

Sudbury-Hudson Transmission Reliability Project and Mass Central Rail Trail Project

Sudbury, Massachusetts

PREPARED FOR

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ENERGY

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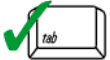
Checklist for Stormwater Report



Checklist for Stormwater Report

A. Introduction

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A Stormwater Report must be submitted with the Notice of Intent permit application to document compliance with the Stormwater Management Standards. The following checklist is NOT a substitute for the Stormwater Report (which should provide more substantive and detailed information) but is offered here as a tool to help the applicant organize their Stormwater Management documentation for their Report and for the reviewer to assess this information in a consistent format. As noted in the Checklist, the Stormwater Report must contain the engineering computations and supporting information set forth in Volume 3 of the [Massachusetts Stormwater Handbook](#). The Stormwater Report must be prepared and certified by a Registered Professional Engineer (RPE) licensed in the Commonwealth.

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals.¹ This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8²
- Operation and Maintenance Plan required by Standard 9

In addition to all plans and supporting information, the Stormwater Report must include a brief narrative describing stormwater management practices, including environmentally sensitive site design and LID techniques, along with a diagram depicting runoff through the proposed BMP treatment train. Plans are required to show existing and proposed conditions, identify all wetland resource areas, NRCS soil types, critical areas, Land Uses with Higher Potential Pollutant Loads (LUHPPL), and any areas on the site where infiltration rate is greater than 2.4 inches per hour. The Plans shall identify the drainage areas for both existing and proposed conditions at a scale that enables verification of supporting calculations.

As noted in the Checklist, the Stormwater Management Report shall document compliance with each of the Stormwater Management Standards as provided in the Massachusetts Stormwater Handbook. The soils evaluation and calculations shall be done using the methodologies set forth in Volume 3 of the Massachusetts Stormwater Handbook.

To ensure that the Stormwater Report is complete, applicants are required to fill in the Stormwater Report Checklist by checking the box to indicate that the specified information has been included in the Stormwater Report. If any of the information specified in the checklist has not been submitted, the applicant must provide an explanation. The completed Stormwater Report Checklist and Certification must be submitted with the Stormwater Report.

¹ The Stormwater Report may also include the Illicit Discharge Compliance Statement required by Standard 10. If not included in the Stormwater Report, the Illicit Discharge Compliance Statement must be submitted prior to the discharge of stormwater runoff to the post-construction best management practices.

² For some complex projects, it may not be possible to include the Construction Period Erosion and Sedimentation Control Plan in the Stormwater Report. In that event, the issuing authority has the discretion to issue an Order of Conditions that approves the project and includes a condition requiring the proponent to submit the Construction Period Erosion and Sedimentation Control Plan before commencing any land disturbance activity on the site.



Checklist for Stormwater Report

B. Stormwater Checklist and Certification

The following checklist is intended to serve as a guide for applicants as to the elements that ordinarily need to be addressed in a complete Stormwater Report. The checklist is also intended to provide conservation commissions and other reviewing authorities with a summary of the components necessary for a comprehensive Stormwater Report that addresses the ten Stormwater Standards.

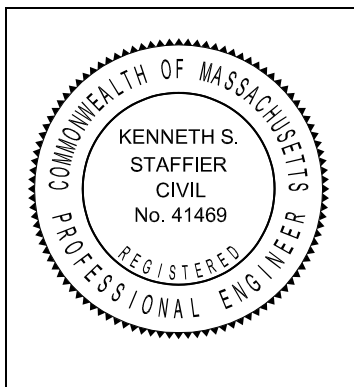
Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the item is not applicable (N.A.) and provide the reasons for that determination.

A complete checklist must include the Certification set forth below signed by the Registered Professional Engineer who prepared the Stormwater Report.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included), the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement (if included) and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature



3/4/2020

Signature and Date

Checklist

Project Type: Is the application for new development, redevelopment, or a mix of new and redevelopment?

- ☒ New development
- ☐ Redevelopment
- ☐ Mix of New Development and Redevelopment



Checklist for Stormwater Report

Checklist (continued)

LID Measures: Stormwater Standards require LID measures to be considered. Document what environmentally sensitive design and LID Techniques were considered during the planning and design of the project:

- ☐ No disturbance to any Wetland Resource Areas
- ☐ Site Design Practices (e.g. clustered development, reduced frontage setbacks)
- ☐ Reduced Impervious Area (Redevelopment Only)
- ☒ Minimizing disturbance to existing trees and shrubs
- ☐ LID Site Design Credit Requested:
 - ☐ Credit 1
 - ☐ Credit 2
 - ☐ Credit 3
- ☒ Use of “country drainage” versus curb and gutter conveyance and pipe
- ☐ Bioretention Cells (includes Rain Gardens)
- ☐ Constructed Stormwater Wetlands (includes Gravel Wetlands designs)
- ☐ Treebox Filter
- ☒ Water Quality Swale
- ☐ Grass Channel
- ☐ Green Roof
- ☐ Other (describe): _____

Standard 1: No New Untreated Discharges

- ☒ No new untreated discharges
- ☒ Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth
- ☐ Supporting calculations specified in Volume 3 of the Massachusetts Stormwater Handbook included.



Checklist for Stormwater Report

Checklist (continued)

Standard 2: Peak Rate Attenuation RUNOFF CALCULATIONS ARE PROVIDED FOR THE 2-YEAR, 10-YEAR, AND 100-YEAR 24 HOUR STORMS (SEE APPENDIX B)

- ☐ Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.
- ☐ Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.
- ☐ Calculations provided to show that post-development peak discharge rates do not exceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

Standard 3: Recharge RECHARGE IS PROVIDED TO THE MAXIMUM EXTENT PRACTICABLE; SEE NARRATIVE FOR DETAILED DISCUSSION

- ☒ Soil Analysis provided.
- ☒ Required Recharge Volume calculation provided.
- ☐ Required Recharge volume reduced through use of the LID site Design Credits.
- ☒ Sizing the infiltration, BMPs is based on the following method: Check the method used.
 - ☒ Static
 - ☐ Simple Dynamic
 - ☐ Dynamic Field¹
- ☐ Runoff from all impervious areas at the site discharging to the infiltration BMP.
- ☐ Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.
- ☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume.
- ☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:
 - ☐ Site is comprised solely of C and D soils and/or bedrock at the land surface
 - ☐ M.G.L. c. 21E sites pursuant to 310 CMR 40.0000
 - ☐ Solid Waste Landfill pursuant to 310 CMR 19.000
 - ☐ Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.
- ☒ Calculations showing that the infiltration BMPs will drain in 72 hours are provided.
- ☐ Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

¹ 80% TSS removal is required prior to discharge to infiltration BMP if Dynamic Field method is used.



Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

- ☐ The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.
- ☐ Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

Standard 4: Water Quality

WATER QUALITY IS PROVIDED TO THE MAXIMUM EXTENT PRACTICABLE;
SEE NARRATIVE FOR DETAILED DISCUSSION

The Long-Term Pollution Prevention Plan typically includes the following:

- Good housekeeping practices;
 - Provisions for storing materials and waste products inside or under cover;
 - Vehicle washing controls;
 - Requirements for routine inspections and maintenance of stormwater BMPs;
 - Spill prevention and response plans;
 - Provisions for maintenance of lawns, gardens, and other landscaped areas;
 - Requirements for storage and use of fertilizers, herbicides, and pesticides;
 - Pet waste management provisions;
 - Provisions for operation and management of septic systems;
 - Provisions for solid waste management;
 - Snow disposal and plowing plans relative to Wetland Resource Areas;
 - Winter Road Salt and/or Sand Use and Storage restrictions;
 - Street sweeping schedules;
 - Provisions for prevention of illicit discharges to the stormwater management system;
 - Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
 - Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
 - List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.
- ☐ A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.
 - ☐ Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:
 - ☐ is within the Zone II or Interim Wellhead Protection Area
 - ☐ is near or to other critical areas
 - ☐ is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
 - ☐ involves runoff from land uses with higher potential pollutant loads.
 - ☐ The Required Water Quality Volume is reduced through use of the LID site Design Credits.
 - ☐ Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.



Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

- ☐ The BMP is sized (and calculations provided) based on:
 - ☐ The ½" or 1" Water Quality Volume or
 - ☐ The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.
- ☐ The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.
- ☐ A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs) NOT APPLICABLE

- ☐ The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.
- ☐ The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted **prior to** the discharge of stormwater to the post-construction stormwater BMPs.
- ☐ The NPDES Multi-Sector General Permit does **not** cover the land use.
- ☐ LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.
- ☐ All exposure has been eliminated.
- ☐ All exposure has **not** been eliminated and all BMPs selected are on MassDEP LUHPPL list.
- ☐ The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

Standard 6: Critical Areas

- ☒ The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.
- ☒ Critical areas and BMPs are identified in the Stormwater Report.



Checklist for Stormwater Report

Checklist (continued)

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable

- ☒ The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:
 - ☒ Limited Project
 - ☐ Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
 - ☐ Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
 - ☐ Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
 - ☒ Bike Path and/or Foot Path
 - ☐ Redevelopment Project
 - ☐ Redevelopment portion of mix of new and redevelopment.
- ☒ Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.
- ☐ The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include the following information:

- Narrative;
 - Construction Period Operation and Maintenance Plan;
 - Names of Persons or Entity Responsible for Plan Compliance;
 - Construction Period Pollution Prevention Measures;
 - Erosion and Sedimentation Control Plan Drawings;
 - Detail drawings and specifications for erosion control BMPs, including sizing calculations;
 - Vegetation Planning;
 - Site Development Plan;
 - Construction Sequencing Plan;
 - Sequencing of Erosion and Sedimentation Controls;
 - Operation and Maintenance of Erosion and Sedimentation Controls;
 - Inspection Schedule;
 - Maintenance Schedule;
 - Inspection and Maintenance Log Form.
- ☒ A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.



Checklist for Stormwater Report

Checklist (continued)

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control (continued)

- ☐ The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has **not** been included in the Stormwater Report but will be submitted **before** land disturbance begins.
- ☐ The project is **not** covered by a NPDES Construction General Permit.
- ☐ The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.
- ☒ The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

Standard 9: Operation and Maintenance Plan

- ☐ The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:
 - ☐ Name of the stormwater management system owners;
 - ☐ Party responsible for operation and maintenance;
 - ☐ Schedule for implementation of routine and non-routine maintenance tasks;
 - ☐ Plan showing the location of all stormwater BMPs maintenance access areas;
 - ☐ Description and delineation of public safety features;
 - ☐ Estimated operation and maintenance budget; and
 - ☐ Operation and Maintenance Log Form.
- ☐ The responsible party is **not** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:
 - ☐ A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
 - ☐ A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

Standard 10: Prohibition of Illicit Discharges

- ☐ The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;
- ☐ An Illicit Discharge Compliance Statement is attached;
- ☒ NO Illicit Discharge Compliance Statement is attached but will be submitted **prior to** the discharge of any stormwater to post-construction BMPs.



2

Stormwater Report Narrative

This Stormwater Report was prepared to demonstrate compliance with the Massachusetts Stormwater Management Standards in accordance with the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00) and the Town of Sudbury's Stormwater Management By-Law.

2.1 Project Description

The Project includes completion of a portion of the regional MCRT and construction of a portion of a new 115-kilovolt ("kV") underground electric transmission line ("the underground transmission line"). This Project is the direct result of a collaborative project-planning process among DCR, Eversource, and the MBTA. The MCRT is proposed to be used by Eversource as an access road for maintenance of the transmission line. The Project includes a stormwater management system that uses vegetated swales with check dams, consistent with DCR's standard design for bike path facilities. The entire Project is approximately 9.0 miles long and is located primarily in the towns of Sudbury and Hudson, with short sections in the Town of Stow and the City of Marlborough (see Figure 1). The portion of the Project within Sudbury originates at the Sudbury/Hudson town line and follows the MBTA ROW to the Sudbury substation, located south of Route 20, between Landham Crossing and Goodman's Hill Road.

This stormwater report addresses the portion of the transmission line and bike path Project in Sudbury that is within the MBTA ROW.

2.2 Methodology

The rainfall-runoff response of the Site under the existing and proposed conditions was analyzed for storm events with recurrence intervals of 2, 10, 25, and 100 years, with rainfall amounts of 3.2", 4.8", 6.0", and 8.6", respectively, as outlined by the Stormwater Management Bylaw Regulations for the Town of Sudbury. A rainfall depth of one inch (1") was also evaluated. The runoff coefficients and time of concentration for the existing and proposed conditions were determined using the NRCS Technical Release 55 (TR-55) methodology in HydroCAD. The HydroCAD model is based on the NRCS Technical Release 20 (TR-20) Model for Project Formulation Hydrology.

2.3 Existing Drainage Conditions

The Project is located within the MBTA ROW between the Hudson/Sudbury town line and the Sudbury substation located off of Route 20 in Sudbury. The existing railroad ROW has varying topography, ranging from flat to hilly. Under the existing conditions, the proposed Project footprint is largely used as an active recreational trail, frequently utilized by hikers and individuals walking dogs and/or riding horses. This area is also occasionally used for mountain bike riding, motorized dirt bikes and snowmobiles. In general, the vegetation growth in these areas is predominantly scattered saplings and young trees to moderately dense saplings and young trees, with some localized areas of shrub growth. Large mature trees are generally not located within the Project's limit of disturbance.

The predominant existing cross section in these areas consists of existing rail lines located on a large berm elevated above the adjacent unaltered terrain or areas where the rail line was built by excavating into the landscape. In its present condition, the rail line sits on stone ballast and is approximately 9 feet wide from rail tie edge to rail tie edge. The steel tracks are still present in most areas.

Figures 2a-2e illustrate the existing drainage patterns within the Project footprint. Under current conditions, the Project is divided into 67 drainage areas within Sudbury, which discharge stormwater runoff to 67 Design Points. These Design Points have been identified as DP-X.X. The existing drainage areas are delineated based on the overall areas contributing to each design point. The roadways were used to create the limits for the five segments and help break this large project into more manageable areas. Table 2 below provides a summary of the hydrologic data under the existing conditions.

Table 2 Hydrologic Data under the Existing Conditions

Drainage Area	Discharge Location	Design Point	Area (Acres)	Curve Number	Time of Concentration (min)
EX-5.6	Wetland 18	DP-5.6	16.6	32	15.1
EX-5.7	Wetland 19	DP-5.7	9.5	37	23.2

Drainage Area	Discharge Location	Design Point	Area (Acres)	Curve Number	Time of Concentration (min)
EX-5.8	Wetland 45	DP-5.8	46.3	31	29.8
EX-5.9	Low Point	DP-5.9	4.7	32	16.4
EX-5.10	Low Point	DP-5.10	1.7	31	30.2
EX-5.11	Low Point	DP-5.11	4.6	30	19.9
EX-5.12	Wetland 44	DP-5.12	8.2	40	61.0
EX-5.13	Wetland 44	DP-5.13	13.7	35	53.0
EX-5.14	Wetland 44	DP-5.14	14.0	35	25.7
EX-5.15	Wetland 44	DP-5.15	10.7	36	32.4
EX-5.16	Wetland*	DP-5.16	8.5	30	6.9
EX-5.17	Wetlands 41 & 43 Vernal Pools 11 & 13	DP-5.17	18.5	30	6.4
EX-5.18	Wetland 42 Vernal Pool 12	DP-5.18	10.4	30	37.3
EX-5.19	Wetland 40 Vernal Pool 10	DP-5.19	0.7	33	15.1
EX-5.20	Off Site	DP-5.20	1.1	30	25.8
EX-5.21	Wetland 39 Vernal Pool 9	DP-5.21	5.7	30	19.4
EX-6.1	Low Point	DP-6.1	0.8	39	40.8
EX-6.2	Off Site	DP-6.2	0.7	32	34.5
EX-6.3	Low Point	DP-6.3	0.7	42	14.7
EX-6.4	Low Point	DP-6.4	2.9	50	13.3
EX-6.5	Low Point	DP-6.5	16.9	36	15.8
EX-6.6	Wetlands 36 & 38	DP-6.6	7.2	42	31.3
EX-6.7	Wetland 37	DP-6.7	7.2	40	28.4
EX-6.8	Low Point	DP-6.8	4.9	32	26.1
EX-6.9	Low Point	DP-6.9	0.9	41	6.0
EX-6.10	Low Point	DP-6.10	3.9	44	24.9
EX-6.11	Wetland*	DP-6.11	0.8	33	6.0
EX-6.12	Wetland 35 Vernal Pool 8	DP-6.12	0.6	32	6.0
EX-6.13	Wetland 34	DP-6.13	3.2	52	8.0
EX-6.14	Wetland 33	DP-6.14	5.2	61	7.6
EX-6.15	Low Point	DP-6.15	0.1	84	7.7
EX-7.1	Wetland 30	DP-7.1	9.0	56	16.4
EX-7.2	Wetland 32	DP-7.2	2.7	36	14.6
EX-7.3	Low Point	DP-7.3	3.6	43	17.1
EX-7.4	Low Point	DP-7.4	8.6	63	20.2

Drainage Area	Discharge Location	Design Point	Area (Acres)	Curve Number	Time of Concentration (min)
EX-7.5	Wetland 31	DP-7.5	23.1	52	15.7
EX-7.6	Low Point	DP-7.6	0.9	33	15.8
EX-7.7	Low Point	DP-7.7	0.7	35	12.9
EX-7.8	Low Point	DP-7.8	1.2	35	36.3
EX-7.9	Low Point	DP-7.9	5.7	43	17.7
EX-7.10	Low Point	DP-7.10	0.3	38	17.0
EX-7.11	Low Point	DP-7.11	1.6	45	41.6
EX-7.12	Low Point	DP-7.12	1.2	46	42.3
EX-8.1	Wetlands 28 & 29	DP-8.1	19.8	56	15.0
EX-8.2	Wetland 27	DP-8.2	16.2	43	37.7
EX-8.3	Wetland 25	DP-8.3	16.1	54	25.7
EX-8.4	Wetland 24	DP-8.4	1.0	69	24.7
EX-8.5	Low Point	DP-8.5	4.0	68	37.7
EX-8.6	Wetland 26	DP-8.6	24.8	78	32.6
EX-8.7	Low Point	DP-8.7	0.8	58	38.3
EX-8.8	Low Point	DP-8.8	0.9	78	13.6
EX-8.9	Wetland 24A Vernal Pool 5	DP-8.9	1.0	58	28.8
EX-8.10	Low Point	DP-8.10	3.6	76	11.4
EX-8.11	Wetland*	DP-8.11	0.9	55	22.4
EX-9.1	Station Road	DP-9.1	3.2	85	27.8
EX-10.1	Wetland 18	DP-10.1	1.1	79	15.2
EX-10.2	Wetland 19	DP-10.2	4.2	70	30.6
EX-10.3	Wetland 15	DP-10.3	1.0	78	29.1
EX-10.4	Wetland 16	DP-10.4	4.9	63	35.2
EX-10.5	Wetland 14	DP-10.5	0.8	78	14.7
EX-10.6	Wetland 12	DP-10.6	2.9	72	23.5
EX-10.7	Wetland 13	DP-10.7	1.8	40	14.7
EX-10.8	Wetland 10	DP-10.8	4.1	41	20.7
EX-10.9	Wetland 5 Vernal Pools 2 & 3	DP-10.9	2.8	65	29.3
EX-10.10	Vernal Pool 4	DP-10.10	0.1	78	6.4
EX-10.11	Stream	DP-10.11	1.1	52	11.1
EX-10.12	Wetland 6	DP-10.12	1.3	51	21.7
EX-10.13	Stream	DP-10.13	2.1	74	42.9
EX-10.14	Wetland 3 Vernal Pool 1	DP-10.14	6.2	73	21.1
EX-10.15	Wetland 4	DP-10.15	4.3	44	38.5

*Wetlands without a number designation (e.g., "Wetland") are located outside of the MBTA ROW. These wetlands were not field delineated and are shown as approximate on the plans.

2.4 Proposed Drainage Conditions

Figures 3a-3e illustrate the proposed post-construction drainage conditions for the Project. The Project was divided into 67 drainage areas that discharge stormwater to the 67 existing Design Points. A summary of the hydrologic data under the proposed conditions is provided in Table 3.

Table 3 Hydrologic Data under the Proposed Conditions

Drainage Area	Discharge Location	Design Point	Area (acres)	Curve Number	Time of Concentration (min)
PR-5.6	Wetland 18	DP-5.6	17.4	32	22.7
PR-5.7	Wetland 19	DP-5.7	9.6	36	23.4
PR-5.8	Wetland 45	DP-5.8	46.7	32	14.5
PR-5.9	Low Point	DP-5.9	4.2	30	11.8
PR-5.10	Low Point	DP-5.10	1.6	31	30.2
PR-5.11	Low Point	DP-5.11	8.1	30	19.9
PR-5.12	Wetland 44	DP-5.12	4.5	44	61.0
PR-5.13	Wetland 44	DP-5.13	13.0	34	53.0
PR-5.14	Wetland 44	DP-5.14	14.1	36	25.7
PR-5.15	Wetland 44	DP-5.15	10.5	36	32.4
PR-5.16	Wetland*	DP-5.16	8.6	30	21.8
PR-5.17	Wetlands 41 & 43 Vernal Pools 11 & 13	DP-5.17	18.5	30	6.4
PR-5.18	Wetland 42 Vernal Pool 12	DP-5.18	10.5	31	37.3
PR-5.19	Wetland 40 Vernal Pool 10	DP-5.19	0.6	31	15.1
PR-5.20	Off Site	DP-5.20	1.2	35	25.8
PR-5.21	Wetland 39 Vernal Pool 9	DP-5.21	5.6	30	19.4
PR-6.1A	Low Point	DP-6.1	0.1	42	15.1
PR-6.1B	Low Point	DP-6.1	0.7	34	15.1
PR-6.2	Off Site	DP-6.2	0.9	44	16.0
PR-6.3	Low Point	DP-6.3	0.7	42	14.7
PR-6.4	Low Point	DP-6.4	2.9	50	13.3
PR-6.5	Low Point	DP-6.5	16.9	36	15.8
PR-6.6A	Wetlands 36 & 38	DP-6.6	0.6	52	31.3
PR-6.6B	Wetland 36 & 38	DP-6.6	6.6	44	31.3
PR-6.7	Wetland 37	DP-6.7	7.0	38	28.4

Drainage Area	Discharge Location	Design Point	Area (acres)	Curve Number	Time of Concentration (min)
PR-6.8	Low Point	DP-6.8	4.9	32	26.1
PR-6.9	Low Point	DP-6.9	0.9	41	6.0
PR-6.10	Low Point	DP-6.10	3.9	44	24.9
PR-6.11	Wetland*	DP-6.11	0.8	33	6.0
PR-6.12	Wetland 35 Vernal Pool 8	DP-6.12	0.6	32	6.0
PR-6.13	Wetland 34	DP-6.13	3.2	52	8.0
PR-6.14	Wetland 33	DP-6.14	5.3	62	12.4
PR-6.15	Low Point	DP-6.15	0.1	84	7.6
PR-7.1	Wetland 30	DP-7.1	9.1	57	16.4
PR-7.2	Wetland 32	DP-7.2	2.6	35	14.6
PR-7.3	Low Point	DP-7.3	3.6	43	17.1
PR-7.4	Low Point	DP-7.4	8.6	63	20.1
PR-7.5	Wetland 31	DP-7.5	23.1	52	15.8
PR-7.6	Low Point	DP-7.6	0.9	41	15.8
PR-7.7	Low Point	DP-7.7	0.6	30	12.9
PR-7.8	Low Point	DP-7.8	1.2	40	36.3
PR-7.9	Low Point	DP-7.9	5.7	43	17.7
PR-7.10	Low Point	DP-7.10	0.3	31	17.0
PR-7.11	Low Point	DP-7.11	1.6	45	41.6
PR-7.12	Low Point	DP-7.12	1.2	46	42.3
PR-8.1	Wetlands 28 & 29	DP-8.1	19.8	56	15.0
PR-8.2	Wetland 27	DP-8.2	16.3	43	37.7
PR-8.3A	Wetland 25	DP-8.3	0.3	43	25.7
PR-8.3B	Wetland 25	DP-8.3	15.7	55	25.7
PR-8.4	Wetland 24	DP-8.4	1.1	49	24.7
PR-8.5A	Low Point	DP-8.5	0.7	68	37.7
PR-8.5B	Low Point	DP-8.5	3.5	71	37.7
PR-8.6	Wetland 26	DP-8.6	24.7	69	32.6
PR-8.7	Low Point	DP-8.7	0.8	70	38.3
PR-8.8	Low Point	DP-8.8	0.9	81	15.3
PR-8.9	Wetland 24A Vernal Pool 5	DP-8.9	0.9	58	28.8
PR-8.10	Low Point	DP-8.10	3.6	77	11.4
PR-8.11	Wetland*	DP-8.11	0.9	56	22.4
PR-9.1	Station Road	DP-9.1	2.2	90	27.8
PR-10.1	Wetland 18	DP-10.1	1.2	80	15.2
PR-10.2	Wetland 19	DP-10.2	4.1	69	30.6

Drainage Area	Discharge Location	Design Point	Area (acres)	Curve Number	Time of Concentration (min)
PR-10.3	Wetland 15	DP-10.3	1.0	79	29.1
PR-10.4	Wetland 16	DP-10.4	4.9	63	35.2
PR-10.5	Wetland 14	DP-10.5	0.8	78	14.7
PR-10.6	Wetland 12	DP-10.6	1.9	69	23.5
PR-10.7	Wetland 13	DP-10.7	1.8	42	16.0
PR-10.8	Wetland 10	DP-10.8	4.1	41	20.7
PR-10.9	Wetland 5 Vernal Pools 2 & 3	DP-10.9	2.8	65	29.3
PR-10.10	Vernal Pool 4	DP-10.10	0.1	80	6.4
PR-10.11	Stream	DP-10.11	1.1	52	11.1
PR-10.12	Wetland 6	DP-10.12	1.3	53	21.7
PR-10.13	Stream	DP-10.11	2.1	75	42.9
PR-10.14	Wetland 3 Vernal Pool 1	DP-10.14	6.2	73	21.1
PR-10.15	Wetland 4	DP-10.15	4.4	44	38.5

*Wetlands without a number designation (e.g., "Wetland") are located outside of the MBTA ROW. These wetlands were not field delineated and are shown as approximate on the plans.

The bike path design incorporates a stormwater management system that was developed in accordance with the Massachusetts Stormwater Handbook.

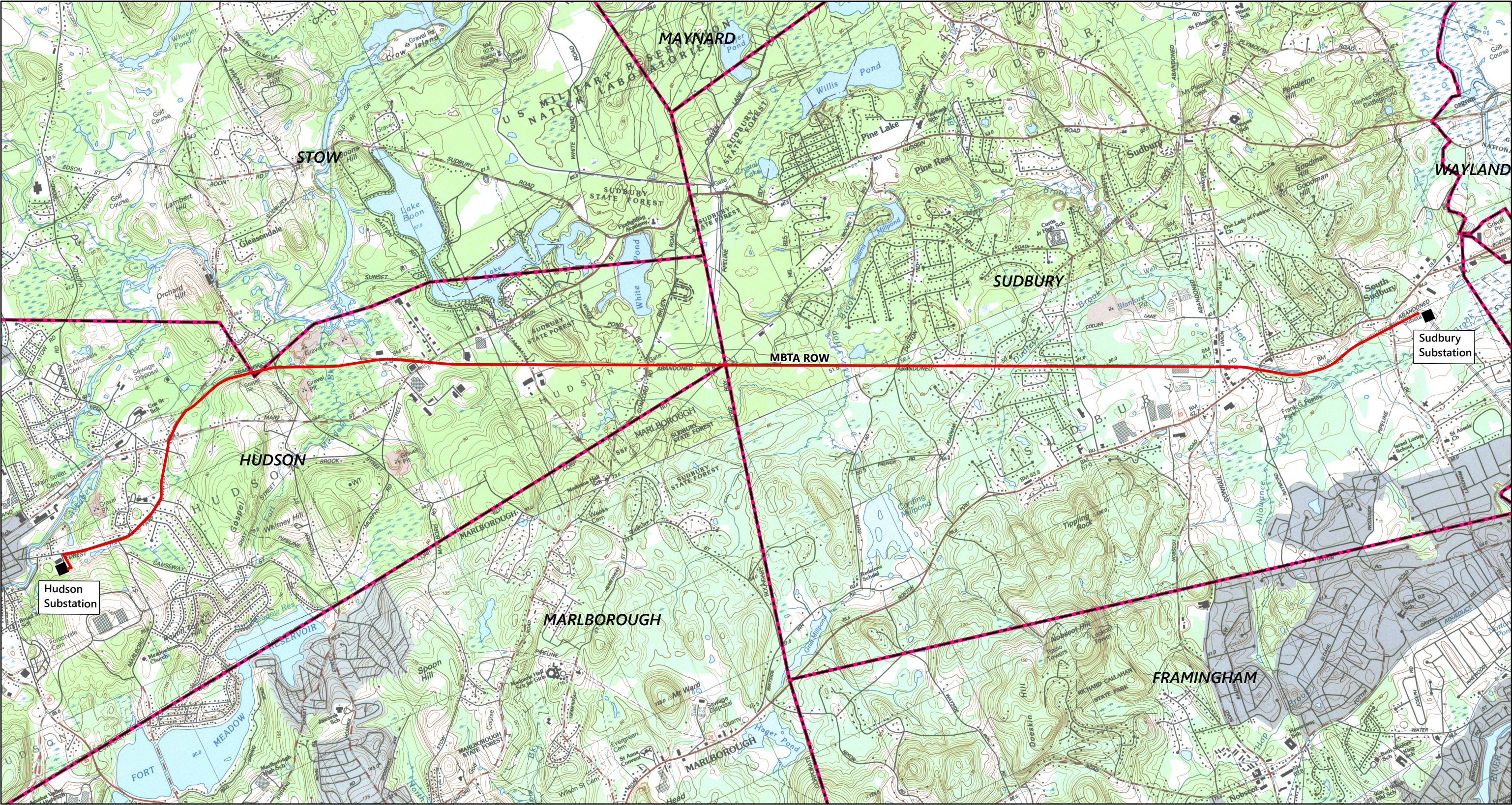
The Project's planned use (an underground transmission line underneath a bike path) is not considered a Land Use with Higher Pollutant Potential Loads ("LUHPPL"). The complete list of surface soils according to the National Resources Conservation Service ("NRCS") has been included in Appendix C, which includes the classification of on-site soils as Hydrologic Soil Groups (HSG) A, B, C, and D. Based on the soil information included in Appendix C, the Site is not considered to be within an area of rapid infiltration (soils with a saturated hydraulic conductivity greater than 2.4 inches per hour).

As per 310 CMR 10.05(6)(m)(6), "Footpaths, bike paths and other paths for pedestrian and/or nonmotorized vehicle access" shall meet the Stormwater Management Standards to the maximum extent practicable. The Project was designed to include the use of vegetated shoulders and conveyance swales with check dams to promote infiltration and recharge, consistent with DCR's standard design for all its rail trail facilities. This design exceeds DCR's standards for conveyance water quality swales for a 2-year storm and nearly conveys the 10-year storm per the MassDEP Stormwater Management Standards. As a limited project per 310 CMR 10.53(3)(d) and 310 CMR 10.53(6), the work may be approved under an Order of Conditions provided that adverse impacts are minimized, and mitigation measures are proposed in order to contribute to the protection of the interests identified in M.G.L.c.131. §40. The surface cover along the entire length of the path shoulder will be enhanced using a meadow mix to mitigate stormwater flows until the woodlands are fully restored. Additional analyses of existing and proposed flows to vernal pools were performed




using the TR-20 methodology to confirm that the Project will not adversely affect the hydrologic regime contributing to these resource areas.

The water quality swales have been designed in accordance with the Stormwater Management Handbook to provide a longitudinal slope of less than 5%. Check dams have been incorporated into the swale design to ensure non-erosive flows in all proposed swales.

A hydrologic analysis was performed for each design point shown in Figures 2a-2e and 3a-3e. As the Project complies to the maximum extent practicable with the Stormwater Management Standards and the Sudbury Stormwater by-law, the analysis considered the overall tributary area to each design point. There was no increase to peak rates to the majority of the design points, as the runoff from the large contributing areas was only minimally affected by the change in time of concentration (reduction in channel slope along ROW) and changes to the curve number (CN) based on the increase impervious area (DCRs MCRT) and minor changes to the cover type.



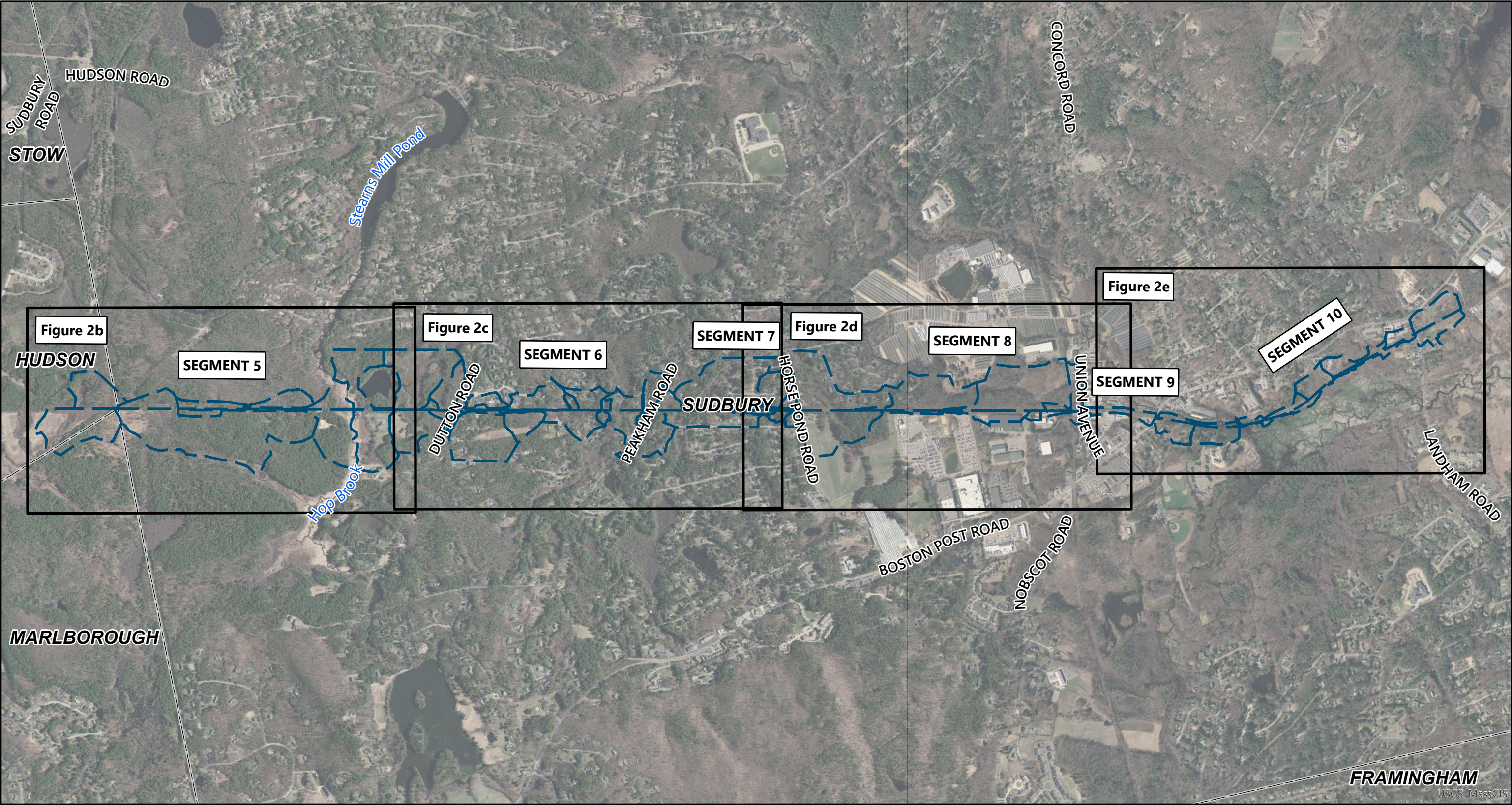
- Project
- Substation Location
- Municipal Boundary



Sudbury-Hudson Transmission Reliability and Mass Central Rail Trail Project

Figure 1: Locus Map (USGS)





- Map Boundaries
- Existing Drainage Areas
- Massachusetts Municipalities

Source:
MassGIS, VHB

0 1,500 3,000 Feet



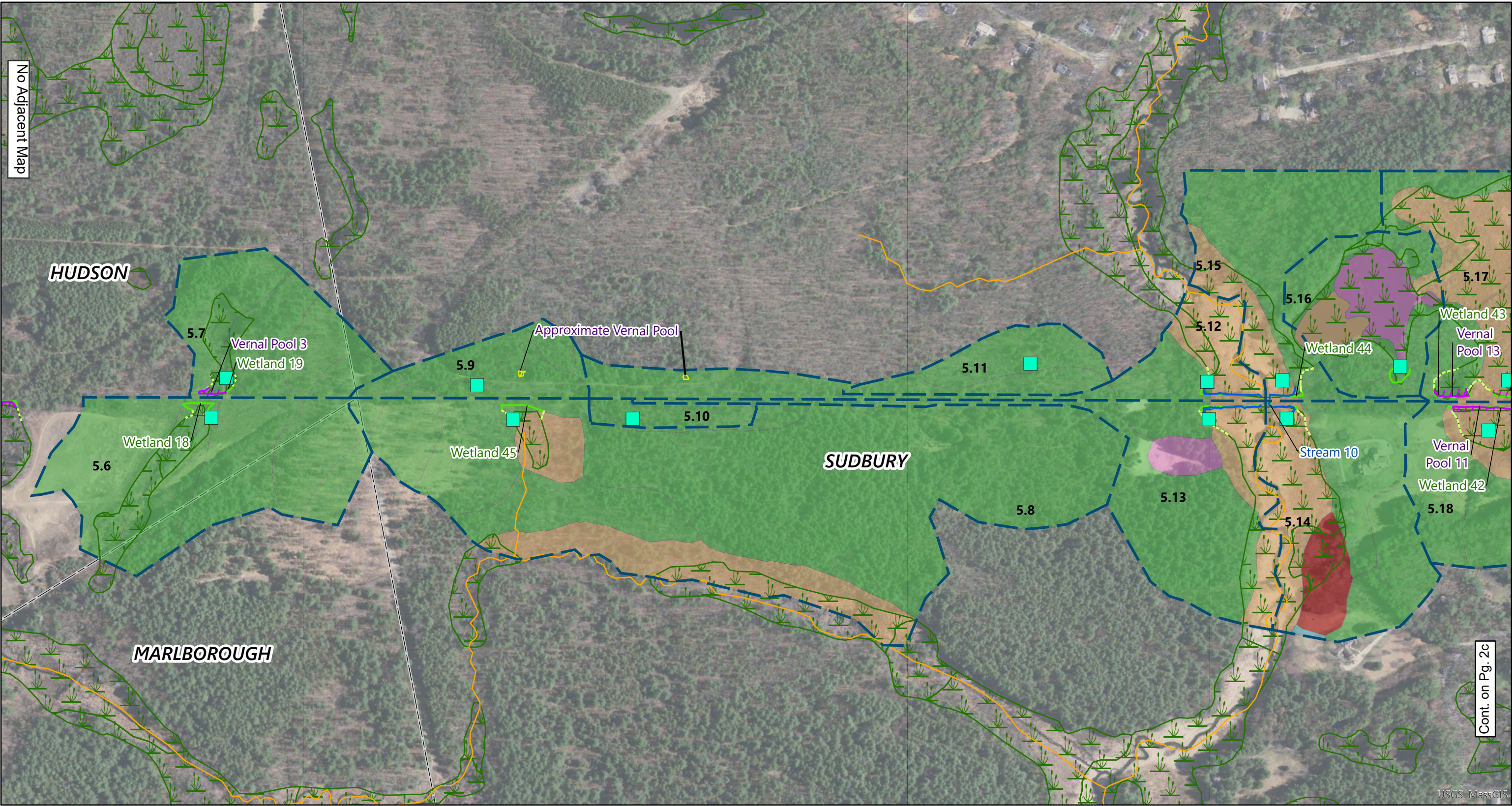
EVERSOURCE
ENERGY

Sudbury-Hudson Overall Transmission
Reliability Project

Figure 2a: Existing Drainage Areas

Date: 2/21/2020





MA DFW Coldwater Fisheries Resources

Delineated Wetland Edge

Approximate Wetland Edge

Delineated Top of Bank

Delineated Vernal Pool Edge

Vernal Pool

Approximate Vernal Pool

Approximate Isolated Wetland

Approximate Wetland Resource Areas (From MassGIS)

DEP Approved Zone II

Existing Drainage Areas

Massachusetts Municipalities

Design Point

Hydrologic Soil Group

Unknown

A

A/D

B

B/D

0 400 800 Feet

EVERSOURCE
ENERGY

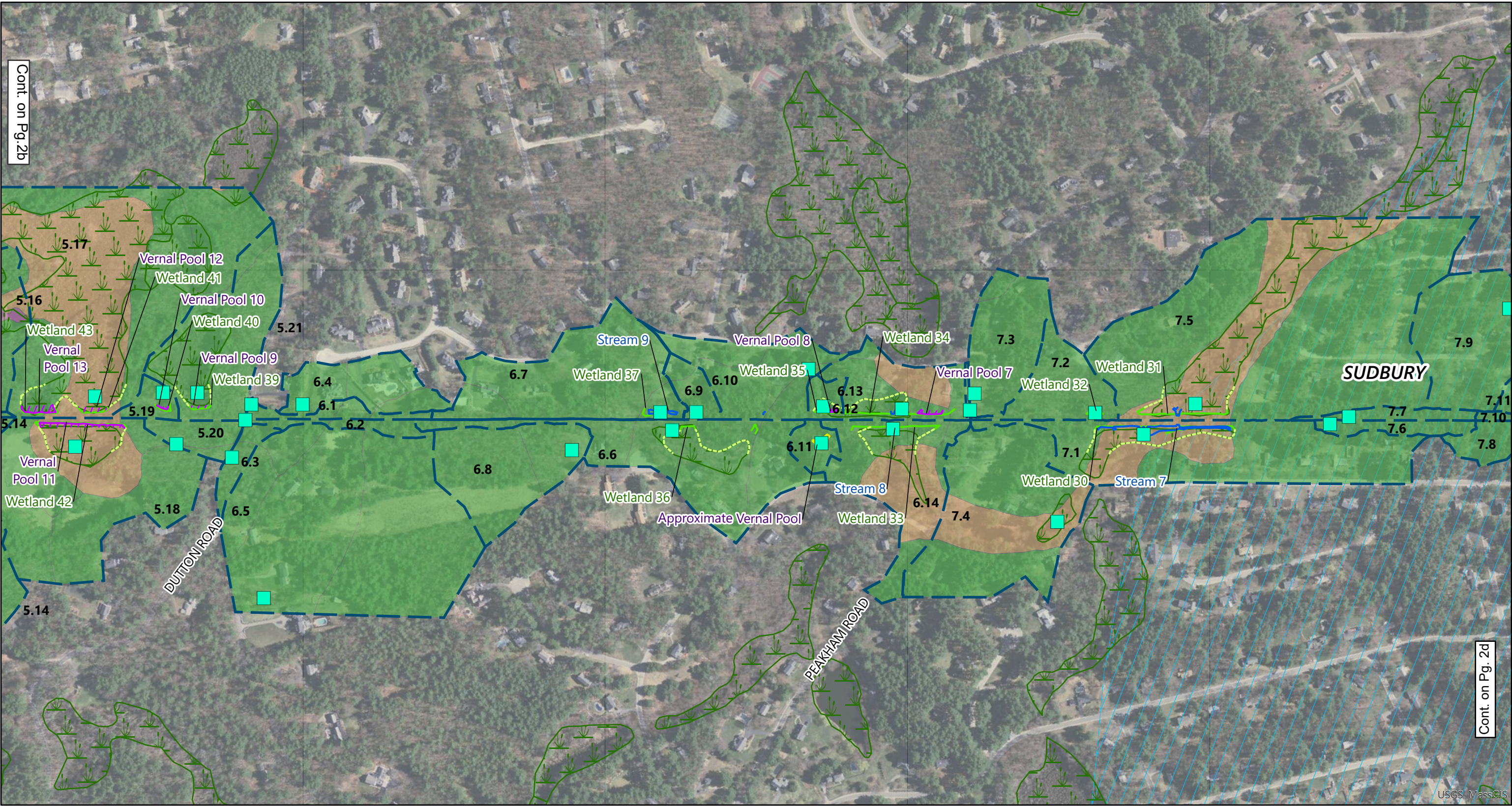
Sudbury-Hudson Transmission Reliability Project

Figure 2b: Existing Drainage Areas

Date: 2/21/2020

Source:
MassGIS, VHB





MA DFW Coldwater Fisheries Resources

Delineated Wetland Edge

Approximate Wetland Edge

Delineated Top of Bank

Delineated Vernal Pool Edge

Vernal Pool

Approximate Vernal Pool

Approximate Isolated Wetland

Approximate Wetland Resource Areas (From MassGIS)

DEP Approved Zone II

Existing Drainage Areas

Massachusetts Municipalities

Design Point

Hydrologic Soil Group

Unknown

A

B/D



EVERSOURCE
ENERGY

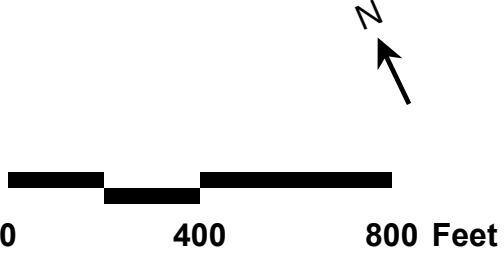
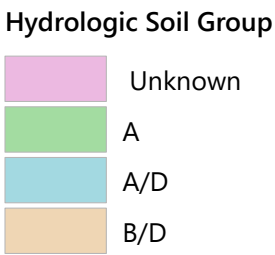
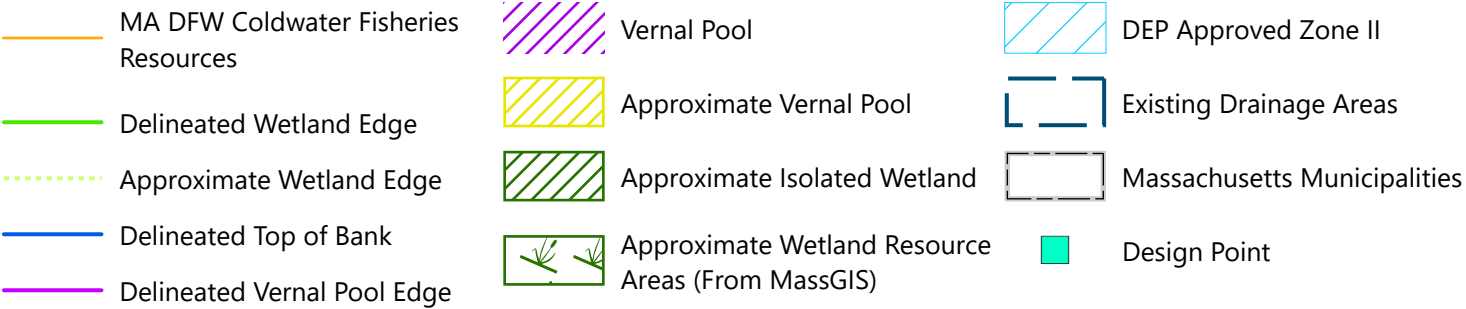
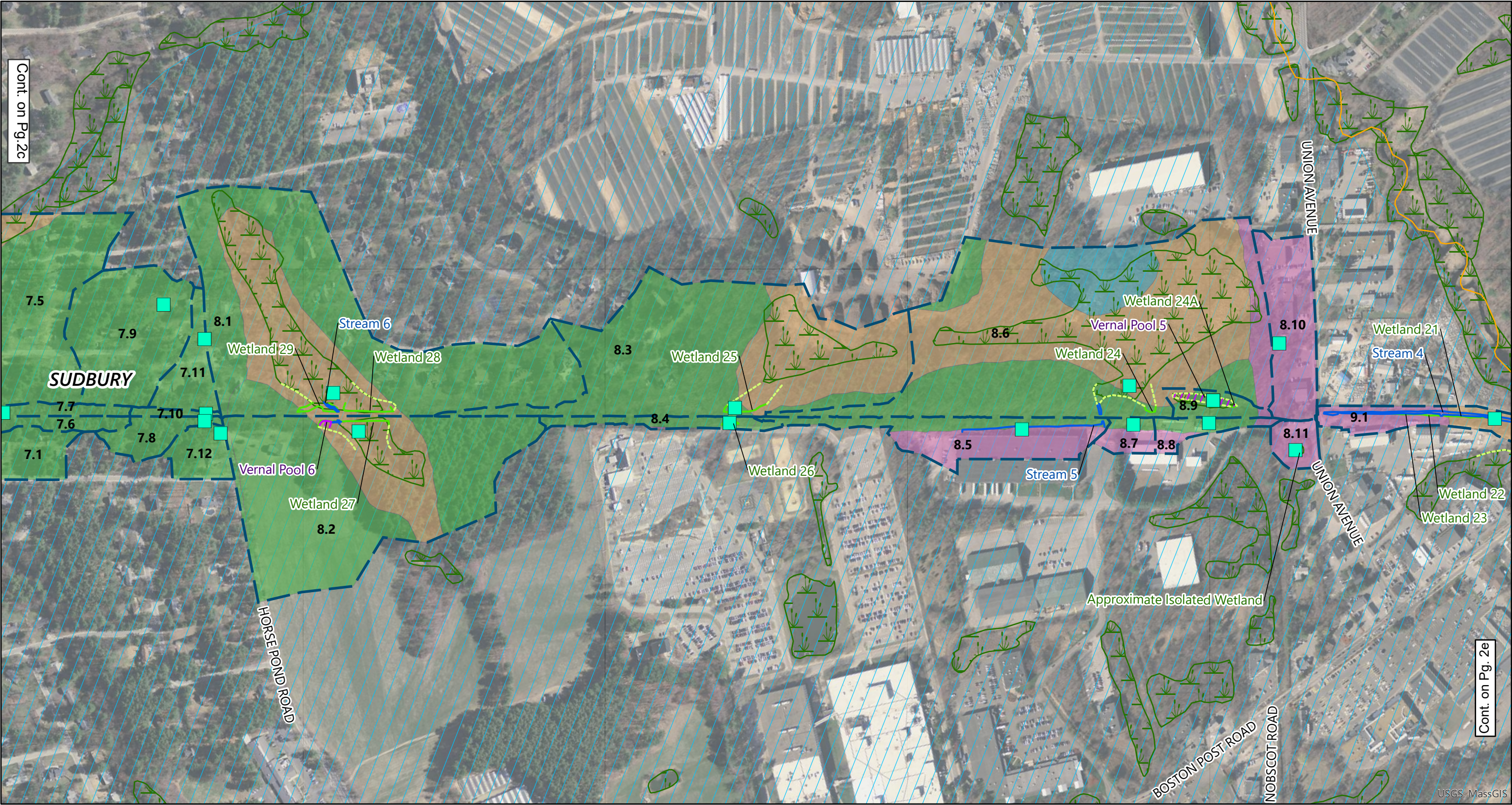
Sudbury-Hudson Transmission Reliability Project

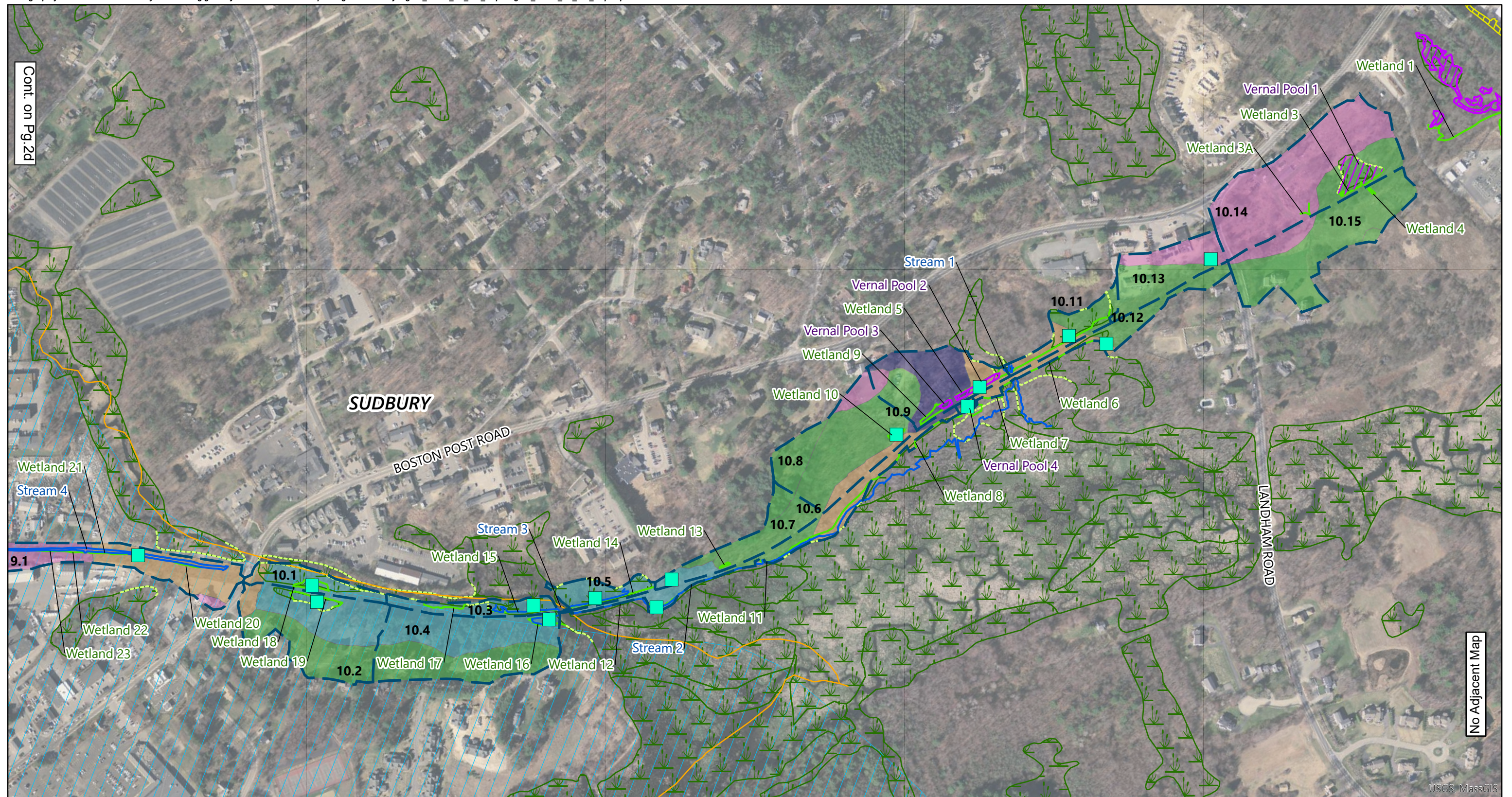
Figure 2c: Existing Drainage Areas

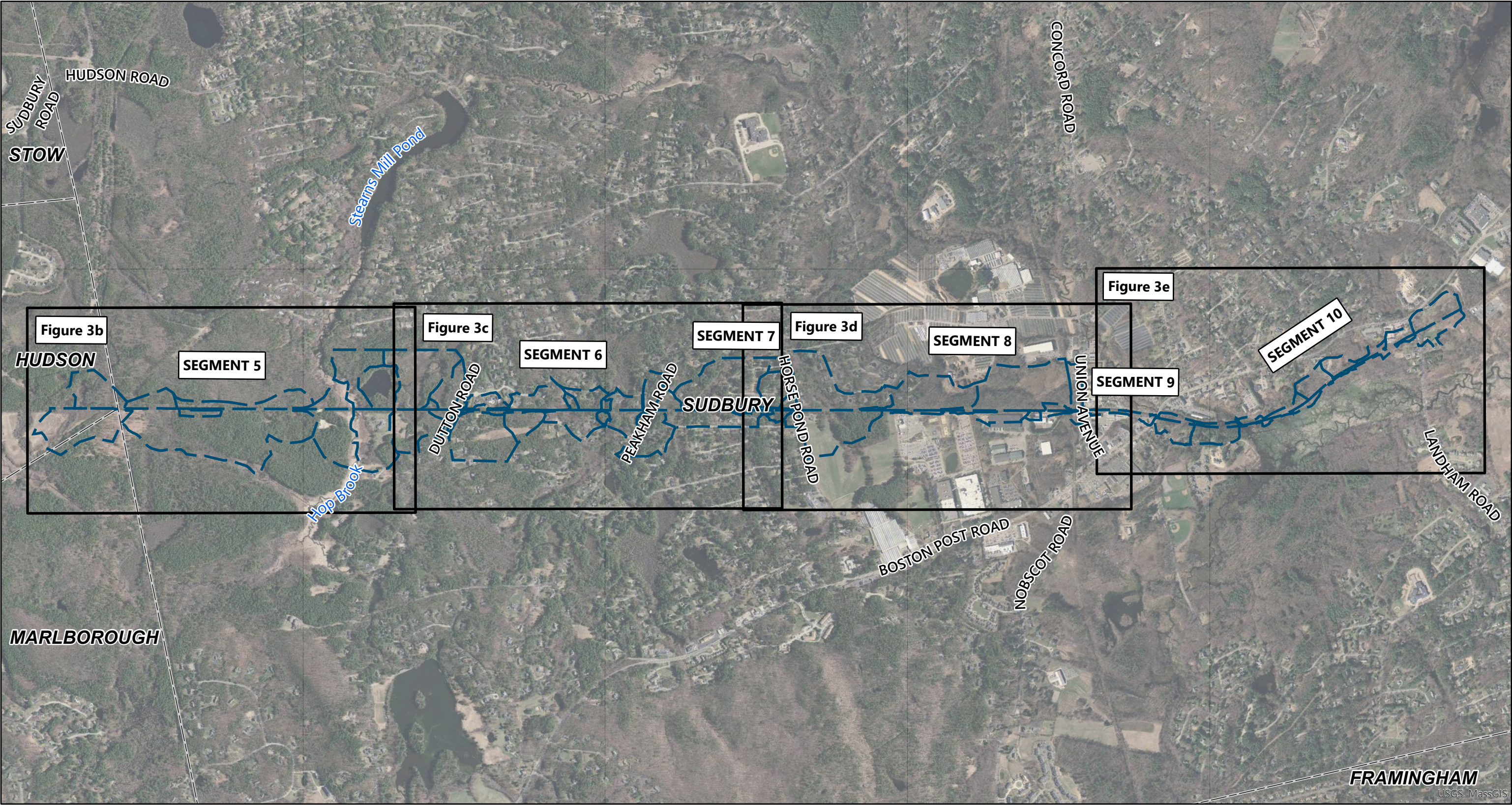
Date: 2/21/2020

Source:
MassGIS, VHB









- Map Boundaries
- Proposed Drainage Areas
- Massachusetts Municipalities

Source:
MassGIS, VHB



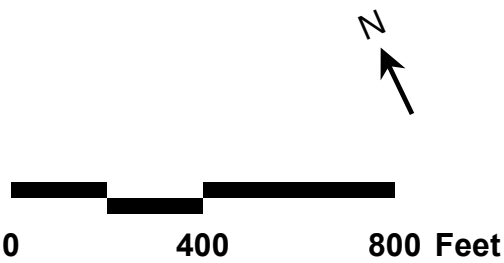
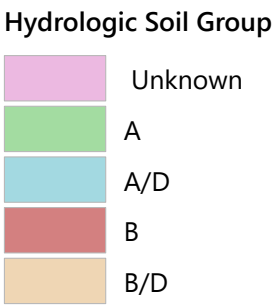
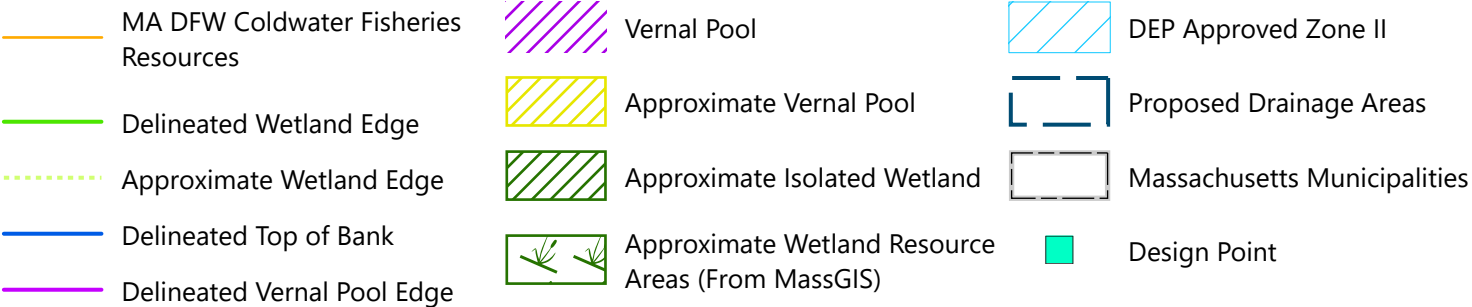
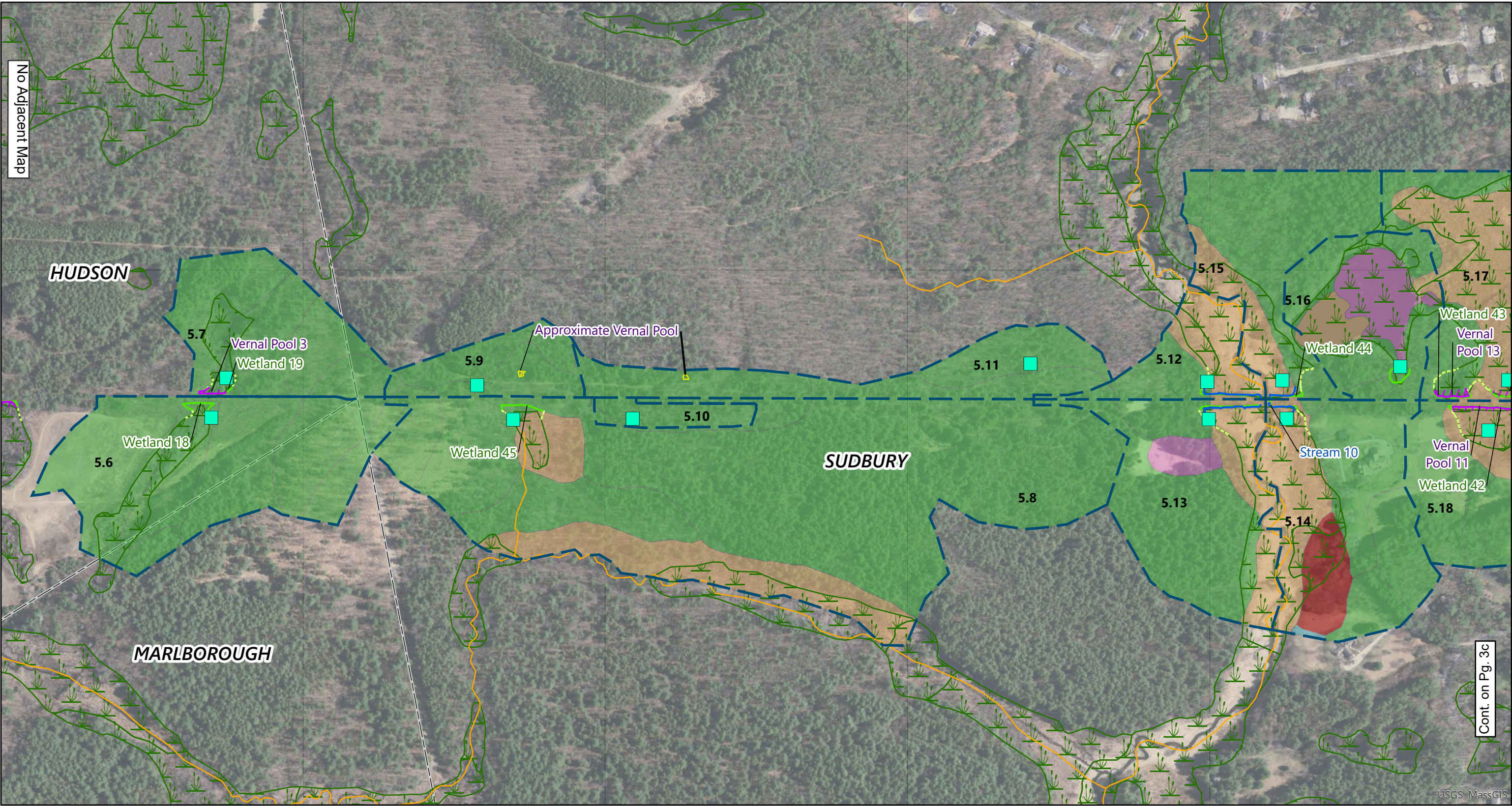
EVERSOURCE
ENERGY

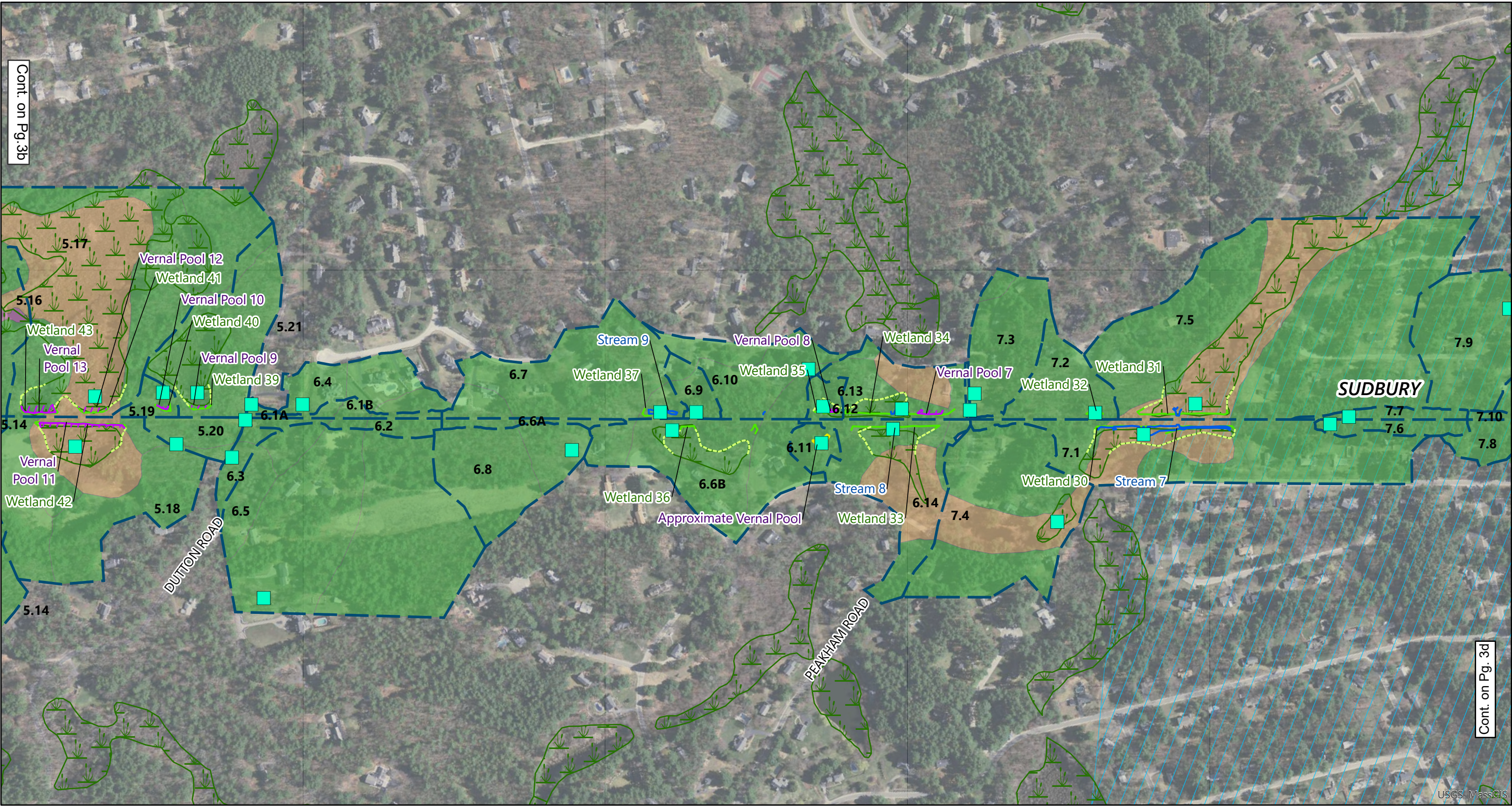
Sudbury-Hudson Overall Transmission
Reliability Project

Figure 3a: Proposed Drainage Areas

Date: 2/21/2020



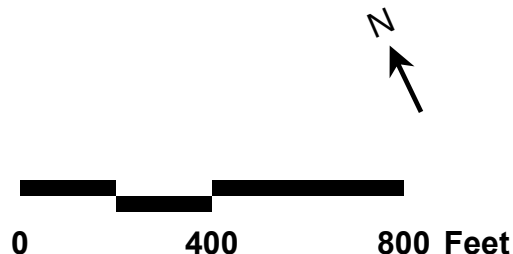


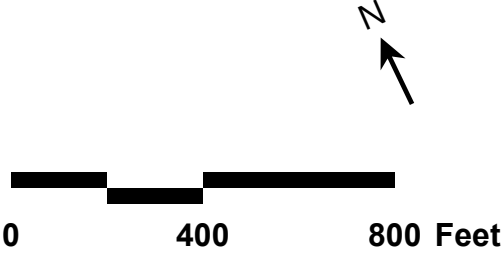
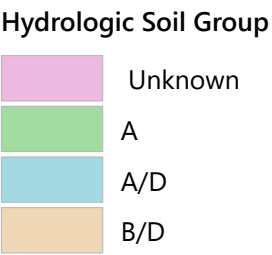
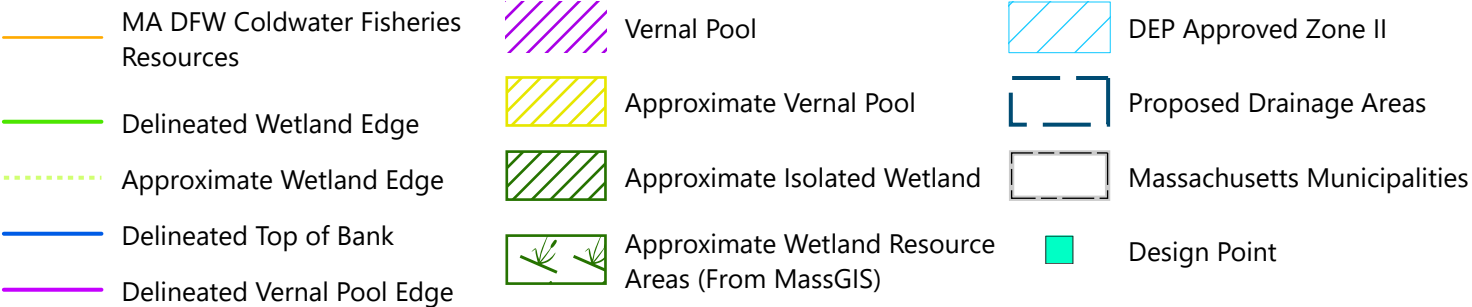
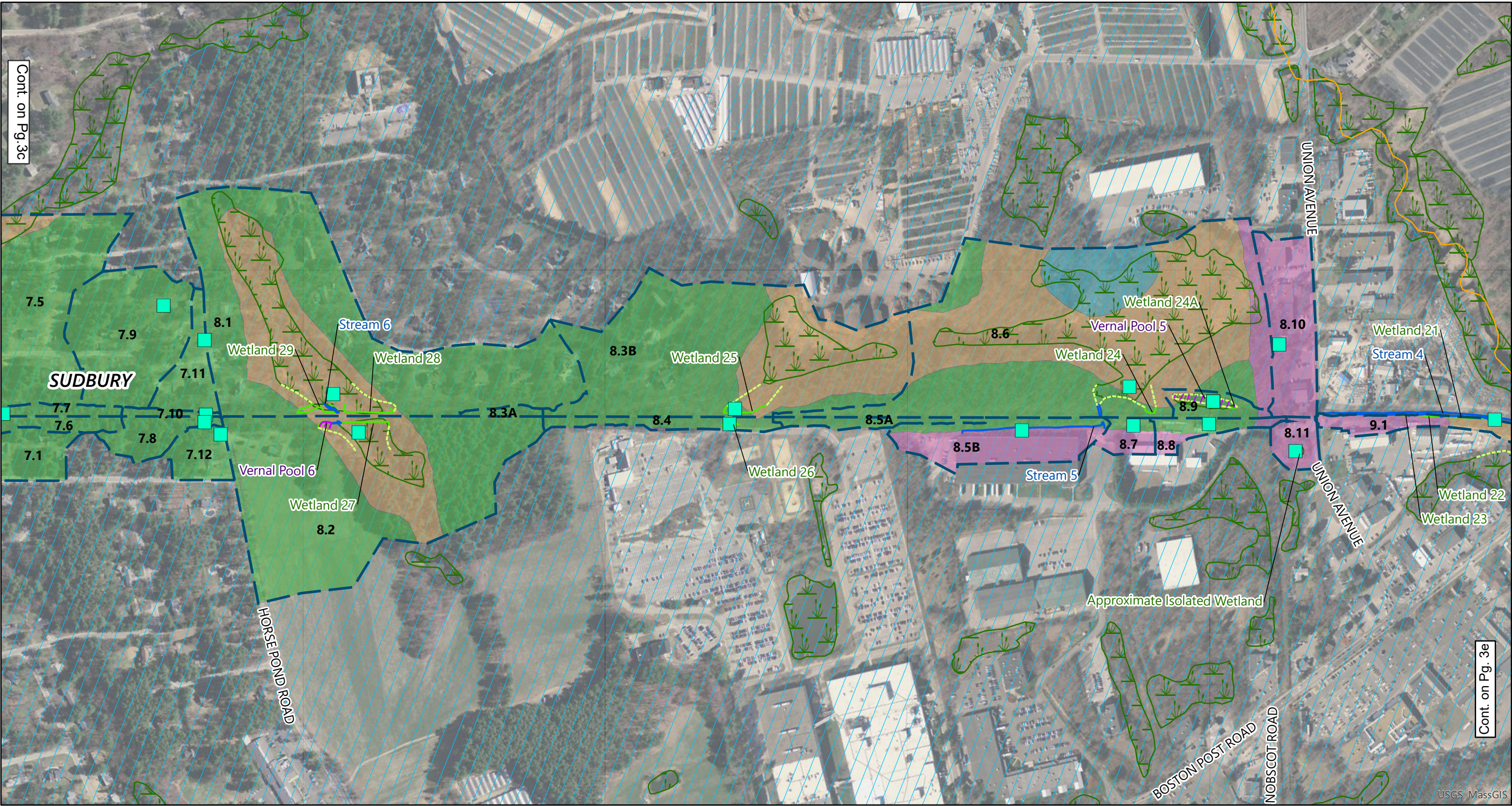


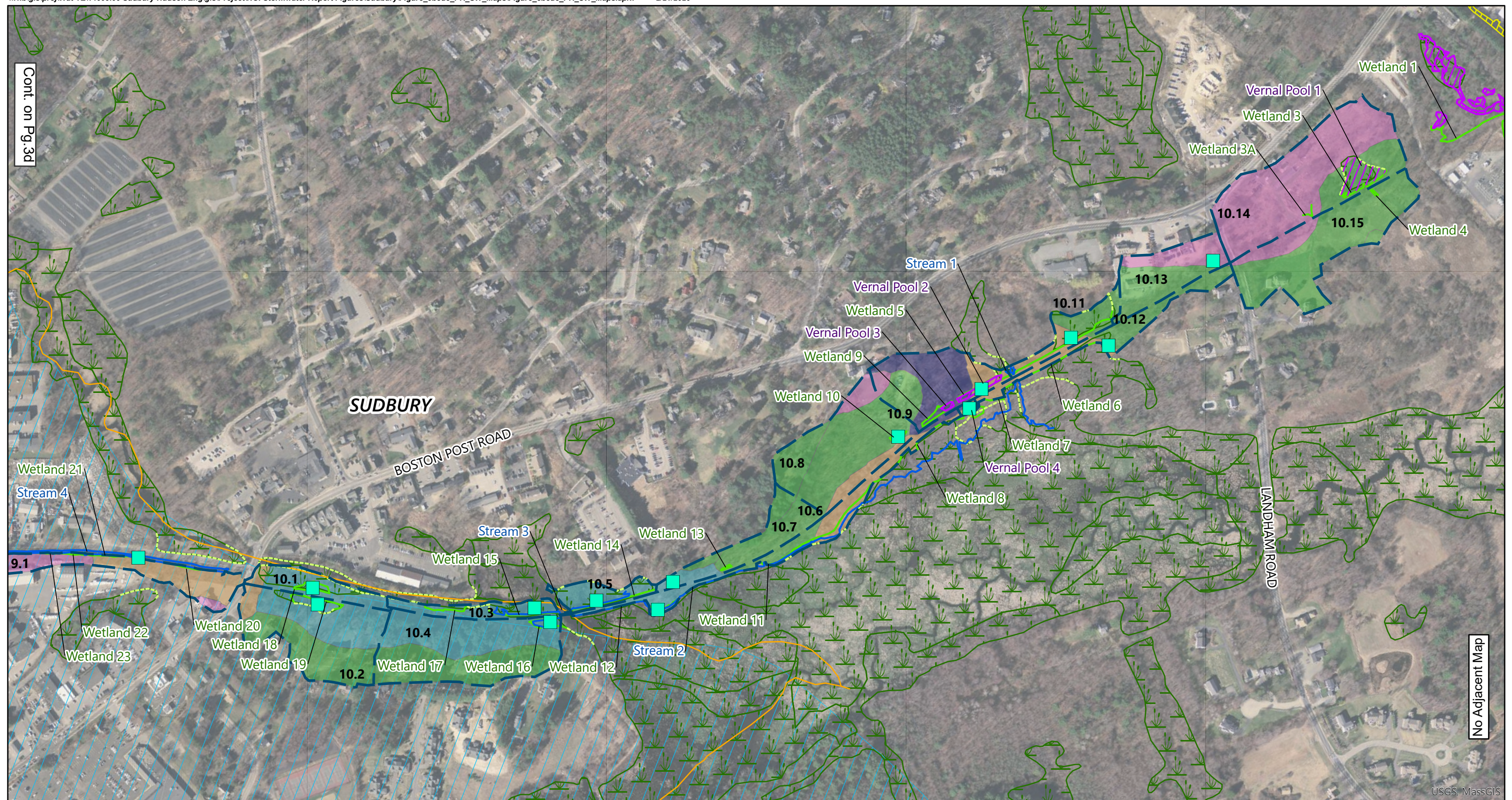
- MA DFW Coldwater Fisheries Resources
- Delineated Vernal Pool Edge
- Delineated Wetland Edge
- Approximate Wetland Edge
- Delineated Top of Bank
- Vernal Pool
- Approximate Vernal Pool
- Approximate Isolated Wetland

- Approximate Wetland Resource Areas (From MassGIS)
- DEP Approved Zone II
- Proposed Drainage Areas
- Massachusetts Municipalities

- Design Point
- Hydrologic Soil Group
 - Unknown
 - A
 - B/D



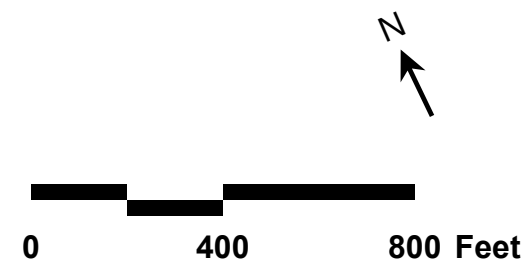




- MA DFW Coldwater Fisheries Resources
- Delineated Wetland Edge
- Approximate Wetland Edge
- Delineated Top of Bank
- Delineated Vernal Pool Edge
- Vernal Pool
- Approximate Vernal Pool
- Approximate Isolated Wetland
- Approximate Wetland Resource Areas (From MassGIS)
- DEP Approved Zone II
- Proposed Drainage Areas
- Massachusetts Municipalities
- Design Point

Hydrologic Soil Group

- Unknown
- A
- A/D
- B/D
- C



EVERSOURCE
ENERGY

Sudbury-Hudson Transmission Reliability Project

Figure 3e: Proposed Drainage Areas

Date: 2/21/2020

Source:
MassGIS, VHB



3

State Regulatory Compliance

As demonstrated below, the proposed Project, which is considered a limited project and bike path, complies with the DEP Stormwater Management Standards for footpaths, bike paths, and other paths for pedestrians and/or nonmotorized vehicle access to the maximum extent practicable.

Standard 1: No New Untreated Discharges or Erosion to Wetlands

The existing drainage patterns will be maintained where feasible and all proposed Project stormwater outlets and conveyances were designed to not cause erosion or scour to wetlands or receiving waters or result in new untreated discharge points. The outlet from closed drainage system was designed with a flared end section and stone protection to dissipate discharge velocity. Overflows from BMPs that impound stormwater were designed with vegetated material to protect down-gradient areas from erosion.

Computations and supporting information are provided in Appendix A.

Standard 2: Peak Rate Attenuation

The Project complies with Standard 2 to the maximum extent practicable. Of the 67 design points, twelve require the inclusion of BMPs to comply with this Standard and seven comply

to the maximum extent practicable. The Project is constrained within a ROW that is typically 80 feet wide. The Project complies with this Standard to the maximum extent practicable due to two reasons. First, the transmission line and MCRT are generally located in the middle of the ROW, decreasing the available space for BMPs between the limit of grading and the ROW boundary. In addition to the limitation of the ROW width, beyond the proposed limits of work, the ROW currently consists of scattered saplings and young trees to moderately dense saplings and young trees, with significant topographic changes in some areas. Mitigating to fully comply with this Standard for minor stormwater impacts would require significant earthwork impacts and possible impacts to wetland resource areas.

As outlined in the Stormwater Management Bylaw Regulations for the Town of Sudbury, the rainfall-runoff response of the Site under the existing and proposed conditions was analyzed for storm events with recurrence intervals of 2, 10, 25, and 100 years, with rainfall amounts of 3.2", 4.8", 6.0", and 8.6", respectively. A rainfall depth of one inch was also evaluated, as outlined by the Stormwater Management Bylaw Regulations for the Town of Sudbury. The results of the analysis, as summarized in Tables 4 to 9 below, demonstrate peak rates are matched for all discharge points with the following exceptions outlined below.

Three design points exhibit an increase in peak discharge rates between the existing and proposed conditions for the 2-, 10-, 25-, and 100-year storms, one design point exhibits increases in peak discharge rates between existing and proposed for the 10-year storm, two design points exhibit increases in peak discharge rates between the existing and proposed conditions in the 25- and 100-year storms; and two design points exhibit an increase in peak discharge rates between the existing and proposed conditions for the 100-year storm. In these areas, given that the increases in peak rates between the existing and proposed conditions are minimal, it is likely that the impacts of implementing additional mitigation measures to decrease the peak flow outweigh the benefits gained from adding such measures. For the design points where the Project will result in an increase in peak rates, mitigation measures were employed where possible and are discussed below. The red numbers in Tables 4 through 9 below indicate increases in peak rate attenuation between existing and proposed conditions for the design points that comply with Standard 2 to the maximum extent practicable.

Design Points that Comply with Standard 2 with the implementation of additional stormwater controls

The following design points can mitigate peak flows with the use of infiltration basins:

DP-5.8: A one-foot-deep linear infiltration basin is proposed for 200 ft along the edge of the bike path to attenuate the proposed peak flows to existing level. This linear infiltration basin is in line with the water quality swale. The water quality swale in this area is relatively flat and includes additional check dams to promote infiltration above that of a standard swale.

DP-5.14: A one-foot-deep linear infiltration basin is proposed for 250 ft along the edge of the bike path to attenuate the proposed peak flows to existing levels. This linear infiltration basin is in line with the water quality swale. The water quality swale in this area is relatively flat and includes additional check dams to promote infiltration above that of a standard swale.

DP-5.18: A one-foot-deep linear infiltration basin is proposed for 50 ft along the edge of the bike path to attenuate the proposed peak flows to existing levels. This linear infiltration basin is in line with the water quality swale. The water quality swale in this area is relatively flat and includes additional check dams to promote infiltration above that of a standard swale.

DP-6.2 - A 10-foot-wide water quality swale is proposed along the south side of the bike path to mitigate peak flows. This widened infiltration basin is in line with the water quality swale. The water quality swale in this area is relatively flat and includes additional check dams to promote infiltration above that of a standard swale.

DP-6.6: A one-foot-deep linear infiltration basin is proposed for 700 ft along the edge of the bike path to attenuate the proposed peak flows to existing levels. This linear infiltration basin is in line with the water quality swale. The water quality swale in this area is relatively flat and includes additional check dams to promote infiltration above that of a standard swale.

DP-7.1: An infiltration basin is proposed approximately 270 ft from Peakham Road. A catch basin is proposed where the bike path and Peakham Road meet to collect any additional runoff from the Site onto Peakham Road and route the runoff to the infiltration basin.

DP-8.2: A one-foot-deep linear infiltration basin is proposed for 450 ft along the edge of the bike path to attenuate the proposed peak flows to existing levels. This linear infiltration basin is in line with the water quality swale. The water quality swale in this area is relatively flat and includes additional check dams to promote infiltration above that of a standard swale.

DP-8.3: A one-foot-deep linear infiltration basin is proposed for 700 ft along the edge of the bike path to attenuate the proposed peak flows to existing levels. This linear infiltration basin is in line with the water quality swale. The water quality swale in this area is relatively flat and includes additional check dams to promote infiltration above that of a standard swale.

DP-8.4: A one-foot-deep linear infiltration basin is proposed for 700 ft along the edge of the bike path to attenuate the proposed peak flows to existing levels. This linear infiltration basin is in line with the water quality swale. The water quality swale in this area is relatively flat and includes additional check dams to promote infiltration above that of a standard swale.

DP-8.5: A one-foot-deep linear infiltration basin is proposed for 900 ft along the edge of the bike path to attenuate the proposed peak flows to existing levels. This linear infiltration basin is in line with the water quality swale. The water quality swale in this area is relatively flat and includes additional check dams to promote infiltration above that of a standard swale.

DP-10.7: A one-foot-deep linear infiltration basin is proposed for 550 ft along the edge of the bike path to attenuate the proposed peak flows to existing levels. This linear infiltration basin is in line with the water quality swale. The water quality swale in this area is relatively flat and includes additional check dams to promote infiltration above that of a standard swale.

DP-10.12: A one-foot-deep linear infiltration basin is proposed for 300 ft along the edge of the bike path to attenuate the proposed peak flows to existing levels. This linear infiltration basin is in line with the water quality swale. The water quality swale in this area is relatively flat and includes additional check dams to promote infiltration above that of a standard swale.

DP-10.13: A one-foot-deep linear infiltration basin is proposed for 300 ft along the edge of the bike path to attenuate the proposed peak flows to existing levels. This linear infiltration basin is in line with the water quality swale. The water quality swale in this area is relatively flat and includes additional check dams to promote infiltration above that of a standard swale.

Design Points that Comply with Standard 2 to the Maximum Extent Practicable

The following design points were analyzed and demonstrated an increase in peak runoff as demonstrated below. However, the construction impacts (tree clearing, earthwork, etc.) for BMPs to mitigate the slight increases would likely exceed the impact of the increased runoff:

DP-5.11: The peak rates for DP-5.11 for the 100-year storm are minimally higher under the proposed conditions than under the existing conditions. The increase in peak rates between the existing and proposed conditions is minimal (0.4 cfs). The 100-year storm was evaluated, and the calculations confirmed that the increased peak rate in this storm has no downstream impact.

DP-5.12: The peak rates for DP-5.12 are higher under the proposed conditions than under the existing conditions for the 10-year storm. Incorporating an infiltration basin to attenuate the peak rates for the 10-year storm to existing levels would require significant clearing of trees. Given that the increase in peak rates between the existing and proposed conditions is minimal (0.2 cfs), it is likely that the impacts of clearing additional trees outweigh the benefits gained from an infiltration basin.

DP-5.20: The peak rates for DP-5.20 are higher under the proposed conditions than under the existing conditions for the 2-, 10-, and 100-year storms. Incorporating an infiltration basin to attenuate the peak rates for the 10-year storm to existing levels would require significant clearing of trees. Given that the increase in peak rates between the existing and proposed conditions is minimal (0.3 cfs), it is likely that the impacts of clearing additional trees outweigh the benefits gained from an infiltration basin.

DP-5.21: The peak rates for DP-5.21 are higher under the proposed conditions than under the existing conditions for the 10-year storm. Incorporating an infiltration basin to attenuate the peak rates for the 10-year storm to existing levels would require significant clearing of trees. Given that the increase in peak rates between the existing and proposed conditions is minimal (0.1 cfs), it is likely that the impacts of clearing additional trees outweigh the benefits gained from an infiltration basin.

DP-6.14: The peak rates for DP-6.14 are higher under the proposed conditions than under the existing conditions for the 2-, 10-, 25-, and 100-year storms. Incorporating an infiltration basin to attenuate the peak rates for the 10-year storm to existing levels would require significant clearing of trees and impacts to Wetland 44. Given that the increase in peak rates between the existing and proposed conditions is minimal (0.7 cfs), it is likely that the impacts of clearing additional trees outweigh the benefits gained from adding an infiltration basin.

DP-8.8: The peak rates for DP-8.8 are higher under the proposed conditions than under the existing conditions for the 2-, 10-, 25-, and 100-year storms. Incorporating an infiltration basin to attenuate the peak rates for the 10-year storm to existing levels would require

significant clearing of trees. Given that the increase in peak rates between the existing and proposed conditions is minimal (0.3 cfs), it is likely that the impacts of clearing additional trees outweigh the benefits gained from adding an infiltration basin.

DP-8.11: The peak rates for DP-8.11 are higher under the proposed conditions than under the existing conditions for the 25- and 100-year storms. Because the 10-year storm is met and the increase in peak rates between the existing and proposed conditions for the 25- and 100-year storms is minimal (0.3 cfs), it is likely that the impacts of clearing additional trees outweigh the benefits gained from adding an infiltration basin.

DP-10.1: The peak rates for DP-10.1 are higher under the proposed conditions than under the existing conditions for the 2-, 10-, 25-, and 100-year storms. Incorporating an infiltration basin to attenuate the peak rates for the 10-year storm to existing levels would require significant clearing of trees. Given that the increase in peak rates between the existing and proposed conditions is minimal (0.8 cfs), it is likely that the impacts of clearing additional trees outweigh the benefits gained from an infiltration basin.

DP-10.3: The peak rates for DP-10.3 would be higher under the proposed conditions than under the existing conditions for the 25- and 100-year storms. Because the 10-year storm is met and the increase in peak rates between the existing and proposed conditions is minimal (0.1 cfs), it is likely that the impacts of clearing additional trees outweigh the benefits gained from adding an infiltration basin.

DP-10.15: The peak rates for DP-10.15 for the 100-year storm are higher under the proposed conditions than under the existing conditions. The increase in peak rates between the existing and proposed conditions is minimal (0.1 cfs) it is likely that the impacts of clearing additional trees outweigh the benefits gained from adding an infiltration basin.

The computations and supporting information for the hydrologic model are provided in Appendix B.

Table 4 Peak Discharge Rates (cfs) – Segment 5

Design Point	Design Storms				
	1-inch	2-year	10-year	25-year	100-year
DP-5.6					
Existing	0.0	0.0	0.1	0.4	4.9
Proposed	0.0	0.0	0.1	0.4	4.6
DP-5.7					
Existing	0.0	0.0	0.2	1.0	5.7
Proposed	0.0	0.0	0.2	0.8	5.1
DP-5.8					
Existing	0.0	0.0	0.1	0.8	8.8
Proposed	0.0	0.0	0.0	0.0	8.8

Design Point	Design Storms				
	1-inch	2-year	10-year	25-year	100-year
DP-5.9					
Existing	0.0	0.0	0.0	0.1	1.4
Proposed	0.0	0.0	0.0	0.1	0.8
DP-5.10					
Existing	0.0	0.0	0.0	0.0	0.3
Proposed	0.0	0.0	0.0	0.0	0.3
DP-5.11					
Existing	0.0	0.0	0.0	0.0	0.2
Proposed	0.0	0.0	0.0	0.0	0.6
DP-5.12					
Existing	0.0	0.0	0.3	1.2	4.4
Proposed	0.0	0.0	0.5	1.2	3.5
DP-5.13					
Existing	0.0	0.0	0.2	0.7	4.4
Proposed	0.0	0.0	0.1	0.5	3.6
DP-5.14					
Existing	0.0	0.1	0.2	0.8	6.3
Proposed	0.0	0.0	0.0	0.0	6.3
DP-5.15					
Existing	0.0	0.0	0.2	0.8	5.0
Proposed	0.0	0.0	0.2	0.8	5.0
DP-5.16					
Existing	0.0	0.0	0.0	0.1	1.7
Proposed	0.0	0.0	0.0	0.1	1.4
DP-5.17					
Existing	0.0	0.0	0.0	0.2	3.8
Proposed	0.0	0.0	0.0	0.2	3.8
DP-5.18					
Existing	0.0	0.0	0.0	0.1	1.4
Proposed	0.0	0.0	0.0	0.0	0.0
DP-5.19					
Existing	0.0	0.0	0.0	0.0	0.3
Proposed	0.0	0.0	0.0	0.0	0.2
DP-5.20					
Existing	0.0	0.0	0.0	0.0	0.2
Proposed	0.0	0.1	0.1	0.1	0.5
DP-5.21					
Existing	0.0	0.0	0.0	0.1	1.0
Proposed	0.0	0.0	0.1	0.1	1.0

Table 5 Peak Discharge Rates (cfs) – Segment 6

Design Point	Design Storms				
	1-inch	2-year	10-year	25-year	100-year
DP-6.1					
Existing	0.0	0.0	0.0	0.1	0.5
Proposed	0.0	0.0	0.0	0.1	0.4
DP-6.2					
Existing	0.0	0.0	0.0	0.0	0.2
Proposed	0.0	0.0	0.0	0.0	0.2
DP-6.3					
Existing	0.0	0.0	0.1	0.3	1.0
Proposed	0.0	0.0	0.1	0.3	0.9
DP-6.4					
Existing	0.0	0.1	1.3	2.7	6.5
Proposed	0.0	0.1	1.3	2.7	6.5
DP-6.5					
Existing	0.0	0.0	0.3	1.6	9.9
Proposed	0.0	0.0	0.3	1.6	9.9
DP-6.6					
Existing	0.0	0.0	0.6	1.9	6.6
Proposed	0.0	0.0	0.0	0.0	5.6
DP-6.7					
Existing	0.0	0.0	0.4	1.4	5.8
Proposed	0.0	0.0	0.2	0.9	4.5
DP-6.8					
Existing	0.0	0.0	0.0	0.1	1.2
Proposed	0.0	0.0	0.0	0.1	1.2
DP-6.9					
Existing	0.0	0.0	0.1	0.3	1.6
Proposed	0.0	0.0	0.1	0.3	1.3
DP-6.10					
Existing	0.0	0.2	0.6	1.5	4.7
Proposed	0.0	0.0	0.6	1.5	4.7
DP-6.11					
Existing	0.0	0.0	0.0	0.0	0.3
Proposed	0.0	0.0	0.0	0.0	0.3
DP-6.12					
Existing	0.0	0.0	0.0	0.0	0.2
Proposed	0.0	0.0	0.0	0.0	0.2

Design Point	Design Storms				
	1-inch	2-year	10-year	25-year	100-year
DP-6.13					
Existing	0.0	0.2	2.1	4.2	9.5
Proposed	0.0	0.2	2.1	4.1	9.2
DP-6.14					
Existing	0.0	1.6	6.5	10.3	19.3
Proposed	0.0	1.8	6.9	10.8	20.0
DP-6.15					
Existing	0.0	0.2	0.3	0.4	0.6
Proposed	0.0	0.2	0.3	0.4	0.6

Table 6 Peak Discharge Rates (cfs) – Segment 7

Design Point	Design Storms				
	1-inch	2-year	10-year	25-year	100-year
DP-7.1					
Existing	0.0	1.2	7.0	12.1	24.9
Proposed	0.0	0.0	5.2	10.6	23.7
DP-7.2					
Existing	0.0	0.0	0.0	0.3	1.6
Proposed	0.0	0.0	0.0	0.2	1.3
DP-7.3					
Existing	0.0	0.0	0.5	1.4	4.7
Proposed	0.0	0.0	0.5	1.4	4.7
DP-7.4					
Existing	0.0	2.9	9.9	15.3	27.9
Proposed	0.0	2.9	9.9	15.3	27.9
DP-7.5					
Existing	0.0	1.3	12.3	24.0	54.4
Proposed	0.0	1.3	12.2	23.8	54.1
DP-7.6					
Existing	0.0	0.0	0.0	0.0	0.0
Proposed	0.0	0.0	0.0	0.0	0.0
DP-7.7					
Existing	0.0	0.0	0.0	0.1	0.4
Proposed	0.0	0.0	0.0	0.0	0.1
DP-7.8					
Existing	0.0	0.0	0.0	0.0	0.0
Proposed	0.0	0.0	0.0	0.0	0.0
DP-7.9					
Existing	0.0	0.0	0.8	2.1	7.3
Proposed	0.0	0.0	0.8	2.1	7.3
DP-7.10					
Existing	0.0	0.0	0.0	0.0	0.2
Proposed	0.0	0.0	0.0	0.0	0.1
DP-7.11					
Existing	0.0	0.0	0.2	0.6	1.6
Proposed	0.0	0.0	0.2	0.6	1.6
DP-7.12					
Existing	0.0	0.0	0.2	0.5	1.3
Proposed	0.0	0.0	0.2	0.5	1.3

Table 7 Peak Discharge Rates (cfs) – Segment 8

Design Point	Design Storms				
	1-inch	2-year	10-year	25-year	100-year
DP-8.1					
Existing	0.0	2.7	15.8	27.6	56.7
Proposed	0.0	2.6	15.8	27.6	56.6
DP-8.2					
Existing	0.0	0.1	1.6	4.7	15.0
Proposed	0.0	0.0	0.0	2.0	13.3
DP-8.3					
Existing	0.0	1.3	8.8	15.9	33.9
Proposed	0.0	0.0	6.9	14.1	32.1
DP-8.4					
Existing	0.0	0.0	0.0	0.1	0.5
Proposed	0.0	0.0	0.0	0.0	0.0
DP-8.5					
Existing	0.0	1.6	4.5	6.6	11.2
Proposed	0.0	1.8	4.5	6.4	10.6
DP-8.6					
Existing	0.0	11.8	31.4	45.4	77.0
Proposed	0.0	11.7	31.2	45.2	76.6
DP-8.7					
Existing	0.0	0.0	0.0	0.0	0.4
Proposed	0.0	0.0	0.0	0.0	0.3
DP-8.8					
Existing	0.0	1.1	2.3	3.1	4.8
Proposed	0.0	1.3	2.5	3.4	5.1
DP-8.9					
Existing	0.0	0.1	0.7	1.2	2.3
Proposed	0.0	0.1	0.7	1.1	2.2
DP-8.10					
Existing	0.0	0.0	1.9	6.9	16.6
Proposed	0.0	0.0	1.5	5.7	16.6
DP-8.11					
Existing	0.0	0.1	0.6	1.0	2.0
Proposed	0.0	0.1	0.6	1.1	2.3

Table 8 Peak Discharge Rates (cfs) – Segment 9

Design Point	Design Storms				
	1-inch	2-year	10-year	25-year	100-year
DP-9.1					
Existing	0.3	4.0	7.4	9.6	14.2
Proposed	0.5	3.4	5.9	7.4	10.5

Table 9 Peak Discharge Rates (cfs) – Segment 10

Design Point	Design Storms				
	1-inch	2-year	10-year	25-year	100-year
DP-10.1					
Existing	0.0	1.3	2.7	3.7	5.7
Proposed	0.0	1.5	3.2	4.2	6.5
DP-10.2					
Existing	0.0	2.2	5.7	8.2	13.8
Proposed	0.0	2.0	5.3	7.7	13.0
DP-10.3					
Existing	0.0	0.9	1.8	2.5	3.9
Proposed	0.0	0.9	1.9	2.6	4.0
DP-10.4					
Existing	0.0	1.3	4.4	6.8	12.3
Proposed	0.0	1.3	4.4	6.8	12.3
DP-10.5					
Existing	0.0	1.0	2.1	2.8	4.4
Proposed	0.0	1.0	2.1	2.8	4.4
DP-10.6					
Existing	0.0	2.0	4.8	6.7	11.1
Proposed	0.0	1.0	2.8	4.1	6.9
DP-10.7					
Existing	0.0	0.0	0.1	0.4	1.8
Proposed	0.0	0.0	0.0	0.0	0.0
DP-10.8					
Existing	0.0	0.0	0.3	1.1	4.1
Proposed	0.0	0.0	0.3	1.1	4.1
DP-10.9					
Existing	0.0	1.0	3.1	4.7	8.3
Proposed	0.0	1.0	3.1	4.7	8.3

	Design Storms				
Design Point	1-inch	2-year	10-year	25-year	100-year
DP-10.10					
Existing	0.0	0.1	0.3	0.4	0.6
Proposed	0.0	0.1	0.3	0.4	0.6
DP-10.11&10.13					
Existing	0.0	1.3	3.1	4.5	7.5
Proposed	0.0	0.1	0.7	2.2	5.2
DP-10.12					
Existing	0.0	0.0	0.6	1.1	2.6
Proposed	0.0	0.0	0.0	0.0	0.0
DP-10.14					
Existing	0.0	4.7	11.2	15.6	25.5
Proposed	0.0	4.7	11.2	15.6	25.5
DP-10.15					
Existing	0.0	0.0	0.5	1.4	4.2
Proposed	0.0	0.0	0.5	1.4	4.3

Standard 3: Stormwater Recharge

The Project complies with Standard 3 to the maximum extent practicable. To achieve the required recharge volume to fully comply with this Standard, additional clearing of the existing vegetated areas would be necessary. It is likely that the impacts of the significant clearing outweigh the additional recharge volume associated with the construction of additional stormwater BMPs.

Along portions of the Project, water quality swales and check dams were added to promote recharge. The check dams were spaced to achieve the most effective recharge based on the slope of the swale. In areas where there were increases in peak rates entering closed drainage systems on local roads or abutting properties, the swales were widened beyond the standard bottom width of 1 foot to decrease the peak rate, which also allowed for additional area for recharge. The recharge calculations for these widened swales are provided in Table 10.

Table 10 Summary of Recharge Calculations

Infiltration BMP	Provided Recharge Volume (cf)
P-5.14	500
P-5.18	130
P-6.2	2,200
P-6.6	1,400
P-7.1	980
P-8.2	900
P-8.3	1,400
P-8.4	1,400
P-8.5	1,800
P-10.7	400
P-10.12	800
P-10.13	800
Total Recharge Provided	10,730
Total Recharge Required	23,697

The soil evaluation, computations, and supporting information are provided in Appendix C.

Standard 4: Water Quality

The Project complies with Standard 4 to the maximum extent practicable. Achieving the water quality volume required by the Stormwater Management Standards and Sudbury Stormwater Management Bylaw would require clearing a significant area of the existing vegetated areas along the ROW to install treatment BMPs. It is likely that the impact of the significant clearing associated with the construction of additional stormwater BMPs outweighs the relatively small increase in water quality volume.

Portions of the Project are within a Zone II Wellhead Protection Area (“WPA”), which is considered a critical area. Therefore, treatment of the 1-inch water quality volume is required. Considering that the Project’s end use will be a bike path, the Project is not anticipated to increase the pollutants loads within the Project footprint above the existing conditions. The Project will be used by pedestrians and bicyclists, which will not contribute contaminants to the path surface. Therefore, there will be little to no contaminants on the path surface to be washed off by stormwater runoff. Other than in emergency situations, vehicular access along the path will be limited to bi-weekly mowing over the shoulder by DCR, annual mowing of the duct bank, inspections by Eversource approximately once every three years, and other maintenance as needed by both Eversource and DCR. The path will not be plowed or treated in the winter. Thus, the Project is not anticipated to have a significant impact on water quality.

However, to comply with Standard 4 to the maximum extent practicable, the Project will implement water quality swales with check dams along portions of the path. In addition, there is an area where the water quality swales will be widened to create a greater infiltration area, another area where an infiltration basin will be added to mitigate flows onto the roadway, and ten areas where linear infiltration basins were added to provide treatment of the water quality volume to the maximum extent practicable. The linear infiltration basins are in line with the water quality swales. The water quality swales in these areas are relatively flat and include additional check dams to promote infiltration above that of a standard swale. Native seed mix buffers have also been proposed along the length of the Project to help reduce runoff from these areas.

Table 10 Summary of Water Quality Volume Calculations

Treatment BMP	Provided Water Quality Volume (cf)
P-5.14	500
P-5.18	130
P-6.2	2,200
P-6.6	1,400
P-7.1	980
P-8.2	900
P-8.3	1,400
P-8.4	1,400
P-8.5	1,800
P-10.7	400
P-10.12	800
P-10.13	800
Total Water Quality Volume Provided	12,710
Total Water Quality Volume Required	18,675

Computations and supporting information are provided in Appendix D.

Standard 5: Land Uses with Higher Potential Pollutant Loads (LUHPPLs)

The Project's end use will be a bike path, which is not considered a LUHPPL.

Standard 6: Critical Areas

The Project complies with Standard 6 to the maximum extent practicable. Meeting this Standard would not be achievable without additional vegetation clearing, significant earthwork, increases to the limit of disturbance near wetlands and vernal pools, and/or alterations to existing drainage patterns.

The Project passes through one Zone II Wellhead Protection Area ("WPA") and a Coldwater Fishery, which are considered critical areas. Although the Project does not involve any work within vernal pools (which qualify as Outstanding Resource Waters ("ORWs")) or vernal pool habitat, there are eight (8) vernal pools within the ROW in Sudbury. The potential stormwater impacts (peak discharge rates and volume) to these resources has been evaluated in Standard 2 above.

In critical areas, the Stormwater Management Standards require that at least 44% of the total suspended solids (TSS) be removed prior to discharge into an infiltration structure. This requirement would typically require multiple pretreatment practices in series. The Stormwater Handbook identifies several acceptable stormwater treatment BMPs for critical areas, including bioretention areas, sand or organic filters, and infiltration basins, trenches, or subsurface structures. The Stormwater Management Standards also require that BMPs be set back 100 feet from vernal pools and that all infiltrating BMPs be located at least 50 feet from any surface water including wetlands. Meeting these standards would not be achievable without additional vegetation clearing, significant earthwork, increases to the limit of disturbance near wetlands and vernal pools, and/or alterations to existing drainage patterns. Filtering BMPs would also have to be sufficiently raised to discharge into the receiving water while meeting minimum media depths, which would require raising the proposed grade line around the most environmentally sensitive areas.

The Project will be used by pedestrians and bicyclists, which will not contribute significant contaminants to the path surfaces. Other than in emergency situations, vehicular access along the path will be limited to bi-weekly mowing over the shoulder by DCR, annual mowing of the duct bank, inspections by Eversource approximately once every three years, and other maintenance as needed by both Eversource and DCR. The path will not be plowed and/or treated in the winter. Therefore, there will be little to no contaminants on the path surface to be washed off by stormwater runoff. It is likely that the additional impacts of additional vegetation clearing, significant earthwork, increases to the limit of disturbance near wetlands and vernal pools, and/or alterations to existing drainage patterns would cause more impact than to mitigate the minimal increase to peak rates.

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the Maximum Extent Practicable

The Project is a limited project, per 310 CMR 10.53(3)(d) and 310 CMR 10.53(6), the work may be approved under an Order of Conditions provided that adverse impacts are minimized, and mitigation measures are proposed in order to contribute to the protection of the interests identified in M.G.L.c.131.540 and a bike path. It has been designed to comply with Stormwater Management Standards 2, 3, 4, and 6 to the maximum extent practicable for footpaths, bike paths, and other paths for pedestrians and/or nonmotorized vehicle access.

Please refer directly to each Standard for the applicable computations and supporting information.

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Controls

The proposed erosion and sedimentation controls are shown on the Project plans. The Project will disturb more than one acre of land; thus, coverage under the Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Construction General Permit is required. As required under this permit, a Stormwater Pollution Prevention Plan (SWPPP) will be developed and submitted before land disturbance begins. Recommended construction-period pollution prevention and erosion and sedimentation controls to be finalized in the SWPPP are provided in Appendix E.

Standard 9: Operation and Maintenance Plan

A Long-Term Operation and Maintenance (O&M) Plan for the transmission line/bike path facilities will be developed consistent with DCR standard operation and maintenance practices.

Standard 10: Prohibition of Illicit Discharges

There is no sanitary sewer infrastructure known to exist on-site. The stormwater management system has been designed in compliance with current standards.

4

Local Municipal Rules and Regulations

As demonstrated below, the proposed Project, complies to the Stormwater Management Bylaw Regulations for the Town of Sudbury for footpaths, bike paths, and other paths for pedestrians and/or nonmotorized vehicle access to the maximum extent practicable, per Section 8.0.A.3 of the Bylaw.

Environmentally Sensitive Site Design

The site was designed to preserve the existing natural hydrologic conditions with respect to the ground and surface water to the maximum extent feasible. The design limits the amount of vegetation clearing and earthwork through the corridor. The Project was designed to include the use of vegetated shoulders and conveyance swales with check dams to promote infiltration and recharge to maintain the existing drainage patterns.

Low Impact Development

The Project is designed to incorporate Low Impact Design where feasible. The Project uses country drainage, grass swales, infiltration basins, and low impact sustainable landscaping such as meadow mix along the bike path. These design elements provide treatment while also preserving the existing landscape as much as possible.

Best Management Practices (BMPs)

The Project was designed to include the use of vegetated shoulders and water quality swales with check dams along portions of the project to promote infiltration and recharge, consistent with DCR's standard design for all its rail trail facilities. This design exceeds DCR's standards for conveyance water quality swales for a 2-year storm and nearly conveys the 10-year storm. In addition, there is one area where the water quality swales will be widened to create a greater infiltration area, one area where an infiltration basin will be added to mitigate flows onto the roadway, and ten areas where linear infiltration basins were added, these areas are in line with the water quality swale and are relatively flat, including additional check dams to promote infiltration above that of a standard swale as well as providing treatment of the water quality volume to the maximum extent practicable.

The Project will be used by pedestrians and bicyclists, which will not contribute significant contaminants to the path surfaces. Other than in emergency situations, vehicular access along the path will be limited to bi-weekly mowing over the shoulder by DCR, annual mowing of the duct bank, inspections by Eversource approximately once every three years, and other periodic maintenance as needed by both Eversource and DCR. The path will not be plowed and/or treated in the winter. Therefore, there will be little to no contaminants on the path surface to be washed off by stormwater runoff.

Water Quality Volume

The Sudbury Stormwater Regulations require that water quality volume shall be based on 1-inch of runoff from the tributary areas. Due to minimizing impacts and maintaining the existing vegetation along the Project the water quality volume is 0.67 inches.

Methodology

The runoff coefficients for the existing and proposed conditions, as previously shown in Tables 1 and 2, in Section 2, respectively, were determined using the NRCS Technical Release 55 (TR-55) methodology in HydroCAD. The HydroCAD model is based on the NRCS Technical Release 20 (TR-20) Model for Project Formulation Hydrology.

Design Storms: 1-inch, 2-, 10-, 25-, and 100-year

The rainfall-runoff response of the Site under the existing and proposed conditions was analyzed for storm events with recurrence intervals of 2, 10, 25, and 100 years, with rainfall amounts of 3.2", 4.8", 6.0", and 8.6", respectively, as outlined by the Stormwater Management Bylaw Regulations for the Town of Sudbury. A rainfall depth of one inch (1") was also evaluated, as outlined by the Stormwater Management Bylaw Regulations for the Town of Sudbury. The results of the analysis, as summarized in Tables 4 to 9, found in the above Section 3, Standard 2.

Pre and Post Sub-Watershed

The Site was analyzed for the pre and post development, at designated design control points.

Land Area for Existing and Proposed Conditions

The Site was analyzed using the same land area for the existing and proposed conditions per Section 8.0.3.I of the Sudbury Stormwater By-Law.

Total Volume of Discharge and Peak Rates

The total volume of discharge and peak rates were calculated and are documented in Standard 2 of this report.

Redevelopment Standards

Per the Sudbury Stormwater Bylaw this project meets the definition as a redevelopment as a construction, alteration, or improvement on a previously developed site. Although this qualifies as a redevelopment under the Sudbury Stormwater by-law, the Project is a bike path that would be considered an "other project subject to the standards only to the maximum extent practicable" under Standard 7 of the MA Stormwater Standards. As such the Project has been designed to meet the MA Stormwater Standards to the maximum extent practicable.

Water Reuse/Water Conservation

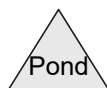
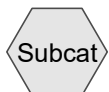
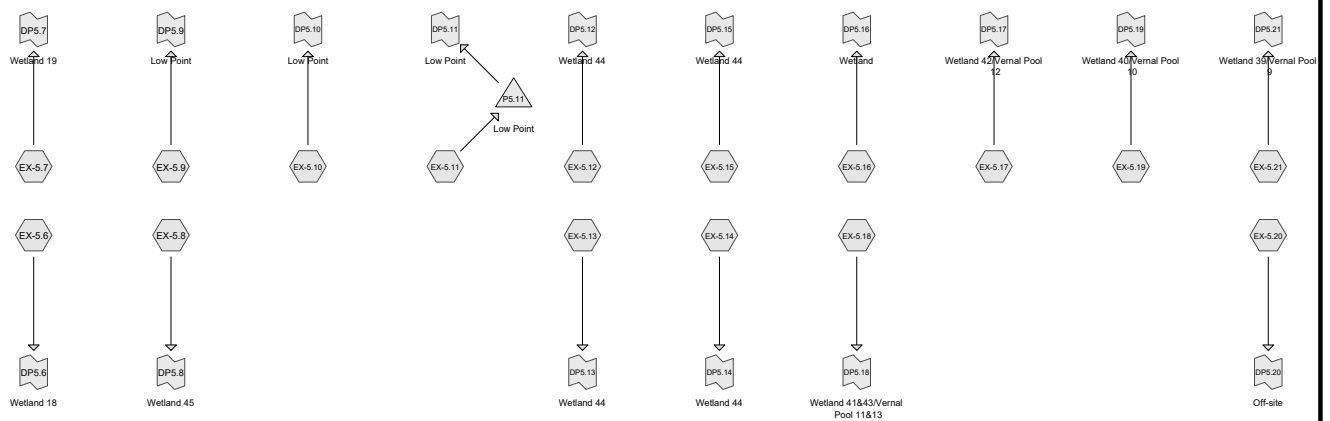
This standard is not applicable as this Project does not include any buildings and irrigation is not proposed for the corridor.

Landscape Design

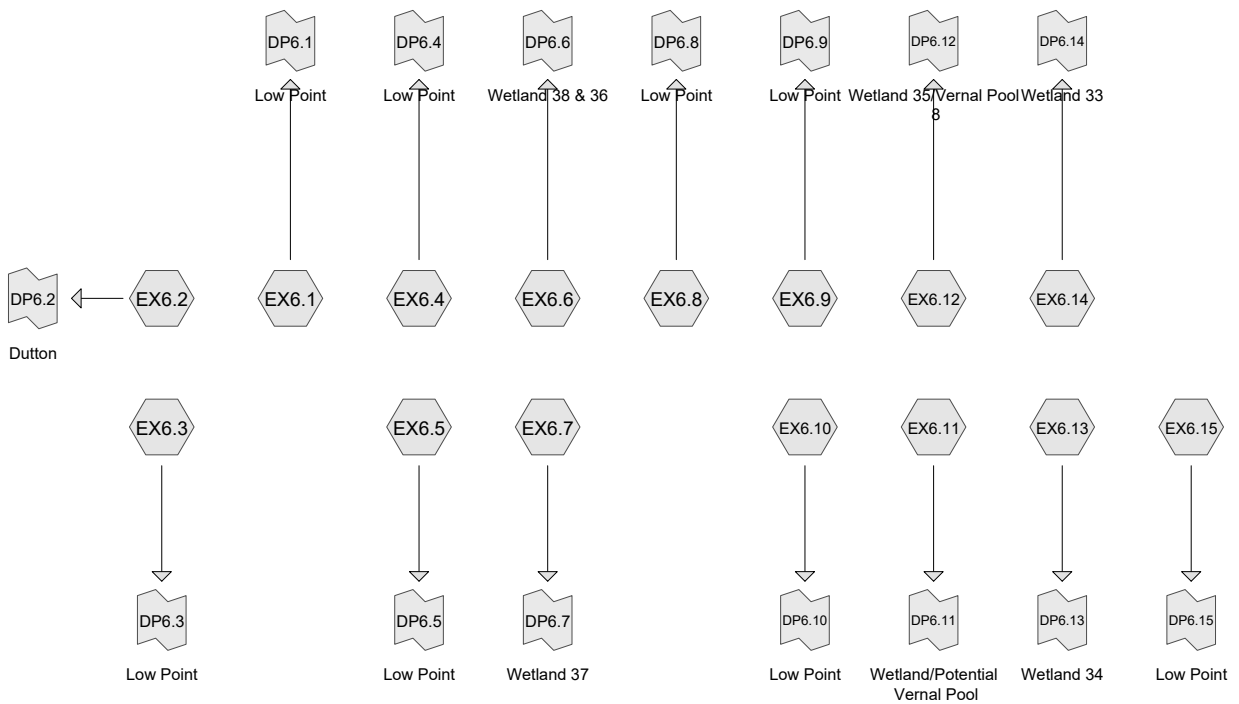
The Project will restore all disturbed areas outside of the 10-foot-wide MCRT using a native seed mix with a focus on developing an herbaceous and low-growing woody vegetation community over the duct bank (a 5-foot corridor). In addition, any areas outside of the 19-foot-wide maintained corridor that includes the paved MCRT, two 2-foot shoulders, and 5-foot area over the duct bank will be allowed to naturally revegetate with herbaceous and taller woody vegetation.

Appendix A – Standard 1 Computations and Supporting Information

HydroCAD Analysis: Existing Conditions



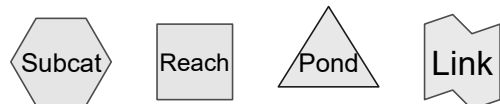
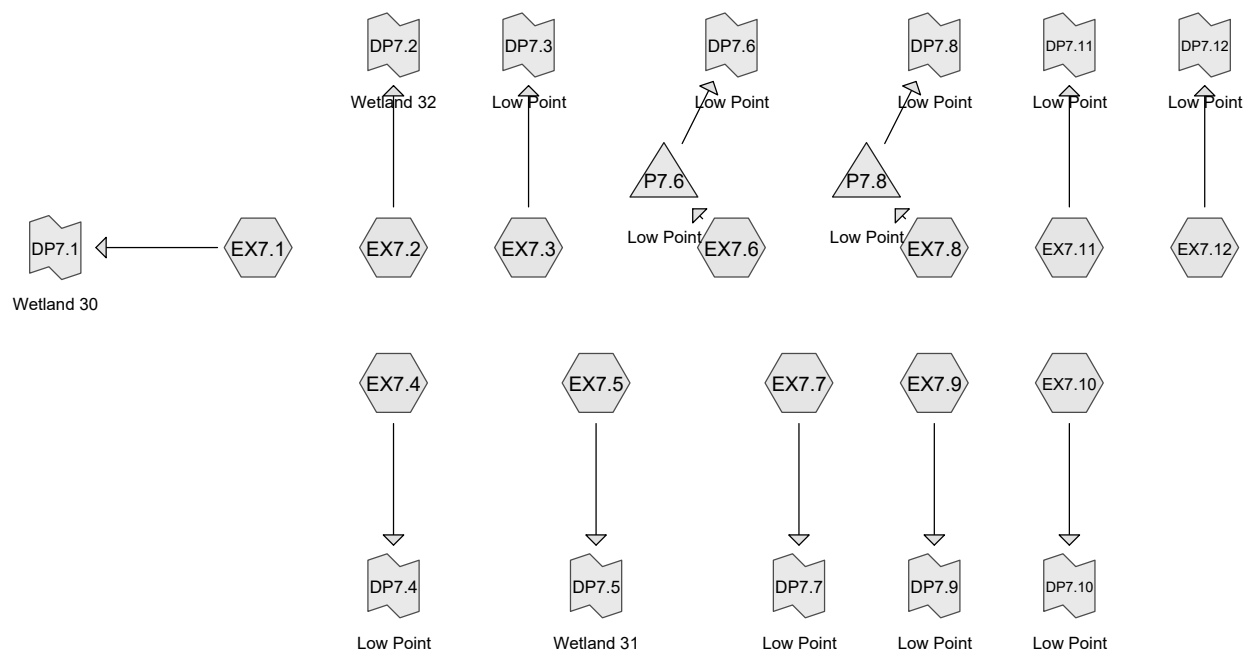
Routing Diagram for Sudbury_EX Segment 5
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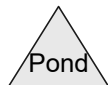
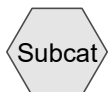
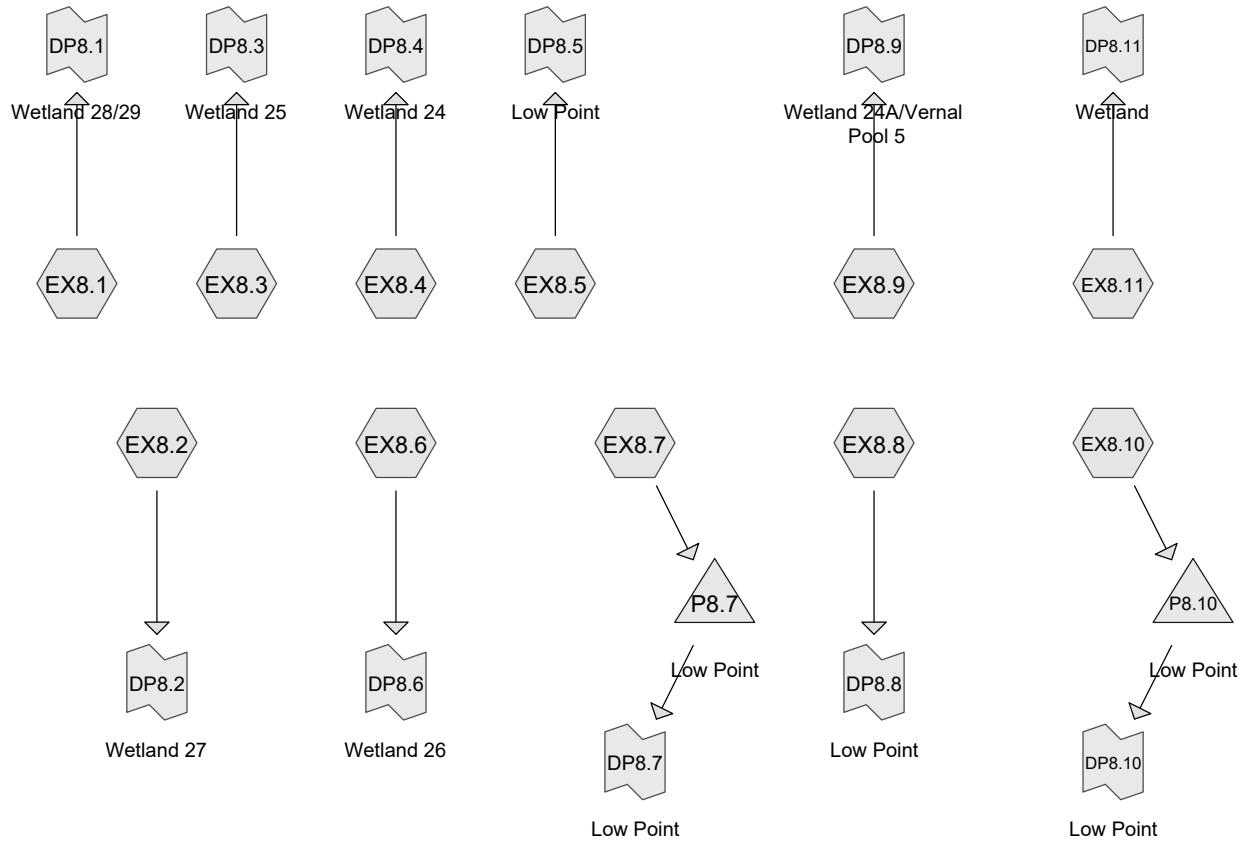


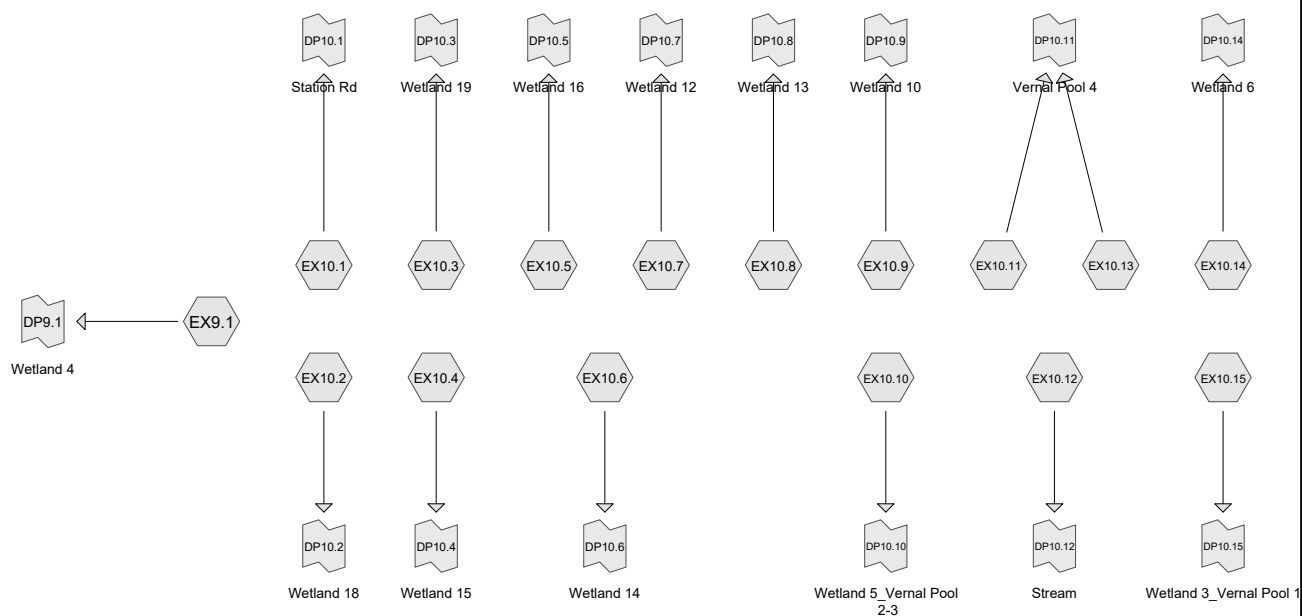
Routing Diagram for 14009.00-EX-Segment 6

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Type III 24-hr 1-inch Rainfall=1.00"

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Summary for Subcatchment EX-5.10:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
1,108	76	Gravel roads, HSG A
70,778	30	Woods, Good, HSG A
71,886	31	Weighted Average
71,886	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
9.1	620	0.0050	1.14		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
30.2	670	Total			

Summary for Subcatchment EX-5.11:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
201,376	30	Woods, Good, HSG A
201,376	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0400	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.9	500	0.0180	2.16		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
19.9	550	Total			

Summary for Subcatchment EX-5.12:

Runoff = 0.0 cfs @ 12.81 hrs, Volume= 55 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

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Type III 24-hr 1-inch Rainfall=1.00"

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Area (sf)	CN	Description
14,438	76	Gravel roads, HSG A
1,034	85	Gravel roads, HSG B
838	98	Water Surface, HSG B
230,578	30	Woods, Good, HSG A
108,442	55	Woods, Good, HSG B
355,330	40	Weighted Average
354,492	40	99.76% Pervious Area
838	98	0.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.2	50	0.0060	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
26.6	2,435	0.0090	1.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	70	0.1300	5.80		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
61.0	2,555	Total			

Summary for Subcatchment EX-5.13:

Runoff = 0.0 cfs @ 12.67 hrs, Volume= 70 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
19,905	76	Gravel roads, HSG A
1,473	85	Gravel roads, HSG B
1,067	98	Water Surface, HSG B
504,053	30	Woods, Good, HSG A
70,845	55	Woods, Good, HSG B
597,343	35	Weighted Average
596,276	35	99.82% Pervious Area
1,067	98	0.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
24.9	2,280	0.0090	1.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	75	0.1200	5.58		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
53.0	2,405	Total			

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Type III 24-hr 1-inch Rainfall=1.00"

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Summary for Subcatchment EX-5.14:

Runoff = 0.0 cfs @ 12.34 hrs, Volume= 82 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
3,987	76	Gravel roads, HSG A
1,014	85	Gravel roads, HSG B
1,239	98	Water Surface, HSG B
481,602	30	Woods, Good, HSG A
123,211	55	Woods, Good, HSG B
611,053	36	Weighted Average
609,815	35	99.80% Pervious Area
1,239	98	0.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	50	0.2600	0.11		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
16.7	475	0.0090	0.47		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.4	110	0.0680	1.30		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.7	635	Total			

Summary for Subcatchment EX-5.15:

Runoff = 0.0 cfs @ 12.42 hrs, Volume= 50 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
2,402	76	Gravel roads, HSG A
664	85	Gravel roads, HSG B
755	98	Water Surface, HSG B
357,144	30	Woods, Good, HSG A
104,293	55	Woods, Good, HSG B
465,258	36	Weighted Average
464,503	36	99.84% Pervious Area
755	98	0.16% Impervious Area

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Type III 24-hr 1-inch Rainfall=1.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.5	585	0.0180	2.16		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
32.4	635	Total			

Summary for Subcatchment EX-5.16:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
372,399	30	Woods, Good, HSG A
372,399	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	27	0.0960	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX-5.17:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
2,350	76	Gravel roads, HSG A
802,889	30	Woods, Good, HSG A
805,238	30	Weighted Average
805,238	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	30	0.1500	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	45	0.1600	6.44		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.4	75	Total			

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Type III 24-hr 1-inch Rainfall=1.00"

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Summary for Subcatchment EX-5.18:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
3,317	76	Gravel roads, HSG A
451,859	30	Woods, Good, HSG A
455,176	30	Weighted Average
455,176	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	400	0.0800	1.41		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
4.7	200	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
37.3	650	Total			

Summary for Subcatchment EX-5.19:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
2,168	76	Gravel roads, HSG A
28,098	30	Woods, Good, HSG A
30,267	33	Weighted Average
30,267	33	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	50	0.0750	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.5	110	0.0020	0.72		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.1	30	0.1300	5.80		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
15.1	190	Total			

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Type III 24-hr 1-inch Rainfall=1.00"

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Summary for Subcatchment EX-5.20:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
465	76	Gravel roads, HSG A
48,716	30	Woods, Good, HSG A
49,182	30	Weighted Average
49,182	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	200	0.0200	0.71		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
25.8	250	Total			

Summary for Subcatchment EX-5.21:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
2,319	76	Gravel roads, HSG A
245,101	30	Woods, Good, HSG A
247,420	30	Weighted Average
247,420	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	200	0.0200	0.71		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
19.4	250	Total			

Summary for Subcatchment EX-5.6:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

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Type III 24-hr 1-inch Rainfall=1.00"

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Area (sf)	CN	Description
6,191	76	Gravel roads, HSG A
863	85	Gravel roads, HSG B
667,645	30	Woods, Good, HSG A
50,438	55	Woods, Good, HSG B
725,137	32	Weighted Average
725,137	32	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	50	0.1000	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.0	545	0.0200	2.28		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
15.1	595	Total			

Summary for Subcatchment EX-5.7:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
3,124	76	Gravel roads, HSG A
868	85	Gravel roads, HSG B
304,256	30	Woods, Good, HSG A
103,451	55	Woods, Good, HSG B
411,699	37	Weighted Average
411,699	37	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	50	0.0250	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.9	490	0.0170	2.10		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
23.2	540	Total			

Summary for Subcatchment EX-5.8:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

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Type III 24-hr 1-inch Rainfall=1.00"

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Area (sf)	CN	Description
1,235	39	>75% Grass cover, Good, HSG A
6,962	76	Gravel roads, HSG A
1,935,323	30	Woods, Good, HSG A
71,626	55	Woods, Good, HSG B
2,015,145	31	Weighted Average
2,015,145	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	165	0.0480	3.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.1	165	0.0230	2.44		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
29.8	380	Total			

Summary for Subcatchment EX-5.9:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
6,721	76	Gravel roads, HSG A
196,485	30	Woods, Good, HSG A
203,205	32	Weighted Average
203,205	32	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	50	0.1000	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
5.3	510	0.0100	1.61		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
16.4	560	Total			

Summary for Pond P5.11: Low Point

Inflow Area = 201,376 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 174.50' @ 0.00 hrs Surf.Area= 5,600 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

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Type III 24-hr 1-inch Rainfall=1.00"

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Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	174.50'	9,900 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
174.50	5,600	0	0
175.00	6,260	2,965	2,965
175.50	6,930	3,298	6,263
176.00	7,620	3,638	9,900

Device	Routing	Invert	Outlet Devices
#1	Primary	175.50'	30.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=174.50' TW=0.00' (Dynamic Tailwater)

↑1=Broad-Crested Rectangular Weir(Controls 0.0 cfs)

Summary for Link DP5.10: Low Point

Inflow Area = 71,886 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.11: Low Point

Inflow Area = 201,376 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.12: Wetland 44

Inflow Area = 355,330 sf, 0.24% Impervious, Inflow Depth = 0.00" for 1-inch event
 Inflow = 0.0 cfs @ 12.81 hrs, Volume= 55 cf
 Primary = 0.0 cfs @ 12.81 hrs, Volume= 55 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 1-inch Rainfall=1.00"

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Summary for Link DP5.13: Wetland 44

Inflow Area = 597,343 sf, 0.18% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 12.67 hrs, Volume= 70 cf
Primary = 0.0 cfs @ 12.67 hrs, Volume= 70 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.14: Wetland 44

Inflow Area = 611,053 sf, 0.20% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 12.34 hrs, Volume= 82 cf
Primary = 0.0 cfs @ 12.34 hrs, Volume= 82 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.15: Wetland 44

Inflow Area = 465,258 sf, 0.16% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 12.42 hrs, Volume= 50 cf
Primary = 0.0 cfs @ 12.42 hrs, Volume= 50 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.16: Wetland

Inflow Area = 372,399 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.17: Wetland 42/Vernal Pool 12

Inflow Area = 805,238 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.18: Wetland 41&43/Vernal Pool 11&13

Inflow Area = 455,176 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.19: Wetland 40/Vernal Pool 10

Inflow Area = 30,267 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.20: Off-site

Inflow Area = 49,182 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.21: Wetland 39/Vernal Pool 9

Inflow Area = 247,420 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.6: Wetland 18

Inflow Area = 725,137 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.7: Wetland 19

Inflow Area = 411,699 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.8: Wetland 45

Inflow Area = 2,015,145 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Sudbury_EX Segment 5

Type III 24-hr 1-inch Rainfall=1.00"

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Summary for Link DP5.9: Low Point

Inflow Area = 203,205 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment EX6.1:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
8,068	39	>75% Grass cover, Good, HSG A
2,474	76	Gravel roads, HSG A
1,651	98	Paved parking, HSG A
22,391	30	Woods, Good, HSG A
34,585	39	Weighted Average
32,934		95.23% Pervious Area
1,651		4.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.9	39	0.4790	0.13		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
16.8	671	0.0090	0.66		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.7	88	0.0011	0.08		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
1.4	95	0.0260	1.13		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
40.8	893	Total			

Summary for Subcatchment EX6.10:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.585	39	>75% Grass cover, Good, HSG A
0.018	76	Gravel roads, HSG A
0.721	98	Paved parking, HSG A
2.597	30	Woods, Good, HSG A
0.007	77	Woods, Good, HSG D
3.928	44	Weighted Average
3.207		81.64% Pervious Area
0.721		18.36% Impervious Area

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Type III 24-hr 1" Rainfall=1.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.0	50	0.0260	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
5.9	138	0.0240	0.39		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
24.9	188	Total			

Summary for Subcatchment EX6.11:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.080	39	>75% Grass cover, Good, HSG A
0.007	76	Gravel roads, HSG A
0.020	98	Paved parking, HSG A
0.690	30	Woods, Good, HSG A
0.796	33	Weighted Average
0.777		97.53% Pervious Area
0.020		2.47% Impervious Area

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

Summary for Subcatchment EX6.12:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.122	39	>75% Grass cover, Good, HSG A
0.005	76	Gravel roads, HSG A
0.477	30	Woods, Good, HSG A
0.605	32	Weighted Average
0.605		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	15	0.1133	0.11		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
2.2	16	0.6080	0.12		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.5	31	Total, Increased to minimum Tc = 6.0 min			

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment EX6.13:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.341	39	>75% Grass cover, Good, HSG A
0.188	80	>75% Grass cover, Good, HSG D
0.037	76	Gravel roads, HSG A
0.255	98	Paved parking, HSG A
0.122	98	Paved parking, HSG D
1.603	30	Woods, Good, HSG A
0.660	77	Woods, Good, HSG D
3.205	52	Weighted Average
2.828		88.24% Pervious Area
0.377		11.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	13	0.1770	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
6.3	40	0.2650	0.11		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.0	53	Total			

Summary for Subcatchment EX6.14:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.335	80	>75% Grass cover, Good, HSG D
0.044	76	Gravel roads, HSG A
0.234	98	Paved parking, HSG A
0.274	98	Paved parking, HSG D
1.951	30	Woods, Good, HSG A
0.757	70	Woods, Good, HSG C
1.646	77	Woods, Good, HSG D
5.241	61	Weighted Average
4.733		90.31% Pervious Area
0.508		9.69% Impervious Area

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Type III 24-hr 1" Rainfall=1.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	50	0.0800	0.12		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
1.8	75	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.9	75	0.0800	1.41		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
2.7	80	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
12.4	280	Total			

Summary for Subcatchment EX6.15:

Runoff = 0.0 cfs @ 12.14 hrs, Volume= 44 cf, Depth= 0.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.064	98	Paved parking, HSG A
0.016	30	Woods, Good, HSG A
0.080	84	Weighted Average
0.016		20.11% Pervious Area
0.064		79.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	14	0.1210	0.11		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
5.6	33	0.2400	0.10		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
7.7	47	Total			

Summary for Subcatchment EX6.2:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.027	76	Gravel roads, HSG A
0.004	98	Paved parking, HSG A
0.696	30	Woods, Good, HSG A
0.727	32	Weighted Average
0.723		99.43% Pervious Area
0.004		0.57% Impervious Area

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Type III 24-hr 1" Rainfall=1.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	50	0.0440	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.2	82	0.2180	1.17		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.9	712	0.0090	0.66		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
34.5	844	Total			

Summary for Subcatchment EX6.3:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.134	98	Paved parking, HSG A
0.646	30	Woods, Good, HSG A
0.780	42	Weighted Average
0.646		82.81% Pervious Area
0.134		17.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.1	50	0.0660	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.6	105	0.0238	1.08		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
14.7	155	Total			

Summary for Subcatchment EX6.4:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
74,975	39	>75% Grass cover, Good, HSG A
27,168	98	Paved parking, HSG A
22,971	30	Woods, Good, HSG A
125,114	50	Weighted Average
97,946		78.29% Pervious Area
27,168		21.71% Impervious Area

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Type III 24-hr 1" Rainfall=1.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	50	0.0740	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	36	0.0860	0.73		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
13.3	86	Total			

Summary for Subcatchment EX6.5:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
2.733	39	>75% Grass cover, Good, HSG A
1.189	98	Paved parking, HSG A
12.942	30	Woods, Good, HSG A
16.865	36	Weighted Average
15.675		92.95% Pervious Area
1.189		7.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.1	41	0.0585	0.60		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.8	91	Total			

Summary for Subcatchment EX6.6:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
1.233	39	>75% Grass cover, Good, HSG A
0.136	76	Gravel roads, HSG A
1.031	98	Paved parking, HSG A
4.761	30	Woods, Good, HSG A
7.161	42	Weighted Average
6.131		85.61% Pervious Area
1.031		14.39% Impervious Area

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Type III 24-hr 1" Rainfall=1.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	50	0.3000	0.20		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.1	13	0.3000	2.74		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.9	850	0.0120	0.55		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.2	85	0.0590	1.21		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
31.3	998	Total			

Summary for Subcatchment EX6.7:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
1.337	39	>75% Grass cover, Good, HSG A
0.082	74	>75% Grass cover, Good, HSG C
0.060	76	Gravel roads, HSG A
0.672	98	Paved parking, HSG A
0.078	98	Roofs, HSG A
4.959	30	Woods, Good, HSG A
7.188	40	Weighted Average
6.437		89.56% Pervious Area
0.751		10.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	50	0.3300	0.12		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	13	0.4380	1.65		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
18.9	848	0.0114	0.75		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.5	86	0.0530	0.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
28.4	997	Total			

Summary for Subcatchment EX6.8:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

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Type III 24-hr 1" Rainfall=1.00"

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Area (ac)	CN	Description
1.052	39	>75% Grass cover, Good, HSG A
3.865	30	Woods, Good, HSG A
4.917	32	Weighted Average
4.917		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	44	0.5000	0.14		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
15.2	728	0.0130	0.80		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.6	113	0.0180	0.34		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
26.1	885	Total			

Summary for Subcatchment EX6.9:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.259	39	>75% Grass cover, Good, HSG A
0.006	76	Gravel roads, HSG A
0.108	98	Paved parking, HSG A
0.530	30	Woods, Good, HSG A
0.902	41	Weighted Average
0.795		88.09% Pervious Area
0.108		11.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.0					Direct Entry, 6.0

Summary for Link DP6.1: Low Point

Inflow Area = 34,585 sf, 4.77% Impervious, Inflow Depth = 0.00" for 1" event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.10: Low Point

Inflow Area = 171,088 sf, 18.36% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.11: Wetland/Potential Vernal Pool

Inflow Area = 34,690 sf, 2.47% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.12: Wetland 35/Vernal Pool 8

Inflow Area = 26,336 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.13: Wetland 34

Inflow Area = 139,625 sf, 11.76% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.14: Wetland 33

Inflow Area = 228,310 sf, 9.69% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.15: Low Point

Inflow Area = 3,490 sf, 79.89% Impervious, Inflow Depth = 0.15" for 1" event
Inflow = 0.0 cfs @ 12.14 hrs, Volume= 44 cf
Primary = 0.0 cfs @ 12.14 hrs, Volume= 44 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.2: Dutton

Inflow Area = 31,671 sf, 0.57% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.3: Low Point

Inflow Area = 33,974 sf, 17.19% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.4: Low Point

Inflow Area = 125,114 sf, 21.71% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.5: Low Point

Inflow Area = 734,623 sf, 7.05% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.6: Wetland 38 & 36

Inflow Area = 311,949 sf, 14.39% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.7: Wetland 37

Inflow Area = 313,094 sf, 10.44% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.8: Low Point

Inflow Area = 214,195 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.9: Low Point

Inflow Area = 39,308 sf, 11.91% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment EX7.1:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
2.052	39	>75% Grass cover, Good, HSG A
0.682	80	>75% Grass cover, Good, HSG D
0.072	76	Gravel roads, HSG A
0.030	91	Gravel roads, HSG D
0.535	98	Paved parking, HSG A
0.159	98	Paved parking, HSG D
0.480	98	Paved roads w/curbs & sewers, HSG A
0.122	98	Paved roads w/curbs & sewers, HSG D
0.141	98	Roofs, HSG A
3.133	30	Woods, Good, HSG A
1.604	77	Woods, Good, HSG D
9.010	56	Weighted Average
7.572		84.05% Pervious Area
1.437		15.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	50	0.0300	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
5.6	270	0.0133	0.81		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.5	51	0.1100	1.66		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.4	371	Total			

Summary for Subcatchment EX7.10:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.006	39	>75% Grass cover, Good, HSG A
0.039	76	Gravel roads, HSG A
0.006	98	Paved parking, HSG A
0.219	30	Woods, Good, HSG A
0.269	38	Weighted Average
0.263		97.89% Pervious Area
0.006		2.11% Impervious Area

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Type III 24-hr 1" Rainfall=1.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0400	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.0	30	0.0400	0.50		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.0	80	Total			

Summary for Subcatchment EX7.11:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.624	39	>75% Grass cover, Good, HSG A
0.087	98	Paved parking, HSG A
0.149	98	Paved roads w/curbs & sewers, HSG A
0.038	98	Roofs, HSG A
0.689	30	Woods, Good, HSG A
1.587	45	Weighted Average
1.313		82.71% Pervious Area
0.274		17.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	55	0.1230	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.6	138	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
26.0	406	0.0108	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
41.6	599	Total			

Summary for Subcatchment EX7.12:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

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Type III 24-hr 1" Rainfall=1.00"

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Area (ac)	CN	Description
0.321	39	>75% Grass cover, Good, HSG A
0.084	98	Paved parking, HSG A
0.141	98	Paved roads w/curbs & sewers, HSG A
0.023	98	Roofs, HSG A
0.670	30	Woods, Good, HSG A
1.240	46	Weighted Average
0.991		79.98% Pervious Area
0.248		20.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.7	50	0.0240	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.1	75	0.0147	0.30		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
1.6	94	0.0190	0.96		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.8	62	0.0530	0.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.1	284	0.0020	0.31		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
42.3	565	Total			

Summary for Subcatchment EX7.2:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.110	39	>75% Grass cover, Good, HSG A
0.001	80	>75% Grass cover, Good, HSG D
0.027	76	Gravel roads, HSG A
0.001	91	Gravel roads, HSG D
0.058	98	Paved parking, HSG A
0.079	98	Paved roads w/curbs & sewers, HSG A
0.068	98	Roofs, HSG A
2.313	30	Woods, Good, HSG A
2.658	36	Weighted Average
2.453		92.30% Pervious Area
0.205		7.70% Impervious Area

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Type III 24-hr 1" Rainfall=1.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	50	0.0300	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
4.1	223	0.0170	0.91		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.2	16	0.2250	1.19		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
14.6	289	Total			

Summary for Subcatchment EX7.3:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.827	39	>75% Grass cover, Good, HSG A
0.024	74	>75% Grass cover, Good, HSG C
0.033	98	Paved parking, HSG A
0.191	98	Paved roads w/curbs & sewers, HSG A
0.044	98	Paved roads w/curbs & sewers, HSG C
0.181	98	Roofs, HSG A
0.001	98	Roofs, HSG C
2.129	30	Woods, Good, HSG A
0.209	70	Woods, Good, HSG C
3.640	43	Weighted Average
3.189		87.62% Pervious Area
0.450		12.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	50	0.0440	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.6	65	0.0770	0.69		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.0570	1.67		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.1	129	Total			

Summary for Subcatchment EX7.4:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

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Type III 24-hr 1" Rainfall=1.00"

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Area (ac)	CN	Description
1.195	39	>75% Grass cover, Good, HSG A
0.377	74	>75% Grass cover, Good, HSG C
0.034	80	>75% Grass cover, Good, HSG D
0.223	98	Paved parking, HSG A
0.137	98	Paved parking, HSG C
0.104	98	Paved parking, HSG D
0.128	98	Paved roads w/curbs & sewers, HSG A
0.049	98	Paved roads w/curbs & sewers, HSG C
0.115	98	Paved roads w/curbs & sewers, HSG D
0.158	98	Roofs, HSG A
0.130	98	Roofs, HSG C
0.002	98	Roofs, HSG D
1.789	30	Woods, Good, HSG A
1.956	70	Woods, Good, HSG C
2.201	77	Woods, Good, HSG D
8.600	63	Weighted Average
7.553		87.83% Pervious Area
1.047		12.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2	50	0.1600	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	80	0.0640	1.77		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
9.2	310	0.0064	0.56		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.8	50	0.0400	1.00		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.2	20	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
20.2	510	Total			

Summary for Subcatchment EX7.5:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

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Type III 24-hr 1" Rainfall=1.00"

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Area (ac)	CN	Description
3.962	39	>75% Grass cover, Good, HSG A
0.722	80	>75% Grass cover, Good, HSG D
0.020	76	Gravel roads, HSG A
0.038	91	Gravel roads, HSG D
0.666	98	Paved parking, HSG A
0.079	98	Paved parking, HSG D
1.090	98	Paved roads w/curbs & sewers, HSG A
0.990	98	Roofs, HSG A
0.161	98	Roofs, HSG D
10.498	30	Woods, Good, HSG A
4.915	77	Woods, Good, HSG D
23.140	52	Weighted Average
20.155		87.10% Pervious Area
2.984		12.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.1	145	0.0550	1.17		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.5	75	0.0267	0.82		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
15.7	270	Total			

Summary for Subcatchment EX7.6:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
3,392	39	>75% Grass cover, Good, HSG A
1,797	76	Gravel roads, HSG A
33,761	30	Woods, Good, HSG A
38,949	33	Weighted Average
38,949		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	50	0.0760	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.4	124	0.0600	0.61		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.8	174	Total			

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment EX7.7:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.131	39	>75% Grass cover, Good, HSG A
0.061	76	Gravel roads, HSG A
0.545	30	Woods, Good, HSG A
0.737	35	Weighted Average
0.737		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	50	0.1500	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.5	90	0.0290	0.43		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
12.9	140	Total			

Summary for Subcatchment EX7.8:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
12,767	39	>75% Grass cover, Good, HSG A
320	76	Gravel roads, HSG A
1,067	98	Paved parking, HSG A
914	98	Roofs, HSG A
37,247	30	Woods, Good, HSG A
52,315	35	Weighted Average
50,334		96.21% Pervious Area
1,980		3.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	41	0.1390	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
17.8	683	0.0083	0.64		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
10.2	303	0.0389	0.49		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
36.3	1,027	Total			

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment EX7.9:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
1.941	39	>75% Grass cover, Good, HSG A
0.258	98	Paved parking, HSG A
0.216	98	Paved roads w/curbs & sewers, HSG A
0.364	98	Roofs, HSG A
2.961	30	Woods, Good, HSG A
5.740	43	Weighted Average
4.902		85.40% Pervious Area
0.838		14.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	50	0.0220	0.07		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.2	14	0.0360	1.33		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.8	185	0.0454	0.53		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.7	249	Total			

Summary for Pond P7.6: Low Point

Inflow Area = 38,949 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1" event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 132.00' @ 0.00 hrs Surf.Area= 250 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	132.00'	6,580 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
132.00	250	0	0
133.00	2,120	1,185	1,185
134.00	2,690	2,405	3,590
135.00	3,290	2,990	6,580

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Type III 24-hr 1" Rainfall=1.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	134.50'	10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	132.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=0.0 cfs @ 0.00 hrs HW=132.00' (Free Discharge)↑**2=Exfiltration** (Passes 0.0 cfs of 2.4 cfs potential flow)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=132.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P7.8: Low Point**

Inflow Area = 52,315 sf, 3.79% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
Discarded = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 168.00' @ 0.00 hrs Surf.Area= 300 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	1,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	300	0	0
169.00	750	525	525
170.00	1,200	975	1,500

Device	Routing	Invert	Outlet Devices
#1	Primary	169.00'	10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	168.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=0.0 cfs @ 0.00 hrs HW=168.00' (Free Discharge)↑**2=Exfiltration** (Passes 0.0 cfs of 2.4 cfs potential flow)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=168.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Summary for Link DP7.1: Wetland 30

Inflow Area = 392,457 sf, 15.95% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.10: Low Point

Inflow Area = 11,715 sf, 2.11% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.11: Low Point

Inflow Area = 69,139 sf, 17.29% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.12: Low Point

Inflow Area = 53,996 sf, 20.02% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.2: Wetland 32

Inflow Area = 115,777 sf, 7.70% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.3: Low Point

Inflow Area = 158,537 sf, 12.38% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.4: Low Point

Inflow Area = 374,595 sf, 12.17% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.5: Wetland 31

Inflow Area = 1,007,959 sf, 12.90% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.6: Low Point

Inflow Area = 38,949 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.7: Low Point

Inflow Area = 32,105 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.8: Low Point

Inflow Area = 52,315 sf, 3.79% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.9: Low Point

Inflow Area = 250,025 sf, 14.60% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment EX8.1:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
1.938	39	>75% Grass cover, Good, HSG A
0.003	80	>75% Grass cover, Good, HSG D
0.028	76	Gravel roads, HSG A
0.028	91	Gravel roads, HSG D
1.228	98	Paved parking, HSG A
0.788	98	Paved roads w/curbs & sewers, HSG A
1.177	98	Roofs, HSG A
8.530	30	Woods, Good, HSG A
0.000	70	Woods, Good, HSG C
6.126	77	Woods, Good, HSG D
19.846	56	Weighted Average
16.653		83.91% Pervious Area
3.193		16.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	50	0.0440	0.09		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
4.3	205	0.0127	0.79		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.8	77	0.0770	0.69		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.0	332	Total			

Summary for Subcatchment EX8.10:

Runoff = 0.0 cfs @ 12.58 hrs, Volume= 508 cf, Depth= 0.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.003	76	Gravel roads, HSG A
1.408	98	Paved parking, HSG A
0.269	98	Paved roads w/curbs & sewers, HSG A
0.775	98	Roofs, HSG A
1.180	30	Woods, Good, HSG A
3.634	76	Weighted Average
1.183		32.55% Pervious Area
2.451		67.45% Impervious Area

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Type III 24-hr 1" Rainfall=1.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	50	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.7	100	0.0200	0.99		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
11.4	150	Total			

Summary for Subcatchment EX8.11:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.278	98	Paved parking, HSG A
0.028	98	Paved roads w/curbs & sewers, HSG A
0.020	98	Roofs, HSG A
0.551	30	Woods, Good, HSG A
0.878	55	Weighted Average
0.551		62.77% Pervious Area
0.327		37.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.8	50	0.0580	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.6	204	0.0250	0.40		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
22.4	254	Total			

Summary for Subcatchment EX8.2:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.081	76	Gravel roads, HSG A
0.029	91	Gravel roads, HSG D
0.092	98	Paved parking, HSG A
0.227	98	Paved roads w/curbs & sewers, HSG A
0.058	98	Roofs, HSG A
12.034	30	Woods, Good, HSG A
3.679	77	Woods, Good, HSG D
16.199	43	Weighted Average
15.823		97.68% Pervious Area
0.376		2.32% Impervious Area

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Type III 24-hr 1" Rainfall=1.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.1	50	0.0160	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
14.6	354	0.0260	0.40		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	404	Total			

Summary for Subcatchment EX8.3:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.261	39	>75% Grass cover, Good, HSG A
0.073	76	Gravel roads, HSG A
0.001	85	Gravel roads, HSG B
0.494	91	Gravel roads, HSG D
0.517	98	Paved parking, HSG A
0.254	98	Paved roads w/curbs & sewers, HSG A
0.429	98	Roofs, HSG A
7.997	30	Woods, Good, HSG A
0.463	55	Woods, Good, HSG B
5.591	77	Woods, Good, HSG D
16.080	54	Weighted Average
14.880		92.53% Pervious Area
1.201		7.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	50	0.0720	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
13.0	200	0.0105	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
25.7	250	Total			

Summary for Subcatchment EX8.4:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

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Type III 24-hr 1" Rainfall=1.00"

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Area (sf)	CN	Description
2,961	76	Gravel roads, HSG A
37,761	30	Woods, Good, HSG A
4,106	55	Woods, Good, HSG B
44,828	35	Weighted Average
44,828		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	23	0.1300	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
12.9	27	0.0200	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
6.4	273	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
24.7	323	Total			

Summary for Subcatchment EX8.5:

Runoff = 0.0 cfs @ 24.08 hrs, Volume= 10 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.000	76	Gravel roads, HSG A
0.074	85	Gravel roads, HSG B
0.001	91	Gravel roads, HSG D
0.448	98	Paved parking, HSG A
1.175	98	Roofs, HSG A
0.805	30	Woods, Good, HSG A
1.469	55	Woods, Good, HSG B
0.002	77	Woods, Good, HSG D
3.974	68	Weighted Average
2.351		59.16% Pervious Area
1.623		40.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.3	48	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
27.8	826	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	40	0.1825	1.07		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	914	Total			

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment EX8.6:

Runoff = 0.0 cfs @ 23.07 hrs, Volume= 202 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.148	85	Gravel roads, HSG B
0.328	89	Gravel roads, HSG C
0.031	91	Gravel roads, HSG D
0.049	98	Paved parking, HSG A
0.096	98	Paved parking, HSG D
1.239	30	Woods, Good, HSG A
5.697	55	Woods, Good, HSG B
3.260	70	Woods, Good, HSG C
13.992	77	Woods, Good, HSG D
24.840	69	Weighted Average
24.695		99.42% Pervious Area
0.145		0.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	58	0.1400	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
21.0	706	0.0064	0.56		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.7	43	0.1511	0.97		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
32.6	807	Total			

Summary for Subcatchment EX8.7:

Runoff = 0.0 cfs @ 24.05 hrs, Volume= 2 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.011	85	Gravel roads, HSG B
0.232	98	Paved parking, HSG A
0.104	98	Roofs, HSG A
0.186	30	Woods, Good, HSG A
0.222	55	Woods, Good, HSG B
0.755	68	Weighted Average
0.419		55.52% Pervious Area
0.336		44.48% Impervious Area

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Type III 24-hr 1" Rainfall=1.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.2	39	0.0205	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
20.5	888	0.0106	0.72		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	37	0.1590	1.00		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
38.3	964	Total			

Summary for Subcatchment EX8.8:

Runoff = 0.0 cfs @ 12.51 hrs, Volume= 187 cf, Depth= 0.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
265	76	Gravel roads, HSG A
1,570	85	Gravel roads, HSG B
7,429	98	Paved parking, HSG A
10,195	98	Paved parking, HSG B
3,423	98	Roofs, HSG A
3,349	30	Woods, Good, HSG A
12,150	55	Woods, Good, HSG B
38,381	78	Weighted Average
17,334		45.16% Pervious Area
21,047		54.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.6	50	0.0600	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX8.9:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.004	76	Gravel roads, HSG A
0.031	85	Gravel roads, HSG B
0.047	30	Woods, Good, HSG A
0.736	55	Woods, Good, HSG B
0.152	77	Woods, Good, HSG D
0.970	58	Weighted Average
0.970		100.00% Pervious Area

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Type III 24-hr 1" Rainfall=1.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	37	0.2050	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
14.1	585	0.0097	0.69		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	153	0.0160	0.32		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
28.8	775	Total			

Summary for Pond P8.10: Low Point

Inflow Area = 158,315 sf, 67.45% Impervious, Inflow Depth = 0.04" for 1" event
 Inflow = 0.0 cfs @ 12.58 hrs, Volume= 508 cf
 Outflow = 0.0 cfs @ 12.58 hrs, Volume= 508 cf, Atten= 0%, Lag= 0.3 min
 Discarded = 0.0 cfs @ 12.58 hrs, Volume= 508 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 133.00' @ 12.58 hrs Surf.Area= 2,935 sf Storage= 1 cf

Plug-Flow detention time= 0.4 min calculated for 508 cf (100% of inflow)
 Center-of-Mass det. time= 0.4 min (1,019.1 - 1,018.7)

Volume	Invert	Avail.Storage	Storage Description
#1	133.00'	9,535 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
133.00	2,935	0	0
134.00	4,745	3,840	3,840
135.00	6,645	5,695	9,535

Device	Routing	Invert	Outlet Devices
#1	Primary	134.60'	25.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	133.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.58 hrs HW=133.00' (Free Discharge)
 ↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=133.00' (Free Discharge)
 ↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Pond P8.7: Low Point

Inflow Area = 32,889 sf, 44.48% Impervious, Inflow Depth = 0.00" for 1" event
 Inflow = 0.0 cfs @ 24.05 hrs, Volume= 2 cf
 Outflow = 0.0 cfs @ 24.06 hrs, Volume= 2 cf, Atten= 0%, Lag= 0.7 min
 Discarded = 0.0 cfs @ 24.06 hrs, Volume= 2 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 135.00' @ 24.06 hrs Surf.Area= 460 sf Storage= 0 cf

Plug-Flow detention time= 0.2 min calculated for 2 cf (100% of inflow)

Center-of-Mass det. time= 0.2 min (1,358.4 - 1,358.2)

Volume	Invert	Avail.Storage	Storage Description
#1	135.00'	2,343 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
135.00	460	0	0
136.00	1,185	823	823
137.00	1,855	1,520	2,343

Device	Routing	Invert	Outlet Devices
#1	Primary	136.60'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	135.00'	1.0 cfs Exfiltration at all elevations

Discarded OutFlow Max=1.0 cfs @ 24.06 hrs HW=135.00' (Free Discharge)↑ **2=Exfiltration** (Exfiltration Controls 1.0 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=135.00' (Free Discharge)↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Link DP8.1: Wetland 28/29**

Inflow Area = 864,489 sf, 16.09% Impervious, Inflow Depth = 0.00" for 1" event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.10: Low Point

Inflow Area = 158,315 sf, 67.45% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.11: Wetland

Inflow Area = 38,246 sf, 37.23% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.2: Wetland 27

Inflow Area = 705,611 sf, 2.32% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.3: Wetland 25

Inflow Area = 700,458 sf, 7.47% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.4: Wetland 24

Inflow Area = 44,828 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.5: Low Point

Inflow Area = 173,109 sf, 40.84% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 24.08 hrs, Volume= 10 cf
Primary = 0.0 cfs @ 24.08 hrs, Volume= 10 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.6: Wetland 26

Inflow Area = 1,082,039 sf, 0.58% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 23.07 hrs, Volume= 202 cf
Primary = 0.0 cfs @ 23.07 hrs, Volume= 202 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.7: Low Point

Inflow Area = 32,889 sf, 44.48% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.8: Low Point

Inflow Area = 38,381 sf, 54.84% Impervious, Inflow Depth = 0.06" for 1" event
Inflow = 0.0 cfs @ 12.51 hrs, Volume= 187 cf
Primary = 0.0 cfs @ 12.51 hrs, Volume= 187 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.9: Wetland 24A/Vernal Pool 5

Inflow Area = 42,256 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment EX10.1:

Runoff = 0.0 cfs @ 12.50 hrs, Volume= 273 cf, Depth= 0.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
9,363	80	>75% Grass cover, Good, HSG D
1,971	91	Gravel roads, HSG D
813	98	Paved parking, HSG D
34,586	77	Woods, Good, HSG D
46,733	79	Weighted Average
45,920		98.26% Pervious Area
813		1.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	50	0.1500	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
5.8	175	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
15.2	225	Total			

Summary for Subcatchment EX10.10:

Runoff = 0.0 cfs @ 12.40 hrs, Volume= 18 cf, Depth= 0.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
0	80	>75% Grass cover, Good, HSG D
454	89	Gravel roads, HSG C
209	91	Gravel roads, HSG D
482	70	Woods, Good, HSG C
2,516	77	Woods, Good, HSG D
3,661	78	Weighted Average
3,661		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	25	0.1000	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment EX10.11:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
299	76	Gravel roads, HSG A
809	91	Gravel roads, HSG D
1,636	98	Paved parking, HSG A
27,256	30	Woods, Good, HSG A
19,302	77	Woods, Good, HSG D
49,302	52	Weighted Average
47,666		96.68% Pervious Area
1,636		3.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	50	0.1000	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX10.12:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
0	80	>75% Grass cover, Good, HSG D
4,312	76	Gravel roads, HSG A
4,401	91	Gravel roads, HSG D
789	98	Paved parking, HSG A
270	98	Paved parking, HSG D
33,179	30	Woods, Good, HSG A
13,835	77	Woods, Good, HSG D
56,785	51	Weighted Average
55,726		98.14% Pervious Area
1,059		1.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
9.6	500	0.0300	0.87		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
21.7	550	Total			

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment EX10.13:

Runoff = 0.0 cfs @ 15.30 hrs, Volume= 176 cf, Depth= 0.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
0	80	>75% Grass cover, Good, HSG D
5,981	76	Gravel roads, HSG A
10,573	91	Gravel roads, HSG D
19,835	98	Paved parking, HSG A
17,557	98	Paved parking, HSG D
25,493	30	Woods, Good, HSG A
11,416	77	Woods, Good, HSG D
90,854	74	Weighted Average
53,462		58.84% Pervious Area
37,392		41.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
36.8	50	0.0050	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	30	0.5000	3.54		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
42.9	480	Total			

Summary for Subcatchment EX10.14:

Runoff = 0.0 cfs @ 15.36 hrs, Volume= 384 cf, Depth= 0.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
53,635	80	>75% Grass cover, Good, HSG D
599	76	Gravel roads, HSG A
1,197	91	Gravel roads, HSG D
60,830	98	Paved parking, HSG D
53,829	30	Woods, Good, HSG A
99,094	77	Woods, Good, HSG D
269,184	73	Weighted Average
208,354		77.40% Pervious Area
60,830		22.60% Impervious Area

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Type III 24-hr 1" Rainfall=1.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX10.15:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
41,191	39	>75% Grass cover, Good, HSG A
121	80	>75% Grass cover, Good, HSG D
3,599	76	Gravel roads, HSG A
3,103	91	Gravel roads, HSG D
11,248	98	Paved parking, HSG A
253	98	Paved parking, HSG D
104,725	30	Woods, Good, HSG A
22,178	77	Woods, Good, HSG D
186,416	44	Weighted Average
174,915		93.83% Pervious Area
11,500		6.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
10.6	550	0.0300	0.87		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
38.5	600	Total			

Summary for Subcatchment EX10.2:

Runoff = 0.0 cfs @ 21.66 hrs, Volume= 70 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

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Type III 24-hr 1" Rainfall=1.00"

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Area (sf)	CN	Description
34,938	39	>75% Grass cover, Good, HSG A
34,850	80	>75% Grass cover, Good, HSG D
4,142	91	Gravel roads, HSG D
28,819	98	Paved parking, HSG A
3,548	98	Paved parking, HSG D
17,462	30	Woods, Good, HSG A
59,283	77	Woods, Good, HSG D
183,042	70	Weighted Average
150,675		82.32% Pervious Area
32,368		17.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.1	50	0.0090	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.5	100	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
30.6	150	Total			

Summary for Subcatchment EX10.3:

Runoff = 0.0 cfs @ 12.76 hrs, Volume= 209 cf, Depth= 0.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
0	80	>75% Grass cover, Good, HSG D
2,751	91	Gravel roads, HSG D
40,144	77	Woods, Good, HSG D
42,895	78	Weighted Average
42,895		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.2	50	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
29.1	100	Total			

Summary for Subcatchment EX10.4:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

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Type III 24-hr 1" Rainfall=1.00"

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Area (sf)	CN	Description
23,150	39	>75% Grass cover, Good, HSG A
6,935	80	>75% Grass cover, Good, HSG D
4,792	91	Gravel roads, HSG D
21,919	98	Paved parking, HSG A
16	98	Paved parking, HSG D
56,904	30	Woods, Good, HSG A
97,635	77	Woods, Good, HSG D
211,352	63	Weighted Average
189,417		89.62% Pervious Area
21,935		10.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.3	175	0.2000	2.24		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
35.2	625	Total			

Summary for Subcatchment EX10.5:

Runoff = 0.0 cfs @ 12.53 hrs, Volume= 177 cf, Depth= 0.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
3,076	80	>75% Grass cover, Good, HSG D
2,125	91	Gravel roads, HSG D
31,228	77	Woods, Good, HSG D
36,429	78	Weighted Average
36,429		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX10.6:

Runoff = 0.0 cfs @ 15.80 hrs, Volume= 125 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

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Type III 24-hr 1" Rainfall=1.00"

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Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
0	74	>75% Grass cover, Good, HSG C
41,520	80	>75% Grass cover, Good, HSG D
1,625	76	Gravel roads, HSG A
1,819	89	Gravel roads, HSG C
6,526	91	Gravel roads, HSG D
18,428	30	Woods, Good, HSG A
2,694	70	Woods, Good, HSG C
52,383	77	Woods, Good, HSG D
124,995	72	Weighted Average
124,995		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.4	100	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
23.5	150	Total			

Summary for Subcatchment EX10.7:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
3,445	76	Gravel roads, HSG A
1,711	91	Gravel roads, HSG D
61,785	30	Woods, Good, HSG A
11,563	77	Woods, Good, HSG D
78,505	40	Weighted Average
78,505		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.7	50	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.6	60	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.0	160	Total			

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment EX10.8:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
10,522	39	>75% Grass cover, Good, HSG A
323	74	>75% Grass cover, Good, HSG C
12,890	80	>75% Grass cover, Good, HSG D
52	76	Gravel roads, HSG A
0	89	Gravel roads, HSG C
1,682	91	Gravel roads, HSG D
2,763	98	Paved parking, HSG A
131,535	30	Woods, Good, HSG A
1,354	70	Woods, Good, HSG C
17,905	77	Woods, Good, HSG D
179,026	41	Weighted Average
176,263		98.46% Pervious Area
2,763		1.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
6.0	400	0.0500	1.12		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
20.7	450	Total			

Summary for Subcatchment EX10.9:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
10,399	39	>75% Grass cover, Good, HSG A
11,292	74	>75% Grass cover, Good, HSG C
6,155	80	>75% Grass cover, Good, HSG D
378	89	Gravel roads, HSG C
565	91	Gravel roads, HSG D
14,874	30	Woods, Good, HSG A
61,632	70	Woods, Good, HSG C
17,648	77	Woods, Good, HSG D
122,942	65	Weighted Average
122,942		100.00% Pervious Area

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Type III 24-hr 1" Rainfall=1.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.2	350	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
29.3	400	Total			

Summary for Subcatchment EX9.1:

Runoff = 0.3 cfs @ 12.49 hrs, Volume= 1,989 cf, Depth= 0.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
53,138	80	>75% Grass cover, Good, HSG D
47,904	98	Paved parking, HSG D
36,465	77	Woods, Good, HSG D
137,506	85	Weighted Average
89,603		65.16% Pervious Area
47,904		34.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0100	0.05		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
11.8	500	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
27.8	550	Total			

Summary for Link DP10.1: Station Rd

Inflow Area = 46,733 sf, 1.74% Impervious, Inflow Depth = 0.07" for 1" event
Inflow = 0.0 cfs @ 12.50 hrs, Volume= 273 cf
Primary = 0.0 cfs @ 12.50 hrs, Volume= 273 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.10: Wetland 5_Vernal Pool 2-3

Inflow Area = 3,661 sf, 0.00% Impervious, Inflow Depth = 0.06" for 1" event
Inflow = 0.0 cfs @ 12.40 hrs, Volume= 18 cf
Primary = 0.0 cfs @ 12.40 hrs, Volume= 18 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Link DP10.11: Vernal Pool 4

Inflow Area = 140,156 sf, 27.85% Impervious, Inflow Depth = 0.02" for 1" event
Inflow = 0.0 cfs @ 15.30 hrs, Volume= 176 cf
Primary = 0.0 cfs @ 15.30 hrs, Volume= 176 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.12: Stream

Inflow Area = 56,785 sf, 1.86% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.14: Wetland 6

Inflow Area = 269,184 sf, 22.60% Impervious, Inflow Depth = 0.02" for 1" event
Inflow = 0.0 cfs @ 15.36 hrs, Volume= 384 cf
Primary = 0.0 cfs @ 15.36 hrs, Volume= 384 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.15: Wetland 3_Vernal Pool 1

Inflow Area = 186,416 sf, 6.17% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.2: Wetland 18

Inflow Area = 183,042 sf, 17.68% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 21.66 hrs, Volume= 70 cf
Primary = 0.0 cfs @ 21.66 hrs, Volume= 70 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.3: Wetland 19

Inflow Area = 42,895 sf, 0.00% Impervious, Inflow Depth = 0.06" for 1" event
Inflow = 0.0 cfs @ 12.76 hrs, Volume= 209 cf
Primary = 0.0 cfs @ 12.76 hrs, Volume= 209 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Link DP10.4: Wetland 15

Inflow Area = 211,352 sf, 10.38% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.5: Wetland 16

Inflow Area = 36,429 sf, 0.00% Impervious, Inflow Depth = 0.06" for 1" event
Inflow = 0.0 cfs @ 12.53 hrs, Volume= 177 cf
Primary = 0.0 cfs @ 12.53 hrs, Volume= 177 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.6: Wetland 14

Inflow Area = 124,995 sf, 0.00% Impervious, Inflow Depth = 0.01" for 1" event
Inflow = 0.0 cfs @ 15.80 hrs, Volume= 125 cf
Primary = 0.0 cfs @ 15.80 hrs, Volume= 125 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.7: Wetland 12

Inflow Area = 78,505 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.8: Wetland 13

Inflow Area = 179,026 sf, 1.54% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.9: Wetland 10

Inflow Area = 122,942 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

EX_Segment_9-10*Type III 24-hr 1" Rainfall=1.00"*

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Summary for Link DP9.1: Wetland 4

Inflow Area = 137,506 sf, 34.84% Impervious, Inflow Depth = 0.17" for 1" event
Inflow = 0.3 cfs @ 12.49 hrs, Volume= 1,989 cf
Primary = 0.3 cfs @ 12.49 hrs, Volume= 1,989 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

2-Year Storm Event – Existing

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Type III 24-hr 2-year Rainfall=3.30"

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Summary for Subcatchment EX-5.10:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
1,108	76	Gravel roads, HSG A
70,778	30	Woods, Good, HSG A
71,886	31	Weighted Average
71,886	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
9.1	620	0.0050	1.14		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
30.2	670	Total			

Summary for Subcatchment EX-5.11:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
201,376	30	Woods, Good, HSG A
201,376	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0400	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.9	500	0.0180	2.16		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
19.9	550	Total			

Summary for Subcatchment EX-5.12:

Runoff = 0.0 cfs @ 12.81 hrs, Volume= 388 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

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Type III 24-hr 2-year Rainfall=3.30"

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Area (sf)	CN	Description
14,438	76	Gravel roads, HSG A
1,034	85	Gravel roads, HSG B
838	98	Water Surface, HSG B
230,578	30	Woods, Good, HSG A
108,442	55	Woods, Good, HSG B
355,330	40	Weighted Average
354,492	40	99.76% Pervious Area
838	98	0.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.2	50	0.0060	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
26.6	2,435	0.0090	1.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	70	0.1300	5.80		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
61.0	2,555	Total			

Summary for Subcatchment EX-5.13:

Runoff = 0.0 cfs @ 12.66 hrs, Volume= 273 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
19,905	76	Gravel roads, HSG A
1,473	85	Gravel roads, HSG B
1,067	98	Water Surface, HSG B
504,053	30	Woods, Good, HSG A
70,845	55	Woods, Good, HSG B
597,343	35	Weighted Average
596,276	35	99.82% Pervious Area
1,067	98	0.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
24.9	2,280	0.0090	1.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	75	0.1200	5.58		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
53.0	2,405	Total			

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Type III 24-hr 2-year Rainfall=3.30"

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Summary for Subcatchment EX-5.14:

Runoff = 0.1 cfs @ 12.34 hrs, Volume= 317 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
3,987	76	Gravel roads, HSG A
1,014	85	Gravel roads, HSG B
1,239	98	Water Surface, HSG B
481,602	30	Woods, Good, HSG A
123,211	55	Woods, Good, HSG B
611,053	36	Weighted Average
609,815	35	99.80% Pervious Area
1,239	98	0.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	50	0.2600	0.11		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
16.7	475	0.0090	0.47		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.4	110	0.0680	1.30		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.7	635	Total			

Summary for Subcatchment EX-5.15:

Runoff = 0.0 cfs @ 12.42 hrs, Volume= 193 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
2,402	76	Gravel roads, HSG A
664	85	Gravel roads, HSG B
755	98	Water Surface, HSG B
357,144	30	Woods, Good, HSG A
104,293	55	Woods, Good, HSG B
465,258	36	Weighted Average
464,503	36	99.84% Pervious Area
755	98	0.16% Impervious Area

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Type III 24-hr 2-year Rainfall=3.30"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.5	585	0.0180	2.16		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
32.4	635	Total			

Summary for Subcatchment EX-5.16:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
372,399	30	Woods, Good, HSG A
372,399	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	27	0.0960	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX-5.17:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
2,350	76	Gravel roads, HSG A
802,889	30	Woods, Good, HSG A
805,238	30	Weighted Average
805,238	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	30	0.1500	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	45	0.1600	6.44		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.4	75	Total			

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Type III 24-hr 2-year Rainfall=3.30"

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Summary for Subcatchment EX-5.18:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
3,317	76	Gravel roads, HSG A
451,859	30	Woods, Good, HSG A
455,176	30	Weighted Average
455,176	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	400	0.0800	1.41		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
4.7	200	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
37.3	650	Total			

Summary for Subcatchment EX-5.19:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
2,168	76	Gravel roads, HSG A
28,098	30	Woods, Good, HSG A
30,267	33	Weighted Average
30,267	33	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	50	0.0750	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.5	110	0.0020	0.72		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.1	30	0.1300	5.80		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
15.1	190	Total			

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Type III 24-hr 2-year Rainfall=3.30"

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Summary for Subcatchment EX-5.20:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
465	76	Gravel roads, HSG A
48,716	30	Woods, Good, HSG A
49,182	30	Weighted Average
49,182	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	200	0.0200	0.71		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
25.8	250	Total			

Summary for Subcatchment EX-5.21:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
2,319	76	Gravel roads, HSG A
245,101	30	Woods, Good, HSG A
247,420	30	Weighted Average
247,420	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	200	0.0200	0.71		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
19.4	250	Total			

Summary for Subcatchment EX-5.6:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

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Type III 24-hr 2-year Rainfall=3.30"

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Area (sf)	CN	Description
6,191	76	Gravel roads, HSG A
863	85	Gravel roads, HSG B
667,645	30	Woods, Good, HSG A
50,438	55	Woods, Good, HSG B
725,137	32	Weighted Average
725,137	32	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	50	0.1000	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.0	545	0.0200	2.28		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
15.1	595	Total			

Summary for Subcatchment EX-5.7:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
3,124	76	Gravel roads, HSG A
868	85	Gravel roads, HSG B
304,256	30	Woods, Good, HSG A
103,451	55	Woods, Good, HSG B
411,699	37	Weighted Average
411,699	37	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	50	0.0250	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.9	490	0.0170	2.10		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
23.2	540	Total			

Summary for Subcatchment EX-5.8:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

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Type III 24-hr 2-year Rainfall=3.30"

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Area (sf)	CN	Description
1,235	39	>75% Grass cover, Good, HSG A
6,962	76	Gravel roads, HSG A
1,935,323	30	Woods, Good, HSG A
71,626	55	Woods, Good, HSG B
2,015,145	31	Weighted Average
2,015,145	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	165	0.0480	3.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.1	165	0.0230	2.44		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
29.8	380	Total			

Summary for Subcatchment EX-5.9:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
6,721	76	Gravel roads, HSG A
196,485	30	Woods, Good, HSG A
203,205	32	Weighted Average
203,205	32	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	50	0.1000	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
5.3	510	0.0100	1.61		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
16.4	560	Total			

Summary for Pond P5.11: Low Point

Inflow Area = 201,376 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 174.50' @ 0.00 hrs Surf.Area= 5,600 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

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Type III 24-hr 2-year Rainfall=3.30"

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Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	174.50'	9,900 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
174.50	5,600	0	0
175.00	6,260	2,965	2,965
175.50	6,930	3,298	6,263
176.00	7,620	3,638	9,900

Device	Routing	Invert	Outlet Devices
#1	Primary	175.50'	30.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=174.50' TW=0.00' (Dynamic Tailwater)↑1=**Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Link DP5.10: Low Point**

Inflow Area = 71,886 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.11: Low Point

Inflow Area = 201,376 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.12: Wetland 44

Inflow Area = 355,330 sf, 0.24% Impervious, Inflow Depth = 0.01" for 2-year event
Inflow = 0.0 cfs @ 12.81 hrs, Volume= 388 cf
Primary = 0.0 cfs @ 12.81 hrs, Volume= 388 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 2-year Rainfall=3.30"

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Summary for Link DP5.13: Wetland 44

Inflow Area = 597,343 sf, 0.18% Impervious, Inflow Depth = 0.01" for 2-year event
Inflow = 0.0 cfs @ 12.66 hrs, Volume= 273 cf
Primary = 0.0 cfs @ 12.66 hrs, Volume= 273 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.14: Wetland 44

Inflow Area = 611,053 sf, 0.20% Impervious, Inflow Depth = 0.01" for 2-year event
Inflow = 0.1 cfs @ 12.34 hrs, Volume= 317 cf
Primary = 0.1 cfs @ 12.34 hrs, Volume= 317 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.15: Wetland 44

Inflow Area = 465,258 sf, 0.16% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 12.42 hrs, Volume= 193 cf
Primary = 0.0 cfs @ 12.42 hrs, Volume= 193 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.16: Wetland

Inflow Area = 372,399 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.17: Wetland 42/Vernal Pool 12

Inflow Area = 805,238 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.18: Wetland 41&43/Vernal Pool 11&13

Inflow Area = 455,176 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.19: Wetland 40/Vernal Pool 10

Inflow Area = 30,267 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.20: Off-site

Inflow Area = 49,182 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.21: Wetland 39/Vernal Pool 9

Inflow Area = 247,420 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.6: Wetland 18

Inflow Area = 725,137 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.7: Wetland 19

Inflow Area = 411,699 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.8: Wetland 45

Inflow Area = 2,015,145 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Sudbury_EX Segment 5

Type III 24-hr 2-year Rainfall=3.30"

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Summary for Link DP5.9: Low Point

Inflow Area = 203,205 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment EX6.1:

Runoff = 0.0 cfs @ 24.07 hrs, Volume= 5 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
8,068	39	>75% Grass cover, Good, HSG A
2,474	76	Gravel roads, HSG A
1,651	98	Paved parking, HSG A
22,391	30	Woods, Good, HSG A
34,585	39	Weighted Average
32,934		95.23% Pervious Area
1,651		4.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.9	39	0.4790	0.13		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
16.8	671	0.0090	0.66		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.7	88	0.0011	0.08		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
1.4	95	0.0260	1.13		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
40.8	893	Total			

Summary for Subcatchment EX6.10:

Runoff = 0.0 cfs @ 15.74 hrs, Volume= 602 cf, Depth= 0.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.585	39	>75% Grass cover, Good, HSG A
0.018	76	Gravel roads, HSG A
0.721	98	Paved parking, HSG A
2.597	30	Woods, Good, HSG A
0.007	77	Woods, Good, HSG D
3.928	44	Weighted Average
3.207		81.64% Pervious Area
0.721		18.36% Impervious Area

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Type III 24-hr 2-yr Rainfall=3.30"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.0	50	0.0260	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
5.9	138	0.0240	0.39		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
24.9	188	Total			

Summary for Subcatchment EX6.11:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.080	39	>75% Grass cover, Good, HSG A
0.007	76	Gravel roads, HSG A
0.020	98	Paved parking, HSG A
0.690	30	Woods, Good, HSG A
0.796	33	Weighted Average
0.777		97.53% Pervious Area
0.020		2.47% Impervious Area

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

Summary for Subcatchment EX6.12:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.122	39	>75% Grass cover, Good, HSG A
0.005	76	Gravel roads, HSG A
0.477	30	Woods, Good, HSG A
0.605	32	Weighted Average
0.605		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	15	0.1133	0.11		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
2.2	16	0.6080	0.12		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.5	31	Total, Increased to minimum Tc = 6.0 min			

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment EX6.13:

Runoff = 0.2 cfs @ 12.42 hrs, Volume= 2,302 cf, Depth= 0.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.341	39	>75% Grass cover, Good, HSG A
0.188	80	>75% Grass cover, Good, HSG D
0.037	76	Gravel roads, HSG A
0.255	98	Paved parking, HSG A
0.122	98	Paved parking, HSG D
1.603	30	Woods, Good, HSG A
0.660	77	Woods, Good, HSG D
3.205	52	Weighted Average
2.828		88.24% Pervious Area
0.377		11.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	13	0.1770	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
6.3	40	0.2650	0.11		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.0	53	Total			

Summary for Subcatchment EX6.14:

Runoff = 1.6 cfs @ 12.23 hrs, Volume= 9,238 cf, Depth= 0.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.335	80	>75% Grass cover, Good, HSG D
0.044	76	Gravel roads, HSG A
0.234	98	Paved parking, HSG A
0.274	98	Paved parking, HSG D
1.951	30	Woods, Good, HSG A
0.757	70	Woods, Good, HSG C
1.646	77	Woods, Good, HSG D
5.241	61	Weighted Average
4.733		90.31% Pervious Area
0.508		9.69% Impervious Area

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Type III 24-hr 2-yr Rainfall=3.30"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	50	0.0800	0.12		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
1.8	75	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.9	75	0.0800	1.41		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
2.7	80	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
12.4	280	Total			

Summary for Subcatchment EX6.15:

Runoff = 0.2 cfs @ 12.11 hrs, Volume= 514 cf, Depth= 1.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.064	98	Paved parking, HSG A
0.016	30	Woods, Good, HSG A
0.080	84	Weighted Average
0.016		20.11% Pervious Area
0.064		79.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	14	0.1210	0.11		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
5.6	33	0.2400	0.10		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
7.7	47	Total			

Summary for Subcatchment EX6.2:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.027	76	Gravel roads, HSG A
0.004	98	Paved parking, HSG A
0.696	30	Woods, Good, HSG A
0.727	32	Weighted Average
0.723		99.43% Pervious Area
0.004		0.57% Impervious Area

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Type III 24-hr 2-yr Rainfall=3.30"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	50	0.0440	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.2	82	0.2180	1.17		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.9	712	0.0090	0.66		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
34.5	844	Total			

Summary for Subcatchment EX6.3:

Runoff = 0.0 cfs @ 20.89 hrs, Volume= 57 cf, Depth= 0.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.134	98	Paved parking, HSG A
0.646	30	Woods, Good, HSG A
0.780	42	Weighted Average
0.646		82.81% Pervious Area
0.134		17.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.1	50	0.0660	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.6	105	0.0238	1.08		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
14.7	155	Total			

Summary for Subcatchment EX6.4:

Runoff = 0.1 cfs @ 12.56 hrs, Volume= 1,559 cf, Depth= 0.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
74,975	39	>75% Grass cover, Good, HSG A
27,168	98	Paved parking, HSG A
22,971	30	Woods, Good, HSG A
125,114	50	Weighted Average
97,946		78.29% Pervious Area
27,168		21.71% Impervious Area

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Type III 24-hr 2-yr Rainfall=3.30"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	50	0.0740	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	36	0.0860	0.73		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
13.3	86	Total			

Summary for Subcatchment EX6.5:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
2.733	39	>75% Grass cover, Good, HSG A
1.189	98	Paved parking, HSG A
12.942	30	Woods, Good, HSG A
16.865	36	Weighted Average
15.675		92.95% Pervious Area
1.189		7.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.1	41	0.0585	0.60		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.8	91	Total			

Summary for Subcatchment EX6.6:

Runoff = 0.0 cfs @ 21.11 hrs, Volume= 525 cf, Depth= 0.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
1.233	39	>75% Grass cover, Good, HSG A
0.136	76	Gravel roads, HSG A
1.031	98	Paved parking, HSG A
4.761	30	Woods, Good, HSG A
7.161	42	Weighted Average
6.131		85.61% Pervious Area
1.031		14.39% Impervious Area

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Type III 24-hr 2-yr Rainfall=3.30"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	50	0.3000	0.20		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.1	13	0.3000	2.74		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.9	850	0.0120	0.55		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.2	85	0.0590	1.21		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
31.3	998	Total			

Summary for Subcatchment EX6.7:

Runoff = 0.0 cfs @ 23.38 hrs, Volume= 153 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
1.337	39	>75% Grass cover, Good, HSG A
0.082	74	>75% Grass cover, Good, HSG C
0.060	76	Gravel roads, HSG A
0.672	98	Paved parking, HSG A
0.078	98	Roofs, HSG A
4.959	30	Woods, Good, HSG A
7.188	40	Weighted Average
6.437		89.56% Pervious Area
0.751		10.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	50	0.3300	0.12		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	13	0.4380	1.65		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
18.9	848	0.0114	0.75		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.5	86	0.0530	0.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
28.4	997	Total			

Summary for Subcatchment EX6.8:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

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Type III 24-hr 2-yr Rainfall=3.30"

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Area (ac)	CN	Description
1.052	39	>75% Grass cover, Good, HSG A
3.865	30	Woods, Good, HSG A
4.917	32	Weighted Average
4.917		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	44	0.5000	0.14		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
15.2	728	0.0130	0.80		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.6	113	0.0180	0.34		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
26.1	885	Total			

Summary for Subcatchment EX6.9:

Runoff = 0.0 cfs @ 21.70 hrs, Volume= 39 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.259	39	>75% Grass cover, Good, HSG A
0.006	76	Gravel roads, HSG A
0.108	98	Paved parking, HSG A
0.530	30	Woods, Good, HSG A
0.902	41	Weighted Average
0.795		88.09% Pervious Area
0.108		11.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.0					Direct Entry, 6.0

Summary for Link DP6.1: Low Point

Inflow Area = 34,585 sf, 4.77% Impervious, Inflow Depth = 0.00" for 2-yr event
 Inflow = 0.0 cfs @ 24.07 hrs, Volume= 5 cf
 Primary = 0.0 cfs @ 24.07 hrs, Volume= 5 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.10: Low Point

Inflow Area = 171,088 sf, 18.36% Impervious, Inflow Depth = 0.04" for 2-yr event
Inflow = 0.0 cfs @ 15.74 hrs, Volume= 602 cf
Primary = 0.0 cfs @ 15.74 hrs, Volume= 602 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.11: Wetland/Potential Vernal Pool

Inflow Area = 34,690 sf, 2.47% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.12: Wetland 35/Vernal Pool 8

Inflow Area = 26,336 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.13: Wetland 34

Inflow Area = 139,625 sf, 11.76% Impervious, Inflow Depth = 0.20" for 2-yr event
Inflow = 0.2 cfs @ 12.42 hrs, Volume= 2,302 cf
Primary = 0.2 cfs @ 12.42 hrs, Volume= 2,302 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.14: Wetland 33

Inflow Area = 228,310 sf, 9.69% Impervious, Inflow Depth = 0.49" for 2-yr event
Inflow = 1.6 cfs @ 12.23 hrs, Volume= 9,238 cf
Primary = 1.6 cfs @ 12.23 hrs, Volume= 9,238 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.15: Low Point

Inflow Area = 3,490 sf, 79.89% Impervious, Inflow Depth = 1.77" for 2-yr event
Inflow = 0.2 cfs @ 12.11 hrs, Volume= 514 cf
Primary = 0.2 cfs @ 12.11 hrs, Volume= 514 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.2: Dutton

Inflow Area = 31,671 sf, 0.57% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.3: Low Point

Inflow Area = 33,974 sf, 17.19% Impervious, Inflow Depth = 0.02" for 2-yr event
Inflow = 0.0 cfs @ 20.89 hrs, Volume= 57 cf
Primary = 0.0 cfs @ 20.89 hrs, Volume= 57 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.4: Low Point

Inflow Area = 125,114 sf, 21.71% Impervious, Inflow Depth = 0.15" for 2-yr event
Inflow = 0.1 cfs @ 12.56 hrs, Volume= 1,559 cf
Primary = 0.1 cfs @ 12.56 hrs, Volume= 1,559 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.5: Low Point

Inflow Area = 734,623 sf, 7.05% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.6: Wetland 38 & 36

Inflow Area = 311,949 sf, 14.39% Impervious, Inflow Depth = 0.02" for 2-yr event
Inflow = 0.0 cfs @ 21.11 hrs, Volume= 525 cf
Primary = 0.0 cfs @ 21.11 hrs, Volume= 525 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.7: Wetland 37

Inflow Area = 313,094 sf, 10.44% Impervious, Inflow Depth = 0.01" for 2-yr event
Inflow = 0.0 cfs @ 23.38 hrs, Volume= 153 cf
Primary = 0.0 cfs @ 23.38 hrs, Volume= 153 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.8: Low Point

Inflow Area = 214,195 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.9: Low Point

Inflow Area = 39,308 sf, 11.91% Impervious, Inflow Depth = 0.01" for 2-yr event
Inflow = 0.0 cfs @ 21.70 hrs, Volume= 39 cf
Primary = 0.0 cfs @ 21.70 hrs, Volume= 39 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment EX7.1:

Runoff = 1.2 cfs @ 12.45 hrs, Volume= 10,194 cf, Depth= 0.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
2.052	39	>75% Grass cover, Good, HSG A
0.682	80	>75% Grass cover, Good, HSG D
0.072	76	Gravel roads, HSG A
0.030	91	Gravel roads, HSG D
0.535	98	Paved parking, HSG A
0.159	98	Paved parking, HSG D
0.480	98	Paved roads w/curbs & sewers, HSG A
0.122	98	Paved roads w/curbs & sewers, HSG D
0.141	98	Roofs, HSG A
3.133	30	Woods, Good, HSG A
1.604	77	Woods, Good, HSG D
9.010	56	Weighted Average
7.572		84.05% Pervious Area
1.437		15.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	50	0.0300	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
5.6	270	0.0133	0.81		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.5	51	0.1100	1.66		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.4	371	Total			

Summary for Subcatchment EX7.10:

Runoff = 0.0 cfs @ 24.07 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.006	39	>75% Grass cover, Good, HSG A
0.039	76	Gravel roads, HSG A
0.006	98	Paved parking, HSG A
0.219	30	Woods, Good, HSG A
0.269	38	Weighted Average
0.263		97.89% Pervious Area
0.006		2.11% Impervious Area

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Type III 24-hr 2-yr Rainfall=3.30"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0400	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.0	30	0.0400	0.50		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.0	80	Total			

Summary for Subcatchment EX7.11:

Runoff = 0.0 cfs @ 15.67 hrs, Volume= 322 cf, Depth= 0.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.624	39	>75% Grass cover, Good, HSG A
0.087	98	Paved parking, HSG A
0.149	98	Paved roads w/curbs & sewers, HSG A
0.038	98	Roofs, HSG A
0.689	30	Woods, Good, HSG A
1.587	45	Weighted Average
1.313		82.71% Pervious Area
0.274		17.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	55	0.1230	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.6	138	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
26.0	406	0.0108	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
41.6	599	Total			

Summary for Subcatchment EX7.12:

Runoff = 0.0 cfs @ 15.37 hrs, Volume= 321 cf, Depth= 0.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

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Type III 24-hr 2-yr Rainfall=3.30"

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Area (ac)	CN	Description
0.321	39	>75% Grass cover, Good, HSG A
0.084	98	Paved parking, HSG A
0.141	98	Paved roads w/curbs & sewers, HSG A
0.023	98	Roofs, HSG A
0.670	30	Woods, Good, HSG A
1.240	46	Weighted Average
0.991		79.98% Pervious Area
0.248		20.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.7	50	0.0240	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.1	75	0.0147	0.30		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
1.6	94	0.0190	0.96		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.8	62	0.0530	0.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.1	284	0.0020	0.31		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
42.3	565	Total			

Summary for Subcatchment EX7.2:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.110	39	>75% Grass cover, Good, HSG A
0.001	80	>75% Grass cover, Good, HSG D
0.027	76	Gravel roads, HSG A
0.001	91	Gravel roads, HSG D
0.058	98	Paved parking, HSG A
0.079	98	Paved roads w/curbs & sewers, HSG A
0.068	98	Roofs, HSG A
2.313	30	Woods, Good, HSG A
2.658	36	Weighted Average
2.453		92.30% Pervious Area
0.205		7.70% Impervious Area

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Type III 24-hr 2-yr Rainfall=3.30"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	50	0.0300	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
4.1	223	0.0170	0.91		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.2	16	0.2250	1.19		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
14.6	289	Total			

Summary for Subcatchment EX7.3:

Runoff = 0.0 cfs @ 16.93 hrs, Volume= 400 cf, Depth= 0.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.827	39	>75% Grass cover, Good, HSG A
0.024	74	>75% Grass cover, Good, HSG C
0.033	98	Paved parking, HSG A
0.191	98	Paved roads w/curbs & sewers, HSG A
0.044	98	Paved roads w/curbs & sewers, HSG C
0.181	98	Roofs, HSG A
0.001	98	Roofs, HSG C
2.129	30	Woods, Good, HSG A
0.209	70	Woods, Good, HSG C
3.640	43	Weighted Average
3.189		87.62% Pervious Area
0.450		12.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	50	0.0440	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.6	65	0.0770	0.69		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.0570	1.67		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.1	129	Total			

Summary for Subcatchment EX7.4:

Runoff = 2.8 cfs @ 12.36 hrs, Volume= 17,630 cf, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

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Type III 24-hr 2-yr Rainfall=3.30"

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Area (ac)	CN	Description
1.195	39	>75% Grass cover, Good, HSG A
0.377	74	>75% Grass cover, Good, HSG C
0.034	80	>75% Grass cover, Good, HSG D
0.223	98	Paved parking, HSG A
0.137	98	Paved parking, HSG C
0.104	98	Paved parking, HSG D
0.128	98	Paved roads w/curbs & sewers, HSG A
0.049	98	Paved roads w/curbs & sewers, HSG C
0.115	98	Paved roads w/curbs & sewers, HSG D
0.158	98	Roofs, HSG A
0.130	98	Roofs, HSG C
0.002	98	Roofs, HSG D
1.789	30	Woods, Good, HSG A
1.956	70	Woods, Good, HSG C
2.201	77	Woods, Good, HSG D
8.600	63	Weighted Average
7.553		87.83% Pervious Area
1.047		12.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2	50	0.1600	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	80	0.0640	1.77		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
9.2	310	0.0064	0.56		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.8	50	0.0400	1.00		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.2	20	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
20.2	510	Total			

Summary for Subcatchment EX7.5:

Runoff = 1.3 cfs @ 12.54 hrs, Volume= 16,617 cf, Depth= 0.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

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Type III 24-hr 2-yr Rainfall=3.30"

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Area (ac)	CN	Description
3.962	39	>75% Grass cover, Good, HSG A
0.722	80	>75% Grass cover, Good, HSG D
0.020	76	Gravel roads, HSG A
0.038	91	Gravel roads, HSG D
0.666	98	Paved parking, HSG A
0.079	98	Paved parking, HSG D
1.090	98	Paved roads w/curbs & sewers, HSG A
0.990	98	Roofs, HSG A
0.161	98	Roofs, HSG D
10.498	30	Woods, Good, HSG A
4.915	77	Woods, Good, HSG D
23.140	52	Weighted Average
20.155		87.10% Pervious Area
2.984		12.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.1	145	0.0550	1.17		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.5	75	0.0267	0.82		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
15.7	270	Total			

Summary for Subcatchment EX7.6:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
3,392	39	>75% Grass cover, Good, HSG A
1,797	76	Gravel roads, HSG A
33,761	30	Woods, Good, HSG A
38,949	33	Weighted Average
38,949		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	50	0.0760	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.4	124	0.0600	0.61		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.8	174	Total			

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment EX7.7:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.131	39	>75% Grass cover, Good, HSG A
0.061	76	Gravel roads, HSG A
0.545	30	Woods, Good, HSG A
0.737	35	Weighted Average
0.737		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	50	0.1500	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.5	90	0.0290	0.43		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
12.9	140	Total			

Summary for Subcatchment EX7.8:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
12,767	39	>75% Grass cover, Good, HSG A
320	76	Gravel roads, HSG A
1,067	98	Paved parking, HSG A
914	98	Roofs, HSG A
37,247	30	Woods, Good, HSG A
52,315	35	Weighted Average
50,334		96.21% Pervious Area
1,980		3.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	41	0.1390	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
17.8	683	0.0083	0.64		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
10.2	303	0.0389	0.49		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
36.3	1,027	Total			

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment EX7.9:

Runoff = 0.0 cfs @ 16.97 hrs, Volume= 631 cf, Depth= 0.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
1.941	39	>75% Grass cover, Good, HSG A
0.258	98	Paved parking, HSG A
0.216	98	Paved roads w/curbs & sewers, HSG A
0.364	98	Roofs, HSG A
2.961	30	Woods, Good, HSG A
5.740	43	Weighted Average
4.902		85.40% Pervious Area
0.838		14.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	50	0.0220	0.07		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.2	14	0.0360	1.33		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.8	185	0.0454	0.53		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.7	249	Total			

Summary for Pond P7.6: Low Point

Inflow Area = 38,949 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-yr event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 132.00' @ 0.00 hrs Surf.Area= 250 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	132.00'	6,580 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
132.00	250	0	0
133.00	2,120	1,185	1,185
134.00	2,690	2,405	3,590
135.00	3,290	2,990	6,580

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Type III 24-hr 2-yr Rainfall=3.30"

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Device	Routing	Invert	Outlet Devices
#1	Primary	134.50'	10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	132.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=0.0 cfs @ 0.00 hrs HW=132.00' (Free Discharge)↑**2=Exfiltration** (Passes 0.0 cfs of 2.4 cfs potential flow)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=132.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P7.8: Low Point**

Inflow Area = 52,315 sf, 3.79% Impervious, Inflow Depth = 0.00" for 2-yr event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 168.00' @ 0.00 hrs Surf.Area= 300 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	1,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	300	0	0
169.00	750	525	525
170.00	1,200	975	1,500

Device	Routing	Invert	Outlet Devices
#1	Primary	169.00'	10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	168.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=0.0 cfs @ 0.00 hrs HW=168.00' (Free Discharge)↑**2=Exfiltration** (Passes 0.0 cfs of 2.4 cfs potential flow)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=168.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Summary for Link DP7.1: Wetland 30

Inflow Area = 392,457 sf, 15.95% Impervious, Inflow Depth = 0.31" for 2-yr event
Inflow = 1.2 cfs @ 12.45 hrs, Volume= 10,194 cf
Primary = 1.2 cfs @ 12.45 hrs, Volume= 10,194 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.10: Low Point

Inflow Area = 11,715 sf, 2.11% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 24.07 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 24.07 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.11: Low Point

Inflow Area = 69,139 sf, 17.29% Impervious, Inflow Depth = 0.06" for 2-yr event
Inflow = 0.0 cfs @ 15.67 hrs, Volume= 322 cf
Primary = 0.0 cfs @ 15.67 hrs, Volume= 322 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.12: Low Point

Inflow Area = 53,996 sf, 20.02% Impervious, Inflow Depth = 0.07" for 2-yr event
Inflow = 0.0 cfs @ 15.37 hrs, Volume= 321 cf
Primary = 0.0 cfs @ 15.37 hrs, Volume= 321 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.2: Wetland 32

Inflow Area = 115,777 sf, 7.70% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.3: Low Point

Inflow Area = 158,537 sf, 12.38% Impervious, Inflow Depth = 0.03" for 2-yr event
Inflow = 0.0 cfs @ 16.93 hrs, Volume= 400 cf
Primary = 0.0 cfs @ 16.93 hrs, Volume= 400 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.4: Low Point

Inflow Area = 374,595 sf, 12.17% Impervious, Inflow Depth = 0.56" for 2-yr event
Inflow = 2.8 cfs @ 12.36 hrs, Volume= 17,630 cf
Primary = 2.8 cfs @ 12.36 hrs, Volume= 17,630 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.5: Wetland 31

Inflow Area = 1,007,959 sf, 12.90% Impervious, Inflow Depth = 0.20" for 2-yr event
Inflow = 1.3 cfs @ 12.54 hrs, Volume= 16,617 cf
Primary = 1.3 cfs @ 12.54 hrs, Volume= 16,617 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.6: Low Point

Inflow Area = 38,949 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.7: Low Point

Inflow Area = 32,105 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.8: Low Point

Inflow Area = 52,315 sf, 3.79% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.9: Low Point

Inflow Area = 250,025 sf, 14.60% Impervious, Inflow Depth = 0.03" for 2-yr event
Inflow = 0.0 cfs @ 16.97 hrs, Volume= 631 cf
Primary = 0.0 cfs @ 16.97 hrs, Volume= 631 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment EX8.1:

Runoff = 2.7 cfs @ 12.43 hrs, Volume= 22,456 cf, Depth= 0.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
1.938	39	>75% Grass cover, Good, HSG A
0.003	80	>75% Grass cover, Good, HSG D
0.028	76	Gravel roads, HSG A
0.028	91	Gravel roads, HSG D
1.228	98	Paved parking, HSG A
0.788	98	Paved roads w/curbs & sewers, HSG A
1.177	98	Roofs, HSG A
8.530	30	Woods, Good, HSG A
0.000	70	Woods, Good, HSG C
6.126	77	Woods, Good, HSG D
19.846	56	Weighted Average
16.653		83.91% Pervious Area
3.193		16.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	50	0.0440	0.09		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
4.3	205	0.0127	0.79		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.8	77	0.0770	0.69		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.0	332	Total			

Summary for Subcatchment EX8.10:

Runoff = 4.2 cfs @ 12.17 hrs, Volume= 16,123 cf, Depth= 1.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.003	76	Gravel roads, HSG A
1.408	98	Paved parking, HSG A
0.269	98	Paved roads w/curbs & sewers, HSG A
0.775	98	Roofs, HSG A
1.180	30	Woods, Good, HSG A
3.634	76	Weighted Average
1.183		32.55% Pervious Area
2.451		67.45% Impervious Area

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Type III 24-hr 2-yr Rainfall=3.30"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	50	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.7	100	0.0200	0.99		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
11.4	150	Total			

Summary for Subcatchment EX8.11:

Runoff = 0.1 cfs @ 12.57 hrs, Volume= 896 cf, Depth= 0.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.278	98	Paved parking, HSG A
0.028	98	Paved roads w/curbs & sewers, HSG A
0.020	98	Roofs, HSG A
0.551	30	Woods, Good, HSG A
0.878	55	Weighted Average
0.551		62.77% Pervious Area
0.327		37.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.8	50	0.0580	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.6	204	0.0250	0.40		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
22.4	254	Total			

Summary for Subcatchment EX8.2:

Runoff = 0.1 cfs @ 17.22 hrs, Volume= 1,780 cf, Depth= 0.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.081	76	Gravel roads, HSG A
0.029	91	Gravel roads, HSG D
0.092	98	Paved parking, HSG A
0.227	98	Paved roads w/curbs & sewers, HSG A
0.058	98	Roofs, HSG A
12.034	30	Woods, Good, HSG A
3.679	77	Woods, Good, HSG D
16.199	43	Weighted Average
15.823		97.68% Pervious Area
0.376		2.32% Impervious Area

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Type III 24-hr 2-yr Rainfall=3.30"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.1	50	0.0160	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
14.6	354	0.0260	0.40		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	404	Total			

Summary for Subcatchment EX8.3:

Runoff = 1.3 cfs @ 12.63 hrs, Volume= 14,705 cf, Depth= 0.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.261	39	>75% Grass cover, Good, HSG A
0.073	76	Gravel roads, HSG A
0.001	85	Gravel roads, HSG B
0.494	91	Gravel roads, HSG D
0.517	98	Paved parking, HSG A
0.254	98	Paved roads w/curbs & sewers, HSG A
0.429	98	Roofs, HSG A
7.997	30	Woods, Good, HSG A
0.463	55	Woods, Good, HSG B
5.591	77	Woods, Good, HSG D
16.080	54	Weighted Average
14.880		92.53% Pervious Area
1.201		7.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	50	0.0720	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
13.0	200	0.0105	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
25.7	250	Total			

Summary for Subcatchment EX8.4:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

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Type III 24-hr 2-yr Rainfall=3.30"

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Area (sf)	CN	Description
2,961	76	Gravel roads, HSG A
37,761	30	Woods, Good, HSG A
4,106	55	Woods, Good, HSG B
44,828	35	Weighted Average
44,828		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	23	0.1300	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
12.9	27	0.0200	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
6.4	273	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
24.7	323	Total			

Summary for Subcatchment EX8.5:

Runoff = 1.6 cfs @ 12.61 hrs, Volume= 11,362 cf, Depth= 0.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.000	76	Gravel roads, HSG A
0.074	85	Gravel roads, HSG B
0.001	91	Gravel roads, HSG D
0.448	98	Paved parking, HSG A
1.175	98	Roofs, HSG A
0.805	30	Woods, Good, HSG A
1.469	55	Woods, Good, HSG B
0.002	77	Woods, Good, HSG D
3.974	68	Weighted Average
2.351		59.16% Pervious Area
1.623		40.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.3	48	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
27.8	826	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	40	0.1825	1.07		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	914	Total			

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment EX8.6:

Runoff = 11.8 cfs @ 12.50 hrs, Volume= 75,427 cf, Depth= 0.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.148	85	Gravel roads, HSG B
0.328	89	Gravel roads, HSG C
0.031	91	Gravel roads, HSG D
0.049	98	Paved parking, HSG A
0.096	98	Paved parking, HSG D
1.239	30	Woods, Good, HSG A
5.697	55	Woods, Good, HSG B
3.260	70	Woods, Good, HSG C
13.992	77	Woods, Good, HSG D
24.840	69	Weighted Average
24.695		99.42% Pervious Area
0.145		0.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	58	0.1400	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
21.0	706	0.0064	0.56		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.7	43	0.1511	0.97		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
32.6	807	Total			

Summary for Subcatchment EX8.7:

Runoff = 0.3 cfs @ 12.60 hrs, Volume= 2,159 cf, Depth= 0.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.011	85	Gravel roads, HSG B
0.232	98	Paved parking, HSG A
0.104	98	Roofs, HSG A
0.186	30	Woods, Good, HSG A
0.222	55	Woods, Good, HSG B
0.755	68	Weighted Average
0.419		55.52% Pervious Area
0.336		44.48% Impervious Area

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Type III 24-hr 2-yr Rainfall=3.30"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.2	39	0.0205	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
20.5	888	0.0106	0.72		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	37	0.1590	1.00		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
38.3	964	Total			

Summary for Subcatchment EX8.8:

Runoff = 1.1 cfs @ 12.19 hrs, Volume= 4,309 cf, Depth= 1.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
265	76	Gravel roads, HSG A
1,570	85	Gravel roads, HSG B
7,429	98	Paved parking, HSG A
10,195	98	Paved parking, HSG B
3,423	98	Roofs, HSG A
3,349	30	Woods, Good, HSG A
12,150	55	Woods, Good, HSG B
38,381	78	Weighted Average
17,334		45.16% Pervious Area
21,047		54.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.6	50	0.0600	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX8.9:

Runoff = 0.1 cfs @ 12.58 hrs, Volume= 1,328 cf, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.004	76	Gravel roads, HSG A
0.031	85	Gravel roads, HSG B
0.047	30	Woods, Good, HSG A
0.736	55	Woods, Good, HSG B
0.152	77	Woods, Good, HSG D
0.970	58	Weighted Average
0.970		100.00% Pervious Area

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Type III 24-hr 2-yr Rainfall=3.30"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	37	0.2050	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
14.1	585	0.0097	0.69		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	153	0.0160	0.32		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
28.8	775	Total			

Summary for Pond P8.10: Low Point

Inflow Area = 158,315 sf, 67.45% Impervious, Inflow Depth = 1.22" for 2-yr event
 Inflow = 4.2 cfs @ 12.17 hrs, Volume= 16,123 cf
 Outflow = 2.4 cfs @ 12.06 hrs, Volume= 16,123 cf, Atten= 43%, Lag= 0.0 min
 Discarded = 2.4 cfs @ 12.06 hrs, Volume= 16,123 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 133.38' @ 12.40 hrs Surf.Area= 3,624 sf Storage= 1,249 cf

Plug-Flow detention time= 2.3 min calculated for 16,121 cf (100% of inflow)
 Center-of-Mass det. time= 2.3 min (861.1 - 858.8)

Volume	Invert	Avail.Storage	Storage Description
#1	133.00'	9,535 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
133.00	2,935	0	0
134.00	4,745	3,840	3,840
135.00	6,645	5,695	9,535

Device	Routing	Invert	Outlet Devices
#1	Primary	134.60'	25.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	133.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.06 hrs HW=133.02' (Free Discharge)
 ↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=133.00' (Free Discharge)
 ↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Pond P8.7: Low Point

Inflow Area = 32,889 sf, 44.48% Impervious, Inflow Depth = 0.79" for 2-yr event
 Inflow = 0.3 cfs @ 12.60 hrs, Volume= 2,159 cf
 Outflow = 0.3 cfs @ 12.60 hrs, Volume= 2,159 cf, Atten= 0%, Lag= 0.2 min
 Discarded = 0.3 cfs @ 12.60 hrs, Volume= 2,159 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 135.01' @ 12.60 hrs Surf.Area= 464 sf Storage= 3 cf

Plug-Flow detention time= 0.2 min calculated for 2,158 cf (100% of inflow)

Center-of-Mass det. time= 0.2 min (910.7 - 910.6)

Volume	Invert	Avail.Storage	Storage Description
#1	135.00'	2,343 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
135.00	460	0	0
136.00	1,185	823	823
137.00	1,855	1,520	2,343

Device	Routing	Invert	Outlet Devices
#1	Primary	136.60'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	135.00'	1.0 cfs Exfiltration at all elevations

Discarded OutFlow Max=1.0 cfs @ 12.60 hrs HW=135.01' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 1.0 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=135.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Link DP8.1: Wetland 28/29**

Inflow Area = 864,489 sf, 16.09% Impervious, Inflow Depth = 0.31" for 2-yr event
 Inflow = 2.7 cfs @ 12.43 hrs, Volume= 22,456 cf
 Primary = 2.7 cfs @ 12.43 hrs, Volume= 22,456 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.10: Low Point

Inflow Area = 158,315 sf, 67.45% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.11: Wetland

Inflow Area = 38,246 sf, 37.23% Impervious, Inflow Depth = 0.28" for 2-yr event
Inflow = 0.1 cfs @ 12.57 hrs, Volume= 896 cf
Primary = 0.1 cfs @ 12.57 hrs, Volume= 896 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.2: Wetland 27

Inflow Area = 705,611 sf, 2.32% Impervious, Inflow Depth = 0.03" for 2-yr event
Inflow = 0.1 cfs @ 17.22 hrs, Volume= 1,780 cf
Primary = 0.1 cfs @ 17.22 hrs, Volume= 1,780 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.3: Wetland 25

Inflow Area = 700,458 sf, 7.47% Impervious, Inflow Depth = 0.25" for 2-yr event
Inflow = 1.3 cfs @ 12.63 hrs, Volume= 14,705 cf
Primary = 1.3 cfs @ 12.63 hrs, Volume= 14,705 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.4: Wetland 24

Inflow Area = 44,828 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.5: Low Point

Inflow Area = 173,109 sf, 40.84% Impervious, Inflow Depth = 0.79" for 2-yr event
Inflow = 1.6 cfs @ 12.61 hrs, Volume= 11,362 cf
Primary = 1.6 cfs @ 12.61 hrs, Volume= 11,362 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.6: Wetland 26

Inflow Area = 1,082,039 sf, 0.58% Impervious, Inflow Depth = 0.84" for 2-yr event
Inflow = 11.8 cfs @ 12.50 hrs, Volume= 75,427 cf
Primary = 11.8 cfs @ 12.50 hrs, Volume= 75,427 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.7: Low Point

Inflow Area = 32,889 sf, 44.48% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.8: Low Point

Inflow Area = 38,381 sf, 54.84% Impervious, Inflow Depth = 1.35" for 2-yr event
Inflow = 1.1 cfs @ 12.19 hrs, Volume= 4,309 cf
Primary = 1.1 cfs @ 12.19 hrs, Volume= 4,309 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.9: Wetland 24A/Vernal Pool 5

Inflow Area = 42,256 sf, 0.00% Impervious, Inflow Depth = 0.38" for 2-yr event
Inflow = 0.1 cfs @ 12.58 hrs, Volume= 1,328 cf
Primary = 0.1 cfs @ 12.58 hrs, Volume= 1,328 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment EX10.1:

Runoff = 1.3 cfs @ 12.21 hrs, Volume= 5,500 cf, Depth= 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
9,363	80	>75% Grass cover, Good, HSG D
1,971	91	Gravel roads, HSG D
813	98	Paved parking, HSG D
34,586	77	Woods, Good, HSG D
46,733	79	Weighted Average
45,920		98.26% Pervious Area
813		1.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	50	0.1500	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
5.8	175	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
15.2	225	Total			

Summary for Subcatchment EX10.10:

Runoff = 0.1 cfs @ 12.10 hrs, Volume= 411 cf, Depth= 1.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
0	80	>75% Grass cover, Good, HSG D
454	89	Gravel roads, HSG C
209	91	Gravel roads, HSG D
482	70	Woods, Good, HSG C
2,516	77	Woods, Good, HSG D
3,661	78	Weighted Average
3,661		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	25	0.1000	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment EX10.11:

Runoff = 0.1 cfs @ 12.47 hrs, Volume= 813 cf, Depth= 0.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
299	76	Gravel roads, HSG A
809	91	Gravel roads, HSG D
1,636	98	Paved parking, HSG A
27,256	30	Woods, Good, HSG A
19,302	77	Woods, Good, HSG D
49,302	52	Weighted Average
47,666		96.68% Pervious Area
1,636		3.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	50	0.1000	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX10.12:

Runoff = 0.0 cfs @ 12.66 hrs, Volume= 818 cf, Depth= 0.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
0	80	>75% Grass cover, Good, HSG D
4,312	76	Gravel roads, HSG A
4,401	91	Gravel roads, HSG D
789	98	Paved parking, HSG A
270	98	Paved parking, HSG D
33,179	30	Woods, Good, HSG A
13,835	77	Woods, Good, HSG D
56,785	51	Weighted Average
55,726		98.14% Pervious Area
1,059		1.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
9.6	500	0.0300	0.87		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
21.7	550	Total			

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment EX10.13:

Runoff = 1.2 cfs @ 12.63 hrs, Volume= 8,358 cf, Depth= 1.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
0	80	>75% Grass cover, Good, HSG D
5,981	76	Gravel roads, HSG A
10,573	91	Gravel roads, HSG D
19,835	98	Paved parking, HSG A
17,557	98	Paved parking, HSG D
25,493	30	Woods, Good, HSG A
11,416	77	Woods, Good, HSG D
90,854	74	Weighted Average
53,462		58.84% Pervious Area
37,392		41.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
36.8	50	0.0050	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	30	0.5000	3.54		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
42.9	480	Total			

Summary for Subcatchment EX10.14:

Runoff = 4.7 cfs @ 12.31 hrs, Volume= 23,493 cf, Depth= 1.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
53,635	80	>75% Grass cover, Good, HSG D
599	76	Gravel roads, HSG A
1,197	91	Gravel roads, HSG D
60,830	98	Paved parking, HSG D
53,829	30	Woods, Good, HSG A
99,094	77	Woods, Good, HSG D
269,184	73	Weighted Average
208,354		77.40% Pervious Area
60,830		22.60% Impervious Area

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Type III 24-hr 2-yr Rainfall=3.30"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX10.15:

Runoff = 0.0 cfs @ 15.96 hrs, Volume= 656 cf, Depth= 0.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
41,191	39	>75% Grass cover, Good, HSG A
121	80	>75% Grass cover, Good, HSG D
3,599	76	Gravel roads, HSG A
3,103	91	Gravel roads, HSG D
11,248	98	Paved parking, HSG A
253	98	Paved parking, HSG D
104,725	30	Woods, Good, HSG A
22,178	77	Woods, Good, HSG D
186,416	44	Weighted Average
174,915		93.83% Pervious Area
11,500		6.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
10.6	550	0.0300	0.87		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
38.5	600	Total			

Summary for Subcatchment EX10.2:

Runoff = 2.2 cfs @ 12.48 hrs, Volume= 13,528 cf, Depth= 0.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

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Type III 24-hr 2-yr Rainfall=3.30"

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Area (sf)	CN	Description
34,938	39	>75% Grass cover, Good, HSG A
34,850	80	>75% Grass cover, Good, HSG D
4,142	91	Gravel roads, HSG D
28,819	98	Paved parking, HSG A
3,548	98	Paved parking, HSG D
17,462	30	Woods, Good, HSG A
59,283	77	Woods, Good, HSG D
183,042	70	Weighted Average
150,675		82.32% Pervious Area
32,368		17.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.1	50	0.0090	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.5	100	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
30.6	150	Total			

Summary for Subcatchment EX10.3:

Runoff = 0.9 cfs @ 12.42 hrs, Volume= 4,815 cf, Depth= 1.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
0	80	>75% Grass cover, Good, HSG D
2,751	91	Gravel roads, HSG D
40,144	77	Woods, Good, HSG D
42,895	78	Weighted Average
42,895		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.2	50	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
29.1	100	Total			

Summary for Subcatchment EX10.4:

Runoff = 1.3 cfs @ 12.60 hrs, Volume= 9,947 cf, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

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Type III 24-hr 2-yr Rainfall=3.30"

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Area (sf)	CN	Description
23,150	39	>75% Grass cover, Good, HSG A
6,935	80	>75% Grass cover, Good, HSG D
4,792	91	Gravel roads, HSG D
21,919	98	Paved parking, HSG A
16	98	Paved parking, HSG D
56,904	30	Woods, Good, HSG A
97,635	77	Woods, Good, HSG D
211,352	63	Weighted Average
189,417		89.62% Pervious Area
21,935		10.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.3	175	0.2000	2.24		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
35.2	625	Total			

Summary for Subcatchment EX10.5:

Runoff = 1.0 cfs @ 12.21 hrs, Volume= 4,089 cf, Depth= 1.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
3,076	80	>75% Grass cover, Good, HSG D
2,125	91	Gravel roads, HSG D
31,228	77	Woods, Good, HSG D
36,429	78	Weighted Average
36,429		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX10.6:

Runoff = 2.0 cfs @ 12.35 hrs, Volume= 10,336 cf, Depth= 0.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

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Type III 24-hr 2-yr Rainfall=3.30"

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Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
0	74	>75% Grass cover, Good, HSG C
41,520	80	>75% Grass cover, Good, HSG D
1,625	76	Gravel roads, HSG A
1,819	89	Gravel roads, HSG C
6,526	91	Gravel roads, HSG D
18,428	30	Woods, Good, HSG A
2,694	70	Woods, Good, HSG C
52,383	77	Woods, Good, HSG D
124,995	72	Weighted Average
124,995		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.4	100	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
23.5	150	Total			

Summary for Subcatchment EX10.7:

Runoff = 0.0 cfs @ 23.20 hrs, Volume= 38 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
3,445	76	Gravel roads, HSG A
1,711	91	Gravel roads, HSG D
61,785	30	Woods, Good, HSG A
11,563	77	Woods, Good, HSG D
78,505	40	Weighted Average
78,505		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.7	50	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.6	60	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.0	160	Total			

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment EX10.8:

Runoff = 0.0 cfs @ 22.01 hrs, Volume= 179 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
10,522	39	>75% Grass cover, Good, HSG A
323	74	>75% Grass cover, Good, HSG C
12,890	80	>75% Grass cover, Good, HSG D
52	76	Gravel roads, HSG A
0	89	Gravel roads, HSG C
1,682	91	Gravel roads, HSG D
2,763	98	Paved parking, HSG A
131,535	30	Woods, Good, HSG A
1,354	70	Woods, Good, HSG C
17,905	77	Woods, Good, HSG D
179,026	41	Weighted Average
176,263		98.46% Pervious Area
2,763		1.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
6.0	400	0.0500	1.12		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
20.7	450	Total			

Summary for Subcatchment EX10.9:

Runoff = 1.0 cfs @ 12.50 hrs, Volume= 6,655 cf, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
10,399	39	>75% Grass cover, Good, HSG A
11,292	74	>75% Grass cover, Good, HSG C
6,155	80	>75% Grass cover, Good, HSG D
378	89	Gravel roads, HSG C
565	91	Gravel roads, HSG D
14,874	30	Woods, Good, HSG A
61,632	70	Woods, Good, HSG C
17,648	77	Woods, Good, HSG D
122,942	65	Weighted Average
122,942		100.00% Pervious Area

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Type III 24-hr 2-yr Rainfall=3.30"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.2	350	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
29.3	400	Total			

Summary for Subcatchment EX9.1:

Runoff = 4.0 cfs @ 12.39 hrs, Volume= 21,122 cf, Depth= 1.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
53,138	80	>75% Grass cover, Good, HSG D
47,904	98	Paved parking, HSG D
36,465	77	Woods, Good, HSG D
137,506	85	Weighted Average
89,603		65.16% Pervious Area
47,904		34.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0100	0.05		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
11.8	500	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
27.8	550	Total			

Summary for Link DP10.1: Station Rd

Inflow Area = 46,733 sf, 1.74% Impervious, Inflow Depth = 1.41" for 2-yr event
Inflow = 1.3 cfs @ 12.21 hrs, Volume= 5,500 cf
Primary = 1.3 cfs @ 12.21 hrs, Volume= 5,500 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.10: Wetland 5_Vernal Pool 2-3

Inflow Area = 3,661 sf, 0.00% Impervious, Inflow Depth = 1.35" for 2-yr event
Inflow = 0.1 cfs @ 12.10 hrs, Volume= 411 cf
Primary = 0.1 cfs @ 12.10 hrs, Volume= 411 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Link DP10.11: Vernal Pool 4

Inflow Area = 140,156 sf, 27.85% Impervious, Inflow Depth = 0.79" for 2-yr event
Inflow = 1.3 cfs @ 12.63 hrs, Volume= 9,171 cf
Primary = 1.3 cfs @ 12.63 hrs, Volume= 9,171 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.12: Stream

Inflow Area = 56,785 sf, 1.86% Impervious, Inflow Depth = 0.17" for 2-yr event
Inflow = 0.0 cfs @ 12.66 hrs, Volume= 818 cf
Primary = 0.0 cfs @ 12.66 hrs, Volume= 818 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.14: Wetland 6

Inflow Area = 269,184 sf, 22.60% Impervious, Inflow Depth = 1.05" for 2-yr event
Inflow = 4.7 cfs @ 12.31 hrs, Volume= 23,493 cf
Primary = 4.7 cfs @ 12.31 hrs, Volume= 23,493 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.15: Wetland 3_Vernal Pool 1

Inflow Area = 186,416 sf, 6.17% Impervious, Inflow Depth = 0.04" for 2-yr event
Inflow = 0.0 cfs @ 15.96 hrs, Volume= 656 cf
Primary = 0.0 cfs @ 15.96 hrs, Volume= 656 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.2: Wetland 18

Inflow Area = 183,042 sf, 17.68% Impervious, Inflow Depth = 0.89" for 2-yr event
Inflow = 2.2 cfs @ 12.48 hrs, Volume= 13,528 cf
Primary = 2.2 cfs @ 12.48 hrs, Volume= 13,528 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.3: Wetland 19

Inflow Area = 42,895 sf, 0.00% Impervious, Inflow Depth = 1.35" for 2-yr event
Inflow = 0.9 cfs @ 12.42 hrs, Volume= 4,815 cf
Primary = 0.9 cfs @ 12.42 hrs, Volume= 4,815 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

EX_Segment_9-10

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Link DP10.4: Wetland 15

Inflow Area = 211,352 sf, 10.38% Impervious, Inflow Depth = 0.56" for 2-yr event
Inflow = 1.3 cfs @ 12.60 hrs, Volume= 9,947 cf
Primary = 1.3 cfs @ 12.60 hrs, Volume= 9,947 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.5: Wetland 16

Inflow Area = 36,429 sf, 0.00% Impervious, Inflow Depth = 1.35" for 2-yr event
Inflow = 1.0 cfs @ 12.21 hrs, Volume= 4,089 cf
Primary = 1.0 cfs @ 12.21 hrs, Volume= 4,089 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.6: Wetland 14

Inflow Area = 124,995 sf, 0.00% Impervious, Inflow Depth = 0.99" for 2-yr event
Inflow = 2.0 cfs @ 12.35 hrs, Volume= 10,336 cf
Primary = 2.0 cfs @ 12.35 hrs, Volume= 10,336 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.7: Wetland 12

Inflow Area = 78,505 sf, 0.00% Impervious, Inflow Depth = 0.01" for 2-yr event
Inflow = 0.0 cfs @ 23.20 hrs, Volume= 38 cf
Primary = 0.0 cfs @ 23.20 hrs, Volume= 38 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.8: Wetland 13

Inflow Area = 179,026 sf, 1.54% Impervious, Inflow Depth = 0.01" for 2-yr event
Inflow = 0.0 cfs @ 22.01 hrs, Volume= 179 cf
Primary = 0.0 cfs @ 22.01 hrs, Volume= 179 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.9: Wetland 10

Inflow Area = 122,942 sf, 0.00% Impervious, Inflow Depth = 0.65" for 2-yr event
Inflow = 1.0 cfs @ 12.50 hrs, Volume= 6,655 cf
Primary = 1.0 cfs @ 12.50 hrs, Volume= 6,655 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Summary for Link DP9.1: Wetland 4

Inflow Area = 137,506 sf, 34.84% Impervious, Inflow Depth = 1.84" for 2-yr event
Inflow = 4.0 cfs @ 12.39 hrs, Volume= 21,122 cf
Primary = 4.0 cfs @ 12.39 hrs, Volume= 21,122 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

10-Year Storm Event – Existing

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Type III 24-hr 10-year Rainfall=5.10"

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Summary for Subcatchment EX-5.10:

Runoff = 0.0 cfs @ 22.18 hrs, Volume= 110 cf, Depth= 0.02"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
1,108	76	Gravel roads, HSG A
70,778	30	Woods, Good, HSG A
71,886	31	Weighted Average
71,886	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
9.1	620	0.0050	1.14		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
30.2	670	Total			

Summary for Subcatchment EX-5.11:

Runoff = 0.0 cfs @ 23.46 hrs, Volume= 133 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
201,376	30	Woods, Good, HSG A
201,376	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0400	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.9	500	0.0180	2.16		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
19.9	550	Total			

Summary for Subcatchment EX-5.12:

Runoff = 0.3 cfs @ 13.48 hrs, Volume= 7,958 cf, Depth= 0.27"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

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Type III 24-hr 10-year Rainfall=5.10"

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Area (sf)	CN	Description
14,438	76	Gravel roads, HSG A
1,034	85	Gravel roads, HSG B
838	98	Water Surface, HSG B
230,578	30	Woods, Good, HSG A
108,442	55	Woods, Good, HSG B
355,330	40	Weighted Average
354,492	40	99.76% Pervious Area
838	98	0.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.2	50	0.0060	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
26.6	2,435	0.0090	1.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	70	0.1300	5.80		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
61.0	2,555	Total			

Summary for Subcatchment EX-5.13:

Runoff = 0.2 cfs @ 15.72 hrs, Volume= 5,213 cf, Depth= 0.10"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
19,905	76	Gravel roads, HSG A
1,473	85	Gravel roads, HSG B
1,067	98	Water Surface, HSG B
504,053	30	Woods, Good, HSG A
70,845	55	Woods, Good, HSG B
597,343	35	Weighted Average
596,276	35	99.82% Pervious Area
1,067	98	0.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
24.9	2,280	0.0090	1.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	75	0.1200	5.58		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
53.0	2,405	Total			

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Type III 24-hr 10-year Rainfall=5.10"

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Summary for Subcatchment EX-5.14:

Runoff = 0.2 cfs @ 15.28 hrs, Volume= 5,392 cf, Depth= 0.11"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
3,987	76	Gravel roads, HSG A
1,014	85	Gravel roads, HSG B
1,239	98	Water Surface, HSG B
481,602	30	Woods, Good, HSG A
123,211	55	Woods, Good, HSG B
611,053	36	Weighted Average
609,815	35	99.80% Pervious Area
1,239	98	0.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	50	0.2600	0.11		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
16.7	475	0.0090	0.47		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.4	110	0.0680	1.30		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.7	635	Total			

Summary for Subcatchment EX-5.15:

Runoff = 0.2 cfs @ 15.08 hrs, Volume= 5,085 cf, Depth= 0.13"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
2,402	76	Gravel roads, HSG A
664	85	Gravel roads, HSG B
755	98	Water Surface, HSG B
357,144	30	Woods, Good, HSG A
104,293	55	Woods, Good, HSG B
465,258	36	Weighted Average
464,503	36	99.84% Pervious Area
755	98	0.16% Impervious Area

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Type III 24-hr 10-year Rainfall=5.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.5	585	0.0180	2.16		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
32.4	635	Total			

Summary for Subcatchment EX-5.16:

Runoff = 0.0 cfs @ 23.30 hrs, Volume= 245 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
372,399	30	Woods, Good, HSG A
372,399	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	27	0.0960	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX-5.17:

Runoff = 0.0 cfs @ 23.26 hrs, Volume= 530 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
2,350	76	Gravel roads, HSG A
802,889	30	Woods, Good, HSG A
805,238	30	Weighted Average
805,238	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	30	0.1500	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	45	0.1600	6.44		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.4	75	Total			

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Type III 24-hr 10-year Rainfall=5.10"

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Summary for Subcatchment EX-5.18:

Runoff = 0.0 cfs @ 23.75 hrs, Volume= 300 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
3,317	76	Gravel roads, HSG A
451,859	30	Woods, Good, HSG A
455,176	30	Weighted Average
455,176	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	400	0.0800	1.41		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
4.7	200	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
37.3	650	Total			

Summary for Subcatchment EX-5.19:

Runoff = 0.0 cfs @ 15.82 hrs, Volume= 128 cf, Depth= 0.05"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
2,168	76	Gravel roads, HSG A
28,098	30	Woods, Good, HSG A
30,267	33	Weighted Average
30,267	33	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	50	0.0750	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.5	110	0.0020	0.72		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.1	30	0.1300	5.80		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
15.1	190	Total			

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Type III 24-hr 10-year Rainfall=5.10"

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Summary for Subcatchment EX-5.20:

Runoff = 0.0 cfs @ 23.59 hrs, Volume= 32 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
465	76	Gravel roads, HSG A
48,716	30	Woods, Good, HSG A
49,182	30	Weighted Average
49,182	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	200	0.0200	0.71		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
25.8	250	Total			

Summary for Subcatchment EX-5.21:

Runoff = 0.0 cfs @ 23.43 hrs, Volume= 163 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
2,319	76	Gravel roads, HSG A
245,101	30	Woods, Good, HSG A
247,420	30	Weighted Average
247,420	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	200	0.0200	0.71		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
19.4	250	Total			

Summary for Subcatchment EX-5.6:

Runoff = 0.1 cfs @ 17.40 hrs, Volume= 1,976 cf, Depth= 0.03"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

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Type III 24-hr 10-year Rainfall=5.10"

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Area (sf)	CN	Description
6,191	76	Gravel roads, HSG A
863	85	Gravel roads, HSG B
667,645	30	Woods, Good, HSG A
50,438	55	Woods, Good, HSG B
725,137	32	Weighted Average
725,137	32	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	50	0.1000	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.0	545	0.0200	2.28		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
15.1	595	Total			

Summary for Subcatchment EX-5.7:

Runoff = 0.2 cfs @ 14.05 hrs, Volume= 5,262 cf, Depth= 0.15"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
3,124	76	Gravel roads, HSG A
868	85	Gravel roads, HSG B
304,256	30	Woods, Good, HSG A
103,451	55	Woods, Good, HSG B
411,699	37	Weighted Average
411,699	37	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	50	0.0250	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.9	490	0.0170	2.10		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
23.2	540	Total			

Summary for Subcatchment EX-5.8:

Runoff = 0.1 cfs @ 22.15 hrs, Volume= 3,082 cf, Depth= 0.02"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

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Type III 24-hr 10-year Rainfall=5.10"

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Area (sf)	CN	Description
1,235	39	>75% Grass cover, Good, HSG A
6,962	76	Gravel roads, HSG A
1,935,323	30	Woods, Good, HSG A
71,626	55	Woods, Good, HSG B
2,015,145	31	Weighted Average
2,015,145	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	165	0.0480	3.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.1	165	0.0230	2.44		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
29.8	380	Total			

Summary for Subcatchment EX-5.9:

Runoff = 0.0 cfs @ 17.40 hrs, Volume= 554 cf, Depth= 0.03"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
6,721	76	Gravel roads, HSG A
196,485	30	Woods, Good, HSG A
203,205	32	Weighted Average
203,205	32	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	50	0.1000	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
5.3	510	0.0100	1.61		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
16.4	560	Total			

Summary for Pond P5.11: Low Point

Inflow Area = 201,376 sf, 0.00% Impervious, Inflow Depth = 0.01" for 10-year event
 Inflow = 0.0 cfs @ 23.46 hrs, Volume= 133 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 174.52' @ 25.13 hrs Surf.Area= 5,631 sf Storage= 133 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

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Type III 24-hr 10-year Rainfall=5.10"

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Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	174.50'	9,900 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
174.50	5,600	0	0
175.00	6,260	2,965	2,965
175.50	6,930	3,298	6,263
176.00	7,620	3,638	9,900

Device	Routing	Invert	Outlet Devices
#1	Primary	175.50'	30.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=174.50' TW=0.00' (Dynamic Tailwater)↑1=**Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Link DP5.10: Low Point**

Inflow Area = 71,886 sf, 0.00% Impervious, Inflow Depth = 0.02" for 10-year event
Inflow = 0.0 cfs @ 22.18 hrs, Volume= 110 cf
Primary = 0.0 cfs @ 22.18 hrs, Volume= 110 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.11: Low Point

Inflow Area = 201,376 sf, 0.00% Impervious, Inflow Depth = 0.00" for 10-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.12: Wetland 44

Inflow Area = 355,330 sf, 0.24% Impervious, Inflow Depth = 0.27" for 10-year event
Inflow = 0.3 cfs @ 13.48 hrs, Volume= 7,958 cf
Primary = 0.3 cfs @ 13.48 hrs, Volume= 7,958 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 10-year Rainfall=5.10"

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Summary for Link DP5.13: Wetland 44

Inflow Area = 597,343 sf, 0.18% Impervious, Inflow Depth = 0.10" for 10-year event
Inflow = 0.2 cfs @ 15.72 hrs, Volume= 5,213 cf
Primary = 0.2 cfs @ 15.72 hrs, Volume= 5,213 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.14: Wetland 44

Inflow Area = 611,053 sf, 0.20% Impervious, Inflow Depth = 0.11" for 10-year event
Inflow = 0.2 cfs @ 15.28 hrs, Volume= 5,392 cf
Primary = 0.2 cfs @ 15.28 hrs, Volume= 5,392 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.15: Wetland 44

Inflow Area = 465,258 sf, 0.16% Impervious, Inflow Depth = 0.13" for 10-year event
Inflow = 0.2 cfs @ 15.08 hrs, Volume= 5,085 cf
Primary = 0.2 cfs @ 15.08 hrs, Volume= 5,085 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.16: Wetland

Inflow Area = 372,399 sf, 0.00% Impervious, Inflow Depth = 0.01" for 10-year event
Inflow = 0.0 cfs @ 23.30 hrs, Volume= 245 cf
Primary = 0.0 cfs @ 23.30 hrs, Volume= 245 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.17: Wetland 42/Vernal Pool 12

Inflow Area = 805,238 sf, 0.00% Impervious, Inflow Depth = 0.01" for 10-year event
Inflow = 0.0 cfs @ 23.26 hrs, Volume= 530 cf
Primary = 0.0 cfs @ 23.26 hrs, Volume= 530 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.18: Wetland 41&43/Vernal Pool 11&13

Inflow Area = 455,176 sf, 0.00% Impervious, Inflow Depth = 0.01" for 10-year event
Inflow = 0.0 cfs @ 23.75 hrs, Volume= 300 cf
Primary = 0.0 cfs @ 23.75 hrs, Volume= 300 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.19: Wetland 40/Vernal Pool 10

Inflow Area = 30,267 sf, 0.00% Impervious, Inflow Depth = 0.05" for 10-year event
Inflow = 0.0 cfs @ 15.82 hrs, Volume= 128 cf
Primary = 0.0 cfs @ 15.82 hrs, Volume= 128 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.20: Off-site

Inflow Area = 49,182 sf, 0.00% Impervious, Inflow Depth = 0.01" for 10-year event
Inflow = 0.0 cfs @ 23.59 hrs, Volume= 32 cf
Primary = 0.0 cfs @ 23.59 hrs, Volume= 32 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.21: Wetland 39/Vernal Pool 9

Inflow Area = 247,420 sf, 0.00% Impervious, Inflow Depth = 0.01" for 10-year event
Inflow = 0.0 cfs @ 23.43 hrs, Volume= 163 cf
Primary = 0.0 cfs @ 23.43 hrs, Volume= 163 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.6: Wetland 18

Inflow Area = 725,137 sf, 0.00% Impervious, Inflow Depth = 0.03" for 10-year event
Inflow = 0.1 cfs @ 17.40 hrs, Volume= 1,976 cf
Primary = 0.1 cfs @ 17.40 hrs, Volume= 1,976 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.7: Wetland 19

Inflow Area = 411,699 sf, 0.00% Impervious, Inflow Depth = 0.15" for 10-year event
Inflow = 0.2 cfs @ 14.05 hrs, Volume= 5,262 cf
Primary = 0.2 cfs @ 14.05 hrs, Volume= 5,262 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.8: Wetland 45

Inflow Area = 2,015,145 sf, 0.00% Impervious, Inflow Depth = 0.02" for 10-year event
Inflow = 0.1 cfs @ 22.15 hrs, Volume= 3,082 cf
Primary = 0.1 cfs @ 22.15 hrs, Volume= 3,082 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 10-year Rainfall=5.10"

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Summary for Link DP5.9: Low Point

Inflow Area = 203,205 sf, 0.00% Impervious, Inflow Depth = 0.03" for 10-year event
Inflow = 0.0 cfs @ 17.40 hrs, Volume= 554 cf
Primary = 0.0 cfs @ 17.40 hrs, Volume= 554 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment EX6.1:

Runoff = 0.0 cfs @ 13.37 hrs, Volume= 636 cf, Depth= 0.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
8,068	39	>75% Grass cover, Good, HSG A
2,474	76	Gravel roads, HSG A
1,651	98	Paved parking, HSG A
22,391	30	Woods, Good, HSG A
34,585	39	Weighted Average
32,934		95.23% Pervious Area
1,651		4.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.9	39	0.4790	0.13		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
16.8	671	0.0090	0.66		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.7	88	0.0011	0.08		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
1.4	95	0.0260	1.13		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
40.8	893	Total			

Summary for Subcatchment EX6.10:

Runoff = 0.6 cfs @ 12.59 hrs, Volume= 6,088 cf, Depth= 0.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.585	39	>75% Grass cover, Good, HSG A
0.018	76	Gravel roads, HSG A
0.721	98	Paved parking, HSG A
2.597	30	Woods, Good, HSG A
0.007	77	Woods, Good, HSG D
3.928	44	Weighted Average
3.207		81.64% Pervious Area
0.721		18.36% Impervious Area

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Type III 24-hr 10-yr Rainfall=5.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.0	50	0.0260	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
5.9	138	0.0240	0.39		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
24.9	188	Total			

Summary for Subcatchment EX6.11:

Runoff = 0.0 cfs @ 15.70 hrs, Volume= 146 cf, Depth= 0.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.080	39	>75% Grass cover, Good, HSG A
0.007	76	Gravel roads, HSG A
0.020	98	Paved parking, HSG A
0.690	30	Woods, Good, HSG A
0.796	33	Weighted Average
0.777		97.53% Pervious Area
0.020		2.47% Impervious Area

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

Summary for Subcatchment EX6.12:

Runoff = 0.0 cfs @ 17.26 hrs, Volume= 72 cf, Depth= 0.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.122	39	>75% Grass cover, Good, HSG A
0.005	76	Gravel roads, HSG A
0.477	30	Woods, Good, HSG A
0.605	32	Weighted Average
0.605		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	15	0.1133	0.11		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
2.2	16	0.6080	0.12		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.5	31	Total, Increased to minimum Tc = 6.0 min			

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment EX6.13:

Runoff = 2.1 cfs @ 12.14 hrs, Volume= 9,867 cf, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.341	39	>75% Grass cover, Good, HSG A
0.188	80	>75% Grass cover, Good, HSG D
0.037	76	Gravel roads, HSG A
0.255	98	Paved parking, HSG A
0.122	98	Paved parking, HSG D
1.603	30	Woods, Good, HSG A
0.660	77	Woods, Good, HSG D
3.205	52	Weighted Average
2.828		88.24% Pervious Area
0.377		11.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	13	0.1770	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
6.3	40	0.2650	0.11		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.0	53	Total			

Summary for Subcatchment EX6.14:

Runoff = 6.5 cfs @ 12.19 hrs, Volume= 27,198 cf, Depth= 1.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.335	80	>75% Grass cover, Good, HSG D
0.044	76	Gravel roads, HSG A
0.234	98	Paved parking, HSG A
0.274	98	Paved parking, HSG D
1.951	30	Woods, Good, HSG A
0.757	70	Woods, Good, HSG C
1.646	77	Woods, Good, HSG D
5.241	61	Weighted Average
4.733		90.31% Pervious Area
0.508		9.69% Impervious Area

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Type III 24-hr 10-yr Rainfall=5.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	50	0.0800	0.12		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
1.8	75	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.9	75	0.0800	1.41		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
2.7	80	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
12.4	280	Total			

Summary for Subcatchment EX6.15:

Runoff = 0.3 cfs @ 12.11 hrs, Volume= 978 cf, Depth= 3.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.064	98	Paved parking, HSG A
0.016	30	Woods, Good, HSG A
0.080	84	Weighted Average
0.016		20.11% Pervious Area
0.064		79.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	14	0.1210	0.11		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
5.6	33	0.2400	0.10		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
7.7	47	Total			

Summary for Subcatchment EX6.2:

Runoff = 0.0 cfs @ 17.67 hrs, Volume= 86 cf, Depth= 0.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.027	76	Gravel roads, HSG A
0.004	98	Paved parking, HSG A
0.696	30	Woods, Good, HSG A
0.727	32	Weighted Average
0.723		99.43% Pervious Area
0.004		0.57% Impervious Area

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Type III 24-hr 10-yr Rainfall=5.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	50	0.0440	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.2	82	0.2180	1.17		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.9	712	0.0090	0.66		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
34.5	844	Total			

Summary for Subcatchment EX6.3:

Runoff = 0.1 cfs @ 12.50 hrs, Volume= 958 cf, Depth= 0.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.134	98	Paved parking, HSG A
0.646	30	Woods, Good, HSG A
0.780	42	Weighted Average
0.646		82.81% Pervious Area
0.134		17.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.1	50	0.0660	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.6	105	0.0238	1.08		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
14.7	155	Total			

Summary for Subcatchment EX6.4:

Runoff = 1.3 cfs @ 12.25 hrs, Volume= 7,648 cf, Depth= 0.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
74,975	39	>75% Grass cover, Good, HSG A
27,168	98	Paved parking, HSG A
22,971	30	Woods, Good, HSG A
125,114	50	Weighted Average
97,946		78.29% Pervious Area
27,168		21.71% Impervious Area

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Type III 24-hr 10-yr Rainfall=5.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	50	0.0740	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	36	0.0860	0.73		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
13.3	86	Total			

Summary for Subcatchment EX6.5:

Runoff = 0.3 cfs @ 14.87 hrs, Volume= 7,557 cf, Depth= 0.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
2.733	39	>75% Grass cover, Good, HSG A
1.189	98	Paved parking, HSG A
12.942	30	Woods, Good, HSG A
16.865	36	Weighted Average
15.675		92.95% Pervious Area
1.189		7.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.1	41	0.0585	0.60		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.8	91	Total			

Summary for Subcatchment EX6.6:

Runoff = 0.6 cfs @ 12.76 hrs, Volume= 8,801 cf, Depth= 0.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
1.233	39	>75% Grass cover, Good, HSG A
0.136	76	Gravel roads, HSG A
1.031	98	Paved parking, HSG A
4.761	30	Woods, Good, HSG A
7.161	42	Weighted Average
6.131		85.61% Pervious Area
1.031		14.39% Impervious Area

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Type III 24-hr 10-yr Rainfall=5.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	50	0.3000	0.20		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.1	13	0.3000	2.74		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.9	850	0.0120	0.55		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.2	85	0.0590	1.21		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
31.3	998	Total			

Summary for Subcatchment EX6.7:

Runoff = 0.4 cfs @ 12.78 hrs, Volume= 6,729 cf, Depth= 0.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
1.337	39	>75% Grass cover, Good, HSG A
0.082	74	>75% Grass cover, Good, HSG C
0.060	76	Gravel roads, HSG A
0.672	98	Paved parking, HSG A
0.078	98	Roofs, HSG A
4.959	30	Woods, Good, HSG A
7.188	40	Weighted Average
6.437		89.56% Pervious Area
0.751		10.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	50	0.3300	0.12		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	13	0.4380	1.65		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
18.9	848	0.0114	0.75		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.5	86	0.0530	0.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
28.4	997	Total			

Summary for Subcatchment EX6.8:

Runoff = 0.0 cfs @ 17.60 hrs, Volume= 584 cf, Depth= 0.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

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Type III 24-hr 10-yr Rainfall=5.10"

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Area (ac)	CN	Description
1.052	39	>75% Grass cover, Good, HSG A
3.865	30	Woods, Good, HSG A
4.917	32	Weighted Average
4.917		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	44	0.5000	0.14		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
15.2	728	0.0130	0.80		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.6	113	0.0180	0.34		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
26.1	885	Total			

Summary for Subcatchment EX6.9:

Runoff = 0.1 cfs @ 12.30 hrs, Volume= 974 cf, Depth= 0.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.259	39	>75% Grass cover, Good, HSG A
0.006	76	Gravel roads, HSG A
0.108	98	Paved parking, HSG A
0.530	30	Woods, Good, HSG A
0.902	41	Weighted Average
0.795		88.09% Pervious Area
0.108		11.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.0					Direct Entry, 6.0

Summary for Link DP6.1: Low Point

Inflow Area = 34,585 sf, 4.77% Impervious, Inflow Depth = 0.22" for 10-yr event
 Inflow = 0.0 cfs @ 13.37 hrs, Volume= 636 cf
 Primary = 0.0 cfs @ 13.37 hrs, Volume= 636 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.10: Low Point

Inflow Area = 171,088 sf, 18.36% Impervious, Inflow Depth = 0.43" for 10-yr event
Inflow = 0.6 cfs @ 12.59 hrs, Volume= 6,088 cf
Primary = 0.6 cfs @ 12.59 hrs, Volume= 6,088 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.11: Wetland/Potential Vernal Pool

Inflow Area = 34,690 sf, 2.47% Impervious, Inflow Depth = 0.05" for 10-yr event
Inflow = 0.0 cfs @ 15.70 hrs, Volume= 146 cf
Primary = 0.0 cfs @ 15.70 hrs, Volume= 146 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.12: Wetland 35/Vernal Pool 8

Inflow Area = 26,336 sf, 0.00% Impervious, Inflow Depth = 0.03" for 10-yr event
Inflow = 0.0 cfs @ 17.26 hrs, Volume= 72 cf
Primary = 0.0 cfs @ 17.26 hrs, Volume= 72 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.13: Wetland 34

Inflow Area = 139,625 sf, 11.76% Impervious, Inflow Depth = 0.85" for 10-yr event
Inflow = 2.1 cfs @ 12.14 hrs, Volume= 9,867 cf
Primary = 2.1 cfs @ 12.14 hrs, Volume= 9,867 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.14: Wetland 33

Inflow Area = 228,310 sf, 9.69% Impervious, Inflow Depth = 1.43" for 10-yr event
Inflow = 6.5 cfs @ 12.19 hrs, Volume= 27,198 cf
Primary = 6.5 cfs @ 12.19 hrs, Volume= 27,198 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.15: Low Point

Inflow Area = 3,490 sf, 79.89% Impervious, Inflow Depth = 3.36" for 10-yr event
Inflow = 0.3 cfs @ 12.11 hrs, Volume= 978 cf
Primary = 0.3 cfs @ 12.11 hrs, Volume= 978 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.2: Dutton

Inflow Area = 31,671 sf, 0.57% Impervious, Inflow Depth = 0.03" for 10-yr event
Inflow = 0.0 cfs @ 17.67 hrs, Volume= 86 cf
Primary = 0.0 cfs @ 17.67 hrs, Volume= 86 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.3: Low Point

Inflow Area = 33,974 sf, 17.19% Impervious, Inflow Depth = 0.34" for 10-yr event
Inflow = 0.1 cfs @ 12.50 hrs, Volume= 958 cf
Primary = 0.1 cfs @ 12.50 hrs, Volume= 958 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.4: Low Point

Inflow Area = 125,114 sf, 21.71% Impervious, Inflow Depth = 0.73" for 10-yr event
Inflow = 1.3 cfs @ 12.25 hrs, Volume= 7,648 cf
Primary = 1.3 cfs @ 12.25 hrs, Volume= 7,648 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.5: Low Point

Inflow Area = 734,623 sf, 7.05% Impervious, Inflow Depth = 0.12" for 10-yr event
Inflow = 0.3 cfs @ 14.87 hrs, Volume= 7,557 cf
Primary = 0.3 cfs @ 14.87 hrs, Volume= 7,557 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.6: Wetland 38 & 36

Inflow Area = 311,949 sf, 14.39% Impervious, Inflow Depth = 0.34" for 10-yr event
Inflow = 0.6 cfs @ 12.76 hrs, Volume= 8,801 cf
Primary = 0.6 cfs @ 12.76 hrs, Volume= 8,801 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.7: Wetland 37

Inflow Area = 313,094 sf, 10.44% Impervious, Inflow Depth = 0.26" for 10-yr event
Inflow = 0.4 cfs @ 12.78 hrs, Volume= 6,729 cf
Primary = 0.4 cfs @ 12.78 hrs, Volume= 6,729 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.8: Low Point

Inflow Area = 214,195 sf, 0.00% Impervious, Inflow Depth = 0.03" for 10-yr event
Inflow = 0.0 cfs @ 17.60 hrs, Volume= 584 cf
Primary = 0.0 cfs @ 17.60 hrs, Volume= 584 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.9: Low Point

Inflow Area = 39,308 sf, 11.91% Impervious, Inflow Depth = 0.30" for 10-yr event
Inflow = 0.1 cfs @ 12.30 hrs, Volume= 974 cf
Primary = 0.1 cfs @ 12.30 hrs, Volume= 974 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment EX7.1:

Runoff = 7.0 cfs @ 12.26 hrs, Volume= 35,764 cf, Depth= 1.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
2.052	39	>75% Grass cover, Good, HSG A
0.682	80	>75% Grass cover, Good, HSG D
0.072	76	Gravel roads, HSG A
0.030	91	Gravel roads, HSG D
0.535	98	Paved parking, HSG A
0.159	98	Paved parking, HSG D
0.480	98	Paved roads w/curbs & sewers, HSG A
0.122	98	Paved roads w/curbs & sewers, HSG D
0.141	98	Roofs, HSG A
3.133	30	Woods, Good, HSG A
1.604	77	Woods, Good, HSG D
9.010	56	Weighted Average
7.572		84.05% Pervious Area
1.437		15.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	50	0.0300	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
5.6	270	0.0133	0.81		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.5	51	0.1100	1.66		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.4	371	Total			

Summary for Subcatchment EX7.10:

Runoff = 0.0 cfs @ 13.77 hrs, Volume= 181 cf, Depth= 0.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.006	39	>75% Grass cover, Good, HSG A
0.039	76	Gravel roads, HSG A
0.006	98	Paved parking, HSG A
0.219	30	Woods, Good, HSG A
0.269	38	Weighted Average
0.263		97.89% Pervious Area
0.006		2.11% Impervious Area

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Type III 24-hr 10-yr Rainfall=5.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0400	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.0	30	0.0400	0.50		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.0	80	Total			

Summary for Subcatchment EX7.11:

Runoff = 0.2 cfs @ 12.81 hrs, Volume= 2,731 cf, Depth= 0.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.624	39	>75% Grass cover, Good, HSG A
0.087	98	Paved parking, HSG A
0.149	98	Paved roads w/curbs & sewers, HSG A
0.038	98	Roofs, HSG A
0.689	30	Woods, Good, HSG A
1.587	45	Weighted Average
1.313		82.71% Pervious Area
0.274		17.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	55	0.1230	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.6	138	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
26.0	406	0.0108	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
41.6	599	Total			

Summary for Subcatchment EX7.12:

Runoff = 0.2 cfs @ 12.83 hrs, Volume= 2,352 cf, Depth= 0.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

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Type III 24-hr 10-yr Rainfall=5.10"

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Area (ac)	CN	Description
0.321	39	>75% Grass cover, Good, HSG A
0.084	98	Paved parking, HSG A
0.141	98	Paved roads w/curbs & sewers, HSG A
0.023	98	Roofs, HSG A
0.670	30	Woods, Good, HSG A
1.240	46	Weighted Average
0.991		79.98% Pervious Area
0.248		20.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.7	50	0.0240	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.1	75	0.0147	0.30		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
1.6	94	0.0190	0.96		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.8	62	0.0530	0.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.1	284	0.0020	0.31		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
42.3	565	Total			

Summary for Subcatchment EX7.2:

Runoff = 0.0 cfs @ 14.84 hrs, Volume= 1,191 cf, Depth= 0.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.110	39	>75% Grass cover, Good, HSG A
0.001	80	>75% Grass cover, Good, HSG D
0.027	76	Gravel roads, HSG A
0.001	91	Gravel roads, HSG D
0.058	98	Paved parking, HSG A
0.079	98	Paved roads w/curbs & sewers, HSG A
0.068	98	Roofs, HSG A
2.313	30	Woods, Good, HSG A
2.658	36	Weighted Average
2.453		92.30% Pervious Area
0.205		7.70% Impervious Area

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Type III 24-hr 10-yr Rainfall=5.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	50	0.0300	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
4.1	223	0.0170	0.91		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.2	16	0.2250	1.19		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
14.6	289	Total			

Summary for Subcatchment EX7.3:

Runoff = 0.5 cfs @ 12.52 hrs, Volume= 5,045 cf, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.827	39	>75% Grass cover, Good, HSG A
0.024	74	>75% Grass cover, Good, HSG C
0.033	98	Paved parking, HSG A
0.191	98	Paved roads w/curbs & sewers, HSG A
0.044	98	Paved roads w/curbs & sewers, HSG C
0.181	98	Roofs, HSG A
0.001	98	Roofs, HSG C
2.129	30	Woods, Good, HSG A
0.209	70	Woods, Good, HSG C
3.640	43	Weighted Average
3.189		87.62% Pervious Area
0.450		12.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	50	0.0440	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.6	65	0.0770	0.69		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.0570	1.67		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.1	129	Total			

Summary for Subcatchment EX7.4:

Runoff = 9.9 cfs @ 12.30 hrs, Volume= 49,090 cf, Depth= 1.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

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Type III 24-hr 10-yr Rainfall=5.10"

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Area (ac)	CN	Description
1.195	39	>75% Grass cover, Good, HSG A
0.377	74	>75% Grass cover, Good, HSG C
0.034	80	>75% Grass cover, Good, HSG D
0.223	98	Paved parking, HSG A
0.137	98	Paved parking, HSG C
0.104	98	Paved parking, HSG D
0.128	98	Paved roads w/curbs & sewers, HSG A
0.049	98	Paved roads w/curbs & sewers, HSG C
0.115	98	Paved roads w/curbs & sewers, HSG D
0.158	98	Roofs, HSG A
0.130	98	Roofs, HSG C
0.002	98	Roofs, HSG D
1.789	30	Woods, Good, HSG A
1.956	70	Woods, Good, HSG C
2.201	77	Woods, Good, HSG D
8.600	63	Weighted Average
7.553		87.83% Pervious Area
1.047		12.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2	50	0.1600	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	80	0.0640	1.77		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
9.2	310	0.0064	0.56		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.8	50	0.0400	1.00		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.2	20	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
20.2	510	Total			

Summary for Subcatchment EX7.5:

Runoff = 12.3 cfs @ 12.28 hrs, Volume= 71,233 cf, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

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Type III 24-hr 10-yr Rainfall=5.10"

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Area (ac)	CN	Description
3.962	39	>75% Grass cover, Good, HSG A
0.722	80	>75% Grass cover, Good, HSG D
0.020	76	Gravel roads, HSG A
0.038	91	Gravel roads, HSG D
0.666	98	Paved parking, HSG A
0.079	98	Paved parking, HSG D
1.090	98	Paved roads w/curbs & sewers, HSG A
0.990	98	Roofs, HSG A
0.161	98	Roofs, HSG D
10.498	30	Woods, Good, HSG A
4.915	77	Woods, Good, HSG D
23.140	52	Weighted Average
20.155		87.10% Pervious Area
2.984		12.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.1	145	0.0550	1.17		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.5	75	0.0267	0.82		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
15.7	270	Total			

Summary for Subcatchment EX7.6:

Runoff = 0.0 cfs @ 15.85 hrs, Volume= 164 cf, Depth= 0.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
3,392	39	>75% Grass cover, Good, HSG A
1,797	76	Gravel roads, HSG A
33,761	30	Woods, Good, HSG A
38,949	33	Weighted Average
38,949		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	50	0.0760	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.4	124	0.0600	0.61		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.8	174	Total			

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment EX7.7:

Runoff = 0.0 cfs @ 15.12 hrs, Volume= 257 cf, Depth= 0.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.131	39	>75% Grass cover, Good, HSG A
0.061	76	Gravel roads, HSG A
0.545	30	Woods, Good, HSG A
0.737	35	Weighted Average
0.737		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	50	0.1500	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.5	90	0.0290	0.43		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
12.9	140	Total			

Summary for Subcatchment EX7.8:

Runoff = 0.0 cfs @ 15.45 hrs, Volume= 419 cf, Depth= 0.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
12,767	39	>75% Grass cover, Good, HSG A
320	76	Gravel roads, HSG A
1,067	98	Paved parking, HSG A
914	98	Roofs, HSG A
37,247	30	Woods, Good, HSG A
52,315	35	Weighted Average
50,334		96.21% Pervious Area
1,980		3.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	41	0.1390	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
17.8	683	0.0083	0.64		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
10.2	303	0.0389	0.49		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
36.3	1,027	Total			

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment EX7.9:

Runoff = 0.8 cfs @ 12.52 hrs, Volume= 7,956 cf, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
1.941	39	>75% Grass cover, Good, HSG A
0.258	98	Paved parking, HSG A
0.216	98	Paved roads w/curbs & sewers, HSG A
0.364	98	Roofs, HSG A
2.961	30	Woods, Good, HSG A
5.740	43	Weighted Average
4.902		85.40% Pervious Area
0.838		14.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	50	0.0220	0.07		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.2	14	0.0360	1.33		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.8	185	0.0454	0.53		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.7	249	Total			

Summary for Pond P7.6: Low Point

Inflow Area = 38,949 sf, 0.00% Impervious, Inflow Depth = 0.05" for 10-yr event
 Inflow = 0.0 cfs @ 15.85 hrs, Volume= 164 cf
 Outflow = 0.0 cfs @ 15.85 hrs, Volume= 164 cf, Atten= 0%, Lag= 0.1 min
 Discarded = 0.0 cfs @ 15.85 hrs, Volume= 164 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 132.00' @ 15.85 hrs Surf.Area= 250 sf Storage= 0 cf

Plug-Flow detention time= 0.1 min calculated for 164 cf (100% of inflow)
 Center-of-Mass det. time= 0.1 min (1,145.8 - 1,145.8)

Volume	Invert	Avail.Storage	Storage Description
#1	132.00'	6,580 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
132.00	250	0	0
133.00	2,120	1,185	1,185
134.00	2,690	2,405	3,590
135.00	3,290	2,990	6,580

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Type III 24-hr 10-yr Rainfall=5.10"

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Device	Routing	Invert	Outlet Devices
#1	Primary	134.50'	10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	132.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 15.85 hrs HW=132.00' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=132.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P7.8: Low Point**

Inflow Area = 52,315 sf, 3.79% Impervious, Inflow Depth = 0.10" for 10-yr event
Inflow = 0.0 cfs @ 15.45 hrs, Volume= 419 cf
Outflow = 0.0 cfs @ 15.45 hrs, Volume= 419 cf, Atten= 0%, Lag= 0.0 min
Discarded = 0.0 cfs @ 15.45 hrs, Volume= 419 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 168.00' @ 15.45 hrs Surf.Area= 300 sf Storage= 0 cf

Plug-Flow detention time= 0.0 min calculated for 419 cf (100% of inflow)

Center-of-Mass det. time= 0.0 min (1,106.2 - 1,106.1)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	1,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	300	0	0
169.00	750	525	525
170.00	1,200	975	1,500

Device	Routing	Invert	Outlet Devices
#1	Primary	169.00'	10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	168.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 15.45 hrs HW=168.00' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=168.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Summary for Link DP7.1: Wetland 30

Inflow Area = 392,457 sf, 15.95% Impervious, Inflow Depth = 1.09" for 10-yr event
Inflow = 7.0 cfs @ 12.26 hrs, Volume= 35,764 cf
Primary = 7.0 cfs @ 12.26 hrs, Volume= 35,764 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.10: Low Point

Inflow Area = 11,715 sf, 2.11% Impervious, Inflow Depth = 0.19" for 10-yr event
Inflow = 0.0 cfs @ 13.77 hrs, Volume= 181 cf
Primary = 0.0 cfs @ 13.77 hrs, Volume= 181 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.11: Low Point

Inflow Area = 69,139 sf, 17.29% Impervious, Inflow Depth = 0.47" for 10-yr event
Inflow = 0.2 cfs @ 12.81 hrs, Volume= 2,731 cf
Primary = 0.2 cfs @ 12.81 hrs, Volume= 2,731 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.12: Low Point

Inflow Area = 53,996 sf, 20.02% Impervious, Inflow Depth = 0.52" for 10-yr event
Inflow = 0.2 cfs @ 12.83 hrs, Volume= 2,352 cf
Primary = 0.2 cfs @ 12.83 hrs, Volume= 2,352 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.2: Wetland 32

Inflow Area = 115,777 sf, 7.70% Impervious, Inflow Depth = 0.12" for 10-yr event
Inflow = 0.0 cfs @ 14.84 hrs, Volume= 1,191 cf
Primary = 0.0 cfs @ 14.84 hrs, Volume= 1,191 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.3: Low Point

Inflow Area = 158,537 sf, 12.38% Impervious, Inflow Depth = 0.38" for 10-yr event
Inflow = 0.5 cfs @ 12.52 hrs, Volume= 5,045 cf
Primary = 0.5 cfs @ 12.52 hrs, Volume= 5,045 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.4: Low Point

Inflow Area = 374,595 sf, 12.17% Impervious, Inflow Depth = 1.57" for 10-yr event
Inflow = 9.9 cfs @ 12.30 hrs, Volume= 49,090 cf
Primary = 9.9 cfs @ 12.30 hrs, Volume= 49,090 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.5: Wetland 31

Inflow Area = 1,007,959 sf, 12.90% Impervious, Inflow Depth = 0.85" for 10-yr event
Inflow = 12.3 cfs @ 12.28 hrs, Volume= 71,233 cf
Primary = 12.3 cfs @ 12.28 hrs, Volume= 71,233 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.6: Low Point

Inflow Area = 38,949 sf, 0.00% Impervious, Inflow Depth = 0.00" for 10-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.7: Low Point

Inflow Area = 32,105 sf, 0.00% Impervious, Inflow Depth = 0.10" for 10-yr event
Inflow = 0.0 cfs @ 15.12 hrs, Volume= 257 cf
Primary = 0.0 cfs @ 15.12 hrs, Volume= 257 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.8: Low Point

Inflow Area = 52,315 sf, 3.79% Impervious, Inflow Depth = 0.00" for 10-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.9: Low Point

Inflow Area = 250,025 sf, 14.60% Impervious, Inflow Depth = 0.38" for 10-yr event
Inflow = 0.8 cfs @ 12.52 hrs, Volume= 7,956 cf
Primary = 0.8 cfs @ 12.52 hrs, Volume= 7,956 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment EX8.1:

Runoff = 15.8 cfs @ 12.25 hrs, Volume= 78,780 cf, Depth= 1.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
1.938	39	>75% Grass cover, Good, HSG A
0.003	80	>75% Grass cover, Good, HSG D
0.028	76	Gravel roads, HSG A
0.028	91	Gravel roads, HSG D
1.228	98	Paved parking, HSG A
0.788	98	Paved roads w/curbs & sewers, HSG A
1.177	98	Roofs, HSG A
8.530	30	Woods, Good, HSG A
0.000	70	Woods, Good, HSG C
6.126	77	Woods, Good, HSG D
19.846	56	Weighted Average
16.653		83.91% Pervious Area
3.193		16.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	50	0.0440	0.09		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
4.3	205	0.0127	0.79		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.8	77	0.0770	0.69		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.0	332	Total			

Summary for Subcatchment EX8.10:

Runoff = 9.3 cfs @ 12.16 hrs, Volume= 34,541 cf, Depth= 2.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.003	76	Gravel roads, HSG A
1.408	98	Paved parking, HSG A
0.269	98	Paved roads w/curbs & sewers, HSG A
0.775	98	Roofs, HSG A
1.180	30	Woods, Good, HSG A
3.634	76	Weighted Average
1.183		32.55% Pervious Area
2.451		67.45% Impervious Area

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Type III 24-hr 10-yr Rainfall=5.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	50	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.7	100	0.0200	0.99		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
11.4	150	Total			

Summary for Subcatchment EX8.11:

Runoff = 0.6 cfs @ 12.37 hrs, Volume= 3,283 cf, Depth= 1.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.278	98	Paved parking, HSG A
0.028	98	Paved roads w/curbs & sewers, HSG A
0.020	98	Roofs, HSG A
0.551	30	Woods, Good, HSG A
0.878	55	Weighted Average
0.551		62.77% Pervious Area
0.327		37.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.8	50	0.0580	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.6	204	0.0250	0.40		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
22.4	254	Total			

Summary for Subcatchment EX8.2:

Runoff = 1.6 cfs @ 12.82 hrs, Volume= 22,453 cf, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.081	76	Gravel roads, HSG A
0.029	91	Gravel roads, HSG D
0.092	98	Paved parking, HSG A
0.227	98	Paved roads w/curbs & sewers, HSG A
0.058	98	Roofs, HSG A
12.034	30	Woods, Good, HSG A
3.679	77	Woods, Good, HSG D
16.199	43	Weighted Average
15.823		97.68% Pervious Area
0.376		2.32% Impervious Area

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Type III 24-hr 10-yr Rainfall=5.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.1	50	0.0160	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
14.6	354	0.0260	0.40		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	404	Total			

Summary for Subcatchment EX8.3:

Runoff = 8.8 cfs @ 12.44 hrs, Volume= 56,510 cf, Depth= 0.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.261	39	>75% Grass cover, Good, HSG A
0.073	76	Gravel roads, HSG A
0.001	85	Gravel roads, HSG B
0.494	91	Gravel roads, HSG D
0.517	98	Paved parking, HSG A
0.254	98	Paved roads w/curbs & sewers, HSG A
0.429	98	Roofs, HSG A
7.997	30	Woods, Good, HSG A
0.463	55	Woods, Good, HSG B
5.591	77	Woods, Good, HSG D
16.080	54	Weighted Average
14.880		92.53% Pervious Area
1.201		7.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	50	0.0720	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
13.0	200	0.0105	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
25.7	250	Total			

Summary for Subcatchment EX8.4:

Runoff = 0.0 cfs @ 15.29 hrs, Volume= 359 cf, Depth= 0.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

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Type III 24-hr 10-yr Rainfall=5.10"

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Area (sf)	CN	Description
2,961	76	Gravel roads, HSG A
37,761	30	Woods, Good, HSG A
4,106	55	Woods, Good, HSG B
44,828	35	Weighted Average
44,828		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	23	0.1300	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
12.9	27	0.0200	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
6.4	273	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
24.7	323	Total			

Summary for Subcatchment EX8.5:

Runoff = 4.5 cfs @ 12.53 hrs, Volume= 28,146 cf, Depth= 1.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.000	76	Gravel roads, HSG A
0.074	85	Gravel roads, HSG B
0.001	91	Gravel roads, HSG D
0.448	98	Paved parking, HSG A
1.175	98	Roofs, HSG A
0.805	30	Woods, Good, HSG A
1.469	55	Woods, Good, HSG B
0.002	77	Woods, Good, HSG D
3.974	68	Weighted Average
2.351		59.16% Pervious Area
1.623		40.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.3	48	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
27.8	826	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	40	0.1825	1.07		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	914	Total			

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment EX8.6:

Runoff = 31.4 cfs @ 12.49 hrs, Volume= 183,075 cf, Depth= 2.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.148	85	Gravel roads, HSG B
0.328	89	Gravel roads, HSG C
0.031	91	Gravel roads, HSG D
0.049	98	Paved parking, HSG A
0.096	98	Paved parking, HSG D
1.239	30	Woods, Good, HSG A
5.697	55	Woods, Good, HSG B
3.260	70	Woods, Good, HSG C
13.992	77	Woods, Good, HSG D
24.840	69	Weighted Average
24.695		99.42% Pervious Area
0.145		0.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	58	0.1400	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
21.0	706	0.0064	0.56		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.7	43	0.1511	0.97		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
32.6	807	Total			

Summary for Subcatchment EX8.7:

Runoff = 0.8 cfs @ 12.56 hrs, Volume= 5,347 cf, Depth= 1.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.011	85	Gravel roads, HSG B
0.232	98	Paved parking, HSG A
0.104	98	Roofs, HSG A
0.186	30	Woods, Good, HSG A
0.222	55	Woods, Good, HSG B
0.755	68	Weighted Average
0.419		55.52% Pervious Area
0.336		44.48% Impervious Area

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Type III 24-hr 10-yr Rainfall=5.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.2	39	0.0205	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
20.5	888	0.0106	0.72		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	37	0.1590	1.00		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
38.3	964	Total			

Summary for Subcatchment EX8.8:

Runoff = 2.3 cfs @ 12.19 hrs, Volume= 8,945 cf, Depth= 2.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
265	76	Gravel roads, HSG A
1,570	85	Gravel roads, HSG B
7,429	98	Paved parking, HSG A
10,195	98	Paved parking, HSG B
3,423	98	Roofs, HSG A
3,349	30	Woods, Good, HSG A
12,150	55	Woods, Good, HSG B
38,381	78	Weighted Average
17,334		45.16% Pervious Area
21,047		54.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.6	50	0.0600	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX8.9:

Runoff = 0.7 cfs @ 12.45 hrs, Volume= 4,311 cf, Depth= 1.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.004	76	Gravel roads, HSG A
0.031	85	Gravel roads, HSG B
0.047	30	Woods, Good, HSG A
0.736	55	Woods, Good, HSG B
0.152	77	Woods, Good, HSG D
0.970	58	Weighted Average
0.970		100.00% Pervious Area

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Type III 24-hr 10-yr Rainfall=5.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	37	0.2050	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
14.1	585	0.0097	0.69		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	153	0.0160	0.32		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
28.8	775	Total			

Summary for Pond P8.10: Low Point

Inflow Area = 158,315 sf, 67.45% Impervious, Inflow Depth = 2.62" for 10-yr event
 Inflow = 9.3 cfs @ 12.16 hrs, Volume= 34,541 cf
 Outflow = 3.7 cfs @ 12.50 hrs, Volume= 34,541 cf, Atten= 61%, Lag= 20.7 min
 Discarded = 2.4 cfs @ 11.87 hrs, Volume= 33,729 cf
 Primary = 1.3 cfs @ 12.50 hrs, Volume= 812 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 134.67' @ 12.50 hrs Surf.Area= 6,018 sf Storage= 7,445 cf

Plug-Flow detention time= 16.4 min calculated for 34,541 cf (100% of inflow)
 Center-of-Mass det. time= 16.4 min (852.8 - 836.4)

Volume	Invert	Avail.Storage	Storage Description
#1	133.00'	9,535 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
133.00	2,935	0	0
134.00	4,745	3,840	3,840
135.00	6,645	5,695	9,535

Device	Routing	Invert	Outlet Devices
#1	Primary	134.60'	25.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	133.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 11.87 hrs HW=133.02' (Free Discharge)
 ↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=1.2 cfs @ 12.50 hrs HW=134.67' (Free Discharge)
 ↑**1=Broad-Crested Rectangular Weir**(Weir Controls 1.2 cfs @ 0.71 fps)

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Pond P8.7: Low Point

Inflow Area = 32,889 sf, 44.48% Impervious, Inflow Depth = 1.95" for 10-yr event
 Inflow = 0.8 cfs @ 12.56 hrs, Volume= 5,347 cf
 Outflow = 0.8 cfs @ 12.56 hrs, Volume= 5,347 cf, Atten= 0%, Lag= 0.2 min
 Discarded = 0.8 cfs @ 12.56 hrs, Volume= 5,347 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 135.02' @ 12.56 hrs Surf.Area= 472 sf Storage= 8 cf

Plug-Flow detention time= 0.2 min calculated for 5,347 cf (100% of inflow)

Center-of-Mass det. time= 0.2 min (881.8 - 881.7)

Volume	Invert	Avail.Storage	Storage Description
#1	135.00'	2,343 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
135.00	460	0	0
136.00	1,185	823	823
137.00	1,855	1,520	2,343

Device	Routing	Invert	Outlet Devices
#1	Primary	136.60'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	135.00'	1.0 cfs Exfiltration at all elevations

Discarded OutFlow Max=1.0 cfs @ 12.56 hrs HW=135.02' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 1.0 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=135.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Link DP8.1: Wetland 28/29**

Inflow Area = 864,489 sf, 16.09% Impervious, Inflow Depth = 1.09" for 10-yr event
 Inflow = 15.8 cfs @ 12.25 hrs, Volume= 78,780 cf
 Primary = 15.8 cfs @ 12.25 hrs, Volume= 78,780 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.10: Low Point

Inflow Area = 158,315 sf, 67.45% Impervious, Inflow Depth = 0.06" for 10-yr event
Inflow = 1.3 cfs @ 12.50 hrs, Volume= 812 cf
Primary = 1.3 cfs @ 12.50 hrs, Volume= 812 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.11: Wetland

Inflow Area = 38,246 sf, 37.23% Impervious, Inflow Depth = 1.03" for 10-yr event
Inflow = 0.6 cfs @ 12.37 hrs, Volume= 3,283 cf
Primary = 0.6 cfs @ 12.37 hrs, Volume= 3,283 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.2: Wetland 27

Inflow Area = 705,611 sf, 2.32% Impervious, Inflow Depth = 0.38" for 10-yr event
Inflow = 1.6 cfs @ 12.82 hrs, Volume= 22,453 cf
Primary = 1.6 cfs @ 12.82 hrs, Volume= 22,453 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.3: Wetland 25

Inflow Area = 700,458 sf, 7.47% Impervious, Inflow Depth = 0.97" for 10-yr event
Inflow = 8.8 cfs @ 12.44 hrs, Volume= 56,510 cf
Primary = 8.8 cfs @ 12.44 hrs, Volume= 56,510 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.4: Wetland 24

Inflow Area = 44,828 sf, 0.00% Impervious, Inflow Depth = 0.10" for 10-yr event
Inflow = 0.0 cfs @ 15.29 hrs, Volume= 359 cf
Primary = 0.0 cfs @ 15.29 hrs, Volume= 359 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.5: Low Point

Inflow Area = 173,109 sf, 40.84% Impervious, Inflow Depth = 1.95" for 10-yr event
Inflow = 4.5 cfs @ 12.53 hrs, Volume= 28,146 cf
Primary = 4.5 cfs @ 12.53 hrs, Volume= 28,146 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.6: Wetland 26

Inflow Area = 1,082,039 sf, 0.58% Impervious, Inflow Depth = 2.03" for 10-yr event
Inflow = 31.4 cfs @ 12.49 hrs, Volume= 183,075 cf
Primary = 31.4 cfs @ 12.49 hrs, Volume= 183,075 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.7: Low Point

Inflow Area = 32,889 sf, 44.48% Impervious, Inflow Depth = 0.00" for 10-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.8: Low Point

Inflow Area = 38,381 sf, 54.84% Impervious, Inflow Depth = 2.80" for 10-yr event
Inflow = 2.3 cfs @ 12.19 hrs, Volume= 8,945 cf
Primary = 2.3 cfs @ 12.19 hrs, Volume= 8,945 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.9: Wetland 24A/Vernal Pool 5

Inflow Area = 42,256 sf, 0.00% Impervious, Inflow Depth = 1.22" for 10-yr event
Inflow = 0.7 cfs @ 12.45 hrs, Volume= 4,311 cf
Primary = 0.7 cfs @ 12.45 hrs, Volume= 4,311 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment EX10.1:

Runoff = 2.7 cfs @ 12.21 hrs, Volume= 11,247 cf, Depth= 2.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
9,363	80	>75% Grass cover, Good, HSG D
1,971	91	Gravel roads, HSG D
813	98	Paved parking, HSG D
34,586	77	Woods, Good, HSG D
46,733	79	Weighted Average
45,920		98.26% Pervious Area
813		1.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	50	0.1500	0.09		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
5.8	175	0.0100	0.50		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
15.2	225	Total			

Summary for Subcatchment EX10.10:

Runoff = 0.3 cfs @ 12.09 hrs, Volume= 853 cf, Depth= 2.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
0	80	>75% Grass cover, Good, HSG D
454	89	Gravel roads, HSG C
209	91	Gravel roads, HSG D
482	70	Woods, Good, HSG C
2,516	77	Woods, Good, HSG D
3,661	78	Weighted Average
3,661		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	25	0.1000	0.07		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment EX10.11:

Runoff = 0.7 cfs @ 12.19 hrs, Volume= 3,484 cf, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
299	76	Gravel roads, HSG A
809	91	Gravel roads, HSG D
1,636	98	Paved parking, HSG A
27,256	30	Woods, Good, HSG A
19,302	77	Woods, Good, HSG D
49,302	52	Weighted Average
47,666		96.68% Pervious Area
1,636		3.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	50	0.1000	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX10.12:

Runoff = 0.6 cfs @ 12.41 hrs, Volume= 3,739 cf, Depth= 0.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
0	80	>75% Grass cover, Good, HSG D
4,312	76	Gravel roads, HSG A
4,401	91	Gravel roads, HSG D
789	98	Paved parking, HSG A
270	98	Paved parking, HSG D
33,179	30	Woods, Good, HSG A
13,835	77	Woods, Good, HSG D
56,785	51	Weighted Average
55,726		98.14% Pervious Area
1,059		1.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
9.6	500	0.0300	0.87		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
21.7	550	Total			

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment EX10.13:

Runoff = 2.8 cfs @ 12.63 hrs, Volume= 18,506 cf, Depth= 2.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
0	80	>75% Grass cover, Good, HSG D
5,981	76	Gravel roads, HSG A
10,573	91	Gravel roads, HSG D
19,835	98	Paved parking, HSG A
17,557	98	Paved parking, HSG D
25,493	30	Woods, Good, HSG A
11,416	77	Woods, Good, HSG D
90,854	74	Weighted Average
53,462		58.84% Pervious Area
37,392		41.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
36.8	50	0.0050	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	30	0.5000	3.54		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
42.9	480	Total			

Summary for Subcatchment EX10.14:

Runoff = 11.2 cfs @ 12.30 hrs, Volume= 52,920 cf, Depth= 2.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
53,635	80	>75% Grass cover, Good, HSG D
599	76	Gravel roads, HSG A
1,197	91	Gravel roads, HSG D
60,830	98	Paved parking, HSG D
53,829	30	Woods, Good, HSG A
99,094	77	Woods, Good, HSG D
269,184	73	Weighted Average
208,354		77.40% Pervious Area
60,830		22.60% Impervious Area

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Type III 24-hr 10-yr Rainfall=5.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX10.15:

Runoff = 0.5 cfs @ 12.79 hrs, Volume= 6,634 cf, Depth= 0.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
41,191	39	>75% Grass cover, Good, HSG A
121	80	>75% Grass cover, Good, HSG D
3,599	76	Gravel roads, HSG A
3,103	91	Gravel roads, HSG D
11,248	98	Paved parking, HSG A
253	98	Paved parking, HSG D
104,725	30	Woods, Good, HSG A
22,178	77	Woods, Good, HSG D
186,416	44	Weighted Average
174,915		93.83% Pervious Area
11,500		6.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
10.6	550	0.0300	0.87		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
38.5	600	Total			

Summary for Subcatchment EX10.2:

Runoff = 5.7 cfs @ 12.44 hrs, Volume= 32,197 cf, Depth= 2.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

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Type III 24-hr 10-yr Rainfall=5.10"

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Area (sf)	CN	Description
34,938	39	>75% Grass cover, Good, HSG A
34,850	80	>75% Grass cover, Good, HSG D
4,142	91	Gravel roads, HSG D
28,819	98	Paved parking, HSG A
3,548	98	Paved parking, HSG D
17,462	30	Woods, Good, HSG A
59,283	77	Woods, Good, HSG D
183,042	70	Weighted Average
150,675		82.32% Pervious Area
32,368		17.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.1	50	0.0090	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.5	100	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
30.6	150	Total			

Summary for Subcatchment EX10.3:

Runoff = 1.8 cfs @ 12.39 hrs, Volume= 9,997 cf, Depth= 2.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
0	80	>75% Grass cover, Good, HSG D
2,751	91	Gravel roads, HSG D
40,144	77	Woods, Good, HSG D
42,895	78	Weighted Average
42,895		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.2	50	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
29.1	100	Total			

Summary for Subcatchment EX10.4:

Runoff = 4.4 cfs @ 12.55 hrs, Volume= 27,697 cf, Depth= 1.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

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Type III 24-hr 10-yr Rainfall=5.10"

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Area (sf)	CN	Description
23,150	39	>75% Grass cover, Good, HSG A
6,935	80	>75% Grass cover, Good, HSG D
4,792	91	Gravel roads, HSG D
21,919	98	Paved parking, HSG A
16	98	Paved parking, HSG D
56,904	30	Woods, Good, HSG A
97,635	77	Woods, Good, HSG D
211,352	63	Weighted Average
189,417		89.62% Pervious Area
21,935		10.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.3	175	0.2000	2.24		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
35.2	625	Total			

Summary for Subcatchment EX10.5:

Runoff = 2.1 cfs @ 12.20 hrs, Volume= 8,490 cf, Depth= 2.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
3,076	80	>75% Grass cover, Good, HSG D
2,125	91	Gravel roads, HSG D
31,228	77	Woods, Good, HSG D
36,429	78	Weighted Average
36,429		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX10.6:

Runoff = 4.8 cfs @ 12.34 hrs, Volume= 23,699 cf, Depth= 2.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

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Type III 24-hr 10-yr Rainfall=5.10"

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Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
0	74	>75% Grass cover, Good, HSG C
41,520	80	>75% Grass cover, Good, HSG D
1,625	76	Gravel roads, HSG A
1,819	89	Gravel roads, HSG C
6,526	91	Gravel roads, HSG D
18,428	30	Woods, Good, HSG A
2,694	70	Woods, Good, HSG C
52,383	77	Woods, Good, HSG D
124,995	72	Weighted Average
124,995		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.4	100	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
23.5	150	Total			

Summary for Subcatchment EX10.7:

Runoff = 0.1 cfs @ 12.57 hrs, Volume= 1,687 cf, Depth= 0.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
3,445	76	Gravel roads, HSG A
1,711	91	Gravel roads, HSG D
61,785	30	Woods, Good, HSG A
11,563	77	Woods, Good, HSG D
78,505	40	Weighted Average
78,505		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.7	50	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.6	60	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.0	160	Total			

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment EX10.8:

Runoff = 0.3 cfs @ 12.62 hrs, Volume= 4,434 cf, Depth= 0.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
10,522	39	>75% Grass cover, Good, HSG A
323	74	>75% Grass cover, Good, HSG C
12,890	80	>75% Grass cover, Good, HSG D
52	76	Gravel roads, HSG A
0	89	Gravel roads, HSG C
1,682	91	Gravel roads, HSG D
2,763	98	Paved parking, HSG A
131,535	30	Woods, Good, HSG A
1,354	70	Woods, Good, HSG C
17,905	77	Woods, Good, HSG D
179,026	41	Weighted Average
176,263		98.46% Pervious Area
2,763		1.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
6.0	400	0.0500	1.12		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
20.7	450	Total			

Summary for Subcatchment EX10.9:

Runoff = 3.1 cfs @ 12.44 hrs, Volume= 17,626 cf, Depth= 1.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
10,399	39	>75% Grass cover, Good, HSG A
11,292	74	>75% Grass cover, Good, HSG C
6,155	80	>75% Grass cover, Good, HSG D
378	89	Gravel roads, HSG C
565	91	Gravel roads, HSG D
14,874	30	Woods, Good, HSG A
61,632	70	Woods, Good, HSG C
17,648	77	Woods, Good, HSG D
122,942	65	Weighted Average
122,942		100.00% Pervious Area

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Type III 24-hr 10-yr Rainfall=5.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.2	350	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
29.3	400	Total			

Summary for Subcatchment EX9.1:

Runoff = 7.4 cfs @ 12.38 hrs, Volume= 39,654 cf, Depth= 3.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
53,138	80	>75% Grass cover, Good, HSG D
47,904	98	Paved parking, HSG D
36,465	77	Woods, Good, HSG D
137,506	85	Weighted Average
89,603		65.16% Pervious Area
47,904		34.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0100	0.05		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
11.8	500	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
27.8	550	Total			

Summary for Link DP10.1: Station Rd

Inflow Area = 46,733 sf, 1.74% Impervious, Inflow Depth = 2.89" for 10-yr event
Inflow = 2.7 cfs @ 12.21 hrs, Volume= 11,247 cf
Primary = 2.7 cfs @ 12.21 hrs, Volume= 11,247 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.10: Wetland 5_Vernal Pool 2-3

Inflow Area = 3,661 sf, 0.00% Impervious, Inflow Depth = 2.80" for 10-yr event
Inflow = 0.3 cfs @ 12.09 hrs, Volume= 853 cf
Primary = 0.3 cfs @ 12.09 hrs, Volume= 853 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Link DP10.11: Vernal Pool 4

Inflow Area = 140,156 sf, 27.85% Impervious, Inflow Depth = 1.88" for 10-yr event
Inflow = 3.1 cfs @ 12.54 hrs, Volume= 21,990 cf
Primary = 3.1 cfs @ 12.54 hrs, Volume= 21,990 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.12: Stream

Inflow Area = 56,785 sf, 1.86% Impervious, Inflow Depth = 0.79" for 10-yr event
Inflow = 0.6 cfs @ 12.41 hrs, Volume= 3,739 cf
Primary = 0.6 cfs @ 12.41 hrs, Volume= 3,739 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.14: Wetland 6

Inflow Area = 269,184 sf, 22.60% Impervious, Inflow Depth = 2.36" for 10-yr event
Inflow = 11.2 cfs @ 12.30 hrs, Volume= 52,920 cf
Primary = 11.2 cfs @ 12.30 hrs, Volume= 52,920 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.15: Wetland 3_Vernal Pool 1

Inflow Area = 186,416 sf, 6.17% Impervious, Inflow Depth = 0.43" for 10-yr event
Inflow = 0.5 cfs @ 12.79 hrs, Volume= 6,634 cf
Primary = 0.5 cfs @ 12.79 hrs, Volume= 6,634 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.2: Wetland 18

Inflow Area = 183,042 sf, 17.68% Impervious, Inflow Depth = 2.11" for 10-yr event
Inflow = 5.7 cfs @ 12.44 hrs, Volume= 32,197 cf
Primary = 5.7 cfs @ 12.44 hrs, Volume= 32,197 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.3: Wetland 19

Inflow Area = 42,895 sf, 0.00% Impervious, Inflow Depth = 2.80" for 10-yr event
Inflow = 1.8 cfs @ 12.39 hrs, Volume= 9,997 cf
Primary = 1.8 cfs @ 12.39 hrs, Volume= 9,997 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Link DP10.4: Wetland 15

Inflow Area = 211,352 sf, 10.38% Impervious, Inflow Depth = 1.57" for 10-yr event
Inflow = 4.4 cfs @ 12.55 hrs, Volume= 27,697 cf
Primary = 4.4 cfs @ 12.55 hrs, Volume= 27,697 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.5: Wetland 16

Inflow Area = 36,429 sf, 0.00% Impervious, Inflow Depth = 2.80" for 10-yr event
Inflow = 2.1 cfs @ 12.20 hrs, Volume= 8,490 cf
Primary = 2.1 cfs @ 12.20 hrs, Volume= 8,490 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.6: Wetland 14

Inflow Area = 124,995 sf, 0.00% Impervious, Inflow Depth = 2.28" for 10-yr event
Inflow = 4.8 cfs @ 12.34 hrs, Volume= 23,699 cf
Primary = 4.8 cfs @ 12.34 hrs, Volume= 23,699 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.7: Wetland 12

Inflow Area = 78,505 sf, 0.00% Impervious, Inflow Depth = 0.26" for 10-yr event
Inflow = 0.1 cfs @ 12.57 hrs, Volume= 1,687 cf
Primary = 0.1 cfs @ 12.57 hrs, Volume= 1,687 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.8: Wetland 13

Inflow Area = 179,026 sf, 1.54% Impervious, Inflow Depth = 0.30" for 10-yr event
Inflow = 0.3 cfs @ 12.62 hrs, Volume= 4,434 cf
Primary = 0.3 cfs @ 12.62 hrs, Volume= 4,434 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.9: Wetland 10

Inflow Area = 122,942 sf, 0.00% Impervious, Inflow Depth = 1.72" for 10-yr event
Inflow = 3.1 cfs @ 12.44 hrs, Volume= 17,626 cf
Primary = 3.1 cfs @ 12.44 hrs, Volume= 17,626 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Summary for Link DP9.1: Wetland 4

Inflow Area = 137,506 sf, 34.84% Impervious, Inflow Depth = 3.46" for 10-yr event
Inflow = 7.4 cfs @ 12.38 hrs, Volume= 39,654 cf
Primary = 7.4 cfs @ 12.38 hrs, Volume= 39,654 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

25-Year Storm Event – Existing

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Type III 24-hr 25-year Rainfall=6.23"

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Summary for Subcatchment EX-5.10:

Runoff = 0.0 cfs @ 15.27 hrs, Volume= 788 cf, Depth= 0.13"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
1,108	76	Gravel roads, HSG A
70,778	30	Woods, Good, HSG A
71,886	31	Weighted Average
71,886	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
9.1	620	0.0050	1.14		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
30.2	670	Total			

Summary for Subcatchment EX-5.11:

Runoff = 0.1 cfs @ 15.41 hrs, Volume= 1,647 cf, Depth= 0.10"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
201,376	30	Woods, Good, HSG A
201,376	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0400	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.9	500	0.0180	2.16		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
19.9	550	Total			

Summary for Subcatchment EX-5.12:

Runoff = 1.2 cfs @ 13.14 hrs, Volume= 17,325 cf, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

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Type III 24-hr 25-year Rainfall=6.23"

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Area (sf)	CN	Description
14,438	76	Gravel roads, HSG A
1,034	85	Gravel roads, HSG B
838	98	Water Surface, HSG B
230,578	30	Woods, Good, HSG A
108,442	55	Woods, Good, HSG B
355,330	40	Weighted Average
354,492	40	99.76% Pervious Area
838	98	0.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.2	50	0.0060	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
26.6	2,435	0.0090	1.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	70	0.1300	5.80		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
61.0	2,555	Total			

Summary for Subcatchment EX-5.13:

Runoff = 0.7 cfs @ 13.37 hrs, Volume= 15,446 cf, Depth= 0.31"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
19,905	76	Gravel roads, HSG A
1,473	85	Gravel roads, HSG B
1,067	98	Water Surface, HSG B
504,053	30	Woods, Good, HSG A
70,845	55	Woods, Good, HSG B
597,343	35	Weighted Average
596,276	35	99.82% Pervious Area
1,067	98	0.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
24.9	2,280	0.0090	1.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	75	0.1200	5.58		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
53.0	2,405	Total			

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Type III 24-hr 25-year Rainfall=6.23"

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Summary for Subcatchment EX-5.14:

Runoff = 0.8 cfs @ 12.76 hrs, Volume= 15,870 cf, Depth= 0.31"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
3,987	76	Gravel roads, HSG A
1,014	85	Gravel roads, HSG B
1,239	98	Water Surface, HSG B
481,602	30	Woods, Good, HSG A
123,211	55	Woods, Good, HSG B
611,053	36	Weighted Average
609,815	35	99.80% Pervious Area
1,239	98	0.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	50	0.2600	0.11		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
16.7	475	0.0090	0.47		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.4	110	0.0680	1.30		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.7	635	Total			

Summary for Subcatchment EX-5.15:

Runoff = 0.8 cfs @ 12.81 hrs, Volume= 13,914 cf, Depth= 0.36"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
2,402	76	Gravel roads, HSG A
664	85	Gravel roads, HSG B
755	98	Water Surface, HSG B
357,144	30	Woods, Good, HSG A
104,293	55	Woods, Good, HSG B
465,258	36	Weighted Average
464,503	36	99.84% Pervious Area
755	98	0.16% Impervious Area

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Type III 24-hr 25-year Rainfall=6.23"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.5	585	0.0180	2.16		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
32.4	635	Total			

Summary for Subcatchment EX-5.16:

Runoff = 0.1 cfs @ 15.22 hrs, Volume= 3,046 cf, Depth= 0.10"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
372,399	30	Woods, Good, HSG A
372,399	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	27	0.0960	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX-5.17:

Runoff = 0.2 cfs @ 15.21 hrs, Volume= 6,587 cf, Depth= 0.10"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
2,350	76	Gravel roads, HSG A
802,889	30	Woods, Good, HSG A
805,238	30	Weighted Average
805,238	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	30	0.1500	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	45	0.1600	6.44		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.4	75	Total			

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Type III 24-hr 25-year Rainfall=6.23"

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Summary for Subcatchment EX-5.18:

Runoff = 0.1 cfs @ 15.71 hrs, Volume= 3,724 cf, Depth= 0.10"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
3,317	76	Gravel roads, HSG A
451,859	30	Woods, Good, HSG A
455,176	30	Weighted Average
455,176	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	400	0.0800	1.41		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
4.7	200	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
37.3	650	Total			

Summary for Subcatchment EX-5.19:

Runoff = 0.0 cfs @ 13.81 hrs, Volume= 528 cf, Depth= 0.21"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
2,168	76	Gravel roads, HSG A
28,098	30	Woods, Good, HSG A
30,267	33	Weighted Average
30,267	33	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	50	0.0750	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.5	110	0.0020	0.72		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.1	30	0.1300	5.80		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
15.1	190	Total			

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Type III 24-hr 25-year Rainfall=6.23"

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Summary for Subcatchment EX-5.20:

Runoff = 0.0 cfs @ 15.51 hrs, Volume= 402 cf, Depth= 0.10"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
465	76	Gravel roads, HSG A
48,716	30	Woods, Good, HSG A
49,182	30	Weighted Average
49,182	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	200	0.0200	0.71		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
25.8	250	Total			

Summary for Subcatchment EX-5.21:

Runoff = 0.1 cfs @ 15.41 hrs, Volume= 2,024 cf, Depth= 0.10"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
2,319	76	Gravel roads, HSG A
245,101	30	Woods, Good, HSG A
247,420	30	Weighted Average
247,420	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	200	0.0200	0.71		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
19.4	250	Total			

Summary for Subcatchment EX-5.6:

Runoff = 0.4 cfs @ 14.75 hrs, Volume= 10,198 cf, Depth= 0.17"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

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Type III 24-hr 25-year Rainfall=6.23"

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Area (sf)	CN	Description
6,191	76	Gravel roads, HSG A
863	85	Gravel roads, HSG B
667,645	30	Woods, Good, HSG A
50,438	55	Woods, Good, HSG B
725,137	32	Weighted Average
725,137	32	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	50	0.1000	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.0	545	0.0200	2.28		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
15.1	595	Total			

Summary for Subcatchment EX-5.7:

Runoff = 1.0 cfs @ 12.63 hrs, Volume= 13,788 cf, Depth= 0.40"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
3,124	76	Gravel roads, HSG A
868	85	Gravel roads, HSG B
304,256	30	Woods, Good, HSG A
103,451	55	Woods, Good, HSG B
411,699	37	Weighted Average
411,699	37	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	50	0.0250	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.9	490	0.0170	2.10		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
23.2	540	Total			

Summary for Subcatchment EX-5.8:

Runoff = 0.8 cfs @ 15.26 hrs, Volume= 22,096 cf, Depth= 0.13"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

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Type III 24-hr 25-year Rainfall=6.23"

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Area (sf)	CN	Description
1,235	39	>75% Grass cover, Good, HSG A
6,962	76	Gravel roads, HSG A
1,935,323	30	Woods, Good, HSG A
71,626	55	Woods, Good, HSG B
2,015,145	31	Weighted Average
2,015,145	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	165	0.0480	3.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.1	165	0.0230	2.44		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
29.8	380	Total			

Summary for Subcatchment EX-5.9:

Runoff = 0.1 cfs @ 14.74 hrs, Volume= 2,858 cf, Depth= 0.17"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
6,721	76	Gravel roads, HSG A
196,485	30	Woods, Good, HSG A
203,205	32	Weighted Average
203,205	32	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	50	0.1000	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
5.3	510	0.0100	1.61		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
16.4	560	Total			

Summary for Pond P5.11: Low Point

Inflow Area = 201,376 sf, 0.00% Impervious, Inflow Depth = 0.10" for 25-year event
 Inflow = 0.1 cfs @ 15.41 hrs, Volume= 1,647 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 174.78' @ 25.13 hrs Surf.Area= 5,976 sf Storage= 1,647 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

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Type III 24-hr 25-year Rainfall=6.23"

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Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	174.50'	9,900 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
174.50	5,600	0	0
175.00	6,260	2,965	2,965
175.50	6,930	3,298	6,263
176.00	7,620	3,638	9,900

Device	Routing	Invert	Outlet Devices
#1	Primary	175.50'	30.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=174.50' TW=0.00' (Dynamic Tailwater)

↑1=Broad-Crested Rectangular Weir(Controls 0.0 cfs)

Summary for Link DP5.10: Low Point

Inflow Area = 71,886 sf, 0.00% Impervious, Inflow Depth = 0.13" for 25-year event
Inflow = 0.0 cfs @ 15.27 hrs, Volume= 788 cf
Primary = 0.0 cfs @ 15.27 hrs, Volume= 788 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.11: Low Point

Inflow Area = 201,376 sf, 0.00% Impervious, Inflow Depth = 0.00" for 25-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.12: Wetland 44

Inflow Area = 355,330 sf, 0.24% Impervious, Inflow Depth = 0.59" for 25-year event
Inflow = 1.2 cfs @ 13.14 hrs, Volume= 17,325 cf
Primary = 1.2 cfs @ 13.14 hrs, Volume= 17,325 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 25-year Rainfall=6.23"

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Summary for Link DP5.13: Wetland 44

Inflow Area = 597,343 sf, 0.18% Impervious, Inflow Depth = 0.31" for 25-year event
Inflow = 0.7 cfs @ 13.37 hrs, Volume= 15,446 cf
Primary = 0.7 cfs @ 13.37 hrs, Volume= 15,446 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.14: Wetland 44

Inflow Area = 611,053 sf, 0.20% Impervious, Inflow Depth = 0.31" for 25-year event
Inflow = 0.8 cfs @ 12.76 hrs, Volume= 15,870 cf
Primary = 0.8 cfs @ 12.76 hrs, Volume= 15,870 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.15: Wetland 44

Inflow Area = 465,258 sf, 0.16% Impervious, Inflow Depth = 0.36" for 25-year event
Inflow = 0.8 cfs @ 12.81 hrs, Volume= 13,914 cf
Primary = 0.8 cfs @ 12.81 hrs, Volume= 13,914 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.16: Wetland

Inflow Area = 372,399 sf, 0.00% Impervious, Inflow Depth = 0.10" for 25-year event
Inflow = 0.1 cfs @ 15.22 hrs, Volume= 3,046 cf
Primary = 0.1 cfs @ 15.22 hrs, Volume= 3,046 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.17: Wetland 42/Vernal Pool 12

Inflow Area = 805,238 sf, 0.00% Impervious, Inflow Depth = 0.10" for 25-year event
Inflow = 0.2 cfs @ 15.21 hrs, Volume= 6,587 cf
Primary = 0.2 cfs @ 15.21 hrs, Volume= 6,587 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.18: Wetland 41&43/Vernal Pool 11&13

Inflow Area = 455,176 sf, 0.00% Impervious, Inflow Depth = 0.10" for 25-year event
Inflow = 0.1 cfs @ 15.71 hrs, Volume= 3,724 cf
Primary = 0.1 cfs @ 15.71 hrs, Volume= 3,724 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.19: Wetland 40/Vernal Pool 10

Inflow Area = 30,267 sf, 0.00% Impervious, Inflow Depth = 0.21" for 25-year event
Inflow = 0.0 cfs @ 13.81 hrs, Volume= 528 cf
Primary = 0.0 cfs @ 13.81 hrs, Volume= 528 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.20: Off-site

Inflow Area = 49,182 sf, 0.00% Impervious, Inflow Depth = 0.10" for 25-year event
Inflow = 0.0 cfs @ 15.51 hrs, Volume= 402 cf
Primary = 0.0 cfs @ 15.51 hrs, Volume= 402 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.21: Wetland 39/Vernal Pool 9

Inflow Area = 247,420 sf, 0.00% Impervious, Inflow Depth = 0.10" for 25-year event
Inflow = 0.1 cfs @ 15.41 hrs, Volume= 2,024 cf
Primary = 0.1 cfs @ 15.41 hrs, Volume= 2,024 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.6: Wetland 18

Inflow Area = 725,137 sf, 0.00% Impervious, Inflow Depth = 0.17" for 25-year event
Inflow = 0.4 cfs @ 14.75 hrs, Volume= 10,198 cf
Primary = 0.4 cfs @ 14.75 hrs, Volume= 10,198 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.7: Wetland 19

Inflow Area = 411,699 sf, 0.00% Impervious, Inflow Depth = 0.40" for 25-year event
Inflow = 1.0 cfs @ 12.63 hrs, Volume= 13,788 cf
Primary = 1.0 cfs @ 12.63 hrs, Volume= 13,788 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.8: Wetland 45

Inflow Area = 2,015,145 sf, 0.00% Impervious, Inflow Depth = 0.13" for 25-year event
Inflow = 0.8 cfs @ 15.26 hrs, Volume= 22,096 cf
Primary = 0.8 cfs @ 15.26 hrs, Volume= 22,096 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 25-year Rainfall=6.23"

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Summary for Link DP5.9: Low Point

Inflow Area = 203,205 sf, 0.00% Impervious, Inflow Depth = 0.17" for 25-year event
Inflow = 0.1 cfs @ 14.74 hrs, Volume= 2,858 cf
Primary = 0.1 cfs @ 14.74 hrs, Volume= 2,858 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment EX6.1:

Runoff = 0.1 cfs @ 12.83 hrs, Volume= 1,479 cf, Depth= 0.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
8,068	39	>75% Grass cover, Good, HSG A
2,474	76	Gravel roads, HSG A
1,651	98	Paved parking, HSG A
22,391	30	Woods, Good, HSG A
34,585	39	Weighted Average
32,934		95.23% Pervious Area
1,651		4.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.9	39	0.4790	0.13		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
16.8	671	0.0090	0.66		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.7	88	0.0011	0.08		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
1.4	95	0.0260	1.13		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
40.8	893	Total			

Summary for Subcatchment EX6.10:

Runoff = 1.5 cfs @ 12.48 hrs, Volume= 11,794 cf, Depth= 0.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.585	39	>75% Grass cover, Good, HSG A
0.018	76	Gravel roads, HSG A
0.721	98	Paved parking, HSG A
2.597	30	Woods, Good, HSG A
0.007	77	Woods, Good, HSG D
3.928	44	Weighted Average
3.207		81.64% Pervious Area
0.721		18.36% Impervious Area

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Type III 24-hr 25-yr Rainfall=6.23"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.0	50	0.0260	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
5.9	138	0.0240	0.39		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
24.9	188	Total			

Summary for Subcatchment EX6.11:

Runoff = 0.0 cfs @ 13.66 hrs, Volume= 605 cf, Depth= 0.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.080	39	>75% Grass cover, Good, HSG A
0.007	76	Gravel roads, HSG A
0.020	98	Paved parking, HSG A
0.690	30	Woods, Good, HSG A
0.796	33	Weighted Average
0.777		97.53% Pervious Area
0.020		2.47% Impervious Area

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

Summary for Subcatchment EX6.12:

Runoff = 0.0 cfs @ 14.58 hrs, Volume= 370 cf, Depth= 0.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.122	39	>75% Grass cover, Good, HSG A
0.005	76	Gravel roads, HSG A
0.477	30	Woods, Good, HSG A
0.605	32	Weighted Average
0.605		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	15	0.1133	0.11		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
2.2	16	0.6080	0.12		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.5	31	Total, Increased to minimum Tc = 6.0 min			

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment EX6.13:

Runoff = 4.2 cfs @ 12.13 hrs, Volume= 16,424 cf, Depth= 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.341	39	>75% Grass cover, Good, HSG A
0.188	80	>75% Grass cover, Good, HSG D
0.037	76	Gravel roads, HSG A
0.255	98	Paved parking, HSG A
0.122	98	Paved parking, HSG D
1.603	30	Woods, Good, HSG A
0.660	77	Woods, Good, HSG D
3.205	52	Weighted Average
2.828		88.24% Pervious Area
0.377		11.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	13	0.1770	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
6.3	40	0.2650	0.11		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.0	53	Total			

Summary for Subcatchment EX6.14:

Runoff = 10.3 cfs @ 12.18 hrs, Volume= 41,114 cf, Depth= 2.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.335	80	>75% Grass cover, Good, HSG D
0.044	76	Gravel roads, HSG A
0.234	98	Paved parking, HSG A
0.274	98	Paved parking, HSG D
1.951	30	Woods, Good, HSG A
0.757	70	Woods, Good, HSG C
1.646	77	Woods, Good, HSG D
5.241	61	Weighted Average
4.733		90.31% Pervious Area
0.508		9.69% Impervious Area

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Type III 24-hr 25-yr Rainfall=6.23"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	50	0.0800	0.12		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
1.8	75	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.9	75	0.0800	1.41		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
2.7	80	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
12.4	280	Total			

Summary for Subcatchment EX6.15:

Runoff = 0.4 cfs @ 12.11 hrs, Volume= 1,283 cf, Depth= 4.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.064	98	Paved parking, HSG A
0.016	30	Woods, Good, HSG A
0.080	84	Weighted Average
0.016		20.11% Pervious Area
0.064		79.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	14	0.1210	0.11		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
5.6	33	0.2400	0.10		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
7.7	47	Total			

Summary for Subcatchment EX6.2:

Runoff = 0.0 cfs @ 14.99 hrs, Volume= 445 cf, Depth= 0.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.027	76	Gravel roads, HSG A
0.004	98	Paved parking, HSG A
0.696	30	Woods, Good, HSG A
0.727	32	Weighted Average
0.723		99.43% Pervious Area
0.004		0.57% Impervious Area

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Type III 24-hr 25-yr Rainfall=6.23"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	50	0.0440	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.2	82	0.2180	1.17		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.9	712	0.0090	0.66		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
34.5	844	Total			

Summary for Subcatchment EX6.3:

Runoff = 0.3 cfs @ 12.37 hrs, Volume= 1,971 cf, Depth= 0.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.134	98	Paved parking, HSG A
0.646	30	Woods, Good, HSG A
0.780	42	Weighted Average
0.646		82.81% Pervious Area
0.134		17.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.1	50	0.0660	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.6	105	0.0238	1.08		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
14.7	155	Total			

Summary for Subcatchment EX6.4:

Runoff = 2.7 cfs @ 12.22 hrs, Volume= 13,110 cf, Depth= 1.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
74,975	39	>75% Grass cover, Good, HSG A
27,168	98	Paved parking, HSG A
22,971	30	Woods, Good, HSG A
125,114	50	Weighted Average
97,946		78.29% Pervious Area
27,168		21.71% Impervious Area

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Type III 24-hr 25-yr Rainfall=6.23"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	50	0.0740	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	36	0.0860	0.73		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
13.3	86	Total			

Summary for Subcatchment EX6.5:

Runoff = 1.6 cfs @ 12.55 hrs, Volume= 21,410 cf, Depth= 0.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
2.733	39	>75% Grass cover, Good, HSG A
1.189	98	Paved parking, HSG A
12.942	30	Woods, Good, HSG A
16.865	36	Weighted Average
15.675		92.95% Pervious Area
1.189		7.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.1	41	0.0585	0.60		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.8	91	Total			

Summary for Subcatchment EX6.6:

Runoff = 1.9 cfs @ 12.62 hrs, Volume= 18,097 cf, Depth= 0.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
1.233	39	>75% Grass cover, Good, HSG A
0.136	76	Gravel roads, HSG A
1.031	98	Paved parking, HSG A
4.761	30	Woods, Good, HSG A
7.161	42	Weighted Average
6.131		85.61% Pervious Area
1.031		14.39% Impervious Area

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Type III 24-hr 25-yr Rainfall=6.23"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	50	0.3000	0.20		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.1	13	0.3000	2.74		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.9	850	0.0120	0.55		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.2	85	0.0590	1.21		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
31.3	998	Total			

Summary for Subcatchment EX6.7:

Runoff = 1.4 cfs @ 12.62 hrs, Volume= 14,932 cf, Depth= 0.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
1.337	39	>75% Grass cover, Good, HSG A
0.082	74	>75% Grass cover, Good, HSG C
0.060	76	Gravel roads, HSG A
0.672	98	Paved parking, HSG A
0.078	98	Roofs, HSG A
4.959	30	Woods, Good, HSG A
7.188	40	Weighted Average
6.437		89.56% Pervious Area
0.751		10.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	50	0.3300	0.12		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	13	0.4380	1.65		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
18.9	848	0.0114	0.75		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.5	86	0.0530	0.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
28.4	997	Total			

Summary for Subcatchment EX6.8:

Runoff = 0.1 cfs @ 14.88 hrs, Volume= 3,012 cf, Depth= 0.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

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Type III 24-hr 25-yr Rainfall=6.23"

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Area (ac)	CN	Description
1.052	39	>75% Grass cover, Good, HSG A
3.865	30	Woods, Good, HSG A
4.917	32	Weighted Average
4.917		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	44	0.5000	0.14		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
15.2	728	0.0130	0.80		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.6	113	0.0180	0.34		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
26.1	885	Total			

Summary for Subcatchment EX6.9:

Runoff = 0.3 cfs @ 12.05 hrs, Volume= 2,074 cf, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.259	39	>75% Grass cover, Good, HSG A
0.006	76	Gravel roads, HSG A
0.108	98	Paved parking, HSG A
0.530	30	Woods, Good, HSG A
0.902	41	Weighted Average
0.795		88.09% Pervious Area
0.108		11.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.0					Direct Entry, 6.0

Summary for Link DP6.1: Low Point

Inflow Area = 34,585 sf, 4.77% Impervious, Inflow Depth = 0.51" for 25-yr event
 Inflow = 0.1 cfs @ 12.83 hrs, Volume= 1,479 cf
 Primary = 0.1 cfs @ 12.83 hrs, Volume= 1,479 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.10: Low Point

Inflow Area = 171,088 sf, 18.36% Impervious, Inflow Depth = 0.83" for 25-yr event
Inflow = 1.5 cfs @ 12.48 hrs, Volume= 11,794 cf
Primary = 1.5 cfs @ 12.48 hrs, Volume= 11,794 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.11: Wetland/Potential Vernal Pool

Inflow Area = 34,690 sf, 2.47% Impervious, Inflow Depth = 0.21" for 25-yr event
Inflow = 0.0 cfs @ 13.66 hrs, Volume= 605 cf
Primary = 0.0 cfs @ 13.66 hrs, Volume= 605 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.12: Wetland 35/Vernal Pool 8

Inflow Area = 26,336 sf, 0.00% Impervious, Inflow Depth = 0.17" for 25-yr event
Inflow = 0.0 cfs @ 14.58 hrs, Volume= 370 cf
Primary = 0.0 cfs @ 14.58 hrs, Volume= 370 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.13: Wetland 34

Inflow Area = 139,625 sf, 11.76% Impervious, Inflow Depth = 1.41" for 25-yr event
Inflow = 4.2 cfs @ 12.13 hrs, Volume= 16,424 cf
Primary = 4.2 cfs @ 12.13 hrs, Volume= 16,424 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.14: Wetland 33

Inflow Area = 228,310 sf, 9.69% Impervious, Inflow Depth = 2.16" for 25-yr event
Inflow = 10.3 cfs @ 12.18 hrs, Volume= 41,114 cf
Primary = 10.3 cfs @ 12.18 hrs, Volume= 41,114 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.15: Low Point

Inflow Area = 3,490 sf, 79.89% Impervious, Inflow Depth = 4.41" for 25-yr event
Inflow = 0.4 cfs @ 12.11 hrs, Volume= 1,283 cf
Primary = 0.4 cfs @ 12.11 hrs, Volume= 1,283 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.2: Dutton

Inflow Area = 31,671 sf, 0.57% Impervious, Inflow Depth = 0.17" for 25-yr event
Inflow = 0.0 cfs @ 14.99 hrs, Volume= 445 cf
Primary = 0.0 cfs @ 14.99 hrs, Volume= 445 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.3: Low Point

Inflow Area = 33,974 sf, 17.19% Impervious, Inflow Depth = 0.70" for 25-yr event
Inflow = 0.3 cfs @ 12.37 hrs, Volume= 1,971 cf
Primary = 0.3 cfs @ 12.37 hrs, Volume= 1,971 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.4: Low Point

Inflow Area = 125,114 sf, 21.71% Impervious, Inflow Depth = 1.26" for 25-yr event
Inflow = 2.7 cfs @ 12.22 hrs, Volume= 13,110 cf
Primary = 2.7 cfs @ 12.22 hrs, Volume= 13,110 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.5: Low Point

Inflow Area = 734,623 sf, 7.05% Impervious, Inflow Depth = 0.35" for 25-yr event
Inflow = 1.6 cfs @ 12.55 hrs, Volume= 21,410 cf
Primary = 1.6 cfs @ 12.55 hrs, Volume= 21,410 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.6: Wetland 38 & 36

Inflow Area = 311,949 sf, 14.39% Impervious, Inflow Depth = 0.70" for 25-yr event
Inflow = 1.9 cfs @ 12.62 hrs, Volume= 18,097 cf
Primary = 1.9 cfs @ 12.62 hrs, Volume= 18,097 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.7: Wetland 37

Inflow Area = 313,094 sf, 10.44% Impervious, Inflow Depth = 0.57" for 25-yr event
Inflow = 1.4 cfs @ 12.62 hrs, Volume= 14,932 cf
Primary = 1.4 cfs @ 12.62 hrs, Volume= 14,932 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.8: Low Point

Inflow Area = 214,195 sf, 0.00% Impervious, Inflow Depth = 0.17" for 25-yr event
Inflow = 0.1 cfs @ 14.88 hrs, Volume= 3,012 cf
Primary = 0.1 cfs @ 14.88 hrs, Volume= 3,012 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.9: Low Point

Inflow Area = 39,308 sf, 11.91% Impervious, Inflow Depth = 0.63" for 25-yr event
Inflow = 0.3 cfs @ 12.05 hrs, Volume= 2,074 cf
Primary = 0.3 cfs @ 12.05 hrs, Volume= 2,074 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment EX7.1:

Runoff = 12.1 cfs @ 12.25 hrs, Volume= 56,710 cf, Depth= 1.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
2.052	39	>75% Grass cover, Good, HSG A
0.682	80	>75% Grass cover, Good, HSG D
0.072	76	Gravel roads, HSG A
0.030	91	Gravel roads, HSG D
0.535	98	Paved parking, HSG A
0.159	98	Paved parking, HSG D
0.480	98	Paved roads w/curbs & sewers, HSG A
0.122	98	Paved roads w/curbs & sewers, HSG D
0.141	98	Roofs, HSG A
3.133	30	Woods, Good, HSG A
1.604	77	Woods, Good, HSG D
9.010	56	Weighted Average
7.572		84.05% Pervious Area
1.437		15.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	50	0.0300	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
5.6	270	0.0133	0.81		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.5	51	0.1100	1.66		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.4	371	Total			

Summary for Subcatchment EX7.10:

Runoff = 0.0 cfs @ 12.52 hrs, Volume= 446 cf, Depth= 0.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.006	39	>75% Grass cover, Good, HSG A
0.039	76	Gravel roads, HSG A
0.006	98	Paved parking, HSG A
0.219	30	Woods, Good, HSG A
0.269	38	Weighted Average
0.263		97.89% Pervious Area
0.006		2.11% Impervious Area

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Type III 24-hr 25-yr Rainfall=6.23"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0400	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.0	30	0.0400	0.50		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.0	80	Total			

Summary for Subcatchment EX7.11:

Runoff = 0.6 cfs @ 12.71 hrs, Volume= 5,158 cf, Depth= 0.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.624	39	>75% Grass cover, Good, HSG A
0.087	98	Paved parking, HSG A
0.149	98	Paved roads w/curbs & sewers, HSG A
0.038	98	Roofs, HSG A
0.689	30	Woods, Good, HSG A
1.587	45	Weighted Average
1.313		82.71% Pervious Area
0.274		17.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	55	0.1230	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.6	138	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
26.0	406	0.0108	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
41.6	599	Total			

Summary for Subcatchment EX7.12:

Runoff = 0.5 cfs @ 12.73 hrs, Volume= 4,341 cf, Depth= 0.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

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Type III 24-hr 25-yr Rainfall=6.23"

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Area (ac)	CN	Description
0.321	39	>75% Grass cover, Good, HSG A
0.084	98	Paved parking, HSG A
0.141	98	Paved roads w/curbs & sewers, HSG A
0.023	98	Roofs, HSG A
0.670	30	Woods, Good, HSG A
1.240	46	Weighted Average
0.991		79.98% Pervious Area
0.248		20.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.7	50	0.0240	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.1	75	0.0147	0.30		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
1.6	94	0.0190	0.96		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.8	62	0.0530	0.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.1	284	0.0020	0.31		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
42.3	565	Total			

Summary for Subcatchment EX7.2:

Runoff = 0.3 cfs @ 12.54 hrs, Volume= 3,374 cf, Depth= 0.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.110	39	>75% Grass cover, Good, HSG A
0.001	80	>75% Grass cover, Good, HSG D
0.027	76	Gravel roads, HSG A
0.001	91	Gravel roads, HSG D
0.058	98	Paved parking, HSG A
0.079	98	Paved roads w/curbs & sewers, HSG A
0.068	98	Roofs, HSG A
2.313	30	Woods, Good, HSG A
2.658	36	Weighted Average
2.453		92.30% Pervious Area
0.205		7.70% Impervious Area

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Type III 24-hr 25-yr Rainfall=6.23"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	50	0.0300	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
4.1	223	0.0170	0.91		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.2	16	0.2250	1.19		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
14.6	289	Total			

Summary for Subcatchment EX7.3:

Runoff = 1.4 cfs @ 12.38 hrs, Volume= 10,051 cf, Depth= 0.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.827	39	>75% Grass cover, Good, HSG A
0.024	74	>75% Grass cover, Good, HSG C
0.033	98	Paved parking, HSG A
0.191	98	Paved roads w/curbs & sewers, HSG A
0.044	98	Paved roads w/curbs & sewers, HSG C
0.181	98	Roofs, HSG A
0.001	98	Roofs, HSG C
2.129	30	Woods, Good, HSG A
0.209	70	Woods, Good, HSG C
3.640	43	Weighted Average
3.189		87.62% Pervious Area
0.450		12.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	50	0.0440	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.6	65	0.0770	0.69		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.0570	1.67		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.1	129	Total			

Summary for Subcatchment EX7.4:

Runoff = 15.3 cfs @ 12.29 hrs, Volume= 73,002 cf, Depth= 2.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

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Type III 24-hr 25-yr Rainfall=6.23"

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Area (ac)	CN	Description
1.195	39	>75% Grass cover, Good, HSG A
0.377	74	>75% Grass cover, Good, HSG C
0.034	80	>75% Grass cover, Good, HSG D
0.223	98	Paved parking, HSG A
0.137	98	Paved parking, HSG C
0.104	98	Paved parking, HSG D
0.128	98	Paved roads w/curbs & sewers, HSG A
0.049	98	Paved roads w/curbs & sewers, HSG C
0.115	98	Paved roads w/curbs & sewers, HSG D
0.158	98	Roofs, HSG A
0.130	98	Roofs, HSG C
0.002	98	Roofs, HSG D
1.789	30	Woods, Good, HSG A
1.956	70	Woods, Good, HSG C
2.201	77	Woods, Good, HSG D
8.600	63	Weighted Average
7.553		87.83% Pervious Area
1.047		12.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2	50	0.1600	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	80	0.0640	1.77		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
9.2	310	0.0064	0.56		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.8	50	0.0400	1.00		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.2	20	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
20.2	510	Total			

Summary for Subcatchment EX7.5:

Runoff = 24.0 cfs @ 12.25 hrs, Volume= 118,568 cf, Depth= 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

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Type III 24-hr 25-yr Rainfall=6.23"

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Area (ac)	CN	Description
3.962	39	>75% Grass cover, Good, HSG A
0.722	80	>75% Grass cover, Good, HSG D
0.020	76	Gravel roads, HSG A
0.038	91	Gravel roads, HSG D
0.666	98	Paved parking, HSG A
0.079	98	Paved parking, HSG D
1.090	98	Paved roads w/curbs & sewers, HSG A
0.990	98	Roofs, HSG A
0.161	98	Roofs, HSG D
10.498	30	Woods, Good, HSG A
4.915	77	Woods, Good, HSG D
23.140	52	Weighted Average
20.155		87.10% Pervious Area
2.984		12.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.1	145	0.0550	1.17		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.5	75	0.0267	0.82		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
15.7	270	Total			

Summary for Subcatchment EX7.6:

Runoff = 0.0 cfs @ 13.85 hrs, Volume= 680 cf, Depth= 0.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
3,392	39	>75% Grass cover, Good, HSG A
1,797	76	Gravel roads, HSG A
33,761	30	Woods, Good, HSG A
38,949	33	Weighted Average
38,949		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	50	0.0760	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.4	124	0.0600	0.61		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.8	174	Total			

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment EX7.7:

Runoff = 0.1 cfs @ 12.54 hrs, Volume= 803 cf, Depth= 0.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.131	39	>75% Grass cover, Good, HSG A
0.061	76	Gravel roads, HSG A
0.545	30	Woods, Good, HSG A
0.737	35	Weighted Average
0.737		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	50	0.1500	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.5	90	0.0290	0.43		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
12.9	140	Total			

Summary for Subcatchment EX7.8:

Runoff = 0.1 cfs @ 13.03 hrs, Volume= 1,308 cf, Depth= 0.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
12,767	39	>75% Grass cover, Good, HSG A
320	76	Gravel roads, HSG A
1,067	98	Paved parking, HSG A
914	98	Roofs, HSG A
37,247	30	Woods, Good, HSG A
52,315	35	Weighted Average
50,334		96.21% Pervious Area
1,980		3.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	41	0.1390	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
17.8	683	0.0083	0.64		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
10.2	303	0.0389	0.49		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
36.3	1,027	Total			

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment EX7.9:

Runoff = 2.1 cfs @ 12.40 hrs, Volume= 15,852 cf, Depth= 0.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
1.941	39	>75% Grass cover, Good, HSG A
0.258	98	Paved parking, HSG A
0.216	98	Paved roads w/curbs & sewers, HSG A
0.364	98	Roofs, HSG A
2.961	30	Woods, Good, HSG A
5.740	43	Weighted Average
4.902		85.40% Pervious Area
0.838		14.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	50	0.0220	0.07		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.2	14	0.0360	1.33		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.8	185	0.0454	0.53		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.7	249	Total			

Summary for Pond P7.6: Low Point

Inflow Area = 38,949 sf, 0.00% Impervious, Inflow Depth = 0.21" for 25-yr event
 Inflow = 0.0 cfs @ 13.85 hrs, Volume= 680 cf
 Outflow = 0.0 cfs @ 13.82 hrs, Volume= 680 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.0 cfs @ 13.82 hrs, Volume= 680 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 132.00' @ 13.82 hrs Surf.Area= 251 sf Storage= 0 cf

Plug-Flow detention time= 0.1 min calculated for 680 cf (100% of inflow)
 Center-of-Mass det. time= 0.1 min (1,034.8 - 1,034.7)

Volume	Invert	Avail.Storage	Storage Description
#1	132.00'	6,580 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
132.00	250	0	0
133.00	2,120	1,185	1,185
134.00	2,690	2,405	3,590
135.00	3,290	2,990	6,580

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Type III 24-hr 25-yr Rainfall=6.23"

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Device	Routing	Invert	Outlet Devices
#1	Primary	134.50'	10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	132.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 13.82 hrs HW=132.00' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=132.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P7.8: Low Point**

Inflow Area = 52,315 sf, 3.79% Impervious, Inflow Depth = 0.30" for 25-yr event
Inflow = 0.1 cfs @ 13.03 hrs, Volume= 1,308 cf
Outflow = 0.1 cfs @ 13.03 hrs, Volume= 1,308 cf, Atten= 0%, Lag= 0.0 min
Discarded = 0.1 cfs @ 13.03 hrs, Volume= 1,308 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 168.00' @ 13.03 hrs Surf.Area= 300 sf Storage= 0 cf

Plug-Flow detention time= 0.0 min calculated for 1,308 cf (100% of inflow)

Center-of-Mass det. time= 0.0 min (1,022.6 - 1,022.6)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	1,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	300	0	0
169.00	750	525	525
170.00	1,200	975	1,500

Device	Routing	Invert	Outlet Devices
#1	Primary	169.00'	10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	168.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 13.03 hrs HW=168.00' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=168.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Summary for Link DP7.1: Wetland 30

Inflow Area = 392,457 sf, 15.95% Impervious, Inflow Depth = 1.73" for 25-yr event
Inflow = 12.1 cfs @ 12.25 hrs, Volume= 56,710 cf
Primary = 12.1 cfs @ 12.25 hrs, Volume= 56,710 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.10: Low Point

Inflow Area = 11,715 sf, 2.11% Impervious, Inflow Depth = 0.46" for 25-yr event
Inflow = 0.0 cfs @ 12.52 hrs, Volume= 446 cf
Primary = 0.0 cfs @ 12.52 hrs, Volume= 446 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.11: Low Point

Inflow Area = 69,139 sf, 17.29% Impervious, Inflow Depth = 0.90" for 25-yr event
Inflow = 0.6 cfs @ 12.71 hrs, Volume= 5,158 cf
Primary = 0.6 cfs @ 12.71 hrs, Volume= 5,158 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.12: Low Point

Inflow Area = 53,996 sf, 20.02% Impervious, Inflow Depth = 0.96" for 25-yr event
Inflow = 0.5 cfs @ 12.73 hrs, Volume= 4,341 cf
Primary = 0.5 cfs @ 12.73 hrs, Volume= 4,341 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.2: Wetland 32

Inflow Area = 115,777 sf, 7.70% Impervious, Inflow Depth = 0.35" for 25-yr event
Inflow = 0.3 cfs @ 12.54 hrs, Volume= 3,374 cf
Primary = 0.3 cfs @ 12.54 hrs, Volume= 3,374 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.3: Low Point

Inflow Area = 158,537 sf, 12.38% Impervious, Inflow Depth = 0.76" for 25-yr event
Inflow = 1.4 cfs @ 12.38 hrs, Volume= 10,051 cf
Primary = 1.4 cfs @ 12.38 hrs, Volume= 10,051 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.4: Low Point

Inflow Area = 374,595 sf, 12.17% Impervious, Inflow Depth = 2.34" for 25-yr event
Inflow = 15.3 cfs @ 12.29 hrs, Volume= 73,002 cf
Primary = 15.3 cfs @ 12.29 hrs, Volume= 73,002 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.5: Wetland 31

Inflow Area = 1,007,959 sf, 12.90% Impervious, Inflow Depth = 1.41" for 25-yr event
Inflow = 24.0 cfs @ 12.25 hrs, Volume= 118,568 cf
Primary = 24.0 cfs @ 12.25 hrs, Volume= 118,568 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.6: Low Point

Inflow Area = 38,949 sf, 0.00% Impervious, Inflow Depth = 0.00" for 25-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.7: Low Point

Inflow Area = 32,105 sf, 0.00% Impervious, Inflow Depth = 0.30" for 25-yr event
Inflow = 0.1 cfs @ 12.54 hrs, Volume= 803 cf
Primary = 0.1 cfs @ 12.54 hrs, Volume= 803 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.8: Low Point

Inflow Area = 52,315 sf, 3.79% Impervious, Inflow Depth = 0.00" for 25-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.9: Low Point

Inflow Area = 250,025 sf, 14.60% Impervious, Inflow Depth = 0.76" for 25-yr event
Inflow = 2.1 cfs @ 12.40 hrs, Volume= 15,852 cf
Primary = 2.1 cfs @ 12.40 hrs, Volume= 15,852 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment EX8.1:

Runoff = 27.6 cfs @ 12.22 hrs, Volume= 124,919 cf, Depth= 1.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
1.938	39	>75% Grass cover, Good, HSG A
0.003	80	>75% Grass cover, Good, HSG D
0.028	76	Gravel roads, HSG A
0.028	91	Gravel roads, HSG D
1.228	98	Paved parking, HSG A
0.788	98	Paved roads w/curbs & sewers, HSG A
1.177	98	Roofs, HSG A
8.530	30	Woods, Good, HSG A
0.000	70	Woods, Good, HSG C
6.126	77	Woods, Good, HSG D
19.846	56	Weighted Average
16.653		83.91% Pervious Area
3.193		16.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	50	0.0440	0.09		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
4.3	205	0.0127	0.79		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.8	77	0.0770	0.69		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.0	332	Total			

Summary for Subcatchment EX8.10:

Runoff = 12.8 cfs @ 12.16 hrs, Volume= 47,223 cf, Depth= 3.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.003	76	Gravel roads, HSG A
1.408	98	Paved parking, HSG A
0.269	98	Paved roads w/curbs & sewers, HSG A
0.775	98	Roofs, HSG A
1.180	30	Woods, Good, HSG A
3.634	76	Weighted Average
1.183		32.55% Pervious Area
2.451		67.45% Impervious Area

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Type III 24-hr 25-yr Rainfall=6.23"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	50	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.7	100	0.0200	0.99		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
11.4	150	Total			

Summary for Subcatchment EX8.11:

Runoff = 1.0 cfs @ 12.35 hrs, Volume= 5,264 cf, Depth= 1.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.278	98	Paved parking, HSG A
0.028	98	Paved roads w/curbs & sewers, HSG A
0.020	98	Roofs, HSG A
0.551	30	Woods, Good, HSG A
0.878	55	Weighted Average
0.551		62.77% Pervious Area
0.327		37.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.8	50	0.0580	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.6	204	0.0250	0.40		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
22.4	254	Total			

Summary for Subcatchment EX8.2:

Runoff = 4.7 cfs @ 12.69 hrs, Volume= 44,737 cf, Depth= 0.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.081	76	Gravel roads, HSG A
0.029	91	Gravel roads, HSG D
0.092	98	Paved parking, HSG A
0.227	98	Paved roads w/curbs & sewers, HSG A
0.058	98	Roofs, HSG A
12.034	30	Woods, Good, HSG A
3.679	77	Woods, Good, HSG D
16.199	43	Weighted Average
15.823		97.68% Pervious Area
0.376		2.32% Impervious Area

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Type III 24-hr 25-yr Rainfall=6.23"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.1	50	0.0160	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
14.6	354	0.0260	0.40		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	404	Total			

Summary for Subcatchment EX8.3:

Runoff = 15.9 cfs @ 12.42 hrs, Volume= 91,675 cf, Depth= 1.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.261	39	>75% Grass cover, Good, HSG A
0.073	76	Gravel roads, HSG A
0.001	85	Gravel roads, HSG B
0.494	91	Gravel roads, HSG D
0.517	98	Paved parking, HSG A
0.254	98	Paved roads w/curbs & sewers, HSG A
0.429	98	Roofs, HSG A
7.997	30	Woods, Good, HSG A
0.463	55	Woods, Good, HSG B
5.591	77	Woods, Good, HSG D
16.080	54	Weighted Average
14.880		92.53% Pervious Area
1.201		7.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	50	0.0720	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
13.0	200	0.0105	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
25.7	250	Total			

Summary for Subcatchment EX8.4:

Runoff = 0.1 cfs @ 12.76 hrs, Volume= 1,121 cf, Depth= 0.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

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Type III 24-hr 25-yr Rainfall=6.23"

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Area (sf)	CN	Description
2,961	76	Gravel roads, HSG A
37,761	30	Woods, Good, HSG A
4,106	55	Woods, Good, HSG B
44,828	35	Weighted Average
44,828		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	23	0.1300	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
12.9	27	0.0200	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
6.4	273	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
24.7	323	Total			

Summary for Subcatchment EX8.5:

Runoff = 6.6 cfs @ 12.53 hrs, Volume= 40,373 cf, Depth= 2.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.000	76	Gravel roads, HSG A
0.074	85	Gravel roads, HSG B
0.001	91	Gravel roads, HSG D
0.448	98	Paved parking, HSG A
1.175	98	Roofs, HSG A
0.805	30	Woods, Good, HSG A
1.469	55	Woods, Good, HSG B
0.002	77	Woods, Good, HSG D
3.974	68	Weighted Average
2.351		59.16% Pervious Area
1.623		40.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.3	48	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
27.8	826	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	40	0.1825	1.07		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	914	Total			

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Summary for Subcatchment EX8.6:

Runoff = 45.4 cfs @ 12.46 hrs, Volume= 260,888 cf, Depth= 2.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.148	85	Gravel roads, HSG B
0.328	89	Gravel roads, HSG C
0.031	91	Gravel roads, HSG D
0.049	98	Paved parking, HSG A
0.096	98	Paved parking, HSG D
1.239	30	Woods, Good, HSG A
5.697	55	Woods, Good, HSG B
3.260	70	Woods, Good, HSG C
13.992	77	Woods, Good, HSG D
24.840	69	Weighted Average
24.695		99.42% Pervious Area
0.145		0.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	58	0.1400	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
21.0	706	0.0064	0.56		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.7	43	0.1511	0.97		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
32.6	807	Total			

Summary for Subcatchment EX8.7:

Runoff = 1.2 cfs @ 12.55 hrs, Volume= 7,670 cf, Depth= 2.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.011	85	Gravel roads, HSG B
0.232	98	Paved parking, HSG A
0.104	98	Roofs, HSG A
0.186	30	Woods, Good, HSG A
0.222	55	Woods, Good, HSG B
0.755	68	Weighted Average
0.419		55.52% Pervious Area
0.336		44.48% Impervious Area

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Type III 24-hr 25-yr Rainfall=6.23"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.2	39	0.0205	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
20.5	888	0.0106	0.72		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	37	0.1590	1.00		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
38.3	964	Total			

Summary for Subcatchment EX8.8:

Runoff = 3.1 cfs @ 12.19 hrs, Volume= 12,099 cf, Depth= 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
265	76	Gravel roads, HSG A
1,570	85	Gravel roads, HSG B
7,429	98	Paved parking, HSG A
10,195	98	Paved parking, HSG B
3,423	98	Roofs, HSG A
3,349	30	Woods, Good, HSG A
12,150	55	Woods, Good, HSG B
38,381	78	Weighted Average
17,334		45.16% Pervious Area
21,047		54.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.6	50	0.0600	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX8.9:

Runoff = 1.2 cfs @ 12.45 hrs, Volume= 6,697 cf, Depth= 1.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.004	76	Gravel roads, HSG A
0.031	85	Gravel roads, HSG B
0.047	30	Woods, Good, HSG A
0.736	55	Woods, Good, HSG B
0.152	77	Woods, Good, HSG D
0.970	58	Weighted Average
0.970		100.00% Pervious Area

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Type III 24-hr 25-yr Rainfall=6.23"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	37	0.2050	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
14.1	585	0.0097	0.69		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	153	0.0160	0.32		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
28.8	775	Total			

Summary for Pond P8.10: Low Point

Inflow Area = 158,315 sf, 67.45% Impervious, Inflow Depth = 3.58" for 25-yr event
 Inflow = 12.8 cfs @ 12.16 hrs, Volume= 47,223 cf
 Outflow = 8.7 cfs @ 12.30 hrs, Volume= 47,223 cf, Atten= 32%, Lag= 8.5 min
 Discarded = 2.4 cfs @ 11.78 hrs, Volume= 40,795 cf
 Primary = 6.3 cfs @ 12.30 hrs, Volume= 6,428 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 134.81' @ 12.30 hrs Surf.Area= 6,277 sf Storage= 8,282 cf

Plug-Flow detention time= 15.6 min calculated for 47,216 cf (100% of inflow)
 Center-of-Mass det. time= 15.6 min (843.0 - 827.4)

Volume	Invert	Avail.Storage	Storage Description
#1	133.00'	9,535 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
133.00	2,935	0	0
134.00	4,745	3,840	3,840
135.00	6,645	5,695	9,535

Device	Routing	Invert	Outlet Devices
#1	Primary	134.60'	25.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	133.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 11.78 hrs HW=133.02' (Free Discharge)
 ↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=6.3 cfs @ 12.30 hrs HW=134.81' (Free Discharge)
 ↑**1=Broad-Crested Rectangular Weir** (Weir Controls 6.3 cfs @ 1.22 fps)

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Summary for Pond P8.7: Low Point

Inflow Area = 32,889 sf, 44.48% Impervious, Inflow Depth = 2.80" for 25-yr event
 Inflow = 1.2 cfs @ 12.55 hrs, Volume= 7,670 cf
 Outflow = 1.0 cfs @ 12.37 hrs, Volume= 7,670 cf, Atten= 17%, Lag= 0.0 min
 Discarded = 1.0 cfs @ 12.37 hrs, Volume= 7,670 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 135.36' @ 12.76 hrs Surf.Area= 718 sf Storage= 210 cf

Plug-Flow detention time= 0.8 min calculated for 7,669 cf (100% of inflow)
 Center-of-Mass det. time= 0.8 min (871.7 - 871.0)

Volume	Invert	Avail.Storage	Storage Description
#1	135.00'	2,343 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
135.00	460	0	0
136.00	1,185	823	823
137.00	1,855	1,520	2,343

Device	Routing	Invert	Outlet Devices
#1	Primary	136.60'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	135.00'	1.0 cfs Exfiltration at all elevations

Discarded OutFlow Max=1.0 cfs @ 12.37 hrs HW=135.02' (Free Discharge)
 ↑ **2=Exfiltration** (Exfiltration Controls 1.0 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=135.00' (Free Discharge)
 ↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Summary for Link DP8.1: Wetland 28/29

Inflow Area = 864,489 sf, 16.09% Impervious, Inflow Depth = 1.73" for 25-yr event
 Inflow = 27.6 cfs @ 12.22 hrs, Volume= 124,919 cf
 Primary = 27.6 cfs @ 12.22 hrs, Volume= 124,919 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.10: Low Point

Inflow Area = 158,315 sf, 67.45% Impervious, Inflow Depth = 0.49" for 25-yr event
Inflow = 6.3 cfs @ 12.30 hrs, Volume= 6,428 cf
Primary = 6.3 cfs @ 12.30 hrs, Volume= 6,428 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.11: Wetland

Inflow Area = 38,246 sf, 37.23% Impervious, Inflow Depth = 1.65" for 25-yr event
Inflow = 1.0 cfs @ 12.35 hrs, Volume= 5,264 cf
Primary = 1.0 cfs @ 12.35 hrs, Volume= 5,264 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.2: Wetland 27

Inflow Area = 705,611 sf, 2.32% Impervious, Inflow Depth = 0.76" for 25-yr event
Inflow = 4.7 cfs @ 12.69 hrs, Volume= 44,737 cf
Primary = 4.7 cfs @ 12.69 hrs, Volume= 44,737 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.3: Wetland 25

Inflow Area = 700,458 sf, 7.47% Impervious, Inflow Depth = 1.57" for 25-yr event
Inflow = 15.9 cfs @ 12.42 hrs, Volume= 91,675 cf
Primary = 15.9 cfs @ 12.42 hrs, Volume= 91,675 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.4: Wetland 24

Inflow Area = 44,828 sf, 0.00% Impervious, Inflow Depth = 0.30" for 25-yr event
Inflow = 0.1 cfs @ 12.76 hrs, Volume= 1,121 cf
Primary = 0.1 cfs @ 12.76 hrs, Volume= 1,121 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.5: Low Point

Inflow Area = 173,109 sf, 40.84% Impervious, Inflow Depth = 2.80" for 25-yr event
Inflow = 6.6 cfs @ 12.53 hrs, Volume= 40,373 cf
Primary = 6.6 cfs @ 12.53 hrs, Volume= 40,373 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.6: Wetland 26

Inflow Area = 1,082,039 sf, 0.58% Impervious, Inflow Depth = 2.89" for 25-yr event
Inflow = 45.4 cfs @ 12.46 hrs, Volume= 260,888 cf
Primary = 45.4 cfs @ 12.46 hrs, Volume= 260,888 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.7: Low Point

Inflow Area = 32,889 sf, 44.48% Impervious, Inflow Depth = 0.00" for 25-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.8: Low Point

Inflow Area = 38,381 sf, 54.84% Impervious, Inflow Depth = 3.78" for 25-yr event
Inflow = 3.1 cfs @ 12.19 hrs, Volume= 12,099 cf
Primary = 3.1 cfs @ 12.19 hrs, Volume= 12,099 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.9: Wetland 24A/Vernal Pool 5

Inflow Area = 42,256 sf, 0.00% Impervious, Inflow Depth = 1.90" for 25-yr event
Inflow = 1.2 cfs @ 12.45 hrs, Volume= 6,697 cf
Primary = 1.2 cfs @ 12.45 hrs, Volume= 6,697 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment EX10.1:

Runoff = 3.7 cfs @ 12.21 hrs, Volume= 15,132 cf, Depth= 3.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
9,363	80	>75% Grass cover, Good, HSG D
1,971	91	Gravel roads, HSG D
813	98	Paved parking, HSG D
34,586	77	Woods, Good, HSG D
46,733	79	Weighted Average
45,920		98.26% Pervious Area
813		1.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	50	0.1500	0.09		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
5.8	175	0.0100	0.50		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
15.2	225	Total			

Summary for Subcatchment EX10.10:

Runoff = 0.4 cfs @ 12.09 hrs, Volume= 1,154 cf, Depth= 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
0	80	>75% Grass cover, Good, HSG D
454	89	Gravel roads, HSG C
209	91	Gravel roads, HSG D
482	70	Woods, Good, HSG C
2,516	77	Woods, Good, HSG D
3,661	78	Weighted Average
3,661		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	25	0.1000	0.07		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment EX10.11:

Runoff = 1.3 cfs @ 12.17 hrs, Volume= 5,799 cf, Depth= 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
299	76	Gravel roads, HSG A
809	91	Gravel roads, HSG D
1,636	98	Paved parking, HSG A
27,256	30	Woods, Good, HSG A
19,302	77	Woods, Good, HSG D
49,302	52	Weighted Average
47,666		96.68% Pervious Area
1,636		3.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	50	0.1000	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX10.12:

Runoff = 1.1 cfs @ 12.36 hrs, Volume= 6,312 cf, Depth= 1.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
0	80	>75% Grass cover, Good, HSG D
4,312	76	Gravel roads, HSG A
4,401	91	Gravel roads, HSG D
789	98	Paved parking, HSG A
270	98	Paved parking, HSG D
33,179	30	Woods, Good, HSG A
13,835	77	Woods, Good, HSG D
56,785	51	Weighted Average
55,726		98.14% Pervious Area
1,059		1.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
9.6	500	0.0300	0.87		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
21.7	550	Total			

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment EX10.13:

Runoff = 3.9 cfs @ 12.59 hrs, Volume= 25,585 cf, Depth= 3.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
0	80	>75% Grass cover, Good, HSG D
5,981	76	Gravel roads, HSG A
10,573	91	Gravel roads, HSG D
19,835	98	Paved parking, HSG A
17,557	98	Paved parking, HSG D
25,493	30	Woods, Good, HSG A
11,416	77	Woods, Good, HSG D
90,854	74	Weighted Average
53,462		58.84% Pervious Area
37,392		41.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
36.8	50	0.0050	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	30	0.5000	3.54		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
42.9	480	Total			

Summary for Subcatchment EX10.14:

Runoff = 15.6 cfs @ 12.30 hrs, Volume= 73,586 cf, Depth= 3.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
53,635	80	>75% Grass cover, Good, HSG D
599	76	Gravel roads, HSG A
1,197	91	Gravel roads, HSG D
60,830	98	Paved parking, HSG D
53,829	30	Woods, Good, HSG A
99,094	77	Woods, Good, HSG D
269,184	73	Weighted Average
208,354		77.40% Pervious Area
60,830		22.60% Impervious Area

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Type III 24-hr 25-yr Rainfall=6.23"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX10.15:

Runoff = 1.4 cfs @ 12.70 hrs, Volume= 12,850 cf, Depth= 0.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
41,191	39	>75% Grass cover, Good, HSG A
121	80	>75% Grass cover, Good, HSG D
3,599	76	Gravel roads, HSG A
3,103	91	Gravel roads, HSG D
11,248	98	Paved parking, HSG A
253	98	Paved parking, HSG D
104,725	30	Woods, Good, HSG A
22,178	77	Woods, Good, HSG D
186,416	44	Weighted Average
174,915		93.83% Pervious Area
11,500		6.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
10.6	550	0.0300	0.87		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
38.5	600	Total			

Summary for Subcatchment EX10.2:

Runoff = 8.2 cfs @ 12.44 hrs, Volume= 45,590 cf, Depth= 2.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

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Type III 24-hr 25-yr Rainfall=6.23"

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Area (sf)	CN	Description
34,938	39	>75% Grass cover, Good, HSG A
34,850	80	>75% Grass cover, Good, HSG D
4,142	91	Gravel roads, HSG D
28,819	98	Paved parking, HSG A
3,548	98	Paved parking, HSG D
17,462	30	Woods, Good, HSG A
59,283	77	Woods, Good, HSG D
183,042	70	Weighted Average
150,675		82.32% Pervious Area
32,368		17.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.1	50	0.0090	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.5	100	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
30.6	150	Total			

Summary for Subcatchment EX10.3:

Runoff = 2.5 cfs @ 12.39 hrs, Volume= 13,522 cf, Depth= 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
0	80	>75% Grass cover, Good, HSG D
2,751	91	Gravel roads, HSG D
40,144	77	Woods, Good, HSG D
42,895	78	Weighted Average
42,895		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.2	50	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
29.1	100	Total			

Summary for Subcatchment EX10.4:

Runoff = 6.8 cfs @ 12.52 hrs, Volume= 41,189 cf, Depth= 2.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

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Type III 24-hr 25-yr Rainfall=6.23"

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Area (sf)	CN	Description
23,150	39	>75% Grass cover, Good, HSG A
6,935	80	>75% Grass cover, Good, HSG D
4,792	91	Gravel roads, HSG D
21,919	98	Paved parking, HSG A
16	98	Paved parking, HSG D
56,904	30	Woods, Good, HSG A
97,635	77	Woods, Good, HSG D
211,352	63	Weighted Average
189,417		89.62% Pervious Area
21,935		10.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.3	175	0.2000	2.24		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
35.2	625	Total			

Summary for Subcatchment EX10.5:

Runoff = 2.8 cfs @ 12.20 hrs, Volume= 11,484 cf, Depth= 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
3,076	80	>75% Grass cover, Good, HSG D
2,125	91	Gravel roads, HSG D
31,228	77	Woods, Good, HSG D
36,429	78	Weighted Average
36,429		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX10.6:

Runoff = 6.7 cfs @ 12.33 hrs, Volume= 33,148 cf, Depth= 3.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

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Type III 24-hr 25-yr Rainfall=6.23"

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Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
0	74	>75% Grass cover, Good, HSG C
41,520	80	>75% Grass cover, Good, HSG D
1,625	76	Gravel roads, HSG A
1,819	89	Gravel roads, HSG C
6,526	91	Gravel roads, HSG D
18,428	30	Woods, Good, HSG A
2,694	70	Woods, Good, HSG C
52,383	77	Woods, Good, HSG D
124,995	72	Weighted Average
124,995		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.4	100	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
23.5	150	Total			

Summary for Subcatchment EX10.7:

Runoff = 0.4 cfs @ 12.46 hrs, Volume= 3,744 cf, Depth= 0.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
3,445	76	Gravel roads, HSG A
1,711	91	Gravel roads, HSG D
61,785	30	Woods, Good, HSG A
11,563	77	Woods, Good, HSG D
78,505	40	Weighted Average
78,505		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.7	50	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.6	60	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.0	160	Total			

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment EX10.8:

Runoff = 1.1 cfs @ 12.49 hrs, Volume= 9,448 cf, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
10,522	39	>75% Grass cover, Good, HSG A
323	74	>75% Grass cover, Good, HSG C
12,890	80	>75% Grass cover, Good, HSG D
52	76	Gravel roads, HSG A
0	89	Gravel roads, HSG C
1,682	91	Gravel roads, HSG D
2,763	98	Paved parking, HSG A
131,535	30	Woods, Good, HSG A
1,354	70	Woods, Good, HSG C
17,905	77	Woods, Good, HSG D
179,026	41	Weighted Average
176,263		98.46% Pervious Area
2,763		1.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
6.0	400	0.0500	1.12		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
20.7	450	Total			

Summary for Subcatchment EX10.9:

Runoff = 4.7 cfs @ 12.43 hrs, Volume= 25,817 cf, Depth= 2.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
10,399	39	>75% Grass cover, Good, HSG A
11,292	74	>75% Grass cover, Good, HSG C
6,155	80	>75% Grass cover, Good, HSG D
378	89	Gravel roads, HSG C
565	91	Gravel roads, HSG D
14,874	30	Woods, Good, HSG A
61,632	70	Woods, Good, HSG C
17,648	77	Woods, Good, HSG D
122,942	65	Weighted Average
122,942		100.00% Pervious Area

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Type III 24-hr 25-yr Rainfall=6.23"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.2	350	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
29.3	400	Total			

Summary for Subcatchment EX9.1:

Runoff = 9.6 cfs @ 12.38 hrs, Volume= 51,793 cf, Depth= 4.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
53,138	80	>75% Grass cover, Good, HSG D
47,904	98	Paved parking, HSG D
36,465	77	Woods, Good, HSG D
137,506	85	Weighted Average
89,603		65.16% Pervious Area
47,904		34.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0100	0.05		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
11.8	500	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
27.8	550	Total			

Summary for Link DP10.1: Station Rd

Inflow Area = 46,733 sf, 1.74% Impervious, Inflow Depth = 3.89" for 25-yr event
Inflow = 3.7 cfs @ 12.21 hrs, Volume= 15,132 cf
Primary = 3.7 cfs @ 12.21 hrs, Volume= 15,132 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.10: Wetland 5_Vernal Pool 2-3

Inflow Area = 3,661 sf, 0.00% Impervious, Inflow Depth = 3.78" for 25-yr event
Inflow = 0.4 cfs @ 12.09 hrs, Volume= 1,154 cf
Primary = 0.4 cfs @ 12.09 hrs, Volume= 1,154 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Link DP10.11: Vernal Pool 4

Inflow Area = 140,156 sf, 27.85% Impervious, Inflow Depth = 2.69" for 25-yr event
Inflow = 4.5 cfs @ 12.54 hrs, Volume= 31,384 cf
Primary = 4.5 cfs @ 12.54 hrs, Volume= 31,384 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.12: Stream

Inflow Area = 56,785 sf, 1.86% Impervious, Inflow Depth = 1.33" for 25-yr event
Inflow = 1.1 cfs @ 12.36 hrs, Volume= 6,312 cf
Primary = 1.1 cfs @ 12.36 hrs, Volume= 6,312 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.14: Wetland 6

Inflow Area = 269,184 sf, 22.60% Impervious, Inflow Depth = 3.28" for 25-yr event
Inflow = 15.6 cfs @ 12.30 hrs, Volume= 73,586 cf
Primary = 15.6 cfs @ 12.30 hrs, Volume= 73,586 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.15: Wetland 3_Vernal Pool 1

Inflow Area = 186,416 sf, 6.17% Impervious, Inflow Depth = 0.83" for 25-yr event
Inflow = 1.4 cfs @ 12.70 hrs, Volume= 12,850 cf
Primary = 1.4 cfs @ 12.70 hrs, Volume= 12,850 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.2: Wetland 18

Inflow Area = 183,042 sf, 17.68% Impervious, Inflow Depth = 2.99" for 25-yr event
Inflow = 8.2 cfs @ 12.44 hrs, Volume= 45,590 cf
Primary = 8.2 cfs @ 12.44 hrs, Volume= 45,590 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.3: Wetland 19

Inflow Area = 42,895 sf, 0.00% Impervious, Inflow Depth = 3.78" for 25-yr event
Inflow = 2.5 cfs @ 12.39 hrs, Volume= 13,522 cf
Primary = 2.5 cfs @ 12.39 hrs, Volume= 13,522 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Link DP10.4: Wetland 15

Inflow Area = 211,352 sf, 10.38% Impervious, Inflow Depth = 2.34" for 25-yr event
Inflow = 6.8 cfs @ 12.52 hrs, Volume= 41,189 cf
Primary = 6.8 cfs @ 12.52 hrs, Volume= 41,189 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.5: Wetland 16

Inflow Area = 36,429 sf, 0.00% Impervious, Inflow Depth = 3.78" for 25-yr event
Inflow = 2.8 cfs @ 12.20 hrs, Volume= 11,484 cf
Primary = 2.8 cfs @ 12.20 hrs, Volume= 11,484 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.6: Wetland 14

Inflow Area = 124,995 sf, 0.00% Impervious, Inflow Depth = 3.18" for 25-yr event
Inflow = 6.7 cfs @ 12.33 hrs, Volume= 33,148 cf
Primary = 6.7 cfs @ 12.33 hrs, Volume= 33,148 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.7: Wetland 12

Inflow Area = 78,505 sf, 0.00% Impervious, Inflow Depth = 0.57" for 25-yr event
Inflow = 0.4 cfs @ 12.46 hrs, Volume= 3,744 cf
Primary = 0.4 cfs @ 12.46 hrs, Volume= 3,744 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.8: Wetland 13

Inflow Area = 179,026 sf, 1.54% Impervious, Inflow Depth = 0.63" for 25-yr event
Inflow = 1.1 cfs @ 12.49 hrs, Volume= 9,448 cf
Primary = 1.1 cfs @ 12.49 hrs, Volume= 9,448 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.9: Wetland 10

Inflow Area = 122,942 sf, 0.00% Impervious, Inflow Depth = 2.52" for 25-yr event
Inflow = 4.7 cfs @ 12.43 hrs, Volume= 25,817 cf
Primary = 4.7 cfs @ 12.43 hrs, Volume= 25,817 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Summary for Link DP9.1: Wetland 4

Inflow Area = 137,506 sf, 34.84% Impervious, Inflow Depth = 4.52" for 25-yr event
Inflow = 9.6 cfs @ 12.38 hrs, Volume= 51,793 cf
Primary = 9.6 cfs @ 12.38 hrs, Volume= 51,793 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

100-Year Storm Event – Existing

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Type III 24-hr 100-year Rainfall=8.60"

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Summary for Subcatchment EX-5.10:

Runoff = 0.3 cfs @ 12.71 hrs, Volume= 3,904 cf, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
1,108	76	Gravel roads, HSG A
70,778	30	Woods, Good, HSG A
71,886	31	Weighted Average
71,886	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
9.1	620	0.0050	1.14		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
30.2	670	Total			

Summary for Subcatchment EX-5.11:

Runoff = 0.8 cfs @ 12.58 hrs, Volume= 9,522 cf, Depth= 0.57"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
201,376	30	Woods, Good, HSG A
201,376	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0400	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.9	500	0.0180	2.16		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
19.9	550	Total			

Summary for Subcatchment EX-5.12:

Runoff = 4.4 cfs @ 12.95 hrs, Volume= 45,555 cf, Depth= 1.54"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

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Type III 24-hr 100-year Rainfall=8.60"

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Area (sf)	CN	Description
14,438	76	Gravel roads, HSG A
1,034	85	Gravel roads, HSG B
838	98	Water Surface, HSG B
230,578	30	Woods, Good, HSG A
108,442	55	Woods, Good, HSG B
355,330	40	Weighted Average
354,492	40	99.76% Pervious Area
838	98	0.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.2	50	0.0060	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
26.6	2,435	0.0090	1.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	70	0.1300	5.80		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
61.0	2,555	Total			

Summary for Subcatchment EX-5.13:

Runoff = 4.4 cfs @ 12.95 hrs, Volume= 51,308 cf, Depth= 1.03"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
19,905	76	Gravel roads, HSG A
1,473	85	Gravel roads, HSG B
1,067	98	Water Surface, HSG B
504,053	30	Woods, Good, HSG A
70,845	55	Woods, Good, HSG B
597,343	35	Weighted Average
596,276	35	99.82% Pervious Area
1,067	98	0.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
24.9	2,280	0.0090	1.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	75	0.1200	5.58		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
53.0	2,405	Total			

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Type III 24-hr 100-year Rainfall=8.60"

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Summary for Subcatchment EX-5.14:

Runoff = 6.3 cfs @ 12.53 hrs, Volume= 52,576 cf, Depth= 1.03"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
3,987	76	Gravel roads, HSG A
1,014	85	Gravel roads, HSG B
1,239	98	Water Surface, HSG B
481,602	30	Woods, Good, HSG A
123,211	55	Woods, Good, HSG B
611,053	36	Weighted Average
609,815	35	99.80% Pervious Area
1,239	98	0.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	50	0.2600	0.11		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
16.7	475	0.0090	0.47		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.4	110	0.0680	1.30		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.7	635	Total			

Summary for Subcatchment EX-5.15:

Runoff = 5.1 cfs @ 12.60 hrs, Volume= 43,685 cf, Depth= 1.13"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
2,402	76	Gravel roads, HSG A
664	85	Gravel roads, HSG B
755	98	Water Surface, HSG B
357,144	30	Woods, Good, HSG A
104,293	55	Woods, Good, HSG B
465,258	36	Weighted Average
464,503	36	99.84% Pervious Area
755	98	0.16% Impervious Area

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Type III 24-hr 100-year Rainfall=8.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.5	585	0.0180	2.16		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
32.4	635	Total			

Summary for Subcatchment EX-5.16:

Runoff = 1.7 cfs @ 12.38 hrs, Volume= 17,608 cf, Depth= 0.57"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
372,399	30	Woods, Good, HSG A
372,399	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	27	0.0960	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX-5.17:

Runoff = 3.8 cfs @ 12.38 hrs, Volume= 38,074 cf, Depth= 0.57"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
2,350	76	Gravel roads, HSG A
802,889	30	Woods, Good, HSG A
805,238	30	Weighted Average
805,238	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	30	0.1500	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	45	0.1600	6.44		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.4	75	Total			

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Type III 24-hr 100-year Rainfall=8.60"

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Summary for Subcatchment EX-5.18:

Runoff = 1.4 cfs @ 12.85 hrs, Volume= 21,522 cf, Depth= 0.57"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
3,317	76	Gravel roads, HSG A
451,859	30	Woods, Good, HSG A
455,176	30	Weighted Average
455,176	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	400	0.0800	1.41		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
4.7	200	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
37.3	650	Total			

Summary for Subcatchment EX-5.19:

Runoff = 0.3 cfs @ 12.43 hrs, Volume= 2,092 cf, Depth= 0.83"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
2,168	76	Gravel roads, HSG A
28,098	30	Woods, Good, HSG A
30,267	33	Weighted Average
30,267	33	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	50	0.0750	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.5	110	0.0020	0.72		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.1	30	0.1300	5.80		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
15.1	190	Total			

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Type III 24-hr 100-year Rainfall=8.60"

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Summary for Subcatchment EX-5.20:

Runoff = 0.2 cfs @ 12.66 hrs, Volume= 2,325 cf, Depth= 0.57"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
465	76	Gravel roads, HSG A
48,716	30	Woods, Good, HSG A
49,182	30	Weighted Average
49,182	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	200	0.0200	0.71		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
25.8	250	Total			

Summary for Subcatchment EX-5.21:

Runoff = 1.0 cfs @ 12.57 hrs, Volume= 11,699 cf, Depth= 0.57"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
2,319	76	Gravel roads, HSG A
245,101	30	Woods, Good, HSG A
247,420	30	Weighted Average
247,420	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	200	0.0200	0.71		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
19.4	250	Total			

Summary for Subcatchment EX-5.6:

Runoff = 4.9 cfs @ 12.46 hrs, Volume= 44,666 cf, Depth= 0.74"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

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Type III 24-hr 100-year Rainfall=8.60"

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Area (sf)	CN	Description
6,191	76	Gravel roads, HSG A
863	85	Gravel roads, HSG B
667,645	30	Woods, Good, HSG A
50,438	55	Woods, Good, HSG B
725,137	32	Weighted Average
725,137	32	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	50	0.1000	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.0	545	0.0200	2.28		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
15.1	595	Total			

Summary for Subcatchment EX-5.7:

Runoff = 5.8 cfs @ 12.45 hrs, Volume= 41,661 cf, Depth= 1.21"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
3,124	76	Gravel roads, HSG A
868	85	Gravel roads, HSG B
304,256	30	Woods, Good, HSG A
103,451	55	Woods, Good, HSG B
411,699	37	Weighted Average
411,699	37	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	50	0.0250	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.9	490	0.0170	2.10		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
23.2	540	Total			

Summary for Subcatchment EX-5.8:

Runoff = 8.8 cfs @ 12.68 hrs, Volume= 109,439 cf, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

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Type III 24-hr 100-year Rainfall=8.60"

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Area (sf)	CN	Description
1,235	39	>75% Grass cover, Good, HSG A
6,962	76	Gravel roads, HSG A
1,935,323	30	Woods, Good, HSG A
71,626	55	Woods, Good, HSG B
2,015,145	31	Weighted Average
2,015,145	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	165	0.0480	3.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.1	165	0.0230	2.44		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
29.8	380	Total			

Summary for Subcatchment EX-5.9:

Runoff = 1.4 cfs @ 12.48 hrs, Volume= 12,517 cf, Depth= 0.74"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
6,721	76	Gravel roads, HSG A
196,485	30	Woods, Good, HSG A
203,205	32	Weighted Average
203,205	32	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	50	0.1000	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
5.3	510	0.0100	1.61		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
16.4	560	Total			

Summary for Pond P5.11: Low Point

Inflow Area = 201,376 sf, 0.00% Impervious, Inflow Depth = 0.57" for 100-year event
 Inflow = 0.8 cfs @ 12.58 hrs, Volume= 9,522 cf
 Outflow = 0.2 cfs @ 17.78 hrs, Volume= 3,259 cf, Atten= 78%, Lag= 312.1 min
 Primary = 0.2 cfs @ 17.78 hrs, Volume= 3,259 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 175.52' @ 17.78 hrs Surf.Area= 6,953 sf Storage= 6,377 cf

Plug-Flow detention time= 451.3 min calculated for 3,259 cf (34% of inflow)

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Type III 24-hr 100-year Rainfall=8.60"

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Center-of-Mass det. time= 255.4 min (1,237.0 - 981.7)

Volume	Invert	Avail.Storage	Storage Description
#1	174.50'	9,900 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
174.50	5,600	0	0
175.00	6,260	2,965	2,965
175.50	6,930	3,298	6,263
176.00	7,620	3,638	9,900

Device	Routing	Invert	Outlet Devices
#1	Primary	175.50'	30.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.2 cfs @ 17.78 hrs HW=175.52' TW=0.00' (Dynamic Tailwater)↑**1=Broad-Crested Rectangular Weir**(Weir Controls 0.2 cfs @ 0.35 fps)**Summary for Link DP5.10: Low Point**

Inflow Area = 71,886 sf, 0.00% Impervious, Inflow Depth = 0.65" for 100-year event
Inflow = 0.3 cfs @ 12.71 hrs, Volume= 3,904 cf
Primary = 0.3 cfs @ 12.71 hrs, Volume= 3,904 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.11: Low Point

Inflow Area = 201,376 sf, 0.00% Impervious, Inflow Depth = 0.19" for 100-year event
Inflow = 0.2 cfs @ 17.78 hrs, Volume= 3,259 cf
Primary = 0.2 cfs @ 17.78 hrs, Volume= 3,259 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.12: Wetland 44

Inflow Area = 355,330 sf, 0.24% Impervious, Inflow Depth = 1.54" for 100-year event
Inflow = 4.4 cfs @ 12.95 hrs, Volume= 45,555 cf
Primary = 4.4 cfs @ 12.95 hrs, Volume= 45,555 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.13: Wetland 44

Inflow Area = 597,343 sf, 0.18% Impervious, Inflow Depth = 1.03" for 100-year event
Inflow = 4.4 cfs @ 12.95 hrs, Volume= 51,308 cf
Primary = 4.4 cfs @ 12.95 hrs, Volume= 51,308 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.14: Wetland 44

Inflow Area = 611,053 sf, 0.20% Impervious, Inflow Depth = 1.03" for 100-year event
Inflow = 6.3 cfs @ 12.53 hrs, Volume= 52,576 cf
Primary = 6.3 cfs @ 12.53 hrs, Volume= 52,576 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.15: Wetland 44

Inflow Area = 465,258 sf, 0.16% Impervious, Inflow Depth = 1.13" for 100-year event
Inflow = 5.1 cfs @ 12.60 hrs, Volume= 43,685 cf
Primary = 5.1 cfs @ 12.60 hrs, Volume= 43,685 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.16: Wetland

Inflow Area = 372,399 sf, 0.00% Impervious, Inflow Depth = 0.57" for 100-year event
Inflow = 1.7 cfs @ 12.38 hrs, Volume= 17,608 cf
Primary = 1.7 cfs @ 12.38 hrs, Volume= 17,608 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.17: Wetland 42/Vernal Pool 12

Inflow Area = 805,238 sf, 0.00% Impervious, Inflow Depth = 0.57" for 100-year event
Inflow = 3.8 cfs @ 12.38 hrs, Volume= 38,074 cf
Primary = 3.8 cfs @ 12.38 hrs, Volume= 38,074 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.18: Wetland 41&43/Vernal Pool 11&13

Inflow Area = 455,176 sf, 0.00% Impervious, Inflow Depth = 0.57" for 100-year event
Inflow = 1.4 cfs @ 12.85 hrs, Volume= 21,522 cf
Primary = 1.4 cfs @ 12.85 hrs, Volume= 21,522 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.19: Wetland 40/Vernal Pool 10

Inflow Area = 30,267 sf, 0.00% Impervious, Inflow Depth = 0.83" for 100-year event
Inflow = 0.3 cfs @ 12.43 hrs, Volume= 2,092 cf
Primary = 0.3 cfs @ 12.43 hrs, Volume= 2,092 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.20: Off-site

Inflow Area = 49,182 sf, 0.00% Impervious, Inflow Depth = 0.57" for 100-year event
Inflow = 0.2 cfs @ 12.66 hrs, Volume= 2,325 cf
Primary = 0.2 cfs @ 12.66 hrs, Volume= 2,325 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.21: Wetland 39/Vernal Pool 9

Inflow Area = 247,420 sf, 0.00% Impervious, Inflow Depth = 0.57" for 100-year event
Inflow = 1.0 cfs @ 12.57 hrs, Volume= 11,699 cf
Primary = 1.0 cfs @ 12.57 hrs, Volume= 11,699 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.6: Wetland 18

Inflow Area = 725,137 sf, 0.00% Impervious, Inflow Depth = 0.74" for 100-year event
Inflow = 4.9 cfs @ 12.46 hrs, Volume= 44,666 cf
Primary = 4.9 cfs @ 12.46 hrs, Volume= 44,666 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.7: Wetland 19

Inflow Area = 411,699 sf, 0.00% Impervious, Inflow Depth = 1.21" for 100-year event
Inflow = 5.8 cfs @ 12.45 hrs, Volume= 41,661 cf
Primary = 5.8 cfs @ 12.45 hrs, Volume= 41,661 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP5.8: Wetland 45

Inflow Area = 2,015,145 sf, 0.00% Impervious, Inflow Depth = 0.65" for 100-year event
Inflow = 8.8 cfs @ 12.68 hrs, Volume= 109,439 cf
Primary = 8.8 cfs @ 12.68 hrs, Volume= 109,439 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Sudbury_EX Segment 5

Type III 24-hr 100-year Rainfall=8.60"

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Summary for Link DP5.9: Low Point

Inflow Area = 203,205 sf, 0.00% Impervious, Inflow Depth = 0.74" for 100-year event
Inflow = 1.4 cfs @ 12.48 hrs, Volume= 12,517 cf
Primary = 1.4 cfs @ 12.48 hrs, Volume= 12,517 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment EX6.1:

Runoff = 0.5 cfs @ 12.69 hrs, Volume= 4,087 cf, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
8,068	39	>75% Grass cover, Good, HSG A
2,474	76	Gravel roads, HSG A
1,651	98	Paved parking, HSG A
22,391	30	Woods, Good, HSG A
34,585	39	Weighted Average
32,934		95.23% Pervious Area
1,651		4.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.9	39	0.4790	0.13		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
16.8	671	0.0090	0.66		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.7	88	0.0011	0.08		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
1.4	95	0.0260	1.13		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
40.8	893	Total			

Summary for Subcatchment EX6.10:

Runoff = 4.7 cfs @ 12.42 hrs, Volume= 27,827 cf, Depth= 1.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.585	39	>75% Grass cover, Good, HSG A
0.018	76	Gravel roads, HSG A
0.721	98	Paved parking, HSG A
2.597	30	Woods, Good, HSG A
0.007	77	Woods, Good, HSG D
3.928	44	Weighted Average
3.207		81.64% Pervious Area
0.721		18.36% Impervious Area

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Type III 24-hr 100-yr Rainfall=8.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.0	50	0.0260	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
5.9	138	0.0240	0.39		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
24.9	188	Total			

Summary for Subcatchment EX6.11:

Runoff = 0.3 cfs @ 12.28 hrs, Volume= 2,398 cf, Depth= 0.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.080	39	>75% Grass cover, Good, HSG A
0.007	76	Gravel roads, HSG A
0.020	98	Paved parking, HSG A
0.690	30	Woods, Good, HSG A
0.796	33	Weighted Average
0.777		97.53% Pervious Area
0.020		2.47% Impervious Area

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

Summary for Subcatchment EX6.12:

Runoff = 0.2 cfs @ 12.31 hrs, Volume= 1,622 cf, Depth= 0.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.122	39	>75% Grass cover, Good, HSG A
0.005	76	Gravel roads, HSG A
0.477	30	Woods, Good, HSG A
0.605	32	Weighted Average
0.605		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	15	0.1133	0.11		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
2.2	16	0.6080	0.12		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.5	31	Total, Increased to minimum Tc = 6.0 min			

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment EX6.13:

Runoff = 9.5 cfs @ 12.12 hrs, Volume= 33,203 cf, Depth= 2.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.341	39	>75% Grass cover, Good, HSG A
0.188	80	>75% Grass cover, Good, HSG D
0.037	76	Gravel roads, HSG A
0.255	98	Paved parking, HSG A
0.122	98	Paved parking, HSG D
1.603	30	Woods, Good, HSG A
0.660	77	Woods, Good, HSG D
3.205	52	Weighted Average
2.828		88.24% Pervious Area
0.377		11.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	13	0.1770	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
6.3	40	0.2650	0.11		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.0	53	Total			

Summary for Subcatchment EX6.14:

Runoff = 19.3 cfs @ 12.17 hrs, Volume= 74,359 cf, Depth= 3.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.335	80	>75% Grass cover, Good, HSG D
0.044	76	Gravel roads, HSG A
0.234	98	Paved parking, HSG A
0.274	98	Paved parking, HSG D
1.951	30	Woods, Good, HSG A
0.757	70	Woods, Good, HSG C
1.646	77	Woods, Good, HSG D
5.241	61	Weighted Average
4.733		90.31% Pervious Area
0.508		9.69% Impervious Area

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Type III 24-hr 100-yr Rainfall=8.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	50	0.0800	0.12		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
1.8	75	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.9	75	0.0800	1.41		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
2.7	80	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
12.4	280	Total			

Summary for Subcatchment EX6.15:

Runoff = 0.6 cfs @ 12.11 hrs, Volume= 1,941 cf, Depth= 6.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.064	98	Paved parking, HSG A
0.016	30	Woods, Good, HSG A
0.080	84	Weighted Average
0.016		20.11% Pervious Area
0.064		79.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	14	0.1210	0.11		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
5.6	33	0.2400	0.10		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
7.7	47	Total			

Summary for Subcatchment EX6.2:

Runoff = 0.2 cfs @ 12.73 hrs, Volume= 1,951 cf, Depth= 0.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.027	76	Gravel roads, HSG A
0.004	98	Paved parking, HSG A
0.696	30	Woods, Good, HSG A
0.727	32	Weighted Average
0.723		99.43% Pervious Area
0.004		0.57% Impervious Area

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Type III 24-hr 100-yr Rainfall=8.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	50	0.0440	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.2	82	0.2180	1.17		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.9	712	0.0090	0.66		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
34.5	844	Total			

Summary for Subcatchment EX6.3:

Runoff = 1.0 cfs @ 12.24 hrs, Volume= 4,911 cf, Depth= 1.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.134	98	Paved parking, HSG A
0.646	30	Woods, Good, HSG A
0.780	42	Weighted Average
0.646		82.81% Pervious Area
0.134		17.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.1	50	0.0660	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.6	105	0.0238	1.08		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
14.7	155	Total			

Summary for Subcatchment EX6.4:

Runoff = 6.5 cfs @ 12.20 hrs, Volume= 27,359 cf, Depth= 2.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
74,975	39	>75% Grass cover, Good, HSG A
27,168	98	Paved parking, HSG A
22,971	30	Woods, Good, HSG A
125,114	50	Weighted Average
97,946		78.29% Pervious Area
27,168		21.71% Impervious Area

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Type III 24-hr 100-yr Rainfall=8.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	50	0.0740	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	36	0.0860	0.73		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
13.3	86	Total			

Summary for Subcatchment EX6.5:

Runoff = 9.9 cfs @ 12.34 hrs, Volume= 68,258 cf, Depth= 1.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
2.733	39	>75% Grass cover, Good, HSG A
1.189	98	Paved parking, HSG A
12.942	30	Woods, Good, HSG A
16.865	36	Weighted Average
15.675		92.95% Pervious Area
1.189		7.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.1	41	0.0585	0.60		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.8	91	Total			

Summary for Subcatchment EX6.6:

Runoff = 6.6 cfs @ 12.52 hrs, Volume= 45,096 cf, Depth= 1.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
1.233	39	>75% Grass cover, Good, HSG A
0.136	76	Gravel roads, HSG A
1.031	98	Paved parking, HSG A
4.761	30	Woods, Good, HSG A
7.161	42	Weighted Average
6.131		85.61% Pervious Area
1.031		14.39% Impervious Area

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Type III 24-hr 100-yr Rainfall=8.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	50	0.3000	0.20		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.1	13	0.3000	2.74		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.9	850	0.0120	0.55		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.2	85	0.0590	1.21		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
31.3	998	Total			

Summary for Subcatchment EX6.7:

Runoff = 5.8 cfs @ 12.50 hrs, Volume= 39,719 cf, Depth= 1.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
1.337	39	>75% Grass cover, Good, HSG A
0.082	74	>75% Grass cover, Good, HSG C
0.060	76	Gravel roads, HSG A
0.672	98	Paved parking, HSG A
0.078	98	Roofs, HSG A
4.959	30	Woods, Good, HSG A
7.188	40	Weighted Average
6.437		89.56% Pervious Area
0.751		10.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	50	0.3300	0.12		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	13	0.4380	1.65		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
18.9	848	0.0114	0.75		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.5	86	0.0530	0.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
28.4	997	Total			

Summary for Subcatchment EX6.8:

Runoff = 1.2 cfs @ 12.61 hrs, Volume= 13,194 cf, Depth= 0.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

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Type III 24-hr 100-yr Rainfall=8.60"

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Area (ac)	CN	Description
1.052	39	>75% Grass cover, Good, HSG A
3.865	30	Woods, Good, HSG A
4.917	32	Weighted Average
4.917		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	44	0.5000	0.14		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
15.2	728	0.0130	0.80		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.6	113	0.0180	0.34		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
26.1	885	Total			

Summary for Subcatchment EX6.9:

Runoff = 1.6 cfs @ 12.01 hrs, Volume= 5,332 cf, Depth= 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.259	39	>75% Grass cover, Good, HSG A
0.006	76	Gravel roads, HSG A
0.108	98	Paved parking, HSG A
0.530	30	Woods, Good, HSG A
0.902	41	Weighted Average
0.795		88.09% Pervious Area
0.108		11.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.0					Direct Entry, 6.0

Summary for Link DP6.1: Low Point

Inflow Area = 34,585 sf, 4.77% Impervious, Inflow Depth = 1.42" for 100-yr event
 Inflow = 0.5 cfs @ 12.69 hrs, Volume= 4,087 cf
 Primary = 0.5 cfs @ 12.69 hrs, Volume= 4,087 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.10: Low Point

Inflow Area = 171,088 sf, 18.36% Impervious, Inflow Depth = 1.95" for 100-yr event
Inflow = 4.7 cfs @ 12.42 hrs, Volume= 27,827 cf
Primary = 4.7 cfs @ 12.42 hrs, Volume= 27,827 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.11: Wetland/Potential Vernal Pool

Inflow Area = 34,690 sf, 2.47% Impervious, Inflow Depth = 0.83" for 100-yr event
Inflow = 0.3 cfs @ 12.28 hrs, Volume= 2,398 cf
Primary = 0.3 cfs @ 12.28 hrs, Volume= 2,398 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.12: Wetland 35/Vernal Pool 8

Inflow Area = 26,336 sf, 0.00% Impervious, Inflow Depth = 0.74" for 100-yr event
Inflow = 0.2 cfs @ 12.31 hrs, Volume= 1,622 cf
Primary = 0.2 cfs @ 12.31 hrs, Volume= 1,622 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.13: Wetland 34

Inflow Area = 139,625 sf, 11.76% Impervious, Inflow Depth = 2.85" for 100-yr event
Inflow = 9.5 cfs @ 12.12 hrs, Volume= 33,203 cf
Primary = 9.5 cfs @ 12.12 hrs, Volume= 33,203 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.14: Wetland 33

Inflow Area = 228,310 sf, 9.69% Impervious, Inflow Depth = 3.91" for 100-yr event
Inflow = 19.3 cfs @ 12.17 hrs, Volume= 74,359 cf
Primary = 19.3 cfs @ 12.17 hrs, Volume= 74,359 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.15: Low Point

Inflow Area = 3,490 sf, 79.89% Impervious, Inflow Depth = 6.67" for 100-yr event
Inflow = 0.6 cfs @ 12.11 hrs, Volume= 1,941 cf
Primary = 0.6 cfs @ 12.11 hrs, Volume= 1,941 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.2: Dutton

Inflow Area = 31,671 sf, 0.57% Impervious, Inflow Depth = 0.74" for 100-yr event
Inflow = 0.2 cfs @ 12.73 hrs, Volume= 1,951 cf
Primary = 0.2 cfs @ 12.73 hrs, Volume= 1,951 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.3: Low Point

Inflow Area = 33,974 sf, 17.19% Impervious, Inflow Depth = 1.73" for 100-yr event
Inflow = 1.0 cfs @ 12.24 hrs, Volume= 4,911 cf
Primary = 1.0 cfs @ 12.24 hrs, Volume= 4,911 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.4: Low Point

Inflow Area = 125,114 sf, 21.71% Impervious, Inflow Depth = 2.62" for 100-yr event
Inflow = 6.5 cfs @ 12.20 hrs, Volume= 27,359 cf
Primary = 6.5 cfs @ 12.20 hrs, Volume= 27,359 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.5: Low Point

Inflow Area = 734,623 sf, 7.05% Impervious, Inflow Depth = 1.11" for 100-yr event
Inflow = 9.9 cfs @ 12.34 hrs, Volume= 68,258 cf
Primary = 9.9 cfs @ 12.34 hrs, Volume= 68,258 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.6: Wetland 38 & 36

Inflow Area = 311,949 sf, 14.39% Impervious, Inflow Depth = 1.73" for 100-yr event
Inflow = 6.6 cfs @ 12.52 hrs, Volume= 45,096 cf
Primary = 6.6 cfs @ 12.52 hrs, Volume= 45,096 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.7: Wetland 37

Inflow Area = 313,094 sf, 10.44% Impervious, Inflow Depth = 1.52" for 100-yr event
Inflow = 5.8 cfs @ 12.50 hrs, Volume= 39,719 cf
Primary = 5.8 cfs @ 12.50 hrs, Volume= 39,719 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.8: Low Point

Inflow Area = 214,195 sf, 0.00% Impervious, Inflow Depth = 0.74" for 100-yr event
Inflow = 1.2 cfs @ 12.61 hrs, Volume= 13,194 cf
Primary = 1.2 cfs @ 12.61 hrs, Volume= 13,194 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP6.9: Low Point

Inflow Area = 39,308 sf, 11.91% Impervious, Inflow Depth = 1.63" for 100-yr event
Inflow = 1.6 cfs @ 12.01 hrs, Volume= 5,332 cf
Primary = 1.6 cfs @ 12.01 hrs, Volume= 5,332 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment EX7.1:

Runoff = 24.9 cfs @ 12.23 hrs, Volume= 108,536 cf, Depth= 3.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
2.052	39	>75% Grass cover, Good, HSG A
0.682	80	>75% Grass cover, Good, HSG D
0.072	76	Gravel roads, HSG A
0.030	91	Gravel roads, HSG D
0.535	98	Paved parking, HSG A
0.159	98	Paved parking, HSG D
0.480	98	Paved roads w/curbs & sewers, HSG A
0.122	98	Paved roads w/curbs & sewers, HSG D
0.141	98	Roofs, HSG A
3.133	30	Woods, Good, HSG A
1.604	77	Woods, Good, HSG D
9.010	56	Weighted Average
7.572		84.05% Pervious Area
1.437		15.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	50	0.0300	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
5.6	270	0.0133	0.81		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.5	51	0.1100	1.66		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.4	371	Total			

Summary for Subcatchment EX7.10:

Runoff = 0.2 cfs @ 12.32 hrs, Volume= 1,284 cf, Depth= 1.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.006	39	>75% Grass cover, Good, HSG A
0.039	76	Gravel roads, HSG A
0.006	98	Paved parking, HSG A
0.219	30	Woods, Good, HSG A
0.269	38	Weighted Average
0.263		97.89% Pervious Area
0.006		2.11% Impervious Area

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Type III 24-hr 100-yr Rainfall=8.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0400	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.0	30	0.0400	0.50		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.0	80	Total			

Summary for Subcatchment EX7.11:

Runoff = 1.6 cfs @ 12.66 hrs, Volume= 11,879 cf, Depth= 2.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.624	39	>75% Grass cover, Good, HSG A
0.087	98	Paved parking, HSG A
0.149	98	Paved roads w/curbs & sewers, HSG A
0.038	98	Roofs, HSG A
0.689	30	Woods, Good, HSG A
1.587	45	Weighted Average
1.313		82.71% Pervious Area
0.274		17.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	55	0.1230	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.6	138	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
26.0	406	0.0108	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
41.6	599	Total			

Summary for Subcatchment EX7.12:

Runoff = 1.3 cfs @ 12.65 hrs, Volume= 9,776 cf, Depth= 2.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

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Type III 24-hr 100-yr Rainfall=8.60"

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Area (ac)	CN	Description
0.321	39	>75% Grass cover, Good, HSG A
0.084	98	Paved parking, HSG A
0.141	98	Paved roads w/curbs & sewers, HSG A
0.023	98	Roofs, HSG A
0.670	30	Woods, Good, HSG A
1.240	46	Weighted Average
0.991		79.98% Pervious Area
0.248		20.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.7	50	0.0240	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.1	75	0.0147	0.30		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
1.6	94	0.0190	0.96		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.8	62	0.0530	0.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.1	284	0.0020	0.31		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
42.3	565	Total			

Summary for Subcatchment EX7.2:

Runoff = 1.6 cfs @ 12.31 hrs, Volume= 10,757 cf, Depth= 1.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.110	39	>75% Grass cover, Good, HSG A
0.001	80	>75% Grass cover, Good, HSG D
0.027	76	Gravel roads, HSG A
0.001	91	Gravel roads, HSG D
0.058	98	Paved parking, HSG A
0.079	98	Paved roads w/curbs & sewers, HSG A
0.068	98	Roofs, HSG A
2.313	30	Woods, Good, HSG A
2.658	36	Weighted Average
2.453		92.30% Pervious Area
0.205		7.70% Impervious Area

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Type III 24-hr 100-yr Rainfall=8.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	50	0.0300	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
4.1	223	0.0170	0.91		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.2	16	0.2250	1.19		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
14.6	289	Total			

Summary for Subcatchment EX7.3:

Runoff = 4.7 cfs @ 12.28 hrs, Volume= 24,345 cf, Depth= 1.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.827	39	>75% Grass cover, Good, HSG A
0.024	74	>75% Grass cover, Good, HSG C
0.033	98	Paved parking, HSG A
0.191	98	Paved roads w/curbs & sewers, HSG A
0.044	98	Paved roads w/curbs & sewers, HSG C
0.181	98	Roofs, HSG A
0.001	98	Roofs, HSG C
2.129	30	Woods, Good, HSG A
0.209	70	Woods, Good, HSG C
3.640	43	Weighted Average
3.189		87.62% Pervious Area
0.450		12.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	50	0.0440	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.6	65	0.0770	0.69		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.0570	1.67		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.1	129	Total			

Summary for Subcatchment EX7.4:

Runoff = 27.9 cfs @ 12.28 hrs, Volume= 129,426 cf, Depth= 4.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

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Type III 24-hr 100-yr Rainfall=8.60"

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Area (ac)	CN	Description
1.195	39	>75% Grass cover, Good, HSG A
0.377	74	>75% Grass cover, Good, HSG C
0.034	80	>75% Grass cover, Good, HSG D
0.223	98	Paved parking, HSG A
0.137	98	Paved parking, HSG C
0.104	98	Paved parking, HSG D
0.128	98	Paved roads w/curbs & sewers, HSG A
0.049	98	Paved roads w/curbs & sewers, HSG C
0.115	98	Paved roads w/curbs & sewers, HSG D
0.158	98	Roofs, HSG A
0.130	98	Roofs, HSG C
0.002	98	Roofs, HSG D
1.789	30	Woods, Good, HSG A
1.956	70	Woods, Good, HSG C
2.201	77	Woods, Good, HSG D
8.600	63	Weighted Average
7.553		87.83% Pervious Area
1.047		12.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2	50	0.1600	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	80	0.0640	1.77		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
9.2	310	0.0064	0.56		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.8	50	0.0400	1.00		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.2	20	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
20.2	510	Total			

Summary for Subcatchment EX7.5:

Runoff = 54.4 cfs @ 12.23 hrs, Volume= 239,697 cf, Depth= 2.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

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Type III 24-hr 100-yr Rainfall=8.60"

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Area (ac)	CN	Description
3.962	39	>75% Grass cover, Good, HSG A
0.722	80	>75% Grass cover, Good, HSG D
0.020	76	Gravel roads, HSG A
0.038	91	Gravel roads, HSG D
0.666	98	Paved parking, HSG A
0.079	98	Paved parking, HSG D
1.090	98	Paved roads w/curbs & sewers, HSG A
0.990	98	Roofs, HSG A
0.161	98	Roofs, HSG D
10.498	30	Woods, Good, HSG A
4.915	77	Woods, Good, HSG D
23.140	52	Weighted Average
20.155		87.10% Pervious Area
2.984		12.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.1	145	0.0550	1.17		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.5	75	0.0267	0.82		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
15.7	270	Total			

Summary for Subcatchment EX7.6:

Runoff = 0.3 cfs @ 12.44 hrs, Volume= 2,692 cf, Depth= 0.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
3,392	39	>75% Grass cover, Good, HSG A
1,797	76	Gravel roads, HSG A
33,761	30	Woods, Good, HSG A
38,949	33	Weighted Average
38,949		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	50	0.0760	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.4	124	0.0600	0.61		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.8	174	Total			

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment EX7.7:

Runoff = 0.4 cfs @ 12.31 hrs, Volume= 2,723 cf, Depth= 1.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.131	39	>75% Grass cover, Good, HSG A
0.061	76	Gravel roads, HSG A
0.545	30	Woods, Good, HSG A
0.737	35	Weighted Average
0.737		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	50	0.1500	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.5	90	0.0290	0.43		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
12.9	140	Total			

Summary for Subcatchment EX7.8:

Runoff = 0.5 cfs @ 12.70 hrs, Volume= 4,436 cf, Depth= 1.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
12,767	39	>75% Grass cover, Good, HSG A
320	76	Gravel roads, HSG A
1,067	98	Paved parking, HSG A
914	98	Roofs, HSG A
37,247	30	Woods, Good, HSG A
52,315	35	Weighted Average
50,334		96.21% Pervious Area
1,980		3.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	41	0.1390	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
17.8	683	0.0083	0.64		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
10.2	303	0.0389	0.49		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
36.3	1,027	Total			

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment EX7.9:

Runoff = 7.3 cfs @ 12.29 hrs, Volume= 38,394 cf, Depth= 1.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
1.941	39	>75% Grass cover, Good, HSG A
0.258	98	Paved parking, HSG A
0.216	98	Paved roads w/curbs & sewers, HSG A
0.364	98	Roofs, HSG A
2.961	30	Woods, Good, HSG A
5.740	43	Weighted Average
4.902		85.40% Pervious Area
0.838		14.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	50	0.0220	0.07		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.2	14	0.0360	1.33		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.8	185	0.0454	0.53		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.7	249	Total			

Summary for Pond P7.6: Low Point

Inflow Area = 38,949 sf, 0.00% Impervious, Inflow Depth = 0.83" for 100-yr event
 Inflow = 0.3 cfs @ 12.44 hrs, Volume= 2,692 cf
 Outflow = 0.3 cfs @ 12.44 hrs, Volume= 2,692 cf, Atten= 0%, Lag= 0.1 min
 Discarded = 0.3 cfs @ 12.44 hrs, Volume= 2,692 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 132.00' @ 12.44 hrs Surf.Area= 257 sf Storage= 1 cf

Plug-Flow detention time= 0.1 min calculated for 2,692 cf (100% of inflow)
 Center-of-Mass det. time= 0.1 min (949.1 - 949.1)

Volume	Invert	Avail.Storage	Storage Description
#1	132.00'	6,580 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
132.00	250	0	0
133.00	2,120	1,185	1,185
134.00	2,690	2,405	3,590
135.00	3,290	2,990	6,580

14009.00-EX-Segment 7

Type III 24-hr 100-yr Rainfall=8.60"

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Device	Routing	Invert	Outlet Devices
#1	Primary	134.50'	10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	132.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.44 hrs HW=132.00' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=132.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P7.8: Low Point**

Inflow Area = 52,315 sf, 3.79% Impervious, Inflow Depth = 1.02" for 100-yr event
 Inflow = 0.5 cfs @ 12.70 hrs, Volume= 4,436 cf
 Outflow = 0.5 cfs @ 12.70 hrs, Volume= 4,436 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.5 cfs @ 12.70 hrs, Volume= 4,436 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 168.00' @ 12.70 hrs Surf.Area= 302 sf Storage= 1 cf

Plug-Flow detention time= 0.0 min calculated for 4,436 cf (100% of inflow)

Center-of-Mass det. time= 0.0 min (953.7 - 953.6)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	1,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	300	0	0
169.00	750	525	525
170.00	1,200	975	1,500

Device	Routing	Invert	Outlet Devices
#1	Primary	169.00'	10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	168.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.70 hrs HW=168.00' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=168.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Summary for Link DP7.1: Wetland 30

Inflow Area = 392,457 sf, 15.95% Impervious, Inflow Depth = 3.32" for 100-yr event
Inflow = 24.9 cfs @ 12.23 hrs, Volume= 108,536 cf
Primary = 24.9 cfs @ 12.23 hrs, Volume= 108,536 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.10: Low Point

Inflow Area = 11,715 sf, 2.11% Impervious, Inflow Depth = 1.32" for 100-yr event
Inflow = 0.2 cfs @ 12.32 hrs, Volume= 1,284 cf
Primary = 0.2 cfs @ 12.32 hrs, Volume= 1,284 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.11: Low Point

Inflow Area = 69,139 sf, 17.29% Impervious, Inflow Depth = 2.06" for 100-yr event
Inflow = 1.6 cfs @ 12.66 hrs, Volume= 11,879 cf
Primary = 1.6 cfs @ 12.66 hrs, Volume= 11,879 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.12: Low Point

Inflow Area = 53,996 sf, 20.02% Impervious, Inflow Depth = 2.17" for 100-yr event
Inflow = 1.3 cfs @ 12.65 hrs, Volume= 9,776 cf
Primary = 1.3 cfs @ 12.65 hrs, Volume= 9,776 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.2: Wetland 32

Inflow Area = 115,777 sf, 7.70% Impervious, Inflow Depth = 1.11" for 100-yr event
Inflow = 1.6 cfs @ 12.31 hrs, Volume= 10,757 cf
Primary = 1.6 cfs @ 12.31 hrs, Volume= 10,757 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.3: Low Point

Inflow Area = 158,537 sf, 12.38% Impervious, Inflow Depth = 1.84" for 100-yr event
Inflow = 4.7 cfs @ 12.28 hrs, Volume= 24,345 cf
Primary = 4.7 cfs @ 12.28 hrs, Volume= 24,345 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.4: Low Point

Inflow Area = 374,595 sf, 12.17% Impervious, Inflow Depth = 4.15" for 100-yr event
Inflow = 27.9 cfs @ 12.28 hrs, Volume= 129,426 cf
Primary = 27.9 cfs @ 12.28 hrs, Volume= 129,426 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.5: Wetland 31

Inflow Area = 1,007,959 sf, 12.90% Impervious, Inflow Depth = 2.85" for 100-yr event
Inflow = 54.4 cfs @ 12.23 hrs, Volume= 239,697 cf
Primary = 54.4 cfs @ 12.23 hrs, Volume= 239,697 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.6: Low Point

Inflow Area = 38,949 sf, 0.00% Impervious, Inflow Depth = 0.00" for 100-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.7: Low Point

Inflow Area = 32,105 sf, 0.00% Impervious, Inflow Depth = 1.02" for 100-yr event
Inflow = 0.4 cfs @ 12.31 hrs, Volume= 2,723 cf
Primary = 0.4 cfs @ 12.31 hrs, Volume= 2,723 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.8: Low Point

Inflow Area = 52,315 sf, 3.79% Impervious, Inflow Depth = 0.00" for 100-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.9: Low Point

Inflow Area = 250,025 sf, 14.60% Impervious, Inflow Depth = 1.84" for 100-yr event
Inflow = 7.3 cfs @ 12.29 hrs, Volume= 38,394 cf
Primary = 7.3 cfs @ 12.29 hrs, Volume= 38,394 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment EX8.1:

Runoff = 56.7 cfs @ 12.22 hrs, Volume= 239,080 cf, Depth= 3.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
1.938	39	>75% Grass cover, Good, HSG A
0.003	80	>75% Grass cover, Good, HSG D
0.028	76	Gravel roads, HSG A
0.028	91	Gravel roads, HSG D
1.228	98	Paved parking, HSG A
0.788	98	Paved roads w/curbs & sewers, HSG A
1.177	98	Roofs, HSG A
8.530	30	Woods, Good, HSG A
0.000	70	Woods, Good, HSG C
6.126	77	Woods, Good, HSG D
19.846	56	Weighted Average
16.653		83.91% Pervious Area
3.193		16.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	50	0.0440	0.09		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
4.3	205	0.0127	0.79		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.8	77	0.0770	0.69		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.0	332	Total			

Summary for Subcatchment EX8.10:

Runoff = 20.2 cfs @ 12.15 hrs, Volume= 75,289 cf, Depth= 5.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.003	76	Gravel roads, HSG A
1.408	98	Paved parking, HSG A
0.269	98	Paved roads w/curbs & sewers, HSG A
0.775	98	Roofs, HSG A
1.180	30	Woods, Good, HSG A
3.634	76	Weighted Average
1.183		32.55% Pervious Area
2.451		67.45% Impervious Area

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Type III 24-hr 100-yr Rainfall=8.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	50	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.7	100	0.0200	0.99		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
11.4	150	Total			

Summary for Subcatchment EX8.11:

Runoff = 2.0 cfs @ 12.32 hrs, Volume= 10,205 cf, Depth= 3.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.278	98	Paved parking, HSG A
0.028	98	Paved roads w/curbs & sewers, HSG A
0.020	98	Roofs, HSG A
0.551	30	Woods, Good, HSG A
0.878	55	Weighted Average
0.551		62.77% Pervious Area
0.327		37.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.8	50	0.0580	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.6	204	0.0250	0.40		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
22.4	254	Total			

Summary for Subcatchment EX8.2:

Runoff = 15.0 cfs @ 12.61 hrs, Volume= 108,353 cf, Depth= 1.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.081	76	Gravel roads, HSG A
0.029	91	Gravel roads, HSG D
0.092	98	Paved parking, HSG A
0.227	98	Paved roads w/curbs & sewers, HSG A
0.058	98	Roofs, HSG A
12.034	30	Woods, Good, HSG A
3.679	77	Woods, Good, HSG D
16.199	43	Weighted Average
15.823		97.68% Pervious Area
0.376		2.32% Impervious Area

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Type III 24-hr 100-yr Rainfall=8.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.1	50	0.0160	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
14.6	354	0.0260	0.40		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	404	Total			

Summary for Subcatchment EX8.3:

Runoff = 33.9 cfs @ 12.37 hrs, Volume= 180,092 cf, Depth= 3.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.261	39	>75% Grass cover, Good, HSG A
0.073	76	Gravel roads, HSG A
0.001	85	Gravel roads, HSG B
0.494	91	Gravel roads, HSG D
0.517	98	Paved parking, HSG A
0.254	98	Paved roads w/curbs & sewers, HSG A
0.429	98	Roofs, HSG A
7.997	30	Woods, Good, HSG A
0.463	55	Woods, Good, HSG B
5.591	77	Woods, Good, HSG D
16.080	54	Weighted Average
14.880		92.53% Pervious Area
1.201		7.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	50	0.0720	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
13.0	200	0.0105	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
25.7	250	Total			

Summary for Subcatchment EX8.4:

Runoff = 0.5 cfs @ 12.52 hrs, Volume= 3,801 cf, Depth= 1.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

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Type III 24-hr 100-yr Rainfall=8.60"

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Area (sf)	CN	Description
2,961	76	Gravel roads, HSG A
37,761	30	Woods, Good, HSG A
4,106	55	Woods, Good, HSG B
44,828	35	Weighted Average
44,828		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	23	0.1300	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
12.9	27	0.0200	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
6.4	273	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
24.7	323	Total			

Summary for Subcatchment EX8.5:

Runoff = 11.2 cfs @ 12.53 hrs, Volume= 68,435 cf, Depth= 4.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.000	76	Gravel roads, HSG A
0.074	85	Gravel roads, HSG B
0.001	91	Gravel roads, HSG D
0.448	98	Paved parking, HSG A
1.175	98	Roofs, HSG A
0.805	30	Woods, Good, HSG A
1.469	55	Woods, Good, HSG B
0.002	77	Woods, Good, HSG D
3.974	68	Weighted Average
2.351		59.16% Pervious Area
1.623		40.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.3	48	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
27.8	826	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	40	0.1825	1.07		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	914	Total			

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment EX8.6:

Runoff = 77.0 cfs @ 12.46 hrs, Volume= 438,584 cf, Depth= 4.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.148	85	Gravel roads, HSG B
0.328	89	Gravel roads, HSG C
0.031	91	Gravel roads, HSG D
0.049	98	Paved parking, HSG A
0.096	98	Paved parking, HSG D
1.239	30	Woods, Good, HSG A
5.697	55	Woods, Good, HSG B
3.260	70	Woods, Good, HSG C
13.992	77	Woods, Good, HSG D
24.840	69	Weighted Average
24.695		99.42% Pervious Area
0.145		0.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	58	0.1400	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
21.0	706	0.0064	0.56		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.7	43	0.1511	0.97		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
32.6	807	Total			

Summary for Subcatchment EX8.7:

Runoff = 2.1 cfs @ 12.55 hrs, Volume= 13,002 cf, Depth= 4.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.011	85	Gravel roads, HSG B
0.232	98	Paved parking, HSG A
0.104	98	Roofs, HSG A
0.186	30	Woods, Good, HSG A
0.222	55	Woods, Good, HSG B
0.755	68	Weighted Average
0.419		55.52% Pervious Area
0.336		44.48% Impervious Area

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Type III 24-hr 100-yr Rainfall=8.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.2	39	0.0205	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
20.5	888	0.0106	0.72		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	37	0.1590	1.00		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
38.3	964	Total			

Summary for Subcatchment EX8.8:

Runoff = 4.8 cfs @ 12.18 hrs, Volume= 19,025 cf, Depth= 5.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
265	76	Gravel roads, HSG A
1,570	85	Gravel roads, HSG B
7,429	98	Paved parking, HSG A
10,195	98	Paved parking, HSG B
3,423	98	Roofs, HSG A
3,349	30	Woods, Good, HSG A
12,150	55	Woods, Good, HSG B
38,381	78	Weighted Average
17,334		45.16% Pervious Area
21,047		54.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.6	50	0.0600	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX8.9:

Runoff = 2.3 cfs @ 12.42 hrs, Volume= 12,513 cf, Depth= 3.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.004	76	Gravel roads, HSG A
0.031	85	Gravel roads, HSG B
0.047	30	Woods, Good, HSG A
0.736	55	Woods, Good, HSG B
0.152	77	Woods, Good, HSG D
0.970	58	Weighted Average
0.970		100.00% Pervious Area

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Type III 24-hr 100-yr Rainfall=8.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	37	0.2050	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
14.1	585	0.0097	0.69		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	153	0.0160	0.32		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
28.8	775	Total			

Summary for Pond P8.10: Low Point

Inflow Area = 158,315 sf, 67.45% Impervious, Inflow Depth = 5.71" for 100-yr event
 Inflow = 20.2 cfs @ 12.15 hrs, Volume= 75,289 cf
 Outflow = 19.0 cfs @ 12.20 hrs, Volume= 75,289 cf, Atten= 6%, Lag= 2.6 min
 Discarded = 2.4 cfs @ 11.65 hrs, Volume= 55,258 cf
 Primary = 16.6 cfs @ 12.20 hrs, Volume= 20,032 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 134.99' @ 12.20 hrs Surf.Area= 6,627 sf Storage= 9,473 cf

Plug-Flow detention time= 14.4 min calculated for 75,279 cf (100% of inflow)
 Center-of-Mass det. time= 14.4 min (828.5 - 814.1)

Volume	Invert	Avail.Storage	Storage Description
#1	133.00'	9,535 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
133.00	2,935	0	0
134.00	4,745	3,840	3,840
135.00	6,645	5,695	9,535

Device	Routing	Invert	Outlet Devices
#1	Primary	134.60'	25.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	133.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 11.65 hrs HW=133.02' (Free Discharge)
 ↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=16.6 cfs @ 12.20 hrs HW=134.99' (Free Discharge)
 ↑**1=Broad-Crested Rectangular Weir** (Weir Controls 16.6 cfs @ 1.70 fps)

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Pond P8.7: Low Point

Inflow Area = 32,889 sf, 44.48% Impervious, Inflow Depth = 4.74" for 100-yr event
 Inflow = 2.1 cfs @ 12.55 hrs, Volume= 13,002 cf
 Outflow = 1.4 cfs @ 12.86 hrs, Volume= 13,002 cf, Atten= 33%, Lag= 19.0 min
 Discarded = 1.0 cfs @ 12.19 hrs, Volume= 12,712 cf
 Primary = 0.4 cfs @ 12.86 hrs, Volume= 289 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 136.66' @ 12.86 hrs Surf.Area= 1,628 sf Storage= 1,752 cf

Plug-Flow detention time= 8.8 min calculated for 13,000 cf (100% of inflow)
 Center-of-Mass det. time= 8.8 min (864.5 - 855.7)

Volume	Invert	Avail.Storage	Storage Description
#1	135.00'	2,343 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
135.00	460	0	0
136.00	1,185	823	823
137.00	1,855	1,520	2,343

Device	Routing	Invert	Outlet Devices
#1	Primary	136.60'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	135.00'	1.0 cfs Exfiltration at all elevations

Discarded OutFlow Max=1.0 cfs @ 12.19 hrs HW=135.02' (Free Discharge)
 ↑ **2=Exfiltration** (Exfiltration Controls 1.0 cfs)

Primary OutFlow Max=0.4 cfs @ 12.86 hrs HW=136.66' (Free Discharge)
 ↑ **1=Broad-Crested Rectangular Weir** (Weir Controls 0.4 cfs @ 0.66 fps)

Summary for Link DP8.1: Wetland 28/29

Inflow Area = 864,489 sf, 16.09% Impervious, Inflow Depth = 3.32" for 100-yr event
 Inflow = 56.7 cfs @ 12.22 hrs, Volume= 239,080 cf
 Primary = 56.7 cfs @ 12.22 hrs, Volume= 239,080 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.10: Low Point

Inflow Area = 158,315 sf, 67.45% Impervious, Inflow Depth = 1.52" for 100-yr event
Inflow = 16.6 cfs @ 12.20 hrs, Volume= 20,032 cf
Primary = 16.6 cfs @ 12.20 hrs, Volume= 20,032 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.11: Wetland

Inflow Area = 38,246 sf, 37.23% Impervious, Inflow Depth = 3.20" for 100-yr event
Inflow = 2.0 cfs @ 12.32 hrs, Volume= 10,205 cf
Primary = 2.0 cfs @ 12.32 hrs, Volume= 10,205 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.2: Wetland 27

Inflow Area = 705,611 sf, 2.32% Impervious, Inflow Depth = 1.84" for 100-yr event
Inflow = 15.0 cfs @ 12.61 hrs, Volume= 108,353 cf
Primary = 15.0 cfs @ 12.61 hrs, Volume= 108,353 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.3: Wetland 25

Inflow Area = 700,458 sf, 7.47% Impervious, Inflow Depth = 3.09" for 100-yr event
Inflow = 33.9 cfs @ 12.37 hrs, Volume= 180,092 cf
Primary = 33.9 cfs @ 12.37 hrs, Volume= 180,092 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.4: Wetland 24

Inflow Area = 44,828 sf, 0.00% Impervious, Inflow Depth = 1.02" for 100-yr event
Inflow = 0.5 cfs @ 12.52 hrs, Volume= 3,801 cf
Primary = 0.5 cfs @ 12.52 hrs, Volume= 3,801 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.5: Low Point

Inflow Area = 173,109 sf, 40.84% Impervious, Inflow Depth = 4.74" for 100-yr event
Inflow = 11.2 cfs @ 12.53 hrs, Volume= 68,435 cf
Primary = 11.2 cfs @ 12.53 hrs, Volume= 68,435 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.6: Wetland 26

Inflow Area = 1,082,039 sf, 0.58% Impervious, Inflow Depth = 4.86" for 100-yr event
Inflow = 77.0 cfs @ 12.46 hrs, Volume= 438,584 cf
Primary = 77.0 cfs @ 12.46 hrs, Volume= 438,584 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.7: Low Point

Inflow Area = 32,889 sf, 44.48% Impervious, Inflow Depth = 0.11" for 100-yr event
Inflow = 0.4 cfs @ 12.86 hrs, Volume= 289 cf
Primary = 0.4 cfs @ 12.86 hrs, Volume= 289 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.8: Low Point

Inflow Area = 38,381 sf, 54.84% Impervious, Inflow Depth = 5.95" for 100-yr event
Inflow = 4.8 cfs @ 12.18 hrs, Volume= 19,025 cf
Primary = 4.8 cfs @ 12.18 hrs, Volume= 19,025 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.9: Wetland 24A/Vernal Pool 5

Inflow Area = 42,256 sf, 0.00% Impervious, Inflow Depth = 3.55" for 100-yr event
Inflow = 2.3 cfs @ 12.42 hrs, Volume= 12,513 cf
Primary = 2.3 cfs @ 12.42 hrs, Volume= 12,513 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment EX10.1:

Runoff = 5.7 cfs @ 12.21 hrs, Volume= 23,635 cf, Depth= 6.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
9,363	80	>75% Grass cover, Good, HSG D
1,971	91	Gravel roads, HSG D
813	98	Paved parking, HSG D
34,586	77	Woods, Good, HSG D
46,733	79	Weighted Average
45,920		98.26% Pervious Area
813		1.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	50	0.1500	0.09		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
5.8	175	0.0100	0.50		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
15.2	225	Total			

Summary for Subcatchment EX10.10:

Runoff = 0.6 cfs @ 12.09 hrs, Volume= 1,814 cf, Depth= 5.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
0	80	>75% Grass cover, Good, HSG D
454	89	Gravel roads, HSG C
209	91	Gravel roads, HSG D
482	70	Woods, Good, HSG C
2,516	77	Woods, Good, HSG D
3,661	78	Weighted Average
3,661		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	25	0.1000	0.07		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment EX10.11:

Runoff = 3.0 cfs @ 12.17 hrs, Volume= 11,724 cf, Depth= 2.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
299	76	Gravel roads, HSG A
809	91	Gravel roads, HSG D
1,636	98	Paved parking, HSG A
27,256	30	Woods, Good, HSG A
19,302	77	Woods, Good, HSG D
49,302	52	Weighted Average
47,666		96.68% Pervious Area
1,636		3.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	50	0.1000	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX10.12:

Runoff = 2.6 cfs @ 12.32 hrs, Volume= 12,959 cf, Depth= 2.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
0	80	>75% Grass cover, Good, HSG D
4,312	76	Gravel roads, HSG A
4,401	91	Gravel roads, HSG D
789	98	Paved parking, HSG A
270	98	Paved parking, HSG D
33,179	30	Woods, Good, HSG A
13,835	77	Woods, Good, HSG D
56,785	51	Weighted Average
55,726		98.14% Pervious Area
1,059		1.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
9.6	500	0.0300	0.87		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
21.7	550	Total			

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment EX10.13:

Runoff = 6.3 cfs @ 12.58 hrs, Volume= 41,381 cf, Depth= 5.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
0	80	>75% Grass cover, Good, HSG D
5,981	76	Gravel roads, HSG A
10,573	91	Gravel roads, HSG D
19,835	98	Paved parking, HSG A
17,557	98	Paved parking, HSG D
25,493	30	Woods, Good, HSG A
11,416	77	Woods, Good, HSG D
90,854	74	Weighted Average
53,462		58.84% Pervious Area
37,392		41.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
36.8	50	0.0050	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	30	0.5000	3.54		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
42.9	480	Total			

Summary for Subcatchment EX10.14:

Runoff = 25.5 cfs @ 12.29 hrs, Volume= 119,902 cf, Depth= 5.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
53,635	80	>75% Grass cover, Good, HSG D
599	76	Gravel roads, HSG A
1,197	91	Gravel roads, HSG D
60,830	98	Paved parking, HSG D
53,829	30	Woods, Good, HSG A
99,094	77	Woods, Good, HSG D
269,184	73	Weighted Average
208,354		77.40% Pervious Area
60,830		22.60% Impervious Area

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Type III 24-hr 100-yr Rainfall=8.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX10.15:

Runoff = 4.2 cfs @ 12.62 hrs, Volume= 30,320 cf, Depth= 1.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
41,191	39	>75% Grass cover, Good, HSG A
121	80	>75% Grass cover, Good, HSG D
3,599	76	Gravel roads, HSG A
3,103	91	Gravel roads, HSG D
11,248	98	Paved parking, HSG A
253	98	Paved parking, HSG D
104,725	30	Woods, Good, HSG A
22,178	77	Woods, Good, HSG D
186,416	44	Weighted Average
174,915		93.83% Pervious Area
11,500		6.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
10.6	550	0.0300	0.87		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
38.5	600	Total			

Summary for Subcatchment EX10.2:

Runoff = 13.8 cfs @ 12.41 hrs, Volume= 76,025 cf, Depth= 4.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

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Type III 24-hr 100-yr Rainfall=8.60"

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Area (sf)	CN	Description
34,938	39	>75% Grass cover, Good, HSG A
34,850	80	>75% Grass cover, Good, HSG D
4,142	91	Gravel roads, HSG D
28,819	98	Paved parking, HSG A
3,548	98	Paved parking, HSG D
17,462	30	Woods, Good, HSG A
59,283	77	Woods, Good, HSG D
183,042	70	Weighted Average
150,675		82.32% Pervious Area
32,368		17.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.1	50	0.0090	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.5	100	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
30.6	150	Total			

Summary for Subcatchment EX10.3:

Runoff = 3.9 cfs @ 12.39 hrs, Volume= 21,262 cf, Depth= 5.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
0	80	>75% Grass cover, Good, HSG D
2,751	91	Gravel roads, HSG D
40,144	77	Woods, Good, HSG D
42,895	78	Weighted Average
42,895		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.2	50	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
29.1	100	Total			

Summary for Subcatchment EX10.4:

Runoff = 12.3 cfs @ 12.48 hrs, Volume= 73,024 cf, Depth= 4.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

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Type III 24-hr 100-yr Rainfall=8.60"

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Area (sf)	CN	Description
23,150	39	>75% Grass cover, Good, HSG A
6,935	80	>75% Grass cover, Good, HSG D
4,792	91	Gravel roads, HSG D
21,919	98	Paved parking, HSG A
16	98	Paved parking, HSG D
56,904	30	Woods, Good, HSG A
97,635	77	Woods, Good, HSG D
211,352	63	Weighted Average
189,417		89.62% Pervious Area
21,935		10.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.3	175	0.2000	2.24		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
35.2	625	Total			

Summary for Subcatchment EX10.5:

Runoff = 4.4 cfs @ 12.20 hrs, Volume= 18,057 cf, Depth= 5.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
3,076	80	>75% Grass cover, Good, HSG D
2,125	91	Gravel roads, HSG D
31,228	77	Woods, Good, HSG D
36,429	78	Weighted Average
36,429		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment EX10.6:

Runoff = 11.1 cfs @ 12.32 hrs, Volume= 54,422 cf, Depth= 5.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

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Type III 24-hr 100-yr Rainfall=8.60"

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Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
0	74	>75% Grass cover, Good, HSG C
41,520	80	>75% Grass cover, Good, HSG D
1,625	76	Gravel roads, HSG A
1,819	89	Gravel roads, HSG C
6,526	91	Gravel roads, HSG D
18,428	30	Woods, Good, HSG A
2,694	70	Woods, Good, HSG C
52,383	77	Woods, Good, HSG D
124,995	72	Weighted Average
124,995		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.4	100	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
23.5	150	Total			

Summary for Subcatchment EX10.7:

Runoff = 1.8 cfs @ 12.28 hrs, Volume= 9,959 cf, Depth= 1.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
0	39	>75% Grass cover, Good, HSG A
3,445	76	Gravel roads, HSG A
1,711	91	Gravel roads, HSG D
61,785	30	Woods, Good, HSG A
11,563	77	Woods, Good, HSG D
78,505	40	Weighted Average
78,505		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.7	50	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.6	60	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.0	160	Total			

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment EX10.8:

Runoff = 4.1 cfs @ 12.35 hrs, Volume= 24,286 cf, Depth= 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
10,522	39	>75% Grass cover, Good, HSG A
323	74	>75% Grass cover, Good, HSG C
12,890	80	>75% Grass cover, Good, HSG D
52	76	Gravel roads, HSG A
0	89	Gravel roads, HSG C
1,682	91	Gravel roads, HSG D
2,763	98	Paved parking, HSG A
131,535	30	Woods, Good, HSG A
1,354	70	Woods, Good, HSG C
17,905	77	Woods, Good, HSG D
179,026	41	Weighted Average
176,263		98.46% Pervious Area
2,763		1.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
6.0	400	0.0500	1.12		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
20.7	450	Total			

Summary for Subcatchment EX10.9:

Runoff = 8.3 cfs @ 12.41 hrs, Volume= 44,922 cf, Depth= 4.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
10,399	39	>75% Grass cover, Good, HSG A
11,292	74	>75% Grass cover, Good, HSG C
6,155	80	>75% Grass cover, Good, HSG D
378	89	Gravel roads, HSG C
565	91	Gravel roads, HSG D
14,874	30	Woods, Good, HSG A
61,632	70	Woods, Good, HSG C
17,648	77	Woods, Good, HSG D
122,942	65	Weighted Average
122,942		100.00% Pervious Area

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Type III 24-hr 100-yr Rainfall=8.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.2	350	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
29.3	400	Total			

Summary for Subcatchment EX9.1:

Runoff = 14.2 cfs @ 12.38 hrs, Volume= 77,845 cf, Depth= 6.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
53,138	80	>75% Grass cover, Good, HSG D
47,904	98	Paved parking, HSG D
36,465	77	Woods, Good, HSG D
137,506	85	Weighted Average
89,603		65.16% Pervious Area
47,904		34.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0100	0.05		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
11.8	500	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
27.8	550	Total			

Summary for Link DP10.1: Station Rd

Inflow Area = 46,733 sf, 1.74% Impervious, Inflow Depth = 6.07" for 100-yr event
Inflow = 5.7 cfs @ 12.21 hrs, Volume= 23,635 cf
Primary = 5.7 cfs @ 12.21 hrs, Volume= 23,635 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.10: Wetland 5_Vernal Pool 2-3

Inflow Area = 3,661 sf, 0.00% Impervious, Inflow Depth = 5.95" for 100-yr event
Inflow = 0.6 cfs @ 12.09 hrs, Volume= 1,814 cf
Primary = 0.6 cfs @ 12.09 hrs, Volume= 1,814 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

EX_Segment_9-10

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Link DP10.11: Vernal Pool 4

Inflow Area = 140,156 sf, 27.85% Impervious, Inflow Depth = 4.55" for 100-yr event
Inflow = 7.5 cfs @ 12.53 hrs, Volume= 53,106 cf
Primary = 7.5 cfs @ 12.53 hrs, Volume= 53,106 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.12: Stream

Inflow Area = 56,785 sf, 1.86% Impervious, Inflow Depth = 2.74" for 100-yr event
Inflow = 2.6 cfs @ 12.32 hrs, Volume= 12,959 cf
Primary = 2.6 cfs @ 12.32 hrs, Volume= 12,959 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.14: Wetland 6

Inflow Area = 269,184 sf, 22.60% Impervious, Inflow Depth = 5.35" for 100-yr event
Inflow = 25.5 cfs @ 12.29 hrs, Volume= 119,902 cf
Primary = 25.5 cfs @ 12.29 hrs, Volume= 119,902 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.15: Wetland 3_Vernal Pool 1

Inflow Area = 186,416 sf, 6.17% Impervious, Inflow Depth = 1.95" for 100-yr event
Inflow = 4.2 cfs @ 12.62 hrs, Volume= 30,320 cf
Primary = 4.2 cfs @ 12.62 hrs, Volume= 30,320 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.2: Wetland 18

Inflow Area = 183,042 sf, 17.68% Impervious, Inflow Depth = 4.98" for 100-yr event
Inflow = 13.8 cfs @ 12.41 hrs, Volume= 76,025 cf
Primary = 13.8 cfs @ 12.41 hrs, Volume= 76,025 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.3: Wetland 19

Inflow Area = 42,895 sf, 0.00% Impervious, Inflow Depth = 5.95" for 100-yr event
Inflow = 3.9 cfs @ 12.39 hrs, Volume= 21,262 cf
Primary = 3.9 cfs @ 12.39 hrs, Volume= 21,262 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Link DP10.4: Wetland 15

Inflow Area = 211,352 sf, 10.38% Impervious, Inflow Depth = 4.15" for 100-yr event
Inflow = 12.3 cfs @ 12.48 hrs, Volume= 73,024 cf
Primary = 12.3 cfs @ 12.48 hrs, Volume= 73,024 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.5: Wetland 16

Inflow Area = 36,429 sf, 0.00% Impervious, Inflow Depth = 5.95" for 100-yr event
Inflow = 4.4 cfs @ 12.20 hrs, Volume= 18,057 cf
Primary = 4.4 cfs @ 12.20 hrs, Volume= 18,057 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.6: Wetland 14

Inflow Area = 124,995 sf, 0.00% Impervious, Inflow Depth = 5.22" for 100-yr event
Inflow = 11.1 cfs @ 12.32 hrs, Volume= 54,422 cf
Primary = 11.1 cfs @ 12.32 hrs, Volume= 54,422 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.7: Wetland 12

Inflow Area = 78,505 sf, 0.00% Impervious, Inflow Depth = 1.52" for 100-yr event
Inflow = 1.8 cfs @ 12.28 hrs, Volume= 9,959 cf
Primary = 1.8 cfs @ 12.28 hrs, Volume= 9,959 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.8: Wetland 13

Inflow Area = 179,026 sf, 1.54% Impervious, Inflow Depth = 1.63" for 100-yr event
Inflow = 4.1 cfs @ 12.35 hrs, Volume= 24,286 cf
Primary = 4.1 cfs @ 12.35 hrs, Volume= 24,286 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.9: Wetland 10

Inflow Area = 122,942 sf, 0.00% Impervious, Inflow Depth = 4.38" for 100-yr event
Inflow = 8.3 cfs @ 12.41 hrs, Volume= 44,922 cf
Primary = 8.3 cfs @ 12.41 hrs, Volume= 44,922 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

EX_Segment_9-10*Type III 24-hr 100-yr Rainfall=8.60"*

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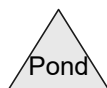
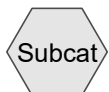
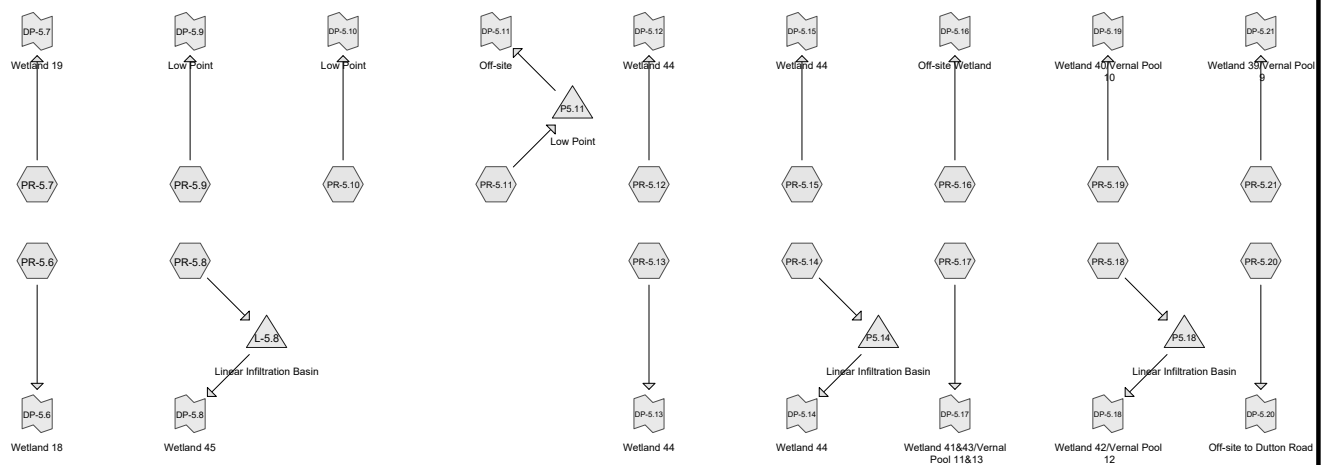
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Summary for Link DP9.1: Wetland 4

Inflow Area = 137,506 sf, 34.84% Impervious, Inflow Depth = 6.79" for 100-yr event
Inflow = 14.2 cfs @ 12.38 hrs, Volume= 77,845 cf
Primary = 14.2 cfs @ 12.38 hrs, Volume= 77,845 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

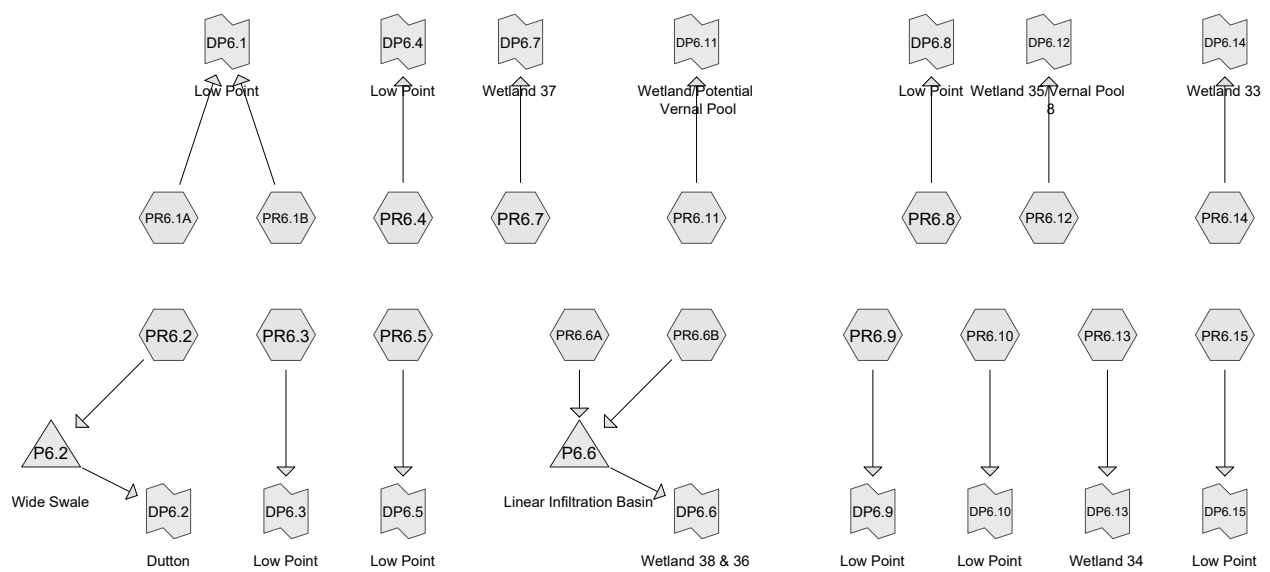
HydroCAD Analysis: Proposed Conditions



Routing Diagram for Sudbury_PR Segment 5

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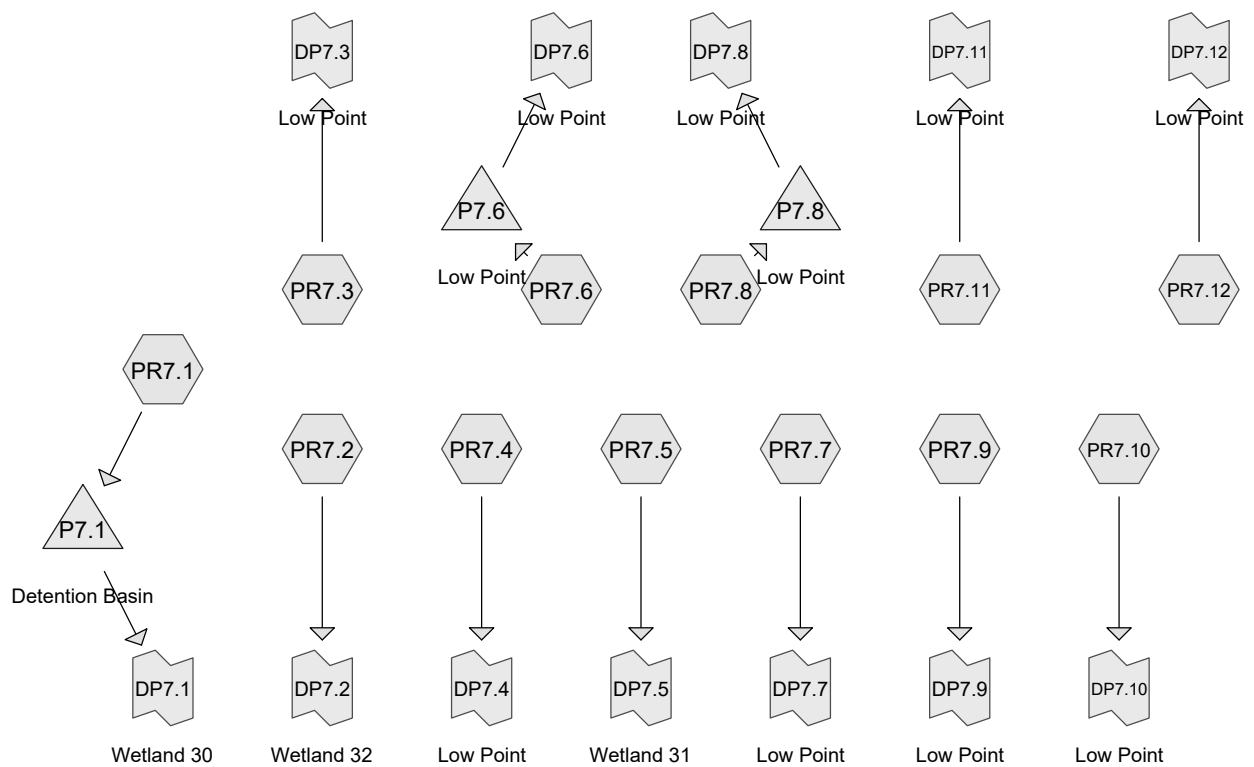
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Routing Diagram for 14009.00-PR-Segment 6

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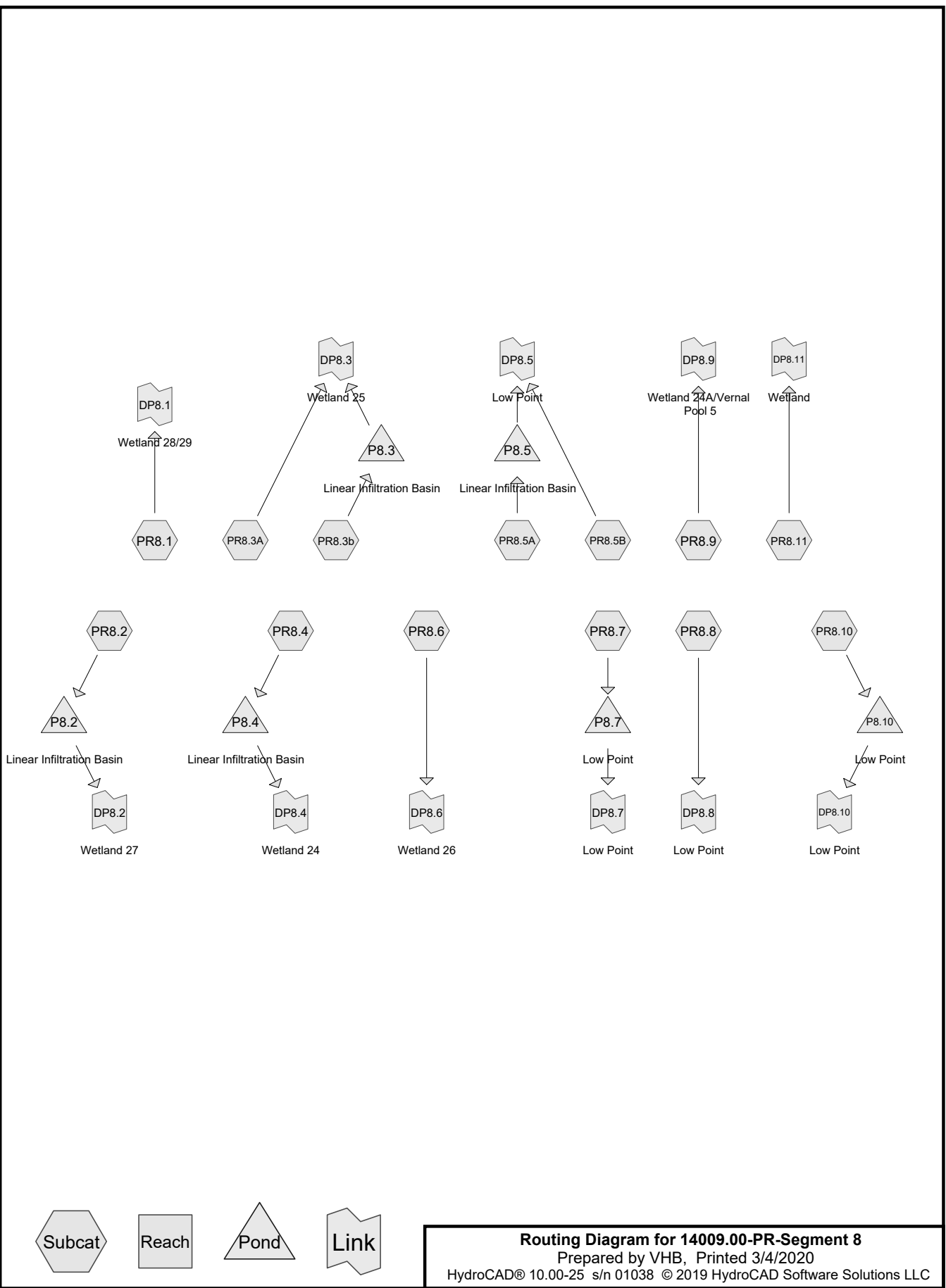
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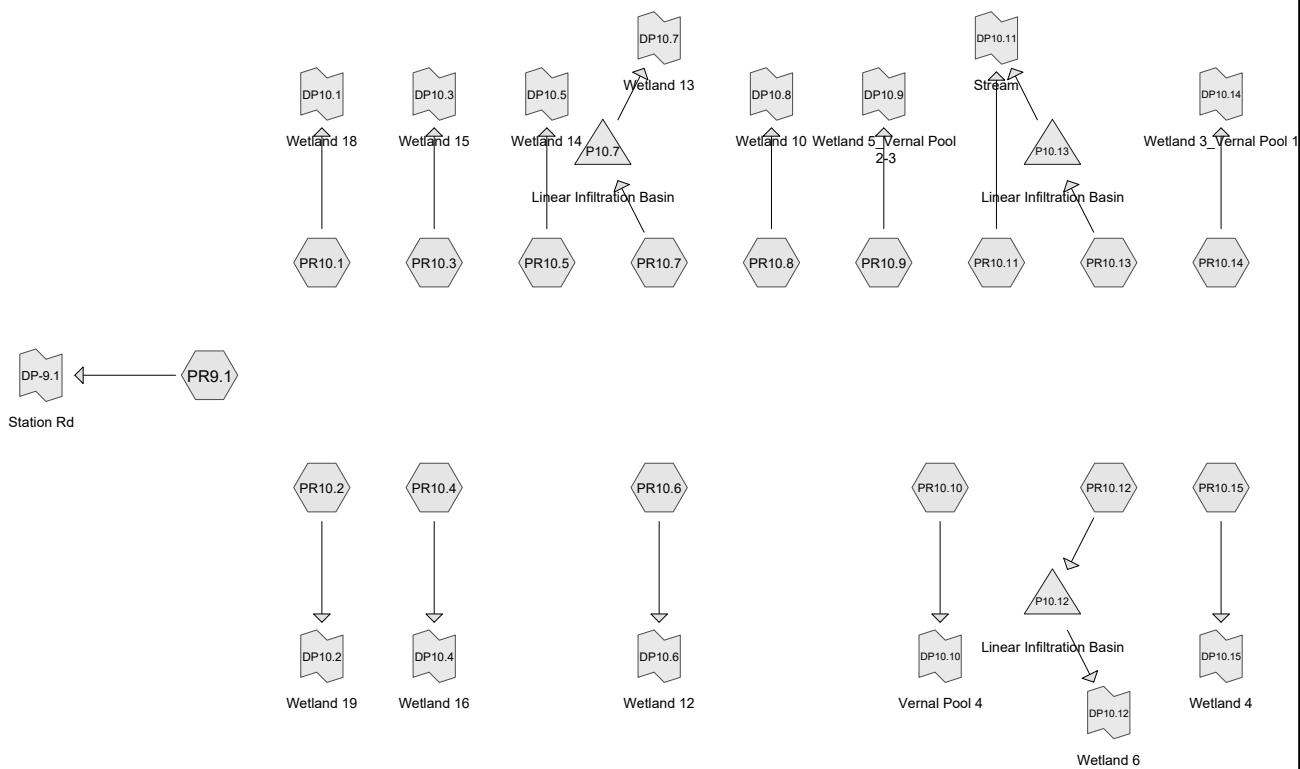


Routing Diagram for 14009.00-PR-Segment 7

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Summary for Link DP7.5: Wetland 31

Inflow Area = 1,005,327 sf, 12.93% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.6: Low Point

Inflow Area = 39,470 sf, 16.03% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.7: Low Point

Inflow Area = 28,139 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.8: Low Point

Inflow Area = 55,516 sf, 11.05% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.9: Low Point

Inflow Area = 250,025 sf, 14.60% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.7: Wetland 19

Inflow Area = 418,303 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.8: Wetland 45

Inflow Area = 2,033,871 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.9: Low Point

Inflow Area = 183,843 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 1-inch Rainfall=1.00"

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Summary for Subcatchment PR-5.10:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
1,862	76	Gravel roads, HSG A
68,683	30	Woods, Good, HSG A
70,545	31	Weighted Average
70,545	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
9.1	620	0.0050	1.14		Shallow Concentrated Flow,
					Unpaved Kv= 16.1 fps
30.2	670	Total			

Summary for Subcatchment PR-5.11:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
3,016	76	Gravel roads, HSG A
348,292	30	Woods, Good, HSG A
351,308	30	Weighted Average
351,308	30	100.00% Pervious Area

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

Summary for Subcatchment PR-5.12:

Runoff = 0.0 cfs @ 12.81 hrs, Volume= 46 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

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Type III 24-hr 1-inch Rainfall=1.00"

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Area (sf)	CN	Description
628	76	Gravel roads, HSG A
694	98	Water Surface, HSG B
88,212	30	Woods, Good, HSG A
108,041	55	Woods, Good, HSG B
197,575	44	Weighted Average
196,881	44	99.65% Pervious Area
694	98	0.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.2	50	0.0060	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
26.6	2,435	0.0090	1.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	70	0.1300	5.80		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
61.0	2,555	Total			

Summary for Subcatchment PR-5.13:

Runoff = 0.0 cfs @ 12.67 hrs, Volume= 80 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
12,214	76	Gravel roads, HSG A
2,506	85	Gravel roads, HSG B
1,211	98	Water Surface, HSG B
477,972	30	Woods, Good, HSG A
71,247	55	Woods, Good, HSG B
565,150	35	Weighted Average
563,939	34	99.79% Pervious Area
1,211	98	0.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
24.9	2,280	0.0090	1.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	75	0.1200	5.58		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
53.0	2,405	Total			

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Type III 24-hr 1-inch Rainfall=1.00"

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Summary for Subcatchment PR-5.14:

Runoff = 0.0 cfs @ 12.34 hrs, Volume= 90 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
5,919	76	Gravel roads, HSG A
1,679	85	Gravel roads, HSG B
1,361	98	Water Surface, HSG B
481,295	30	Woods, Good, HSG A
123,512	55	Woods, Good, HSG B
613,766	36	Weighted Average
612,405	36	99.78% Pervious Area
1,361	98	0.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	50	0.2600	0.11		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
16.7	475	0.0090	0.47		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.4	110	0.0680	1.30		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.7	635	Total			

Summary for Subcatchment PR-5.15:

Runoff = 0.0 cfs @ 12.42 hrs, Volume= 42 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
8	76	Gravel roads, HSG A
633	98	Water Surface, HSG B
352,534	30	Woods, Good, HSG A
103,992	55	Woods, Good, HSG B
457,166	36	Weighted Average
456,533	36	99.86% Pervious Area
633	98	0.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.5	585	0.0180	2.16		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
32.4	635	Total			

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Type III 24-hr 1-inch Rainfall=1.00"

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Summary for Subcatchment PR-5.16:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
4	76	Gravel roads, HSG A
376,341	30	Woods, Good, HSG A
376,345	30	Weighted Average
376,345	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.9	27	0.0060	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	105	0.0200	2.28		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.1	34	0.1100	5.34		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
21.8	166	Total			

Summary for Subcatchment PR-5.17:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
571	76	Gravel roads, HSG A
803,198	30	Woods, Good, HSG A
803,770	30	Weighted Average
803,770	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	30	0.1500	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	45	0.1600	6.44		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.4	75	Total			

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Type III 24-hr 1-inch Rainfall=1.00"

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Summary for Subcatchment PR-5.18:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
6,238	76	Gravel roads, HSG A
452,526	30	Woods, Good, HSG A
458,764	31	Weighted Average
458,764	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	400	0.0800	1.41		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
4.7	200	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
37.3	650	Total			

Summary for Subcatchment PR-5.19:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
398	76	Gravel roads, HSG A
28,028	30	Woods, Good, HSG A
28,426	31	Weighted Average
28,426	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	50	0.0750	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.5	110	0.0020	0.72		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.1	30	0.1300	5.80		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
15.1	190	Total			

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Type III 24-hr 1-inch Rainfall=1.00"

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Summary for Subcatchment PR-5.20:

Runoff = 0.0 cfs @ 12.35 hrs, Volume= 105 cf, Depth= 0.02"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
3,604	76	Gravel roads, HSG A
1,592	98	Paved parking, HSG A
49,097	30	Woods, Good, HSG A
54,293	35	Weighted Average
52,701	33	97.07% Pervious Area
1,592	98	2.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	200	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.8	250	Total			

Summary for Subcatchment PR-5.21:

Runoff = 0.0 cfs @ 12.26 hrs, Volume= 52 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
265	76	Gravel roads, HSG A
789	98	Paved parking, HSG A
242,410	30	Woods, Good, HSG A
243,464	30	Weighted Average
242,675	30	99.68% Pervious Area
789	98	0.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	200	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
19.4	250	Total			

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Type III 24-hr 1-inch Rainfall=1.00"

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Summary for Subcatchment PR-5.6:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
1,235	39	>75% Grass cover, Good, HSG A
11,451	76	Gravel roads, HSG A
1,522	85	Gravel roads, HSG B
692,882	30	Woods, Good, HSG A
50,438	55	Woods, Good, HSG B
757,528	32	Weighted Average
757,528	32	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	50	0.0320	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
5.2	750	0.0220	2.39		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
22.7	800	Total			

Summary for Subcatchment PR-5.7:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
2,624	76	Gravel roads, HSG A
208	85	Gravel roads, HSG B
312,019	30	Woods, Good, HSG A
103,451	55	Woods, Good, HSG B
418,303	36	Weighted Average
418,303	36	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	50	0.0250	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.0	200	0.0110	1.69		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
2.1	295	0.0210	2.33		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
23.4	545	Total			

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Type III 24-hr 1-inch Rainfall=1.00"

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Summary for Subcatchment PR-5.8:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
27,551	76	Gravel roads, HSG A
1,934,694	30	Woods, Good, HSG A
71,626	55	Woods, Good, HSG B
2,033,871	32	Weighted Average
2,033,871	32	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	165	0.0480	3.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.1	165	0.0230	2.44		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
29.8	380	Total			

Summary for Subcatchment PR-5.9:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-inch Rainfall=1.00"

Area (sf)	CN	Description
572	76	Gravel roads, HSG A
183,271	30	Woods, Good, HSG A
183,843	30	Weighted Average
183,843	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	11	0.0100	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.3	8	0.5000	0.10		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.2	323	0.0240	2.49		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
11.8	342	Total			

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Type III 24-hr 1-inch Rainfall=1.00"

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Summary for Pond L-5.8: Linear Infiltration Basin

Inflow Area = 2,033,871 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 199.00' @ 0.00 hrs Surf.Area= 200 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	199.00'	1,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
199.00	200	0	0
200.00	600	400	400
201.00	1,000	800	1,200

Device	Routing	Invert	Outlet Devices
#1	Primary	200.00'	5.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	199.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=0.0 cfs @ 0.00 hrs HW=199.00' (Free Discharge)↑ **2=Exfiltration** (Passes 0.0 cfs of 2.4 cfs potential flow)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=199.00' TW=0.00' (Dynamic Tailwater)↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P5.11: Low Point**

Inflow Area = 351,308 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 174.50' @ 0.00 hrs Surf.Area= 5,600 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

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Type III 24-hr 1-inch Rainfall=1.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	174.50'	9,900 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
174.50	5,600	0	0
175.00	6,260	2,965	2,965
175.50	6,930	3,298	6,263
176.00	7,620	3,638	9,900

Device	Routing	Invert	Outlet Devices
#1	Primary	175.50'	30.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=174.50' TW=0.00' (Dynamic Tailwater)

↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)

Summary for Pond P5.14: Linear Infiltration Basin

Inflow Area = 613,766 sf, 0.22% Impervious, Inflow Depth = 0.00" for 1-inch event
 Inflow = 0.0 cfs @ 12.34 hrs, Volume= 90 cf
 Outflow = 0.0 cfs @ 12.34 hrs, Volume= 90 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.0 cfs @ 12.34 hrs, Volume= 90 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 172.00' @ 0.00 hrs Surf.Area= 250 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.0 min (806.1 - 806.1)

Volume	Invert	Avail.Storage	Storage Description
#1	172.00'	1,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
172.00	250	0	0
173.00	750	500	500
174.00	1,250	1,000	1,500

Device	Routing	Invert	Outlet Devices
#1	Primary	173.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	172.00'	1.0 cfs Exfiltration at all elevations

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Type III 24-hr 1-inch Rainfall=1.00"

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Discarded OutFlow Max=0.0 cfs @ 12.34 hrs HW=172.00' (Free Discharge)↑**2=Exfiltration** (Passes 0.0 cfs of 1.0 cfs potential flow)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=172.00' TW=0.00' (Dynamic Tailwater)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P5.18: Linear Infiltration Basin**

Inflow Area = 458,764 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 173.00' @ 0.00 hrs Surf.Area= 65 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	173.00'	390 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
173.00	65	0	0
174.00	195	130	130
175.00	325	260	390

Device	Routing	Invert	Outlet Devices
#1	Primary	174.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	173.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=0.0 cfs @ 0.00 hrs HW=173.00' (Free Discharge)↑**2=Exfiltration** (Passes 0.0 cfs of 2.4 cfs potential flow)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=173.00' TW=0.00' (Dynamic Tailwater)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Link DP-5.10: Low Point**

Inflow Area = 70,545 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.11: Off-site

Inflow Area = 351,308 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.12: Wetland 44

Inflow Area = 197,575 sf, 0.35% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 12.81 hrs, Volume= 46 cf
Primary = 0.0 cfs @ 12.81 hrs, Volume= 46 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.13: Wetland 44

Inflow Area = 565,150 sf, 0.21% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 12.67 hrs, Volume= 80 cf
Primary = 0.0 cfs @ 12.67 hrs, Volume= 80 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.14: Wetland 44

Inflow Area = 613,766 sf, 0.22% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.15: Wetland 44

Inflow Area = 457,166 sf, 0.14% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 12.42 hrs, Volume= 42 cf
Primary = 0.0 cfs @ 12.42 hrs, Volume= 42 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.16: Off-site Wetland

Inflow Area = 376,345 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.17: Wetland 41&43/Vernal Pool 11&13

Inflow Area = 803,770 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.18: Wetland 42/Vernal Pool 12

Inflow Area = 458,764 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.19: Wetland 40/Vernal Pool 10

Inflow Area = 28,426 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.20: Off-site to Dutton Road

Inflow Area = 54,293 sf, 2.93% Impervious, Inflow Depth = 0.02" for 1-inch event
Inflow = 0.0 cfs @ 12.35 hrs, Volume= 105 cf
Primary = 0.0 cfs @ 12.35 hrs, Volume= 105 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.21: Wetland 39/Vernal Pool 9

Inflow Area = 243,464 sf, 0.32% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 12.26 hrs, Volume= 52 cf
Primary = 0.0 cfs @ 12.26 hrs, Volume= 52 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.6: Wetland 18

Inflow Area = 757,528 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1-inch event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment PR6.10:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.585	39	>75% Grass cover, Good, HSG A
0.093	30	Meadow, non-grazed, HSG A
0.721	98	Paved parking, HSG A
2.506	30	Woods, Good, HSG A
0.007	77	Woods, Good, HSG D
3.911	44	Weighted Average
3.190		81.57% Pervious Area
0.721		18.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.0	50	0.0260	0.04		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
5.9	138	0.0240	0.39		Shallow Concentrated Flow,
					Forest w/Heavy Litter Kv= 2.5 fps
24.9	188	Total			

Summary for Subcatchment PR6.11:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
3,342	39	>75% Grass cover, Good, HSG A
22	30	Meadow, non-grazed, HSG A
855	98	Paved parking, HSG A
29,494	30	Woods, Good, HSG A
33,713	33	Weighted Average
32,857		97.46% Pervious Area
855		2.54% Impervious Area

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

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment PR6.12:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.122	39	>75% Grass cover, Good, HSG A
0.032	30	Meadow, non-grazed, HSG A
0.444	30	Woods, Good, HSG A
0.598	32	Weighted Average
0.598		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	28	0.4000	0.12		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.0	28	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment PR6.13:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.341	39	>75% Grass cover, Good, HSG A
0.188	80	>75% Grass cover, Good, HSG D
0.106	30	Meadow, non-grazed, HSG A
0.255	98	Paved parking, HSG A
0.122	98	Paved parking, HSG D
1.492	30	Woods, Good, HSG A
0.660	77	Woods, Good, HSG D
3.163	52	Weighted Average
2.786		88.08% Pervious Area
0.377		11.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	13	0.1770	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
6.3	40	0.2650	0.11		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.0	53	Total			

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment PR6.14:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.335	80	>75% Grass cover, Good, HSG D
0.085	30	Meadow, non-grazed, HSG A
0.399	98	Paved parking, HSG A
0.274	98	Paved parking, HSG D
1.827	30	Woods, Good, HSG A
0.757	70	Woods, Good, HSG C
1.646	77	Woods, Good, HSG D
5.323	62	Weighted Average
4.650		87.36% Pervious Area
0.673		12.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	50	0.0800	0.12		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
1.8	75	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.9	75	0.0700	1.32		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
2.7	80	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
12.4	280	Total			

Summary for Subcatchment PR6.15:

Runoff = 0.0 cfs @ 12.15 hrs, Volume= 44 cf, Depth= 0.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.000	30	Meadow, non-grazed, HSG A
0.063	98	Paved parking, HSG A
0.015	30	Woods, Good, HSG A
0.079	84	Weighted Average
0.016		20.17% Pervious Area
0.063		79.83% Impervious Area

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Type III 24-hr 1" Rainfall=1.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	41	0.1760	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment PR6.1A:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.000	30	Meadow, non-grazed, HSG A
0.021	98	Paved parking, HSG A
0.093	30	Woods, Good, HSG A
0.114	42	Weighted Average
0.093		81.85% Pervious Area
0.021		18.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.6	78	0.0400	0.50		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.4	25	0.0240	1.08		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
15.1	153	Total			

Summary for Subcatchment PR6.1B:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
8,068	39	>75% Grass cover, Good, HSG A
9,385	30	Meadow, non-grazed, HSG A
685	98	Paved parking, HSG A
9,667	30	Woods, Good, HSG A
27,806	34	Weighted Average
27,120		97.53% Pervious Area
685		2.47% Impervious Area

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Type III 24-hr 1" Rainfall=1.00"

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

Summary for Subcatchment PR6.2:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
7,415	30	Meadow, non-grazed, HSG A
8,450	98	Paved parking, HSG A
25,465	30	Woods, Good, HSG A
41,330	44	Weighted Average
32,880		79.55% Pervious Area
8,450		20.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	50	0.0440	0.05		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
0.6	72	0.1875	2.17		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
16.0	122	Total			

Summary for Subcatchment PR6.3:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.134	98	Paved parking, HSG A
0.616	30	Woods, Good, HSG A
0.750	42	Weighted Average
0.616		82.12% Pervious Area
0.134		17.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.1	50	0.0660	0.06		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
1.6	105	0.0240	1.08		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
14.7	155	Total			

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment PR6.4:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
1.721	39	>75% Grass cover, Good, HSG A
0.624	98	Paved parking, HSG A
0.527	30	Woods, Good, HSG A
2.872	50	Weighted Average
2.249		78.28% Pervious Area
0.624		21.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	50	0.0740	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	36	0.0860	0.73		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
13.3	86	Total			

Summary for Subcatchment PR6.5:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
2.733	39	>75% Grass cover, Good, HSG A
1.189	98	Paved parking, HSG A
12.942	30	Woods, Good, HSG A
16.865	36	Weighted Average
15.675		92.95% Pervious Area
1.189		7.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.1	41	0.0580	0.60		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.8	91	Total			

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment PR6.6A:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
7,275	30	Meadow, non-grazed, HSG A
7,723	98	Paved parking, HSG A
9,121	30	Woods, Good, HSG A
24,118	52	Weighted Average
16,396		67.98% Pervious Area
7,723		32.02% Impervious Area

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

Summary for Subcatchment PR6.6B:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
52,627	39	>75% Grass cover, Good, HSG A
4,923	30	Meadow, non-grazed, HSG A
52,301	98	Paved parking, HSG A
176,510	30	Woods, Good, HSG A
286,361	44	Weighted Average
234,060		81.74% Pervious Area
52,301		18.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	50	0.3000	0.20		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.1	13	0.3000	2.74		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.9	850	0.0120	0.55		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.2	85	0.0590	1.21		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
31.3	998	Total			

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment PR6.7:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
61,773	39	>75% Grass cover, Good, HSG A
10,632	30	Meadow, non-grazed, HSG A
29,284	98	Paved parking, HSG A
203,503	30	Woods, Good, HSG A
305,192	38	Weighted Average
275,908		90.40% Pervious Area
29,284		9.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	50	0.3300	0.12		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	13	0.4500	1.68		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
18.9	848	0.0114	0.75		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.5	86	0.0530	0.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
28.4	997	Total			

Summary for Subcatchment PR6.8:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
45,823	39	>75% Grass cover, Good, HSG A
0	30	Meadow, non-grazed, HSG A
168,373	30	Woods, Good, HSG A
214,195	32	Weighted Average
214,195		100.00% Pervious Area

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Type III 24-hr 1" Rainfall=1.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	44	0.5000	0.14		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
15.2	728	0.0130	0.80		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.6	113	0.0180	0.34		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
26.1	885	Total			

Summary for Subcatchment PR6.9:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
11,274	39	>75% Grass cover, Good, HSG A
1,725	30	Meadow, non-grazed, HSG A
4,683	98	Paved parking, HSG A
21,201	30	Woods, Good, HSG A
38,883	41	Weighted Average
34,200		87.96% Pervious Area
4,683		12.04% Impervious Area

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

Summary for Pond P6.2: Wide Swale

Inflow Area = 41,330 sf, 20.45% Impervious, Inflow Depth = 0.00" for 1" event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 181.50' @ 0.00 hrs Surf.Area= 1,800 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	181.50'	5,464 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

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Type III 24-hr 1" Rainfall=1.00"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
181.50	1,800	0	0
182.50	2,600	2,200	2,200
183.70	2,840	3,264	5,464

Device	Routing	Invert	Outlet Devices
#1	Primary	182.50'	3.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	181.50'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=0.0 cfs @ 0.00 hrs HW=181.50' (Free Discharge)↑**2=Exfiltration** (Passes 0.0 cfs of 2.4 cfs potential flow)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=181.50' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P6.6: Linear Infiltration Basin**

Inflow Area = 310,479 sf, 19.33% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
Discarded = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Peak Elev= 179.00' @ 0.00 hrs Surf.Area= 700 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	179.00'	4,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
179.00	700	0	0
180.00	2,100	1,400	1,400
181.00	3,500	2,800	4,200

Device	Routing	Invert	Outlet Devices
#1	Primary	180.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	179.00'	2.4 cfs Exfiltration at all elevations

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Discarded OutFlow Max=0.0 cfs @ 0.00 hrs HW=179.00' (Free Discharge)↑**2=Exfiltration** (Passes 0.0 cfs of 2.4 cfs potential flow)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=179.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Link DP6.1: Low Point**

Inflow Area = 32,773 sf, 4.84% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.10: Low Point

Inflow Area = 170,377 sf, 18.43% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.11: Wetland/Potential Vernal Pool

Inflow Area = 33,713 sf, 2.54% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.12: Wetland 35/Vernal Pool 8

Inflow Area = 26,051 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.13: Wetland 34

Inflow Area = 137,787 sf, 11.92% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.14: Wetland 33

Inflow Area = 231,878 sf, 12.64% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.15: Low Point

Inflow Area = 3,445 sf, 79.83% Impervious, Inflow Depth = 0.15" for 1" event
Inflow = 0.0 cfs @ 12.15 hrs, Volume= 44 cf
Primary = 0.0 cfs @ 12.15 hrs, Volume= 44 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.2: Dutton

Inflow Area = 41,330 sf, 20.45% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.3: Low Point

Inflow Area = 32,660 sf, 17.88% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.4: Low Point

Inflow Area = 125,115 sf, 21.72% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.5: Low Point

Inflow Area = 734,624 sf, 7.05% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.6: Wetland 38 & 36

Inflow Area = 310,479 sf, 19.33% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.7: Wetland 37

Inflow Area = 305,192 sf, 9.60% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.8: Low Point

Inflow Area = 214,195 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.9: Low Point

Inflow Area = 38,883 sf, 12.04% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

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Summary for Subcatchment PR7.1:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
81,286	39	>75% Grass cover, Good, HSG A
22,055	80	>75% Grass cover, Good, HSG D
5,733	30	Meadow, non-grazed, HSG A
2,202	78	Meadow, non-grazed, HSG D
32,877	98	Paved parking, HSG A
11,938	98	Paved parking, HSG D
20,918	98	Paved roads w/curbs & sewers, HSG A
5,335	98	Paved roads w/curbs & sewers, HSG D
6,152	98	Roofs, HSG A
135,436	30	Woods, Good, HSG A
73,342	77	Woods, Good, HSG D
397,273	57	Weighted Average
320,054		80.56% Pervious Area
77,220		19.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	50	0.0300	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
5.6	270	0.0133	0.81		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.5	51	0.1100	1.66		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.4	371	Total			

Summary for Subcatchment PR7.10:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.105	30	Meadow, non-grazed, HSG A
0.004	98	Paved parking, HSG A
0.153	30	Woods, Good, HSG A
0.262	31	Weighted Average
0.258		98.32% Pervious Area
0.004		1.68% Impervious Area

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Type III 24-hr 1" Rainfall=1.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0400	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.0	30	0.0400	0.50		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.0	80	Total			

Summary for Subcatchment PR7.11:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.624	39	>75% Grass cover, Good, HSG A
0.087	98	Paved parking, HSG A
0.149	98	Paved roads w/curbs & sewers, HSG A
0.038	98	Roofs, HSG A
0.689	30	Woods, Good, HSG A
1.587	45	Weighted Average
1.313		82.71% Pervious Area
0.274		17.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	55	0.1230	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.6	138	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
26.0	406	0.0108	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
41.6	599	Total			

Summary for Subcatchment PR7.12:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

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Type III 24-hr 1" Rainfall=1.00"

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Area (ac)	CN	Description
0.321	39	>75% Grass cover, Good, HSG A
0.084	98	Paved parking, HSG A
0.141	98	Paved roads w/curbs & sewers, HSG A
0.023	98	Roofs, HSG A
0.670	30	Woods, Good, HSG A
1.240	46	Weighted Average
0.991		79.98% Pervious Area
0.248		20.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.7	50	0.0240	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.1	75	0.0147	0.30		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
1.6	94	0.0190	0.96		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.8	62	0.0530	0.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.1	284	0.0020	0.31		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
42.3	565	Total			

Summary for Subcatchment PR7.2:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
7,485	30	Meadow, non-grazed, HSG A
58	78	Meadow, non-grazed, HSG D
2,498	98	Paved parking, HSG A
3,458	98	Paved roads w/curbs & sewers, HSG A
2,942	98	Roofs, HSG A
97,680	30	Woods, Good, HSG A
114,121	35	Weighted Average
105,223		92.20% Pervious Area
8,898		7.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	50	0.0300	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
4.1	223	0.0170	0.91		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.2	16	0.2230	1.18		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
14.6	289	Total			

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment PR7.3:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.826	39	>75% Grass cover, Good, HSG A
0.024	74	>75% Grass cover, Good, HSG C
0.001	30	Meadow, non-grazed, HSG A
0.033	98	Paved parking, HSG A
0.191	98	Paved roads w/curbs & sewers, HSG A
0.044	98	Paved roads w/curbs & sewers, HSG C
0.181	98	Roofs, HSG A
0.001	98	Roofs, HSG C
2.129	30	Woods, Good, HSG A
0.209	70	Woods, Good, HSG C
3.640	43	Weighted Average
3.189		87.62% Pervious Area
0.450		12.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	50	0.0440	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.6	65	0.0769	0.69		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.0570	1.67		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.1	129	Total			

Summary for Subcatchment PR7.4:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

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Type III 24-hr 1" Rainfall=1.00"

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Area (sf)	CN	Description
52,005	39	>75% Grass cover, Good, HSG A
16,421	74	>75% Grass cover, Good, HSG C
1,502	80	>75% Grass cover, Good, HSG D
12	30	Meadow, non-grazed, HSG A
9,660	98	Paved parking, HSG A
5,971	98	Paved parking, HSG C
4,523	98	Paved parking, HSG D
5,581	98	Paved roads w/curbs & sewers, HSG A
2,141	98	Paved roads w/curbs & sewers, HSG C
5,002	98	Paved roads w/curbs & sewers, HSG D
6,874	98	Roofs, HSG A
5,679	98	Roofs, HSG C
105	98	Roofs, HSG D
78,012	30	Woods, Good, HSG A
85,212	70	Woods, Good, HSG C
95,894	77	Woods, Good, HSG D
374,595	63	Weighted Average
329,058		87.84% Pervious Area
45,538		12.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2	50	0.1600	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	80	0.0640	1.77		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
9.2	310	0.0064	0.56		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.7	40	0.0400	1.00		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.2	20	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
20.1	500	Total			

Summary for Subcatchment PR7.5:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

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Type III 24-hr 1" Rainfall=1.00"

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Area (ac)	CN	Description
3.909	39	>75% Grass cover, Good, HSG A
0.638	80	>75% Grass cover, Good, HSG D
0.056	30	Meadow, non-grazed, HSG A
0.098	78	Meadow, non-grazed, HSG D
0.666	98	Paved parking, HSG A
0.079	98	Paved parking, HSG D
1.090	98	Paved roads w/curbs & sewers, HSG A
0.990	98	Roofs, HSG A
0.161	98	Roofs, HSG D
10.494	30	Woods, Good, HSG A
4.899	77	Woods, Good, HSG D
23.079	52	Weighted Average
20.095		87.07% Pervious Area
2.984		12.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.1	145	0.0550	1.17		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.6	75	0.0260	0.81		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
15.8	270	Total			

Summary for Subcatchment PR7.6:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
4,883	30	Meadow, non-grazed, HSG A
6,327	98	Paved parking, HSG A
28,259	30	Woods, Good, HSG A
39,470	41	Weighted Average
33,142		83.97% Pervious Area
6,327		16.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	50	0.0760	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.4	124	0.0600	0.61		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.8	174	Total			

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment PR7.7:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.176	30	Meadow, non-grazed, HSG A
0.470	30	Woods, Good, HSG A
0.646	30	Weighted Average
0.646		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	50	0.1500	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.5	90	0.0290	0.43		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
12.9	140	Total			

Summary for Subcatchment PR7.8:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.287	39	>75% Grass cover, Good, HSG A
0.063	30	Meadow, non-grazed, HSG A
0.120	98	Paved parking, HSG A
0.021	98	Roofs, HSG A
0.784	30	Woods, Good, HSG A
1.274	40	Weighted Average
1.134		88.95% Pervious Area
0.141		11.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	41	0.1390	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
17.8	683	0.0083	0.64		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
10.2	303	0.0389	0.49		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
36.3	1,027	Total			

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment PR7.9:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
1.941	39	>75% Grass cover, Good, HSG A
0.258	98	Paved parking, HSG A
0.216	98	Paved roads w/curbs & sewers, HSG A
0.364	98	Roofs, HSG A
2.961	30	Woods, Good, HSG A
5.740	43	Weighted Average
4.902		85.40% Pervious Area
0.838		14.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	50	0.0220	0.07		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.2	14	0.0360	1.33		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.8	185	0.0454	0.53		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.7	249	Total			

Summary for Pond P7.1: Detention Basin

Inflow Area = 397,273 sf, 19.44% Impervious, Inflow Depth = 0.00" for 1" event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 159.00' @ 0.00 hrs Surf.Area= 120 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	159.00'	1,860 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
159.00	120	0	0
160.00	160	140	140
161.00	380	270	410
162.00	760	570	980
163.00	1,000	880	1,860

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Type III 24-hr 1" Rainfall=1.00"

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Device	Routing	Invert	Outlet Devices
#1	Primary	162.00'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	159.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=0.0 cfs @ 0.00 hrs HW=159.00' (Free Discharge)

↑**2=Exfiltration** (Passes 0.0 cfs of 2.4 cfs potential flow)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=159.00' (Free Discharge)

↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Summary for Pond P7.6: Low Point

Inflow Area = 39,470 sf, 16.03% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
Discarded = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 132.00' @ 0.00 hrs Surf.Area= 250 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	132.00'	6,580 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
132.00	250	0	0
133.00	2,120	1,185	1,185
134.00	2,690	2,405	3,590
135.00	3,290	2,990	6,580

Device	Routing	Invert	Outlet Devices
#1	Primary	134.50'	10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	132.00'	2.4 cfs Exfiltration at all elevations

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Discarded OutFlow Max=0.0 cfs @ 0.00 hrs HW=132.00' (Free Discharge)↑**2=Exfiltration** (Passes 0.0 cfs of 2.4 cfs potential flow)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=132.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P7.8: Low Point**

Inflow Area = 55,516 sf, 11.05% Impervious, Inflow Depth = 0.00" for 1" event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 168.00' @ 0.00 hrs Surf.Area= 300 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	1,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	300	0	0
169.00	750	525	525
170.00	1,200	975	1,500

Device	Routing	Invert	Outlet Devices
#1	Primary	169.00'	10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	168.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=0.0 cfs @ 0.00 hrs HW=168.00' (Free Discharge)↑**2=Exfiltration** (Passes 0.0 cfs of 2.4 cfs potential flow)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=168.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Link DP7.1: Wetland 30**

Inflow Area = 397,273 sf, 19.44% Impervious, Inflow Depth = 0.00" for 1" event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.10: Low Point

Inflow Area = 11,432 sf, 1.68% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.11: Low Point

Inflow Area = 69,139 sf, 17.29% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.12: Low Point

Inflow Area = 53,996 sf, 20.02% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.2: Wetland 32

Inflow Area = 114,121 sf, 7.80% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.3: Low Point

Inflow Area = 158,537 sf, 12.38% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.4: Low Point

Inflow Area = 374,595 sf, 12.16% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Summary for Subcatchment PR8.1:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
1.938	39	>75% Grass cover, Good, HSG A
0.003	80	>75% Grass cover, Good, HSG D
0.127	30	Meadow, non-grazed, HSG A
0.080	78	Meadow, non-grazed, HSG D
1.226	98	Paved parking, HSG A
0.788	98	Paved roads w/curbs & sewers, HSG A
1.177	98	Roofs, HSG A
8.427	30	Woods, Good, HSG A
0.000	70	Woods, Good, HSG C
6.034	77	Woods, Good, HSG D
19.801	56	Weighted Average
16.610		83.88% Pervious Area
3.191		16.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	50	0.0440	0.09		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
4.3	205	0.0127	0.79		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.8	77	0.0770	0.69		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.0	332	Total			

Summary for Subcatchment PR8.10:

Runoff = 0.0 cfs @ 12.52 hrs, Volume= 619 cf, Depth= 0.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.037	30	Meadow, non-grazed, HSG A
1.401	98	Paved parking, HSG A
0.269	98	Paved roads w/curbs & sewers, HSG A
0.775	98	Roofs, HSG A
1.088	30	Woods, Good, HSG A
3.569	77	Weighted Average
1.125		31.53% Pervious Area
2.444		68.47% Impervious Area

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Type III 24-hr 1" Rainfall=1.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	50	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.7	100	0.0200	0.99		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
11.4	150	Total			

Summary for Subcatchment PR8.11:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.013	30	Meadow, non-grazed, HSG A
0.313	98	Paved parking, HSG A
0.028	98	Paved roads w/curbs & sewers, HSG A
0.020	98	Roofs, HSG A
0.554	30	Woods, Good, HSG A
0.928	56	Weighted Average
0.567		61.06% Pervious Area
0.362		38.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.8	50	0.0580	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.6	204	0.0250	0.40		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
22.4	254	Total			

Summary for Subcatchment PR8.2:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

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Type III 24-hr 1" Rainfall=1.00"

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Area (ac)	CN	Description
0.171	30	Meadow, non-grazed, HSG A
0.049	78	Meadow, non-grazed, HSG D
0.309	98	Paved parking, HSG A
0.095	98	Paved parking, HSG D
0.227	98	Paved roads w/curbs & sewers, HSG A
0.058	98	Roofs, HSG A
11.805	30	Woods, Good, HSG A
3.604	77	Woods, Good, HSG D
16.317	43	Weighted Average
15.629		95.78% Pervious Area
0.688		4.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.1	50	0.0160	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
14.6	354	0.0260	0.40		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	404	Total			

Summary for Subcatchment PR8.3A:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.095	30	Meadow, non-grazed, HSG A
0.186	30	Woods, Good, HSG A
0.280	30	Weighted Average
0.280		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	50	0.0720	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
13.0	200	0.0105	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
25.7	250	Total			

Summary for Subcatchment PR8.3b:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

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Type III 24-hr 1" Rainfall=1.00"

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Area (ac)	CN	Description
0.261	39	>75% Grass cover, Good, HSG A
0.491	91	Gravel roads, HSG D
0.268	30	Meadow, non-grazed, HSG A
0.009	58	Meadow, non-grazed, HSG B
0.018	78	Meadow, non-grazed, HSG D
0.517	98	Paved parking, HSG A
0.254	98	Paved roads w/curbs & sewers, HSG A
0.429	98	Roofs, HSG A
7.410	30	Woods, Good, HSG A
0.463	55	Woods, Good, HSG B
5.576	77	Woods, Good, HSG D
15.697	55	Weighted Average
14.496		92.35% Pervious Area
1.201		7.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	50	0.0720	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
13.0	200	0.0105	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
25.7	250	Total			

Summary for Subcatchment PR8.4:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.198	30	Meadow, non-grazed, HSG A
0.011	58	Meadow, non-grazed, HSG B
0.000	78	Meadow, non-grazed, HSG D
0.237	98	Paved parking, HSG A
0.037	98	Paved parking, HSG B
0.005	98	Paved parking, HSG D
0.541	30	Woods, Good, HSG A
0.072	55	Woods, Good, HSG B
1.102	49	Weighted Average
0.823		74.71% Pervious Area
0.279		25.29% Impervious Area

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Type III 24-hr 1" Rainfall=1.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	23	0.1300	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
12.9	27	0.0200	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
6.4	273	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
24.7	323	Total			

Summary for Subcatchment PR8.5A:

Runoff = 0.0 cfs @ 24.08 hrs, Volume= 2 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.198	58	Meadow, non-grazed, HSG B
0.206	98	Paved parking, HSG B
0.312	55	Woods, Good, HSG B
0.715	68	Weighted Average
0.509		71.24% Pervious Area
0.206		28.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.3	48	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
27.8	826	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	40	0.1825	1.07		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	914	Total			

Summary for Subcatchment PR8.5B:

Runoff = 0.0 cfs @ 17.47 hrs, Volume= 99 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

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Type III 24-hr 1" Rainfall=1.00"

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Area (ac)	CN	Description
0.064	58	Meadow, non-grazed, HSG B
0.344	98	Paved parking, HSG A
0.117	98	Paved parking, HSG B
1.314	98	Roofs, HSG A
0.909	30	Woods, Good, HSG A
0.719	55	Woods, Good, HSG B
3.469	71	Weighted Average
1.693		48.80% Pervious Area
1.776		51.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.3	48	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
27.8	826	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	40	0.1825	1.07		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	914	Total			

Summary for Subcatchment PR8.6:

Runoff = 0.0 cfs @ 23.07 hrs, Volume= 201 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.328	89	Gravel roads, HSG C
0.031	91	Gravel roads, HSG D
0.397	58	Meadow, non-grazed, HSG B
0.049	98	Paved parking, HSG A
0.096	98	Paved parking, HSG D
1.239	30	Woods, Good, HSG A
5.319	55	Woods, Good, HSG B
3.260	70	Woods, Good, HSG C
13.989	77	Woods, Good, HSG D
24.708	69	Weighted Average
24.563		99.41% Pervious Area
0.145		0.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	58	0.1400	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
21.0	706	0.0064	0.56		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.7	43	0.1511	0.97		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
32.6	807	Total			

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment PR8.7:

Runoff = 0.0 cfs @ 21.83 hrs, Volume= 13 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.024	58	Meadow, non-grazed, HSG B
0.232	98	Paved parking, HSG A
0.044	98	Paved parking, HSG B
0.104	98	Roofs, HSG A
0.186	30	Woods, Good, HSG A
0.179	55	Woods, Good, HSG B
0.768	70	Weighted Average
0.389		50.60% Pervious Area
0.380		49.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.2	39	0.0205	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
20.5	888	0.0106	0.72		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	37	0.1590	1.00		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
38.3	964	Total			

Summary for Subcatchment PR8.8:

Runoff = 0.0 cfs @ 12.43 hrs, Volume= 333 cf, Depth= 0.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.022	30	Meadow, non-grazed, HSG A
0.057	58	Meadow, non-grazed, HSG B
0.198	98	Paved parking, HSG A
0.339	98	Paved parking, HSG B
0.079	98	Roofs, HSG A
0.053	30	Woods, Good, HSG A
0.189	55	Woods, Good, HSG B
0.937	81	Weighted Average
0.321		34.26% Pervious Area
0.616		65.74% Impervious Area

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Type III 24-hr 1" Rainfall=1.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.6	50	0.0600	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.7	85	0.0150	0.86		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
15.3	135	Total			

Summary for Subcatchment PR8.9:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.019	30	Meadow, non-grazed, HSG A
0.076	58	Meadow, non-grazed, HSG B
0.026	30	Woods, Good, HSG A
0.665	55	Woods, Good, HSG B
0.152	77	Woods, Good, HSG D
0.939	58	Weighted Average
0.939		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	37	0.2050	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
14.1	585	0.0097	0.69		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	153	0.0160	0.32		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
28.8	775	Total			

Summary for Pond P8.10: Low Point

Inflow Area = 155,459 sf, 68.47% Impervious, Inflow Depth = 0.05" for 1" event
 Inflow = 0.0 cfs @ 12.52 hrs, Volume= 619 cf
 Outflow = 0.0 cfs @ 12.53 hrs, Volume= 619 cf, Atten= 0%, Lag= 0.4 min
 Discarded = 0.0 cfs @ 12.53 hrs, Volume= 619 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 133.00' @ 12.53 hrs Surf.Area= 2,936 sf Storage= 1 cf

Plug-Flow detention time= 0.4 min calculated for 619 cf (100% of inflow)
 Center-of-Mass det. time= 0.4 min (1,000.5 - 1,000.1)

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Type III 24-hr 1" Rainfall=1.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	133.00'	9,535 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
133.00	2,935	0	0
134.00	4,745	3,840	3,840
135.00	6,645	5,695	9,535

Device	Routing	Invert	Outlet Devices
#1	Primary	134.60'	25.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	133.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.53 hrs HW=133.00' (Free Discharge)

↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=133.00' (Free Discharge)

↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)

Summary for Pond P8.2: Linear Infiltration Basin

Inflow Area = 710,754 sf, 4.22% Impervious, Inflow Depth = 0.00" for 1" event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 163.00' @ 0.00 hrs Surf.Area= 450 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	163.00'	2,700 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
163.00	450	0	0
164.00	1,350	900	900
165.00	2,250	1,800	2,700

Device	Routing	Invert	Outlet Devices
#1	Primary	164.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68

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Type III 24-hr 1" Rainfall=1.00"

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#2 Discarded 163.00' 2.72 2.81 2.92 2.97 3.07 3.32
2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=0.0 cfs @ 0.00 hrs HW=163.00' (Free Discharge)

↑ **2=Exfiltration** (Passes 0.0 cfs of 2.4 cfs potential flow)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=163.00' (Free Discharge)

↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Summary for Pond P8.3: Linear Infiltration Basin

Inflow Area = 683,751 sf, 7.65% Impervious, Inflow Depth = 0.00" for 1" event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 159.00' @ 0.00 hrs Surf.Area= 700 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	159.00'	8,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
159.00	700	0	0
160.00	2,100	1,400	1,400
161.00	3,500	2,800	4,200
162.00	4,500	4,000	8,200

Device	Routing	Invert	Outlet Devices
#1	Primary	160.50'	30.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	159.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=0.0 cfs @ 0.00 hrs HW=159.00' (Free Discharge)

↑ **2=Exfiltration** (Passes 0.0 cfs of 2.4 cfs potential flow)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=159.00' (Free Discharge)

↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Pond P8.4: Linear Infiltration Basin

Inflow Area = 47,994 sf, 25.29% Impervious, Inflow Depth = 0.00" for 1" event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 160.00' @ 0.00 hrs Surf.Area= 700 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	160.00'	4,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
160.00	700	0	0
161.00	2,100	1,400	1,400
162.00	3,500	2,800	4,200

Device	Routing	Invert	Outlet Devices
#1	Primary	161.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	160.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=0.0 cfs @ 0.00 hrs HW=160.00' (Free Discharge)↑ **2=Exfiltration** (Passes 0.0 cfs of 2.4 cfs potential flow)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=160.00' (Free Discharge)↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P8.5: Linear Infiltration Basin**

Inflow Area = 31,151 sf, 28.76% Impervious, Inflow Depth = 0.00" for 1" event
 Inflow = 0.0 cfs @ 24.08 hrs, Volume= 2 cf
 Outflow = 0.0 cfs @ 24.08 hrs, Volume= 2 cf, Atten= 0%, Lag= 0.1 min
 Discarded = 0.0 cfs @ 24.08 hrs, Volume= 2 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 149.00' @ 24.08 hrs Surf.Area= 900 sf Storage= 0 cf

Plug-Flow detention time= 0.1 min calculated for 2 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (1,357.8 - 1,357.7)

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Type III 24-hr 1" Rainfall=1.00"

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Volume	Invert	Avail.Storage	Storage Description
#1	149.00'	5,400 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
149.00	900	0	0
150.00	2,700	1,800	1,800
151.00	4,500	3,600	5,400

Device	Routing	Invert	Outlet Devices
#1	Primary	150.00'	1.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	149.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 24.08 hrs HW=149.00' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=149.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Pond P8.7: Low Point**

Inflow Area = 33,475 sf, 49.40% Impervious, Inflow Depth = 0.00" for 1" event
 Inflow = 0.0 cfs @ 21.83 hrs, Volume= 13 cf
 Outflow = 0.0 cfs @ 21.83 hrs, Volume= 13 cf, Atten= 0%, Lag= 0.2 min
 Discarded = 0.0 cfs @ 21.83 hrs, Volume= 13 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 135.00' @ 21.83 hrs Surf.Area= 460 sf Storage= 0 cf

Plug-Flow detention time= 0.2 min calculated for 13 cf (100% of inflow)

Center-of-Mass det. time= 0.2 min (1,233.7 - 1,233.5)

Volume	Invert	Avail.Storage	Storage Description
#1	135.00'	2,343 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
135.00	460	0	0
136.00	1,185	823	823
137.00	1,855	1,520	2,343

Device	Routing	Invert	Outlet Devices
#1	Primary	136.80'	5.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31

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Type III 24-hr 1" Rainfall=1.00"

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3.30 3.31 3.32

#2 Discarded 135.00' **1.0 cfs Exfiltration at all elevations**

Discarded OutFlow Max=1.0 cfs @ 21.83 hrs HW=135.00' (Free Discharge)↑ **2=Exfiltration** (Exfiltration Controls 1.0 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=135.00' (Free Discharge)↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Link DP8.1: Wetland 28/29**

Inflow Area = 862,522 sf, 16.12% Impervious, Inflow Depth = 0.00" for 1" event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.10: Low Point

Inflow Area = 155,459 sf, 68.47% Impervious, Inflow Depth = 0.00" for 1" event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.11: Wetland

Inflow Area = 40,442 sf, 38.94% Impervious, Inflow Depth = 0.00" for 1" event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.2: Wetland 27

Inflow Area = 710,754 sf, 4.22% Impervious, Inflow Depth = 0.00" for 1" event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.3: Wetland 25

Inflow Area = 695,957 sf, 7.51% Impervious, Inflow Depth = 0.00" for 1" event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.4: Wetland 24

Inflow Area = 47,994 sf, 25.29% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.5: Low Point

Inflow Area = 182,241 sf, 47.36% Impervious, Inflow Depth = 0.01" for 1" event
Inflow = 0.0 cfs @ 17.47 hrs, Volume= 99 cf
Primary = 0.0 cfs @ 17.47 hrs, Volume= 99 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.6: Wetland 26

Inflow Area = 1,076,276 sf, 0.59% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 23.07 hrs, Volume= 201 cf
Primary = 0.0 cfs @ 23.07 hrs, Volume= 201 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.7: Low Point

Inflow Area = 33,475 sf, 49.40% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.8: Low Point

Inflow Area = 40,804 sf, 65.74% Impervious, Inflow Depth = 0.10" for 1" event
Inflow = 0.0 cfs @ 12.43 hrs, Volume= 333 cf
Primary = 0.0 cfs @ 12.43 hrs, Volume= 333 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.9: Wetland 24A/Vernal Pool 5

Inflow Area = 40,889 sf, 0.00% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment PR10.1:

Runoff = 0.0 cfs @ 12.46 hrs, Volume= 363 cf, Depth= 0.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
2,455	80	>75% Grass cover, Good, HSG D
2,801	78	Meadow, non-grazed, HSG D
6,730	98	Paved parking, HSG D
40,286	77	Woods, Good, HSG D
52,273	80	Weighted Average
45,543		87.13% Pervious Area
6,730		12.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	50	0.1500	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
5.8	175	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
15.2	225	Total			

Summary for Subcatchment PR10.10:

Runoff = 0.0 cfs @ 12.32 hrs, Volume= 25 cf, Depth= 0.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.002	74	>75% Grass cover, Good, HSG C
0.002	80	>75% Grass cover, Good, HSG D
0.002	71	Meadow, non-grazed, HSG C
0.003	78	Meadow, non-grazed, HSG D
0.010	98	Paved parking, HSG C
0.005	98	Paved parking, HSG D
0.007	70	Woods, Good, HSG C
0.054	77	Woods, Good, HSG D
0.084	80	Weighted Average
0.069		81.89% Pervious Area
0.015		18.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	25	0.1000	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment PR10.11:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.005	39	>75% Grass cover, Good, HSG A
0.017	80	>75% Grass cover, Good, HSG D
0.020	30	Meadow, non-grazed, HSG A
0.051	78	Meadow, non-grazed, HSG D
0.044	98	Paved parking, HSG A
0.019	98	Paved parking, HSG D
0.600	30	Woods, Good, HSG A
0.375	77	Woods, Good, HSG D
1.132	52	Weighted Average
1.069		94.43% Pervious Area
0.063		5.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	50	0.1000	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment PR10.12:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.033	39	>75% Grass cover, Good, HSG A
0.026	80	>75% Grass cover, Good, HSG D
0.118	30	Meadow, non-grazed, HSG A
0.032	78	Meadow, non-grazed, HSG D
0.115	98	Paved parking, HSG A
0.107	98	Paved parking, HSG D
0.612	30	Woods, Good, HSG A
0.260	77	Woods, Good, HSG D
1.303	53	Weighted Average
1.081		82.97% Pervious Area
0.222		17.03% Impervious Area

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Type III 24-hr 1" Rainfall=1.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
9.6	500	0.0300	0.87		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
21.7	550	Total			

Summary for Subcatchment PR10.13:

Runoff = 0.0 cfs @ 14.92 hrs, Volume= 230 cf, Depth= 0.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.020	39	>75% Grass cover, Good, HSG A
0.001	80	>75% Grass cover, Good, HSG D
0.095	76	Gravel roads, HSG A
0.241	91	Gravel roads, HSG D
0.117	30	Meadow, non-grazed, HSG A
0.008	78	Meadow, non-grazed, HSG D
0.498	98	Paved parking, HSG A
0.405	98	Paved parking, HSG D
0.448	30	Woods, Good, HSG A
0.252	77	Woods, Good, HSG D
2.087	75	Weighted Average
1.183		56.72% Pervious Area
0.903		43.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
36.8	50	0.0050	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	30	0.5000	3.54		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
42.9	480	Total			

Summary for Subcatchment PR10.14:

Runoff = 0.0 cfs @ 15.36 hrs, Volume= 384 cf, Depth= 0.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

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Type III 24-hr 1" Rainfall=1.00"

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Area (ac)	CN	Description
0.009	39	>75% Grass cover, Good, HSG A
1.250	80	>75% Grass cover, Good, HSG D
0.051	30	Meadow, non-grazed, HSG A
0.094	78	Meadow, non-grazed, HSG D
0.014	98	Paved parking, HSG A
1.424	98	Paved parking, HSG D
1.175	30	Woods, Good, HSG A
2.162	77	Woods, Good, HSG D
6.180	73	Weighted Average
4.742		76.73% Pervious Area
1.438		23.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment PR10.15:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
1.053	39	>75% Grass cover, Good, HSG A
0.023	80	>75% Grass cover, Good, HSG D
0.043	30	Meadow, non-grazed, HSG A
0.050	78	Meadow, non-grazed, HSG D
0.340	98	Paved parking, HSG A
0.075	98	Paved parking, HSG D
2.333	30	Woods, Good, HSG A
0.441	77	Woods, Good, HSG D
4.358	44	Weighted Average
3.943		90.48% Pervious Area
0.415		9.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
10.6	550	0.0300	0.87		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
38.5	600	Total			

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment PR10.2:

Runoff = 0.0 cfs @ 23.02 hrs, Volume= 33 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.802	39	>75% Grass cover, Good, HSG A
0.617	80	>75% Grass cover, Good, HSG D
0.062	78	Meadow, non-grazed, HSG D
0.662	98	Paved parking, HSG A
0.087	98	Paved parking, HSG D
0.401	30	Woods, Good, HSG A
1.445	77	Woods, Good, HSG D
4.075	69	Weighted Average
3.327		81.64% Pervious Area
0.748		18.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.1	50	0.0090	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.5	100	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
30.6	150	Total			

Summary for Subcatchment PR10.3:

Runoff = 0.0 cfs @ 12.70 hrs, Volume= 251 cf, Depth= 0.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.031	80	>75% Grass cover, Good, HSG D
0.141	78	Meadow, non-grazed, HSG D
0.064	98	Paved parking, HSG D
0.750	77	Woods, Good, HSG D
0.985	79	Weighted Average
0.922		93.54% Pervious Area
0.064		6.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.2	50	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
29.1	100	Total			

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment PR10.4:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (sf)	CN	Description
23,148	39	>75% Grass cover, Good, HSG A
8,455	80	>75% Grass cover, Good, HSG D
4,534	78	Meadow, non-grazed, HSG D
21,919	98	Paved parking, HSG A
4,810	98	Paved parking, HSG D
56,906	30	Woods, Good, HSG A
91,545	77	Woods, Good, HSG D
211,318	63	Weighted Average
184,589		87.35% Pervious Area
26,729		12.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.3	175	0.2000	2.24		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
35.2	625	Total			

Summary for Subcatchment PR10.5:

Runoff = 0.0 cfs @ 12.53 hrs, Volume= 177 cf, Depth= 0.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.017	80	>75% Grass cover, Good, HSG D
0.029	78	Meadow, non-grazed, HSG D
0.049	98	Paved parking, HSG D
0.741	77	Woods, Good, HSG D
0.836	78	Weighted Average
0.787		94.16% Pervious Area
0.049		5.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Subcatchment PR10.6:

Runoff = 0.0 cfs @ 22.95 hrs, Volume= 16 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.023	39	>75% Grass cover, Good, HSG A
0.009	74	>75% Grass cover, Good, HSG C
0.056	80	>75% Grass cover, Good, HSG D
0.077	30	Meadow, non-grazed, HSG A
0.019	71	Meadow, non-grazed, HSG C
0.176	78	Meadow, non-grazed, HSG D
0.037	98	Paved parking, HSG A
0.042	98	Paved parking, HSG C
0.150	98	Paved parking, HSG D
0.324	30	Woods, Good, HSG A
0.034	70	Woods, Good, HSG C
0.970	77	Woods, Good, HSG D
1.916	69	Weighted Average
1.687		88.06% Pervious Area
0.229		11.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.4	100	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
23.5	150	Total			

Summary for Subcatchment PR10.7:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.023	39	>75% Grass cover, Good, HSG A
0.013	80	>75% Grass cover, Good, HSG D
0.119	30	Meadow, non-grazed, HSG A
0.060	78	Meadow, non-grazed, HSG D
0.079	98	Paved parking, HSG A
0.039	98	Paved parking, HSG D
1.276	30	Woods, Good, HSG A
0.193	77	Woods, Good, HSG D
1.802	42	Weighted Average
1.684		93.43% Pervious Area
0.118		6.57% Impervious Area

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Type III 24-hr 1" Rainfall=1.00"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.7	50	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.6	60	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.0	160	Total			

Summary for Subcatchment PR10.8:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.211	39	>75% Grass cover, Good, HSG A
0.008	74	>75% Grass cover, Good, HSG C
0.319	80	>75% Grass cover, Good, HSG D
0.011	30	Meadow, non-grazed, HSG A
0.003	71	Meadow, non-grazed, HSG C
0.081	78	Meadow, non-grazed, HSG D
0.096	98	Paved parking, HSG A
0.000	98	Paved parking, HSG C
0.039	98	Paved parking, HSG D
3.008	30	Woods, Good, HSG A
0.027	70	Woods, Good, HSG C
0.308	77	Woods, Good, HSG D
4.110	41	Weighted Average
3.975		96.72% Pervious Area
0.135		3.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
20.7	450	Total			

Summary for Subcatchment PR10.9:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

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Type III 24-hr 1" Rainfall=1.00"

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Area (ac)	CN	Description
0.239	39	>75% Grass cover, Good, HSG A
0.271	74	>75% Grass cover, Good, HSG C
0.151	80	>75% Grass cover, Good, HSG D
0.026	71	Meadow, non-grazed, HSG C
0.013	78	Meadow, non-grazed, HSG D
0.009	98	Paved parking, HSG C
0.013	98	Paved parking, HSG D
0.341	30	Woods, Good, HSG A
1.377	70	Woods, Good, HSG C
0.383	77	Woods, Good, HSG D
2.822	65	Weighted Average
2.801		99.23% Pervious Area
0.022		0.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.2	350	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
29.3	400	Total			

Summary for Subcatchment PR9.1:

Runoff = 0.5 cfs @ 12.42 hrs, Volume= 2,571 cf, Depth= 0.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 1" Rainfall=1.00"

Area (ac)	CN	Description
0.109	80	>75% Grass cover, Good, HSG D
0.184	78	Meadow, non-grazed, HSG D
1.343	98	Paved parking, HSG D
0.575	77	Woods, Good, HSG D
2.211	90	Weighted Average
0.868		39.26% Pervious Area
1.343		60.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0100	0.05		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
11.8	500	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
27.8	550	Total			

Summary for Pond P10.12: Linear Infiltration Basin

Inflow Area = 56,751 sf, 17.03% Impervious, Inflow Depth = 0.00" for 1" event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 137.00' @ 0.00 hrs Surf.Area= 400 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	137.00'	2,400 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
137.00	400	0	0
138.00	1,200	800	800
139.00	2,000	1,600	2,400

Device	Routing	Invert	Outlet Devices
#1	Primary	138.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	137.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=0.0 cfs @ 0.00 hrs HW=137.00' (Free Discharge)

↑ **2=Exfiltration** (Passes 0.0 cfs of 2.4 cfs potential flow)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=137.00' (Free Discharge)

↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Summary for Pond P10.13: Linear Infiltration Basin

Inflow Area = 90,889 sf, 43.28% Impervious, Inflow Depth = 0.03" for 1" event
 Inflow = 0.0 cfs @ 14.92 hrs, Volume= 230 cf
 Outflow = 0.0 cfs @ 14.92 hrs, Volume= 230 cf, Atten= 0%, Lag= 0.1 min
 Discarded = 0.0 cfs @ 14.92 hrs, Volume= 230 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 137.00' @ 14.92 hrs Surf.Area= 400 sf Storage= 0 cf

Plug-Flow detention time= 0.1 min calculated for 229 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (1,069.1 - 1,069.1)

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Volume	Invert	Avail.Storage	Storage Description
#1	137.00'	2,400 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
137.00	400	0	0
138.00	1,200	800	800
139.00	2,000	1,600	2,400

Device	Routing	Invert	Outlet Devices
#1	Primary	137.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	137.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 14.92 hrs HW=137.00' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=137.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Pond P10.7: Linear Infiltration Basin**

Inflow Area = 78,507 sf, 6.57% Impervious, Inflow Depth = 0.00" for 1" event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 128.00' @ 0.00 hrs Surf.Area= 200 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	128.00'	1,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
128.00	200	0	0
129.00	600	400	400
130.00	1,000	800	1,200

Device	Routing	Invert	Outlet Devices
#1	Primary	129.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68

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#2 Discarded 128.00' 2.72 2.81 2.92 2.97 3.07 3.32
2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=0.0 cfs @ 0.00 hrs HW=128.00' (Free Discharge)

↑**2=Exfiltration** (Passes 0.0 cfs of 2.4 cfs potential flow)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=128.00' (Free Discharge)

↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Summary for Link DP-9.1: Station Rd

Inflow Area = 96,332 sf, 60.74% Impervious, Inflow Depth = 0.32" for 1" event
Inflow = 0.5 cfs @ 12.42 hrs, Volume= 2,571 cf
Primary = 0.5 cfs @ 12.42 hrs, Volume= 2,571 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.1: Wetland 18

Inflow Area = 52,273 sf, 12.87% Impervious, Inflow Depth = 0.08" for 1" event
Inflow = 0.0 cfs @ 12.46 hrs, Volume= 363 cf
Primary = 0.0 cfs @ 12.46 hrs, Volume= 363 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.10: Vernal Pool 4

Inflow Area = 3,661 sf, 18.11% Impervious, Inflow Depth = 0.08" for 1" event
Inflow = 0.0 cfs @ 12.32 hrs, Volume= 25 cf
Primary = 0.0 cfs @ 12.32 hrs, Volume= 25 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.11: Stream

Inflow Area = 140,191 sf, 30.02% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.12: Wetland 6

Inflow Area = 56,751 sf, 17.03% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 1" Rainfall=1.00"

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Summary for Link DP10.14: Wetland 3_Vernal Pool 1

Inflow Area = 269,184 sf, 23.27% Impervious, Inflow Depth = 0.02" for 1" event
Inflow = 0.0 cfs @ 15.36 hrs, Volume= 384 cf
Primary = 0.0 cfs @ 15.36 hrs, Volume= 384 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.15: Wetland 4

Inflow Area = 189,840 sf, 9.52% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.2: Wetland 19

Inflow Area = 177,512 sf, 18.36% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 23.02 hrs, Volume= 33 cf
Primary = 0.0 cfs @ 23.02 hrs, Volume= 33 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.3: Wetland 15

Inflow Area = 42,919 sf, 6.46% Impervious, Inflow Depth = 0.07" for 1" event
Inflow = 0.0 cfs @ 12.70 hrs, Volume= 251 cf
Primary = 0.0 cfs @ 12.70 hrs, Volume= 251 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.4: Wetland 16

Inflow Area = 211,318 sf, 12.65% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.5: Wetland 14

Inflow Area = 36,427 sf, 5.84% Impervious, Inflow Depth = 0.06" for 1" event
Inflow = 0.0 cfs @ 12.53 hrs, Volume= 177 cf
Primary = 0.0 cfs @ 12.53 hrs, Volume= 177 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.6: Wetland 12

Inflow Area = 83,475 sf, 11.94% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 22.95 hrs, Volume= 16 cf
Primary = 0.0 cfs @ 22.95 hrs, Volume= 16 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.7: Wetland 13

Inflow Area = 78,507 sf, 6.57% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.8: Wetland 10

Inflow Area = 179,026 sf, 3.28% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.9: Wetland 5_Vernal Pool 2-3

Inflow Area = 122,942 sf, 0.77% Impervious, Inflow Depth = 0.00" for 1" event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

2-Year Storm Event – Proposed

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Type III 24-hr 2-year Rainfall=3.30"

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Summary for Subcatchment PR-5.10:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
1,862	76	Gravel roads, HSG A
68,683	30	Woods, Good, HSG A
70,545	31	Weighted Average
70,545	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
9.1	620	0.0050	1.14		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
30.2	670	Total			

Summary for Subcatchment PR-5.11:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
3,016	76	Gravel roads, HSG A
348,292	30	Woods, Good, HSG A
351,308	30	Weighted Average
351,308	30	100.00% Pervious Area

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

Summary for Subcatchment PR-5.12:

Runoff = 0.0 cfs @ 16.20 hrs, Volume= 870 cf, Depth= 0.05"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

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Type III 24-hr 2-year Rainfall=3.30"

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Area (sf)	CN	Description
628	76	Gravel roads, HSG A
694	98	Water Surface, HSG B
88,212	30	Woods, Good, HSG A
108,041	55	Woods, Good, HSG B
197,575	44	Weighted Average
196,881	44	99.65% Pervious Area
694	98	0.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.2	50	0.0060	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
26.6	2,435	0.0090	1.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	70	0.1300	5.80		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
61.0	2,555	Total			

Summary for Subcatchment PR-5.13:

Runoff = 0.0 cfs @ 12.66 hrs, Volume= 309 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
12,214	76	Gravel roads, HSG A
2,506	85	Gravel roads, HSG B
1,211	98	Water Surface, HSG B
477,972	30	Woods, Good, HSG A
71,247	55	Woods, Good, HSG B
565,150	35	Weighted Average
563,939	34	99.79% Pervious Area
1,211	98	0.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
24.9	2,280	0.0090	1.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	75	0.1200	5.58		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
53.0	2,405	Total			

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Type III 24-hr 2-year Rainfall=3.30"

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Summary for Subcatchment PR-5.14:

Runoff = 0.1 cfs @ 12.34 hrs, Volume= 348 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
5,919	76	Gravel roads, HSG A
1,679	85	Gravel roads, HSG B
1,361	98	Water Surface, HSG B
481,295	30	Woods, Good, HSG A
123,512	55	Woods, Good, HSG B
613,766	36	Weighted Average
612,405	36	99.78% Pervious Area
1,361	98	0.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	50	0.2600	0.11		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
16.7	475	0.0090	0.47		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.4	110	0.0680	1.30		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.7	635	Total			

Summary for Subcatchment PR-5.15:

Runoff = 0.0 cfs @ 12.42 hrs, Volume= 162 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
8	76	Gravel roads, HSG A
633	98	Water Surface, HSG B
352,534	30	Woods, Good, HSG A
103,992	55	Woods, Good, HSG B
457,166	36	Weighted Average
456,533	36	99.86% Pervious Area
633	98	0.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.5	585	0.0180	2.16		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
32.4	635	Total			

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Type III 24-hr 2-year Rainfall=3.30"

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Summary for Subcatchment PR-5.16:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
4	76	Gravel roads, HSG A
376,341	30	Woods, Good, HSG A
376,345	30	Weighted Average
376,345	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.9	27	0.0060	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	105	0.0200	2.28		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.1	34	0.1100	5.34		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
21.8	166	Total			

Summary for Subcatchment PR-5.17:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
571	76	Gravel roads, HSG A
803,198	30	Woods, Good, HSG A
803,770	30	Weighted Average
803,770	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	30	0.1500	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	45	0.1600	6.44		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.4	75	Total			

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Type III 24-hr 2-year Rainfall=3.30"

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Summary for Subcatchment PR-5.18:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
6,238	76	Gravel roads, HSG A
452,526	30	Woods, Good, HSG A
458,764	31	Weighted Average
458,764	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	400	0.0800	1.41		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
4.7	200	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
37.3	650	Total			

Summary for Subcatchment PR-5.19:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
398	76	Gravel roads, HSG A
28,028	30	Woods, Good, HSG A
28,426	31	Weighted Average
28,426	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	50	0.0750	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.5	110	0.0020	0.72		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.1	30	0.1300	5.80		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
15.1	190	Total			

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Type III 24-hr 2-year Rainfall=3.30"

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Summary for Subcatchment PR-5.20:

Runoff = 0.1 cfs @ 12.35 hrs, Volume= 407 cf, Depth= 0.09"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
3,604	76	Gravel roads, HSG A
1,592	98	Paved parking, HSG A
49,097	30	Woods, Good, HSG A
54,293	35	Weighted Average
52,701	33	97.07% Pervious Area
1,592	98	2.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	200	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.8	250	Total			

Summary for Subcatchment PR-5.21:

Runoff = 0.0 cfs @ 12.26 hrs, Volume= 202 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
265	76	Gravel roads, HSG A
789	98	Paved parking, HSG A
242,410	30	Woods, Good, HSG A
243,464	30	Weighted Average
242,675	30	99.68% Pervious Area
789	98	0.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	200	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
19.4	250	Total			

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Type III 24-hr 2-year Rainfall=3.30"

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Summary for Subcatchment PR-5.6:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
1,235	39	>75% Grass cover, Good, HSG A
11,451	76	Gravel roads, HSG A
1,522	85	Gravel roads, HSG B
692,882	30	Woods, Good, HSG A
50,438	55	Woods, Good, HSG B
757,528	32	Weighted Average
757,528	32	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	50	0.0320	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
5.2	750	0.0220	2.39		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
22.7	800	Total			

Summary for Subcatchment PR-5.7:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
2,624	76	Gravel roads, HSG A
208	85	Gravel roads, HSG B
312,019	30	Woods, Good, HSG A
103,451	55	Woods, Good, HSG B
418,303	36	Weighted Average
418,303	36	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	50	0.0250	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.0	200	0.0110	1.69		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
2.1	295	0.0210	2.33		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
23.4	545	Total			

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Type III 24-hr 2-year Rainfall=3.30"

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Summary for Subcatchment PR-5.8:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
27,551	76	Gravel roads, HSG A
1,934,694	30	Woods, Good, HSG A
71,626	55	Woods, Good, HSG B
2,033,871	32	Weighted Average
2,033,871	32	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	165	0.0480	3.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.1	165	0.0230	2.44		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
29.8	380	Total			

Summary for Subcatchment PR-5.9:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.30"

Area (sf)	CN	Description
572	76	Gravel roads, HSG A
183,271	30	Woods, Good, HSG A
183,843	30	Weighted Average
183,843	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	11	0.0100	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.3	8	0.5000	0.10		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.2	323	0.0240	2.49		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
11.8	342	Total			

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Type III 24-hr 2-year Rainfall=3.30"

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Summary for Pond L-5.8: Linear Infiltration Basin

Inflow Area = 2,033,871 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 199.00' @ 0.00 hrs Surf.Area= 200 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	199.00'	1,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
199.00	200	0	0
200.00	600	400	400
201.00	1,000	800	1,200

Device	Routing	Invert	Outlet Devices
#1	Primary	200.00'	5.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	199.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=0.0 cfs @ 0.00 hrs HW=199.00' (Free Discharge)↑ **2=Exfiltration** (Passes 0.0 cfs of 2.4 cfs potential flow)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=199.00' TW=0.00' (Dynamic Tailwater)↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P5.11: Low Point**

Inflow Area = 351,308 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 174.50' @ 0.00 hrs Surf.Area= 5,600 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

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Type III 24-hr 2-year Rainfall=3.30"

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Volume	Invert	Avail.Storage	Storage Description
#1	174.50'	9,900 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
174.50	5,600	0	0
175.00	6,260	2,965	2,965
175.50	6,930	3,298	6,263
176.00	7,620	3,638	9,900

Device	Routing	Invert	Outlet Devices
#1	Primary	175.50'	30.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=174.50' TW=0.00' (Dynamic Tailwater)

↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)

Summary for Pond P5.14: Linear Infiltration Basin

Inflow Area = 613,766 sf, 0.22% Impervious, Inflow Depth = 0.01" for 2-year event
 Inflow = 0.1 cfs @ 12.34 hrs, Volume= 348 cf
 Outflow = 0.1 cfs @ 12.34 hrs, Volume= 348 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.1 cfs @ 12.34 hrs, Volume= 348 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 172.00' @ 0.00 hrs Surf.Area= 250 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.0 min (774.0 - 774.0)

Volume	Invert	Avail.Storage	Storage Description
#1	172.00'	1,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
172.00	250	0	0
173.00	750	500	500
174.00	1,250	1,000	1,500

Device	Routing	Invert	Outlet Devices
#1	Primary	173.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	172.00'	1.0 cfs Exfiltration at all elevations

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Discarded OutFlow Max=0.0 cfs @ 12.34 hrs HW=172.00' (Free Discharge)↑**2=Exfiltration** (Passes 0.0 cfs of 1.0 cfs potential flow)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=172.00' TW=0.00' (Dynamic Tailwater)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P5.18: Linear Infiltration Basin**

Inflow Area = 458,764 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 173.00' @ 0.00 hrs Surf.Area= 65 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	173.00'	390 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
173.00	65	0	0
174.00	195	130	130
175.00	325	260	390

Device	Routing	Invert	Outlet Devices
#1	Primary	174.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	173.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=0.0 cfs @ 0.00 hrs HW=173.00' (Free Discharge)↑**2=Exfiltration** (Passes 0.0 cfs of 2.4 cfs potential flow)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=173.00' TW=0.00' (Dynamic Tailwater)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Link DP-5.10: Low Point**

Inflow Area = 70,545 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.11: Off-site

Inflow Area = 351,308 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.12: Wetland 44

Inflow Area = 197,575 sf, 0.35% Impervious, Inflow Depth = 0.05" for 2-year event
Inflow = 0.0 cfs @ 16.20 hrs, Volume= 870 cf
Primary = 0.0 cfs @ 16.20 hrs, Volume= 870 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.13: Wetland 44

Inflow Area = 565,150 sf, 0.21% Impervious, Inflow Depth = 0.01" for 2-year event
Inflow = 0.0 cfs @ 12.66 hrs, Volume= 309 cf
Primary = 0.0 cfs @ 12.66 hrs, Volume= 309 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.14: Wetland 44

Inflow Area = 613,766 sf, 0.22% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.15: Wetland 44

Inflow Area = 457,166 sf, 0.14% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 12.42 hrs, Volume= 162 cf
Primary = 0.0 cfs @ 12.42 hrs, Volume= 162 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.16: Off-site Wetland

Inflow Area = 376,345 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.17: Wetland 41&43/Vernal Pool 11&13

Inflow Area = 803,770 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.18: Wetland 42/Vernal Pool 12

Inflow Area = 458,764 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.19: Wetland 40/Vernal Pool 10

Inflow Area = 28,426 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.20: Off-site to Dutton Road

Inflow Area = 54,293 sf, 2.93% Impervious, Inflow Depth = 0.09" for 2-year event
Inflow = 0.1 cfs @ 12.35 hrs, Volume= 407 cf
Primary = 0.1 cfs @ 12.35 hrs, Volume= 407 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.21: Wetland 39/Vernal Pool 9

Inflow Area = 243,464 sf, 0.32% Impervious, Inflow Depth = 0.01" for 2-year event
Inflow = 0.0 cfs @ 12.26 hrs, Volume= 202 cf
Primary = 0.0 cfs @ 12.26 hrs, Volume= 202 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.6: Wetland 18

Inflow Area = 757,528 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Summary for Link DP-5.7: Wetland 19

Inflow Area = 418,303 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.8: Wetland 45

Inflow Area = 2,033,871 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.9: Low Point

Inflow Area = 183,843 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment PR6.10:

Runoff = 0.0 cfs @ 15.73 hrs, Volume= 600 cf, Depth= 0.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.585	39	>75% Grass cover, Good, HSG A
0.093	30	Meadow, non-grazed, HSG A
0.721	98	Paved parking, HSG A
2.506	30	Woods, Good, HSG A
0.007	77	Woods, Good, HSG D
3.911	44	Weighted Average
3.190		81.57% Pervious Area
0.721		18.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.0	50	0.0260	0.04		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
5.9	138	0.0240	0.39		Shallow Concentrated Flow,
					Forest w/Heavy Litter Kv= 2.5 fps
24.9	188	Total			

Summary for Subcatchment PR6.11:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
3,342	39	>75% Grass cover, Good, HSG A
22	30	Meadow, non-grazed, HSG A
855	98	Paved parking, HSG A
29,494	30	Woods, Good, HSG A
33,713	33	Weighted Average
32,857		97.46% Pervious Area
855		2.54% Impervious Area

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

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment PR6.12:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.122	39	>75% Grass cover, Good, HSG A
0.032	30	Meadow, non-grazed, HSG A
0.444	30	Woods, Good, HSG A
0.598	32	Weighted Average
0.598		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	28	0.4000	0.12		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.0	28	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment PR6.13:

Runoff = 0.2 cfs @ 12.42 hrs, Volume= 2,271 cf, Depth= 0.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.341	39	>75% Grass cover, Good, HSG A
0.188	80	>75% Grass cover, Good, HSG D
0.106	30	Meadow, non-grazed, HSG A
0.255	98	Paved parking, HSG A
0.122	98	Paved parking, HSG D
1.492	30	Woods, Good, HSG A
0.660	77	Woods, Good, HSG D
3.163	52	Weighted Average
2.786		88.08% Pervious Area
0.377		11.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	13	0.1770	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
6.3	40	0.2650	0.11		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.0	53	Total			

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment PR6.14:

Runoff = 1.8 cfs @ 12.22 hrs, Volume= 10,134 cf, Depth= 0.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.335	80	>75% Grass cover, Good, HSG D
0.085	30	Meadow, non-grazed, HSG A
0.399	98	Paved parking, HSG A
0.274	98	Paved parking, HSG D
1.827	30	Woods, Good, HSG A
0.757	70	Woods, Good, HSG C
1.646	77	Woods, Good, HSG D
5.323	62	Weighted Average
4.650		87.36% Pervious Area
0.673		12.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	50	0.0800	0.12		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
1.8	75	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.9	75	0.0700	1.32		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
2.7	80	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
12.4	280	Total			

Summary for Subcatchment PR6.15:

Runoff = 0.2 cfs @ 12.11 hrs, Volume= 507 cf, Depth= 1.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.000	30	Meadow, non-grazed, HSG A
0.063	98	Paved parking, HSG A
0.015	30	Woods, Good, HSG A
0.079	84	Weighted Average
0.016		20.17% Pervious Area
0.063		79.83% Impervious Area

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Type III 24-hr 2-yr Rainfall=3.30"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	41	0.1760	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment PR6.1A:

Runoff = 0.0 cfs @ 20.90 hrs, Volume= 8 cf, Depth= 0.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.000	30	Meadow, non-grazed, HSG A
0.021	98	Paved parking, HSG A
0.093	30	Woods, Good, HSG A
0.114	42	Weighted Average
0.093		81.85% Pervious Area
0.021		18.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.6	78	0.0400	0.50		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.4	25	0.0240	1.08		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
15.1	153	Total			

Summary for Subcatchment PR6.1B:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
8,068	39	>75% Grass cover, Good, HSG A
9,385	30	Meadow, non-grazed, HSG A
685	98	Paved parking, HSG A
9,667	30	Woods, Good, HSG A
27,806	34	Weighted Average
27,120		97.53% Pervious Area
685		2.47% Impervious Area

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Type III 24-hr 2-yr Rainfall=3.30"

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

Summary for Subcatchment PR6.2:

Runoff = 0.0 cfs @ 15.59 hrs, Volume= 145 cf, Depth= 0.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
7,415	30	Meadow, non-grazed, HSG A
8,450	98	Paved parking, HSG A
25,465	30	Woods, Good, HSG A
41,330	44	Weighted Average
32,880		79.55% Pervious Area
8,450		20.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	50	0.0440	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.6	72	0.1875	2.17		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.0	122	Total			

Summary for Subcatchment PR6.3:

Runoff = 0.0 cfs @ 20.89 hrs, Volume= 55 cf, Depth= 0.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.134	98	Paved parking, HSG A
0.616	30	Woods, Good, HSG A
0.750	42	Weighted Average
0.616		82.12% Pervious Area
0.134		17.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.1	50	0.0660	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.6	105	0.0240	1.08		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
14.7	155	Total			

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment PR6.4:

Runoff = 0.1 cfs @ 12.56 hrs, Volume= 1,559 cf, Depth= 0.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
1.721	39	>75% Grass cover, Good, HSG A
0.624	98	Paved parking, HSG A
0.527	30	Woods, Good, HSG A
2.872	50	Weighted Average
2.249		78.28% Pervious Area
0.624		21.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	50	0.0740	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	36	0.0860	0.73		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
13.3	86	Total			

Summary for Subcatchment PR6.5:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
2.733	39	>75% Grass cover, Good, HSG A
1.189	98	Paved parking, HSG A
12.942	30	Woods, Good, HSG A
16.865	36	Weighted Average
15.675		92.95% Pervious Area
1.189		7.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.1	41	0.0580	0.60		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.8	91	Total			

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment PR6.6A:

Runoff = 0.0 cfs @ 12.78 hrs, Volume= 398 cf, Depth= 0.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
7,275	30	Meadow, non-grazed, HSG A
7,723	98	Paved parking, HSG A
9,121	30	Woods, Good, HSG A
24,118	52	Weighted Average
16,396		67.98% Pervious Area
7,723		32.02% Impervious Area

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

Summary for Subcatchment PR6.6B:

Runoff = 0.0 cfs @ 15.83 hrs, Volume= 1,008 cf, Depth= 0.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
52,627	39	>75% Grass cover, Good, HSG A
4,923	30	Meadow, non-grazed, HSG A
52,301	98	Paved parking, HSG A
176,510	30	Woods, Good, HSG A
286,361	44	Weighted Average
234,060		81.74% Pervious Area
52,301		18.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	50	0.3000	0.20		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.1	13	0.3000	2.74		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.9	850	0.0120	0.55		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.2	85	0.0590	1.21		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
31.3	998	Total			

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment PR6.7:

Runoff = 0.0 cfs @ 24.15 hrs, Volume= 2 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
61,773	39	>75% Grass cover, Good, HSG A
10,632	30	Meadow, non-grazed, HSG A
29,284	98	Paved parking, HSG A
203,503	30	Woods, Good, HSG A
305,192	38	Weighted Average
275,908		90.40% Pervious Area
29,284		9.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	50	0.3300	0.12		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	13	0.4500	1.68		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
18.9	848	0.0114	0.75		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.5	86	0.0530	0.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
28.4	997	Total			

Summary for Subcatchment PR6.8:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
45,823	39	>75% Grass cover, Good, HSG A
0	30	Meadow, non-grazed, HSG A
168,373	30	Woods, Good, HSG A
214,195	32	Weighted Average
214,195		100.00% Pervious Area

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Type III 24-hr 2-yr Rainfall=3.30"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	44	0.5000	0.14		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
15.2	728	0.0130	0.80		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.6	113	0.0180	0.34		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
26.1	885	Total			

Summary for Subcatchment PR6.9:

Runoff = 0.0 cfs @ 21.80 hrs, Volume= 39 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
11,274	39	>75% Grass cover, Good, HSG A
1,725	30	Meadow, non-grazed, HSG A
4,683	98	Paved parking, HSG A
21,201	30	Woods, Good, HSG A
38,883	41	Weighted Average
34,200		87.96% Pervious Area
4,683		12.04% Impervious Area

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

Summary for Pond P6.2: Wide Swale

Inflow Area = 41,330 sf, 20.45% Impervious, Inflow Depth = 0.04" for 2-yr event
 Inflow = 0.0 cfs @ 15.59 hrs, Volume= 145 cf
 Outflow = 0.0 cfs @ 15.59 hrs, Volume= 145 cf, Atten= 0%, Lag= 0.1 min
 Discarded = 0.0 cfs @ 15.59 hrs, Volume= 145 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 181.50' @ 15.59 hrs Surf.Area= 1,800 sf Storage= 0 cf

Plug-Flow detention time= 0.3 min calculated for 145 cf (100% of inflow)
 Center-of-Mass det. time= 0.3 min (1,123.1 - 1,122.9)

Volume	Invert	Avail.Storage	Storage Description
#1	181.50'	5,464 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

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Type III 24-hr 2-yr Rainfall=3.30"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
181.50	1,800	0	0
182.50	2,600	2,200	2,200
183.70	2,840	3,264	5,464

Device	Routing	Invert	Outlet Devices
#1	Primary	182.50'	3.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	181.50'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 15.59 hrs HW=181.50' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=181.50' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P6.6: Linear Infiltration Basin**

Inflow Area = 310,479 sf, 19.33% Impervious, Inflow Depth = 0.05" for 2-yr event
Inflow = 0.0 cfs @ 15.61 hrs, Volume= 1,405 cf
Outflow = 0.0 cfs @ 15.61 hrs, Volume= 1,405 cf, Atten= 0%, Lag= 0.1 min
Discarded = 0.0 cfs @ 15.61 hrs, Volume= 1,405 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Peak Elev= 179.00' @ 15.61 hrs Surf.Area= 701 sf Storage= 0 cf

Plug-Flow detention time= 0.1 min calculated for 1,403 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (1,098.3 - 1,098.3)

Volume	Invert	Avail.Storage	Storage Description
#1	179.00'	4,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
179.00	700	0	0
180.00	2,100	1,400	1,400
181.00	3,500	2,800	4,200

Device	Routing	Invert	Outlet Devices
#1	Primary	180.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	179.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 15.61 hrs HW=179.00' (Free Discharge)

↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=179.00' (Free Discharge)

↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)

Summary for Link DP6.1: Low Point

Inflow Area = 32,773 sf, 4.84% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 20.90 hrs, Volume= 8 cf
Primary = 0.0 cfs @ 20.90 hrs, Volume= 8 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.10: Low Point

Inflow Area = 170,377 sf, 18.43% Impervious, Inflow Depth = 0.04" for 2-yr event
Inflow = 0.0 cfs @ 15.73 hrs, Volume= 600 cf
Primary = 0.0 cfs @ 15.73 hrs, Volume= 600 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.11: Wetland/Potential Vernal Pool

Inflow Area = 33,713 sf, 2.54% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.12: Wetland 35/Vernal Pool 8

Inflow Area = 26,051 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.13: Wetland 34

Inflow Area = 137,787 sf, 11.92% Impervious, Inflow Depth = 0.20" for 2-yr event
Inflow = 0.2 cfs @ 12.42 hrs, Volume= 2,271 cf
Primary = 0.2 cfs @ 12.42 hrs, Volume= 2,271 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.14: Wetland 33

Inflow Area = 231,878 sf, 12.64% Impervious, Inflow Depth = 0.52" for 2-yr event
Inflow = 1.8 cfs @ 12.22 hrs, Volume= 10,134 cf
Primary = 1.8 cfs @ 12.22 hrs, Volume= 10,134 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.15: Low Point

Inflow Area = 3,445 sf, 79.83% Impervious, Inflow Depth = 1.77" for 2-yr event
Inflow = 0.2 cfs @ 12.11 hrs, Volume= 507 cf
Primary = 0.2 cfs @ 12.11 hrs, Volume= 507 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.2: Dutton

Inflow Area = 41,330 sf, 20.45% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.3: Low Point

Inflow Area = 32,660 sf, 17.88% Impervious, Inflow Depth = 0.02" for 2-yr event
Inflow = 0.0 cfs @ 20.89 hrs, Volume= 55 cf
Primary = 0.0 cfs @ 20.89 hrs, Volume= 55 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.4: Low Point

Inflow Area = 125,115 sf, 21.72% Impervious, Inflow Depth = 0.15" for 2-yr event
Inflow = 0.1 cfs @ 12.56 hrs, Volume= 1,559 cf
Primary = 0.1 cfs @ 12.56 hrs, Volume= 1,559 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.5: Low Point

Inflow Area = 734,624 sf, 7.05% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.6: Wetland 38 & 36

Inflow Area = 310,479 sf, 19.33% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.7: Wetland 37

Inflow Area = 305,192 sf, 9.60% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 24.15 hrs, Volume= 2 cf
Primary = 0.0 cfs @ 24.15 hrs, Volume= 2 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.8: Low Point

Inflow Area = 214,195 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.9: Low Point

Inflow Area = 38,883 sf, 12.04% Impervious, Inflow Depth = 0.01" for 2-yr event
Inflow = 0.0 cfs @ 21.80 hrs, Volume= 39 cf
Primary = 0.0 cfs @ 21.80 hrs, Volume= 39 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment PR7.1:

Runoff = 1.4 cfs @ 12.43 hrs, Volume= 11,379 cf, Depth= 0.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
81,286	39	>75% Grass cover, Good, HSG A
22,055	80	>75% Grass cover, Good, HSG D
5,733	30	Meadow, non-grazed, HSG A
2,202	78	Meadow, non-grazed, HSG D
32,877	98	Paved parking, HSG A
11,938	98	Paved parking, HSG D
20,918	98	Paved roads w/curbs & sewers, HSG A
5,335	98	Paved roads w/curbs & sewers, HSG D
6,152	98	Roofs, HSG A
135,436	30	Woods, Good, HSG A
73,342	77	Woods, Good, HSG D
397,273	57	Weighted Average
320,054		80.56% Pervious Area
77,220		19.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	50	0.0300	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
5.6	270	0.0133	0.81		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.5	51	0.1100	1.66		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.4	371	Total			

Summary for Subcatchment PR7.10:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.105	30	Meadow, non-grazed, HSG A
0.004	98	Paved parking, HSG A
0.153	30	Woods, Good, HSG A
0.262	31	Weighted Average
0.258		98.32% Pervious Area
0.004		1.68% Impervious Area

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Type III 24-hr 2-yr Rainfall=3.30"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0400	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.0	30	0.0400	0.50		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.0	80	Total			

Summary for Subcatchment PR7.11:

Runoff = 0.0 cfs @ 15.67 hrs, Volume= 322 cf, Depth= 0.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.624	39	>75% Grass cover, Good, HSG A
0.087	98	Paved parking, HSG A
0.149	98	Paved roads w/curbs & sewers, HSG A
0.038	98	Roofs, HSG A
0.689	30	Woods, Good, HSG A
1.587	45	Weighted Average
1.313		82.71% Pervious Area
0.274		17.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	55	0.1230	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.6	138	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
26.0	406	0.0108	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
41.6	599	Total			

Summary for Subcatchment PR7.12:

Runoff = 0.0 cfs @ 15.37 hrs, Volume= 321 cf, Depth= 0.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

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Type III 24-hr 2-yr Rainfall=3.30"

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Area (ac)	CN	Description
0.321	39	>75% Grass cover, Good, HSG A
0.084	98	Paved parking, HSG A
0.141	98	Paved roads w/curbs & sewers, HSG A
0.023	98	Roofs, HSG A
0.670	30	Woods, Good, HSG A
1.240	46	Weighted Average
0.991		79.98% Pervious Area
0.248		20.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.7	50	0.0240	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.1	75	0.0147	0.30		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
1.6	94	0.0190	0.96		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.8	62	0.0530	0.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.1	284	0.0020	0.31		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
42.3	565	Total			

Summary for Subcatchment PR7.2:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
7,485	30	Meadow, non-grazed, HSG A
58	78	Meadow, non-grazed, HSG D
2,498	98	Paved parking, HSG A
3,458	98	Paved roads w/curbs & sewers, HSG A
2,942	98	Roofs, HSG A
97,680	30	Woods, Good, HSG A
114,121	35	Weighted Average
105,223		92.20% Pervious Area
8,898		7.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	50	0.0300	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
4.1	223	0.0170	0.91		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.2	16	0.2230	1.18		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
14.6	289	Total			

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment PR7.3:

Runoff = 0.0 cfs @ 16.93 hrs, Volume= 400 cf, Depth= 0.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.826	39	>75% Grass cover, Good, HSG A
0.024	74	>75% Grass cover, Good, HSG C
0.001	30	Meadow, non-grazed, HSG A
0.033	98	Paved parking, HSG A
0.191	98	Paved roads w/curbs & sewers, HSG A
0.044	98	Paved roads w/curbs & sewers, HSG C
0.181	98	Roofs, HSG A
0.001	98	Roofs, HSG C
2.129	30	Woods, Good, HSG A
0.209	70	Woods, Good, HSG C
3.640	43	Weighted Average
3.189		87.62% Pervious Area
0.450		12.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	50	0.0440	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.6	65	0.0769	0.69		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.0570	1.67		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.1	129	Total			

Summary for Subcatchment PR7.4:

Runoff = 2.9 cfs @ 12.35 hrs, Volume= 17,630 cf, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

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Type III 24-hr 2-yr Rainfall=3.30"

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Area (sf)	CN	Description
52,005	39	>75% Grass cover, Good, HSG A
16,421	74	>75% Grass cover, Good, HSG C
1,502	80	>75% Grass cover, Good, HSG D
12	30	Meadow, non-grazed, HSG A
9,660	98	Paved parking, HSG A
5,971	98	Paved parking, HSG C
4,523	98	Paved parking, HSG D
5,581	98	Paved roads w/curbs & sewers, HSG A
2,141	98	Paved roads w/curbs & sewers, HSG C
5,002	98	Paved roads w/curbs & sewers, HSG D
6,874	98	Roofs, HSG A
5,679	98	Roofs, HSG C
105	98	Roofs, HSG D
78,012	30	Woods, Good, HSG A
85,212	70	Woods, Good, HSG C
95,894	77	Woods, Good, HSG D
374,595	63	Weighted Average
329,058		87.84% Pervious Area
45,538		12.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2	50	0.1600	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	80	0.0640	1.77		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
9.2	310	0.0064	0.56		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.7	40	0.0400	1.00		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.2	20	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
20.1	500	Total			

Summary for Subcatchment PR7.5:

Runoff = 1.3 cfs @ 12.54 hrs, Volume= 16,573 cf, Depth= 0.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

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Type III 24-hr 2-yr Rainfall=3.30"

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Area (ac)	CN	Description
3.909	39	>75% Grass cover, Good, HSG A
0.638	80	>75% Grass cover, Good, HSG D
0.056	30	Meadow, non-grazed, HSG A
0.098	78	Meadow, non-grazed, HSG D
0.666	98	Paved parking, HSG A
0.079	98	Paved parking, HSG D
1.090	98	Paved roads w/curbs & sewers, HSG A
0.990	98	Roofs, HSG A
0.161	98	Roofs, HSG D
10.494	30	Woods, Good, HSG A
4.899	77	Woods, Good, HSG D
23.079	52	Weighted Average
20.095		87.07% Pervious Area
2.984		12.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.1	145	0.0550	1.17		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.6	75	0.0260	0.81		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
15.8	270	Total			

Summary for Subcatchment PR7.6:

Runoff = 0.0 cfs @ 21.96 hrs, Volume= 40 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
4,883	30	Meadow, non-grazed, HSG A
6,327	98	Paved parking, HSG A
28,259	30	Woods, Good, HSG A
39,470	41	Weighted Average
33,142		83.97% Pervious Area
6,327		16.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	50	0.0760	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.4	124	0.0600	0.61		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.8	174	Total			

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment PR7.7:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.176	30	Meadow, non-grazed, HSG A
0.470	30	Woods, Good, HSG A
0.646	30	Weighted Average
0.646		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	50	0.1500	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.5	90	0.0290	0.43		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
12.9	140	Total			

Summary for Subcatchment PR7.8:

Runoff = 0.0 cfs @ 23.51 hrs, Volume= 27 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.287	39	>75% Grass cover, Good, HSG A
0.063	30	Meadow, non-grazed, HSG A
0.120	98	Paved parking, HSG A
0.021	98	Roofs, HSG A
0.784	30	Woods, Good, HSG A
1.274	40	Weighted Average
1.134		88.95% Pervious Area
0.141		11.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	41	0.1390	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
17.8	683	0.0083	0.64		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
10.2	303	0.0389	0.49		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
36.3	1,027	Total			

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment PR7.9:

Runoff = 0.0 cfs @ 16.97 hrs, Volume= 631 cf, Depth= 0.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
1.941	39	>75% Grass cover, Good, HSG A
0.258	98	Paved parking, HSG A
0.216	98	Paved roads w/curbs & sewers, HSG A
0.364	98	Roofs, HSG A
2.961	30	Woods, Good, HSG A
5.740	43	Weighted Average
4.902		85.40% Pervious Area
0.838		14.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	50	0.0220	0.07		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.2	14	0.0360	1.33		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.8	185	0.0454	0.53		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.7	249	Total			

Summary for Pond P7.1: Detention Basin

Inflow Area = 397,273 sf, 19.44% Impervious, Inflow Depth = 0.34" for 2-yr event
 Inflow = 1.4 cfs @ 12.43 hrs, Volume= 11,379 cf
 Outflow = 1.4 cfs @ 12.43 hrs, Volume= 11,379 cf, Atten= 0%, Lag= 0.1 min
 Discarded = 1.4 cfs @ 12.43 hrs, Volume= 11,379 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 159.02' @ 12.43 hrs Surf.Area= 121 sf Storage= 3 cf

Plug-Flow detention time= 0.0 min calculated for 11,377 cf (100% of inflow)
 Center-of-Mass det. time= 0.0 min (944.1 - 944.1)

Volume	Invert	Avail.Storage	Storage Description
#1	159.00'	1,860 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
159.00	120	0	0
160.00	160	140	140
161.00	380	270	410
162.00	760	570	980
163.00	1,000	880	1,860

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Type III 24-hr 2-yr Rainfall=3.30"

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Device	Routing	Invert	Outlet Devices
#1	Primary	162.00'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	159.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.43 hrs HW=159.02' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=159.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P7.6: Low Point**

Inflow Area = 39,470 sf, 16.03% Impervious, Inflow Depth = 0.01" for 2-yr event
Inflow = 0.0 cfs @ 21.96 hrs, Volume= 40 cf
Outflow = 0.0 cfs @ 21.93 hrs, Volume= 40 cf, Atten= 0%, Lag= 0.0 min
Discarded = 0.0 cfs @ 21.93 hrs, Volume= 40 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 132.00' @ 21.93 hrs Surf.Area= 250 sf Storage= 0 cf

Plug-Flow detention time= 0.1 min calculated for 40 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (1,231.9 - 1,231.9)

Volume	Invert	Avail.Storage	Storage Description
#1	132.00'	6,580 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
132.00	250	0	0
133.00	2,120	1,185	1,185
134.00	2,690	2,405	3,590
135.00	3,290	2,990	6,580

Device	Routing	Invert	Outlet Devices
#1	Primary	134.50'	10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	132.00'	2.4 cfs Exfiltration at all elevations

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Type III 24-hr 2-yr Rainfall=3.30"

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Discarded OutFlow Max=2.4 cfs @ 21.93 hrs HW=132.00' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=132.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Pond P7.8: Low Point**

Inflow Area = 55,516 sf, 11.05% Impervious, Inflow Depth = 0.01" for 2-yr event
 Inflow = 0.0 cfs @ 23.51 hrs, Volume= 27 cf
 Outflow = 0.0 cfs @ 23.52 hrs, Volume= 27 cf, Atten= 0%, Lag= 0.1 min
 Discarded = 0.0 cfs @ 23.52 hrs, Volume= 27 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 168.00' @ 23.52 hrs Surf.Area= 300 sf Storage= 0 cf

Plug-Flow detention time= 0.0 min calculated for 27 cf (100% of inflow)

Center-of-Mass det. time= 0.0 min (1,303.8 - 1,303.8)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	1,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	300	0	0
169.00	750	525	525
170.00	1,200	975	1,500

Device	Routing	Invert	Outlet Devices
#1	Primary	169.00'	10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	168.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 23.52 hrs HW=168.00' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=168.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Link DP7.1: Wetland 30**

Inflow Area = 397,273 sf, 19.44% Impervious, Inflow Depth = 0.00" for 2-yr event
 Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.10: Low Point

Inflow Area = 11,432 sf, 1.68% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.11: Low Point

Inflow Area = 69,139 sf, 17.29% Impervious, Inflow Depth = 0.06" for 2-yr event
Inflow = 0.0 cfs @ 15.67 hrs, Volume= 322 cf
Primary = 0.0 cfs @ 15.67 hrs, Volume= 322 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.12: Low Point

Inflow Area = 53,996 sf, 20.02% Impervious, Inflow Depth = 0.07" for 2-yr event
Inflow = 0.0 cfs @ 15.37 hrs, Volume= 321 cf
Primary = 0.0 cfs @ 15.37 hrs, Volume= 321 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.2: Wetland 32

Inflow Area = 114,121 sf, 7.80% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.3: Low Point

Inflow Area = 158,537 sf, 12.38% Impervious, Inflow Depth = 0.03" for 2-yr event
Inflow = 0.0 cfs @ 16.93 hrs, Volume= 400 cf
Primary = 0.0 cfs @ 16.93 hrs, Volume= 400 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.4: Low Point

Inflow Area = 374,595 sf, 12.16% Impervious, Inflow Depth = 0.56" for 2-yr event
Inflow = 2.9 cfs @ 12.35 hrs, Volume= 17,630 cf
Primary = 2.9 cfs @ 12.35 hrs, Volume= 17,630 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.5: Wetland 31

Inflow Area = 1,005,327 sf, 12.93% Impervious, Inflow Depth = 0.20" for 2-yr event
Inflow = 1.3 cfs @ 12.54 hrs, Volume= 16,573 cf
Primary = 1.3 cfs @ 12.54 hrs, Volume= 16,573 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.6: Low Point

Inflow Area = 39,470 sf, 16.03% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.7: Low Point

Inflow Area = 28,139 sf, 0.00% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.8: Low Point

Inflow Area = 55,516 sf, 11.05% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.9: Low Point

Inflow Area = 250,025 sf, 14.60% Impervious, Inflow Depth = 0.03" for 2-yr event
Inflow = 0.0 cfs @ 16.97 hrs, Volume= 631 cf
Primary = 0.0 cfs @ 16.97 hrs, Volume= 631 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment PR8.1:

Runoff = 2.6 cfs @ 12.43 hrs, Volume= 22,405 cf, Depth= 0.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
1.938	39	>75% Grass cover, Good, HSG A
0.003	80	>75% Grass cover, Good, HSG D
0.127	30	Meadow, non-grazed, HSG A
0.080	78	Meadow, non-grazed, HSG D
1.226	98	Paved parking, HSG A
0.788	98	Paved roads w/curbs & sewers, HSG A
1.177	98	Roofs, HSG A
8.427	30	Woods, Good, HSG A
0.000	70	Woods, Good, HSG C
6.034	77	Woods, Good, HSG D
19.801	56	Weighted Average
16.610		83.88% Pervious Area
3.191		16.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	50	0.0440	0.09		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
4.3	205	0.0127	0.79		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.8	77	0.0770	0.69		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.0	332	Total			

Summary for Subcatchment PR8.10:

Runoff = 4.4 cfs @ 12.17 hrs, Volume= 16,631 cf, Depth= 1.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.037	30	Meadow, non-grazed, HSG A
1.401	98	Paved parking, HSG A
0.269	98	Paved roads w/curbs & sewers, HSG A
0.775	98	Roofs, HSG A
1.088	30	Woods, Good, HSG A
3.569	77	Weighted Average
1.125		31.53% Pervious Area
2.444		68.47% Impervious Area

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Type III 24-hr 2-yr Rainfall=3.30"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	50	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.7	100	0.0200	0.99		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
11.4	150	Total			

Summary for Subcatchment PR8.11:

Runoff = 0.1 cfs @ 12.54 hrs, Volume= 1,051 cf, Depth= 0.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.013	30	Meadow, non-grazed, HSG A
0.313	98	Paved parking, HSG A
0.028	98	Paved roads w/curbs & sewers, HSG A
0.020	98	Roofs, HSG A
0.554	30	Woods, Good, HSG A
0.928	56	Weighted Average
0.567		61.06% Pervious Area
0.362		38.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.8	50	0.0580	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.6	204	0.0250	0.40		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
22.4	254	Total			

Summary for Subcatchment PR8.2:

Runoff = 0.1 cfs @ 17.22 hrs, Volume= 1,793 cf, Depth= 0.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

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Type III 24-hr 2-yr Rainfall=3.30"

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Area (ac)	CN	Description
0.171	30	Meadow, non-grazed, HSG A
0.049	78	Meadow, non-grazed, HSG D
0.309	98	Paved parking, HSG A
0.095	98	Paved parking, HSG D
0.227	98	Paved roads w/curbs & sewers, HSG A
0.058	98	Roofs, HSG A
11.805	30	Woods, Good, HSG A
3.604	77	Woods, Good, HSG D
16.317	43	Weighted Average
15.629		95.78% Pervious Area
0.688		4.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.1	50	0.0160	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
14.6	354	0.0260	0.40		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	404	Total			

Summary for Subcatchment PR8.3A:

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.095	30	Meadow, non-grazed, HSG A
0.186	30	Woods, Good, HSG A
0.280	30	Weighted Average
0.280		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	50	0.0720	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
13.0	200	0.0105	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
25.7	250	Total			

Summary for Subcatchment PR8.3b:

Runoff = 1.5 cfs @ 12.60 hrs, Volume= 16,018 cf, Depth= 0.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

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Type III 24-hr 2-yr Rainfall=3.30"

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Area (ac)	CN	Description
0.261	39	>75% Grass cover, Good, HSG A
0.491	91	Gravel roads, HSG D
0.268	30	Meadow, non-grazed, HSG A
0.009	58	Meadow, non-grazed, HSG B
0.018	78	Meadow, non-grazed, HSG D
0.517	98	Paved parking, HSG A
0.254	98	Paved roads w/curbs & sewers, HSG A
0.429	98	Roofs, HSG A
7.410	30	Woods, Good, HSG A
0.463	55	Woods, Good, HSG B
5.576	77	Woods, Good, HSG D
15.697	55	Weighted Average
14.496		92.35% Pervious Area
1.201		7.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	50	0.0720	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
13.0	200	0.0105	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
25.7	250	Total			

Summary for Subcatchment PR8.4:

Runoff = 0.0 cfs @ 13.09 hrs, Volume= 511 cf, Depth= 0.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.198	30	Meadow, non-grazed, HSG A
0.011	58	Meadow, non-grazed, HSG B
0.000	78	Meadow, non-grazed, HSG D
0.237	98	Paved parking, HSG A
0.037	98	Paved parking, HSG B
0.005	98	Paved parking, HSG D
0.541	30	Woods, Good, HSG A
0.072	55	Woods, Good, HSG B
1.102	49	Weighted Average
0.823		74.71% Pervious Area
0.279		25.29% Impervious Area

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Type III 24-hr 2-yr Rainfall=3.30"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	23	0.1300	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
12.9	27	0.0200	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
6.4	273	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
24.7	323	Total			

Summary for Subcatchment PR8.5A:

Runoff = 0.3 cfs @ 12.61 hrs, Volume= 2,044 cf, Depth= 0.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.198	58	Meadow, non-grazed, HSG B
0.206	98	Paved parking, HSG B
0.312	55	Woods, Good, HSG B
0.715	68	Weighted Average
0.509		71.24% Pervious Area
0.206		28.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.3	48	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
27.8	826	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	40	0.1825	1.07		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	914	Total			

Summary for Subcatchment PR8.5B:

Runoff = 1.8 cfs @ 12.57 hrs, Volume= 11,820 cf, Depth= 0.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

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Type III 24-hr 2-yr Rainfall=3.30"

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Area (ac)	CN	Description
0.064	58	Meadow, non-grazed, HSG B
0.344	98	Paved parking, HSG A
0.117	98	Paved parking, HSG B
1.314	98	Roofs, HSG A
0.909	30	Woods, Good, HSG A
0.719	55	Woods, Good, HSG B
3.469	71	Weighted Average
1.693		48.80% Pervious Area
1.776		51.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.3	48	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
27.8	826	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	40	0.1825	1.07		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	914	Total			

Summary for Subcatchment PR8.6:

Runoff = 11.7 cfs @ 12.50 hrs, Volume= 75,025 cf, Depth= 0.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.328	89	Gravel roads, HSG C
0.031	91	Gravel roads, HSG D
0.397	58	Meadow, non-grazed, HSG B
0.049	98	Paved parking, HSG A
0.096	98	Paved parking, HSG D
1.239	30	Woods, Good, HSG A
5.319	55	Woods, Good, HSG B
3.260	70	Woods, Good, HSG C
13.989	77	Woods, Good, HSG D
24.708	69	Weighted Average
24.563		99.41% Pervious Area
0.145		0.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	58	0.1400	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
21.0	706	0.0064	0.56		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.7	43	0.1511	0.97		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
32.6	807	Total			

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment PR8.7:

Runoff = 0.4 cfs @ 12.60 hrs, Volume= 2,474 cf, Depth= 0.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.024	58	Meadow, non-grazed, HSG B
0.232	98	Paved parking, HSG A
0.044	98	Paved parking, HSG B
0.104	98	Roofs, HSG A
0.186	30	Woods, Good, HSG A
0.179	55	Woods, Good, HSG B
0.768	70	Weighted Average
0.389		50.60% Pervious Area
0.380		49.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.2	39	0.0205	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
20.5	888	0.0106	0.72		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	37	0.1590	1.00		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
38.3	964	Total			

Summary for Subcatchment PR8.8:

Runoff = 1.3 cfs @ 12.22 hrs, Volume= 5,264 cf, Depth= 1.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.022	30	Meadow, non-grazed, HSG A
0.057	58	Meadow, non-grazed, HSG B
0.198	98	Paved parking, HSG A
0.339	98	Paved parking, HSG B
0.079	98	Roofs, HSG A
0.053	30	Woods, Good, HSG A
0.189	55	Woods, Good, HSG B
0.937	81	Weighted Average
0.321		34.26% Pervious Area
0.616		65.74% Impervious Area

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Type III 24-hr 2-yr Rainfall=3.30"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.6	50	0.0600	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.7	85	0.0150	0.86		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
15.3	135	Total			

Summary for Subcatchment PR8.9:

Runoff = 0.1 cfs @ 12.58 hrs, Volume= 1,285 cf, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.019	30	Meadow, non-grazed, HSG A
0.076	58	Meadow, non-grazed, HSG B
0.026	30	Woods, Good, HSG A
0.665	55	Woods, Good, HSG B
0.152	77	Woods, Good, HSG D
0.939	58	Weighted Average
0.939		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	37	0.2050	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
14.1	585	0.0097	0.69		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	153	0.0160	0.32		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
28.8	775	Total			

Summary for Pond P8.10: Low Point

Inflow Area = 155,459 sf, 68.47% Impervious, Inflow Depth = 1.28" for 2-yr event
 Inflow = 4.4 cfs @ 12.17 hrs, Volume= 16,631 cf
 Outflow = 2.4 cfs @ 12.06 hrs, Volume= 16,631 cf, Atten= 45%, Lag= 0.0 min
 Discarded = 2.4 cfs @ 12.06 hrs, Volume= 16,631 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 133.42' @ 12.41 hrs Surf.Area= 3,702 sf Storage= 1,406 cf

Plug-Flow detention time= 2.6 min calculated for 16,629 cf (100% of inflow)
 Center-of-Mass det. time= 2.6 min (858.3 - 855.7)

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Type III 24-hr 2-yr Rainfall=3.30"

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Volume	Invert	Avail.Storage	Storage Description
#1	133.00'	9,535 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
133.00	2,935	0	0
134.00	4,745	3,840	3,840
135.00	6,645	5,695	9,535

Device	Routing	Invert	Outlet Devices
#1	Primary	134.60'	25.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	133.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.06 hrs HW=133.02' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=133.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Pond P8.2: Linear Infiltration Basin**

Inflow Area = 710,754 sf, 4.22% Impervious, Inflow Depth = 0.03" for 2-yr event
 Inflow = 0.1 cfs @ 17.22 hrs, Volume= 1,793 cf
 Outflow = 0.1 cfs @ 17.22 hrs, Volume= 1,793 cf, Atten= 0%, Lag= 0.1 min
 Discarded = 0.1 cfs @ 17.22 hrs, Volume= 1,793 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 163.00' @ 17.22 hrs Surf.Area= 450 sf Storage= 0 cf

Plug-Flow detention time= 0.1 min calculated for 1,793 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (1,173.2 - 1,173.1)

Volume	Invert	Avail.Storage	Storage Description
#1	163.00'	2,700 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
163.00	450	0	0
164.00	1,350	900	900
165.00	2,250	1,800	2,700

Device	Routing	Invert	Outlet Devices
#1	Primary	164.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68

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Type III 24-hr 2-yr Rainfall=3.30"

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#2 Discarded 163.00' 2.72 2.81 2.92 2.97 3.07 3.32
2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 17.22 hrs HW=163.00' (Free Discharge)

↑ **2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=163.00' (Free Discharge)

↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Summary for Pond P8.3: Linear Infiltration Basin

Inflow Area = 683,751 sf, 7.65% Impervious, Inflow Depth = 0.28" for 2-yr event
 Inflow = 1.5 cfs @ 12.60 hrs, Volume= 16,018 cf
 Outflow = 1.5 cfs @ 12.60 hrs, Volume= 16,018 cf, Atten= 0%, Lag= 0.2 min
 Discarded = 1.5 cfs @ 12.60 hrs, Volume= 16,018 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 159.02' @ 12.60 hrs Surf.Area= 726 sf Storage= 13 cf

Plug-Flow detention time= 0.1 min calculated for 16,015 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (967.5 - 967.4)

Volume	Invert	Avail.Storage	Storage Description
#1	159.00'	8,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
159.00	700	0	0
160.00	2,100	1,400	1,400
161.00	3,500	2,800	4,200
162.00	4,500	4,000	8,200

Device	Routing	Invert	Outlet Devices
#1	Primary	160.50'	30.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	159.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.60 hrs HW=159.02' (Free Discharge)

↑ **2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=159.00' (Free Discharge)

↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Pond P8.4: Linear Infiltration Basin

Inflow Area = 47,994 sf, 25.29% Impervious, Inflow Depth = 0.13" for 2-yr event
 Inflow = 0.0 cfs @ 13.09 hrs, Volume= 511 cf
 Outflow = 0.0 cfs @ 13.10 hrs, Volume= 511 cf, Atten= 0%, Lag= 0.1 min
 Discarded = 0.0 cfs @ 13.10 hrs, Volume= 511 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 160.00' @ 13.10 hrs Surf.Area= 700 sf Storage= 0 cf

Plug-Flow detention time= 0.1 min calculated for 511 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (1,030.7 - 1,030.6)

Volume	Invert	Avail.Storage	Storage Description
#1	160.00'	4,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
160.00	700	0	0
161.00	2,100	1,400	1,400
162.00	3,500	2,800	4,200

Device	Routing	Invert	Outlet Devices
#1	Primary	161.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	160.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 13.10 hrs HW=160.00' (Free Discharge)↑ **2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=160.00' (Free Discharge)↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P8.5: Linear Infiltration Basin**

Inflow Area = 31,151 sf, 28.76% Impervious, Inflow Depth = 0.79" for 2-yr event
 Inflow = 0.3 cfs @ 12.61 hrs, Volume= 2,044 cf
 Outflow = 0.3 cfs @ 12.61 hrs, Volume= 2,044 cf, Atten= 0%, Lag= 0.1 min
 Discarded = 0.3 cfs @ 12.61 hrs, Volume= 2,044 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 149.00' @ 12.61 hrs Surf.Area= 904 sf Storage= 2 cf

Plug-Flow detention time= 0.1 min calculated for 2,044 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (910.1 - 910.0)

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Type III 24-hr 2-yr Rainfall=3.30"

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Volume	Invert	Avail.Storage	Storage Description
#1	149.00'	5,400 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
149.00	900	0	0
150.00	2,700	1,800	1,800
151.00	4,500	3,600	5,400

Device	Routing	Invert	Outlet Devices
#1	Primary	150.00'	1.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	149.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.61 hrs HW=149.00' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=149.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Pond P8.7: Low Point**

Inflow Area = 33,475 sf, 49.40% Impervious, Inflow Depth = 0.89" for 2-yr event
 Inflow = 0.4 cfs @ 12.60 hrs, Volume= 2,474 cf
 Outflow = 0.4 cfs @ 12.60 hrs, Volume= 2,474 cf, Atten= 0%, Lag= 0.1 min
 Discarded = 0.4 cfs @ 12.60 hrs, Volume= 2,474 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 135.01' @ 12.60 hrs Surf.Area= 465 sf Storage= 3 cf

Plug-Flow detention time= 0.2 min calculated for 2,474 cf (100% of inflow)

Center-of-Mass det. time= 0.2 min (903.6 - 903.4)

Volume	Invert	Avail.Storage	Storage Description
#1	135.00'	2,343 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
135.00	460	0	0
136.00	1,185	823	823
137.00	1,855	1,520	2,343

Device	Routing	Invert	Outlet Devices
#1	Primary	136.80'	5.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31

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Type III 24-hr 2-yr Rainfall=3.30"

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3.30 3.31 3.32
#2 Discarded 135.00' **1.0 cfs Exfiltration at all elevations**

Discarded OutFlow Max=1.0 cfs @ 12.60 hrs HW=135.01' (Free Discharge)↑ **2=Exfiltration** (Exfiltration Controls 1.0 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=135.00' (Free Discharge)↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Link DP8.1: Wetland 28/29**

Inflow Area = 862,522 sf, 16.12% Impervious, Inflow Depth = 0.31" for 2-yr event
Inflow = 2.6 cfs @ 12.43 hrs, Volume= 22,405 cf
Primary = 2.6 cfs @ 12.43 hrs, Volume= 22,405 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.10: Low Point

Inflow Area = 155,459 sf, 68.47% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.11: Wetland

Inflow Area = 40,442 sf, 38.94% Impervious, Inflow Depth = 0.31" for 2-yr event
Inflow = 0.1 cfs @ 12.54 hrs, Volume= 1,051 cf
Primary = 0.1 cfs @ 12.54 hrs, Volume= 1,051 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.2: Wetland 27

Inflow Area = 710,754 sf, 4.22% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.3: Wetland 25

Inflow Area = 695,957 sf, 7.51% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.4: Wetland 24

Inflow Area = 47,994 sf, 25.29% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.5: Low Point

Inflow Area = 182,241 sf, 47.36% Impervious, Inflow Depth = 0.78" for 2-yr event
Inflow = 1.8 cfs @ 12.57 hrs, Volume= 11,820 cf
Primary = 1.8 cfs @ 12.57 hrs, Volume= 11,820 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.6: Wetland 26

Inflow Area = 1,076,276 sf, 0.59% Impervious, Inflow Depth = 0.84" for 2-yr event
Inflow = 11.7 cfs @ 12.50 hrs, Volume= 75,025 cf
Primary = 11.7 cfs @ 12.50 hrs, Volume= 75,025 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.7: Low Point

Inflow Area = 33,475 sf, 49.40% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.8: Low Point

Inflow Area = 40,804 sf, 65.74% Impervious, Inflow Depth = 1.55" for 2-yr event
Inflow = 1.3 cfs @ 12.22 hrs, Volume= 5,264 cf
Primary = 1.3 cfs @ 12.22 hrs, Volume= 5,264 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.9: Wetland 24A/Vernal Pool 5

Inflow Area = 40,889 sf, 0.00% Impervious, Inflow Depth = 0.38" for 2-yr event
Inflow = 0.1 cfs @ 12.58 hrs, Volume= 1,285 cf
Primary = 0.1 cfs @ 12.58 hrs, Volume= 1,285 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment PR10.1:

Runoff = 1.5 cfs @ 12.21 hrs, Volume= 6,444 cf, Depth= 1.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
2,455	80	>75% Grass cover, Good, HSG D
2,801	78	Meadow, non-grazed, HSG D
6,730	98	Paved parking, HSG D
40,286	77	Woods, Good, HSG D
52,273	80	Weighted Average
45,543		87.13% Pervious Area
6,730		12.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	50	0.1500	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
5.8	175	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
15.2	225	Total			

Summary for Subcatchment PR10.10:

Runoff = 0.1 cfs @ 12.10 hrs, Volume= 451 cf, Depth= 1.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.002	74	>75% Grass cover, Good, HSG C
0.002	80	>75% Grass cover, Good, HSG D
0.002	71	Meadow, non-grazed, HSG C
0.003	78	Meadow, non-grazed, HSG D
0.010	98	Paved parking, HSG C
0.005	98	Paved parking, HSG D
0.007	70	Woods, Good, HSG C
0.054	77	Woods, Good, HSG D
0.084	80	Weighted Average
0.069		81.89% Pervious Area
0.015		18.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	25	0.1000	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment PR10.11:

Runoff = 0.1 cfs @ 12.47 hrs, Volume= 813 cf, Depth= 0.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.005	39	>75% Grass cover, Good, HSG A
0.017	80	>75% Grass cover, Good, HSG D
0.020	30	Meadow, non-grazed, HSG A
0.051	78	Meadow, non-grazed, HSG D
0.044	98	Paved parking, HSG A
0.019	98	Paved parking, HSG D
0.600	30	Woods, Good, HSG A
0.375	77	Woods, Good, HSG D
1.132	52	Weighted Average
1.069		94.43% Pervious Area
0.063		5.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	50	0.1000	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment PR10.12:

Runoff = 0.1 cfs @ 12.60 hrs, Volume= 1,060 cf, Depth= 0.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.033	39	>75% Grass cover, Good, HSG A
0.026	80	>75% Grass cover, Good, HSG D
0.118	30	Meadow, non-grazed, HSG A
0.032	78	Meadow, non-grazed, HSG D
0.115	98	Paved parking, HSG A
0.107	98	Paved parking, HSG D
0.612	30	Woods, Good, HSG A
0.260	77	Woods, Good, HSG D
1.303	53	Weighted Average
1.081		82.97% Pervious Area
0.222		17.03% Impervious Area

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Type III 24-hr 2-yr Rainfall=3.30"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
9.6	500	0.0300	0.87		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
21.7	550	Total			

Summary for Subcatchment PR10.13:

Runoff = 1.3 cfs @ 12.63 hrs, Volume= 8,803 cf, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.020	39	>75% Grass cover, Good, HSG A
0.001	80	>75% Grass cover, Good, HSG D
0.095	76	Gravel roads, HSG A
0.241	91	Gravel roads, HSG D
0.117	30	Meadow, non-grazed, HSG A
0.008	78	Meadow, non-grazed, HSG D
0.498	98	Paved parking, HSG A
0.405	98	Paved parking, HSG D
0.448	30	Woods, Good, HSG A
0.252	77	Woods, Good, HSG D
2.087	75	Weighted Average
1.183		56.72% Pervious Area
0.903		43.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
36.8	50	0.0050	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	30	0.5000	3.54		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
42.9	480	Total			

Summary for Subcatchment PR10.14:

Runoff = 4.7 cfs @ 12.31 hrs, Volume= 23,493 cf, Depth= 1.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

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Type III 24-hr 2-yr Rainfall=3.30"

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Area (ac)	CN	Description
0.009	39	>75% Grass cover, Good, HSG A
1.250	80	>75% Grass cover, Good, HSG D
0.051	30	Meadow, non-grazed, HSG A
0.094	78	Meadow, non-grazed, HSG D
0.014	98	Paved parking, HSG A
1.424	98	Paved parking, HSG D
1.175	30	Woods, Good, HSG A
2.162	77	Woods, Good, HSG D
6.180	73	Weighted Average
4.742		76.73% Pervious Area
1.438		23.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment PR10.15:

Runoff = 0.0 cfs @ 15.96 hrs, Volume= 668 cf, Depth= 0.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
1.053	39	>75% Grass cover, Good, HSG A
0.023	80	>75% Grass cover, Good, HSG D
0.043	30	Meadow, non-grazed, HSG A
0.050	78	Meadow, non-grazed, HSG D
0.340	98	Paved parking, HSG A
0.075	98	Paved parking, HSG D
2.333	30	Woods, Good, HSG A
0.441	77	Woods, Good, HSG D
4.358	44	Weighted Average
3.943		90.48% Pervious Area
0.415		9.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
10.6	550	0.0300	0.87		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
38.5	600	Total			

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment PR10.2:

Runoff = 2.0 cfs @ 12.48 hrs, Volume= 12,374 cf, Depth= 0.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.802	39	>75% Grass cover, Good, HSG A
0.617	80	>75% Grass cover, Good, HSG D
0.062	78	Meadow, non-grazed, HSG D
0.662	98	Paved parking, HSG A
0.087	98	Paved parking, HSG D
0.401	30	Woods, Good, HSG A
1.445	77	Woods, Good, HSG D
4.075	69	Weighted Average
3.327		81.64% Pervious Area
0.748		18.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.1	50	0.0090	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.5	100	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
30.6	150	Total			

Summary for Subcatchment PR10.3:

Runoff = 0.9 cfs @ 12.42 hrs, Volume= 5,051 cf, Depth= 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.031	80	>75% Grass cover, Good, HSG D
0.141	78	Meadow, non-grazed, HSG D
0.064	98	Paved parking, HSG D
0.750	77	Woods, Good, HSG D
0.985	79	Weighted Average
0.922		93.54% Pervious Area
0.064		6.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.2	50	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
29.1	100	Total			

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment PR10.4:

Runoff = 1.3 cfs @ 12.60 hrs, Volume= 9,946 cf, Depth= 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (sf)	CN	Description
23,148	39	>75% Grass cover, Good, HSG A
8,455	80	>75% Grass cover, Good, HSG D
4,534	78	Meadow, non-grazed, HSG D
21,919	98	Paved parking, HSG A
4,810	98	Paved parking, HSG D
56,906	30	Woods, Good, HSG A
91,545	77	Woods, Good, HSG D
211,318	63	Weighted Average
184,589		87.35% Pervious Area
26,729		12.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.3	175	0.2000	2.24		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
35.2	625	Total			

Summary for Subcatchment PR10.5:

Runoff = 1.0 cfs @ 12.21 hrs, Volume= 4,089 cf, Depth= 1.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.017	80	>75% Grass cover, Good, HSG D
0.029	78	Meadow, non-grazed, HSG D
0.049	98	Paved parking, HSG D
0.741	77	Woods, Good, HSG D
0.836	78	Weighted Average
0.787		94.16% Pervious Area
0.049		5.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

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Type III 24-hr 2-yr Rainfall=3.30"

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Summary for Subcatchment PR10.6:

Runoff = 1.0 cfs @ 12.37 hrs, Volume= 5,819 cf, Depth= 0.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.023	39	>75% Grass cover, Good, HSG A
0.009	74	>75% Grass cover, Good, HSG C
0.056	80	>75% Grass cover, Good, HSG D
0.077	30	Meadow, non-grazed, HSG A
0.019	71	Meadow, non-grazed, HSG C
0.176	78	Meadow, non-grazed, HSG D
0.037	98	Paved parking, HSG A
0.042	98	Paved parking, HSG C
0.150	98	Paved parking, HSG D
0.324	30	Woods, Good, HSG A
0.034	70	Woods, Good, HSG C
0.970	77	Woods, Good, HSG D
1.916	69	Weighted Average
1.687		88.06% Pervious Area
0.229		11.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.4	100	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
23.5	150	Total			

Summary for Subcatchment PR10.7:

Runoff = 0.0 cfs @ 20.89 hrs, Volume= 132 cf, Depth= 0.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.023	39	>75% Grass cover, Good, HSG A
0.013	80	>75% Grass cover, Good, HSG D
0.119	30	Meadow, non-grazed, HSG A
0.060	78	Meadow, non-grazed, HSG D
0.079	98	Paved parking, HSG A
0.039	98	Paved parking, HSG D
1.276	30	Woods, Good, HSG A
0.193	77	Woods, Good, HSG D
1.802	42	Weighted Average
1.684		93.43% Pervious Area
0.118		6.57% Impervious Area

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Type III 24-hr 2-yr Rainfall=3.30"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.7	50	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.6	60	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.0	160	Total			

Summary for Subcatchment PR10.8:

Runoff = 0.0 cfs @ 22.01 hrs, Volume= 179 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.211	39	>75% Grass cover, Good, HSG A
0.008	74	>75% Grass cover, Good, HSG C
0.319	80	>75% Grass cover, Good, HSG D
0.011	30	Meadow, non-grazed, HSG A
0.003	71	Meadow, non-grazed, HSG C
0.081	78	Meadow, non-grazed, HSG D
0.096	98	Paved parking, HSG A
0.000	98	Paved parking, HSG C
0.039	98	Paved parking, HSG D
3.008	30	Woods, Good, HSG A
0.027	70	Woods, Good, HSG C
0.308	77	Woods, Good, HSG D
4.110	41	Weighted Average
3.975		96.72% Pervious Area
0.135		3.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
20.7	450	Total			

Summary for Subcatchment PR10.9:

Runoff = 1.0 cfs @ 12.50 hrs, Volume= 6,655 cf, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

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Type III 24-hr 2-yr Rainfall=3.30"

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Area (ac)	CN	Description
0.239	39	>75% Grass cover, Good, HSG A
0.271	74	>75% Grass cover, Good, HSG C
0.151	80	>75% Grass cover, Good, HSG D
0.026	71	Meadow, non-grazed, HSG C
0.013	78	Meadow, non-grazed, HSG D
0.009	98	Paved parking, HSG C
0.013	98	Paved parking, HSG D
0.341	30	Woods, Good, HSG A
1.377	70	Woods, Good, HSG C
0.383	77	Woods, Good, HSG D
2.822	65	Weighted Average
2.801		99.23% Pervious Area
0.022		0.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.2	350	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
29.3	400	Total			

Summary for Subcatchment PR9.1:

Runoff = 3.4 cfs @ 12.38 hrs, Volume= 18,154 cf, Depth= 2.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.30"

Area (ac)	CN	Description
0.109	80	>75% Grass cover, Good, HSG D
0.184	78	Meadow, non-grazed, HSG D
1.343	98	Paved parking, HSG D
0.575	77	Woods, Good, HSG D
2.211	90	Weighted Average
0.868		39.26% Pervious Area
1.343		60.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0100	0.05		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
11.8	500	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
27.8	550	Total			

Summary for Pond P10.12: Linear Infiltration Basin

Inflow Area = 56,751 sf, 17.03% Impervious, Inflow Depth = 0.22" for 2-yr event
 Inflow = 0.1 cfs @ 12.60 hrs, Volume= 1,060 cf
 Outflow = 0.1 cfs @ 12.60 hrs, Volume= 1,060 cf, Atten= 0%, Lag= 0.1 min
 Discarded = 0.1 cfs @ 12.60 hrs, Volume= 1,060 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 137.00' @ 12.60 hrs Surf.Area= 401 sf Storage= 0 cf

Plug-Flow detention time= 0.1 min calculated for 1,060 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (981.1 - 981.0)

Volume	Invert	Avail.Storage	Storage Description
#1	137.00'	2,400 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
137.00	400	0	0
138.00	1,200	800	800
139.00	2,000	1,600	2,400

Device	Routing	Invert	Outlet Devices
#1	Primary	138.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	137.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.60 hrs HW=137.00' (Free Discharge)

↑ **2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=137.00' (Free Discharge)

↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Summary for Pond P10.13: Linear Infiltration Basin

Inflow Area = 90,889 sf, 43.28% Impervious, Inflow Depth = 1.16" for 2-yr event
 Inflow = 1.3 cfs @ 12.63 hrs, Volume= 8,803 cf
 Outflow = 1.3 cfs @ 12.63 hrs, Volume= 8,803 cf, Atten= 0%, Lag= 0.1 min
 Discarded = 1.3 cfs @ 12.63 hrs, Volume= 8,803 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 137.01' @ 12.63 hrs Surf.Area= 409 sf Storage= 4 cf

Plug-Flow detention time= 0.1 min calculated for 8,801 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (891.2 - 891.2)

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Volume	Invert	Avail.Storage	Storage Description
#1	137.00'	2,400 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
137.00	400	0	0
138.00	1,200	800	800
139.00	2,000	1,600	2,400

Device	Routing	Invert	Outlet Devices
#1	Primary	137.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	137.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.63 hrs HW=137.01' (Free Discharge)

↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=137.00' (Free Discharge)

↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)

Summary for Pond P10.7: Linear Infiltration Basin

Inflow Area = 78,507 sf, 6.57% Impervious, Inflow Depth = 0.02" for 2-yr event
Inflow = 0.0 cfs @ 20.89 hrs, Volume= 132 cf
Outflow = 0.0 cfs @ 20.89 hrs, Volume= 132 cf, Atten= 0%, Lag= 0.0 min
Discarded = 0.0 cfs @ 20.89 hrs, Volume= 132 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 128.00' @ 20.89 hrs Surf.Area= 200 sf Storage= 0 cf

Plug-Flow detention time= 0.0 min calculated for 132 cf (100% of inflow)

Center-of-Mass det. time= 0.0 min (1,188.8 - 1,188.8)

Volume	Invert	Avail.Storage	Storage Description
#1	128.00'	1,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
128.00	200	0	0
129.00	600	400	400
130.00	1,000	800	1,200

Device	Routing	Invert	Outlet Devices
#1	Primary	129.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68

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#2 Discarded 128.00' 2.72 2.81 2.92 2.97 3.07 3.32
2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 20.89 hrs HW=128.00' (Free Discharge)

↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=128.00' (Free Discharge)

↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Summary for Link DP-9.1: Station Rd

Inflow Area = 96,332 sf, 60.74% Impervious, Inflow Depth = 2.26" for 2-yr event
Inflow = 3.4 cfs @ 12.38 hrs, Volume= 18,154 cf
Primary = 3.4 cfs @ 12.38 hrs, Volume= 18,154 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.1: Wetland 18

Inflow Area = 52,273 sf, 12.87% Impervious, Inflow Depth = 1.48" for 2-yr event
Inflow = 1.5 cfs @ 12.21 hrs, Volume= 6,444 cf
Primary = 1.5 cfs @ 12.21 hrs, Volume= 6,444 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.10: Vernal Pool 4

Inflow Area = 3,661 sf, 18.11% Impervious, Inflow Depth = 1.48" for 2-yr event
Inflow = 0.1 cfs @ 12.10 hrs, Volume= 451 cf
Primary = 0.1 cfs @ 12.10 hrs, Volume= 451 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.11: Stream

Inflow Area = 140,191 sf, 30.02% Impervious, Inflow Depth = 0.07" for 2-yr event
Inflow = 0.1 cfs @ 12.47 hrs, Volume= 813 cf
Primary = 0.1 cfs @ 12.47 hrs, Volume= 813 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.12: Wetland 6

Inflow Area = 56,751 sf, 17.03% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.14: Wetland 3_Vernal Pool 1

Inflow Area = 269,184 sf, 23.27% Impervious, Inflow Depth = 1.05" for 2-yr event
Inflow = 4.7 cfs @ 12.31 hrs, Volume= 23,493 cf
Primary = 4.7 cfs @ 12.31 hrs, Volume= 23,493 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.15: Wetland 4

Inflow Area = 189,840 sf, 9.52% Impervious, Inflow Depth = 0.04" for 2-yr event
Inflow = 0.0 cfs @ 15.96 hrs, Volume= 668 cf
Primary = 0.0 cfs @ 15.96 hrs, Volume= 668 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.2: Wetland 19

Inflow Area = 177,512 sf, 18.36% Impervious, Inflow Depth = 0.84" for 2-yr event
Inflow = 2.0 cfs @ 12.48 hrs, Volume= 12,374 cf
Primary = 2.0 cfs @ 12.48 hrs, Volume= 12,374 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.3: Wetland 15

Inflow Area = 42,919 sf, 6.46% Impervious, Inflow Depth = 1.41" for 2-yr event
Inflow = 0.9 cfs @ 12.42 hrs, Volume= 5,051 cf
Primary = 0.9 cfs @ 12.42 hrs, Volume= 5,051 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.4: Wetland 16

Inflow Area = 211,318 sf, 12.65% Impervious, Inflow Depth = 0.56" for 2-yr event
Inflow = 1.3 cfs @ 12.60 hrs, Volume= 9,946 cf
Primary = 1.3 cfs @ 12.60 hrs, Volume= 9,946 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.5: Wetland 14

Inflow Area = 36,427 sf, 5.84% Impervious, Inflow Depth = 1.35" for 2-yr event
Inflow = 1.0 cfs @ 12.21 hrs, Volume= 4,089 cf
Primary = 1.0 cfs @ 12.21 hrs, Volume= 4,089 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.6: Wetland 12

Inflow Area = 83,475 sf, 11.94% Impervious, Inflow Depth = 0.84" for 2-yr event
Inflow = 1.0 cfs @ 12.37 hrs, Volume= 5,819 cf
Primary = 1.0 cfs @ 12.37 hrs, Volume= 5,819 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.7: Wetland 13

Inflow Area = 78,507 sf, 6.57% Impervious, Inflow Depth = 0.00" for 2-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.8: Wetland 10

Inflow Area = 179,026 sf, 3.28% Impervious, Inflow Depth = 0.01" for 2-yr event
Inflow = 0.0 cfs @ 22.01 hrs, Volume= 179 cf
Primary = 0.0 cfs @ 22.01 hrs, Volume= 179 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.9: Wetland 5_Vernal Pool 2-3

Inflow Area = 122,942 sf, 0.77% Impervious, Inflow Depth = 0.65" for 2-yr event
Inflow = 1.0 cfs @ 12.50 hrs, Volume= 6,655 cf
Primary = 1.0 cfs @ 12.50 hrs, Volume= 6,655 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

10-Year Storm Event – Proposed

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Type III 24-hr 10-year Rainfall=5.10"

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Summary for Subcatchment PR-5.10:

Runoff = 0.0 cfs @ 22.18 hrs, Volume= 108 cf, Depth= 0.02"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
1,862	76	Gravel roads, HSG A
68,683	30	Woods, Good, HSG A
70,545	31	Weighted Average
70,545	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
9.1	620	0.0050	1.14		Shallow Concentrated Flow,
					Unpaved Kv= 16.1 fps
30.2	670	Total			

Summary for Subcatchment PR-5.11:

Runoff = 0.0 cfs @ 23.46 hrs, Volume= 231 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
3,016	76	Gravel roads, HSG A
348,292	30	Woods, Good, HSG A
351,308	30	Weighted Average
351,308	30	100.00% Pervious Area

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

Summary for Subcatchment PR-5.12:

Runoff = 0.5 cfs @ 13.15 hrs, Volume= 7,287 cf, Depth= 0.44"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

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Type III 24-hr 10-year Rainfall=5.10"

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Area (sf)	CN	Description
628	76	Gravel roads, HSG A
694	98	Water Surface, HSG B
88,212	30	Woods, Good, HSG A
108,041	55	Woods, Good, HSG B
197,575	44	Weighted Average
196,881	44	99.65% Pervious Area
694	98	0.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.2	50	0.0060	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
26.6	2,435	0.0090	1.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	70	0.1300	5.80		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
61.0	2,555	Total			

Summary for Subcatchment PR-5.13:

Runoff = 0.1 cfs @ 16.07 hrs, Volume= 3,868 cf, Depth= 0.08"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
12,214	76	Gravel roads, HSG A
2,506	85	Gravel roads, HSG B
1,211	98	Water Surface, HSG B
477,972	30	Woods, Good, HSG A
71,247	55	Woods, Good, HSG B
565,150	35	Weighted Average
563,939	34	99.79% Pervious Area
1,211	98	0.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
24.9	2,280	0.0090	1.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	75	0.1200	5.58		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
53.0	2,405	Total			

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Type III 24-hr 10-year Rainfall=5.10"

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Summary for Subcatchment PR-5.14:

Runoff = 0.2 cfs @ 14.99 hrs, Volume= 6,852 cf, Depth= 0.13"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
5,919	76	Gravel roads, HSG A
1,679	85	Gravel roads, HSG B
1,361	98	Water Surface, HSG B
481,295	30	Woods, Good, HSG A
123,512	55	Woods, Good, HSG B
613,766	36	Weighted Average
612,405	36	99.78% Pervious Area
1,361	98	0.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	50	0.2600	0.11		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
16.7	475	0.0090	0.47		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.4	110	0.0680	1.30		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.7	635	Total			

Summary for Subcatchment PR-5.15:

Runoff = 0.2 cfs @ 15.08 hrs, Volume= 4,953 cf, Depth= 0.13"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
8	76	Gravel roads, HSG A
633	98	Water Surface, HSG B
352,534	30	Woods, Good, HSG A
103,992	55	Woods, Good, HSG B
457,166	36	Weighted Average
456,533	36	99.86% Pervious Area
633	98	0.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.5	585	0.0180	2.16		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
32.4	635	Total			

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Type III 24-hr 10-year Rainfall=5.10"

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Summary for Subcatchment PR-5.16:

Runoff = 0.0 cfs @ 23.52 hrs, Volume= 248 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
4	76	Gravel roads, HSG A
376,341	30	Woods, Good, HSG A
376,345	30	Weighted Average
376,345	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.9	27	0.0060	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	105	0.0200	2.28		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.1	34	0.1100	5.34		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
21.8	166	Total			

Summary for Subcatchment PR-5.17:

Runoff = 0.0 cfs @ 23.26 hrs, Volume= 529 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
571	76	Gravel roads, HSG A
803,198	30	Woods, Good, HSG A
803,770	30	Weighted Average
803,770	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	30	0.1500	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	45	0.1600	6.44		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.4	75	Total			

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Type III 24-hr 10-year Rainfall=5.10"

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Summary for Subcatchment PR-5.18:

Runoff = 0.0 cfs @ 22.34 hrs, Volume= 702 cf, Depth= 0.02"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
6,238	76	Gravel roads, HSG A
452,526	30	Woods, Good, HSG A
458,764	31	Weighted Average
458,764	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	400	0.0800	1.41		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
4.7	200	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
37.3	650	Total			

Summary for Subcatchment PR-5.19:

Runoff = 0.0 cfs @ 21.93 hrs, Volume= 43 cf, Depth= 0.02"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
398	76	Gravel roads, HSG A
28,028	30	Woods, Good, HSG A
28,426	31	Weighted Average
28,426	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	50	0.0750	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.5	110	0.0020	0.72		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.1	30	0.1300	5.80		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
15.1	190	Total			

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Type III 24-hr 10-year Rainfall=5.10"

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Summary for Subcatchment PR-5.20:

Runoff = 0.1 cfs @ 12.35 hrs, Volume= 868 cf, Depth= 0.19"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
3,604	76	Gravel roads, HSG A
1,592	98	Paved parking, HSG A
49,097	30	Woods, Good, HSG A
54,293	35	Weighted Average
52,701	33	97.07% Pervious Area
1,592	98	2.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	200	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.8	250	Total			

Summary for Subcatchment PR-5.21:

Runoff = 0.1 cfs @ 12.26 hrs, Volume= 480 cf, Depth= 0.02"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
265	76	Gravel roads, HSG A
789	98	Paved parking, HSG A
242,410	30	Woods, Good, HSG A
243,464	30	Weighted Average
242,675	30	99.68% Pervious Area
789	98	0.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	200	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
19.4	250	Total			

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Type III 24-hr 10-year Rainfall=5.10"

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Summary for Subcatchment PR-5.6:

Runoff = 0.1 cfs @ 17.53 hrs, Volume= 2,064 cf, Depth= 0.03"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
1,235	39	>75% Grass cover, Good, HSG A
11,451	76	Gravel roads, HSG A
1,522	85	Gravel roads, HSG B
692,882	30	Woods, Good, HSG A
50,438	55	Woods, Good, HSG B
757,528	32	Weighted Average
757,528	32	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	50	0.0320	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
5.2	750	0.0220	2.39		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
22.7	800	Total			

Summary for Subcatchment PR-5.7:

Runoff = 0.2 cfs @ 15.00 hrs, Volume= 4,303 cf, Depth= 0.12"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
2,624	76	Gravel roads, HSG A
208	85	Gravel roads, HSG B
312,019	30	Woods, Good, HSG A
103,451	55	Woods, Good, HSG B
418,303	36	Weighted Average
418,303	36	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	50	0.0250	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.0	200	0.0110	1.69		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
2.1	295	0.0210	2.33		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
23.4	545	Total			

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Type III 24-hr 10-year Rainfall=5.10"

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Summary for Subcatchment PR-5.8:

Runoff = 0.2 cfs @ 17.65 hrs, Volume= 5,541 cf, Depth= 0.03"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
27,551	76	Gravel roads, HSG A
1,934,694	30	Woods, Good, HSG A
71,626	55	Woods, Good, HSG B
2,033,871	32	Weighted Average
2,033,871	32	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	165	0.0480	3.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.1	165	0.0230	2.44		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
29.8	380	Total			

Summary for Subcatchment PR-5.9:

Runoff = 0.0 cfs @ 23.35 hrs, Volume= 121 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=5.10"

Area (sf)	CN	Description
572	76	Gravel roads, HSG A
183,271	30	Woods, Good, HSG A
183,843	30	Weighted Average
183,843	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	11	0.0100	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.3	8	0.5000	0.10		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.2	323	0.0240	2.49		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
11.8	342	Total			

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Summary for Pond L-5.8: Linear Infiltration Basin

Inflow Area = 2,033,871 sf, 0.00% Impervious, Inflow Depth = 0.03" for 10-year event
 Inflow = 0.2 cfs @ 17.65 hrs, Volume= 5,541 cf
 Outflow = 0.2 cfs @ 17.65 hrs, Volume= 5,541 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.2 cfs @ 17.65 hrs, Volume= 5,541 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 199.00' @ 0.00 hrs Surf.Area= 200 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.0 min (1,197.5 - 1,197.5)

Volume	Invert	Avail.Storage	Storage Description
#1	199.00'	1,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
199.00	200	0	0
200.00	600	400	400
201.00	1,000	800	1,200

Device	Routing	Invert	Outlet Devices
#1	Primary	200.00'	5.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	199.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=0.0 cfs @ 17.65 hrs HW=199.00' (Free Discharge)↑ **2=Exfiltration** (Passes 0.0 cfs of 2.4 cfs potential flow)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=199.00' TW=0.00' (Dynamic Tailwater)↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P5.11: Low Point**

Inflow Area = 351,308 sf, 0.00% Impervious, Inflow Depth = 0.01" for 10-year event
 Inflow = 0.0 cfs @ 23.46 hrs, Volume= 231 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 174.54' @ 25.13 hrs Surf.Area= 5,654 sf Storage= 231 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no outflow)

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Type III 24-hr 10-year Rainfall=5.10"

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Volume	Invert	Avail.Storage	Storage Description
#1	174.50'	9,900 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
174.50	5,600	0	0
175.00	6,260	2,965	2,965
175.50	6,930	3,298	6,263
176.00	7,620	3,638	9,900

Device	Routing	Invert	Outlet Devices
#1	Primary	175.50'	30.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=174.50' TW=0.00' (Dynamic Tailwater)

↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)

Summary for Pond P5.14: Linear Infiltration Basin

Inflow Area = 613,766 sf, 0.22% Impervious, Inflow Depth = 0.13" for 10-year event
 Inflow = 0.2 cfs @ 14.99 hrs, Volume= 6,852 cf
 Outflow = 0.2 cfs @ 14.99 hrs, Volume= 6,852 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.2 cfs @ 14.99 hrs, Volume= 6,852 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 172.00' @ 0.00 hrs Surf.Area= 250 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.0 min (1,048.7 - 1,048.7)

Volume	Invert	Avail.Storage	Storage Description
#1	172.00'	1,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
172.00	250	0	0
173.00	750	500	500
174.00	1,250	1,000	1,500

Device	Routing	Invert	Outlet Devices
#1	Primary	173.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	172.00'	1.0 cfs Exfiltration at all elevations

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Discarded OutFlow Max=0.0 cfs @ 14.99 hrs HW=172.00' (Free Discharge)↑**2=Exfiltration** (Passes 0.0 cfs of 1.0 cfs potential flow)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=172.00' TW=0.00' (Dynamic Tailwater)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P5.18: Linear Infiltration Basin**

Inflow Area = 458,764 sf, 0.00% Impervious, Inflow Depth = 0.02" for 10-year event
 Inflow = 0.0 cfs @ 22.34 hrs, Volume= 702 cf
 Outflow = 0.0 cfs @ 22.34 hrs, Volume= 702 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.0 cfs @ 22.34 hrs, Volume= 702 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 173.00' @ 0.00 hrs Surf.Area= 65 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	173.00'	390 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
173.00	65	0	0
174.00	195	130	130
175.00	325	260	390

Device	Routing	Invert	Outlet Devices
#1	Primary	174.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	173.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=0.0 cfs @ 22.34 hrs HW=173.00' (Free Discharge)↑**2=Exfiltration** (Passes 0.0 cfs of 2.4 cfs potential flow)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=173.00' TW=0.00' (Dynamic Tailwater)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Link DP-5.10: Low Point**

Inflow Area = 70,545 sf, 0.00% Impervious, Inflow Depth = 0.02" for 10-year event
 Inflow = 0.0 cfs @ 22.18 hrs, Volume= 108 cf
 Primary = 0.0 cfs @ 22.18 hrs, Volume= 108 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.11: Off-site

Inflow Area = 351,308 sf, 0.00% Impervious, Inflow Depth = 0.00" for 10-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.12: Wetland 44

Inflow Area = 197,575 sf, 0.35% Impervious, Inflow Depth = 0.44" for 10-year event
Inflow = 0.5 cfs @ 13.15 hrs, Volume= 7,287 cf
Primary = 0.5 cfs @ 13.15 hrs, Volume= 7,287 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.13: Wetland 44

Inflow Area = 565,150 sf, 0.21% Impervious, Inflow Depth = 0.08" for 10-year event
Inflow = 0.1 cfs @ 16.07 hrs, Volume= 3,868 cf
Primary = 0.1 cfs @ 16.07 hrs, Volume= 3,868 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.14: Wetland 44

Inflow Area = 613,766 sf, 0.22% Impervious, Inflow Depth = 0.00" for 10-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.15: Wetland 44

Inflow Area = 457,166 sf, 0.14% Impervious, Inflow Depth = 0.13" for 10-year event
Inflow = 0.2 cfs @ 15.08 hrs, Volume= 4,953 cf
Primary = 0.2 cfs @ 15.08 hrs, Volume= 4,953 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.16: Off-site Wetland

Inflow Area = 376,345 sf, 0.00% Impervious, Inflow Depth = 0.01" for 10-year event
Inflow = 0.0 cfs @ 23.52 hrs, Volume= 248 cf
Primary = 0.0 cfs @ 23.52 hrs, Volume= 248 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.17: Wetland 41&43/Vernal Pool 11&13

Inflow Area = 803,770 sf, 0.00% Impervious, Inflow Depth = 0.01" for 10-year event
Inflow = 0.0 cfs @ 23.26 hrs, Volume= 529 cf
Primary = 0.0 cfs @ 23.26 hrs, Volume= 529 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.18: Wetland 42/Vernal Pool 12

Inflow Area = 458,764 sf, 0.00% Impervious, Inflow Depth = 0.00" for 10-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.19: Wetland 40/Vernal Pool 10

Inflow Area = 28,426 sf, 0.00% Impervious, Inflow Depth = 0.02" for 10-year event
Inflow = 0.0 cfs @ 21.93 hrs, Volume= 43 cf
Primary = 0.0 cfs @ 21.93 hrs, Volume= 43 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.20: Off-site to Dutton Road

Inflow Area = 54,293 sf, 2.93% Impervious, Inflow Depth = 0.19" for 10-year event
Inflow = 0.1 cfs @ 12.35 hrs, Volume= 868 cf
Primary = 0.1 cfs @ 12.35 hrs, Volume= 868 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.21: Wetland 39/Vernal Pool 9

Inflow Area = 243,464 sf, 0.32% Impervious, Inflow Depth = 0.02" for 10-year event
Inflow = 0.1 cfs @ 12.26 hrs, Volume= 480 cf
Primary = 0.1 cfs @ 12.26 hrs, Volume= 480 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.6: Wetland 18

Inflow Area = 757,528 sf, 0.00% Impervious, Inflow Depth = 0.03" for 10-year event
Inflow = 0.1 cfs @ 17.53 hrs, Volume= 2,064 cf
Primary = 0.1 cfs @ 17.53 hrs, Volume= 2,064 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Summary for Link DP-5.7: Wetland 19

Inflow Area = 418,303 sf, 0.00% Impervious, Inflow Depth = 0.12" for 10-year event
Inflow = 0.2 cfs @ 15.00 hrs, Volume= 4,303 cf
Primary = 0.2 cfs @ 15.00 hrs, Volume= 4,303 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.8: Wetland 45

Inflow Area = 2,033,871 sf, 0.00% Impervious, Inflow Depth = 0.00" for 10-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.9: Low Point

Inflow Area = 183,843 sf, 0.00% Impervious, Inflow Depth = 0.01" for 10-year event
Inflow = 0.0 cfs @ 23.35 hrs, Volume= 121 cf
Primary = 0.0 cfs @ 23.35 hrs, Volume= 121 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment PR6.10:

Runoff = 0.6 cfs @ 12.60 hrs, Volume= 6,063 cf, Depth= 0.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.585	39	>75% Grass cover, Good, HSG A
0.093	30	Meadow, non-grazed, HSG A
0.721	98	Paved parking, HSG A
2.506	30	Woods, Good, HSG A
0.007	77	Woods, Good, HSG D
3.911	44	Weighted Average
3.190		81.57% Pervious Area
0.721		18.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.0	50	0.0260	0.04		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
5.9	138	0.0240	0.39		Shallow Concentrated Flow,
					Forest w/Heavy Litter Kv= 2.5 fps
24.9	188	Total			

Summary for Subcatchment PR6.11:

Runoff = 0.0 cfs @ 15.70 hrs, Volume= 142 cf, Depth= 0.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
3,342	39	>75% Grass cover, Good, HSG A
22	30	Meadow, non-grazed, HSG A
855	98	Paved parking, HSG A
29,494	30	Woods, Good, HSG A
33,713	33	Weighted Average
32,857		97.46% Pervious Area
855		2.54% Impervious Area

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

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment PR6.12:

Runoff = 0.0 cfs @ 17.25 hrs, Volume= 71 cf, Depth= 0.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.122	39	>75% Grass cover, Good, HSG A
0.032	30	Meadow, non-grazed, HSG A
0.444	30	Woods, Good, HSG A
0.598	32	Weighted Average
0.598		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	28	0.4000	0.12		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.0	28	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment PR6.13:

Runoff = 2.1 cfs @ 12.15 hrs, Volume= 9,737 cf, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.341	39	>75% Grass cover, Good, HSG A
0.188	80	>75% Grass cover, Good, HSG D
0.106	30	Meadow, non-grazed, HSG A
0.255	98	Paved parking, HSG A
0.122	98	Paved parking, HSG D
1.492	30	Woods, Good, HSG A
0.660	77	Woods, Good, HSG D
3.163	52	Weighted Average
2.786		88.08% Pervious Area
0.377		11.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	13	0.1770	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
6.3	40	0.2650	0.11		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.0	53	Total			

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment PR6.14:

Runoff = 6.9 cfs @ 12.19 hrs, Volume= 28,993 cf, Depth= 1.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.335	80	>75% Grass cover, Good, HSG D
0.085	30	Meadow, non-grazed, HSG A
0.399	98	Paved parking, HSG A
0.274	98	Paved parking, HSG D
1.827	30	Woods, Good, HSG A
0.757	70	Woods, Good, HSG C
1.646	77	Woods, Good, HSG D
5.323	62	Weighted Average
4.650		87.36% Pervious Area
0.673		12.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	50	0.0800	0.12		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
1.8	75	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.9	75	0.0700	1.32		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
2.7	80	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
12.4	280	Total			

Summary for Subcatchment PR6.15:

Runoff = 0.3 cfs @ 12.11 hrs, Volume= 965 cf, Depth= 3.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.000	30	Meadow, non-grazed, HSG A
0.063	98	Paved parking, HSG A
0.015	30	Woods, Good, HSG A
0.079	84	Weighted Average
0.016		20.17% Pervious Area
0.063		79.83% Impervious Area

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Type III 24-hr 10-yr Rainfall=5.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	41	0.1760	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment PR6.1A:

Runoff = 0.0 cfs @ 12.51 hrs, Volume= 140 cf, Depth= 0.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.000	30	Meadow, non-grazed, HSG A
0.021	98	Paved parking, HSG A
0.093	30	Woods, Good, HSG A
0.114	42	Weighted Average
0.093		81.85% Pervious Area
0.021		18.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.6	78	0.0400	0.50		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.4	25	0.0240	1.08		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
15.1	153	Total			

Summary for Subcatchment PR6.1B:

Runoff = 0.0 cfs @ 15.48 hrs, Volume= 167 cf, Depth= 0.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
8,068	39	>75% Grass cover, Good, HSG A
9,385	30	Meadow, non-grazed, HSG A
685	98	Paved parking, HSG A
9,667	30	Woods, Good, HSG A
27,806	34	Weighted Average
27,120		97.53% Pervious Area
685		2.47% Impervious Area

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Type III 24-hr 10-yr Rainfall=5.10"

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

Summary for Subcatchment PR6.2:

Runoff = 0.2 cfs @ 12.47 hrs, Volume= 1,471 cf, Depth= 0.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
7,415	30	Meadow, non-grazed, HSG A
8,450	98	Paved parking, HSG A
25,465	30	Woods, Good, HSG A
41,330	44	Weighted Average
32,880		79.55% Pervious Area
8,450		20.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	50	0.0440	0.05		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
0.6	72	0.1875	2.17		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
16.0	122	Total			

Summary for Subcatchment PR6.3:

Runoff = 0.1 cfs @ 12.50 hrs, Volume= 921 cf, Depth= 0.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.134	98	Paved parking, HSG A
0.616	30	Woods, Good, HSG A
0.750	42	Weighted Average
0.616		82.12% Pervious Area
0.134		17.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.1	50	0.0660	0.06		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
1.6	105	0.0240	1.08		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
14.7	155	Total			

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment PR6.4:

Runoff = 1.3 cfs @ 12.26 hrs, Volume= 7,649 cf, Depth= 0.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
1.721	39	>75% Grass cover, Good, HSG A
0.624	98	Paved parking, HSG A
0.527	30	Woods, Good, HSG A
2.872	50	Weighted Average
2.249		78.28% Pervious Area
0.624		21.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	50	0.0740	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	36	0.0860	0.73		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
13.3	86	Total			

Summary for Subcatchment PR6.5:

Runoff = 0.3 cfs @ 14.87 hrs, Volume= 7,557 cf, Depth= 0.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
2.733	39	>75% Grass cover, Good, HSG A
1.189	98	Paved parking, HSG A
12.942	30	Woods, Good, HSG A
16.865	36	Weighted Average
15.675		92.95% Pervious Area
1.189		7.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.1	41	0.0580	0.60		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.8	91	Total			

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment PR6.6A:

Runoff = 0.2 cfs @ 12.55 hrs, Volume= 1,704 cf, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
7,275	30	Meadow, non-grazed, HSG A
7,723	98	Paved parking, HSG A
9,121	30	Woods, Good, HSG A
24,118	52	Weighted Average
16,396		67.98% Pervious Area
7,723		32.02% Impervious Area

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

Summary for Subcatchment PR6.6B:

Runoff = 0.9 cfs @ 12.69 hrs, Volume= 10,190 cf, Depth= 0.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
52,627	39	>75% Grass cover, Good, HSG A
4,923	30	Meadow, non-grazed, HSG A
52,301	98	Paved parking, HSG A
176,510	30	Woods, Good, HSG A
286,361	44	Weighted Average
234,060		81.74% Pervious Area
52,301		18.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	50	0.3000	0.20		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.1	13	0.3000	2.74		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.9	850	0.0120	0.55		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.2	85	0.0590	1.21		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
31.3	998	Total			

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment PR6.7:

Runoff = 0.2 cfs @ 13.91 hrs, Volume= 4,727 cf, Depth= 0.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
61,773	39	>75% Grass cover, Good, HSG A
10,632	30	Meadow, non-grazed, HSG A
29,284	98	Paved parking, HSG A
203,503	30	Woods, Good, HSG A
305,192	38	Weighted Average
275,908		90.40% Pervious Area
29,284		9.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	50	0.3300	0.12		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	13	0.4500	1.68		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
18.9	848	0.0114	0.75		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.5	86	0.0530	0.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
28.4	997	Total			

Summary for Subcatchment PR6.8:

Runoff = 0.0 cfs @ 17.57 hrs, Volume= 584 cf, Depth= 0.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
45,823	39	>75% Grass cover, Good, HSG A
0	30	Meadow, non-grazed, HSG A
168,373	30	Woods, Good, HSG A
214,195	32	Weighted Average
214,195		100.00% Pervious Area

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Type III 24-hr 10-yr Rainfall=5.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	44	0.5000	0.14		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
15.2	728	0.0130	0.80		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.6	113	0.0180	0.34		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
26.1	885	Total			

Summary for Subcatchment PR6.9:

Runoff = 0.1 cfs @ 12.40 hrs, Volume= 963 cf, Depth= 0.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
11,274	39	>75% Grass cover, Good, HSG A
1,725	30	Meadow, non-grazed, HSG A
4,683	98	Paved parking, HSG A
21,201	30	Woods, Good, HSG A
38,883	41	Weighted Average
34,200		87.96% Pervious Area
4,683		12.04% Impervious Area

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

Summary for Pond P6.2: Wide Swale

Inflow Area = 41,330 sf, 20.45% Impervious, Inflow Depth = 0.43" for 10-yr event
 Inflow = 0.2 cfs @ 12.47 hrs, Volume= 1,471 cf
 Outflow = 0.2 cfs @ 12.48 hrs, Volume= 1,471 cf, Atten= 0%, Lag= 0.3 min
 Discarded = 0.2 cfs @ 12.48 hrs, Volume= 1,471 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 181.50' @ 12.48 hrs Surf.Area= 1,801 sf Storage= 3 cf

Plug-Flow detention time= 0.3 min calculated for 1,468 cf (100% of inflow)
 Center-of-Mass det. time= 0.3 min (960.0 - 959.7)

Volume	Invert	Avail.Storage	Storage Description
#1	181.50'	5,464 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

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Type III 24-hr 10-yr Rainfall=5.10"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
181.50	1,800	0	0
182.50	2,600	2,200	2,200
183.70	2,840	3,264	5,464

Device	Routing	Invert	Outlet Devices
#1	Primary	182.50'	3.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	181.50'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.48 hrs HW=181.50' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=181.50' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P6.6: Linear Infiltration Basin**

Inflow Area = 310,479 sf, 19.33% Impervious, Inflow Depth = 0.46" for 10-yr event
 Inflow = 1.1 cfs @ 12.67 hrs, Volume= 11,895 cf
 Outflow = 1.1 cfs @ 12.67 hrs, Volume= 11,895 cf, Atten= 0%, Lag= 0.1 min
 Discarded = 1.1 cfs @ 12.67 hrs, Volume= 11,895 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Peak Elev= 179.01' @ 12.67 hrs Surf.Area= 713 sf Storage= 6 cf

Plug-Flow detention time= 0.1 min calculated for 11,875 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (967.2 - 967.1)

Volume	Invert	Avail.Storage	Storage Description
#1	179.00'	4,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
179.00	700	0	0
180.00	2,100	1,400	1,400
181.00	3,500	2,800	4,200

Device	Routing	Invert	Outlet Devices
#1	Primary	180.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	179.00'	2.4 cfs Exfiltration at all elevations

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Type III 24-hr 10-yr Rainfall=5.10"

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Discarded OutFlow Max=2.4 cfs @ 12.67 hrs HW=179.01' (Free Discharge)

↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=179.00' (Free Discharge)

↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)

Summary for Link DP6.1: Low Point

Inflow Area = 32,773 sf, 4.84% Impervious, Inflow Depth = 0.11" for 10-yr event
Inflow = 0.0 cfs @ 12.51 hrs, Volume= 307 cf
Primary = 0.0 cfs @ 12.51 hrs, Volume= 307 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.10: Low Point

Inflow Area = 170,377 sf, 18.43% Impervious, Inflow Depth = 0.43" for 10-yr event
Inflow = 0.6 cfs @ 12.60 hrs, Volume= 6,063 cf
Primary = 0.6 cfs @ 12.60 hrs, Volume= 6,063 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.11: Wetland/Potential Vernal Pool

Inflow Area = 33,713 sf, 2.54% Impervious, Inflow Depth = 0.05" for 10-yr event
Inflow = 0.0 cfs @ 15.70 hrs, Volume= 142 cf
Primary = 0.0 cfs @ 15.70 hrs, Volume= 142 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.12: Wetland 35/Vernal Pool 8

Inflow Area = 26,051 sf, 0.00% Impervious, Inflow Depth = 0.03" for 10-yr event
Inflow = 0.0 cfs @ 17.25 hrs, Volume= 71 cf
Primary = 0.0 cfs @ 17.25 hrs, Volume= 71 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.13: Wetland 34

Inflow Area = 137,787 sf, 11.92% Impervious, Inflow Depth = 0.85" for 10-yr event
Inflow = 2.1 cfs @ 12.15 hrs, Volume= 9,737 cf
Primary = 2.1 cfs @ 12.15 hrs, Volume= 9,737 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.14: Wetland 33

Inflow Area = 231,878 sf, 12.64% Impervious, Inflow Depth = 1.50" for 10-yr event
Inflow = 6.9 cfs @ 12.19 hrs, Volume= 28,993 cf
Primary = 6.9 cfs @ 12.19 hrs, Volume= 28,993 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.15: Low Point

Inflow Area = 3,445 sf, 79.83% Impervious, Inflow Depth = 3.36" for 10-yr event
Inflow = 0.3 cfs @ 12.11 hrs, Volume= 965 cf
Primary = 0.3 cfs @ 12.11 hrs, Volume= 965 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.2: Dutton

Inflow Area = 41,330 sf, 20.45% Impervious, Inflow Depth = 0.00" for 10-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.3: Low Point

Inflow Area = 32,660 sf, 17.88% Impervious, Inflow Depth = 0.34" for 10-yr event
Inflow = 0.1 cfs @ 12.50 hrs, Volume= 921 cf
Primary = 0.1 cfs @ 12.50 hrs, Volume= 921 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.4: Low Point

Inflow Area = 125,115 sf, 21.72% Impervious, Inflow Depth = 0.73" for 10-yr event
Inflow = 1.3 cfs @ 12.26 hrs, Volume= 7,649 cf
Primary = 1.3 cfs @ 12.26 hrs, Volume= 7,649 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.5: Low Point

Inflow Area = 734,624 sf, 7.05% Impervious, Inflow Depth = 0.12" for 10-yr event
Inflow = 0.3 cfs @ 14.87 hrs, Volume= 7,557 cf
Primary = 0.3 cfs @ 14.87 hrs, Volume= 7,557 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.6: Wetland 38 & 36

Inflow Area = 310,479 sf, 19.33% Impervious, Inflow Depth = 0.00" for 10-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.7: Wetland 37

Inflow Area = 305,192 sf, 9.60% Impervious, Inflow Depth = 0.19" for 10-yr event
Inflow = 0.2 cfs @ 13.91 hrs, Volume= 4,727 cf
Primary = 0.2 cfs @ 13.91 hrs, Volume= 4,727 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.8: Low Point

Inflow Area = 214,195 sf, 0.00% Impervious, Inflow Depth = 0.03" for 10-yr event
Inflow = 0.0 cfs @ 17.57 hrs, Volume= 584 cf
Primary = 0.0 cfs @ 17.57 hrs, Volume= 584 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.9: Low Point

Inflow Area = 38,883 sf, 12.04% Impervious, Inflow Depth = 0.30" for 10-yr event
Inflow = 0.1 cfs @ 12.40 hrs, Volume= 963 cf
Primary = 0.1 cfs @ 12.40 hrs, Volume= 963 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment PR7.1:

Runoff = 7.6 cfs @ 12.26 hrs, Volume= 38,344 cf, Depth= 1.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
81,286	39	>75% Grass cover, Good, HSG A
22,055	80	>75% Grass cover, Good, HSG D
5,733	30	Meadow, non-grazed, HSG A
2,202	78	Meadow, non-grazed, HSG D
32,877	98	Paved parking, HSG A
11,938	98	Paved parking, HSG D
20,918	98	Paved roads w/curbs & sewers, HSG A
5,335	98	Paved roads w/curbs & sewers, HSG D
6,152	98	Roofs, HSG A
135,436	30	Woods, Good, HSG A
73,342	77	Woods, Good, HSG D
397,273	57	Weighted Average
320,054		80.56% Pervious Area
77,220		19.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	50	0.0300	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
5.6	270	0.0133	0.81		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.5	51	0.1100	1.66		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.4	371	Total			

Summary for Subcatchment PR7.10:

Runoff = 0.0 cfs @ 21.97 hrs, Volume= 17 cf, Depth= 0.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.105	30	Meadow, non-grazed, HSG A
0.004	98	Paved parking, HSG A
0.153	30	Woods, Good, HSG A
0.262	31	Weighted Average
0.258		98.32% Pervious Area
0.004		1.68% Impervious Area

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Type III 24-hr 10-yr Rainfall=5.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0400	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.0	30	0.0400	0.50		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.0	80	Total			

Summary for Subcatchment PR7.11:

Runoff = 0.2 cfs @ 12.81 hrs, Volume= 2,731 cf, Depth= 0.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.624	39	>75% Grass cover, Good, HSG A
0.087	98	Paved parking, HSG A
0.149	98	Paved roads w/curbs & sewers, HSG A
0.038	98	Roofs, HSG A
0.689	30	Woods, Good, HSG A
1.587	45	Weighted Average
1.313		82.71% Pervious Area
0.274		17.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	55	0.1230	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.6	138	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
26.0	406	0.0108	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
41.6	599	Total			

Summary for Subcatchment PR7.12:

Runoff = 0.2 cfs @ 12.83 hrs, Volume= 2,352 cf, Depth= 0.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

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Type III 24-hr 10-yr Rainfall=5.10"

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Area (ac)	CN	Description
0.321	39	>75% Grass cover, Good, HSG A
0.084	98	Paved parking, HSG A
0.141	98	Paved roads w/curbs & sewers, HSG A
0.023	98	Roofs, HSG A
0.670	30	Woods, Good, HSG A
1.240	46	Weighted Average
0.991		79.98% Pervious Area
0.248		20.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.7	50	0.0240	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.1	75	0.0147	0.30		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
1.6	94	0.0190	0.96		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.8	62	0.0530	0.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.1	284	0.0020	0.31		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
42.3	565	Total			

Summary for Subcatchment PR7.2:

Runoff = 0.0 cfs @ 15.17 hrs, Volume= 915 cf, Depth= 0.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
7,485	30	Meadow, non-grazed, HSG A
58	78	Meadow, non-grazed, HSG D
2,498	98	Paved parking, HSG A
3,458	98	Paved roads w/curbs & sewers, HSG A
2,942	98	Roofs, HSG A
97,680	30	Woods, Good, HSG A
114,121	35	Weighted Average
105,223		92.20% Pervious Area
8,898		7.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	50	0.0300	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
4.1	223	0.0170	0.91		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.2	16	0.2230	1.18		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
14.6	289	Total			

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment PR7.3:

Runoff = 0.5 cfs @ 12.52 hrs, Volume= 5,045 cf, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.826	39	>75% Grass cover, Good, HSG A
0.024	74	>75% Grass cover, Good, HSG C
0.001	30	Meadow, non-grazed, HSG A
0.033	98	Paved parking, HSG A
0.191	98	Paved roads w/curbs & sewers, HSG A
0.044	98	Paved roads w/curbs & sewers, HSG C
0.181	98	Roofs, HSG A
0.001	98	Roofs, HSG C
2.129	30	Woods, Good, HSG A
0.209	70	Woods, Good, HSG C
3.640	43	Weighted Average
3.189		87.62% Pervious Area
0.450		12.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	50	0.0440	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.6	65	0.0769	0.69		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.0570	1.67		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.1	129	Total			

Summary for Subcatchment PR7.4:

Runoff = 9.9 cfs @ 12.30 hrs, Volume= 49,090 cf, Depth= 1.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

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Type III 24-hr 10-yr Rainfall=5.10"

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Area (sf)	CN	Description
52,005	39	>75% Grass cover, Good, HSG A
16,421	74	>75% Grass cover, Good, HSG C
1,502	80	>75% Grass cover, Good, HSG D
12	30	Meadow, non-grazed, HSG A
9,660	98	Paved parking, HSG A
5,971	98	Paved parking, HSG C
4,523	98	Paved parking, HSG D
5,581	98	Paved roads w/curbs & sewers, HSG A
2,141	98	Paved roads w/curbs & sewers, HSG C
5,002	98	Paved roads w/curbs & sewers, HSG D
6,874	98	Roofs, HSG A
5,679	98	Roofs, HSG C
105	98	Roofs, HSG D
78,012	30	Woods, Good, HSG A
85,212	70	Woods, Good, HSG C
95,894	77	Woods, Good, HSG D
374,595	63	Weighted Average
329,058		87.84% Pervious Area
45,538		12.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2	50	0.1600	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	80	0.0640	1.77		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
9.2	310	0.0064	0.56		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.7	40	0.0400	1.00		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.2	20	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
20.1	500	Total			

Summary for Subcatchment PR7.5:

Runoff = 12.2 cfs @ 12.28 hrs, Volume= 71,047 cf, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

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Type III 24-hr 10-yr Rainfall=5.10"

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Area (ac)	CN	Description
3.909	39	>75% Grass cover, Good, HSG A
0.638	80	>75% Grass cover, Good, HSG D
0.056	30	Meadow, non-grazed, HSG A
0.098	78	Meadow, non-grazed, HSG D
0.666	98	Paved parking, HSG A
0.079	98	Paved parking, HSG D
1.090	98	Paved roads w/curbs & sewers, HSG A
0.990	98	Roofs, HSG A
0.161	98	Roofs, HSG D
10.494	30	Woods, Good, HSG A
4.899	77	Woods, Good, HSG D
23.079	52	Weighted Average
20.095		87.07% Pervious Area
2.984		12.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.1	145	0.0550	1.17		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.6	75	0.0260	0.81		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
15.8	270	Total			

Summary for Subcatchment PR7.6:

Runoff = 0.1 cfs @ 12.55 hrs, Volume= 978 cf, Depth= 0.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
4,883	30	Meadow, non-grazed, HSG A
6,327	98	Paved parking, HSG A
28,259	30	Woods, Good, HSG A
39,470	41	Weighted Average
33,142		83.97% Pervious Area
6,327		16.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	50	0.0760	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.4	124	0.0600	0.61		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.8	174	Total			

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment PR7.7:

Runoff = 0.0 cfs @ 23.35 hrs, Volume= 19 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.176	30	Meadow, non-grazed, HSG A
0.470	30	Woods, Good, HSG A
0.646	30	Weighted Average
0.646		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	50	0.1500	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.5	90	0.0290	0.43		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
12.9	140	Total			

Summary for Subcatchment PR7.8:

Runoff = 0.1 cfs @ 12.95 hrs, Volume= 1,193 cf, Depth= 0.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.287	39	>75% Grass cover, Good, HSG A
0.063	30	Meadow, non-grazed, HSG A
0.120	98	Paved parking, HSG A
0.021	98	Roofs, HSG A
0.784	30	Woods, Good, HSG A
1.274	40	Weighted Average
1.134		88.95% Pervious Area
0.141		11.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	41	0.1390	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
17.8	683	0.0083	0.64		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
10.2	303	0.0389	0.49		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
36.3	1,027	Total			

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment PR7.9:

Runoff = 0.8 cfs @ 12.52 hrs, Volume= 7,956 cf, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
1.941	39	>75% Grass cover, Good, HSG A
0.258	98	Paved parking, HSG A
0.216	98	Paved roads w/curbs & sewers, HSG A
0.364	98	Roofs, HSG A
2.961	30	Woods, Good, HSG A
5.740	43	Weighted Average
4.902		85.40% Pervious Area
0.838		14.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	50	0.0220	0.07		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.2	14	0.0360	1.33		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.8	185	0.0454	0.53		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.7	249	Total			

Summary for Pond P7.1: Detention Basin

Inflow Area = 397,273 sf, 19.44% Impervious, Inflow Depth = 1.16" for 10-yr event
 Inflow = 7.6 cfs @ 12.26 hrs, Volume= 38,344 cf
 Outflow = 7.6 cfs @ 12.27 hrs, Volume= 38,344 cf, Atten= 0%, Lag= 0.6 min
 Discarded = 2.4 cfs @ 12.06 hrs, Volume= 31,818 cf
 Primary = 5.2 cfs @ 12.27 hrs, Volume= 6,527 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 162.33' @ 12.27 hrs Surf.Area= 840 sf Storage= 1,247 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 1.7 min (894.9 - 893.3)

Volume	Invert	Avail.Storage	Storage Description
#1	159.00'	1,860 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
159.00	120	0	0
160.00	160	140	140
161.00	380	270	410
162.00	760	570	980
163.00	1,000	880	1,860

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Type III 24-hr 10-yr Rainfall=5.10"

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Device	Routing	Invert	Outlet Devices
#1	Primary	162.00'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	159.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.06 hrs HW=159.08' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=5.2 cfs @ 12.27 hrs HW=162.33' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** (Weir Controls 5.2 cfs @ 1.56 fps)**Summary for Pond P7.6: Low Point**

Inflow Area = 39,470 sf, 16.03% Impervious, Inflow Depth = 0.30" for 10-yr event
Inflow = 0.1 cfs @ 12.55 hrs, Volume= 978 cf
Outflow = 0.1 cfs @ 12.55 hrs, Volume= 978 cf, Atten= 0%, Lag= 0.1 min
Discarded = 0.1 cfs @ 12.55 hrs, Volume= 978 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 132.00' @ 12.55 hrs Surf.Area= 252 sf Storage= 0 cf

Plug-Flow detention time= 0.1 min calculated for 977 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (987.9 - 987.8)

Volume	Invert	Avail.Storage	Storage Description
#1	132.00'	6,580 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
132.00	250	0	0
133.00	2,120	1,185	1,185
134.00	2,690	2,405	3,590
135.00	3,290	2,990	6,580

Device	Routing	Invert	Outlet Devices
#1	Primary	134.50'	10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	132.00'	2.4 cfs Exfiltration at all elevations

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Discarded OutFlow Max=2.4 cfs @ 12.55 hrs HW=132.00' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=132.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Pond P7.8: Low Point**

Inflow Area = 55,516 sf, 11.05% Impervious, Inflow Depth = 0.26" for 10-yr event
 Inflow = 0.1 cfs @ 12.95 hrs, Volume= 1,193 cf
 Outflow = 0.1 cfs @ 12.95 hrs, Volume= 1,193 cf, Atten= 0%, Lag= 0.1 min
 Discarded = 0.1 cfs @ 12.95 hrs, Volume= 1,193 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 168.00' @ 12.95 hrs Surf.Area= 300 sf Storage= 0 cf

Plug-Flow detention time= 0.0 min calculated for 1,193 cf (100% of inflow)

Center-of-Mass det. time= 0.0 min (1,018.5 - 1,018.5)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	1,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	300	0	0
169.00	750	525	525
170.00	1,200	975	1,500

Device	Routing	Invert	Outlet Devices
#1	Primary	169.00'	10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	168.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.95 hrs HW=168.00' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=168.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Link DP7.1: Wetland 30**

Inflow Area = 397,273 sf, 19.44% Impervious, Inflow Depth = 0.20" for 10-yr event
 Inflow = 5.2 cfs @ 12.27 hrs, Volume= 6,527 cf
 Primary = 5.2 cfs @ 12.27 hrs, Volume= 6,527 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.10: Low Point

Inflow Area = 11,432 sf, 1.68% Impervious, Inflow Depth = 0.02" for 10-yr event
Inflow = 0.0 cfs @ 21.97 hrs, Volume= 17 cf
Primary = 0.0 cfs @ 21.97 hrs, Volume= 17 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.11: Low Point

Inflow Area = 69,139 sf, 17.29% Impervious, Inflow Depth = 0.47" for 10-yr event
Inflow = 0.2 cfs @ 12.81 hrs, Volume= 2,731 cf
Primary = 0.2 cfs @ 12.81 hrs, Volume= 2,731 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.12: Low Point

Inflow Area = 53,996 sf, 20.02% Impervious, Inflow Depth = 0.52" for 10-yr event
Inflow = 0.2 cfs @ 12.83 hrs, Volume= 2,352 cf
Primary = 0.2 cfs @ 12.83 hrs, Volume= 2,352 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.2: Wetland 32

Inflow Area = 114,121 sf, 7.80% Impervious, Inflow Depth = 0.10" for 10-yr event
Inflow = 0.0 cfs @ 15.17 hrs, Volume= 915 cf
Primary = 0.0 cfs @ 15.17 hrs, Volume= 915 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.3: Low Point

Inflow Area = 158,537 sf, 12.38% Impervious, Inflow Depth = 0.38" for 10-yr event
Inflow = 0.5 cfs @ 12.52 hrs, Volume= 5,045 cf
Primary = 0.5 cfs @ 12.52 hrs, Volume= 5,045 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.4: Low Point

Inflow Area = 374,595 sf, 12.16% Impervious, Inflow Depth = 1.57" for 10-yr event
Inflow = 9.9 cfs @ 12.30 hrs, Volume= 49,090 cf
Primary = 9.9 cfs @ 12.30 hrs, Volume= 49,090 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.5: Wetland 31

Inflow Area = 1,005,327 sf, 12.93% Impervious, Inflow Depth = 0.85" for 10-yr event
Inflow = 12.2 cfs @ 12.28 hrs, Volume= 71,047 cf
Primary = 12.2 cfs @ 12.28 hrs, Volume= 71,047 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.6: Low Point

Inflow Area = 39,470 sf, 16.03% Impervious, Inflow Depth = 0.00" for 10-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.7: Low Point

Inflow Area = 28,139 sf, 0.00% Impervious, Inflow Depth = 0.01" for 10-yr event
Inflow = 0.0 cfs @ 23.35 hrs, Volume= 19 cf
Primary = 0.0 cfs @ 23.35 hrs, Volume= 19 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.8: Low Point

Inflow Area = 55,516 sf, 11.05% Impervious, Inflow Depth = 0.00" for 10-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.9: Low Point

Inflow Area = 250,025 sf, 14.60% Impervious, Inflow Depth = 0.38" for 10-yr event
Inflow = 0.8 cfs @ 12.52 hrs, Volume= 7,956 cf
Primary = 0.8 cfs @ 12.52 hrs, Volume= 7,956 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Summary for Subcatchment PR8.1:

Runoff = 15.8 cfs @ 12.25 hrs, Volume= 78,601 cf, Depth= 1.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
1.938	39	>75% Grass cover, Good, HSG A
0.003	80	>75% Grass cover, Good, HSG D
0.127	30	Meadow, non-grazed, HSG A
0.080	78	Meadow, non-grazed, HSG D
1.226	98	Paved parking, HSG A
0.788	98	Paved roads w/curbs & sewers, HSG A
1.177	98	Roofs, HSG A
8.427	30	Woods, Good, HSG A
0.000	70	Woods, Good, HSG C
6.034	77	Woods, Good, HSG D
19.801	56	Weighted Average
16.610		83.88% Pervious Area
3.191		16.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	50	0.0440	0.09		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
4.3	205	0.0127	0.79		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.8	77	0.0770	0.69		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.0	332	Total			

Summary for Subcatchment PR8.10:

Runoff = 9.5 cfs @ 12.16 hrs, Volume= 35,067 cf, Depth= 2.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.037	30	Meadow, non-grazed, HSG A
1.401	98	Paved parking, HSG A
0.269	98	Paved roads w/curbs & sewers, HSG A
0.775	98	Roofs, HSG A
1.088	30	Woods, Good, HSG A
3.569	77	Weighted Average
1.125		31.53% Pervious Area
2.444		68.47% Impervious Area

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Type III 24-hr 10-yr Rainfall=5.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	50	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.7	100	0.0200	0.99		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
11.4	150	Total			

Summary for Subcatchment PR8.11:

Runoff = 0.6 cfs @ 12.37 hrs, Volume= 3,685 cf, Depth= 1.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.013	30	Meadow, non-grazed, HSG A
0.313	98	Paved parking, HSG A
0.028	98	Paved roads w/curbs & sewers, HSG A
0.020	98	Roofs, HSG A
0.554	30	Woods, Good, HSG A
0.928	56	Weighted Average
0.567		61.06% Pervious Area
0.362		38.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.8	50	0.0580	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.6	204	0.0250	0.40		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
22.4	254	Total			

Summary for Subcatchment PR8.2:

Runoff = 1.6 cfs @ 12.82 hrs, Volume= 22,617 cf, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

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Type III 24-hr 10-yr Rainfall=5.10"

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Area (ac)	CN	Description
0.171	30	Meadow, non-grazed, HSG A
0.049	78	Meadow, non-grazed, HSG D
0.309	98	Paved parking, HSG A
0.095	98	Paved parking, HSG D
0.227	98	Paved roads w/curbs & sewers, HSG A
0.058	98	Roofs, HSG A
11.805	30	Woods, Good, HSG A
3.604	77	Woods, Good, HSG D
16.317	43	Weighted Average
15.629		95.78% Pervious Area
0.688		4.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.1	50	0.0160	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
14.6	354	0.0260	0.40		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	404	Total			

Summary for Subcatchment PR8.3A:

Runoff = 0.0 cfs @ 23.56 hrs, Volume= 8 cf, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.095	30	Meadow, non-grazed, HSG A
0.186	30	Woods, Good, HSG A
0.280	30	Weighted Average
0.280		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	50	0.0720	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
13.0	200	0.0105	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
25.7	250	Total			

Summary for Subcatchment PR8.3b:

Runoff = 9.4 cfs @ 12.43 hrs, Volume= 58,698 cf, Depth= 1.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

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Type III 24-hr 10-yr Rainfall=5.10"

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Area (ac)	CN	Description
0.261	39	>75% Grass cover, Good, HSG A
0.491	91	Gravel roads, HSG D
0.268	30	Meadow, non-grazed, HSG A
0.009	58	Meadow, non-grazed, HSG B
0.018	78	Meadow, non-grazed, HSG D
0.517	98	Paved parking, HSG A
0.254	98	Paved roads w/curbs & sewers, HSG A
0.429	98	Roofs, HSG A
7.410	30	Woods, Good, HSG A
0.463	55	Woods, Good, HSG B
5.576	77	Woods, Good, HSG D
15.697	55	Weighted Average
14.496		92.35% Pervious Area
1.201		7.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	50	0.0720	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
13.0	200	0.0105	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
25.7	250	Total			

Summary for Subcatchment PR8.4:

Runoff = 0.4 cfs @ 12.49 hrs, Volume= 2,714 cf, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.198	30	Meadow, non-grazed, HSG A
0.011	58	Meadow, non-grazed, HSG B
0.000	78	Meadow, non-grazed, HSG D
0.237	98	Paved parking, HSG A
0.037	98	Paved parking, HSG B
0.005	98	Paved parking, HSG D
0.541	30	Woods, Good, HSG A
0.072	55	Woods, Good, HSG B
1.102	49	Weighted Average
0.823		74.71% Pervious Area
0.279		25.29% Impervious Area

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Type III 24-hr 10-yr Rainfall=5.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	23	0.1300	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
12.9	27	0.0200	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
6.4	273	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
24.7	323	Total			

Summary for Subcatchment PR8.5A:

Runoff = 0.8 cfs @ 12.53 hrs, Volume= 5,065 cf, Depth= 1.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.198	58	Meadow, non-grazed, HSG B
0.206	98	Paved parking, HSG B
0.312	55	Woods, Good, HSG B
0.715	68	Weighted Average
0.509		71.24% Pervious Area
0.206		28.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.3	48	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
27.8	826	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	40	0.1825	1.07		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	914	Total			

Summary for Subcatchment PR8.5B:

Runoff = 4.5 cfs @ 12.53 hrs, Volume= 27,604 cf, Depth= 2.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

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Type III 24-hr 10-yr Rainfall=5.10"

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Area (ac)	CN	Description
0.064	58	Meadow, non-grazed, HSG B
0.344	98	Paved parking, HSG A
0.117	98	Paved parking, HSG B
1.314	98	Roofs, HSG A
0.909	30	Woods, Good, HSG A
0.719	55	Woods, Good, HSG B
3.469	71	Weighted Average
1.693		48.80% Pervious Area
1.776		51.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.3	48	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
27.8	826	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	40	0.1825	1.07		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	914	Total			

Summary for Subcatchment PR8.6:

Runoff = 31.2 cfs @ 12.49 hrs, Volume= 182,100 cf, Depth= 2.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.328	89	Gravel roads, HSG C
0.031	91	Gravel roads, HSG D
0.397	58	Meadow, non-grazed, HSG B
0.049	98	Paved parking, HSG A
0.096	98	Paved parking, HSG D
1.239	30	Woods, Good, HSG A
5.319	55	Woods, Good, HSG B
3.260	70	Woods, Good, HSG C
13.989	77	Woods, Good, HSG D
24.708	69	Weighted Average
24.563		99.41% Pervious Area
0.145		0.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	58	0.1400	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
21.0	706	0.0064	0.56		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.7	43	0.1511	0.97		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
32.6	807	Total			

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment PR8.7:

Runoff = 0.9 cfs @ 12.55 hrs, Volume= 5,888 cf, Depth= 2.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.024	58	Meadow, non-grazed, HSG B
0.232	98	Paved parking, HSG A
0.044	98	Paved parking, HSG B
0.104	98	Roofs, HSG A
0.186	30	Woods, Good, HSG A
0.179	55	Woods, Good, HSG B
0.768	70	Weighted Average
0.389		50.60% Pervious Area
0.380		49.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.2	39	0.0205	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
20.5	888	0.0106	0.72		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	37	0.1590	1.00		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
38.3	964	Total			

Summary for Subcatchment PR8.8:

Runoff = 2.5 cfs @ 12.21 hrs, Volume= 10,452 cf, Depth= 3.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.022	30	Meadow, non-grazed, HSG A
0.057	58	Meadow, non-grazed, HSG B
0.198	98	Paved parking, HSG A
0.339	98	Paved parking, HSG B
0.079	98	Roofs, HSG A
0.053	30	Woods, Good, HSG A
0.189	55	Woods, Good, HSG B
0.937	81	Weighted Average
0.321		34.26% Pervious Area
0.616		65.74% Impervious Area

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Type III 24-hr 10-yr Rainfall=5.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.6	50	0.0600	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.7	85	0.0150	0.86		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
15.3	135	Total			

Summary for Subcatchment PR8.9:

Runoff = 0.7 cfs @ 12.45 hrs, Volume= 4,171 cf, Depth= 1.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.019	30	Meadow, non-grazed, HSG A
0.076	58	Meadow, non-grazed, HSG B
0.026	30	Woods, Good, HSG A
0.665	55	Woods, Good, HSG B
0.152	77	Woods, Good, HSG D
0.939	58	Weighted Average
0.939		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	37	0.2050	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
14.1	585	0.0097	0.69		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	153	0.0160	0.32		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
28.8	775	Total			

Summary for Pond P8.10: Low Point

Inflow Area = 155,459 sf, 68.47% Impervious, Inflow Depth = 2.71" for 10-yr event
 Inflow = 9.5 cfs @ 12.16 hrs, Volume= 35,067 cf
 Outflow = 3.9 cfs @ 12.49 hrs, Volume= 35,067 cf, Atten= 59%, Lag= 19.6 min
 Discarded = 2.4 cfs @ 11.86 hrs, Volume= 34,030 cf
 Primary = 1.5 cfs @ 12.49 hrs, Volume= 1,037 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 134.68' @ 12.49 hrs Surf.Area= 6,035 sf Storage= 7,500 cf

Plug-Flow detention time= 16.4 min calculated for 35,062 cf (100% of inflow)
 Center-of-Mass det. time= 16.4 min (850.2 - 833.8)

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Type III 24-hr 10-yr Rainfall=5.10"

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Volume	Invert	Avail.Storage	Storage Description
#1	133.00'	9,535 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
133.00	2,935	0	0
134.00	4,745	3,840	3,840
135.00	6,645	5,695	9,535

Device	Routing	Invert	Outlet Devices
#1	Primary	134.60'	25.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	133.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 11.86 hrs HW=133.02' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=1.5 cfs @ 12.49 hrs HW=134.68' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Weir Controls 1.5 cfs @ 0.76 fps)**Summary for Pond P8.2: Linear Infiltration Basin**

Inflow Area = 710,754 sf, 4.22% Impervious, Inflow Depth = 0.38" for 10-yr event
 Inflow = 1.6 cfs @ 12.82 hrs, Volume= 22,617 cf
 Outflow = 1.6 cfs @ 12.82 hrs, Volume= 22,617 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 1.6 cfs @ 12.82 hrs, Volume= 22,617 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 163.01' @ 12.82 hrs Surf.Area= 462 sf Storage= 6 cf

Plug-Flow detention time= 0.1 min calculated for 22,614 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (988.4 - 988.3)

Volume	Invert	Avail.Storage	Storage Description
#1	163.00'	2,700 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
163.00	450	0	0
164.00	1,350	900	900
165.00	2,250	1,800	2,700

Device	Routing	Invert	Outlet Devices
#1	Primary	164.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68

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Type III 24-hr 10-yr Rainfall=5.10"

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2.72 2.81 2.92 2.97 3.07 3.32

#2 Discarded 163.00' **2.4 cfs Exfiltration at all elevations**

Discarded OutFlow Max=2.4 cfs @ 12.82 hrs HW=163.01' (Free Discharge)↑ **2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=163.00' (Free Discharge)↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P8.3: Linear Infiltration Basin**

Inflow Area = 683,751 sf, 7.65% Impervious, Inflow Depth = 1.03" for 10-yr event
 Inflow = 9.4 cfs @ 12.43 hrs, Volume= 58,698 cf
 Outflow = 9.4 cfs @ 12.46 hrs, Volume= 58,698 cf, Atten= 0%, Lag= 1.7 min
 Discarded = 2.4 cfs @ 12.12 hrs, Volume= 46,979 cf
 Primary = 6.9 cfs @ 12.46 hrs, Volume= 11,719 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 160.71' @ 12.46 hrs Surf.Area= 3,090 sf Storage= 3,236 cf

Plug-Flow detention time= 5.8 min calculated for 58,690 cf (100% of inflow)
 Center-of-Mass det. time= 5.8 min (914.8 - 909.1)

Volume	Invert	Avail.Storage	Storage Description
#1	159.00'	8,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
159.00	700	0	0
160.00	2,100	1,400	1,400
161.00	3,500	2,800	4,200
162.00	4,500	4,000	8,200

Device	Routing	Invert	Outlet Devices
#1	Primary	160.50'	30.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	159.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.12 hrs HW=159.03' (Free Discharge)↑ **2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=6.9 cfs @ 12.46 hrs HW=160.71' (Free Discharge)↑ **1=Broad-Crested Rectangular Weir** (Weir Controls 6.9 cfs @ 1.11 fps)

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Summary for Pond P8.4: Linear Infiltration Basin

Inflow Area = 47,994 sf, 25.29% Impervious, Inflow Depth = 0.68" for 10-yr event
 Inflow = 0.4 cfs @ 12.49 hrs, Volume= 2,714 cf
 Outflow = 0.4 cfs @ 12.49 hrs, Volume= 2,714 cf, Atten= 0%, Lag= 0.1 min
 Discarded = 0.4 cfs @ 12.49 hrs, Volume= 2,714 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 160.00' @ 12.49 hrs Surf.Area= 704 sf Storage= 2 cf

Plug-Flow detention time= 0.1 min calculated for 2,713 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (935.0 - 934.9)

Volume	Invert	Avail.Storage	Storage Description
#1	160.00'	4,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
160.00	700	0	0
161.00	2,100	1,400	1,400
162.00	3,500	2,800	4,200

Device	Routing	Invert	Outlet Devices
#1	Primary	161.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	160.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.49 hrs HW=160.00' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=160.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Pond P8.5: Linear Infiltration Basin**

Inflow Area = 31,151 sf, 28.76% Impervious, Inflow Depth = 1.95" for 10-yr event
 Inflow = 0.8 cfs @ 12.53 hrs, Volume= 5,065 cf
 Outflow = 0.8 cfs @ 12.54 hrs, Volume= 5,065 cf, Atten= 0%, Lag= 0.7 min
 Discarded = 0.8 cfs @ 12.54 hrs, Volume= 5,065 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 149.01' @ 12.54 hrs Surf.Area= 912 sf Storage= 6 cf

Plug-Flow detention time= 0.1 min calculated for 5,064 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (881.2 - 881.1)

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Volume	Invert	Avail.Storage	Storage Description
#1	149.00'	5,400 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
149.00	900	0	0
150.00	2,700	1,800	1,800
151.00	4,500	3,600	5,400

Device	Routing	Invert	Outlet Devices
#1	Primary	150.00'	1.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	149.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.54 hrs HW=149.01' (Free Discharge)

↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=149.00' (Free Discharge)

↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)

Summary for Pond P8.7: Low Point

Inflow Area = 33,475 sf, 49.40% Impervious, Inflow Depth = 2.11" for 10-yr event
Inflow = 0.9 cfs @ 12.55 hrs, Volume= 5,888 cf
Outflow = 0.9 cfs @ 12.56 hrs, Volume= 5,888 cf, Atten= 0%, Lag= 0.2 min
Discarded = 0.9 cfs @ 12.56 hrs, Volume= 5,888 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 135.02' @ 12.56 hrs Surf.Area= 473 sf Storage= 9 cf

Plug-Flow detention time= 0.2 min calculated for 5,887 cf (100% of inflow)

Center-of-Mass det. time= 0.2 min (876.7 - 876.5)

Volume	Invert	Avail.Storage	Storage Description
#1	135.00'	2,343 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
135.00	460	0	0
136.00	1,185	823	823
137.00	1,855	1,520	2,343

Device	Routing	Invert	Outlet Devices
#1	Primary	136.80'	5.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31

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Type III 24-hr 10-yr Rainfall=5.10"

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3.30 3.31 3.32
#2 Discarded 135.00' **1.0 cfs Exfiltration at all elevations**

Discarded OutFlow Max=1.0 cfs @ 12.56 hrs HW=135.02' (Free Discharge)↑ **2=Exfiltration** (Exfiltration Controls 1.0 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=135.00' (Free Discharge)↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Link DP8.1: Wetland 28/29**

Inflow Area = 862,522 sf, 16.12% Impervious, Inflow Depth = 1.09" for 10-yr event
Inflow = 15.8 cfs @ 12.25 hrs, Volume= 78,601 cf
Primary = 15.8 cfs @ 12.25 hrs, Volume= 78,601 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.10: Low Point

Inflow Area = 155,459 sf, 68.47% Impervious, Inflow Depth = 0.08" for 10-yr event
Inflow = 1.5 cfs @ 12.49 hrs, Volume= 1,037 cf
Primary = 1.5 cfs @ 12.49 hrs, Volume= 1,037 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.11: Wetland

Inflow Area = 40,442 sf, 38.94% Impervious, Inflow Depth = 1.09" for 10-yr event
Inflow = 0.6 cfs @ 12.37 hrs, Volume= 3,685 cf
Primary = 0.6 cfs @ 12.37 hrs, Volume= 3,685 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.2: Wetland 27

Inflow Area = 710,754 sf, 4.22% Impervious, Inflow Depth = 0.00" for 10-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.3: Wetland 25

Inflow Area = 695,957 sf, 7.51% Impervious, Inflow Depth = 0.20" for 10-yr event
Inflow = 6.9 cfs @ 12.46 hrs, Volume= 11,727 cf
Primary = 6.9 cfs @ 12.46 hrs, Volume= 11,727 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.4: Wetland 24

Inflow Area = 47,994 sf, 25.29% Impervious, Inflow Depth = 0.00" for 10-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.5: Low Point

Inflow Area = 182,241 sf, 47.36% Impervious, Inflow Depth = 1.82" for 10-yr event
Inflow = 4.5 cfs @ 12.53 hrs, Volume= 27,604 cf
Primary = 4.5 cfs @ 12.53 hrs, Volume= 27,604 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.6: Wetland 26

Inflow Area = 1,076,276 sf, 0.59% Impervious, Inflow Depth = 2.03" for 10-yr event
Inflow = 31.2 cfs @ 12.49 hrs, Volume= 182,100 cf
Primary = 31.2 cfs @ 12.49 hrs, Volume= 182,100 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.7: Low Point

Inflow Area = 33,475 sf, 49.40% Impervious, Inflow Depth = 0.00" for 10-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.8: Low Point

Inflow Area = 40,804 sf, 65.74% Impervious, Inflow Depth = 3.07" for 10-yr event
Inflow = 2.5 cfs @ 12.21 hrs, Volume= 10,452 cf
Primary = 2.5 cfs @ 12.21 hrs, Volume= 10,452 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.9: Wetland 24A/Vernal Pool 5

Inflow Area = 40,889 sf, 0.00% Impervious, Inflow Depth = 1.22" for 10-yr event
Inflow = 0.7 cfs @ 12.45 hrs, Volume= 4,171 cf
Primary = 0.7 cfs @ 12.45 hrs, Volume= 4,171 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment PR10.1:

Runoff = 3.2 cfs @ 12.21 hrs, Volume= 12,982 cf, Depth= 2.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
2,455	80	>75% Grass cover, Good, HSG D
2,801	78	Meadow, non-grazed, HSG D
6,730	98	Paved parking, HSG D
40,286	77	Woods, Good, HSG D
52,273	80	Weighted Average
45,543		87.13% Pervious Area
6,730		12.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	50	0.1500	0.09		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
5.8	175	0.0100	0.50		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
15.2	225	Total			

Summary for Subcatchment PR10.10:

Runoff = 0.3 cfs @ 12.09 hrs, Volume= 909 cf, Depth= 2.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.002	74	>75% Grass cover, Good, HSG C
0.002	80	>75% Grass cover, Good, HSG D
0.002	71	Meadow, non-grazed, HSG C
0.003	78	Meadow, non-grazed, HSG D
0.010	98	Paved parking, HSG C
0.005	98	Paved parking, HSG D
0.007	70	Woods, Good, HSG C
0.054	77	Woods, Good, HSG D
0.084	80	Weighted Average
0.069		81.89% Pervious Area
0.015		18.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	25	0.1000	0.07		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment PR10.11:

Runoff = 0.7 cfs @ 12.19 hrs, Volume= 3,484 cf, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.005	39	>75% Grass cover, Good, HSG A
0.017	80	>75% Grass cover, Good, HSG D
0.020	30	Meadow, non-grazed, HSG A
0.051	78	Meadow, non-grazed, HSG D
0.044	98	Paved parking, HSG A
0.019	98	Paved parking, HSG D
0.600	30	Woods, Good, HSG A
0.375	77	Woods, Good, HSG D
1.132	52	Weighted Average
1.069		94.43% Pervious Area
0.063		5.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	50	0.1000	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment PR10.12:

Runoff = 0.7 cfs @ 12.37 hrs, Volume= 4,291 cf, Depth= 0.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.033	39	>75% Grass cover, Good, HSG A
0.026	80	>75% Grass cover, Good, HSG D
0.118	30	Meadow, non-grazed, HSG A
0.032	78	Meadow, non-grazed, HSG D
0.115	98	Paved parking, HSG A
0.107	98	Paved parking, HSG D
0.612	30	Woods, Good, HSG A
0.260	77	Woods, Good, HSG D
1.303	53	Weighted Average
1.081		82.97% Pervious Area
0.222		17.03% Impervious Area

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Type III 24-hr 10-yr Rainfall=5.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
9.6	500	0.0300	0.87		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
21.7	550	Total			

Summary for Subcatchment PR10.13:

Runoff = 2.9 cfs @ 12.62 hrs, Volume= 19,167 cf, Depth= 2.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.020	39	>75% Grass cover, Good, HSG A
0.001	80	>75% Grass cover, Good, HSG D
0.095	76	Gravel roads, HSG A
0.241	91	Gravel roads, HSG D
0.117	30	Meadow, non-grazed, HSG A
0.008	78	Meadow, non-grazed, HSG D
0.498	98	Paved parking, HSG A
0.405	98	Paved parking, HSG D
0.448	30	Woods, Good, HSG A
0.252	77	Woods, Good, HSG D
2.087	75	Weighted Average
1.183		56.72% Pervious Area
0.903		43.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
36.8	50	0.0050	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	30	0.5000	3.54		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
42.9	480	Total			

Summary for Subcatchment PR10.14:

Runoff = 11.2 cfs @ 12.30 hrs, Volume= 52,920 cf, Depth= 2.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

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Type III 24-hr 10-yr Rainfall=5.10"

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Area (ac)	CN	Description
0.009	39	>75% Grass cover, Good, HSG A
1.250	80	>75% Grass cover, Good, HSG D
0.051	30	Meadow, non-grazed, HSG A
0.094	78	Meadow, non-grazed, HSG D
0.014	98	Paved parking, HSG A
1.424	98	Paved parking, HSG D
1.175	30	Woods, Good, HSG A
2.162	77	Woods, Good, HSG D
6.180	73	Weighted Average
4.742		76.73% Pervious Area
1.438		23.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment PR10.15:

Runoff = 0.5 cfs @ 12.79 hrs, Volume= 6,756 cf, Depth= 0.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
1.053	39	>75% Grass cover, Good, HSG A
0.023	80	>75% Grass cover, Good, HSG D
0.043	30	Meadow, non-grazed, HSG A
0.050	78	Meadow, non-grazed, HSG D
0.340	98	Paved parking, HSG A
0.075	98	Paved parking, HSG D
2.333	30	Woods, Good, HSG A
0.441	77	Woods, Good, HSG D
4.358	44	Weighted Average
3.943		90.48% Pervious Area
0.415		9.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
10.6	550	0.0300	0.87		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
38.5	600	Total			

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment PR10.2:

Runoff = 5.3 cfs @ 12.45 hrs, Volume= 30,034 cf, Depth= 2.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.802	39	>75% Grass cover, Good, HSG A
0.617	80	>75% Grass cover, Good, HSG D
0.062	78	Meadow, non-grazed, HSG D
0.662	98	Paved parking, HSG A
0.087	98	Paved parking, HSG D
0.401	30	Woods, Good, HSG A
1.445	77	Woods, Good, HSG D
4.075	69	Weighted Average
3.327		81.64% Pervious Area
0.748		18.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.1	50	0.0090	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.5	100	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
30.6	150	Total			

Summary for Subcatchment PR10.3:

Runoff = 1.9 cfs @ 12.39 hrs, Volume= 10,329 cf, Depth= 2.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.031	80	>75% Grass cover, Good, HSG D
0.141	78	Meadow, non-grazed, HSG D
0.064	98	Paved parking, HSG D
0.750	77	Woods, Good, HSG D
0.985	79	Weighted Average
0.922		93.54% Pervious Area
0.064		6.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.2	50	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
29.1	100	Total			

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment PR10.4:

Runoff = 4.4 cfs @ 12.55 hrs, Volume= 27,693 cf, Depth= 1.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (sf)	CN	Description
23,148	39	>75% Grass cover, Good, HSG A
8,455	80	>75% Grass cover, Good, HSG D
4,534	78	Meadow, non-grazed, HSG D
21,919	98	Paved parking, HSG A
4,810	98	Paved parking, HSG D
56,906	30	Woods, Good, HSG A
91,545	77	Woods, Good, HSG D
211,318	63	Weighted Average
184,589		87.35% Pervious Area
26,729		12.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.3	175	0.2000	2.24		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
35.2	625	Total			

Summary for Subcatchment PR10.5:

Runoff = 2.1 cfs @ 12.20 hrs, Volume= 8,490 cf, Depth= 2.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.017	80	>75% Grass cover, Good, HSG D
0.029	78	Meadow, non-grazed, HSG D
0.049	98	Paved parking, HSG D
0.741	77	Woods, Good, HSG D
0.836	78	Weighted Average
0.787		94.16% Pervious Area
0.049		5.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Subcatchment PR10.6:

Runoff = 2.8 cfs @ 12.35 hrs, Volume= 14,124 cf, Depth= 2.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.023	39	>75% Grass cover, Good, HSG A
0.009	74	>75% Grass cover, Good, HSG C
0.056	80	>75% Grass cover, Good, HSG D
0.077	30	Meadow, non-grazed, HSG A
0.019	71	Meadow, non-grazed, HSG C
0.176	78	Meadow, non-grazed, HSG D
0.037	98	Paved parking, HSG A
0.042	98	Paved parking, HSG C
0.150	98	Paved parking, HSG D
0.324	30	Woods, Good, HSG A
0.034	70	Woods, Good, HSG C
0.970	77	Woods, Good, HSG D
1.916	69	Weighted Average
1.687		88.06% Pervious Area
0.229		11.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
2.4	100	0.0200	0.71		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
23.5	150	Total			

Summary for Subcatchment PR10.7:

Runoff = 0.2 cfs @ 12.52 hrs, Volume= 2,215 cf, Depth= 0.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.023	39	>75% Grass cover, Good, HSG A
0.013	80	>75% Grass cover, Good, HSG D
0.119	30	Meadow, non-grazed, HSG A
0.060	78	Meadow, non-grazed, HSG D
0.079	98	Paved parking, HSG A
0.039	98	Paved parking, HSG D
1.276	30	Woods, Good, HSG A
0.193	77	Woods, Good, HSG D
1.802	42	Weighted Average
1.684		93.43% Pervious Area
0.118		6.57% Impervious Area

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Type III 24-hr 10-yr Rainfall=5.10"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.7	50	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.6	60	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.0	160	Total			

Summary for Subcatchment PR10.8:

Runoff = 0.3 cfs @ 12.62 hrs, Volume= 4,434 cf, Depth= 0.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.211	39	>75% Grass cover, Good, HSG A
0.008	74	>75% Grass cover, Good, HSG C
0.319	80	>75% Grass cover, Good, HSG D
0.011	30	Meadow, non-grazed, HSG A
0.003	71	Meadow, non-grazed, HSG C
0.081	78	Meadow, non-grazed, HSG D
0.096	98	Paved parking, HSG A
0.000	98	Paved parking, HSG C
0.039	98	Paved parking, HSG D
3.008	30	Woods, Good, HSG A
0.027	70	Woods, Good, HSG C
0.308	77	Woods, Good, HSG D
4.110	41	Weighted Average
3.975		96.72% Pervious Area
0.135		3.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
20.7	450	Total			

Summary for Subcatchment PR10.9:

Runoff = 3.1 cfs @ 12.44 hrs, Volume= 17,626 cf, Depth= 1.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

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Type III 24-hr 10-yr Rainfall=5.10"

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Area (ac)	CN	Description
0.239	39	>75% Grass cover, Good, HSG A
0.271	74	>75% Grass cover, Good, HSG C
0.151	80	>75% Grass cover, Good, HSG D
0.026	71	Meadow, non-grazed, HSG C
0.013	78	Meadow, non-grazed, HSG D
0.009	98	Paved parking, HSG C
0.013	98	Paved parking, HSG D
0.341	30	Woods, Good, HSG A
1.377	70	Woods, Good, HSG C
0.383	77	Woods, Good, HSG D
2.822	65	Weighted Average
2.801		99.23% Pervious Area
0.022		0.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.2	350	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
29.3	400	Total			

Summary for Subcatchment PR9.1:

Runoff = 5.9 cfs @ 12.38 hrs, Volume= 31,892 cf, Depth= 3.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.10"

Area (ac)	CN	Description
0.109	80	>75% Grass cover, Good, HSG D
0.184	78	Meadow, non-grazed, HSG D
1.343	98	Paved parking, HSG D
0.575	77	Woods, Good, HSG D
2.211	90	Weighted Average
0.868		39.26% Pervious Area
1.343		60.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0100	0.05		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
11.8	500	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
27.8	550	Total			

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Type III 24-hr 10-yr Rainfall=5.10"

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Summary for Pond P10.12: Linear Infiltration Basin

Inflow Area = 56,751 sf, 17.03% Impervious, Inflow Depth = 0.91" for 10-yr event
 Inflow = 0.7 cfs @ 12.37 hrs, Volume= 4,291 cf
 Outflow = 0.7 cfs @ 12.38 hrs, Volume= 4,291 cf, Atten= 0%, Lag= 0.2 min
 Discarded = 0.7 cfs @ 12.38 hrs, Volume= 4,291 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 137.01' @ 12.38 hrs Surf.Area= 405 sf Storage= 2 cf

Plug-Flow detention time= 0.1 min calculated for 4,291 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (913.3 - 913.3)

Volume	Invert	Avail.Storage	Storage Description
#1	137.00'	2,400 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
137.00	400	0	0
138.00	1,200	800	800
139.00	2,000	1,600	2,400

Device	Routing	Invert	Outlet Devices
#1	Primary	138.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	137.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.38 hrs HW=137.01' (Free Discharge)↑ **2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=137.00' (Free Discharge)↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P10.13: Linear Infiltration Basin**

Inflow Area = 90,889 sf, 43.28% Impervious, Inflow Depth = 2.53" for 10-yr event
 Inflow = 2.9 cfs @ 12.62 hrs, Volume= 19,167 cf
 Outflow = 2.8 cfs @ 12.70 hrs, Volume= 19,167 cf, Atten= 3%, Lag= 4.7 min
 Discarded = 2.4 cfs @ 12.41 hrs, Volume= 18,941 cf
 Primary = 0.4 cfs @ 12.70 hrs, Volume= 226 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 137.57' @ 12.70 hrs Surf.Area= 852 sf Storage= 354 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.5 min (868.6 - 868.1)

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Volume	Invert	Avail.Storage	Storage Description
#1	137.00'	2,400 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
137.00	400	0	0
138.00	1,200	800	800
139.00	2,000	1,600	2,400

Device	Routing	Invert	Outlet Devices
#1	Primary	137.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	137.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.41 hrs HW=137.02' (Free Discharge)

↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=0.4 cfs @ 12.70 hrs HW=137.57' (Free Discharge)

↑**1=Broad-Crested Rectangular Weir**(Weir Controls 0.4 cfs @ 0.62 fps)

Summary for Pond P10.7: Linear Infiltration Basin

Inflow Area = 78,507 sf, 6.57% Impervious, Inflow Depth = 0.34" for 10-yr event
 Inflow = 0.2 cfs @ 12.52 hrs, Volume= 2,215 cf
 Outflow = 0.2 cfs @ 12.52 hrs, Volume= 2,215 cf, Atten= 0%, Lag= 0.1 min
 Discarded = 0.2 cfs @ 12.52 hrs, Volume= 2,215 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 128.00' @ 12.52 hrs Surf.Area= 201 sf Storage= 0 cf

Plug-Flow detention time= 0.0 min calculated for 2,215 cf (100% of inflow)

Center-of-Mass det. time= 0.0 min (977.6 - 977.6)

Volume	Invert	Avail.Storage	Storage Description
#1	128.00'	1,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
128.00	200	0	0
129.00	600	400	400
130.00	1,000	800	1,200

Device	Routing	Invert	Outlet Devices
#1	Primary	129.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68

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#2 Discarded 128.00' 2.72 2.81 2.92 2.97 3.07 3.32
2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.52 hrs HW=128.00' (Free Discharge)

↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=128.00' (Free Discharge)

↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Summary for Link DP-9.1: Station Rd

Inflow Area = 96,332 sf, 60.74% Impervious, Inflow Depth = 3.97" for 10-yr event
Inflow = 5.9 cfs @ 12.38 hrs, Volume= 31,892 cf
Primary = 5.9 cfs @ 12.38 hrs, Volume= 31,892 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.1: Wetland 18

Inflow Area = 52,273 sf, 12.87% Impervious, Inflow Depth = 2.98" for 10-yr event
Inflow = 3.2 cfs @ 12.21 hrs, Volume= 12,982 cf
Primary = 3.2 cfs @ 12.21 hrs, Volume= 12,982 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.10: Vernal Pool 4

Inflow Area = 3,661 sf, 18.11% Impervious, Inflow Depth = 2.98" for 10-yr event
Inflow = 0.3 cfs @ 12.09 hrs, Volume= 909 cf
Primary = 0.3 cfs @ 12.09 hrs, Volume= 909 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.11: Stream

Inflow Area = 140,191 sf, 30.02% Impervious, Inflow Depth = 0.32" for 10-yr event
Inflow = 0.7 cfs @ 12.19 hrs, Volume= 3,710 cf
Primary = 0.7 cfs @ 12.19 hrs, Volume= 3,710 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.12: Wetland 6

Inflow Area = 56,751 sf, 17.03% Impervious, Inflow Depth = 0.00" for 10-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.14: Wetland 3_Vernal Pool 1

Inflow Area = 269,184 sf, 23.27% Impervious, Inflow Depth = 2.36" for 10-yr event
Inflow = 11.2 cfs @ 12.30 hrs, Volume= 52,920 cf
Primary = 11.2 cfs @ 12.30 hrs, Volume= 52,920 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.15: Wetland 4

Inflow Area = 189,840 sf, 9.52% Impervious, Inflow Depth = 0.43" for 10-yr event
Inflow = 0.5 cfs @ 12.79 hrs, Volume= 6,756 cf
Primary = 0.5 cfs @ 12.79 hrs, Volume= 6,756 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.2: Wetland 19

Inflow Area = 177,512 sf, 18.36% Impervious, Inflow Depth = 2.03" for 10-yr event
Inflow = 5.3 cfs @ 12.45 hrs, Volume= 30,034 cf
Primary = 5.3 cfs @ 12.45 hrs, Volume= 30,034 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.3: Wetland 15

Inflow Area = 42,919 sf, 6.46% Impervious, Inflow Depth = 2.89" for 10-yr event
Inflow = 1.9 cfs @ 12.39 hrs, Volume= 10,329 cf
Primary = 1.9 cfs @ 12.39 hrs, Volume= 10,329 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.4: Wetland 16

Inflow Area = 211,318 sf, 12.65% Impervious, Inflow Depth = 1.57" for 10-yr event
Inflow = 4.4 cfs @ 12.55 hrs, Volume= 27,693 cf
Primary = 4.4 cfs @ 12.55 hrs, Volume= 27,693 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.5: Wetland 14

Inflow Area = 36,427 sf, 5.84% Impervious, Inflow Depth = 2.80" for 10-yr event
Inflow = 2.1 cfs @ 12.20 hrs, Volume= 8,490 cf
Primary = 2.1 cfs @ 12.20 hrs, Volume= 8,490 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.6: Wetland 12

Inflow Area = 83,475 sf, 11.94% Impervious, Inflow Depth = 2.03" for 10-yr event
Inflow = 2.8 cfs @ 12.35 hrs, Volume= 14,124 cf
Primary = 2.8 cfs @ 12.35 hrs, Volume= 14,124 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.7: Wetland 13

Inflow Area = 78,507 sf, 6.57% Impervious, Inflow Depth = 0.00" for 10-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.8: Wetland 10

Inflow Area = 179,026 sf, 3.28% Impervious, Inflow Depth = 0.30" for 10-yr event
Inflow = 0.3 cfs @ 12.62 hrs, Volume= 4,434 cf
Primary = 0.3 cfs @ 12.62 hrs, Volume= 4,434 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.9: Wetland 5_Vernal Pool 2-3

Inflow Area = 122,942 sf, 0.77% Impervious, Inflow Depth = 1.72" for 10-yr event
Inflow = 3.1 cfs @ 12.44 hrs, Volume= 17,626 cf
Primary = 3.1 cfs @ 12.44 hrs, Volume= 17,626 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

25-Year Storm Event – Proposed

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Type III 24-hr 25-year Rainfall=6.23"

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Summary for Subcatchment PR-5.10:

Runoff = 0.0 cfs @ 15.27 hrs, Volume= 774 cf, Depth= 0.13"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
1,862	76	Gravel roads, HSG A
68,683	30	Woods, Good, HSG A
70,545	31	Weighted Average
70,545	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
9.1	620	0.0050	1.14		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
30.2	670	Total			

Summary for Subcatchment PR-5.11:

Runoff = 0.1 cfs @ 15.41 hrs, Volume= 2,874 cf, Depth= 0.10"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
3,016	76	Gravel roads, HSG A
348,292	30	Woods, Good, HSG A
351,308	30	Weighted Average
351,308	30	100.00% Pervious Area

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

Summary for Subcatchment PR-5.12:

Runoff = 1.2 cfs @ 13.02 hrs, Volume= 13,918 cf, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

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Type III 24-hr 25-year Rainfall=6.23"

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Area (sf)	CN	Description
628	76	Gravel roads, HSG A
694	98	Water Surface, HSG B
88,212	30	Woods, Good, HSG A
108,041	55	Woods, Good, HSG B
197,575	44	Weighted Average
196,881	44	99.65% Pervious Area
694	98	0.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.2	50	0.0060	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
26.6	2,435	0.0090	1.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	70	0.1300	5.80		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
61.0	2,555	Total			

Summary for Subcatchment PR-5.13:

Runoff = 0.5 cfs @ 14.07 hrs, Volume= 12,508 cf, Depth= 0.27"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
12,214	76	Gravel roads, HSG A
2,506	85	Gravel roads, HSG B
1,211	98	Water Surface, HSG B
477,972	30	Woods, Good, HSG A
71,247	55	Woods, Good, HSG B
565,150	35	Weighted Average
563,939	34	99.79% Pervious Area
1,211	98	0.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
24.9	2,280	0.0090	1.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	75	0.1200	5.58		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
53.0	2,405	Total			

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Type III 24-hr 25-year Rainfall=6.23"

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Summary for Subcatchment PR-5.14:

Runoff = 1.2 cfs @ 12.70 hrs, Volume= 18,527 cf, Depth= 0.36"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
5,919	76	Gravel roads, HSG A
1,679	85	Gravel roads, HSG B
1,361	98	Water Surface, HSG B
481,295	30	Woods, Good, HSG A
123,512	55	Woods, Good, HSG B
613,766	36	Weighted Average
612,405	36	99.78% Pervious Area
1,361	98	0.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	50	0.2600	0.11		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
16.7	475	0.0090	0.47		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.4	110	0.0680	1.30		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.7	635	Total			

Summary for Subcatchment PR-5.15:

Runoff = 0.8 cfs @ 12.82 hrs, Volume= 13,621 cf, Depth= 0.36"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
8	76	Gravel roads, HSG A
633	98	Water Surface, HSG B
352,534	30	Woods, Good, HSG A
103,992	55	Woods, Good, HSG B
457,166	36	Weighted Average
456,533	36	99.86% Pervious Area
633	98	0.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.5	585	0.0180	2.16		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
32.4	635	Total			

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Type III 24-hr 25-year Rainfall=6.23"

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Summary for Subcatchment PR-5.16:

Runoff = 0.1 cfs @ 15.43 hrs, Volume= 3,079 cf, Depth= 0.10"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
4	76	Gravel roads, HSG A
376,341	30	Woods, Good, HSG A
376,345	30	Weighted Average
376,345	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.9	27	0.0060	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	105	0.0200	2.28		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.1	34	0.1100	5.34		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
21.8	166	Total			

Summary for Subcatchment PR-5.17:

Runoff = 0.2 cfs @ 15.21 hrs, Volume= 6,575 cf, Depth= 0.10"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
571	76	Gravel roads, HSG A
803,198	30	Woods, Good, HSG A
803,770	30	Weighted Average
803,770	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	30	0.1500	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	45	0.1600	6.44		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.4	75	Total			

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Type III 24-hr 25-year Rainfall=6.23"

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Summary for Subcatchment PR-5.18:

Runoff = 0.2 cfs @ 15.38 hrs, Volume= 5,030 cf, Depth= 0.13"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
6,238	76	Gravel roads, HSG A
452,526	30	Woods, Good, HSG A
458,764	31	Weighted Average
458,764	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	400	0.0800	1.41		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
4.7	200	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
37.3	650	Total			

Summary for Subcatchment PR-5.19:

Runoff = 0.0 cfs @ 15.05 hrs, Volume= 312 cf, Depth= 0.13"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
398	76	Gravel roads, HSG A
28,028	30	Woods, Good, HSG A
28,426	31	Weighted Average
28,426	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	50	0.0750	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.5	110	0.0020	0.72		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.1	30	0.1300	5.80		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
15.1	190	Total			

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Type III 24-hr 25-year Rainfall=6.23"

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Summary for Subcatchment PR-5.20:

Runoff = 0.1 cfs @ 12.35 hrs, Volume= 1,715 cf, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
3,604	76	Gravel roads, HSG A
1,592	98	Paved parking, HSG A
49,097	30	Woods, Good, HSG A
54,293	35	Weighted Average
52,701	33	97.07% Pervious Area
1,592	98	2.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	200	0.0200	0.71		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
25.8	250	Total			

Summary for Subcatchment PR-5.21:

Runoff = 0.1 cfs @ 12.26 hrs, Volume= 2,379 cf, Depth= 0.12"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
265	76	Gravel roads, HSG A
789	98	Paved parking, HSG A
242,410	30	Woods, Good, HSG A
243,464	30	Weighted Average
242,675	30	99.68% Pervious Area
789	98	0.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	200	0.0200	0.71		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
19.4	250	Total			

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Type III 24-hr 25-year Rainfall=6.23"

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Summary for Subcatchment PR-5.6:

Runoff = 0.4 cfs @ 14.86 hrs, Volume= 10,654 cf, Depth= 0.17"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
1,235	39	>75% Grass cover, Good, HSG A
11,451	76	Gravel roads, HSG A
1,522	85	Gravel roads, HSG B
692,882	30	Woods, Good, HSG A
50,438	55	Woods, Good, HSG B
757,528	32	Weighted Average
757,528	32	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	50	0.0320	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
5.2	750	0.0220	2.39		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
22.7	800	Total			

Summary for Subcatchment PR-5.7:

Runoff = 0.8 cfs @ 12.66 hrs, Volume= 12,191 cf, Depth= 0.35"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
2,624	76	Gravel roads, HSG A
208	85	Gravel roads, HSG B
312,019	30	Woods, Good, HSG A
103,451	55	Woods, Good, HSG B
418,303	36	Weighted Average
418,303	36	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	50	0.0250	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.0	200	0.0110	1.69		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
2.1	295	0.0210	2.33		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
23.4	545	Total			

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Type III 24-hr 25-year Rainfall=6.23"

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Summary for Subcatchment PR-5.8:

Runoff = 1.1 cfs @ 14.93 hrs, Volume= 28,604 cf, Depth= 0.17"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
27,551	76	Gravel roads, HSG A
1,934,694	30	Woods, Good, HSG A
71,626	55	Woods, Good, HSG B
2,033,871	32	Weighted Average
2,033,871	32	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	165	0.0480	3.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.1	165	0.0230	2.44		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
29.8	380	Total			

Summary for Subcatchment PR-5.9:

Runoff = 0.1 cfs @ 15.30 hrs, Volume= 1,504 cf, Depth= 0.10"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=6.23"

Area (sf)	CN	Description
572	76	Gravel roads, HSG A
183,271	30	Woods, Good, HSG A
183,843	30	Weighted Average
183,843	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	11	0.0100	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.3	8	0.5000	0.10		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.2	323	0.0240	2.49		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
11.8	342	Total			

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Type III 24-hr 25-year Rainfall=6.23"

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Summary for Pond L-5.8: Linear Infiltration Basin

Inflow Area = 2,033,871 sf, 0.00% Impervious, Inflow Depth = 0.17" for 25-year event
 Inflow = 1.1 cfs @ 14.93 hrs, Volume= 28,604 cf
 Outflow = 1.1 cfs @ 14.93 hrs, Volume= 28,604 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 1.1 cfs @ 14.93 hrs, Volume= 28,604 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 199.00' @ 14.67 hrs Surf.Area= 200 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 0.0 min (1,067.1 - 1,067.1)

Volume	Invert	Avail.Storage	Storage Description
#1	199.00'	1,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
199.00	200	0	0
200.00	600	400	400
201.00	1,000	800	1,200

Device	Routing	Invert	Outlet Devices
#1	Primary	200.00'	5.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	199.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 14.93 hrs HW=199.00' (Free Discharge)
 ↑ **2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=199.00' TW=0.00' (Dynamic Tailwater)
 ↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Summary for Pond P5.11: Low Point

Inflow Area = 351,308 sf, 0.00% Impervious, Inflow Depth = 0.10" for 25-year event
 Inflow = 0.1 cfs @ 15.41 hrs, Volume= 2,874 cf
 Outflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 174.99' @ 25.13 hrs Surf.Area= 6,241 sf Storage= 2,874 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

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Type III 24-hr 25-year Rainfall=6.23"

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Volume	Invert	Avail.Storage	Storage Description
#1	174.50'	9,900 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
174.50	5,600	0	0
175.00	6,260	2,965	2,965
175.50	6,930	3,298	6,263
176.00	7,620	3,638	9,900

Device	Routing	Invert	Outlet Devices
#1	Primary	175.50'	30.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=174.50' TW=0.00' (Dynamic Tailwater)

↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)

Summary for Pond P5.14: Linear Infiltration Basin

Inflow Area = 613,766 sf, 0.22% Impervious, Inflow Depth = 0.36" for 25-year event
 Inflow = 1.2 cfs @ 12.70 hrs, Volume= 18,527 cf
 Outflow = 1.0 cfs @ 12.60 hrs, Volume= 18,528 cf, Atten= 13%, Lag= 0.0 min
 Discarded = 1.0 cfs @ 12.60 hrs, Volume= 18,528 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 172.36' @ 12.92 hrs Surf.Area= 430 sf Storage= 122 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.2 min (991.5 - 991.3)

Volume	Invert	Avail.Storage	Storage Description
#1	172.00'	1,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
172.00	250	0	0
173.00	750	500	500
174.00	1,250	1,000	1,500

Device	Routing	Invert	Outlet Devices
#1	Primary	173.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	172.00'	1.0 cfs Exfiltration at all elevations

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Type III 24-hr 25-year Rainfall=6.23"

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Discarded OutFlow Max=1.0 cfs @ 12.60 hrs HW=172.03' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 1.0 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=172.00' TW=0.00' (Dynamic Tailwater)↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Pond P5.18: Linear Infiltration Basin**

Inflow Area = 458,764 sf, 0.00% Impervious, Inflow Depth = 0.13" for 25-year event
 Inflow = 0.2 cfs @ 15.38 hrs, Volume= 5,030 cf
 Outflow = 0.2 cfs @ 15.38 hrs, Volume= 5,030 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.2 cfs @ 15.38 hrs, Volume= 5,030 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 173.00' @ 0.00 hrs Surf.Area= 65 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.0 min (1,096.7 - 1,096.7)

Volume	Invert	Avail.Storage	Storage Description
#1	173.00'	390 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
173.00	65	0	0
174.00	195	130	130
175.00	325	260	390

Device	Routing	Invert	Outlet Devices
#1	Primary	174.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	173.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=0.0 cfs @ 15.38 hrs HW=173.00' (Free Discharge)↑**2=Exfiltration** (Passes 0.0 cfs of 2.4 cfs potential flow)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=173.00' TW=0.00' (Dynamic Tailwater)↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Link DP-5.10: Low Point**

Inflow Area = 70,545 sf, 0.00% Impervious, Inflow Depth = 0.13" for 25-year event
 Inflow = 0.0 cfs @ 15.27 hrs, Volume= 774 cf
 Primary = 0.0 cfs @ 15.27 hrs, Volume= 774 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.11: Off-site

Inflow Area = 351,308 sf, 0.00% Impervious, Inflow Depth = 0.00" for 25-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.12: Wetland 44

Inflow Area = 197,575 sf, 0.35% Impervious, Inflow Depth = 0.85" for 25-year event
Inflow = 1.2 cfs @ 13.02 hrs, Volume= 13,918 cf
Primary = 1.2 cfs @ 13.02 hrs, Volume= 13,918 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.13: Wetland 44

Inflow Area = 565,150 sf, 0.21% Impervious, Inflow Depth = 0.27" for 25-year event
Inflow = 0.5 cfs @ 14.07 hrs, Volume= 12,508 cf
Primary = 0.5 cfs @ 14.07 hrs, Volume= 12,508 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.14: Wetland 44

Inflow Area = 613,766 sf, 0.22% Impervious, Inflow Depth = 0.00" for 25-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.15: Wetland 44

Inflow Area = 457,166 sf, 0.14% Impervious, Inflow Depth = 0.36" for 25-year event
Inflow = 0.8 cfs @ 12.82 hrs, Volume= 13,621 cf
Primary = 0.8 cfs @ 12.82 hrs, Volume= 13,621 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.16: Off-site Wetland

Inflow Area = 376,345 sf, 0.00% Impervious, Inflow Depth = 0.10" for 25-year event
Inflow = 0.1 cfs @ 15.43 hrs, Volume= 3,079 cf
Primary = 0.1 cfs @ 15.43 hrs, Volume= 3,079 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.17: Wetland 41&43/Vernal Pool 11&13

Inflow Area = 803,770 sf, 0.00% Impervious, Inflow Depth = 0.10" for 25-year event
Inflow = 0.2 cfs @ 15.21 hrs, Volume= 6,575 cf
Primary = 0.2 cfs @ 15.21 hrs, Volume= 6,575 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.18: Wetland 42/Vernal Pool 12

Inflow Area = 458,764 sf, 0.00% Impervious, Inflow Depth = 0.00" for 25-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.19: Wetland 40/Vernal Pool 10

Inflow Area = 28,426 sf, 0.00% Impervious, Inflow Depth = 0.13" for 25-year event
Inflow = 0.0 cfs @ 15.05 hrs, Volume= 312 cf
Primary = 0.0 cfs @ 15.05 hrs, Volume= 312 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.20: Off-site to Dutton Road

Inflow Area = 54,293 sf, 2.93% Impervious, Inflow Depth = 0.38" for 25-year event
Inflow = 0.1 cfs @ 12.35 hrs, Volume= 1,715 cf
Primary = 0.1 cfs @ 12.35 hrs, Volume= 1,715 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.21: Wetland 39/Vernal Pool 9

Inflow Area = 243,464 sf, 0.32% Impervious, Inflow Depth = 0.12" for 25-year event
Inflow = 0.1 cfs @ 12.26 hrs, Volume= 2,379 cf
Primary = 0.1 cfs @ 12.26 hrs, Volume= 2,379 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.6: Wetland 18

Inflow Area = 757,528 sf, 0.00% Impervious, Inflow Depth = 0.17" for 25-year event
Inflow = 0.4 cfs @ 14.86 hrs, Volume= 10,654 cf
Primary = 0.4 cfs @ 14.86 hrs, Volume= 10,654 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 25-year Rainfall=6.23"

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Summary for Link DP-5.7: Wetland 19

Inflow Area = 418,303 sf, 0.00% Impervious, Inflow Depth = 0.35" for 25-year event
Inflow = 0.8 cfs @ 12.66 hrs, Volume= 12,191 cf
Primary = 0.8 cfs @ 12.66 hrs, Volume= 12,191 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.8: Wetland 45

Inflow Area = 2,033,871 sf, 0.00% Impervious, Inflow Depth = 0.00" for 25-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.9: Low Point

Inflow Area = 183,843 sf, 0.00% Impervious, Inflow Depth = 0.10" for 25-year event
Inflow = 0.1 cfs @ 15.30 hrs, Volume= 1,504 cf
Primary = 0.1 cfs @ 15.30 hrs, Volume= 1,504 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment PR6.10:

Runoff = 1.5 cfs @ 12.50 hrs, Volume= 11,745 cf, Depth= 0.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.585	39	>75% Grass cover, Good, HSG A
0.093	30	Meadow, non-grazed, HSG A
0.721	98	Paved parking, HSG A
2.506	30	Woods, Good, HSG A
0.007	77	Woods, Good, HSG D
3.911	44	Weighted Average
3.190		81.57% Pervious Area
0.721		18.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.0	50	0.0260	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
5.9	138	0.0240	0.39		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
24.9	188	Total			

Summary for Subcatchment PR6.11:

Runoff = 0.0 cfs @ 13.67 hrs, Volume= 588 cf, Depth= 0.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
3,342	39	>75% Grass cover, Good, HSG A
22	30	Meadow, non-grazed, HSG A
855	98	Paved parking, HSG A
29,494	30	Woods, Good, HSG A
33,713	33	Weighted Average
32,857		97.46% Pervious Area
855		2.54% Impervious Area

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

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment PR6.12:

Runoff = 0.0 cfs @ 14.60 hrs, Volume= 366 cf, Depth= 0.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.122	39	>75% Grass cover, Good, HSG A
0.032	30	Meadow, non-grazed, HSG A
0.444	30	Woods, Good, HSG A
0.598	32	Weighted Average
0.598		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	28	0.4000	0.12		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.0	28	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment PR6.13:

Runoff = 4.1 cfs @ 12.14 hrs, Volume= 16,208 cf, Depth= 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.341	39	>75% Grass cover, Good, HSG A
0.188	80	>75% Grass cover, Good, HSG D
0.106	30	Meadow, non-grazed, HSG A
0.255	98	Paved parking, HSG A
0.122	98	Paved parking, HSG D
1.492	30	Woods, Good, HSG A
0.660	77	Woods, Good, HSG D
3.163	52	Weighted Average
2.786		88.08% Pervious Area
0.377		11.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	13	0.1770	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
6.3	40	0.2650	0.11		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.0	53	Total			

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment PR6.14:

Runoff = 10.8 cfs @ 12.18 hrs, Volume= 43,464 cf, Depth= 2.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.335	80	>75% Grass cover, Good, HSG D
0.085	30	Meadow, non-grazed, HSG A
0.399	98	Paved parking, HSG A
0.274	98	Paved parking, HSG D
1.827	30	Woods, Good, HSG A
0.757	70	Woods, Good, HSG C
1.646	77	Woods, Good, HSG D
5.323	62	Weighted Average
4.650		87.36% Pervious Area
0.673		12.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	50	0.0800	0.12		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
1.8	75	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.9	75	0.0700	1.32		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
2.7	80	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
12.4	280	Total			

Summary for Subcatchment PR6.15:

Runoff = 0.4 cfs @ 12.11 hrs, Volume= 1,267 cf, Depth= 4.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.000	30	Meadow, non-grazed, HSG A
0.063	98	Paved parking, HSG A
0.015	30	Woods, Good, HSG A
0.079	84	Weighted Average
0.016		20.17% Pervious Area
0.063		79.83% Impervious Area

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Type III 24-hr 25-yr Rainfall=6.23"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	41	0.1760	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment PR6.1A:

Runoff = 0.0 cfs @ 12.38 hrs, Volume= 288 cf, Depth= 0.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.000	30	Meadow, non-grazed, HSG A
0.021	98	Paved parking, HSG A
0.093	30	Woods, Good, HSG A
0.114	42	Weighted Average
0.093		81.85% Pervious Area
0.021		18.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.6	78	0.0400	0.50		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.4	25	0.0240	1.08		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
15.1	153	Total			

Summary for Subcatchment PR6.1B:

Runoff = 0.0 cfs @ 12.63 hrs, Volume= 587 cf, Depth= 0.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
8,068	39	>75% Grass cover, Good, HSG A
9,385	30	Meadow, non-grazed, HSG A
685	98	Paved parking, HSG A
9,667	30	Woods, Good, HSG A
27,806	34	Weighted Average
27,120		97.53% Pervious Area
685		2.47% Impervious Area

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Type III 24-hr 25-yr Rainfall=6.23"

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

Summary for Subcatchment PR6.2:

Runoff = 0.4 cfs @ 12.34 hrs, Volume= 2,849 cf, Depth= 0.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
7,415	30	Meadow, non-grazed, HSG A
8,450	98	Paved parking, HSG A
25,465	30	Woods, Good, HSG A
41,330	44	Weighted Average
32,880		79.55% Pervious Area
8,450		20.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	50	0.0440	0.05		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
0.6	72	0.1875	2.17		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
16.0	122	Total			

Summary for Subcatchment PR6.3:

Runoff = 0.3 cfs @ 12.38 hrs, Volume= 1,895 cf, Depth= 0.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.134	98	Paved parking, HSG A
0.616	30	Woods, Good, HSG A
0.750	42	Weighted Average
0.616		82.12% Pervious Area
0.134		17.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.1	50	0.0660	0.06		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
1.6	105	0.0240	1.08		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
14.7	155	Total			

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment PR6.4:

Runoff = 2.7 cfs @ 12.22 hrs, Volume= 13,110 cf, Depth= 1.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
1.721	39	>75% Grass cover, Good, HSG A
0.624	98	Paved parking, HSG A
0.527	30	Woods, Good, HSG A
2.872	50	Weighted Average
2.249		78.28% Pervious Area
0.624		21.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	50	0.0740	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	36	0.0860	0.73		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
13.3	86	Total			

Summary for Subcatchment PR6.5:

Runoff = 1.6 cfs @ 12.55 hrs, Volume= 21,410 cf, Depth= 0.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
2.733	39	>75% Grass cover, Good, HSG A
1.189	98	Paved parking, HSG A
12.942	30	Woods, Good, HSG A
16.865	36	Weighted Average
15.675		92.95% Pervious Area
1.189		7.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.1	41	0.0580	0.60		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.8	91	Total			

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment PR6.6A:

Runoff = 0.4 cfs @ 12.51 hrs, Volume= 2,837 cf, Depth= 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
7,275	30	Meadow, non-grazed, HSG A
7,723	98	Paved parking, HSG A
9,121	30	Woods, Good, HSG A
24,118	52	Weighted Average
16,396		67.98% Pervious Area
7,723		32.02% Impervious Area

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

Summary for Subcatchment PR6.6B:

Runoff = 2.3 cfs @ 12.59 hrs, Volume= 19,740 cf, Depth= 0.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
52,627	39	>75% Grass cover, Good, HSG A
4,923	30	Meadow, non-grazed, HSG A
52,301	98	Paved parking, HSG A
176,510	30	Woods, Good, HSG A
286,361	44	Weighted Average
234,060		81.74% Pervious Area
52,301		18.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	50	0.3000	0.20		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.1	13	0.3000	2.74		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.9	850	0.0120	0.55		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.2	85	0.0590	1.21		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
31.3	998	Total			

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment PR6.7:

Runoff = 0.9 cfs @ 12.68 hrs, Volume= 11,610 cf, Depth= 0.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
61,773	39	>75% Grass cover, Good, HSG A
10,632	30	Meadow, non-grazed, HSG A
29,284	98	Paved parking, HSG A
203,503	30	Woods, Good, HSG A
305,192	38	Weighted Average
275,908		90.40% Pervious Area
29,284		9.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	50	0.3300	0.12		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	13	0.4500	1.68		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
18.9	848	0.0114	0.75		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.5	86	0.0530	0.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
28.4	997	Total			

Summary for Subcatchment PR6.8:

Runoff = 0.1 cfs @ 14.89 hrs, Volume= 3,012 cf, Depth= 0.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
45,823	39	>75% Grass cover, Good, HSG A
0	30	Meadow, non-grazed, HSG A
168,373	30	Woods, Good, HSG A
214,195	32	Weighted Average
214,195		100.00% Pervious Area

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Type III 24-hr 25-yr Rainfall=6.23"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	44	0.5000	0.14		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
15.2	728	0.0130	0.80		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.6	113	0.0180	0.34		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
26.1	885	Total			

Summary for Subcatchment PR6.9:

Runoff = 0.3 cfs @ 12.15 hrs, Volume= 2,052 cf, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
11,274	39	>75% Grass cover, Good, HSG A
1,725	30	Meadow, non-grazed, HSG A
4,683	98	Paved parking, HSG A
21,201	30	Woods, Good, HSG A
38,883	41	Weighted Average
34,200		87.96% Pervious Area
4,683		12.04% Impervious Area

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

Summary for Pond P6.2: Wide Swale

Inflow Area = 41,330 sf, 20.45% Impervious, Inflow Depth = 0.83" for 25-yr event
 Inflow = 0.4 cfs @ 12.34 hrs, Volume= 2,849 cf
 Outflow = 0.4 cfs @ 12.34 hrs, Volume= 2,849 cf, Atten= 0%, Lag= 0.4 min
 Discarded = 0.4 cfs @ 12.34 hrs, Volume= 2,849 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 181.50' @ 12.34 hrs Surf.Area= 1,803 sf Storage= 7 cf

Plug-Flow detention time= 0.3 min calculated for 2,844 cf (100% of inflow)
 Center-of-Mass det. time= 0.3 min (927.2 - 927.0)

Volume	Invert	Avail.Storage	Storage Description
#1	181.50'	5,464 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
181.50	1,800	0	0
182.50	2,600	2,200	2,200
183.70	2,840	3,264	5,464

Device	Routing	Invert	Outlet Devices
#1	Primary	182.50'	3.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	181.50'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.34 hrs HW=181.50' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=181.50' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P6.6: Linear Infiltration Basin**

Inflow Area = 310,479 sf, 19.33% Impervious, Inflow Depth = 0.87" for 25-yr event
 Inflow = 2.8 cfs @ 12.58 hrs, Volume= 22,577 cf
 Outflow = 2.4 cfs @ 12.45 hrs, Volume= 22,577 cf, Atten= 13%, Lag= 0.0 min
 Discarded = 2.4 cfs @ 12.45 hrs, Volume= 22,577 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 179.31' @ 12.76 hrs Surf.Area= 1,140 sf Storage= 289 cf

Plug-Flow detention time= 0.3 min calculated for 22,539 cf (100% of inflow)
 Center-of-Mass det. time= 0.3 min (937.2 - 936.9)

Volume	Invert	Avail.Storage	Storage Description
#1	179.00'	4,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
179.00	700	0	0
180.00	2,100	1,400	1,400
181.00	3,500	2,800	4,200

Device	Routing	Invert	Outlet Devices
#1	Primary	180.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	179.00'	2.4 cfs Exfiltration at all elevations

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Discarded OutFlow Max=2.4 cfs @ 12.45 hrs HW=179.03' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=179.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Link DP6.1: Low Point**

Inflow Area = 32,773 sf, 4.84% Impervious, Inflow Depth = 0.32" for 25-yr event
Inflow = 0.1 cfs @ 12.54 hrs, Volume= 875 cf
Primary = 0.1 cfs @ 12.54 hrs, Volume= 875 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.10: Low Point

Inflow Area = 170,377 sf, 18.43% Impervious, Inflow Depth = 0.83" for 25-yr event
Inflow = 1.5 cfs @ 12.50 hrs, Volume= 11,745 cf
Primary = 1.5 cfs @ 12.50 hrs, Volume= 11,745 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.11: Wetland/Potential Vernal Pool

Inflow Area = 33,713 sf, 2.54% Impervious, Inflow Depth = 0.21" for 25-yr event
Inflow = 0.0 cfs @ 13.67 hrs, Volume= 588 cf
Primary = 0.0 cfs @ 13.67 hrs, Volume= 588 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.12: Wetland 35/Vernal Pool 8

Inflow Area = 26,051 sf, 0.00% Impervious, Inflow Depth = 0.17" for 25-yr event
Inflow = 0.0 cfs @ 14.60 hrs, Volume= 366 cf
Primary = 0.0 cfs @ 14.60 hrs, Volume= 366 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.13: Wetland 34

Inflow Area = 137,787 sf, 11.92% Impervious, Inflow Depth = 1.41" for 25-yr event
Inflow = 4.1 cfs @ 12.14 hrs, Volume= 16,208 cf
Primary = 4.1 cfs @ 12.14 hrs, Volume= 16,208 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.14: Wetland 33

Inflow Area = 231,878 sf, 12.64% Impervious, Inflow Depth = 2.25" for 25-yr event
Inflow = 10.8 cfs @ 12.18 hrs, Volume= 43,464 cf
Primary = 10.8 cfs @ 12.18 hrs, Volume= 43,464 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.15: Low Point

Inflow Area = 3,445 sf, 79.83% Impervious, Inflow Depth = 4.41" for 25-yr event
Inflow = 0.4 cfs @ 12.11 hrs, Volume= 1,267 cf
Primary = 0.4 cfs @ 12.11 hrs, Volume= 1,267 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.2: Dutton

Inflow Area = 41,330 sf, 20.45% Impervious, Inflow Depth = 0.00" for 25-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.3: Low Point

Inflow Area = 32,660 sf, 17.88% Impervious, Inflow Depth = 0.70" for 25-yr event
Inflow = 0.3 cfs @ 12.38 hrs, Volume= 1,895 cf
Primary = 0.3 cfs @ 12.38 hrs, Volume= 1,895 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.4: Low Point

Inflow Area = 125,115 sf, 21.72% Impervious, Inflow Depth = 1.26" for 25-yr event
Inflow = 2.7 cfs @ 12.22 hrs, Volume= 13,110 cf
Primary = 2.7 cfs @ 12.22 hrs, Volume= 13,110 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.5: Low Point

Inflow Area = 734,624 sf, 7.05% Impervious, Inflow Depth = 0.35" for 25-yr event
Inflow = 1.6 cfs @ 12.55 hrs, Volume= 21,410 cf
Primary = 1.6 cfs @ 12.55 hrs, Volume= 21,410 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.6: Wetland 38 & 36

Inflow Area = 310,479 sf, 19.33% Impervious, Inflow Depth = 0.00" for 25-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.7: Wetland 37

Inflow Area = 305,192 sf, 9.60% Impervious, Inflow Depth = 0.46" for 25-yr event
Inflow = 0.9 cfs @ 12.68 hrs, Volume= 11,610 cf
Primary = 0.9 cfs @ 12.68 hrs, Volume= 11,610 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.8: Low Point

Inflow Area = 214,195 sf, 0.00% Impervious, Inflow Depth = 0.17" for 25-yr event
Inflow = 0.1 cfs @ 14.89 hrs, Volume= 3,012 cf
Primary = 0.1 cfs @ 14.89 hrs, Volume= 3,012 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.9: Low Point

Inflow Area = 38,883 sf, 12.04% Impervious, Inflow Depth = 0.63" for 25-yr event
Inflow = 0.3 cfs @ 12.15 hrs, Volume= 2,052 cf
Primary = 0.3 cfs @ 12.15 hrs, Volume= 2,052 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment PR7.1:

Runoff = 13.0 cfs @ 12.25 hrs, Volume= 60,165 cf, Depth= 1.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
81,286	39	>75% Grass cover, Good, HSG A
22,055	80	>75% Grass cover, Good, HSG D
5,733	30	Meadow, non-grazed, HSG A
2,202	78	Meadow, non-grazed, HSG D
32,877	98	Paved parking, HSG A
11,938	98	Paved parking, HSG D
20,918	98	Paved roads w/curbs & sewers, HSG A
5,335	98	Paved roads w/curbs & sewers, HSG D
6,152	98	Roofs, HSG A
135,436	30	Woods, Good, HSG A
73,342	77	Woods, Good, HSG D
397,273	57	Weighted Average
320,054		80.56% Pervious Area
77,220		19.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	50	0.0300	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
5.6	270	0.0133	0.81		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.5	51	0.1100	1.66		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.4	371	Total			

Summary for Subcatchment PR7.10:

Runoff = 0.0 cfs @ 15.05 hrs, Volume= 125 cf, Depth= 0.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.105	30	Meadow, non-grazed, HSG A
0.004	98	Paved parking, HSG A
0.153	30	Woods, Good, HSG A
0.262	31	Weighted Average
0.258		98.32% Pervious Area
0.004		1.68% Impervious Area

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Type III 24-hr 25-yr Rainfall=6.23"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0400	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.0	30	0.0400	0.50		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.0	80	Total			

Summary for Subcatchment PR7.11:

Runoff = 0.6 cfs @ 12.71 hrs, Volume= 5,158 cf, Depth= 0.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.624	39	>75% Grass cover, Good, HSG A
0.087	98	Paved parking, HSG A
0.149	98	Paved roads w/curbs & sewers, HSG A
0.038	98	Roofs, HSG A
0.689	30	Woods, Good, HSG A
1.587	45	Weighted Average
1.313		82.71% Pervious Area
0.274		17.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	55	0.1230	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.6	138	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
26.0	406	0.0108	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
41.6	599	Total			

Summary for Subcatchment PR7.12:

Runoff = 0.5 cfs @ 12.73 hrs, Volume= 4,341 cf, Depth= 0.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

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Type III 24-hr 25-yr Rainfall=6.23"

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Area (ac)	CN	Description
0.321	39	>75% Grass cover, Good, HSG A
0.084	98	Paved parking, HSG A
0.141	98	Paved roads w/curbs & sewers, HSG A
0.023	98	Roofs, HSG A
0.670	30	Woods, Good, HSG A
1.240	46	Weighted Average
0.991		79.98% Pervious Area
0.248		20.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.7	50	0.0240	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.1	75	0.0147	0.30		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
1.6	94	0.0190	0.96		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.8	62	0.0530	0.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.1	284	0.0020	0.31		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
42.3	565	Total			

Summary for Subcatchment PR7.2:

Runoff = 0.2 cfs @ 12.57 hrs, Volume= 2,854 cf, Depth= 0.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
7,485	30	Meadow, non-grazed, HSG A
58	78	Meadow, non-grazed, HSG D
2,498	98	Paved parking, HSG A
3,458	98	Paved roads w/curbs & sewers, HSG A
2,942	98	Roofs, HSG A
97,680	30	Woods, Good, HSG A
114,121	35	Weighted Average
105,223		92.20% Pervious Area
8,898		7.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	50	0.0300	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
4.1	223	0.0170	0.91		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.2	16	0.2230	1.18		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
14.6	289	Total			

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment PR7.3:

Runoff = 1.4 cfs @ 12.38 hrs, Volume= 10,051 cf, Depth= 0.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.826	39	>75% Grass cover, Good, HSG A
0.024	74	>75% Grass cover, Good, HSG C
0.001	30	Meadow, non-grazed, HSG A
0.033	98	Paved parking, HSG A
0.191	98	Paved roads w/curbs & sewers, HSG A
0.044	98	Paved roads w/curbs & sewers, HSG C
0.181	98	Roofs, HSG A
0.001	98	Roofs, HSG C
2.129	30	Woods, Good, HSG A
0.209	70	Woods, Good, HSG C
3.640	43	Weighted Average
3.189		87.62% Pervious Area
0.450		12.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	50	0.0440	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.6	65	0.0769	0.69		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.0570	1.67		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.1	129	Total			

Summary for Subcatchment PR7.4:

Runoff = 15.3 cfs @ 12.30 hrs, Volume= 73,002 cf, Depth= 2.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

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Type III 24-hr 25-yr Rainfall=6.23"

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Area (sf)	CN	Description
52,005	39	>75% Grass cover, Good, HSG A
16,421	74	>75% Grass cover, Good, HSG C
1,502	80	>75% Grass cover, Good, HSG D
12	30	Meadow, non-grazed, HSG A
9,660	98	Paved parking, HSG A
5,971	98	Paved parking, HSG C
4,523	98	Paved parking, HSG D
5,581	98	Paved roads w/curbs & sewers, HSG A
2,141	98	Paved roads w/curbs & sewers, HSG C
5,002	98	Paved roads w/curbs & sewers, HSG D
6,874	98	Roofs, HSG A
5,679	98	Roofs, HSG C
105	98	Roofs, HSG D
78,012	30	Woods, Good, HSG A
85,212	70	Woods, Good, HSG C
95,894	77	Woods, Good, HSG D
374,595	63	Weighted Average
329,058		87.84% Pervious Area
45,538		12.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2	50	0.1600	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	80	0.0640	1.77		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
9.2	310	0.0064	0.56		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.7	40	0.0400	1.00		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.2	20	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
20.1	500	Total			

Summary for Subcatchment PR7.5:

Runoff = 23.8 cfs @ 12.25 hrs, Volume= 118,258 cf, Depth= 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

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Type III 24-hr 25-yr Rainfall=6.23"

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Area (ac)	CN	Description
3.909	39	>75% Grass cover, Good, HSG A
0.638	80	>75% Grass cover, Good, HSG D
0.056	30	Meadow, non-grazed, HSG A
0.098	78	Meadow, non-grazed, HSG D
0.666	98	Paved parking, HSG A
0.079	98	Paved parking, HSG D
1.090	98	Paved roads w/curbs & sewers, HSG A
0.990	98	Roofs, HSG A
0.161	98	Roofs, HSG D
10.494	30	Woods, Good, HSG A
4.899	77	Woods, Good, HSG D
23.079	52	Weighted Average
20.095		87.07% Pervious Area
2.984		12.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.1	145	0.0550	1.17		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.6	75	0.0260	0.81		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
15.8	270	Total			

Summary for Subcatchment PR7.6:

Runoff = 0.3 cfs @ 12.42 hrs, Volume= 2,083 cf, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
4,883	30	Meadow, non-grazed, HSG A
6,327	98	Paved parking, HSG A
28,259	30	Woods, Good, HSG A
39,470	41	Weighted Average
33,142		83.97% Pervious Area
6,327		16.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	50	0.0760	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.4	124	0.0600	0.61		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.8	174	Total			

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment PR7.7:

Runoff = 0.0 cfs @ 15.32 hrs, Volume= 230 cf, Depth= 0.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.176	30	Meadow, non-grazed, HSG A
0.470	30	Woods, Good, HSG A
0.646	30	Weighted Average
0.646		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	50	0.1500	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.5	90	0.0290	0.43		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
12.9	140	Total			

Summary for Subcatchment PR7.8:

Runoff = 0.2 cfs @ 12.74 hrs, Volume= 2,648 cf, Depth= 0.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.287	39	>75% Grass cover, Good, HSG A
0.063	30	Meadow, non-grazed, HSG A
0.120	98	Paved parking, HSG A
0.021	98	Roofs, HSG A
0.784	30	Woods, Good, HSG A
1.274	40	Weighted Average
1.134		88.95% Pervious Area
0.141		11.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	41	0.1390	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
17.8	683	0.0083	0.64		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
10.2	303	0.0389	0.49		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
36.3	1,027	Total			

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment PR7.9:

Runoff = 2.1 cfs @ 12.40 hrs, Volume= 15,852 cf, Depth= 0.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
1.941	39	>75% Grass cover, Good, HSG A
0.258	98	Paved parking, HSG A
0.216	98	Paved roads w/curbs & sewers, HSG A
0.364	98	Roofs, HSG A
2.961	30	Woods, Good, HSG A
5.740	43	Weighted Average
4.902		85.40% Pervious Area
0.838		14.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	50	0.0220	0.07		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.2	14	0.0360	1.33		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.8	185	0.0454	0.53		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.7	249	Total			

Summary for Pond P7.1: Detention Basin

Inflow Area = 397,273 sf, 19.44% Impervious, Inflow Depth = 1.82" for 25-yr event
 Inflow = 13.0 cfs @ 12.25 hrs, Volume= 60,165 cf
 Outflow = 13.0 cfs @ 12.26 hrs, Volume= 60,165 cf, Atten= 0%, Lag= 0.5 min
 Discarded = 2.4 cfs @ 11.93 hrs, Volume= 43,258 cf
 Primary = 10.6 cfs @ 12.26 hrs, Volume= 16,907 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 162.53' @ 12.26 hrs Surf.Area= 887 sf Storage= 1,417 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 1.7 min (879.9 - 878.2)

Volume	Invert	Avail.Storage	Storage Description
#1	159.00'	1,860 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
159.00	120	0	0
160.00	160	140	140
161.00	380	270	410
162.00	760	570	980
163.00	1,000	880	1,860

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Type III 24-hr 25-yr Rainfall=6.23"

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Device	Routing	Invert	Outlet Devices
#1	Primary	162.00'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	159.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 11.93 hrs HW=159.05' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=10.6 cfs @ 12.26 hrs HW=162.53' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** (Weir Controls 10.6 cfs @ 1.99 fps)**Summary for Pond P7.6: Low Point**

Inflow Area = 39,470 sf, 16.03% Impervious, Inflow Depth = 0.63" for 25-yr event
 Inflow = 0.3 cfs @ 12.42 hrs, Volume= 2,083 cf
 Outflow = 0.3 cfs @ 12.42 hrs, Volume= 2,083 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.3 cfs @ 12.42 hrs, Volume= 2,083 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 132.00' @ 12.42 hrs Surf.Area= 256 sf Storage= 1 cf

Plug-Flow detention time= 0.1 min calculated for 2,083 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (945.3 - 945.3)

Volume	Invert	Avail.Storage	Storage Description
#1	132.00'	6,580 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
132.00	250	0	0
133.00	2,120	1,185	1,185
134.00	2,690	2,405	3,590
135.00	3,290	2,990	6,580

Device	Routing	Invert	Outlet Devices
#1	Primary	134.50'	10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	132.00'	2.4 cfs Exfiltration at all elevations

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Discarded OutFlow Max=2.4 cfs @ 12.42 hrs HW=132.00' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=132.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Pond P7.8: Low Point**

Inflow Area = 55,516 sf, 11.05% Impervious, Inflow Depth = 0.57" for 25-yr event
 Inflow = 0.2 cfs @ 12.74 hrs, Volume= 2,648 cf
 Outflow = 0.2 cfs @ 12.74 hrs, Volume= 2,648 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 0.2 cfs @ 12.74 hrs, Volume= 2,648 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 168.00' @ 12.74 hrs Surf.Area= 301 sf Storage= 1 cf

Plug-Flow detention time= 0.0 min calculated for 2,647 cf (100% of inflow)

Center-of-Mass det. time= 0.0 min (971.7 - 971.6)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	1,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	300	0	0
169.00	750	525	525
170.00	1,200	975	1,500

Device	Routing	Invert	Outlet Devices
#1	Primary	169.00'	10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	168.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.74 hrs HW=168.00' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=168.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Link DP7.1: Wetland 30**

Inflow Area = 397,273 sf, 19.44% Impervious, Inflow Depth = 0.51" for 25-yr event
 Inflow = 10.6 cfs @ 12.26 hrs, Volume= 16,907 cf
 Primary = 10.6 cfs @ 12.26 hrs, Volume= 16,907 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.10: Low Point

Inflow Area = 11,432 sf, 1.68% Impervious, Inflow Depth = 0.13" for 25-yr event
Inflow = 0.0 cfs @ 15.05 hrs, Volume= 125 cf
Primary = 0.0 cfs @ 15.05 hrs, Volume= 125 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.11: Low Point

Inflow Area = 69,139 sf, 17.29% Impervious, Inflow Depth = 0.90" for 25-yr event
Inflow = 0.6 cfs @ 12.71 hrs, Volume= 5,158 cf
Primary = 0.6 cfs @ 12.71 hrs, Volume= 5,158 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.12: Low Point

Inflow Area = 53,996 sf, 20.02% Impervious, Inflow Depth = 0.96" for 25-yr event
Inflow = 0.5 cfs @ 12.73 hrs, Volume= 4,341 cf
Primary = 0.5 cfs @ 12.73 hrs, Volume= 4,341 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.2: Wetland 32

Inflow Area = 114,121 sf, 7.80% Impervious, Inflow Depth = 0.30" for 25-yr event
Inflow = 0.2 cfs @ 12.57 hrs, Volume= 2,854 cf
Primary = 0.2 cfs @ 12.57 hrs, Volume= 2,854 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.3: Low Point

Inflow Area = 158,537 sf, 12.38% Impervious, Inflow Depth = 0.76" for 25-yr event
Inflow = 1.4 cfs @ 12.38 hrs, Volume= 10,051 cf
Primary = 1.4 cfs @ 12.38 hrs, Volume= 10,051 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.4: Low Point

Inflow Area = 374,595 sf, 12.16% Impervious, Inflow Depth = 2.34" for 25-yr event
Inflow = 15.3 cfs @ 12.30 hrs, Volume= 73,002 cf
Primary = 15.3 cfs @ 12.30 hrs, Volume= 73,002 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.5: Wetland 31

Inflow Area = 1,005,327 sf, 12.93% Impervious, Inflow Depth = 1.41" for 25-yr event
Inflow = 23.8 cfs @ 12.25 hrs, Volume= 118,258 cf
Primary = 23.8 cfs @ 12.25 hrs, Volume= 118,258 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.6: Low Point

Inflow Area = 39,470 sf, 16.03% Impervious, Inflow Depth = 0.00" for 25-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.7: Low Point

Inflow Area = 28,139 sf, 0.00% Impervious, Inflow Depth = 0.10" for 25-yr event
Inflow = 0.0 cfs @ 15.32 hrs, Volume= 230 cf
Primary = 0.0 cfs @ 15.32 hrs, Volume= 230 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.8: Low Point

Inflow Area = 55,516 sf, 11.05% Impervious, Inflow Depth = 0.00" for 25-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.9: Low Point

Inflow Area = 250,025 sf, 14.60% Impervious, Inflow Depth = 0.76" for 25-yr event
Inflow = 2.1 cfs @ 12.40 hrs, Volume= 15,852 cf
Primary = 2.1 cfs @ 12.40 hrs, Volume= 15,852 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment PR8.1:

Runoff = 27.6 cfs @ 12.22 hrs, Volume= 124,635 cf, Depth= 1.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
1.938	39	>75% Grass cover, Good, HSG A
0.003	80	>75% Grass cover, Good, HSG D
0.127	30	Meadow, non-grazed, HSG A
0.080	78	Meadow, non-grazed, HSG D
1.226	98	Paved parking, HSG A
0.788	98	Paved roads w/curbs & sewers, HSG A
1.177	98	Roofs, HSG A
8.427	30	Woods, Good, HSG A
0.000	70	Woods, Good, HSG C
6.034	77	Woods, Good, HSG D
19.801	56	Weighted Average
16.610		83.88% Pervious Area
3.191		16.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	50	0.0440	0.09		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
4.3	205	0.0127	0.79		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.8	77	0.0770	0.69		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.0	332	Total			

Summary for Subcatchment PR8.10:

Runoff = 12.9 cfs @ 12.16 hrs, Volume= 47,683 cf, Depth= 3.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.037	30	Meadow, non-grazed, HSG A
1.401	98	Paved parking, HSG A
0.269	98	Paved roads w/curbs & sewers, HSG A
0.775	98	Roofs, HSG A
1.088	30	Woods, Good, HSG A
3.569	77	Weighted Average
1.125		31.53% Pervious Area
2.444		68.47% Impervious Area

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Type III 24-hr 25-yr Rainfall=6.23"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	50	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.7	100	0.0200	0.99		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
11.4	150	Total			

Summary for Subcatchment PR8.11:

Runoff = 1.1 cfs @ 12.35 hrs, Volume= 5,844 cf, Depth= 1.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.013	30	Meadow, non-grazed, HSG A
0.313	98	Paved parking, HSG A
0.028	98	Paved roads w/curbs & sewers, HSG A
0.020	98	Roofs, HSG A
0.554	30	Woods, Good, HSG A
0.928	56	Weighted Average
0.567		61.06% Pervious Area
0.362		38.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.8	50	0.0580	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.6	204	0.0250	0.40		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
22.4	254	Total			

Summary for Subcatchment PR8.2:

Runoff = 4.7 cfs @ 12.69 hrs, Volume= 45,063 cf, Depth= 0.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

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Type III 24-hr 25-yr Rainfall=6.23"

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Area (ac)	CN	Description
0.171	30	Meadow, non-grazed, HSG A
0.049	78	Meadow, non-grazed, HSG D
0.309	98	Paved parking, HSG A
0.095	98	Paved parking, HSG D
0.227	98	Paved roads w/curbs & sewers, HSG A
0.058	98	Roofs, HSG A
11.805	30	Woods, Good, HSG A
3.604	77	Woods, Good, HSG D
16.317	43	Weighted Average
15.629		95.78% Pervious Area
0.688		4.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.1	50	0.0160	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
14.6	354	0.0260	0.40		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	404	Total			

Summary for Subcatchment PR8.3A:

Runoff = 0.0 cfs @ 15.51 hrs, Volume= 100 cf, Depth= 0.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.095	30	Meadow, non-grazed, HSG A
0.186	30	Woods, Good, HSG A
0.280	30	Weighted Average
0.280		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	50	0.0720	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
13.0	200	0.0105	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
25.7	250	Total			

Summary for Subcatchment PR8.3b:

Runoff = 16.5 cfs @ 12.41 hrs, Volume= 94,114 cf, Depth= 1.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

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Type III 24-hr 25-yr Rainfall=6.23"

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Area (ac)	CN	Description
0.261	39	>75% Grass cover, Good, HSG A
0.491	91	Gravel roads, HSG D
0.268	30	Meadow, non-grazed, HSG A
0.009	58	Meadow, non-grazed, HSG B
0.018	78	Meadow, non-grazed, HSG D
0.517	98	Paved parking, HSG A
0.254	98	Paved roads w/curbs & sewers, HSG A
0.429	98	Roofs, HSG A
7.410	30	Woods, Good, HSG A
0.463	55	Woods, Good, HSG B
5.576	77	Woods, Good, HSG D
15.697	55	Weighted Average
14.496		92.35% Pervious Area
1.201		7.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	50	0.0720	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
13.0	200	0.0105	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
25.7	250	Total			

Summary for Subcatchment PR8.4:

Runoff = 0.7 cfs @ 12.43 hrs, Volume= 4,728 cf, Depth= 1.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.198	30	Meadow, non-grazed, HSG A
0.011	58	Meadow, non-grazed, HSG B
0.000	78	Meadow, non-grazed, HSG D
0.237	98	Paved parking, HSG A
0.037	98	Paved parking, HSG B
0.005	98	Paved parking, HSG D
0.541	30	Woods, Good, HSG A
0.072	55	Woods, Good, HSG B
1.102	49	Weighted Average
0.823		74.71% Pervious Area
0.279		25.29% Impervious Area

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Type III 24-hr 25-yr Rainfall=6.23"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	23	0.1300	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
12.9	27	0.0200	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
6.4	273	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
24.7	323	Total			

Summary for Subcatchment PR8.5A:

Runoff = 1.2 cfs @ 12.53 hrs, Volume= 7,265 cf, Depth= 2.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.198	58	Meadow, non-grazed, HSG B
0.206	98	Paved parking, HSG B
0.312	55	Woods, Good, HSG B
0.715	68	Weighted Average
0.509		71.24% Pervious Area
0.206		28.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.3	48	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
27.8	826	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	40	0.1825	1.07		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	914	Total			

Summary for Subcatchment PR8.5B:

Runoff = 6.4 cfs @ 12.53 hrs, Volume= 38,845 cf, Depth= 3.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

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Type III 24-hr 25-yr Rainfall=6.23"

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Area (ac)	CN	Description
0.064	58	Meadow, non-grazed, HSG B
0.344	98	Paved parking, HSG A
0.117	98	Paved parking, HSG B
1.314	98	Roofs, HSG A
0.909	30	Woods, Good, HSG A
0.719	55	Woods, Good, HSG B
3.469	71	Weighted Average
1.693		48.80% Pervious Area
1.776		51.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.3	48	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
27.8	826	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	40	0.1825	1.07		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	914	Total			

Summary for Subcatchment PR8.6:

Runoff = 45.2 cfs @ 12.46 hrs, Volume= 259,499 cf, Depth= 2.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.328	89	Gravel roads, HSG C
0.031	91	Gravel roads, HSG D
0.397	58	Meadow, non-grazed, HSG B
0.049	98	Paved parking, HSG A
0.096	98	Paved parking, HSG D
1.239	30	Woods, Good, HSG A
5.319	55	Woods, Good, HSG B
3.260	70	Woods, Good, HSG C
13.989	77	Woods, Good, HSG D
24.708	69	Weighted Average
24.563		99.41% Pervious Area
0.145		0.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	58	0.1400	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
21.0	706	0.0064	0.56		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.7	43	0.1511	0.97		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
32.6	807	Total			

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment PR8.7:

Runoff = 1.3 cfs @ 12.55 hrs, Volume= 8,338 cf, Depth= 2.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.024	58	Meadow, non-grazed, HSG B
0.232	98	Paved parking, HSG A
0.044	98	Paved parking, HSG B
0.104	98	Roofs, HSG A
0.186	30	Woods, Good, HSG A
0.179	55	Woods, Good, HSG B
0.768	70	Weighted Average
0.389		50.60% Pervious Area
0.380		49.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.2	39	0.0205	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
20.5	888	0.0106	0.72		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	37	0.1590	1.00		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
38.3	964	Total			

Summary for Subcatchment PR8.8:

Runoff = 3.4 cfs @ 12.21 hrs, Volume= 13,921 cf, Depth= 4.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.022	30	Meadow, non-grazed, HSG A
0.057	58	Meadow, non-grazed, HSG B
0.198	98	Paved parking, HSG A
0.339	98	Paved parking, HSG B
0.079	98	Roofs, HSG A
0.053	30	Woods, Good, HSG A
0.189	55	Woods, Good, HSG B
0.937	81	Weighted Average
0.321		34.26% Pervious Area
0.616		65.74% Impervious Area

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Type III 24-hr 25-yr Rainfall=6.23"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.6	50	0.0600	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.7	85	0.0150	0.86		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
15.3	135	Total			

Summary for Subcatchment PR8.9:

Runoff = 1.1 cfs @ 12.45 hrs, Volume= 6,480 cf, Depth= 1.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.019	30	Meadow, non-grazed, HSG A
0.076	58	Meadow, non-grazed, HSG B
0.026	30	Woods, Good, HSG A
0.665	55	Woods, Good, HSG B
0.152	77	Woods, Good, HSG D
0.939	58	Weighted Average
0.939		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	37	0.2050	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
14.1	585	0.0097	0.69		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	153	0.0160	0.32		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
28.8	775	Total			

Summary for Pond P8.10: Low Point

Inflow Area = 155,459 sf, 68.47% Impervious, Inflow Depth = 3.68" for 25-yr event
 Inflow = 12.9 cfs @ 12.16 hrs, Volume= 47,683 cf
 Outflow = 8.9 cfs @ 12.29 hrs, Volume= 47,683 cf, Atten= 31%, Lag= 8.2 min
 Discarded = 2.4 cfs @ 11.77 hrs, Volume= 41,055 cf
 Primary = 6.5 cfs @ 12.29 hrs, Volume= 6,628 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 134.81' @ 12.29 hrs Surf.Area= 6,285 sf Storage= 8,309 cf

Plug-Flow detention time= 15.5 min calculated for 47,683 cf (100% of inflow)
 Center-of-Mass det. time= 15.5 min (840.5 - 825.0)

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Type III 24-hr 25-yr Rainfall=6.23"

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Volume	Invert	Avail.Storage	Storage Description
#1	133.00'	9,535 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
133.00	2,935	0	0
134.00	4,745	3,840	3,840
135.00	6,645	5,695	9,535

Device	Routing	Invert	Outlet Devices
#1	Primary	134.60'	25.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	133.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 11.77 hrs HW=133.02' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=6.5 cfs @ 12.29 hrs HW=134.81' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Weir Controls 6.5 cfs @ 1.23 fps)**Summary for Pond P8.2: Linear Infiltration Basin**

Inflow Area = 710,754 sf, 4.22% Impervious, Inflow Depth = 0.76" for 25-yr event
 Inflow = 4.7 cfs @ 12.69 hrs, Volume= 45,063 cf
 Outflow = 4.4 cfs @ 12.83 hrs, Volume= 45,063 cf, Atten= 6%, Lag= 8.0 min
 Discarded = 2.4 cfs @ 12.40 hrs, Volume= 42,408 cf
 Primary = 2.0 cfs @ 12.83 hrs, Volume= 2,654 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 164.69' @ 12.83 hrs Surf.Area= 1,969 sf Storage= 2,041 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 3.3 min (956.1 - 952.8)

Volume	Invert	Avail.Storage	Storage Description
#1	163.00'	2,700 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
163.00	450	0	0
164.00	1,350	900	900
165.00	2,250	1,800	2,700

Device	Routing	Invert	Outlet Devices
#1	Primary	164.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68

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#2 Discarded 163.00' 2.72 2.81 2.92 2.97 3.07 3.32
2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.40 hrs HW=163.02' (Free Discharge)

↑ **2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=2.0 cfs @ 12.83 hrs HW=164.69' (Free Discharge)

↑ **1=Broad-Crested Rectangular Weir** (Weir Controls 2.0 cfs @ 1.06 fps)

Summary for Pond P8.3: Linear Infiltration Basin

Inflow Area = 683,751 sf, 7.65% Impervious, Inflow Depth = 1.65" for 25-yr event
 Inflow = 16.5 cfs @ 12.41 hrs, Volume= 94,114 cf
 Outflow = 16.5 cfs @ 12.42 hrs, Volume= 94,114 cf, Atten= 0%, Lag= 0.5 min
 Discarded = 2.4 cfs @ 11.99 hrs, Volume= 61,571 cf
 Primary = 14.1 cfs @ 12.42 hrs, Volume= 32,543 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 160.83' @ 12.42 hrs Surf.Area= 3,256 sf Storage= 3,612 cf

Plug-Flow detention time= 6.3 min calculated for 94,101 cf (100% of inflow)
 Center-of-Mass det. time= 6.3 min (898.9 - 892.5)

Volume	Invert	Avail.Storage	Storage Description
#1	159.00'	8,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
159.00	700	0	0
160.00	2,100	1,400	1,400
161.00	3,500	2,800	4,200
162.00	4,500	4,000	8,200

Device	Routing	Invert	Outlet Devices
#1	Primary	160.50'	30.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	159.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 11.99 hrs HW=159.03' (Free Discharge)

↑ **2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=14.1 cfs @ 12.42 hrs HW=160.83' (Free Discharge)

↑ **1=Broad-Crested Rectangular Weir** (Weir Controls 14.1 cfs @ 1.44 fps)

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Summary for Pond P8.4: Linear Infiltration Basin

Inflow Area = 47,994 sf, 25.29% Impervious, Inflow Depth = 1.18" for 25-yr event
 Inflow = 0.7 cfs @ 12.43 hrs, Volume= 4,728 cf
 Outflow = 0.7 cfs @ 12.43 hrs, Volume= 4,728 cf, Atten= 0%, Lag= 0.1 min
 Discarded = 0.7 cfs @ 12.43 hrs, Volume= 4,728 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 160.01' @ 12.43 hrs Surf.Area= 709 sf Storage= 4 cf

Plug-Flow detention time= 0.1 min calculated for 4,728 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (912.1 - 912.0)

Volume	Invert	Avail.Storage	Storage Description
#1	160.00'	4,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
160.00	700	0	0
161.00	2,100	1,400	1,400
162.00	3,500	2,800	4,200

Device	Routing	Invert	Outlet Devices
#1	Primary	161.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	160.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.43 hrs HW=160.01' (Free Discharge)↑ **2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=160.00' (Free Discharge)↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P8.5: Linear Infiltration Basin**

Inflow Area = 31,151 sf, 28.76% Impervious, Inflow Depth = 2.80" for 25-yr event
 Inflow = 1.2 cfs @ 12.53 hrs, Volume= 7,265 cf
 Outflow = 1.2 cfs @ 12.53 hrs, Volume= 7,265 cf, Atten= 0%, Lag= 0.1 min
 Discarded = 1.2 cfs @ 12.53 hrs, Volume= 7,265 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 149.01' @ 12.53 hrs Surf.Area= 918 sf Storage= 9 cf

Plug-Flow detention time= 0.1 min calculated for 7,264 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (870.6 - 870.4)

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Volume	Invert	Avail.Storage	Storage Description
#1	149.00'	5,400 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
149.00	900	0	0
150.00	2,700	1,800	1,800
151.00	4,500	3,600	5,400

Device	Routing	Invert	Outlet Devices
#1	Primary	150.00'	1.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	149.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.53 hrs HW=149.01' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=149.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Pond P8.7: Low Point**

Inflow Area = 33,475 sf, 49.40% Impervious, Inflow Depth = 2.99" for 25-yr event
 Inflow = 1.3 cfs @ 12.55 hrs, Volume= 8,338 cf
 Outflow = 1.0 cfs @ 12.33 hrs, Volume= 8,338 cf, Atten= 24%, Lag= 0.0 min
 Discarded = 1.0 cfs @ 12.33 hrs, Volume= 8,338 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 135.57' @ 12.81 hrs Surf.Area= 872 sf Storage= 379 cf

Plug-Flow detention time= 1.5 min calculated for 8,336 cf (100% of inflow)
 Center-of-Mass det. time= 1.5 min (867.8 - 866.3)

Volume	Invert	Avail.Storage	Storage Description
#1	135.00'	2,343 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
135.00	460	0	0
136.00	1,185	823	823
137.00	1,855	1,520	2,343

Device	Routing	Invert	Outlet Devices
#1	Primary	136.80'	5.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31

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3.30 3.31 3.32
#2 Discarded 135.00' **1.0 cfs Exfiltration at all elevations**

Discarded OutFlow Max=1.0 cfs @ 12.33 hrs HW=135.02' (Free Discharge)↑ **2=Exfiltration** (Exfiltration Controls 1.0 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=135.00' (Free Discharge)↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Link DP8.1: Wetland 28/29**

Inflow Area = 862,522 sf, 16.12% Impervious, Inflow Depth = 1.73" for 25-yr event
Inflow = 27.6 cfs @ 12.22 hrs, Volume= 124,635 cf
Primary = 27.6 cfs @ 12.22 hrs, Volume= 124,635 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.10: Low Point

Inflow Area = 155,459 sf, 68.47% Impervious, Inflow Depth = 0.51" for 25-yr event
Inflow = 6.5 cfs @ 12.29 hrs, Volume= 6,628 cf
Primary = 6.5 cfs @ 12.29 hrs, Volume= 6,628 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.11: Wetland

Inflow Area = 40,442 sf, 38.94% Impervious, Inflow Depth = 1.73" for 25-yr event
Inflow = 1.1 cfs @ 12.35 hrs, Volume= 5,844 cf
Primary = 1.1 cfs @ 12.35 hrs, Volume= 5,844 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.2: Wetland 27

Inflow Area = 710,754 sf, 4.22% Impervious, Inflow Depth = 0.04" for 25-yr event
Inflow = 2.0 cfs @ 12.83 hrs, Volume= 2,654 cf
Primary = 2.0 cfs @ 12.83 hrs, Volume= 2,654 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.3: Wetland 25

Inflow Area = 695,957 sf, 7.51% Impervious, Inflow Depth = 0.56" for 25-yr event
Inflow = 14.1 cfs @ 12.42 hrs, Volume= 32,643 cf
Primary = 14.1 cfs @ 12.42 hrs, Volume= 32,643 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.4: Wetland 24

Inflow Area = 47,994 sf, 25.29% Impervious, Inflow Depth = 0.00" for 25-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.5: Low Point

Inflow Area = 182,241 sf, 47.36% Impervious, Inflow Depth = 2.56" for 25-yr event
Inflow = 6.4 cfs @ 12.53 hrs, Volume= 38,845 cf
Primary = 6.4 cfs @ 12.53 hrs, Volume= 38,845 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.6: Wetland 26

Inflow Area = 1,076,276 sf, 0.59% Impervious, Inflow Depth = 2.89" for 25-yr event
Inflow = 45.2 cfs @ 12.46 hrs, Volume= 259,499 cf
Primary = 45.2 cfs @ 12.46 hrs, Volume= 259,499 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.7: Low Point

Inflow Area = 33,475 sf, 49.40% Impervious, Inflow Depth = 0.00" for 25-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.8: Low Point

Inflow Area = 40,804 sf, 65.74% Impervious, Inflow Depth = 4.09" for 25-yr event
Inflow = 3.4 cfs @ 12.21 hrs, Volume= 13,921 cf
Primary = 3.4 cfs @ 12.21 hrs, Volume= 13,921 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.9: Wetland 24A/Vernal Pool 5

Inflow Area = 40,889 sf, 0.00% Impervious, Inflow Depth = 1.90" for 25-yr event
Inflow = 1.1 cfs @ 12.45 hrs, Volume= 6,480 cf
Primary = 1.1 cfs @ 12.45 hrs, Volume= 6,480 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment PR10.1:

Runoff = 4.2 cfs @ 12.21 hrs, Volume= 17,378 cf, Depth= 3.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
2,455	80	>75% Grass cover, Good, HSG D
2,801	78	Meadow, non-grazed, HSG D
6,730	98	Paved parking, HSG D
40,286	77	Woods, Good, HSG D
52,273	80	Weighted Average
45,543		87.13% Pervious Area
6,730		12.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	50	0.1500	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
5.8	175	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
15.2	225	Total			

Summary for Subcatchment PR10.10:

Runoff = 0.4 cfs @ 12.09 hrs, Volume= 1,217 cf, Depth= 3.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.002	74	>75% Grass cover, Good, HSG C
0.002	80	>75% Grass cover, Good, HSG D
0.002	71	Meadow, non-grazed, HSG C
0.003	78	Meadow, non-grazed, HSG D
0.010	98	Paved parking, HSG C
0.005	98	Paved parking, HSG D
0.007	70	Woods, Good, HSG C
0.054	77	Woods, Good, HSG D
0.084	80	Weighted Average
0.069		81.89% Pervious Area
0.015		18.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	25	0.1000	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment PR10.11:

Runoff = 1.3 cfs @ 12.17 hrs, Volume= 5,799 cf, Depth= 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.005	39	>75% Grass cover, Good, HSG A
0.017	80	>75% Grass cover, Good, HSG D
0.020	30	Meadow, non-grazed, HSG A
0.051	78	Meadow, non-grazed, HSG D
0.044	98	Paved parking, HSG A
0.019	98	Paved parking, HSG D
0.600	30	Woods, Good, HSG A
0.375	77	Woods, Good, HSG D
1.132	52	Weighted Average
1.069		94.43% Pervious Area
0.063		5.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	50	0.1000	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment PR10.12:

Runoff = 1.3 cfs @ 12.35 hrs, Volume= 7,049 cf, Depth= 1.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.033	39	>75% Grass cover, Good, HSG A
0.026	80	>75% Grass cover, Good, HSG D
0.118	30	Meadow, non-grazed, HSG A
0.032	78	Meadow, non-grazed, HSG D
0.115	98	Paved parking, HSG A
0.107	98	Paved parking, HSG D
0.612	30	Woods, Good, HSG A
0.260	77	Woods, Good, HSG D
1.303	53	Weighted Average
1.081		82.97% Pervious Area
0.222		17.03% Impervious Area

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Type III 24-hr 25-yr Rainfall=6.23"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
9.6	500	0.0300	0.87		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
21.7	550	Total			

Summary for Subcatchment PR10.13:

Runoff = 4.0 cfs @ 12.59 hrs, Volume= 26,349 cf, Depth= 3.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.020	39	>75% Grass cover, Good, HSG A
0.001	80	>75% Grass cover, Good, HSG D
0.095	76	Gravel roads, HSG A
0.241	91	Gravel roads, HSG D
0.117	30	Meadow, non-grazed, HSG A
0.008	78	Meadow, non-grazed, HSG D
0.498	98	Paved parking, HSG A
0.405	98	Paved parking, HSG D
0.448	30	Woods, Good, HSG A
0.252	77	Woods, Good, HSG D
2.087	75	Weighted Average
1.183		56.72% Pervious Area
0.903		43.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
36.8	50	0.0050	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	30	0.5000	3.54		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
42.9	480	Total			

Summary for Subcatchment PR10.14:

Runoff = 15.6 cfs @ 12.30 hrs, Volume= 73,586 cf, Depth= 3.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

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Type III 24-hr 25-yr Rainfall=6.23"

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Area (ac)	CN	Description
0.009	39	>75% Grass cover, Good, HSG A
1.250	80	>75% Grass cover, Good, HSG D
0.051	30	Meadow, non-grazed, HSG A
0.094	78	Meadow, non-grazed, HSG D
0.014	98	Paved parking, HSG A
1.424	98	Paved parking, HSG D
1.175	30	Woods, Good, HSG A
2.162	77	Woods, Good, HSG D
6.180	73	Weighted Average
4.742		76.73% Pervious Area
1.438		23.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment PR10.15:

Runoff = 1.4 cfs @ 12.70 hrs, Volume= 13,086 cf, Depth= 0.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
1.053	39	>75% Grass cover, Good, HSG A
0.023	80	>75% Grass cover, Good, HSG D
0.043	30	Meadow, non-grazed, HSG A
0.050	78	Meadow, non-grazed, HSG D
0.340	98	Paved parking, HSG A
0.075	98	Paved parking, HSG D
2.333	30	Woods, Good, HSG A
0.441	77	Woods, Good, HSG D
4.358	44	Weighted Average
3.943		90.48% Pervious Area
0.415		9.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
10.6	550	0.0300	0.87		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
38.5	600	Total			

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment PR10.2:

Runoff = 7.7 cfs @ 12.44 hrs, Volume= 42,799 cf, Depth= 2.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.802	39	>75% Grass cover, Good, HSG A
0.617	80	>75% Grass cover, Good, HSG D
0.062	78	Meadow, non-grazed, HSG D
0.662	98	Paved parking, HSG A
0.087	98	Paved parking, HSG D
0.401	30	Woods, Good, HSG A
1.445	77	Woods, Good, HSG D
4.075	69	Weighted Average
3.327		81.64% Pervious Area
0.748		18.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.1	50	0.0090	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.5	100	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
30.6	150	Total			

Summary for Subcatchment PR10.3:

Runoff = 2.6 cfs @ 12.39 hrs, Volume= 13,898 cf, Depth= 3.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.031	80	>75% Grass cover, Good, HSG D
0.141	78	Meadow, non-grazed, HSG D
0.064	98	Paved parking, HSG D
0.750	77	Woods, Good, HSG D
0.985	79	Weighted Average
0.922		93.54% Pervious Area
0.064		6.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.2	50	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
29.1	100	Total			

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment PR10.4:

Runoff = 6.8 cfs @ 12.52 hrs, Volume= 41,182 cf, Depth= 2.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (sf)	CN	Description
23,148	39	>75% Grass cover, Good, HSG A
8,455	80	>75% Grass cover, Good, HSG D
4,534	78	Meadow, non-grazed, HSG D
21,919	98	Paved parking, HSG A
4,810	98	Paved parking, HSG D
56,906	30	Woods, Good, HSG A
91,545	77	Woods, Good, HSG D
211,318	63	Weighted Average
184,589		87.35% Pervious Area
26,729		12.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.3	175	0.2000	2.24		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
35.2	625	Total			

Summary for Subcatchment PR10.5:

Runoff = 2.8 cfs @ 12.20 hrs, Volume= 11,483 cf, Depth= 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.017	80	>75% Grass cover, Good, HSG D
0.029	78	Meadow, non-grazed, HSG D
0.049	98	Paved parking, HSG D
0.741	77	Woods, Good, HSG D
0.836	78	Weighted Average
0.787		94.16% Pervious Area
0.049		5.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Subcatchment PR10.6:

Runoff = 4.1 cfs @ 12.34 hrs, Volume= 20,127 cf, Depth= 2.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.023	39	>75% Grass cover, Good, HSG A
0.009	74	>75% Grass cover, Good, HSG C
0.056	80	>75% Grass cover, Good, HSG D
0.077	30	Meadow, non-grazed, HSG A
0.019	71	Meadow, non-grazed, HSG C
0.176	78	Meadow, non-grazed, HSG D
0.037	98	Paved parking, HSG A
0.042	98	Paved parking, HSG C
0.150	98	Paved parking, HSG D
0.324	30	Woods, Good, HSG A
0.034	70	Woods, Good, HSG C
0.970	77	Woods, Good, HSG D
1.916	69	Weighted Average
1.687		88.06% Pervious Area
0.229		11.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
2.4	100	0.0200	0.71		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
23.5	150	Total			

Summary for Subcatchment PR10.7:

Runoff = 0.6 cfs @ 12.39 hrs, Volume= 4,554 cf, Depth= 0.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.023	39	>75% Grass cover, Good, HSG A
0.013	80	>75% Grass cover, Good, HSG D
0.119	30	Meadow, non-grazed, HSG A
0.060	78	Meadow, non-grazed, HSG D
0.079	98	Paved parking, HSG A
0.039	98	Paved parking, HSG D
1.276	30	Woods, Good, HSG A
0.193	77	Woods, Good, HSG D
1.802	42	Weighted Average
1.684		93.43% Pervious Area
0.118		6.57% Impervious Area

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Type III 24-hr 25-yr Rainfall=6.23"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.7	50	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.6	60	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.0	160	Total			

Summary for Subcatchment PR10.8:

Runoff = 1.1 cfs @ 12.49 hrs, Volume= 9,448 cf, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.211	39	>75% Grass cover, Good, HSG A
0.008	74	>75% Grass cover, Good, HSG C
0.319	80	>75% Grass cover, Good, HSG D
0.011	30	Meadow, non-grazed, HSG A
0.003	71	Meadow, non-grazed, HSG C
0.081	78	Meadow, non-grazed, HSG D
0.096	98	Paved parking, HSG A
0.000	98	Paved parking, HSG C
0.039	98	Paved parking, HSG D
3.008	30	Woods, Good, HSG A
0.027	70	Woods, Good, HSG C
0.308	77	Woods, Good, HSG D
4.110	41	Weighted Average
3.975		96.72% Pervious Area
0.135		3.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
20.7	450	Total			

Summary for Subcatchment PR10.9:

Runoff = 4.7 cfs @ 12.43 hrs, Volume= 25,817 cf, Depth= 2.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

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Type III 24-hr 25-yr Rainfall=6.23"

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Area (ac)	CN	Description
0.239	39	>75% Grass cover, Good, HSG A
0.271	74	>75% Grass cover, Good, HSG C
0.151	80	>75% Grass cover, Good, HSG D
0.026	71	Meadow, non-grazed, HSG C
0.013	78	Meadow, non-grazed, HSG D
0.009	98	Paved parking, HSG C
0.013	98	Paved parking, HSG D
0.341	30	Woods, Good, HSG A
1.377	70	Woods, Good, HSG C
0.383	77	Woods, Good, HSG D
2.822	65	Weighted Average
2.801		99.23% Pervious Area
0.022		0.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.2	350	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
29.3	400	Total			

Summary for Subcatchment PR9.1:

Runoff = 7.4 cfs @ 12.38 hrs, Volume= 40,701 cf, Depth= 5.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=6.23"

Area (ac)	CN	Description
0.109	80	>75% Grass cover, Good, HSG D
0.184	78	Meadow, non-grazed, HSG D
1.343	98	Paved parking, HSG D
0.575	77	Woods, Good, HSG D
2.211	90	Weighted Average
0.868		39.26% Pervious Area
1.343		60.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0100	0.05		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
11.8	500	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
27.8	550	Total			

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Type III 24-hr 25-yr Rainfall=6.23"

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Summary for Pond P10.12: Linear Infiltration Basin

Inflow Area = 56,751 sf, 17.03% Impervious, Inflow Depth = 1.49" for 25-yr event
 Inflow = 1.3 cfs @ 12.35 hrs, Volume= 7,049 cf
 Outflow = 1.3 cfs @ 12.35 hrs, Volume= 7,049 cf, Atten= 0%, Lag= 0.1 min
 Discarded = 1.3 cfs @ 12.35 hrs, Volume= 7,049 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 137.01' @ 12.35 hrs Surf.Area= 409 sf Storage= 4 cf

Plug-Flow detention time= 0.1 min calculated for 7,048 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (895.1 - 895.0)

Volume	Invert	Avail.Storage	Storage Description
#1	137.00'	2,400 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
137.00	400	0	0
138.00	1,200	800	800
139.00	2,000	1,600	2,400

Device	Routing	Invert	Outlet Devices
#1	Primary	138.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	137.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.35 hrs HW=137.01' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=137.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P10.13: Linear Infiltration Basin**

Inflow Area = 90,889 sf, 43.28% Impervious, Inflow Depth = 3.48" for 25-yr event
 Inflow = 4.0 cfs @ 12.59 hrs, Volume= 26,349 cf
 Outflow = 4.0 cfs @ 12.61 hrs, Volume= 26,349 cf, Atten= 0%, Lag= 1.5 min
 Discarded = 2.4 cfs @ 12.28 hrs, Volume= 23,979 cf
 Primary = 1.6 cfs @ 12.61 hrs, Volume= 2,370 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 137.66' @ 12.61 hrs Surf.Area= 931 sf Storage= 442 cf

Plug-Flow detention time= 0.7 min calculated for 26,346 cf (100% of inflow)

Center-of-Mass det. time= 0.7 min (859.7 - 859.0)

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Type III 24-hr 25-yr Rainfall=6.23"

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Volume	Invert	Avail.Storage	Storage Description
#1	137.00'	2,400 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
137.00	400	0	0
138.00	1,200	800	800
139.00	2,000	1,600	2,400

Device	Routing	Invert	Outlet Devices
#1	Primary	137.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	137.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.28 hrs HW=137.02' (Free Discharge)

↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=1.6 cfs @ 12.61 hrs HW=137.66' (Free Discharge)

↑**1=Broad-Crested Rectangular Weir**(Weir Controls 1.6 cfs @ 0.99 fps)

Summary for Pond P10.7: Linear Infiltration Basin

Inflow Area = 78,507 sf, 6.57% Impervious, Inflow Depth = 0.70" for 25-yr event
Inflow = 0.6 cfs @ 12.39 hrs, Volume= 4,554 cf
Outflow = 0.6 cfs @ 12.40 hrs, Volume= 4,554 cf, Atten= 0%, Lag= 0.0 min
Discarded = 0.6 cfs @ 12.40 hrs, Volume= 4,554 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 128.00' @ 12.40 hrs Surf.Area= 202 sf Storage= 1 cf

Plug-Flow detention time= 0.0 min calculated for 4,554 cf (100% of inflow)

Center-of-Mass det. time= 0.0 min (938.8 - 938.8)

Volume	Invert	Avail.Storage	Storage Description
#1	128.00'	1,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
128.00	200	0	0
129.00	600	400	400
130.00	1,000	800	1,200

Device	Routing	Invert	Outlet Devices
#1	Primary	129.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68

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Type III 24-hr 25-yr Rainfall=6.23"

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#2 Discarded 128.00' 2.72 2.81 2.92 2.97 3.07 3.32
2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.40 hrs HW=128.00' (Free Discharge)

↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=128.00' (Free Discharge)

↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Summary for Link DP-9.1: Station Rd

Inflow Area = 96,332 sf, 60.74% Impervious, Inflow Depth = 5.07" for 25-yr event
Inflow = 7.4 cfs @ 12.38 hrs, Volume= 40,701 cf
Primary = 7.4 cfs @ 12.38 hrs, Volume= 40,701 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.1: Wetland 18

Inflow Area = 52,273 sf, 12.87% Impervious, Inflow Depth = 3.99" for 25-yr event
Inflow = 4.2 cfs @ 12.21 hrs, Volume= 17,378 cf
Primary = 4.2 cfs @ 12.21 hrs, Volume= 17,378 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.10: Vernal Pool 4

Inflow Area = 3,661 sf, 18.11% Impervious, Inflow Depth = 3.99" for 25-yr event
Inflow = 0.4 cfs @ 12.09 hrs, Volume= 1,217 cf
Primary = 0.4 cfs @ 12.09 hrs, Volume= 1,217 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.11: Stream

Inflow Area = 140,191 sf, 30.02% Impervious, Inflow Depth = 0.70" for 25-yr event
Inflow = 2.2 cfs @ 12.55 hrs, Volume= 8,170 cf
Primary = 2.2 cfs @ 12.55 hrs, Volume= 8,170 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.12: Wetland 6

Inflow Area = 56,751 sf, 17.03% Impervious, Inflow Depth = 0.00" for 25-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.14: Wetland 3_Vernal Pool 1

Inflow Area = 269,184 sf, 23.27% Impervious, Inflow Depth = 3.28" for 25-yr event
Inflow = 15.6 cfs @ 12.30 hrs, Volume= 73,586 cf
Primary = 15.6 cfs @ 12.30 hrs, Volume= 73,586 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.15: Wetland 4

Inflow Area = 189,840 sf, 9.52% Impervious, Inflow Depth = 0.83" for 25-yr event
Inflow = 1.4 cfs @ 12.70 hrs, Volume= 13,086 cf
Primary = 1.4 cfs @ 12.70 hrs, Volume= 13,086 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.2: Wetland 19

Inflow Area = 177,512 sf, 18.36% Impervious, Inflow Depth = 2.89" for 25-yr event
Inflow = 7.7 cfs @ 12.44 hrs, Volume= 42,799 cf
Primary = 7.7 cfs @ 12.44 hrs, Volume= 42,799 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.3: Wetland 15

Inflow Area = 42,919 sf, 6.46% Impervious, Inflow Depth = 3.89" for 25-yr event
Inflow = 2.6 cfs @ 12.39 hrs, Volume= 13,898 cf
Primary = 2.6 cfs @ 12.39 hrs, Volume= 13,898 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.4: Wetland 16

Inflow Area = 211,318 sf, 12.65% Impervious, Inflow Depth = 2.34" for 25-yr event
Inflow = 6.8 cfs @ 12.52 hrs, Volume= 41,182 cf
Primary = 6.8 cfs @ 12.52 hrs, Volume= 41,182 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.5: Wetland 14

Inflow Area = 36,427 sf, 5.84% Impervious, Inflow Depth = 3.78" for 25-yr event
Inflow = 2.8 cfs @ 12.20 hrs, Volume= 11,483 cf
Primary = 2.8 cfs @ 12.20 hrs, Volume= 11,483 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.6: Wetland 12

Inflow Area = 83,475 sf, 11.94% Impervious, Inflow Depth = 2.89" for 25-yr event
Inflow = 4.1 cfs @ 12.34 hrs, Volume= 20,127 cf
Primary = 4.1 cfs @ 12.34 hrs, Volume= 20,127 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.7: Wetland 13

Inflow Area = 78,507 sf, 6.57% Impervious, Inflow Depth = 0.00" for 25-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.8: Wetland 10

Inflow Area = 179,026 sf, 3.28% Impervious, Inflow Depth = 0.63" for 25-yr event
Inflow = 1.1 cfs @ 12.49 hrs, Volume= 9,448 cf
Primary = 1.1 cfs @ 12.49 hrs, Volume= 9,448 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.9: Wetland 5_Vernal Pool 2-3

Inflow Area = 122,942 sf, 0.77% Impervious, Inflow Depth = 2.52" for 25-yr event
Inflow = 4.7 cfs @ 12.43 hrs, Volume= 25,817 cf
Primary = 4.7 cfs @ 12.43 hrs, Volume= 25,817 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

100-Year Storm Event – Proposed

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Type III 24-hr 100-year Rainfall=8.60"

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Summary for Subcatchment PR-5.10:

Runoff = 0.3 cfs @ 12.71 hrs, Volume= 3,831 cf, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
1,862	76	Gravel roads, HSG A
68,683	30	Woods, Good, HSG A
70,545	31	Weighted Average
70,545	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
9.1	620	0.0050	1.14		Shallow Concentrated Flow,
					Unpaved Kv= 16.1 fps
30.2	670	Total			

Summary for Subcatchment PR-5.11:

Runoff = 1.4 cfs @ 12.58 hrs, Volume= 16,611 cf, Depth= 0.57"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
3,016	76	Gravel roads, HSG A
348,292	30	Woods, Good, HSG A
351,308	30	Weighted Average
351,308	30	100.00% Pervious Area

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

Summary for Subcatchment PR-5.12:

Runoff = 3.5 cfs @ 12.94 hrs, Volume= 32,505 cf, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

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Type III 24-hr 100-year Rainfall=8.60"

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Area (sf)	CN	Description
628	76	Gravel roads, HSG A
694	98	Water Surface, HSG B
88,212	30	Woods, Good, HSG A
108,041	55	Woods, Good, HSG B
197,575	44	Weighted Average
196,881	44	99.65% Pervious Area
694	98	0.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
34.2	50	0.0060	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
26.6	2,435	0.0090	1.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	70	0.1300	5.80		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
61.0	2,555	Total			

Summary for Subcatchment PR-5.13:

Runoff = 3.6 cfs @ 12.96 hrs, Volume= 44,190 cf, Depth= 0.94"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
12,214	76	Gravel roads, HSG A
2,506	85	Gravel roads, HSG B
1,211	98	Water Surface, HSG B
477,972	30	Woods, Good, HSG A
71,247	55	Woods, Good, HSG B
565,150	35	Weighted Average
563,939	34	99.79% Pervious Area
1,211	98	0.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
24.9	2,280	0.0090	1.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.2	75	0.1200	5.58		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
53.0	2,405	Total			

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Type III 24-hr 100-year Rainfall=8.60"

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Summary for Subcatchment PR-5.14:

Runoff = 7.3 cfs @ 12.51 hrs, Volume= 57,850 cf, Depth= 1.13"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
5,919	76	Gravel roads, HSG A
1,679	85	Gravel roads, HSG B
1,361	98	Water Surface, HSG B
481,295	30	Woods, Good, HSG A
123,512	55	Woods, Good, HSG B
613,766	36	Weighted Average
612,405	36	99.78% Pervious Area
1,361	98	0.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	50	0.2600	0.11		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
16.7	475	0.0090	0.47		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.4	110	0.0680	1.30		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.7	635	Total			

Summary for Subcatchment PR-5.15:

Runoff = 5.0 cfs @ 12.60 hrs, Volume= 42,860 cf, Depth= 1.13"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
8	76	Gravel roads, HSG A
633	98	Water Surface, HSG B
352,534	30	Woods, Good, HSG A
103,992	55	Woods, Good, HSG B
457,166	36	Weighted Average
456,533	36	99.86% Pervious Area
633	98	0.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.5	585	0.0180	2.16		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
32.4	635	Total			

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Type III 24-hr 100-year Rainfall=8.60"

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Summary for Subcatchment PR-5.16:

Runoff = 1.4 cfs @ 12.61 hrs, Volume= 17,795 cf, Depth= 0.57"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
4	76	Gravel roads, HSG A
376,341	30	Woods, Good, HSG A
376,345	30	Weighted Average
376,345	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.9	27	0.0060	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	105	0.0200	2.28		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.1	34	0.1100	5.34		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
21.8	166	Total			

Summary for Subcatchment PR-5.17:

Runoff = 3.8 cfs @ 12.38 hrs, Volume= 38,005 cf, Depth= 0.57"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
571	76	Gravel roads, HSG A
803,198	30	Woods, Good, HSG A
803,770	30	Weighted Average
803,770	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	30	0.1500	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	45	0.1600	6.44		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
6.4	75	Total			

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Type III 24-hr 100-year Rainfall=8.60"

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Summary for Subcatchment PR-5.18:

Runoff = 1.8 cfs @ 12.81 hrs, Volume= 24,915 cf, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
6,238	76	Gravel roads, HSG A
452,526	30	Woods, Good, HSG A
458,764	31	Weighted Average
458,764	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	400	0.0800	1.41		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
4.7	200	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
37.3	650	Total			

Summary for Subcatchment PR-5.19:

Runoff = 0.2 cfs @ 12.48 hrs, Volume= 1,544 cf, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
398	76	Gravel roads, HSG A
28,028	30	Woods, Good, HSG A
28,426	31	Weighted Average
28,426	31	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	50	0.0750	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.5	110	0.0020	0.72		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.1	30	0.1300	5.80		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
15.1	190	Total			

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Type III 24-hr 100-year Rainfall=8.60"

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Summary for Subcatchment PR-5.20:

Runoff = 0.5 cfs @ 12.52 hrs, Volume= 4,752 cf, Depth= 1.05"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
3,604	76	Gravel roads, HSG A
1,592	98	Paved parking, HSG A
49,097	30	Woods, Good, HSG A
54,293	35	Weighted Average
52,701	33	97.07% Pervious Area
1,592	98	2.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	200	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.8	250	Total			

Summary for Subcatchment PR-5.21:

Runoff = 1.0 cfs @ 12.56 hrs, Volume= 12,024 cf, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
265	76	Gravel roads, HSG A
789	98	Paved parking, HSG A
242,410	30	Woods, Good, HSG A
243,464	30	Weighted Average
242,675	30	99.68% Pervious Area
789	98	0.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.7	200	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
19.4	250	Total			

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Type III 24-hr 100-year Rainfall=8.60"

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Summary for Subcatchment PR-5.6:

Runoff = 4.6 cfs @ 12.56 hrs, Volume= 46,661 cf, Depth= 0.74"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
1,235	39	>75% Grass cover, Good, HSG A
11,451	76	Gravel roads, HSG A
1,522	85	Gravel roads, HSG B
692,882	30	Woods, Good, HSG A
50,438	55	Woods, Good, HSG B
757,528	32	Weighted Average
757,528	32	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.5	50	0.0320	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
5.2	750	0.0220	2.39		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
22.7	800	Total			

Summary for Subcatchment PR-5.7:

Runoff = 5.1 cfs @ 12.46 hrs, Volume= 38,867 cf, Depth= 1.11"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
2,624	76	Gravel roads, HSG A
208	85	Gravel roads, HSG B
312,019	30	Woods, Good, HSG A
103,451	55	Woods, Good, HSG B
418,303	36	Weighted Average
418,303	36	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	50	0.0250	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.0	200	0.0110	1.69		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
2.1	295	0.0210	2.33		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
23.4	545	Total			

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Type III 24-hr 100-year Rainfall=8.60"

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Summary for Subcatchment PR-5.8:

Runoff = 11.2 cfs @ 12.67 hrs, Volume= 125,280 cf, Depth= 0.74"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
27,551	76	Gravel roads, HSG A
1,934,694	30	Woods, Good, HSG A
71,626	55	Woods, Good, HSG B
2,033,871	32	Weighted Average
2,033,871	32	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	165	0.0480	3.53		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.1	165	0.0230	2.44		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
29.8	380	Total			

Summary for Subcatchment PR-5.9:

Runoff = 0.8 cfs @ 12.46 hrs, Volume= 8,693 cf, Depth= 0.57"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-year Rainfall=8.60"

Area (sf)	CN	Description
572	76	Gravel roads, HSG A
183,271	30	Woods, Good, HSG A
183,843	30	Weighted Average
183,843	30	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	11	0.0100	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.3	8	0.5000	0.10		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.2	323	0.0240	2.49		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
11.8	342	Total			

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Summary for Pond L-5.8: Linear Infiltration Basin

Inflow Area = 2,033,871 sf, 0.00% Impervious, Inflow Depth = 0.74" for 100-year event
 Inflow = 11.2 cfs @ 12.67 hrs, Volume= 125,280 cf
 Outflow = 11.2 cfs @ 12.68 hrs, Volume= 125,281 cf, Atten= 0%, Lag= 0.6 min
 Discarded = 2.4 cfs @ 12.29 hrs, Volume= 84,061 cf
 Primary = 8.8 cfs @ 12.68 hrs, Volume= 41,220 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 200.73' @ 12.68 hrs Surf.Area= 893 sf Storage= 946 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 1.5 min (972.0 - 970.5)

Volume	Invert	Avail.Storage	Storage Description
#1	199.00'	1,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
199.00	200	0	0
200.00	600	400	400
201.00	1,000	800	1,200

Device	Routing	Invert	Outlet Devices
#1	Primary	200.00'	5.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	199.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.29 hrs HW=199.04' (Free Discharge)
 ↑ **2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=8.8 cfs @ 12.68 hrs HW=200.73' TW=0.00' (Dynamic Tailwater)
 ↑ **1=Broad-Crested Rectangular Weir** (Weir Controls 8.8 cfs @ 2.41 fps)

Summary for Pond P5.11: Low Point

Inflow Area = 351,308 sf, 0.00% Impervious, Inflow Depth = 0.57" for 100-year event
 Inflow = 1.4 cfs @ 12.58 hrs, Volume= 16,611 cf
 Outflow = 0.6 cfs @ 14.83 hrs, Volume= 10,349 cf, Atten= 59%, Lag= 135.3 min
 Primary = 0.6 cfs @ 14.83 hrs, Volume= 10,349 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 175.54' @ 14.83 hrs Surf.Area= 6,980 sf Storage= 6,514 cf

Plug-Flow detention time= 259.7 min calculated for 10,349 cf (62% of inflow)
 Center-of-Mass det. time= 124.2 min (1,105.8 - 981.7)

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Volume	Invert	Avail.Storage	Storage Description
#1	174.50'	9,900 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
174.50	5,600	0	0
175.00	6,260	2,965	2,965
175.50	6,930	3,298	6,263
176.00	7,620	3,638	9,900

Device	Routing	Invert	Outlet Devices
#1	Primary	175.50'	30.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.6 cfs @ 14.83 hrs HW=175.54' TW=0.00' (Dynamic Tailwater)

↑**1=Broad-Crested Rectangular Weir**(Weir Controls 0.6 cfs @ 0.51 fps)

Summary for Pond P5.14: Linear Infiltration Basin

Inflow Area = 613,766 sf, 0.22% Impervious, Inflow Depth = 1.13" for 100-year event
 Inflow = 7.3 cfs @ 12.51 hrs, Volume= 57,850 cf
 Outflow = 7.3 cfs @ 12.52 hrs, Volume= 57,853 cf, Atten= 0%, Lag= 0.8 min
 Discarded = 1.0 cfs @ 12.16 hrs, Volume= 35,463 cf
 Primary = 6.3 cfs @ 12.52 hrs, Volume= 22,390 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 173.89' @ 12.52 hrs Surf.Area= 1,196 sf Storage= 1,367 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 6.1 min (940.8 - 934.6)

Volume	Invert	Avail.Storage	Storage Description
#1	172.00'	1,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
172.00	250	0	0
173.00	750	500	500
174.00	1,250	1,000	1,500

Device	Routing	Invert	Outlet Devices
#1	Primary	173.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	172.00'	1.0 cfs Exfiltration at all elevations

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Discarded OutFlow Max=1.0 cfs @ 12.16 hrs HW=172.06' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 1.0 cfs)**Primary OutFlow** Max=6.3 cfs @ 12.52 hrs HW=173.89' TW=0.00' (Dynamic Tailwater)↑**1=Broad-Crested Rectangular Weir**(Weir Controls 6.3 cfs @ 1.61 fps)**Summary for Pond P5.18: Linear Infiltration Basin**

Inflow Area = 458,764 sf, 0.00% Impervious, Inflow Depth = 0.65" for 100-year event
 Inflow = 1.8 cfs @ 12.81 hrs, Volume= 24,915 cf
 Outflow = 1.8 cfs @ 12.81 hrs, Volume= 24,915 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 1.8 cfs @ 12.81 hrs, Volume= 24,915 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 173.00' @ 12.81 hrs Surf.Area= 65 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 0.0 min (987.0 - 987.0)

Volume	Invert	Avail.Storage	Storage Description
#1	173.00'	390 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
173.00	65	0	0
174.00	195	130	130
175.00	325	260	390

Device	Routing	Invert	Outlet Devices
#1	Primary	174.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	173.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.81 hrs HW=173.00' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=173.00' TW=0.00' (Dynamic Tailwater)↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Link DP-5.10: Low Point**

Inflow Area = 70,545 sf, 0.00% Impervious, Inflow Depth = 0.65" for 100-year event
 Inflow = 0.3 cfs @ 12.71 hrs, Volume= 3,831 cf
 Primary = 0.3 cfs @ 12.71 hrs, Volume= 3,831 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.11: Off-site

Inflow Area = 351,308 sf, 0.00% Impervious, Inflow Depth = 0.35" for 100-year event
Inflow = 0.6 cfs @ 14.83 hrs, Volume= 10,349 cf
Primary = 0.6 cfs @ 14.83 hrs, Volume= 10,349 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.12: Wetland 44

Inflow Area = 197,575 sf, 0.35% Impervious, Inflow Depth = 1.97" for 100-year event
Inflow = 3.5 cfs @ 12.94 hrs, Volume= 32,505 cf
Primary = 3.5 cfs @ 12.94 hrs, Volume= 32,505 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.13: Wetland 44

Inflow Area = 565,150 sf, 0.21% Impervious, Inflow Depth = 0.94" for 100-year event
Inflow = 3.6 cfs @ 12.96 hrs, Volume= 44,190 cf
Primary = 3.6 cfs @ 12.96 hrs, Volume= 44,190 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.14: Wetland 44

Inflow Area = 613,766 sf, 0.22% Impervious, Inflow Depth = 0.44" for 100-year event
Inflow = 6.3 cfs @ 12.52 hrs, Volume= 22,390 cf
Primary = 6.3 cfs @ 12.52 hrs, Volume= 22,390 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.15: Wetland 44

Inflow Area = 457,166 sf, 0.14% Impervious, Inflow Depth = 1.13" for 100-year event
Inflow = 5.0 cfs @ 12.60 hrs, Volume= 42,860 cf
Primary = 5.0 cfs @ 12.60 hrs, Volume= 42,860 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.16: Off-site Wetland

Inflow Area = 376,345 sf, 0.00% Impervious, Inflow Depth = 0.57" for 100-year event
Inflow = 1.4 cfs @ 12.61 hrs, Volume= 17,795 cf
Primary = 1.4 cfs @ 12.61 hrs, Volume= 17,795 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.17: Wetland 41&43/Vernal Pool 11&13

Inflow Area = 803,770 sf, 0.00% Impervious, Inflow Depth = 0.57" for 100-year event
Inflow = 3.8 cfs @ 12.38 hrs, Volume= 38,005 cf
Primary = 3.8 cfs @ 12.38 hrs, Volume= 38,005 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.18: Wetland 42/Vernal Pool 12

Inflow Area = 458,764 sf, 0.00% Impervious, Inflow Depth = 0.00" for 100-year event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.19: Wetland 40/Vernal Pool 10

Inflow Area = 28,426 sf, 0.00% Impervious, Inflow Depth = 0.65" for 100-year event
Inflow = 0.2 cfs @ 12.48 hrs, Volume= 1,544 cf
Primary = 0.2 cfs @ 12.48 hrs, Volume= 1,544 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.20: Off-site to Dutton Road

Inflow Area = 54,293 sf, 2.93% Impervious, Inflow Depth = 1.05" for 100-year event
Inflow = 0.5 cfs @ 12.52 hrs, Volume= 4,752 cf
Primary = 0.5 cfs @ 12.52 hrs, Volume= 4,752 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.21: Wetland 39/Vernal Pool 9

Inflow Area = 243,464 sf, 0.32% Impervious, Inflow Depth = 0.59" for 100-year event
Inflow = 1.0 cfs @ 12.56 hrs, Volume= 12,024 cf
Primary = 1.0 cfs @ 12.56 hrs, Volume= 12,024 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.6: Wetland 18

Inflow Area = 757,528 sf, 0.00% Impervious, Inflow Depth = 0.74" for 100-year event
Inflow = 4.6 cfs @ 12.56 hrs, Volume= 46,661 cf
Primary = 4.6 cfs @ 12.56 hrs, Volume= 46,661 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.7: Wetland 19

Inflow Area = 418,303 sf, 0.00% Impervious, Inflow Depth = 1.11" for 100-year event
Inflow = 5.1 cfs @ 12.46 hrs, Volume= 38,867 cf
Primary = 5.1 cfs @ 12.46 hrs, Volume= 38,867 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.8: Wetland 45

Inflow Area = 2,033,871 sf, 0.00% Impervious, Inflow Depth = 0.24" for 100-year event
Inflow = 8.8 cfs @ 12.68 hrs, Volume= 41,220 cf
Primary = 8.8 cfs @ 12.68 hrs, Volume= 41,220 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP-5.9: Low Point

Inflow Area = 183,843 sf, 0.00% Impervious, Inflow Depth = 0.57" for 100-year event
Inflow = 0.8 cfs @ 12.46 hrs, Volume= 8,693 cf
Primary = 0.8 cfs @ 12.46 hrs, Volume= 8,693 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment PR6.10:

Runoff = 4.7 cfs @ 12.41 hrs, Volume= 27,711 cf, Depth= 1.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.585	39	>75% Grass cover, Good, HSG A
0.093	30	Meadow, non-grazed, HSG A
0.721	98	Paved parking, HSG A
2.506	30	Woods, Good, HSG A
0.007	77	Woods, Good, HSG D
3.911	44	Weighted Average
3.190		81.57% Pervious Area
0.721		18.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.0	50	0.0260	0.04		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
5.9	138	0.0240	0.39		Shallow Concentrated Flow,
					Forest w/Heavy Litter Kv= 2.5 fps
24.9	188	Total			

Summary for Subcatchment PR6.11:

Runoff = 0.3 cfs @ 12.28 hrs, Volume= 2,330 cf, Depth= 0.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
3,342	39	>75% Grass cover, Good, HSG A
22	30	Meadow, non-grazed, HSG A
855	98	Paved parking, HSG A
29,494	30	Woods, Good, HSG A
33,713	33	Weighted Average
32,857		97.46% Pervious Area
855		2.54% Impervious Area

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

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment PR6.12:

Runoff = 0.2 cfs @ 12.31 hrs, Volume= 1,605 cf, Depth= 0.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.122	39	>75% Grass cover, Good, HSG A
0.032	30	Meadow, non-grazed, HSG A
0.444	30	Woods, Good, HSG A
0.598	32	Weighted Average
0.598		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	28	0.4000	0.12		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.0	28	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment PR6.13:

Runoff = 9.2 cfs @ 12.12 hrs, Volume= 32,766 cf, Depth= 2.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.341	39	>75% Grass cover, Good, HSG A
0.188	80	>75% Grass cover, Good, HSG D
0.106	30	Meadow, non-grazed, HSG A
0.255	98	Paved parking, HSG A
0.122	98	Paved parking, HSG D
1.492	30	Woods, Good, HSG A
0.660	77	Woods, Good, HSG D
3.163	52	Weighted Average
2.786		88.08% Pervious Area
0.377		11.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	13	0.1770	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
6.3	40	0.2650	0.11		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.0	53	Total			

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment PR6.14:

Runoff = 20.0 cfs @ 12.18 hrs, Volume= 77,816 cf, Depth= 4.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.335	80	>75% Grass cover, Good, HSG D
0.085	30	Meadow, non-grazed, HSG A
0.399	98	Paved parking, HSG A
0.274	98	Paved parking, HSG D
1.827	30	Woods, Good, HSG A
0.757	70	Woods, Good, HSG C
1.646	77	Woods, Good, HSG D
5.323	62	Weighted Average
4.650		87.36% Pervious Area
0.673		12.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	50	0.0800	0.12		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
1.8	75	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.9	75	0.0700	1.32		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
2.7	80	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
12.4	280	Total			

Summary for Subcatchment PR6.15:

Runoff = 0.6 cfs @ 12.11 hrs, Volume= 1,916 cf, Depth= 6.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.000	30	Meadow, non-grazed, HSG A
0.063	98	Paved parking, HSG A
0.015	30	Woods, Good, HSG A
0.079	84	Weighted Average
0.016		20.17% Pervious Area
0.063		79.83% Impervious Area

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Type III 24-hr 100-yr Rainfall=8.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	41	0.1760	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment PR6.1A:

Runoff = 0.1 cfs @ 12.25 hrs, Volume= 718 cf, Depth= 1.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.000	30	Meadow, non-grazed, HSG A
0.021	98	Paved parking, HSG A
0.093	30	Woods, Good, HSG A
0.114	42	Weighted Average
0.093		81.85% Pervious Area
0.021		18.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.6	78	0.0400	0.50		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.4	25	0.0240	1.08		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
15.1	153	Total			

Summary for Subcatchment PR6.1B:

Runoff = 0.3 cfs @ 12.40 hrs, Volume= 2,137 cf, Depth= 0.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
8,068	39	>75% Grass cover, Good, HSG A
9,385	30	Meadow, non-grazed, HSG A
685	98	Paved parking, HSG A
9,667	30	Woods, Good, HSG A
27,806	34	Weighted Average
27,120		97.53% Pervious Area
685		2.47% Impervious Area

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Type III 24-hr 100-yr Rainfall=8.60"

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

Summary for Subcatchment PR6.2:

Runoff = 1.3 cfs @ 12.26 hrs, Volume= 6,722 cf, Depth= 1.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
7,415	30	Meadow, non-grazed, HSG A
8,450	98	Paved parking, HSG A
25,465	30	Woods, Good, HSG A
41,330	44	Weighted Average
32,880		79.55% Pervious Area
8,450		20.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	50	0.0440	0.05		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
0.6	72	0.1875	2.17		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
16.0	122	Total			

Summary for Subcatchment PR6.3:

Runoff = 0.9 cfs @ 12.25 hrs, Volume= 4,721 cf, Depth= 1.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.134	98	Paved parking, HSG A
0.616	30	Woods, Good, HSG A
0.750	42	Weighted Average
0.616		82.12% Pervious Area
0.134		17.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.1	50	0.0660	0.06		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
1.6	105	0.0240	1.08		Shallow Concentrated Flow,
					Short Grass Pasture Kv= 7.0 fps
14.7	155	Total			

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment PR6.4:

Runoff = 6.5 cfs @ 12.20 hrs, Volume= 27,360 cf, Depth= 2.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
1.721	39	>75% Grass cover, Good, HSG A
0.624	98	Paved parking, HSG A
0.527	30	Woods, Good, HSG A
2.872	50	Weighted Average
2.249		78.28% Pervious Area
0.624		21.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	50	0.0740	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	36	0.0860	0.73		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
13.3	86	Total			

Summary for Subcatchment PR6.5:

Runoff = 9.9 cfs @ 12.34 hrs, Volume= 68,258 cf, Depth= 1.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
2.733	39	>75% Grass cover, Good, HSG A
1.189	98	Paved parking, HSG A
12.942	30	Woods, Good, HSG A
16.865	36	Weighted Average
15.675		92.95% Pervious Area
1.189		7.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.1	41	0.0580	0.60		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.8	91	Total			

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment PR6.6A:

Runoff = 1.0 cfs @ 12.47 hrs, Volume= 5,735 cf, Depth= 2.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
7,275	30	Meadow, non-grazed, HSG A
7,723	98	Paved parking, HSG A
9,121	30	Woods, Good, HSG A
24,118	52	Weighted Average
16,396		67.98% Pervious Area
7,723		32.02% Impervious Area

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

Summary for Subcatchment PR6.6B:

Runoff = 7.2 cfs @ 12.51 hrs, Volume= 46,576 cf, Depth= 1.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
52,627	39	>75% Grass cover, Good, HSG A
4,923	30	Meadow, non-grazed, HSG A
52,301	98	Paved parking, HSG A
176,510	30	Woods, Good, HSG A
286,361	44	Weighted Average
234,060		81.74% Pervious Area
52,301		18.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	50	0.3000	0.20		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.1	13	0.3000	2.74		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
25.9	850	0.0120	0.55		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.2	85	0.0590	1.21		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
31.3	998	Total			

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment PR6.7:

Runoff = 4.5 cfs @ 12.52 hrs, Volume= 33,454 cf, Depth= 1.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
61,773	39	>75% Grass cover, Good, HSG A
10,632	30	Meadow, non-grazed, HSG A
29,284	98	Paved parking, HSG A
203,503	30	Woods, Good, HSG A
305,192	38	Weighted Average
275,908		90.40% Pervious Area
29,284		9.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	50	0.3300	0.12		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	13	0.4500	1.68		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
18.9	848	0.0114	0.75		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
2.5	86	0.0530	0.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
28.4	997	Total			

Summary for Subcatchment PR6.8:

Runoff = 1.2 cfs @ 12.61 hrs, Volume= 13,194 cf, Depth= 0.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
45,823	39	>75% Grass cover, Good, HSG A
0	30	Meadow, non-grazed, HSG A
168,373	30	Woods, Good, HSG A
214,195	32	Weighted Average
214,195		100.00% Pervious Area

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Type III 24-hr 100-yr Rainfall=8.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	44	0.5000	0.14		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
15.2	728	0.0130	0.80		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.6	113	0.0180	0.34		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
26.1	885	Total			

Summary for Subcatchment PR6.9:

Runoff = 1.3 cfs @ 12.11 hrs, Volume= 5,275 cf, Depth= 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
11,274	39	>75% Grass cover, Good, HSG A
1,725	30	Meadow, non-grazed, HSG A
4,683	98	Paved parking, HSG A
21,201	30	Woods, Good, HSG A
38,883	41	Weighted Average
34,200		87.96% Pervious Area
4,683		12.04% Impervious Area

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

Summary for Pond P6.2: Wide Swale

Inflow Area = 41,330 sf, 20.45% Impervious, Inflow Depth = 1.95" for 100-yr event
 Inflow = 1.3 cfs @ 12.26 hrs, Volume= 6,722 cf
 Outflow = 1.3 cfs @ 12.26 hrs, Volume= 6,722 cf, Atten= 0%, Lag= 0.2 min
 Discarded = 1.3 cfs @ 12.26 hrs, Volume= 6,722 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 181.51' @ 12.26 hrs Surf.Area= 1,810 sf Storage= 22 cf

Plug-Flow detention time= 0.3 min calculated for 6,711 cf (100% of inflow)
 Center-of-Mass det. time= 0.3 min (893.2 - 892.9)

Volume	Invert	Avail.Storage	Storage Description
#1	181.50'	5,464 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

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Type III 24-hr 100-yr Rainfall=8.60"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
181.50	1,800	0	0
182.50	2,600	2,200	2,200
183.70	2,840	3,264	5,464

Device	Routing	Invert	Outlet Devices
#1	Primary	182.50'	3.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	181.50'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.26 hrs HW=181.51' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=181.50' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)**Summary for Pond P6.6: Linear Infiltration Basin**

Inflow Area = 310,479 sf, 19.33% Impervious, Inflow Depth = 2.02" for 100-yr event
 Inflow = 8.1 cfs @ 12.51 hrs, Volume= 52,311 cf
 Outflow = 8.0 cfs @ 12.57 hrs, Volume= 52,311 cf, Atten= 2%, Lag= 4.1 min
 Discarded = 2.4 cfs @ 12.15 hrs, Volume= 42,844 cf
 Primary = 5.6 cfs @ 12.57 hrs, Volume= 9,467 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 180.86' @ 12.57 hrs Surf.Area= 3,307 sf Storage= 3,731 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 6.2 min (910.8 - 904.6)

Volume	Invert	Avail.Storage	Storage Description
#1	179.00'	4,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
179.00	700	0	0
180.00	2,100	1,400	1,400
181.00	3,500	2,800	4,200

Device	Routing	Invert	Outlet Devices
#1	Primary	180.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	179.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.15 hrs HW=179.02' (Free Discharge)

↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=5.5 cfs @ 12.57 hrs HW=180.86' (Free Discharge)

↑**1=Broad-Crested Rectangular Weir**(Weir Controls 5.5 cfs @ 1.53 fps)

Summary for Link DP6.1: Low Point

Inflow Area = 32,773 sf, 4.84% Impervious, Inflow Depth = 1.05" for 100-yr event
Inflow = 0.4 cfs @ 12.35 hrs, Volume= 2,855 cf
Primary = 0.4 cfs @ 12.35 hrs, Volume= 2,855 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.10: Low Point

Inflow Area = 170,377 sf, 18.43% Impervious, Inflow Depth = 1.95" for 100-yr event
Inflow = 4.7 cfs @ 12.41 hrs, Volume= 27,711 cf
Primary = 4.7 cfs @ 12.41 hrs, Volume= 27,711 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.11: Wetland/Potential Vernal Pool

Inflow Area = 33,713 sf, 2.54% Impervious, Inflow Depth = 0.83" for 100-yr event
Inflow = 0.3 cfs @ 12.28 hrs, Volume= 2,330 cf
Primary = 0.3 cfs @ 12.28 hrs, Volume= 2,330 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.12: Wetland 35/Vernal Pool 8

Inflow Area = 26,051 sf, 0.00% Impervious, Inflow Depth = 0.74" for 100-yr event
Inflow = 0.2 cfs @ 12.31 hrs, Volume= 1,605 cf
Primary = 0.2 cfs @ 12.31 hrs, Volume= 1,605 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.13: Wetland 34

Inflow Area = 137,787 sf, 11.92% Impervious, Inflow Depth = 2.85" for 100-yr event
Inflow = 9.2 cfs @ 12.12 hrs, Volume= 32,766 cf
Primary = 9.2 cfs @ 12.12 hrs, Volume= 32,766 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.14: Wetland 33

Inflow Area = 231,878 sf, 12.64% Impervious, Inflow Depth = 4.03" for 100-yr event
Inflow = 20.0 cfs @ 12.18 hrs, Volume= 77,816 cf
Primary = 20.0 cfs @ 12.18 hrs, Volume= 77,816 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.15: Low Point

Inflow Area = 3,445 sf, 79.83% Impervious, Inflow Depth = 6.67" for 100-yr event
Inflow = 0.6 cfs @ 12.11 hrs, Volume= 1,916 cf
Primary = 0.6 cfs @ 12.11 hrs, Volume= 1,916 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.2: Dutton

Inflow Area = 41,330 sf, 20.45% Impervious, Inflow Depth = 0.00" for 100-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.3: Low Point

Inflow Area = 32,660 sf, 17.88% Impervious, Inflow Depth = 1.73" for 100-yr event
Inflow = 0.9 cfs @ 12.25 hrs, Volume= 4,721 cf
Primary = 0.9 cfs @ 12.25 hrs, Volume= 4,721 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.4: Low Point

Inflow Area = 125,115 sf, 21.72% Impervious, Inflow Depth = 2.62" for 100-yr event
Inflow = 6.5 cfs @ 12.20 hrs, Volume= 27,360 cf
Primary = 6.5 cfs @ 12.20 hrs, Volume= 27,360 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.5: Low Point

Inflow Area = 734,624 sf, 7.05% Impervious, Inflow Depth = 1.11" for 100-yr event
Inflow = 9.9 cfs @ 12.34 hrs, Volume= 68,258 cf
Primary = 9.9 cfs @ 12.34 hrs, Volume= 68,258 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.6: Wetland 38 & 36

Inflow Area = 310,479 sf, 19.33% Impervious, Inflow Depth = 0.37" for 100-yr event
Inflow = 5.6 cfs @ 12.57 hrs, Volume= 9,467 cf
Primary = 5.6 cfs @ 12.57 hrs, Volume= 9,467 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.7: Wetland 37

Inflow Area = 305,192 sf, 9.60% Impervious, Inflow Depth = 1.32" for 100-yr event
Inflow = 4.5 cfs @ 12.52 hrs, Volume= 33,454 cf
Primary = 4.5 cfs @ 12.52 hrs, Volume= 33,454 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.8: Low Point

Inflow Area = 214,195 sf, 0.00% Impervious, Inflow Depth = 0.74" for 100-yr event
Inflow = 1.2 cfs @ 12.61 hrs, Volume= 13,194 cf
Primary = 1.2 cfs @ 12.61 hrs, Volume= 13,194 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link DP6.9: Low Point

Inflow Area = 38,883 sf, 12.04% Impervious, Inflow Depth = 1.63" for 100-yr event
Inflow = 1.3 cfs @ 12.11 hrs, Volume= 5,275 cf
Primary = 1.3 cfs @ 12.11 hrs, Volume= 5,275 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment PR7.1:

Runoff = 26.2 cfs @ 12.23 hrs, Volume= 113,751 cf, Depth= 3.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
81,286	39	>75% Grass cover, Good, HSG A
22,055	80	>75% Grass cover, Good, HSG D
5,733	30	Meadow, non-grazed, HSG A
2,202	78	Meadow, non-grazed, HSG D
32,877	98	Paved parking, HSG A
11,938	98	Paved parking, HSG D
20,918	98	Paved roads w/curbs & sewers, HSG A
5,335	98	Paved roads w/curbs & sewers, HSG D
6,152	98	Roofs, HSG A
135,436	30	Woods, Good, HSG A
73,342	77	Woods, Good, HSG D
397,273	57	Weighted Average
320,054		80.56% Pervious Area
77,220		19.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	50	0.0300	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
5.6	270	0.0133	0.81		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.5	51	0.1100	1.66		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.4	371	Total			

Summary for Subcatchment PR7.10:

Runoff = 0.1 cfs @ 12.51 hrs, Volume= 621 cf, Depth= 0.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.105	30	Meadow, non-grazed, HSG A
0.004	98	Paved parking, HSG A
0.153	30	Woods, Good, HSG A
0.262	31	Weighted Average
0.258		98.32% Pervious Area
0.004		1.68% Impervious Area

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Type III 24-hr 100-yr Rainfall=8.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0400	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.0	30	0.0400	0.50		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.0	80	Total			

Summary for Subcatchment PR7.11:

Runoff = 1.6 cfs @ 12.66 hrs, Volume= 11,879 cf, Depth= 2.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.624	39	>75% Grass cover, Good, HSG A
0.087	98	Paved parking, HSG A
0.149	98	Paved roads w/curbs & sewers, HSG A
0.038	98	Roofs, HSG A
0.689	30	Woods, Good, HSG A
1.587	45	Weighted Average
1.313		82.71% Pervious Area
0.274		17.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	55	0.1230	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.6	138	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
26.0	406	0.0108	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
41.6	599	Total			

Summary for Subcatchment PR7.12:

Runoff = 1.3 cfs @ 12.65 hrs, Volume= 9,776 cf, Depth= 2.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

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Type III 24-hr 100-yr Rainfall=8.60"

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Area (ac)	CN	Description
0.321	39	>75% Grass cover, Good, HSG A
0.084	98	Paved parking, HSG A
0.141	98	Paved roads w/curbs & sewers, HSG A
0.023	98	Roofs, HSG A
0.670	30	Woods, Good, HSG A
1.240	46	Weighted Average
0.991		79.98% Pervious Area
0.248		20.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.7	50	0.0240	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
4.1	75	0.0147	0.30		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
1.6	94	0.0190	0.96		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.8	62	0.0530	0.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.1	284	0.0020	0.31		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
42.3	565	Total			

Summary for Subcatchment PR7.2:

Runoff = 1.3 cfs @ 12.35 hrs, Volume= 9,678 cf, Depth= 1.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
7,485	30	Meadow, non-grazed, HSG A
58	78	Meadow, non-grazed, HSG D
2,498	98	Paved parking, HSG A
3,458	98	Paved roads w/curbs & sewers, HSG A
2,942	98	Roofs, HSG A
97,680	30	Woods, Good, HSG A
114,121	35	Weighted Average
105,223		92.20% Pervious Area
8,898		7.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	50	0.0300	0.08		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
4.1	223	0.0170	0.91		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.2	16	0.2230	1.18		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
14.6	289	Total			

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment PR7.3:

Runoff = 4.7 cfs @ 12.28 hrs, Volume= 24,345 cf, Depth= 1.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.826	39	>75% Grass cover, Good, HSG A
0.024	74	>75% Grass cover, Good, HSG C
0.001	30	Meadow, non-grazed, HSG A
0.033	98	Paved parking, HSG A
0.191	98	Paved roads w/curbs & sewers, HSG A
0.044	98	Paved roads w/curbs & sewers, HSG C
0.181	98	Roofs, HSG A
0.001	98	Roofs, HSG C
2.129	30	Woods, Good, HSG A
0.209	70	Woods, Good, HSG C
3.640	43	Weighted Average
3.189		87.62% Pervious Area
0.450		12.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.4	50	0.0440	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.6	65	0.0769	0.69		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.0570	1.67		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
17.1	129	Total			

Summary for Subcatchment PR7.4:

Runoff = 27.9 cfs @ 12.28 hrs, Volume= 129,426 cf, Depth= 4.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

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Type III 24-hr 100-yr Rainfall=8.60"

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Area (sf)	CN	Description
52,005	39	>75% Grass cover, Good, HSG A
16,421	74	>75% Grass cover, Good, HSG C
1,502	80	>75% Grass cover, Good, HSG D
12	30	Meadow, non-grazed, HSG A
9,660	98	Paved parking, HSG A
5,971	98	Paved parking, HSG C
4,523	98	Paved parking, HSG D
5,581	98	Paved roads w/curbs & sewers, HSG A
2,141	98	Paved roads w/curbs & sewers, HSG C
5,002	98	Paved roads w/curbs & sewers, HSG D
6,874	98	Roofs, HSG A
5,679	98	Roofs, HSG C
105	98	Roofs, HSG D
78,012	30	Woods, Good, HSG A
85,212	70	Woods, Good, HSG C
95,894	77	Woods, Good, HSG D
374,595	63	Weighted Average
329,058		87.84% Pervious Area
45,538		12.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.2	50	0.1600	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.8	80	0.0640	1.77		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
9.2	310	0.0064	0.56		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.7	40	0.0400	1.00		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.2	20	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
20.1	500	Total			

Summary for Subcatchment PR7.5:

Runoff = 54.1 cfs @ 12.23 hrs, Volume= 239,071 cf, Depth= 2.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

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Type III 24-hr 100-yr Rainfall=8.60"

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Area (ac)	CN	Description
3.909	39	>75% Grass cover, Good, HSG A
0.638	80	>75% Grass cover, Good, HSG D
0.056	30	Meadow, non-grazed, HSG A
0.098	78	Meadow, non-grazed, HSG D
0.666	98	Paved parking, HSG A
0.079	98	Paved parking, HSG D
1.090	98	Paved roads w/curbs & sewers, HSG A
0.990	98	Roofs, HSG A
0.161	98	Roofs, HSG D
10.494	30	Woods, Good, HSG A
4.899	77	Woods, Good, HSG D
23.079	52	Weighted Average
20.095		87.07% Pervious Area
2.984		12.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
2.1	145	0.0550	1.17		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.6	75	0.0260	0.81		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
15.8	270	Total			

Summary for Subcatchment PR7.6:

Runoff = 1.0 cfs @ 12.27 hrs, Volume= 5,354 cf, Depth= 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
4,883	30	Meadow, non-grazed, HSG A
6,327	98	Paved parking, HSG A
28,259	30	Woods, Good, HSG A
39,470	41	Weighted Average
33,142		83.97% Pervious Area
6,327		16.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	50	0.0760	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.4	124	0.0600	0.61		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.8	174	Total			

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment PR7.7:

Runoff = 0.1 cfs @ 12.48 hrs, Volume= 1,331 cf, Depth= 0.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.176	30	Meadow, non-grazed, HSG A
0.470	30	Woods, Good, HSG A
0.646	30	Weighted Average
0.646		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	50	0.1500	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
3.5	90	0.0290	0.43		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
12.9	140	Total			

Summary for Subcatchment PR7.8:

Runoff = 0.9 cfs @ 12.62 hrs, Volume= 7,043 cf, Depth= 1.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.287	39	>75% Grass cover, Good, HSG A
0.063	30	Meadow, non-grazed, HSG A
0.120	98	Paved parking, HSG A
0.021	98	Roofs, HSG A
0.784	30	Woods, Good, HSG A
1.274	40	Weighted Average
1.134		88.95% Pervious Area
0.141		11.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	41	0.1390	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
17.8	683	0.0083	0.64		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
10.2	303	0.0389	0.49		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
36.3	1,027	Total			

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment PR7.9:

Runoff = 7.3 cfs @ 12.29 hrs, Volume= 38,394 cf, Depth= 1.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
1.941	39	>75% Grass cover, Good, HSG A
0.258	98	Paved parking, HSG A
0.216	98	Paved roads w/curbs & sewers, HSG A
0.364	98	Roofs, HSG A
2.961	30	Woods, Good, HSG A
5.740	43	Weighted Average
4.902		85.40% Pervious Area
0.838		14.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	50	0.0220	0.07		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
0.2	14	0.0360	1.33		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.8	185	0.0454	0.53		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
17.7	249	Total			

Summary for Pond P7.1: Detention Basin

Inflow Area = 397,273 sf, 19.44% Impervious, Inflow Depth = 3.44" for 100-yr event
 Inflow = 26.2 cfs @ 12.23 hrs, Volume= 113,751 cf
 Outflow = 26.2 cfs @ 12.24 hrs, Volume= 113,751 cf, Atten= 0%, Lag= 0.4 min
 Discarded = 2.4 cfs @ 11.71 hrs, Volume= 64,786 cf
 Primary = 23.7 cfs @ 12.24 hrs, Volume= 48,965 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 162.88' @ 12.24 hrs Surf.Area= 970 sf Storage= 1,737 cf

Plug-Flow detention time= 2.1 min calculated for 113,735 cf (100% of inflow)
 Center-of-Mass det. time= 2.1 min (860.6 - 858.6)

Volume	Invert	Avail.Storage	Storage Description
#1	159.00'	1,860 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
159.00	120	0	0
160.00	160	140	140
161.00	380	270	410
162.00	760	570	980
163.00	1,000	880	1,860

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Type III 24-hr 100-yr Rainfall=8.60"

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Device	Routing	Invert	Outlet Devices
#1	Primary	162.00'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	159.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 11.71 hrs HW=159.04' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=23.7 cfs @ 12.24 hrs HW=162.88' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** (Weir Controls 23.7 cfs @ 2.71 fps)**Summary for Pond P7.6: Low Point**

Inflow Area = 39,470 sf, 16.03% Impervious, Inflow Depth = 1.63" for 100-yr event
Inflow = 1.0 cfs @ 12.27 hrs, Volume= 5,354 cf
Outflow = 1.0 cfs @ 12.27 hrs, Volume= 5,354 cf, Atten= 0%, Lag= 0.1 min
Discarded = 1.0 cfs @ 12.27 hrs, Volume= 5,354 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 132.01' @ 12.27 hrs Surf.Area= 273 sf Storage= 3 cf

Plug-Flow detention time= 0.1 min calculated for 5,354 cf (100% of inflow)

Center-of-Mass det. time= 0.1 min (904.0 - 903.9)

Volume	Invert	Avail.Storage	Storage Description
#1	132.00'	6,580 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
132.00	250	0	0
133.00	2,120	1,185	1,185
134.00	2,690	2,405	3,590
135.00	3,290	2,990	6,580

Device	Routing	Invert	Outlet Devices
#1	Primary	134.50'	10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	132.00'	2.4 cfs Exfiltration at all elevations

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Discarded OutFlow Max=2.4 cfs @ 12.27 hrs HW=132.01' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=132.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Pond P7.8: Low Point**

Inflow Area = 55,516 sf, 11.05% Impervious, Inflow Depth = 1.52" for 100-yr event
 Inflow = 0.9 cfs @ 12.62 hrs, Volume= 7,043 cf
 Outflow = 0.9 cfs @ 12.62 hrs, Volume= 7,043 cf, Atten= 0%, Lag= 0.1 min
 Discarded = 0.9 cfs @ 12.62 hrs, Volume= 7,043 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 168.01' @ 12.62 hrs Surf.Area= 303 sf Storage= 2 cf

Plug-Flow detention time= 0.0 min calculated for 7,042 cf (100% of inflow)

Center-of-Mass det. time= 0.0 min (927.2 - 927.1)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	1,500 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	300	0	0
169.00	750	525	525
170.00	1,200	975	1,500

Device	Routing	Invert	Outlet Devices
#1	Primary	169.00'	10.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88
#2	Discarded	168.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.62 hrs HW=168.01' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=168.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Link DP7.1: Wetland 30**

Inflow Area = 397,273 sf, 19.44% Impervious, Inflow Depth = 1.48" for 100-yr event
 Inflow = 23.7 cfs @ 12.24 hrs, Volume= 48,965 cf
 Primary = 23.7 cfs @ 12.24 hrs, Volume= 48,965 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.10: Low Point

Inflow Area = 11,432 sf, 1.68% Impervious, Inflow Depth = 0.65" for 100-yr event
Inflow = 0.1 cfs @ 12.51 hrs, Volume= 621 cf
Primary = 0.1 cfs @ 12.51 hrs, Volume= 621 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.11: Low Point

Inflow Area = 69,139 sf, 17.29% Impervious, Inflow Depth = 2.06" for 100-yr event
Inflow = 1.6 cfs @ 12.66 hrs, Volume= 11,879 cf
Primary = 1.6 cfs @ 12.66 hrs, Volume= 11,879 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.12: Low Point

Inflow Area = 53,996 sf, 20.02% Impervious, Inflow Depth = 2.17" for 100-yr event
Inflow = 1.3 cfs @ 12.65 hrs, Volume= 9,776 cf
Primary = 1.3 cfs @ 12.65 hrs, Volume= 9,776 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.2: Wetland 32

Inflow Area = 114,121 sf, 7.80% Impervious, Inflow Depth = 1.02" for 100-yr event
Inflow = 1.3 cfs @ 12.35 hrs, Volume= 9,678 cf
Primary = 1.3 cfs @ 12.35 hrs, Volume= 9,678 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.3: Low Point

Inflow Area = 158,537 sf, 12.38% Impervious, Inflow Depth = 1.84" for 100-yr event
Inflow = 4.7 cfs @ 12.28 hrs, Volume= 24,345 cf
Primary = 4.7 cfs @ 12.28 hrs, Volume= 24,345 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.4: Low Point

Inflow Area = 374,595 sf, 12.16% Impervious, Inflow Depth = 4.15" for 100-yr event
Inflow = 27.9 cfs @ 12.28 hrs, Volume= 129,426 cf
Primary = 27.9 cfs @ 12.28 hrs, Volume= 129,426 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.5: Wetland 31

Inflow Area = 1,005,327 sf, 12.93% Impervious, Inflow Depth = 2.85" for 100-yr event
Inflow = 54.1 cfs @ 12.23 hrs, Volume= 239,071 cf
Primary = 54.1 cfs @ 12.23 hrs, Volume= 239,071 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.6: Low Point

Inflow Area = 39,470 sf, 16.03% Impervious, Inflow Depth = 0.00" for 100-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.7: Low Point

Inflow Area = 28,139 sf, 0.00% Impervious, Inflow Depth = 0.57" for 100-yr event
Inflow = 0.1 cfs @ 12.48 hrs, Volume= 1,331 cf
Primary = 0.1 cfs @ 12.48 hrs, Volume= 1,331 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.8: Low Point

Inflow Area = 55,516 sf, 11.05% Impervious, Inflow Depth = 0.00" for 100-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP7.9: Low Point

Inflow Area = 250,025 sf, 14.60% Impervious, Inflow Depth = 1.84" for 100-yr event
Inflow = 7.3 cfs @ 12.29 hrs, Volume= 38,394 cf
Primary = 7.3 cfs @ 12.29 hrs, Volume= 38,394 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment PR8.1:

Runoff = 56.6 cfs @ 12.22 hrs, Volume= 238,536 cf, Depth= 3.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
1.938	39	>75% Grass cover, Good, HSG A
0.003	80	>75% Grass cover, Good, HSG D
0.127	30	Meadow, non-grazed, HSG A
0.080	78	Meadow, non-grazed, HSG D
1.226	98	Paved parking, HSG A
0.788	98	Paved roads w/curbs & sewers, HSG A
1.177	98	Roofs, HSG A
8.427	30	Woods, Good, HSG A
0.000	70	Woods, Good, HSG C
6.034	77	Woods, Good, HSG D
19.801	56	Weighted Average
16.610		83.88% Pervious Area
3.191		16.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	50	0.0440	0.09		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
4.3	205	0.0127	0.79		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.8	77	0.0770	0.69		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
15.0	332	Total			

Summary for Subcatchment PR8.10:

Runoff = 20.2 cfs @ 12.15 hrs, Volume= 75,494 cf, Depth= 5.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.037	30	Meadow, non-grazed, HSG A
1.401	98	Paved parking, HSG A
0.269	98	Paved roads w/curbs & sewers, HSG A
0.775	98	Roofs, HSG A
1.088	30	Woods, Good, HSG A
3.569	77	Weighted Average
1.125		31.53% Pervious Area
2.444		68.47% Impervious Area

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Type III 24-hr 100-yr Rainfall=8.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	50	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.7	100	0.0200	0.99		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
11.4	150	Total			

Summary for Subcatchment PR8.11:

Runoff = 2.3 cfs @ 12.32 hrs, Volume= 11,184 cf, Depth= 3.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.013	30	Meadow, non-grazed, HSG A
0.313	98	Paved parking, HSG A
0.028	98	Paved roads w/curbs & sewers, HSG A
0.020	98	Roofs, HSG A
0.554	30	Woods, Good, HSG A
0.928	56	Weighted Average
0.567		61.06% Pervious Area
0.362		38.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.8	50	0.0580	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.6	204	0.0250	0.40		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
22.4	254	Total			

Summary for Subcatchment PR8.2:

Runoff = 15.1 cfs @ 12.61 hrs, Volume= 109,143 cf, Depth= 1.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

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Type III 24-hr 100-yr Rainfall=8.60"

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Area (ac)	CN	Description
0.171	30	Meadow, non-grazed, HSG A
0.049	78	Meadow, non-grazed, HSG D
0.309	98	Paved parking, HSG A
0.095	98	Paved parking, HSG D
0.227	98	Paved roads w/curbs & sewers, HSG A
0.058	98	Roofs, HSG A
11.805	30	Woods, Good, HSG A
3.604	77	Woods, Good, HSG D
16.317	43	Weighted Average
15.629		95.78% Pervious Area
0.688		4.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.1	50	0.0160	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
14.6	354	0.0260	0.40		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	404	Total			

Summary for Subcatchment PR8.3A:

Runoff = 0.0 cfs @ 12.65 hrs, Volume= 577 cf, Depth= 0.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.095	30	Meadow, non-grazed, HSG A
0.186	30	Woods, Good, HSG A
0.280	30	Weighted Average
0.280		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	50	0.0720	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
13.0	200	0.0105	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
25.7	250	Total			

Summary for Subcatchment PR8.3b:

Runoff = 34.5 cfs @ 12.37 hrs, Volume= 182,434 cf, Depth= 3.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

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Type III 24-hr 100-yr Rainfall=8.60"

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Area (ac)	CN	Description
0.261	39	>75% Grass cover, Good, HSG A
0.491	91	Gravel roads, HSG D
0.268	30	Meadow, non-grazed, HSG A
0.009	58	Meadow, non-grazed, HSG B
0.018	78	Meadow, non-grazed, HSG D
0.517	98	Paved parking, HSG A
0.254	98	Paved roads w/curbs & sewers, HSG A
0.429	98	Roofs, HSG A
7.410	30	Woods, Good, HSG A
0.463	55	Woods, Good, HSG B
5.576	77	Woods, Good, HSG D
15.697	55	Weighted Average
14.496		92.35% Pervious Area
1.201		7.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	50	0.0720	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
13.0	200	0.0105	0.26		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
25.7	250	Total			

Summary for Subcatchment PR8.4:

Runoff = 1.8 cfs @ 12.38 hrs, Volume= 10,040 cf, Depth= 2.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.198	30	Meadow, non-grazed, HSG A
0.011	58	Meadow, non-grazed, HSG B
0.000	78	Meadow, non-grazed, HSG D
0.237	98	Paved parking, HSG A
0.037	98	Paved parking, HSG B
0.005	98	Paved parking, HSG D
0.541	30	Woods, Good, HSG A
0.072	55	Woods, Good, HSG B
1.102	49	Weighted Average
0.823		74.71% Pervious Area
0.279		25.29% Impervious Area

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Type III 24-hr 100-yr Rainfall=8.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	23	0.1300	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
12.9	27	0.0200	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
6.4	273	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
24.7	323	Total			

Summary for Subcatchment PR8.5A:

Runoff = 2.0 cfs @ 12.53 hrs, Volume= 12,315 cf, Depth= 4.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.198	58	Meadow, non-grazed, HSG B
0.206	98	Paved parking, HSG B
0.312	55	Woods, Good, HSG B
0.715	68	Weighted Average
0.509		71.24% Pervious Area
0.206		28.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.3	48	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
27.8	826	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	40	0.1825	1.07		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	914	Total			

Summary for Subcatchment PR8.5B:

Runoff = 10.6 cfs @ 12.52 hrs, Volume= 64,268 cf, Depth= 5.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

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Type III 24-hr 100-yr Rainfall=8.60"

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Area (ac)	CN	Description
0.064	58	Meadow, non-grazed, HSG B
0.344	98	Paved parking, HSG A
0.117	98	Paved parking, HSG B
1.314	98	Roofs, HSG A
0.909	30	Woods, Good, HSG A
0.719	55	Woods, Good, HSG B
3.469	71	Weighted Average
1.693		48.80% Pervious Area
1.776		51.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.3	48	0.1420	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
27.8	826	0.0050	0.49		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	40	0.1825	1.07		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
37.7	914	Total			

Summary for Subcatchment PR8.6:

Runoff = 76.6 cfs @ 12.46 hrs, Volume= 436,248 cf, Depth= 4.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.328	89	Gravel roads, HSG C
0.031	91	Gravel roads, HSG D
0.397	58	Meadow, non-grazed, HSG B
0.049	98	Paved parking, HSG A
0.096	98	Paved parking, HSG D
1.239	30	Woods, Good, HSG A
5.319	55	Woods, Good, HSG B
3.260	70	Woods, Good, HSG C
13.989	77	Woods, Good, HSG D
24.708	69	Weighted Average
24.563		99.41% Pervious Area
0.145		0.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	58	0.1400	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
21.0	706	0.0064	0.56		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.7	43	0.1511	0.97		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
32.6	807	Total			

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment PR8.7:

Runoff = 2.3 cfs @ 12.55 hrs, Volume= 13,904 cf, Depth= 4.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.024	58	Meadow, non-grazed, HSG B
0.232	98	Paved parking, HSG A
0.044	98	Paved parking, HSG B
0.104	98	Roofs, HSG A
0.186	30	Woods, Good, HSG A
0.179	55	Woods, Good, HSG B
0.768	70	Weighted Average
0.389		50.60% Pervious Area
0.380		49.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.2	39	0.0205	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
20.5	888	0.0106	0.72		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	37	0.1590	1.00		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
38.3	964	Total			

Summary for Subcatchment PR8.8:

Runoff = 5.1 cfs @ 12.20 hrs, Volume= 21,458 cf, Depth= 6.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.022	30	Meadow, non-grazed, HSG A
0.057	58	Meadow, non-grazed, HSG B
0.198	98	Paved parking, HSG A
0.339	98	Paved parking, HSG B
0.079	98	Roofs, HSG A
0.053	30	Woods, Good, HSG A
0.189	55	Woods, Good, HSG B
0.937	81	Weighted Average
0.321		34.26% Pervious Area
0.616		65.74% Impervious Area

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Type III 24-hr 100-yr Rainfall=8.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.6	50	0.0600	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.7	85	0.0150	0.86		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
15.3	135	Total			

Summary for Subcatchment PR8.9:

Runoff = 2.2 cfs @ 12.42 hrs, Volume= 12,109 cf, Depth= 3.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.019	30	Meadow, non-grazed, HSG A
0.076	58	Meadow, non-grazed, HSG B
0.026	30	Woods, Good, HSG A
0.665	55	Woods, Good, HSG B
0.152	77	Woods, Good, HSG D
0.939	58	Weighted Average
0.939		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	37	0.2050	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
14.1	585	0.0097	0.69		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
8.1	153	0.0160	0.32		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
28.8	775	Total			

Summary for Pond P8.10: Low Point

Inflow Area = 155,459 sf, 68.47% Impervious, Inflow Depth = 5.83" for 100-yr event
 Inflow = 20.2 cfs @ 12.15 hrs, Volume= 75,494 cf
 Outflow = 19.0 cfs @ 12.20 hrs, Volume= 75,494 cf, Atten= 6%, Lag= 2.6 min
 Discarded = 2.4 cfs @ 11.64 hrs, Volume= 55,441 cf
 Primary = 16.6 cfs @ 12.20 hrs, Volume= 20,053 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 134.99' @ 12.20 hrs Surf.Area= 6,628 sf Storage= 9,476 cf

Plug-Flow detention time= 14.3 min calculated for 75,484 cf (100% of inflow)
 Center-of-Mass det. time= 14.3 min (826.2 - 811.9)

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Type III 24-hr 100-yr Rainfall=8.60"

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Volume	Invert	Avail.Storage	Storage Description
#1	133.00'	9,535 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
133.00	2,935	0	0
134.00	4,745	3,840	3,840
135.00	6,645	5,695	9,535

Device	Routing	Invert	Outlet Devices
#1	Primary	134.60'	25.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Discarded	133.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 11.64 hrs HW=133.02' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=16.6 cfs @ 12.20 hrs HW=134.99' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Weir Controls 16.6 cfs @ 1.70 fps)**Summary for Pond P8.2: Linear Infiltration Basin**

Inflow Area = 710,754 sf, 4.22% Impervious, Inflow Depth = 1.84" for 100-yr event
 Inflow = 15.1 cfs @ 12.61 hrs, Volume= 109,143 cf
 Outflow = 15.7 cfs @ 12.62 hrs, Volume= 109,143 cf, Atten= 0%, Lag= 0.6 min
 Discarded = 2.4 cfs @ 12.14 hrs, Volume= 68,868 cf
 Primary = 13.3 cfs @ 12.62 hrs, Volume= 40,275 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 165.13' @ 12.62 hrs Surf.Area= 2,250 sf Storage= 2,700 cf

Plug-Flow detention time= 4.6 min calculated for 109,128 cf (100% of inflow)

Center-of-Mass det. time= 4.6 min (921.2 - 916.6)

Volume	Invert	Avail.Storage	Storage Description
#1	163.00'	2,700 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
163.00	450	0	0
164.00	1,350	900	900
165.00	2,250	1,800	2,700

Device	Routing	Invert	Outlet Devices
#1	Primary	164.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68

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Type III 24-hr 100-yr Rainfall=8.60"

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2.72 2.81 2.92 2.97 3.07 3.32

#2 Discarded 163.00' **2.4 cfs Exfiltration at all elevations**

Discarded OutFlow Max=2.4 cfs @ 12.14 hrs HW=163.02' (Free Discharge)↑ **2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=13.3 cfs @ 12.62 hrs HW=165.13' (Free Discharge)↑ **1=Broad-Crested Rectangular Weir** (Weir Controls 13.3 cfs @ 2.12 fps)**Summary for Pond P8.3: Linear Infiltration Basin**

Inflow Area = 683,751 sf, 7.65% Impervious, Inflow Depth = 3.20" for 100-yr event
 Inflow = 34.5 cfs @ 12.37 hrs, Volume= 182,434 cf
 Outflow = 34.5 cfs @ 12.39 hrs, Volume= 182,434 cf, Atten= 0%, Lag= 0.9 min
 Discarded = 2.4 cfs @ 11.71 hrs, Volume= 85,606 cf
 Primary = 32.1 cfs @ 12.39 hrs, Volume= 96,829 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 161.05' @ 12.39 hrs Surf.Area= 3,545 sf Storage= 4,360 cf

Plug-Flow detention time= 5.5 min calculated for 182,409 cf (100% of inflow)
 Center-of-Mass det. time= 5.5 min (877.3 - 871.7)

Volume	Invert	Avail.Storage	Storage Description
#1	159.00'	8,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
159.00	700	0	0
160.00	2,100	1,400	1,400
161.00	3,500	2,800	4,200
162.00	4,500	4,000	8,200

Device	Routing	Invert	Outlet Devices
#1	Primary	160.50'	30.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	159.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 11.71 hrs HW=159.03' (Free Discharge)↑ **2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=32.0 cfs @ 12.39 hrs HW=161.05' (Free Discharge)↑ **1=Broad-Crested Rectangular Weir** (Weir Controls 32.0 cfs @ 1.96 fps)

Summary for Pond P8.4: Linear Infiltration Basin

Inflow Area = 47,994 sf, 25.29% Impervious, Inflow Depth = 2.51" for 100-yr event
 Inflow = 1.8 cfs @ 12.38 hrs, Volume= 10,040 cf
 Outflow = 1.8 cfs @ 12.38 hrs, Volume= 10,040 cf, Atten= 0%, Lag= 0.1 min
 Discarded = 1.8 cfs @ 12.38 hrs, Volume= 10,040 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 160.02' @ 12.38 hrs Surf.Area= 721 sf Storage= 11 cf

Plug-Flow detention time= 0.1 min calculated for 10,038 cf (100% of inflow)
 Center-of-Mass det. time= 0.1 min (885.9 - 885.8)

Volume	Invert	Avail.Storage	Storage Description
#1	160.00'	4,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
160.00	700	0	0
161.00	2,100	1,400	1,400
162.00	3,500	2,800	4,200

Device	Routing	Invert	Outlet Devices
#1	Primary	161.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	160.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.38 hrs HW=160.02' (Free Discharge)
 ↑ **2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=160.00' (Free Discharge)
 ↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Summary for Pond P8.5: Linear Infiltration Basin

Inflow Area = 31,151 sf, 28.76% Impervious, Inflow Depth = 4.74" for 100-yr event
 Inflow = 2.0 cfs @ 12.53 hrs, Volume= 12,315 cf
 Outflow = 2.0 cfs @ 12.53 hrs, Volume= 12,315 cf, Atten= 0%, Lag= 0.2 min
 Discarded = 2.0 cfs @ 12.53 hrs, Volume= 12,315 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 149.02' @ 12.53 hrs Surf.Area= 930 sf Storage= 15 cf

Plug-Flow detention time= 0.1 min calculated for 12,313 cf (100% of inflow)
 Center-of-Mass det. time= 0.1 min (855.3 - 855.1)

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Type III 24-hr 100-yr Rainfall=8.60"

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Volume	Invert	Avail.Storage	Storage Description
#1	149.00'	5,400 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
149.00	900	0	0
150.00	2,700	1,800	1,800
151.00	4,500	3,600	5,400

Device	Routing	Invert	Outlet Devices
#1	Primary	150.00'	1.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	149.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.53 hrs HW=149.02' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=0.0 cfs @ 0.00 hrs HW=149.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Controls 0.0 cfs)**Summary for Pond P8.7: Low Point**

Inflow Area = 33,475 sf, 49.40% Impervious, Inflow Depth = 4.98" for 100-yr event
 Inflow = 2.3 cfs @ 12.55 hrs, Volume= 13,904 cf
 Outflow = 1.4 cfs @ 12.92 hrs, Volume= 13,904 cf, Atten= 40%, Lag= 22.4 min
 Discarded = 1.0 cfs @ 12.17 hrs, Volume= 13,618 cf
 Primary = 0.3 cfs @ 12.92 hrs, Volume= 286 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 136.89' @ 12.92 hrs Surf.Area= 1,779 sf Storage= 2,135 cf

Plug-Flow detention time= 11.0 min calculated for 13,902 cf (100% of inflow)

Center-of-Mass det. time= 11.0 min (862.6 - 851.6)

Volume	Invert	Avail.Storage	Storage Description
#1	135.00'	2,343 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
135.00	460	0	0
136.00	1,185	823	823
137.00	1,855	1,520	2,343

Device	Routing	Invert	Outlet Devices
#1	Primary	136.80'	5.0' long x 1.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31

#2 Discarded 135.00' 3.30 3.31 3.32
1.0 cfs Exfiltration at all elevations

Discarded OutFlow Max=1.0 cfs @ 12.17 hrs HW=135.02' (Free Discharge)
 ↑ **2=Exfiltration** (Exfiltration Controls 1.0 cfs)

Primary OutFlow Max=0.3 cfs @ 12.92 hrs HW=136.89' (Free Discharge)
 ↑ **1=Broad-Crested Rectangular Weir** (Weir Controls 0.3 cfs @ 0.79 fps)

Summary for Link DP8.1: Wetland 28/29

Inflow Area = 862,522 sf, 16.12% Impervious, Inflow Depth = 3.32" for 100-yr event
 Inflow = 56.6 cfs @ 12.22 hrs, Volume= 238,536 cf
 Primary = 56.6 cfs @ 12.22 hrs, Volume= 238,536 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.10: Low Point

Inflow Area = 155,459 sf, 68.47% Impervious, Inflow Depth = 1.55" for 100-yr event
 Inflow = 16.6 cfs @ 12.20 hrs, Volume= 20,053 cf
 Primary = 16.6 cfs @ 12.20 hrs, Volume= 20,053 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.11: Wetland

Inflow Area = 40,442 sf, 38.94% Impervious, Inflow Depth = 3.32" for 100-yr event
 Inflow = 2.3 cfs @ 12.32 hrs, Volume= 11,184 cf
 Primary = 2.3 cfs @ 12.32 hrs, Volume= 11,184 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.2: Wetland 27

Inflow Area = 710,754 sf, 4.22% Impervious, Inflow Depth = 0.68" for 100-yr event
 Inflow = 13.3 cfs @ 12.62 hrs, Volume= 40,275 cf
 Primary = 13.3 cfs @ 12.62 hrs, Volume= 40,275 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.3: Wetland 25

Inflow Area = 695,957 sf, 7.51% Impervious, Inflow Depth = 1.68" for 100-yr event
 Inflow = 32.1 cfs @ 12.39 hrs, Volume= 97,406 cf
 Primary = 32.1 cfs @ 12.39 hrs, Volume= 97,406 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.4: Wetland 24

Inflow Area = 47,994 sf, 25.29% Impervious, Inflow Depth = 0.00" for 100-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.5: Low Point

Inflow Area = 182,241 sf, 47.36% Impervious, Inflow Depth = 4.23" for 100-yr event
Inflow = 10.6 cfs @ 12.52 hrs, Volume= 64,268 cf
Primary = 10.6 cfs @ 12.52 hrs, Volume= 64,268 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.6: Wetland 26

Inflow Area = 1,076,276 sf, 0.59% Impervious, Inflow Depth = 4.86" for 100-yr event
Inflow = 76.6 cfs @ 12.46 hrs, Volume= 436,248 cf
Primary = 76.6 cfs @ 12.46 hrs, Volume= 436,248 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.7: Low Point

Inflow Area = 33,475 sf, 49.40% Impervious, Inflow Depth = 0.10" for 100-yr event
Inflow = 0.3 cfs @ 12.92 hrs, Volume= 286 cf
Primary = 0.3 cfs @ 12.92 hrs, Volume= 286 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.8: Low Point

Inflow Area = 40,804 sf, 65.74% Impervious, Inflow Depth = 6.31" for 100-yr event
Inflow = 5.1 cfs @ 12.20 hrs, Volume= 21,458 cf
Primary = 5.1 cfs @ 12.20 hrs, Volume= 21,458 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP8.9: Wetland 24A/Vernal Pool 5

Inflow Area = 40,889 sf, 0.00% Impervious, Inflow Depth = 3.55" for 100-yr event
Inflow = 2.2 cfs @ 12.42 hrs, Volume= 12,109 cf
Primary = 2.2 cfs @ 12.42 hrs, Volume= 12,109 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment PR10.1:

Runoff = 6.5 cfs @ 12.21 hrs, Volume= 26,962 cf, Depth= 6.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
2,455	80	>75% Grass cover, Good, HSG D
2,801	78	Meadow, non-grazed, HSG D
6,730	98	Paved parking, HSG D
40,286	77	Woods, Good, HSG D
52,273	80	Weighted Average
45,543		87.13% Pervious Area
6,730		12.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	50	0.1500	0.09		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
5.8	175	0.0100	0.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
15.2	225	Total			

Summary for Subcatchment PR10.10:

Runoff = 0.6 cfs @ 12.09 hrs, Volume= 1,888 cf, Depth= 6.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.002	74	>75% Grass cover, Good, HSG C
0.002	80	>75% Grass cover, Good, HSG D
0.002	71	Meadow, non-grazed, HSG C
0.003	78	Meadow, non-grazed, HSG D
0.010	98	Paved parking, HSG C
0.005	98	Paved parking, HSG D
0.007	70	Woods, Good, HSG C
0.054	77	Woods, Good, HSG D
0.084	80	Weighted Average
0.069		81.89% Pervious Area
0.015		18.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	25	0.1000	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment PR10.11:

Runoff = 3.0 cfs @ 12.17 hrs, Volume= 11,724 cf, Depth= 2.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.005	39	>75% Grass cover, Good, HSG A
0.017	80	>75% Grass cover, Good, HSG D
0.020	30	Meadow, non-grazed, HSG A
0.051	78	Meadow, non-grazed, HSG D
0.044	98	Paved parking, HSG A
0.019	98	Paved parking, HSG D
0.600	30	Woods, Good, HSG A
0.375	77	Woods, Good, HSG D
1.132	52	Weighted Average
1.069		94.43% Pervious Area
0.063		5.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	50	0.1000	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment PR10.12:

Runoff = 2.8 cfs @ 12.32 hrs, Volume= 14,042 cf, Depth= 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.033	39	>75% Grass cover, Good, HSG A
0.026	80	>75% Grass cover, Good, HSG D
0.118	30	Meadow, non-grazed, HSG A
0.032	78	Meadow, non-grazed, HSG D
0.115	98	Paved parking, HSG A
0.107	98	Paved parking, HSG D
0.612	30	Woods, Good, HSG A
0.260	77	Woods, Good, HSG D
1.303	53	Weighted Average
1.081		82.97% Pervious Area
0.222		17.03% Impervious Area

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Type III 24-hr 100-yr Rainfall=8.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
9.6	500	0.0300	0.87		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
21.7	550	Total			

Summary for Subcatchment PR10.13:

Runoff = 6.5 cfs @ 12.58 hrs, Volume= 42,310 cf, Depth= 5.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.020	39	>75% Grass cover, Good, HSG A
0.001	80	>75% Grass cover, Good, HSG D
0.095	76	Gravel roads, HSG A
0.241	91	Gravel roads, HSG D
0.117	30	Meadow, non-grazed, HSG A
0.008	78	Meadow, non-grazed, HSG D
0.498	98	Paved parking, HSG A
0.405	98	Paved parking, HSG D
0.448	30	Woods, Good, HSG A
0.252	77	Woods, Good, HSG D
2.087	75	Weighted Average
1.183		56.72% Pervious Area
0.903		43.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
36.8	50	0.0050	0.02		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.1	30	0.5000	3.54		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
42.9	480	Total			

Summary for Subcatchment PR10.14:

Runoff = 25.5 cfs @ 12.29 hrs, Volume= 119,902 cf, Depth= 5.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

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Type III 24-hr 100-yr Rainfall=8.60"

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Area (ac)	CN	Description
0.009	39	>75% Grass cover, Good, HSG A
1.250	80	>75% Grass cover, Good, HSG D
0.051	30	Meadow, non-grazed, HSG A
0.094	78	Meadow, non-grazed, HSG D
0.014	98	Paved parking, HSG A
1.424	98	Paved parking, HSG D
1.175	30	Woods, Good, HSG A
2.162	77	Woods, Good, HSG D
6.180	73	Weighted Average
4.742		76.73% Pervious Area
1.438		23.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

Summary for Subcatchment PR10.15:

Runoff = 4.3 cfs @ 12.62 hrs, Volume= 30,877 cf, Depth= 1.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
1.053	39	>75% Grass cover, Good, HSG A
0.023	80	>75% Grass cover, Good, HSG D
0.043	30	Meadow, non-grazed, HSG A
0.050	78	Meadow, non-grazed, HSG D
0.340	98	Paved parking, HSG A
0.075	98	Paved parking, HSG D
2.333	30	Woods, Good, HSG A
0.441	77	Woods, Good, HSG D
4.358	44	Weighted Average
3.943		90.48% Pervious Area
0.415		9.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
10.6	550	0.0300	0.87		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
38.5	600	Total			

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment PR10.2:

Runoff = 13.0 cfs @ 12.41 hrs, Volume= 71,951 cf, Depth= 4.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.802	39	>75% Grass cover, Good, HSG A
0.617	80	>75% Grass cover, Good, HSG D
0.062	78	Meadow, non-grazed, HSG D
0.662	98	Paved parking, HSG A
0.087	98	Paved parking, HSG D
0.401	30	Woods, Good, HSG A
1.445	77	Woods, Good, HSG D
4.075	69	Weighted Average
3.327		81.64% Pervious Area
0.748		18.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.1	50	0.0090	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.5	100	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
30.6	150	Total			

Summary for Subcatchment PR10.3:

Runoff = 4.0 cfs @ 12.39 hrs, Volume= 21,706 cf, Depth= 6.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.031	80	>75% Grass cover, Good, HSG D
0.141	78	Meadow, non-grazed, HSG D
0.064	98	Paved parking, HSG D
0.750	77	Woods, Good, HSG D
0.985	79	Weighted Average
0.922		93.54% Pervious Area
0.064		6.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.2	50	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
29.1	100	Total			

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment PR10.4:

Runoff = 12.3 cfs @ 12.48 hrs, Volume= 73,012 cf, Depth= 4.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (sf)	CN	Description
23,148	39	>75% Grass cover, Good, HSG A
8,455	80	>75% Grass cover, Good, HSG D
4,534	78	Meadow, non-grazed, HSG D
21,919	98	Paved parking, HSG A
4,810	98	Paved parking, HSG D
56,906	30	Woods, Good, HSG A
91,545	77	Woods, Good, HSG D
211,318	63	Weighted Average
184,589		87.35% Pervious Area
26,729		12.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.9	50	0.0100	0.03		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
1.3	175	0.2000	2.24		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
35.2	625	Total			

Summary for Subcatchment PR10.5:

Runoff = 4.4 cfs @ 12.20 hrs, Volume= 18,056 cf, Depth= 5.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.017	80	>75% Grass cover, Good, HSG D
0.029	78	Meadow, non-grazed, HSG D
0.049	98	Paved parking, HSG D
0.741	77	Woods, Good, HSG D
0.836	78	Weighted Average
0.787		94.16% Pervious Area
0.049		5.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"

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Type III 24-hr 100-yr Rainfall=8.60"

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Summary for Subcatchment PR10.6:

Runoff = 6.9 cfs @ 12.32 hrs, Volume= 33,835 cf, Depth= 4.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.023	39	>75% Grass cover, Good, HSG A
0.009	74	>75% Grass cover, Good, HSG C
0.056	80	>75% Grass cover, Good, HSG D
0.077	30	Meadow, non-grazed, HSG A
0.019	71	Meadow, non-grazed, HSG C
0.176	78	Meadow, non-grazed, HSG D
0.037	98	Paved parking, HSG A
0.042	98	Paved parking, HSG C
0.150	98	Paved parking, HSG D
0.324	30	Woods, Good, HSG A
0.034	70	Woods, Good, HSG C
0.970	77	Woods, Good, HSG D
1.916	69	Weighted Average
1.687		88.06% Pervious Area
0.229		11.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow,
					Woods: Dense underbrush n= 0.800 P2= 3.30"
2.4	100	0.0200	0.71		Shallow Concentrated Flow,
					Woodland Kv= 5.0 fps
23.5	150	Total			

Summary for Subcatchment PR10.7:

Runoff = 2.2 cfs @ 12.26 hrs, Volume= 11,349 cf, Depth= 1.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.023	39	>75% Grass cover, Good, HSG A
0.013	80	>75% Grass cover, Good, HSG D
0.119	30	Meadow, non-grazed, HSG A
0.060	78	Meadow, non-grazed, HSG D
0.079	98	Paved parking, HSG A
0.039	98	Paved parking, HSG D
1.276	30	Woods, Good, HSG A
0.193	77	Woods, Good, HSG D
1.802	42	Weighted Average
1.684		93.43% Pervious Area
0.118		6.57% Impervious Area

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Type III 24-hr 100-yr Rainfall=8.60"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
0.7	50	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.6	60	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.0	160	Total			

Summary for Subcatchment PR10.8:

Runoff = 4.1 cfs @ 12.35 hrs, Volume= 24,286 cf, Depth= 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.211	39	>75% Grass cover, Good, HSG A
0.008	74	>75% Grass cover, Good, HSG C
0.319	80	>75% Grass cover, Good, HSG D
0.011	30	Meadow, non-grazed, HSG A
0.003	71	Meadow, non-grazed, HSG C
0.081	78	Meadow, non-grazed, HSG D
0.096	98	Paved parking, HSG A
0.000	98	Paved parking, HSG C
0.039	98	Paved parking, HSG D
3.008	30	Woods, Good, HSG A
0.027	70	Woods, Good, HSG C
0.308	77	Woods, Good, HSG D
4.110	41	Weighted Average
3.975		96.72% Pervious Area
0.135		3.28% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	50	0.0500	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
6.0	400	0.0500	1.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
20.7	450	Total			

Summary for Subcatchment PR10.9:

Runoff = 8.3 cfs @ 12.41 hrs, Volume= 44,922 cf, Depth= 4.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

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Type III 24-hr 100-yr Rainfall=8.60"

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Area (ac)	CN	Description
0.239	39	>75% Grass cover, Good, HSG A
0.271	74	>75% Grass cover, Good, HSG C
0.151	80	>75% Grass cover, Good, HSG D
0.026	71	Meadow, non-grazed, HSG C
0.013	78	Meadow, non-grazed, HSG D
0.009	98	Paved parking, HSG C
0.013	98	Paved parking, HSG D
0.341	30	Woods, Good, HSG A
1.377	70	Woods, Good, HSG C
0.383	77	Woods, Good, HSG D
2.822	65	Weighted Average
2.801		99.23% Pervious Area
0.022		0.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0200	0.04		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.30"
8.2	350	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
29.3	400	Total			

Summary for Subcatchment PR9.1:

Runoff = 10.5 cfs @ 12.38 hrs, Volume= 59,379 cf, Depth= 7.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=8.60"

Area (ac)	CN	Description
0.109	80	>75% Grass cover, Good, HSG D
0.184	78	Meadow, non-grazed, HSG D
1.343	98	Paved parking, HSG D
0.575	77	Woods, Good, HSG D
2.211	90	Weighted Average
0.868		39.26% Pervious Area
1.343		60.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	50	0.0100	0.05		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.30"
11.8	500	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
27.8	550	Total			

Summary for Pond P10.12: Linear Infiltration Basin

Inflow Area = 56,751 sf, 17.03% Impervious, Inflow Depth = 2.97" for 100-yr event
 Inflow = 2.8 cfs @ 12.32 hrs, Volume= 14,042 cf
 Outflow = 2.4 cfs @ 12.22 hrs, Volume= 14,042 cf, Atten= 15%, Lag= 0.0 min
 Discarded = 2.4 cfs @ 12.22 hrs, Volume= 14,042 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 137.42' @ 12.46 hrs Surf.Area= 738 sf Storage= 241 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 0.3 min (873.1 - 872.8)

Volume	Invert	Avail.Storage	Storage Description
#1	137.00'	2,400 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
137.00	400	0	0
138.00	1,200	800	800
139.00	2,000	1,600	2,400

Device	Routing	Invert	Outlet Devices
#1	Primary	138.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	137.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.22 hrs HW=137.02' (Free Discharge)
 ↑ **2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=137.00' (Free Discharge)
 ↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Summary for Pond P10.13: Linear Infiltration Basin

Inflow Area = 90,889 sf, 43.28% Impervious, Inflow Depth = 5.59" for 100-yr event
 Inflow = 6.5 cfs @ 12.58 hrs, Volume= 42,310 cf
 Outflow = 6.5 cfs @ 12.59 hrs, Volume= 42,310 cf, Atten= 0%, Lag= 0.7 min
 Discarded = 2.4 cfs @ 12.14 hrs, Volume= 33,513 cf
 Primary = 4.0 cfs @ 12.59 hrs, Volume= 8,797 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 137.80' @ 12.59 hrs Surf.Area= 1,037 sf Storage= 572 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 0.8 min (846.2 - 845.4)

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Type III 24-hr 100-yr Rainfall=8.60"

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Volume	Invert	Avail.Storage	Storage Description
#1	137.00'	2,400 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
137.00	400	0	0
138.00	1,200	800	800
139.00	2,000	1,600	2,400

Device	Routing	Invert	Outlet Devices
#1	Primary	137.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	137.00'	2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.14 hrs HW=137.02' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 2.4 cfs)**Primary OutFlow** Max=4.0 cfs @ 12.59 hrs HW=137.80' (Free Discharge)↑**1=Broad-Crested Rectangular Weir**(Weir Controls 4.0 cfs @ 1.37 fps)**Summary for Pond P10.7: Linear Infiltration Basin**

Inflow Area = 78,507 sf, 6.57% Impervious, Inflow Depth = 1.73" for 100-yr event
 Inflow = 2.2 cfs @ 12.26 hrs, Volume= 11,349 cf
 Outflow = 2.2 cfs @ 12.26 hrs, Volume= 11,349 cf, Atten= 0%, Lag= 0.0 min
 Discarded = 2.2 cfs @ 12.26 hrs, Volume= 11,349 cf
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 128.02' @ 12.26 hrs Surf.Area= 207 sf Storage= 4 cf

Plug-Flow detention time= 0.0 min calculated for 11,347 cf (100% of inflow)

Center-of-Mass det. time= 0.0 min (900.2 - 900.1)

Volume	Invert	Avail.Storage	Storage Description
#1	128.00'	1,200 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
128.00	200	0	0
129.00	600	400	400
130.00	1,000	800	1,200

Device	Routing	Invert	Outlet Devices
#1	Primary	129.50'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68

PR_Segment_9-10

Prepared by VHB

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Type III 24-hr 100-yr Rainfall=8.60"

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#2 Discarded 128.00' 2.72 2.81 2.92 2.97 3.07 3.32
2.4 cfs Exfiltration at all elevations

Discarded OutFlow Max=2.4 cfs @ 12.26 hrs HW=128.02' (Free Discharge)

↑ **2=Exfiltration** (Exfiltration Controls 2.4 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=128.00' (Free Discharge)

↑ **1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Summary for Link DP-9.1: Station Rd

Inflow Area = 96,332 sf, 60.74% Impervious, Inflow Depth = 7.40" for 100-yr event
Inflow = 10.5 cfs @ 12.38 hrs, Volume= 59,379 cf
Primary = 10.5 cfs @ 12.38 hrs, Volume= 59,379 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.1: Wetland 18

Inflow Area = 52,273 sf, 12.87% Impervious, Inflow Depth = 6.19" for 100-yr event
Inflow = 6.5 cfs @ 12.21 hrs, Volume= 26,962 cf
Primary = 6.5 cfs @ 12.21 hrs, Volume= 26,962 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.10: Vernal Pool 4

Inflow Area = 3,661 sf, 18.11% Impervious, Inflow Depth = 6.19" for 100-yr event
Inflow = 0.6 cfs @ 12.09 hrs, Volume= 1,888 cf
Primary = 0.6 cfs @ 12.09 hrs, Volume= 1,888 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.11: Stream

Inflow Area = 140,191 sf, 30.02% Impervious, Inflow Depth = 1.76" for 100-yr event
Inflow = 5.2 cfs @ 12.53 hrs, Volume= 20,521 cf
Primary = 5.2 cfs @ 12.53 hrs, Volume= 20,521 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.12: Wetland 6

Inflow Area = 56,751 sf, 17.03% Impervious, Inflow Depth = 0.00" for 100-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.14: Wetland 3_Vernal Pool 1

Inflow Area = 269,184 sf, 23.27% Impervious, Inflow Depth = 5.35" for 100-yr event
Inflow = 25.5 cfs @ 12.29 hrs, Volume= 119,902 cf
Primary = 25.5 cfs @ 12.29 hrs, Volume= 119,902 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.15: Wetland 4

Inflow Area = 189,840 sf, 9.52% Impervious, Inflow Depth = 1.95" for 100-yr event
Inflow = 4.3 cfs @ 12.62 hrs, Volume= 30,877 cf
Primary = 4.3 cfs @ 12.62 hrs, Volume= 30,877 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.2: Wetland 19

Inflow Area = 177,512 sf, 18.36% Impervious, Inflow Depth = 4.86" for 100-yr event
Inflow = 13.0 cfs @ 12.41 hrs, Volume= 71,951 cf
Primary = 13.0 cfs @ 12.41 hrs, Volume= 71,951 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.3: Wetland 15

Inflow Area = 42,919 sf, 6.46% Impervious, Inflow Depth = 6.07" for 100-yr event
Inflow = 4.0 cfs @ 12.39 hrs, Volume= 21,706 cf
Primary = 4.0 cfs @ 12.39 hrs, Volume= 21,706 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.4: Wetland 16

Inflow Area = 211,318 sf, 12.65% Impervious, Inflow Depth = 4.15" for 100-yr event
Inflow = 12.3 cfs @ 12.48 hrs, Volume= 73,012 cf
Primary = 12.3 cfs @ 12.48 hrs, Volume= 73,012 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.5: Wetland 14

Inflow Area = 36,427 sf, 5.84% Impervious, Inflow Depth = 5.95" for 100-yr event
Inflow = 4.4 cfs @ 12.20 hrs, Volume= 18,056 cf
Primary = 4.4 cfs @ 12.20 hrs, Volume= 18,056 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.6: Wetland 12

Inflow Area = 83,475 sf, 11.94% Impervious, Inflow Depth = 4.86" for 100-yr event
Inflow = 6.9 cfs @ 12.32 hrs, Volume= 33,835 cf
Primary = 6.9 cfs @ 12.32 hrs, Volume= 33,835 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.7: Wetland 13

Inflow Area = 78,507 sf, 6.57% Impervious, Inflow Depth = 0.00" for 100-yr event
Inflow = 0.0 cfs @ 0.00 hrs, Volume= 0 cf
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.8: Wetland 10

Inflow Area = 179,026 sf, 3.28% Impervious, Inflow Depth = 1.63" for 100-yr event
Inflow = 4.1 cfs @ 12.35 hrs, Volume= 24,286 cf
Primary = 4.1 cfs @ 12.35 hrs, Volume= 24,286 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link DP10.9: Wetland 5_Vernal Pool 2-3

Inflow Area = 122,942 sf, 0.77% Impervious, Inflow Depth = 4.38" for 100-yr event
Inflow = 8.3 cfs @ 12.41 hrs, Volume= 44,922 cf
Primary = 8.3 cfs @ 12.41 hrs, Volume= 44,922 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Appendix C – Standard 3 Computations and Supporting Information

Soil Evaluation and Analysis



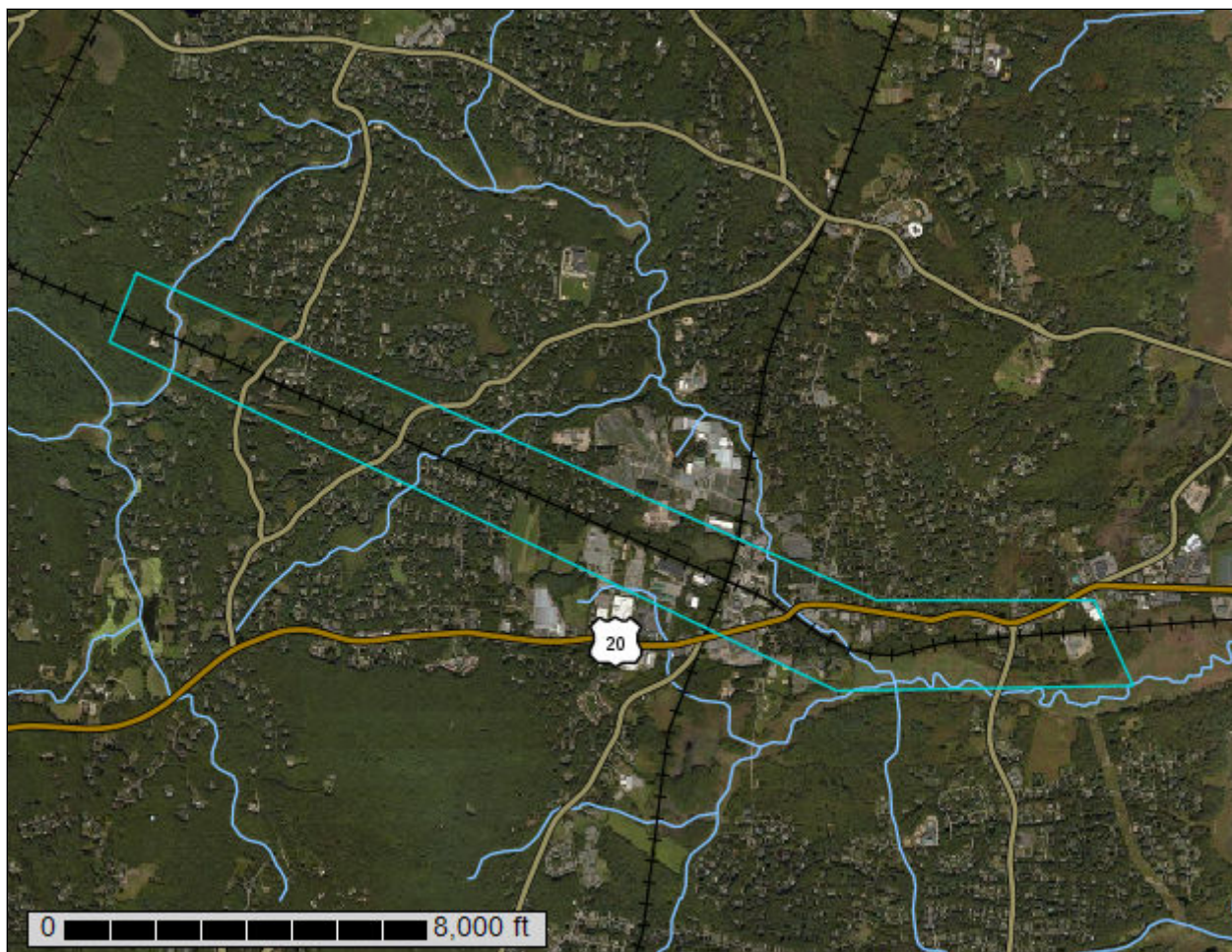
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Middlesex County, Massachusetts**



February 26, 2019

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.


Soil Map

Map Scale: 1:33,600 if printed on A landscape (11" x 8.5") sheet.

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84


MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)


Soils


 Soil Map Unit Polygons


 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit


 Clay Spot


 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole


 Slide or Slip

 Sodic Spot


 Spoil Area

 Stony Spot


 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals


Transportation

 Rails


 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:25,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Middlesex County, Massachusetts

Survey Area Data: Version 18, Sep 7, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 12, 2014—Sep 28, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Water	2.4	0.3%
4A	Rippowam fine sandy loam, 0 to 3 percent slopes	5.2	0.6%
6A	Scarboro mucky fine sandy loam, 0 to 3 percent slopes	17.9	2.2%
30B	Raynham silt loam, 0 to 5 percent slopes	6.1	0.7%
32B	Wareham loamy fine sand, 0 to 5 percent slopes	15.5	1.9%
36A	Saco mucky silt loam, 0 to 1 percent slopes	46.4	5.7%
44A	Birdsall mucky silt loam, 0 to 1 percent slopes	1.5	0.2%
51A	Swansea muck, 0 to 1 percent slopes	6.3	0.8%
52A	Freetown muck, 0 to 1 percent slopes	87.6	10.7%
53A	Freetown muck, ponded, 0 to 1 percent slopes	31.6	3.9%
103B	Charlton-Hollis-Rock outcrop complex, 3 to 8 percent slopes	15.6	1.9%
104D	Hollis-Rock outcrop-Charlton complex, 15 to 25 percent slopes	5.8	0.7%
253B	Hinckley loamy sand, 3 to 8 percent slopes	8.7	1.1%
253C	Hinckley loamy sand, 8 to 15 percent slopes	43.3	5.3%
253D	Hinckley loamy sand, 15 to 25 percent slopes	15.2	1.9%
255A	Windsor loamy sand, 0 to 3 percent slopes	83.2	10.2%
255B	Windsor loamy sand, 3 to 8 percent slopes	155.5	19.0%
255C	Windsor loamy sand, 8 to 15 percent slopes	6.2	0.8%
256A	Deerfield loamy fine sand, 0 to 3 percent slopes	1.0	0.1%
256B	Deerfield loamy fine sand, 3 to 8 percent slopes	21.6	2.6%
259A	Carver loamy coarse sand, 0 to 3 percent slopes	14.6	1.8%
259B	Carver loamy coarse sand, 3 to 8 percent slopes	10.0	1.2%

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Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
260B	Sudbury fine sandy loam, 3 to 8 percent slopes	0.4	0.0%
302C	Montauk fine sandy loam, 8 to 15 percent slopes, extremely stony	8.5	1.0%
305B	Paxton fine sandy loam, 3 to 8 percent slopes	2.5	0.3%
307C	Paxton fine sandy loam, 8 to 15 percent slopes, extremely stony	6.2	0.8%
416B	Narragansett silt loam, 3 to 8 percent slopes, very stony	11.5	1.4%
420B	Canton fine sandy loam, 3 to 8 percent slopes	3.7	0.5%
420C	Canton fine sandy loam, 8 to 15 percent slopes	9.1	1.1%
626B	Merrimac-Urban land complex, 0 to 8 percent slopes	37.9	4.6%
653	Udorthents, sandy	2.0	0.2%
654	Udorthents, loamy	1.4	0.2%
656	Udorthents-Urban land complex	133.4	16.3%
Totals for Area of Interest		817.8	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas

are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Middlesex County, Massachusetts

1—Water

Map Unit Setting

National map unit symbol: 996p

Frost-free period: 110 to 200 days

Farmland classification: Not prime farmland

Map Unit Composition

Water: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Water

Setting

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Dip

Down-slope shape: Linear

Across-slope shape: Linear

4A—Rippowam fine sandy loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 993n

Elevation: 50 to 500 feet

Mean annual precipitation: 45 to 54 inches

Mean annual air temperature: 43 to 54 degrees F

Frost-free period: 145 to 240 days

Farmland classification: Not prime farmland

Map Unit Composition

Rippowam and similar soils: 80 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rippowam

Setting

Landform: Alluvial flats

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Dip

Down-slope shape: Linear

Across-slope shape: Concave

Parent material: Loamy alluvium over sandy and gravelly alluvium derived from granite and gneiss

Typical profile

H1 - 0 to 7 inches: fine sandy loam

H2 - 7 to 18 inches: fine sandy loam, sandy loam

H2 - 7 to 18 inches: sandy loam

Custom Soil Resource Report

H3 - 18 to 40 inches: stratified sand to fine sand

H4 - 40 to 65 inches:

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: Frequent

Frequency of ponding: None

Available water storage in profile: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: A/D

Hydric soil rating: Yes

Minor Components

Saco

Percent of map unit: 10 percent

Landform: Alluvial flats, terraces

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread, dip

Down-slope shape: Linear

Across-slope shape: Concave

Hydric soil rating: Yes

Pootatuck

Percent of map unit: 5 percent

Landform: Flood plains

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Dip

Down-slope shape: Linear

Across-slope shape: Concave

Hydric soil rating: No

Limerick

Percent of map unit: 5 percent

Landform: Alluvial flats, terraces

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread, dip

Down-slope shape: Linear

Across-slope shape: Concave

Hydric soil rating: Yes

6A—Scarboro mucky fine sandy loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2svky
Elevation: 0 to 1,320 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 250 days
Farmland classification: Not prime farmland

Map Unit Composition

Scarboro and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Scarboro

Setting

Landform: Outwash terraces, outwash deltas, drainageways, depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope, tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Sandy glaciofluvial deposits derived from schist and/or sandy glaciofluvial deposits derived from gneiss and/or sandy glaciofluvial deposits derived from granite

Typical profile

Oe - 0 to 3 inches: mucky peat
A - 3 to 11 inches: mucky fine sandy loam
Cg1 - 11 to 21 inches: sand
Cg2 - 21 to 65 inches: gravelly coarse sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (1.42 to 14.17 in/hr)
Depth to water table: About 0 to 2 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: Low (about 4.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: A/D

Custom Soil Resource Report

Hydric soil rating: Yes

Minor Components

Swansea

Percent of map unit: 10 percent

Landform: Swamps, bogs

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

Wareham

Percent of map unit: 5 percent

Landform: Depressions

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

Walpole

Percent of map unit: 5 percent

Landform: Depressions, deltas, outwash plains, depressions, outwash terraces

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread, dip, talf

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

30B—Raynham silt loam, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 991x

Elevation: 50 to 1,000 feet

Mean annual precipitation: 45 to 54 inches

Mean annual air temperature: 43 to 54 degrees F

Frost-free period: 145 to 240 days

Farmland classification: Not prime farmland

Map Unit Composition

Raynham and similar soils: 80 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Raynham

Setting

Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Custom Soil Resource Report

Parent material: Loamy glaciolacustrine deposits and/or silty glaciolacustrine deposits

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 33 inches: silt loam
H3 - 33 to 65 inches: silt

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Available water storage in profile: High (about 11.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: C/D
Hydric soil rating: Yes

Minor Components

Birdsall

Percent of map unit: 10 percent
Landform: Flats, depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Raypol

Percent of map unit: 5 percent
Landform: Depressions, terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Wareham

Percent of map unit: 5 percent
Landform: Terraces, depressions, deltas
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

32B—Wareham loamy fine sand, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: vqnd
Elevation: 0 to 2,100 feet
Mean annual precipitation: 45 to 54 inches
Mean annual air temperature: 43 to 54 degrees F
Frost-free period: 145 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Wareham and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wareham

Setting

Landform: Depressions, deltas, terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Loose sandy glaciofluvial deposits

Typical profile

H1 - 0 to 10 inches: loamy fine sand
H2 - 10 to 24 inches: loamy sand
H3 - 24 to 34 inches: stratified sand to fine sand
H4 - 34 to 65 inches: stratified coarse sand to sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Hydric soil rating: Yes

Minor Components

Sudbury

Percent of map unit: 10 percent
Landform: Terraces, plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread, dip
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

Scarboro

Percent of map unit: 5 percent
Landform: Terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Deerfield

Percent of map unit: 5 percent
Landform: Stream terraces, depressions, deltas
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: No

36A—Saco mucky silt loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: vzt3
Elevation: 50 to 500 feet
Mean annual precipitation: 45 to 54 inches
Mean annual air temperature: 43 to 54 degrees F
Frost-free period: 145 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Saco and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Saco

Setting

Landform: Alluvial flats, terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread, dip

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Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Silty alluvium

Typical profile

H1 - 0 to 13 inches: mucky silt loam
H2 - 13 to 30 inches: silt loam
H3 - 30 to 45 inches: silt loam
H4 - 45 to 65 inches: loamy sand

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Available water storage in profile: High (about 11.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: B/D
Hydric soil rating: Yes

Minor Components

Freetown

Percent of map unit: 8 percent
Landform: Depressions, bogs
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Swansea

Percent of map unit: 8 percent
Landform: Bogs, depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Limerick

Percent of map unit: 4 percent
Landform: Alluvial flats, terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread, dip
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

44A—Birdsall mucky silt loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: vzt4
Elevation: 0 to 2,100 feet
Mean annual precipitation: 45 to 54 inches
Mean annual air temperature: 43 to 54 degrees F
Frost-free period: 145 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Birdsall and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Birdsall

Setting

Landform: Depressions, flats
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Silty eolian deposits and/or loamy eolian deposits over glaciofluvial deposits and/or ablation till

Typical profile

H1 - 0 to 15 inches: mucky silt loam
H2 - 15 to 30 inches: silt loam
H3 - 30 to 65 inches: silt loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water storage in profile: Very high (about 13.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: C/D
Hydric soil rating: Yes

Minor Components

Wareham

Percent of map unit: 4 percent
Landform: Deltas, terraces, depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Swansea

Percent of map unit: 2 percent
Landform: Bogs, depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Raypol

Percent of map unit: 2 percent
Landform: Terraces, depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Scarboro

Percent of map unit: 2 percent
Landform: Terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

51A—Swansea muck, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2trl2
Elevation: 0 to 1,140 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Swansea and similar soils: 80 percent

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Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Swansea

Setting

Landform: Bogs, swamps

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Highly decomposed organic material over loose sandy and gravelly glaciofluvial deposits

Typical profile

Oa1 - 0 to 24 inches: muck

Oa2 - 24 to 34 inches: muck

Cg - 34 to 79 inches: coarse sand

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Very poorly drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high
(0.14 to 14.17 in/hr)

Depth to water table: About 0 to 6 inches

Frequency of flooding: Rare

Frequency of ponding: Frequent

Available water storage in profile: Very high (about 16.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8w

Hydrologic Soil Group: B/D

Hydric soil rating: Yes

Minor Components

Freetown

Percent of map unit: 10 percent

Landform: Bogs, swamps

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

Scarboro

Percent of map unit: 5 percent

Landform: Depressions, drainageways

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope, tread, dip

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

Whitman

Percent of map unit: 5 percent

Landform: Depressions, drainageways

Custom Soil Resource Report

Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

52A—Freetown muck, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2t2q9
Elevation: 0 to 1,110 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Freetown and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Freetown

Setting

Landform: Swamps, depressions, depressions, bogs, marshes, kettles
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Highly decomposed organic material

Typical profile

Oe - 0 to 2 inches: mucky peat
Oa - 2 to 79 inches: muck

Properties and qualities

Slope: 0 to 1 percent
Percent of area covered with surface fragments: 0.0 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high
(0.14 to 14.17 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: Rare
Frequency of ponding: Frequent
Available water storage in profile: Very high (about 19.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w

Custom Soil Resource Report

Hydrologic Soil Group: B/D

Hydric soil rating: Yes

Minor Components

Scarboro

Percent of map unit: 5 percent

Landform: Drainageways, depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope, tread, dip

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

Swansea

Percent of map unit: 5 percent

Landform: Bogs, kettles, depressions, depressions, marshes, swamps

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

Whitman

Percent of map unit: 5 percent

Landform: Depressions, drainageways

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

53A—Freetown muck, ponded, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2t2qc

Elevation: 0 to 1,140 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 240 days

Farmland classification: Farmland of unique importance

Map Unit Composition

Freetown, ponded, and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Freetown, Ponded

Setting

Landform: Bogs, swamps, kettles, marshes, depressions, depressions

Custom Soil Resource Report

Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Highly decomposed organic material

Typical profile

Oe - 0 to 2 inches: mucky peat
Oa - 2 to 79 inches: muck

Properties and qualities

Slope: 0 to 1 percent
Percent of area covered with surface fragments: 0.0 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high
(0.14 to 14.17 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: Rare
Frequency of ponding: Frequent
Available water storage in profile: Very high (about 19.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: B/D
Hydric soil rating: Yes

Minor Components

Scarboro

Percent of map unit: 5 percent
Landform: Drainageways, depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope, tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Whitman, ponded

Percent of map unit: 5 percent
Landform: Depressions on ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Swansea, ponded

Percent of map unit: 5 percent
Landform: Depressions, kettles, bogs, swamps, marshes, depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

103B—Charlton-Hollis-Rock outcrop complex, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 98yc
Elevation: 0 to 1,000 feet
Mean annual precipitation: 45 to 54 inches
Mean annual air temperature: 43 to 54 degrees F
Frost-free period: 110 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Charlton and similar soils: 50 percent
Hollis and similar soils: 25 percent
Rock outcrop: 15 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charlton

Setting

Landform: Ground moraines, drumlins
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Friable loamy eolian deposits over friable loamy basal till derived from granite and gneiss

Typical profile

H1 - 0 to 5 inches: fine sandy loam
H2 - 5 to 22 inches: sandy loam
H3 - 22 to 65 inches: gravelly sandy loam

Properties and qualities

Slope: 3 to 8 percent
Percent of area covered with surface fragments: 9.0 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: A
Hydric soil rating: No

Description of Hollis

Setting

Landform: Hills, ridges

Landform position (two-dimensional): Shoulder, summit

Landform position (three-dimensional): Crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Friable, shallow loamy basal till over granite and gneiss

Typical profile

H1 - 0 to 2 inches: fine sandy loam

H2 - 2 to 14 inches: fine sandy loam

H3 - 14 to 18 inches: unweathered bedrock

Properties and qualities

Slope: 3 to 8 percent

Percent of area covered with surface fragments: 9.0 percent

Depth to restrictive feature: 8 to 20 inches to lithic bedrock

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Very low (about 2.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: D

Hydric soil rating: No

Description of Rock Outcrop

Setting

Landform: Ledges

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Head slope

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Granite and gneiss

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: 0 inches to lithic bedrock

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Minor Components

Canton

Percent of map unit: 2 percent

Landform: Hills

Landform position (two-dimensional): Summit, shoulder

Custom Soil Resource Report

Landform position (three-dimensional): Head slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Narragansett

Percent of map unit: 2 percent
Landform: Ridges, hills
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Woodbridge

Percent of map unit: 2 percent
Landform: Hillslopes
Landform position (two-dimensional): Shoulder, toeslope, summit
Landform position (three-dimensional): Head slope, base slope, nose slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

Scituate

Percent of map unit: 2 percent
Landform: Hillslopes, depressions
Landform position (two-dimensional): Toeslope, summit
Landform position (three-dimensional): Head slope, base slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

Unnamed

Percent of map unit: 1 percent

Montauk

Percent of map unit: 1 percent
Landform: Hillslopes
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Head slope, nose slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

104D—Hollis-Rock outcrop-Charlton complex, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: 98yh
Elevation: 0 to 1,000 feet

Custom Soil Resource Report

Mean annual precipitation: 45 to 54 inches
Mean annual air temperature: 43 to 54 degrees F
Frost-free period: 110 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Hollis and similar soils: 30 percent
Rock outcrop: 30 percent
Charlton and similar soils: 25 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hollis

Setting

Landform: Ridges, hills
Landform position (two-dimensional): Footslope, backslope
Landform position (three-dimensional): Crest, head slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Friable, shallow loamy basal till over granite and gneiss

Typical profile

H1 - 0 to 2 inches: fine sandy loam
H2 - 2 to 14 inches: fine sandy loam
H3 - 14 to 18 inches: unweathered bedrock

Properties and qualities

Slope: 15 to 25 percent
Percent of area covered with surface fragments: 9.0 percent
Depth to restrictive feature: 8 to 20 inches to lithic bedrock
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Very low (about 2.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Rock Outcrop

Setting

Parent material: Granite and gneiss

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: 0 inches to lithic bedrock

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s

Description of Charlton

Setting

Landform: Hills

Landform position (two-dimensional): Shoulder, summit

Landform position (three-dimensional): Side slope, base slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Friable loamy eolian deposits over friable loamy basal till derived from granite and gneiss

Typical profile

H1 - 0 to 5 inches: fine sandy loam

H2 - 5 to 22 inches: sandy loam

H3 - 22 to 65 inches: gravelly sandy loam

Properties and qualities

Slope: 15 to 25 percent

Percent of area covered with surface fragments: 9.0 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Moderate (about 7.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Canton

Percent of map unit: 10 percent

Landform: Hills

Landform position (two-dimensional): Shoulder, summit

Landform position (three-dimensional): Head slope

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Montauk

Percent of map unit: 3 percent

Landform: Hillslopes

Landform position (two-dimensional): Shoulder, summit

Landform position (three-dimensional): Nose slope, head slope

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Unnamed

Percent of map unit: 2 percent

253B—Hinckley loamy sand, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2svm8

Elevation: 0 to 1,430 feet

Mean annual precipitation: 36 to 53 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 250 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Hinckley and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hinckley

Setting

Landform: Outwash terraces, outwash deltas, outwash plains, eskers, moraines, kame terraces, kames

Landform position (two-dimensional): Summit, shoulder, backslope, footslope

Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread

Down-slope shape: Linear, convex, concave

Across-slope shape: Convex, linear, concave

Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 8 inches: loamy sand

Bw1 - 8 to 11 inches: gravelly loamy sand

Bw2 - 11 to 16 inches: gravelly loamy sand

BC - 16 to 19 inches: very gravelly loamy sand

C - 19 to 65 inches: very gravelly sand

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Excessively drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)

Custom Soil Resource Report

Available water storage in profile: Very low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3s

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Windsor

Percent of map unit: 8 percent

Landform: Moraines, outwash terraces, outwash deltas, kame terraces, outwash plains, kames, eskers

Landform position (two-dimensional): Summit, shoulder, backslope, footslope

Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread

Down-slope shape: Linear, convex, concave

Across-slope shape: Convex, linear, concave

Hydric soil rating: No

Sudbury

Percent of map unit: 5 percent

Landform: Outwash deltas, kame terraces, outwash plains, moraines, outwash terraces

Landform position (two-dimensional): Backslope, footslope

Landform position (three-dimensional): Side slope, base slope, head slope, tread

Down-slope shape: Concave, linear

Across-slope shape: Linear, concave

Hydric soil rating: No

Agawam

Percent of map unit: 2 percent

Landform: Outwash terraces, outwash deltas, kame terraces, outwash plains, kames, eskers, moraines

Landform position (two-dimensional): Summit, shoulder, backslope, footslope

Landform position (three-dimensional): Nose slope, side slope, base slope, crest, riser, tread

Down-slope shape: Linear, convex, concave

Across-slope shape: Convex, linear, concave

Hydric soil rating: No

253C—Hinckley loamy sand, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2svm9

Elevation: 0 to 1,480 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 240 days

Farmland classification: Not prime farmland

Map Unit Composition

Hinckley and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hinckley

Setting

Landform: Moraines, outwash terraces, outwash deltas, kame terraces, outwash plains, kames, eskers

Landform position (two-dimensional): Shoulder, toeslope, footslope, backslope

Landform position (three-dimensional): Nose slope, side slope, crest, head slope, riser

Down-slope shape: Convex, linear, concave

Across-slope shape: Linear, convex, concave

Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 8 inches: loamy sand

Bw1 - 8 to 11 inches: gravelly loamy sand

Bw2 - 11 to 16 inches: gravelly loamy sand

BC - 16 to 19 inches: very gravelly loamy sand

C - 19 to 65 inches: very gravelly sand

Properties and qualities

Slope: 8 to 15 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Excessively drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water storage in profile: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Sudbury

Percent of map unit: 5 percent

Landform: Moraines, outwash deltas, outwash terraces, kame terraces, outwash plains

Landform position (two-dimensional): Backslope, footslope

Landform position (three-dimensional): Base slope, tread

Down-slope shape: Concave, linear

Across-slope shape: Linear, concave

Hydric soil rating: No

Merrimac

Percent of map unit: 5 percent

Landform: Outwash plains, kames, eskers, moraines, outwash terraces

Landform position (two-dimensional): Shoulder, backslope, footslope, toeslope

Landform position (three-dimensional): Side slope, crest, head slope, nose slope, riser

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Windsor

Percent of map unit: 5 percent

Landform: Kames, eskers, moraines, kame terraces, outwash plains, outwash terraces, outwash deltas

Landform position (two-dimensional): Shoulder, backslope, footslope, toeslope

Landform position (three-dimensional): Nose slope, side slope, crest, head slope, riser

Down-slope shape: Linear, concave, convex

Across-slope shape: Convex, linear, concave

Hydric soil rating: No

253D—Hinckley loamy sand, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: 2svmc

Elevation: 0 to 1,460 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 240 days

Farmland classification: Not prime farmland

Map Unit Composition

Hinckley and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hinckley

Setting

Landform: Outwash terraces, outwash deltas, kame terraces, kames, outwash plains, eskers, moraines

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Nose slope, side slope, crest, head slope, riser

Down-slope shape: Linear, concave, convex

Across-slope shape: Convex, linear, concave

Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

Custom Soil Resource Report

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 8 inches: loamy sand
Bw1 - 8 to 11 inches: gravelly loamy sand
Bw2 - 11 to 16 inches: gravelly loamy sand
BC - 16 to 19 inches: very gravelly loamy sand
C - 19 to 65 inches: very gravelly sand

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Merrimac

Percent of map unit: 8 percent
Landform: Kames, outwash terraces, eskers, moraines, outwash plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope, crest, head slope, nose slope, riser
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Windsor

Percent of map unit: 5 percent
Landform: Eskers, moraines, kame terraces, kames, outwash plains, outwash terraces, outwash deltas
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope, crest, head slope, nose slope, riser
Down-slope shape: Convex, concave, linear
Across-slope shape: Concave, linear, convex
Hydric soil rating: No

Sudbury

Percent of map unit: 2 percent
Landform: Outwash deltas, kame terraces, eskers, outwash terraces, outwash plains, moraines
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Base slope, tread

Custom Soil Resource Report

Down-slope shape: Concave, linear, convex
Across-slope shape: Concave, linear, convex
Hydric soil rating: No

255A—Windsor loamy sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2svkg
Elevation: 0 to 990 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Windsor, loamy sand, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Windsor, Loamy Sand

Setting

Landform: Dunes, deltas, outwash terraces, outwash plains
Landform position (three-dimensional): Tread, riser
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Parent material: Loose sandy glaciofluvial deposits derived from granite and/or loose sandy glaciofluvial deposits derived from schist and/or loose sandy glaciofluvial deposits derived from gneiss

Typical profile

O - 0 to 1 inches: moderately decomposed plant material
A - 1 to 3 inches: loamy sand
Bw - 3 to 25 inches: loamy sand
C - 25 to 65 inches: sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Custom Soil Resource Report

Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Deerfield, loamy sand

Percent of map unit: 10 percent
Landform: Deltas, outwash plains, terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Hinckley, loamy sand

Percent of map unit: 5 percent
Landform: Outwash plains, eskers, kames, deltas
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Nose slope, side slope, crest, head slope, rise
Down-slope shape: Convex
Across-slope shape: Linear, convex
Hydric soil rating: No

255B—Windsor loamy sand, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2svkf
Elevation: 0 to 1,210 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Windsor, loamy sand, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Windsor, Loamy Sand

Setting

Landform: Outwash terraces, deltas, outwash plains, dunes
Landform position (three-dimensional): Tread, riser
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Parent material: Loose sandy glaciofluvial deposits derived from granite and/or loose sandy glaciofluvial deposits derived from schist and/or loose sandy glaciofluvial deposits derived from gneiss

Typical profile

O - 0 to 1 inches: moderately decomposed plant material
A - 1 to 3 inches: loamy sand
Bw - 3 to 25 inches: loamy sand
C - 25 to 65 inches: sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Hinckley, loamy sand

Percent of map unit: 10 percent
Landform: Outwash plains, eskers, kames, deltas
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Nose slope, side slope, crest, head slope, rise
Down-slope shape: Convex
Across-slope shape: Linear, convex
Hydric soil rating: No

Deerfield, loamy sand

Percent of map unit: 5 percent
Landform: Terraces, deltas, outwash plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

255C—Windsor loamy sand, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2svkq

Custom Soil Resource Report

Elevation: 0 to 1,260 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 240 days

Farmland classification: Not prime farmland

Map Unit Composition

Windsor and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Windsor

Setting

Landform: — error in exists on —

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Side slope, riser

Down-slope shape: Convex

Across-slope shape: Linear, convex

Parent material: Loose sandy glaciofluvial deposits derived from granite and/or loose sandy glaciofluvial deposits derived from schist and/or loose sandy glaciofluvial deposits derived from gneiss

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

Ap - 1 to 11 inches: loamy sand

Bw - 11 to 31 inches: loamy sand

C - 31 to 65 inches: sand

Properties and qualities

Slope: 8 to 15 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Excessively drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water storage in profile: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Hinckley

Percent of map unit: 10 percent

Landform: Outwash plains, eskers, kames, deltas

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Crest, head slope, nose slope, side slope, rise

Down-slope shape: Convex

Custom Soil Resource Report

Across-slope shape: Linear, convex

Hydric soil rating: No

Deerfield

Percent of map unit: 5 percent

Landform: Terraces, deltas, outwash plains

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Tread, talf

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

256A—Deerfield loamy fine sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2xfg8

Elevation: 0 to 1,100 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 145 to 240 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Deerfield and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Deerfield

Setting

Landform: Outwash terraces, outwash deltas, outwash plains, kame terraces

Landform position (three-dimensional): Tread

Down-slope shape: Convex, linear, concave

Across-slope shape: Concave, linear, convex

Parent material: Sandy outwash derived from granite, gneiss, and/or quartzite

Typical profile

Ap - 0 to 9 inches: loamy fine sand

Bw - 9 to 25 inches: loamy fine sand

BC - 25 to 33 inches: fine sand

Cg - 33 to 60 inches: sand

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Moderately well drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)

Depth to water table: About 15 to 37 inches

Frequency of flooding: None

Custom Soil Resource Report

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 11.0

Available water storage in profile: Moderate (about 6.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Windsor

Percent of map unit: 7 percent

Landform: Outwash terraces, kame terraces, outwash deltas, outwash plains

Landform position (three-dimensional): Tread

Down-slope shape: Linear, convex, concave

Across-slope shape: Concave, linear, convex

Hydric soil rating: No

Wareham

Percent of map unit: 5 percent

Landform: Drainageways, depressions

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

Sudbury

Percent of map unit: 2 percent

Landform: Kame terraces, outwash deltas, outwash terraces, outwash plains

Landform position (three-dimensional): Tread

Down-slope shape: Convex, linear, concave

Across-slope shape: Concave, linear, convex

Hydric soil rating: No

Ninigret

Percent of map unit: 1 percent

Landform: Kame terraces, outwash plains, outwash terraces

Landform position (three-dimensional): Tread

Down-slope shape: Convex, linear

Across-slope shape: Convex, concave

Hydric soil rating: No

256B—Deerfield loamy fine sand, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2xfg9

Elevation: 0 to 1,190 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Custom Soil Resource Report

Frost-free period: 145 to 240 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Deerfield and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Deerfield

Setting

Landform: Outwash deltas, outwash terraces, outwash plains, kame terraces

Landform position (three-dimensional): Tread

Down-slope shape: Concave, convex, linear

Across-slope shape: Linear, convex, concave

Parent material: Sandy outwash derived from granite, gneiss, and/or quartzite

Typical profile

Ap - 0 to 9 inches: loamy fine sand

Bw - 9 to 25 inches: loamy fine sand

BC - 25 to 33 inches: fine sand

Cg - 33 to 60 inches: sand

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Moderately well drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)

Depth to water table: About 15 to 37 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 11.0

Available water storage in profile: Moderate (about 6.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Windsor

Percent of map unit: 7 percent

Landform: Outwash deltas, outwash terraces, outwash plains, kame terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear, concave, convex

Across-slope shape: Concave, linear, convex

Hydric soil rating: No

Wareham

Percent of map unit: 5 percent

Landform: Drainageways, depressions

Down-slope shape: Concave

Custom Soil Resource Report

Across-slope shape: Concave

Hydric soil rating: Yes

Sudbury

Percent of map unit: 2 percent

Landform: Outwash plains, kame terraces, outwash deltas, outwash terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear, convex, concave

Across-slope shape: Concave, linear, convex

Hydric soil rating: No

Ninigret

Percent of map unit: 1 percent

Landform: Outwash plains, outwash terraces, kame terraces

Landform position (three-dimensional): Tread

Down-slope shape: Convex, linear

Across-slope shape: Convex, concave

Hydric soil rating: No

259A—Carver loamy coarse sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 9911

Elevation: 0 to 1,000 feet

Mean annual precipitation: 45 to 54 inches

Mean annual air temperature: 43 to 54 degrees F

Frost-free period: 145 to 240 days

Farmland classification: Not prime farmland

Map Unit Composition

Carver and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Carver

Setting

Landform: Deltas, plains, terraces

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Tread, rise

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loose sandy glaciofluvial deposits

Typical profile

H1 - 0 to 7 inches: loamy coarse sand

H2 - 7 to 13 inches: loamy coarse sand

H3 - 13 to 21 inches: coarse sand

H4 - 21 to 35 inches: gravelly coarse sand

H5 - 35 to 65 inches: coarse sand

Custom Soil Resource Report

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very high (20.00 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4s

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Windsor

Percent of map unit: 8 percent

Landform: Deltas, flats, terraces

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Tread, rise

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Hinckley

Percent of map unit: 3 percent

Landform: Ridges, terraces, eskers

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Linear

Across-slope shape: Convex

Hydric soil rating: No

Quonset

Percent of map unit: 2 percent

Landform: Kames, terraces, eskers

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Nose slope

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Deerfield

Percent of map unit: 2 percent

Landform: Deltas, stream terraces, depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: No

259B—Carver loamy coarse sand, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: vqpv
Elevation: 0 to 1,000 feet
Mean annual precipitation: 45 to 54 inches
Mean annual air temperature: 43 to 54 degrees F
Frost-free period: 145 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Carver and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Carver

Setting

Landform: Plains, deltas, terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread, rise
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loose sandy glaciofluvial deposits

Typical profile

H1 - 0 to 7 inches: loamy coarse sand
H2 - 7 to 13 inches: loamy coarse sand
H3 - 13 to 21 inches: coarse sand
H4 - 21 to 35 inches: gravelly coarse sand
H5 - 35 to 65 inches: coarse sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very high (20.00 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Windsor

Percent of map unit: 8 percent
Landform: Flats, terraces, deltas
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread, rise
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Hinckley

Percent of map unit: 3 percent
Landform: Ridges, terraces, eskers
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Deerfield

Percent of map unit: 2 percent
Landform: Stream terraces, depressions, deltas
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: No

Quonset

Percent of map unit: 2 percent
Landform: Eskers, kames, terraces
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Nose slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

260B—Sudbury fine sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9915
Elevation: 0 to 2,100 feet
Mean annual precipitation: 45 to 54 inches
Mean annual air temperature: 43 to 54 degrees F
Frost-free period: 145 to 240 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Sudbury and similar soils: 85 percent

Custom Soil Resource Report

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sudbury

Setting

Landform: Plains, terraces

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Tread, dip

Down-slope shape: Linear

Across-slope shape: Concave

Parent material: Friable loamy eolian deposits over loose sandy glaciofluvial deposits

Typical profile

H1 - 0 to 8 inches: fine sandy loam

H2 - 8 to 20 inches: fine sandy loam

H3 - 20 to 27 inches: loamy sand

H4 - 27 to 65 inches: stratified gravelly coarse sand to sand

Properties and qualities

Slope: 2 to 8 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)

Depth to water table: About 18 to 36 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B

Hydric soil rating: No

Minor Components

Merrimac

Percent of map unit: 8 percent

Landform: Plains, terraces

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Tread, rise

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Wareham

Percent of map unit: 4 percent

Landform: Depressions, terraces, deltas

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

Windsor

Percent of map unit: 2 percent
Landform: Terraces, deltas, flats
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread, rise
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Unnamed

Percent of map unit: 1 percent

302C—Montauk fine sandy loam, 8 to 15 percent slopes, extremely stony

Map Unit Setting

National map unit symbol: 2w80s
Elevation: 0 to 1,080 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Montauk, extremely stony, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Montauk, Extremely Stony

Setting

Landform: Hills, recessional moraines, ground moraines, drumlins
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Coarse-loamy over sandy lodgment till derived from gneiss, granite, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material
A - 2 to 6 inches: fine sandy loam
Bw1 - 6 to 28 inches: fine sandy loam
Bw2 - 28 to 36 inches: sandy loam
2Cd - 36 to 74 inches: gravelly loamy sand

Properties and qualities

Slope: 8 to 15 percent
Percent of area covered with surface fragments: 9.0 percent
Depth to restrictive feature: 20 to 43 inches to densic material

Custom Soil Resource Report

Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 1.42 in/hr)
Depth to water table: About 18 to 37 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Scituate, extremely stony

Percent of map unit: 8 percent
Landform: Drumlins, ground moraines, hills
Landform position (two-dimensional): Footslope, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear, convex
Across-slope shape: Convex
Hydric soil rating: No

Canton, extremely stony

Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Hydric soil rating: No

Ridgebury, extremely stony

Percent of map unit: 2 percent
Landform: Ground moraines, hills, drainageways, depressions
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

305B—Paxton fine sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2t2qp
Elevation: 0 to 1,570 feet
Mean annual precipitation: 36 to 71 inches

Custom Soil Resource Report

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 240 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Paxton and similar soils: 80 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Paxton

Setting

Landform: Hills, drumlins, ground moraines

Landform position (two-dimensional): Backslope, summit, shoulder

Landform position (three-dimensional): Side slope, crest, nose slope

Down-slope shape: Linear, convex

Across-slope shape: Convex

Parent material: Coarse-loamy lodgment till derived from gneiss, granite, and/or schist

Typical profile

Ap - 0 to 8 inches: fine sandy loam

Bw1 - 8 to 15 inches: fine sandy loam

Bw2 - 15 to 26 inches: fine sandy loam

Cd - 26 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: 18 to 39 inches to densic material

Natural drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)

Depth to water table: About 18 to 37 inches

Frequency of flooding: None

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water storage in profile: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2s

Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Woodbridge

Percent of map unit: 9 percent

Landform: Hills, drumlins, ground moraines

Landform position (two-dimensional): Backslope, footslope, summit

Landform position (three-dimensional): Side slope

Down-slope shape: Concave

Across-slope shape: Linear

Hydric soil rating: No

Ridgebury

Percent of map unit: 6 percent

Landform: Drainageways, hills, ground moraines, depressions

Landform position (two-dimensional): Backslope, footslope, toeslope

Landform position (three-dimensional): Head slope, base slope, dip

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

Charlton

Percent of map unit: 5 percent

Landform: Hills

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

307C—Paxton fine sandy loam, 8 to 15 percent slopes, extremely stony

Map Unit Setting

National map unit symbol: 2w676

Elevation: 0 to 1,490 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 240 days

Farmland classification: Not prime farmland

Map Unit Composition

Paxton, extremely stony, and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Paxton, Extremely Stony

Setting

Landform: Drumlins, hills, ground moraines

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Linear, convex

Across-slope shape: Convex, linear

Parent material: Coarse-loamy lodgment till derived from gneiss, granite, and/or schist

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material

A - 2 to 10 inches: fine sandy loam

Bw1 - 10 to 17 inches: fine sandy loam

Bw2 - 17 to 28 inches: fine sandy loam

Cd - 28 to 67 inches: gravelly fine sandy loam

Properties and qualities

Slope: 8 to 15 percent
Percent of area covered with surface fragments: 9.0 percent
Depth to restrictive feature: 20 to 43 inches to densic material
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 18 to 37 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: Low (about 4.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Charlton, extremely stony

Percent of map unit: 8 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Woodbridge, extremely stony

Percent of map unit: 6 percent
Landform: Ground moraines, drumlins, hills
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Ridgebury, extremely stony

Percent of map unit: 1 percent
Landform: Ground moraines, depressions, drumlins, drainageways, hills
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Head slope, base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

416B—Narragansett silt loam, 3 to 8 percent slopes, very stony

Map Unit Setting

National map unit symbol: 9940

Elevation: 0 to 1,000 feet

Mean annual precipitation: 45 to 54 inches

Mean annual air temperature: 43 to 54 degrees F

Frost-free period: 145 to 240 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Narragansett and similar soils: 80 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Narragansett

Setting

Landform: Ground moraines

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Friable loamy eolian deposits and/or friable silty eolian deposits over loose sandy glaciofluvial deposits derived from metamorphic rock and/or friable sandy basal till derived from metamorphic rock

Typical profile

H1 - 0 to 2 inches: slightly decomposed plant material

H2 - 2 to 7 inches: silt loam

H3 - 7 to 35 inches: silt loam

H4 - 35 to 60 inches: very gravelly loamy sand

H5 - 60 to 65 inches: very gravelly loamy sand

Properties and qualities

Slope: 3 to 8 percent

Percent of area covered with surface fragments: 1.6 percent

Depth to restrictive feature: 18 to 35 inches to strongly contrasting textural stratification

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Moderate (about 6.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Custom Soil Resource Report

Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Haven

Percent of map unit: 10 percent
Landform: Terraces, plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread, rise
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Canton

Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope, toeslope
Landform position (three-dimensional): Side slope, base slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Scituate

Percent of map unit: 5 percent
Landform: Depressions, hillslopes
Landform position (two-dimensional): Toeslope, summit
Landform position (three-dimensional): Base slope, head slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

420B—Canton fine sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2w81b
Elevation: 0 to 1,180 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Canton and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Canton

Setting

Landform: Hills, moraines, ridges

Custom Soil Resource Report

Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Side slope, crest, nose slope
Down-slope shape: Linear, convex
Across-slope shape: Convex
Parent material: Coarse-loamy over sandy melt-out till derived from gneiss, granite, and/or schist

Typical profile

Ap - 0 to 7 inches: fine sandy loam
Bw1 - 7 to 15 inches: fine sandy loam
Bw2 - 15 to 26 inches: gravelly fine sandy loam
2C - 26 to 65 inches: gravelly loamy sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: 19 to 39 inches to strongly contrasting textural stratification
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Very low (about 2.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Scituate

Percent of map unit: 10 percent
Landform: Hills, drumlins, ground moraines
Landform position (two-dimensional): Backslope, footslope, summit
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex, linear
Across-slope shape: Convex
Hydric soil rating: No

Montauk

Percent of map unit: 5 percent
Landform: Moraines, ground moraines, hills, drumlins
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Linear, convex
Across-slope shape: Convex
Hydric soil rating: No

Charlton

Percent of map unit: 4 percent
Landform: Hills, ridges, ground moraines
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Crest, side slope

Down-slope shape: Linear, convex
Across-slope shape: Convex
Hydric soil rating: No

Swansea

Percent of map unit: 1 percent
Landform: Bogs, swamps, kettles, marshes, depressions
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

420C—Canton fine sandy loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2w817
Elevation: 0 to 1,330 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Canton and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Canton

Setting

Landform: Ridges, hills, moraines
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Side slope, crest, nose slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Coarse-loamy over sandy melt-out till derived from gneiss, granite, and/or schist

Typical profile

Ap - 0 to 7 inches: fine sandy loam
Bw1 - 7 to 15 inches: fine sandy loam
Bw2 - 15 to 26 inches: gravelly fine sandy loam
2C - 26 to 65 inches: gravelly loamy sand

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 19 to 39 inches to strongly contrasting textural stratification
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)

Custom Soil Resource Report

Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Very low (about 2.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Montauk

Percent of map unit: 6 percent
Landform: Hills, drumlins, moraines, ground moraines
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear, convex
Across-slope shape: Convex
Hydric soil rating: No

Scituate

Percent of map unit: 6 percent
Landform: Ground moraines, hills, drumlins
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear, convex
Across-slope shape: Convex
Hydric soil rating: No

Charlton

Percent of map unit: 4 percent
Landform: Ridges, ground moraines, hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear, convex
Across-slope shape: Convex
Hydric soil rating: No

Newfields

Percent of map unit: 4 percent
Landform: Ground moraines, hills, moraines
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

626B—Merrimac-Urban land complex, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2tyr9

Elevation: 0 to 820 feet

Mean annual precipitation: 36 to 71 inches

Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 250 days

Farmland classification: Not prime farmland

Map Unit Composition

Merrimac and similar soils: 45 percent

Urban land: 40 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Merrimac

Setting

Landform: Kames, eskers, moraines, outwash terraces, outwash plains

Landform position (two-dimensional): Backslope, footslope, shoulder, summit

Landform position (three-dimensional): Side slope, crest, riser, tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy glaciofluvial deposits derived from granite, schist, and gneiss over sandy and gravelly glaciofluvial deposits derived from granite, schist, and gneiss

Typical profile

Ap - 0 to 10 inches: fine sandy loam

Bw1 - 10 to 22 inches: fine sandy loam

Bw2 - 22 to 26 inches: stratified gravel to gravelly loamy sand

2C - 26 to 65 inches: stratified gravel to very gravelly sand

Properties and qualities

Slope: 0 to 8 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Somewhat excessively drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 2 percent

Salinity, maximum in profile: Nonsaline (0.0 to 1.4 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 1.0

Available water storage in profile: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: A
Hydric soil rating: No

Description of Urban Land

Typical profile

M - 0 to 10 inches: cemented material

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: 0 inches to manufactured layer
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Available water storage in profile: Very low (about 0.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: Unranked

Minor Components

Sudbury

Percent of map unit: 5 percent
Landform: Outwash plains, terraces, deltas
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Hinckley

Percent of map unit: 5 percent
Landform: Deltas, outwash plains, eskers, kames
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Nose slope, crest, head slope, side slope, rise
Down-slope shape: Convex
Across-slope shape: Convex, linear
Hydric soil rating: No

Windsor

Percent of map unit: 5 percent
Landform: Deltas, outwash plains, dunes, outwash terraces
Landform position (three-dimensional): Riser, tread
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Hydric soil rating: No

653—Udorthents, sandy

Map Unit Setting

National map unit symbol: vr1k

Elevation: 0 to 3,000 feet

Mean annual precipitation: 32 to 50 inches

Mean annual air temperature: 45 to 50 degrees F

Frost-free period: 110 to 200 days

Farmland classification: Not prime farmland

Map Unit Composition

Udorthents, sandy, and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents, Sandy

Setting

Parent material: Loamy alluvium and/or sandy glaciofluvial deposits and/or loamy glaciolacustrine deposits and/or loamy marine deposits and/or loamy basal till and/or loamy lodgment till

Properties and qualities

Slope: 0 to 25 percent

Depth to restrictive feature: More than 80 inches

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Minor Components

Urban land

Percent of map unit: 5 percent

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Linear

Udorthents, loamy

Percent of map unit: 5 percent

Hydric soil rating: No

Unnamed

Percent of map unit: 5 percent

654—Udorthents, loamy

Map Unit Setting

National map unit symbol: vr1l
Elevation: 0 to 3,000 feet
Mean annual precipitation: 32 to 50 inches
Mean annual air temperature: 45 to 50 degrees F
Frost-free period: 110 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Udorthents, loamy, and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents, Loamy

Setting

Parent material: Loamy alluvium and/or sandy glaciofluvial deposits and/or loamy glaciolacustrine deposits and/or loamy marine deposits and/or loamy basal till and/or loamy lodgment till

Properties and qualities

Depth to restrictive feature: More than 80 inches
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None

Minor Components

Udorthents, sandy

Percent of map unit: 10 percent
Hydric soil rating: No

Udorthents, wet substratum

Percent of map unit: 5 percent
Hydric soil rating: Yes

Urban land

Percent of map unit: 5 percent
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear

656—Udorthents-Urban land complex

Map Unit Setting

National map unit symbol: 995k

Elevation: 0 to 3,000 feet

Mean annual precipitation: 32 to 54 inches

Mean annual air temperature: 43 to 54 degrees F

Frost-free period: 110 to 240 days

Farmland classification: Not prime farmland

Map Unit Composition

Udorthents and similar soils: 40 percent

Urban land: 40 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents

Setting

Parent material: Loamy alluvium and/or sandy glaciofluvial deposits and/or loamy glaciolacustrine deposits and/or loamy marine deposits and/or loamy basal till and/or loamy lodgment till

Properties and qualities

Slope: 0 to 15 percent

Depth to restrictive feature: More than 80 inches

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Description of Urban Land

Setting

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Excavated and filled land

Minor Components

Canton

Percent of map unit: 10 percent

Landform: Hills

Landform position (two-dimensional): Backslope, toeslope

Landform position (three-dimensional): Side slope, base slope

Down-slope shape: Linear

Across-slope shape: Convex

Hydric soil rating: No

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Paxton

Percent of map unit: 5 percent

Landform: Hillslopes

Landform position (two-dimensional): Backslope, summit

Landform position (three-dimensional): Head slope, side slope

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Merrimac

Percent of map unit: 5 percent

Landform: Terraces, plains

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Tread, rise

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

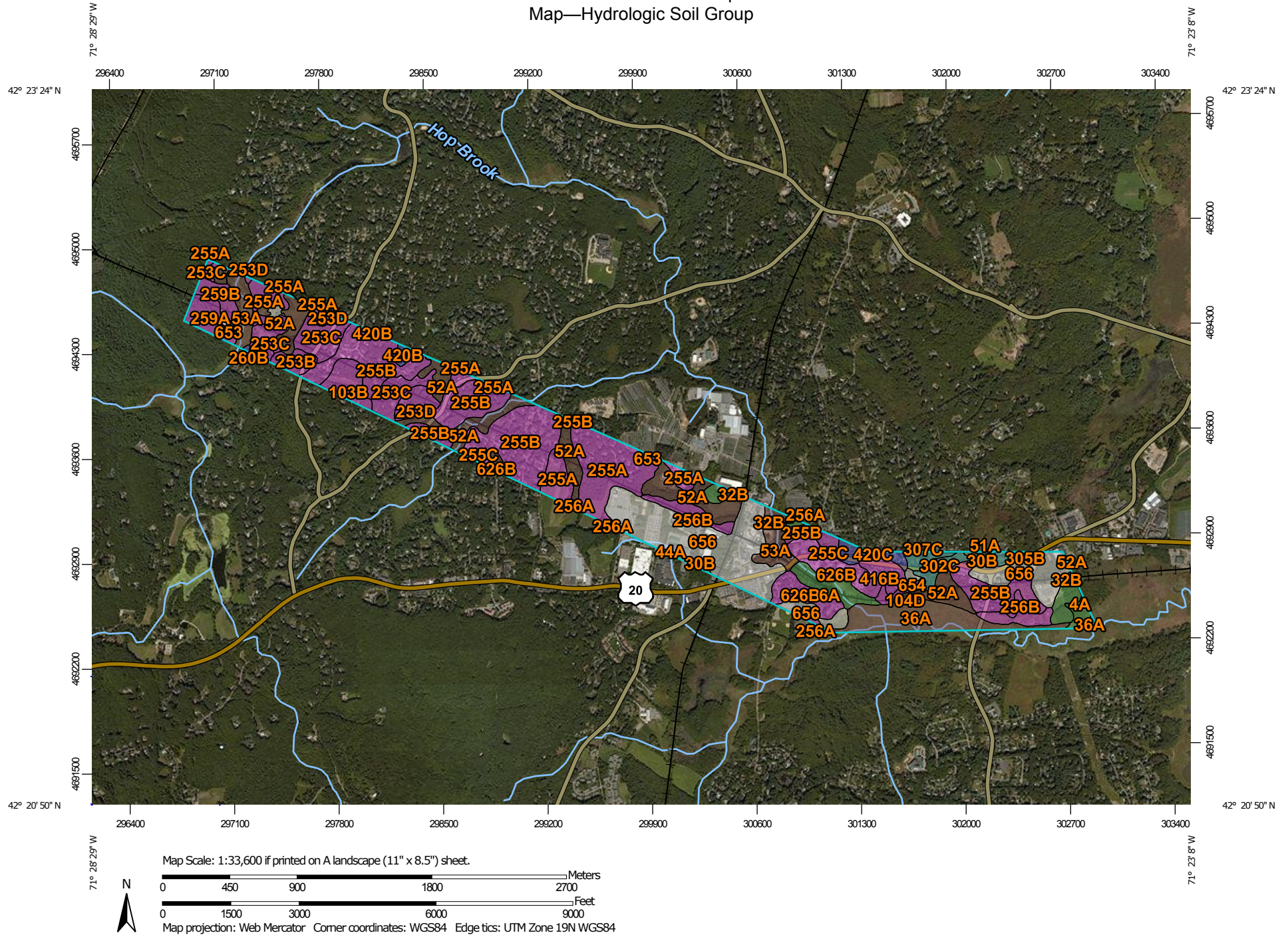
Custom Soil Resource Report

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.


Custom Soil Resource Report Map—Hydrologic Soil Group



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MAP LEGEND

Area of Interest (AOI)









 Area of Interest (AOI)

Soils

Soil Rating Polygons





 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines


 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points






 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available


Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:25,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Middlesex County, Massachusetts
Survey Area Data: Version 18, Sep 7, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 12, 2014—Sep 28, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
1	Water		2.4	0.3%
4A	Rippowam fine sandy loam, 0 to 3 percent slopes	A/D	5.2	0.6%
6A	Scarboro mucky fine sandy loam, 0 to 3 percent slopes	A/D	17.9	2.2%
30B	Raynham silt loam, 0 to 5 percent slopes	C/D	6.1	0.7%
32B	Wareham loamy fine sand, 0 to 5 percent slopes	A/D	15.5	1.9%
36A	Saco mucky silt loam, 0 to 1 percent slopes	B/D	46.4	5.7%
44A	Birdsall mucky silt loam, 0 to 1 percent slopes	C/D	1.5	0.2%
51A	Swansea muck, 0 to 1 percent slopes	B/D	6.3	0.8%
52A	Freetown muck, 0 to 1 percent slopes	B/D	87.6	10.7%
53A	Freetown muck, ponded, 0 to 1 percent slopes	B/D	31.6	3.9%
103B	Charlton-Hollis-Rock outcrop complex, 3 to 8 percent slopes	A	15.6	1.9%
104D	Hollis-Rock outcrop-Charlton complex, 15 to 25 percent slopes	A	5.8	0.7%
253B	Hinckley loamy sand, 3 to 8 percent slopes	A	8.7	1.1%
253C	Hinckley loamy sand, 8 to 15 percent slopes	A	43.3	5.3%
253D	Hinckley loamy sand, 15 to 25 percent slopes	A	15.2	1.9%
255A	Windsor loamy sand, 0 to 3 percent slopes	A	83.2	10.2%
255B	Windsor loamy sand, 3 to 8 percent slopes	A	155.5	19.0%
255C	Windsor loamy sand, 8 to 15 percent slopes	A	6.2	0.8%
256A	Deerfield loamy fine sand, 0 to 3 percent slopes	A	1.0	0.1%
256B	Deerfield loamy fine sand, 3 to 8 percent slopes	A	21.6	2.6%

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Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
259A	Carver loamy coarse sand, 0 to 3 percent slopes	A	14.6	1.8%
259B	Carver loamy coarse sand, 3 to 8 percent slopes	A	10.0	1.2%
260B	Sudbury fine sandy loam, 3 to 8 percent slopes	B	0.4	0.0%
302C	Montauk fine sandy loam, 8 to 15 percent slopes, extremely stony	C	8.5	1.0%
305B	Paxton fine sandy loam, 3 to 8 percent slopes	C	2.5	0.3%
307C	Paxton fine sandy loam, 8 to 15 percent slopes, extremely stony	C	6.2	0.8%
416B	Narragansett silt loam, 3 to 8 percent slopes, very stony	A	11.5	1.4%
420B	Canton fine sandy loam, 3 to 8 percent slopes	B	3.7	0.5%
420C	Canton fine sandy loam, 8 to 15 percent slopes	B	9.1	1.1%
626B	Merrimac-Urban land complex, 0 to 8 percent slopes	A	37.9	4.6%
653	Udorthents, sandy		2.0	0.2%
654	Udorthents, loamy		1.4	0.2%
656	Udorthents-Urban land complex		133.4	16.3%
Totals for Area of Interest			817.8	100.0%

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

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Custom Soil Resource Report

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Required and Provided Recharge Volumes



Recharge Calculations

Project Name: Sudbury-Hudson

Proj. No.: 14009.00

Date: 2/25/2019

Project Location: Hudson, MA

Calculated by: BCB

Proposed Impervious Surface Summary

Net Proposed Impervious Areas by Hydrologic Soil Group (HSG) in square feet

Subcatchment	HSG A	HSG B	HSG C	HSG D	Total Area (SF)
All	91,539	26,030	2,651	55,994	176,214
TOTAL	91,539	26,030	2,651	55,994	176,214

Required Recharge Volume (Cubic Feet)

HSG	Area (SF)	Recharge Depth* (in.)	Volume (c.f.)
A	91,539	0.60	4,577
B	26,030	0.35	759
C	2,651	0.25	55
D	55,994	0.10	467
TOTAL			5,858

Assumptions:

* Massachusetts DEP Infiltration requirement: HSG A = 0.60 in; HSG B = 0.35 in; HSG C = 0.25 in; HSG D = 0.10 in.

Capture Area Adjustment

Required Recharge Volume 5,858 c.f.

Total Site Net Impervious Area 4.0 acres

Total Site Impervious Area Draining to Recharge Facilities 1.0 acres

Capture Area Adjustment Factor 4.05 -

Adjusted Required Recharge Volume: 23,697 c.f.

Provided Recharge Volume Summary

Basin	Volume
Linear Basin P-5.14	500 c.f.
Linear Basin P-5.18	130 c.f.
Basin P-6.2	2,200 c.f.
Linear Basin P-6.6	1400 c.f.
Basin P-7.1	980 c.f.
Linear Basin P-8.2	900 c.f.
Linear Basin P-8.3	1400 c.f.
Linear Basin P-8.4	1400 c.f.
Linear Basin P-8.5	1800 c.f.
Linear Basin P-10.7	400 c.f.
Linear Basin P-10.12	800 c.f.
Linear Basin P-10.13	800 c.f.
Total Recharge Volume Provided:	12,710 c.f.
Required Recharge Volume:	23,697 c.f.

Appendix D – Standard 4 Computations and Supporting Information

Water Quality Volume Calculations



Water Quality Volume Calculations

Project Name: Sudbury-Hudson **Proj. No.:** 14009.00
Project Location: Hudson MA **Date:** 2/25/2019
Calculated by: BCB
Checked by:

Total Impervious Area = 5.1 Acres

Required:

	Runoff Depth to be Treated (in.)	Required Volume (c.f.)
Water Quality Volume	1	18,675

Linear Basin P-5.14

Provided:

Infiltration Basin	Elevation	Area (s.f.)	Cumulative Volume (c.f.)
	172.0	250	0
	173.0	750	<u>500</u>

Drawdown Calculation

Recharge Rate: 1.02 in/hr* * Rawls Rate for Type B soil per MSMP
Drawdown Time: 23.5 hours

Linear Basin P-5.18

Provided:

Infiltration Basin	Elevation	Area (s.f.)	Cumulative Volume (c.f.)
	173.0	65	0
	174.0	195	<u>130</u>

Drawdown Calculation

Recharge Rate: 2.41 in/hr* * Rawls Rate for Type A soil per MSMP
Drawdown Time: 10.0 hours

Basin P-6.2

Provided:

Infiltration Basin	Elevation	Area (s.f.)	Cumulative Volume (c.f.)
	181.5	1,800	0
	182.5	2,600	<u>2,200</u>

Drawdown Calculation

Recharge Rate: 2.41 in/hr* * Rawls Rate for Type A soil per MSMP
Drawdown Time: 6.1 hours

Linear Basin P-6.6**Provided:**

Infiltration Basin	Elevation	Area (s.f.)	Cumulative Volume (c.f.)
	179.0	700	0
	180.0	2,100	<u>1,400</u>

Drawdown Calculation

Recharge Rate: 2.41 in/hr*

* Rawls Rate for Type A soil per MSMP

Drawdown Time: 10.0 hours**Basin P-7.1****Provided:**

Infiltration Basin	Elevation	Area (s.f.)	Cumulative Volume (c.f.)
	159.0	120	0
	160.0	160	140
	161.0	380	410
	162.0	760	<u>980</u>

Drawdown Calculation

Recharge Rate: 2.41 in/hr*

* Rawls Rate for Type A soil per MSMP

Drawdown Time: 12.8 hours**Linear Basin P-8.2****Provided:**

Infiltration Basin	Elevation	Area (s.f.)	Cumulative Volume (c.f.)
	163.0	450	0
	164.0	1,350	<u>900</u>

Drawdown Calculation

Recharge Rate: 2.41 in/hr*

* Rawls Rate for Type A soil per MSMP

Drawdown Time: 10.0 hours**Linear Basin P-8.3****Provided:**

Infiltration Basin	Elevation	Area (s.f.)	Cumulative Volume (c.f.)
	159.0	700	0
	160.0	2,100	<u>1,400</u>

Drawdown Calculation

Recharge Rate: 2.41 in/hr*

* Rawls Rate for Type A soil per MSMP

Drawdown Time: 10.0 hours

Linear Basin P-8.4

Provided:

Infiltration Basin	Elevation	Area (s.f.)	Cumulative Volume (c.f.)
	160.0	700	0
	161.0	2,100	<u>1,400</u>

Drawdown Calculation

Recharge Rate: 2.41 in/hr*

* Rawls Rate for Type A soil per MSMP

Drawdown Time: 10.0 hours

Linear Basin P-8.5

Provided:

Infiltration Basin	Elevation	Area (s.f.)	Cumulative Volume (c.f.)
	149.0	900	0
	150.0	2,700	<u>1,800</u>

Drawdown Calculation

Recharge Rate: 2.41 in/hr*

* Rawls Rate for Type A soil per MSMP

Drawdown Time: 10.0 hours

Linear Basin P-10.7

Provided:

Infiltration Basin	Elevation	Area (s.f.)	Cumulative Volume (c.f.)
	128.0	200	0
	129.0	600	<u>400</u>

Drawdown Calculation

Recharge Rate: 2.41 in/hr*

* Rawls Rate for Type A soil per MSMP

Drawdown Time: 10.0 hours

Linear Basin P-10.12

Provided:

Infiltration Basin	Elevation	Area (s.f.)	Cumulative Volume (c.f.)
	137.0	400	0
	138.0	1,200	<u>800</u>

Drawdown Calculation

Recharge Rate: 2.41 in/hr*

* Rawls Rate for Type A soil per MSMP

Drawdown Time: 10.0 hours

Linear Basin P-10.13**Provided:**

Infiltration Basin	Elevation	Area (s.f.)	Cumulative Volume (c.f.)
	137.0	400	0
	138.0	1,200	<u>800</u>

Drawdown Calculation

Recharge Rate: 2.41 in/hr* * Rawls Rate for Type A soil per MSMP
Drawdown Time: 10.0 hours

Provided Water Quality Volume Summary

Linear Basin P-5.14	500	CF
Linear Basin P-5.18	130	CF
Basin P-6.2	2,200	CF
Linear Basin P-6.6	1,400	CF
Basin P-7.1	980	CF
Linear Basin P-8.2	900	CF
Linear Basin P-8.3	1,400	CF
Linear Basin P-8.4	1,400	CF
Linear Basin P-8.5	1,800	CF
Linear Basin P-10.7	400	CF
Linear Basin P-10.12	800	CF
Linear Basin P-10.13	800	CF
Total	12,710	CF
Required	18,675	CF

TSS Removal Worksheets

INSTRUCTIONS:

1. In BMP Column, click on Blue Cell to Activate Drop Down Menu
2. Select BMP from Drop Down Menu
3. After BMP is selected, TSS Removal and other Columns are automatically completed.

Version 1, Automated: Mar. 4, 2008

Location: DP-5.6, DP-5.7, DP-5.9, DP-5.11, DP-5.12, DP-5.13, DP-6.1, DP-6.6, DP-6.7,
DP-7.2, DP-10.4, DP-10.8, DP-10.14

TSS Removal Calculation Worksheet	B	C	D	E	F
	BMP ¹	TSS Removal Rate ¹	Starting TSS Load*	Amount Removed (C*D)	Remaining Load (D-E)
	Water Quality Swale - Dry	0.70	1.00	0.70	0.30
		0.00	0.30	0.00	0.30
		0.00	0.30	0.00	0.30
		0.00	0.30	0.00	0.30
		0.00	0.30	0.00	0.30

Total TSS Removal =

70%

Separate Form Needs to
be Completed for Each
Outlet or BMP Train

Project: Sudbury-Hudson
Prepared By: BCB
Date: 2/26/2020

*Equals remaining load from previous BMP (E)
which enters the BMP

INSTRUCTIONS:

Version 1, Automated: Mar. 4, 2008

1. In BMP Column, click on Blue Cell to Activate Drop Down Menu
2. Select BMP from Drop Down Menu
3. After BMP is selected, TSS Removal and other Columns are automatically completed.

Location: DP-5.8, DP-5.14, DP-5.18, DP-6.2, DP-7.1, DP-8.1, DP-8.2, DP-8.3, DP-8.4,
DP-8.5, DP-10.7, DP-10.12, DP-10.13

TSS Removal Calculation Worksheet	B	C	D	E	F
	BMP ¹	TSS Removal Rate ¹	Starting TSS Load*	Amount Removed (C*D)	Remaining Load (D-E)
	Infiltration Basin	0.80	1.00	0.80	0.20
		0.00	0.20	0.00	0.20
		0.00	0.20	0.00	0.20
		0.00	0.20	0.00	0.20
		0.00	0.20	0.00	0.20

Total TSS Removal =

80%

Separate Form Needs to
be Completed for Each
Outlet or BMP Train

Project: Sudbury-Hudson
Prepared By: BCB
Date: 2/26/2020

*Equals remaining load from previous BMP (E)
which enters the BMP

INSTRUCTIONS:

Version 1, Automated: Mar. 4, 2008

1. In BMP Column, click on Blue Cell to Activate Drop Down Menu
2. Select BMP from Drop Down Menu
3. After BMP is selected, TSS Removal and other Columns are automatically completed.

Location: DP-5.10, DP-5.15, DP-5.16, DP-5.17, DP-5.19, DP-5.20, DP-5.21, DP-6.3, DP-6.4, DP-6.5, DP-6.8, DP-6.9, DP-6.10, DP-6.11, DP-6.12, DP-6.13, DP-6.14, DP-6.15, DP-7.3, DP-7.4, DP-7.5, DP-7.6, DP-7.7, DP-7.8, DP-7.9, DP-7.10, DP-7.11, DP-7.12, DP-8.1, DP-8.6, DP-8.7, DP-8.8, DP-8.9, DP-8.10, DP-9.1, DP-10.1, DP-10.2, DP-10.3, DP-10.5, DP-10.6, DP-10.9, DP-10.10, DP-10.11, DP-10.15,

B

TSS Removal
Calculation Worksheet

BMP ¹	TSS Removal Rate ¹	Starting TSS Load*	Amount Removed (C*D)	Remaining Load (D-E)
Vegetated Filter Strip >25 feet	0.10	1.00	0.10	0.90
	0.00	0.90	0.00	0.90
	0.00	0.90	0.00	0.90
	0.00	0.90	0.00	0.90
	0.00	0.90	0.00	0.90

Total TSS Removal =

10%

Separate Form Needs to
be Completed for Each
Outlet or BMP Train

Project: Sudbury-Hudson
Prepared By: BCB
Date: 2/26/2020

*Equals remaining load from previous BMP (E)
which enters the BMP

Non-automated TSS Calculation Sheet
must be used if Proprietary BMP Proposed

1. From MassDEP Stormwater Handbook Vol. 1

Mass. Dept. of Environmental Protection

Appendix E – Standard 8 Supporting Information

Recommended Construction Period Pollution Prevention and Erosion and Sedimentation Controls

Erosion and Sedimentation Control Measures

The following erosion and sedimentation controls are for use during the earthwork and construction phases of the project. The following controls are provided as recommendations for the site contractor and do not constitute or replace the final Stormwater Pollution Prevention Plan that must be fully implemented by the Contractor and owner in Compliance with EPA NPDES regulations.

Compost Filter Tube

Compost filter tubes will be placed to trap sediment transported by runoff before it reaches the drainage system or leaves the construction site. Tubes will be set at least 2.5 inches into the existing ground to minimize undercutting by runoff.

Silt Fencing

In areas where high runoff velocities or high sediment loads are expected, hay bale barriers will be backed up with silt fencing. This semi permeable barrier made of a synthetic porous fabric will provide additional protection. The silt fences and hay bale barrier will be replaced as determined by periodic field inspections.

Catch Basin Protection

Newly constructed and existing catch basins will be protected with silt sacks throughout construction.

Gravel and Construction Entrance/Exit

A temporary crushed-stone construction entrance/exit will be constructed. A cross slope will be placed in the entrance to direct runoff to a protected catch basin inlet or settling area. If deemed necessary after construction begins, a wash pad may be included to wash off vehicle wheels before leaving the project site.

Vegetative Slope Stabilization

Stabilization of open soil surfaces will be implemented within 14 days after grading or construction activities have temporarily or permanently ceased, unless there is sufficient snow cover to prohibit implementation. Vegetative slope stabilization will be used to minimize erosion on slopes of 3:1 or flatter. Annual grasses, such as annual rye, will be used to ensure rapid germination and production of root mass. Permanent stabilization will be completed with the planting of perennial grasses or legumes. Establishment of temporary and permanent vegetative cover may be established by hydro seeding or sodding. A suitable topsoil, good seedbed preparation, and adequate lime, fertilizer and water will be provided for effective establishment of these vegetative stabilization methods. Mulch will also be used after permanent seeding to protect soil from the impact of falling rain and to increase the capacity of the soil to absorb water.

Maintenance

- › The contractor or subcontractor will be responsible for implementing each control shown on the Sedimentation and Erosion Control Plan. In accordance with EPA regulations, the contractor must sign a copy of a certification to verify that a plan has been prepared and that permit regulations are understood.
- › The on site contractor will inspect all sediment and erosion control structures periodically and after each rainfall event. Records of the inspections will be prepared and maintained on site by the contractor.
- › Silt shall be removed from behind barriers if greater than 6 inches deep or as needed.
- › Damaged or deteriorated items will be repaired immediately after identification.
- › The underside of compost filter tubes should be kept in close contact with the earth and reset as necessary.
- › Sediment that is collected in structures shall be disposed of properly and covered if stored on site.
- › Erosion control structures shall remain in place until all disturbed earth has been securely stabilized. After removal of structures, disturbed areas shall be regraded and stabilized as necessary.

The sedimentation and erosion control plans are included in project plan set.