

Runoff = 8.24 cfs @ 13.07 hrs, Volume= 1.405 af, Depth> 1.24"

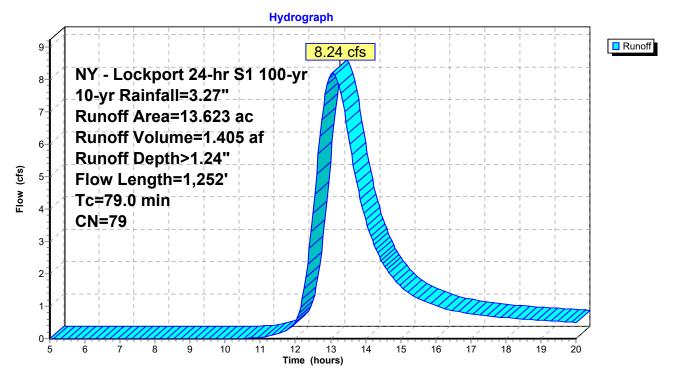
Routed to Link 1L: EXISTING

	Area	(ac)	CN Des	scription							
*	0.	134	39 39	9 39 - A - 75% GRASS COVER, GOOD							
*	0.	938	49 49	49 - A - 50-75% GRASS COVER, FAIR							
*	0.	065	68 68	68 - A - <50% GRASS COVER, POOR							
*	0.	064	32 32	- A - FALLO	DW, BARE	SOIL					
*		064		- A - MEAD							
*		293				VER, GOOD					
*		950				COVER, FAIR					
*		320				OVER, POOR					
*		105				COMB., GOOD					
*		497		D - MEAD							
*		157				VER, GOOD					
*		870				COVER, FAIR					
*		999				OVER, POOR					
		167		- D - MEAD		GRAZED					
		623		ighted Ave							
	13.	623	100	0.00% Perv	ious Area						
	То	Longth	Clana	\/alaaity	Canacity	Description					
	Tc (min)	Length	•			Description					
_	(min)	(feet)			(cfs)	Object Floor 4001 Object					
	12.4	100	0.0175	0.13		Sheet Flow, 100' Sheet					
	40.0	400	0.000	0.47		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,					
	0.5	40	0.0030	1.52		Paved Kv= 20.3 fps					
	14.3	300	0.0025	0.35		Shallow Concentrated Flow,					
	17.5	300	0.0020	0.55		Short Grass Pasture Kv= 7.0 fps					
	6.7	200	0.0050	0.49		Shallow Concentrated Flow,					
	0.7	200	0.0000	010		Short Grass Pasture Kv= 7.0 fps					
	4.3	187	0.0107	0.72		Shallow Concentrated Flow,					
		.01	0.0.01	0.7 L		Short Grass Pasture Kv= 7.0 fps					
_	79.0	1,252	? Total								
	7 3.0	1,202	. iotai								

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Subcatchment DA1: EXISTING DA STR 9-10



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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

	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

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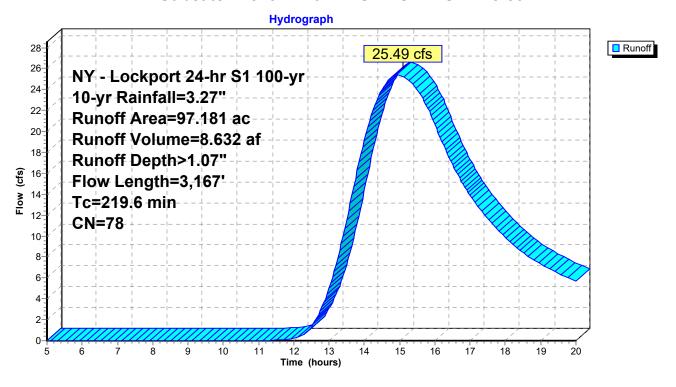
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	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	7.5	100	0.0610	0.22		Sheet Flow, 100
						Grass: Short n= 0.150 P2= 2.22"
	3.0	144	0.0130	0.80		Shallow Concentrated Flow, 144
						Short Grass Pasture Kv= 7.0 fps
	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
	00.0	000	0.0040	0.00		Short Grass Pasture Kv= 7.0 fps
	22.6	300	0.0010	0.22		Shallow Concentrated Flow, 300
	74.4	200	0.0004	0.07		Short Grass Pasture Kv= 7.0 fps
	71.4	300	0.0001	0.07		Shallow Concentrated Flow, 300
	12.2	162	0.0010	0.22		Short Grass Pasture Kv= 7.0 fps
	12.2	102	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
	10.1	300	0.0000	0.43		Short Grass Pasture Kv= 7.0 fps
	8.3	290	0.0070	0.59		Shallow Concentrated Flow, 290
	0.0	200	0.0070	0.00		Short Grass Pasture Kv= 7.0 fps
	0.6	50	0.0400	1.40		Shallow Concentrated Flow, 50
	0.0		0.0.00			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
2	219.6	3,167	Total			

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Subcatchment DA10: EXISTING DA STR 78-83



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Summary for Subcatchment DA11: EXISTING DA STR 84-86

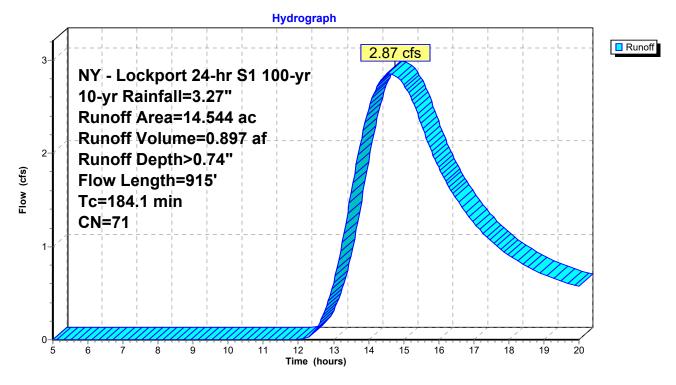
Runoff = 2.87 cfs @ 14.55 hrs, Volume= 0.897 af, Depth> 0.74"

Routed to Link 1L: EXISTING

	Area	(ac)	CN	Desc	cription						
*	0.	033	58	B-ME	EADOW, I	NON-GRAZ	ZED				
*	3.	140		B-MEADOW, NON-GRAZED							
*	0.	039	80	D-75% GRASS COVER, GOOD							
*	0.	117	84	D-50	-75% GR	ASS COVE	ER, FAIR				
*	1.	962			,	NON-GRAZ					
*		545			,	NON-GRAZ					
*	_	145			,	NON-GRAZ					
*		505			,	NON-GRAZ					
*		304			,	NONGRAZ					
*	_	030				NON-GRAZ					
*		724		D-ME	EADOW, I	NON-GRAZ	ZED				
		544			jhted Aver						
	14.	544		100.0	00% Pervi	ious Area					
	_										
	Тс	Length		ope	Velocity		Description				
	(min)	(feet)	(f	t/ft)	(ft/sec)	Capacity (cfs)	·				
_		•	(f	t/ft)	•		Sheet Flow, 100				
_	(min) 97.9	(feet) 100	0.00	t/ft) 001	(ft/sec) 0.02		Sheet Flow, 100 Grass: Short n= 0.150 P2= 2.22"				
	(min)	(feet)	0.00	t/ft) 001	(ft/sec)		Sheet Flow, 100 Grass: Short n= 0.150 P2= 2.22" Shallow Concentrated Flow, 164				
_	(min) 97.9 3.6	(feet) 100 164	0.00 0.00	<u>t/ft)</u> 001 120	(ft/sec) 0.02 0.77		Sheet Flow, 100 Grass: Short n= 0.150 P2= 2.22" Shallow Concentrated Flow, 164 Short Grass Pasture Kv= 7.0 fps				
	(min) 97.9	(feet) 100	0.00 0.00	<u>t/ft)</u> 001 120	(ft/sec) 0.02		Sheet Flow, 100 Grass: Short n= 0.150 P2= 2.22" Shallow Concentrated Flow, 164 Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, 300				
_	(min) 97.9 3.6 8.5	(feet) 100 164 300	0.00 0.00 0.00	1/ft) 001 120 070	(ft/sec) 0.02 0.77 0.59		Sheet Flow, 100 Grass: Short n= 0.150 P2= 2.22" Shallow Concentrated Flow, 164 Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, 300 Short Grass Pasture Kv= 7.0 fps				
_	(min) 97.9 3.6	(feet) 100 164	0.00 0.00 0.00	1/ft) 001 120 070	(ft/sec) 0.02 0.77		Sheet Flow, 100 Grass: Short n= 0.150 P2= 2.22" Shallow Concentrated Flow, 164 Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, 300 Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, 300				
	(min) 97.9 3.6 8.5 71.4	(feet) 100 164 300 300	0.00 0.00 0.00 0.00	t/ft) 001 120 070 001	(ft/sec) 0.02 0.77 0.59 0.07		Sheet Flow, 100 Grass: Short n= 0.150 P2= 2.22" Shallow Concentrated Flow, 164 Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, 300 Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, 300 Short Grass Pasture Kv= 7.0 fps				
	(min) 97.9 3.6 8.5	(feet) 100 164 300	0.00 0.00 0.00 0.00	t/ft) 001 120 070 001	(ft/sec) 0.02 0.77 0.59		Sheet Flow, 100 Grass: Short n= 0.150 P2= 2.22" Shallow Concentrated Flow, 164 Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, 300 Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, 300 Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, 301				
_	(min) 97.9 3.6 8.5 71.4	(feet) 100 164 300 300	0.00 0.00 0.00 0.00 0.00	7t/ft) 001 120 070 001 020	(ft/sec) 0.02 0.77 0.59 0.07		Sheet Flow, 100 Grass: Short n= 0.150 P2= 2.22" Shallow Concentrated Flow, 164 Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, 300 Short Grass Pasture Kv= 7.0 fps Shallow Concentrated Flow, 300 Short Grass Pasture Kv= 7.0 fps				

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Subcatchment DA11: EXISTING DA STR 84-86



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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

	Area	(ac) C	N Des	cription		
*	2.	470 3	80 A-M	EADOW, N	NON-GRAZ	ZED
*	5.	780 7	'8 D-M	EADOW, 1	NON-GRAZ	ZED
	8.:	250 6	34 Weig	hted Aver	age	
	8.	250	100.	00% Pervi	ous Area	
	Тс	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	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
	4.0			4.00		Short Grass Pasture Kv= 7.0 fps
	1.3	80	0.0230	1.06		Shallow Concentrated Flow, 80
	5 0	400	0.0040	0.44		Short Grass Pasture Kv= 7.0 fps
	5.0	132	0.0040	0.44		Shallow Concentrated Flow, 132
	0.6	450	0.0000	0.00		Short Grass Pasture Kv= 7.0 fps
	2.6	153	0.0200	0.99		Shallow Concentrated Flow, 153
_	00.0	4.040	T ()			Short Grass Pasture Kv= 7.0 fps
	23.6	1,012	Total			