# Lockport-Batavia Line #112

# Rebuild Project

## Appendix G

## Stormwater Pollution Prevention Plan

## Part 2 of 8

# Appendix N
Post-Construction Maintenance Requirements

nationalgrid

May 2025

# 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

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**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**

## Table of Contents


Page

1.0 INTRODUCTION ..... 1

2.0 STORMWATER MANAGEMENT SYSTEM ..... 1

2.1 Stormwater Management System Description ..... 1

3.0 MAINTENANCE AND INSPECTION SCHEDULE ..... 1

3.1 Culvert ..... 2

3.1.1 *End Sections* ..... 2

3.2 Vegetated Buffer ..... 2

4.0 CONTACT INFORMATION ..... 3


**Appendices**


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. | | |
| Vegetated Filter Strip | Note Percent of Sediment Built-Up | Annual | 3.2 | | Remove When Sediment Fills 50% Volume. | | |
| | 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 O
Stormwater Management Report

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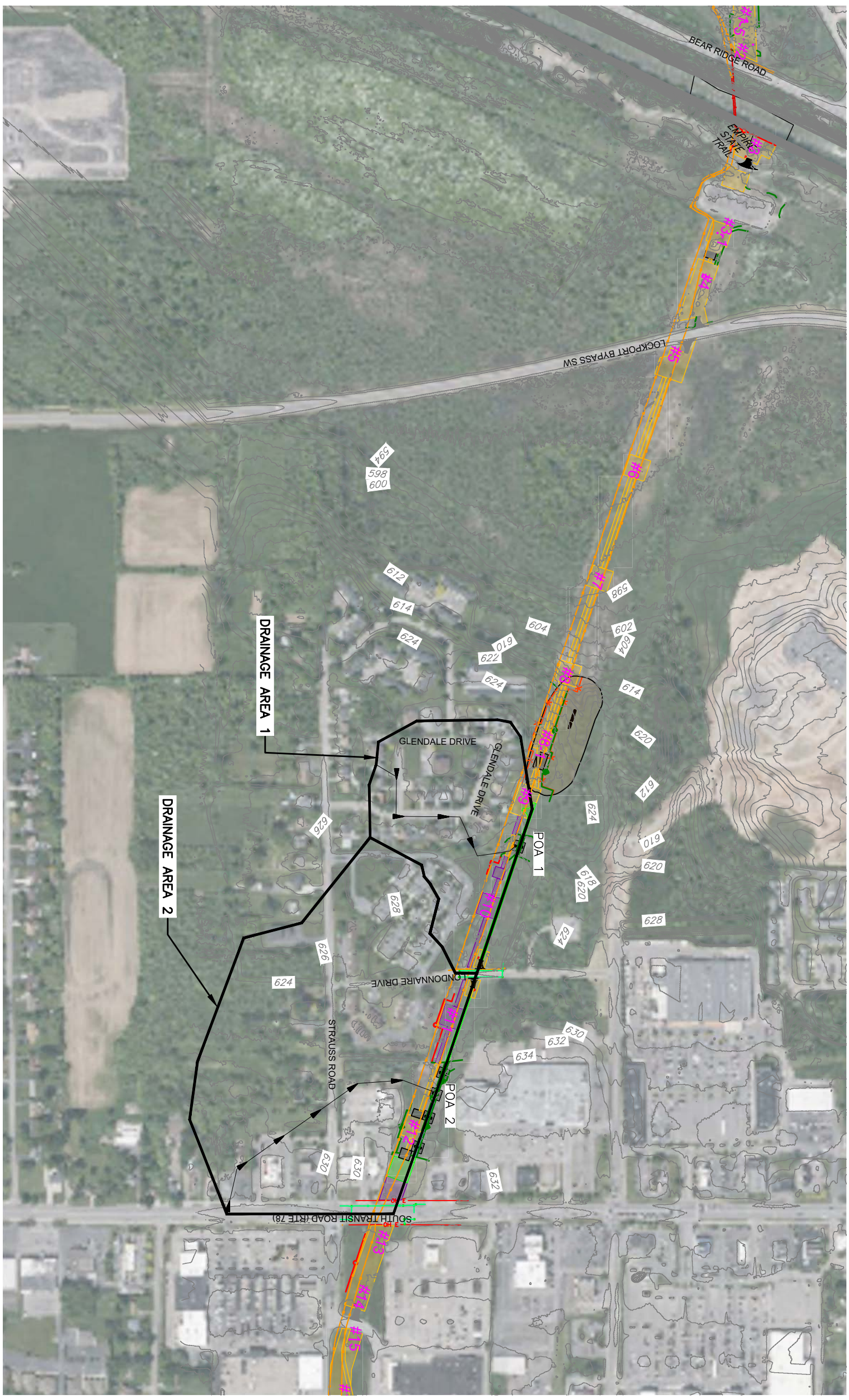


NOT FOR CONSTRUCTION

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DRAWING NO.

SHEET 1 OF 7

PROJECT
LOCKPORT BATAVIA
NEW YORK
PCSM
TOWN OF LOCKPORT

TITLE OF DRAWING
PCSM DRAINAGE AREA MAP

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



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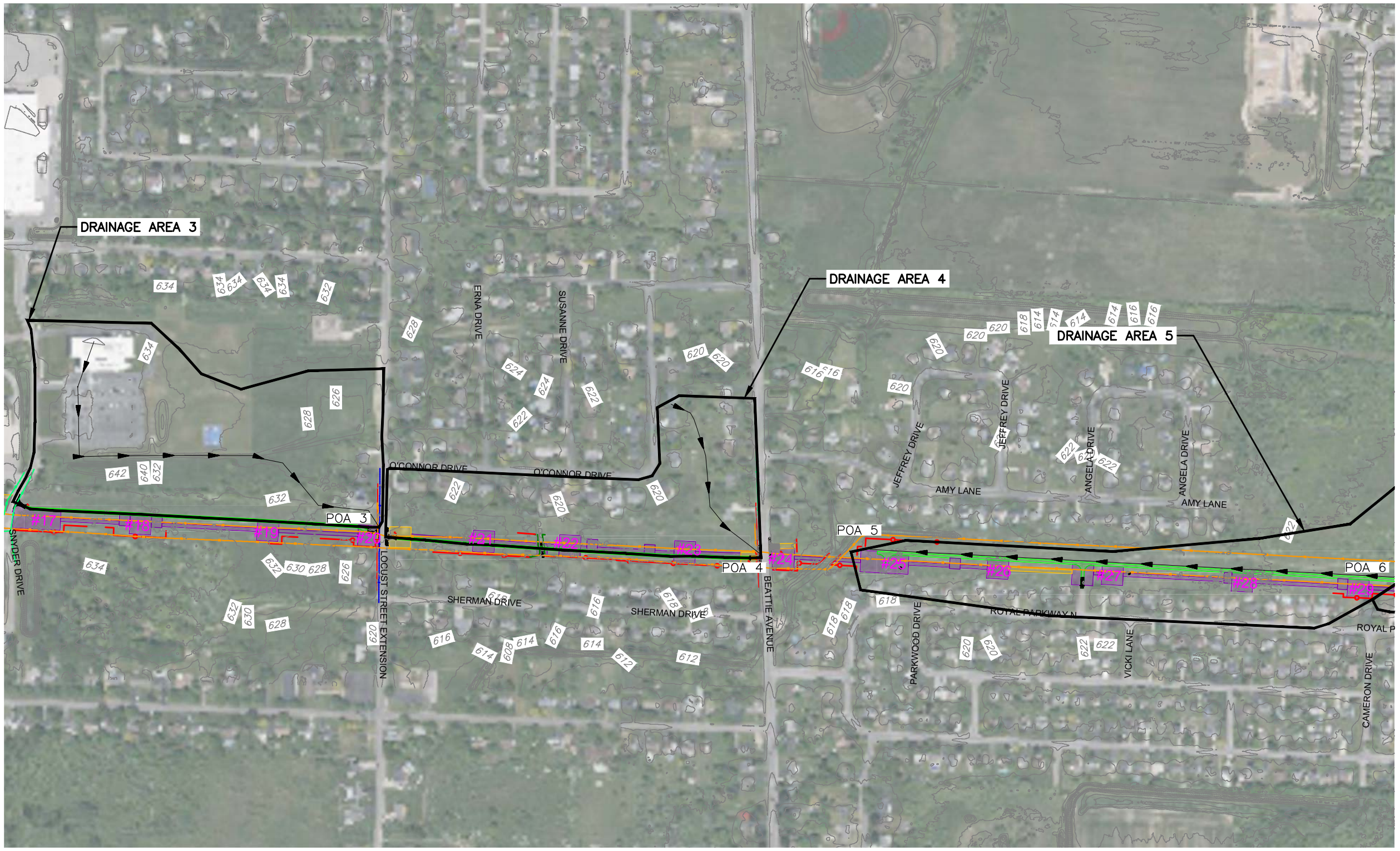


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NEW YORK
PCSM
TOWN OF LOCKPORT

TITLE OF DRAWING
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DRAWING NO.
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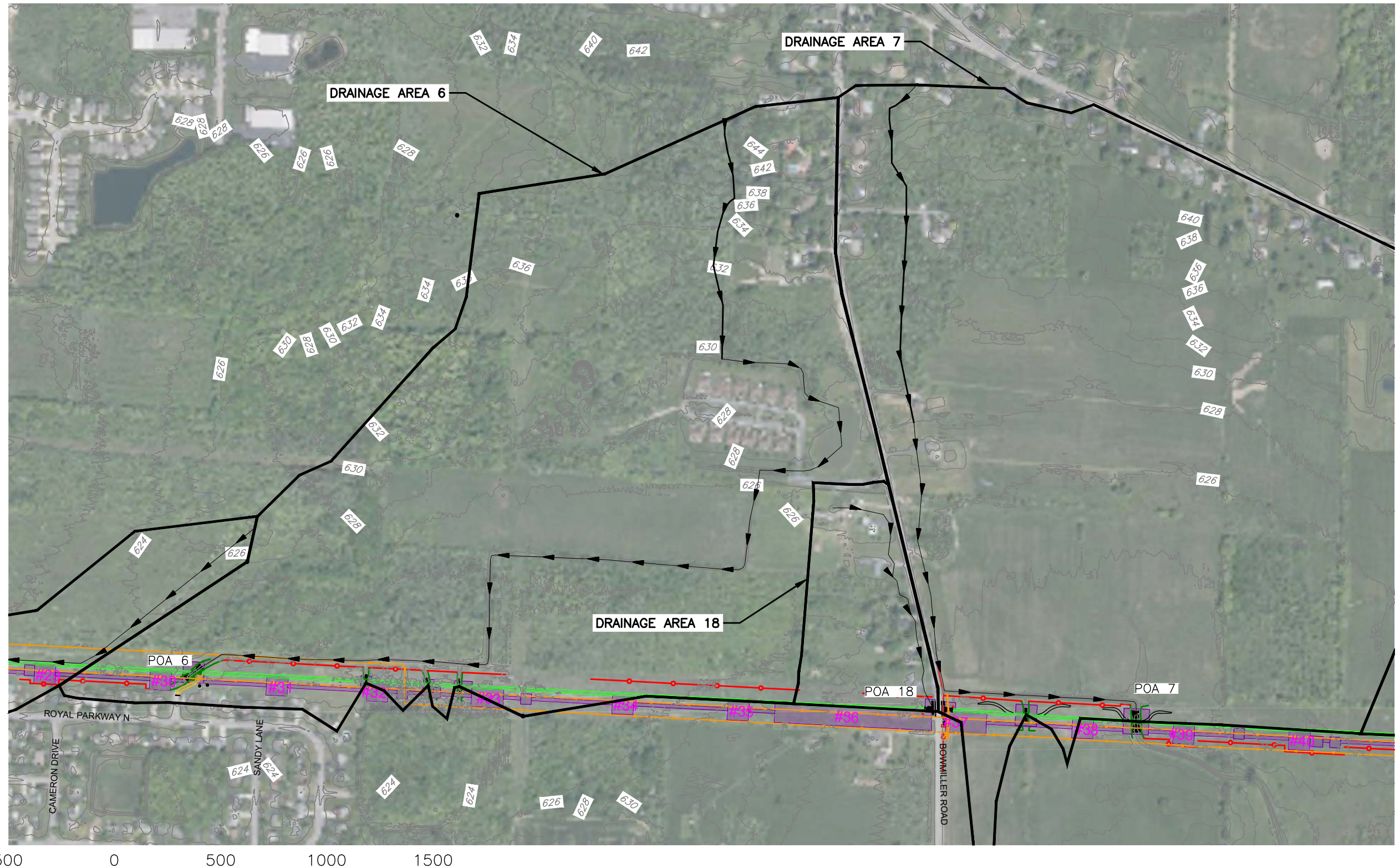
SHEET 2 OF 7

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NEW YORK
PCSM
TOWN OF LOCKPORT

TITLE OF DRAWING
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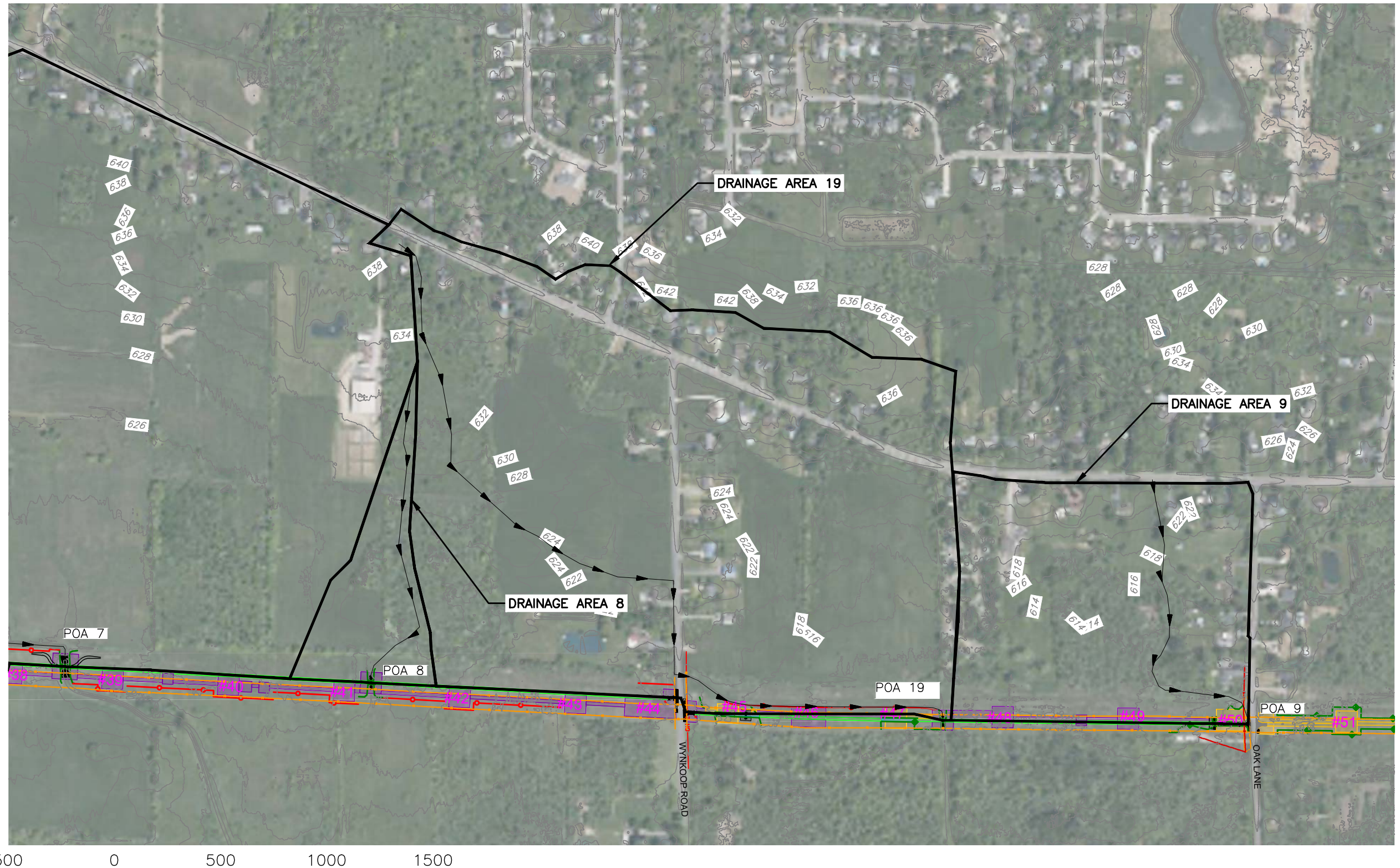
SHEET 3 OF 7

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If an item bearing the seal of an engineer or land surveyor is altered, the altering engineer or 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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TOWN OF LOCKPORT

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SHEET 4 OF 7


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

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TITLE OF DRAWING
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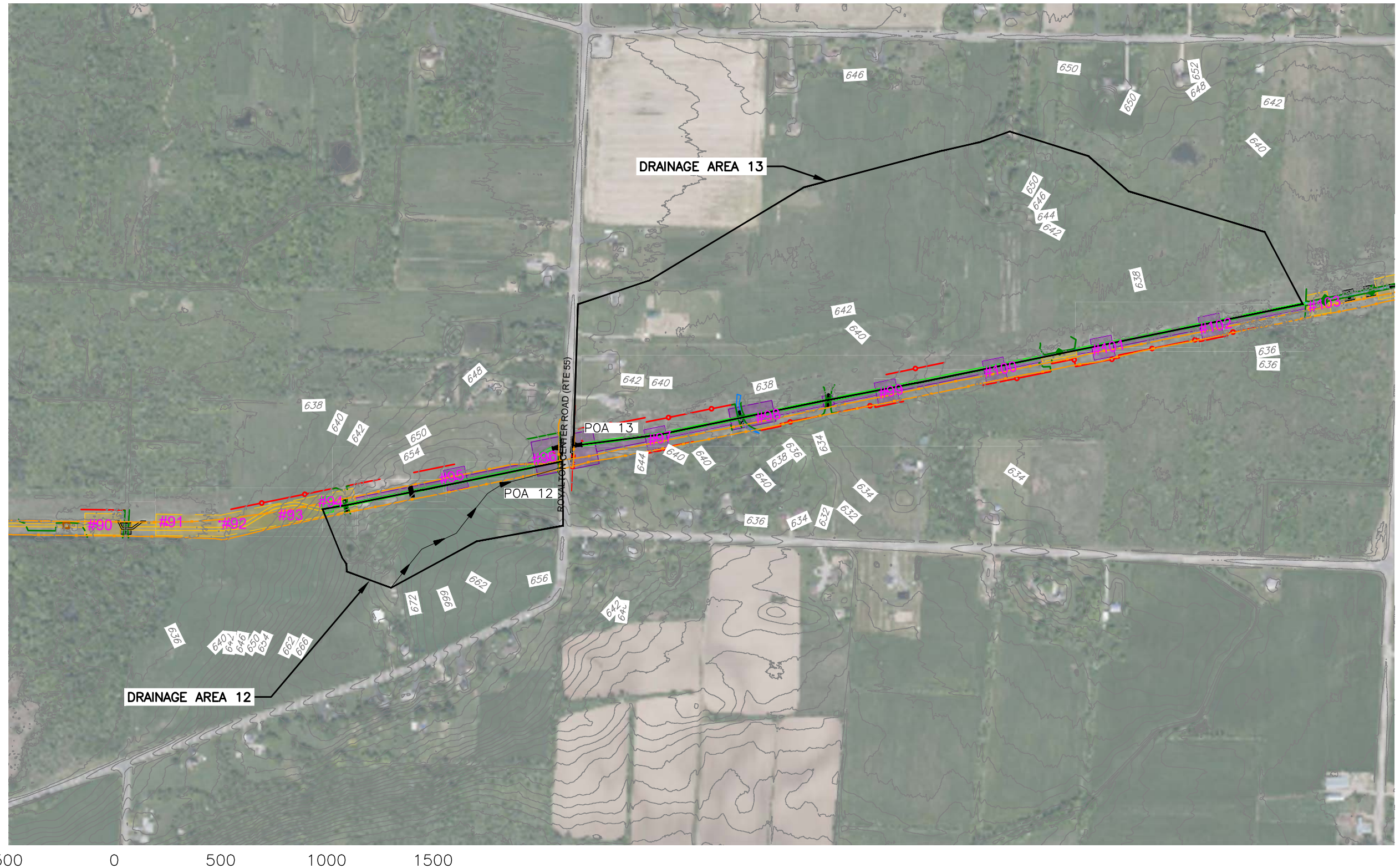
SHEET 5 OF 7

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DRAWING NO.
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SHEET 6 OF 7

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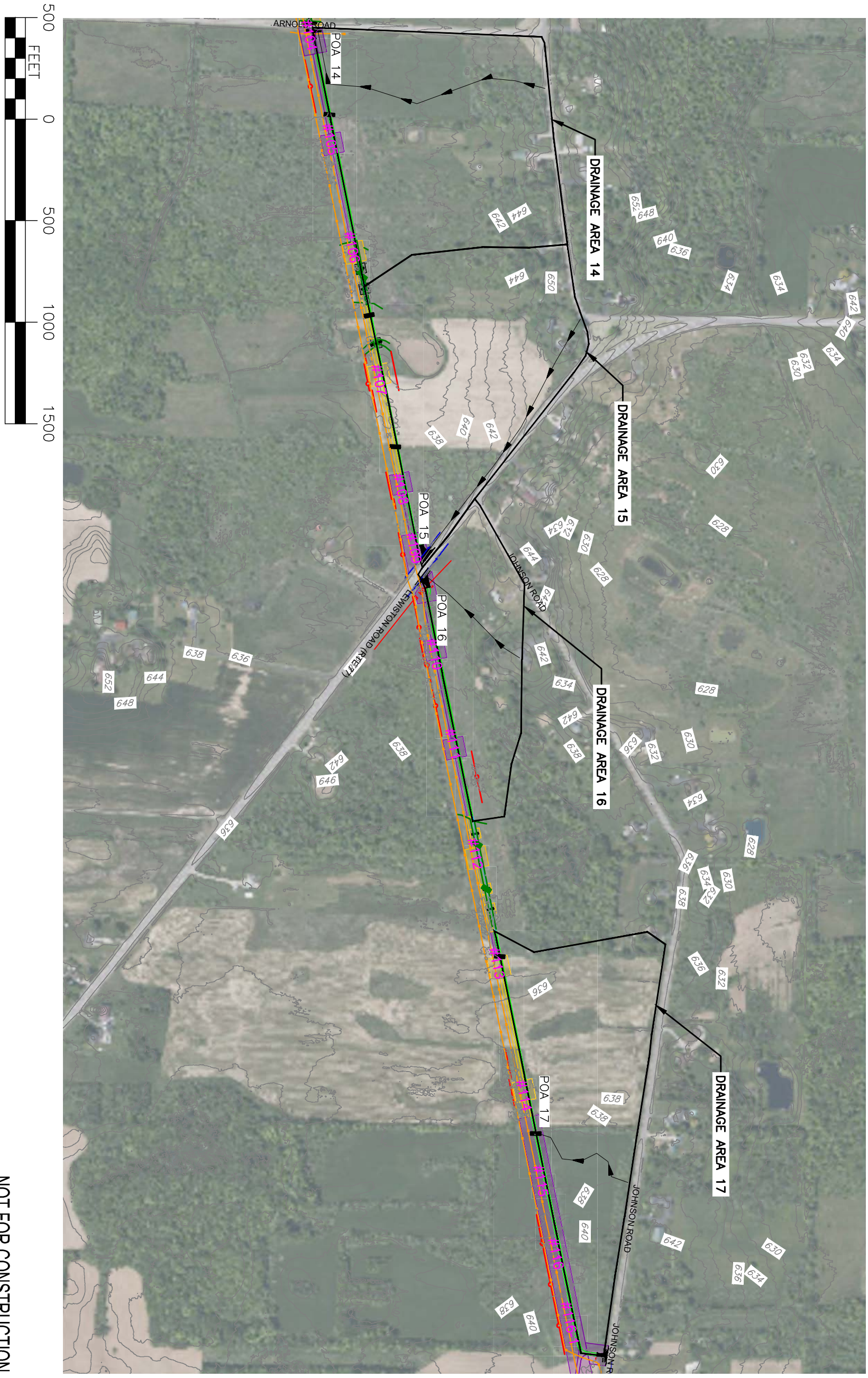


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SW-7
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SHEET 7 OF 7

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LOCKPORT BATAVIA
NEW YORK
PCSM
TOWN OF ROYALTON

TITLE OF DRAWING
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PROJECT MANAGER T. LIBERTY
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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 | Is Sum RRv Provided and WQv Provided ≥WQv Required? | Yes | |

# NOI QUESTIONS

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

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

# NOI QUESTIONS

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

# Step 2 - Calculate Water Quality Volume

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

| | | |
|---|---|---|
| Design Point: | 1 | |
| P= | 1.00 | inches |

**Calculate Required WQv**

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

# Step 2 - Calculate Water Quality Volume

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

**Calculate Required WQv**

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

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

**Calculate Required WQv**

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

# Step 2 - Calculate Water Quality Volume

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

| | | |
|---|---|---|
| Design Point: | 1 | |
| P= | 1.00 | inches |

**Calculate Required WQv**

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

# Step 4 - Calcuate Minimum RRv Required

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

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

# Step 4 - Calcuate Minimum RRv Required

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

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

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

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

# Step 4 - Calcuate Minimum RRv Required

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

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

# Sheet Flow to Grass Filter Strip (RR-3)

| Design Point: | 1 |
|---|---|

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

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

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

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

# Sheet Flow to Grass Filter Strip (RR-3)

| Design Point: | 1 |
|---|---|

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

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

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

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

# Sheet Flow to Grass Filter Strip (RR-3)

| Design Point: | 1 |
|---|---|

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

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

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

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

# Sheet Flow to Grass Filter Strip (RR-3)

| Design Point: | 1 |
|---|---|

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

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

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

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

# Sheet Flow to Grass Filter Strip (RR-3)

| Design Point: | 1 |
|---|---|

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

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

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

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

# Sheet Flow to Grass Filter Strip (RR-3)

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

# Sheet Flow to Grass Filter Strip (RR-3)

| Design Point: | 1 |
|---|---|

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

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

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

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

# Sheet Flow to Grass Filter Strip (RR-3)

| Design Point: | 1 |
|---|---|

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

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

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

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

# Sheet Flow to Grass Filter Strip (RR-3)

| Design Point: | 1 |
|---|---|

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

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

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

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

# Sheet Flow to Grass Filter Strip (RR-3)

| Design Point: | 1 |
|---|---|

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

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

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

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

# Sheet Flow to Grass Filter Strip (RR-3)

| Design Point: | 1 |
|---|---|

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

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

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

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

# Sheet Flow to Grass Filter Strip (RR-3)

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

| Design Point: | 1 |
|---|---|

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

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

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

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

| Design Point: | 1 |
|---|---|

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

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

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

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

| Design Point: | 1 |
|---|---|

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

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

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

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

| Design Point: | 1 |
|---|---|

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

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

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

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

| Design Point: | 1 |
|---|---|

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

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

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

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

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

# Sheet Flow to Grass Filter Strip (RR-3)

| Design Point: | 1 |
|---|---|

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

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

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

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

# Sheet Flow to Grass Filter Strip (RR-3)

| Design Point: | 1 |
|---|---|

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

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

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

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

# Sheet Flow to Grass Filter Strip (RR-3)

| Design Point: | 1 |
|---|---|

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

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

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

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

# Sheet Flow to Grass Filter Strip (RR-3)

| Design Point: | 1 |
|---|---|

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

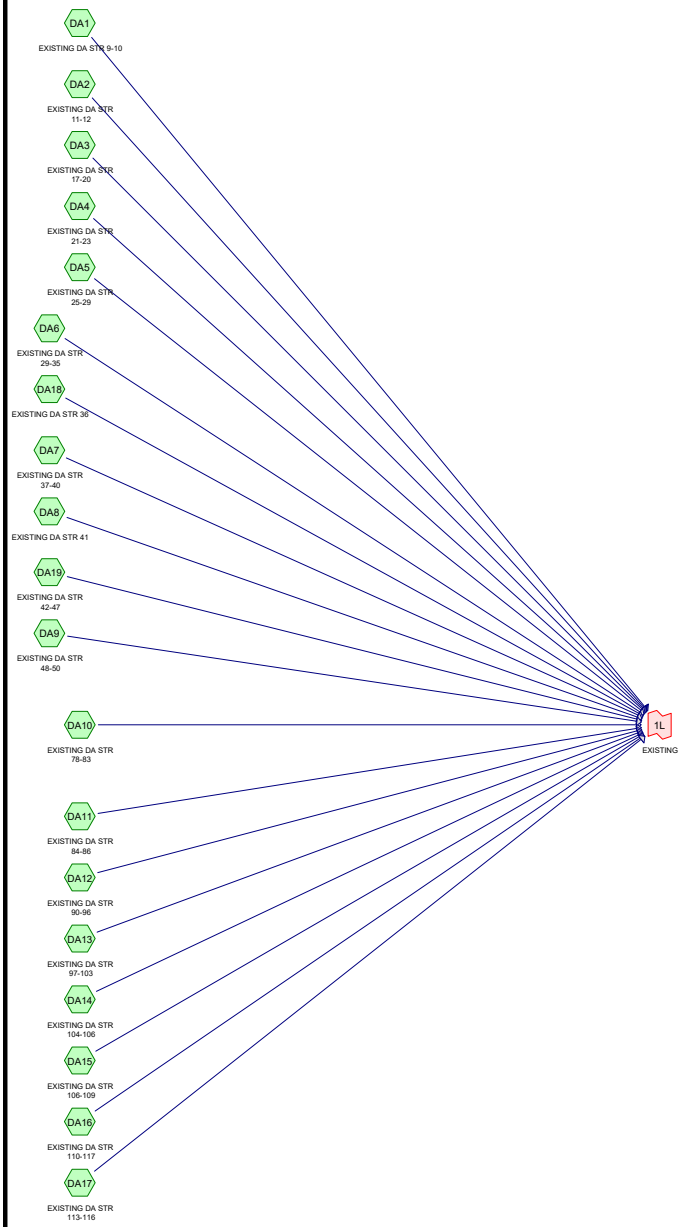
| Design Criteria | | |
|---|---|---|
| Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement? | Yes | |
| Is the contributing area a designated hotspot? | No | |
| Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of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

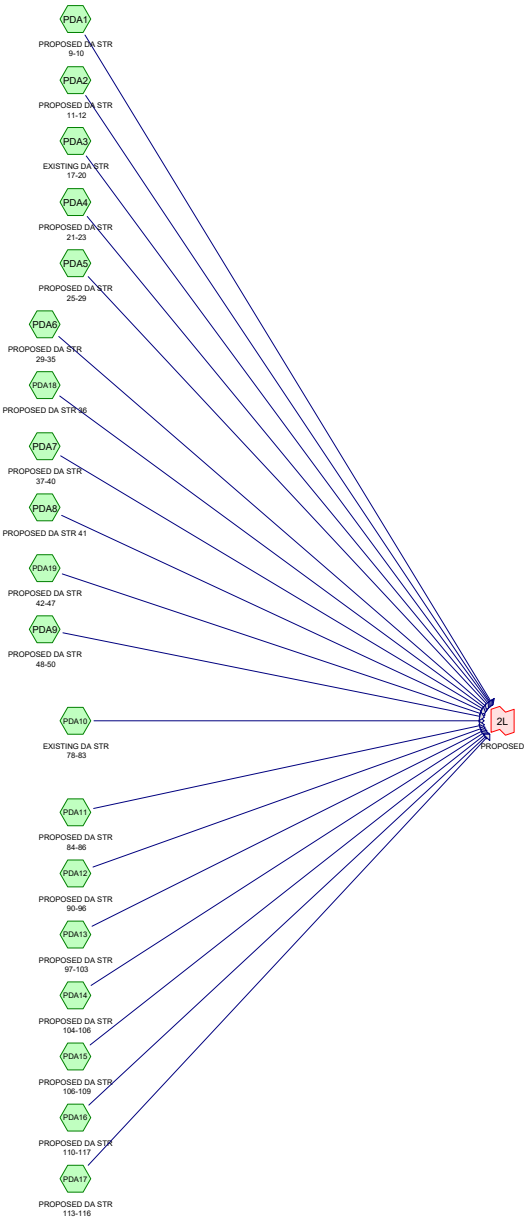
| Sizing Criteria | | | | |
|---|---|---|---|---|
| | | Value | Units | Notes |
| Enter Travel Time through Buffer | *T* | 6 | min | |
| Enter 2-yr 24-hr Rainfall Depth | *P* | 2.22 | inch | |
| Enter Overall Buffer Slope | *S* | 0.03 | ft/ft | |
| Enter Manning's Coefficient for Buffer | *n* | 0.24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

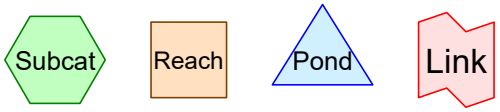
| Calculate Runoff Reduction | | |
|---|---|---|
| **RRv Provided** | **22,727** | **cf** |

# Sheet Flow to Grass Filter Strip (RR-3)

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




**Routing Diagram for 190176.00 - PCSM DESIGNrlw**
Prepared by Fisher Associates, Printed 6/4/2025

## Area Listing (all nodes)

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

## Area Listing (all nodes) (continued)

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

## Soil Listing (all nodes)

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

## Ground Covers (all nodes)

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

## Ground Covers (all nodes) (continued)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## Summary for Subcatchment DA1: EXISTING DA STR 9-10

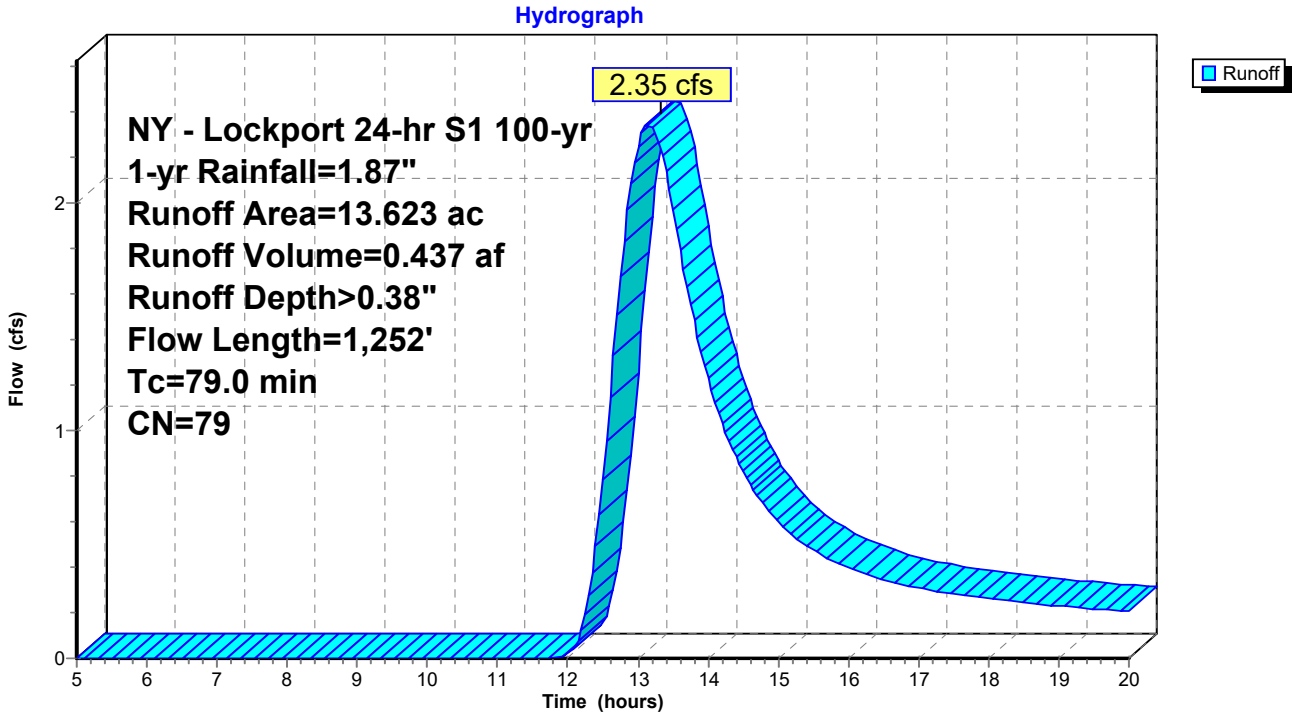
Runoff = 2.35 cfs @ 13.14 hrs, Volume= 0.437 af, Depth> 0.38"
Routed to Link 1L : EXISTING

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

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

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

## Subcatchment DA1: EXISTING DA STR 9-10



## Summary for Subcatchment DA10: EXISTING DA STR 78-83

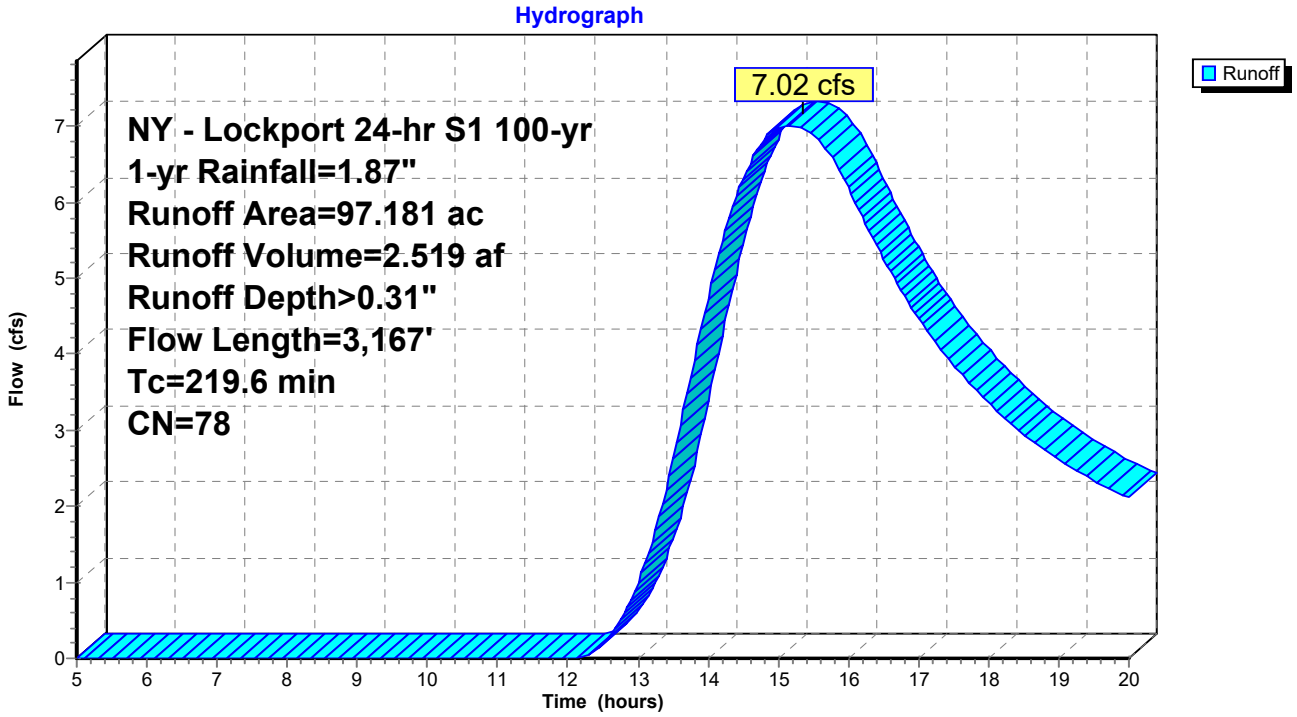
Runoff = 7.02 cfs @ 15.15 hrs, Volume= 2.519 af, Depth> 0.31"
Routed to Link 1L : EXISTING

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

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

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

## Subcatchment DA10: EXISTING DA STR 78-83



## Summary for Subcatchment DA11: EXISTING DA STR 84-86

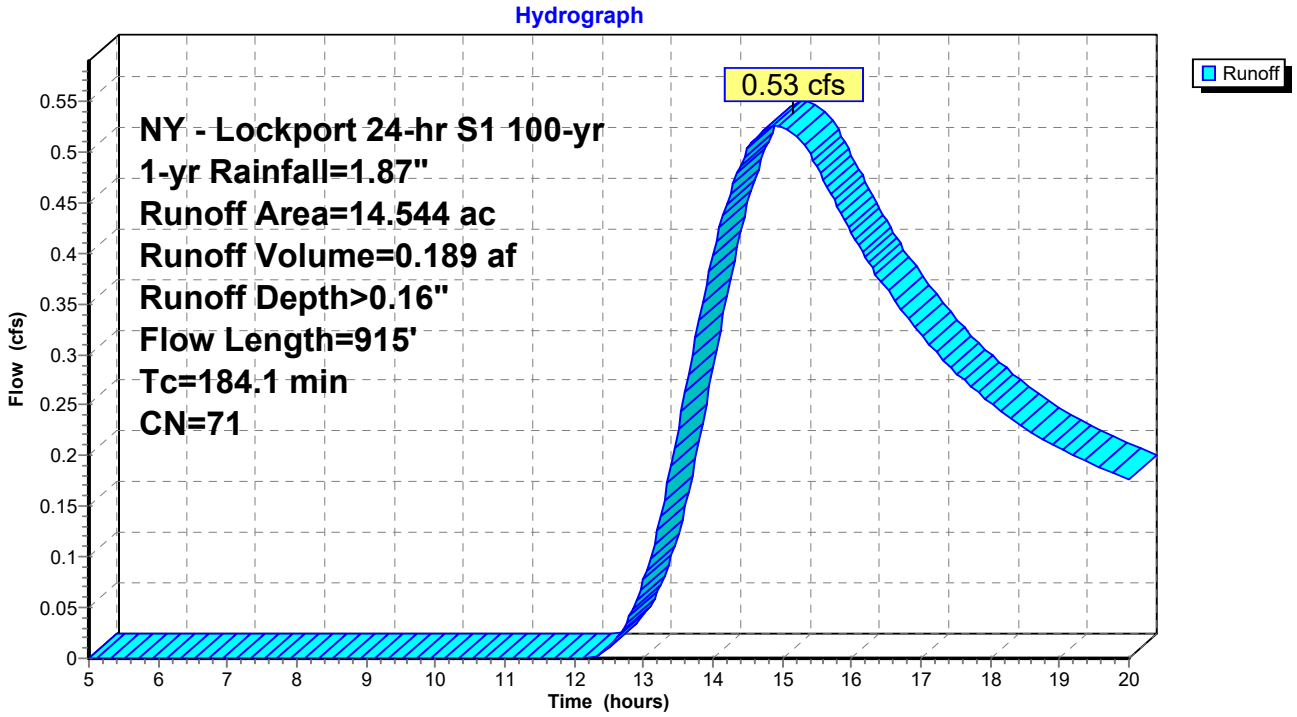
Runoff = 0.53 cfs @ 14.94 hrs, Volume= 0.189 af, Depth> 0.16"
Routed to Link 1L : EXISTING

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

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

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

## Subcatchment DA11: EXISTING DA STR 84-86



## Summary for Subcatchment DA12: EXISTING DA STR 90-96

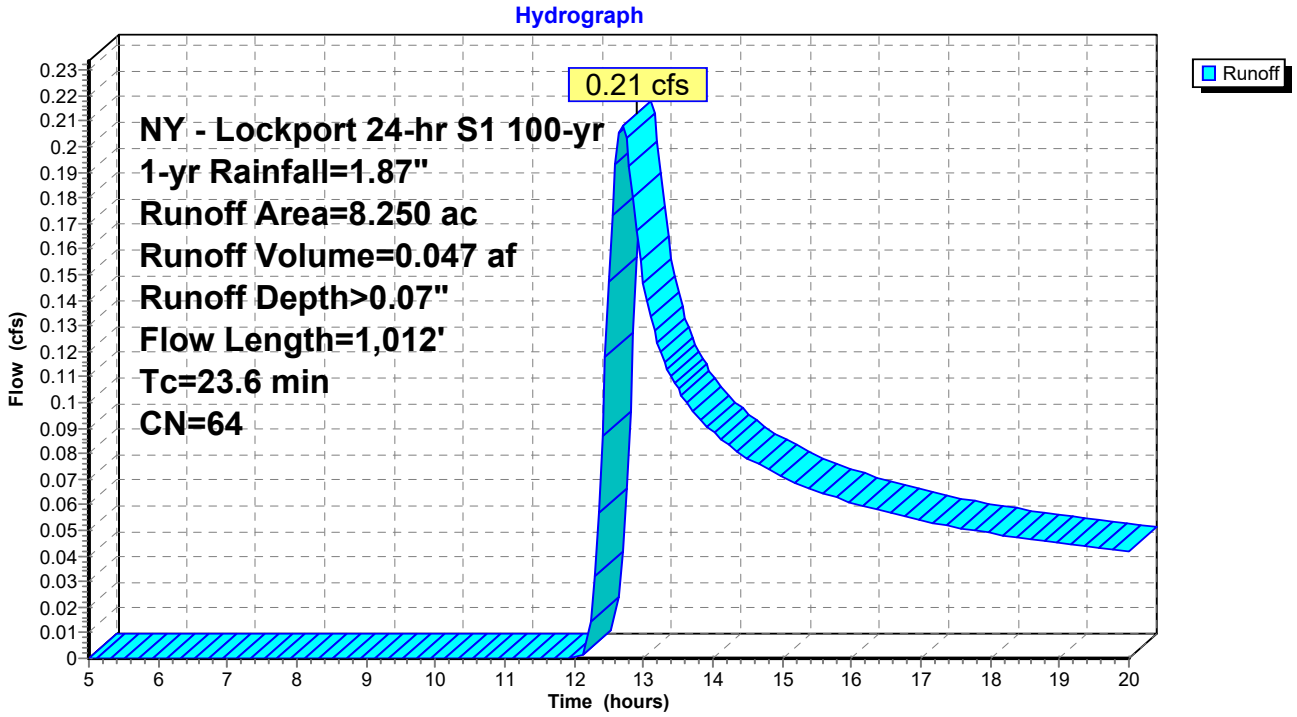
Runoff = 0.21 cfs @ 12.69 hrs, Volume= 0.047 af, Depth> 0.07"
Routed to Link 1L : EXISTING

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

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

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

## Subcatchment DA12: EXISTING DA STR 90-96



## Summary for Subcatchment DA13: EXISTING DA STR 97-103

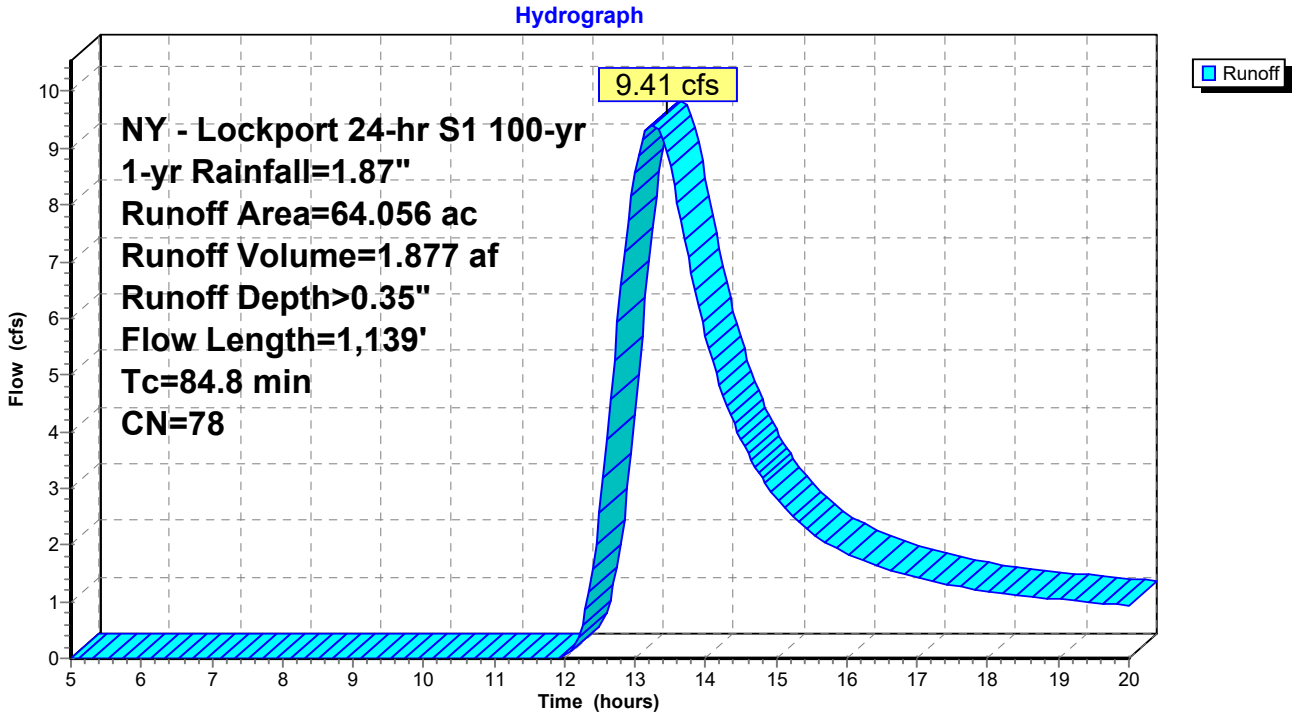
Runoff = 9.41 cfs @ 13.26 hrs, Volume= 1.877 af, Depth> 0.35"
Routed to Link 1L : EXISTING

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

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

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

## Subcatchment DA13: EXISTING DA STR 97-103



## Summary for Subcatchment DA14: EXISTING DA STR 104-106

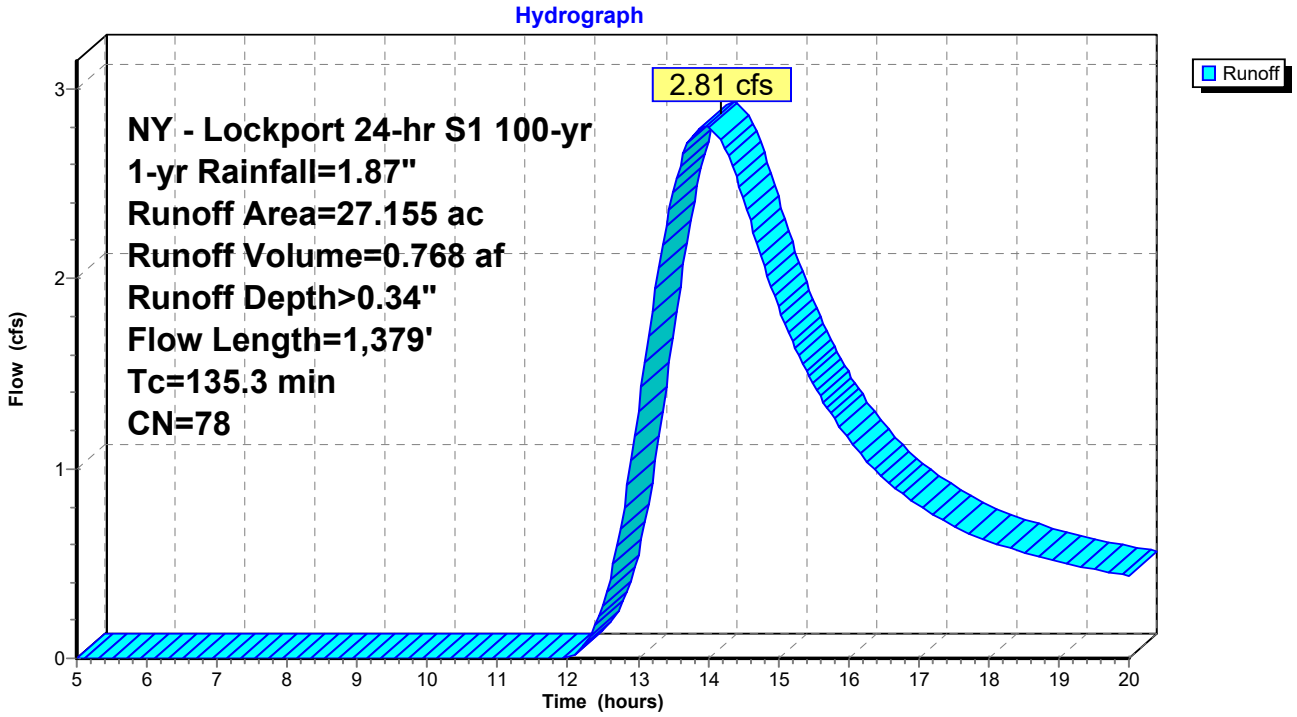
Runoff = 2.81 cfs @ 13.98 hrs, Volume= 0.768 af, Depth> 0.34"
Routed to Link 1L : EXISTING

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

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

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

## Subcatchment DA14: EXISTING DA STR 104-106



## Summary for Subcatchment DA15: EXISTING DA STR 106-109

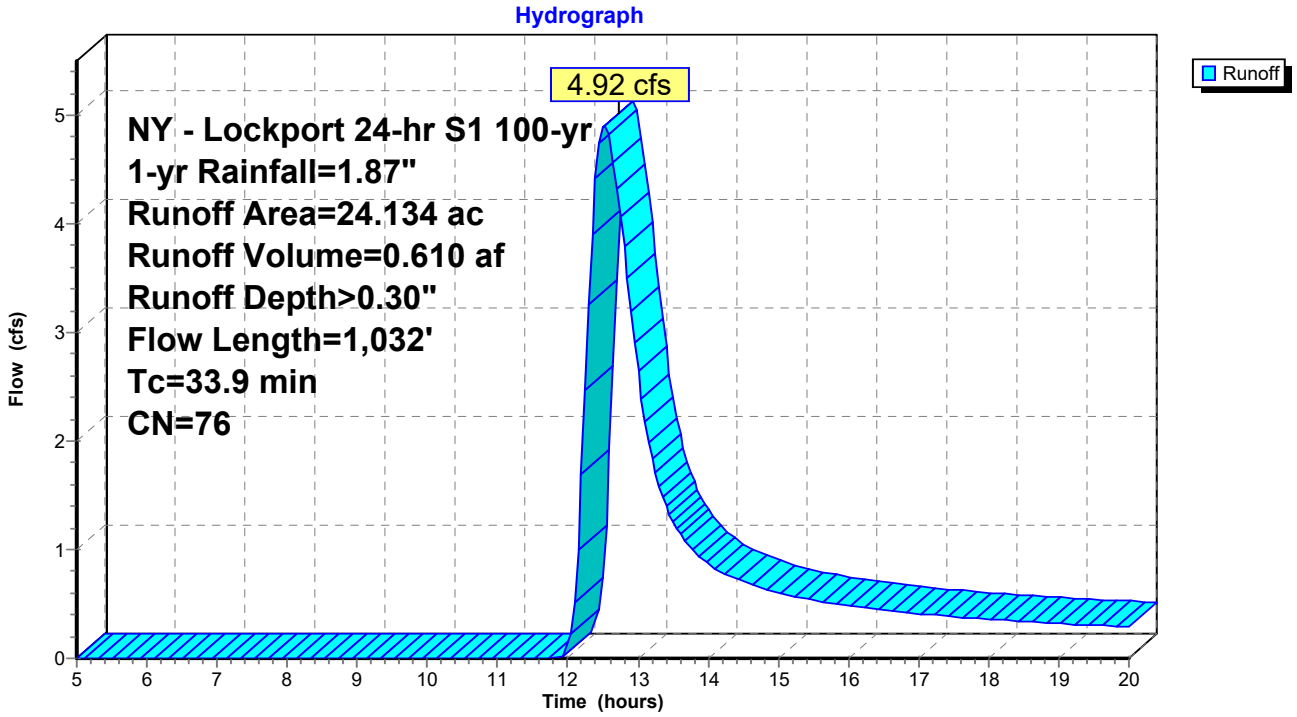
Runoff = 4.92 cfs @ 12.53 hrs, Volume= 0.610 af, Depth> 0.30"
Routed to Link 1L : EXISTING

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

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

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

## Subcatchment DA15: EXISTING DA STR 106-109



## Summary for Subcatchment DA16: EXISTING DA STR 110-117

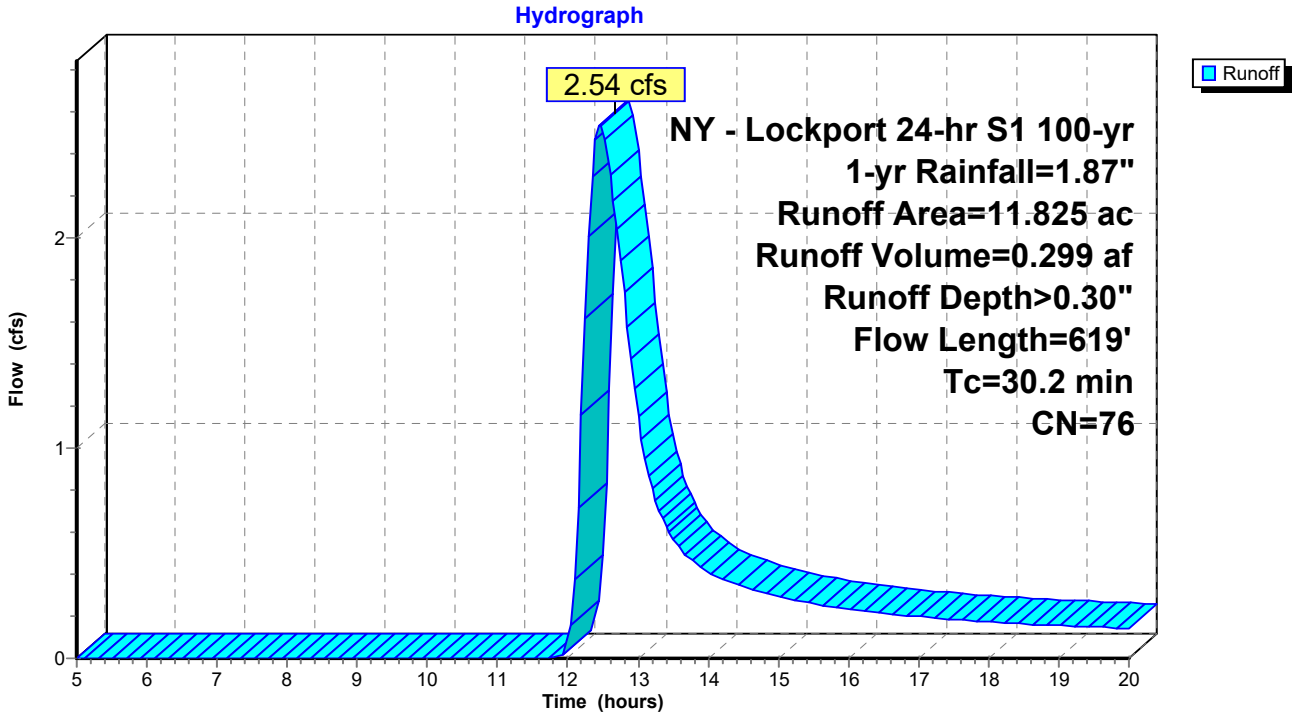
Runoff = 2.54 cfs @ 12.46 hrs, Volume= 0.299 af, Depth> 0.30"
Routed to Link 1L : EXISTING

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

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

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

## Subcatchment DA16: EXISTING DA STR 110-117



## Summary for Subcatchment DA17: EXISTING DA STR 113-116

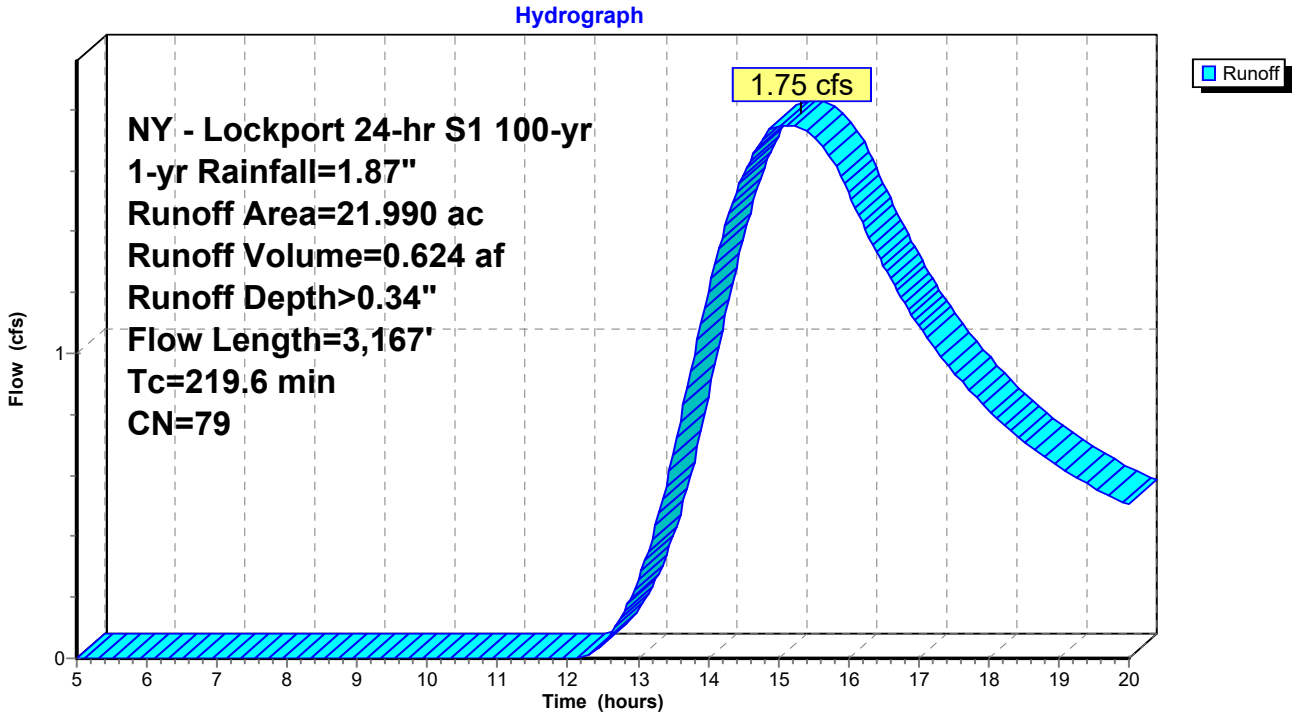
Runoff = 1.75 cfs @ 15.13 hrs, Volume= 0.624 af, Depth> 0.34"
Routed to Link 1L : EXISTING

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

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

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

## Subcatchment DA17: EXISTING DA STR 113-116



## Summary for Subcatchment DA18: EXISTING DA STR 36

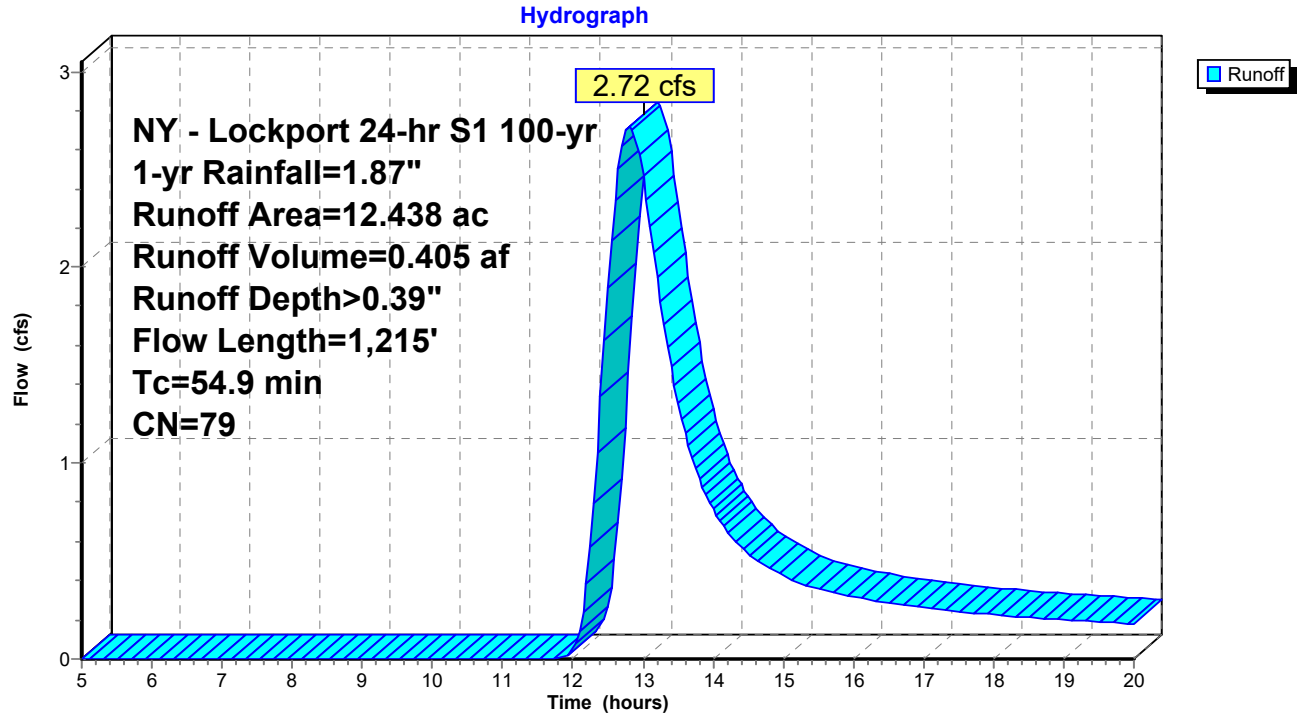
Runoff = 2.72 cfs @ 12.81 hrs, Volume= 0.405 af, Depth> 0.39"
Routed to Link 1L : EXISTING

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

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

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

## Subcatchment DA18: EXISTING DA STR 36



## Summary for Subcatchment DA19: EXISTING DA STR 42-47

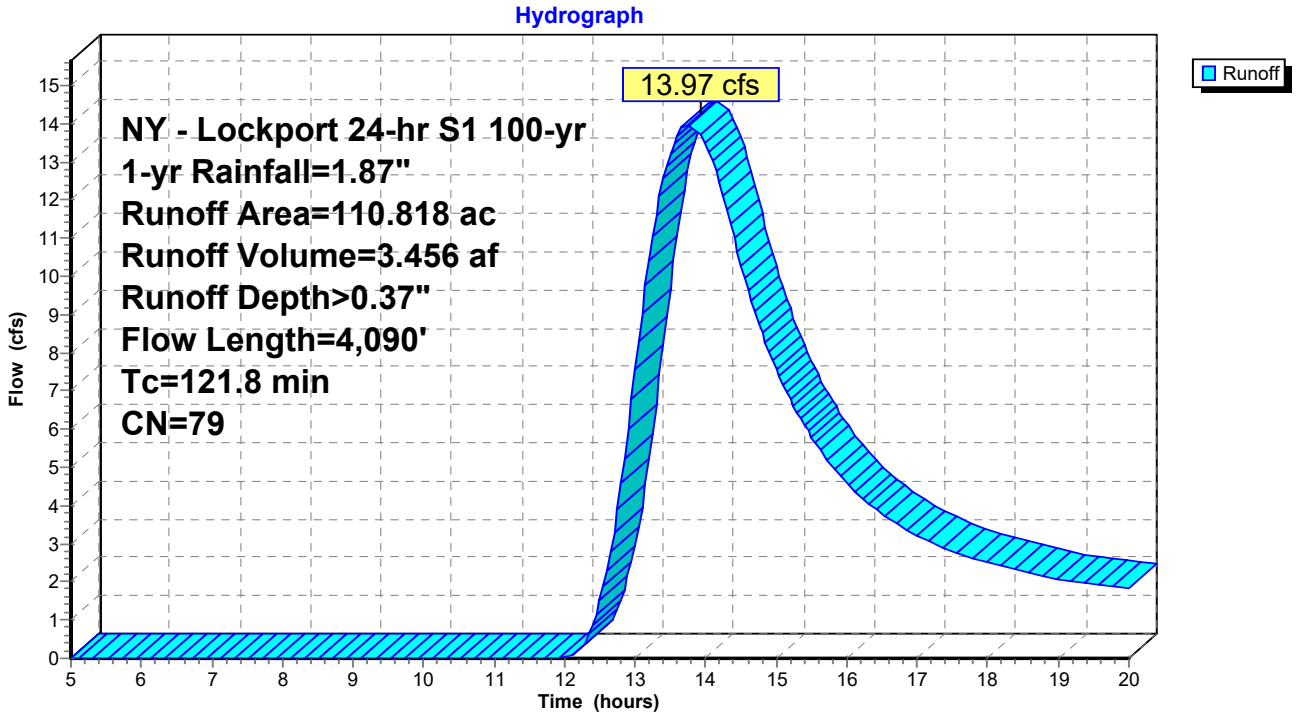
Runoff = 13.97 cfs @ 13.72 hrs, Volume= 3.456 af, Depth> 0.37"
Routed to Link 1L : EXISTING

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

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

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

## Subcatchment DA19: EXISTING DA STR 42-47



## Summary for Subcatchment DA2: EXISTING DA STR 11-12

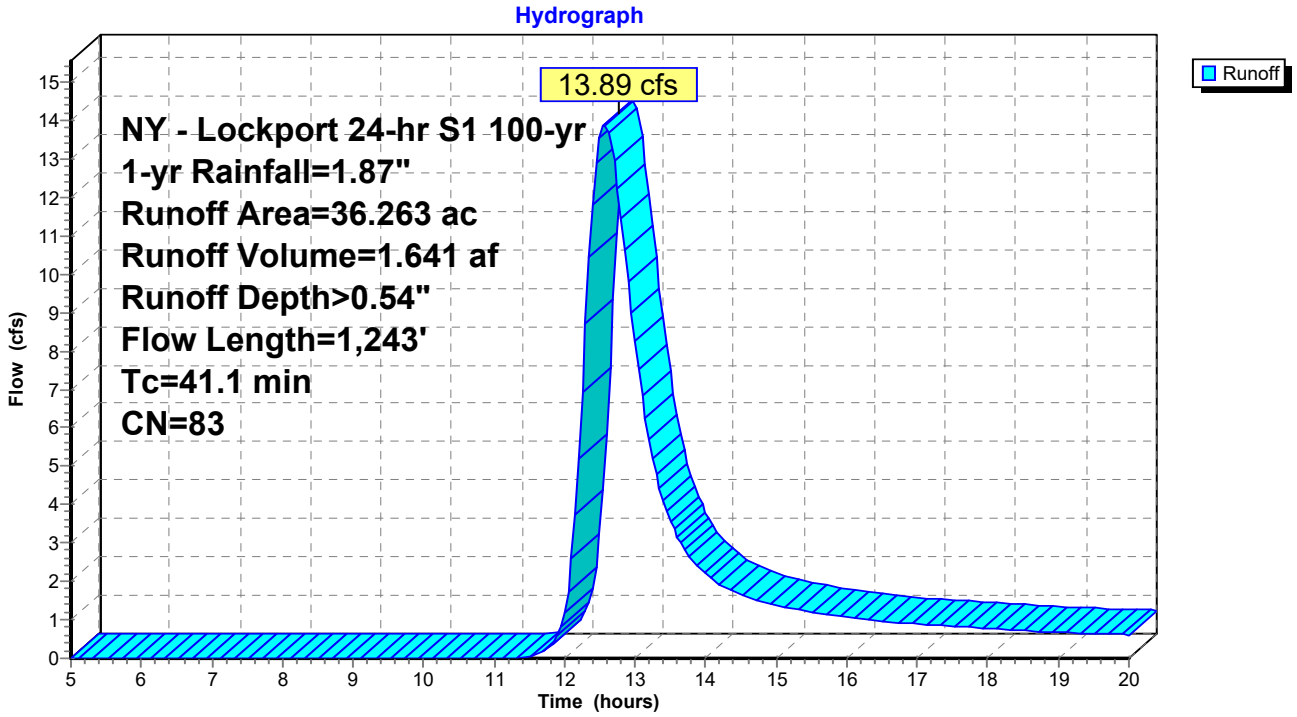
Runoff = 13.89 cfs @ 12.57 hrs, Volume= 1.641 af, Depth> 0.54"
Routed to Link 1L : EXISTING

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

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

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

## Subcatchment DA2: EXISTING DA STR 11-12



## Summary for Subcatchment DA3: EXISTING DA STR 17-20

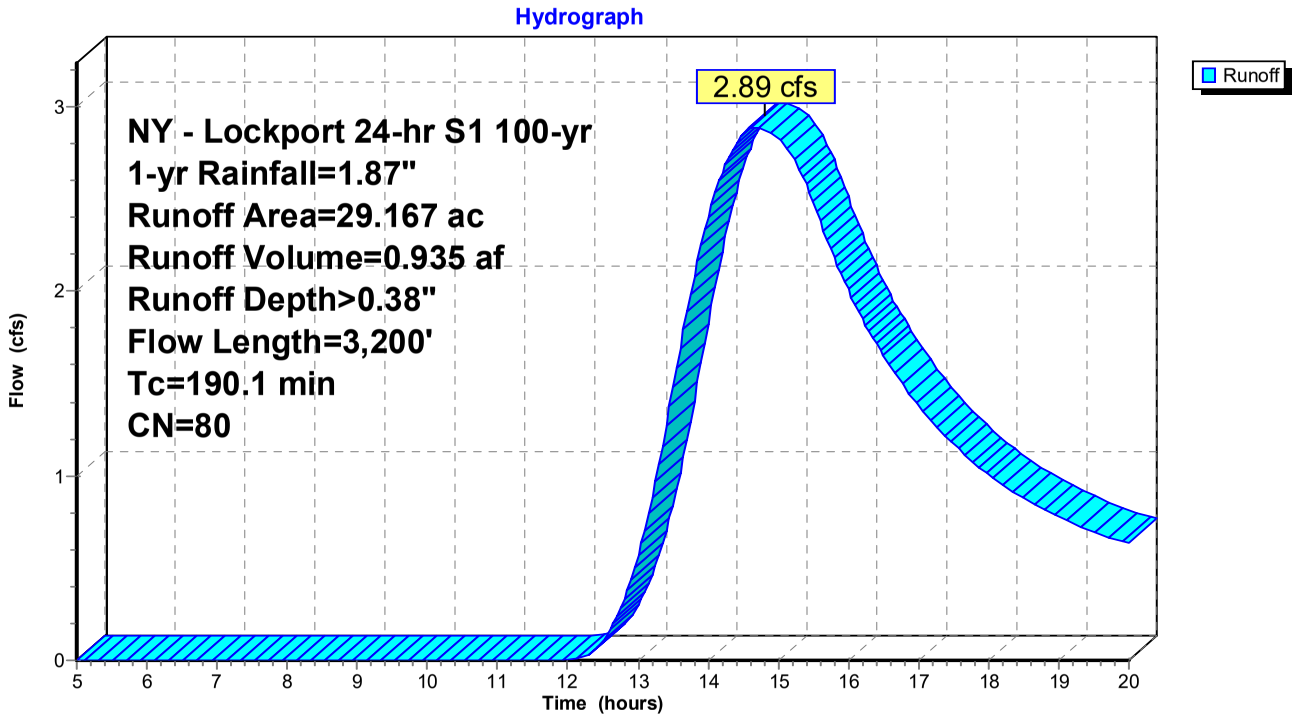
Runoff = 2.89 cfs @ 14.62 hrs, Volume= 0.935 af, Depth> 0.38"
Routed to Link 1L : EXISTING

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

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

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

## Subcatchment DA3: EXISTING DA STR 17-20



## Summary for Subcatchment DA4: EXISTING DA STR 21-23

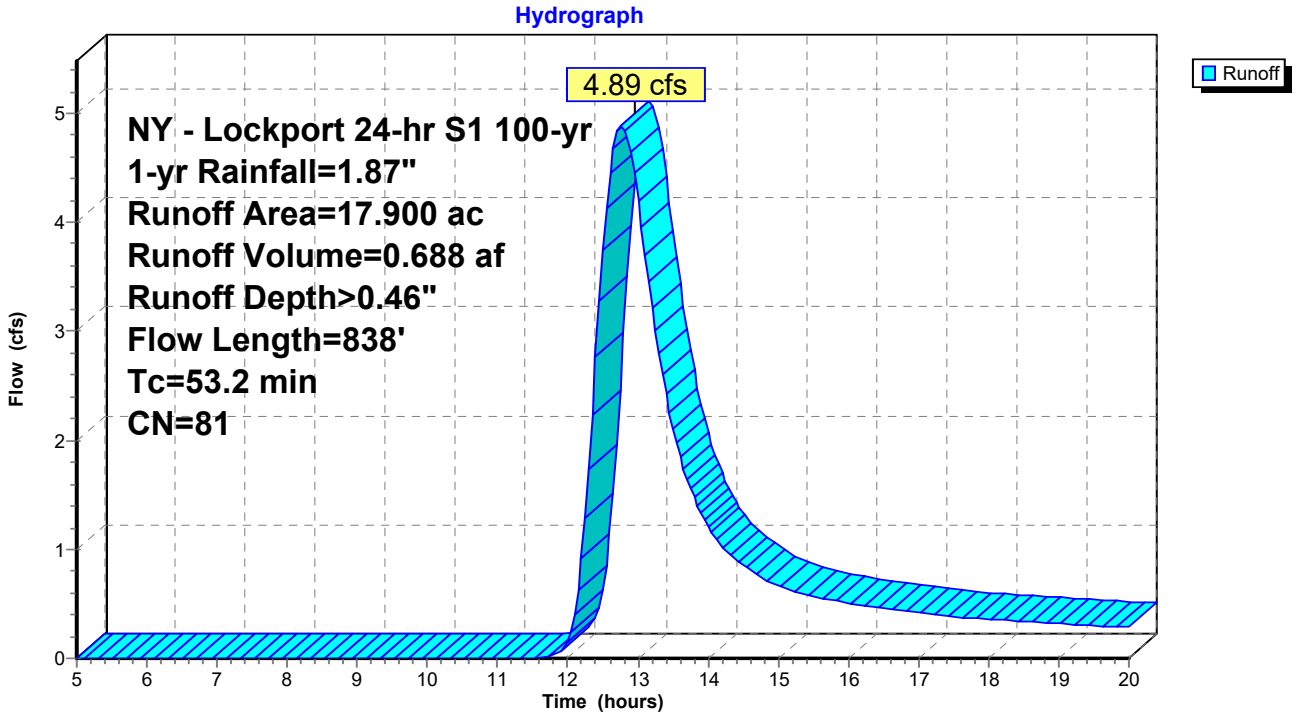
Runoff = 4.89 cfs @ 12.77 hrs, Volume= 0.688 af, Depth> 0.46"
Routed to Link 1L : EXISTING

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

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

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

## Subcatchment DA4: EXISTING DA STR 21-23



## Summary for Subcatchment DA5: EXISTING DA STR 25-29

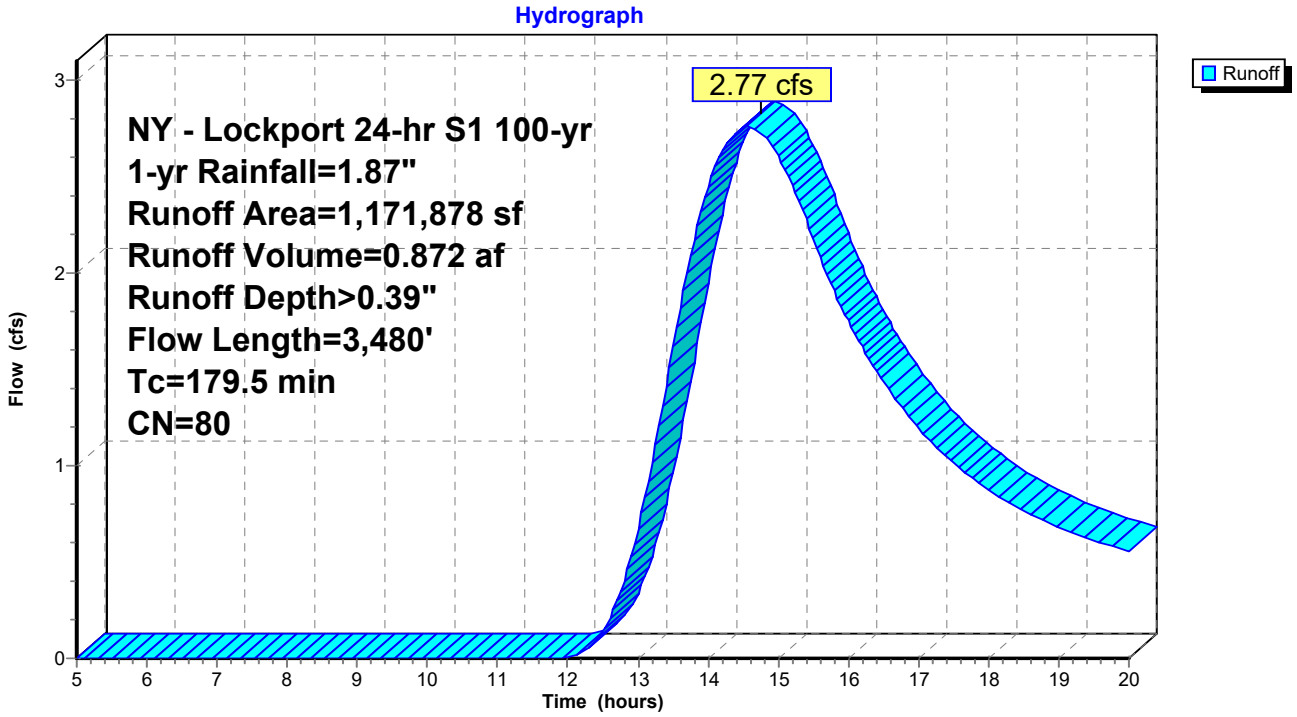
Runoff = 2.77 cfs @ 14.56 hrs, Volume= 0.872 af, Depth> 0.39"
Routed to Link 1L : EXISTING

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

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

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

## Subcatchment DA5: EXISTING DA STR 25-29



## Summary for Subcatchment DA6: EXISTING DA STR 29-35

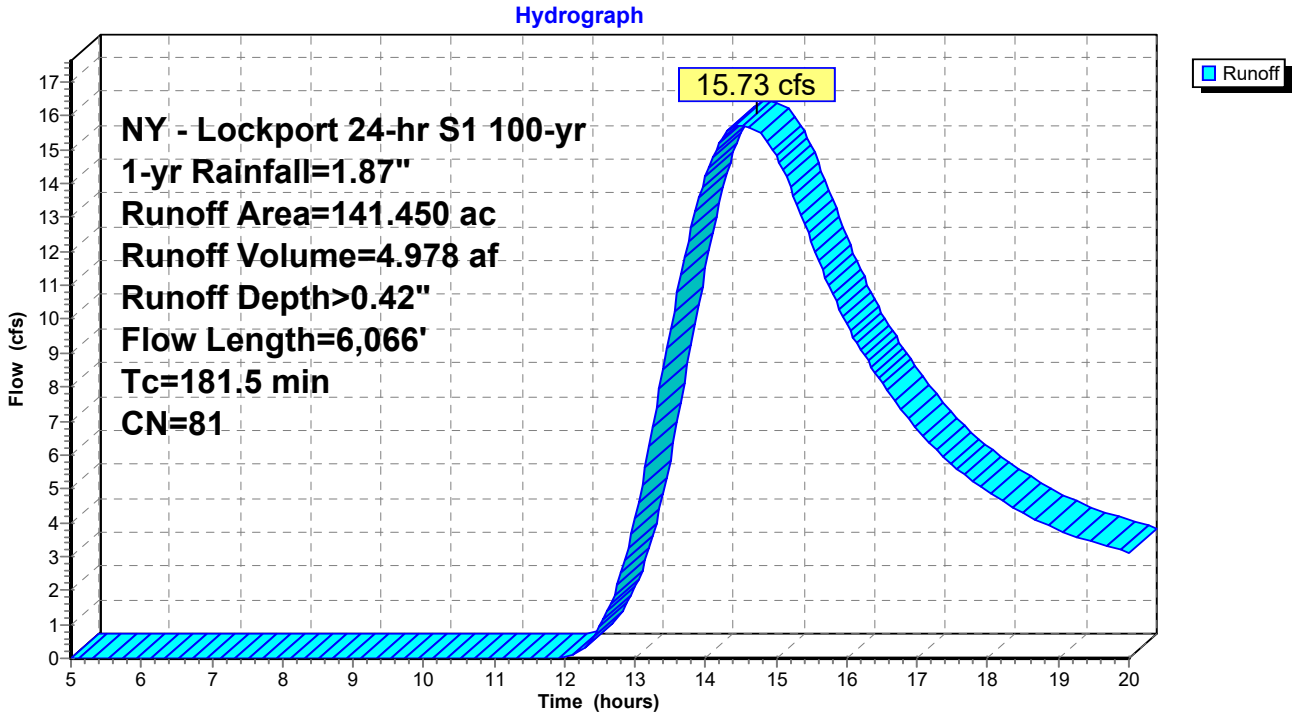
Runoff = 15.73 cfs @ 14.52 hrs, Volume= 4.978 af, Depth> 0.42"
Routed to Link 1L : EXISTING

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

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

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

## Subcatchment DA6: EXISTING DA STR 29-35



## Summary for Subcatchment DA7: EXISTING DA STR 37-40

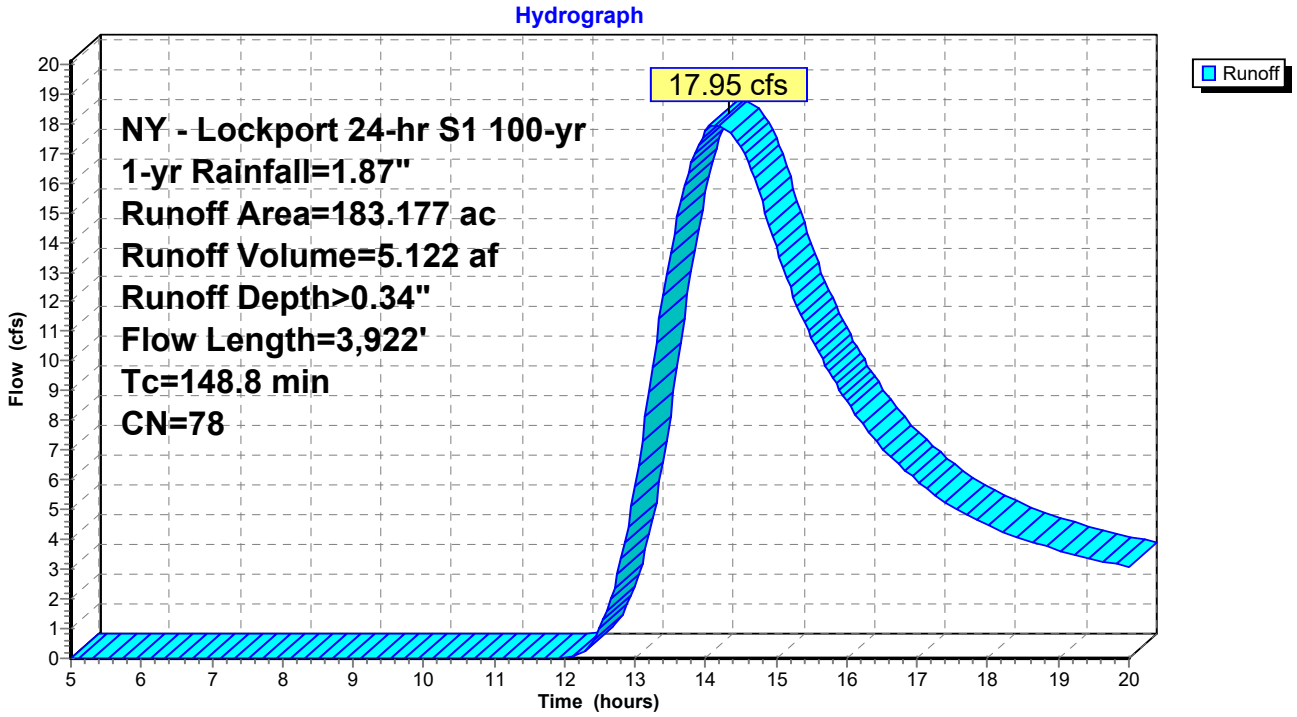
Runoff = 17.95 cfs @ 14.12 hrs, Volume= 5.122 af, Depth> 0.34"
Routed to Link 1L : EXISTING

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

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

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

## Subcatchment DA7: EXISTING DA STR 37-40



## Summary for Subcatchment DA8: EXISTING DA STR 41

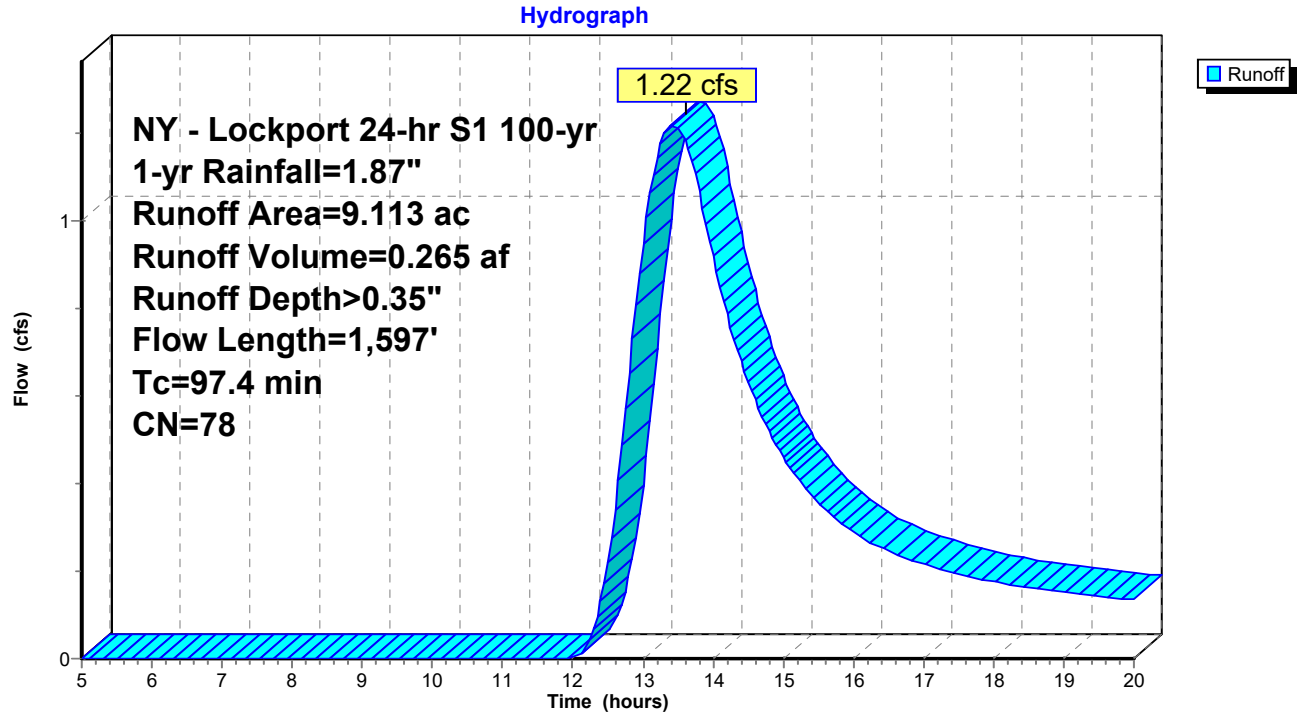
Runoff = 1.22 cfs @ 13.42 hrs, Volume= 0.265 af, Depth> 0.35"
Routed to Link 1L : EXISTING

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

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

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

## Subcatchment DA8: EXISTING DA STR 41



## Summary for Subcatchment DA9: EXISTING DA STR 48-50

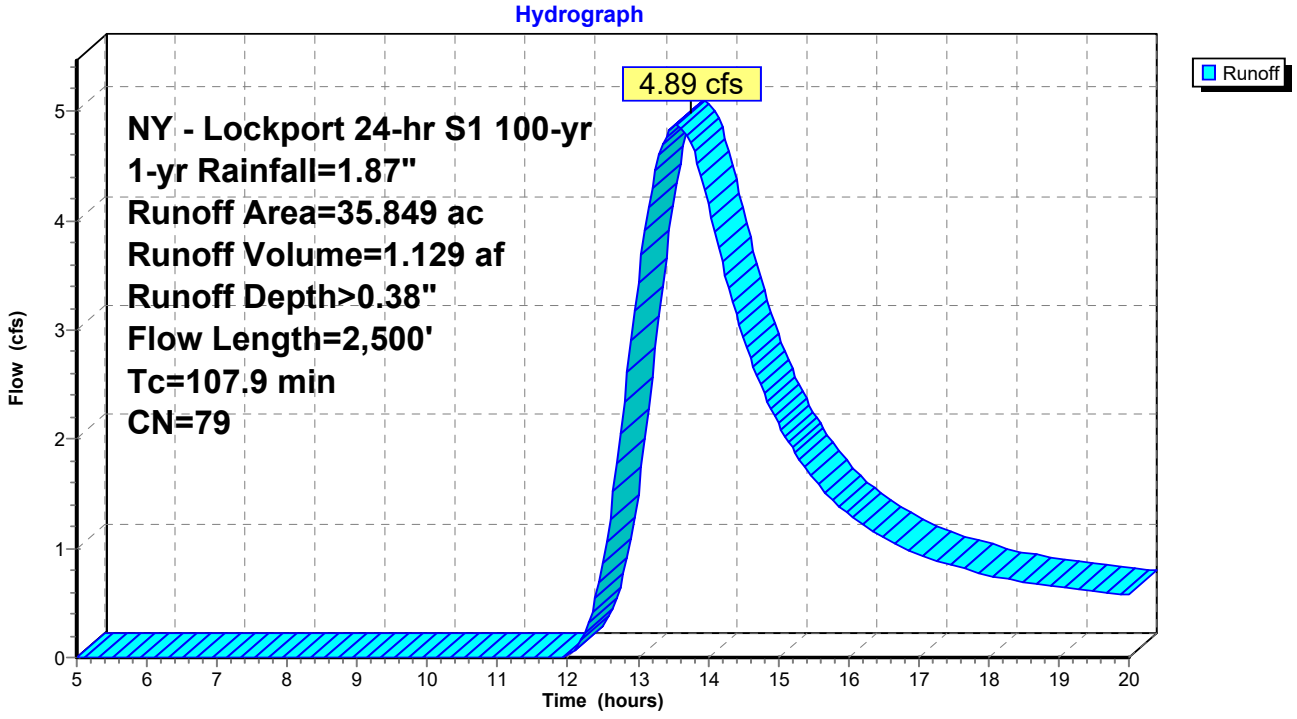
Runoff = 4.89 cfs @ 13.55 hrs, Volume= 1.129 af, Depth> 0.38"
Routed to Link 1L : EXISTING

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

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

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

## Subcatchment DA9: EXISTING DA STR 48-50



## Summary for Subcatchment PDA1: PROPOSED DA STR 9-10

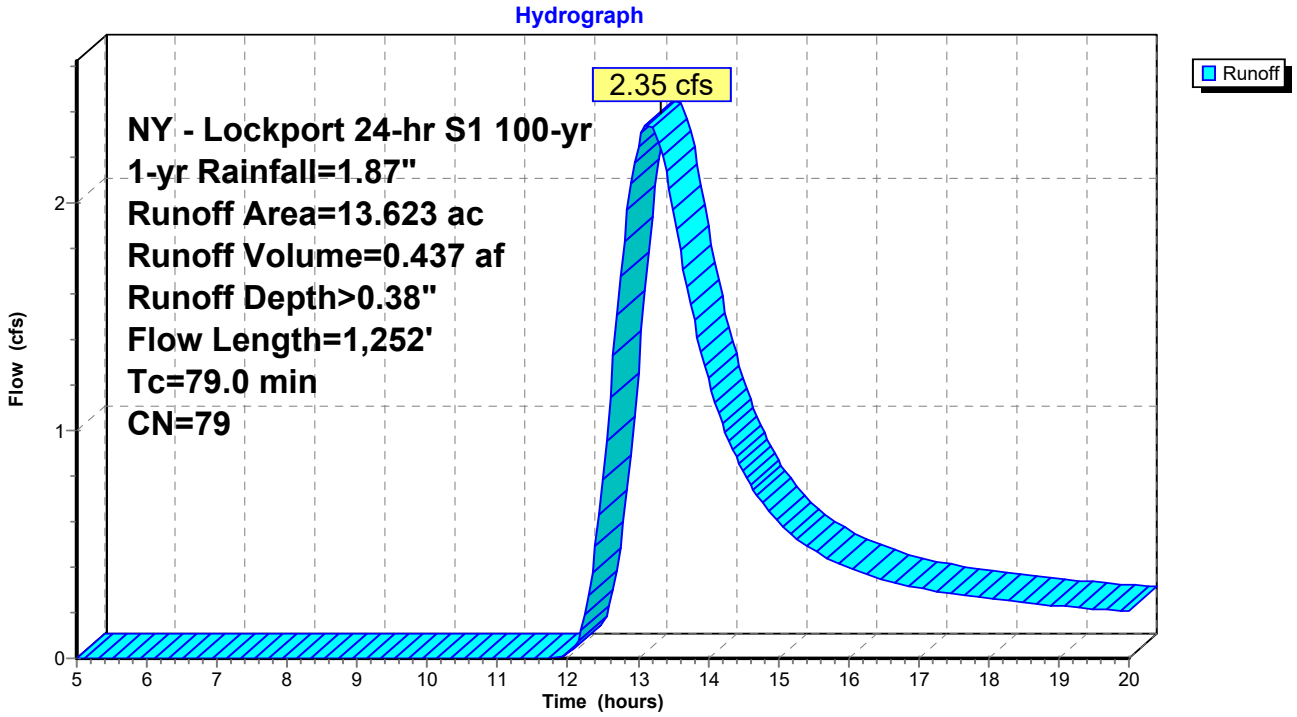
Runoff = 2.35 cfs @ 13.14 hrs, Volume= 0.437 af, Depth> 0.38"
Routed to Link 2L : PROPOSED

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

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

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

## Subcatchment PDA1: PROPOSED DA STR 9-10



## Summary for Subcatchment PDA10: EXISTING DA STR 78-83

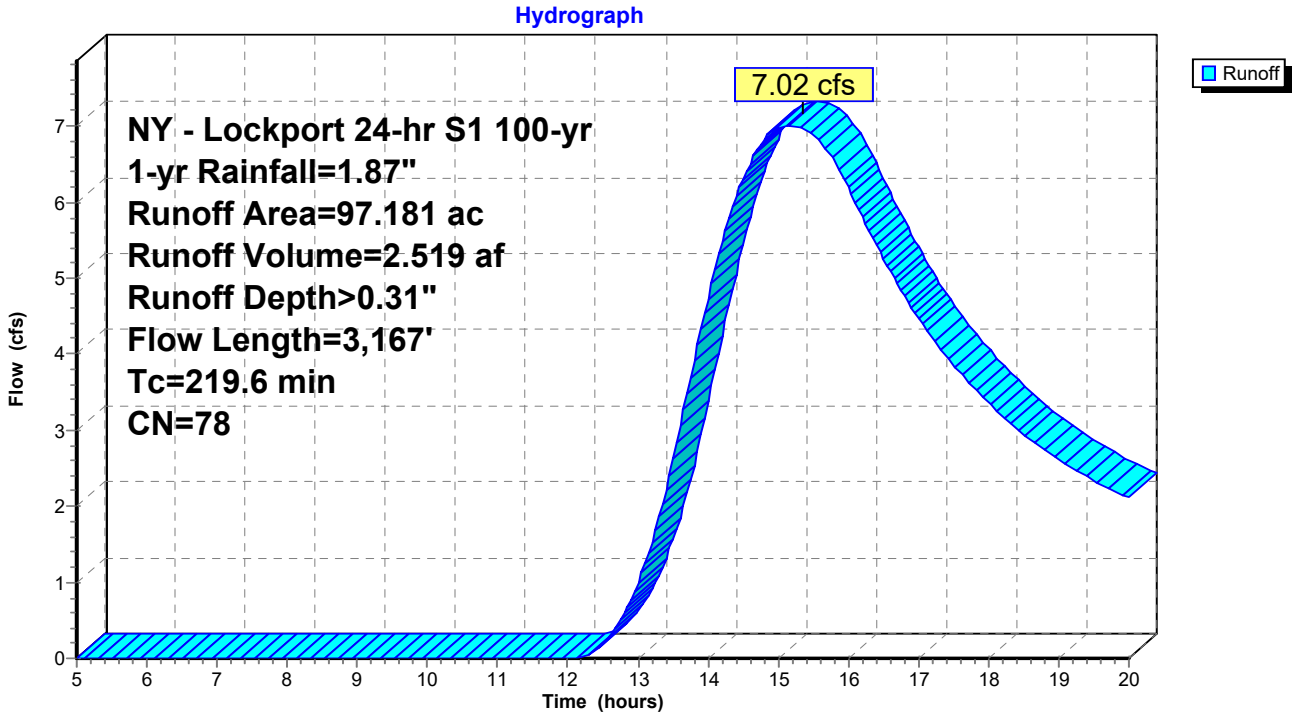
Runoff = 7.02 cfs @ 15.15 hrs, Volume= 2.519 af, Depth> 0.31"
Routed to Link 2L : PROPOSED

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

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

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

## Subcatchment PDA10: EXISTING DA STR 78-83



## Summary for Subcatchment PDA11: PROPOSED DA STR 84-86

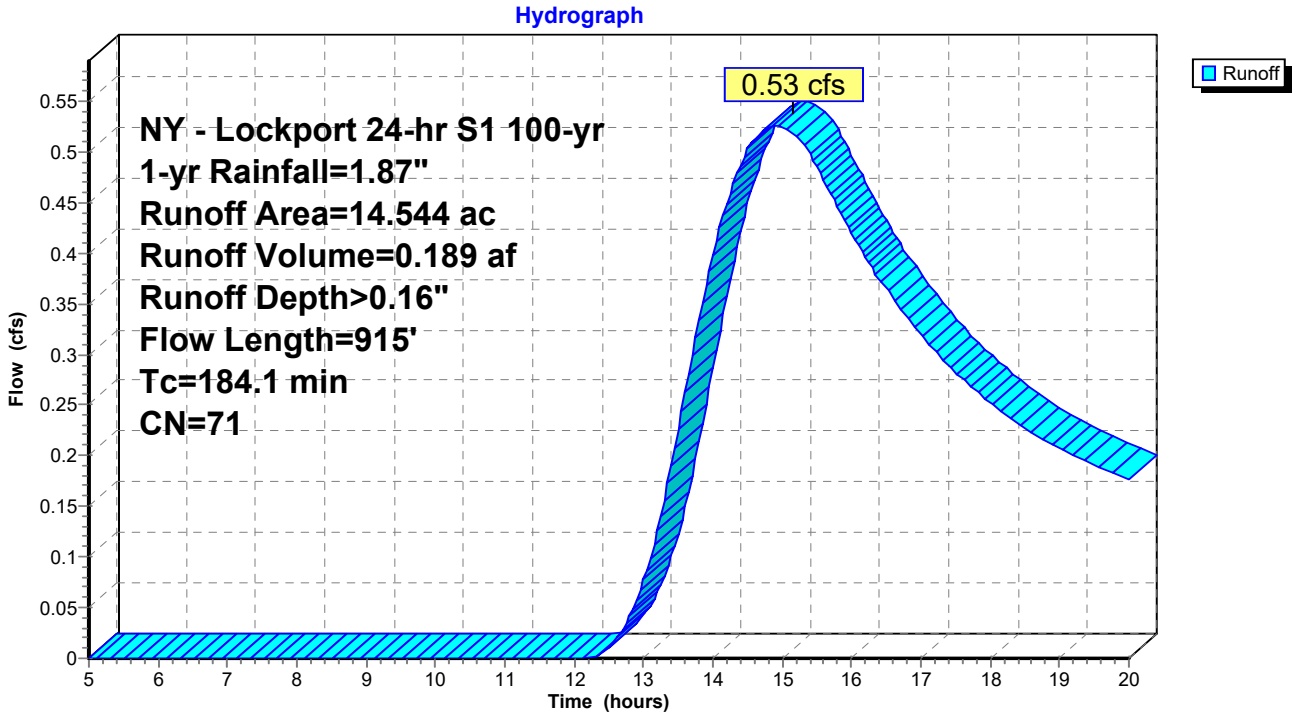
Runoff = 0.53 cfs @ 14.94 hrs, Volume= 0.189 af, Depth> 0.16"
Routed to Link 2L : PROPOSED

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

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

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

## Subcatchment PDA11: PROPOSED DA STR 84-86



## Summary for Subcatchment PDA12: PROPOSED DA STR 90-96

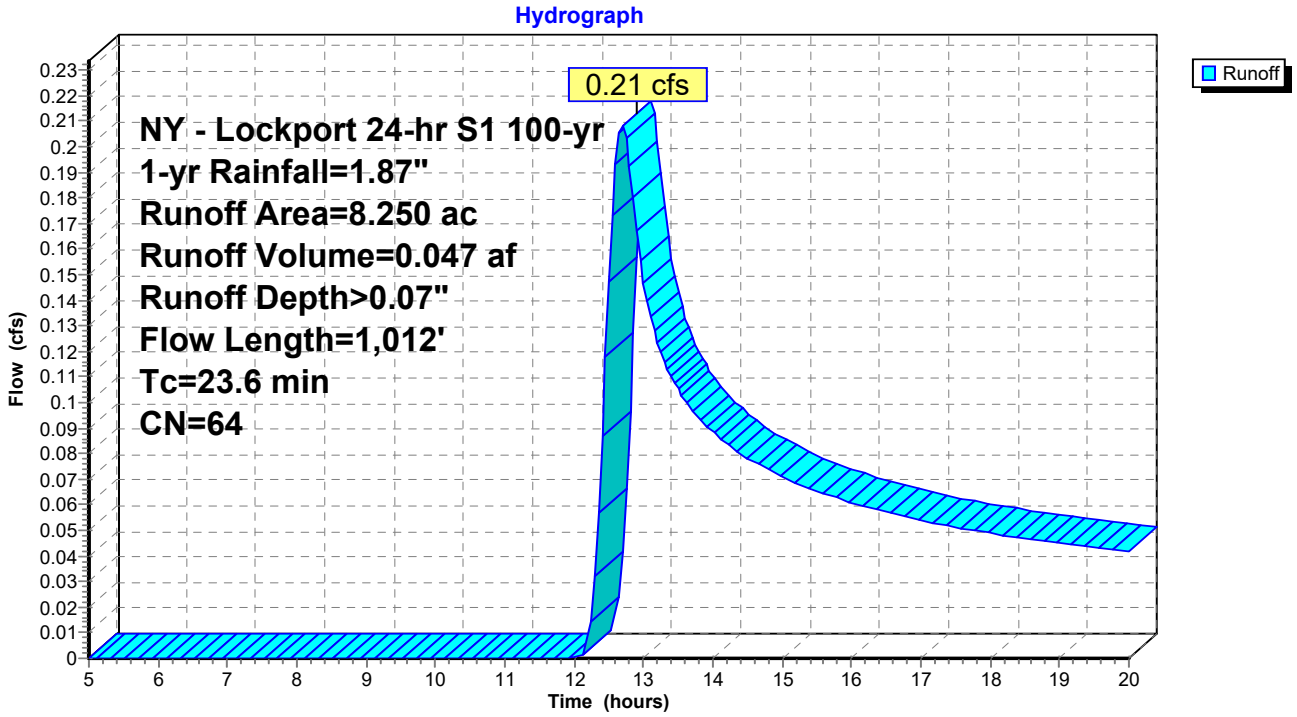
Runoff = 0.21 cfs @ 12.69 hrs, Volume= 0.047 af, Depth> 0.07"
Routed to Link 2L : PROPOSED

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

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

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

## Subcatchment PDA12: PROPOSED DA STR 90-96



## Summary for Subcatchment PDA13: PROPOSED DA STR 97-103

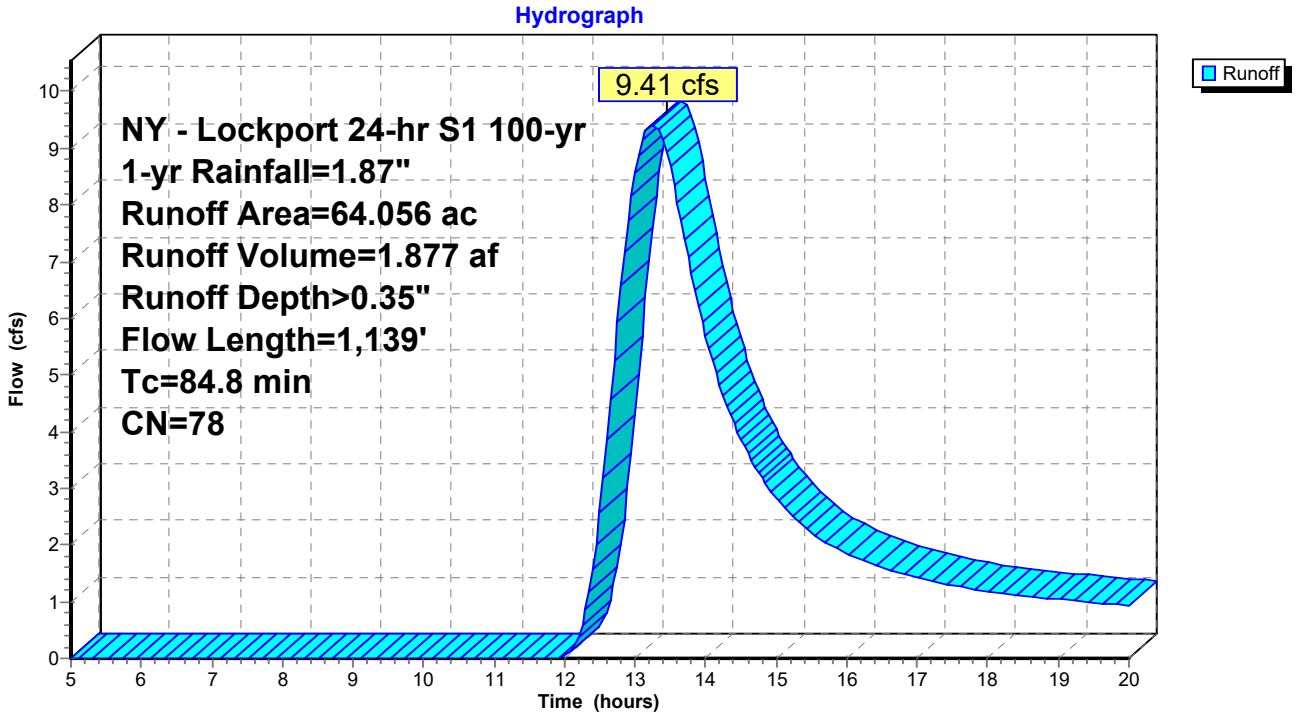
Runoff = 9.41 cfs @ 13.26 hrs, Volume= 1.877 af, Depth> 0.35"
Routed to Link 2L : PROPOSED

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

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

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

## Subcatchment PDA13: PROPOSED DA STR 97-103



## Summary for Subcatchment PDA14: PROPOSED DA STR 104-106

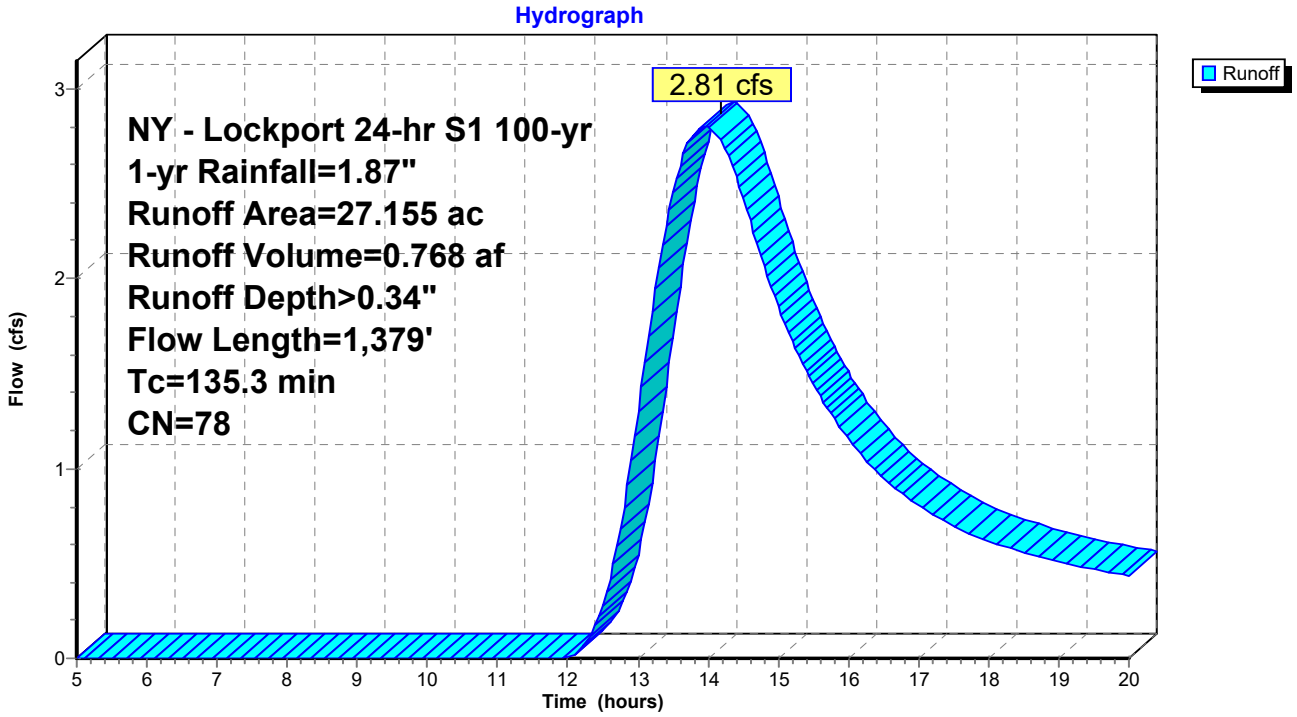
Runoff = 2.81 cfs @ 13.98 hrs, Volume= 0.768 af, Depth> 0.34"
Routed to Link 2L : PROPOSED

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

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

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

## Subcatchment PDA14: PROPOSED DA STR 104-106



## Summary for Subcatchment PDA15: PROPOSED DA STR 106-109

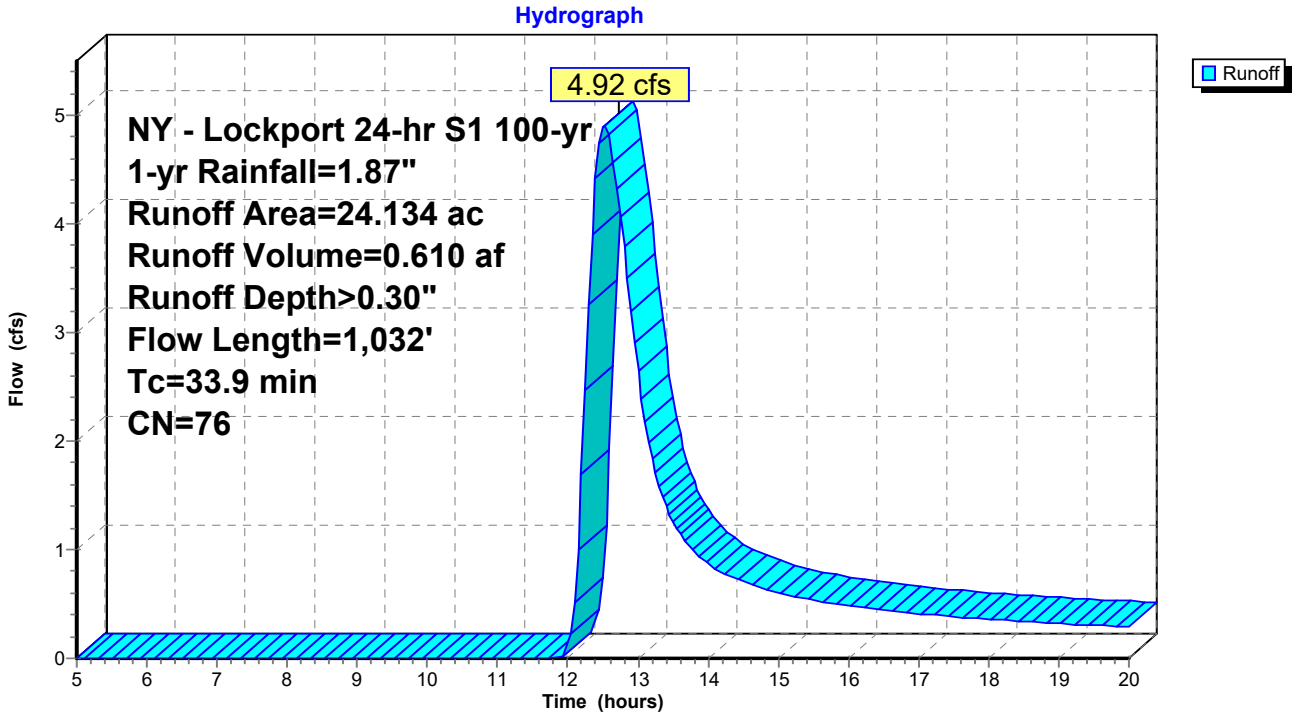
Runoff = 4.92 cfs @ 12.53 hrs, Volume= 0.610 af, Depth> 0.30"
Routed to Link 2L : PROPOSED

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

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

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

## Subcatchment PDA15: PROPOSED DA STR 106-109



## Summary for Subcatchment PDA16: PROPOSED DA STR 110-117

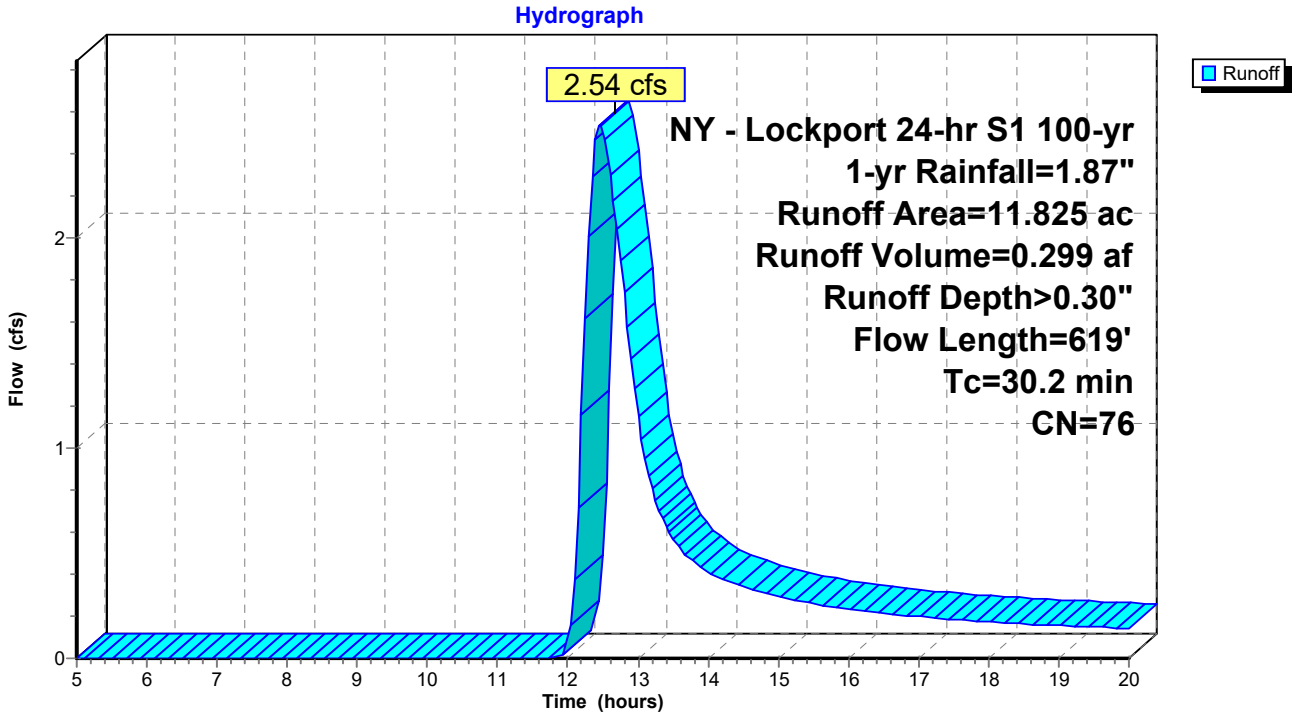
Runoff = 2.54 cfs @ 12.46 hrs, Volume= 0.299 af, Depth> 0.30"
Routed to Link 2L : PROPOSED

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

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

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

## Subcatchment PDA16: PROPOSED DA STR 110-117



## Summary for Subcatchment PDA17: PROPOSED DA STR 113-116

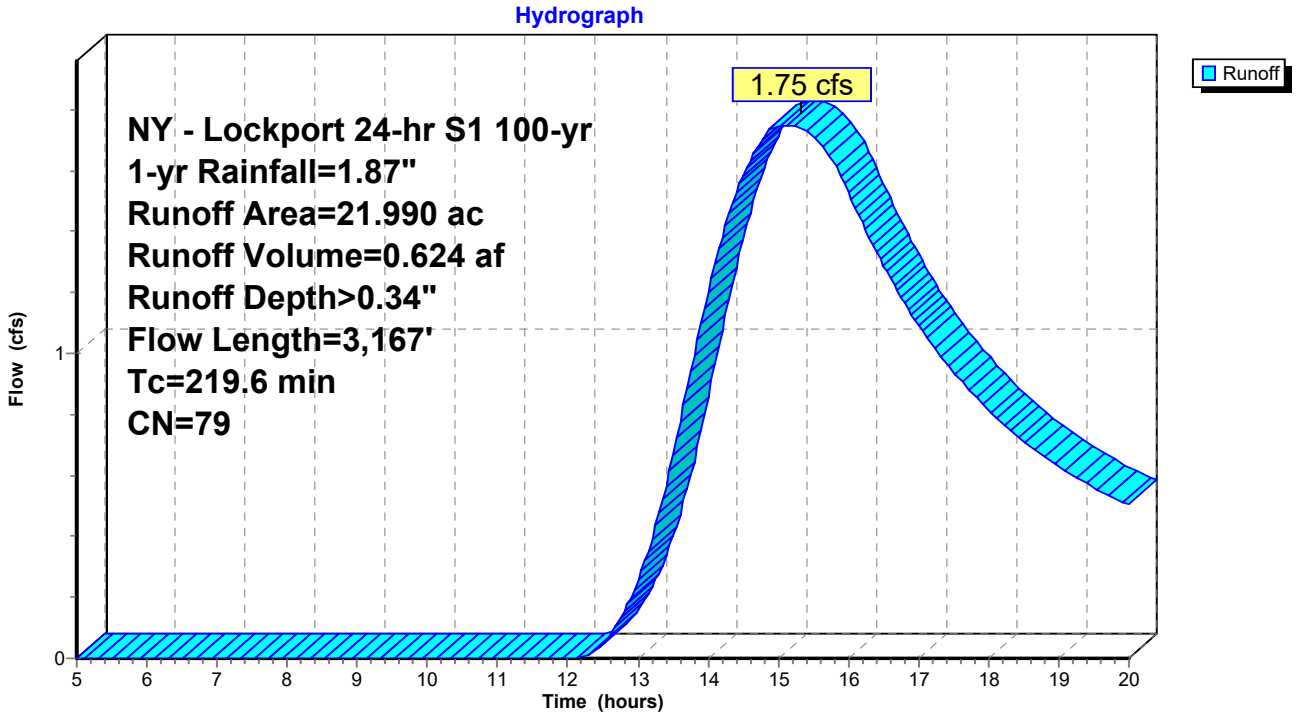
Runoff = 1.75 cfs @ 15.13 hrs, Volume= 0.624 af, Depth> 0.34"
Routed to Link 2L : PROPOSED

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

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

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

## Subcatchment PDA17: PROPOSED DA STR 113-116



## Summary for Subcatchment PDA18: PROPOSED DA STR 36

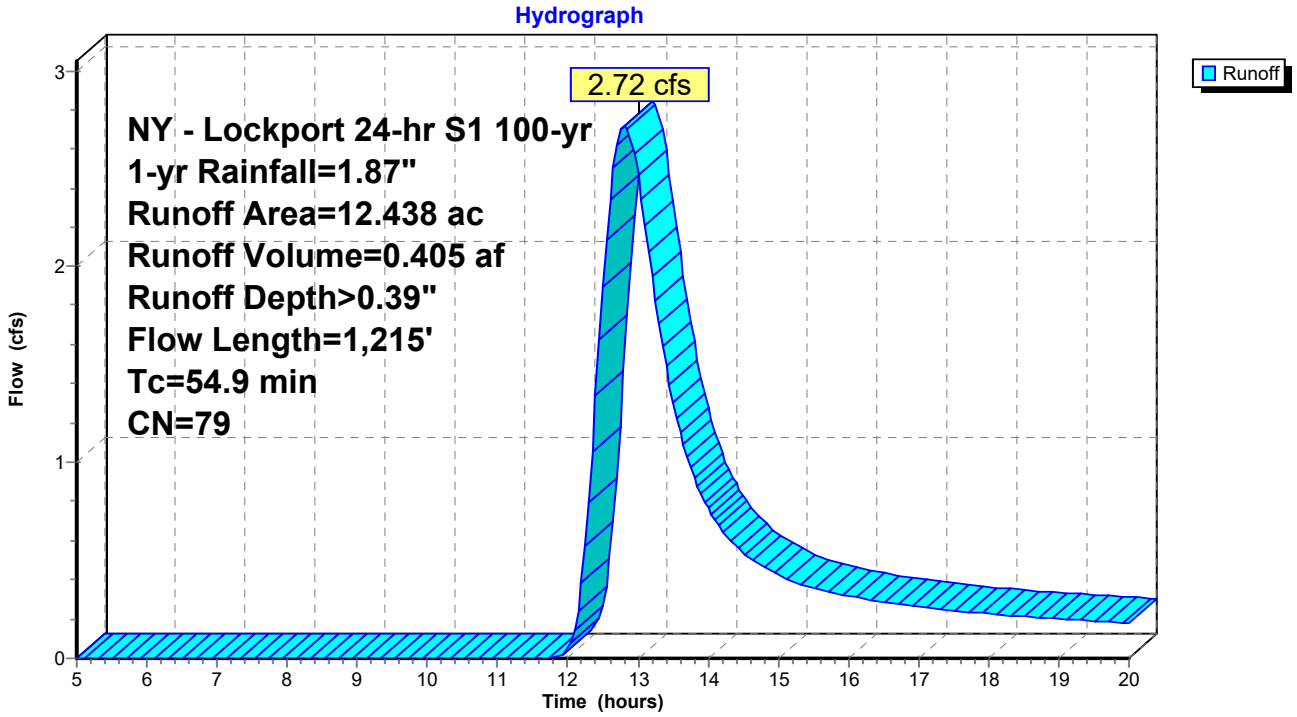
Runoff = 2.72 cfs @ 12.81 hrs, Volume= 0.405 af, Depth> 0.39"
Routed to Link 2L : PROPOSED

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

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

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

## Subcatchment PDA18: PROPOSED DA STR 36



## Summary for Subcatchment PDA19: PROPOSED DA STR 42-47

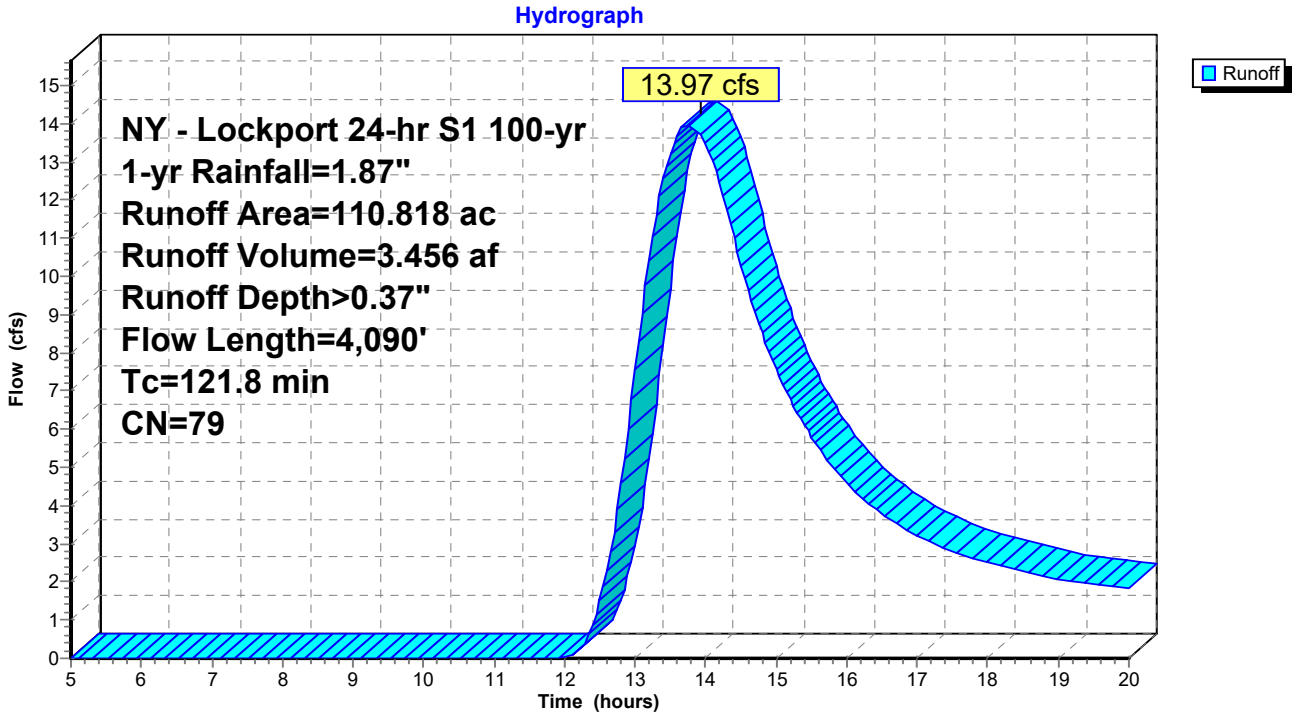
Runoff = 13.97 cfs @ 13.72 hrs, Volume= 3.456 af, Depth> 0.37"
Routed to Link 2L : PROPOSED

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

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

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

## Subcatchment PDA19: PROPOSED DA STR 42-47



## Summary for Subcatchment PDA2: PROPOSED DA STR 11-12

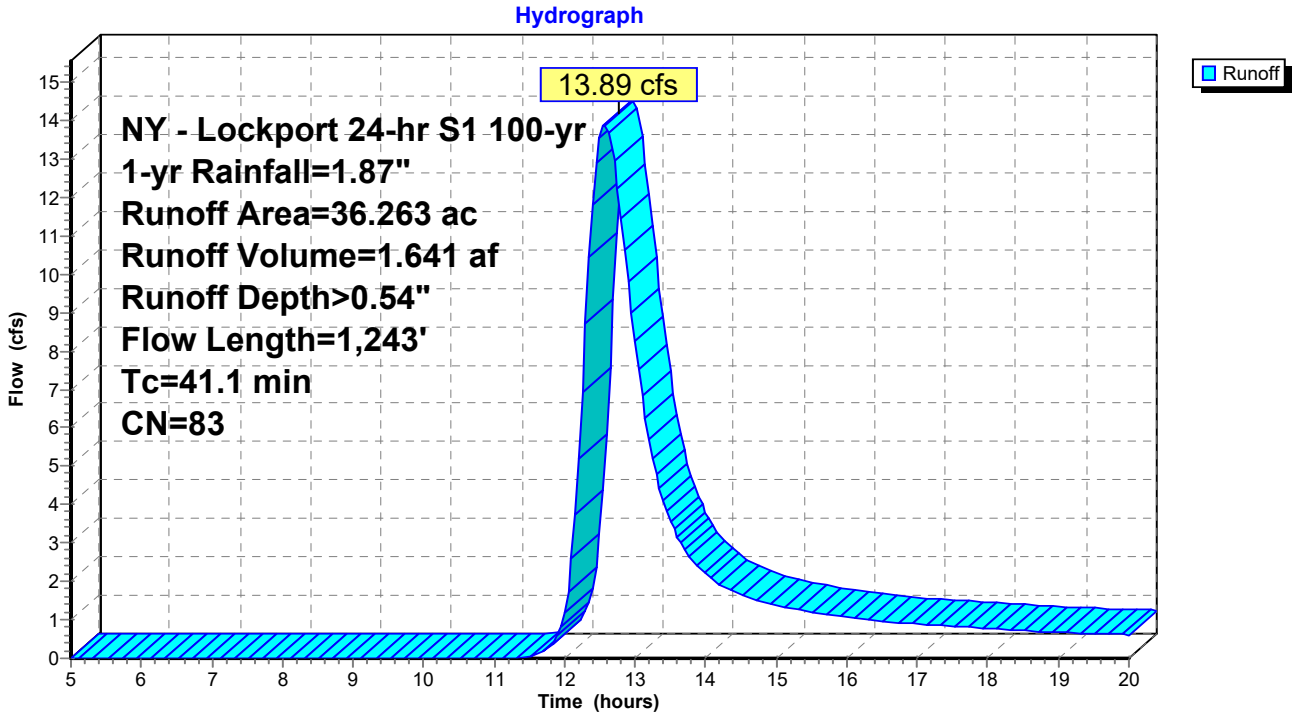
Runoff = 13.89 cfs @ 12.57 hrs, Volume= 1.641 af, Depth> 0.54"
Routed to Link 2L : PROPOSED

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

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

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

## Subcatchment PDA2: PROPOSED DA STR 11-12



## Summary for Subcatchment PDA3: EXISTING DA STR 17-20

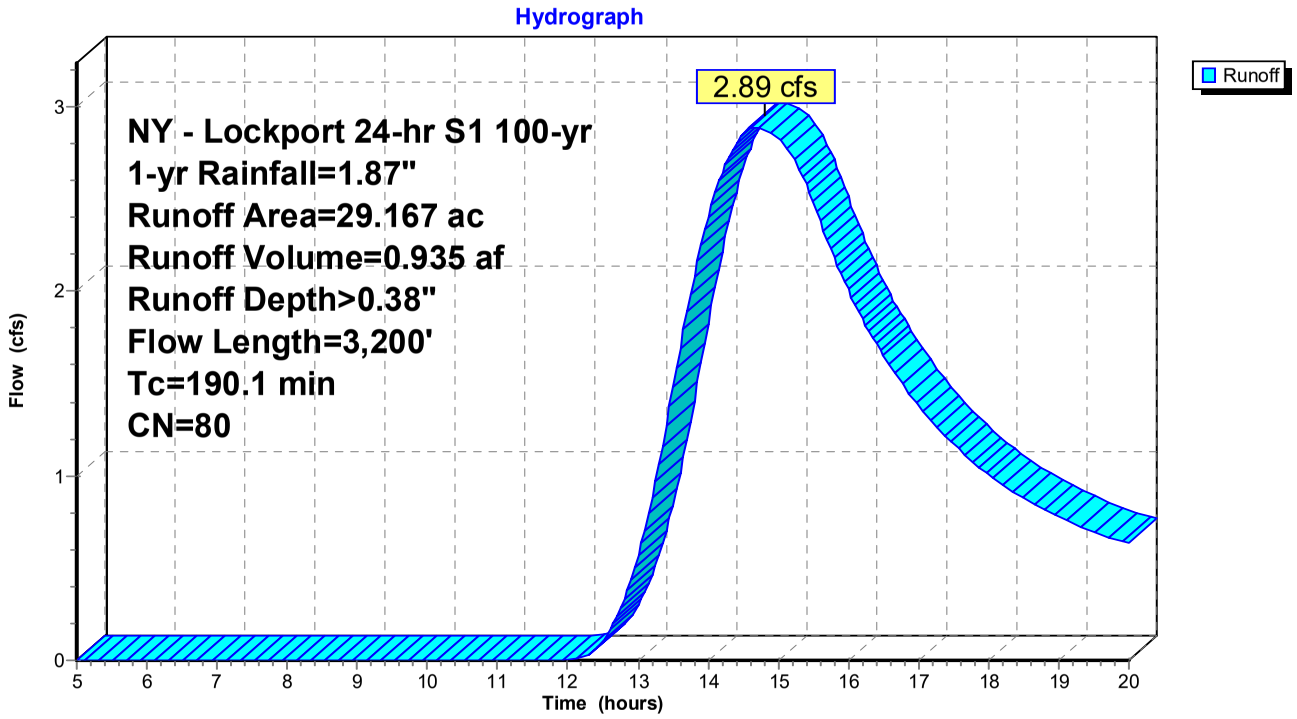
Runoff = 2.89 cfs @ 14.62 hrs, Volume= 0.935 af, Depth> 0.38"
Routed to Link 2L : PROPOSED

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

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

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

## Subcatchment PDA3: EXISTING DA STR 17-20



## Summary for Subcatchment PDA4: PROPOSED DA STR 21-23

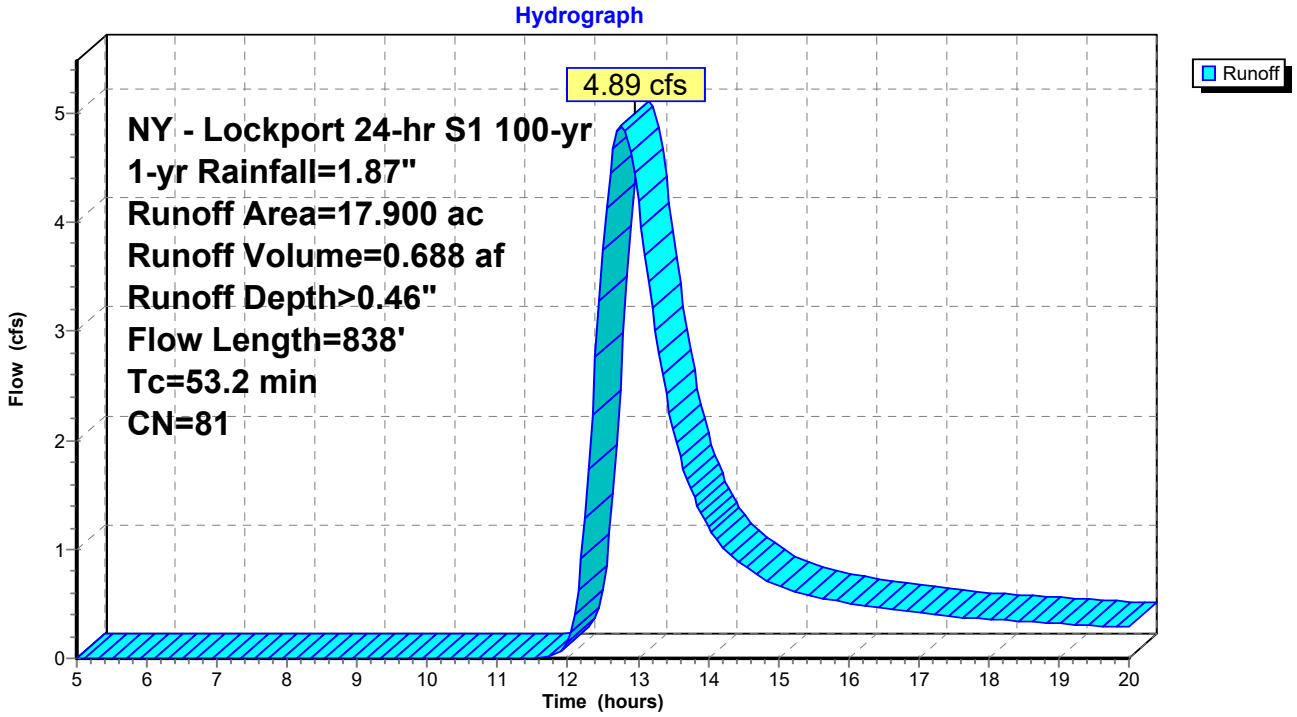
Runoff = 4.89 cfs @ 12.77 hrs, Volume= 0.688 af, Depth> 0.46"
Routed to Link 2L : PROPOSED

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

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

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

## Subcatchment PDA4: PROPOSED DA STR 21-23



## Summary for Subcatchment PDA5: PROPOSED DA STR 25-29

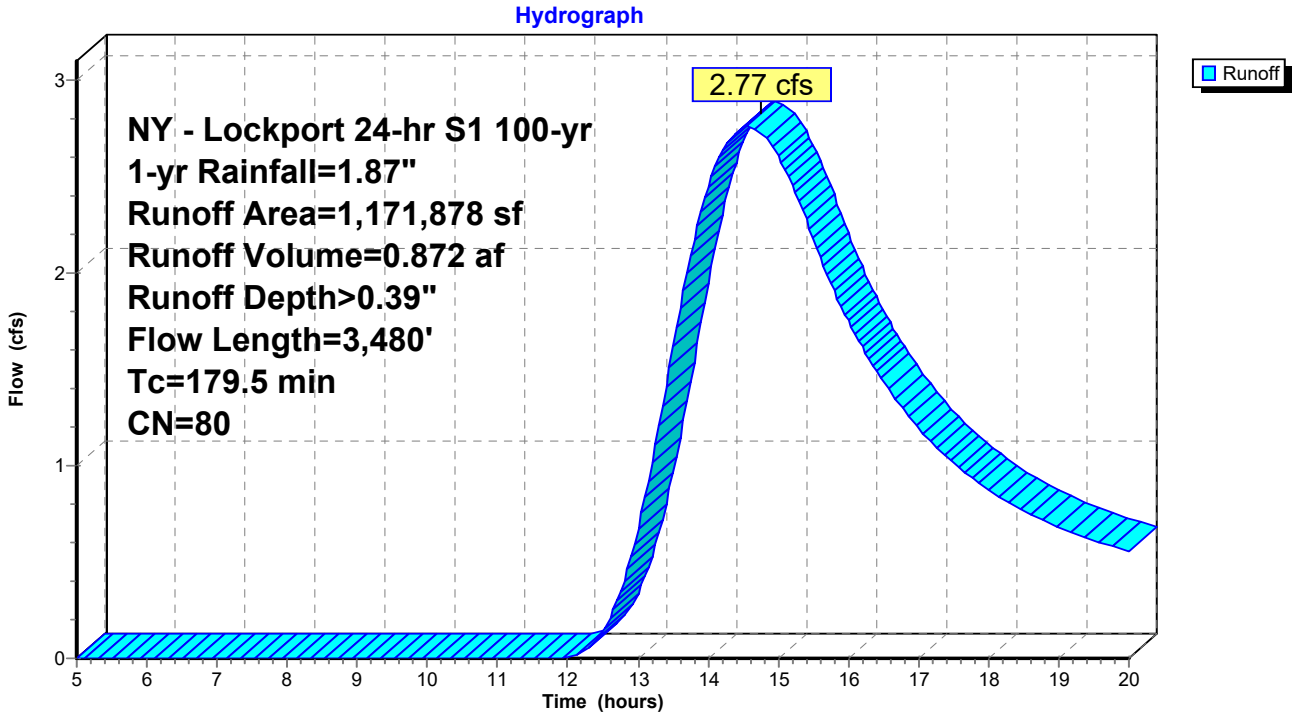
Runoff = 2.77 cfs @ 14.56 hrs, Volume= 0.872 af, Depth> 0.39"
Routed to Link 2L : PROPOSED

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

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

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

## Subcatchment PDA5: PROPOSED DA STR 25-29



## Summary for Subcatchment PDA6: PROPOSED DA STR 29-35

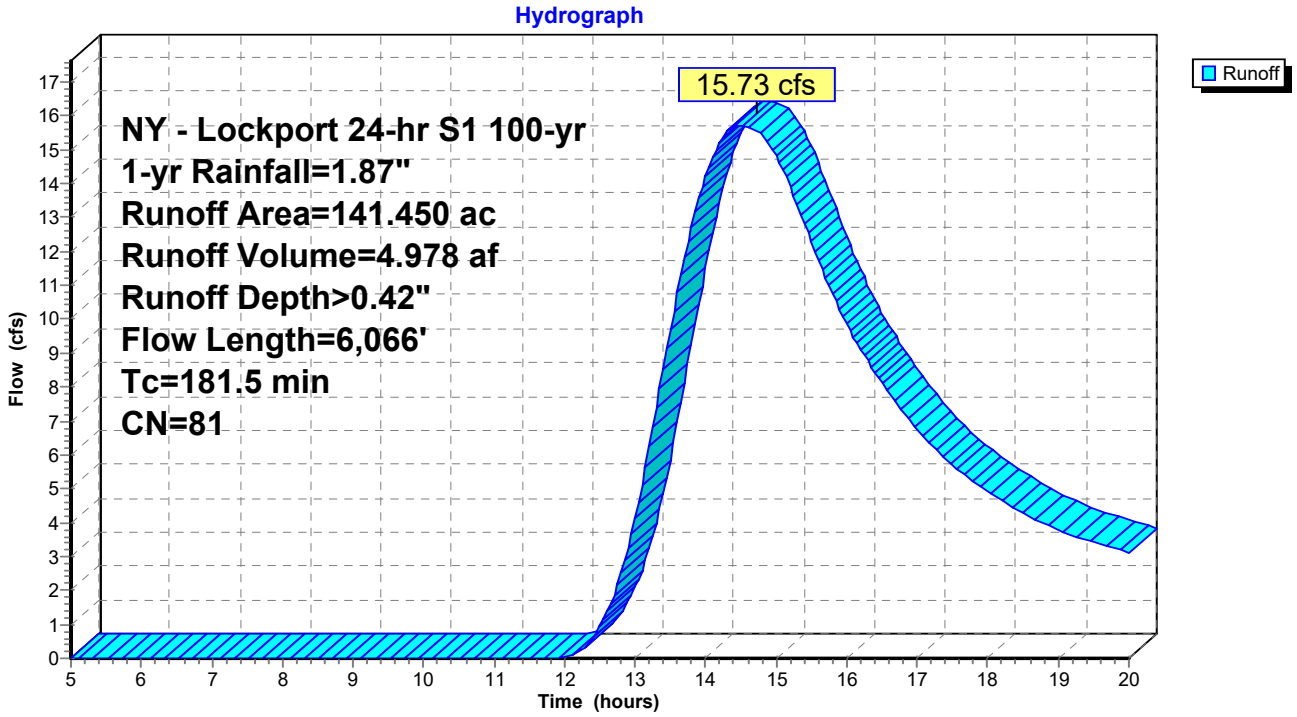
Runoff = 15.73 cfs @ 14.52 hrs, Volume= 4.978 af, Depth> 0.42"
Routed to Link 2L : PROPOSED

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

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

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

## Subcatchment PDA6: PROPOSED DA STR 29-35



## Summary for Subcatchment PDA7: PROPOSED DA STR 37-40

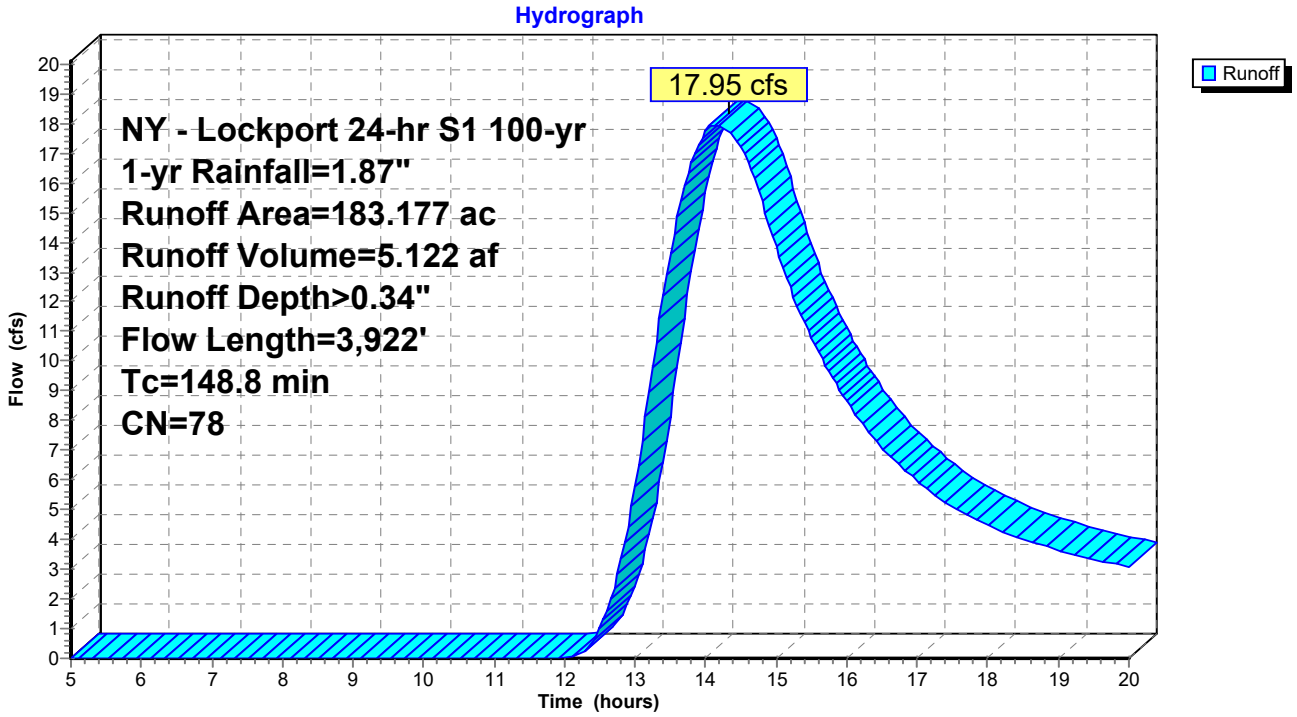
Runoff = 17.95 cfs @ 14.12 hrs, Volume= 5.122 af, Depth> 0.34"
Routed to Link 2L : PROPOSED

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

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

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

## Subcatchment PDA7: PROPOSED DA STR 37-40



## Summary for Subcatchment PDA8: PROPOSED DA STR 41

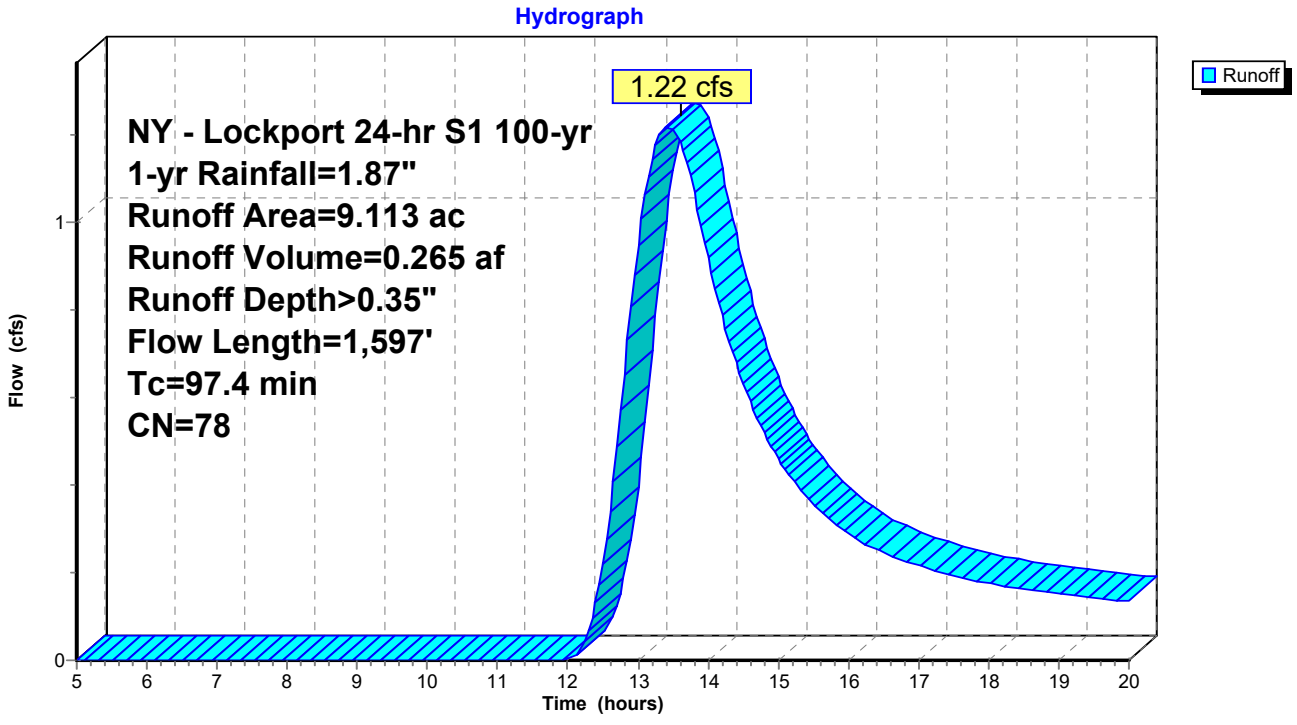
Runoff = 1.22 cfs @ 13.42 hrs, Volume= 0.265 af, Depth> 0.35"
Routed to Link 2L : PROPOSED

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

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

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

## Subcatchment PDA8: PROPOSED DA STR 41



## Summary for Subcatchment PDA9: PROPOSED DA STR 48-50

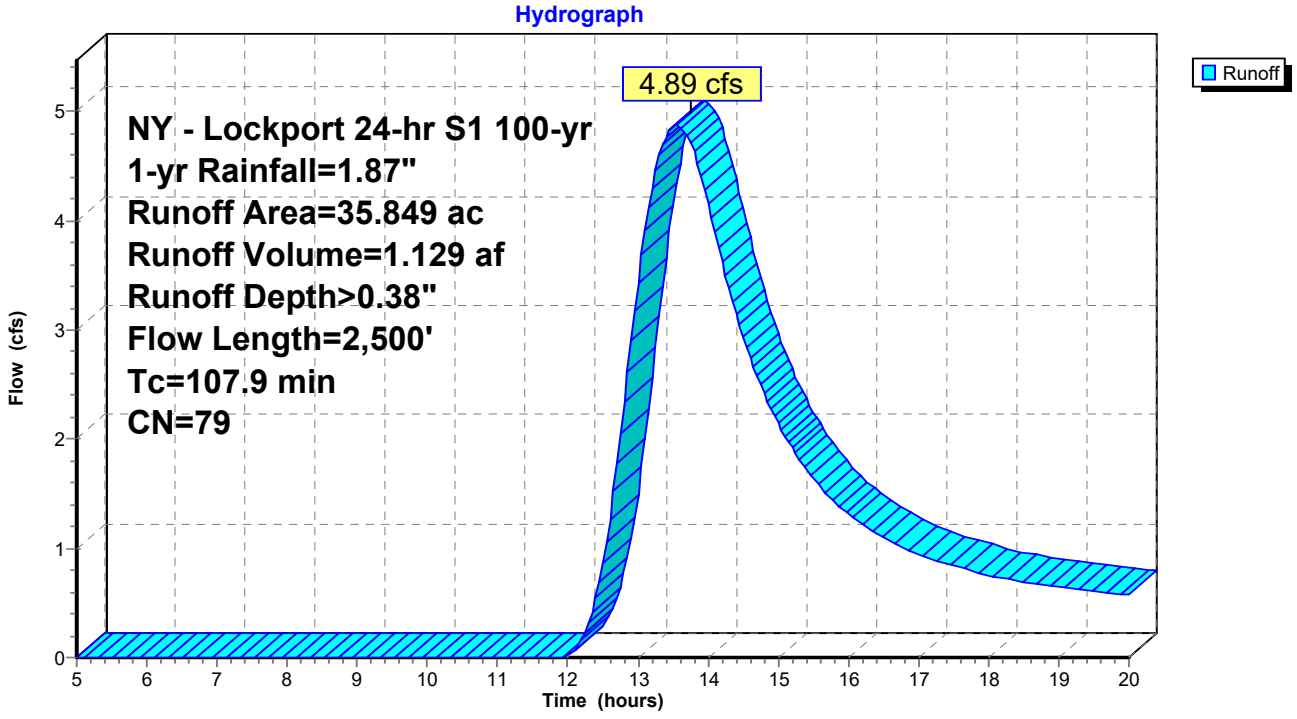
Runoff = 4.89 cfs @ 13.55 hrs, Volume= 1.129 af, Depth> 0.38"
Routed to Link 2L : PROPOSED

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

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

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

## Subcatchment PDA9: PROPOSED DA STR 48-50

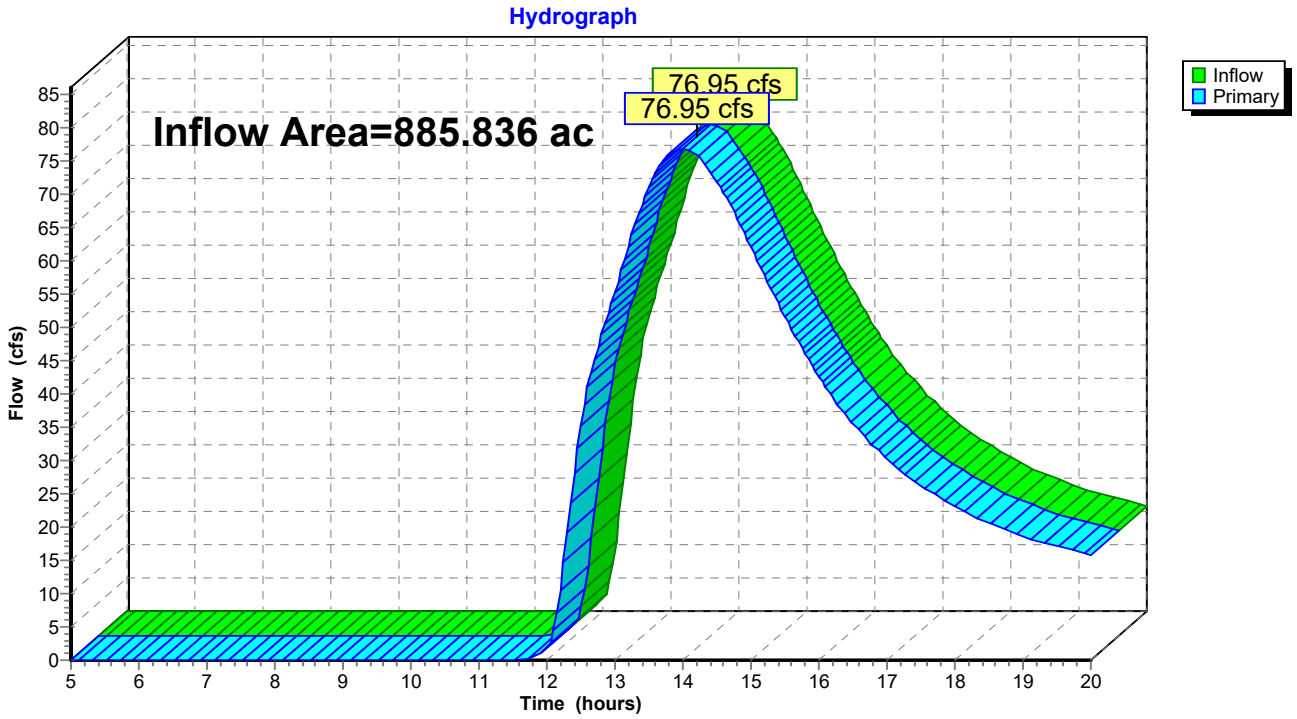


## Summary for Link 1L: EXISTING

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

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

## Link 1L: EXISTING

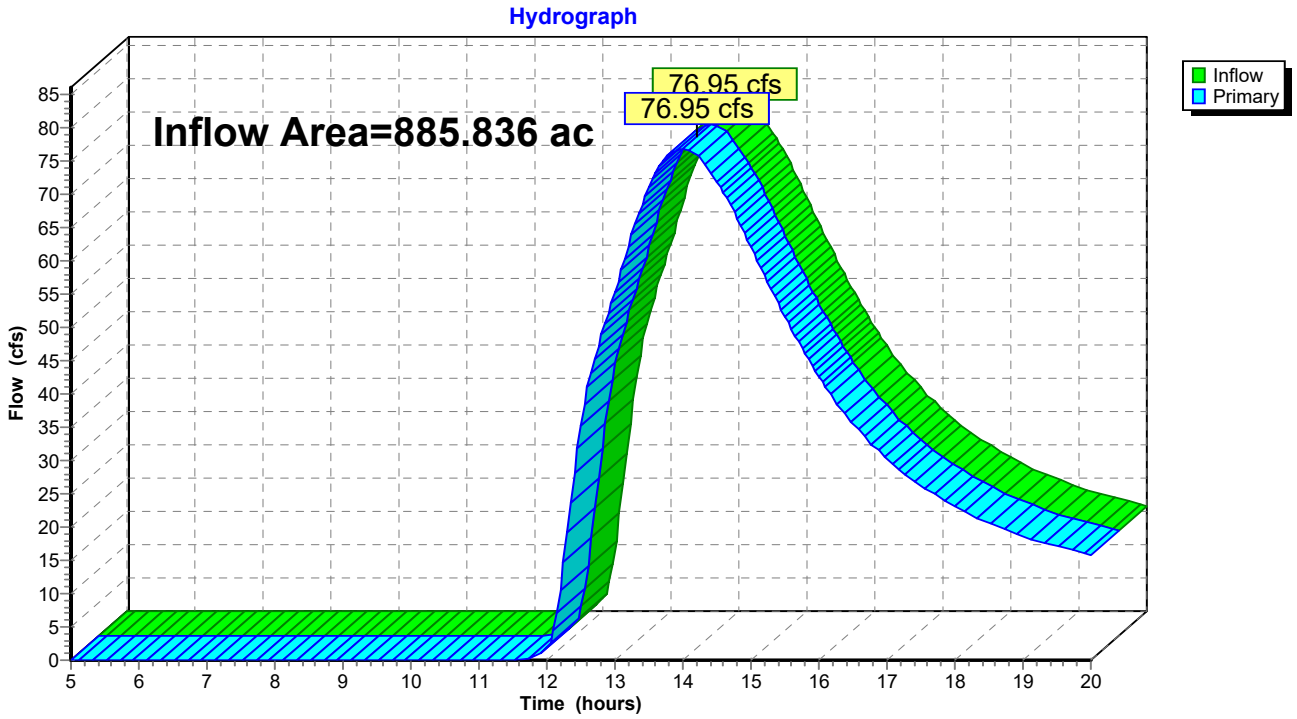


## Summary for Link 2L: PROPOSED

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

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

## Link 2L: PROPOSED



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**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: EXISTING** Inflow=266.50 cfs 87.306 af
Primary=266.50 cfs 87.306 af

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

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

## Summary for Subcatchment DA1: EXISTING DA STR 9-10

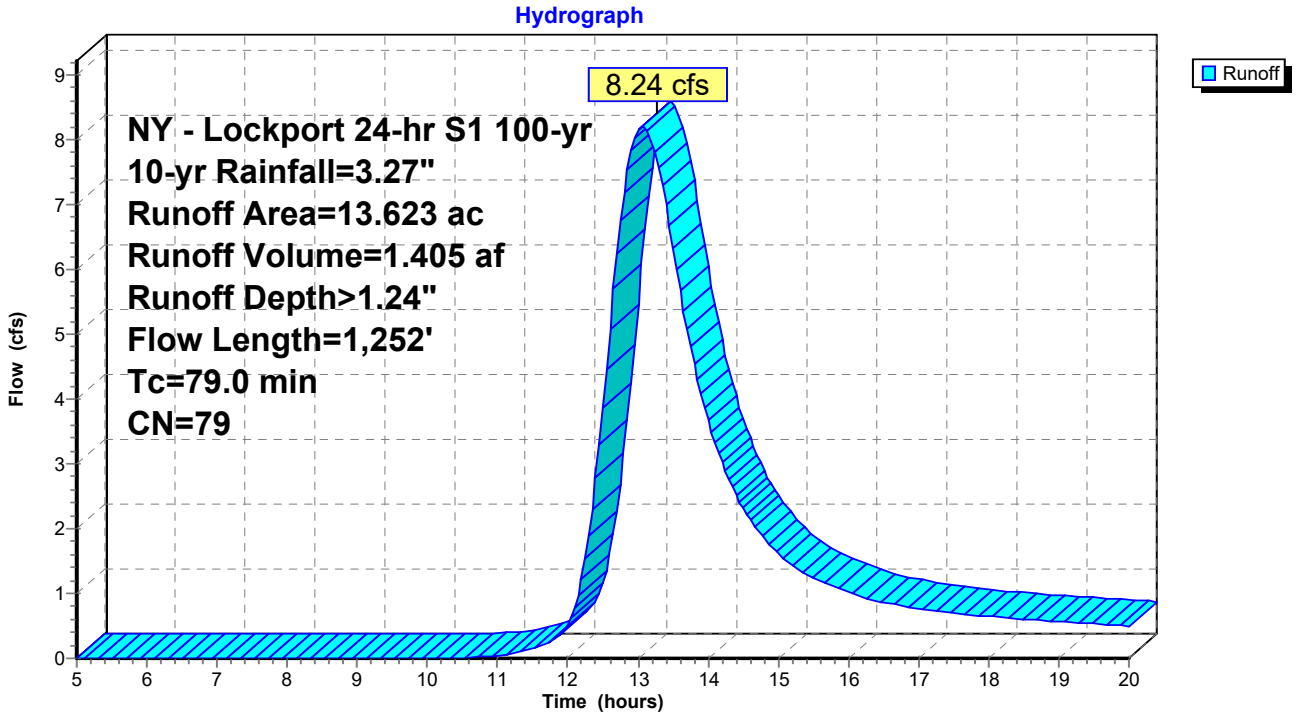
Runoff = 8.24 cfs @ 13.07 hrs, Volume= 1.405 af, Depth> 1.24"
Routed to Link 1L : EXISTING

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

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

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

## Subcatchment DA1: EXISTING DA STR 9-10



## Summary for Subcatchment DA10: EXISTING DA STR 78-83

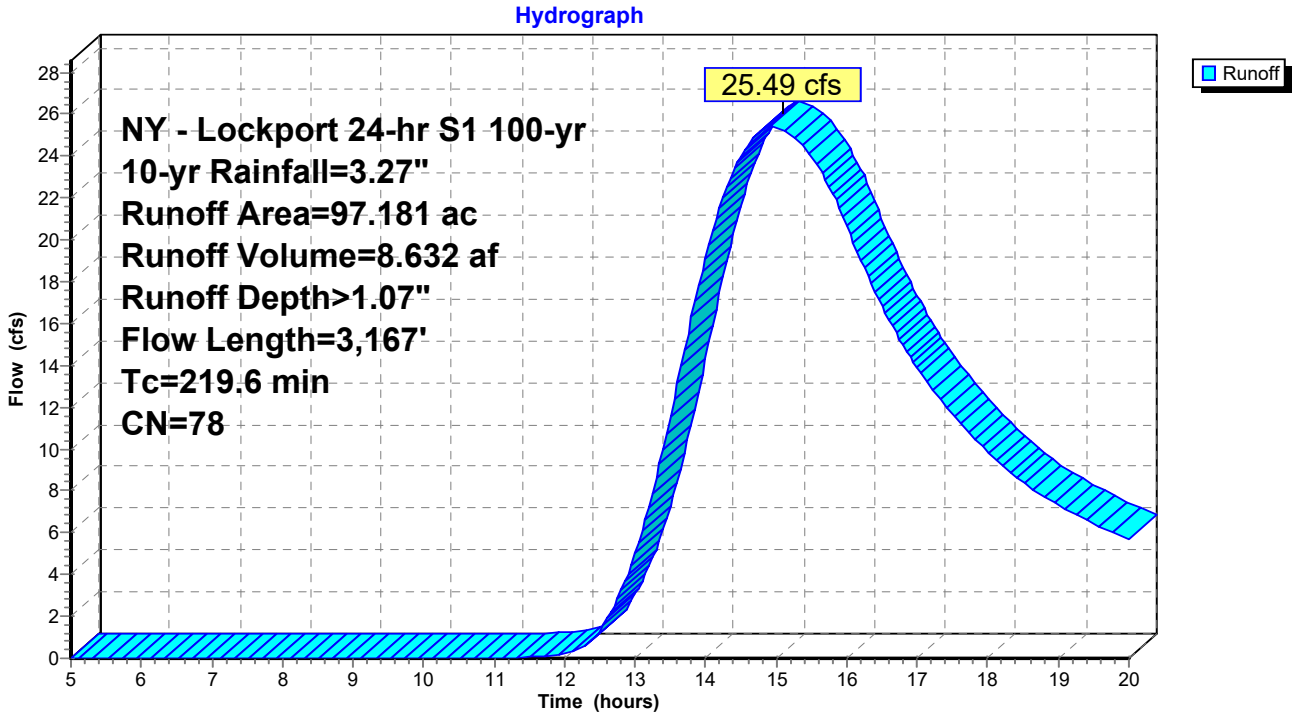
Runoff = 25.49 cfs @ 14.91 hrs, Volume= 8.632 af, Depth> 1.07"
Routed to Link 1L : EXISTING

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

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

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

## Subcatchment DA10: EXISTING DA STR 78-83



## Summary for Subcatchment DA11: EXISTING DA STR 84-86

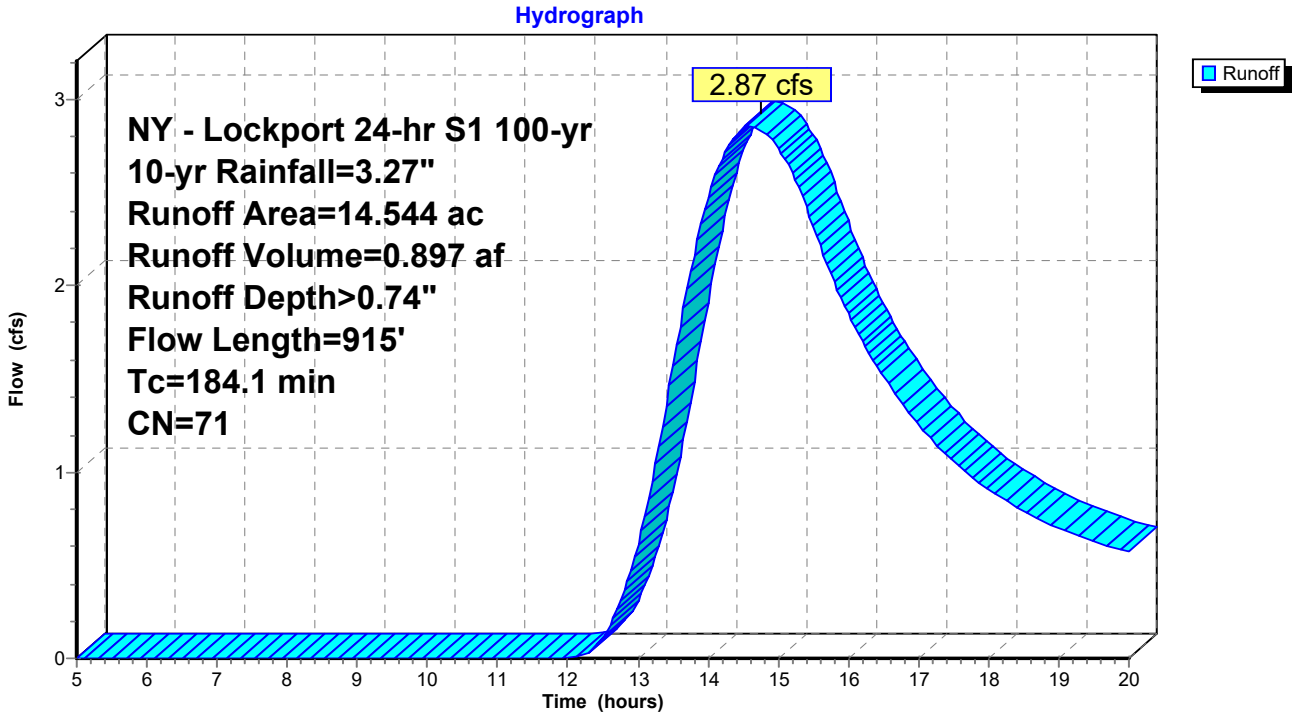
Runoff = 2.87 cfs @ 14.55 hrs, Volume= 0.897 af, Depth> 0.74"
Routed to Link 1L : EXISTING

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

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

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

## Subcatchment DA11: EXISTING DA STR 84-86



## Summary for Subcatchment DA12: EXISTING DA STR 90-96

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

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

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

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